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Science Abstracts Series B
January - June 1995

Subject Index

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Twice a year as part of their subscription to Electrical & Electronics Abstracts, subscribers receive cumulative indexes for the periods January-June and July-December. Each index is in two parts – a Subject Index, and an Author Index which comprises personal and corporate author indexes, and indexes to conferences and book titles. The List of Journals abstracted by INSPEC is also included with the July-December issue of the Author Index, while the supplement to that List is included with the January-June issue. Cumulative indexes for earlier years are also available: for details please see the inside back cover.

Subject index

The Subject index provides an alphabetical subject key to the articles included in the abstracts journal. Some general guidance on its use is given below:

1. Look in the index for the name of the specific subject in which you are interested. In most cases this name will be a heading in the index and you will find relevant articles listed under it. The majority of the subject headings fall into the following categories: property, phenomena, substance or named objects, instruments, device, theory, method, process, application, event.

2. Occasionally you will be directed from the subject heading chosen to a different heading under which the relevant or additional articles are listed.

3. If you do not find the subject heading you first chose, try a more general heading.

4. Each entry under the heading relates to an article appearing in the abstracts journal and gives the serial number of that article in the journal, e.g. 12345 refers to abstract number 12345 for the period covered by the Index.
The language of the article, if it is not in English, is also indicated, e.g. CCD imaging, multilayer and interline transfer develop (*Japanese*) 40162.

Each entry starts with a Keyword or Keyphrase considered to be most relevant to the heading. On sorting these Keywords, the qualifying prefixes are usually ignored (e.g. α-brass, 5-sulphosalicylic, 31 Cygni, n-Ge are sorted under brass, sulphosalicylic, Cygni, Ge respectively).

There are three main Keyword lists: alphabetical A-Z, elementary particles, and chemical symbols (organic substances are written and not given as chemical formula). More than one Keyword list may be present under each subject heading.

For document on, say, 'photoemission of germanium' at least two access points 'photoemission' and 'germanium' are provided. Under the heading 'photoemission' the Keyword will be 'Ge' and under 'germanium' the Keyword will be 'photoemission'.

In a case like this, it is advisable and quicker to use the heading 'photoemission' and go straight to the chemical symbol list for 'Ge'.

Intermetallic compounds are indexed under the appropriate alloy headings. The chemical formula is used as Keyword. However, it is important to realise in searching the chemical symbol list that, at present, alloys and intermetallic compounds are sorted separately. For example FeCo is sorted at the end of the Fe-list e.g. Fe-Al,... Fe-Co,... Fe-Si,... Fe-Si-B,... FeCo,... FeSi and so on in this order.

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INSPEC

Electrical & Electronics Abstracts

Science Abstracts Series B
January - June 1995

Subject Index

CONTENTS

Abbreviations and Acronyms i
Subject index S1

SIX-MONTHLY INDEXES TO
ELECTRICAL & [illegible] ABSTRACTS

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For documents like 'photoemission of germanium' at least two subject terms 'photoemission' and 'germanium' are provided. Under the heading 'photoemission' the Keyword will be 'Ge' and under 'germanium' the Keyword will be 'photoemission'.

In a case like this, it is more usual and quicker to use the heading 'photoemission' and go straight to the chemical symbol list for 'Ge'.

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Abbreviations and Acronyms

Abbreviations and acronyms are used in the modifiers in all INSPEC Cumulative Subject Indexes. Individual terms should be readily understood in the context of the subject headings. **Inorganic substances** are usually given by their chemical formulae. Iron, aluminium and gallium garnets appear in the formula lists as MIG, MAG and MGG (where M is metal element, e.g. YIG and YAG); $(Pb,La)(Zr,Ti)O_3$ and $Pb(Zr,Ti)O_3$ appear as PLZT and PZT; ZrF_4-BaF_2-LaF_3-AlF_3-NaF and ZrF_4-BaF_2-LaF_3-AlF_3-NaF-PbF_2 appear as ZBLAN and ZBLANP. **Organic substances** including **liquid crystals** and **polymers** are not given as formulae but common abbreviations are used.

1D	one-dimensional
2D	two-dimensional
2DEG	two-dimensional electron gas
3D	three-dimensional
4GL	fourth generation language
A/D	analogue-to-digital
ABB	Asea Brown Boveri
ABC	aerial bundled cables/conductors
ABS resin	acrylonitrile-butadiene-styrene resin
AC	alternating current
ACD	automatic call distribution
ACEL	AC electroluminescent
ACI	adjacent channel interference
ACRT	accelerated crucible rotation technique
ACSR	aluminium conductor steel reinforced
ACT	acoustic charge transport
ACTS	Advanced Communication Technology Satellite
ACTV	advanced compatible television
ACV	air cushion vehicle
ADC	analogue-to-digital conversion
ADM	adaptive delta modulation
ADP	administrative data processing
ADPCM	adaptive differential PCM
ADS	automatic depressurisation system
ADTV	advanced definition television
AE	acoustic emission
AES	Auger electron spectra (-oscopy)
AF	audio frequency
AFBC	atmospheric fluidised bed combustion
AFC	automatic frequency control
AFL	abstract family of languages
AFM	atomic force microscopy
AFMR	antiferromagnetic resonance
AFR	away from reactor (spent fuel storage)
AGB	asymptotic giant branch
AGC	automatic gain control
AGN	active galactic nucleus (nuclei)
AGR	advanced gas-cooled reactor
AGS	alternating gradient synchrotron
AGV	automatic guided vehicle
AHP	analytic hierarchy process
AI	artificial intelligence
AIN	advanced intelligent networks
ALARA	as low as reasonably achievable
ALE	atomic layer epitaxy
ALGOL	Algorithmic Language
ALS	Advanced Light Source
ALU	arithmetic logic unit
ALV	autonomous land vehicle
ALWR	advanced light water reactor
AM	air mass number *or* amplitude modulation
AM/FM	automated mapping/facilities management
AMLCD	active matrix liquid crystal display
AMPS	Advanced Mobile Phone System
AMPTE	active magnetospheric particle tracer explorers
AMR	automatic meter reading
AMS	accelerator mass spectroscopy
ANA	automatic network analyser
ANN	artificial neural network
ANOVA	analysis of variance
ANS	Advanced Neutron Source
ANSI	American National Standards Institute
AOI	automatic optical inspection
APACHE	Accelerator for Physics and Chemistry of Heavy Elements
APC	adaptive predictive coding
APCM	adaptive pulse code modulation
APCVD	atmospheric pressure CVD
APD	avalanche photodiode
APFIM	atom probe field ion microscopy
APK	amplitude phase keying
APL	A Programming Language
APS	Advanced Photon Source *or* appearance potential spectra (-oscopy)
APW	augmented plane wave
APWR	advanced pressurised water reactor
ARMA	autoregressive moving average
ARMAX	autoregressive moving average exogenous
ARPA	Advanced Research Projects Agency
ARPES	angle resolved photoemission spectra (-oscopy)
ARQ	automatic repeat request
ART	adaptive resonance theory
ARUPS	angular resolved UPS
ASCII	American standard code for information interchange
ASD	adjustable speed drives
ASE	amplified spontaneous emission
ASIC	application specific integrated circuit
ASK	amplitude shift keying
ASPSK	antipodal Stokes parameters shift keying
ASSP	application specific standard product
AT&T	American Telephone & Telegraph
ATC	air traffic control
ATCS	Advanced Train Control System
ATE	automatic test equipment
ATF	Advanced Toroidal Facility
ATM	asynchronous transfer mode *or* automatic teller machine *or* Axilrod-Teller-Moto
ATMS	assumption-based truth maintenance system

ATPG	automatic test pattern generation
ATR	attenuated total reflection *or* automatic target recognition
ATV	advanced television
ATWS	anticipated transients without scram
AVC	automatic volume control
AVHRR	advanced very high resolution radiometer
AWGN	additive white Gaussian noise
B-ISDN	broadband ISDN
BAER	brainstem auditory evoked response
BARITT	barrier injection transit time
BASIC	Beginners' All-purpose Symbolic Instruction Code
BAW	bulk acoustic wave
BBC	British Broadcasting Corporation
BBD	bucket-brigade device
BBGKY	Bogoliubov-Born-Green-Kirkwood-Yvon
BCC	body centred cubic
BCD	binary-coded decimal
BCDMOS	bipolar-CMOS-DMOS
BCH	Bose-Chadhuri-Hocquenghem
BCS	Bardeen-Cooper-Schrieffer
BCT	body centred tetragonal
BEBC	Big European Bubble Chamber
BEDT-TTF	bis(ethylenedithio)-tetrathiafulvalene (-inium)
BEEM	ballistic electron emission microscopy
BEM	boundary element method
BEPC	Beijing Electron Positron Collider
BER	bit error rate
BFL	buffered FET logic
BFN	beam-forming network
BFO	beat-frequency oscillator
BH	buried heterostructure
BIBO	bounded input, bounded output
BiCMOS	bipolar CMOS
BiFET	bipolar field effect transistor
BIL	buried injection logic
BILBO	built-in logic block observation
BiMOS	bipolar metal-oxide-semiconductor
BIOS	basic input/output system
BIS	bremsstrahlung isochromat spectroscopy
BISDN	broadband ISDN
BISR	built-in self-repair
BIST	built-in self-test
BIT	built-in test
BJT	bipolar junction transistor
BNFL	British Nuclear Fuels plc
BOC	Bell Operating Company
BOD	bistable optical device
BOX	buried oxide
BP	backpropagation *or* British Petroleum
BPSK	binary phase shift keying
BPX	burning plasma experiment
BRET	breeder reprocessing engineering test
BSI	British Standards Institution
BTA	Basic Technology Accelerator
BTSC	Broadcast Television Systems Committee
Btx	Bildschirmtext
BVP	boundary value problem
BWG	beam waveguide
BWIP	Basalt Waste Isolation Project
BWO	backward wave oscillator
BWR	boiling water reactor
BWT	backward wave tube
C-V	capacitance-voltage
C/N	carrier-to-noise
C^2	command and control
C^3	cleaved coupled cavity *or* command, control and communications
C^3I	command, control, communications and intelligence
C^3L	complementary constant current logic
C^4	command, control, communications and computers
C^4I	command, control, communications, computers and intelligence
CAA	computer aided analysis
CAD	computer aided design
CADAT	computer aided design and testing
CADD	computer aided draughting and design
CAE	computer aided engineering
CAES	compressed air energy storage
CAI	common air interface *or* computer assisted instruction
CAIBE	chemically assisted ion beam etching
CAL	computer aided learning
CAM	computer aided manufacturing *or* content addressable memory
CAMAC	computer automated measurement and control
CANDU	Canadian deuterium uranium
CAPP	computer aided process (production) planning
CAQ	computer aided quality assurance
CAR	computer aided retrieval
CARM	cyclotron autoresonance maser
CARS	coherent anti-Stokes Raman scattering (spectra)
CASE	computer aided software engineering
CAT	computer assisted tomography *or* computerised axial tomography
CATR	compact antenna test range
CATT	controlled avalanche transit transistor
CATV	cable television *or* community antenna television
CAV	citizens band
CBE	chemical beam epitaxy
CBED	convergent beam electron diffraction
CBI	computer based instruction
CBOOA	cyanobenzylidene octyloxyaniline
CBR	case based reasoning
CBT	computer based training
CC	coupled channels
CCBA	coupled channel Born approximation
CCCS	current controlled current source
CCD	charge-coupled device
CCFL	counter current flow limiting (LOCA phenomenon)

CCI	co-channel interference
CCII	second generation current conveyor
CCIR	International Radio Consultative Committee
CCITT	International Telephone & Telegraph Consultative Committee
CCL	capacitor coupled logic
CCS	common channel signalling *or* computer communications software *or* calculus of communicating systems
CCTF	Cylindrical Core Test Facility
CCTR	Culham Conceptual Tokamak Reactor
CCTV	closed circuit television
CCVS	current controlled voltage source
CD	compact disc *or* critical dimension
CD-I	compact disc - interactive
CD-ROM	compact disc ROM
CD-V	compact disc - video
CDFR	Commercial Demonstration Fast Reactor
CDI	collector diffusion isolation
CDLC	cellular data link control
CDM	code division multiplexing
CDMA	code division multiple access
CDP	common depth point
CDW	charge-density wave
CEBAF	Continuous Electron Beam Accelerator Facility
CECL	cascade-emitter coupled logic
CELP	code excited linear prediction
CEM	channel electron multiplier
CEMS	conversion electron Mossbauer spectra (-oscopy)
CEPA	coupled electron pair approximation
CEPT	Conference of European Postal and Telecommunications
CERDIP	ceramic dual-in-line package
CERN	European Council for Nuclear Research
CESAR	CERN Electron Storage and Accumulation Ring
CESR	conduction electron spin resonance
CETI	contact with extraterrestrial intelligence
CFA	continued fraction approximation
CFAR	constant false alarm rate
CFBC	circulating fluidised bed combustion
CFC	chlorofluorocarbon
CFG	context free grammar
CFIE	combined field integral equation
CFL	context free language
CFSK	coherent frequency shift keying
CGA	Computer Graphics Adaptor
CGH	computer-generated holography (-gram)
CGTO	contracted Gaussian-type orbital
CHF	coupled Hartree-Fock
CHILL	CCITT High Level Language
CHO	Chinese hamster ovary
CHP	combined heat and power
CI	configuration interaction
CID	charge injection device
CIDEP	chemically induced dynamical electron polarisation
CIDNP	chemically induced dynamical nuclear polarisation
CIM	computer integrated manufacture (-ing) *or* constituent interchange model
CIRC	cross-interleaved Reed-Solomon code
CISC	complex instruction set computer
CIT	Compact Ignition Tokamak
CLAN	cordless LAN
CLC	cholesteric liquid crystal
CLOS	command-to-line-of-sight
CLV	constant linear velocity
CMI	computer managed instruction
CML	current-mode logic
CMM	coordinate measuring machine
CMOS	complementary metal-oxide-semiconductor
CMS	cable management system
CNC	computerised numerical control
CNDO	complete neglect of differential overlap
CNR	carrier-to-noise ratio
COB	chip-on-board
COBOL	Common Business Oriented Language
COD	crack opening displacement
COG	chip-on-glass
COM	computer output to microform (fiche or film) *or* coupling of modes
COMFET	conductivity-modulated field effect transistor
CORDIC	coordinate rotation digital computer
COVA	computer code validation
CP	charge, parity
CP-MAS	cross-polarisation MAS
CPA	coherent potential approximation *or* critical path analysis
CPC	compound parabolic concentrator
CPE	customer premises equipment
CPFSK	continuous phase FSK
CPM	continuous phase modulation *or* critical path method
CPN	coloured Petri net *or* customer premises network
CPSK	coherent phase shift keying
CPT	charge, parity, time
CPU	central processing unit
CPW	coplanar waveguide
CQPSK	coherent quadrature PSK
CRBR	Clinch River Breeder Reactor Project
CRC	cyclic redundancy check
CRCW	concurrent read, concurrent write
CRDA	control rod drop accident
CREW	concurrent read, exclusive write
CRMA	cyclic reservation multiple access
CRNL	Chalk River Nuclear Laboratories
CRO	cathode ray oscilloscope
CRSR	coherent resonant Stokes rotation
CRT	cathode ray tube
CS	coupled states
CSCW	computer supported cooperative work
CSI	current source invertor

CSM	continuous slowing down models
CSMA	carrier sense multiple access
CSMA/CD	CSMA with collision detection
CSP	channel substrate planar *or* communicating sequential processes *or* constraint satisfaction problem
CSRS	coherent Stokes-Raman spectra (-oscopy)
CSSB/AM	companded single sideband amplitude modulation
CSTR	continuous stirred tank reactor
CT	computerised tomography *or* current transformer
CT1/2/3	cordless telephony (of 1st, 2nd, 3rd generation)
CTD	charge transfer device
CTE	coefficient of thermal expansion
CTL	complementary-transistor logic
CTR	controlled thermonuclear reactor
CVD	chemical vapour deposition
CVSDM	continuously variable slope delta modulation
CW	continuous wave
CZ	Czochralski
D/A	digital-to-analogue
DAB	digital audio broadcasting
DAC	digital-to-analogue conversion
DACS	digital access and cross-connect system
DAD	digital audio disc
DAMA	demand assigned multiple access
DARMA	deterministic autoregressive moving average
DASD	direct access storage device
DAT	digital audio tape
DATAC	digital autonomous terminal access communication
DAW	dry active waste
DBMS	database management system
DBR	distributed Bragg reflector
DBS	direct broadcasting by satellite
DC	direct current
DC-PBH	double-channel PBH
DCEL	direct current electroluminescent
DCFL	direct-coupled FET logic
DCG	dichromated gelatin
DCLC	drift cyclotron loss cone (instability)
DCS	digital cross-connect system
DCT	discrete cosine transform
DCTL	direct-coupled transistor logic
DCVS	differential cascode voltage switch
DDC	direct digital control
DDL	diode-diode logic
DDS	direct digital synthesis
DECENT	distribution of exact classical energy transfer
DECT	digital European cordless telephone (telecommunication)
DEDS	discrete event dynamic system
DEFT	density functional theory
DENOX	nitrogen oxides removal
DES	data encryption standard
DESIRE	diffusion enhanced silylating resist
DESY	Deutsches Electron Synchrotron
DF	Dirac-Fock
DFB	distributed feedback
DFE	decision feedback equaliser
DFT	discrete Fourier transform *or* design for testability
DFWM	degenerate four-wave mixing
DH	double heterostructure
DHBT	double heterojunction bipolar transistor
DHF	Dirac-Hartree-Fock
DHT	discrete Hartley transform
DIAL	differential-absorption lidar
DIET	desorption induced by electronic transitions
DIL	dual-in-line
DIP	dual in-line package
DIS	deep inelastic scattering
DITE	Divertor in Torus Experiment
DLA	diffusion limited aggregation
DLTS	deep level transient spectra (-oscopy)
DM	delta modulation
DMA	direct memory access
DMC	dynamic matrix control
DMM	digital multimeter
DMOS	double-diffused metal-oxide-semiconductor
DMSK	differential minimum shift keying
DMSO	dimethylsulphoxide
DNA	deoxyribonucleic acid *or* Digital Network Architecture
DNMR	double nuclear magnetic resonance
DNTS	digital data exchange network testing system
DOA	direction of arrival
DOBAMBC	p-decyloxybenzylidene p'-amino 2-methyl butyl cinnamate
DoD	Department of Defense (USA)
DOE	Department of Energy (USA)
DOF	degree(s) of freedom
DOPSK	differential offset phase shift keying
DORIS	Doppel-Ring-Speicher
DOS	disc operating system *or* density of states
DOVETT	double velocity transit time
DP	data processing
DPCM	differential pulse code modulation
DPDA	deterministic pushdown automaton
DPPC	dipalmitoyl phosphatidyl chloride
DPPH	diphenylpicrylhydrazyl
DPSK	differential phase shift keying
DQDB	distributed queue dual bus
DQPSK	differential quadrature PSK
DRAM	dynamic random access memory
DRO	dielectric resonator oscillator
DS-SS	direct sequence spread spectrum
DS-SSMA	direct sequence SSMA
DSA	digital subtraction angiography
DSAM	Doppler shift attenuation method
DSB	double sideband
DSC	differential scanning calorimetry
DSI	digital speech interpolation
DSL	digital subscriber line

DSM	demand side management
DSO	digital storage oscilloscope
DSP	digital signal processor (-ing)
DSS	decision support system *or* digital subscriber signalling
DTA	differential thermal analysis
DTL	diode transistor logic
DTMF	dual tone multi-frequency
DTP	desktop publishing
DTPP	Demonstration Tokamak Power Plant
DTU	dual topological unitarisation
DV-Xα	discrete variational Xα
DVI	digital video interactive
DVM	digital voltmeter
DWBA	distorted wave Born approximation
DWIA	distorted wave impulse approximation
DWPF	Defence Waste Processing Facility
E1	electric dipole
E2	electric quadrupole
E2PROM	electrically erasable PROM
EAROM	electrically alterable ROM
EAS	extensive air shower
EAX	electronic automatic exchange
EB	exponential Born
EBBA	4-ethoxybenzylidene-4n-butylaniline
EBIC	electron beam induced current(s)
EBL	explanation based learning
EBR	experimental breeder reactor
EBT	Elmo Bumpy Torus
EBU	European Broadcasting Union
ECC	emergency core cooling *or* error correction code
ECCM	electronic counter-counter measures
ECCS	emergency core cooling system
ECELR	Epithermal Critical Experiment Laboratory Reactor
ECG	electrocardiography (-gram)
ECL	emitter coupled logic
ECM	electronic countermeasures
ECMWF	European Centre for Medium Range Weather Forecasts
ECoG	electrocortiography (-gram)
ECR	electron cyclotron resonance
ECRH	electron cyclotron resonance heating
EDA	ethylene diamine *or* electronic design automation
EDAX	energy dispersive X-ray analysis
EDF	Electricite de France
EDI	electronic data interchange
EDIF	electronic data interchange format
EDP	electronic data processing
EDTA	ethylene diamine tetra-acetic acid
EDTV	extended definition TV
EDW	electron density wave
EDX	energy dispersive X-ray
EEG	electroencephalography (-gram)
EELFS	electron energy loss fine structure
EELS	electron energy loss spectra (-oscopy)
EEPLD	electrically erasable PLD
EEPROM	electrically erasable PROM
EFG	edge-defined film fed growth
EFIE	electric field integral equation
EFL	emitter-follower logic *or* emitter function logic
EFM	extended Flygare method
EFT	electronic funds transfer
EGA	Enhanced Graphics Adaptor
EGG	electrogastrography (-gram)
EHD	electrohydrodynamics
EHDTV	enhanced high definition TV
EHF	extremely high frequency
EHP	electron-hole potential method
EHT	extended Huckel theory *or* extra high tension
EHV	extra high voltage
EIRP	equivalent isotropically radiated power
EIS	electrochemical impedance spectroscopy
EKF	extended Kalman filter
EKG	electrokymography (-gram)
ELDOR	electron electron double resonance
ELF	extremely low frequency
ELO	epitaxial lateral overgrowth
EM	electromagnetic *or* expectation-maximisation
EMC	electromagnetic compatibility *or* European Muon Collaboration
EMF	electromotive force
EMG	electromyography (-gram)
EMI	electromagnetic interference
EMP	electromagnetic pulse
EMS	energy management system
EMTP	electromagnetic transients program
ENDOR	electron nuclear double resonance
ENEL	Ente Nazionale per l'Energia Elettrica (Italian National Electric Energy Agency)
ENG	electronic news gathering
ENSO	El Nino - Southern Oscillation
EOF	end-of-file
EOG	electrooculography (-gram)
EOQ	economic order quantity
EOS	electrical overstress
EPA	Environmental Protection Agency (USA)
EPLD	electrically programmable logic device
EPMA	electron probe microanalysis
EPR	Einstein-Podolsky-Rosen *or* electron paramagnetic resonance *or* ethylene propylene rubber
EPRI	Electric Power Research Institute
EPROM	erasable PROM
ERBE	Earth Radiation Budget Experiment
ERG	electroretinography (-gram)
ES	expert system
ESA	European Space Agency
ESCA	electron spectroscopy for chemical analysis
ESCAR	Experimental Superconducting Accelerating Ring
ESD	electron stimulated desorption *or* electrostatic discharge
ESDIAD	electron stimulated desorption ion angular distributions
ESF	engineering safety features

ESM	electronic support measures
ESOC	European Space Operations Centre
ESP	electrostatic precipitators
ESPI	electronic speckle pattern interferometry
ESPRIT	estimation of signal parameters by rotational invariance techniques *or* European Strategic Programme for Research in Information Technology
ESR	electron spin resonance
ESS	electronic switching system
ESTELLE	Extended State Transition Language
ET	bis(ethylenedithio)-tetrathiafulvalene
ETA-II	Engineering Test Accelerator-II
ETACS	Extended Total Access Communications System
ETM	engineering test model
ETSI	European Telecommunications Standards Institute
ETV	enhanced TV
EUV	extreme ultraviolet
EW	electronic warfare
EX-OR	exclusive OR (logic)
EXAFS	extended X-ray absorption fine structure
FAMOS	floating gate avalanche MOS
FBC	fluidised bed combustion
FBL	fly-by-light
FBR	fast breeder reactor
FCC	face centred cubic *or* Federal Communications Commission (USA)
FCFS	first come first served
FCI	fuel-cladding interaction
FCT	field controlled thyristor
FDD	floppy disc drive
FDDI	fibre distributed data interface
FDM	frequency division multiplex(ing)
FDMA	frequency division multiple access
FDNC	frequency dependent negative conductance
FDNR	frequency dependent negative resistance
FDTD	finite difference time-domain
FEA	finite element analysis
FEC	forward error correction
FECL	feedback ECL
FED	Fusion Engineering Device (USA)
FEDC	Fusion Engineering Device Centre (USA)
FEL	free electron laser
FEM	field emission microscopy *or* finite element method
FER	Fusion Experimental Reactor (Japan)
FET	field effect transistor
FFH	fast frequency hopping
FFHR	fusion-fission hybrid reactor
FFT	fast Fourier transform
FFTF	Fast Flux Test Facility
FGD	flue gas desulphurisation
FH-SS	frequency hopped spread spectrum
FH-SSMA	frequency hopped SSMA
FHNC	Fermi hypernetted chain
FIB	focused ion beam
FIFO	first in, first out
FIM	field ion microscopy
FIMOS	floating gate ionisation injection metal-oxide-semiconductor
FIPOS	full isolation by porous oxidised silicon
FIR	far infrared or finite impulse response
FISO	fast in, slow out
FITL	fibre in the loop
FLC	ferroelectric liquid crystal
FLCD	ferroelectric liquid crystal display
FLIR	forward looking infra-red
FLL	frequency locked loop
FLOPS	floating point operation(s) per second
FLOTOX	floating-gate tunnel oxide
FM	frequency modulation
FMEA	failure mode and effects analysis
FMECA	failure modes effects and criticality analysis
FMIT	Fusion Materials Irradiation Test Facility
FMR	ferromagnetic resonance
FMS	flexible manufacturing system *or* flight management system
FORTRAN	Formula Translation (language)
FOV	field of view
FPA	focal plane array
FPC	fusion power core
FPGA	field programmable gate array
FPLA	field programmable logic array
FPT	finite perturbation theory
FQHE	fractional quantum Hall effect
FRED-FET	fast recovery epitaxial diode FET
FRMR	field reversed mirror reactor
FSDE	fission suppressed direct enrichment (breeder blanket)
FSGO	floating spherical Gaussian orbitals
FSK	frequency-shift keying
FSS	fixed satellite service *or* frequency selective surface
FT	Fourier transform
FTIR	Fourier transform infrared *or* frustrated total internal reflection
FTR	Fast Test Reactor
FTTC	fibre-to-the-curb
FTTH	fibre-to-the-home
FWHM	full width half maximum
GAMBIT	gate modulated bipolar transistor
GANIL	Grand Accelerateur National à Ions Lourds
GASH	guanidine aluminium sulphate hexahydrate
GCC	gasification combined cycle
GCFR	gas-cooled fast breeder reactor
GCHWR	gas cooled heavy water moderated reactor
GCM	general circulation model *or* generator coordinate method
GCR	group code recording
GDR	giant dipole resonance
GEO	geostationary orbit
GETR	General Electric Test Reactor
GF	Galois field

GHF-NO-CI	generalised Hartree-Fock/natural orbital/configuration interactions
GIAO	gauge-invariant atomic orbitals
GIC	generalised immittance convertor *or* graphite intercalation compound
GIDL	gate induced drain leakage
GIS	gas insulated system (substation or switchgear) *or* geographic information system
GITL	gas insulated transmission line
GKS	Graphical Kernel System
GMDH	group method of data handling
GMR	giant monopole resonance
GMSK	Gaussian filtered MSK
GO	Gaussian orbitals *or* geometrical optics
GP	Guinier-Preston
GPED	gas phase electron diffraction
GPIB	general purpose interface bus
GPM	ground potential model
GPS	Global Positioning System
GQR	giant quadrupole resonance
GR	general relativity
GRIN	graded (gradient) refractive index
GSM	global system for mobile communications *or* Groupe Speciale Mobile
GSMBE	gas source molecular beam epitaxy
GSPC	gas scintillation proportional chamber (counter)
GT	group technology
GTD	geometrical theory of diffraction
GTHTGR	gas turbine HTGR
GTO	gate turn-off *or* Gaussian-type orbitals
GUI	graphical user interface
GUT	grand unified theory
GVB	generalised valence bond

HAWT	horizontal axis wind turbines
HBM	human body model
HBS	home bus system
HBT	heterojunction bipolar transistor *or* N-(p-hexyloxybenzylidene)-p-toluidene
HCDA	hypothetical core disruptive accident
HCI	human-computer interaction
HCMOS	high speed complementary MOS
HCP	hexagonal close packed
HCSEL	horizontal cavity surface emitting laser
HD-MAC	high definition MAC
HD-VCR	high definition VCR
HDD	hard disc drive
HDI	high density interconnect
HDL	hardware description language
HDLC	high level data link control
HDMI	high-density multichip interconnect
HDPE	high density polyethylene
HDSL	high bit-rate digital subscriber lines
HDTV	high definition television
HEED	high energy electron diffraction
HeLa	Henrietta Lacks
HEMP	high altitude electromagnetic pulse
HEMT	high electron mobility transistor
HET	hot electron transistor
HEU	highly enriched uranium (93% U^{235})
HEU/Th	highly enriched U/Th fuel
HEXFET	hexagonal MOSFET
HF	Hartree-Fock *or* high frequency
HFEF	Hot Fuel Examination Facility
HFET	heterojunction field effect transistor
HFIR	high flux isotope reactor
HFITR	High Field Ignition Test Reactor
HFS	Hartree-Fock-Slater *or* hyperfine structure
HGMS	high gradient magnetic separation
HI	heavy ion
HID	high intensity discharge
HIFET	heterointerface field effect transistor
HIGFET	heterostructure insulated gate FET
HIP	hot isostatic pressing
HIPPI	high performance parallel interface
HIXE	heavy ion induced X-ray emission
HJBT	heterojunction bipolar transistor
HJFET	heterojunction field effect transistor
HLL	high level language
HLLW	high level liquid waste
HLW	high level waste
HMC	hidden Markov chain
HMM	hidden Markov model
HMO	Huckel molecular orbitals
HMOS	high-performance metal-oxide-semiconductor
HMTSeF	hexamethylenetetraselenafulvalene (-inium)
HMTTF	hexamethyltetrathiofulvalene (-inium)
HOAB	heptyloxyazoxybenzene
HOE	holographic optical elements
HOMO	highest occupied molecular orbitals
HPCI	high pressure coolant injection
HPCS	high-pressure core sprays
HREELS	high resolution EELS
HREM	high resolution electron microscopy
HSLA	high strength low alloy (steel)
HSLAN	high speed LAN
HT	high tension
HTGR	high temperature gas-cooled reactor
HTGRSC/C	HTGR steam cycle cogeneration
HTSC	high temperature superconductor
HTTR	High Temperature Engineering Test Reactor
HUD	head-up display
HV	high voltage
HVAC	heating, ventilation and air conditioning *or* high voltage alternating current
HVDC	high voltage direct current
HVEM	high voltage electron microscopy
HVIC	high voltage integrated circuit
HWLWR	heavy water moderated LWR
HWR	heavy water reactor
HZE	high Z and energy
HZP	hot zero power

I-V	current-voltage
i.i.d.	independently identically distributed
I/O	input/output
I^2L	integrated injection logic
I^3L	isoplanar I^2L

IAEA	International Atomic Energy Agency
IAR	isobaric analogue resonance
IAS	isobaric analogue state
IBA	interacting boson approximation
IBCN	integrated broadband communication network
IBFA	interacting boson-fermion approximation
IBM	interacting boson model *or* International Business Machines
IBPBAC	isobutyl-4-(4'-phenylbenzylidene-amino) cinnamate
IBT	insulated base transistor
IC	integrated circuit
ICB	ionised cluster beam
ICDF	intermediate coupling Dirac-Fock
ICF	inertial confinement fusion
ICMA	idle signal casting multiple access
ICP	inductively coupled plasma
ICPP	Idaho Chemical Processing Plant
ICRF	ion cyclotron range of frequencies
ICRH	ion cyclotron resonance heating
ICTS	isothermal capacitance transient spectra(-oscopy)
IDDQ	quiescent power supply current
IDFL	integral diode FET logic
IDT	interdigital transducer
IDTV	improved definition television
IEC	interexchange carrier *or* International Electrotechnical Commission
IEPA	independent electron pair approximation
IETS	inelastic electron tunnelling spectra (-oscopy)
IF	intermediate frequency
IFA	ionisation front accelerator
IFE	intelligent front end
IFM	instantaneous frequency measurement
IGBT	insulated gate bipolar transistor
IGCC	integrated gasification combined cycle
IGES	Initial Graphics Exchange Specification
IGFET	insulated gate field effect transistor
IGT	insulated gate transistor
IHEP	Institute of High Energy Physics
IIR	infinite impulse response
IKBS	intelligent knowledge based system
IKO	Institute v. Kernph Ouder (Amsterdam)
ILS	instrument landing system
ILW	intermediate level (radioactive) waste
IMD	intermodulation distortion
IMPATT	impact avalanche transit time
IN	intelligent network
INDO	incomplete neglect of differential overlap
INDOR	internuclear double resonance
INEPT	insensitive nuclei enhanced by polarisation transfer
ING	intense neutron generator
INO	iterative natural orbital
INS	inertial navigation system *or* Information Network System
INTELSAT	International Telecommunications Satellite Consortium
INTOR	International Tokamak Reactor
INTUG	International Trade and User Group
IOCω	inclusion of the overlap charges in the omega
IPSE	integrated programming support environment *or* integrated project support environment
IPSS	international packet switching system
IR	infrared
IRBIC	infrared beam induced current(s) (contrast)
IREB	intense relativistic electron beam
IRED.	infrared emitting diode
IRS	information retrieval system
IS	information system
ISABELLE	intersecting storage and acceleration
ISAR	inverse synthetic aperture radar
ISDN	integrated services digital network
ISDSN	integrated services digital satellite network
ISFET	ion-sensitive field effect transistor
ISI	intersymbol interference
ISL	integrated Schottky logic or inter-satellite links
ISO	International Standards Organization
ISR	intersecting storage ring
ISS	ion scattering spectroscopy
ISX	impurity study experiment
IT	information technology
ITC	ionic thermocurrents
ITEP	Institute of Theoretical and Experimental Physics
ITO	indium tin oxide
ITR	Ignition Test Reactor
ITU	International Telecommunication Union
IU	Indiana University (USA)
IVO	improved virtual orbitals
IVP	initial value problem
J^{π}	spin/parity (nuclear levels)
JAERI	Japan Atomic Energy Research Institute
JCL	job control language
JET	Joint European Torus
JFET	junction field effect transistor
JINR	Joint Institute for Nuclear Research
JIT	just-in-time
JT-60	Japanese Tokamak-60
JTIDS	Joint Tactical Information Distribution System
KBS	knowledge based system
KdV	Korteweg-de Vries
KEK	Japan National Laboratory for High Energy Physics
KKR	Korringa-Kohn-Rostoker
LAMPF	Los Alamos Meson Physics Facility
LAN	local area network
LATA	local access and transport area
LAWN	local area wireless network

LB	Langmuir-Blodgett
LBIC	light beam induced current(s)
LBLOCA	large break LOCA
LC	inductance-capacitance
LCA	logic cell array
LCAO	linear combination of atomic orbitals
LCBO	linear combinations of (semi-localised) leadless chip carrier
LCCC	leadless ceramic chip carrier
LCD	liquid crystal display/device
LCI	load commutated inverter
LCP	Large Coil Program *or* least cost planning
LCTF	Large Coil Test Facility
LD	laser diode
LDA	laser Doppler anemometry (-meter) *or* local density approximation
LDD	lightly doped drain
LDI	lossless discrete integrator
LDPE	low density polyethylene
LDV	laser Doppler velocimetry (-meter)
LEAR	Low Energy Antiproton Ring
LEC	liquid encapsulated Czochralski or local exchange carrier
LED	light emitting diode
LEED	low energy electron diffraction
LEFD	Large Experimental Fusion Device
LEIS	low energy ion scattering
LEMP	lightning electromagnetic pulse
LEO	low-Earth-orbit
LEP	Large Electron Positron (CERN)
LET	linear energy transfer
LEU	low enrichment uranium (10% U^{235})
LEU/Th	low enrichment U/Th fuel
LF	low frequency
LFSR	linear feedback shift register
LGA	land grid array
LHC	Large Hadron Collider (CERN)
LHPG	laser heated pedestal growth
LHRH	lower hybrid resonance heating
LIF	laser induced fluorescence
LIFO	last in, first out
LIM	linear induction motor
LIME	laser induced magnetically enhanced
LINAC	linear accelerator
LISP	List Processor (language)
LLTR	Large Leak Test Rig
LLW	low level (radioactive) waste
LMC	Large Magellanic Cloud
LME	liquid metal embrittlement
LMFBR	liquid metal fast breeder reactor
LMIS	liquid metal ion source
LMR	liquid metal reactor
LMS	least mean square
LMSS	land mobile satellite system
LMTO	linear combination of muffin tin orbitals
LMXB	low-mass X-ray binary
LNA	low noise amplifier
LNB	low noise block
LNG	liquified natural gas
LO	local oscillator *or* longitudinal optical
LOCA	loss of coolant accident
LOCE	loss of coolant experiment
LOCOS	local oxidation of silicon
LOF	loss of flow
LOFT	Loss of Flow Test Facility
LOFW	loss of feed water
LONA	low noise amplifier
LOOSP	loss of onsite power
LOS	line of sight
LOTOS	Language Of Temporal Ordering Specification
LP	linear programming
LPC	linear predictive coding
LPCS	low pressure core spray
LPCVD	low pressure CVD
LPE	liquid phase epitaxy
LPFL	low pinchoff-voltage FET logic
LPI	low probability of intercept
LQG	linear quadratic Gaussian
LRO	long-range order
LSA	least squares approximation *or* limited space charge accumulation
LSD	local spin density *or* loop shut-down
LSI	large-scale integration
LSPB	Large Scale Prototype Breeder
LSSD	level sensitive scan design
LSTF	Large Scale Test Facility
LTE	local thermodynamic equilibrium
LTI	linear time invariant
LTR	loop transfer recovery
LUMO	lowest unoccupied molecular orbitals
LV	low voltage
LWBR	light water breeder reactor
LWHCR	light water high convertor reactor
LWR	light water reactor
M1	magnetic dipole
M2	magnetic quadrupole
MAC	multiplexed analogue components *or* media access control
MAG	metal arc gas
MAGFET	magnetic field sensitive FET
MAGLEV	magnetic levitation
MAN	metropolitan area network
MAP	Manufacturing Automation Protocol
MARS	Mirror Advanced Reactor Study
MAS	magic angle spinning
MATE	modular automatic test equipment
MBBA	4-methoxybenzylidene-4'n-butylaniline
MBC	meteor burst communication
MBE	molecular beam epitaxy
MBPT	many body perturbation theory
MBR	model based reasoning
MCCB	moulded-case circuit breakers
MCCI	molten core-concrete interaction
MCD	magnetic circular dichroism
MCFC	molten carbonate fuel cell
MCFR	magnetic confinement fusion reactor
MCM	multichip module
MCP	microchannel plate
MCSCF	multiconfiguration SCF
MCVD	modified chemical vapour deposition
MCXα	multiconfiguration Xα
MDS	maximum distance separable
MEC	molecular electron correlation(s)

MEG	magnetoencephalography (-gram)
MEMS	microelectromechanical system
MESFET	metal-semiconductor FET
MEU	medium enrichment uranium (20% U^{235})
MEU/Th	medium enrichment U/Th fuel
MF	medium frequency
MFIE	magnetic field integral equation
MFM	magnetic force microscopy
MFP	mean free path
MFR	mirror fusion reactor
MFSK	multiple frequency shift keying
MFTF	Mirror Fusion Test Facility
MHD	magnetohydrodynamics
MHS	message handling system
MHTGR	modular HTGR
MIC	microwave integrated circuit
MID	magnetically insulated diode
MIDI	musical instrument digital interface
MIDP	microwave induced delayed phosphorescence
MIG	metal inert gas *or* metal-in-gap
MIL-STD	military standard
MIM	metal-insulator-metal
MIMD	multiple input (instruction), multiple data
MIMIC	millimetre-wave monolithic integrated circuit
MIMO	multiple input, multiple output
MIN	multiprocessor interconnection network
MIND	mass impregnated non-draining
MINDO	modified incomplete NDO
MIPS	million instructions per second
MIS	management information system *or* metal-insulator-semiconductor
MISFET	metal-insulator-semiconductor FET
MISO	multiple input, single output
MIT	Massachusetts Institute of Technology (USA)
MITATT	mixed tunnelling avalanche transit time
ML	machine language *or* meta-language
MLB	multilayer board
MLC	multilayer ceramic
MLE	maximum likelihood estimation
MLE	molecular layer epitaxy *or* maximum likelihood estimation
MLP	multiple layer perceptron
MLS	microwave landing system
MLSE	maximum likelihood sequence estimation
MLTF	multilayer thick film
MLW	medium level (radioactive) waste
MM	millimetre
MMF	magnetomotive force
MMI	man-machine interface
MMIC	monolithic microwave integrated circuit
MMU	memory management units
MNDO	modified neglect of differential overlap
MNOS	metal-nitride-oxide-semiconductor
MO	molecular orbitals
MOCVD	metal-organic chemical vapour deposition
MODFET	modulation doped FET
MODOR	microwave-optical double resonance
MODPOT	modulator potential
MOMBE	metal-organic MBE
MONOS	metal-oxide-nitride-oxide-semiconductor
MOPA	master oscillator power amplifier
MORB	mid-ocean ridge basalt
MOS	metal-oxide-semiconductor
MOSFET	metal-oxide-semiconductor FET
MOST	metal-oxide-semiconductor transistor
MOV	metal oxide varistor
MOVPE	metal-organic vapour phase epitaxy
MOX	mixed oxide fuel
MPH	moving plasmoid heater
MPSK	multiple phase shift keying
MPU	microprocessing unit
MQORC	modified quadrature overlapped raised cosine
MQW	multiple quantum well
MRAC	model reference adaptive control
MRC	minimum resolvable contrast
MRD	multiple-reference double excitation
MRI	magnetic resonance imaging
MRINDO	modified Rydberg INDO
MRP	manufacturing resources planning *or* materials requirements planning
MRS	monitored retrievable storage (radioactive waste)
MRT	minimum resolvable temperature
MS	management science
MSE	mean square error
MSI	medium scale integration
MSK	minimum shift keying
MSM	metal-semiconductor-metal
MSR	molten salt reactor
MSSM	minimal supersymmetric standard model
MSSW	magnetostatic surface wave
MSU	Michigan State University
MSW	magnetostatic waves
MSXα	multiple scattering Xα
MT	machine translation *or* magnetotelluric
MTBF	mean time between failures
MTF	modulation transfer function
MTI	moving target indicator
MTL	merged-transistor logic
MTTF	mean time to failure
MTTR	mean time to repair
MTXα	muffin-tin Xα
μCF	muon catalysed fusion
μP	microprocessor
μSR	muon spin rotation (resonance)
MUF	material unaccounted for *or* maximum usable frequency
MUMPS	Multi-User Multi-Programming System
MUSE	multiple sub-Nyquist sampling encoding
MUSIC	multiple signal characterisation
MV	medium voltage
MVTL	modified variable threshold logic
MWPC	multiwire proportional chamber

NAA	neutron activation analysis
NAL	National Accelerator Laboratory
NAND	NOT-AND (logic)
NAPLPS	North American Presentation Level Protocol Syntax
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organisation
NBETF	Neutral Beam Engineering Test Facility
NBFM	narrowband frequency modulation
NBI	neutral beam injection
NBPS	neutral beam power systems
NC	numerical control
NCAR	National Center for Atmospheric Research (USA)
NCBR	nitrine cooled breeder reactor
NCMET	non-closed shell many electron theory
NDDO	neglect of diatomic differential overlap
NDE	nondestructive evaluation
NDO	neglect of differential overlap
NDR	negative differential resistance
NDRO	nondestructive readout
NDT	nondestructive testing
NEA	negative electron affinity
NET	Next European Tokamak
NETD	noise equivalent temperature differential
NEXAFS	near-edge X-ray absorption fine structure
NEXT	near-end crosstalk
NGS	nuclear generating station
NHS	National Health Service (UK)
NIC	negative impedance convertor
NICAM	near-instantaneously companded audio multiplex
NIST	National Institute of Standards and Technology (USA)
NLC	nematic liquid crystal
NLP	natural language processing
NLTE	non-local thermodynamic equilibrium
NMOS	n-channel MOS
NMR	nuclear magnetic resonance
NMR-CN	NMR on oriented nuclei
NNI	network node interface
NNNDO	neglect of non-neighbour differential overlap
NOAA	National Oceanic and Atmospheric Administration (USA)
NOFC	New Oxide Fuels Complex (BNFL)
NOR	NOT-OR (logic)
NOVA	nonoverlapping super-self-aligned
NP	nondeterministic polynomial
NPL	National Physical Laboratory (UK)
NPP	nuclear power plant
NQR	nuclear quadrupole resonance
NRC	Nuclear Regulatory Commission (USA)
NRD	nonradiative dielectric
NRM	natural remanent magnetisation
NRZ	non-return to zero
NRZI	non-return to zero inverted
NS	Navier-Stokes (equations)
NSLS	National Synchrotron Light Source
NSRR	Nuclear Safety Research Reactor
NSSS	nuclear steam supply system
NTD	neutron transmutation doping
NTE	network termination equipment
NTL	nonthreshold logic
NTSC	National TV Standards Committee
NTU	network termination unit
NVL	night vision laboratory
NVRAM	nonvolatile random access memory
NWA	network analyser
NWPA	Nuclear Waste Policy Act (USA)

OA	office automation
OAM	operations, administration and maintenance
OAM&P	operations, administration, maintenance and provisioning
OBIC	optical beam induced current(s)
OCR	optical character recognition
OCRWM	Office of Civilian Radioactive Waste Management (USA)
ODA	Office Document Architecture
ODE	ordinary differential equation
ODMR	optical detection of magnetic resonance
OEIC	optoelectronic integrated circuit
OEM	original equipment manufacture(r)
OER	oxygen enhancement ratio
OH	ohmic heating
OHTE	Ohmically Heated Toroidal Experiment
OISF	oxidation induced stacking fault
OMCVD	organometallic CVD
OMI	optical mode interference
OMVPE	organometallic vapour phase epitaxy
ONA	open network architecture
ONO	oxide-nitride-oxide
OOP	object-oriented programming
OPAC	online public access catalogue
OPGW	optical fibre composite ground wire
OPHF	orbital polarised Hartree-Fock
OPW	orthogonal plane wave
OQPSK	offset quadrature phase shift keying
OR	operations research
ORELA	Oak Ridge Electron Linear Accelerator (USA)
ORNL	Oak Ridge National Laboratory (USA)
OS	operating system
OSI	Open Systems Interconnection
OTA	operational transconductance amplifier
OTDR	optical time domain reflectometry
OTEC	ocean thermal energy conversion
OTF	optical transfer function
OTH	over the horizon
OTS	Orbital Test Satellite
OTSG	once-through steam generator
OZI	Okubo-Zweig-Lizuha (quark model)

PAA	paraazoxyanisole
PABX	private automatic branch exchange
PAC	perturbed angular correlation
PACS	picture archiving and communication systems
PAFC	phosphoric acid fuel cells

PAHR	post-accident heat removal
PAL	phase alternate line *or* programmable array logic
PAM	programmable active memory or pulse amplitude modulation
PAP	paraazoxyphenetole
PARS	private advanced radio service
PBF	power bursts facility
PBFA	Particle Beam Fusion Accelerator
PBH	planar buried heterostructure
PBL	planetary boundary layer
PBR	pebble bed reactor
PBT	permeable base transistor
PBW	power-by-wire
PBX	private branch exchange
PC	personal computer *or* printed circuit *or* programmable controller
PCAC	partially conserved axial currents
PCB	polychlorinated biphenyl *or* printed circuit board
PCES	phase change energy storage
PCI	pellet-cladding interaction
PCILO	perturbative configuration interaction using localised orbitals
PCILOCC	PCILO for crystal calculation
PCM	phase change material *or* pulse code modulation
PCN	personal communications network
PCRV	prestressed concrete reactor vessel
PCV	primary containment vessel
PCX	plasma confinement experiment
PD	partial discharge
PDB	planar doped barrier
PDE	partial differential equation
PDF	probability density (distribution) function
PDH	plesiochronous digital hierarchy
PDX	Poloidal Divertor Experiment
PE	phase encoded
PEC	photoelectrochemical cell
PECVD	plasma enhanced CVD
PEEK	polyaryletheretherketone *or* polyetheretherketone
PEEL	programmable electrically erasable logic
PEM	photoelectromagnetic
PEP	Positron Electron Photon (collider, Stanford, USA)
PES	photoelectron spectra (-oscopy)
PET	polyethylene terephthalate *or* positron emission tomography
PETRA	Positron Electron Tandem Ringbeschleuniger Anlage
PF	poloidal field *or* power factor
PFBC	pressurised fluidised bed combustion
PFM	pulse frequency modulation
PFR	Prototype Fast Reactor
PGA	pin grid array
PHWR	pressurised heavy water reactor
PIC	particle-in-cell
PID	proportional+integral+differential (derivative)
PIPECO	photoion photoelectron coincidence
PIUS	process inherent ultimately safe
PIXE	photon induced X-ray emission
PLA	phase locked array *or* programmable logic array
PLBR	Prototype Large Breeder Reactor
PLC	programmable logic control
PLCC	plastic leadless chip carrier
PLD	programmable logic device
PLEX	plant life extension
PLL	phase locked loop
PLT	Princeton Large Torus
PLZT	lead lanthanum zirconate titanate
PM	permanent magnet *or* phase modulation *or* pulse modulation
PMDR	phosphorescence microwave double resonance
PMMA	polymethylmethacrylate
PMOS	p-channel metal-oxide-semiconductor
PMR	proton magnetic resonance
PMS	pre-main sequence
PN	planetary nebula(e) *or* pseudonoise
PNDO	partial neglect of differential overlap
PNO-CI	pair natural orbital configuration interaction
PNS	Pulsed Neutron Source
PO	physical optics
POL	pair orthogonalised Lowdin
PON	passive optical network
POPAE	protons on protons and electrons
POPOP	phenyl-oxazolyl-phenyl-oxazolyl-phenyl
PORV	power operated relief valve
POS	point of sale
POTS	plain old telephone service
PPB	parts per billion
PPDP/S	Pariser-Parr-Del Bene-Pople/Segal calculations
PPI	plan position indicator
PPM	parts per million *or* pulse position modulation
PPP	Pariser-Parr-Pople
PQFP	plastic quad-flat-pack
PRA	probabilistic risk assessment
PRAM	parallel random access machine
PRDDO	partial retention of diatomic differential overlap
PREPP	Process Experimental Pilot Plant
PRF	pulse recurrence (repetition) frequency
PRIME	positive resist images by dry etching
PRMA	packet reservation multiple access
PRN	packet radio networks
PROLOG	Programming in Logic (language)
PROM	Pockels readout optical modulator *or* programmable ROM
PS	proton synchrotron (CERN)
PSA	probabilistic safety assessment
PSD	power shut-down or power spectral density
PSDN	packet switched data network
PSK	phase shift keying
PSS	packet switching service *or* Packet SwitchStream (UK) *or* power system stabilisers
PSTN	public switched telephone network

PSU	power supply unit
PTD	physical theory of diffraction
PTF	polymer thick film
PTFE	polytetrafluoroethylene
PTH	plated through hole
PTM	pulse time modulation
PTT	Posts, Telephones and Telegraphs Administration
PV	photovoltaic
PVC	polyvinyl chloride
PVD	physical vapour deposition
PVDF	polyvinylidene fluoride
PVER	pattern visual evoked response
PWA	partial wave analysis
PWB	printed wiring board
PWBA	plane wave Born approximation
PWIA	plane wave impulse approximation
PWM	pulse width modulation
PWR	pressurised water reactor
PZT	lead zirconate titanate
QA	quality assurance
QAM	quadrature amplitude modulation
QASK	quadrature amplitude shift keying
QBO	quasi-biennial oscillation
QC	quality control
QCD	quantum chromodynamics
QDMBPT	quasi-degenerate MBPT
QED	quantum electrodynamics
QFP	quad-flat-pack *or* quantum flux parametron
QFSK	quadrature frequency shift keying
QFT	quantum field theory
QGP	quark-gluon plasma
QHD	quantum hadrodynamics
QHE	quantum Hall effect
QMD	quantum molecular dynamics
QMF	quadrature mirror filter
QORC	quadrature overlapped raised cosine
QOSRC	quadrature overlapped squared raised cosine
QPM	quark-parton model
QPO	quasi-periodic oscillation
QPR	quadrature partial response
QPRS	quadrature partial response signalling
QPSK	quaternary phase shift keying
QRC	quasi-resonant converter
QSO	quasi-stellar object (quasar)
QWITT	quantum well injection transit time
R&D	research and development
RACE	Research and Development in Advanced Communications Technologies in Europe
RAD	ribbon-against-drop
RAM	radar absorbing material *or* random access memory *or* reliability, availability and maintainability
RAMDAC	random access memory digital/analogue convertor
RAN	radio area network
RBE	relative biological effectiveness
RBMK	light water cooled, graphite moderated reactor
RBOC	Regional Bell Operating Company
RBS	Rutherford backscattering
RC	resistance-capacitance
RCCB	residual current circuit breaker
RCD	residual current device
RCIC	reactor core isolation cooling
RCS	radar cross-section *or* rapid cycling synchrotron *or* reactor coolant systems
RCTL	resistor-capacitor-transistor logic
RDBMS	relational DBMS
RDS	Radio Data System
RDSS	radio determination satellite service
REA	rod ejection accident
REELS	reflection electron energy loss spectra (-oscopy)
RELP	residual excited linear prediction
REM	reflection electron microscopy
REMPI	resonance enhanced multiphoton ionisation
RF	radio frequency
RFI	radio frequency interference
RFP	reversed field pinch *or* request for proposals
RFPR	reversed field pinch reactor
RFX	reversed field (pinch) experiment
RG	renormalisation group
RGB	red, green, blue
RGM	resonating group method
RHEED	reflection high energy electron diffraction
RHET	resonant hot electron transistor
RHF	restricted Hartree-Fock
RIA	reactivity initiated accident
RIBE	reactive ion beam etching
RICH	ring imaging Cherenkov detector
RIE	reactive ion etching
RINDO	Rydberg incomplete NDO
RISC	reduced instruction set computer
RKKY	Rudermann-Kittel-Kasuya-Yosida
RLC	resistance-inductance-capacitance
RLS	recursive least squares
RMS	root-mean-square
RNA	ribonucleic acid
RNS	residue number system
ROM	read-only memory
ROXNOX	reoxidised nitrided oxide
RPA	random phase approximation
RPAE	RPA with exchange
RPC	resistive plate chamber/counter
RPM	relaxation potential model *or* revolutions per minute
RPV	reactor pressure vessel *or* remote piloted vehicle
RS	Reed-Solomon
RT	room temperature
RTA	rapid thermal annealing
RTD	resonant tunnelling diode
RTG	radioisotope thermoelectric generators
RTI	road traffic informatics
RTL	resistor-transistor logic *or* register transfer level
RTN	rapid thermal nitridation

RTO	rapid thermal oxidation
RTP	rapid thermal processing
RTT	resonant tunnelling transistor
RTTY	radio teletypewriter *or* remote teletype terminal
RVB	resonating valence bond
S/H	sample and hold
S/N	signal-to-noise
SAA	Systems Application Architecture
SAG	self-aligned gate
SAINT	self-aligned implantation for N^+-layer technology
SAIR	synthetic aperture interferometric radar
SAM	scanning acoustic microscopy *or* scanning Auger microscopy *or* serial access memory
SAMO	simulated ab initio molecular orbitals
SAMOS	stacked gate avalanche injection metal-oxide-semiconductor
SAMPLE	simulation and modelling of profile in lithography and etching
SAN	small area network
SANS	small-angle neutron scattering
SAR	synthetic aperture radar
SARSAT	search and rescue satellite aided tracking
SAW	surface acoustic waves *or* self-avoiding walk
SAXS	small-angle X-ray scattering
SBE	super birefringence effect
SBH	strip buried heterostructure
SBLOCA	small break LOCA
SBS	stimulated Brillouin scattering
SC	switched capacitor
SCADA	supervisory control and data acquisition
SCARA	selective compliance assembly robot arm
SCC	stress corrosion cracking
SCF	self-consistent field
SCFL	source-coupled FET logic
SCH	separate confinement heterostructure
SCL	space charge limited
SCM	subcarrier multiplex(ing)
SCPC	single channel per carrier
SCR	silicon controlled rectifier
SCSI	Small Computer System Interface
SCTF	Slab Core Test Facility
SDF	synthetic discriminant function
SDFL	Schottky-diode FET logic
SDH	synchronous digital hierarchy
SDI	selective dissemination of information *or* Strategic Defense Initiative (USA)
SDL	Specification and Description Language
SDLC	synchronous data link control
SDM	space division multiplexing
SDMA	space division multiple access
SDW	spin density wave
SEAM	scanning electron acoustic microscopy
SED	stochastic electrodynamics
SEED	self-electrooptic effect device
SEG	selective epitaxial growth
SEL	surface emitting laser
SEM	scanning electron microscopy
SEP	somatosensory evoked potential
SERC	Science and Engineering Research Council
SERS	surface enhanced Raman scattering
SETI	search for extraterrestrial intelligence
SEU	single event upset
SEXAFS	surface extended X-ray absorption fine structure
SFE	solar-flare effect
SFL	substrate-fed logic
SFM	scanning force microscopy
SGEMP	system generated electromagnetic pulse
SGHWR	steam generating heavy water reactor
SGML	Standard Generalized Markup Language
SGMP	sol-gel microsphere pelletisation
SHF	superhigh frequency
SHG	second harmonic generation
SHOOT	superfluid helium on-orbit transfer
SHR	self-healing rings *or* South Hall Ring (MIT-Bates)
SHV	superhigh voltage
SI	semi-insulating *or* Systeme Internationale
SICOS	sidewall base contact structure
SIF	stress intensity factor
SIL	single-in-line
SIMD	single instruction, multiple data
SIMOS	stacked-gate injection MOS
SIMOX	separation by implantation of oxygen
SIMS	secondary ion mass spectra (-oscopy)
SIN	Swiss Institute of Nuclear Research
SINDO	scaled incomplete NDO
SIPOS	semi-insulating polycrystalline silicon
SIR	Safe Integral Reactor
SIS	semiconductor-insulator-semiconductor *or* superconductor-insulator-superconductor
SISAM	spectrometer with interference selective amplitude modulation
SISFET	semiconductor-insulator-semiconductor FET
SISO	single input, single output
SIT	static induction transistor
SLAC	Stanford Linear Accelerator
SLAM	scanning laser acoustic microscopy
SLC	smectic liquid crystal *or* Stanford Linear Collider
SLD	strict logical determinacy
SLIA	Spiral Line Induction Accelerator
SLIC	subscriber line interface circuit
SLM	spatial light modulator
SLSF	Sodium Loop Safety Facility
SMA	surface mount(ed) assembly
SMATV	satellite master antenna television
SMC	Small Magellanic Cloud *or* surface mount(ed) component
SMD	surface mount(ed) device
SMDS	switched multimegabit data service

SMES	superconductive magnetic energy storage
SMIF	standard mechanical interface
SMOBC	solder mask over bare copper
SMPS	switched mode power supply
SMQORC	staggered modified quadrature overlapped raised cosine
SMT	surface mount(ed) technology
SN	supernova(e)
SNA	Systems Network Architecture
SNM	special nuclear material
SNMP	simple network management protocol
SNR	signal-to-noise ratio or supernova remnant
SNS	spallation neutron source or superconducting normal superconducting
SOA	safe operating area
SOFC	solid oxide fuel cells
SOG	spin on glass *or* strongly orthogonal geminal *or* sea-of-gates
SOI	silicon on insulator
SOIC	small outline integrated circuit
SOL	scrape-off layers
SONET	synchronous optical network
SOP	small outline package
SOR	successive over-relaxation *or* synchrotron orbital radiation
SOS	silicon on sapphire
SOT	small outline transistor
SPA	separated pair approximation
SPARC	scaleable processor architecture *or* Standards Planning and Requirements Committee (of ANSI)
SPC	statistical process control *or* stored program control
SPCP	single parity check product (code)
SPE	solid phase epitaxy
SPEAR	Stanford Positron Electron Asymmetric Ring
SPECT	single photon emission computerised tomography
SPICE	Simulation Program with Integrated Circuit Emphasis
SPLEED	spin polarised low energy electron diffraction
SPN	stochastic Petri net
SPRITE	signal processing in the element
SPS	Super Proton Synchrotron (CERN)
SPUDT	single-phase unidirectional transducer
SQAM	superposed quadrature amplitude modulation
SQC	statistical quality control
SQL	Structured Query Language
SQPR	staggered quadrature partial response
SQPSK	staggered quadrature PSK
SQS	self-quenching streamer chamber
SQUID	superconducting quantum interference device
SQW	single quantum well
SR	synchrotron radiation
SRAM	static random access memory
SREMP	source region electromagnetic pulse
SRM	switched reluctance motors
SRMCASE	symmetry-restricted-multiconfiguration annihilation of single excitations
SRO	short-range order
SRS	stimulated Raman scattering
SRV	safety release valve
SS	spread spectrum
SS-TDMA	satellite switched TDMA
SS7	Signalling System No.7
SSB	single sideband
SSBW	surface skimming bulk wave
SSC	sudden storm commencement *or* Superconducting Super Collider
SSCR	spectrum shift controlled reactor
SSFL	Schottky-barrier coupled Schottky-barrier gate FET logic
SSFLC	surface stabilised ferroelectric liquid crystal
SSI	small scale integration
SSMA	spread spectrum multiple access
SSNTD	solid-state nuclear track detector
SSR	subsynchronous resonance
SST	sea surface temperature *or* supersonic transport *or* super self-aligned technology
SSV	structured singular value
STD	salinity-temperature-depth *or* subscriber trunk dialling
STEC	solar thermal energy conversion
STEM	scanning transmission electron microscopy
STI	scientific and technical information
STL	Schottky transistor logic
STM	scanning tunnelling microscopy *or* synchronous transfer mode
STN	super twisted nematic
STO	Slater-type orbitals
STOL	short take-off and landing
STP	Slater-transfer Preuss
STS	scanning tunnelling spectra(-oscopy)
SURMAC	surface magnetic confinement
SUSY GUT	supersymmetric grand unified theory
SVC	static VAr compensator
SVD	singular value decomposition
SW	short wave
SWAMI	sidewall masked isolation
SWEPP	Stored Waste Examination Pilot Plant
SWR	sodium water reactor *or* standing wave ratio
SXAPS	soft X-ray appearance potential spectra (-oscopy)
SXLS	Superconducting X-ray Lithography Source
T/R	transmit/receive
TAB	tape automated bonding
TACS	Total Access Communications System
TASI	time assignment speech interpolation
TAT	transatlantic telephone cable
TBBA	terephthal-butylaniline
TBDF	transborder data flow
TCAS	traffic alert and collision avoidance system
TCE	temperature coefficient of expansion

TCM	trellis coded modulation
TCNE	tetracyanoethylene
TCNQ	tetracyanoquinodimethane
TCP/IP	Transport Control Protocol/Internet Protocol
TCR	temperature coefficient of resistance *or* thyristor controlled reactor
TCXO	temperature compensated crystal oscillator
TDDB	time dependent dielectric breakdown
TDF	Technology Demonstration Facility *or* transborder data flow
TDHF	time dependent Hartree-Fock
TDI	time delay and integration
TDM	time division multiplex(ing)
TDMA	time division multiple access
TDMF	time dependent mean field theory
TDPAC	time differential PAC
TDR	time domain reflectometry
TDRSS	tracking and data relay satellite system
TDS	thermal desorption spectra (-oscopy)
TE	transverse electric
TEA	transversely excited atmosphere
TED	transferred electron device
TEGFET	two-dimensional electron gas FET
TEM	transmission electron microscopy *or* transverse electromagnetic
TEO	transferred electron oscillator
TEOS	tetraethylorthosilicate
TEXT	Texas Experimental Tokamak
TF	toroidal field
TFCX	Toroidal Fusion Core Experiment
TFEL	thin film electroluminescent
TFT	thin film transistor
TFTR	Tokamak Fusion Test Reactor
TGA	thermogravimetric analysis
TGFB	triglycine fluoroberyllate
TGS	triglycine sulphate
TGSe	triglycine selenate
THF	tremendously high frequency
THORP	Thermal Oxide Reprocessing Plant
THORS	Thermal Hydraulic Out-of-Reactor Safety Facility
THTF	Thermal Hydraulic Test Facility
TID	travelling ionospheric disturbance
TIG	tungsten inert gas
TIL	two interdigitation level
TJS	transverse junction stripe
TLD	thermoluminescent dosimeter (-ry)
TLM	transmission line matrix
TM	transverse magnetic
TMC	test module coil
TMHR	tandem mirror hybrid reactor
TMI	Three Mile Island
TMMC	tetramethylammonium manganese chloride
TMN	telecommunications management network
TMR	tandem mirror reactor
TMS	truth maintenance system
TMTSF	tetramethyltetraselenafulvalene (-inium)
TMTTF	tetramethyltetrathiafulvalene (-inium)
TMX-U	Tandem Mirror Experiment-Upgrade
TNS	The Next Step
TOF	time-of-flight
TOFMS	time-of-flight mass spectra
TOP	Technical Office Protocol *or* transient overpower accident
TPAD	time differential perturbed angular distribution
TPC	time projection chamber
TPD	temperature programmed desorption
TPTF	Two Phase Flow Test Facility
TQM	total quality management
TR^3	time resolved resonant Raman (spectra (-oscopy))
TRAPATT	trapped plasma avalanche triggered transit
TREAT	Transient Reactor Test Facility
TRM	thermoremanent magnetisation
TRRR	time resolved resonant Raman (spectra (-oscopy))
TRU	transuranic (waste)
TSC	thermally stimulated currents
TSD	thermally stimulated desorption
TSEE	thermally stimulated exo-electron emission
TSeF	tetraselenafulvalene (-inium)
TSeT	tetraselenatetracene
TSIC	thermally stimulated ionic currents
TSMA/PCD	tone sense multiple access/partial collision detection
TSR	terminate and stay resident
TSTA	Tritium Systems Test Facility
TTC	telemetry tracking and command
TTF	tetrathiafulvalene (-inium)
TTL	transistor-transistor logic
TTMP	transit time magnetic pumping
TTT	temperature-time-transformation *or* tetrathiatetracene
TTY	teletype terminal
TUCA	transient undercooling accident
TUCOP	transient undercooled overpower accident
TUNNETT	tunnel transit time
TV	television
TVRO	TV receive only
TW	travelling wave
TWA	travelling wave amplifier
TWOA	travelling wave optical amplifier
TWT	travelling wave tube
TWTA	TWT amplifier
UART	universal asynchronous receiver transmitter
UCHF	uncoupled Hartree-Fock
UCN	ultra cold neutrons
UHF	ultra high frequency *or* unrestricted Hartree-Fock
UHPS	underground hydroelectric pumped storage
UHV	ultra high voltage
UIMS	user interface management system
UJT	unijunction transistor
UKAEA	United Kingdom Atomic Energy Authority

ULA	uncommitted logic array
ULF	ultra low frequency
ULSI	ultra-large scale integration
UMD	unitised microwave devices
UNI	user-network interface
UPS	ultraviolet photoelectron spectra (-oscopy) *or* uninterruptible power supply
US	ultrasonic
USART	universal synchronous/asynchronous receiver transmitter
UTD	uniform theory of diffraction
UUT	unit under test
UV	ultraviolet
VAD	vapour phase axial deposition
VAN	value added network
VANS	value added network services
VAWT	vertical axis wind turbine
VB	valence bond
VBL	vertical Bloch line
VCCS	voltage controlled current source
VCO	voltage controlled oscillator
VCR	video cassette recorder
VCSEL	vertical cavity surface emitting laser
VCVS	voltage controlled voltage source
VCXO	voltage controlled crystal oscillator
VDM	vector dominance model *or* Vienna Development Methodology
VDMOS	vertical double diffused MOS
VDT	visual display terminal
VDU	visual display unit
VDW	van der Waals
VER	visual evoked response
VFD	vacuum fluorescent display
VFO	variable frequency oscillator
VGA	Video Graphics Array
VHDL	VHSIC Hardware Description Language
VHF	very high frequency
VHPIC	very high performance integrated circuit
VHSIC	very high speed integrated circuit
VHSOL	very high speed optical loop
VHV	very high voltage
VI&P	visual, intelligent and personal (communications)
VIPER	verified processor for enhanced reliability
VJFET	vertical junction FET
VLBI	very long base line interferometry
VLF	very low frequency
VLIW	very long instruction word
VLSI	very large scale integration
VM	virtual machine
VMOS	vertical channel MOS
VOR	VHF omnidirectional range
VPE	vapour phase epitaxy
VQ	vector quantisation
VRAM	video random access memory
VRC	visual record computer
VS	virtual storage
VSAT	very small aperture terminals
VSB	vestigial sideband

VSEPR	valence shell electron pair repulsion
VSI	voltage source invertor
VSP	vertical seismic profiling
VSS	variable structure systems
VSWR	voltage standing wave ratio
VTOL	vertical take-off and landing
VTR	video tape recorder *or* voltage transformation ratio
VUV	vacuum ultraviolet
VVER	water moderated water cooled reactors
VVVF	variable voltage variable frequency
VXIbus	VMEbus extension for instrumentation
WAN	wide area network
WARC	World Administrative Radio Conference
WASP	WSI associative string processor
WATS	wide area telecommunications service
WAXS	wide-angle X-ray scattering
WDF	wave digital filter
WDM	wavelength division multiplex(ing)
WECS	wind energy conversion system
WHT	Walsh-Hadamard transform
WIMP	weakly interacting massive particle *or* windows, icons, mice, pull-down menus
WIP	work in progress
WIPP	Waste Isolation Pilot Plant
WKB	Wentzel-Kramers-Brillouin
WORM	write once, read many times
WP	word processing
WR	Wolf-Rayet
WSI	wafer scale integration
WWER	water moderated water cooled reactors
WYSIWYG	what you see is what you get
WZW	Wess-Zumino-Witten
XANES	X-ray absorption near edge structure
XLPE	cross-linked polyethylene
XLS	X-ray Lithography Source
XOR	exclusive OR (logic)
XPD	cross-polarisation discrimination
XPS	X-ray photoelectron spectra
XRD	X-ray diffraction
XTEM	cross-sectional transmission electron microscopy
XUV	X-ray-ultraviolet
YAG	yttrium aluminium garnet
YIG	yttrium iron garnet
YTO	YIG tuned oscillator
ZBLAN	zirconium barium lanthanum aluminium sodium fluoride
ZBLANP	zirconium barium lanthanum aluminium sodium lead fluoride
ZCS	zero current switching
ZEKE	zero kinetic energy
ZGS	zero gradient synchrotron
ZIF	zero insertion force
ZMR	zone melting recrystallisation
ZPPR	zero power plutonium reactor
ZTP	Z toroidal pinch
ZVS	zero voltage switchin

Subject Index

1/f noise
- 1.2 μm CMOS-SOI technol. transistors, noise charactn., gamma ray effets 13728
- 1 Hz MOS integrated low-pass filter, high dyn. range/low distortion 29345
- bipolar transistor ccts., LF phase and amplit. noise 40381
- bipolar transistors 1/f noise parameters meas. and anal. 22371
- BJTs, 1/f noise coeffs. extraction 1351
- border traps, MOS radiation response/long-term reliab. 20494
- charge transport and device params. from noise meas. 3970
- CMOS transistors, flicker noise study 1383
- diode laser, opt. and elec. noise spectrum 14970
- diode lasers, LF light flucts. meas. tech. 1923
- electrocortical generators posn. estim. via subspace techs. 43320
- FET, phase and baseband 1/f noise correl. study 833
- fund. quantum 1/f noise in semicond. devices 1313
- GOES-I Imager, radiometric accuracy optim. 4382
- HTSC RF SQUIDs made by O-ion irrad., LF noise 39272
- LF noise in quantum point contacts 22031
- magnetostrictive fibre-optic sens., transducer self-noise 17883
- MOS devices, 1/f noise and radiation effects 1382
- MOS transistors, 1/f noise, mobility or no. flucts. 1380
- MOS transistors, carrier multiplication noise sources, low freqs., correl. meas. 1388
- MOSFET 1/f noise, plasma etching induced gate oxide degrad. effect 22419
- MOSFET 1/f noise, plasma-etch-induced gate oxide degrad. effects 22441
- MOSFETs, current flucts., device scaling 1386
- MOSFETs and interconnects, model for 1/f noise 22412
- n- and p-MOSFETs, gate-voltage dependencies of 1/f noise 1381
- n-channel power MOSFETs, irrad., possible sources of 1/f noise 13717
- NMOSFETs with nitrided-oxide, high-field mobility enhancement 1390
- opt. PLL, amplit. modulated commun. link 42347
- polysilicon emitter bipolar transistors, LF 1/f noise 38820
- polysilicon emitter bipolar transistors, reduction of 1/f noise 13657
- polysilicon n-p-n emitter bipolar transistor base current, 1/f noise anal. 22373
- quantum 1/f effects in freq. stds. 34328
- radiation-hardened CMOS for cryogenic analog appls. 30447
- reliab./quality diagnostic tool for electronic devices 1315
- SAW resonators, perturb. theory appl. 30653
- semicond. device 1/f noise sources, models 1320
- semicond. devices, carrier fluct., excess noise generation 22348
- semicond. elements, 1/f noise and wandering defects 13585
- semicond. field emitter, LF noise 12994
- semicond. LDs, elec. and opt. photocurrent noises correl. 1922
- semicond. materials/devices, hot carrier flucts./noise 1321
- submicron MOS transistors degrad., 1/f noise spectral dens. 22463
- universality in high-technol. appls. 34313
- Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
- AlGaAs/GaAs HBTs and assoc. TLM test structs., excess noise 1352
- AlGaAs/GaAs power HBTs, self-aligned, LF noise characts. 13648
- AlGaAs-GaAs HBTs,current gain long-term instabil., model 38847
- GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891
- GaAs MESFET varactor tunable oscillators, noise calcs. 21565
- GaAs devices, plasma-assisted passivating proc., LF noise meas. 13410
- Ge:Ga(As), 1/f hopping noise 29837
- HgCdTe IRFPA nonuniformity correction algm., real-time hardware prototype 17948
- $Hg_{1-x}Cd_xTe$ MIS IR detectors, 1/f noise, temp. depend. 17768
- InP/InGaAs HBTs, nonstationary 1/f noise 22356
- PbI_2 X-ray detectors, electronic noise 18320
- PbS photosensitive layers, charge carrier transfer and recomb. 39548
- a-Si:H nip and pin diodes, 1/f noise anal. 38798
- Si-SiGe self-aligned HBT, 1/f noise charactn. 22364
- Si-SiO_2 MOSFET interface, indiv. interface traps 13758
- 6H-SiC JFET, 1/f noise phenom. 1436
- SiC JFETs, LF noise anal. 38279
- YBaCuO HTSC bi-epitaxial DC SQUIDs, FIB etching from single jns. 39276
- $YBa_2Cu_3O_{7-\delta}$, thin-film microbridges, normal state, 1/f noise 22737

2-6 semiconductors *see II-VI semiconductors*

2D digital filters *see two-dimensional digital filters*

2D electron gas *see two-dimensional electron gas*

2DEG *see two-dimensional electron gas*

3-5 semiconductors *see III-V semiconductors*

3-6 semiconductors *see III-VI semiconductors*

3D displays *see three-dimensional displays*

3D TV *see three-dimensional television*

4-6 semiconductors *see IV-VI semiconductors*

A-centre lasers *see colour centre lasers*

A-centres
- $Cd_{1-x}Zn_xTe$:In, pure and doped, doping induced defects, photolum. obs. 22142
- Si, surface mech./pulsed photon proc., DLTS 13351
- Si:B,O, heavily doped, interstitial O conc., neutron irrad./FTIR anal. *(English)* 6612

A/D conversion *see analogue-digital conversion*

abacs *see nomograms*

abductive inference *see inference mechanisms*

aberrations

aberrations in optics and particle optics only
see also lenses; particle optics
- achromatic diffractive fan-out systs. 39448
- achromatic diffractive optics, LD fibre optic coupling 39445

aberrations continued
- annular color filters, opt. syst. polychromatic response control 39541
- astigmatic telescope for lasers, annular gain medium cross sect. 31461
- bacteriorhodopsin SLM, opt. proc. 31672
- bent gratings, focusing props., cylindrical wavefront generation 15170
- bispectral speckle near-diffr.-limited imaging, unknown aberrations 24653
- catadioptric opt. syst., unit magnification develop. 31053
- CCD images, readout noise compensation 24495
- co-planar multiple-ring electrostatic particle-beam lenses 15250
- cryst.-cored fiber second-harmonic wave focusing optics 1778
- diffractive opt. element design for opt. sig. proc. 32944
- direct reconstruction of LLFT X-ray hologram, vis. light 31664
- dual focus opt. head, HOE for disk reading 30837
- electron opt. benches, aberrations/LEEM appls. 1011
- electron-beam tester, mag./electrostatic lens collimation 37038
- ellipsoidal holographic grating, geometric theory 7808
- EUV projection lithog., diffr. mirror optics 38722
- flat-field broadband planar waveguide spectrograph design 39457
- Fraunhofer in-line holography, Rayleigh/Marechal spherical aberration tolerance 7815
- GRIN fibre syst., third-order aberrations, recursive formulations 30900
- HOE, wave front aberration minimisation 31642
- hologram double exposure recording, meas. sensitivity enhancement 7824
- hologram wavefront reconstruction, quantitat. schlieren method 40130
- holographic focusing lens design, FT systs. 15169
- holographic image reconstruction, time-multiplexing, aberration correction 23473
- holographic lens, constr.-reconstruction wavelength shift, image aberrations 31683
- holographic lenses, iter. correction 15179
- holographic memory diffr. interf., stat. charact. 22784
- holographic telephoto dublet lens syst., achromatization 7819
- hypersonic vehicle image resoln. rel. to turbulence random phase var. 33017
- ion projection lithog., electrostatic column 13463
- ISKRA-5 facility I laser opt. syst. wavefront anal. 7539
- laser beam cross-sect. conical converters, mutual error compensation 31459
- laser beam homogenizer design for material proc. *(Japanese)* 20422
- laser beam quality, quartic phase transmittances 31466
- laser systs., diffractive and binary optics 31138
- lateral-shear holographic interferograms, spatial filtering 7823
- lens design, global optim., escape fns. 39528
- lens design, least-sq. optim. line search 7444
- lenslet array opt. neural network, coaxial archit. 22973
- Markle-Dyson gapped syst., qtr.-micron lithog. 13505
- microcolumns, electron-electron scatt. 15244
- multichannel laser measuring systs., resolving power adaptive correction 15201
- nanotechnology, FIB technol. 38761
- off-axis holographic lens extended obj. imaging 15159
- opt. disks, eye-diag. jitter, source wavelength, aberration and noise effects 30833
- opt. intersatellite commun., LD transmitter 17173
- pattern projection by conventional, diffractive optics 15173
- phase diversity as on-line wavefront sens., expt. results 16217
- phase diversity to extract higher order Zernike coeffs., lab. expt. 16216
- phase retrieval methods for opt. diffr. tomography 23456
- phase-diverse speckle reconstruction of solar data 16211
- phase-shifting masks, lens aberrations 13502
- pickp-up opt. head syst. tolerance used in phase-change opt. disk *(Chinese)* 14337
- refr. microlens fab., preshaping photoresist 7441
- retarding field lenses, Coulomb effects 15243
- scanning LLL X-ray interferometers, Takagi eqns. appl. 18424
- single-mode laser, intracavity adaptive mirror output charact. 31448
- slab solid-state geom. lasers, astigmatic compensation *(Chinese)* 14800
- soft X-ray projection lithog., opt. design *(Japanese)* 13439
- telephoto lens, focus error detect., astigmatic method 31055
- turbulence-induced phase error param. dimens., estim. in phase diversity 16214
- two-beam LD, focusing charact., appls. to opt. head 31479
- visor-display design, planar holographic optics based 31659
- vol. holography for one-way image transm. and reconstruction 8661
- water recorded holograms, precision in-air replay 7852
- wedge plate interferometric laser beam tester 31476
- $AgGaSe_2$, thermal lensing modeling, laser beam aberration 7765
- $BaTiO_3$ photorefr. cryst. for laser wavefront correction 30818
- $Bi_{12}SiO_{20}$ real time opt. correlator 33083
- Cu vapour lasers, beam quality improvement, SBS phase conjug. 31185
- I high-power pulsed lasers, wavefront profile meas. by Hartmann method 14702
- Na vap., nonlin. laser beam propag., phase sing. 31526
- Nd:YAG double-pass laser amp., NLC phase-conjug. mirror 7600
- Nd:YAG four-pass laser amp., phase conjug. NLC mirror 23160
- Nd:YAG high-power solid state lasers, improved beam quality 31262
- Nd:glass diffr.-limited laser amp., SBS wavefront correction 23144
- SiO_2 fibres, transm. props., Nd:YAG multimode CW laser 30853
- SiO_2, fused, microlens arrays, RIE 14493
- SiO2, multimode fibre, SBS phase conjug., distortions compensation 1671
- $ZnGeP_2$, thermal lensing modeling, laser beam aberration 7765

aberrations (visual) *see vision defects*

abrasion

see also hardness; wear
- chem. mech. polishing abrasive slurries, IC dielec./metallization 38571
- hermetic motor insulation reliab., HFC refrigerants, oils *(Japanese)* 11486
- microbending fiber optic sens,, varying spatial freq. 34535

- **abrasion** continued
  - particulate/ME mag. tapes sliding against Mn-Zn ferrite head in lin. mode, friction/wear 7165
  - silica glass polishing, diamond abrasive, water incorporation effects 38568
  - wafer chem.-mech. polishing, combined asperity contact and fluid flow model 1263
  - wafer dicing process optim. 38956
  - CO_2 jet spray cleaning of mol. contaminants 30111
  - Cu thin films, chem. mech. polishing, surface layer form. 38572
  - Cu-matrix Mo particle composite low thermal expansion conductor 12198
  - SiO_2 opt. fiber, Vicker's indentation modeling 14358
  - SiO_2 surface damage, chem. mech. polishing on IC-60 pads 38576
- **abrasive wear** *see abrasion*
- **absolute pressure measurement** *see pressure measurement*
- **absolute stability**
  - slotted third-harmonic gyro-TWT amp., 95 GHz, tests 29811
- **absolute temperature** *see temperature*
- **absorbers (surge)** *see surge protection*
- **absorption**
  - *for absorption of substances see sorption*
  - *see also acoustic wave absorption; electromagnetic wave absorption*
  - gas turbine intake air cooling, absorpt. chiller-based 27567
  - nuc. rocket, closed-cycle gas core, thermal rad. absorp. effects 4369
  - patterned wafer RTA/RTCVD, thermal radiation absorpt. charact. 22229
  - semiactive control for vibr. atten. 5916
- **absorption coefficients**
  - all-opt. adder based on soliton interact. props., theoretical model 14557
  - chromophore-incorp. polymers for nonlin. optics, two-photon absorpt. and photodegradation 15138
  - dielec. props. meas., organic liqs., 890 GHz 18032
  - glass:Nd, excimer laser ablation, thresholds 30120
  - intersubband optics for symmetric and asymmetric quantum wells, wires and dots 40046
  - laser window materials, intens.-depend. transm. props., 193-nm irrad. 22775
  - organic PV cells, excitonic light collection, high carrier mobilities 27937
  - phosphate laser glasses, platinum-inclusion dens., proc. gas environ. effects *(German)* 37543
  - polydiacetylene waveguides, nonlin. absorpt. 31513
  - SiO_2 fused fibre, pulsed UV laser radiation, photodegradation and nonlin. effects 39362
  - variable attenuator for KrF laser radiation 39679
  - Ag_2As-As_2S_3 glasses, opt., elec. props. 38264
  - AlGaAs all opt. switching waveguides, three-photon absorpt. 22912
  - AlInAs/InP type-II superlattice, elec.-field induced excitons, opt. studies 6555
  - CdS sprayed thin films, opt. and elec. props. 21902
  - CdS waveguide cavity microlaser, losses, spectrum crevasse appearance 39862
  - $(CdS)_x$-$(PbS)_{1-x}$ thin-film composites, prep., props. 20913
  - Cu-Al-S syst. sensitized with rare-earth elements, blue-to-green phosphor 23007
  - Er^{3+}:ZBLAN fiber laser, 2.7 μm output saturation 39701
  - GaAs, δ-doping superlattices, pot. flucts., quantum effects 13167
  - GaAs nanocrystal doped glass, time resolved pump/probe Z-scan study 40067
  - GaAs p-n jn., Franz-Keldysh electro-absorpt. effect 1082
  - GaAs symmetric/asymmetric QW struct., lin./quadratic electrooptic effects 21999
  - GaAs/AlAs opt. differentiator, Wannier-Stark localization, space charge screening 14504
  - GaAs/AlAs, single-wavelength all-opt. phase modulator 2106
  - GaAs/AlGaAs MQWs, nonlin. index saturation in bandtail absorpt. region 13172
  - p-GaAs/AlGaAs superlattices, heavily-doped, IR photodetector appls. 3836
  - GaAsP-Si 2 terminal tandem solar cells 20008
  - HgCdTe heterojunction photodiodes, built-in elec. field 14612
  - InAs/$Ga_{1-x}In_xSb$ superlattices for long-wavelength IR appls. 17799
  - InGaAs/GaAs quantum wells, strained, absorpt. coeff. and refr. index 1136
  - $In_{0.53}Ga_{0.47}As/In_{0.40}Ga_{0.60}As$ superlattices, Wannier-Stark effect 1138
  - InGaAs-InAlAs asymmetric coupled QWs, elec.-field-induced refr. index changes 21980
  - InGaAs-InGaAlAs-InAlAs coupled QW chirp-free electroabsorption modulator 22937
  - InGaP-Si 2 terminal tandem solar cells 20008
  - InP nanocrystals in porous glass, nonlin. absorpt. and refr. 31514
  - InP:Fe, semi-insulating, charge transfer 13047
  - $Pb_{1-x}Sn_xTe_{1-y}Se_y$:In, epitaxial layers, photocond. 13095
  - $ReSi_2$ thin film photoresistor, IR detect. appls. 34501
  - SO_2, absorpt. cross sects., differential absorpt. laser spectrosc. 26009
  - a- Si:H films, optical consts. and thickness determ., opt. transmittance 25986
  - a-SiC:H films, plasma CVD, opt. props. 20980
  - Tm:$YAlO_3$ 1.94-μm laser, biomedical appls. 39731
  - YAG:Nd, excimer laser ablation, thresholds 30120
  - Y_2O_3 MIM capacitors, elec./dielec./opt. props. 22082
  - ZnO films, spray pyrolysis prep., opt. and elec. props. 12143
- **absorption spectra** *see spectra*
- **absorption wavemeters** *see wavemeters*
- **abstract data types**
  - *see also data encapsulation; inheritance*
  - POP3 mail client, WinSock 41731
  - semicond. wafer CAD, C++ design and implement. 12293
  - validation of abstr. test suites, SDL 24828
- **abstract machines** *see finite automata; program compilers*
- **AC-AC power convertors**
  - 3-phase AC-AC matrix converters, unbalanced supply 36350
  - 100 MVA IGBT reson. AC/AC power converter design 5111
  - 400 V/10 A matrix power converter, induction motor drive appls. 19811
  - AC/DC/AC PWM power converters, DC link energy storage reduction 36343
  - act. DC link filter 5130
  - back-to-back power converters, capacitor minim. 5118
  - DC link power converter, induction motor drive appls. 44450
  - direct AC-AC matrix power convertor, AC motor appls. 19738
  - electroluminescent lamp, power supply, SC AC-AC converter *(Japanese)* 20124
  - first harmonic approach, syst. modelling, cond. mode *(French)* 29011
  - IEEE power electronics conf., Seattle, USA (June 1993) 36843
  - induction motor drive freq. converters, IGBT-based 44456
- **AC-AC power convertors** continued
  - matrix converter, low loss, input filter design 5132
  - multiphase AC power converters, modular interface/algm. 19880
  - multiphase series-reson. power converter, novel topol. 19721
  - notching current source AC/AC converters, soft switched PWM 19746
  - PWM AC/AC power convertor, freq. control method 29044
  - PWM power converters, vector control studies 5117
  - quasi current reson. DC link AC/AC converter 11115
  - reson. converters, LF waveforms modulation 44201
  - switched-mode AC/AC voltage regulator, anal., design 5113
  - three-phase AC-AC power convertor, cct./control anal. *(Japanese)* 11191
  - three-phase AC/AC power converters, power quality issues 36276
  - three-phase PWM AC/AC converters, power conditioning appls. 36277
  - vector control, min. energy storage 19758
- **AC-DC power convertors**
  - *see also rectifying circuits*
  - 1.5-7 kW HF ZVS full-bridge MOSFET-based rectifiers 19802
  - 1 kW AC/DC power factor pre-regulator, ZVS-PWM topology 19874
  - 1 kW third-harmonic modulated AC/DC power electronics interface 44213
  - 1-phase supply, drive appl., DC/AC outputs control, thyristor ccts. 5343
  - 3-phase DC clamped switch mode rectifier, IGBT 19747
  - 3-phase PWM AC/DC converter, voltage unbalance, harmonics *(English)* 27811
  - 3-phase ZVS-PWM rectifier, reson. DC link, digital control 5068
  - 3φ phase controlled converter, software-based controller eliminating LF harmonics *(Korean)* 36370
  - 7 kW three-phase soft-switched telecom. rectifier 19799
  - 48 V DC reson. power converter distributed power supply 5049
  - 1500 W single-phase rectifier, high power dens. 19865
  - AC locomotive PWM rectifiers, harmonic current calcs. 36760
  - AC machine, alternating to direct voltage conversion, transducer *(Polish)* 43977
  - arc welding forward PWM inverter power source anal. *(Chinese)* 44633
  - bi-directional AC/DC power converter, independ. reactive power control 36351
  - boost power converter, high PF, cct. anal. *(Japanese)* 11189
  - buck rectifier, unity PF, nonlin. ripple feedback 36244
  - buck rectifiers, supply voltage imbalance anal. 5994
  - current power converter transformers, short-cct. inductance calcs. 19771
  - current source PWM rectifier cct. studies 44181
  - DC converted power systs., energy conservation benefits 35615
  - DC link power converter, induction motor drive appls. 44450
  - DC power supply, two-phase induction generator-based 5110
  - digital PLL for power conversion ASIC, implementation 21393
  - discontinuous current mode series-parallel reson. converter 37623
  - discontinuous PWM preregulators, conducted EMI reduction 11161
  - distrib. network AC/DC power convertor harmonics, load modelling 35638
  - distributed power archits., bus voltage level comparisons 36325
  - double-rectifier multilevel-voltage source diode bridge ccts. 19842
  - elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
  - fixed-freq. phase-controlled full-bridge reson. converter 19715
  - full-bridge series-reson. rectifier, telecom. appls. 19831
  - harmonic pollution anal. 36377
  - harmonics elimination, current injection method 44125
  - high PF convertor, single-switch single-stage 29041
  - HV soft recovery rectifiers, motor control appls. 27802
  - HVDC converters control, microcontroller appl. 19239
  - line current harmonics, predeterm. 44124
  - lossless SC AC/DC converter 6007
  - LV high output current AC/DC converter, boost struct. 19727
  - LV high-current DC rectifiers, transformer series connection 12336
  - MCT phase controlled rectifiers develop. 27833
  - modulated-freq. boost AC-DC preregulator, model 19804
  - multi-reson. ZVS power convertor, rectifier deadtime controlled 44189
  - parallel reson. power converter, half-cycle current control 19714
  - power electronics conf., Cuernavaca, Mexico (Aug. 1993) 11564
  - power source voltage sensorless 3-phase PWM AC/DC converter *(Japanese)* 27793
  - power syst. harmonic waveform distortion, computer simul. 4481
  - pre-regulator IC, lateral IGBT and current mode sens. 29037
  - PWM AC-to-DC voltage-type convertors, current control 5062
  - PWM AC/DC power converter, current control studies 5070
  - PWM controlled AC/DC power converter, improved PF 5059
  - PWM converters, on-line optimal control 36247
  - PWM current-source rectifier, input harmonic filter design 19851
  - PWM GTO power converters, high-speed train appls. *(Korean)* 28120
  - PWM power convertor, quasi-optimal control 44165
  - PWM power convertors, common mode conducted RFI emissions 5072
  - PWM rectifier, state feedback nonlin. control 11153
  - PWM rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
  - PWM voltage-type rectifier, I-V control studies 19796
  - quasi-reson. AC/DC forward power converter topol. 44145
  - rectifier input current harmonic distortion, stds. 44149
  - rectifier power supply, telecom. services appls. 19829
  - rectifier telecom. power supplies, digital current control 19797
  - SCR bridge rectifier, common mode currents studies 19845
  - single phase AC/DC converter, PF correction, reduced losses 44182
  - single-phase AC/DC low-harmonic power convertor 44168
  - single-phase IGBT switch-mode rectifier *(Japanese)* 11187
  - single-phase telecom. supply PF correction cct. 41627
  - six-pulse power convertors, steady-state modelling 44123
  - SMPS power converters, planar integrated filter/snubber cct. 19763
  - soft switching PWM power converter, SMES appls. 11176
  - soft-switched current-fed PWM inverter, struct., appls. 19735
  - soft-switched PWM current source rectifier/inverter 11145
  - soft-switched PWM power converter struct. 36344
  - soft-switched PWM rectifiers, perform. improvement 11173
  - static power converter interactive control syst., computer simul. *(French)* 27800
  - switch-mode magnet power supply, modelling and control 29027
  - switched power harmonic filters, anal., appls. 19741
  - switched-mode AC/AC voltage regulator, anal., design 5113
  - telephone network DC power supplies, modular, intell. 19871
  - TENOR, telecom./computer power supply, distrib. energy storage 12334
  - three phase ASD PWM rectifier, neural net-controlled 5120
  - three-level rectifier/inverter, force-commutated 19733
  - three-phase AC-DC low harmonic boost rectifier topol. 36275

AC-DC power convertors continued
- three-phase AC/DC boost rectifier, feedforward-feedback control 36374
- three-phase AC/DC power converters, harmonics reduction 19798
- three-phase AC/DC PWM ZVS power convertor develop. 5082
- three-phase AC/DC step-up power convertor anal. 36372
- three-phase AC/DC ZVS power convertor topol. 19839
- three-phase bidirectional PWM power convertor config. 5126
- three-phase bridge rectifier, self-excited generator appls. 11179
- three-phase current-controlled reversible AC-DC converter 11183
- three-phase diode bridge rectifier, harmonic currents calc. 11119
- three-phase diode rectifier, PF/harmonics improvement 19850
- three-phase diode rectifier utility interface, harmonics reduction 19751
- three-phase double diode PWM rectifier syst. *(Japanese)* 36347
- three-phase GTO rectifier, harmonic distortion reduction *(Polish)* 27789
- three-phase IGBT rectifier, low harmonic pollution 19846
- three-phase isolated PWM ZVS buck rectifier 36243
- three-phase PWM rectifier, unity PF microcontroller 44177
- three-phase quasi-reson. AC/DC transistor power converter 5074
- three-phase rectifier, deadbeat neural net predictive control 11174
- three-phase series reson. act. power filter 19739
- three-phase single-switch AC/DC buck-boost power converter 19841
- three-phase single-switch PWM rectifier develop. 5127
- three-phase single-switch rectifier studies 19847
- three-phase step up/down AC/DC power convertor 19711
- three-phase ZVS AC/DC act. power convertor 19840
- thyristor AC/DC power convertor, naturally commutated, SVC appls. 43667
- thyristor power converter, short-cct. current protection *(Polish)* 27790
- uninterruptible AC/DC power converter develop. 5073
- UPS, half-bridge inverter/converter cct. 44200
- utility-grid interactive three-phase inverters 5083
- variable speed drives, CASED educational software program 44442
- ZVS PWM power converters, saturable reson. inductor anal. 19762
- GaAs power diodes, PF correction boost converter appls. 36284
- GaAs rectifier PF correction cct. tests 36324

AC generators
- *see also asynchronous generators; synchronous generators*
- aircraft AC generators, forced power transfer, dyn. modelling 26657
- control syst. design, ES-based interpolation methods 19494
- DC converted power systs., energy conservation benefits 35615
- nonlin. excitation control, stabil. *(Chinese)* 36088
- power supply, instantaneous current distortion compensation *(Japanese)* 10964
- standby generators, grounding/ground fault protection 43992

AC machines
- *see also AC generators; AC motors; asynchronous machines; synchronous machines*
- alternating to direct voltage conversion, transducer *(Polish)* 43977
- digital transient torque meas. 10951
- electromechanical energy convertors, develop. overview *(Russian)* 43993
- load simulator, local vector control 28069
- PWM invertor-fed, transducerless posn./vel. estim. 36100
- PWM VSI, AC machine control appls., perform. improvement 5043
- Schering bridge sensitivity and convergence for AC machine anti-discharge varnish ageing tests *(French)* 9973
- sealed insulation syst. thermal eval., IEEE std. 27670
- smooth rotor, end-region 3D pulsation mag. field 44004
- three-phase AC machine switching power converters, current control 44179
- transducerless posn./vel. control 4910
- SiC dispersion varnish VLF capacitive props. *(French)* 10935
- SiC dispersion varnish nonlin. resist. and capacitance *(French)* 10936

AC motor drives
- *see also induction motor drives; synchronous motor drives*
- 2.2-1500 kW SIMOVERT MASTER DRIVE power convertors, AC drive appls. 44216
- adaptive predictive control algm., param. var., motion regulation 27875
- aluminium cold rolling mill, AC drives, control syst. 44490
- anti-directional-twin-rotary motor drive, elec. vehicle 5360
- ASD, DSP technol. appl. 44486
- ASD, torque/speed/posn. control, trends 20065
- asynchronous μP control design 36637
- brushless AC motors, digital servo amp. concept 11338
- converter-fed, side effects 11373
- CSI-fed, exact lin. H_∞ control *(Japanese)* 28063
- current trajectory tracking control, sync. PWM 5311
- direct torque control 36649
- elec. scooter, axial flux PM motor drive, wheel coupled 11401
- foil/film indust., AC drives appl. 44634
- industrial drive control systs., DSP based tool 44441
- inverter design, optocouplers 28073
- inverter-AC motor motor drive syst., param. ident. 5249
- invertors, circ. space vector modulation control 44481
- on-line unity PF PWM rectifier 5305
- opt. telescope, direct drive, low cogging torque PM brushless motors 11320
- Panasonic AC servo motor, MINAS series *(Japanese)* 10930
- power electronics conf., Cuernavaca, Mexico (Aug. 1993) 11564
- prog. high speed digital control 44498
- PWM invertor AC motor drives, chaotic current control anal. 44480
- PWM VSI, tolerance band control chaotic procs. 5065
- PWM VSI AC motor drives, sync. quasi-vector control 11351
- reliab. anal. for crit. appls. 36639
- rly. traction vehicles, tractive factor calcs. *(German)* 28105
- servomotor drives, AC-flux-vector control 28074
- six-step power convertor-fed, anal. 20082
- soft-switched current-fed PWM inverter, struct., appls. 19735
- spacecraft, 3-phase PM step motor simul. 35230
- state-of-the-art, overview 44453
- steel rolling mill two-inertia syst. control *(Japanese)* 11501
- switch-controlled drive ccts., EMTP compatible algm. 5244
- three-phase AC motor drives, freq. converters, interf. suppression 5042
- three-phase AC/DC universal traction drive syst. design 44542
- tube mill, drive control syst. 20162
- two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638
- two-phase direct-drive motor for camcorders zoom lens barrel 42635
- variable speed AC motor drive testing, dynamometer control 5293
- variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
- variable speed cycloconvertor AC drives, vector control simul. 5267
- variable speed drives, design specs. 20062

AC motor drives continued
- VSI-fed PWM motor drives, predictive fuzzy control 5273

AC motor protection
- *see also synchronous motor protection*
- AC motor failure, steep fronted switching surges 19590
- polyphase motor protection principles and ccts. *(Italian)* 10941

AC motors
- *see also AC motor drives; AC motor protection; capacitor motors; commutator motors; induction motors; synchronous motors*
- digital AC servo motor for welding robots *(Japanese)* 11078
- direct AC-AC matrix power convertor, AC motor appls. 19738
- external mag. field prediction 27673
- failure, steep fronted switching surges 19590
- flexible struct. attached, H_∞ posn. controller design 10967
- four-quadrant digital control scheme 10954
- indust. robot/CNC machine tool digital joint motion controller 11509
- locomotives, slip vel. feedback torque control *(Japanese)* 11407
- multirate motion control algms. parallel proc. 10966
- PM AC motors, rotor flux posn. indirect sens. method 4909
- PM AC servomotor digital controller, appls. 43979
- PM brushless motors, EM/thermal design 36104
- PWM inverters, AVS method, dead time compensation *(Japanese)* 11120
- PWM invertor optimal PI current control, neural net-based 19734
- round-annealed AC-motor magnet prod. and meas. technol. *(German)* 10939
- servomotor integrated single-output sig. rotary encoder 10934
- servomotors, digital control, syst. dyns. *(Korean)* 36214
- space/aircraft actuators, integrated control *(French)* 10952
- traction motors, Class 200 armature insulation syst. 11395

AC network analysers *see network analysers*

academic libraries
- East Carolina Univ. library, migration, client/server computing 8978
- Internet, sharing resources in academic libraries and inform. centres 16721
- interneted library syst., Hahnemann Univ. 16766
- journal articles, transm. via Ariel software *(Hebrew)* 41791
- networking for learning, Newham Community College Library 8977
- public-access PCs, Mosaic Internet client 41804
- Univ. of California, Santa Cruz, library data wiring replacement 16757

accelerated testing *see life testing*

acceleration
- *see also acceleration control; acceleration measurement; accelerometers*
- manoeuvring target tracking, adaptive interact. multiple model algm. 25554
- railguns, composite electrodes, crit. current dens. 15364

acceleration control
- *see also acceleration measurement*
- capacitor discharge induction launcher model, validation 15314
- generator brake, thick film resistor 4906
- high-speed vehicle convoy, control feasibility simul. *(Japanese)* 28107
- induction motor drives, discrete-time sliding mode digital control 11390
- lin. motor EM accelerator, turbulent hydrodyn. mix studies 15278
- SAMCO-i high-perform. general-purpose inverters for induction motor drive *(Japanese)* 36340
- sync. DC motors, nonlin. control 27754

acceleration measurement
- *see also acceleration control*
- automobile chassis control G-sens., develop., commercialization 5374
- long. vehicle dist. control, meas. error effects *(Japanese)* 10028
- mag. sens. for tracking devices 34438
- microsystems design, syst. concepts approach 22629
- μP meas. IS for params. of motion 3747
- railgun plasma armatures, dyn./struct. studies 15333
- SC-cut quartz resonator, fab. imperfections effects 30606
- Si microelectronic sens. 34440

accelerator cavities
- DAΦNE, bunch length control, higher harmonic cavity 26061
- DAΦNE, RF cavities, broadband waveguide, coaxial transit., HOM damping 18287
- disk-loaded travelling wave accel. struct., props., scaling laws 4095
- EM field, wire effect 26079
- high gradient supercond. cavities, SEM study 4055
- high power pulsed RF supercond. accelerator cavities 4054
- LEADS program, lin. and electrostatic accelerator beam dynamics 34833
- LEP2 at CERN, cryoplants 4037
- LEP2 cryogenics control syst. archit. 4036
- lin. standing wave accelerators, GHz region *(English)* 43004
- LISA supercond. linac, operation and perspectives 43023
- mismatches, emittance growth control, stellarator transport 26041
- Nb sputter-coated Cu Quarter Wave resonators 4050
- relativistic klystron two-beam accelerator for beam-break-up suppress. 34828
- rf cavities, ferrite garnet-tuned, mag. losses/instabil., synchrotron 18269
- RF cavities, HV, conditioning, fuzzy logic/rule based prog. 18273
- RF LINAC, basic 4128
- RF-accelerator klystron amps., nonoptimum operating conditions 43009
- RF-cavity, coupled, energy storage cavity, heavy beam loading accelerators 26035
- SOLEIL project, 2.15 GeV positron storage ring, tech. aspects 18281
- standing wave FEL two-beam accelerator, beam-break-up 34823
- standing wave struct., cavity coupling states, losses 26082
- storage ring, long. coupled-bunch instabil. suppression 4088
- supercond. accel. cavities, standing wave, transient state 18270
- three-cavity syst., coupled-bunch instabil. 18286
- He cryoplants in CERN SPS, control aspects 10080
- Nb coated 1.5 GHz accelerating cavities, supercond. props. 4049

accelerator control systems
- 500 kV LIA-30 radial line charging Marx generator pulsed power supply 34753
- ACNET control syst., smart subsystems, shell software 18231
- AGS accelerator distributed control syst. alarm, obj.-oriented design 18192
- ALEPH expt., LEP, slow control syst. 18304
- ALS, obj.-oriented software constr. 18227
- ALS accelerator control syst. status 18187
- AmPS magnet control syst. 18276
- APS, control displays, rule-based ES 18219
- APS, hardware supported by control syst. 18203
- APS accelerator and control syst. 18173
- BEPC accelerator control syst. design 18195
- CEBAF accelerator control syst. upgrade 18189
- CERN accelerator control, commercial indust. control syst. integrat. 18238

accelerator control systems continued
CERN accelerator control, VME std. analogue fn. generator 18193
CERN of indust. control components 18237
CERN PS accelerator, control syst. overview and status 18182
CERN PS accelerator, timing syst. 18183
CERN PS accelerator complex, data driven alarm syst. 18202
CERN PS accelerators, operator interface 18222
conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
Cortex quasi-real-time IS, build HEP control systs. 18241
COSY, digital phase control syst. design *(German)* 43014
COSY accelerator facility, steering/timing syst. solns. 18201
COSY control syst., RT/OS environ. 18209
DANTE control syst. for DAΦNE, Macintosh/LabVIEW based 18236
DELPHI distributed IS, LEP appl. 18210
distributed control syst., stand-alone Internet nodes appl. 18200
ELETTRA insertion devices, init. operation 43011
EPICS, obj.-oriented enhancement 18235
EPICS control syst. software develop. 18240
equipt. access software, distrib. UNIX-based accelerator control 18208
ESRF distrib. control syst., access control/security 18213
ESRF linac, obj.-oriented control syst. 18185
ESRF source, target specs., SR source 18245
fast front-end computer design 18232
Fermilab accelerator control syst., user actions, program recording 18226
GANIL ion accelerator, control syst. 18184
generic software tool kit, accelerator distributed control 18233
HIMAC synchrotron control syst. 18175
IUCF polarized ion source, beam transport syst. 18259
K4-K10 storage ring, bus controller for MIL-1553B/Multibus II 18211
KEK e^-/e^+ linac control syst., VME and workstations 18191
KEK PS magnet power supplies and beam line control 18260
KEKB bunch feedback systs., 2-tap digital filters 43015
LAMPF data acquisition and control syst., virtual data syst. 18217
LEP2 cryogenics, large indust. control syst. appl. 18239
LEP2 cryogenics control syst. archit. 4036
LEP accelerator beam dump control syst. 18198
LEP accelerator pretzel separators, control syst. 18261
LEP high level control syst., ORACLE online database 18234
LEP operation, high level appl. software 18223
LEP/SPS control syst. computers, installation, mgt. 18225
lin. reson. electron linac, control syst. 18178
LISA, supercond. linac, control syst. commissioning/operation 18179
MAMI control, graphics operator interface 18224
NSLS accelerator control syst. upgrade 18188
opt. fiber links, radiation effects, SSC 18206
persistent software objs. approach, accelerator devices 18199
PS, beam control feedback loops, instabil. 4087
PSI accelerator control syst. and tools 18194
RHIC accelerator control syst. design 18172
SARA, control systs., PCs 18242
SIBERIA SR source control syst. 18262
SPS/LEP commun. control network evol. 18197
SRRC accelerator control syst. design schemes 18218
SRRC storage ring, computer control and instrumentation syst. 18174
SSC, high level control code, interactive simulator 18220
SSC accelerator proc. control syst. 18177
SSC accelerator systs. string test software archit. 18176
SSC control syst., develop. environ. 18229
SSCL, RF control, obj. oriented design approach 18277
State Notation Language, run-time sequencer, accelerator control 18278
supercond. supercollider pulsed power supply thyratron modulators 34750
TR13 H^- cyclotron control syst. for automatic isotope prod. 18180
TRISTAN accelerator control syst., rejuvenation status 18190
TRISTAN accelerator tune, workstations, digitalised sigs. 18275
Tritron tandem control syst. status report 18181
TRIUMF, device access, C++ on VAX/OpenVMS 18230
TRIUMF accelerator central control syst. upgrade 18186
TRIUMF control syst., DEC TURBOchannel, CAMAC exec. crate interface 18205
UNIX based syst. tools, control room level, integrated set 18221
UNK control syst. protocols 18207
UNK Project, accelerator control, MMI 18279
UNK transfer line beam diagnostics control 18263
UVSOR SR source, gracefully-degraded operationable control syst. 18196
He cryoplants in CERN SPS, control aspects 10080

accelerator magnets
3-gap thyratron, turn-on simul., math. model, kicker magnet 29817
AmPS magnet control syst. 18276
APS SR beam lines, shielding 10290
conventional steel-cored DC magnets 4126
cryst. beam feasibility, weak-focusing betatron magnet 34796
electron synchrotron, 400 MeV, bending magnets power supply syst. *(Dutch)* 44117
Eloisatron dipole magnet design 4099
ESRF, kicker magnet pulsed power supplies 34820
Fermilab Tevatron, high field injection kicker magnet 34826
ferrite materials for pulse power appls. 18246
hadron colliders, scaling laws, cost optim. 4098
high lumin. collider, quadrupole magnets rad. damage, interact. region 4110
LEADS program, lin. and electrostatic accelerator beam dynamics 34833
LEP beam bumping kicker syst. high power pulse generator 34821
planar permanent mag. multipoles for accelerator/storage ring appls. 10089
PM appl. for mag. field generation 4131
pulsed accelerator magnets and power supplies 4127
Siberian snakes for high energy accelerators 26038
slalom mag. deflection syst., med. electron linac *(Chinese)* 26076
SOLEIL project, 2.15 GeV positron storage ring, tech. aspects 18281
spin flipping in stored polarized proton beam 4081
storage ring, cryst. ion beam, computer simul. 34795
supercond. accelerator magnet design 4122
supercond. accelerator magnets, mag. field distrib. 39289
symplectic tracking, point magnets and ref. orbit 43018
synchrotrons, equilib. orbit transforms., injection/extract. 10098
Tesla linac test facility controls status and future plans 18258
TRISTAN MR status 34769
$e\gamma/e^-e^-$ colliders, working group report 26063
^{4}He superfluid cryogenics for LHC 4048
Nb_3Sn dipole magnet for future particle accelerators 4114

accelerator RF systems
see also accelerator cavities
charged particle laser accel. using plasmoid moving grating 43006
conference, e^+e^- colliders, Benalmadena, Spain (Oct./Nov. 1992) 5505
design, generators 4119
EPICS, obj.-oriented enhancement 18235
ESR storage ring, GSI, fragment beam stochastic precooling 34779
high gradient supercond. cavities, SEM study 4055
high power pulsed RF supercond. accelerator cavities 4054
high-power microwave tubes, lab. and online appls. 6479
high-power X-band microwave generators, LLNL expts. 34827
klystron amps., nonoptimum operating conditions 43009
LEADS, graphically displayed computer program *(Chinese)* 26078
LEADS program, lin. and electrostatic accelerator beam dynamics 34833
lin. standing wave accelerators, GHz region *(English)* 43004
LINAC, klystron modulator, energy efficient deQing cct. 36360
quasi-isochronous ring, mag. lattice, e^+e^- colliders 18284
relativistic BWO, efficiency increase 29796
relativistic klystron two-beam accelerator, RF power extraction 10090
relativistic klystron two-beam accelerator for beam-break-up suppress. 34828
RF accelerators, intense electron beam quadrupole focusing 26053
RF window, thermal stress fracture 29791
RF window for high power in S and X bands 29549
RF-cavity, coupled, energy storage cavity, heavy beam loading accelerators 26035
SIBERIA SR source control syst. 18262
Sortec Corp. SR ring, stored current upgrade *(Japanese)* 4060
spin flipping in stored polarized proton beam 4081
SPring-8 storage ring, equilib. bunch length, RF noises 34831
SSC, long. beam dyn., RF noise 4092
SSCL, RF control, obj. oriented design approach 18277
storage ring, double RF syst., transverse mode coupling instabil. 18288
storage ring, long. coupled-bunch instabil. suppression 4088
supercond. RF cavities 4123
TBA-driver, autobunching, phase stabil. 43037
vircator, high power microwave source for accelerator 29789
CsK_2Sb photocathodes in RF linacs 43055
H^- injector design for SSC RFQ 4091

accelerator superconducting magnets *see accelerator magnets; superconducting magnets*

accelerators (particle) *see particle accelerators*

accelerometers
see also acceleration measurement
accel. transducers, plasma investig. appls. 25977
air-bag crash sens., VXIbus-aided automated test syst. 17680
consumer camcorder image stabilisation, digital and opt. methods *(German)* 42637
electrostatic servo syst. for multi-axis accelerometers 34479
fiber optic non-contact accelerometer 34530
fiber-optic accelerometer, Si sens. element 9918
fibre optic accelerometer, compliant cylinder design, perform. anal. 25862
fibre optic accelerometer based on compliant cylinder design 17859
inertial navig. appl. 10318
LF lin. microaccelerometers on the ground, verification/calib. 3716
lin. accel. transducers, effect of random vibrs. 3810
microsystems design, syst. concepts approach 22629
pass. fibre optic gyroscope develop. 17888
piezoelec. composite microcantilever for accelerometer appls. 30605
portable 3-axis 11-bit shock meas. cct. 34702
precision accelerometers for gravity gradient meas. 18801
quartz cryst. accelerometers, sensitivity, optimal mech. perform. *(French)* 9854
quartz monolithic struct. vibr. beam accelerometer 34492
ship, attitude meas., servo-type inclinometers *(Japanese)* 9791
ship attitude meas., servo-type accelerometers *(Japanese)* 25970
solid-state actuators, periodic forces cancellation 30755
solid-state gyroscope for robotics appls. 17733
sport, ang. veloc./accel. meas., accelerometers *(Japanese)* 26267
surface micromachined accelerometer 9860
surface micromachined accelerometer, integrated electronics 9862
wideband low noise accelerometer, inductive displacement sens. 42766
Si accelerometer design tradeoffs 3781
Si electrostatic servo-type three-axis accelerometer 17744

acceptor levels *see impurity states*

access control
for physical access only
see also biometrics (access control); building management systems
CMOS low-power transponder IC for identif. systs. 29397
ESRF distrib. control syst., access control/security 18213
frame synchronized ring bus modeling, predicate/transit. nets 25038
ident. card mgt. syst. for Tokyo International Airport *(Japanese)* 10411
low power transponder IC for identif. systs. 33744
voice recogn. digital cipher lock for smart vehicles 643

access control (computers) *see authorisation*

access networks *see subscriber loops*

access protocols
see also carrier sense multiple access; code division multiple access; cyclic reservation multiple access; demand assigned multiple access; frequency division multiple access; packet reservation multiple access; time division multiple access
100 base-VG demand priority protocol, real-time commun. 16490
100VG-AnyLAN, network operation/real-time capabilities 33504
ALOHA syst. using unified SS code, transm. efficiency *(Japanese)* 25211
Aloha-type protocols for multichannel networks, destination conflicts 16504
anal. modelling device for distributed multiaccess protocols 41471
ATM LANs, protocol/interface 3192
ATM LANs/WANs, random access protocols 8965
ATM shared medium multiservice protocol 41519
ATM shuffle-based switch, perform. anal. 8730
ATM switch, DQDB interconnections, cell-based flow control 8966
ATM systs., admission and equiv. bandwidth 2874
ATM transport archit. for multiservices wireless PCN 17087
ATM-DQDB, integrated services interworking, perform. eval. 33599
auto-switched hybrid MAC, anal. and research *(Chinese)* 16474
B-ISDN internetworking unit, VLSI implement. 16798
BellSouth Telecommunications, pers. services, AIN 24931
burst admission-control protocols, perform. anal. 33263

access protocols continued
cellular environ., resource auction multiple access 9291
cellular environ., self-adaptive channel allocation strategies, PRMA 9248
cellular-ISDN systs., accessing protocols/network reconfigurations 9377
combined token/random access protocol for LAN/MAN ring networks 16708
commun. protocols for embedded systs. 2918
contention free multiple access, ad-hoc wireless networking 41885
CRMA, access protocol, wireless LAN archit. 33490
Demand Priority MAC protocol for 100 Mb/s LANs 25043
distributed real-time, multi-access protocols schedulability anal. 2911
DQDB analytical model 33448
DQDB behavioural simul., data and multimedia traffic 2917
DQDB MAN, isochronous channels reuse 8983
DQDB MAN service integrat. and impact on ATM interworking perform. 41847
DQDB MANs, dyn. 3-tier protocol, unfairness control 33501
DQDB network, real-time commun. services 3176
DQDB networks, overload throughput perform. of erasure node protocols 33449
DQDB networks perform., gateway location effect 8984
DQDB node, highly parallelized architecture 3220
DQDB protocol erasure-nodes modif., fairness and perform. 33283
DQDB subnetworks, hierarchical commun. syst., perform. 8987
DQDB/B-ISDN gateway, UPC mechanisms comparison 33503
DS-SSMA unslotted PRN 25257
DTM gigabit network 3190
Everywhere Access, rem. control software for Internet 8949
fair distributed queue network priority schemes 41479
FDDI, mean waiting time approxs. 41845
FDDI-II MAC protocol, assessment and alternative design 33457
FH packet commun. syst. capability in fast Rayleigh fading environ. 41461
FH-SS PRN, channel access protocol perform. 8756
fiber optic LAN, RIB interface, soliton-dragging gates 41823
Fibre Channel protocol and 802 MAC services, comparison 33254
firewall installations, IpAccess Internet service access syst. 24962
frame reservation multiple access perform. anal. 33837
Gbit/s range LANs and MANs, media access protocol perform. comparison 24803
generalises DQDB protocol for improved medium access control 33447
generic flow control protocol, perform. assessment 2961
group randomly addressed polling for multicell data networks 8771
GSM random access procedure, perform. 9289
GSM signalling protocol LAPD$_m$, perform. anal. 3499
GSM syst. multipoint-to-point link improvement 25270
high performance networking, conf., Grenoble, France (1994) 5496
high speed MAN, guaranteed bandwidth/balancing mechanism 16709
high-speed networks for multimedia applications, real-time performance 33475
highly available/reliable commun. protocols for heterog. systs. 41508
HMR, ATM-based medium access protocol for gigabit ring networks 24800
home automation syst., data link layer design issues 3095
HSLAN, comparison 33495
Hyper-G for serving inform., World Wide Web 41871
idle-slot broadcasting multiple access for mobile satellite commun. 9213
IEEE 802.12, Demand Priority and multimedia 16664
IEEE 802.6 DQDB MAN protocol, perform. anal. 3180
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
indoor radio LAN, channel outage, token based MAC protocol 8991
integrated train access scheme under light/medium load, perform. anal. 33578
inter-media sync. in distributed and heterog. multimedia systs. 33641
inter-vehicle commun., cooperative channel access 42240
inter-vehicle commun. network, SS MAC protocol 42241
IR commun. protocols, automatic protocol recogn. *(Japanese)* 42471
ISO FTAM basic file protocol, LOTOS specified, anal. 41538
key agile cryptographic syst. for OC-12c rate ATM 24058
key agreement protocol modif. based on digital signature std. 32113
key distrib. protocol for mobile commun. systs. 33775
LAN, dual-ring, wrapback and merging reconfiguration algm. *(English)* 41877
LAN protocol, modelling/perform. eval. 16707
light-wt. LLC protocol in slotted ring networks, perform. eval. *(Japanese)* 16503
Linda implement. on LAN 25034
local computer networks, conf., Minneapolis, USA (1994) 20231
local/metropolitan ring networks, high perform. protocol 33506
M/G/1 type approx. of slot-occupancy pattern in DQDB network 3161
M/K multiple priority policy in DQDB networks, perform. eval. 41843
MAC address test protocol for reconfigurable dual ring LAN *(Japanese)* 24947
MAC protocol for inter-vehicle commun. network, SS tech. *(Japanese)* 25282
MAC-layer hybrid protocol for real-time bus networks 2915
MACAW, media access protocol for wireless LAN's 2946
macro-/micro-cellular radio systs., throughput perform. 9295
Magic functional model, resource control and B-ISDN protocols 16592
MAN/WAN integration, ATM-to-DQDB case 33446
media access protocols for Gbit/s networks, perform. comparison 16498
media sync. protocols for packet audio-video syst. on multimedia inform. networks 16497
Metaring gigabit/s network under multipriority traffic 24802
Metaring high speed LAN, fairness anal. 33464
metropolitan freeway monitoring, random access channel 3075
metropolitan microcellular radio environ. PRMA perform. 42194
mixed X.25/frame relay networks congestion control 16447
mobile packet radio LAN idle sig. casting multiple access with failure detect. 41821
mobile radio slotted Aloha, retransmission control 9379
multicast-specific security threats, counter-measures 24961
multicopy ALOHA, enhancements 16508
multihop FH-SS PRN, channel access protocol 25246
multimedia commun. distributed co-operative multiagent IN syst. 41976
multimedia conferencing network centralised and distributed control designs 41973
multimedia PCN medium access control in mixed traffic environ. 41972
multiprocessor implement. of protocols, locking effects 2919
multiservice VSAT network, multi-access protocols 9417
multiservice VSAT networks, adaptive multiple access, dyn. channel allocation 17160

access protocols continued
multiservice VSAT networks, multiple access protocols, perform. 42328
navigating test access in electronic systs. 9806
NEURON chip, LONwork low cost control networks component *(Polish)* 41514
no slot wasting bandwidth balancing of TAR bit 8985
observer concept for formal online validation of distributed systs. 16690
opt. fiber LANs, high speed, WDM multiple access protocols *(Korean)* 16476
opt. interconnected distributed shared memory syst., memory and network archit. interact. 41491
optimal multicopy ALOHA packet transm. policy 41466
optimized group randomly addressed polling for wireless data network 16677
PC, real-time commun. protocol, contention-resolving algm. 41505
picocellular network, protocol for seamless commun. 9348
policy-free distributed general-purpose shared window syst. 25051
PON, ATM protocol 42069
prioritized distributed queueing random access protocol 33500
priority promotion DQDB networks 16507
PRMA, channel impairments effects 9298
PRMA, Rayleigh fading effects 8739
PRMA integrated data and speech transm. 41496
PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
PRMA-ISA protocol for multiple access of voice/data traffic 9297
R-Net, round robin medium access protocol for MANs 24801
RACE II project Combine, broadband network interworking 33353
random access LAN, unbalanced random no. generator 16658
random access model for cellular mobile commun. systs. 9327
real-time MAP, modelling/formal spec. 16771
ring network, spatial reuse, CQBT algm., perform. anal./design 16494
roads, beacons/protocols for fee collection/route guidance 41521
RTI related services, packet based data link protocol 8769
RTT infrastructure/vehicle-roadside commun., perform. anal. 3457
rural telecomm. networks, integrated cordless access 9208
SAFENET lightweight protocol, off-host communication architecture, perform. eval. 33259
satellite commun. networks bistability issue 33972
SDMA protocol, collision resoln. algm. 33269
single-node DQDB anal. model, network-wide perform. 41540
slotted ALOHA, channel access probabilities, maximize throughput 41516
slotted ALOHA, power assigning and immediate transm. controls 8770
slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
slotted ALOHA for high-capacity voice cellular commun. 3340
slotted Aloha protocols for optical fibre LAN using WDM passive star technology 33256
slotted multichannel opt. networks, receiver collision effects 42359
SS7 network infrastructure, connection-less packet data transm. 25414
SS PRN, delay capture, arrival-time distrib. 9174
switched LAN and full-duplex operation 33512
token passing MAC protocols, quality of service estim. 16499
token protocols for high-speed multiple-ring networks 3226
token ring protocol for single/dual ring LAN systs. 2916
token ring protocols, dyn. 3204
TRIUMF, device access, C++ on VAX/OpenVMS 18230
tunable channel multi-access network adaptive-cycle protocol 41495
UMTS, fixed network issues and design options 25331
unidirectional-bus networks, slot occupancy, Bernoulli approx. 8988
uplink multiple access protocols in meshed VSAT satellite networks 16480
USA unlicensed PCS band, coexistence/access etiquette 3370
variable length packet ALOHA systs., capture effect on throughput 2950
virtual cellular network, wireless commun. archit. 9280
VSAT general topol. networks, adaptive access protocol 17161
weak secret access control improvement 40703
wireless data services, archit. alternatives 25135
wireless integrated multiple access protocols 16501
wireless LAN MAC protocol archit. 41819
wireless LAN MAC protocol selection for indoor environ. 41818
wireless LAN protocols, radio capture models 25059
wireless LAN TDD channel contention-based reservation protocol 41820
wireless LANs in indoor environment, perform. eval. 33468
wireless network perform., multimedia traffic mgt. principles 25132
wireless pers. commun., tree-search resource auction multiple access 9290
World Wide Web, scalable HTTP server prototype 8893
World-Wide Web proxies 8892
Xpress transfer protocol, error control mechanism 33260

accidents
see also electric shocks; explosions; fission reactor accidents; safety
1 MJ pulse power capacitor bank short-cct. current protection 11228
220 kV power syst. protection misoperation, traction harmonics-based *(Chinese)* 43609
air bags, piezoelec. sens. in automobiles 28150
automatic voice call-response syst., speech interface *(Japanese)* 24926
EHV/UHV AC/DC overhead lines, porcelain/glass composite insulators 27241
elec. accidents, Tort liability for injuries, employees 78
emergency protective devices, gamma ray localisation 26117
fault anal. syst., safety index appls. *(Japanese)* 11677
Fernald Environmental Management Project, crit. alarm syst. 4225
fire-resistant and cryogenic opt.-fiber cable 5569
hazard engineering and the management of risk 5711
HVSE-I power line safety monitor, μP-based *(Chinese)* 27193
power syst. meas., voltage reducer breakdown studies *(French)* 35706
thermal CHP plant leak sealing safety experiences, Germany *(German)* 4821
Y-12 plant, crit. accident alarm syst. detectors, testing 4226
CO_2 indust. lasers, hazards, accident risks 28393

accommodation coefficient *see sorption*

accounting
see also auditing; costing; credit transactions; invoicing
developing countries, impact of accounting rates upon telecomms. carriers 3006
R&D product matrix, innovation mgt. tool 20351

accumulation layers
CMOS transistors in freeze-out regime, quasi-static behavior 13673
MIS struct., quantized accumulation layer, model 13242
SIMOX MOSFETs, ultrathin accumulation-mode, Si film thickness effects 38857
sub-micron RTD, laterally gated, I-V characts., asymmetry 30223
GaAs triple-barrier reson. tunneling diode, time-resolved photolum. 1451

accumulation layers continued
- GaAs/AlGaAs heterostruct., ballistic electron transport, magneto-opt. studies 13115
- n^+nn^+ InP diodes, submicrometer, microwave power generation, model 836
- InP n^+nn^+ diodes, hot carrier noise, Monte Carlo simul. 1348
- Si cryogenic accumulation mode MOST, LF noise meas. 38904
- Si-SiO_2 accumulated MOS thin dielec. struct., quantum effects 13235
- SrF_2/InP(100) epitaxial diodes, elec. cond. 22065

accumulators *see secondary cells*

ACD systems *see automatic telephone systems*

acidity *see pH*

acoustic analysis
- chaos, appl., sound modelling 16022
- diffuse acoustic refl., macroscopic view 4414
- LIMSI continuous speech dictation syst., eval. 32342
- shipboard speaking-tube acoustics simul. *(Croatian)* 3592

acoustic applications
- *see also ultrasonic applications*
- 800 MW steam power plant boiler gas temp. meas., acoustic pyrometry-based 27556
- acoustothermography, spatial inverse problem 10584
- bridge vol. meter *(Japanese)* 18159
- bubble capacitor for bubbles sizing 25780
- compressor noise assess. syst. based on principal component anal. 26797
- distortionless underwater commun. using parametric array, conditions 42475
- drill strings, sound wave propag. 43562
- faulty cable line, capacitive energy discharge, power distrib. 27292
- fluid density meas. by US techniques 25982
- Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
- ground charactn., acoustic pulsed level difference tech. 18943
- hydroacoustic commun. channel, Doppler scatt. adapted reception 42476
- lung pathologies diagnosis by two-channel proc. of breathing sounds 43199
- mach. fault detect., vibr. anal. techs. 26807
- mach. monitoring, adaptive sound press. sig. filtering in noise 4427
- machine fault detect. and diagnostics, vibr. anal. 26804
- machine fault diagnosis, acoustic and ES 26806
- magnetocaloric effect meas., noncontact thermoacoustic method 26803
- marine pollution monitoring, acoustic methods 10507
- natural gas combustion props. determ. 3911
- ocean cavitation nuclei & biol., meas. equipt. 18893
- ocean current meas., acoustic current profilers 10502
- ocean current vert. profiling, lowered acoustic instrum. 10516
- ocean currents, acoustic vel. sens., mounting design 10515
- ocean currents, towed ADCP, ENDECO CPV-FIN towed body tests 10501
- ocean currents by acoustic doppler method, freq. domain 10503
- ocean mesoscale eddy probing, acoustic tomography method 10506
- particulate charactn. by electroacoustics, conf., Gaithersburg (1993) 28261
- PD diagnosis and pattern recogn. 22652
- PD in oil meas., acoustic sigs. directivity 22651
- plant-monitoring technol. develop. 27285
- reactor deformed components profiling, ultrasonic pulse echo ranging 27416
- rolling element bearing fault diagnosis by vibrs. and neural networks 26805
- seabed, nodule abundant areas, refl. sound charact. 43476
- underwater acoustic source, pass. localisation method 26821
- universal gas const./Boltzmann's const. meas., acoustic method 17642
- US contactless measurement with micromembranes 26289
- US emission tactile sens. 25820
- vortex whistle, flow meter 4014
- H_2O in hydrocarbon/water solns., microwave acoustic sens. 10009

acoustic arrays
- *see also acoustic transducer arrays; sonar arrays; ultrasonic arrays*
- beamformer for underwater acoustic commun., hardware efficient 26783
- directional microphones in computer simulated/real rooms 17607
- distortionless underwater commun. using parametric array, conditions 42475
- fibre optic gradient hydrophones 18937
- freq.-independent beamforming 15990
- hearing aid microphone array data, robust adaptive proc. 18608
- IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
- large-area US gap profile meas., 2D PVDF blanket array transducers 18946
- microphone array, talker radiation pattern meas. 34283
- microphone array for multimedia appls. 16899
- microphone array for sound pickup in teleconference systs. 3693
- moving sources with complex spatial-time struct., rem. acoustic sens. 17479
- narrow band source localization, unknown geom. array *(French)* 16041
- planar periodic slotted waveguides pair, oblique surface waves 22683
- real-time adaptive acoustic beamforming, design study 32598
- robust real-time constrained hearing aid arrays 18609
- speech recogn., noise reduction, adaptive microphone array appl. 15827
- underwater acoustic arrays meas. in real environ. 18166
- underwater acoustic receiving array, meas. oriented 18924
- US piezoelec. transducer array elements, general approximated 2D model 35366
- ZnO thin film US transducer array, 100-MHz, fab., integrated devices, NDT appls. 35367

acoustic charge transport devices
- *see also surface acoustic wave devices*
- indoor multipath channel real-time emulation, FIR models and ACT technol. 31824
- GaAs ACT transversal filters, yield model 39118

acoustic convolution
- *see also acousto-optical convolution; surface acoustic wave convolution*
- zero-delay convolver, block FFT implement. 40892

acoustic correlation
- *see also acousto-optical correlation; surface acoustic wave correlation*
- gradient-based algms. for echo compensation 15988
- pass. sonar time delay estim. 9655
- PD in oil meas., acoustic sigs. directivity 22651
- speaker indiv. control/conversion, acoustic charact. 40728
- underwater acoustics, hybrid/polarity-coincidence correl. proc. 16062

acoustic couplers
- *see also surface acoustic wave couplers*
- acoustic-EM piezoelec. waveguide coupler 6924
- waveguide jns., low freq. impedance matrix 4415

acoustic delay lines
- *see also surface acoustic wave delay lines*
- flexural plate waves for sens. and micropumps 42782
- $LiNbO_3$ cladded fibers, acoustic wave propag. 35363

acoustic detectors *see acoustic transducers*

acoustic devices
- *see also acoustic couplers; acoustic delay lines; acoustic filters; acoustic generators; acoustic microwave devices; acoustic parametric devices; acoustic radiators; acoustic receivers; acoustic resonators; acoustic transducers; acoustic waveguides; acousto-optical devices; acoustoelectric devices; bulk acoustic wave devices; musical instruments; silencers; surface acoustic wave devices; ultrasonic devices*
- air vs. temp. and press., acoustical props. 10572
- aircraft detect. sens., illicit cargo 43458
- color coding, indicator and control coding *(Italian)* 17994
- display systs., environ. sounds synthesis *(Japanese)* 34647
- micro-domains generation in AT-cut quartz, thermal proc. 30602
- ocean cavitation nuclei & biol., meas. equipt. 18893
- opt./quasioptical diffr. focusing elements, appls. 39529
- vel. of sound in liqs. meas. 26016
- vortex whistle, flow meter 4014

acoustic dispersion
- *see also ultrasonic dispersion*
- $LiNbO_3$ cladded fibers, acoustic wave propag. 35363

acoustic echoes *see echo*

acoustic emission
- mass flow meas. by PZT AE sens. 10067
- US emission tactile sens. 25820

acoustic emission testing
- bronze-graphite materials, repeated indentation, local brittleness, AE 28910
- fiber-reinforced plastic struct., AE monitoring, surface waveguides 4424
- insulation, defects/degrad., US NDT 6916
- insulation condition monitoring, acoustic/US techs. 18948
- magnetoacoustic emission, mag. induction/specimen thickness depend. 12218
- MCM HTSC thin film interconnects, fracture strain meas. 12249
- metal-matrix composite proc., situ AE monitoring 21000
- MLC actuators using antiferroelecs., destruction mechanism 39110
- oil, PD, acoustic sig. directivity 1527
- opt. fiber, press. cutting, AE testing 30897
- PCB mounted ceramic SMDs, capacit. monitoring while flex testing 12878
- polymer composites, NDT techs. *(German)* 5918
- porcelain insulators, mech. stress test methods 43791
- power capacitors, PD detect., acoustical method 5172
- SCC, AE/elec. resist. meas. 21006
- shear wave AE transducers develop. 26796
- surface mount ceramic capacitor failure test, board bending 29653
- transducers, absol. calib. by reciprocity method *(Japanese)* 18928

acoustic equipment
- *see also acoustic arrays; acoustic devices; acoustic microscopes; sound-level meters; ultrasonic equipment*
- marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8

acoustic field
- 120° segmented circ. array for multibeam multifrequency bathymetry 17474
- energy coupling of points of inhomog. medium 15610
- flat coaxial US transducers, near zone size 26792
- Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
- hemispherical shell Neumann scatt., modal series accel. 31798
- high energy EM transducer acoustic shock field, Schlieren meas. 4029
- incident/scatt. sound field, wave-no. domain separation 40889
- lossy nonhomogeneous medium, acoustic field anal., beam propag. method 18933
- moving sources with complex spatial-time struct., rem. acoustic sens. 17479
- multiaspect acoustic imaging systs. in plane layered medium 43520
- nonuniform sparse meas., forced structural responses interpolation 18115
- peak sound impulse press. level meas., microphone posn. effects 4028
- piezocomposite US transducers, transient acoustic fields, opt. imaging 18932
- press. microphones, sound source direction separation 9767
- random-sig.-acoustic source characts. determ. by field meas. 16048
- shallow water acoustics, matched-field tracking 15932
- sound field tomographic reconstruction, TV holography 41231
- sound levels in ocean, std. defns. 43000
- speech intelligibility in reverberant and/or noisy field, microphone arrays *(Japanese)* 40743
- spherical acoustic objs. in motion, seq. class. 17490
- surround sound prog. computer environ. 17617
- underwater acoustic field extrapolation, vert. ref. arrays 9656
- underwater matched-field source localisation by reduced-rank sig. proc. 34186

acoustic filters
- *see also acoustic resonator filters; surface acoustic wave filters*
- audio sigs., perceptual meas. schemes, filter banks constraints 40891
- LF sound meas., wind noise compensation by digital filter 26018
- mech. instrums. diagnosis, intermittent acoustic data *(Japanese)* 43550
- nonlin. filter struct., act. sound and vibr. control, genetic algm. 32776
- room acoustics, reverberant sigs., inverse filtering, diversity proc. *(Japanese)* 15896
- state estim., transit. probab. digital filter 40885
- Weaver SSB subband acoustic echo canceller 16822

acoustic focusing
- *see also ultrasonic focusing*
- digital focused sonar beamformer, imaging syst. 9668
- time reversal acoustic mirror, convergence anal. 18939
- underwater imaging, focused, noncoherent approach 9671

acoustic generators
- *see also earphones; loudspeakers; photoacoustic effect*
- adaptive separation of sound sources, Herault-Jutten network 26782
- auditory stimulus prod. in cognitive event-related pot. expts., PC software library 26379
- digital sound processing architectures, sound synthesis, complexity optimisation 34298

acoustic holography
- 3D acoustic holography imaging syst., Walsh fn. modulation *(Japanese)* 17484
- defect imaging, multifrequency digital acoustic holograms, superresolution 18951
- sonar holographic array proc. algm., perform. anal. 34185
- sub-array in uncorrelated noise/refl. environ., acoustic holography 40126
- wavelet transform appls. *(French)* 15166
- Si microphone fab. for 3D acoustic holography 10575

acoustic imaging
see also acoustic holography; acoustic microscopy; acoustic tomography; sonar imaging; ultrasonic imaging
conference on acoustics, Toulouse, France (May 1994) 5443
defect imaging, multifrequency digital acoustic holograms, superresolution 18951
dyn. IC devices, layered photoacoustic imaging 1464
moving sources with complex spatial-time struct., rem. acoustic sens. 17479
noisy fn. eval. and delta coding algm. 8493
US sens., temp. effects 4420
LiNbO3 low-loss SAW dispersive filters, low sidelobe level in compressed sig. 39542
acoustic impedance
acoustic waveguide jns., low freq. impedance matrix 4415
acoustothermography, spatial inverse problem 10584
piezoceramic polymer composite, 2-2 connectivity, dyn. modelling 6900
radiation impedance calc. by FEA 26787
tube, acoustic impedance meas. tech. *(Japanese)* 18161
acoustic insulating materials *see noise abatement*
acoustic intensity
see also acoustic noise; loudness
(3,1) drive multifilm piezopolymer hydrophone 18934
acoustic intensity measurement
acoustic bridge vol. meter *(Japanese)* 18159
calorimeter for US total power meas. 10072
level meter stochastic response anal., road traffic appl. 10074
loaded elec. machines, noise meas., sound intens. method *(Chinese)* 10925
mach. monitoring, adaptive sound press. sig. filtering in noise 4427
moving source, sound power meas. 18164
neutrally buoyant sens. for direct meas. of particle vel./intens. in water 43527
peak sound impulse press. level meas., microphone posn. effects 4028
pipe length online meas. by acoustic sens. *(Japanese)* 17681
pipes, propag. acoustic press. meas. by piezofilm sens. 4024
planar fiber optic acoustic vel. sens. 34737
planar standing acoustic waves, intens. meas., error correction procedures 26019
sound levels in ocean, std. defns. 43000
Swallow floats, acoustic intens. meas. 35349
acoustic materials
acoustic props. meas. instrums. and methods *(Croatian)* 450
biomedical US probe lens materials, acoustic props. 26353
energy distrib. study by X-ray topography 30640
IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
woven knit acoustically transparent screen 25687
$Li_2B_4O_7$ substrs., leaky SAW propag. props. 30638
acoustic measurements *see acoustic variables measurement*
acoustic microscopes
bonding state obs. in clad contact, US microscope 6386
acoustic microscopy
elastic consts. and mass dens., acoustic microscopy meas. 35364
fluxless oxid.-free bonding technol., microelectronic packaging 12952
HV ceramic capacitors, mech. flaws, nondestructive detect. 29609
IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
lead-on-chip packages, cracking failures induced by chip backside contamination 20439
line-focus-beam acoustic microscopy syst., precision mech.-translation stages meas. *(Japanese)* 43551
MOS LSI chip, electron-acoustic microscopy, nondestructive internal obs. 1497
quadrature sig. error estim. and correction 32682
scanning tomographic acoustic microscopy 26808
SOI struct., opt. and acoustic nondestructive charactn. 38443
C fibre composites, delamination cracks, SAM image anal. 20999
$LiTaO_3$, 36°YX, wafer characts. line-focus-beam acoustic microscopy, SH-type devices 14088
acoustic microwave devices
see also acoustic transducers; surface acoustic wave devices
BAW act. piezoelec. filters 30652
micro-directional couplers for freq. selection 30644
micromachined thin film bulk acoustic resonators 30635
MM-wave elec. field strength sens. 42758
radar exciter, ultra-low phase noise 42523
submicron fab. technol. GHz unidirectional SAW transducers 30636
surface transverse wave oscillators, extremely low thermal noise 30650
acoustic noise
see also noise pollution
5.0 kb/s coder for vehicular appl., acoustic echo/noise canceller 9123
act. acoustic atten., adaptive generalized recursive control syst. 32604
act. periodic noise cancelling syst., FPGAs 8380
ASA 128th meeting, Austen, USA (Nov.-Dec. 1994) 6
auditory scenes, computational anal. 2406
broadband act. room noise control, local silencing 15989
commun. headsets, act. noise reduction 3690
compact 230 kV line, corona perform. 27221
conference, underwater acoustics, Luxembourg (Sept. 1992) 5500
conference on acoustics, Toulouse, France (May 1994) 5443
continuous external train noise meas. 10073
continuous speech recogn. in noise, spectral subtraction/HMM adaptation 32307
cordless telephones, sound quality eval., three-way scaling *(Japanese)* 42993
domestic appliances, rotor vibr. transm. prevention *(Japanese)* 11489
dual-channel iter. speech enhancement, auditory-based spectrum 8220
Eigenlips for robust speech recogn. 32433
elec. multiple units, 3-level IGBT traction inverter 5361
fast-reponse ultrasonic distance sensors, neural nets appl. 26800
flute music embedded in noise, sig. detect./restoration 16001
gearbox acoustic condition monitoring by neural net 34390
gradient coils noise reduction, Lorentz force balancing, acoustic screening 35024
holography, sub-array in uncorrel. noise/refl. environ. 40126
human speech detect. in struct. noise 32409
HVDC transm. lines, twin conductors, DC corona anal. 4634
induction motor, stator tooth zone, vibroacoustic proc. 4957
induction motor ASD, freq. converter driven, acoustic noise 5251
inlet distortions, low noise fan operation *(Japanese)* 44612
iter. speech enhancement, min. cost based phoneme class detect. 32376
LF sound meas., wind noise compensation by digital filter 26018
acoustic noise continued
loaded elec. machines, noise meas., sound intens. method *(Chinese)* 10925
low residual noise speech enhancement utilizing time-freq. filtering 32211
metal specimens, US toneburst inspections, backscattered microstructural noise 12239
mid-IR fiber ring SBS devices and appls. 30894
MLP based nonlin. spectral estimators for noise reduction 32378
musical recordings restoration, short-time spectral atten. techs. 9774
noise removal from music, local trigonometric bases and wavelet packets 2570
nonGaussian stochastic syst. state estim. based on time transits. of moment and probab. fn. 2544
nonlin. random waves in particle fluxes, turbulence 2206
nonuniform sparse meas., forced structural responses interpolation 18115
otoacoustic emissions, cumulant-based cubic difference tone detectors 32453
particle impact noise detect. by neural net 34392
photoacoustic resonator, high-Q, pulsed laser mode excitation, noise reduction 4417
PM machine, acoustic model, modal shapes, mag. forces 19594
robust real-time constrained hearing aid arrays 18609
room acoustics, reverberant sigs., inverse filtering, diversity proc. *(Japanese)* 15896
ship detect. from acoustic time series, spectral/bispectral anal. 34105
ship propulsion motor noise generation, computer modelling 5347
single and multi microphone noise cancellation, fast algm. 32484
single-phase induction motors, rotor slot skew effects anal. *(Polish)* 36147
speech automatic recogn. in noisy environ. 32431
speech coding, adaptive postfiltering for quality enhancement 8224
speech enhancement, constrained iter., HMM-based phoneme class partitioning 8227
speech enhancement based on auditory constrained params. 32210
speech intelligibility in reverberant and/or noisy field, microphone arrays *(Japanese)* 40743
speech recogn., cepstral-time features/spectral-time filters 32381
speech recogn., Markov model based noise modeling 32379
speech recogn., noise independent, variety of noise types 32314
speech recogn. in a car, microphone posn. importance 32312
squirrel cage drives, IGBT inverters, audible noise, losses 5308
SRM drive, chopper control, acoustic noise, ride through 11322
SRM drives, vibr./acoustic noise anal./control 20083
substation equipt. vibr./noise reduction *(Japanese)* 36477
superdirective microphone arrays for hearing aids 18607
teleconferencing, round-trip audio path/technols. 3241
three-phase inverter-fed squirrel cage motors, audible noise study 36163
three-phase squirrel cage motors, acoustic noise level scatt. 11033
underwater matched-field source localisation by reduced-rank sig. proc. 34186
underwater moving sig. adaptive detect., hydroacoustic data 34175
variable speed induction motor drives, vibro-acoustics anal. 28092
Weaver SSB subband acoustic echo canceller 16822
acoustic noise control *see noise abatement*
acoustic noise measurement
aircraft detect. sens., illicit cargo 43458
automobile diesel engines, acoustic combustion noise meas./control 34736
compact 230 kV line, corona perform. 27221
compressor noise assess. syst. based on principal component anal. 26797
continuous external train noise meas. 10073
environ. impulsive sounds, phys. descriptor computation algm. 42998
level meter stochastic response anal., road traffic appl. 10074
loaded elec. machines, noise meas., sound intens. method *(Chinese)* 10925
peak sound impulse press. level meas., microphone posn. effects 4028
power station apparatus condition monitoring, acoustic methods *(German)* 4751
road surfaces, sound absorption coefficient meas., cepstrum techniques 8443
SRM drive, chopper control, acoustic noise, ride through 11322
SRM drives, vibr./acoustic noise anal./control 20083
three-phase inverter-fed squirrel cage motors, audible noise study 36163
traffic noise meas. and param. estim. methods *(Croatian)* 4026
underwater acoustic noise ident. 17492
acoustic parametric devices
distortionless underwater commun. using parametric array, conditions 42475
acoustic power measurement *see acoustic intensity measurement*
acoustic pressure measurement *see acoustic intensity measurement*
acoustic pulses
computer-generated pulse sig. for long impulse response meas. 26802
ident., auditory neuron simul. network 26747
acoustic radiators
see also acoustic generators; Doppler effect
auditory scenes, computational anal. 2406
Janus-Helmholtz projector, LF acoustic source for oceanography 18884
meas. oriented underwater acoustic receiving array 18924
multivalued Bartlett proc., source tracking 15971
piezoelec. transducer, undersea use, cooling 18885
seismic sources, marine sparkers, efficiency 10443
seismic sparker marine source, parab. reflector 18794
sound source direction estim., microphone array *(Japanese)* 42999
underwater matched-field source localisation by reduced-rank sig. proc. 34186
Webster's horns, discrete component equiv. cct. 35368
acoustic reactance *see acoustic impedance*
acoustic receivers
see also microphones
act. multi-static sonar acquisition/proc. syst. 9660
azimuthally directive receivers, sea bed topography meas. 26757
broadband underwater acoustic commun. sigs., spatial proc. 8319
deep water acoustic LAN, adaptive lin. multiuser receiver 34181
digital acoustic underwater phone 17357
matched field proc. in shallow ocean, EM algm. 34179
meas. oriented underwater acoustic receiving array 18924
shallow water commun. syst. for autonomous underwater vehicle 9663
sig. correl. matrix, array receivers phase delays estim. 32611
underwater acoustic commun. digital receiver 17359
acoustic resistance *see acoustic impedance*
acoustic resonator filters
see also surface acoustic wave resonator filters
rect. piezoceramic resonator, AM filter appl. *(Japanese)* 39089

acoustic resonators
  see also acoustic resonator filters; surface acoustic wave resonators
  BAW composite resonator *(Chinese)* 14083
  composite vol. acoustic wave resonators, freq. control 39120
  Helmholtz resonator, EM analogue, wave scatt., poles *(Russian)* 15418
  micromachined thin film bulk acoustic resonators 30635
  piezoceramic resonator anal., inplane fork-mode vibr. *(Japanese)* 14086
  quartz cryst. resonator, extralow excitation, stationary acoustic vibrs. 14085
  shipboard speaking-tube transfer charact. *(Croatian)* 3591
  underwater displacement meas., acoustic reson. freq. 42922
  Si membrane resonators realized with bipolar IC technol., US transducer appls. 35369

acoustic signal detection
  archived recordings, impulsive noise removal, two-channel approach 34293
  channel-bank-based phone detect. strategy 32397
  flute music embedded in noise, sig. detect./restoration 16001
  human speech detect. in struct. noise 32409
  independent components ident., cumulants and coherences 16064
  lin. freq. modulated waveforms detect. in dispersive channels 16066
  multipath compensation for underwater acoustic commun. 9614
  multiple hypothesis tracker algm., maneuvering acoustic source 2583
  oceanographic data, params. extraction 35343
  otoacoustic emissions, cumulant-based cubic difference tone detectors 32453
  press. microphones, sound source direction separation 9767
  ship detect. from acoustic time series, spectral/bispectral anal. 34105
  ship radiated sigs. detect. in non-Gaussian noise, HOS appls. 8378
  submarines detect./location, sonar array studies 4438
  trispectrum, higher order spectra 24189
  underwater high data rate transm. equalizer 9611
  underwater matched-field source localisation by reduced-rank sig. proc. 34186
  underwater moving sig. adaptive detect., hydroacoustic data 34175

acoustic signal processing
  see also acoustic convolution; acoustic correlation; acoustic signal detection; acousto-optical signal processing; sonar signal processing; surface acoustic wave signal processing
  act. periodic noise cancelling syst., FPGAs 8380
  adaptive separation of sound sources, Herault-Jutten network 26782
  anal. procedures 24252
  archived recordings, impulsive noise removal, two-channel approach 34293
  ARMA model order estim., data matrix, SVD 24196
  ARMA sig. modeling, iter. Prony method 24221
  artificial heart valve state, acoustic class. 43365
  artificial perception, axiomatic theory 32580
  audio sigs., perceptual meas. schemes, filter banks constraints 40891
  auditorium, colouration in assisted reverberation systs. 32605
  auditory scenes, computational anal. 2406
  autocorrelation method for high-quality time/pitch-scaling 15999
  automated US inspection, sig. discretization 18950
  autonomous underwater vehicles, acoustic tracking/navig. 17361
  autonomously responsive syst., acoustic preprocessor 32584
  backscatt. of HF sound from objs./sea-bottom 42534
  Bayesian time delay estim. for ocean acoustic tomography 35344
  beamformer for underwater acoustic commun., hardware efficient 26783
  binaural recording playback through loudspeakers, room impulse response 34296
  binaural source localizer chip, subthreshold analog CMOS 29485
  broadband act. room noise control, local silencing 15989
  broadband underwater acoustic commun. sigs., spatial proc. 8319
  chaos, appl., sound modelling 16022
  cochlear-implant research, DSP appls. 4305
  coherent/incoherent localization methods, sensitivity 17461
  commun. headsets, act. noise reduction 3690
  computer-generated pulse sig. for long impulse response meas. 26802
  concha, digital hearing aid 18610
  conference, underwater acoustics, Luxembourg (Sept. 1992) 5500
  conference on acoustics, Toulouse, France (May 1994) 5443
  consonant recogn., knowledge based approach 32228
  continuous speech phoneme recogn., large inhomog. HMM 32219
  defect imaging, multifrequency digital acoustic holograms, superresolution 18951
  diagnostic US imaging, 2D blocked element compensation 10192
  digital sound processing architectures, sound synthesis, complexity optimisation 34298
  digital underwater commun., adaptive beamformer perform. 9659
  distortionless underwater commun. using parametric array, conditions 42475
  Doppler estimators perform. losses, noise/equivocation effects 10561
  DSP-based teleconferencing syst., perform. eval. 16815
  echo cancellation, voice commun., sig. proc. methods *(German)* 42049
  echo cancellation, voice commun., sig. proc. methods *(German)* 42048
  echo cancellers, acoustic transfer fns. modelling 32633
  echo cancellers, exponentially weighted step-size projection *(Japanese)* 42096
  Eigenlips for robust speech recogn. 32433
  event localization, crosspower-spectrum phase based tech. 32606
  expt. dialogues, prosodic cues, discourse boundaries 2416
  flute music embedded in noise, sig. detect./restoration 16001
  forward-based portable acoustic meas. syst. 17683
  freq.-independent beamforming 15990
  GASTOM 90 tomography expt. data inversion 35341
  glottal models far digital speech proc., historical survey 24132
  gramophone recordings, pitch var. defects restoration 17618
  hands-free cellular phone, subband adaptive noise canceler 17115
  hands-free telephone sig. proc. methods *(German)* 8846
  hands-free telephony acoustic echo cancellation 8858
  head-related transfer fns., multidimensional scaling anal. 15992
  hearing, hierarchic models, sound separation/reconstruction 16002
  hearing aid microphone array data, robust adaptive proc. 18608
  hearing loss compensation, neural network based objective measures 18612
  hearing perception, time-freq. neutral network layered model 15997
  HF range M-seq. meas., interleaved sampling method 26017
  high-quality speech corpus, telephone acoustic models constr. 32230
  Hindi vowels in consonantal context, acoustic/perceptual study 15851
  ideal decision fn. and its McLaurin expansion, detect. perform. 15972
  IEEE audio/acoustics sig. proc. workshop, New Paltz, USA (1993) 5445
  IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
  impulse responses meas., pre-emphasized pseudorandom noise 42997
  incident/scatt. sound field, wave-no. domain separation 40889
  interactive virtual auditory environ., real-time generation 15994

acoustic signal processing continued
  internetted acoustic sens. fusion, appls. 43554
  Japanese/Eng. digit recogn., comparative anal. 32234
  LF equalisation, adaptive digital filters 24295
  LF sound meas., wind noise compensation by digital filter 26018
  lin. array, shape reconstruction 42536
  LMS acoustic echo cancelers, slow asymptotic convergence 24313
  lung pathologies diagnosis by two-channel proc. of breathing sounds 43199
  mach. monitoring, adaptive sound press. sig. filtering in noise 4427
  mass flow meas. by PZT AE sens. 10067
  matched field proc. benchmarks, beamformer perform. 15923
  matched-phase noise reduction 15894
  mech. instrums. diagnosis, intermittent acoustic data *(Japanese)* 43550
  med. ultrasound imaging, vivo pulse estim. 10194
  med. US imaging, elevational spatial compounding 10193
  microphone array, optimal positioning of sens. for microphone array 42647
  microscopy, quadrature sig. error estim. and correction 32682
  midsagittal profiles/formant freq., vocal-tract area fns. 24128
  model-based proc. for large aperture array 9673
  moving sources with complex spatial-time struct., rem. acoustic sens. 17479
  MPEG-1 audio std., guide 15963
  MPEG/audio compression algm. 17603
  multimedia commun., acoustic echo canceller develop. *(Japanese)* 42014
  multipath time-delay estim., least-sq. algm. 2491
  multiple auditory template matching, expansion 8381
  multiple window spectrogram/time-freq. distribs. 40964
  multivalued Bartlett proc., source tracking 15971
  musical pitch tracking, principal decomp. anal. 32601
  musical recordings, pitch var. defects, recursive restoration 34294
  musical sigs., loose-harmonic matching fund. freq. estim. 34300
  musical tonality recogn. from sound input 17619
  narrow band source localization, unknown geom. array *(French)* 16041
  noise removal from music, local trigonometric bases and wavelet packets 2570
  nonGaussian stochastic syst. state estim. based on time transits. of moment and probab. fn. 2544
  nonstationary dyn. sigs., FFT anal. 8269
  nonuniform sparse meas., forced structural responses interpolation 18115
  nuclear power plant monitoring by neural nets 27341
  ocean acoustic diffr. tomography 18887
  ocean acoustic DP, Thalassa II ocean research vessel 10494
  ocean acoustic tomography, probabilistic ray ident. 35342
  oceanographic data, params. extraction 35343
  optimal sens. location, multiple hypotheses testing 41020
  optimum sounding sig. for time-delay measuring syst. 16063
  Orphee syst. techs., speaker charactn. 32246
  otoacoustic emissions, cumulant-based cubic difference tone detectors 32453
  oversampled subband acoustic echo cancellers 25136
  pass. acoustic param. estim., PWVD optimal window length 40968
  pass. echo-canceler, single microphone 2536
  periodic phenom., spectral anal., uncertainty 40969
  periodic sigs. design, FM sweeps/AM 10559
  phonemes, relative speaker discrim. props. 32242
  phonemic segmentation of fluent speech 32227
  phonetic class./recogn., HMM 32220
  polyphase quadrature filters fast algm. 6235
  press. microphones, sound source direction separation 9767
  profoundly deaf people hearing aids based on parametric concept 18611
  psycho-acoustic masking phenom., digital sound storage/transm. 9772
  PWR, automated US inspections, data collection/interp. software 35374
  quiet source acoustic meas. syst. 17682
  radar/acoustic data fusion 42501
  radio studios and workstations 17605
  random AM harmonics estim., higher order spectra 8406
  random amplit. modulated harmonic retrieval, higher-order stats. 32460
  real time US vol. imaging, 2D random arrays 10191
  regression anal., reduced inform. loss 40884
  RLS algm. based on var. characts. of room impulse response 32749
  road surfaces, sound absorption coefficient meas., cepstrum techniques 8443
  robust real-time constrained hearing aid arrays 18609
  room acoustics, digital equalization 9761
  room acoustics, reverberant sigs., inverse filtering, diversity proc. *(Japanese)* 15896
  room impulse responses approx. based on wavelet decomp. 15991
  room transfer fns., common acoustical pole/zero model. *(Japanese)* 40893
  rot. mach., stat. monitoring, cumulant spectral anal. 32454
  RTP temp. profile reconstruction, acoustic tomography 9836
  segmented transducer design, optimum mean sq. quantizer approach 43559
  shallow water acoustics, matched-field tracking 15932
  shallow water channel estim. methods, comparison 17460
  shallow water commun. syst. for autonomous underwater vehicle 9663
  silicon cochlea, switched current 29420
  Solid State Logic and workstations for professional audio 17616
  source/filter model for percussive sounds 16005
  space integrat. interferometric acousto-optic convolver 32858
  sparse spike time series recovery by L_1 norm deconvolution 8415
  spatial synthesis, head-related transfer fns. interpolation 15993
  speaker-independent continuous speech dictation 2413
  speech recogn., acoustic modeling, phonetic units spotting 32217
  speech recogn., noise reduction, adaptive microphone array appl. 15827
  spoken dialogue syst. design, stochastic modeling 15846
  spontaneous monologues, discourse finality, prosodic predictors 2417
  steam generators, μP based steam leak detect. syst. 35985
  stuttering, digital speech aid 4309
  subsea acoustic rem. commun., adaptive receiving beamformer 9613
  superdirective microphone arrays for hearing aids 18607
  talker localisation in room, microphone array 32410
  teleconferencing systs., acoustic echo-canceler 16912
  telephone channels, discrete algms. for compensating elec. echo 2571
  temporal envelope invariance, time-scale modif. 15998
  text-to-speech synthesis, rhythmic patterns characterisation 2421
  time reversal acoustic mirror, convergence anal. 18939
  time varying step size normalized LMS echo canceler algm. 32603
  time-depend. hydrophysical procs./fields, acoustical meas. 18165
  tone synthesis, generalized overlap-add sinusoidal modeling 16004
  total surround sound (TSS) proc. 9763
  transaural stereo, develop. 15995
  two-microphone adaptive beamforming speech proc. for cochlear implant patients 43366
  ultrasound phased-array controller for hyperthermia appls. 26316

- **acoustic signal processing** continued
  - unaliased discrete-time cross-ambiguity fn., comment 32683
  - underwater acoustic data commun. link adaptive equaliser 9612
  - underwater acoustic multipath propag., parametric separation 32607
  - underwater acoustic source, pass. localisation method 26821
  - underwater acoustics, pass. array shape calib. 8376
  - underwater far field array proc., neural networks 32608
  - underwater high data rate acoustic commun. systs. perform. 17360
  - underwater matched-field source localisation by reduced-rank sig. proc. 34186
  - underwater target, causal impulse response estim. 34180
  - US NDT, adaptive imaging algms. 26799
  - US sens. perform. enhancement, driving sig. optim. 43553
  - vocal tract aerodynamics in /aCa/ utterances, meas. 24129
  - vocal tract aerodynamics in /aCa/ utterances, simul. 24130
  - waveform anal. of LSI for music synthesizers 3698
  - weak sinusoid with drifting phase, detect. in non-Gaussian noise 15893
  - Weaver SSB subband acoustic echo canceller 16822
  - wideband commun., reciprocity based channel compensation 9665
  - C fibre reinforced epoxy, degrad., acousto-US class. 5922
  - Si_3N_4, react. bonding, US monitoring sig. proc. 18953
- **acoustic sources** *see acoustic radiators*
- **acoustic surface wave devices** *see surface acoustic wave devices*
- **acoustic surface waves** *see surface acoustic waves*
- **acoustic tomography**
  - ball grid array package, popcorn cracking 11812
  - Bayesian time delay estim. for ocean acoustic tomography 35344
  - GASTOM 90 tomography expt. data inversion 35341
  - Janus-Helmholtz projector, LF acoustic source for oceanography 18884
  - lead-on-chip packages, cracking failures 5672
  - ocean acoustic diffr. tomography 18887
  - ocean acoustic tomography, arrival angle & time determ. 18899
  - ocean acoustic tomography, probabilistic ray ident. 35342
  - ocean acoustic tomography, record line up by robust method 10549
  - ocean acoustic tomography, shore station equipt. 18901
  - ocean acoustic tomography, universal wave approach 18897
  - ocean acoustic tomography barrel stave transducer 10573
  - ocean mesoscale eddy probing, acoustic tomography method 10506
  - ocean tomographic systs. sound transducer source 10574
  - ocean tomography, channel time response, array proc. 18902
  - ocean tomography & sig. proc., close arrival separation 10546
  - oceans, tomographic data assimilation, GCM models 18900
  - periodic sigs. design, FM sweeps/AM 10559
  - plastic thermally enhanced QFP packages, moisture sensit./reliab. 11803
  - RTP temp. profile reconstruction, acoustic tomography 9836
  - scanning tomographic acoustic microscopy 26808
- **acoustic transducer arrays**
  - *see also ultrasonic transducer arrays*
  - broadband sens. arrays, freq. invariant far-field beam patterns 26794
  - fibre optic hydrophones for commercial appls., high responsivity 18936
  - forward-based portable acoustic meas. syst. 17683
  - freq.-independent beamforming 15990
  - hands-free telephone sig. proc. methods *(German)* 8846
  - hearing aid microphone array data, robust adaptive proc. 18608
  - lin. underwater acoustic array, random deform., gain degrad. *(French)* 18942
  - microphone array, optimal positioning of sens. for microphone array 42647
  - planar sonar arrays, beam-pattern design method 9654
  - quiet source acoustic meas. syst. 17682
  - robust real-time constrained hearing aid arrays 18609
  - single and multi microphone noise cancellation, fast algm. 32484
  - superdirective microphone arrays for hearing aids 18607
  - time reversal acoustic mirror, convergence anal. 18939
- **acoustic transducers**
  - *see also acoustic transducer arrays; acoustoelectric transducers; surface acoustic wave transducers; ultrasonic transducers*
  - air-coupled US and NDE, micromachined capacitance transducers 18931
  - ASA 128th meeting, Austen, USA (Nov.-Dec. 1994) 6
  - bar, N-electrode piezoquartz, thermally excited, dyn. problem 4422
  - CMOS latchup detect., low cost laser scanning tech. 30450
  - conference, underwater acoustics, Luxembourg (Sept. 1992) 5500
  - conference on acoustics, Toulouse, France (May 1994) 5443
  - electrostatic US transducers with V-grooved backplates, electroacoustic model 18929
  - finite piezoelec. transducers mounted in a baffle, acoustic radiation 43557
  - flexural plate waves for sens. and micropumps 42782
  - full-bridge MOSFET inverter, US transducer power supply appls. 44166
  - IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
  - insertion mode estim. of US group vel., diffr. effects 34735
  - internetted acoustic sens. fusion, appls. 43554
  - Janus-Helmholtz projector, LF acoustic source for oceanography 18884
  - lossy nonhomogeneous medium, acoustic field anal., beam propag. method 18933
  - magnetostrictive shaker, broadband perform. 30754
  - metal EM transducer, theoretical study, underwater appl. *(Japanese)* 18935
  - mobile robots, tri-aural perception, correspondence problem, max. likelihood algm. 43555
  - natural gas combustion props. determ. 3911
  - ocean surveillance, array localization, least sq. error minimization 18993
  - ocean tomographic systs. sound transducer source 10574
  - photoacoustic resonator, high-Q, pulsed laser mode excitation, noise reduction 4417
  - piezocomposite US transducers, transient acoustic fields, opt. imaging 18932
  - piezoelec. transducer, undersea use, cooling 18885
  - pipe length online meas. by acoustic sens. *(Japanese)* 17681
  - porous piezoceramics, dyn. fluid compressibility/permeab. 18927
  - segmented transducer design, optimum mean sq. quantizer approach 43559
  - seismic sources, marine sparkers, efficiency 10443
  - shear wave AE transducers develop. 26796
  - sonar future transducers, transduction materials modeling 9662
  - sonar transducer arrays, holographic anal. of dyn. and struct. 17478
  - structurally chiral medium, piezoelec. wave prop. 13986
  - torpedo transducer, automated calib. facility 10594
  - US piezoelec. transducer array elements, general approximated 2D model 35366
  - PZT porous ceramics, prep. and elec. props., echo sounder transducers *(Korean)* 35365
  - Si membrane resonators realized with bipolar IC technol., US transducer appls. 35369
- **acoustic transducers** continued
  - Si micromachined air-coupled capacitance US transducers, design and charactn. 18930
  - ZnO thin film US transducer array, 100-MHz, fab., integrated devices, NDT appls. 35367
- **acoustic variables control**
  - *see also active noise control; noise abatement*
  - far-field sound radiation, act. control 10576
  - larynx elec. prosthesis, pitch control fn. 10274
  - underwater sound, refl. coeff. control, piezoelec. materials 26795
  - ZIPI music description lang., origs. and motivations 25693
- **acoustic variables measurement**
  - *see also acoustic intensity measurement; acoustic noise measurement; acoustic wave velocity measurement; ultrasonic measurement*
  - anisotropic liqs., automatic meas. of acoustical params. 18162
  - computer-generated pulse sig. for long impulse response meas. 26802
  - cordless telephones, sound quality eval., three-way scaling *(Japanese)* 42993
  - elec. machine, malfunction diagnostics 10953
  - electroacoustic transducer directivity indices in reverberant fields 17608
  - gramophone recordings, pitch var. defects restoration 17618
  - GSM mobile networks, subjective speech quality 3446
  - HF range M-seq. meas., interleaved sampling method 26017
  - high energy EM transducer acoustic shock field, Schlieren meas. 4029
  - impulse responses meas., pre-emphasized pseudorandom noise 42997
  - LF sound meas., wind noise compensation by digital filter 26018
  - microphone array, talker radiation pattern meas. 34283
  - sound source direction estim., microphone array *(Japanese)* 42999
  - source/receiver relative posn. determ., time delay spectrometry 18167
  - time-depend. hydrophysical procs./fields, acoustical meas. 18165
  - time-resolved meas. of acoustic birefr. 31022
  - tube, acoustic impedance meas. tech. *(Japanese)* 18161
  - universal gas const./Boltzmann's const. meas., acoustic method 17642
  - vibration meas. by laser techniques, conf., Ancona, Italy (Oct. 1994) 36868
  - vibro-acoustical props., lab. meas., theoretical basis 42995
  - vocal tract aerodynamics in /aCa/ utterances, meas. 24129
  - $La_3Ga_5SiO_{14}$ acoustic wave atten. meas., HBAR tech. 35362
- **acoustic wave absorption**
  - *see also noise abatement; ultrasonic absorption*
  - Chooz-1 NPP, turbine hall acoustic insulation *(French)* 35737
  - drill strings, sound wave propag. 43562
  - lossy nonhomogeneous medium, acoustic field anal., beam propag. method 18933
  - shallow water HF bottom/subbottom backscatt. 4403
  - $La_3Ga_5SiO_{14}$ acoustic wave atten. meas., HBAR tech. 35362
  - PMN-PSN, ferroelec. ceramic, diffuse transit., acoustic props. 30565
- **acoustic wave attenuation** *see acoustic wave absorption*
- **acoustic wave diffraction**
  - *see also ultrasonic diffraction*
  - ocean acoustic diffr. tomography 18887
  - oceanic waveguide spatially-localized inhomogeneities, sound scatt. 18881
  - opt./quasioptical diffr. focusing elements, appls. 39529
  - problems soln., scatt. fields 15417
  - ribbed cylindrical shells, ident. by acoustic Bragg diffr. patterns 17475
  - synthetic images of proud targets 17485
- **acoustic wave diffusion** *see acoustic wave scattering*
- **acoustic wave effects**
  - *see also acousto-optical effects; acoustoelectric effects; magnetoacoustic effects; ultrasonic effects*
  - Airbus aircraft acoustic fatigue certification 26537
- **acoustic wave interference**
  - beamformer for underwater acoustic commun., hardware efficient 26783
- **acoustic wave production**
  - noncontacting opt. generation of focused SAWs, customised zoneplate 22682
  - periodic sigs. design, FM sweeps/AM 10559
- **acoustic wave propagation**
  - *see also acoustic dispersion; acoustic pulses; atmospheric acoustics; Doppler effect; shock waves; surface acoustic waves; ultrasonic propagation; underwater sound*
  - adhered struct., US NDT, reverberation cancellation, z-transform tech. 28901
  - ASA 128th meeting, Austen, USA (Nov.-Dec. 1994) 6
  - broadband acoustic propag. and scatt. in waveguide, scatt. 18923
  - coherent/incoherent localization methods, sensitivity 17461
  - conference, underwater acoustics, Luxembourg (Sept. 1992) 5500
  - conference on acoustics, Toulouse, France (May 1994) 5443
  - drill strings, sound wave propag. 43562
  - GASTOM 90 tomography expt, data inversion 35341
  - hydrodynamic type nonlin. random waves in particle fluxes, turbulence 2206
  - lossy nonhomogeneous medium, acoustic field anal., beam propag. method 18933
  - ocean acoustic scatter from mid-Atlantic ridge corners, CW and time-domain simul. 18882
  - ocean waveguide props., extraction, broadband pulse sigs. 18880
  - piezoelec. resonator materials metric for materials eval. 30574
  - planar periodic slotted waveguides pair, oblique surface waves 22683
  - α-quartz, SAW, extreme press.-sensitive cuts 30645
  - shallow-water fishing sonar param. optim. *(Croatian)* 3632
  - sonar echo from moving target in ocean waveguide, simul. 34169
  - surface transverse wave device, groove gratings, modelling *(French)* 30632
  - underwater acoustic channel simul. for commun. 17358
  - underwater acoustic field extrapolation, vert. ref. arrays 9656
  - underwater acoustic multipath propag., parametric separation 32607
  - $La_3Ga_5SiO_{14}$ acoustic wave atten. meas., HBAR tech. 35362
  - $LiNbO_3$ cladded fibers, acoustic wave propag. 35363
- **acoustic wave reflection**
  - *see also echo; reverberation; ultrasonic reflection*
  - auditorium, colouration in assisted reverberation systs. 32605
  - diffuse acoustic refl., macroscopic view 4414
  - ground charactn., acoustic pulsed level difference tech. 18943
  - holography, sub-array in uncorrel. noise/refl. environ. 40126
  - normal incidence echo-sounding, refl. and reverberation 4402
  - planar periodic slotted waveguides pair, oblique surface waves 22683
  - SAW bandpass filters, tunable rejection 12624
  - seabed, nodule abundant areas, refl. sound charact. 43476
  - shipboard speaking-tube transfer charact. *(Croatian)* 3591
  - talker localisation in room, microphone array 32410
  - underwater acoustic commun., rough surface scatt. effects 17356
  - underwater sound, refl. coeff. control, piezoelec. materials 26795

acoustic wave refraction
- *see also acoustic dispersion*
- lossy nonhomogeneous medium, acoustic field anal., beam propag. method 18933
- shallow water HF bottom/subbottom backscatt. 4403

acoustic wave scattering
- *see also ultrasonic scattering*
- acoustic Helmholtz resonator, EM analogue, wave scatt., poles *(Russian)* 15418
- ASA 128th meeting, Austen, USA (Nov.-Dec. 1994) 6
- bathymetric simul. based on Kirchhoff scatt. and seafloor modeling 35345
- broadband acoustic propag. and scatt. in waveguide, scatt. 18923
- charact. reson. signatures for acoustical scatt. from fish 17476
- conference, underwater acoustics, Luxembourg (Sept. 1992) 5500
- diffr. problems soln., scatt. fields 15417
- diffuse acoustic refl., macroscopic view 4414
- hemispherical shell Neumann scatt., modal series accel. 31798
- hollow circ. cylinder Kirchhoff field scatt. 31797
- hydroacoustic commun. channel, Doppler scatt. adapted reception 42476
- incident/scatt. sound field, wave-no. domain separation 40889
- metallic-finger step discontinuity in SAW devices, scatt., num. expts. 30630
- objs. near ocean surface, pulse scatt. and target ident. 17477
- ocean acoustic scatter from mid-Atlantic ridge corners, CW and time-domain simul. 18882
- oceanic waveguide spatially-localized inhomogeneities, sound scatt. 18881
- ribbed cylindrical shells, ident. by acoustic Bragg diffr. patterns 17475
- sea bed bistatic scatt., reverberation data anal. methods 26757
- seafloor acoustic backscatt., sediment struct. effects 10445
- shallow water HF bottom/subbottom backscatt. 4403
- small and nearby large cylinder scattered field, perturb. expansion 31796
- sonar echo from moving target in ocean waveguide, simul. 34169
- synthetic images of proud targets 17485
- underwater acoustic commun., rough surface scatt. effects 17356

acoustic wave transmission
- *see also ultrasonic transmission*
- coastal underwater sig. flucts. 17481
- distortionless underwater commun. using parametric array, conditions 42475
- planar periodic slotted waveguides pair, oblique surface waves 22683
- woven knit acoustically transparent screen 25687

acoustic wave velocity measurement
- *see also ultrasonic velocity measurement*
- dual-probe interferometers for accurate surface wave meas. 9870
- elastic consts. and mass dens., acoustic microscopy meas. 35364
- planar fiber optic acoustic vel. sens. 34737
- time-freq. meter, vel. of sound in liqs. 26016
- LiNbO$_3$, SAW phase vel. detect., laser probing syst. 10071
- LiNbO$_3$ integrated acousto-optic devices, SAW phase vel. meas. *(Chinese)* 14090
- SF$_6$ in accelerator gas, conc. determ., sound vel. meas. 34830

acoustic waveguides
- *see also acoustic couplers; surface acoustic wave waveguides*
- acoustic-EM piezoelec. waveguide coupler 6924
- broadband acoustic propag. and scatt. in waveguide, scatt. 18923
- defect detect., unidirectional waveguide syst. 28916
- drill strings, sound wave propag. 43562
- energy coupling of points of inhomog. medium 15610
- jns., low freq. impedance matrix 4415
- multiple acoustic sources, stabilized resoln., sector-focused proc. 42535
- ocean waveguide props., extraction, broadband pulse sigs. 18880
- sonar echo from moving target in ocean waveguide, simul. 34169
- sonar matched mode proc., parab. eqn. 17467
- surface transverse wave device, groove gratings, modelling *(French)* 30632
- LiNbO$_3$ cladded fibers, acoustic wave propag. 35363

acoustic waves
- *see also acoustic emission; seismic waves; shock waves; surface acoustic waves; ultrasonic waves*
- Hindi vowel recog., neural net 32419
- pipe length online meas. by acoustic sens. *(Japanese)* 17681
- soundphotics, light, sound converter 17610

acoustics
- *see also acoustic applications; acoustic devices; acoustic equipment; acoustic noise; aeroacoustics; anechoic chambers; architectural acoustics; atmospheric acoustics; audio acoustics; hearing; musical acoustics; nonlinear acoustics; photoacoustic effect; sound reproduction; structural acoustics; ultrasonics; underwater sound*
- IEEE ICASSP conference, Adelaide, Australia (1994) 20269
- IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
- IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854

acousto-optical convolution
- radar sig. proc., space/time integrat. acoustooptic archits. 7424
- space integrat. interferometric acousto-optic convolver 32858
- LiNbO$_3$ planar waveguides, multifrequency acoustooptic interact., modeling 14551

acousto-optical correlation
- compact acousto-optic proc. for SAR image form. 2830
- encoded opt. disks, database opt. correl. 30835
- hybrid acoustooptic integrated-optic radio sig. proc. 17702
- mil. commun., acousto-optic ESM receiver upgrade 18972
- pupil-plane filtering, incoherent opt. image proc. 22967
- radar sig. proc., space/time integrat. acoustooptic archits. 7424
- second- and higher-order cyclostationary proc., acousto-optics 32455
- Bi$_{12}$SiO$_{20}$ photorefr. integrator charactn. 7422
- LiNbO$_3$ planar waveguides, multifrequency acoustooptic interact., modeling 14551

acousto-optical deflectors
- dye lasers, tunable, acousto-optic deflector spatially modulated grating excitation 39682
- heterodyne interferometry-laser microscopy hybrid meas. syst., acousto-opt. deflectors 31023
- IR scene generation systs., IRFPA laser radiation response 17941
- prog. ultrashort opt. pulse delay by acousto-optic deflector 31020
- spectrometer, quasi-tangent interact. modulator 31019
- spectrum analyzer modulator/deflector, bandwidth, radio-astron. appls. 17529

acousto-optical devices
- *see also acousto-optical deflectors; acousto-optical effects; acousto-optical filters; acousto-optical modulation; acousto-optical signal processing; acousto-optical switches*
- 2-D opt. BFN 8077
- acoustic birefr. in particle dispersions, time-resolved meas. 31022
- antenna phased arrays, time delay transmit/receive opt. beamforming syst. 8076
- beam-steering/jammer-nulling photorefr. phased-array radar proc. 7437
- correlator for radar report-track assoc. 7423
- electro-holography, develop. *(Japanese)* 2145
- electro-holography, inform. reduction *(Japanese)* 2148
- embedded fiber-optic acoustic sens. for NDE 34540
- fibre acousto-optic freq. shifter, null coupler based 14554
- fibres acoustic modes excitation, horns wide band operation 14396
- four-port fiber freq. shifter, null taper coupler 15046
- IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
- in-fibre/fibre-compatible acousto-optic components 14553
- inter satellite cross links, non-mech. laser beam steering/spoiling methods 17308
- LINK Optoelectronic Systems Programme, London, UK (June 1994) 20
- opt. delay line RF filter, SEL diode array 7421
- phased-array antennas, liq. cryst.-based opt. controllers 7398
- planar fiber optic acoustic vel. sens. 34737
- radar sig. proc., space/time integrat. acoustooptic archits. 7424
- refr. eye microsurgery, laser tracking 17452
- SAR image form., opt. proc. 17417
- second- and higher-order cyclostationary proc., acousto-optics 32455
- space integrat. interferometric acousto-optic convolver 32858
- wavelength switching in opt. networks, acousto-opt. switches 17229
- Bi$_{12}$SiO$_{20}$ photorefr. integrator charactn. 7422
- p-Ge, intervalenceband pulse FIR laser, mode fine struct. 14891
- LiNbO$_3$ integrated acousto-opt. mode converters/tapered couplers , Tapered acoustical directional couplers 39506
- LiNbO$_3$ integrated acousto-optic devices, SAW phase vel. meas. *(Chinese)* 14090
- LiNbO$_3$:Ti waveguide acousto-optic Bragg cells 7380
- TeO$_2$ HF two-color laser radiation splitting 1752
- TeO$_2$ long time aperture acousto-optic delay line, design and charactn. 31021

acousto-optical effects
- *see also acousto-optical devices*
- fiber interferometer guided-acoustic-wave Brillouin scatt. meas. 25853
- fibres acoustic modes excitation, horns wide band operation 14396
- gyrotropic planar opt. waveguides, Bragg diffr. of light by ultrasound 1707
- IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
- InP and related devices, resonant acousto-optic effects 14555
- opt. fiber guided acoustic-wave Brillouin scatt., LF line shapes 1684
- two-mode fiber-optic time-delay scanner for white-light interferometry 25854
- GaAs and related devices, resonant acousto-optic effects 14555
- KNbO$_3$ crysts., anisotropy of acoustooptic effect 1648
- KNbO$_3$ crysts., electro- and acousto-optic props. 30555

acousto-optical filters
- apodized acousto-optic WDM switch/filter 7419
- codirectional Bragg WDM tunable acousto-optic-filter design 39534
- external-cavity acoustooptically controlled semicond. lasers, tuning fidelity 15003
- four-channel integrated photonic wavelength router 16981
- hierarchical star-controlled rings for multiprocessors 16723
- hyperspectral data from AO tunable filter, spectral and polarimetric anal. 16267
- hyperspectral imagery, anal. 18922
- in-fibre/fibre-compatible acousto-optic components 14553
- integrated opt. spectrometer, polaris. independent 14552
- miniature spectrometer, integrated acousto-optic tunable filter 7425
- multichannel acousto opt. tunable filter switches, reduced channel-to-channel interact. 39507
- noncollinear acousto-optic tunable filters, imaging spectropolarimetry 7416
- opt. CDMA, spectral encoding by acoust. tunable opt. filters 33983
- pupil-plane filtering, incoherent opt. image proc. 22967
- tapered single-mode fiber low-power acousto-optic devices 7420
- tunable filters, electro-optic tuning 22966
- tunable-filter design, near-ideal bandpass charact. 7417
- WDM cross connector electro-opt. controlled multiwavelength switch 34008
- WDM systs., acoustic-optic filters appl. 9449
- WDMA network, acousto-optic tunable filters and TAXIChip-based control channel 9562
- LiNbO$_3$ acousto opt. tunable filters 7418
- LiNbO$_3$ passband-flattened guided wave acousto-optic filter 34009
- LiNbO3 low-loss SAW dispersive filters, low sidelobe level in compressed sig. 39542
- TeO$_2$ acoustooptic tunable filters in multiwavelength opt. add-drop multiplexing appls. 17215

acousto-optical modulation
- coherent mode locked TEA CO$_2$ LADAR for risk reduction and phenomenology expts. 17443
- digital light modulator based on coupled acoustooptical states 39508
- encoded opt. disks, database opt. correl. 30835
- fibre-optic interferometric sens., TDM/FDM comparison 17903
- FLAME project, fibre laser acousto-optic modulators 9479
- GaAs, resonant acousto-optic effects 14555
- gyrotropic planar opt. waveguides, Bragg diffr. of light by ultrasound 1707
- in-fibre/fibre-compatible acousto-optic components 14553
- injection laser, acoustic matching, acoustic line 39885
- InP and related devices, resonant acousto-optic effects 14555
- mag. disk surface roughness meas. via opto-heterodyne interferometer *(Chinese)* 34698
- phase-modulating opt. coherence domain reflectometry 18128
- photothermoplastic recording of stroboscopic holographic interferograms 15180
- rhodamine 6G regenerative-feedback mode-locked dye laser, acousto-optic mode locker 39686
- space integrat. interferometric acousto-optic convolver 32858
- spatial light control, probabilistic anal. 22968
- spectrometer, quasi-tangent interact. modulator 31019
- spectrum analyzer modulator/deflector, bandwidth, radio-astron. appls. 17529
- tapered single-mode fiber low-power acousto-optic devices 7420

acousto-optical modulation continued
Ar laser radiation, polaris.-independent modulation, acoustooptic interact. 7717
Ar modulated laser source for PMT detectors monitoring 4168
Cr:LiSrAlF_6 self-mode-locked diode-pumped laser 14785
GaAs and related devices, resonant acousto-optic effects 14555
LiNbO_3 US superlattice, space-time modulation of X-ray beam 14089
Nd:glass laser pulse shortening by gain reshaping and soliton form. 23153
Nd:glass ring laser single freq. operation, acousto opt. induced 23140
PZT phase modulators in opt. fiber sens., transfer fns. 34523
Ti:Al_2O_3 laser, flash-lamp-pumped, hybrid mode locking 1918
acousto-optical signal processing
see also acousto-optical convolution; acousto-optical correlation
advanced SS radar, acousto-optic range-Doppler proc. 18988
array beam steering, acousto-optic control of time delays 8662
compact time and space-integrat. SAR proc. 17418
conf., opt. information processing advances, USA (1994) 36893
electronic combat systs. 18971
hybrid acoustooptic integrated-optic radio sig. proc. 17702
integrated optic device modules, sig. proc. 39460
null steering proc., init. hardware results 17419
second- and higher-order cyclostationary proc., acousto-optics 32455
solar RF emission anal., spectrometer methods and obs. *(German)* 25625
sound sens., intell., audio-visual sens. fusion syst. 40787
space integrat. interferometric acousto-optic convolver 32858
spatial light control, probabilistic anal. 22968
transition of opt. processors into systs., conf., Orlando (1993) 28242
acousto-optical switches
multichannel acousto opt. tunable filter switches, reduced channel-to-channel interact. 39507
tapered single-mode fiber low-power acousto-optic devices 7420
LiNbO_3 acousto opt. tunable filters 7418
LiNbO_3 integrated AO space-division opt. crossbar 7426
Nd:YAG 3.5 W output, diode-pumped, Q-switched 532 nm laser 14816
Nd:YAG periodical Q-switch lasers, pulse duration, output power 31271
acoustoelasticity *see elasticity*
acoustoelectric devices
see also acoustic charge transport devices; acoustoelectric transducers
memory for SS commun., Green's fn. appl. 6930
particulate charactn. by electroacoustics, conf., Gaithersburg (1993) 28261
seismic sources, marine sparkers, efficiency 10443
US beam scanning in ferroelec. ceramics by nonuniform elec. field 26784
n-InSb, freq. tuning prop. of HF nonlin. acoustoelec. oscills. 30566
acoustoelectric effects
circ. sector microstrip antenna, electroacoustic radiation charact. 40451
diffusion-driven semiconds., SBS gain profile 2059
liq. sample ident. by shear horiz. SAW sens. *(Japanese)* 34445
PEEK films, DC cond., ionic behavior 30588
surface transverse wave device, groove gratings, modelling *(French)* 30632
$La_3Ga_5SiO_{14}$ acoustic wave atten. meas., HBAR tech. 35362
acoustoelectric transducers
see also earphones; headphones; hydrophones; loudspeakers; microphones
calibration of electroacoustic transducers, parametric technique 22681
directivity indices meas. in reverberant fields 17608
hall electroacoustic syst. response 3692
rect. piezoceramic electroacoustic transducer, reson. freq. 10578
Pb(MgNbTi)O_3, relaxor ferroelec. for large strain sonar appl. 9670
acoustomagnetic effects *see magnetoacoustic effects*
acoustooptics *see acousto-optical effects*
ACT devices *see acoustic charge transport devices*
actinometers *see radiometers*
actinometry *see radiometry*
activation analysis (neutron) *see neutron activation analysis*
activation functions *see transfer functions*
active antenna arrays
2-D opt. BFN 8077
act. array module for spatial power combiners/act. antennas 31990
beam control techniques, IEE Colloquium, London, UK (1995) 11595
CDMA MM wave indoor radio capacity study 9202
dual FET act. patch elements for spatial power combiners 15658
high resoln. space-time anal. by act. array *(French)* 41034
integrated act. antennas, review 15628
integrated rect. dielec. resonator antenna config. 23910
K/K_a-band series-fed dipole and slot arrays transversely coupled to microstrip line 23944
linear active dipole array loading by neg. resist. devices 23980
MESFET oscillator loaded slot-coupled patch antenna, anal. 40501
MM-wave aperture-coupled microstrip patch antenna array 15667
motherboard technol. for active array opt. interconnection and packaging 23985
nonlin. CAD of act. antenna element design 31980
nonlin. effects in act. phased antenna arrays 23963
omni-directional sensitivity mag. field sens. 3790
phased array antenna, opt. controlled multiple beam forming/steering 8078
phased array built-in perform. monitoring, fault-isolation and correction syst. 23950
phased array radar for Royal Netherlands Navy *(English)* 3611
phased array reconfig. by biquadratic prog. 23952
quasi-optic act. arrays using subharmonic locking, beamforming 40506
radar MMIC packaging evol. 21578
spatial quasi-opt. MMIC power-combining array, device failures, DC open cct. 21563
two-element active array mode switching 23969
X-band SAR subpanel active antenna demons. model 25572
active antennas
see also active antenna arrays
Alcatel commun. satellite antennas 23895
broadband act. microstrip antenna design, real freq. tech. 23851
dielectric body of revolution/wire radiator spin by method of moments 23815
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
integrated antennas, opt. control, microwave-opt. interact. *(Japanese)* 8062
microstrip antenna, concurrent large sig. simul. 15652
MM-wave act. integrated antennas, harmonics *(Japanese)* 8060
monolithic antennas, skin sens. organs imitation *(Japanese)* 31982
paraboloid reflector, act. patch antenna fed 8051
passive and act. slot line ring antenna design and meas. 23913
pulsed radar antennas, pattern meas. syst. *(Japanese)* 40500
active antennas continued
radiotelescope (mm wave), antenna shape control syst. 17519
review of act. integrated antennas 15628
semi-act. multimatrix reflector antennas 31934
smart antennas, IEE Colloquium, London, (1994) 5509
active circuits *see active networks*
active databases
delayed conferencing, act. multimedia syst. 16802
active filters
see also biquadratic filters; continuous time filters
3-phase act. power filter, sliding mode control 19759
3-phase PWM converter, act. filter, control cct. 36356
AC distrib. networks, harmonic distortion reduction 35634
AC/AC converters, act. DC link filter 5130
act. compensated filters, HF appls., design/optim. 29352
act. SBS fibre amp./filter opt. clock recovery 39363
adaptive compensation of MOSFET-C filters 6217
bal. MOS transconductor, filter design appl. 6213
band pass higher order element filters, cct. anal. *(Russian)* 6204
BAW act. piezoelec. filters 30652
biquad high-order SC filters, multiplexing tech. 6220
boost converter surge suppression, act. filter 11154
CCII-based analog sig. filtering ccts., synthesis 722
centre-tapped spiral inductors for monolithic bandpass filters 37850
ceramic multicomponent modules, miniaturisation approach 5622
chaotic sigs., filtered and synchronized, commun. use 40851
CMOS AMPS IF filter, integrated, low noise, cellular telephone appls. 25354
CMOS OTA-C act. filter simul., OTA macromodel 21404
combined act. filter, high pass filter/current source converter 37861
coplanar MMIC act. bandpass filters, neg. resist. ccts. 12819
current-mode single-element-controlled bandpass/lowpass filters 37857
cycloconverter multiple noninteger harmonics, act. filtering 5125
data transm. filter, thick film hybrid implement. 6218
DC rly. vehicles, act. power filter appls. *(German)* 11421
DC rly. vehicles, narrow-band LF act. filters 20102
digital Holter monitoring syst., noise cancelling filter 35130
FACTS voltage stabiliser, series act. filter-based 19233
fault diagnosis, power-supply current monitoring/discrim. anal. 13847
feedforward act. filter for output ripple cancellation 6024
fractional shifts of ω_0 and Q, Budak-Petrela's method 37838
genetically derived filter ccts., preferred value components 37845
harmonic detect., neural network appl. 29355
HF fully integrated OTA-C filters, 7.2 GHz bipolar OTA 6210
HF monolithic filter, Darlington ccts. *(Japanese)* 37840
hydroelectric generator, winding I^2R losses, harmonic interf. 43986
insensitive second-order filters, high input impedance, current conveyors 12640
ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
LR terminated LC filter, synthesis/RC-act. simul. 21415
Maglev rly. inverter harmonic suppression method 11423
MELACT-1100 Series power act. filters, IGBT-based *(Japanese)* 519
microwave filters, nonlin. behaviour 21414
MMIC narrow-band filter, ultrahigh-Q tunable act. inductors 12822
monolithic variable integrator design, appl., filters 12634
multiple loop feedback OTA-C filters, perform. anal. 37848
multiplex realization of low-pass filters, switchable capacitors 516
nonidealities of op amps, effects on act. filters, anal. study 21407
nonlin. filter struct., act. sound and vibr. control, genetic algm. 32776
nonlin. in SC/SI filter networks, piecewise-lin. models 37855
nonsinusoidal power syst. supply quality improvement 19088
OTA, anal. *(Croatian)* 21410
OTA-based multifunction act. filter, prog., microcontroller appl. 12636
parallel act. power filter, control stabil. study 5112
perform. modeling of analog ccts. using additive regression splines, SC filter bank 30433
power convertor harmonics, current compensation/act. filtering overview 19774
power filters, compensation, 3D space current co-ordinate *(Korean)* 29356
power harmonic filters, computer simul. studies *(Korean)* 28998
power syst., nonactive power compensation, act. filters 27064
power syst. harmonic sig. estim./retrieval, act. power filter 10604
power syst. harmonics compensation, pass./act. power filter syst. 4500
power syst. harmonics/reactive power/unsymm. load compensation 4474
power syst. PF controller microcct. 26987
RC act. filter design, input/output impedance effects 21417
RC act. filter time-domain props., effect of gain bandwidth 6215
RC filter, HF compensation, FDNR *(Japanese)* 12639
RC filter, HF responses, compensation tech., functional trimming 6211
RC op amp and RC current conveyor filters, comparison 6216
SCF ccts., silicon-level design, num. optim. 6214
shunt act. filter control, compensation strategies 10631
SI filter syst., first/second generation SI cells, comparison of sensitivity 37856
SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
soft fault diagnosis, ANN-based tech. 30399
soft-switched current-fed PWM inverter, struct., appls. 19735
spacecraft solar array, shunt switching unit act. ripple filter 26679
table-based lin. transform. filters, OTA-C techs. 732
third-order Butterworth characts., insensitive current mode realization, current conveyors 12641
three-phase AC/DC ZVS power convertor topol. 19839
three-phase bridge rectifiers, harmonic filter studies *(Polish)* 5995
three-phase four-wire distrib. syst. act. power filter 19278
three-phase invertor-based act. power harmonic filter 19740
three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
three-phase series reson. act. power filter 19739
three-phase unbalanced power systs., act. power filter 10655
triquint 0.5 μ MESFET device microwave transconductance amps. and filter ccts. 6327
two freq. elec. locomotives, act. DC link filter 44541
universal current-mode filter, non-inverting CCIIs 37858
universal filter, current feedback amp. based, Mason graph deduced 21405
universal filter, two current-feedback amps. 37852
universal voltage-mode filter, current conveyors 6206
VCCS synthesis, lin. input range, act. RC filters *(Japanese)* 12633
voltage-mode filter with three current conveyors, comment 21416

active filters continued
voltage-mode notch/lowpass/bandpass filter, current-feedback amps. 733
VSI, shunt act. filter control, CAD 44186
wastewater plant, var. freq. drive. parallel act. harmonic filter 36810
wind power converter/inverter syst., 600 A/1200 V intell. IGBT module 19567
GaAs MESFET SC third order ellipt. lowpass ladder filter *(Korean)* 734
GaAs MMIC act. filters, synthesis incorporating noise effects 6328
InGaAsP/InP grating-assisted directional coupler, act. filter *(Japanese)* 7365

active networks
see also active filters; current conveyors; gyrators; impedance convertors; RC circuits
3-phase PWM boost rectifiers, dual boost converter 19726
anal., paper/pencil tech. 37853
attenuator using two cascaded MOSFETs, perform. charactn. 736
autonomous act.-R cct., chaotic perform. 21409
boost-based resistor emulators, act. inrush current limiting 44202
coplanar MMIC act. bandpass filters, neg. resist. ccts. 12819
digitally controlled lin. four-port network 463
digitally prog. integrator/differentiator ccts., OTA biasing 37860
feedforward amp. incorporating parallel output summing 12346
floating-inductor simulator, current-feedback amps. 21411
flyback converters, soft switching, act. clamp cct. 6004
glitch reduction in second-generation SI ccts. 37849
high input impedance all-pass cct. 726
high speed digital design using Spice controlled sources, accurate I/O models 20451
inductors for microwave freqs. 21597
injection-locked oscillating freq.-converters in dyn. phasor-domain, perturb. 6261
insensitive current mode variable gain allpass filter, current conveyors *(English)* 6219
lin. ccts., OTA/grounded capacitors, realization 37607
lin. MOS act. attenuator and amp., charactn. 29062
lin. voltage-controlled resist. in floating form 725
LTI act. networks, polynomial matrix theory *(Chinese)* 12632
microstrip antennas, semi-bal. amp. 15627
MMIC broadband act. quadrature phase shifter for mobile commun. 12805
multilayer PCBs, decoupling effects of Vcc/Vgg struct. 21635
node expansion theorem for controlled sources 5943
power cct. variable act.-pass. reactance studies *(Japanese)* 12311
PWM inverter act.-pass. reactance power cct. 5030
quartz crysts., test oscillator for drive level study 30617
R fn. generator cct., digitally prog. freqs. 12370
resonators, integrat. for UHF wireless appls. 12826
RLC cct. transient anal., matrix topol. methods *(Russian)* 6205
symbolic anal. of networks with nullors, cct. level decomp. 460
symbolic cct. anal., Mathematica package-based 5967
unfolded Chua's cct. generated by cellular neural net cells 37615
VCCS synthesis, lin. input range, act. RC filters *(Japanese)* 12633
voltage-controlled resistor, monostable multivibrates rem. control 29358
GaAs MESFET transconductors, DC gain enhancement 730
GaAs MIMIC TED-oscillator, 60 GHz, perform. 29590

active noise control
acoustic atten., adaptive generalized recursive control syst. 32604
aircraft act. noise control, research, reality 10371
broadband act. room noise control, local silencing 15989
conference on acoustics, Toulouse, France (May 1994) 5443
far-field sound radiation, act. control 10576
feedforward act. control, IIR filters 32602
gradient coils act. acoustic and mag. screening 38054
nonlin. filter struct., act. sound and vibr. control, genetic algm. 32776
nonuniform sparse meas., forced structural responses interpolation 18115
periodic noise cancelling syst., FPGAs 8380
rot. machine act. noise control studies *(Korean)* 27668

active transformers *see impedance convertors*

active vision
3D reconstruction of objs., large depth vars. 17929
analog spot position coding retina, active obstacle detect. 21457
attentional scanning model 32891
blurred image, inhomog., act. obj. location 33044
camera param. determ. by visual servoing *(Japanese)* 32867
camera self-orient., dyn. image params. 24611
computer vision, knowing when we are wrong 24710
computer vision conf., Berlin, Germany, 1993 20268
computer visions, conf., Stockholm, May 1994 11563
context-free attentional operators, generalized symm. transform 41081
controlled act. vision framework, robotic and transportation problems 8642
ego motion computation, vert. cue 41159
eye-head act. control, perceptual advantages 24613
first order optic flow from log-polar sampled images 24447
head-eye syst. for act. vision, camera calib. 24606
IVHS, multisensor vision systs. 42840
MAVI, multi-agent syst. for visual integrat. 41114
obj. tracking syst., two stage real-time 24359
optimal set of views planning, max-min principle 24612
pose refinement of act. models, forces in 3D 24467
security, site, visual surveillance by depth-from-focus 42686
sens. fusion, sens. location estim. errors 41107
survey and traditional computer vision comparison 32894
vel.-based vestibular-visual act. sens. integrat. 41108
view-insensitive descriptions, image obj. location 24465

activity-oriented simulation *see discrete event simulation*

actuators
see also electric actuators; intelligent actuators
3D modelling of EM actuators, iter. procedure 40273
actuator/servo interact. in opt. recording 30840
DC-motor-chopper drive, model, robot appl. 28101
EM bearings using generalized bias current lin., fault tolerance 40271
fast mag. actuator for diesel engine injection syst., FEM modeling 15252
fault detect. 25809
hard disk slider vibrs., ramp-suspen. interact., ramp loading proc. 7163
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
laser beam machining delivery control syst. *(Japanese)* 37061
lin. pulse motor actuators, principles and characts. 44256
lin. spring for PM levitation syst., EM control 44509
mag. actuator, nonlin. struct. dyn. 22712
mag. levitated lin. positioning syst., time-delay control 15341

actuators continued
moving-magnet actuator for disk drives, low-profile design 7180
noncontact permanent mag. levitation table, vibr. isolation 17654
NPP feedwater valves retrofitting, vibr. reduction 27339
on-board large mesh antenna reflector, high surface accuracy 15636
opt. head lens actuator, high bit rate recording 7105
opt. pickup design for mini disc drives 34295
power contactor armature posn. sens., rem. auxiliary contacts 29645
power station control valve/actuator develops. 35709
Terfenol-D actuators, control under load 7222

Ada
ATAG tri-service initiative 42720
ATC, Ada computer commun. interfacing 41773
avionics computers, real-time, Ada 9X solns. 10370
distributed Ada, implement. 26538
distributed systs., teaching, Ada reusable software components 5560
LAN, centrally scheduled, task distrib. 41774
simul. framework 35418
Tartan Ada develops. for DSP 21355

adaptive antenna arrays
array proc. appl., mobile commun. systs. design 17142
beam control techniques, IEE Colloquium, London, UK (1995) 11595
beam space adaptive array antennas, transmitting null beam forming 15665
beam-steering/jammer-nulling photorefr. phased-array radar proc. 7437
beamformer, recursive modified Gram-Schmidt algm. 2520
blind adaptive array simul. for realistic mobile channel 33795
blind diversity combining for antenna arrays 31978
cellular mobile radio, multiple service provision 3375
cellular mobile systs., blind combiner for space diversity 42280
cellular systs., adaptive array base station, spectral efficiency 17062
corner reflector, modal control, maximize far-field power 40503
covariance matrix eigenvalues rel. to mutual coupling 23973
DBS-satellites, mobile reception, adaptive antenna array 15664
DECT, adaptive antenna demonstrator, develop. 33852
DS-CDMA cellular systs., third generation, adaptive antennas 33850
DS-SS, directionally constrained adaptive beam forming 17003
dyn. syst. model and equiv. steering sig. 8253
gradient algm. control 2351
GSM900/DCS1800 systs., adaptive antenna arrays 3480
GSM network, adaptive antennas for freq. re-use 9395
HF radio sigs., adaptive proc., receiving antennas 40773
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
mobile commun., adaptive array methods 17067
mobile commun., digital beamforming, direction finding methods 33914
mobile commun., DSP for digital multi-beam forming antenna 17068
mobile commun. base stations, adaptive antennas 9394
mobile communications, IEE Colloquium, London (1994) 16
mobile radio, base station polariz.-sensitive adaptive antenna 33879
mobile radiocommunication, EMC props. 25326
mobile satellite commun., channel-indiv. adaptive beamforming 25321
multiple suppression, antenna syst. 31992
multirate adaptive arrays for broadband mobile commun. 33851
multistage CMA adaptive beamformer, convergence props. 8351
narrowband adaptive arrays proc., quantisation error modelling 32609
NAVSTAR/GPS adaptive array processor using analogue LMS algm. 25615
NMT 900 mobile telephony syst. adaptive antenna 3481
null steering of adaptive arrays, min. approx. 31963
partially adaptive array design, DOA estim. and null steering 23958
pattern nulling using array element elevations 23971
pattern synthesis, constraint/phase optim. 40513
PCN design, SDMA adaptive array approach 25375
phased antenna arrays, Hopfield network based adaptation algm. 15663
photonic beamformer archit. for multi-beam act. phase arrays 32004
prog. blind adaptive spatial filtering 40917
reflector antenna surface distortion EM compensation syst. requirements 23872
RF syst., diversity combining, sectored antennas 33755
satellite commun., adaptive antenna arrays and broadband sigs., EMC anal. 25449
scanning telemetry, interf. reduction 33419
sectored antennas, indoor radio, optimum combining diversity 42281
self-steered array syst. for microwave commun. 9196
smart antennas, IEE Colloquium, London, (1994) 5509
space commun. adaptive arrays, 2D wavelets/filterbanks appl. 9408
spatial sig. proc. by adaptive antenna arrays 16049
third generation radio archit., adaptive antennas appl. 3482
transceivers, lin. requirement 40514
transmitting antenna arrays with feedback, spectrum reuse 42266
vehicle to roadside commun., 5.8 GHz, adaptive array antennas 15666
wideband opt. nulling 7399
wireless commun. syst. adaptive array sig. acquisition and tracking 33792

adaptive arithmetic codes *see adaptive codes; arithmetic codes*

adaptive beamforming *see array signal processing*

adaptive codes
see also adaptive decoding
3D adaptive transform coding techs. for moving images 41089
ADPCM, destabilization effects of adaptive quantization 24151
block adaptive subband coding, optimized AMBTC 8117
block adaptive subband VPIC 8116
calib. algm. for synchronized chaos 8156
CDMA packet combining error control 25368
CELP coding, speech class. embedded in adaptive codebook search 8226
CELP model, computationally efficient adaptive codebook search 40714
CELP speech coding, almost no codebook search 32387
CMOS high-speed VLSI pipelined proc. design for lossless image data compression 29274
CMOS VLSI adaptive high-speed VQ archit. 29273
DCT image coding in combination with M-transform, channel coding perform. 16133
digital HDTV studio mag-tape-recording hardware codec *(German)* 9727
ECG compression, adaptive lin. prediction 43301
extrapolative prediction-discrete sine transform coding, adaptive prediction *(Japanese)* 16299
generic coder for binary sources, M-coder 32192
GSM half rate speech channel, codec candidate 33685
HDTV, adaptive coding algm., quantizer vector codebook *(Korean)* 42602
hierarchical digital broadcasting, adaptively weighted CDM 25628

adaptive codes continued

- high data rate video recording, 8-12 conversion channel code *(Japanese)* 9748
- higher order moments, channel adaptive coding techs. 32141
- home-use digital VCR, SBC with block-adaptive quantization, image data compression *(Korean)* 34282
- image coding, adaptive hierarchical VQ 15786
- image coding, adaptive hierarchical VQ 15787
- image coding, arith. and adaptive-Huffman entropy coders, prob. estim. 32871
- image coding based on visual activity level 24499
- image seq. block adaptive 3D subband coding 41097
- KL-transform coding of images based on variable block shapes 16132
- land-mobile satellite channel, adaptive rate error control 9370
- link adaptation in adaptive TDMA 33214
- lossless image compression, context-depend. distrib. shaping and parameterization 24502
- low-delay vector excitation speech coding with adaptive interframe pitch tracking 40722
- narrowband fading channel spectral efficiency with power control 42199
- pitch sync. innovation CELP (PSI-CELP) speech coding, basic algm. 24149
- pitch sync. innovation CELP coder for 2-4 kbit/s 33694
- robust backward adaptive pitch prediction for speech coder 32439
- slowly time-varying commun. channels, adaptive hybrid ARQ scheme 15782
- smart compression, embedded zerotree wavelet algm. 8603
- speech coding, adaptive VQ, codebook search algm. 32412
- video coding bit rate reduction tech. 16403
- visual sensitivity-weighted progressive image transm. using lapped orthogonal transform 41093

adaptive control

- *see also adaptive systems; model reference adaptive control systems*
- 200 MW klystron pulsed power modulator, electron LINAC appls. 34744
- 220 and 380 kV line dist. protection, adaptive automatic reclosure *(German)* 27267
- AC ASD, torque/speed/posn. control, trends 20065
- AC motor drive, adaptive predictive control algm. for compensation of params. 27875
- AC motor multirate motion control algms. parallel proc. 10966
- AC transm. line disturbances, adaptive feedforward control 10711
- adaptive KL-transform coding of images based on variable block shapes 16132
- airborne laser commun. syst., adaptive jitter rejection tech. 17310
- ATM call admission neural control 41450
- ATM networks, credit-based flow control 41400
- ATM networks, virtual path bandwidth control perform. 16796
- automobile two-state adaptive suspen., rule-based condition monitoring 5365
- back-press. control, adaptive, local inform. based 24790
- beam, bending wave structural intens., adaptive control 2543
- beam with embedded devices, dyn. response 37548
- brushless DC motor/robotic load, adaptive integrator backstepping tracking controller 19655
- brushless DC motors, nonlin. tracking controllers develop. 4994
- car, VITA II, collision avoidance in traffic, vision 36769
- car engine diagnosis, cyclostationary/time-freq. sig. anal. appl. 40936
- chopper fed PMDC motor elec. vehicles drive, adaptive ANN rule-based controller 36721
- colour image proc., adaptive exposure image input syst. for obtaining high-quality colour inform. 8529
- composite PSS, auxiliary self-tuning/fixed param. controller design 35507
- conf., active materials/smart structures, USA (1994) 36870
- controllable multidimensional shaping filter synthesis for discrete-value Markov seqs. 29371
- DC drive, neural net adaptive control 44446
- DC motor, adaptive control, two stage ident. 27752
- DC motor, adaptive speed control, torque estim./compensation 4993
- DC motor control, adaptive neural net, online training 44066
- DC motor drive adaptive neural speed regulators 36655
- DC motor drives, separately excited, tunable fuzzy logic control 20076
- DC servodrives, dyn. friction compensation 36644
- decentralised AI controllers, intell. home automation 4536
- doubly-fed variable speed wind generator adaptive control 4876
- dyn. interconnected systs., decentralized pole-assignment self-tuning controller 35560
- elec. locomotives, adaptive output power control studies *(Japanese)* 28112
- elec. machine act. vibr. control, piezoelec. actuator-based, simul. 36090
- elec. vehicle drives, time-varying adaptive μP control 36739
- electric generator adaptive fuzzy speed control, rule-based 19582
- filtering, ident., and control, interact. 41042
- free space laser commun., demons. of jitter rejection tech. 17313
- furnace, elec., fuzzy adaptive controller, proc. control appl. *(Korean)* 5389
- HF series reson. inverter, PFM/PWM control strategies 5388
- HF series reson. PWM inverters, induction heating appls. 5123
- HV AC-DC systs., multivariable adaptive control 4549
- hydrogenerators, adaptive speed control, RLS ident. 43988
- hydrothermal power syst., interconnected, adaptive load-freq. control 10627
- induction machine ident./control, neural net-based 44057
- induction motor, indirect adaptive control, reduced Kalman filtering 11030
- induction motor adaptive tracking control 36152
- induction motor ASD, adaptive speed control, ANN 28080
- induction motor ASD, VVVF inverter-based control *(Korean)* 28061
- induction motor drive, self-tuning control 36645
- induction motor drives, adaptive control, param. estim. 28064
- induction motor drives, digital adaptive control, transputer based 11379
- induction motor drives, direct self control/field orientation 36688
- induction motor drives, neural net-based param. estim. 20061
- induction motor drives, sensorless speed control, neural net-based 20063
- induction motor stator current control, neural net-based 19629
- induction motor stator current control, trained ANN, syst. ident. 11059
- induction motors with flux obs., adaptive nonlin. control 27727
- indust. laser cutting syst., knowledge-based adaptive control 5614
- LIM field control perform. improvement 11035
- LMSS, open-loop power control error 25300
- load freq. control, dual-rate sampling, design method 35559
- long-dist. power syst. adaptive generation control *(Japanese)* 10689
- min. effort estimators/controllers, perform. surfaces 32561
- mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
- multimachine power syst., param. adaptive control 19156
- multimedia PCN medium access control in mixed traffic environ. 41972

adaptive control continued

- neural engng. utility, adaptive algms. 34379
- neural network appls. in telecomm. network mgt. 3099
- OLYMPUS satellite 12/20/30 GHz propag. expt. results 31818
- opt. disc tracking adaptive learning control *(Japanese)* 14344
- phase control, RLS phase estim. 40799
- phased array radar, adaptive beam pointing control 17416
- PM sync. machines, act. vibr. compensation scheme *(French)* 10997
- PM sync. motor, adaptive nonlin. control 27688
- PM sync. servomotor drives, optimal/VSS control 5288
- power syst., adaptive multivariable optimal controller 4579
- power syst., two-area load-frequency control with neural nets 19113
- power syst., unknown interconnections, adaptive nonlin. excitation control 10684
- power syst. adaptive dist. relay protection automation simul. 27259
- power syst. adaptive underfreq. emergency control schemes 43676
- power syst. digital impedance relay, improved perform. *(Chinese)* 27263
- power syst. fuzzy adaptive excitation control method *(Chinese)* 43631
- power syst. generator operating point, fuzzy control *(Japanese)* 4592
- power syst. load freq. control, neural net-based 4542
- power syst. stabiliser, freq. domain design 27043
- power syst. underfrequency load shedding, control design 4556
- power transm. line adaptive resist. relay params. 4714
- PSS, turbine governor control 4564
- PV power syst. max. power tracking, fuzzy neural net-based 19552
- PWM inverter drive syst. adaptive control 5254
- rapid thermal proc., pole placement adaptive control 30010
- rapid thermal proces partial state MRAC 30402
- rate control for delayed feedback adaptive sources 24745
- real-time digital control environ., controller develop. appls. 10674
- RF amp. lin., continuous-time adaptive control 12349
- RLC reson. cct. tuning, neural network adaptive controller 12631
- robot adaptive electrohydraulic servoactuator control synthesis 36497
- SCI fairness protocol for increased throughput 3225
- SDH multirate time switching control algm. and sig. proc. DCS 41419
- security, site, visual surveillance by depth-from-focus 42686
- semi-conductor device manufacture, feedforward and adaptive feedback control 13572
- servo induction motor adaptive speed control 19625
- single-phase act. power line conditioners 10673
- solar power plant, distributed collector field, adaptive predictive control 10891
- squirrel cage drives, adaptive sliding mode speed control 36666
- SRM actuated rigid-link robot hybrid adaptive tracking control 36650
- steam power plant, self-tuning cascade temp. control 27549
- stepping motor drive, real-time mech. params. estim. *(French)* 11324
- superheated steam temp. self-tuning fuzzy control 10855
- switched controlled systs., adaptive PWM regulation schemes 40570
- switched reluctance motor fuzzy adaptive control 10988
- sync. generator nonlin. adaptive control, neural net-based 19607
- sync. generators, automatic voltage regulators design 36116
- sync. generators, neural network nonlin. adaptive controller *(Japanese)* 4924
- TCP-SS versus adaptive rate-based congestion control, perform. 2965
- TDMA syst. capacity enhancement by adaptive channel allocation and power control 33203
- telephone network mgt., learning automata 8777
- thermal power station, adaptive predictive control 27526
- thermomechanical pulping, adaptive refiner control syst. 10042
- three-phase current-controlled reversible AC-DC converter 11183
- three-phase power transm. line adaptive resist. relay 4715
- three-phase squirrel cage induction motor, adaptive vector control 36171
- three-phase turboalternator adaptive control, transputer-implemented 36119
- time optimal control, disk drive actuator, neural network 7179
- tracking constrained adaptive power syst. stabiliser 43660
- tracks stabilization, multiple model filters 32694
- tunable channel multi-access network adaptive-cycle protocol 41495
- turbines, intell. adaptive controller 43816
- turbogenerator, online adaptive stabilisation 4505
- turbogenerator adaptive reclosing, shaft torsional torque effects 4905
- turbogenerators, adaptive control, parallel proc. 27672
- TW US motor, adaptive speed control 11089
- TX-2000 multimedia multiplexer, digital network *(Japanese)* 25176
- US motors, adaptive speed control by phase control *(Japanese)* 11077
- variable speed DC motor drives, fuzzy self-organising control appl. 36689
- variable speed sync. motor drives, stator flux-oriented control 36667
- VSI, digital adaptive hystersis current control 19756
- weapons, laser pointing, observer-based adaptive control 10588

adaptive decoding

- *see also adaptive codes*
- geom. uniform trellis codes, decoding algm. 15752
- JPEG picture retrieval in portable hypermedia documents 8602
- real-time video variable length decoding cct. using adaptive tree search, 162 Mbit/s 25131
- smart compression, embedded zerotree wavelet algm. 8603
- tailbiting convolutional code decoding, circ. Viterbi algm. 32085
- Viterbi decoder, respective-state channel estim. *(Japanese)* 15741
- wireless multiservice CDMA environ., adaptive packet decoding 9360

adaptive delta modulation *see delta modulation*

adaptive differential pulse code modulation *see differential pulse code modulation*

adaptive equalisers

- 4 GHz 88 km overwater digital radio link perform, characts. 42184
- anchored const. modulus algm. for blind equalization 16410
- Bayesian decision feedback equaliser, CCI compensation 15941
- blind adaptive beamforming and equalization 9228
- blind adaptive equalizers convergence, input data correl. 32738
- blind clustering equalizer for digital mobile radio channels 3432
- blind equalization, weighted cumulant slices 41026
- blind equalization algm. for constant modulus constellations 32739
- CDMA lin. fractional spaced equalisation interf. cancellation 8740
- channel equaliser, functional-link models 32737
- channel equalization with perceptrons, inform.-theoretic approach 32027
- CMA/Godard adaptive filter bank, blind equalization 15945
- CMOS adaptive equalizer for partial-response channels 29246
- CMOS adaptive equalizer/Viterbi seq. detector, Class IV PRML 21156
- communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
- compandor design, adaptive, boundary adaptation rule 42176
- const. modulus algm., local min. escape transients 32670
- const. modulus algm. with periodic sources, assess./guidelines 24266

adaptive equalisers continued
data transm. SVD-based fractionally=spaced equaliser perform. 42043
DECT systs., low time-dispersive channels, adaptive equalization 3498
digital channel equaliser, switched coeff. adaptive filters 6199
digital commun. channels, adaptive nonlin. equalisation 15985
digital FM, adaptive equalizer 3428
digital mag. recording systs., adaptive nonlin. DFE 40854
digital QAM ADSL systs., adaptive sig. proc. 9096
digital satellite channels, adaptive DFE, multilayer neural networks 25453
DS-SS/QPSK systs. for multipath channel, adaptive equalizer *(Japanese)* 25212
echo-cancelled discrete multitone systs., timing recovery 9090
fading mountainous terrain 3426
fast decision feedback LMS algm., multiple step sizes 8462
fast min. error probab. blind equalization algm. 16028
filtering in data commun., self improved error ref. 33160
fractionally spaced adaptive blind equalization 24265
fractionally spaced equalizers, adaptive sampling 33161
fractionally-spaced equalization, lattice struct. 781
FSE/DFE-based HDSL equalizer, adaptive algms. 9087
HDSL chipset for high-speed transm., copper 16920
hidden nearly completely decomposable Markov chains, adaptive estim. 40971
hierarchical digital broadcasting, adaptively weighted CDM 25628
high speed adaptive equalizers, complexity reduction 33768
high-speed train, adaptive channel equalization 3423
HMM for blind channel charactn. and data detect. 40943
hybrid DS/FH SS syst. for mobile radio channel 3483
indoor radio, trellis-coded CPFSK, adaptive soft-decision feedback equalization 9357
indoor radio channel, neural-based packet equalization 9307
IQ filter struct. for use in adaptive equalisation, LTE/DFE, digital commun. 3313
IR-wireless LAN using RBF neural networks 33469
IS-54-B portable digital cellular phone *(Japanese)* 42288
ISDN U-transceiver adaptive filters, DSP based real time simul. 29260
joint blind equalization/phase recovery scheme for data commun. 3431
LF equalisation, adaptive digital filters 24295
LMS-based, fast convergence, ref. sig. modif. 6258
low-order channel equalisers, off-line modulus restoral algm. 33159
mag. disk, analog/digital PRML read channel equalizers 30737
mag. HDD, adaptive RAM-DFE read channel 30730
mag. recording, adaptive continuous-time equalization and FDTS/DF seq. detect. 30725
mag. recording, RAM-DFE archit. 30739
mobile commun., adaptive equalization, DSP technol. *(Japanese)* 33903
mobile commun., delay lock loop, delay path cancellation *(Japanese)* 25274
mobile radio commun., interf. canceling equalizer 9383
mobile radio receivers, adaptive algms. for flexible equaliser 42270
model-based adaptive histogram equalization 2653
multicarrier modulation syst. equaliser training algms. 40559
multipath fading environ., adaptive equalization 3429
non-lin. adaptive filters for time-variant equalization 29363
nonlin. adaptive clustering 16024
nonlin. commun. channel equalization by wavelet neural nets 41397
OQPSK in indoor environ., perform. 9301
Prefiltering for blind equalization *(Japanese)* 40769
PRML mag. read channels, high speed, CMOS analog front-end archits. 30727
QAM, self-learning adaptive recursive equalizer 32771
QAM demodulator appls., 6-GOPS sig. proc., archit. and CMOS cct. design 33681
QAM systs., globally convergent blind equalization 32740
QPSK adaptive DFE with MLSE 41385
recurrent ANNs, adaptive equalizers in digital commun. 32585
reduced-state channel equalizer, T-algm. 9302
RLS adaptive equaliser digital commun., importance sampling 16409
RLS bilinear filter for channel equalization 32728
second-/higher order stats., adaptive blind equalization 15890
shallow water commun. syst. for autonomous underwater vehicle 9663
short-block digital transm., adaptive MLSE for mobile radio 3427
sparse systs., complexity-constrained LS estim. 42532
stabilized fast transversal filter algm., sig. proc. appls. 37871
subband adaptive digital filter, perform. anal./appls. 40779
TDMA digital cellular commun., adaptive channel equalization 42267
TDMA digital mobile radio, adaptive diversity receivers 9306
underwater acoustic commun. digital receiver 17359
underwater acoustic data commun. link adaptive equaliser 9612
underwater commun., self-optimized adaptive algm., equalization *(French)* 25592
underwater high data rate acoustic commun. systs. perform. 17360
VHF/FM sigs. blind adaptive equalization by symm. tuning 17004
wireless pers. commun., TDMA methods 17109

adaptive estimation
see also adaptive signal processing
adaptive MLSE, fading environ., equalization/decoding 15887
airborne US rangefinders, adaptive target tracking algms. 42533
algms. for time delay estim./IIR filtering 40830
almost periodic sigs., extraction, cyclostationarity 40934
ATM networks, adaptive bandwidth mgt. 24909
ATM networks, adaptive call admission control 41436
ATM-based network environ., media schedular for AAL 42039
blind wideband source separation 40920
CMOS adaptive neuro-fuzzy analog chips 29418
diversity reception, prediction, smoothing, interpolation 25447
DOA estims., Kalman-based estimator 8434
ECG compression, Fourier series, FFT, adaptive coeff. estim. 43291
eigensubspace, adaptive estim. 32550
fading mountainous terrain, adaptive equalization 3426
fast defuzzification by adaptive integrat., hardware implement. 29284
filtering, sign algm., convergence anal. 32531
hidden nearly completely decomposable Markov chains, adaptive estim. 40971
image coding, arith. and adaptive-Huffman entropy coders, prob. estim. 32871
low bit rate video hybrid codec 42088
min. effort estimators/controllers, perform. surfaces 32561
mobile commun., adaptive equalization, DSP technol. *(Japanese)* 33903
mode filters for sig. and image proc. appls., robust types 8328

adaptive estimation continued
multiple model adaptive estimator target tracker, accel. models 32542
narrowband fading channel spectral efficiency with power control 42199
nonlin. adaptive filter struct. for estim./detect. 8416
rank and subspace tracking, lin. computational complexity, adaptive algm. 40912
RLS based subspace tracking 32470
SAR images adaptative segmentation 17431
SAR param. estim., adaptive algm., texture recogn. *(Chinese)* 34108
satellite image segmentation, texture/context/map 26781
shallow water commun. syst. for autonomous underwater vehicle 9663
short-block digital transm., adaptive MLSE for mobile radio 3427
side-scan sonar images classif. via parametric modeling 17487
sig. proc. algms., efficacy 40875
sinusoidal sigs. in non-Gaussian noise, adaptive detect. 15900
small-sample condition estimator for matrices, rank-one modifs. 32474
speech recogn., HMM, Bayes adaptive algms. 24141
time-freq. representations, adaptive method 8431
transit time estim. in multiphase flow, mixed modality scheme 25698
Viterbi decoder, respective-state channel estim. *(Japanese)* 15741
white stochastic proc., fourth-order cumulant, adaptive estim. 40861

adaptive filters
see also adaptive Kalman filters
1D sig. smoothing, sieves and weightless neural nets 8327
2D adaptive filter, Laguerre fn. 32759
2D adaptive lattice struct. for noise cancelling 32680
2D backpropag. cascade adaptive recursive filters 6231
2D block adaptive FIR filtering algm. 33152
2D transform domain adaptive FIR filtering 2575
5.0 kb/s coder for vehicular appl., acoustic echo/noise canceller 9123
acoustic echo cancellers, exponentially weighted step-size projection *(Japanese)* 42096
acoustic echo-canceler for teleconferencing syst. 16912
ADPCM speech coding based on adaptive mel-cepstral anal. *(Japanese)* 15812
airborne radar clutter suppression, adaptive antenna proc. 25559
algms. for speech sig. proc., comparative study 2430
algms. for time delay estim./IIR filtering 40830
antenna phased arrays, time delay transmit/receive opt. beamforming syst. 8076
array proc., adaptive rational subspace estim. for non-white additive noise 32452
array proc. for block adaptive LS FIR filtering 2529
arrhythmia detect., adaptive recurrent filter 43304
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
audio sig. compression, circ. wavelet packets 32525
audio-visual-audio inform., hierarchical sens. fusion *(Japanese)* 16054
autoadaptive independ. component analyzer, analog CMOS implement. 21478
bilinear filtering, adaptive algms. 32469
biological systs., nonlin., adaptive filtering/estim. 34728
blind clustering equalizer for digital mobile radio channels 3432
blind equalization algm. for constant modulus constellations 32739
block adaptive filter, interf. robust, correl. sig. input 32701
broadband act. room noise control, local silencing 15989
broadband adaptive beamforming by 2D spatial filters 23972
cardiac arrhythmias detect./ident., adaptive lin.-predictive filter 18577
CDMA adaptive SS receivers, CCI suppression 33883
CDMA overlay systs., adaptive interf. suppression 17037
CELP coders, backward adaptive lattice/transversal predictors 2409
CMA/Godard adaptive filter bank, blind equalization 15945
compact disc, variable-bit-rate buried-data channel 34290
COMPLAB syst., adaptive interf. compensator simul. 28984
const. modulus algm., local min. escape transients 32670
contraction mapping, property in adaptive filters 24269
convergence props., nonlin. dyn. 15882
coronary artery disease, diastolic heart sounds, harmonic decomp. 26288
correl. filter, noise adaptive discrim. 39544
cortical steady-state visual evoked pots., adaptive noise canceller 10236
cost fn. for syst. ident. utilizing parallel adaptive filter 2515
data commun., self improved error ref. 33160
data transm. SVD-based fractionally=spaced equaliser perform. 42043
delayed LMS algm. for adaptive FIR filtering 32677
delayed LMS transversal adaptive filter vectorization 741
digital images, visual appearance/fidelity eval. 2611
digital QAM ADSL systs., adaptive sig. proc. 9096
digital signal processing, conf., Yosemite, CA, USA (1994) 11548
digital/analogue filters, symp., London, UK (Nov. 1994) 28264
discrete-time/continuous-time const. modulus algm. anal. 29383
double-talk detect. method, detecting echo path fluct. *(Japanese)* 40719
DS-CDMA receivers, min. MSE, complexity reduction 3328
DS-SS systs., adaptive filters, freq. sweeping sig. rejection 17020
DS-SS systs., narrowband interf. rejection 33750
DS-SS systs. impulsive channel, narrowband interf. suppression 33751
DSL discrete multitone modulation, high-speed full-duplex echo cancellation 40560
DSP implement./perform. eval. of stereo echo canceller 34287
DSP teaching aid, algorithmic engng. 36926
dual sign algm., contaminated-Gaussian noise, perform. anal. 32669
ECG anal. software package 43300
ECG proc., high-gain, real-time, beat-by-beat, freq.-band adaptive filtering, optimisation 26416
echo canceler struct., time varying normalized LMS algm. 24348
echo cancellation, voice commun., sig. proc. methods *(German)* 42049
echo canceller with adaptive FIR filter, anal. for Gaussian sigs. 32747
echo path modelling, chaotic-driven, coding strategy 33398
electrogastrographic study, adaptive filtering comparison 26398
enhanced RLS tracking, parallel adaptation 32698
eqn.-error adaptive IIR filters, bias removal 24201
extended inverse QR adaptive filtering algm. 15983
FAEST, fast transversal algms., error generation and propag. 32699
fast converging low complexity adaptive filtering algm. 15987
fast Newton multichannel algm. for decision feedback equalization 24309
fault tolerant FIR adaptive filter, conjug. gradient algm. 29365
fault tolerant FIR adaptive filter based on FFT 32753
fault-tolerant adaptive FIR filters, variable detect. threshold 29364
filters, neural, adaptive, finding, genetic algms. 32527
FIR adaptive filter, least mean p-power error criterion 15884

adaptive filters continued
- FM IF syst., improved selectivity, top-down design methodology 34229
- four-wire loop systs., correl. AR subscriber sigs., echo canceler perform. 25144
- freq. sampling filter banks, alias-free charact. *(Japanese)* 12651
- full-band acoustic echo cancellers, steady-state perform. 33676
- fuzzy based syst. ident. 32772
- fuzzy rule based adaptive nonlin. filter for myoelectric sigs. 35132
- Gamma and Laguerre filters equivalence 37892
- gamma filter for echo cancellation in subscriber loop 33674
- Gaussian filter for noise reduction/edge detect. 33030
- generalized adaptive median filters, appl. in computed tomography 26323
- generalized multidelay adaptive filter, struct./convergence anal. 24199
- generalized URV subspace tracking LMS algm. 32757
- generalized wavelet decomp., adaptive syst. ident. 41032
- genetic algms. for recursive digital filters 16059
- GIVE, IIR adaptive echo canceler 15883
- globally convergent adaptive blind filters and blind equalisers 2863
- gradient ADF and convergence anal., arbitrary inputs *(Japanese)* 29367
- hands-free cellular phone, subband adaptive noise canceler 17115
- HF direction finding systs., polariz. diversity contrib. 34187
- ident. and adaptive control, interact. 41042
- IEEE ICASSP conference, Adelaide, Australia (1994) 20269
- IIR adaptive filter, globally convergent, output error formulation *(Japanese)* 21437
- IIR adaptive filters, optimum order assign. on numerator/denominator 744
- IIR ADF for line canceller and pole-control algm. *(Japanese)* 21436
- IIR filtering, cascade struct. 8283
- IIR filtering, composite prefiltered regressor method 32775
- IIR filtering, fast convergent genetic search 32705
- IIR filtering algm., sig. proc. appls. 24194
- IIR filtering for adaptive phase jitter cancellation 32748
- IIR filters, time-varying perform. surfaces 24200
- IIR notch filters for adaptive sinusoid detect. 2548
- IIR sub-band adaptive filter banks 755
- image enhancement, fuzzy filter 2794
- image filtering, struct. preserving inhomog. diffusion 8607
- image proc., line preserving adaptive median filter 24526
- image restoration, adaptive-neighborhood image deblurring 16323
- image seqs., noise reduction, motion compensation/sig. decomp. 32874
- impulse response estim., subband adaptive digital filter 8390
- ISDN U-transceiver adaptive filters, DSP based real time simul. 29260
- lattice notch filter, tracking anal. 40853
- least sq. lattice filters, nonstationary chirp input, PARCOR 40831
- LF equalisation, adaptive digital filters 24295
- lin.-constrained adaptive filtering, robust FLS algm. 32750
- line enhancers, fourth-order enhancement *(Japanese)* 12620
- live speech network assess., digital adaptive filter 40750
- LMS acoustic echo cancelers, slow asymptotic convergence 24313
- LMS adaptive algms., DC offset effects, comparison 40852
- LMS adaptive filtering algm. 8330
- LMS adaptive FIR filter dimens., learning rate 32756
- LMS algm., nonlin. behavior 24345
- LMS algm., short-time instabilities 24268
- LMS median filter, local stabil. 2462
- LMS-Newton adaptive filtering algm., variable convergence factor 40806
- LS based, gradient type adaptive algm. 32758
- LS based gradient type adaptive algo., least sq. gradient 2514
- M-LCELP speech coding, 4 kb/s, multi-mode and multi-codebook 9120
- M-LCELP speech coding, 4 kbps 33688
- mach. monitoring, adaptive sound press. sig. filtering in noise 4427
- mag. recording, adaptive continuous-time equalization and FDTS/DF seq. detect. 30725
- maneuvering target tracking by neural net 32622
- median filters, algms./results 33134
- median LMS lattice adaptive filters 21421
- microcontroller implement. of adaptive myoelec. filter 26474
- min. effort estimators/controllers, perform. surfaces 32561
- modular Laguerre nonlin. model 21427
- morph. subband decomp., image coding 24396
- multilayer adaptive filters, BP trained, stat. approach 2556
- multiple-error and block LMS adaptive algms., anal. 24342
- multiple-error/block LMS adaptive algms., mean-sq. anal. 32761
- multirate adaptive arrays for broadband mobile commun. 33851
- multirate proc., convergence speed improvement 8411
- multiscale contour approx., adaptive smoothings *(Japanese)* 2655
- neighborhood mean and median image filtering 16322
- NLMS/block RLS algms., block proc. algms. link 32553
- noise cancelling, speech enhancement *(Korean)* 24156
- noise stats. estimators, adaptive filters *(Chinese)* 24278
- noisy/textured images adaptive segmentation 16151
- non-lin. adaptive filters for time-variant equalization 29363
- nonlin. adaptive filter struct. for estim./detect. 8416
- nonlin. algms. for radar tracking 17400
- nonlin. filter struct., act. sound and vibr. control, genetic algm. 32776
- nonlin. neural filters, algm. 32702
- nonlin. recursive state-space filters 748
- nonlin. sig. proc. and adaptive filtering, orthonormal fns. 32777
- nonminimum-phase syst. ident., adaptive allpass filtering 2565
- normalised order stat. LMS adaptive filtering 8329
- normalized TDM-LeRoux-Gueguen algm. for multichannel adaptive filters 21428
- Northern American Digital Cellular Syst. adaptive algm. fading channel tracking props. 33825
- obj.-oriented design for adaptive filter perform. comparisons 32628
- optimum convergence factor for adaptive filters *(Korean)* 21439
- order stat. LMS algms. for non-Gaussian noise 2467
- orthogonal block adaptive line enhancer, LMS adaptation 8354
- orthonormal discriminant vector method for pattern recogn. 15897
- output error method IIR ADF, stabil./globally convergence 32704
- overlay CDMA syst., multiple BPSK interferers, perform. anal. 33747
- oversampled subband acoustic echo cancelers, anal. filters, expt. 24273
- oversampled subband acoustic echo cancellers 25136
- parallelizable adaptive least sq. algm., tracking abilities 32751
- partial discharges, adaptive filtering meas., noise suppression 13967
- perfect reconstructional multidimensional filter banks 8274
- photorefr. device opt. inform. proc. 32945
- poly-phase struct. for syst. ident./adaptive filtering 32762
- Prefiltering for blind equalization *(Japanese)* 40769
- prog. blind adaptive spatial filtering 40917

adaptive filters continued
- prog. canonical correl. anal. for blind adaptive spatial filtering 9167
- projection algm. for adaptive spatial filtering 2538
- proportion-sign algo. for adaptive filtering, perform. anal. 2519
- pseudolinear regression IIR adaptive algm., filter design 24185
- pulse compression radar, terrain-scatt. jamming suppression 25553
- QAM, self-learning adaptive recursive equalizer 32771
- QR-decomp. based adaptive bilinear lattice algms. *(Korean)* 37876
- QRD inverse-updates method for fast time-series adaptive filtering 32478
- QRD-RLS/STAR-RLS adaptive filters, fixed/floating point error anal. 32700
- quantizer neuron chip, neuron model/neuroprocessor 12675
- randomly time-varying channels tracking algms. 2466
- real-time adaptive filtering algms., parallel archits., perform. eval. 37894
- RF amp. lin., continuous-time adaptive control 12349
- rheopneumographic meas., respiratory artefact removal, adaptive FIR filters 10226
- RLS adaptive bilinear filters, stabil. result 8394
- RLS algm., wt. misadjustment, input sig. correl. effect 40843
- RLS algms., error propag. anal. 8429
- RLS bilinear filter for channel equalization 32728
- RLS filtering, iter. version of QR-decomp. 32479
- RLSL algms., comparative anal. regarding num. behavior 32480
- RLSL prediction filter, a posteriori, error accumulation effects 24302
- robust block adaptive filter for colored sig. input 37865
- robust real-time constrained hearing aid arrays 18609
- sens. array proc., adaptive subspace selection 40962
- separable-denominator 2D adaptive filters, appl., noise reduction in images 41324
- shallow water channel estim. methods, comparison 17460
- SHSER, algm. for adaptive IIR filters 753
- sig. proc. in subbands, sigma-DM tech. 32719
- sign algm., convergence anal. 32531
- single and multi microphone noise cancellation, fast algm. 32484
- sinusoidal param. estim., real time cascade adaptive notch filter 2524
- small-size obj. detect. on digital images, adaptive algms. 24385
- source nonlinearity calibration using Volterra adaptive filters 25903
- space commun. adaptive arrays, 2D wavelets/filterbanks appl. 9408
- sparse-tap adaptive FIR filters, multiple echoes, fast convergence algm. 32693
- speech coding, adaptive postfiltering for quality enhancement 8224
- speech coding, neural networks in adaptive DPCM 15717
- speech echo cancellation, adaptive-filtering techs. 32411
- speech enhancement via adaptive eigenfiltering 24140
- speech formant extraction, zero tracking 8185
- speech noise whitening filter for syst. ident. 40746
- speech param. extraction, noisy environ., masking model 32384
- stabilized fast transversal filter algm., sig. proc. appls. 37871
- still-image region-oriented orthogonal transform coding *(Japanese)* 16374
- stochastic gradient adaptive filters, partial updating 24267
- subband adaptive digital filter, convergence speed, multirate repeating method *(Japanese)* 21435
- subband adaptive digital filter, perform. anal./appls. 40779
- subband adaptive digital filter with crit. sampling, perform. 745
- subband adaptive filter allowing max. decimation 12645
- subband adaptive filtering algo., intersubband tap-assign. 2516
- subband adaptive syst., equiv. model, perform. anal., Wiener filters *(Japanese)* 29368
- subband adaptive systs., perform. anal., equiv. model 32696
- switched coeff. adaptive filters 6199
- time const.-based variable LMS algms. for adaptive filtering 8466
- time-variant struct. matrices, instrumental variable method appls. 32485
- time-varying filter banks and wavelets 2471
- time/space-variant filtering, α-trimmed mean filter *(Japanese)* 21438
- transform-domain adaptive filters, anal. method 32551
- transform-domain split-path adaptive filter, convergence optimality 32760
- transversal filter algm. for recursive LS adaptive filtering 2531
- TV ghost cancelling method, multiplicationless adaptive ident., multipath channel *(Korean)* 3657
- TV picture sig. conversion for progressive reprod. *(German)* 25656
- two-channel rejection filters with countable coeffs., optim. 32571
- valves, motor-operated, noninvasive diagnostics 19624
- variable convergence filter, cardiac action pots. appl. 10229
- variable precision IEEE floating point simul. using C++, DSP design 6175
- voice fund. wave filtering method, fine pitch contour extraction 32404
- Walsh transform. for speech echo interf. suppression 24159
- wavelet transform adaptive filtering 32524
- Weaver SSB subband acoustic echo canceller 16822
- zero tracking algms. for stationary/nonstationary environ. 16058
- SO_2, absorpt. cross sects., differential absorpt. laser spectrosc. 26009
- Si integrated adaptive LMS echo canceller, variable step size 16926

adaptive Kalman filters
- airborne US rangefinders, adaptive target tracking algms. 42533
- ATM networks, adaptive bandwidth mgt. 24909
- digital mobile commun., adaptive Rayleigh fading compensation for coherent GMSK sigs. 3433
- digital mobile radio, model based adaptive channel ident. algms. 17100
- FFT/displacement struct., subsampled-updating RLS algm. 2552
- HMM filters for sigs. in noisy fading channels 32736
- integrated GPS/GLONASS navig., algms. and results 17504
- manoeuvring target tracking, multi-model adaptive Kalman filter 15964
- mobile commun., adaptive equalization, DSP technol. *(Japanese)* 33903
- multiple model adaptive estimator target tracker, accel. models 32542
- neural network decision directed edge-adaptive Kalman filter 33060
- parallel adaptive IIR digital filters, Kalman filters *(Japanese)* 12652
- RLS algm. based on var. characts. of room impulse response 32749
- robust Kalman filtering insensitive, continuous outlier *(Chinese)* 2454
- short-lived dyn. syst. discrete adaptive filters 32650
- tracks stabilization, multiple model filters 32694

adaptive optics
- *see also optical phase conjugation*
- acoustic flucts. reduction, astron. adaptive optics *(English)* 25590
- adaptive joint transform correlator shape retrieval 33007
- astron. telescopes, adaptive optics appl. 31577
- CEMERLL (compensated Earth-Moon-Earth laser link) expt. 17287
- closed-loop adaptive-optics optimisation, multiple control bandwidths 3776
- compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315

adaptive optics continued
- conference, lasers in optical systems/devices, St. Petersburg, Russia (1993) 11526
- deformable mirror adaptive optics and laser beam control appls. *(Japanese)* 7706
- DP neural-network device for adaptive opt. syst. 14564
- freq.-domain adaptive iter. image restoration 2705
- image-spectrum SNR improvement 2708
- imaging through atmos. turbulence, frame selection 16200
- kinoform calc. by adaptive iter. method 2133
- large holographic opt. element writing by adaptive opt. syst. 7822
- laser, power beaming, conf., Los Angeles, CA, USA (1994) 11554
- laser alignment meas. syst. based on opt. activity, adaptive noise cancelling 31691
- laser materials processing/machining, conf., Frankfurt, Germany (1994) 11555
- multichannel laser measuring systs., resolving power adaptive correction 15201
- neural network for modal compensation of atmos. turbulence 16202
- nonlin. ring resonator, oscill. mode selection, bifurcation of chaotic mode transits. 15117
- opt. adaptive device, competitive learning cct. 39518
- phase diversity as on-line wavefront sens., expt. results 16217
- piezoceramic plate bending motion meas. by homodyne holographic interferometry 40153
- single-mode laser, intracavity adaptive mirror output charact. 31448
- turbulent atmos. laser beams, adaptive direction correction 15020
- wave-front sens., closed-loop adaptive optics syst., error propag. 14567
- wavefront reconstruction, self-referenced direct-drive adaptive optics 7861
- wavefront simul. for atmos. turbulence 15448
- wavefront tilt sens., CCD matrix 42855
- $BaTiO_3$ photorefr. cryst. for laser wavefront correction 30818
- CO_2 laser phase-conjug. multidither adaptive opt. syst. *(Japanese)* 7517
- Nd^{3+}:YAG laser, intracavity adaptive opt. syst. 31276

adaptive radar
- optical processor systems, conf., Orlando, USA (1994) 5435
- SAR param. estim., adaptive algm., texture recogn. *(Chinese)* 34108
- transition of opt. processors into systs., conf., Orlando (1993) 28242

adaptive resonance theory networks *see ART neural nets*

adaptive signal detection
- *see also adaptive signal processing*
- adaptive Bayesian decision feedback equaliser, CCI compensation 15941
- adaptive MLSE, fading environ., equalization/decoding 15887
- asynchronous CDMA systs., lin. adaptive transmitter-receiver 25243
- binary adaptive detectors, convergence perform. 24326
- brainstem auditory evoked pot., detect. by adaptive filtering 26404
- cellular commun., cyclic sigs. adaptive beamforming 3371
- cyclostationary sig. prop. based adaptive beamformers 8353
- deep water acoustic LAN, adaptive lin. multiuser receiver 34181
- digital FM, adaptive equalizer 3428
- digital mobile radio, model based adaptive channel ident. algms. 17100
- double-talk detect. for adaptive noise canceller 8182
- DS-CDMA syst., adaptive multiuser interf. rejection algm. 42163
- DS-SS sigs. radiometric detect., wavelet transform 17012
- dual-channel iter. speech enhancement, auditory-based spectrum 8220
- ghosting probab., sig. contamination probab. eval. 32543
- GSM, M-detector, coherent receiver antenna diversity, perform. 17040
- IIR notch filters for adaptive sinusoid detect. 2548
- joint blind equalization/phase recovery scheme for data commun. 3431
- morph. subband decomp., image coding 24396
- multiple model adaptive estimator target tracker, accel. models 32542
- multiuser demodulation, neural network techs. 17001
- multiuser detect., survey 24353
- nonlin. adaptive filter struct. for estim./detect. 8416
- optimum combining in wireless systs., BER upper bounds 9170
- orthogonal block adaptive line enhancer, LMS adaptation 8354
- parallel form DFE, DFT 8383
- phase control, RLS phase estim. 40799
- radar targets, polariz.-space-time domain detect. 34136
- radio direction finding, nonbiased estim. of ang. coord. 17494
- self-organizing multiuser detect. 25239
- subpixel targets, unknown spectral charact. 16103
- subspace-constrained SCORE algms. 8365
- sym.-by-sym. detector for lin. dispersive AWGN channels 16017
- sync. multiuser CDMA detector, multidimensional adaptive canceler 15898
- TCM sig. detector, time-dispersive channels 15957
- underwater moving sig. adaptive detect., hydroacoustic data 34175
- wireless commun. syst. adaptive array sig. acquisition and tracking 33792

adaptive signal processing
- *see also adaptive signal detection*
- 1D sig. smoothing, sieves and weightless neural nets 8327
- 2D adaptive filter, Laguerre fn. 32759
- 2D adaptive lattice struct. for noise cancelling 32680
- 2D block adaptive FIR filtering algm. 33152
- act. periodic noise cancelling syst., FPGAs 8380
- act. sonar, adaptive waveform selection 34173
- adaptive nonlin. algms. for radar tracking 17400
- additive contaminated-Gaussian noise, dual sign algm. 8395
- airborne radar clutter suppression, adaptive antenna proc. 25559
- algms. for time delay estim./IIR filtering 40830
- almost periodic sigs., extraction, cyclostationarity 40934
- ambulatory ECG, adaptive data compression *(Japanese)* 4285
- ARAKE type receiver struct. for narrow band wireless systs. 15955
- array proc. for block adaptive LS FIR filtering 2529
- astron. radio images, adaptive deconvolution 34198
- asynchronous CDMA systs., interf. minimization 42165
- autoadaptive independ. component analyzer, analog CMOS implement. 21478
- beamformer, recursive modified Gram-Schmidt algm. 2520
- blind adaptive array proc. methodology 9165
- blind adaptive array simul. for realistic mobile channel 33795
- blind adaptive beamforming and equalization 9228
- blind adaptive equalizers convergence, input data correl. 32738
- blind deconvolution of colored input sigs., criterion 8369
- blind equalization, deterministic approach 8086
- blind equalization, weighted cumulant slices 41026
- blind equalization algm. for constant modulus constellations 32739
- blind source separation, composite criterion 40960
- blind wideband source separation 40920

adaptive signal processing continued
- block adaptive algm., conjug.-gradient method, perform. 41041
- brainstem auditory evoked pot., enhanced approach, adaptive proc. 43279
- broadband act. room noise control, local silencing 15989
- broadband adaptive beamforming by 2D spatial filters 23972
- canceller, pulse compression interacts. 24325
- CDMA overlay systs., adaptive interf. suppression 17037
- cellular mobile systs., blind combiner for space diversity 42280
- cellular systs., handoffs, adaptive averaging 25341
- CELP coders, backward adaptive lattice/transversal predictors 2409
- channel equaliser, functional-link models 32737
- chest digital radiography, adaptive image enhancement *(Korean)* 26364
- CMA/Godard adaptive filter bank, blind equalization 15945
- CMAC, adaptive resoln. and appl., nonlin. sig. proc. *(Japanese)* 24336
- CMOS adaptive VLSI neural network chip 29436
- composite type wavelets 40928
- coning scan imager, point detect. 2608
- constrained neural network, complex activation fn. 32660
- constraint based audio interpolators 16003
- convergence props., nonlin. dyn. 15882
- coronary artery disease, diastolic heart sounds, harmonic decomp. 26288
- cyclic sig., adaptive beamforming and fast implement. 40938
- data compression, adaptive image sampling/interpolation 16387
- data-adaptive evol. spectral estim. 24209
- DCT coeffs., adaptive quantization, subjective redundancy removal 8613
- DECT systs., low time-dispersive channels, adaptive equalization 3498
- delayed LMS algm. 32677
- desktop videoconferencing codec, adaptive Motion-JPEG design 16814
- digital commun. sigs. separation, joint space-time decorrelation 40935
- digital QAM ADSL systs., adaptive sig. proc. 9096
- digital satellite channels, adaptive DFE, multilayer neural networks 25453
- digital storage channels, knowledge-based adaptive channel estim. 7192
- digital underwater commun., adaptive beamformer perform. 9659
- discrete orthogonal fns., systolic archit. 8324
- discrete-time/continuous-time const. modulus algm. anal. 29383
- DOA estims., Kalman-based estimator 8434
- DOA tracking, QR updating/exponential sliding windows 32726
- double-talk detect. for adaptive noise canceller 8182
- DS-CDMA syst., adaptive multiuser interf. rejection algm. 42163
- DSP teaching aid, algorithmic engng. 36926
- DSP-based teleconferencing syst., perform. eval. 16815
- dual sign algm., contaminated-Gaussian noise, perform. anal. 32669
- ECG, lin./nonlin. adaptive sig. enhancement, comparative study 35114
- echo canceler struct., time varying normalized LMS algm. 24348
- echo cancellation, voice commun., sig. proc. methods *(German)* 42049
- echo cancellation, voice commun., sig. proc. methods *(German)* 42048
- echo canceller, finite wordlength effects, modelling 16626
- edge preserving VQ by self-organizing map 41371
- efficacy of adaptive sig. proc. algms. 40875
- eigensubspace, adaptive estim. 32550
- eqn.-error adaptive IIR filters, bias removal 24201
- equalisation, nonlin. adaptive clustering 16024
- error diffused images, estimating error diffusion kernel 8611
- extended inverse QR adaptive filtering algm. 15983
- fault tolerant QR decomp. 32494
- FFT/displacement struct., subsampled-updating RLS algm. 2552
- fractionally spaced adaptive blind equalization 24265
- freq. hopping commun., blind adaptation algm. 9166
- full-duplex speaker phone based on adaptive predictor 9109
- GAIA, generalized adaptive image analyzer, inspection appls. 28513
- generalized multidelay adaptive filter, struct./convergence anal. 24199
- generalized URV subspace tracking LMS algm. 32757
- GIVE, IIR adaptive echo canceler 15883
- hands-free cellular phone, subband adaptive noise canceler 17115
- hearing aid microphone array data, robust adaptive proc. 18608
- HF radio sigs., adaptive proc., receiving antennas 40773
- hidden nearly completely decomposable Markov chains, adaptive estim. 40971
- HMM filters for sigs. in noisy fading channels 32736
- hybrid reflector antennas, adaptive nulling 23856
- IBM Tangora speech recogn. syst., adaptation techs. 32214
- IIR filtering algm., sig. proc. appls. 24194
- image adaptive raster, halftoning, error diffusion 2640
- image compression, PDF estimators 33011
- image motion estim., adaptive modelling 32983
- image region growing 2738
- image segmentation, adaptive, smooth surface objs. 16182
- independent sources, adaptive separation, deflation approach 40914
- inter-channel prediction, joint stereo audio coding 15776
- interf. cancelling, hyperstability theory 16019
- inverse halftoning/kernel estim. for error diffusion 33133
- least sq. lattice filters, nonstationary chirp input, PARCOR 40831
- lin.-constrained adaptive filtering, robust FLS algm. 32750
- LMS adaptive algms., DC offset effects, comparison 40852
- LMS adaptive FIR filter dimens., learning rate 32756
- LMS algm. for adaptive sig. proc. *(Chinese)* 8400
- LMS-Newton adaptive filtering algm., variable convergence factor 40806
- local bandwidth adaptation, spectral dens. estim., wavelets appl. 32652
- lossless data compressors, fixed dictionary, adaptive update algms. 32127
- lossless image compression, block scans codebook 15886
- LS based, gradient type adaptive algm. 32758
- LS based gradient type adaptive algo., least sq. gradient 2514
- maneuvering target, underwater tracking, time delay meas. 25594
- median filters, algms./results 33134
- microwave diffr. tomography, adaptive imaging algm. 16349
- min. effort estimators/controllers, perform. surfaces 32561
- mobile commun., adaptive equalization, DSP technol. *(Japanese)* 33903
- mode filters for sig. and image proc. appls., robust types 8328
- model adaptive image restoration 8609
- modular Laguerre nonlin. model 21427
- morph. subband decomp., image coding 24396
- motion adaptive colorplus encoding 8685
- motion compensated video coding, block matching algm. 24585
- motion tracking, adaptive moving method *(Korean)* 24692
- multi-rate bandpass filter bank, QRNS complex arith. 6229
- multichannel subset autoregressions, seq. fitting, prewindowed case 24308
- multicomponent radar interf., adaptive suppression 34120
- multilayer adaptive filters, BP trained, stat. approach 2556
- multimedia appls., high quality image compression 41970
- multiple-error and block LMS adaptive algms., anal. 24342

adaptive signal processing continued
multiple-error/block LMS adaptive algms., mean-sq. anal. 32761
multirate proc., convergence speed improvement 8411
multispectral imagery, practical transform coding 16309
multistage CMA adaptive beamformer, convergence props. 8351
multistage CMA adaptive beamformer, real-time implement. 9227
multitransform/multidimensional image sig. representation, reconstruction 8627
narrowband adaptive arrays proc., quantisation error modelling 32609
NAVSTAR/GPS adaptive array processor using analogue LMS algm. 25615
neural network mapping, multiuser array beamforming 40907
NLMS/block RLS algms., block proc. algms. link 32553
noise adaptive speech recogn., HMM representation 40741
noise cancelling, speech enhancement *(Korean)* 24156
non-Gaussian time-varying AR models, cumulant-based approaches 2523
non-homog. DNLMS algm., decreasing step size, convergence 32755
nonlin. adaptive prediction of nonstationary sigs. 32560
nonlin. adaptive predistorter for satellite commun. channels *(Korean)* 25460
nonlin. sig. proc. and adaptive filtering, orthonormal fns. 32777
nonstationary environ., recursive suppression algm. perform. 40798
optimum adaptive combiner for ciclostationary sigs. 16006
param. estim., QR methods of O(N) complexity 40814
partially adaptive lin. constrained arrays, sparse approach 41015
PCN, handoff criteria 9378
PCN design, SDMA adaptive array approach 25375
perceptually motivated three-component image model, compression appl. 33128
periodic phenom., spectral anal., uncertainty 40969
phased array radar, revisit control for tracking manoeuvring targets 17371
photorefr. device opt. inform. proc. 32945
poly-phase struct. for syst. ident./adaptive filtering 32762
predictive coding, transform domain quantization 15774
prog. canonical correl. anal. for blind adaptive spatial filtering 9167
projection algm. for adaptive spatial filtering 2538
pulmonary capillary press. anal., adaptive filtering, mutual wavelet packets 43186
pulse compression radar, terrain-scatt. jamming suppression 25553
QAM, self-learning adaptive recursive equalizer 32771
QAM systs., globally convergent blind equalization 32740
radar adaptive antenna proc., array errors influence *(French)* 17404
radar adaptive polaris.-space-time proc. algm. 25561
radar sigs., wavelet subband decomp. in adaptive arrays 17395
radar targets, polariz.-space-time domain detect. 34136
rank and subspace tracking, lin. computational complexity, adaptive algm. 40912
rational fn. filter for estim./detect. 8416
reconfigurable knowledge database, nonlin. sig. proc. *(Japanese)* 24335
recursive algm., lin. eqn. *(Japanese)* 24337
reduced systolic engine for nonlin. dyn. systs. anal. 29243
ref. sig. generator echo cancellation, ISI receiving schemes 32725
refl. topol. building blocks for adaptive microwave sig. proc. appls. 29588
RIQ-DPCM, audio sigs. compression 15775
RLS adaptive bilinear predictors 32773
RLS algm., wt. misadjustment, input sig. correl. effect 40843
RLS algms., error propag. anal. 8429
RLS bilinear filter for channel equalization 32728
RLSL prediction filter, a posteriori, error accumulation effects 24302
robust real-time constrained hearing aid arrays 18609
SAR, fuzzy block adaptive quantizer 9623
SAR images adaptative segmentation 17431
scalar sig. separation, decorrelation 32697
scan conversion methods, subjective assess. 42582
SDH multirate time switching control algm. and sig. proc. DCS 41419
second-/higher order stats., adaptive blind equalization 15890
second/higher order stats. change detect., texture segmentation 8560
segmentation-based predictive multiresolution image coder 16311
seismic events automatic classif. in BUG small array 26699
self-steered array syst. for microwave commun. 9196
sens. array proc., adaptive subspace selection 40962
sig. copy, partially known, unknown array response 40957
sig.-adaptive time-freq. distrib., generalized marginals 2584
single-chip Viterbi decoder for binary convolutional code 40582
small-size obj. detect. on digital images, adaptive algms. 24385
solid-state actuators, periodic forces cancellation 30755
sonar anal., adaptive data extrapolations in time-freq. representations 9672
sonar sig. proc. syst. based on TMS320 series 17488
source nonlinearity calibration using Volterra adaptive filters 25903
source separation, one stage self-adaptive algm. 32695
space commun. adaptive arrays, 2D wavelets/filterbanks appl. 9408
sparse systs., complexity-constrained LS estim. 42532
spatial sig. proc. by adaptive antenna arrays 16049
speech coding, adaptive mel-cepstral anal. 32258
speech noise whitening filter for syst. ident. 40746
speech recog., adaptive method for indiv. speaker *(Japanese)* 32417
speech recogn., noise reduction, adaptive microphone array appl. 15827
speech recogn. in noise, root adaptive homomorphic deconvolution schemes 32315
speech sig., Fourier spectra, adaptive enhancement 8221
stabilized fast transversal filter algm., sig. proc. appls. 37871
STFT anal., frame-adaptive techs. for quality vs. efficiency tradeoffs 32766
STFT anal., quality vs. efficiency tradeoffs 40844
subband adaptive digital filter, perform. anal./appls. 40779
subbands, sigma-DM tech. 32719
sync. CDMA commun. syst., adaptive interf. cancelation 25241
systolic arrays for spherical subspace tracking 6170
teaching, algm./archits./appl. 36925
THD meas., Volterra series, LMS adaptive algm. 34684
time-domain scatt. sig. extraction, BP neural net *(Chinese)* 8657
time-freq. anal., generalized marginals, adaptive kernel design 32744
time-freq. representations, adaptive method 8431
time-varying filter banks/wavelets, factorization 32706
time-varying parametric modeling 40908
TOSBURG II, spontaneous speech dialogue syst., eval. 15849
transform-domain adaptive filters, anal. method 32551
transform-domain split-path adaptive filter, convergence optimality 32760
transit time estim. in multiphase flow, mixed modality scheme 25698
transmitting antenna arrays with feedback, spectrum reuse 42266
TV picture sig. conversion for progressive reprod. *(German)* 25656

adaptive signal processing continued
two-microphone adaptive beamforming speech proc. for cochlear implant patients 43366
underwater commun., self-optimized adaptive algm., equalization *(French)* 25592
unequal-length multichannel δ_b-Levinson/Schur type RLS algm. 24310
video data compression, adaptive speed VQ 8652
Walsh transform. for speech echo interf. suppression 24159
weighted norm extrapolation algms., convergence anal. 8304
white stochastic proc., fourth-order cumulant, adaptive estim. 40861
wideband microwave sigs., opt. nulling 41205
wideband opt. nulling for antenna syst. 7399
wireless commun. syst. adaptive array sig. acquisition and tracking 33792
HgCdTe IRFPA nonuniformity correction algm., real-time hardware prototype 17948
Si integrated adaptive LMS echo canceller, variable step size 16926

adaptive systems
see also adaptive control; adaptive filters; adaptive optics; cognitive systems; learning systems; model reference adaptive control systems; pattern recognition; self-adjusting systems
3D motion, robust tracking 24454
adaptive handoffs, estim. of fading params. 9367
adaptive obj. extraction/tracking in complex image seqs. *(Chinese)* 8658
Asian Test Symposium, Japan, Nov. (1994) 5504
asynchronous CDMA systs., lin. adaptive transmitter-receiver 42145
ATE with adaptive fault detection, integrated technology enhanced 42709
cellular radio, adaptive traffic prediction algm. 3404
cellular syst. variable C/I threshold distributed adaptive channel allocation scheme 33806
conscientious competitive learning, adaptive, and appls. 15743
deadlock and livelock free routing algm., adaptive 24767
disabled people, commun./IT, Canadian Nat. Strategy 43369
distributed computing systs., adaptive protocols, simul. model 41528
DS-SS receiver for burst type interf. 17002
EDTV-II motion-adaptive vert.-temporal helper sig. *(Japanese)* 17556
elec. load forecasting, short-term, adaptive neural net 35584
enhanced recogn. syst. perform., adaptive learning concepts 16280
EVAM, eigenvector-based algm., multichannel blind deconvolution 24301
fault detect., uncertain nonlin. systs., diagnostic observers 28522
FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
feedforward act. filter for output ripple cancellation 6024
ferritic steel weld images, automatic thresholding/edge linking 16135
FH-SSMA, adaptive retransmission control 16434
GSM adaptive type-II hybrid ARQ/FEC protocol 3445
harmonics power logger, adaptive storage/automatic data selection 34657
highway cellular radio dyn. channel assignment failure rate 33805
interf. cancelling, hyperstability theory 16019
lin. feedforward amp., convergence behaviour 3324
LMS algm. for adaptive sig. proc. *(Chinese)* 8400
load-adaptive/TDMA systs. perform., satellite networks appl. 9415
multistage interf. cancellation for CDMA 7990
narrowband microcellular speech transm. schemes 3332
neural engng. utility, adaptive algms. 34379
packet-switched WAN, distributed adaptive routing, perform. 3189
parab. systs., integrated space-time adaptive hp-refinement methods 37344
power syst., adaptive relay protection, hierarchical structs. 4723
power syst. adaptive digital relaying, LMS algms. 35674
Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
relative flexibility estim. of equipt. and systs. 11842
self-adjusting piecewise toroidal recog. 24414
semantic phase transit. in classifier based on adaptive fuzzy syst. 8580
shape models from image seqs. 24460
slotted TDM throughput anal. for ARQ protocols 33253
sound sources separation, beamforming Herault-Jutten network 26782
speech recogn., SCHMM params., Bayesian learning 32264
TDMA access for third generation cellular commun., resources 25394
TDMA syst. perform. in outdoor microcellular environ. 33828
TDMA-TDD personal commun. syst. ADPCM voice transm. improvement 33830
telephone channels, discrete algms. for compensating elec. echo 2571
third generation mobile systs., adaptive radio interface 25395
translation-invariant second-order opt. neural network for multiple-pattern class. 24486
videophone, H.261-compatible fuzzy coder 3104
word spotting, adaptive noise immunity learning 32317
wormhole router, cost of adaptivity and virtual lanes 29291
Si adaptive monochromators for high-power insertion devices 26255
Si fixed-exit monochromators for high-energy SR 26256

adaptive transform coding *see adaptive codes; transform coding*

add-on boards
DSP-based image proc. syst., real time meas. of knee joint movement 26270
EPSILON proc. card, analog neural comp. framework 29508
ISDN PC card, design *(Japanese)* 16933
MPEG, full-motion internat. video compression std. 16365
neural network simulations, educational environment, DSP based acceleration 21472
PCI-based systs., cct. boards, design 12890
PCMCIA standardization for PCB design, manufacture and assembling 12927
SS-1 supercomputer storage card design, packaging challenges 144
testing, EMC Directive 21643

add-on computers *see coprocessors; satellite computers*

adders
1-bit symbolic substitution adder, opt. implement. *(Korean)* 31028
1st-order digital allpass filter sects., comparative study *(English)* 6232
2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
16-bit CMOS divider/sq.-root cct. design 6171
algorithmic synthesis of high level tests for data path designs 29183
all-opt. adder based on soliton interact. props., theoretical model 14557
asynchronous machines, direct self control algm. modelling 11041
binary, residue transform., respect, 2^m+1 moduli 626
binary serial-parallel multiplier, hardware approach 37703
bit-pair recoding Booth algm. 32×32 bit high speed parallel multiplier *(Korean)* 37715
bit-serial multipliers and sq. 6124
carry lookahead adder for CMOS multiplier 29094
CMOS 54×54-b multiplier using pass-transistor multiplexer, 4.4-ns 29145
CMOS analogue adder, self-biased config. 21455
CMOS cct. arith. elements optim. for sig. proc. 29142

adders continued
- column compression multipliers for sig. proc. appls. 29141
- combinat. cct., hierarchical knowledge modelling *(Japanese)* 5970
- design modelling and comparison using Verilog HDL 29297
- five-input adder with dual carry-out, appls. *(Chinese)* 12399
- four-grating interferometer for opt. logic gate implement. 31047
- gray-scale morph. filtering, digit-serial archit. 21277
- high voltage high brightness electron accelerators 10082
- max.-redundancy radix-8 SRT division/sq.-root method 12476
- multi-bit parallel adder, symmetric signed-digit nos. 6065
- N-bit parallel opt. adder, fully parallel arith. algm. 31024
- opt. carry chain fast adder 31025
- oscillator neural networks for image proc. 12678
- parallel adder design, algo. implement. for high dens. codes 6063
- parametric delay and area models 6066
- permanent hardware faults of floating point adder 37605
- polariz. encoded opt. multiwavelength full adder 22972
- power consumption of CMOS adders 21215
- pulse arith. based neural network implement. 21470
- purely recursive digital filter testability 21442
- radix digit-serial pipelined divider/sq.-root archit. 600
- random pattern testable floating point adders 12458
- self-timed adder with pipelined output, design, CMOS implement. 6064
- self-timed floating point coprocessor prototyping, FPGAs 21288
- self-timed ripple-carry adders, compiler changes for efficient operation 29121
- single-step opt. matrix-matrix multiplier, diffractive opt. elements 31040
- synthesis for modified three module syst. of residue classes 21250
- table-lookup for binary/residue and residue/binary conversions 6196
- VLSI array design for DHT, cyclic convolution 29191
- GaAs MESFET high speed adder, multiple-output domino logic 29127
- GaAs precharged low-power logic family, adder implement. 21264
- GaAs serial dyn./static divider for solid modelling accelerator 29129
- SiC NMOS digital IC, logic gates 632

additive white Gaussian noise *see Gaussian noise; white noise*

adherence *see adhesion*

adhesion
- 3D polymer substrs., sputtered thin film metallization 12170
- 25 mil pitch SMT mount assembly, conductive adhesives/Pb-free solder 38152
- AC locomotives, slip vel. feedback torque control *(Japanese)* 11407
- adhered struct., US NDT, reverberation cancellation, z-transform tech. 28901
- adhesive bond, acousto-US eval., pattern recogn. anal. 5921
- adhesive-based IC interconnects, materials/reliab. considerations 13432
- antirefl. coatings, ion implant. effects *(German)* 7446
- aperture-coupled multiplayer microstrip antenna anal. 31942
- bump-pad adhesion, thermocompression bonding effects 21668
- cohesive mech. props., tensile testing 28912
- compliant bumps for adhesive flip chip assembly 5648
- conducting adhesives for HDI 11813
- conductive adhesive eval. as solder replacement 38107
- conductive adhesives and solders for SMT, environ. comparison 38110
- conductive adhesives for assembly of SMT, fine pitch, MCMs and flip-chip bonding 37116
- conductive polymer solders for Pb-free SMT/PCB/fine-pitch assembly 38130
- conf., interface control of elec., chem. and mech. props., USA (1993) 36832
- contact recording coatings, nanoindentation, microscratch, friction, wear 39184
- cyanate ester die attach adhesive, plastic packaging 5634
- diamond films, hot filament CVD on sapphire 20929
- diamond films adhesion on Mo/W/carburized W substrs. 37478
- diamond thin film, adhesive strength, US NDE 28913
- diamond-like C coating for opt. windows, CVD deposited 1780
- diamond/(C-C) composite, semicond. base 12193
- diebond thermal fatigue model, damage integral based anal. 11746
- double polysilicon layer structs., plasma etching effects 13325
- dual-coated opt. fibre, interfacial shearing stress anal. 30896
- electronic systs., package cracking, probabilistic sensitivity anal. of dyn. response 5664
- electrostatic powder coating, microstruct. surface props. 7902
- end termination ink materials for smart card MLC fab. 6363
- epoxy die attach, dispensing technol. and systs. 12950
- EPR dielec. relax., clay effect, TSDC meas. 14057
- fine line cct. mfg. technol., electroless Cu plating 29680
- fine line thick film conductors by gravure offset printing 12946
- fine pitch interconnections, anisotropic conductive adhesive 22281
- flip-chip packages, low thermal expansion encapsulants, props. 132
- glass fibre reinforced composites, surface anal. 5905
- glass plates, stress measuring method, polarized laser and photo-elastic modulator 34705
- heatsink bonding, semicond. packages, silicone adhesive 5675
- IBM MCM-D, polyimide dielec. material appls. 37542
- ion-assisted deposition, modeling, BCA computer simul. 20924
- ionic salt photodefinable polyimides, MCM-D dielec., Cu metallization 21740
- isotropic conductive adhesives, solder replacements 21654
- lead on chip plastic package adhesive tapes 11800
- lead on chip struct. memory package, adhesive material 13853
- lead-on-chip package, tapeless technol. 11794
- lead-on-chip packages, cracking failures 5672
- lightweight metals bonding adhesion layer, electronic appl. 12185
- locomotive motor wheel set drives, adhesion utilization improvement 36758
- low stress polymer die attach adhesive for plastic packages 11801
- mag. disk, lubricant bonding, hydrogen bond network 7154
- mass rapid transit three-phase traction motors, adhesion perform. *(German)* 28104
- MCM, thermally conducting adhesives, thermo-mech. study 28496
- MCM substr. manufacture, cost-competitive appls. 21695
- metal-filled polymer conductive adhesives, elec. props. 438
- metal/ceramic laminates for electronic packaging, thermomechanical failure 12197
- metal/polyimide fine line struct., adhesion and fracture anal. 1171
- MID, moulded interconnection device, mfg., adhesion/metallisation proc. 37138
- MMICs and ICs, interconnect lines, metal-dielec. adhesion 13426
- molding cpds., copper leadframes 5668
- multilayer bond and etch SOI buried insulators, radiation response 13252

adhesion continued
- multilayer microstruct. fab. for electron beam microcolumn microlenses 13909
- nested microvalve for integrated microflow controller 30495
- opt. fibre coating design 39331
- opt. fibres, UV cured coatings, reliab. 1660
- package cracking, molding cpd. and die attach adhesive 5665
- Parylene conformal coatings compatibility with no-clean flux residue 38109
- pass. opt. cpds., adhesives reliab. 1692
- PCB manufacture, conductive adhesives 12925
- photodefinable benzocyclobutene thin films for MCM/IC packaging appls. 12206
- picolitre flux dispensing for PWB assembly 12939
- PLCC ink mark reliab. enhancement, flame treatment, tests 142
- polyimide-metal interfaces, curing chem. and hydrolytic stabil. 12211
- polymer surface, plasma modif., adhesion, review 440
- polymer surface modif., wet proc., adhesion, metallis., review 442
- polymer surface morph. tailoring, improved adhesion 441
- PTFE substrs., cct. fab. methods 6436
- rigid-flex MLB package, z-axis intermetallic/thermosetting adhesive method 37140
- rly. traction drive readhesive control studies *(Korean)* 28121
- semicond. packages, bonding, silicone adhesive 28473
- smart high temp. composites, opt. fibres, thermal spray/adhesive bonding 3853
- SMT, solder alternatives eval. 145
- SMT assembly, adhesive dispensing 12900
- SMT PCB solder replacement technol. testing 5607
- sticky particles, pair distrib. fns./atten. rates 15409
- surface mount joint, thermal stress under uniform temp. change 28481
- thermal stress anal. of soldered/bonded joints, defects 28457
- thermally-pulsed plastic IC package, thermo-structural behavior, delamination 28483
- thermoplastic die attach for hermetic packaging 21666
- thick film hybrid ccts., high reliab., for automotive appls. 29697
- thin film bonding, ion beam tech., review 289
- thin SOP delamination, moulding cpd./polyimide interface chem. 37078
- US eval. of adhesive fillet, neural nets appl. 12245
- US NDT of adherent area, metal/nonmetal surfaces 453
- UV laser irrad./electroless deposition method, IC metallisation 12144
- VLSI plastic packages, reflow soldering perform. improvement 6840
- z-axis conductive adhesives, fine pitch appls. in consumer electronics, accelerated life test 135
- Al-ceramic surface activated bonding, electronic/chem. procs. 37530
- AlN PGA type packages, reliable cofiring technols. 28444
- AlN/electroless plated Ni/Cu, indirect bonding, hot pressing 5857
- Au-NiCr metallization, CVD diamond substrs., MCM appls. 12981
- Au-Ti metallization, CVD diamond substrs., MCM appls. 12981
- p-$Cd_{0.95}Zn_{0.05}Te$/metal contacts, elec. props. and contact metall. 13226
- CeO_2 thick film buffer layers for HTSC films 22724
- Cr thin films on polyimide, adhesion study 11820
- Cu IC interconnections, materials issues 30137
- Cu MOCVD, Cu-betadiketonate precursors, surface effects 37492
- Cu coating, plasma sputtered, characts., Al contacts 29626
- Cu electroless deposition troubleshooting, PCB manufacture 38100
- Cu film, ion beam assisted deposition, lower resist., higher interface adhesion 37512
- Cu grain growth during Cu-Cr and Cu-Ti thin film nitridation, situ TEM 38583
- Cu metallisation/low k dielec. IC interconnect materials technol. 38635
- Cu metallization mfg. issues for future ICs 38643
- Cu polymer metallization, adhesion mechanisms, theoretical modelling 12212
- Cu surface/interface modif. for IC appls. 38647
- Cu thick film conductor, inorganic binders 6440
- Cu thin films on polyimide, adhesion study 11820
- Cu/Al(Ti)/SiO_2 interface, ultrathin sacrificial diffusion barrier anal. 38702
- Cu/polyimide, adhesion strength, continuous micro-wedge scratch test, metallisation appls. 37570
- Cu-AlN, electroless-plated substr., hybrid IC metallisation tech. 951
- Cu-Cr bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
- Cu-Cr bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- Cu-Ti bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
- Cu-Ti bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- CuCr alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- CuCr alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
- Cu_5Si passiv. layer, growth kinetics and materials props. 38577
- CuTi alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- CuTi alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
- GaAs thin film, GaAs substr., eutectic bonding-induced in-plane strain 38341
- GaAs thin film, Si substr., eutectic bonding-induced in-plane strain 38341
- GaAs-AlGaAs MQW, $LiTaO_3$ substr., eutectic bonding-induced in-plane strain 38341
- GaAs-AlGaAs MQW, Si substr., eutectic bonding-induced in-plane strain 38341
- $Gd_3Ga_5O_{12}$/InP(/GaInSb) integrated semicond./magnetooptic devices, direct bonding 31112
- Ni-YSZ porous cermets, microstruct./elec. cond., SOFC 44377
- PZT/Ti/Pt interface layers, elec. and microstructural props. 39053
- Pt/Si(100), pulsed laser deposition, TiN buffer layer 425
- Rh-plated reed switch contact, surface deactivation-induced phenom. 29634
- Si, low temp. wafer bonding, kinetics study 1188
- Si substrs., Cyclotene 3022 coating adhesion, silane coupling agents 11818
- Si:B(001)2×1, gas-source MBE, B-incorporation, elec. props. 38506
- SiC microcomponent growth, C_{60} react., silicon 13092
- SiO_2, electroless metal deposits, enhanced adherence 30156
- SiO_2:P/InP interface layers, low-temp. damage-free plasma-CVD, adhesion 37523
- Sn-Ag solder, Pb-free, appl. in no-clean thick film electronic modules 6451
- Sn-Sb solder, adhesion, evaporated multilayer *(Japanese)* 5616
- SnSb solder/evaporated Al-Cr-Ni-Ag multilayer, bonding mechanism, IC packaging 11814
- $SrCaTiO_3$ microwave ceramics, metal conductors, adhesion strength 28870
- TiH_2 diffusion barrier stabil., SiO_2 substrs. 38649
- TiN MOCVD films, IC diffusion barriers/adhesion layers, TEM study 37420
- TiN collimated PVD, EVOLVE simul. 38669
- TiN_x, CVD, organometallic precursors, surface spectrosc. study 37495
- W/SiO_2, W fine lines, micro-wedge scratching 38705

- **adhesion** continued
  - W/TiN:F interfacial props., deposition temp. effects 393
  - W-AlN cofired multilayer substrs., low temp. sintering 11744
  - WSi$_x$ CVD as-deposited/oxidized films, DCS-based, comp./struct. 38664
- **adiabatic compression, plasma** *see plasma heating*
- **adiabatic demagnetisation** *see magnetic cooling*
- **adion** *see adsorption*
- **adjacent channel interference**
  - adaptive equalization for multipath fading environ. 3429
  - CDMA mobile radio systs., spectral efficiency 17083
  - cellular syst. freq. planning matrix anal. 33809
  - DECT solid state radio front end, perform. eval. 3468
  - digital radio data predistortion, neural-net-with-memory model 42149
  - digital video sig. transm. via RAI analogue FM radio links *(Italian)* 9158
  - FDM coherent opt. networks, interchannel interf. 17271
  - FDMA cellular systs. capacity, ACI effects 3334
  - high-capacity cell config. strategy 33811
  - indoor 3D cellular syst. fixed channel assignment plan 33804
  - land mobile radio networks, digital video/speech transm. 17048
  - lin. PMR technol., RF param. for standardisation 3466
  - lin. power amp. for cellular telephone, envelope feedback method 12342
  - microcellular personal commun. service F-QPSK perform. 33781
  - mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
  - multichannel environ., direct upconversion, reconstruction filters 25230
  - multichannel transmitters, DSP/direct conversion 3323
  - opt. TDM switching networks, interchannel cross talk, noise degrad. 9147
  - PSK systs., hard limiting transmitting amps. *(Japanese)* 24011
  - pulse interf., superheterodyne immunity estim. 23701
  - RF power amp., digital predistortion lin., reconstruction filters 25231
  - single/multi-amplit. sigs. in interf. channels, neural-net based receiver 16408
  - spectrally efficient modem for land-mobile radio, perform. 9272
  - subcarrier multiple access PON, adjacent channels 42392
  - suppression by equalizers and lin. combiners 15519
  - TDMA in-building wireless systs., interf. charact. 33873
- **adlayers** *see adsorbed layers; chemisorbed layers*
- **ADM** *see delta modulation*
- **administrative data processing**
  - *see also business data processing; distributive data processing; educational administrative data processing; financial data processing; government data processing; law administration; logistics data processing; manufacturing data processing; marketing data processing; medical administrative data processing; office automation; public administration; reservation computer systems; service industries; spreadsheet programs; word processing*
  - elec. supply tech. documentation DP *(German)* 35553
- **admittance** *see electric admittance*
- **admittance measurement** *see electric admittance measurement*
- **ADP** *see administrative data processing*
- **ADPCM** *see differential pulse code modulation*
- **ADSL** *see subscriber loops*
- **adsorbed layers**
  - *see also chemisorbed layers*
  - metal adlayers on diamond:B thin-film electrodes, electrodeposition 30145
  - mol. adsorbates, steady-state sum-freq. generation 15028
  - pulsed trimethylgallium scatt. from As-/Ga-stabilized surfaces 20693
  - GaAs(001), Sb-terminated, Ga/As surface reacts. 21900
  - GaAs(100) surface, (NH$_4$)$_2$S$_x$-treated, S at. sites 22171
  - InP MESFET, CdO$_x$ interfacial layers, adsorpt./oxidation prep. method 13773
- **adsorption**
  - *see also heat of adsorption*
  - borophosphosilicate-based glass, selective etching, low press. vap. HF 12214
  - conf., interface control of elec., chem. and mech. props., USA (1993) 36832
  - contact resist., contaminant films thickness, humidity effects 6385
  - copper dicyanoanthraquinone diimine thin film electrodes, H sens. 17976
  - Danfoss DH series filter-dryers *(German)* 11487
  - δ-doping during MBE, impurity atom distrib. 13296
  - diamond surface, O-H adsorpt., EELS/Auger study 1268
  - fibre interferometers, adsorpt. effect on modal propag. const. 22836
  - gas distrib. systs. contamination, cost optimisation 38988
  - mag. thin-film disk packaging, desiccant humidity barrier 30744
  - metal/oil interface, adsorpt., charge injection 14025
  - microcantilever reson., adsorpt.-induced surface stress, sens. appl. 39034
  - poly(aniline) film, glucose biosensor 3895
  - polyethyleneterephthalate/Mg interface, X-ray PES 37540
  - quartz cryst. oscillators, porous layers, damping effect 30600
  - sample manipulator, azimuthal/flip rot., 16 to 1100 K 38536
  - semicond. gas sens., catalytic gate 3921
  - semiconductor interfaces, conf., Julich, Germany (1993) 11545
  - Si$_3$N$_4$-Au resonating microcantilevers, Hg vapour detect. 42859
  - slider/disk carbon, water adsorpt. 7153
  - submicron particles scavenging by coarse particles 40210
  - surface-adsorbed As atoms, P atoms substitution in ALE growth 20691
  - Al on Si(001), ULSI materials testing by STM *(Japanese)* 6832
  - AlAs ALE growth mechanism 20696
  - AlGaAs on GaAs(001), adatom migration, Monte Carlo simul. 21899
  - AlN, CVD growth/surface chem. 12155
  - Bi$_2$Sr$_2$CaCu$_2$O$_{8-x}$ porous films gas sens. response anal. 34615
  - C$_{60}$-Si(111) multilayer growth, UHV-STM study 12156
  - CdSe, MOVPE, precursor gas monitoring by photolum. 34617
  - Cs/InAs(110), giant band bending, interface form. 13222
  - Ga(Al)As, MBE growth on (001) surface, dyn., RHEED study 37436
  - Ga(Al)Sb mesa photodiodes, dark current improvement, (NH$_4$)$_2$S treatment 14604
  - GaAs, ALE, surface stoichiometry and role of adsorbates 20686
  - GaAs, dispersed semicond. particles, doping effects *(Korean)* 13263
  - GaAs photo-oxides, EB lithog., Cl adsorpt. mechanism 22177
  - GaAs/AlAs quantum wells, MBE growth interruption, nonradiative recomb. 332
  - GaAs(001), Ga adsorpt., TMGa exposure 20692
  - GaAs(001), metalorganic CVD, surface photoabsorpt. obs. 20720
  - GaN, metalorganic VPE growth, surface orient. depend. 20755
  - GaN:Mg, metalorganic CVD growth, doping memory effects 20940
  - Ge, ALE, ideal growth rate 20708
  - InAs, surface migration-induced self-aligned islands, MBE growth 37389
  - p-InP(100), anodic passiv. in (NH$_4$)$_2$S$_x$ soln. 13387
  - La$_{0.8}$Sr$_{0.2}$MnO$_3$/YSZ interface, O$_2$ reduction, SOFC air electrode 44385
- **adsorption** continued
  - Pt-Ir ref. masses stabil., Hg contamination effect 34319
  - Si, H-assisted ALE growth 20698
  - Si, dispersed semicond. particles, doping effects *(Korean)* 13263
  - Si, excimer laser-assisted etching in chlorine, adsorpt./desorpt. 30096
  - Si, porous etched layer, transport, humidity infl. 21898
  - Si, self-limited at.-layer etching, Cl adsorpt., low-energy Ar$^+$ irrad. 22178
  - Si surface, HF treatment, F adsorpt., FT IR refl. absorpt. spectra 29838
  - Si, surface cleaning in buffered HF, microroughness prevention 1251
  - Si surfaces, self-limiting adsorpt. of thermally cracked SiCl$_2$H$_2$ 20703
  - Si wafer cleaning, surface charge effects, surfactant solns. 30068
  - Si:B, δ-doping, APCVD 22112
  - Si:H surfaces, oxid., X-ray PES 22235
  - Si:In, MBE doping kinetics, rate eqn. model 1211
  - Si(001), O$_2$ adsorpt./oxid., dimer reconstruction 6654
  - Si(001), O$_2$ mol. adsorpt., subsequent oxid. 38612
  - Si(001), low temp. MBE, low-energy Si atoms 12075
  - Si(100), As adsorpt. and passiv. for ZnS film MBE 37451
  - Si(100), Sb-terminated, HBO$_2$(Sb) adsorpt. suppression 20701
  - p-Si(100)/Hf interfaces, elec. charact., H-termination 38397
  - Si(111), H adsorpt./dissolved O in hot water 38604
  - SiC, heteroepitaxial growth by alternate supply of SiH$_2$Cl$_2$ and C$_2$H$_2$ 20926
  - SnO$_2$-based thick-film gas sens. 3915
  - TiN$_x$, CVD, organometallic precursors, surface spectrosc. study 37495
  - ZnO(0001), photoinduced CO desorpt./adsorpt. 20715
  - ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412
  - ZnSe:I, VPE growth, I incorporation 5848
- **advertising**
  - online multimedia yellow pages appl. *(Japanese)* 42007
- **aerials** *see antennas*
- **aeroacoustics**
  - air vs. temp. and press., acoustical props. 10572
  - ground charactn., acoustic pulsed level difference tech. 18943
- **aerodromes** *see airports*
- **aeroelasticity** *see elasticity*
- **aerogels** *see disperse systems; porous materials*
- **aeroplanes** *see aircraft*
- **Aerosils** *see aerosols*
- **aerosols**
  - *see also foams*
  - airborne dust elec. mobility meas. and eqpt. 40261
  - coherent laser radar with diffuse/aerosol targets, heterodyne efficiency 3620
  - elec. augmented filter, conducting/dielec. fibres comp. 4410
  - environ. protection, radioaerosols, volatile radionuclides 27506
  - eyesafe IR aerosol lidar, stimulated Raman backscatt. appl. 9651
  - eyesafe laser rangefinders, atmos. extinction estimating 7879
  - IR lidar sens., turbulence-noise 17432
  - laser Doppler airflow velocimeter, receiving antenna sig. estim. 4020
  - LIDAR inversion methods for atmos. of arbitrary opt. dens. 4411
  - liqs., electrostatic dispersion modes classif. 40211
  - Nd:SiO$_2$ planar silica waveguide laser, aerosol doping method 14817
  - pulse laser radar, time-depend. sig., single-multiple scatt. tech. 34161
  - pulsed corona precipitator, charged aerosols modelling 15247
  - PWR accident, ^{134}Cs/^{85}Sr dissolution/remobilization, rainwater 26769
  - PWR severe accident, aerosol generation/growth in later phase 27504
  - radiowave propag. anoms., seismic event precursors 7962
  - severe accident radionuclides transport, thermal-hydraulic modelling 27511
  - STORM project, severe accident conditions, aerosol generation 27505
  - submicron particles scavenging by coarse particles 40210
  - target acquisition modeling, atmos. blurring effects 31844
  - thermal images distorted by atmos. restoration 32903
  - tropos., DIAL O$_3$ profiles, aerosol layers effect 26724
  - water aerosol, transient clearing, opt. beam thermal blooming 40101
  - AlN, aerosol synthesis by nitridation of Al vap. and clusters 28867
  - Cu-30 at.%Zn brass aerosol particle IR extinction, FDTD calc. and obs. 23650
  - Ho:YAG $2.1\mu m$ laser for atmos. lidar research 10474
  - InP/GaInAs QW dot struct., fabrication 13202
  - SO$_2$ emission effects on aerosols 35973
- **aerospace**
  - *see also aerospace computing; aerospace control; aerospace industry; aerospace instrumentation; aerospace propulsion; aerospace simulation; aerospace test facilities; aircraft; ground support systems; space research; space vehicles*
  - challenges of space for better world, conf., Graz, Austria (Oct. 1993) 1
  - terrestrial energy conversion, aerospace technol. appls. 35710
- **aerospace applications of computers** *see aerospace computing*
- **aerospace biophysics**
  - challenges of space for better world, conf., Graz, Austria (Oct. 1993) 1
- **aerospace computing**
  - *see also aerospace expert systems; aircraft computers*
  - ADM maint. personnel admin. syst. for Nippon Airport *(Japanese)* 10402
  - AELAP, Aircraft Load Anal. Program 26559
  - Ariane 5 on-board software, safety aspects 43423
  - ATE software integrat. in aerospace/mil. environ. 34400
  - ATRAS air traffic surveillance, Nippon Airways *(Japanese)* 10416
  - autonomous real time space mission control, event diagnosis/recovery 43422
  - Boeing 777 Airplane, model-based diagnostics 10319
  - built-in diagnostics for advanced power mgt. 34356
  - CALS/CE-ATE Data Base requirements 34402
  - Cassini spacecraft, command and data subsystem 10367
  - digital avionics systems, conf., (Nov. 1994) 5456
  - disposable rem. chem. sens. network 9864
  - distributed simul. for live training 35406
  - DWP, Digital Wave Processor, dependable space instrum. 26539
  - EKF sensitivity, soln. accuracy for single space based observer 29343
  - EKF sensitivity, var. in observer no. and obs. type 29342
  - EM environ. in aircraft, single event rel. 26525
  - embedded flight control syst. design, integrated proc. 10333
  - end game simul. for air defense missile systs. perform. 26841
  - enhanced vision HUD, image quality issues 10327
  - Envisat-1 satellite radar-altimeter on-board real time software testing 43421
  - ESD anals. for spacecraft in geosynchronous orbit 35213
  - European ATC develops., satellites 26697
  - fighter pilot support systs., cognitive model 26833
  - flexible maint. IS for downsized environ. 35407
  - flight simul., virtual environ., modelling 10315
  - Galileo syst. design for orb. operations 9407

- **aerospace computing** continued
  - ground test facilities, modelling, EASY/ROCETS flow simul. 35215
  - helicopter 3D automatic FDTD mesh generation 26528
  - helicopter avionics, LAMPS MK III block II simul. 10344
  - high-altitude CPU reliab. anal. 18724
  - Hunter Unmanned Aerial Vehicle, near-term targeting tool 4434
  - IFF appl., transient control by software 23677
  - incore thermionic space nuc. power, Monte Carlo fuel burnup simul. 26622
  - Intel 32 bit μP, radiation tolerance for space appls., eval. 29306
  - inverse synthetic-aperture imaging radar, gradient-search phase-retrieval algm. 3629
  - IR surveillance, motion estim. methods/noisy phenom. 2612
  - kinetic impact debris distrib. computer simul. 26839
  - KITSAT Korean satellite, on-board computer syst. 10324
  - machine intelligence in air traffic management, conf., Berlin (1993) 28258
  - MAGICS meteorological imaging syst. for Nippon Airways *(Japanese)* 10414
  - Mission Effectiveness Model ballistic missile defense simulator 26842
  - mobile flight test support 10316
  - multiprocessor archits., real-time engine/vehicle guidance control 4357
  - on-orbit calib. of inductosyn error 18720
  - open high-perform. computing infrastructure in aerospace indust. 16729
  - opt. correlators for space computers 7436
  - parallel error-correction archit. for digital avionics 10364
  - parametric endo/exoatmospheric lethality simul., ballistic missiles 26840
  - passenger IS for Kansai International Airport *(Japanese)* 10412
  - rapid cycle display software design 10357
  - rapid prototypes for early requirements validation 10326
  - RISC proc., single event effects/perform., space appls. 6182
  - rocket engine, large, reusable, artificially intell. health monitoring 18770
  - Rotorcraft Pilot's Associate cognitive decision aiding systs. develop. 10597
  - schedule monitoring syst. for Nippon Airways *(Japanese)* 10417
  - Semi-Active-STINGER (SCORPION) missile simul. 26811
  - smart act. matrix LCD for Space Shuttle 10355
  - SMART and ABBET common architectural heritage 35237
  - SMART at Delta Air Lines user experience/expectations 43435
  - SMART ATE software for aerospace industry 43434
  - SMART project, aircraft survivability models and simul. 26534
  - SMART test standard for commercial air transport industry 43433
  - space power systs., fault detect. anal., sensor relationships 26561
  - Space Station Freedom power syst. CAD, APSPP package-based 35251
  - spacecraft attitude determ., stochastic star ident. 26548
  - spacecraft electrical power system fault detection and diagnosis, model-based reasoning 10397
  - spacecraft engng. subsyst. operations, Engng. Anal. Subsyst. Environ. 26519
  - spacecraft qualitat. model-based diagnosis, possibilistic approach 18695
  - spacecraft radioisotope AMTEC power syst. 18758
  - SPEAR (Signal Processing Environment for Analysis and Reduction) 25777
  - spreadsheet approach, min. cost tolerancing of rocket engines 18767
  - stereoptic 3D cueing, complex flight displays decluttering 35218
  - test program generation using graphical tools, Navy appl. 42691
  - thermionic syst., radiator design 26628
  - Tomahawk Cruise Missiles, MVS/RLS register level simul. 26535
  - TPS command file generator 42696
  - UH-60A airloads data acquisition and proc. syst. 10313
  - UV/vis. imager simul. 42850
  - verification, validation and accreditation planning, Extended Air Defense Test Bed example 26533
  - W-band missile syst. closed loop simul. 26836
  - Ni-H_2 Astra 1A satellite batts., perform. improvement schemes 26661
- **aerospace control**
  - *see also air traffic control; aircraft control; attitude control; missile control*
  - autonomous spacecraft payload operations, onboard emergent scheduling 18696
  - Cassini power management and distribution 26647
  - Cassini spacecraft solid-state power switch develop. 26660
  - conf., active materials/smart structures, USA (1994) 36870
  - data acquisition, flight instrum. test facility 26531
  - DRS telecomm. satellite, heuristic scheduling 42320
  - elec. flight controls for civ. and mil. aircrafts, family of fault-tolerant systs. 43430
  - embedded flight control syst. design, integrated proc. 10333
  - EUTELSAT multi-mission satellite control infrastructure 33964
  - inductosyn cyclic error calib. 35222
  - integrated control *(French)* 10952
  - KITSAT Korean satellite, on-board computer syst. 10324
  - multiprocessor archits., real-time engine/vehicle guidance control 4357
  - on-orbit calib. of inductosyn error 18720
  - pass. ranging, image expansion 26549
  - piezoceramic lin. motor, flexible space struct. control 4995
  - piezoelec. stack act. member, power consumption, electromechanical anal. 30598
  - pitch attitude and momentum LQG/LTR control 35238
  - power syst. control/protection integrat. 26680
  - rocket engine, large, reusable, artificially intell. health monitoring 18770
  - Sampex spacecraft derived power syst., stabil. anal. 26611
  - satellite ground control operations, intell. C^2 26698
  - solid-state relay design, aerospace appls. 26546
  - space guidance/control/tracking, conf., Orlando, FL, USA (1993) 11569
  - space power syst. automation knowledge develop. 26562
  - space power thermionic convertors, Cs circulation system testing 18739
  - Space Station Alpha PV module thermal control syst. 35252
  - Space Station Freedom, brushless DC motor, posn. control 43453
  - Space Station Freedom power system, small-signal stability 26593
  - space station power mgt./distrib., intell. load controller 26659
  - spacecraft power conditioning, tri-state power converter 26677
  - spacecraft solar arrays, on-orbit output power mgt. 26601
  - UV three axis attitude ref. sens. 9936
- **aerospace engines**
  - *see also rocket engines*
  - advanced sens./instrums. used in aero-engines 4355
  - aircraft act. noise control, research, reality 10371
  - aircraft fuel accessories test system 43425
  - ducted fan engine for nonlin. control expts. 18777
  - flight safe termination probab. rel., engine failures 18776
  - gas turbine engine, control/stabil. 4362
  - jet engine inlet scatt., hybrid finite element-modal anal. 42486
  - microcomputer distributed meas. and control syst. 10343
- **aerospace engines** continued
  - microexplosion ignition by head-on collisions 43456
  - Rolls Royce SCORPIO syst. for aeroengine testing 18703
  - small satellite elec. propulsion options 35265
  - space nuclear electric propulsion, NASA research programme 18771
  - space shuttle main engine data residue ident. and constrained least squares model 35271
  - spacecraft elec. propulsion missions, power syst. technol. anal. 35266
  - SRM design considerations, aircraft engine pump appl. 10982
  - switched reluctance starter/generator, aircraft engine 43457
  - virtual instruments for use in test systems development 42727
- **aerospace expert systems**
  - A2A3 air traffic control testbed using embedded AI technology 10418
  - aircraft guidance/decision aid for wind shear avoidance 35219
  - AXAF space observatory, power syst., CLIPS troubleshooting ES 26658
  - DESSY, Space Shuttle telemetry monitoring system with tolerance for real-time data problems 10342
  - digital avionics systems, conf., (Nov. 1994) 5456
  - DRS telecomm. satellite, heuristic scheduling 42320
  - machine intelligence in air traffic management, conf., Berlin (1993) 28258
  - missile vert. launch syst. maint. ES 43600
  - power distrib., model-based diagnostics 18765
  - Rotorcraft Pilot's Associate cognitive decision aiding systs. develop. 10597
  - space power systs., fault detect. anal., sensor relationships 26561
  - Space Shuttle main propulsion syst. propellant loading, KBS 18774
- **aerospace ground equipment** *see ground support equipment*
- **aerospace industry**
  - aerodynamics and aeroelasticity, aerospace indust. progress 10302
  - Allied-Signal's avionics develop. in CIS 26550
  - integrated product development/concurrent engineering 37026
  - multiple domain experience in systs. engng. 5577
  - nondestructive inspection using shearography, indust. appls. 18108
  - open high-perform. computing infrastructure in aerospace indust. 16729
  - sens. in automotive and aerospace 9857
  - SMART at Delta Air Lines user experience/expectations 43435
  - SMART ATE software for aerospace industry 43434
  - terrestrial energy conversion, aerospace technol. appls. 35710
  - Theater Air Command and Control Simulation Facility 18702
  - trends/develop. 35211
  - VXIbus/GPIB-based test syst., Boeing 757 flap/slat electronics unit 4350
- **aerospace instrumentation**
  - *see also airborne radar; aircraft instrumentation; instrument landing systems; Langmuir probes; microwave landing systems; space vehicle electronics*
  - act. optoelectronic devices, LEDs, LDs, PDs, OCs 23047
  - Airbus A320/A330/A340 electrical flight controls, fault tolerant systems family 35234
  - alcohol-based semi-aq. cleaning in electronics assembly 930
  - capacitors for avionics hardware, failure anal. 6366
  - cryogenic optical systs./instruments. conf., Orlando (1994) 36837
  - digital avionics systems, conf., (Nov. 1994) 5456
  - flux-gate magnetometers on spinning spacecraft, calib. 35220
  - gate oxide reliab. in power MOSFET, ion irrad. 22466
  - IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
  - IR FPA opt. interface technol. 34582
  - IR space-based sens., mission simul. testing 35216
  - K-band radiometer for sea surface brightness temp. meas. 26731
  - lunar landing navig. schemes, precision landings 4356
  - MOMS-02 spaceborne MOMS-02 sens., spectral/panchromatic band design 43440
  - NASA missions, submillimeter source needs 6312
  - PCB SMC, reliable design 10317
  - rocket-borne downconverter, space plasma turbulence meas. 35310
  - solid-state relay design, aerospace appls. 26546
  - space guidance/control/tracking, conf., Orlando, FL, USA (1993) 11569
  - spacecraft attitude determ., stochastic star ident. 26548
  - spacecraft vehicle health mgt. systs., large-size data reduction/fusion algm. 18725
  - star-field ident. for autonomous attitude determ. 33076
  - UV/vis. imager simul. 42850
- **aerospace propulsion**
  - *see also aerospace engines*
  - 2.5 kW NASA spacecraft ion thruster/power proc., develop. status 35267
  - $^{241/243}$Am, ion-engine propellant 26694
  - aircraft safety aspects of liq. H_2 fuel 18775
  - antimatter thermonuclear microexplosion ignition 4363
  - bimodal thermionic reactors, sonic cesium supply 26627
  - cryogenic rocket engine, liq. H_2 turbine, expander bleed cycle 26692
  - elec. propulsion, NASA R&D programme 35264
  - EMALS EM aircraft launch syst., aircraft carrier appls. 15304
  - gas turbine, lean premixed/prevaporized combustion, KIVA-II 36015
  - Gravity Probe-B Spacecraft dewar tank, sloshing modulated fluid force 35269
  - Hall thrusters, PV power systs., space vehicles 35268
  - HDTV GEO satellite, nuclear power/propulsion appls. 18753
  - hybrid space nuclear power/propulsion syst., hot hydrogen test facility 18755
  - integrated diagnostics for aircraft propulsion systems 43454
  - inter-orbit spacecraft flight, solar rocket engine 18766
  - Mars transfer vehicle, dual-mode nuclear rocket power requirements 18750
  - NASA's advanced space transportation program 35263
  - nuc. thermal propulsion systs., heat transfer 4367
  - Nuclear Elec. Propulsion Space Test Program satellite, TOPAZ-II 26693
  - nuclear power/thermal propulsion requirements 18760
  - orb. spacecraft, nuc. power propulsion 26691
  - pellet-bed reactors, neutronics anal. for bimodal appls. 4359
  - plasma MHD thrusters, solar elec. propulsion system 26590
  - pulse fission drive and antiproton-initiated ICF syst. 4365
  - shuttle main engine data residue ident. and constrained least squares model 35271
  - small launch vehicle propulsion, high power MM-waves 35272
  - small satellite elec. propulsion options 35265
  - solid-core heat-exchanger nuc. rocket program 4372
  - space hybrid power/propulsion system, particle bed reactors 18754
  - space nuc. power/propulsion, future 26555
  - space nuc. thermal propulsion program 4364
  - space nuclear electric propulsion, NASA research programme 18771
  - space nuclear power/propulsion, fuel element design 18751
  - space nuclear power/propulsion, hybrid power system appls. 18752
  - Space Nuclear Thermal Propulsion develop. programme, USA 18772

aerospace propulsion continued
space propulsion vapour core nuclear reactor rocket engine 18773
Space Shuttle main propulsion syst. propellant loading, KBS 18774
space thermionic nuclear power/propulsion, future prospects 18749
space thermionic reactors, thermal-hydraulic/neutronic design 4374
spacecraft elec. propulsion missions, power syst. technol. anal. 35266
spacecraft rocket engine effects on solar cells 43455
spacecraft solar elec. propulsion, energy storage mass impact 26608
spreadsheet approach, min. cost tolerancing of rocket engines 18767
SRM design considerations, aircraft engine pump appl. 10982
switched reluctance starter/generator, aircraft engine 43457
thermophotovoltaic nuc. energy conversion, space appls. 35240
US Space Nuclear Thermal Propulsion Program 4373
U-Nb-C, high temp. fuels for nuc. propulsion, perform. 4366
U-Zr-C, high temp. fuels for nuc. propulsion, perform. 4366

aerospace simulation
see also aerospace test facilities
Advanced Distributed Simulation, test and eval. appls. 18701
advanced rem. sens. simulator, geometric mapping 26530
aerial cable target syst. simul., 6-DOF 26843
air traffic simul., drag fn. modeling 26532
aircraft automatic landing LQG/LTR controller design 35276
aircraft landing task, simulated, P300 mental workload measure 43424
alkali metal thermoelec. convertors, space power perform. anal. 20034
avionics PCB SMC, reliable design 10317
combat aircraft, eval. of radar class. algm. by simul. 18986
cylinder mounted microstrip array radiation pattern meas. and prediction 31977
end game simul. for air defense missile systs. perform. 26841
ESA BIOPAN flight expt., cosmic ray irrad. EEPROMs 12530
flight simul., virtual environ., modelling 10315
ground test facilities, modelling, EASY/ROCETS flow simul. 35215
helicopter antenna pattern prediction, improved NEC code 26529
hypersonic vehicle image resoln. rel. to turbulence random phase var. 33017
incore thermionic space nuc. power, Monte Carlo fuel burnup simul. 26622
inter-orbit spacecraft flight, solar rocket engine 18766
kinetic impact debris distrib. computer simul. 26839
Li-$SOCl_2$ space power batteries, thermal models 26581
Mission Effectiveness Model ballistic missile defense simulator 26842
motion simulator, dyn. controller design 18700
Ni-H_2 space power batteries, thermal models 26581
optoelectronic devices in vac., testing, thermal effect modelling 10312
orbital debris radar antenna pointing Kalman filter 25581
parametric endo/exoatmospheric lethality simul., ballistic missiles 26840
pilot situational awareness enhancement, airport surface movement area 10423
radioisotope thermophotovoltaic power, space mission appls. 26638
S-PRIME space power thermionic convertors, emitter design 18743
S-PRIME thermionic space power system, Cs reservoir modelling 18737
Semi-Active-STINGER (SCORPION) missile simul. 26811
SMART project, aircraft survivability models and simul. 26534
software develop., Air Vehicle Training Systems demons. project 18699
solar dyn. space power systs., orbit perform. effects 35243
space power thermionic fuel elements, UO_2 swelling simul. 18744
space shuttle main engine data residue ident. and constrained least squares model 35271
Space Station Freedom power syst. CAD, APSPP package-based 35251
Space Station Freedom solar cell dynamics, SPICE modelling 26584
spaceborne IR sens. testing, verification/validation/accreditation issues 35216
spacecraft elec. propulsion missions, power syst. technol. anal. 35266
spacecraft pitch attitude and momentum LQG/LTR control 35238
spacecraft radioisotope AMTEC power syst. 18758
spacecraft solar elec. propulsion, energy storage mass impact 26608
SRAM in flight and ground based radiation testing 12531
syst. reliab. modelling techs. 18709
taxiing/landing, simul. of aircraft 4349
Theater Air Command and Control Simulation Facility 18702
Tomahawk Cruise Missiles, MVS/RLS register level simul. 26535
TOPAZ-II space nuclear thermionic reactor, computer simul. 18742
TOPEX/Poseidon satellite, solar array on-orbit perform. studies 26606
verification, validation and accreditation planning, Extended Air Defense Test Bed example 26533
W-band missile syst. closed loop simul. 26836
GaAs/Ge Clementine spacecraft solar cell array studies 26603
Ni-H_2 Astra 1A satellite batts., perform. improvement schemes 26661
Ni-H_2 spacecraft secondary batts., empirical modelling 26667

aerospace test facilities
see also aerospace testing; wind tunnels
2 kW Solar Dynamic Ground Test, solar simul. selection 26615
2 kW Solar Dynamic Ground Test Demons. program 26614
A2A3 air traffic control testbed using embedded AI technology 10418
Advanced Distributed Simulation, test and eval. appls. 18701
aerial cable target syst. simul., 6-DOF 26843
airborne antenna testing, Indoor Doppler Antenna Test Range 35217
airborne DGPS, DME navig. aid coord. and calib. error detect. 25605
aircraft external fuel tank, simulated lightning tests 18706
ATE station controller replacement, commercial products 34362
AUTOTESÇON 93, (Sept. 1993) 36845
ducted fan engine for nonlin. control expts. 18777
flight instrum. test facility, control and data acquisition 26531
ground test facilities, modelling, EASY/ROCETS flow simul. 35215
hybrid space nuclear power/propulsion syst., hot hydrogen test facility 18755
mil. aerospace equipt., reliab. develop. testing 26832
mobile flight test support 10316
motion simulator, dyn. controller design 18700
optoelectronic devices in vac., testing, thermal effect modelling 10312
reverberation chambers, aircraft test appls. 15538
Solar Dyn. Ground Test Demons., heat receiver fabr./testing 26616
Solar Dyn. Ground Test Demons., radiator design/testing 26617
verification, validation and accreditation planning, Extended Air Defense Test Bed example 26533
virtual instruments for use in test systems development 42727

aerospace testing
see also aircraft testing
2.5 kW NASA spacecraft ion thruster/power proc., develop. status 35267
2 kW Solar Dynamic Ground Test, solar simul. selection 26615
2 kW Solar Dynamic Ground Test Demons. program 26614
2 μm LIDAR for laser-based rem. sens. 26552

aerospace testing continued
Advanced PV Solar Array testbed wing results 26598
aircraft navig. and data links, automatic depend. surveillance (ADS) *(French)* 3378
aircraft secondary maint.-free batts., state-of-health tests 43443
AMTEC cell, high efficiency, testing/charactn. 26626
ATR, ATLAS syst. 9648
attitude determ. using GPS, space flight tests 17502
AUTOTESCON 93, (Sept. 1993) 36845
beam-centroid tracking instrum. for ion thrusters 18768
bipolar lin. microcircuits total dose response depend. on applied dose rate 13873
Brayton cycle appl. to space power 26655
Cassini RTGs, small scale module tests 26633
ESA BIOPAN flight expt., cosmic ray irrad. EEPROMs 12530
GPS, ATC radar calib., flight expts. *(Japanese)* 9680
GPS automatic depend. surveillance of aircraft, spontaneous mode S broadcast messages 4377
GPS category III precision landing, real-time flight testing, integrity beacons 3639
ground test facilities, modelling, EASY/ROCETS flow simul. 35215
hybrid space nuclear power/propulsion syst., hot hydrogen test facility 18755
inductosyn cyclic error calib. 35222
integrated data acquisition syst. for satellite struct. 18707
kinematic GPS and ground-based pseudolite, approach integrity monitoring 3640
LEO spacecraft pulsed power systs., dielec. surface flashover expts. 35258
NASDA, opt. intersatellite commun. research 17282
particle impact noise detect. by neural net 34392
pass. components for aerospace appls., screening methods/data anal. 5684
PEEK, poly(ether ether ketone), crystallinity and dielec. props. 14015
power MOSFETs operated at cryogenic temps., ionizing radiation effects 13732
Rolls Royce SCORPIO syst. for aeroengine testing 18703
single event effect ground test results, fiber optic data interconnect 18708
Solar Dyn. Ground Test Demons., heat receiver fabr./testing 26616
Solar Dyn. Ground Test Demons., radiator design/testing 26617
solar dyn. test demonstrator space power syst., heat receiver 26656
SP-100 thermoelec. cell testing, JPL 26635
space nuc. power, thermionic heat pipe module testing 26621
space power planar thermionic convertor, UO fuel testing 18741
space power thermionic convertors, close-spaced, demonstration tests 18748
space power thermionic convertors, Cs circulation system testing 18739
space power thermionic heat pipes, work fn. tests 26623
space solar dyn. power systs., thermal storage studies 26557
Space Station Freedom power system, on-orbit floating potentials 26592
Space Station Freedom solar array development testing 26643
spacecraft solar cell assemblies, Teflon coverglass bonding 26684
spacecraft solar cell lifetime, space factors testing 18726
SRAM in flight and ground based radiation testing 12531
switched reluctance starter/generator, aircraft engine 43457
thermoelec. convertors, space power appl. studies 20037
TOPEX/Poseidon elec. power syst., on-orbit perform. 26645
TOPEX/POSEIDON satellite, secondary battery perform./management 26579
TOPEX/Poseidon satellite, solar array on-orbit perform. studies 26606
vision device flight test 10387
VXIbus/GPIB-based test syst., Boeing 757 flap/slat electronics unit 4350
C-C heat pipe testing/eval., space vehicle appl. 35254
Cs-N_2 space power thermionics convertor, relaxation characts. 18738
GaAs space power solar cells, satellite test data 26641
GaAs/Ge Clementine spacecraft solar cell array studies 26603
H maser for long-term operation in space 43439
InP solar cells, radiation resistant, space appls. 26640
Ni-Cd aircraft batts., life cycle testing 43442
Ni-Cd batts., life testing, ESA 26669
Ni-Cd cells, flight/ground testing, TOPEX/Poseidon mission 26670
Ni-Cd pasted fibre plate batteries, LEO cycling perform. 26580
Ni-Cd space power sealed secondary cells, separator tests 43448
Ni-H_2 Clementine spacecraft common press. vessel batts. 26672
Ni-H_2 GEO spacecraft batts., 26% KOH electrolyte tests 26664
Ni-H_2 International Space station batt. power syst. tests 26663
Ni-H_2 LEO spacecraft batt. pulse life testing 26662
Ni-H_2 secondary cells, LEO destructive life testing 11256
Ni-H_2 spacecraft secondary batteries, electrolyte expts. 26578
Ni-H_2 spacecraft secondary batts., advanced separator expts. 26668
Ni-H_2 spacecraft secondary batts., technol. develop. status 26666
Ni-MH space power batteries, preliminary FMECA 26583
NiO spacecraft secondary batt. electrodes, fab. overview 26665
Pb-acid valve-regulated 24 V aircraft batts., conductance testing 43445
W-Ir space power thermionic convertor alloys, work fn. expts. 18747

AF amplifiers *see audio-frequency amplifiers*

AF oscillators *see audio-frequency oscillators*

AFC *see automatic frequency control*

afterglows
plasma technol. in surface proc., symp., London (Mar. 1995) 36884
ultrathin dielec., microwave afterglow O_2/N_2O plasma growth 37505
wire ion plasma source, electrical characts. 21796
CdTe X-ray detector, photodecay 18409
CdTe detectors, afterglow effects 4211
GaAs, modulated RF plasma etching, Langmuir probes 13406
He afterglow in Orsay polarized electron source 26099
N_2-filled tube, formative time determ., stat. methods 38201

AGC *see automatic gain control*

age hardening *see precipitation hardening*

ageing
see also precipitation hardening; strain ageing
15/35 kV EPR insulated cables, field aging assess. 27201
500 m/s lin. induction launcher perform. studies 15376
accelerated ageing test for resistors 6351
ceramic DRO aging 29575
charge insulator pot. decline, charge mobility *(French)* 10758
coaxial drop cable, shielding, ageing simul. by flexure 33734
component optimum revision interval determ. 11878
DFB 1.5-μm lasers, aging-induced wavelength shifts 7676
DFB free-running laser modules, long-term wavelength drift 7675
dielec. degrad. obs., PD mechanisms in voids 22648
dry type/general purpose transformers, insulation thermal endurance, IEEE std. 27781

ageing continued
elec. utilities, multiple components, replacement optimisation 19517
electrical insulation and dielec. phenomene, conf., Pocono Manor, Pa, USA (Oct. 1993) 11586
epoxy, cast, partial discharge induced aging, surface resist. 14043
epoxy discharge ageing, void gas press. meas. 22672
epoxy resins, elec. tree growth, voltage/age effects 30537
ethylene-propylene rubber cable insulation, damaged, breakdown volt. 14071
European Safety & Reliab. Conf., Munich (1993) 11584
fine pitch solder joints, microstruct. phenom. 6424
finepitch surface-mount solder joints, fracture surface exam. 21644
fluoropolymer insulator, γ-ray irrad., ageing effect, position annihilation meas. 14048
FTTH back-up batt. power supply monitoring 19868
GIS epoxy insulating spacers, AC/impulse voltage deterioration characts. *(Japanese)* 27240
heat/radiation-resistant coaxial cable insulation *(Japanese)* 16990
HV outdoor insulation, silicone rubber insulators, surface recovery 19317
insulating materials, thermal endurance, thermogravimetric point slope procedure 14018
insulating polymers, electrical ageing problems 13969
insulation aging, nonstationary PD 1519
insulation systems, partial discharge diagnosis 13964
insulation systs., PD, risk fns. 1530
LDPE, AC aged, liq. electrodes, dielec. polarisation/relax. 13940
LDPE, elec. treeing, PD pattern recogn. 1531
LDPE, water treeing progress, oxidation role 14061
LDPE insulation diagnosis, pattern recogn. ES-based 6895
leakage-tolerant zirconia pump-gauge O_2 sens. 9951
LWR resist. temp. detectors, ageing effects on cross-calib. 42971
machine stator winding varnish ageing, TSC anal. *(French)* 10937
mica-alumina insulation, dielec. props., EM pump appl. *(Japanese)* 39067
microstrip gas chambers ageing, outgassing effects 4165
Midel 7131 liq. ester substitution for transformer oil *(German)* 19697
MOS struct., neg. bias temp. instabil., low temp. *(Chinese)* 6580
NPP, aging standby components, time-depend. unavailability 43822
NPP, material damage/ageing 27386
NPP resist. temp./press. sens., aging effects 35770
NRC maint. team inspection reports, NPP aging 4818
nuc. plants, cable ageing, life prediction/condition monitoring 10803
nuc. reactors, risk-based aging mgt./regulation 35903
OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
optocouplers, ageing 14607
ovenized cryst. oscillators, VLF transmitter freq. synchronized 39074
P(VDCN-VAc), elec. polarisation, thermal pulse study 13934
PD, dielec. ageing 22645
PD and their effects on materials 22642
PD induced ageing, pulse-seq. anal. 22653
PD sig. generation transm. and acquisition 22643
PDs, void gas press. 1540
PEEK, poly(ether ether ketone), crystallinity and dielec. props. 14015
PMMA opt. waveguides, dye doped, electron irrad., ageing 1703
polyamideimide films containing glass, sol-gel prep., dielectric breakdown 14053
polyamideimide glass composite films, dielec. breakdown/thermal degrad. *(Japanese)* 28875
polyethermide films, multistress aging statical anal. 14049
polyethylene, treeing under AC voltage, space charge buildup, power cables 30584
polymer ageing kinetics, elec. meas. 1515
polymer-insulated MV cable ageing diagnosis from post-discharge meas. *(German)* 10743
polymeric insulating materials, elec. treeing 1510
polyolefins, homog. ac aging field, electrolum., surface roughness 30548
polypropylene film insulation, aging-model consts., HF HV fields 14019
polypropylene film type capacitor for HF HV appls. 11229
polysilicon charge injectors, carrier trapping 13788
power cable insulation PD pulse shape recogn., neural net-based 27207
power cable junctions, dissipation factor studies 14010
power syst. polymer arresters, moisture sealing testing 27272
power transformer composite paper-oil insulation monitoring 19686
power transformer cyclic loading evals., computer-based 27774
power transformer life extension, insulation preservation expts. 19698
power transformers, oil-filled, paper degrad. by-products anal. 44097
proton-exchanged waveguide devices, lifetime projections 22884
quartz cryst. resonator stabil., electrode metallization barrier layer 39075
quartz cryst. units, irreversible freq. vars. 30628
reactor layup ageing, maint. practices, corros. control 35872
rot. machine HV insulation condition monitoring strategy 19583
rot. machine stator, PD pulse meas. 4896
RTV silicone rubber insulator coatings, hydrophobicity transfer *(Chinese)* 35665
Schering bridge sensitivity and convergence for AC machine anti-discharge varnish ageing tests *(French)* 9973
semicond. amp., polariz. insensitive, gain-saturation, wavelength conversion 14881
silicone insulators, naturally aged, wettability, TSC spectra 35666
SMC solderability testing, microwetting bal. 6422
solid dielectric deterioration, partial discharges, ageing 13972
stationary batts., diagnostics/perform. prediction approaches 19956
stator coil insulation, multifactor ageing, test parameter correlation 14007
stripe amorph. soft mag. film, locally induced mag. anisotropy *(Japanese)* 30661
submarine cables, dielec. mouldings, microscopy 9155
substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
SW high reliab. LD for opt. data links 42430
TAB outer lead contact reliab., degrad. study 5642
TAB-outer lead bonding, reliab. of different tape metallizations 6447
thick film resistors on Al_2O_3 and dielec. substrs. 6347
thick/thin film resistors, built-in reliab., ageing kinetics 5706
three-phase power syst. reliab. rel., voltage unbalance 19232
transformer fault/ageing detect., transfer fns. 27777
transformers, insulating oils, characterisation 6919
US diagnostic tech. for elec. machine insulation 14003
wettability of immersion coated PWBs, temp. and humidity effects 29681
XLPE, field-aged, water trees conversion 14063
XLPE cable insulation, damaged, breakdown volt. 14071
XLPE cable insulation, TSDC meas. 14064
XLPE cable long-term ageing tests *(German)* 27212
XLPE insulated 230 kV cable syst., pre-qualification testing 27200

ageing continued
XLPE power cable insulation, degradation characts. 14072
XLPE thermally aged cable models, relax. processes 14066
zirconia alignment sleeve, opt. connectors, charact. and static fatigue reliab. 9473
AlGaInP LD, ageing simul., reliab. 7608
AlGaInP vis. light LD, 650 nm, dry-etched mesa stripe 39867
$(Ba,Ca)TiO_3$, humidity-sensitive characts. *(Korean)* 20989
$Bi_2Ru_2O_7$ thick resistive films, temp.-induced phys. failure mechanisms 949
Cu/photosensitive-BCB thin-film multilayer technol. for high-perform. MCM-D 21688
CuMn spin glasses, cooling/ageing, field depend. suscept. 6933
EuF_3 thin films, dielec., cond. and breakdown studies 1544
Fe passivated particles in humid atmos., degrad., mag. tapes appl. 7132
n-GaAs, Pd/In/Pd(Pd-In/Pd)(Pd-In) ohmic contacts 13207
GaAs devices, reliable thermosonic wire bond, IR-microscopy 12959
GaAs/Ti Schottky contacts, elec. param. stabil., cleaning depend. 29959
GaAs-Al_2O_3 flip chip modules, AuPd wire bump thermomechanical integrity 11824
GaInAsP-InP inverted-rib LD, degrad. recovery 14847
HgI_2, variable angle spectrosc. ellipsometry 43094
InGaAsP/InP DFB laser, wavelength shifts, ESD 23276
InGaAsP/InP MQW planar buried hetero-struct. lasers, MOVPE 23242
$Ni_{1-y}Mn_yO_2O_{2-z}$, ageing interstratification, Ni-Cd cells 27905
Pb-acid valve regulated batts., ageing effects tests 19963
Pb-acid valve-regulated telecom. power supply batt. perform. 41623
Pd-Zn-Pd-Au ohmic contacts to p-InGaAs-InP, optim. 38387
Si, porous, photocarrier electronic states, photomodulated IR spectrosc. 6653
Si, porous, post-treatment effects on elec. cond. 21888
Si, porous, surface struct., EPR/XPS study 22247
Si substr. integrated optoelectronic devices 7488
Si:B micromachined cantilevers, ageing, doping effects 22624
Si/SiO_x porous interface, paramag. centres 13349
SiO_2 fiber coatings, fatigue behavior 14355
SiO_2 opt. fiber, Vicker's indentation modeling 14358
SiO_2/Si MOS interfaces, interface-trap generation, neg.-bias temp. aging 38424
Sn-Bi solders, microstruct. evol., mech. prop. 37529
ZnO thin film, spray pyrolysis, deposition variables effect 12142
ZnO varistors, mixed multi-impulse/AC 50 Hz tests 868
ZrO_2 electrolyte, SOFC, mech. testing, microstruct. 44390
$ZrO_2{:}Y_2O_3$ SOFC electrolytes, high temp. ageing expts. 44321

aggregates (materials) *see composite materials*

aging *see ageing*

agriculture
see also farming
ACES project, providing Internet connectivity for rem. Alabama offices 8981
agro-biotechnological teleworking commun. platform 41886
biotechnology, issues and challenges 43177
bulk produce conveyors, drop dists., manual/electronic control 3803
crop canopy, evapotranspiration/photosynthesis meas., SCADA syst. 9826
drainage and water quality studies, instrumented field-scale research facility 35356
Egyptian hydropower/irrigation networks, multicriteria optim. 36044
elec. demand, pricing effects model, USA 36809
emitted gases anal. of methanol engine motorcars 10565
ExtNet, extension electronic inform. delivery in North Dakota 8869
fresh-produce refrigerated store, wt. loss/power consumption model 44638
fruit tester, portable, microcomputer-based 9819
in-bin grain drying energy systs., computer simul. 28200
Indiana Cooperative Extension Service, Internet links, field offices 8982
inform. services, modem accessible for agric. and extension 8868
LandcareNET, lateral inform. transfer for sustainable agric. in Australia 8980
mach. preventive maint./replacement optim. 11682
mulberries solar drying proc., IR heat treatment effects 20174
multi-sens. images and digital map data fusion 43547
rem. sens. image interp., geographical IS 4413
soil, elec. cond./water content, TDR 4387
soil moisture content detect. by TDR 10458
X/Ka band emission from leafy vegetation, modeling 43493

AGV *see automatic guided vehicles*

aids for the handicapped *see handicapped aids*

air bases *see airports*

air blast circuit breakers
quenching chambers, air flow interruption capability *(Japanese)* 11211

air clutches *see clutches*

air compressors *see compressors*

air conditioning
see also building management systems; HVAC; ventilation
air-cooling fan, async. motor drive, quasi-freq. control 28177
Army ground-mobile electronic systs., energy mgt. 18968
clean rooms, impurity ions anal. and removal syst. 22089
commercial building envelope loads, elec. use simul., Hong Kong 36794
commun. centres, air conditioning installations overview 20143
controllable induction micromotor 5395
direct load control, multipass dyn. prog. algm. 27055
domestic appliances, rotor vibr. transm. prevention *(Japanese)* 11489
electronic equipt. cooling fans, air vel. problems 20139
electronic switching telephone exchange air flow meas., France 20142
equipt. perform. eval. 20134
INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
International Appliance Technical Conf., Madison, WI, USA (1994) 36908
legionella Code of Practice compliance, engng. aspects 5568
Mitsubishi Electric ice storage air conditioning syst. 44604
Mitsubishi Electric ventilation syst., airtight dwellings appls. 44607
Mitsubishi Electric Y Series multisplit air conditioners 44605
office building power quality survey, Hong Kong 4501
offshore watersource heat pump appls. 28197
Panorama Eye room air conditioner body posn. sens. 44606
power syst. voltage stabil. anal., dyn. load model *(Japanese)* 26852
RAMO telecomms. environ. equipt. mgt. network 19870
residential air conditioner, solar-powered, perform. eval. 28179
residential ASDs, simplified control scheme 5397
residential heat pump air conditioning technols. 44608
residential heat pumps, improper refrigerant charging expts. 28187
residential solar-powered air conditioners 5393
single-screw compressor perform., computer-based anal. tools 44611

air conditioning continued
switches, free-standing air conditioning units *(French)* 20138
telecom. equipt. air conditioning, building control/mgt. syst. 20135
telecom. equipt. PAFC CHP syst., adsorpt. refrigerator-based cooling 41622
telecomm. equipt., fuel cell energy syst., field test 19975
telecomm. equipt. air conditioning, power supply 44602
telecomm. power supply/air-conditioning, reliab. modelling 19858
telecomms. switch room cooling, natural convection-based 20140
telecomms. syst. air conditioning, PAFC heat dissipation-based 20137
telephone exchange air conditioning units, air flow studies 20141
thermoelec. conversion-based designs *(Japanese)* 44601
TIPACS temp.-initiated pass. cooling syst., perform., appls. 28181
vehicular appl., rotary stepping motor, missed step detect. *(French)* 11485

air gaps
for air gaps in machines see "electric machines" or appropriate NTs and RTs
3-phase tetrapolar alternator model, bond-graph method 27695
AC machine perform. under faulted operation 19618
AC/DC/reluctance motors, torque prod., unified theory 4930
air conditioning, controllable induction micromotor 5395
armature arcing voltage drop 15346
artificial floating metals, DC breakdown charact. 35664
bundle conductors, phase-to-ground/phase air gaps, flashover voltage 27219
capacitor-run induction motors, single-phase, lumped param. model 4972
crit. corona/avalanche threshold, nonuniform air-gaps 13976
DC machine, distributed exciting winding, calc. 36182
ESD shielding, inflatable-bag technol. 15516
external rotor PM motor, perform., current waveforms influence 10948
flashover, charged droplets, lightning impulse voltage *(Japanese)* 35685
ground-plane-backed dielec.-resonator antennas, imperfections 40462
high speed async. motor, solid rotor, mag. vector pot. 36166
hybrid double-sided lin. pulse motor, static thrust calc. *(Korean)* 27757
impulse breakdown of insulators and air gaps of similar electrode configs. 13946
impulse strength, nonstand. lightning surges 4722
induction machines, rotor-air gap boundary layer, equiv. ccts. design 44037
induction machines, rotor/air-gap boundary layer, equiv. ccts. *(Russian)* 44033
induction motor bearing damage detect., stator current monitoring 4968
induction motor drives, saturated, field oriented control 20079
induction motor drives, stator voltage 3rd harmonic direct field oriented control 5299
induction motors, dyn. perform., space harmonic fields, cpd. transform. *(Chinese)* 11015
loudspeaker mag. core, mag. field optimal shape design *(Polish)* 22706
Maglev syst., levitation/guidance, static characts. *(Korean)* 28119
magnetless voice coil motor, driving characts. *(Japanese)* 44088
nonstandard lightning voltage waves, bibliog. 4878
nonstandard lightning voltage waves, research 4877
opt. telescope, direct drive, low cogging torque PM brushless motors 11320
PM DC machines, mag. field anal., FEM 44067
revolving PM magnet wheels, static characts. anal. *(Japanese)* 44255
single sided LIM, urban transit appl., nonlin. optimisation *(Japanese)* 44560
sync. machine air gap EM field calcs., boundary elements method *(Russian)* 36130
turbogenerator shaft torque amplif. prediction 36092
very-short air gaps in plane-parallel electrodes, discharges 13979
ZnO varistor/air gap surge arresters comparison, LV syst. 19354

air insulation
see also air gaps
170 kV rated containerized substations, perform. and appls. 11213
substation cables, induced transients meas./models 5157
substations, EM field calcs., computer-based 5161
substations, transient EMI meas. 5158

air permeability *see permeability*

air pollution
see also air pollution control; air pollution measurement; smoke
$1A_4$ supersonic coal-fired MHD channel, test progress 20015
70 MW Four Rivers combined cycle PFBC CHP project, USA 27601
160 MWe Shawnee AFBC Unit, petroleum coke cofiring 27563
920 MW Hwange thermal power plant, fly ash Al extraction 35992
anthropogenic peat biomass, atmos. CO_2 level control appls. 36623
artificial acid rain, surface impulse breakdown tests 1505
automotive engines, misfire detect., neural networks appl. 36779
automotive fuel economy improvement, near-term technol. 28139
carpet waste, economical alternative fuel 43889
catalytic combustion, low emissions 35974
cement indust., 1990 Clean Air Act Amendments impact 5426
cement plant design, efficiency/environ. issues 5428
cement plant design, environ. issues 180
cement plant design, power/emissions reduction 44637
cement plant design for stringent environ. stds 5427
centrifugal chiller refrigerants, Montreal Protocol compliance 20149
China's energy consumption situation, characts. 28057
CO_2 emissions, energy indust. environ. impact 35986
coal-fired power plant simul., genetic algm.-based 36004
coal-fired power plants, radiological impact, dose assess. 4345
combined cycle CHP plant step swirl combustor perform. optim. 36025
corona discharge-electron beam combustion FGD 19495
DC station post insulators, pollution performance, arc model 19324
destructive distillation waste-to-energy power plant technol. 27564
diesel engine particle emissions, ESP capture/agglomeration 7926
elec. heat pump, future prospects, domestic use 11482
emission constrained economic dispatch 4583
environ. pollution prevention/reduction, elec. procs. *(German)* 44641
fossil fuel NO_x emissions, form./control studies 35975
fuel cell power systs., CO_2 capture studies 36076
gas sens. for environ. monitoring 9965
gas turbine, lean premixed/prevaporized combustion, KIVA-II 36015
hybrid vehicles, energy storage alternatives 28140
internal combustion engine, homogeneously charged, piston design, flame develop. 19501
internal combustion engine power generation, O_2 enrichment simuls. 35970
light duty fuel cell vehicles, fuel/emissions reductions 28146
light-duty alternative fuel vehicles, operational experiences, USA 36717
narrow pulsed corona discharge, FGD appl. 19496
Nevada Test Site, air class. methods 4409
PFBC boiler operation, Aachen Heating Power Plant *(German)* 43896
PFBC power plant particulate control, FIBROSIC filter tests 27600

air pollution continued
Portland cement indust., max. achievable emissions control 182
power plant emissions control, pulsed corona discharge modulators 35998
power plant flue gas scrubbing, pulsed corona/electron beam technols. 35997
pulsed power technol., power plant pollution control appls. 35967
thermal power generation, environ. concerns, India 43897
thermal power generation, environ. damage, economics 4836
thermal power plant pollutant emissions, well stirred reactor expts. 35971
CCl_4 greenhouse gas destruction, plasma reactor-based 20181
CO emissions, waste fuel combustion 19397
CO_2 emission, energy use/carbon implications, India 28190
CO_2 emission levels, prospective energy scenarios for France *(French)* 4758
CO_2 emissions from elec. generation *(German)* 43818
NH_3 removal from gases, semi-wet type plasma reactor 43534
NO removal from gases, semi-wet type plasma reactor 43534
NO_x control, MHD steam combined cycle, natural gas fuel 27654
NO_x emmissions control, Orimulsion fired power station 10852
NO_x prod., chem. kinetics, stirred reactor 35972
NO_x removal from gases, semi-wet type plasma reactor 43534
SO_2 emission compliance, optimal planning 4846
SO_2 emission effects on aerosols 35973

air pollution control
1 MW PFBC combined cycle plant cyclone separators 27589
$1A_4$ supersonic coal-fired MHD channel, test progress 20015
2.45 GHz microwave-based air pollution control, dielec. props. meas. 11474
10 MW pressurised CFBC combined cycle pilot power plant 27586
25 MW gas turbine CHP plant project, Netherlands 27576
70 MW Four Rivers combined cycle PFBC CHP project, USA 27601
200-660 MW steam power plant FGD scrubbers design 27545
317 MW Milliken steam power plant clean coal project, USA 35995
443 MW steam power plant scrubber renewal project, USA 27544
600 MW Muskingham power plant low NO_x burner retrofit, USA 43903
680 MW Hemweg Unit no. 8 thermal power plant project, Netherlands 19509
920 MW Hwange thermal power plant, fly ash Al extraction 35992
927 MW CHP plant AFBC boiler retrofit, Czech Republic 19515
air-blown fluidized bed GCC 10866
airport elec. vehicle appl. projects, USA 28102
anthropogenic peat biomass, atmos. CO_2 level control appls. 36623
automobile hybrid internal combustion engine, computer controlled 28156
automobile powertrain electronics, engine/transm. controls 36780
automotive engines, misfire detect., neural networks appl. 36779
biomass/coal co-firing power plant technol. demons., USA 43904
cement indust., 1990 Clean Air Act Amendments impact 5426
cement plant design, efficiency/environ. issues 5428
cement plant design, environ. issues 180
cement plant design, power/emissions reduction 44637
cement plant design for stringent environ. stds 5427
CFC removal from troposphere 26767
CO_2 emissions mitigation technols., Japan *(Japanese)* 4755
CO_2 power plant emissions, UK energy policy 4829
coal-fired combined cycle power generation concepts, USA 43927
coal-fired power plant FGD scrubber designs 27546
coal-fired power plant reverse air fabric filter designs 43902
combined cycle CHP plant step swirl combustor perform. optim. 36025
combined cycle plant, district heating, characts. 10865
combined cycle power plant circulating bed granular dust filter develop. 27590
combined cycle power plant CO_2 flue gas clean-up projects, Russia 27592
combined cycle power turbines, clean combustion technol. review 43930
corona discharge-electron beam combustion FGD 19495
destructive distillation waste-to-energy power plant technol. 27564
diesel engine particle emissions, ESP capture/agglomeration 7926
diesel engines robust emissions control, oxygen sens. 34616
dry low NO_x combustor/IGCC technols., Tracy power station 43928
elec. augmented filter, conducting/dielec. fibres comp. 4410
elec. generation, real cost eval. method 35558
elec. utility acid rain precursor control model 44646
elec. utility DSM, air pollution impact 19492
elec. utility energy conservation programmes, EPA protocols, USA 26923
emission constrained economic dispatch 4583
energy emission model, fuzzy sets based 35981
environ. constrained economic dispatch method 4837
Ferndale 245 MW combined cycle plant, location, environ. aspects 10867
ferroelec. plasma reactor, animal house ammonia/odor control appls. 20175
fluidised bed combustion procs., modelling/simul./control 4833
fossil fuel NO_x emissions, form./control studies 35975
fossil fuel power plant NO_x controls, burner testing overview 19503
fuel cell power systs., CO_2 capture studies 36076
gas cleaning equipt., electrostatics appl. 43535
gas turbine, lean premixed/prevaporized combustion, KIVA-II 36015
gas turbine power plant emissions compliance upgrade projects, USA 27577
gas turbines, dry low NO_x technol. 43918
greenhouse gas abatement, Senegal, least-cost options 27325
greenhouse gas abatement costing, Zimbabwe 27301
hybrid PV-wind power syst., optimal unit sizing 10894
ICE elec. locomotives, energy consumption/pollution study, Germany *(German)* 44502
IGCC power plant hot-gas cleanup technols. 27591
indust. cogen. plants, NO_x emissions control 27560
indust. distrib. network improvement, Clean Air Act effects 11493
light duty fuel cell vehicles, fuel/emissions reductions 28146
Lippendorf lignite fired power station develop. *(German)* 43910
magma power plant project, USA, air pollution benefits anal. 27606
MHD repowering projects, environ./economic benefits 19576
narrow pulsed corona discharge, FGD appl. 19496
Paiton coal-fired power station, Indonesia 27553
PFBC power plant particulate control, FIBROSIC filter tests 27600
PFBC thermal power plant fibre optic temp. sens. 35977
portable analyser *(Czech)* 26768
Portland cement indust., max. achievable emissions control 182
power plant emissions control, pulsed corona discharge modulators 35998
power plant FGD, ammonia-based technols. develop. 27529
power plant flue gas scrubbing, pulsed corona/electron beam technols. 35997
power station advanced control systs., μP-based 27295
power syst. emissions-constrained optimal power flow calcs. 10610
power syst. expansion planning optim., CO_2 emissions constrained *(Japanese)* 43719
power syst. optimal generation mix, CO_2 emissions constrained 4599

- **air pollution control** continued
  - pulsed power technol., power plant pollution control appls. 35967
  - space power generation, develops., economic incentives overview 43417
  - steam power plant boiler furnace designs NO_x form. prediction 19521
  - steam power plant CO_2 emissions control, chem. solvents appl. 27543
  - steam power plant flue gas cleaning syst. corros. protection *(German)* 43912
  - steam power plant NO_x control, staged solid-fuel combustion 27558
  - Suomenoja combined cycle CHP plant control upgrade, Finland 43936
  - thermal power plant continuous emissions monitoring, software-based 27537
  - thermal power plant emissions control, cost-effective techs. 43887
  - thermal power plant FGD ESP, corros. wear testing *(German)* 4822
  - thermal power plant fluidized bed coal combustion, N_2O emissions *(Chinese)* 4838
  - thermal power stations, FGD scrubber myths/realities 43892
  - CCl_4 greenhouse gas destruction, plasma reactor-based 20181
  - CO_2 abatement costing, Egypt, top-down/bottom-up approaches 27324
  - CO_2 abatement costs, comparable assess. 27323
  - CO_2 emissions abatement, energy strategies, Brazil 27300
  - CO_2 emissions disposal, deep ocean injection expts. 10848
  - CO_2 generation emission abatement challenges, Thailand 27303
  - CO_2 generation emissions reduction cost curves, Denmark 27302
  - CO_2 mitigation technol. options assess., China 27322
  - CO_2 power generation emissions reduction anal., Japan *(Japanese)* 10797
  - CO_2-recovering gas turbine power generation scheme 4847
  - NH_3 removal from gases, semi-wet type plasma reactor 43534
  - NO emission reduction, thermal power plants, economics 35989
  - NO removal from gases, semi-wet type plasma reactor 43534
  - NO_x control, MHD steam combined cycle, natural gas fuel 27654
  - NO_x emissions control, combined cycle CHP plant 10868
  - NO_x emissions reduction, solid fuel combustion 35988
  - NO_x emissions reduction, supercritical steam generators 27552
  - NO_x reduction, ideal combined cycle power station 27581
  - NO_x removal from gases, semi-wet type plasma reactor 43534
  - NO_x/SO_2 emissions reduction, thermal plant, Kansk-Achinsk coal 36003
  - O_3 depleting substs. in electronic cleaning 30102
  - SO_2, NO_x, CO_2 emissions bal., German utilities *(German, English)* 35712
  - SO_2 emission compliance, optimal planning 4846
  - SO_2 emissions reduction, fossil fuel combustion 35987
- **air pollution measurement**
  - acousto-optic tunable filter hyperspectral imagery, anal. 18922
  - atmos. visibility meas. device 10461
  - car exhaust trace gas monitoring by laser photoacoustic spectrosc. 18907
  - contrails, ground-based mobile scanning lidar appl. 26766
  - elec. power indust. develop., global issue 27535
  - emitted gases anal. of methanol engine motorcars 10565
  - flue gas metal hazardous air pollutants determ. 18913
  - gas sens. for environ. monitoring 9965
  - IR lasers, conf., Ascona, Switzerland (1994) 5485
  - Kagoshima Prefecture, air pollution monitoring syst. 26772
  - laser doppler device for air pollution detect. 18917
  - laser of NH_3-CO_2 type, two IR wavelength method 10487
  - LFM-CW lidar for rem. detect. of saturated hydrocarbons 17450
  - metane, atmos., tunable LD absorpt. spectrosc. 9953
  - monitored atmos. releases, radiological assess. codes benchmarking 4344
  - Nevada Test Site, air class. methods 4409
  - oxide dusts, environ. materials, SNMS anal. 26004
  - SO_2/CO_2 detect. by laser optothermal spectrosc. 10566
  - thermal power plant continuous emissions monitoring, software-based 27537
  - thermal power plant fluidized bed coal combustion, N_2O emissions *(Chinese)* 4838
  - thermal power plant pollutant emissions, well stirred reactor expts. 35971
  - trace gas rem. sens. in mid-IR/nadir geom. 43533
  - CO, SO_2, NO_x, N_2O emissions, CAFBC burning Greek lignite 43891
  - H_2S determination, continuous flow instrum., 26003
  - NH_3 atmos. determ., diffusive sampling, wind effects 26002
  - NO_2 pollution detect., DIAL perform. predictions 17438
  - NO_x prod., chem. kinetics, stirred reactor 35972
  - Nd:YAG laser, eye-safe compact Mie scatt. lidar 18908
  - Nd:YAG laser radar for wide-area fire detect. 17451
  - O_3 in stratos., mm-wave heterodyne spectral determ. 10486
  - O_3 short-term forecasting by bidirectional associative memory, Mexico City 26773
  - ^{222}Rn progeny, automated gross alpha/beta activity monitor 43400
  - SO_2 emission effects on aerosols 35973
- **air pumps** *see compressors*
- **air terminals** *see airports*
- **air tightness detection** *see leak detection*
- **air traffic**
  - contrails, greenhouse pot. 26766
  - European ATC, Central Flight Management Unit *(French)* 4376
- **air traffic control**
  - *see also aircraft; aircraft landing guidance*
  - A2A3 air traffic control testbed using embedded AI technology 10418
  - ACAS, airborne collision avoidance syst. *(French)* 35221
  - Ada, computer commun. interfacing 41773
  - aeronautical mobile satellite services, 1960s, 1990s develops. 17153
  - airborne positioning and planning syst., avionics future archit. 10345
  - aircraft navig. and data links, automatic depend. surveillance (ADS) *(French)* 3378
  - airport surface enhanced surveillance radar 10424
  - altitude prediction by natural spline tracking filter *(Japanese)* 8410
  - ATRAS air traffic surveillance, Nippon Airways *(Japanese)* 10416
  - automated radar terminal systs., ARTS *(Japanese)* 10407
  - civ. aviation flight decks and ATC, interface mgt. 26536
  - colour in ATC displays 4375
  - conflict resolution using genetic algorithms 10419
  - DGPS, airport surface guidance system,experiment *(Japanese)* 10403
  - digital air/ground commun. 10420
  - dyn. imaging and RCS meas. of aircraft 34146
  - EMC of urban cellular mobile radio systs. 33858
  - European ATC, Central Flight Management Unit *(French)* 4376
  - European ATC develops., satellites 26697
  - F/I band radar wake vortex meas. 17411
  - fault-tolerant data network, transputer based, for ATC *(Italian)* 8912
  - fault-tolerant transputer based digital commun. syst. 43461
  - French activity in data link mode S, ADS appls. *(French)* 35274
  - genetic algms. for air traffic assignment 35275
  - GEO satellite aircraft ranging and positioning, flight route and orbit effects 17493
- **air traffic control** continued
  - GNSS availability model, developing requirements 33946
  - GPS, ATC radar calib., flight expts. *(Japanese)* 9680
  - GPS automatic depend. surveillance of aircraft, spontaneous mode S broadcast messages 4377
  - GPS-Squitter expt. results 9419
  - machine intelligence in air traffic management, conf., Berlin (1993) 28258
  - microwaves in aviation, commun. and control 18778
  - pilot situational awareness enhancement, airport surface movement area 10423
  - QR decomp.-based least sq. tech., improve ATC radar 2579
  - radar anal. experts modelling for training/aiding 20350
  - radar syst., jet engine modulation, math. model 10404
  - radar tracking, jump lin. model based aircraft trajectory reconstruction 17373
  - surface movement guidance and control syst. 43459
  - VHF 3D cellular systs. for air-land commun. 25409
  - VHF data link, GPS/surveillance 10422
- **airborne radar**
  - adaptive antenna space-time proc., platform scatt. clutter 25559
  - Arctic sea ice thickness determ., polarimetric SAR appl. 43529
  - array pattern estim., amplit. meas., arbitrary near-field surfaces 40519
  - bidirectional symm. radar absorbing struct. 34144
  - compact time and space-integrat. SAR proc. 17418
  - diagnostics implementation in standard ATE environment 42699
  - dust cloud dens. estim., single wavelength lidar 17439
  - dyn. imaging and RCS meas. of aircraft 34146
  - early warning radar, clutter spectrum filtration *(Chinese)* 34109
  - ELDORA/ASTRAIA airborne X-band Doppler weather radar 10483
  - flyable fiber-optic radar target generator 43428
  - Gray Wolf S-3B demons. of Norden AN/APG-76 radar 10359
  - helicopter-based lidar complex for vegetation rem. sens. 25589
  - LIDAR wide-band Doppler detect. tech. 42530
  - mountainous terrain mapping by radar, SAR stereo restitution 43475
  - multisensor surveillance syst., data fusion IKBS 35395
  - non-cooperative ident. of ships, electrooptical data 9650
  - ocean RCS, low incidence 26735
  - on-platform radar and opt. track fusion 9647
  - phase noise meas., fiber-optic delay lines 34155
  - radar phase noise meas., digital DP 34156
  - SAR image form., opt. proc. 17417
  - target recogn. problems 3594
  - time stress meas. device, on-board diagnostic support 43432
  - topography, airborne interferometric SAR, motion compensation 43473
  - CO_2 laser for rem. sens. meas. 18830
- **aircraft**
  - *see also aerospace control; aerospace instrumentation; air traffic control; aircraft control; aircraft maintenance; aircraft navigation; aircraft testing; helicopters; military aircraft*
  - 3-D obj. config. extraction 24551
  - 3D power cct. package for aircraft appls. 26687
  - AC generators, forced power transfer, dyn. modelling 26657
  - advanced sens./instrums. used in aero-engines 4355
  - AELAP, Aircraft Load Anal. Program 26559
  - aerodynamical config., complex flow fields, num. methods 10307
  - altitude profile estim., natural spline fn. 18710
  - ATC radar, jet engine modulation phenom., model validation 10404
  - coherent laser radar and aircraft wake vortices 3623
  - commercial airplane auxiliary power unit starting drive 4360
  - corros. monitoring and control 5935
  - dielec. coating on aircraft fuselage, scatt. signature optim. 40314
  - dust cloud dens. estim., single wavelength lidar 17439
  - dyn. imaging and RCS meas. of aircraft 34146
  - EMALS EM aircraft launch syst., aircraft carrier appls. 15304
  - F/I band radar wake vortex meas. 17411
  - fibre-optic sens. for smart struct. 3851
  - flight safe termination probab. rel., engine failures 18776
  - fuzzy radar tracking of aircraft 9624
  - gas turbine, lean premixed/prevaporized combustion, KIVA-II 36015
  - IFF appl., transient control by software 23677
  - image-based air target ident. 26823
  - integrated diagnostics for aircraft propulsion systems 43454
  - intell. rem. power controller 26682
  - inverse synthetic-aperture imaging radar, gradient-search phase-retrieval algm. 3629
  - ISAR image of Boeing 747, meas. F-band meas. 17409
  - jet engine inlet scatt., hybrid finite element-modal anal. 42486
  - landing tracking, multisensor integrat. 41115
  - maneuvering target tracking, single Kalman filtering algm. 32724
  - mission effectiveness enhancement, advanced boresight equipment 43575
  - multiple domain experience in systs. engng. 5577
  - neural network based flight control, validation methodology 10362
  - NPP, aircraft crash, react.-time response 43844
  - pass. acoustic param. estim., PWVD optimal window length 40968
  - Pathfinder solar powered aircraft 36587
  - power conversion systs., soft switching appls. 43452
  - power systs., time integrated EMI safety margins 15465
  - radar for non-cooperative target recogn. *(Dutch)* 3613
  - radar signature for complex objs. 42498
  - receiving antennas, scatt. minimization 40463
  - safety aspects of liq. H_2 fuel 18775
  - SAR images, max. likelihood algm. for target detect. 17365
  - secondary maint.-free batts., state-of-health tests 43443
  - shared resource mgt. for integrated avionics systs. 10392
  - SRM design considerations, aircraft engine pump appl. 10982
  - super-resoln. range-Doppler imaging 25556
  - switched reluctance starter/generator, aircraft engine 43457
  - synthetic range profile meas. 9644
  - TLM method, plane-wave illum., partial Huygen's surface 2282
  - transport aircraft systs., power electronics implement. 43451
  - trends/develop., Boeing 777 Jetliner 35211
  - void forms. in aircraft LCD 10350
  - VSAT satellite commun. syst., effects of rainfall and airplanes 25463
  - weapons diagnostic performance: The need for a new metric 43599
  - wideband radar target recogn., range profiles 34150
  - Pb-acid sealed maint.-free batt., Boeing 777 appl. 43444
  - Pb-acid valve-regulated 24 V aircraft batts., conductance testing 43445

aircraft antennas *see aircraft communication; mobile antennas*
aircraft communication
406 MHz antenna for Spar deployable emergency beacon transmitters 15650
air/ground digital commun. for ATC 10420
airborne antenna testing, Indoor Doppler Antenna Test Range 35217
ATC on airport surface, VHF data link 10422
avionics backbone interconnection for busing in backplane 10322
avionics interf., airborne pers. electronic devices 10347
BMDO/IST lasercom advanced technol. demons. status 17290
civ. aircraft, satellite commun., amp., dyn. efficient bias 42330
direction-finding cross interferometer perform. 25618
ETS-V mobile commun. for ships/aircraft/land vehicles 42262
fiber-optic WAN, tactical airborne sens./ground station 43569
flight inspection develop. trends 10314
forward air control aircraft, commun. equipt., quick-response assess. 43578
French activity in data link mode S, ADS appls. *(French)* 35274
freq. assignment problems, genetic algm. appls. 9199
GNSS augmentation data link 10377
GNSS transponder and self organising TDMA data link 10378
helicopter antenna pattern prediction, improved NEC code 26529
inflight telephony systs. *(French)* 3125
laser commun. syst., adaptive jitter rejection tech. 17310
navig. and data links, automatic depend. surveillance (ADS) *(French)* 3378
semi-act. radar target, design of antenna subsystem 17430
SS digital data link for aviation 10379
subscriber interface, ARINC 629 current mode bus 35229
terrestrial flight telephone syst. (TFTS), air-to-ground commun. syst. 25294
VHF 3D cellular systs. for air-land commun. 25409
aircraft computers
777 Autopilot Flight Director System 10336
777 Maintenance Access Terminal and Side Displays 10335
advanced avionics subsystem technol. demons. program 10366
AOS, avionics OS for multi-level secure real-time environ. 8939
ATM appl., digital avionics 10389
avionic subsystem, architectural spec. 35239
avionics breakthrough in inform. sharing 10332
avionics computers, real-time, Ada 9X solns. 10370
avionics multimodal dialogue, cognitive and sens.-motor interact. *(French)* 18712
battle-suitable, electronically provided inform. 10598
Boeing 777 Airplane, model-based diagnostics 10319
Boeing 777 onboard maint. syst., Maintenance Terminal Function 10320
civ. aviation flight decks and ATC, interface mgt. 26536
cockpit display generator for electronic battlefield 10375
discrete interface devices 10358
distributed Ada, implement. 26538
embedded flight control syst. design, integrated proc. 10333
European Fighter Aircraft modular computer concept 43431
F-16 Central Air Data Computer, downsized testers 43437
F-22 cockpit display syst. 10374
flight data acquisition syst., multiprocessor 26547
Flight Management Systems evol. 10337
integrated 3D anal. of flight image seqs. 24458
lin. token passing bus/fiber distributed interface protocols 10323
microcircuit simul. and test develop. BEST TEST software 34407
neural network based flight control, validation methodology 10362
prog. digital radio common module prototype 10382
radar class. algm. eval. by simul., combat aircraft 18986
real-time 3D rendering, soft breadboard 10376
serial low-cost control/data bus for airframes 10334
shared resource mgt. for integrated avionics systs. 10392
subscriber interface, ARINC 629 current mode bus 35229
user-modifiable airborne software, HLL based 10338
validation test generation, automated procedure 10330
aircraft control
see also aircraft landing guidance
35 GHz forward looking altimeter, flight test eval. 10386
35 GHz forward looking altimeter for terrain avoidance 25612
777 Autopilot Flight Director System 10336
Airbus A320/A330/A340 electrical flight controls, fault tolerant systems family 35234
avionics, certification issues for complex digital hardware 10346
Canard rotor/wing aircraft, integrated navig./guidance/control 10340
digital avionics systems, conf., (Nov. 1994) 5456
embedded flight control syst. design, integrated proc. 10333
fighter pilot support systs., cognitive model 26833
flexible archits., key, low cost FBL 10388
human resource-based crew station design methodology 10348
integrated avionics develops. civ. and mil. 26545
integrated target acquisition/fire control systs., conf. (1991) 28259
intell. rem. power controller 26682
lin. DC actuator, valve control 4352
microcomputer distributed meas. and control syst. 10343
motion simulator, dyn. controller design 18700
neural network based flight control, validation methodology 10362
obstacle avoidance sens., automatic Nap-of-the-Earth flight 10385
pass. ranging, image expansion 26549
real-time decision aiding, wind shear avoidance 35219
serial low-cost control/data bus for airframes 10334
shared resource mgt. for integrated avionics systs. 10392
simulated aircraft landing task, P300 mental workload measure 43424
Skyball, electro-optic sens. for unmanned flight 3884
VXIbus/GPIB-based test syst., Boeing 757 flap/slat electronics unit 4350
aircraft displays
777 Maintenance Access Terminal and Side Displays 10335
advanced display technol. for F/A-18E/F Hornet 10353
AMLCD for aircraft 10360
ARINC D-Size LCD display for aircraft 10391
autostereoscopic display, high brightness/power efficiency 34621
avionics multimodal dialogue, cognitive and sens.-motor interact. *(French)* 18712
C-17 cockpit display visual aspects, automated testing 35225
cockpit display generator for electronic battlefield 10375
cockpit situation awareness autostereoscopic avionics display 10352
color act.-matrix LCDs in U.S. mil. aircraft 10351
enhanced vision HUD, image quality issues 10327
F-22 cockpit display syst. 10374
fixed format LCD readability in bright ambient environ. 10349
flat fluoresc. lamp technol. for LCD's 10393
aircraft displays continued
flight inspection develop. trends 10314
Flight Management Systems evol. 10337
flight path displays, perspective, design factors 4351
GNSS augmentation data link 10377
head-up guidance, situation awareness systs. 10328
human resource-based crew station design methodology 10348
integrated flight path/terrain displays 26543
miniature act. matrix LCD, projection/head-mounted systs. 9989
mobile flight test support 10316
pilot situational awareness enhancement, airport surface movement area 10423
rapid cycle display software design 10357
real-time 3D rendering, soft breadboard 10376
Rockwell display technols. develop. 10356
stereoptic 3D cueing, complex flight displays decluttering 35218
sunlight viewable electroluminescent displays for mil. appl. 10372
synthetic vision systs. develop. 10369
tactile stimulation of human head for display appl. 43426
validation test generation, automated procedure 10330
void forms. in aircraft LCD 10350
wide angle HUD for synthetic vision 10390
wide angle HUD for synthetic vision 26551
aircraft electronics *see avionics*
aircraft instrumentation
see also aircraft displays; aircraft landing guidance; avionics; instrument landing systems; microwave landing systems
270 V DC aircraft components, corona testing 26594
advanced sens./instrums. used in aero-engines 4355
aircraft act. noise control, research, reality 10371
ATC on airport surface, VHF data link 10422
AUTOTESCON 93, (Sept. 1993) 36845
avionics cooling, microchannel heat sink, fab./testing 26542
BTPFL-C2 immersion-cooled electronic clamshell module, aircraft avionics 4432
Canard rotor/wing aircraft, integrated navig./guidance/control 10340
CASS, design for supportability 17670
differential GPS, flight eval. expts. *(Japanese)* 35273
digital avionics systems, conf., (Nov. 1994) 5456
elec. flight controls for civ. and mil. aircrafts, family of fault-tolerant systs. 43430
EM environ. in aircraft, single event rel. 26525
European Fighter Aircraft modular computer concept 43431
human resource-based crew station design methodology 10348
integrated diagnostics for aircraft propulsion systems 43454
integrated flight path/terrain displays 26543
interferometric SAR, 3-D radar imaging 17384
lin. DC actuator, valve control 4352
microcomputer distributed meas. and control syst. 10343
mil. aerospace equipt., reliab. develop. testing 26832
mil. aircraft INS, maint.-free Pb-acid batt. develop. 43564
modular avionics, opt. interconnect, connectors, hybrids and backplanes 18721
neural network technology for BIT applications 42730
opt. fibre Bragg grating sens. for aerospace smart struct. 42825
pass. mm-wave camera for low visibility landing 10329
reverberation chambers, aircraft test appls. 15538
Satnav programme, flight safety improvement *(French)* 3637
SEU environ. for avionics at high lat., SRAM tests 18715
synthetic vision systs. develop. 10369
vision device flight test 10387
aircraft landing guidance
see also instrument landing systems; microwave landing systems
automatic landing LQG/LTR controller design 35276
flight inspection develop. trends 10314
GPS category III precision landing, real-time flight testing, integrity beacons 3639
head-up guidance, situation awareness systs. 10328
kinematic GPS and ground-based pseudolite, approach integrity monitoring 3640
mm-wave radars for airport surface surveillance 10421
mobile flight test support 10316
navigating the airport surface, electronic vs. paper maps 10381
Russia, GSM transmitter interf., airborne radio-navig. equipt. 33859
vision based aircraft navig., landing 10405
aircraft maintenance
777 Maintenance Access Terminal and Side Displays 10335
ADM maint. personnel admin. syst. for Nippon Airport *(Japanese)* 10402
analog neural networks, helicopter gearbox fault detect./diagnosis 10311
AUTOTESCON 93, (Sept. 1993) 36845
avionics maint. training, equipt. simul. 35236
B-2 automatic test equipment 43436
Boeing 777 Airplane, model-based diagnostics 10319
Boeing 777 onboard maint. syst., Maintenance Terminal Function 10320
C-17 intermediate level ATE syst. for avionics maint. 35224
diagnostic engng. tool set for mil. environ. 35383
fighter aircraft, future generation develops. 43598
flexible maint. IS for downsized environ. 35407
integrated depot environ. for avionics support (IDEAS) 35228
integrated diagnostics for aircraft propulsion systems 43454
SMART std. based autotesting for commercial and mil. appls. 18719
aircraft navigation
see also aircraft landing guidance
A2A3 air traffic control testbed using embedded AI technology 10418
ACAS, airborne collision avoidance syst. *(French)* 35221
avionics interf., airborne pers. electronic devices 10347
differential GPS, flight eval. expts. *(Japanese)* 35273
direction-finding cross interferometer perform. 25618
elevation map recovering, aerial image seq., stereo modeling 10341
flight inspection develop. trends 10314
GPS automatic depend. surveillance of aircraft, spontaneous mode S broadcast messages 4377
Hunter Unmanned Aerial Vehicle, near-term targeting tool 4434
perform. requirements and trends *(Japanese)* 18723
aircraft testing
2 μm LIDAR for laser-based rem. sens. 10384
35 GHz forward looking altimeter, flight test eval. 10386
270 V DC aircraft components, corona testing 26594
Advanced Distributed Simulation, test and eval. appls. 18701

aircraft testing continued
- Airbus aircraft acoustic fatigue certification 26537
- analog neural networks, helicopter gearbox fault detect./diagnosis 10311
- AUTOTESTCON, conf., Anaheim, CA, USA (Sept. 1994) 20248
- coherent laser radar and aircraft wake vortices 3623
- EMC equipt. for avionics syst. components testing 4354
- external fuel tank, simulated lightning tests 18706
- fast risetime EMP coupling, aircraft window 18705
- fault tolerant air data inertial ref. syst. testing 10365
- flight inspection develop. trends 10314
- fuel accessories test system 43425
- health monitoring, real-time neural computing 10363
- HF EM waves coupling to aircraft wiring, test methodology 26526
- microchannel heat sink 26542
- NEC2 radiation patterns of under-segmented wire grid models 40455
- power by wire aircraft, spec./testing 26560
- pulsed solid-state coherent laser radar aircraft wake vortex detect. 3624
- reverberation chambers, aircraft test appls. 15538
- shielding, swept freq. single point excitation tech. 18704
- SMART std. based autotesting for commercial and mil. appls. 18719
- subscriber interface, ARINC 629 current mode bus 35229
- UH-60A airloads data acquisition and proc. syst. 10313

airfields *see airports*

airlines *see travel industry*

airmail *see postal services*

airplanes *see aircraft*

airports
- 3D X-ray imaging techs. 34335
- 400 Hz solid-state power supply for aircraft *(Japanese)* 10400
- aircraft parking posn. display and guidance syst. *(Japanese)* 10410
- ASCOT airport terminal for Nippon Airways *(Japanese)* 10415
- ASDE airport surface detect. equipt. *(Japanese)* 10408
- automated radar terminal systs., ARTS *(Japanese)* 10407
- DGPS, airport surface guidance system,experiment *(Japanese)* 10403
- elec. vehicle appl. projects, USA 28102
- facilities status and future trends *(Japanese)* 10406
- facility mgt. syst., multimedia technols. *(Japanese)* 42034
- GPS-Squitter expt. results 9419
- ident. card mgt. syst. for Tokyo International Airport *(Japanese)* 10411
- large electroacoustic syst. speech intelligibility meas. and optim. *(Croatian)* 2411
- lighting power lines, light failure reporting syst. 25197
- meteorological doppler radar syst. for airports *(Japanese)* 10409
- mm-wave radars for airport surface surveillance 10421
- multimedia IS for airports *(Japanese)* 10413
- navigating the airport surface, electronic vs. paper maps 10381
- passenger IS for Kansai International Airport *(Japanese)* 10412
- passenger terminal buildings, elevator equipt. *(Japanese)* 11426
- pilot situational awareness enhancement, airport surface movement area 10423
- schedule monitoring syst. for Nippon Airways *(Japanese)* 10417
- surface movements radar surveillance/tracking 43460
- surface surveillance radar, ASDE-3 syst. 10424
- transit syst. power distrib. design project, USA 44571
- worldwide technol. develops. overview, 1994 36711

AIX *see Unix*

alarm systems
- 50 to 300 kVA UPS installation guide 19875
- AGS accelerator distributed control syst. alarm, obj.-oriented design 18192
- Alcatel 1000 S12 exchange, ALAMOS generic alarm correl. syst. 3288
- CERN PS accelerator complex, data driven alarm syst. 18202
- CMOS membrane IR sens., fab. and improved etchant 25846
- cognitive psychology, med. equipt. alarm sounds design 4254
- color coding, indicator and control coding *(Italian)* 17994
- computer-power converter commun. link, syst./alarm mgt. 41826
- conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
- danger warning syst. technol. aspects *(German)* 20386
- device-specific neural nets for elec. energy systs. fault diagnosis 10789
- digital telephone switch alarm proc. ES 33717
- Doppler detector, low-cost, automotive appls. 20112
- electronic security syst. planning, site survey 36989
- fast response CCTV image recall and motion detect. 42634
- Fernald Environmental Management Project, crit. alarm syst. 4225
- fire/gas detector test schemes optim., reliab. model 36979
- FITL syst. rem. power source, alarm commun. 19867
- France Telecom's Regina syst. for collecting, managing/broadcasting alarms 24919
- Hibernia offshore platform, integrated control syst. 5412
- home automation, rem. security system 9760
- intell. alarms in biomedical engng., fuzzy logic approaches 4256
- intensive care alarm monitor, neural net-based, comparative perform. studies 35140
- LANGAGE, expert system for real-time diagnosis of hydroelectric power system faults 10690
- LC reson. cct. security tags, design study 12627
- mag. amorph. ribbons, flash annealed, appl. in security systs. 14268
- marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
- NPP control rooms, μP-based annunciator syst. 27369
- nuc. plant alarm annunc. improvement, user oriented approach, CANDUs 4766
- opt. detect. of ignition sites, semicond. LD appl. 7623
- optimal alarm-sig. algms. for gas analyzers 3910
- optimal alarm-sig. generation algms. for gas analyzers 3909
- optoelectronic rangefinder phase meas., double referent mixing *(Croatian)* 3625
- outdoor intrusion sens. testing 42772
- outdoor intrusion systs., nuisance alarm reduction, enhanced signature proc. 40905
- perimeter intruder detect. syst. 36990
- petrochemical plant, elec./proc. control systs. integrat. 5410
- power line isolation monitoring syst., paging/fax commun. *(Japanese)* 27287
- power station fire protection systs. upgrade 43813
- power syst. alarm proc., OO symbolic connectionist syst. 19158
- power syst. alarm proc. syst., symbolic-ANN syst. 26867
- power syst. fault ident./alarm proc., OO expert syst. 19154
- power syst. fault location, neural net-based alarm proc. 19072
- prison guard Duress alarm location syst. 36993
- Quick Alert technol., linking sens., alphanumeric pagers 3372
- RadioGuard, RF cable sens. for security appls 42175

alarm systems continued
- RTSPC, software utility for real-time SPC and tool data anal. 22211
- SCADA systs. and water utility mgt. 3753
- security alarm systs., design/maint., risk based method 36994
- shipboard fire alarm syst. stds. *(Croatian)* 84
- SONET maint. and mgt., intell. opt. service unit 33363
- SPARSE ES for alarm proc. and operator assistance 26999
- telecom. equipt., power alarms, intell. power plants 44158
- telecomms. equipt. fire risks, safety alarm syst. 16542
- telecomms. syst. mgt. appl. develop. 33366
- telephone alarm syst., solid state technol. 8859
- telephone exchange alarm traffic charactn., methodology and case study 33406
- two wire automatic rem. sens./eval. syst. 17686
- vehicle, intell., warning syst., CAM 36773
- vehicle security systems, IEE Colloquium, London (1995) 28276
- voice recogn. digital cipher lock for smart vehicles 643
- Yonggwang NPP, alarm proc., on-line ES 10805
- InSnO thin film, CO$_2$ gas sens., alarm syst. 3912
- ^{222}Rn progeny, automated gross alpha/beta activity monitor 43400

ALE *see atomic layer epitaxial growth*

Alfven waves *see magnetohydrodynamic waves; solid-state plasma*

algebra
- *see also algebraic codes; Banach spaces; Boolean algebra; Galois fields; group theory; Hilbert spaces; linear algebra; matrix algebra; polynomials; process algebra*
- 2D convolutional codes, duality anal. 32136
- 2D elec. cond., two-step lin. inversion 40280
- 3D struct. inference from three points in rigid motion 16242
- air vs. temp. and press., acoustical props. 10572
- C-alg., interconnection network anal. appl. 8780
- current power converter transformers, short-cct. inductance calcs. 19771
- elec. load flow problem, ES appl. 4627
- engng. mathematics, ontology 11892
- front face ident., alg., extraction 33075
- indust. power systs., electromech. response 20186
- inhomog. block codes, constr./decoding 40638
- key generation systs., alg. aspects 8153
- logarithms, exponentials, alg. fns. computation 37221
- microwave stadium billiard with chaotic dyn., Gaussian stats. 14312
- multiple valued logic systs. 591
- multiple-obj. recogn., optoelectronic morph. scheme 8596
- PLL, bifurcation, Galerkin-based anal. 21158
- range/vision sens. data, geometric constraints fusion, alg. framework 41102

algebraic codes
- *see also algebraic geometric codes*
- 8 kbit/s ACELP speech coding, CCITT standardization candidate 33691
- CDMA fiber-optic LAN, opt. orthogonal codes, perform. 8969
- cryptography, alg. nonlin. appl. 2395
- cryptology, error control, speech compression conf., Moscow (1993) 43
- dual-rate alg. CELP-based speech transceiver 9221
- information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
- lin. codes, error patterns correction 24095

algebraic geometric codes
- computation trees, combinat. method 8178
- encoding of codes on curves 40660
- generalized Berlekamp-Massey decoding 40656
- generalized min. dist. decoding 40654
- geometric Goppa codes, designed min. dist., decoding 40657
- Grobner bases, alg.-geometric codes decoding 40658
- Hermitian code for burst errors, decoding 40661
- opt. commun., alg. constr. of codes, high reliab. fns. *(Japanese)* 15738
- sing. projective curves, GF(2^m) 40659

algebraic manipulation *see symbol manipulation*

algebraic specification
- ISO FTAM basic file protocol, LOTOS specified, anal. 41538
- telecomms. distributed maint. systs., abstr. design method 41655

algorithm correctness proving *see program verification*

algorithm termination *see program verification*

algorithm theory
- *see also competitive algorithms; computability; computational complexity; deterministic algorithms; programming theory; randomised algorithms*
- adaptive sig. proc., fault tolerant QR decomp. 32494
- array sig. proc. algos., nonasymptotic perform. anals. 2550
- canonical computational model for algm.-based fault tolerant systs. 32497
- clock controlled shift registers, cryptanalysis 8129
- digital neural network error detect., algm.-based inner product protection 32499
- E-algm., general extrapolation procedure 5766
- edge-disjoint paths in permutation graphs 28605
- expander graphs, Chernoff bound for random walks 5756
- fault-tolerant adaptive FIR filters, variable detect. threshold 29364
- Fermat no. transform, algm.-based fault tolerant array archit. 32498
- graph param. approx. 28620
- Jacobi algm. space, systematic exploration 32475
- k-edge-connectivity augmentation problem 28606
- multiprojection algm., Bregman projections 11927
- non-computationally intensive appls., algm.-based fault tolerance 32495
- ocean altimetric data mapping, stat. multiscale approach 10014
- speech recogn., HMM, Bayes adaptive algms. 24141

algorithms (computer listings) *see subroutines*

alkalinity *see pH*

all-pass filters
- 1st-order digital allpass filter sects., comparative study *(English)* 6232
- 2-D lin. phase IIR filter, symbolic computation routines, design 37885
- 2D digital filters, nonseparable transfer fns. generated from all-pass networks 757
- 2dimensional recursive orthogonal wavelet transform. 40927
- bal. model realization and truncations, cascaded polyphase recursive filters 21419
- complex all-pass IIR digital filters, design 15908
- complex coeff. FIR digital filter design by complex weighted LSA 6237
- continuous pitch tremor synthesis, all-pass-filters *(Japanese)* 8181
- current mode biquadratic act. filters, design 12643
- current mode biquadratic filters employing operational amps. 12642
- decimation filter for sigma-delta converters, high fidelity 690
- digital allpass networks design, eigenvalue problem based 8257

all-pass filters continued
digital filters made, sum of two allpass fns. 37864
FIR all-pass opt. dispersion compensators for high-speed long-haul systs. 42366
high input impedance all-pass cct. 726
higher-order stats., allpass systs. ident. algm. 32648
hybrid notch filters 12621
IIR digital allpass fns., specified phase tolerances *(Japanese)* 37874
IIR sub-band adaptive filter banks 755
insensitive current mode variable gain allpass filter, current conveyors *(English)* 6219
nonminimum-phase syst. ident., adaptive allpass filtering 2565
QMF banks, design, digital allpass filters 24167
recursive digital filter design, parallel allpass sects. and delay elements 29372
separable 2D recursive digital filters, zero-phase approx. 37866
sigma-delta A/D converters, VLSI decimation filter 691
speech/audio proc., warped lin. prediction 32446
subband filter design, approach 8278
transfer fns., prescribed group delay 32792
universal current-mode filter, non-inverting CCIIs 37858
universal filter, two current-feedback amps. 37852
universal voltage-mode filter, current conveyors 6206

ALOHA *see access protocols*

alpha-particle detection
CR-39, electrochem. etched, crit. angle of incidence 10135
CR-39 detector, sensitivity, elec. field effects 43133
CR-39 detector, sensitivity study, background track reduct., α detect. 43134
diamond scintillation detectors, charged particle detect. 34890
Josephson tunnel junctn. with trapped Abrikosov vortices, rad. detect. appl. 4154
long-range alpha detector sample monitoring 18357
Makrofol, electrochem. etched, crit. angle of incidence 10135
precision dens. meter for film dosimeters 34911
SSNTD, ventilation rate, equilib. factor meas. 10126
Ar, liq., scintillation photon, creation energy 4201
BaF_2 scintillator, spillover quantification, $\alpha/\beta(\gamma)$ discrim. 18307
GaAs detectors, charge collection efficiency 26205
GaAs radiation detectors, charge collection studies 43097
GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
^{222}Rn progeny, automated gross alpha/beta activity monitor 43400
Ta supercond. strip α detector, current-biased, posit. sensitive 43060
Xe, liq., scintillation photon, creation energy 4201

alpha-particle effects
CMOS SRAM soft-error simul. syst. 657
Cr-39 detectors, alpha/fission track radiation effects 26232
dielec., charged particle irrad., current reversal 39036
DRAMs, radiation hardening, dummy cell concept 37772
GTO failure mode during DC voltage blocking, cosmic-ray effects 30276
scaled DRAMs, α-particle-induced soft errors 21320
SEU tolerant DRAM cell technol. 12518
Si mesoscopic struct., α particle ionisation, Monte Carlo study 1457
Si detectors, radiation hardness, fast neutron fields 43116
Si n^+/p diodes, charge collection and multiple-bit upset, 3D simul., CMOS SRAMs 12516

alpha-particle spectra
Si:B depth profile, proton scatt. anal., alpha spectra simul. 21877

alpha-particle spectrometers
see also alpha-particle spectra
ITER tokamak reactor, α-particle spectrometer, scintillation detector 4228

alpha-rhythm *see bioelectric potentials*

alpha-rhythm measurement *see electroencephalography*

alternators
3-phase tetrapolar alternator model, bond-graph method 27695
7.5 kW solar dish/gas-fired heat pipe receiver Stirling engine syst. 28045
10 kW hermetic Stirling engine CHP alternator, operating experiences 27539
airborne laser syst. pulsed power supply, compulsator-based 36254
automatic recogn., vibr. of turboalternators *(Chinese)* 36139
automotive alternator, commutating inductance value determ. 4925
automotive alternator/generator regulator testing, DSP-based syst. 20119
Bieudron (Switzerland) power station 465 MVA turboalternators *(French, German)* 36043
biomass-fired steam CHP plants, theoretical study 27542
buried PM retention, high speed, rotor laminations 4931
cascade compulsator, YAG laser power supply 31456
eddy current transducer appl. in fault diagnosis *(Chinese)* 34487
electrothermal-chem. guns, pulsed disk alternator storage 19610
engine alternators, SMPS harmonic currents effect 43756
field winding interturn fault detect., neural net-based 44014
free piston Stirling engine/alternator syst., nonlin. anal. 28038
free-piston Stirling engine/lin. alternator, electrodyn. anal. 28039
Harwell thermomech. generator, electrodyn. anal. 28040
hermetically sealed Stirling engine batt. charger 27973
insulation co-ordination, IEC 71 std. *(French)* 35581
knowledge base mgt. syst. for turboalternator diagnosis *(Chinese)* 36127
line focus solar Stirling power generation syst. 27625
Lundell alternator, 3D mag. field anal. *(Japanese)* 27686
param. ident., multitime scale tech. 19615
pulsed disk alternator, flywheel struct., EM gun 20050
railgun air core compulsator, power electronics/controls 19783
RHEPP 1 μs mag. pulse compression pulsed power module 36316
salient pole alternators, automated testing, param. determ. 4914
salient-pole saturated alternators, damping/synchronising torque calc. 44015
single-phase inductor alternators, electromech. proc. eqns. *(Russian)* 10970
single-phase iron-core compulsator, computer modelling 36290
steam turboalternator freq. control governor design 43909
steam turboalternator set, rotor syst. bearings, optim. of installation posns. *(Chinese)* 36141
Stirling engine alternator operating experiences, USA 28044
telecommunication systs., turbo-alternator back-up power supply 19611
three-phase turboalternator adaptive control, transputer-implemented 36119
turboalternator set, shaft torsional vibr. model for elec./mech. syst. interact. *(Chinese)* 36128
turboalternator third-order SSR stabil. models 44018
turboalternator winding eccentricity monitoring studies *(German)* 36126
turboalternator-exciter rotor syst., unbalance response *(Chinese)* 36129
turboalternators, shaft torsional vibr., PSS effects *(Chinese)* 36140
Fe-cored compulsator modelling, num. anal. techs. 19784

altimeters
see also radioaltimeters
Earth obs. from space, microwave rem. sens. *(Japanese)* 35286

altitude measurement *see height measurement*

aluminosilicate glasses
glass:Fe, mag. hard disks, plasma-immersed O_2^+ implant. 14243
Al_2O_3-SiO_2:Er^{3+} fibre amp., SiO_xN_y pass. selective filter for gain spectrum flattening 14574
Er^{3+}:GeO_2-Al_2O_3-SiO_2 opt. fibres, two photon reson. SHG 2070
PbO-B_2O_3-SiO_2-Al_2O_3 glass passivated MOS capacitors, C-V curve 13231
SiO_2-SiO-CaO-Al_2O_3 glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647
ZnO-Al_2O_3-B_2O_3-SiO_2-PbO glasses, crystallizable, opt., polarizable and MOS props. 12213
ZnO-B_2O_3-Al_2O_3-SiO_2-P_2O_5 glasses, crystallizable, opt., polarizable and MOS props. 12213

AM (modulation) *see amplitude modulation*

amateur radio *see radiocommunication*

ambient temperature *see temperature*

ambipolar diffusion *see diffusion*

amblyopia *see vision defects*

ammeters
two metal-coated single-mode opt. fiber interferometric lin. elec. current sens. 9916

ammonia clocks *see atomic clocks*

amorphous-crystalline transformations *see crystallisation*

amorphous magnetic materials
5BDSR nanocrystalline amorph. mag. alloy, EM characts. determ. 30659
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
excimer laser pulsed power supply, mag. pulse compression cct.-based 36317
ferroimpedance transducer, mag. field meas. 25793
ferromag. ribbons, neutron depolarization facility 10824
ferromag. thin film-based high impedance anisotropic composites 14123
flash annealed amorph. ribbons, appl. in security systs. 14268
glass:Fe, mag. hard disks, plasma-immersed O_2^+ implant. 14243
mag. domain struct., Young's modulus meas. 14208
magneto-inductive effect, mag. sens. appl. 17714
MF power transformers, amorph. metal core studies 5015
microresonator, mag. field meas., ΔE effect 42898
rapidly quenched mag. wire, conf., Albuquerque, NM, USA (Jun. 1994) 20242
rare earth-iron cpds. for actuators and sens. 34481
rare earth-transit. metal alloy films, microstruct. and domain wall motion 14115
ribbons, amorph., magnetostrictive vibr., bias mag. field effect 7190
ribbons, amorph. mag., asymmetric magnetis. reversal, chem. etching 14135
sens. appls. 34480
soft mag. material wound cores, energetic behavior meas. 14108
soft mag. ribbons, stress magnetis. props. *(Japanese)* 30673
stripe amorph. soft mag. film, locally induced mag. anisotropy *(Japanese)* 30661
Co-Fe-Si-B amorph. soft ferromag. wires, magnetoimpedance, magnetostriction 30668
Co-Zr-Nb films, high resoln. single-pole recording head 7187
Co-Zr-R (R=rare earth) amorph. films, field induced mag. anisotropy 14129
Co-Zr-Ta-Nb amorph. thin film deposited cores on polyimide sheets *(Japanese)* 30662
Co-based amorph. thin wires, HF permeab. 14124
a-$Co_{66}Fe_4Mo_2Si_{16}B_{12}$, magnetostriction, nanocrystn. effects 14141
CoFeSiB amorph. wires and films, giant magneto-impedance 30667
$Co_{66.5}Fe_{3.5}Si_{12}B_{18}$, metallic glasses for fluxgate sens., magnetis. 30664
CoNbZr stripe films, domain structs., magnetis., high-freq. response 6935
CoPt thin film media, microstruct., mag. props. and noise perform. 6990
CoSiB amorph. MI reson. multivibrator current sens. 17713
CoZr amorph. thin film core head for digital VCR 7110
$Cu_{80}Co_{20}$, melt-spun ribbons, mag. props. 6949
$Cu_{80}Co_{15}Fe_5$, melt-spun ribbons, mag. props. 6949
Fe-B-M-Cu (M=Hf,Zr,Nb), nanocrystalline/amorph. hybrid struct., soft mag. props. 14146
Fe-BN films, deposition conditions and mag. props. 5889
Fe-Co-Ni-Si-B based amorph. wires, mag. props. 30683
Fe-Co-Si-B rapidly quenched wire, magnetostrictive/magnetoelastic props. 30666
Fe-Cu-Nb-Si-B, nanocrystalline ribbons, creep induced mag. anisotropy 14138
Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
Fe-Si-B ferromag. amorph. alloy, high-field magnetis. meas. 14134
Fe-Tb(Sm) amorph. thin film magnetostrictive actuators, fab. 6883
Fe-Zr film, amorph., antiferromag./ferromag. cluster coexistence 14117
Fe-based amorph. thin wires, HF permeab. 14124
a-Fe-based toroidal transducer core, local flux dens. vars. 14255
a-FeB mulilayer magneto-SAW devices, phase controllability 14264
a-$Fe_{78}B_{13}Si_9$, moment canting in applied fields, polarized Mossbauer obs. 14140
a-$Fe_{81}B_{13.5}Si_{3.5}C_2$ ribbons, power loss, surface layer effect 14143
FeCoSiB quick response micro mag. head sens. utilizing magneto-impedance 30740
a-$(Fe_{0.06}Co_{0.94})_{72.5}Si_{12.5}B_{15}$, creep-induced mag. anisotropy 1571
FeCuNbSiB, nanocrystalline, induced anisotropy 14133
a-$Fe_{73.5}CuNb_3Si_{13.5}B_9$ ribbons, mag. domain struct., crystn. effect 14142
$Fe_{80-x}M_xB_{20}$, (M=Ni,Co,Mn,Cr,V,Ti), amorph., mag. props. 14110
FeNbCuSiB ribbons, fast dc Joule heating, nanostructured materials prep. 14137
a-$Fe_{90}Sc_{10}$:^{119}Sn, spin correl./relax., Mossbauer obs. 6932
FeSiB amorph. wires, annealed, engng. magnetostriction meas. 14132
$Fe_{77.5}Si_{7.5}B_{15}$, amorph. wires, domain wall shape/dyn. 14105
a-FeSiBC films, mag./magnetoelastic props. 14139
$Fe_{73.5}Si_{16.5}B_6C_1Nb_3$, Young's modulus, mag. bias field depend. 14106
FeSiBCuNb amorph. wires, crystn. proc. and mag. props. 14136
FeZrB(Cu) amorph. and nanocrystalline alloys, mag. and transport props. 14130
$Gd_{21.2}Co_{78.8}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{19.4}Nd_{6.1}Fe_{74.5}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{19.6}Nd_{10.3}Fe_{70.1}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{13.5}Tb_{6.2}Fe_{80.3}$, film, amorph., exchange stiffness const., gyromag. factor 14116

amorphous magnetic materials continued
$Nd_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
$Nd_2(Fe_{1-x}Co_x)_{23}B_3$ ($0\leqslant x\leqslant 1.0$), struct., mag. props. 6980
$Pr_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
Sm-Fe thin films, sputter deposition, magnetostriction 6938
Sm_xFe_{1-x}, amorph. magnetostrictive films, prep. 7003
Tb-Dy-Fe, Terfenol-D, mag. props., hydrogenation effects 7015
Tb-Fe sputtered films, large magnetostriction, magnetomechanical device appls. 6937
$(Tb_yDy_{1-y})_xFe_{1-x}$, amorph. magnetostrictive films, prep. 7003
TbFe magneto-opt. films, nanostructure and chem. inhomog. 14113
TbFeCo, films, amorph., magnetis. reversal, grooves effect 14114
TbFe(SmFe) magnetostrictive thin film actuators, fab. 30752

amorphous semiconductors
see also chalcogenide glasses; insulators
amorph.-cryst. Si heterojunct. switching devices, bidirectional switching charact. 13110
electronic props., hopping transport mechanisms *(French)* 6535
fibre-optic reflectometer with thin film a-Si interfaces, temp. meas. 34555
HV solar cell array for electrostatic MEMS 36606
hydrogenated amorph. silicon phototransistor cellular neural network 21497
ion-conducting amorph. semiconds., photo-electro ionic phenom. 1645
mammography, digital, amorph. Se photocond. receptors efficiency 35033
nonlin. propag. of light pulses in amorph.-semicond. waveguides 1718
opt. sens. develop. technol. overview *(Japanese)* 17802
random amorph. semicond. multilayers, opt. props. 1115
Si:H films, microwave plasma CVD, radical species control *(Japanese)* 37526
Si:P/Si, shallow jn. form., diffusion from CVD amorph. layer 38514
solar energy prod. methods, overview 19549
TSC 29868
$AgSbTe_2$, solid and liq. states, elec. props. 38266
$(As_2S_3)_{1-x}(PbS)_x$, vitreous semicond., electronic cond. 29867
a-B:H CVD film characterisation and x-ray imaging appls. 5900
a-C diamond-like films, laser ablation deposition 431
a-C:H films, plasma CVD, ion impact energy distribs. 402
a-C:H films, sputtering/struct./opt./elec. props. 20917
a-C:H,N films, ion implanted, in-depth modifs. 6537
a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
GaAS sputtered films, amorphous and microcryst., elec. props. 22994
GaAs films, anom. PV effect/neg. photocond. 39554
a-GaAs high-temp. RF sputtering 37525
a-GaAs:As, SI, elec. charact. by I-V meas. 13050
GaAs:P, ion implanted, amorph. 22118
GaAs/Si, heterostruct., IV charact., CV charact. 29893
GaAs-Si films, anom. PV effect/neg. photocond. 39554
a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
GaSb, semicond.-metal transit., crystallisation under press. 13078
GaSb-Ge, semicond.-metal transit., crystallisation under press. 13078
a-Ge particles form., nm dimens. and their behaviour, annealing 1058
a-Ge:H, electron transport through Si:H barriers 21961
a-Ge:H,In(Ga) films, cosputtering deposition, sputtering yield ratios 5876
a-Ge:H,S, optoelectronic props, effects of S incorporation 39556
a-Ge/Ag layered systs., metal-mediated crystn. 38404
a-Ge/Bi annealed bilayer, crystalliz. effect on conduct. 21926
a-$(GeS_2)_{100-x}Ga_x$ films, irreversible photoinduced changes 22189
a-In_2O_3, variable range hopping region, magnetoresist. 6536
In_2O_3-ZnSe-CdTe-In, injection-contact phenom. in sub-micron layers 38313
In_2O_3-ZnSe-In, injection-contact phenom. in sub-micron layers 38313
InP:Fe epilayers, buried layers by Fe implantation 13286
$InSe_x$ films, amorph., AC cond. 21927
$In_2SnO_3:In^+$, native defects donor generation by In implant. 38485
Nd^{3+}-doped semicond. glasses, elastic props., lasing transit. 23290
Sb_2S_3, films, microcrystalline, soln. growth from thioacetamide bath 20912
a-Se Amplified MOS Imager, high speed TV camera 42851
a-Se, PECVD, struct., opt. props. 28828
-aSe avalanche multiplication photocells 1799
a-Se-As:Cl, stabilized, Langevin recomb. of drifting electrons and holes 21928
a-Si PV cells in large scale utilization, energy pay-back time *(Japanese)* 27629
a-Si PV power systs., spectral output eval. method 27623
a-Si PV technol. transfer, OASIS project, Europe 11292
a-Si, SPE on Si, STM obs. 20706
a-Si TFT, 2D current transient, trap-state filling 6748
a-Si TFT devices, anal., HFIELDS general-purpose simulator appl. 1416
a-Si TFT/LCD, state-of-the-art 18011
a-Si act. gate for polysilicon TFT 13713
a-Si alloy tandem solar cell suboptimal design 20010
Si amorph. film, grain growth/defects obs. *(Korean)* 21930
Si amorph. foils, thermal diffusivity meas. 25994
Si, amorph./cryst., exoelectron emission point defect anal. 21884
a-Si antifuse cct. elements, ASICs, resist strip proc. damage 21170
a-Si based PV solar cells 5212
a-Si, depth-depend. disordering 22143
Si films, Ge-incorp., lateral SPE 20861
Si films, anom. PV effect/neg. photocond. 39554
a-Si films, crystn., SiO_2 surface treatment effects 13393
a-Si in-situ doped gate MOS capacitors/transistors, elec. props. *(Korean)* 30298
Si, ion implanted, defect prod., structural transforms. 30060
Si, ion-induced amorphization, model 1231
α-Si liq. cryst. light valve projection display, phosphor develop. 1750
a-Si, mobility-lifetime products, dispersive transport effects 13029
Si polycryst. films, hot wire CVD 5883
Si prog. anti-fuse, high speed FPGA, reliab. 29144
a-Si recrystn. by RTA/laser annealing/furnace annealing 22098
a-Si single-barrier device, neg. resist. charact. 6811
a-Si solar cells, high efficiency 27958
a-Si solar cells, long-term degrad. tests and charact. 19999
a-Si solar cells, recent advances 27951
a-Si thin film optoelectronic cellular neural networks 22980
a-Si thin films, glass substrs., excimer crystallisation simul. 13075
Si:As RTA/furnace annealing, heating rate effects on defect distrib. 22100
a-Si:As, ion implant., generalised transport eqn. 13292
$Si:BF_2^+$ amorphous ion-implanted layers, recrystn. kinetics 38464
a-Si:C,H p-i-n diode struct. for electron flux conversion 30229

amorphous semiconductors continued
a-Si:H, H bonding config., metastability 29871
a-Si:H MIS struct., conductance mechanisms *(Chinese)* 38439
a-Si:H MIS struct., response time/capture cross sect., gap states *(Chinese)* 22060
a-Si:H, PECVD, defect annealing kinetics 13275
a-Si:H PECVD growth proc., optoelectronics appl. 395
a-Si:H PIN solar cells, electron/hole trapping *(Chinese)* 5211
a-Si:H, Staebler-Wronski effect, trapping and recomb. procs. 39555
a-Si:H TFT, Chebyshev approx. of field-effect mobility *(Korean)* 13683
a-Si:H, TFT LCD, photolithographic pattern transform., backside exposure 34635
a-Si:H TFT, drain current reduction by source electrode overlap 13754
a-Si:H TFT, fab., props. 6774
a-Si:H TFT, hysteresis characts., modelling *(Korean)* 22483
a-Si:H TFT, multiple stress accelerated degrad. *(Korean)* 22442
a-Si:H and poly-Si thin films, P ion shower doping study *(Korean)* 13284
a-Si:H diodes for act. matrix addressing 1798
a-Si:H diodes, recomb. regime under double injection, electrolum. obs. 31079
a-Si:H, field-enhanced photoemitter 38205
a-Si:H, film, light induced defects, spatial distrib. 29839
a-Si:H, film, light soaking effect on DC cond. 38235
a-Si:H films, ECR plasma deposition 20975
a-Si:H films, ESR determ. of opt./elect. props. 1644
a-Si:H films, VUV laser CVD, gas phase chem./modelling 28840
Si:H films, amorph./microcrystalline, selective deposition/etching 12179
a-Si:H films, annealing, Ne(C) bombard., Si-Si double bonds 1201
a-Si:H films, conc. dense radiation effects, solar cells 36597
a-Si:H films, nonlin. opt. suscept., laser-induced transient grating tech. 31546
a- Si:H films, optical consts. and thickness determ., opt. transmittance 25986
a-Si:H films, plasma chem. vap. deposition, piezoelec. vibr. effects 37481
a-Si:H films, pulsed plasma CVD, deposition rate 12158
a-Si:H films, recrystn. by XeCl excimer laser irrad. 28797
a-Si:H, glow discharge deposition, chem. annealing, at. H role 30008
a-Si:H high elec.-field p-i-n diodes, p-layer thickness effects 6721
a-Si:H, homog. CVD, props., prep. conditions effect 20949
a-Si:H inverted-staggered tri-layer TFTs, fab. proc. 38860
a-Si:H, laser annealing, light-emitting Si prep. 23005
a-Si:H, low-temp. recomb., elec. field depend. 29872
Si:H, microcrystalline layer, at. H etching, spectroellipsometry 12136
a-Si:H, microscopic struct. determ. of dangling bonds by pulsed ESR 1646
a-Si:H, multijunction solar cell, microwave glow discharge deposition 20971
a-Si:H, nanometer lithog., low-energy electrons 30177
a-Si:H nip and pin diodes, 1/f noise anal. 38798
a-Si:H p/i/n struct., annealing, resist. effect 1198
a-Si:H p-i-n detectors, charge collection procs. 43107
a-Si:H, p-i-n diodes, forward current transients 1343
a-Si:H p-i-n solar cell structs., computer model 20006
a-Si:H plasma CVD films, H profile, DC bias/substr. table area effects *(Japanese)* 20966
a-Si:H, plasma deposition, enhanced neg. ion form. 422
a-Si:H pn-doping superlattices, cross-sectional STS 29928
a-Si:H polycryst. thin-film solar cells 27938
a-Si:H, pseudodoped, vidicon target material 1057
a-Si:H, pulsed-light soaking 1060
a-Si:H, selective laser ablation 1027
a-Si:H solar cell, Hg-sensitized photochem. vap. deposition, H_2 dilution tech. 5217
a-Si:H solar cells, insulating interfacial layer effect 36600
a-Si:H solar cells, novel technols. 27957
a-Si:H solar cells, reverse biased annealing studies 11291
a-Si:H thin film growth, mol. dyn. simul. *(Japanese)* 410
a-Si:H thin film posn. sensitive detector 9912
a-Si:H thin films, PECVD obs., ellipsometry 5880
a-Si:H thin films prepared by layer-by-layer deposition 427
a-Si:H, transport props., deposition condition effects 29869
a-Si:H/CsI(Tl) X-ray detectors for radiation monitoring 43161
a-Si:H/Ni-P, electroless plated contacts 6575
a-Si:H/a-$Si_{1-x}C_x$:H barrier struct., I-V charact. 1105
a-Si:H/a-SiC:H three colour detector 34502
a-Si:H,B n-i-n layers, current induced degrad. 38281
a-Si:H,B(P), PECVD film, opt. props., photo/dark cond. 29830
a-Si:H,O solar cells, intrinsic layer, O impurity effects 5227
a-Si:H,P films, elec. act. nanoscale struct., STM prep. 21929
a-Si:Kr, sputtered layers, Kr-incorporation obs. 38268
n-Si:P amorph. CVD films, crystn., elec. props. 405
a-Si/Ag layered systs., metal-mediated crystn., TEM obs. 38403
Si/FLC light modulator, stochastic reson. 22928
a-Si/Si_3N_4 TFT, PECVD nitride gate dielec. studies 13791
a-Si/Ti bilayer struct., lateral silicide growth 22034
a-Si/c-Si(a-SiC) based opt. controlled switching devices 38790
a-Si/poly-Si tandem solar cell, high efficiency 11294
Si-$NiSi_2$ microcrystalline composite thin films, struct./elec. transport 38402
a-Si-SiO_2-Si Fabry-Perot opt. intens. modulator by merged ELO 14647
SiC, Si micromachining appl. 428
a-SiC alloy films, hot-filament assisted chem. vap. deposition tech. 37474
SiC and related materials, conf., USA (1993) 28218
β-SiC layers on Si(100), ion implant., cryst./elec. props. 6623
a-SiC thin film LED, present and future *(Chinese)* 23044
a-SiC:H MIM struct., electronic props. 1183
a-SiC:H, RIE in CF_4/O_2 plasma 22243
a-SiC:H films, plasma CVD, opt. props. 20980
a-SiC:H, transport props., deposition condition effects 29869
a-SiC:H/a-Si:H heterostruct. diode memory devices *(Japanese)* 22416
a-SiC:H,F films, plasma deposition, props. 5878
a-$Si_{1-x}C_x$:H p-i-n struct., electrolum. characts. 31091
a-$Si_{1-x}C_x$:H, plasma CVD, monolithic light-converters 3876
a-$Si_{1-x}C_x$:H films, PECVD grown, struct. props. 13407
a-SiC/Si:P structs., P diffusion and interface segreg., HBT appls. 13118
SiGe, SPE, comp. depend., time-resolved reflectivity meas. 38270
a-Si(Ge) thermopower behaviour modelling 27990
a-$Si_{1-x}Ge_x$ MBE films, solid phase crystn. 37437
a-SiGe:H films, PECVD under He dilution 5891
a-SiGe:H, multijunction solar cell, microwave glow discharge deposition 20971
a-SiGe:H/SnO_2 solar cell struct., interfacial reduction 38294
a-SiH, film, US assisted PECVD, in situ opt. diagnostics 28832
a-SiN_x:H thin film diodes, current induced drift mechanism 13588
a-SiO:H films, plasma CVD, solar cell appl. 5213

- **amorphous semiconductors** continued
  - n-SnO_2/a-SiC/Al photodetector, voltage-controlled spectral response 25850
  - SnO_2/a-SiC/Au Schottky cells, photocurrent multiplication model 44396
  - V_2O_5-P_2O_5(Sb_2O_3)(Bi_2O_3), semicond. glasses, transport props. 13080
  - V_2O_5-SnO-TeO_2 glasses, low-temp. DC cond. 38269
  - $Zn_{41}Sb_{59}$, amorph. semicond., elec. props. 1056
- **amorphous state**
  - *see also amorphous magnetic materials; amorphous semiconductors; vitreous state*
  - $LiMn_2O_4$ films, sputtered, charactn. for rechargeable microbatteries 11232
  - pentanol and polyethylene, deuterated cpds., polarized target materials 34863
  - superlattices, quadratic opt. nonlin. 7787
  - As_2S_3 amorph. film, holographic recording, lin. phase shift response 31667
  - $BaCoTiFe_{10}O_{19}$ films, sputtered, struct., mag. props., heat treatment effects 14194
  - a-$BaTiO_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
  - $BiDy(FeGa)_5O_{12}$ garnet films, sputter deposition and struct. props. 7037
  - C_{60}, film growth on Si, amorph. and cryst. growth 37461
  - C:H diamond-like films, excimer laser etching, spalling effect 30122
  - a-C:H films effect on diamond particles nucleation, hot-filament CVD 20654
  - EuF_3 thin films, dielec., cond. and breakdown studies 1544
  - Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
  - Ga_2O_3 films, electronic/optoelectronic appls. 22640
  - $Nd_2(Fe_{1-x}Co_x)_{23}B_3$ ($0 \leqslant x \leqslant 1.0$), struct., mag. props. 6980
  - NiO electrochromic films, sputtering atm. H_2 content effects *(Japanese)* 37489
  - PrNdFeB amorph. precursors, mag. hardening by crystn. 6987
  - Sb-Ge amorph. films, crystn. kinetics, in situ studies 20914
  - Si, porous, struct., EXAFS/photolumin. study 22248
  - SiO_x, growth, interface of directly bonded Si wafers 30069
  - Ta-Si-N diffusion barriers, RIE in CHF_3+O_2 30115
- **amorphous state structure** *see noncrystalline structure*
- **amplification**
  - *see also amplifiers*
  - 3D gain anal. of FEL, focusing PM wiggler 31429
  - act. planar lightwave cct. technol. *(Japanese)* 17183
  - circ. sector microstrip antenna, electroacoustic radiation charact. 40451
  - CircleX program for transistor S-param. data anal. 38774
  - DOA estim., wavelength, gain, and phase errors 24211
  - ion-channel laser, amplif. mechanism 2013
  - low-power digital ccts. based on adiabatic-switching 636
  - nonlin. amplif. effect on SS sig. and receiver config. 17007
  - OQPSK-type modulations, mobile radio transm. modeling/perform. eval. 17122
  - RF transistors, stabil., gain and noise 6040
  - scintillation detectors, gain monitoring syst., ultra bright LEDs 26135
  - TWT lin. for future commun. satellites and ground stations *(German)* 6295
  - weak-link Josephson jns., nonlin. mixer gain calcs. 14286
  - GaN, wide-band-gap semicond. quantum wells, opt. gain 14957
- **amplification measurement** *see gain measurement*
- **amplified spontaneous emission** *see superradiance*
- **amplifiers**
  - *see also amplification; audio-frequency amplifiers; DC amplifiers; differential amplifiers; distributed amplifiers; feedback amplifiers; HF amplifiers; IMPATT amplifiers; intermediate-frequency amplifiers; magnetic amplifiers; operational amplifiers; parametric amplifiers; power amplifiers; preamplifiers; pulse amplifiers; radiofrequency amplifiers; ring lasers; travelling wave amplifiers; video amplifiers; wideband amplifiers*
  - 155 Mbit/s 4 km opt. free space link low noise opt. receiver 42409
  - act. antenna, semi-bal. amp. struct. 15627
  - ambulatory ECG, amplif. electrode, noise immunity 26397
  - analog IC BiCMOS-JFET radhard SOI technol., proton radiation effects 13904
  - bipolar HV amp. for precision piezodrive 14078
  - ceramic multicomponent modules, miniaturisation approach 5622
  - charge amplifiers for piezoelectric sensors 26790
  - charge division posn.-sensitive detectors, error reduction 18345
  - CMOS amp., parametric yield optim., l-models 6846
  - CMOS cascode current mirror, HF response 12351
  - CMOS current mirrors, freq. domain anal. *(Italian)* 37643
  - CMOS fixed gain amp., full rail-to-rail voltage range 21456
  - CMOS transimpedance amp./opt. syst., monolithic integrat. 31131
  - CMOS tunable current mirror tech. for HF analog design 37650
  - cryogenic charge sensitive amp. for X/γ-ray spectrometer 18382
  - current mode biquadratic act. filters, design 12643
  - detector-amp. config., pulse deconvolution 10143
  - diamond MOSFETs on epitaxial thin films, fab., cct. appls. 22437
  - digitally prog. dual-polarity-gain amp. 29056
  - ECG amp./detector for dry-electrode heart rate monitoring 10230
  - freq. divider, current mirror type astable multivibrator *(Japanese)* 29428
  - FSA submarine opt. amp. transm. syst. *(Japanese)* 16992
  - gain control via geom. size/transistor interconnections 29055
  - gaseous 2D detectors, PC-based fast readout electronics 18384
  - high-speed CMOS current mirror resistive compensation 21125
  - high-speed switched-current ccts., trans-impedance amps. 21461
  - isolation amp. for biomech. investigs., needle electrodes *(German)* 4277
  - ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
  - lin. multiplexer designs for rem. sens. appl. 34581
  - MESFET amp., IMD, cct. param. and topol. effects 37649
  - MOSFET transconductance amps., approx. anal. nonlin. perform. 21124
  - multiple-carrier amps., IMD *(Japanese)* 29063
  - multiport act. RC-networks, computer aided synthesis/sensitivity anal. tool 721
  - multistage amps., noise calc., equiv. input noise voltage 37639
  - neuro/fuzzy systs., analogue, CMOS design, basic building block approach 790
  - nonlin. systs. ident./compensation, sampling freq. 32778
  - opt. CATV SCM receivers, IMD reduction 9738
  - pMOS pixel detector design 18344
  - pulsed TOF laser radar, CMOS ASIC struct. 34165
  - sampling amp. diode bridge switches, offset voltage 37896
  - semicond. amps., carrier heating, spectral hole burning, FWM 31503
  - submarine opt. amp. systs., fault location, coherent OTDR *(Japanese)* 16995
  - switchable-logic photonic switch array monolithically integrat. MSMs, FETs, and MQW modulators 14531
  - Tank/Hopfield neural ADC, design 6265
  - undersea commun., future directions 33739
  - InGaAsP amps., 4.3 terahertz four-wave mixing spectrosc. 555
- **amplifiers** continued
  - Si microstrip detector readout, AVLSIRA CMOS proc. 10138
- **amplifying** *see amplification*
- **amplitrons** *see microwave amplifiers; microwave tubes*
- **amplitude estimation**
  - damped sinusoidal proc., variance of LS estimators 2474
  - data-adaptive evol. spectral estim. 24209
  - fully-polarimetric GLRTs for detecting scatt. centers in terrain clutter 17390
  - multicomponent sigs., amplit./phase params. estim. 40837
  - multipath time-delay estim., least-sq. algm. 2491
  - multitone signal components estim., low sidelobe time windows appl. 8445
  - non-stationary sigs., amplit./phase estim. 8312
  - nonlin. channel, amplit. estim. for pulse sig. transfer 32026
  - random amplit. polynomial phase sigs. estim. 32557
  - trellis coded 16 QAM/TDMA, space diversity combining, multipath fading *(Japanese)* 42172
- **amplitude limiting circuits** *see limiters*
- **amplitude modulation**
  - *see also amplitude shift keying; pulse amplitude modulation; quadrature amplitude modulation*
  - 10 Gbit/s dispersion supported transm., computer simul./practical implications 34084
  - 16 THz beat freqs. generated via modulation instabil. in birefr. fibres 30881
  - 1550 nm dispersion-supported transm. on long spans of conventional single-mode fiber 9508
  - 1550 nm opt. AM-SCM systs., self-PM induced second order distortion 34095
  - act. mode-locked laser, neg. feedback, stabil. 31474
  - ADSL high speed equalizer, sig. proc. design 9086
  - AM-SCM lightwave syst., simultaneous scatt./interf. suppression 17175
  - AM/QPSK hybrid opt. transm. systs., BER depend. on CTB 9559
  - APC, transform domain quantization 15774
  - asynchronous DS-SSMB commun. syst., TWT nonlin. distortion 25252
  - cartesian feedback RF amp. lin., gain/phase margins 33758
  - CATV 151-channel AM-FDM transm., 1.3 μm SL-MQW-DFB laser, high opt. output power 25542
  - CATV DFB LD, second-order distortions meas. 34004
  - CATV syst., fiber optic transm. cct. for 150 carrier VSB-AM modulation *(Japanese)* 42630
  - CATV videocommun. networks, AM-VSB TV sig. opt. transm. 17570
  - class E power amp., 2nd order effects in collector AM 29057
  - CMOS multiplier design, differential difference amp. 6252
  - coherent opt. controlled phased array antenna syst. 7324
  - compressed-digital-video fiber-based transm. systs., clipping penalty 9558
  - cyclotron maser, bifurcations leading, stochasticity 7501
  - data commun., sinewave modulation, DDS/sigma delta techniques 12353
  - DBR laser wavelength converter, bit-rate-independent operation, 10 Gbit/s 14903
  - digital CATV, QAM/VSB modulation comparison 34263
  - direct detect. opt. systs., zero-forcing elec. filters 41099
  - dispersion-supported transm., opt. nonlin. 17227
  - distortionless underwater commun. using parametric array, conditions 42475
  - distributed feedback lasers, phase tunable, flat FM response 14972
  - DQPSK AM-VSB/compressed-digital-video transm. syst. clipping penalty 9464
  - DSSC lin. for wide dyn. range opt. link 9538
  - dual mode receiver for broadcasts reception 17553
  - externally modulated analog opt. links, dyn. range 9537
  - externally modulated opt. AM-SCM systs., 1550 nm, distortion 9423
  - handportable satellite commun., lin. transmitter archits. 42332
  - HDSL archit./perform., practical implement. 9104
  - home commun. syst., PLC commun. reliab. 9157
  - hybrid fiber/coax network broad-band AM-VSB/64 QAM CATV syst. 34010
  - hybrid SCM AM/QAM lightwave transm., laser clipping distortion effects 42411
  - induction motor, dyn. loading syst. 4958
  - induction motors, dyn. loading, AM 36149
  - internal combustion engines, combustion press. proc. modeling 4841
  - joint transform correlator, posn. encoding appl. 32968
  - lin. power amp. for cellular telephone, envelope feedback method 12342
  - linewidth-insensitive coherent AM opt. link, direct/external modulation format comparison 42410
  - linewidth-insensitive coherent analog opt. AM link receiver/transmitter 9442
  - low noise space borne freq. multipliers 29426
  - low power radio 1 chip IC, develop. 17550
  - medium-wave radio transmitter perform., hybrid modulation *(Japanese)* 17549
  - MM-wave BWO, flicker noise eval. 999
  - monopulse proc., AM-AM and AM-PM errors compensation 17423
  - multidiode waveguide oscillator, noise charact. 37984
  - multielectrode semicond. laser broadband freq. generation 7668
  - multifrequency AM-based US syst. for dist. meas. 17473
  - MW SSB and DSB compatible receiver, AM dual-mode design 9708
  - non-destructive opt. fiber talk-set *(Japanese)* 42397
  - nonlin. Schrodinger eqn. soln. by coupled amplit.-phase formulation 23373
  - nonstationary M/G/1 queue charactn., Bode plots 11904
  - opt. PLL, amplit. modulated commun. link 42347
  - PALplus transm. test sig. prod. and eval. *(German)* 42562
  - partial pixel diffractive display archit. 25917
  - periodic sigs. design, FM sweeps/AM 10559
  - pole changing induction motors, pole AM studies *(Japanese)* 11020
  - polymer, electro-optic, for stable organic act. components *(French)* 1650
  - precision AM sigs. generation, binary modulation of rect. pulses 17988
  - push-pull modulated DFB lasers, enhanced AM bandwidth 7635
  - random AM harmonics estim., higher order spectra 8406
  - random amplit. modulated harmonic retrieval, higher-order stats. 32460
  - rect. piezoceramic resonator, AM filter appl. *(Japanese)* 39089
  - rhodamine 6G regenerative-feedback mode-locked dye laser, acousto-optic mode locker 39686
  - ridge-waveguide MQW DFB lasers, static and dyn. simul. 23193
  - semicond. laser; linewidth, linewidth enhancement factor α, FM and AM response meas. 39878
  - semicond. laser, AM/FM noise from coherent feedback 14864
  - semicond. laser noise, Volterra functional series expansion 2003
  - soliton transm./storage rings, stabil., timing maint. 14347
  - space integrat. interferometric acousto-optic convolver 32858
  - syllabic companders, strict sense envelope detect. 9162
  - three-phase VSI nondeterministic AM-PWM strategy 44161

amplitude modulation continued
- transform trellis coded quantization of speech 32253
- twisted NLC SLM, ternary phase-AM 22955
- upper sideband and lower sideband SSB sigs., ident. algm. 40900
- video delivery options 9718
- Cs vap. opt. correlator 2633
- Er-doped fiber amp. AM CATV syst. RIN noise 9576
- Er-doped fiber amplified low-distortion WDM AM SCM 4×50-channel CATV transm. 9572
- Er-doped fiber amps., optimized noise perform. for AM-VSB distrib. systs. 7555
- Er-doped opt. fiber amplifer coherent AM analog opt. links 17213
- GaAlAs LD feedback interferometer for displacement meas. 23479
- InGaAsP/InP MQW laser gain-lever effect 23279
- Pr^{3+}:ZBLAN fibre amp. AM-VSB video link 3583

amplitude modulation, optical *see amplitude modulation; optical modulation*

amplitude selectors *see limiters*

amplitude shift keying
- 16-DAPSK, differential detect., Viterbi-algm. *(Japanese)* 24175
- 16-DAPSK, multiple-sym. differential detect. *(Japanese)* 24010
- CDMA no.-/coherent-state opt. systs., perform. 34027
- cellular environ., resource auction multiple access 3348
- externally modulated lasers for fibre transm., optimum prechirping 1971
- FDM coherent opt. networks, interchannel interf. 17271
- fibre link systs. 4000 km long, perform. comparison 42377
- filter-nonlin. amp. syst. for ASK sig. spectrum conversion 32595
- heterodyne ASK lightwave systs., IF flucts. 17253
- heterodyne/homodyne opt. receiver design 42369
- microwave modulator for 16-posn. amplit.-phase keyed sigs. 12373
- neural demodulator for ASK sigs. 29512
- noisy phase OOK sigs., noncoherent detect. 40784
- opt. CDMA, lossy photon channels, no.-state/coherent-state, perform. 42349
- opt. commun. syst., characts. anal. 9455
- opt. heterodyne receivers, noise perform. of AFC loops 42407
- opt. packet LAN, collision-free reception 8964
- opt. transmitter, 790 nm LD for LANs 25507
- preamplifier ASK syst. perform., incomplete ASK modulation, influence of ASE/laser phase noise 25531
- quantum limited OOK, opt. amplif., perform. bounds/cutoff rates 40564
- quantum limited OOK, opt. amplif., perform./cutoff rates 40546
- space opt. commun., pulse-coded multiple access 42350
- STARNET opt. WDM network, high-speed interface 9514
- STARNET WDM computer commun. network, combined freq. and AM 17174

analogical reasoning *see case-based reasoning*

analogue circuits
- *see also analogue computer circuits; analogue integrated circuits; analogue processing circuits*
- AC transm. line disturbances, adaptive feedforward control 10711
- autocompensators, correl. feedback and direct calc. of weighting factor 32593
- bipolar transistor ccts., lin. method, polynomial representation 21091
- circuits systs., symp., Chicago, USA (May 1993) 31
- computer-aided test program design syst. (CATPDS) in ATLAS 28430
- design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
- design procedures storage/reuse 554
- ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
- fault diagnosis in ATE analogue cct. modules 25722
- fuzzy controller, analog implement. 773
- ICs boost of video perform. 25663
- interfacing act. devices, noise spectra analyser 9834
- knowledge based approach, analog cct. simul. 483
- layout recycling, compaction, shape optim. 21074
- model-based diagnosis of analogue ccts. 11846
- motion detect. algm., MRF based, on analog resistive network 24452
- multifrequency test vector generation for analog cct. testing 5593
- nonlinear ect., freq. domain simul. 21088
- scanning tunneling microscope, fast, analog ramp generator 585
- superimposed power line voltage disturbances detect., analog method 19360
- testability anal., fault diagnosis, behavioral modeling 28942
- voltage-controlled resistor, monostable multivibrates rem. control 29358

analogue computer applications *see analogue simulation*

analogue computer circuits
- *see also function generators; operational amplifiers*
- CERN accelerator control, VME std. analogue fn. generator 18193
- CMOS analog neural networks, Gilbert multipliers, in-cct. learning 6271
- CMOS analogue adder, self-biased config. 21455
- differential comparator, SC differencing cct. 6256
- divider, current feedback amps. 21463
- flash-based prog. nonlin. capacitor for SC neural nets 21473
- four-quadrant CMOS analogue multiplier for ANNs 12665
- gradient projection network, analog solver for lin. constrained nonlin. prog. *(Japanese)* 37281
- neural computation, phys. models and analogue VLSI implement. 6269
- neural network, analog VLSI current mode cct. 6272

analogue computer methods *see analogue simulation*

analogue computers
- *see also analogue-digital conversion; analogue storage; digital-analogue conversion*
- large-scale analog neural computer, archit./appl. 29481

analogue-digital conversion
- *see also digital-analogue conversion; quantisation (signal); sigma-delta modulation*
- 2D intell. photosensor array, MInOSS project 17797
- 2D large scale laser digitizer, with cordless cursor 25769
- 3D archit. for high resoln. imaging 34583
- 7 KHz handfree telephony CMOS ASIC chip set 21371
- 16-bit ADCs, servo loop testing 29307
- 64 Mbits/s PRML HDD channel, BiCMOS analog front-end sig. proc. 7143
- 80 Msamples/s BiCMOS flash ADC 29325
- AC servomotor integrated single-output sig. rotary encoder 10934
- algm. for analog, redundant binary code converter 24072
- ART1 memories, mixed analog/digital implement. 29404
- ASD perform. eval. by PC-based meas. 36652
- ASTRX/OBLX tools for analog cct. synthesis, pipelined ADC appl. 28940
- BiCMOS ADC, 500 kHz, 14-bit, multiplexed appls. 694
- BiCMOS pipelined A/D converter using current-mode sigs., LV design *(Korean)* 12590

analogue-digital conversion continued
- binary FSK direct conversion receivers 3463
- blood pressure measuring instrument with Korotkoff sensor 26269
- CATALYST tool, archit. level design 21381
- charge-distrib. A-D converters, capacitance recharging error minimisation 37815
- chopped impulse meas. errors *(Chinese)* 3764
- circuits systs., symp., Chicago, USA (May 1993) 31
- CMOS 10 b, 20 MS/s, 35 mW pipeline A/D converter 29308
- CMOS 10 bit 5 Msamples/s successive approx. ADC cell 29330
- CMOS 12 bit 1 MHz ACD, 1 mW power consumption 29320
- CMOS 25 Msamples/s 8 bit full flash ADC for embedded VLSI appl. 29331
- CMOS A/D converters, folding and/or interpolating techs. 696
- CMOS A/D converters, SC vs. SI techs. 21384
- CMOS ADC, 10 bit, 20 MS/s, 3 V supply, VLSI appl. 6191
- CMOS ADC, 1 V power supply, low-power consumption 6190
- CMOS analogue front-end for terrestrial/satellite integrated D2MAC decoder 34230
- CMOS autozeroed chopper-type comparators, offset errors *(Japanese)* 6260
- CMOS bit-oriented parallel A/D converter 712
- CMOS digital video delay line, embedded ADC/DAC/SRAM 34434
- CMOS intell. lin. image sens. for single chip digital camera 34601
- CMOS parallel-pipelined ADC, 85 mW, 10 b, 40 MS/s 29309
- CMOS pipeline ADC, 10 bit, 20 MS/s, 35 mW 29316
- CMOS pipeline current mode ADC, redundant signed digit algm. 29329
- CMOS two-step flash converter, mixed sig. integrat. 695
- CMOS video ADC with decimated parallel archit., 85-mW, 10-bit, 40-Ms/s 29315
- CMOS/BiCMOS hybrid AD677 16-bit A/D converter, single event effects 29333
- color machine vision, true RGB line scan camera 17927
- comparator-convertor implement. *(German)* 21388
- compensation, phase-plane/state-space error table coverage 703
- conference, Cambridge, UK (July 1994) 45
- convertor on-line error detect. and correction 12610
- correction method for single chip power meter 4740
- cross-PM for opt. A/D converter, high resoln. spectra 7793
- cryogenic rad-hard CMOS readout multiplexer fab. 30448
- CT freqs., than 50 Hz *(German)* 6374
- current mode BiCMOS ccts., 1 V supply voltage, ADC appl. 37898
- custom IC, conf., San Diego, CA, USA (May 1994) 20247
- custom IC, conf., San Diego, USA (1993) 36842
- data acquisition, ADC, noise filtering 34418
- data acquisition boards, analogue input/other specs. 3750
- differential resistance measurement circuit, 3-wire 25944
- digital 3-lead ohmmeter 34619
- digital audio, wide-band and wide-dyn.-range recording and reprod. 34291
- digital meas. of random-sig. rolling mean/variance 3772
- digital microwave receiver, lin. amp./ADC anal./design 29311
- digital pulse height anal., radiation spectrosc. 18401
- digital QAM ADSL systs., adaptive sig. proc. 9096
- digital TV, data and filter requirements of D-A conversion 41356
- digitizer error extraction in nonlin. test 9837
- DMT-based ADSL systs., clipping effect anal. 9088
- Doppler US sigs., predictive ADC 35004
- DRFMs, digital RF memories, phase perform., radar and ECM equipt. 4436
- DS-SS receiver, digital matched filters, quantization effects 25259
- DSO, 12-bit resoln. *(German)* 25916
- DSP µP-based programmable interface components 29324
- echocardiographic tissue charactn., unprocessed RF data, online digitisation 35030
- embedded analogue to digital converters, characterisation, model 707
- embedded chip MCM technol., nondigital extensions 21752
- energy meter testing based on Walsh transform algms. 3949
- error model of data acquisition systems 34415
- error-tolerating codes for A/D converting devices for dependable real-time systems 32118
- ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
- exponential hold cct., fast AD convertors 29322
- fast batts. charger, voltage inflection points detect. 27908
- fast digital oscilloscopes, averaging mode, lin. improvement 17699
- fast sig. proc. for NaI(Tl) detectors 26242
- flash ADC archit., reduced complexity 21382
- flexible 8-channel data acquisition device for sig. proc. and anal. 25737
- frame-sync. for satellite video sig. transm. 34233
- functional sig. transforms without multiplication operations 8268
- gaseous 2D detectors, PC-based fast readout electronics 18384
- harmonic quantisation noise in oversampled ADC 25754
- harmonics error due to nonlinearity 25759
- high precision ADC syst. for instrumentation 3765
- high resoln. ADCs, 12-/14-bit, total ionizing dose effects 12603
- high speed A/D conversion, multi tone dither 706
- high speed/high resoln. ADC, nonlin. correction 37818
- high-rate data acquisition device 42741
- high-resoln. ADCs, test methods 37822
- high-speed current-mode A/D converter *(Korean)* 21390
- high-speed time-to-digital converter 9841
- high-T_c supercond. microwave ccts. appls., future outlook 39254
- Hopfield and T-model neural networks, hysteresis study 12681
- IEEE conf. on instrumentation/meas., USA (1993) 20198
- image filtering, fast implement. 41360
- induction motor drives, torque control, digital meas. accuracy 20056
- integrated opt. symm. no. syst. ADC, 8 bit 21392
- ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
- jitter meas., substraction techs. 9838
- laser commun., acquisition and tracking, CCD 17306
- laser radar, DSP, dyn. range *(Japanese)* 34164
- light photon equalization, appl., X-ray film digitization 43242
- linear error models for analog devices 25760
- linearisation, analog and digital dither techniques 25755
- linearity of fast digital oscilloscopes improvement 25753
- long-term CMOS storage cell performing ADC/DAC for analogue neural net 6263
- look-ahead decision-feedback ΣΔ modulation 32043
- low power 13 bit ADCs for ASIC appls. 698
- low-noise CCD sig. acquisition 34417
- LSI neural chip of pulse-output net, prog. synapse 29431
- LV analog ICs for 3 V systs. 771
- LV operation of portable systs., design techs. 29004
- machine vision, digital camera, CMOS intell. sens. 42848

analogue-digital conversion continued
mag. disk PRML read channels, A/D interface 7144
MASH multi-stage noise-shaping with an RC-analog integrator, digital correction tech. 12592
mass-flow rate digital meas. 10069
memorized testing/measuring technol. 3735
microsensor with auto-zero offset compensation 25800
Midwest Symp. on ccts. and systs., Detroit (1993) 33
mixed sig. devices testing in Sony 765
mixed sig. testing, joint time-freq. anal. 6826
mixed sig. testing, synchronized control/real-time DSP 6247
mixed-sig. PC-based data acquisition systs. 25736
modular data conversion archits. and functional building blocks 700
monolithic pipelined ADCs, digital correction archit./algm. 37817
MSE, periodic sigs. oversampled quantization, lower bound 40878
multi band sigma delta ADC 29332
multielement Ge detector, X-ray fluoresc. microprobe/microspectroscopy 42979
multitasking/multiprocessing portable data acquisition and control system 34414
neural based A/D converter archit., speed, resoln. 714
neural-based A/D converter, CMOS inverters 29323
NIM ADC, fast VMEbus interface 26237
nonlin. AV workstation characts. *(Japanese)* 25775
nonlin. signature anal. of data converters, automatic 3767
Nyquist data converters, verif., behavioral simul. 37816
on-focal-plane A/D conversion 29313
orthogonal sig. projections based on multirate filters 32717
oversampling A/D converters, delta-sigma modulator structures 25758
oversampling ASIC ADCs, design techs. 29314
oversampling noise shaping ADC, DNL meas. 709
parallel ADCs, asymmetric latches and nonideal perform. 12607
PC compatible opt. data acquisition unit 3751
pipelined A/D converters, high resoln., fully digital self-calib. method 713
pipelined charge-balancing A/D converter 25757
plastic molding control, ISA, PCMCIA data acquisition 42745
posn. sensitive gas-filled detectors, fast TDC. 34957
power dissipation reduction based on resoln. and sampling rate 21383
power syst. real-time harmonics/flicker meas., PC-based 19367
power syst. stabilizers, real-time, fuzzy controller optim. 4913
precision behavioural modelling of data converters components 701
price/perform. mark improvement for ADC and op amp ICs 13831
PRML read channel, high speed low power device 32547
proc. control, sig. sampling scheme in real-time 24314
prog. genlocking video ADC for multimedia appls. 9113
propag.-type A/D converters, CMOS devices 12605
quantisation error model effective resolution estimation 24234
real-time pulse shaping in radiation meas., digital techs. 18383
rocket-borne downconverter, space plasma turbulence meas. 35310
sampling amp. diode bridge switches, offset voltage 37896
sampling oscilloscope calibration IEEE-1057 draft standards 25702
service adaptive access SLIC, CMOS prog. DSP, oversampled ADC/DAC 21378
SEU and SEL response of commercial digital ICs 29092
SEUs in monolithic ADCs, device perform. and syst. impact 12602
ship's screw cavitation recording, angle sampling control *(Croatian)* 3685
SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
sig. extraction from mag. flowmeters for dens. meas. 3763
smart sens. interface, data conversion and prog. calib. 34493
spacecraft electronics, single event effect proton/HI testing 29093
spectral estimation using distorted-timebase digitizer 25735
SPRITE-based syst., image proc. 34575
SRM drive control, DSP based syst. archit. 11380
subband adaptive digital filter with crit. sampling, perform. 745
subranging ADCs, fault diagnosis tech. 12599
supercond. A/D converter for IR array readout 34428
surveillance radar, dyn. A/D converter charactn. 3614
switched-current oversampling A/D converters, mixed sig. ICs 12606
switching syst. MD110, appl. develop. functionality expansion 42109
T-Model neural net for PCM encoding, nonlin. ADC appl. 6193
Tank/Hopfield neural ADC, design 6265
transient and overvoltage recovery testing 12596
triangular connection Hopfield neural network, A/D conversion 12595
tunable bandpass sigma-delta A/D conversion for mobile commun. receiver 9354
two-step flash ADC for digital CMOS technol. 693
ultrafast low-sig.-level opt. waveform digitization, induced beam deflection 7794
US NDT, adaptive imaging algms. 26799
variable focus electrooptical lens, A/D opt. converting 14519
video speed ADCs, differential gain and phase meas. 12609
video-rate 10-b triple-stage Bi-CMOS A/D converter 12591
waveform recorders digitizing, IEEE std. 25912
wt.-integrat. A/D converters, high noise rejection 17698
X-ray/nuc. spectrometry, ADC requirements 4251
AlGaAs HEMT based 5 bit ADC 37821
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
InAlAs-InGaAs HBT based 4 bit ADC, high-speed 37820

analogue integrated circuits
see also analogue processing circuits; BiCMOS analogue integrated circuits; bipolar analogue integrated circuits; field effect analogue integrated circuits
ADC power dissipation reduction based on resoln. and sampling rate 21383
ASIC design, standardization of analog HDLs 28938
ASTRX/OBLX tools for analog cct. synthesis, pipelined ADC appl. 28940
automated test design method *(Japanese)* 30418
automatic design tool for analog cells optim. design 501
behavioral simul. for analog syst. design verification 28943
bidirectional current-controlled PTAT current source 12328
BP algm., analogue implement. 29435
CAD, spreadsheets 28945
CCD image sens. basic principles and archits. *(German)* 3874
cell-level analog ccts., integer prog. based topol. selection 37574
centre-tapped spiral inductors for monolithic bandpass filters 37850
CNN Universal Machine, IC chip implement. 21486
custom IC, conf., San Diego, CA, USA (May 1994) 20247
custom IC, conf., San Diego, USA (1993) 36842
data transm. filter, thick film hybrid implement. 6218

analogue integrated circuits continued
DC small sig. symbolic anal. of large analog ICs 12281
differential amps., lin. techs. in IC design 12352
digitally prog. dual-polarity-gain amp. 29056
DORIC CAD tool for robust analog IC design 30395
electrothermal simul., SETIPIC program 30439
EUROCHIP initiative, VLSI design training, Univ. College London 22514
Eurochip Workshop on VLSI Design Training, conf., Grenoble (Sept./Oct. 1992) 20226
Getreu comparator macromodel, anal. and design algms. 6257
global router for analog LSI based on branch-and-bound algm. 38949
HI induced transients in lin. ICs, obs. 30431
high-speed measuring syst. for testing mixed-sig.-LSI 767
high-speed multiplier/VGA, simplified-transistor SPICE macromodel 6251
III-V technol. analog/digital/mixed-sig. ICs for high speed appls. 6817
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
layout, simultaneous placement/module optim. 30406
layout depend. fault models, analogue fault simul. 6871
locally-adaptive wave proc. for predetection of point targets 17924
LV analog cct. design techs., review 37903
LV analog ICs for 3 V systs. 771
mass-flow rate digital meas. 10069
microelectronics for neural nets and fuzzy systems, conf., Italy (1994) 28223
microwave band lin. ccts., sig. and noise charact. 12798
module generators, CAD 22531
multi-tone sig. generator for BIST appls. 9967
NEC 24 cm TFT full-color LCD module, develop. *(Japanese)* 3936
neural chip, synapse wt. accuracy, expt. 37925
neural computation, phys. models and analogue VLSI implement. 6269
neural net analog cct., learning rule 37922
neural net develop. syst., online training 37908
neural networks, helicopter gearbox fault detect./diagnosis 10311
neural networks and fuzzy systs., analog and pulse stream VLSI hardware 29458
NORCHIP, seminar, Trondheim, Norway (Nov. 1993) 11579
op amps, HF current feedback macro models, enhanced perform. characts. 6033
oscillators, integrated analog switches 6044
perform. modeling of analog ccts. using additive regression splines, SC filter bank 30433
PPC scanner motor, power brushless type *(Japanese)* 10931
price/perform. mark improvement for ADC and op amp ICs 13831
radiation effects workshop, Tucson, AZ, USA (Jul. 1994) 28240
RF ASIC designs, CAD syst., error-checking 37590
SC ccts., sampled-data sig. proc. 723
semicond. testing facility, scheduling algm., Lagrangian relax. based 20403
semicustom IC design, analogue arrays, design/perform., education 21459
SimBoy for capture and re-use of analog simul. knowledge 28939
soft fault diagnosis, ANN-based tech. 30399
sources separation, analogue hardware, neural 40903
spacecraft electronics, single event effect proton/HI testing 29093
SPICE macromodel for OTA 37844
symbolic computation of approximated small-sig. charact. of analogue ICs 28955
symbolic computation of approximated small-sig. characts. of analog ICs 28932
T-Model neural net hardware, backpropag. learning 37927
Telecom LSI series, Astro Array *(Japanese)* 13854
testing, power-supply current monitoring/discrim. anal. 13847
top/down analogue IC design CAD, behavioural modelling lang. 28986
UMA 1005T PLL IC with speed-up charge pumps, synthesizer appl. 21151
VLSI analog neural net archit., on-chip learning 37911
VLSI neural network for texture anal. 29477
VLSI neurochips, develop. *(Japanese)* 785
GaAs IC mfg., high vol., Anadigics experience 37045

analogue memories *see analogue storage*

analogue multipliers
100 MHz wide-range BiCMOS four-quadrant multiplier/mixer 29422
BP algm., analogue implement. 29435
cellular neural network with prog. control operator, VLSI implement. 6267
CMOS analog neural networks, Gilbert multipliers, in-cct. learning 6271
CMOS continuous-time analog defuzzifier 29417
CMOS multiplier design, differential difference amp. 6252
CMOS sq. and four-quadrant multiplier 37900
CMOS subthreshold four-quadrant multiplier 29410
CMOS VLSI continuous-time HF prog. nonrecursive filters 735
electronically tunable grounded capacit. multipliers 12668
four quadrant analog multiplier-type CMOS OTA, design 21123
four-quadrant CMOS analogue multiplier for ANNs 12665
high-speed multiplier/VGA, simplified-transistor SPICE macromodel 6251
LV analog cct. design techs., review 37903
LV CMOS four-quadrant multiplier 6249
mixed-mode archit. for analog neural network implement. 37924
neural chip, subthreshold MOS analog cct. 37928
neural network, analog VLSI current mode cct. 6272
shift-invariant continuous time cellular ANNs, dense CMOS design 29494
sine wave generators, oscillators, low noise and stable amplit. 12369
single-layer feedforward neural networks, precision requirements 29461
soft competitive learning, analogue CMOS implement., hardware tolerance 29433
VLSI neural learning, robustness against cct. limitations 29489
VLSI neural network for texture anal. 29477
InP HEMT DC, 38-GHz distrib. analog multiplier 6337

analogue processing circuits
see also analogue multipliers
3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
3-D sugarcube neuroprocessor, low power analog neurosynapse chips 29492
64 Mbits/s PRML HDD channel, BiCMOS analog front-end sig. proc. 7143
ANNs, analog VLSI hardware 29487
approx. identity neural nets for analog synthesis of nonlin. dyn. systs. 12682
ASIC, Conf., Rochester, USA (1993) 36858
autoadaptive independ. component analyzer, analog CMOS implement. 21478
autocorrelation in micropower analog CMOS 21462
BiCMOS 9-32 Mbit/s single-chip read/write channel for disk-drive appls. 29409
BiCMOS ASIC for modelling biological neurons 29416
binary rel. inference neural net, VLSI implement. 29446
binaural source localizer chip, subthreshold analog CMOS 29485

analogue processing circuits continued
bipolar AGC IC for hearing instrums. 35168
cellular neural nets, analogue CMOS implement. 29495
cellular neural network chips, opt. image acquisition 29486
charge amplifiers for piezoelectric sensors 26790
CMOS adaptive neuro-fuzzy analog chips 29418
CMOS analog current-mode ART1 algm. implement. 29475
CMOS analogue adder, self-biased config. 21455
CMOS analogue VLSI current-mode mesh-type posn. sensitive cct. 34495
CMOS cellular neural net-based smart pixel chips, analog design 31130
CMOS current S/H ccts., differential clock feedthrough atten. 12666
CMOS max. entropy coprocessor for computed tomography 29432
CMOS modular analog chip for feed-forward neural networks, on-chip learning 797
CMOS neural network IC for high-energy phys. 29476
CMOS neural networks, capacitive wts. learning 21475
CMOS prog. analog cellular neural net for high speed image proc. 29429
CMOS prog. analogue IC, high speed image proc., cellular neural networks 29414
CMOS prog. current comparator for analog VLSI neural nets 29430
CMOS sq. and four-quadrant multiplier 37900
CMOS VLSI analog current-mode high-speed ART1 chip 29493
continuous-time micropower CMOS Hopfield associative memory 29484
current mode BiCMOS ccts., 1 V supply voltage, ADC appl. 37898
current mode cellular neural net, adjustable template coeffs. 29470
current S/H ccts., clock feedthrough anal. and cancel. 780
current-feedback op-amps, small-sig. macromodel 37651
current-mode high-precision winner-take-all cct. 21450
current-mode multiple input max. cct. for fuzzy logic controllers 775
custom IC, conf., San Diego, CA, USA (May 1994) 20247
data-driven subthreshold analog MOS neural net cct., principal components computation 798
divider, current feedback amps. 21463
dual current-feedback amp. techs., operation and advantages 37652
dual-input current-mode ratio fn. generation, CCIIs 772
dyn. bias current tech., bipolar exponential-law/CMOS sq.-law elements 12667
eigenvalue calc. and rank filtering, analog cct. 778
eigenvalue computation and sorting, isospectral matrix flow 12669
EPSILON proc. card, analog neural comp. framework 29508
fault-tolerant analogue filtering based on triplication 37827
flash-based prog. nonlin. capacitor for SC neural nets 21473
fully parallel Kohonen map, mixed analog digital approach 29440
fuzzy nearest prototype classifier learning 37919
gain-compensated SC integrator, four-input opamp based 6250
Hamming neural net, CMOS analogue IC 37923
high-speed switched-current ccts., trans-impedance amps. 21461
hippocampus, nonlin. syst. model, CMOS implement. 29434
hybrid analog/digital VLSI sig. proc., single bit modulators 12661
image proc., neurobiol. based 12672
in-situ learning, analogue VLSP MLPs 29457
intell. opt. sens., multilayer opt. neural net, analogue VLSI 9938
intell. sens., analog fuzzy controller, CMOS implement. 37902
intracardiac electrogram, low power, class. using analogue VLSI 35123
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
kernel-based classifiers, analog VLSI implement. 29460
large-scale analog neural computer, archit./appl. 29481
LCD driver IC, high slew rate op amp 21464
lin. image filtering, analog VLSI neural networks, random param. var. 32955
low-level cortical proc. in machine vision, analog VLSI massively parallel module 32947
low-power analog sampled-data VLSI archit. for mag. recording channel 29411
LV analog ICs for 3 V systs. 771
LV fully differential class-AB switched-current ccts. 6248
max. integrated phone device for analogue telephone set 42076
MOS winner-take-all networks for VLSI analogue parallel sig. proc., inhibitory mechanism 37897
multielement Ge detector, X-ray fluoresc. microprobe/microspectroscopy 42979
multipath interf. suppression cct. 40382
multiple target tracking syst., analog VLSI neuromorphic proc. 32954
multiplication division scheme based on D/A converters 12671
NEC 24 cm TFT full-color LCD module, develop. *(Japanese)* 3936
neural net, feedforward, Lyapunov fn. 29445
neural net for analog neural network for geometric optim. problem 29448
neural net synaptic coeffs., simul. annealing and SPICE-PAC 21471
neural nets, analog, simul./training tech. 29500
nonlin. SC network anal./synthesis for image proc. 5981
NORCHIP, seminar, Trondheim, Norway (Nov. 1993) 11579
opt. cellular neural network, contrast enhancement 794
optimisation, combinat., constrained Potts systs. 777
oscillator neural networks for image proc. 12678
pass. rem. IR interferometers, analog detect. scheme 34427
photo BJT array in CMOS technol. for intell. imaging 9935
Potts neural nets, optimisation, dyn. systs. equivalence 21480
precision limited analog neural networks, training method 29437
PRML mag. read channels, high speed, CMOS analog front-end archits. 30727
prog. analog neural chips, testing/ATE 21476
prog. analogue CMOS transm. cct., electronic telephone sets 33678
proximity sens. syst. for spatial sens. and colour perception 42776
pulse-coupled network, neuron, cct. design 21484
PVDF piezoelectric sensors, structural engineering appls. 25799
reconfigurable analog fuzzy logic controller 779
regularisation vision chips, light-adaptive archits. 21458
relax. labeling, analog VLSI cellular fuzzy automata networks 29462
sampling amp. diode bridge switches, offset voltage 37896
SC ccts., sampled-data sig. proc. 723
SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
sig. normalisation module for posn.-sensitive devices 34431
signal proc., symp., London, UK (Oct. 1994) 28263
silicon cochlea, switched current 29420
soap bubble flowmeter, opt. fibre sens. 42836
spiking oscillator networks, on-focal-plane image preprocessing 29413
spot position coding retina, active obstacle detect. 21457
SPRITE-based syst., image proc. 34575
stereo retina for automobile appls. 29419

analogue processing circuits continued
stochastic ANNs, CMOS analog implement., temp. effects modelling 29463
subthreshold analog, matching ccts., large output voltages 8626
switched diffusion analog memory for ANN chip 29412
switched-current ccts., clockfeedthrough compensation 37901
switched-current ccts., tunable feedthrough cancellation 774
switched-current/continuous-time current-mode cellular neural network, opt. addressable 29517
third-generation current conveyor, config., CCIIs 29348
very-high-speed analog bipolar neural net LSI 37926
visual cortex based neural archit. 29478
visual motion estim., spatiotemporal computation 32952
VLSI analog fuzzy controllers, hardware/software toolkit 37899
VLSI neural network archit., on-chip learning 37911
VLSI neural network OCR syst., extraction module 29466
VLSI neuromorph, analog, prog. dyn. 29438
VLSI signal processing, conf., Veldhoven (Oct. 1993) 36900
voltage-mode defuzzification ccts., analog implement. 21456
wideband analog continuum correlator for radio astron. 17514
Si piezoelec. sens. for robots, analogue proc. 3787
Si retina analog image proc. 776
intell. parallel opt. link and LSIs 34055

analogue simulation
adaptive multivariable optimal controller 4579
behavioural modelling and simul., VHDL and Saber-MAST 484
HV substations, EMI anal., switch arc restrikes 5159
online dyn. gas pyrometry, two-thermocouple probe 42970
quartz cryst. oscillators CAD 39103
SimBoy for capture and re-use of analog simul. knowledge 28939

analogue storage
see also sample and hold circuits
ART1 memories, mixed analog/digital implement. 29404
bandgap ref. temp. drift decrease, on-chip analogue ROM 12324
CMOS analogue synapse for Kohonen, maps 29421
DRAM cell, LV multi-bit, built-in gain stage 29232
flash-based prog. nonlin. capacitor for SC neural nets 21473
image motion detect., opt. neurochip 42853
LV fully differential class-AB switched-current ccts. 6248
neural nets, smooth seq. recollection 21482
self-contained error-compensated N-valued memory for neural appls. 29415
switched diffusion analog memory for ANN chip 29412
VLSI, fault-tolerant dyn. multilevel storage 6253

analysing power *see polarisation in nuclear reactions and scattering*

analytical chemistry *see chemical analysis*

anaphoresis *see electrophoresis*

AND gates *see logic gates*

Anderson model
disordered quantum wires, DOS/conductance 38342
quantum railroads, transport props., Anderson localization directionality 22006

Anderson transition *see Anderson model; metal-insulator transition*

anechoic chambers
antenna modelling and testing, combined facility 28289
antenna planar near-field measurement, far-field calc. 23892
broadband compact absorber for EMC chamber appls. 15515
clutter posn. estim. with sidelobe depression 23844
compact semi- and fully anechoic chambers, composite absorber 15529
deficiency of anechoic/semi-anechoic chambers 15484
EM anechoic chamber, field strength uniformity eval. 23674
EMC, conference, Sendai, Japan (1994) 11561
EMI meas. methodology 40369
EMI/EMS testing, ferrite absorber lined anechoic chamber 23676
FDTD scatt. simul., sawtooth anechoic chamber absorbing boundary condition 40311
ferrite anechoic chamber site atten. calc. 15513
ferrite EM wave absorbers, bandwidth widening by attaching rubber ferrite 2210
ferrite grid absorber, perform. 23731
IEC801-3 std., radiation immunity systs. 23732
IEC 1000-4-3, radiated immunity test 40367
large-scale anechoic chamber, EM fields, computational simul. 15505
LF model for wedge, pyramid absorber arrays 7994
LF model for wedge or pyramid absorber arrays, meas. results 7995
multilayer ferrite EM wave absorbers 15514
product radiated EM emission, VCCI members meas. facilities 23728
radiated-suscept. tests, absorber-lined chambers, field homog. 15482
RF immunity test facilities, conductive sphere 23741
semi-anechoic chamber, ambient meas. 15479
semi-anechoic chambers, characts. and reson. phenom. 23675
shielded room reson. effects reduction, constr. tech. 15485
site atten. in radiated emission meas., anal. 8006
spherical anechoic chamber, EM field multipole anal. 31708
spherical anechoic chamber EM field, multipole anal. 31703
TEM cell with inner terminator, improvement and design concept 23745
thin ultra-wide band absorber CP-2 for anechoic chamber 23724
time domain EMC testing syst. 23671

anelastic relaxation
see also creep; stress relaxation
sapphire, insulator props. rel. to tribology/space charge 13952

anelasticity
see also anelastic relaxation
polyimide thin film, time-depend. inelastic deform. 28881

anemometers
see also laser velocimeters
chest diseases diagnosis portable flowmeter 26268
constant voltage anemometer circuit anal. 34447
digital anemometer for air flow meas. 25907
Doppler anemometer for turbulent Reynolds stresses meas. 10032
environ. sens. 9898
hot-wire anemometer, low vel. calib., pendulum method 42983
hot-wire anemometers, micromachined, characts. 25788
mobile autonomous sens. syst. for odor source localization 9954
non-polar liqs., electrokinetic study, LDA 42985
stick-on hot-wire anemometers, foil/filament sens. 18150
thermal anemometer sens. based on whiskers 3799
thermistor anemometer for low flow rate meas. 4012
Si, porous, micromachining appls. 22627

anemometry
  3D TDM LDA 18151
  air/He mixtures, vel./conc. meas., thermo-anemometry 26011
  cylindrical hot-film probes in water flows, calib. 10066
  digital anemometer for air flow meas. 25907
  LDA, single-freq. sig., digital meas. 4018
  opt. methods for studying flows in gaseous and condensed media 26012
  particle sizing by planar-phase Doppler syst. 34692
  superposed flow between contrarotating discs, LDA 18145
  two-phase flows, LDA, integral effects 4016
  two-phase flows, LDA, integral effects 4015
  CO_2 high-power fast axial flow laser, aerothermic characterisation 7531
angiocardiography
  cardiovascular interventions, diagnostic/therapeutic, conf., Los Angeles, CA, USA (1994) 5463
  cineangiograms, computerised vessel diam. meas., magnification effect *(Japanese)* 4271
  computers in cardiology, conf., London, UK (1993) 11543
  coronary angiography, image quality improvement, scatt. X-rays simul. 43273
  coronary angioplasty of infarct-related artery suppresses ST-segment elevation on exercise 26440
  coronary arteries, 3D motion/reconstruction from biplane cineangiography 4268
  coronary artery ident. from time series of angiogram 26324
  coronary artery segments, stenosed, 3D densitometric reconstruction and visualization 43240
  coronary artery stenosis recogn., neural net on DSA syst. *(Japanese)* 4262
  double beam bent Laue monochromator appl. 43270
  first-pass ventricular ejection fraction, SPECT camera 10176
  mag. reson. angiography, FT imaging, voxel sensitivity fn. 35013
  obj. reconstr. by Hopfield neural net 43276
  patient exposures, collective dose, data anal. 18520
  radiation exposure, personnel 18668
  sub-Angstrom X-ray source, compact storage ring 43217
  transvenous coronary angiography images, spatial resoln./spectral purity 43267
  Wiener spectra meas., digital systs. 26299
angiography (cardiac) *see angiocardiography*
angiography (MR) *see biomedical NMR*
angiography (nuclear) *see radioisotope imaging*
angiography (X-ray) *see diagnostic radiography*
angle measurement *see angular measurement*
angle modulation
  see also frequency modulation; phase modulation
  distortionless underwater commun. using parametric array, conditions 42475
angle-of-arrival estimation *see direction-of-arrival estimation*
angular measurement
  see also angular velocity measurement
  2D large scale laser digitizer, with cordless cursor 25769
  3D kinematic angle meas. syst. for nonjointed rigid axes 43192
  3D objs., holographic interferometry 18072
  3D shape direction/posn. meas., opt. fibre sens. *(Japanese)* 10016
  absol. surface shape testing, interferometric sens. 18077
  AC servomotor integrated single-output sig. rotary encoder 10934
  adaptive nonlin. algms. for radar tracking 17400
  amorph. materials in sens. appls. 34480
  capacitance based meas. of ang./lin. displacements 18087
  closed vols. lin. and ang. meas. 18152
  contactless lin.-dimens. monitoring, lin. and ang. 3986
  digital, seq./cyclic-seq. coding *(German)* 18101
  digital positional shaft encoders, patents review 34699
  directional vectors estim. 18060
  displacement-freq. converter for μP dimens. meas./monitoring 3769
  Doppler radioelectronic landing syst., aircraft ang. coord. determ. 18711
  double-pulse electronic speckle interferometry for vibr. anal. 15161
  edge angles meas. of knives, light sectioning tech. 3978
  elec. motor speed estim., shaft encoder meas.-based 44001
  EM rot. sens., cpd. mag. wire 17717
  end-face bevel angle of an opt. fiber, meas. method 7299
  goniometer for mag. light scatt. studies 34669
  inclination meas. by mag. method 18082
  inclination sens., mag. fluid 17743
  inclination sens., plastic opt. fiber *(Japanese)* 25851
  intersatellite commun., heterodyne opt. detect./spatial tracking syst. 34077
  knives edge profile meas., image automated anal. 3979
  large-volume position and orientation tracking 18104
  mag. sens. for tracking devices 34438
  microdynamic gyroscope develops. and appls. 9859
  misaligned thin film meas. in Mallinson coil set 18041
  mission effectiveness enhancement, advanced boresight equipment 43575
  MOS-type posn.-sensitive detectors, angle/posn. detect., opt. interf. 34687
  on-orbit calib. of inductosyn error 18720
  phased antenna array radar, ang. coord. meas., modelling 3608
  radar theory, ang. coord. of complex target 3602
  rough surface transversal displacement/rot., speckle movement 3977
  round quartz blank sorting by Ω-scan, cryst. oscillator manufacture 39078
  round quartz blanks, AT-cutting angles/X-miscutting angles meas. 30613
  SEM electron probe diam. determ. 3987
  single-channel direction finders, ang. coord. resoln. improvement 42539
  split film sens. calib., pitch angle determ. 34454
  SRM, speed control, magnetoresistive angle sens. 44030
  transducers, autocalibration *(Italian)* 9855
  variable reluctance transducer, ang. meas., FEM 10024
  vibr. gyroscopes, solid state rot. sens. 9861
  wood grain angle meas., microwaves 18080
  Er^{3+}-doped fiber ring laser, rot. sens. appl. 17829
  Si micromachined 2D galvano opt. scanner 17719
angular velocity control
  DC motor control, adaptive neural net, online training 44066
  DC motor control based on ANN *(Korean)* 44069
  DMOS analogue HV control IC for small DC motors, PWM scheme 29048
  elastic force motors, speed control of integrated piezoelec. sens. 36206
  elec. vehicle PID speed neurocontroller 44575
  high-order systs., model ref. adaptive fuzzy control 5245
  induction motor drive, self-tuning control 36645
  induction motors with flux obs., adaptive nonlin. control 27727
  inertial elec. drives, monotonous ang. vel. control model *(Russian)* 44487
angular velocity control continued
  PWM inverter drive syst. adaptive control 5254
  SEC 51C803/804 three-phase microcontrollers for variable-speed asynchronous motor drives 29263
  servo induction motor adaptive speed control 19625
  servomotor disturbance observer implement. and speed detect. improvement *(Korean)* 36216
  three-phase induction motor speed control *(German)* 11029
angular velocity measurement
  inverter drives, meas. problems *(Polish)* 44491
  iron rolling mill motor drive, random disturbance studies 11499
  mag. sens. for tracking devices 34438
  μP meas. IS for params. of motion 3747
  PWM inverter drive syst. adaptive control 5254
  sport, ang. veloc./accel. meas., accelerometers *(Japanese)* 26267
  variable reluctance transducer, ang. meas., FEM 10024
  wheel-rot. sens., magneto-opt. 17861
anharmonic oscillators *see harmonic oscillators*
animation *see computer animation*
anisotropy, magnetic *see magnetic anisotropy*
anisotropy, magnetocrystalline *see magnetic anisotropy*
annealing
  see also electron beam annealing; incoherent light annealing; laser beam annealing; magnetic annealing; rapid thermal annealing; recrystallisation annealing; stress relaxation
  0.25 μm gate length CMOS technol., design/proc. depend. 13894
  analog CMOS VLSI design of cellular neural networks, annealing agility 22603
  BOX layer form. by high-dose O-ion implant., Si wafers 22149
  CMOS FET oxide reliab., plasma-induced gate oxide degrad. 20490
  conjug. polymer LEDs, transient/DC electrolum. 39585
  diamond:He^+ film detector, Raman/photoluminesc. charactn. 43089
  diamond films, enhanced oxid. etching, annealing, Mo effect 22192
  diamond films (111), H exposure, XPS/UV PES 13365
  diamond surface, O-H adsorpt., EELS/Auger study 1268
  diamond-ohmic contacts, specific contact resist. meas. 22030
  diamonds, annealed synthetic, photoinduced absorpt. lines related to Ni impurity 38230
  elastic props. of LPCVD SiN_x/LPCVD polysilicon 39033
  gate oxide proc.-induced damage, low/high temp. anneal effect 1202
  gate oxide quality improvement by H annealed wafer 22091
  granular giant magnetoresistive materials, ferromag. resons. 7050
  high temp. SOI devices, W metallization technol. 22279
  high-temp. ovens, double-chamber autoclave 6608
  hole trapping in MOSFET, hot carrier stressing/ionizing irrad. 30284
  InGaAs/InGaAsP MQW lasers long wavelength, thermal annealing effects 14869
  Intel 32 bit μP, radiation tolerance for space appls., eval. 29306
  ion implanted opt. waveguides, disloc. distribs. 7348
  ITO layer, sputtered films, specific resist., XRD 28801
  lattice defects induced by ion implant., photo-acoustic displacement meas. 6616
  lin. DC motors, high response, mag. materials *(Japanese)* 44075
  low-dose-rate MOS device response testing 13734
  machine stator winding varnish ageing, TSC anal. *(French)* 10937
  mag. amorph. ribbons, flash annealed, appl. in security systs. 14268
  microwave Gunn diodes operation under γ radiation 12781
  MOS capacitor plasma-charging damage meas. 1181
  MOS capacitors, glass passiv., C-V characts., OH absorpt. 871
  MOS devices, 1/f noise and radiation effects 1382
  MOS struct., interface state dens., postoxidation cooling 22057
  MOS struct., P ion implant., gettering efficiency 6620
  MOS struct., reliab., X-ray irrad.-induced damage 13241
  MOSFET, switching oxide traps, time depend. 13714
  MOSFET 1/f noise, plasma-etch-induced gate oxide degrad. effects 22441
  MRI image restoration, optim. approach, sens. fusion 8504
  n^+p jn., reverse-bias current, hydrogen radical sintering 38295
  n-channel power MOSFETs, irrad., possible sources of 1/f noise 13717
  OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
  Permalloy films, stable encapsulation structs., annealing effects 7101
  PM biased SAL/MR device, stabil., bias characts. 7083
  PMOS dosimeter, fading, gate bias/oxide thickness depend. 18632
  polysilicon bottom gate TFTs, excimer laser crystn. 38880
  polysilicon emitter bipolar transistors, reduction of 1/f noise 13657
  P^+-polysilicon gated FET devices, bias temp. reliab. 13750
  polysilicon grain boundary struct. characterisation by opt. SHG 29825
  polysilicon TFT, ultralarge grain film, excimer laser recrystn., elec. props. 30285
  polysilicon TFT proc. for CMOS, HDTV LCDs appl. *(Japanese)* 1492
  polysilicon TFTs, leakage current, NH_3 annealing 38874
  positron lifetime spectrosc., positron sources 43040
  power MOSFETs, low-dose-rate irrad. response 13733
  proton-exchanged waveguide devices, lifetime projections 22884
  round-annealed AC-motor magnet prod. and meas. technol. *(German)* 10939
  sample manipulator, azimuthal/flip rot., 16 to 1100 K 38536
  Si-SiO_2-polySi:P, $TiSi_2$ superlayer, thin film oxide injection degrad. 22059
  SIMOX, stacking fault growth/shrinkage 22074
  SIMOX BOX, O implant. effects on radiation-induced hole traps 13251
  SIMOX material develop. for sub-0.25 μm CMOS technol. 30459
  SOI, H annealed, surface atom migration 1175
  SOI nMOSFET, SIMOX substrs., drain current charact. 38868
  SOI struct., buried dielec. films, ion form. 38441
  solar cells, radiation effects/external factors 11289
  submicron contacts using selective CVD-W plug, jn. stabil. *(Korean)* 13418
  twisting-annealing tech. for opt. fiber 14391
  ultrathin dielec., microwave afterglow O_2/N_2O plasma growth 37505
  UV laser irrad./electroless deposition method, IC metallisation 12144
  vinylidene fluoride-trifluoroethylene copolymer films, electrostriction 39060
  wavelength shifter, scintillator, dose rate 26218
  Ag/BiSrCaCuO supercond. tapes, joining technol. 30771
  $AgInTe_2$-Sb-Te amorph. phase-change opt. recording films 30826
  AgNiFe, interact. effects/mag. ordering, annealing effect 6982
  Al film planarization for ULSI metallisation, mol. beam deposition/annealing 22267
  Al thin-film interconnects, thermal stresses, cryst. plasticity simul. 22264
  Al ultrathin films for Cu oxid. prevention *(Korean)* 38638
  Al/GaAs, interface annealing studies, variable energy positron beam 22041
  Al/SiO_2 interfaces, buried thin reacted layer direct obs. 38695
  Al/TiN/CVD-W deep submicron interconnects, sheet resist. 38683

annealing continued
- Al/W-Ti metallization, electron microscopy 22256
- Al/n-GaAs Schottky contacts, prep., charactn. 37522
- Al-reflow, cap-clamp, sub-micron contact holes 38691
- Al(100), heteroepitaxy on Si(111), thermal evap. growth 12038
- AlAs, C doping, CCl_4 and CBr_4, metalorganic MBE 1226
- AlAs, metalorganic VPE growth, wide terrace form. 20732
- AlAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
- p-AlAs:Zn, MOCVD for low-resist. VCSEL 23246
- AlGaAs quantum waveguides, neg. differential cond. 6567
- (AlGa)As, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
- $Al_{0.35}Ga_{0.65}As$, metalorganic VPE growth, wide terrace form. 20732
- AlGaAs:(Si), MBE grown, positron annihilation studies 21915
- AlGaAs:N,C, thermally stable C-N deep level 28742
- $Al_{0.35}Ga_{0.65}As$:C, thermally stable O/N implant isolation 30041
- AlGaAs/GaAs HBT passiv., sulfide solns. and SiN_x overlayer 30233
- AlGaAs/GaAs heterostruct., electron beam irrad. damage, annealing 21944
- $Al_xGa_{1-x}As$/Si, tandem solar cells, MOCVD, charactn. 19995
- AlGaInP:Zn, H-passiv. of acceptors in MOVPE layers 22129
- AlInAs:Si,F/GaInAs/InP heterostruct., thermal stabil. 29882
- AlN substr./Ti thin films, interface form. kinetics 20459
- AlN:Cu, ion implanted, impurity segreg. *(Chinese)* 13311
- Au/GaAs, interface annealing studies, variable energy positron beam 22041
- Au/LaB_6/Au/Ni/Ge contacts on n-GaAs, SNMS study 13421
- Au/Pd/Ti-based ohmic contact on AlGaAs/GaAs:C HBTs, elec./struct. props. 38701
- Au/Pt/Ti/Ni/p-ZnTe ohmic contacts, props. 1153
- Au/Zn/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
- Au/ZnCdTe, electroless Au film deposition 37465
- Au-Cr-Au-Zn-Au multilayer metallizations to InP, elec. props. 38660
- Au-Ge alloy/GaAs contacts, phase comp. and microstruct. under high press. 6576
- Au-NiCr metallization, CVD diamond substrs., MCM appls. 12981
- Au-Te-Au-GaAs Schottky contact interface states capacitance, thermal effects 29950
- Au-Ti metallization, CVD diamond substrs., MCM appls. 12981
- Au-plated X-ray masks, brightener conc. rel., thermal distortion 13534
- (Ba,Sr)TiO_2, chem. vap. deposition, DRAM appls. 12163
- Ba ferrite films, perp. anisotropy *(Japanese)* 14193
- $BaO-Sm_2O_3-TiO_2$ ceramics, microwave dielec. props. *(Korean)* 22631
- $BaTiO_3$/poly(vinylidene fluoride-trifluoroethylene) thin-film composites, pyroelec. props. 6908
- $Ba(Zn,Ta)O_3-ZnO-Y_2O_3$ ceramics, microwave dielec. charact. *(Korean)* 22635
- $(Bi,Pb)_{2+x}Sr_2Ca_2Cu_3O_{10+d}$/Ag, high temp. supercond. tapes, proc. 1602
- (Bi,Pb)-Sr-Ca-Cu-O/Ag supercond. composite wires and tapes 14271
- $BiDy(FeGa)_5O_{12}$ garnet films, sputter deposition and struct. props. 7037
- $Bi_2Te_3-Sb_2Te_3$ solid solns., thermoelec. props., excess Te/growth effects 13084
- $Bi_3YFe_{3.5}GaO_x$ films, pulsed laser ablation, mag. props. 30686
- CdS films, electro-opt. charactn. 1039
- CdS/CdTe, sintered solar cells, InSnO electrode, PV props. 11295
- CdS/$CuInSe_2$(011) heterointerface, form., electronic props., XPS obs. 21951
- CdSe-doped glass thin films, ion-beam sputtering method 37507
- CdTe wafers, thermal annealing, Te precip., Raman scatt., cathodolum. 38466
- CdTe:Ga, diffusive doping, photolumin. obs. 22147
- CdTe:In photolum., stoichiometry effect 38513
- CdTe/Ni-P, stable ohmic contact form., P diffusion from Ni-P 13225
- CdZnSe-ZnSe strained layer superlattice disordering, diffusion/ion implant. *(Japanese)* 38339
- CeO_2/Si(111), laser ablation deposition, growth mode 38445
- Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
- Co films/$CoSi_2$ films, opt. props., G-line/I-line lithog. 38748
- Co/Ag multilayers, struct./mag. props., annealing effects 30715
- Co/Cr thin films, interdiffusion and grain isolation, thermal annealing 7040
- Co/Cu multilayers, magnetoresist., prep. conditions/annealing depend. 7054
- Co-Cr sputtered mag. films, comp. inhomog., APFIM obs. 39131
- Co-Fe-Si-B amorph. soft ferromag. wires, magnetoimpedance, magnetostriction 30668
- Co-SiC, interface microstruct., chem. and elec. props. 13213
- Co-Zr-Ta-Nb amorph. thin film deposited cores on polyimide sheets *(Japanese)* 30662
- Co-phthalocyanine thin films, elec. cond., O doping, IV charact. 21939
- a-$Co_{66}Fe_4Mo_2Si_{16}B_{12}$, magnetostriction, nanocrystn. effects 14141
- $CoSi_2$ interconnection lines, writing FIB implant. 38693
- $CoSi_2$ microstruct., focused ion beam synthesis 13298
- $CoSi_2$/6H-SiC, Schottky contacts 1165
- $CoSi_2$-Si heterostruct., solid state epitaxial growth from Co-Ti-Si multilayer 37419
- Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
- Cr/NH_3/GaAs(100), interface form., photoemission study 38377
- Cr-SiO_2 cermet-polyimide interfacial reacts., thin film resistor appls. 38045
- $CrSi_2$ thin films on Si(111), heteroepitaxial rels. 37439
- Cu CVD thin films, direct liq. coinjection, ULSI device metallisation appls. 30133
- Cu, electrodeposited/rolled annealed, flexible cable, fatigue 29623
- Cu metallization, oxid. barrier layers 38689
- Cu surface/interface modif. for IC appls. 38647
- Cu/Co/Cu/NiFe multilayers, magnetoresist., thermal stabil. 7053
- Cu-Au conductors for IC interconnects, AlGaAs laser-assisted deposition 12184
- Cu-Cr bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- Cu-SiO_2 IC metallisation, refractory metal encapsulation/barrier layer 38650
- Cu-Ti bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- Cu-Ti(Cr) self-encapsulated metallization, TiN(CrN) diffusion barriers 38651
- Cu-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
- $Cu_{80}Co_{20}$, melt-spun ribbons, mag. props. 6949
- $Cu_{80}Co_{15}Fe_5$, melt-spun ribbons, mag. props. 6949
- CuCr alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- Cu_3Ge thin films on Si(SiO_2), stabil. 1301
- CuTi alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- EuF_3 thin films, dielec., cond. and breakdown studies 1544
- α-Fe/$Nd_2Fe_{14}BTi_x$ nanocrystalline alloys, coercivity 7011

annealing continued
- Fe-B-M-Cu (M=Hf,Zr,Nb), nanocrystalline/amorph. hybrid struct., soft mag. props. 14146
- Fe-BN films, deposition conditions and mag. props. 5889
- Fe-Co-Si-B rapidly quenched wire, magnetostrictive/magnetoelastic props. 30666
- Fe-FeCoZr sputtered multilayers, soft mag. props. *(Japanese)* 30696
- Fe-Nb-B nanocrystalline ribbons, soft mag. props./microstruct. 14147
- Fe-Si steel, forsterite film form. and grain growth 14153
- a-Fe-based toroidal transducer core, local flux dens. vars. 14255
- Fe-silicides, depth-selective conversion electron Mossbauer spectrometry 38677
- FeAlSi/FeAlSiO multilayers, nanostruct. controlled, mag. props. 14210
- FeAu, domain wall pinning, mag. viscosity/activation vol. 14148
- a-$Fe_{81}B_{13.5}Si_{3.5}C_2$ ribbons, power loss, surface layer effect 14143
- a-$(Fe_{0.06}Co_{0.94})_{72.5}Si_{12.5}B_{15}$, creep-induced mag. anisotropy 1571
- a-$Fe_{73.5}CuNb_3Si_{13.5}B_9$ ribbons, mag. domain struct., crystn. effect 14142
- FeGdN, soft mag. thin film material 14151
- $Fe_{66}M_2Nd_{20}C_{9.5}B_{0.5}$ (M=Ga,Nb,Cu,Al) ingot magnets by solid-state transform. 6969
- $Fe_{16}N_2$ epitaxial films, mag./Mossbauer study 6995
- $Fe_{16}N_2$ films, reactive sputtering synthesis 5888
- FeNbCuSiB ribbons, fast dc Joule heating, nanostructured materials prep. 14137
- FeNdBGaNb PM, microstruct., mag. props. 22687
- FeSiB amorph. wires, annealed, engng. magnetostriction meas. 14132
- $Fe_{73.5}Si_{16.5}B_6C_1Nb_3$, Young's modulus, mag. bias field depend. 14106
- FeSmN thin films, long. mag. recording 7127
- FeXN (X=Ta,Hf,Cu,Si,Zr) high moment thin film head materials, electrochem. corros. 6942
- GaAs, Ar^+ ion implant. damage, ion-induced annealing 22092
- GaAs, H passivated, EL2 defect 1262
- GaAs, LEC-grown, slip generation by thermal annealing, residual strains 1199
- GaAs MBE layers, dominant deep level 13054
- GaAs MMIC manufacture, proc.-induced defects 12804
- GaAs, MOCVD on annealed Si in H_2 20771
- GaAs, MOS struct. 29982
- GaAs PDB diode perform, proton isolation effect 29565
- n-GaAs, Pd/In/Pd(Pd-In/Pd)(Pd-In) ohmic contacts 13207
- n-GaAs diodes, Ni-Al based Schottky barrier enhancement, AlGaAs regrowth 38382
- GaAs epilayers, MBE, annealing thermal stabil., As precip. 308
- GaAs epitaxial layers, charactn., annealing effects 13277
- GaAs low temp. fusion bonding 1196
- GaAs, low-temp. grown, delta doping, As precip. 38501
- GaAs, metalorganic VPE growth, wide terrace form. 20732
- GaAs, neutron-transmutation-doped, annealing/hydrogenation effect 13276
- GaAs planar gate power MESFETs, gate-drain breakdown volt, 13801
- GaAs, radiation induced order effect, mobility study 13061
- GaAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
- n-GaAs surface, N^+-implanted, post-anneal perform., N role 38384
- GaAs thin film, GaAs substr., eutectic bonding-induced in-plane strain 38341
- GaAs thin film, Si substr., eutectic bonding-induced in-plane strain 38341
- GaAs:As, implanted struct., MOCVD, charactn., appls. 22159
- GaAs:Be, polycryst., heavily doped, diffusion props. 1043
- GaAs:C, HBT base-layers, electron lifetimes, annealing effects 1200
- GaAs:C, polycryst., heavily doped, diffusion props. 1043
- GaAs:C/AlGaAs HBT, reliab. 13640
- GaAs:C,H, isolated H-donors, deactivation mechanism 22130
- GaAs:Er, ion implant./MBE, Er-related deep centres 38516
- GaAs:Fe(Ni), ion implant./annealing, precip. 6610
- GaAs:Li, shallow and deep level passiv. by lithium 1052
- GaAs:N,C, thermally stable C-N deep level 28742
- GaAs:Sb grown by LPE, electron traps, DLTS 21918
- GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
- GaAs:Si^+,Se^+, ion implant., struct. anal. 30031
- GaAs:Si(Be), low-temp. MBE, dopant effects 21917
- GaAs/(AlGa)As DBR, reflectivity, disordering 2035
- GaAs/AlGaAs:C(Zn) lasers, bandgap-tuned, C(Zn) doping 1944
- GaAs/AlGaAs:Sb MQW, disordering, isoelectronic Sb implant effects 1217
- GaAs/WN_x/W-gate MESFET multiplexer IC, 0.5 μm, A 20 GHz 8-bit implement., fibre transm. 9546
- GaAs-AlGaAs MQW, $LiTaO_3$ substr., eutectic bonding-induced in-plane strain 38341
- GaAs-AlGaAs MQW, Si substr., eutectic bonding-induced in-plane strain 38341
- GaAs-AlGaAs-GaAs HEMT struct., elec./lumin. props., CF_4 plasma effect 13352
- GaAsA/Al-Ni-Sn metallization scheme, ohmic contacts 1295
- GaInAs/InP, regrown ohmic contacts, interface resist., TLM meas. 38417
- GaInAsP DFB lasers, fab., maskless FIB implant. 39825
- GaInP/AlGaInP, ECR plasma-assisted bandgap engng. 38332
- GaN/GaP heterostruct., metalorganic CVD on annealed GaN and GaP surfaces 20756
- GaP epitaxial layer, MOCVD growth on Si substr. 20671
- GaP surfaces, $(NH_4)_2S_x$ treated, high resoln. XPS *(Japanese)* 38548
- a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
- GaSb surface, oxide removal, photodiodes/Schottky diodes fab. 1240
- GdDyFeCo sputtered films, trilayer struct., thermal stabil. 14201
- Ge SQW, interface sharpness, MBE growth conditions 13190
- a-Ge particles form., nm dimens. and their behaviour, annealing 1058
- Ge thin films, opt. props., thickness depend. *(Japanese)* 39303
- Ge:Sb,Ga, nuc. transmutation doping, impurity elec. activity 13295
- a-Ge/Bi annealed bilayer, crystalliz. effect on conduct. 21926
- Ge/Pd/n-GaAs ohmic contact interface studied by backside Raman spectrosc. 38385
- Ge/Si(111), SPE, interface struct., medium-energy ion scatt. 37404
- $Hg_{0.3}Cd_{0.7}Te$:B photodetectors, LPE/ion implant., fibre optic appl. 3830
- ITO thin film, elec. and opt. props. rel. to annealing 21925
- In/n-$Hg_{1-x}Cd_xTe$ contacts, modified sheet resist. 38416
- $In_{0.52}Al_{0.48}As$:Fe,Ti, compensation implants 13287
- n-InGaAs layer, thermal stabil. of ohmic contact 29953
- InGaAs/InAlAs/InP, heterostruct., thermal stability 13157
- InGaAs/InGaAsP MQWs, strained, thermal stability 13140
- InGaAs/InGaAsP SQW, interdiffusion, annealing effects 22009

annealing continued
p-InGaAs/InP/Pd/Zn/Pd/Au graded bandgap heterobarrier/ohmic contacts, resist. 38699
p-InGaAs/Pd-Zn(Cd)/Ge implanted shallow ohmic contacts, HBT appls. 38698
InGaAs/InP strained quantum wells, stress relax., X-ray topography 21906
InGaAs-GaAs-AlGaAs:Ar(He) strained SQW, disordering by ion implant. 13135
InGaAs-InAlAs:Si quantum well, ion implant./annealing, comp. disordering 1216
InGaAsP, $Si^+(Be^+)$ ion beam proc. 30036
In_xO_y:Er RF sputtered films, photolum. and elec. props. 13096
In_2O_3-ZnSe-CdTe-In, injection-contact phenom. in sub-micron layers 38313
In_2O_3-ZnSe-In, injection-contact phenom. in sub-micron layers 38313
n-InP, He^+ bombard., elec. resist. 13041
InP, MeV ion implantation, device appls. 13288
InP, electronic props., annealing in P atmosphere 13044
InP films, prep. by PH_3 treatment of electrodeposited In layers 37463
InP metallisation by transit. metals 1300
InP, photolum. excitation spectra, acceptors/donors 13048
InP solar cells, electron radiation damage, irrad. temp. depend. 44415
InP thermally diffused solar cells, photo-injection annealing 19993
InP:B(O)(Fe), p^+ epilayers, elec. isolation by MeV ion implantation 13289
n-InP:Fe, Fe implant., SI layer form. 1210
InP:Fe, LEC growth, wafer annealing controlled doping 28712
InP:Fe epilayers, buried layers by Fe implantation 13286
InP:Fe, photolum., Fe concentration depend. 13045
InP:Fe wafers, SI, prep., annealing 13279
InP:Fe^+, ion implanted, lattice distortions, high-resoln. XRD 6531
InP:H,Mg, passivated acceptors, reactivation kinetics during annealing 22106
InP:Ti, compensation implants 13287
InP/InGaAs JFET/pin photodiodes for optoelectronic integrat. 1439
$In_{46}Sb_{54}$ thin films, growth, microstruct., multiple recording appls. 28811
InSnO thin film, CO_2 gas sens., alarm syst. 3912
Li-$LiMn_2O_4$ thin-film secondary batts. 36556
LiF:Mg,Ti (DTG-4), thermoluminesc. dosimetric characts. 10293
$LiNbO_3$ proton-exchanged periodically segmented channel waveguides 22868
$LiTaO_3$ proton-exchanged opt. waveguides, electrooptic consts. 14471
$LiTaO_3$ proton-exchanged waveguide in benzonic acid, annealing property *(Chinese)* 1704
$LiTaO_3$ proton-exchanged waveguides fab., cinnamic acid 39422
$LiTaO_3$ waveguides, proton-exchanged, cryst. struct. and opt. props. 22867
$LiTaO_3$:H proton exchanged waveguides, opt./electrooptical props. 14422
$LiTaO_3$:H proton-exchanged waveguides, structural and opt. props. 14420
MgZnSSe/ZnCdSe lasers/LEDs, thermal annealing 23051
MnAl thin films, cryst. struct., mag. props. 6992
MnBi films, low temp. cryst. growth in Mn/Bi layer syst. 12133
Mo-diamond:C CVD film, solid state react. 37491
$MoSi_2$, metal vapour vac. arc ion source synthesis 30142
$NbSi_2$, metal vapour vac. arc ion source synthesis 30142
Nb_3Sn fiber-reinforced superconds., thin film prep. *(Japanese)* 22721
Nd doped phosphate/silicate glass, surface luminesc., ion exchange effects 14419
$Nd_{4.5}B_{18.5}Fe_{77}$ ribbons, melt-spun, Mossbauer and mag. study 39159
$Nd_{15.4}Fe_{75.7}B_{6.7}Cu_{1.3}Nb_{0.9}$ sintered magnets, prep./TEM 6968
Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
Ni/Zn/Ni/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
Ni-Fe-Co/Cu/Co-Pt trilayers, magnetoresist. effects 39173
Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
Ni-InP syst., interfacial reacts. and phase stabil. 38391
Ni-Zn ferrites, films, microwave props. annealing effects 14178
Ni-based ohmic contacts to β-SiC, anneal temp. effects on elec. characts. 38410
Ni(Fe,Co)/Ag granular multilayers, struct./magnetoresist. 7048
$(Ni_xFe_{1-x})_yAg_{1-y}$/Ag multilayers, low field giant magnetoresist. 7064
NiFeCo/Cu multilayers, giant magnetoresist. 7058
PLZT thin film capacitors, CMOS ULSI DRAM appls., post proc. damage 21310
PZT ferroelec. thin films, sol-gel deposition 1559
PZT films by MOD technol. for nonvolatile memory and DRAM appls. 13999
PZT films, laser ablation on Ag coated Si substrs. 13993
PZT films, reactive co-sputtering/elec. props. 39059
PZT/Ti/Pt interface layers, elec. and microstructural props. 39053
Pb-scintillating fiber calorimeters, electron irrad. damage 26221
Pb_5CrO_8 films, optoelectronic props., contact-type line-image sens. appl. 42789
PbTe:Cl, excess Te films, photosensitivity 1070
$PbTiO_3$:Cu, film, sol-gel prep., charactn. 6912
Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
Pd/Mn/Sb/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
Pd/Zn/Pd/Au(Pd/Au), ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
Pd-Zn-Pd-Au ohmic contacts to p-InGaAs-InP, optim. 38387
Pt/Si(111) interface and props. of thin Pt layers on Si 1166
Pt/Ti electrode, PZT devices, annealing 39116
Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
RuO_2 reactively sputtered films, ferroelec. capacitor electrodes 20920
Sb-Ge amorph. films, crystn. kinetics, in situ studies 20914
Si MOS diodes, interface-state passiv., surface pot. depend. 1182
Si amorph. film, grain growth/defects obs. *(Korean)* 21930
Si cryogenic detectors, ion-implanted charge collection contacts 38487
a-Si, depth-depend. disordering 22143
Si detectors, radiation hardness, fast neutron fields 43116
Si, film, on SiO_2, CVD growth, defects, TEM obs. 21878
a-Si films, crystn., SiO_2 surface treatment effects 13393
Si, float-zone grown/NTD, positron annihilation obs. 38470
Si, flow pattern defects, nonagitated Secco etching 1023
Si, glow-discharge polycryst. films, grain boundary defects 20936
Si hemispherical-grained storage electrodes for high-dens. DRAMs 12544
Si, implanted impurity diffusion, simul. 22120
Si, irrad. detectors, neutron fluence, DLTS, CV characts. 38794
Si, irrad. effects, reverse annealing, simplistic model 22093
Si, low temp. wafer bonding, kinetics study 1188

annealing continued
Si multicrystalline solar cells, gettering, passiv. 27955
Si on insulator, high dose O implant./microstruct./form. mechanism 38494
Si, oxide precip. morph. change, two-step annealing 6607
Si, polycryst. films, furnace/laser annealing 28855
Si, porous, LED appl., blue, beyond 1.5 μm 14625
Si, porous, photolumin. excitation mechanism, sensitisers 22250
Si, porous, post-treatment effects on elec. cond. 21888
Si, porous, surface struct., EPR/XPS study 22247
Si power devices, combined electron and ion irrad., local lifetime tailoring 30204
N-Si, proton irrad., defects 13032
Si steel, (110) [001] grain growth 6936
Si, sub-ALE, Si_2H_6 20700
Si substr. MOVPE grown, novel pseudomorphic struct. 20824
Si, surface cleaning for VPE by photoexcited F_2 gas 38625
Si, surface mech./pulsed photon proc., DLTS 13351
Si, thermal oxid. mech., form. and diffusion of volatile SiO mols. 6642
Si thin polycryst. films, BF_2^+ implant., shallow p^+n jn. form., Co silicidation 30032
Si, wafer bonding, IR absorpt. spectra 1189
Si wafers, heat treated, microdefect depth distrib. due to nonequilib. self-interstitials 38474
Si wafers, light scatt. tomography detecting defect, annealing 38468
p-Si wires, focused ion beam implant., carrier transport 21871
Si:As, enhanced diffusion caused by elec. deactivation 22158
Si:As films, low press. CVD 5861
Si:Au, Au diffusion, carrier conc. profile, preannealing effects 29831
Si:Au, Ne implant. gettering 22119
Si:B CZ cryst., O-incorporation, precip. 20655
Si:B, CZ grown, O/C effects on thermal donor form. 29827
Si:B MOS ULSI, MOSFET B diffusion model incorporating disloc. loop growth 22610
Si:B, δ-doping, ultra-shallow/abrupt profiles 38499
Si:B, diffusion during post-implant annealing, damaged/amorphizing conditions, model 22107
Si:B doped by plasma source ion implant., struct. anal. 30056
Si:B, implant. and transient B diffusion, interstitials 1228
Si:B, implanted impurities, misfit elastic stress, simul. 13307
Si:B, ion implanted, defects, seq. annealing 13306
Si:B porous film, photolum., Auger spectr., annealing, solvent effects 38238
Si:B reson. sens., fine freq. tuning 30517
Si:B(BF_2) p^+ poly-Si gate surface-channel PMOSFETs, boron penetration, hot carriers 30356
Si:B(P), doping by solid-phase diffusion 22139
Si:BF_2, high-dose BF_2 ion implanted, elec. dopant activation 1194
Si:B,F(Ne), boron diffusion, ion implant. effects, proc. modeling params. 38505
Si:C,O plates with nonuniform stress distrib., mechanisms for O gettering 29833
Si:Co, ion implant., defect/impurity profile 30028
Si:Er, opt. act. centres, local struct., photolumin. obs. 30045
Si:F, recrystn., at. redistribution, F 1s NEXAFS 38521
Si:F/SiO_2 TFT, F^+ implant. effects 38883
Si:Fe, LEC grown, Fe contamination influence on LSI-yield related cryst. quality 29828
Si:Fe based MOS structs., deep levels, thermal behavior 29971
a-Si:H, PECVD, defect annealing kinetics 13275
a-Si:H, Staebler-Wronski effect, trapping and recomb. procs. 39555
a-Si:H TFTs, UV irrad. effects on characts. *(Korean)* 22417
Si:H, defect passiv./light-induced metastability 13359
a-Si:H films, annealing, Ne(C) bombard., Si-Si double bonds 1201
a-Si:H, glow discharge deposition, chem. annealing, at. H role 30008
Si:H, ion implanted defects, thermal evol., slow positron study 38492
Si:H, neutron irrad., defect anneal., H infl. 38469
a-Si:H p/i/n struct., annealing, resist. effect 1198
Si:H, porous, lumin., surface modif. effect 1246
a-Si:H solar cells, reverse biased annealing studies 11291
a-Si:H/Ni-P, electroless plated contacts 6575
a-Si:H,B n-i-n layers, current induced degrad. 38281
Si:H,Cu, Cu gettering, hydrogen-induced cavities 30009
Si:He, bubbles, struct./opt. props. 30050
Si:Ir(111), ion implant., $IrSi_3$ synthesis 30027
n-Si:Li,Au, defect complexes, DLTS/SIMS/C-V profiling 38601
Si:N, isotropic etch-stop props. 13334
Si:O, intrinsic gettering, low temp. annealing *(Chinese)* 1193
Si:O, ion implant., precip. 30026
Si:O wafers, deep levels under posthydrogen-plasma thermal anneal 38467
Si:O-on-insulator, implant.-induced stresses, defect pair 30044
Si:Sb,B, heavily doped wafers, annealing, fluoresc. EXAFS anal. 38475
Si:Sn(001), strain determ. and microstructural charact. 22150
Si/B_4C narrow-bandpass mirrors, EUV reflectance 1779
Si/Co/GaAs, $CoSi_2$ thin film form. 38632
Si/Co/GaAs(001) interfacial reacts. 13278
Si/$In_xSn_yO_z$, Si oxid. by interfacial react. 38614
Si/$Si_{1-x}Ge_x$ strained heterostruct., thermal stabil. 37406
Si/$Si_{1-x}Ge_x(Si_{1-y}C_y)$ heterostruct., situ X-ray investig. 38306
Si/SiGe:H epilayers, misfit disloc., elec./opt. props. 6628
Si/SiO_2, MOS structs., photoenhanced CVD, comp., elec. props. 38429
Si/SiO_2, SIMOX substrs., Si ion implant. for secondary defect reduction 30043
Si/SiO_2/Al, H-related instabilities, removal by F implant. 13314
Si/SiO_2/Si MOS oxides, border traps 13249
Si/SiO_2/Si, high temp. annealed, near interface oxide degrad. 38477
Si/Ti syst., $TiSi_x$ form. and resist., deposition temp. depend. 29951
Si-Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
Si-$NiSi_2$ microcrystalline composite thin films, struct./elec. transport 38402
Si-SiO_2-Al structs., RF plasma treatment, radiation-thermal hydrogenation 22090
Si-based device proc., radiation damage 22160
Si(100) surface, thermal nitridation, Si 2p core-level shifts 13366
p-Si(100)/Hf interfaces, elec. charact., H-termination 38397
β-SiC layers on Si(100), ion implant., cryst./elec. props. 6623
SiC vert. submicron TFT 13759
SiC:Al(B), ion implant., SIMS/RBS/photolumin./Hall/C-V obs. 38484
SiC:Ga^+, defect prod., annealing 22105
β-SiC:N layers grown on Si substr., ion implant. studies 38482
β-SiC:N/Re(Pt)(Ta) contacts, contact resist. 22043
n-SiC/Ni high-temp. ohmic contacts, silicide form. 38372
n-SiC/Ni(Ti/Al), ohmic contact resist., reduction by heavy doping 22024

annealing continued
SiC/Si wafer bonding, CVD and etching 13392
a-SiC/Si:P structs., P diffusion and interface segreg., HBT appls. 13118
n-SiC-6H, Ohmic contacts prep. 1163
SiC-SiO_2 MOS capacitor, elec. props., annealing effects 22077
SiFe, rapidly quenched, power losses, dyn. Preisach model 14154
SiGe base bipolar transistor ECL ccts., super self-aligned selective growth 30443
SiGe buffer layers, epitaxial growth, defect dens. 28786
SiGe epilayers, form. by Ge implant., RBS channeling spectrosc. 1232
$Si_{1-x}Ge_x$ films, dopant effects on resist., subsequent annealing 13089
$Si_{1-x}Ge_x$:B(P) polycryst. films, resist. 21932
SiGeB-Si heterostruct., B thermal stabil., stress compensation 13130
Si_3N_4 cap annealing, InGaAs-InP quantum well polariz. control photonic functional devices 14480
SiN_x, ECR plasma CVD and etching on GaSb, optoelectronic appls. 12166
SiN_x films, ECR plasma synthesis 30131
Si_3N_4:H films, rem. ECR CVD 37472
SiO_2, RF oxygen plasma oxide, Si surface dry cleaning 38620
SiO_2 buried layers, H-annealing induced pos. charge, ESR/C-V anal. 38425
SiO_2 films prod. by PECVD, interface and elec. props. 29969
SiO_2 films, thermal CVD, microdefects 407
SiO_2, fluorinated and N_2O plasma-annealed, elec. props. 1508
SiO_2, radiation-induced trapped pos. charge 13250
SiO_2 ultrathin films, MOS struct., ultra-dry proc. 13248
SiO_2:H ECR oxides, stress-temp. behavior, hydrogenous species conc. 37513
SiO_2/Si, low-temp. grown oxide film, X-ray reflectivity 38610
SiO_2/Si, thermal layers, wafer bonding induced degrad. 38422
SiO_2/SiN coatings on Si, defect passiv. by PECVD 1270
SiO_2/Ti/TiN, charactn., XPS 38280
SiO_2-GeO_2 fibres, Bragg grating, UV writing, spectra 15038
SiO_2-Si interface struct. modif. by Fe^+/H^+ ion implant. *(Chinese)* 22061
SiO_xN_y oxynitrided tunnel oxide films, flash EEPROMs 38593
SiON/SiO_2/Si single-mode waveguides, plasma CVD prep. 39396
Sm-Fe-Ga-C, melt-spun alloys, high coercivity 39204
Sm-Fe-N/α-Fe remanence-enhanced mech. alloyed two phase magnets, coercivity 7010
$Sm_2(Fe,V)_{17}N_y$ coarse powder, struct., mag. props. 7001
(Sr,Ca)TiO_3:Nb^{5+} capacitor-varistor ceramics, cation diffusion 436
$Sr_{14-x}Ca_xCu_{24}O_{41}$ layers, carrier doping, elec. resist./mag. suscept. 22153
$SrGa_2S_4$:Ce , blue electroluminescent thin films, MBE 37402
Ta sputtered film, compressive stress rel., thermal cycling 22266
Ta/Si multilayers, annealing, silicide form. 6574
Ta_2O_5 films, DRAMs, leakage currents and defect states 39038
Ta_2O_5 thin high-dielec. films, leakage current, elec. props. 13915
$TaSi_2$, metal vapour vac. arc ion source synthesis 30142
Ti films/$TiSi_2$ films, opt. props., G-line/I-line lithog. 38748
Ti silicidation, effect on type II end-of-range disloc. loops 38581
Ti/Si, RTA, C54/C94 $TiSi_2$ form. 1158
Ti/Si:B(P)(As) syst., $TiSi_2$ form. in situ resist. meas. 13217
Ti/SiC, interface chem., microstruct., elec. props. 29952
Ti/TiN films, charactn., XPS 38280
Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
Ti-Pt-Au-InN nonalloyed ohmic contacts, thermal stabil./contact resist. 38393
TiN diffusion barriers for sub-0.5 μm planarized Al IC technol. 38653
TiN/$TiSi_2$ form., TiN_x layer, ULSI technol. 38684
TiN/n-GaAs Schottky contact interface post-anneal perform., N role 38384
TiNi/PZT, smart thin film heterostruct., materials develop. 37550
TiO conductive films, reactive ion-beam sputtered, VLSI metallisation 37494
TiO_2 films, thermally form., semicond. props. 29866
$TiSi_2$ SALICIDE, dual gate CMOS struct. 38682
$TiSi_2$ buried layers in Si by direct wafer bonding 30154
$TiSi_2$ form., UHV annealing, SIMS/XPS study 22276
$TiSi_2$ silicide form. on polycryst. Si, surface morph. study 1299
$TiSi_2$-SiO_2-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775
$(Ti_{1-x}Zr_x)$/Si thin film syst., silicide form., local structural studies 38414
W CVD films, opt. props., G-line/I-line lithog. 38748
W-AuGeNi-GaAs ohmic contact metallization, RTN 38580
W-AuZn-GaAs ohmic contact metallization, RTN 38580
WO_3 gas-sens. films, microstructural effects 25896
WSi_2 buried layers in Si by direct wafer bonding 30154
WSi_2, metal vapour vac. arc ion source synthesis 30142
WSi_x CVD as-deposited/oxidized films, DCS-based, comp./struct. 38664
$YBa_2Cu_3O_{7-\delta}$, thin-film microbridges, normal state, 1/f noise 22737
$Y_{0.9}Ca_{0.1}Ba_2Cu_4O_8$-$Ag_2O$/Ag interface, contact charact. 14273
YIG films, pulsed laser ablation, mag. props. 14176
Zn/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
ZnCdSe/Zn(S)Se LEDs, emission efficiency improvement by thermal annealing 39587
$Zn_{1-x}Hg_xSe$, electrochem. deposition, EPMA, XRD 28802
ZnS:Mn/$BaTiO_3$ LV driven electroluminescent device, fab./characts. *(Korean)* 31094
ZnSe films, nucleation on GaAs(001):Se-(2×1) 20855
ZnSe:Cl epilayers, deep defect conc., after growth treatment effects 29850
ZnSe:N, metalorganic VPE grown, p-type cond., annealing 38473
ZnSe:N p/n jn. diodes, metalorganic vap.-phase epitaxy 20787
$ZrSe_2$ single crysts., selenium atmos. annealing, elec. props. 38276

annealing, magnetic *see magnetic annealing*

annular antennas *see loop antennas*

anodes
1.5 MV Gamble II pulsed power generator, plasma filled diode studies 36444
$1A_4$ supersonic coal-fired MHD channel, test progress 20015
annular thyratron, microwave-triggered 29816
cross-strip anode Schottky diode, series resist. calc. 38811
cylindrically-symm. vircator high power microwave source 29766
fuel oils combustion atomisation, charge injection nozzle 7904
intense diagnostic neutral beam prod., pulsed power supply-based 36319
LMF triaxial MITL voltage adder syst. Marx generator 36300
MCFC power plant, gas recycling, perform. 10909
multilayer microstruct. fab. for electron beam microcolumn microlenses 13909
organic LEDs, Si compatible monolithic integrat. 14664
PAFC, methanol/ammonia/siloxane contamination 11272
pinching electron beam vircator, high efficiency 29768
plasma opening switch expts., long cond. time 36389

anodes continued
pulsed ion diodes, temp. controlled, beam-target interact. expts. 34854
pulsed power μs plasma opening switches, 2D snowplow model 36443
radio-nuclide initiated chemilum. fueled secondary batt. 36513
shorted anode base resist. controlled thyristor, num. simul. 30283
SOFC, ceramic materials, overview *(Slovenian)* 27922
SOFC ceramic materials, state-of-the-art 44372
SOFC syst. perform. anal. 44371
split-anode magnetron interaction anal. 21824
vac. interrupters, arc conditioning effect *(Chinese)* 5136
Al-air batts. develop., propulsion appls. 19947
AuBe ohmic contacts, GaAs photocond. semicond. switches 36388
CH_4/steam reforming kinetics, SOFC 27925
Cu electrolytic refining, polariz. occurrence/reduction 11494
Cu electroplating of PCB PTH, current dens. effects 6409
Cu vap. laser window contamination *(Chinese)* 14694
Fe anodes, SOFC, direct methane oxid. 44359
GaAs photoconductive switches, elec. field structs. 36448
H^-, C^-, F^-, I^-, Pb^- high-power pulsed ion beams 34855
H_2/O_2 fuel cell, impregnated KOH matrix, H_2O mgt. 26556
K-C continuosly refuelable primary batt. 27893
$La_{0.7}Ca_{0.3}Cr\ O_3$/YSZ anodes, CH_4 oxid., SOFC 44358
$La_{0.8}Ca_{0.23}CrO_{3-\delta}$ anodes, SOFC, direct methane oxid. 44359
Li batt. develops. conf., Boston, MA, USA (May 1994) 36894
Li rechargeable batts., electrolytes/anodes *(Japanese)* 19940
Li rechargeable batts., polymer gel electrolyte/electrodes *(Japanese)* 5183
Li-ion rechargeable batts., devlop. 5201
LiAl-FeS batts., operation, elec. vehicle appls. 5203
$Li_2Mn_4O_9$ spinel anodes for lithium-ion batts. 5190
$Li_4Mn_5O_{12}$ spinel anodes for lithium-ion batts. 5190
$Li_{4/3}Ti_{5/3}O_4$ anode, rechargeable Li cell 11244
$Li_4Ti_5O_{12}$ spinel anodes for lithium-ion batts. 5190
Mg-AgCl batts., Mg alloy corros. rate studies 27890
MnO_2-Zn secondary cells, operation, develop. 5200
Na-$NiCl_2$ zebra batts., β-alumina electrolyte 5202
Ni anodes, SOFC, direct methane oxid. 44359
Ni-Cd sealed cells, fibre substrs., oxygen recomb. 5194
Ni-YSZ anode, $LaSrMnO_3$ cathode, SOFC 44380
Ni-YSZ cermet anode, SOFC, methane reacts. *(Japanese)* 44342
Pt anodes, SOFC, direct methane oxid. 44359
Ta electrolytic capacitors, life prediction 6368
VC anodes, SOFC, direct methane oxid. 44359

anodes, electrochemical *see electrochemical electrodes*

anodic machining *see electrolytic machining*

anodisation
diamond MPCVD films on porous silicon, scanning microscopy obs. 6518
planar-type MIM diode, STM nanometer-size oxid. 38449
Al porous anodization proc. anisotropy, VLSI planar metallization 38673
InAs/GaSb struct., 1D transport and gating 1101
p-InP(100), anodic passiv. in $(NH_4)_2S_x$ soln. 13387
α-PbO film, electrochem. anodic oxid. 1273
Si SOI struct. using oxidized porous material, CMOS LSI logic appls. 39012
Si, etching mechanism and band model in aq. KOH 13388
Si, macroporous form., self-organised props. 22213
Si, porous, anodised, form. under uniform current dens., props. 1024
n-Si porous field emitter arrays, enhanced electron emission 29748
Si, porous, nanocrystal size, preanodization ion implant. effects 1225
Si, porous, novel p-n jn. device electrolum. 14615
Si surface, patterned Au deposition, STM tip-induced anodization 28804
Si-based porous materials, anodization, etching 30085
SiC, porous, fab./props. for power device passiv. 22505
SiGe oxide prepared by RF plasma anodisation, interface quality 1243

anodised coatings *see anodised layers*

anodised layers
Al/Ta/Hf multi-layered anodized capacitor, oxid. *(Japanese)* 6357
GaAs, MOS struct., double oxide layer, RTA 29982
Si, mesoporous, photocarrier grating tech. 22999
Si, porous, struct., EXAFS/photolumin. study 22248
Si, porous struct. from lithographically patterned substrs., photolumin. obs. 20983
Si, self-supporting porous layer, photocond. 23000
Si:B, anodized/cryst. sample, elec. props. alteration by water vap. 38239
Ta_2N anodized thin film capacitors, heat-proof props. *(Japanese)* 29614
ZnO layers, anodically grown, surface photocond. 1785

anodised thin films *see anodised layers*

anolytes *see electrolytes*

anomalous skin effect
Nb supercond. resonator ccts., freq. response 22762

ANSI standards
see also IEEE standards
10.6 kW air-source heat pump, defrost cycle perform. tests 20146
DMT/DWMT systs. and digital filter banks 9091
elec. area class., practical considerations, stds. 90
FDDI LANs interconnection 33498
Fibre Channel Standard, rapid protocol develop. 33494
GTEM, OATS radiated emissions correl. from 1-5 GHz 15512
GTEM data submission, FCC approval 23722
HIPPI interconnection syst., camp-on strategy, perform. eval. 33493
PBX-computer connection technol. *(Japanese)* 16970
power syst. short cct. anal., characts. current method 35446
SAR mapping within human eye, portable transceivers effect 18625
switchgear design, ANSI/IEC stds. differences 27848
ESD meas. techs. for IC design/manufacture 18057

antenna accessories
see also antenna earths; antenna feeds; directional couplers; radomes
BAR 63 and 80 series PIN diodes for antenna switches in mobile commun. 1334
chirostrip dipole antenna, scanning behavior, substr. effects 8052
circ.-polarized annular microstrip antenna, tuning stub anal. *(Japanese)* 40522
corrugated waveguide phase shifter, dual-reflector antenna array appl. 12712
hard-surface microwave blockage-reducing struts 23989
HF hand-held narrow-aperture direction finder 3641
Ku-band satellite-based phased-array antenna coherent opt. beam formers 9409
Mitsubishi MD004H hybrid antenna switch for 23 cm band 32003
mobile commun., DSP for digital multi-beam forming antenna 17068
multiband FSS, multiring patch elements 8058

antenna accessories continued
- optoelectronic signal processing for phased array antennas, conf., Los Angeles (1994) 24
- photonic beamformer archit. for multi-beam act. phase arrays 32004
- photonic systs. 2352
- quasi-opt. diffr. elements, advantages, appls. 40521
- reversible Rotman lens for short lin. array appls. 15674
- RF reed relay for antenna-transmitter power amp. matching 29642
- ships, EM coupling, multiple antennas on ogival ground plane 23717
- tracking antenna controller, design/implement. 15677
- true-time delay fibre optic steering syst. for phased array antenna 23994
- ultrawideband photonic crysts. for broadband antenna appls. 8082
- GaAs detector-switched monolithic time-delay network for opt. control of phased arrays 31129

antenna arrays
- *see also active antenna arrays; adaptive antenna arrays; antenna phased arrays; antenna travelling wave arrays; dipole antenna arrays; directional couplers; linear antenna arrays; log periodic antennas; microwave antenna arrays; millimetre wave antenna arrays; monopole antenna arrays; Yagi antenna arrays*
- 2D nonequidistant antenna arrays, difference set theory 2341
- adjacent-channel, cochannel, and ISI suppression 15519
- Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
- calib. for radar appls. *(French)* 17426
- CDMA cellular networks, antenna arrays, downlink perform. 17093
- CDMA joint detect. mobile radio systs., interfer. suppression 33887
- circ. ring array, $|J_1(u)/u|$ distrib. synthesis 23961
- clinical phased array syst. for deep regional hyperthermia 18594
- closed-form 2D angle estim., uniform circ. array 8281
- conformal array pattern synthesis by SVD 31966
- DOA estim. via extended phase interferometry 24327
- excitation laws, synthesis methods 15655
- four-point fed radial line planar array for monopulse tracking 23946
- global array calib. method 40922
- hemispherical dielec. resonator antennas, mutual impedance 23940
- HF direction finding systs., polariz. diversity contrib. 34187
- HF hand-held narrow-aperture direction finder 3641
- hybrid FEM for EM, review 2314
- hybrid reflector antennas, adaptive nulling 23856
- induced fields/currents in theory of antenna arrays 23962
- lin. antenna arrays, optimum thinning, partioned dyn. prog. *(Chinese)* 31996
- low-sidelobe array degrad. rel. to element VSWR 23979
- max. flat optimum broadband antenna arrays, constraints 41014
- multiple co-channel digital sigs., blind estim. 8306
- multiple source synthesis for training array neural nets. 23959
- opt. controlled array antenna fed by fiber optic array, beam scanning charact. *(Japanese)* 40515
- OTH radar receiving array terrain compensation 25562
- pattern synthesis, imposed near-field nulls 2347
- PCN design, SDMA adaptive array approach 25375
- PCS, antenna arrays, co-channel digital sigs. reception 17092
- pinching electron beam vircator, high efficiency 29768
- planar antenna arrays, 1-stage/2-stage optimum inform. proc. 8245
- planar antenna arrays design, pattern synthesis tech. 8079
- planar-array calcs., FEM method and waveguide simul. 23780
- reduced complexity ESPRIT method, generalization, antenna array 40911
- RF marking principle for antenna analyzer 15660
- ribbed struct. arrays, sector shaped element directivity patterns 15656
- sens. array sig. proc. tech. 32731
- shortened two-element director antennas, bandwidth 31987
- single-channel direction finders, ang. coord. resoln. improvement 42539
- smart antenna appls. in mobile commun., const. modulus factorization 32465
- TDMA digital cellular commun., adaptive channel equalization 42267
- VHF HTS thick-film loop antenna/two-element array 40495
- WIREGRID, NEC2 pre-proc. 37365

antenna components *see antenna accessories*

antenna earths
- planar and wide-angle logarithmic spirals, ground 8040

antenna feeders *see antenna feeds*

antenna feeds
- *see also reflector antenna feeds*
- 2 to 10GHz multilayer stripline Butler matrix beamforming network 23993
- 11 GHz folded slot antenna for planar quasi-opt. mixer 23909
- 22-GHz band satellite broadcasting multibeam antenna, breadboard model 3532
- 30 to 450 MHz multifeed passive antennas 23948
- 33/95 GHz dual-polarised radar antenna design 25580
- act. array module for spatial power combiners/act. antennas 31990
- aperture coupled microstrip antenna subarrays, design 2342
- aperture coupled unidirectional dielec. radiator in NRD struct. 23860
- aperture-coupled NRD-fed patch antenna model expansion anal. 23912
- broadband CPW-coplanar strip-fed spiral antenna 15643
- broadband low-crosspolarisation horn design 8044
- C-band linearly tapered slot antenna on Si substr. 23908
- capacitively fed microstrip antenna element 23852
- cavity enclosed broadband circ. patch antenna for L-band MSAT 15661
- center-fed strip dipole, impedance, Poynting vector method 40475
- circular patch antenna with sectoral slot anf shunt element 23933
- coaxially-fed rect. patch antenna input impedance rel. to substr. thickness 31939
- coupling jns. in waveguide-fed planar slot arrays, charactn. 15657
- cylindrical array antenna design and configs. 23954
- cylindrical edge-slot antenna, coaxial line feed *(Korean)* 15615
- cylindrical microstrip-line-fed slot antenna anal. 31955
- cylindrical monopole coaxial feed FDTD model 23997
- dual patch shielded antenna array element for mobile satellite commun. 23947
- dual-linear microstrip array element design 31967
- dual-polaris. printed antennas, decoupled input ports 23896
- EFIE, num. soln., transient antenna impedance determ. 15622
- elliptical annular microstrip antenna full Mathieu formulation 23929
- EM coupled stacked rect. patch antennas 31927
- FD-TD method, strip dipole with window, stripline fed, anal. *(Japanese)* 31981
- four-point fed radial line planar array for monopulse tracking 23946
- ground-plane-backed dielec.-resonator antennas, imperfections 40462
- hybrid FEM, phased array antenna anal. 23939
- IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865

antenna feeds continued
- IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
- integrated optoelectronic interconnect for phased-array antenna appls. 7494
- K/K_a-band series-fed dipole and slot arrays transversely coupled to microstrip line 23944
- Ka-band circ. polarized high-gain microstrip array antenna 23960
- linear tapered slot antenna with coplanar waveguide feed 23878
- linearly tapered slot antenna on dielec. substrate anal. 23876
- low profile broadband balun feed 23991
- MCM interchip radiative interconnection syst. 29724
- microstrip antenna resonant feeding networks 31999
- microstrip antenna surface wave efficiency comparison 23839
- microstrip fed slot antennas, approx. model 2325
- microstrip-patch antennas, tuning stubs 23858
- MM wave imaging aperture antenna feed array design and test results *(Russian)* 17428
- MM-wave microstrip antenna, MMIC design *(Japanese)* 8061
- mobile systs., broadband dekameter local-commun. mast antenna 31944
- monofilar Archimedean spiral slot antennas 8074
- monolithic phased array cross-polaris. from substr.-supported metal strip antennas 23967
- multi freq. antenna tech., closely-coupled resonators 2322
- multi-arm multi-mode spiral antennas, design 8069
- multielement flexible microstrip patch heater for hyperthermia treatment 43345
- multiterminal array mode-forming network systematic design 23975
- omnidirectional slot array antenna, moment method anal. 31959
- optically fed patch array configs. and scan performs. 31970
- passive and act. slot line ring antenna design and meas. 23913
- phased array defective element automatic diagnosis and localisation 23951
- photonic RF phased-arrays, phase noise from lasers and sources 8075
- planar and wide-angle logarithmic spirals, ground 8040
- probe-fed cylindrical annular-ring microstrip antenna characts. 23890
- rect. microstrip patch antennas, EM coupled feed struct. *(Korean)* 15638
- rectangular patch antenna feed microstrip line gap discontinuity anal. 32000
- reflector antenna surface distortion EM compensation syst. requirements 23872
- reflector surface distortion compensation by diffr. synthesis 23871
- resistively loaded printed triangular dipole design for wideband array 23957
- RKA-driven antenna array, feeding syst. 31988
- rot. mode radial line slot antenna fed by cavity resonator 40518
- S-band compact point-defence phased array antenna develop. 23955
- series-fed broadside microstrip array designs 23976
- shorted annular patch antenna 40472
- six-port module for built-in-test applications 25960
- slot-coupled circ. microstrip antenna with symm. radiation pattern 31940
- space fed planar array, vehicle roof refl. charact. 23941
- stepped cavity-fed microstrip array antenna 31969
- T-jn. splitter feed, W-band microstrip antenna array appl. 40520
- transverse ground-plane slot in boxed-stripline, radiation effic. optim. 2345
- two-arm slot spiral antenna 8073
- ultralow sidelobe phased arrays, design *(Chinese)* 31995
- waveguide-fed struct., scatt. and radiation, hybrid FEA 15580
- wideband gap-coupled microstrip antenna arrays, study 40502

antenna lobe patterns *see antenna radiation patterns*

antenna patterns *see antenna radiation patterns*

antenna phased arrays
- *see also adaptive antenna arrays*
- 2-D opt. BFN 8077
- 2D prog. photonic time-delay device for MM-wave sig. proc. appls. 14576
- active phased array built-in perform. monitoring, fault-isolation and correction syst. 23950
- active phased array reconfig. by biquadratic prog. 23952
- adaptive blind diversity combining for antenna arrays 31978
- adaptive pattern nulling using array element elevations 23971
- adaptive wideband opt. nulling for antenna syst. 7399
- airborne direction-finding cross interferometer perform. 25618
- anal. gradient iter. procedures, beam shaping techs. 31931
- array beam steering, acousto-optic control of time delays 8662
- asymmetric parab. cylinder antenna, high aperture efficiency *(Japanese)* 40496
- beam control techniques, IEE Colloquium, London, UK (1995) 11595
- beam-steering/jammer-nulling photorefr. phased-array radar proc. 7437
- beamformers for space appls. 32002
- cavity radiator infinite phased arrays, hybrid finite element/waveguide mode anal. 31971
- CDMA MM wave indoor radio capacity study 9202
- cellular base station phased array antenna syst 33794
- coherent opt. controlled phased array antenna syst. 7324
- coherent RF sig. combining in phased array, photonic techs. 9539
- defective element automatic diagnosis and localisation 23951
- design, state of art and mil. appls. 40511
- digital mobile radio, adaptive arrays, fading correl. effect 3343
- discrete phasing, direction-finding accuracy enhancement method 31986
- effect of atmos. precip. 31985
- efficient spatial selectivity in dispersed groupings 40505
- electronic beam scanning by coupled MESFET oscillators 23970
- error correction by sig. reconstr. 23949
- fast fading indoor radio channel characts. 33817
- fiber optic time-delay element for phased-array antennas 7323
- finite rect. array anal. with simultaneous integral eqns. 31976
- finite rect. phased arrays, mutual coupling effects 15673
- finite scanned arrays, standing waves in scan impedance 31997
- FM radio and TV broadcasting antennas, field level reduction 3660
- FOPAIR, focused array imaging radar for ocean rem. sens. 26732
- full period quadrature phase shifters, low losses 12739
- Gunn effect radars equipped, sig. opt. proc. 42509
- Hopfield network based adaptation algm. 15663
- hybrid FEM, phased array antenna anal. 23939
- IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
- infinite periodic array element behaviour computation using FFT 31972
- infinite periodic arrays, radiation/scatt., 3D hybrid FEM/BEM 31780
- integrated optic switches, electrostatic actuation of metallic membranes 7382
- integrated optoelectronic interconnect for phased-array antenna appls. 7494
- interf. self-canceller perform. rel., underlying surface and phasing *(Russian)* 15675
- Iridium satellite phased array antenna design 23953
- K_a-band phased array multilayer MCM design and fab. 23986

antenna phased arrays continued
Ku-band satellite-based phased-array antenna coherent opt. beam formers 9409
laser space commun., adaptive opt. multi-aperture receiver antenna 17321
liq. cryst.-based opt. controllers 7398
low-power wireless mobile commun. syst. 3490
lumped element microwave phase-shifting and matching networks, design 12736
MIC package EM modelling 21577
module MMIC package EM design 23983
monolithic phased array cross-polaris. from substr.-supported metal strip antennas 23967
nonlin. effects in act. phased antenna arrays 23963
opt. controlled multiple BFN 8078
opt. controlled phased array antenna 15668
opt. heterodyne microwave generation, spectral charactn. 6293
optics for phased array antennas 31993
optoelectronic signal processing for phased array antennas, conf., Los Angeles (1994) 24
pattern nulls, phase-only synthesis, iter. methods 40508
phased antenna array radar, ang. coord. meas., modelling 3608
pHEMT Ka-Band 3-stage amps. for phased-array appls. 38010
photonic beamformer archit. for multi-beam act. phase arrays 32004
photonic RF phased-arrays, phase noise from lasers and sources 8075
photonic systs. 2352
printed antenna cross-polaris. suppression by strip grating 23859
pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
pulsed radar antennas, pattern meas. syst. *(Japanese)* 40500
radar adaptive polaris.-space-time proc. algm. 25561
radio telescopes, correl. noise effects 3642
radiotelescope reflector antenna conversion 17522
real phase-only nulling algm., phase quantization 2344
rect. waveguide elements, mutual coupling calcs. 8065
rectangular dipole array reform. rel. to pattern of elements 31974
reflector antenna surface distortion EM compensation syst. requirements 23872
rem. located modulators 9540
S-band compact point-defence phased array antenna develop. 23955
slitted asymmetric ridge waveguides, lin. phase arrays 31961
space fed planar array, vehicle roof refl. charact. 23941
spatial channel simulator for phased arrays 9318
spatial FM, freq. independent beam-pattern generation *(English)* 23813
spherical array excitation currents, far-field synthesis 31973
StratEdge ceramic packaging for microwave and MM-wave appls. 23984
surface contour mapping, harsh environ. appl. 42514
time delay transmit/receive opt. beamforming syst. 8076
true-time delay fibre optic steering syst. for phased array antenna 23994
ultralow sidelobe phased arrays, design *(Chinese)* 31995
V-band pseudomorphic HEMT MMIC phased array components 38009
Westinghouse hardware-compressive true time delay fiber optic syst. 7325
wideband high-gain stacked microstrip antenna element 23981
wideband photonic array antenna, syst. design and perform. 7326
AlGaAs-InGaAs-GaAs HEMT monolithic LNA array, W-band 38027
GaAs detector-switched monolithic time-delay network for opt. control of phased arrays 31129
GaAs integrated opt. time-shift network for phased arrays 7381
InP collector-up HBT, 300-400 GHz, mm and submm phased antenna array appls. 6314
integrated opt. time-shift network for phased arrays 7381

antenna radiation patterns
1D dielec. leaky-wave antennas, radiation anal. 40468
1D zonal reflectors, anal. 40470
2 to 26 GHz slant polarised omni azimuthal antenna and radome 23884
2-D opt. BFN 8077
2D nonequidistant antenna arrays, difference set theory 2341
3D Cartesian-mesh FDTD codes 23599
10 GHz strip line antenna 31932
10 GHz Vivaldi antenna microstrip-to-slot-line transition 31941
11 GHz folded slot antenna for planar quasi-opt. mixer 23909
22 GHz DBS HDTV antenna design and rain fade compensation 31950
22-GHz band satellite broadcasting multibeam antenna, breadboard model 3532
30 to 450 MHz multifeed passive antennas 23948
406 MHz antenna for Spar deployable emergency beacon transmitters 15650
acousto-optic null steering proc. (AONSP), init. hardware results 17419
act. antenna-fed paraboloid reflector perform. 8051
act. array module for spatial power combiners/act. antennas 31990
act. FSS in horn antenna switchable, two beamwidths 15642
act. microstrip antenna, concurrent large sig. simul. 15652
act. MM-wave aperture-coupled microstrip patch antenna array 15667
adaptive antenna array pattern synthesis, constraint selection 40513
adaptive array for mobile radiocommunication, EMC props. 25326
adaptive pattern nulling using array element elevations 23971
anal. gradient iter. procedures, beam shaping techs. 31931
anechoic chamber clutter posn. estim. with sidelobe depression 23844
aperture antenna Fresnel zone field estim. 23843
aperture coupled microstrip antenna subarrays, design 2342
aperture coupled microstrip antennas, charact. 23855
aperture coupled unidirectional dielec. radiator in NRD struct. 23860
aperture-coupled printed wire antenna full-wave anal. 23840
Archimedean spiral antenna, reflector backed, second-mode operation 8071
array pattern estim., amplit. meas., arbitrary near-field surfaces 40519
array pattern nulls, phase-only synthesis, iter. methods 40508
array pattern synthesis, imposed near-field nulls 2347
array thinning optim. using genetic algms. 23974
array-fed reconfigurable reflector for spacecraft appls. 2337
axial dipole arrays on cylindrical surfaces, low sidelobe pattern optim. synthesis *(Chinese)* 31994
axial mode helix with soft corrugated ground plane 23992
axial slot antenna on anisotropic dielec.-coated circ. cylinder 2336
axisymmetrical radiating struct., simul./optim. software 15626
base station antennas, evol. 2321
base space adaptive array antennas, transmitting null beam forming 15665
beam-steering/jammer-nulling photorefr. phased-array radar proc. 7437
beamspace noise eigenvectors, multirate proc. 40906
broadband act. microstrip antenna design, real freq. tech. 23851
broadband CPW-coplanar strip-fed spiral antenna 15643
broadband low-crosspolarisation horn design 8044
broadband rect. microstrip antenna element 2328

antenna radiation patterns continued
C-band linearly tapered slot antenna on Si substr. 23908
Capon beamformer, sensitivity anal. 16032
cavity enclosed broadband circ. patch antenna for L-band MSAT 15661
cavity-backed printed dipole arrays with substr. mode control 23966
cellular network, CCI reduction, vert. antenna directivity 17071
center-fed strip dipole, impedance, Poynting vector method 40475
chirostrip dipole antenna, scanning behavior, substr. effects 8052
circ. loop antenna, radiated emissions, finite ground plane effect 8046
circ. polarised rect. dielec. resonator antenna 31948
circ. polarized N-element circ. array, characts. 40510
circ. ring array, $|J_1(u)/u|$ distrib. synthesis 23961
circ. sector microstrip antenna, electroacoustic radiation charact. 40451
circular patch antenna with sectoral slot anf shunt element 23933
circular reflector antenna anal., complex source approach 23927
coated wire antennas/scatterers, anal. 31933
coherent opt. controlled phased array antenna syst. 7324
coherent radar PSK sigs., complementary C-seqs. 17381
coherent RF sig. combining in phased array, photonic techs. 9539
compact antenna test range, Pretoria Univ. 40458
compact range imaging, main-beam reduction 2320
complex geom. indoor radio propag. ray-splitting model 31825
concentric microstrip ring resonators, props. 31949
confocal parabolic reflector antenna design tradeoffs 23924
conformal array pattern synthesis by SVD 31966
conformal cylinder mounted microstrip array radiation pattern meas. and prediction 31977
coord. syst./rot. transforms. 23833
curved-surface microstrip antenna conformal-grid FDTD anal. 23865
cyclostationary sig. props., adaptive beamforming 40953
cylindrical microstrip-line-fed slot antenna anal. 31955
cylindrical objs. buried in slab, radiation patterns 23834
DBS-satellites, mobile reception, adaptive antenna array 15664
dielec. disk radiator, slot excitation 31929
digital LOS links, diversity considerations, review 3330
dipole antenna factor meas. on ground plane by 3-antenna method 40483
direct satellite TV broadcasting, multifunctional receiving antennas 31943
dish antenna design alternatives, test beds for student investigs., DishPat and FeedPat programs 31915
dual FET act. patch elements for spatial power combiners 15658
dual offset shaped reflector design with tilted ellipt. main reflector 23918
dual-band circ. polarized microstrip patch antenna, anal./design 31930
dual-band rect. microstrip antenna element 31937
dual-beam flat antenna, grating structs. on dielec. waveguide 40465
dual-polaris. gridded microstrip radiating element 31989
dual-polaris. printed antennas, decoupled input ports 23896
dual-reflector antenna CAD/modelling 31958
E1 in magnetoactive plasma, radiation 15635
earth-station antennas, site shielding 40491
elec.-small antennas, radiative props. 15616
elliptical annular microstrip antenna full Mathieu formulation 23929
Ellipticus antenna, HF anal. 8037
EM coupled stacked rect. patch antennas 31927
EMI dipole antennas 40372
far-field antenna measurement, automated system 23891
far-zone elec. fields radiated by coax. cable aperture, perfectly conducting ground plane *(Korean)* 15639
FDTD method, absorbing boundary conditions synthesis 31935
ferrite-based annular ring microstrip antenna, radiation efficiency in plasma 8047
fiber optic time-delay element for phased-array antennas 7323
FM radio and TV broadcasting antennas, field level reduction 3660
four-point fed radial line planar array for monopulse tracking 23946
fractal antenna arrays radiation patterns 31983
freq.-scanning narrow beam antenna, 60 GHz 40467
full-wave dipole antenna, radiation resist./gain 2339
generalized multipole tech., design/optim. 15634
generation of predominantly elec., mag. fields in free space 40385
ground-plane-backed planar slot antenna expt. and calc. 23911
H-plane sectoral dielec. horn antenna anal. and expt. 23934
hand-held telephones with low absorpt., integrated antennas 15640
handheld cellular phones, antenna design *(Japanese)* 33901
handheld transceiver planar inverted-F diversity antenna FDTD anal 25353
helicopter antenna pattern prediction, improved NEC code 26529
hemispherical dielec. resonator antennas, mutual impedance 23940
HF band handheld radio param. effects of operator's body 33862
high perform. reflector antennas, generalized diffr. synth. 23886
high-capacity cell config. strategy 33811
horn antenna radiation pattern anal. by moment method 23935
hybrid FEM, phased array antenna anal. 23939
hybrid reflector antennas, adaptive nulling 23856
impedance matric localisation, CFIE soln. 31919
indoor wireless transm. prediction by ray tracing 31823
infinite line currents on cylindrical bianisotropic substrates 23819
integrated rect. dielec. resonator antenna config. 23910
Iridium satellite phased array antenna design 23953
isolated dielec. disc resonant freq. and far field computation 23828
junctions between bodies of revolution and arbitrary surfaces 23825
K/K_a-band antenna syst. for mobile satellite service 23866
Ka-band layered ridge dielec. waveguide leaky-wave antenna develop. 23965
Ku-band planar array using ring shaped patch antenna 23982
lin. antenna arrays, optimum thinning, partioned dyn. prog. *(Chinese)* 31996
lin. antenna stat. synthesis, random error param. effects *(Russian)* 15623
lin. antenna stat. synthesis, sensitivity and stabil. *(Russian)* 15624
lin. microstrip array, printed leaky-wave implement. 8066
lin. polarized aperture array antenna *(Japanese)* 40516
linear active dipole array loading by neg. resist. devices 23980
linear tapered slot antenna with coplanar waveguide feed 23878
low sidelobe lin. array tolerance optim. design 23978
low-gain antenna installed perform., diffr. theory 2309
low-sidelobe array degrad. rel. to element VSWR 23979
MESFET oscillator loaded slot-coupled patch antenna, anal. 40501
mesh reflector antenna sidelobe suppression by irregular radial division 23922
microstrip antenna, radiated fields, radiation mode expansions 8036
microstrip antenna, simulated plasma, radiation charact. 23853
microstrip antenna arrays, reduced time modelling 40509
microstrip antenna on conical surface, TM_{10} mode anal. 40474
microstrip antenna resonant feeding networks 31999
microstrip antennas, moment method, gain enhancement 40459

antenna radiation patterns continued
microstrip antennas, near fields computation 31928
microstrip antennas, spatial-domain integral eqn. anal. 40456
microstrip constrained lens, design and perform. 15653
microstrip discontinuity radiation effects, full-wave anal. 23837
microstrip patch antenna, laminated glass superstrate, perform. 2326
microstrip Yagi antenna, iter. MPIE formulation anal. 23942
microwave exposure in head model, external mag. near-field 43385
microwave front end for automotive true ground speed meas. 28152
millimetre wave indoor radio channels, charact. *(English)* 40348
miniature radiator, microstrip-like antenna, theory/practice 15632
mirror antenna, far sidelobe level reduction 31945
MM wave imaging aperture antenna feed array design and test results *(Russian)* 17428
MM-wave band antennas, electronic beam scanning 15620
MM-wave microstrip antenna, MMIC design *(Japanese)* 8061
MM-wave planar dielec. beam antennas, low side lobe level 40466
mobile radio syst. design for mountainous terrain 33785
modified transm. line antenna for portable telephone, anal. *(Japanese)* 8055
modular mesh antenna pillow distortion anal. 23919
monofilar Archimedean spiral slot antennas 8074
monolithic 250 GHz Schottky-diode receiver, slot antenna based 12813
monolithic phased array cross-polaris. from substr.-supported metal strip antennas 23967
monopole antenna above finite disk, circ. cross sect. 2332
moving electrodynamic tethers, mag. antennas, fields, currents 23894
multi freq. antenna tech., closely-coupled resonators 2322
multi-arm multi-mode spiral antennas, design 8069
multiband reflector antenna freq,-selective subreflector design and perform. 23873
multibeam antennas based on modified spherical reflector, radiation 40486
multielement flexible microstrip patch heater for hyperthermia treatment 43345
multigigabit opt. transm. expt., free-space simulator 17286
multilayered spherical chiral media, Dyadic Green's fns. 40323
multipath/terrain bounce model, real-time mil. appl. 35391
multiple suppression, antenna syst. 31992
multistacked dielec. omnidirectional antenna, cavity-restrained type 8045
near-/far-field antenna factor, meas./modeling 15492
near-zone reflector antenna modified-Gaussian-beam feed model 23996
NEC2 radiation patterns of under-segmented wire grid models 40455
neural network mapping, multiuser array beamforming 40907
nonlin. spherical antenna, anal. 40485
null steering of adaptive arrays, min. approx. 31963
oblate spheroidal antenna anal. 23932
offset dual-patch microstrip antenna anal. 2335
offset Fresnel lens antenna 2334
offset tripatch microstrip antenna 15645
omnidirectional dual reflector antenna struct. and characts. 23875
omnidirectional slot array antenna, moment method anal. 31959
onboard reception antenna for broadcast/commun. satellites *(Japanese)* 9677
opt. controlled array antenna fed by fiber optic array, beam scanning charact. *(Japanese)* 40515
optim., directivity/scatt. coeff. ratio 15629
orthogonal vee dipole pair omnidirectional circularly polarised far field 31964
OTH radar receiving array terrain compensation 25562
pacemaker patients, risk, high power transmitters 4302
parab. reflector antenna perform., dielec. coatings effect 31956
partially adaptive array design, DOA estim. and null steering 23958
passive and act. slot line ring antenna design and meas. 23913
pers. satellite commun., satellite link requirements 33956
phased array antenna, opt. controlled multiple beam forming/steering 8078
phased array antennas, real phase-only nulling algm., phase quantization 2344
phased array error correction by sig. reconstr. 23949
phased arrays, time delay transmit/receive opt. beamforming syst. 8076
phased arrays in dispersed groupings, spatial selectivity 40505
phaseless planar near field tech., num./expt. validation 40460
photonic RF phased-arrays, phase noise from lasers and sources 8075
planar and wide-angle logarithmic spirals, ground 8040
planar antenna arrays design, pattern synthesis tech. 8079
planar slot arrays, mag. currents/MMF, anal. 23964
planar spiral antenna above double-dielec. loaded ground plane 23868
plane fan dipoles, approx. formulas for calculating radiation patterns 31984
plane supercond. logarithmic spiral, radiation fields 40464
polyhedron-approx. reflector antenna, radiation characts. anal. 23888
portable digital satellite news gathering (SNG) RF terminal, flat antenna 25168
Poynting's theorem/reactive energy/radiated power 15617
printed antenna cross-polaris. suppression by strip grating 23859
printed dipole antenna, opt. control *(Japanese)* 31957
printed spiral antennas, resistively loaded, anal. 8072
probe-fed cylindrical annular-ring microstrip antenna characts. 23890
probe-fed small circ. microstrip patch antenna 40488
profiled corrugated horns, full-wave modal-S-matrix CAD 23936
pulse radar, range sidelobe suppression by locally weighted filter *(Japanese)* 42490
pulsed radar antennas, pattern meas. syst. *(Japanese)* 40500
pyramidal horn antennas, composite inner E-plane walls 8057
pyramidal horns with composite E-plane walls, contour path FDTD anal. 23925
quad-band reflector antenna design without FSS 23923
radar sidelobe canceling, mapping QR decomp. on parallel computers 17421
radar syst. EMC fig. of merit estim. *(Croatian)* 3595
radiated interf. field estim. for electronic equipt. 31866
radiated-suscept. tests, absorber-lined chambers, field homog. 15482
radiation of elementary slot in ideally conducting polygon 31700
radio direction finding, nonbiased estim. of ang. coord. 17494
radome synthesis and param. optim. 2318
RCS surface model accuracy importance 34123
rect. microstrip antennas immersed in plasma, vector Kirchhoff anal. 23885
rect. microstrip patch array-based travelling wave antenna, anal. *(Korean)* 40504
rectangular dipole array reform. rel. to pattern of elements 31974
rectangular microstrip patch radiation and loss anal. 23838
reflector antenna crosspolarization, fringe-current effects 23903
reflector antenna patterns, equiv. edge currents in boresight caustic region 40480

antenna radiation patterns continued
reflector antenna radiation integral eval. by predictor-corrector algm. 23820
reflector antenna radiation pattern determ. by equiv. edge current tech. 23821
reflector antenna rect. hat feed for lin. polaris. and low sidelobes 23988
reflector antennas, surface error meas. by phase retrieval holography *(Japanese)* 15647
reflector surface distortion, effect on antenna radiation pattern *(Chinese)* 31952
reradiation antenna anal., integrodifferential-eqn. method 2316
resistively loaded printed triangular dipole design for wideband array 23957
reson.-sized reflectors, approx. num. modeling techs. 23902
reversible Rotman lens for short lin. array appls. 15674
RF marking principle for antenna analyzer 15660
ribbed struct. arrays, sector shaped element directivity patterns 15656
road vehicle 24 GHz dual channel microwave front-end 11444
satellite TV receiving antenna, optimal axis of rot. 2340
scanning spherical tri-reflector antenna, moving flat mirror 40476
sector antenna/DFE modems for indoor radio commun. 3167
series-fed broadside microstrip array designs 23976
shaped beam antenna aperture field anal. by Gaussian beam synthesis 23823
shaped dual-reflector antenna, impedance flanges, radiated fields *(Chinese)* 40444
shaped reflector antennas, contoured beam pattern design *(Japanese)* 40482
shaped reflector surfaces interpolation by cubic pseudosplines 40478
ship tapered resistively loaded monopole antenna characts. 40490
ships, EM coupling, multiple antennas on ogival ground plane 23717
short const.-width slot antenna, radiation pattern 15644
short helical antenna backed by cavity, radiation field 40487
short range radio link, propag. charact. 9224
shorted annular patch antenna 40472
shortwave transmitter environ., RF exposure 4333
simul., spherical wave expansion model 31926
single-feed circ. polarized microstrip antenna, boundary elements anal. *(Japanese)* 40497
slitted asymmetric ridge waveguides, lin. phase arrays 31961
slot antenna radiation characts. in ground plane under DC magnetised ferrite slab 23826
slot array radar antenna, pulse wave, transient response *(Japanese)* 17427
slot-coupled circ. microstrip antenna with symm. radiation pattern 31940
spaceborne SAR antenna patterns determ., distributed targets 25571
spatial FM, freq. independent beam-pattern generation *(English)* 23813
spatial quasi-opt. MMIC power-combining array, device failures, DC open cct. 21563
spherical array excitation currents, far-field synthesis 31973
spherical-annular microstrip antenna generalised transm. line model 23928
spiral antenna perform. over tightly spaced ground plane 23881
spiral antennas, polariz. props., tutorial 8039
sq. Archimedean spiral antennas, conductor-backed, anal./design 8070
sq. patch antenna, radiation characts., permitt. effects 40471
stepped cavity-fed microstrip array antenna 31969
superquadratic loop antenna circuits 23867
surface antenna on polyhedron, radiation charact. 2311
switchable lin./circ. pol. ferrite disk resonator antenna 23861
switched pattern diversity antenna comparison 33793
symm. patch antenna coupled, director 8050
synthesized aperture radar sigs., digital proc. 3601
tapered slot antennas, FDTD anal. of transient EM fields 2333
test zone field compensation 40452
thinned arrays, element placement, genetic algms. 16060
tunnels, radiowave retransm., radiating cable 9267
two-arm slot spiral antenna 8073
two-element active array mode switching 23969
two-wire Archimedean spiral antenna with parasitic loop and reflector 23869
ultralow sidelobe phased arrays, design *(Chinese)* 31995
ultrawideband reflector antenna with hybrid orthogonal TEM feed 23883
unity gain antennas, EM radiation/magnetoelec. symm. 40446
USA DirecTv DBS shaped reflector breadboard verification 23921
Westinghouse hardware-compressive true time delay fiber optic syst. 7325
wideband gap-coupled microstrip antenna arrays, study 40502
wideband high-gain stacked microstrip antenna element 23981
wideband photonic array antenna, syst. design and perform. 7326
X-band resonant cavity antenna-oscillator designs 23879
Yagi-Uda antenna, FDTD anal. 15670

antenna reflectors *see reflector antennas*

antenna testing
airborne antenna testing, Indoor Doppler Antenna Test Range 35217
axisymmetrical radiating struct., simul./optim. software 15626
broadband act. microstrip antenna design, real freq. tech. 23851
broadband rect. microstrip antenna element 2328
C-band linearly tapered slot antenna on Si substr. 23908
capacitively fed microstrip antenna element 23852
Cassini FSS, develop. 15651
CATR reflectors, rect. type serrations 23864
CATR reflectors, triangular serrations width/height 15633
compact antenna test range, Pretoria Univ. 40458
compact range imaging, main-beam reduction 2320
coord. syst./rot. transforms. 23833
dielec. disk radiator, slot excitation 31929
dipole antenna factor meas. on ground plane by 3-antenna method 40483
dipole antennas for EMI meas., characts. 23898
dipole antennas on ground plane, antenna factors meas. 23899
dual patch shielded antenna array element for mobile satellite commun. 23947
dual-shaped reflector compact ranges, subreflector/feed scatt. 23905
earth-station antennas, site shielding 40491
EM coupled microstrip-patch antennas/antenna arrays, design 40512
EMI meas., std. antennas calib. 7991
far-field antenna measurement, automated system 23891
four-band FSS, double-sq.-loop patch elements 23863
generalized multipole tech., design/optim. 15634
ground-plane-backed dielec.-resonator antennas, imperfections 40462
Haystack antenna, optimal surface adjustment 23897
hemispherical dielec. resonator antennas, mutual impedance 23940
K/K_a-band antenna syst. for mobile satellite service 23866
K/K_a-band series-fed dipole and slot arrays transversely coupled to microstrip line 23944
microstrip antenna, simulated plasma, radiation charact. 23853
microstrip antennas, design, simul., testing 40457

antenna testing continued
- microstrip-patch antennas, tuning stubs 23858
- microwave rectenna, ISY-Microwave Energy Transm. in Space expt. 35596
- MM wave imaging aperture antenna feed array design and test results *(Russian)* 17428
- modelling and testing, combined facility 28289
- monolithic slot antenna, charactn., electro-optic sampling 8064
- near-/far-field antenna factor, meas./modeling 15492
- NEC2 radiation patterns of under-segmented wire grid models 40455
- NMT 900 mobile telephony syst. adaptive antenna 3481
- Norwegian Inst. of Technol./SINTEF DELAB microstrip-antenna work 40461
- pers. wireless commun., antennas charactn. 17129
- phased array defective element automatic diagnosis and localisation 23951
- phaseless planar near field tech., num./expt. validation 40460
- planar near-field meas. of low-sidelobe antennas 2350
- planar near-field measurement, X-band standard gain horn 23892
- pulsed radar antennas, pattern meas. syst. *(Japanese)* 40500
- rect. microstrip patch antennas, EM coupled feed struct. *(Korean)* 15638
- reflector antennas, surface error meas. by phase retrieval holography *(Japanese)* 15647
- RF marking principle for antenna analyzer 15660
- short gap discharges, fast transient elec. fields meas. 23507
- site atten. anoms., effect on antenna factors meas. 23937
- six-port module for built-in-test applications 25960
- spherical dipole antenna, shielding effectiveness meas. 15461
- TEM cell and OATS emission meas. 31849
- test zone field compensation 40452

antenna theory
- *see also frequency selective surfaces*
- 22-GHz band satellite broadcasting multibeam antenna, breadboard model 3532
- adaptive arrays, dyn. syst. model/equiv. steering sig. 8253
- anisotropic monopole antenna bandwidth extension concept 2338
- arbitrary antenna scatt. matrix 8032
- array pattern nulls, phase-only synthesis, iter. methods 40508
- array pattern synthesis, imposed near-field nulls 2347
- axial dipole arrays on cylindrical surfaces, low sidelobe pattern optim. synthesis *(Chinese)* 31994
- biconical antennas, antenna factor eval. for EMC meas. 40484
- Bode's integrals, imaginary part of antenna's admittance calc. 31936
- broadband cylindrical-rect. microstrip antennas, gap-coupled parasitic patches 2329
- broadband low-crosspolarisation horn design 8044
- capacitively fed microstrip antenna element 23852
- cavity-backed aperture antennas with dielec. overlay, anal. 8042
- circ. microstrip antennas, elec. thick, space-wave efficiency 31954
- circ. polarised microstrip antennas, mutual coupling anal. 23938
- circ. polarized N-element circ. array, characts. 40510
- circ. sector microstrip antenna, electroacoustic radiation charact. 40451
- circ.-polarized annular microstrip antenna, tuning stub anal. *(Japanese)* 40522
- coaxial probe excited hemispherical dielec. resonator antenna input impedance 31918
- coaxially driven axisymm. microwave structs., modelling 6298
- conductor-above-the-ground type line, impedance var. 31922
- conical horn, vector boundary-element anal. 2327
- conical TEM horn, ultrawideband, design 31946
- coupling jns. in waveguide-fed planar slot arrays, charactn. 15657
- CP-PASS, FDTD anal. of unit-radiator 23943
- cylinders with transverse corrugations, plane wave scatt. 31803
- cylindrical antennas in multilayer medium, model 31923
- cylindrical dipole arrays, two-term theory, variational-principle 40498
- cylindrical edge-slot antenna, coaxial line feed *(Korean)* 15615
- cylindrical objs. buried in slab, radiation patterns 23834
- cylindrical wire kernel, uniform current vector pot. eval. 8034
- cylindrical-circ. microstrip antennas, generalized transm. line model 31938
- cylindrical-rect. microstrip antennas theory 8049
- dielec. coated wire scatterers/antennas, time domain anal. 15654
- dielec. loaded radial line slot antenna, slot coupling charact. *(Japanese)* 23854
- dielec. substr. backed by nonperfect conductor, surface boundary condition 40287
- dielec.-covered microstrip line slot antenna anal. 2331
- dipole antenna factor meas. on ground plane by 3-antenna method 40483
- dipole antenna suspen. low, metal screen 2315
- direct satellite TV broadcasting, multifunctional receiving antennas 31943
- discontinuous expansion and testing fns. in method of moments 23817
- DOA estim. via extended phase interferometry 24327
- dual-freq. corner-reflector antennas fed by parallel feed lines *(Japanese)* 8054
- eccentric annular microstrip antenna, reson. freqs. 8053
- EFIE, num. soln., transient antenna impedance determ.. 15622
- element gain in short lin. arrays, role of act. SWR 2349
- EM coupled microstrip-patch antennas/antenna arrays, design 40512
- EM scatt. and radiation, moment matrix spatial interpolation 23845
- EM simul. of antenna propag. 15614
- EM wave atten. along ideally conductive irregular edge 31786
- EMC appls., skeletal biconical antenna charact. 7996
- equilateral triangular microstrip antenna, input impedance 15621
- far-zone elec. fields radiated by coax. cable aperture, perfectly conducting ground plane *(Korean)* 15639
- FD-TD method, strip dipole with window, stripline fed, anal. *(Japanese)* 31981
- fictitious sources in GMT, improvements 23606
- finite dipole FSS, transm. perform., curvature effects 15662
- finite rect. phased arrays, mutual coupling effects 15673
- folded Fresnel zone plate antenna, design and anal. 2323
- freq.-scanning narrow beam antenna, 60 GHz 40467
- hemispherical dielec. resonator antenna anal. 40473
- HF EM modelling techniques, IEE Colloquium, London (1995) 36883
- HF loop antenna, practical design and constr. 31953
- high power microwave aperture antennas, TD-FE anal. 40489
- hybrid FEM for EM, review 2314
- impedance antenna synthesis 2317
- impedance surface aperture, equiv. currents 8041
- incomplete Lipschitz-Hankel integrals in EM 23835
- indoor wireless commun. syst., distributed antennas advantages 17070
- induced fields/currents in theory of antenna arrays 23962

antenna theory continued
- interact., pulsed EM field and horn antenna 8033
- interact., pulsed EM field/horn antenna 15618
- internal resons., method soln., suppl. conditions 40292
- isotropic chiral composite modeling 15619
- isotropic Maxwellian plasma point source, electrostatic pot. 40493
- lin. antenna, symbolic approach, inverse problems in moment method 2312
- lin. antenna arrays, optimum thinning, partioned dyn. prog. *(Chinese)* 31996
- lin. microstrip array, printed leaky-wave implement. 8066
- lin. polarized aperture array antenna *(Japanese)* 40516
- lin.-antenna theory, transm. line eqns. determ. 23762
- long. slot in sectorial waveguide wall, reson. cond. 15605
- Luneberg-lens antenna, update 40492
- MCM logic modules, leaky wave antenna radiative interconnects 12970
- method of moments, supplemental condition use near internal resonances 23824
- microstrip antenna, radiated fields, radiation mode expansions 8036
- microstrip antenna anal. moment method *(Croatian)* 2310
- microstrip antenna arrays, reduced time modelling 40509
- microstrip antennas coupling, conducting support influence 40454
- microstrip fed slot antennas, approx. model 2325
- microstrip gap discontinuity in spectral domain 2308
- miniature waveguide antennas, aperture matching, air-gap technique 23893
- mirror antenna, far sidelobe level reduction 31945
- MM wave quasi-opt. Gaussian beam radiation-perturb. expansion method 8035
- MM-wave planar dielec. beam antennas, low side lobe level 40466
- mobile systs., broadband dekameter local-commun. mast antenna 31944
- modified transm. line antenna for portable telephone, anal. *(Japanese)* 8055
- monopole antenna above finite disk, circ. cross sect. 2332
- monopole antennas, bandwidth maximisation 8063
- MRI antenna, inhomog. surface current, model 40448
- multibeam antennas based on modified spherical reflector, radiation 40486
- multibranching point of transm. line, EM wave radiation 2284
- multiple source synthesis for training array neural nets. 23959
- multiple suppression, antenna syst. 31992
- near field of antenna surrounded by dielec., two teeth 31925
- nonlin. effects in act. phased antenna arrays 23963
- nonlin. spherical antenna, anal. 40485
- offset Fresnel lens antenna 2334
- optim., directivity/scatt. coeff. ratio 15629
- parallel plate-fed slot antenna, charact. mode soln. 40494
- partially polarized EM waves, param. estim. 2483
- passive microstrip elements, full-wave space-domain moment matrix 23836
- pers. satellite commun., satellite link requirements 33956
- phased antenna array charact., effect of atmos. precip. 31985
- phased antenna array with discrete phasing, direction-finding accuracy enhancement 31986
- phased array antennas, real phase-only nulling algm., phase quantization 2344
- phased arrays in dispersed groupings, spatial selectivity 40505
- planar lines and antennas, 3D full-wave anal. 2280
- planar microstrip config., anal., closed-form Green's fns. 23792
- planar spiral systs., waves of const. radial phase vel. 8013
- plane fan dipoles, approx. formulas for calculating radiation patterns 31984
- polarimetric microstrip antenna, spectral domain anal. *(Japanese)* 40481
- polyhedron-approx. reflector antenna, radiation characts. anal. 23888
- Poynting's theorem for FDTD method 40447
- printed dipole antenna, opt. control *(Japanese)* 31957
- printed transverse dipole arrays, design *(French)* 2343
- radial line slot antennas, rot. symm. of inner field 15672
- radome synthesis and param. optim. 2318
- receiving antennas, scatt. minimization 40463
- rect. antenna cavity, dominant mode waveguide loaded slots array 2348
- rect. microstrip antennas, mutual coupling, superstrate loading 15671
- rect. microstrip antennas immersed in plasma, vector Kirchhoff anal. 23885
- rect. microstrip antennas with multi-layer dielec., reson. freq. *(Chinese)* 31951
- rect. microstrip patch antenna, reson. freq. calc., cavity model 2330
- rect. microstrip patch antennas, EM coupled feed struct. *(Korean)* 15638
- rect. waveguide elements, mutual coupling calcs. 8065
- rectangular microstrip patch radiation and loss anal. 23838
- reflector antennas, uniform PO diffr. coeffs. and pol. anal. 23862
- reflector surface distortion, effect on antenna radiation pattern *(Chinese)* 31952
- reradiation antenna anal., integrodifferential-eqn. method 2316
- rot. mode radial line slot antenna fed by cavity resonator 40518
- sectoral waveguide radiating slot, equiv. params. 8081
- semiglobal radiation boundary condition for FDTD method 31924
- shaped dual-reflector antenna, impedance flanges, radiated fields *(Chinese)* 40444
- short const.-width slot antenna, radiation pattern 15644
- short helical antenna backed by cavity, radiation field 40487
- shortened two-element director antennas, bandwidth 31987
- single-feed circ. polarized microstrip antenna, boundary elements anal. *(Japanese)* 40497
- single-reflector type wide beam-spacing multibeam antennas *(Japanese)* 15646
- slot-coupled cylindrical-rect. microstrip antenna anal. 40479
- soft and hard surface anal., hybrid FEM/Floquet mode tech. 23827
- spatial microstrip dyadic Green's fn., asymptotic closed-form 31991
- spatial microstrip dyadic Green's fn., radial and asymptotic closed form representation 40450
- stacked EM coupled patch antennas anal. 40453
- superspheroids, family of radome shapes 31998
- tapered slot antennas, FDTD anal. of transient EM fields 2333
- TEM horn antennas, charact. impedance calc. 23887
- transverse ground-plane slot in boxed-stripline, radiation effic. optim. 2345
- transverse slot in inhomogen. loaded rect. waveguide wall for array appls. 23771
- unity gain antennas, EM radiation/magnetoelec. symm. 40446
- vertical antenna above dielec. half-space, complex image-induced EMF 31916
- vertical antenna penetrating dielec. half-space, complex image soln. 31921
- waveguide-fed struct., scatt. and radiation, hybrid FEA 15580
- wire antenna, currents due to incident EM wave, meas. using mag. field 15649
- X-band rect. waveguide, Maxwell's eqns., FDTD soln. 23814
- $Ba_xSr_{1-x}TiO_3$ electronically steerable leaky wave antenna, tunable ferroelec. material 8067

antenna travelling wave arrays
  2D coupled cavity resonator cluster symm. anal. 31975
  MM wave imaging aperture antenna feed array design and test results *(Russian)* 17428
  radial line slot antennas, rot. symm. of inner field 15672
  rect. microstrip patch array-based travelling wave antenna, anal. *(Korean)* 40504
  road vehicle 24 GHz dual channel microwave front-end 11444
  series-fed broadside microstrip array designs 23976
  slot array design and anal., interpolation methods 31965
  wide-band radial line slot antenna 40517
  $Ba_xSr_{1-x}TiO_3$ electronically steerable leaky wave antenna, tunable ferroelec. material 8067

antennas
  see also active antennas; antenna accessories; antenna arrays; antenna radiation patterns; antenna testing; antenna theory; antennas in plasma; aperture antennas; broadcast antennas; conformal antennas; conical antennas; dielectric-loaded antennas; dipole antennas; directive antennas; helical antennas; leaky wave antennas; linear antennas; log periodic antennas; loop antennas; microwave antennas; millimetre wave antennas; mobile antennas; monopole antennas; multibeam antennas; radar antennas; receiving antennas; reflector antennas; satellite antennas; scanning antennas; spiral antennas; submillimetre wave antennas; television antennas; transmitting antennas; wire antennas
  29 GHz indoor wireless commun., radio link design 33835
  base station polaris. diversity, antenna config. 3478
  CDMA mobile radio syst., turbo-codes appl. 9239
  distributed antenna syst., freq. selective fading, perform. 17091
  freq.-selective fading mobile radio channel, capacity eval. 17066
  IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
  IEEE conf. on instrumentation/meas., USA (1993) 20198
  IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
  IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
  indoor radio, omnidirectional/sectored antennas, ray tracing model 33853
  lin. microwave fiber-optic links for antenna remoting and sig. proc. 9505
  MELECON '94, conf., Antalya, Turkey (1994) 5470
  MRI antenna, RF mag. field penetration in body *(Japanese)* 4261
  PCN handset antennas 25329
  PCS provisioning in cellular environ. 3496
  pers. commun., CW meas. in residential environ. 31831
  RadioGuard, RF cable sens. for security appls 42175
  satellite tracking, low-orbit, antenna servo design 23857
  universal personal communications, conf., San Diego, USA (1994) 20233

antennas in plasma
  circ. sector microstrip antenna, electroacoustic radiation charact. 40451
  E1 in magnetoactive plasma, radiation 15635
  Earth-ionos. waveguide excitation, satellite altitude antennae 7984
  ferrite-based annular ring microstrip antenna, radiation efficiency 8047
  isotropic Maxwellian plasma point source, electrostatic pot. 40493
  microstrip antenna, simulated plasma, radiation charact. 23853
  moving electrodynamic tethers, mag. antennas, fields, currents 23894
  H^- beam prod. by RF-drive multicusp source 26106

anthropology
  interactive education, CD-ROMs and WWW 8895

anti-transmit-receive tubes *see gas-discharge tubes; radar equipment*

antialiasing
  CT freqs., than 50 Hz *(German)* 6374
  freq. sampling filter banks, alias-free charact. *(Japanese)* 12651
  IR imager continuous syst. transfer fns. from sampled pulse response data 9941
  optimum DSP for radiation spectrosc. 18390
  Reading Univ. electronic engng. course, DSP 36917
  teaching DSP via sound demons. software 28339
  texture mapping, clustering techs. 16343

anticorrosion coatings *see corrosion protective coatings*

antidots, semiconductor *see semiconductor quantum dots*

antiferroelectric liquid crystals
  displays, SLM 22951

antiferroelectric materials
  see also antiferroelectric liquid crystals; antiferroelectricity; ferroelectric materials
  MLC actuators using antiferroelecs., destruction mechanism 39110
  NEC ceramic capacitors, PMW-PNN-PT syst., dielec. materials *(Japanese)* 879
  PZT, film, photoactivated birefr., struct. transit. 1557

antiferroelectricity
  see also antiferroelectric materials
  NEC ceramic capacitors, PMW-PNN-PT syst., dielec. materials *(Japanese)* 879

antiferromagnetic Curie temperature *see Curie temperature*

antiferromagnetic-ferromagnetic transitions *see ferromagnetic-antiferromagnetic transitions*

antiferromagnetic materials
  see also magnetic semiconductors
  Au-Permalloy multilayers, giant magnetoresist./oscill. interlayer exchange coupling 7063
  $(Co/Ni_{81}Fe_{19}/Co)/Cu$ multilayers, giant magnetoresist., mag. struct. 7060
  $CuO/Al_2O_3(MgO)$ multilayers, mag. props. 39170
  Fe:Cr-Cr multilayers, enhanced magnetoresist. 7062
  Fe-Si multilayers, antiferromag. coupling/magnetoresist. 14214
  Fe-Zr film, amorph., antiferromag./ferromag. cluster coexistence 14117
  FeCr, layer systs., local/nonlocal dens. fn. studies 6999
  FeGdN, soft mag. thin film material 14151
  Fe_3O_4/NiO superlattices, cryst. and mag. ordering 7045
  MnTe/CdTe multilayers, interlayer correl., helical spin ordering 7046
  $Sr_{14-x}Ca_xCu_{24}O_{41}$ layers, carrier doping, elec. resist./mag. suscept. 22153

antiferromagnetism
  see also antiferromagnetic materials; metamagnetism
  nonreciprocity in magnetoelec. crysts. 39044

antireflection coatings
  broadband microwave absorber Pareto-optimal design using genetic algms. 31791
  CGH, polaris. selective, design/fab. 23461
  conference, laser damage in optical materials, Boulder, CO, USA (1993) 11528
  conference, optical interf. coatings, Grenoble, France (1994) 11556

antireflection coatings continued
  DBR laser wavelength converter, bit-rate-independent operation, 10 Gbit/s 14903
  diamondlike film IR antirefl. coating for cooled elements 39532
  diffractive coupling lenses, 3D profiling, e-beam lithog./RIE 14568
  E-polarised plane wave scatt. from coated cylindrical cavity-backed aperture 25566
  endless fiber-optic polariz. controller, low driving voltage and 30-dB extinction ratio 9566
  Fabry-Perot modulators, correctable partial antirefl. coatings 30992
  Fresnel zone lenses, antirefl.-coated, thin-film deposition 7374
  locally nonuniform mesh FDTD anal. 15541
  metal-dielec. heat-reflective filters design 39533
  multilayer absorber on perfectly conducting plate, worst-case design 23547
  multilayer dielec. laser mirrors, etalon effects 7714
  multilayer-coated optics, guided-wave coupling and scatt. by interface random roughness 39391
  opt. antirefl. coatings, ion implant. effects *(German)* 7446
  opt. lithog., 0.35-0.25 μm technols. 38764
  quasi-opt. refl. circulator, theory/MM-wave expts. 37950
  travelling wave semicond. laser end facet output spectra 31398
  AlGaInAs vis. diode laser with phase-conjug. feedback, stable mode locking 39833
  DyF_3, antirefl. coatings for Si photoelec. devices 1800
  GaInAs PIN photodiode, LPE growth, Er gettering 39567
  $Hg_{1-x}Cd_xTe$:B large-area PV IR detector, fab. *(Korean)* 17771
  InGaAs high power quantum well diode laser, MOVPE fab. *(Korean)* 39803
  InGaAsP/InGaAsP MQW waveguide, bias-depend. recovery time of all-opt. reson. nonlin. 22874
  InP:Fe/InGaAs:Fe fully passivated AR coated MSM photodetectors 9907
  LaF_3, antirefl. coatings for Si photoelec. devices 1800
  Si high-efficiency solar cells, RTP 5226
  Si solar cells, SiO_2 AR coating tests 19979
  SiC LPCVD films, X-ray mask membranes 6695
  SiC X-ray mask membrane, accelerated radiation damage studies of antirefl. materials 13535
  SiN_x antirefl. coatings, GaInAsP, GaInP solar cells 10396
  SiO_2-antireflective film coated SiN(SiC) X-ray mask membranes 22314
  SmF_3, antirefl. coatings for Si photoelec. devices 1800
  Ti:sapphire self-starting soliton modelocked laser, semicond. saturable absorber 23176
  TiO_2 opt. coating for solar cells, excimer laser sputtering deposition 28835
  TiO_2-MgF_2 composite multilayer films prepared by reactive ion-assisted coevaporation 1782
  TiZrO antirefl. coatings, source comp. evol. effects 14570
  Y_2O_3 IR antirefl. coating for cooled elements 39532

antisite defects *see point defects*

AOI *see automatic optical inspection*

APCVD *see chemical vapour deposition*

APCVD epitaxial growth *see vapour phase epitaxial growth*

APD *see avalanche photodiodes*

aperture antennas
  2.45 GHz power transm. rectenna perform. optim. 35610
  act. MM-wave aperture-coupled microstrip patch antenna array 15667
  aperture-coupled multiplayer microstrip antenna anal. 31942
  asymmetric parab. cylinder antenna, high aperture efficiency *(Japanese)* 40496
  axial slot antenna on anisotropic dielec.-coated circ. cylinder 2336
  cavity-backed aperture antennas with dielec. overlay, anal. 8042
  circular cylinder cavity FEM boundary integral formulation 23822
  coaxial-slot antennas for microwave interstitial hyperthermia, SAR 26469
  coupled microstrip antenna band widening bt slotted patch and multislot coupling 23930
  cylindrical edge-slot antenna, coaxial line feed *(Korean)* 15615
  dual offset reflector antenna design for optimal perform. 23917
  dual offset shaped reflector design with tilted ellipt. main reflector 23918
  end- and centre-loaded slot antenna configs. 31917
  far-zone elec. fields radiated by coax. cable aperture, perfectly conducting ground plane *(Korean)* 15639
  Fresnel zone field estim. 23843
  high power microwave aperture antennas, TD-FE anal. 40489
  impedance surface aperture, equiv. currents 8041
  lin. polarized aperture array antenna *(Japanese)* 40516
  microstrip antenna surface wave efficiency comparison 23839
  microstrip antennas, radiating patches, charact. 23855
  MM wave imaging aperture antenna feed array design and test results *(Russian)* 17428
  MM wave quasi-opt. Gaussian beam radiation-perturb. expansion method 8035
  MM-wave microstrip antenna, MMIC design *(Japanese)* 8061
  parallel plate-fed slot antenna, charact. mode soln. 40494
  rect. microstrip antennas immersed in plasma, vector Kirchhoff anal. 23885
  rot. mode radial line slot antenna fed by cavity resonator 40518
  shaped beam antenna aperture field anal. by Gaussian beam synthesis 23823
  shaped reflector antennas, contoured beam pattern design *(Japanese)* 40482
  slot antenna dielec. meas. model 23906
  space power wireless power transm., microwave beam intens. calcs. 43416

API *see application program interfaces*

API gravity *see density*

APL
  APL-ASCII transliteration 41790

apodisation *see acoustic imaging; optical images*

apparatus *see instrumentation; instruments; laboratory techniques*

apparent porosity *see porosity*

appearance potential *see ionisation potential*

Apple computers
  CU-SeeMe desktop videoconferencing software 41945
  DANTE control syst. for DAΦPNE, Macintosh/LabVIEW based 18236
  flexible simulator running on Macintosh 12263
  telecomms. programs, Microphone Pro and Smartcom II 8950
  torque-speed characteristics meas. of electric machines 25718

appliances, domestic *see domestic appliances*

application generators
  commun. protocol software, FSM-based program generator 2913
  DSP archits./compilers, appl.-driven design 32618
  elec. plants, config. support syst. shell 27298
  μP verification, automatic test generation 12564

application generators continued
simul. code generation, KBS 21080
Visual Designer software,data acquisition/anal./control 9827

application program interfaces
authentication protocol, design, verification and implement. 2930
CIO multimedia commun. platform 16857
CIO multimedia commun. platform 16884
communication transmission tools, use and technology, conf., Bad Nauheim, Germany (Nov. 1994) *(German)* 16718
conf. scheduling service, multimedia, network support 16830
desktop appl. program interfaces 33395
mixed-sig. simul., Alfa simul. backplane 487
multimedia teleservices, impact of pers. commun. 16866
multiprotocol transport networking, internetworking soln. 3219
NetBIOS, OpenVMS 41817
network mgt. syst., distributed computing 41671
obj. oriented API for operations syst. develop. 16602
OO TMN based operations systs. develop. platform 16605
POP3 mail client, WinSock 41731
RFC 1327 mapping rules distrib. via Internet DNS 16747
SecuDE security toolkit, towards trustworthy commun. systs. 8955

application specific integrated circuits
see also analogue processing circuits; mixed analogue-digital integrated circuits
0.5 µm CMOS logic IC, SOG planarization/AlSiCu multilayer interconnect 38646
1.9 GHz-band RF IC chip-set for pers. commun. 863
2.5 Gb/s SDH/SONET analyzer, jitter option develop. *(Japanese)* 33975
2µm CMOS gate array design automation 6062
3B21D BIST/Boundary-Scan syst. diagnostic test 5590
7 KHz handfree telephony CMOS ASIC chip set 21371
(31, 9) RS codecs, fast prototyping complex digital systs., FPGAs 6117
900 MHz transmitter syst., highly integrated ASIC 9353
act. periodic noise cancelling syst., FPGAs 8380
AHPL based design automation syst. 12616
analog BiCMOS ASIC for modeling biological neurons 29416
analog HDLs for ASIC design, standardisation 28938
ANN, digital neuron model, custom hardware design 29516
array processors, conf., Venice (Oct. 1993) 36903
ASEM MCM foundry, test methodology 6460
ASTRX/OBLX tools for analog cct. synthesis, pipelined ADC appl. 28940
at-speed ASIC testing, defect types 12396
ATPG, partial scan and seq. techs. 3741
automobile smart sens., self-test and diagnosis 5364
avionics, certification issues for complex digital hardware 10346
B-ISDN internetworking unit, VLSI implement. 16798
BiCMOS gate array for B-ISDN 622 Mb/s UNI 33680
BiCMOS IC ESD protection, harsh automotive, indust. environ. 30487
BiCMOS RAM ASIC, optimized bipolar arrays 12503
BIST and fault location 6820
bit-serial first-level calorimeter trigger for LHC detectors 26250
boundary scan test blocks, integrat. in ASIC by students *(French)* 20330
cell placement method using cct. struct. props. 21039
cellular multichannel video/data commun. optoelectronic components 34080
channel demodulator IC for DAB, design, silicon compiler 21155
chip technol., economics and support *(Dutch)* 80
CMC ATM switch I/O proc., design/validation, HDL Verilog 33719
CMOS ASIC, power-pin ESD stressing failure mechanisms 28527
CMOS ASIC ESD failure, substr.-power bus contact effect 30468
CMOS ASICs, advanced inspection program 37167
CMOS bit-serial fixed-point two's complement multiplier for neural network algms. 12486
CMOS bridging fault diagnosis with stuck-at, IDDQ, and voting model fault dictionaries 30455
CMOS camera technol., VLSI Vision Ltd 17964
CMOS channel-less SOG arrays, HGALOP router 29148
CMOS chip set for pipeline and parallel pipeline FFT archits. 21357
CMOS multi-channel data compression chip, parallel archit. 21376
CMOS real time image class. proc., parallel archit. 21375
CMOS real time image proc. systs., mfg. products defect detect. 32940
CMOS VLSI ccts., design optim., genetic algm. 39015
Compass integrated framework for ASIC and FPGA design 6113
concurrent engng., DFT in digital syst. 5576
Conference, Rochester, USA (1993) 36858
consumer videophone, CMOS ASIC video codec, low cost 25166
control systs., co-design method, combined models 28981
controllers, VLSI, fuzzy, automatic synthesis 685
custom design kits for cost-effective access, MCM foundry 21759
custom IC, conf., San Diego, CA, USA (May 1994) 20247
custom IC, conf., San Diego, USA (1993) 36842
custom IC design co-operation *(German)* 5572
custom VLSI parallel supercomputer for neural computation 21481
cycloconverter drives, ASIC chip set 5322
DC elec. motors, ASICs for monitoring/controlling 11329
DDS-based synthesizer for mil. spaceborne appls. 43581
dedicated neural network, automated visual QC, massively parallel VLSI-implement. 32949
deep-submicron ASICs, design aspects 38973
deep-submicron ASICs, design requirements 38972
defect isolation, scan-path testing/electron beam probing 21171
demountable TAB package, area array press. contacts reliab. 37079
design automation and ASIC design, conf., Paris (1993) 20199
design iter./throughput time reduction 22581
design process beyond ASICs 21160
digital divider cct. for laser-beam-pointing stabilization syst. 40003
digital parallel VLSI archit., fuzzy database mining 677
digital PLL for power conversion ASIC, implementation 21393
digital QAM ADSL systs., adaptive sig. proc. 9096
direct e-beam writing, proximity correction 30188
DS-SS cordless telephone *(Japanese)* 25149
DS-SS RAKE receiver, ASIC implement. 9191
DSP appl.-specific chip design, behavioral silicon compiler 680
DSP archits., scheduling, register constraints 12558
DSP chip supporting RISC/DSP type instruction sets *(Japanese)* 12561
DSP core for speech coding appls. 33701
DSP FPGA archit. 29262
edge detector, Sobel operator, VLSI implement. 30473
electron-beam cell projection lithog., accuracy and throughput 13449
electronic syst. design automation 21077

application specific integrated circuits continued
embedded CMOS SRAM for ASIC implement. of transmultiplexer 9410
embedded hardware-software systs. spec. and design 30417
EUROCHIP initiative 20288
fault injection boundary scan design, fault tolerance verification 5594
fault-tolerant ASIC design, high-level synthesis 30405
FFT, 8192 complex points, single-chip implement. 21377
fieldbus commun. controller chips 6169
FlexCore custom microcontroller concept *(German)* 21365
floating-point systolic array PE, serial commun./BIST 21356
four ASIC MCM-C, design for manufacturability 21712
FPGA design for ASIC conversion 29160
FPGA prototypes, package partitioning technol. 6114
FPGA synthesis, look-up table and multiplexor based archits. 12487
FPGA technol., optimal registerfile archit. synthesis 29108
Fuji Electric IGBT intell. power module products 21118
Fujitsu 21-inch color plasma display and electronics *(Japanese)* 25918
full-duplex speaker phone based on adaptive predictor 9109
gate array embedded RAM test, flag-scan register 6057
generic test/maint. node for embedded syst. test 9795
GENRIF, integrated VLSI FIR filter compiler 21420
geometric image class. by stress polytopes, perform. and integrat. *(French)* 41351
German portable reading device for blind 4318
GFLOPS, real-time image proc. parallel VLSI archit. 29272
goal-directed vector generation, sample ICs 6094
Gx-2001 microcontroller, multi-fn. TV technol. appl. 6176
HDTV decoders testing, boundary scan test impact 9725
heuristic tech. for synthesis of complex functional units 21050
heuristic transform. techs. for simultaneous optim. of latency/throughput 29261
high perform. 3.3/5 V 0.5 µm CMOS technols. for ASICs 22598
high resoln. motion sens., ASIC implement. 37808
high-speed QAM modem CAD tools 42081
high-throughput DSP appls., ASIC design strategy 29271
HYPER-LP, high-level synthesis syst., appl. specific datapath intensive CMOS ccts. 12401
I^{2}L unit library for logic cct. design *(Chinese)* 21236
IC testing/testability practices 5596
IDaSS, interactive design and simul. syst. for digital ccts. *(English)* 37594
IDDQ testing on CMOS custom automotive IC 30451
image proc. algm., silicon compilation 21343
induction motors, PWM VSI-fed, ASIC/microcontroller control comparison 36180
intell. half bridge power module, 75A/250V/75KHz, switching power amps. 6027
IP multigigabit router design 8901
IR imager detector array MOS readout IC 34598
K$_a$-band phased array multilayer MCM design and fab. 23986
large scale LSI ASIC CAD layout design syst. *(Japanese)* 468
laser-created interconnects for rapid prototyping of IC 38639
level-1 calorimeter trigger syst. for LHC 26249
lin. servomotor drives, fuzzy logic/PID control comparison *(German)* 5278
load-independent cell library macromodeling, waveform simul., CMOS logic 29143
logic cell library improvement for automated logic synthesis tools 21289
lookup table-based FPGAs, technol. mapping algm. for gate decomp. *(Korean)* 12409
low power 13 bit ADCs for ASIC appls. 698
low-power monolithic RF peak detector anal. 12374
low-power quadrature modulator ICs for digital mobile commun. 42214
LSI delivery mgt. syst., lot sampling scheduling method for ASIC prod. line 28432
LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
LV operation of portable systs., design techs. 29004
macrocell multiplier for complex numbers 21214
MCM, COB, single/double sided, Jedec stand., low cost 38189
MCM-C, diffusion patterned vias, fine line printing 38188
MCM-C, four-ASIC, KISS principle based 21764
MCMs with ASICs global optim., concurrent engng. approach 21743
medium-throughput sig. proc. on flexible instruction-set archits. 37797
memorized testing/measuring technol. 3735
mfg. line mgt., on-line scheduler 28435
mfg. yield verification by testing 13848
microwave radio commun. systs., DSP and VLSI technol. 25223
mobile commun., DSP for digital multi-beam forming antenna 17068
mobile satellite commun., channel-indiv. adaptive beamforming 25321
MOSIS designed CMOS/BiCMOS arrays, teaching VLSI courses 5529
multi-point video-conf. bridge, ATM switch 16817
multi-port RAM generator for CMOS SOG, memory cell config. 29223
multi-rate bandpass filter bank, QRNS complex arith. 6229
multichannel biotelemeter, custom IC/syst. manufacture *(Korean)* 26280
multilevel high dens. ASIC defect isolation, electron beam probing RIE 21169
multimedia equipt., electronic devices *(Japanese)* 16935
multiport RAM on 0.5 µm CMOS SOG, memory cell config. 29207
multipurpose DSP ASIC for receiver implement. 683
µP based instrum. for resist. and diode testing 3755
nanoprocessors, stored program proc., reconfigurable, flexible archit. 21338
neural net emulator CMOS chip 37920
off-chip IDDq current meas., telecomm. ASICs appl. 6853
one-hot-encoding FPGA macros, simplified state machine design 12405
ORCHARD II, CIM syst., precise quick scheduler, UNIX workstations 28433
ORCHARD II, flexible ASIC CIM syst., prod. line mgt. 28414
over-the-cell three-layer channel routing for std. cells 30409
oversampling ASIC ADCs, design techs. 29314
parallel neural network emulator based on appl.-specific VLSI commun. chips 29472
parallel proc. for image segmentation 12574
partial scan designs for DSP appls., behavioral synthesis 29190
PCB manufacture, defects, fault coverage, yield and cost 6413
perform. optim. algm. for custom ICs 28937
photosensitive cells, study and characterisation 39006
pipelining, throughput/resource utilization optim., transform. 12583
pixel detector, monolithic Si, breast cancer calcification detect. 10214
PLD-based cct. CAD, behavioral level synthesis 37727
power syst. security assess., systolic accelerator-based 19009
prod. line mgt. technol., operator's skill-level, scheduling-factor 28434
products, turn-key design *(Dutch)* 100

application specific integrated circuits continued
prog. CMOS pulse generator ASIC, US transducer array driver 29075
pulsed IR dist. meas. sens. ccts. for weapon systs., ASIC implement. 10587
pulsed TOF laser radar, CMOS ASIC struct. 34165
QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
quickly customised logic, channel routing algm. 21035
rapid prototyping of appl.-specific sig. proc., architectural issues 29240
rapid prototyping of hardware components 5599
rate-distortion optimized motion estim. archit., variable block matching 8570
recurrent computations, coprocessor design 37807
recursive scaled DCT algm., ASIC implement. 16080
RF ASIC designs, CAD syst., error-checking 37590
robotic arm ASIC-based motor controller develop. 11227
row-based cell placement method, cct. structural props. 37711
row-based cell placement method utilizing cct. structural props., ASIC layout 21262
row-based FPGAs, segmented routing channels, design and anal. 611
scaled CMOS technol. for LV/low power appls. 22597
semicustom design of ASICs, Si chips vs. FPGAs for engng. education 6834
semicustom IC design, analogue arrays, design/perform., education 21459
semicustom IC design, power anal. syst. 30394
SIERA, appl.-specific syst. level hardware module generation 29659
sig. proc. archits., min. structural complexity, ILP synthesis 29251
sig. proc. ASIC, digital SS modem for power line commun. 21379
sigma-delta A/D converters, VLSI decimation filter 691
SNUFEC ultra-high-speed CMOS VLSI Viterbi decoder 12557
SOG arrays, min-cut placement, global objective fns. 37712
SOG-based RISC pro. tested for failsafe appl. 21344
Spec2Si, EDA develops. 5583
SPICE integrat., TEK LV511 ASIC design verification syst. 1477
std. cell placement, fuzzy-clustering-based algm. for cct. partition 22510
std. cell VLSI placement, fuzzy logic approach 1474
STEL-1103, low cost return path CATV transmitter ASIC 42609
stepping motor, intell. controller, actuator, design 19677
stuck conditions testing 29085
sub-micron ASIC design, register-transfer module selection 29091
super circ. MLC networks, design, develop., and qualification 6365
systolic VLSI implementation of Galois field arith. algm. 22569
TEDMOS, CAD syst. for ASIC design on IBM-PC like computers 28948
test cost trade-offs and optimal test strategies 6070
top down ASIC design, test design compilers 42723
triple-layer over-the-cell channel router 30410
two scan algm. implement. on systolic array/multicomputer 12569
UAHPL lang. for ASIC design 37713
UHF single ASIC CDMA digital receiver for space appl. 9414
UPLD logic simul. for rapid prototyping 6115
VHDL based macrocell libr., develop., modelling 21165
VLSI byte-wise CRC generator chip, hardware design 37697
VLSI design of custom ASIC using VHDL, converting 12-bit binary, BCD 28967
VLSI design projects, microelectronic CAD lab 22516
VLSI design training, Univ. of Twente, student design teams 20290
VLSI testing teaching, Univ. of Paris *(French)* 20331
WDMA network, acousto-optic tunable filters and TAXIChip-based control channel 9562
weighted random sequence synthesis, sequential cct. testing 21195
XPS spectrometer, 2D charged-particle sens. ASICs, high resoln. 10155
AlGaAs-GaAs HBT gate array for 5 GHz ASIC, cell libr. 37719
AlGaAs-GaAs HBTs for high-speed opt. modulator driver cct. 42405
AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
DFT tools and method selection 37684
GaAs 2-to-4 level convertor IC for SOA modulators 42403
GaAs ASIC set for deep space receiver 42336
GaAs HBT gate array for high perform. ASICs 29147
GaAs HMESFET SBFL based F-RISC/I microproc. 37802
GaAs buffered DCFL gate array, differential push-pull I/O 37720
GaAs digital IC design, compiler methodology 37716
a-Si antifuse cct. elements, ASICs, resist strip proc. damage 21170
Si integrated adaptive LMS echo canceller, variable step size 16926
Si retina analog image proc. 776

applicators, microwave *see hyperthermia; microwave heating*

applied potential tomography *see electric impedance imaging*

approximate reasoning *see inference mechanisms; uncertainty handling*

approximation theory
see also function approximation; interpolation; least squares approximations
1D dielec. leaky-wave antennas, radiation anal. 40468
1D medium, approx. profile inversion, appl . 40294
1D random rough surfaces:enhanced backscatt., stationary-phase approxs., full-wave solns. 23572
1D refr. index struct., modal fields calc. by finite difference beam propag. method 14447
2D fractal sets, inverse/approx. problem 2730
3D obj. reconstruction, vol. intersection 2778
absorptive media SHG 2129
act. cylindrical waveguides with step-index profiles, transverse modes 30953
adaptive deconvolution method time jitter effect elimination 2354
adaptive nonlin. neural filters, algm. 32702
analog, redundant binary code converter 24072
anistropic media, Maxwell eqn. soln. using characts. theory 23559
arbitrary filter, approx., recursive implement. 15940
artificial chiral material, approx. model 23489
asymmetric TEM cell, characteristic impedance, septum thickness effect 20417
asynchronous machines, piecewise-const. approx. anal. method *(Polish)* 36148
ATM multiplexer, on-off sources, cell loss probab. 16454
ATM networks, dyn. virtual path bandwidth control, perform. anal. 24908
ATM networks, end-to-end perform. 9023
automatic cct. breaker stabil., heat distrib. effects *(Russian)* 11196
automatic intonation tone contour labelling/class. algm. 32402
Bayesian approach, direction finding, parametric array uncertainty 40923
bent dielec. waveguides, finite difference BPM anal. 23803
best approx. by incomplete polynomials, error curve, extreme points distrib. 5768
best k-link piecewise-lin. fn. approx., uniform metric 20585
boost PWM power convertor anal., averaging theory extension 11151
buried waveguides fabricated by purely thermal ion back diffusion 39466

approximation theory continued
carrier emission/capture kinetics in electrothermal/energy transport models 38787
cascaded second-order nonlin.-opt. suscept., phase conjug. 15076
cct. breakers, fast-acting, EM/inductor drive design *(Russian)* 11195
cellular mobile radio systs., outage probab. computation 33909
circ. symmetric objs., inverse EM scatt. 7960
coaxial-slot antennas for microwave interstitial hyperthermia, SAR 26469
cocomparability graphs treewidth and order-theoretic param. 28612
coherent laser radar syst. efficiency, semi-analytic approach 3619
coil shielding by short ferromag. tube 23692
comb actuators, micromechanical, electrophysics 30492
complex polynomial zeros approx. 5773
concave grating planar waveguide device diffr. 30963
conducting enclosures, direct lightning strike, internal voltages 40189
const. L_∞ norm approx. of complex rational fns. 37331
controlled-root formulation for digital PLL 29076
coupled planar dielec. waveguides, different params. 12687
CPFSK opt. receivers with Gaussian freq. pulse shape, perform. anal. 42436
Cramer-Rao lower bound approxs. of freq. estim. 24224
cryptanalysis, lin., multiple approxs. 32154
cubic nonlin. opt. media, multidimensional solitons 2069
CW transform, phase space, arbitrary tilings 32667
cylindrical dipole arrays, two-term theory, variational-principle 40498
DBR laser microcavities, spontaneous emission 23323
dense subgraph, approx. algms. 5757
difference operators in method of lines, higher order approx. 20618
digital curve, polygon approx. by graduate iter. merging 32987
digital curves, optimal polygonal approx. 41183
discrete models for energy-minimizing segmentation 24714
DPSK/FSK, differential phase detect., bit/sym. error probabilities 40614
DS-SS syst., RAKE reception, multipath fading, perform. 25446
DS-SSMA error probabilities calc., Gaussian approx. 33215
electrodynamics, inhomog. media, local plane-layered approx. conditions 2199
electrostatic quadrupole lens fringing field, fifth-order particle motion 7914
EM paper drying, nonlin. problem soln. 28167
EM scatt., 3D perfectly conducting bodies, PO-MM hybrid method 23598
EM wave excitation/diffr. by metal cylinder inside flat waveguide 40407
EM waves scatt. by weakly roughened boundary 15380
emergency generators, reliab. improvement anal. 27679
engng. education, obj. recogn. algm., graph matching-based 20346
Erlang capacity/uniform approx. for shared unbuffered resources 8088
extended thermal lens resonator cavity fund. mode calc. 14995
FDDI network perform. eval., guarantee probab. 41905
FDTD method, absorbing boundary conditions synthesis 31935
FIR filters, magnitude/group delay, multiple criterion approx. 32549
forward-backward lin. predictor, DOA estim., Kalman-based 24332
fourth-order DC/DC power converters, limited duty cycle range 19792
Gabor transforms for real discrete sigs. 24202
gain-shaping filters, optimal overdesign 6198
geometric vector optim., vector approx. 227
H_∞ norm approx. of discrete-time systs. by const. matrices 37330
heat sinks, flat plate heat pipe effective length calcs. 28479
heavy traffic trunk line syst. approx. 24928
hierarchical Hough transform, polygonal approx. 41068
high-gain Compton FEL pulse evol., nonlin. macroscopic eqns. 39976
homoclinic bifurcation points, num. approxs., convergence rate 37355
image filtering by scaled MSE filter, vector proc. algm. 32986
induction motors, capacitively compensated, line commutated power converter-fed 27732
induction motors, PWM power convertor feed problem calcs. 27730
infinitely differentiable fns., multiresolution anal. 24162
interpolation, filter digitization 40820
Kerr-type nonlin. dielec. slabs, TM mode propag. 40398
LIM, single-sided, theoretical perform. anal. *(Japanese)* 44045
lin. regime photorefr. kinetics, light phase-shifts 30811
lin.-phase recursive digital filters, design 29385
local-control approx. algm. for multicommodity flow 5772
lossy transm. line cct. anal. via approximated state-space models 505
mapping ocean sediments by RBF networks 10557
Markovian queueing networks, unsteady state probabilities 16466
metrology, math. software class. 17621
microstrip systs., FEA, approx. capacitance formulas 6283
microwave imaging of infinite dielec. cylinders, modified Born approx. 2208
Min-k-overlap problems using principal lattice of partitions approach, approx. algms. 28657
minmax FIR filters design, gradient approx. method 16012
MMD, 2nd order Volterra filter approx. 32779
modified PDAMA protocol for mobile satellite commun. systs. 25320
monotonic convergence property for multivariate Bernstein-type operators 11978
multi-cell direct-seq. microcellular systs., perform. eval. 33907
multichannel Gaussian sigs., low-rank detect., matrix approx. 24212
multichannel rational syst. ident. 8282
multilayer slab waveguide nonlin. modal fields by finite difference beam propag. method 40433
multimachine power syst. auto-parametric reson. calcs. 26896
multiorder binary grating design, anal. init. approx. 2143
multiple grid transm.-line modeling, EM field problems soln. 23749
multiscale contour approx., adaptive smoothings *(Japanese)* 2655
multistep polygonal approx. techs. 2637
multitarget tracking and motion correspondence, ranked assignments 32544
mutual coupling anal. of circ. polarised microstrip antennas 23938
NDA FF carrier synchronizer, Viterbi algm., cycle slip anal. 8455
network design problems, approx. algms. 5946
network reliab./sampling, Monte Carlo/Markov chain techs. 41396
non-lin. image restoration algm., artifact reduction 24514
non-lin. noise filtering, piecewise lin. compression 29382
noniterative image reconstruction from photon-limited data by self-cross-correl. 24360
nonlin. planar opt. waveguide MOL and FDBPM simul. 40432
nonrandom interf., freq. estim. 24250
normal dispersion regime, spatio-temporal coupling, NLSE approx. 22807
NP-hard graph problems, generating hard and diverse test sets 37252
opt. CDMA commun. syst. M-ary signalling 34058
opt. CDMA with prime codes, perform. anal. 34073
orthogonal matching pursuit, wavelet decomp. 8272
outer approx. methods for semi-infinite optim. 11949

approximation theory continued
overhead line lightning-induced underground telecom. cable overvoltages 19305
packet switch, output buffering/imbalanced correl. traffic, anal. 8716
Pade approximants flow graphs, cct. anal. appls. *(Russian)* 21073
parallel implement. of Jacobi and Kogbetliantz algms. 255
parameterized Gaussian-like filters, synthesis by approx. 32646
pass. stochastic approx. with averaging along trajectory, optimal algm. 37240
perfectly conducting cavities, apertures, scatt. elec. fields 40293
periodic GRIN waveguides with Kerr nonlin., Gaussian beam control 40426
piecewise-lin. transcoders, weighted min. approx. and decomp., TV tuner 21085
plane wave scatt. by circ. cylinder 7955
polarimetric vector diffr. tomography 40274
power converters, EM quantities, harmonic anal. *(Polish)* 11123
power p-i-n diodes, PSpice-based modelling 5987
power syst. dyn. load modeling, neural net-based 4488
power syst. economic dispatch optim., refined genetic algm.-based 35482
power syst. half-hour data-based load forecasting method 27095
power syst. load modelling, cumulant-based probabilistic simul. *(Chinese)* 35449
power syst. model reduction, Hankel-norm approx. 4493
power syst. state estim., least absol. value solns. 26879
power system dynamic equivalents, synchrony concept 19037
preamplifier ASK syst. perform., incomplete ASK modulation, influence of ASE/laser phase noise 25531
pulsed power capacitor rapid discharge ccts., param. estim. 27825
quadratic Bezier curves approx. by arc splines 20591
quantum well lasers, 2D simul. 39792
quartz cryst. oscillators CAD 39103
queueing syst., perturb. anal., optim. 195
radially varying gain lasers, geom. threshold zones and Gaussian modes 2027
radiated interference field estim. for elec. equipt. 23739
radio sig. pseudoenvelope distribs. and their approx. 2572
radio waves, multibeam diffractive propag. 2226
railgun plasma armatures, opt. thick, temp. meas. 15325
rational orthogonal sig. approx., complex interpolation 40998
rect. cavities, field distrib., GMT-based approaches 15540
rect. dielec. waveguide scalar variational anal. by Hermite-Gaussian modal approxs. 40403
rect. waveguide, EM scatt. by inductive discontinuities 8029
reluctance motors, modelling/param. meas. methods *(Japanese)* 10973
reverberation chambers, electronic mode stirring 7993
S-SEED switching charact. 14520
scalar Helmholtz eqn., local radiation boundary conditions 23573
Schur method for low-rank matrix approx. 32471
semicoercive variational inequalities, approx., error estim. 11955
semicond. lasers, multimode rate eqns. 39820
series-parallel reson. power converter, small-sig. modelling 5122
shielding effectiveness data for wire cage, meas./calc. 31856
Simpson's quadrature, probabilistic anal. 5788
sine/cosine ref. generator, high-perform., design 8350
single sect. lattice cryst. filters, normalized design 39079
slab nonlin. directional coupler multidimensional bisoliton states, stabil. and switching 23368
software digital filters, real-time, design 6223
space-periodic phase screens, ray propag. dyn. 15419
spectrograms, time-freq. dens. fns. approx. 8396
sputter deposition, Monte Carlo simul. 20968
stack filters, rank selection probabilities 8261
static power converter supply, local spectral approx. methods 36355
stationary single server queues, approx. for perform. eval. 16469
Steiner tree problem, partitioning algm., expt. eval. 5748
STFT/DFT approxs., incremental refinement 24319
sticky particles, pair distrib. fns./atten. rates 15409
stochastic approx. algm., normalized, time-shift param. *(Japanese)* 11960
subband DFT, accuracy/complexity/appls. 40778
subset sum problem, polynomial approx. scheme 37296
synthetic images of proud targets 17485
thermoelec. diff. eqn., lin. approx. *(Japanese)* 28689
thin metallic shell EM fields, power syst.-induced 2173
three-phase single-switch AC/DC buck-boost power converter 19841
time sig. filtering, neighborhood graph lin. approx. 8453
topol. inversion, conducting bodies imaging appl. 40305
trellis coded diversity receivers, slowly fading Rayleigh channels 33763
two-phase flows, LDA, integral effects 4015
ULLV decomp. computation 32473
unidirectional-bus networks, slot occupancy, Bernoulli approx. 8988
uniqueness, modified strong, consts., computation 11957
unit disk graphs, heuristics 37247
variable nonlin. coupler, soliton switching 14454
wavelet transform image coding, successive approx. quantization/generalized decoding 8604
wide-angle propag. beam opt. waveguide anal., generalized Douglas scheme 22876
$X^{(2)}:X^{(2)}$ cascaded solitary waves 7801
zero-phase recursive 2-D variable filters, quadrantal symms., design 29387
$Bi_{12}SiO_{20}$ photorefr. cubic media far from paraxial limit, wave coupling anal. 40062
Er-doped fiber amp. preamplified receiver perform. eval., ISI 25527
Er-doped fiber amps., lin. approxs. 14771
GaAlAs layers, OMCVD, characts. prediction, neural nets 13051
InGaAsP-InP 1.55-μm strained quaternary QW lasers, approx. opt. gain formulas 23190
Ti:sapphire fs laser pulse space-time focusing 23182

aquaculture
acoustical scatt. from fish, reson. signature charact. 17476
automatic syst. for monitoring fish passage, dams 24534
fish shoal & plankton, sonar ident., MOVIES-B software 18889
fish shoal sonar characterisation, non-uniform ambient noise 18805
fishing vessels tracking, SAR/AVHRR data 25584
high spectral resoln. coastal ocean imagery, stat. and empirical anal. 18879
ident. of marine organisms, flow cytometric imaging 10539
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
Neo-Aquarium, multimedia cultural facility *(Japanese)* 42035
phytoplankton monitoring by cytometry, multivariate stats. 10537
phytoplankton monitoring by cytometry, neural net ident. 10536
shallow-water fishing sonar param. optim. *(Croatian)* 3632

aquaculture continued
sonar detect. of deep scatt. layer, multibeam method 35338
trophical and morph. status of water resources, airborne hyperspectral algms. 18878

arbiters (computers) *see computer interfaces*

arbitrary waveform generators *see function generators*

arc cutting
robotic plasma arc cutting, laser sens.-based 126

arc discharges *see arcs (electric)*

arc furnaces
AC steel melting arc furnace, elec. characts. modelling *(Russian)* 11498
chem. indust. arc furnaces, phase voltage const. component studies 28196
DC arc furnace control, simul. *(German)* 44590
elec. network flicker compensation, arc furnace model 5383
enclosure losses in high power systs., elec. arc furnace appls. 20128
FACTS voltage stabiliser, series act. filter-based 19233
graphite electrode DC arc furnace, solid waste treatment 28165
graphite electrodes, electron detachment studies *(German)* 11481
indust. arc furnace power systs., voltage flicker study 20157
NKK DC arc furnaces, technol. *(Japanese)* 20131
single-phase act. power line conditioners 10673
steel arc furnaces, elec. characts. calcs. *(Russian)* 36798
steel plant power syst., harmonic meas./anal., PF correction 11502
supply plant, flicker/distortion compensation 20129
three-phase arc furnaces, operational reactance calcs. *(German)* 11480

arc heaters *see arc furnaces*

arc lamp annealing *see incoherent light annealing*

arc lamps
HF modulated light source, phase fluorometry/fluoresc. imaging 28159
HID lamps, electronic ballast *(Japanese)* 11453
metal halide lamps, electrode temp. 28162

arc welding
see also welding equipment
AS-140 arc welding equipt. 5402
AS-250 arc welding equipt. 5401
forward PWM inverter power source anal. *(Chinese)* 44633
golf car arc welding modernisation project, USA 5400
GTAW, sync. weld pool oscill. monitoring/control 5618
laser scanners, OS *(German)* 40175
plasma arc welding robot, TGZ-LNG membrane sheet appls. *(Japanese)* 28195
robot coord. motion control, sens.-based *(Japanese)* 11505
Spin-Arc seam tracker, robot cell 11504
stat. proc. monitoring/interp. 11510
vision-based gauge for online weld profile metrology 3891

archaeology
RMS Titanic survey expedition, towed sonar appl. 26756
sounding, Earth exam. *(Japanese)* 34660

architectural acoustics
see also anechoic chambers; echo; noise abatement; reverberation
ASA 128th meeting, Austen, USA (Nov.-Dec. 1994) 6
auditorium, colouration in assisted reverberation systs. 32605
binaural recording playback through loudspeakers, room impulse response 34296
broadband act. room noise control, local silencing 15989
conference on acoustics, Toulouse, France (May 1994) 5443
diffuse acoustic refl., macroscopic view 4414
directional microphones in computer simulated/real rooms 17607
electroacoustic transducer directivity indices in reverberant fields 17608
freq.-independent beamforming 15990
hall electroacoustic syst. response 3692
HF range M-seq. meas., interleaved sampling method 26017
IEEE audio/acoustics sig. proc. workshop, New Paltz, USA (1993) 5445
loudspeaker placement effect on listener preference ratings 3691
loudspeaker preference rating variability reduction, digital equalisation 3695
loudspeaker-room interact. equalisation, DSP appl. 3694
ref. auditorium and audio std. strategy *(German)* 9765
RLS algm. based on var. characts. of room impulse response 32749
room acoustics, digital equalization 9761
room acoustics, reverberant sigs., inverse filtering, diversity proc. *(Japanese)* 15896
room impulse responses approx. based on wavelet decomp. 15991
room transfer fns., common acoustical pole/zero model. *(Japanese)* 40893
talker localisation in room, microphone array 32410
timbre perception, small room, loudspeaker posn. effect 25690
wooden loudspeakers in artificial reverberation syst., acoustical props. 18925

architecture
see also building; civil engineering
broadband act. room noise control, local silencing 15989
energy efficient building design research programmes, Europe 11314
holography, regenerator of archit. 15178

architecture, computer *see computer architecture*

archiving systems *see information retrieval systems*

arcing *see arcs (electric)*

arcing, switches *see circuit-breaking arcs*

arcs (electric)
see also arc furnaces; arc lamps; arc welding; circuit-breaking arcs; vacuum arcs
6/12 kV MV power syst. cables, arc fault tests 19363
15 mm sq.-bore railgun, EM field meas. 15330
25 mm hypervelocity railgun, perform. characts. 15353
300 kJ railgun, high efficiency, expt. characts. 15282
AC steel melting arc furnace, elec. characts. modelling *(Russian)* 11498
aircraft external fuel tank, simulated lightning tests 18706
all-dielec. self-supporting opt. cables for Australian power lines 34103
arcing fault detection/classification, neural net-based 19250
armature arcing voltage drop 15346
armature railgun, secondary arc form. 23520
armature railguns, projectile vel., conductivity 23522
coal mine transportation arcing, detection/suppression method 20107
contact erosion modelling, obj.-oriented technol. 6395
DC station post insulators, pollution performance, arc model 19324
distrib. network, intermittent arcing grounding overvoltage restraint *(Chinese)* 35632
distrib. substations, switchgear internal arc fault protection design 4661
distributed plasma armature, electromagnetism, lumped element description 23523

arcs (electric) continued
EHV/UHV transm. line arcing fault protection simul. 27190
elec./thermal injuries, eval./treatment advances 93
electric arc modelling, param. values influence 39042
electrothermal gun, plasma-water interaction, mixing visualisation 31774
electrothermal launcher solid armatures, design optim. 15352
electrothermal press. pulses generation, arcs, capacitor store 31754
EM launcher, plasma armatures, 3D MHD modelling, equiv. network 15313
EM launcher electrode/insulator degrad. studies 15332
EM launchers, plasma armatures, 2D MHD simul., secondary arcs 15309
EM launchers, solid armatures, current wave/saw effect phenom. 15318
EM relays/elec. contacts, develop. and test methods 29640
gas discharge equipt. power supply, control syst. 5093
generators, neutral grounding *(Chinese)* 27678
GIS fast transient overvoltage effects anal. 19917
high power klystron develop. 29781
HV current limiting fuses, low current interruption 27842
HV switchboard busbars, travelling disturbance arc tests 19888
hybrid armature railguns, current/fuse thickness props. 23525
intense electron beams of contracted arc discharge 4144
low-press. arc-discharge plasma, ion extraction 4140
LV network, arcing faults detect./anal. 19366
LV switchgear arcing fault protection concept 19893
material explosion, pulsed currents/elec. fields, simul. 30551
multicomponent vac.-arc ion beams 4141
muzzle-fed railguns, EM/thermal anal. 15345
MV distrib. switchgear, internal fault withstand tests 19887
MV mine distrib. network, ground fault simul. 20193
MV power network arcing faults, computer modelling 19032
MV/HV elec. equipt., enclosure internal arcing tests 4879
PASP plus arrays, arcing predictions 26569
petrochemical indust. MV arc resistant metalclad switchgear, safety benefits 5416
plastic tubes, ablation gas vols. *(Japanese)* 965
polluted UHV insulator flashover model for ac voltage 35663
power distrib. installations, intell. systs. *(German)* 35640
power distrib. syst. fault detect./ident., neural net 4657
power station DC/AC power networks, arcing short cct. expts. 19376
power station HV equipt. insulation, online PD anal. 4756
power syst. short-cct. arcing fault effects limitation 19344
prebreakdown phenom. in dielec. liqs. 13945
pseudospark switches, forward voltage drop meas. 36400
pulsed gas laser, external cct. effects on spark-gap arc-discharge 23100
pulsed plasma generator, discharge chamber operating conditions 19765
pulsed power high-Q capacitor banks, long-duration arc discharge appls. 36500
pulsed power supplies, plasma producing gas discharge studies 36310
railgun armature plasma brush electrode materials 15334
railgun projectile accel., plasma armature 15344
railguns, armature-rail interface, contact arcing transit. 15342
relay contact surface, arc discharge damage, scanning laser microscopy 29633
silicone transformer fluid, UL class. 5010
SIRENS electrothermal launcher plasma, mol./at. meas. 15369
small bore plasma armature rail launcher, high current densities 15263
small bore plasma armature railgun expts. 15270
SMES, energy transfer, internally induced voltage *(Japanese)* 1635
solid armature railguns, contact transit. anal. 15355
space power syst., wiring syst. safety 26597
spacecraft DC power systs., series arcing detect. 26564
spectrosc. intens. spatial distrib. meas. 6387
telephone DC distrib. networks, arc detect. 19277
TITAN ion source 4145
transm. line, current transient proc. meas. 23686
UHV transm. lines, arc jet control, slit arc horns 10774
vac. cct. breakers, transient overvoltages, stat. model 27847
Walkie Edgar spark gap, mag. field, arc velocities 19338
wide gas-ion beam source based on arc discharge in nonuniform mag. field 4143
Ag rivet contact perform., SiO_2, Al_2O_3 deburring media effects 29624
Ar, stabilized arcs, iron vap. contamination *(Japanese)* 964
Rh-plated reed switch contact, surface deactivation-induced phenom. 29634
SF_6 GIS, breakdown mechanism of gap, small arc current 19897
SF_6 cct. breakers, synthetic test ccts., arc voltage 27844
SF_6 circuit breaker, gas integrity and adsorbent performance 19902
SF_6 gas-blast arcs, total radiation power *(Japanese)* 1548
XeCl discharge pumped laser, microarc form., vol. stabil. 31183

area measurement
brain, interactive segmentation of photographic and MR images 18445
discretised objs., geom. charact. determ. 41154
disease assess., image meas., by digitising 43253

ARI *see radio data systems*

arithmetic
see also arithmetic codes; digital arithmetic
complex multiplication field algms. 20549
generalized Mobius/arith. FT 2469
hashing, SL_2 matrices 32155
image enhancement, logarithmic image proc. model 33136
interpolation method, reproducing kernel of Sobolev space *(Japanese)* 11959
logarithmic error measure, pole-zero approxs. design 2494
Lucas fn. security, public key systs. 32071
modular arith./dist. criteria, tiling, polyominoes 40644
prime nos., provable, fast generation using searching in arith. progressions 28619
systems based on elliptic curves 8160

arithmetic codes
CELP codecs, multi-band residual coding, 8 kb/s 33695
finite-precision implement. 40629
generalized quadratic residue codes, automorphism groups 32049
Griesmer bound, generalizations 8139
image coding, arith. and adaptive-Huffman entropy coders, prob. estim. 32871
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
JPEG image coding algm. Huffman codec *(Japanese)* 16943
lossless image compression, context-depend. distrib. shaping and parameterization 24502
prog. image coding syst., arith. codec, LSI-CAD 33700
Q-coders parallel design for bilevel image compression 16188
quaternary quadratic residue codes/unimodular lattices 32048

arithmetic codes continued
self-dual codes, convolutional encoding 32128
speech coding, variable bit rate ADPCM via arith. coding 32256
subband image coding, watershed/watercourse lines of wavelet transform 2727

ARMA processes *see autoregressive moving average processes*

armouring (cables) *see cable sheathing*

ARPES *see photoemission*

ARQ *see automatic repeat request*

array processors *see parallel processing*

array signal processing
see also direction-of-arrival estimation
2D autoregressive noise model, broadband planewave detect. 40840
2D digital filters implement., matrix decomp. 32674
2D prog. photonic time-delay device for MM-wave sig. proc. appls. 14576
2D spectrum estim. method for bearings and Doppler freq. determ. 16027
3D mapping of muscle activity, surface electrode array sig. proc. 26391
5.0 kb/s coder for vehicular appl., acoustic echo/noise canceller 9123
acoustic freq.-independent beamforming 15990
act. multi-static sonar acquisition/proc. syst. 9660
act. sonar, adaptive beamformer delay compensation 34168
act. sonar array for underwater imaging, self calib. *(French)* 17482
activated towed array sonar displays image proc. 17486
adaptive algms. for small-size obj. detect. on digital images 24385
adaptive antenna arrays controlled by gradient algms. 2351
adaptive arrays, dyn. syst. model/equiv. steering sig. 8253
adaptive beamformer, recursive modified Gram-Schmidt algm. 2520
adaptive beamformers based on cyclostationary sig. props. 8353
adaptive beamforming, spatial filter designed blocking matrix 8408
adaptive beamforming, systolic spatial proc. tech. 25598
adaptive canceller and pulse compression interacts. 24325
adaptive rational subspace estim. for non-white additive noise 32452
adaptive wideband opt. nulling for antenna syst. 7399
antenna array calib. for radar appls. *(French)* 17426
aperiodic/semi-periodic perfect maps 24088
aperture-array dyn. sens. systs., high resoln. imaging 8556
application-specific array processors, conf., Venice (Oct. 1993) 36903
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
bathymetric simul. based on Kirchhoff scatt. and seafloor modeling 35345
beam space adaptive array antennas, transmitting null beam forming 15665
beamformers output powers var., coherent source model 24217
beamforming techs. for circ. sonar arrays 9667
beamspace noise eigenvectors, multirate proc. 40906
blind adaptive array proc. methodology 9165
blind adaptive array simul. for realistic mobile channel 33795
blind adaptive beamforming and equalization 9228
blind ident., higher order stats. *(French)* 16043
blind spatio-temporal equalizer for radio-mobile channel 33937
broadband adaptive beamforming by 2D spatial filters 23972
broadband max. energy array, spatial/freq. constraints 41013
Capon beamformer, sensitivity anal. 16032
CDMA decorrelating detector for antenna arrays 15954
cellular commun., cyclic sigs. adaptive beamforming 3371
classic methods of array proc., math. model *(French)* 16033
CMOS VLSI array proc. for basic arith. operations, redundant no. syst. 29265
CMOS VLSI opto-electronic array proc., morph. image proc. 29277
coherent/incoherent localization methods, sensitivity 17461
constrained beamformer design, optim. result 40763
constrained-sig. sources, unique localization, alternative proofs 8435
Costas arrays for channel charactn./commun., decomp. 32610
cyclic sig., adaptive beamforming and fast implement. 40938
cyclostationary sig. props., adaptive beamforming 40953
digital commun. sigs. separation, joint space-time decorrelation 40935
digital focused sonar beamformer, imaging syst. 9668
digital multipath wireless channels ident. in interf. 9303
digital underwater commun., adaptive beamformer perform. 9659
DOA/ang. vel. estim., accuracy 40761
DS-SS, directionally constrained adaptive beam forming 17003
EEG/MEG dipole localization bounds for head models 43312
fast beamforming algm. 8375
finite samples/model errors effects 2479
FIR channels blind ident. via antenna arrays 8366
focused beamforming for underwater imaging 9661
FOPAIR, focused array imaging radar for ocean rem. sens. 26732
freq. hopping commun., blind adaptation algm. 9166
global operations in affine space-time mapping, real-time sig. proc. appls. 32596
granular particle, lin. flow vel. meas., image sens. 3993
hearing aid microphone array data, robust adaptive proc. 18608
high resoln. space-time anal. by act. array *(French)* 41034
high-resoln. beamforming in coherent interf./correl. noise 24263
hybrid reflector antennas, adaptive nulling 23856
hyperb. updating of LDU decomp. 24270
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
independent sources, adaptive separation, deflation approach 40914
interf. cancellation, min. redundancy array struct. 41048
joint space-time max.-likelihood estimator 8250
lin.-quadratic mixture of independent components, separation 40981
line array calib., cooperative source *(French)* 16040
LMS-like target tracking, robust adaptive beamforming 40958
machine vision, digital camera, CMOS intell. sens. 42848
max. flat optimum broadband antenna arrays, constraints 41014
microphone array, optimal positioning of sens. for microphone array 42647
microphone arrays and neural networks, speaker/speech recogn. 32205
min. robust matched field proc. perform. 17469
mobile commun., adaptive array methods 17067
mobile commun., DSP for digital multi-beam forming antenna 17068
mobile satellite commun., channel-indiv. adaptive beamforming 25321
mode-space spatial spectral estim. for circ. arrays 2560
model-based multifrequency array sig. proc. 34116
moving sources localization, deconvolution approach 32613
multichannel FIR filters, blind ident., subspace methods 32559
multichannel Gaussian sigs., low rank detect., constrained inverse 40952
multichannel Gaussian sigs., low-rank detect., matrix approx. 24212
multichannel space-time sig. proc. providing local interf. suppression 32572
multipath interf. suppression cct. 40382
multipath/CCI sigs. separation 31979

- **array signal processing** continued
  - multiple acoustic sources, stabilized resoln., sector-focused proc. 42535
  - multiple cyclostationary sigs., power/timing param. estim. 40864
  - multiple source synthesis for training array neural nets. 23959
  - multirate adaptive arrays for broadband mobile commun. 33851
  - multirate adaptive beamforming tech. 8251
  - multisensor random sig. detect., quantization 24285
  - multistage CMA adaptive beamformer, convergence props. 8351
  - multistage CMA adaptive beamformer, real-time implement. 9227
  - multiwindow method for array spectrum estim./sinusoid detect. 2473
  - MUSIC algm., probab. of resoln. 40842
  - narrow band source localization, unknown geom. array *(French)* 16041
  - narrow-band beamforming in 2D domain *(Japanese)* 2460
  - narrowband adaptive arrays proc., quantisation error modelling 32609
  - NAVSTAR/GPS adaptive array processor using analogue LMS algm. 25615
  - neural estimators for multisensors, design 32658
  - neural network mapping, multiuser array beamforming 40907
  - nonasymptotic perform. anals. of array sig. proc. algos. 2550
  - nonGaussian data, array modeling and sig. detect. 16065
  - nonstationary environ., recursive suppression algm. perform. 40798
  - nonstationary turbulent atm. EM wave scatt. spectra *(Russian)* 15421
  - null steering of adaptive arrays, min. approx. 31963
  - ocean surveillance, array localization, least sq. error minimization 18993
  - opt. controlled array antenna fed by fiber optic array, beam scanning charact. *(Japanese)* 40515
  - optimal sens. location, multiple hypotheses testing 41020
  - optimum adaptive combiner for ciclostationary sigs. 16006
  - optimum combining in wireless systs., BER upper bounds 9170
  - parallel SVD updating, num. stable Jacobi array 32476
  - parametric array sig. proc., auto-calib. approach 8425
  - partially adaptive beamforming for correl. interf. rejection 32558
  - partially adaptive lin. constrained arrays, sparse approach 41015
  - partially polarized EM waves, param. estim. 2483
  - PCN design, SDMA adaptive array approach 25375
  - PCS, antenna arrays, co-channel digital sigs. reception 17092
  - phase-only multidimensional spatio-temporal anal. for moving sources 40995
  - phased antenna array radar, ang. coord. meas., modelling 3608
  - phased array antennas, real phase-only nulling algm., phase quantization 2344
  - phased array error correction by sig. reconstr. 23949
  - phased array interf. self-canceller perform. rel., underlying surface and phasing *(Russian)* 15675
  - planar antenna arrays, 1-stage/2-stage optimum inform. proc. 8245
  - planar array, mutual coupling estim./modelling 41018
  - polygon reconstruction from moments 24249
  - polygonal vertex reconstruction from moments 32552
  - prog. canonical correl. anal. for blind adaptive spatial filtering 9167
  - quadrature param. estim., max. likelihood tech. 41019
  - radar adaptive antenna proc., array errors influence *(French)* 17404
  - radar adaptive polaris.-space-time proc. algm. 25561
  - radar sidelobe canceling, mapping QR decomp. on parallel computers 17421
  - radar sigs., wavelet subband decomp. in adaptive arrays 17395
  - randomly fluct. wavefronts, stat. models *(French)* 16036
  - real-time adaptive acoustic beamforming, design study 32598
  - recursive const. modulus algm. for real-time array proc. 8352
  - regularization by multiscale models 24190
  - robot guidance, US arrays 4421
  - robust real-time constrained hearing aid arrays 18609
  - scatt. field data, target location estim. 17399
  - second order blind separation, asymptotic perform. 40961
  - self-learning blind sig. separation of time delay narrow band sigs. *(Chinese)* 32449
  - self-steered array syst. for microwave commun. 9196
  - sens. array pattern, resoln. improvement, neural net appl. 15916
  - sens. array proc., adaptive subspace selection 40962
  - sens. array sig. proc. tech. 32731
  - sens. array sigs., multi-scale deconvolution, higher order spectra appl. 40987
  - sens. array sigs. deconvolution, time-scaling 32615
  - sens. irrelevancy testing, backward elimination/stepwise regression 11409
  - shallow water acoustics, matched-field tracking 15932
  - side scan sonar, deformable towed arrays, calib. methods 9669
  - sig. copy, partially known, unknown array response 40957
  - sig. correl. matrix, array receivers phase delays estim. 32611
  - single and multi microphone noise cancellation, fast algm. 32484
  - single-channel direction finders, ang. coord. resoln. improvement 42539
  - smart antenna appls. in mobile commun., const. modulus factorization 32465
  - SNAP, bispectrum signal processing 24350
  - sonar holographic array proc. algm., perform. anal. 34185
  - source separation with noisy obs., noise cancellation 40862
  - space commun. adaptive arrays, 2D wavelets/filterbanks appl. 9408
  - spatial freqs. estim. in sparse lin. array 32612
  - spatial sig. proc. by adaptive antenna arrays 16049
  - spatial smoothing, optimal subarray size 24320
  - speech recogn., noise reduction, adaptive microphone array appl. 15827
  - subsea acoustic rem. commun., adaptive receiving beamformer 9613
  - subspace GLRT for vector-sens. array detect. 40954
  - subspace-based line detect. algm. 8517
  - subspace-constrained SCORE algms. 8365
  - superdirective microphone arrays for hearing aids 18607
  - target motion anal., props./perform. 8280
  - TDMA digital cellular commun., adaptive channel equalization 42267
  - TDOA estim., sig. selective, modified cyclic methods 2508
  - text-image anal., skew angle estim., SLIDE 2614
  - thinned arrays, element placement, genetic algms. 16060
  - time delay estim., integrated polyspectrum 32617
  - time-freq. kernel design, lin. constrained minimization approach 8341
  - towed array, shape estim., dyn. model *(French)* 16035
  - two-channel tests for common non-Gaussian sig. detect. 8292
  - two-microphone adaptive beamforming speech proc. for cochlear implant patients 43366
  - underwater acoustic data commun. link adaptive equaliser 9612
  - underwater acoustic multipath propag., parametric separation 32607
  - underwater acoustics, source detect./localization, perform. *(French)* 16034
  - underwater high data rate acoustic commun. systs. perform. 17360
  - underwater matched-field source localisation by reduced-rank sig. proc. 34186
  - unknown sig. wavelength and array proc. 41051
  - vap.-emitting sources, detect./localization 25892
  - VLBI fringe detect. methods 42557
- **array signal processing** continued
  - wideband array proc., two-sided correl. transform. 24303
  - wideband sens. array proc., lab. array testbed 2581
  - wireless commun. syst. adaptive array sig. acquisition and tracking 33792
- **arrays**
  - *see also acoustic arrays; antenna arrays; laser arrays; logic arrays; phased array radar*
  - AFIT multiplexed multi-electrode array and implant. package for neural recording and stimulation 35089
  - B-ISDN switching syst. subsyst. opt. interconnections 41914
  - C4/surface-mount-array interconnect technols., thermal mgt. 28472
  - error-correcting codes, orthogonal arrays/expts. design 40641
  - finite automaton one-key cryptosystems 8130
  - finite-sized 2D arrays, partial realization algm. *(Japanese)* 16134
  - integrated chem.-sens. arrays, batch fab. 3818
  - inter satellite cross links, non-mech. laser beam steering/spoiling methods 17308
  - Josephson jn. arrays, adiabatic chaos 7240
  - Josephson jn. arrays, coherent states, phase-locking behaviour 22760
  - MLC MCMs and SCMs, surface-mount arrays 29735
  - multielement photodetector device for point source coord. meas. 25968
  - nonlin. waveguide arrays, spatially solitary wave evol. 39426
  - phased array packages, interconnects, HF charactn. 28461
  - phased waveguide arrays, wavelength multiplexers optim., beam propag. method 30955
  - read-only opt. head, posn. sensitive detect. syst. 14345
  - resilient fns. and orthogonal arrays, bounds 28618
  - RF-absorbing dielec. structs., resistive-capacitive layers 23593
  - SS/FH multiuser radar/sonar, Welch-Costas arrays, props. 25582
  - video data placement, scalable, on parallel disk arrays 9745
  - GaAs transmitter/receiver LSI chips, parallel opt. links 42401
  - InP tunable phased-array wavelength demultiplexer 17257
  - InP waveguide components, WDM opt. commun. syst. 34062
  - InP/InGaAs/InP photodetector arrays, noise/current meas. 17774
  - a-Si:H arrays, X-ray transm. scans, PET/SPECT appl. 35062
- **arresters**
  - 110-500 kV metal-oxide surge arrester reliab. study, China *(Chinese)* 43801
  - 225/42 kV substation lightning protection *(French)* 36485
  - 275-345 kV porcelain surge arresters, contamination withstand characts. *(Japanese)* 43800
  - distrib. line, 3-phase, lightning perform. *(Japanese)* 10739
  - distrib. lines lightning surge protection, scale model expts. *(Japanese)* 43747
  - distrib. network, intermittent arcing grounding overvoltage restraint *(Chinese)* 35632
  - half-wavelength power lines, operational problems anal. 35642
  - lightning distrib., earthing systs. 19349
  - LV power distrib. lines, lightning overvoltage effects study 10727
  - motor winding insulation, surge protection 4883
  - MOV arresters, I-V characts. inspection tests *(Russian)* 43802
  - power open-phasing, self-generated overvoltage studies 27779
  - power syst. polymer arresters, moisture sealing testing 27272
  - substation lightning/surge protection, comments/reply 19919
  - supercond. transm. systs., quenching current level coord. 10777
  - transm. line energisation, simul., black start studies 19196
  - underground transm. syst., surge arresters, overvoltage anal. *(Korean)* 35686
  - SF$_6$ 145 kV distrib. substation metal oxide surge arresters 4674
  - ZnO UHV surge arresters, breakdown perform., computer simul. 19345
  - ZnO, electro-thermal model params. ident., autoregressive techs. 27275
  - ZnO surge arrester leakage current, external field effects 4728
  - ZnO surge arresters, sudden voltage reversal transient response 4727
  - ZnO varistor/air gap surge arresters comparison, LV syst. 19354
  - ZnO/gas tube surge suppressors comparison 19353
  - ZnO-Bi$_2$O$_3$-based varistors, multiple trapping, appls. 12829
- **art**
  - Raphael paintings, spectral and spatial stats. 24530
- **ART neural nets**
  - ANN MOS-compatible quadratic synapses 787
  - auditory evoked pot. class., ART 2-A/fuzzy ARTMAP comparison 43316
  - CMOS analog current-mode ART1 algm. implement. 29475
  - CMOS VLSI analog current-mode high-speed ART1 chip 29493
  - fuzzy ARTMAP neural networks for gratings/FSSs design 40449
  - HDD spindle motor mech. testing, ANN 36210
  - image data compression, ART network, fuzzy control 2857
  - memory, ART1 neural, mixed analog/digital approach 29404
  - memory, fuzzy optoelectronic implement. 31123
  - preattentive and attentive image proc., chromatic visual model 33049
  - radar target recogn. schemes, neural networks 34157
  - RRANN, run-time reconfiguration ANN 21287
  - shower recogn., feed-forward neural networks appl. 34942
  - Zero Instruction Set Computer, Higgs search 41284
- **articulation (speech)** *see speech*
- **artificial hearts** *see artificial organs*
- **artificial intelligence**
  - *see also adaptive systems; automata theory; biocybernetics; brain models; cooperative systems; expert systems; fuzzy control; generalisation (artificial intelligence); heuristic programming; knowledge engineering; learning (artificial intelligence); learning systems; neural nets; perceptrons; planning (artificial intelligence); problem solving; self-adjusting systems; uncertainty handling*
  - act. vision, survey and traditional computer vision comparison 32894
  - appl. distributed constraint satisfaction, commun. network path assignments 33384
  - AUTOTESCON 93, (Sept. 1993) 36845
  - conversational misunderstandings/non-understandings repair 15840
  - decentralised AI controllers, intell. home automation 4536
  - digital avionics systems, conf., (Nov. 1994) 5456
  - engng. CAD, AI prog. approach 37021
  - hydroelectric dam surveillance, ES/mgt. IS-based 19544
  - I^{2}NMA, intell. integrated network mgt. archit. 16580
  - IEEE conf. on instrumentation/meas., USA (1993) 20198
  - IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
  - intell. terminal for commun. network resources mgt. 24923
  - Japan, develop. of seamless inform. network, ISDN 9004
  - MELECON '94, conf., Antalya, Turkey (1994) 5470
  - multi-faults diagnosis model, set-covering/certainty factors 3701
  - NPP operation, intell. human-machine syst. 43823
  - nuc. reactor digital ccts., automatic testing pattern generation 4770
  - open planning, scheduling and constraint mgt. archits. 24915

artificial intelligence continued
patient monitoring and therapy mgt., intell. systs., research projects, survey 26447
pattern matching algm. for AI prod. syst. *(Korean)* 2815
power syst., digital relay protection, fuzzy logic 4725
power syst. EMS environ., AI archits. 26951
power syst. security assess., AI appls. 27011
power syst. smart relay, AI based 19350
predictive sensitivity based fault detection 38119
QC, robotics and vision syst. technols. 37169
Redifon intell. ground probing radar 17413
RF/microwave test simulator 34675
short-term elec. load forecasting syst. *(Chinese)* 35580
telecomm. config. implement. 9009
telecomm. equipt., power alarms, intell. power plants 44158
TPS life cycle improvements using artificial intelligence 42700
Transit project, reliable high speed interconnection technol. 8775
unconstrained handwritten numerals recogn., combining multiple experts method 16298
URD, primary cable routing, intell. syst. 19247
video authoring, user models for intell. multimedia 41989
artificial kidneys *see artificial organs*
artificial limbs
arm prosthesis, modular, simul. for mech. design 35164
electro-hydraulic above-knee prostheses, gait control 43361
electrocutaneous stimulus for sens. feedback, pitch/loudness independence 10278
hand prosthesis with hierarchical grip control, MARCUS 35159
hands, myoelec., design modif., quality fn. 4307
human interface technol. for handicapped people 18620
microcontroller implement. of adaptive myoelec. filter 26474
myoelectric control syst., 2-channel enhancement 18605
myoelectric neural network sig. anal., arm prosthesis appl. 18614
rehabilitation R&D progress reports, (1992-1993) 26477
rehabilitation robotics, design issues review 35158
artificial organs
see also prosthetics
conference, IEEE Northeast Bioengng. Conf., Newark, New Jersey, USA (Mar. 1993) 36846
electrolarynx with pitch freq. control fn., eval. *(Japanese)* 35166
heart, total artificial, driven by lin. motor 18616
heart assistance, fuzzy controlled brushless DC motor 43357
heart disc valve, instantaneous back flow, peripheral clearance 26472
heart lin. oscillatory actuator, structural anal. 35167
larynx elec. prosthesis, pitch control fn. 10274
magnetohydrodynamic blood pump for artificial heart 18604
artificial satellites
see also satellite tracking; solar power satellites
ASAT battle mgt., evol. prog. 10593
attitude determ., lin. combination of models 24531
autonomous spacecraft payload operations, onboard emergent scheduling 18696
challenges of space for better world, conf., Graz, Austria (Oct. 1993) 1
China's satellite policy, historical evol. 42314
COMETS, expt. advanced mobile satellite commun. syst. *(Japanese)* 42215
commun. satellites, EMC *(French)* 18693
data courier satellite syst. concept 33943
DRS telecomm. satellite, heuristic scheduling 42320
dyn. at large-scale, TOPEX/POSEIDON altimetry 18872
dyn. topography, TOPEX/POSEIDON radar altimetry 18870
Earth obs. from space, microwave rem. sens. *(Japanese)* 35286
Earth stations/orbiting satellites, interf. simul. 15510
Envisat-1 satellite radar-altimeter on-board real time software testing 43421
ERS-1, radar rem. sens. satellite, internal clock drift 43472
EUTELSAT developments, IEE Colloquium, London, UK (1995) 11598
fault diagnosis, possibility theory 10304
fiber optic data links for satellite data mgt., particle-induced bit errors 17262
general circ., TOPEX/POSEIDON radar altimeter method 18871
geolocalization, range difference/range rate difference meas. 35292
geophys. satellite scenes, resampling 41277
GLONASS radionavigation, 1612 MHz interf., astron. 25626
GPS Block IIR solar array power syst., historical overview 26604
gravity field model, TOPEX/POSEIDON ocean radar satellite 18862
ground-based differential angle tracking, relative orbit determ. expt. *(Japanese)* 26523
H-II launch vehicle, commun. subsystem develop. *(Japanese)* 43427
HDTV GEO satellite, nuclear power/propulsion appls. 18753
High Pressure Gas Scintillation Proportional Counter, SAX appl. 26260
hybrid commun./positioning syst., two geostationary satellites 17155
INSAT-2 series satellites, telemetry, tracking and command transponder 35231
integrated data acquisition syst. for satellite struct. testing 18707
INTELSAT VIII/VIIIA global commun. satellites 42310
interplan. satellites, solar particle event models 18716
ITALSAT, satellite systs. and commun. characts. 42311
IUE astron. satellite, coarse-grained scheduling 26522
KITSAT Korean satellite, on-board computer syst. 10324
KITSAT-1/PoSAT-1 micro-satellites, radiation environ. meas., cosmic ray expts. 18714
laser, power beaming, conf., Los Angeles, CA, USA (1994) 11554
laser commun. terminal for LEO satellite constellations 17297
lin. pushbroom cameras 24478
low-earth-orbit store-and-forward satellites in Amateur Radio Service 17150
NASDA, opt. intersatellite commun. research 17282
NOAA images, class., multilayer neural network 4389
Nuclear Elec. Propulsion Space Test Program satellite, TOPAZ-II 26693
ocean dyn. heights, TOPEX/POSEIDON radar altimetry 18865
ocean surface radar altimetry, tides & satellite orbits 18837
opt. solar reflectors, low absorptivity, environ. stabil., spacecraft charging 18690
orbit determ., ocean surface slant range 18687
PanAmSat, private global satellite service provider 3047
payload miniaturization/standardization, transponders 25451
power systs., advanced solar cells 26639
RADARSAT, commercial radar equipped satellite 42524
real-time satellite ground control operations, intell. C^2 26698
sea level, TOPEX/POSEIDON radar altimetry, GPS buoy calib. 18867
sea level by TOPEX/POSEIDON radar altimetry, Great Lakes obs. 18868
sea levels by radar altimetry, TOPEX/POSEIDON accuracy 18869
artificial satellites continued
sea levels meas. by TOPEX/POSEIDON radar, verification 18866
SEUs, space environ. 18717
small satellite elec. propulsion options 35265
small satellite technol., conf., Orlando, USA (Apr. 1993) 20210
SOHO solar spacecraft, operations & ground systs. 35277
space data compression stds. 2457
space nuclear power/propulsion, fuel element design 18751
space station antenna latching syst. *(Japanese)* 8056
Space Station power requirements, US/Russian cooperation 18727
telecomm. satellites power systs. study, USA 26619
tethers of satellites, current collection study 35302
tie pointing procedure automation, satellite image geocoding 41278
TOPEX/Poseidon, geographically correl. orbit errors 18688
TOPEX/POSEIDON, GPS flight expt. 18883
TOPEX/POSEIDON, ocean radar calib., Platform Harvest 18864
TOPEX/POSEIDON Demonstration Receiver, orbit determ., GPS meas. 18689
TOPEX/POSEIDON mission, ocean circ. radar, overview 18859
TOPEX/POSEIDON ocean radar, precise orbit determ. 18860
TOPEX/POSEIDON ocean radar altimetry, calib., Lampedusa 18865
TOPEX/POSEIDON ocean radar altimetry, crossover study 18873
TOPEX/POSEIDON ocean radar satellite, CNES orbits 18861
TOPEX/POSEIDON ocean radar satellite, Earth gravity models 18862
TOPEX/POSEIDON ocean radar satellite, GPS for precise orbit 18863
TOPEX/POSEIDON radar altimeter, ocean circ. 18871
TOPEX/POSEIDON radar altimetry, dyn. topography 18870
TOPEX/POSEIDON radar altimetry, global scale dyn. 18872
TOPEX/POSEIDON radar altimetry, inverted barometer effect 18874
TOPEX/POSEIDON radar altimetry for sea level, buoy calib. 18867
TOPEX/POSEIDON radar altimetry for sea levels, 2 cm accuracy 18869
TOPEX/POSEIDON radar altimetry for sea levels, Great Lakes obs. 18868
TOPEX/POSEIDON radar sea levels, verification, Bass Strait 18866
TOPEX/POSEIDON satellite, secondary battery perform./management 26579
TOPEX/Poseidon satellite, solar array on-orbit perform. studies 26606
TOPEX/POSEIDON sea level meas., microwave radiometer perform. 18840
TOPEX/Poseidon solar array on-orbit performance 26599
TRACE, Transition Region And Coronal Explorer 35214
tracking, low-orbit, antenna servo design 23857
tracking antenna controller, design/implement. 15677
X-ray timing Explorer Power Syst., stabil. anal. 26651
GaAs space power solar cells, satellite test data 26641
Ni-Cd cells, flight/ground testing, TOPEX/Poseidon mission 26670
Ni-H$_2$ batt. qualification, ARTEMIS satellite 26571
Ni-H$_2$ batts., in-orbit internal impedance determ. 26567
artificial vision *see computer vision*
asdic *see sonar*
ASIC *see application specific integrated circuits*
ASK *see amplitude shift keying*
aspherical optics
EUV lithographic masks, programmed substr. defects 13509
microlens arrays, coherent refr., dry etching 7440
monolithic array LD module, small sized coupling optics 7671
opt. head lens actuator, high bit rate recording 7105
opt. intersatellite commun., LD transmitter 17173
profiling aspherical surfaces, moire deflectometry 17926
shape meas., HOE, interferometry 31678
soft X-ray projection lithog., multilayer mirrors *(Japanese)* 13438
soft X-ray projection lithog., opt. design *(Japanese)* 13439
X-ray lithog. beam lines, single mirror condenser 13540
assembling
see also microassembling
0.5-5 kW power convertor PCB distributed mag. components 11105
6-sigma fixturing QC program, electronics assembly environ. 37176
30 W HF foil-type air-core power convertor transformer 6381
AC elec. charactn. of solder paste 9994
alcohol-based semi-aq. cleaning in electronics assembly 930
automated fine pitch solder paste dispensing, SMT PCB manufacture 38137
automated pick-place laser soldering for electronics assembly 12933
ball grid array soldering proc. meas., X-ray techs. 37142
board interconnect technols., strategic implications, KBS 12889
card assembly detailed thermal response, IR reflow soldering 38098
card edge connector soldering, surface mount proc. 916
ceramic ball grid array, reliab. comparison of two metallurgies 21647
ceramic BGA package mfg. vars., effects on solder joint reliab. 11856
CFC-free solder fluxes for electronic assembly, selection guidelines 38127
chip mounting technol. meets fine pitch demands 152
component reel arrangement problem in PCB assembly 948
conducting adhesives for HDI 11813
conductive adhesives for assembly of SMT, fine pitch, MCMs and flip-chip bonding 37116
conductive polymer solders for Pb-free SMT/PCB/fine-pitch assembly 38130
conformal coating, robotic appl. 935
controlling solder ball form., wave soldering 944
CRT electron gun assembly, pulsed laser welding *(Chinese)* 15196
design for assembly and assembly automation *(Polish)* 28405
design for assembly strategy in global companies 37033
design for cell-based mfg. 37009
direct, board interconnect technol. 38133
discrete event simul., computer based learning, hypertext 20407
elec. equipt., interchangeable components assembly methods 5615
elec. verification, value to proc., SMA 38105
electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
electromechanical devices, tech. trends and motive technols. 6394
electronic assemblies, non-Pb bearing solder alloys 936
electronic component insertion/mounting, robotic *(Japanese)* 5603
electronics product and proc. design eval. 28403
fine-pitch SMT, automated soldering inspection 163
flat pack flux-free soldering proc. for PCBs 12937
flexible assembly lines for PCB, design and scheduling 29663
flux reliab. assess., electromigration and SIR 177
free-space opt. computing module config., guide-frame assembly method 39514
HDI, laser soldering 12936
IBM Austin Electronic Card Assembly and Test, quality mgt. 28515

assembling continued
IC mfg., assembly level reliab. 28426
impregnated cathode, emission materials, develop., reliab. tests *(Japanese)* 6472
inert gas wavesoldering, proc. variables, PBA KBS appls. 12935
insertion-loss improvement for opt. connector, transm. opt. intens. 1673
integrated membrane purification, water reuse in electronics mfg. 11888
Interleaf technol. mfg. syst. for SMT/leaded film capacitors 6361
joint torque disturbance observer for robotic PCB assembly 6415
known-good die testing, semicond. indust. implement. 5619
laminate materials, alignment, sens.-based robot techs. 110
MCM, mechanised assembly, competitive matrices 38181
MCM assembly, encapsulation and underfilling, proc. notes 37119
mfg. service provider selection, OEM considerations 36978
MINAS servomotor stator, cell method assembly syst. *(Japanese)* 11081
mixed SMT/PTH component technol. and assembly 37066
mixed-sig. MCM-L design, GPS receiver appl. 21691
Motorola training programme improved by virtual reality 36913
multiple batch surface mount PCB placement seq. problem, soln. 12915
multiple robot PCB assembly syst. 20396
no-clean flux eval., SIR testing 927
no-clean solder deposition, reflow technol. for fine pitch 21641
on-site nitrogen supply for electronics assembly market 28412
opto-electronic component assembly, soldering technols. 39609
parts hole dist. optimal estim., Kalman filters 8623
Parylene conformal coating economies 933
PCB assembly, CAPP 29666
PCB assembly, component grouping heuristics 942
PCB assembly, DSS develop. 28407
PCB assembly proc. perform. meas., multiple defects 38095
PCB assembly rework cell controller, software modelling 115
PCB assembly yield, design factors, stat. and ANN models 38080
PCB assembly/soldering, Penn State initiatives 29671
PCB automatic assembly time optim. 6420
PCB cleaning and treatment technol., syst. approach 929
PCB component assembly, lin. assignment algm. 29688
PCB component lead trimming shock meas. 29667
PCB flux residue influence, electronic assembly quality 937
PCB SMA, DFM, Integrated Expert System Environment 29670
PCB soldering materials trends to yr. 2000, user requirements 29665
PCMCIA standardization for PCB design, manufacture and assembling 12927
PCMCIA-style PCBs, depaneling proc. selection considerations 12926
PGA burn-in board loading, machine vision in robotic guidance 29668
pick and place in electronic packaging, high precision, alignment techs. 29721
PWB flip chip rework proc. 38125
PWB technol. trends, multifunctions and size reduction *(Japanese)* 923
quality perform. meas., SMT/PCB manufacture 37159
reduced oxide soldering activation, prod. compat. eval. 38115
semi-aq. cleaning agent selection 932
shop floor control inform. flow, PCB assembly 5600
SMD soldering/inspection workcell, develop. 6419
SMDs, inspection/subpixel alignment, fuzzy morph. *(Korean)* 29691
SMT, solder alternatives eval. 145
SMT attach, thermally stable water soluble solder paste 920
SMT connectors, lead/hold-down redesign, auto-placement 905
SMT IR reflow soldering, knowledge based decision support 29677
SMT PCB assembly, placement machine, multi-criteria DSS 28424
SMT PCB placement seq., multiple batch, soln. methodology 29689
SMT rework, meet ISO9001 38093
SMT solder paste reflow, soldering proc. interact., obs. phenomenology 938
solder ball form. in PCB wave soldering 38135
solder joint rework, effect on PTHs in multilayer PWBs 38116
solder masks, PCB manufacture, cost reduction/quality improvement 38099
solder paste screen printing proc. in SMT mfg., SPC 38134
soldering, wetting bal. meas. of components, dissimilar surfaces 37063
soldering station selection, modern through-hole/SMA 38144
surface mount and fine pitch technol. advances, overview 37151
surface mount connectors and assembly proc. develops. 894
thermocompression hot bar soldering tech. 21646
thin SOP, second level assembly and reliab. aspect 37134
total QC on PCB assembly proc. 6433
underfill encapsulants for flip chip assembly, characterisation and eval. 37137
vapour phase reflow soldering, viability for SMT ball grid array assembly 38090
Z-axis assembly proc. for connectorized opt. fiber ccts. 14380
Pb-based solder alternatives develop. 127
Sn-Ag(Cu) binary eutectic comp. for lead-free soldering 12928

assembly language
see also assembly language listings
address generation coprocessor, design and VLSI implement. 29302
National Park service mgt. package 28377
programmable rainfall simulator design and software develop. 35348
rehabilitation robotic feeder design 35181
teaching real-time DSP, Univ. of Leicester 36921

assembly language listings
relays, digital control interface design 29641

assembly lines *see assembling*

assembly methods *see assembling*

associative processing
data assoc. in multitarget tracking, efficient algm. 24331
fax image recognition using neural nets 41172
high-speed database proc. by opt. content-addressable parallel proc. 22970
image recogn., liked-BAM neural net-based *(Chinese)* 8667
IPA model using hierarchical recogn. algm., opt. implement. *(Korean)* 22979
Q-state neuron for Q-state associative memories 29444
video compression, real-time, using differential VQ 24581

associative storage *see content-addressable storage*

ASTERISK spectroscopy *see Raman spectroscopy*

asteroids
high-resoln. imaging, bispectral techs. 33140

astigmatism (eye) *see vision defects*

astigmatism (optical) *see aberrations*

astronautics *see space research*

astronomical instruments
see also astronomical techniques; astronomical telescopes; radiotelescopes
acousto-opt. spectrum analyzer modulator/deflector, radio-astron. appls. 17529
acousto-optic imaging spectropolarimetry for rem. sens. 7416
astrophys. receivers, THz source requirements 6313
bolometers readout, FIR/mm-wave, astrophys. appls. 34504
Broad Band X-ray Telescope calib. 43166
Fabry-Perot CCD imaging camera 9942
heterojunction low-illum. image sens., astron. appl. 9940
High Pressure Gas Scintillation Proportional Counter, SAX appl. 26260
high-energy astronomy instrumentation conf., San Diego (July 1994) 5466
large area Xe drift chambers for high energy gamma-ray astrophys. 4199
multiplexer for Cassini Visible/Infrared Mapping Spectrometer FPA 34563
NASA missions, submillimeter source needs 6312
opt. posn. sens., source width insensitive 17782
PM focusing image detectors, demagnification *(Chinese)* 17923
space-borne obs., conf., Orlando, FL, USA (1993) 11569
TV spectrometer, slit monitoring/star guiding ability 42643
UV technology, conference, San Diego, CA, USA (July 1994) 5467
UV/X-ray spectroscopy and polarimetry, conf., San Diego (July 1994) 5468
CdZnTe and HgI_2 room temp. detectors, hard X-ray astrophys. appl. 4209
Si CCDs, X-ray polaris. sensitivity 34976

astronomical spectra
H, 21 cm hyperfine line, radioastronomy appls. 5514
interstel. mols., lab. spectrometry in mm/submm 42554
UV/X-ray spectroscopy and polarimetry, conf., San Diego (July 1994) 5468

astronomical spectroscopy *see astronomical spectra; spectroscopy*

astronomical techniques
see also radioastronomical techniques
acoustic flucts. reduction, astron. adaptive optics *(English)* 25590
adaptive optics telescope image proc. 2708
astron. images, real-time compression and retrieval 24721
CCD image sens., defect detect., neural nets 3877
faint stellar obj. astron. imaging, light amplif. 2593
high-resoln. imaging, bispectral techs. 33140
Hubble Space Telescope, wide field camera, cosmic ray noise 24705
image restoration tech., theoretical S/N ratio limit 8516
Jupiter wind studies, Galileo entry probe tracking 42337
Moon, space-probe landing regions, photos cluster anal. 16158
nonlin. optics appl. for large astron. telescopes 31577
phase diversity imaging, atmos. turbulence 33089
SOHO solar spacecraft, operations & ground systs. 35277
solar image, segmentation, parallel blind deconvolution methods 33087
space-borne obs., conf., Orlando, FL, USA (1993) 11569
speckle interferometry, phase problem soln. *(Russian)* 16251
stellar image reconstruction, triple correl. and Knox-Thompson method 24496
universal time scale reprod., astro-opt./satellite data 9783
UV/X-ray spectroscopy and polarimetry, conf., San Diego (July 1994) 5468

astronomical telescopes
see also radiotelescopes
adaptive optics, CCD matrix, wavefront tilt sens. 42855
adaptive optics telescope image proc. 2708
Broad Band X-ray Telescope calib. 43166
CCD image sens., defect detect., neural nets 3877
direct drive, low cogging torque PM brushless motors 11320
GILDA mission, gamma-ray telescope, Si strip detectors 26138
Hubble Space Telescope, wide field camera, cosmic ray noise 24705
Hubble Space Telescope via World Wide Web 8917
Italian astron. and astrophys., WWW appl. 8916
low-energy cosmic ion detector syst., amplif. electronics 26137
low-pass elec. filters for cryogenic detectors 37830
nonlin. optics appl. for large astron. telescopes 31577
Richardson-Lucy algm., ghost images and image reconstruction feasibility 16209
space opt. commun., visisbility meas. for atmos. transm. model 15450
sparse telescope array undersampled focal plane image reconstruction 2710
TIGRE, Tracking/Imaging Gamma Ray Experiment (1, 100 MeV) 18412
TRACE, Transition Region And Coronal Explorer 35214
wave-front sens., closed-loop adaptive optics syst., error propag. 14567
InSb FPA-based IR camera for astron. telescope, electronic testing 17937

astronomy computing
see also computerised instrumentation
astron. speckle interferometry, phase problem soln. *(Russian)* 16251
CCD image sens., defect detect., neural nets 3877
celestial image proc. on symm. multi-proc. 24532
crater detect. by lin. filters representing Hough transform 41266
dataparallel semi-Lagrangian num. weather forecasting 26721
ESIS on World Wide Web 8898
High Pressure Gas Scintillation Proportional Counter, SAX appl. 26260
Hubble Space Telescope, wide field camera, cosmic ray noise 24705
Hubble Space Telescope via World Wide Web 8917
ICARUS detector, data reduction techs., phys. param. extraction 10125
image database, real-time compression and retrieval 24721
Italian astron. and astrophys., WWW appl. 8916
IUE astron. satellite, coarse-grained scheduling 26522
Nobeyama Radio Observatory, telescope control syst. upgrade 17515
radioastronomy sig. complexity, fractals, correl. dimens. 17518
radiotelescope (mm wave), antenna shape control syst. 17519
solar image, segmentation, parallel blind deconvolution methods 33087
solar radio bursts, automated detect./recording syst. 17524
stellar image reconstruction, triple correl. and Knox-Thompson method 24496
struct. detect., parallel algm., wavelet/segmentation anal. 32918
transputer-based data acquisition syst. for 256×256 pixel IR camera 42743
transputer-based soft-correlator for radio-astron. 42556

asymmetric digital subscriber lines *see subscriber loops*

asymptotic stability
alg. anal. of first difference of Lyapunov quadratic fn. of nonlin. pulse syst. 2362
brushless DC motor/robotic load, adaptive integrator backstepping tracking controller 19655
DC-to-DC power converters, sliding mode control design 520
dyn. syst. sync. and control 12297

asymptotic stability continued
- induction motor adaptive tracking control 36152
- packet switching networks congestion control 16426
- power syst. load-freq. control, H_∞ optim. 43675
- Prony algm. modified for exponential fn. fitting 20586
- real polynomial set with coeffs. in weighted L_p domain, stabil. 37216
- spinning spacecraft, coning motion stabil., Lyapunov anal. 10305
- SRM actuated rigid-link robot hybrid adaptive tracking control 36650

asynchronous circuits
- *see also asynchronous sequential logic; sequential circuits*
- 100 Mips event controlled ALU for asynchronous μP 29122
- Apicius project, asynchronous logic/proc. archit. research 29125
- automatic verification of asynchronous ccts. 29166
- chaotic neural networks, pulse propag. dyn. *(Japanese)* 37909
- CMOS 16 bit multiplier, async. logic design techs. 21295
- CMOS low-power error corrector for DCC player 9769
- CMOS prescalers, asynchronous and dual-modulus configs. 29112
- counter with bounded response time and bounded power dissipation, calculational derivation 37681
- design, space and timing factor quantification 29119
- design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
- design methodologies/computations, overview 6142
- event controlled asynchronous μP, design method eval. 29254
- event-based specs., state assignment problem soln. 12259
- extended lock graph theory, optim. 21210
- finite state machine, extended burst-mode spec. 21211
- handshaking control cct. for self-timed systs. 614
- hazard anal. of struct. seq. systs. 37726
- hazard-free asynchronous cct. synthesis, sig. transit. graph constraints 6141
- hazard-free asynchronous ccts. with bounded wire delays, synthesis 12403
- high-level modeling and design of asynchronous interface logic 29167
- high-level synthesis, scheduling, synchronis. 21183
- large-scale asynchronous finite state machines, synthesis procedure 6131
- M-to-B arbiter for multiple bus multiprocessor systs., high speed, VLSI 642
- micropipeline asynchronous digital logic design, systolic arrays, DSP appls. 29124
- OR causality, modelling and hardware implement. 21247
- self-timed floating point coprocessor prototyping, FPGAs 21288
- seq. logic ccts., SR-latches, scan design 6130
- GaAs MESFET SRAM, current mirror memory cell 37774

asynchronous electric machines *see asynchronous machines*

asynchronous generators
- 5 kW wind turbine induction generator, expt. design 10902
- asymmetric failure conditions studies 27729
- DC power supply, two-phase induction generator-based 5110
- double induction output generator, commutation angle anal. 19638
- double-fed induction generators, PLL controlled, stabil. anal. 44061
- dyn. anal., bifurcation theory-based 4961
- EM launcher pulsed power supplies 31742
- fixed pitch WEC syst., induction generator, EMTP simul. 10910
- induction generators, renewable energy generation appl. prospects 36178
- interconnected power syst., transient response, single line-to-ground faults 4593
- LMF triaxial MITL voltage adder syst. Marx generator 36300
- micro-hydroelec. power induction generator stabilisation 4857
- rotor-air gap boundary layer, equiv. ccts. design 44037
- rotor/air-gap boundary layer, equiv. ccts. *(Russian)* 44033
- self-excited brushless multifield induction generators 11049
- self-excited induction generators, capacitor selection studies 44036
- self-excited induction generators, circle diagram approach 19628
- single-phase self-excited induction generator, anal. 36177
- squirrel cage, CSI exciter, voltage regulator 19635
- stand alone induction generator, wind driven, induction motor load 27741
- three-phase bridge rectifier, self-excited generator appls. 11179
- UPS, slip-power recovery induction generator *(Japanese)* 27797
- utility-grid interactive three-phase inverters 5083
- wind energy induction generator DC link, fuzzy control 10908
- wind energy utilisation, fuzzy logic controller 36065
- wind induction generators, harmonics prediction/ident. 43960
- wind power self-excited induction generators, rectifying bridge studies 36084
- wind turbine, self-excited induction generator 10911
- wind turbine, wound rotor async. generator, static Kramer drive 36083

asynchronous machines
- *see also asynchronous generators; induction motors; slip (asynchronous machines)*
- 3-phase GTO PWM inverter for control, drive 11381
- behaviour anal., interactive colour graphics 11050
- broken bar detect., current spectrum/param. estim. 4966
- cage induction machines, online winding param. meas. 4940
- deep-bar induction machine dyn. params. determ. 4964
- direct self control algm. modelling 11041
- doubly-fed induction machines, torque/VAr control 4973
- eccentric rotor mag. pull modelling 36168
- elec./mech. params. ident., math. method 11042
- eqns. syst., theory education appls. *(Russian)* 36931
- ferromag. rotor, temp.-mech. characts. tests *(Russian)* 36150
- field-oriented sliding mode digital control 4952
- freq. converter asynchronous machines, integrated rotor studies *(Russian)* 11013
- harmonic rotor current/loss symm. calcs. 36169
- ident./control, neural net-based 44057
- induction machine equiv. cct. models, comparison 27742
- induction machine low speed region control method 44051
- induction machines, core loss/mag. saturation model 4978
- induction machines, effect of skewing on cogging torque 19641
- induction machines, flux observer design 27710
- induction machines, nonstd., fuzzy control 44035
- intell. IGBT power modules for driving systs. 36670
- invertor-fed, EM procs. anal. method *(Russian)* 44041
- MHD induction pumps, 3D EM field/force anal. 36610
- multi-time scale modelling of elec. machine 36122
- multimachine interconnected power syst., transient perform. model 19149
- multiple coupled cct. modelling 36160
- optim. conflict problems, univariant search method 11053
- packet-switched shared memory multiprocessor, cache coherency scheme 2953
- param. estim., standstill time-domain data 19642
- params. ident., RLS method 27711
- perform. under faulted operation 19618

asynchronous machines continued
- piecewise-const. approx. anal. method *(Polish)* 36148
- reactive power, math. anal. *(Russian)* 44056
- saturated deep bar induction machines, simul. model 4971
- sensorless vector control, HF current injection 4974
- squirrel cage disc rotor, starting torque improvement 27733
- staggered-rotor async., machine harmonic torques *(German)* 11027
- standstill freq. response studies *(French)* 11044
- stator flux oriented digital control scheme 4951
- three-phase induction machines, dynamic starting perform. models 19626
- three-phase induction machines, two/three-level PWM invertor-fed *(French)* 11032
- transient state, bal. and unbalanced faults effect 19197
- two stator windings, EM torque 36144
- vector control, iron core loss considerations 4955
- vibroacoustic optim. by FEA *(German)* 11028
- VSI, IGBT-based, asynchronous machine appls. *(French)* 11193

asynchronous motors *see induction motors*

asynchronous sequential logic
- *see also asynchronous circuits; sequential circuits; sequential switching; switching theory*
- Apicius project, asynchronous logic/proc. archit. research 29125
- ccts., SR-latches, scan design 6130
- fault simul. of digital designs on parallel proc., distrib. algm. 37685
- hazard anal. of struct. seq. systs. 37726
- hazard-free asynchronous ccts. with bounded wire delays, synthesis 12403
- SR-latch cct. using Hopfield neural networks, design 12432

asynchronous transfer mode
- 18th conf., on local computer networks, Minneapolis, MN, USA, 1993 28220
- 64 kbit/s-based services, network perform. 41941
- 622 Mbit/s TDMA PON, novel burst mode opt. transmitter *(English, Italian)* 33991
- A-M-S type fluid queue output 33232
- AAL5, ATM Adaptation Layer 5 for gigabit LAN 3191
- adaptation layer, service specific connection oriented protocol 2960
- adaptation layer and group commun. server for reliable multipoint services 16482
- adaptive call admission control 41436
- adaptive call admission neural control 41450
- adaptive connection admission control, perform. modelling 41435
- adaptive rate control for delayed feedback sources 24745
- admission control in ATM networks 24760
- algorithms on dynamic priority scheduling for heterogeneous traffic in ATM 33708
- all-opt. fiber ATM/SONET WDM network 9511
- AR(1)+IPP model for video cell traffic approx. *(Japanese)* 24747
- ASDL links maint. approach and fns. 16916
- asymmetric broadcast ATM switching network, concentrators 16971
- asymptotic queueing behavior of stat. multiplexers, heterog. traffic 42101
- AT&T's InterSpan ATM service for enterprise networking 41802
- AT&T ATM switching-network products 16950
- AT&T Network Systs. Service Net-2000 broadband network archit. plans 41608
- ATM, connectionless service support 16782
- ATM appl., digital avionics 10389
- ATM appls. for business and consumer users 8820
- ATM network LAN/MAN interconnection, simul. study 41902
- ATM networks, ABR service replace VBR service 33176
- ATM networks, fuzzy neural control, voice cells 16418
- ATM networks, multiple traffic classes, hierarchical dyn. control 16423
- ATM networks, nonblocking multi-channel switching 8713
- ATM three stage switch, cell-level path allocation 8725
- ATM transport networks, virtual path test fn. 16576
- ATM virtual private network design alternatives 16458
- ATM-based network environ., media schedular for AAL 42039
- ATM-FDDI gateway, simulation model 33466
- ATM-LAN technol. foundations *(German)* 8914
- ATM-NAPs routing in presence of special ANS/NSFNET attachment 24944
- ATM/PVC-based video retrieval network, path reservation protocol 41526
- ATMXC01, 155 Mbit/s asynchronous cross-connect 25184
- autonomous provisioning algm. for rem. operation in ATM networks *(Japanese)* 24837
- available bit rate ATM service, rate-based flow control framework 41399
- B-ISDN, ATM tech./switches 25069
- B-ISDN, ATM via satellite 16781
- B-ISDN, ATM/SDH interworking 16780
- B-ISDN, connectionless service 3230
- B-ISDN, deterministic rule based traffic descriptors 33607
- B-ISDN, dyn. virtual path bandwidth control, perform. anal. 24908
- B-ISDN, error recovery scheme perform. comparison 41926
- B-ISDN, hyperdistributed switching syst. archit. 33588
- B-ISDN, IN mgt. syst. 8843
- B-ISDN, large deviations approx. for fluid queues fed by on/off sources 41929
- B-ISDN, video services, preventive flow control 41938
- B-ISDN ATM network congestion control framework 3239
- B-ISDN ATM switching module, MCM-C technol. 25181
- B-ISDN ATM-based priority traffic control 33180
- B-ISDN connection admission control/routing, neural networks appl. 16788
- B-ISDN high-speed-retry banyan switch archit. for gigabit rates 3293
- B-ISDN internetworking unit, VLSI implement. 16798
- B-ISDN signalling, obj.-oriented implement. 9022
- B-ISDN standardization, tech. issues in data commun. services deployment 33601
- B-ISDN video transm. *(Japanese)* 41920
- B-ISDN with ATM connections, desirable props. of traffic descriptors 33609
- B-ISDN/ATM connectionless data service in Internet environ. 41842
- B-ISDN/ATM customer network mgt. archit. 41913
- backbone ATM switch, cost and complexity issues 42111
- BALI, inhouse ATM and LANs/WANs for multimedia teleservices 41983
- bandwidth-on-demand based TINA archit. mgt. 16590
- barrel switch, ATM switch archit. for high-speed switching 16975
- basic principles 8701
- Bay Area broadband network testbeds and technol. 41995
- Bellcore Research Network opt. SONET/ATM layer implement. 9512
- BERKOM-II FlowSpec, ATM mapping 9018
- BISDN, real-time commun. 33172

asynchronous transfer mode continued
BISDN/ATM environ., resource allocation model 3232
branch network strategies and protocols 8890
broadband ATM exchange, parallel computer architect., perform. modelling 42125
broadband ATM indoor radio, packet diversity 16700
broadband ATM switches, optim. design for VLSI implement. 9136
broadband multipoint multimedia telecom. and computer supported collaborative work 42018
broadband multiservice networks, ATM source worst case anal. 33195
broadband network, link in ST-2 internet 8974
broadband network evol. 8821
broadband network services, archit. for high speed multimedia networking 25102
broadband network services, distributed multimedia support-environ. 16870
broadband network termination syst., perform. monitoring, inform. model 9111
broadband networks, multiple push-out congestion mgt. scheme 41681
broadband networks, neural network traffic description 3240
broadband networks, resource allocation 9017
broadband networks/services, distributed interactive simul. 9020
broadband services 8804
broadband switching equipt. market needs and vendor offerings 41758
broadband telecomms. networks and ATM, survey 16792
buffer allocation schemes in ATM switches 8723
buffer occupancy in ATM switches, single hot spot traffic 16450
burst admission-control protocols, perform. anal. 33263
burst-based bandwidth-reservation method 33165
burst-mode receiver transm.-capacity penalty in all-opt. multiple-access networks 17198
burstiness fn. for substream output from buffered multiplexing node 41453
bursty ATM user traffic, jitter tolerant leaky bucket 2872
call admission control in ATM network by random neural net 33218
CAM-based single-chip shared buffer ATM switch 9142
campus LAN backbone, constr. 41753
campus scale wireless Internet, ATM 33559
Canton ATM switch, expt. infrastructure 42120
CDMA coded packet cellular networks, code rate optim. 25384
cell buffer implement. realizing CLP and appl. 16966
cell conformance and QoS guarantees 41445
cell conformance testing, respect, peak cell rate 41457
cell contention resoln. by multiwavelength fiber loop memory *(English, Italian)* 33989
cell delay var., multiplexing method 16441
cell delay var. distorted ATM traffic, connection admission control 41444
cell delay var. tolerance for mapping ATM cells, phys. layer 24755
cell loss minimisation for ATM networks, robust heuristic 24795
cell loss priority tagging leaky-bucket usage param. control perform. 41411
cell-based ATM phys. layer, parallel DSS implement. 8729
Chinese commun. research and related works 3072
CLAD implement. and expt. results in ATM networks *(Japanese)* 24948
Clos switch, symmetric bursty geometric traffic, switch perform. 41449
CMC ATM switch I/O proc., design/validation, HDL Verilog 33719
CMOS 2.4 Gbps 16×16 ATM switch chip set 16960
CMOS ATM switch LSIs, self-timed queue archit. 33721
CMOS buffered switch for gigabit ATM switching B-ISDN 16974
CMOS SDH termination chip for 622 Mbps STM-4c B-ISDN 16932
CMOS VLSI 32×32 ATM switch, design, simple logic control 9137
common LAN technologies for ATM connectivity 33442
commun. networks, perform./reliab. design 41442
computer network concurrent access, discrete event simul. modelling 24997
computer network modeling, obj. oriented simul. 24768
concepts, archits., and protocols 24769
congestion avoidance networks, congestion estim. feedback 9016
congestion control algms., validation/perform. anal. by Petri net 41448
congestion control based dyn. routing 2991
congestion control scheme, two-level, for ATM networks 2884
congestion control schemes, prioritized ATM networks 8743
connection admission control, discretised fluid-flow anal. 41451
connection oriented protocols, ATM 16473
connectionless broadband ATM network data service design by simulated annealing 25033
connectionless multicast service 42124
corporate network mgt. *(Japanese)* 16715
corporate networks, interworking ATM services 8879
COST 226 project, network integrat. by satellite 42306
CPN, appl. *(Japanese)* 25147
CRC perform. and interact., data scrambler 25178
credit-based flow control 2881
credit-based flow control for ATM networks 41400
CRMA/ATM interworking unit,a loss free access, buffer sizing 8968
CRMA/ATM network interconnection flow control protocol 41762
cross-connect archit., expandability and non-blocking 3295
cross-connect networks, guided restoration 16432
cross-connect syst., archit., develop. and field trial 3294
customer network management services for broadband data services 33364
customer-usable all-opt. networks, develop. 9084
delay anal. of ATM queues, random order of service 24796
delta network, expanded middle stages for large ATM cross-connects 24751
deregulated markets, future of ATM 16552
design changes tracking, formal verification 41502
deterministic queue modelling, leaky bucket, arrival proc. 33239
discrete time queueing model, cell delay var. in ATM network 3277
discrete-time anal., busy/idle period distribs. of ATM multiplexer 3278
distance learning environment and ATM, trial at University of Minnesota 33643
distributed access network perform. eval. by DEVSim++ 25141
distributed commun. syst. technol. 24885
Distributed multicast contention resoln., content addressable FIFOs 16964
distributed multimedia computing, large scale multimedia server 41984
distributed multimedia systs., software engng. tech. 41966
distributed OS, data/control transfer separation 16659
DQDB MAN service integrat. and impact on ATM interworking perform. 41847
DQDB/B-ISDN gateway, UPC mechanisms comparison 33503
DS-CDMA digital mobile radio systs., unequal error protection 9373
Dutch ATM pilot project 8822
dyn. bandwidth allocation scheme for ATM networks 3092
dyn. priority control algm. enhancement *(Korean)* 16465
dyn. wavelength allocation opt. LAN network 34100

asynchronous transfer mode continued
dynamic congestion control schemes in high-speed multimedia networks 33594
effective bandwidths for connection admission control 33231
effective bandwidths formula perform. 33227
elementary anal. *(Chinese)* 2866
embedded ATM networks, distributed pricing 41677
embedded real-time systs., admission policies, perform. 33505
end-to-end queueing delay 33216
enhanced exponentially weighted moving av. method 8731
enterprise network ATM switching paradigm 41408
equiv. bandwidth and admission criteria 2874
Ericsson's broadband concept 41613
Erlang capacity of shared resource 40540
Erlang capacity/uniform approx. for shared unbuffered resources 8088
error concealment algms. for ATM videoconferencing syst. 9030
EUTELSAT advanced telecomm. services 33961
expandable ATOM switch archit. for ATM LANs 8970
expanded delta fast packet switch 9141
fast ATM rerouting algm. for networks, unreliable links 8708
fast packet switches, simul. environ. 25172
fast packet switching, intell. user entities 8697
fast packet technol., corporate network choices 33581
fast reactive congestion control method 41441
fast reservation protocol/stat. multiplexing 16438
fast reservation shaper, novel approach for fast resource mgt. 41683
FDDI, ATM and fast Ethernet, eval. 3199
FDDI networks connected through ATM, video traffic mgt. perform. 24916
FDDI technol., review 16698
fiber network survivability, emerging technols. 34056
FITL systs., MPEG encoding/ATM transport, video services delivery 42053
flexible ATM syst. archit. for worldwide field trials 41407
flexible commun. mgt. for multimedia multipoint commun. 25104
flow control, rate/credit schemes, integrated approach 41401
flow control algm., hysteresis effect *(Korean)* 33188
flow mgt. in quality of service archit. 25099
forecasting broadband demand and traffic, multi-faceted approach 33346
frame-oriented queueing control policy for real/non-real-time traffic 33592
frame-relay traffic 41439
framing, CRC byte 8712
FRONTIERNET freq.-routing-type time-division interconnection network, FDM output buffers 9150
Fujitsu chip sets for ATM LANs, develop. *(Japanese)* 16736
Gbit/s range LANs and MANs, media access protocol perform. comparison 24803
Gbit/s-LANs, ATMR/CRMA-II, perform. comparison 16710
generic flow control protocol, perform. assessment 2961
GENESIS, seamless environ. for telecomms. networks 24884
GIS data commun. 33487
GlobeView-2000, AT&T's ATM products 9138
GRAMS distributed multimedia service syst. 16833
hardware archit. of ATM exchange *(Chinese)* 9129
heterog. data networks, addressing/routing 24841
heterog. mobile environ. supporting adaptive services 33567
heterog. sources, equiv. bandwidth 8719
hierarchical and modular local ATM switch, design and anal. 33169
high perform. transparent bridge modular archit. 41404
high speed data networks, transit. splitting for estim. of rare events 33200
high speed inform. network planning, stochastic optim. 25109
high speed multimedia commun. archit. 25105
high speed networks, two-level flow control scheme 8902
high-capacity broadband packet switch archit., multilink approach 41912
high-speed ATM backbones 24763
high-speed ATM networks, TCP perform. improvements 25041
high-speed B-ISDN data terminal adaptor design 41915
high-speed cell-based network congestion mgt. techs. 33382
high-speed MCM ATM switching syst. hardware technols. 25191
high-speed multi-group commun. syst. *(Japanese)* 3246
high-speed networks, inter-proc. commun. perform. 8967
high-speed packet switch, input access, perform. anal. 16794
high-speed public transport for enterprise networks 8825
high-speed switching syst. hardware based on Cu-polyimide MCM 16973
high-speed switching systs., MCM technols. 25182
highspeed multiservice broadband integrated network, evol. 33597
HIPPI-ATM-SONET terminal adapters, archit./perform. 41798
hitless path protection switching techs. 16420
HMR, ATM-based medium access protocol for gigabit ring networks 24800
HSLAN, comparison 33495
hybrid STM-ATM switching and transport 41437
IDEA project, broadband multimedia and collaboration tools 16885
IEE telecommunications conf., Brighton, UK (1995) 36830
indiv. VC shaping 33235
infinite capacity N*D/D/1 queue, idle and busy period distribs. 33234
infinite SPN, matrix-geometric soln. 37265
integrated ATM networks, dimensioning and design methods 41569
integrated bandwidth and congestion management in ATM networks 33709
integrated services network scheduling and admission control priority token bank 41916
interconnected LAN, congestion avoidance 3174
Internet, class D service archit. 8992
Internet, today and tomorrow *(Japanese)* 8883
Internet protocol, connection-oriented networks and distributional paging 16489
internetwork, cost-effective migration strategy 41883
internetworking archit. for integrated voice and data commun. 9007
IP multigigabit router design 8901
IP over ATM, cell traffic efficiency 25067
ISABEL, expt. distributed cooperative work appl., broadband networks 16863
ISDN, transparent ATM LAN interconnection 16668
Jetstream Gb/s LAN, user-space protocols for high perform. appls. 2940
JPEG-encoded med. video, transm. and storage 18447
key agile cryptographic syst. for OC-12c rate ATM 24058
L-UNI, LAN emulation user-to-network interface 16758
lab. expt. broadband switching syst., field trial 16784
label swapping routing, self-termination mechanism 2984
LACE multimedia programme, ATM technol. 9050
LAN, ATM appl. 16685
LAN, centrally scheduled, task distrib. 41774
LAN, exposed buffering/subdatagram flow control 33516

asynchronous transfer mode continued
- LAN, full-color real-time video broadcasting 16681
- LAN, high-speed telecomms. technol. *(Japanese)* 33544
- LAN emulation, ATM switch design, ATM congestion control 17216
- LAN evol., ATM 8888
- LAN interconnection 3166
- LAN switch 3289
- LAN syst., multimedia on demand appls. 16838
- LAN/MAN interworking, bandwidth allocation, perform. 8996
- LAN/MAN-BISDN, integrated services interworking, perform. eval. 33599
- LAN/Token Ring bridging, connectionless methods, perform. anal. 41911
- LAN/WAN, ATM appl. advantages *(Japanese)* 41854
- LANs, bandwidth mgt. 33517
- LANs, protocol/interface 3192
- LANs/WANs, random access protocols 8965
- large scale ATM switch archit. *(Japanese)* 42121
- large-scale LANs, interconnection via two-stage switching hub for multimedia appls. 33513
- latency anal. of TCP on ATM network 8923
- leaky bucket algm. for bursty sources *(Chinese)* 33163
- Leaky Bucket algm. queueing models, fast simul. methods 11906
- leaky bucket ATM networks, buffer requirements 16446
- leaky bucket flow control scheme, burst reduction props. 16451
- leaky bucket network access schemes comparisons 16467
- lightwave transm., low-rate parallel scrambling techs. 42380
- link syst. develop. 24849
- local area ATM network, medium speed access 41904
- local ATM network, Internet protocol, design 8994
- local computer networks, conf., Minneapolis, USA (1994) 20231
- low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
- low-latency commun., ATM networks, act. messages 24974
- m-MMBP charactn. of departure proc. of m-MMBP/Geo/1/K queue 33222
- M/D/1 syst., unfinished work distrib., num. eval. 33186
- MAN/WAN integration, ATM-to-DQDB case 33446
- MARS, large scale multimedia storage server, design 16904
- MCMs, high-speed ATM switching, heat-pipe cooling technol. 25183
- ME-based approxs. for general discrete-time queueing models 3280
- measuring rare cell losses 41434
- med., distributed multimedia patient data, Bermed Project 8942
- min. ON/OFF source models for traffic 33230
- Mitsubishi ATM subscriber-line transm. equipt. 33669
- Mitsubishi perform. tester for ATM networks 33589
- MLAN Multimedia Local ATM Network archit. and perform. 16760
- mobile multimedia commun., IN archit. 9035
- modified RESTART-method using LRE-algm., rare event simul. 33247
- modulation level-controlled radio syst. 3314
- MPEG2 appl. transm., ATM networks 16880
- MPEG-2, ATM 33598
- MPEG-2, IEE Colloquium, London, UK (1995) 11597
- multi-class non-hierarchical networks, dyn. routing 8791
- multi-point video-conf. bridge, ATM switch 16817
- multi-server discrete-time queues, transient anal. 2894
- multi-single-stage shuffling switch, design/perform. 16430
- multi-wavelength transport networks 9451
- multicast ATM switch copy network shared-buffer archit. 41417
- multicast ATM switching, design requirements and archits. 25190
- multicast operations for ATM-based high perform. computing 8909
- multicast switching, nonblocking copy network design 2871
- multimedia and mobile commun. 33660
- multimedia appl. adaptation layer (MAAL) protocol 16848
- multimedia appls. 33515
- multimedia ATM broadband AIN control station testbed 41990
- multimedia capable network, ATM/IEEE 802.9a isochronous Ethernet transport technols. 42015
- multimedia commun., fast, NTT strategy 25119
- multimedia commun. in real-time, workstation support 9062
- multimedia endstations, service kernel 16842
- multimedia enhanced transport service, QoS Architecture 9076
- multimedia internetworking, ATM connection and traffic mgt. 25123
- multimedia LAN archit. 41806
- multimedia protocols, simplified QoS model 25101
- multimedia radio commun., variable-rate FEC perform. anal. 9044
- multimedia servers, ATM 41965
- multimedia teleservices and high-speed archits., conf., Heidelberg, Germany (1994) 40
- multimedia teletutoring, trans-European ATM network 16861
- multimedia traffic, loss/delay priorities, Markov-modulated fluid model 8694
- Multinet, multistage ATM switch archit., design/perform. 9139
- multipath self-routing switch fabric, perform. anal. of resequencing unit 33608
- multiplexed ATM traffic, policing/spacing 8695
- multiplexed ON-OFF sources, effect of multipath routing on loss perform. 41928
- multiplexer, correl. real-time and independent non-real-time traffic 24752
- multiplexer, fixed-length packet transport, two-queue syst. *(Korean)* 24772
- multiplexer, jitter/delay anal. 16439
- multiplexer, Markov modulated arrivals, output proc. 16785
- multiplexer, on-off sources, cell loss probab. 16454
- multiplexer output busy/idle periods for homog. ON/OFF sources 33233
- multiplexer supporting bursty traffic, perform. computation 41427
- multiplexer traffic model for correl. periodic real-time and independ. batch Poisson traffic 41429
- multiplexers, dyn. transm./enqueueing priorities 8703
- multiplexers, Markovian arrivals, exponential upper bounds 24785
- multipoint cell buffering in ATM, perform. eval. 33178
- multiservice ATM networks, bandwidth mgt. 24906
- multiservice networks, flexible call admission control 41455
- multiservice struct. Markovian traffic source model 8989
- multistage ATM switch fabrics, approx. model 41443
- multistage ATM switching network, delay perform. 33197
- multistage networks, shared queueing under correl. traffic 33240
- multistage nonblocking ATM switches, connection-level design 16967
- multiwavelength opt.-fiber-loop memory, ATM packet simultaneous buffering 9149
- MV05A/B/C test syst. for ATM syst. R&D *(Japanese)* 33707
- NAP archit., routing design 24980
- native ATM-multicast and IP-multicast, comparison/mapping 33272
- native-mode ATM appls., signaling and OS support 2945
- NCIH, integrated network/service mgt. 8837
- network, reactive flow control mechanism 2869

asynchronous transfer mode continued
- network, video frames temporal placement control 24494
- network adapter, archit. 16934
- network end-stations, perform. charact. 33175
- network goals and challenges 24770
- network hitless line protection switching 41409
- network nonstationary queue models 41477
- network perform. eval. video source models *(Croatian)* 2868
- network perform./resource mgt. 33383
- network policing mechanism with state-depend. control 41430
- network routing, congestion tolerant commun., perform. 8728
- network source traffic priority shaping fn. 41551
- network traffic profile generation *(German)* 24868
- network variable bit rate MPEG video encoder characts. 41974
- network virtual path restoration, multiring approach 41760
- networked ATM-video products 9026
- networked multimedia, Medusa environ. 9067
- networking fund. and acronyms in opt. fiber commun. 9507
- networks, adaptive bandwidth mgt. 24909
- networks, bursty traffic, call admission control 8707
- networks, CBR appls., service requirements 9019
- networks, cell loss probab., state-space reduction method 16437
- networks, cell loss ratio commitments 8711
- networks, const. bit rate service appl. requirements 24890
- networks, distributed routing/access control 8706
- networks, end-to-end perform. 9023
- networks, flow controlled virtual channels 2889
- networks, high-speed data commun., VP dimensioning 24907
- networks, modified flow enforcement tech. 24744
- networks, multi-rate traffic shaping/perform. 2879
- networks, multimedia appls., QoS selector 9075
- networks, neural network traffic enforcement 16790
- networks, optimal traffic regulation, Markov decision approach 2877
- networks, packet switching success 8856
- networks, routing/congestion control 2890
- networks, traffic shaping, implemention 33174
- next-generation PCN multimedia traffic support 41979
- no resource reservation data commun., traffic control schemes 41440
- node, syst./perform. design 16701
- node buffer allocation algm. for correl. arrivals 41478
- North American public broadband network service evol. 41651
- North Carolina inform. highway 9547
- North Carolina Information Highway, ATM switching/CPE 8823
- North Carolina Information Highway, evol. 9012
- North Carolina Information Highway, network mgt. 8836
- North Carolina Information Highway, services/archit. 9011
- OC-12/STS-3c/ATM transm. interface for AURORA Gigabit Testbed 41766
- Omega network-based ATM switch, neural network-controlled 16416
- OO TMN based operations systs. develop. platform 16605
- opt. ATM components 33729
- opt. ATM switching archits. 33730
- opt. CDMA by spectral encoding of LED, ultrafast switching 9609
- opt. receivers, recent advances 42473
- opt. switch, cell synchronisation *(English, Italian)* 33725
- opt. switching, high-speed module for wavelength encoding 16982
- optics and ATM, IEE Colloquium, London (1995) 20251
- optimal estim. framework for adaptive traffic admission 41678
- optimal resource allocation for ATM networks supporting time-crit. traffic 24748
- optimal virtual path bandwidth mgt. assuring network reliab. 41650
- output buffer mgt. schemes comparison 8724
- output queueing, priority class in ATM switch 33181
- outsourcing of services, high technol. orient. 33582
- overload control, impact of services and control archits. 33605
- Pacific Bell's ATM/CRS for med. imaging data 41619
- packet loss rate simul., commun. networks, priorities 11907
- packet switch, output buffering/imbalanced correl. traffic, anal. 8716
- packet switches, shared buffer memory 24759
- parallel computing across ATM networks, commun. issues 16429
- partial buffer sharing policy, cell loss proc. anal. 8698
- PBX systs. for data commun. 3165
- PCS network perform. optimisation by multilink B-ISDN routing protocol 25070
- peak cell rate monitor algm., discrete time anal. 41447
- perform., ATM stat. multiplexer, on/off sources and spacing 3279
- pers. commun. services on distributed proc. environ. 41690
- photonic ATM backbone network 9025
- photonic ATM switch for high speed networks 33534
- photonic ATM switching systs. 33731
- photonic device based ATM architect. 16986
- photonic networks pot. 9450
- photonic switching module, dimens. and architectural anal. *(English, Italian)* 33724
- photonics for broadband switching 16977
- pipelined common buffer archit. for memory based switching systs. 33716
- policing mechanisms based on max. throughput fns. 41446
- PON, ATM protocol 42069
- PON, private/authentic commun. 42072
- PON access systs., out-of-band ranging method *(English, Italian)* 33990
- preventive congestion control based routing 16443
- priority scheduling in ATM network 24775
- private network-to-network interface (PNNI) for heterog. ATM networks 16699
- PRIZMA, flexible shared-buffer switch for ATM, Gb/s rates 33712
- product form in discrete-time queueing networks 24793
- protocol develop. package for ATM networks 41841
- protocol stack, ATM, implement. 8921
- QoS adaptation and flow filtering in ATM networks 16852
- queue manager, multiple delay/loss priorities 8726
- queueing anal. of partial buffer sharing, Markov modulated Poisson inputs 33220
- queueing syst. perform., arrival law params. 33229
- RACE II project, TMN bandwidth mgt. for ATM demonstrated 33362
- RACE II project Combine, broadband network interworking 33353
- RACE II project PREPARE, mgt. of heterog. broadband testbed 33386
- rate-based feedback traffic controller 16445
- real-time traffic estim. 41927
- reconfigurable virtual path network mgt. 41676
- reliab. models for fast packet switch archits. 2888

asynchronous transfer mode continued
- reliable and efficient hop-by-hop flow control 2880
- resource sharing schemes in connectionless server 41438
- RESTART method, accelerated simul., multiple thresholds 33248
- satellite based ATM switch 17163
- scalable approach, routing in ATM networks 41421
- scalable lightwave network 9452
- sci. inform. network flexibility needs and trends *(Japanese)* 16800
- SDH sig. transfer method based on ATM techs. 2886
- SDH/ATM mgt. and services, IEE Colloquium, London (1994) 63
- self-routing bridged shuffle-exchange network 41414
- self-similar traffic, anal. model 16667
- self-timed queue archit., ATM switch LSIs, CMOS proc. technol. 16961
- service provision on ATM network 16427
- service specific connection oriented protocol, preliminary perform. study 41935
- shared medium multiservice protocol 41519
- shared memory ATM switch, simul. study of space priorities 33720
- shared-buffer direct-access switch archit. 8709
- shared-medium ATM switch under bursty arrivals, approx. anal. 2865
- shift/BETEL project, CERN involvement 25000
- shuffle-based switch, perform. anal. 8730
- shuffleout connectionless network switching archit. 41415
- shuffleout switch, channel grouping techs. 33199
- shuffleout switch, multicast services provision 16440
- simul. comparison of broadband networking, MAN config. 16761
- simul. tech. for modelling burst scale queueing 33246
- single-bit error-correction cct. for ATM interfaces 42080
- single-stage output buffer packet switches, independent batch arrivals 41456
- small planar packaging syst., card on board, high-dens. ATM switching systs. 28459
- small planar packaging syst. for ATM switching systs. 33722
- source traffic descriptor based on peak, mean and second moment of cell rate 33191
- StarBurst switch with dedicated output and shared input buffering 41413
- stat. multiplex perform. anal. of multimedia sources 8732
- stat. multiplexer with generalized periodic sources, anal. 24750
- statistical multiplexer multidimens. diffusion model 41431
- stress test results for ATM switches 42116
- subnetwork syst. fns., timer-related perform. issues 24766
- SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
- switch, DQDB interconnections, cell-based flow control 8966
- switch, integrated control/mgt. model 8844
- switch, minislot synchronized, output queue contents 33177
- switch bursty and correl. mean delay and cell loss probab. 41410
- switch for data commun., PVC reservation 9140
- switch/crossconnect archits. 33718
- switching, introduction 16428
- switching syst., bandwidth control fn. 16958
- switching technol. and services 41424
- syst. traffic anal., modelling and simul. *(German)* 24867
- syst. transaction-oriented simul. and source traffic modelling *(German)* 41422
- tandem ATM queues, cell loss probabilities 8718
- TCP traffic dyn., ATM networks 2943
- TCP/IP behavior in high-speed local ATM network environ. 33268
- TCP/IP window-based flow control, effect of high bandwidth-delay products and random loss 24804
- technol. develop. *(English, French)* 41398
- telecomm. network develop., opt. fibre and ATM appl. *(German)* 8815
- telecomms. models anal., perform. 2861
- telecomms. networks, distributed restoration 41689
- telecomputations, telecomms. and computing convergence 3249
- Telekom (Germany) wired commun. technol. status and trends *(German)* 8782
- teletutoring, BETEL network 25115
- terminal adapters, interleaved/non-interleaved pipelining 33587
- test-bed, broadband commun., lab. plant 16783
- three-stage networks, strictly non-blocking condition 33198
- threshold priority queueing syst., anal. 33173
- TIP, transport and internetworking package 16483
- TMN-based broadband ATM network mgt. 41684
- traffic connection admission control, stream correl. effect 41428
- traffic contract params. and CAC guaranteeing cell-loss ratio 41942
- traffic management schemes for ATM networks 33710
- traffic mgt., LAN internetworks 3086
- traffic shaping mechanism 24754
- traffic source multiplexing 33193
- transit., advanced telecomm. networks 8824
- transport archit. for multiservices wireless PCN 17087
- transport networks supporting multimedia traffic, optimal resource mgt. 16853
- transport systs. based on high-speed opt. transm. 34043
- transputers in multimedia teleconferencing syst. 25076
- TreadMarks, distributed shared memory on std. workstations and OS 8920
- tree APONs access, distributed FIFO spacer/multiplexer 9015
- tutorial on ATM fund. 33182
- ultrafast photonic ATM switch based on parallel sig. proc. 33727
- UMTS 3rd generation systs. signalling, perform. eval. 25293
- unified congestion control strategy 16444
- universal multimedia switching archits., anal. 16837
- USA, ATM and frame relay services 8816
- usage param. control, tagging method 8692
- VBR MPEG video, charact., modeling and multiplexing 33147
- VBR video transm., predictive dyn. bandwidth allocation 16419
- video, perform. and error control 8612
- video commun., implement. issues 41950
- video response syst. based multimedia on demand *(Japanese)* 42008
- videoconferences on Xunet II fast ATM WAN 25078
- videoconferencing, transputer-based implement. of video codec interface 33616
- Vince, vendor independent ATM network control 16567
- virtual broadband network, customer control of services and bandwidth 41654
- virtual circuit/QoS routing architecture 2994
- virtual path bandwidth control perform. 16796
- virtual paths, syst. optimisation 8702
- Virtual Permanent Connection, network computing, switch-based networks 16683
- virtual private networks 24771

asynchronous transfer mode continued
- virtual private networks, perform. comparisons 16591
- virtual spacing for traffic control 25060
- VISTAnet gigabit networking testbed, traffic meas. anal. 24749
- VISTAnet/MICA, med. appls. leading, NCIH 10301
- voice, video and data commun. 41620
- VuNet, network architecture for distributed multimedia system 33444
- WAN, multimedia commun., routing problem 16892
- WDM opt. network life-range-delimitation opt. transceiver for fast routing 9584
- weighted round-robin cell multiplexing in ATM switch 8720
- wide-area ATM dyn. multipoint routing, geographic spread 41452
- wireless multimedia commun., adaptive rate multiple access 41991
- worst deterministic pattern allocation 8710
- worst deterministic pattern allocation strategy 33196
- Xunet 2, scheduling discipline/admission control policy 16665
- zero-copy ATM memory-integrated network interface 24970

AT bus *see system buses*

ATM communication *see asynchronous transfer mode*

atmospheric acoustics
- Communications Research Laboratory radio acoustic sounding 10466
- Doppler sodar, atmos. wind meas. 18832
- energy coupling of points of inhomog. medium 15610
- LF sound meas., wind noise compensation by digital filter 26018

atmospheric aerosols *see aerosols*

atmospheric chemistry
- ozone sounding, stratos./tropos., excimer-Raman lidar source 34160

atmospheric duct *see atmospheric electromagnetic wave propagation*

atmospheric dynamics *see atmospheric movements*

atmospheric electricity
- *see also atmospheric electromagnetic wave propagation; atmospheric ionisation; lightning; thunderstorms*
- dust particles elec. mobility meas. eqpt. 40261
- earthquakes effect on upper atm. 7974
- ionos., field-aligned currents, radio absorpt. 7970
- lightning channel, radio sounding refl. 35297
- lightning elec. field derivatives, source location method 10480
- meas. in thundercloud, calib. of airborne method 10479
- multiple EM scatt. by electrified raindrops in lin. array 7985
- ozone layer restoration, microwave SPS 36054
- rain drops, electrified, EM scatt. study 7945
- small-base atmos. noise elec. field surface struct. 7989

atmospheric electromagnetic wave propagation
- *see also atmospheric light propagation; ionospheric electromagnetic wave propagation; magnetospheric electromagnetic wave propagation; tropospheric electromagnetic wave propagation*
- anom. refr., radio source displacement 15433
- centimeter/decimeter radio waves absorpt., eclipse expts. 40359
- ELF/VLF propag., AD 1989 Atlantic obs. 40341
- nonstationary turbulent atm. EM wave scatt. spectra *(Russian)* 15421
- ozone layer restoration, microwave SPS 36054
- PE soln. of atmos. natural waveguides, ducts/elevated ducts 15438
- profiles obtained from GPS occultations 18831
- satellite commun., effect of atmos. phenom. 42305
- scalar EM propag., parab. eqns., split-step Pade approx. 40353
- spherical layered atmos., EM wave path params. 15381
- stratos., VHF scatterers, aspect sensitivity 31813

atmospheric humidity
- *see also hygrometers*
- air vs. temp. and press., acoustical props. 10572
- cloud liq. water, special sens. microwave imager meas. 18828
- contact resist., contaminant films thickness, humidity effects 6385
- GPS tropos. propag. effects, meteorological obs. 7972
- laser rem. sens. instrumentation, alexandrite ring laser 43512
- microwave radiometry rem. sens., SSM/I method 35320
- rem. sens., IR radiometry, lidar, radiosonde comparison 4393
- rem. sens., TOVS IR & microwave radiometry, 3I algm. 43511
- rem. sens., TOVS mm & microwave radiometry 35323
- rem. sens. of boundary layer, DIAL & microwave radiometry 10476
- rem. sens. over global oceans, SSM/I and TOVS methods 35321
- space-Earth absorpt., radiometric inversion coeffs. for Italy 15430
- TOPEX/Poseidon microwave radiometer, wet tropos. range correction algm. 26717
- vert. struct. at fine scale, Raman lidar method & obs. 43501
- visibility meas., rem. continuous online monitoring 10461
- water vapour, collocated Raman lidar profiling 18818
- water vapour profiling, SSM/T-2 microwave radiometry 35322
- Ho:YAG 2.1μm laser for atmos. lidar research 10474

atmospheric ionisation
- mobility of atmos. ions, meas. tech. 10478

atmospheric light propagation
- 4 km 155 Mbit/s terrestrial LOS opt. free space link 17291
- CEMERLL (compensated Earth-Moon-Earth laser link) expt. 17287
- closed-loop adaptive-optics optimisation, multiple control bandwidths 3776
- compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
- digital atmos. opt. link 3588
- distorted images, high-resoln. restoration techs. 33004
- eyesafe laser rangefinders, atmos. extinction estimating 7879
- imaged clouds, precise vel. meas., image data-handling techs. 43543
- IR laser beams, simultaneous 1.06, 1.315, 10.6 μm propag. 15449
- IR lidar sens., turbulence-noise 17432
- LIDAR inversion methods for atmos. of arbitrary opt. dens. 4411
- multichannel laser measuring systs., resolving power adaptive correction 15201
- opt. commun. with laser, pointing jitter & turbulence 9551
- point source field of NB sig., atmos. spatial phase fluct. estim. 31789
- portable ground-based atmos. monitoring syst. 18827
- real-time atmos. compensation, SBS phase conjug. 31576
- scintillometer for atm. C_n^2 and winds meas. 4396
- sea surface pollution detect., IR emission and refl. rel., wind ruffling *(Croatian)* 4406
- space laser commun., effect of turbulence on M-ary coherent PSK systs. 17317
- space opt. commun., visisbility meas. for atmos. transm. model 15450
- target acquisition modeling, atmos. blurring effects 31844
- thermal images distorted by atmos. restoration 32903
- turbulent atm. wind profile estim. from laser distortion data 35311

atmospheric light propagation continued
turbulent atmos., opt. link transmission 17256
turbulent atmos. laser beams, adaptive direction correction 15020
turbulent medium, coherent opt. fiber sens. 34527
wavefront simul. for atmos. turbulence 15448

atmospheric measuring apparatus
see also ionospheric measuring apparatus; meteorological instruments
bistatic dual-Doppler radar, 3D vector wind retrieval 10482
CARIOCA, drifting buoys, monitor CO_2 transfer, air-sea interface 18890
Chilbolton radar facility for precip. meas. 35328
cloud and rain, rem. sens., mm wavelengths 10484
CO_2 laser, electron-beam sustained, perform. optim. 18833
data telemetry buoy, autonomous for Antarctic 18858
Doppler sodar, atmos. wind meas. 18832
dust particles elec. mobility meas. eqpt. 40261
FMCW weather radar for PBL study 35304
humidity of atmos., rem. sens., alexandrite ring laser 43512
Integrated Sounding System, TOGA COARE obs. 4390
ion mobility meas. 10478
IR flux meas., pyrgeometer charactn. method 43509
laser meas. of comp., NH_3-CO_2 IR laser method 10487
magneto-opt. high resoln. meas. of small displacements 18081
marine buoy and telemetry, EMB30 for ocean & atmos. obs. 10540
neutral rare gas lasers, atmos. comp., IR spectra 39676
opt. scintillometer for atm. C_n^2 and winds meas. 4396
RA-2 satellite-borne radar altimeter for rainfall meas. 35329
radar for mesos. study, Chung-Li VHF radar 43508
real-time lightning detect./location, power syst. appls. *(Chinese)* 27288
RT-2 antenna syst. for ozone layer monitoring 17526
S-band Doppler radar for tropical precip. charact. meas. 35330
SAFIR, lightning monitoring syst., perform. in Japan 4391
Sun photometer, LED-op amp design 35309
TOGA-TAO buoys deployed in Pacific, sens. eval. 18894
TOTAL, rocket-borne instrum. for neutral air turbulence meas. 26719
turbulent medium, coherent opt. fiber sens. 34527
UV technology, conference, San Diego, CA, USA (July 1994) 5467
VELOX, VLF/ELF Logger Experiment in Antarctica 35299
visibility meas. and rem. continuous online monitoring 10461
wind energy resource pot. studies, Nigeria 4875
wind rem. sens., scanning lidar method, glitter vels. 35346
windfarm turbine wakes, atmos. stabil. effects 10898
HgCdTe varactor photodetectors for space-borne wind lidar, heterodyne tech. 34162
Ho:YAG 2.1μm laser for atmos. lidar research 10474
O_3 in stratos., mm-wave heterodyne spectral determ. 10486
Si PV cells, solar radiation resource assess. 42792

atmospheric movements
see also wind
E-region irregularities, radio scintillation studies 40328
Earth crust seasonal deform., Earth rot. params. determ. 10439
mesos., Chung-Li VHF radar rem. sens. method 43508
mesoscale convective systs. anal., synthetic dual-Doppler tech. 18823
W Pacific, Integrated Sounding System obs. 4390
PBL study, FMCW radar 35304
thermos., neutral waves, coded long-pulse tech. appl. 43505

atmospheric noise *see atmospherics*

atmospheric optics
see also atmospheric light propagation; sunlight
advanced rem. sens. simulator, geometric mapping 26530
IR image restoration, atmos. MTF 34589
IR imaging for target acquisition, atmos. blurring effects 35396
IR laser beams, simultaneous 1.06, 1.315, 10.6 μm propag. 15449
land surface IR imaging, thermal background model 35287
magneto-opt. high resoln. meas. of small displacements 18081
nonlin. optics appl. for large astron. telescopes 31577
phase diversity imaging, atmos. turbulence 33089
pulse laser radar, time-depend. sig., single-multiple scatt. tech. 34161
scintillometer for atm. C_n^2 and winds meas. 4396
visibility meas. and rem. continuous online monitoring 10461

atmospheric pollution *see air pollution*

atmospheric precipitation
see also rain; snow
centimeter/decimeter radio waves absorpt., eclipse expts. 40359
Chilbolton radar facility for precip. meas. 35328
hail recogn. by radar, cloud top temp. data 18824
Japanese propag. studies (1990s) 2236
lightning radar echoes, investig. 3603
microwave imaging method, sea rainfall 35317
microwave radiometry, multichannel, rainfall, sea 35316
phased antenna array charact., effect of atmos. precip. 31985
polaris. vector posn., medium depolarisation effects 10462
radar clutter removal strategies, interferometric imaging 35332
radar meas., differential phase flucts. 18826
snow cover & precip., satellite mm wave radiometry method 43507
stratiform precip. region, synthetic dual-Doppler anal. 18823
weather radar polarimetry, path integrated differential phase shift 43517

atmospheric spectra
see also atmospheric optics
OH radical, tropos. detection, pulsed tunable laser source 7864

atmospheric techniques
see also ionospheric measuring apparatus; ionospheric techniques; meteorological instruments
3D wind retrieval from single Doppler radar, variational method 26722
42 GHz bistatic Doppler radar for wind/fog/precip. meas. 18835
94 GHz spaceborne radar for global monitoring of ice cloud 35331
absol. air refractivity meas. 10473
air temp./wind speed prediction, electronic syst. 19396
airborne CW Doppler lidar, wind field meas. 26726
atmos., humidity & temp., TOVS IR & microwave radiometry 43511
automatic cloud masking in AVIRIS imagery, ensemble methods 18822
C-band V-polarized radar sea-echo model (from ERS-1) 43531
cloud and rain, rem. sens., mm wavelengths 10484
cloud elec. struct. determ., space charge model-based *(Russian)* 10459
cloud IR rem. sens., shape segmentation method 18834
cloud liq. water, microwave radiometry rem. sens. 35319
cloud water content, opt. & microwave rem. sens. 4392
clouds, laser rem. sens., polariz. diversity methods 10485
Communications Research Laboratory radio acoustic sounding 10466

atmospheric techniques continued
conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
data telemetry buoy, autonomous for Antarctic 18858
dataparallel semi-Lagrangian num. weather forecasting 26721
Delft FM-CW radar, Doppler-polarimetric research *(English)* 3612
DIAL meas. of vert. ozone profiles, aerosol layers 26724
distorted images, high-resoln. restoration techs. 33004
Double-passage imaging of obj. behind, random medium 26725
elec. field in thundercloud, calib. of aircraft meas. 10479
hail recogn. by radar, cloud top temp. data 18824
humidity of boundary layer, rem. sens. methods 10476
humidity over global oceans, SSM/I and TOVS methods 35321
humidity rem. sens., GOES IR radiometry method 4393
humidity vert. struct. at fine scale, Raman lidar obs. 43501
ion mobility, meas. tech. 10478
ionos. electron distrib., tomographic imaging 10465
laser Doppler airflow velocimeter, receiving antenna sig. estim. 4020
laser meas. of comp., NH_3-CO_2 IR laser method 10487
LFM-CW lidar for rem. detect. of saturated hydrocarbons 17450
lightning elec. field changes, sync. multipoint meas. *(Japanese)* 7895
lightning elec. field derivatives, source location method 10480
mesos., Chung-Li VHF radar rem. sens. method 43508
mesoscale convective systs., microwave and IR emissions 35318
Midcourse Space Experiment for tracking, image proc. 2696
multiple-core fibre, light focusing, ground-based interferometry appls. 30861
NOAA images, class., multilayer neural network 4389
nonlin. optics appl. for large astron. telescopes 31577
ocean friction vel., C/Ku-band scatterometer data appl. 10525
ocean RCS, low incidence 26735
ocean wave-atm. turbulence interact., microwave RCS meas. 10472
oceanic midlatitude cyclones, press. determ. from radar obs. 10460
opt. scintillometer for atm. C_n^2 and winds meas. 4396
phase diversity imaging, atmos. turbulence 33089
portable ground-based atmos. monitoring syst. 18827
precip. rem. sens., microwave radiometry, retrieval algm. 35315
profiles obtained from GPS occultations 18831
pulse laser radar, time-depend. sig., single-multiple scatt. tech. 34161
PV power systs., site/time specific simul., satellite insolation data 10892
radar, vel. field by Doppler-correl. reconstruction *(Russian)* 35303
radar clutter removal strategies, interferometric imaging 35332
radar meas. of lightning/atmos. 18825
radar rem. sens., ocean surface polarimetric backscatt. 26740
radar rem. sens. of sea surface, different wind conditions 10481
radiometric sens., radiation transport/thermal cond. eqns. 35301
rain rate rem. sens., microwave radiometry and radar methods 10477
rain-hail discrim., radar differential phase shift 18826
rainfall, radar meas., window probab. matching method 4398
rainfall at sea, SSM/I microwave radiometry method 35296
rainfall estim., radar differential phase shift 18826
rainfall over the sea, imaging microwave radiometry 35317
rainfall over the sea, multichannel microwave radiometry 35316
rainfall rate, radar rem. sens. methods, review 26723
rainfall rate meas., multiparameter radar techs. 35326
rainfall satellite radiometry, improvement, radar data 35327
Raman lidar profiling of water vapour, collocated systs. 18818
range-resolved bistatic imaging lidar, CCD camera *(Japanese)* 34163
refr. index determ., temp. meas. and proc. control 18129
rem. sens., TOVS mm & microwave radiometry 35323
remote sensing, high power mm wave sources 10488
snow bright-band detect. by dual polaris. radar 35333
snow cover & precip., satellite mm wave radiometry method 43507
spaced-antenna radar meas. for winds study 43514
storms, microwave rem. sens., AMPR radiometry and CP-2 radar 35314
storms (precipitating), microwave rem. sens., AMPR 35313
thermal images distorted by atmos. restoration 32903
TOPEX/Poseidon microwave radiometer, wet tropos. range correction algm. 26717
tropos. small scale struct. study by radar super-resoln. 35325
vapour and liq. water, SSM/I microwave radiometry method 35320
water vapour profiling, SSM/T-2 microwave radiometry 35322
weather radar, dual polarised, pulse repetition scheme 43506
wind, radar rem. sens., Geosat altimeter results 26741
wind, radar rem. sens., polar orbit satellite DP 43510
wind energy resource pot. studies, Nigeria 4875
wind gust front, single-Doppler radar meas. method 4395
wind in PBL, LDA method 10475
wind meas. by heterodyne coherent laser radar 43504
wind meas. in middle atmos., DYANA campaign comparison 26720
wind rem. sens., SAR imagery model 35324
wind rem. sens., scanning lidar method, glitter vels. 35346
wind retrieval, ERS-1 scatterometer data, neural network approach 10470
wind speed at sea, radar rem. sens., ocean wave effects 18820
winds at sea by radar altimetry, empirical model fns. 18821
CO_2 coherent lidars for measuring wind vel. /atmos. turbulence 3628
CO_2 laser for rem. sens. meas. 18830
Ho:YAG 2.1μm laser for atmos. lidar research 10474
Na narrowband wind-temp. lidar syst. sensitivity anal. 43503
O_3 in stratos., mm-wave heterodyne spectral determ. 10486
Si PV cells, solar radiation resource assess. 42792

atmospheric temperature
air temp./wind speed prediction, electronic syst. 19396
air vs. temp. and press., acoustical props. 10572
Communications Research Laboratory radio acoustic sounding 10466
GPS tropos. propag. effects, meteorological obs. 7972
mesoscale convective systs., microwave and IR emissions 35318
power overhead line thermal dimensioning, stochastic real-time forecasting *(German)* 10753
profiles obtained from GPS occultations 18831
PV syst. arrays, max. power operating point tracking 19982
radar syst. sensitivity, tropos. thermal lens effect 34122
radiometric sens., radiation transport/thermal cond. eqns. 35301
rem. sens., TOVS IR & microwave radiometry, 3I algm. 43511
rem. sens., TOVS mm & microwave radiometry 35323
TOGA-TAO buoys deployed in Pacific, sens. eval. 18894

atmospheric wind *see wind*

atmospherics
see also atmospheric electromagnetic wave propagation; whistlers
radar meas. of lightning/atmos. 18825
real-time atmos. compensation, SBS phase conjug. 31576

- **atmospherics** continued
  - small-base atmos. noise elec. field surface struct. 7989
  - thermal images distorted by atmos. restoration 32903
  - tweek atmos., Earth-ionos. waveguide 2225
  - tweek atmos., propag. characts., lower ionos. height 23638
  - VLF/ELF Logger Experiment (VELOX) in Antarctica 35299
  - VLF/ELF sferics, research activity review 31810
  - whistlers, causative atmos. location, one station 23640
- **atom probe field ion microscopy**
  - FEM/FIM-AP syst. for studying gridded vac. microelectronic devices 38223
  - local-electrode atom probes, extraction electrode microfabrication 39026
  - STM appl. in ULSI fab. *(Japanese)* 6832
  - Co-Cr sputtered mag. films, comp. inhomog., APFIM obs. 39131
- **atomic absorption spectroscopy**
  - at. absorpt. spectrophotometric syst. for environ. water anal. 10564
  - continuum-source at. absorpt. spectrometer 10567
  - MOS diode, Na contamination free ashing, O_2+H_2O plasma downstream 22234
  - thick film hybrid microelectronics glasses, prep., charact. 5909
  - thiomolybdate solns., Mo atomic spectroscopic determ. 26006
  - $Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
  - NH_3 atmos. determ., diffusive sampling, wind effects 26002
  - Pb-acid secondary batts., PbSb:Bi grid age-hardening/corros. 36562
- **atomic beams**
  - *see also particle velocity analysis; plasma-beam interactions*
  - Cs at. fountain expt. for at. freq. std. 3713
  - fountain freq. stds., opt. lattices 42665
  - guidance in cylindrical-core hollow fiber, opt. pot. 30863
  - laser cooling, freq. std. appls. 42664
  - NIST-7 freq. std., hybrid digital/analog servo 42667
  - Reynman revisited, 1959/1983 ideas implement. 30523
  - Cs beam freq. std., vel. distribs. determ. 42666
  - GaAs etching, fast atom beam proc. with separated masks, micromech. devices 22245
  - H atom, spin-exchange freq. shift cross sect. 39633
- **atomic clocks**
  - *see also frequency measurement; time measurement*
  - at. clocks, cryogenic lin. trap for $^{199}Hg^+$ ions 42672
  - at. time scales 34324
  - Croatian radiocommun. primary freq. reception probab. *(Croatian)* 3311
  - frequency control, symp., Salt Lake City (Jun. 1993) 34
  - frequency control symp., Boston, MA, USA (Jun. 1994) 28221
  - GPS Navstar clocks, freq. stabil., broadcast/precise ephemerides 17503
  - internat. freq. std., dissemination *(Japanese)* 3712
  - laser cooling, freq. std. appls. 42664
  - lin. ion trap based freq. std., progress report 42674
  - Navstar on-orbit clocks, space vehicle temp. effect 42678
  - NIST-7 freq. std., hybrid digital/analog servo 42667
  - std. freq. generators, environ. sensitivities 42663
  - Cs FIR laser lines around 1.2/1.6 THz, heterodyne freq. meas. 23081
  - Cs at. freq. stds., second harmonic level monitors 42676
  - H maser for long-term operation in space 43439
  - Hg^+ freq. stds., space flyable 42673
  - Rb at. freq. std., opt. pumping scheme, diode lasers 17630
- **atomic configuration interactions** *see configuration interactions*
- **atomic electron correlations** *see electron correlations*
- **atomic emission spectroscopy**
  - flue gas metal hazardous air pollutants determ. 18913
  - multielement profiling anal. of geochem./environ. samples 4383
  - SIRENS electrothermal launcher plasma, mol./at. meas. 15369
- **atomic energy** *see nuclear power*
- **atomic excited states** *see excited states*
- **atomic explosions** *see nuclear explosions*
- **atomic fine structure** *see fine structure*
- **atomic fluorescence** *see fluorescence*
- **atomic fluorescence spectroscopy** *see atomic emission spectroscopy*
- **atomic force microscopy**
  - *see also magnetic force microscopy*
  - 2D dopant profiling in VLSI devices, AFM study 30391
  - 2DEG channel, oxide wire, AFM fab. 38932
  - AFM lithog., situ obs. 6672
  - alkylthiol/alkylsiloxane monolayers, electron beam lithog. 13491
  - black silicon nanowires, sub-10-nm, natural masking, RIE 30117
  - CMOS ASICs, advanced inspection program 37167
  - CMOS input gate, latent ESD damage ident. and anal. 30464
  - CMOS input gates, latent ESD damage ident. 6847
  - data storage, micromechanical struct. 39029
  - diamond:H films, CVD, surface topography, AFM study 28821
  - diamond membranes for x-ray lithog. masks 6688
  - diamond MPCVD films on porous silicon, scanning microscopy obs. 6518
  - diamond nucleation and growth, SR studies 404
  - diamond smooth films, hot filament chem. vap. deposition 12174
  - diamond tipped thermocouple for high resoln. topographical and thermal imaging 34689
  - direct wafer bonding technol. charactn. by AFM 13400
  - field-emission cathode arrays, elec. field gradients 29749
  - floppy disk surface struct. imaging, SFM/MFM 7196
  - IC failure anal. by AFM 168
  - laser-induced holographic surface relief gratings on nonlin. opt. polymer films 31640
  - lead-on-chip packages, cracking failures 5672
  - lead-on-chip packages, cracking failures induced by chip backside contamination 20439
  - lithog., nanometer-scale dimens. metrology 13486
  - max. entropy deconvolution, response fn. generation 41062
  - MIM light-emitting tunneling jns., surface topography anal. *(Chinese)* 38451
  - MOSFET, at. force microscope fab., nanolithography 30320
  - Novolever cantilever for SFM, polymers 17725
  - opt. fibre cores, microheterogeneity detect. 39332
  - particulate/ME mag. tapes sliding against Mn-Zn ferrite head in lin. mode, friction/wear 7165
  - phase-locked noncontact scanning force microscope 21154
  - piezoelec. tube scanners in STM/AFM, nonlin. behaviour correction 39070
  - piezoelec.-driven inertial slider based STM 6926
  - piezoresistive cantilevers, at. force/SEM 6899
  - PMMA, grating and dot pattern nanofabrication, electron holographic lithog. 38706
- **atomic force microscopy** continued
  - polysilicon, LPCVD, particle contaminations 20934
  - post-chem.-mech. planarization cleaning, secondary platen press. 38534
  - pressure contact, nm-scale, surface layer effects 38060
  - rigorous diffr. theory, opt. metrology and AFM topography, nm accuracy 34721
  - scanning force microscope, piezoelec. excitation/detect. 25822
  - scanning probe microscopy, principles and appls. 13017
  - scanning thermal imaging microscopy, composite cantilever probes 34724
  - Si_3N_4-Au resonating microcantilevers, Hg vapour detect. 42859
  - tip rad., thin film surface imaging, surface topography probe 13271
  - transm. mode near-field opt. microscope 25845
  - Al electrode/organic electrolum. devices, degrad. procs. 1810
  - Al-Si/Al_2O_3/SiO_2 metallization, thermal and electromigration effects 38703
  - AlAs, metalorganic VPE growth, wide terrace form. 20732
  - AlAsSb/GaAsSb DBR, highly reflective, MBE 15011
  - $Al_{0.35}Ga_{0.65}As$, metalorganic VPE growth, wide terrace form. 20732
  - $Al_{0.5}Ga_{0.5}As$/GaAs multilayer, NaClO stain-etched, AFM 30072
  - Au/ZnCdTe, electroless Au film deposition 37465
  - $BaTiO_3$ films on Pt, epitaxial growth and dielec. props. 12099
  - $BaTiO_3$ films on Si, heteroepitaxial growth by pulsed laser deposition 28757
  - $Bi_2Sr_2Ca_{n-1}Cu_nO_x$ thin films, MBE growth mechanism and control *(Japanese)* 5817
  - C, diamond, polished CVD films, macro/micro-tribological props., trial proc. 22626
  - C_{60}, film growth on Si, amorph. and cryst. growth 37461
  - C_{60}, thin film growth, MBE growth, film struct. 37395
  - C_{70}, thin film growth, MBE growth, film struct. 37395
  - CdTe polycryst. thin film solar cells, micro/nanostructs. 27940
  - Co films, submicron patterning, mag. storage 14241
  - CoCr-$NiP_3(TiSi_2)$(Cr)(C)-soda lime glass recording media, high coercivity and low noise 7115
  - Cr-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
  - CrO_2 video tapes, macro-/micro-tribological studies 20990
  - Cu-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
  - $CuInSe_2$ polycryst. thin film solar cells, micro/nanostructs. 27940
  - FeSiAl, sendust films, RTA, mag. props. 6953
  - GaAs, ALE, self-limiting/step-propag. nature, AFM 20684
  - GaAs, MOCVD on annealed Si in H_2 20771
  - GaAs MOVPE, multiatomic step form., GaAs/AlGaAs QW wires 20835
  - GaAs, RIE, hydrogen plasma pretreatment 30064
  - GaAs growth mechanism on (110) GaAs, RHEED and AFM 20858
  - GaAs, low-temp. surface cleaning, trisdimethylaminoarsine 13358
  - GaAs, metalorganic VPE growth, wide terrace form. 20732
  - GaAs, open-tube impurity doping, spin-on silica films *(Japanese)* 22145
  - GaAs:Zn(Sn), p/n-type impurity diffusions, doped silica films 38500
  - GaAs/$Al_xGa_{1-x}As$ superlattice, interfacial roughness, controlled impurity incorporation 20821
  - GaAs/Al(Ga)As quantum wells, MOVPE/MBE growth, interface struct. 20878
  - GaAs/AlGaAs QW wires, form., photolum. charactn. 20819
  - GaAs(100), cleaning, XPS/AFM study 30066
  - GaAs(100), etching in HCl, XPS/AFM obs. 22176
  - GaAs(111)B substrs., homoepitaxial growth, at. steps 20859
  - GaInP/InP, quantum sized structs., MOVPE, 2D-3D growth mode transit. 12040
  - GaSb, atmos. press. MOVPE on GaAs substrs. 20773
  - GaSb, spiral growth on GaAs(001) by MBE 28750
  - Ge/GaAs, heteroepitaxy, role of As 362
  - α-HgI_2, surface modifs., dark currents 43082
  - InAs, surface migration-induced self-aligned islands, MBE growth 37389
  - InAs/GaAs(100), MBE, self-assembled islands, crit. layer thickness 387
  - InGaAs quantum disks self-organizing on GaAs(n11)B, AFM study 6553
  - $In_xGa_{1-X}As$ MOVPE strained layer on GaAs, AFM 20850
  - InGaAs/InP QW wires, electron beam lithography fabrication 13200
  - InGaP/$In_{0.2}Ga_{0.8}As$:Si HEMTs, heavily Si-doped, MOVPE growth 5830
  - n-InGaP/InGaAs/GaAs pseudomorphic HEMTs, mobility, device perform. 22485
  - InP Epi-ready wafers, growth character 12071
  - InP, MOVPE, surface topography, step orient. 37385
  - n-InP, Schottky contacts, in situ electrochem. proc. 38399
  - InP quantum islands/InGaP/GaAs(001) substr., coherently strained self-assembly 20947
  - InP substrs., Ti masks, dry etching, SFM meas. 30063
  - InP/InGaAs/InP quantum well, MOVPE, surface topography evol. 353
  - InP/InGaAsP(GaAs), MOCVD growth, interface characterisation 12150
  - InP/InGaP, nanoscale InP islands by MBE 20738
  - InP(As)(AlAs) self-assembling quantum dot arrays, MBE and MOCVD growth 374
  - $LiNbO_3$ thin-film waveguides on GaAs 14478
  - Nb-AlO_x-Nb tunnel jn. photon detectors, TEM/AFM anal. 39287
  - NiP/Al discs, sputter-induced random micro texturing 5885
  - PZT/Ti/Pt interface layers, elec. and microstructural props. 39053
  - Si, 2D surface dopant profiling, scanning Kelvin probe microscopy 30018
  - Si 3D struct., FIB lithog., AFM probe charactn. 13471
  - Si, ECR Cl_2 plasma etching, mass spectra, OES and AFM 22169
  - a-Si antifuse cct. elements, ASICs, resist strip proc. damage 21170
  - Si, epitaxial surface for GaAs heteroepitaxy 307
  - Si nanostructures by anodic oxid., ECR etching 38537
  - Si point-contact, force microscopy-supported resist. meas. 42887
  - Si, polycryst. films, ECR CVD, hydrogen dilution 37503
  - Si, porous, stain etch thin films, surface struct., sonication effects 6638
  - Si rapid thermal CVD on $Si_{0.68}Ge_{0.32}$ substrs., AFM 12139
  - Si substrs., pretreatment for CVD diamond deposition, AFM obs. 20977
  - Si surface, hydrofluoric acid cleaning effects prior, wafer bonding 38561
  - Si, surface microroughness, oxide breakdown, SC1 proc. effects 38546
  - μc-Si:H, PECVD, surface morph., crystallite size 28806
  - Si:P, 2D dopant profile meas., scanning capacitance microscopy 13309
  - Si/SiO_2 interface states and neutral oxide traps induced by surface microroughness 29968
  - Si/SiO_2 patterned surfaces, situ rem. H-plasma cleaning 1254
  - Si/SiO_2 syst., Si nucleation, rapid thermal CVD, in situ real time meas. 28831
  - Si-FET, side gated, nanometer scale fab. in at. force microscope 30321
  - Si-SiO_2(SiGe) epitaxial growth, ex-situ/in-situ probing by opt. SHG 28724
  - Si(111)/soln. interfaces, electrochem. STM/AFM imaging 38588
  - SiC microcomponent growth, C_{60} react., silicon 13092
  - SiC on Si(100), gas source MBE growth 382
  - SiN_x films, ECR plasma synthesis 30131

atomic force microscopy continued
  $TiSi_2$-Si surface/interface roughness, RTA heating rate effects 22096
  WO_3 gas-sens. films, microstructural effects 25896
  WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
  YBaCuO thin films, planarized patterns 39230
  $YBa_2Cu_3O_{7-x}$ thin films, film growth, laser ablation, AFM, HRTEM, XRD *(French)* 30768
  $YBa_2Cu_3O_x$ thin films, at. layer-by-layer MOCVD, opt. reflectance meas. *(Japanese)* 5816
  $YBa_2Cu_3O_{7-x}/SrTiO_3/YBa_2Cu_3O_{7-x}$, low noise multilayers, supercond. magnetometers 22740
  ZnSe thin films, chem.-bath deposition, material charactn. 28793
  diamond membrane-based X-ray lithog. masks 6687

atomic hyperfine structure *see hyperfine structure*

atomic infrared spectra *see infrared spectra*

atomic interferometry *see particle interferometry*

atomic IR spectra *see infrared spectra*

atomic layer epitaxial growth
  chloride ALE proc. of GaAs 20687
  complex thin film struct. for electroluminescent appls., ALE growth 20711
  conference, Sendai, Japan (May 1994) 5491
  devices, recent advances 22496
  III-V semiconds., pulsed-jet epitaxy, device procs. 20669
  InP, ALE growth, XRD/Raman Obs. 12052
  pulsed trimethylgallium scatt. from As-/Ga-stabilized surfaces 20693
  SIT, MLE growth 22478
  surface-adsorbed As atoms, P atoms substitution in ALE growth 20691
  AlAs ALE growth mechanism 20696
  AlAs, ALE, role of metalorganic As source 20683
  AlAs, device quality ALE growth 20665
  AlAs layers, low C content, ALE growth from ethyldimethylamine alane 20680
  AlGaAs, ALE, C-incorporation mechanism 20694
  AlGaAs, device quality ALE growth 20665
  Al_2O_3, at. layer controlled deposition, binary react. seq. chem. 20712
  BiSrCaCuO high T_c trilayer tunneling and Josephson jns., ALE growth 373
  $BiSr_2Ca_7Cu_8O$ high-T_c superconductive devices, at.-layer-controlled fab. *(Japanese)* 5818
  CaS thin films by ALE, growth params. effect 20714
  CdSe, MOMBE-ALE, growth kinetics, opt. probing method 20909
  CdSe, MOMBE-ALE, surface react., opt. probing method 20697
  CdTe on GaAs and Si substrs., OMVPE 37452
  GaAs ALE, As desorpt., real-time in situ gravimetric monitoring 20868
  GaAs, ALE, C-incorporation mechanism 20694
  GaAs, ALE, role of metalorganic As source 20683
  GaAs, ALE, self-limiting/step-propag. nature, AFM 20684
  GaAs, ALE, surface stoichiometry and role of adsorbates 20686
  GaAs, ALE using trimethylgallium, kinetics, mechanism 20685
  GaAs MLE 20663
  GaAs, MLE growth, surface treatment, ideal SIT appl. 20668
  GaAs cpd. semicond. surfaces, stoichiometry changes 20839
  GaAs films, temp. synchronized MLE 20676
  GaAs layers on Si(001), MBE/ALE grown, defect struct. 12113
  GaAs, selective ALE growth, surface procs. 20670
  GaAs vac. ALE growth, tertiarybutylarsine 28743
  GaAs:Si, at. layer MBE, shallow deep levels 347
  GaAs/(Al)GaAs/GaAs at. layer growth using $GaCl_3$, $AlCl_3$ and AsH_3 20689
  GaAs/AlAs quantum wire struct., crystallographic selective growth by ALE 343
  GaAs/GaAsP, quantum wire, ALE growth mode switching 20828
  GaAs(001), Ga adsorpt., TMGa exposure 20692
  GaAs(001), surface arsenic stoichiometric problem, in ALE growth 20690
  GaAsP, at. layer MBE, P_2 incorporation efficiency 30059
  GaInP:Se, Se doping by ALE 30033
  GaInP/GaAs Schottky diodes, ALE growth, MESFET appl. 1337
  Ge ALE control in flash-heating CVD 20704
  Ge, ALE, ideal growth rate 20708
  InAs self-limited growth, 480°C 5840
  InAs/AlSb QW, ALE grown, opt. props. 20677
  InAs/GaAs, quantum wells, MBE, ALE growth, In segreg. 12111
  InAs/GaSb strained layer superlattices, growth 20885
  InAs/GaSb superlattices, struct., STM obs., growth condition effects 13151
  InAs-InP heterostruct., ALE growth, XRD/Raman obs. 12052
  $In_{0.5}Ga_{0.5}As$ self-form. quantum dots on GaAs substrs. emitting, 1.3 μm 14896
  In_2O_3 films, ALE growth 324
  InP, ALE growth, charactn. 20770
  InP, undoped, low temp. ALMBE growth 20746
  InP/InAs SQW/superlattices, ALE growth, charactn. 20770
  InP/InGaAs:Be HBTs, highly doped base layer/suppressed diffusion, ALE/CVD growth 6729
  In_2S_3, ALE film growth, charactn. 20678
  $NbCl_5$, precursor in ALE 20713
  PbSe, layer-by-layer growth, proton glancing angle scatt. 328
  Si ALE control in flash-heating CVD 20704
  Si ALE using chlorine/hydrogen exchange, fund. and films 20702
  Si, H-assisted ALE growth 20698
  Si SR excited ALE/CVD, Si_2H_6 gas *(Japanese)* 12044
  Si, SR-excited ALE growth, TOFMS 37447
  Si, SR-excited ALE, temp. effects 20710
  Si layer-by-layer growth, photoelectron intens. oscills. 20699
  Si, sub-ALE, Si_2H_6 20700
  Si surfaces, self-limiting adsorpt. of thermally cracked $SiCl_2H_2$ 20703
  Si-SiO_2(SiGe) epitaxial growth, ex-situ/in-situ probing by opt. SHG 28724
  Si(100), Sb-terminated, HBO_2(Sb) adsorpt. suppression 20701
  $Si_{1-x}Ge_x$/Si heterostruct., adaptive temp. program ALE from Si_2H_6/Ge_2H_6 20705
  SiO_2, at. layer controlled deposition, binary react. seq. chem. 20712
  SnO_2-Si, conducting oxides synthesis by ML-ALE 20717
  SrS:Pr white light emitting electrolum. devices, ALE 31092
  $YBa_2Cu_3O_x$ thin films, at. layer-by-layer MOCVD, opt. reflectance meas. *(Japanese)* 5816
  ZnO:Al thin films, ALE growth from organometals 20667
  ZnS, epitaxial layers on (100) GaAs, ALE 28769
  ZnS:Pr white light emitting electrolum. devices, ALE 31092
  $(ZnS)_3(ZnSe)_{42}$:I, ALE grown, carrier transport props. 38259
  ZnSe, ALE, using reflectance difference spectrosc. 20695

atomic layer epitaxial growth continued
  ZnSe, MOMBE-ALE, growth kinetics, opt. probing method 20909
  ZnSe, MOMBE-ALE, surface react., opt. probing method 20697

atomic metastable states *see metastable states*

atomic microwave spectra *see microwave spectra*

atomic orbitals *see atomic structure*

atomic photoionisation *see photoionisation*

atomic power *see nuclear power*

atomic Raman spectra *see Raman spectra*

atomic reactors *see fission reactors*

atomic resonant states *see resonant states*

atomic spectra *see spectra*

atomic spectral line breadth *see spectral line breadth*

atomic structure
  general aspects only; for specific aspects use appropriate terms, e.g. "electron correlations", "fine structure", "metastable states"
  see also configuration interactions; electron correlations; excited states; fine structure; ground states
  at. clocks, cryogenic lin. trap for $^{199}Hg^+$ ions 42672
  lin. ion trap based freq. std., progress report 42674
  H atom, spin-exchange freq. shift cross sect. 39633

atomic ultraviolet spectra *see ultraviolet spectra*

atomic UV spectra *see ultraviolet spectra*

atomic visible spectra *see visible spectra*

atomic X-ray absorption spectra *see X-ray absorption spectra*

atomic X-ray emission spectra *see X-ray emission spectra*

atomic X-ray spectra *see X-ray spectra*

ATPG *see automatic testing; integrated circuit testing; logic testing*

ATR tubes *see gas-discharge tubes; radar equipment*

attaching *see joining processes*

attenuation *see absorption; dispersion (wave); scattering*

attenuation measurement
  20 GHz Earth-Olympus satellite path, propag. research 42333
  915 and 1900 MHz domestic RF channel charactn. 31822
  anechoic chamber with ferrite grid absorbers, perform. 23731
  centimeter/decimeter radio waves absorpt., eclipse expts. 40359
  charged human body, pot. atten. proc., anal. 23506
  compensated network param. meas. by star-point current injection *(German)* 19368
  digital simulcast trunking syst. fine tuning 3373
  Earth space path over Shillong, rain atten. 15442
  intra-syst. interconnects for digital commun., cable elec. perform. 12856
  Italsat-Olympus 20-GHz orb. diversity expt. 25456
  mains insulation monitoring, computerised monitoring 39062
  microwave moisture sens. for aggregates 43001
  opt. cable 30868
  opt. cables, extending range of atten. meas. 30867
  opt. fiber losses, meas. method 30866
  opt. fibers for sens. technol., atten. meas. by integrat. sphere 1680
  planar opt. waveguides, diagnostic methods 30966
  planar transm. line atten. meas. tech. 18025
  plated coaxial transm. line 34316
  portable testers for fiber-optic commun. testing 17170
  power overhead line mech. self-damping meas. methods *(German)* 10754
  reinforced concrete building, elec. field atten. 23736
  shielding gasket, leakage power meas. 15500
  small reinforced concrete building, EM field atten. 40376
  spherical dipole antenna 23900
  Turkey, rainfall atten. climatic map, develop. 15437
  unshielded twisted-pair transm. line, method-of-moments soln. 33740
  VSAT satellite commun. syst., effects of rainfall and airplanes 25463
  wireless LAN, 12 GHz band wave propag. meas. 8931

attenuators
  see also waveguide attenuators
  act. voltage attenuator using two cascaded MOSFETs, perform. 736
  HP 8156A prog. opt. attenuator, design 34712
  HV subnanosecond pulses meas., probes/attenuators 3817
  lin. MOS act. attenuator and amp., charactn. 29062
  multilayer dielec. laser mirrors, etalon effects 7714
  refl. topol. building blocks for adaptive microwave sig. proc. appls. 29588
  single-mode opt. fiber attenuator, intercomparison of atten. 14369
  GaAs MMIC control devices, review 29603
  GaAs MMIC generic const. phase digital attenuators 6340

attitude control
  airborne positioning and planning syst., avionics future archit. 10345
  aircraft roll attitude meas. using solid state devices 26541
  CCD-based tracker for laser commmunication pointing acquisition and tracking control 17304
  CCD-based tracking loop for precision beam pointing, digital control design 17307
  high-speed tracking target simulator for fine tracking mechanisms 17305
  inter satellite cross links, non-mech. laser beam steering/spoiling methods 17308
  Optical Communications Demonstrator, control proc. syst. archit. 17314
  position and attitude sensing 25882
  shaped reflector antennas, contoured beam pattern design *(Japanese)* 40482
  space guidance/control/tracking, conf., Orlando, FL, USA (1993) 11569
  spacecraft pitch attitude and momentum LQG/LTR control 35238
  star-field ident. for autonomous attitude determ. 33076
  UV three axis attitude ref. sens. 9936
  weapons, laser pointing, observer-based adaptive control 10588

attribute grammars
  custom document image decoder generation 41359
  database query generation from spoken sentences 2452

audio acoustics
  see also audio recording; audio systems; hearing; speech
  ambisonic sound systs. 3688
  binaural recording playback through loudspeakers, room impulse response 34296
  cinema audio quality improvement *(German)* 25689
  codecs, subjective eval. 3687
  loudspeaker preference rating variability reduction, digital equalisation 3695
  loudspeaker-room interact. equalisation, DSP appl. 3694
  multi-track digital recording facility, acoustic/audio design 3689
  ref. auditorium and audio std. strategy *(German)* 9765
  shipboard speaking-tube acoustics simul. *(Croatian)* 3592

audio acoustics continued
teleconferencing, round-trip audio path/technols. 3241
audio amplifiers *see audio-frequency amplifiers*
audio coding
adaptive inter-channel prediction, joint stereo audio coding 15776
APC, transform domain quantization 15774
CD, high-rate buried-data channel 34289
compact disc, variable-bit-rate buried-data channel 34290
DARC encoder for mobile commun. appls. 25631
demons. package for telecomms. education 33314
digital audio, wide-band and wide-dyn.-range recording and reprod. 34291
digital audio data compression 32688
digital audio storage/transm., data reduction 17547
digital recording techs. in acoustics 9771
generalized magnitude and power complementary filters 29392
Hi-Fi audio coding technol. and standardisation *(Japanese)* 17545
hi-fi mobile DAB scheme 9695
high speed A/D conversion, multi tone dither 706
IEEE audio/acoustics sig. proc. workshop, New Paltz, USA (1993) 5445
ISO-MPEG-1 audio, high-quality digital audio generic coding std. 2392
ISO/MPEG Audio MUSICAM family 32625
lossless data compressors, fixed dictionary, adaptive update algms. 32127
lossy/lossless compression techs. for encoding audio sigs. for digital proc. 16947
low rate audio coder, hierarchical filterbanks/lattice VQ 32106
low-rate multi-channel audio coding, standardization 15778
M-band pseudo QMF banks, prototype filters design 37882
MPEG, digital audio coding, standardization 15777
MPEG 2 appls. 32877
MPEG audio decoder chip 37788
MPEG digital storage media control command 41607
MPEG integrated audiovisual coding std., develop. 24393
MPEG stds., audio/video codecs, LSI chips 16944
MPEG-2, digital sig. compression std., develop. 32958
MPEG-2, IEE Colloquium, London, UK (1995) 11597
MPEG-2 systs. layer, tutorial introduction 34218
MPEG/audio compression algm. 17603
neural network based perceptual audio coder 8148
perceptual meas. schemes, filter banks constraints 40891
RIQ-DPCM, audio sigs. compression 15775
Silicon Audio, audio-data compression/storage syst. 42644
speech/audio proc., warped lin. prediction 32446
syst. controller for mobile audio visual terminal 42275
videoconferencing, transputer-based implement. of video codec interface 33616
wideband audio sigs. coding, transform coded excitation 32257
audio discs
compact disc, variable-bit-rate buried-data channel 34290
digital audio, high order phase lock loop, jitter reduction 6050
digital audio, wide-band and wide-dyn.-range recording and reprod. 34291
digital recording techs. in acoustics 9771
future broadcast technols. 3651
high-rate buried-data channel 34289
inspection by lin. array CCD systs. 5690
Mini Disc auto-changer for in-car *(Japanese)* 25692
musical recordings, pitch var. defects, recursive restoration 34294
network and OS support for digital audio/video, conf., Lancaster, UK (Nov. 1993) 5450
opt. pickup design for mini disc drives 34295
playback-only MD syst. chip set *(Japanese)* 42650
recordable mini disc mechanism, develop. *(Japanese)* 3696
SW high reliab. LD for opt. data links 42430
audio equipment
see also audio discs; audio-frequency amplifiers; audio-frequency oscillators; Hi-Fi equipment; loudspeakers; magnetic tape equipment; microphones; pick-ups
archived recordings, impulsive noise removal, two-channel approach 34293
Bayerische Rundfunk TV prod. studio refurbishment *(German)* 25655
Berlin-Bonn inform. link BRAVO project *(German)* 8915
Digital Audio Laboratory Station 34285
displays and virtual auditory environ. 34284
DSP, multimedia ASSP *(Japanese)* 3261
DSP demons. facility, sound card/MATLAB 36920
gramophone recordings, pitch var. defects restoration 17618
IC technols., single vs multimedia solns. 25688
lin.-phase equalizer in digital audio sig. proc., design and implement. 34292
low cost audio analog vector voltmeter/wattmeter 18022
NEC's VoicePoint AEC-50 acoustic conferencing syst. *(Japanese)* 42646
Rohde & Schwarz Audio Analyzer UPD, controlled by DUT via external sweep 9766
Solid State Logic and workstations for professional audio 17616
total surround sound (TSS) proc. 9763
audio-frequency amplifiers
car audio, high efficiency power amp. 11443
class B audio amps. for loudspeaker loads 558
class D output stages lin. for high-perform. audio power amps. 3697
CMOS audio channels for portable sound systs., mixed sig. amp. proc. 17606
cross-field amplifier end-hat effects, 3D electron density meas. 6510
multibit DAC, intersample distortion/sample jitter sensitivity 9762
power audio amp., n-channel output FETs 6039
triode/pentode audio amps., SPICE models 37655
audio-frequency oscillators
rem. control sig. decentralised prod. *(German)* 27052
audio oscillators *see audio-frequency oscillators*
audio recording
see also audio discs; digital audio tape
acoustic display systs., environ. sounds synthesis *(Japanese)* 34647
archived recordings, impulsive noise removal, two-channel approach 34293
autistic patients' facilitated voice output commun. 4324
binaural recording playback through loudspeakers, room impulse response 34296
digital audio, wide-band and wide-dyn.-range recording and reprod. 34291
digital audio storage/transm., data reduction 17547
digital recording techs. in acoustics 9771
DSP, multimedia ASSP *(Japanese)* 3261
gramophone recordings, pitch var. defects restoration 17618
hearing, hierarchic models, sound separation/reconstruction 16002
lin.-phase equalizer in digital audio sig. proc., design and implement. 34292
audio recording continued
magneto-opt. recording marks anal. 9773
MASH multi-stage noise-shaping with an RC-analog integrator, digital correction tech. 12592
metal audio tapes, FMR 14239
multi-track digital recording facility, acoustic/audio design 3689
musical recordings, pitch var. defects, recursive restoration 34294
musical recordings restoration, short-time spectral atten. techs. 9774
psycho-acoustic masking phenom., digital sound storage/transm. 9772
reading and listening perform., computer-controlled speech and printed text presentations 67
recordable mini disc mechanism, develop. *(Japanese)* 3696
Solid State Logic and workstations for professional audio 17616
storage and recording systems, conf., Keele, UK (1994) 11550
surround sound prog. computer environ. 17617
audio signals
for specific equipment see appropriate headings
see also audio coding; audio discs; audio equipment; audio-frequency amplifiers; audio-frequency oscillators; audio recording; audio systems; audio tape recorders; loudspeakers; sound reproduction
adaptive inter-channel prediction, joint stereo audio coding 15776
AES/EBU digital audio sigs., twisted-pair cables 42139
APC, transform domain quantization 15774
AT&T voice and audio proc. for telephony appl. 3129
autocorrelation method for high-quality time/pitch-scaling 15999
AVIP computer graphics syst., audio/video inform. proc. *(Japanese)* 25661
circ. wavelet packets for compression 32525
compact disc, variable-bit-rate buried-data channel 34290
constraint based audio interpolators 16003
DAB, dyn. range control and music/speech control 25641
desktop audio sig. proc. methods and equipt. *(German)* 42649
digital audio storage/transm., data reduction 17547
digital audio-visual sig. proc., Alis logic synthesis 29301
double FM synthesis, real-time implement. 9775
European DAB sig. proc. *(Croatian)* 3647
fibre optic video/audio link, adverse environ. appls. 3579
HDTV, opt. transm. equipt. *(Japanese)* 42600
hi-fi mobile DAB scheme 9695
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
ISDN and ISO/MPEG layer III audio coding, broadcast audio prod. 3238
ISO/MPEG Audio MUSICAM family 32625
lin.-phase equalizer in digital audio sig. proc., design and implement. 34292
lossy/lossless compression techs. for encoding audio sigs. for digital proc. 16947
low-rate multi-channel audio coding, standardization 15778
MASH multi-stage noise-shaping with an RC-analog integrator, digital correction tech. 12592
medium-throughput sig. proc. on flexible instruction-set archits. 37797
MPEG, digital audio coding, standardization 15777
MPEG-1 audio std., guide 15963
MPEG/audio compression algm. 17603
multiscale difference eqn. sig. modeling/anal. techs. 32784
multitone AF testing of telecomms equipt. 3758
musical recordings, pitch var. defects, recursive restoration 34294
musical recordings restoration, short-time spectral atten. techs. 9774
NEC's VisuaLink 5000EX10 video codec *(Japanese)* 42090
polyphase quadrature filters fast algm. 6235
radio studios and workstations 17605
Rohde & Schwarz Audio Analyzer UPD, controlled by DUT via external sweep 9766
Rohde & Schwarz TV test transmitter SFM 9703
scalable storage servers for digital audio/video 25686
Solid State Logic and workstations for professional audio 17616
soundphotics, light, sound converter 17610
speech pitch-/time-scale modif., non-parametric techs. 40729
speech/audio proc., warped lin. prediction 32446
SWFM sig. opt. fiber transm. of addressed audio and video sigs. 9528
teaching DSP via sound demons. software 28339
VIF/SIF/PLL, TV sets/VCRs multistandard sig. detect. 42581
wideband audio sigs. coding, transform coded excitation 32257
audio systems
see also acoustic devices; acoustic equipment
ambisonic sound systs. 3688
BiCMOS stereo audio sigma-delta ADC for audio appls. 9770
CD player, robust multivariable controller design 17615
CMOS audio channels for portable sound systs., mixed sig. amp. proc. 17606
codecs, subjective eval. 3687
compact disc player, QFT controller design/implement. 17614
constraint based audio interpolators 16003
digital broadcasting facilities/operations *(Japanese)* 34215
DSP implement./perform. eval. of stereo echo canceller 34287
inform. services, electronic media environ. 33399
mirror speaker syst., corn-shaped, polar response *(Japanese)* 17611
multibit DAC, intersample distortion/sample jitter sensitivity 9762
network karaoke syst., develop. *(Japanese)* 42648
playback-only MD syst. chip set *(Japanese)* 42650
Silicon Audio, audio-data compression/storage syst. 42644
sonification tools, suppl. dataflow visualization 3699
soundphotics, light, sound converter 17610
surround sound prog. computer environ. 17617
teaching DSP via sound demons. software 28339
teletutoring, BETEL network 25115
total surround sound (TSS) proc. 9763
verification of audio control protocol 34288
virtual reality system, distributed, aural renderer 17609
waveform anal. of LSI for music synthesizers 3698
audio tape recorders
see also digital audio tape
DCC player, CMOS async. low-power error corrector 9769
dyn. time-warp compensation for correl. of long seqs. 40944
audio-visual aids *see audio-visual systems*
audio-visual systems
acoustic display systs., environ. sounds synthesis *(Japanese)* 34647
augmented audio reality, telepresence/virtual reality 9764
car navig. equipt. for syst. upgrade *(Japanese)* 25613
CCITT recommendations, audiovisual transm. quality 17602
control, message obj. transm. 17560
DECT syst., mobile audio-visual terminal 17118
information presentation, visual/verbal modes, diagnostic tools 28320

audio-visual systems continued
- Informedia project, digital video access 16254
- intell. Image Media, technol. *(Japanese)* 34243
- LAN environ., audiovisual appls. 8941
- large screen teleconferencing prototype display 41944
- media sync. protocols for packet audio-video syst. on multimedia inform. networks 16497
- MPEG integrated audiovisual coding std., develop. 24393
- multimedia integrated commun. possibilities *(English)* 3233
- nonlin. AV workstation characts. *(Japanese)* 25775
- pers. shopping assistance, indoor wireless syst. 33558
- phys. lects., multimedia interact. 20310
- ref. auditorium and audio std. strategy *(German)* 9765
- sonification tools, suppl. dataflow visualization 3699
- syst. controller for mobile audio visual terminal 42275
- very low bit rate video coding, predictive-transform 16404
- video databases, metadata 8472
- WOODY AV PC, review *(Japanese)* 25660

auditing
- corporate ESD program, strategy and philosophy 30543
- distributed audit trail anal. 24968
- ESD control program support, auditing/awareness training aspects 30544
- hazard engineering and the management of risk 5711
- ISO 9000 series QA stds. auditing 11828
- power syst. auditing, heuristic method 19054
- Sizewell 'B' NPP operational experience audit 19410

auditory activity *see hearing*

auditory brainstem evoked potentials *see auditory evoked potentials*

auditory event related potentials *see auditory evoked potentials*

auditory evoked potentials
- axial SQUID gradiometer, direct-feedback 9894
- brain, waking/sleep, auditory evoked mag. fields 18450
- brainstem auditory evoked pot., detect. by adaptive filtering 26404
- brainstem auditory evoked pot., enhanced approach, adaptive proc. 43279
- class., ART 2-A/fuzzy ARTMAP comparison 43316
- discrim. task, evoked spatio-temporal cortical patterns 43309
- stimulus prod. in cognitive event-related pot. expts., PC software library 26379

auditory perception *see hearing*

Auger effect
- 1300 nm MQW laser amplifer for opt. commun. 9456
- diamond, electroless plating, laser-assisted selective metallisation 30157
- diamond, nucleation and growth on Si(100), electron spectra obs. 430
- diamond surface, O-H adsorpt., EELS/Auger study 1268
- EM gun technol., Cu/Al component protection coatings 15331
- hemispherical electron spectrometer, electrostatic transfer lens 13020
- high resoln. positron annihilation induced AES 43140
- IC package assembly, organic contamination detect. 20429
- IGBT, n′ buffer layer, static characts. simul. 1410
- injection lasers, threshold condition defn. 7638
- LB-film Si MIS interface, substr. surface treatment 38535
- MBE facility, two synchronized modulated beams 37390
- multielectrode lasers, microwave small-sig. equiv. cct. model 14849
- power device simul., temp. depend. phys. models 30227
- ribbons, amorph. mag., asymmetric magnetis. reversal, chem. etching 14135
- RIE induced damage, gas mixtures $CHF_3/O_2/SF_6/O_2$ 30114
- semicond. surface anal., AES and XPS technols. *(Japanese)* 13273
- travelling-wave MQW semicond. laser amp. switches, dyn. perform. 9476
- tunnel MIS emitter Auger transistor, anal. model 38819
- X-ray lithog., photoelectron effect modelling 6682
- X-ray resist-substr. interfaces, parametric modeling 13533
- Ag contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
- Al electrode/organic electrolum. devices, degrad. procs. 1810
- Al vac. deposited thin film characterisation, SiO_2-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
- Al/Si(111), ordered Al films growth, LEED, Auger electron spectrosc. 20716
- Al/Ta/Hf multi-layered anodized capacitor, oxid. *(Japanese)* 6357
- Al-Si/Al_2O_3/SiO_2 metallization, thermal and electromigration effects 38703
- AlAs/GaAs DBR VCSEL diode on Si, MOCVD and struct. 39882
- AlCu interconnects, electromigration stressing, Al_2Cu precip. distrib. 38455
- AlGaAs, patterned photon-driven cryoetching 30065
- AlGaAs/InGaAs/GaAs HEMT, photolum. spectrosc. 6780
- AlGaAsSb/GaInAsSb, LED, electrolum. quantum yield 1827
- AlGaInP vis. semicond. lasers, catastrophic opt. damage *(Japanese)* 31412
- Al_2O_3, at. layer controlled deposition, binary react. seq. chem. 20712
- Al_3Zr/Zr/Si contact systs., solid-phase reacts., AES *(Japanese)* 29962
- Au/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
- Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
- Au-NiCr metallization, CVD diamond substrs., MCM appls. 12981
- Au-Ti metallization, CVD diamond substrs., MCM appls. 12981
- a-B:H CVD film characterisation and x-ray imaging appls. 5900
- BN, cubic, carbonaceous surface layer by diamond CVD, electron emission *(Japanese)* 37460
- $Ba_{0.5}Sr_{0.5}TiO_3$ thin films, sputtering, electric props. 20965
- a-C:H,N films, ion implanted, in-depth modifs. 6537
- CdS passiv. layers on $Hg_xCd_{1-x}Te$, charactn. 13361
- CdSe nanocryst/ZnSe matrix II-VI quantum dot composites, electrospray OMCVD prep. 20946
- CdSe quantum dots, electrospray OMCVD 5860
- CdTe/InSb heterointerfaces, temp. gradient vap. transport deposition, interfacial layer form. 371
- CeO_2/Si(111), laser ablation deposition, growth mode 38445
- Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
- Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
- Cr thin films on polyimide, adhesion study 11820
- Cr-Cu-Ni-Au film syst., electrolytic deposition, temp.-time stabil. 6659
- Cu thin films on polyimide, adhesion study 11820
- Cu-Au interdiffusion during plating 20986
- Cu-Cr bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
- Cu-Ti bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
- CuCr alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
- CuTi alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
- Fe/Ga, bimetallic thin films, MOCVD, stoichiometry control 28842
- GaAs, ALE using trimethylgallium, kinetics, mechanism 20685
- GaAs, ECR plasma etching, surface damage 13384
- GaAs MISFETs, photo-CVD P_3N_5 insulators, sulfide passiv. 38882

Auger effect continued
- n-GaAs, Pd/In/Pd(Pd-In/Pd)(Pd-In) ohmic contacts 13207
- GaAs ohmic/nonohmic contact form., interfacial react. effects 38392
- GaAs oxide mask layers, in situ electron beam lithog., patterning mechanism 38770
- GaAs, patterned photon-driven cryoetching 30065
- GaAs, surface, NH_3-plasma treatment in rem./direct plasma reactor 38628
- GaAs-Au(In) Schottky diodes, chem. etched surfaces 13612
- GaAs-P_3N_5 MISFETs, photo-CVD grown gate insulators, sulfide treated, charact. *(Korean)* 30355
- GaAs-SiN, passiv. film form. by laser CVD 13370
- GaAs(100) surfaces, sulfide passivated, stabil. 38622
- GaInAsSb/GaSb, LED, electrolum. quantum yield 1827
- GaP, interrupted cycle CBE on Si, photon assistance effects 28766
- a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
- Ge heteroepitaxy on Si(001), init. stage, Auger electron diffr. 20709
- Ge-Si monolayer-scale heterostruct. by rapid thermal CVD 20911
- Ge(100)-(1×1), S-passiv. 30092
- HgCdTe, MOCVD layers, excess carrier lifetimes 38254
- HgCdTe, long-wavelength photodiodes, n^+-p vs. p-n structs. 39571
- $Hg_{1-x}Cd_xTe$, IR detectors, temp. limits 42811
- $Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
- In/n-$Hg_{1-x}Cd_xTe$ contacts, modified sheet resist. 38416
- InAlAs-InGaAsP-InP syst., potential barrier height enhance. 22008
- InAs cluster nucleation/epitaxial growth via electron beam lithog. 30173
- InAs/$In_xGa_{1-x}Sb$, superlattice IR detectors, temp. limits 42811
- InAs/$In_xGa_{1-x}Sb$ superlattice based IR detectors 3842
- $In_xGa_{1-x}As$/InGaAsP/InP SQW laser, modulation bandwidth 39859
- $In_xGa_{1-x}As$/InP thermophotovoltaic cells, recomb. lifetime meas. 28006
- InGaAs-InAlAs, selective etching in HBr plasma 13411
- InGaAsP/InP 1.55 μm DH laser, 0.95 μm luminous peak *(Chinese)* 14899
- InGaAsP/InP quantum well lasers, watt-ampere charact. 39760
- In_2O_3-ZnSe-$(Zn_{1-x}Cd_xTe)_{1-y}(In_2Te_3)_y$ heterostruct., current transport 21963
- InP, migration enhanced epitaxy, charactn. 12072
- p-InP(100), anodic passiv. in $(NH_4)_2S_x$ soln. 13387
- InSb(100) surface, Ar ion bombard. and electron stimulated oxid. 30101
- Nd-FeCoNi-B-AlTi melt-spun ribbons, corros./mag. props. 30681
- Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
- Ni-NiIn-Ge-GaAs ohmic contacts, interface microstruct./reacts. 38396
- Pd contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
- Pd/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
- Pd-Ge-Ti-Pt ohmic contacts, p^+-GaAs:C/$Al_{0.26}Ga_{0.74}As$:C 38658
- Pt/Si(111) interface and props. of thin Pt layers on Si 1166
- PtSi/Si, chem. clean, morph. smooth interfaces, form. 37520
- RuO_2 reactively sputtered films, ferroelec. capacitor electrodes 20920
- Si IC, failure anal. methods, develop. and mfg. appls. 22519
- Si, buried silicide layers, ion beam synthesis 30025
- Si, near-surface layer defects, RIE in SF_6-CCl_4-O_2 plasma 13337
- Si nitroxides, rapid thermal, growth, struct. 1245
- Si oxides, rapid thermal, growth, struct. 1245
- Si solar cell perform., trap location/trap-assisted Auger recomb. effect 44395
- Si surfaces, self-limiting adsorpt. of thermally cracked $SiCl_2H_2$ 20703
- Si, thin layers, growth on Nb surface 37500
- Si wafer substr. clean-up, chem. contamination, Auger anal. and ellipsometric studies 30119
- Si:B, MBE growth, elec. props., reciprocal lattice mapping 304
- Si:B porous film, photolum., Auger spectr., annealing, solvent effects 38238
- Si:N, plasma ion implant., depth profiles 6615
- Si/Al_2O_3 heteroepitaxial double SOI struct., press. sens. 38433
- Si/Co/GaAs(001) interfacial reacts. 13278
- Si/SiO_2, MOS structs., photoenhanced CVD, comp., elec. props. 38429
- Si-Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
- Si-SiO_2 MOS surface layer defects, ECR etching in Cl_2/O_2 plasma 6631
- Si(100), carbonization, solid source MBE 20902
- Si(100), wet cleaned, thin oxides, Auger spectra, angle-resolved XPS 38613
- Si(110), thermal nitridization in ammonia atmos. 38615
- Si(111) substrs., amorph., Ge film sputter deposition-induced 37510
- Si(111)-C surface, H ion bombard., LEED, AES 30118
- β-SiC films, CVD epitaxy, struct./electronic charact. 20903
- SiC thin films, LPCVD from hexamethyldisilane 433
- SiC/Si wafer bonding, CVD and etching 13392
- SiGe/Si quantum dots, island growth, photolum., electrolum. 28830
- $Si_{1-x}Ge_x$/Co(Ti), solid state interfacial react. 38371
- $Si_{1-x}Ge_x$/Si heterostruct., adaptive temp. program ALE from Si_2H_6/Ge_2H_6 20705
- SiGe-Si RTP/VLPCVD heterostruct., Ge surface segreg., H_2 influence 22005
- SiO_2, at. layer controlled deposition, binary react. seq. chem. 20712
- SiO_2 films prod. by PECVD, interface and elec. props. 29969
- SiO_2 thin films, N_2O RTP/oven nitridation, elec. characterisation 13327
- SiO_2 thin films, plasma nitridation, electron beam irrad. 22253
- SiO_2/InP, direct photo-CVD using D_2 lamp, MOSFET appls. 28807
- SiO_2-Si_3N_4-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- SiO_yN_z plasma CVD, MIS devices appl./elec. eval. 20973
- SiO_xN_y-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- SrS phosphor thin-film electrolum. devices, rare-earth-ion-activated, transient emission 31090
- Ta sputtered film, compressive stress rel., thermal cycling 22266
- Ta-Si-N diffusion barriers, RIE 22198
- $Ta_{36}Si_{14}N_{50}$ diffusion barrier RIE in CF_4/O_2 gas mixtures 38675
- Ti-Pt ohmic contacts to InAs emitter layer, AlGaAs-GaAs HBTs 38831
- Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
- TiN, ECR chem. vap. deposition, 20 C 12173
- TiN_x, CVD, organometallic precursors, surface spectrosc. study 37495
- TiO conductive films, reactive ion-beam sputtered, VLSI metallisation 37494
- TiW thin films, sputter deposition 28829
- W/TiN:F interfacial props., deposition temp. effects 393
- W-Pt ohmic contacts to InGaAs emitter layer, AlGaAs-GaAs HBTs 38831
- WN_x thin films on GaAs, reactively sputtered, stabil. 38659
- WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
- p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
- p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413
- n-ZnSe/Sb Schottky barriers, I-V props./SEM/XPS/SIMS/Auger spectra 30100

Auger electrons *see Auger effect*
Auger recombination *see Auger effect; electron-hole recombination*
Auger spectra *see Auger effect*
Auger spectroscopy *see Auger effect; electron spectroscopy*
aural null direction finders *see radio direction-finding*
austempering *see heat treatment*
austenitising *see heat treatment*
authoring languages
see also computer aided instruction; high level languages
multimedia computer-based teaching, case study 20315
authoring systems
cooperative work, obj.-oriented/hypermedia approach 33649
CrystalWeb, distributed authoring environ. for World-Wide Web 41868
EM education multimedia lessons 28286
FM TOWNS, multimedia tools *(Japanese)* 42011
Multicard, open hypermedia syst. 16662
multimedia sync. model, appls. 41969
SEPIA, cooperative hypermedia authoring environ. 16806
video authoring, user models for intell. multimedia 41989
World Wide Web authoring tool improvements for Unix platform 41865
World Wide Web struct. authoring environ., Grif 41866
World-Wide Web conf., Darmstadt, Germany (1995) 36872
authorisation
see also message authentication
access control in hierarchy, cryptanalysis 15760
CA-Browsing System, global security services support 16675
client server archit. migration, security soln. *(French)* 25027
client/server environ., security *(French)* 25026
computer networks, star-based/ring-based conf. authentication facilities 8951
conf. on security technol., Ottawa, Canada, Oct. 1993 36875
directory authentication framework 8954
distributed enterprise network security 41814
dyn. cryptographic key generation scheme for hierarchy 8118
electronic secretary syst. *(Japanese)* 24940
ESPRIT MIDAS project, secure rem. mgt. 8953
firewall installations, IpAccess Internet service access syst. 24962
flexible exponentiation with precomputation, public key cryptography 32161
health care, secure multimedia appls. and teleservices 16855
identity-based signature scheme, bounded life-span 32160
key agile cryptographic syst. for OC-12c rate ATM 24058
MITRE security perimeter 8937
multicast-specific security threats, counter-measures 24961
network perimeter, secure external access 16674
password ident. scheme, cryptanalysis, quadratic residues 15761
role-based network security 33573
SecuDE security toolkit, towards trustworthy commun. systs. 8955
traitor tracing, cryptographic schemes 32173
weak secret access control improvement 40703
World Wide Web media distrib. via hopwise reliable multicast 41864
rem. authentication tech. 15735
Autler-Townes effect *see Stark effect*
autoionisation
see also Auger effect
Li-like Al, autoionising states, X-ray lasing transits., photopumping 14686
automata theory
see also finite automata; probabilistic automata; sequential machines; stochastic automata; switching theory; Turing machines
audio control protocol verification 34288
mfg. message spec., protocol design/anal., Petri net-based 8873
packet switched networks, fault-tolerant routing algms. 24756
separating systs. theory 15679
speech recogn. systs., HMM, finite-state automata 32361
automated highways
see also driver information systems
beacons/protocols for fee collection/route guidance 41521
compressed video commun. systs. 8682
drivers' dist. keeping, simul. study 5325
high-speed vehicle convoy, control feasibility simul. *(Japanese)* 28107
integrated road transport/traffic environ., protocols 3456
intell. vehicle/highway syst., packet-switched commun. 3460
IVHS, packet success probabs., meas. headway distribs. 42239
IVHS vehicle systs., commercial success considerations 44578
road transport and traffic mobile environ., ISO IP protocol suite 41783
roadside leakage coaxial cable, quasi-microwave band 42136
RTI/IVHS data distrib., virtual beacons 3459
telecomm./transportation, synergy of concepts 3455
vehicle navigation and information systems, conf., Japan (1994) 36825
vehicular traffic control, act./pass. IR sens. 11429
vision systs., multisensor for IVHS 42840
automatic call distribution systems *see automatic telephone systems*
automatic electricity meter reading *see power system measurement; telemetry*
automatic frequency control
dual-mode dielec. resonator freq./phase discriminator 12740
elec. utility generating plant AFC services 43702
microwave oscillator with dielec. disk resonator, thermal AFC 37983
narrow band satellite commun. systs., automatic freq. correction 37680
opt. heterodyne receivers, noise perform. of AFC loops 42407
pumped storage plant, converter-fed var. speed generator-motor, fault current *(Japanese)* 36048
pumped storage plant, converter-fed var. speed generator-motor *(Japanese)* 36047
SAW device complex freq. charact., sensitivity anal. 6929
automatic gain control
64 Mbits/s PRML HDD channel, BiCMOS analog front-end sig. proc. 7143
600 Mbps opt. receiver, high-speed AGC cct. *(Japanese)* 42469
airport large electroacoustic syst. speech intelligibility meas. and optim. *(Croatian)* 2411
binary FSK direct conversion receivers 3463
bipolar AGC IC for hearing instrums. 35168
CMOS AMPS IF filter, integrated, low noise, cellular telephone appls. 25354
CMOS analogue front-end for terrestrial/satellite integrated D2MAC decoder 34230
full frame transfer CCD camera, high resoln. 42587
HBT technol., CDMA chip set power increase 16928
automatic gain control continued
IF amp. having low noise and wide AGC range *(Korean)* 37647
mode-locked arrays of automatic level control oscillators, anal. 12773
multi-level decision feedback equalization, syst. archit., mag. recording 7177
power system LQG controller design 35520
QAM signaling, Rician-fading diversity channels, error probab. 32040
semicond. components for opt. amplif./modulation/detect. 42472
sinusoidal oscillators, current feedback amp. based ccts. 12364
speech coding, adaptive postfiltering for quality enhancement 8224
unequalized mag. recording channels, clock recovery 7193
GaAs HBT multifunctional microwave-analog VGA 38023
automatic guided vehicles
independent motion segmentation and collision prediction, road vehicles 24451
real-time Petri nets for modeling, controlling, and simul. of LANs in FMSs 16735
underwater robot vehicles, 3D US localisation syst. 26785
unstructured power plant environ., navig. and manipulation 43814
automatic optical inspection
3D position estimation, robot control model 25880
ANN based PCB inspection syst. 29684
Aqua Explorer 1000 for inspection of underwater cables 9156
CAD-based vision, conf., Champion, IL, USA (Feb 1994) 36878
calib. for automated opt. mensuration, video camera 2613
complex and coloured obj. inspection 16356
dedicated neural network, automated visual QC, massively parallel VLSI-implement. 32949
detect. of enclosed shape boundaries 24522
elec. fuses; inspection, fast, using computer vision 21617
electron beam collimating grid opt. inspection/QC 157
electronics inspection, built-in quality 166
ellipse param. estim. by image seqs. 41106
endoscopes, fiber-optic and TV, nuc. plant equipt. inspection 25871
fine-pitch SMT, automated soldering inspection 163
GAIA, generalized adaptive image analyzer, inspection appls. 28513
geometric image class. by stress polytopes, perform. and integrat. *(French)* 41351
holographic NDT, neural network approach 31662
IC, automatic inspection of pattern defects 37158
IC wire bond, automated visual inspection, auto-focusing 37163
ident. and integrity verification of final disposal casks 17652
image proc., parallel DSP archits. 29242
inspecting quality of disks 37160
mask defect inspection, database comparison 22302
mfg. product defect detect., CMOS real time image proc. systs., AOI 32940
milking systs., automatic, opt. teat inspection 34533
miniaturized micro-opt. scanner lens arrays 9646
Motorola IC yield enhancement, integrated approach 22520
obj. registration 41121
opt. disc inspection by lin. array CCD systs. 5690
opt. space-freq. anal. for real-time pattern recogn. 8592
orient. estim. of indust. parts for automated inspection 5689
patterned wafer inspection, IC yield/cost-of-ownership factors 37157
PCB, travelling cameraman problem 28516
PCB pattern anal./eval. 38138
PCB pattern defect anal., divide and merge image proc. 29672
PCB pattern defect anal./eval. using CAD data, AOI 37161
PCB solder joints vision inspection machine *(Italian)* 5687
PCB visual inspection-diagnosis expert system, reverse engineering 29651
PCB/SMD quality inspection by computer vision 37165
Prolog program, prog. fast colour recogn. hardware by symbolic reasoning 24546
QC, robotics and vision syst. technols. 37169
retro-reflective laser automatic inspection systs. for proc. control 37174
roller bearing surfaces, 2D surface texture, machine vision opt. meas. tech. 8630
semicond. defect recog. fuzzy expert syst. 1192
shape recogn./anal. 11832
shattered glass, image drop-out, region reconstruction, fuzzy algm. 2834
SMD soldering/inspection workcell, develop. 6419
SMDs, inspection/subpixel alignment, fuzzy morph. *(Korean)* 29691
SMT board testing, method selection 38102
SMT prod., integrated process monitoring/testing 38111
spike defects, imaging props. simul. 37173
surface inspection by opt. triangulation 18069
surface inspection systs., software tool for developing algms. 17653
surface roughness online monitoring by laser scatt. *(Japanese)* 34700
survey of automated visual inspection 28512
transputer-based visual inspection syst. 28506
user prog. visual inspection 41225
vision syst. for AOI of ball bonds/bonding wire profile in ICs 1463
visual inspection, linguistic fuzzy inputs 38951
visual inspection for LSI wafer patterns, subpixel image alignment 6437
visual solder inspection, neural network *(Japanese)* 38117
Si wafer oblique angle inspection, contaminant/cryst. particle differentiation 11825
automatic programming
computer-aided test program design syst. (CATPDS) in ATLAS 28430
embedded flight control syst. design, integrated proc. 10333
genetic algm. based test generation for logic ccts. 12446
indust. vision, image understanding syst. design *(Japanese)* 16372
observability environ., seq. test generation 12449
reliab. estim. and software testing, automated environ. 8833
seq. ccts., ATPG, fault ordering 12448
seq. ccts. with embedded RAMs, test generation 12434
simul.-based proc. verification, automatic program generator 17663
telecomm. software automatic generation technol. *(Japanese)* 16512
test pattern generation algorithm acceleration, probabilistic measures 42722
test program generation using graphical tools, Navy appl. 42691
TPS command file generator 42696
automatic repeat request
adaptive rate error control for land-mobile satellite channel 9370
analog cellular facsimile commun. time reduction *(Japanese)* 41741
ATM networks, AAL and group commun. server for reliable multipoint services 16482
automatic retransmission rather than ARQ 3364
CDMA packet combining error control 25368
CDMA wireless LAN, hybrid-ARQ error control scheme 8748
concatenated coding and ARQ, TCM for Rayleigh fading 8102

- **automatic repeat request** continued
  - convolutional coded ARQ scheme for moderately time-varying channels 40583
  - decision-feedback max.-likelihood decoder for finite-state Markov channels 15750
  - DECT, multibearer connections syst., ARQ protocols perform. 17051
  - digital cellular syst. radio link protocol throughput perform. 33799
  - digital land mobile radio, commun. channel simulator *(Japanese)* 17137
  - DS-CDMA, integrated voice/data wireless networks, grade of service 9364
  - DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
  - DS/CDMA digital cellular systs., error control algms. 9361
  - DS/CDMA diversity combining, convolutional encoding/Viterbi decoding 9380
  - DS/SS systs., transm. bandwidth control schemes *(Japanese)* 25208
  - generalized ARQ policy in data transm. *(Japanese)* 15682
  - go-back-N ARQ scheme for variable-error-rate channels 16500
  - GSM adaptive type-II hybrid ARQ/FEC protocol 3445
  - hybrid Go-Back-N ARQ scheme, repeated transms. 8689
  - hybrid-ARQ scheme, convolutional code and Viterbi decoding 32099
  - IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
  - implosion-avoidance protocols for reliable group commun. 33270
  - indoor mobile radio, burst-level ARQ error protection 17054
  - information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
  - LEO satellite networks data link control protocol, datagram service 24835
  - multi-channel ARQ protocols, perform. anal. 8927
  - multicopy ARQ strategies, Stutter XOR strategies 2927
  - opt. commun., ARQ schemes, perform. eval. 17184
  - protocols for high speed hardware implement. 41541
  - radio LANs, FEC, ARQ, and throughput of 16678
  - rural meteor burst communication protocols anal. 33974
  - satellite commun., multicast hybrid ARQ scheme, stored error recovery 17147
  - selective repeat ARQ for data commun. 17053
  - slotted TDM throughput anal. for ARQ protocols 33253
  - slowly time-varying commun. channels, adaptive hybrid ARQ scheme 15782
  - TDMA indoor wireless cellular systs., punctured convolutional codes, optimal coding 33872
  - TDMA struct. DECT syst., data services 16621
  - third generation mobile systs., adaptive radio interface 25395
  - type-II hybrid SR ARQ, punctured convolutional coding 15780
  - variable-redundancy hybrid ARQ, invertible convolutional codes 17055
  - wireless access systs., low bit-rate video transm. 17088
- **automatic telephone systems**
  - *see also telephone equipment*
  - Ahmedabad Telecom District, automation, computerisation 3102
  - Asia-Pacific region, integrated voice inform. services 3121
  - autodialer, programmed control 17580
  - AXE-10 switch in Iskra-2 network 33392
  - BT's speech appls. platform, telephone network-based speech syst. 41727
  - call centres for business commun. 33401
  - CT2Plus based wireless PABX, traffic capacity perform. 9205
  - directory, speech controlled automatic IS *(Italian)* 24929
  - negotiative dialogue design for computer aided telephony 41705
  - operator services staffing, heterog. posns. 41717
  - PARADISE project, transit. strategy towards global X.500 directory 33335
  - patient recruitment, improved efficiency, automated telephone screening syst. 43327
  - STU-III-multilevel secure computer interface 9082
  - switches, free-standing air conditioning units *(French)* 20138
  - Valora 81 terminal, calling line ident. for residential users 42075
  - X.500 directory syst. in Croatian public telecomm. network 41706
- **automatic teller machines**
  - cryptographic systs. failure 24060
  - cryptosystem failures, reasons 24107
  - duplicated telecommunication system, CTRON based operating system 33713
- **automatic test equipment**
  - *see also automatic test software*
  - 0.5 MW batt. test facility, microcomputer-controlled 27883
  - A/D convertors, transient and overvoltage recovery testing 12596
  - ABBET, A Broad Based Environment for Test 34345
  - ABBET component std., test inform. mismanagement reduction 34346
  - ABBET test resource stds., obj.-oriented anal. 34348
  - absol. surface shape testing, interferometric sens. 18077
  - adaptive fault detection, integrated technology enhanced 42709
  - advanced μP ATE 663
  - AEGIS ORTS integrated diagnostic system 42716
  - Air Force appl. 42706
  - Air Force appls. 18718
  - Air Force ATE enabling technols. 34363
  - air-bag crash sens., VXIbus-aided automated test syst. 17680
  - airborne antenna testing, Indoor Doppler Antenna Test Range 35217
  - airborne systems, neural network technology for BIT applications 42730
  - aircraft act. noise control, research, reality 10371
  - aircraft fuel accessories test system 43425
  - alternator field winding interturn fault detect., neural net-based 44014
  - analogue IC, automated test design method *(Japanese)* 30418
  - arcing contacts, concurrent testing syst. develop. 9811
  - Ascom TCS P7 series test instrums. for telephone and data network fault finding 33391
  - at-speed testing in IC manufacture 1472
  - ATAG tri-service initiative 42720
  - ATLAS lang., instrums. technols. develop. 34344
  - ATS 93 test conf., China (Nov. 93) 36857
  - AUTOTESCON 93, (Sept. 1993) 36845
  - AUTOTESTCON, conf., Anaheim, CA, USA (Sept. 1994) 20248
  - avionics ATE, develops. towards independence 35223
  - avionics ATE, joint Honeywell/Aerospatiale develop. 43438
  - avionics maint. training, equipt. simul. 35236
  - B-2 automatic test equipment 43436
  - ball grid array soldering proc. meas., X-ray techs. 37142
  - batt. capacity tests, computer based eval. 19954
  - bench-top tester requirements, mil. shop environ. 35382
  - benchmarking issues and pot. solns. 9799
  - benchmarking trade-offs 9798
  - benefits of software reusability, ATE users/vendors 34371
  - BiCMOS logic ccts., fault anal. and DFT *(Korean)* 39023
  - Boeing 777 Airplane, model-based diagnostics 10319
  - broadband sampling oscilloscope, nose-to-nose calibration 25913
- **automatic test equipment** continued
  - built-in diagnostics for advanced power mgt. 34356
  - C-17 ATE support, successful appl. of existing equipt. 34369
  - C-17 cockpit display visual aspects, automated testing 35225
  - C-17 intermediate level ATE syst. for avionics maint. 35224
  - cache DRAM testing, 256k word x 16 bit 6144
  - cage induction machines, online winding param. meas. 4940
  - CALS/CE-ATE Data Base requirements 34402
  - CANDU, steam generator tube relaxing, sludge sampling 10826
  - CASS, design for supportability 35410
  - CASS, design for supportability 17670
  - CASS Automated Technical Information display, ASCII data files 34404
  - CASS syst. software config. mgt. 34396
  - cct. breakers, condition-based monitoring develops. 5154
  - charged dielec./metal thin films, peeling ESD 7901
  - CMOS IC, I_{DDQ} testing, EDA/ATPG/ATE syst. integrat. 13892
  - complex digital devices testing on 100 MHz tester 9796
  - composite struct., automated US NDT, form-fn. anal. 5931
  - computer aided EMC testing 23719
  - computer-based pump testing expt. 5523
  - concurrent engineering based test and maintenance 42708
  - controlled impedance boards testing 21624
  - controller replacement, commercial products 34362
  - costs reduction, Special Purpose ATE (SPATE) 34361
  - cylindrical drift chamber, 3D data output 34907
  - DARTS enabling technology for concurrent engineering 42717
  - DC machine online spark detect. syst. develop. 4991
  - DC motors, CAMAC-PC based automatic expt. investig. syst. 36185
  - develop. trends 34399
  - diagnostic and repair expert system tools, workflow management 42715
  - diagnostic engng. tool set for mil. environ. 35383
  - diagnostic models standardisation for syst. test and diagnosis 34352
  - Diagnostician-on-a-chip, concepts/implement. 34357
  - diagnostics implementation in standard ATE environment 42699
  - Diagnostika motor drive testing automation software 44469
  - dielec. WB TEM cell manipulator, radiated emissions testing 3736
  - digital batt. life cycle tester 34383
  - digital test system extension to Gbps range 25720
  - digital video quality, computer-based testing 16083
  - distributed simul. for live training 35406
  - DoD's tri-service ATE R&D program 35381
  - Dome Water Monitoring Instrumentation System, submarine sonar dome corrosivity meas. 17676
  - DRAMs characterisation, 500 MHz interface 6150
  - DSP based, electric machines torque-speed characteristics 25718
  - dual gate MOS-JFET CCD test struct. 34584
  - dual segment archit. for VLSI test syst. 6819
  - dynamic performance of ultrahigh speed ADCs testing 25761
  - dynamic system fault identification and diagnosis, neural network 25721
  - elec. device heat testing automation, PC-based *(Russian)* 5584
  - elec. device insulating params., computerised tester *(Chinese)* 27658
  - elec. generator real-time condition monitoring 44007
  - electro-optic probing of ultra-high-speed IC's 13839
  - electromechanical switches degradation obs. due to mechanical vibration 21608
  - electrorefining proc., anode passiv. expts. 28192
  - embedded diagnostic system for submarine ship control 42728
  - enhanced parallel port for two-way commun., PC/data acquisit. instrums. 25733
  - ES for EMI/EMC meas. 23737
  - EW testing at flightline 43587
  - F-16 Central Air Data Computer, downsized testers 43437
  - far-field antenna measurement, automated system 23891
  - Fastpath path-delay test generator for scan designs 6071
  - fault diagnosis in ATE analogue cct. modules 25722
  - fighter aircraft, future generation develops. 43598
  - flexible sequencer archit. for serial test card 21232
  - flight instrum. test facility, control and data acquisition 26531
  - FLIR imaging systs. charactn. requirements/algms. 34592
  - FPA testing, low-background opt. simulator 34590
  - fruit tester, portable, microcomputer-based 9819
  - generic test/maint. node for embedded syst. test 9795
  - GIS PD detect. automation method 36468
  - GPIB compliance testing, large test/meas. company 34376
  - GPIB-controlled VXI systs. perform. improvement 34377
  - GSM mobile telephones, type approval methods 16616
  - GSM networks, test products develop. 9201
  - helical-scan digital video recorder, playback, channel investigs. 17593
  - helicopter aging support equipment, maintenance alternatives 43574
  - HF electronic component measuring syst. 9821
  - hierarchical analog fault diagnosis, neural net approach 42734
  - high speed DRAMs testing 6145
  - high-precision opt. gauging of metal rings 18062
  - high-speed measuring syst. for testing mixed-sig.-LSI 767
  - Hitachi on-board prog. microcomputer, develop. 21339
  - HP2100 computer in US Navy test sets, replacement 35380
  - HP 8156A prog. opt. attenuator, design 34712
  - HP 8590EM spectrum analyzer for EMC testing 42748
  - HP data acquisition syst., computer-controlled test station 34416
  - hybrid DFT, scan and clock line control 6080
  - hybrid fault simulator for sync. seq. ccts. 6089
  - hydroelectric generator online condition monitoring methods 10875
  - I_{DDQ}/I_{SSQ} testing, serially addressable flexible current monitor 6855
  - IEC 801.3 automated testing 15469
  - IEEE 1149.1 backplane test bus selection criteria 9808
  - IEEE 1149.1 scan control transport levels 9809
  - IEEE 1149.1 Standard backplane test bus extension 9797
  - IEEE 1149.31 protocol addressable, multi-drop, backplane test bus 9782
  - IEEE 1149.x family of stds. 9810
  - IEEE P1149.5 bus standard VHDL synthesis approach 42701
  - IEEE P1149.5 MTM-Bus, backplane test/init. interface 9807
  - IEEE Std. 488.2, generic test suite 34375
  - IEEE stds. appls., IFTE 35416
  - induction motor drive meas. technique, microprocessor-based 20058
  - induction motor drives, computerized test equipt., PC-based 44467
  - induction motor drives, online current monitoring-based fault detect. 36704
  - induction motor rotor speed meas., slot harmonics-based 4941
  - integrated ATE amp., switch mode design 29054
  - integrated depot environ. for avionics support (IDEAS) 35228
  - integrated diagnostics for aircraft propulsion systems 43454

automatic test equipment continued
- integrated test system, small/large signal device characterisation 25957
- Intel μPs, total dose radiation testing 29305
- intell. maint. aid software 34370
- interactive electronic technical manual for US Army 43572
- interfacing, external time meas. instrums. 9803
- intermittent faults detect. in electronic devices 35379
- International Test Conf., Washington, DC (Oct. 1994) 61
- ITC test conference, USA (1993) 36853
- KNM-S243/S603 radio interf. apparatus/measuring systs. 23734
- large-syst., market trends 17655
- LDPE, elec. treeing, PD pattern recogn. 1531
- life-cycle costs reduction in ATE technol. insertion 34360
- LIM drives, neural net-based fault diagnosis 36703
- linear electrical drives testing 28086
- LSI testing, electro-optic probing syst. 6836
- mains insulation monitoring, computerised monitoring 39062
- management in 90's 42690
- MCM defects testing, IEEE 1149.1 boundary scan test 38196
- ME2632A/B/C digital mobile radio test syst. for PDC/PHS phone prod. *(Japanese)* 33769
- mfg. proc. real-time empirical Bayes model-based monitoring 20425
- mil. autotest cost growth, commercial std. equipt. archits. 34364
- mil. readiness increase, dual, design/test technol. 34365
- mil. test set, design for manufacture/assembly 35403
- military environment, small tester concept implementation 42712
- missile joint service testing, Navy/Air Force CASS 35412
- mission effectiveness enchancement through electro-optical systems 43570
- Mitsubishi perform. tester for ATM networks 33589
- mixed sig. ATE, data driven archit. 9813
- mixed-sig. ATE develop. 25730
- mobile ATE for flightline and forward battle areas 34366
- model based diagnostic systs., pitfalls 34380
- modular sample prep./anal. syst. 34409
- monitoring power supply current, neural network 34374
- motor/generator stator windings, in-service PD tests 36101
- MT2607A/B/C PDC handyphone tester used service shops *(Japanese)* 34334
- multichannel simultaneous digital tracking filters, vibr. control 17993
- multilevel high dens. ASIC defect isolation, electron beam probing RIE 21169
- multimedia electronic performance support systems 42729
- multivendor ATE, test software generation 3727
- multivendor telecomm. equipt. ATE, test software generation 3728
- μP-based portable test equipt. for elec. network 4736
- MV05A/B/C test syst. for ATM syst. R&D *(Japanese)* 33707
- MW9070A OTDR for opt. fibers maint. *(Japanese)* 33667
- MW solid-state cct. breaker pulsed power supply, GTO-based 36461
- Naval avionics testing on CASS 35235
- Navy's factory, fleet maint. concept 35411
- Navy's integrated diagnostics support system 43595
- Navy air-launched missile maint. 35415
- Navy and joint service missile testing—A management update 43597
- Navy sensors, consolidated automated support system 43571
- neural engng. utility, adaptive algms. 34379
- neural network based cct. faults diagnosis, current monitoring 17671
- neural recogn. of diagnostic test data transforms 34359
- nonlin. signature anal. of data converters, automatic 3767
- off-chip IDDq current meas., telecomm. ASICs appl. 6853
- off-equipment integrated diagnostics 42714
- on-board diagnostic support, time stress meas. 43432
- open stds. appl., board-level testing 29654
- opt. profilometer, multiple virtual styli, IC packaging/interconnects 34337
- PALplus transm. test sig. prod. and eval. *(German)* 42562
- particle impact noise detect. by neural net 34392
- path delay testing in std. scan environ. 6072
- PCB automatic test options 898
- PCB test requirements in generic formats 29655
- PD diagnosis and pattern recogn. 22652
- PD induced ageing, pulse-seq. anal. 22653
- pipe length online meas. by acoustic sens. *(Japanese)* 17681
- pole transformers/induction motors, harmonic losses meas. 5029
- polymeric insulation, testing equipt./methods 1562
- portable integrated power quality measurement system 27282
- power supplies test strategies 29005
- power syst. overcurrent relay harmonic simul./testing 10613
- power transformers, DC bias-exposed, VAr demand meas. 11100
- predictive sensitivity based fault detection 38119
- profiling aspherical surfaces, moire deflectometry 17926
- prog. analog neural chips, testing/ATE 21476
- program generation using graphical tools, Navy appl. 42691
- pump fault diagnosis using neural nets 42719
- PWR, automated US inspections, data collection/interp. software 35374
- QTAG class 1 monitor for CMOS IC testing 6854
- QTAG std. for test fixture I_{DDQ}/I_{SSQ} monitors 6852
- quartz crysts., test oscillator for drive level study 30617
- radar phase noise meas., digital DP 34156
- radar T/R module burn-in method 35390
- re-engng. approach, ATE 34372
- real-time bearing monitor, microcomputer-based 34339
- rect. quartz plates vibrs. characts. meas. 30614
- RF A universal probing syst. for PCBs 12908
- RF ATE development, Modular Measurement System develop. 42688
- RF instrum. accuracy, meas. uncertainty effects 42911
- RF marking principle for antenna analyzer 15660
- RF spectrum analyzer, PC-based 17692
- RF/microwave test simulator 34675
- rly. signalling interf. prevention, high integrity monitor 44547
- robot vision-based calib. syst. 17658
- robotic soil anal. for phosphorous determ. 25714
- robotic soil anal. station 25713
- Rohde & Schwarz Digital Radiocommunication Testers CMD 54/57 9341
- Rohde & Schwarz Industrial Controller PSM, automated prod. testing and control 5604
- Rohde & Schwarz Radiomonitoring System TS9965 9183
- Rohde & Schwarz scalar NWA Polyskop ZWOB 9833
- Rohde & Schwarz TV Inserter/Regenerator VIR, TV broadcast monitoring 9697
- Rohde & Schwarz TV test transmitter SFM 9703
- rolling mill elec. drive harmonics, computerised meas. syst. 36801

automatic test equipment continued
- salient pole alternators, automated testing, param. determ. 4914
- sampled waveform meas. in IC, electrostatic force microscopy 9871
- scan testing accel. in IEEE 1149.1 archits. 6077
- scratch testing, grooving wear, elevated temp. *(German)* 447
- self-tracking US inspection syst. 34395
- semicond. indust. develops., 1980s-1990s 9792
- service life extension, military appls. 42731
- Siemens K3000 for ISDN quality testing 9013
- single meas. testing, pros and cons 34381
- slider-disc clearance meas. in magnetic disc drives 22702
- SMART and ABBET common architectural heritage 35237
- SMART at Delta Air Lines user experience/expectations 43435
- SMART ATE software for aerospace industry 43434
- SMART software tools 34405
- SMART std. based autotesting for commercial and mil. appls. 18719
- SMART test standard for commercial air transport industry 43433
- SMT bare board ATE, std. mirror board enhancement 38157
- software design methodologies develops. 42703
- software random pulser in lab. 3732
- software tools develop. 34400
- specialised measuring instrum. charact. monitoring 42684
- spurious resons. meas. of cryst. units 30616
- squirrel cage motor rotor winding fault detect. ES 44059
- standardisation for army industrial environment 43573
- static fault detect. syst., digital IC 22523
- stationary batts., diagnostics/perform. prediction approaches 19956
- stds. impact on product life-cycle costs reduction 28395
- stepping motor torque-speed characts., computer aided testing *(Chinese)* 44093
- subscriber interface, ARINC 629 current mode bus 35229
- substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
- technician centered test concepts 34367
- technology trends and appls. 42713
- telecomm. equipt. prod., CAT tool integrat. in factory inform. network 33341
- TEM cell, sound/TV receivers radiated suscept. meas. 25646
- Teradyne integrated ATE syst. for microwave devices/ccts. 25716
- thermal cells, tester develop. 36511
- three-phase induction motor drives, online fault monitoring 20084
- through hole solder joints automatic inspection, automated inspection 42705
- torpedo transducer, automated calib. facility 10594
- touch/step voltages meas. method/instrum. 4710
- TPS appls. matching, existing ATE 34397
- TPS for multiple test environments 38076
- traceability of ATE systs., w.r.t. internat. stds. 9781
- transformer windings status assess., online stray inductance meas. 5013
- transient sigs. anal. equip., digital sampling techs. 3730
- transm. network maint./fault diagnosis experiences, Hungary *(French)* 35601
- trends/develop. 34338
- triggering bus controlled test and meas. system 34341
- turbogenerator rotor shorted turns, online monitoring 19598
- US inspection, sig. discretization 18950
- US Navy consolidated automated support syst. and interface devices 42738
- user interface design methodologies 34373
- validation test generation, automated procedure 10330
- VHDL testbench, board-level test programs develop. 30421
- video speed ADCs, differential gain and phase meas. 12609
- virtual instruments develop., ATE future 42707
- virtual instruments for use in test systems development 42727
- VISTA virtual instrum. std. test archit. 34398
- VLSI workcell controller and resource rels. design 5595
- VXI, std. instrum. drivers/soft front panels 34378
- VXI and digital stimulus/response test for PCBs 12923
- VXI based test systems develop. 42726
- VXI meas. and test systs. *(Slovak)* 25719
- VXI syst. hardware support 3746
- VXI-based systs. for telecom. network perform. monitoring 24882
- VXI-based test system 42725
- VXIbus card cage for transportable testers ruggedisation 42724
- VXIbus technol. 17666
- VXIbus/GPIB-based test syst., Boeing 757 flap/slat electronics unit 4350
- waste water monitoring, automatic BOD test 25715
- waveform anal. of LSI for music synthesizers 3698
- weighted random pattern generation syst. design 6086
- Er-doped fiber amp. test syst. 31211
- Ni-Fe batt. cycling expts. 36548
- Ni-MH batt. cycling expts. 36548
- Pb-acid sealed batt. surveillance syst., POWCOM program 44301
- Pb-acid stationary batt., computerized test equipt. 17674
- Pb-acid telecom. power supply batts., total monitoring syst. 41630
- Pb-acid valve-regulated telecom. batts., expert mgt. syst. 41632
- Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
- ^{222}Rn progeny, automated gross alpha/beta activity monitor 43400
- SF_6 HV switchgear reliab. monitoring automation 5153

automatic test software

includes software for computerised instrumentation
- ABBET, A Broad Based Environment for Test 34345
- ABBET obj.-oriented test develop. 34408
- ABBET test resource stds., obj.-oriented anal. 34348
- AGOSTO framework, VLSI BIST wt. distrib. generation 30430
- aircraft fuel accessories test system 43425
- analogue fault simul. software 488
- ATE software design methodologies develops 42703
- ATLAS lang., instrums. technols. develop. 34344
- automated RF/microwave testing, status and develop. 34406
- AUTOTESTCON, conf., Anaheim, CA, USA (Sept. 1994) 20248
- avionics ATE, develops. towards independence 35223
- B-2 automatic test equipment 43436
- bare board test program generation, self-learn/netlist methods 38083
- behavioral stimulus generation for digital test programs 34358
- benchmarking trade-offs 9798
- brushless variable speed drive network, diagnostic ES 11370
- C-17 avionics, support equipt. data acquisition/control 35226
- CALS/CE-ATE Data Base requirements 34402
- CASS syst. software config. mgt. 34396
- CMOS logic gates testing for realistic shorts 6083
- computer-aided test program design syst. (CATPDS) in ATLAS 28430

automatic test software continued
concurrent engineering based test and maintenance 42708
diagnostic and repair expert system tools, workflow management 42715
diagnostics implementation in standard ATE environment 42699
distributed simul. for live training 35406
distributive open test environ., stds. develop. 34342
F-16 Central Air Data Computer, downsized testers 43437
fault diagnosis algms. for analog/mixed sigs. 29403
functional timing analysis using ATPG 21166
genetic algm. based test generation for logic ccts. 12446
high speed sync. DRAMs, testing issues 6147
HP2100 computer in US Navy test sets, replacement 35380
HP8410 ANA syst. response calib. 34385
HP data acquisition syst., computer-controlled test station 34416
IC test, intell. software-integrated environ. 9802
IC tester diagnosis, Bayesian network appl. 30428
IEC801-3 std., radiation immunity systs. 23732
integrat., mil./aerospace environ. 34400
International Test Conf., Washington, DC (Oct. 1994) 61
ITC test conference, USA (1993) 36853
lifecycle software support for C-17 Globemaster III 35227
logic VLSI test syst. and trend 6139
march tests for memories, automatic generation 37766
microcircuit simul. and test develop. BEST TEST software 34407
military environment, small tester concept implementation 42712
mixed sig. and RF testing, obj. technol. appl. 34351
mixed sig. functional testing, software archit. 6414
mixed-sig. ATE develop. 25730
modeling test procs., automated software tool 34347
multilevel test philosophy design and implementation 42693
multimedia digital IS, futuristic paperless syst. 34403
multiple obs. time single ref. test generation, sync. seq 21209
multisignal flow graphs, syst. testability anal./fault diagnosis 34353
μP verification, automatic test generation 12564
Naval avionics testing on CASS 35235
NDE 5917
netlist automatic extractor, image proc. software for PCB 12874
off-equipment integrated diagnostics 42714
open stds. appl., board-level testing 29654
PCB test requirements in generic formats 29655
PCB X-ray inspection, neural network classifiers 37162
power equipt. shorted turn location, fuzzy neural net-based 19687
power supplies test strategies 29005
power syst. overcurrent relay harmonic simul./testing 10613
probabilistic measures for test pattern generation algorithm acceleration 42722
procedural interface, test 9801
product test information model 37048
protocol test seqs., automated generation, formal specs. 2929
re-engng. approach, ATE 34372
re-engng. test develop. proc. 34368
requirements conversion into test program sets 42692
RF/microwave test simulator 34675
Rohde & Schwarz, RFI field-strength meas. in GTEM cell, EMI software ES-K1 8008
seq. ccts., test generation, parallel fault simul. *(Japanese)* 12426
seq. ccts. with embedded RAMs, test generation 12434
simul.-based proc. verification, automatic program generator 17663
single-order addressed memory testing, effective march algm. 21301
SMART and ABBET common architectural heritage 35237
SMART ATE software for aerospace industry 43434
SMART software tools 34405
SMART test standard for commercial air transport industry 43433
Software Interface for Communication Media, component std. 34349
SOG-based RISC pro. tested for failsafe appl. 21344
squirrel cage motor rotor winding fault detect. ES 44059
substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
technician centered test concepts 34367
testset-generation, test vector constraints 3725
TPS appls. matching, existing ATE 34397
TPS command file generator 42696
TPS cost management, CASPER expert system 42711
TPS develop., class library technol. appl. 34350
TPS engineering and quality assurance 42710
TPS harmonization, vert. and perform. metrics, systs. approach 34401
TPS life cycle evolution, object oriented CASE 42694
TPS life cycle improvements using artificial intelligence 42700
TQM, role of test 28505
TRSL std., ProgramGuide implement. 34343
turbogenerator fault diagnosis, consultative ES-based 19595
US Navy consolidated automated support syst. and interface devices 42738
user interface design methodologies 34373
validation test generation, automated procedure 10330
VHDL testbench, board-level test programs develop. 30421
virtual instrums., RF transm. line testing addit. 35397
virtual test tools for improved test-develop. productivity 3729
VISTA virtual instrum. std. test archit. 34398
VLSI syst. test design methods, problems and experience in μP testing, AFTG 21354
VXI, std. instrum. drivers/soft front panels 34378
VXI-based test system 42725
WinAnalysis software, fully automatic sig. detect. and anal. 9816
windows based test development 42695

automatic testing
see also automatic test software; built-in self test
0.5 MW batt. test facility, microcomputer-controlled 27883
2 μm LIDAR for laser-based rem. sens. 10384
3D models of solder joints, generation, X-ray laminography 29674
3D X-ray inspection of fine pitch PCBs, automatic testing 29673
16-bit ADCs, servo loop testing 29307
accelerated IC life tests, time reduction by progressive censoring 20491
Air Force appl. 42706
airborne antenna testing, Indoor Doppler Antenna Test Range 35217
Alpha AXP 21164 μP, testability strategy 6160
alternator field winding interturn fault detect., neural net-based 44014
ANAs, ANA, quality comparison assess. of network meas. 25741
ASEM MCM foundry, test methodology 6460
Asian Test Symposium, Japan, Nov. (1994) 5504
ASIC chips, partial scan and seq. ATPG 3741

automatic testing continued
ATAG tri-service initiative 42720
ATE station controller replacement, commercial products 34362
ATPG, IC testing 3726
ATPG algms., combinat. gate-level designs, backtracing 12421
ATPG for seq. ccts., genetic algms. 6075
ATS 93 test conf., China (Nov. 93) 36857
AUTOTESTCON, conf., Anaheim, CA, USA (Sept. 1994) 20248
batt. capacity tests, computer based eval. 19954
Bayesian approach to confidence in system testing 42654
Bell Atlantic, centralization/automation in telecom. network testing 33355
bench-top tester requirements, mil. shop environ. 35382
benchmarking issues and pot. solns. 9799
benchmarking trade-offs 9798
Berger code self-testing checkers 595
BiCMOS SRAMs, PLL timing design techs. 29220
BIRIS range sensor, for mobile robot 25586
BIST and fault location 6820
BIST design, partitioning techs. 21058
boundary scan testing, syst. level 6401
boundary-scan in SMT, design, mfg. and syst. test 38113
bounding fault detection probabilities in combinational circuits 37733
broadband sampling oscilloscope, nose-to-nose calibration 25913
brushless variable speed drive network, diagnostic ES 11370
built-in random testing for dual-port RAMs 37753
C-17 ATE support, successful appl. of existing equipt. 34369
C-17 cockpit display visual aspects, automated testing 35225
cache DRAM testing, 256k word x 16 bit 6144
CACOP, random pattern testability analyzer 37730
cage induction machines, online winding param. meas. 4940
CAM syst. for fab. of PCB elec. tester fixture 6432
cct. breakers, condition-based monitoring develops. 5154
CLEAN algm. for microwave images eval., NDT appl. 42901
CMOS ASICs, advanced inspection program 37167
CMOS checkers design, bridging/stuck-on faults testability 21239
CMOS IC, I_{DDQ} testing, EDA/ATPG/ATE syst. integrat. 13892
CMOS logic cct. fault anal., IDDQ testing tech. *(Korean)* 29197
CMOS logic gates testing for realistic shorts 6083
CMOS SRAM chip failure anal., external elec. testing, internal contactless laser beam testing 37758
combinat. self-checking devices constr. 12417
complex digital devices testing on 100 MHz tester 9796
controlled impedance boards testing 21624
cruise missile tests, perform. anal., ES 35404
D/A converters testing, BIST approach 12600
DC machine online spark detect. syst. develop. 4991
defect efficient anal., simul. results 6093
delay test for boundary-scan based archits. *(Korean)* 21272
design verification, universal test sets 12463
DFT/BIST hardware, chip-based, control strategies 9805
diagnostic fault simul. for seq. ccts. 12445
diagnostic inference model error sources 34355
Diagnostika motor drive testing automation software 44469
digital ccts., data struct., solve satisfiability problem 29131
distributed simul. for live training 35406
DRAMs characterisation, 500 MHz interface 6150
DSO purchase choices 3923
dual IEEE 1149.1 compliant multi-chip modules 6462
dual segment archit. for VLSI test syst. 6819
EDRAM test methods, verification 6146
elec. device heat testing automation, PC-based *(Russian)* 5584
elec. generator real-time condition monitoring 44007
elec. generator stator insulation diagnosis, ES-based *(Russian)* 10918
electrorefining proc., anode passiv. expts. 28192
emission meas., data reduction 15487
ENSERG, IC design training for electronic engineers *(French)* 20332
environ. stress testing, boundary-scan 5591
Estelle, automatic test case generation 2969
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
Fastpath path-delay test generator for scan designs 6071
fault diagnosis in ATE analogue cct. modules 25722
fault injection boundary scan design, fault tolerance verification 5594
FIR filters, self test, fault coverage 29374
FPGA-synthesis benchmarking 634
gate array embedded RAM test, flag-scan register 6057
GATTO, intell. tool for ATPG for digital ccts. 608
genetic algm. for test scheduling, different objectives 1470
GIS abnormality detect., self-organizing neural net appls. 27854
GIS PD detect. automation method 36468
GLFSR test pattern generator for BIST 6085
GPIB compliance testing, large test/meas. company 34376
hierarchical environ. for interactive test engng. 6821
hierarchical test generation for VHDL behavioral models 21190
high dens. DRAM, automatic failure anal. 6151
high speed sync. DRAMs, testing issues 6147
high-resoln. ADCs, test methods 37822
high-speed measuring syst. for testing mixed-sig.-LSI 767
HiPEC, high perform. elastic connection, reliable mixed sig. MCM device testing 21612
HIST hierarchical self test for chips/boards/systs. 25725
hydroelectric generator online condition monitoring methods 10875
I_{DDQ} subset selection algms. for bridging faults 6084
I_{DDQ}/I_{SSQ} testing, serially addressable flexible current monitor 6855
IC testing/testability practices 5596
IEC 801.3 automated testing 15469
IEEE 1149.x family of stds. 9810
IEEE P1149.5 bus standard VHDL synthesis approach 42701
IEEE Std. 488.2, generic test suite 34375
IEEE stds. appls., IFTE 35416
image processing An EDDM based toolset 41305
induction motor drive elec./shaft torque indirect two-speed meas. method 36661
induction motor drive meas. technique, microprocessor-based 20058
induction motor drives, computerized test equipt., PC-based 44467
induction motor drives, online current monitoring-based fault detect. 36704
induction motor incipient fault diagnosis, fuzzy neural net-based 36157
induction motor rotor speed meas., slot harmonics-based 4941
insulation PD pattern recogn., neural net-based 13920
Intel μPs, total dose radiation testing 29305
interface framework for test development 42689

automatic testing continued
IR sens. testing, automated MRT 34508
ITC test conference, USA (1993) 36853
JTAG boundary scan test std. for improved on-board prog. 603
launch platform develops., weapon simulators 35405
layout depend. fault models, analogue fault simul. 6871
LDPE insulation diagnosis, pattern recogn. ES-based 6895
LFSR test pattern generators, lin. dependencies avoidance 37740
LFSROM BIST, basics and appl. 21193
LIM drives, neural net-based fault diagnosis 36703
line protection testing, SDH equipt./opt. fibre amp. 9530
logic simulation, design and test generation 42721
logic VLSI test syst. and trend 6139
logical fault diagnosis for combinat. ccts. 12443
LSSD scan ring and STUMPS channel test and diagnosis 29140
march tests automatic generation for memories 6154
MCM-D boundary scan techs., interconnect/functional testing appls. 21735
MCMs, defect migration, structural test 21700
memory technol./design/testing, workshop, San Jose (1994) 36826
mfg. proc. real-time empirical Bayes model-based monitoring 20425
mil. test set, design for manufacture/assembly 35403
missile joint service testing, Navy/Air Force CASS 35412
mission relevant testing 43592
mixed sig. devices testing in Sony 765
mixed sig. testing, synchronized control/real-time DSP 6247
modular mixed sig. testing, high speed/high resoln. 6239
motor/generator stator windings, in-service PD tests 36101
multi-freq., multi-phase scan chain 6078
multifrequency test vector generation for analog cct. testing 5593
multiple failure diagnosis, w.r.t. computational complexity 34354
multiple fault test generation, efficient techs. 12441
multiple stuck-at fault test generation for combinat. ccts. 644
multiple-output ccts., efficient test response compression 6087
μP verification, automatic test generation 12564
μP-based portable test equipt. for elec. network 4736
mushroom, program for SCM protocol specification verification 2971
Naval avionics testing on CASS 35235
navigating test access in electronic systs. 9806
Navy's integrated diagnostics support system 43595
netlist automatic extractor, image proc. software for PCB 12874
NEUDEM, neural network based ATPG for digital ccts. 648
NMOSFETs at 77 K, double channel hot-carrier injection effects meas. 22403
nonlin. signature anal. of data converters, automatic 3767
nuc. reactor digital ccts., automatic testing pattern generation 4770
observability environ., seq. test generation 12449
operational test release vectors, verification approaches 17668
opt. fibre test syst. integrat., network mgt. *(German)* 8830
OTDR reflectometry meas., automation 22826
parallel eval. algm. for fast fault simul. *(Korean)* 21271
parallel feedback-based scheme for BIST 12395
parallel pattern fast fault simul., three-state ccts. 6088
parallel proc. for test generation, perform. anal. 17662
parallel testing graph, test subsession partitioning 17661
partial scan designs for DSP appls., behavioral synthesis 29190
particle impact noise detect. by neural net 34392
path delay testing in std. scan environ. 6072
patterned wafer defects, automatic fuzzy logic class. 37168
PCB automatic test options 898
PCB prod. test guidelines 12905
PCB test requirements in generic formats 29655
PCB testings, fuzzy pattern recognition 38075
PD diagnosis and pattern recogn. 22652
PM brush DC motors, tracking control studies 36190
polymeric insulation, testing equipt./methods 1562
power cable insulation PD pulse shape recogn., neural net-based 27207
power convertor fault diagnosis, ES-based 5053
power semicond. convertors, emergency state diagnostic calcs. 11138
power supplies test strategies 29005
power syst. overcurrent relay harmonic simul./testing 10613
power transformers, DC bias-exposed, VAr demand meas. 11100
predictive sensitivity based fault detection 38119
primary/secondary batts., testing, VXIbus 36510
procedural interface, test 9801
prog. analog neural chips, testing/ATE 21476
program generation using graphical tools, Navy appl. 42691
program requirements conversion into test program sets 42692
protocol-driven scan test design rule checker 6103
pseudo-exhaustive testing, VLSI ccts., coord. cct. partitioning/test generation 21260
pseudorandom testing of seq. ccts., struct./tech. 21244
QTAG class 1 monitor for CMOS IC testing 6854
QTAG std. for test fixture I_{DDQ}/I_{SSQ} monitors 6852
quartz crysts., test oscillator for drive level study 30617
radar phase noise meas., digital DP 34156
radar T/R module burn-in method 35390
RAMs, transparent BIST for single V-coupling faults detect. 37771
rect. quartz plates vibrs. characts. meas. 30614
redundant fault ident., test generation appl. 12442
relay test automation/data acquisition, PC-based 29644
RESIST, recursive test pattern generation algm., path delay faults, test classes 613
rolling mill elec. drive harmonics, computerised meas. syst. 36801
salient pole alternators, automated testing, param. determ. 4914
scan chain faults, diagnosis syst. 640
scan designed cct., test time reduction 21208
scan designed logic ccts. under logic value constraints, test pattern generation *(Korean)* 12408
self-checking ccts. for unsystematic codes, design 646
self-checking interact. FSMs for multiple faults, design 6126
self-checking resistive ratios automation 25705
semi-deterministic fault-independ. test gen., ATPG perform. impact 21182
semicond. indust. develops., 1980s-1990s 9792
semicond. testing, SPC, tester capacity, productivity 104
semicond. wafer, elec. failures, in-line inspections 6603
semiconds., killer defects, automatic in-line meas. 6602
semiconductor testing facility, reactive scheduling 37044
sensor performance assessment strategies 25803
seq. ccts., ATPG, fault ordering 12448
short ccts. location, parallel short detector 12871

automatic testing continued
single bridging faults diagnosis in CMOS combinat. ccts. 13883
single meas. testing, pros and cons 34381
single-wire analog testability bus, struct. and metrology 6240
sliding-window protocol, design/test in protocol testing syst. 8755
software design methodologies develops 42703
SOPRANO, ATPG for stuck-open faults in CMOS combin. ccts. 21225
spaceborne IR sens. testing, verification/validation/accreditation issues 35216
speaker testing via neural network based syst. 9768
stationary batts., diagnostics/perform. prediction approaches 19956
stds. impact on product life-cycle costs reduction 28395
struct. syst. interconnect test, modeling 9793
switch-level test generation, sync. and asynchronous ccts. 21242
switchgear short-cct. tests, PF determ. 19882
symbolic ATPG for large ccts. 6101
sync. seq. ccts., fault coverage anal. 12439
sync. seq. ccts., multi-bit-paths for testing 21241
syst. test cost modelling, event rate anal. 5587
syst. testing archit. for distributed switching syst. 16957
Taguchi method of environ. stress testing for PWB prod. proc. 29678
test synthesis, data transfer anal. based behavioral description 29198
testable designs synthesis, behavioural specs. transform. 6074
three-phase induction motor drives, online fault monitoring 20084
TiCa, timing capture tool for design/test generation of digital ICs 37683
TPS for multiple test environments 38076
TQM, role of test 28505
traceability of ATE systs., w.r.t. internat. stds. 9781
transformer fault detect., oil gas discrim. method 29620
transformer windings status assess., online stray inductance meas. 5013
transm. network maint./fault diagnosis experiences, Hungary *(French)* 35601
transparent memory BIST tech. for RAMs 37769
TTL combinat. ccts., random test input generation 12450
turbogenerator online vibr. monitoring, neural net-based 19596
turbogenerator rotor shorted turns, online monitoring 19598
US NDT of adherent area, metal/nonmetal surfaces 453
validation test generation, automated procedure 10330
VLSI component test vectors, automatic generation, student training *(French)* 20329
VLSI regular arrays, test strategy 37686
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
VLSI testing, online data collection/anal. syst. 6827
VLSI workcell controller and resource rels. design 5595
VXI-based systs. for telecom. network perform. monitoring 24882
VXIbus interface hardware, FPGA implementation/testing 42735
workstation memories, automatic online testing 37768
H maser for long-term operation in space 43439
Ni-Fe batt. cycling expts. 36548
Ni-MH batt. cycling expts. 36548
Pb-acid telecom. power supply batts., total monitoring syst. 41630
Pb-acid valve-regulated telecom. batts., expert mgt. syst. 41632
Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
SF_6 HV switchgear reliab. monitoring automation 5153

automation, social aspects *see social aspects of automation*

automobile electronics *see automotive electronics*

automobile industry
BMW network mgt. service 8838
foreign R&D in United States 5562
high-integrity product mfg., SPC appls. 20389
IDEA project, broadband multimedia and collaboration tools 16885
multiple domain experience in systs. engng. 5577
nondestructive inspection using shearography, indust. appls. 18108
Pb-acid automotive batts. prod., Russia/CIS 36525

automobiles
5.0 kb/s coder for vehicular appl., acoustic echo/noise canceller 9123
5.0 kb/s finite state VQ CELP coder for vehicles 9122
anti-skid braking systs., slip estim. 5375
Blue Angel hybrid petrol/elec. road vehicle *(German)* 11440
car navig. equipt. for syst. upgrade *(Japanese)* 25613
CDMA for automotive area network, power-lines 3310
chassis control G-sens., develop., commercialization 5374
code-sens. commun. syst., introduction 24895
contactless velocimetry of vehicles, microwave speckles appl. 18105
crosstalk modeling for automotive harnesses 15532
diesel engines, acoustic combustion noise meas./control 34736
distributed onboard systs. and cruise control 8935
dyn. spark ignition engine control modelling 11438
elec. distrib. syst. archits. 20115
elec.-vehicle commuter car batt. requirements 44565
elec./electronic syst. and mobile phone equipt., EM environ. 25290
electronic components, ESD sensitivity class. 20118
EMC, cables coupling, practical approach 23687
EMI reduction, high-speed modem 31859
emitted gases anal. of methanol engine motorcars 10565
engine fan, digitally controlled induction motor 27719
engine mgt. syst., electronic ignition 36771
fossil fuel NO_x emissions, form./control studies 35975
fuel economy improvement, near-term technol. 28139
fuzzy logic based engine idle-speed controllers 11441
hybrid internal combustion engine, computer controlled 28156
indust. truck power steering, DC motor appls. 11442
intell. cruise control, dist./speed class. 36770
intell. vehicle warning syst., CAM 36773
inter-vehicle networking method, laser media 3078
internal combustion engine knock detect. 5353
licence plate, extraction, gray level transit. characts. *(Korean)* 2827
mag. skew gear using PM, car appls. 14267
Micro A relay, automotive stds., rugged design for reliable switching 29646
Miller/Otto cycle alternative fuel automobile engines, computer model 36768
Mini Disc auto-changer for in-car *(Japanese)* 25692
model car, micromachines, shell-body fab. 36218
navig. syst., visibility meas./eval. syst. *(Japanese)* 25684
navig. systs. for automobiles *(Japanese)* 44579
Ni-Cd cells, elec. vehicle appls. 5350
opt. flow for autonomous navig. of moving vehicles 24449
outline extraction by neural net 41374
PEM fuel cell, terrestrial/marine vehicle appls. 36741

automobiles continued
PEM SPE fuel cell/water electrolyser 36713
powertrain electronics, engine/transm. controls 36780
RDS receivers practical considerations 34226
RFID tags for connecting smart cars, smart highways 28151
safety-crit. appl. of commun. protocols 8934
semi-anechoic chamber, ambient meas. 15479
speech recogn., noise reduction, adaptive microphone array appl. 15827
speech recogn. in a car, microphone posn. importance 32312
speech recogn. in noisy car environ., OSALPC representation 32382
subsystems control, electronic modules 5376
terminal struct. for automobile connector appls. *(Japanese)* 21614
traction assist real-time vehicle simulator 11439
vibration meas. by laser techniques, conf., Ancona, Italy (Oct. 1994) 36868
vibrs., nonstationary sigs., instantaneous spectral estim. 41053
wheel-rot. sens., magneto-opt. 17861
WIREGRID, NEC2 pre-proc. 37365
Pb-Ca automobile batts., reliab. studies 36540
Pb-Ca type car batt., high-temp. durability *(Japanese)* 5328
Pb-acid automobile starter batt., computer model 36541
Pb-acid automotive batt., pos. plate energetics expts. 36533
Pb-acid car batts., dual elec. archit. 36729
Pb-acid valve-regulated automotive batts., operating experiences 36570

automotive electronics
24 GHz dual channel microwave Doppler-sens.-module 11444
act. suspen. syst., automotive appl. 11433
air bags, piezoelec. sens. in automobiles 28150
air-bag crash sens., VXIbus-aided automated test syst. 17680
alternator, commutating inductance value determ. 4925
alternator/generator regulator testing, DSP-based syst. 20119
analog stereo retina, automobile appls. 29419
anti-skid braking systs., slip estim. 5375
audio equipt., high efficiency power amp. 11443
automobile navig. systs. *(Japanese)* 44579
BiCMOS IC ESD protection, harsh automotive, indust. environ. 30487
car driver's LOS, user interface 44580
car navig. syst., appl. *(Japanese)* 25614
chassis control G-sens., develop., commercialization 5374
CMOS custom automotive ICs, I_{DDQ} testing, fault coverage 36766
collision avoidance in traffic, vision, VITA II 36769
conformal coating, robotic appl. 935
control syst. benchmark based on Time Triggered Protocol 5369
control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
custom IC, conf., San Diego, CA, USA (May 1994) 20247
data fusion reliable syst., ProLab2, dyn. 36774
dedicated protective fns. of automotive ICs 36765
Doppler detector, low-cost, automotive appls. 20112
driver support syst., user interface, ProLab2 36772
dyn. spark ignition engine control modelling 11438
elec. power steering, present/future 5370
elec. vehicle propulsion batts., pos. phys. disconnect 36767
elec. vehicles, 40 kHz, 1.5 kW DC/DC converter 20117
elec. vehicles, high current power modules, SiCAl packaging 20116
elec. windows, anti-trap safety syst. 5366
electronic fuel injection, quad injector driver power IC 36777
electronic fuel injectors, power IC-based control 36776
electronically controlled suspen., load sens. 5371
EM particle clutch, design anal. 11435
EMC legislation 44582
engine control module, hybrid interconnect technols. 28154
engine controllers, potted, PQFP solder joint reliab. 28155
engine diagnosis, cyclostationary/time-freq. sig. anal. 40936
engine mgt. syst., electronic ignition 36771
engine powertrain nonlin. sliding control design 5373
engines, misfire detect., neural networks appl. 36779
ESD sensitivity class. of components 20118
Fuji Electric intell. power switches, automotive appls. 28153
fuzzy logic, car collision avoidance syst. design 44581
fuzzy logic based engine idle-speed controllers 11441
graphic CIG fluoresc. indicator panel, high brightness *(Japanese)* 3939
harsh automotive elec. environ., IC design considerations 36764
high side power switches, intell. diagnostics 20114
high technol. 11431
hybrid elec. vehicle, IGBT based syst., packaging/perform. 20095
hybrid internal combustion engine, computer controlled 28156
IDDQ testing on CMOS custom automotive IC 30451
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
III-V technol. analog/digital/mixed-sig. ICs for high speed appls. 6817
indust. truck power steering, DC motor appls. 11442
integrated magnetoresistive sens. for automotive appls. 17711
intell. cruise control, dist./speed class. 36770
intell. vehicle warning syst., CAM 36773
interface design, vehicle-driver, conf., London (1995) 20205
interface design, VLSI compatible BiCMOS technol. 36778
IVHS vehicle systs., commercial success considerations 44578
large-scale anechoic chamber, EM fields, computational simul. 15505
logic IC design, high level synthesis, FFT/Viterbi chips 21291
low dropout regulator, HV DMOS pass element 20113
magnetoresistor lin. posn. sens., automotive appls. 11434
matchbox-sized transputer GPS for vehicles/portables 42551
MCM-L technol., systs. cost anal., automotive appl. 21736
MCM-L technol., systs. cost anal. for high vol. automotive electronics appl. 21716
microcontroller, on-chip voltage regulator 44577
microwave front end for automotive true ground speed meas. 28152
Miller/Otto cycle alternative fuel automobile engines, computer model 36768
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
MM-wave radar for automobile crash avoidance systs. 42510
MM-wave radar sens. for road vehicle positioning 42512
multilayer SMT varistors, transient surge protection 11437
natural gas powered automobiles, fuel level sens. develop. 5363
navig. systs., immobilisers, night vision, fuzzy logic 36763
Pb-acid automotive batts., thin pos. plate expts. 27898
PM-excited sync. motorcar generator, design optim. 5379
power electronics in transportation, conf., Dearborn, USA (1994) 5451
powertrain electronics, engine/transm. controls 36780
qualification tests, knowledge-based 11432
radar sens. for automatic AICC 5377

automotive electronics continued
radar sens. for car appls. 5378
radiated emissions from automotive multiplex bus wiring 15474
RFID tags for connecting smart cars, smart highways 28151
road surface conditions detect., photodetectors based prototype 42791
rotary actuator homopolar PM motor studies 11436
security syst., microwave based sens. 44583
semi act. suspens., electrorheological fluid dampers, HV supply unit 44131
sens., market demand overview 5362
sens. in automotive and aerospace 9857
smart sens., self-test and diagnosis 5364
SMARTMOS quad low side automotive electronics switch, Saber modelling 36775
SS tech. for automotive multiplexing systs. 25199
subsystems control, electronic modules 5376
suspen., piezoelec. actuator/sens.-based 5372
thick film hybrid ccts., high reliab., for automotive appls. 29697
traction assist real-time vehicle simulator 11439
Triple-TEM cell, simple device for immunity testing 23748
twin relay develop. for automotive appl. 29637
two-state adaptive suspen., rule-based condition monitoring 5365
vehicle chassis mgt. systs., microsensor appls. 5368
vehicle security systems, IEE Colloquium, London (1995) 28276
vehicles, intelligent, conf., Paris (1994) 28224
vibr. design/testing 44584
vibr. gyroscopes, automotive sens., appls. 5367
voice recogn. digital cipher lock for smart vehicles 643

autonomous land vehicles *see artificial intelligence; mobile robots; vehicles*

autoradiography *see radioisotope imaging*

autoregressive moving average processes
2D freq. domain, least sq., sig. and syst. modeling, lin. approach 8436
acoustic anal./synthesis methods 24252
acoustic ARMA sig. modeling, iter. Prony method 24221
adaptive blind equalization, weighted cumulant slices 41026
continuous Doppler ultrasound, parametric/nonparametric spectral estim. 26319
data matrix, SVD, ARMA model order estim. 24196
echo cancellers, acoustic transfer fns. modelling 32633
elec. demand forecasting Rostovenergo power syst. *(Russian)* 35578
filtered EM algm. for joint HMM and sinusoidal param. estim. 24220
globally convergent adaptive blind filters and blind equalisers 2863
higher-order stats., allpass systs. ident. algm. 32648
ident. algm. for unknown lin. MIMO systs. *(Korean)* 24339
induction motor drive self-commissioning, param. estim. accuracy 5297
intell. DSP, stock trends determ. *(Japanese)* 24334
lattice filter, reduced no. of coeffs. 37877
lin. non-Gaussian sigs., multichannel ARMA models, identifiability 40993
logarithmic error measure, pole-zero approxs. design 2494
low bit rate speech coding, ARMA modelling methods 32273
microwave structs., TLM anal., AR and ARMA spectral estim. 12731
mixed Gaussian/non-Gaussian ARMA noises, harmonic retrieval 8433
multidimensional nonGaussian ARMA models, param. identifiability, cumulant matching 8340
non-Gaussian sigs., noncausal ARMA models, param. estim. 40834
non-min. phase syst. estimators, comparison 16013
noncausal nonminimum phase ARMA modeling of non-Gaussian procs. 32458
nonlin. syst. ident., Hammerstein model, cumulant-based Steiglitz-McBride algm. 40991
NSFNET backbone traffic, long-term, time series model 8995
param. estim., higher order stats./inverse filtering 40762
parametric lin. models ident., cyclostationary inputs 40988
parametric model output probab. laws, study and simul. *(French)* 15928
parametric spectrum estim., order selection 15909
power syst. short-term load forecasting, time series methods 10702
power syst. transfer fn. ident. methods. comparison 4595
radar sig. detect. via ARMA modeling 34132
rapid thermal proc., pole placement adaptive control 30010
self-tuning deconvolution filter, ARMA sigs. 8337
side-scan sonar images classif. via parametric modeling 17487
sinusoidal params. estim. in non-Gaussian ARMA noise 24219
speech compression, ARMA model/wavelet transform 32261
speech compression, hierarchical stochastic modelling 40919
SVD, periodic sigs. anal./prediction 15979
syst. ident., second-order cyclostationarity 8424
time-domain tests for Gaussianity/time-reversibility 8422
zero phase 2D filters CAD, multiplicative autoregressive models 759

autoregressive processes
see also autoregressive moving average processes
1D seq. decomp. based AR HMM for signature ident./verif. 2839
2D autoregressive noise model, broadband planewave detect. 40840
2D shape class., autoregressive/Fourier-based descriptors comparison 24420
16 QAM modulation, OFDM in Rayleigh-fading channel 9218
adaptive lattice filter, convergence props. 15882
additive unknown colored noise, max. likelihood DOA estim. 40839
AR(1)+IPP model for video cell traffic approx. *(Japanese)* 24747
archived recordings, impulsive noise removal, two-channel approach 34293
ATM networks, effective bandwidths formula perform. 33227
autonomous intell. cruise control radar syst. 34151
Bayesian predictive densities, multiple cisoids detect./estim. 41006
bispectrum estim., AR modelling, data segmentation 8249
breast cancer detect., neural net spectral anal. 18455
chaotic sig. modeling, nonlin. AR model 15917
chaotic sig. modelling, reconstructed dyn. 32620
chaotic time series, noise reduction 15684
chi-sq. stats. for goodness-of-fit tests for stationary time-series 32462
discrete lin. time- and freq.-variant systs., impulse and cissoid responses *(German)* 12307
discrete/continuous spectra, separable estim. 8463
dyn. economic dispatch, short-term load prediction algm. 19210
EEG predictability, adequacy of nonlin. forecasting methods 26405
EEG recordings, dissimilarity measure, nonlin. dyn. syst. approach 26381
EEG sig. proc., neural network based artefact detect. syst. 35133
evol. max. entropy spectral anal. 40963
exponentially damped sinusoids, param. calc., third-order stat. 40863
FDTD waveforms, spectral estim. by AR methods 2169
four-wire loop systs., correl. AR subscriber sigs., echo canceler perform. 25144

autoregressive processes continued
frequency estimation, parametric/non-parametric methods comparison 24239
fuzzy rule based adaptive nonlin. filter for myoelectric sigs. 35132
Gaussian AR noise, nonGaussian sig. detect., lattice struct. 40989
Gaussian random fields, max. entropy property proof 2356
generalised autoregressive prediction, speech coding appl. 24160
heart rate, AR spectral estim. uncertainty 26424
Hough transform, autoregression param. estim. 40857
hybrid predictive/VQ lossless image coding 32984
image restoration in freq. domain, EM algm. 16391
impulsive interf. mitigation, arbitrary IID state noise 8290
LMS adaptive FIR filter dimens., learning rate 32756
mammography, cumulant slices for 2-D autoregressive sig. modelling 32820
mammography, higher order spectral estim., AR modelling 10195
med. image lossless compression, multiresolution multiplicative autoregressive models 2848
microstrip passive filter anal., FDTD algm. improvement 29536
microwave structs., TLM anal., AR and ARMA spectral estim. 12731
minmax sig. design for detect. subj., lin. distortion 32536
model based filter design, median of sq. of residuals 2585
multichannel sig. detect. in correl. non-Gaussian random noise 8286
multichannel subset autoregressions, seq. fitting, prewindowed case 24308
multichannel time series, coherence anal. 40980
multidimensional microwave imaging 25551
multiexponential sig. anal., data preprocessing techs. eval. 32644
multivariate autoregressive model, max. likelihood estim. 2478
noisy quantized random obs. coeff. AR time-series, estim. 40869
non-Gaussian source, Gaussian mixture dens. modeling 40835
non-Gaussian time-varying AR models, cumulant-based approaches 2523
noncausal autoregressive systs., cumulant based param. estim. method 40918
nonlin. autoregressive modeling and estim. in noise 2510
nonlin. cepstral equalisation method for noisy speech recogn. 2434
nonstationary random sigs. detect. in colored noise 41055
nonuniformly sampled sigs., real-time reconstruction *(French)* 15929
normalized TDM-LeRoux-Gueguen algm. for multichannel adaptive filters 21428
one-sided/two-sided lin. prediction 24218
optimum detect. in dual-channel Gaussian data, localized interf. 15867
order selection methods, comparison 15977
Orphee syst. techs., speaker charactn. 32246
param. estim., noisy data, EM algm. appl. 40921
penalty factor influence in order selection criteria 8393
planar shapes class., multiresolution circ. autoregressive models 8571
power syst. load/state estim. software, security assess. appls. 27103
power syst. short-term load forecasting, time series methods 10702
power syst. state estim. forecasts, neural net-based 26871
PSD estim. simul., max. entropy method 2582
radar high resoln. imaging, data extrapolation 9629
reciprocal Gaussian random procs., model param. estim. 40824
reciprocal procs. on tree, modeling and estim. issues 24192
recursive computation of discrete sinusoidal transforms 8331
robust recursive spectral estim., AR model excited by t-distrib. proc. 32774
side-scan sonar images classif. via parametric modeling 17487
sig. modelling, short seqs., efficient Bayes soln. 40973
sleep EEG sig. proc., ANN appl. 35090
spectral anal., ML method based on correl. matrix lin. symm. 32574
spectral interpolation anal., frame energy depend. weighting 32325
speech enhancement, higher order AR modelling, parameterized Wiener filtering 15836
speech formant extraction, zero tracking 8185
stationary single server queues, approx. for perform. eval. 16469
surge arrester, ZnO, electro-thermal model params. ident., autoregressive techs. 27275
sync. machine param. ident., multitime scale tech. 19615
tapered SVD, AR model estimation 41000
text-independent speaker recogn., dist. measures 32280
text-to-speech synthesis, algms. comparison 32344
textured image segmentation, autoregressive model, ANN 24642
textured image segmentation by context enhanced clustering 2808
time series, discontinuity location, recursive Bayesian method 41009
transient sonar sig. class., HMM/neural net 34178
voiced speech/perceptual cost fns., mixed-phase AR models 32260
wideband multiple target tracking 41010
wideband radio propag. for pers. communs., freq.-domain model 7964

autoresonant accelerators *see collective accelerators*

autorouters *see circuit layout CAD; network routing*

autotransformers
1 kW third-harmonic modulated AC/DC power electronics interface 44213
3 phase multi-step CSI syst., harmonics reduction *(Korean)* 36365
3-phase diode rectifier, input current waveform *(Korean)* 36366
AC electrified rly., AT power supply syst., earth pot. 28114
AC rly., autotransformer feeding cct., harmonic reson. *(Japanese)* 11408
AC rly. power syst. protection/fault meas., PC-based 44536
AC rly. syst. energy conservation, optim. train running curves 44530
shorted turn location, fuzzy neural net-based 19687
single-phase 12-step VSI, output voltage harmonics reduction *(Korean)* 36238
tertiary winding voltage regulation study *(Russian)* 44107
three-phase autotransformer, short-cct. transients simul. 19682

availability measures *see reliability*

avalanche breakdown
see also impact ionisation
1-MW power MOSFET switch, SPICE macromodel 6756
bipolar transistor, breakdown model, PSPICE cct. simulators appl. 6736
dielec., discharges, tree-shaped breakdown struct. 1529
emitter switched thyristors, reversed biased SOA comparison 30273
GTO thyristor snubberless turn-off, avalanche proc., gate drive influence 30266
lateral BJT, CMOS compatible, base current reversal phenom. 13651
mag. parametrons, chaotic oscills. studies *(Polish)* 577
MCTs, turn-off failure mechanisms in large devices 30274
MGBT, MOS-gated power bipolar transistor, 750 V 1365
picosecond interdigitated photoconductors, scaling charact. 1786
polysilicon TFT, double-act.-layer struct., elec. characts. 30286
power bipolar transistor perform. optimisation, high current dens. 30253
semicond. devices, avalanche breakdown voltage simul. *(Japanese)* 30202
SOI MOSFETs, submicron, self-heating effects 22470
water, pulsed breakdown rel., hydrostatic press. and liq. cond. 13947

avalanche breakdown continued
Zener diode, neg. resist. characts., onset of avalanche breakdown 22345
$Al_xGa_{1-x}As$, avalanche breakdown 1042
AlGaAs:Si lateral jns., MBE growth on patterned substrs. 21947
AlGaAs/GaAs HBTs, thermal avalanches 1359
AlGaAs/GaAs power HBT, current gain collapse and avalanche breakdown 38818
GaAs, MBE grown, elec. breakdown props. 21908
GaAs MESFETs, substr.-related kink phenom., 2D anal. 6802
GaAs:Si lateral jns., MBE growth on patterned substrs. 21947
$GaAs/Al_xGa_{1-x}As$ multilayers, avalanche breakdown 1042
$InAlAs/In_xGa_{1-x}As/InP$ HEMT, breakdown behaviour 6788
$InAlAs/n^+$-InGaAs heterostruct. FET, breakdown phys. 6804
Si APD, elec. breakdown, thermo-optic investig. 1801
Si p-n jn., secondary breakdown, pinch effect 13102
Si photoconductive pulsed power switches, dark current characts. 36438
a-Si:H high elec.-field p-i-n diodes, p-layer thickness effects 6721
$Si/Si_xGe_{1-x}/Si$ HBT with δ-doped base, multistep charact. 38845
ZnSe HV switches, time-resolved impact ionization 27840

avalanche diodes
see also avalanche photodiodes; IMPATT diodes; TRAPATT diodes
electronic equipt. hardening, lightning surges 864
Si, n^+-p surface avalanche diodes, doping instabil. 13609

avalanche multiplication (gases) *see electron avalanches*

avalanche multiplication (solids) *see avalanche breakdown*

avalanche photodiodes
BMDO/IST lasercom advanced technol. demons. status 17290
detectors, high-resoln. PET imaging, pharmaceutical biodistributions 10177
dist. meter, fast APD 25975
double-drift avalanche photodetectors 9910
high sensitivity opt. detectors, perform. meas., radiation effects 1796
large area, failure modes in HEP environ. 23021
laser commun. terminal for LEO satellite constellations 17297
opt. CDMA commun. syst. M-ary signalling 34058
opt. receivers using APD with dead space, BER 17264
PET detector modules based on novel detector technols. 18464
photon counting opt. sens. develop. trends *(Japanese)* 17803
sq. synchroniser jitter on direct detect. opt. commun., white cct. noise 3577
very high gain APD, radiation detect. 14601
Visible Light Photon Counter, weak scintillations 4158
X-ray efficiency, time response 26235
CsI pure crysts., APD, fast low noise readout 26177
GaAs/AlGaAs MQW APD, gain props. 39569
Ge APD based photodetector, AGC 42787
^3H, solid state detector for biomedical appls. 35042
InAlGaAs QW superlattice APD 9496
InP/InGaAs APDs, SAGCM, breakdown voltage modelling, temp. depend. 23016
-aSe avalanche multiplication photocells 1799
Si APD, SR detector 4245
Si APD detector, X-ray bunch-purity 10154
Si APD, elec. breakdown, thermo-optic investig. 1801
Si fast APD detectors for SSC 43106

avionics
see also aircraft computers; military avionics; space vehicle electronics
2 μm LIDAR for laser-based rem. sens. 10384
ACAS, airborne collision avoidance syst. *(French)* 35221
airborne positioning and planning syst., avionics future archit. 10345
aircraft cooling, microchannel heat sink 26542
aircraft intell. rem. power controller 26682
Allied-Signal's avionics develop. in CIS 26550
ARINC D-Size LCD display for aircraft 10391
ATE, joint Honeywell/Aerospatiale develop. 43438
ATE develops. towards independence 35223
ATE software design methodologies develops 42703
ATE station controller replacement, commercial products 34362
ATE technology trends and appls. 42713
ATM appl., digital avionics 10389
avionics interf., airborne pers. electronic devices 10347
B-2 automatic test equipment 43436
C/A-code tracking differential GPS, category IIIB automatic landings 3638
cockpit situation awareness autostereoscopic avionics display 10352
collision avoidance systs. develop. 10380
conference, London, UK (Dec. 1992) 11585
digital flight control, certification 10346
discrete interface devices 10358
EMC equipt. for avionics syst. components testing 4354
European ATC develops., satellites 26697
EW testing at flightline 43587
flexible archits., key, low cost FBL 10388
future generation develop. 43598
GNSS transponder and self organising TDMA data link 10378
GPS automatic depend. surveillance of aircraft, spontaneous mode S broadcast messages 4377
GPS-Squitter expt. results 9419
Gray Wolf S-3B demons. of Norden AN/APG-76 radar 10359
gray-scale act. matrix LCD for flight decks 10354
head-up guidance, situation awareness systs. 10328
hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
immersion-cooled std. electronic clamshell module, high-flux avionic systs. 37102
inform. sharing develops. 10332
integrated avionics develops. civ. and mil. 26545
light aircraft roll attitude meas. solid state devices 26541
MAGICS meteorological imaging syst. for Nippon Airways *(Japanese)* 10414
maint. training, equipt. simul. 35236
medium power RCCB design for severe environ. conditions 36393
mil. autotest cost growth, commercial std. equipt. archits. 34364
mil. aviation boresight support for tri-services, cost effectiveness 35414
mil. avionics part failure-rate prediction models 35420
modular avionics, opt. interconnect, connectors, hybrids and backplanes 18721
Naval avionics testing on CASS 35235
on-orbit calib. of inductosyn error 18720
Operational Avionics Smart Instrumentation System (OASIS) 10331
parallel error-correction archit. for digital avionics 10364
pass. mm-wave camera for low visibility landing 10329

avionics continued
- pilot situational awareness enhancement, airport surface movement area 10423
- power electronics evol., Europe 37620
- prog. digital radio common module prototype 10382
- pulse Doppler radar, pulse compression proc. 10368
- rapid prototypes for early requirements validation 10326
- real-time avionics computers, Ada 9X solns. 10370
- Rockwell display technols. develop. 10356
- serial busing, modular archits. 10322
- SEU environ. for avionics at high lat., SRAM tests 18715
- shared resource mgt. for integrated avionics systs. 10392
- SMART and ABBET common architectural heritage 35237
- SMART at Delta Air Lines user experience/expectations 43435
- SMART ATE software for aerospace industry 43434
- SMART software tools 34405
- SMART std. based autotesting for commercial and mil. appls. 18719
- SMART test standard for commercial air transport industry 43433
- stds. impact on product life-cycle costs reduction 28395
- switchgear contact material durability *(German)* 35259
- through-substr. cooling of high power IC packages for avionics 37091
- US Navy consolidated automated support syst. and interface devices 42738
- Si solid-state microdosimeter for radiation monitoring in spacecraft/avionics 18636

Avogadro's number *see constants*

AWGN *see Gaussian noise; white noise*

AWGN channels *see Gaussian channels*

axicons *see lenses*

B-ISDN
- access network upgrades, dyn. eval. method 42073
- AR(1)+IPP model for video cell traffic approx. *(Japanese)* 24747
- ATM, comparative eval. of output buffer mgt. schemes 8724
- ATM, connectionless service support 16782
- ATM, IN mgt. syst. 8843
- ATM adaptation layer, service specific connection oriented protocol 2960
- ATM B-ISDN via satellite 16781
- ATM basic principles 8701
- ATM Clos switch under symmetric bursty geometric traffic, perform. anal. 41449
- ATM connections in B-ISDN, desirable props. of traffic descriptors 33609
- ATM cross-connect archit., expandability and non-blocking 3295
- ATM environ., broadband commun., lab. plant 16783
- ATM fast packet switch archits., reliab. models 2888
- ATM fast packet switches, simul. environ. 25172
- ATM fund. 33182
- ATM highspeed multiservice broadband integrated network, evol. 33597
- ATM LAN/LAN bridging, connectionless methods, perform. anal. 41911
- ATM multiplexer, Markov modulated arrivals, output proc. 16785
- ATM multiplexer, on-off sources, cell loss probab. 16454
- ATM multiplexer loaded by CBR, queueing anal. *(Korean)* 24772
- ATM network, connectionless service 3230
- ATM network, LAN/MAN interworking, bandwidth allocation 8996
- ATM network, video services, preventive flow control 41938
- ATM network LAN/MAN interconnection, simul. study 41902
- ATM network perform. for 64 kbit/s-based services 41941
- ATM network routing, congestion tolerant commun., perform. 8728
- ATM network under partial buffer sharing policy, cell loss proc. 8698
- ATM networks, burst-based bandwidth-reservation method 33165
- ATM networks, burstiness fn. for substream output from buffered multiplexing node 41453
- ATM networks, bursty traffic, call admission control 8707
- ATM networks, CBR appls., service requirements 9019
- ATM networks, dyn. virtual path bandwidth control, perform. anal. 24908
- ATM networks, end-to-end perform. 9023
- ATM networks, neural network traffic description 3240
- ATM networks, neural network traffic enforcement 16790
- ATM networks, real-time commun. 33172
- ATM networks, real-time traffic estim. 41927
- ATM networks, traffic contract params. and CAC guaranteeing cell-loss ratio 41942
- ATM networks, versatile congestion control framework 3239
- ATM networks, virtual path bandwidth control perform. 16796
- ATM prioritized networks, congestion control schemes 8743
- ATM queueing syst. perform., arrival law params. 33229
- ATM shared-buffer direct-access switch archit. 8709
- ATM switch, integrated control/mgt. model 8844
- ATM switch archit. for high-speed switching, barrel switch 16975
- ATM switch CMOS LSIs, self-timed queue archit. 16961
- ATM switch for data commun., PVC reservation 9140
- ATM switches, frame-oriented queueing control policy for real/non-real-time traffic 33592
- ATM switches, optimal design for VLSI implement. 9136
- ATM switching module, MCM-C technol. 25181
- ATM switching network, asymmetric broadcast, concentrators 16971
- ATM switching priority traffic control 33180
- ATM switching syst., bandwidth control fn. 16958
- ATM switching syst. hardware based on Cu-polyimide MCM, 320 Gb/s 16973
- ATM tech./switches 25069
- ATM technol., elementary anal. *(Chinese)* 2866
- ATM terminal adapters, interleaved/non-interleaved pipelining 33587
- ATM transport archit. for multiservices wireless PCN 17087
- ATM transport networks supporting multimedia traffic, optimal resource mgt. 16853
- ATM transport systs. based on high-speed opt. transm. 34043
- ATM-DQDB, integrated services interworking, perform. eval. 33599
- ATM-Internet, class D service archit. 8992
- ATM/SDH interworking 16780
- automated opt. main-distributing-frame FTTH syst. 9443
- B-ISDN/ATM customer network mgt. archit. 41913
- banyan-based B-ISDN switches, priority perform. 9006
- BERKOM MultiMedia Transport System 16888
- BERKOM-II FlowSpec, ATM mapping 9018
- BiCMOS gate array for B-ISDN 622 Mb/s UNI 33680
- BISDN/ATM environ., resource allocation model 3232
- broadband network termination syst., perform. monitoring, inform. model 9111
- broadband networks, resource allocation 9017
- broadband telecomms. networks and ATM, survey 16792

B-ISDN continued
- CAM-based single-chip shared buffer ATM switch 9142
- CCITT Recommendations 3231
- CMOS 248 Mb/s transimped. amp. and 155 Mb/s LED driver for fiber links 9543
- CMOS ATM switch LSIs, self-timed queue archit. 33721
- CMOS buffered switch for gigabit ATM switching B-ISDN 16974
- CMOS SDH termination chip for 622 Mbps STM-4c B-ISDN 16932
- common LAN technologies for ATM connectivity 33442
- commun. network control archit., integrate service control and mgt. 25063
- congestion avoidance networks, congestion estim. feedback 9016
- congestion control 9005
- connection admission control/routing, neural networks appl. 16788
- connection oriented protocols, ATM 16473
- dense WDM packet switching networks, review 3538
- deterministic rule based traffic descriptors 33607
- distributed access network perform. eval. by DEVSim++ 25141
- distributed call proc. archit., design/implement. 9010
- distributed commun. networks with semi-shortest routing, loss probab. *(Japanese)* 16455
- distributed interactive simul. 9020
- DQDB/B-ISDN gateway, UPC mechanisms comparison 33503
- dynamic congestion control schemes in high-speed multimedia networks 33594
- error recovery scheme perform. comparison 41926
- EUTELSAT advanced telecomm. services 33961
- fast reservation shaper, novel approach for fast resource mgt. 41683
- finite-horizon stat. QoS measures for high-speed networks 33590
- FITL, concepts/implement., network archit. 25519
- generic flow control protocol, perform. assessment 2961
- hierarchical control approach for B-ISDN 41925
- high speed inform. network planning, stochastic optim. 25109
- high speed multimedia networking, broadband network services archit. 25102
- high-capacity broadband packet switch archit., multilink approach 41912
- high-speed B-ISDN data terminal adaptor design 41915
- high-speed MCM ATM switching syst. hardware technols. 25191
- high-speed MCM using Cu/polyimide multilayer substr., B-ISDN 37080
- high-speed packet switch, input access, perform. anal. 16794
- high-speed-retry banyan switch archit. 3293
- HMR, ATM-based medium access protocol for gigabit ring networks 24800
- hyperdistributed switching syst. archit. 33588
- interconnections, high-dens. high-bandwidth connectors 9112
- Internet environ., B-ISDN/ATM connectionless data service 41842
- internetworking, data services and signaling 25064
- IP over ATM, cell traffic efficiency 25067
- Japan, develop. of seamless inform. network, ISDN 9004
- Japan appls. trials *(Japanese)* 41939
- Japanese telecomms. indust. in 21st century, indust. struct. 8795
- Korea Telecom's business strategy, CATV indust. in Korea 3678
- lab. expt. broadband switching syst., field trial 16784
- LAN/B-ISDN interworking unit, congestion control, perform. eval. 25053
- large deviations approx. for fluid queues fed by on/off sources 41929
- Magic functional model, resource control and B-ISDN protocols 16592
- MAN/WAN integration, ATM-to-DQDB case 33446
- MANs, topol. design 41844
- Markov modulated Poisson stream loaded multiplexer loss probab. estim. 41483
- Mitsubishi ATM subscriber-line transm. equipt. 33669
- Mitsubishi perform. tester for ATM networks 33589
- MPEG2 appl. transm., ATM networks 16880
- MPEG-2, ATM 33598
- multi-class non-hierarchical networks, dyn. routing 8791
- multi-point video-conf. bridge, ATM switch 16817
- multicast ATM switch copy network shared-buffer archit. 41417
- multicast ATM switching, design requirements and archits. 25190
- multicast routing based on predicted traffic stats. 16529
- multilevel hierarchical congestion controls 41933
- multimedia, business style creation *(Japanese)* 42022
- multimedia appl. adaptation layer (MAAL) protocol 16848
- multimedia integrated commun. possibilities *(English)* 3233
- multimedia systs., distributed, network mgt. archit. 3270
- Multinet, multistage ATM switch archit., design/perform. 9139
- multipath self-routing switch fabric, perform. anal. of resequencing unit 33608
- multiplexed ON-OFF sources, effect of multipath routing on loss perform. 41928
- multiservice ATM networks, bandwidth mgt. 24906
- multiservice struct. Markovian traffic source model 8989
- multistage nonblocking ATM switches, connection-level design 16967
- network adapter, archit. 16934
- network evol. 8821
- next-generation PCN multimedia traffic support 41979
- North Carolina Information Highway, evol. 9012
- North Carolina Information Highway, services/archit. 9011
- Omega network-based ATM switch, neural network-controlled 16416
- opt. ATM components 33729
- opt. path networks, no. of wavelengths required *(Japanese)* 25487
- optics and ATM, IEE Colloquium, London (1995) 20251
- optimal virtual path bandwidth mgt. assuring network reliab. 41650
- overload control, impact of services and control archits. 33605
- packet-switched networks mgt., perform. trending 3087
- parallel opt. transm., line-coding proc. 9520
- PCN, client-server-based handover scheme 42247
- PCS network perform. optimisation by multilink B-ISDN routing protocol 25070
- photonic ATM backbone network 9025
- photonic ATM switching systs. 33731
- photonic networks, pulsed lightwave freq. supply module 9605
- photonic networks pot. 9450
- photonic transport networks, opt. path cross-connect node archit. 16983
- PON, private/authentic commun. 42072
- queueing systs., total recall 33603
- real-time traffic switching element, imprecise-computation for congestion control 16779
- routing, transit. models of no. of broadcast viewers *(Japanese)* 25061
- sci. inform. network flexibility needs and trends *(Japanese)* 16800
- service specific connection oriented protocol, preliminary perform. study 41935
- shared memory ATM switch, simul. study of space priorities 33720

B-ISDN continued
signalling, obj.-oriented implement. 9022
signalling protocols, perform. params. 16787
simul. testbed, design/implement./appls. 41936
single-bit error-correction cct. for ATM interfaces 42080
single-stage output buffer packet switches, independent batch arrivals 41456
small planar packaging syst., card on board, high-dens. ATM switching systs. 28459
small planar packaging syst. for ATM switching systs. .33722
source model for connectionless traffic 25062
SS7 congestion control options, mass call-in situations 24899
standardization, tech. issues in data commun. service deployment 33601
STM-based high speed digital FTTH syst., design concept 9098
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
switching syst. subsyst. opt. interconnections 41914
switching systs. carrying multi-channel traffic streams, combinat. anal. 41930
telecomm. config. implement. 9009
Telekom (Germany) wired commun. technol. status and trends *(German)* 8782
teletutoring, BETEL network 25115
third generation mobile/fixed commun. integrat. 25258
To-be-IN, obj.-oriented telecomms. services testbed syst. 25086
tree APONs access, distributed FIFO spacer/multiplexer 9015
tree computation for reserved bandwidth traffic 33593
TV on B-ISDN, VBR coder generated traffic, stat. model 9014
UMTS, fixed network issues and design options 25331
UMTS 3rd generation systs. signalling, perform. eval. 25293
UMTS/B-ISDN, satellites appl. 17149
UMTS/B-ISDN integrat. 9207
upgradable, video/high-speed sigs., modeling, optim. 9024
variable bit-rate video modelling 25065
VBR video traffic, modelling and verification 41934
video response syst. based multimedia on demand *(Japanese)* 42008
video transm. *(Japanese)* 41920
videotelephony, blazed half-transparent mirror for eye contact 42098
virtual paths, syst. optimisation 8702
virtual spacing for traffic control 25060
VLSI implement. of B-ISDN internetworking unit 16798
XTP over BERKOM B-ISDN network, perform. comparison, TCP/IP 2905
InGaAsP MQW LD array design and fab. for opt. parallel links 31353

B-trees *see tree data structures; trees (mathematics)*

backplane buses *see system buses*

backplane wiring *see wiring*

backpropagation
2D backpropag. cascade adaptive recursive filters 6231
4×4×2 neural network, modular neural chips, on-chip learning 29441
act. power contingency ranking, radial basis fn. network 10662
Alphanet-HMM based continuous speech recogn. syst. 32262
analogue hardware implement. 29435
analogue T-Model neural net hardware, backpropag. learning 37927
ANN based PCB inspection syst. 29684
ANN connection topol. optim. by genetic algm. 29505
ATM networks, neural network traffic description 3240
ATM networks, neural network traffic enforcement 16790
auditory evoked pot. class., ART 2-A/fuzzy ARTMAP comparison 43316
blind equalization, higher order cumulants/neural networks 2862
bulk substations, seq. of events eval., neural networks 44244
cardiac disease class. neural network 18575
ccts., postfabrication tuning, neural network learning 12278
chopper fed PMDC motor elec. vehicles drive, adaptive ANN rule-based controller 36721
CMOS modular analog chip for feed-forward neural networks, on-chip learning 797
coherent grouping of power systs., neural networks 4498
color texture, extraction by neural nets 41214
commercial building cooling energy use, ANN modelling 36635
commutating machines simul., ANN appl. 10960
constrained neural network, complex activation fn. 32660
cursive script recogn., time delay neural networks and HMM 32661
digital commun. channel equalizer, Kalman-trained neural network 33156
digital radio data predistortion, neural-net-with-memory model 42149
digital satellite channels, adaptive DFE, multilayer neural networks 25453
distrib. syst., harmonic current prediction, ANN/GMDH comparison *(Korean)* 27178
dyn. feedforward supervised neural networks, perform. 8310
ECG, ischemic episodes detect., neural nets 18546
economics load dispatch, multilayer ANN training 27047
edge detecting fuzzy neural networks, training, model-based examples 8582
EGG, contractions ident. by backprop. neural nets 43297
elec. capacitance tomography, pattern assoc., neural network 3952
elec. vehicle induction motor neuro-fuzzy control 36722
EMG class. by hybrid neural net 43205
endoskeleton BK prosthesis, customized alignment, neural network models 43367
face recogn., knowledge-based, extraction/BP algm. *(Korean)* 24683
flexible joint single-link robot ident. and tracking control ANN 36669
food monitoring, nonmetal foreign body detection 25804
gearbox acoustic condition monitoring by neural net 34390
genetic seqs., class., BP 2630
grayscale morph. filters, optimal under LMS algo. 2838
hand-drawn image class. by neural net 2704
hardware implement., BP algm. without multiplication 29456
hardware perform., structural design 29499
hierarchical neural network appl. to ident. of defects, elec. pot. *(Japanese)* 21009
human face images, quantization level, neural net 41373
hybrid NN-HMM systs., model-discriminant training algm. 32435
hyperspectral imagery class., BP neural network 35361
image background detect. by reusable ANN 33018
image compression, neural net based 8537
image segmentation via fuzzy additive hybrid networks 16350
impulsively loaded equipment, mechanical condition monitoring, neural networks appl. 11212
indoor radio channel, neural-based packet equalization 9307
induction motor drives, neural net-based param. estim. 20061
induction motor drives, sensorless speed control, neural net-based 20063
induction motor speed control, neural fuzzy controller design 44052
induction motor stator current control, trained ANN, syst. ident. 11059

backpropagation continued
inform. coding, neural net hardware realisation 29515
IR target simul. environ., pattern recogn. appls. 34578
ISDN speech recogn. syst., vowels extraction 41919
land cover multi-spectral rem. sens. data classif. 35360
learning T-model neural network 21479
lin. DC motor posn. syst., tracking perform., neural net *(Japanese)* 44071
load forecasting, rule-based ANN approach 19203
mammography, pattern class., multistage neural net 43257
Mandarin neural network-based F0 text-to-speech synthesiser 2432
maneuvering target tracking by neural net 32622
mil. combat battle prediction, BP neural net appl. 18996
multilayer perceptrons, sig. detect. and class. perform. eval. 24341
multiple auditory template matching, expansion 8381
multispectral image class. using BP neural net classifier, input codings assess. 8590
narrowband sig. extraction, neural net based scheme 2456
naval electronic surveillance measures radar fn. ident., ANN appl. 35392
neural chip, subthreshold MOS analog cct. 37928
neural demodulator for ASK sigs. 29512
neural estimators for multisensors, design 32658
neural net-based load-flow models for elec. power systs. control 26986
neural nets, special, coprocessors 29497
neural network based on stochastic computation *(Korean)* 21477
neural network multiprocessors, dyn. reconfig. pipeline archit. 12677
neural network ocean current prediction, shipping guidance 10523
neural network simulations, educational environment, DSP based acceleration 21472
neural networks appl. 8559
neural networks appl., lossless image compression 2546
neurochip core design, error BP on-chip learning capability *(Korean)* 37910
Neurodevice, modelling interface for VLSI design 13865
neuron-MOS neural networks, hardware-learning algm. 37916
next day peak load forecasting, ANN, modified BP learning algm. 35586
NOAA images, class., multilayer neural network 4389
nonlin. SRM drive modelling, neural net-based 5256
nuclear power plant monitoring by neural nets 27341
odorant sens., SAW oscillator and neural network 17982
open-circuited coaxial probes, neurocomputed model 34666
PCB assembly yield, design factors, stat. and ANN models 38080
PCB X-ray inspection, neural network classifiers 37162
PD recogn., neural networks appl. 1535
perceptual audio coder, neural network based 8148
photorefr. neural-network wt. decay, gain and exposure scheduling 39519
plasma gate etch, neural network control 38567
polarimetric vector diffr. tomography 40274
polynomial-shaped meas. sigs. class., BP neural network 15930
power syst. daily load forecasting, neural net/regression anal.-based 19200
power syst. fault detect., back-propag. ANN *(Korean)* 35702
power syst. lin. optimal regulator, fuzzy neural net-based 19094
power syst. load static characts. ident., neural net-based *(Chinese)* 43604
power syst. security assess. neural nets, perform. eval. 19134
power syst. short-term load forecasting methods, computer-based 27093
power transformer differential current anal., neural net classifier 19696
power transformer resonance freqs. prediction, neural net-based 19684
PSS, multilayer ANN appl. 43670
PSS decentralized control, multilayer feedforward neural net-based 19100
pulse arith. based neural network implement. 21470
pyramid encoding by LRAAM neural net 16187
rainfall estim., satellite imagery, hybrid neural net 43518
reliab. engng. data anal., neural network appl. 37197
rem. area power supply systs. load forecasting, neural nets 35570
rem. sens., cloud masking, ensemble methods 18822
rem. sens. class. appl. of counterpropagation nets 43536
renal transplant success prognosis, neural net appls. *(Italian)* 4292
rested/sleep-deprived EEG discrim. by ANN 43317
RIE, time series modeling, neural networks 22556
rot. mach., fault prognosis, neural net 27683
RRANN, run-time reconfiguration ANN 21287
run-time reconfiguration neural net archit. 29503
SBP, hybrid neural model for pattern recogn. 24404
scalable completely connected digital neural networks 29443
seismic event class. by ANN 35288
short-term load forecasting, radial basis fn. neural net model 19198
short-term load forecasting models, artificial neural nets 27118
shower recogn., feed-forward neural networks appl. 34942
sinusoidal current tracking inverter control, neural networks *(Korean)* 27826
small objs. detect., high clutter backgrounds, neural net filter 16139
speaker testing via neural network based syst. 9768
speech recogn., noise immunization, neural net 32437
spoken digit recogn., URAN VLSI chip 8203
SRM drive, nonlin. modelling, ANN 20074
statisitical models of ccts. and systs., neural computing 5963
surface reconstruction, robust BP 33058
sync. machine excitation neural control 36117
target class., multisensor, using unsupervised neural net 33051
target recogn., self partitioning neural networks 16278
technol. independent neural network approach on device modelling interface 21072
telecomm. systs., neural networks appls. 41454
teletraffic syst., neural approach, perform. eval. 16789
thick-film resistor values estim., ANNs 21585
turbine blade, faults, intell. diagnosis, neural nets/fuzzy logic 35714
US defect ident. with laser generation, neural network appl. *(Japanese)* 21008
visual motion detect., BP learning, internal neural struct. 41375
VLSI BP neural networks, neg. transfer 29447
VLSI neural learning, robustness against cct. limitations 29489
voice conversion, formants transform., ANN 40730
wordspotter training, fig.-of-merit back propag. 32302
SiO_2, PECVD modeling via neural nets and genetic algms. 398
SiO_2 PECVD, neural network based modelling 37415
SiO_2 RIE, modelling using neural networks, ICs and MCMs 6656
TiO_2 epitaxial thin film MOCVD growth, neural network modelling 22548

backscatter
see also particle backscattering
1D random rough surfaces:enhanced backscatt., stationary-phase approxs., full-wave solns. 23572
3-D contouring by opt. radar syst. (ORAS) 17447

backscatter continued
absorber tip diffr. coeff. 7942
Antarctic field meas. of radar backscatt. from snow 43530
Antarctic/Arctic sea ice, radar backscatt. comparison 42527
Arctic sea ice thickness determ., polarimetric SAR appl. 43529
ATC radar, jet engine modulation phenom., model validation 10404
cancer and other disease diagnosis, conf., USA (1994) 11571
CATV/FITL video-transm. DFB laser components and systs. 17193
circular cylinder cavity FEM boundary integral formulation 23822
class-A bidirectional ring laser, cavity detuning, spontaneous phase symm. breaking 39992
clear air radar reflective layers, rain effects 43513
clear-air MM-wave scatt. 23602
COBRA, computer code for backscatt. anal. of complex objs. 3596
coherent laser radar with diffuse/aerosol targets, heterodyne efficiency 3620
coherent-OTDR, reduction of stochastic amplit. fluct. 18121
conductive sphere, scatt. centre estim. 23636
cylinder backscatt. minimisation by central loading 23530
deep seafloor, multibeam echo-sounder sig. anal. 35340
discontinuity in curvature, backscatt. 40318
disordered media, nonlin. optics, photon localization effects 15101
Doppler tomography approach for microwave imaging 24412
dyn. RCS using the wavelet transform, time-freq. inform. 26822
EM scatt. by hemispherical bosses on infinite plane surface 23539
finite metallic cone scatt. component estim., PO correction 40333
forest backscatt. models, cylinder-ground double bounce scatt. 26780
forests, radar 3D backscatt. model for canopies 43540
forests, radar rem. sens., sensitivity to tree geom., model 43539
forests, SAR backscatt. & biomass rem. sens. 43538
geological units, empirical radar backscatt. model 25576
Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
HF sound, sea-bottom backscatt. 42534
impulse radar extracted signature features, aspect depend. in time-freq. domain 17389
Indian land & sea surfaces, radar clutter characts. 43468
knot backscatt. signatures 23589
land surface mapping, 2D FM-CW polarimetric SAR 43474
laser ablation bubble, fiber optic probe method, time-resolved photography 43215
laser Doppler airflow velocimeter, receiving antenna sig. estim. 4020
laser radar signatures, enhanced backscatt. 17445
laser-induced surface hydrodynamic procs., Doppler backscattered-sig. diagnostics 42981
LIDAR inversion methods for atmos. of arbitrary opt. dens. 4411
lin. polarized photons from laser Compton backscatt. 18293
lossy dielec. ellipt. cylinders, plane wave scatt. cross sects. 7958
metal specimens, US toneburst inspections, backscattered microstructural noise 12239
microwave backscatt. over Antarctica, radar altimetry 43494
mine counter measures, ocean bottom acoustic interacts. 18992
MM-wave radar backscatt. from smoke clouds, inversion 42477
multidimensional microwave imaging 25551
narrow-/broadband polarimetric radars, signatures/sig. proc. 42499
normal incidence echo-sounding, refl. and reverberation 4402
ocean acoustic scatter from mid-Atlantic ridge corners, CW and time-domain simul. 18882
ocean rem. sens., RADARSAT, expt. airborne SAR obs. 26739
ocean surface, microwave radar polarimetric backscatt. 26740
ocean surface radar scatt., spatial temporal dyn. model 43524
ocean-like surfaces, low grazing angle scatt. 7949
opt. fiber transm. lines, complex multiple refl. calc. *(Japanese)* 39351
parallel-plate waveguide cavity with thick planar termination 25565
parametric estim. of ocean surface currents, HF radar 43526
plane wave scatt. by coated dielec. ellipt. cylinder 7950
plasma, microwave propag., backscatter 23651
quantitat. seafloor charactn., bathymetric sidescan sonar 10558
radar scatt. by random nonspherical scatters, matrix theory 18784
radar sea scatt., rough surfaces, opt. backscatt. 23627
rain drops & cloud, microwave pulse backscatt., extinction 40345
rough surfaces, EM backscatt. models 23532
scatt. field data, target location estim. 17399
scattering by finite cylindrical dielec. targets with gently varying cross-sections 23560
sea surface, radar polarimetric backscatt., Euler vector 43528
sea surface radar backscatt., rel., wind speed 10481
seafloor & fish acoustic backscatt., reverberation obs. 26745
seafloor sonar scatt. at 40 kHz, monostatic & bistatic 18802
shallow water HF bottom/subbottom backscatt. 4403
soft X-ray compact bright tunable CW source 43153
stratos., VHF scatterers, aspect sensitivity 31813
thin-wire reson. response to transient waves 23848
time-freq. distrib., laser radar backscatt., FM demodulation 34166
tropos., DIAL O_3 profiles, aerosol layers effect 26724
tropos., VHF scatterers, aspect sensitivity 31813
two parallel dielec. ellipt. cylinders, EM scatt. 7954
vegetation global biomass, SAR backscatt. method 43542
VHF radar sea scatter and propag., grazing angles less than 1° 42518
weather radar polarimetry, path integrated differential phase shift 43517
wedges, radio scatt. theory, method of iter. 42488
CO_2 laser for rem. sens. meas. 18830
Er-doped fiber amp. AM CATV syst. RIN noise 9576
Er-doped fiber amps., Rayleigh scatt. effects 23133
$KTa_{1-x}Nb_xO_3$:Fe cryst. self-pumped phase conjug. 7732
$KTa_xNb_{1-x}O_3$:Fe, asymmetric opt. transm. device 40076
Nd,Ce:YAG laser resonator, SBS methane gas phase conjugating mirror *(Chinese)* 14993
Nd:YAG Q-switched laser Raman conversion, backward SBS 23174
Si detector X-ray/γ-ray probe, backscatt. det., struct. nonuniformity meas. 4210

backscattered electrons *see electron backscattering*

backtracking
cellular mobile syst. nominal channel allocation optim. 42203
CPM sigs., backtracking seq. detect. 15956
Intel i860, backtrack scheduler for dual operation instructions *(Japanese)* 29303
uniformly growing backtrack trees, av. wts. 28623

backward wave oscillators
BAW/SAW quartz resonators, noise charact. 37660
cyclotron maser oscillator expt. 29806

backward wave oscillators continued
e-beam gyrotron-BWO, interact. tubes effects 29798
freq.-tripled BWO, HSSD $^{r}Q_3$ branch 21847
gyro-BWO, tapered interaction tube effect on power/pulse length 21851
gyrotron BWO, long-pulse expts. 21852
gyrotron efficiency, sideband oscills. influence 6493
high brightness cathodes, appls. 21793
intense e-beam gyrotron BWOs, long-pulse microwave emission, tapered tubes 1006
microwave generation by two-section BWO 21849
microwave generation for FEL pumping 23317
MM-wave BWO, flicker noise eval. 999
MM-wave commercial freq. synthesizer, 118-178 GHz range 827
multi-stage PASOTRON, phase-locked BWO 21857
overmoded high power microwave generators, expt. 21850
overmoded slow-wave resonators for interact. with relativistic electron beams, EM props. 1005
peniotron backward wave oscills., pulsating mode 6514
relativistic BWO, efficiency increase 29796
relativistic BWO, nonlinear theory modelling 13011
relativistic BWO, pre-bunching cavity 29799
relativistic BWO with end reflectors, EM wave excitation 13009
repetitive microwave BWO, relativistic e-beam 29795
repetitively pulsed relativistic BWO, slow wave struct. 29797
spectrometry using tunable BWOs, composite structs. appls. 42907
TW direct energy converter for D-^{3}He fusion reactor 36628
unmagnetized BWO high-power microwave source 1003
vac. BWOs using nonuniform slow wave struct., high power, efficiency enhancement 1004

bacteriorhodopsin *see proteins*

Badgers rule *see bond lengths*

bagging *see packaging*

balance (physiological) *see mechanoception*

balanced amplifiers *see differential amplifiers*

balanced input amplifiers *see differential amplifiers*

balances
see also microbalances; weighing
centre of mass location of test obj. 25981
gravit. const. determ., temporal/spatial vars. 3998
kilogram national prototypes, third periodic verification 17628
Newton's gravit. const. meas. 17650

ball lightning *see lightning*

ball milling *see powder technology*

ballasts, electronic *see lamp accessories*

ballistic electron emission microscopy *see field emission electron microscopy*

ballistic electronic conduction *see high field effects*

balloons
see also aircraft
intra-aortic balloon pump, lin. pulse motor-driven 10256

baluns
bal. sub-ns pulse gen., step-recovery diodes 37673
broadband CPW-coplanar strip-fed spiral antenna 15643
broadband microwave mixer, suspen. line baluns mounted 12743
dipole antennas for EMI meas., characts. 23898
EMC appls., skeletal biconical antenna charact. 7996
EMI dipole antennas 40372
EMI filters, bal./unbalanced charact. meas., S-params. 23718
floating resonator terminal cryst. oscillators, freq. charact. meas. of neg. resist. *(Japanese)* 22680
low profile broadband balun feed 23991
lumped element microwave phase-shifting and matching networks, design 12736
resistively loaded printed triangular dipole design for wideband array 23957
Schottky octave band LO doubler (output range 16-40 GHz) 37906
AlGaAs/InGaAs HEMT monolithic mixers, single/double bal. 29585
GaAs HBT multifunctional microwave-analog VGA 38023
GaAs MMIC mixer, broadband double-bal. design 850
GaAs MMIC multifunction EW receiver convertor chip 38018

Banach spaces
fixed point iters. for strictly hemi-contractive maps in uniformly smooth Banach spaces 11979
iter. aggregation method, lin. systs./Markov operators, convergence 11963
nondifferentiable optim. in Banach space 225
random fuzzy sets and fuzzy martingales 28614
regular smoothness and Newton's method 11980

band-elimination filters *see band-stop filters*

band gap *see energy gap*

band model of magnetism
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
itinerant electrons in noncollinear and incommensurate struct. magnets 7214

band-pass filters
see also crystal filters; vocoders
2D nonseparable modulated filter banks 32713
2dimensional recursive orthogonal wavelet transform. 40927
acousto-optic tunable filters, near-ideal bandpass charact. 7417
act. band pass higher order element filters, cct. anal. *(Russian)* 6204
act. compensated filters, HF appls., design/optim. 29352
act. microwave filters, nonlin. behaviour 21414
affine phase complex FIR filters, design/charactn. 8359
all-opt. clock-recovery cct. using dual mode-locking, 5-Gbit/s 14879
allpass transfer fns., prescribed group delay 32792
anal./synthesis filter banks, phase lin. 33149
ang. bandpass filters, improved design flexibility 37828
asymmetrical filter banks, subband image coding 33132
auditory scenes, computational anal. 2406
bandpass sigs. reconstruction 32645
BAW act. piezoelec. filters 30652
BiCMOS transconductance-C IF band pass filter 29346
biorthogonal m-dimens. two-band filter banks, realizability 40808
blind fractionally-spaced equalization, filter banks/lin. prediction 41024
boundary filters for finite-length sigs. and time-varying filter banks 24343
C-band superconductive input multiplexer for commun. satellites 12776
CDMA commun., CW/narrow-band sigs. interf. suppression 33749
centre-tapped spiral inductors for monolithic bandpass filters 37850
chirped resonator fibre grating transm. filters 39339
CMOS prog. switched-current filters 29359
codirectional Bragg WDM tunable acousto-optic-filter design 39534

band-pass filters continued
color TV set, effect of brightness sig. interf. on picture edgings 34244
complex band-pass filter, design based on freq. transform. *(Japanese)* 12619
coplanar MMIC act. bandpass filters, neg. resist. ccts. 12819
cosine-modulated 2D FIR filter banks, perfect reconstruction 32712
crit. sampled filter banks/lin. boundary conditions 41174
current mode biquadratic act. filters, design 12643
current mode biquadratic filters employing operational amps. 12642
current-mode single-element-controlled bandpass/lowpass filters 37857
delay locked loop, Doppler and data modulation effects 32036
dielec. rod resonators, triple-mode *(Japanese)* 21403
discriminative feature extraction, filter bank design 32326
distrib. network, fault locator design 4651
DPSK opt. heterodyne receiver, combat laser phase noise 42372
dyn. supervised neural networks, fixed pole IIR struct., perform. 8309
ECG QRS detect., robust and computationally efficient 26435
edge detect., discrete time cellular neural networks 32900
FADOF filter for space borne opt. commun., Doppler shift compensation 17325
fault diagnosis, power-supply current monitoring/discrim. anal. 13847
ferrite loaded resonator mag. tunable filters, power handling capacity increase 29542
fibre lasers for sens., electro-opt. tunable 14770
finite thickness diaphragms in circ. waveguide, optimal filters 37956
finline band-pass filter design, TLM method 37945
FIR digital filter types, interrelationships 2532
FIR filters iter. reweighted least-sq. design 2465
freq. sampling filter banks, alias-free charact. *(Japanese)* 12651
freq.-selective techs. based on SVD, TLS and bandpass filtering 32489
fuzzy neural fast learning controller/filter 24354
generator-transformer unit relaying scheme, PC-based 35684
HF fully integrated OTA-C filters, 7.2 GHz bipolar OTA 6210
insensitive second-order filters, high input impedance, current conveyors 12640
insulation PD meas., optimal bandpass filter characts. 13917
interpolation/decimation filter banks, fast algms. 32769
IR HET, narrow bandpass filter 17784
$\lambda_{g0}/4$ CPW-based bandpass filters, spurious response suppression 12721
LC lowpass/highpass/bandpass ladders, Butterworth/Chebyshev response 720
lensless in-line fibre filters 22989
lin. phase FIR digital filters, max. SNR, design 15982
linewidth-insensitive coherent AM opt. link, direct/external modulation format comparison 42410
low rate audio coder, hierarchical filterbanks/lattice VQ 32106
low-noise CCD sig. acquisition 34417
M-band pseudo QMF banks, prototype filters design 37882
marginal data ordering, multichannel L-filter design 32703
mass flow meas. by PZT AE sens. 10067
microstrip and slotline planar struct. impedance matrix eqn. 23752
microwave commun., dielec. filters *(Japanese)* 37973
microwave limiter cct., chaos obs. 6299
microwave microstrip dielec.-resonator filters, 3D FEM simul. 37947
microwave transversal fiber-optic tunable filter 25513
microwave waveguide filter charact., random mfg. errors effects 29534
monolithic UHF/VHF filters on two-layer dielec. bar 37835
multi band sigma delta ADC 29332
multi-channel FIR systs., blind ident., deterministic approach 41023
multi-rate bandpass filter bank, QRNS complex arith. 6229
multichannel FIR filters, blind ident., subspace methods 41022
multichannel Gaussian sigs., low-rank detect., matrix approx. 24212
multicolor IR detect., voltage tunable bandpass filter 17765
multicrystal lattice filter design, lattice cascade splitting 37831
multidimensional M-band filter bank, quantization compensation 33150
multilayer microstrip struct. anal., matched load simul. 12794
multilayer Teflon microwave PWBs, isolation techs. 37974
multiple cryst. filter IF strips, spec., design, and anal. 39080
multiple-crit.-pole-coupled act. filters for FLF, SCF, CBQ, and LF struct. 12637
non-parametric waveform estim. based on filter banks 32730
nonlin. sig. proc., slope transforms, theory/appl. 40832
nonuniform bandpass sampling generalization 40811
opt. DFB Bragg grating struct., phase-shifted, fab. 39338
opt. DPSK/heterodyne detect. scheme, two polariz. planes *(Japanese)* 17265
oversampled bandpass sigs., inphase/quadrature components extraction 24183
oversampled bandpass sigs., inphase/quadrature components extraction 2517
paraunitary matrices factorization, pairwise mirror-image symm. 40845
partially filled rect. waveguides, external params. of offset connection 37955
piezoresistive strain gauges, integrated instrumentation amp. 17732
poly-phase struct. for syst. ident./adaptive filtering 32762
PR-QMF banks/ wavelets, stat. optim. 32707
printed spiral resonators based bandpass filters 12623
quantum limited OOK, opt. amplif., perform./cutoff rates 40546
rect. waveguide, optimal filters based on finite thickness inductive diaphragms 12724
regular M-band modulated orthogonal transforms 32710
SAW bandpass filters, tunable rejection 12624
sens. array proc., adaptive subspace selection 40962
simultaneous real-time cryst. filter alignment in freq./time domains 39081
single-block ceramic microwave bandpass filters 820
soft fault diagnosis, ANN-based tech. 30399
software digital filters, real-time, design 6223
solid-state bandpass filters, coaxial-to-coaxial type resonators 15590
speech compression, ARMA model/wavelet transform 32261
speech recogn., RASTA-PLP integrat. 32310
speech recogn., subband-autocorrelation anal. 32405
sub-band coder for low-bit rate, fixed and variable band coding 32364
subband image coding, lin. phase filter banks design 24583
subharmonically pumped THz mixers employing reson. metal mesh bandpass filters 37979
thin-film narrow-bandpass filters prod. by ion-assisted deposition, temp. stabil. 22988
three-channel SW IR spectrum distinguishable detector array develop. *(Chinese)* 42806
time varying filter banks, subband proc., border recovery 32711
time-varying filter banks/wavelets, factorization 32706
time-varying FIR filter banks, novel struct. 32716
triple coupled CPW lines, MMIC bandpass filter elements 6325

band-pass filters continued
triquint 0.5 μ MESFET device microwave transconductance amps. and filter ccts. 6327
tunable bandpass sigma-delta A/D conversion for mobile commun. receiver 9354
tunable continuous-fibre-optic bandpass filter, sens. appls. 14390
two-band QMF banks, anal. 32562
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
ultrahigh-efficiency, narrow-passband tunable opt. filter design 22983
universal current-mode filter, non-inverting CCIIs 37858
universal filter, two current-feedback amps. 37852
universal voltage-mode filter, current conveyors 6206
valves, motor-operated, noninvasive diagnostics 19624
variable IIR digital filters, complex coeffs., synthesis 6233
VCO jitter reduction, bandpass filtering 12363
VLSI, HDTV sub-band coding, GQMFs filterbanks 42597
voltage-mode notch/lowpass/bandpass filter, current-feedback amps. 733
waveguide, higher-order passbands suppression 6200
waveguide filters, qtr.-wave coupling, design 12625
wavelet extrema/zero-crossings representations, props./reconstruction 32708
WDM high-speed wavelength tunable liq. cryst. filter 42387
Weaver SSB subband acoustic echo canceller 16822
wide bandpass filter, ladder type, compact design *(Japanese)* 12626
wideband bandpass filter, three parallel-coupled lines 6282
X-band bandpass/bandstop filter design in circ. waveguide 37954
GaAs MESFET IC SC band-pass filter, VHF 37843
InAlAs/n$^+$-InP, monolithic tunable high-Q 12800
InGaAsP/InP grating-assisted directional coupler, act. filter *(Japanese)* 7365
LiNbO$_3$ passband-flattened guided wave acousto-optic filter 34009
YBaCuO, 10 GHz bandpass microstrip filter 816
YBaCuO HTSC microwave resonators and filters 37969
YBa$_2$Cu$_3$O$_7$ HTSC thin films, microwave pass. devices 30766
YBa$_2$Cu$_3$O$_{7-x}$ high T$_c$ film dielec. resonator, MM-wave filter develop. 811
YIG:Sc film tunable magnetostatic wave bandpass filters 30757

band-rejection filters *see band-stop filters*

band-stop filters
see also notch filters
act. microwave filters, nonlin. behaviour 21414
BAW act. piezoelec. filters 30652
chaotic sigs., filtered and synchronized, commun. use 40851
circ. dielec. waveguide, periodic metallic strips, dispersion charact. 2296
current mode biquadratic act. filters, design 12643
current mode biquadratic filters employing operational amps. 12642
dielec. resonators, microstrip tuning tech. 12713
digital TV, data and filter requirements of D-A conversion 41356
DS-SSMA, interf. effect on narrow-band commun. systs. 33748
dual-band circ. polarized microstrip patch antenna, anal./design 31930
even-degree lower-sideband polylithic cryst. filters, design 12629
FIR digital filter types, interrelationships 2532
FIR filters iter. reweighted least-sq. design 2465
narrow band SSMA/multi-carrier high speed sigs., staggered superposed transm. *(Japanese)* 25209
single sect. lattice cryst. filters, normalized design 39079
single-mode fibre coupler/filters, coupling suppression by periodic index modulation 30912
two-channel rejection filters with countable coeffs., optim. 32571
waveguide technol., plasma diagnostics appl. 12720
X-band bandpass/bandstop filter design in circ. waveguide 37954

band structure
see also Brillouin zones; conduction bands; degenerate semiconductors; effective mass; energy gap; Fermi surface; many-valley semiconductors; valence bands
2D semiconductors, negative differential resist., conf., Lucca, Italy (1992) 11546
diamond crysts./superlattices, isotopically engineered 38502
high press. semicond. physics, conf., Vancouver (Aug. 1994) 28247
IR photodetectors, MQW/superlattice, Monte Carlo simul. 13581
long wavelength IR nonlin. semicond. superlattice appls. 29945
metal/III-V-semicond. contacts, fab./props. 1162
periodically stratified media light, Bloch eigenvalue eqn. 2196
phonon-difference FIR lasers, neg.-effective-mass generators 14890
polysilicon emitter transistors, phosphorus doped, band deform. 30240
polysilicon emitter transistors, phosphorus doped, band struct. 30239
quantum well lasers, 2D simul. 39792
semicond. intrinsic props., nonparabolic three-band model 22337
single barrier heterostruct., band struct. modelling 13131
AlGaAs, act. waveguide LD, femtosecond band-edge index nonlin. 31337
Al$_x$Ga$_{1-x}$As, disorder-induced intervalley scatt., pseudopot. calcs. 29857
AlGaAs:Si-GaAs SQW, MOCVD, magnetotransport, subband struct. 22003
Al$_{0.48}$In$_{0.52}$As/Ga$_{0.47}$In$_{0.53}$As heterostruct., δ-doped, second subband pop. 29890
CdS$_x$Se$_{1-x}$-doped glass, energy level struct., opt. bistability 31598
Cr$_{1-x}$Ir$_x$O$_2$, ferromag. material, high coercivity 30677
ErN(P)(As), electronic struct., metallization appls. 38670
α″-Fe$_{16}$N$_2$, magnetisation/Mossbauer spectra/electronic struct. calcs. 6994
β-FeSi$_2$ thin films, photocurrent spectra 22998
GaAs crysts./superlattices, isotopically engineered 38502
GaAs, devices, impact ionization/light emission, Monte Carlo study 1441
GaAs, impact-ionization model consistent, band struct. 29849
GaAs, warped band model, hole drift vel. 13069
GaAs-AlGaAs quantum-wire arrays on vicinal substrs., FEA of valence band struct. 21998
GdN(P)(As), electronic struct., metallization appls. 38670
Ge crysts./superlattices, isotopically engineered 38502
n-Ge, extremely strained crysts., nontrivial transport phenom. 38231
Ge:O crysts./superlattices, isotopically engineered 38502
HgCd(Mn)Te gapless semiconds., hole thermal emf, temp. depend. 1049
HgI$_2$, cryst. growth from soln. in space/on ground 37382
HgI$_2$, electronic and opt. props. 43077
InAs, impact-ionization model consistent, band struct. 29849
InAs/In$_x$Ga$_{1-x}$Sb superlattice based IR detectors 3842
In$_{0.53}$Ga$_{0.47}$As, impact-ionization model consistent, band struct. 29849
InGaAs-InAsP three-band near-IR FPA for 1.0-2.5 μm 17935
p-InSb MOS device, inversion layer subband, nonquantum limit *(Chinese)* 13259
Ir/p-Si jns., Schottky barrier heights 38380
Ir/p-Si$_{1-x}$Ge$_x$ jns., Schottky barrier heights 38380
Mg$_2$SiO$_4$:Cr^{3+} laser act. media, electronic struct. 7591

band structure continued
Si, Boltzmann transport eqn., band-struct. effects incorporation 1025
Si, anisotropic band struct., isotropic band models 22325
n-Si, extremely strained crysts., nontrivial transport phenom. 38231
Si, impact-ionization model consistent, band struct. 29849
Si, porous, diode struct., elec./PV props. 38325
Si, porous, photocarrier electronic states, photomodulated IR spectrosc. 6653
Si:P crysts./superlattices, isotopically engineered 38502
Si-Si$_x$Ge$_{1-x}$ superlattices, energy band structs. 6554
ZnO dense non-ohmic electrode, humidity sensitive elec. props. 34457
bandwidth compression
see also compandors; data compression; vocoders
cost mgt. for bandwidth 16598
digital satellite news gathering, develop. *(Japanese)* 34213
multispectral imagery, practical transform coding 16309
multispectral imagery, transform coding 24501
SSB radio channels, received SNR increase, anal. sig. rooting 42147
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
bang-bang control
see also on-off control
CMM, control input shaping against vibr. 17675
servomotor, bang-bang fuzzy controller, time optimal/min. chatter 27769
bank data processing
CHIP lang. impl., large computer network optimal mgt. 24985
computing centre support syst. reliab. anal. 11871
key transport of asymmetric algms. *(French)* 24105
multimedia strategy in financial organizations *(Japanese)* 42023
banking
see also bank data processing
robust speech recogn., telephone line equalization 8231
wireless LANs appls. 41754
banking services *see banking*
banks *see banking*
bar code readers *see mark scanning equipment*
bar codes
binary bar codes, decode algm. 15788
code-sens. commun. syst., introduction 24895
EMC of code-sens. commun. syst. 24889
Bardeen-Cooper-Schrieffer theory *see BCS theory*
Barkhausen effect
EM rot. sens., cpd. mag. wire 17717
ferromag. films, magnetoresist. meas., flexible test syst. 18040
mag. domain struct., Young's modulus meas. 14208
micromagnetic Barkhausen emissions, DC bias/excitation/detect. freqs. 14126
MR-SAL struct., hard-magnet biasing strengths 17707
quartz cryst. oscillators CAD 39103
steel, ferromag., surface imaging using Barkhausen effect 14122
steel, slits, high resoln. mag. Barkhausen noise meas. 449
thin film heads, inductance fluct., domain instabil. and popcorn noise 7093
threshold and timing error rate vs. off-track posn. 14223
yoke magneto-resistive heads, switching noise 14237
Co$_{66.5}$Fe$_{3.5}$Si$_{12}$B$_{18}$, metallic glasses for fluxgate sens., magnetis. 30664
Ni$_{80}$Fe$_{20}$/Cu/Ni$_{80}$Fe$_{20}$/Fe$_{50}$Mn$_{50}$, giant magnetoresistive elements, thin film tape heads 7072
NiFe-TbCo unshielded spin-valve sens., exchange-biased, MR heads 7077
Ni$_{1-x}$Mg$_x$Fe$_2$O$_4$, discontinuous magnetis., comp. depend. 1576
Barnett effect *see gyromagnetic effect; magnetisation*
barrages *see dams*
barrel distortion *see aberrations*
barretters *see thermistors*
BASIC
see also BASIC listings
binary code struct. anal. based on combinat. presentations *(Russian)* 15798
core selection optimisation in transformer designs, Basic program 27787
BASIC listings
intrinsic thermocouple monitor for laser wirebonding 29710
line current harmonic reduction, polyphase transformers 35445
basicity *see pH*
batch processing (computers)
power syst. dyn. state estimator, computer-based 4457
batch processing (industrial)
active array radar MMIC packaging evol. 21578
aq.-saponifier post-solder defluxing, waste water effluent testing 38143
capacitive electro-chem. etch-stop tech. 30103
diaphragm valves, normally-closed, elec. activation 6879
electrostatic lenses, miniaturized electron column, microfabrication 40269
film interface control in integrated IC proc. systs. 20405
hot jobs proc. and effect on normal orders 37018
integrated chem.-sens. arrays, batch fab. 3818
microelectronics manufacturer, batch prod. syst., open queueing network anal. 28423
mixed prod. of ultra-short TAT LSIs and low-cost LSIs, mfg. line config. 28431
plasma source ion implant., cost estim. 22148
SMT PCB placement seq., multiple batch, soln. methodology 29689
SPC in IC mfg., nested normal/multivariate models 37156
GaAs MMIC mfg., SPC use/misuse 38017
bathymetry
120° segmented circ. array for multibeam multifrequency bathymetry 17474
autonomous underwater vehicle for geophys. study 10528
autonomous underwater vehicles for bathymetric mapping 8619
data postprocessing/corrections, sidescan sonar syst. 10560
ERS-I SAR image of Thames estuary, visual interp. 26746
lidar, underwater imager, Nd:YLF laser (green) 18904
lidar for underwater targets, pulse modulated method 10444
oceanographic data, params. extraction 35343
quantitat. seafloor charactn., bathymetric sidescan sonar 10558
sea bed topography meas., steered freq. source arrays 26757
ship's draught US meter principle *(Croatian)* 4425
sonar, French deep water multibeam echo sounder 26716
sonar, multibeam swath bathymetry, return angle estim. 26715
sonar, sidescan, advanced digital sidescan archit. 10436
sonar imagery, multibeam wide swath methods 26713
sonar imaging, image proc. by tangent clusters 18810
sonar imaging of seafloor, French wide swath methods 26714
sonar method for continental shelves 10493
bathymetry continued
sonar multibeam method, mosaic computation 18807
sonar resoln., Kirchhoff scatt./seafloor modeling 35345
sonar sidescan imaging, geometric corrections 26709
sonar/seismic streamer deep tow syst., PASISAR 10437
southern oceans, bathymetric prediction from satellite altimetry 10521
batteries *see cells (electric); primary cells; secondary cells; solar cells*
battery chargers
0.5 MW batt. test facility, microcomputer-controlled 27883
1 kW AC/DC power factor pre-regulator, ZVS-PWM topology 19874
1 kW two-stage batt. charger cct. design 5071
4 wheel drive elec. vehicle, integral batt. charger 5359
120 kW coaxial winding transformer, elec. vehicle appls. 20103
bimetallic batt. packs, overcharge/short cct. protection 5179
charging indicators, product series overview *(Japanese)* 25742
conf., Long Beach, USA (1995) 28262
cycling automation, sinewave interface 4872
DC/DC converter, noncontact batt. charging, EM coupling 19859
elec. car batt. charger, unity PF 5342
elec. transit bus, Pb-acid batt. power conditioning develops. 36730
elec. vehicle fleet monitoring, batt./charger mgt. syst. 36728
electric vehicle secondary batteries/charger technologies 20106
electric vehicles for disabled persons, IEE Colloquium, London (1995) 28274
facilities, asymm. current *(Russian)* 44160
fast batts. charger, voltage inflection points detect. 27908
flyback converter, US/European/PF correction inputs 36328
full-bridge series-reson. rectifier, telecom. appls. 19831
hermetically sealed Stirling engine batt. charger 27973
hybrid/elec. vehicles, batt. chargers 20099
hybrid/elec. vehicles, DC/DC power converters 20100
isolated high power boost topol., transformer models 19745
maint. free UPS, advanced batt. technol. 19815
microcontroller-based batt. charger, neural-fuzzy technol. 6028
multi-MW batt. storage plant, power conditioning reliab. 36081
Ni-H$_2$ batt. power syst., μP charger control 27921
noncontact batt. charging high power converter, mag. coupling 19712
pacemaker power supply convertor, flat transformer-based 10277
portable appls., rechargeable batt. types, charging methods 19764
portable equipt. power supply design, intell. batt. mgt. 36274
PV DC motor pumping syst., design optim. 19553
PWM invertor batt. charger, UPS appl., fuzzy logic control 44154
rly. passenger carriage power supply, IGBT batt. chargers *(German)* 28125
series connected batt. strings, charge equalization 19932
smart batt. packs for portable equipt., develop. 21109
smart batts., elec. protocol, data content 36546
thyristor power converter, short-cct. current protection *(Polish)* 27790
TOPEX/POSEIDON satellite, secondary battery perform./management 26579
Li ion batts., charging, IC controller 36544
Ni-Cd batts., charging, IC controller 36544
Ni-Cd intell. batts., charging/discharging algms., hardware 36545
Ni-H$_2$ Astra 1A satellite batts., perform. improvement schemes 26661
Ni-MH intell. batts., charging/discharging algms., hardware 36545
NiCd batt. charger HV IC for rectified mains operation 29049
NiMH batts., charging, IC controller 36544
Pb secondary cells, rapid charging studies 5192
Pb-acid batt. systs., theory, develops. 36520
Pb-acid batts., charging, IC controller 36544
Pb-acid elec. vehicle batts., monitoring/control model 36539
Pb-acid elec. vehicle onboard batt. mgt. syst. 36727
Pb-acid sealed maint.-free batt., Boeing 777 appl. 43444
Pb-acid valve-regulated batts., deep cycle appl. charging 44269
battery storage plants
20 MW batt. storage syst., distrib. network stabil. appls. 35637
complementary energy storage, modern power conversion options 5237
conf., Long Beach, USA (1995) 28262
cycling automation, sinewave interface 4872
DC telecom. power distrib. syst. overcurrent protection, batt. model 43749
elec. utility batt. energy storage, trends and status 35539
GTO VSI syst., dyn. model *(Slovenian)* 43966
hybrid PV/wind/diesel power systs., computer modelling 19571
multi-MW batt. storage plant, power conditioning reliab. 36081
Ni-H$_2$ batt. power syst., μP charger control 27921
PV array/batt. power switch network, nonlin. SPICE model 27635
rem. power generation sources for harsh environ. 35711
subway elec. supply, energy saving, batt. storage plant 44539
telecom. terminal auxiliary permanent on-site generator sets 43939
three-phase multifn. batt. energy storage syst. 43967
utility batt. storage appls. 36072
Na-S modular batt. energy storage unit, utility appls. 19572
Ni-Cd batt. satellite power systs., orb. mgt. strategy 26609
Ni-H$_2$ secondary batts., terrestrial power syst. appls. 36071
Pb-acid batt. energy storage systs., utility appls. 36080
Pb-acid telecom. reserve batt. plant float voltage uniformity 43969
Zn/Br secondary batts., solar Stirling power generation appls. 36055
battery testers
0.5 MW batt. test facility, microcomputer-controlled 27883
charging indicators, product series overview *(Japanese)* 25742
CMOS integrated micropower batt. monitor cct. 21112
conf., Long Beach, USA (1995) 28262
digital batt. life cycle tester 34383
multicell batt. strings, single sens. wire monitoring 44264
primary/secondary batts., testing, VXIbus 36510
stand-alone PV power systs., batt. state-of-charge 19557
stationary batt. UPS systs., status determ. method 36549
stationary batts., diagnostics/perform. prediction approaches 19956
thermal cells, tester develop. 36511
valve-regulated secondary batt. monitoring method 44299
Ni-Fe batt. cycling expts. 36548
Ni-MH batt. cycling expts. 36548
Pb-acid batt. impedance meas., maint. tool 44297
Pb-acid batts., condition assess., batt. monitors 44279
Pb-acid sealed batts. deterioration estim. method *(Japanese)* 19942
Pb-acid secondary batt. state-of-charge, float current monitoring 44303
Pb-acid standby power batts., life testing methods 19962
Pb-acid stationary batt., computerized test equipt. 17674
Pb-acid valve-regulated secondary batt., conductance/impedance tests 44298
Pb-acid valve-regulated telecom. batts., expert mgt. syst. 41632
Pb-acid valve-regulated telecom. batts., ratiometric reliab. meas. 41631

battery testers continued
Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
BAW devices *see bulk acoustic wave devices*
Bayard-Alpert gauges *see ionisation gauges*
Bayes methods
3D reconstr. from image seq., Bayesian/Kalman, comparison 2854
3D tomographic reconstruction from radiographs, obj.-oriented methods 2840
adaptive Bayesian decision feedback equaliser, CCI compensation 15941
aircraft guidance/decision aid for wind shear avoidance 35219
analog ICs testing, power-supply current monitoring 13847
AR sig. modelling for short seqs., efficient Bayes soln. 40973
ATM networks, adaptive call admission control 41436
ATM networks, real-time traffic estim. 41927
ATR, Lie group parametrization for dyn. based prior 25552
automatic syst. for monitoring fish passage, dams 24534
averaging entropy, probab. n-tuples distrib. 24004
bearings-only tracking in distributed sens. network, reduced sufficient stats. 15877
binary receivers, Gaussian/α-stable impulsive noise, perform. anal. 40941
blind equalization, recursive Bayesian techs. 15943
Burr type X distrib., predict. with outliers, Bayesian approach 20533
chromosome class., neural net/Bayes method comparison 43204
class., Bayesian probab. dens. approach 32642
class., priori evidence, ambiguous 16273
class. by varying, erring sens. 15860
closed obj. boundaries ident., stat. approach 24493
color images, adaptive Bayesian segmentation 16327
continuous speech recogn., suprasegmental 32401
curve matching, geometric hashing 2671
decentralized detect. systs. design, unified approach 32538
deconvolution, Bayesian decision feedback techs. 15892
digital sigs. with ISI, demodulation 40571
direction finding, parametric array uncertainty 40923
Dirichlet proc. for reliab. anal. 5744
discontinuous sigs. smoothing, competitive approach 24198
discrete Karhunen-Loeve transform and SVD, model order selection 40982
DOA estim. and detect. 2477
edge-line ambiguities resoln., probabilistic relax. 2781
FH-SS commun., Bayesian erasure techs. 25248
finite range failure model, reliab. anal. 37187
framework for probab. distribs. construction on space of image segmentations 32909
game strategy approach for image labeling 24364
gated neuronal archit., spatio-temporal feature maps, invariant prop. 33037
genetic algms. applied, Bayesian image restoration *(Japanese)* 2625
Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
grapheme-to-phoneme conversion, heuristical and stat. methods *(English)* 40723
handover decision procedure, Bayes criterion minimization 3394
HDTV channel equalization, recursive Bayesian techs. 9734
HV substation reliab. centered maint. project, France 44248
IC tester diagnosis, Bayesian network appl. 30428
image cluster expansions, Bayes estimators/Markov fields 32925
image proc., Bayesian closely spaced obj. resoln. tech. 16099
image restoration, boundary distortion reduction 32823
image restoration, hierarchical Bayesian approach 8521
image restoration, stat. mech. 24388
images, range/intens., fusion on connection machine CM-2 16246
impulsive interf. mitigation, arbitrary IID state noise 8290
IR imaging sens., unified perform. model of detect. and tracking 16112
joint discrim., detect., estim. and ident. of sigs. 15902
k-out-of-m systs., nonparametric inferences on syst. availability 11854
LF sound meas., wind noise compensation by digital filter 26018
likelihood distributions for radio wave tomography 10456
lin. systs. with non-Gaussian state and meas. noises, recursive estim. 40974
lithography tool, reliab. demons. test. design, Bayesian tech. 37194
local and global multiscale image class. 32835
marginal estim. variance, lower bounds 41004
Markov random field models for texture-based segmentation 8495
Markov random fields, tree approxs. 41289
max. entropy data anal., Bayesian stats. 24323
mfg. proc. real-time empirical Bayes model-based monitoring 20425
model based 3D scene reconstruction from perspective images 41257
Monte Carlo reliab. simulator, IC manufacturability 22547
motion segmentation, adaptive Bayesian decision model 16360
MRI image restoration, optim. approach, sens. fusion 8504
multihypothesis testing, seq. procedure 24169
multilayer perceptrons, sig. detect. and class. perform. eval. 24341
multilevel digital sigs. estim., impulsive interf. presence 24208
multiple model adaptive estimator target tracker, accel. models 32542
multisensor target recogn. syst. (MUSTRS) 8558
multitarget tracking, dominant probab. data assoc. 15913
multitarget tracking, quick data assoc. algm. 16056
multitarget tracking, stochastic simul. Bayesian approach 42493
nearest neighbor rule estim., arbitrary sampling 32653
noisy image nonparametric regularization 8538
non-iter. contextual correspondence matching 24614
nonadditive measures, additive representations, and the Choquet integral 28593
noninvasive diagnostics, Gibbs act. EM method 35029
nonlin./non-Gaussian filtering and bootstrap filter 8464
NPP PSA reliab. param. requirements 19409
nuc. attack C^2 sigs., Bayesian interp. 43576
obj. recogn., Bayes, distributed, geom. hashing 2767
opt. agricultural rem. sens., spatial pattern class. 24540
param. estim., improved Bellini-Tartara lower bound 40870
parametric array sig. proc., auto-calib. approach 8425
parametric image models, Bayesian region merging probab. 16392
parametric image models, Bayesian segmentation methodology 24421
pass. sonar optimal struct. *(Croatian)* 3631
pass. sonar sig. proc., ocean acoustic source localisation 25597
pass. sonar sig. proc., probab. modeling and Bayesian inversion 25596
pattern class. perform./design sample size, comparison 32676
phonemic segmentation of fluent speech 32227
pipe/valve reliab. prediction, Bayesian routines 37196
pixons and Bayesian image reconstruction 16203
PRA Bayesian predictive approach inevitability 11881
precision tracking, segmentation, optimal layering for imaging sens. 24417

Bayes methods continued
predictive densities, multiple cisoids detect./estim. 41006
probabilistic fitness measure for deformable template models 41218
probabilistic multi-hypothesis tracking, max. likelihood method 15870
radar data fusion, joint detect./estim. filter 34124
rapidly fading freq. selective channels equalization 3436
recursive estim. of freq./timing 2553
recursive waves risk param. estim. from cyclic autocorrelation matrix 40986
relational matching by discrete relax. 41219
reliab. anal. life distribs., location params. Bayesian estim. 173
reliab. complexities modelling, Bayesian simul. role 169
reliab. estim. in geometric case 28529
repair/replacement policies, marginal cost anal. appl. 28386
Rice/Rayleigh channels state estim., nonlin. filtering 8456
robust Kalman filtering insensitive, continuous outlier *(Chinese)* 2454
SAR images adaptative segmentation 17431
signal segmentation using self-organizing maps 10457
spatial-point proc. model, texture class. 34183
speech recogn., HMM, Bayes adaptive algms. 24141
speech recogn., SCHMM params., Bayesian learning 32264
stochastic parsing, bayesian belief networks 24131
struct. reliab. estim. models, uncertain data handling 37179
super-resoln. direction-finding appls. and implement. 42544
sym.-by-sym. detector for lin. dispersive AWGN channels 16017
target tracking, probab. data/finite resoln. 41028
testing confidence evaluation 42654
time delay estim. for ocean acoustic tomography 35344
time series, discontinuity location, recursive Bayesian method 41009
uncertainty and decision-making problems in fuzzy expts. 37233
uncertainty modelling, in signal detection task 8441
US NDT of adherent area, metal/nonmetal surfaces 453
variable selection criteria, computationally intensive 28591
views of 3D objs., stabil. and likelihood 24436
VQ sigs. transm., Rayleigh fading channels 8448
wideband multiple target tracking 41010
bays (magnetic) *see geomagnetic variations*
BBGKY equation *see integro-differential equations*
BCDMOS integrated circuits *see BIMOS integrated circuits*
BCH codes
3-error-correcting primitive binary BCH-codes 24101
alg. geom. codes, generalized Berlekamp-Massey decoding 40656
binary BCH codes, fast decoding algm. 8166
binary primitive BCH codes, automorphism groups 40596
bounds on min. dist. of duals of extended BCH codes, F_p 40688
decoding, min. dist., matrices generation 40636
decoding, modified Berlekamp-Massey algm. 40615
digital TV for terrestrial broadcasting, modulation 17534
double half-bandwidth OFDM syst. for digital video broadcasting 9698
dual-rate alg. CELP-based speech transceiver 9221
duals, bound, MacWilliams-Sloane conjecture 24040
duals, min. dist. bounds 32145
fractal video communicator simul. 8851
HDTV, all digital sigs., terrestrial transm. 9735
hi-fi mobile DAB scheme 9695
long binary narrow-sense BCH codes are normal 40593
mobile radio postdetection diversity/concatenated channel coding 3341
mobile speech, video and data transceiver 3266
partitioned Markov model, non-binary error correcting codes eval. 8168
radar interf. canceller, bit interleaving tech. 33743
trans-oceanic opt. systs., forward error control 42449
BCS theory
high temp. supercond. *(Japanese)* 1595
beam handling equipment
see also accelerator cavities; accelerator magnets; particle beam diagnostics; wigglers
APS SR beam lines, shielding 10290
beamline optim. and phase space transform. 43012
bipolar PWM current controlled magnet power supply 18253
BRENDA, GSI RIB-facility 34814
capillary arrays, variable channel dens., improved gas injection syst. 5833
CEBAF FEL injector, space charge dominated perform. modelling 39974
Cerenkov amplifiers, sheet electron beam confinement 6508
cold neutron polaris. instrum., 9 Å wavelength, KUR 26075
conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
const. voltage damping syst. for circ. accelerators 10084
conventional steel-cored DC magnets 4126
COSY accelerator electron cooler design and operation 34799
cryostat for beam test, 1.3 GHz SC-cavity, 1.8 K 1627
CRYRING ion accelerator, electron cooling 34800
Duke storage ring UV FEL, dyn., 3D code 39957
electron cooling devices, secondary electron current loss 10087
electrostatic accelerator based FEL, material sci. in far-IR 39987
ELETTRA insertion devices, init. operation 43011
ESR ion storage ring , electron cooling appl. 34797
ESRF, kicker magnet pulsed power supplies 34820
ESRF beam line, scanning X-ray microprobe test 26261
FEL at UVSOR, micro-macro temporal struct. and saturation mechanism 39956
FEL oscill., multibunch electron beam from L-band LINAC 39935
Fermilab Tevatron, high field injection kicker magnet 34826
Fermilab Tevatron collider, bunched beam stochastic cooling 34777
finite-emittance charged-particle beam, invariant-focusing lens 43028
flat mirror energy analyser, end electrodes 43029
FODO cell, diffusion, modulation effects 4086
HERA, HERMES, long. electron polariz., spin rotators 43039
HERA, long. spin polariz. 26043
ion storage rings, intermediate energy electron cooling technol. 34808
IUCF Cooler Ring, spin motion, type-3 snake effect 4083
KEK PS main ring, beam extraction magnets *(Japanese)* 34840
KEK slow-positron source 43052
LEP accelerator pretzel separators, control syst. 18261
liner within proton collider beam pipe, many holes impedance 4102
local dispersion insert, focusing element for accelerators 4082
local dispersion insert for particle accelerators 43017
M2 form. of ellipt. sheet electron beams 6504
MM wave FEL at Duke storage ring, pump for X-ray inverse Compton source 39629
MM-wave isochronous FEL, Duke storage ring 39630
multicascade electrostatic analyser, focusing props. 43038

beam handling equipment continued
Munich pulsed low energy positron syst. upgrade, prebuncher 43053
Nb sputter-coated Cu Quarter Wave resonators 4050
neutron spin-flipper, supercond. 18280
NIJI-IV FEL storage ring, opt. klystron effect on electron beam 39959
NIJI-IV storage-ring FEL, UV lasing study 39953
NLC, interact. region issues, X-band 0.5-1.0 TeV collider 34844
NSLS rings, transverse orbit stabilization, digital feedback syst. 18274
partial Siberian Snake, preservation of proton polariz. 10091
phase circ. Bragg-Fresnel lenses, undulator source imaging 18250
photon spectra meas., bolometer and photodiode 4077
plasma-anode electron gun, beam current 6474
proton beam delivery to prone patient, flexible syst. 26456
quasi-isochronous ring, mag. lattice, e^+e^- colliders 18284
radial collimator, strain meas. by neutron diffr. 21007
re-emitted positron energy spectrometer 43142
recirculating accelerator FEL syst., energy-current loss instabilities 39985
relativistic klystron amps., intense electron beam modulation 13013
RHIC siberian snakes, layout 18289
second-order focusing of 210° cylindrical energy analyzer 43010
short bunch RF-linac FEL, output power fluct. 3D simul. 39973
short curved neutron guides, transm. props. 34835
Siberian snakes for high energy accelerators 26038
slalom mag. deflection syst., med. electron linac *(Chinese)* 26076
SLC/SLD, lin. collider expt. experience 34842
small-angle cold neutron scatt., double refl. multilayer monochromator appl. 26074
SPS proton beam extraction by bent crystal, simulation 43008
SR beam viewer, EM actuator, UHV 34825
SR X-ray diffr., magnets for arbitrarily directed fields 39298
storage ring UV FEL, giant laser pulse generation 39950
TARN II ion storage ring, electron cooling 34798
Texas Cold Neutron Source, converging neutron guide focusing 18264
transfer lines, various problems 4064
TROIKA beamline, ESRF 18249
ultra-short pulse FEL oscillators 39970
UNK control syst. protocols 18207
UNK transfer line beam diagnostics control 18263
waveguide particle vel. separator 18255
$\gamma\gamma$ collider, multi-bunch gamma conversions, laser reflector 26065
CsK_2Sb photocathodes in RF linacs 43055
GaAs photosource for electron cooling devices 34849
H^- beams chopping, Penning surface-plasma source 34838
Nb coated 1.5 GHz accelerating cavities, supercond. props. 4049

beam handling techniques
see also mass spectroscopy; particle beam diagnostics; particle beam extraction; particle beam focusing; particle beam injection; particle optics
accelerator beam neutralisation, residual gas ionisation 4116
ADRIA HI accelerator, beam cooling syst. 34790
AmPS magnet control syst. 18276
ASTRID storage ring, bunched $^{24}Mg^+$ beam cooling by laser 34802
ASTRID storage ring, laser cooling of $^{24}Mg^+$ 34801
at. beam freq. std., laser cooling 42664
beam energy recovery, gyrotron efficiency improvement method 10099
beam-beam interacts., large crossing angle 34815
betatron difference reson., expt. meas. 10094
bunched beams, axisymmetric systs., image effects 18256
bunched charged particle beams, thermal equilib. 34822
CATEF program, elec. field calc., accelerating tubes *(Chinese)* 26077
CELSIUS, electron cooling/heating meas. 34786
CELSIUS electron cooler, design, constr. 34791
CELSIUS electron cooling syst., collector efficiency 34793
central tracking in high lumin. future colliders 4111
Cerenkov amplifiers, sheet electron beam confinement 6508
conference on accelerator physics, Dallas, USA (1992-1993) 36886
conference on beam cooling, Montreux, Switzerland (Oct. 1993) 20271
cooled beams phys. 34775
cooling techs., charged particle beams 4118
COSY, digital phase control syst. design *(German)* 43014
crossed-field devices, small signal gain 6509
cryst. beam feasibility, weak-focusing betatron magnet 34796
Cyclotron Maser Cooling, Liouville's theorem 34776
discrete electrode detector array, resolving power 4051
electron beam cooling, collision expts., mag. field adiabatic expans. 34787
electron beam propagation, welding and materials processing appls. 11508
electron beams, radiative laser cooling syst. 43022
electron beams, size and position diagnostics, time resolved and photographic techs. 26055
electron bunched beams in mag. field, emittance growth in bends 34764
electron bunches, longit. asymm., synchrotron/transit. radiation 18254
electron cooling, medium/high energy 34774
electron cooling, mol. dyn. simul. 34792
electron cooling in storage rings 34771
electron cooling in storage rings 18283
electron-beam accel. by cyclotron-autoresonance interact. 18282
electron/photon-EM wave interact. 18285
electrons, opt. stochastic cooling, transit-time method 4047
ELETTRA, high energy resoln. photoemission beam line 10096
Eloisatron, beam-beam/SR considerations 4097
Eloisatron, injector design 4100
emittance, beam phase space 4061
ESR ion storage ring, electron cooling of highly charged HI 34809
ESR storage ring, GSI, fragment beam stochastic precooling 34779
extraction, accelerator beam removal 4121
extraction magnetically insulated diode study on Gamble II accelerator 26094
Fermilab Tevatron collider, bunched beam stochastic cooling 34777
free electron masers, undulator electron beam transport 39626
free-ion lasers, radiative ion cooling 39929
gyrotron amp., axially modulated, cusp-injected, large-orbit 6497
heavy ion fusion injector, ion acceleration and focusing 34841
HERA, large electron spin polariz. 34816
HERA, long. spin polariz. 26043
HERA/LHC, dyn. aperture, truncated Taylor maps 4085
HI, opt. stochastic cooling, transit-time method 4047
high lumin. TeV electron accelerators, laser interact. 4075
HV regulator for charged-particle optics 7909
intense particle beam in solenoidal fields, envelope Hamiltonian 34765
intense pulsed high-quality ion beam generation 26095

beam handling techniques continued
ion beams, transport and focusing expts. in neutralising gas 26091
ion beams, transverse laser cooling in storage ring 18266
ion sources, accelerator appl. 4149
ion storage rings, intermediate energy electron cooling technol. 34808
ion-beam etching facility for high-T_c struct. 1601
IUCF Cooler, cooled beam intens. limits 34806
IUCF Cooler experience of electron cooling, injection aid 34807
IUCF polarized ion source, beam transport syst. 18259
KEK PS magnet power supplies and beam line control 18260
laser-cooled ion beam, anom. Schottky sigs. 18251
LEAR, electron cooling, variable current electron gun 34784
LEAR, stochastic cooling systs., upgrading 34789
LEAR electron cooler, servo-syst., neutralisation 34785
LEP, large electron spin polariz. 34816
lepton/hadron colliders, beam-beam effects 4115
LHC accelerator, Pb ion accumulation scheme 34811
light ion beam accelerator, commissioning technological appls. 26057
light ion beam transport efficiency, TOF bunching, voltage ramping effect 26050
lin. inductive accelerator, pulsed power supply 34817
linac, bunched beam, space charge distribs., emittance growth 18267
local dispersion insert for particle accelerators 43017
low-emittance electron beams in electrostat. accel., FEL appl. 26062
M2 form. of ellipt. sheet electron beams 6504
mismatches, emittance growth control, stellarator transport 26041
Mobius accelerator, colliding beam operation 34767
Moessbauer spectrometer, SEDM, RSMR 43143
muon collider, stochastic cooling 34781
muon colliders, stochastic cooling 34780
neutron beam polarisation by TRIPLE spin filter 34829
NLC, interact. region issues, X-band 0.5-1.0 TeV collider 34844
PBFA II, Li-beam driven hohlraum expts. 26072
perform. limitations beyond LHC/SSC 4096
Photon Linear Collider, ultimate lumin., interact. region layout 26066
proton beam transport through gas, electron density 26090
protons, opt. stochastic cooling, transit-time method 4047
PS, beam control feedback loops, instabil. 4087
pure insertion device synchrotron light source utilizing MBA-optics 18421
quantum excitation, equilib. beam props. 4074
quasioptical gyroklystron expt., multimode simulation 6511
radiation damping, electron accelerators 4073
relativistic electron beam propag. in neutral gas. Nordsieck length meas. 26054
relativistic electron beam propag. through gas, time-resolved partition meas. 26056
relativistic electrons laser accel., inverse Cherenkov effect 26042
Reynman revisited, 1959/1983 ideas implement. 30523
RF accelerators, intense electron beam quadrupole focusing 26053
RHIC, stochastic cooling, intra-beam scatt. 34778
rigid 1D Gaussian model, beam-beam interact. 4084
S-band lin. accelerator, electron bunch generation 4046
single bunched beam generation without subharmonic prebuncher 26081
spin flipping in stored polarized proton beam 4081
SR complex ISI-800 18418
SSC, emittance growth, noise 26036
SSCL, RF control, obj. oriented design approach 18277
stochastic cooling, theory, technol., and tech. 34770
storage ring, cryst. ion beam, computer simul. 34795
storage ring FEL, electron beam long. dyn. 39951
storage ring for ion beam crystn. 34805
storage rings, spin tune shifts 43026
stored ion beams, laser cooling 34772
synchrotrons, transverse instabilities, space charge effects 10097
TARN II ion storage ring, electron cooling 34798
TBA-driver, autobunching, phase stabil. 43037
Test Storage Ring, intrabeam scatt. studies, electron cooling 34788
transfer lines, various problems 4064
TREBLe two ring exotic beam lab. 34813
TSR accelerator, charge depend. of electron cooling force for HI 34812
TSR operation, close, transit. energy, strong cooling 34843
TSR storage ring, $^7Li^+$ beam laser cooling by opt. adiabatic excitation 34804
TSR storage ring, $^7Li^+$ ion cooling, laser bunching 34794
TSR storage ring, laser cooled $^9Be^+$ beam, interbeam scatt. 34803
twystrode expts., tapered/untapered helices 21844
ultra-short X-ray pulses generation in electron storage ring 43168
Univ. of Sao Paulo linac, beam optics, transport, target areas 26058
variable current gun, electron cooling at LEAR 34884
X-band high power magnicon amp., design 6485
e^+e^- S-band/supercond. colliders develop. 34845
$e\gamma$ and $\gamma\gamma$ colliders, plasma lens form. 26068
$e\gamma/e^-e^-$ colliders, working group report 26063
μ cooling, high-intens. bunches prod. 34773
H^- beam prod. 4059
H^- beam prod. by RF-drive multicusp source 26106
^4He superfluid cryogenics for LHC 4048

beam pens *see light pens*

beam splitters (optical) *see optical elements*

beam-trapping *see self-focusing*

beamlines, particle *see beam handling equipment; beam handling techniques*

beamlines, X-ray *see X-ray apparatus*

bearing estimation *see direction-of-arrival estimation*

bearings (machine) *see machine bearings*

BEBO method *see bonds (chemical)*

behavioural sciences
see also psychology
drivers' dist. keeping, simul. study 5325
small group teleconferences, virtual environ., communicative charact. 16816

behavioural sciences computing
see also behavioural sciences; psychology
automated syst. for mapping spatial movement patterns in behavioral research 17669
car driver behavior evol. detect., fuzzy diagnosis proc. 34387
NPP Human Error & Behaviour Prediction Syst. develop. 19413

belief maintenance
belief reconstruction theory, commun. appl. 15843

belief revision *see belief maintenance*
Belousov-Zhabotinskii reaction *see chemical equilibrium*
benchmark testing *see performance evaluation*
bending
see also bending strength; buckling; stress analysis
3D microstruct. assembling, Au-Si eutectic bonding 12951
ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
axial strain-induced stresses in double-coated opt. fibers 1697
bent dielec. waveguides, finite difference BPM anal. 23803
bilayer, polymer film viscoelasticity effects, packaging 147
card assembly detailed thermal response, IR reflow soldering 38098
circ. shaft, dyn. response, piezoelec. sens. 9890
curved-surface microstrip antenna conformal-grid FDTD anal. 23865
directional coupler-type opt. power divider, large-angle low-loss charact. 30942
double-coated opt. fibers, hydrostatic press.-induced stresses 22827
electroconductive plastic composite, C fiber filler, resist. 5906
face plate effects on surface displacement profile in 2-2 piezoelec. composites 13987
fatigue damage study by computed speckle decorrelation 40129
ferromag. mech. stressed thin films, magneto-opt. meas. 30682
fiber optic current sens. syst., birefr. exam. 9923
fibre optic connectors/splices, accelerated testing, life-stress 1690
flex coating reliab., high-perform. MCM-PCB interconnection 12945
high-fiber-count cable, U-groove torsional rigidity 9593
high-power devices, flexible-heat-pipe cooling 11781
leadframe designs, molding-induced warpage 11795
MCM flex lead bending during thermal cycling, finite element stress model 12944
microbending effects in single-mode opt. fibres 14395
microbending fiber optic sens., varying spatial freq. 34535
micromachined piezoelec. benders, dyn. deflection and capacitance 30603
micromechanical testing of electronic packaging components and materials 11821
opt. fiber reliab. modeling for multiple stress-time histories 39328
opt. fibre, bending induced polaris. mode dispersion 39329
opt. fibre micro- and macrobending sensitivity charactn. by MAC value 7335
opt. fibres, double-coated, thermally-induced microbending losses 7277
organic protective coatings for SMT/PCB finish 12910
package, transient strain response, scanning laser vibrometry 34706
PCB mounted ceramic SMDs, capacit. monitoring while flex testing 12878
PCB/MLC capacitor bending stress, surface strain measuring method 6412
PCBs, rigid flex, cover sheet wrinkling 29687
periodic microbend bare fibre sens., stabilization/sensitivity 17919
piezoceramic plate bending motion meas. by homodyne holographic interferometry 40153
piezoelec. US motors 30596
piezoresistive humidity sens., design, simul. and metrological charact. 3795
QFP, VLSI chip, assembly, outlead cross-sect. effect on lead skew 11796
railguns, mid-range integrated launch package, current maldistrib. 15348
self-biased shielded magnetoresistive heads, magnetostriction meas. 14234
self-referenced fiber optic sens. for microdisplacement meas. 34537
sheet metal bending, lin. hydraulic DC servomotor valve appls. *(Japanese)* 36493
single-mode fibre, microbending induced loss behaviour 30888
single-mode triangular-index fiber with a depressed cladding ring, bending-loss studies 7321
small US motor, operating principles, prototype 27768
smart material hysteresis, Preisach modeling and compensation 37546
SMT rework, conductive/convective hand tools 38161
SOI opt. rib waveguide, loss, mode characts., bends and y-jns. 1719
steel foils, laser bending, buckling mechanism 20985
step index silica opt. fibers, bending effects on transm. props. *(Chinese)* 14368
step-index bent single-mode fiber matching by modal equiv. slab waveguide struct. 7306
surface mount ceramic capacitor failure test, board bending 29653
surface-mounted fibre grating bending gauge, thermally-compensated 3867
tightly jacketed double-coated opt. fibers at low temp., thermal stresses 14377
XLPE insulated 230 kV cable syst., pre-qualification testing 27200
InGaAsP-InP ultrasmall waveguide bend corner mirrors 30970
LiNbO$_3$:Ti struct., index profile/bending loss from near-field meas. 14416
LiNbO$_3$:Ti,MgO,Co waveguide, low-loss sharp bends, optim. 14473
PZT/ZnO piezoelec. actuator, mech. response, gases reduction 34608
Pb-Sn solder interconnects, creep deform. under bending/twisting 12186
Si surface layer elastic deform., photoelectron emission meas. 21005
Si:B reson. sens., fine freq. tuning 30517
SiO$_2$-based waveguide bending loss reduction by lateral offsets 39440
Sn-Ag solder interconnects, creep deform. under bending/twisting 12186
Sn-Pb-Ag solder interconnects, creep study 37128
ZrO$_2$ failure criteria, SOFC, math. model 44388
bending of light *see light*
bending strength
alkali metal thermoelec. converter, B-alumina electrolytes 20026
plastic IC package, structural integrity eval., soldering proc. 28485
platable MLC termination materials/proc., PCB bend strength effects 6434
SAW oscillators for low vibr. sensitivity 30646
SOFC thin tape-cast YSZ materials, Young's modulus expts. 44391
thin coated fiber microbending charact. and mech. strength 7341
12H-AlN-polytypoid ceramics, fab. 37534
GaAs micromechanical fracture strength 3796
La$_{0.7}$Sr$_{0.3}$MnO$_3$ porous cathode substrs., SOFC 11274
SiO$_2$ opt. fibres, organically modified silicate coatings 1662
Y$_2$O$_3$-ZrO$_2$-Al$_2$O$_3$ composite planar SOFC electrolytes 27923
Bernstein waves *see plasma Bernstein waves*
Bessel differential equation *see Bessel functions*
Bessel functions
AC locomotive PWM rectifiers, harmonic current calcs. 36760
aperture antenna Fresnel zone field estim. 23843
curved waveguides, eigenmodes and ang. propag. consts. 2300
curved waveguides, eigenmodes and ang. propag. consts. *(Chinese)* 31909
double-barrier tunnelling diodes, photon-assisted transm., transfer matrix approach 13608
Fresnel double integral, calc. method 31802
homog. filled waveguides, transient field expressions 2294
MOSFET transconductance amps., approx. anal. nonlin. perform. 21124
multiwire shielded cable param. computation 38059
Bessel functions continued
nonlin. distortion of SCM systs., SBS caused 17172
plane wave scatt. by infinite conducting ellipt. cylinder near conducting plane 23645
R-LED series network, harmonic and intermodulation perform. 31096
single-turn coil impedance, double-layered sphere, varying props. 40235
space power wireless power transm., microwave beam intens. calcs. 43416
LiNbO$_3$ electrooptic modulator, conducted suscept. 7390
beta-ray absorption
see also electron absorption
Eberline RO-2 ion chamber, β skin dose monitor 18629
beta-ray detection
double beta decay meas., prototype tracking detector, NEMO 26124
Eberline RO-2 ion chamber, β skin dose monitor 18629
gas microstrip chamber on sapphire substr. 26121
gaseous 2D detectors, PC-based fast readout electronics 18384
indust. gauges, ES, β/γ/X-ray transm. 18369
liq. scintill. counter, beta det. effic., PMT dynode output, DYEFIC code 43114
posn. sensitive β-γ coincidence, multiplexed gamma spectrometry 18363
TLD element readings, mixed field dosimetry algm. sensitivity 35197
BaF$_2$ scintillator, spillover quantification, $\alpha/\beta(\gamma)$ discrim. 18307
GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
^{3}H, solid state detector for biomedical appls. 35042
^{222}Rn progeny, automated gross alpha/beta activity monitor 43400
beta-ray effects
see also electron beam effects
skin hemangioma radiotherapy, infancy, thyroid cancer risk 10264
Si polycryst. solar cells, ionising radiation protection 44411
beta-ray scattering *see beta-ray effects; particle backscattering; transport processes*
beta-ray spectra
TAGS, β^--decay intens. distribs. meas. 10153
^{63}Ni, β spectrum, InSb supercond. tunnel jn. β spectrom. meas. 43125
beta-ray spectrometers
see also beta-ray spectra; electron spectrometers
InSb supercond. tunnel jn. β spectrometer, ^{63}Ni β spectrum 43125
beta spectrometers *see beta-ray spectrometers*
betatrons
cryst. beam feasibility, weak-focusing betatron magnet 34796
difference reson., expt. meas. 10094
ELETTRA insertion devices, init. operation 43011
FEL betatron oscills., undulator acceptance, beam conditioning 39967
Bethe-Salpeter equation
magnetoactive plasma, inhomog., radiation-transport eqn. 40361
bevatrons *see synchrotrons*
BGO detector *see solid scintillation detectors*
BH lasers *see semiconductor lasers*
Bi-FET integrated circuits *see monolithic integrated circuits*
Bi-MOS integrated circuits *see BIMOS integrated circuits*
bibliographic systems
Australia, document delivery services, 1980-94 overview 33434
ESIS on World Wide Web 8898
Z39.50/SR protocol integrated into LIBERTAS, library automation 33252
bibliographies
air gaps, nonstandard lightning voltage waves, bibliog. 4878
Arabic opt. text recogn., survey/bibliog. 24402
automated visual inspection, survey 28512
EM environ. meas., catalogue, 30-300 Hz 31850
power syst. load models, power flow/dyn. perform. simul. 35441
power syst. relay literature bibliog., 1992 IEEE committee report 27248
SC networks and techs., biblio. for period 1981-1992 12635
thermophotovoltaic conversion bibliog. 27993
VDU bibliography and information pack 3943
BiCMOS analogue integrated circuits
64 Mbits/s PRML HDD channel, BiCMOS analog front-end sig. proc. 7143
100 MHz wide-range BiCMOS four-quadrant multiplier/mixer 29422
advanced interconnect modelling, VLSI design tool 22550
analog IC BiCMOS-JFET radhard SOI technol., proton radiation effects 13904
ASIC for modelling biological neurons 29416
Bi-CDMOS technol., lateral DMOSFET, oxide sidewall-spacers 29033
chaotic neural nets, CMOS-VLSI design, current mode building blocks 29501
controllable current amp. for hearing instrum. 35169
current mode BiCMOS ccts., 1 V supply voltage, ADC appl. 37898
high-drive low-power BiCMOS buffer amp. 6034
mismatch simul., stat. modeling techs. 30441
power ICs, high level integrat., technols. 29032
power ICs, ion implant., edge struct. 29035
submicron BiCMOS compatible HV MOS transistors 29034
three-phase inverter IC, 500 V, 1 A design 29036
transconductance-C IF band pass filter 29346
voltage-mode defuzzification ccts., analog implement. 21456
Si/SiGe epitaxial-base HBTs, proc. integrat. and BiCMOS analog appls. 30244
BiCMOS digital integrated circuits
see also BiCMOS logic circuits; BiCMOS memory circuits
1.5 V full-swing BiCMOS dyn. logic gate cct., LV BiCMOS VLSI 12424
B^{2}CMOS, bootstrapped BiCMOS gate for LV appls., HSPICE simul. 12477
BiPMOS pull-down device struct., LV dyn. BiCMOS VLSI, device-level anal. 21285
CMC ATM switch I/O proc., design/validation, HDL Verilog 33719
dyn. logic cct., LV deep submicrometer VLSI, transient model 29097
ECL BiCMOS, sub-30 ps, proc. integrat. technol. 22616
high speed CBiCMOS digital cct., LV appls. 22617
laser control chip combining power control and 622 Mbit/s modulator 31426
lateral BJT, CMOS compatible, base current reversal phenom. 13651
logic 0.35 μm technol. for 3.3 V/2.5 V operation 21216
low-power gate array for B-ISDN 622 Mb/s UNI 33680
LV full-swing noncomplementary BiCMOS buffers 12489
mag. recording, RAM-DFE archit. 30739
power constrained logic cct., optimized perform., single independent path anal. 21284
SDH multiplex line terminal, CMOS LSI for SOH proc. 42097
sig. proc. ASIC, digital SS modem for power line commun. 21379
superscalar μP, Pentium archit. 6179

BiCMOS digital integrated circuits continued
ULSI video sig. proc. for single chip teleconferencing syst. 34432

BiCMOS integrated circuits
see also BiCMOS analogue integrated circuits; BiCMOS digital integrated circuits
1 μm BiCMOS proc., 200 Å gate oxide charactn./manufacturability 13902
2D transient enhanced diffusion, single-poly bipolar transistors, BiCMOS proc. 22620
3.3V PLDs design 635
9-32 Mbits/s single-chip read/write channel for disk-drive appls. 29409
30 GHz bipolar transistors, laterally scaled, 18 ps ECL-gate delay 21548
80 Msamples/s BiCMOS flash ADC 29325
A/D converter, AD677, CMOS/BiCMOS hybrid, single event effects 29333
ADC, 500 kHz, 14-bit, multiplexed appls. 694
advanced BICMOS product develop. by cross-functional team 37028
advanced MOS and bipolar devices, symp., London (Feb. 1995) 36885
at-speed testing in IC manufacture 1472
ATM switch and crossconnect archits. 33718
automotive interface design, VLSI compatible BiCMOS technol. 36778
bandpass delta-sigma A/D modulators, 10.7 MHz 21391
BEST2, super self-aligned BiCMOS technol., low-power mixed-sig. appls. 21451
bipolar output drivers, common emitter forward current gain degrad. reduction 30485
bipolar transistor degrad. under dyn. hot carrier stress 38849
bipolar/BiCMOS cct. and technol., conf., Minneapolis (1993) 36851
collector implants, stat. optim. 1500
complementary BiCMOS buffers, multi-drain/multi-collector struct. 13903
complementary BiCMOS technol., 0.5-μm, μP-based smart power appls. 29000
digital portable phone transmitting amp., converter-control IC 25284
ESD protection, harsh automotive, indust. environ. 30487
fast VLSI cct. design, complementary ECL elements 6870
fourth-order sigma-delta ADC, HF/resoln. 29328
HF devices/ICs for portable cellular phones 17133
high resoln. ADCs, 12-/14-bit, total ionizing dose effects 12603
high-leverage SOI technol., appls., CMOS and BiCMOS designs, material/device problems 30003
integrated process/cct. develop. using SPR 39024
Japanese Personal Handy Phone/DECT, IF modulator, DDS 3465
low power devices, trends in IC technols. 22532
MASH multi-stage noise-shaping with an RC-analog integrator, digital correction tech. 12592
MOSIS designed CMOS/BiCMOS arrays, teaching VLSI courses 5529
motor-control servo power IC for hard disc drives 36671
multilevel monolithic inductors in Si BiCMOS technol. 21572
nose, electronic, sig. proc. ASIC, BiCMOS technol. 9839
op amp design, EMI-induced-failures 22618
parametric tests *(French)* 1491
pipelined A/D converter, current-mode sigs. *(Korean)* 12590
PLL, 6 GHz, 60 mW, design and perform. 6051
polysilicon emitters in BiCMOS IC, interfacial oxide thickness 1499
prog. neural net archit., BiCMOS 37913
SC bandpass delta-sigma A/D modulation, 10.7 MHz 29310
SOI transistor, bipolar, VHV CMOS compatible 30488
source/drain ion implant. into polysilicon, effects/prevention 30484
stereo sigma-delta ADC for audio appls. 9770
submicron BiCMOS proc., HV NMOS devices, simple structural changes 22615
super self-aligned BiCMOS technol. for low-power mixed-sig. appls. 30483
TFSOI complementary BiCMOS technol. for low power appls. 30482
topography/impurity profile simul., BTU algms. 22540
ultra shallow ion implanted base BiCMOS fab. 22619
video sig. proc. IC for laser disk player 9756
video-rate 10-b triple-stage Bi-CMOS A/D converter 12591
VLSI ccts. for optoelectronic neural network wt. setting 1501
VLSI designs, yield and mfg. prediction model 30432
Walkstation transceiver design 3464
Si monolithic photodetector/CMOS preamplifier fiber-optic data link 9518
Si:B, diffusion during post-implant annealing, damaged/amorphizing conditions, model 22107
Si:B, enhanced diffusion due to ion implant. in thin-base npn BJTs, model 38997
TiSi$_2$/Si BiCMOS technol., nonohmic contact resist., NFETs/PFETs/diffused resistors/NPNs 38631

BiCMOS logic circuits
0.35 μm logic technol. for 3.3 V and 2.5 V operation 21216
1.5 V full-swing BiCMOS dyn. logic gate cct., LV BiCMOS VLSI 12424
B^{2}CMOS, bootstrapped BiCMOS gate for LV appls., HSPICE simul. 12477
BiPMOS pull-down device struct., LV dyn. BiCMOS VLSI, device-level anal. 21285
buffer ccts., delay modelling and optim. 647
column compression multipliers for sig. proc. appls. 29141
delay fault detect. in logic gates, DFT 29194
dyn. carry look-ahead cct., high speed BiCMOS implement. 618
dyn. logic cct., LV deep submicrometer VLSI, transient model 29097
ECL BiCMOS, sub-30 ps, proc. integrat. technol. 22616
fault anal, and DFT *(Korean)* 39023
gate array for B-ISDN 622 Mb/s UNI 33680
high-vol. mfg. line, optimisation 39025
LV full-swing noncomplementary BiCMOS buffers 12489
monolithic mask-prog. analog fuzzy logic controller 30476
power constrained logic cct., optimized perform., single independent path anal. 21284
RAM gate array, optimized bipolar arrays 12503

BiCMOS memory circuits
high-vol. mfg. line, optimisation 39025
integrated memory array proc., image proc. appl. *(Japanese)* 29210
multilayer PBGA, perform. enhancement 20456
RAM ASIC, optimized bipolar arrays 12503
scaled BJT in 0.35 μm high-dens. BiCMOS SRAM technol. 30486
short-channel vert. NMOSFETs for high dens. fast SRAMs 21332
SRAM chip, package modelling, perform. anal. 37755
SRAM quadruple polysilicon proc., quadruple well 6156
SRAMs, PLL timing design techs. 29220
SS-1 supercomputer storage card design, packaging challenges 144
submicron BiCMOS memories, high-speed technols. 29208
GaAs/BiCMOS/CMOS technol. memory archit., solid modelling accelerator 29214

biconical antennas *see conical antennas*

bicrystals
semiconds., polycryst., elec. cond., generalized model 1014
CoCrTa/Cr/GaAs, microstruct. and recording props. of bicrystal disks 7116
NdGaO$_3$ bicrystalline substr. for YBaCuO Josephson jns. 22764
YBaCuO, step-edge/bicrystal grain-boundary jns., excess noise 1612
YBaCuO thin film DC SQUID, mag. microscope 3956
YBa$_2$Cu$_3$O$_{7-\delta}$ film bicrystal grain boundary jn., field effect device 1615

bifurcation
see also chaos; nonlinear dynamical systems
AC/DC power syst. saddle node bifurcations detect. 35508
bi-valued fn. with modulated transits., FT freq. synthesis 8258
birefr. nonlin. opt. fibres, phase-locked stationary soliton states 31557
BWR stabil. anal., bifurcation theory 35794
BWRs, boiling systs., nonlin. instabilities 27454
capacitor voltage transformers, ferroresonant oscills. 27788
chaotic element network, inform. cascade, marginal stabil. 2357
Chua's cct., cubic nonlin. 12304
Chua's oscillator, anal. of chaos, SPICE simulator *(Slovenian)* 37664
class-C laser, av. freq. shifts 40019
CMOS inverter based chaos generator 649
connecting orbits, algm., Sine-Gordon and Hodgkin-Huxley eqns. 12000
coupled quasicharacteristic oscills. in waveguide bifurcations 23802
coupled sustained oscillators each with own time const., order-chaos transit. 21141
couplers, saturable nonlin., stationary soliton states 31497
cyclotron maser, bifurcations leading, stochasticity 7501
delayed self-excited oscillator, inertia, external noise sig. effect 6042
diode laser, opt. injected, reverse bifurcations and dyn. modif. 31340
dissipative non-autonomous cct., bifurcation and chaos 37617
double loop SQUID, nonlin. phenom. anal. 1614
equilib. equivalence theorem, stabil. anal. 35459
exponential growth nonlin. diff. eqns., bifurcation phenom. 28563
fibre couplers with saturable nonlin., stationary soliton states 30907
four-dimens. plus hysteresis chaos generator 12299
generator employing CMOS inverter for cellular neural networks 21496
gyrotropic chirowaveguides, guided EM waves 2293
high-order opt. soliton splitting under two-photon absorpt. 31629
homoclinic bifurcation points, num. approxs., convergence rate 37355
hysteresis hyperchaos generator, fund. bifurcations 12300
induction generator dyn. anal., bifurcation theory-based 4961
infinite-dimens. EM syst., chaotic dyn. 2283
init. overlapping soliton interact. 7798
Josephson jn. cct., inductively coupled, bifurcation 14293
Josephson jn. series arrays, av. eqns. 30774
looped MOS inverters, chaotic behavior and bifurcation 37613
low-order LTI filters for controlling chaos, num. expt. 37825
mag. actuator, nonlin. struct. dyn. 22712
microwave limiter cct., chaos obs. 6299
n-core nonlin. fiber arrays, stationary pulse propag. 30877
nonlin. nonautonomous syst., symm., periodic solns., bifurcations 504
nonlin. ring resonator, oscill. mode selection, bifurcation of chaotic mode transits. 15117
opt. parametric oscillators, Raman scatt., squeezing props. 15119
PLL, bifurcation, Galerkin-based anal. 21158
PLL false lock breaking bifurcation 29079
PM reluctance machines, dyn. characts. investig. 19609
power syst. instabilities modelling, catastrophe theory appl. *(Japanese)* 26853
power syst. oscills. anal., Hopf bifurcation theory *(Chinese)* 26908
power syst. restoration transformer saturation overvoltages, computer simul. *(French)* 35537
power syst. secondary voltage control, voltage instab. *(English)* 10686
power syst. stabil., bifurcations, voltage collapse, load modeling 35440
power syst. SVC control syst. instabil., birfurcation theory *(Japanese)* 10688
power syst. voltage stabil., sing. perturb. theory 26850
power systs., power/voltage curves, bifurcation diagrams 19013
power systs. bifurcations/chaos education, student lab. 20349
quasiperiodicity in single diode cct., Hopf bifurcation 37616
relax. oscillator, periodic thresholds, chaos and bifurcation *(Japanese)* 12357
saddle type periodic points in PLL eqn., stabilization by OGY-control method *(Japanese)* 12375
second-order PLLs, separatrix cycle, calc. and stabil. 21157
semicond. devices, I-V charact., folds and bifurcations 22330
semicond. devices, spatio-temporal spiking, bifurcation scenarios 6709
single machine power syst. stabil., direct Nyquist array 26911
single-long.-mode laser, space-time behaviour 7704
stochastic oscills. of two coupled self-excited oscillators 583
storage ring FEL, opt. field chaos 14990
struct. preserving power syst. model, voltage stabil. 4497
three coupled relax. oscillators, chaos, torus and sync. 574
time-delayed Chua's cct., chaotic behavior in lumped-distributed ccts. 12302
twin-stripe semicond. laser, three-torus bifurcation 2008
two-level unidirectional ring laser, travelling waves, class-B limit 2028
van der Pol oscillator, coupled forced state, bifurcations 12360
van der Pol oscillator, sing. induced bifurcation 575
van der Pol oscillators, coupled, quasi-periodic responses, bifurcations 12359
vert. cavity SELs, pitchfork bifurcation pol. bistabil. 14948
voltage collapse determ., power syst. transient 4450
voltage-mode CMOS chaos generator and internal states obs. 562
CO$_2$ laser, loss perturb. near period-doubling 14688
CO$_2$ laser, response, loss perturb. near period doubling 15017
CO$_2$ mol., chaotic laser oscill. in seq. band 23097
Er^{3+} doped fiber laser, self pulsing chaos, antiphase dynamics 39715
InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
KNbO$_3$:Fe photorefr. ring resonator, transverse mode oscills., spatiotemporal dyn. 23436
Nd-doped fiber laser, CW/self-pulsing regimes, stabilis. 39714
Si thyristor, period-adding chaos 13665

big-bang theory *see cosmology*

Bildschirmtext *see viewdata*

bilinear systems
1D input sigs. recovery in discrete time-varying lin. and bilinear systs. 2537
adaptive bilinear predictors 32773
adaptive filtering algms. 32469
bilinear transform. design of switched-current ladder filters *(Chinese)* 5983
FACTS, bilinear predictive control, thyristor controlled capacitor 4582
RLS adaptive bilinear filters, stabil. result 8394

bilinear systems continued
RLS bilinear filter for channel equalization 32728
billing *see invoicing*
bimetallic strips *see bimetals*
bimetallic wire *see bimetals*
bimetals
diaphragm valves, normally-closed, elec. activation 6879
femtojoule calorimeter, micromechanical sens. 9891
riveted contacts, thermal modelling studies *(Russian)* 6382
BIMOS integrated circuits
see also BiCMOS integrated circuits
BiNMOS fast resolving synchronizer for parallel proc. interconnect 21395
bipolar-MOSFET monolithic cascode switch, VIPower technol. 6014
intell. snubberless power conditioning ccts., BiMOS high power devices 29031
latchup-free design in merged BiPMOS 6869
monolithic BCDMOS quad line driver for indust. appls. 29050
μP technol. trends 21347
binaries (stellar) *see binary stars*
binary adders *see adders*
binary reflected codes *see Gray codes*
binary sequences
see also codes; number theory; switching theory
adaptive channel equalisers, off-line modulus restoral algm. 33159
alloys, magneto-inductive testing, sig. excitation/proc. methods 12227
almost block-decodable runlength-limited codes constr. 24097
analog, redundant binary code converter 24072
asymptotic bounds on size of error-correcting recording codes 2384
AWGN, block and decoded error probabilities of DPSK 15763
band limited PRBS, PSK syms. 8388
BCH codes, duals, min. dist. bounds 32145
BCH codes decoding, modified Berlekamp-Massey algm. 40615
Berlekamp-Massey algm. modif. for two-sided shift-register synthesis 40680
binary modulation proc. 32028
block codes, scarce-state-transit. error-trellis decoding 40705
bounded-dist. decoding algm. for lattices 24051
CDMA, chaotic Chebyshev bit seqs., even-/odd-correl. fns. 25262
CDMA opt. systs., bipolar codes 42352
Chebyshev binary/bit seqs., correl. fns., Perron-Frobenius operator 15745
Chebyshev binary/bit seqs., correl. props. 40612
code struct. anal. based on combinat. presentations *(Russian)* 15798
CODSIM, simul. environ. for spreading codes 3325
complex valued spreading seqs., crosscorrelation props. 32091
concatenated codes, convolutional inner/outer codes 8144
cubic phase seqs. with low correl., CDMA 24777
cyclic codes, wt. distrib. 24049
(d,k) seqs. codes of const. Hamming wt. 24096
(d,k)-constrained seqs., synchronising methods 15755
d-form seqs., families, low correl. values/large lin. spans 32053
digital mag. recording channels, nonlin. model 7182
double block length hash fns., attacks 8131
DS-CDMA, Hadamard codewords, orthogonal spreading seqs. for mobile radio 33845
DS-SSMA commun. systs., signature pairs 42181
DS-SSMA systs., aperiodic cross-correl. model 16461
DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
E-seq. synthesis, ACF zero values in even shifts 40634
extended m-seqs. and related seqs., auto- and cross-correl. 24125
FH/SSMA systs., freq.-hopping seq. constr. 9173
Goppa codes, min. dist. equal, design dist. 32060
Hamming space, superimposed codes 24039
impulsive interf. mitigation, arbitrary IID state noise 8290
intersecting codes and independent families 24038
invertible binary seqs., search/constr. 40610
invertor control/status sigs., fault resistant opt. fibres 5134
K-code, K-fns. and Walsh fns. 24104
keystream ciphers, comparison of two methods 8125
Lempel-Ziv parsing algm., av. profile/limiting distrib. 32059
LF suppression of baseband coded sequences 8164
lin. binary codes, interpolation curve, decoding algm. 40639
lin. block codes, trellis complexity 32062
lin. codes, Hadamard matrices based, wt. distribs. 32146
long binary narrow-sense BCH codes are normal 40593
M-ary wideband commun. syst., multipath channels appl., perform. 17019
M-seq. generation 32101
max. value determ. cct. for binary nos. 12483
McEliece's open problem on min. aperiodic correl. 40611
microcontroller based state machines, automated synthesis, BSSM code generation 6128
min. av. cost testing for partially ordered components 24098
multiple insertion/deletion correcting codes 40604
opt. orthogonal codes, unequal auto-/cross-correl. constraints 24089
optimal const. wt. cyclically permutable codes/difference families 24087
optimal const. wt. cyclically permutable codes/difference families 40709
optimum odd-autocorrelation, binary seqs. and arrays *(German)* 8158
orthogonal nonlin. cyclic codes, double cyclic shifts, synthesis 15716
packing rad., covering rad., and dual dist. 24094
perfect periodic correl. seqs. 32116
periodic instrumental variable ident. method 34303
polyphase Barker seqs. up, length 31 2379
primitive BCH codes, automorphism groups 40596
probab. converter synthesis employing probab. testing 37688
q-ary interleaved seqs., theory/appls. 32051
QPSK block-modulation codes for unequal error protection 32064
quadratic m-seqs. 8132
quasi-cyclic codes, computer search 32144
quaternary quadratic residue codes/unimodular lattices 32048
random seqs. generated by LFSR with nonlin. fn., anal. *(Korean)* 32095
receiver struct., Gaussian/α-stable impulsive noise, perform. anal. 40941
Rician-type error probabilities, tight bounds and appls. 15712
secret sharing schemes, lin. alg. approach 8138
shift-register seqs./SS commun. 24124
sig. constellations based on hypercubes 40576
single-chip Viterbi decoder for binary convolutional code 40582
spherical codes, symmetric pointsets binary partitions generated 24090
time-correl. method of calculating mag. recording nonlin., pseudorandom seqs. 7184
universal data compression algms. 32124
binary sequences continued
Viterbi decoder, state metrics, num. range reduction 40670
waiting time for runs of given length, distrib. 40676
binary stars
stellar image reconstruction, triple correl. and Knox-Thompson method 24496
binomial distribution
fault detect./isolation in dyn. systs., robust method 11858
k-out-of-n:G and k-to-l-out-of-n:G systs. reliab., $O(n\cdot(\log_2(n))^2)$ algm. 28540
bioacoustics
see also biomedical ultrasonics; hearing; sonar
artificial heart valve state, acoustic class. 43365
ASA 128th meeting, Austen, USA (Nov.-Dec. 1994) 6
coronary artery disease, diastolic heart sounds, harmonic decomp. 26288
IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
lung pathologies diagnosis by two-channel proc. of breathing sounds 43199
lung sound anal. toolkit, hardware/software 43224
percutaneous absorptiometry by UV laser photoacoustic method 4263
sens., human eye/nose recording appl. 43211
temporomandibular joint clicks, non-orthogonal Gabor representation 43321
biochemistry computing *see biology computing; chemistry computing*
biocomputers
hybrid semicond./biomol. 3D memories and computers 12949
biocontrol
see also biocybernetics
arm movements control, muscle stimulation patterns, neural network generation 10279
biomedical microrobots driven by miniature cybernetic actuator 35139
drug delivery syst., μP-based pacemaker control 18582
electro-hydraulic above-knee prostheses, gait control 43361
EMG motor control sig. proc. by neural net 18565
hand, FNS control, specific manipulation tasks, instrumented assess. 4308
logic controller, MR imaging cardiorespiratory synchronisation 26362
lower limb act. external orthosis, neural network appl. 10272
myoelectric prosthesis control syst., 2-channel enhancement 18605
neoanal press. meas., implantable press. sens. *(Japanese)* 18617
physiotherapy, exercise bicycle computer control 26449
real-time X-ray fan beam z-axis position measurement 26290
robust observer design for biomedical systs. 43198
biocybernetics
see also artificial intelligence; brain models; learning systems; man-machine systems; neural nets
biomedical microrobots driven by miniature cybernetic actuator 35139
biodiffusion
interstitial laser photocoagulation, basic optothermal diffusion theory 10266
bioelectric phenomena
see also bioelectric potentials; biomagnetism
AC skin impedance meas., real-time direct method, ANN based 43315
atrial fibrillation, intracardiac sig. anal., std. ambulatory monitoring equipt. 26438
bacterial growth analyser, multichannel, by impedance and turbidity 10228
bioimpedance act. electrode in vivo meas. 10231
blood, flow-related admittance changes, impedance cardiography appl. 35094
brain, waking/sleep, auditory evoked mag. fields 18450
broad-band time-domain spectrosc. for biological effects of EM waves 26482
cardiac defibrillation optimisation, human thorax finite element modelling 18588
cascaded VQ by non-lin. PCA network layers 2372
cellular hand-held phone, reduced EM field in human head 35184
cellular neural net appls., optimal solns. by hardware annealing 21491
cellular phone EM fields, induced current/SAR, human head 18622
cochlea, driving currents for focused stimulation, implants appl. 35165
defibrillation, transthoracic/transvenous, human thorax model 18587
dielec. tissue meas., coaxial probe, qtr.-wave choke 35124
DNA electrostatic stretch-and-positioning appls. 40217
electrocutaneous stimulus for sens. feedback, pitch/loudness independence 10278
electrogastrographic study, adaptive filtering comparison 26398
electromechanics/electrobiology, analogies 6882
electroporation in cells and tissues 35188
electrostatics appl. in med., hist. 18586
electrosurgery, EM interf. problems 10259
ELF-microwave radiation dosimetry num. methods 35186
food proc., microorganism inactivation by pulsed elec. fields, voltage waveforms 20178
fuzzy rule based adaptive nonlin. filter for myoelectric sigs. 35132
head, human, hair dryer mag. field-induced elec. activity 18626
head, human, mag. field-induced currents, portable appliances 43388
heart, human, dyn. electrophysiological data visualization, 3D model 26439
heart electrostimulation, aspects 43362
human body ESD, charge/pot. control 7907
human body/pulsed EM wave interact., induced currents 18627
human forearm, neural stimulation in mag. field, tissue models 35190
human model, AC field exposure, induced current densities 26485
human model in power freq. elec. field, induced current densities 26492
human skin-semicond. heterocontacts, photosensitivity 38454
impedance pneumography, sig.-to-motion artifact ratio 35075
leukemia detect./monitoring, EM wave imaging 10215
living tissues monitoring by elec. impedance spectrosc. 4276
low intens. fields and radiation effects 4334
microorganisms, pulsed HV discharge, chem. species form. 6891
microwave imaging, cost minimisation approach, simulated annealing 43277
miniaturized elec. field traps, cells/microparticles manipulation 40266
noninvasive diagnostics, Gibbs act. EM method 35029
occupational exposure to opt. radiation, elec. and mag. fields 26489
oral mucosa/skin irritation estim., elec. impedance device 43308
parallel simul. of biological neuronal network 10252
paraplegics, elec. stimulated quadriceps ident. 18581
peripheral blood flow estim. by impedance plethysmography 10227
phrenic nerve, long-term intramuscular elec. activation 10275
PVC-DOPH artificial membrane, elec. field effects 26481
rate-freq. fns. generation/collection, brain stimulation expts. 10223
rehabilitation R&D progress reports, (1992-1993) 26477
RF exposure, human body induced current meas. 26487
rheopneumographic meas., respiratory artefact removal, adaptive FIR filters 10226
tinnitus suppressor, elec. implant, develop. *(Japanese)* 4301

bioelectric phenomena continued
transthoracic defibrillation, current fraction entering heart 18583
ulcer, press., LF pulsed current healing 10257
uncertainty modelling, in signal detection task 8441
urinary incontinence treatment, cough-induced electrostimulation 26446
VDT, VLF meas., user dose assess. protocols 43401
ventilatory prosthesis, phrenic nerve intramuscular elec. activation 10276
ventricular late pot. detect., fractal dimens. anal. 26413
voltage-clamp techs., single-electrode, error sources 10224
wrist pulse/respiratory sigs. detect., dry electrodes 10233

bioelectric potentials
see also auditory evoked potentials; contact potential; electrocardiography; electroencephalography; electromyography; electroretinography; visual evoked potentials
amps., 2-/3-electrode, power-line interf. anal. 26403
atrial late pots. anal., paroxysmal fibrillation risk assess. 18554
auditory evoked pot. class., ART 2-A/fuzzy ARTMAP comparison 43316
body surface mapping syst., ESTRACE-1 stethoscope 4283
body surface pot. maps, epicardial breakthrough phenom. detectability 26384
brainmapping/evoked pot. studies, calib. assess. 43280
cardiac intracavitary pot. data, visualisation on reconstructed surface 26370
defibrillation/ECG pots., acquisition/display, 528 channel syst. 18584
ECG late pot. anal. in freq. domain 43292
EEG sigs., wavelet de-noising and ident. of evoked response pot. 35070
elec./thermal injuries, eval./treatment advances 93
electro-oculogram responses in extensive extramacular drusen patients 35119
event reconstr., neural nets 43314
event-related pot. estim. by random shifts and scalings 26380
event-related pots., single trial recording method *(Japanese)* 4279
evoked pot. estim., multilayer perceptron appl. 18547
head spherical model, pot. distrib. due to dipole sources, num. calc. 26378
heart, human, dyn. electrophysiological data visualization, 3D model 26439
human body ESD, charge/pot. control 7907
late pot. diagnosis, self-learning ES 26417
microcomputer syst. for controlling classical conditioning expts. 17691
neonatal av. evoked pot., sig. enhancement by neural network 35134
non-orthogonal Gabor representation 43321
pot. discharge from human body, num. inverse Laplace transform 40213
respiratory-related evoked pots. ident. 43286
single event related evoked pots., segmented matched filtering 35074
transcutaneous elec. nerve stimulation, quasiresonant power supply 4255
user interface system based on electro-oculography 26445
ventricular late pot. detect., bispectral anal. 26418
ventricular late pots., freq.-domain anal., autoregressive models 26421
wavelet-based detect. of transients in biological sigs. 35071

bioenergy conversion
alternative transportation fuels, biomass-derived 35718
anthropogenic peat biomass, atmos. CO_2 level control appls. 36623
Battelle biomass gasification syst., gas turbine generation 28034
bio-crude oil, wood derived, fast pyrolysis, catalytic upgrade 27334
biogas generating plants 28011
biomass feedstocks conversion, fast pyrolysis 27333
biomass gasification, PCFB, particulate/alkali removal 27332
biomass pressurised gasification, catalytic gas treatment 27331
biomass-fired steam CHP plants, theoretical study 27542
biomass/coal co-firing power plant technol. demons., USA 43904
Botswana, alternative energy resources 35723
CO_2 emissions mitigation technols., Japan *(Japanese)* 4755
forestry waste biomass-based energy prod. possibilities 27555
hybrid renewable energy prod. projects, Germany *(German)* 19551
model farm PV and biogas power supply *(German)* 20176
renewable energy resource develop. prospects, former USSR 27309
RENUGAS proc., biomass gasification, fluidised bed 28033
waste wood-fired power plants projects, USA 35996
CO_2 emissions abatement, energy strategies, Brazil 27300

biographical dictionaries *see biographies*

biographies
M. George Craford, yellow LED inventor, biog. 28246
telematics, creative 2998
Wilson Greatbatch, inventor of implantable cardiac pacemakers 35153

biological cybernetics *see biocybernetics*

biological effects of alpha-particles *see alpha-particle effects; biological effects of ionising particles*

biological effects of beta-rays *see beta-ray effects; biological effects of ionising particles*

biological effects of electric fields *see bioelectric phenomena; biological effects of fields*

biological effects of electrons *see biological effects of ionising particles; electron beam effects*

biological effects of fields
60 Hz EMF effects reduction 18628
60 Hz mag. fields exposure, human model, current dens. 26491
AM high power broadcast stations, EM environ. 25642
amat. radio service and EM-radiation hazard 25215
animal models for cancer devel., mag. field effects 35189
ARES EMP simulator, EM fields radiation 7997
bacterial cultivation, supercond. magnet syst. 14307
bone repair and adaptation, EM field effects 35143
cellular hand-held phone, reduced EM field in human head 35184
cellular phone EM fields, induced current/SAR, human head 18622
computer equipt., wave fields modeling 2164
computer operators, hazards from monitors 26484
DC elec. fields/ions, human perception, exposure chamber 4330
domestic power freq. EM field meas., South Africa 35707
elec. and mag. fields, utility customer advice aspect *(German)* 35599
electroporation in cells and tissues 35188
electrosmog, EM fields in environ. 15542
ELF EM radiation base limits determ. *(Slovenian)* 15455
ELF fields, cellular studies and interact. mechanisms 35187
ELF mag. field effects 26486
ELF mag. fields exposure meas. and risks 35185
ELF-microwave radiation dosimetry num. methods 35186
EM environ. meas., catalogue, 30-300 Hz 31850
EM field limits rel., antiemission legislation *(German)* 26488
EM radiation in environ. from mobile commun. systs. *(Slovenian)* 43407
EMC, conference, Sendai, Japan (1994) 11561

biological effects of fields continued
EMF health risks for elec. utility workers 43386
EMI in hospitals 18684
fish behavior, mag. fields influence 26490
FM radio and TV broadcasting antennas, field level reduction 3660
food proc., microorganism inactivation by pulsed elec. fields, voltage waveforms 20178
head, human, hair dryer mag. field-induced elec. activity 18626
head, human, mag. field-induced currents, portable appliances 43388
health effects 4332
human ankles, induced currents, VHF EM fields 35183
human forearm, neural stimulation in mag. field, tissue models 35190
human head, MRI, imperilled areas anal. 18474
human model, AC field exposure, induced current densities 26485
human model in power freq. elec. field, induced current densities 26492
LF EM fields, health problems overview 10287
LF EM fields, possible biological effects 26479
lipid bilayers, elec. field induced breakdown dyns. 6896
low intens. fields and radiation effects 4334
mag. shields, living beings protection *(Croatian)* 4335
microcomputer syst. for controlling classical conditioning expts. 17691
microwave exposure in head model, external mag. near-field 43385
microwave woodworms destruction, lethal temp. studies 10288
min. cost power transm., EM field considerations 35650
miniaturized elec. field traps, cells/microparticles manipulation 40266
MRI antenna, RF mag. field penetration in body *(Japanese)* 4261
nurses, power freq. mag. field exposures 18621
occupational exposure to opt. radiation, elec. and mag. fields 26489
opt. telemetry, elec. field perception, threshold eval. 26483
overhead power transm. lines, EM anal. 27233
pacemaker patients, risk, high power transmitters 4302
power freq. EM fields, pers. exposure regulations, Italy *(Italian)* 4336
power syst. LF EM fields, living organism health effects 4329
PVC-DOPH artificial membrane, elec. field effects 26481
radiation source near-field, human model exposure, SAR distrib. 26493
SAR mapping within human eye, portable transceivers effect 18625
shortwave transmitter environ., RF exposure 4333
VDT, VLF meas., user dose assess. protocols 43401
VDUs, rel., health effects 4331
VDUs EM environ. meas. 26480
wireless telephones induced EM fields effects 17035

biological effects of gamma-rays
see also biomolecular effects of radiation; cellular effects of radiation
skin hemangioma radiotherapy, infancy, thyroid cancer risk 10264

biological effects of ionising particles
see also biomolecular effects of radiation; cellular effects of radiation
DC elec. fields/ions, human perception, exposure chamber 4330
skin hemangioma radiotherapy, infancy, thyroid cancer risk 10264

biological effects of ionising radiation
see also biological effects of gamma-rays; biological effects of ionising particles; biological effects of X-rays; biomolecular effects of radiation; cellular effects of radiation
IRPA regional congress, Portsmouth, UK (1994) 11566
nuc. med., conf., Orlando, FL, USA (1994) 20218
spaceborne electronic/biological systs., cosmic rays/solar particle effects, HI model 13868
therapeutic radiology/oncology, conf., USA (1994) 36871

biological effects of ions *see biological effects of ionising particles; ion beam effects*

biological effects of laser radiation
see also biomolecular effects of radiation; cellular effects of radiation
cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
endotracheal tube laser surgery, heat resist. safety *(German)* 26455
eye, pot. hazards from extended light sources 35193
eyesafe IR aerosol lidar, stimulated Raman backscatt. appl. 9651
fiber optics for FEL med. appls. 35152
laser-tissue interaction, conf., Lille, France (1994) 20265
occupational exposure to opt. radiation, elec. and mag. fields 26489
ocular laser injury in China 43387
otolaryngology, solid state laser 43333
welding, selecting necessary/sufficient params. 43329

biological effects of magnetic fields *see biological effects of fields; biomagnetism*

biological effects of microwaves
see also biomolecular effects of radiation; cellular effects of radiation
2.45 GHz microwave irrad. to monkey's eyes, expt. 26494
cellular pers. commun., handset antenna/human EM interact. 9343
cellular transceiver microwave emission effect on human head 35191
cordless telephone operators, head induced EM fields 35192
ELF-microwave radiation dosimetry num. methods 35186
European research in microwave bioelectromagnetics, review 43389
immune status correction of patients, MM-waves appl. 43347
low intens. fields and radiation effects 4334
peptic ulcer treatment by microwave reson. therapy 43342
planar microwave applicator, current line fed grounded dielec. layer 10268
plant material oil constituents extraction, microwave heating 28170
SAR mapping within human eye, portable transceivers effect 18625
woodworms destruction, lethal temp. studies 10288

biological effects of protons *see biological effects of ionising particles; proton effects*

biological effects of radiation
see also biological effects of fields; biological effects of ionising radiation; biological effects of laser radiation; biological effects of microwaves; biological effects of ultraviolet radiation; biomolecular effects of radiation; cellular effects of radiation; dosimetry; radiation therapy
3-D pattern of EM power absorbed by human body *(Japanese)* 10289
bioelectromagnetics in Russia, review 35028
blood, vitro opt. action methods/apparatus 26457
broad-band time-domain spectrosc. for biological effects of EM waves 26482
EMC, TDR 23727
human body/pulsed EM wave interact., induced currents 18627
occupational exposure to opt. radiation, elec. and mag. fields 26489
RF exposure, human body induced current meas. 26487
RF radiation hazards in indust./airfield environ. 2271
SAR reduction in human body by perfect conducting shield *(Japanese)* 43412
wireless telephones induced EM fields effects 17035

biological effects of ultraviolet laser radiation *see biological effects of laser radiation; biological effects of ultraviolet radiation*
biological effects of ultraviolet radiation
see also biomolecular effects of radiation; cellular effects of radiation
bactericidal radiation, gas-discharge sources, dosimeters 26305
blood, vitro opt. action methods/apparatus 26457
conference, UV radiation hazards, Los Angeles, CA, USA (1994) 11572
occupational exposure to opt. radiation, elec. and mag. fields 26489
photographic films, dosimeters survey, interventional radiology 43402
sunscreen materials, pass. protection capabilities against UV solar radiation 10291
biological effects of X-rays
see also biomolecular effects of radiation; cellular effects of radiation
cardiac angiography, patient exposures, data anal. 18520
coronary angiography, radiologists/patients radiation risk 18674
film-screen mammography, patient doses, radiation risks, Finland 18518
gastrointestinal tract, radiological exams., skin absorbed dose 18675
intestinal biopsy, children, coeliac disease, radiation dose/risk 18672
mammography exposure std., free-air ionization chamber design 43212
skin hemangioma radiotherapy, infancy, thyroid cancer risk 10264
X-ray stereoscopy, real time, reverse geom. X-ray imaging 34968
biological NMR
see also biomedical NMR
cardiorespiratory synchronisation, small animal MR imaging, modified ventilator 26362
high-temp. supercond. resonator for high-field imaging 39253
biological sciences *see biology*
biological techniques
see also biomedical equipment; biomedical measurement; biosensors; microelectrodes
3-D pattern of EM power absorbed by human body *(Japanese)* 10289
3D intracellular ion meas., visualisation/quantification 43189
3D kinematic angle meas. syst. for nonjointed rigid axes 43192
3D microelectrode array for chronic neural recording 10240
Antarctic predators, heart rate/body temp., implantable logger 43191
associative learning, quantitat. anal. syst., hardware interfaces 10165
bacterial growth analyser, multichannel, by impedance and turbidity 10228
bactericidal radiation, gas-discharge sources, dosimeters 26305
biochemical diagnostic instrumentation, conf., USA (1994) 11573
biomolecule struct., SANS 34882
blood platelet aggregation, aggregates counting, laser light scatt. 26329
body segments inertial props. estim., video-based syst. 26356
brainstem auditory evoked pot., detect. by adaptive filtering 26404
cardiorespiratory synchronisation, small animal MR imaging, modified ventilator 26362
clover-leaf SQUID, design, fab. 22752
confocal theta microscope, three objective lenses 10202
contracting muscle, skin/muscle blood flow discrim. 18522
dielec. tissue meas., coaxial probe, qtr.-wave choke 35124
DNA, electrostatic stretch-and-positioning appls. 40217
elec. fan driven, heartbeat rhythm *(Japanese)* 18543
ELF portable mag. field meters 26486
ESRF undulator, double-focusing X-ray scatt. camera 34981
event-related pots., single trial recording method *(Japanese)* 4279
eye movements meas., limbus refl. tech. 26363
fluoresc. microscopy scanner, 2D CCD, cytometry appl. 43221
fluoresc. scanning X-ray tomography, SR 43274
fluorescent opt. probes, phosphoresc. sigs. reemitted from tissues 17971
force-moment sens., universal, ligament forces determ. 34993
Gabor decomp. method for biological sigs. anal. 2576
glucose conc. influence on light scatt. in tissue-simulating phantoms 25888
Hemopump, prog. control/physiological sigs. registration, integrated unit 10166
high-sensitivity CCD syst., parallel EELS 9930
high-sensitivity DNA anal., laser-excited confocal fluoresc. scanning 26292
human body fluids Na assay, ISFET 34603
IgG Langmuir films oriented by protein A sublayer 42857
isolation amp. for biomech. investigs., needle electrodes *(German)* 4277
marine organism ident., flow cytometric imaging 10539
MEMS force transducer, cardiac muscle cells appl. 34988
micromechanical biosensor for photothermal spectrosc., femtojoule sensitivity 3894
miniaturized elec. field traps, cells/microparticles manipulation 40266
moving objs. embedded within scatt. media, detect. by speckle methods 34604
multichannel apparatus for biologically act. spots study 26266
multichannel biotelemeter, custom IC/syst. manufacture *(Korean)* 26280
multifrequency microwave radiometry, biological objs. temp. profiling 43248
multislit variable width collimator for microplanar beam radiotherapy 43355
muscular cond. vel. meas. syst., surface EMG 10232
myocardium, frog, elec-fluoresc. recording with opt. fibres 10243
nuclear spin targets for biological struct. research, p/d types 34881
observer fatigue caused by TV viewing, meas. and anal. *(Japanese)* 18623
opt. telemetry, elec. field perception, threshold eval. 26483
permitt. meas. of biological tissues, microwave range 43249
phase-contrast X-ray computed tomography, biol./chem. appls. 43272
phytoplankton monitoring by cytometry, multivariate stats. 10537
phytoplankton monitoring by cytometry, neural net ident. 10536
plant material oil constituents extraction, microwave heating 28170
proteins and nucleic acids, high resoln. struct. studies 43169
rate-freq. fns. generation/collection, brain stimulation expts. 10223
scanning capacitance microscope, stage driving, design/appls. *(Korean)* 22529
sens. for photosynthesis meas., trends 3791
sleep posn. monitor 26278
small animal positron tomograph, design/perform. eval. 35063
sub-Angstrom X-ray source, compact storage ring 43217
super-ACO UV FEL, time resolved fluoresc. appls. 14988
supercond. magnet syst. for bacterial cultivation 14307
voltage-clamp techs., single-electrode, error sources 10224
ArF excimer laser keratoplastic surgery on animal eyes *(Chinese)* 18462
^{3}H, solid state detector for biomedical appls. 35042
KrF excimer laser bone ablation mechanism *(Japanese)* 7720
biology
see also biological techniques; biophysics; biotechnology; blood; botany; cardiology; ecology; genetics; medicine; physiology; zoology
annealing genetic algm., solve global energy minimization problem in mol. binding 215
smartness in biological struct. 37547
biology computing
see also computerised instrumentation; environmental science computing
3D intracellular ion meas., visualisation/quantification 43189
associative learning, quantitat. anal. syst., hardware interfaces 10165
bacterial colony counting, dist. transform 26315
biotechnology research lab. proc. control, GUI-based *(German)* 34984
body internal field matrix perturb. computation 26367
crop canopy, evapotranspiration/photosynthesis meas., SCADA syst. 9826
genetic seqs., class., BP 2630
genotyping by multiplexing PCR *(French)* 24762
multichannel apparatus for biologically act. spots study 26266
muscular cond. vel. meas. syst., surface EMG 10232
rate-freq. fns. generation/collection, brain stimulation expts. 10223
vision, spatial freq. inform., self-organising feature map 33117
biomagnetism
see also magnetocardiography; magnetoencephalography
60 Hz mag. fields exposure, human model, current dens. 26491
animal models for cancer devel., mag. field effects 35189
axial SQUID gradiometer, direct-feedback 9894
bacterial cultivation, supercond. magnet syst. 14307
brain, waking/sleep, auditory evoked mag. fields 18450
cardiac arrhythmia, cond. syst. ablation, ferrite rod 18579
CMOS preamplifier, 4.2 K operation, human biomag. field meas. 34994
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
ELF mag. field effects 26486
ELF mag. fields exposure meas. and risks 35185
endoscopes, 3D real time imaging, weak mag. fields 43233
event reconstr., neural nets 43314
fish behavior, mag. fields influence 26490
human forearm, neural stimulation in mag. field, tissue models 35190
human head, MRI, imperilled areas anal. 18474
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
living beings protection by mag. shields *(Croatian)* 4335
low intens. fields and radiation effects 4334
MRI antenna, RF mag. field penetration in body *(Japanese)* 4261
nurses, power freq. mag. field exposures 18621
occupational exposure to opt. radiation, elec. and mag. fields 26489
spatiotemporal data, sig. source localization, sig. subspace method *(Japanese)* 35057
SQUID mag. field sens. for med. appls. *(German)* 18538
SQUID magnetometer syst., 19-channel, med. appl. 4266
thorax, mag. suscept. mapping, SQUID biomagnetometer appl. 10179
VDT, VLF meas., user dose assess. protocols 43401
biomass conversion *see bioenergy conversion*
biomedical aids for handicapped *see handicapped aids*
biomedical applications of computers *see medical computing*
biomedical education
colloquium, education for biomedical science/engineering, London, UK (1995) 20235
developing countries, biomedical engineers training 43181
HDTV single camera 3D syst., microsurgery appl. 34996
healthcare std. education group, education/training design 43180
hearing aid new users, commun. course eval. 43358
PACS design/evaluation, conf., USA (1994) 20213
phys. scientists in health care, training scheme 43179
robotic/mechatronic systs. appl., education, therapy, training 35174
skeletal anatomy teaching, multimedia CD-ROM 43182
virtual cybercampus, med. education appl. 25096
biomedical electronics
see also biosensors; defibrillators; electrocardiography; electroencephalography; microelectrodes; pacemakers; patient monitoring; patient treatment; prosthetic power supplies; prosthetics; sensory aids
16.5 MW med. LINAC pulsed power supply ceramic D thyratron 34983
adaptive filter, variable convergence, cardiac action pots. appl. 10229
biofeedback cane syst., instrumentation/subj. appl. results 35180
biopotential amps., 2-/3-electrode, power-line interf. anal. 26403
CMOS preamplifier, 4.2 K operation, human biomag. field meas. 34994
CMOS transponder microchip, low power biomedical telemetry appls. 34995
CMOS wireless vol. control receiver for hearing aids 18606
cochlear implant, multichannel high-rate pulsatile stimulation 35160
digital filters, freq. synthesis, ECG appl. 6222
Doppler US waveform index eval., electronic injection phantom 18523
ECG amp./detector for dry-electrode heart rate monitoring 10230
endoscope, electronic, colour correction, colorimetric colour reprod. 26312
endoscope, electronic, image distortion correction 35065
FES systs., prog. electronic stimulator 10280
IEEE conf. on instrumentation/meas., USA (1993) 20198
intra-aortic balloon pump, lin. pulse motor-driven 10256
intracardiac electrogram, low power, class. using analogue VLSI 35123
isolation amp. for biomech. investigs., needle electrodes *(German)* 4277
knee arthroplasty, soft tissue imbalance meas., electronic instrumentation 4257
line interf. subtraction filter for sig. av. ECG 35079
microcontroller implement. of adaptive myoelec. filter 26474
MOSFET miniature radiation dosimeter probe 10298
MRI, fast projection-reconstruction, gradient reorientation switching unit 26352
multichannel biotelemeter, custom IC/syst. manufacture *(Korean)* 26280
neural recording syst., telemetric power/control, CMOS circuitry 18566
optoelectronic transmitters for med. US transducers 35005
pixel detector, monolithic Si, breast cancer calcification detect. 10214
portal imaging, electronic devices, multipurpose phantom 26332
pseudospark switch develop., appls. 29818
radiotherapy, electronic portal imaging device 43408
transcutaneous elec. nerve stimulation, quasiresonant power supply 4255
CsI:Tl, struct. film, med. radiation imaging appl. 43231
biomedical engineering
see also biomedical education; biomedical electronics; biomedical equipment; orthotics; patient treatment; prosthetics; sensory aids
biotechnology for biomedical engineers 43175
biotechnology for biomedical engineers, emerging discipline 43176
elec. mains supplies, ups and downs 4346
electrosurgical units, elec. field strength creation 18686
EMI in hospitals 18684
Health Technical Memorandum 2014, elec. interf. abatement 10258
hospital building, 2.3 GHz radiotelemetry channel, fading characts. 43413
hospital commun. and signalling syst. *(Italian)* 10300
intell. alarms in biomedical engng., fuzzy logic approaches 4256
law and engng., pillorying well-stocked scientists 18428

biomedical engineering continued
- MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
- neural networks, artificial, biomedical technols. appl. 10167
- pharmaceutical ^{99m}Tc-teboroxime dilution/anal., robotic 4272
- surgery by robot, develops. 26452
- WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824

biomedical equipment
- *see also biological techniques; biomedical electronics; biomedical measurement; biomedical telemetry; biosensors; handicapped aids; laser applications in medicine; orthotics; prosthetics; sensory aids*
- 3D echocardiography, miniature mag. posn./orient. locator 18473
- 3D laparoscopic syst., single-camera 34998
- 16.5 MW med. LINAC pulsed power supply ceramic D thyratron 34983
- acoustic sens., human eye/nose recording appl. 43211
- angiographic systs. develop., MH-100 and MH-51BM/CM *(Japanese)* 18532
- angiography, digital, DIGITEX 2400CX/UX syst. develop. *(Japanese)* 18531
- arc therapy, patient support assembly modif., controlled rot. 35147
- biochemical diagnostic instrumentation, conf., USA (1994) 11573
- biostereometrics, noncontact, noninvasive shape meas. syst. 43206
- biotechnology research lab. proc. control, GUI-based *(German)* 34984
- birdcage coil, field inhomog., math. model, MRI appl. 10197
- blood leakage detect., opt. sens. syst. 10208
- blood O_2 saturation indicator for mag. reson. environ. 10187
- brain blood vessel catheter, teleoperation 10255
- breast cancer, hyperthermia treatment, dual-freq. US applicator 26470
- breast carcinoma hyperthermia treatment, monopole phased arrays 26458
- brushless DC motors, med. equipt. appls. 36187
- capillary optics, beam intensifier for Compton X-ray source 10218
- cardiac physiological/US data, simultaneous acquisition/proc. syst. 35031
- cardiac telemetry, inductive link-powered implanted device *(French)* 43310
- catheter, micro act., with multiple d.o.f. 4289
- catheter-tip PO_2 sens., sampling lumen fab. 43188
- CCD based focal spot camera, X-ray sources assess. 26331
- CCD X-ray imaging syst., opt.-coupled, lesion detectability 43232
- chest diseases diagnosis portable flowmeter 26268
- coaxial line probes, shorted, NMR imaging appl. 43250
- Cocolyzer brain fns. analyzing syst. 10246
- cognitive psychology, med. equipt. alarm sounds design 4254
- cone-beam SPECT syst., multiple-head, geometric calib. method 10213
- conf., biochem. and med. sens., Budapest, Hungary (1993) 5462
- cryosurgery, high-perform. multiprobe device develop. 26448
- CT scanner, Somatom Plus 4, A version, clinical experience 35054
- DC-SQUID magnetometer syst., 64-channel, biomag. appls. 35041
- defibrillation/ECG pots., acquisition/display, 528 channel syst. 18584
- diagnostic imaging equipt., in-house mgt. 10182
- diagnostic radiology ionisation chambers, spatial/temporal response characts. 18472
- digital blood pressure measuring instrument 26269
- dipole-type antennas for interstitial hyperthermia, SAR distribs. 10269
- distributed electrodes applicator for hyperthermia, theoretical approach 43353
- Doppler US blood vel. meas. syst. beyond Nyquist limit 35006
- Dornier HM3 extracorporeal shock wave lithotripter, modelling 4296
- drug infusion, nonlin. multirate predictive control 18580
- dual freq. US probe for med. appls. 35007
- EEG brainmapping/evoked pot. studies, calib. assess. 43280
- elec. impedance tomography syst., real-time 18567
- electro-opt. E field sens., SAR distribs. prediction, hyperthermia appl. 43354
- electrosurgery, EM interf. problems 10259
- electrosurgical units, elec. field strength creation 18686
- ELF mag. fields exposure meas. and risks 35185
- EM hyperthermia applicators, capabilities/limitations 35145
- EMC directive and Medical Devices Directive overlap 18426
- EMI in hospitals, IEE Colloquium, London (1994) 17
- endoscope, electronic, colour correction, colorimetric colour reprod. 26312
- endoscopes, 3D real time imaging, weak mag. fields 43233
- endoscopy, telepresence syst. 4291
- ES, gamma camera QC 10204
- feeble grasping rubber opt. fiber sens. *(Japanese)* 18438
- fiber optic instrumentation, conf., Los Angeles, CA, USA (1994) 5465
- fiber-optic micro press. sens. develop. *(Japanese)* 26357
- fluoroscopic syst. upgrading to digital specs., experiences 35052
- fluoroscopy, OPESCOPE mobile C-arm syst., develop. *(Japanese)* 18534
- foetal ECG, antepartum, extraction/anal., PC instrum. 35087
- foetal ECG data collection, 4-channel syst. 26399
- foetal/maternal heart rate recorder for ambulatory 18564
- foot press. meas. syst. utilising piezoelec. film transducers 26277
- GaAs-AlGaAs monolithically integrated interferometric opt. sens. 1835
- gamma camera scatt. response determ., phantom, SPECT appl. 43227
- gamma cameras, likelihood/energy/Bayesian windows for scatt. rejection 35038
- genetic disease diagnosis, challenges and opportunities 43190
- HEADTOME-V positron emission tomograph (SET-2000 W series) develop. *(Japanese)* 18529
- Health Technical Memorandum 2014, elec. interf. abatement 10258
- hospital EM interf., European Union Directive 18685
- hyperthermia, intracavitary US phased array syst. 10265
- IEEE conf. on instrumentation/meas., USA (1993) 20198
- implantable delivery syst., μP-based pacemaker control 18582
- intracardiac electrograms, data collection syst., pacemakers appl. 4286
- intraoperative radiation/US hyperthermia, simultaneous delivery syst. 18596
- Japan indust., scientific and med. RF apparatus, stds. 23683
- knee arthroplasty, soft tissue imbalance meas., electronic instrumentation 4257
- left ventricular monitoring, CsI radioisotopic ambulatory recorder 26360
- lung sound anal. toolkit, hardware/software 43224
- maint. in developing countries, engineer training 43181
- mammography, digital, amorph. Se photocond. receptors efficiency 35033
- mammography, μ-strip Si detector, transputer DAQ 35066
- meconium meas. syst., labour 26361
- med. devices QA services 18427
- med. surgical/stomatological luminaires 26300
- micro robots, min. invasive therapy 35139
- microstrip arrays for superficial microwave hyperthermia, 433 MHz 43352
- microstrip patch applicator for microwave hyperthermia 26459
- microsurgery, force-reflecting motion-scale telerobot 4290
- microwave forceps, tissue welding by microwave energy 35146

biomedical equipment continued
- microwave hyperthermia applicators, FDTD modelling 35144
- microwave hyperthermia syst., 430 MHz, cancer therapy 26465
- microwave transrectal applicator, cooled for prostate treatment 18595
- MR vol. coil design/test, high field imaging 26327
- MRI, inner ear/brainstem, phased array RF coils 43219
- MRI, multiloop coupled resonator coil design 35044
- MRI, RF coil/cryogenic preamplifier, high temp. supercond. 35069
- MRI, Shimadzu MAGNEX Alpha supercond. syst. *(Japanese)* 18527
- MRI RF coils, thin film high temp. supercond. 10196
- MRI topical probe, flat, truncated line probe 43251
- multichannel biomedical data acquisition, analog opt. link in SMT 17690
- multileaf collimator field prescription prep. syst. for conventional radiotherapy 4294
- multimedia med. phys. course, imaging/instrumentation 43183
- multiwavelength fiber drop analyzer for med. diagnostics 10220
- Navicon, noninvasive instantaneous blood press. monitor 18436
- neuro-PET scanner, 3D dyn. acquisition develop. 43228
- neurosurgery, stereophotogrammetric-controlled pointing device 43323
- neurosurgical navig., computer-assisted syst. *(Japanese)* 18589
- nuc. med., conf., Orlando, FL, USA (1994) 20218
- nuc. med. gamma camera syst., PRISM-XP series *(Japanese)* 18530
- oral mucosa/skin irritation estim., elec. impedance device 43308
- otoacoustic emissions recording, DSP boards/computers 26365
- paediatric/infant apnoea monitoring, electrodes comparison 10237
- paroxysmal atrial fibrillation episodes, self-monitoring in ambulatory patients, PAFHPI program 26434
- PET, high resoln. detector array module, design/perform. 43226
- PET, mag. field, photomultiplier tubes/lightguides 43255
- PET, vol. imaging camera, post injection transm. scanning 35039
- PET cameras, depth-of-interact. blurring correction method 35011
- PET detector modules based on novel detector technols. 18464
- phased array syst. for deep regional hyperthermia 18594
- photon counting X-ray radiography syst. *(Japanese)* 18526
- phrenic nerve, long-term intramuscular elec. activation 10275
- physiological pH monitoring, fluoresc. indicator fibre optic sens. 43223
- physiological sigs. monitoring, interf. 10173
- physiotherapy, exercise bicycle computer control 26449
- planar γ-camera imaging, rot. slat collimator eval. 35058
- portal imaging, electronic devices, multipurpose phantom 26332
- portal imaging, Philips SRI-100 syst., installation/QA 43328
- positron camera systs., simple data loss model 35043
- proton beam delivery to prone patient, flexible syst. 26456
- quadrature surface coil for MR imaging, design 35040
- radio emergency call syst. for microcirculation monitoring *(German)* 10174
- radiographic syst., integrated *(Japanese)* 18533
- radiography, digital syst., variable magnification 26313
- radiotherapy, dyn. beam modulation, computer-controlled absorber 26460
- radiotherapy, multileaf collimator, commercial, dosimetric characts. 35204
- radiotherapy electron beams, simple mag. spectrometer 10270
- respiratory condition/body temp. meas., thermopile 43196
- RF coil design, act. screening, NMR appl. 26347
- RF EPR spectrosc./imaging, resonator/surface coil 18475
- RF transmit coil for transverse magnet based MRI systs. 35064
- SCT-4800T whole body X-ray CT scanner *(Japanese)* 18528
- serum Ca, low-level potentiometric data acquisition syst. 26401
- skin cryosurgery, MRI monitored, integrated probe 35059
- sleep posn. monitor 26278
- slotted tube resonator for MRI, 3D anal. 10209
- SPECT, multiple heads cone-beam syst., geometric calib. method 43216
- spherical slot array applicator for microwave hyperthermia 18591
- stereoscopic LCD, time-parallel 34628
- stethoscope, electrostimulators checking, body surface pots. mapping 4283
- stripchart recorder emulation; split screen, smooth scrolling 3924
- sub-Angstrom X-ray source, compact storage ring 43217
- subcutaneous tissue glucose, portable monitoring syst., perfusion 26279
- surgery, safe act. robotic devices 26454
- thermoradiotherapy syst., simultaneous microwave hyperthermia/^{60}Co irrad. 18593
- tissue spectrosc. instrum., freq.-domain photon migration 18452
- tissue stiffness estim., fuzzy reasoning/telerobot 34992
- US diagnostic syst., SDU-400, develop. *(Japanese)* 18535
- US hyperthermia syst., wide appl. *(Japanese)* 18602
- US hyperthermia thermometry, manganin-constantan thermocouples 18597
- US probe lens materials, acoustic props. 26353
- US scanners QC, simple uniformity/penetration phantoms 43237
- Utrecht coaxial TEM syst., pelvic tumours hyperthermia 43351
- Varian 600C LINAC, dosimetric methods comparison 43411
- Varian LINAC, dyn. wedges, beam data meas. 35148
- video based tracker in computer aided surgery 42687
- videokeratoscope, SUN SK-2000 computer-assisted, clinical trial 43262
- virtual endoscope 34565
- vol. imaging PENN-PET scanner, countrate perform. 10210
- walking, load-bearing forces, meas. device 43194
- BGO block detectors, 144-/256-cryst., testing, PET appl. 43225
- CsI photodiode detectors for gamma rays and their clinical appls. 18469
- Si pixel X-ray detector for digital mammography 35060
- a-Si:H arrays, X-ray transm. scans, PET/SPECT appl. 35062

biomedical image processing *see medical image processing*

biomedical imaging
- *see also angiocardiography; biomedical NMR; biomedical ultrasonics; diagnostic radiography; electric impedance imaging; medical image processing; radioisotope imaging*
- 2D hybrid element image reconstruction for TM illum. 43222
- 3D laparoscopic syst., single-camera 34998
- bacterial colony counting, dist. transform 26315
- bioelectromagnetics in Russia, review 35028
- cancer and other disease diagnosis, conf., USA (1994) 11571
- cardiac activation patterns from scatt. electrodes, image-based display 18542
- cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
- composite frames, spectral characts./motion-compensated restoration 16315
- computational opt.-sectioning microscopy for 3-D quantification of cell motion 18430
- conf., modern imaging technol. clinical appls., USA (1994) 20212
- conference, IEEE Northeast Bioengng. Conf., Newark, New Jersey, USA (Mar. 1993) 36846
- conference, medical image processing, USA (1994) 20236
- diagnostic imaging equipt., in-house mgt. 10182
- diagnostic radiology, QA, IEC projects/achievements 18479

biomedical imaging continued
Digiray RGX syst., X-ray mini-probes 18404
ECGs, parametric image display 35110
edge detect. for radiographic med. meas. automation 43275
ELPIDA, archit. for med. imaging supporting telemedicine appls. 43195
endoscopy, flexible regular fiber elements 26304
generalized adaptive median filters, appl. in computed tomography 26323
glaucoma induced change modeling/diagnosis, neural net 18456
graphite mosaic monochromator cryst. for X-ray transport 10161
HDTV single camera 3D syst., microsurgery appl. 34996
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
image capture, formatting and display, conf., USA (1994) 11570
laser appls. in med., conf., Budapest, Hungary (1993) 20211
leukemia detect./monitoring, EM wave imaging 10215
mag. suscept. tomography for 3D imaging 10175
microwave appls. in medicine, colloquium, London, UK (1995) 28227
microwave image proc., distorted Born ierative method 26291
microwave imaging, cost minimisation approach, simulated annealing 43277
microwave imaging for tumour detect. 18459
microwave thermography antennas coupled, layered tissue regions 35047
min. invasive surgery, computer animation approach 34999
multiformat cameras image quality vars. assess. 18499
multimedia med. phys. course, imaging/instrumentation 43183
multimedia systs., image proc., Arizona State Univ. 8655
multiple sclerosis brain lesion detection in MR images 10203
neural networks appl. 10222
num. simul. and visualization of ultrasounds propag. in carotidean region 4273
ophthalmic technols., conf., Los Angeles, CA, USA (1994) 20215
Pacific Bell's ATM/CRS for med. imaging data 41619
PACS workstation monitors, image default display arrangements 35048
phase-contrast X-ray computed tomography using X-ray interferometer 26355
polygon scan conversion, fast, med. appls. 2586
portal imaging, electronic devices, multipurpose phantom 26332
pulsed laser microtomograph 26301
pupillary light response model w.r.t. smooth muscle morph. *(Japanese)* 18524
radiographic image quality, scientific work-up, radiologist's approach 18476
RF EPR spectrosc./imaging, resonator/surface coil 18475
robot/computer assisted surgery, 3D anatomical surfaces matching 43252
scatt. material imaging by Fourier synthesis holography 40149
simultaneous multispectral fluoresc. imaging, med. diagnostic syst. 18460
stereoscopic LCD, biomedical appl. 34997
stereoscopic LCD, time-parallel 34628
stereotactic radiosurgery, linac beams checking, fluoresc. screen imaging 18599
Strang's preconditioner generalization, iter. deconvolution appls. 32821
thorax, mag. suscept. mapping, SQUID biomagnetometer appl. 10179
transcutaneous diagnostics, fibre optic devices 43264
turbid media imaging by CW US modulation of scatt. laser light 43254
ultrasound imaging, vivo pulse estim. 10194
urology, thin flexible endoscope 26308
X-ray photons instrumentation, Vanderbilt Univ. 10200

biomedical laser applications *see laser applications in medicine*

biomedical measurement
see also biological techniques; biomedical equipment; biomedical telemetry; blood flow measurement; blood pressure measurement; diagnostic radiography; electrocardiography; electroencephalography; laser applications in medicine; X-ray apparatus
AC skin impedance meas., real-time direct method, ANN based 43315
acoustic sens., human eye/nose recording appl. 43211
anesthesia supervision, smart sens., data validation 26283
biochemical diagnostic instrumentation, conf., USA (1994) 11573
bioimpedance act. electrode in vivo meas. 10231
biostereometrics, noncontact, noninvasive shape meas. tech., bioengng. appls. 43206
blood glucose conc. correl., reduced tissue scatt. coeff. in near IR 26286
blood leakage detect., opt. sens. syst. 10208
blood platelet aggregation, aggregates counting, laser light scatt. 26329
blood pressure measuring instrument with Korotkoff sensor 26269
catheter-tip PO_2 sens., sampling lumen fab. 43188
chest diseases diagnosis portable flowmeter 26268
CMOS preamplifier, 4.2 K operation, human biomag. field meas. 34994
computer diagnostics fo dyn. systs. 18435
cortical steady-state visual evoked pots., adaptive noise canceller 10236
cough detect., clinical syst., fuzzy logic 10169
dielec. meas. in microwave range, indust., scientific and med. appls. 34663
Doppler US blood vel. meas. 35004
Doppler US blood vel. meas. syst. beyond Nyquist limit 35006
dose determ. for producing given amount of change, PC program 26450
ECG, Q wave initiation ident. var., QT meas. contrib. 35092
ECG, QT meas. techs., automatic, accuracy 35085
ECG, R-R interval., high resoln. meas. 35100
edge detect. for radiographic med. meas. automation 43275
electro-oculogram responses in extensive extramacular drusen patients 35119
electrogastrographic study, adaptive filtering comparison 26398
ELF mag. fields exposure meas. and risks 35185
EMC, TDR 23727
EMI in hospitals, IEE Colloquium, London (1994) 17
ERG, local flash, spatial distrib., multi-input stimulation 35120
ERG, low-noise recording techs. in retinitis pigmentosa 35118
event-related pot. estim. by random shifts and scalings 26380
eye movements meas., limbus refl. tech. 26363
fiber guided laser beam appls. in med. *(Japanese)* 4269
fiber-optic luminesc. probes, biomedical studies 26306
fibre optic press./temp. sens., min. invasive diagnostics 18432
foot press. meas. syst. utilising piezoelec. film transducers 26277
glucose conc. influence on light scatt. in tissue-simulating phantoms 25888
hearing aids, bone cond., objective perform. meas. 43356
His-bundle sig., timing meas. improvement, bioelec. model 10242
IEEE conf. on instrumentation/meas., USA (1993) 20198
impedance pneumography, sig.-to-motion artifact ratio 35075
in-vivo biomedical monitoring by fiber optic systs. 18434
knee arthroplasty, soft tissue imbalance meas., electronic instrumentation 4257
magnetometer sens. for bio-mech. movements obs. 34986
meconium meas. syst., labour 26361

biomedical measurement continued
miniature fibre-optic interferometric med. press./temp. sens. 18433
miniature IR sens., vac.-encapsulated thermistor clinical bolometer 35037
multichannel apparatus for biologically act. spots study 26266
multielement profiling anal. of geochem./environ. samples 4383
multifrequency microwave radiometry, biological objs. temp. profiling 43248
multiple energy computed tomography at NSLS, status report 43268
noninvasive E-field meas., integrated opt. sens. 18431
oral mucosa/skin irritation estim., elec. impedance device 43308
otoacoustic emissions, recording, max. length seqs. 26365
P-31 mag. reson. spectrosc., muscle contraction study 43247
pattern-evoked ERGs, laser ophthalmoscope, mech. mirror 35121
percutaneous absorptiometry by UV laser photoacoustic method 4263
peripheral blood flow estim. by impedance plethysmography 10227
permitt. meas. of biological tissues, microwave range 43249
photoneutrons from med. LINAC, spectrum/dose meas. 43409
plethysmography elec. field sigs., time-freq. spectral anal. 43307
portable photometer, amniotic fluid, bilirubin conc. determ. 26307
pulse oximeter for mag. reson. scanners 18470
radiotherapy, LINAC calib. meas., logged/generated reports 43346
radiotherapy, portal imaging, exit dosimetry/QC meas. 43408
respiratory condition/body temp. meas., thermopile 43196
respiratory muscles, cyclic activity, automated meas., microcomputer syst. 4282
RF exposure, human body induced current meas. 26487
rheopneumographic meas., respiratory artefact removal, adaptive FIR filters 10226
robust observer design for biomedical systs. 43198
SEDITRON, transputer based automated urine analyser 43197
serum Ca, low-level potentiometric data acquisition syst. 26401
SICE'94 conf., Japan, 1994 5455
sleeping state determ. from movement, neural net *(Japanese)* 26333
sport, ang. veloc./accel. meas., accelerometers *(Japanese)* 26267
SQUID magnetometer syst., 19-channel, med. appl. 4266
US contactless measurement with micromembranes 26289
US hyperthermia thermometry, manganin-constantan thermocouples 18597
uterus elec. activity recording, noninvasive method 26396
Varian LINAC, dyn. wedges, beam data meas. 35148
VEPs, P100 complex, latency meas. improvement, FMH filters 35126
videokeratoscope, SUN SK-2000 computer-assisted, clinical trial 43262
vocal tract shape meas., MRI *(Japanese)* 10217
walking, load-bearing forces, meas. device 43194
wrist pulse/respiratory sigs. detect., dry electrodes 10233
O_2 opt. sens., nonlin. anal., phosphoresc. lifetime quenching 10181

biomedical NMR
see also biological NMR
3D copying, surface-reconstruction from tomography-slices 24562
3D mapping of muscle activity, surface electrode array sig. proc. 26391
3D med. images, intens.-based obj. extraction incl. correction for partial vol. errors 43234
3D MRI/angiography, human extremities, local gradient coil 26351
autoregressive spectral estimation fro NMR spectroscopy 24233
biological/physiological inform. visualisation *(Japanese)* 35025
birdcage coil, field inhomog., math. model, MRI appl. 10197
blood O_2 saturation indicator for mag. reson. environ. 10187
brain, 3D multimodality images, registration by curve matching 35068
brain, ^1H spectrosc., anom. transverse relax. 35021
brain, dual-echo interleaved echo-planar imaging 35022
brain, echo planar NMR imaging 26344
brain, Fe levels, MRI, 3 tesla 26349
brain, interactive segmentation of photographic and MR images 18445
brain, MR 3D-FT multiple gradient echo tech. 35015
brain anatomical struct. recog., genetic algm. 2799
brain lesions, multispectral mag. reson. images, segmentation and visualization 43238
brain MRI, high resoln. T_1, deep structs. 35049
brain scan image anal. using genetic algms. 35036
brain vol., rapid automatic, on basis of multispectral 3D MRI data on PC 43239
breast lesions, mag. reson. guided biopsy, stereotaxic device 10189
cardiac NMR imaging, k-Space block regional interpolation scheme 35014
coaxial line probes, shorted, NMR imaging appl. 43250
complex obj. recog., genetic algm. 2800
computers in cardiology, conf., London, UK (1993) 11543
conf., modern imaging technol. clinical appls., USA (1994) 20212
conference, medical image processing, USA (1994) 20236
conference, MRI, Nottingham, UK (1994) 11568
DSP96002-based software pulse generator, NMR tomography/spectrosc. appls. 42683
ECG acquisition, MR exams., patient monitoring/seq. triggering 26395
fast algms. for exponential data modeling, NMR data appl. 43256
fat/water imaging, off-reson. binomial composite pulses 26338
frameless registration of MR and CT 3D vol. data sets 10206
general paresis, CT, MR, and SPECT findings 18446
gradient coils noise reduction, Lorentz force balancing, acoustic screening 35024
gray brain matter imaging, double-inversion pulse seq. 26350
heart valve stenosis, mag. reson. phase shift mapping 26343
high-temp. supercond. resonator for high-field imaging 39253
human head, MRI, imperilled areas anal. 18474
image capture, formatting and display, conf., USA (1994) 11570
image data sets, surface rendering, Fourier descriptors 10205
image restoration, multidimensional nonlin. edge-preserving filter 26330
infarcted myocardium, MR image contrast 35016
integrated fuzzy clustering, biomedical images 16368
liver, interstitial laser photocoagulation, near real-time MRI 26462
liver, vivo ^{13}C chem. shift imaging 26348
lung, MRI, hyperpolarized ^3He gas 35023
mag. reson. angiography, FT imaging, voxel sensitivity fn. 35013
mathematical methods in medical imaging, conf., USA (1994) 20238
MRI, fast projection-reconstruction, gradient reorientation switching unit 26352
MRI, inner ear/brainstem, phased array RF coils 43219
MRI, multiloop coupled resonator coil design 35044
MRI, RF coil/cryogenic preamplifier, high temp. supercond. 35069
MRI, shielded loop resonators theory 43209
MRI, Shimadzu MAGNEX Alpha supercond. syst. *(Japanese)* 18527
MRI antenna, RF mag. field penetration in body *(Japanese)* 4261

biomedical NMR continued
- MRI reduced motion artifacts, spatio-temporal multiresolution reconstruction 35002
- MRI RF coils, thin film high temp. supercond. 10196
- MRI slotted tube resonator, dielec. body loaded, num. anal. 26318
- MRI topical probe, flat, truncated line probe 43251
- multi-frame relax. tech. for tracking 41135
- multidimensional MR image segmentation, fuzzy neural network 26322
- multigap parallel-plate bracelet resonator, freq. determ./appls. 10201
- multiple sclerosis brain lesion detection in MR images 10203
- myocardial water exchange, bolus admin., MR contrast agents 35018
- neuromagnetic source localisation, SQUID syst. and MRI 35061
- neurosurgery, on-line stereoscopic image-guidance 43322
- ocular motility disorders, video loop MRI 43220
- P-31 mag. reson. spectrosc., muscle contraction study 43247
- PACS design/evaluation, conf., USA (1994) 20213
- pulse oximeter for mag. reson. scanners 18470
- quadrature surface coil for MR imaging, design 35040
- radiologic image compression, review 26287
- real-time functional MRI 35020
- renal failure, overhydration estim., mag. reson. relaxometry 43241
- restoration of mag. reson. images, Markov field model 35035
- RF coil design, act. screening, NMR appl. 26347
- RF pulse design, 3D selective, sphere sampling strategy 43208
- RF transmit coil for transverse magnet based MRI systs. 35064
- rot. frame RF current dens. imaging 35008
- segmentation of MRI images by similarity mapping 10186
- skin cryosurgery, MRI monitored, integrated probe 35059
- slotted tube resonator for MRI, 3D anal. 10209
- spherocytosis, hereditary, mag. reson. findings 43243
- stenotic vessels, turbulent fluct. vel., NMR sig. loss 35017
- surface coil MRS, sensitivity correction factors 43210
- time-domain multiplexer, 4-channel 26328
- tissues segmentation from MR images *(Japanese)* 18537
- tubular surface coils perf., NMRIS appl. 26311
- tumors, $\{1\text{-}^{13}C\}$-glucose metabolism, NMR, heteronuclear cross polariz. 35012
- upper extremity mag. reson. angiography, phased array coils 35019
- vocal tract shape meas., MRI *(Japanese)* 10217
- vol. coil design/test, high field imaging 26327
- vol. segmentation 26271
- voxel similarity, measure of med. image registration 43235
- ^1H NMR, normal infant brains, perinatal hypoxia-ischemia 26346
- ^1H spectrosc. in stroke 26345

biomedical phenomena *see biomedical engineering; medicine*

biomedical radiography *see diagnostic radiography*

biomedical signal processing *see medical signal processing*

biomedical telemetry
- brain blood vessel catheter, teleoperation 10255
- cardiac telemetry, inductive link-powered implanted device *(French)* 43310
- CMOS transponder microchip, low power biomedical telemetry appls. 34995
- multichannel biotelemeter, custom IC/syst. manufacture *(Korean)* 26280
- neural recording syst., telemetric power/control, CMOS circuitry 18566
- opt. telemetry, elec. field perception, threshold eval. 26483

biomedical ultrasonics
- *see also echocardiography; ultrasonic imaging*
- 3D point sets, mark-based approaches for motion estim. 2822
- automatic classif. of US images, fuzzy reasoning *(Japanese)* 10216
- B-mode US imaging, stat. charact. of speckle 26293
- breast cancer, hyperthermia treatment, dual-freq. US applicator 26470
- conf., modern imaging technol. clinical appls., USA (1994) 20212
- conference on acoustics, Toulouse, France (May 1994) 5443
- contactless measurement with micromembranes 26289
- continuous Doppler ultrasound, parametric/nonparametric spectral estim. 26319
- coracoclavicular dist., US meas. tech. 26342
- diagnostic syst., SDU-400, develop. *(Japanese)* 18535
- diagnostic US imaging, 2D blocked element compensation 10192
- Doppler blood vel. meas. syst. beyond Nyquist limit 35006
- Doppler US sigs., predictive ADC 35004
- Doppler US waveform index eval., electronic injection phantom 18523
- Dornier HM3 extracorporeal shock wave lithotripter, modelling 4296
- dual freq. US probe for med. appls. 35007
- fetus, 3D ultrasonography 10188
- foetal activity, Doppler US sigs., real-time proc. 10183
- hyperthermia, intracavitary US phased array syst. 10265
- hyperthermia syst., wide appl. *(Japanese)* 18602
- hyperthermia thermometry, manganin-constantan thermocouples 18597
- IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
- imaging, coherent speckle noise reduction by elevational spatial compounding 10193
- intraoperative radiation/US hyperthermia, simultaneous delivery syst. 18596
- inversion algm. for US image proc. 4274
- JPEG-encoded med. video, transm. and storage 18447
- mathematical methods in medical imaging, conf., USA (1994) 20238
- optoelectronic transmitters for med. US transducers 35005
- PACS design/evaluation, conf., USA (1994) 20213
- probe lens materials, acoustic props. 26353
- prostate, 3D US, vol. assess. 10190
- radiologic image compression, review 26287
- RADIUS study and national policy on US technol. 4260
- real time US vol. imaging, 2D random arrays 10191
- scanners QC, simple uniformity/penetration phantoms 43237
- tomograms, US, restoration based on Wiener proc. 43246
- ultrasound images, blind deconvolution 35000
- ultrasound imaging, vivo pulse estim. 10194
- ultrasound phased-array controller for hyperthermia appls. 26316
- US hyperthermia, theoretical thermal model 43265
- Wiener spectra meas., digital systs. 26299
- Fe_3O_4 coatings on silica microspheres, US contrast agent appl. 14180

biomembrane transport
- *see also osmosis*
- electroporation in cells and tissues 35188
- ELF fields, cellular studies and interact. mechanisms 35187
- sig. proc., stochastic reson., ion channel cond. 24228

biometrics (access control)
- *see also fingerprint identification; handwriting recognition; speaker recognition*
- identity verification by electronic equipt. *(German)* 20387
- pers. ident., human face images proc. 41116

biomimetics
- prosthetic hand, biomimetic powered, myoelectrogram controlled *(Japanese)* 26471
- smartness in biological struct. 37547

biomolecular effects of radiation
- *see also biological effects of .... (type of radiation)*
- *see also photosynthesis*
- cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
- glaucoma filtering surgery, laser appls. 43336
- therapeutic radiology/oncology, conf., USA (1994) 36871

biomolecular electronics
- cytochrome b_{562}, electroactive protein for bioelectronics 21665
- dye-doped biomol. thermally-activated thin film opt. switch 39535
- hybrid semicond./biomol. 3D memories and computers 12949
- mol. wires/transducers/devices 28891
- principia mathematica for electronics/chem. analogies 21095
- protein-based computers, parallel proc., 3D memories and neural networks 29698
- proton transfer-based mol. devices, theory/review 6442

biomolecular NMR *see biological NMR*

bionics *see biocybernetics*

biophysical effects of radiation *see biological effects of radiation*

biophysical instrumentation *see biological techniques*

biophysical techniques *see biological techniques*

biophysics
- *see also aerospace biophysics; biomagnetism; cardiology; hearing; speech; vision*
- blood glucose conc. correl., reduced tissue scatt. coeff. in near IR 26286
- stochastic reson., noise benefits, ice ages, crayfish, SQUIDs 14292

biosensors
- amperometric glucose biosensors in vivo monitoring 34989
- bi-electrodes based electrochem. sens., voltage relax. meas. 9947
- biochemical diagnostic instrumentation, conf., USA (1994) 11573
- biotechnology-based recogn. elements 43187
- cargo inspection technols., conf., San Diego (Jul. 1994) 36869
- conf., biochem. and med. sens., Budapest, Hungary (1993) 5462
- conference, IEEE Northeast Bioengng. Conf., Newark, New Jersey, USA (Mar. 1993) 36846
- enzyme-based potentiometric/pH-stat biosensors, stainless steel electrodes 9945
- fiber optic instrumentation, conf., Los Angeles, CA, USA (1994) 5465
- fibre optic microsensor arrays, multiple analytes detect. 17893
- fibre optic sensors, conf., Glasgow, Scotland (Oct. 1994) 11524
- fluorescent opt. probes, phosphoresc. sigs. reemitted from tissues 17971
- GaAs-AlGaAs monolithically integrated interferometric opt. sens. 1835
- human body fluids Na assay, ISFET 34603
- IgG Langmuir films oriented by protein A sublayer 42857
- lipid-modified monolayer membranes for taste sens. 42858
- magnetometer sens. for bio-mech. movements obs. 34986
- peroxidase, immobilized, glassy C electrode, H_2O_2 detect. 9944
- photonanofabrication and opt. nanoprobes 22810
- physiological pH monitoring, fluoresc. indicator fibre optic sens. 43223
- poly(aniline) film, glucose biosensor 3895
- potentiometric sens., LB films prep./immobilisation 3897
- review, biosensors, viable monitoring technol. 9943
- robust observer design for biomedical systs. 43198
- sensitive SAW sens. 30651
- STW chem./biological contaminant detector 34605
- surface plasmon biosensor develop., sensitivity and appls. *(Japanese)* 18525
- surface-plasmon-reson. biosensor, particle-enhanced sensitivity 34602
- taste/smell-mimicking biosensors 25889
- thermal detect. of enzyme-labelled antigen-antibody complexes 9946
- urea biosensor, NH_3 sensitive Pt/GaAs Schottky diode 3896

biosonic generation *see bioacoustics; mechanoception*

Biot-Savart law *see electromagnetism*

biotechnology
- agro-biotechnological teleworking commun. platform 41886
- biomedical engineers appl., emerging discipline 43176
- biomedical engng. appls. of biotechnology 43175
- bioprocess operations and drug discovery 43178
- biosensors, biotechnology-based recogn. elements 43187
- field-stabilized two-phase fluidized flow, proc. concepts 40205
- foreign R&D in United States 5562
- issues and challenges 43177
- lipid bilayers, elec. field induced breakdown dyns. 6896
- research lab. proc. control, GUI-based *(German)* 34984

biothermics
- *see also hyperthermia*
- Antarctic predators, heart rate/body temp., implantable logger 43191
- body internal field matrix perturb. computation 26367
- CMOS transponder microchip, low power biomedical telemetry appls. 34995
- cryosurgery, high-perform. multiprobe device develop. 26448
- glaucoma filtering surgery, laser appls. 43336
- interstitial laser photocoagulation, basic optothermal diffusion theory 10266
- laser welding, selecting necessary/sufficient params. 43329
- microwave forceps, tissue welding by microwave energy 35146
- microwave thermography antennas coupled, layered tissue regions 35047
- microwave woodworms destruction, lethal temp. studies 10288
- photothermal therapy of vascular lesions and cancer 35149
- plant material oil constituents extraction, microwave heating 28170
- respiratory condition/body temp. meas., thermopile 43196
- SAR mapping within human eye, portable transceivers effect 18625
- skin cryosurgery, MRI monitored, integrated probe 35059

biotite *see mica*

bipolar analogue integrated circuits
- *see also BiCMOS analogue integrated circuits*
- 900 MHz GSM integrated power amp. control cct. 33936
- AD8001 op-amp, dielec.-isolated complementary-bipolar IC, total-dose/SEU results 29066
- AGC IC for hearing instrums. 35168
- AlInAs/GaInAs/InP microwave HBTS, performances 12764
- AT&T CBIC lin. bipolar proc., radiation effects 30446

bipolar analogue integrated circuits continued
bandgap ref. temp. drift decrease, on-chip analogue ROM 12324
dyn. bias current tech., bipolar exponential-law/CMOS sq.-law elements 12667
HF fully integrated OTA-C filters, 7.2 GHz bipolar OTA 6210
HF monolithic filter, Darlington ccts. *(Japanese)* 37840
ionizing-radiation induced effects on base current 13874
low noise 150 V self-aligned double diffused lateral p-n-p transistor 30262
low-power current feedback amp. design, video-speed appls. 12344
magnetoresistive sens. for automotive appls. 17711
master slice-type transimped. amp. photosensors, PIN-bipolar proc. 25835
neg. voltage regulator IC, total dose effects 12326
opt. receiver chip, stabil. improve., FIB 33984
phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
smart power technol. evol., overview 29012
steplength algms. for tracing soln. curves in bipolar analogue LSI simul. *(Japanese)* 37591
third-generation current conveyor, config., CCIIs 29348
total dose effects in conventional BJTs and lin. ICs 13637
total dose response, total dose radiation hardness 13873
variable supply voltage testing, analogue CMOS/bipolar ccts. 5592
very-high-speed analog bipolar neural net LSI 37926
VLSI bipolar cct. simul. techs. based on waveform relax. 38998
wideband amp. IC for three-channel video sigs. 6038
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
AlGaAs-GaAs HBT-based direct coupled feedback transimpedance amp. 29065
GaAs HBT multifunctional microwave-analog VGA 38023
GaInP/GaAs LP-MOCVD grown HBTs for VCOs and power amp. MMICs 22377
InP-GaInAsP-GaInAs composite collector HBT/circuits 13663
InP-based HBT ICs, design trade-off 13875
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046
Si bipolar wideband amp., 15 Gbit/s, opt. commun. appl. 21122
Si-bipolar front-end IC for 900 MHz homodyne wireless receivers, 3 V, 28 mW 21567
SiGe base bipolar analog ICs for 20 Gb/s opt. receiver 9545

bipolar digital integrated circuits
see also BiCMOS digital integrated circuits; bipolar logic circuits; bipolar memory circuits
direct conversion receiver, FSK digital phase-shifting demodulator 3359
EMC-macromodels, parametrization 21174
global router for high-speed bipolar LSIs 13870
high-end proc., CMOS and bipolar, perform. trends 6185
InP-based HBTs, high-speed, design and fabrication 13626
Rsim switch-level simulator, piecewise lin., timing anal. 1481
VLSI bipolar cct. simul. techs. based on waveform relax. 38998
GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
InP-based HBT ICs, design trade-off 13875
Si 10 Gbit/s bipolar LD driver IC for direct modulation 29047
Si BJT IC chip perform. simulator, BCHIPSIM 594
Si bipolar 4:1-multiplexer IC, 12 Gb/s, SDH syst. appl. 25177
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046
SiGe HBT technol. appls. in radio digital commun. 38999

bipolar integrated circuits
see also BiCMOS integrated circuits; BIMOS integrated circuits; bipolar analogue integrated circuits; bipolar digital integrated circuits; bipolar MIMIC; bipolar MMIC
12-Gb/s high-sensitivity monolithic p-i-n/HBT photoreceiver module 25512
adaptive FM IF syst., improved selectivity, top-down design methodology 34229
advanced MOS and bipolar devices, symp., London (Feb. 1995) 36885
bipolar/BiCMOS cct. and technol., conf., Minneapolis (1993) 36851
clock and data recovery PLL cct., 156 Mbit/s 6052
fault diagnosis, power-supply current monitoring/discrim. anal. 13847
France multi project chip service *(Japanese)* 1486
gain degrad., low dose rates, device modeling 13871
high-speed bipolar proc. for wireless ICs 22563
high-speed p-n-p technol. for low-power complementary bipolar ULSIs 39000
ion-induced sustained high current condition 13872
low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
LSI, trench isolation along {111} glide planes, 3D mech. stress anal. 22564
LSIs, self-aligned complementary bipolar technol. 30442
MOVPE optoelectronic device technol. 28747
NEC, 10 GHz Si bipolar static prescaler *(Japanese)* 37682
NEC, quasi-microwave band QPSK direct modulator modules *(Japanese)* 37679
neg. charge pumps for IGBT driver ICs, design optimisation 1488
optoelectronic device fab. by CBE 37417
p-n-p-n-struct. equiv. for integrated radio-electronic devices 33756
parallel ADCs, asymmetric latches and nonideal perform. 12607
particle accelerators, radiation effects on electronics 4239
piezoresistive strain gauges, integrated instrumentation amp. 17732
poly-emitter complementary bipolar technol., yield enhance. 30445
ring oscillators using inverters, freq. tuning 567
SOI techs., wafer bonding 1489
stat. cct. simul. 39001
thermal effects in integrable power semicond. devices 21121
ultrahigh-speed IC diagnosis, electro-optic probing 6835
VLSI designs, yield and mfg. prediction model 30432
AlGaAs/GaAs HBT IC technol. for 4:1 TDM multiplexer 1487
AlGaAs-GaAs HBT OEIC for high-speed fiber commun. 17196
AlGaAs-GaAs HBTs, heavily doped, opt. device appl. 39566
AlInAs-GaInAs npn/pnp HBTs, monolithic fabrication 13662
GaAs-AlGaAs monolithic optoelectronic switching network 42130
InAlAs-InGaAs HBT based 4 bit ADC, high-speed 37820
InGaAs-InP double HBT, high speed/voltage driver circuit appl. 13876
InP/InGaAs HBT IC technol. for 4:1 TDM multiplexer 1487
InP/InGaAs HBT OEIC photoreceiver 9495
InP/InGaAs HBT, integrated optical receiver front-ends noise 14662
InP-based HBTs/heterostruct. bipolar ccts., design platform 28946
InP-based broadband optoelectronic receivers 9497
Si bipolar clock-recovery and data-regenerator IC, 8 GHz, opt. fibre transm. 9544
Si bipolar monolithic opto-electronics, polymer LEDs 14665

bipolar integrated circuits continued
Si:B, enhanced diffusion due to ion implant. in thin-base npn BJTs, model 38997
Si/SiGe epitaxial-base HBTs, materials, phys., and ccts. 30243
Si-Ge heterojunction bipolar technol. 30444
SiGe HBT technol. for wireless and mixed-sig. appls. 22562
W etchback proc., bipolar electrostatic wafer clamp 6635

bipolar logic circuits
see also BiCMOS logic circuits
base width, optim. for min. ECL propag. delay/max. oscill. freq. 12494
CML cct. delay components and current dependency 12423
complementary noise immune logic in high speed ECL technol. 6069
current sharing in emitter-coupled BJTs, calc. 6068
digital test system extension to Gbps range 25720
emitter-follower cct. for high-speed and low-power ECL 37743
high-speed p-n-p technol. for low-power complementary bipolar ULSIs 39000
SEU at gigahertz freqs., digital ECL 12480
solder ball connection module, memory appls. 20430
static freq. dividers, T-type flip-flops 12475
AlGaAs-GaAs HBT gate array for 5 GHz ASIC, cell libr. 37719
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
GaAs 2-to-4 level convertor IC for SOA modulators 42403
GaAs HBT gate array for high perform. ASICs 29147
GaAs-AlGaAs HBT, high-speed register file, F-RISC/G proc. 37801
Si/SiGe I^2L ccts., gate delay 12414
SiGe base bipolar transistor ECL ccts., super self-aligned selective growth 30443
SiGe-base HBT 2D device-level simul., transient/DC behavior, ECL buffer 13658
SiGe-base bipolar technol., epitaxial emitter-cap, liq.-nitrogen temps., ECL 633

bipolar memory circuits
see also BiCMOS memory circuits
SEU in SRAMs meas. with pulsed laser, spatial depend. 12524
solder ball connection module, memory appls. 20430

bipolar MIMIC
see also bipolar MMIC
AlGaAs-GaAs HBTs for high-speed opt. modulator driver cct. 42405
GaAs HBT multifunctional microwave-analog VGA 38023
In-P based microelectronics pilot line for commercial and military applications 12799

bipolar MMIC
see also bipolar MIMIC
act. inductors for GaAs and bipolar technols. 21597
bal. act. microwave freq. doublers, modelling/anal./design 861
bump heat sink technol. for power HBT and MMIC 38829
HBT MMIC distrib. amp. design based on atten. compen. techs. 12817
sampling oscilloscope front-end, HBT MMIC design 42869
UHF VCO, 1.6 GHz, on-chip inductor and varactor 21568
AlGaAs/GaAs HBT MMIC power amp. 12825
AlGaAs/GaAs directly connected HBT UHF MMIC amp., high gain, portable cellular appl. 6326
AlGaAs-GaAs HBT, large sig. equiv. cct. model, MMIC oscill. 38828
AlGaAs-GaAs HBT-based direct coupled feedback transimpedance amp. 29065
AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
GaAs HBT multifunctional microwave-analog VGA 38023
GaAs HBT power MMIC, X-Ku band, high power 38034
GaInP/GaAs LP-MOCVD grown HBTs for VCOs and power amp. MMICs 22377
In-P based microelectronics pilot line for commercial and military applications 12799
InAlAs-InGaAs HBT X-band double-balanced upconvertor 38021
InP-based HBT ICs, design trade-off 13875
Si MMIC broadband amps., Siemens devices for mobile radio 852
Si-bipolar front-end IC for 900 MHz homodyne wireless receivers, 3 V, 28 mW 21567
SiGe HBT technol. appls. in radio digital commun. 38999

bipolar transistor circuits
used for general papers and papers where use of bipolar transistors is significant
amp. for precision piezoelec. manipulators 14078
bipolar/BiCMOS cct. and technol., conf., Minneapolis (1993) 36851
Colpitts oscillator, chaos 576
common-collector bipolar transistor based oscillator design 830
current transistor-transistor-inductor oscillator 580
flyback ZVS PWM power converter-nondissipative snubber calcs. 5047
hybrid MOS-bipolar transistor switching, profiled drive sig. 521
LF phase and amplit. noise 40381
lin. method, polynomial representation 21091
low noise space borne freq. multipliers 29426
low-noise oscillators design/optim., nonlin. CAD 29072
LV bandgap regulators using only n-p-n transistors, perform. 37622
MA818 controller for three phase 10 kVA voltage source PWM inverter 36283
op amp, demodulation RFI 550
preamplifier for digital opt. receiver, Haus-Adler noise measure 29058
sapphire disk DRO, combined stabilization 30655
sustained oscillators, energy/fluct. charact., computer anal. 570
UHF bipolar-transistor self-excited oscillators, wideband electronic tuning 584
VCO, low phase noise, analog cellular portable radio appl. 12356
wideband RF power amp. input matching network param. optim. *(Croatian)* 548
AlGaAs HBT cct., manufacturable proc. 1360
GaAlAs/GaAs HBTs, power amp. appls. 13655

bipolar transistor switches
see also power semiconductor switches
10 kW DC/DC PWM ZVS bipolar SIT-based power converter 19830
100 kA, 5 kV solid state opening switch, railgun appl. 31762
AC locomotives, line-side switching harmonics compensator 20101
bipolar-MOSFET monolithic cascode switch, VIPower technol. 6014
Cassini spacecraft solid-state power switch develop. 26660
current-source drive cct., ZVS converters 11388
Darlington transistor inverter, 99.3% efficiency 19743
DC-DC converters, high power/self-oscill. type 27830
hard switching power IGBTs, non-/punch-through technols. 12317
high power FET/IGBT gate driver cct. 13701

bipolar transistor switches continued
hybrid MOS-bipolar transistor switching, profiled drive sig. 521
IGBT power convertors, turn on/off behaviour studies 44218
IGBT power module gate drive considerations 37632
IGBT short-cct. protection, motor drive appls. 29026
IGBT SPICE model, power converter design appls. 12316
IGBT switching procs., expt. studies *(Polish)* 1403
IGBTs, soft-switching converters, switching dyn. 30242
MGBT, MOS-gated power bipolar transistor, 750 V 1365
PM-excited sync. motorcar generator, design optim. 5379
power transistor switches, collector current, current gain rels. 38824
profiled base current drive, switch time 13656
reson. DC link IGBT ZVS invertors, optimal design 36342
SRM novel buck power converter topol. *(Korean)* 27691
switching simul. models, PSPICE package-based 37636
VSI IGBTs, on-state short-cct. behaviour expts. 44217

bipolar transistors
see also bipolar integrated circuits; bipolar transistor switches; heterojunction bipolar transistors; hot electron transistors; insulated gate bipolar transistors; microwave bipolar transistors; millimetre wave bipolar transistors; power bipolar transistors; UHF bipolar transistors
1/f noise coeffs. extraction 1351
1/f noise parameters meas. and anal. 22371
2D of lateral magnetotransistor 9885
accumulation-base bipolar transistor, voltage controllable NDR *(English)* 22363
advanced MOS and bipolar devices, symp., London (Feb. 1995) 36885
AT&T CBIC lin. bipolar proc., radiation effects 30446
base width, optim. for min. ECL propag. delay/max. oscill. freq. 12494
base-collector time consts., max. oscill. freq. 13661
BiCMOS, 2D transient enhanced diffusion and impact on bipolar transistors 22620
BiCMOS, fast VLSI cct. design, complementary ECL elements 6870
bipolar/BiCMOS cct. and technol., conf., Minneapolis (1993) 36851
BJT, impact ionization, Boltzmann transport eqn. 22357
BJT self-heating, modeling, cct. simul. 22358
BJTs, base transit time, phys. model 13622
BJTs, DC(AC) current crowding, model anal. 13619
BJTs, hot-carrier/ionizing-radiation-induced degrad. 30241
BJTs, submicrometer, small-sig./large-sig. base resist. 30247
breakdown model, cct. simulators, PSPICE 6736
carrier fluct., excess noise generation 22348
chaotic neural nets, CMOS-VLSI design, current mode building blocks 29501
CML cct. delay components and current dependency 12423
collector epilayer modelling of BJT in MEXTRAM model 13650
current sharing in emitter-coupled BJTs, calc. 6068
degrad. under dyn. hot carrier stress 38849
dose-rate response, hardness assurance 13639
dual-collector magnetotransistors in SOI technol. 25790
ECL bipolar transistor, high-speed, low parasitic archit. 30237
emitter quantum efficiency, superposition principle 13625
emitter resist. extraction from floating collector meas. 13649
FET, output pulse, parasitic bipolar transistor effect 1434
HF devices/ICs for portable cellular phones 17133
hydrodynamic model, 2D tensor temp. 22324
induction heating/melting, ZCS-HF inverter, bipolar-mode SITs 5384
lateral BJT, CMOS compatible, base current reversal phenom. 13651
lateral HET, HF operation 13616
lateral magnetotransistors response, influence of topol. 9884
lattice self-heating/hot-carrier transport, influ. on device perform. 6711
LF noise charact., emitter topography effect 38822
LF noise in bipolar transistors, impact of series resist. 1350
mag. vector probe, 3D num. anal. 25831
magnetotransistor, separated drift field, emitter P^+ ring 38835
magnetotransistors, mag. field sensit. modelling, HSPICE 38825
Miller's approx. in advanced bipolar transistors 6740
mismatched microwave power transistors, active load-pull setup 21533
mixed photonic/electronic cct. simul. 37603
n-p-n transistors, thin base, lateral ion implant., enhanced diffusion 30245
NDR-SPICE cct. simul. of reson. tunneling devices 22336
noise params., meas. method *(French)* 1356
npn BJTs, radiation stress and hot-carrier stress effects on current gain 13636
p-n jn., carrier generation-recomb. current, modeling 6726
PBT, semi-analytic model 1369
PBT, transport models/computer simul. 1368
PBT struct., proc. optimisation and charact. 1370
photo BJT array in CMOS technol. for intell. imaging 9935
planar devices, minority carrier diffusion length, direct meas. 13659
polysilicon emitter bipolar transistors, LF 1/f noise 38820
polysilicon emitter bipolar transistors, reduction of 1/f noise 13657
polysilicon emitter BJTs,ionizing-radiation and hot-carrier stress response, visualization 22361
polysilicon emitter transistors, phosphorus doped, band struct. 30239
polysilicon emitter transistors, phosphorus doped, band deform. 30240
polysilicon n-p-n emitter bipolar transistor base current, 1/f noise anal. 22373
polysilicon-emitter transistors, fab., e-beam lithog. 30263
radiation hardened n-p-n transistor for CMOS fusible-link PROM 12537
radiation-induced BJT gain degrad., dose effects 1364
reliab./quality diagnostic tool for electronic devices 1315
scaled BJT in 0.35 μm high-dens. BiCMOS SRAM technol. 30486
SEG, chemo-mech. polishing 6738
short-base transport, small-sig. model 13624
simulated diffusion algm. for global optim. of device model params. 1323
solid state bipolar spin transistor, develop. 30257
total dose effects in conventional BJTs and lin. ICs 13637
total-dose response of modern bipolar transistors, space appls. 13635
transient base dyn., high level injection 6739
tunnel MIS emitter Auger transistor, anal. model 38819
AlGaAs/GaAs superlattice-emitter reson.-tunneling bipolar transistor, double NDR 38851
B polyemitter form., role of point defect sources 22381
$CoSi_2$, self-aligned contacts for PBT device 22365
GaAlAs/GaAs accum. mode bipolar transistor, 2DHG base *(English)* 22362
GaAs permeable jn. base transistor, homoepitaxial gate 6727
Si bipolar device struct., digital appls. 30235

bipolar transistors continued
Si bipolar device technols. 30236
Si bipolar devices, impact ionisation 22384
Si bipolar transistors, in-situ/rapid vap.-phase doping 30238
Si bipolar transistors, optimized base design for low temp. operation *(Chinese)* 22378
Si:As, enhanced diffusion caused by elec. deactivation 22158
Si:B, enhanced diffusion due to ion implant. in thin-base npn BJTs, model 38997
Si:B p-n-p lateral transistors, minority carrier diffusion length, band gap 13653
6H-SiC, etched groove PBT 1366
SiGe base bipolar transistor ECL ccts., super self-aligned selective growth 30443

bipolarons
see also magnetic polarons
bis-anthracenyl polyenes:$SbCl_5$, opt. suscept., bipolaron enhancement 15133
chalcogenide glasses, small-bipolaron hopping cond. 1059
poly(p-phenylenevinylene) LED, polaron/hole charge transport 14636
$(As_2S_3)_{1-x}(PbS)_x$, vitreous semicond., electronic cond. 29867

bipoles *see network analysis; network synthesis*

biquadratic filters
act. RC second-order filter, modes comparison 6208
BiCMOS SC bandpass delta-sigma A/D modulation, 10.7 MHz 29310
BiCMOS second-order bandpass delta-sigma A/D modulators, 10.7 MHz 21391
continuous-time MOSFET-C filters, on-line error detect. 29361
current mode biquadratic act. filters, design 12643
current mode biquadratic filters employing operational amps. 12642
current-mode biquad based on act. RC biquad 37841
HF fully integrated OTA-C filters, 7.2 GHz bipolar OTA 6210
high-order SC filters, multiplexing tech. 6220
insensitive voltage-mode/current-mode filters from transimpedance opamps 37839
Kerwin-Huelsman-Newcomb biquad cct., current conveyors 731
KHN-equiv. biquad, current conveyors 37851
multiple-crit.-pole-coupled act. filters for FLF, SCF, CBQ, and LF struct. 12637
self-tuned continuous-time notch filters, CMOS implement. 21412
universal current-mode filter, non-inverting CCIIs 37858

birefringence
see also Kerr electro-optical effect; light polarisation; magneto-optical effects; mechanical birefringence; optical constants; optical rotation
1.55 μm single-polariz. hollow pit opt. fiber, zero total dispersion 7283
16 THz beat freqs. generated via modulation instabil. in birefr. fibres 30881
acoustic birefr. in particle dispersions, time-resolved meas. 31022
acoustic modes excitation in opt. fibers, horns operation 14396
acousto-optic tunable filters, electro-optic tuning and sidelobe control 22966
ARROW-B type polarizer utilizing birefr. in multilayer stripe lateral confine. 14501
autocalibration of fibre optic strain sensor 25860
automatic birefr. eval. syst. 5697
birefr.-fibre sole wavelength filters 14394
BPDA-PDA polyimide thin films, thermomechanical props., curing effects 12208
Brillouin opt. fiber gyro ring-resonator, state of polariz. anal. 42822
cascaded Kerr birefr. fiber PM simul. 7806
CGH, polaris. selective, design/fab. 23461
compensation detector of birefr. 14339
concrete stress meas. fiber optic sens., polarimetric/white-light interferom.-based 25978
diamond, synthetic type IIa, carrier mobility/lifetime 38234
Dispersed Red 1 in PMMA film, photoisomerisation, photoinduced orient. and orient. relax. 15144
distributed opt.-fiber sens. by four-photon mixing pulse walk-off 42833
dye laser freq. stabilization by polariz. spectrosc. 23109
evanescent wave gas sens., surface contamination monitoring 17890
Fabry-Perot tunable polariz.-maintaining fiber filters 22803
Faraday effect magnetometers, vibr. induced birefr. modulation compensation 17814
ferroelec. thin films, ferroelec.-opt. memory 14082
ferroelec.-opt. memory on ferroelec. thin films 30836
ferromag. mech. stressed thin films, magneto-opt. meas. 30682
fiber Bragg grating high-mag.-field probe 17827
fiber optic current sens. syst., birefr. exam. 9923
fibers, birefr. and polariz. mode dispersion 22816
fibers, bound multiple soliton interacts. 22856
fibre, bright N-soliton trains propag. 39361
fibre loop polarizers using fused taper coupler, birefr. 30904
fibre optic current sens. for EHV, design optimisation 3855
fibre optic polaris. and phase modulator 30869
fibre ring laser, opt. mode-locking, cross-PM 23121
fibres, birefr., modulation instabil. 30908
fibres, birefr., soliton pulse propag. 7297
FLC, nonlin. optic props. *(Chinese)* 40045
Fourier anal. of strain meas., birefr. opt. fibers 3862
fusion-spliced birefr. fibre Fabry-Perot interferometric temp. sens. 34556
germanosilicate glass opt. fiber, photoinduced birefr. rot. 30891
glass plates, stress measuring method, polarized laser and photo-elastic modulator 34705
graded index channel waveguides, asymmetric directional couplers, spectral charact. 22889
n-heptane/iso-octane vap. opt. detect. by polyimide lightguides 34731
heterodyne fibre-optic vibrometer, pass. instrum. head 17864
high birefr. fibre gratings, holographically written 39350
highly-birefr. fibers, hollow layer outside ellipt. core 30851
L-histidine tetrafluoroborate soln.-grown semiorganic cryst. for nonlin. freq. conversion 23439
interferometric birefr. opt. fiber transducer 17870
interferometric sens., birefr. polaris. maintaining fibre 17853
lin. birefr. in opt. fibres, freq. derived meas. anal. 17915
liq. cryst. microwave phase shifter 6294
local-sampling phase shifting meas. tech. 34718
low birefr. opt. fiber polariz. states, PDF 17260
Lyot single-mode highly birefr. opt.-fibre depolarizers 1682
microparticle nonlin. microwave optics 22780
multichannel WDM opt. filters, birefr. planar opt. platforms 42386
NLC, self-starting phase conjug. 40053
NLC film, polariz. switching by stimulated orient. scatt. 40036

birefringence continued
- NLC panels, phase retardation meas. 31009
- nonlin. dispersive media, vector solitary wave stabil. 15032
- nonlin. opt. fibres, phase-locked stationary soliton states 31557
- opt. disk substr. vert. birefr. measuring method 15192
- opt. fibers, ellipt. polarised solitons 2124
- opt. fibre, birefr., beat length, wavelength, temp. 1693
- photogenerated in-fiber gratings, simultaneous strain and temp. sens. 25873
- planar liq. cryst. opt. switch for opt. commun. 34014
- polaris. maintaining fibre coupler fab. 30913
- polariz. insensitive fibre-optic white-light interferometry 34521
- polariz. vol. hologram, coupled mode anal. 23465
- polariz.-independent directional coupler wavelength filters, birefr. compensation 39536
- polariz.-selective birefr. CGH based intell. photonic switch 25538
- polycarbonate opt. disk substrs., birefr., wavelength depend. meas. 7267
- polyimide planar waveguide for alkane vapour conc. monitoring 42865
- polymers, nonlin. photorefr. props. 30815
- preform deform. fabricated opt. fibers, birefr. anal. 22851
- quantum cryptography, polarized photons in opt. fibres 17342
- randomly varying birefr. opt. fiber solitons 30906
- reciprocal-compensated fibre optic elec. current sens. 17885
- reconfigurable nearest-neighbour opt. cellular automata interconnects 1764
- reflective twisted nematic LCD birefr. wavelength dispersion effect *(Japanese)* 18010
- retroreflecting ellipsometer, opt. disk substrs. birefr. meas. 14342
- ribbon opt.-fiber cable, polariz. OTDR and PMD meas. correl. for stress anal. 14353
- Sagnac interferometer, elec./mag. fields simultaneous meas. 17865
- shape-birefr. fibre sens. systs. employing photogenerated polaris. couplers 42827
- simultaneous temp./hydrostatic pressure meas. 25859
- single mode birefr. fibers, different freq. opt. wave cross-PM 22804
- single-mode birefr. circ. polariz. maintaining opt. fiber coupler *(Chinese)* 14367
- single-mode birefr. opt. fiber polarizer 22859
- single-mode fiber, polariz. effect on four-wave mixing efficiency, comment 30878
- single-mode fiber systs., random mode coupling effects on polariz. mode dispersion and power penalty 30855
- single-mode fibres, polaris. and perturb. power spectrum *(Chinese)* 39352
- single-mode opt. fiber, polariz. mode dispersion meas. 30890
- single-mode opt. fiber polariz. mode dispersion meas. by freq.-domain interferometer 1699
- slab waveguide, polariz. coupling and transverse interact. of spatial opt. solitons 14451
- solid-state laser modelocking, birefr. and PM 14811
- solitons in birefr. fibres, polaris. instabil. threshold 14365
- spun lin. birefr. fibres, current sens., temp. compensation 3863
- step-index bent single-mode fiber matching by modal equiv. slab waveguide struct. 7306
- stress pattern slope/curvature determ. by coherent moire tech. 2141
- TE-TM nonlin.-grating MQW polariz. switch 23427
- twist-induced effects in opt. fibers, birefr. meas. 1683
- twisted birefr. fiber coupler, two-beam phase-controlled polariz. switching 22805
- twisted fiber laser polariz. props. 31222
- twisted fibre package, birefr. study 30845
- twisting-annealing tech. for opt. fiber 14391
- two-mode fibres, intermodal interf., polariz.-mode atten. 30879
- variable opt. delay line, birefr. planar opt. platform based 42443
- vert. cavity SEL array spectra, transverse anisotropy effect 1936
- vert. $\Delta\kappa$ directional coupler switch, liq. crysts. 14465
- weakly fused fiber-optic couplers, rigorous anal. of form birefr. 39372
- Weigert hologram, Jones matrix 31660
- XLPE cable insulation, DSC meas. 14069
- $Bi_{12}Si_{O20}$, polariz. props. of transm. and diffr. 14321
- $Bi_{12}SiO_{20}$ photorefr. cubic media far from paraxial limit, wave coupling anal. 40062
- CdS, opt. bistability, opt. oscills., internal switching delay 23425
- Er-doped birefr. fiber amp. polariz. distortion 31216
- Er-doped fiber amp. propag./switching 34061
- Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
- Er-doped fibre amp., low-latency soliton logic gates 7799
- Er-doped twin-peak core fiber amp., polariz. 14750
- GaAs/AlGaAs QW waveguides, all-opt. PM 23370
- GaAs/GaAlAs waveguide, TE/TM mode splitter fab. 22893
- InP wafers, LEC grown, residual strains, photoelastic charact. 13042
- $KBe_2(BO_3)F_2$, UV SHG, opt. birefr. 31561
- $KTiOAsO_4$ tunable near IR opt. parametric oscillators 15067
- $KTiOP_{1-y}As_yO_4$, noncritically phase-matched cascaded THG 31525
- $LiNbO_3$ waveguides, electro-optic/thermo-optic meas. of birefr. 22886
- $LiNd(PO_3)_4$ multimode laser, antiphase dyn., Shil'nikov chaos 14812
- $LiTaO_3$ opt. waveguides, controlling birefr., nonisovalent ion exchange 14421
- $LiTaO_3$:Ni opt. waveguides, fab., Ni diffusion 22885
- Nd:YAG birefr. microchip laser used in heterodyne vibrometry 23481
- Nd:YAG laser, diode-pumped, Q-switching study 31299
- Nd:phosphate glass laser, thermal effects on lasing charact. *(Korean)* 14777
- Nd-doped fibre lasers, polaris. related phenom. 14766
- Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
- PZT, film, photoactivated birefr., struct. transit. 1557
- SiO_2-GeO_2 fibre, electro-optic modulation, UV-excited poling 30898
- $Sr_2Be_2B_2O_7$ UV-transparent nonlin. opt. cryst., design and synthesis 15123

BIST *see built-in self test*

bistable multivibrators *see flip-flops*

bistable optical devices *see optical bistability*

bit-mapped graphics
- voltage-mode CMOS chaos generator and internal states obs. 562

bit-slice computers
- inform. coding, neural net hardware realisation 29515
- verification, time-space modal model 12467

Bitbus *see peripheral interfaces*

Bitter patterns *see magnetic domains*

bitumen *see materials*

BJT *see bipolar transistors*

blackboard architecture
- distributed systs., program struct. 16726
- ECG diagnosis, real-time ES 10245

blackboard architecture continued
- map aided structural anal. of aerial images 41276
- MESSIE, multispecialist 3D scene anal. syst. 32893
- μP syst. design environ. based on OO blackboard framework 666
- telecom network rule-based control, blackboard model 16614
- telecomms. services config., blackboard-based DSS 8834
- VLSI CAD, cooperative problem solving 492

blazars *see quasars*

bleaching, optical *see optical saturable absorption*

blending
- variable colour polymer blend LED 7475

Bloch walls *see magnetic domain walls*

block codes
- 8-PSK multilevel block modulation, uniform dist. property 2361
- 64 kbit/s image seq. coding, wavelet vector quantisation scheme 16367
- absol. moment block truncation coding, props. 24114
- almost block-decodable runlength-limited codes constr. 24097
- American digital cellular syst. spectral efficiency 9275
- archive digital data storage device based on home video recorder 39182
- ASDL wideband noise meas. and implications for sig. proc. 16923
- asymptotically good codes, infinite trellis complexity 32061
- AWGN, block and decoded error probabilities of DPSK 15763
- bandlimited quaternary phase FSK, error perform. 9276
- binary lin. block codes, trellis complexity 32062
- binary lin. block codes in Rayleigh fading channels, decoding algms. 40681
- binary lin. block error control (34, 15, 9) codes 40581
- bounded-delay encodable modulation codes, constr. method 40647
- cellular capacity rel. to DPSK modulation level and block coding 33779
- CELP speech coding, almost no codebook search 32387
- cipher incl. variable permutations 8136
- ciphertext only attack for one-way fn. of MAP 32181
- coded modulation, error probab., upper bounds calc. 15748
- coded modulation schemes, design/eval. 15781
- color image coding, morph. pyramid decomp. 24592
- computer memory, systematic SEC-DED codes, error detect./correction 32066
- concatenated block coded modulation in Rayleigh fading channel 9171
- concatenated codes, convolutional inner/outer codes 8144
- convolutional codes, high rate, Viterbi decoding 40669
- CPFSK sigs., nonlin. multi-pulse block coding 8172
- CPM, block encoding 15764
- CPM coded quaternary scheme for satellite-vehicle/pers. commun. 42265
- CPM sigs., channel coding/multiple-sym. diff. demod. 24078
- cryptanalytic attacks related keys 2396
- cyclic block codes definable, multiple finite fields 24116
- cyclic convolutional self-orthogonal codes, combinat. constr. 32135
- cypher, fast block type for software 8121
- (d,k)-constrained seqs., synchronising methods 15755
- DCT based image coding, error concealment tech. 33151
- decoding, transm. without sync. 40601
- DFT, arbitrary blocklength in finite fields 2558
- DFT of arbitrary blocklength in finite fields *(Chinese)* 32044
- digital indoor radio channels, diversity, block error probab. *(Japanese)* 42173
- digital inform. protection 40683
- digital signature schemes, suscept., universal forgery 8154
- digital TV for terrestrial broadcasting, modulation 17534
- double block length hash fns., attacks 8131
- double half-bandwidth OFDM syst. for digital video broadcasting 9698
- DS-SSMA indoor cellular radio perform. 25370
- Feistel ciphers, secure syst. design principles 8137
- FH-SS commun., Bayesian erasure techs. 25248
- gradient-based block truncation coding 24664
- half-pel precision motion estim. proc. for NTSC-resoln. video 16156
- hi-fi mobile DAB scheme 9695
- high data rate video recording, 8-12 conversion channel code *(Japanese)* 9748
- high-dens. opt. recording, variable length RLL codes 15758
- high-speed staged decoder VLSI systolic archit. 40586
- higher order moments, channel adaptive coding techs. 32141
- home-use digital VCR, SBC with block-adaptive quantization, image data compression *(Korean)* 34282
- hybrid Go-Back-N ARQ scheme, repeated transms. 8689
- image block truncation coding, reduced-rate, error diffusion 41058
- image coding, inform. loss recovery, fuzzy logic approach 32873
- image recovery from channel errors 41094
- image seq. block adaptive 3D subband coding 41097
- images, block encoded, channel noise detect., mask 8688
- information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
- inhomog. block codes, constr./decoding 40638
- knowledge-based nonuniform crossover for genetic algms. 37286
- lattices, dens./length profiles and trellis complexity 24030
- lin. block codes, dimens./length profiles and trellis complexity 24029
- lin. block codes, optimal inform. bit decoding 24091
- lin. block codes, soft-decision decoding 32093
- linear block codes, channels with memory, undetected error probability 8167
- low bit-rate image seq. compression method 24726
- M-ary phase coding for noncoherent AWGN channel 24046
- magnetooptical recording, n/m code and modified Viterbi decoding 15724
- metacyclic error-correcting codes 40689
- modulation codes, differential encoding/decoding 40603
- module-phase codes with noncoherent detect. 40635
- multicarrier transm. schemes, block coding 8109
- multidimensional block coded modulation perform. with time-correl. fading estim. 40549
- multilevel block codes for Rayleigh-fading channels 15768
- multilevel-coded quaternary partial-response sigs., soft-decision multistage decoding 8174
- multiround authentication protocol cryptanalysis 32163
- multistage decoders, complexity/perform. tradeoffs 15727
- noisy (1,7) constrained channel, concatenated coding, perform. 40652
- noncoherent orthogonal coding improvement by time overlapping 2375
- opt. fiber channels, sliding-block line codes, dispersion limitations 40578
- parallel concatenated block codes, av. perform. 24023
- partitioned Markov model, non-binary error correcting codes eval. 8168
- phase/FM combined, multilevel block codes 24012
- PPM, seq. detect. and equalization 15710
- progressive image transm. of variable block-size coding 16228
- projections onto convex sets, damaged block transform coded images 33131

block codes continued
QPSK block-modulation codes for unequal error protection 32064
quaternary quadratic residue codes/unimodular lattices 32048
radio channel transm. with multichannel modulation 32034
RC5 encryption algm. 8149
Renyi's inform. measures/generalized cutoff rates 24083
RS codes, soft decision trellis decoding 2374
RS codes constr. by generalized multiple concatenated codes 24102
RS coding, freq.-hop commun., correl. fading 17024
run length-limited error control codes, trellis decoding 2373
runlength-limited block codes, small error propag. 40649
S-set decoding method 8146
scarce-state-transit. error-trellis decoding 40705
self-dual codes, convolutional encoding 32128
sliding multiple sym. differential detect. of trellis-coded MDPSK *(Korean)* 15725
staged decoder for BCM sigs., CMOS VLSI implement. 29270
tailbiting convolutional code decoding, circ. Viterbi algm. 32085
TDMA cellular syst. with coded 16QAM and cyclical slow freq. hopping 33826
telecomms. syst., forward error control, simul. techs. 42450
trellis assisted block synchronisation 40602
trellis decoding tech. for block RLL/ECC codes 40651
two-stage fast block matching algm., integral projections *(Korean)* 24684
uncoded M-DPSK non-redundant error correction 8460
unit memory codes, bounded min. dist. decoding 32067
universal noiseless source coding, redundancy rates 40675
video coding bit rate reduction tech. 16403
wavelet transform quantised coeff. redundancy removal 41092

block polymers *see polymer blends*

blood
amperometric glucose biosensors in vivo monitoring 34989
biochem. induced blood platelet aggregation, particle counting 26329
biochemical diagnostic instrumentation, conf., USA (1994) 11573
bone marrow smears, abnormal cell screening, automated image anal., spatial and freq. domains 43261
cineangiograms, computerised vessel diam. meas., magnification effect *(Japanese)* 4271
coronary angiography, radiologists/patients radiation risk 18674
dairy cow oestrus detect., intell. syst. 9820
drug infusion, nonlin. multirate predictive control 18580
glucose conc., reduced scatt. coeff. 26286
glucose conc. influence on light scatt. in tissue-simulating phantoms 25888
human body fluids Na assay, ISFET 34603
human platelets, aggregation, CO_2-laser radiation appl. 26310
immune status correction of patients, MM-waves appl. 43347
in vitro opt. action, methods, apparatus 26457
leakage detect., opt. sens. syst. 10208
med. obj. detect., transputers 26336
milking systs., automatic, opt. teat inspection 34533
nuc. med., conf., Orlando, FL, USA (1994) 20218
quantitat. image assess. based on redundant, meas. and stat. reasoning 24422
scalar fn. formulation for opt. flow, nonrigid motion of blood 24446
O_2 saturation indicator for mag. reson. environ. 10187

blood flow measurement
arterial compliance, total/segmental estim., pulse press. method 26276
continuous Doppler ultrasound, parametric/nonparametric spectral estim. 26319
contracting muscle, skin/muscle blood flow discrim. 18522
Doppler US waveform index eval., electronic injection phantom 18523
general paresis, CT, MR, and SPECT findings 18446
microcirculation, laser Doppler monitoring, emergency radio call syst. *(German)* 10174
microvascular network blood flow, velocimetry study 18146
neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
opt. telemetry, elec. field perception, threshold eval. 26483
peripheral blood flow estim. by impedance plethysmography 10227
pulse diagnosis, Chinese, computer/fuzzy theory 43203
upper extremity mag. reson. angiography, phased array coils 35019

blood platelets *see blood*

blood pressure measurement
arterial compliance, total/segmental estim., pulse press. method 26276
cardiovascular variability sigs. anal., Akaike Information Criterion 26281
digital instrument with Korotkoff sensor 26269
in-vivo biomedical monitoring by fiber optic systs. 18434
ischaemic episodes determ. in real-time syst. 35104
Motorola's DSP56001, med. sig. proc. appl. 4258
Navicon, noninvasive instantaneous blood press. monitor 18436
noninvasive blood press. meas., arm soft tissue influence 43185
noninvasive oscillometric meas. under anaesthetic 43200
pulmonary capillary press. anal., adaptive filtering, mutual wavelet packets 43186
pulse diagnosis, Chinese, computer/fuzzy theory 43203

blowing problem *see boundary layers*

blue brittleness *see brittleness*

board computers *see microcomputers*

Bode diagrams
see also frequency response
AC motor 10967
DC/AC switched-mode PWM inverter, stabil. anal. 11127
linear N-port network, stabil., return ratios 37606
nonstationary M/G/1 queue charactn., Bode plots 11904
three-phase AC-AC power convertor, cct./control anal. *(Japanese)* 11191
three-phase voltage-source utility interface power convertor 19737
variable speed wind turbine, test-rig, controller design 36068

boilers
see also nuclear reactor steam generators
20 MW gas turbine CHP plant, thermoeconomic anal. 27571
30 MW Lieksa CFBC cogen. project, Finland 19513
42.5 MW paper mill combined cycle CHP project, UK 4852
200-660 MW steam power plant FGD scrubbers design 27545
600 MW Muskingham power plant low NO_x burner retrofit, USA 43903
680 MW Hemweg Unit no. 8 thermal power plant project, Netherlands 19509
750 MW Franken II combined cycle power plant project, Germany *(German)* 43934

boilers continued
800 MW steam power plant boiler gas temp. meas., acoustic pyrometry-based 27556
927 MW CHP plant AFBC boiler retrofit, Czech Republic 19515
1800 MWe combined cycle CHP district heating project, Russia 27593
Al Ghubrah combined power/waste heat recovery plant 10860
Aylesford paper mill CHP plant, distrib. control syst. 11513
bi-energy boiler house operation feedback for reliab. anal. 20133
biomass-fired steam CHP plants, theoretical study 27542
building HVAC nonlin. heater batt., neural net control 5239
catalytic combustion, low emissions 35974
CHP, gas turbines, dryers, hot water boilers 36018
CHP double reheat steam power plant projects, Denmark 43900
CHP plant, gas turbine, HRSG, exergoeconomic optim. 4849
coal fired power plants, high temp. technol. concept 10857
cogen. desalination plant, desalter, fuel cost 35984
coil-type steam generators, boundary steam conditions 43894
combined cycle power plant heat recovery steam generators 27584
combined cycle power plants, heat recovery steam generator designs 27585
combined cycle power plants, steam cycle develop. prospects overview 10869
corona discharge-electron beam combustion FGD 19495
cylindrical small steam generators, power generation appls., Russia 27554
diesel combined cycle power generation concept 43937
dispersed CHP sources/boilers coord., optimal operation *(Japanese)* 27523
dispersed generation, optimal planning, economics *(Japanese)* 27087
district heating syst. operational optim. simul., PC-based 43906
drum boilers, circ. cct., water supply/steam removal 35990
drum-type boiler of power plant, automatic control *(Japanese)* 4840
fluidised bed combustion procs., modelling/simul./control 4833
fluidized bed utility boiler, computerised control 10856
fossil power plant, drum-type boiler syst., fuzzy ES for fault diagnosis *(Korean)* 43907
fossil power plant cycling operation, steam bypass systs. 27550
gas turbine CHP, turbine cooling, part load control 36017
gas turbine intake air cooling, absorpt. chiller-based 27567
gas-fired CHP plants, fuel compression study 35994
gas-fired heating boilers for solar H_2 facility 19564
indust. cogen. plants, NO_x emissions control 27560
lignite fired circulating fluidised bed steam generators, operation *(German)* 43913
Mitte district heating power plant, Berlin 27597
MS90 digital control syst. *(Japanese)* 4839
MS 9001 F gas turbine for 50 Hz power plants 43925
multivariable combustion control design, indiv. channel design framework 27525
μP based acoustic steam leak detect. syst. 35985
natural gas fired combined cycle, perform. anal. 27599
natural-gas-fired combined cycle CHP plant, NO_x emissions control 10868
nuclear power plant monitoring by neural nets 27341
overhaul scheduling, dyn. prog. *(Chinese)* 43976
power apparatus heat shielding improvement efforts *(Russian)* 4880
power generation boiler, steam temp. MRAC *(Japanese)* 43905
power plant control, state space and freq. domain predictive controller design 27524
power plant life extension, boiler drum monitoring 19506
power plant piping networks, press. and flow transient response prediction 4844
steam power plant boiler furnace designs NO_x form. prediction 19521
steam power plant boiler life, thermal transients effects 19519
steam power plant boiler online water chem. monitoring 4843
steam power plant boiler refractories, condition assess. technols. 19520
steam power plant CO_2 emissions control, chem. solvents appl. 27543
steam power plant equipt. repowering study project, Romania 27541
steam power plant NO_x control, staged solid-fuel combustion 27558
steam-water syst. diagnosis/monitoring, ES 19511
Suomenoja combined cycle CHP plant control upgrade, Finland 43936
superheater headers, crack growth/stress prediction 19507
T-150-7.6 steam turbine plants, low pot. sect. 36000
thermal power units, load control syst., adaptive neural model *(Chinese)* 35983
VESTA std. CFBC steam power plant turnkey projects 19514
NO_x emissions reduction, supercritical steam generators 27552

bolometers
fine-wire bolometer, nonlin. of transduction of laser pulse 3847
high-power-level microwave multimeter 9972
HTSC air-bridge microbolometers, silicon micromachining 39262
HTSC patterned films, opt. sens. 22773
low-pass elec. filters for cryogenic detectors 37830
low-temp. FIR magnetospectroscopy, bolometric detector 25842
miniature IR sens., vac.-encapsulated thermistor clinical bolometer 35037
non-Josephson oscill. bolometric detectors 17779
photon spectrum meas. and calib. 4077
readout of FIR/mm-wave bolometers, astrophys. appls. 34504
supercond. opt. detector principles and characts. *(Japanese)* 17805
supercond. radiation detectors, thermal/nonequilibrium responses 17769
transm.-power interpolator 9909
Ni thin-film bolometer 25843
NiCoMnO sputtered thin film thermistor IR detectors/bolometers 17791
Si, porous, micromachining appls. 22627
Si-based thin film monolithic uncooled IR detector arrays/resist. bolometers 17958
YBaCuO HTSC bolometer, submillimeter wavelengths 39300
YBaCuO antenna microbolometers on sapphire, stabil. and noise 17751
YBaCuO bolometers at 10.6 μm wavelength, implement. 42814
YBaCuO films, high-freq. modulated laser radiation, nonequilib./bolometric response 39233
$YBa_2Cu_3O_7$ HTSC bolometer films, response time 42815
$YBa_2Cu_3O_7$ film on mica, bolometric/struct. props. 42816
$YBa_2Cu_3O_7$ microbolometers, free-standing, on Si substrs. 3825
$YBa_2Cu_3O_{7-x}$ epitaxial ultrathin films, photoresponse 3826

Boltzmann equation
see also transport processes
1D semicond. diodes, Poisson-Boltzmann eqn., iter. spectral soln. 13602
above supply voltage hot carrier distrib. in semicond. devices 13583
AC plasma display panel gas discharges, Boltzmann simul. 1010
bipolar transistor, short-base transport, small-sig. anal. 13624
BJT, impact ionization, Boltzmann transport eqn. 22357
HBT modelling, particle transport eqns. 6725
HBTs, heterostruct. hydrodynamic transport model *(Chinese)* 1353

Boltzmann equation continued
ion implant., inclined incidence, lateral effects 22113
ion implant., simul., Boltzmann eqn., num. soln. 22121
lattice self-heating/hot-carrier transport, influ. on device perform. 6711
magnetoactive plasma, inhomog., radiation-transport eqn. 40361
MODFET, extended drift-diffusion model, 2D num. anal. 38924
MOSFET, Monte Carlo simulator, Poisson-transport iter. 22406
PbSnSe photodiodes, computer modeling of carrier transport 7461
PBT, transport models/computer simul. 1368
phase diversity as on-line wavefront sens., expt. results 16217
semicond. laser light pulse propag. and charge carrier scatt. 39789
semicond. materials/devices, hot carrier flucts./noise 1321
semicond. superlattices, long. magnetoresist. 29900
soln. in two real-space dimens. 22339
GaAs, electron scatt. at low dens., dens. depend. 1053
Ne-Ar gas glow discharge pos. column, elec. field-current charact. *(Japanese)* 29738
Si, Boltzmann transport eqn., band-struct. effects incorporation 1025
Si MOS devices, transient impact ionization in bulk semicond. 1173
Si, anisotropic band struct., isotropic band models 22325
Si n-i-n diode, hydrodynamic transport model, scatt. matrix 22327

Boltzmann machines
2D θ-image encoding by Boltzmann machine 33066
multilayer Boltzmann machines, scalable CMOS analog implement. 29519
multivalued Boltzmann machines, Markov random fields *(Chinese)* 8656
stochastic ANNs, CMOS analog implement., temp. effects modelling 29463

Boltzmann-Vlasov equation *see Vlasov equation*

bond angles
Si, porous, struct., EXAFS/photolumin. study 22248

bond distance *see bond lengths*

bond energy *see ionisation potential*

bond graphs
3-phase tetrapolar alternator model, bond-graph method 27695
buck chopper GTO thyristors, bond graph modelling 29039
causality commutations in bond graph models 20546
converter-machine bond graph models, digital simul. 27821
diesel powertrain for heavy trucks, dyn. behaviour 28137
GTO thyristors, cct. oriented simul., bond-graphs 22396
IGBT modelling, bond graph techs. 13757
LC ccts., intrinsic Hamiltonian formulation of dyn. 37608
lin. hybrid syst. anal./charactn., bond-graphs 21094
power converter, commutation cell bond graph model 21115
power static converters, bond-graph config. enumeration 21114

bond lengths
donor-acceptor conjug. polyenes, polarisabilities, SHG 31580
GaSb, thick buffer layers on GaAs, opt., elec. charactn. 12108
$Nd_3Fe_{29-x}Ti_x$, mag. and cryst. struct. 6945
Si:B porous film, photolum., Auger spectr., annealing, solvent effects 38238
Si:N, ion implanted buried SiN_x films, EXAFS and NEXAFS obs. 38440
$(Ti_{1-x}Zr_x)$/Si thin film syst., silicide form., local structural studies 38414

bonds (adhesive) *see adhesion*

bonds (chemical)
see also bond angles; bond lengths; hydrogen bonds
diamond thin-film growth, filament-assisted excimer laser ablation syst. 12178
polydimethylsilane film, surface-imaging proc. for electron beam lithog. 38711
polyethyleneterephthalate/Mg interface, X-ray PES 37540
polyimides, low dielec. const., opt. props./orient. effects 12209
ultra-thin dielec., plasma-assisted/RTP 22167
AlN, CVD growth/surface chem. 12155
a-As_2S_3-Zn bilayers, electron/photon irrad. effects 38405
a-As_xS_y-Ag bilayers, electron/photon irrad. effects 38405
a-C:H,N films, ion implanted, in-depth modifs. 6537
Cr thin films on polyimide, adhesion study 11820
Cr-SiO_2 cermet-polyimide interfacial reacts., thin film resistor appls. 38045
Cu thin films on polyimide, adhesion study 11820
Ga(Al)Sb mesa photodiodes, dark current improvement, $(NH_4)_2S$ treatment 14604
GaAs surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
GaP surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
InAs surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
InP surface degrad. during contact form., FTIR study 30006
InP surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
$KTiOPO_4$ channel waveguide, Rb^+ exchanged, fab., micro-Raman spectrosc. 30938
a-P_2Se_3-Ag bilayers, electron/photon irrad. effects 38405
PZN, perovskite local at. struct., ionicity/covalency, XANES obs. 30556
$Pb(ZnNb)O_3$, local at. struct., EXAFS obs. 30557
a-Se, PECVD, struct., opt. props. 28828
Si nitroxides, rapid thermal, growth, struct. 1245
Si on insulator, high dose O implant./microstruct./form. mechanism 38494
Si oxides, rapid thermal, growth, struct. 1245
Si, porous surface, backbond oxid. by O radical irrad. 30075
Si surface, hydrofluoric acid cleaning effects prior, wafer bonding 38561
a-Si:H, Staebler-Wronski effect, trapping and recomb. procs. 39555
a-Si:H films, annealing, Ne(C) bombard., Si-Si double bonds 1201
a-Si:H, selective laser ablation 1027
a-Si:H solar cell, Hg-sensitized photochem. vap. deposition, H_2 dilution tech. 5217
a-Si:H thin film growth, mol. dyn. simul. *(Japanese)* 410
a-Si:H,P films, elec. act. nanoscale struct., STM prep. 21929
Si-Si bonds, SiC wide gap films by rem. plasma CVD from organo-Si source *(Japanese)* 37490
a-$Si_{1-x}C_x$:H films, PECVD grown, struct. props. 13407
SiO_2/Si interface struct., reliab. charact. 13253
SiO_2-Si interface struct. modif. by Fe^+/H^+ ion implant. *(Chinese)* 22061
SiO_2-Si_3N_4-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
SiO_xN_y-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
ZnSe:N,H, metalorganic chem. vap. deposition, nitrogen source materials 20944

bonds, dangling *see dangling bonds*

bone
brain, MR 3D-FT multiple gradient echo tech. 35015
coracoclavicular dist., US meas. tech. 26342
CT images, binary segmentation 43245
fiber optics for FEL med. appls. 35152
hearing aids, bone cond., objective perform. meas. 43356
joint replacement, orthopaedic biomechanics computational problems 18618
laser surgery, conf., Los Angeles, CA, USA (1994) 11574
lumbar spine exam., lateral lumbosacral projection, patient doses 18666
lumbar spine radiographs, entrance surface doses comparison 18517
marrow smears, abnormal cell screening, automated image anal., spatial and freq. domains 43261
nuc. med., conf., Orlando, FL, USA (1994) 20218
orthognathic surgery, video-imaging, computer simul. 10254
otolaryngology, solid state laser 43333
patient dose, bone mass/dens., radiation measuring instrums. 35199
pelvic EIT images and assumed init. cond. distrib. 43311
pop. radiation absorbed dose, diagnostic nuc. med., Iran 43399
repair and adaptation, EM field effects 35143
skeletal anatomy teaching, multimedia CD-ROM 43182
spherocytosis, hereditary, mag. reson. findings 43243
tissues segmentation from MR images *(Japanese)* 18537
transcutaneous diagnostics, fibre optic devices 43264
KrF excimer laser bone ablation mechanism *(Japanese)* 7720
^{226}Ra treatment, skin hemangiomas, children, organs absorbed dose 10292

Boolean algebra
see also Boolean functions; formal logic
digital ccts., data struct., solve satisfiability problem 29131
fuzzy controllers, FPGA implement. 6140
VLSI design, cct. representation, Boolean proc. 12461

Boolean functions
2D discrete image representation in threshold basis 2816
adder synthesis for modified three module syst. of residue classes 21250
alg. nonlin. and appls., cryptography 2395
AND-OR-XOR expansion of logic fns., upper bound on no. of products, CMOS 29195
ANN fast prototyping, goal seeking neuron digital implement. 29465
antifuse based FPGA technol. mapping, matching, Boolean fns. 21248
balance testing of logic circuits 29182
ccts. constructed, mod$_q$ gates, compute "AND" in sublinear size 21283
chordal graph, domination elimination orderings 37268
commun. complexity, lower bound methods 33284
degree of Boolean fns., real polynomials 20596
depth-two deterministic ccts., class ACC 21282
digital schemes testing, pseudorandom codes, transformers synthesis 29193
disjoint cube representation of Boolean fns., computer algm. 6132
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
extended threshold Boolean filters, min. MSE filtering 33148
fixed-polarity AND/XOR canonical networks minimisation 599
fuzzy Boolean neural network for character recogn. 41157
graph driven binary decision diags., data struct. for Boolean fns. 29199
homog. threshold networks, dyn. props. 12298
IC layouts comparison with HDL models, formal verif. tech. 37588
image restoration, wavelet transform and multiresolution support constraint 16204
interior point approach, Boolean vector fn. synthesis 189
library-based FPGA, logic synthesis 29130
logic cct. DFT, orthonormal expansions *(Japanese)* 12425
LUT-based FPGA technol. mapping, nominal delay minimization 12422
mixed polarity Reed-Muller represent., technol. mapping 21162
multicopy ARQ strategies, Stutter XOR strategies 2927
multilevel logic optim., redundancy addit. and removal 21202
multilevel logic optim. cct. activity driven, low power oper. 21201
multilevel logic synthesis, Boolean factoring of logic fns. 6133
multilevel NAND gate ccts., automatic synthesis, CAD algms. 29100
multimedia commun., intra-stream sync. by conditional dependency 25098
multiple design error correction for combinat. ccts. and finite state machines 21177
multiplexor-based archit., area/delay tradeoff, fast technol. mapping 21196
nanomechanical helical latch, Boolean logic operations 6872
negation-limited cct. complexity of clique fns. 29173
negations needed to compute parity fns., NOT gates 29174
neural estimators for multisensors, design 32658
nonlin. criteria of Boolean fns. 24122
paired Haar based transform, algos. and logic design/test appls. 5734
parallel logic level simul. of VLSI ccts. 12274
private computations, integers 41532
probabilistic manipulation, free Boolean diags. 12260
propag. characts. and bal. 32077
randomness-rounds tradeoff in private computation 32183
reliab. polynomial qualitat./quantitat. exploitation 11873
reliable Boolean ccts. design that contain partially unreliable gates 12416
representation, polynomials modulo composite nos. 20597
self-checking ccts. for unsystematic codes, design 646
spectral coeff. calc., cct. output probabilities 2513
split-level charge recovery logic ccts., stuck faults 21237
stack filtering, parallel algms. and VLSI archits. 21422
stack filters, efficient implement. 6228
technology decomposition using optimal alphabetic trees 21213
test generation for path delay faults, binary decision diags. 29171
vector-valued fns., commun. complexity 24737
VERTEX program, sync. sequential cct. verification 21033
when do extra majority gates help, Polylog(n) majority gates are equiv., one 21279

Boolean lattices *see Boolean algebra*

booster injectors
ESRF, kicker magnet pulsed power supplies 34820
heavy ion fusion injector, ion acceleration and focusing 34841

boosters (electric generators) *see exciters*

bootstrap circuits
B^2CMOS, bootstrapped BiCMOS gate for LV appls., HSPICE simul. 12477
low-power quadrature modulator ICs for digital mobile commun. 42214
LV bandgap regulators using only n-p-n transistors, perform. 37622
RTD-bootstrapped MESFET current/ voltage refs., self-bootstrapped config. 530
RTD-bootstrapped MESFET I-V refs., mirror-based 531

bootstrapping (circuits) *see bootstrap circuits*
bootstrapping (computers) *see computer bootstrapping*
borate glasses
see also borosilicate glasses
$AgI-AgCl-Ag_2O-B_2O_3$, Ag^+ ion conducting glass, solid state batt. appls. 5173
boronising *see surface hardening*
borosilicate glasses
borophosphosilicate glass films on Si wafers, neutron depth profiling 17667
borophosphosilicate-based glass, selective etching, low press. vap. HF 12214
dielec., cristobalite-free low-K material 22632
opt. fibre-glass matrix sens. based composite, fracture 437
AlN, 3D interconnected porous composites, proc., electronic packaging 146
$B_2O_3-P_2O_5-SiO_2$ glass reflow, 3D num. model 22181
BPSG dielec. film fusion, steam reflow and RTA/furnace annealing 20997
BPSG glasses, direct wafer bonding technol. charactn. by AFM 13400
Cu-Cr bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
Cu-Ti bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
CuCr alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
CuTi alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
Er-doped 1.5-μm borophosphate/fluoroborate glass lasers 7599
InP:Be annealing, e-beam evaporated borosilicate glass thin film encapsulant 13313
Na alkali borosilicate glasses, heat treated 7264
$PbO-B_2O_3-SiO_2-Al_2O_3$ glass passivated MOS capacitors, C-V curve 13231
$PbO-B_2O_3-SiO_2-GeO_2$ glasses, MOS capacitors passiv. 13246
$PbO-B_2O_3-SiO_2-GeO_2$ glasses passiv. of MOS capacitors, OH-related C-V recovery, Bi_2O_3 content effect 13245
$RuO_2/B_2O_3-SiO_2-PbO$ glass composite thick resistive films, metal-insulator transit. 21657
$ZnO-Al_2O_3-B_2O_3-SiO_2-PbO$ glasses, crystallizable, opt., polarizable and MOS props. 12213
$ZnO-B_2O_3-Al_2O_3-SiO_2-P_2O_5$ glasses, crystallizable, opt., polarizable and MOS props. 12213
$ZnO-B_2O_3-P_2O_5-SiO_2$:BaO glass passivated, MOS capacitors, C-V 871
Borrmann effect *see X-ray crystallography; X-ray diffraction*
Bose-Chaudhuri-Hocquenghem codes *see BCH codes*
botany
sens. for photosynthesis meas., trends 3791
botany computing *see biology computing; botany*
boundaries *see boundary layers; boundary-value problems; grain boundaries; interface phenomena*
boundary-elements methods
2D hybrid element image reconstruction for TM illum. 43222
2D Laplace problems, regular boundary integral soln., variational formulations 31709
2D nonlin. eddy currents, iter. BEM convergence 40252
3D axisymm. conductor, eddy current anal., vectorial BEM *(Korean)* 23512
3D eddy current computation, surface impedance method, geometric sing. 40244
3D eddy currents in conducting and mag. shells, impedance-type boundary conditions 40238
3D interface elements for modelling complex pot. drops 40193
3D transient eddy current calc., hybrid FE-BE method, mag. field intens. 40245
3D unbounded eddy current problems soln., asymptotic boundary conditions 40240
adaptive refinement for boundary integral methods in electrostatics 15222
approxs., elec./mag. fields, iter. soln. 2177
audio-mirror speaker syst., corn-shaped, polar response *(Japanese)* 17611
broken symm. in BEM 37367
conical horn, vector boundary-element anal. 2327
conjug. heat transfer, convectively cooled discrete heat source, conductive substr., BEM 28475
constriction resist. of two conducting spots 6384
crank-tunnel with reflectors, propag. characts. 2218
diaphragms, electrostatically deformed, self-consistent simul. and modelling 30499
dielec., conformal, multipole-accelerated 3D capacitance extraction 22634
eddy current anal. by BEM, imped. boundary condition 40253
eddy current calc. in terms of field variables, BEM formulations 40239
eddy current problems, BEM-FEM-coupling method, domain decomp. 40254
eddy current problems, regularized formulas for BE anal. 40251
electrostatic problems, boundary element anal. superposing known soln. 40208
EM field num. anal., BEM/FEM appls. *(Japanese)* 15205
EM fields, multilevel eval., scatt. problems soln. 15387
EM scatt. from conducting objs., hybrid wavelet expansion and BEM 31781
GRIN planar opt. waveguide anal. by impedance boundary method of moments 7347
Helmholtz eqn., eigenvalue problems, adaptive boundary element 11999
HV overhead lines, mag./elec. fields calc, BEM *(Polish)* 43773
infinite periodic arrays, radiation/scatt., 3D hybrid FEM/BEM 31780
integrat. for BEM, variable transform. *(Japanese)* 37338
isolated read-back pulses from keepered long. thin film media 14225
lin. systs., soln., iter. methods 37302
mag. field anal. by hybrid FEM/BEM 31702
mobile commun. and broadcasting systs., EMC, microwave/laser scatt. 23646
moving conductors, eddy current comps. by hybrid FE-BE method 40247
multiconductor transm. lines in multilayered dielec. media, anal. 31875
narrow track thin film write head fields, modelling 7089
nonlin. EM problems, hybrid finite element-BEM 40221
ocean acoustic tomography barrel stave transducer 10573
opt. discs, pit models, light-beam scatt. *(Japanese)* 7270
PCB convective cooling, conjug. heat transfer, boundary element formulation 12896
planar circulators, boundary element anal., spurious solns. elimination 12012
plastic moulded LSI package, interface edge/interface crack tip, thermal stresses 28488
pulse electrodynamic drive, transient proc., theory 7934
relay, nonlin. ferromag. materials, mag. field calc. 38067
shielded Permalloy strip MR head, response simul. 7087
single-feed circ. polarized microstrip antenna, boundary elements anal. *(Japanese)* 40497
space-charge problems, boundary charge method 31719
supercond. generators, short-cct. rotor damper EM force calcs. 27676
boundary-elements methods continued
sync. machine air gap EM field calcs., boundary elements method *(Russian)* 36130
transm. line struct. on PCBs and dielec. substrs. 21622
VLSI layout verification package, BEM for 3D capacitance and substr. resist. calcs. in inhomog. media 21023
wake fields, boundary element anal., Kirchhoff's integral eqn. 23515
weakly sing. integrals eval., self-adapting algm. 28701
boundary integral equations
2D Laplace problems, regular boundary integral soln., variational formulations 31709
3D EM scatt. problems, fast multipole soln. 23537
3D interface elements for modelling complex pot. drops 40193
3D scatt. problems, absorbing boundary conditions for FEM soln. 40309
absorbing boundary condition for EM scatt. 40307
acoustical scatt. from fish, reson. signature charact. 17476
adaptive refinement for boundary integral methods in electrostatics 15222
circ. groove guide, propag. charact., tolerance effect 2297
circular cylinder cavity FEM boundary integral formulation 23822
coax step discontinuities, method of moments num. anal. 29525
coil shielding by short ferromag. tube 23692
cutoff wavenumbers and boundary integral eqns. of waveguides 15606
eddy current anal. by BEM, imped. boundary condition 40253
eddy current field, induced elec. charges, boundary integral eqns. 40237
eddy current problems, regularized formulas for BE anal. 40251
electrostatic field comp., 3D vector pot. formulation 40216
EM scatt. and radiation, moment matrix spatial interpolation 23845
EM scatt. by lossy coated periodic gratings under oblique incidence 23542
EM scatt. from 3-D arbitrary coated cavities, connection scheme 15390
EM scatt. from plane wave or dipole excited finite grounded dielec. substrate 23849
end- and centre-loaded slot antenna configs. 31917
hemispherical shell Neumann scatt., modal series accel. 31798
hybrid FEM for EM, review 2314
isolated dielec. disc resonant freq. and far field computation 23828
iter. and multigrid soln. of boundary integral eqns. 28692
lossless dielec. mixtures, effective permitt. calc., boundary integral method 13922
microstrip floating line struct., full wave anal. by wavelet expansion method 15572
microwave cavity resonators, modeling of testing params. 37561
MMIC and hybrid planar IC discontinuities anal. method 860
MRI antenna, inhomog. surface current, model 40448
nonconvex variational problem, constraints 28564
nonHermitian bianisotropic media, FEA 23563
nonrectangular cavity=backed patch antenna anal. 23850
oblate spheroidal antenna anal. 23932
optimal order collocation method for first kind boundary integral eqns. on polygons 37364
passive microstrip elements, full-wave space-domain moment matrix 23836
perfectly conducting cavities, apertures, scatt. elec. fields 40293
Rayleigh-Sommerfield integral eqns. in wave propag. 14398
smooth boundary integrat. method in lin. 2D problem of incompressible fluid and solid 37363
sync. machine air gap EM field calcs., boundary elements method *(Russian)* 36130
transm. line struct. on PCBs and dielec. substrs. 21622
waveguide-fed struct., scatt. and radiation, hybrid FEA 15580
boundary layer flow *see boundary layers*
boundary layers
fission reactors, thermogravitational convection heat transfer 27455
gas flow, thermal radiation flux meas., Cuernavaca instrum. 34725
optimally scaled systs. for second-order scalar sing. perturbed problems 37359
solid armature railgun, current/heat transient diffusion 15310
GaSb, diffusion limited chem. etching 13341
boundary scan testing
3B21D BIST/Boundary-Scan syst. diagnostic test 5590
ASIC, integrat. of boundary scan test blocks by students *(French)* 20330
ASIC test cost/strategy trade-offs 6070
BIST and fault location 6820
decision making criteria in technol. adoption 11653
delay test for boundary-scan based archits. *(Korean)* 21272
DFT, full/boundary scan, economics 11676
DFT/BIST hardware, chip-based, control strategies 9805
dual IEEE 1149.1 compliant multi-chip modules 6462
environ. stress testing, boundary-scan 5591
Fastpath path-delay test generator for scan designs 6071
fault injection boundary scan design, fault tolerance verification 5594
gate array embedded RAM test, flag-scan register 6057
GSM full-rate vocoder chip design 42086
HDTV decoders testing, boundary scan test impact 9725
hierarchical testable digital architecture 37687
hybrid DFT, scan and clock line control 6080
I_{DDQ} built-in concurrent test for interconnects 6463
IC testing/testability practices 5596
IEEE 1149.1 archits. for seq./combinat. ccts. 6077
IEEE 1149.1 scan control transport levels 9809
IEEE 1149.x family of stds. 9810
IEEE Standard, boundary scan archit. 42698
International Test Conf., Washington, DC (Oct. 1994) 61
JTAG boundary scan test std. for improved on-board prog. 603
LSSD scan ring and STUMPS channel test and diagnosis 29140
MCM defects, algorithmic diagnosis, IEEE 1149.1 std. 21698
MCM defects testing, IEEE 1149.1 boundary scan test 38196
MCM-D boundary scan techs., interconnect/functional testing appls. 21735
MCMs, boundary scan testing 12975
MicroSPARC RISC μP, scan based debug, case-study 6162
mixed scannable/non-scannable device boards 20395
multi-freq., multi-phase scan chain 6078
optimisation in proprietary environ. 5598
partial scan algm. based on reduced scan shift 12473
path delay testing in std. scan environ. 6072
PCB testing, multi-strategy tester appl. 38120
PowerPC 603 μP, struct. and ad-hoc design for test 6163
protocol-driven scan test design rule checker 6103
scan designed cct., test time reduction 21208
seq. fault propag., test clock reduction 6079
single-wire analog testability bus, struct. and metrology 6240

boundary scan testing continued
- SMT, prototype debug, mfg. test, syst. level test 38113
- SMT board testing, method selection 38102
- SOG-based RISC pro. tested for failsafe appl. 21344
- struct. syst. interconnect test, modeling 9793
- syst. level 6401
- telecomms. board, boundary scan testing 3742
- testable designs synthesis, behavioural specs. transform. 6074
- time reduction in testing scan-designed ccts. 12472
- timing extraction/control, scan-based, test-access ports 6081
- WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
- ASICs, DFT tools and method selection 37684
- GaAs-AlGaAs HBT, high-speed register file, F-RISC/G proc. 37801

boundary-value problems
- *see also initial value problems*
- 2.5D scalar Helmholtz eqn., spectral Lanczos decomp. 23773
- 2D coupled cavity resonator cluster symm. anal. 31975
- 2D diffusion, finite difference scheme 276
- 3D FDTD slotline anal. on limited memory PC 23789
- 3D FEM soln. of Maxwell's eqns. for rect. waveguides 23795
- 3D Maxwell eqns., absorbing boundary conditions for finite element soln. 40194
- 3D scatt. FEA absorbing boundary condition code parallelisation 23556
- 35 kV transformer substation fuses, protection characts. optim. *(Russian)* 5162
- adaptive computation of EM field problems, reliab. assess. of error estim. 40200
- anisotropic cylindrical dielec. shell, EM scatt. 2202
- ATM multiplexer supporting bursty traffic, perform. computation 41427
- axisymmetric pot. problems, floating random walk method 20531
- bent dielec. waveguides, finite difference BPM anal. 23803
- broadband acoustic propag. and scatt. in waveguide, scatt. 18923
- building syst. technol. automation struct. and tasks *(German)* 28058
- cascaded second-order nonlin.-opt. suscept., phase conjug. 15076
- circ. networks, conductors determ. from boundary meas. 12253
- complex anisotropic media, auxiliary vector fn. method 23562
- computational procedure for solving chem. flow reactor problem, shooting method 37358
- conducting bodies of rev., scatt. anal., fictitious currents/point-matching 40282
- conducting strip, line source EM wave diffr./scatt. 23575
- corrugated periodic struct. noisefree static field calc. 31892
- crank-tunnel with reflectors, propag. characts. 2218
- crit. sampled filter banks/lin. boundary conditions 41174
- current distrib. on convex-concave cylinder with impedance boundary, Toeplitz matrix/SOR anal. 25560
- cylindrical microwave struct., semi-inversion method 15557
- dielec. loaded radial line slot antenna, slot coupling charact. *(Japanese)* 23854
- dielec. substr. backed by nonperfect conductor, surface boundary condition 40287
- diffr. problems soln., scatt. fields 15417
- distributed capacitance microstruct. in conductors 6343
- domain decomp., spectral expansions of Steklov-Poincare operators 28688
- double phase conjug. four wave mixing mirrors 23438
- effective condition no. applied, error anal. of certain boundary collocation methods 20572
- elec. impedance tomography, resistor network model 3951
- EM anal., guided wave systs., domain decomp. methods 40421
- EM scatt., complex multipole beam approach 23609
- EM scatt., perfectly matched absorbing boundary conditions 23601
- EM scatt. anal., discrete sources method 15413
- EM scatt. by complex bodies, FEA mesh truncation boundary condition 23553
- EM scatt. by dielec. coated circ. cyl. loading semicirc. channel in ground plane 23545
- EM scatt. by hemispherical bosses on infinite plane surface 23539
- EM waves reflectionless absorpt. , perfectly matched layer concept 23600
- excitation plane FDTD wideband absorbing boundary conditions 15423
- finite conductor with single blocking boundary, electromigration failure 6666
- finite difference method, EM scatt. from impedance ellipt. cylinders 40301
- finite difference TLM method, first-order absorbing and dispersive boundary conditions 23764
- finite element anal. combined with GTD, boundary conditions 40310
- finite-element soln., ellipt. sing. perturbed problem, error estim. 37293
- FSS FDTD anal. with Floquet boundary condition 15625
- full-vector waveguide modeling by iter. finite-difference method, transparent boundary conditions 40401
- H-wave scatt. from circ. curved impedance strip 15403
- handheld transceiver planar inverted-F diversity antenna FDTD anal 25353
- Hermite bicubic collocation, matrix decomp. methods 28661
- Hertzian dipole radiation from centre of anisotropic sphere 23829
- higher order impedance boundary conditions, chiral coatings appl. 2214
- hollow circ. cylinder Kirchhoff field scatt. 31797
- homoclinic bifurcation points, num. approxs., convergence rate 37355
- horiz. El above lossy ground, radiation field 23499
- hybrid IC, anisotropic test substr., thermal field simul. 6842
- hyperb. partial diff. eqns., boundary layer method asymptotic anal. *(Chinese)* 5785
- infinite-ground-plane aperture scatt., FDTD calc. 23608
- iter. and multigrid soln. of boundary integral eqns. 28692
- ladder network resonators 6202
- mag. EM wave absorber at 9.45 GHz, design chart 39214
- magnetodielectric bodies, wave scatt., discrete source method 15428
- measured eqn. of invariance, modif. for FEM 23552
- mesh termination in finite-difference techs., simulating boundary conditions 31717
- microstrip passive filter anal., FDTD algm. improvement 29536
- microstrip systs., FEA, approx. capacitance formulas 6283
- microwave filter response of nonuniformly corrugated circ. waveguide 37965
- MMP codes, modified reflective symms. 15609
- modal expansion and Bayliss-Turkel absorbing boundary conditions 23555
- monochromatic EM field differaction by microstrip antenna 2319
- multi-layer materials, appls. of impedance boundary conditions 23711
- multiconductor lines, planar or cylindrical, multilayered substrs., capacitance matrix 23790
- nonconforming element multigrid method, parab. eqns. *(Chinese)* 5795
- nonlin. BVP, appl., semicond. device eqns. 1322
- nonlin. grating couplers, anal. by sing. perturb. tech. 14445

boundary-value problems continued
- nonlin. spherical antenna, anal. 40485
- nonperiodic struct. with symm. C_{∞}, energy charact. 15589
- nonuniform ramified microstrip line, anal. 15586
- num. absorbing boundary condition for edge-based FEA 7946
- oceanic waveguide spatially-localized inhomogeneities, sound scatt. 18881
- optimal absorbing boundary conditions 23648
- optimal coarse grid size in domain decomp. 272
- optimal order collocation method for first kind boundary integral eqns. on polygons 37364
- orthogonal spline collocation, matrix decomp. 28671
- outer radiating boundary condition convergence rates 15424
- p-version FEM, high accuracy *(Chinese)* 5794
- parallel plate capacitor for electrostatic studies 5515
- PBT, transport models/computer simul. 1368
- PCBs, radiation/crosstalk, edge-elements charactn. 12872
- periodic wedge absorber, full wave anal. 2215
- periodically deformed cylinders/cylindrical shells, EM scatt. 31799
- piecewise Hermite bicubic orthogonal spline collocation 11968
- piezoelec. devices, axisymmetric, numer. simul. 14077
- planar laser microcavity modes, self-consistent calc. 39993
- planar opt. waveguides, highly directional surface emission from concentric-circle gratings 23766
- plane wave scatt. by coated dielec. ellipt. cylinder 7950
- Poisson eqn. on irregular domains, fast parallel soln. 12004
- power syst. transient stabil. anal., boundary controlling unstable method 35433
- preconditioned iter. methods for large unsymmetric matrices 20606
- projection decomp. method, well-conditioned bases 37307
- quasi-Cherenkov X-ray DFB FEL under multi-wave diffr. 39978
- quasistatic elec. field design problems *(Russian)* 7882
- rect. piezoceramic electroacoustic transducer, reson. freq. 10578
- rect. waveguide, mode conversion 40423
- rect. waveguide, nonorthogonal FDTD method 40404
- reradiation antenna anal., integrodifferential-eqn. method 2316
- resist. furnace stationary temp. fields, digital simul. *(Polish)* 36784
- resistively loaded bowtie antenna FDTD anal. and optim. for pulse radiation 23926
- reson. cavities, design, multilevel methods 15569
- scalar and vector wave eqns., absorbing boundary conditions 23554
- scalar Helmholtz eqn., local radiation boundary conditions 23573
- scatt. by coated bodies, higher order impedance boundary conditions 25544
- second-order accurate difference schemes for quasi-lin. parab. eqns. *(Chinese)* 5786
- semicond. eqns., stepwise continuous soln. 38789
- semiglobal radiation boundary condition for FDTD method 31924
- semilinear sing. perturb. problems, uniform convergence result 37345
- sing. perturbed high-order ellipt. two-point BVP 37357
- single-feed circ. polarized microstrip antenna, boundary elements anal. *(Japanese)* 40497
- small and nearby large cylinder scattered field, perturb. expansion 31796
- spherical anechoic chamber, EM field multipole anal. 31708
- spherical pass. reflector plane-wave scatt. modal anal. 23916
- stepped flexural mode quartz cryst. resonator, reson. freq. 39090
- sub-surface polarizable metal sheet, quasi-static response 15239
- sync. machine air gap EM field calcs., boundary elements method *(Russian)* 36130
- thin rect. plates, eddy current loss calc., cryogenic temps. 7908
- thin-strip capacitive nets, review 458
- three-layered electron waveguides, equiv. network approach for multistep discontinuities 21979
- time-domain EM plane waves in static and dyn. conducting media 31784
- time-domain TLM anal., wideband absorbing boundary conditions 15613
- transm. line struct. on PCBs and dielec. substrs. 21622
- two-point BVP soln. of deficient quartic splines 37342
- unbounded microwave problems, FEM soln. 40190
- unified approach for variationally consistent finite elements in elastoplasticity 28696
- Vlasov kinetic eqn., SCF 31727
- waveguide devices, microwave and opt., FEM 15604
- waveguide transfer problem, FEA, coaxial line syst. 15608
- wedge with anisotropic face impedances, diffr. study 15404
- Whitney's edge/face elements for FETD soln. of Maxwell's eqns. 2175
- Er-doped planar waveguide lasers, theoretical modeling of relax. oscills. 14818
- GaAs cascaded guided wave gratings, out-of-plane opt. sig. proc. 14481
- GaAs-AlGaAs quantum-wire arrays on vicinal substrs., FEA of valence band struct. 21998
- $NaNO_3$ cycloidal diffr. gratings, propag. eqn. and boundary conditions 23607
- Sn-Pb-Ag solder interconnects, creep study 37128

bowing *see bending*

brain
- *see also electroencephalography; magnetoencephalography; neurophysiology*
- 3D binary data, fast neighborhood operations, boundary approach 32914
- 3D multimodality images, registration by curve matching 35068
- anatomical struct. recog., genetic algm. 2799
- axial SQUID gradiometer, direct-feedback 9894
- blood vessel catheter, teleoperation 10255
- brainstem auditory evoked pot., detect. by adaptive filtering 26404
- brainstem auditory evoked pot., enhanced approach, adaptive proc. 43279
- cancer and other disease diagnosis, conf., USA (1994) 11571
- cellular transceiver microwave emission effect on human head 35191
- children, preschool, cerebral palsy, improved reaching, regulated feedback 4322
- cordless telephone operators, head induced EM fields 35192
- corpus callosum surgery, intraoperative EEG recording 4275
- cortical steady-state visual evoked pots., adaptive noise canceller 10236
- dual-echo interleaved echo-planar MRI 35022
- dyn. PET scans, kinetic rate consts., neural estim. 18458
- echo planar NMR imaging 26344
- electrocortical generators posn. estim. via subspace techs. 43320
- fast X-ray CT images, brain vessels extraction 35056
- general paresis, CT, MR, and SPECT findings 18446
- gray brain matter imaging, double-inversion pulse seq. 26350
- hyperthermia, interstitial microwave antenna array techs. 18592
- lesions, multispectral mag. reson. images, segmentation and visualization 43238

brain continued
- mag. reson. 3D FT multiple gradient-echo tech. 35015
- MRI, high resoln. T_1, deep structs. 35049
- MRI, inner ear/brainstem, phased array RF coils 43219
- MRI restoration, multidimensional nonlin. edge-preserving filter 26330
- multiple sclerosis brain lesion detection in MR images 10203
- neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
- neuro-PET scanner, 3D dyn. acquisition develop. 43228
- neurosurgery, on-line stereoscopic image-guidance 43322
- neurosurgery, stereophotogrammetric-controlled pointing device 43323
- neurosurgical navig., computer-assisted syst. *(Japanese)* 18589
- nuc. med., conf., Orlando, FL, USA (1994) 20218
- photographic/MR images, interactive segmentation 18445
- rate-freq. fns. generation/collection, brain stimulation expts. 10223
- real-time functional MRI 35020
- simultaneous multispectral fluoresc. imaging, med. diagnostic syst. 18460
- SPECT imaging, brain struct. localisation 18440
- SQUID magnetometer syst., 19-channel, med. appl. 4266
- vol., rapid automatic, on basis of multispectral 3D MRI data on PC 43239
- waking/sleep, auditory evoked mag. fields 18450
- Fe levels, high field mag. reson. images 26349
- ^{1}H NMR, normal infant brains, perinatal hypoxia-ischemia 26346
- ^{1}H spectrosc. in stroke 26345
- ^{1}H spectrosc., transverse relax. times 35021
- ^{226}Ra treatment, skin hemangiomas, children, organs absorbed dose 10292

brain models
- *see also learning systems; neural nets*
- analog BiCMOS ASIC for modeling biological neurons 29416
- EEG spikes source localisation, elec. dipole model 10250
- hippocampal region, VLSI implement. of model 21485
- local image vel. detect. by cells in visual cortex *(Japanese)* 33000
- parallel simul. of biological neuronal network 10252
- scan image anal. using genetic algms. 35036

brakes
- wheel-rot. sens., magneto-opt. 17861

braking
- *see also eddy current braking; regenerative braking*
- AC hoists modernisation 11396
- AC/DC 4000 kW dual mode inverter controlled locomotive 44506
- automobile anti-skid braking systs., slip estim. 5375
- elec. motor EM speed reduction, math. anal. method 43990
- electrodynamic levitation, slowly moving bodies, vector field pot. 28118
- generator brake, thick film resistor 4906
- induction motor ASD, speed/temp./torque meas./control 36697
- LIM end-pole pitch AC EM field calcs. 36197
- mine elec. locomotive braking, pulsed control syst. modelling 28202
- power syst. transient stabil., optimal decentralised control *(Korean)* 35543
- saturated, deep bar effect, transient models, simul. 19634
- saturated deep bar induction machines, simul. model 4971
- suburban elec. rly. link project, UK 44552
- subway elec. supply, energy saving, batt. storage plant 44539
- variable speed drive three-phase induction motor control *(Italian)* 11330

braze bonding *see brazing*

brazing
- *see also soldering*
- high av. power e-beam appls. 36294
- integrated brazed low-temp. cofired ceramic modules 21766
- Space Shuttle rem. power controllers, AlN metalization/joining 26688
- Ta-46%Ir eutectic brazing filler, thermionic appls. 28023

breadth first search *see tree searching*

breakage *see fracture*

breakdown (electric) *see electric breakdown*

breakdown (mechanical) *see manufacturing processes*

breakdown diodes *see avalanche diodes; Zener diodes*

breeder reactors *see fission reactors*

bremsstrahlung
- *see also gamma-ray spectra; gamma-rays; X-ray emission spectra; X-rays*
- 2.5 MJ DECADE pulsed power generator, plasma load appls. 36357
- 2D thermoluminescent syst., uniformity, reproducibility, calib. 4340
- APS SR beam lines, shielding 10290
- coherent bremsstrahlung, SLAC PEP-II and KEK Tristan-B B factories 40262
- electron beam generated X-ray spectra, optimal target-filter syst. 34978
- electron storage rings, gas bremsstrahlung, photon-neutron shielding 26506
- gas bremsstrahlung evals. for Φ-Factory, adsorbed dose 35198
- HERMES III electron beam pulsed power supply, radiation pulse studies 36305
- high-power microwave generators, principles and capabilities 38217
- LIA 30 lin. induction accelerator, sync. syst. 36453
- low energy X-ray radiation source calib., dosimetry 18415
- STRAUS-2 electron pulsed accelerator, pulsed power supply 36363
- TAGS, β^--decay intens. distribs. meas. 10153
- X-ray sources for angiography comparison, bremsstrahlung and monoenergetic 10199

bridge circuits
- *see also bridge instruments*
- 1.5-7 kW HF ZVS full-bridge MOSFET-based rectifiers 19802
- 1.9 kW ZVS PWM phase switched DC/DC converter 44193
- 1 kW AC/DC power factor pre-regulator, ZVS-PWM topology 19874
- 1 kW third-harmonic modulated AC/DC power electronics interface 44213
- 1 kW two-stage batt. charger cct. design 5071
- 2 kV 10 kA pulsed GTO bridge fusion power supply 5128
- 3-phase controllable bridge rectifier, μP based 5104
- 3-phase cycloconverter control, space-vector method 11365
- 3-phase diode rectifier, input current waveform *(Korean)* 36366
- 3-phase PWM rectifier, line current harmonics minimisation 44147
- 12-pulse traction rectifiers simul., Saber simul. 44554
- 20 MVA GTO power amp., fusion research appls. 5115
- 48 V DC reson. power converter distributed power supply 5049
- 50 W DC/DC ZVS PWM half-bridge power convertor 44194
- 90° bridge coupler power amp./combiner, nonlin. anal. *(Chinese)* 12750
- 500 W DC-DC converter, power MOSFETs, 200°C operation 12322
- 1500 W single-phase rectifier, high power dens. 19865
- AC bridge for impedance meas., anal./design/implement. 12613
- AC locomotives, line-side switching harmonics compensator 20101
- AC meas. of quantized Hall resist. 34318
- AC/AC back-to-back power converters, capacitor minim. 5118

bridge circuits continued
- AC/DC drives, prog. high speed digital control 44498
- AC/DC SCR bridge rectifier, common mode currents studies 19845
- acoustic bridge vol. meter *(Japanese)* 18159
- aircraft AC generators, forced power transfer, dyn. modelling 26657
- all pole/finite pole filter and delay equalizer design, monolithic dual resonators 39082
- capacitance based meas. of ang./lin. displacements 18087
- class D and class E rectifiers, efficiency comparison 5993
- converter transformer cores, losses modelling, failure 44108
- current power converter transformers, short-cct. inductance calcs. 19771
- current-mode rectifier, improved precision 21111
- current-reson. type converters for switching power supplies *(Japanese)* 29023
- current-source drive cct., ZVS converters 11388
- Darlington transistor inverter, 99.3% efficiency 19743
- DC source, HV, 70 kV, 60 A, design and simul., EMTP software *(French)* 19767
- DC/DC PWM reson. power converter topol., pulse load appls. 11172
- DC/DC ZVS PWM full-bridge power convertor, MOSFET-based 5044
- differential resistance measurement circuit, 3-wire 25944
- double-rectifier multilevel-voltage source diode bridge ccts. 19842
- elec. vehicles, 40 kHz, 1.5 kW DC/DC converter 20117
- electrothermal guns, capacitor charging, voltage/current control 19777
- EMC, SCR radiated emissions meas. 15504
- fixed-freq. phase-controlled full-bridge reson. converter 19715
- full-bridge DC/DC power converter, extreme conditions operation 44137
- full-bridge MOSFET inverter, US transducer power supply appls. 44166
- full-bridge PWM DC/DC soft-switching power converter 19791
- full-bridge series-reson. rectifier, telecom. appls. 19831
- full-bridge ZVS PWM DC/DC power converter 19852
- ground recirculation parasitics in power ICs, protect. tech. *(English)* 30419
- GTO inverters, PWM voltage control improvement 19750
- half-bridge bidirectional DC-DC converters anal. 6006
- half-bridge PWM power converter, small DC link capacitor *(Japanese)* 36348
- half-bridge ZVS multi-reson. power converters, light load mode anal. *(Chinese)* 36336
- Hall coeffs. meas. in metals/alloys 3960
- halogen cycle lamps, HF power supply transformer 11446
- hard switching power IGBT modules, dyn. perform. tests 21102
- HF series reson. inverter, PFM/PWM control strategies 5388
- HF series reson. PWM inverters, induction heating appls. 5123
- high current IGBT switching modules, dyn. perform. eval. 30316
- IGBTs, gate drive methods 6013
- impedance element SAW filters 30649
- induction heating/melting, ZCS-HF inverter, bipolar-mode SITs 5384
- induction kitchen range, reson. power converter-based 36788
- induction motor drives, control, DC chopper 28081
- induction stove, hybrid reson. converter 5390
- integrated magnetoresistive sens. for automotive appls. 17711
- intell. half bridge power module, 75A/250V/75KHz, switching power amps. 6027
- isolated DC-DC converter, ZCS IGBTs, symm. topol. 6008
- isolated half-bridge ZVS-PWM converter 44185
- isolated high power boost topol., transformer models 19745
- LV high output current AC/DC converter, boost struct. 19727
- multi-output DC/DC PWM ZVS quasi-reson. power converter 19824
- multielement two-terminal network resist., freq. independence study *(Russian)* 37579
- multiple current-source GTO CSI, control techs. anal. 19853
- pacemaker power supply convertor, flat transformer-based 10277
- parallel reson. power converter, half-cycle current control 19714
- PD charact., rect. pulse voltages 1539
- piezoresistive strain gauges, integrated instrumentation amp. 17732
- Pirani gauge, Halas-Kaminski bridge cct. 34471
- power MCM technol. for high vol., low cost commercial electronics, plastic encapsulated 21777
- power static converters, bond-graph config. enumeration 21114
- PWM controlled AC/DC power converter, improved PF 5059
- PWM DC/DC full-bridge ZVS power converter anal. *(Chinese)* 36337
- PWM IGBT bridge invertors, switching strategy implement. 5055
- Q-state neuron for Q-state associative memories 29444
- quasi-reson. HF PWM ZVS DC/DC power convertors 5061
- reson. power converters, HEXFET/IGBT switches comparison 44208
- reson. power converters, variable capacitance device appl. 19828
- sampling amp. diode bridge switches, offset voltage 37896
- series-parallel reson. converter, magamp postregulators 6020
- single-phase composite PWM voltage source converter 19723
- single-phase induction motors, multi-speed control studies 19621
- single-phase PWM VSI, residential PV power syst. appls. *(Japanese)* 36346
- single-phase VSI UPS, multiple feedback loop control 11142
- sinusoidal converters, high PF 19725
- sinusoidal oscillators using current feedback amplifiers 29069
- SMPS power converters, planar integrated filter/snubber cct. 19763
- snubberless IGBT PWM-VSI inverterbridge, design/test 19728
- soft switching DC converter, PF correction 19752
- soft-switching full-bridge converter, mag. amps. 44139
- spurious resons. meas. of cryst. units 30616
- squirrel cage motor, 3-phase, torque control, secondary current feedback *(Japanese)* 27708
- SRM drive, asymm. half bridge fed, discrete modelling 44497
- supercond. magnet power supply convertor, current control studies *(Japanese)* 11188
- supercond. RF parametric transducer for gravit. wave antennae 25812
- SVC, PWM invertor-based, HF/multiple connection studies 19123
- syst./subsystem/component burn-in modelling/maximisation 28427
- temperature-compensated bridge circuit for resistive sensors 34448
- three-phase AC-DC low harmonic boost rectifier topol. 36275
- three-phase bridge rectifier, self-excited generator appls. 11179
- three-phase bridge rectifiers, harmonic filter studies *(Polish)* 5995
- three-phase diode bridge rectifier, harmonic currents calc. 11119
- three-phase diode rectifier, PF/harmonics improvement 19850
- three-phase four wire AC line conditioner, voltage controlled 19710
- three-phase PWM bridge-rectifier, harmonic minimization 19810
- thyristor AC/DC power convertor, naturally commutated, SVC appls. 43667
- transformer coupled bridge, capacitance meas. errors 25940
- UPS, half-bridge inverter/converter cct. 44200
- variable reluctance motor, voltage-fed, dyn. model *(French)* 10994
- Wien-bridge oscillator, modified for chaos generation 21143

bridge circuits continued
- wind power self-excited induction generators, rectifying bridge studies 36084
- ZCS HF inverter/converter, overlapping commutation 19788
- ZVS PWM half-bridge power converter studies 44197
- ZVS PWM power converters, saturable reson. inductor anal. 19762
- ZVS-PWM full bridge DC/DC converter, losses, appl. 5089

bridge instruments
- *see also bridge circuits*
- amplit. IMD meas., bridge method 42918
- capacitance based meas. of ang./lin. displacements 18087
- digital anemometer for air flow meas. 25907
- piezoresistive humidity sens., design, simul. and metrological charact. 3795
- power IBGT module perform. testing, low inductance cct. 29009
- press. meas., smart capacitive displacement transducer 10061
- Schering bridge sensitivity and convergence for AC machine anti-discharge varnish ageing tests *(French)* 9973
- thermistor anemometer for low flow rate meas. 4012
- XLPE power cable insulation diagnosis, DC superimposition method *(Japanese)* 27194
- Au-Te-Au-GaAs Schottky contact interface states capacitance, thermal effects 29950
- Pd thick-film H_2 sens., Wheatstone bridge config. 25902

Bridgman method *see crystal growth from melt*

brightness
- 2D FIR-median hybrid interpolation filter design for HDTV *(Korean)* 42601
- 3D illuminance anal. syst., ray tracing method *(Japanese)* 42880
- 38 MeV L-band LINAC multibunch electron beam FEL expts. 39936
- C-Y color space, saturation component histogram equalization for true-color images 24518
- car graphic CIG fluoresc. indicator panel, high brightness *(Japanese)* 3939
- chromatic colored papers, glossiness, simplified measuring method *(Japanese)* 25989
- color image proc., luminance quantization error effects 2734
- digital fluoroscopy systs., patients, radiation exposure 18521
- digital halftoning by iter. isotropic error feedback 16377
- digital TV, data and filter requirements of D-A conversion 41356
- dye-doped sol-gel coated fibre optic LED based O_2 sens. 9926
- ferroelec. cathodes, electron emission, meas. 29753
- fixating binocular vision syst., local surface shape estim. 24469
- fixed format LCD readability in bright ambient environ. 10349
- frozen sandy soils, radiation charact., lab. meas. 18779
- grating light valves for high resoln. displays 25927
- grey-level images, entropy estim. algm. 8584
- HID light sources, lighting/brightness perception expts. 11448
- histogram equalization of 24-bit color images in color difference color space 41192
- human face detect. and pose estim., multiple model images 16332
- hyperspectral air-to-air seeker 18990
- image enhancement, fuzzy filter 2794
- IR radiometric lens/staring FPA camera syst., design/operation 17942
- LCD stereo display, brightness increase 9982
- microchip diode pumped solid state laser arrays, mfg. cost 31282
- motion adaptive colorplus encoding 8685
- Mueller matrix struct., polaris. state changes 23571
- multichannel laser measuring systs., resolving power adaptive correction 15201
- multiformat cameras image quality vars. assess. 18499
- multispectral image data, panchromatic band sharpening 8498
- obj. extraction, real-time syst., with seq. growing 8487
- opt. flow, computation in multi-scale differential framework 24575
- opt. flow estim. via local differential techs. 24438
- pel-recursion with integer estim. updates, non-interpolative kernel 2850
- phosphor thin foil scintillating screen for TEM 7459
- photom. stereo vision, arbitrary motion light source 2605
- poly(phenylene vinylene) films, electroluminescent edge emission, brightness 23004
- portable ground-based atmos. monitoring syst. 18827
- pseudospark operation, hollow cathode phase studies 29819
- radiobrightness temp. of stratified medium, rough boundary 18051
- reflective STN-LCDs, retardation film *(Japanese)* 22959
- reversed projection blurring model, occluding edge photom. props. *(Japanese)* 32862
- RF fluoresc. lamps, inductively-coupled, lumen props. meas. 11461
- shape, surface reflectance, illuminant direction and illuminant intens. from images with shading 24571
- shape adapted smoothing in estim. of 3D depth cues 24471
- shape memory from photomotion 16168
- still-image region-oriented orthogonal transform coding *(Japanese)* 16374
- sunlight viewable electroluminescent displays for mil. appl. 10372
- transcutaneous diagnostics, fibre optic devices 43264
- videotelephony, blazed half-transparent mirror for eye contact 42098
- vol. recording media color holographic gratings, ang. selectivity 23470
- X-ray film, image viewing conditions survey 18505
- BN, cubic, carbonaceous surface layer by diamond CVD, electron emission *(Japanese)* 37460
- GaN high-lumin. blue/blue-green LEDs 14631
- Ge^{+}, Ne-like, soft X-ray laser brightness on double pulse pumping 23084
- InGaAsP strained-layer diode lasers, tapered gain region, $\lambda=1.3\ \mu m$ 7630
- LaB_6 FEL photocathode photoemission studies by ns KrF excimer laser 38207
- Nd-doped double-clad fiber laser pumping, LD bar 7551
- a-SiC thin film LED, present and future *(Chinese)* 23044
- $Zn_{0.9}Cd_{0.1}Se/ZnTe_{0.1}Se_{0.9}$ blue/green LEDs 23028

Brillouin scattering *see Brillouin spectra*

Brillouin spectra
- *see also stimulated Brillouin scattering*
- distributed opt. fibre network strain/temp. meas. by Brillouin OTDR 34544
- distributed-Brillouin-gain spectrum meas. in opt. fibers by single laser source 7315
- double colour-pumped oscillator, high-power beam steering by Brillouin four-wave mixing 15104
- fiber four-wave mixing opt. wavelength conversion, SBS effects 30847
- fiber interferometer guided-acoustic-wave Brillouin scatt. meas. 25853
- fiber lightwave syst. nonlin. optics 34059
- fiber ring laser, freq. stabil. 14762
- opt. fiber ring-resonator, Brillouin fiber-optic gyro 42822
- opt. fiber strain distrib. meas., Brillouin tech. 7320
- real-time atmos. compensation, SBS phase conjug. 31576
- single-mode opt. fibers with Brillouin freq. shift, SBS threshold power 7316

Brillouin spectra continued
- AlGaAs, MOCVD/MBE on GaAs, elastic consts., Poisson ratio 28752
- $Ga_{0.52}In_{0.48}P$ layers, CBE grown, opt. charactn. 12104
- $Gd_{21.2}Co_{78.8}$, film, amorph., exchange stiffness const., gyromag. factor 14116
- $Gd_{19.4}Nd_{6.1}Fe_{74.5}$, film, amorph., exchange stiffness const., gyromag. factor 14116
- $Gd_{19.6}Nd_{10.3}Fe_{70.1}$, film, amorph., exchange stiffness const., gyromag. factor 14116
- $Gd_{13.5}Tb_{6.2}Fe_{80.3}$, film, amorph., exchange stiffness const., gyromag. factor 14116
- Si/$CoSi_2$($FeSi_2$) epitaxial silicide systs., ion channeling studies 6577

Brillouin zones
- *see also band structure*
- diamond crysts./superlattices, isotopically engineered 38502
- GaAs crysts./superlattices, isotopically engineered 38502
- Ge crysts./superlattices, isotopically engineered 38502
- Ge:O crysts./superlattices, isotopically engineered 38502
- Si:P crysts./superlattices, isotopically engineered 38502
- Si-SiO_2 interface, electron 2D behaviour modelling by Monte Carlo simulator 29986

Brinell testing *see hardness testing*

bristles *see fibres*

brittle fracture
- intell. ceramic materials, brittle fracture 28892
- LWRs, PTS event, WPS effect verification 35865

brittle materials *see brittleness*

brittleness
- *see also brittle fracture*
- bronze-graphite materials, repeated indentation, local brittleness, AE 28910
- smart high temp. composites, opt. fibres, thermal spray/adhesive bonding 3853
- GaAs LSI chips, back-grinding, mech. reliab. 1498

broadband amplifiers *see wideband amplifiers*

broadband ISDN *see B-ISDN*

broadband networks
- *see also B-ISDN*
- 2-20 GHz low-noise wideband opt. receiver 9573
- 16-channel 622-Mbit/s FDM heterodyne syst., error-rate degrad., fiber four-wave mixing 17218
- 40 GHz indoor opt. fibre SS PCN/LAN expt. 33818
- access network, wireless technols. integrat. 25148
- admission control policies, perform. eval. framework 24996
- ADSL, enabling network for VOD 9107
- ADSL, twisted-pair access, inform. highway 42058
- advanced broadcast video service (ABVS) 25667
- ASDL-I deployment, automated syst. for RFI anal. 9095
- ASK opt. transmitter, 790 nm LD for LANs 25507
- asynchronous shuffleout connectionless network switching archit. 41415
- AT&T's InterSpan ATM service for enterprise networking 41802
- AT&T ATM switching-network products 16950
- AT&T Network Systs. Service Net-2000 broadband network archit. plans 41608
- ATM, evol., broadband services 8804
- ATM, link in ST-2 internet 8974
- ATM, multimedia and mobile commun. 33660
- ATM based LAN/WAN *(Japanese)* 41854
- ATM based multimedia servers 41965
- ATM broadband networks, multiple push-out congestion mgt. scheme 41681
- ATM Canton switch, expt. infrastucture 42120
- ATM exchange, parallel computer architect., perform. modelling 42125
- ATM indoor radio, packet diversity 16700
- ATM network, service provision 16427
- ATM network call admission control by random neural net 33218
- ATM networks, adaptive call admission control 41436
- ATM networks, const. bit rate service appl. requirements 24890
- ATM networks, perform. modelling of adaptive connection admission control 41435
- ATM shuffleout switch, multicast services provision 16440
- ATM source worst case anal., broadband multiservice network appls. 33195
- ATM syst. traffic anal., modelling and simul. *(German)* 24867
- ATM technol., switching success 8856
- ATM technol. for CPN *(Japanese)* 25147
- ATM technol. for link syst. develop. 24849
- ATM techs. for high speed networks 33534
- ATM traffic distorted by cell delay var., connection admission control 41444
- ATM-oriented multimedia LAN archit. 41806
- bandwidth assignment strategies in broadband networks 8973
- BATS, transport syst. for broadband appls. 33374
- Bay Area broadband network testbeds and technol. 41995
- BERKOM multimedia teleservices 16856
- Berlin-Bonn inform. link BRAVO project *(German)* 8915
- BISDN/ATM environ., resource allocation model 3232
- bitonic sorters, detect. and location for single faults 16431
- bitonic sorters, single faults diagnosis 2876
- broadband network services, distributed multimedia support-environ. 16870
- broadband telecomms. networks and ATM, survey 16792
- burst-mode receiver transm.-capacity penalty in all-opt. multiple-access networks 17198
- business and consumer user appls. 8820
- business environ. cell-based switching node archit. and lab. model 41757
- cablephone, technol. issues 41710
- CATV broadband video systs., DFB lasers 9555
- CATV distrib. network IMD meas. *(German)* 34269
- CATV near-future archit., broadcast channels capacity 42616
- CATV network, digital telephone service *(Japanese)* 41709
- CATV return path laser systs. 42620
- CDMA opt. systs., bipolar codes 42352
- Chinese commun. research and related works 3072
- connectionless broadband ATM network data service design by simulated annealing 25033
- Croatian transm. network evol. towards broadband 33334
- custom IC, conf., San Diego, CA, USA (May 1994) 20247
- customer network management services for broadband data services 33364
- data-cyclic shared memory (DCSM) in distributed environ. 24951
- DFB transmitter selection for broadband services 42383
- digital services, broadband delivery 42054
- digital video services, technols. and network archits. *(German)* 42626
- distrib. networking, changes/progress 33672

broadband networks continued
distributed connection manager, obj.-oriented interface 9057
DQDB MAN service integrat. and impact on ATM interworking perform. 41847
Ericsson's broadband concept 41613
European research program for advanced mobile systs. 25330
fair-efficient call admission control policies 41426
fast ATM rerouting algm. for networks, unreliable links 8708
fast motion estim. algm. for MPEG video coder 16195
fast packet switching, intell. user entities 8697
FASTPAC for frame relay 16555
fiber in board electro-opt. interconnection syst., packaging 42429
FITL deployment in BT network 42056
FITL systs., MPEG encoding/ATM transport, video services delivery 42053
forecasting broadband demand, geographic areas 33348
forecasting broadband demand and traffic, multi-faceted approach 33346
France Telecom's fibre optic access networks 25499
full service broadband networks, power requirements 42622
grade-of-service achievability conservation laws 41476
GSM cellular syst., broadband CDMA overlay 3387
GSM/DCS1800 syst., base station, diversity reception 3497
GTE and Northern Telecoms' survivable SONET network 42399
health care, ACOSTA accompanying measure A2106 3052
high-capacity photonic space-division switching syst. for broadband networks 25533
high-speed cell-based network congestion mgt. techs. 33382
high-speed networks, large multimedia server, storage subsystem design 16834
HSSI for broadband appls. bandwidth allocation 16656
hybrid acoustooptic integrated-optic radio sig. proc. 17702
hybrid fiber/coax network broad-band AM-VSB/64 QAM CATV syst. 34010
hybrid fiber/coaxial archits., analog services 42384
hybrid fiber/coaxial technol. for broadband service delivery 33670
IBCN services for multimedia tourism appls. 16900
IDEA project, broadband multimedia and collaboration tools 16885
IEEE 802.6 DQDB MAN protocol, perform. anal. 3180
IEEE MILCOM conf., Boston, USA (1993) 36897
in-fibre wideband Fabry-Perot filter/resonator fab. 31066
inform. highway power distrib. archits. 42137
inform. superhighway, protocols, bearer technol. 33429
integrated appl./service platform for multimedia appls. 16893
integrated voice/data networks, bandwidth assignment 16557
ISABEL, expt. distributed cooperative work appl., broadband networks 16863
LACE multimedia programme in Oxford 9070
large pop. speaker recogn., wideband and telephone speech 32204
leaky bucket regulator perform. in broadband integrated networks 8911
load-adaptive/TDMA systs. perform., satellite networks appl. 9415
local telephone network centralized powering recommendation 42067
MANs, topol. design 41844
MARS, large scale multimedia storage server, design 16904
Midwest Symp. on ccts. and systs., Detroit (1993) 33
MM wave opt. fiber broadband wireless commun. 9506
mobile broadband commun., syst. concept/technols. 25296
modified RESTART-method using LRE-algm., rare event simul. 33247
modular multirate video switch design and dimensioning 42585
MSK multichannel coherent SCM lightwave syst. 17340
multi-service networks, mean-value anal. of call admission control thresholds 41394
multi-wavelength transport networks 9451
multicarrier transm. tech. in cellular systs. 9216
multimedia ATM broadband AIN control station testbed 41990
multimedia communs., distrib. power archit. 44132
multimedia networking for inform. society 16901
multimedia service creation/activation model 16894
multimedia services, high speed access 42016
multimedia teleservices, impact of pers. commun. 16866
multimedia teletutoring, trans-European ATM network 16861
multimedia transport and teleservices, conf., Vienna, Austria (1994) 44
multipoint multimedia telecom. and computer supported collaborative work 42018
multiwavelength technol. 17248
NCIH, integrated network/service mgt. 8837
NEC's PBX APEX1000/3000 *(Japanese)* 16963
network, reactive flow control mechanism 2869
networked ATM-video products 9026
networked interactive video and multimedia archit. 41978
North American inform. exchange network 3066
North American public broadband network service evol. 41651
North Carolina inform. highway 9547
North Carolina Information Highway, ATM switching/CPE 8823
open distributed environ. perform. considerations 41957
opt. fibre commun. networks, operation/maint. strategy 25541
Pan-European broadband high speed networks, develop. 16564
pass. broadband WDM/TDM/SCMA opt. network syst. 9493
PBX systs. for data commun. 3165
pers. video-on-demand, multimedia inform. caching 42586
photonics for broadband switching 16977
point-to-point telecomms. services for small/medium sized businesses 41615
PON, ATM protocol 42069
power supplies 41994
power supply reliab. 24894
private networks signalling, develop. 41639
PRIZMA, flexible shared-buffer switch for ATM, Gb/s rates 33712
public telecomms. infrastructure, hybrid fiber/coax archit. 42619
QAM receiver IC, 500-channel CATV systs. 3675
QPSK opt. homodyne transm. syst. receiver anal. 34044
quartz crysts., test oscillator for drive level study 30617
RACE 2001 transparent opt. networks, European progress 9524
RACE II project, TMN bandwidth mgt. for ATM demonstrated 33362
RACE II project Combine, broadband network interworking 33353
RACE II project PREPARE, mgt. of heterog. broadband testbed 33386
RACE NETMAN project, functional descriptions of network mgt. 16584
rem. centralized DC-3 testing 33387
residential video broadband switching network archit. 41554
ROSICUM, data network archit. 16549
routing, economic regulation 33299
satellite digital video transm. technol. *(Japanese)* 17542
scalable lightwave network 9452

broadband networks continued
self-clocked self-routing photonic bit switching archit. 42127
SHF/EHF mobile/indoor wireless commun., SS 3476
simul. comparison of broadband networking, MAN config. 16761
slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
small-cell environ., radio channel characts. prediction 3335
SONET, network survivability 41562
SONET/SDH ring types 42360
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
switching equipt. market needs and vendor offerings 41758
tele-monitoring/computer-supported repair, multimedia syst. 42042
telecomm. satellites power systs. study, USA 26619
telecomm. systs., neural networks appls. 41454
text commun. via multimedia services for people, speaking disabilities 41981
TINA-C archit., multi-media conferencing service 42017
TMN-based broadband ATM network mgt. 41684
US WEST's broadband residential access archit. 42057
video dial tone, operation, set-top boxes and server 16930
video multiplexing, pulsed coded fiber optics 8676
virtual broadband network, customer control of services and bandwidth 41654
virtual cybercampus, med. education appl. 25096
virtual path/network bandwidth assignment 8827
VISTAnet gigabit networking testbed, traffic meas. anal. 24749
VISTAnet/MICA, med. appls. leading, NCIH 10301
VSAT systs. role in broadband networks and IN 42308
WDM quasi-all-opt. broadband networks, packet headers encoding 16448
wideband all-opt. FDDI LAN networks 9521
wideband fiber optic systs. by carrier subtraction 25516
wireless LAN MAC protocol selection for indoor environ. 41818
wireless network perform., multimedia traffic mgt. principles 25132
InP technology, role in optical fibre communications 17189

broadcast antennas
see also broadcasting; transmitting antennas
22 GHz DBS HDTV antenna design and rain fade compensation 31950
AM high power broadcast stations, EM environ. 25642
FM radio and TV broadcasting antennas, field level reduction 3660
nonlin. effects in act. phased antenna arrays 23963
USA DirecTv DBS shaped reflector breadboard verification 23921
USA DirecTv DBS shaped reflector design 23920

broadcast channels *see telecommunication channels*

broadcast information systems *see radio data systems*

broadcast software *see telesoftware*

broadcasting
see also direct broadcasting by satellite; radio broadcasting; television broadcasting
ATM switching network, asymmetric broadcast, concentrators 16971
calculus of broadcasting systs., priority 16414
corporate struct., R&D and incentives *(English, French)* 41581
counter-based reliable broadcast protocol 33266
DATAVIDEO service, tech. and operational charact. *(Italian)* 8814
digital special broadcasting, evol. and appl. 8244
fault-tolerant lin. broadcasting 24764
fax broadcasting syst., high dens., develop. 33417
group communication, multicast mechanism 2970
IDUN, broadcast multimedia syst. 25106
integrated services digital broadcasting, transport struct. 24886
ISDN and ISO/MPEG layer III audio coding, broadcast audio prod. 3238
MBONE, Internet multicast backbone 25004
message optimal protocols for fault tolerant broadcasts/multicasts 24833
modern commun. technol. advancement, problems *(Chinese)* 3234
MPEG 2 appls. 32877
multi-hop radio networks, randomized broadcast protocols 3319
multicast routing based on predicted traffic stats. 16529
multidimensional switching networks, universality 8704
network broadcasting in n-grid, given neighborhood template 16412
New Zealand, telecomms. and broadcasting deregulation 3037
QoS negotiation for multicast commun. 16876
real time speech rate conversion syst. for elderly listeners 43368
regular min. broadcast digraphs constr. *(Korean)* 24866
Solid State Logic and workstations for professional audio 17616
technols., recent progress *(Chinese)* 5723
torus networks, struct. commun. 16449
universal lists, broadcasting 16411
wide-area multicast routing archit. 2987

broadside antennas *see antenna arrays*

bromide glasses *see halide glasses*

Brownian motion
see also colloids
acoustic weak sinusoid with drifting phase, detect. in non-Gaussian noise 15893
adaptive rate control for delayed feedback sources 24745
CMOS micromechanical resonator oscillators, design/perform. 30509
fractional Brownian motion, extended self-similarity 8430
fractional Brownian motion, spectral exponent estim. 24287
high speed networks, flow control methods 16478
macroscopic/microscopic methods for noise in semicond. devices 1318
noisy phase lightwave systs., power moment derivation 25478
random wavelet transform. 32521
self-similar procs., increments, sig. modeling 40930
texture segmentation using wavelets, fast fractal, extraction 8500
wideband radio channel time vars., random receiver movements 33848

Brownian movement *see Brownian motion*

brush discharges *see brushes; discharges (electric)*

brushes
anisotropic laminated brush, reactance freq. characts. *(Polish)* 44009
DC machine, electronically assisted commutation, terminal charact. 27755
DC machine online spark detect. syst. develop. 4991
elec. machine, brush friction coeff., current/temp. influence *(Croatian)* 4890
EM launchers, multi-fibre brush armature perform. simul. 15321
railgun armature plasma brush electrode materials 15334
small DC motors, brush mechanism, vibr. damping materials *(Japanese)* 11080

brushgear *see brushes*

brushless DC motors
3D force prediction in model lin. brushless DC motor 19652
adaptive integrator backstepping tracking controller 19655

brushless DC motors continued
computer simul. model 36184
controller design, software package develop. 19680
design/selection 19656
direct voltage vector control implement. 4990
drives, control strategies comparison 44476
drives, inverter design, optocouplers 28073
drives, math. modelling 44494
drives, variable speed control design 5243
elec. vehicle drives, time-varying adaptive μP control 36739
fuzzy speed control design 4989
heart assistance, fuzzy controlled brushless DC motor 43357
mag. field anal., FEM 44070
med. equipt. appls. 36187
modelling, 120° commutation seq. *(French)* 11065
multiple equilibria in electromechanical systs. 27747
nonlin. tracking controllers develop. 4994
Optra Series laser printer, brushless DC/stepper motor-based 44258
PM brushless DC drive, var. struct. speed control 36665
PM brushless DC motors, field weakening, control 11360
PM brushless DC motors, laminated rotor, FEM modelling 11064
PM brushless DC motors anal., FEM 27743
PM brushless DC motors design, mag. ccts. 36191
PM brushless motor drives, state-of-the-art 36677
PM DC brushless homopolar motor, math. model 4987
PM DC motor drives, torque ripple reduction 44477
posn.-vel. control design 36188
posn.-vel. tracking control, obs. integrator backstepping approach 27750
reduction of reluctance torque in brushless PM motors 19650
salient-pole brushless motors, starting method 5286
sensorless brushless DC motor drive control studies 44474
sensorless control 11060
servomotor, optimal DSP control 36195
servomotor auto-tuning, fuzzy optimal control 4988
solar elec. vehicle, PM brushless DC motor drive 5355
Space Station Freedom, brushless DC motor, posn. control 43453
tooth forces, coil winding pattern infl. 19651
torque control 11368
torque prod., unified theory 4930
washing machine energy efficient brushless motor drive 5396

brushless machines
see also brushless DC motors
2-phase brushless motor, feedback phase winding current *(Russian)* 43996
60 hp brushless doubly-fed pump drive, water treatment appls. 5431
250 kVA, 40 MVA brushless sync. machines *(German)* 10987
AC motors, digital servo amp. concept 11338
AC motors, torque prod., unified theory 4930
AC/DC 4000 kW dual mode inverter controlled locomotive 44506
Blue Angel hybrid petrol/elec. road vehicle *(German)* 11440
direct drive motor, robust speed control design 5287
disk drives, PM spindle motor modelling 19581
doubly fed machines, pump drives, pole no. combinations 5282
doubly-fed brushless motor drives, pole no. model 5279
doubly-fed induction motor drives, speed control 20055
doubly-fed variable speed wind generator adaptive control 4876
motor drives, high power, intell. interface 5271
opt. telescope, direct drive, low cogging torque PM brushless motors 11320
PM brushless drives, integrated CAD syst. 11344
PM brushless machine, induced EMF/torque waveforms 10933
PM brushless motors, EM/thermal design 36104
PM motor drive, comparison, induction motor drives 5274
PM motors, cogging torque minimisation design 10946
PM sync. motor drive, predictive control 20087
PPC scanner motor, power brushless type *(Japanese)* 10931
PWM invertor IGBT gate drive IC, eval. and appls. 5052
self-excited brushless multifield induction generators 11049
servo systs., motors/drives/posn. control, trends 28075
sync. motor drives, field weakening perform. 5250
three-phase motor motion control, sinusoidal commutation-based 27665
three-phase sync. generators, brushless excitation method 4928
three-phase two-stator brushless sync. induction motor *(Japanese)* 19606
turbo compressor drive, intell. diagnostic syst. 36693
variable speed drive network, diagnostic ES 11370

bubble chambers
see also position sensitive particle detectors
ICARUS detector, data reduction techs., phys. param. extraction 10125

bubble jet printers *see ink jet printers*

Buchholz relays *see relay protection*

bucket-brigade device arrays *see charge-coupled device circuits*

bucket-brigade devices *see charge-coupled devices*

buckling
act. suspen. syst., automotive appl. 11433
guyed transm. towers, anal./design, Kuwait case study 43790
membranes deflection, internal stress 30513
PCBs, rigid flex, cover sheet wrinkling 29687
post-buckling of micromachined beams 30512
steel foils, laser bending, buckling mechanism 20985
thermally driven microvalve, buckling type, pneumatic appls. 30498
wirebond geom. and die setting, effect on wire sweep 20445
Ni-Ti fibre reinforced composite beams, lateral buckling control 37545
Si-SiO$_2$-SiN$_x$ bistable snapping microactuator, buckling cantilever 30501

budgeting
see also costing
hardware-in-the-loop simul., point targets, error anal. 26837
telephone earth station satellite commun. link, engng. design *(Chinese)* 42322

buffer circuits
ASIC, Conf., Rochester, USA (1993) 36858
BiCMOS buffer ccts., delay modelling and optim. 647
BiCMOS SRAMs, PLL timing design techs. 29220
buffered direct injection multiplexer for IR cameras 34562
clock net optim. and synthesis, MCM/VLSI, buffer distrib. algm. 29335
CMOS buffer ccts., transit. time formulae 6067
CMOS buffer design, split inherent-capacit. load model 29101
CMOS buffered switch for gigabit ATM switching B-ISDN 16974
CMOS tapered buffers, unified design methodology 29136
CMOS video D/A converter, HDTV, low glitch 10-bit 75-MHz design 12594

buffer circuits continued
complementary BiCMOS buffers, multi-drain/multi-collector struct. 13903
current-feedback op-amps, small-sig. macromodel 37651
enhanced slew rate source follower, CMOS implement. 21466
functional correctness verification, VHDL and Statecharts-based approaches 21056
high speed CMOS output buffer, design aspects 37695
high-drive low-power BiCMOS buffer amp. 6034
high-swing high-drive CMOS buffer, large capacitive loads 37645
I/O-buffer modeling spec simplifies simul. for high-speed systs. 37693
lin. multiplexer designs for rem. sens. appl. 34581
load-independent cell library macromodeling, waveform simul., CMOS logic 29143
low-power quadrature modulator ICs for digital mobile commun. 42214
LV full-swing noncomplementary BiCMOS buffers 12489
tapered buffers, local interconnect capacit. 21396
GaAs 2-to-4 level convertor IC for SOA modulators 42403
GaAs buffered DCFL gate array, differential push-pull I/O 37720
SiGe-base HBT 2D device-level simul., transient/DC behavior, ECL buffer 13658

buffer storage
see also cache storage
A-M-S type fluid queue output 33232
ARQ protocols for high speed hardware implement. 41541
ATM, burst reduction props. of leaky bucket flow control scheme 16451
ATM, comparative eval. of output buffer mgt. schemes 8724
ATM, connectionless multicast service 42124
ATM, hitless path protection switching techs. 16420
ATM archit., photonic devices 16986
ATM backbone, frame-relay traffic 41439
ATM bursty user traffic allowed by jitter tolerant leaky bucket 2872
ATM cell contention resoln. by multiwavelength fiber loop memory *(English, Italian)* 33989
ATM cross-connect archit., expandability and non-blocking 3295
ATM cross-connect syst., archit., develop. and field trial 3294
ATM multiplexer, correl. real-time and independent non-real-time traffic 24752
ATM multiplexer supporting bursty traffic, perform. computation 41427
ATM multiplexer traffic model for correl. periodic real-time and independ. batch Poisson traffic 41429
ATM network policing mechanism with state-depend. control 41430
ATM network under partial buffer sharing policy, cell loss proc. 8698
ATM networks, anal. model for self-similar traffic 16667
ATM networks, burstiness fn. for substream output from buffered multiplexing node 41453
ATM networks, cell loss minimisation, robust heuristic 24795
ATM networks, credit-based flow control 2881
ATM networks, effective bandwidths for admission control 33231
ATM networks, effective bandwidths formula perform. 33227
ATM networks, indiv. VC shaping 33235
ATM networks, resource sharing schemes in connectionless server 41438
ATM networks, simul. tech. for modelling burst scale queueing 33246
ATM networks with leaky buckets, buffer requirements 16446
ATM node buffer allocation algm. for correl. arrivals 41478
ATM prioritized networks, congestion control schemes 8743
ATM shared medium multiservice protocol 41519
ATM shared-buffer direct-access switch archit. 8709
ATM shuffleout switch, channel grouping techs. 33199
ATM stat. multiplexer multidimens. diffusion model 41431
ATM switches, buffer allocation schemes 8723
ATM switches, frame-oriented queueing control policy for real/non-real-time traffic 33592
ATM switches, queue mgt., multiple delay/loss priorities 8726
ATM switching syst., bandwidth control fn. 16958
ATM systs., admission and equiv. bandwidth 2874
ATM traffic connection admission control, stream correl. effect 41428
ATM traffic distorted by cell delay var., connection admission control 41444
ATM worst deterministic pattern allocation 8710
B-ISDN, hyperdistributed switching syst. archit. 33588
B-ISDN, queues, total recall 33603
B-ISDN high-speed-retry banyan switch archit. for gigabit rates 3293
broadband network grade-of-service achievability conservation laws 41476
CAM-based single-chip shared buffer ATM switch 9142
cell buffer implement. realizing CLP and appl. 16966
cellular handover proc. model, limited queuing time 42208
cellular mobile commun. systs. for data transm. 25349
conflict-free WDMA networks, buffer-sharing 8745
CRMA/ATM network interconnection flow control protocol 41762
delta switching networks, perform. eval. 16456
discrete-time single-server queueing systs., general Markov-modulated arrival procs. 33226
DSP real-time implement. on multiprocessors, CAD environ. 12584
DTM gigabit network, fast connection establishment 24805
DUALQUEST, real-time bifocal telecomm. network visualization syst. 41672
Erlang capacity of shared resource 40540
expandable ATOM switch archit. for ATM LANs 8970
fast reservation shaper, novel approach for fast resource mgt. 41683
FDDI networks connected through ATM, video traffic mgt. perform. 24916
finite-buffer polling syst. with exhaustive service, virtual buffering 16468
finite-buffered multistage interconnection network perform. anal. 41405
Galileo mission, buffered telemetry demodulator 9420
high perform. transparent bridge modular archit. 41404
high speed networks, bandwidth and buffer reservation schemes 33388
hybrid STM-ATM switching and transport 41437
image data compression, buffer control strategy 16229
IP multigigabit router design 8901
LAMS-DLC perform., protocol for low altitude satellite networks 33940
LAN switch traffic overflow 16722
large scale ATM switch archit. *(Japanese)* 42121
leaky bucket traffic shaper fed by bursty source, output traffic 16442
light-wt. LLC protocol in slotted ring networks, perform. eval. *(Japanese)* 16503
Markov modulated Poisson stream loaded multiplexer loss probab. estim. 41483
MIMO LAN interconnection over high-speed gateway 41756
Mini-MAP reduced OSI stack, perform. eval. 3168
modified RESTART-method using LRE-algm., rare event simul. 33247
MPEG variable bit-rate video on LANs, rate control 16646

buffer storage continued
multi-single-stage shuffling switch, design/perform. 16430
multibeam satellite prioritised nonblocking switch perform. under hotspot traffic 41412
multicast ATM switch copy network shared-buffer archit. 41417
multicast ATM switching, design requirements and archits. 25190
multimedia playout sync., buffer level control 16850
multimedia queueing syst. with Poisson and batch Poisson packet arrivals, traffic anal. 25107
multimedia server for on-demand services 16832
multimedia service networks, link capacity allocation by input power spectrum 33664
multipath self-routing switch fabric, perform. anal. of resequencing unit 33608
multiplexed ATM traffic, policing/spacing 8695
multiplexed ON-OFF sources, effect of multipath routing on loss perform. 41928
multiservice networks, flexible call admission control 41455
multistage ATM switch fabrics, approx. model 41443
multistage ATM switching network, delay perform. 33197
NEC, 10 GHz Si bipolar static prescaler *(Japanese)* 37682
opt. mesh networks, hot potato/single buffer deflection routing 16528
packet switch waiting time, input/output buffer control policy *(Japanese)* 41490
packet switches, shared buffer memory 24759
picocellular network, protocol for seamless commun. 9348
pipelined common buffer archit. for memory based switching systs. 33716
power series algm. for anal. timed-token ring protocols 41524
pre-scheduling mechanism for multimedia presentation sync. *(Korean)* 25122
PRIZMA, flexible shared-buffer switch for ATM, Gb/s rates 33712
QoS negotiation for orchestrated, distributed multimedia presentation 25100
queueing anal. of partial buffer sharing, Markov modulated Poisson inputs 33220
random access on real time retrieval of digital continuous media 41999
rate based flow control scheme for time-varying traffic, perform. eval. *(Japanese)* 41458
rate buffer control strategy for image coding 8648
rate-control throttles, burst reduction props. 24797
reliable and efficient hop-by-hop flow control 2880
SARAM, dual ported memory, random access and seq. access 21308
satellite-based packet-switching networks, on-board closed-loop congestion control 33942
self-recovering commun. buffer based on cellular automaton concept 8801
service specific connection oriented protocol, preliminary perform. study 41935
shared memory ATM switch, simul. study of space priorities 33720
single-stage output buffer packet switches, independent batch arrivals 41456
slotted ring protocol for voice/data integrated network, perform. anal. *(Japanese)* 41512
split-buffered multistage interconnection network nonuniform traffic anal. 41406
StarBurst switch with dedicated output and shared input buffering 41413
stat. multiplexer with generalized periodic sources, anal. 24750
state-depend. buffer model, large loading and output rates 41487
telecomms., rate-controlled service disciplines 33167
threshold-based dyn. routing algm., perform. anal. 41576
user-level buffer mgt. protocol, network interface support 25029
writing speed to hard disk improvement, alternate buffering 3733
XTP multicast for high quality video distrib. 16484
XTP protocol flow and rate control algm. 41498
buffers (chemical) *see pH*
buffers (circuits) *see buffer circuits*
building
see also architecture; civil engineering; erection
900 MHz buildings penetration loss 31841
905 MHz radio propag. in an office, metal low-partitions effect 31830
bonding config. in telecomm. centers, EFT field tests 23707
coil winder simul. for Superconducting Supercollider 22770
columns and girders, equiv. impedance for lightning surges 20385
constr. regulations w.r.t fuel cells, technol. transfer 36581
EM field anal. of buildings, shielding screens 15509
EM protection/estim. for telecomms. buildings *(Japanese)* 31863
EM-field anal. of buildings, 3D wire-grid model 23513
microcells, 912/1920/5990 MHz radio propag., buildings 31829
passenger terminal buildings, elevator equipt. *(Japanese)* 11426
reinforced concrete building, elec. field atten. 23736
telecomms. building, simulated direct lightning surge current 24876
Rn, meas. tool, buildings, remedial actions 18367
building acoustics *see architectural acoustics*
building automation *see building management systems*
building management systems
HVAC nonlin. heater batt., neural net control 5239
intell. building, electro-mag. interf. 8004
intell. building, lightning induced voltages 8005
intell. building, power receiving/transforming equipt. *(Japanese)* 28056
intell. local operating network for office and home automation 9002
private data network design, concentrator positioning optimisation 24986
security, pass. IR presence detectors 42807
services projects CAD, STEP technol. 11315
single-energy heat pump eval. *(German)* 20136
technol. automation struct. and tasks *(German)* 28058
telecom. equipt. air conditioning, building control/mgt. syst. 20135
building wiring
central office building power distrib., loop voltage drop optim. 43748
commercial facility, power quality improvement, student project 35618
EM field distrib. estim. for buildings, wire-grid approx. *(Japanese)* 40386
EMC directives, Europe, overview 27181
foundation earthing devices, DIN 18014 std. spec. *(German)* 10775
hospital commun. and signalling syst. *(Italian)* 10300
LV AC power syst. clearances flashover, overvoltage wave-based 35457
LV power distrib. network commun. sig. transm. *(Croatian)* 3309
office building power quality survey, Hong Kong 4501
power cable burn-out, harmonics 10721
power syst., SMPS harmonic currents effect 43756
pressurisation, interior switchgear arcing *(German)* 19899
protective conductor currents in studios and DP buildings *(German)* 27265
services projects CAD, STEP technol. 11315
short cct. currents, design params. 19261
building wiring continued
struct. wiring, opt. fibres 42370
Univ. of California, Santa Cruz, library data wiring replacement 16757
built-in self test
1D lin. hybrid cellular automata of degree through 500, min. cost 37742
3B21D BIST/Boundary-Scan syst. diagnostic test 5590
AGOSTO framework, VLSI BIST wt. distrib. generation 30430
algorithmic synthesis of high level tests for data path designs 29183
aliasing props. of circ. MISRs, comments/reply 21276
Asian Test Symposium, Japan, Nov. (1994) 5504
ASIC test cost/strategy trade-offs 6070
ATS 93 test conf., China (Nov. 93) 36857
automobile smart sens., self-test and diagnosis 5364
balance testing of logic circuits 29182
behavioural learning impact on sequential circuit test compilation 29184
Berger code self-testing checkers 595
bounding fault detection probabilities in combinational circuits 37733
byte error detecting codes 12391
C-testable design techs. for iter. logic arrays 29138
CACOP, random pattern testability analyzer 37730
CAD conf., San Jose, CA, USA, Nov 1994 41
circ. self-test path, fault coverage estim. 29175
circ. self-test path tech. for real ccts. 6098
CMOS chip set for pipeline and parallel pipeline FFT archits. 21357
CMOS logic ccts., built-in current testing, random patterns 21235
CMOS self-checking seq. ccts., bridging faults detect., DFT 617
combinat. self-checking devices constr. 12417
continuous-time MOSFET-C filters, on-line error detect. 29361
cost reduction in electronics indust. 5589
cumulative bal. testing of logic ccts. 29135
D flip-flops, self checking/code disjoint, sync. cct. design 29120
D/A converters testing, BIST approach 12600
develop. trends 6818
DFT/BIST hardware, chip-based, control strategies 9805
Diagnostician on-a-chip 12568
dual port memories, fault models and test algms. 6152
dual-port RAMs, built-in random testing 37753
embedded cache design, nonintrusive BIST 37759
embedded RAM, self-diagnostic BIST memory design scheme 37754
fault detect., location and logging 6820
fault diagnosis in ATE analogue cct. modules 25722
FIR filters, self test, fault coverage 29374
fixed-biased pseudorandom BIST for random pattern ccts. 6096
flip-flops configuring, BIST registers 6097
floating-point systolic array PE, serial commun./BIST 21356
generic test/maint. node for embedded syst. test 9795
GLFSR test pattern generator for BIST 6085
global test schedules assembling, unified method 12464
hierarchical testable digital architecture 37687
high speed testing, optoelectronic techs. 6825
Hopfield neural network for fault diagnosis problems *(Japanese)* 34410
I_{DDQ} BIT cct. for CMOS ICs 13884
I_{DDQ} built-in concurrent test for interconnects 6463
IC testing/testability practices 5596
IEEE/ACM conf. on CAD, Santa Clara, CA, USA, 1993 36906
interacting finite state machine design with self-checking capability 29188
International Test Conf., Washington, DC (Oct. 1994) 61
large combinat. ccts., fault models, zero aliasing compression 37749
LFSR pattern generators, unmatched, pseudorandom testing 21194
LFSR test pattern generators, lin. dependencies avoidance 37740
LFSROM BIST, basics and appl. 21193
LSSD scan ring and STUMPS channel test and diagnosis 29140
MC68060 μP testability 6161
MCMs, defect migration, structural test 21700
MCMs with ASICs global optim., concurrent engng. approach 21743
memory technol./design/testing, workshop, San Jose (1994) 36826
multi-tone sig. generator for BIST appls. 9967
multifrequency test vector generation for analog cct. testing 5593
multiple signature anal. compaction testing, quasi-optimal scheduling 21243
multiple-output ccts., efficient test response compression 6087
multiple-polynomial LFSR, BIT 21266
multiport RAMs, complex couplings testing , fault modelling 29217
ocean CTD & fluorimeter sens., BIST 18891
parallel feedback-based scheme for BIST 12395
partitioning techs. for BIST design 21058
pipelined pseudo-exhaustive testing, simulated annealing, combinat. cct. partitioning 29113
PowerPC 603 μP, array BIST 6164
PowerPC 603 μP, struct. and ad-hoc design for test 6163
prog. devices, in-cct. programmability 12495
prog. space compactors selection for BIST 12459
programmable space compaction for built-in self testing 29181
pseudo-exhaustive testing, VLSI ccts., cct. partitioning and test generation method 37573
pseudo-exhaustive testing, VLSI ccts., coord. cct. partitioning/test generation 21260
pseudorandom testing of seq. ccts., struct./tech. 21244
QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
RAMs, on-chip testing 12511
RAMs, transparent BIST for single V-coupling faults detect. 37771
random pattern testable floating point adders 12458
random testing, num. wt. optim. 21161
rapid prototyping of appl.-specific sig. proc., architectural issues 29240
resistive-ratio networks automation 25705
ring-address FIFO memories, fault models/algms. 6149
ring-address SRAM-type FIFOs, BIST tech. 37770
ROM BIST, zero aliasing 12512
self-checking ccts. with combinat. logic, fail-safe eval. 37741
self-checking combinat. logic design, weighted-output based approach 29153
self-checking mixed-sig. ICs, analogue sect. design, safety appls. 29408
self-testing PLM design, lin. seq. machines 12413
self-timed ccts., self-checking combinat. logic and seq. machines 37739
sigma-delta ADC, BIST scheme for SNR/freq. response test 12597
signature anal. for RAM BIST, aliasing-free 6148
single-order addressed memory testing, effective march algm. 21301
six-port module for built-in-test applications 25960
SOG-based RISC pro. tested for failsafe appl. 21344
SRAMs, on-chip test scheme 37756
sync. seq. ccts., fault coverage anal. 12439

built-in self test continued
syst.-level testability of hardware/software systs. 9794
testability measures combining probablistic and sampling techniques 21205
testable designs synthesis, behavioural specs. transform. 6074
transparent memory BIST tech. for RAMs 37769
transparent memory testing for pattern sensitive faults 6153
two-pattern testing, test pattern generation ccts. eval. 12460
TX2, 32-bit μP, efficient testable designs 21350
VLSI ccts., hierarchical test anal., random BIST 37694
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
VLSIs, arith. execution units, BIST struct. *(Japanese)* 6815
wafer burn-in strategies for MCM die, BIST for KGD 21703
weighted random sequence synthesis, sequential cct. testing 21195
ASICs, DFT tools and method selection 37684
GaAs-AlGaAs HBT, high-speed register file, F-RISC/G proc. 37801

built-in testing *see built-in self test*

bulk acoustic wave devices
see also surface acoustic wave devices
act. BAW piezoelec. filters 30652
high-Q piezoelec. materials and BAW/SAW resonator devices, advances 39046
IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
micromachined thin film bulk acoustic resonators 30635
microresonator struct. composite resonator *(Chinese)* 14083
quartz cryst. oscillators, freq. instabilities 30626
quartz resonators/oscillators, 1/f freq. flucts./nonlin. 30627
sensitivity anal. of one port/two port BAW/SAW resonator 30639
$Li_2B_4O_7$ promising material for BAW filters 30582
thermally compensated materials, $AlPO_4$, $GaPO_4$ and $La_3Ga_5SiO_{14}$ 30578

bulk density *see density*

bulk diffusion *see diffusion*

bulk modulus *see elastic moduli*

bulletin boards *see electronic mail; hobby computing; information services*

bundling *see packaging*

buried heterostructure lasers *see semiconductor lasers*

buried layers
bonded etch-back SOI based interconnect for high speed ICs 22263
buried metallic layers in Si, wafer fusion bonding 13270
DMOS power transistors, Si-direct-bonded, static/dyn. props. 22467
DRAMs, boron-implanted layer, carrier suppression 22108
fibre dielec./mag. gratings, plane wave refl. 15411
p-MOSFETs, trench-isolated buried-channel, narrow channel effect 6769
oxide buried layers in SIMOX material, radiation response 13281
short-channel vert. NMOSFETs for high dens. fast SRAMs 21332
SOI struct., buried dielec. films, ion form. 38441
submicron SOI MOSFET, self-heating, scaling constraints 30289
VDMOS-type power ICs, void-free bonded SOI substrs. 39017
Al/SiO_2 interfaces, buried thin reacted layer direct obs. 38695
$Co_xNi_{1-x}Si_2$, buried layers in Si, ion beam synthesis 30025
$CoSi_2$ patterned layer buried Schottky contacts in Si, wafer bonding 38394
Cr-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
GaAs MESFET, buried channel self-aligned proc., MMIC appl. 38930
GaAs MESFET fabricated by internal interconnection tech. 13803
GaAs MSM photodetectors, buried layer effect, modeling 38450
GaAs/AlGaAs buried quantum wires, situ FIB implant. 21978
GaInAs, migration/buried epitaxy, digital epitaxial growth 20672
GaInP/(AlGa)InP buried quantum wires, local order-disorder transition 13203
Ge ultrathin δ-layers in Si matrices, SIMS profiling 38241
InAs SQW buried in GaAs[001], grazing incidence XRD anal. 38362
InAs/GaAs monolayer heterostruct., thin buried layer XRD 38310
InGaAs quantum disks self-organizing on GaAs(n11)B, AFM study 6553
InGaAs/InP buried wires, selective thermal intermixing 13180
InP, MeV ion implantation, device appls. 13288
InP, migration/buried epitaxy, digital epitaxial growth 20672
InP:Fe epilayers, buried layers by Fe implantation 13286
SOI wafer, counter-oxid. of superficial Si 13320
Si:B, form./control of B buried layers, excimer laser 13291
Si:C, phase form. by high-dose C implant., IR spectra 38503
Si:F, recrystn., at. redistribution, F 1s NEXAFS 38521
Si:N, ion implanted buried SiN_x films, EXAFS and NEXAFS obs. 38440
$Si/CoSi_2$ vert. MSM photodetectors, buried contacts 34500
$Si-SiO_2$ SOI film thicknesses, reflectance meas. 13260
Si^+-self implant induced damage, characts., annealing behavior *(Korean)* 29842
SiO_2/Si, thermal layers, wafer bonding induced degrad. 38422
$TiSi_2$ buried layers in Si by direct wafer bonding 30154
WSi_2 buried layers in Si by direct wafer bonding 30154

burst correction codes *see error correction codes*

burst noise
30-Mbit/s high-sensitivity burst-mode/packet receiver for PON appl. 17197
adaptive DS-SS receiver for burst type interf. 17002
composite noise generator, noise immunity tests for dig. systs. and TV pictures 40371
reliab./quality diagnostic tool for electronic devices 1315
SS commun. noise, chip interleaving/hard limiter 25232
TV picture degrad., non-Gaussian burst noise 25636
TV picture degrad., non-Gaussian noise, subjective eval. 25635
TV picture degrad. by EM noise, opinion tests on still and motion pictures 42565
InP/InGaAs/InP photodetector arrays, RTS noise and excess currents 17773

burst switching *see telecommunication switching*

bus conductors (electric) *see busbars*

bus reactors *see current limiting reactors*

busbars
3-phase multiconductor busbar systs., model validation 19904
22 kV spot network power receiving/transforming facility *(Japanese)* 27775
168 kV hybrid GIS, outdoor air insulated bus substations *(Japanese)* 27838
230 kV step-up substation, characts. *(Japanese)* 27861
330 kV substation busbar short-ccts., turbogenerator saturation modelling 19064
Cassini power management and distribution 26647
DC/AC power convertor planar integrated reson. LCT cct. design 12321
distrib. double-cct. lines, dist. protection relay calcs. 19260
elec. generator busbars, EM proc. calcs., FEM-based 18998
fault location, neural net-based alarm proc. 19072

busbars continued
GIS, coaxial pulse generator, VFT generation 36487
HV substation flexible busbars, plastic impact simul. 19915
HV switchboard busbars, travelling disturbance arc tests 19888
IGBT power module interconnection busbars 37634
joints, preliminary CAD 19325
MV enclosed switchgear, size reduction innovations 27849
planar busbar low inductive connections, power electronics 12868
power convertor busbar struct., current distrib. effects simul. *(Russian)* 44112
power station auxiliary power systs., short-cct. current calcs. 19383
power syst. busbars, steady-state/transient ampacity calcs. 4448
power syst. fault diagnosis, interval based approach 19040
power syst. security eval., ANN appl. 10677
PSS SVC fuzzy logic switching design 19102
pumped storage operation, economic assess., spot pricing 27618
Sampex spacecraft derived power syst., stabil. anal. 26611
substation flexible overhead busbars, mech. calc. algm. 19916
subway trains, AC supply network, load impact eval. 28108
three-phase conductively isolated busbar voltages anal. algm. 35481
three-phase power conductor arrangements, short cct. losses 35645
three-phase PWM GTO invertor, design, constr. 5090
XLPE power cable insulation diagnosis, DC superimposition method *(Japanese)* 27194
$Li-SOCl_2$ batt. develop. 26674

buses (computers) *see system buses*

bushes *see bushings*

[illegible]ings
condition monitoring, acoustic/US techs. 18948
HVDC, state-of-the-art develops./technol. 19237

business *see commerce*

business communication
1.8 GHz ray optics modelling for indoor propag. 7977
60 GHz indoor commun. systs. for data/video commun. 40354
Alcatel 4400, DP and telecomms. syst. integrat. 41611
AT&T's InterSpan ATM service for enterprise networking 41802
ATM, future in deregulated markets 16552
Australian CDMA cellular radio trials 3489
B-ISDN appls. trials in Japan *(Japanese)* 41939
B-ISDN/ATM customer network mgt. archit. 41913
branch network strategies and protocols 8890
call centres for business commun. 33401
cell-based switching node archit. and lab. model 41757
Centrex, benefits and UK market 16959
client-server networks, recovery 3181
corporate and organizational commun. 28382
corporate commun. in cyberspace via Internet, rhetorical dyn. 33577
corporate commun. requirements, computer assisted anal. *(German)* 16520
corporate ESD program, strategy and philosophy 30543
Corporate IP services for Internet 24809
corporate networks, European legal framework *(German)* 8847
corporate networks investments, goals and strategies *(German)* 25048
corporate telecomm. networks, trends and integrat. issues 41937
Croatia, business commun. syst. MD110 in private networks 33338
Croatian approach, business commun. services 33337
DECT data services 42251
DECT for business commun. 42220
DECT for commun. needs of small office/home office users 42221
desktop assets mgt. 41699
dial-up X.400, APS alliance 25018
Distributed Smalltalk for enterprise mgt. syst. develop. 8961
e-mail messages, prioritisation, intell. agent 41740
EDI and inter-firm rels., coord. proc. standardization 33482
enterprise network (in yr. 2000) 41640
enterprise network ATM switching paradigm 41408
enterprise network develop. and mgt. prospects *(Japanese)* 16751
enterprise network LAN-ISDN integrat. *(German)* 9008
Ethernet switches extending 10BaseT lifetime 3163
fast packet technol., corporate network choices 33581
Fujitsu multimedia teleconferencing syst. (VS-700SV) *(Japanese)* 42079
high-speed ATM backbones 24763
IEE telecommunications conf., Brighton, UK (1995) 36830
IN services, European telcos maintaining competitive edge 16826
inform. marketplace, competition, telecom innovation 8803
intell. private telecomm. networks *(German)* 9037
interactive EDI, IT and commerce in 21st century 41642
international business, role of international communication 28365
Internet, public good and trading 16741
John Wiley and Sons telecomm. network devel. 33380
mixed X.25/frame relay networks congestion control 16447
mobile corporate commun. 41725
multimedia, business style creation *(Japanese)* 42022
multimedia, marketplace pot. 25110
multinational enterprise networks, mgt. services and stds. *(German)* 33579
NEC multimedia VAN services *(Japanese)* 42030
news on demand for business, Nynex/Dow Jones 16828
North American public broadband network service evol. 41651
NTT Data Communications, internat. business operations 41591
outsourcing of services, high technol. orient. 33582
PBX systs. for data commun. 3165
picocellular network, protocol for seamless commun. 9348
PMR systs. security 33915
point-to-point telecomms. services for small/medium sized businesses 41615
PON, ATM protocol 42069
public E-mail, interoperability 33414
ROMANTIS, satellite services for Eastern Europe 33938
Russian Federation, business service network develop. strategy 41558
security in telecomms., subscriber perspective 33351
service mgt. ref. platform in shared business environ. 16596
Singapore, national inform. infrastructure 24958
SMDS technol. test results and issues 41764
SS-CDMA PCS in-building systs., distributed antenna 9231
stackable hubs for networks 16652
switching syst. MD110, appl. develop. functionality expansion 42109
switching syst. MD110, specific appl. develop. 33715
TDMAX and FASTCOM, Alcatel satellite systs. for domestic and corporate commun. 25450
technical and business communic. course, teaching to foreign language audience 28301

- **business communication** continued
  - technical communications in Russia, implic. of market economy 28300
  - technical messages from business professionals to international audiences 28299
  - teleconferencing, mgt. student education 33622
  - Telemeet 100/50, TV conf. syst., develop. *(Japanese)* 25080
  - UHF digital cellular syst., network archit. 25407
  - UHF DOA inside/outside buildings 9312
  - US corporations, telecomms. initiative adopters 33323
  - Vobis Microcomputer AG internat. ISDN *(German)* 41922
  - VPN's and business commun. solns. 41953
  - VSAT appl., extend company LAN, retail sites 16774
  - VSAT networks, integrat., user network environ. 17159
  - wireless LAN, intra-office commun. 41858
  - X.500 directory services support for EDI 41896
- **business data processing**
  - corporate network mgt. *(Japanese)* 16715
  - Distributed Smalltalk for enterprise mgt. syst. develop. 8961
  - document imaging technol. for contract mgt. 41721
  - EINet, secure, open network for electronic commerce on Internet 8938
  - Internet, today and tomorrow *(Japanese)* 8883
  - LAN/WAN aspects of enterprise computing 33479
  - NTT's CUSTOM, hardware and network config. 25005
  - service mgt. ref. platform in shared business environ. 16596
  - teaching professional interpersonal skills via interactive video 34273
  - workflow automation and electronic commerce via distributed messaging 41634
  - World-Wide Web server, Digital Equipment Corp. 8896
- **business graphics**
  - 2D colour pattern load anal., DSS tool supporting DSM 27053
  - FM TOWNS, multimedia tools *(Japanese)* 42011
- **business re-engineering** *see systems re-engineering*
- **business television** *see business communication; television*
- **butterfly networks** *see hypercube networks*
- **Butterworth filters**
  - 4th order switched current low power lowpass/highpass Butterworth filter 29344
  - biquad high-order SC filters, multiplexing tech. 6220
  - digital mobile radio systs., anti-multipath modulation techs. 17075
  - diplexer design, real-freq. approach 6201
  - DS-SSMA systs. perform., filtering effects, transmitter 33207
  - DSP-based integrated software environ. for filter design 5952
  - ECG, sig.-av., filter effects on anal. 18558
  - ECG sigs., real time software filters 35122
  - EMI receiver syst. design 15481
  - IIR dispersive channels, min. Euclidean dist. of modulated sigs. 15709
  - Jauman absorbers design 25579
  - LC lowpass/highpass/bandpass ladders, Butterworth/Chebyshev response 720
  - RF power amp., digital predistortion lin., reconstruction filters 25231
  - satellite mobile channel, FSK-DPD, pulse shaping/transmitter filter 42304
  - satellite mobile channel, FSK-DPD/CPM-DPD, pulse shaping 25304
  - third-order Butterworth characts., insensitive current mode realization, current conveyors 12641
- **BWO** *see backward wave oscillators*
- **C language**
  - *see also C listings*
  - 2D simul. of oxide/silicide growth, phys. based proc. simulator 1296
  - 3D field support in semicond. wafer representation, archit. and implement. 1483
  - adaptive filter perform. comparisons, obj.-oriented design 32628
  - ALS, obj.-oriented software constr. 18227
  - automatic protocol implement., generating C++ code from SDL/PR specs. 24830
  - commun. protocol software, FSM-based program generator 2913
  - CPU design, 32-bit, VLSI project, C and GDT for computer sci. students 20291
  - DSP-based integrated software environ. for filter design 5952
  - ECXpert, event correl. in telecomms. 24917
  - elec. engng. university education, electronic textbook appls. 28277
  - GMS, CMOS VLSI gate matrix cell generation syst. *(Chinese)* 12398
  - IMPEL, domain-specific image proc. environ., lang., and compiler 32843
  - modified RESTART-method using LRE-algm., rare event simul. 33247
  - MPEG-1 video, ISO/IEC software implement. 16090
  - multiparameter meas., PC-CAMAC based data acquisition 26236
  - num. C for efficient DSP code 679
  - obj. oriented API for operations syst. develop. 16602
  - parallel eval. algm. for fast fault simul. *(Korean)* 21271
  - protocol software implement., obj.-based approach 2948
  - ROM based interrupt routines, C and child procs. 651
  - SPICE integrat., TEK LV511 ASIC design verification syst. 1477
  - spring contact, structural optim., area connector array CAD, C program 896
  - State Notation Language, run-time sequencer, accelerator control 18278
  - TCAD appls. with semicond. wafer representation, develop. and integrat. 22511
  - TRIUMF, device access, C++ on VAX/OpenVMS 18230
  - variable precision IEEE floating point simul. using C++, DSP design 6175
  - Viterbi decoder implement., prog. act. memories 32088
  - xpress transfer protocol, obj.-oriented implement. 16485
- **C^3 lasers** *see semiconductor lasers*
- **C listings**
  - scalable array proc. in SUN SPARCstation 1, perform. meas. 29252
  - symbolic cct. anal., Mathematica package-based 5967
- **C^2 systems** *see command and control systems*
- **C^3 systems** *see command and control systems*
- **cable insulation**
  - *see also insulating oils; power cable insulation*
  - 270 V DC aircraft components, corona testing 26594
  - 500 kV XLPE power cables, extrusion-moulded joint tests 4682
  - dielectric phenomene and elec. insulation, conf., Pocono Manor, PA, USA (Oct. 1993) 11586
  - electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
  - EPR-insulated cables, thermal life testing/charactn. 14011
  - ethylene-propylene rubber cable insulation, γ-irrad., elec. cond. 14070
  - heat/radiation-resistant coaxial cable insulation *(Japanese)* 16990
  - PVC cable components, reliab. test methods 29621
  - submarine cables, dielec. mouldings, microscopy 9155
- **cable insulation** continued
  - switchgear, reduced emission control wires, fire testing 12857
- **cable jackets** *see cable sheathing*
- **cable jointing**
  - 230 kV HPFF cable, wrinkled/creased paper insulation, eval. 27204
  - 500 kV oil-filled cable installation, Honshu-Shikoku transm. line *(Japanese)* 19295
  - 500 kV XLPE power cables, develop. status *(Japanese)* 10748
  - 500 kV XLPE power cables, extrusion-moulded joint tests 4682
  - heat shrinkable power cable accessories, material props. 10761
  - heat-shrink MV cable transit. sleeves *(German)* 27242
  - interface insulation, elec. breakdown *(Japanese)* 10763
  - secondary distrib. directly buried T-branch power cable joint *(Japanese)* 27183
  - single core power cables, trefoil form. installation guidelines 19298
  - solid dielec. power cable-to-air terminations 27237
  - underground distrib. cable joints, PD meas. 4704
  - underground distrib. feeder cables, failure prediction 4646
  - underground power cable fault location, fiber optic sens.-based 27277
  - XLPE insulated 230 kV cable syst., pre-qualification testing 27200
- **cable laying**
  - 500 kV oil-filled cable installation, Honshu-Shikoku transm. line *(Japanese)* 19295
  - AC/DC HV power cable develops., CIGRE study Committee 21 activities 27195
  - ADRIA 1, opt. fibre submarine cable syst. 33736
  - bonding config. in telecomm. centers, EFT field tests 23707
  - cable, conduit, tray schedules, computer generation 19319
  - developing economies, cost effective installation and maint. of subsea links 3308
  - France Telecom's fibre optic access networks 25499
  - high power underground cables, constr./installation 35644
  - HV XLPE cable laying/installation 27236
  - nontrenching power/telecom. cable conduit installation method *(Japanese)* 20383
  - power cables, guided boring method, IEEE Guide 35669
  - seafloor cable laying, SHRIMP seismic investig. tool 18817
  - secondary distrib. directly buried T-branch power cable joint *(Japanese)* 27183
  - Siemens MINISUB non-repeatered submarine cable syst. 34041
  - single core power cables, trefoil form. installation guidelines 19298
  - telephone central office cable tray support failures 43786
  - undersea cable systs., installation/maint. technol. 33998
  - USA, fiber otpics deployment via non-traditional rights-of-way 3572
  - vac./tube method, opt. fiber laying alongside power cable 25520
  - XLPE 500 kV power cables, installation, terminations 43768
- **cable sheathing**
  - 110 kV XLPE power cable installation project, China 27196
  - aircraft shielding, swept freq. single point excitation tech. 18704
  - aircraft window, fast risetime EMP coupling 18705
  - basic aspects 4683
  - board-to-board connector shielding, transfer impedance meas. 15533
  - cable coupling, arbitrary environ., meas./computation 15462
  - CISPR conducted emissions meas. on telecom. leads 15494
  - common-mode current radiation anal. by moment method 23703
  - computer-aided stat. planning for optimal cable screening braids 16989
  - copper shielded cabling systs., advantages 16996
  - EM induction shielding methods, theoretical anal. *(Japanese)* 2277
  - EMC, resin material, metallic layers 21606
  - fibre-optic cables installed on overhead power transm. lines 17334
  - heat-shrink MV cable transit. sleeves *(German)* 27242
  - high anti-radiation cables, nuc. fuel proc. facilities *(Japanese)* 19294
  - high T_c supercond. wires, elec. power appls. 27218
  - HV underground cables, termite attack prevention *(French, English)* 35646
  - HV underground power cable, termite attack prevention 27197
  - inductive coupling on cables, freq. charact. 23706
  - internally protected universal ground adapter, cable EM protection 15502
  - intra-syst. interconnects for digital commun., cable elec. perform. 12856
  - LEMP effects on subtransmission line, MOM 15480
  - materials, fire safety, improvement 27203
  - multiconductor telecomm. cables, lightning overvoltages 25202
  - multiwire shielded cable param. computation 38059
  - opt. waveguide cable short-term props. and creep behaviour *(German)* 10742
  - petrochemical plant, chem.-moisture barrier cable 5411
  - polyurethane cable sheath cold casting syst. props. *(German)* 27213
  - power cable life, DC testing effects 10741
  - power cable mag. fields calc., conductors subdivision method 19297
  - power transm. cable lines, online control/meas. proposal 19193
  - PVC cable insulation and sheathing suitability *(German)* 27210
  - RF cable assemblies, screening atten. meas. 23690
  - shielded enclosures radiation, FDTD method 15472
  - telecomm. cable metallic sheath, shielding factor 25194
  - telecomm. cables lightning currents interf., computer model 15539
  - telecomm. systs. DC distrib. network grounding, EMC aspects 19269
  - XLPE cable, water trees, DC component current evol. *(Japanese)* 10749
- **cable sheaths** *see cable sheathing*
- **cable splicing** *see cable jointing*
- **cable television**
  - *see also interactive television*
  - 1300 nm gain-clamped MQW laser amps., reduced IMD 34006
  - access opt. fibre network, CATV/interactive multimedia appls. tv 34091
  - Alcatel 1570 BB single mode opt. fibre CATV syst. 42615
  - AM-FDM transm., 1.3 μm strained-layer MQW-DFB laser, high opt. output power 25542
  - AM-SCM lightwave syst., simultaneous scatt./interf. suppression 17175
  - AM-VSB opt. links, CATV DFB LD 34004
  - AM-VSB/QAM CATV opt. transm. syst., 64-QAM sigs. 9556
  - ASDL links maint. approach and fns. 16916
  - ASIANET for Cable TV and commun. 3676
  - ATM technol., switching success 8856
  - B-ISDN appls. trials in Japan *(Japanese)* 41939
  - British Telecom's video on demand technol. 42580
  - broadband CATV distrib. network IMD meas. *(German)* 34269
  - broadband CATV video systs., DFB lasers 9555
  - broadband multimedia services, high speed access 42016
  - BT's video-on-demand technol. trial 9741
  - CATV operators telecom market activities 9737
  - CATV perform. testing, spectrum analyzers 25673
  - CATV technol. studies *(Japanese)* 34265

cable television continued
  CATV transmitting ccts., tap-off, coupled-line theory *(Korean)* 25674
  coaxial connectors *(Japanese)* 42631
  composite triple beats impairment reduction 42612
  convergence of telephony and cable, vital step for inform. superhighway 16623
  data network syst. security 34264
  DFB LD/module for CATV systs. 34261
  digital CATV, QAM/VSB modulation comparison 34263
  digital services, broadband delivery 42054
  digital telephone service, CATV network *(Japanese)* 41709
  digital TV sig. broadcast 34204
  digital video services, technols. and network archits. *(German)* 42626
  dissemination-oriented commun. abstraction, multimedia multicast channel 41531
  DQPSK AM-VSB/compressed-digital-video transm. syst. clipping penalty 9464
  dual wavelength opt. fiber HDTV distrib. networks 17571
  European Union, infrastructure competition strategy 8808
  evol., digital technol. 9739
  fiber optic transm. cct. for 150 carrier VSB-AM modulation *(Japanese)* 42630
  FITL CATV syst. for broadcast/interactive services 42628
  Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
  full service broadband networks, power requirements 42622
  full-text inform. delivery, electronic, US infrastructure 16546
  fund.-mode dispersion-compensating CATV fiber links 17206
  Hawaii, dist. learning technol. 3059
  high-perform. multimedia transm. on cable TV network 9740
  hybrid fiber/coax network broad-band AM-VSB/64 QAM CATV syst. 34010
  hybrid fiber/coaxial and CATV networks, planning and design 41563
  hybrid fiber/coaxial CATV network power distrib. systs. 42627
  hybrid fiber/coaxial network technol. 9421
  hybrid fiber/coaxial technol. for broadband service delivery 33670
  inform. highway power distrib. archits. 42137
  interactive TV overview from viewpoint of CATV settop converter's RF modem 34266
  interactive TV services, systs. integrat. issues 17572
  internat. video transm. network and cable conditions and trends *(Japanese)* 17574
  Internet, Superhighways and interactive TV *(French)* 41852
  Korea Telecom's business strategy, CATV indust. in Korea 3678
  MPEG 1 video compression std., rem. delivery of broadcast-quality video 42625
  MPEG-2 for DVB and cable 34219
  multicarrier modulation impulse noise mitigation strategies 40561
  multimedia appls. in interactive CATV networks 16845
  multimedia delivery on demand, capacity anal. 33652
  multimedia IS for airports *(Japanese)* 10413
  near-future CATV archit., broadcast channels capacity 42616
  NEC, digital video transm. technol. develop. *(Japanese)* 42617
  NEC multimedia services, CATV network *(Japanese)* 42029
  networks, design/optim., compression of measuring data 42613
  operational support systs. for telecomms. services 42621
  opt. CATV SCM receivers, IMD reduction 9738
  opt. CATV/FITL video-transm. DFB laser components and systs. 17193
  partially-corrugated-waveguide LD, low modulation distortion for SCM telecom. appls. 17194
  public telecomms. infrastructure, hybrid fiber/coax archit. 42619
  push-pull opt. frontends for SCM CATV appls. 42458
  QAM receiver IC, 500-channel CATV systs. 3675
  return path laser systs. 42620
  Rohde & Schwarz TV test transmitter SFM 9703
  S6 special channel, notch filter for interf. reduction 34268
  SAW filter appls. *(Japanese)* 39122
  SCM opt. transm. syst., nonlin. distortions 25528
  sharing of measuring inform. in CATV networks 42614
  sig.-to-thermal noise ratio, automatic assess. 42611
  spectrum analyzer in-service meas. 42623
  spectrum analyzer level meter 25911
  status monitoring syst. using HDLC protocol, implement. *(Korean)* 42624
  STEL-1103, low cost return path CATV transmitter ASIC 42609
  STM-based high speed digital FTTH syst., design concept 9098
  structural reliab., open syst. for data commun. 34267
  suboctave-bandpass opt. analog links, lin. modulator 17335
  superhighway , digital TV transm. 3656
  superhighway services, digital cash payment 8829
  telephone service delivery 34262
  unwanted sig. leakage estim. and shielding enhancement *(English)* 3677
  USA, fiber otpics deployment via non-traditional rights-of-way 3572
  video multiplexing, pulsed coded fiber optics 8676
  video on demand server, design outline 42629
  video on demand services, hierarchical storage dimensioning 17573
  videocommunication networks, multichannel AM-VSB TV sig. transm. 17570
  visual commun. media trends and prospects *(Japanese)* 16905
  VSB/QAM for hybrid fiber/coax, digital transm. 42610
  wide area video commun. network *(Japanese)* 42618
  Er doped fibre amps., minimised gain tilt for CATV transm. systs. 3554
  Er-doped fiber amp. AM CATV syst. RIN noise 9576
  Er-doped fiber amp. CATV, polariz.-mode dispersion meas. 25509
  Er-doped fiber amplified low-distortion WDM AM SCM 4×50-channel CATV transm. 9572
  InGaAsP strained layer MQW laser for opt. fibre transm. systs. 31352
  $LiNbO_3$ opt. waveguide modulator for bidirectional transm. 42442
  Pr^{3+}:ZBLAN fibre amp. AM-VSB video link 3583
  Pr-doped opt. power fiber amp., saturated output power of +18 dBm 9602
  TeO_2 acoustooptic tunable filters in multiwavelength opt. add-drop multiplexing appls. 17215

cable terminations *see electric connectors*

cable testing
  see also power cable testing
  500 kV oil-filled cable installation, Honshu-Shikoku transm. line *(Japanese)* 19295
  AES/EBU digital audio sigs., twisted-pair cables 42139
  B-ISDN switching syst. subsyst. opt. interconnections 41914
  cable coupling, arbitrary environ., meas./computation 15462
  coaxial cable harnesses, EMC problems and perform. 889

cable testing continued
  coaxial drop cable, shielding, ageing simul. by flexure 33734
  computer-aided stat. planning for optimal cable screening braids 16989
  flexible RF cable stress response, perform. tests 38058
  inductive coupling on cables, freq. charact. 23706
  multiconductor telecomm. cables, lightning overvoltages 25202
  opt. cable testing, OTDR meas. and algms. *(German)* 3589
  power cables, insulated, impulse test procedure, IEEE std. 27208
  PVC cable components, reliab. test methods 29621
  RF absorptive cables, characts. calc. and meas. 890
  RF cable assemblies, screening atten. meas. 23690
  submarine cables, dielec. mouldings, microscopy 9155
  switchgear, reduced emission control wires, fire testing 12857
  unshielded twisted pair cables for HSLAN *(Japanese)* 25203
  unshielded twisted-pair transm. line, method-of-moments soln. 33740

cables (electric)
  see also cable testing; coaxial cables; power cables; submarine cables; superconducting cables; telecommunication cables; underground cables
  automotive EMC, cables coupling, practical approach 23687
  dielectric phenomene and elec. insulation, conf., Pocono Manor, PA, USA (Oct. 1993) 11586
  extrusion lines, diam. gauges, control systs. 5399
  harness design ES, CHD 21607
  harnesses, capacitance calcs., method of moments 33741
  LDPE/ethylene vinyl acetate copolymer blends, cable insulants 1563
  multilayer PWBs, segmented ground planes, common mode currents 15477
  nuc. plants, cable ageing, life prediction/condition monitoring 10803
  PCBs with attached cables, common-mode radiation 15476
  radiation from PCB with a cable, anal. 23665
  RF absorptive cables, characts. calc. and meas. 890
  Cu, electrodeposited/rolled annealed, flexible cable, fatigue 29623

cableways, electric *see electric conduits*

cache storage
  2-level disk cache models, non-volatile RAM *(Korean)* 658
  3D scatt. FEA absorbing boundary condition code parallelisation 23556
  Alpha AXP 21164 μP, testability strategy 6160
  asynchronous packet-switched shared memory multiprocessor cache coherency scheme 2953
  CMOS SRAM macro with current sens. scheme, 400 MHz, 300 mW, 8 kb 29222
  coherence, large granularity, for intermittent connectivity 24960
  directory protocols for medium-scale shared-memory multiprocessors 33262
  distributed cache memory verification by abstractions 24820
  DRAM archits. in multiprogramming environ., perform. eval. *(Korean)* 21325
  DRAM high speed memory testing 6144
  DSP, highly scalable hardware accelerator 29241
  dyn. of DRAM technol., design options 21318
  EDRAM test methods, verification 6146
  embedded cache design, nonintrusive BIST 37759
  energy-efficient cache design techs. 12514
  fault-tolerant multiprocessor cache memory, CMOS 37761
  four issue superscaler RISC μP, embedded memory design in CMOS 29280
  FPGA memory controller for linking embedded μP, cache enhanced DRAM 29213
  Fujitsu F6401A disk array unit, develop. *(Japanese)* 14246
  GMICRO/500 microprocessor application system, graphic primitives evaluation 29257
  interconnecting computers, archit./technol./economics 16702
  large-scale video servers, buffering/caching 34246
  lin. alg. calcs. on virtual shared memory computer 20611
  lin. alg. kernels, build efficient finite element solver 20598
  MCM-D cache SRAM products for workstation/PCs 21327
  mobile environ., file access design 33556
  motion JPEG digital video storage, retrieval, and edit 16357
  multiple-registered DRAM for low-cost 2 MB/chip secondary cache, 180 MHz 29221
  network bottlenecks in mobile computing, Coda file syst. 33555
  portable notebook computers, connected/disconnected operation in distributed systs. 33564
  POWER2, fixed-point/data cache/storage units 671
  POWER2 proc. instruction cache unit 673
  predictive read caches, alternative, on-chip second-level cache memories 12506
  RAID5 disk arrays with NVS cache, priority queueing 21314
  sync. pipelined burst SRAMs for fast cache designs 21307
  sync. SRAM, Pentium proc. 29212
  transport protocols, modulo-N incarnation numbers 2955
  video-on-demand syst., distributed hierarchical storage manager 9743
  virtual lines, enhance locality exploitation 29216
  World Wide Web caching relay 8894
  X.500 cache partitioning for faster name resoln. in X.400 8959

CAD
  see also circuit CAD; circuit layout CAD; computer aided analysis; control system CAD; electric machine CAD; intelligent design assistants; interactive systems; logic CAD; power system CAD
  2D large scale laser digitizer, with cordless cursor 25769
  AC LV EM device CAD, PC-based *(Russian)* 7913
  act. microstrip antenna, concurrent large sig. simul. 15652
  alkali metal thermoelec. convertors, Na recirculation wick design 20030
  Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
  astron. imager with PM focusing, demagnetification *(Chinese)* 17923
  automated visual inspection, survey 28512
  benchmark, EM simulators 12722
  binary/multilevel diffractive lenses, submicrometer, sizes 7373
  building services projects CAD, STEP technol. 11315
  busbars, joints, preliminary CAD 19325
  cable TV networks measuring data compression 42613
  CAD-based vision, conf., Champion, IL, USA (Feb 1994) 36878
  Cassini mission Ka-band TWT, 32 GHz, CAD 21856
  CFD thermal CAD technol. for electronic packaging thermal mgt. 11787
  circuits systs., symp., Chicago, USA (May 1993) 31
  coherent opt. syst. nonuniform FM response, semicond. laser model 9471
  complex waveguide ccts., low cost CAD *(German)* 23785
  computer network expansion CAD, reliab. optim. 33575
  concurrent packaging archit. design 20437
  core selection optimisation in transformer designs, Basic program 27787
  crosstalk modeling for automotive harnesses 15532
  curved-surface microstrip antenna conformal-grid FDTD anal. 23865

- **CAD** continued
  - design optimisation in theory and practice 11705
  - design spec. component selection, genetic algm.-based 37024
  - developing countries radio network design, RAP package-based 31843
  - diaphragms, electrostatically deformed, self-consistent simul. and modelling 30499
  - diffractive coupling lenses, 3D profiling, e-beam lithog./RIE 14568
  - diffractive opt. elements, CAD 2139
  - digital AC panel meter, design algms. 3734
  - digital commun. education course, senior undergraduate project 20282
  - digital microwave LOS 42183
  - DSP real-time implement. on multiprocessors, CAD environ. 12584
  - dual-linear microstrip array element design 31967
  - dual-reflector antenna CAD/modelling 31958
  - electron gun design, DAPHNE 2D axisymmetric simul. code 29761
  - EM CAD in undergraduate courses 2171
  - EM simul. of antenna propag. 15614
  - EMC compliance, software tools 23660
  - engng. CAD, AI prog. approach 37021
  - FLIR subsystem perform. anal., PC based scientific spreadsheet 34593
  - four-level accelerated life-test plans optim., computer-based 20480
  - Galileo syst. design for orb. operations 9407
  - general design theory, crit. review 37017
  - geometric nonlin. in design of force transducers 34458
  - HF power transformer CAD optim., scant modelling 19685
  - HF power transformer core geom. CAD, fuzzy ES-based 44110
  - high energy physics detector models, transfer to CAD 43122
  - high level DSP code synthesis, dyn. data flow/control flow 32654
  - high order approx. method for curves 20574
  - high power 140 GHz gyrotron, expts./num. simul. 6492
  - human resource-based crew station design methodology 10348
  - IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
  - induction cooker coil CAD, Pascal program-based 36785
  - instrum. fault detect., designers' decision aid 34331
  - interlevel dielec. thickness var., stat. metrology, IC test 22549
  - JPEG image coding algm. Huffman codec *(Japanese)* 16943
  - LD FM transfer fn. modelling 1977
  - lens design, global optim., escape fns. 39528
  - MEGUMI groupware platform, multimedia E-mail 16839
  - microelectronic packages, automated design 11757
  - microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
  - Midwest Symp. on ccts. and systs., Detroit (1993) 33
  - mil. readiness increase, dual, design/test technol. 34365
  - mixed sig. ATE, data driven archit. 9813
  - mole type plated optics, computer design 7849
  - monopolar voltages, phase response props. mapping 26369
  - NEC's digital cellular base station syst. *(Japanese)* 17081
  - noniterative PC-based coil design method 29617
  - Optical Communications Demonstrator telescope assembly, mech. design 17324
  - optimal block designs constr., CAD 99
  - packaging archit., concurrent design methodology 5659
  - pass. multilayer component CAD, EM field computation 6364
  - phase-shifting masks, design, compactor 13548
  - planar packaged free-space opt. interconnections, computing/switching 1767
  - planar SOFC stacks, bipolar plate/manifold design tool 44368
  - planning algm. for complete sens. coverage in inspection 20466
  - porcelain insulators, CAD under polluted conditions 35662
  - power freq. EM devices, shape optim. 15254
  - power transformer enclosure CAD, parametric prog.-based 5024
  - predictive vector quantizers for speech coding 2404
  - product design proc. improvement, CAD tool-based 11697
  - product design process improvement, IEE Colloquium, London (1994) 49
  - profiled corrugated horns, full-wave modal-S-matrix CAD 23936
  - radar syst. CAD, knowledge based support 9639
  - rational cubic curves, BR-curves 20573
  - rectangular microstrip patch radiation and loss anal. 23838
  - road lighting CAD programs, visibility level/index 20126
  - SESES, micro electro mech. systs. CAD modelling syst. 30498
  - simul. IT, electronic equipt. design appl. 11707
  - slalom mag. deflection syst., med. electron linac *(Chinese)* 26076
  - SOAPP software, advanced power plant design 43921
  - SONET Toolkit, DSS for robust network design 42378
  - spring contact, structural optim., area connector array CAD, C program 896
  - stds. impact on product life-cycle costs reduction 28395
  - step-by-step SMT design for manufacture 38132
  - surface reconstruction, adaptive mesh generation 2756
  - surfaces digital models, opt. images 2823
  - system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
  - TCAD for semicond. device/IC/proc. design and modelling 13861
  - TEAMS, testability engng./maint. syst. 11708
  - technol. CAD cost/yield estim., virtual IC factory 22546
  - Technology CAD, fields representation 22539
  - telephone network CAD grammar 41703
  - test development tools framework 42689
  - tetrahedral mesh generation by Delaunay triangulation 20635
  - TPS for multiple test environments 38076
  - triple-TEM cell, FEM, optimal engng. design 20416
  - triple-TEM cell design, FEM 40380
  - university central CADD service experiences, UK 11706
  - waveguide discontinuities, wideband matching, FDTD methods 2288
  - weapon systems, design-for-test process improvements 43594
  - Webster's horns, discrete component equiv. cct. 35368
  - whispering gallery sapphire resonators, 2D finite element calc. 30625
  - WISE CAD software for indoor wireless systs. design 42189
  - X-band high power magnicon amp., design 6485
  - GaAs MM wave TEDs, CAD, thermal anal. 38791
  - InP MM wave TEDs, CAD, thermal anal. 38791
  - Si rect. diaphragm press. sens. 17753
- **CAD/CAM**
  - *see also CAD; computer integrated manufacturing*
  - 3D field support in semicond. wafer representation, archit. and implement. 1483
  - assembly automation and design for assembly *(Polish)* 28405
  - AT&T, technol. CAD, IC fab. proc. design 38989
  - CAD-based vision, conf., Champion, IL, USA (Feb 1994) 36878
  - CAESAR, virtual IC factory, integrated TCAD user environ. 38995
  - concurrent engng., logic-based support syst. implement. 36999
- **CAD/CAM** continued
  - consumer electronics, conf., Hong Kong (1994) 5460
  - die attach systs. for hybrid/MCM assembly 38175
  - education in indust. engng., computers 11602
  - electronic enclosures, thermal mgt. and design , software simul. tool 28445
  - epoxy die attach, dispensing technol. and systs. 12950
  - five-axis EDM machine tool, CAD/CAM syst. develop. *(Japanese)* 11511
  - FLIR image aspect angle estim., model-based vision approach 24545
  - golf car arc welding modernisation project, USA 5400
  - injection mould design, intell. support syst. 37023
  - logic simulation, design and test generation 42721
  - MAPEX CAD manufacturability anal. environ., yield design attributes 28408
  - MASTER framework, virtual wafer fab, semicond. technol. CAD 38994
  - MCM EDA tools and procs. 38194
  - model-based vision, aspect angle target estim. in forward-looking IR images 2714
  - OKI, technol. CAD, UNISAS syst. 38993
  - PCB assembly yield, design factors, stat. and ANN models 38080
  - PCB CAD, integrat. with product design, concurrent engng. approach 37035
  - PCB CAD/CAM, parallel raster image proc. 38077
  - PCB elec. tester fixture, CAM syst. 6432
  - PCB prod., computer-aided manual workstation, graphics generation 38112
  - PDM product data mgt. syst. software package *(German)* 101
  - planar fab. proc. for surface micromachined devices 30511
  - proc. plant digital image archives, rem. meas. syst. 25732
  - quality avionic systs., systs. develop. guide 10325
  - SMT prod., integrated process monitoring/testing 38111
  - Spec2Si, EDA develops. 5583
  - Stanford Univ., technol. CAD, phys., algms., software and appls. 38990
  - stat. metrology for IC mfg. control, DFM implement. 20406
  - steel mfg. integrated prod. IS, Japan *(Japanese)* 3212
  - STORM technol. CAD syst., IC fab. procs., 2D simul. 38991
  - Univ. of Arkansas, electronics mfg. curriculum 28332
  - Viennese integrated syst. for technol. CAD appls. 38992
  - VLSI manufacturability, component level yield/cost model, mixed technols. 28409
- **CADD** *see CAD*
- **CAES** *see compressed air energy storage*
- **caesium clocks** *see atomic clocks*
- **caesium generators** *see plasma diodes*
- **caesium plasma diodes** *see plasma diodes*
- **CAGD** *see CAD; engineering graphics*
- **calcination** *see heat treatment*
- **calculating** *see calculation*
- **calculation**
  - *see also graphs; nomograms*
  - counter with bounded response time and bounded power dissipation, calculational derivation 37681
  - flexible exponentiation with precomputation, public key cryptography 32161
  - modular parametrization degree computing 20629
- **calculator program listings** *see complete computer programs*
- **calculus**
  - *see also calculus of communicating systems; differentiation; integration; variational techniques*
  - array antenna excitation laws, synthesis methods 15655
  - class., priori evidence, ambiguous 16273
  - cumulants in wavelet anal. 32451
  - Heaviside operator based unified theory of lumped ccts./diff. systs. 461
  - power syst. dyn. anal., time varying phasors 26849
- **calculus of communicating systems**
  - broadcasting, priority 16414
  - Mobility Workbench, tool for π-calculus 25327
  - OSI session layer protocol, formal spec./verif. 8754
  - VLSI hardware design, proc. technol. appl. 5974
- **calibration**
  - *see also measurement standards; standardisation*
  - 2D detector systs., distortions calib. and correction 43151
  - 2D thermoluminescent syst., uniformity, reproducibility, calib. 4340
  - 3-D obj. config. extraction 24551
  - 3D coord. meas. machine, self-calib./error correction 18086
  - 3D machine vision camera calib., genetic algm. 2803
  - 3D obj. imaging, light plane calib. 42944
  - 3D shape meas., spot ray pointer, calib. 42749
  - 8mm total power radiometer, periodic calib. 3962
  - *RC* calibration standards, multifreq. binary testing 25704
  - absol. dist./vel. meas., double integrated heterodyne interferometer 18073
  - absol. surface shape testing, interferometric sens. 18077
  - absorbed dose, ionizing radiation, water unit realisation 34312
  - AC complex mag. suscept. meas., RF range 18046
  - AC resistors, AC-DC difference meas. method *(Japanese)* 25943
  - act. airborne sonar target tracking 34172
  - act. sonar array for underwater imaging, self calib. *(French)* 17482
  - activated charcoal canisters, calibr., secondary std. Rn detector 34947
  - adaptive calib. algm. for synchronized chaos 8156
  - ADC compensation, phase-plane/state-space error table coverage 703
  - AE transducers, absol. calib. by reciprocity method *(Japanese)* 18928
  - airborne antenna testing, Indoor Doppler Antenna Test Range 35217
  - airborne DGPS, DME navig. aid coord. and calib. error detect. 25605
  - airborne laser scanner meas., filtering and calib. 43484
  - Airborne Visible/Infrared Imaging Spectrometer, inflight calib. validation (1993) 18798
  - aircraft act. noise control, research, reality 10371
  - algm. for computer time synchronisation, universal time 25980
  - AMY Vertex Detector, design, beam tests, calibr., fate 34897
  - AN/FPS-85 radar, peak power tailoring and phase nulling 34159
  - antenna array calib. for radar appls. *(French)* 17426
  - antenna site atten. anoms., effect on antenna factors meas. 23937
  - array calib./self-calib. methods, class. *(French)* 16039
  - artefact stds., perform. comparison techs. 17633
  - astron. radio images, adaptive deconvolution 34198
  - astron. radio-interferometry, calib. problems *(French)* 17530
  - astron. radio-interferometry, calib./self-calib. methods *(French)* 17531
  - ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
  - atmos. visibility meas. device 10461
  - auto-calib., Kruppa's eqns. and intrinsic params. of camera 41149
  - autocalibration of fibre optic strain sensor 25860
  - automated opt. mensuration using video camera, calib. method 2613

- **calibration** continued
  - automatic calib. of laser range cameras, arbitrary planar surfaces 17437
  - automatic calibration of test equipment 42733
  - automatic reading device for analog display instrums., appl. constraints 8641
  - Automatic RF Techniques Group, conf., San Diego (1991) 28249
  - automobile smart sens., self-test and diagnosis 5364
  - AUTOTESCON 93, (Sept. 1993) 36845
  - AVIRIS calib. of Japanese Earth Resources Satellite-1 opt. sens. 17959
  - axial stereovision, 3-D reconstruction of natural objs. *(French)* 41350
  - bandpass sigma-delta A-D converters, cascading 689
  - Bayesian approach, direction finding, parametric array uncertainty 40923
  - blind ident., higher order stats. *(French)* 16043
  - bolometer and photodiodes, photon spectrum meas. and calib. 4077
  - Bonner sphere response matrices, perform. comparison 18679
  - Broad Band X-ray Telescope calib. 43166
  - broadband, isotropic, electric-field probe with tapered resistive dipoles 25798
  - broadband sampling oscilloscope, nose-to-nose calibration 25913
  - bubbles, size, vel. and long. posn. opt. meas. 18156
  - camera, rot., self-calib. from multiple views 24475
  - camera calib. from spheres images 24605
  - camera param. determ. by visual servoing *(Japanese)* 32867
  - cameras, act. calib. 25712
  - canonic representations for geometries of multiple projective views 24481
  - capacitance transducer, std. US source in solids 35372
  - capacitors, internal inductance meas., ramp pulse method 12846
  - CCD in soft X-ray region, self-calib. 25884
  - CEM for pos. ions detect. 26142
  - centre of mass location of test obj. 25981
  - centrifuge ball viscometer for polymer melts 10077
  - charge division type PSPC 26116
  - close range dimens. meas., grating techs. 18078
  - CMOS high-speed high-resoln. D/A converters, self-calib. 704
  - coherent laser radar with diffuse/aerosol targets, heterodyne efficiency 3620
  - color TV subcarrier based freq. calib. device 17634
  - composite propag. expts. on pulsed microwaves 42913
  - cone-beam SPECT syst., multiple-head, geometric calib. method 10213
  - conf. on NaI(T1) detectors, calib., NY, USA, Jan. 1995 43064
  - conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
  - contactless real-time meas. of robot pose 42529
  - contaminated wounds, Pu/Am assess., semicond. detectors 35202
  - convertor efficiency meas. by compensation calorimetry *(German)* 44128
  - correction method for single chip power meter 4740
  - crit. alarm syst. for Fernald Environmental Management Project 4225
  - Croatian radiocommun. primary freq. reception probab. *(Croatian)* 3311
  - cylindrical hot-film probes in water flows, calib. 10066
  - dB down terminology for cryst. resonators 39083
  - DC EMF measures and voltmeters 17637
  - depth-from-focus/defocus, Fibonacci search/curve fitting 2754
  - diagnostic radiology equipt., tube current calib., noninvasive method 18497
  - digital commun. syst. on-site freq. calibs., freq. counter appl. 25910
  - digital test system extension to Gbps range 25720
  - DIII-D tokamak, reflectometric dens. profile meas. advances 34679
  - direction finding array sens., calib. 24195
  - DOA estim., wavelength, gain, and phase errors 24211
  - dose determ. for producing given amount of change, PC program 26450
  - DRAMs characterisation, 500 MHz interface 6150
  - dual bitstream continuous calib. CMOS D/A converter, 110 dB dyn. range, 3.4V 692
  - DVM for quantized Hall resist. std. 3721
  - eddy current transducer appl. in fault diagnosis *(Chinese)* 34487
  - EEG brainmapping/evoked pot. studies, calib. assess. 43280
  - electrochem. sens. calib., genetic algms. *(German)* 17760
  - electron beam block exposure syst., deflector/correction coil calibs. 13450
  - electron beam block exposure syst., repetitive pattern fab. 22287
  - electron beam direct-writing syst., patterning accuracy 22288
  - electron-beam lithog. syst., yaw compensation 13473
  - EMI meas., std. antennas calib. 7991
  - environ. dosemeters, ninth internat. miniintercomparison 43392
  - EPRI instrum. calib./monitoring program for NPPs 27353
  - EPRI Instrument Calibration and Monitoring Program, failure modes 27366
  - ESD diagnostics, HV calib. 30542
  - F2 force transducer calib., WECC audit 42660
  - fabricated parts, US test equipt. 5925
  - falling raindrop, nonintrusive temp./size meas. 42935
  - far-IR pyrometer based radiation temp. meas. 17778
  - fast digital oscilloscopes, averaging mode, lin. improvement 17699
  - fiber optic hydrophones, demodulator optim. 18941
  - fibre optic displacement sens. for shaft runout inspection 42828
  - fibre optic gradient hydrophones 18937
  - fibre-coupled pyrometer for shock-wave studies 42824
  - flight instrum. test facility, control and data acquisition 26531
  - flux-gate magnetometers on spinning spacecraft, calib. 35220
  - FMCW weather radar for PBL study 35304
  - force transducer, dyn. repeatability, lin. and perform. 3789
  - gas-particle flows, Cobra probe, purging 26010
  - GIS equipt., UHF tech. of PD detect. using simulator, calib. 36478
  - global array calib. method 40922
  - GOES-I Imager, radiometric accuracy optim. 4382
  - GPS, ATC radar calib., flight expts. *(Japanese)* 9680
  - GPS-supported block adjustment, self-calib. params. 42547
  - head-eye syst. for act. vision, camera calib. 24606
  - head-mounted display calibration for augmented reality 17641
  - HF impedance analyzer up, 1.8 GHz 9828
  - HF iron loss measur., vector spectrum method 3958
  - high speed current steering CMOS DACs, self-calib. 705
  - high speed/high resoln. ADC, nonlin. correction 37818
  - high temp. IGBT design, num. simul. program calib. 30315
  - high-accuracy microwave sens. and calib. 3964
  - high-energy astronomy instrumentation conf., San Diego (July 1994) 5466
  - high-press. meas., white-light interferometric transducer calib. 3783
  - high-speed interconnections, accurate elec. charactn. 20454
  - hole diam. opt. meas. instrum. develop. *(Japanese)* 42939
  - hot-wire anemometer, low vel. calib., pendulum method 42983
  - HP8410 ANA syst. response 34385
  - HV current meas., slow-wave Rogowski coil studies 4742
  - hydrogenerators, PD spectra, HF grounding 4897
  - IEEE conf. on instrumentation/meas., USA (1993) 20198
  - IMB RICH detector, calib. 26166
  - in-proc. 3D coord. meas., CCD camera *(German)* 17970
  - inductosyn cyclic error calib. 35222

- **calibration** continued
  - indust. robot calib. by opt. methods 10031
  - instrum. calib. optim. 3715
  - instrum. specs.- customer's viewpoint 42682
  - instrums. specs. rel., meas. stds. 42656
  - interactive camera calib. 16138
  - intuitive camera calib. tool for natural images 41150
  - IR flux meas., pyrgeometer charactn. method 43509
  - IR multiposition sensor syst. charactn. 34513
  - IR radiometric lens/staring FPA camera syst., design/operation 17942
  - IR syst. rem. temp. meas., accuracy depend. on obj.-syst. dist. 34559
  - ISO 9000 compliance of test/meas. equip., calib. aspects 3710
  - large polarized target, high precision polariz. meas. 34871
  - laser range-finding CMM calib. 2159
  - leaky NWA calib. algm. 34314
  - length meas. of terminal gages, absol. interf. method 9784
  - LF lin. microaccelerometers on the ground, verification/calib. 3716
  - lightwave polaris. analyser 30910
  - lin. equispaced arrays, joint DOA estim. and phase calib. 8421
  - line array calib., cooperative source *(French)* 16040
  - linearity of fast digital oscilloscopes improvement 25753
  - liq. waste disposal site, situ radiological charactn. 18361
  - long-dist. meas. syst., metrological chain, comment 34323
  - low background HPGe detector, Holborn Underground lab. 26136
  - low drag meas. by vision syst., IC appl. 9814
  - low energy X-ray radiation source calib., dosimetry 18415
  - LR-115 detector, calibr. using secondary std. Rn detector 34947
  - LRM probe-tip calib., nonideal stds. 25708
  - LWR resist. temp. detectors, ageing effects on cross-calib. 42971
  - mag. head/tape spacing, 2D interferometric meas. 7169
  - mag. recording, flying height tester calib. std. 7151
  - magnetocaloric effect meas., noncontact thermoacoustic method 26803
  - mammography exposure std., free-air ionization chamber design 43212
  - MBE growth, calib. drift, source flange cooling 12095
  - measurand reconstruction, unified approach 25768
  - MEBES 4500 raster scan techs., calib. and control 30184
  - metal strip grating dihedral for polarimetric SAR calib. 42519
  - metrology, calibs. by comparison 17632
  - microcontroller-based real-time speed meas. for motor drive systs. 36648
  - microstrip wafer calibration, process variations effects 25703
  - microwave multimeter, four-probe microwave transm.-power transducer 10008
  - MICSOS, shear probe for microstruct. measuring systs. 10500
  - miniature split-Stirling cryocooler, noncontact displacer motion meas. 42923
  - miniature waveguide antennas, aperture matching, air-gap technique 23893
  - misaligned thin film meas. in Mallinson coil set 18041
  - MM-wave NWA, single six-port reflectometer 34424
  - multiaccess star network archit., WDM/SCM 42437
  - multichannel pulse-height analyzer, computer controlled, calib. 3745
  - multiple source synthesis for training array neural nets. 23959
  - multiport vector NWA calib. 17635
  - N_A Avogadro projects, present status/future 17648
  - NAMAS approach, instrum. specs. 42681
  - national patient dose meas. protocols, ICRU investig. 18516
  - near-IR spectrosc., calib. fn. transfer 42661
  - NIST State wts. and measures labs. directory 20223
  - non-conventional printing proc., color designing and simul. 24516
  - noncontact profiling of machined surfaces, fibre optic interferometry 18064
  - NPP, radiation monitors calib. 27373
  - NPP instrum. calib. extension/reduction programmes 27431
  - NPP resist. temp./press. sens., aging effects 35770
  - ocean CTD & fluorimeter sens., BIST 18891
  - on-orbit calib. of inductosyn error 18720
  - opt. receivers, broadband freq. charactn. via intens. noise 25534
  - optical 3D measurement techniques, conf., Switzerland (1993) 20260
  - Optotrac, opt. non-contact 3D motion tracking instrum. 17659
  - overlay enhancement in electron-beam lithog. 13452
  - packet-switched WDM-networks, wavelength stabilisation scheme 34093
  - parallel-plate chambers, calib. methods comparison 18631
  - parametric array sig. proc., auto-calib. approach 8425
  - parametric technique for calibration of electroacoustic transducers 22681
  - partial discharges, adaptive filtering meas., noise suppression 13967
  - PC based measurement and calibration systems 42732
  - photodetector, absol. spectral response calib. 9780
  - photoelec. sens., intell. diagnostics 3828
  - photofragment fluoresc. hygrometer for NASA ER-2/Perseus aircraft 10468
  - photogrammetry using video cameras, modelling & calib. 43486
  - photon fluence spectra determ., NPL Mobaltron ^{60}Co unit 26508
  - pipelined A/D converters, high resoln., fully digital self-calib. method 713
  - plate materials meas. by IR scanning 42927
  - PM magnetisation, thyristor-based, calib. appls. 536
  - point 3D posn. measuring syst. for detecting fixation point on screen *(Japanese)* 3930
  - polarimetric calib., single dihedral corner reflector 34142
  - polarimetric coherent-on-receive radar systs., calib. 42507
  - portable ground-based atmos. monitoring syst. 18827
  - power station monitoring/control instrumentation maint. 43812
  - power syst. opt. current transducers, review 4735
  - proc. instrumentation channels in NPP, calib. 35931
  - projected fringe surface topography meas. 18063
  - PVDF stress gauge, fast press./shock effects meas. 42764
  - PWRs, incore-excore nuc. instrumentation recalibration 35876
  - quadrature param. estim., max. likelihood tech. 41019
  - quartz crysts. impurities conc. determ., IR spectrosc. 34730
  - radar imaging of terrain, dual-channel radar calib. 43469
  - radial collimator, strain meas. by neutron diffr. 21007
  - radiotherapy, LINAC calib. meas., logged/generated reports 43346
  - refr. index of liqs. mes., posn.-sensitive detector 18125
  - robot camera calib. 41136
  - robot sens. registration from posn., closed form soln. 3792
  - robot skills development using a laser range finder 25585
  - robot vision-based calib. syst. 17658
  - robotic soil anal. for phosphorous determ. 25714
  - room-return neutron spectra determ. 4341
  - rot. effects of force transducers 17730
  - sampling oscilloscope calibration IEEE-1057 draft standards 25702
  - satellite signatures on multiphoton laser ranging 3630
  - SC-cut resonators appl., high stabil. oscillators 39108
  - scanning probe microscopy, sample and probe tilts estimation 25707
  - scanning SQUID microscope, mag. field imaging 30788

calibration continued
screened antenna-enclosure combinations, RFI emissions 2269
sea level, TOPEX/POSEIDON radar altimetry, GPS buoy calib. 18867
sea level radioaltimetry, TOPEX/POSEIDON, atmos. correction 18840
seismic stations on seafloor, automatic calib. syst. 10438
self-calib. DOA estimator, computationally efficient 41050
self-calib. methods, diffuse field presence *(French)* 17405
SEM calib. stds., 1977, 1992 3720
SEM electron probe diam. determ. 3987
semiautomatic apparatus for liqs. viscosity/dens. meas. 4030
semicond.-laser freq. locking, C_2HD, $^{13}C_2H_2$ absorpt. lines 7642
sens. fusion, auto calib. scheme 32803
sensor calibration design, optimised approach 25706
sensor performance assessment strategies 25803
side scan sonar, deformable towed arrays, calib. methods 9669
simultaneous particle size/3D posn./vel. meas. 18075
simultaneous temp./hydrostatic pressure meas. 25859
single-mode opt. fiber attenuator, intercomparison of atten. 14369
six-DOF laser vibrometer, expt. validation 10037
six-port reflectometer calib., one sliding load and short 3711
slotline propag. params., de-embedding tech. 6280
smart sens. interface, data conversion and prog. calib. 34493
soft X-ray detectors, calibr., SUPER ACO synchrotron rad. 4227
soil moisture content detect. by TDR 10458
solar water-heating plant, PC-based DA syst. 42744
source nonlinearity calibration using Volterra adaptive filters 25903
space opt. commun., visisbility meas. for atmos. transm. model 15450
specs. and cct. perform. 42657
specs. interp. 42658
SPECT, multiple heads cone-beam syst., geometric calib. method 43216
spectral line emission measuring syst., calib. 17629
spectral reflectance factor scale for calib. and stds. 9776
split film sens. calib., pitch angle determ. 34454
split gate trackers, tapped delay errors 26827
SSB noise fig. determ., microwave freqs. 18058
Stanford FEL cavity length meas. by external laser reson. 39939
Stanford Univ., technol. CAD, phys., algms., software and appls. 38990
stator windings, PD calib., transfer fn. 4898
std. lamps, improved automated current control 3723
step-freq. radar imaging for NDE/GPR appls. 42904
stereo head mounted onto robot arm, self calib. 24474
stilbene scintillator detector, calib., Be(d,n) neutron spectra 18365
storage rings, spin tune shifts 43026
submicron CMOS isolation struct., calib. method for oxid./mech. stress models 22254
submicron struct., 3D meas. techs. 42930
surface curvature segmentation by photom. invariant 2606
surface inspection by opt. triangulation 18069
system approach to electrical measurements 25767
TEM cell, field strength meters calib./antenna factors 25937
temp. compensation of cryst. oscillators, microcontroller 39105
Teradyne integrated ATE syst. for microwave devices/ccts. 25716
THD meas., Volterra series, LMS adaptive algm. 34684
thermal anal. of IC chips, thermographic imaging 13832
thermocouples, dyn. calib., multipoint sampling data, param. estim. *(Chinese)* 3777
time domain network analyzer, calibration/normalisation 25745
TOPEX/POSEIDON, ocean radar calib., Platform Harvest 18864
TOPEX/Poseidon Microwave Radiometer, description and calib. 26733
TOPEX/POSEIDON radar altimetry for sea level, buoy calib. 18867
torpedo transducer, automated calib. facility 10594
traceability in power/reactive power meas., NPL approach 34655
traceability of ATE systs., w.r.t. internat. stds. 9781
traceable power meas., audio freqs. 35701
transformer/inductive voltage divider ratios calib., straddling method 36230
transm. line transient current meas., Rogowski coil *(Korean)* 27286
tunneling thermometer, std. appl. 9882
UHF-SHF marker generator 33764
underwater acoustic field extrapolation, vert. ref. arrays 9656
underwater acoustic receiving array 18924
underwater acoustics, pass. array shape calib. 8376
vac. epitaxial growth systs., vis. laser interferometry 28788
vector ANA, TRL calib. method 42680
vector NWA calibs., adapter effects 3760
vehicle localisation in poorly known environ. 24356
viscosity meas. syst., falling ball method *(Japanese)* 42991
VUV detector stds. establishment *(Japanese)* 17640
wafer-level calib. of stress sens. test chips 17748
weights and measures, conf., Kansas City, USA (1993) 28260
weights and measures, conf., Nashville, TN, USA (1992) 11592
Weiss-Friedlander/propagator methods, comparison *(French)* 16042
WePrint 200, electron-beam printer, throughput 30185
wideband inside micrometer, digital readout 18091
wideband sens. array proc., lab. array testbed 2581
X-ray air kerma primary stds., changes (1970, 1993) 26507
X-ray proximity lithog., source charactn. 22304
X-ray spectral energy distrib./flux dens. meas. 18414
ZEUS calorimeter, perform. 26186
ZEUS high resoln. calorimeter, running experience 26171
Ar modulated laser source for PMT detectors monitoring 4168
^{37}Ar, tissue equiv. proportional counters, calib./testing 10299
CO_2 laser for rem. sens. meas. 18830
CsI(Tl) detector light output, pulse time gate effect 4174
GaAs ICs, voltage meas., electro-optic sampling 13850
GaAs photoconductive switches, elec. field structs. 36448
Ge detector, gamma-ray spectrometry, instrum. fn. 18403
Ge high purity detector, extrapolated efficiency estim. 10132
Ge, spectrometer, in situ gamma ray dosemeter 43397
Ge(HP) detector, efficiency calib., 6-25 keV 18324
Ge(HP) detector, efficiency curve shape, 900-1300 keV 18325
H masers Frequency control, high accuracy calibs. 39635
H_2, tissue equiv. proportional counter, radiation protection microdosimetry 43393
He proportional counters, absol. calib., TFTR diagnostics 26145
$LiNbO_3$, integrated waveguides, refr.-index profiles anals. 14488
^{22}Na radioactivity, absol. meas. *(English)* 4151
NH_3 irradiated target, ^{14}N pol. meas. using NMR 34869
OH LIF temp. meas. using thermally dissociated H_2O, calib. 10048
PtSi IR CCD-based multi-wavelength imaging pyrometer 17956

calibration continued
PtSi IR-FPA staring thermal imaging syst., spectral response charact. *(Chinese)* 42844
Rn exposure, polycarbonate etched track detector calib. 18379
Si detectors, radiation hardness, fast neutron fields 43116
Si mismatched microwave power transistors 21533
Si piezoresistive stress sens., thermally induced errors 34472
Si point-contact, force microscopy-supported resist. meas. 42887
Si wafer stress test chip, piezoresistive sens. rosettes 18111
Si:Fe, recomb. centers, microwave refl. photoconductive decay 38237
SiO_2-Si wet oxid. by RTP, homog. 22222
TiN calib. film, Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582

call admission control *see telecommunication congestion control*

calorimeters
see also calorimetry
AMY expt., lumin., endcap shower counter meas. 34894
ATLAS detector B phys. 4181
bit-serial first-level calorimeter trigger for LHC detectors 26250
Blitzen array proc., second level trigger element 43123
CDF End Plug Upgrade Project 26187
CERN calorimeter, computer archit./electronics 18366
charge-sensitive preamplifier IC for Si calorimetry at colliders 26241
COBEX, collider beauty expt. for LHC 4183
collider detectors, high energy particles, calorimetric tracking 26212
conference, high energy physics calorimetry, Italy (Sept. 1993) 20228
coord. charact. of modular gamma detector, 75-mm cell 4220
Cornell high lumin. upgrade, CLEO II detector, CLEO III 4177
cryst. EM calorimeter for future colliders 26197
D0 expt., B-phys. results 4179
diamond microstrip detector, high energy phys. 4188
DORIS II detectors and calorimetry 34900
DΦ detector, control, monitoring 18305
Eloisatron particle detectors 4231
EM calorimeter, liq. Ar, Kr, accordion electrodes 26173
EM calorimeter, $PbWO_4$-based, electron beam tests 26194
EM calorimeter, thin gap wire chambers 10107
EM calorimeter for multimuon UNK spectrometer 4217
femtojoule calorimeter, micromechanical sens. 9891
fiber-to-fiber connectors for scintillating tile/fiber calorimeters 43118
fine mesh photomultipliers, perform. tests, 1.2 T 21860
fully projective lead and scintillating fibre calorimeter 26199
gas ionization calorimeters, steel and Pb absorbers 26172
GEM detector, COSY, meson prod., meson nucleus interact. 43007
GEM detector syst., COSY accelerator, Ge wall 43113
GEM EM calorimeter perform. 26211
hadron calorimeter, high-press. gas-ionization tubes, beam tests 10108
hadron calorimeter, ident. of pions/electrons 4215
hadron calorimeter, reradiating fibers 34908
hadronic sampling zero degree calorimeter, ultrarel. HI collisions 34899
HERA detectors and calorimetry 34900
high lumin. collider, rad. damage in interact. region 4110
high precision high rate calorimeter readout 26244
HPC second level trigger, DELPHI 26191
KARMEN, neutrino oscills. search 43124
KLOE detector, lead-scintillating fiber calorimeter prototypes 26125
KLOE EM calorimeter, blue scintillating fibres tests 26185
LAGRANGE detector, ESRF 34917
LAr calorimeters, cable-coupled preamplifier perform. 26247
LAr calorimetry, cold frontend electronics 26248
LAr preshower detector, monolithic GaAs readout 26180
level-1 calorimeter trigger syst. for LHC 26249
LHC calorimeter second-level trigger, neural net, extract., e/jet discrimin. 26193
LHC calorimetry, digital front-end and readout microsystem 26245
LHC detectors and calorimeters 34902
LHC expts., level-1 triggers 18387
LHC liq. Ar calorimetry, radiation resist. of front-end electronics 26251
liq. Ar accordion hadronic calorimeter 34925
liq. rare gas imaging detectors 4194
liq. scintillators, EM/hadronic, radiation damage 26213
low-energy X-ray detect. in cryogenic detectors 26258
microcalorimeter, mm-band power converters 18050
modular EM calorimeter, gamma quanta detect. 4216
monolithic front-end preamplifiers 26246
multi-bundle shashlik calorimeter prototypes beam-test results 26123
NBS/NIST Peltier-effect microcalorimeter 34945
Phenix EM calorimeter, main 26189
quartz fiber calorimeter for collider expts., design 26208
quartz fibers, forward calorimetry, fast, rad-hard 26204
Reconfigurable-Stack Calorimeter, compensation, low-Z cladding layers 26184
scintillating fiber sampling calorimeter, high resol. for CHORUS expt. 26201
scintillating fibre calorimetry, energy resol., response uniformity 26200
scintillating fibre calorimetry, H1 backward EM calorimeter, HERA 26183
scintillating tile hodoscope with WLS fibre readout 34928
scintillating tile/fiber syst., CDF plug upgrade EM calorimeter 26162
scintillation calorimeter, liq.-krypton 18373
scintillator-fiber syst. for calorimetry, radiation damage 26227
SDC barrel/endcap calorimeters, decay time, light yield, rad. damage 26226
SDC Level-1 calorimeter trigger 26192
sealed water calorimeter for measuring absorbed dose 4343
Shashlik calorimeter, radiation hardness 26228
shower recogn., feed-forward neural networks appl. 34942
sig. proc., functional schemes 4152
SPAKEBAB project, high resoln. EM calorimeter studies 26210
SPHERE spectrometer, calorimetry develop. for relativistic nuclei 26206
TIGRE, Tracking/Imaging Gamma Ray Experiment (1, 100 MeV) 18412
tile/fiber scintillator calorimeter, electron irrad. damage *(Chinese)* 10129
TILECAL Barrel hadron calorimeter, radiation damage effects 26229
TMP swimming pool calorimeter, electron/gamma irrad. tests 26225
TOPAZ forward calorimeter at TRISTAN, lumin. meas. 34895
US total power meas. 10072
VEPP T_{20} expt., detector setup 34919
very forward calorimetry, induced radioactivity effects, methods comparis. 26203
Zero Degree Calorimeter for CERN SPS NA50 expt. 26207
ZEUS calorimeter, first level trigger 34955

calorimeters continued
ZEUS calorimeter, perform. 26186
ZEUS expt., forward neutron calorimeter test 26132
ZEUS high resoln. calorimeter, running experience 26171
B rare decay modes, CLEO II detector, CP violation 4176
γ/π^0 shower separation, tile-scintillator shower max. detector 26127
Al and Si X-ray calorimeters, comparis., CaF_2:Mn TLDs, Hermes III environ. 26500
Ar, liq., UV scintillation light detect., CsI photocathode 26178
Ar, liq., scintillation photon, creation energy 4201
BaF_2 calorimeter, cryst. props., detector possibil. 26195
CsI pure crysts., APD, fast low noise readout 26177
Cu/quartz fiber calorimeter, forward calorimetry in supercollider expts. 26202
Fe/scintillating tiles hadron calorimeter, preliminary results 26190
Kr, liq., UV scintillation light detect., CsI photocathode 26178
Pb scintillating fiber calorimetry, 20 MeV-1.2 GeV range 26209
Pb-scintillating fiber calorimeters, electron irrad. damage 26221
PbF_2 EM calorimetry, Cerenkov detector/cryst. props. 26196
Si/Fe(Fe+Pb) calorimeters, binding energy losses, flucts. 43117
Xe, liq., UV scintillation light detect., CsI photocathode 26178
Xe, liq., ionization, scintillation, EM calorimeter 26160
Xe, liq., scintillation photon, creation energy 4201

calorimetry
see also calorimeters; heat measurement; specific heat; thermal analysis
convertor efficiency meas. by compensation calorimetry *(German)* 44128
fiber-to-fiber connectors for scintillating tile/fiber calorimeters 43118
freq.-doubled laser energy meas. by calorimeter *(Chinese)* 2038
HTSC thin films, microwave surface resist., calorimetric/perturb. methods 39232
LHC liq. Ar calorimetry, radiation resist. of front-end electronics 26251
liq. Xe-TPC, MeV γ-ray calorimetry/imaging 4203
thermionic CHP convertors, optimal perform. tests 28029
water-treed additive-free LDPE, TSDC spectra, power cable insulation 14021
Ar, liq., scintillation photon, creation energy 4201
D/Pd cold fusion syst., excess heat prod. expts. 27886
Fe passivated particles in humid atmos., degrad., mag. tapes appl. 7132
GaAs CHIGFET noninductive impedance transformer design 29351
InSb supercond. tunnel jn. β spectrometer, ^{63}Ni β spectrum 43125
Ni-H_2 common press. vessel cell, charging schemes 27919
Xe TPC, radiative pion decay detect. 4205
Xe, liq., scintillation photon, creation energy 4201
ZnSe transparent IR opt. elements, photothermal meas. 2037

caloristers *see calorimeters*

CAM *see CAD/CAM; industrial control; manufacturing data processing; production engineering computing*

CAMAC
4π charged-particle detector array operating charact. 18341
assoc. particle imaging, 4D image display 18465
astron. Fabry-Perot imaging camera 9942
BEPC accelerator control syst. design 18195
CEBAF accelerator control syst. upgrade 18189
CERN PS accelerator, control syst. overview and status 18182
fast front-end computer design 18232
fast sig. proc. for NaI(Tl) detectors 26242
gamma-ray spectrometer, data acquisition syst. 34969
GANIL ion accelerator, control syst. 18184
ITER magnet cryogenic research facilities, computer-aided syst. 11719
lin. reson. electron linac, control syst. 18178
multiparameter meas., PC-CAMAC based data acquisition 26236
radiation flux intens. meas. of ionizing radiation 18375
rem. meas., special computer 3752
SIBERIA SR source control syst. 18262
stepper motor, CAMAC controller 4998
TRISTAN accelerator control syst., rejuvenation status 18190
TRIUMF, device access, C++ on VAX/OpenVMS 18230
TRIUMF accelerator central control syst. upgrade 18186
TRIUMF control syst., DEC TURBOchannel, CAMAC exec. crate interface 18205
UVSOR SR source, gracefully-degraded operationable control syst. 18196
writing speed to hard disk improvement, alternate buffering 3733

camcorders *see video cameras*

camera lenses *see photographic lenses*

camera tubes, television *see television camera tubes*

cameras
see also streak cameras; television cameras
act. calib. of cameras 25712
automatic calib. of laser range cameras, arbitrary planar surfaces 17437
canonic representations for geometries of multiple projective views 24481
CCD based focal spot camera, X-ray sources assess. 26331
CCD camera systs., image-sens. model/computer simul. 3875
CCD image sens. range cameras, focal error based 3872
CCD images, readout noise compensation 24495
CMOS camera technol., VLSI Vision Ltd 17964
CMOS intell. lin. image sens. for single chip digital camera 34601
colour digital still camera, video CCD sens. 9715
complementary CCD DSP chip for digital still cameras 6188
depth-from-defocus, camera aperture change, spatial domain 2753
digital photogrammetric assembly point determ. 41272
digital speckle correl. interferometry, fringe contrast, spatial resoln. 2135
DTM generation, obj. based by MEOSS 3-line camera data 41245
egomotion estim. from affine motion parallax 24457
epipolar fields on surfaces 24435
EUV aerial images, fluoresc. microimaging 13472
gamma camera QC ES 10204
gamma camera scatt. response determ., phantom, SPECT appl. 43227
gamma cameras, likelihood/energy/Bayesian windows for scatt. rejection 35038
gas turbine particle charactn., optoelectronic imaging syst. *(French)* 42849
gray level image filtering, Q-state mean field annealing algm. 8508
head-eye syst. for act. vision, camera calib. 24606
image synthesis based on estim. of camera params. from image seq. 2646
interactive camera calib. 16138
IR camera syst., selection criteria 9914
IR radiometric lens/staring FPA camera syst., design/operation 17942
kinematic resection of scanned imagery 41275
laser commun., acquisition and tracking, CCD 17306

cameras continued
lin. pushbroom cameras 24478
linescan camera technol. and image sens. 17932
Mitsubishi Thermal Imager *(Japanese)* 25885
motion field of curves, appls. 24440
multichannel imaging camera, TeV gamma rays, optimal charact. 4230
multisensor fill flash syst. develop. *(Japanese)* 17755
nuc. med. gamma camera syst., PRISM-XP series *(Japanese)* 18530
package/module interconnect test syst., transient thermal sigs. 28440
PERCEPTRON LASAR System for 3-D robot guidance 17455
PET, vol. imaging camera, post injection transm. scanning 35039
PET cameras, depth-of-interact. blurring correction method 35011
photogrammetric tech. integrat., conf., Orlando (1993) 36888
point 3D posn. measuring syst. for detecting fixation point on screen *(Japanese)* 3930
positron camera systs., simple data loss model 35043
range-resolved bistatic imaging lidar, CCD camera *(Japanese)* 34163
road traffic and vehicle control, image sens. appl. 41210
rot. camera self-calib. from multiple views 24475
solder paste printer vision systs., SMT/PCB manufacture 38106
sphere images for camera calib. 24605
star-field ident. for autonomous attitude determ. 33076
two source phase shifting speckle interferometer, obj. surface meas. 31671
ultra-miniature camera and proc. syst. 17963
uncertain 3D line location, camera motion strategy 24641
underwater opt. imager, Nd:YLF laser (green) 18904
underwater scene imaging at close range, laser syst. 18905
US 3D camera, underwater obj. recogn. tech. 10530
visual servoing for camera param. determ. *(Japanese)* 32867
X-band data transmitter, space rem. sens. missions 4379
InSb FPA-based IR camera for astron. telescope, electronic testing 17937
PtSi FPA-based Inframetrics InfraCAM thermal imaging camera 17955
PtSi IR cameras, IR CCD/IR MOS imaging radiometers 17957

candoluminescence *see luminescence*

canted spin arrangements
γ-$Co_xFe_{2-x}O_3$ fine particles, spin canting anom., size/anisotropy effects 7026
a-$Fe_{78}B_{13}Si_9$, moment canting in applied fields, polarized Mossbauer obs. 14140
$Ho_2Fe_{17-x}Ga_x$, mag. props., struct. 7217
$YCa_2SbFe_4O_{12}$ garnet, mag. ordering studies 30689
$Y_2Fe_{17-x}Ga_x$, mag. props., struct. 7217

capacitance
see also photocapacitance
1 Gbit DRAM cell, diagonal bit-line config. 21323
2D MOSFET doping profile, extraction via inverse modeling 13703
abrupt p-n heterojns. with inversion layers, capacit. 38314
all pole/finite pole filter and delay equalizer design, monolithic dual resonators 39082
analog CMOS neural nets, capacitive wts. learning 21475
bandwidth extension by parasitic elements and varactors 23915
BH diode lasers, multimode self-consistent model 23283
BH light-emission/detect. diode module for subscriber TCM transm. systs. 25472
BJTs, DC and AC current crowding effects model *(Korean)* 30251
broad-band time-domain spectrosc. for biological effects of EM waves 26482
broadband matching to capacitive devices, limits, SIS mixer design 12792
bus-invert coding for low-power I/O in VLSI 30460
cable bundles, per-unit-length params., MoM 15531
class E amps., parasitic nonlin. capacitors 12347
class E half-wave low $d\nu/dt$ rectifier, anal. 37621
CMOS buffer design, split inherent-capacit. load model 29101
CMOS ccts., HF AC hot-carrier degrad. 22573
CMOS charge sampling IC for capacit. detector/sens. interfaces 25774
CMOS DAC, 10 bit, 50 MHz, act. compen. of parasitic capacit. 29318
CMOS IC state assignment for low-power FSM synthesis, genetic local search 21079
CMOS twin-well inverter with load capacitance, AC and transient latchup 30463
CMOSFETs with reduced jn. capacitance, $TiSi_2$ salicide, e-beam lithog., SPICE 30358
coupled CPW, modal capacitances anal. 31888
deep submicrometer MOSFETs, intrinsic capacitance modeling 30290
depleted heteroepitaxial layer/substr. interface, capacitance meas. 21948
diamond metal-semicond. and MIS structs., elec. charact. 6582
dielec., conformal, multipole-accelerated 3D capacitance extraction 22634
diffusion capacitance, space-charge-layer thickness modulation effects 1077
disk and stripe capacitances 23503
distributed capacitance microstruct. in conductors 6343
DMOSFETs, HV, HF cell designs 30335
DRAM develop. and ferroelec. memories prospects 12547
eccentric coaxial line, inner conductor, dielec. support effect 33733
EM emission from PCB sig. line, peak freq. prediction 38073
EM shock wave in transm. line, HF generation 40392
even harmonic reson. class E tuned power amp. without RF choke *(Japanese)* 37646
field-effect-induced superlattices, spectrosc. 1111
finite length multiconductor power line, impedance/line params. 4675
floating-gate devices, capacitive coupling coeffs. 22423
HBM ESD testers/specs. anal., 4th order lumped element model 34422
HBT, base push-out/base-collector capacitance model 13660
HBT, collector-base jn. capacitance, impact ionization effect 22380
HEMT charge based gate capacitance model 38936
HF high power SIT 38916
IC elements, delay time, strips metallization effect 853
IC interconnections, quasistatic anal., method of lines 854
Intel i486 μP PGA package, RAPHAEL program L and C modelling *(Korean)* 38984
interconnect capacits. of ICs, automatic model generation 38980
interdigitated high speed MSM photodetector/receiver design 34517
inverter perform. of 0.10 μm CMOS operating, room temp. 6865
isolated half-bridge ZVS-PWM converter 44185
lin. induction accelerators, 500 kV Marx generator 36361
low-power CMOS ULSI cct. techs., overview 39009
master slice-type transimped. amp. photosensors, PIN-bipolar proc. 25835
MCM-D interconnects, perform., process var. effect 38184
micromachined piezoelec. benders, dyn. deflection and capacitance 30603
microstrip antenna element, capacitively fed, study 23852
microstrip line syst. spectral domain quasistatic anal. 31874
microstrip systs., FEA, approx. capacitance formulas 6283

capacitance continued
  monolithic variable integrator design, appl., filters 12634
  MOSFETs, unified capacitance modelling 1427
  multiconductor interconnects, VHSICs, capacitance matrix computation 12795
  multiconductor lines, planar or cylindrical, multilayered substrs., capacitance matrix 23790
  multiconductor transm. lines in multilayered dielec. media, anal. 31875
  multilayer electron systs. in wide parab. wells, magnetocapacitance spectra 29909
  multilayer PCB, power bus decoupling, modeling 15534
  multilayer single-electron tunneling devices 13825
  multilayered board, via-hole, excess capacitance, connecting striplines 12882
  multimode equiv. network of inductive/capacitive multiple posts 31881
  MV cable network displacement voltage increase *(German)* 4638
  noise reduction transformer, perform. and noise atten. mechanism 19681
  nonlin. transm. line, varicap jns., interactive waves 40388
  oxide etching, plasma-induced damage in planar inductively coupled etch reactor 1260
  parallel plate capacitor for electrostatic studies 5515
  parasitics for IC packages, model, PC program, layout generation 11770
  partial capacitance calc., conductors, calculable resistor 12831
  permitt. meas. using unguarded disc electrodes, capacitance correction 1504
  PET films, creepage surface discharge in SF_6 gas *(English)* 30585
  phase converters, translucent surfaces, constr. 23585
  planar coupler in microstrip, enhanced directivity 21519
  polysilicon DRAM cell capacitors, Si_3N_4 dielec. films, RTP 22069
  polysilicon gate reentrant of submicron LDD MOSFETs 1394
  polysilicon TFT LCD, storage-capacitance arrangement 9984
  power MOSFET model, power electronic ccts. simul. 13698
  power syst., high parallel capacitance, short cct. distortion *(Japanese)* 26910
  power syst. harmonics minimisation, variable capacitance compensator 43611
  power transformer overvoltages, no-load switching 27776
  pseudomorphic MODFETs, charge control modelling/expt. perform. 6800
  pulsed gas laser, external cct. effects on spark-gap arc-discharge 23100
  pulsed gas laser discharge, inductance and resist. effects 23101
  pyramid EM wave absorber approx. model, TE wave appl. *(Japanese)* 40334
  quantum dots, electronic props. and capacitance, simul. 38345
  quantum wires, widely tunable confining pot., capacitance/IR absorpt. 13136
  radial distrib. syst., fixed/SC, optimal choice 19240
  RC interconnect of CMOS logic gates, effective capacitance modeling 1495
  rect. spiral inductor, S-param. calcs. *(Chinese)* 38056
  rectangular waveguide capacitive post and diaphragm anal. by method of moments 23777
  RTO proc., opt./elec./mech. charactn. 22227
  semicond., generation param., lin. voltage sweep determ. *(Chinese)* 42920
  series-connected MOS struct., internal parasitic capacit. effect 30435
  side data anal. of DLTS spectra for multipoint correl. 42921
  single-phase composite PWM voltage source converter 19723
  single-phase self-excited induction generator, anal. 36177
  small-capacitance tunnel jn., escape rate, barrier traversal time effects 29930
  space station solar panel terminal characts. model 26676
  spherical rot. joint, MM-wave freqs. 37942
  static anal. using measured eqn. of invariance 23751
  stray capacitances of two coupled inductors 21596
  super circ. MLC networks, design, develop., and qualification 6365
  Symetrix Y-1 ferroelec., memory cell, C-V characts. 39056
  tapered buffers, local interconnect capacit. 21396
  thick film/tape capacitor dielec., capacitance densities up, 3 nF/mm^2 6359
  thin film capacitor, MCM substr. 21690
  thin insulator p-type MOS structs., inversion charge anal. 38444
  thin-strip capacitive nets, review 458
  transm. line of parallel cylinders 31883
  transm. line transient current meas., Rogowski coil *(Korean)* 27286
  trench-oxide MOS struct., quantum wire devices 38435
  two-conductor multilayer microstrip line coupling 31873
  two-winding transformers, stray capacitance studies 12849
  ULSI multilevel interconnects, proc. integrat./manufacturability 38641
  vert. power MOSFETs, low on-resist. proc. 13682
  VLSI layout verification package, BEM for 3D capacitance and substr. resist. calcs. in inhomog. media 21023
  wind turbine, self-excited induction generator 10911
  Al electrolytic capacitor failure, impact of halogenated fluids 6367
  Al vac. deposited thin film characterisation, SiO_2-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
  Al-polysilicon-SiO_2-Si struct., HF plasma proc. effects 13239
  AlAs/GaAs RTD with asymmetric spacer layers, capacitance/hysteresis study 38805
  $Al_xGa_{1-x}As$, graded p-n jns., capacitance, frozen dopant levels 29887
  AlGaAs/GaAs HBTs, selective MOCVD growth, base-collector capacitance 38836
  AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
  AlN/diamond thin film syst., chem. vap. deposition methods 5865
  Au-SiO_x-Au sandwich structure, AC elec. cond. 22083
  a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
  CO_2 waveguide laser, combined excitation by dc/transverse rf capacitance discharges 1848
  CdTe:N MBE films, photolum. and p-type cond. 1038
  CdTe/CdS/Au/Cu heterojunction solar cell/ohmic contacts syst., Cu effects 20001
  CeO_2/Si(111), epitaxial oxide film, elec. props. 13229
  $CoSi_2$ patterned layer buried Schottky contacts in Si, wafer bonding 38394
  Cu metallization technol. for deep submicron ULSIs 30140
  Cu/Al(Ti)/SiO_2 interface, ultrathin sacrificial diffusion barrier anal. 38702
  Cu/polyimide MCM, embedded microstrip transm. line sig. characts. 6465
  EuF_3 thin films, dielec., cond. and breakdown studies 1544
  Ga(Al)Sb mesa photodiodes, dark current improvement, $(NH_4)_2S$ treatment 14604
  GaAs MESFET, capacitance model, microwave nonlin. cct. design appls. 855
  GaAs MIS struct., C-V charact., hysteresis 29966
  GaAs, δ-doping superlattices, pot. flucts., quantum effects 13167
  GaAs epitaxial layers, charactn., annealing effects 13277
  GaAs/AlAs double barrier struct., X-states, reson. tunneling procs. 38288
  GaAs-$Al_{0.3}Ga_{0.7}As$ RTDs, spacer layers, capacitance 13611
  GaAs-based MESFET/HFET, device and cct. modeling 6781
  GaInP/Si/Al structs., Schottky barrier height modif. 13218
  GaSb:S, Hall/photo-Hall effect meas. 38252

capacitance continued
  In-ZnTe Schottky diodes, RF sputtered, elec. props. 30215
  InGaAsP semicond. lasers, directly bonded InP-SiO_2-InP current-blocking struct. 14852
  InGaAsP/InP/InAlAs quantum well electron transfer struct., finite difference methods 13582
  InP, S treated, MSM photodetector, high speed 17780
  InSb-SiO_2-Si p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
  Ni/TiO_2/p-Si heterostruct., neg. capacitance effect 1161
  PZT piezoelec. ceramics, capacitance, dyn. meas. 39050
  $RuO_2 \cdot xH_2O$ electrochem. capacitors, charge storage mechanism 19927
  Sb_2S_3/metal low cost Schottky barrier solar cells 5219
  Si drift detector with on-chip electronics, design 26155
  Si single-electron transistor, room temp. operation, fab. 13827
  Si:B, anodized/cryst. sample, elec. props. alteration by water vap. 38239
  a-Si:H MIS struct., conductance mechanisms *(Chinese)* 38439
  a-Si:H MIS struct., response time/capture cross sect., gap states *(Chinese)* 22060
  a-Si:H diodes for act. matrix addressing 1798
  a-Si:H solar cells, reverse biased annealing studies 11291
  Si:Li, fast Li electromigration, low temp. device creation 30047
  Si/Au interface, electronic props. and Schottky barrier 22050
  Si/SiO_2 MOS capacitors, SiO_2 hole traps, small cross sect. 38427
  Si/SiO_2 MOSFET, fixed and interface trap charges 38863
  Si-Gd-Si sens., large area, thermal neutron detect. 18329
  p^+-Si-SiO_2-polysilicon STDS struct., charge carrier capture 13240
  Si-based device proc., radiation damage 22160
  SiC, MOS capacitors, surface pot. flucts. 1316
  SiC dispersion varnish VLF capacitive props. *(French)* 10935
  SiC dispersion varnish nonlin. resist. and capacitance *(French)* 10936
  p-SiC:Al MOS struct., fab. and C-V charact. *(Japanese)* 1178
  SiC/SiO_2 MOS struct., radiation-tolerance *(Japanese)* 1179
  SiC/SiO_2/Al struct., elevated temps., HF capacitance relax. features 13230
  SiO_2 layer characterisation, Electrotech ND6210 PECVD syst. 28816
  SiO_2 thin films, N_2O RTP/oven nitridation, elec. characterisation 13327
  SiO_2-Si_3N_4-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
  SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
  SiO_xN_y-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
  $SrTiO_3$ metal-semicond. Schottky diodes, field depend. permitt. 29955
  Ta_2O_5 thin film capacitors for 1 Gbit DRAM 21593
  TiO_2 films, thermally form., semicond. props. 29866
  $YBa_2Cu_3O_7$ step edge jns. on $LaAlO_3$, Fiske resons. 39258
  Y_2O_3 MIM capacitors, elec./dielec./opt. props. 22082
  ZnO/n-Si jn. solar cells, spray-pyrolysis method 44397
  ZnO-Al_2O_3-B_2O_3-SiO_2-PbO glasses, crystallizable, opt., polarizable and MOS props. 12213
  ZnO-B_2O_3-Al_2O_3-SiO_2-P_2O_5 glasses, crystallizable, opt., polarizable and MOS props. 12213

capacitance measurement
  3D capacitance charactn., floating-gate devices, coupling coeffs. meas., EEPROMs 6157
  AC elec. charactn. of solder paste 9994
  act.-R oscillator based meas. tech. of capacit./loss factors 42891
  air-coupled US and NDE, micromachined capacitance transducers 18931
  barrier height determ. from Schottky jn. C-V meas. 38813
  bridges for ang. and lin. displacement meas. 18087
  CMOSFETs, hot-carrier degrad., unified model, gate-to-drain capacitance meas. 6764
  digital line differential protection, auxiliary cores *(German)* 35682
  elec. capacitance tomography, pattern assoc., neural network 3952
  ferroelec./semicond. struct. capacitance disk memory, noncontact eval. 1565
  HEMT gate-drain/gate-source capacitance meas. for modelling 30370
  indust. two-phase flow conc., capacitance transducer meas. *(Chinese)* 34734
  material props. discrim., mono-structural thin plate touch sens. 42767
  MOSFET hot-carrier aging, modeling, charge pumping methods 22444
  MOSFET interface states/trapped carriers, charge pumping/gate capacitance meas. 30301
  PCB mounted ceramic SMDs, capacit. monitoring while flex testing 12878
  press. meas., capacitive displacement transduction method 18141
  surface mount ceramic capacitor failure test, board bending 29653
  transformer coupled bridge, capacitance meas. errors 25940
  Au-Te-Au-GaAs Schottky contact interface states capacitance, thermal effects 29950
  Nb-Al_2O_x-Nb, 1D parallel Josephson-jn. arrays, cct. diagnostics 1619
  PZT piezoelec. ceramics, capacitance, dyn. meas. 39050
  Si micromachined air-coupled capacitance US transducers, design and charactn. 18930
  Si microwave varactor diodes, irrad., capacit. transients meas. 12770

capacitance meters *see capacitance measurement*

capacitor motors
  condenser motor, inner rotor, 16-part tooth core *(Japanese)* 11017
  drive, single phase, speed control 5272
  ferrite mag. wedge in stator slot openings, power loss reduct. 27735
  induction motors, single-phase, lumped param. model 4972
  micromotor, 3D electrostatic fields/forces, capacitance/torque calc. 36211
  single-phase induction motors, multi-speed control studies 19621

capacitor storage
  1 MJ transportable pulsed power source, electrothermal gun appls. 36314
  2.4 MJ multi-module capacitor bank, electrothermal launcher 20049
  3-phase self-excited double armature sync. generator 27739
  4.5 MJ modular pulse power supply, electrothermal gun 31764
  4.5 MJ Pegasus-II pulsed power capacitor bank protection fuse calcs. 36504
  6 MV, 2 TW pos. ion driver, induction adder 36301
  66 J magnetron pulsed power supply, flyback convertor-based 36321
  300 kJ railgun, high efficiency, expt. characts. 15282
  500 kJ capacitor bank, electrothermal gun appl. 31760
  500 kJ multi-module capacitor bank, electrothermal launcher 20048
  AC/DC soft switching PWM power converter, SMES appls. 11176
  ACE 4 inductive storage technol., 6 MA driver 36390
  bipolar double layer capacitors, pulsed power appls. 36501
  distrib. network capacitor banks, synchronised/soft switching 10722
  distributed energy fed railgun, perform. enhancement 15274
  E7-25 capacitor storage unit, ET/railgun launcher 31756
  elec./hybrid vehicles, electrochem. capacitors charactn. 36715
  electron beam generation, plasma pulsed power closing/opening switch-based 34859
  electrothermal press. pulses generation, arcs, capacitor store 31754
  EMALS EM aircraft launch syst., aircraft carrier appls. 15304

capacitor storage continued
energy storage, nonlin. tervit resistor appls. *(Russian)* 44429
faulty cable line, capacitive energy discharge, power distrib. 27292
FEUERSTELLUNG 2000, 30 MJ capacitive power supply 31744
Green Farm elec. gun facility, expts. 15275
hard rock fragmentation, pulsed power plasma blasting tech. 36811
hardFET pulsed power modulators, array-type radar appls. 27820
high coulombic thyratron, feasibility test results 38222
hybrid elec. cars, ultracapacitors, energy storage 20098
hybrid elec. vehicle drive, capacitor storage, converter 20096
hybrid vehicles, energy storage alternatives 28140
hyper-cooled 6-phase sync. generator, pulsed load 36120
indust. power systs., harmonics meas. 19370
Kirkcudbright EM launch facility, pulsed power syst. 31743
LEP beam bumping kicker syst. high power pulse generator 34821
LIA-30 lin. induction accelerator, 6 MJ capacitor bank 36633
lin. inductive accelerator, pulsed power supply 34817
lin. motor EM accelerator, turbulent hydrodyn. mix studies 15278
metal-to-metal closing switch, capacitative pulsed power supply 36455
metallized electrode capacitors, nuc. fusion, capacitor banks 36631
Nat. Ignition Facility, ICF, laser flashlamp power conditioning syst. 5106
Navy pulsed power guns, power syst. simul. 35408
Pegasus II pulsed power machine, plasma switch, foil implosion 36445
power cct. variable act.-pass. reactance studies *(Japanese)* 12311
programmed discharge 36630
pulsed mag. field facility, capacitive storage 44114
pulsed power, slow capacitor banks, protection systs. *(Japanese)* 11312
pulsed power capacitor dielec. eval., ringing conditions 36499
pulsed power forming line capacitors develop. 36503
railgun PFN, rep-rated, capacitor thermal mgt. 31745
railgun test range develop. results, Russia 15367
railguns, current pulse forming, capacitive energy storage 19778
railguns, optim., efficiency improvement 15306
rep-rate pulser, high-power microwave source develop. 36323
reson. series counterpulse, high current opening switches 19895
RFX 4.8 MJ-7 kV toroidal capacitor bank, experience 36632
RUSLAN e-beam accelerator, Marx generator supply 34738
SiC nonlin. resistors, capacitive energy storage appls. 36502
small caliber electrothermal accelerator, design optimisation 15289
solid propellant electrothermal chem. launchers, pulsed power 31763
stacked capacitor half-micron ferroelec. NVDRAM memory cell 21330
three-phase power systs., sinusoidal currents decomp. 4465
Tokamak pellet injection, electrothermal accelerator 15290
$RuO_2 \cdot xH_2O$ electrochem. capacitors, charge storage mechanism 19927
$SrTiO_3$ film DRAM stacked capacitor technol., MOCVD fab. 21592
Ta_2O_5 thin film capacitor for giga-bit DRAMs, low-temp. integrated proc. 21594
Ta_2O_5 thin film capacitors for 1 Gbit DRAM 21593

capacitor stores *see capacitor storage*

capacitor testing *see capacitors; electron device testing*

capacitors
see also ceramic capacitors; electrolytic capacitors; ferroelectric capacitors; MIS capacitors; power capacitors; thick film capacitors; thin film capacitors; varactors
150 W multi-reson. DC/DC converter, high efficiency 44138
acoustic bubble capacitor, gas bubbles in liqs. sizing 25780
act.-R oscillator based meas. tech. of capacit./loss factors 42891
boost-based resistor emulators, act. inrush current limiting 44202
built-in-input filter forward converter 6005
charge pump cct. for high output current EEPROM appls. 29046
chip capacitor attach, CFC solvent elimination, qualif. by comparison 38172
current-freq. converter, integrator discharge anal. 37904
DC/DC SMPS, MOSFET-based, capacitive isolation method *(Japanese)* 6025
distrib. systs., capacitor placement, fuzzy algm. 10725
elec. vehicle drives, series reson. DC link inverter 5358
end termination ink materials for smart card MLC fab. 6363
half-bridge bidirectional DC-DC converters anal. 6006
HEMT with integrated on-drain capacitor, hybrid mixer 21574
HF low impedance capacitor technol. *(Japanese)* 876
insulators/semiconds., asymmetric double charge injection 29824
integral decoupling capacitors in IC/MCM packaging, simul. 12843
Interleaf technol. mfg. syst. for SMT/leaded film capacitors 6361
internal inductance meas., ramp pulse method 12846
inverter, parallel capacitor compensated, transients, stroboscopic anal. 5391
ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
lin. ccts., OTA/grounded capacitors, realization 37607
liq. dielec. filled, lateral heating, instabil. excitation 12835
local bypass capacitors, high-speed-syst. demands 21113
Low Inductance Capacitor Arrays 6372
LSI packages for ultra high-speed opt. fiber transm. systs. *(Japanese)* 42470
LTCC internal capacitor, high reliab. , appls. 12967
metallized capacitors, mag. field/current distrib. 882
MLC capacitors for avionics hardware, failure anal. 6366
MLC series-connected C-R chip, data bus impedance matching 6194
multilayer PCBs, decoupling effects of Vcc/Vgg struct. 21635
onium salt based liq. electrolytes, electrochem. props. 883
parallel plate capacitor for electrostatic studies 5515
parasitic nonlin. capacitors, class E amps. 12347
pass. components for aerospace appls., screening methods/data anal. 5684
pass. multilayer component CAD, EM field computation 6364
PCB/MLC capacitor bending stress, surface strain measuring method 6412
platable MLC termination materials/proc., PCB bend strength effects 6434
poly-Si/Ta_2O_5/TiN capacitors for DRAM appls., thermal stabil. 21316
power electronic cct. design/layout, EMI reduction, perform. improvement 12312
pulse diagnosis, Chinese, computer/fuzzy theory 43203
quasi-reson. DC link series reson. converter 12313
reactive elements, flicker noise, thermodyn. constraints 37661
reson. meas. in capacitors 29613
SC filters with weakly nonlin. capacitors, harmonic distort. 729
scribe line capacitors, thin oxide monitoring, nonvolatile memory devices 20489
sinusoidal converters, high PF 19725
SRM drive, chopper control, acoustic noise, ride through 11322
stacked capacitor half-micron ferroelec. NVDRAM memory cell 21330
super circ. MLC networks, design, develop., and qualification 6365
supercapacitors, telecom. power supply appls. 12845

capacitors continued
surface mount polymer capacitors, HF switchers 6355
X capacitors, Siemens B81131 series, metalized paper/plastic film, safety 872
Ag-mica capacitors for avionics hardware, failure anal. 6366
$Hg_{1-x}Cd_xTe$ ($x\sim0.2$) grown by THM in (111) direction, twinning effects 37383
$Si/SiO_2/Si$ heavily doped capacitors, C-V charact. 29990
Si_3N_4, ultrathin, charge transport 28868
$SrTiO_3$ capacitors, leakage current, electrode contacts effect 12837

capacity, channel *see channel capacity*

capacity management (computers)
bandwidth cost mgt. 16598
client/server appls. design, prototypical software projects *(German)* 16654
commun. networks with unreliable links, capacity assignment 3209
network and distributed systs. mgt. 33385

capillarity
see also contact angle; foams; liquid films; surface tension
alkali metal thermoelec. convertors, micromachined evaporator component fab. 20031
alkali metal thermoelec. convertors, space power perform. anal. 20034
capillary arrays, variable channel dens., improved gas injection syst. 5833
electrocapillarity micromirror opt. switch for subscriber loops 9569
heat pipe wick, rectangular groove, rewet perform. 11891
micromechanical actuator syst., mag. fluid-based *(Japanese)* 44087
neutron focusing optic for submillimeter materials anal. 5933
wrapped screen wick Cu/H_2O heat pipe, capillary limit, long. vibr. 34703
Pb-acid valve regulated batts., ageing effects tests 19963

capillary phenomena *see capillarity*

CAPP *see computer aided production planning*

Captains *see viewdata*

CAR *see records management*

carbon fibre reinforced composites
see also carbon fibre reinforced plastics
anisotropic laminated composite cylindrical shells, plane-wave shielding 31854
anisotropic laminated composites, near-field shielding props. 23693
Bragg grating fiber optic sens. for C fiber prestressed concrete highway bridge 34545
diamond/(C-C) composite, semicond. base 12193
grating interferometer, parallel receiver for fibre sens. 17842
opt. fibre Bragg grating sens. for aerospace smart struct. 42825
piezoelec. ceramic fiber/polymer composites, transducer appls. 22661
pulsed disk alternator, flywheel struct., EM gun 20050
surfaces, microwaves absorpt./refl. 12243
unmanned autonomous underwater vehicles characts. 10529
Cu matrix, foil casting 5903

carbon fibre reinforced plastics
CFGFRP-reinforced concrete, fracture self-diagnosis, material design 28897
electroconductive plastic composite, C fiber filler, resist. 5906
epoxy matrix, degrad., acousto-US sig. class. 5922
epoxy matrix, delamination cracks, SAM image anal. 20999
graphite fibre reinforced epoxy laminated panels, opt. fiber embedded, low vel. impact 12194
graphite fibre reinforced PEEK thick composites, embedded SiO_2 opt. fibers, moire anal. 25852
PCB ESD protection material selection, shielding effectiveness meter 28456
PEEK matrix, delamination cracks, SAM image anal. 20999
spacecraft common mode transients, short cct./fuse blowing events 4347

carbon fibres
see also carbon fibre reinforced composites; carbon fibres reinforced plastics
activated C fibers, pore struct., fractal anal. 5913
anode perform. in secondary Li-ion batts. 44280
explosive whisker emission cathode materials study 29754
microparticle nonlin. microwave optics 22780
Li secondary cell C electrodes, electrochem. expts. 11261

carbon microphones *see microphones*

carbonitriding *see surface hardening*

carburising *see surface hardening*

carcinotrons
freq.-tripled BWO, HSSD $^{r}Q_3$ branch 21847

cardiology
see also angiocardiography; blood; echocardiography; electrocardiography; magnetocardiography
3D point sets, mark-based approaches for motion estim. 2822
arrhythmia, cond. syst. ablation, ferrite rod 18579
arterial compliance, total/segmental estim., pulse press. method 26276
artificial heart valve state, acoustic class. 43365
cardiorespiratory synchronisation, small animal MR imaging, modified ventilator 26362
cardiotocograph data acquisition/replay, Microsoft Windows based appl. 10172
cardiovascular interventions, diagnostic/therapeutic, conf., Los Angeles, CA, USA (1994) 5463
catheter antenna for percutaneous microwave therapy 35141
computers in cardiology, conf., London, UK (1993) 11543
conf., modern imaging technol. clinical appls., USA (1994) 20212
conference, IEEE Northeast Bioengng. Conf., Newark, New Jersey, USA (Mar. 1993) 36846
coronary artery disease, diastolic heart sounds, harmonic decomp. 26288
coronary laser angioplasty with Ho:YAG laser, large clinical experience 43341
defibrillation, transthoracic/transvenous, human thorax model 18587
defibrillation optimisation, human thorax finite element modelling 18588
dyn. visualization of human heart from US echograms *(Japanese)* 35009
electrophysiological data visualization of 3D model of human heart 26439
foetal condition assess. and labour mgt., multicentre comparative study and intell. syst. 35137
fractal dimens., normal irreg. of fetal heart rate 34991
haemodynamics, noninvasive monitoring, impedance cardiography/cardiointervalography 35098
heart disc valve, instantaneous back flow, peripheral clearance 26472
heart valve stenosis, mag. reson. phase shift mapping 26343
impedance cardiography, blood flow-related admittance changes 35094
infarcted myocardium, MR image contrast 35016
intra-aortic balloon pump, lin. pulse motor-driven 10256

cardiology continued
intracardiac HF EM catheter ablatherapy, tech. aspects 10267
late pot. diagnosis, self-learning ES 26417
left ventricular monitoring, CsI radioisotopic ambulatory recorder 26360
lin. motor-driven total artificial heart 18616
lungs, acute and chronic left heart failure, PET eval. 43260
magnetohydrodynamic blood pump for artificial heart 18604
med., left ventricular motion anal. of 4D SPECT imaging 16331
MRI reduced motion artifacts, spatio-temporal multiresolution reconstruction 35002
multivariate ARMA spectral decomp., cardiovascular variabilities assess. 34987
muscle cells, contractile characts., microelectromech. force transducer 34988
NMR imaging tech., block regional interpolation scheme 35014
noncorrelated noise filtering 35076
nonlin. deterministic syst. underlying elec. sig. of human heart 26414
nuc. med., conf., Orlando, FL, USA (1994) 20218
prosthetic cardiac valve, algm. for regurgitant vol. eval. *(Italian)* 26475
sig. proc., advanced tech. 18570
signal processing in cardiography, colloquium, London, UK (1995) 28228
solid-state dye laser for med. appls. 18598
spectral anal. of heart rate variability, methods comparison 34990
supercomputer model of heart beats 34982
thorax models, impedance cardiogram multiple sources 18568
transthoracic defibrillation, current fraction entering heart 18583
cargo distribution *see goods distribution*
CARM *see cyclotron masers*
carrier communication *see telecommunication*
carrier concentration *see carrier density*
carrier density
see also current density; electron density; hole density
1D semicond. diodes, Poisson-Boltzmann eqn., iter. spectral soln. 13602
2D heterostruct. device simulator, steady state/transient anal. 30193
asymmetric gain-levered quantum-well lasers, enhanced wavelength tunability 39877
CMOS transistors, flicker noise study 1383
colliding-pulse mode-locked QW laser dyn. response simul. 23236
complex coupled DFB laser narrowband amp. props. 39861
corrugated quantum well struct., laser appls. 31344
δ-doping superlattices, plateau behavior and metal-insulator transit. 13196
diamond:B,N, elec./opt. charactn. 21891
diamond (001) B-doped homoepitaxially grown films, Hall mobility, carrier conc. 21883
diamond high mobility CVD films, electron-hole mobility 6517
diffusion-driven semiconds., SBS gain profile 2059
diode lasers, spontaneous emission, nonlin. opt. coupling and noise 31370
energy flux eqn., discretization, temp. depend. carrier dens. 22328
GaAs:Si, deltalike impurity confine. 38256
HBT modelling, particle transport eqns. 6725
hydrodynamic formulation of energy bal. eqns., finite-element discretization 30196
III-V semimagnetic semiconds., carrier-induced magnetism, magneto-opt. device 30679
injection lasers, threshold condition defn. 7638
lateral surface superlattice, fab., ion irrad. 21976
laterally coupled semicond. laser array instabilities/dyn. behaviour 1979
microcavity SEL, spectral linewidth 7703
MM-wave Gaussian beam, electro-optic power control 39474
MOS transistors, carrier multiplication noise sources, low freqs., correl. meas. 1388
MOSFET carrier mobility model, phys.-based carrier screening effects 30360
MOSFETs, short-channel, subthreshold slope, drift model 38878
MQW lasers, freq. chirp, quantum carrier/escape time effects 39766
multi-layer conducting samples, low-mag.-field-depend. Hall-tech. 1442
nonpunch-through-IGBTs, electromechanical crit. load simul. 30314
power diode, fast reverse recovery perform. characterisation 30219
quantum well lasers, intens. modulation, carrier heating/transport 14865
quantum well struct., doped n-type, carrier and impurity profiles 13170
QW lasers/opt. amps., ultrafast gain dyn. 31339
RT semicond. detectors, phys.-chem. props. effects 43095
RTDs, gated, elastic scatt. and depletion effects 38803
scaled DRAMs, α-particle-induced soft errors 21320
SCH QW lasers, anal. of carrier transport and buildup 14856
Schottky-gate FET, LF noise anal. 38914
semicond., impurity band in high elec. field, interband and impurity breakdown 1013
semicond. amps., carrier heating, spectral hole burning, FWM 31503
semicond. device drift-diffusion eqns., artificial diffusion *(Spanish)* 30195
semicond. device drift-diffusion simul. reliab. model 1330
semicond. intrinsic props., nonparabolic three-band model 22337
semicond. laser, modulation response, carrier conc./temp. 23217
semicond. laser amp., carrier depletion effects on opt. phase conjug. 39830
semicond. laser at low carrier densities, carrier-induced refr. index 7682
semicond. laser/amp. for 1.3μm-1.5μm wavelength conversion, model 14844
semicond. lasers, multimode rate eqns. 39820
semicond. opt. amp. all-opt. wavelength shifting 7683
semiconds., polycryst., elec. cond., generalized model 1014
short-channel SOI MOSFETs, energy bal. eqn., transverse-field-induced carrier heating 13747
Si:B submicron jns., doping by B layer electron beam evap. 13294
solar cell perform., high injection effects 44414
two-sect. TW semicond. laser amp. opt. transparent TDM channel selector 9552
unified transport model, 3D implement. 38786
AlAs, C doping, CCl_4 and CBr_4, metalorganic MBE 1226
n-AlGaAs, DX levels, carrier conc. saturation effect 29860
AlGaAs, act. waveguide LD, femtosecond band-edge index nonlin. 31337
$Al_xGa_{1-x}As$ CBE growth, diethylsulphide doping effect 20881
AlGaAs:Si, delta-doped, low-press. MOVPE 13304
AlGaAs/GaAs HEMT design, inverse modeling 38909
AlGaAs/GaAs VCSEL, linewidth/α-factor 14936
(AlGa)As/GaAs:C, MOVPE, N_2 carrier gas 316
AlGaAs/GaAs:Si, QW, δ-doped, subband carrier mobilities 29863
$AlGaAs/In_xGa_{1-x}As$ doped-channel struct., thermal stabil. 1133
AlGaAs/InGaAs/GaAs, δ-doped pseudomorphic structs., opt./transport props. 6550
AlGaAs-GaAs DH LEDs, MBE 39588
AlInAs:Si, MBE, doping characts., deep levels 1219
carrier density continued
Bi_2Te_3:In,Pb, intrinsic defects, elec. method studies 1068
3C-SiC undoped CVD epilayer, carriers orig. *(Japanese)* 1067
$Cd_{1-x}Mg_xTe$, doping, MBE 38490
CdO/CdTe thin film solar cells, prep./props. 5229
CdS sprayed thin films, opt. and elec. props. 21902
CdSe thin films, elec. props., CO_2 gas sens. appls. 3898
CdTe, cryst. growth from melt 20658
CdTe electrodeposited films, grain boundaries, opt. meas. 28805
CdTe:In, MBE growth/In doping 30057
$CeO_2/YBa_2Cu_3O_{7-\delta}$, supercond. FET, prep., charactn. 14301
GaAlAs, metallorganic CVD, Zn-doping proc. 28843
GaAlAs/GaAs accum. mode bipolar transistor, 2DHG base *(English)* 22362
GaAs, CBE growth on Si(001), TEG and AsH_3 *(Chinese)* 5814
GaAs, LPE on 100mm diam. GaAs substrs. 351
GaAs, MOMBE, TMGa/TEGa interacts. 20739
GaAs, MOMBE using triethylgallium, trisdimethylaminoarsenic 28726
GaAs, MOS-hydride epitaxial growth, cryogenic purification of arsine 28737
GaAs based cpds., Si diffusion, doping profile control and 2DEG form. 6627
GaAs, bulk cryst. growth, rare earth effect 20656
n-GaAs, carrier conc. and disloc. dens. nondestructive mapping 1044
GaAs, carrier-carrier scatt., carrier distrib. effects 29858
GaAs, δ-doped, impact-ionization-breakdown simul. 38261
GaAs epilayers, metalorganic CVD growth 37411
GaAs films, anom. PV effect/neg. photocond. 39554
GaAs films, temp. synchronized MLE 20676
GaAs lateral superlattice, Weiss oscills., small-angle scatt. effects 38350
GaAs, metallorganic CVD, Zn-doping proc. 28843
GaAs p^+-SI-n^+ SI struct., I-V charact. 38300
GaAs, photo-excited carriers, momentum reorientation 1034
GaAs quantum well, MBE regrowth, 2DEG struct. 352
GaAs quantum wire superlattices, conduct. anisotropy 1103
GaAs vac. ALE growth, tertiarybutylarsine 28743
GaAs:C films, MOCVD grown, heavily doped, elec. props. 38253
GaAs:C, solid source MBE, uniform/delta doping, at. C pairing 38488
GaAs:C,H, isolated H-donors, deactivation mechanism 22130
GaAs:Li, shallow and deep level passiv. by lithium 1052
GaAs:Si, at. layer MBE, shallow deep levels 347
GaAs:Si, delta-doped, low-press. MOVPE 13304
GaAs:Si, doping in MOVPE from tertiarybutylarsine and tetraethylsilane 22128
GaAs:Sn, n-type doping, MBE 1207
GaAs:Zn(Sn), p/n-type impurity diffusions, doped silica films 38500
GaAs/Ag Schottky barrier, electroreflectance 13216
$GaAs/Al_xGa_{1-x}As$, LP-MOVPE, DEAlH-NMe_3, Al source 346
$GaAs/Al_xGa_{1-x}As$, MOVPE, n-doping, 2D electron gas struct. 22152
GaAs/AlGaAs MESFET and pseudomorphic HEMT, selective RIE 38917
GaAs/AlGaAs MQWs, nonlin. index saturation in bandtail absorpt. region 13172
GaAs/AlGaAs heterostruct., deep impurity doped, elec. field and refr. index change 30817
GaAs/AlGaAs inverted MODFET, charge control/I-V model 38908
GaAs/AlGaAs superlattices, IR detectors, MOVPE growth 37418
n-GaAs/AlGaAs:Zn/AlGaAs:Se struct., Zn diffusion mechanism 21955
$GaAs/Ga_{1-x}Al_xAs$ quantum-well IR photodetector, dark current 25832
GaAs/GaAlAs, 2D hole gas, MBE, elec. props. 355
GaAs/InGaAs two step doping channel FET, symmetric normally on/normally off characts. 38937
GaAs/InGaAs/GaAs double delta-doped channel, high carrier dens. and mobility 21990
GaAs-AlGaAs MQW, nonlin. opt. cross sect. 13187
GaAs-Si films, anom. PV effect/neg. photocond. 39554
GaAs-Si heteroepitaxial layers, ohmic contacts, RTA 22029
GaAs-based struct., electrochem. C-V profiling, electrolyte 13122
$GaInP_2$ homojunctions, ordered-disordered, 2DEG, anisotropic transport props. 21962
GaInP:Se, Se doping by ALE 30033
GaN films, metal-organic CVD growth, struct./elec./opt. props. 20897
GaN:Si metal-organic VPE, shallow/deep levels charactn. 13052
GaSb single crysts. doping, various elements 22140
Ge long sample, excess carrier exclusion, current dens. depend. 38290
Ge:Ga(As), 1/f hopping noise 29837
(Hg,Cd)Te films, isothermal VPE growth, morph. orient. depend. 326
HgCdTe, film, hot wall MOCVD, Hg distrib. coeff. *(Chinese)* 6527
HgCdTe films, growth by MBE, ellipsometry 5819
HgCdTe heterojunction photodiodes, built-in elec. field 14612
HgCdTe layers on GaAs substr., MOVPE, autodoped Ga conc. reduction 20893
ITO thin film, elec. and opt. props. rel. to annealing 21925
InAlAs/InAs/InGaAs 2DEG, supercond. three-terminal devices 39284
$InAs_{0.91}Sb_{0.09}$, MOVPE, electronic props., photocond. 28779
InGaAs epilayers, metalorganic CVD growth 37411
InGaAs, low-temp. CBE growth on GaAs(100) 37432
p- InGaAs:C, appl. to InP/InGaAs HBTs 13072
InGaAs:Dy on InP, LPE growth, photolum., double-cryst. X-ray study 37400
$In_{0.53}Ga_{0.47}As$:C, metalorganic MBE, doping profiles, carrier dens. 28777
InGaAs/GaAs depletion-MIS-like delta-doped HFETs 13810
InGaAs/GaAs, two mode channel FET, low noise perform., electron confine. 38927
InGaAs/InP at high mag. fields and low temps., quantum magnetotransport 38286
InGaAs/InGaAsP strained QW lasers lattice matched to GaAs, high temp. charact. 7632
$In_{0.1}Ga_{0.9}As/GaAs/AlAs$ RTDs in triple well config., supply and escape mechanisms 6716
InGaAsP, $Si^+(Be^+)$ ion beam proc. 30036
InGaAsP quantum well laser, 2D model 14976
InGaAsP/GaAs, high power BH lasers, mode comp. control 39843
InGaAsP-InP 1.55-μm strained quaternary QW lasers, approx. opt. gain formulas 23190
InGaAsP-InP strained quantum well laser struct., excess carrier spillover, photolumin. obs. 31380
InGaP homojunctions, LP MOVPE, 2DEG 21957
InGaP strained quantum-well lasers, gain, threshold currents 23265
$In_{0.5}Ga_{0.5}P$, LPE growth, oxygen effects 20748
$In_{0.5}Ga_{0.5}P/GaAs$ HBTs, MOMBE growth, tertiarybutylphosphine 22375
InN thin films, hydride vap. phase epitaxy growth 379
In_2O_3:Sn films, phys. props., doping-induced changes 30034

carrier density continued
- In_xO_y:Er RF sputtered films, photolum. and elec. props. 13096
- InP, bulk cryst. growth, rare earth effect 20656
- InP p^+n and n^+p structs., electrochem. anal. solar cells appl. 13107
- InP:Be, MOVPE growth, bismethylcyclopentadienyl-beryllium 37430
- InP:Be annealing, e-beam evaporated borosilicate glass thin film encapsulant 13313
- InP:CdTe, LEC growth and double doping, dislocations 12025
- InP:Fe, Mg, Mg/P, Mg/Ar implants, elec./opt. charactn. 29856
- InP:S, charge carrier conc./mobility, vacancy conc., positron annihilation meas. 38250
- InP:S, low dislocation density, LEC cryst. growth 12026
- InP:Si,H, gas-source MBE, H incorporation 38507
- InP/$In_{0.53}Ga_{0.47}As$ HBTs, MOMBE growth, tertiarybutylphosphine 22375
- InP/$In_{0.53}Ga_{0.47}As$/InP, Zn area-selective diffusion for lateral pn photodiodes 29855
- InP/InGaAs/InP heterostruct., highly strained, mobility enhancement 13111
- InP-based struct., electrochem. C-V profiling, electrolyte 13122
- InSb thin films, vacuum evap., elec. props. 21913
- In_2Se_3 heterocontacts, radiation-stable electronics 13101
- $(InSn)_2O_3$ films, activated electron beam evap., water partial press. depend. 37487
- $LiNbO_3$ photorefr. crysts., effective carrier dens. *(Chinese)* 15064
- PbMgSrTe, films, hot-wall epitaxy, charactn. 12080
- PbS films, irrad., elec. props. 13091
- PbSe film, intrinsic at. defect charge state 13088
- $Pb_{1-x}Sn_xTe_{1-y}Se_y$:In, epitaxial layers, photocond. 13095
- PbSrTeSe, films, hot-wall epitaxy, charactn. 12080
- PbTe:Cl, excess Te films, photosensitivity 1070
- PbTe:Ga, electron irrad., elec. and photoelec. props. 1788
- n(p)-Si, Einstein rel., high temps. 13026
- Si MOS devices, transient impact ionization in bulk semicond. 1173
- Si epitaxial film, carrier profile, ion bombard. effect 37425
- Si films, anom. PV effect/neg. photocond. 39554
- Si p-n jn. solar cells, superposition principle 20000
- Si point-contact, force microscopy-supported resist. meas. 42887
- Si, polycryst. thin-film solar cells, solid phase crystn. 5214
- Si solar cell perform., trap location/trap-assisted Auger recomb. effect 44395
- Si:Au, Au diffusion, carrier conc. profile, preannealing effects 29831
- Si:B, MBE growth, elec. props., reciprocal lattice mapping 304
- Si:B, ion implant., spreading resist. profilometry/SIMS obs. 22117
- Si:B p-n-p lateral transistors, minority carrier diffusion length, band gap 13653
- Si:B retrograde well barrier effect against ion-induced-charge carriers 30220
- a-Si:H TFT, drain current reduction by source electrode overlap 13754
- μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
- n-Si:P amorph. CVD films, crystn., elec. props. 405
- Si-SiGe-Si DHBTs, parasitic pot. barrier effect on base current *(Korean)* 13618
- SiC, VPE growth, vert. LPCVD reactor 20867
- SiC, props./growth, rel. to HF device appls. 1072
- SiC:Al,N Schottky diode, DLTS/admittance spectrosc. 22353
- β-SiC:N layers grown on Si substr., ion implant. studies 38482
- α-SiC:N(Al), ion implanted dopant activation, pulsed laser annealing 30048
- n-SiC/Ni(Ti/Al), ohmic contact resist., reduction by heavy doping 22024
- SiGe thermoelec. materials optim., space power appls. 26585
- p-$Si_{1-x}Ge_x$ quantum well detectors, 8-14 μm wave band absorpt. 42784
- $Si_{1-x}Ge_x$:B(P) polycryst. films, resist. 21932
- ZnO thin film, spray pyrolysis, deposition variables effect 12142
- ZnO-Bi_2O_3-based varistors, multiple trapping, appls. 12829
- ZnSSe/ZnSe superlattices, excitonic procs. and lasing 29912
- p-ZnSe, elec. contacts based on HgSe and ZnTe 29891
- ZnSe epitaxial layers, low-temp. cond. in impurity band regime 1046
- ZnSe semicond. lasers, linewidth enhancement factor and nonlin. gain 23224
- n-ZnSe:Cl, doping characts. 21921
- p-ZnSe:N, doping characts. 21921
- ZnSe/ZnMgSSe DH blue LD, operation and dyn., room temp. 31378
- ZnSe-based LED, low-press. MOVPE 23043

carrier diffusion length *see carrier lifetime*

carrier lifetime
- bipolar power devices, materials and lifetimes 30205
- bipolar power transistor switches, collector current/current gain rels. 38824
- bipolar transistor p-n heterojunction carrier generation-recomb. current modelling 6726
- compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
- diamond, natural IIA, elec. props., detector appl. 43088
- diamond, opt. switch, photocond. props. in high elec. field 31083
- diamond, synthetic type IIa, carrier mobility/lifetime 38234
- diamond CVD films, elec. props., detector appl. 38233
- diamond high mobility CVD films, electron-hole mobility 6517
- dual-collector magnetotransistors in SOI technol. 25790
- fully depleted SOI CMOS SRAM cell, SEU sensit., SPICE anal. 12522
- GRINSCH strained MQW LD, 1.5 μm, low threshold current, high output power 23269
- GTO cond. characts., temp. effects studies 12318
- ICARUS liq. Ar TPC, tetra-methyl-Ge doping effects 34944
- IGBT, n′ buffer layer, static characts. simul. 1410
- III-V cpd. semiconds., minority carrier lifetime 1041
- III-V quantum-well IR photodetectors, noise perform. 42788
- injection-locked dispersive bistable LD, fast opt. switching 39817
- IR photodetectors, 2-12 μm, high perform. near RT 17787
- ISL-EMA railguns, phase controlled thyristor main switches 31758
- metallic contamination in ULSI, opt. monitoring techs. 29991
- microwave sig. photodetector, carrier sync. drift interf. pattern obs. 17764
- MM-wave Gaussian beam, electro-optic power control 39474
- MOS controlled power diodes, trench MCDs 38812
- MQW, coupled, electron escape rate, coherence length, hopping effects 38364
- multielectrode lasers, microwave small-sig. equiv. cct. model 14849
- planar devices, minority carrier diffusion length, direct meas. 13659
- polysilicon TFTs, off-current, thermally generated component 38900
- power device simul., temp. depend. phys. models 30227
- power diode reverse recovery, charge anal. approach 30217
- power soft recovery diodes, design and technol. 30228
- PPV, carrier deep-trapping mobility-lifetime products 1813
- pulse sources in opt.-soliton transm., carrier linewidth timing jitter 15052
- PV cell pulsed laser illum., laser power beaming systs. 43948
- QW bistable semicond. lasers, modeling and meas. 2000

carrier lifetime continued
- QW lasers/opt. amps., ultrafast gain dyn. 31339
- RIE induced damage, gas mixtures $CHF_3/O_2/SF_6/O_2$ 30114
- RT semicond. detectors, phys.-chem. props. effects 43095
- RTO proc., opt./elec./mech. charactn. 22227
- scaled DRAMs, α-particle-induced soft errors 21320
- semicond., generation param., lin. voltage sweep determ. *(Chinese)* 42920
- semicond. device drift-diffusion simul. reliab. model 1330
- semicond. devices, carrier fluct., excess noise generation 22348
- semicond. lasers, static and dyn. props. of dispersive opt. bistability 14949
- SOI layer with voids, noncontact elec. eval. 38432
- SOI MOSFETs, fully depleted, carrier generation study 6763
- SOI n-MOSFET radiation hardness improvement by Ge-implant. 13726
- solar cell, spatial collection efficiency 27932
- solar cells, internal quantum efficiency anal., graphical eval. 44419
- ultrafast carrier capture in quantum well struct. 1117
- AlGaAs/GaAs 2DEG, ballistic electron transport 29944
- AlGaAs/GaAs MQW, opt.-modulator struct., hydrogenation 1803
- AlGaAs-GaAs HEMT, conc.-depend. carrier mobility and lifetime 1447
- (Al)GaInP/AlInP DH, minority carrier lifetimes 13125
- AlInAs-GaInAs quantum cascade unipolar intersubband LED 14632
- 3C-SiC CVD grown epilayer, carrier lifetime, deep levels *(Japanese)* 1066
- p-$Cd_xHg_{1-x}Te$ epitaxial layers, electron mobility 13070
- CdSe, ultrafast exciton dyn. in direct gap semicond. 1032
- $CdSe_xS_{1-x}$, ultrafast exciton dyn. in direct gap semicond. 1032
- CdTe electrodeposited films, SCLC 29862
- n-$CuInS_2$, minority carrier diffusion length, EBIC meas. 29873
- $CuInSe_2$ films, ambipolar diffusion, carrier drift 1069
- GaAs CPW opt. illum. 3D full-wave anal. 23810
- GaAs, focusing/defocusing in electron scatt. along at. chains 6534
- GaAs, high freq. photomixing 15109
- GaAs p^+-SI-n^+ SI struct., I-V charact. 38300
- GaAs photodetector for near-field optics 17766
- GaAs quantum wire, hot electrons ultrafast relax. 1119
- GaAs, subpicosecond elec. pulses, Monte Carlo investig. 22992
- GaAs:C, HBT base-layers, electron lifetimes, annealing effects 1200
- GaAs:C, heavily doped, MOMBE using elemental Ga 321
- GaAs:O, MOVPE, ultrafast photodetector materials appl. 23064
- GaAs:Si,Be, periodically δ-doped, carrier lifetime meas. 21907
- GaAs/AlGaAs, MOCVD, regrown, interface contamination, gas etching 22242
- GaAs/AlGaAs MQW, perp. over-barrier diffusion, short-period transient grating meas. 38324
- GaAs/AlGaAs SQW laser struct., carrier lifetime, absorpt. recovery time 14918
- GaAs/AlGaAs quantum wells, ultrafast exciton dyn. in direct gap semicond. 1032
- $GaAs_{1-x}P_x/Al_yGa_{1-y}As$ DH, minority carrier lifetime 1081
- $GaInP_2$ DH, ultralow interface recomb. vel. 29889
- GaInP/AlGaInP QW struct., Zn doping, laser appls. 14977
- GaInP/GaAs DH interface, MOVPE growth 20805
- GaInP/GaAs/GaInP quantum wells, persistent photocond. 13174
- GaP, focusing/defocusing in electron scatt. along at. chains 6534
- N-nGaSb/GaInAsSb staggered lineup heterojunction, recomb. obs. 38287
- Ge:Ga, hole lifetime, uniaxial stress depend. 38240
- a-Ge:H,S, optoelectronic props, effects of S incorporation 39556
- HgCdTe, MOCVD layers, excess carrier lifetimes 38254
- HgCdTe films, growth by MBE, ellipsometry 5819
- HgCdTe photodetector array, variable area diode data 25837
- $Hg_{1-x}Cd_xTe$:B large-area PV IR detector, fab. *(Korean)* 17771
- HgI_2 gamma-ray spectrometers, electronic charactn. 43078
- InAlAs/InGaAs, HEMT, high cut-off, current drive capability 13785
- InGaAs thermophotovoltaic cells, charactn. meas. techs. 28009
- $In_xGa_{1-x}As$ thermophotovoltaic cells, quantum efficiency model 28003
- InGaAs:Zn HBTs, electron diffusion length 38262
- InGaAs/GaAs LD, degrad., possible sources 14925
- InGaAs/GaAs-on-GaAs superlattices, metal-semicond.-metal photodetectors, carrier trapping 22014
- InGaAs/InP MQW, step barrier structs., reduced hole localisation 29899
- $In_{0.85}Ga_{0.15}As$/GaAs relax. superlattice struct., ultrafast meas. of nonequilibrium carrier lifetime 38348
- $In_xGa_{1-x}As$/InP thermophotovoltaic cells, recomb. lifetime meas. 28006
- InGaAs-GaAs quantum-well lasers, impedance charact. 14857
- InGaAsP/InP quantum well laser, photoexcited carrier transport 1953
- $In_{0.5}Ga_{0.5}P_{0.99}As_{0.01}$ epilayers, doped and undoped, deep level studies 29852
- InP Schottky barriers, minority carrier diffusion length 13210
- InP high-efficiency n^+p solar cell, simul., improvements 11301
- InP, low-temp.-grown, femtosecond carrier dyn., photolum. obs. 38248
- InP/GaAs solar cells, proton irrad., prop. effects 19990
- InP/InGaAs/GaAs solar cells, proton irrad., diffusion length 19991
- InP/Si, bonding using InSb, Au-based eutectic alloys 13269
- In_2S_3 crysts., thermoelec. power, electron/hole mobilities 1062
- PbS photosensitive layers, charge carrier transfer and recomb. 39548
- Si, EFG growth in CO ambient, gettering 20647
- n(p)-Si, Einstein rel., high temps. 13026
- Si GTO thyristors, var. of carrier lifetime with temp., device operation 30279
- Si bilateral solar cells, minority carrier diffusion length 36595
- n-Si, bulk/surface transport, injection dose effect 1029
- Si, carrier-diffusion, Fourier-transient-grating method 21886
- Si diode, MeV particle irrad. 13601
- Si disloc.-free crysts., electrophysical/microdefects correl. 21870
- Si high-efficiency solar cells, RTP 5226
- Si, mesoporous, photocarrier grating tech. 22999
- a-Si, mobility-lifetime products, dispersive transport effects 13029
- Si, neutron-irrad. single cryst., elec. params. *(Chinese)* 1016
- Si, p-n jns., minority carrier diffusion length determ. 38284
- Si photocond. semicond. switches, pulsed power appls. 36386
- p-Si, photoelectrochemical diffusion length, PV appls. 29834
- Si photoelectrode, efficient reductive/oxidative current flow 38453
- Si, plasma etching edge-type exposures effects 1258
- Si polycryst. solar cells, hydrogen passivated 44407
- Si power devices, combined electron and ion irrad., local lifetime tailoring 30204
- Si power diodes, electron/He ion irrad. for local lifetime tailoring 30197
- Si, recomb. lifetime meas. 29829
- Si, single crysts., metal impurities, opt. detect. techs. 38242
- Si solar cell perform., trap location/trap-assisted Auger recomb. effect 44395
- Si solar cells, modulated free-carrier absorpt., high-resoln. lifetime mapping 44400
- Si, thick wafers, bulk carrier lifetime, contactless meas. 13036

carrier lifetime continued
Si wafer mapping, lifetime/resist./oxygen precip. meas. 25945
Si wafer surface minority carrier lifetime meas. tech. 30388
Si wafers, doped, modulated photothermal reflectance charactn. 13031
Si wafers, photocurrent imaging, electrolyte contacts 31069
Si:Al solar cells, minority carrier diffusion length, Al gettering 44416
Si:B p-n-p lateral transistors, minority carrier diffusion length, band gap 13653
Si:B retrograde well barrier effect against ion-induced-charge carriers 30220
Si:Fe, LEC grown, Fe contamination influence on LSI-yield related cryst. quality 29828
Si:Fe, recomb. centers, microwave refl. photoconductive decay 38237
Si:Fe,Al(B), lifetime effects of Fe/Fe complexes 29826
a-Si:H films, nonlin. opt. suscept., laser-induced transient grating tech. 31546
a-Si:H, transport props., deposition condition effects 29869
Si:Mo p/p^+ epitaxial wafers, Mo contamination 38236
Si:O, intrinsic gettering, low temp. annealing *(Chinese)* 1193
Si/SiO_2 amorph. QW struct., dispersive subband-reson. nonlin. 1146
6H-SiC CVD layers, minority carrier lifetimes 21931
6H-SiC p-type photoconductive switches investig. 23011
SiC, props./growth, rel. to HF device appls. 1072
SiC:Al HV rectifiers, expts. and simul. 1346
a-SiC:H, transport props., deposition condition effects 29869
SiC/Si hetero- and homo-jn. photodiodes, fab. and props. *(Japanese)* 1805
a-SiGe:H films, PECVD under He dilution 5891
SiN-Si X-ray mask wafer stress, contactless laser/microwave eval. 6686
Th(BrI), photodetectors for scintillation spectrometers 43092

carrier mean free path
see also electron mean free path
diamond, natural IIA, elec. props., detector appl. 43088

carrier mobility
see also carrier mean free path; carrier relaxation time; current density; electron-hole recombination; electron mobility; Hall mobility; hole mobility
2D heterostruct. device simulator, steady state/transient anal. 30193
2D MOSFET simul., local NMOS mobility model, screened minority impurity scatt. 1412
bipolar transistors, transient base dyn., high injection 6739
C_∞-continuous model for small-geom. MOSFETs 13745
CATV DFB source laser lin. limits 25528
charge mobility modelling in high elec. fields 7899
CMOS transistors, flicker noise study 1383
CONCAVE-DMOSFET, super-low on-resist. power MOSFET 38877
diamond:B,N, elec./opt. charactn. 21891
diamond:B films, homoepitaxial and polycryst., elec. props. 21890
diamond, electronic/sens. props., review 6520
diamond, natural IIA, elec. props., detector appl. 43088
diamond, opt. switch, photocond. props. in high elec. field 31083
diamond, synthetic type IIa, carrier mobility/lifetime 38234
diamond CVD films, elec. props., detector appl. 38233
diamond high mobility CVD films, electron-hole mobility 6517
dielectric liquids, cond., breakdown, conf., Switzerland (1993) 5444
disordered quantum wires, DOS/conductance 38342
disordered semiconds. and devices, mobility edge concept 29823
four quadrant analog multiplier-type CMOS OTA, design 21123
GaAs submicron MESFET devices, heat generation and transport 38921
gain guided waveguide semicond. laser model 1994
graded HBTs, current transport, anal. model 38850
GRINSCH lasers, carrier/radiation confinement 39771
GTO cond. characts., temp. effects studies 12318
guest-host photorefr. polymers 22781
HBTs, HF design, f_{max}-carrier mobility rels. *(Chinese)* 1354
α-hexathienylene act. layer TFT, characts. and appls. 22448
high T_c superconds., conductance noise, no. and mobility noise 1610
hot electron noise in semicond. materials for high-speed devices 1314
IGBT, n′ buffer layer, static characts. simul. 1410
insulating polymers, electrical ageing problems 13969
lateral surface superlattice, fab., ion irrad. 21976
machine stator winding varnish ageing, TSC anal. *(French)* 10937
microcavity semicond. lasers, nonequilibrium carrier dyn. 31338
microscopic Monte Carlo simul. of electronic noise in semicond. devices 1319
microwave Gunn diodes operation under γ radiation 12781
MIM struct., Schottky barriers, interface impurity states 22081
mol. wires/transducers/devices 28891
MOS transistors, 1/f noise, mobility or no. flucts. 1380
MOS transistors, n-channel, CVD grown, channel mobility 13712
p-MOSFET, bi-directional operation, hot-carrier degrad. model 38875
MOSFET, STM lithog. damage 13740
MOSFET carrier mobility model, phys.-based carrier screening effects 30360
MOSFET inversion layer, carrier mobility model, wide temp. range and different channel doping *(Chinese)* 6743
n-MOSFETs, counter doped, mobility, reverse short channel effect 38873
n-MOSFETs, rapid thermal N_2O-reoxidized nitrided gate oxides 38899
MOSFETs and MOS capacitors, oxide reliab., nitrogen effects 38629
MOSFETs from liq.-nitrogen to RT, num. Gummel model 13678
MOSFETs with rapid thermally NO-nitrided SiO_2 gate dielec., hot-carrier reliab. 22429
MQW opt. amps., pump probe meas. and carrier overflow effects anal. 14954
n-p jn. devices, high-level free carrier injection, num./empirical model 30192
NMOSFETs with nitrided-oxide, high-field mobility enhancement 1390
nonlin. coupling of reciprocal mobilities, charge carrier distrib., pin power devices 13610
oligothiophene-based LED, charge carrier injection/lumin. 14635
organic PV cells, excitonic light collection, high carrier mobilities 27937
organic semiconds., disordered, geminate recomb. 1015
p-MOSFETs, radiation-induced oxide-trapped charge, mobility effect 30322
passivated HBTs, currents and current gain anal. 6737
PbSnSe photodiodes, computer modeling of carrier transport 7461
poly(2,5-thienylenevinylene), TFT, charactn. 22402
poly(p-phenylenevinylene) LED, transient electrolumin. 14634
poly-p-phenylene sulfide films, space charge, elec. breakdown 14031
polysilicon emitter bipolar transistors, LF 1/f noise 38820
polysilicon films, elec. params., low temp. modelling *(Chinese)* 13025
polysilicon TFTs, fab., pulsed laser annealing and plasma CVD 13743
polysilicon TFTs, hydrogen passiv. 38866
power VDMOS transistor quasi-saturation, self-heating effects 30312
PPV, carrier deep-trapping mobility-lifetime products 1813

carrier mobility continued
PPV, ion implant. doped, MISFET 38885
quantum well lasers, 2D self-consistent simul. 39790
quantum well lasers, intens. modulation, carrier heating/transport 14865
QW semicond. lasers, carrier transport effects on wavelength chirp 1974
RT semicond. detectors, phys.-chem. props. effects 43095
Schottky-gate FET, LF noise anal. 38914
self-aligned pocket implant. MOSFETs, low supply voltage operation 13672
semicond., generation param., lin. voltage sweep determ. *(Chinese)* 42920
semicond., impurity band in high elec. field, interband and impurity breakdown 1013
semicond. device 1/f noise sources, models 1320
semicond. device drift-diffusion simul. reliab. model 1330
semicond. devices, carrier fluct., excess noise generation 22348
semicond. integrated opt. routing array components, carrier diffusion effects 14479
semicond. intrinsic props., nonparabolic three-band model 22337
semicond. laser light pulse propag. and charge carrier scatt. 39789
semicond.-liq. cryst. interfaced opt. addressed SLM 14536
short-channel MOSFETs, I-V characts. form. 6767
SIMOX MOSFET, high temp. operation 22468
SOI dyn. threshold voltage MOSFET for LV operation 6773
SOI MOSFET, threshold voltage and I-V characts. study *(Korean)* 30305
SOI MOSFETs, submicron, self-heating effects 22470
SOI MOSFETs, thin film fully-depleted, 2D mobility model 13694
SOI/bulk hybrid technol. on SIMOX wafers for ESD immune ccts. 13881
submicrometer gate length MOSFET, selectively doped substr., hot electron degrad. 30324
submicron MOS transistors degrad., 1/f noise spectral dens. 22463
submicron MOSFETs, channel length depend. of random telegraph sig. 6772
submicron SOI MOSFET, self-heating, scaling constraints 30289
superlattices, vert. cond., neg. differential mobility, freq. limitations 13134
Tanh law MOSFET model for high temp. cct. simul. 22462
TCNQ/polymer amorph. semicond. MISFET, cond. and field-effect mobility 13737
TFTs, low temp. fab., multi proc. reactor 13739
two-mode semicond. laser dyn., carrier diffusion effects 31394
unified transport model, 3D implement. 38786
Ag/Si(111), film elec. cond. mechanisms 38400
Al-polysilicon-SiO_2-Si struct., HF plasma proc. effects 13239
AlGaAs high-power single-stripe LD, window grown on facets *(Japanese)* 39886
$Al_xGa_{1-x}As$ n^+nn^+ devices, Al content x, effects on hot electron noise 1433
AlGaAs/GaAs heterostruct., electron beam irrad. damage, annealing 21944
AlGaAs/GaAs power HBT, current gain collapse and avalanche breakdown 38818
AlGaAs/GaAs:C,In HBTs, lattice strain control, In co-doping 22374
AlGaAs/GaAs:Si, QW, δ-doped, subband carrier mobilities 29863
AlGaAs/InGaAs/GaAs, δ-doped pseudomorphic structs., opt./transport props. 6550
AlGaAs-GaAs HEMT, conc.-depend. carrier mobility and lifetime 1447
$Bi_{12}SiO_{20}$, photorefr., charge carriers grating competition 22778
3C-SiC epilayers fab., elec. props. *(Japanese)* 372
CdS_xSe_{1-x} crysts., free carriers polariz. dyn. 21903
CdSe thin films, elec. props., CO_2 gas sens. appls. 3898
CdSe, ultrafast exciton dyn. in direct gap semicond. 1032
$CdSe_xS_{1-x}$, ultrafast exciton dyn. in direct gap semicond. 1032
CdTe, detector grade, crystallograph./metallurg. charact. 43102
CdTe:In, MBE growth/In doping 30057
CdTe/CdMnTe MQW, low temp. mobility limiting defects 1087
$Ce_3Cu_3Sb_4$, structural/mag./transport props. 13083
CoSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
$CrTiO_3$, elec. cond., thermoelec. power and dielec. const. 13074
$CuInSe_2$ films, ambipolar diffusion, carrier drift 1069
GaAs, LPE on 100mm diam. GaAs substrs. 351
GaAs, MBE grown, elec. breakdown props. 21908
GaAs MM wave TEDs, CAD, thermal anal. 38791
GaAs, bulk cryst. growth, rare earth effect 20656
GaAs, carrier transport phase ident., 10 fs resoln. 21893
GaAs epilayers, metalorganic CVD growth 37411
GaAs epitaxial layers, charactn., annealing effects 13277
GaAs films, anom. PV effect/neg. photocond. 39554
GaAs, focusing/defocusing in electron scatt. along at. chains 6534
GaAs heterojunction p-i-n photodiode transient simul., computational methods 39564
GaAs quantum well, MBE regrowth, 2DEG struct. 352
GaAs quantum wire, hot electrons ultrafast relax. 1119
GaAs quantum wire superlattices, conduct. anisotropy 1103
GaAs quantum-well laser below-threshold near-field profile broadening, photon recycling 31390
GaAs, radiation induced order effect, mobility study 13061
GaAs:Si, Si diffusion by RTO 38523
GaAs:Si,Be, periodically δ-doped, carrier lifetime meas. 21907
n-GaAs:Yb, electron irrad., defect form., cond. compensation 21911
$GaAs/Al_xGa_{1-x}As$, LP-MOVPE, $DEAlH-NMe_3$, Al source 346
GaAs/AlAs/AlGaAs double-barrier QW, interband/intersubband absorpt. 29907
GaAs/AlGaAs quantum wells, ultrafast exciton dyn. in direct gap semicond. 1032
GaAs/GaAlAs, 2D hole gas, MBE, elec. props. 355
GaAs/InGaAs/GaAs double delta-doped channel, high carrier dens. and mobility 21990
GaAs-GaAlAs heterojunction, magneto resist./Hall effect meas. 21945
$GaAs-P_3N_5$ MISFETs, photo-CVD grown gate insulators, sulfide treated, charact. *(Korean)* 30355
GaAs-Si films, anom. PV effect/neg. photocond. 39554
$GaInP_2$ ordered epilayers, elec. cond. 1065
GaInP/AlGaInP SQW, bias and temp.-depend. photocurrent spectrosc. 38338
GaInP/GaAs/GaInP quantum wells, persistent photocond. 13174
$Ga_{0.51}In_{0.49}P/GaAs$ inverted-struct. HEMT, DC charactn. 6789
GaP, focusing/defocusing in electron scatt. along at. chains 6534
$Gd_3Cu_3Sb_4$, structural/mag./transport props. 13083
(Hg,Cd)Te films, isothermal VPE growth, morph. orient. depend. 326
HgCdTe, film, hot wall MOCVD, Hg distrib. coeff. *(Chinese)* 6527
HgCdTe films, growth by MBE, ellipsometry 5819
$Hg_{1-x}Cd_xTe$ epitaxial layers, (100) CdTe substrs., CVT, normal/reduced gravity expts. 20892
ITO thin film, elec. and opt. props. rel. to annealing 21925
InAlAs/InAs/InGaAs 2DEG, supercond. three-terminal devices 39284

carrier mobility continued
- InAlAs/InGaAs inverted HEMT, InAs inserted channel 38007
- InAs quantum-well FETs, electron transport props. 6805
- InAs$_{0.91}$Sb$_{0.09}$, MOVPE, electronic props., photocond. 28779
- InGaAs GRINSCH QW laser, gain compression, Monte Carlo simul. 1992
- InGaAs epilayers, metalorganic CVD growth 37411
- InGaAs heterostruct., nanostructure fab., FIB technol. 13312
- In$_{0.53}$Ga$_{0.47}$As:C, metalorganic MBE, doping profiles, carrier dens. 28777
- InGaAs/GaAs, two mode channel FET, low noise perform., electron confine. 38927
- InGaAs/InP MQW, step barrier structs., reduced hole localisation 29899
- InGaAs/InP at high mag. fields and low temps., quantum magnetotransport 38286
- In$_{0.65}$Ga$_{0.35}$As/GaAs laser, ultrafast band-edge carrier dyn. 1959
- InGaAs-GaAs narrow quantum wells, carrier capture and relax. 2004
- InGaAs-GaAs quantum-well lasers, impedance charact. 14857
- InGaAsP/InGaP/GaAs high-power 0.8 μm LD, minority carrier leakages 1956
- InGaP homojunctions, LP MOVPE, 2DEG 21957
- In$_2$O$_3$:Sn films, phys. props., doping-induced changes 30034
- In$_2$O$_3$-ZnSe-(Zn$_{1-x}$Cd$_x$Te)$_{1-y}$(In$_2$Te$_3$)$_y$ heterostruct., current transport 21963
- In$_2$O$_3$-ZnSe-CdTe-In, injection-contact phenom. in sub-micron layers 38313
- In$_2$O$_3$-ZnSe-In, injection-contact phenom. in sub-micron layers 38313
- In$_2$O$_3$(ZnO)-PZT(PLZT), TFT on ferroelec., operation phys. 39115
- InP MISFET, near-surface electron transport 13697
- InP MM wave TEDs, CAD, thermal anal. 38791
- InP, bulk cryst. growth, rare earth effect 20656
- InP:Fe, Mg, Mg/P, Mg/Ar implants, elec./opt. charactn. 29856
- InP:S, charge carrier conc./mobility, vacancy conc., positron annihilation meas. 38250
- InP/GaInAs HEMT, interface props., device characteristics effect 13779
- InP/InAlAs IG-MODFET, power appl. 13708
- InP/InGaAs/InP heterostruct., highly strained, mobility enhancement 13111
- InSb thin films, vacuum evap., elec. props. 21913
- IrSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
- La$_3$Cu$_3$Sb$_4$, structural/mag./transport props. 13083
- LiNbO$_3$:Fe, laser-induced transient holographic gratings 31644
- PbS films, irrad., elec. props. 13091
- PbS photosensitive layers, charge carrier transfer and recomb. 39548
- Pr$_3$Cu$_3$Sb$_4$, structural/mag./transport props. 13083
- RhSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
- n(p)-Si, Einstein rel., high temps. 13026
- Si MOSFETs, inversion layer mobility, substr. impurity conc. 6760
- a-Si TFT devices, anal., HFIELDS general-purpose simulator appl. 1416
- Si, carrier transport phase ident., 10 fs resoln. 21893
- Si, carrier-diffusion, Fourier-transient-grating method 21886
- Si, charge carrier transport, electron-hole scatt. 13027
- Si films, anom. PV effect/neg. photocond. 39554
- Si films, ion beam epitaxy, UHV, sputtering-type metal ion source 37405
- Si, heavily doped, majority/minority mobilities, device simul. 21873
- n-Si, high-power far-IR radiation, third-harmonic-generation efficiency 31599
- Si, injection depend. of cond. mobility, meas. method 34683
- Si, mesoporous, photocarrier grating tech. 22999
- a-Si, mobility-lifetime products, dispersive transport effects 13029
- Si n-i-n diode, hydrodynamic transport model, scatt. matrix 22327
- Si piezoresistive press. sens., electro-elastic simul. 42778
- Si, polycryst., SI, deep-levels, transient current spectra 38226
- p-Si, soft sputter etch cleaning, H passiv. 38619
- Si substr. MOVPE grown, novel pseudomorphic struct. 20824
- Si:Bi, theoretical electronic props. 1020
- Si:Cr, carrier/thermal wave photothermal sigs. 1017
- a-Si:H TFT, Chebyshev approx. of field-effect mobility *(Korean)* 13683
- a-Si:H TFT, drain current reduction by source electrode overlap 13754
- a-Si:H TFTs, UV irrad. effects on characts. *(Korean)* 22417
- a-Si:H inverted-staggered tri-layer TFTs, fab. proc. 38860
- a-Si:H p-i-n detectors, charge collection procs. 43107
- μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
- Si:P(As)(B), heavily doped, temp. effects 1021
- Si/Al$_2$O$_3$ heteroepitaxial double SOI struct., press. sens. 38433
- Si/Si$_{1-x}$Ge$_x$/Si p-MOSFET, charge distrib. modelling 22471
- a-Si/Si$_3$N$_4$ TFT, PECVD nitride gate dielec. studies 13791
- Si/SiO$_2$:N, plasma action under PECVD conditions 5882
- Si-SiGe layers, elec. charactn. techs. 6538
- Si-SiO$_2$ MOS transistor, leakage current and interface state 38891
- SiC high-temp. JFETs, neutron damage anal. 13789
- SiC:Al,N Schottky diode, DLTS/admittance spectrosc. 22353
- β-SiC:N layers grown on Si substr., ion implant. studies 38482
- SiC/Si hetero- and homo-jn. photodiodes, fab. and props. *(Japanese)* 1805
- SiGe thermoelec. materials optim., space power appls. 26585
- Si$_{0.3}$Ge$_{0.2}$ thermoelec. space power alloys, large-scale prod. 26586
- p-Si$_{1-x}$Ge$_x$ quantum well detectors, 8-14 μm wave band absorpt. 42784
- a-SiGe:H films, PECVD under He dilution 5891
- SiGe/Si QW, local Ga implant., ambipolar lateral carrier transport 1230
- Th(BrI), photodetectors for scintillation spectrometers 43092
- YBa$_2$Cu$_3$O$_7$-PrBa$_2$Cu$_3$O$_7$ Josephson edge type jns. 22754
- ZnO thin film, spray pyrolysis, deposition variables effect 12142
- ZnSe:Cu, kinetic coeffs., high-temp. anoms. 1050

carrier relaxation time
- *see also electron relaxation time*
- tunneling injection quantum well laser, cold device, large modulation bandwidth 7645
- GaAs, photo-excited carriers, momentum reorientation 1034
- GaAs/AlGaAs heterostruct., plasma etching damage 30109
- In$_x$Ga$_{1-x}$As strain-relax. heterostruct., 2DEG, galvanomag. props. 13119
- InGaAsP/GaAs LD, threshold current dens., differential efficiency, 20-105 C 14933
- Si MOSFETs, inversion layer mobility, surface orient. 6761
- Si porous nanostructures, electronic excitation, relax. mechanisms 14588
- n-Si, surface recomb. vel., Schockley-Read Hall model 21892
- n-Si-SiO$_2$ semicond.-dielec. MOS interfaces, minority carrier generation 6588

carrier scattering at surfaces *see surface scattering*

carrier scattering by dislocations *see dislocation scattering*

carrier scattering by impurities *see impurity scattering*

carrier scattering by point defects *see point defect scattering*

carrier sense multiple access
- 1-persistent CSMA bus throughput, discrete space-time model 33212
- ATM based LAN/WAN *(Japanese)* 41854
- auto-switched hybrid MAC, anal. and research *(Chinese)* 16474
- centralized multihop packet radio network, simul. model 9160
- checkpointing recovery in distributed syst. on CSMA/CD network 41472
- CSMA/CD network all-sharing load-balancing scheme 33574
- distributed real-time, multi-access protocols schedulability anal. 2911
- ET10071, LAN coaxial transceivers *(Japanese)* 25169
- FDDI connected network, simul. study 33499
- FIFO design for high-speed network interface 33491
- GNSS transponder and self organising TDMA data link 10378
- IEEE 802.3 CSMA/CD protocol modeling and verification, symbolic model checking 24819
- IP networks, congestion avoidance for video 16680
- LAN interconnection by bridge, finite buffer *(Japanese)* 8947
- LANs, internetworking and multimedia, present and future *(Japanese)* 8881
- LANs, packet starvation effect and soln. 33510
- local computer networks, conf., Minneapolis, USA (1994) 20231
- MAC-layer hybrid protocol for real-time bus networks 2915
- media access schemes, CTMA and CRMA for hidden terminal problem 3173
- nonpersistent CSMA/CD quasidiffuse IR LAN throughput 41763
- protocol test seqs., automated generation, formal specs. 2929
- radio LANs, FEC, ARQ, and throughput of 16678
- SDL methodology for specifying radio protocols in CDMA syst. 2979
- secure data commun. protocols in bidirectional star network 33286
- wireless LAN's, collision detect. algm. 41846

carrier systems (power lines) *see carrier transmission on power lines*

carrier telegraphy *see telegraphy*

carrier telephony *see telephony*

carrier transmission on power lines
- airport lighting power lines, light failure reporting syst. 25197
- Australian ESI, commun. develops. 26975
- CDMA for automotive area network, power-lines 3310
- central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
- EHV lines fault location simul., DS-SS techs. 19356
- elec. utility DSM, customer commun. appls. 10659
- home commun. syst., PLC commun. reliab. 9157
- LV power distrib. network commun. sig. transm. *(Croatian)* 3309
- power line SSMA, error correction, IFMV9 coded overlapped PN seq. 25198
- power syst. AMR, design considerations 27278
- sig. proc. ASIC, digital SS modem for power line commun. 21379
- SS tech. for automotive multiplexing systs. 25199
- SS techs. for consumer commun. 25237
- teed transm. systs., fault generated HF noise meas. 4746
- two-way customer commun. systs. for utilities 41586
- VLF switching sigs. over local power lines, fraud countermeasures 43811

carrier traps *see electron traps; hole traps*

carry circuits *see adders*

carry logic
- *see also logic circuits*
- adder design modelling and comparison using Verilog HDL 29297
- adders, parametric delay and area models 6066
- binary, residue transform., respect, 2^m+1 moduli 626
- binary serial-parallel multiplier, hardware approach 37703
- CMOS 16 bit multiplier, async. logic design techs. 21295
- CMOS 54×54-b multiplier using pass-transistor multiplexer, 4.4-ns 29145
- CSD-code carry determ., look-ahead cct. 29158
- current-mode CMOS quaternary multiplier cct. 21230
- dyn. carry look-ahead cct., high speed BiCMOS implement. 618
- edge detector, Sobel operator, VLSI implement. 30473
- five-input adder with dual carry-out, appls. *(Chinese)* 12399
- low-complexity bit-serial (inverse) DCT archit. 37790
- opt. archit., parallel arith. operations, iter. techs. 31037
- opt. carry chain fast adder 31025
- parallel adder design, algo. implement. for high dens. codes 6063
- wave-pipelined 8×8 b multiplier in CMOS technol., design and realisation 29139
- GaAs HMESFET SBFL based F-RISC/I microproc. 37802

CARS *see coherent antiStokes Raman scattering*

cars (vehicles) *see automobiles*

cartography
- aerial images, map aided structural anal. 41276
- aerotriangulation using digitized images, OEEPE research project 41265
- agric., cartographic problem solving, geographical IS 4413
- automatic relative orient., digital photogrammetry 41260
- coastline change by SAR radar, image texture class. 10512
- colour image segmentation, geographic map 41308
- digital photogrammetric assembly point determ. 41272
- DTM generation, obj. based by MEOSS 3-line camera data 41245
- focus of attention in image understanding systems 8675
- forest change, automated rem. sens. image method 43487
- global image matching and surface reconstruction, aerial images 41261
- MOMS-02 sens., combined stereoscopic along-track and multispectral data 41270
- multiyear Arctic sea ice, melt onset date map 10519
- photogrammetric point determ. via ground control points 41248
- photogrammetric tech. integrat., conf., Orlando (1993) 36888
- photogrammetry, facets stereo vision method for terrain 41341
- sea ice type maps, Alaska SAR Facility imagery 10520
- terrain obj. dyn. and monitoring by GIS and rem. sens. 41271

cascade control
- *see also cascade systems*
- intell. sync. servodrive, fuzzy/digital cascaded state controllers comparison 44012
- steam power plant, self-tuning cascade temp. control 27549

cascade networks
- *see also ladder networks*
- 2D backpropag. cascade adaptive recursive filters 6231
- adaptive IIR filtering, cascade struct. 8283
- adiabatic dyn. logic, CMOS logic family 29111

cascade networks continued
- bal. model realization and truncations, cascaded polyphase recursive filters 21419
- bandpass sigma-delta A-D converters, cascading 689
- BiCMOS stereo audio sigma-delta ADC for audio appls. 9770
- Boolean neural net, dynamically configurable combinatory logic array 29451
- cascaded fiber amp. syst. gain filtering 7575
- Cockcroft-Walton rectifier cct., ripple, asymmetry 6026
- cost perform. ratio, cascaded crossbar interconnected multiprocessors 33185
- crossbar switches network, connection establishment 8727
- decimation filter for sigma-delta converters, high fidelity 690
- digital Holter monitoring syst., noise cancelling filter 35130
- gamma bases, parametric LSA 40821
- high isolation distrib. amp., 5 and 10 MHz 42756
- inverter ccts., single electron transistors, dyn. charact. 37737
- low sensitivity state space digital filters, Pareto optimal design 32788
- low-pass filters, nonuniform/uniform transm. lines 21399
- multicrystal lattice filter design, lattice cascade splitting 37831
- multirate systs., aliasing effects and non-stationary quantization noise 32720
- multistage amps., noise calc., equiv. input noise voltage 37639
- perfect-reconstruction two-channel filter banks design 32723
- phase-syst. cascading, nonlin. dyn., modeling 12368
- room impulse responses approx. based on wavelet decomp. 15991
- SAW filters, high stopband rejection, cascade connection design 29347
- SC FIR filters, design 6221
- second-order Δ-Σ modulator/freq.-to-digital converter 12608
- sigma-delta converters, switched capacitor cascade cct. 12604
- sinusoidal param. estim., real time cascade adaptive notch filter 2524
- stacked MOS transistors, cct. techs. 5964
- SysCalc program for cascaded chain anal. 12618
- tapered buffers, local interconnect capacit. 21396
- triple coupled CPW lines, MMIC bandpass filter elements 6325
- universal voltage-mode filter, current conveyors 6206
- VIOMAP, S-param. equiv. for weakly nonlin. RF/microwave devices 12745

cascade systems
- *see also cascade control*
- cascadable neural network VME-module, Intel 80170NX chips 10141
- clock controlled shift registers, cryptanalysis 8129
- non-lin. PCA network layers, cascaded VQ 2372
- nonlin. syst. ident., nonparametric deconvolution 40874
- SDH slave clock chain RMS time interval error accumulation 41391
- wireless LAN MAC protocol archit. 41819

CASE *see computer aided software engineering*

case-based reasoning
- DIVA/DIAPO expert systs., domain models 19585
- elec. train fault-tree generation automation, ES-based 44551
- engng. syst. safety anal./synthesis, fuzzy sets/evidential reasoning-based 36980
- Hopfield network approach, case-based preliminary design systs. 2393
- MOLTKE, integrated workbench for fault diagnosis in engng. systs. 3743
- power syst. anal. ES, evidence theory-based 26919
- radar syst. CAD, knowledge based support 9639
- shape feature recogn., evidential reasoning approach 32962
- telecom network fault management, case-based reasoning 8835
- telecomms., case driven anal. of interacts. 3256
- VLSI design, categorization-based diagnostic systems 5959

Cassegrain antennas *see reflector antennas*

cassette tape recorders *see audio tape recorders*

casting
- elec. melting shop, energy optimisation, control syst. *(German)* 11507
- electronic chassis, rapid prototyping pilot 28499
- metal-matrix composite proc., situ AE monitoring 21000
- pass. polymer multimode/single-mode waveguides, mass fab. 14432
- poly(methylmethacrylate), lithographic and dissolution behavior, residual casting solvent effect 38750
- polyurethane cable sheath cold casting syst. props. *(German)* 27213
- proc. product inform. model, STEP-based 11740
- SOFC ceramic component mfg. optim. expts. 44318
- tubular SOFC, air electrode, multilayer slurry casting fab. 11273
- C fibre reinforced Cu, foil casting 5903
- Si multicrystalline solar cells improvements, key technol. 27953
- Si polycryst. solar cells, hydrogen passivated 44407
- $Si_{0.3}Ge_{0.2}$ thermoelec. space power alloys, large-scale prod. 26586
- Si_3N_4 ceramic, firing, US imaging 28914
- SnO_2 thin films, nanocrystalline, casting 13073
- WO_3 thin films, nanocrystalline, casting 13073
- ZnO thin films, nanocrystalline, casting 13073

cataloguing
- *see also library automation*
- Australia, document delivery services, 1980-94 overview 33434
- medical libraries and Internet conf., San Antonio, USA (1994) 36834
- Swedish NPP safety database, incident and trend catalogues 19406
- virtual library, inform. sources accessible, Internet 8979

catalysts
- basic chem. recuperated gas turbine, methane-steam reformer 36007
- bio-crude oil, wood derived, fast pyrolysis, catalytic upgrade 27334
- coal liquefaction proc., nanoscale catalyst precursor powder prep. 27328
- electrostatic assisted atomiser, nonwetting, catalytic melt spraying 7921
- Au, CO_2 sealed-off cw laser, supported gold catalyst 7535
- CCl_4 greenhouse gas destruction, plasma reactor-based 20181
- Cu selective CVD on diamond surfaces, self-assembled monolayers 37493
- Ni-H_2 space power battery, gas diffusion electrodes 26582
- Ni-YSZ cermet internal reforming SOFC electrodes, catalytic study 44357

cataphoresis *see electrophoresis*

catastrophe theory
- power syst. instabilities modelling, catastrophe theory appl. *(Japanese)* 26853

category theory
- domains, axiomatisation 20544
- higher categories, strings, cubes and simplex eqns. 37254
- intonation spec. from context for speech synthesis 2436
- order enriched categories, local adjunction 20545

catering industry
- restaurant induction heating rice cookers, invertor-based *(Japanese)* 44640

cathode-ray oscilloscopes
- *see also digital storage oscilloscopes*
- AC power syst. operating conditions meas., synchronoscope appls. *(Russian)* 27289

cathode-ray oscilloscopes continued
- bal. probe, coaxial type for 1-500 MHz CRO meas. 3925

cathode-ray tube displays
- *see also cathode-ray oscilloscopes*
- ATC displays, colour 4375
- cathodoluminescent screens, partially coherent radiation, recording and inform. proc. 34645
- color and high resoln. head-mounted display 34639
- colours appearance against coloured backgrounds 3928
- computer operators, hazards from monitors 26484
- counterbalanced CRT-based stereoscopic displays for virtual environ. 34634
- CRT driver stage, IC introduction 42876
- CRT markets 9975
- desktop computer power mgt., cost-effective archit. 6012
- device technol. *(Japanese)* 34642
- digital images, visual appearance/fidelity eval. 2611
- electron-gun design for high-perform. CRT display 18001
- field-seq. color takes another step 42874
- Fuji Electric moulded IGBTs, voltage reson. invertor appls. 27824
- HDTV display, 6.9-in. high-resoln. projection CRT 17567
- high-resoln. immersion viewer 34626
- HV damper diodes, 1800 V, FMR-G5HS/FMP-G5HS series *(Japanese)* 30222
- HV power supplies, engng. overview 36330
- mil. displays develops. 18969
- multiplex video display 9988
- NEC high-dens. color display tube, Earth magneto effects *(Japanese)* 3938
- VDT, radiated elec./mag. fields meas. 23702
- VDT, VLF meas., user dose assess. protocols 43401
- viewing model for stereoscopic head-mounted displays 34625
- Y_2O_3-SiO_2 thin film phosphors, for color display, rare earth doping 23008

cathode-ray tube screens *see cathode-ray tubes; fluorescent screens*

cathode-ray tubes
- *see also image convertors; image intensifiers; television camera tubes; television picture tubes*
- directional and diffuse refl. meas. and eval. *(German)* 18008
- electron gun, pulsed YAG laser welding technol. *(Chinese)* 15196
- impregnated cathode, emission materials, develop., reliab. tests *(Japanese)* 6472
- long data stream convolution, opt. implement. 1762
- VDT, radiated elec./mag. fields meas. 23702

cathodes
- *see also electron emission; oxide coated cathodes; photocathodes; thermionic cathodes*
- 1.5 MV Gamble II pulsed power generator, plasma filled diode studies 36444
- $1A_4$ supersonic coal-fired MHD channel, test progress 20015
- 250 MW pulsed power thyratron, design anal. 36462
- acetylene black, pretreatment, electrochem., fuel cells 11284
- annular thyratron, microwave-triggered 29816
- back lighted thyratron pulsed power switch, anti-missile radar appls. 36408
- bronze/graphite cathodes, repetitive e-beam diode develop. 36285
- cold-cathode field emitters, act. current limitation 21799
- CROSSATRON modulator switches, pulsed power supply appls. 36409
- cylindrically-symm. vircator high power microwave source 29766
- dense cathode plasma form., neg. ions prod. 36624
- dispenser cathodes, Ba transport modelling 6473
- electron accelerators, inductive storage, plasma injectors 36452
- electron beam generation, plasma pulsed power closing/opening switch-based 34859
- electron beam producing cathode, pulsed power-supplied 34858
- electron source ferroelec. cathodes, pulsed power supplied 29751
- explosive whisker emission cathode materials study 29754
- ferroelec. cathode, high brightness electron beam 29746
- ferroelec. cathode pulsed electron emission characts. 29750
- ferroelec. cathodes, electron emission, meas. 29753
- ferroelectric cathodes investig. 21794
- field emission diodes using sharp vert. edge struct., fab. 12995
- field-emission cathode arrays, elec. field gradients 29749
- field-emission flat panel displays, beam focusing 18009
- hexane liq., cathode prebreakdown modelling 13959
- high current pseudospark switch, pinch plasma devices 36397
- high electron current dens., plasma edge cathode 29752
- high-power gas switches, ferroelec. electron beam triggering 36406
- hollow cathode discharge, pseudospark switch 29747
- impregnated cathode, emission materials, develop., reliab. tests *(Japanese)* 6472
- ion sources energy spread/ion current meas. 17693
- LMF triaxial MITL voltage adder syst. Marx generator 36300
- material explosion, pulsed currents/elec. fields, simul. 30551
- MCFC cathodes, porous, current interruption anal. 36583
- MCFC power plant, gas recycling, perform. 10909
- microwave pulsed power research facility, Culham, UK 36379
- MIS electron tunneling cone-shaped cathode, fab. 21790
- multichannel pseudospark switches, expts. 36399
- nonpunch-through-IGBTs, electromechanical crit. load simul. 30314
- organic LEDs, Si compatible monolithic integrat. 14664
- PAFC, methanol/ammonia/siloxane contamination 11272
- pinching electron beam vircator, high efficiency 29768
- plasma anode-based electron gun, low-energy high-current beams 968
- plasma opening switch, Hawk pulsed power generator appl. 36419
- plasma opening switch, voltage scaling, cathode rad. 44228
- plasma opening switch expts., long cond. time 36389
- pseudospark operation, hollow cathode phase studies 29819
- pseudospark switch, metal vap. densities/excitation temps. 36407
- pseudospark switches, forward voltage drop meas. 36400
- pulsed power μs plasma opening switches, 2D snowplow model 36443
- RF hollow cathode etching reactor, multipolar confine. 22212
- SABRE pos. polarity inductive adder MITL, refl. waves 34741
- semicond. field emitter, LF noise 12994
- SOFC, ceramic materials, overview *(Slovenian)* 27922
- SOFC, Statoil's program, stack testing, reforming 44327
- SOFC ceramic materials, state-of-the-art 44372
- space-charge problems, boundary charge method 31719
- switching arc-contact material mutual interact. *(Polish)* 11197
- vac. diodes, breakdown 29762
- vac. interrupters, arc conditioning effect *(Chinese)* 5136
- vacuum electronics and displays, conf., Garmisch-Partenkirchen (1992) 20196
- VIRA-2P X-ray pulse generator, plasma opening switches 36460

- **cathodes** continued
  - virtual cathode microwave devices, theoretical/expt. studies 6503
  - $60AgI\text{-}20Ag_2O\text{-}2B_2O_3\text{-}18V_2O_5$ batts., internal resist./cathode content 11241
  - AuGe ohmic contacts, GaAs photocond. semicond. switches 36388
  - Cs thermionic generators, low pressure self-extinguishing discharges 26591
  - $Cs\text{-}N_2$ space power thermionics convertor, relaxation characts. 18738
  - CsI coated cathode for field-emission appls. 38206
  - Cu electrolytic refining, polariz. occurrence/reduction 11494
  - Cu electroplating of PCB PTH, current dens. effects 6409
  - GaAs photoconductive switches, elec. field structs. 36448
  - $Gd_2(Ti_{1\text{-}x}Ru_x)_2O_{7\text{-}\delta}$, mixed cond., SOFC 44376
  - H^-, C^-, F^-, I^-, Pb^- high-power pulsed ion beams 34855
  - He-Kr laser, helical hollow cathode 31187
  - K-C continuosly refuelable primary batt. 27893
  - KrF laser amp., Titania, pulsed power syst. 31189
  - $La_{0.85}Sr(0.15)MnO_3\text{-}ZrO_2\text{-}Y_2O_3$ syst., SOFC cathode material microstruct. 44379
  - $La_{0.6}Sr_{0.4}Fe_{0.8}M_{0.2}O_{3\text{-}\delta}$ cathode cones, impedance spectrosc. 44387
  - $La_{0.7}Sr_{0.3}MnO_3$ porous cathode substrs., SOFC 11274
  - $La_xSr_yMnO_3$ based SOFC cathode materials 44374
  - $La_{0.9}Sr_{0.1}MnO_3$-YSZ cathodes, microstruct./resist., SOFC 44384
  - Li batt. develops. conf., Boston, MA, USA (May 1994) 36894
  - Li rechargeable batts., polymer gel electrolyte/electrodes *(Japanese)* 5183
  - Li-ion rechargeable batts., devlop. 5201
  - LiAl-FeS batts., operation, elec. vehicle appls. 5203
  - $LiCoO_2$ cathodes synthesis/perform., MCFC 5208
  - MnO_2, chem. activated, batt. cathode 11233
  - $B\text{-}MnO_2$, discharge characts., H_2SO_4 electrolyte 11235
  - $\beta\text{-}MnO_2$ electrodes, $ZnCl_2$ electrolyte, Leclanche cell 11234
  - MnO_2-Zn secondary cells, operation, develop. 5200
  - MoO_3 film-cathodes in Li microbatteries, electrochem. features, growth conditions 5180
  - $Na\text{-}NiCl_2$ zebra batts., β-alumina electrolyte 5202
  - Na_xMnO_2 orthorhombic cathode material for secondary Na and Li polymer batts. 5189
  - $NaVO_3{:}La_2O_3$ electrodes, solid-state batts. 27889
  - Ni-Cd sealed cells, fibre substrs., oxygen recomb. 5194
  - Ni-YSZ anode, LaSrMnO$_3$ cathode, SOFC 44380
  - NiO cathode loss reduction, MCFC, electrochem. treatment 11271
  - PLZT ferroelec. ceramic cathode technol., electron emission from bulk material 21791
  - $(Pb,La)(Zr,Ti)O_3$ ferroelec. cathodes, repeatable electron emission, DC reset 971
  - Si tip avalanche cathode for vac. microelectronic devices 12991
  - Ta electrolytic capacitors, life prediction 6368
  - $Zn\text{-}MnO_2$ rechargeable Leclanche cells, elec. vehicle appl. 36514
- **cathodes, electrochemical** *see electrochemical electrodes*
- **cathodic protection** *see corrosion protection*
- **cathodic sputtering** *see sputtering*
- **cathodoluminescence**
  - diamond MPCVD films on porous silicon, scanning microscopy obs. 6518
  - field emission diodes using sharp vert. edge struct., fab. 12995
  - field-emission flat panel displays, beam focusing 18009
  - II-VI blue-green emitters, failure mechanism 14630
  - II-VI cpds. MBE, in-situ charact. 20908
  - insulating materials, electron beam excited luminescence 14074
  - monolayer flat islands in cathodolum. images of quantum wells, apparent sizes 38337
  - polymer film ESD in vac., light emission and outgases *(Japanese)* 30538
  - screens, partially coherent radiation, recording and inform. proc. 34645
  - AlGaAs near-IR LEDs, failure anal., expt. techs. 39584
  - AlGaAs p-n jns., GaAs(111)A substrs., MBE growth, Si doping 20879
  - AlGaAs/InGaAs/GaAs QW lasers, perform., MOVPE growth interruption effect 23248
  - CdMnTe(001), MBE growth, struct., opt. props. 37392
  - CdTe wafers, thermal annealing, Te precip., Raman scatt., cathodolum. 38466
  - GaAs switches, e-beam activated, optimisation 36429
  - GaAs tapered QW, selectively contactable 2DEG, shadow masked MBE 38346
  - GaAs:Si p-n struct., MBE growth interruption effects on GaAs(111)A 336
  - GaAs:Si/GaAs(111)A, p-n struct. charactn. 29876
  - GaAs/AlAs quantum wires, MBE growth, GaAs(100) patterned substrs. 21977
  - GaAs/AlGaAs patterning, epitaxial InGaAs layer, Cl_2 etching mask 13181
  - GaAs/AlGaAs quantum dots, MOVPE growth, patterned GaAs substrs. 37428
  - GaAs/AlGaAs-heterostruct., low-dimens., direct MBE growth 331
  - GaAs/GaAsP quantum wires, MOVPE, luminesc. props. 20796
  - GaInAs, selective area epitaxy, group III precursors 20759
  - GaInP/InP, quantum sized structs., MOVPE, 2D-3D growth mode transit. 12040
  - GaN layers hydride VPE on cubic GaN/(100)GaAs and hexagonal GaN/(111)GaAs substrs. 12079
  - GaN:Mg on GaN substr., metalorganic VPE growth, opt. props. 20754
  - InAs/InP quantum wells, 3-D island form., cathodolum. investigs. 22001
  - InGaAlP, H passiv. effects 6650
  - InGaAs/GaAs quantum wells, MBE, selective area bandgap modif. 12118
  - InP, ALE growth, charactn. 20770
  - InP/GaInAs QW dot struct., fabrication 13202
  - InP/InAs SQW/superlattices, ALE growth, charactn. 20770
  - Si, porous, plasma-oxidised, luminesc. charactn. 13028
  - $Y_2O_3\text{-}SiO_2$ thin film phosphors, for color display, rare earth doping 23008
  - $Y_2SiO_5{:}Ce,Tb,Zr$, X-ray storage phosphors 7458
  - ZnS, epitaxial layers on (100) GaAs, ALE 28769
  - ZnSe:N, MOVPE growth, cathodolum. charactn. 20788
  - ZnSe/GaAs heterostruct., deep level electronic struct. 38301
- **cathodophosphorescence** *see cathodoluminescence*
- **cathodothermoluminescence** *see cathodoluminescence*
- **catholytes** *see electrolytes*
- **CATR** *see antenna testing*
- **CATV** *see cable television; community antenna television*
- **Cauer filters** *see passive filters*
- **causticity** *see pH*
- **cavitation**
  - heart disc valve, instantaneous back flow, peripheral clearance 26472
  - ship's screw cavitation recording, angle sampling control *(Croatian)* 3685
- **cavitation** continued
  - US cleaning for PCB manufacture, induced damage/fatigue reduction 38092
- **cavitation erosion** *see wear*
- **cavities (solid)** *see voids (solid)*
- **cavity resonators**
  - *see also acoustic resonators; laser cavity resonators; optical resonators; superconducting cavity resonators*
  - 2D coupled cavity resonator cluster symm. anal. 31975
  - 2D ferrite-loaded cavity-backed slot antenna scatt. 31920
  - 3D EM cavity anal. using high order edge elements, microwave ovens 37964
  - biisotropic materials, chirality/non-reciprocity determ. 15600
  - biisotropic materials, chirality/nonreciprocity params., waveguide/resonator perturb. 15576
  - circular cylinder cavity FEM boundary integral formulation 23822
  - closed cavity gyrotrons, mode locking 21837
  - clustered-cavity klystron, lin. theory 991
  - coaxial waveguide cavity resonators, varying rad. center/outer conductors, mode coupling 29547
  - complex dielec. permitt. meas., microwave freqs. 25948
  - complex permitt. meas. of low loss ceramics 34665
  - coupled striplines, higher order modes 799
  - cpd. quasi-opt. power combiner, cct. anal. 812
  - curved conductor surface model, cavity resonators anal. by spatial network method 21526
  - cylinders with anisotropic cond., surface impedance 15591
  - cylindrical resonator, insert made of absorptive dielec. 15588
  - cylindrical resonators reson. freqs. anal. 29551
  - dielec. materials props. determ., coaxial cavity syst. 18029
  - diffr. radiation generator, open resonator, intermode oscills. 37949
  - double cylindrical cavity multiple device, power combiner *(Japanese)* 6285
  - drop-in ferrite microstrip circulator, design 29530
  - EM field in cavity fed by tangential elec. field in wall aperture 31900
  - external Q of reson. cavities, finite element num. computation 37963
  - Fabry-Perot resonators, transverse opt. bistability, incoupling conditions 7748
  - fibre optic interferometric sens., parasitic cavities limitations 34539
  - finite thickness diaphragms in circ. waveguide, optimal filters 37956
  - fourth harmonic gyro oscillator expt., 95 GHz 38215
  - fourth harmonic oscillator, design and construction 21829
  - gyrotron oscillator, large-sig. mode locking, nonlin. theory 38214
  - gyrotron oscillators, mode locking simulation 21832
  - gyrotrons, mode competition, nonstationary theory 982
  - gyrotwystrons with mixed transverse geometries, theory 985
  - high current klystron amp., 500 MW, 1 μs pulse length 6482
  - high power microwave generation, magnetron driven Q switched cavity 29767
  - high Q dielec. resonators, supporting struct. effects 30657
  - high-current relativistic klystron research, Physics International 29774
  - hybrid FEM, EM field distribs. in large cavities 2306
  - hybrid plasma-cavity slow-wave struct. wideband power amp. 1008
  - intense-beam klystron amps., beam-cavity interact. phys. 6481
  - irrotational mag. eigenfunctions belonging, complex cavities 15564
  - isospectral cavities built from triangles 15603
  - J-band relativistic klystron amp., long pulse, develop. 29780
  - jn. circulators, quality factor, temp. stabil. 29528
  - L-band relativistic klystron amp., high current, three cavity 29779
  - large-orbit gyrotrons, axially-modulated, cusp-injected, analytic model 21813
  - LEADS program, lin. and electrostatic accelerator beam dynamics 34833
  - LF cavity oscill. driven by detuned current modulation 29787
  - lin. condition, Q-factor/input reson. resist. 31903
  - loaded 3D multimode cavity, model, 2D FEM/modal anal. 40416
  - loop-gap cavities for pulsed X-ray ESR spectrometers 37946
  - low loss dielec. materials meas., 60 GHz band 3955
  - magnicon output cavity, anal. and simulation 21815
  - mass determ. of perturbing obj., reson.-cavity appl. 3997
  - megawatt 110 GHz gyrotron, internal mode converter 21809
  - microstrip lines inside rect. cavities, full-wave anal. 31901
  - microwave cavity resonators, modeling of testing params. 37561
  - microwave cavity tech. for n-n$^+$ semicond. struct. 3968
  - microwave commun., dielec. filters *(Japanese)* 37973
  - microwave coupling devices for rem. plasma appls. 6286
  - microwave moisture sens. for aggregates 43001
  - microwave tubes, develop. hist. and elec. props. *(German)* 6505
  - microwave waveguide filter charact., random mfg. errors effects 29534
  - mixed modes dielec. resonator loaded cavity filters 12733
  - modal anal. of waveguide filters 6287
  - multigap parallel-plate bracelet resonator, freq. determ./appls. 10201
  - multilevel methods for reson. cavity design 15569
  - multistacked dielec. omnidirectional antenna, cavity-restrained type 8045
  - nanosecond RF-pulse shaping, switching effect 13003
  - NIST cylindrical cavity resonator for permitt. meas. 37958
  - nonperiodic struct. with symm. C_∞, energy charact. 15589
  - open resonators, geom. imperfections, perform. effects 818
  - organic electroluminescent devices, reson. cavity 23045
  - overmoded slow-wave resonators for interact. with relativistic electron beams, EM props. 1005
  - phased array module MMIC package EM design 23983
  - plates, permitt./tan δ meas., dielec. loaded cavity resonator in UHF band *(Japanese)* 25951
  - precision accelerometers for gravity gradient meas. 18801
  - quasioptical resonators, mode interact. 8014
  - quasiperiodic struct., coupling, asymmetric output arm 15568
  - radiator infinite phased arrays, hybrid finite element/waveguide mode anal. 31971
  - rect. cavities and waveguides, EM dyadic Green's fns. 31904
  - rect. hollow resonator, natural modes no. 2286
  - rect. microstrip patch antenna, reson. freq. calc., cavity model 2330
  - rect. waveguide, optimal filters based on finite thickness inductive diaphragms 12724
  - relativistic klystron amp., beam-gap interacts., simul. 29786
  - relativistic klystron amp. from MIT, 3.3 GHz, compact input cavity 29777
  - relativistic klystron oscillators, theoretical anal. 990
  - relativistic klystrons, inductively-loaded wide-gap designs 29785
  - Reltron/Super-Reltron high power microwave source develop. 29788
  - RF cavity design, genetic algms. 37960
  - RF field-emission, microwave cavity studies 12986
  - RF field-emission studies, microwave cavity design 12985

cavity resonators continued
RF LINAC, basic 4128
ring trap for freq. std. appl. *(Japanese)* 42662
rot. mode radial line slot antenna fed by cavity resonator 40518
rot. wave resonator tuning 21523
split cavity oscillator, broad band freq. tuning 21816
standing wave struct., cavity coupling states, losses 26082
stepped cavity-fed microstrip array antenna 31969
three-cavity gyroklystron amp. perform. study 29763
tunable photodetectors and LEDs for WDM appls. 39617
two-cavity second harmonic gyroklystron, stabil. and amplif. studies 6489
virtual cathode oscillator, high-power microwave generation 29776
X-band coaxial extended length cavity 819
X-band resonant cavity antenna-oscillator designs 23879
X-band sapphire resonator-oscillator, temp. stabil. 29572
GaAs bistable Fabry-Perot device, array format operation 23378
GaAs microcavity, dressed exciton oscillating emission obs. 29921
CBE *see chemical beam epitaxial growth*
CBT *see computer based training*
CCCS *see active networks*
CCD *see charge-coupled devices*
CCD circuits *see charge-coupled device circuits*
CCD image sensors
1/5-inch 270000 pixels color image sens. *(Japanese)* 3271
2D detector systs., distortions calib. and correction 43151
3D archit. for high resoln. imaging 34583
3D inform. extraction, holographic method *(Japanese)* 16129
3D obj. profilometry based on direct fringe displacement anal. 18085
3D profile meas., cylindrical lens and CCD 3981
3D reconstruction of objs., large depth vars. 17929
3D shape meas. of specular polyhedrons, light source 3980
3D shape reconstruction by act. rangefinder 3888
525-line progressive scanning TV camera, 16:9 aspect ratio 34235
absol. surface shape testing, interferometric sens. 18077
adaptive exposure image input syst. for obtaining high-quality colour inform. 8529
adaptive optics, CCD matrix, wavefront tilt sens. 42855
addit. fringe ESPI, phase extraction 7809
arc column meas., spatial distrib. of spectrosc. intens. 6387
astron. Fabry-Perot imaging camera 9942
atmos. inhomogeneities, vel. meas., image data-handling techs. 43543
automatic vernier scale method by CCD lin. sens. 3882
basic principles and archits. *(German)* 3874
bispectral speckle near-diffr.-limited imaging, unknown aberrations 24653
camera systs., image-sens. model, computer simul. 3875
close range dimens. meas., grating techs. 18078
color machine vision, true RGB line scan camera 17927
colour CCD image sens., moire effect surface shape meas. 10017
colour digital still camera, video CCD sens. 9715
compact acousto-optic proc. for SAR image form. 2830
complementary CCD DSP chip for digital still cameras 6188
contactless real-time meas. of robot pose 42529
continuous ground water monitoring, sens. arrays 18911
cost-effective cct. for CCD pulse proc. 17701
defect detect., neural nets 3877
digital control design of tracking loop for precision beam pointing 17307
digital holography- laser metrology *(German)* 7814
digital opt. computing, magneto-optic SLM 7428
digital still camera, visual optim. proc. for color correction 9714
directional fast neutron detector, scintillating fibers, CCD camera 18328
displacement meas. laser interferometer 25971
double pulse holography, digital image proc. 18142
dual gate MOS-JFET CCD test struct. 34584
electronic camera systs., high-speed events 9933
electronic-zooming DSP syst. for 1M-pixel-CCD camera 9713
ESRF accelerator, VME image acquisition/proc., TV CCD cameras 18272
EUV spectrograph, back-illum. ion-implanted CCD 9934
expanded H^- beam meas., megapixel imaging camera 4053
falling raindrop, nonintrusive temp./size meas. 42935
fatigue damage study by computed speckle decorrelation 40129
fiber scintillating imaging detector for ICF neutrons 4198
flattened-pear shaped photodiode struct. for low smear and high sensitivity CCD image sens. 22613
fluoresc. microscopy scanner, 2D CCD, cytometry appl. 43221
fringe projection micro-shape meas., high-sensitivity 18070
full frame transfer CCD camera, high resoln. 42587
gas turbine particle charactn., optoelectronic imaging syst. *(French)* 42849
GIS charged conducting particles, motion meas. 11205
HDTV CCD image sens., 1 in, 2 Mpixel, W photo-shield 17562
HDTV CCD imagers, photoelec. conversion charact. under knee control operation 9730
HDTV compact digital camera, CCD image sens. 42598
high precision opt. meas. methods 18061
high-precision opt. gauging of metal rings 18062
high-sensitivity CCD syst., parallel EELS 9930
holographic image sens., first-arriving light, spatial filtering 34588
imaging spectrometer for proc. indust. appls. 17925
in-proc. 3D coord. meas., CCD camera *(German)* 17970
indust. vision syst., range/intens. image fusion 41103
inhomog. media phase conjug., holography, and imaging 31575
interferometric 2D imaging amplit. correlator for ultrashort pulses 34720
IR CCD detector develop. *(Japanese)* 17969
IR-bi-color Schottky-barrier IR CCD image sens. 25887
irradiance response meas. of image proc. systs. 24579
IT-CCD image sens., 1/4-type 410 k pixel, develop. *(Japanese)* 25679
IT-CCD image sens. for HDTV, 1/4-inch 560 k pixel, high perform. CCD technol. 34260
Kodak KAF 4200 CCD chip, Lumigen coating 34596
large CCD arrays, dark current, proton-induced elastic reacts., spallation reacts. 17966
laser commun., acquisition and tracking, CCD 17306
laser mirror group-delay meas. by spectrally resolved white-light interferometry 39996
laser range gate underwater imaging systs. 18906
laser range-finding CMM calib. 2159
laser-induced diffraction signals, digital signal processing 25972
leakage current simul. 25877
light-adaptive comparison of binary video sigs. 41199
lightsat, high resoln. electro-optic rem. sens. payloads 33970
CCD image sensors continued
low driving voltage CCD, single layer electrode struct. for area image sens. 22612
low energy electron image converters, slow scan CCD 25883
low-cost CCD video camera for machine vision and consumer 9755
low-noise CCD sig. acquisition 34417
machine vision, digital camera, CMOS intell. sens. 42848
mag. suspen. syst., real-time posn./attitude sens. 18088
med. obj. detect., transputers 26336
Mega pixel CCD image sens. technol. 22611
Mitsubishi Thermal Imager *(Japanese)* 25885
mobile robot environ. recogn., US sens., CCD camera 43556
near — IR temp imaging in steel industry 25879
neutron penumbral imaging of ICF targets 34948
neutron radiography, transportable supercond. cyclotron 18463
opt. disc inspection by lin. array CCD systs. 5690
opt. disk substr. vert. birefr. measuring method 15192
opt. learning neural network, Selfoc microlens array for pattern recogn. 31034
Optical Communications Demonstrator, control proc. syst. archit. 17314
optimum event rate for CCD detector 43061
orthogonal-transfer CCD imager struct., design 9939
panoramic line-scan imaging syst. for teleoperator control 34564
particle image velocimetry, image labelling, flow meas. 18154
particle image velocimetry, ultra-high-speed camera 3982
phase stepping in projected-fringe moire interferometry 18071
photorefr. material holographic data storage systs. 31673
pickp-up opt. head syst. tolerance used in phase-change opt. disk *(Chinese)* 14337
polariz. CCD camera for computer vision, beam splitter 2596
polariz.-difference imaging, obs., scatt. media 42852
position and attitude sensing, magnetic suspended model 25882
profiling aspherical surfaces, moire deflectometry 17926
projectile vel. meas., flash shadowgraph syst. 3989
proteins and nucleic acids, high resoln. struct. studies 43169
pushbroom scanners with large lin. arrays, odd/even detector noise removal 16260
QA of pharmaceutical vials, laser Raman spectrosc. 17928
R and D activities and trends *(Japanese)* 34585
range cameras, focal error based 3872
range cameras, specular objs., ambiguities reduction 42839
range-resolved bistatic imaging lidar, CCD camera *(Japanese)* 34163
readout noise compensation in CCD images 24495
real-time nonlin. joint transform LCLV CCD sens. correlator 2713
robust stereo ranging syst. 3889
roller bearing surfaces, 2D surface texture, machine vision opt. meas. tech. 8630
scanning transm. X-ray microscope, CCD detector 42856
SCARA robot, posn. accuracy meas. method *(Japanese)* 42938
scintillating fiber-optic neutron detector, intensified CCD camera 4159
Si X-ray detectors and pixel detectors 18302
sig. conditioning, dyn. range maximisation 3893
simultaneous high-speed measuring syst. of multiple points 3883
simultaneous particle size/3D posn./vel. meas. 18075
single-chip CCD colour video camera vert. false colour sig. reduction *(Japanese)* 17588
slow-scan CCD image sens., real-time plasma spectrosc. 9932
SMD soldering/inspection workcell, develop. 6419
soft X-ray region, self-calib. 25884
speckle contrast ratio fiber vibr. sens. 34536
SPRITE-based syst., image proc. 34575
SR based high contrast computed tomography 43271
SR beam viewer, EM actuator, UHV 34825
star-field ident. for autonomous attitude determ. 33076
steel plant noncontact rail dimens. meas., machine vision-based 42931
stereoscopic LCD, biomedical appl. 34997
supersonic free jet particle dens. distrib. visualization *(German)* 10062
suspens. and aggregates, combined rheometer/image analyser 25876
TDI CCD image camera, dyn. recording 17933
Tokyo Metropolitan Traffic Control System, image proc. vehicle detector 42845
true progressive scan FT-CCD for multimedia appls., 640(H)*480(V), VGA compatible 25133
TV camera test set *(Croatian)* 3665
two source phase shifting speckle interferometer, obj. surface meas. 31671
ultrahigh-speed photography, conf., San Diego (1993) 36890
underwater camera systs., sens. develop. 10531
UV three axis attitude ref. sens. 9936
vert.-overflow-drain CCD image sens., photoresponse anal. 42838
virtual endoscope 34565
viscosity meas. syst., falling ball method *(Japanese)* 42991
watthour meter opt. character reading syst. *(Japanese)* 9969
wireless HDTV camera, 42 GHz-band transmitter/receiver develop. 25670
X-ray detectors, point-spread fn., efficiency, perform. 18396
X-ray imaging syst., opt.-coupled, lesion detectability 43232
X-ray sources assess., CCD based focal spot camera 26331
HgCdTe IR CCD-based FPA, thermoelectrically cooled 17952
HgCdTe IRFPAs, IRCCD and IRCMOS detectors 17950
HgCdTe monolithic CCD IR imagers 17965
PtSi IR CCD-based multi-wavelength imaging pyrometer 17956
PtSi IR cameras, IR CCD/IR MOS imaging radiometers 17957
PtSi middle wavelength 240×320 IR staring FPA 17954
Si microvolume CID sens. arrays, Monte Carlo/analytic treatments of displacement damage 17961
CCD imagers *see CCD image sensors*
CCII *see current conveyors*
CCIR standards *see standards*
CCTV *see closed circuit television*
CCVS *see active networks*
CD-ROM publication *see optical publishing*
CD-ROM searching *see information retrieval*
CD-ROMs
3D video player (based on MPEG 1) *(Japanese)* 3680
car navig. syst., appl. *(Japanese)* 25614
Everywhere Access, rem. control software for Internet 8949
Fujitsu Multimedia Art *(Japanese)* 42012
gas company, mobile mapping syst., CD-ROM *(Japanese)* 42213
hypertext mathematics, multimedia interactivity 25112

CD-ROMs continued
inform. explosion, document delivery and electronic networking 16767
libraries, Third World, inform. access improved by utilizing advanced IT 41743
MD-DATA drive unit, develop. *(Japanese)* 38968
MPEG player for network karaoke *(Japanese)* 3681
multimedia presentation syst. *(Japanese)* 3272
opt. memory and blue lasers 7268
quadruple dens. opt. disc technol. *(Japanese)* 3682
read-only opt. head, posn. sensitive detect. syst. 14345
skeletal anatomy teaching, multimedia CD-ROM 43182
spoken dialogue syst. for CD-ROM inform. retrieval 15850
video codec for CD-ROM based video playback 16941
CDMA *see code division multiple access*
CDs (audio) *see audio discs*
Ceefax *see teletext*
Cellnet *see cellular radio; radiotelephony*
cells (electric)
see also fuel cells; photoelectric cells; photoelectrochemical cells; primary cells; secondary cells
autonomous underwater vehicles, power systs. comparison 28106
batt. design, environ. factors 19926
batt. module heat generation, temp. rise modelling 44263
elec. vehicle propulsion batts., pos. phys. disconnect 36767
electrode and bulk impedance meas., high DC bias 34661
High Energy Power Syst. Facility, Li batt. syst. eval. 28425
Hitachi IKAP makes PCs smaller and extends batt. life 21340
household batts., mercury environ. considerations, USA 44262
multicell batt. strings, single sens. wire monitoring 44264
nonexponential transient response, const. phase element 11277
nonwoven batt. separator materials 36506
optimized prod. technol. in capacity constrained flow shop 11700
polymer-ceramic composite batt. electrolyte develops. 27884
salino voltaic cells, solar elec. generation, solar stills 28036
small cell batt. separators, technol. develops. 36507
solid polymer electrolytes, design concepts, materials 36508
solid-state thermoelectric refrigeration develop. progress 20144
thermoelec. effects, nonconventional thermogalvanic cells 27882
US Navy batt. requirements, develop. efforts 43565
C/noble metal electrodes, cathodic O_2 reduction 11230
Li batt. electrode surfaces, $Ar+CO_2$ gas prepared 27881
Ni batt. electrodes, Mn substitution expts. 27885
ZrO_2-Y_2O_3 electrochem. cell, energy conversion, gas sens. 42863
cellular arrays
see also logic arrays; systolic arrays
2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
algorithmic register transfer lang. for generating designs, formal semantics 37702
application-specific array processors, conf., Venice (Oct. 1993) 36903
ASIC macrocell multiplier for complex numbers 21214
ASIC VLSI design projects, microelectronic CAD lab 22516
BiCMOS megabit SRAM chip package modelling and perform. anal. 37755
BiCMOS RAM ASIC, optimized bipolar arrays 12503
built-in random testing for dual-port RAMs 37753
cell placement method using cct. struct. props. 21039
cellular-archit. FPGAs, routing-driven mapping 498
CMOS channel-less SOG arrays, HGALOP router 29148
CMOS SRAM macro with current sens. scheme, 400 MHz, 300 mW, 8 kb 29222
CMOS std. cells, design and charactn., teaching 21222
CMOS/ferroelec. integrated test struct. for memory appls. 37781
datapath compiler, mixed random logic and optim. blocks 21040
double-sided rugged poly-Si technol. for high dens. DRAMs 29230
DRAM cell photolithography, annular pupil filtering, modified mask 12541
dual-bit split-gate EEPROM cell for high dens. flash memories 12552
embedded RAM, self-diagnostic BIST memory design scheme 37754
fully-parallel multi-megabit integrated CAM/RAM design 37760
high-dens. flash memory, syst. design option 37782
high-dens. PLDs, CPLDs and FPGAs 37746
high-level appls., layout-driven topol./functionality-based delay estim. 609
hyperchaos, clustering and cooperative phenom. in CNN arrays 21492
locally connected CMOS neural cells, steady-state heat flow problem 795
low-power RAM cct. technol. trends 37779
LSI logic, LP based cell selection, timing, area, and power consumption constraints 37700
massively parallel sig. proc. archit. based on response of retina cells 32824
MAX 9000 PLD family, dens. and package options 29163
mixed-sig. macrocell placement in WRIGHT 29395
ML-Germinal, heuristic standard cell placement algm. 21038
multi-port RAM generator for CMOS SOG, memory cell config. 29223
multiple-valued logic fns., design and fault diagnosis 6125
multiport RAM on 0.5 μm CMOS SOG, memory cell config. 29207
multistage interconnection networks, nearest-neighbour interconnections 24753
over-the-cell channel router, algm., 2-layer model 21037
over-the-cell routing algm., via-less middle terminal models 21036
radiation-hardened CMOS 177K gate array, develop. 29205
row-based placement, simulated annealing, hierarchical algm., MCNC benchmark ccts. 37708
semicustom IC design, analogue arrays, design/perform., education 21459
std. cell global routing algm. for over-the-cell routing *(Japanese)* 13840
std. cell placement, fuzzy-clustering-based algm. for cct. partition 22510
std. cells, orient. assignment, fuzzy math. transform. 5944
Telecom LSI series, Astro Array *(Japanese)* 13854
ternary cellular arrays, design, ternary decision diags. 37732
ternary cellular arrays fault isolation, decision diags. appl. 12457
VHDL based macrocell libr., develop., modelling 21165
VLSI layout CAD, optimal net assignment, constraints 22509
VLSI regular arrays, test strategy 37686
AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
GaAs SAG-MESFET for supercomputers, proc., implement. 37721
cellular automata
1D lin. hybrid cellular automata of degree through 500, min. cost 37742
3D life, further on game 37229
analog combinatorics and cellular automata 21639
byte error-correcting code, cellular automata based 29169
Phys Comp '94 conference, Dallas, USA 47
reconfigurable nearest-neighbour opt. cellular automata interconnects 1764
relax. labeling, analog VLSI cellular fuzzy automata networks 29462
cellular automata continued
self-recovering commun. buffer based on cellular automaton concept 8801
seq. cct. simul. by hybrid cellular automata 12493
two-pattern testing, test pattern generation ccts. eval. 12460
virtual lives, speciation proc., computer simul. *(Japanese)* 37280
Si MOSFETs, simul. by cellular automaton method 22431
cellular communications *see cellular radio*
cellular effects of radiation
see also biological effects of .... (type of radiation)
see also photosynthesis
animal models for cancer devel., mag. field effects 35189
bactericidal radiation, gas-discharge sources, dosimeters 26305
bone repair and adaptation, EM field effects 35143
cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
ELF fields, cellular studies and interact. mechanisms 35187
human platelets, aggregation, CO_2-laser radiation appl. 26310
immune status correction of patients, MM-waves appl. 43347
laser welding, selecting necessary/sufficient params. 43329
LF EM fields, possible biological effects 26479
lipid bilayers, elec. field induced breakdown dyns. 6896
power syst. LF EM fields, living organism health effects 4329
therapeutic radiology/oncology, conf., USA (1994) 36871
cellular logic
opt. cellular logic two-level networks for morph. image proc. 31038
scalable, real-time, image proc. pipeline 41162
ternary cellular arrays fault isolation, decision diags. appl. 12457
cellular neural nets
2D chaotic cellular neural network sync. phenom. 21493
analog CMOS VLSI design of cellular neural networks, annealing agility 22603
analog combinatorics and cellular automata 21639
analogue CMOS implement., continuously prog. 29495
binocular stereo vision, cellular neural net state eqns. 32956
chip-prototyping syst., test Universal Machine chips 22534
CMOS cellular neural net-based smart pixel chips, analog design 31130
CMOS cellular neural networks, elec. charact. 21498
CMOS prog. analog cellular neural net for high speed image proc. 29429
CMOS prog. analogue IC, high speed image proc., cellular neural networks 29414
CMOS technol., CNN universal chip 21489
CNN Universal Machine, IC chip implement. 21486
continuous-time cellular neural network chip, direction-selectable connected component detect. 29474
current mode cellular neural net, adjustable template coeffs. 29470
digitally prog. CNN chip, discrete templates 21487
discrete-time cellular neural net., convergence and implement. 12683
edge detect., discrete time cellular neural networks 32900
focused obj. extraction from unfocused background, cellular neural nets 24731
generator employing CMOS inverter for cellular neural networks 21496
glaucoma induced change modeling/diagnosis, neural net 18456
gray level image filtering, Q-state mean field annealing algm. 8508
hardware annealing for optimal solns. of cellular neural network appls. 21491
hippocampal region, VLSI implement. of model 21485
hippocampus, nonlin. syst. model, CMOS implement. 29434
hydrogenated amorph. silicon phototransistor cellular neural network 21497
hyperchaos, clustering and cooperative phenom. in CNN arrays 21492
hyperchaos from cellular neural networks 21474
image obj. area estim., cellular neural network 21495
image proc., SIMD-based cellular neural network 24729
input/output hardware strategies 29491
macromodel fault generator for cellular neural networks 21499
mammogram anal., design of analogic CNN algms. 26368
moving image, coding/decoding, cellular neural network 24735
moving point targets detect. via cellular neural networks 24730
neural syst. for high-speed pattern recogn. and image anal. 29473
NMR spectra proc. via cellular neural net 24732
opt. cellular neural network, contrast enhancement 794
opt. image acquisition, cellular neural network chips 29486
orange class., automatic via CNN image proc. 24733
photolithographic masks, defect detect. by cellular neural nets 24734
prog. cellular neural net chips, wt.-control strategy 21501
prog. modular cellular neural network cell 21488
prog. multifn. optoelectronic cellular neural net 14667
pulse coded winner take all networks, VLSI implement. 796
reconfigurable archit. mapping multilayer CNN paradigms 21500
relax. labeling, analog VLSI cellular fuzzy automata networks 29462
shift-invariant continuous time cellular ANNs, dense CMOS design 29494
sig. proc., neural networks, convergence 24357
SIRENA, simul. environ. for CNNs 21502
switched-current/continuous-time current-mode cellular neural network, opt. addressable 29517
template robustness towards VLSI implement. 22535
time-variant delayed cellular neural network stabil. 21490
unfolded Chua's cct. generated by cellular neural net cells 37615
versatile CMOS building block for fully analogically-prog. VLSI cellular neural nets 21494
VLSI implement., prog. control operator 6267
a-Si thin film optoelectronic cellular neural networks 22980
cellular radio
2 GHz radio propag. for local loop appls. 33844
3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
5.6 kbits/s PSI-CELP of half-rate PDC speech coding std. 8191
29 GHz indoor wireless commun., radio link design 33835
38 GHz building scatter and vegetation atten. meas. 15427
48 V/50 A telecom. switching power supply 19832
800 MHz PCS, IN technol. appl. 25433
900 and 1800 MHz microcell radiowave propag. comparison 31826
900 MHz complex impulse responses and topographical map data 9323
900 MHz GSM integrated power amp. control cct. 33936
adaptive antenna for scanning telemetry 33419
adaptive antennas, digital beamforming, direction finding methods 33914
adaptive antennas array transceivers, lin. requirement 40514
adaptive array for mobile radiocommunication, EMC props. 25326
adaptive equalization for multipath fading environ. 3429
adaptive modulation/TDMA scheme for high capacity pers. multimedia commun. 9043

cellular radio continued
adaptive multistage interf. cancel. for CDMA, perform. limits 7990
adaptive SDMA 9350
adaptive traffic prediction algm. for cellular radio 3404
additional channel assignment by graph theoretic model 33932
aggressive handover algm. for mobile networks 3396
all-channel concentric allocation algm. 42204
American digital cellular syst. spectral efficiency 9275
analog cellular facsimile commun. time reduction *(Japanese)* 41741
analog/digital interface 33833
array proc. appl., mobile commun. systs. design 17142
ATM transport archit. for multiservices wireless PCN 17087
Australian CDMA cellular radio trials 3489
automatic retransmission rather than ARQ 3364
automatic vehicle location in cellular commun. systs. 3331
base station antennas, evol. 2321
base station macro-diversity combining merge cells in mobile systs. 17104
base station phased array antenna syst 33794
basestation antenna array syst. for spatially selective transm. 17069
blind adaptive beamforming and equalization 9228
blind clustering equalizer for digital mobile radio channels 3432
blind equalization based on Nakagami fading index, cost fn. 3430
BPSK modulated co-channel sigs. reception, dual sig. receiver 33886
broadband ATM indoor radio, packet diversity 16700
broadband CDMA overlaying GSM cellular syst., capacity 3387
buried distrib. cable syst., rem. absol. phase meas. 27158
burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
capacity increase with MQAM/CDMA 33783
capacity rel. to DPSK modulation level and block coding 33779
card standardization in telecomms. sector *(French)* 33345
carrier leakage, carrier freq. error estim. 8097
CCI reduction, vert. antenna directivity 17071
cct.-mode data on wireless links, retransmission scheme 17090
CDMA, ES approach 25347
CDMA, forward-link power control law 3347
CDMA, speech bit rate, network control 9375
CDMA, TU Delft research, overview 25255
CDMA approx. synchronized syst. sig. design 24784
CDMA cellular mobile networks, analytic traffic models 33931
CDMA cellular mobile radio syst., power control/coding 17102
CDMA cellular networks, antenna arrays, downlink perform. 17093
CDMA cellular radio, freq./time division duplex techs. 25371
CDMA cellular radio, uplink power control/base station assignment 25376
CDMA cellular radio link, prioritized channel control 25410
CDMA cellular radio network 25357
CDMA cellular syst., forward link multipath propag. 33885
CDMA cellular syst. with macrocell diversity, perform. 33865
CDMA cellular systs., bandwidth efficiency 17085
CDMA cellular systs., concatenated RS/convolutional coding 9358
CDMA cellular systs., design/test 3382
CDMA cellular systs., uplink teletraffic behaviour 9257
CDMA cellular time division duplex syst. capacity 3356
CDMA coded packet cellular networks, code rate optim. 25384
CDMA digital cellular, field test results 3383
CDMA indoor microcellular mobile syst. 9204
CDMA integrated voice/data cellular packet network 17095
CDMA joint detect. mobile radio systs., interfer. suppression 33887
CDMA microcellular systs., channel models 3419
CDMA MM wave indoor radio capacity study 9202
CDMA mobile radio, joint detect./coherent receiver antenna diversity 25364
CDMA mobile radio intersystem operations 3477
CDMA mobile radio systs., reverse link anal. 3392
CDMA mobile radio systs., spectral efficiency 17083
CDMA mobile systs., power control, perform. and syst. design 33868
CDMA multicarrier syst., CCI cancellation 9215
CDMA multiple-cell radio syst., perform. eval. 3386
CDMA multirate radio interface implement. 42192
CDMA network, mobile positioning, perform. anal. 25619
CDMA overlays of narrowband waveforms, interf. suppression 25355
CDMA PCS syst. perform., simul. results 3384
CDMA radio network planning 33866
CDMA syst., macro-/micro-cellular environ., perform. 3471
CDMA systs., error-correcting coding 24782
CDPD network, cellular digital packet data transm., 19.2 kbps 17114
CELARN, cellular local area radio network 3484
CELP coder for mobile commun., design 17038
CELP coding of speech, phonetic classif. 2427
centralized control for fiber-optic microcell radio syst. 3450
channel assignment, transm. power level control 9256
channel borrowing 25323
Channel Borrowing Without Locking 33812
channel borrowing without locking, hand-off anal. 25411
chip sets for digital cellular handsets 17036
CMOS AMPS IF filter, integrated, low noise, cellular telephone appls. 25354
CMOS analog/digital interface for cellular telephony 33774
coexistence etiquettes, continuous dyn. channel selection 9246
compression techs. conserve EM spectrum space 3380
constrained power control in cellular radio systs. 9249
corporate mobile commun. solns. 41725
correl. co-channel log-normal interferers 17047
correl. log-normal random variables 3406
correl. sigs., spectrum efficiency 17124
CPM sigs. neural receiver 33913
cyclic sig., adaptive beamforming and fast implement. 40938
cyclic sigs., adaptive beamforming 3371
D1900 micro cell indoor/outdoor appls. 25435
data transm., cellular mobile commun. systs. 25349
database interface, pen-based for mobile computers 33566
DC supply reliab., Al-air fuel cell 19976
decision feedback multiple-sym. differential detect., diversity 9200
DECT, adaptive antenna demonstrator, develop. 33852
dense urban environ., cellular coverage 9278
developing countries, fixed wireless local-loop syst. 3117
developing countries, investment in telecomms. infrastructure 3015
developing nation telecomms., satellite and mobile solns. 3515
differentially detected $\pi/4$-DQPSK syst. perform., AWGN/Rayleigh fading 40568
digital cellular phones, speech proc. technol. *(Japanese)* 42289
digital cellular syst., channel/speech coding combination 8192

cellular radio continued
digital cellular syst. radio link protocol throughout perform. 33799
digital cellular systs., multi-rate speech coding, network fns. 3440
digital cellular-PSTN interconnection quality assess. 42228
digital commun. receivers, time-reversed IIR filtering 33877
digital mobile radio systs., seq. detect. algms. 3437
digital multipath wireless channels ident. in interf. 9303
digital packet data, perform. anal. 42271
digital packet data on analog systs. 25416
digital radio, spectrum phase interpolation, detect. tech. 9381
direct-seq. systs. in lineal microcells, perform. eval. 25365
discontinuous transm. in Nakagami/Rician-Nakagami channels 17063
distributed algms. for dyn. channel allocation 25420
distributed antenna syst., freq. selective fading, perform. 17091
distributed dyn. channnel inform. assisted reuse partitioning 25418
distributed power balancing, sparse inform. link 9250
distributed power SS cellular syst., perform. 25363
distributed radio port controller archit., develop. 25381
Doppler shift z 42303
downlink power control algms. 25344
DS-CDMA 4-phase mobile radio receiver in non-Gaussian environ. 25442
DS-CDMA cellular mobile radio network, down-link power control 33871
DS-CDMA cellular slotted syst., throughput/delay anal. 25438
DS-CDMA cellular syst., intra-cellular toroidal sectorisation 42276
DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
DS-CDMA cellular syst. perform. anal. 33910
DS-CDMA cellular systs., third generation, adaptive antennas 33850
DS-CDMA FH-CDMA/narrow band cellular radio systs. 3452
DS-CDMA interf. cancellation schemes 17084
DS-CDMA microcellular network, soft handoff 3470
DS-CDMA mobile syst., receiver archits. for down-link 33864
DS-CDMA syst., macro diversity perform. 3389
DS-CDMA/TDMA for digital cellular systs. 3390
DS-SS CDMA cellular voice/data commun. 25342
DS-SS sigs. time division duplex transm. 9203
DS-SSMA, unknown seq. estimator, near-far problem 25361
DS-SSMA commun. in Nakagami fading channels, path diversity 9345
DS-SSMA indoor cellular radio perform. 25370
DS/CDMA digital cellular systs., error control algms. 9361
DS/CDMA systs., eval. of handover perform. *(Japanese)* 25281
DS/CDMA systs., lin. interf. canceller 9241
DS/SS CDMA slotted access channel perform. anal. 9293
DSP core for speech coding appls. 33701
dual cellular syst. channel asignment methods 33814
dual mode GSM/DECT handset 25152
dyn. channel allocation networks, perform. measures 9344
dyn. channel assignment, phantom cell anal. 9247
dyn. channel assignment schemes, massively parallel simul. 25291
dyn. modeling 3403
echo suppression in digital commun. 16620
elec./electronic syst. and mobile phone equipt., EM environ. 25290
ELF-microwave radiation dosimetry num. methods 35186
EMC of urban cellular mobile radio systs. 33858
Ericsson's CME 20 implement., GSM network soln. 33771
Ericsson turnkey syst. for GSM 900/DCS 1800 networks 42257
European GSM and PCN portable phone develop. *(Japanese)* 17078
F-TDMA/CDMA cellular systs. perform. eval. 33838
facsimile commun. time in analog/digital cellular systs. 8871
FDMA cellular systs. capacity, ACI effects 3334
FFT multiple half-screen diffr. model for cellular commun. 3417
FH-CDMA cellular network eval. rel., handover strategies 9332
FH-SSMA, band-efficient modulations, cellular radio channels 25367
finite-buffered cellular mobile radio syst. 3493
fixed/hybrid dyn. channel allocation schemes perform. 9331
forward cell planning networks for UMTS 9334
frame reservation multiple access perform. anal. 33837
freq. assignment 9254
freq. assignment 42278
freq. channel doubly-reused cellular systs. 17043
freq. hopped systs. for PCS 25360
freq. hopped TDMA cellular syst., down-link capacity 9285
frequency planning matrix anal. 33809
future mobile telecomm. systs., handover, cell archits. 3402
generalised reuse partitioning method 33810
global and distributed dyn. channel allocation algms., perform. comparison 9244
global mobile satellite complement, terrestrial cellular commun. 42307
global pers. commun. services 3362
Global System for Mobile Communications (GSM) 42285
group randomly addressed polling for multicell data networks 8771
GSM900/DCS1800 systs., adaptive antenna arrays 3480
GSM, M-detector, coherent receiver antenna diversity, perform. 17040
GSM adaptive type-II hybrid ARQ/FEC protocol 3445
GSM archit. 42286
GSM coverage estim., 900 MHz multipath meas. 9320
GSM data services, overview 42248
GSM data services for the mobile office, field trial 42250
GSM full-rate vocoder chip design 42086
GSM half rate speech channel, codec candidate 33685
GSM handsets, three-chip struct. 17034
GSM home location register, advantages/challenges 25385
GSM internat. standardisation *(German)* 9225
GSM mobile networks, subjective speech quality 3446
GSM mobile telephones, type approval methods 16616
GSM network, adaptive antennas for freq. re-use 9395
GSM network, Q3 network mgt. interface 9402
GSM network, TMN appl. 42260
GSM network archit. issues for next century 3444
GSM network evol. 3449
GSM networks, test products develop. 9201
GSM procedures for integrated cellular/satellite syst. 25319
GSM radio meas. data, proc. methods 3447
GSM radio networks, multivendor possibilities 9399
GSM random access procedure, perform. 9289
GSM signalling protocol LAPD_m, perform. anal. 3499
GSM syst., security aspects/mgt. 3351
GSM syst., speech and channel coding for half-rate channel 33927
GSM syst. MLE receiver space diversity techs. *(German)* 25335
GSM syst. multipoint-to-point link improvement 25270
GSM-R, global rly. mobile radio commun. syst. 42253

cellular radio continued
GSM-syst., interf. anal. 3492
GSM/DCS1800 syst., base station, diversity reception 3497
GSM/DCS air interface enhancement for high speed data appl. 25408
hand-held GSM digital mobile telephones, near E-field magnitude 42284
hand-held phone, reduced EM field in human head 35184
hand-held telephones with low absorpt., integrated antennas 15640
handheld cellular phones, antenna design *(Japanese)* 33901
handoff algm. level crossing anal. 42226
handoff algms., absol./relative meas., anal. 3395
handoff procedure, priority queue scheme 9346
handoff/service area determ., pattern recogn. techs. 3398
handoffs, adaptive averaging 25341
handover algms., propag. depend. params. 3393
handover decision procedure, Bayes criterion minimization 3394
handover during mobile data commun., error reduction 16635
handover init. in cellular mobile radio networks 9335
handover proc. model, limited queuing time 42208
handover requests in microcell network archits., queue study 9330
hands-free cellular phone, subband adaptive noise canceler 17115
handset antenna/human EM interact., pers. commun. 9343
handy phone UHF high power amp. module 42255
heterog. mobile environ. supporting adaptive services 33567
HF devices/ICs for portable cellular phones 17133
hierarchical cellular syst., dyn. channel allocation/speed estim. 3397
high dens. SDMA, double freq. reuse 25421
high integrity data commun. for light rail transport syst. 36742
high-capacity cell config. strategy 33811
high-speed train, adaptive channel equalization 3423
highway cellular radio dyn. channel assignment failure rate 33805
Hopfield neural networks, dyn. channel allocation tech. 25417
human head, cellular phone EM fields, induced current/SAR 18622
I/Q modulators for mixing cellular sigs. 17032
IEEE 802.6 based PCN, distributed paths migration 9363
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
IN, pan-European, mobility effects, Eurescom project P230 41959
IN-based approach for PCS service provision, PSTN infrastructures *(Italian, English)* 41963
indoor 3D cellular syst. fixed channel assignment plan 33804
indoor mobile radio, burst-level ARQ error protection 17054
indoor pico-cell radio syst., spectrum requirements 25339
indoor radio, channel equalization, neural network techs. 17140
inflight telephony systs. *(French)* 3125
inform.-based approach, telecomm. networks engng. 42256
integrated GSM-satellite syst. archit. 3360
integrated voice/data network, cellular packet CDMA, perform. 17131
intell. integrated systs., cellular network mgt. 17127
intelligent multi-access spectrum-sharing methodology 41467
inter base station synch. via common broadcast control channel 9279
inter-zone connection syst. for multi-channel access services *(Japanese)* 33898
interf. cancellation syst., pilot sig. for radio channel estim. *(Japanese)* 25278
intermediate reuse factors for capacity eval. 17058
IRIDIUM global commun. network, IEEE 1149.1 Standard appl. 9808
Iridium satellite phased array antenna design 23953
IS 54C digital control channel, PCS support 33843
IS-54-B portable digital cellular phone *(Japanese)* 42288
ISDN systs., accessing protocols/network reconfigurations 9377
Japan digital cellular syst., field test results 3439
Japan mobile telephone syst., detect. study 9273
Japanese digital cellular std., IN archit. 42258
Japanese std. based digital cellular syst. perform 33807
land mobile, adaptive array base station, spectral efficiency 17062
land mobile commun., pilot sym. aided CCI canceller *(Japanese)* 42294
land mobile radio systs., receiver near range influence 3416
layered cellular struct., optimum resource mgt. strategies 25392
lin. power amp. for cellular telephone, envelope feedback method 12342
load profile data retrieval, cellular commun. 10793
low-power RF ICs for portable commun., all-CMOS radio 42295
M-LCELP speech coding, 4 kb/s, multi-mode and multi-codebook 9120
M-LCELP speech coding, 4 kbps 33688
macro-/micro-cellular radio systs., throughput perform. 9295
macrocellular PCS propag. channels, 1850-1990 MHz band 31836
macrodiversity cochannel interf. anal. 40383
MARR and VSATs, simplified SACFA procedures 3353
material characterisation 7978
metropolitan microcellular radio environ. PRMA perform. 42194
micro-cellular mobile commun. systs., handoff strategies 17061
micro-cellular networks, QOS provisioning for real-time traffic 25393
microcell base station locations, simulated annealing appl. 9255
microcell overlaid, umbrella cell syst. 17059
microcell planning, 3D propag. models *(German)* 25336
microcell size and archit. anal. 3421
microcell/indoor environ., propag. mechanisms 3344
microcells, 912/1920/5990 MHz radio propag., buildings 31829
microcellular aggressive dyn. channel assignment 3342
microcellular commun. in corridor complex, model/path loss meas. 2232
microcellular meas. and their prediction 17143
microcellular mobile commun. systs., perform. anal. 3405
microcellular modelling for base station antenna below roof tops 3418
microcellular personal commun. service F-QPSK perform. 33781
microcellular propag. for PCN networks, review 31837
microcellular radio, distributed control channel allocation 9351
microcellular Ricean channels, switched diversity 3336
microcellular systs., compatibility matrix learning 9253
microcellular systs., handover initiation approach 9324
microcellular urban propag. characts. 9339
microcellullar systs., distributed adaptive channel assignment 42297
microstrip components for mobile commun. systs., evol. 33836
microwave propag. model for (sub)urban macro celluar coverage prediction 33777
Mitsubishi Electric 800 MHz PDC spec. cellular phone *(Japanese)* 33890
Mitsubishi Electric base-station antenna systs. *(Japanese)* 33893
Mitsubishi Electric base-station modulation/demodulation eqpt. *(Japanese)* 33892
Mitsubishi Electric digital cell phones for Europe/North America *(Japanese)* 33891
Mitsubishi Electric multi-channel access syst. *(Japanese)* 33897
Mitsubishi Electric pers. handy-phone syst. PT-MDP *(Japanese)* 33896

cellular radio continued
mixed-sig. codec for GSM voice/RF interface 42089
MLC dielec. stripline planar filter for portable telephones 805
MLSE receiver for GSM digital cellular syst. 3424
mobile commun., adaptive equalization, DSP technol. *(Japanese)* 33903
mobile commun., digital voice compression technol. *(Japanese)* 33902
mobile commun., slow freq. hopping, time offset effect 42272
mobile commun. channel assignment by neural net 42269
mobile data services, IEE Colloquium, London (1995) 28232
mobile IP, secure short-cut routing 24845
mobile multimedia commun., IN archit. 9035
mobile networks, freq. assignment 25423
mobile networks with bursty user mobility, dyn. channel allocation 25338
mobile radio, multiple service provision 3375
mobile radio channel, wideband micro-/macro-diversity meas. 3411
mobile radio networks, freq. planning 33860
mobile satellite networks, handover queuing, dyn. channel allocation 25316
mobile systs., blind combiner for space diversity 42280
mobile systs., transit. path, European view 25334
mobile telephony, strategical aspects for develop. 16618
mobile-satellite pers. commun. syst., voice transm. quality 25322
MOBITEX and mobile data systs. 41859
Molecule, Mitsubishi Electric microcell base station for United States *(Japanese)* 33894
MONSTER simulator for cellular networks 9328
Mova D II, Mítsubishi Electric compact cellular telephone *(Japanese)* 33889
MT2607A/B/C PDC handyphone tester used service shops *(Japanese)* 34334
multi-carrier CDMA in indoor Rician fading channel 9226
multi-cell direct-seq. microcellular systs., perform. eval. 33907
multicarrier transm. tech. in cellular systs. 9216
multilayer cellular networks with classes of mobile stations, perform. anal. 33933
multimedia equipt., electronic devices *(Japanese)* 16935
multipath and shadow fading channels, real-time power meas. error statistics 33796
multiple access wireless networks, variable rate speech coding 15830
multiple call hand-off, queued hand-offs/mixed platform types 33855
multistage CMA adaptive beamformer, real-time implement. 9227
NAFTA and telecomm. opportunities in Mexico 3021
Nakagami fading channel block error probabs. 33800
Nakagami fading channel capacity eval. 33801
narrowband microcellular speech transm. schemes 3332
Natel D GSM syst. for digital mobile commun. *(German)* 42299
NEC's approach, digital cellular commun. *(Japanese)* 17077
NEC's digital cellular base station syst. *(Japanese)* 17081
NEC's digital cellular center, syst. archit. *(Japanese)* 17080
NEC's pers. digital cellular telecomm. syst., develop. *(Japanese)* 17079
NEC's portable phone for pers. digital cellular syst. *(Japanese)* 16929
network management for personal and mobile systems, IEE Colloquium, London (1994) 18
network overlapping channel assignment tech. 42201
network planning, radio coverage defn. methodology 42227
noise suppression in cellular commun. 3500
nominal channel allocation optim. 42203
nonstationary channels tracking, optimal windowed RLS algm. 17097
North American dual-mode cellular syst. traffic advantages 33815
Northern American Digital Cellular Syst. adaptive algm. fading channel tracking props. 33825
optimal paging in cellular mobile telephone systs. 33934
OQPSK in indoor environ., perform. 9301
orthogonal FDM based syst. for multiaccess methods testing 9329
outage probab., perform. eval. 33909
packet based access mechanism, perform. params. 33863
pan-European GSM signalling for Abis interface 3448
partial response binary CPM ($h=1/2$) anal. algm. 32035
patent infringement, lawsuits, cellular telephones appl. 36840
PCN, client-server-based handover scheme 42247
PCN, data services 42249
PCN, handoff criteria 9378
PCN, teletraffic perform. of GSM900/DCS1800 in street microcells 42261
PCN design, SDMA adaptive array approach 25375
PCN interoperable licensed/unlicensed wireless access 33842
PCNs, merger of American and European mobile systs. 25432
PCS, multiple hierarchical cellular overlays 25397
PCS, multiple hierarchical cellular overlays 25317
PCS, outage probab. in presence of Rice fading 17099
PCS, spectral efficiency of multitone freq. hopping syst. 9217
PCS CDMA syst. overview 33870
PCS evol. 3352
PCS optimum multi-layered cell archit. 3485
PCS provisioning in cellular environ. 3496
PDC half-rate speech coding std., real time operating prototype 25163
pers. commun. services, satellites role 25298
pers. handy phone syst., telecomm. service enhancement 3115
pers. handy phone syst. for public services network *(Japanese)* 33895
pers. handy phone syst. portable station design for hand-over operation 42218
$\pi/4$-DQPSK on microcellular radio channels, diversity/interf. 17101
pico-cellular syst. for indoor radio, assess./propag. study 25348
picocellular network, protocol for seamless commun. 9348
portable cellular telephone for 1.5-GHz band digital mobile syst. *(Japanese)* 42287
portable computing, cellular digital packet data (CDPD) air interface 25352
portable telephone for pers. digital cellular syst. 3467
power control in cellular syst. 9251
present status and future trends 42209
priority reservation handoff procedures 9326
PRMA, channel impairments effects 9298
PRMA, Rayleigh fading effects 8739
PRMA-ISA protocol for multiple access of voice/data traffic 9297
prog. blind adaptive spatial filtering 40917
prog. canonical correl. anal. for blind adaptive spatial filtering 9167
PROMISE pan-European traveller inform. syst. 3462
propagation models using ray theory and GTD 31827
pseudomorphic power HEMT, 2 V, cellular phone appl. 21551
PSI-CELP speech coding for digital cellular mobile radio 25324
PSK M-ary modulated sigs., CCI estim. 33884
public cellular radio, syst. aspects 17112

cellular radio continued
QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
radio networks, distributed power control 9376
radio propag. meas./modelling, ray tracing 9314
RAKE receiver for cellular CDMA systs., perform. eval. 8735
RAKE receiver implement. of CDMA power control mechanism 25439
random access model for cellular mobile commun. systs. 9327
receiver complexity and cell size in urban areas 9325
rectifier power supply, telecom. services appls. 19829
regulatory policy 33928
resource auction multiple access 9291
resource auction multiple access 3348
RF prediction tool selection, microcells/PCS modeling 31832
RF prediction tools and terrain database selection 33813
RF predictions and modeling for microcells and PCS cell design 9311
RF SAW filters for mobile telephones 37836
Rice-lognormal terrestrial/satellite channel model 31834
road vehicle-vehicle commun., 60 GHz by TDMA/CDMA 9333
Rohde & Schwarz Digital Radiocommunication Testers CMD 54/57 9341
RS coded slow freq. hopped TDMA cellular syst. perform. 33827
RTI related services, packet based data link protocol 8769
RTI/IVHS data distrib., virtual beacons 3459
rural cellular telephony, cost effective commun. 42191
Russia, GSM transmitter interf., airborne radio-navig. equipt. 33859
S-CDMA cellular radio syst., interf. calcs. 17121
SAR mapping within human eye, portable transceivers effect 18625
satellite PCN, 3rd generation, technol./networking issues 25413
satellite-mobile channel, wide band charactn. 9264
satellite/cellular integrat., terminal manufacturer's perspective 25396
SAW filters for high-power in cellular radio portable phones 718
SAW resonator filters for digital radio systs., review 37832
sectorized cellular commun., channel borrowing without locking 3345
sectorized mobile microcellular radio syst., perform. anal. 3451
security related issues, mobile environ. 33919
self-adaptive channel allocation strategies, PRMA 9248
self-organizing cellular systs., single-channel user-capacity calcs. 17105
service areas assignment 9349
shadow fading dyn. channel assignment and power control capacity 42202
Shannon theory of Gaussian cellular multiple-access channel 25273
shift-register seqs./SS commun. 24124
slotted ALOHA for high-capacity voice cellular commun. 3340
slow FH-GSM freq. hopping GSM 9288
slow freq. hopped cellular syst., radio link/syst. simul. 9286
small cells/microcells, radio wave penetration, urban buildings 9260
small-cell environ., radio channel characts. prediction 3335
SOCRATES, driver inform. and fleet mgt. syst., appls. and archit. 33924
SOCRATES, dyn. car navig., driver inform. and fleet mgt. syst. 33923
SOCRATES, European in-car radio navig. syst. 42540
SOCRATES commun. syst., in-car inform. and navig. syst. 33925
SOCRATES in Europe and TANGO field trial in Gothenburg 3076
SOCRATES in-car equipt. 33926
SOCRATES/RHAPIT pilot evol., commercial syst. 3077
software demodulation, satellite/GPS/cellular receiver 42329
source-controlled channel decoding 40667
spatial channel simulator for phased arrays 9318
spectral efficiency in future commun. 17116
spectral efficiency of multiple access techs. 17065
speech stat. multiplexing, resource auction multi-access excess capacity 42200
Sri Lanka's telecomms. infrastructure, private sector contrib. 3032
SS7 network infrastructure, connection-less packet data transm. 25414
SS 7 time response estim. in mobile cellular commun. syst. 33856
SS receivers, diversity reception improvements 25444
SS systs., conducted suscept., testing techs. 3354
SS wireless LAN, interf. cancellation 8929
stat. multiplexing mechanism for advanced TDMA 9277
stat. paging area selection scheme 3453
street microcellular syst., channel allocation, distributed control 25419
subjective protection ratio tests, standardisation 9223
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
switching center, cellular and PCS digital-mobile services 17042
syst. modeling, propag. data 9313
systs., packet transm., channel quality reliab. 9296
systs., uplink capacity, bounds/estim. 17064
TCXO with quartz cryst. resonators, cellular telephones appl. 39106
TDMA access for third generation cellular commun., resources 25394
TDMA cellular commun. systs., sig.-to-interf. calc. 33854
TDMA cellular syst. with coded 16QAM and cyclical slow freq. hopping 33826
TDMA digital cellular commun., adaptive channel equalization 42267
TDMA digital cellular networks, voice/data channel access 3338
TDMA digital cellular radio unified MLSE detect. 33823
TDMA digital cellular syst. time slot assignment techs. 33824
TDMA digital cellular systs., PDC std. based 3441
TDMA digital mobile radio, adaptive diversity receivers 9306
TDMA evol. for personal commun. 42225
TDMA half rate digital cellular channel, speech and channel codec 33687
TDMA indoor wireless cellular systs., punctured convolutional codes, optimal coding 33872
TDMA low-power wireless access syst., coverage/handoff tests 25412
TDMA mobile radio systs., CCI suppression 9393
TDMA networks, cochannel interf. simul. 17060
TDMA syst. capacity enhancement by adaptive channel allocation and power control 33203
TDMA syst. perform. in outdoor microcellular environ. 33828
TDMA-TDD microcell systs., common access channels design 9292
telecomm. systs., neural networks appls. 41454
telecomm. technols. innovation, hist. 33303
telecomms. systs., network mgt. 9398
telephones, transm. power control CDMA, perform. 42246
terrestrial flight telephone syst. (TFTS), air-to-ground commun. syst. 25294
terrestrial land-mobile commun., propag. models *(English)* 42223
third generation cellular radio, location mgt. 3486
third generation mobile commun. syst., realtime testbed 9352
third generation mobile systs., adaptive radio interface 25395
third generation radio archit., adaptive antennas appl. 3482
third-generation mobile radio network planning propag. meas. 33787
traffic perform. with mixed platform types and queued handoffs 33808
transceiver microwave emission effect on human head 35191
trends/developments 33430

cellular radio continued
TRT's MDL and DRL n×2 Mbit/s access relay systs., appls. 42156
tunnels, radiowave retransm., radiating cable 9267
UHF digital cellular syst., network archit. 25407
UMTS, advanced TDMA mobile access syst. 25332
UMTS and RACE II CODIT project 9392
universal pers. commun., indust. paradigm shift 17128
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
urban microcell environ., av. power prediction 3422
urban microcells, direction biased handoff algms. 3399
urban microcells, ray tracing based prediction of impulse response 3420
urban microcellular environ., time dispersion meas. 3408
USA, future prospects of pers. commun. 3112
USA, wireless technols. and PCS appls. 41712
variable C/I threshold distributed adaptive channel allocation scheme 33806
VCO, low phase noise, analog cellular portable radio appl. 12356
VHF 3D cellular systs. for air-land commun. 25409
virtual cellular network, wireless commun. archit. 9280
VR-CELP codec implement. for CDMA mobile commun. 33689
Washington D.C. metro syst. tunnels commun. syst. 9281
wave propag., hilly terrain, theoretical investig./wideband meas. 9321
wide area coverage, freq. planning 42190
wideband microcellular environ., multipath propag. 3409
wideband radio channel time vars., random receiver movements 33848
wireless cellular network distributed dyn. channel allocation algms. 42229
wireless commun., SS access methods 17110
wireless commun. channels, propag. meas. and models 17108
wireless commun. overview, consumer electronics perspective 9403
wireless digital data commun. 25325
wireless LAN TDD channel contention-based reservation protocol 41820
wireless local telephone service, pricing, planning and regulation issues 42210
wireless network mgt., impact of site selection 41674
wireless networks, replacement for wireline facilities 3116
wireless networks, resource allocation 9245
wireless PCS radiowave propag. 3379
wireless pers. commun., overview 17107
wireless pers. commun., TDMA methods 17109
handoff algms. anal., BER/sig. strength 33834
AlGaAs/GaAs directly connected HBT UHF MMIC amp., high gain, portable cellular appl. 6326
GaAs FET power amp. for digital cellular portable telephones, phase charact. 3358
GaAs MMIC downconvertor for portable commun. 42233
GaAs MMIC power amps. for cellular telephone systs. 849
GaAs power multichip IC for cellular radio 42236
Pb-acid valve regulated batts., H_2 evol., cellular installations 44289

cellular telephones *see cellular radio*

CELP *see linear predictive coding*

cement industry
1990 Clean Air Act Amendments impact 5426
clinker, ventless grate coolers 5422
clinker grinding, roller mills 36806
elec. network design, ADELIA expert syst. 5417
energy/exergy anals., Turkey 20153
fuzzy sensor fusion, concrete mixing plant quality monitoring 25808
innovation advancement, public rels. role 181
kiln dust recycling, water leaching, proc. control 17673
kiln optimisation experience, LINKman graphic 5425
noncontact IR based temp. sens. 10051
plant automation strategy, ESSROC 5424
plant design, efficiency/environ. issues 5428
plant design, environ. issues 180
plant design, power/emissions reduction 44637
plant design for stringent environ. stds 5427
Portland cement indust., max. achievable emissions control 182
power distrib., IEEE std. 36808
power/control automation project, Germany 36807
prod., hydraulic roll crushers, motor appls./selection 5421
roll crusher, variable speed DC drive 5419
roller press drives, induction motor/freq. converter 5420
roller presses economy, drive impact 5418
rotary kiln design criteria, clinker manufacture 5429
storage/dispatch terminal automation 3731
waste fuel burning, economics 5423
waste heat recovery, energy conservation *(Japanese)* 35725

cemented carbides *see cermets*

cements (building materials)
used only for those materials which bind together particulate matter so as to form a coherent mass of considerable strength. For cements that cause two or more separate masses to adhere see adhesion
compressive strength estim., nondestructive microwave reflectometry 37562
electroacoustic charactn. of particulates, conf., Gaithersburg (1993) 28261
EM modeling for GPIR, 3D FDTD modeling codes 42504
harsh mortar compaction, US vibr. *(Japanese)* 4416
Cu direct electrorefining, anode support syst. 36799

centralised control
3 DOF Maglev, actuators, PM *(Japanese)* 39216
ATM trolleybus syst., radio control develops. *(Italian)* 3537
cellular radio systs., downlink power control algms. 25344
central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
fiber-optic microcell radio syst. 3450
microcontrollers, integrated CAN control 21346
multimedia conferencing network centralised and distributed control designs 41973
power system control, packet radio network appls. 33766
PSS, dyn. stabilisation tech. 43653
space platforms, power syst. control/protection integrat. 26680
space/aircraft actuators, integrated control *(French)* 10952

centralised plant control *see centralised control*

centrifuges
6000 hp compressor induction motor drives, harmonic torque 5255
chiller refrigerants, Montreal Protocol compliance 20149
circ. waveguide photon, nonzero mass in centrifuge 40425
fault isolation filter design for lin. systs. 11382
mass meas. under weightless conditions 10040
PV water pumping systs., optim. techs. 27628
TsV centrifugal fan induction motor drive selection program 44603
variable speed induction motor drive retrofits, centrifugal load appls. 36690

centrifuges continued
viscometer for polymer melts 10077
cepstral analysis
acoustic proc. for speech recogn., vectors and phoneme models *(Japanese)* 15816
automatic formant tracking, paradigm 32407
channel normalization, pole-filtered cepstral mean subtraction 32203
clipped cepstrum, robust, speech recog. *(English)* 40716
disparity detect. in stereo vision syst., cepstrum tech. 2853
EM noise emission anal., cepstrum 23678
isolated Mandarin syllable recogn., segmental 32413
large-vocab. speaker recogn. technol., recogn. accuracy *(Japanese)* 15813
mapping of cepstrum algms. on reconfigurable CORDIC syst. 32600
min. class. error, time-freq. masking filters optim. 32406
monopulse type subsurface radar, air void detect. 25574
moving av. proc., spectral factorization, cepstrum *(Japanese)* 11922
multipulse excited LPC vocal tract model for speaker ident. *(Japanese)* 32208
noisy speech recogn., cepstral-time, and spectral-time filters 32381
noisy speech recogn., Markov model based noise modeling 32379
nonlin. cepstral equalisation method for noisy speech recogn. 2434
nonminimum phase channel deconvolution 2475
pass. echo-canceler, single microphone 2536
phonemic segmentation syst., Eng. continuous speech, static/dyn. params. *(Japanese)* 40718
road surfaces, sound absorption coefficient meas., cepstrum techniques 8443
robust speech recogn. using direct cepstral comparison, environ. normalization 32380
seismic data homomorphic deconvolution effectiveness 35291
speaker ident., lin. predictive anal. techs. 32201
speaker ident., robust cepstral 32241
speaker recogn. in tactical commun. 32287
speech, spectral quantization of cepstral coeffs. 32332
speech anal., noise, limitations of cepstral features 32377
speech coding, adaptive mel-cepstral anal. 32258
speech coding, multiband excitation coder, anal./synthesis methods 15833
speech dereverberation, cepstrum based deconvolution 32212
speech modelling, cepstral-time, matrices and HMMs 32353
speech recogn., parametric/non-parametric representations 15835
speech recogn. in noise, root adaptive homomorphic deconvolution schemes 32315
speech recogn. in noisy car environ., OSALPC representation 32382
speech recogn. syst., microphones adaptation, tied-mixture normalization 32313
speech spectrum transform. by speaker interpolation 32320
unknown-multiple sig. source clustering problem, ergodic HMM *(Japanese)* 32548
visual echo anal. of multi-frame optical flow 24717
ceramals *see cermets*
ceramic capacitors
see also ferroelectric capacitors
CMOS VLSI single chip package, TAB technol. 28452
distributed power modules, decentralized systs., telecom. appl. 19816
high reliab. internal capacitor of low-temp. ceramic cct. 29611
HV ceramic capacitors, mech. flaws, nondestructive detect. 29609
miniaturized MLC capacitors, thermal shock resist. 12844
MLC capacitors, failure caused by high temp./humidity environ. 12840
MLC capacitors, miniaturized, normal service conditions, failure mechanisms 875
MLC capacitors, nondestructive defect detect. tech. 6371
MLC prod., advanced dielec. powders 5912
NEC ceramic capacitors, PMW-PNN-PT syst., dielec. materials *(Japanese)* 879
NEC MLC chip capacitors, develop. *(Japanese)* 878
nonlin. ceramic capacitors, C-V responses 29612
polamide/$BaTiO_3$ ceramic composite grain boundary capacitors, prep. 6370
power convertor nonlin. ccts., transm. line modelling 19720
reson. power converters, variable capacitance device appl. 19828
SMT chip resistors/capacitors, insulated metal substrs., solder joint reliab. 12931
surface mount ceramic capacitor failure test, board bending 29653
thick film paste dispersion procs., pass. electronic component manufacture 6439
$(Ba,Sr)(Zr,Ti)O_3$ ceramic based barrier layer capacitors 874
$BaTiO_3$ Y5V 0603 ceramic chip capacitor 12839
$BaTiO_3$ high dielec. ceramic thin films proc., stress develop., IC packaging 21590
$BaTiO_3$ multilayer capacitors, defective, TSC meas. 22677
$(Pb_{1-x}Ba_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$(Pb_{1-x}Ca_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$Pb(Mg_{1/3}Nb_{2/3})O_3$ multilayer capacitors, electromechanical resons. 21587
$(Pb_{1-x}Sr_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$PbTiO_3$:La pyroelec. IR sens. array for human body detect. 42805
Pd(-Ag) spherical powders prod. for MLC capacitors 37532
$(Sr,Ca)TiO_3:Nb^{5+}$ capacitor-varistor ceramics, cation diffusion 436
ceramic filters *see crystal filters*
ceramic industry
continuous fiber coating, CVD equipt. *(Japanese)* 28198
ceramic insulation
see also ceramic insulators
MMIC multilayer packaging technols. 21730
StratEdge ceramic packaging for microwave and MM-wave appls. 23984
Al_2O_3 insulator, DC/pulsed electro-opt. props., vac. 30550
ceramic insulators
see also porcelain insulators
AC HV insulators, elec. pot. and field comp. 19316
alumina/vac. interface, pre-flashover lumin. 13948
pulsed power insulator degrad., high vac. surface discharges tests 36293
radiation-induced elec. degrad. 4699
substation column structs., seismic protection prediction 19903
uncoated surface, SEM, 150-500°C 4706
ceramic superconductors *see high-temperature superconductors*
ceramics
see also ceramic capacitors; ceramic industry; ceramic insulation; piezoceramics; refractories
3D functional modules, SMD miniaturisation for portable telephones 5621
16.5 MW med. LINAC pulsed power supply ceramic D thyratron 34983
alkali metal thermoelec. convertor, ceramic electrode characts. 20027
ceramics continued
alkali metal thermoelec. convertor components, emissivities/thermal charactn. 20028
alumina ceramic substrs., MCM appls. 29732
anatase-based sens. materials, high-temp. immittance response 34609
ball grid arrays, ceramic thin-film technol. 5651
$BaTiO_3$ ceramic multifunctional cryogenic sens. 34444
brazed integrated low-temp. cofired ceramic packages 21766
complex permitt. meas. of low loss ceramics 34665
continuous fiber coating, CVD equipt. *(Japanese)* 28198
DC/AC power convertor planar integrated reson. LCT cct. design 12321
dielec. disk radiator, slot excitation 31929
electroacoustic charactn. of particulates, conf., Gaithersburg (1993) 28261
end termination ink materials for smart card MLC fab. 6363
ferrites, self-propag. high temp. synthesis 1577
ferroelec. memories, fine grained ceramic films, proc. techs. 39069
flush temp. meas., IR pyrometer, fused opt. coupler *(Japanese)* 42973
gas turbines, ceramic components, intercooling, recuperation 43918
gastight SOFC stacks, soft glass ceramic sealing 44381
glass and optical materials, conf., Honolulu (Nov. 1993) 5442
glass ceramics, comps. and uses, review 20987
glass-ceramic, laser-stimulated opt. props., local change 7259
half-sintered ceramic machining by Q-switched YAG laser *(Japanese)* 20421
high power dens. thermophotovoltaic energy conversion 28000
HTSC, workshop, Caen, France (Nov. 1993) 11536
HTSC ceramics, pinning strength inside grains, meas. method 1591
hybrid IC materials systs. and technol. 38165
IBM Microelectronics, MLC packaging plant 11762
insulating ceramics, high-radiation field elec. breakdown 4699
intell. ceramic materials, brittle fracture 28892
laser-surface proc. for indust. appls. 28873
LGA, low temp. co-fired ceramic, high speed digital appls. 20443
low temp. co-fireable ceramics, wideband elec. charactn. 34673
low temp. cofired ceramic tape, silver via metallization 28872
low temp. cofired ceramics, pass. elements, RF-design 28463
low temp. cofired ceramics for MCMs, laser machining of cavities 21774
low-temp. cofired ceramic, struct.-property rels. 28871
MCM, ceramic-conductors, stresses 21689
MCM ceramic substr., high capacitance 21715
MCMs, categorization and appls., laminates and ceramics 955
MCMs, LTCC, silver conductives, reliab. 29727
metal/ceramic laminates for electronic packaging, thermomechanical failure 12197
microwave MCMs, low temp. cofired ceramic 29728
MLC actuators using antiferroelecs., destruction mechanism 39110
MLC capacitors for avionics hardware, failure anal. 6366
MLC dielec. stripline planar filter for portable telephones 805
MLC MCMs and SCMs, surface-mount arrays 29735
MLC package, time-domain charactn. 28462
MLC series-connected C-R chip, data bus impedance matching 6194
MLC substrs. and packages, telecomm. appls. 29652
multichip integrat. of MMICs, monolithic ceramic technol. 848
multicomponent modules, miniaturisation approach 5622
multilayer SMT varistors, transient surge protection, automotive indust. 11437
multiplexer, qtr. wave distributed lines, high dielec. ceramics 16951
organically modified ceramics hardness and elasticity characts. *(German)* 20993
packages, die attach polymer bleedout 153
PCB mounted ceramic SMDs, capacit. monitoring while flex testing 12878
photothermal deflection method, defects in ceramics anal. 12215
planar SOFCs, stacking perform. expts., Denmark 44323
polycryst. semicond. ceramics, pot. mapping tech. 1054
polyimide substr. for Gb/s-class MCM-D/C 21784
polyimide thin-film on ceramic struct., MCM appls., thermomechanical stress anal. 20441
polymer-ceramic composite batt. electrolyte develops. 27884
RF window, thermal stress fracture 29791
ring-type piezoelec. ceramic US motor characts. *(Korean)* 27766
sapphire, insulator props. rel. to tribology/space charge 13952
Si_3N_4, heated ceramics, electron and ion emission 13936
Siemens 3A gas turbine series, high efficiency 43919
single chip ceramic package stress states, reliab. terms 11755
single-block ceramic microwave bandpass filters 820
SOFC, ceramic materials, overview *(Slovenian)* 27922
SOFC, reduced temp., tape calendering 44313
SOFC ceramic component mfg. optim. expts. 44318
SOFC ceramic materials, state-of-the-art 44372
SOFC mfg., ceramic components proc. 44310
sol-gel proc., mag./electronic props. 12190
solid oxide fuel cells, conf., Switzerland (1994) 28255
sonar future transducers, transduction materials modeling 9662
Sulzer HEXIS SOFC stack/syst. develop. status 44332
super circ. MLC networks, design, develop., and qualification 6365
surface mount thin-film ceramic package for microwave appls. 11766
thermophotovoltaic emitter develop., refractory oxide ceramics 27997
US beam scanning in ferroelec. ceramics by nonuniform elec. field 26784
Y_2O_3-La_2O_3, space charge form., free energy variation 13928
Al-ceramic surface activated bonding, electronic/chem. procs. 37530
AlN, 3D interconnected porous composites, proc., electronic packaging 146
AlN PGA type packages, reliable cofiring technols. 28444
AlN, aerosol synthesis by nitridation of Al vap. and clusters 28867
AlN ceramics for high power RF package 20457
AlN, excimer laser ablation, fluence depend. 12192
AlN, reliable thin film metallization, microelectronics packaging 37118
AlN sintered ceramics for electronic packaging, oxygen-related defect 12191
AlN/electroless plated Ni/Cu, indirect bonding, hot pressing 5857
12H-AlN-polytypoid ceramics, fab. 37534
Al_2O_3, heated ceramics, electron and ion emission 13936
B, borides and related compounds, conf., Tsukuba, Japan (1993) 11553
$(Ba,Ca)TiO_3$, humidity-sensitive characts. *(Korean)* 20989
BaO-Sm_2O_3-TiO_2 ceramics, microwave dielec. props. *(Korean)* 22631
$Ba_{6-3x}Sm_{8+2x}Ti_{18}O_{54}$, microwave dielec. props. 22638
$Ba_{0.5}Sr_{0.5}TiO_3$ thin films, sputtering, electric props. 20965
$(BaSr)TiO_3$, elec. field biased ferroelec., electromechanical response, polariz. 39045
$BaTiO_3$ perovskite ceramics, ferroelec. fatigue, compositional control 1556
$BaTiO_3$-based PTC thermistors, delamination fracture 28869

- **ceramics** continued
  - $Ba(Zn,Ta)O_3$-ZnO-Y_2O_3 ceramics, microwave dielec. charact. *(Korean)* 22635
  - Bi-Pb-Sr-Ca-Cu-O, hot pressing, mag. melt texturation 39238
  - FeHfC/Al_2O_3 multilayers, mag. props., interlayer effects 14209
  - FeHfC/AlN multilayers, mag. props., interlayer effects 14209
  - FeHfC/Si_3N_4 multilayers, mag. props., interlayer effects 14209
  - FeHfC/SiO_2 multilayers, mag. props., interlayer effects 14209
  - K-$\beta''$$Al_2O_3$-K-Mo AMTEC, accelerated life testing 28018
  - $La_xSr_yMnO_3$ based SOFC cathode materials 44374
  - $La_{1-x}Sr_xMnO_{3\pm\delta}$-powders prod. by drip pyrolysis 37536
  - $LiFe_5O_8$ ferrite powders, prep. by co-precip. *(Korean)* 5901
  - $LiVO_3$:Cr_2O_3 ceramics, thermoelec. power meas. 27983
  - MnZn ferrite, low loss, role of microstruct. 7021
  - Mo/Al_2O_3 (0001) interfaces, high-resoln. electron microscopic studies 28823
  - Mo-Cu layered foil conductors, power hybrids, ceramic substrs. 21663
  - PLZT, ceramic, surface layers effect on dielec. props. 39096
  - PLZT, ferroelec. ceramics, non-lin. behavior, micromechanical theory 37551
  - PMN-PSN based solid soln. ceramics, electrostrictive actuators 39095
  - PMN-PSN, ferroelec. ceramic, diffuse transit., acoustic props. 30565
  - PMN-$PbTiO_3$ ceramic relaxors, high-field electromechanical props. 30560
  - PZT film, ferroelec. props., thickness effect 6911
  - PZT thin films, ferroelec. fatigue, compositional control 1556
  - PZT/ZnO piezoelec. actuator, mech. response, gases reduction 34608
  - $(Pb_{1-x}Ba_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
  - $(Pb_{1-x}Ca_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
  - $Pb_{1-x}Sm_x(Zr_{0.65}Ti_{0.35})O_3$ ceramics, pyroelec. studies 22664
  - $(Pb_{1-x}Sr_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
  - SiC, CVD reactor, transport anal. 5873
  - SiC, CVD, transport phenom. 5874
  - SiC ceramic, excimer laser assisted chem. machining 28866
  - SiC ceramic material surface conditions on excimer laser irrad. *(German)* 23477
  - SiC nanometer ceramic powder, pulsed CO_2 laser assisted synthesis *(Chinese)* 443
  - Si_3N_4 ceramic, firing, US imaging 28914
  - Si_3N_4 ceramics, frictional props. 12189
  - Si_3N_4, react. bonding, US monitoring sig. proc. 18953
  - Si_3N_4, ultrathin, charge transport 28868
  - SnO_2 thick film, calcination, CO sens. props. 17979
  - SnO_2 thin film gas sens., N group element oxides addit. effect *(Japanese)* 34607
  - $(Sr,Ca)TiO_3$:Nb^{5+} capacitor-varistor ceramics, cation diffusion 436
  - $(SrBa)_0$.8Na0.4Nb_2O_6, tungsten bronze ceramics, relaxor ferroelec. behaviour 30558
  - $SrCaTiO_3$ microwave ceramics, metal conductors, adhesion strength 28870
  - $(SrPb)(CaMg)TiO_3$-$Bi_2O_3\cdot 3TiO_2$ ceramic charged particles, elec. props. *(Korean)* 22665
  - $SrTiO_3$:Nb semicond. ceramics, electrode effects 13227
  - TiNi/PZT, smart thin film heterostruct., materials develop. 37550
  - TiO_2:Ba,Bi,Nb ceramic varistors, Nb_2O_5 effect 21583
  - $Tl_2Ba_2Ca_2Cu_3O_{10}$ material for bulk appls. 22718
  - Y-based HTSC, relax. US proc., mech. stabil. 39242
  - YBaCuO HTSC, bulk mfg., XRD, SEM 20988
  - YBaCuO cylinders, mag. shielding, universal scaling prop. 14311
  - $YBa_2Cu_3O_{7-x}$ SQUID, RF props. 30786
  - $YBa_2Cu_3O_x$, high J_c, modified melt techs. 22715
  - Y_2O_3-ZrO_2 electrolyte, tape cast, fracture toughness, SOFC 44389
  - Y_2O_3-ZrO_2 thin film electrolyte, SOFC, tensile test 27927
  - α-β-YSiAlON:Sm_2O_3, densified ceramics, react. seq. 37535
  - ZnO dense non-ohmic electrode, humidity sensitive elec. props. 34457
  - ZnO multilayer chip varistor, LV transient suppression 29607
  - ZnO, multilayer-chip varistors, elec. props., moist environ. 12833
  - ZnO varistors, Bi_2O_3 nonstoichiometry, nonlin. property 869
  - ZnO varistors manufacture, seed grains/ threshold voltage rel. 29608
  - ZnO:Al_2O_3(AgO) varistors, DLTS 6813
  - ZnO-Bi_2O_3 varistors, proc. variables, grain growth, microstruct. 21584
  - ZnO-metal oxide ceramics, sintering temp. effect on varistor props. 6346
  - ZrO_2 ceramics, frictional props. 12189
  - ZrO_2, heated ceramics, electron and ion emission 13936
- **cerebellar model arithmetic computers**
  - CMAC, adaptive resoln. and appl., nonlin. sig. proc. *(Japanese)* 24336
  - CMAC neural nets, archit. design, hardware implement. 29468
  - printer color correction, CMAC neural net chip 30415
- **Cerenkov counters** *see Cherenkov counters*
- **Cerenkov radiation** *see Cherenkov radiation*
- **cermets**
  - HDTV GEO satellite, nuclear power/propulsion appls. 18753
  - planar SOFC, thick film prod. methods 44312
  - B, borides and related compounds, conf., Tsukuba, Japan (1993) 11553
  - Ni-YSZ anode, $LaSrMnO_3$ cathode, SOFC 44380
  - Ni-YSZ cermet SOFC electrodes, kinetics expts. 44356
  - Ni-YSZ cermet anode, SOFC, methane reacts. *(Japanese)* 44342
  - Ni-YSZ cermet internal reforming SOFC electrodes, catalytic study 44357
  - Ni-YSZ porous cermets, microstruct./elec. cond., SOFC 44377
  - ZrO_2Ni cermet, CH_4/steam reforming kinetics, SOFC 27925
- **certification**
  - ALWR NPP, certification overview 27365
  - avionics, certification issues for complex digital hardware 10346
  - CA-Browsing System, global security services support 16675
  - EMC certification of products in Gost certification syst. in Russia 23672
  - European Union product sales, mutual recogn. agreements 15528
  - inline EMI checker for small elec. appliances 23673
  - internat. work flow, proc. mgt. syst. support 24956
  - ISO 9000 and small business, IEE Colloquium, London, UK (1995) 11596
  - ISO 9000 QC Standard revision, small business perspective 11829
  - ISO 9000 stds., rels., CECC and IECQ systs. 5685
  - ISO 9001 QC stds., accreditation objectives 28511
  - multimode opt. fibre complex param. meas. *(Russian)* 14409
  - NEMA 7 safety enclosure design, mfg. viewpoint 91
  - pass. components for aerospace appls., screening methods/data anal. 5684
  - product certification, testing stds. overview 5679
  - project mgt. quality syst., ISO model-based 11710
  - security of network and distributed systems conf., San Diego, USA (1995) 11601
  - small businesses, QA assess., ISO 9002 requirements 28510
  - status report on metrological support/certification of sens. 3804
  - telecomm. syst. user-friendliness eval., ITG test method *(German)* 25137
  - transducer inspection, metrological support 3806
- **CESR**
  - Si pn diodes, temp. depend. elec. detected mag. reson. 38793
- **CFRP** *see carbon fibre reinforced plastics*
- **chalcogenide glasses**
  - fiber optics for FEL med. appls. 35152
  - ion-conducting amorph. semiconds., photo-electro ionic phenom. 1645
  - oxide/fluoride/chalcogenide glass fiber comps. and config. 7295
  - phase-struct. writing mechanism, crystallisation proc., num. simul. 14331
  - small-bipolaron hopping cond. 1059
  - Ag-As-Se glasses, thermal, elec. and opt. props. *(French)* 1055
  - Ag_2As-As_2S_3 glasses, opt., elec. props. 38264
  - $AgInTe_2$-Sb-Te amorph. phase-change opt. recording films 30826
  - As-S chalcogenide glass single-mode active fibre waveguide 39706
  - As-S layers, pos./neg. etching, submicron photoresists 22173
  - As-S-Se resists, diffractive opt. elements, asymmetric profile fab. 39455
  - As-Te-Se glasses, neg.-resist. and memory switching 13076
  - a-As_2S_3-Zn bilayers, electron/photon irrad. effects 38405
  - As_2S_3-based fibre, laser driven ultrafast all-opt. switch 22822
  - a-As_xS_y-Ag bilayers, electron/photon irrad. effects 38405
  - $As_2S_3(Se_3)$ MChDS structs., photocharging characts., opt. memory appl. 22053
  - $CsGaSCl_2$:Pr^{3+} glass for 1.3 μm opt. fibre amp. 23118
  - $Cu_{0.10}As_{0.40}Se_{0.50}$, elec. switching, bulk props. 38265
  - Ge-Ga-S:Pr^{3+}, radiative props., opt. fiber amps. 31240
  - $Ge_{20}As_{30}Se_{50-x}Te_x$ film, elec. cond. 13079
  - $Ge_{20}Te_{80-x}Bi_x$ amorph. thin films, opt. and electronic props. 13081
  - $Ge_{27}Te_{62}Se_{11}$ chalcogenide glass, I-V characts., switching behaviour 29870
  - $(GeTe)_{85}Sn_{15}$ chalcogenide thin films, laser ablation, atmos. comp. and press. effects, opt. storage appl. 30834
  - a-P_2Se_3-Ag bilayers, electron/photon irrad. effects 38405
  - Pr^{3+}:chalcogenide glass fibre amps., 1.3 microns 7559
  - $Se_{70}Te_{30-x}Cd_x$ film, photocond. 13077
  - $TlAsSe_2$ glassy films, photocond./impact ionisation 22343
- **channel assignment** *see frequency allocation*
- **channel capacity**
  - 2D robust run-length limited codes 15757
  - American digital cellular syst. spectral efficiency 9275
  - asymptotic capacity of multi-receiver networks 40530
  - asynchronous CDMA syst. perform. improvement by orthogonal seq. spreading 41462
  - asynchronous CDMA systs., interf. minimization 42165
  - ATM network, video services, preventive flow control 41938
  - ATM shared medium multiservice protocol 41519
  - ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
  - basestation antenna array syst. for spatially selective transm. 17069
  - broadband integrated voice/data networks, bandwidth assignment 16557
  - capacity evaluation of spread spectrum multiple access 8738
  - CATV 151-channel AM-FDM transm., 1.3 μm SL-MQW-DFB laser, high opt. output power 25542
  - CATV near-future archit., broadcast channels capacity 42616
  - CDMA, CCI, spatial/temporal filtering 25234
  - CDMA, imperfect power control, acquisition-based capacity estim. 25256
  - CDMA cellular networks, antenna arrays, downlink perform. 17093
  - CDMA cellular syst. with macrocell diversity, perform. 33865
  - CDMA cellular time division duplex syst. capacity 3356
  - CDMA digital cellular, field test results 3383
  - CDMA opt. systs. based on spectral encoding of noncoherent sources 41470
  - CDMA PCS syst. perform., simul. results 3384
  - CDMA systs., error-correcting coding 24782
  - CDMA systs., robust/lossy discretization 41473
  - cellular capacity increase with MQAM/CDMA 33783
  - cellular capacity rel. to DPSK modulation level and block coding 33779
  - cellular digital packet data, perform. anal. 42271
  - cellular mobile syst. nominal channel allocation optim. 42203
  - cellular radio syst. generalised reuse partitioning method 33810
  - cellular radio systs., constrained power control 9249
  - cellular syst. all-channel concentric allocation algm. 42204
  - cellular syst. Channel Borrowing Without Locking 33812
  - cellular systs., uplink capacity, bounds/estim. 17064
  - cellular systs. with virtually fixed channel assignment, perform. anal. 17050
  - cellular TDMA evol. for personal commun. 42225
  - coherent FH-SS commun. syst. capacity 40551
  - compression techs. conserve EM spectrum space 3380
  - contagion model commun. channel 23999
  - continuous-time Gaussian channel with feedback, coding theorems 24048
  - coord. digital transm. 15861
  - cyclic sig., adaptive beamforming and fast implement. 40938
  - data courier satellite syst. concept 33943
  - decision-feedback max.-likelihood decoder for finite-state Markov channels 15750
  - decoding metric, channel capacity 24084
  - differential overlapping PPM in opt. direct-detect. channel 17269
  - discrete channels capacity, additive noise, output feedback effects 32008
  - DS-CDMA cellular slotted syst., throughput/delay anal. 25438
  - DS-CDMA cellular syst. perform. anal. 33910
  - DS-SS CDMA cellular voice/data commun. 25342
  - Erlang capacity/uniform approx. for shared unbuffered resources 8088
  - error-correcting 2D modulation codes 15754
  - FFH-CDMA packet radio network, capacity 42142
  - FH-SSMA, adaptive retransmission control 16434
  - fiber bundle imagery of wavelength multiplexing, stat. eval. 16222
  - freq. hopped TDMA cellular syst., down-link capacity 9285
  - freq.-selective fading mobile radio channel, capacity eval. 17066
  - Gaussian multiple access channel, single-user decodable codes 40525
  - go-back-N ARQ scheme for variable-error-rate channels 16500
  - high speed indoor wireless systs., directional antennas 3329
  - high-capacity cell config. strategy 33811
  - high-speed networks, link capacity allocation/network control 25129
  - hybrid DS/FH-SSMA mobile radio syst. perform. and capacity anal. 33831
  - hybrid fiber/coax network broad-band AM-VSB/64 QAM CATV syst. 34010
  - ideal zero-forcing DFE syst. capacity penalty 41383
  - imaging technol. develop. for gigabit transm. *(Japanese)* 16568
  - input queueing packet switch with two priority classes, throughput 16452
  - integrated voice/data mobile radio, design/perform. 17106
  - integrated voice/data network, cellular packet CDMA, perform. 17131
  - intermediate reuse factors for capacity eval. 17058
  - K user union channel, multiuser syst. 40527
  - LAN, network mgt., capacity planning 33373

channel capacity continued
LEO satellite networks data link control protocol, datagram service 24835
M-ary DPSK/D^{2}PSK channel capacity with time-selective Rician fading 32033
M-ary orthogonal signalling, near-max.-likelihood demodulation 32030
memoryless multiaccess channel, multirate achievability 40528
mesh-restorable network spare capacity placement strategies 41550
metropolitan freeway monitoring, random access channel 3075
mismatched decoders, inform. rates 24045
mobile commun., adaptive array methods 17067
mobile user satellite systs., multiple-access capacity 25302
multi-channel/port traffic assignment fast algm. 8742
multi-user channel, capacity constraints 40524
multimedia PCN medium access control in mixed traffic environ. 41972
multiple description source coding, no excess marginal rate 32047
multiple-access arbitrarily varying channel, capacity region nonconvexity 41469
multiple-access arbitrarily varying channel, capacity region 24778
multiple-access channels, multiple-rate codes, capacity region 40597
multiplexing voice with data, hybrid transm. algms. 16415
Nakagami fading channel capacity eval. 33801
next-generation PCN multimedia traffic support 41979
noiseless photon commun. channel model and coding anal. *(Croatian)* 2353
NTT's local networks, range of baseband/passband HDSLs 25140
opt. overlapping PPM channels, capacity/cutoff rate 15704
PCM voice band channel capacity 40555
PCS, multiple hierarchical cellular overlays 25317
PCS, multiple hierarchical cellular overlays 25397
personal commun. service dyn. time slot assignment strategies 42224
PRMA integrated voice/data syst., data steal, voice 17089
PRN, distributed media access protocol, set-up time, perform. anal. 33882
PRN capacity, distributed media access protocol, perform. anal. 33881
random proc. charact. in LAN 16505
read/write isolated memory channel capacity 24020
Renyi's inform. measures/generalized cutoff rates 24083
Rician fading nonco-operative multiple access channel 41465
SDMA for spectrally efficient commun. 17094
secret sharing schemes, inform. rate, new bounds 32009
secret sharing schemes and graph decomp. 40627
sectorized cellular commun., channel borrowing without locking 3345
self-organizing cellular systs., single-channel user-capacity calcs. 17105
semidynamic/dyn. transm. algms. for voice/data multiplexing 41420
shadow fading dyn. channel assignment and power control capacity 42202
Shannon theory of Gaussian cellular multiple-access channel 25273
shared CDMA LEOS environ., total capacity 25303
shared channel lightwave networks, virtual topol. design 41561
SONET bidirectional ring, capacity anal. 17243
SONET-based self-healing mesh network real-time bandwidth allocation and path restorations 41652
spectral efficiency in future commun. 17116
speech spectral inform., segmental quantization 32334
speech stat. multiplexing, resource auction multi-access excess capacity 42200
SS commun. syst. jamming, general model 42185
SSB radio channels, received SNR increase, anal. sig. rooting 42147
survivable internat. network archit. and dimensioning 41549
sync. DS-SS multiple access, acquisition based capacity 42168
TCM sig. design for class-A impulsive noise channel 40569
TDMA cellular syst. with coded 16QAM and cyclical slow freq. hopping 33826
TDMA digital cellular networks, voice/data channel access 3338
TDMA syst. capacity enhancement by adaptive channel allocation and power control 33203
TDMA syst. perform. in outdoor microcellular environ. 33828
twisted-wire pair, capacity calc. 40523
variable length packet ALOHA systs., capture effect on throughput 2950
virtual cellular network, wireless commun. archit. 9280
virtual paths, syst. optimisation 8702
visual commun. channels, inform. lossless transm. 32936
wireless commun., SS access methods 17110
wireless LAN TDD channel contention-based reservation protocol 41820
wireless networks, resource allocation 9245
wireless pers. commun., TDMA methods 17109
Er-doped fiber amplified low-distortion WDM AM SCM 4×50-channel CATV transm. 9572

channel coding
2D multichannel partial response class IV recording codes 30736
6 Mb/s ADSL, constellation TDM 16922
198-Mb/s recording channel, sig. proc. 9751
adaptive DCT image coding in combination with M-transform, channel coding perform. 16133
adaptive TDMA, link adaptation 33214
binary partial-response channels, concatenated coding 15753
block-coded image recovery from channel errors 41094
broadcast multipath environ., multicarrier modulation perform. 34224
CDMA cellular mobile radio syst., power control/coding 17102
CDMA mobile radio syst., turbo-codes appl. 9239
CDMA systs., error-correcting coding 24782
CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
coding, digits of unequal cost 32068
COFDM for TV broadcasting, overview 42560
concatenated coding scheme for dicode channel 8111
constrained joint source/channel coder design 15719
continuous-time Gaussian channel with feedback, coding theorems 24048
CPM sigs., channel coding/multiple-sym. diff. demod. 24078
d=1 channel codes, sig. proc. tech. 32070
decision-feedback max.-likelihood decoder for finite-state Markov channels 15750
DECT channel error profiles 3123
DECT syst., mobile audio-visual terminal 17118
digital acoustic underwater phone 17357
digital cellular syst., channel/speech coding combination 8192
digital recording techs. in acoustics 9771
digital terrestrial TV broadcasting, transm. techs. 34221
digital transm. over degraded channels, coded modulation 8103
digital TV, hierarchical channel coding, turbo-codes 8684
digital TV image wavelet transform coding and sync. loss recovery 42584
direct-carrier-modulation, low data-rates, sync. perform. 40613
DMT-based ADSL, concept, archit., and perform. 9105

channel coding continued
double half-bandwidth OFDM syst. for digital video broadcasting 9698
DS-CDMA digital mobile radio systs., unequal error protection 9373
DS-SSMA indoor cellular radio perform. 25370
DVCR, channel code, embedded pilot tracking tones 42636
error-correcting 2D modulation codes 15754
fast fading indoor radio channel characts. 33817
flexible precoding, channel pre-equalisation, spectral nulls 24117
Gaussian multiple access channel, single-user decodable codes 40525
GSM syst., speech and channel coding for half-rate channel 33927
HDTV, all digital sigs., terrestrial transm. 9735
helical-scan digital video recorder, playback, channel investigs. 17593
high data rate video recording, 8-12 conversion channel code *(Japanese)* 9748
high-dens. opt. recording, variable length RLL codes 15758
higher order moments, channel adaptive coding techs. 32141
IEE telecommunications conf., Brighton, UK (1995) 36830
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
IIR dispersive channels, min. Euclidean dist. of modulated sigs. 15709
joint source/channel coder design 40589
K-out-of-M multiple-access channel, source correl. 32007
land mobile radio networks, digital video/speech transm. 17048
M-ary (d,k) codes for high dens. disk recording, improved dist. 30735
M-ary phase coding for noncoherent AWGN channel 24046
mag. recording channel, binary/ternary DFE 7191
mag. storage, digital syst., 2D coding 7175
memoryless multiaccess channel, multirate achievability 40528
mobile commun., variable rate speech/channel coding 9222
mobile radio channel, still image transm., unequal error protection coding *(Japanese)* 42293
mobile radio commun., speech/channel coding 3346
mobile radio postdetection diversity/concatenated channel coding 3341
MPEG-2 for DVB and cable 34219
MPEG-2 std. flexible digital data transm. *(German)* 17539
multi-carrier CDMA in indoor Rician fading channel 9226
multi-user inform. theory, std. convexity argument 40529
multidimensional coding schemes in combined satellite and terrestrial channels 3531
multilevel-coded quaternary partial-response sigs., soft-decision multistage decoding 8174
multiple-access arbitrarily varying channel, capacity region nonconvexity 41469
noisy (1,7) constrained channel, concatenated coding, perform. 40652
nonlin. phase precoding for pers. commun. 2385
opt. commun., alg. constr. of codes, high reliab. fns. *(Japanese)* 15738
parallel concatenated recursive systematic (turbo) codes 32105
PCS CDMA syst. overview 33870
power line SSMA, error correction, IFMV9 coded overlapped PN seq. 25198
PPM, seq. detect. and equalization 15710
radio channel transm. with multichannel modulation 32034
random coding, optimal noisy channel quantization, asymptotic bounds 24043
rate compatible turbo codes, two error protection levels 32191
reduced-search decoder, storage requirements, optim. algm. 40672
Renyi's inform. measures/generalized cutoff rates 24083
robust backward adaptive pitch prediction for speech coder 32439
RS coded slow freq. hopped TDMA cellular syst. perform. 33827
shared time-division duplexing for wireless speech commun. 3442
sig. constellations based on hypercubes 40576
signal proc. in mag. recording, conf., San Diego (Aug. 1994) 20241
slowly time-varying commun. channels, adaptive hybrid ARQ scheme 15782
source-channel separation theorem 24085
source-controlled channel decoding 40667
speech coders, channel coding, source criteria 15821
T-user q-ary multiple access permutation channel, transm. 40526
TCM-QAM for flat fading and AWGN channels, design 24118
TDMA half rate digital cellular channel, speech and channel codec 33687
telecomms. syst., forward error control, simul. techs. 42450
trellis codes for primary rate ISDN 16791
type-II hybrid SR ARQ, punctured convolutional coding 15780
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
unsynchronised opt. overlapping PPM 42357
VQ sigs. transm., Rayleigh fading channels 8448
wireless multimedia commun., adaptive rate multiple access 41991
wireless pers. commun., TDMA methods 17109
Z-channel, max. likelihood decoding algm. for lin. codes *(Japanese)* 15739

channel substrate planar lasers *see semiconductor lasers*

channel waveguide lasers *see waveguide lasers*

channeling radiation *see channelling radiation*

channelling
ruby on sapphire, integrated thin film stress sens., epitaxial regrowth 17749
SPS, proton extraction, Si bent cryst. 4057
SSC, long. beam dyn., RF noise 4092
-- 30038
AlN:Cu, ion implanted, impurity segreg. *(Chinese)* 13311
CdTe, monocrystalline films, ICB epitaxy *(Chinese)* 5813
Co/Ti/Si(100), thermal proc., interdiffusion, phase form. 1203
CuInSe$_2$, heteroepitaxy on Si, charactn. 13087
CuInSe$_2$ layers, heteroepitaxial, direct growth on Si substrs. 363
CuIn$_3$Se$_5$, heteroepitaxy on Si, charactn. 13087
GaAs:Er, MBE grown, struct. anal. 37440
GaAs:P, ion implanted, amorph. 22118
GaAs(100), S-passivated, absol. coverage meas. 30129
GaAsP, As-implant. damage effects 30058
GeSi:P-Si pseudomorphic MBE films, RTA vs. steady-state furnace annealing 22095
Pt/Si(100), pulsed laser deposition, TiN buffer layer 425
Si, buried silicide layers, ion beam synthesis 30025
Si:As RTA/furnace annealing, heating rate effects on defect distrib. 22100
Si:B, channelling implants., electronic stopping/damage accumulation model 38515
Si:B, ion implant., defect prod. 6622
Si:B, ion implant., spreading resist. profilometry/SIMS obs. 22117
Si:Co, ion implant., defect/impurity profile 30028
Si:Ir(111), ion implant., IrSi$_3$ synthesis 30027
Si:O syst., ion implanted, oxide growth, refr. index, and comp. depth profiles 22123
Si/CoSi$_2$(FeSi$_2$) epitaxial silicide systs., ion channeling studies 6577
SiC:Ga$^+$, defect prod., annealing 22105

channelling continued
6H-SiC:Ge,Si, ion-beam irrad.-induced amorph./recrystn. 38504
SiGe epilayers, form. by Ge implant., RBS channeling spectrosc. 1232
$Si_{1-x}Ge_x$ epilayers, compositionally graded, relax., MBE, charactn. 383
$Si_{1-x}Ge_x$-on-insulator synthesis by $^{74}Ge^+$ ion implant. in SIMOX substr. 30055
n-ZnSe:Cl, doping characts. 21921
p-ZnSe:N, doping characts. 21921

channelling radiation
diamond channel radiation X-ray laser 23201

channels, cable *see electric conduits*

chaos
see also bifurcation; optical chaos; random processes
1/f noise universality in high-technol. appls. 34313
1D two param. mappings of nonlin. systs. transit., chaos 509
2D chaotic cellular neural network sync. phenom. 21493
adaptive calib. algm. for synchronized chaos 8156
antidot lattice, quantum transport, periodic-orbit theory, chaotic syst. 21981
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
asymptotic MLE of chaotic sigs. in noise 40847
asynchronous chaotic neural networks, pulse propag. dyn. *(Japanese)* 37909
autonomous act.-R cct., chaotic perform. 21409
biomedical multi-oscillator systs., nonlin. filtering tech. 16029
brushless DC machines, multiple equilibria 27747
BWRs, boiling systs., nonlin. instabilities 27454
CDMA, chaotic Chebyshev bit seqs., even-/odd-correl. fns. 25262
chaotic attractors charact., fourth-order off-diagonal cumulant slices 8339
chaotic cryptology, speech encoding/decoding 24113
chaotic element network, inform. cascade, marginal stabil. 2357
chaotic neural nets, CMOS-VLSI design, current mode building blocks 29501
Chebyshev binary/bit seqs., correl. fns., Perron-Frobenius operator 15745
Chebyshev binary/bit seqs., correl. props. 40612
chip for nonlin. dyn. network anal. 515
Chua's cct., cubic nonlin. 12304
Chua's cct., review 12361
Chua's cct. control by resistor switching 12309
Chua's cct. online ident., chaos control 5949
Chua's oscillator, anal. of chaos, SPICE simulator *(Slovenian)* 37664
Chua ccts., coupled, riddled behaviour 21087
circ. accelerators, nonlin. betatronic motion, LHC/SPS appl. 34839
CMOS analogue chaotic oscillator for sig. encryption 34433
CMOS inverter, internal states, chaos generation *(Japanese)* 12407
CMOS inverter based chaos generator 649
CMOS VLSI chaotic neural nets, current-mode 29513
Colpitts oscillator, chaos 576
commun., chaotic masking 15687
coupled phase systs., locking response 12380
coupled sustained oscillators each with own time const., order-chaos transit. 21141
cyclotron maser, bifurcations leading, stochasticity 7501
dead-beat chaos sync. in discrete-time systs. 24001
deterministic chaos, theory, cct. anal. appl. *(Polish)* 37580
deterministic noise cancellation in chaotic signals 32641
digital signal processing, conf., Yosemite, CA, USA (1994) 11548
directionally coupled chaotic systs., chaos synchronisation 28990
discrete time chaotic sigs. detect./charactn. 8291
dissipative non-autonomous cct., bifurcation and chaos 37617
double loop SQUID, nonlin. phenom. anal. 1614
double-scroll oscillator, chaos delayed feedback control 573
driven oscillator dyn., piecewise-lin. charact. 578
dyn. syst. sync. and control 12297
ECG pattern anal., chaos theory 10248
echo path modelling, chaotic-driven, coding strategy 33398
EEG DP, chaos and fractal props. *(Japanese)* 26402
EEG predictability, adequacy of nonlin. forecasting methods 26405
electron linac, reson. freq., temp. stabilization 34766
EM wiggler FEL, guide mag. field, chaotic electron trajectories 2016
epileptic EEG, low-dimens. chaos 18552
filtered synchronized chaotic sigs., commun. 40851
filtering time series, topol. 32468
four-dimens. plus hysteresis chaos generator 12299
generator employing CMOS inverter for cellular neural networks 21496
gyrotron-type of interact., chaotic behaviour anal. 6490
hyperchaos, clustering and cooperative phenom. in CNN arrays 21492
hyperchaos from cellular neural networks 21474
hysteresis hyperchaos generator, fund. bifurcations 12300
images chaotic scanning/recogn. in neuron-like systs. 8474
infinite-dimens. EM syst., chaotic dyn. 2283
ISDN networks, chaotic maps, models of packet traffic 33606
iterated fn. syst. model based data detect. 8382
Josephson jn. arrays, adiabatic chaos 7240
Josephson tunnel jns., microwave standing wave patterns 822
lateral surface superlattices, chaotic transport and fractal spectra 1110
looped MOS inverters, chaotic behavior and bifurcation 37613
low-order LTI filters for controlling chaos, num. expt. 37825
Lyapunov exponents calc. from time series 16020
mag. actuator, nonlin. struct. dyn. 22712
mag. parametrons, chaotic oscills. studies *(Polish)* 577
many coupled oscillators, self-sync. 37823
masked messages extraction 32590
microwave limiter cct., chaos obs. 6299
microwave oscillators, electron beam modulation, obtain stochastic output sigs. 21841
microwave stadium billiard with chaotic dyn., Gaussian stats. 14312
multiple chaotic systs. tracking from single obs. seq. 24057
multiprobe sigs., delay reconstruction 15958
noise generator, chaotic cct. *(Japanese)* 37662
noise reduction in chaotic time series 15684
noise sig. synthesis by simple chaotic syst. 15922
nonlin. autoregressive modeling and estim. in noise 2510
nonlin. ccts./dyn. systs., SVD approach 12301
nonlin. nonautonomous syst., symm., periodic solns., bifurcations 504
nonlin. state observers, chaotic systs. 15685
overdamped Josephson jns., devil staircase dyn. 30785
piecewise lin. hysteresis cct., chaos control 37612
PLLs, analytic struct., complex time plane 12378
PLLs, large damping, homoclinic points and chaos 12376

chaos continued
power syst. chaos simul., EMTP package-based 26882
power syst. chaotic phenom. model, computer-based 4480
power syst. parametric oscills., chaotic behavior anal. 26905
power systs. bifurcations/chaos education, student lab. 20349
PWM invertor AC motor drives, chaotic current control anal. 44480
PWM VSI, tolerance band control chaotic procs. 5065
quasiperiodicity in single diode cct., Hopf bifurcation 37616
radar detect. of sigs. in chaos, small target in sea clutter 9630
radial syst. struct. determ., chaotic neural net *(Japanese)* 4495
reconstructed dyn., chaotic sig. modeling 32620
recursive filters, chaotic sig. driven 16021
relax. oscillator, periodic thresholds, chaos and bifurcation *(Japanese)* 12357
rem. chaos replication cryptosystems, cryptanalysis 32177
RLC nonlin. cct., interact. of LF and HF oscills. 507
saddle type periodic points in PLL eqn., stabilization by OGY-control method *(Japanese)* 12375
secure commun. by chaotic encryption 15686
secure commun. systs., chaotic chips/Chua's ccts. 8690
secure commun. systs. via chaotic sync. and modulations 41381
secure commun. using chaos, security testing 15728
secure commun. using small time continuous feedback 24740
security difficulties, chaotic based commun. techs. 2864
self-similar set ident. in time-scale domain 32520
semicond. devices, spatio-temporal spiking, bifurcation scenarios 6709
sig. modeling, chaotic, nonlin. AR model 15917
sig. proc., evidencing chaos from dimens. 16023
sig. proc. via unstable cycle extraction 32780
sigma DM of chaotic time series, nonlin. props. 21385
signal processing, IEE Colloquium, London (1994) 19
sigs., noise reduction, preprocessing method 24188
sigs. max. likelihood estim. 24291
sound modelling, chaos 16022
space-periodic phase screens, ray propag. dyn. 15419
speech sig. invariant geom. measures 15822
stochastic oscills. of two coupled self-excited oscillators 583
synchronized chaos oscillators for transmitting inform. sigs. 2358
tape noise charact., chaos appl. 14252
three coupled relax. oscillators, chaos, torus and sync. 574
thyristors and coupled-transistor struct., chaos 38853
time series, functional predictor, parallel implement. 24179
time series, short-term predictions, outliers *(Japanese)* 15934
time series filtering 32466
time-delayed Chua's cct., chaotic behavior in lumped-distributed ccts. 12302
tone-free ΣΔ modulators, design aspects 12598
van der Pol oscillator, coupled forced state, bifurcations 12360
visualising predictability, chaotic ensembles 32467
voltage-mode CMOS chaos generator and internal states obs. 562
weak-link Josephson jns., nonlin. mixer gain calcs. 14286
Wien-bridge oscillator, modified for chaos generation 21143
GaAs, current oscills., nonlin. dyn., time series anal. 29865
Si thyristor, period-adding chaos 13665

character recognition
see also optical character recognition
associative memory integrated syst. for character recogn. 660
CMOS VLSI implement. of modular ANN chip for character recogn. 6273
color image segmentation, fuzzy clustering and supervised learning 16326
color map images, text extraction 16325
cursive script recogn., time delay neural networks and HMM 32661
digital associative memory neural network, opt. learning capability 14559
European lang. determ. from image representation for European lang. determ. 41313
extractors for handwritten numeral recogn. 41314
facsimile apparatus, OCR fn. *(Japanese)* 24942
fuzzy Boolean neural network 41157
fuzzy classifier derived from data, tuning 8577
Gabor, stabilities for basic image transforms. 41223
handwritten Chinese characters, stroke extraction based on modified polygonal approx. 24535
handwritten cursive script recogn. 8515
Hangul cursive handwriting, on-line continuous recogn. syst. *(Korean)* 33120
image class. by classifier combining tech. 8505
inform. theory principles 24544
Kanji pattern recogn., unification neural network *(Japanese)* 2828
Korean, part-of-speech tagging, HMM *(Korean)* 24154
Korean character recogn., opt. associative memory *(Korean)* 24674
Korean document, picture/character extraction/segmentation 16069
Korean envelope images recogn., address block location *(Korean)* 24693
large image sets partial eigenvalue decomp. 41186
mixed documents recogn., texts and graphic images *(Korean)* 24681
MQW injection mode diode, pulse-mode neural ccts. appl. *(Korean)* 30224
NEC recogn. technol. *(Japanese)* 42037
neural network based on stochastic computation *(Korean)* 21477
neural syst. for high-speed pattern recogn. and image anal. 29473
on-line handwritten Chinese characters, segmentation of knowledge-radicals 24536
problem solving *(Japanese)* 16046
quantizer neuron chip, neuron model/neuroprocessor 12675
SBP, hybrid neural model for pattern recogn. 24404
selection and binary decision tree design 8567
semantic phase transit. in classifier based on adaptive fuzzy syst. 8580
stat. approach, cursive Hangul character recogn. 41310
stochastic models for handwritten character recogn. 41309
structural indexing method for character recogn. 41315
unconstrained handwritten numerals recogn., combining multiple experts method 16298
unconstrained-endpoint dyn. space-warping algm., binary Eng. character images 24411
zip code recogn. via localized arc pattern method 40702

character recognition equipment
CMOS VLSI implement. of modular ANN chip for character recogn. 6273
CRIPT, OCR syst., multicolumn texts anal. 41239
free-space matrix multiplier, diffractive/refr. micro-optics 7489
neural network, kanji character-recogn. appl. *(Japanese)* 786
opt. Chinese character recogn., prog. accelerating chip 24543
quantizer neuron chip, neuron model/neuroprocessor 12675
real-time extraction of direction vectors from binary images, VLSI chip 6173
watthour meter opt. character reading syst. *(Japanese)* 9969

character sets
- affine transform. of binary images stored in pxy tables by run format *(Japanese)* 2623
- Arabic alphanumeric dot matrix decoder, PLD based design 29099
- Chinese character encoding *(Chinese)* 24112
- Chinese characters, user-defined 24076
- codes transform. for network appl. 16744
- electronic text inform. accessibility for reading-impaired pers. 35178
- hand-written kanji recogn., HoneycombNET *(Japanese)* 2618
- multilingual appl. develop., Unicode std. 24075
- X.400 for text interchange in your own lang. 41778

characteristic temperature *see Debye temperature*

characteristics measurement
- *see also headings for specific characteristics, e.g. gain measurement; viscosity measurement*
- AC elec. charactn. of solder paste 9994
- bipolar power transistor switches, collector current/current gain rels. 38824
- CMOS transistors in freeze-out regime, quasi-static behavior 13673
- DC load contact switching eval., derating curves and life testing 29631
- electromechanical switches degradation obs. due to mechanical vibration 21608
- EMI filters, bal./unbalanced charact. meas., S-params. 23718
- FPA, MRTD and MTF derivation 34573
- microwave dielec. resonator oscillator *(Croatian)* 569
- MLC capacitors, miniaturized, normal service conditions, failure mechanisms 875
- MLSFET, metal/Langmuir-Blodgett/semicond. FET, device phys., elec. anal. *(Chinese)* 13671
- modulation spectrosc. for semicond. device anal. 22319
- MOSFET C-V charact. dispersion, random channel dopant ion distrib. 1393
- p-MOSFETs, lifetime prediction methods, std. and charge-pumping lifetime criteria 13675
- multimode lightguide differential charact. expt. set-up *(Russian)* 14477
- opt. waveguides characts. meas., PC-based syst. 39385
- polysilicon SOI struct. obtained by laser zone melting, props. 38442
- quartz resonator mag. sensitivity, orig. and meas. 30615
- rect. quartz plates vibrs. characts. meas. 30614
- scaled vert. power DMOSFETs, static I-V charact., bipolar turn-on 30291
- shipboard speaking-tube transfer charact. *(Croatian)* 3591
- SOI struct., opt. and acoustic nondestructive charactn. 38443
- specialised measuring instrum. charact. monitoring 42684
- static charact. tester of IGBT *(Polish)* 1398
- submicron MOST model param. extraction in lin. region 1423
- superconds. transport crit. current dens. meas. probe 17746
- torque-speed characteristics meas. of electric machines 25718
- tunnelling current/dist. charact. determ. unit *(German)* 6541
- UHF power capacitors, thermal rating characteristics 6362
- underwater acoustic arrays meas. in real environ. 18166
- US piezoelec. microphone *(Croatian)* 4419
- CdMnTe magnetic field sensor, fibre optic laser deposited 25858
- GaAs-P_3N_5 MISFETs, photo-CVD grown gate insulators, sulfide treated, charact. *(Korean)* 30355
- GeSi HBT, liq. He temp. operation 30249
- $In_{0.52}Al_{0.48}As/In_{0.53}Ga_{0.47}As$ heterostruct. FET, Schottky-barrier-gate diodes characts. 13765
- InSb-SiO_2-Si p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
- Si-SiGe layers, elec. charactn. techs. 6538
- p^+-Si-SiO_2-polysilicon STDS struct., charge carrier capture 13240
- SiC MESFETs on high resist. substrs., 10 GHz, fab., charactn. 842
- SiO_2 RTO 10 nm films grown at different temps., MOS capacitor breakdown 1180
- SiO_2 inter-poly oxides, MOS capacitors, lifetime/failure probab. 13236
- Ta_2O_5 film, electron beam deposited, electroluminescent device appl. 5894

charcoal
- particles in air stream, CO_2 laser beam diagnostics 7723

charge (electric) *see electric charge*

charge-coupled device arrays *see charge-coupled device circuits*

charge-coupled device circuits
- *see also CCD image sensors*
- XPS spectrometer, 2D charged-particle sens. ASICs, high resoln. 10155
- PtSi middle wavelength 240×320 IR staring FPA 17954

charge-coupled device imagers *see CCD image sensors*

charge-coupled devices
- *see also charge-coupled device circuits*
- Coulomb blockade-based tunneling arrays, computation 22498
- diamond MIS integrated radiation imagers 9904
- ICF ρR meas., charged particle spectrometer 26149
- laser commun., opt. commun. demonstrator 17289
- laser commun. terminal for LEO satellite constellations 17297
- motion detect. algm., MRF based, on analog resistive network 24452
- polysilicon charge injectors, carrier trapping 13788
- proton-induced charge transfer degrad. 13804
- radiation effects R&D in 1970s, review 13021
- railguns plasma armature exploding wires, vis./UV spectrosc. 15328
- soft X-ray detectors, calibr., SUPER ACO synchrotron rad. 4227
- surface-channel CCD, charge transfer inefficiency *(French)* 30369
- tracker for laser commun. pointing aquisition and tracking control 17304
- transversal imager, photonic neurochip, prog. synaptic wts. 13897
- AlGaAs/GaAs, charge injection transistors, real space electron transfer 38823
- $In_{0.53}Ga_{0.47}As$ transistor channel, hot electron lumin. meas. 30377
- Si CCDs, X-ray polaris. sensitivity 34976
- $Si/Si_{1-x}Ge_x$ heterostruct. charge injection transistors and logic elements 22482

charge-injection device arrays *see charge-coupled device circuits*

charge-injection devices *see charge-coupled devices*

charge measurement
- *see also electrometers*
- artificial electret material, EEPROM technol. 3797
- CCDs, proton-induced charge transfer degrad. 13804
- CMOSFETs, hot-carrier degrad., unified model, gate-to-drain capacitance meas. 6764
- FTTH back-up batt. power supply monitoring 19868
- gamma-irrad. polyethylene insulation, space charge accumulation meas. *(Japanese)* 43793
- hollow cathode discharge, pseudospark switch 29747
- hot circulating fluidized beds, electrostatic flow meas. 15221

charge measurement continued
- HV machine stator insulation, discharge monitoring 19600
- HV stator winding insulation, on-line discharge monitoring 36108
- insulation systs., partial discharge diagnosis 13964
- insulators, space charge meas. 9996
- machine stator winding insulation, on-line monitoring 36110
- microelectronic devices, SEU and charge collection meas. 12393
- MOSFET hot-carrier aging, modeling, charge pumping methods 22444
- partial discharges, adaptive filtering meas., noise suppression 13967
- PD, dielec. ageing 22645
- PD and their effects on materials 22642
- PD detect., theoretical/practical aspects 22644
- PD in oil meas., acoustic sigs. directivity 22651
- PD pattern recogn. for model electrodes 3972
- PD sig. generation transm. and acquisition 22643
- PD study by height-distrib. anal. 22654
- PET films, creepage surface discharge in SF_6 gas *(English)* 30585
- plant-monitoring technol. develop. 27285
- pulse discharge pattern anal., neural network appl. 3973
- quartz plates, weak spurious modes, surface charge distrib. 22678
- single shot charge analyzer for laser-prod. plasma 25747
- solid polymeric insulators, breakdown, PD meas. 4705
- turbogenerators, stator insulation, PD monitoring sens. 4888
- wafer charge neutralization, high current ion implants 30022
- $Bi_{12}SiO_{20}$, surface charge distrib., Pockels effect. meas. 18059
- SiO_2 charge/mobile ion conc. meas., MOS struct. 29964

charge storage diodes
- bal. sub-ns pulse gen., step-recovery diodes 37673
- ultrafast optoelectronic charactn. 6304

charge-transfer device arrays *see charge-coupled device circuits*

charge-transfer devices *see charge-coupled devices*

charge transfer states
- poly(3-alkylthiophenes)/O_2, reversible charge transfer complexes 20995
- C_{60}-conducting polymer jns., mol. D-A type photocells, spectral characts. 23018
- Ru complexes, chiral, octupolar opt. nonlin. 40049

charge transfer transitions *see charge transfer states*

charged dislocations *see dislocation dipoles*

charging, contact *see surface charging*

Charpy testing *see dynamic testing*

Chebyshev approximation
- B-spline surface interpolation, parallel implement. 20583
- binary/bit seqs., correl. fns., Perron-Frobenius operator 15745
- complex FIR filter design, Remez multiple exchange algm. 32787
- derivative computation by Chebyshev differentiation matrix, roundoff error 20594
- digital filter design, order reduction tech., Chebyshev polynomial 21430
- FIR filter design, complex Chebyshev approx. 40855
- FIR filter design, complex Chebyshev approx. algm. 32786
- FIR filters iter. reweighted least-sq. design 2465
- formal lin. of nonlin. systs., Chebyshev interpolation, nonlin. filter appl. 11965
- hemispherical shell Neumann scatt., modal series accel. 31798
- inhomog. Airy fns. 11972
- LR terminated LC filter, synthesis/RC-act. simul. 21415
- nonperiodic BVP, polynomial time-marching 5784
- orient. filters, design and implement., separable approx. methods 32881
- phase approx. via Remez algm. 32626
- recursive filters design, Chebyshev norm, Remez algm. 24186
- spatial microstrip dyadic Green's fn., radial and asymptotic closed form representation 40450
- spectral-Galerkin method, direct solvers of 2nd- and 4th-order eqns., Chebyshev polynomials 20607
- a-Si:H TFT, Chebyshev approx. of field-effect mobility *(Korean)* 13683

Chebyshev filters
- 2-D lin. phase IIR filter, symbolic computation routines, design 37885
- asymmetric cross-coupled filters, synthesis 12628
- bandpass filters, triple-mode dielec. rod resonators *(Japanese)* 21403
- CMOS prog. switched-current filters 29359
- complex coeff. FIR digital filter design by complex weighted LSA 6237
- DS-SSMA systs. perform., filtering effects, transmitter 33207
- DSP-based integrated software environ. for filter design 5952
- even-degree lower-sideband polylithic cryst. filters, design 12629
- FIR filter design, complex Chebyshev approx. algm. 32786
- FIR filters, complex Chebyshev error criteria, optimal design 40805
- GIC, complex digital filters design 12653
- Jauman absorbers design 25579
- ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
- LC lowpass/highpass/bandpass ladders, Butterworth/Chebyshev response 720
- matrix amp. design, FET-gate-width tapering 29582
- monolithic variable integrator design, appl., filters 12634
- multiple loop feedback OTA-C filters, perform. anal. 37848
- multirate filter design, multirate components anal. 32709
- nonequiripple approx. for filter charact. 12622
- recursive digital filter design, parallel allpass sects. and delay elements 29372
- recursive filters design, Chebyshev norm, Remez algm. 24186
- RF power amp., digital predistortion lin., reconstruction filters 25231
- surface mount RF/microwave filters, high dielec. const. ceramics 21401
- waveguide filters, qtr.-wave coupling, design 12625
- Y-Ba-Cu-O HTSC thin films, K-band microstrip filters 39299

chemical analysis
- *see also chemical sensors; chromatography; electrochemical analysis; electron probe analysis; ion microanalysis; ion microprobe analysis; mass spectroscopic chemical analysis; polarimetry; radioactive chemical analysis; spectrochemical analysis; thermal analysis; X-ray chemical analysis*
- alkane vap. conc. monitoring, planar polyimide light guides 42865
- anal. instrums. trends, Hitachi's technol. overview 10059
- artificial acid rain, surface impulse breakdown tests 1505
- clean rooms, impurity ions anal. and removal syst. 22089
- decontamination/decommissioning studies, coherent laser radar appl. 42685
- emitted gases anal. of methanol engine motorcars 10565
- fluid filled taped cables, dissolved gas anal. 27205
- LDPE, degradation mech. in high elec. field 14056
- microcontamination 93, conf., San Jose, USA (Sep. 1993) 42
- microflow devices and systs. 6877
- microgravimetry, soln.-phase, using oscillating quartz microbalance 42956

- **chemical analysis** continued
  - optimal alarm-sig. algms. for gas analyzers 3910
  - proc. industries appls. of fibre optic sens. 17812
  - process control/QC, conf. Mandelieu la Napoule, France (1994) 5494
  - quartz capillary tubes for chem. anal., fab. 34461
  - solder paste considerations for SMT reflow soldering 12911
  - thin film photon-/ion-beam-assisted deposition/characterisation 28846
  - Mg-AgCl batts., Mg alloy corros. rate studies 27890
  - MnO_2, chem. activated, batt. cathode 11233
  - Ni-H_2 secondary cells, LEO destructive life testing 11256
  - O_3 conc. in water, automated meas. 26000
  - Pb-acid secondary batt. plates, phase comp. expts. 11254
  - SF_6 AC corona discharge, decomp. product gases meas. *(Japanese)* 22656
  - Si, single crysts., metal impurities, opt. detect. techs. 38242
  - Si/SiO_2 patterned surfaces, situ rem. H-plasma cleaning 1254
  - SiO_2, NO-nitrided, elec. props., chem. comp. effects 30076
  - Zn-AgO batt., Zn content determ., EDTA titration 44265
- **chemical analysis by mass spectrometry** *see mass spectroscopic chemical analysis*
- **chemical batteries** *see cells (electric)*
- **chemical beam epitaxial growth**
  - buried heterostruct. on InP, CBE growth 12061
  - conference, vapour growth/epitaxy, Freiburg, Germany (1994) 20217
  - crystal quality problems in epitaxial growth on InP 12065
  - III-V semiconds., epitaxial growth, AsH_3, PH_3 decomp. 313
  - metalorganic precursors for vapour phase epitaxy 20781
  - MOVPE, conf., Yokohama, Japan (1994) 11533
  - optoelectronic device fab. by CBE 37417
  - overview of epitaxial deposition technol. 12041
  - real-time monitoring of epitaxial procs. by p-pol. reflectance spectrosc. 28776
  - AlAs, MOMBE growth, alane precursors 20843
  - AlGaAs HBT cct., manufacturable proc. 1360
  - AlGaAs, MOMBE growth, alane precursors 20843
  - AlGaAs film, epitaxial growth, laser reflectometry 28767
  - $Al_xGa_{1-x}As$ CBE growth, diethylsulphide doping effect 20881
  - $Al_xGa_{1-x}As$:C, MOMBE grown, annealing 28774
  - AlGaAs/GaAs HBT, fully planar, CBE selective growth 13643
  - AlGaAs/GaAs fully-planar HBT technol., selective CBE regrowth 844
  - AlGaAs/GaAs superlattices, epitaxial growth, laser reflectometry 28767
  - AlN-GaN qtr.-wave reflector stack, gas-source MBE 14565
  - CdSe, MOMBE-ALE, growth kinetics, opt. probing method 20909
  - CdSe, MOMBE-ALE, surface react., opt. probing method 20697
  - GaAs, CBE, C gettering mechanism, trisdimethylamino-arsine and trimethylgallium 20818
  - GaAs, CBE growth, free carrier gas tech. 28717
  - GaAs, CBE growth from tertiarybutylarsine, triethylgallium precursors 12105
  - GaAs, CBE growth on Si(001), TEG and AsH_3 *(Chinese)* 5814
  - GaAs, CBE growth, reduced C incorporation, H radical effect 5845
  - GaAs, CBE, tris-dimethylaminoarsenic 28738
  - GaAs, MOMBE, TMGa/TEGa interacts. 20739
  - GaAs, MOMBE growth, surface chem., mass spectrometric anal. 37431
  - GaAs, MOMBE selective growth, GaN mask 20666
  - GaAs, MOMBE using triethylgallium, trisdimethylaminoarsenic 28726
  - GaAs, metalorganic CVD growth, 2D nuclei, STM study 20733
  - GaAs, photon-assisted MOMBE growth 28765
  - GaAs, selective area CBE 28768
  - GaAs:C CBE growth, in-situ monitoring 20880
  - GaAs:C, heavily doped, MOMBE using elemental Ga 321
  - GaAs:C/AlAs periodic struct. CBE growth, in-situ monitoring 20880
  - GaAs:C(S), CBE and in situ etching, opt. monitoring 359
  - GaAs:C,H, MOMBE, C-H complexes, orient. rels. 327
  - GaAsN, low-press. metalorganic CVD growth, plasma-cracked N_2 20730
  - $GaAs_xSb_{1-x}$ epitaxial layers, metalorganic CVD, solid-vapour comp. rel. 20727
  - GaInAs, migration/buried epitaxy, digital epitaxial growth 20672
  - GaInAs/GaAs/GaInP laser struct., CBE growth, organometallic precursors 349
  - GaInAsP, group III element incorporation in CBE 12070
  - GaInAsP heterostruct., MOMBE 12042
  - GaInAsP multilayer, gas source MBE, tensile/compressive strain modulation 12062
  - GaInAsP, pseudo-buried heterostructure laser, GSMBE, single step epitaxy 14873
  - GaInP, selective area CBE 28768
  - $Ga_{0.52}In_{0.48}P$ layers, CBE grown, opt. charactn. 12104
  - GaInP/GaAs planar HBT technol., CBE selective collector contact regrowth 1362
  - $Ga_{0.51}In_{0.49}P$/GaAs I-HEMT and I^2HEMT, GSMBE growth 13767
  - GaN, GSMBE 2D growth, RF-radical nitrogen source 37433
  - GaN films, CBE 20899
  - GaP, MOMBE growth, phosphorus/antimony sources 28718
  - GaP, interrupted cycle CBE on Si, photon assistance effects 28766
  - GaP/AlP short period superlattices, GSMBE grown, opt. props. 20673
  - Ge (001) GSMBE, growth kinetics/surface roughening 20864
  - Ge/Si(100), gas source MBE, RHEED oscills. 12074
  - InAlAs/InGaAs HBT, CBE growth, props. 13628
  - InAs/AlSb QW, ALE grown, opt. props. 20677
  - InAs/InP quantum wells, 3-D island form., cathodolum. investigs. 22001
  - InAsP/InGaAsP strained MQW for 1.3 μm wavelength LD, MOMBE 23249
  - InGaAs, low-temp. CBE growth on GaAs(100) 37432
  - $In_{0.47}Ga_{0.53}As$, terminal junct., CBE growth 12066
  - p- InGaAs:C, appl. to InP/InGaAs HBTs 13072
  - $In_{0.53}Ga_{0.47}As$:C, metalorganic MBE, doping profiles, carrier dens. 28777
  - InGaAs/InP layers, gas source MBE, atomic H irradiation 12049
  - InGaAs/InP, short period superlattices for Wannier-Stark modulators, growth 12120
  - InGaAs/InP superlattices, MOMBE, interface struct., XRD 378
  - InGaAs-InP P-I (MQW)-N surface-normal electroabsorpt. modulator for 1.55 μm 14507
  - InGaAs-InP short-period superlattice, interface struct., XRD/Raman scatt. 22010
  - $In_{0.2}Ga_{0.8}As$-$Al_{0.52}In_{0.48}P$ HEMT, gas source MBE growth 13817
  - InGaAsP, $Si^+(Be^+)$ ion beam proc. 30036
  - InGaAsP grown by GSMBE, As/P control 5827
  - InGaAs(P)/In(GaAs)P abrupt heterointerfaces, GSMBE growth 20744
  - InGaAsP/InP false MQW, MOCVD/CBE growth, As,P incorporation 12063
- **chemical beam epitaxial growth** continued
  - InGaP/GaAs HBTs, ultra-high carbon-doped base 38840
  - $In_{0.5}Ga_{0.5}P$/GaAs HBTs, MOMBE growth, tertiarybutylphosphine 22375
  - InP 4×4 polarisation insensitive switch matrices, fabrication 17192
  - InP, CBE growth, free carrier gas tech. 28717
  - InP Epi-ready wafers, growth character 12071
  - InP, MOMBE growth, phosphorus/antimony sources 28718
  - InP, in-situ dry etching and CBE growth 13343
  - InP, migration/buried epitaxy, digital epitaxial growth 20672
  - InP patterned substrs., multi-wavelength laser array, CBE growth 39812
  - InP regrowth by GSMBE, rel. to surface treatment 12051
  - InP, smooth facets, selective sidewall CBE growth 20674
  - InP, vert. facets, RIE, selective CBE regrowth 20817
  - InP:Be, Be distrib. control in gas-source MBE 12064
  - InP:Ti,Be growth by GSMBE, high resist. material 5821
  - InP/GaAs/GaP/GaAs, short period superlattice, CBE growth 12088
  - InP/$In_{0.53}Ga_{0.47}As$ HBTs, MOMBE growth, tertiarybutylphosphine 22375
  - InP/InGaAs HBTs with n^+-InP contacting layers, MOMBE growth 6724
  - InP/InGaAs, fully self-aligned HBT with Schottky collector 13629
  - Si, SR induced photoepitaxy *(Japanese)* 12043
  - Si contacts on $Si_{1-x}Ge_x$/Si quantum well, gas source MBE, electrolumin. diode appl. 28722
  - Si growth kinetics on Ge(100), gas-source MBE/low press. CVD 28730
  - Si point contacts, nanofabrication, gas-source MBE 29895
  - Si:B(001)2×1, gas-source MBE, B-incorporation, elec. props. 38506
  - Si:Ge epitaxial film, embedded nanocrystals, synthesis 12126
  - Si/Ge epitaxy from gaseous hydrides, growth dyn. studied by RHEED 5853
  - SiC GSMBE, thin film growth mode, polytype form. 5812
  - SiC heteroepitaxial growth on Si, gas source MBE, hydrocarbon radicals 37450
  - SiC on Si(100), gas source MBE growth 382
  - SiGe/Si QW, luminesc. spectral modulation 13144
  - SiGe/Si heterostruct., segregant-assisted growth, opt. props. 37449
  - ZnSe, MOMBE-ALE, growth kinetics, opt. probing method 20909
  - ZnSe, MOMBE-ALE, surface react., opt. probing method 20697
  - ZnSe epitaxy on GaAs (100), ICB *(Chinese)* 37403
  - ZnSe:N(Cl), film, GSMBE, H-passiv. effects 28754
- **chemical bonding** *see bonds (chemical)*
- **chemical bonds** *see bonds (chemical)*
- **chemical composition** *see chemical analysis*
- **chemical diffusion** *see diffusion*
- **chemical effects of radiation** *see radiation chemistry*
- **chemical energy conversion**
  - alternative transportation fuels, biomass-derived 35718
  - electrothermal gun, metal oxidiser research, chem. energy release 31776
  - gas turbines, nontraditional fuel conversion efficiency calcs. 19522
  - supercapacitors, telecom. power supply appls. 12845
- **chemical engineering** *see chemical technology*
- **chemical engineering computing**
  - *see also computerised control; computerised instrumentation*
  - emergency engng./mgt., ES-based DSS approaches 43875
  - flue gas metal hazardous air pollutants determ. 18913
  - organics, trace, in aq. streams, automated determ. 18140
  - O_3 conc. in water, automated meas. 26000
- **chemical equilibrium**
  - gas turbines, nontraditional fuel conversion efficiency calcs. 19522
  - SiO_2, etching mechanisms in hydrofluoric acid 1249
- **chemical industry**
  - 70 MW Four Rivers combined cycle PFBC CHP project, USA 27601
  - arc furnaces, phase voltage const. component studies 28196
  - CHP, develop. opportunities, East Asia 10845
  - design-of-expts. techs., SPC of high-purity gas prod. 20397
  - electrical systems, cards, standards and recommended practices 20169
  - emergency engng./mgt., ES-based DSS approaches 43875
  - fire simul. and conseq. eval. empirical models 20171
  - fluid catalytic cracking unit, assess. avail. simul. 37184
  - LED devices, std. colour code for device states *(German)* 34648
  - MV induction/sync. motors, design/protection/safety 5409
  - petrochemical indust., used elec. equipt. sold 44635
  - petrochemical indust. fire protection, intrinsic safety appl. *(German)* 11512
  - petrochemical plant, chem.-moisture barrier cable 5411
  - petrochemical plant, elec./proc. control systs. integrat. 5410
  - plant central power supply company following privatisation *(German)* 5403
  - plant elec. modernization project 5405
  - proc./chem. indust. SPC, correl. obs.-based 36998
  - safety practices, IEEE 463 Standard, 1994 changes 89
  - syst. hazard anal. integrat. 20173
  - waste heat recovery, energy conservation *(Japanese)* 35725
- **chemical interdiffusion**
  - *see also diffusion barriers*
  - diamond crysts./superlattices, isotopically engineered 38502
  - dil. mag. semicond. QW struct., diffusion, opt. methods 39171
  - III-V HBTs, reliab. issues 22386
  - InGaAs/InGaAsP MQW lasers long wavelength, thermal annealing effects 14869
  - MOS ICs, lateral alkali-ion migration, reliab. implications 170
  - OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
  - p-n jn., time-depend. characts. underneath TiN/Ti contact metal 1078
  - polymers, metal diffusion study 12201
  - p^+-polysilicon gated p-MOSFET, reverse short-channel effect 1400
  - quantum well intermixing, repeated ion implant. 1213
  - quartz cryst. resonator stabil., electrode metallization barrier layer 39075
  - silicide thin film form. by RTP, ULSI appls., overview 22275
  - thick film resistors on Al_2O_3 and dielec. substrs. 6347
  - Al ultrathin films for Cu oxid. prevention *(Korean)* 38638
  - Al-Si/TiN/Ti bamboo lines, electromigration, activation energy 30147
  - AlGaInAs/GaInAs, tunable lasers by masked implementation enhanced intermixing 14872
  - Al_3Zr/Zr/Si contact systs., solid-phase reacts., AES *(Japanese)* 29962
  - a-As_2S_3-Zn bilayers, electron/photon irrad. effects 38405
  - a-As_xS_y-Ag bilayers, electron/photon irrad. effects 38405
  - Au/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
  - Au/LaB_6/Au/Ni/Ge contacts on n-GaAs, SNMS study 13421
  - Au-Cr-Au-Zn-Au multilayer metallizations to InP, elec. props. 38660
  - Au-NiCr metallization, CVD diamond substrs., MCM appls. 12981
  - Au-Ti metallization, CVD diamond substrs., MCM appls. 12981
  - $BaTiO_3$ films on Si, heteroepitaxial growth by pulsed laser deposition 28757
  - $BaTiO_3$ thin film capacitor dielec. props., Pt bottom electrode 38050

chemical interdiffusion continued
BaTiO$_3$ thin film capacitor dielec. props., W$_2$N-W bottom electrode 38050
CdTe:Ga, diffusive doping, photolumin. obs. 22147
CdTe/CdMgTe quantum wells, ion implant.-induced interdiffusion 13290
CdTe/CdS/Au/Cu heterojunction solar cell/ohmic contacts syst., Cu effects 20001
CdTe/CdZnTe superlattices, interdiffusion coeff. meas. 29935
CdTe/InSb heterointerfaces, temp. gradient vap. transport deposition, interfacial layer form. 371
CdTe/Ni-P, stable ohmic contact form., P diffusion from Ni-P 13225
p-Cd$_{0.95}$Zn$_{0.05}$Te/metal contacts, elec. props. and contact metall. 13226
Co films/CoSi$_2$ films, opt. props., G-line/I-line lithog. 38748
Co, interfacial reacts. on GaAs, ohmic contact appls. 38386
Co/Cr thin films, interdiffusion and grain isolation, thermal annealing 7040
Co/Ti/Si(100), thermal proc., interdiffusion, phase form. 1203
Co-SiC, interface microstruct., chem. and elec. props. 13213
CoSi$_2$-Si heterostruct., solid state epitaxial growth from Co-Ti-Si multilayer 37419
Cr-Cu-Ni-Au film syst., electrolytic deposition, temp.-time stabil. 6659
Cr-SiO$_2$ cermet-polyimide interfacial reacts., thin film resistor appls. 38045
Cr-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
Cu MOCVD, Cu-betadiketonate precursors, surface effects 37492
Cu grain growth during Cu-Cr and Cu-Ti thin film nitridation, situ TEM 38583
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
Cu/Al(Ti)/SiO$_2$ interface, ultrathin sacrificial diffusion barrier anal. 38702
Cu/Co/Cu/NiFe multilayers, magnetoresist., thermal stabil. 7053
Cu-Au interdiffusion during plating 20986
Cu-Cr bilayer films on SiO$_2$ substr., interfacial reacts./adhesion 38672
Cu-Cr bilayer metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
Cu-SiO$_2$ IC metallisation, refractory metal encapsulation/barrier layer 38650
Cu-Sn intermetallic form. at solder-Cu interface, in-situ TEM 12188
Cu-Ti bilayer films on SiO$_2$ substr., interfacial reacts./adhesion 38672
Cu-Ti bilayer metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
Cu-Ti(Cr) self-encapsulated metallization, TiN(CrN) diffusion barriers 38651
Cu-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
CuCr alloy film metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
CuCr alloy films on SiO$_2$ substr., interfacial reacts./adhesion 38672
Cu$_3$Ge/n-GaAs ohmic contacts, microstruct./elec. charactn. 6573
CuTi alloy film metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
CuTi alloy films on SiO$_2$ substr., interfacial reacts./adhesion 38672
Fe-silicides, depth-selective conversion electron Mossbauer spectrometry 38677
FeHfC/Al$_2$O$_3$ multilayers, mag. props., interlayer effects 14209
FeHfC/AlN multilayers, mag. props., interlayer effects 14209
FeHfC/Si$_3$N$_4$ multilayers, mag. props., interlayer effects 14209
FeHfC/SiO$_2$ multilayers, mag. props., interlayer effects 14209
GaAs crysts./superlattices, isotopically engineered 38502
GaAs ohmic/nonohmic contact form., interfacial react. effects 38392
GaAs/(AlGa)As DBR, reflectivity, disordering 2035
GaAs/AlGaAs:Sb MQW, disordering, isoelectronic Sb implant effects 1217
GaInP/GaAs HBT, base dopant out-diffusion prevention, heterostruc. emitter 30250
GaN, metalorganic VPE growth, surface orient. depend. 20755
Ge SQW, interface sharpness, MBE growth conditions 13190
Ge crysts./superlattices, isotopically engineered 38502
Ge heteroepitaxy on Si(001), init. stage, Auger electron diffr. 20709
Ge:O crysts./superlattices, isotopically engineered 38502
a-Ge/Ag layered systs., metal-mediated crystn. 38404
a-Ge/Bi annealed bilayer, crystalliz. effect on conduct. 21926
Ge/Si epilayers, MBE, charactn. 320
Ge/Si(111), SPE, interface struct., medium-energy ion scatt. 37404
(Hg,Cd)Te LPE layers, comp. profiles 5823
Hg$_{1-x}$Mn$_x$Te/CdTe film, VPE, component interdiffusion 296
(Hg$_x$Mn$_{1-x}$)Te/CdTe(CdZnTe) heterointerfaces, misfit disloc. 21953
In/n-Hg$_{1-x}$Cd$_x$Te contacts, modified sheet resist. 38416
n-InGaAs layer, thermal stabil. of ohmic contact 29953
InGaAs/InGaAsP MQWs, strained, thermal stability 13140
InGaAs/InGaAsP QWs, interdiffusion 13138
InGaAs/InGaAsP SQW, group V interdiffusion 13139
InGaAs/InGaAsP SQW, interdiffusion, annealing effects 22009
InGaAs/InP buried wires, selective thermal intermixing 13180
p-InGaAs/InP/Pd/Zn/Pd/Au graded bandgap heterobarrier/ohmic contacts, resist. 38699
p-InGaAs/Pd-Zn(Cd)/Ge implanted shallow ohmic contacts, HBT appls. 38698
InGaAs-GaAs-AlGaAs:Ar(He) strained SQW, disordering by ion implant. 13135
InGaAs-InAlAs:Si quantum well, ion implant./annealing, comp. disordering 1216
InGaAsP:Si quantum well, intermixing, spatially resolved/polaris. resolved photolumin. 38495
InP, and related materials, conf., Paris, France (April 1993) 11521
InP metallisation by transit. metals 1300
InP:Fe,Ti, semi-insulating, codoping process, growth 13319
InP:H,Mg, passivated acceptors, reactivation kinetics during annealing 22106
n-InP/Au/Ni, ultra-low resist. Ni-based contacts 38409
LiTaO$_3$ proton-exchanged waveguides fab., cinnamic acid 39422
Ni-Au-Te-Au contacts on n-GaAs, microstruct./elec. props. correl. 38657
Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
Ni-NiIn-Ge-GaAs ohmic contacts, interface microstruct./reacts. 38396
Ni$_{81}$Fe$_{19}$/Co$_{67}$Cr$_{33}$ multilayers, perp. recording media, soft mag. props. 7042
a-P$_2$Se$_3$-Ag bilayers, electron/photon irrad. effects 38405
PZT films, laser ablation on Ag coated Si substrs. 13993
Pd thin electroplated coatings, solderability, semicond. packaging 37143
Pd/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
Pt/Si(111) interface and props. of thin Pt layers on Si 1166
Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
Si, low energy ion beam deposition procs., mol. dyn. methods 20923
Si:B(P), doping by solid-phase diffusion 22139
Si:Ir(111), ion implant., IrSi$_3$ synthesis 30027
n-Si:Li,Au, defect complexes, DLTS/SIMS/C-V profiling 38601
Si:P crysts./superlattices, isotopically engineered 38502
a-Si/Ag layered systs., metal-mediated crystn., TEM obs. 38403

chemical interdiffusion continued
Si/Ni$_x$Si/Ni thin-film reacts., calorimetric anal. 1156
Si/Si$_{1-x}$Ge$_x$(Si$_{1-y}$C$_y$) heterostruct., situ X-ray investig. 38306
a-Si/Ti bilayer struct., lateral silicide growth 22034
Si-Co, interfacial reacts. on GaAs, ohmic contact appls. 38386
n-SiC/Ni high-temp. ohmic contacts, silicide form. 38372
a-SiC/Si:P structs., P diffusion and interface segreg., HBT appls. 13118
a-SiGe:H/SnO$_2$ solar cell struct., interfacial reduction 38294
Ti films/TiSi$_2$ films, opt. props., G-line/I-line lithog. 38748
Ti-Pt ohmic contacts to InAs emitter layer, AlGaAs-GaAs HBTs 38831
Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270
TiO conductive films, reactive ion-beam sputtered, VLSI metallisation 37494
TiO$_2$ opt. coating for solar cells, excimer laser sputtering deposition 28835
TiSi$_2$ form., UHV annealing/RTA, SIMS/XPS study 22276
TiSi$_2$-Si surface/interface roughness, RTA heating rate effects 22096
U-Pu-Zr fuel, cladding steels, interdiffusion behavior 10832
W CVD films, opt. props., G-line/I-line lithog. 38748
W film on Si, self-limiting growth by WF$_6$ reduction, doping atom effect 38636
W-Pt ohmic contacts to InGaAs emitter layer, AlGaAs-GaAs HBTs 38831
WSi$_x$ films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
ZnS/GaAs heterostruct., H transport VPE, struct. anal. 37393
p-ZnSe, elec. contacts based on HgSe and ZnTe 29891
ZnSe, p-type doping, Li$_3$N diffusion 1229
p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413
ZnSe/ZnS strained layer superlattices, MOVPE growth and opt. charact. 12124
Zr-Si syst., in-situ TEM obs. of interfacial reacts. 38663

chemical lasers
conference, laser physics, St. Petersburg, Russia (1993) 11525
conference, lasers in optical systems/devices, St. Petersburg, Russia (1993) 11526
CW lasers, small-scale periodic inhomogeneities, lateral-shearing interferometry 23088
vis. and near IR chem. lasers 7504
Br photodissociation laser, flashlamp-induced opt. losses 1857
Cu vapour laser, in situ prod. Cu atoms, electron beam pumped 31197
F$_2$-H$_2$ pulse-periodic chem. lasers, combustion propag. 39646
F$_2$-H$_2$ pulse-periodic chem. lasers, detonation suppression 39645
H$_2$/F$_2$ pulsed chem. laser, temp. reduction effect 31191
HF chem. laser twin plane jets, turbulent kinetic theory 1856
HF pulse-periodic laser, gasdynamic perturb. on emission params. 39647
HF pulsed chem. laser, discharge pumped, energy charact. 23085
I Q-switched photodissociation laser, pass. shutter 39671
I gas laser, solar pumped, concentrator 23105
I, photodissociation laser modelling, slow pumping 31161
I$_2$ high-power photodissociation laser, high-quality phase conjug. 7521
I$_2$ photodissociation laser, VUV radiation inversion accumulation 14720
O$_2$-I chem. laser constr. for thermonuclear fusion driver 31193
O$_2$-I chem. laser investig. 7505
O$_2$-I laser, short pulse amplif., energy extraction 39643
O$_2$-I laser singlet-oxygen generators, theoretical modeling 7506
O$_2$-I photocatalytic laser, materials proc. appls. *(German)* 7865
O$_2$-I subsonic chem. laser, theoretical model and expts. in 30 W range 7520

chemical radiation detectors
GALLEX solar neutrino project, status 43128
SAGE II results, solar neutrino integral flux 43127
Soviet-American Ga expt. at Baksan Neutrino Observatory, solar ν flux 34914

chemical relaxation
YBaCuO high-T$_c$ supercond. films, four-photon ps spectrosc. of phase transits. 7230

chemical sensors
used for sensing of chemical quantities
see also gas sensors; ion sensitive field effect transistors
bi-electrodes based electrochem. sens., voltage relax. meas. 9947
cargo inspection technols., conf., San Diego (Jul. 1994) 36869
catheter-tip PO$_2$ sens., sampling lumen fab. 43188
coated tapered opt. fibre sens. 9925
conf., biochem. and med. sens., Budapest, Hungary (1993) 5462
continuous ground water monitoring, sens. arrays 18911
crosslinkable polar siloxane copolymers for ISFET ion detect. devices 28876
disposable rem. chem. sens. network 9864
elec. utility sens. technol. improvement efforts, USA 43652
electrochem. methods, environ. appls. 20502
electrochem. sens. calib., genetic algms. *(German)* 17760
electrolum. coupled opt. fibre chem. sens. 17889
evanescent field fibre-optic Cl sens. 3861
evanescent-field planar waveguide sens., mode-independent atten. 42768
fiber optic sens. develops., two-photon spectrosc. 17819
fiber-optic sens. for soil/groundwater contamination monitoring 18910
fibre optic chem. sens. develop., sol-gel procs. 17891
fibre optic microsensor arrays, multiple analytes detect. 17893
fibre optic pH sens. based on immobilised dyes 34542
fibre optic sens., commercially available, 1985-95 develops. 17877
fibre optic sens. for nuc. waste tank environ. 18994
fibre optic sensors, conf., Glasgow, Scotland (Oct. 1994) 11524
fibre optic/hydrogel probe for distributed chem. meas. 17834
glass pH sens. for temps. of 200-250°C 34464
human body fluids Na assay, ISFET 34603
integrated chem.-sens. arrays, batch fab. 3818
integrated pH-ISFET/press. sens., SDB/SOI materials *(Chinese)* 25810
intell. sens. for metal ions, fluoresc. reson. based 25782
lifetime-based opt. sens. of pH 34729
liq. sample ident. by shear horiz. SAW sens. *(Japanese)* 34445
microcantilever reson., adsorpt.-induced surface stress, sens. appl. 39034
microfabricated heavy metal ion sens. 42779
mine respirable coal dust meas., fire sens.-based 20187
monitoring of total organic carbon, opt. methods 9888
nose, electronic, sig. proc. ASIC, BiCMOS technol. 9839
ocean CTD & fluorimeter sens., BIST 18891
odour absorpt. films selection, sens. qty. eval. *(Japanese)* 42783
organic detect. in soil, fiber optic near IR reflectance sens. 17920
peroxidase, immobilized, glassy C electrode, H$_2$O$_2$ detect. 9944
pH sens., solid-state, Nafion-coated IrO$_2$ electrode 3821

chemical sensors continued
plant-monitoring technol. develop. 27285
pollution meas. and control, portable analyser *(Czech)* 26768
polyaniline, ellipsometric sens., spectral response 3819
polypyrrole-based sens., selective electrochem. cation in aza crown ethers 17747
pot. chem. sens., non-lin. range, math. model 3820
proc. industries appls. of fibre optic sens. 17812
pyranine doped SiO_2 sol-gel matrix, μm-size fluoresc. pH sens. 9877
quartz bulk piezoelec. odour sens. array, coating materials 34450
quartz capillary tubes for chem. anal., fab. 34461
SAW chem. sens., copper phthalocyanine 9886
STW chem./biological contaminant detector 34605
waste-handling monitoring, fiber-optic chem. sens. 18916
waveguide-coupled surface-plasmon sens. for aq. environ. 3822
$CaZr_{0.9}In_{0.1}O_{3-\alpha}$ protonic cond. amperometric sens., D_2O conc. meas 25792
H_2O in hydrocarbon/water solns., microwave acoustic sens. 10009
LaMnO films prep., RF magnetron sputtering, O_2 sens. charact. 37462
Si microelectronic sens. 34440
SiO_2 opt. fibers, photoluminesc., Raman scatt. 22813
TiO_2 film electrode electrolum. sens., H_2O_2 meas. 9924
TiO_2-SiO_2 sol-gel film opt.-chem. sens. 3812
chemical shift
see also isomer shift
liver, vivo ^{13}C chem. shift imaging 26348
Si:H(111), low temp. nitridation *(French)* 13336
chemical structure
see also bonds (chemical); crystal chemistry; stoichiometry
MIS capacitors on cleaved GaAs(110), interface props. 13258
Cu CVD precursor chem./mol. struct., IC metallization 28812
chemical technology
see also chemical industry; chemical variables control; chemical variables measurement; oil refining
biological systs., nonlin., adaptive filtering/estim. 34728
bulk chem. distrib. systs., impact on semicond. proc. 11715
design-of-expts. techs., SPC of high-purity gas prod. 20397
gas handling in semicond. manufacture, cost-purity trade-off 6598
high-purity electronic specialty gas cylinders, particle/outgassing perform. 29995
microchemical systs., micromech. elements 22622
N_2-purity selection guideline, controlled atmos. reflow soldering 38104
PCB manufacture, chem./rinse water saving method 21651
physiochemical expt. dyn. controller develop. 34727
proc. gas analyzing syst., locally mounted 9964
H_2S determination, continuous flow instrum., 26003
NH_3 atmos. determ., diffusive sampling, wind effects 26002
O_3 depleting substs. in electronic cleaning 30102
Si RTP, optimum gas flow engng. 22230
chemical vapour deposited coatings *see CVD coatings*
chemical vapour deposition
see also plasma CVD; vapour phase epitaxial growth
anom. solid form., exhaust systs. of LPCVD/PECVD semicond. procs. 20954
book, Si and Si alloy based materials/devices 11540
buried channel silica-based waveguide fab., MCVD method 30960
ceramics indust. continuous fiber coating, CVD equipt. *(Japanese)* 28198
CMOS/ferroelec. integrated test struct. for memory appls. 37781
computational fluid dyn. model, improved perform. in CVD reactors 22545
conf., thin film physics/appl., Shanghai, China (1994) 28235
conference, vapour growth/epitaxy, Freiburg, Germany (1994) 20217
CPODs, compact planar opt. devices, fab. by CVD technol. 14495
diamond:B films, hot filament CVD, plasma etching, elec. props. 5862
diamond:H films, CVD, surface topography, AFM study 28821
diamond:Na (Rb) (P), low energy implant., detector appl. 38497
diamond:P films, hot filament CVD, P addit. effects 28819
diamond, electroless plating, laser-assisted selective metallisation 30157
diamond, nucleation and growth on Si(100), electron spectra obs. 430
diamond, self-supporting hollow helix and sieve, jet-flow HFCVD 20928
diamond, synthesis by hot-filament CVD, O-addit. effects 28844
diamond, vap.-grown films, morph. develop., role of penetration twins 5864
diamond CVD, Cl-activated 409
diamond CVD, metallization and die attach 38662
diamond CVD growth, surface free energies 37484
diamond deposition domain from various C-H-O(-Ar)-containing gaseous mixtures, press. influence 37477
diamond film deposition in hydrogen-oxyacetylene combustion frame 28822
diamond films, biased hot filament CVD, nucleation, selected area deposition 20958
diamond films, CVD from H-hydrocarbon gas mixtures, substr. temp. 5893
diamond films, hot filament CVD on sapphire 20929
diamond films rough surfaces modelling, self-limiting laser ablation, polishing 37476
diamond like C film, nucleation enhancement, SEM 28848
diamond nucleation and growth, SR studies 404
diamond packaging, CVD, tech. cost modelling, scale-up factors 37527
diamond particles nucleation, hot-filament CVD, a-C:H films effect 20654
diamond polycryst. films, hot filament chem. vap. deposition 429
diamond smooth films, hot filament chem. vap. deposition 12174
diamond thin films, indentation response 20932
diamond ultra-fine particles, laser-induced forward transfer deposition 28861
diamond/Ti-Au(-Ag)/Al CVD diodes, high temp. stabil. 22046
dry turbo vac. pump appl., semicond. mfg. procs. 22204
field-emission triodes, fab., emitter-gate separation of 0.18 μm 21804
GaInAs-InP heterostruct., elec. props./interface defects 13103
III-V layers, MOCVD SEG, math. model 20761
III-V PV cells, manufacture 5223
large area prod. MOCVD rot. disk reactor 5896
laser cryst. growth techs. 12132
laser CVD for microelectronics 28838
MCM-D open repair technols. 21724
metal oxide films, MOCVD for supercond. electronics 20950
MOCVD, return flow num. simul. *(Chinese)* 5863
multi-diode thermionic converter, feasibility expts. 28028
multilevel metallization beyond 0.35 μm technol. 22258
pattern generation, localized CVD/STM 20921
patterned wafer RTCVD, thermal radiation absorpt. charact. 22229
poly(1,4-phenylenevinylene) films, CVD, LED appls. 12182
poly(peri-naphthalene) thin films, chem. vap. deposition, elec. cond. 12169
poly-Si/Ta_2O_5/TiN capacitors for DRAM appls., thermal stabil. 21316
polysilicon:As microwave bipolar power transistors *(Chinese)* 21545
chemical vapour deposition continued
polysilicon, LPCVD, particle contaminations 20934
polysilicon emitter bipolar transistors, power appls. 22367
polysilicon LPCVD tubes, NF_3 in situ cleaning 13339
polysilicon side-drive micromotors, fab. 11093
quartz capillary tubes for chem. anal., fab. 34461
RTCVD, opt. modeling, model-based control 394
RTCVD film thickness distrib. modelling 22561
SEDAM, salicide proc. for sub-0.25 μm CMOS devices 22601
self-planarizing CVD oxide for interlayer dielec. appls. 22262
space power thermionic electrodes, CVD diamond film appls. 18745
stacked nitride-oxide gate n-/p-MISFETs, hot-carrier reliab. 38856
sub-qtr. μm CMOS, self-aligned W technol. 22586
telecomm. optoelectronics, OMCVD epitaxial growth 37416
Texas Instruments MMST program, all-RTO/RTA/RTCVD 0.35 μm CMOS IC prod. 22594
TFTs, low temp. fab., multi proc. reactor 13739
UHV ECR CVD reactor, in-situ Si wafer surface cleaning *(Korean)* 13331
VCSEL wavelength control by nonplanar MOCVD 14963
Al CVD on SiO_2, situ obs by environ. TEM 38634
Al, CVD on oxidised Si, direct growth, high-speed growth 20933
Al thin films, selective area deposition, photo-assisted OMCVD 30158
Al-Cu, simultaneous doping/CVD, interconnection form. 6831
Al-SiN-Si syst., laser CVD, TFD charact. by DLTS 13597
Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
AlGaAs HBT cct., manufacturable proc. 1360
AlGaAs diode lasers fabricated, pulsed anodic oxides 31362
AlGaAs high-power single-stripe LD, window grown on facets *(Japanese)* 39886
AlGaAs lasers with grown opt. facets, metalorganic CVD deposition 20961
AlGaAs/GaAs HBTs, selective MOCVD growth, base-collector capacitance 38836
AlGaAs/GaAs:C,In HBTs, lattice strain control, In co-doping 22374
AlGaAs/GaAs/InGaAs struct. on nonplanar substrs., MOCVD, doping, laser appls. 20960
$Al_xGa_{1-x}As$/Si, tandem solar cells, MOCVD, charactn. 19995
AlGaInAs/InP strained QW high-perform. 1.3 μm lasers, OMCVD 23241
$(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P$:Zn, metalorganic CVD, impurity passiv. 20938
AlGaInP/GaInP, multiwafer, MOCVD growth 20959
$Al_xGa_{1-x}N$, self-nucleated layers, MOCVD 414
$Al_xIn_{1-x}As$, MBE/CVD growth, elec. props. 12060
AlN, CVD growth/surface chem. 12155
AlN/diamond thin film syst., chem. vap. deposition methods 5865
Au-NiCr metallization, CVD diamond substrs., MCM appls. 12981
Au-SiN mask technol. for x-ray nanolithography 6683
Au-Ti metallization, CVD diamond substrs., MCM appls. 12981
a-B:H CVD film characterisation and x-ray imaging appls. 5900
BPSG dielec. film fusion, steam reflow and RTA/furnace annealing 20997
(Ba,Sr)TiO_2, chem. vap. deposition, DRAM appls. 12163
$Ba_{(1-x)}Sr_xTiO_3$ ferroelec. capacitors, liq. source CVD 28845
$BiDy(Gd)FeGaO_{1}2$ garnet thin films, metallo-organic decomp. 12148
$Bi_4Ti_3O_{12}$ films, MOCVD, memory device appls. 37514
CdS low-resist. thin films, chem. vapour transport method 12180
CdSe nanocryst/ZnSe matrix II-VI quantum dot composites, electrospray OMCVD prep. 20946
CdSe quantum dots, electrospray OMCVD 5860
Cu CVD for advanced on-chip interconnects, Motorola 28813
Cu CVD precursor chem./mol. struct., IC metallization 28812
Cu CVD thin films, direct liq. coinjection, ULSI device metallisation appls. 30133
Cu MOCVD, Cu-betadiketonate precursors, surface effects 37492
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
Cu metallization mfg. issues for future ICs 38643
Cu metallization technol. for deep submicron ULSIs 30140
Cu planarized copper multilevel ULSI interconnections, damascene proc. 30139
Cu selective CVD on diamond surfaces, self-assembled monolayers 37493
Cu, selective copper chem. vap. deposition, proc. windows 12162
Cu thin film CVD from Cu(II) metalorganic precursors, growth/microstruct. 38678
$CuInSe_2/SnO_2$, PV solar cell material 36605
Er-doped germanosilicate fibre laser fab. and opt. charactn. 14774
Fe:InP/InGaAs MESFET, metalorganic CVD growth 38926
Fe/Ga, bimetallic thin films, MOCVD, stoichiometry control 28842
GaAlAs layers, OMCVD, characts. prediction, neural nets 13051
GaAlAs, metallorganic CVD, Zn-doping proc. 28843
GaAs, metallorganic CVD, Zn-doping proc. 28843
GaAs microcryst./AlGaAs interlayers low-press. MOCVD growth 20945
GaAs passiv., integrated plasma clean/CVD/RTA, Si_3N_4 encapsulation 22224
GaAs:C, MOCVD, doping and growth rate reduction by CCl_4 403
GaAs:Er, metalorganic CVD, $Er(C_4H_9C_5H_4)_3$ 12164
GaAs/AlGaAs, MOCVD, regrown, interface contamination, gas etching 22242
GaAs/AlGaAs hexagonal-facet laser with opt. waveguides, selective area metalorganic CVD 23214
GaAs/GaAlAs high-power 2D quantum wire laser arrays 14943
GaAs-AlGaAs heterostruct., fab. tech., mesoscopic device appl. 12159
GaAs-P_3N_5 MISFETs, photo-CVD grown gate insulators, sulfide treated, charact. *(Korean)* 30355
GaAs-SiN, passiv. film form. by laser CVD 13370
GaAsSb, low press. MOCVD, TEGa, tBAs, TMSb as precursors 412
$Ga_xIn_{1-x}As$/AlAs reson. tunneling diodes, atmos. press. metalorganic CVD 415
GaN films, low-press. metalorganic CVD 419
GaN:Mg, metalorganic CVD growth, doping memory effects 20940
Ge ALE control in flash-heating CVD 20704
Ge-Si-Ge(100) heterostruct., low press. CVD, LEED/photoemission obs. 12153
H resist, electron beam lithog., selective Al patterning 13484
InAlAs/InGaAs modulation doped structs., MOCVD growth, breakdown volt. 411
InAlAs/InP, selective MOCVD growth 20943
$In_{0.53}Al_{0.22}Ga_{0.25}As$/InP, HBT 13644
InAlP/InGaP quantum wells/superlattice barrier cladding layers, metalorganic CVD growth 20939
InAs MOCVD growth from monoethyl arsine 20962
InGaAs, MOCVD, highly selective growth, high speed rot. susceptor 20941
InGaAs/AlGaAs QW lasers, MOCVD, rot. disk reactor 23238

chemical vapour deposition continued
InGaAs/GaAs depletion-MIS-like delta-doped HFETs 13810
InGaAs/InGaAsP MQW, MOCVD grown, in-plane bandgap distrib. 20942
InGaAs-GaAs-AlGaAs strained layer BH laser fab. by MOCVD 31359
InGaAs-GaAs-AlGaAs strained-layer lasers with monolithically integrated photodiodes, MOCVD fab. 31319
InGaAs-GaAs-InGaAsP graded index heterostruct. for 0.98μm lasers 12183
InGaAsP-InP all-MOCVD-grown long-wavelength LD 7673
InGaN/AlGaN, Zn doped, DH blue LED MOCVD 23042
InGaN-AlGaN double heterostruct. violet LED, CVD growth 5895
InGaP-InGaAs-InAlAs, HEMT struct. with strained Schottky layer 13815
InP quantum islands/InGaP/GaAs(001) substr., coherently strained self-assembly 20947
InP/InGaAs HBT, MOCVD, Zn diffusion, growth temp. depend. 22385
InP/InGaAs:Be HBTs, highly doped base layer/suppressed diffusion, ALE/CVD growth 6729
InP(As)(AlAs) self-assembling quantum dot arrays, MBE and MOCVD growth 374
InSb, low press. CVD, using neopentylstibine, trimethylindium 37485
InSb-SiO_2-Si p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
$LiNbO_3$ thin films. MOCVD, lithium alkoxide source 28841
Mo conductors, laser-induced CVD, LSI appl. *(Japanese)* 5871
NO dielec. film, low press. CVD/nitridation 13942
PZT, spatially uniform thin films, MOCVD 37517
PZT thin films, MOCVD, Pb precursor 37516
$Pb_{1-x}La_xTiO_3$ films, CVD 37515
PbO thin films, MOCVD, Pb precursor 37516
PbS nanoparticles embedded in polymer film, gas-aerosol reactive electrostatic deposition 20951
$PbTiO_3$ thin films, MOCVD, Pb precursor 37516
Si ALE control in flash-heating CVD 20704
a-Si films, crystn., SiO_2 surface treatment effects 13393
Si growth, highly pure crysts. 12035
Si growth kinetics on Ge(100), gas-source MBE/low press. CVD 28730
Si hemispherical-grained storage electrodes for high-dens. DRAMs 12544
Si microtechnol., develops. and proc. tech. depend. 38950
Si nanocrystalline films, laser-induced CVD 28839
Si polycryst. films, (100) oriented, UHV-CVD growth 406
Si, polycryst. films, ECR CVD, hydrogen dilution 37503
Si polycryst. films, hot wire CVD 5883
Si, rapid thermal CVD, O/C low thermal budget removal 28735
Si rapid thermal CVD on $Si_{0.68}Ge_{0.32}$ substrs., AFM 12139
Si substrs., pretreatment for CVD diamond deposition, AFM obs. 20977
Si surface oxide removal by RTP, SiH_2Cl_2 and H_2 22223
Si:As films, low press. CVD 5861
Si:B, δ-doping, APCVD 22112
a-Si:H TFT, fab., props. 6774
a-Si:H films, VUV laser CVD, gas phase chem./modelling 28840
a-Si:H solar cell, Hg-sensitized photochem. vap. deposition, H_2 dilution tech. 5217
n-Si:P amorph. CVD films, crystn., elec. props. 405
a-Si:P/Si, shallow jn. form., diffusion from spike-doped CVD amorph. layer 38514
Si/SiO_2, MOS structs., photoenhanced CVD, comp., elec. props. 38429
Si/SiO_2 syst., Si nucleation, rapid thermal CVD, in situ real time meas. 28831
Si-SiO_2-SiN_x bistable snapping microactuator, buckling cantilever 30501
Si-based dielec., UV annealing, large area deposition, Kr flashlamp appl. 30012
α-SiC, CVD growth, graphite susceptors 5892
SiC, CVD in hot wall reactor, expt. study 12149
SiC CVD on 6H-SiC{0001} faces, nucleation and step motion 5890
SiC, CVD reactor, transport anal. 5873
SiC, CVD, transport phenom. 5874
β-SiC ECR-CVD, film struct. 12172
SiC LPCVD films, X-ray mask membranes 6695
SiC LPCVD films for x-ray masks from diethylsilane/di-t-butylsilane 6697
a-SiC alloy films, hot-filament assisted chem. vap. deposition tech. 37474
SiC, heteroepitaxial growth by alternate supply of SiH_2Cl_2 and C_2H_2 20926
β-SiC layer growth by Si surface carbonisation, RTP 20981
β-SiC on Si, CVD epitaxial growth and elec. charact. 37434
SiC, props./growth, rel. to HF device appls. 1072
SiC thin films, LPCVD from hexamethyldisilane 433
p-SiC:Al MOS struct., fab. and C-V charact. *(Japanese)* 1178
SiC:N,Al,B, CVD, unintentional contaminants incorporation 20901
SiC/Si hetero- and homo-jn. photodiodes, fab. and props. *(Japanese)* 1805
SiC/Si wafer bonding, CVD and etching 13392
SiC-SiN_x multilayer x-ray lithog. membranes by ECR CVD 6698
$(SiC)_x(AlN)_{1-x}$, MOCVD on 6H-SiC, cryst. struct. 5884
SiGe/Si quantum dots, island growth, photolum., electrolum. 28830
SiGe/Si quantum wires/dots, growth on patterned Si substrs. 28810
SiN mask membrane proc. charactn. 6685
Si_3N_4 LPCVD tubes, NF_3 in situ cleaning 13339
SiO_2 RTCVD/RTO/thermal oxide thin films, tunnelling current characterisation 22226
SiO_2 advanced planarization by SiO_x PECVD/SiH_4-H_2O_2 CVD combination 37479
SiO_2 films, UV excimer lamp annealing 30013
SiO_2 films, thermal CVD, microdefects 407
SiO_2/InP, direct photo-CVD using D_2 lamp, MOSFET appls. 28807
SiO_2-Si, stacked RTO/RTCVD oxide gate dielec., elec. props. 22637
$SrTiO_3$ ferroelec. capacitors, liq. source CVD 28845
$SrTiO_3$ film DRAM stacked capacitor technol., MOCVD fab. 21592
Ta_2O_5 thin film capacitors for 1 Gbit DRAM 21593
Ta_2O_5 thin high-dielec. films, leakage current, elec. props. 13915
TiN rapid thermal CVD for diffusion barrier appl. 20970
TiN_x, CVD, organometallic precursors, surface spectrosc. study 37495
$TiSi_2$ selective CVD, integrated cluster tool 20847
W CVD films, opt. props., G-line/I-line lithog. 38748
W CVD proc., silane-rich, develop. 37496
W film on Si, self-limiting growth by WF_6 reduction, doping atom effect 38636
W nucleation layer CVD using various SiH_4/WF_6 flows, characterisation 37497
W, selective LPCVD, pretreatment technol. 20918
W/TiN:F interfacial props., deposition temp. effects 393
$Y_1Ba_2Cu_3O_{7-x}$ tapes, in-plane aligned on metallic substr. by CVD 399
ZnSe:N,H, metalorganic chem. vap. deposition, nitrogen source materials 20944

chemical vapour deposition continued
diamond membrane-based X-ray lithog. masks 6687

chemical variables control
see also moisture control; pH control
central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
cooker rangehood oil-dirt removal, polymer paint/fuzzy air flow control *(Japanese)* 44615
optimal alarm-sig. algms. for gas analyzers 3910
optimal alarm-sig. generation algms. for gas analyzers 3909
robust observer design for biomedical systs. 43198
CO_2 TE laser, high repetition rate, long pulse *(Japanese)* 31199

chemical variables measurement
see also chemical analysis; moisture measurement; pH measurement
alkane vap. conc. monitoring, planar polyimide light guides 42865
anal. instrums. trends, Hitachi's technol. overview 10059
biochemical diagnostic instrumentation, conf., USA (1994) 11573
biomass pressurised gasification, catalytic gas treatment 27331
blood glucose conc. correl., reduced tissue scatt. coeff. in near IR 26286
car exhaust trace gas monitoring by laser photoacoustic spectrosc. 18907
continuous ground water monitoring, sens. arrays 18911
dye color/conc. detect. by realtime opt. sens. *(Japanese)* 18138
elec. utility sens. technol. improvement efforts, USA 43652
evanescent field fibre-optic Cl sens. 3861
fibre optic/hydrogel probe for distributed chem. meas. 17834
flip COB process charactn., no-clean flux, ionic residue 38108
flip-chip solder bumps, Sn content meas. method 42975
fluid filled taped cables, dissolved gas anal. 27205
glucose conc. influence on light scatt. in tissue-simulating phantoms 25888
n-heptane/iso-octane vap. opt. detect. by polyimide lightguides 34731
indust. two-phase flow conc., capacitance transducer meas. *(Chinese)* 34734
$\lambda=1.57$ μm DFB LD gas sens., overtone and combination band absorpt. 9961
low-solids flux conc. analyser, automated 42976
microorganisms, pulsed HV discharge, chem. species form. 6891
mine respirable coal dust meas., fire sens.-based 20187
ocean salinity profile collection syst. on vessels underway 10497
optimal alarm-sig. algms. for gas analyzers 3910
optimal alarm-sig. generation algms. for gas analyzers 3909
power transformer oil, dissolved gas anal., ANN appl. 19683
pulse oximeter for mag. reson. scanners 18470
PWA cleanliness testing, ionic contamination meas. variables 6426
QA of pharmaceutical vials, laser Raman spectrosc. 17928
SAW chem. sens., copper phthalocyanine 9886
SAW monitoring of CCl_4 in steam reforming reactor 3920
semicond. gas sens., catalytic gate 3921
sens. for photosynthesis meas., trends 3791
steam power plant boiler online water chem. monitoring 4843
thermal power plant continuous emissions monitoring, software-based 27537
thermal power plant fluidized bed coal combustion, N_2O emissions *(Chinese)* 4838
UHP gas supply consistency of on-site N_2 plants 38461
H-O mixtures, photopyroelectric detect. 3900
H_2O in hydrocarbon/water solns., microwave acoustic sens. 10009
H_2O_2, fiber-optic interferometry 9946
Hg vap. sensitive MOSFET, Au gate membrane 3906
Mg-AgCl batts., Mg alloy corros. rate studies 27890
O in flames, detect. by intracavity laser spectrosc. 4010
O_2 intrinsic phase fluorimetric sens. 17985
Pt-Si Schottky diode CO gas sens., sensitivity 34606
SF_6 in accelerator gas, conc. determ., sound vel. meas. 34830
SO_2, absorpt. cross sects., differential absorpt. laser spectrosc. 26009
Si surface trace impurity anal., X-ray fluoresc. spectrosc. 42977
SnO_2:ZrO_2,PdO thin films, PH_3 detect. 3913
Tm-doped fibre source, LD pumped, methane gas detect. by correl. spectrosc. *(Chinese)* 17973
WO_3 based H_2S sens., nanocrystalline struct. 3922
ZrO_2 double cell O_2 sens., polaris. curves, humidity effect 42769
ZrO_2 miniature gas sens., air-fuel mixture ratio meas. appls. 34610
ZrO_2 oxygen sens., embedded heaters, leak current 9844

chemiluminescence
radio-nuclide initiated chemilum. fueled secondary batt. 36513

chemioception
biosensors mimicking biological taste/smell senses 25889
quartz bulk piezoelec. odour sens. array, coating materials 34450

chemisorbed layers
Si:B, epitaxy, B incorporation 12101

chemisorption
see also chemisorbed layers
polyaniline, ellipsometric sens., spectral response 3819
thin-film CdSe and CdS oxygen sens., surface spectrosc. 34611
GaAs, MOMBE growth, surface chem., mass spectrometric anal. 37431
GaAs/$Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., sens. appls. 38303
GaAs/$Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., photolum. intens., sens. appls. 39558
GaAs(110), Cs chemisorpt., ab initio study 6668
GaAs(110), K chemisorpt., ab initio study 1290
Ge (001) GSMBE, growth kinetics/surface roughening 20864
Mo-diamond:C CVD film, solid state react. 37491
Ni-YSZ cermet internal reforming SOFC electrodes, catalytic study 44357
Si, SR-excited ALE growth, TOFMS 37447
Si, SR-excited ALE, temp. effects 20710
SnO_2 films, Schottky surface barrier, gas-sens. effects 42862
SnO_2:Sb coatings on ceramic cloths, sol-gel proc. 28792
$(Sr,Ca)TiO_3:Nb^{5+}$ capacitor-varistor ceramics, cation diffusion 436
Ta(110)/Ta(110)-suboxide etch selectivity, Cl_2 mol. beams 30130

chemistry
see also atmospheric chemistry
HVDC thyristor valves, water cooling 5032
smart materials, spatially resolved chem. dimens. 28890
NO_x prod., chem. kinetics, stirred reactor 35972

chemistry computing
see also computerised instrumentation; spectroscopy computing
electrorefining proc., anode passiv. expts. 28192
gas turbine bottoming cycle, internal reforming SOFC appl. simul. 36020
gas turbine power plants, monolithic SOFC appl. studies 36019
internal combustion engine power generation, O_2 enrichment simuls. 35970
Internet and LAN for chem. research environ. 8919
MeV ion microbeam anal., transputers in data collection syst. 24991

chemistry computing continued
- planar SOFC stacks, bipolar plate/manifold design tool 44368
- PV-hydrogen energy conversion syst. studies 27624
- short lived isotopes, automated NAA syst. 17656
- SOFC geometries 3D num. simul., computer-based 44367
- stationary batts., diagnostics/perform. prediction approaches 19956
- Pb-acid automobile starter batt., computer model 36541

Cherenkov counters
- AMANDA detector, South Pole ice, opt. props. 26141
- CERES RICH detectors, pad readout 34926
- COBEX, collider beauty expt. for LHC 4183
- conference, high energy physics calorimetry, Italy (Sept. 1993) 20228
- Cornell high lumin. upgrade, CLEO II detector, CLEO III 4177
- fast-RICH prototype with VLSI readout, beam tests 4164
- forward collider B expt., LHC 4185
- GAJET expt., LHC 4184
- gas photomultipliers, scintillators/Cherenkov detector readout 26175
- HADES, proposed dilepton spectrometer, design, perform. 34959
- hadronic sampling zero degree calorimeter, ultrarel. HI collisions 34899
- high current electron flux, energy meas. Cherenkov detect. 34819
- imaging atmos. Cherenkov telescope, primary gamma ray spectra 34904
- IMB RICH detector, calib. 26166
- KAMIOKANDE, recent results, atmos. neutrinos 43129
- modular Cherenkov charge detector, total internal refl. 4219
- multichannel imaging camera, TeV gamma rays, optimal charact. 4230
- opt. discriminator, LHC fixed target expts., beauty search appl. 4186
- plastic scintillator/Cerenkov radiator detector atten. 26115
- quartz Cherenkov counter, photomultipliers with MCP 38221
- quartz fiber calorimeter for collider expts., design 26208
- quartz fibers, forward calorimetry, fast, rad-hard 26204
- RICH detector, CsI photocathode readout, low press. avalanche 34927
- SLC/SLD, lin. collider expt. experience 34842
- threshold Cherenkov counter using silica aerogel 34931
- very forward calorimetry, induced radioactivity effects, methods comparis. 26203
- Zero Degree Calorimeter for CERN SPS NA50 expt. 26207
- Cu/quartz fiber calorimeter, forward calorimetry in supercollider expts. 26202
- PbF$_2$ EM calorimetry, Cerenkov detector/cryst. props. 26196
- ^{90}Sr activity meas., Cherenkov radiation in silica aerogel 18343

Cherenkov detectors *see Cherenkov counters*

Cherenkov radiation
- *see also Cherenkov counters*
- adaptive logic networks for particles recog. 34818
- crosslinked poled polymer waveguides, Cerenkov SHG 14455
- dielec. Cherenkov masers, powerful amps., superwide bandwidth 1843
- DMNP cryst. cored fiber freq. doubler for blue light generation *(Japanese)* 2060
- electrons, finite trajectory, Cerenkov radiation 10093
- FEL, high peak power 39909
- free elctron laser, Kerr-like medium, efficiency enhancement 23319
- grating amplifier with sheet electron beam 21853
- guiding-center Cerenkov radiation, helical electron orbit 31728
- helical Cerenkov effect, microwave/vis. radiation sources 31730
- helical Cerenkov effect, novel radiation source 2185
- helical Cherenkov effect, observability 40259
- high-power Cherenkov device, superdimens. slow wave struct., simul. 29812
- high-power microwave generators, principles and capabilities 38217
- laser, Kerr-like medium 7699
- laser, nonlin. charact., particle simul. *(Japanese)* 31431
- maser, nonaxisymmetric mode, beam-wave interactions 23068
- maser, rectangular grating, hybrid modes, dispersion relation 23070
- masers, rectangular gratings, and., expts. 7502
- multiwave Cherenkov generator expts. 29805
- open-boundary Cerenkov laser, dyn. behavior anal. 14980
- opt. fibers, Cherenkov radiation procs. 31622
- overmoded slow-wave resonators for interact. with relativistic electron beams, EM props. 1005
- quasi-Cherenkov surface emitting FEL, linac 39982
- quasi-Cherenkov X-ray DFB FEL under multi-wave diffr. 39978
- relativistic e-beam, rad. meas. time-resolved images 31732
- relativistic electrons laser accel., inverse Cherenkov effect 26042
- S-band lin. accelerator, electron bunch generation 4046
- waveguide Cherenkov laser, conducting inner surface 7592
- CO$_2$ ps laser for relativistic particle accel. 15195
- KTiOPO$_4$ proton exchanged waveguides, ultrashort SHG study 23440
- LiNbO$_3$ proton exchanged waveguides, ultrashort SHG study 23440

CHILL *see specification languages*

chilling *see cooling*

chip carriers *see integrated circuit technology; packaging*

chiral media *see chirality*

chiral waveguides *see chirowaveguides*

chirality
- *see also chirowaveguides*
- artificial chiral material, approx. model 23489
- bianisotropic media, duality transforms., Green dyadics, plane-wave solns. 40322
- biisotropic materials, chirality/non-reciprocity determ. 15600
- chiral and nonreciprocal chiral-ferrite media, fund. props. 23551
- chirostrip dipole antenna, scanning behavior, substr. effects 8052
- circ. impedance cylinder, chiral sheath coated, scatt. 15410
- composite chiral material, wide freq. band, calc./meas. 23596
- composites, enhanced polariz. effects 15395
- doubly clad opt. fiber filled with chiral materials, modal cutoff 7290
- dyadic Green's fns., radially multilayered chiral media 40291
- electromagnetostatics in uniaxial bianisotropic media 15203
- EM and chirality 40326
- gyroelectric chiral media, field representation by cylindrical vector wavefunctions 31887
- helicenes, chiral opt. nonlin. 15094
- higher order impedance boundary conditions, chiral coatings appl. 2214
- isotropic chiral composite modeling 15619
- isotropic chiral media, effective charge densities and current densities 23491
- knot backscatt. signatures 23589
- lossless bianisotropic media, conditions for param. dyadics 40297
- lossless composite chiral materials, params., full-wave computation 40279

chirality continued
- mol. solns., opt. susceptibilities, nonlin. spectrosc. 31551
- multilayered spherical chiral media, Dyadic Green's fns. 40323
- planar wire-mesh EM shields loaded by general stratified struct. 40379
- planar wire-mesh shields loaded by chiral slabs, transient anal. 23710
- plane wave refl. and transm. at isotropic pseudochiral interfaces 23564
- polymer-dispersed CLC films, opt. memory 39308
- second-order opt. activity, elec. and mag. contribs. 40097
- shielding props. anal. of chiral slabs 40378
- shields, transient anal. 23709
- structurally chiral medium, piezoelec. wave prop. 13986
- Ba$_7$(BO$_3$)$_3$F$_5$ struct. for nonlin. opt. appls. 15147
- BaCaBO$_3$F struct. for nonlin. opt. appls. 15147
- Ru complexes, chiral, octupolar opt. nonlin. 40049
- SrLi(B$_3$O$_5$)$_3$ struct. for nonlin. opt. appls. 15147

chirowaveguides
- 2D chirowaveguides, FEA 2298
- 3D chirowaveguides, FEA, hybrid edge/nodal elements *(Japanese)* 8015
- artificial chiral material, approx. model 23489
- bi-isotropic microstrip geom., quasi-static image method 15573
- biisotropic materials, chirality/nonreciprocity params., waveguide/resonator perturb. 15576
- chiral opt. fibers, guided waves, modal dispersion charact. 7322
- chirofibre, EM wave propag., modal charact. 30859
- doubly clad opt. fiber filled with chiral materials, modal cutoff 7290
- EM at Kuwait Univ., chiral materials in microwaves 6290
- gyroelectric chiral media, field representation by cylindrical vector wavefunctions 31887
- gyrotropic chirowaveguides, guided EM waves 2293
- lossy parallel-plate uniaxial chiro-omega waveguide, mode characts. 15599
- magnetooptic channel waveguide devices, geometric phases 31017
- modal cutoff conditions for annular core 40405
- open chirowaveguides, guided modes 15575
- partly loaded circ. chirowaveguides, dispersion curves 15581
- rect. waveguide, chiral-material-filled, EM wave propag. 31906
- three-layer dielec. clad parab. cylindrical chirowaveguide, anal. study 40442

chirp modulation
- 1.55 μm semicond. laser source, gigabit/second integrated electroabsorptive modulator 1741
- absorptive-grating gain-coupled DFB semicond. lasers, opt. pulse chirp 14947
- act. mode-locked LD array, tunable picosecond pulse generation, chirp compensation 7614
- all-fiber fs pulse amplif. cct., chirped Bragg gratings 31230
- backward-wave cyclotron maser oscillator expt. 29806
- cascaded chirped fibre grating transm. filters, dispersion compensation 39342
- chirped laser radar, optoelectronic sig. demodulation 17448
- DFB fibre chirped laser, transm. charact. 39702
- DFB laser chirp pulse pattern dependency, modulation and transm. perform. *(Japanese)* 39801
- DFB laser-electroabsorption modulator integrated light source 39472
- DFB laser-fibre grating dispersion compensator, transm. dist. extension 39344
- DFB lasers integrated with external modulators, freq. chirp anal. 14953
- dispersive fading channel, high-speed data transm., SR-chirp PSK 9356
- dye laser, flashlamp pumped, single-mode operation 23108
- externally modulated lasers for fibre transm., optimum prechirping 1971
- Fabry-Perot laser/fibre grating, pulse compression/mode selection 23225
- FEL, chirped pulse amplif., OHG, deep UV pulse generation 39907
- FEL amp., freq. chirping and phase 31438
- fiber Bragg grating systs., cubic/quadratic dispersion compensation 39360
- fibre chromatic dispersion compensation, chirped fibre Bragg gratings 39330
- hybrid grating-prism stretcher-compressor, cubic phase tunability 2046
- hybrid laser, high-power, narrow-linewidth, stable single-mode 7674
- in-fibre grating systs., pulse compression, dispersion charact. 39341
- injection-locked directly modulated lasers in multigigabit-per-second std.-fiber transm. 9516
- injection-modulated semicond. lasers, chirped pulse, α-param. depend. 31402
- integrated laser/modulator, long-dist. transm., 2.5 Gbit/s 14880
- joint transform correlators, chirp encoded, image class. 33016
- laser radar, optoelectronic chirp generation and sig. demodulation 17444
- Mark III FEL, freq.-chirped opt. pulses obs. and characterisation 39932
- matched filter output for real chirp sig. input 32643
- MQW DFB lasers, external modulation, freq. chirp simul. 31348
- MQW electroabsorp. modulators under digital modul., chirp control 7388
- MQW lasers, freq. chirp, quantum carrier/escape time effects 39766
- multimodulation acoustic commun. syst. 9658
- opt. temporal proc. and time lenses implement. 41301
- pass. mode-locked diode laser pulse charact. 39834
- pulsed FEL amp., temporal/spatial phase vars. meas. 7688
- Raman laser, intracavity freq. conversion, spectral charact. 7735
- repeaterless transm., 10 Gb/s, fiber, dispersion compen. 34020
- semicond. laser amp., carrier depletion effects on opt. phase conjug. 39830
- semicond. lasers, soliton generation, opt. switching appls. 7651
- short pulse tomographic meas., generalized Radon transform 39373
- single-mode diode lasers, feedback, external light injection, switch-on time, timing jitter 31397
- solar RF emission anal., spectrometer methods and obs. *(German)* 25625
- SS techs., multipath interf. suppression 25250
- transient sigs. separation 24258
- ultrashort UV FEL 7697
- WDM chirp reduction LD by injection locking 3557
- CO$_2$ TEA laser dyn., freq. stabilisation, chaos 23087
- CO$_2$ laser, injection locking, freq. stabilisation, line narrowing 1865
- Cr:LiSAF laser, multi-TW femtosecond pulse generation 23165
- InGaAs/InAlGaAs QW DFB laser facet influence on wavelength tunability and linewidth-chirp 39860
- InGaAsP gain switched DFB laser, nearly transform limited pulses, pol. dispersion effect 14885
- LiNbO$_3$ asymmetric Mach-Zehnder opt. modulator 31002
- LiNbO$_3$ high-speed opt. modulators, Mach-Zehnder config. 30986
- Nd:YAG laser, quasi-CW LD array pumped, absorpt. efficiency control method *(Japanese)* 31307
- Nd^{3+}:YLF laser, chirp diagnosis, nonlin. Kerr coeff. 23338
- Ti doped sapphire laser, femtosecond pulses generation 1911
- Ti:sapphire high intens. femtosecond laser syst. *(French)* 1891
- Ti:sapphire ultrashort laser pulse compression, single shot meas. 23152

chloride glasses *see halide glasses*
chlorine radiochemical detectors *see chemical radiation detectors*
chokes *see inductors*
cholesteric liquid crystals
axial propag. modes, handedness/atten. 7351
induced cholesteric liq. cryst. polymers for opt. data storage 14542
lin. electro-optic effect, flexoelectricity 14538
polymer-dispersed CLC films, opt. memory 39308
choppers (circuits)
1 MW SRM design, traction appls. 36757
1-phase supply, drive appl., DC/AC outputs control, thyristor ccts. 5343
AC choppers, input PF improvement, asymm. PWM tech. 36334
AC locomotives, slip vel. feedback torque control *(Japanese)* 11407
buck chopper GTO thyristors, bond graph modelling 29039
buck-boost PWM inverter, PV power syst. appls. *(Japanese)* 11122
CMOS autozeroed chopper-type comparators, offset errors *(Japanese)* 6260
DC drive, digitally controlled 20088
DC drives, thyristor/chopper/power converters 36734
DC motor, HV input, rectifier-chopper control 27753
DC motor chopper traction systs., computer simul. *(Chinese)* 28128
DC motor drives, chopper-fed, fault conditions anal. 5276
DC motor drives, separately excited, tunable fuzzy logic control 20076
DC-DC power convertors, DC reson. link-based topol. 27832
elec. drives energy conservation, energy efficient options 28098
elec. machines, permanent state simul., electronic commutation *(French)* 10950
EM noise emitted from elec. vehicle 28116
GTO thyristor snubberless turn-off, avalanche proc., gate drive influence 30266
GTO thyristors, gate drive cct., high speed operation 29021
hybrid step motor control, reconstructed mag. flux sig. 11327
induction motor drive, field oriented sliding mode torque/speed control 36699
induction motor drives, control, DC chopper 28081
Jones DC-DC converter, traction drive appls., av. modeling 19812
KAON Factory synchrotron beam chopper pulsed power supply 34743
MCT, gate drive cct., overcurrent protection 12323
MCT converter, snubber efffect, switching loss, EMI reduction 6017
nonpunch-through-IGBTs, electromechanical crit. load simul. 30314
planar busbar low inductive connections, power electronics 12868
PM-excited sync. motorcar generator, design optim. 5379
PMDC motor elec. vehicles drive, adaptive ANN rule-based controller 36721
PV array max. power point tracking scheme 19559
PV DC motor water pumping syst., characts. anal. 27638
regenerative DC drive, sinusoidal line current consumption 5321
self-excited chopper, quartz micromachined, opt. sens. appl. 30978
single phase AC choppers, asymm. PWM control 36246
solar cell, max. power point tracking control, chopper *(Korean)* 36608
SRM drive, chopper control, acoustic noise, ride through 11322
sync. motor drives, inverter-fed, self-controlled, perform. characts. 5289
UPS, half-bridge inverter/converter cct. 44200
variable speed fan motors, chopper control syst. *(Japanese)* 4884
vehicular air conditioning, rotary stepping motor, missed step detect. *(French)* 11485
VSI, IGBT-based, asynchronous machine appls. *(French)* 11193
wind power syst., max. power point tracking, fuzzy control *(Japanese)* 10903
chopping *see cutting*
CHP generation *see cogeneration*
chromatic aberration *see aberrations*
chromatography
automatic sample prep./anal. syst. 34409
biosensors, biotechnology-based recogn. elements 43187
flip COB process charactn., no-clean flux, ionic residue 38108
gas chromatography, silicon-micromachined syst., anal./modelling 9963
gas chromatography syst., silicon micromachining, design/fab. 9962
gel permeation chromatography, Tung integral eqn. deconvolution *(Chinese)* 3740
no-clean flux eval., SIR testing 927
organics, trace, in aq. streams, automated determ. 18140
power transformer composite paper-oil insulation monitoring 19686
power transformer insulating oil test syringes, gas-tightness studies 36224
proc. gas analyzing syst., locally mounted 9964
RTV silicone rubber insulator coatings, hydrophobicity transfer *(Chinese)* 35665
(Hg,Cd)Te, metalorganic VPE, methyl(allyl)telluride Te precursor 20792
Ni-Fe batt. cycling expts. 36548
SF$_6$ insulated HV equipt., gas chromatography diagnostics 11206
SF$_6$ insulated transformers, decomp. by-products 5006
chromising *see surface hardening*
Chua's circuit
1D two param. mappings of nonlin. systs. transit., chaos 509
chaos control by resistor switching 12309
CMOS analogue chaotic oscillator for sig. encryption 34433
coupled Chua ccts., riddled behaviour 21087
cubic nonlin., bifurcation phenom. 12304
dissipative non-autonomous cct., bifurcation and chaos 37617
dyn. syst. sync. and control 12297
hyperchaos, clustering and cooperative phenom. in CNN arrays 21492
online ident, chaos control 5949
oscillator, chaos anal., SPICE simulator *(Slovenian)* 37664
rem. chaos replication cryptosystems, cryptanalysis 32177
review 12361
secure commun. systs., chaotic chips/Chua's ccts. 8690
secure commun. systs. via chaotic sync. and modulations 41381
strange attractors, discrete reconstruction 12296
time-delayed, fractal set props. 37614
time-delayed Chua's cct., chaotic behavior in lumped-distributed ccts. 12302
unfolded Chua's cct. generated by cellular neural net cells 37615
CI calculations *see configuration interactions*
C^{3}I systems *see command and control systems*
CIM *see computer integrated manufacturing*
cinefilming *see cinematography*
cinematography
see also cameras; telefilming
advanced broadcast video service (ABVS) 25667
audio quality improvement *(German)* 25689
cinematography continued
EDTV-II telecine image conversion and signalling *(Japanese)* 17569
film-based motion picture digitizing syst. for high defn. images *(English)* 16126
motion-picture film image resoln. 41202
ref. auditorium and audio std. strategy *(German)* 9765
spray atomization/deposition, proc. params. monitoring, sens. 28898
circuit analysis *see network analysis*
circuit analysis computing
see also circuit CAD; SPICE
2D FIR-median hybrid interpolation filter design for HDTV *(Korean)* 42601
3.5 MW sync. motor drive, cycloconvertor-fed, modelling 5323
3-D semicond. device simulator on distributed-memory MIMD/SIMD machines 1317
3-phase PWM boost rectifiers, dual boost converter 19726
3D EM simulator, IE3-D, HF and high-speed cct. appls. 21071
3D environ., cross-talk determ., simul. methods 15530
3D LCR extraction and modeling of VLSI packages 5623
AC bridge for impedance meas., anal./design/implement. 12613
AC voltage regulator harmonic capability, SPICE anal. 540
accel. of logic simul. 5955
act. microwave filters, nonlin. behaviour 21414
act. power harmonic filters, computer simul. studies *(Korean)* 28998
advanced CMOS analogue design, training 21460
analog and pulse stream VLSI hardware for neural nets and fuzzy systs. 29458
analog cct., design procedures storage/reuse 554
analog ccts., model-based diagnosis 11846
analog IC soft fault diagnosis, ANN-based tech. 30399
analog syst.-level fault diagnosis, symbolic method 12269
analog VLSI neural network for texture anal. 29477
analogue behavioural modelling and simul., VHDL and Saber-MAST 484
analogue fault simul. software 488
analogue ICs, SETIPIC electrothermal simul. 30439
analogue nonlinear cct., freq. domain simul. 21088
ARC-network design with op amp, parametric optim. subsystems 28982
architectural-level fault simulation using symbolic data 21207
avionics PCB SMC, reliable design 10317
B^{2}CMOS, bootstrapped BiCMOS gate for LV appls., HSPICE simul. 12477
bal. act. microwave freq. doublers, modelling/anal./design 861
batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966
behavioral simul. for analog syst. design verification 28943
behavioral simul. techs. for phase/delay-locked systs. 29402
behavioural level mixed A/D syst. exploration 768
benchmark ccts. for mixed-mode SPICE simulators 29401
BiCMOS buffer ccts., delay modelling and optim. 647
BiCMOS integrated process/cct. develop. using SPR 39024
bidirectional current-controlled PTAT current source 12328
BiMOS high power devices appl. in intell. snubberless power conditioning ccts. 29031
binary rel. inference neural net, VLSI implement. 29446
bipolar technols., stat. cct. simul. 39001
bipolar transistor, breakdown model, PSPICE cct. simulators appl. 6736
bipolar transistor sustained oscillators, energy/fluct. charact., computer anal. 570
biquad high-order SC filters, multiplexing tech. 6220
boost converter, PF correction cct. simul. 11162
boost PWM converter, feedback controlled, averaging theory 19770
buck and boost DC-DC PWM convertor anal. 11184
buck chopper GTO thyristors, bond graph modelling 29039
buck ZVS power converters, anal./design 44134
buffer layer IGBT modelling for cct. simul. 30297
built-in-input filter forward converter 6005
C$_\infty$-continuous small-sig. model for MOS transistor in normal operation, IC simul. 22401
C++ design and implement., semicond. wafer CAD 12293
candidate paths method for perform. optim. 21048
canonical piecewise-lin. resistive networks, anal. 28933
categorization-based diagnostic systems in VLSI design 5959
CBGA package design for C4 PowerPC μP chips, substr. routability and perform. 5661
CFH, complex freq. hopping anal. of interconnect networks 21083
CHAN, CPA algm. for timing anal. 21046
charact. eqns. develop., principal variables method 37593
chip model library for integrated package/chip simul. 37081
Chua's cct. online ident., chaos control 5949
Chua's oscillator, anal. of chaos, SPICE simulator *(Slovenian)* 37664
circuits systs., symp., Chicago, USA (May 1993) 31
class C RF amps. simul. 12341
Class E tuned power amp., computer-aided anal. *(Chinese)* 5988
CMC ATM switch I/O proc., design/validation, HDL Verilog 33719
CMOS cascode current mirror, HF response 12351
CMOS ccts., max. no. of switching gates, eval. *(Japanese)* 28978
CMOS continuous-time analog defuzzifier 29417
CMOS current-memory sigma-delta modulators, discrete-time simul. 29327
CMOS driven, center tap terminated network in shared bus design, optimisation 11769
CMOS fully differential difference amps., unity-gain difference feedback 37641
CMOS IC, coupling characterisation, meas. techs. 15491
CMOS IC crosstalk extraction from mask layout 22568
CMOS implement. of current conveyors *(Polish)* 724
CMOS IR sens. design, computer-aided tradeoff study 3838
CMOS logic gate delay computation, slope considerations in probabilistic simul. 29115
CMOS logic gates, short-cct. power dissipation estim. 619
CMOS maximal current and deriv. estim., activities waveforms 21200
CMOS OTA-C act. filter simul., OTA macromodel 21404
CMOS power dissipation, cost-effective estim. 22567
CMOS power dissipation at logic level, simul. mapping 21199
CMOS SRAM soft-error simul. syst. 657
CMOS total self-checking design 22566
CMOS VLSI 32×32 ATM switch, design, simple logic control 9137
CMOS VLSI ccts., techs., improve fault diagnosis 21063
CMOS VLSI implement. of modular ANN chip for character recogn. 6273
CMOS VLSI predictive tree-searched vector quantizers for real-time video compression 29276
COB encapsulation technol., stress anal., reliab., FEM 37077
COCO program for lin. circuits 493

circuit analysis computing continued
collector epilayer modelling of BJT in MEXTRAM model 13650
Colpitts oscillator, chaos 576
Colpitts oscillator, resistive nonlin. charact., phase/oscill. freq. *(Slovenian)* 12366
COMPLAB Professional, time domain functional simul. of radio-engng. devices 28936
COMPLAB syst., adaptive interf. compensator simul. 28984
complementary noise immune logic in high speed ECL technol. 6069
complex logic products, stat. design for perform., practical methodology 29137
complex mixed-sig. ICs, parametric yield prediction 29399
complex nonlin. elec. ccts., num. simul. 510
complexity eval. of digital cct. simulators 480
computer assisted learning, Windows Help files 5536
config. ratio, model for simulating CMOS intra-gate bridge, variable logic thresholds 39014
converter-machine bond graph models, digital simul. 27821
coupled transient simul. of ccts. and 3D packaging, algos. 21070
coupled transient simul. of ccts. and 3D packaging, algms. 11808
crossing current reson. power converter CAD 44219
cryogenic rad-hard CMOS readout multiplexer fab. 30448
current S/H ccts., clock feedthrough anal. and cancel. 780
current-limiting devices, AI action 544
custom IC, conf., San Diego, CA, USA (May 1994) 20247
custom IC, conf., San Diego, USA (1993) 36842
data-driven subthreshold analog MOS neural net cct., principal components computation 798
DC current amp., noise anal. simul., PSpice-based *(Japanese)* 6029
DC motor chopper traction systs., computer simul. *(Chinese)* 28128
DC small sig. symbolic anal. of large analog ICs 12281
DC unstable operating points ident. using SPICE, IC design 22525
DC-DC power converter cross regulation charactn., SPICE-based 19794
DC/DC power convertors, parallel-connected, current distrib. control 44141
DC/DC PWM power convertor, small-sig. modelling 11148
DC/DC PWM step-up power supply, SC cct.-based 27807
DC/DC PWM switching regulators, fn. control 29022
deep submicron compact phys. model for analog ccts. in mixed analog-digital ICs 21452
delay anal. tool, automatic hierarchical 491
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
design automation and ASIC design, conf., Paris (1993) 20199
design rule checking and cct. extraction via, fast data struct. 28949
device-circuit mixed eqns. 22333
digital board simul. 37596
digital ccts., arith. units simul. 5968
digital ccts., parametrization of EMC-macromodels 21174
digital electronics, state machines, direct cct. implement. 5969
digital microwave receiver, lin. amp./ADC anal./design 29311
digital VLSI CAD tools based on probab. 28971
DiPaCS concept for parallel cct. simul. 37595
discontinuous current mode series-parallel reson. converter 37623
discrete Walsh transforms, neural net cct. 12680
dissipative non-autonomous cct., bifurcation and chaos 37617
distributed logic simul., test environ. 12496
distributed-gain amps., component param. spread effects 559
DRAM variable precharge voltage sens. 12515
EEPROM CAD model for low power cct. design/simul. 21304
elec. machine power convertors, 2D FEM computer modelling 36099
electronic apparatus design/anal. software, PC-based *(Russian)* 5948
electronic cct. network fns., matrix proper values 28983
electronic design, multiple media 20317
electronic packaging, conf, Monterey, USA (Oct 1993) 36898
electronics, computer-aided lab. 20319
electronics packaging interacts., equiv. cct. models 11764
em, EM simul. tool for MMIC design 29598
energy in elec. ccts., computer assisted learning/teaching 37589
event-driven simul. scheduling cost reduction, clustering 21027
fault simul. of digital designs on parallel proc., distrib. algm. 37685
flexible simulator running on Macintosh 12263
FLOTOX EEPROM, program operations, simul. 656
fluoresc. lamp current var., electronic ballast tolerances, PSPICE 11460
four-quadrant bipolar power converters, computer simul. 5096
Fourier anal. for cct. simulators 21076
full-bridge PWM DC/DC soft-switching power converter 19791
fully depleted SOI CMOS SRAM cell, SEU sensit., SPICE anal. 12522
fully differential feedback amp. ccts., return ratio simul. 21131
functional and behavioural models for accurate failure diagnosis 12283
functional correctness verification, VHDL and Statecharts-based approaches 21056
functional postfabrication tuning, neural network learning 12278
functional timing analysis using ATPG 21166
gate-level transient fault simulation environment 29179
generic cct. response interpolation for robust design, freq. domain simul. 37585
Getreu comparator macromodel, anal. and design algms. 6257
GTO PWM three-level VSI, induction motor drive appls. 19761
GTO thyristors, cct. simuls., math. model 5063
GTO thyristors, gate drive cct., high speed operation 29021
GTO thyristors, turn-off characts. modelling 11113
half-bridge ZVS multi-reson. power converters, light load mode anal. *(Chinese)* 36336
hardware inference syst., completeness 21065
hardware/software co-synthesis, design representation 28962
hazard anal. of struct. seq. systs. 37726
HF inductors modelling 6380
HF switched-mode PWM power amp., perform. anal. 542
hierarchy use in logic cct. fault simulation 21206
high speed CBiCMOS digital cct., LV appls. 22617
high speed CMOS ccts., skew and delay minimization, stochastic optim. 29086
high speed digital interconnects, hierarchical simul., packaging simulator 5660
high speed interconnects, simul., packaging simulator 20438
high-speed VLSI interconnects, freq./time domain simul. 12287
HTSC planar transm. lines, propag. params. calc. 40415
HyHOPE fast fault simulator hypertrophic faults simul. 21253
I/O-buffer modeling spec simplifies simul. for high-speed systs. 37693
IC cad tools 6843
IC design, adaptive models, obj.-orientated prog. 30440

circuit analysis computing continued
IC layouts comparison with HDL models, formal verif. tech. 37588
IC photomicrographs, cct. extraction 6833
IDAS, power electronic/elec. drive simul. tool 11347
IEEE/ACM conf. on CAD, Santa Clara, CA, USA, 1993 36906
incompletely specified data-paths, assign. tech. 21041
incremental simul. for large scale ccts. *(Japanese)* 37597
insensitive second-order filters, high input impedance, current conveyors 12640
internal overload control perform. in large switches, simul. 37724
International Test Conf., Washington, DC (Oct. 1994) 61
interval-semantic component models and efficient verification of transaction-level cct. behavior 37583
introductory elec. engng. course, cct. simul. software 5530
isolated high power boost topol., transformer models 19745
knowledge based approach, analog cct. simul. 483
ladder filter CAD/anal. 12617
lattice mixers, noise fig. limitations/input matching 12742
layout depend. fault models, analogue fault simul. 6871
layout driven test generation for CMOS combinat. ccts. 6863
layout-based extraction of IC elec. behavior models 22542
LCC parallel reson. power converter, discrete time domain modelling 36249
LCC parallel reson. power converter, small sig. anal. 11129
LCL reson. PWM converter, anal./simul./implement. 36245
lift control board elec. design, ES spec. judging 5961
lin. ion accelerator FET-switched pulsed power supply, PSpice simul. 34742
lin. networks, symbolic anal., self-optimizing alg. approach 12294
linear N-port network, stabil., return ratios 37606
load-independent cell library macromodeling, waveform simul., CMOS logic 29143
locally connected CMOS neural cells, steady-state heat flow problem 795
log simulated annealing for electronic component model minimization 12280
logic ccts. simul., network of transputers 37734
logic simul. accel., data flow archit. 21060
looped MOS inverters, chaotic behavior and bifurcation 37613
lossy coupled transm. lines simul., window partitioning, waveform relax. 13422
lossy transm. line simulator in PCB layout package 21638
lossy VLSI interconnect, sig. transients, propag., crosstalk 30426
LOSSYWIRE, lossy coupled transm. line simul. kernel 33732
low-cost simul. of mixed-sig. ASIC functionality 6241
low-noise oscillators design/optim., nonlin. CAD 29072
LSI module placement, Hopfield neural net, non-zero diagonal elements *(Japanese)* 37599
LV full-swing noncomplementary BiCMOS buffers 12489
macromodel fault generator for cellular neural networks 21499
majority voting based VLSI fault-tolerant ccts., reliab. 641
massively parallel array proc. for logic, fault, and design error simul. 12292
matrix manipulation techs. for cct. eqns. 12264
matrix power converter, switching freq. harmonics studies 5051
MCM reliab. assess., phys.-of-failure approach 28533
MESFET amp., IMD, cct. param. and topol. effects 37649
MIC2D software for microwave planar cct. anal., time domain FEM 38038
microcircuit simul. and test develop. BEST TEST software 34407
micropower batt.-operated CMOS cryst. oscillator, anal. 6045
microprocessor chips, custom-designed, wear-out simulation environment for VLSI designs 29295
microstrip passive filter anal., FDTD algm. improvement 29536
microstrip struct. anal., simulated matched load termination 29539
microwave band lin. ccts., sig. and noise charact. 12798
MIMD parallel cct. simul., matrix soln. 28951
mixed analogue digital IC simul., modelling techs. 21445
mixed photonic/electronic cct. simul. 37603
mixed-mode syst. simul., parallel computing 769
mixed-sig. ICs, parametric yield prediction 29396
mixed-sig. simul., Alfa simul. backplane 487
modelling, local extended state eqns. 482
modulated-freq. boost AC-DC preregulator, model 19804
MOS EPROM writing charact., hot electron injection model, transient simul. 12546
MOS micropower analogue second-order continuous-time filter, SPICE simul. 37846
MOS SPICE transient cct. simul., integrat. methods, noncontinuous first derivative devices 6868
MOSFET ccts., relax.-based transient sensitivity computations 22604
MOSFET IC radiation reliab. software simulator 13898
MOSFETs, non-quasi-static transient effects, model 22410
multilayer package, simultaneous switching noise 11806
multilayer PCB, power bus decoupling, modeling 15534
multilevel inverter-based SVC, computer simul. 19122
multilevel iter. algms., cct. struct. decomp. methods 5951
multimedia computer-based teaching, case study 20315
multiple current-source GTO CSI, control techs. anal. 19853
multiple obs. time single ref. test generation, sync. seq 21209
multiplexed DSP archit., hardware allocation, bit-align. 21342
multiport act. RC-networks, computer aided synthesis/sensitivity anal. tool 721
multiprocessor sparse matrix eqn. solver for SPICE 12275
multiresonant parallel ZVS power converter, anal., design 11171
NDR-SPICE cct. simul. of reson. tunneling devices 22336
neg. voltage regulator IC, total dose effects 12326
neural demodulator for ASK sigs. 29512
neural nets, analog, simul./training tech. 29500
neural network, analog VLSI current mode cct. 6272
nMOS transistor depletion threshold volt. adjustment *(English)* 22606
node-reduced multiterminal representations of semicond. devices, SPICE 12282
nonlin. LSI cct. simul., relax. Newton method 22530
nonlin. mag. ccts. anal., electronic cct. program 12848
nonlin. mag. device modelling, IDAS simul. syst. 12305
nonuniform freq.-depend. interconnections, PSPICE simul. 23755
Nyquist data converters, verif., behavioral simul. 37816
op amp power supply current sens., SPICE macromodel 552
operational test release vectors, verification approaches 17668
opto-electronic interferometric sens. ccts., CAA/CAD 17761
Pade approximants flow graphs, cct. anal. appls. *(Russian)* 21073
parallel DC-DC power converters, output droop characts. 11165
parallel logic level simul. of VLSI ccts. 12274
parallel logic simul., benchmark ccts., dyn. scheduling 12428
parallel logic simul. of VLSI systs. 12277

circuit analysis computing continued
- parallel operating 3-phase PWM inverter, cross current control 11140
- parallel reson. transistor microwave oscillator cct., computer-aided sensitivity anal. 6308
- parallel rip-up and rerouting, wiring quality in parallel wire routing problems *(Japanese)* 37600
- parallelism for cct simul., tearing approach 21026
- partially depleted SOI CMOS ccts., dyn. floating-body instabilities 22589
- PC program in teaching ccts./systs. 5528
- PCB, sig. line EM emission, spectral profile simul. 23669
- PCB assembly/soldering defects, inspection/SPC work stations 5696
- PCB pattern anal./eval. 38138
- PCB refl. and crosstalk effects simul. 908
- PCB visual inspection-diagnosis expert system, reverse engineering 29651
- PD models, image converter/computer simul. studies 1513
- perform. modeling of analog ccts. using additive regression splines, SC filter bank 30433
- periodically switched networks modelling, Cuk converter 11164
- piecewise-lin. ccts., contraction algo. for finding DC solns. 506
- piecewise-lin. resistive ccts., nonseparable transistor models 21092
- piecewise-lin. resistive ccts. containing transistor models, solns. 28993
- PLL phase noise prediction, CAE software appl. 12372
- polysilicon gate depletion effect on deep-submicron cct. perform. 1485
- polysilicon inversion-type TFT DC/AC model, kink effect 22491
- portable equipt. power syst. anal. tools, develop. 21054
- power constrained logic cct., optimized perform., single independent path anal. 21284
- power convertor nonlin. ccts., transm. line modelling 19720
- power devices, cct. simulators, look-up table models 38781
- power electronic circuit design, OO tools, PC based *(Spanish)* 12340
- power electronics undergraduate/graduate education survey, USA 5532
- power estimation for high level synthesis 21163
- power IGBT SPICE model, power converter design appls. 12316
- power MOSFET model, power electronic ccts. simul. 13698
- power p-i-n diodes, PSpice-based modelling 5987
- power semicond. 2-D simul., PAMSSEC package-based 524
- power semicond. convertors, emergency state diagnostic calcs. 11138
- precision behavioural modelling of data converters components 701
- printed microstrip device full-wave anal., generalised Yee algm. 29537
- Prolog proc. design via VHDL-based methodology 12289
- proton SEU rates in space compared to rates meas. on CRRES satellite, DRAMs 12532
- pseudo-exhaustive testing, VLSI ccts., cct. partitioning and test generation method 37573
- pseudo-exhaustive testing, VLSI ccts., coord. cct. partitioning/test generation 21260
- pulsed power converter dyn. characts., computer modelling 5095
- pulsed power modulator systs., pulse forming network calcs. 36441
- PV array/batt. power switch network, nonlin. SPICE model 27635
- PWM AC/DC power converter, current control studies 5070
- PWM inverters, current-source compensated deadbeat control 11166
- PWM inverters, real-time alg. harmonic elimination eqns. soln. 44162
- PWM invertor space vector modulation strategy, PC-based 44164
- PWM power convertors, independent inputs, large-sig. modelling 11152
- PWM rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
- PWM UPS inverter perform., computer simuls. 5077
- quadrature oscillator cct., anal., APEX simulator 572
- quasi-reson. DC link series reson. converter 12313
- quasi-reson. dual power converter UPS 5075
- quasi-reson. soft-switched inverter, cct. anal. 11170
- radial basis fn. neural networks, CMOS archits. 29498
- radioelectronic apparatus, printed components dyn. charact. computing 38071
- Rapid-2 accelerating board, develop. environ. 28968
- RC act. filter time-domain props., effect of gain bandwidth 6215
- real SC networks, num. time domain anal. 29350
- rectifier cct. transient anal., diode modelling, SPICE-based 12325
- redundant/undetectable faults testing in synchronous sequential ccts. 29180
- replica-amp gain enhanced op amp, settling time anal. 37648
- reson. DC link inverters, sine PWM control 5999
- reson. DC link ZVS VSI topol. studies 36281
- reson. inverters anal., electronic ballast appls. 11128
- RF ASIC designs, CAD syst., error-checking 37590
- RF design, nonlin. cct. anal. methods 37609
- RF/microwave cct. boards, 3D EM simulator 12284
- RF/microwave test simulator 34675
- RLC cct. transient anal., matrix topol. methods *(Russian)* 6205
- Rsim switch-level simulator, piecewise lin., timing anal. 1481
- RTD large-sig. DC model suitable for PSPICE 22344
- RTD-bootstrapped MESFET I-V refs., mirror-based 531
- S-param. cct. anal., appl. of artificial two- and four-ports *(English)* 21531
- SC higher-order immittance simul. ccts., synthesis 12308
- SC networks, charact. 12310
- SC/SI filter networks, cct. nonlin., piecewise lin. techs. 37855
- scan designed cct., test time reduction 21208
- SEE rates for gal. cosmic rays/solar flare protons, SRAM chip effects, satellite shielding 12533
- semicond. devices, parallel 3D simul. 13586
- semicustom IC design, power anal. syst. 30394
- SENSATION framework for optimal IC design and stat. anal. *(Korean)* 13834
- sensitivity anal. of one port/two port BAW/SAW resonator 30639
- seq. ccts., distributed ATPG 12291
- seq. ccts., test generation, parallel fault simul. *(Japanese)* 12426
- series integrated RTDs, subharmonic excitation simul. 6323
- series reson. converter, clamped capacitor voltage 11163
- series reson. oscillator design tech. for VHF/UHF ccts. 21136
- series reson. power converter, pulsed welding load appls. 5121
- series-parallel variable resistor networks, geometric charactn. 479
- series-reson. AC link inverter, output current anal. 11143
- SimBoy for capture and re-use of analog simul. knowledge 28939
- simul., parallel proc., direct method *(Japanese)* 471
- simul. code generation, KBS 21080
- simul. compression by sampling *(Korean)* 12266
- simul. packages, comparative study *(Italian)* 489
- simulation conf., Phoenix, USA (1995) 36829
- simulator incl. user-defined devices 21075
- simultaneous driver/wire sizing for perform./power optim. 494
- simultaneous switching noise, mutual inductance, simul. 12273

circuit analysis computing continued
- single electron ccts., simul. 28977
- single gate MESFET mixer, computer-aided anal./design 846
- single test point insertion, testability anal. 5954
- single-order addressed memory testing, effective march algm. 21301
- single-stage single-phase parallel PF correction 11157
- SISim, syst.-level interactive simulator for array proc. syst. 28954
- skew assumption logic simul. for pot. spike detect. 21164
- smart power CMOS IC, 2D charactn./perform. optim. 12315
- snubberless IGBT PWM-VSI inverterbridge, design/test 19728
- soft switching IGBT converters, vol. vs freq. 29629
- soft-switching converters, IGBT computer simul. and design optim. 29030
- software packages comparison 502
- space mapping tech. for EM cct. optim. 12286
- special purpose array proc. for digital logic simul. 38960
- SPICE, cct. schematics conversion from graphic display to netlist, appls. 5953
- SPICE dc operating point anal., identifying unstable operating points, IC design 37586
- SPICE integrat., TEK LV511 ASIC design verification syst. 1477
- SPICE macromodel for OTA 37844
- SpiceAge for Windows, DC modelling 5972
- stacked MOS transistors, cct. techs. 5964
- stacked-gate flash memory cell, operation mode 29209
- Stanford TCAD, next generation, PISCES 2ET and SUPREM 007 22543
- statisitical models of ccts. and systs., neural computing 5963
- steady state eqns. formulation, main vars. methods *(Russian)* 37582
- steady-state lin. elec. ccts., computer anal./design *(Russian)* 5976
- steady-state simul., nonlin. elimination 21025
- steplength algms. for tracing soln. curves in bipolar analogue LSI simul. *(Japanese)* 37591
- sub-0.1 μm double-gate SOI MOSFETs, design and perform. considerations 22472
- sustained oscillator systs., noise characts. and conversion 12354
- SVC develop. testing by simul. *(German)* 27879
- SVC TCR dyn. behaviour modelling, computer-based 4532
- SWEC, stepwise equiv. conductance, MOS VLSI simul. 13899
- SWIM, knowledge-based digital cct. simulator 21173
- switch-level fault simulator for CMOS ccts. *(Korean)* 12265
- switch-mode DC-DC power converter dyn. response, CAI 5533
- switched power harmonic filters, anal., appls. 19741
- switching power converters, num. inverse Laplace transform appl. 6022
- switching power supply, PSpice simul. *(Japanese)* 37631
- switching regulators, general algm. for anal. *(Japanese)* 12279
- symbolic anal. of large analog IC 29060
- symbolic cct. anal., Mathematica package-based 5967
- symbolic computation of approximated small-sig. charact. of analogue ICs 28955
- symbolic computation of approximated small-sig. characts. of analog ICs 28932
- symbolic network anal., cct. description lang. appl. *(Japanese)* 12288
- symbolic S-params. generating program 12262
- symbolic trajectory eval. results comp. 21064
- sync. seq. ccts., fault simul. 21268
- SysCalc program for cascaded chain anal. 12618
- syst. partitioning of MCM for low power 29734
- T9000 virtual channel proc., model checking via CAD 28950
- T-Model neural net for PCM encoding, nonlin. ADC appl. 6193
- Tanh law MOSFET model for high temp. cct. simul. 22462
- technol. independent neural network approach on device modelling interface 21072
- TEDMOS, CAD syst. for ASIC design on IBM-PC like computers 28948
- ternary-valued compiled logic simul. of complex logic networks 37725
- three-phase power convertor, quasi-reson. DC/HF transformer links 5088
- three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
- three-phase single-switch AC/DC buck-boost power converter 19841
- three-phase UPS VSI, feedback control strategy 44173
- thyristors/diodes, transient thermal impedance modelling/verification 13666
- time-domain diakoptics, implement. in FDTD method 469
- transformer coupled bridge, capacitance meas. errors 25940
- transm. lines, efficient freq.-domain modeling and cct. simul. 5977
- triode/pentode audio amps., SPICE models 37655
- two-port network, noise anal., recursive algm., S-wave approach 829
- unified nonlin. microwave cct./num. solid-state device simul. 6300
- uniform RC lines, resistive termination, time domain response 15545
- unity PF 3-phase dither rectifier, one switching device 19724
- UPS modelling/simul./anal., software-based 44171
- UPS PWM inverter, instantaneous feedback controlled 11177
- verification of timed ccts., automatic 21066
- Verilog, standardizing delay calc. 28974
- vert. DMOS power transistors for cct. simul., phys. modelling 1429
- VHDL-A for modelling 485
- VIDS, visual interp. for device simul., proc. models 22544
- VLSI bipolar cct. simul. techs. based on waveform relax. 38998
- VLSI cct. performs., worst-case anal. and optim. 38981
- VLSI RC parasitics modeling based on network reduction algm. 22536
- VLSI testing, online data collection/anal. syst. 6827
- VLSI timing perform. hierarchical approach 21047
- word-length determ./scaling software for sig. flow block diag. 28969
- X-ray timing Explorer Power Syst., stabil. anal. 26651
- ZVS quasiresonant IGBT power converter, PSPICE modelling 5079
- AlGaAs-GaAs HBT, large sig. equiv. cct. model, MMIC oscill. 38828
- AlGaAs-InGaAs MODFET based broadband dyn. freq. divider 38016
- GaAS DCFL logic gates, timing macromodel 37717
- GaAs ACT transversal filters, yield model 39118
- GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
- GaAs MMIC act. filters, synthesis incorporating noise effects 6328
- GaAs MMIC power amp., instabil. prediction 37606
- GaAs-AlGaAs heterostruct. barrier varactor freq. tripler, simul. 6321
- Si BJT IC chip perform. simulator, BCHIPSIM 594
- $Si_{1-x}Ge_x$/Si HBT model 22382

circuit breakers
- *see also circuit-breaking arcs; gas blast circuit breakers; residual current devices; vacuum circuit breakers*
- 12/36/145 kV distrib. cct. breakers, utility experiences 4668
- 13 kV distrib. network solid-state cct. breakers 4672
- automatic cct. breaker stabil., heat distrib. effects *(Russian)* 11196
- Cassini spacecraft solid-state power switch develop. 26660
- combined cycle power plants, standardised modular power equipt. 36030

circuit breakers continued
common-tower double-cct. power lines, earthing switch simul. *(Chinese)* 35653
commutation test labs., ident. method for certain procs. 5140
Compact NS moulded-case cct. breaker series *(Italian)* 5143
condition-based monitoring develops. 5154
distrib. network automatic fault location/isolation syst. *(Japanese)* 10736
distrib. network capacitor banks, synchronised/soft switching 10722
distrib. network substation fault diagnosis, connectionist ES-based 27182
distrib. networks, optimal supply restoration, develop. countries 27169
earth leakage cct. breakers, mag. nonlin. 36466
EHV radial transm. networks, transient recovery voltage stresses 4619
elec. generator protection, digital integrated relay-based 4891
fast-acting, EM/inductor drive design *(Russian)* 11195
GIS fast transient overvoltage effects anal. 19917
HV cct. breakers, design for reliab. 44233
HV cct. breakers, reliab./maint. cost data, CIGRE 13.06 WG 19894
HV fuses/switches, design tests, IEEE Std. 44236
HV induction motors, overvoltage simul., pole closure 11052
HV substation cct. breakers, simul.-aided short cct. risk eval. 44247
impulsively loaded equipment, mechanical condition monitoring, neural networks appl. 11212
independent power generation protection, tie bus cct. breaker 10771
indust. feeder load interruptions, fast breaker tripping impact 20158
indust. power systs., electromech. response 20186
LV cct., gas insulated switchgear, surge voltage meas. 27870
LV cct. breakers, DC power syst. appl. guidelines 19346
LV cct. breakers, overcurrent discrim. modelling *(French)* 11210
LV cct. breakers, principles and develop. 19886
LV hybrid AC cct. breaker switching params., computer simul. 19342
moulded case cct. breakers, hot gas ejection studies 19892
MW solid-state cct. breaker pulsed power supply, GTO-based 36461
NPP cct. breaker retrofitting projects, USA 43827
on-line condition monitoring 44234
operation seq. recording, fault *(Chinese)* 36382
OXR overhead distrib. line pole-mounted auto-recloser 27156
power syst., high parallel capacitance, short cct. distortion *(Japanese)* 26910
power syst., intertripping relay, design/appl. 4726
power syst., loss of grid protection, power based algm. 4713
power syst. automatic cct. breakers, protection charact. stabil. *(Russian)* 10773
power syst. dyn. anal., protective syst. modelling 4716
power syst. EM transients simul., EMTP MODELS lang. 26894
power syst. monitoring, fibre optic sens. appls. 4734
power syst. overdutied cct. breakers, intell. reclosing 27271
power transm. equipt. reliab. IS, Canada 43722
power transm. line, radiated transient EM field calc. 4678
pulsed power supply slow capacitor banks, overcurrent protection 36313
shunt inductance coil isolation, voltage surges *(French)* 29619
solid-state device breakers 44237
status ident., least absol. value state estim.-based 19896
telecomm. DC distrib. networks, overcurrent fuse simul. model 19276
thyristor power converter, short-cct. current protection *(Polish)* 27790
transmission and distrib. equip. reliability, IEE conf., Warwick, UK (1995) 36831
transmission syst. model reliab. anal., probab. method 35605
Fe-based nanometer cryst. alloy power CT core *(Chinese)* 27786
SF_6 24-38 kV LG 107 cct. breaker product range 27836
SF_6 Fluobloc B142 GIS, 362/420 kV transm. network appls. 27871
SF_6 HV cct. breaker reliab., second internat. enquiry 44230
SF_6 HV cct. breakers, historical develop. 27835
SF_6 cct. breakers, EM and fluid mech., arc modelling 44235
SF_6 circuit breaker, gas integrity and adsorbent performance 19902

circuit-breaking arcs
see also circuit breakers
12/36/145 kV distrib. cct. breakers, utility experiences 4668
air blast quenching chambers, air flow interruption capability *(Japanese)* 11211
building pressurisation, interior switchgear arcing *(German)* 19899
Compact NS moulded-case cct. breaker series *(Italian)* 5143
equiv. cct. *(Japanese)* 11209
frequently operated vac. cct. breakers, plant insulation failures 4650
GIS arc detect. by optoelectronic systs. *(German)* 27855
HV substations, EMI anal., switch arc restrikes 5159
LV hybrid AC cct. breaker switching params., computer simul. 19342
LV switchgear, fault arcs protection 5138
LV switchgear arcing fault protection 19891
LV switchgear arcing fault protection concept 19893
moulded case cct. breakers, hot gas ejection studies 19892
petrochemical indust. MV arc resistant metalclad switchgear, safety benefits 5416
power syst. short-cct. arcing fault effects limitation 19344
rot. arc switchgear, low current/reactive switching expts. 11199
spark-gap cutout restriking behaviour model *(German)* 11202
switching arc-contact material mutual interact. *(Polish)* 11197
switchroom internal arc-based press. rise studies 19889
testing syst. develop. for arcing contacts 9811
two-pole arc model for elec. fuses *(German)* 29649
vac. cct. breaker restrike test procedure 19883
vac. cct. breakers, transient overvoltages, stat. model 27847
vac. interrupter contacts, switching endurance improvement *(Russian)* 44239
vac. interrupters, arc conditioning effect *(Chinese)* 5136
vac. interrupters, elec. strength, contact material arc conditioning 5144
Ag and Ag-Pd contacts, material transfer and arc erosion characts. 6390
Ag break arc, two wavelength spectra simultaneous meas. 6388
Ag contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
Ag contacts, break arc discharge study 38061
Ag/Cu combination electrodes, breaking arc light spectrum *(Japanese)* 962
Pd contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
SF_6 145 kV cct. breakers, develop. efforts 4669
SF_6 72 kV cct. breaker, arc models, test cct. 27845
SF_6 cct. breakers, EM and fluid mech., arc modelling 44235
SF_6 cct. breakers, synthetic test ccts., arc voltage 27844
SF_6 distrib. switchgear, personnel safety 11201
SF_6-N_2 auto-expansion cct. breaker studies 19890

circuit CAD
see also circuit analysis computing; circuit layout CAD; hardware description languages
2-D FIR filters, freq. sampling, Hermite interpolation 752
2μm CMOS gate array design automation 6062
3-D channel routing, VLSI 22513
3D molded interconnection devices, product DP 28447
AC bridge for impedance meas., anal./design/implement. 12613
act. antenna element design 31980
act. compensated filters, HF appls., design/optim. 29352
ADC, CATALYST tool, archit. level design 21381
advanced CMOS analogue design, training 21460
analog cct., design procedures storage/reuse 554
analog cells, optimum design tool, reduced variance 501
analog high-level synthesis for mixed-sig. ASICs 29400
analogue IC CAD, spreadsheets 28945
ARC-network design with op amp, parametric optim. subsystems 28982
architectural synthesis, possibilistic prog. 12276
ASIC, Conf., Rochester, USA (1993) 36858
ASIC VLSI design courses, EUROCHIP initiative 20288
ASIC VLSI design projects, microelectronic CAD lab 22516
ASICs and design methodologies 21160
ASTRX/OBLX tools for analog cct. synthesis, pipelined ADC appl. 28940
asynchronous ccts., state assignment problem for event-based specs. 12259
automatic synthesis and testing cost 21078
automotive logic chips from high level synthesis, FFT/Viterbi IC design 21291
avionics PCB SMC, reliable design 10317
behavioral simul. for analog syst. design verification 28943
behavioral simul. techs. for phase/delay-locked systs. 29402
BEST integrated syst. for macromodel develop. *(Korean)* 38978
bipolar technols., stat. cct. simul. 39001
board-level simul., IC design/testing develop. 13869
boundary scan test blocks, integrat. in ASIC by students *(French)* 20330
broadband impedance matching, GRABIM computer program 465
buck and boost DC-DC PWM convertor anal. 11184
built-in diagnostics for advanced power mgt. 34356
C_∞-continuous small-sig. model for MOS transistor in normal operation, IC simul. 22401
C++ design and implement., semicond. wafer CAD 12293
CAD conf., San Jose, CA, USA, Nov 1994 41
CAD/design data mgt. syst. *(Japanese)* 1460
CAM design, modular VLSI scheme 21315
CAMAD, Computer Aided Microwave Amplifier Design, undergraduate instruction package 5519
cell-level analog ccts., integer prog. based topol. selection 37574
cellular-archit. FPGAs, routing-driven mapping 498
CHAN, CPA algm. for timing anal. 21046
chip designer role in IC design/develop. 30400
class., fuzzy neural nets, FPGA-based implement. 32948
clock synthesis for SC filters, microcontrollers 12638
clustering of ccts., stochastic flow injection method 21022
CMOS ccts., cell library characts. impact on area, speed, power consumpt. 29102
CMOS digital VLSI designs, transistor sizing algms. *(Korean)* 12387
CMOS std. cells, design and charactn., teaching 21222
CMOS submicron mismatch model for practical IC design 30454
CMOS total self-checking design 22566
CMOS ULSI IC design, high perform. metallization issues 38642
CMOS VLSI 32×32 ATM switch, design, simple logic control 9137
CMOS VLSI ccts., design optim., genetic algm. 39015
computer design, VLSI aspects, conf., Cambridge, MA (1993) 36905
concurrent CAD design of PWB, PLANET-TWINS *(Japanese)* 477
concurrent engng., DFT in digital syst. 5576
concurrent syst. design, MCSE methodology 28958
continuous-time filter compiler, specs., layout 21413
control systs., co-design method, combined models 28981
controllers, VLSI, fuzzy, automatic synthesis 685
convective heat transfer from PCBs, num. anal. interface, GUI appls. 12891
convexity-based algms. for design centering of ICs 474
coplanar meander transm. lines, dielec. substr., slow-wave characts. 12698
crossing current reson. power converter CAD 44219
custom IC, conf., San Diego, USA (1993) 36842
Danish VLSI teaching programs, bal. engng. education 20286
DC unstable operating points ident. using SPICE, IC design 22525
DCT IC chip design using RNS 21345
deep-submicron ASICs, design aspects 38973
delay anal. tool, automatic hierarchical 491
design automation and ASIC design, conf., Paris (1993) 20199
DFT courses at Universite Montpellier, indust. testing and simul. tools *(French)* 20328
digital microwave receiver, lin. amp./ADC anal./design 29311
digital seq. cct. retiming algm. 473
digital VLSI CAD tools based on probab. 28971
DORIC CAD tool for robust analog IC design 30395
DSP-based integrated software environ. for filter design 5952
earth leakage cct. breakers, mag. nonlin. 36466
EDA in digital design education 5531
EDA tools for high-speed digital PCB and MCM design, role of designer's intell. 28935
EEPROM CAD model for low power cct. design/simul. 21304
electronic apparatus design/anal. software, PC-based *(Russian)* 5948
electronic design, multiple media 20317
electronic design automation, classroom experience and student altitudes 28345
electronic packaging, conf, Monterey, USA (Oct 1993) 36898
electronic systs. design, models 5958
electronics, computer-aided lab. 20319
em, EM simul. tool for MMIC design 29598
ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
Eurochip and chip designing, Polytechnic Enschede 22515
EUROCHIP initiative, VLSI design training, Univ. College London 22514
Eurochip Workshop on VLSI Design Training, conf., Grenoble (Sept./Oct. 1992) 20226
event-driven simul. scheduling cost reduction, clustering 21027
fast bias depend. device models for CAD of MMICs 38014
fault-tolerant ASIC design, high-level synthesis 30405
feature mapping neural network, VLSI implement. 6270
fine pitch wedge bonding for high dens. packaging 20446

circuit CAD continued
FIR digital filter design, quadratic prog. 37884
FIR filters, automatic implement. on FPGAs 37862
FIR lin. phase digital filter, unit step response, design *(Polish)* 747
fixed freq. LCL series reson. converter 29001
fixed-biased pseudorandom BIST for random pattern ccts. 6096
flexible simulator running on Macintosh 12263
FPGAs, logic synthesis on PC platforms 29162
FPGAs, minimizing interconnection delays by CAD routing tools 21293
FPGAs, postlayout simul., verilog 6110
FSE/DFE-based HDSL equalizer, adaptive algms. 9087
genetic algm. for test scheduling, different objectives 1470
Getreu comparator macromodel, anal. and design algms. 6257
hazard-free asynchronous cct. synthesis, sig. transit. graph constraints 6141
hazard-free asynchronous ccts. with bounded wire delays, synthesis 12403
HDTV format convertor, design/test, Forth appl. 3672
high speed digital design using Spice controlled sources, accurate I/O models 20451
high speed digital filters, design automation 37878
high speed VLSI interconnects, stat. anal., moment method 28442
high-level DSP synthesis, concurrent algm. 37793
high-level DSP synthesis using concurrent transforms., scheduling, and allocation 21363
high-level synthesis, complexity of allocation problems 12268
high-level synthesis, scheduling problem, integer lin. prog. 495
high-speed QAM modem CAD tools 42081
high-throughput DSP appls., ASIC design strategy 29271
IC cad tools 6843
IC design, adaptive models, obj.-orientated prog. 30440
IC test, intell. software-integrated environ. 9802
IDaSS, interactive design and simul. syst. for digital ccts. *(English)* 37594
IEDM 1994 conf. on IC and electron devices 652
IEEE/ACM conf. on CAD, Santa Clara, CA, USA, 1993 36906
indust. needs for electronic systs. designers, degree course, VLSI theme 20292
indust. relevance of VLSI undergraduate training 20287
integrated OEIC/device CAD design tools 39595
integrated scheduling, allocation and module selection for design-space exploration in high-level synthesis 21061
iRULE, fast hot-carrier reliab. diagnosis using macro-models, MOS digital logic 29114
Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
ladder filter CAD/anal. 12617
ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
layout-based extraction of IC elec. behavior models 22542
lean integrat., perform. and cost improvement of logic LSIs 29146
lin. network synthesis/anal., symbolic anal./optimisation methods *(Polish)* 28988
log simulated annealing for electronic component model minimization 12280
low-noise oscillators design/optim., nonlin. CAD 29072
low-power digital CMOS IC design 1494
low-power IC design, power conscious CAD tools and methodologies 38970
LSI logic, LP based cell selection, timing, area, and power consumption constraints 37700
macromodel fault generator for cellular neural networks 21499
MASTAR, analog/digital CAD model for sub-halfmicron MOSFETs 22409
MCM, intell. analyzer, thermal design tool 21785
MCM design evol. 21763
MCM EDA tools and procs. 38194
MCMs, interactive design aid 21773
mean field annealing, VLSI design appl. 38974
MESFET MMIC microwave oscillators, CAD 6329
microASIC, mixed digital and analogue chips, design 6246
microelectronic component testing using circuit modeling 38963
microwave LC filters, accurate small air-wound inductor design, program 823
microwave power amp. design, nonlin. mixed anal./optim. algm. 29558
mixed mode simul., appl. in electronics design 486
mixed-sig. A/D simulators, expanding array of choices 12659
MM-wave monolithic mixer, 94 GHz, design method 29602
mobile radio systs., microstrip networks for multibeam/reconfigurable operation *(English, Italian)* 42292
modular data conversion archits. and functional building blocks 700
MOS analog IC design automation, automated cct. correction, qualitat. reasoning 21454
MOS analog IC design automation, automated cct. generation, concepts and methods 21453
MOSFET ccts., relax.-based transient sensitivity computations 22604
multi-level interconnect technol. for VLSI/ULSI, materials, thermal alternatives 13423
multiconductor CPW transm. lines, [C] and [L] matrices computation 12791
multilevel NAND gate ccts., automatic synthesis, CAD algms. 29100
multilevel Reed Muller cct. synthesis, computer-based *(Korean)* 21178
multimodule secondary power source CAD, params. optim. 5097
multiple-crit.-pole-coupled act. filters for FLF, SCF, CBQ, and LF struct. 12637
multiport act. RC-networks, computer aided synthesis/sensitivity anal. tool 721
Neurodevice, modelling interface for VLSI design 13865
nonequiripple approx. for filter charact. 12622
nonlin. oscillator design for max. power 37667
Norwegian Inst. of Technol./SINTEF DELAB microstrip-antenna work 40461
ONYX-CS software modules for microstrip components design 12708
op amp SPICE noise macromodel 37638
optimal stat. cct. design, computer-aided approach 5956
opto-electronic interferometric sens. ccts., CAA/CAD 17761
OR causality, modelling and hardware implement. 21247
PCB CAD drawings, electronic filing syst., LOCUS *(Japanese)* 475
PCB design, meet EMC stds. 38085
PCB design under EMC constraints, rules devel. 21633
PCB EDA tools, evol. 12888
PCB pattern defect anal./eval. using CAD data, AOI 37161
PCB radiated emissions, finite-element CAE anal. 38084
PCB radiation aspects calc., EMC workbench 21634
PCB simul. for EMC compliance 38086
PCB SMA, DFM, Integrated Expert System Environment 29670
PCBs, anisotropic substrs., sig. line models 21628

circuit CAD continued
perform. optim. algm. for custom ICs 28937
perform./area estim. by VHDL descriptions and functional unit database 28965
PHEMT millimetre wave MMICs, technol. 29604
pick-and-place design methodology for complex VLSI archit. 21167
PLD, CAD tools overview 21286
PLD-based cct. CAD, behavioral level synthesis 37727
power electronic circuit design, OO tools, PC based *(Spanish)* 12340
power IGBT SPICE model, power converter design appls. 12316
precomputation-based seq. logic optim. for low power 637
predictive VLSI memory develop., TCAD strategy 21303
printer color correction, CMAC neural net chip 30415
PSpice simulator for mixed-sig. designs 12658
pulse coded neural net VLSI design automation 29480
quartz cryst. oscillators CAD 39103
quasi-reson. dual power converter UPS 5075
rapid prototyping of hardware components 5599
RC act. filter design, input/output impedance effects 21417
RECALS II list scheduling algm. for high level synthesis 28970
recursive DSP algms. mapping, multiprocessor 28953
RF ASIC designs, CAD syst., error-checking 37590
RF MOSFET power amp., CAD 556
RLCT pass. network synthesis, neural net approach 500
SECSPICE cct. simulator for submicron MOS designs *(Korean)* 39016
self-checking combinat. logic synthesis techs. 21226
semicustom design of ASICs, Si chips vs. FPGAs for engng. education 6834
semicustom IC design, power anal. syst. 30394
separable-denominator 2D digital filters, optimal design *(Japanese)* 21432
seq. cct. state assignment for low power dissipation 21290
series reson. oscillator design tech. for VHF/UHF ccts. 21136
SIERA, appl.-specific syst. level hardware module generation 29659
sigma delta modulators design from specs. 699
simul. code generation, KBS 21080
single gate MESFET mixer, computer-aided anal./design 846
single-layer clock trees with exact zero Elmore delay skew, CAD 472
Smith Chart program for impedance matching on Macintosh 21020
SPICE dc operating point anal., identifying unstable operating points, IC design 37586
SRIF DSP algo., VLSI systolic array implement. 665
Stanford TCAD, next generation, PISCES 2ET and SUPREM 007 22543
STC104 packet routing chip for parallel systs. 29290
std.-cell VLSI cct. design, timing and area optim. 21256
steady-state lin. elec. ccts., computer anal./design *(Russian)* 5976
stored program opt. computer, develop. 7432
symbolic computation of approximated small-sig. characts. of analog ICs 28932
symbolic S-params. generating program 12262
symbolic trajectory eval. and BDDs, theorem prover, VLSI design 37587
systolic algms., space-time modeller 21024
systolic array partitioning problem, scheduling scheme 28952
T9000 virtual channel proc., model checking via CAD 28950
T-jn. microwave ccts., prescribed response characts., design/anal. 862
TCAD appls. with semicond. wafer representation, develop. and integrat. 22511
TEDMOS, CAD syst. for ASIC design on IBM-PC like computers 28948
TIES, testability increase ES for VLSI design 37598
top-down constraint-driven CAD of n-bit DACs 28941
top/down analogue IC design CAD, behavioural modelling lang. 28986
TOPS, partial scan design package based on simulated annealing 21059
TRACER-fpga, router for RAM-based FPGAs 37709
two-port network, noise anal., recursive algm., S-wave approach 829
two-way partitioning, optim. by iter. improvement, expt. eval. 21021
UAHPL lang. for ASIC design 37713
unpackaged die for MCMs, die info. exchange format 21776
verification of timed ccts., automatic 21066
VIDS, visual interp. for device simul., proc. models 22544
VLSI, future technol./economic prospects 38965
VLSI cct. performs., worst-case anal. and optim. 38981
VLSI design, cct. representation, Boolean proc. 12461
VLSI design, neural net for scheduling/allocation 30414
VLSI design, Technical Univ. of Madrid, teaching 20289
VLSI design courses, indust. participation 5518
VLSI design proc. mgt., reconfigurable distributed framework 5580
VLSI design software, QA aspects 13859
VLSI design training, Univ. of Twente, student design teams 20290
VLSI hardware design, proc. technol. appl. 5974
VLSI IC manufacture, QA methods 11827
VLSI interconnections and packaging, modeling and simul. 1471
VLSI interconnects/packaging, integrated design auto. syst. 6845
VLSI neurochips, develop. *(Japanese)* 785
VlSI reliab. challenges, Japanese vs American industries 22527
VLSI signal proc., conf., Napa, CA, USA (Oct. 1992) 11583
VLSI syst. test design methods, problems and experience in μP testing, AFTG 21354
VSI, shunt act. filter control, CAD 44186
WDF for TI's sens. sig. proc. MSP430, CAD 738
zero phase 2D filters CAD, multiplicative autoregressive models 759
GaAs DCFL ccts., timing macromodels 37710
GaAs DCFL logic gate ccts., delay/transit. time macromodels 21261
GaAs FETs, non-lin. and distributed modelling procedure 845
GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
GaAs IC, conf., San Jose, USA (1993) 36852
GaAs MESFET, capacitance model, microwave nonlin. cct. design appls. 855
GaAs MMIC act. filters, synthesis incorporating noise effects 6328
GaAs MMIC design and charactn., training software package *(French)* 21570
GaAs high perform. comput. and commun., ARPA research 38957
InP-based HBTs/heterostruct. bipolar ccts., design platform 28946
Sn/Pb eutectic solder-bumped flip chip test die and organic PCB substrs. 37136
YBaCuO, 10 GHz bandpass microstrip filter 816

circuit cards *see printed circuits*

circuit design *see network synthesis*

circuit diagrams
consistent attributed graph-based hand-drawn logic cct. diag. reading syst., VLSI CAD 12492

circuit diagrams continued
functional correctness verification, VHDL and Statecharts-based approaches 21056
logic diags., automatic input, loop syms. recogn. 5971
Marconi's (1901) transatlantic transm. wavelength, transmitting syst. anal. 25267
recogn. of logic diag. syms. 37747
self-reson. DC-DC PWM power converter family 11168
switched-current bilinear integrator cct. 12670
ternary-valued compiled logic simul. of complex logic networks 37725

circuit feedback
see also feedback amplifiers; feedback oscillators
2D digital filters, error spectrum shaping *(Japanese)* 15933
act. RC second-order filter, modes comparison 6208
analog autocompensators, correl. feedback and direct calc. of weighting factor 32593
automatic cathodic protection syst. control cct. 29425
BiMOS high power devices appl. in intell. snubberless power conditioning ccts. 29031
broadband freq. synthesizer, increased operating speed 564
buck ZVC-ZCS HF PWM power converter studies 19716
capacitance based meas. of ang./lin. displacements 18087
capacitive load driving and stabilisation *(German)* 21127
class AB CMOS first-generation current conveyor 29353
CMOS delay-locked loop for 18 Mbit, 500 Mbyte/s DRAM 6155
CMOS driver loading conditions rel., simultaneous switching noise 6864
CMOS inverter, internal states, chaos generation *(Japanese)* 12407
CMOS LSI archit., ultra-high speed error correction, majority decoding 29200
cryst. oscillator design and spec., tutorial 39086
current-mode biquad based on act. RC biquad 37841
DC-DC power converters, fuzzy control based on quasilinear modelling 36369
DC-to-DC power converters, sliding mode control design 520
direct digital synthesizers, error feedback loops for lin. 563
DMOS analogue HV control IC for small DC motors, PWM scheme 29048
double-loop sigma-delta converter with sinusoidal input, quantization noise spectrum 710
DS-SS systs., narrowband interf. rejection 33750
DS-SS systs. impulsive channel, narrowband interf. suppression 33751
dual FET act. patch elements for spatial power combiners 15658
emitter-follower cct. for high-speed and low-power ECL 37743
enhanced slew rate source follower, CMOS implement. 21466
eqn.-error adaptive IIR filters, bias removal 24201
feedback amp. struct. optim. 29059
FPGA SEU hardening for space appls. and device charactn. 12478
FSM compiler and simulator 29133
half-wave voltage converter with backward diode, stabil. estim. 539
high-order universal sigma-delta modulator 12601
high-resoln. sigma-delta converters, nonlin. meas. 708
low noise CMOS freq. synthesizer, dyn. bandwidth control 21133
low power TTL-to-CMOS converter design *(Korean)* 29103
M-seq. generation 32101
Miller integral-type SC multivibrator based freq. divider 21468
MOS winner-take-all networks for VLSI analogue parallel sig. proc., inhibitory mechanism 37897
multiple loop feedback OTA-C filters, perform. anal. 37848
multiple-crit.-pole-coupled act. filters for FLF, SCF, CBQ, and LF struct. 12637
p-n-p-n-struct. equiv. for integrated radio-electronic devices 33756
periodically-operated switch ccts., stabil. 5980
piecewise lin. hysteresis cct., chaos control 37612
precision freq.-independent variable-phase phase shifter 21465
RC op amp and RC current conveyor filters, comparison 6216
self-adjusting threshold-voltage scheme for CMOS ICs 30453
self-tuned continuous-time notch filters, CMOS implement. 21412
series-parallel reson. converter, magamp postregulators 6020
single-stage single-bit oversampling A/D converter, local feedback loops 711
tone-free ΣΔ modulators, design aspects 12598
vector magnetometer, Permalloy sens., dual mag. feedback 9845
voltage-mode CMOS chaos generator and internal states obs. 562

circuit layout
see also circuit layout CAD; integrated circuit layout; network routing; printed circuit layout
analog ramp generator for fast STM 585
bipartite graph crossing reduction, assignment heuristic 21018
CAD conf., San Jose, CA, USA, Nov 1994 41
circuits systs., symp., Chicago, USA (May 1993) 31
CMOS overcurrent test, BIC-monitor design, cct. partitioning and test patterns 30472
diagonal channel routing, vias, unit dist. 37577
distrib. systs., capacitor placement, fuzzy algm. 10725
FPGAs, technol. mapping, placement and global routing algm. 12431
FSE/DFE-based HDSL equalizer, adaptive algms. 9087
ground-current control, enhance dyn. range in high speed ccts. 29084
hierarchical systs., estims. of layout params. 28929
MCM, genetic algm. based cct. partitioner 38197
PCB layout tool, EM noise consideration 21631
perform.-driven routing for thick film MCMs 29722
power electronic cct. design/layout, EMI reduction, perform. improvement 12312
sync. seq. cct., state assignment, genetic algms. 29134
TAB, generic tolerance anal. model 38174
via minimization of cct. layer assignment problem 464
VLSI layout compaction and wire balancing, parallel algm. 12267
VLSI layout optimisation, preconditioned conjug. gradient interior point algms. 496
wire routing, automatic, evol., for multiprocessors 37584

circuit layout CAD
see also circuit CAD; high level synthesis
0.35 μm I-line photolithography, automatic proximity correction, chip layout 1311
128 K×8 bit SRAM multichip package, fab. *(Korean)* 12504
ADC, CATALYST tool, archit. level design 21381
AMICAL interactive high synthesis environ. 21031
analog device generation, error-free module layout 22531
analog ICs, simultaneous placement/module optim. 30406
arallel lookahead line search router, automatic ripup/reroute 21034
ASIC design, AHPL 12616

circuit layout CAD continued
ASIC implementation of image proc. algm., silicon compilation 21343
ASIC row-based cell placement method utilizing cct. structural props. 37711
bare board test program generation, self-learn/netlist methods 38083
BiCMOS integrated process/cct. develop. using SPR 39024
buffer distrib. algm. for high-perform. MCM/VLSI clock net optim. 29335
CD3D constraint-driven 3D router thick film MCMs 21762
cell placement method using cct. struct. props. 21039
cell-based hierarchical pitchmatching compaction 38954
channel demodulator IC for DAB, design, silicon compiler 21155
chip model library for integrated package/chip simul. 37081
CMOS ccts., public domain high perform. portable ROM generator 28947
CMOS cell library for formal high level synthesis, design 12497
CMOS channel-less SOG arrays, HGALOP router 29148
CMOS functional cells, layout optim., integer LP *(Japanese)* 39005
CMOS IC crosstalk extraction from mask layout 22568
CMOS layouts, preconstrained compaction method 6867
CMOS leaf cells, compaction for symbolic layout design 13882
CMOS mixed analogue-digital ISDN IC, analogue layout shrinkage CAD 28987
component/proc. selection guidelines, SMT/PCB/fine pitch manufacture 38131
continuous-time filter compiler, specs., layout 21413
CONVERGE, circ.-assignment-based switchbox router, via reduction 21062
COSIMA multistrategy learning syst., integrat., interactive floorplanning tool 12290
CPU design, 32-bit, VLSI project, C and GDT for computer sci. students 20291
cross point assignment, global rerouting for general-archit. designs 21257
cross point assignment, global rerouting for general-archit. designs 37707
crosstalk driven routing advice for PCB interconnects 12892
custom design kits for cost-effective access, MCM foundry 21759
DA techs. for PLD and FPGA based systs. 12419
datapath compiler, mixed random logic and optim. blocks 21040
DCVS logic, std. CMOS cell design for testable self-timed systs. 29203
decal library constr., PCB/SMT design 38079
delay optim., multiple choice lin. knapsack problem 21045
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
design automation and ASIC design, conf., Paris (1993) 20199
DSP appl.-specific chip design, behavioral silicon compiler 680
dynamic loop scheduling algm. for VHDL synthesis 21043
ECL LSI design and test experience in supercomputer develop. 21221
edge-based heuristic for Steiner routing of VLSI and PCBs 456
Elmore delay model for optimal wiresizing, VLSI interconnect delay 22277
fast vectorized maze routing algm. for supercomputer implement. 12270
floorplan optim., slicing pt. placement improvement 21030
floorplan rising and enum., optimal, integrated algm. 21029
FPGA, long-lines, top-down hierarchical routing algm. *(Japanese)* 29107
FPGA channel archit., automatic synthesis for routability 639
FPGA design, Mentor and Altera CAD software 6105
FPGA develop. tools and design complexity issues 6107
FPGA prototypes, package partitioning technol. 6114
FSE/DFE-based HDSL equalizer, adaptive algms. 9087
fuzzy maths for orient. assignment of std. cells 28975
gate array VLSI, optimal placement of components 37592
gate-arrays, automatic cell placement, anal. procedure 625
general area router based on planning techs. 467
generic floorplanning methodology 30397
GENRIF, integrated VLSI FIR filter compiler 21420
global router, weighted Steiner tree-based, simultaneous length and dens. minimization 610
global router for analog LSI based on branch-and-bound algm. 38949
global router for high-speed bipolar LSIs 13870
global routing of ICs, crossing distrib. problem 38952
GMS, CMOS VLSI gate matrix cell generation syst. *(Chinese)* 12398
Handel compiler, net-list descriptions, Xilinx FPGAs 6116
hardware compilation of parallel programs 21057
high speed digital filters, design automation 37878
high-level appls., layout-driven topol./functionality-based delay estim. 609
high-speed QAM modem CAD tools 42081
I^{2}L unit library for logic cct. design *(Chinese)* 21236
IC gate sizing algms. for power optim. 13841
IC interconnect design, convex optim. 30149
IC layout, compaction, shape optim. 30408
IC layout extraction from Si die image, geomet. fig. proc. 30390
IC layouts comparison with HDL models, formal verif. tech. 37588
incompletely specified data-paths, assign. tech. 21041
interactive terminal sliding algm. for hybrid IC planar layout *(Japanese)* 29696
interconnect capacits. of ICs, automatic model generation 38980
L-shaped cell placement by neural nets 30416
large scale LSI ASIC CAD layout design syst. *(Japanese)* 468
LAYIN, CAD tool for IC parasitic coupling modeling 30437
lossy transm. line simulator in PCB layout package 21638
LRAP optimiser, combined logic resynthesis and placement 21052
LSI module placement, Hopfield neural net, non-zero diagonal elements *(Japanese)* 37599
LSI module placement method, Kohonen, maps *(Japanese)* 28979
LSI power/area optim., transistor sizing/wire length minimization 37745
MCM, optoelectronic, layout, phys. models and algms. 29712
MCM, peripheral/area array bonding tradeoff, partitioning advisor 38182
MCM design technol., review 6466
MCM-L layout approach for high-speed problems 38187
min. delay placement, influ. of nets/hierarchical clustering 30411
min-cut replication in partitioned networks 12261
minimizing channel dens. by lateral shifting of components 5973
mixed-sig. IC design, noise decoupling techs. 29398
mixed-sig. macro-cell placement in WRIGHT 29405
mixed-sig. macrocell placement in WRIGHT 29395
ML-Germinal, heuristic standard cell placement algm. 21038
MMIC design, graphical layout considerations 29599
modified genetic channel router 13844
Monte Carlo reliab. simulator, IC manufacturability 22547
multi-chip module routing, evol. algm. 38200
multi-layer VLSI, hybrid hierarchical global router 38948
multilayer PCB prototyping, engng. lab environ. 38089
multilayers, single row routing 29662
multiple coupled planes, inductance modeling, PCBs, MCMs and packages 20455
multiplexed DSP archit., hardware allocation, bit-align. 21342

circuit layout CAD continued
μP syst. design environ. based on OO blackboard framework 666
nonslicing VLSI floorplan, optimum area minimisation 1475
obj. driven autorouting for PCBs/MCMs 12886
ONYX-CS software modules for microstrip components design 12708
OPTIMOS branch-level digital cct. optimiser 21212
over-the-cell channel router, algm., 2-layer model 21037
over-the-cell routing algm., via-less middle terminal models 21036
over-the-cell three-layer channel routing for std. cells 30409
parallelism for cct simul., tearing approach 21026
parasitics for IC packages, model, PC program, layout generation 11770
partitioning under size and I/O constraints 28956
path-oriented algm. for cell selection problem 37705
PCB automated component placement, shape-based technol. 12887
PCB automatic placement syst., design, GFDR algm. *(Korean)* 12884
PCB CAD, integrat. with product design, concurrent engng. approach 37035
PCB CAD/CAM, parallel raster image proc. 38077
PCB design, component data access, IT appls. 21629
PCB layout tool, EM noise consideration 21631
PCB layouts optimisation, neural network algm. *(Japanese)* 904
PCBs, refls. anal., ROSAR rule oriented syst. 21632
permutation layout, topol. via minimization problem 37602
pick-and-place design methodology for complex VLSI archit. 21167
PLA optim., simulated annealing algo. 21238
Protel TRAXEDIT PCB file package *(Chinese)* 6406
PWB layout CAD technol. trends *(Japanese)* 476
quickly customised logic, channel routing algm. 21035
RAIL synthesis tool, mixed-sig. noise-decoupling 29406
row-based cell placement method utilizing cct. structural props., ASIC layout 21262
row-based FPGAs, segmented routing channels, design and anal. 611
row-based placement, simulated annealing, hierarchical algm., MCNC benchmark ccts. 37708
row-based placement for very large ccts., simulated annealing, MCNC benchmarks 21258
SCF ccts., silicon-level design, num. optim. 6214
SEGMA, simulated evol. gate-matrix layout algo. 21227
segmented channel routing complexity 12272
segmented channel routing problem, complexity 38953
shape optim., layout recycling, compaction problem 21074
simul. approach, provably correct hardware compilation 28985
simultaneous driver/wire sizing for perform./power optim. 494
single phase three-layer channel routing algms. 1469
SOG arrays, min-cut placement, global objective fns. 37712
solder joint reliab. prediction, computer-aided syst. develop. 37206
stacked layouts in CMOS analog ccts., automatic generation algm. 13878
STANZA-M multilayer channel router, simulated annealing 13845
std. cell global routing algm. for over-the-cell routing *(Japanese)* 13840
std. cell placement, fuzzy-clustering-based algm. for cct. partition 22510
std. cell VLSI placement, fuzzy logic approach 1474
std.-cell VLSI cct. design, timing/area optim. 37706
stripline CAD for VLSI chip/module interconnections, design database 28446
sub-micron ASIC design, register-transfer module selection 29091
technology decomposition using optimal alphabetic trees 21213
thick film MCMs, perform.-driven routing approach 29722
TRACER-fpga, router for RAM-based FPGAs 21259
transformational design, formal semantic model, fit SIL 28961
transistor size optim. in layout design rule migration 30407
TRED, parallel detailed router for VLSI 21067
triple-layer over-the-cell channel router 30410
two-terminal nets via minimization through dyn. prog., partitioning of terminals 5950
universal emulations, sublogarithmic slowdown 5960
UPLD logic simul. for rapid prototyping 6115
VHDL descriptions of digital systs., mapping, FPGAs 6112
VLSI, area minimization for floorplans 13830
VLSI, optimal wiresizing under Elmore delay model 37572
VLSI building-block layout, pin assign., global routing 21028
VLSI CAD, cooperative problem solving 492
VLSI cell placement, self-organizing scheme 5962
VLSI channel router under crosstalk constraints *(Korean)* 490
VLSI design courses, indust. participation 5518
VLSI interconnect struct., mixed freq.-time domain anal. 22512
VLSI layout CAD, optimal net assignment, constraints 22509
VLSI layout compaction, constraint graph generation algms. 12285
VLSI layout compaction and wire balancing, parallel algm. 12267
VLSI layout optimisation, preconditioned conjug. gradient interior point algms. 496
VLSI layout verification package, BEM for 3D capacitance and substr. resist. calcs. in inhomog. media 21023
VLSI manufacturability, component level yield/cost model, mixed technols. 28409
VLSI placement, optim. and neural network based design techs. 497
VLSI rect. cell placement, force-directed self-organizing maps and delta learning rules 5965
VLSI routing via parallelized inversion no. algm. 12271
wire routing, automatic, evol., for multiprocessors 37584
wormhole router, VLSI implement., virtual channels 5966
AlGaAs-GaAs HBT gate array for 5 GHz ASIC, cell libr. 37719
GaAs HMESFET SBFL based F-RISC/I microproc. 37802
GaAs digital IC design, compiler methodology 37716

circuit layout computer aided design *see circuit layout CAD*

circuit noise
see also integrated circuit noise
2D scaled state space filters, fixed point arith. 12648
adaptive line enhancers, fourth-order enhancement *(Japanese)* 12620
ARC-ccts. with intrinsic compensation, struct.-topol. 6209
bipolar preamp. for digital opt. receiver, Haus-Adler noise measure anal. 29058
broadband microwave amp., low noise stable, design 12785
CAMAD, Computer Aided Microwave Amplifier Design, undergraduate instruction package 5519
CBGA package design for C4 PowerPC μP chips, substr. routability and perform. 5661
cryogenic charge sensitive amp. for X/γ-ray spectrometer 18382
current feedback amps., settling, DC, noise, gain errors 12348
DC current amp., noise anal. simul., PSpice-based *(Japanese)* 6029
DC/DC power convertor random switching control, LF noise studies 44155

circuit noise continued
double-loop sigma-delta converter with sinusoidal input, quantization noise spectrum 710
dyn. overload recovery in sigma delta modulators 702
fiber optic module interconnection, parallel data bus 42474
grounding principles, cct. design 12255
HBT oscillators, bias-depend. noise up-conversion factor 6322
IF amp. having low noise and wide AGC range *(Korean)* 37647
lattice mixers, noise fig. limitations/input matching 12742
LO for commun. satellite transponder, 2.8 GHz *(Korean)* 12763
low noise JFET cooled amp. for DC SQUID 6031
low noise space borne freq. multipliers 29426
MCM freq./noise budget limitations/tradeoffs, fn. of CMOS chips integrat. 29718
microwave band lin. ccts., sig. and noise charact. 12798
multidiode waveguide oscillator, noise charact. 37984
multiple loop feedback OTA-C filters, perform. anal. 37848
multistage amps., noise calc., equiv. input noise voltage 37639
oscillator noise meas. techs. 582
oscillators for low phase noise/power consumpt., anal./optim. 37659
OTA-C ccts., continuous-time filters 37854
PCB crosstalk reduction with additional center traces 21618
PCB layout tool, EM noise consideration 21631
phase-locked Josephson jn. oscillator array, noise 21139
PLL noise models 21153
read/write amp. design considerations for MR heads 29052
series reson. oscillator design tech. for VHF/UHF ccts. 21136
simultaneous switching noise, mutual inductance, simul. 12273
single-ended forward-feed converter, vert. radiated field strength of interf. 27817
soft switching, power converter design, EMC Directive 21097
sq. synchroniser jitter on direct detect. opt. commun., white cct. noise 3577
sustained oscillator systs., noise characts. and conversion 12354
sync. syst., stat. method of noise estim. 5638
VCO, low phase noise, analog cellular portable radio appl. 12356
X-band sapphire resonator-oscillator, temp. stabil. 29572

circuit optimisation
1 kW third-harmonic modulated AC/DC power electronics interface 44213
45 kW DC-DC PWM rly. car power converter, design optim. 11414
act. compensated filters, HF appls., design/optim. 29352
act. feedback amps., multicarrier intermodulation optim. 12350
act. genetically derived filter ccts., preferred value components 37845
act. ICs assembled in plastic packages, area array wire bonds 12958
AGOSTO framework, VLSI BIST wt. distrib. generation 30430
analog cells, optimum design tool, reduced variance 501
analog ICs, simultaneous placement/module optim. 30406
application specific syst. partitioning algm. 21198
ASIC implementation of image proc. algm., silicon compilation 21343
automatic synthesis and testing cost 21078
BiCMOS buffer ccts., delay modelling and optim. 647
BiCMOS high-vol. mfg. line, optimisation 39025
BiCMOS integrated process/cct. develop. using SPR 39024
BIST design, partitioning techs. 21058
broadband ATM switches, optim. design for VLSI implement. 9136
broadband impedance matching, GRABIM computer program 465
broadband microwave amp., low noise stable, design 12785
buck and boost DC-DC PWM convertor anal. 11184
buffer distrib. algm. for high-perform. MCM/VLSI clock net optim. 29335
bumped-substr. die-level burn-in carrier for MCMs, mech./elec. eval. 11772
CAM design, modular VLSI scheme 21315
candidate paths method for perform. optim. 21048
cell placement method using cct. struct. props. 21039
clustering of ccts., stochastic flow injection method 21022
CMOS amp., parametric yield optim., l-models 6846
CMOS driven, center tap terminated network in shared bus design, optimisation 11769
CMOS ESD protection ccts., scaling, optim., design 6849
CMOS ESD protection ccts., scaling/optim./design considerations 30471
CMOS functional cells, layout optim., integer LP *(Japanese)* 39005
CMOS IC state assignment for low-power FSM synthesis, genetic local search 21079
CMOS latches, metastability rel.to loading, power supply and scaling 13887
CMOS ULSI IC design, high perform. metallization issues 38642
CMOS VLSI ccts., design optim., genetic algm. 39015
COB technol. for low cost MCM 21750
complex mixed-sig. ICs, parametric yield prediction 29399
continuous-time filter compiler, specs., layout 21413
convexity-based algms. for design centering of ICs 474
custom design of digital filters, save Si area 29384
custom IC, conf., San Diego, CA, USA (May 1994) 20247
datapath compiler, mixed random logic and optim. blocks 21040
datapath design, mobility reduction based scheduling, allocation emphasis 28957
delay optim., multiple choice lin. knapsack problem 21045
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
digital CMOS ccts., power consumption minimization 37689
disk-drive PLLs, anal./optim., Kalman filters 37675
DORIC CAD tool for robust analog IC design 30395
electronic ccts., post-fab. tuning 37575
embedded RAM, self-diagnostic BIST memory design scheme 37754
extended lock graph theory, optim. 21210
extended threshold Boolean filters, min. MSE filtering 33148
feedback amp. struct. optim. 29059
FET MMIC design, low IMD 6332
filter bank optim. for subband coding *(Japanese)* 24338
fine pitch ball bonding optim., RSM, 3D/contour charts 38169
fine pitch QFP in SMT, solder joint quality, optim. 37075
finite wordlength digital filters/controllers, optim. realisations 37883
FIR filters, automatic implement. on FPGAs 37862
FIR filters, complex Chebyshev error criteria, optimal design 40805
FIR filters, magnitude/group delay, multiple criterion approx. 32549
floorplan optim., slicing pt. placement improvement 21030
floorplan rising and enum., optimal, integrated algm. 21029
flyback PWM power convertor, nondissipative snubber optimal design 19709
flyback ZVS PWM power converter-nondissipative snubber calcs. 5047
FPGA design, Mentor and Altera CAD software 6105
FPGA logic implement., optimisation techs. based on genetic algms. 6108
fuzzy filter synthesis, local stats. based *(Japanese)* 21433
gain-shaping filters, optimal overdesign 6198

circuit optimisation continued
gate-arrays, automatic cell placement, anal. procedure 625
generic cct. response interpolation for robust design, freq. domain simul. 37585
GENRIF, integrated VLSI FIR filter compiler 21420
global router for high-speed bipolar LSIs 13870
ground-current control, enhance dyn. range in high speed ccts. 29084
H_∞ criteria, robust sig. estim. 41012
HCl gas distrib. syst., ultra-pure operation 38462
high speed CMOS ccts., skew and delay minimization, stochastic optim. 29086
high speed CMOS current op amp, bandwidth optim. 21126
high speed digital filters, design automation 37878
HV analog/digital ccts., std. 5 V CMOS technol., design and optim. 29407
Hyeti defect tolerant μP, cost-effectiveness anal. 6168
IC gate sizing algms. for power optim. 13841
IC interconnect design, convex optim. 30149
IC layout, compaction, shape optim. 30408
IGBT, cct.-oriented static model *(Polish)* 1396
IIR Hilbert transformers, optimal design *(Japanese)* 740
incompletely specified data-paths, assign. tech. 21041
KGD, known good die, levels and effects, MCMs 12969
Killer defects, particle map, probe map correl. 37199
Ku band 12 channel contiguous band multiplexers, optimal design 3282
lattice mixers, noise fig. limitations/input matching 12742
LCD backlight, case study in cct. design 37031
least sq. lattice filters, nonstationary chirp input, PARCOR 40831
library-based FPGA, logic synthesis 29130
lin. network synthesis/anal., symbolic anal./optimisation methods *(Polish)* 28988
liq. immersion cooled Si MCM, substr. thickness optim. 20440
long lowpass LC ladders, synthesis 719
lookup table-based FPGAs, technol. mapping algm. for gate decomp. *(Korean)* 12409
LRAP optimiser, combined logic resynthesis and placement 21052
LSI manufacturing yield, integrated database syst., cond. anal. 37040
LSI power/area optim., transistor sizing/wire length minimization 37745
LV operation of portable systs., design techs. 29004
M-band pseudo QMF banks, prototype filters design 37882
magnetoresistor lin. posn. sens., automotive appls. 11434
MCM, genetic algm. based cct. partitioner 38197
MCMs with ASICs global optim., concurrent engng. approach 21743
microwave power amp. design, nonlin. mixed anal./optim. algm. 29558
ML-Germinal, heuristic standard cell placement algm. 21038
modified genetic channel router 13844
MOS analog IC design automation, automated cct. correction, qualitat. reasoning 21454
MOS analog IC design automation, automated cct. generation, concepts and methods 21453
multi-chip module routing, evol. algm. 38200
multi-commodity flow problem, computational complexity *(Japanese)* 12254
multi-layer multi-terminal topol. routing, vias-per-net *(Japanese)* 12250
multilevel logic optim., pseudo max. sets of permissible fns. 21204
multilevel logic optim., redundancy addit. and removal 21202
multilevel logic optim. cct. activity driven, low power oper. 21201
multilevel synthesis, coherent optim. strategies 21203
multimodule secondary power source CAD, params. optim. 5097
multiresonant parallel ZVS power converter, anal., design 11171
multiterminal network channel routing 22522
neural net synaptic coeffs., simul. annealing and SPICE-PAC 21471
optim. tech. for time domain appls. 12700
optimal edge-preserving hybrid filters 2737
optimal stack filters, rank selection/structural constraints 40780
optimal stat. cct. design, computer-aided approach 5956
optimal weighted median filtering, structural constraints 40804
OPTIMOS branch-level digital cct. optimiser 21212
Panda-Map, optimal perform.-directed logic mapping algm. for TLU-based FPGA *(Chinese)* 12397
pass. filter design by optim. method 6203
patterned wafer defects, automatic fuzzy logic class. 37168
PCB manufacture, defects, fault coverage, yield and cost 6413
perform. modeling of analog ccts. using additive regression splines, SC filter bank 30433
perform. optim. algm. for custom ICs 28937
pick-and-place design methodology for complex VLSI archit. 21167
pipelined pseudo-exhaustive testing, simulated annealing, combinat. cct. partitioning 29113
PLA optim., simulated annealing algo. 21238
Potts neural nets, optimisation, dyn. systs. equivalence 21480
power constrained logic cct., optimized perform., single independent path anal. 21284
power MOSFET/IGBT optimal driver ccts. 29040
PR-QMF banks/ wavelets, stat. optim. 32707
precomputation-based seq. logic optim. for low power 637
PSpice simulator for mixed-sig. designs 12658
PWM rectifier/CSI motor drive, optimal design 11352
RADLYS, noise particle based IC chip yield anal. 37189
random testing, num. wt. optim. 21161
RECALS II list scheduling algm. for high level synthesis 28970
reson. DC link IGBT ZVS invertors, optimal design 36342
RF MOSFET power amp., CAD 556
RLCT pass. network synthesis, neural net approach 500
row-based placement, simulated annealing, hierarchical algm., MCNC benchmark ccts. 37708
RT-level transformations for gate-level testability 21188
SCF ccts., silicon-level design, num. optim. 6214
semicond. mfg. syst. planning/yield learning 20381
SENSATION framework for optimal IC design and stat. anal. *(Korean)* 13834
sequential logic, state space decomp. based optim. 21191
a-Si anti-fuse used in high speed FPGA, improved reliab. 29144
sigma delta modulators design from specs. 699
simultaneous driver/wire sizing for perform./power optim. 494
smart power CMOS IC, 2D charactn./perform. optim. 12315
SMPS multiwinding power transformers, computer-aided optim. 19749
SOG arrays, min-cut placement, global objective fns. 37712
space mapping tech. for EM cct. optim. 12286
Space Station Freedom bidirectional PWM UPS power convertor 26589
stack filter design, structural approach 40829
STANZA-M multilayer channel router, simulated annealing 13845

circuit optimisation continued
std. cells, orient. assignment, fuzzy math. transform. 5944
std.-cell VLSI cct. design, timing/area optim. 37706
stress testing optimisation formulation, net benefit concept 11726
sync. seq. cct., state assignment, genetic algms. 29134
synchronous logic cct. restructuring, cct. decomp. tech. 21192
syst. level partitioning, adaptive method 28972
T-jn. microwave ccts., prescribed response characts., design/anal. 862
technology decomposition using optimal alphabetic trees 21213
three-level PWM invertor, optimal design studies 19719
time optimized technol. mapping syst. for logic CAD *(Korean)* 12411
tolerance design, orthogonal array optim. 5942
TOPS, partial scan design package based on simulated annealing 21059
TRACER-fpga, router for RAM-based FPGAs 21259
TRACER-fpga, router for RAM-based FPGAs 37709
transistor size optim. in layout design rule migration 30407
two-band QMF banks, anal. 32562
two-way partitioning, optim. by iter. improvement, expt. eval. 21021
Unisys MCM experience and value of known good die 21701
VLSI, optimal wiresizing under Elmore delay model 37572
VLSI cct. performs., worst-case anal. and optim. 38981
VLSI high level synthesis designs, feedback 29154
VLSI layout optimisation, preconditioned conjug. gradient interior point algms. 496
VLSI multiple-valued logic fn. optimisation based on Petri nets 6143
VLSI placement, optim. and neural network based design techs. 497
VLSI syst. partitioning, genetic algms., implement. and eval. 28923
VLSI timing optim. by gate resizing and crit. path ident. 21176
wafer dicing process optim. 38956
weighted median filters anal./design, fast algms. 33013
word-length determ./scaling software for sig. flow block diag. 28969
worst-case IC optim. approach, cct. perform. model scheme 38979
yield model for IC manufacture 13860
GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805
GaAs MESFET-based power module, optimum LV/high-efficiency design 11749
GaAs SAG-MESFET for supercomputers, proc., implement. 37721
GaAs analogue MMIC, high yield, spray etch recess proc. 38029
GaAs-AlGaAs FET, citric buffer etch-stop process 38865
PtSi/p-Si IR Schottky barrier detector, fab. and anal. *(Chinese)* 42813

circuit oscillations
see also circuit resonance
asynchronous excitation phenom. in oscillator,periodically operating analog switch *(Japanese)* 12358
automatic beam optimiser reverse-swing diode electron gun *(Japanese)* 12989
base width, optim. for min. ECL propag. delay/max. oscill. freq. 12494
capacitive load driving and stabilisation *(German)* 21127
current feedback mag.-multivibrator, oscill. freq. compensation 6046
current source PWM rectifier cct. studies 44181
DC-DC power convertors, DC reson. link-based topol. 27832
driven oscillator dyn., piecewise-lin. charact. 578
EHV transm. network oscillatory param. ident. 4625
hard switched/reson. link inverter output spectra comparison 44205
JAWS supercond. logic gate, voltage-state study 622
lin. inertial networks, wideband param. flucts. 21148
linac with integrated power source, RF energy compression 43002
long. power systs., autoparametric reson. LF oscills. *(Japanese)* 43624
long-dist. power syst. adaptive generation control *(Japanese)* 10689
mag. parametrons, chaotic oscills. studies *(Polish)* 577
neg. resist. oscillatory cct., async. simultaneous oscills. 21140
power overhead line impedance meas./anal. studies *(Japanese)* 4698
power syst. H_∞ oscills. damping controller design 35483
power syst. hybrid fuzzy/PSS control method 10668
power syst. instabilities modelling, catastrophe theory appl. *(Japanese)* 26853
power syst. interarea/local generator reson. modes ident. 35486
power syst. oscills. damping, control design 27004
power syst. parametric oscills., chaotic behavior anal. 26905
power syst. shock load-based oscills. simul. *(Russian)* 26914
power system oscillations, hierarchical control algm. 19121
power transformer winding inner short-cct. fault diagnosis 19689
PWM rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
QPO, component params. calc. 21149
RF syst., time const., pass. mode randomization 42177
RLC nonlin. cct., interact. of LF and HF oscills. 507
stochastic oscills. of two coupled self-excited oscillators 583
SVC develop. testing by simul. *(German)* 27879
three-phase power syst. stabil., apparent power misinterpretations 4447
time-delayed Chua's cct., chaotic behavior in lumped-distributed ccts. 12302
two-input PSS develop., LF oscills. control appls. *(Japanese)* 26995
van der Pol oscillator, sing. induced bifurcation 575

circuit reliability
see also integrated circuit reliability; quality control
25 mil pitch SMT mount assembly, conductive adhesives/Pb-free solder 38152
area array solder joints, comp. effects on fatigue crack growth rates 37113
array module connector test program, UNISYS 21757
automatic cct. breaker stabil., heat distrib. effects *(Russian)* 11196
automotive electronics qualification tests, knowledge-based 11432
avionics PCB SMC, reliable design 10317
ceramic ball grid array, reliab. comparison of two metallurgies 21647
ceramic ball grid array, sphere metallurgies reliab. comparison 20500
ceramic ball-grid-array packages, reliab./mfg. vars. 20450
ceramic BGA package mfg. vars., effects on solder joint reliab. 11856
chip capacitor attach, CFC solvent elimination, qualif. by comparison 38172
COB encapsulation technol., stress anal., reliab., FEM 37077
condensation inert heating mass reflow soldering systs., challenges 38162
core materials for SMT appls., engng. props. 21645
digital tomosynthesis for X-ray inspection of flip chip attach 37172
electronic assemblies, non-Pb bearing solder alloys 936
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
fault-tolerant analogue filtering based on triplication 37827
film redistribution layer technol., fine grid SM components 917
finepitch surface-mount solder joints, fracture surface exam. 21644
flex coating reliab., high-perform. MCM-PCB interconnection 12945

circuit reliability continued
- flip COB process charactn., no-clean flux, ionic residue 38108
- fluoropolymer-based dielec. materials for PCBs, fab., proc. considerations 29679
- flux reliab. assess., electromigration and SIR 177
- fuzz button interconnects, reliab. study 21656
- high dens. multi chip modules, direct num. simul. 21786
- high dens. rigid flex PWB mfg. 911
- high reliab. cct. board repair, PCB/SMT manufacture 38145
- high-level synthesis of sig. flow graphs, algm. based fault tolerance 32496
- IBM high perform. carrier technol. for PCB packaging/interconnects 37153
- IC failure anal., quality and reliab. improvement 20495
- integrated power packaging, trends, driving forces 11752
- interconnect resist., reliab. tool in electronic packaging leaded connections 11790
- known-good die testing, semicond. indust. implement. 5619
- latent open test in MCM-D/MCM-C substrs. 21733
- lin. cct. common-mode failure diagnosis, modified bilinear method *(Russian)* 5975
- low-temp. solder alloys in insertion mount assembly, thermal fatigue 37111
- MCM packaging, high reliab., low stress epoxy resin 6469
- MCM reliab. assess., phys.-of-failure approach 28533
- MID, moulded interconnection device, mfg., adhesion/metallisation proc. 37138
- middle gull-wing joint, thermal fatigue life, FEM 28502
- mil. electronics, environ. safe soldering/cleaning 6427
- MLC series-connected C-R chip, data bus impedance matching 6194
- multi-layer PWB for high-speed/HF appls., low-dielec. materials *(Japanese)* 924
- multilayer SMT varistors, transient surge protection, automotive indust. 11437
- no-clean wave solder defect reduction, N_2 atmos. effects 38155
- OMPAC package-to-board attach reliab. 28534
- organic protective coatings for SMT/PCB finish 12910
- PCB, conformal coating proc. optim. 934
- PCB assembly, effective burn-in time determ. 38072
- PCB assembly proc. perform. meas., multiple defects 38095
- PCB assembly reliab., call rate level reduction 5701
- PCB connector reliab., no fault found category 5704
- PCB defect trends, O_2 conc. in wave soldering N_2 atmos. 38154
- PCB flux residue influence, electronic assembly quality 937
- PCB layout, concurrent design approach 21630
- PCB mounted ceramic SMDs, capacit. monitoring while flex testing 12878
- PCB resin/resin-glass composite insulation, moisture absorpt. effects 12942
- PCBs, PTH reliab., direct power/ground plane interconnection 12875
- PGA burn-in board loading, machine vision in robotic guidance 29668
- plastic encapsulated IC reliab., missile appls. 35386
- plastic-encapsulated IC, reliab. testing 30427
- polyimide substr. for Gb/s-class MCM-D/C 21784
- power electronics ccts., reliab. enhancement technols. 29017
- power MCM technol. for high vol., low cost commercial electronics, plastic encapsulated 21777
- power subsystem prod., design/test for quality 37626
- PQFP-based MCM, low-cost, reliab. develop./qualif. 6470
- PWB, PTH, reliab., mfg. defects 21655
- PWBs, crit. vibr. behavior, holography, finite element modeling 921
- radio-electronic apparatus, probab. of failure-free operation 3318
- rigid-flex MLB package, z-axis intermetallic/thermosetting adhesive method 37140
- Rohde & Schwarz transistorized 10-kW VHF TV transmitter NM 145 E 9702
- rolling-stock electronic equipt. burn-in optimisation 11869
- S-bend lead design for SM components, clip-leads appl., compliance metric 140
- self-testing PLM design, lin. seq. machines 12413
- SMC solderability testing, microwetting bal. 6422
- SMDs, solder life predict. under thermal cycling and vibr. 37115
- SMT chip resistors/capacitors, insulated metal substrs., solder joint reliab. 12931
- SMT package, moisture-sensitivity ratings 11750
- SMT reflow-soldered joints, porosity form. rel., mech. props. 12920
- SMT relays, reliab., heat stress during reflow soldering *(Japanese)* 6411
- SMT rework, conductive/convective hand tools 38161
- SMT solder ball connection reliab. model and crit. param. optim. 926
- SMT solder joint reliab., voids and void interacts. 178
- SMT solder joints, stress anal. model for fatigue prediction 37114
- SMT solders, thermal cycling, premature failure *(Korean)* 129
- SnPb-soldered joint reliab., interstitial PGA packages 940
- solder joint fatigue testing, elec. resist. spectrosc. 28477
- solder joint reliab., rework/repair techs. and procedures 12904
- solder joint reliab. prediction, computer-aided syst. develop. 37206
- solder joint rework, effect on PTHs in multilayer PWBs 38116
- solder joints accidentally exposed to nitric acid, reliab. eval. 37188
- solder joints of 256-pin plastic QFP, failure anal. 37129
- surface insulation resist. and electromigration test methods 113
- surface mount ceramic capacitor failure test, board bending 29653
- surface mount connector design, respect, solder creep 28503
- Teflon PCBs, fab., proc. considerations 12932
- thermal effects in integrable power semicond. devices 21121
- thermal stress anal. of soldered/bonded joints, defects 28457
- thick film/tape capacitor dielec., capacitance densities up, 3 nF/mm^2 6359
- three-state device networks, reliab. eval. formulae 20499
- TQM appl., pollution prevention in PCB manufacture 37212
- transferred ball bump technol. for tape carrier packages 21673
- TSOP solder joint crack initiation and propag. 37110
- underfill encapsulants for flip chip assembly, characterisation and eval. 37137
- Au-Sn flip chip bonding on flexible prints 12955
- Cu, electrodeposited/electroless for PCBs, mech. props. 12940
- Cu/photosensitive-BCB thin-film multilayer technol. for MCMs 21714
- Cu/photosensitive-BCB thin-film multilayer technol. for high-perform. MCM-D 21688
- Cu-Sn intermetallic form. at solder-Cu interface, in-situ TEM 12188
- Pb-based solder alternatives develop. 127
- Si_3N_4 plasma deposited coatings for sealed COB MCM technol. 12961
- Sn-Pb SMT solder joint reliab. prediction, model validation 925
- Sn-Pb-Ag solder joints, reliab. anal. and thermal fatigue disloc. substructure *(Chinese)* 11844
- Sn-Pb-Ag solder joints, thermal fatigue/isothermal mech. fatigue damage 37112

circuit resonance
- *see also circuit oscillations; ferroresonant circuits*
- class E half-wave low dv/dt rectifier, anal. 37621
- class E power amp., 2nd order effects in collector AM 29057
- distrib. network harmonics, motor load effects modelling 19267
- distrib. network overvoltage phenom., motor load disconnection-induced 4640
- double-scroll oscillator, chaos delayed feedback control 573
- EM emission from PCB sig. line, peak freq. prediction 38073
- even harmonic reson. class E tuned power amp. without RF choke *(Japanese)* 37646
- GTO based SVC anal. 5064
- induction motors, dyn. loading, AM 36149
- Josephson jn., fluct.-dyn. stabil./resistive state 14304
- ladder network resonators 6202
- LC reson. cct. security tags, design study 12627
- long. power systs., autoparametric reson. LF oscills. *(Japanese)* 43624
- Marconi's (1901) transatlantic transm. wavelength, transmitting syst. anal. 25267
- microstrip antenna resonant feeding networks 31999
- multimachine power syst. auto-parametric reson. calcs. 26896
- parallel reson. transistor microwave oscillator cct., computer-aided sensitivity anal. 6308
- power syst. harmonic waveform distortion, computer simul. 4481
- power syst. interarea/local generator reson. modes ident. 35486
- power transformer resonance freqs. prediction, neural net-based 19684
- PWM VSI, motor appls., HF leakage currents modelling *(Japanese)* 27814
- QPO, component params. calc. 21149
- qtr.-wave stub, operation 2281
- reson. meas. in capacitors 29613
- reson. series counterpulse, high current opening switches 19895
- RLC reson. cct. tuning, neural network adaptive controller 12631
- series reson. converter, parallel reson. cct. under parallel reson. freq. 21099
- spatial power combining oscillators on microstrip structs. 12789
- VCO, low phase noise, analog cellular portable radio appl. 12356
- ZVS PWM half-bridge power converter studies 44197
- Fe powder core inductors, HF modelling 12850

circuit simulation *see circuit analysis computing*

circuit stability
- 2D backpropag. cascade adaptive recursive filters 6231
- 2D digital filters, Lyapunov approach, stabil. anal. 743
- adaptive FM IF syst., improved selectivity, top-down design methodology 34229
- adaptive IIR filtering, fast convergent genetic search 32705
- automatic cct. breaker stabil., heat distrib. effects *(Russian)* 11196
- bal. MOS transconductor, filter design appl. 6213
- broadband microwave amp., low noise stable, design 12785
- CAMAD, Computer Aided Microwave Amplifier Design, undergraduate instruction package 5519
- canonic RC-act. oscillators using CCII, synthesis 579
- capacitive load driving and stabilisation *(German)* 21127
- cartesian feedback RF amp. lin., gain/phase margins 33758
- Chua's cct. control by resistor switching 12309
- Chua's cct. online ident., chaos control 5949
- CMOS latches, metastability rel.to loading, power supply and scaling 13887
- CMOS PLL-based prog. clock generator for video sig. proc. 12611
- common-collector bipolar transistor based oscillator design 830
- cryst. oscillator design and spec., tutorial 39086
- current-mode high-precision winner-take-all cct. 21450
- DC-DC converter with current injected control, current runaway anal. *(Japanese)* 5989
- DC-to-DC power converters, sliding mode control design 520
- DC/DC power convertors, democratic load-current sharing cct. 44151
- enhanced slew rate source follower, CMOS implement. 21466
- finite-dimens. continuous-time dyn. systs., nonlin. ccts. appls. 514
- freq. divider, current mirror type astable multivibrator *(Japanese)* 29428
- half-wave voltage converter with backward diode, stabil. estim. 539
- IIR adaptive filter, globally convergent, output error formulation *(Japanese)* 21437
- IIR digital filter struct., stable pipelined config. 764
- IIR digital filters, time-domain pipelining tech., stabil. 6225
- integrated pH-ISFET/press. sens., SDB/SOI materials *(Chinese)* 25810
- Josephson jn., fluct.-dyn. stabil./resistive state 14304
- leucosapphire disk dielec. resonator, temp. coeff./freq. depend. 30654
- lin. inertial networks, wideband param. flucts. 21148
- linear N-port network, stabil., return ratios 37606
- LO for commun. satellite transponder, 2.8 GHz *(Korean)* 12763
- look-ahead decision-feedback $\Sigma\Delta$ modulation 32043
- LSI module placement, Hopfield neural net, non-zero diagonal elements *(Japanese)* 37599
- LTCC shrinkage matched cofireable thick film resistors 11767
- LTI act. networks, polynomial matrix theory *(Chinese)* 12632
- LV bandgap regulators using only n-p-n transistors, perform. 37622
- microwave oscillator with dielec. disk resonator, thermal AFC 37983
- mm-wave Gunn oscillators, harmonic injection locking 12759
- mode-locked arrays of automatic level control oscillators, anal. 12773
- multi-output SMPS EMI filter anal./design 44156
- multiple loop feedback OTA-C filters, perform. anal. 37848
- multiport SRAM cell, design methodology 655
- nonlin. adaptive IIR digital filters 756
- nonvolatile memory devices, plasma-induced in-line charging and damage, CMOS 21313
- opt. receiver chip, stabil. improve., FIB 33984
- OTA-C ccts., continuous-time filters 37854
- output error method IIR ADF, stabil./globally convergence 32704
- parallel adaptive IIR digital filters, Kalman filters *(Japanese)* 12652
- parallel-module power converter, current bal. controlled, dyn. anal. 44140
- periodically-operated switch ccts., stabil. 5980
- piecewise lin. hysteresis cct., chaos control 37612
- PLCC chip and package design, plastic assembling, simple test chip 5632
- PLL systs., MRAC, Lyapunov fn. appls. 590
- power electronic converters, stochastic models 5998
- PWM UPS inverter perform., computer simuls. 5077
- rect. plate, dyn. response to shock load, package appls. 11811
- RF transistors, stabil., gain and noise 6040
- rigid-flex MLB package, z-axis intermetallic/thermosetting adhesive method 37140
- RLC nonlin. cct., interact. of LF and HF oscills. 507

- **circuit stability** continued
  - saddle type periodic points in PLL eqn., stabilization by OGY-control method *(Japanese)* 12375
  - sapphire disk DRO, combined stabilization 30655
  - sapphire resonator-oscillator, cryogenic, exceptional stabil. 30624
  - second-order PLLs, separatrix cycle, calc. and stabil. 21157
  - separable-denominator 2D digital filters, optimal design *(Japanese)* 21432
  - sine wave generators, oscillators, low noise and stable amplit. 12369
  - smart power IC, current limiter 30424
  - SMES, DC power line appls., input/output cct. studies *(Japanese)* 11309
  - spacecraft solar array, shunt switching unit act. ripple filter 26679
  - SPICE dc operating point anal., identifying unstable operating points, IC design 37586
  - temp. independ. current conveyor precision rectifier 5985
  - time-variant delayed cellular neural network stabil. 21490
  - time-varying 2D state-space struct. 37869
  - transm. line, counterpropagating waves, modulational instabil. 12306
  - transm. lines, efficient freq.-domain modeling and cct. simul. 5977
  - two-stage CMOS op amps, optimized compensation strategy 37640
  - van der Pol oscillator, sing. induced bifurcation 575
  - X-band sapphire resonator-oscillator, temp. stabil. 29572
  - zero phase 2D filters CAD, multiplicative autoregressive models 759
  - GaAs FET IC, const.-current cct.-biasing technol. 13901
  - GaAs MESFET CPW oscillators, supercond. resonator stabilization *(Chinese)* 37968
  - GaAs MMIC power amp., instabil. prediction 37606
  - GaAs MMIC/pin photodiode-based opt. receiver, 2.488 Gbit/s IM-DD systs. 17169
- **circuit switching**
  - commun. networks, perform./reliab. design 41442
  - Croatian ISDN, init. experience 41918
  - Croatian telecomm. network, traffic forecasting 33630
  - distributed radio port controller archit., develop. 25381
  - DTM gigabit network 3190
  - DTM gigabit network, fast connection establishment 24805
  - global cct.-switched satellite commun. network, perform. 9406
  - handover during mobile data commun., error reduction 16635
  - heavily loaded cct.-switched network, congestion relief 24757
  - high-speed syst. power/ground plane with ECL, switching noise 38081
  - HONET, integrated services WDM opt. network 16713
  - integrated networks, single resource loss in heavy traffic 41475
  - LANs, cct. switched, perform. under different traffic conditions 33514
  - large scale switched telecomm. networks, traffic design method *(Japanese)* 24838
  - multimedia capable network, ATM/IEEE 802.9a isochronous Ethernet transport technols. 42015
  - multistage networks, multicommodity flows 41402
  - network traffic mgt., neural tech. 41682
  - PRN, distributed media access protocol, set-up time, perform. anal. 33882
  - PRN capacity, distributed media access protocol, perform. anal. 33881
  - real time traffic estim. 41680
  - routing, cct.-switched network with wireless subscribers, optimal FCL table *(Korean)* 41566
  - simultaneous switching noise, mutual inductance, simul. 12273
  - telephony, network service pricing in competitive environ. 41719
  - three-stage networks, strictly non-blocking condition 33198
  - torus networks, struct. commun. 16449
  - transm. network, services routeing/scheduling techs. 24839
- **circuit synthesis** *see network synthesis*
- **circuit testing**
  - *see also circuit reliability; integrated circuit testing; logic testing; printed circuit testing*
  - 1 kW third-harmonic modulated AC/DC power electronics interface 44213
  - 6 MW GTO locomotive power convertor, insulation/corros. tests 36352
  - 400 V/10 A matrix power converter, induction motor drive appls. 19811
  - 1200 W zero output impedance UPS inverter 44170
  - AC/DC PWM power convertors, common mode conducted RFI emissions 5072
  - AC/DC soft-switched PWM power converter struct. 36344
  - analog testability anal., fault diagnosis, behavioral modeling 28942
  - Asian Test Symposium, Japan, Nov. (1994) 5504
  - automotive electronics qualification tests, knowledge-based 11432
  - buck rectifier, unity PF, nonlin. ripple feedback 36244
  - buck ZCS-ZVS PWM DC/DC power converter topol. 11167
  - buck ZVC-ZCS HF PWM power converter studies 19716
  - circuits systs., symp., Chicago, USA (May 1993) 31
  - computer-aided test program design syst. (CATPDS) in ATLAS 28430
  - current source PWM rectifier cct. studies 44181
  - DC/AC power convertor planar integrated reson. LCT cct. design 12321
  - DC/DC HF SMPS, solid Ta power capacitor appls. 19826
  - DC/DC power convertor random switching control, LF noise studies 44155
  - DC/DC power convertors, democratic load-current sharing cct. 44151
  - DC/DC PWM reson. power converter topol., pulse load appls. 11172
  - DC/DC PWM step-up power supply, SC cct.-based 27807
  - DC/DC quasi-reson. ZCS power convertor topologies 44220
  - deadband effect generation in digital ccts. 6053
  - digital cct. testing, probab. converter synthesis 37688
  - discrete event systs., diagnosability, cct. testing appls. 121
  - envelope delay test time meas. methods, modem design 42085
  - ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
  - flash ADC archit., reduced complexity 21382
  - GTO cct. snubber diodes, low temp. elec. transient tests 528
  - GTO PWM three-level VSI, induction motor drive appls. 19761
  - HF switching reson. power convertor, reson. rectifier appl. 44135
  - high-speed opt. sampling/STM, elec. waveform meas. 9830
  - IGBT power convertors, turn on/off behaviour studies 44218
  - large combinat. ccts., fault models, zero aliasing compression 37749
  - mag. parametrons, chaotic oscills. studies *(Polish)* 577
  - MCM ASEM foundry, testing methodology 29731
  - multiphase series-reson. power converter, novel topol. 19721
  - neural network based cct. faults diagnosis, current monitoring 17671
  - nonlin. signature anal. of data converters, automatic 3767
  - parallel reson. CSI, cct. design/anal. 44136
  - power cct. variable act.-pass. reactance studies *(Japanese)* 12311
  - power semicond. convertors, emergency state diagnostic calcs. 11138
  - power subsystem prod., design/test for quality 37626
  - prog. modular cellular neural network cell 21488
  - purely recursive digital filter testability 21442
  - PWM CSI, PM sync. machine harmonic torque rejection appls. 36354
- **circuit testing** continued
  - PWM inverters, current-source compensated deadbeat control 11166
  - PWM invertor space vector modulation strategy, PC-based 44164
  - reson. DC link VSI, soft switched, cct. perform. studies 36282
  - self-reson. DC-DC PWM power converter family 11168
  - self-reson. PWM forward DC/DC power converter 44225
  - SEPIC PWM ZVS dual power converter perform. studies 11130
  - series reson. DC link GTO invertor expts. 44167
  - single-ended forward-feed converter, vert. radiated field strength of interf. 27817
  - single-phase AC/DC low-harmonic power convertor 44168
  - SMES, DC power line appls., input/output cct. studies *(Japanese)* 11309
  - SMPS power converters, planar integrated filter/snubber cct. 19763
  - soft-switched PWM rectifiers, perform. improvement 11173
  - solder joint fatigue testing, elec. resist. spectrosc. 28477
  - solder joints accidentally exposed to nitric acid, reliab. eval. 37188
  - static power convertor filter capacitor fault detect. methods 19827
  - SVC develop. testing by simul. *(German)* 27879
  - Teradyne integrated ATE syst. for microwave devices/ccts. 25716
  - testset-generation, test vector constraints 3725
  - three-level PWM invertor, optimal design studies 19719
  - three-phase boost power convertor, interleaved switching topol. 5124
  - three-phase diode rectifier, PF/harmonics improvement 19850
  - three-phase diode rectifier utility interface, harmonics reduction 19751
  - three-phase four-wire distrib. syst. act. power filter 19278
  - three-phase isolated PWM ZVS buck rectifier 36243
  - three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
  - three-phase quasi-reson. soft switched thyristor invertor 19732
  - three-phase single-switch rectifier studies 19847
  - three-phase VSI nondeterministic AM-PWM strategy 44161
  - transit. counting, aliasing error probab. final value 122
  - Tri-Level PWM CSI, lin. controlled boost voltages 27806
  - VSI IGBTs, on-state short-cct. behaviour expts. 44217
  - XRAM pulsed power supply cct., repetitive operation studies 36256
  - ZVS power convertor, batt./solar cell sources 44169
  - ZVS PWM half-bridge power converter studies 44197
  - ZVS PWM inverters, DC voltage notching scheme 19736
  - ZVS-clamped voltage DC/DC PWM single-switch power convertors 11169
  - GaAs power diodes, PF correction boost converter appls. 36284
  - GaAs rectifier PF correction cct. tests 36324
- **circuit theory**
  - *see also distributed parameter networks; filters; lumped parameter networks; network analysis; network parameters; network synthesis; network topology; time-varying networks*
  - charged human body, pot. atten. proc., anal. 23506
  - dexterous motions, nonlin. cct. theory for robot control problems 21090
  - elec. impedance tomography, resistor network model 3951
  - EM scatt. from 3-D arbitrary coated cavities, connection scheme 15390
  - Heaviside operator based unified theory of lumped ccts./diff. systs. 461
  - Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
  - MMIC and hybrid planar IC discontinuities anal. method 860
  - n-dimens. binary hypercube, resist. 517
  - principia mathematica for electronics/chem. analogies 21095
  - syntactic, pictorial and relational paradigms for cct. design 21019
  - third-order 2-D filters, explicit coeff. condition 737
  - time-variant delayed cellular neural network stabil. 21490
  - unified theory of compatible impedances 21016
  - GaAs-AlGaAs quantum wells, periodic pot., cct.-theoretical anal. 13191
  - InAs-GaSb quantum wells, periodic pot., cct.-theoretical anal. 13191
  - electronic excitable membrane model, phase transit. curve anal. *(Japanese)* 37619
- **circuit topology** *see network topology*
- **circuit tuning**
  - act. resonators, integrat. for UHF wireless appls. 12826
  - bal. MOS transconductor, filter design appl. 6213
  - BAW act. piezoelec. filters 30652
  - broadband freq. synthesizer, increased operating speed 564
  - circ.-polarized annular microstrip antenna, tuning stub anal. *(Japanese)* 40522
  - class E freq. multipliers with RF choke, anal./design 37905
  - CMOS analogue VLSI current-mode mesh-type posn. sensitive cct. 34495
  - CMOS prog. analog cellular neural net for high speed image proc. 29429
  - CMOS quadrature digital synthesizer/mixer, 200 MHz 29245
  - CMOS triode-transistor transconductor for HF continuous-time filters 728
  - CMOS tunable current mirror tech. for HF analog design 37650
  - coplanar MMIC act. bandpass filters, neg. resist. ccts. 12819
  - distributed field emitter array MM-wave power amp. 38213
  - electronic ccts., post-fab. tuning 37575
  - electronically tunable grounded capacit. multipliers 12668
  - even harmonic reson. class E tuned power amp. without RF choke *(Japanese)* 37646
  - ferrite loaded resonator mag. tunable filters, power handling capacity increase 29542
  - functional postfabrication tuning, neural network learning 12278
  - HF loop antenna, practical design and constr. 31953
  - HF two-resonator sustained oscillators, tuning bandwidth 571
  - injection lock techs., bandwidth meas. 566
  - injection-locked oscillating freq.-converters in dyn. phasor-domain, perturb. 6261
  - low-power technol. for GaAs front-end ICs and hybrid ICs, mobile commun. 38041
  - MM band IMPATTs wideband oscillators, modulation characts. 37997
  - MM-wave commercial freq. synthesizer, 118-178 GHz range 827
  - mode-locked arrays of automatic level control oscillators, anal. 12773
  - oscillators for low phase noise/power consumpt., anal./optim. 37659
  - phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
  - RC act. filter design, input/output impedance effects 21417
  - RLC reson. cct. tuning, neural network adaptive controller 12631
  - Schmitt trigger, CMOS mixed-mode implement., equiv. cct. 21159
  - self-tuned continuous-time notch filters, CMOS implement. 21412
  - switched current cct., tunable feedthrough cancellation, modified dummy switch 29423
  - switched-current ccts., tunable feedthrough cancellation 774
  - synthesised LO for DB1NV spectrum analyser 34425
  - TV amps. tuning, robot fingers, fuzzy logic 37654
  - UHF bipolar-transistor self-excited oscillators, wideband electronic tuning 584
  - UHF VCO, 1.6 GHz, on-chip inductor and varactor 21568

circuit tuning continued
VLSI high level synthesis, optimal graph representations, instruction set tables 29109
X-band MMIC varactor-tuned VCOs, modelling and design 6342
GaAs MESFET varactor tunable oscillators, noise calcs. 21565
$InAlAs/n^+$-InP, monolithic tunable high-Q 12800
$In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ MODFET MMIC oscillators, opt. tuning 12788
YIG, magnetostatic forward-vol. wave resonator, tunable oscillator *(Japanese)* 12761
circuits *see networks (circuits)*
circular dichroism
see also magnetic circular dichroism
polariz. vol. hologram, coupled mode anal. 23465
circular polarisation *see polarisation*
circular waveguides
act. cylindrical waveguides with step-index profiles, transverse modes 30953
axially symm. four waveguide coupler design 30951
bianisotropic waveguides, lin.-operator formalism 31911
capacitance of transm. line of parallel cylinders, dielec. coatings 31883
central node in polar meshes, TLM approach 23756
Cerenkov laser, conducting inner surface 7592
Cherenkov maser, nonaxisymmetric mode, beam-wave interactions 23068
chirowaveguide, modal cutoff conditions for annular core 40405
chirowaveguides, 3D FEA, hybrid edge/nodal elements *(Japanese)* 8015
closed circ. groove guide, dominant mode 31886
curved conductor surface model, cavity resonators anal. by spatial network method 21526
cylindrical microwave struct., semi-inversion method 15557
cylindrical waveguide, thin metallic septum 12704
dielec., periodic metallic strips, dispersion 2296
dielec. cylindrical waveguides with Al cladding, light propag. 7354
dielec. waveguide anal., variational-difference method 801
dielec.-coated circ. hollow waveguides for IR, mode struct. and atten. 14423
dual freq. multilayered circ. patch antenna, self-diplexing fn. 40507
eccentric circ.-ellipt. metallic waveguides, cutoff freqs. 2291
EM fields in waveguides, interactive visualization 29521
FEL expt., ang. steering 2022
FEL with large μ_c planar undulator, waveguide appl. 39980
finite thickness diaphragms in circ. waveguide, optimal filters 37956
groove guide, propag. charact., tolerance effect 2297
groove guide for short mm- and submm-waves 21508
gyrotropic chirowaveguides, guided EM waves 2293
hollow circ. waveguides, atten. const., curvature effect 15601
HTSC circ. waveguides, Meissner boundaries 29523
impressed elec. field meas., coaxial ECR plasma source 34652
integrated opt. channel waveguides, source-type integral eqn. anal. 22881
micropipette cylindrical waveguide surface polaritons propag., near field opt. device appl. 40443
microstrip circ. disc 3-dB coupler anlysis and design, comments and reply 12716
microstrip line-to-circ. waveguide transit. 21507
microwave filter response of nonuniformly corrugated circ. waveguide 37965
MM-wave circ. groove guide, dominant mode characts. 31910
mode cutoff freqs., FDTD model staircasing effects 23809
multiconductor lines, planar or cylindrical, multilayered substrs., capacitance matrix 23790
open slotted structs. with layered dielec. filling, calc. 40395
opt. circ. waveguide photon, nonzero mass in centrifuge 40425
oversized rippled-wall mode converters, undesired resons. 21512
parab. cylindrical dielec. waveguide, modal power loss 30941
parallel two-wire line covered with three-layer media, anal. 15570
partly loaded circ. chirowaveguides, dispersion curves 15581
radial line slot antennas, rot. symm. of inner field 15672
rect. aperture in waveguide jns., scatt. 2302
semi-act. radar target, design of antenna subsystem 17430
semi-infinite screen-magnetodielectric coaxial rod struct. 15558
shielded waveguide spectrum, complex waves mechanism 12688
single-beam plasma wave tube, high-power microwave/MM-wave source 986
slot-coupled waveguides, anal., GSD tech. 2292
slowly evolutive waveguide reft. and transm. computation 23812
TE_{01} gyro-TWTA, stable, high power 1007
three-layer dielec. clad parab. cylindrical chirowaveguide, anal. study 40442
triply-ridged circ. waveguides 37935
vector FEM, mixed-interpolation-type triangular-prism element 15566
waveguide filters, modal anal., hybrid MM/FE method 6287
waveguide polariz. controller, anal. and implement. 807
WC-281 circ. waveguide, mode conversion, echo anal. and correction, digital radio 33760
X-band bandpass/bandstop filter design in circ. waveguide 37954
X-band slow wave structures, EM props. study 13010
circulators
see also ferrite circulators; microwave circulators; millimetre wave circulators; optical circulators
planar circulators, boundary element anal., spurious solns. elimination 12012
citation analysis *see information analysis*
civil engineering
see also architecture; building; civil engineering computing; dams; excavators; structural engineering
Bhumibol hydro station, pumped storage unit addit. 36050
fibre-optic sens. for smart struct. 3851
ground penetrating advanced radar appls. 42503
tandem rolling-rotor actuator synchronisation 11519
civil engineering computing
see also structural engineering computing; town and country planning
geothermal energy drilling, software-based anal. tool 27611
perspective terrain visualization using rem. sens., GIS and computer graphics 18919
claddings
see also optical fibre cladding
antiresonant reflecting opt. waveguide polariz. splitter 22898
antiresonant reflecting opt. waveguides, rigorous design method 15583
antiresonant waveguide add/drop filter, Fabry-Perot interf. filtering 17266
building pressurisation, interior switchgear arcing *(German)* 19899
coupled antiresonant reflecting opt. waveguides based wavelength selective device 14472
dielec. cylindrical waveguides with Al cladding, light propag. 7354
claddings continued
finite-clad fibres and waveguides, perturb. anal. limitations 30849
GRIN planar opt. waveguide anal. by impedance boundary method of moments 7347
metal clad GRIN opt. planar waveguide anal. 40399
metal-clad waveguide polarizer integrated opt. cct. output coupling 30964
micropipette cylindrical waveguide surface polaritons propag., near field opt. device appl. 40443
steam turbine moving blades, laser clad *(Chinese)* 2155
$Al_xGa_{1-x}As$ depressed cladding semicond. waveguides and lasers, modal props. 14468
GaAs/AlGaAs waveguides with quantum well claddings, opt. modulation, beam steering 22892
GaAs-AlGaAs GRINSCH LD modelling of MBE growth 39791
InGaAs-GaAs MQW lasers, low growth temp., photolum. 14965
InGaAsP/InGaP/GaAs high-power 0.8 μm LD, minority carrier leakages 1956
$LiNbO_3$ cladded fibers, acoustic wave propag. 35363
SiO_2 core low temp. low loss PECVD channel waveguide fab. 30984
SiO_2-TiO_2-SiO_2-Si ARROW opt. waveguides, sol-gel multilayer struct. 14417
UO_2 thermionic fuel elements simul., thermocycling 28024
class libraries *see software libraries*
classical algebra *see algebra*
classification
see also indexing
Internet, inform. quality *(Hebrew)* 41792
classification, image *see image classification*
classification, pattern *see pattern classification*
clay
electroacoustic charactn. of particulates, conf., Gaithersburg (1993) 28261
EPR dielec. relax., clay effect, TSDC meas. 14057
Li, electrochem. intercalation, mineral clay materials, rechargeable batts. 19934
clean rooms
3D multidirectional inclined structs., microfabrication, UV lithog., electroplating 30504
changing room design, semicond. manufacture 37057
electrostatic charge control, wafer prod. damage prevention 7896
film interface control in integrated IC proc. systs. 20405
impurity ions anal. and removal syst. 22089
ion implanters for CMOS IC fab., cleanliness stds. 13282
laminar flow cleanroom, flow vel. meas. 112
LSI fab., dust sources 30403
microcontamination 93, conf., San Jose, USA (Sep. 1993) 42
microelectronic devices realized by DESS students, clean rooms, elec. characts. *(French)* 20333
Norcross project, degraded clean room, wafer contamination and ergonomics 38456
Norcross Project, manual/robotic wafer handling, degraded cleanroom 22086
PCB manufacture, densification techs. 6408
photoplotter/printer image contamination, PCB mfg. cleanliness 38101
prog. interconnect arrays, thin film , chip-to-substr. interconnect switching 20434
scanning HEPA filters, photometers 11728
submicron fab technol., future prospects 37050
vac. systs. in electronics mfg. 37059
InP-based heterostruct. device/cct. proc. facility design 29996
cleaning *see surface cleaning; surface treatment*
clearing houses *see bank data processing*
cleavage fracture *see brittle fracture*
cleaved coupled cavity lasers *see semiconductor lasers*
Clebsch-Gordan coefficients
quantum transport eqns., absorbing boundary conditions 13824
client-server systems
ADSM, multi-platform, scalable, backup and archive mass storage syst. 33533
Amoeba syst. and WAN commun. *(Chinese)* 16648
appl. partitioning, client server develop. 41892
appl. partitioning for client server archits. 41893
approx. MVA for client-server systs., nonpreemptive priority 24994
asynchronous shuffleout connectionless network switching archit. 41415
ATM and multimedia appls. 33515
ATM based multimedia servers 41965
Austrian, German, and Swiss companies client/server archits. significance *(German)* 25049
automatic telephone operator based on client-server syst. archit. 3132
BAfirewall, Bell Atlantic internal TCP/IP WAN 16673
CA-Browsing System, global security services support 16675
cache coherence, large granularity, for intermittent connectivity 24960
cache-based transport protocols, modulo-N incarnation numbers 2955
CASE tools, client/server-based, design 16765
CEBAF accelerator control syst. upgrade 18189
central servers, high-bandwidth network evol. 41786
Chameleon 4.0, TCP/IP for windows 16657
commun., spec./validation 2932
competitive distributed deadlock resoln. and resource allocation, local optim. of global objectives 16686
connecting geographical inform. syst., telecom. inform. syst. database 33342
cooperative computing/integrated syst. mgt. 24904
corporate network mgt. *(Japanese)* 16715
desktop appl. program interfaces 33395
digital movie systs., perform. bottlenecks 16841
distributed multimedia syst. for commun. 41971
distributed OS, data/control transfer separation 16659
distributed PCN server-independ. service acquisition syst. 42195
distributed telecomm. syst. design, ODP approach 24954
E-mail systs., market primer 8860
East Carolina Univ. library, migration, client/server computing 8978
educational electronic brainstorming syst. in Eng. teaching 9031
ESRF linac, obj.-oriented control syst. 18185
Ethernet, sharing resources, client-server model, ISIS facility 16688
FIND2, inform. sharing syst., develop. *(Japanese)* 3211
FIND2, multimedia/distributed inform. sharing systs., develop. *(Japanese)* 3264
firewall installations, IpAccess Internet service access syst. 24962
GRAMS distributed multimedia service syst. 16833

client-server systems continued
HALdoc, document mgt. syst. 16763
heterog. multiserver network, job depend. dispatching scheme 24952
high speed network, multimedia commun. networking archit. model 33650
high-speed transport protocols, local workstation environ., flow control 33492
JPEG picture retrieval in portable hypermedia documents 8602
M-based clients and servers in TCP/IP environ. 16644
mail transport agents, integrat. products 8862
message oriented middleware, MOM, appls. 41794
MHEG coded representation for hypermedia IRS 16847
Misnet, inexpensive network for PC connection 41889
mobile computing, group commun. approach 33562
mobile environ., file access design 33556
multimedia appl. on client server public network 16645
multimedia on token ring 33439
NEC Videomix, appl. *(Japanese)* 42591
Netware dyn. data exchange 16724
NetWare protocols, syst. manager's guide 41816
network technol. and OS trends *(Japanese)* 16753
Network Time Protocol servers, survey tool for discovery 24959
networks recovery 3181
Novell NetWare multimedia commun. syst., Microsoft Windows 33654
O(1) quorum consensus protocol tailored for client/server archit. 41879
open client-server networks, heterog. data bank integrat. *(German)* 8886
parallel systs., client-server behaviour modelling via Petri nets 16730
patient recruitment, improved efficiency, automated telephone screening syst. 43327
PC based OSI rem. database access client syst. 8759
PCN, client-server-based handover scheme 42247
perform. prediction, traffic dependencies effect 41828
POP3 mail client, WinSock 41731
power syst. EMS multiserver/multiclient gateway syst. 43637
power syst. intell. guidance syst. 19169
program struct., distributed systs. 16726
prototypical software projects, client/server appls. design *(German)* 16654
RAMA, rem. access, museum archives 9069
SASC distrib. comp. protocol, info. leakage meas. 32082
SCIDDLE, tool for large scale distributed computing 33583
security, client/server environ. *(French)* 25026
security soln., client server archit. migration *(French)* 25027
Software Assembly Workbench, hardware-like constr. 41827
teleradiology, image ref. database, WWW 9053
Unix and open systems conf., Brussels, Belgium (1992) 11541
W4, Wireless World Wide Web, PDA based 33569
wide-area inform. client 33523
wireless computing appl. design 33561
wireless LANs appls. 41754
World Wide Web authoring tool improvements for Unix platform 41865
World-Wide Web for shared comments, SOAPs, trails, and online communities 41861
X pseudo server mgt. syst. in X Window syst. *(Japanese)* 33436
Z39.50/SR protocol integrated into LIBERTAS, library automation 33252

climatology
contrails, greenhouse pot. 26766
elec. power indust. develop., global issue 27535
energy use/conservation, climate change, economics 27314
Turkey, rainfall atten. climatic map, develop. 15437
^{137}Cs radioactivity, snowfields, glaciers in situ γ-ray detector 18356

clinical equipment *see biomedical equipment*

clinical measurement *see biomedical measurement*

clipping circuits *see limiters*

clocks
see also atomic clocks; time measurement
2.5-Gbit/s all-opt. clocked decision/retiming cct. bistable semicond. lasers 9517
4th order switched current low power lowpass/highpass Butterworth filter 29344
7.5 Gb/s monolithically integrated PLL/QW-HEMT clock recovery cct. 29341
10-GHz timing extraction from 20-Gbit/s data stream by opt. fiber PLL 9127
250-Gb/s self-clocked opt. TDM, polariz.-multiplexed clock 42376
900 MHz transmitter syst., highly integrated ASIC 9353
act. SBS fibre amp./filter opt. clock recovery 39363
algm. for computer time synchronisation, universal time 25980
all-opt. clock recovery syst., ring mode-locked laser 39990
all-opt. clock-recovery cct. using dual mode-locking, 5-Gbit/s 14879
ATM subnetwork syst. fns., timer-related perform. issues 24766
BiCMOS SRAMs, PLL timing design techs. 29220
binary modulation proc. 32028
buffer distrib. algm. for high-perform. MCM/VLSI clock net optim. 29335
clock synthesis for SC filters, microcontrollers 12638
CMOS analogue front-end for terrestrial/satellite integrated D2MAC decoder 34230
CMOS burst-mode clock recovery cct., 28.8 Mb/s PON 34104
CMOS LV SC filters by switched-opamp tech. 29360
CMOS PLL-based prog. clock generator for video sig. proc. 12611
digital seq. cct. retiming algm. 473
discrete event systs., rapid learning techs. and appls., traffic smoothing 41568
electronic device trends in commun. systs. *(Japanese)* 41603
fixed-biased pseudorandom BIST for random pattern ccts. 6096
hybrid DFT, scan and clock line control 6080
multi-freq., multi-phase scan chain 6078
multivendor ATE, test software generation 3727
Network Time Protocol, clock sync. 41545
Network Time Protocol servers, survey tool for discovery 24959
path delay testing in std. scan environ. 6072
phase/freq. detectors for opt. transm. systs. clock sync. 3568
PLL clock generation syst. for 500-MHz RISC proc., 1.5% jitter 29337
radiated emissions reduction, SS clock generation 15490
SC voltage controlled sine-wave oscillator 29070
scan-designed ccts., test time reduction, sliding compatibility 12472
scan-designed seq. ccts., test clock reduction 6079
SDH, independent/synchronized clocks, freq. stabil. measures 8721
SDH slave clock chain RMS time interval error accumulation 41391
self-clocked self-routing photonic bit switching archit. 42127
single-layer clock trees with exact zero Elmore delay skew, CAD 472
slave clock internal noise impact on Allan variance 8700
slave clocks in chain, random noise accumulation 42954

clocks continued
SONET opt. commun. components, cryst. controlled 17171
std.-cell VLSI cct. design, timing and area optim. 21256
sync. clocking schemes for large VLSI systs. 6195
synchronous sampling clock generator, meas. accuracy anal. 25763
time transfer, spaceborne H maser/laser pulse timing 42668
topol. design of clock distrib. networks 715
ultra-low power digital CMOS ccts. 29087
unequalized mag. recording channels, clock recovery 7193
wavelet anal. for sync. and timekeeping 42679
zero-crossing-based spectrum anal. and image reconstruction, detect. accuracy 8467
zero-skew clock net constr., simulated annealing, VLSI layout 29336
GaAs PLL-based clock generator, 3.2 GHz, 50 mW, 1 V supply 12612
Si bipolar clock-recovery and data-regenerator IC, 8 GHz, opt. fibre transm. 9544

closed circuit television
24-hour real-time VCR *(Japanese)* 42639
conf. on security technol., Ottawa, Canada, Oct. 1993 36875
fast response CCTV image recall and motion detect. 42634
image proc., crowd monitoring 33109
intell. vehicle/highway systs., compressed video commun. 8682
multiple FM-video sig. transm., opt. fiber in security 9529
operator perform., syst. design 42632
picture monitor class. and appl. *(Croatian)* 3679
video entry phones, surveillance cameras 42633

closed loop control systems *see closed loop systems*

closed loop systems
see also feedback
3-phase PWM converters, small-sig. model, control 19760
AC hoists modernisation 11396
AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
AC machines, transducerless posn./vel. control 4910
AC motor drives, asynchronous μP control design 36637
AC motor drives, converter-fed, side effects 11373
aerospace motion simulator, dyn. controller design 18700
aircraft automatic landing LQG/LTR controller design 35276
anal., static converter, steady state stabil. *(Russian)* 27823
ATM network traffic control schemes for no resource reservation data commun. 41440
available bit rate ATM service, rate-based flow control framework 41399
carrier phase sync. techs. 8461
CDMA mobile systs., power control, perform. and syst. design 33868
controlled-root formulation for digital PLL 29076
current-feedback op-amps, small-sig. macromodel 27651
DC elec. drive, current compensator/vel. control 28065
DC motor, adaptive speed control, torque estim./compensation 4993
DC motor speed control, binary rate modulation 27749
DC/AC switched-mode PWM inverter, stabil. anal. 11127
DC/DC PWM push-pull power converter, robust state feedback control 27808
DC/DC switching converters anal., grid-point approach 37625
double-fed induction generators, PLL controlled, stabil. anal. 44061
elec. machine mag. bearing-based vibr. control simul. 36091
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
FADOF filter for space borne opt. commun., Doppler shift compensation 17325
finite wordlength digital filters/controllers, optim. realisations 37883
fluidized bed utility boiler, computerised control 10856
GIVE, IIR adaptive echo canceler 15883
GTAW, sync. weld pool oscill. monitoring/control 5618
hybrid step motor control, reconstructed mag. flux sig. 11327
hybrid step motor control, torque ripples minimisation *(Korean)* 27761
hydrogenerators, adaptive speed control, RLS ident. 43988
induction motor, terminal-impedance control, energy-saving 4981
induction motor adaptive tracking control 36152
induction motor drives, closed-loop phase angle control 5260
induction motors, doubly-fed, IP control transient stabil. anal. 27740
induction motors, single/3-phase, speed control, AC regulators, freq. division 11034
induction motors, voltage fed, field orient. control 19639
indust. elec. heater, discrete optimal tracking controller 44589
internal model control loops, asymptotic setpoint tracking 27772
inverter, parallel capacitor compensated, transients, stroboscopic anal. 5391
LCC parallel reson. power converter, small sig. anal. 11129
lin. DC actuator, valve control 4352
line conditioning syst., harmonics reduction, PF compensation 43659
load distributor static and dyn. network anal. *(German)* 43731
locomotive motor wheel set drives, adhesion utilization improvement 36758
modified duobinary PAM fast timing recovery syst. design and simul. 32039
multimachine power syst. resync., optimal variable aim control *(Chinese)* 10634
multiple-output buck-type power converter, dyn. characts. 44153
multitone sync. for fading channels 8459
multivariable combustion control design, indiv. channel design framework 27525
Neutral-Point-Clamped PWM inverters, voltage vector control 11141
packetized data commun., sync., DFT appl. 33201
PCB semi-aq. cleaning proc. control, closed-loop water recycling syst. 919
physiochemical expt. dyn. controller develop. 34727
PLL false lock breaking bifurcation 29079
PM stepping motor robust tracking control 36203
PM sync. machines, act. vibr. compensation scheme *(French)* 10997
power converters, transient anal., envelope following method 6009
power syst. sync. generator dyn. stabil. control enhancement 43706
PWM invertor AC motor drives, chaotic current control anal. 44480
PWM VSI, tolerance band control chaotic procs. 5065
robotic arm ASIC-based motor controller develop. 11227
run by run proc. control combining SPC and feedback control 20412
satellite-based packet-switching networks, on-board closed-loop congestion control 33942
series reson. converter, parallel reson. cct. under parallel reson. freq. 21099
series reson. DC/DC power converter, IP regulator-based control 44221
single-phase VSI UPS, multiple feedback loop control 11142
SMT prod., integrated process monitoring/testing 38111
squirrel cage ASD, speed/torque/PF control 5270
SRM actuated rigid-link robot hybrid adaptive tracking control 36650
SRM drives, sliding mode observer controller 5301
stepping motor positioning, closed loop optimal operation 11087

closed loop systems continued
stepping motors, closed-loop posn. feedback control 19672
switch-mode magnet power supply, modelling and control 29027
switch-mode power convertor predictive control, current prog. tech. 44152
switching cct., convolution integral, steady state anal. 12674
sync. generator predictive voltage control *(Japanese)* 44010
synchronous motor, self-controlled, current fed, simul. 19613
TDMA portable radio channel uplink power control algm. 42197
three-phase AC machine switching power converters, current control 44179
three-phase AC/DC step-up power convertor anal. 36372
three-phase PWM neutral point clamped invertors, voltage control *(Japanese)* 11121
two-inertia motor syst., closed-loop PID speed control design *(Japanese)* 27669
variable reluctance motors, indirect rotor posn. sens. 5302
variable speed wind turbine, drive syst. dyn., modelling and ident. 36067
X-ray fan beam *z*-axis position measurement 26290
X-ray timing Explorer Power Syst., stabil. anal. 26651
clothing industry *see textile industry*
Clusius-Dickel columns *see isotope separation*
cluster analysis *see pattern recognition*
cluster tools
semicond. mfg., cluster tools 30436
Texas Instruments MMST program, all-RTO/RTA/RTCVD 0.35 μm CMOS IC prod. 22594
VLSI work cell manufacturing syst. 37042
Si SEG, indust. integrated cluster tool 20847
Si_3N_4 ultrathin capacitors for advanced DRAM cells, in-situ multiprocessing 21589
$TiSi_2$ selective CVD, indust. integrated cluster tool 20847
clusters of galaxies
see also galaxies
large scale struct., parallel algm. appl. 32918
clutches
see also brakes; drives
automotive EM particle clutch, design anal. 11435
electrorheological catch/clutch, inertial simul. 445
mag. skew gear using PM, car appls. 14267
clutter
see also radar clutter; radar interference
8 mm freq. quadrupler, GaAs varactor *(Chinese)* 37907
act. shape models, training and appl. 24365
adaptive detect. of subpixel targets, unknown spectral charact. 16103
aircraft recogn. syst. for perspective aerial images 8639
anechoic chamber clutter posn. estim. with sidelobe depression 23844
bi-level MHT tracking algm. for two crossing targets in high clutter environ. 18978
context-free attentional operators, generalized symm. transform 41081
data assoc. in multitarget tracking, efficient algm. 24331
decentralized CFAR detect. based on order stats. 2577
dim objs., detect. and tracking, fuzzy evidential filter 41031
distortion invariant opt. pattern recogn. 32941
distributed cell-averaging CFAR detect. in depend. sens. 32532
divergent stereo in autonomous navig., bees, robots 41084
gate size seq. most probable hypothesis tracking 15880
hardware-in-the-loop simul., point targets, error anal. 26837
human search/target acquisition perform. modeling, fixation-point 8599
IR detect., spatial sig. proc. 16101
IR imaging, ΔT metric eval., mil. target and background under various stats. 4439
IR imaging sens., unified perform. model of detect. and tracking 16112
IR multi-spectral target/background field meas., anal. 16105
iter. reconstruction of moving obj. from image seqs., struct. noise 24525
locally-adaptive wave proc. for predetection of point targets 17924
mean-field theory and multitarget tracking 15869
multicovariance matched filter for target detect. and background recogn. 16107
multiple distorted obj. detect. and image proc., morph. and wavelet transforms 24485
multiple hypothesis tracker algm., maneuvering acoustic source 2583
multisensor multitarget mixture reduction algm. for tracking 24322
noisy thermal IR image seqs., automatic small target detect. 16110
obj. detect. in clutter, Gabor filters 24549
prog. opt. pattern recogn. image proc. 2829
seismic event class. by fuzzy logic 35290
small objs. detect., high clutter backgrounds, neural net filter 16139
stereoptic 3D cueing, complex flight displays decluttering 35218
target tracking, probab. data/finite resoln. 41028
thermal imaging perform. eval., min. findable temp. difference 34572
tracking in clutter, adaptive waveform selection 15948
tracking in clutter with nearest neighbour filters, perform. prediction 15872
weak-sig. image proc., multichannel whitening of non-Gaussian data 16100
HgCdTe bulk wafer-based two-colour IRFPAs, design/fab. 17943
CMAC *see cerebellar model arithmetic computers*
CML *see current-mode logic*
CMOS analogue integrated circuits
1-GHz highly lin. CMOS downconversion mixer 29594
3-D sugarcube neuroprocessor, low power analog neurosynapse chips 29492
4th order switched current low power lowpass/highpass Butterworth filter 29344
adaptive neuro-fuzzy analog chips 29418
adder, self-biased cct. 21455
advanced CMOS analogue design, training 21460
amp., parametric yield optim., l-models 6846
amp. gain control via geom. size/transistor interconnections 29055
AMPS IF filter, integrated, low noise, cellular telephone appls. 25354
analogue continuous time micropower CMOS Hopfield associative memory 29484
ATE amp., switch mode design 29054
audio channel, portable sound systs., mixed sig. proc. 17606
autoadaptive independ. component analyzer, analog CMOS implement. 21478
autocorrelation in micropower analog CMOS 21462
bal. MOS transconductor, filter design appl. 6213
bandgap ref. cct., LV appls. 29045
binaural source localizer chip, subthreshold analog CMOS 29485
biquad high-order SC filters, multiplexing tech. 6220
buffered direct injection multiplexer for IR cameras 34562

CMOS analogue integrated circuits continued
cellular neural net, prog. for high speed image proc. 29429
cellular neural nets, analogue CMOS implement. 29495
cellular neural network chips, opt. image acquisition 29486
chaotic chip for nonlin. dyn. network anal. 515
chaotic oscillator for sig. encryption 34433
class AB CMOS first-generation current conveyor 29353
continuous-time analog defuzzifier 29417
cortical amps., hybrid analogue-digital CMOS archit. 29482
current mirrors, freq.-domain anal. *(Italian)* 37643
current mode cellular neural net, adjustable template coeffs. 29470
current S/H ccts., clock feedthrough anal. and cancel. 780
current S/H ccts., differential clock feedthrough atten. 12666
current-mode ART1 neural algm. implement. 29475
current-mode high-speed ART1 chip 29493
current-mode multiple input max. cct. for fuzzy logic controllers 775
differential stages, hot-carrier-induced offset voltage 22574
differential voltage-to-current converter 21467
dual voltage twin well CMOS proc., analog and digital appls. 30456
dyn. bias current tech., bipolar exponential-law/CMOS sq.-law elements 12667
dyn. threshold voltage MOSFET for ultra-LV operation 22473
enhanced slew rate source follower, CMOS implement. 21466
fault diagnosis, power-supply current monitoring/discrim. anal. 13847
fault simul. software 488
feedforward ANN, on-chip learning, modular analog chip 797
feedforward neural networks, analogue CMOS implement. 29445
floating-gate MOS differential amps., analog computation 6032
fn. approx. cct. 30477
four quadrant analog multiplier-type CMOS OTA, design 21123
four-quadrant CMOS analogue multiplier for ANNs 12665
front-end for terrestrial/satellite integrated D2MAC decoder 34230
fully differential difference amps., unity-gain difference feedback 37641
fully differential op amp, +1V, -1V, rail, rail 37653
Hamming neural net, CMOS analogue IC 37923
HF analogue perform. of MOSFETs from CMOS procs. 22411
high input swing op amps., biasing cct., CMOS implement. 21129
high speed CMOS current op amp, bandwidth optim. 21126
high temp. precision op amp, CMOS implement. 21128
high-speed CMOS current mirror resistive compensation 21125
high-speed switched-current ccts., trans-impedance amps. 21461
high-swing high-drive CMOS buffer, large capacitive loads 37645
hippocampus, nonlin. syst. model, CMOS implement. 29434
image proc. neuro chips, analogue, spatial/temporal dyns. 42755
intell. opt. sens., multilayer opt. neural net, analogue VLSI 9938
intell. sens., analog fuzzy controller, CMOS implement. 37902
intracardiac electrogram, low power, class. using analogue VLSI 35123
large-scale analog neural computer, archit./appl. 29481
LCD driver, 50-V, integrated in std. 5-V CMOS proc. 29083
lin. differential transconductors in subthreshold CMOS 29357
locally connected CMOS neural cells, steady-state heat flow problem 795
long-term CMOS storage cell performing ADC/DAC for analogue neural net 6263
low noise CMOS freq. synthesizer, dyn. bandwidth control 21133
low noise preamplifier design for room temp. detector appls. 43139
low-power analog sampled-data VLSI archit. for mag. recording channel 29411
LV CMOS four-quadrant multiplier 6249
LV fully differential class-AB switched-current ccts. 6248
LV mixed-sig. ccts., digital CMOS technols. 12662
LV SC filters by switched-opamp tech. 29360
max. entropy coprocessor for CT 29432
max. integrated phone device for analogue telephone set 42076
micropower batt. monitor cct. 21112
micropower batt.-operated CMOS cryst. oscillator, anal. 6045
micropower OTAs, SOI vs. bulk technol. perform. comparison 553
mixed analogue-digital ISDN IC, analogue layout shrinkage CAD 28987
multilayer Boltzmann machines, scalable CMOS analog implement. 29519
multiple target tracking syst., analog VLSI neuromorphic proc. 32954
multiplier design, differential difference amp. 6252
neural chip, subthreshold MOS analog cct. 37928
neural network, analog VLSI current mode cct. 6272
neural networks, capacitive wts. learning 21475
neural networks, Gilbert multipliers, in-cct. learning 6271
neuro/fuzzy systs., analogue, CMOS design, basic building block approach 790
neuron-MOS neural networks, hardware-learning algm. 37916
NORCHIP, seminar, Trondheim, Norway (Nov. 1993) 11579
on-chip power supply coupling diodes, ESD protection, noise immunity 5986
op amp, 3 V, rail-to-rail I/O, VLSI cell libraries appl. 6037
op amp, multipath Miller zero cancellation 29064
opt. receiver IC, wide dyn. range 34047
OTA, CAD, spreadsheets 28945
OTA-C act. filter simul., nonlin. OTA macromodel 21404
photo BJT array in CMOS technol. for intell. imaging 9935
polysilicon CMOS TFT LCD driving ccts. *(Korean)* 17999
preamplifier, 4.2 K operation, human biomag. field meas. 34994
preamplifier, IC-magnetoresistive read elements 7142
PRML mag. read channels, high speed, CMOS analog front-end archits. 30727
prog. analogue chip, high speed image proc., cellular neural networks 29414
prog. analogue CMOS transm. cct., electronic telephone sets 33678
prog. current comparator for analog VLSI neural nets 29430
prog. modular cellular neural network cell 21488
prog. op amp, class-AB, hybrid nested Miller compen. 6036
prog. switched-current filter 29359
radiation-hardened CMOS for cryogenic analog appls. 30447
reconfigurable analog fuzzy logic controller 779
regularisation vision chips, light-adaptive archits. 21458
S/H cct. for high freq. appls. 12673
sampled-data motion chip, VLSI, visual motion detector 2845
self-tuned continuous-time notch filters, CMOS implement. 21412
shift-invariant continuous time cellular ANNs, dense CMOS design 29494
SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
sig. normalisation module for posn.-sensitive devices 34431
single CMOS photodetector/analog/digital chip 3992
soft competitive learning, analogue CMOS implement., hardware tolerance 29433
spiking oscillator networks, on-focal-plane image preprocessing 29413

CMOS analogue integrated circuits continued
spot position coding retina, active obstacle detect. 21457
sq. and four-quadrant multiplier design 37900
stacked layouts in CMOS analog ccts., automatic generation algm. 13878
static MOSFET model suitable for analog IC anal. 30292
stereo retina for automobile appls. 29419
stochastic ANNs, CMOS analog implement., temp. effects modelling 29463
subthreshold four-quadrant multiplier design 29410
switched current cct., tunable feedthrough cancellation, modified dummy switch 29423
switched-current ccts., tunable feedthrough cancellation 774
symbolic anal. of large analog IC 29060
synapse for Kohonen, maps 29421
thermoelec. IR sens., fab. in CMOS technol. 25846
transimpedance amp., 240 Mbit/s, opt. fibre link appl. 9543
transimpedance amp./opt. syst., monolithic integrat. 31131
triode-transistor transconductor, HF continuous-time filters 728
tunable current mirror tech., HF analog design 37650
two-stage CMOS op amps, optimized compensation strategy 37640
variable supply voltage testing, analogue CMOS/bipolar ccts. 5592
VLSI, fault-tolerant dyn. multilevel storage 6253
VLSI analog fuzzy controllers, hardware/software toolkit 37899
VLSI chaotic neural nets, current-mode 29513
VLSI continuous-time prog. nonrecursive filters 735
VLSI current-mode mesh-type posn. sensitive cct. 34495
VLSI design of cellular neural networks, annealing agility 22603
VLSI neural learning, robustness against cct. limitations 29489
VLSI power supply coupling diode design, ESD protection/noise immunity 30470
voltage-mode defuzzification ccts., analog implement. 21456
GaAs CHIGFET noninductive impedance transformer design 29351
GaAs fast radiation-hard CHIGFET op. amp. 29061
Si integrated adaptive LMS echo canceller, variable step size 16926
Si mag. field detector, CMOS oscillator config. 34449

CMOS digital integrated circuits
see also CMOS logic circuits; CMOS memory circuits
1.8-μm CMOS 60-MBaud single-chip QAM proc. for digital radio appls. 21369
2 Mbps interface module, PLL tech. *(Japanese)* 42050
3.3 V CMOS devices, elec. packaging requirements for LV ICs 5637
7 KHz handfree telephony CMOS ASIC chip set 21371
16-bit CMOS divider/sq.-root cct. design 6171
32-bit RISC proc., embedded control systs., CMOS VLSI implement. *(English)* 37795
60 Mb/s QPSK/OQPSK burst digital demodulator for radio appl., CMOS VLSI implement. 17006
200-MHz quadrature digital synthesizer/mixer in 0.8-μm CMOS 21370
900 MHz transmitter syst., highly integrated ASIC 9353
A/D converter, neural-based, with CMOS inverters 29323
adaptive equalizer for partial-response channels 29246
adaptive equalizer/Viterbi seq. detector, Class IV partial response max. likelihood 21156
array proc. for general purpose image compression 29247
ASIC, power-pin ESD stressing failure mechanisms 28527
ASIC ESD failure, substr.-power bus contact effect 30468
ATM switch chip set, 2.4 Gbps, 16×16 config. 16960
ATM switch CMOS LSIs, self-timed queue archit. 16961
ATM switch LSIs, self-timed queue archit. 33721
bi-level image high speed codec, architectural design 9124
burst-mode clock recovery cct., 28.8 Mb/s PON 34104
C4/CBGA interconnect technol., hi-dens., CMOS μP appl. 5650
cellular neural networks, elec. charact. 21498
CMAC neural nets, archit. design, hardware implement. 29468
CMOS buffered switch, gigabit ATM switching network, B-ISDN 16974
code-string matching proc., design, EWLD algm. *(Korean)* 12555
combinat. ccts., stat. delay charactn. 13891
concha, digital hearing aid 18610
consumer videophone, CMOS ASIC video codec, low cost 25166
continuous-time cellular neural network chip, direction-selectable connected component detect. 29474
controlled refl. design in high speed digital computers 21175
D/A converters, high-resoln., self-calib. 704
data recovery cct., 625 Mb/s in 1.2 μm technol. 29340
DCT chip, VLSI archit., 100 MHz, 0.8 μm CMOS implement. 6187
DCT IC chip design using RNS 21345
digital DSB-to-SSB converter, FIR Hilbert transform filter 12655
DSP core for speech coding appls. 33701
dual voltage twin well CMOS proc., analog and digital appls. 30456
edge detector, Sobel operator, VLSI implement. 30473
error correcting decoder implemented, digital neural net 8152
facsimile high-speed image codec 16946
FEAL-32 encryption LSI *(Japanese)* 42093
FFT, 8192 complex points, single-chip implement. 21377
FIR/IIR filter power minimization, computational/architectural transforms. 29373
five-stage pipelined FFT proc. cct. 12578
floating-point systolic array PE, serial commun./BIST 21356
four ASIC MCM-C, design for manufacturability 21712
four issue superscaler RISC μP, embedded memory design in CMOS 29280
FR20 series high-perform. microcontroller for multimedia commun. *(Japanese)* 12581
generator employing CMOS inverter for cellular neural networks 21496
GFLOPS, real-time image proc. parallel VLSI archit. 29272
ground bounce effect on noise margin modelling 6857
GVIP, scalable high-perform. graphics proc. 21366
half-pel precision motion estim. proc. for NTSC-resoln. video 16156
hierarchical multiprocessor archit. for video coding 33698
high speed CMOS ccts., skew and delay minimization, stochastic optim. 29086
high-end proc., CMOS and bipolar, perform. trends 6185
high-perform. computer power distrib. syst., modeling and meas. 11178
high-speed DAC, embedded prog. video FIR filtering fn. 29326
high-speed freq. dividers/PLLs in deep submicron CMOS 21394
high-speed IIR digital filters, arith. designs 29375
high-speed staged decoder VLSI systolic archit. 40586
high-throughput data compressor, CAM 21324
Hough transform chip-set, config., CMOS implement. 29269
I_{DDQ} BIT cct. for CMOS ICs 13884

CMOS digital integrated circuits continued
I_{DDQ} testing, EDA/ATPG/ATE syst. integrat. 13892
IDDQ testing on CMOS custom automotive IC 30451
image proc. chip, general purpose, 1.2 GIPS 21374
Intel 32 bit μP, radiation tolerance for space appls., eval. 29306
intell. lin. image sens. for single chip digital camera 34601
inverter perform. of 0.10 μm CMOS operating, room temp. 6865
layout driven test generation for CMOS combinat. ccts. 6863
LED driver, 155 Mbit/s, low cost opt. fiber link appl. 9543
low-complexity bit-serial (inverse) DCT archit. 37790
low-power chipset for portable multimedia I/O terminal 9114
low-power digital CMOS IC design 1494
low-power operation, self-timed ccts. and supply voltage scaling 593
LSI technols. for pers. inform. systs. 22565
mag. recording, EEPR4 detect., digital read/write channel 30738
magneto-opt. disk unit, data/disk servo control chips *(Japanese)* 22962
mature CMOS proc., unusual HBM ESD failure mechanisms 30469
max. integrated phone device for analogue telephone set 42076
max.-redundancy radix-8 SRT division/sq.-root method 12476
MPEG audio decoder chip 37788
multi-channel data compression chip, parallel archit. 21376
multi-D trellis decoder for 155 Mb/s concatenated codec 33684
multilayered packaged CMOS drivers, simultaneous switching noise 11807
multimedia video proc., parallel archit. DSP chip 21372
multitask micropower μP, hardware scheduler 29304
μP, energy-efficient instruction set archit. 12566
μP design, energy-efficient 12565
μP technol. trends 21347
nodal chip for parallel neural sig. proc. 29520
opt. Chinese character recogn., prog. accelerating chip 24543
opt. image sens., digital CMOS approach 42847
parallel proc. for image segmentation 12574
parallel VLSI archit., fuzzy database appl. 677
pipeline and parallel pipeline FFT archits., chip set 21357
playback-only MD syst. chip set *(Japanese)* 42650
PLL, precharge type phase-freq. detector, 1.5-3 V, 250-622 MHz 37824
PLL clock generation syst. for 500-MHz RISC proc., 1.5% jitter 29337
portable video-on-demand syst. in wireless commun. 42593
power consumption minimisation, cct. optim. 37689
predictive tree-searched VQ, real-time video compression, pipelined systolic archit. 29276
prog. clock generator, PLL-based for video sig. proc. 12611
prog. CMOS pulse generator ASIC, US transducer array driver 29075
prog. digital filter proc. chip, ring topol. 29378
prog. on-chip anticlipping cct. for digital telephones 33706
QAM demodulator appls., 6-GOPS sig. proc., archit. and CMOS cct. design 33681
QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
quadrature digital synthesizer/mixer, 200 MHz 29245
radial fns. hardware generator for neural comps., VLSI design 29507
radiation-hardened 32 bit μP based on commercial CMOS proc. 12567
rank order filters, sorting network-based archits. 754
real time image class. proc., parallel archit. 21375
real time image proc. systs., mfg. products defect detect., AOI 32940
real-time extraction of direction vectors from binary images, VLSI chip 6173
real-time obj. extraction proc. chip 29250
real-time parallel DCT/DST lattice structs. for video commun. 29266
RISC μPs in isolation CMOS technols., ESD protection 21348
RISC proc., 32 bit, 500 MHz design 6180
Rsim switch-level simulator, piecewise lin., timing anal. 1481
scaling, low-power design, logic appls., next decade 37690
SDH termination chip for 622 Mbit/s STM-4c B-ISDN 16932
second-generation SPARC proc. MCM, ROSS hyperSPARC archit. 21711
SEU and SEL response of commercial digital ICs 29092
SH7600, RISC microcomputer for pers. commun./multimedia eqpt. 12582
sigma-delta bitstream FIR filter, VLSI design 37887
single CMOS photodetector/analog/digital chip 3992
single-chip Viterbi decoder for binary convolutional code 40582
SNUFEC ultra-high-speed CMOS VLSI Viterbi decoder 12557
SNUFEC VLSI for fading channel concatenated coding 15751
sorting engine, rebound sorting algm., pipelining scheme 12559
staged decoder for BCM sigs., CMOS VLSI implement. 29270
STC104 packet routing chip for parallel systs. 29290
superscalar RISC μP, 2.2 W, 80 MHz 6178
tapered buffers, local interconnect capacit. 21396
two-step flash ADC for digital CMOS technol. 693
ULSI IC design, high perform. metallization issues 38642
ultra-low power digital CMOS ccts. 29087
V810 CMOS 32-bit RISC μP, 0.9 V, 2.5 MHz 37811
video delay line, embedded ADC/DAC/SRAM 34434
video sig. proc., 1.5 GIPS, parallel archit. 21373
VLSI, HDTV sub-band coding, GQMFs filterbanks 42597
VLSI, transient power supply current monitoring 21240
VLSI, transistor sizing algms. *(Korean)* 12387
VLSI array proc. chip, basic arith. operations, redundant no. syst. 29265
VLSI fast single-chip implement. of 8192 complex point FFT 29248
VLSI hardware gates for efficient fuzzy computing 30474
VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938
VLSI high-speed VQ archit., adaptive method 29273
VLSI opto-electronic array proc., morph. image proc. 29277
VLSI pipelined proc., lossless image data compression, Rice algm. 29274
VLSI trellis-coded partial response channel codec 29249
voltage-mode CMOS chaos generator and internal states obs. 562
GaAS IC lab. at Motorola, CS-1 facility 37046
GaAs on Si PLL freq. synthesizer IC, chip on chip technol. 29338
GaAs radio front-ends, PCN 25328
HgCdTe IRFPAs, IRCCD and IRCMOS detectors 17950
HgCdTe longwave IR scanning FPAs, CMOS readout IC, surveillance appls. 17947
PtSi 640×480 IRFPA, third generation, MOS readout multiplexer 17953
PtSi IR cameras, IR CCD/IR MOS imaging radiometers 17957
PtSi hybrid FPA, CMOS multiplexer readout 17946
Si VLSI ESD sensitivity, thermal/dielec. breakdown 30462
Si chip digital end-user mobile commun. syst. 42193
Si multiplexers for lin. IR photodiode arrays 25875
Si radio front-ends, PCN 25328

CMOS integrated circuits
see also BiCMOS integrated circuits; CMOS analogue integrated circuits; CMOS digital integrated circuits
0.05 μm CMOS with ultra shallow source/drain jns., fab. 22584
0.15 μm channel-length, mixed X-ray/opt. lithog. 22592
0.15 μm CMOS proc. for high perform./reliab. 13893
0.1 μm CMOS technol., tilt-implanted punchthrough stopper 13895
0.25 μm CMOS prod., equipt./materials demands 39007
0.25 μm gate length CMOS technol., design/proc. depend. 13894
0.6μm nMOS ESD I/O protection struct., EOS suscept. study 29978
1 Mbit CMOS SRAMs, radiation hardness testing 12538
2μm CMOS gate array design automation 6062
3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
3D archit. for high resoln. imaging 34583
3D computer graphics media chip, single-chip archit. 12556
10 bit 5 Msamples/s successive approx. ADC cell 29330
10-bit D/A converter, self compensation cct. *(Korean)* 29312
25 Msamples/s 8 bit full flash ADC for embedded VLSI appl. 29331
A/D converter, AD677, CMOS/BiCMOS hybrid, single event effects 29333
A/D converters, folding and/or interpolating techs. 696
A/D convertors, SC vs. SI techs. 21384
AC servomotor integrated single-output sig. rotary encoder 10934
accelerometer, surface micromachined, integrated electronics 9862
adaptive VLSI neural network chip 29436
ADC, 10 bit, 20 MS/s, 3 V supply, VLSI appl. 6191
ADC, 12 bit 1 MHz, 1 mW power consumption 29320
ADC, low-power consumption, swing-suppression noise shaping 6190
advanced interconnect modelling, VLSI design tool 22550
Alpha 21164 μP, superscalar instruction execution 37785
analog/digital interface for cellular telephony 33774
ANN MOS-compatible quadratic synapses 787
artificial electret material, EEPROM technol. 3797
ASIC design cycle-time reduction methods 22581
ASICs, advanced inspection program 37167
ASICs, photosensitive cells, study and characterisation 39006
at-speed testing in IC manufacture 1472
ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
ATM switch and crossconnect archits. 33718
ATPG for heat dissipation minimization, test appl. 6856
bit-oriented parallel A/D converter 712
bridging fault diagnosis, stuck-at, IDDQ and voting model fault dictionaries 30455
bus-invert coding for low-power I/O in VLSI 30460
calorimetry at LHC, modular fault-tolerant approach 4237
camera technol., VLSI Vision Ltd. 17964
cascode current mirror, HF response 12351
cellular neural network universal chip in CMOS technol. 21489
cellular neural networks, input/output hardware strategies 29491
center tap terminated network, CMOS driven, shared bus design 11769
charge sampling IC for capacit. detector/sens. interfaces 25774
chem. amplified resists for electron-beam top surface imaging, CMOS technol. 13524
chopper-type comparators, autozeroed, offset errors *(Japanese)* 6260
clock-frame regeneration chip, ECL-compatible I/O 21446
CMOS LNA design *(Chinese)* 13877
CMOS/SIMOX gate array, 1/4-micron-gate ultra-thin, dyn. perform. and leakage current characts. 22590
config. ratio, model for simulating CMOS intra-gate bridge, variable logic thresholds 39014
cortical amps., hybrid analogue-digital CMOS archit. 29482
crosstalk extraction from mask layout 22568
cryogenic rad-hard CMOS readout multiplexer fab. 30448
cryst. oscillators, neg. resist./equiv. capacitance 6925
Crystal CS5327 16-bit ADC, single event effects testing, HI bombard. 29334
CTIA multiplexer for 1024-element InGaAs line sens. 34580
current conveyors, SPICE simul. *(Polish)* 724
current testing in dyn. CMOS ccts. 22582
current-memory sigma-delta modulators, discrete-time simul. 29327
current-mode high-precision winner-take-all cct. 21450
current-steering DAC for low-power video systs. 29319
custom automotive IC, I_{DDQ} testing 36766
D/A converters testing, BIST approach 12600
DAC, 10 bit, 50 MHz, act. compen. of parasitic capacit. 29318
deep submicron CMOS technol., FOND device archit. 22570
deep UV lithog. 39003
delta-sigma ADC, 20 bit, low power for instrum. appls. 29321
design optim., genetic algm. based 39015
differential difference amp., mixed analog/digital VLSI 37642
digitally-prog. analog cells, ANN 29450
driver loading conditions rel., simultaneous switching noise 6864
DS-SS transceiver, digital IF BPSK, CMOS technol. 9182
dual bitstream continuous calib. CMOS D/A converter, 110 dB dyn. range, 3.4V 692
dual voltage mixed sig. 0.6 μm CMOS proc. 13880
dual-poly CMOS, B diffusion, O_2 and N_2O gate dielecs. 22575
embedded SRAM technol., full-CMOS cells 21297
EOS/ESD failure anal., CMOS IC mfg. proc., extent/cost 30545
ESD protection cct., 2D electrothermal simul. and design 30467
ESD protection ccts., scaling, optim., design 6849
ESD protection ccts., scaling/optim./design considerations 30471
European SOI technol. develop., review 38428
fault diagnosis improvement for CMOS VLSI ccts. 21063
fault modelling beyond stuck-at faults 631
FET oxide reliab., plasma-induced gate oxide degrad. 20490
FH-SS transceiver, 900 MHz, low-power CMOS chip 33745
France multi project chip service *(Japanese)* 1486
fully parallel Kohonen map, mixed analog digital approach 29440
functional cells, layout optim., integer LP *(Japanese)* 39005
fuzzy controller design mixing analogue and digital techs. 770
gate oxide defect screen for VLSI CMOS reliab. 22588
HF AC hot-carrier degrad. in CMOS ccts. 22573
high perform. 3.3/5 V 0.5 μm CMOS technols. for ASICs 22598
high speed current steering CMOS DACs, self-calib. 705
high temp. CMOS devices/ccts., SOI technol. 22596
high-leverage SOI technol., appls., CMOS and BiCMOS designs, material/device problems 30003
high-speed and low-power n^+-p^+ double-gate SOI CMOS 39010
high-speed median filter, shiftable CAM 6234
HV analog/digital ccts., std. 5 V CMOS technol., design and optim. 29407
I_{DDQ} BIT cct. for CMOS ICs 13884

CMOS integrated circuits continued
I_{DDQ}/I_{SSQ} testing, serially addressable flexible current monitor 6855
IC, coupling characterisation, meas. techs. 15491
IDDq meas. in CMOS VLSIs, fault detect. 13885
IDDQ testing, QTAG action group 6850
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
image obj. area estim., cellular neural network 21495
image sensors/processing, conf., UK, 1994 5481
imaging X/γ-ray spectrosc., multiplexed readout electronics 18381
input gate, latent ESD damage ident. and anal. 30464
input gates, latent ESD damage ident. 6847
integrated optoelectronics, CMOS-based technol. 23062
intuition and reasoning in problem solving 36916
ion implanters for CMOS IC fab., cleanliness stds. 13282
IQTV multipurpose scanning rate converter IC 25664
IR readout multiplexer ccts., radiation hardness improvement 30449
IR sens., integrated type design, computer-aided tradeoff study 3838
isolation technols. for ULSI age 22600
ITC test conference, USA (1993) 36853
Japanese Personal Handy Phone/DECT, IF modulator, DDS 3465
laser rangefinder, time interval meas. chip 10039
latchup detect., low cost laser scanning tech. 30450
latchup triggering, effect of layout modif. 13888
lateral alkali-ion migration, reliab. implications 170
lateral emitter switched thyristor, CMOS compatible 1376
layouts, preconstrained compaction method 6867
LDMOS-FET fab. steps in submicron CMOS technol., complementary 40 V power devices 22576
leaf cells, compaction for symbolic layout design 13882
learning T-model neural network 21479
logical faults, worst-case test vectors 13889
low power devices, trends in IC technols. 22532
low power transponder IC for identif. systs. 33744
low threshold voltage CMOS devices for 1 V appls., fab. 22585
low-power 900-MHz mobile RF synthesizer, CMOS chip 33861
low-power CMOS ULSI cct. techs., overview 39009
low-power RF ICs for portable commun., all-CMOS radio 42295
low-power transponder IC for ident. systs. 29397
LSI, abnormal IDDQ, failure anal. 22595
LSI, I_{DDQ} testing *(Japanese)* 1493
LV CMOS/PLL synthesizer, SIMOX technol. *(Japanese)* 21152
machine vision, digital camera, CMOS intell. sens. 42848
mag. disk, analog/digital PRML read channel equalizers 30737
mag. disk PRML read channels, A/D interface 7144
massively parallel archit. for time-based simul., feasibility study 39004
MASTAR, analog/digital CAD model for sub-halfmicron MOSFETs 22409
MCM freq./noise budget limitations/tradeoffs, fn. of CMOS chips integrat. 29718
MCM-C, four-ASIC, KISS principle based 21764
MCMs with ASICs global optim., concurrent engng. approach 21743
metal contamination monitoring, surface photovoltage, SPC 38458
mfg. yield verification by testing 13848
micromechanical resonator oscillators, design and perform. 30509
MicroSPARC RISC μP, scan based debug, case-study 6162
Mitsubishi LSI devices for SDH interfaces 33332
mixed analog/digital ICs, substr. material effect on crosstalk 21447
mixed sig. devices testing in Sony 765
mixed-mode archit. for analog neural network implement. 37924
mobile satellite commun., channel-indiv. adaptive beamforming 25321
modular ANN chip, VLSI implement., character recogn. 6273
modular prog. neural archit., VLSI implement. 29506
MOSIS designed CMOS/BiCMOS arrays, teaching VLSI courses 5529
MPEG2 real-time codec, video DSP appl. *(Japanese)* 25165
multichannel biotelemeter, custom IC/syst. manufacture *(Korean)* 26280
multijunction thermal converters by commerical CMOS fabrication 25801
multilevel metallization dielec., chem.-mech. polishing 38573
multiplexed readouts for FPA 34560
multiplexer for Cassini Visible/Infrared Mapping Spectrometer FPA 34563
multiply charged ion implants, cost of ownership model 37056
neg. charge pumps for IGBT driver ICs, design optimisation 1488
neural chip, 70 input 20 ns pattern classifier 29483
neural net emulator CMOS chip 37920
neural network IC for high-energy phys. 29476
neural recording syst., telemetric power/control, CMOS circuitry 18566
nMOS ESD I/O protection structs., EOS suscept. 6749
obj. extraction, real-time syst., with seq. growing 8487
off-chip IDDq current meas., telecomm. ASICs appl. 6853
opt. adaptive device, competitive learning cct. 39518
opt. posn. sens., source width insensitive 17782
overcurrent test, BIC-monitor design, cct. partitioning and test patterns 30472
oversampling CMOS ADC, 100 kHz bandwidth 697
parallel ADCs, asymmetric latches and nonideal perform. 12607
parallel delta-sigma ADC, archit. and CMOS implement. 29317
parallel-pipelined ADC, 10 bit, 85 mW, 40 MS/s 29309
parametric fuzzy control module, 16 bit std. microcontroller SAB 80C166 17677
partially depleted SOI CMOS ccts., dyn. floating-body instabilities 22589
PBT struct., proc. optimisation and charact. 1370
peripheral artificial vision, lateral inhibitory networks, IC implement. 23067
Permalloy magnetoresistive microbridge mag. field sens. syst. 34494
π/4-shift QPSK baseband modulator for pers. handy phone syst., CMOS mixed-sig. IC 29078
pipeline A/D converter, 10 bit, 20 MS/s, 35 mW 29316
pipeline A/D converter, 10 bit, 20 MS/s, 35 mW 29308
pipeline current mode ADC, redundant signed digit algm. 29329
poly buffer LOCOS, in situ N-doped, for deep submicron CMOS 22591
polysilicide CMOS devices, low-level current leakage reduction 22580
polysilicon coil-based micro-Pirani press. gauge 25787
polysilicon gate depletion effect on deep-submicron cct. perform. 1485
P^+-polysilicon gated FET devices, bias temp. reliab. 13750
polysilicon SOI struct., ZMR, electrophysical props. 39011
polysilicon TFT and driver integrat. technol. for LCDs 25919
polysilicon TFT proc. for CMOS, HDTV LCDs appl. *(Japanese)* 1492
portable radio, UHF power transistors, MOSFET IC-technol. 1408
power consumption of CMOS adders 21215
PowerPC μP for low power computing systs., CMOS technol. 29299
PRML read channel, high speed low power device 32547
proc. appl., wafer level reliab. SPC program 20493
proc. control/failure anal., FIB appl. *(French)* 1490

CMOS integrated circuits continued
prog. genlocking video ADC for multimedia appls. 9113
propag.-type A/D converters, CMOS devices 12605
proximity SOR/deep UV PSM lithographies 13527
public domain high perform. portable ROM generator, CMOS ccts. 28947
pulse coded winner take all networks, VLSI implement. 796
pulsed TOF laser radar, CMOS ASIC struct. 34165
QTAG class 1 monitor for CMOS IC testing 6854
QTAG std. for test fixture I_{DDQ}/I_{SSQ} monitors 6852
quantizer neuron chip, neuron model/neuroprocessor 12675
radial basis fn. neural networks, CMOS archits. 29498
radiation effects Data Workshop, Snowbird, UT, USA (1993) 36859
radiation tolerance data, mapping on 4-lane chart 13890
reconfigurable ASIC front end for intell. sens. syst. 6242
residual charge on faulty floating gate CMOS transistor 6859
reverse short channel effect suppression in MOSFETs 22446
RT 0.1 μm CMOS technol. on SOI 6866
scalable, real-time, image proc. pipeline 41162
scaled CMOS technol. for LV/low power appls. 22597
scaled CMOSFETs, implant. fab., elec. characts. 13879
Schmitt trigger, CMOS mixed-mode implement., equiv. cct. 21159
SCI-LVDS 500 MHz CMOS differential pad drivers 22583
SEDAM, salicide proc. for sub-0.25 μm CMOS devices 22601
self-adjusting threshold-voltage scheme for CMOS ICs 30453
service adaptive access SLIC, CMOS prog. DSP, oversampled ADC/DAC 21378
sigma delta modulators design from specs. 699
sigma-delta codec for mobile telephone appls., design 3276
SIMOX material develop. for sub-0.25 μm CMOS technol. 30459
single bridging faults diagnosis in CMOS combinat. ccts. 13883
SIPPOS (single poly pure CMOS) EEPROM embedded FPGA 21326
smart power CMOS IC, 2D charactn./perform. optim. 12315
smart-pixel CMOS chips, analog design 31130
soft etch contact proc., 0.1 μm CMOS device appl. 22572
SOI, conf., Ponte Verdra, FL, USA (Oct. 1992) 11581
SOI materials/devices for VLSI appls. 30458
SOI MOSFET IC technol. 22602
SOI MOSFETs, submicron, self-heating effects 22470
SOI technol., high speed/low power operation, modelling 6851
SOI transistors, matching props. 30475
SOI/bulk hybrid technol. on SIMOX wafers for ESD immune ccts. 13881
state assignment, low-power FSM synthesis 21079
sub-0.5 μm CMOS, shallow source/drain jn. technol. 1496
sub-qtr. μm CMOS, self-aligned W technol. 22586
submicron CMOS, soft ESD failure suppression 30465
submicron CMOS isolation struct., calib. method for oxid./mech. stress models 22254
submicron CMOS large-angle-tilt implanted drain technol. 22571
submicron CMOS proc., soft ESD failure suppression 6848
submicron CMOS transistors, saturation vel. meas. 39013
submicron mismatch model, IC design 30454
supply-voltage scaling limitation 30452
surface micromachined accelerometer 9860
switch-level test generation, sync. and asynchronous ccts. 21242
synapse multiplication cct. for neural chip 37921
temp.-sens. cct. *(Japanese)* 34489
Texas Instruments MMST program, all-RTO/RTA/RTCVD 0.35 μm CMOS IC prod. 22594
thermal press. gauge and read-out cct. integrat. 25786
thermal response of CMOS-micromachined thermistor sens. 9872
timing, device resist. estim. tech. 30457
top-down constraint-driven CAD of n-bit DACs 28941
transponder microchip, low power biomedical telemetry appls. 34995
triple 8 bit DAC, 320 MHz, on-chip PLL, hardware cursor fn. 6192
two-step flash converter, mixed sig. CMOS integrat. 695
ULSI CMOS/opt. polymer opt. interconnections 1832
US imaging multi-element array transducer, transmit and receive ASICs 6245
US transducer array, CMOS IC proc. 10577
versatile CMOS building block for fully analogically-prog. VLSI cellular neural nets 21494
video ADC, decimated parallel archit., 85-mW, 10-bit, 40-Ms/s 29315
video D/A converter, HDTV, low-glitch cct., 10-bit 75-MHz design 12594
video DSP, pipeline archit., MPEG2 CODEC 8664
VLSI, single chip package, TAB technol. 28452
VLSI archits. for video compression, survey 24394
VLSI complex devices, low power mode/IEEE 1149.1 compliance 6824
VLSI designs, yield and mfg. prediction model 30432
VLSI smart visual micro-sens. based on insect vision 34569
VLSI testing teaching, Univ. of Paris *(French)* 20331
wireless vol. control receiver for hearing aids 18606
GaAs CHIGFET noninductive impedance transformer design 29351
GaAs IC, ultrahigh speed pin-electronics and test station 6861
GaAs fast radiation-hard CHIGFET op. amp. 29061
GaAs-AlGaAs MQW modulators integrated, Si CMOS IC 39597
M^2CMOS twin-well yield enhancement, wet oxide strip proc. modif. 22579
Si CMOS addressing matrices, light-valve projection displays 25928
Si CMOS ccts., g-line exposure and deep UV hardening 22577
Si VLSI technol. trends 30461
Si flow sens., air flow detect. *(Korean)* 17722
Si micromachining, resonator fab. 30508
Si microstrip detector readout, AVLSIRA CMOS proc. 10138
Si range finder, realtime range finding VLSI sens. 34568
Si:B,F(Ne), boron diffusion, ion implant. effects, proc. modeling params. 38505
SiO_2-Si ultrathin CMOS gate dielec., RTP growth in N_2O ambient 22221
$TiSi_2$ SALICIDE, dual gate CMOS struct. 38682
$TiSi_2$ form., UHV annealing/RTA, SIMS/XPS study 22276
$TiSi_2$ self-aligned RTA proc., CMOS IC, response surface 22593
$TiSi_2$ submicron CMOS technol., two-step RTA *(Chinese)* 13416
$TiSi_2$(NiSi)-polysilicon salicided films, resist. behavior, CMOS ULSI 6665
W/WNx/poly-Si gate technol. for deep submicron CMOS LSI 22587

CMOS logic circuits
0.35 μm logic technol. for 3.3 V and 2.5 V operation 21216
0.5 μm CMOS logic IC, SOG planarization/AlSiCu multilayer interconnect 38646
2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
2D FIR-median hybrid interpolation filter design for HDTV *(Korean)* 42601
50 MFIPS fuzzy proc. and related 1 μm VLSI CMOS digital ccts. 29152

CMOS logic circuits continued
4007 devices flown on CRRES MEP expt., total dose correl. 12482
adiabatic CMOS, reversible logic issues 6862
adiabatic dyn. logic, CMOS logic family 29111
adiabatic dyn. logic family, CMOS implement. 29096
AND-OR-XOR expansion of logic fns., upper bound on no. of products, CMOS 29195
arith. elements for sig. proc., optim. 29142
ASIC macrocell multiplier for complex numbers 21214
asynchronous low-power error corrector for DCC player 9769
bit-pair recoding Booth algm. 32×32 bit high speed parallel multiplier *(Korean)* 37715
bit-serial first-level calorimeter trigger for LHC detectors 26250
bridging fault diagnosis, inter-gate/intra-gate 13886
buffer ccts., transit. time formulae 6067
buffer design, split inherent-capacitive load model 29101
built-in current testing, random patterns 21235
C-testable design techs. for iter. logic arrays 29138
cell library characts. impact on area, speed, power consumpt. 29102
cell library design, formal high level synthesis 12497
channel-less SOG arrays, HGALOP router 29148
chaos generator, CMOS inverter array 649
checkers design, bridging/transistor stuck-on faults testability 21239
combinat. cells fault diagnosis 6083
CSD-code carry determ., look-ahead cct. 29158
current-mode CMOS quaternary multiplier cct. 21230
D-type flip-flop, fast-transient suscept. 29098
DCVS logic, std. CMOS cell design for testable self-timed systs. 29203
defect classes, paradigm for CMOS IC testing 6858
differential split-level CMOS cct. testing 624
digital redundant random no. generator 29204
dual-modulus freq. divider, high-speed for RF freq. synthesis 21263
event controlled asynchronous μP, design method eval. 29254
fast VLSI systolic array for large modulus residue addit. 21245
fault anal., IDDQ testing tech. *(Korean)* 29197
fixed-point two's complement bit-serial multiplier, neural network algms. 12486
FPGAs, total dose hardness 12481
fuzzy controller; on-chip learning, stochastic logic 6166
gate array chip, HF DSP appls. 12576
gate delay computation, probabilistic simul., slope inform. 29115
GMS, CMOS VLSI gate matrix cell generation syst. *(Chinese)* 12398
GSM full-rate vocoder chip design 42086
high dens. FPGAs for synthesis and VHDL based design 29164
high speed CMOS output buffer, design aspects 37695
high speed pipelined multiplier-accumulator 12579
high speed testing, transm. line effects reduction 6091
HYPER-LP, high-level synthesis syst., appl. specific datapath intensive CMOS ccts. 12401
I_{DDQ} subset selection algms. for bridging faults 6084
I_{DDQ} yield loss problems, economic issues 6860
IC, coupling characterisation, meas. techs. 15491
inverter, internal states, chaos generation *(Japanese)* 12407
iter. ccts., stuck-open faults modelling 12474
latches, metastability rel., loading, power supply, and scaling 13887
level-1 calorimeter trigger syst. for LHC 26249
load-independent cell library macromodeling, waveform simul., CMOS logic 29143
low cost combining switch for shared memory syst. 29155
low power prog. logic device reconfig. for 3.3/5 V supply 21292
low power TTL-to-CMOS converter design *(Korean)* 29103
low-power CMOS ULSI cct. techs., overview 39009
low-power digital ccts. based on adiabatic-switching 636
LSI archit., ultra-high-speed error correction, majority decoding 29200
LSI technols. for pers. inform. systs. 22565
LV mixed-sig. ccts., digital CMOS technols. 12662
maximal current and deriv. estim., activities waveforms 21200
monolithic mask-prog. analog fuzzy logic controller 30476
multilevel logic optim. cct. activity driven, low power oper. 21201
multiple-valued logic design of neural nets, CMOS implement. 6275
multiple-valued logic in FPGAs, current-mode CMOS implement. 6137
multiplier, 54×54-bit config., pass-transistor multiplexer 29094
multiplier, 54b×54b, pass-transistor multiplexer, 4.4 ns operation 29145
multiplier, redundant binary no. representation 6136
multipliers for digital filtering appls. 6134
near-field EM emission from digital cct. board based on reson. characts. 21625
NORA dyn. logic cct., technol. ,mapping algm. 21197
OPTIMOS branch-level digital cct. optimiser 21212
parallel pipelinable VLSI archit. for finding max. binary no. 627
pipelined 16 bit multiplier, async. logic design techs. 21295
power consumption, cell library characts. influence 12488
power consumption reduction tech. 37744
power dissipation, cost-effective estim. 22567
power dissipation at logic level, simul. mapping 21199
power dissipation minimisation in scan test ccts. 12471
precomputation-based seq. logic optim. for low power 637
prescalers, dual-modulus and asynchronous configs. 29112
qtr. micron modules, ADEQUAT project 22578
radiation-hardened CMOS 177K gate array, develop. 29205
random logic, electron beam/DUV mix-and-match lithog. 39002
RC interconnect of CMOS logic gates, effective capacitance modeling 1495
redundant divider design, DCFL GaAs and CMOS implement. comparison 29201
SAE 81C99 Fuzzy Inference Processor 29283
Schmitt trigger ccts., adjustable hysteresis 29128
SDH fibre-optic transm. systs., forward ECC 42455
SEGMA, simulated evol. gate-matrix layout algo. 21227
self-timed adder with pipelined output, design, CMOS implement. 6064
self-timed floating point coprocessor prototyping, FPGAs 21288
seq. self-checking ccts., bridging fault detect., DFT 617
series-connected MOS struct., internal parasitic capacit. effect 30435
short-cct. power dissipation estim. for CMOS logic gates 619
single-electron logic ccts., quasi-CMOS inverter simul. 37731
smart power technol. evol., overview 29012
SOG arrays, min-cut placement, global objective fns. 37712
SOPRANO, ATPG for stuck-open faults in CMOS combin. ccts. 21225
std. cells, design and charactn., teaching 21222
stuck faults modelling in CMOS nonthreshold combinat. ccts. 21270
stuck-open fault detect., single test patterns 12429

- **CMOS logic circuits** continued
  - stuck-open faults, single test patterns 12490
  - swing restored pass-transistor logic based multiply/accumulate cct. 29110
  - switch-level fault simulator for CMOS ccts. *(Korean)* 12265
  - switching gates, max. no. for CMOS ccts. *(Japanese)* 28978
  - systolic VLSI implementation of Galois field arith. algm. 22569
  - tapered buffers, unified design methodology 29136
  - total self-checking design 22566
  - twin-well CMOS inverter, AC/transient latchup characts. 30463
  - ULSI, electromigration-induced integrat. limits, model 38976
  - VLSI design of 32×32 ATM switch, simple logic control 9137
  - VLSI gate arrays, EOS induced polysilicon migration 30466
  - VLSI hardware gates for efficient fuzzy computing 30474
  - VLSI logic ccts., reliab. prediction, node switching activity 29116
  - voltage-mode CMOS quaternary threshold logic latch cct. 616
  - wave-domino logic, theory and appls. 21278
  - wave-pipelined 8×8 b multiplier in CMOS technol., design and realisation 29139
  - Si SOI struct. using oxidized porous material, CMOS LSI logic appls. 39012
  - Si scaled submicron ultra-low power CMOS technol. 39008
- **CMOS memory circuits**
  - 16 Gbit DRAM, 2D power-line selection, subthreshold current reduction 29231
  - 16-Mbit DRAMs, mass memory appls., space radiation eval. 12527
  - 17 ns 1 Mbit CMOS SRAM, 100 nA stand-by current 29234
  - act. memory syst. for network appls., design 37762
  - analog VLSI, fault-tolerant dyn. multilevel storage 6253
  - analogue synapse for Kohonen, maps 29421
  - associative memory integrated syst. for character recogn. 660
  - associative memory syst., CMOS device mismatch limitations 659
  - cache designs for energy efficiency 12514
  - Clementine RRELAX SRAM particle spectrometer, radiation belts, solar flares 12534
  - decoded RAM storage reprogrammable interconnect archit. 22599
  - delay-locked loop for 18 Mbit, 500 MB/s DRAM 6155
  - digital micromirror device, projection display 18007
  - DINOR flash memory, erase scheme 12551
  - DRAM, 64 Mbit, design, fab., packaging, perform. 37778
  - DRAM based CMOS TV ccts. for advanced services/features 9706
  - DRAM sense amp. designs, SEU perform. 12517
  - DRAM variable precharge voltage sens. 12515
  - dual polycide gate and buried contact technols. for CMOS SRAM cell 21333
  - EEPROMs, 1M devices from SEEQ and Hybrid Memory, SEP charactn. 29238
  - embedded CMOS SRAM for ASIC implement. of transmultiplexer 9410
  - EPROM technol., high dens. PLDs, memory appls. 29219
  - fast Huffman decoder, high speed pattern matching 41078
  - fault-tolerant multiprocessor cache memory, CMOS 37761
  - FeRAM, ferroelec. nonvolatile memory technol. for 1T/1C cell 37777
  - ferroelec./CMOS integrated test struct., memory appls. 37781
  - fully depleted SOI CMOS SRAM cell, SEU sensit., SPICE anal. 12522
  - Josephson-CMOS ICs, monolithic fab., RAM appl. 21312
  - long-term CMOS storage cell performing ADC/DAC for analogue neural net 6263
  - low-power RAM cct. technol. trends 37779
  - multi-port RAM generator for CMOS SOG, memory cell config. 29223
  - multiport RAM on 0.5 μm CMOS SOG, memory cell config. 29207
  - multiport SRAM cell, design methodology 655
  - nonvolatile memory devices, plasma-induced in-line charging and damage, CMOS 21313
  - radiation hardened 1-M bit SRAM on SIMOX material 29235
  - radiation hardened n-p-n transistor for CMOS fusible-link PROM 12537
  - radiation hardened ULSI technol. and 1M SRAM design 30478
  - RAM test complexity reduction, voltage/I_{DDQ} testing 37776
  - reliable 256 Mbit/1 Gbit DRAMs, mfg. proc. technol. 21322
  - SEEQ 28C256 EEPROM, effect of test method on failure dose 12539
  - self-aligned memory cell technol. for 256-Mbit flash memories 21334
  - self-learning neuron-MOS neural networks, wt.-updating-lin. EEPROM cell 12676
  - self-resetting SRAM, room temp. 0.1 μm CMOS on SOI 6866
  - SEU in SRAMs meas. with pulsed laser, spatial depend. 12524
  - SEU tolerant DRAM cell technol. 12518
  - SEU-tolerant VLSI cct. design, CMOS memory cells 12525
  - SRAM chip, failure anal., external elec. testing, internal contactless laser beam testing 37758
  - SRAM eval. under X-ray pulses, procedure 12536
  - SRAM GOS defects, fault modeling/testing possibilities 37763
  - SRAM macro, current sens. scheme, 400 MHz, 300 mW, 8 kb 29222
  - SRAM soft-error simul. syst. 657
  - SRAM technol., ESD design methodology 29224
  - SRAMs, 64 kbit, soft-error hardness, total dose depend. 12520
  - SRAMs, peripheral ccts., scaling, SEU immunity 12528
  - symmetric Vss cross-under bitcell technol. for 64 Mb SRAMs 21319
  - video compression, real-time, using differential VQ 24581
  - voltage-mode CMOS multiple-valued logic memory cct. 29228
  - GaAs LEDs, 3D opt. coupled common memory 39318
  - PLZT thin film capacitors, CMOS ULSI DRAM appls., post proc. damage 21310
  - PZT ferroelec. capacitors, integrat./materials interacts. 39099
  - Si n^+/p diodes, charge collection and multiple-bit upset, 3D simul., CMOS SRAMs 12516
  - Si scaled submicron ultra-low power CMOS technol. 39008
  - Ta_2O_5 MIM-CROWN cell and proc. technols. for 1 Gbit DRAMs 21335
- CNC *see computerised numerical control*
- **CNDO calculations**
  - squaraines, neg. third-order opt. responses 15134
- **coal**
  - *see also mining*
  - $1A_4$ supersonic coal-fired MHD channel, test progress 20015
  - 10 MW fluidised bed coal combustion plant, exit gas, model 19498
  - 160 MWe Shawnee AFBC Unit, petroleum coke cofiring 27563
  - 317 MW Milliken steam power plant clean coal project, USA 35995
  - 750 MW Franken II combined cycle power plant project, Germany *(German)* 43934
  - ash, U content., naturally occuring radioact. material class. 35719
  - biomass/coal co-firing power plant technol. demons., USA 43904
  - Botswana, alternative energy resources 35723
  - coal-fired MHD facility, laser induced breakdown spectra 20016
  - combined cycle power generation concepts, USA 43927
- **coal** continued
  - combined cycle power plant, coal usage, combustor 27602
  - combined cycle power plant, thermodyn. anal. 27583
  - combined cycle power turbines, clean combustion technol. review 43930
  - elec./coal delivery syst., China, planning, DSS 43669
  - electroacoustic charactn. of particulates, conf., Gaithersburg (1993) 28261
  - Greek lignite, CAFBC, pollutant emissions 43891
  - imported coal combustion, Germany *(German)* 43914
  - lignite fired circulating fluidised bed steam generators, operation *(German)* 43913
  - lignite fired power station technol. develop. *(German)* 43911
  - Lippendorf lignite fired power station develop. *(German)* 43910
  - liquefaction proc., nanoscale catalyst precursor powder prep. 27328
  - MHD channels, large-scale, stabil. calcs. *(Japanese)* 27963
  - mine respirable coal dust meas., fire sens.-based 20187
  - mine transportation arcing, detection/suppression method 20107
  - PFBC combined cycle power plant experiences, UK 27595
  - power plant FGD scrubber designs 27546
  - Siberian coals, energy supply, Russia/NIS 19393
  - thermal power plant fluidized bed coal combustion, N_2O emissions *(Chinese)* 4838
  - village power supply, coal-fired Stirling engine-based 27540
  - NO_x/SO_2 emissions reduction, thermal plant, Kansk-Achinsk coal 36003
- **coal gasification**
  - air-blown fluidized bed GCC 10866
  - dry low NO_x combustor/IGCC technols., Tracy power station 43928
  - IGCC, gasifiers, fuels, environ. impact, economics 4853
  - IGCC power plant hot-gas cleanup technols. 27591
  - phased array surface contour mapping, harsh environ. 42514
- **coating processes** *see coating techniques*
- **coating techniques**
  - *see also anodisation; coatings; electrodeposition; electroless deposition; electrophoretic coating techniques; encapsulation; epitaxial growth; metallisation; spray coating techniques; vapour deposition*
  - 3D lithog., resist coating of cylindrical samples 22316
  - ceramics indust. continuous fiber coating, CVD equipt. *(Japanese)* 28198
  - diamond film growth, low press. premixed ethylene-O_2 flames 5859
  - ferroelectric materials appls., workshop, Korea (Oct. 1993) 20221
  - indust. curing procs., electrotechnology appls. 28188
  - metals, deposition from HF solns. on Si wafers 38623
  - SIMAN, Electronic Display Tube coating syst. design 5602
  - Soft Face thermal interface material, component coating 5585
  - CeO_2 thick film buffer layers for HTSC films 22724
  - PZT films by MOD technol. for nonvolatile memory and DRAM appls. 13999
  - SiO_2 opt. fibres, organically modified silicate coatings 1662
  - YAG:Sm garnet films, soln. deposition, press.-temp. sens. appls. 5854
- **coatings**
  - *see also anodised layers; antireflection coatings; claddings; electrodeposits; electroless deposited coatings; epitaxial layers; insulating coatings; protective coatings; spray coatings; sputtered coatings; vapour deposited coatings; varnish*
  - broadband EMI shielding for electro-opt. systs. 15507
  - capillary-optic material characterisation, x-ray lithog. collimator 6692
  - contact recording coatings, nanoindentation, microscratch, friction, wear 39184
  - electroacoustic charactn. of particulates, conf., Gaithersburg (1993) 28261
  - fibre optic smart struct., coating props. optimisation, FEA 34541
  - high power electron guns; welding, heat treating, and micromachining appls. 11735
  - higher order impedance boundary conditions, chiral coatings appl. 2214
  - HV metal-film capacitors, liq. impregnation 36498
  - metal coating, cond./thickness monitoring, electrothermal method 18028
  - metal coating elec. cond./thickness, eddy current data rapid inversion 42890
  - metallic coatings, eddy current thickness inspection optim. 28919
  - micromachined materials mech. props. 5926
  - multidielectric coatings, thermal stress, holographic interferometry 40140
  - quartz bulk piezoelec. odour sens. array, coating materials 34450
  - scatt. by coated bodies, higher order impedance boundary conditions 25544
  - two metal-coated single-mode opt. fiber interferometric lin. elec. current sens. 9916
  - wire antennas/scatterers, anal. 31933
  - CoP films, simultaneous electroless plating/electrolysis, mag. props. 6939
  - Ni-H_2 secondary cells, $MmNi_5$ Ni-Pd coated neg. electrodes 27907
  - YIG:Ga, Faraday effect current sens., sensitivity-bandwidth product 9853
- **coatings, protective** *see protective coatings*
- **coaxial aperture antennas** *see aperture antennas*
- **coaxial cables**
  - 50 kJ railgun pulse forming unit, semicond. switched 19782
  - accelerating cavity, EM field, wire effect 26079
  - access network, wireless technols. integrat. 25148
  - atten. in plated coaxial transm. line 34316
  - board-to-board connector shielding, transfer impedance meas. 15533
  - broadband permitt. meas., T/R method in coaxial transm. lines 3953
  - cable coupling, arbitrary environ., meas./computation 15462
  - campus inform. network syst., LAN/FDDI based *(Japanese)* 16696
  - CATV, coaxial connectors *(Japanese)* 42631
  - CATV network, high-perform. multimedia transm. 9740
  - coaxial-to-waveguide adaptor with probe/tuning post, anal. 21521
  - cylindrical monopole coaxial feed FDTD model 23997
  - digital services, broadband delivery 42054
  - drop cable, shielding, ageing simul. by flexure 33734
  - eccentric coaxial line, inner conductor, dielec. support effect 33733
  - electrically thick monopole admittance calc. 23847
  - far-zone elec. fields radiated by coax. cable aperture, perfectly conducting ground plane *(Korean)* 15639
  - fast electro-optic HV sens. 25781
  - four stage RHEPP accelerator testing, power supply 36302
  - Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
  - harness design and EMC 889
  - heat/radiation-resistant coaxial cable insulation *(Japanese)* 16990
  - HV bipolar nanosecond pulses generator 17991
  - hybrid fiber/coax network broad-band AM-VSB/64 QAM CATV syst. 34010
  - hybrid fiber/coaxial archits., analog services 42384
  - hybrid fiber/coaxial CATV network power distrib. systs. 42627
  - hybrid fiber/coaxial network technol. 9421
  - hybrid fiber/coaxial technol. for broadband service delivery 33670
  - hybrid fibre/coaxial syst., power/backup power supply 44133

coaxial cables continued
  hybrid opt./coaxial telecom. power distrib. options 42138
  inform. highway power distrib. archits. 42137
  intra-syst. interconnects for digital commun., cable elec. perform. 12856
  leaky coaxial cable with periodic symm. slots, propag. mode anal. *(Korean)* 33735
  material characterisation using coaxial aperture electromagnetic sensor 25784
  microwave coupling devices for rem. plasma appls. 6286
  multicarrier modulation impulse noise mitigation strategies 40561
  multigap parallel-plate bracelet resonator, freq. determ./appls. 10201
  NMR imaging, shorted coaxial line probes 43250
  open-ended coaxial probe 18031
  overhead line-underground coaxial cable syst., lightning surge anal. 10755
  perform. limits of elec. cables for intrasystem commun. 25195
  public telecomms. infrastructure, hybrid fiber/coax archit. 42619
  pulsed power ferrite line pulse sharpener develop. 36318
  pulsed power ferrite line pulse sharpeners, num. anal. 31872
  QAM receiver IC, 500-channel CATV systs. 3675
  RACE 2087/TITAN, access network alternatives *(Italian, English)* 42071
  RadioGuard, RF cable sens. for security appls 42175
  rect. top horn offset coaxial transm. line, sphere-TEM mode 9154
  roadside leakage coaxial cable, quasi-microwave band 42136
  telecomm. systs. DC distrib. network grounding, EMC aspects 19269
  tunnels, radiowave retransm., radiating cable 9267
  VSB/QAM for hybrid fiber/coax, digital transm. 42610
  waveguide thermistor sens. for microwave multimeter 9869
coaxial lines *see coaxial cables*
coaxial waveguides
  antenna array, RKA-driven, feeding syst. 31988
  cavity resonators, varying-rad. conductors, mode coupling 29547
  complex dielec./mag. permeabilities meas., coaxial resonator appl. 42900
  eccentric coaxial line, inner conductor, dielec. support effect 33733
  electron beam filled, cyclotron harmonic wave growth 37934
  ellipt. cone, stripline, microstrip line and coaxial line *(Chinese)* 31908
  far-IR grating FEL, tunable, compact, high power 7689
  FEA, waveguide transfer problem, coaxial line syst. 15608
  gyrotropic chirowaveguides, guided EM waves 2293
  hybrid iron wiggler FEL theory 39916
  metallic waveguides, rect. boundaries, finite-difference anal. method 23791
  partly loaded circ. chirowaveguides, dispersion curves 15581
  probes, relative complex dielec. permitt., nondestructive meas. 25964
  rot. symmetric coaxial waveguides, efficient FEM formulation 23793
  semi-infinite screen-magnetodielectric coaxial rod struct. 15558
  sq. coaxial waveguide struct., nonorthogonal FDTD method, sensitivity anal. 23768
  step discontinuities, method of moments num. anal. 29525
cochannel interference
  256-QAM syst. in presence of phase jitter and CCI 24009
  adaptive Bayesian decision feedback equaliser, CCI compensation 15941
  adaptive equalization for multipath fading environ. 3429
  antipodal Rayleigh fading sigs. detect. in severe CCI 8386
  asynchronous CDMA systs., interf. minimization 42165
  basestation antenna array syst. for spatially selective transm. 17069
  Bayesian techs. for rapidly fading channels equalization 3436
  BPSK modulated co-channel sigs. reception, dual sig. receiver 33886
  broadband underwater acoustic commun. sigs., spatial proc. 8319
  CDMA, CCI, spatial/temporal filtering 25234
  CDMA adaptive SS receivers, CCI suppression 33883
  CDMA coded packet cellular networks, code rate optim. 25384
  CDMA MM wave indoor radio capacity study 9202
  CDMA multicarrier syst., CCI cancellation 9215
  CDMA opt. sync. systs., CCI cancellation 34028
  CDMA receiver, near-far immunity 25228
  CDMA systs., multipath delay/fading 3473
  cellular base station phased array antenna syst 33794
  cellular mobile radio systs., spectrum efficiency 17124
  cellular network, CCI reduction, vert. antenna directivity 17071
  cellular radio, correl. co-channel log-normal interferers 17047
  cellular radio systs., constrained power control 9249
  cellular radio systs., downlink power control algms. 25344
  cellular syst. Channel Borrowing Without Locking 33812
  cellular systs., adaptive array base station, spectral efficiency 17062
  cellular systs., handoffs, adaptive averaging 25341
  cellular TDMA networks, cochannel interf. simul. 17060
  commun. sig. proc. by RBF nets 41027
  cyclic sig., adaptive beamforming and fast implement. 40938
  D1900 micro cell indoor/outdoor appls. 25435
  decision feedback multiple-sym. differential detect., diversity 9200
  DECT solid state radio front end, perform. eval. 3468
  deep water acoustic LAN, adaptive lin. multiuser receiver 34181
  digital multipath wireless channels ident. in interf. 9303
  digital video sig. transm. via RAI analogue FM radio links *(Italian)* 9158
  discrete polynomial-phase transform, co-channel FM/PM sigs. separation 24182
  DS-CDMA, integrated CCI cancellation and decoding, fading multipath channel *(Japanese)* 25276
  DS-SS packet radio syst. automatic threshold control 42151
  DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
  DS/CDMA, multilevel coded modulation, integrated receiver struct. 42144
  FDMA systs. using multi-beam satellite, optimal carrier freq. assignment *(Japanese)* 25448
  first-order PLL in noise/interf., cycle slip 2547
  freq. channel doubly-reused cellular systs. 17043
  GSM network, adaptive antennas for freq. re-use 9395
  GSM-syst., interf. anal. 3492
  HF hand-held narrow-aperture direction finder 3641
  high-capacity cell config. strategy 33811
  hybrid DS/FH SS syst. for mobile radio channel 3483
  ILS, false runway axis, interfs. 26544
  indoor mobile commun., CCI and multipath delay 17098
  indoor radio, channel equalization, neural network techs. 17140
  injection-locked hybrid discriminator, interf.-immunity 826
  intell. vehicle/highway syst., packet-switched commun. 3460
  intelligent multi-access spectrum-sharing methodology 41467
  land mobile commun., pilot sym. aided CCI canceller *(Japanese)* 42294
  LEO/MEO/GEO global mobile satellite systs., interf./fading 25308
  LF/MF skywave propag., daytime 40337
  M-ary DPSK on freq.-selective Ricean channels 9274
cochannel interference continued
  macrodiversity cochannel interf. anal. 40383
  microcellular personal commun. service F-QPSK perform. 33781
  microwave pass. discriminator, co-channel monotone interf., perform. 825
  mobile commun., adaptive antennas, digital beamforming 33914
  mobile commun., adaptive array methods 17067
  mobile communications, IEE Colloquium, London (1994) 16
  mobile radio, base station polariz.-sensitive adaptive antenna 33879
  mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
  mobile radio channel, multiple sym. differential detect. 33874
  mobile radio commun., interf. canceling equalizer 9383
  mobile radio postdetection diversity/concatenated channel coding 3341
  mobile satellite systs., freq. reuse, interf. anal. 9212
  modelling for sig. strength based handoff anal. 2273
  multipath/CCI sigs. separation 31979
  multirate adaptive arrays for broadband mobile commun. 33851
  multistage CMA adaptive beamformer, real-time implement. 9227
  Nakagami fading channel block error probabs. 33800
  Nakagami fading channel capacity eval. 33801
  optimum combining in wireless systs., BER upper bounds 9170
  OQPSK in indoor environ., perform. 9301
  orthogonal convolutional codes, CCI cancellation 25242
  outage probab./BER estim., dual protection margins 17056
  partially coherent CPM receiver, cochannel interf. 8105
  π/4-DQPSK on microcellular radio channels, diversity/interf. 17101
  PRMA, channel impairments effects 9298
  prog. blind adaptive spatial filtering 40917
  prog. canonical correl. anal. for blind adaptive spatial filtering 9167
  PSK M-ary modulated sigs., CCI estim. 33884
  radio networks, distributed power control 9376
  recursive const. modulus algm. for real-time array proc. 8352
  road vehicle-vehicle commun., 60 GHz by TDMA/CDMA 9333
  sectorized cellular commun., channel borrowing without locking 3345
  sectorized mobile microcellular radio syst., perform. anal. 3451
  single/multi-amplit. sigs. in interf. channels, neural-net based receiver 16408
  spatial channel simulator for phased arrays 9318
  subjective protection ratio tests, standardisation 9223
  suppression by equalizers and lin. combiners 15519
  TCM/M-PSK, trellis-coded M-ary PSK for digital land mobile commun. *(Korean)* 17045
  TDMA in-building wireless systs., interf. charact. 33873
  TDMA indoor wireless cellular systs., punctured convolutional codes, optimal coding 33872
  TDMA mobile radio systs., CCI suppression 9393
  TDMA portable radio channel uplink power control algm. 42197
  TDMA radio syst., autonomous SIR-based power control 17130
  trans-horizon radio link, site shielding variability, expt. 17026
  wireless appls., correl. lognormal sum distribs./outages 3413
cochlea *see ear*
Cockcroft Walton rectifiers *see voltage multipliers*
cockpit displays *see aircraft displays*
code convertors
  see also codes; information theory
  analog, redundant binary code converter 24072
code division multiple access
  2 GHz radio propag. for local loop appls. 33844
  adaptive multistage interf. cancel. for CDMA, perform. limits 7990
  adaptive multiuser demodulation, neural network techs. 17001
  all-opt. CDMA, bipolar codes 42352
  approx. synchronized CDMA syst., sig. design 24784
  asynchronous CDMA satellite syst., pers. commun. 9368
  asynchronous CDMA syst. perform. improvement by orthogonal seq. spreading 41462
  asynchronous CDMA systs., interf. minimization 42165
  asynchronous CDMA systs., lin. adaptive transmitter-receiver 42145
  asynchronous CDMA systs., lin. adaptive transmitter-receiver 25243
  asynchronous DS/CDMA syst., multistage detector perform. 25240
  ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
  Australian CDMA cellular radio trials 3489
  automotive area network, power-lines 3310
  autonomous CDMA multipath diversity receiver 25440
  AWGN multi-user channels, soft-decision interf. cancellation 42162
  bandlimited DS-SS M-PSK sigs., DA chip synchronizers 9371
  broadband CDMA overlaying GSM cellular syst., capacity 3387
  burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
  carrier freq. offset-SSMA method 25254
  CCI, spatial/temporal filtering 25234
  CDMA commun., CW/narrow-band sigs. interf. suppression 33749
  CDMA mobile radio systs., spectral efficiency 17083
  CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
  cellular capacity increase with MQAM/CDMA 33783
  cellular CDMA, ES approach 25347
  cellular CDMA, forward-link power control law 3347
  cellular CDMA mobile radio syst., power control/coding 17102
  cellular CDMA network, mobile positioning, perform. anal. 25619
  cellular CDMA perform., speech bit rate, network control 9375
  cellular DS/CDMA systs., lin. interf. canceller 9241
  cellular mobile networks, analytic traffic models 33931
  cellular network, forward link perform. 25366
  cellular networks, antenna arrays, downlink perform. 17093
  cellular radio, freq./time division duplex techs. 25371
  cellular radio, uplink power control/base station assignment 25376
  cellular radio link, prioritized channel control 25410
  cellular radio network 25357
  cellular syst., forward link, multipath propag. effect 33885
  cellular syst. with macrocell diversity, perform. 33865
  cellular systs., concatenated RS/convolutional coding 9358
  cellular systs., design/test 3382
  cellular systs., uplink capacity, bounds/estim. 17064
  cellular systs., uplink teletraffic behaviour 9257
  cellular telephones, transm. power control CDMA, perform. 42246
  cellular time division duplex syst. capacity 3356
  CELP coding of speech, phonetic classif. 2427
  chaotic Chebyshev bit seqs., even-/odd-correl. fns. 25262
  characterisation of CDMA sigs., spectrum analyzer 18019
  coded packet cellular networks, code rate optim. 25384
  codes, coding theory 2893
  CODIT, testbed project, DS-CDMA for UMTS/FPLMTS 3385

code division multiple access continued
coherent detect. scheme, uplink channel 9230
coherent freq.-hopped CDMA, wavelet orthogonal FDM 33210
coherent light pulse, encoding/decoding 42420
coherent opt. CDMA, laser phase drift effects 42348
commun. systs., subspace-based delay estim. 42166
complex valued spreading seqs., crosscorrelation props. 32091
cubic phase seqs. with low correl., CDMA 24777
decorrelating detector, antenna arrays 15954
demodulator, interf. robust, spectral correl. props. 3327
digital cellular radio, field test results 3383
digital commun. syst. on-site freq. calibs., freq. counter appl. 25910
direct detect. opt. CDMA commun. syst. Monte Carlo simul. 41464
direct seq. CDMA, GMSK modulation, perform. 33754
direct-seq. CDMA systs., optimum PN seqs. 25233
direct-seq. systs., rake reception, multipath fading 33905
direct-seq. systs. in lineal microcells, perform. eval. 25365
distributed antenna syst., freq. selective fading, perform. 17091
Doppler shift z 42303
DS-CDMA, Hadamard codewords, orthogonal spreading seqs. for mobile radio 33845
DS-CDMA, integrated CCI cancellation and decoding, fading multipath channel *(Japanese)* 25276
DS-CDMA, integrated voice/data wireless networks, grade of service 9364
DS-CDMA, shadowed Rician fading land-mobile satellite channel 9268
DS-CDMA 4-phase mobile radio receiver in non-Gaussian environ. 25442
DS-CDMA cellular mobile radio network, down-link power control 33871
DS-CDMA cellular slotted syst., throughput/delay anal. 25438
DS-CDMA cellular syst., intra-cellular toroidal sectorisation 42276
DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
DS-CDMA cellular syst. perform. anal. 33910
DS-CDMA cellular systs., third generation, adaptive antennas 33850
DS-CDMA commun., indoor mobile, code phase assignment 9206
DS-CDMA digital mobile radio systs., unequal error protection 9373
DS-CDMA FH-CDMA/narrow band cellular radio systs. 3452
DS-CDMA field trial syst., down-link design 9391
DS-CDMA for portable multimedia commun. appl. 25443
DS-CDMA interf. cancellation schemes 17084
DS-CDMA low crosscorrel. seq. iterative constr. 41463
DS-CDMA microcellular network, soft handoff 3470
DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
DS-CDMA mobile networks, acquisition of synchronism 33867
DS-CDMA mobile radio, sliding window decorrelation, anal. 25283
DS-CDMA mobile radio syst., coherent reception, channel estim. 9229
DS-CDMA mobile radio syst. using RAKE receiver, spreading codes 25437
DS-CDMA mobile syst., fading channel, anal./simul. 3391
DS-CDMA mobile syst., receiver archits. for down-link 33864
DS-CDMA networks, multi-media integrat. 25235
DS-CDMA nonlin. effects in opt. transm. 34030
DS-CDMA outage perform., mobile satellite channel 33906
DS-CDMA radio commun., low rate coding methods 25249
DS-CDMA receiver complexity reduction 17011
DS-CDMA receivers, min. MSE, complexity reduction 3328
DS-CDMA seq. inversion keying opt. correl. receivers 34029
DS-CDMA SS systs., noncoherent parallel acquisition 9382
DS-CDMA SS systs., permutation modulation 17126
DS-CDMA syst., adaptive multiuser interf. rejection algm. 42163
DS-CDMA syst., macro diversity perform. 3389
DS-CDMA syst., perform. of space diversity 33840
DS-CDMA syst. in multipath fading mobile channel, Rake reception 9234
DS-CDMA systs., code period effects 33213
DS-CDMA systs., hybrid acquisition schemes 9384
DS-CDMA/DQPSK sig. in indoor radio channel *(Korean)* 17046
DS-CDMA/TDMA for digital cellular systs. 3390
DS-SS, multi-h CPM, indoor mobile radio, perform. 3474
DS-SS CDMA cellular voice/data commun. 25342
DS-SS CDMA mobile satellite commun. syst. 25441
DS-SS GMSK, CDMA perform. 33846
DS-SS overlay for FDMA satellite commun. systs. 25465
DS-SS overlay for satellite commun. syst. 33971
DS-SS packet radio syst. automatic threshold control 42151
DS-SS SS CDMA, MMSE interf. suppression 17017
DS-SS syst., RAKE reception, multipath fading, perform. 25446
DS-SS systs., periodical seqs., Doppler mismatched filters 33752
DS-SSMA, unknown seq. estimator, near-far problem 25361
DS-SSMA commun. in Nakagami fading channels, path diversity 9345
DS-SSMA commun. systs., approach 42167
DS-SSMA commun. systs., signature pairs 42181
DS-SSMA diversity commun. in fading channels, error perform. 3357
DS-SSMA indoor cellular radio perform. 25370
DS-SSMA multitone syst. in multipath Rician fading channel 16463
DS-SSMA syst. based on $\pi/4$ DQPSK and convolutional coding 25369
DS-SSMA systs., aperiodic cross-correl. model 16461
DS-SSMA systs. perform., filtering effects, transmitter 33207
DS-SSMA unslotted PRN 25257
DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
DS/CDMA, M-ary orthogonal modulation in multipath fading channels 8736
DS/CDMA, multilevel coded modulation, integrated receiver struct. 42144
DS/CDMA adaptive interf. canceller, differential detect. 9240
DS/CDMA adaptive interf. canceller for fast fading channel *(Japanese)* 25277
DS/CDMA digital cellular systs., error control algms. 9361
DS/CDMA diversity combining, convolutional encoding/Viterbi decoding 9380
DS/CDMA networks, integrated voice/data traffic, code allocation 33908
DS/CDMA prototype syst. for voice/ISDN sigs. 3320
DS/CDMA successive interf. cancellation 25356
DS/CDMA systs., coherent detect. syst., suppressed pilot channel *(Japanese)* 25279
DS/CDMA systs., eval. of handover perform. *(Japanese)* 25281
DS/FH-CDMA syst., fading channels, near-far problem *(Japanese)* 25210
DS/SS CDMA slotted access channel perform. anal. 9293
DS/SS indoor wireless commun., near-perfect multi-packet capture 33869
Earth satellite commun. systs. with low orbits, Doppler shift effects 17146
error-correcting coding 24782
European mobile satellite commun. systs., CDMA 25470
F-TDMA/CDMA cellular systs. perform. eval. 33838
fast FH/CDMA systs. in mobile radio environ., efficiency 17086
fast freq. hopped NCMFSK, Rayleigh fading, diversity combining 33762

code division multiple access continued
FFH-CDMA packet radio network, capacity 42142
FH-CDMA cellular network eval. rel., handover strategies 9332
FH-SS transceiver, 900 MHz, low-power CMOS chip 33745
fiber-optic LAN, opt. orthogonal codes, perform. 8969
freq. hopped systs. for PCS 25360
gap-free fit channel access protocol 41494
gigabit opt. CDMA networks, bandwidth efficient matrix codes 42421
Globalstar PCS, satellite-terrestrial systs. integrat. 33912
HBT technol., CDMA chip set power increase 16928
hierarchical digital broadcasting, adaptively weighted CDM 25628
hybrid DS/SFH SSMA commun., nonselective fading channels 3321
hybrid SC/MRC 2DPSK RAKE receiver BER perform. 9232
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
imperfect power control, acquisition-based capacity estim. 25256
indoor 3D cellular syst. fixed channel assignment plan 33804
indoor microcellular mobile syst. 9204
indoor radio CDMA capacity 9202
indoor wireless IR commun., hybrid PPM-CDMA systs. 42355
indoor wireless low complexity, low delay speech coding 8193
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
integrated voice/data cellular packet CDMA networks 17095
integrated voice/data network, cellular packet CDMA, perform. 17131
interf. cancellation syst., pilot sig. for radio channel estim. *(Japanese)* 25278
interferometric opt. fibre sens. network, CDMA/WDM multiplexing 17906
IRIS, going commercial, high-tech European LEO microsatellites 42323
joint detect. CDMA third-generation mobile radio syst. concept *(German)* 42207
LAN, all opt., multiaccess with wavelength/code concurrency 41797
LAN, fibre optic, opt. orthogonal and codes 41897
LEO satellite commun., nonuniform traffic, integrated voice/data syst. 25454
LEO satellites, PN code acquisition schemes 33951
lin. fractional spaced equalization, interf. cancellation 8740
LMSS, open-loop power control error 25300
M-ary orthogonal signalling, near-max.-likelihood demodulation 32030
microcell size and archit. anal. 3421
microcellular CDMA systs., channel models 3419
microcellular wireless access systs., bandwidth efficiency 17085
mobile commun., delay lock loop, delay path cancellation *(Japanese)* 25274
mobile commun., slow freq. hopping, time offset effect 42272
mobile commun. networks, modeling and perform. 25373
mobile communications, IEE Colloquium, London (1994) 16
mobile LEO channel, downlink DS CDMA perform. 25372
mobile radio, joint detect./coherent receiver antenna diversity 25364
mobile radio intersystem operations 3477
mobile radio syst., field tests 3381
mobile radio syst., reverse link anal. 3392
mobile radio syst., turbo-codes appl. 9239
mobile radio systs., interf. suppression 33887
mobile radio systs., joint detect., diversity 25343
mobile radio systs., multi-user detect. equalizers 9237
mobile radio systs., multiuser detect. equalisers 17041
mobile systs., closed loop power control 33868
mobile user satellite systs., multiple-access capacity 25302
multi-carrier CDMA in indoor Rician fading channel 9226
multi-carrier CDMA in indoor Rician fading channel, controlled equalization 9219
multi-carrier CDMA modem design 9220
multi-purpose threshold detector for mobile radio appl. 9305
multi-user demodulation, real time, hybrid digital computer-Hopfield neural network CDMA detector 16459
multicarrier CDMA syst., CCI cancellation 9215
multicarrier transm. tech. in cellular systs. 9216
multimedia satellite commun. systs., preliminary study 3519
multiple band-shared CDMA LEOS systs., total capacity 9369
multiple-cell CDMA radio syst., perform. measures 3386
multirate radio interface implement. 42192
narrowband CPM async. CDMA syst. all-digital receiver design 42150
near-far resistant CDMA detectors, param. estim. errors effects 16460
networks, decorrelators for multi-sens. systs. 33761
networks overlays of narrowband waveforms, interf. suppression 25355
next-generation PCN multimedia traffic support 41979
no.-/coherent-state opt. CDMA systs. 34027
one and two branches DLL in CDMA syst. 3472
opt. CDMA, bipolar capacity 9582
opt. CDMA, lossy photon channels, no.-state/coherent-state, perform. 42349
opt. CDMA, spectral encoding by acoust. tunable opt. filters 33983
opt. CDMA based on noncoherent sources spectral encoding 41470
opt. CDMA commun. syst. M-ary signalling 34058
opt. CDMA commun. systs., all-opt. lin. detect. 42364
opt. CDMA with prime codes, perform. anal. 34073
opt. fiber networks, syst. and sync. perform. anal. 17270
opt. orthogonal codes, unequal auto-/cross-correl. constraints 24089
opt. sync. CDMA systs., CCI cancellation 34028
optimal const. wt. cyclically permutable codes/difference families 24087
optimal const. wt. cyclically permutable codes/difference families 40709
orthogonal CDMA for mobile satellite commun., perform. 25310
orthogonal convolutional codes, CCI cancellation 25242
orthogonal multi-carrier CDMA, nonfading/nonselective fading 24783
orthogonal multi-carrier FH-CDMA schemes for freq. selective fading *(Japanese)* 25280
overlay CDMA syst., multiple BPSK interferers, perform. anal. 33747
packet combining error control 25368
PCN, handoff criteria 9378
PCS, spectrum sharing feasibility 25379
PCS CDMA syst. overview 33870
PCS syst. perform., simul. results 3384
pers. commun. services, satellites role 25298
photonic CDMA coherent matched filter time-addressed coded opt. ladder networks 9445
power line SSMA, error correction, IFMV9 coded overlapped PN seq. 25198
QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
quasi-sync. CDMA, PN signature seqs. based 25265
quaternary CDMA syst. perform., code props. 33205
quaternary seqs., low correl. 40608

code division multiple access continued
radio network planning 33866
radiocommunications and mobility *(English, French)* 42188
RAKE receiver for cellular CDMA systs., perform. eval. 8735
RAKE receiver implement. of CDMA power control mechanism 25439
RAKE receiver over multipath fading channel, CDMA perform. anal. *(English)* 17082
rapid acquisition schemes in multipath delay fading environ. 33208
receiver, near-far immunity 25228
Rician CDMA channel fading-resistant multiuser detect. 41460
road vehicle-to-vehicle 2-way commun., SS 42242
road vehicle-vehicle commun., 60 GHz by TDMA/CDMA 9333
robust/lossy discretization in CDMA systs. 41473
S-CDMA cellular radio syst., interf. calcs. 17121
S-CDMA fibre optic systs., seq. designs 2892
satellite commun. systs. overlay, perform. anal. 25466
satellite digital broadcasting using sync.-CDMA, multipath channels 33952
satellite PCN, 3rd generation, technol./networking issues 25413
SCM CDM opt. LAN, theory and expt. 16716
self-organizing multiuser detect. 25239
shared CDMA LEOS environ., total capacity 25303
SHF/EHF mobile/indoor wireless commun., SS 3476
shift-register seqs./SS commun. 24124
slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
space opt. commun., pulse-coded multiple access 42350
spatial opt. CDMA 42351
speech CELP coding, variable rate 2428
spread spectrum techniques, IEEE conf., Oulu, Finland (1994) 20200
SS adaptive receivers, CCI suppression 33883
SS code hopping syst. 25251
SS radios for commercial wireless commun. 17022
SS receivers, diversity reception improvements 25444
SS syst., adaptive interf. suppression 17037
SS tech. for automotive multiplexing systs. 25199
SS wireless LAN, interf. cancellation 8929
SS-CDMA PCS in-building systs., distributed antenna 9231
sync. CDMA commun. syst., adaptive interf. cancelation 25241
sync. DS-SSMA systs., pseudo-noise seqs. 3326
sync. multiuser CDMA detector, multidimensional adaptive canceler 15898
syst., macro-/micro-cellular environ., perform. 3471
syst. design, key elements 17074
system meas.-based perform. anal. in multipath fading 33791
systs., channel estim., interf. reduction 9235
systs., multipath delay/fading 3473
systs., multistage RAKE receiver 9242
systs., pre-decorrelating single user detect. 9238
terrestrial/satellite mobile commun. networks 17049
third generation radio archit., adaptive antennas appl. 3482
TU Delft research, overview 25255
UHF single ASIC CDMA digital receiver for space appl. 9414
ultrafast opt. CDMA all-serial coding archit. 42356
UMTS, CDMA-based radio access design 25333
UMTS and RACE II CODIT project 9392
UMTS/FPLMTS, CDMA concepts validation 3388
universal personal communications, conf., San Diego, USA (1994) 20233
vehicle-to-vehicle commun. for AVCS platooning 5354
video multiplexing, pulsed coded fiber optics 8676
VR-CELP codec implement. for CDMA mobile commun. 33689
VSAT rural commun. systs. for developing countries 3513
Walkstation transceiver design 3464
wavelength-routing network switching theory 9522
wireless access systs., low bit-rate video transm. 17088
wireless commun., SS access methods 17110
wireless LAN, hybrid-ARQ error control protocol 8748
wireless multi-access network multimedia service perform. requirements 41468
wireless multiservice CDMA environ., adaptive packet decoding 9360
Si chip digital end-user mobile commun. syst. 42193

code excited linear prediction *see linear predictive coding*

code standards
see also codes
ATM network variable bit rate MPEG video encoder characts. 41974
block-based image coding, inform. loss recovery, fuzzy logic approach 32873
CELP speech coder, FS-1016, with multistage search, complexity reduction 33686
digital video recording data reduction strategies *(German)* 17583
Hi-Fi audio coding technol. and standardisation *(Japanese)* 17545
high quality image encoding, important distortion factors 24497
image coding, arith. and adaptive-Huffman entropy coders, prob. estim. 32871
MHEG multi- and hypermedia obj. interchange std. 41975
MPEG stds., audio/video codecs, LSI chips 16944
MPEG-2 std. digital TV receiver IC *(German)* 25648
MPEG-2 std. flexible digital data transm. *(German)* 17539
pitch sync. innovation CELP coder for 2-4 kbit/s 33694
public-key cryptography, theories and stds. 32198

codecs
see also speech codecs; video codecs
2 Mbps interface module, PLL tech. *(Japanese)* 42050
(31, 9) RS codecs, fast prototyping complex digital systs., FPGAs 6117
adaptive inter-channel prediction, joint stereo audio coding 15776
ATM networks, ABR service replace VBR service 33176
audio codecs, subjective eval. 3687
bi-level image high speed codec, architectural design 9124
CMOS VLSI trellis-coded partial response channel codec 29249
color image proc./transm. technols. *(Japanese)* 41745
DCT pyramid, layered image coding 33137
deblocking scheme for codec loop 16336
facsimile high-speed image codec 16946
hi-fi mobile DAB scheme 9695
high data rate satellite commun. systs., R&D *(Japanese)* 17158
high-speed arithmetic codec archits. using interval tree search 42087
image compression, 2D DCT 24646
internat. digital route outer codec for satellite links 3268
MPEG audio decoder chip 37788
multi-D trellis decoder for 155 Mb/s concatenated codec 33684
multicast software develop. 25158
multimedia equipt., electronic devices *(Japanese)* 16935
opt. commun. codec, high data rate error correction coding 17316

codecs continued
optimum subband filter bank design/compensation 8279
progressive image transm., partition priority coding *(Japanese)* 41166
R&S Radio Data Codec DMC 01, RDS transm. and FM transmitter control 9704
RS decoder, systolic-array struct. 25159
two-level coding based on TCM and RS codes 15766
ultrafast opt. CDMA all-serial coding archit. 42356
video DSP, pipeline archit., MPEG2 CODEC 8664
wavelet transform quantised coeff. redundancy removal 41092
wavelet-based approaches vs. subband coding techs. for still image coding 32826
wavelets and waveform coding 32510
wide-area digital mobile wireless syst. *(Japanese)* 33899
intell. parallel opt. link and LSIs 34055

coded modulation *see modulation coding*

coder-decoders *see codecs*

codes
see also adaptive codes; algebraic codes; arithmetic codes; bar codes; BCH codes; block codes; concatenated codes; convolutional codes; cryptography; cyclic codes; data privacy; dual codes; encoding; entropy codes; error correction codes; error detection codes; geometric codes; Golay codes; Goppa codes; Gray codes; Hamming codes; Huffman codes; interleaved codes; linear codes; pseudonoise codes; Reed-Muller codes; Reed-Solomon codes; runlength codes; sequential codes; trellis codes; variable length codes; variable rate codes
1D FEL model without slowly-varying approx. 39984
155.52 Mb/s data transm. on category 5 cable plant 42044
198-Mb/s recording channel, sig. proc. 9751
980-nm power LD beam instabil., expt. and anal. 15013
analog, redundant binary code converter 24072
APL-ASCII transliteration 41790
authentication and secrecy codes, constr. 40694
authentication codes, detection probability 8163
blind channel estim./equalization, partial-response input sigs. 33162
CDMA fiber-optic LAN, opt. orthogonal codes, perform. 8969
CDMA networks, integrated voice/data traffic, code allocation 33908
CDMA opt. fiber networks, syst. and sync. perform. anal. 17270
CDMA opt. systs., bipolar codes 42352
Chinese characters, modified simplex input method 24074
Colossus, WWII German sig. code breaker, restoration 40685
const. wt. covering codes, size bounds 40691
Costas arrays for channel charactn./commun., decomp. 32610
cryptography, conf., Santa Barbara, CA (Aug. 1994) 32150
decoding metric, channel capacity 24084
delay-insensitive codes, power-efficient, for data transm. 15759
difference families/optimal opt. orthogonal codes, constr. 32073
digital compact cassette, seq. estim. algms. appl. 17582
digital schemes testing, pseudorandom codes, transformers synthesis 29193
digital TV broadcasting, waveform transm. technol. *(Japanese)* 34214
displacement meas., absol. mag. scale, nonrepeated codes *(Japanese)* 34693
DS-SSMA commun. systs., approach 42167
Euclidean space points, common nearest neighbor anal. 40645
fast decoding method of AG codes from Miura-Kamiya curves C_{ab} up, half Feng-Rao bound 40619
FEL with large μ_c planar undulator, waveguide appl. 39980
Fibonacci p-codes, stack filtering, decomp. methods 24180
finest homophonic partition and related code concepts 32103
finitely incompletable codes 32193
FOM 1 MW 200 GHz free electron maser mode purity, plasma heating appls. 39924
freq. hopping seqs., small cross-correl. 32109
Gaussian multiple access channel, single-user decodable codes 40525
genetic algm. for codebook design in VQ 15789
gigabit opt. CDMA networks, bandwidth efficient matrix codes 42421
GLONASS P-code, L1/L2 freqs., perform. 17505
Hamming space, superimposed codes 24039
high power FEL electron output scheme, time-depend. multi-dimens. simul. 39922
hist., mil. code breaking computing, Bletchley Park scientists 32100
K-code, K-fns. and Walsh fns. 24104
K-code K-fn. and K/W transform 15784
lattice quantization noise 40882
Lempel-Ziv parsing trees, noiseless data compression algms. 32651
LF suppression of baseband coded sequences 8164
localized arc pattern method for zip code recogn. 40702
Morse code, auditory telegraphy signs recogn., dichotic presentation 41729
multidimensional BCM on fading channel, BER improvement *(Japanese)* 2368
multilingual appl. develop., Unicode std. 24075
multiloop Vigenere cipher, exceptionally long component series 2390
multiphase complementary pulse compression codes *(Chinese)* 9627
multiple chaotic systs. tracking from single obs. seq. 24057
multiple-access arbitrarily varying channel, capacity region 24778
multiple-access channels, multiple-rate codes, capacity region 40597
multiset decipherable code 24099
multiuser collaborative coding schemes, complex-value receiver 24779
opt. CDMA with prime codes, perform. anal. 34073
orthogonal code SS syst. in antijamming *(Chinese)* 10595
packet radio LANs, frame synchronisation codes 16676
packing rad., covering rad., and dual dist. 24094
partial unit memory codes on Hadamard codes 8142
partial-response systs., codes, quasi-catastrophic error propag. 32069
perfect periodic correl. seqs. 32116
perfect threshold secret sharing scheme, identify cheaters 40690
periodic polyalphabetic substitution ciphers 2389
PLA self-checking cct., automatic generation algm., parity codes 21185
portable MaxiCode reader, proc. selection 25751
printed Chinese characters recogn., heuristic algm. 32920
quasi-symmetric 2-(28,12,11) and 2-(36,16,12) designs 32074
quasiorthogonal codes, inverse continuation 8108
quaternary CDMA syst. perform., code props. 33205
quaternary seqs., low correl. 40608
radar sens. for car appls. 5378
random branching procs., entropies, convergence results 40539
rate 8/10 DC-free recording code for tape recorder 34286
read/write isolated memory channel capacity 24020
shrinking generator, pseudorandom nos. for additive stream ciphers 8123
simul. tech. for assessing coding syst. perform. 2378

codes continued
size, cross-correl., lower bounds 40609
software stream cipher based on Fibonacci shrinking 8122
SS commun. constrained spreading code *(Japanese)* 25205
SS commun. syst. jamming, general model 42185
SS constrained spreading code syst. characts. 24742
stochastic complexity and universal modeling 32120
suboptimum binary phase code search, genetic algm. 40577
substitution box design pitfalls 32182
superimposed codes for Euclidean channel, constr. 40708
tight spherical designs, class. 40642
turbo-codes, low complexity decoder 24022
turbo-codes/high spectral efficiency modulation 15747
two-track codes for mag. recording channels 39185
UHF single ASIC CDMA digital receiver for space appl. 9414
universal redundancy rates for class of B-procs. 32006
VQ, min. free energy, annealing control 28635
wideband speech generation from narrowband speech by codebook mapping *(Japanese)* 32441
Ge^+ Ne-like soft-X-ray laser 1852
coding *see encoding*
coding/decoding *see decoding; encoding*
coding errors
see also error correction; error detection
absol. moment block truncation coding, props. 24114
asynchronous DS/CDMA syst., multistage detector perform. 25240
binary ECCs over Gaussian QAM channels, perform. eval. 2377
block-based image coding, inform. loss recovery, fuzzy logic approach 32873
catastrophic convolutional encoders, determ. 32133
CDMA fiber-optic LAN, opt. orthogonal codes, perform. 8969
CDMA overlays for FDMA satellite commun. systs. 25465
channel noise immunity rel., code and sig. constr. mutual effects *(Russian)* 15696
coded direct-seq. systs., rake reception, multipath fading 33905
coded modulation, error probab., upper bounds calc. 15748
coded modulation, Rayleigh fading channels, error probab. 24017
color-image quantization, fast binary splitting tech. 2591
constrained joint source/channel coder design 15719
convolutionally encoded seq. decoding, pairwise error probab. 32115
correl. fading channels, FEC perform. 32140
coset codes on fading channel matched constellations 32138
(d,k)-constrained seqs., synchronising methods 15755
D flip-flops, self checking/code disjoint, sync. cct. design 29120
direct-seq. systs. in lineal microcells, perform. eval. 25365
DS-CDMA digital mobile radio systs., unequal error protection 9373
DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
DS-SS communications, doubly selective fading channel, spreading seqs. 17016
error-correcting codes, Gilbert channel, perform. eval. 15749
Golay-coded M-PSK, Rayleigh fading channel, decoding 32090
high speed satellite commun., go-back-N protocol 9416
image block truncation coding, reduced-rate, error diffusion 41058
image transform coding, integer cosine transform-based error minim. 41073
integrated opt. symm. no. syst. ADC, 8 bit 21392
lin. block codes, optimal inform. bit decoding 24091
lin. code, threshold probab. 32058
magnetooptical recording, n/m code and modified Viterbi decoding 15724
mapping matrices, permutation decoding, props./appls. 40637
mobile satellite channels, partial response coded MPSK anal. 42205
multi-beam mobile satellite commun., Viterbi decoding 25307
multilevel-coded quaternary partial-response sigs., soft-decision multistage decoding 8174
nonuniform wt. error diffusion CGH opt. interconnections 1839
opt. direct-detect. channel, coded multi-pulse PPM perform. 8170
Osman Nuri Ucan receiver, trellis coded M-QAM schemes, partial response channels 40704
parallel ADCs, asymmetric latches and nonideal perform. 12607
parallel combinatory SSMA systs., Rayleigh fading channel, perform. eval. 25244
perfect periodic correl. seqs. 32116
photonic SONET fund. frame structs. 42362
radio LANs, FEC, ARQ, and throughput of 16678
random coding, optimal noisy channel quantization, asymptotic bounds 24043
Rician-fading channels, convolutional codes, finite interleaving depth 33911
runlength-limited block codes, small error propag. 40649
SEUs in monolithic ADCs, device perform. and syst. impact 12602
Slepian-Wolf data compression syst., universal coding 24041
slow fading channel bandwidth-efficient coded freq. diversity 32086
soft-decision seq. decoders perform., estim. 8175
sync. CDMA commun. syst., adaptive interf. cancelation 25241
trellis coded multi-amplit./-PM, noncoherent detect. 24281
trellis codes, error probab., dist. spectra/upper bounds 32063
trellis-coded DS-SS commun. 17015
trellis-coded MDPSK, sliding multiple sym. detect. *(Korean)* 24120
VGA colourmap optim. methods compared 33022
coefficient of thermal expansion *see thermal expansion*
coercive force
see also magnetic hysteresis
automatic meas. of low coercive fields 10003
inner surface defects, magnetographic inspection, sensitivity 21001
long. thin film with irregular lattice, Lorentz microscopy, model 14098
mag. recording media, switching fields, time depend. 7138
magneto-opt. exchange-coupled multilayer, overwrite repeatability 22697
moving vector Preisach hysteresis model and δM curves 14220
PM struct., lightweight distortion-free access 7209
rare-earth/α-Fe based composite magnets, remanence enhancement, 2D/3D calc. 7007
revolving PM magnet wheels, actuators, lin. drive *(Japanese)* 44254
ribbons, amorph. mag., asymmetric magnetis. reversal, chem. etching 14135
steel, complete-moving-hysteresis model, param. ident. 14099
steel, Cr-Mo, ferromag., creep damage, mag. study 14128
steel, ferromag., coercivity var. during cyclic stressing 14127
tapes, magnetis. reversal, seq. field pulses 7136
thick, thin and multilayered media, digital recording props. 14251
Ba ferrite, CoTi-doped, long. thin film media 7129
Ba ferrite, doped thin films, mag. props. 7022
Ba ferrite particles, substituted, high dens. mag. recording, remanence 39165
Ba ferrite, sputtered thin films, saturation magnetis. 7023

coercive force continued
Ba ferrite, substituted, particle prep., flux method 7030
Ba ferrite/C rigid disk, long. recording 7130
Ba hexaferrite particles, sol-gel prep. 7024
Ba-ferrite interact. mag. hard particles, mag. reversal 39169
$BaCoTiFe_{10}O_{19}$ films, sputtered, struct., mag. props., heat treatment effects 14194
$BaFe_{12-2x}Co_xTi_xO_{19}$ hexagonal ferrites for mag. recording 30688
Bi-YIG particles prep. for display devices 14173
$Bi_3YFe_{3.5}GaO_x$ films, pulsed laser ablation, mag. props. 30686
Co/Au multilayer films, struct./mag. props. 7057
Co/Cr thin films, interdiffusion and grain isolation, thermal annealing 7040
Co/Ni multilayer, sputtered, anisotropy and magneto-opt. props. 14203
Co/Pd multilayer films, struct./mag. props. 7057
Co/Pt multilayer films, struct./mag. props. 7057
Co/Zr multilayers, Co-phase transits., mag. props. effect 30708
Co-Ni-O metal-evaporated tapes, unidirectional exchange anisotropy 7113
Co-Zr-Nb films, high resoln. single-pole recording head 7187
Co-Zr-Ta-Nb amorph. thin film deposited cores on polyimide sheets *(Japanese)* 30662
CoCr films on Ti, perp. recording, low temp. sputter-deposition, high coercivity 6959
$CoCr-NiP_3(TiSi_2)(Cr)(C)$-soda lime glass recording media, high coercivity and low noise 7115
$(Co_{93}Cr_7)$-P-Pt/Cr thin films, long. mag. recording 7128
CoCrPt, high coercivity thin film for long. recording 14097
CoCrPt/CoCrPt/CoCrPt multilayer, ultra-high dens. mag. recording 7051
CoCrPt/CoCrTa multilayer, ultra-high dens. mag. recording 7051
CoCrPt/Cr thin films, CoCrPt thickness effect on props. 6943
CoCrPt/Cr/CoCrPt multilayer, ultra-high dens. mag. recording 7051
CoCrPt-MgO bicrystalline long. recording medium, mag. charact. 6957
CoCr(Pt)Ta and CoCrPtB multilayer films, mag. recording 7126
CoCrPtTa/Cr mag. recording media on glass substrs., props., noise 6954
CoCrTa thin film, long. recording media, grain boundary, intergranular exchange coupling 6955
CoCrTa/Cr anisotropic medium, track-edge overwrite pattern, MFM obs. 22699
CoCrTa/Cr bi-layered thin-film media, long. recording 7117
CoCrTa/Cr sputtered thin-film media, mag. and recording props. 14250
CoCrTa/Cr thin-film media, underlayer effects on mag. and recording props. 6989
CoCrTa/Cr/GaAs, microstruct. and recording props. of bicrystal disks 7116
CoCrTa/NiAl(Cr) mag. thin film media for disk storage, in-plane coercivity 7223
CoCrTaPt/Cr thin film media, mag. recording perform. 7125
$CoFe_2O_3$ acicular ferrite particles, Mossbauer effect study 7035
$CoNiPt-SiO_2$ films, mag., structural props. 1570
CoP films, simultaneous electroless plating/electrolysis, mag. props. 6939
$Co_{32}Pd_{68}$/Ag multilayers, mag. props. 30711
CoPt binary thin films, perp. recording, microstruct. and mag. props. 6960
CoPt thin film media, microstruct., mag. props. and noise perform. 6990
CoSm/X (X=Ti,V,Cu,Cr) sputtered thin films, mag. props. 6963
Cr/CoCrTa/M/CoCrTa/Cr (M=Al,Cu,Ag,Cr) thin films, mag. props., X-ray crystallography 7052
$Cr_{1-x}Ir_xO_2$, ferromag. material, high coercivity 30677
CrO_2/Co multilayers on Cu(100) 30692
Cu/Co/Cu/NiFe multilayers, magnetoresist., thermal stabil. 7053
$CuCr_2Se_4$:As, mag. props., doping effects 14157
$ErFe_{8.5}Co_2Mo_{1.5}D_y$, struct./mag. props., deuteration effects 39162
$Er_2Fe_{17-x}Ga_xC_2$, mag./struct. props. 39205
Fe films on Cu(100), struct./mag. props. 14162
Fe pigments protection with amine-quinone polymers, metal particle tape appls. 7145
Fe/M-N (M=Fe,Cu), multilayered films, mag. props. 14211
α-Fe/$Nd_2Fe_{14}BTi_x$ nanocrystalline alloys, coercivity 7011
Fe/Ni bilayers, mag. props. 30701
Fe/Pd multilayers grown by electron-beam, mag. props. 39176
Fe-BN films, deposition conditions and mag. props. 5889
Fe-FeCoZr sputtered multilayers, soft mag. props. *(Japanese)* 30696
Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
FeAlN/NiFe pole tips, laminated, high moment, perp. contact recording head 7097
FeAu, domain wall pinning, mag. viscosity/activation vol. 14148
FeGdN, soft mag. thin film material 14151
$Fe_{66}M_2Nd_{20}C_{9.5}B_{0.5}$ (M=Ga,Nb,Cu,Al) ingot magnets by solid-state transform. 6969
Fe_4N nanometer-sized particles, mag. props. 6979
$Fe_{77}Nd_{15}B_8$, mag.-field orient. and coercivity 7207
FeNdB-based magnets, Ga and Nb addits., mag. and microstructural props. 14163
γ-Fe_2O_3 particles, coercivity and switching field 6976
γ-Fe_2O_3 thin films, coercivity, stress effect 39166
γ-Fe_2O_3:Co,Zn particles, prep. and mag. props. 7028
FeSi sheets, ferromag. hysteresis, stat. domain energetic model 39135
a-FeSiBC films, mag./magnetoelastic props. 14139
FeSiBCuNb amorph. wires, crystn. proc. and mag. props. 14136
FeSiHfC nanocrystalline films, soft mag. props., anisotropy dispersion *(Japanese)* 30674
FeSmN thin films, long. mag. recording 7127
FeTaN films, DC magnetron sputtered, microstruct. and mag. props. 6951
FeTaN films, microstruct. and mag. props., effects of nitrogen content, heads 6950
$Fe_{86}Zr_7B_6Cu$ soft-mag. compacts, nanocryst., high saturation magnetis. 1572
GdDyFeCo sputtered films, trilayer struct., thermal stabil. 14201
MnAlC, MnAl, PM prod. by mech. alloying 14260
MnAs film, epitaxial ferromag., MBE on GaAs, struct., mag. props. 6974
MnBiDy alloy films, PM and struct. props. 7002
MnBiDy(Sm) PM films, struct. and mag. props. 39132
Nd-Dy-Fe-B sintered PM, coercivity ang. depend. 39196
Nd-Fe-B, anisotropic, microstruct./mag. props. 6967
Nd-Fe-B anisotropic powder, H decrepitated, XRD obs. 6971
Nd-Fe-B based particulate magnets, polymer bonded, fluct. fields 39207
Nd-Fe-B magnets, flux stabil. in direct joule heating 6988
Nd-Fe-B sintered magnets, Nd-Fe-O intergranular phase, coercivity effect 39190
Nd-Fe-B-Co(Ga)(Zr) anisotropic powders, HDDR treatment, mag. props. 6984
$Nd_{4.5}B_{18.5}Fe_{77}$ ribbons, melt-spun, Mossbauer and mag. study 39159
$Nd_{2-x}Dy_xFe_{14-y}Co_yB$ sintered magnets, remanence/coercivity 6973
(NdDy)(FeCo)B-W sintered magnets, domain-wall pinning 6985

coercive force continued
$Nd(Fe,Mo)_{12}N_x$, PM props. 6940
$Nd_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 69[illegible]
$Nd_{14}Fe_{79}B_7$ magnets, recomb. and desorpt., HDDR proc. 6983
$Nd_{15}Fe_{77}B_8$ sintered magnets, microstruct., mag. props., $Dy_{40}Al_{30}Cu_{30}$ powder addit. *(Japanese)* 30751
$Nd_2Fe_{14}B$ fine particles, spark erosion prep., struct., mag. props. 6975
$Nd_{15.4}Fe_{75.7}B_{6.7}Cu_{1.3}Nb_{0.9}$ sintered magnets, prep./TEM 6968
$Nd_2Fe_{14}BH_x$ powders, synthesis and mag. props. 39128
$Nd_{17-x}Pr_xFe_{75}B_8$ sintered magnets, mag. props. 39198
Ni, nanocrystalline, elec., mag., mech. props. 39127
Ni-Fe-Co/Cu/Co-Pt trilayers, magnetoresist. effects 39173
$Ni_{80}Fe_{20}$, sputtered film on Si, struct., mag. props. correl. 14150
$(Pb,La)(Zr,Ti)O_3$ ferroelec. films, metalorganic CVD/elec. props. 20758
$Pr(Fe,Mo)_{12}N_x$, PM props. 6940
$Pr_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
$Pr_{16}Fe_{76-x-y}Co_xAl_yB_8$ magnets, mag. props. 14161
PrNdFe, melt spun magnets, mag. viscosity, prep. from amorph. precursors 39194
PrNdFeB amorph. precursors, mag. hardening by crystn. 6987
Pt/Co multilayers, Ar-sputtered, anisotropy energy and coercivity, magneto-opt. recording 14545
Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
RE-Fe-B PM, thermal remagnetization effect 39209
$R_3(Fe,M)_{29}X$ ($R=Ce,Pr,Nd,Sm,Gd$; $M=Ti,V,Cr,Mn$; $X=H,N,C$), permanent mag. props. 6944
$R_3(Fe,Ti)_{29}$, ($R=Nd,Sm$), Mossbauer studies 39208
$R_2Fe_{14}B/Fe$ nanocomposite exchange coupled magnets, struct./mag. props. 7009
Si steel, (110) [001] grain growth 6936
Sm-Co based particulate magnets, polymer bonded, fluct. fields 39207
Sm-Fe-Ga-C, melt-spun alloys, high coercivity 39204
Sm-Fe-N/α-Fe remanence-enhanced mech. alloyed two phase magnets, coercivity 7010
Sm-Fe-Ti, rapidly quenched, struct./mag. props. 39206
Sm-Fe-Ti/nitrides, mag. props. 14160
$Sm_{10}(Fe,V)_{90}N_y$ with $TbCu_7$-type struct., melt-spun, mag. props. 14159
$Sm_{12.5}Fe_{87.5}$ nitride, mech. alloyed, nitrogenation behaviour and thermostability 1574
$Sm_2(Fe,V)_{17}N_y$ coarse powder, struct., mag. props. 7001
$Sm_2Fe_{17}N_x$, partially oxidized, mag. props. 39202
$Sm_2Fe_{17}N_x$ powders, powder and HDDR method prep., coercivity mechanism 22686
$Sm_2Fe_{17}N_3/Fe_{65}Co_{35}$ composite aligned two-phase magnets 7008
$(Sm_{1-y}Pr_y)_2Fe_{17}N_x$ magnets, remanence enhancement 30678
Sr hexaferrite particles, sol-gel prep. 7024
Sr-Ba ferrite magnets, sheet, addits. effect on mag. props. 7220
Tb-Fe sputtered films, large magnetostriction, magnetomechanical device appls. 6937
TbFeCo, films, amorph., magnetis. reversal, grooves effect 14114
γ-Fe_2O_3:Co,Zn thin films, fab. and mag. studies, disk media 6964

coercivity *see coercive force*

coexistent superconductors *see magnetic superconductors*

cogeneration
0.5 kW domestic CHP Stirling engine, thermodyn./detail design 27531
10 kW hermetic Stirling engine CHP alternator, operating experiences 27539
20 MW gas turbine CHP plant, thermoeconomic anal. 27571
25 MW gas turbine CHP plant project, Netherlands 27576
30 MW Lieksa CFBC cogen. project, Finland 19513
42.5 MW paper mill combined cycle CHP project, UK 4852
70 MW Four Rivers combined cycle PFBC CHP project, USA 27601
100 kW SOFC, market pot., Netherlands 44339
100 kW SOFC CHP plant demons. project, Netherlands 43959
200 kW SOFC CHP syst., operation 44325
340 MW CHP plant condition monitoring project, Netherlands 4832
463 MW Vuosaari B combined cycle CHP project, Finland 43926
500 kW ultra-high-speed gas turbine CHP syst. 10861
927 MW CHP plant AFBC boiler retrofit, Czech Republic 19515
1800 MWe combined cycle CHP district heating project, Russia 27593
Al Ghubrah combined power/waste heat recovery plant 10860
Aylesford paper mill CHP plant, distrib. control syst. 11513
biomass-fired steam CHP plants, theoretical study 27542
bottoming cycle CHP operating strategy, variable steam/elec. ratio *(Korean)* 27527
building cogen. systs., design methodology 4827
CHP syst. condition monitoring/predictive maint. 19539
cogenerator-customer wheeling syst., buy-back syst. 10667
combined cycle CHP plant step swirl combustor perform. optim. 36025
combined cycle CHP plants, PFBC gas expander design 27588
combined cycle CHP power plant telecontrol projects, Denmark *(German)* 4850
combined cycle CHP project, gas/refuse-fired, Denmark 4851
combined cycle/cogeneration systems, IEE Colloquium, London (1995) 36882
combustion heated thermionic syst., domestic heating 20039
desalination plant, desalter, fuel cost 35984
destructive distillation waste-to-energy power plant technol. 27564
develop. opportunities, East Asia 10845
develop./modernisation, former USSR, natural gas-based 19487
diesel CHP plant, intell. control/monitoring 4854
direct internal reforming SOFC CHP syst. 44370
dispersed CHP sources/boilers coord., optimal operation *(Japanese)* 27523
distrib. networks, AVC relays, sensitivity anal., PF changes 4652
district heating develop. overview, Russia 27533
district heating syst. operational optim. simul., PC-based 43906
domestic heating syst. thermionic converter design 28176
double reheat steam power plant projects, Denmark 43900
Dresden energy model and Nossener Brucke CHP station *(German)* 19502
DYANA best-first hierarchical diagnosis, diff. eqn. models 19493
elec. utility DSM opportunities case study, India 35535
elec. utility DSM programmes, concepts and eval. 43697
elec. utility operation/maintainance, business strategies adoption 10637
elec. utility-cogenerator elec. market, game model 4577
electric machines condition monitoring, IEE Colloquium, London, UK (1995) 11599
fuel cell, DC interconnection converter, input current control 44345

cogeneration continued
fuel cell based, future develop. 43898
fuel cell CHP difficulties and prospects *(German)* 43961
fuel cell cogen., commercial/residential appls. 36791
fuel cells, building CHP appls., perform./cost requirements 36077
fuel consumption/costs distrib. 19488
gas turbine, HRSG, exergoeconomic optim. 4849
gas turbine CHP, turbine cooling, part load control 36017
gas turbine CHP plant, multi-objective operation optim. 36010
gas turbine CHP plants, steam-injected, operation optim. 36011
gas turbine CHP/heat pump facility perform. optim. 36006
gas turbine cogen., rural develop. appls. 27566
gas turbine cogen. installations, output characts. 27573
gas turbine cogen. plants, economic efficiency, appls. 27574
gas turbine gensets 43924
gas turbine power plant emissions compliance upgrade projects, USA 27577
gas turbines, dryers, hot water boilers 36018
gas-fired CHP plants, fuel compression study 35994
heat/power syst., suboptimal control, modal decoupling *(Chinese)* 43886
high-rise flats, CHP systs., financial assess. 10844
HTR module prim. cct. press. boundary reliab. under accident conditions 19482
hybrid renewable energy prod. projects, Germany *(German)* 19551
indust. auto-producers, remuneration models *(German, English)* 35976
indust. cogen. plants, NO_x emissions control 27560
indust. elec. consumers, competition-led CHP markets 43640
investment cost recovery period calc. *(Korean)* 27528
low-temp. waste energy utilisation, gas turbine/LNG syst. 27580
medium scale CHP scheme implement. 10849
miniature CHP syst., solar heat engine-based 27627
MS 6001B gas turbine, cogen. appl., Metz power plant 27578
multi-area fuel cell CHP power systs., elec. wheeling anal. 10644
natural-gas-fired combined cycle CHP plant, NO_x emissions control 10868
nuc. power station district heating, economic/ecological effectiveness 27361
nuc. power station heat supply, economic efficiency studies 27362
PAFC CHP feasibility, multiobjective optimal unit sizing 36074
PAFC cogen., natural gas fired, building appls. 36580
PFBC repowering demons., RAM model 43888
planning optim., time-of-use rates-based 10846
plant daily operation scheduling, num. model *(English)* 27548
plant intell. control/monitoring, μP-based 35993
plant power syst. short cct. calc., simul. package 19505
power station technol. improvements *(German)* 4824
power stations, cost sharing calc. methods 27534
power syst. long-term operations planning 27100
practice, options and design stds. *(Italian)* 19504
projects, economic attractiveness study 43895
prospective energy scenarios for France *(French)* 4758
Resse motor-driven heating plant, operation/optimisation *(German)* 43940
short-term operation, num. modelling *(Korean)* 27520
SOFC cogen. plants, gas proc. study 43963
SOFC power plants, fuel proc. syst. designs 43962
SOFC tubular cogen. syst. design 43964
steam turbine design, combined cycle recovery units 35999
steam turbines, efficiency, steam flow rates 36002
stochastic heat storage, progressive hedging algm. 19499
structural reliab. optim. 19489
Sulzer HEXIS SOFC stack/syst. develop. status 44332
Suomenoja combined cycle CHP plant control upgrade, Finland 43936
T-150-7.6 steam turbine plants, low pot. sect. 36000
telecom. equipt. PAFC CHP syst., adsorpt. refrigerator-based cooling 41622
telecomms. power plants, diesel-elec. CHP systs., Japan 19535
thermal CHP generation, oil-free screw compressor appls. 35962
thermal CHP generation, oil-injected screw compressor appls. 35963
thermal CHP plant leak sealing safety experiences, Germany *(German)* 4821
thermal cogen. with wheeling, model anal. *(Japanese)* 10850
thermionic CHP convertors, optimal perform. tests 28029
thermophotovoltaic conversion, wood powder combustion 28001
UBOCELL SOFC design, small-scale power generation appls. 43965

cognitive systems
see also adaptive systems; artificial intelligence; automata theory
feature-extracting cells in the neocognitron, thresholds 8527
fighter pilot support systs., cognitive model 26833
NPP operation, intell. human-machine syst. 43823

coherence
see also light coherence
cache coherence, large granularity, for intermittent connectivity 24960
Compton X-ray sources 10159
digital mobile commun., adaptive Rayleigh fading compensation for coherent GMSK sigs. 3433
Fresnel approx., spectral transforms of broadband fields and correl. charact. 41200
harmonizable time series, generalized spectrum/spectral coherence 2511
IF sig. sampling, digital coherent detect. *(Chinese)* 8402
ionos. irregularities study, HF channel 35308
multichannel time series, coherence anal. 40980
ocean wave-atm. turbulence interact., microwave RCS meas. 10472
opt. flow, probabilistic and seq. computation, temporal coherence 2728
photocathode opt. resonator, coherent photoelectron bunch generation 970
tricoherence stats. 8419
underwater acoustic commun., rough surface scatt. effects 17356
wideband fields/coherence fns., spectral transforms. 40774
Wiener/Poisson procs. functionals, coherent-state representations 5742

coherence distance *see coherence length*

coherence length
MQW, coupled, electron escape rate, coherence length, hopping effects 38364
multimode fiber interferometric syst., up- and down-lead fiber sensitivity 9915
InGaAs/InP short-period superlattice, wavefunction coherence length 1739
Nb-NbN SQUID, thin-film quantum point contacts 22728
$YBa_2Cu_3O_7$-$PrBa_2Cu_3O_7$ Josephson edge type jns. 22754

coherent accelerators *see collective accelerators*

coherent antiStokes Raman scattering
CARS thermometer measuring environ. 10057
chiral mol. solns., opt. susceptibilities, nonlin. spectrosc. 31551
glow discharge plasma temp. meas. by fast two-wavelength CARS thermometry 2050

coherent antiStokes Raman scattering continued
order-selective Raman conversion, pumped four-wave mixing 2053
polymer shock opt. microgauge, picosec. coherent Raman spectrosc. 18109
solar receiver/reactor laser diagnostics syst. 10058
coherent optical transients *see optical coherent transients*
coilguns *see electromagnetic launchers*
coils
see also cores; inductors; solenoids; superconducting coils; windings
2D FEM-based eddy current loss calcs. 888
3-phase ring winding leakage reactance, circ. coil 43991
6-phase induction motor, split coil, EM proc. simul. 11021
10 kHz inductively coupled power transfer, elec. vehicle appls. 5344
500 m/s lin. induction launcher perform. studies 15376
AC machines sealed insulation syst. thermal eval., IEEE std. 27670
act. band pass higher order element filters, cct. anal. *(Russian)* 6204
actuators, moving coil, surface micromachining, fluid control syst. 30756
biomedical RF EPR spectrosc./imaging, resonator/surface coil 18475
biplanar gradient coil design, simulated annealing, NMR microscopy 21601
birdcage coil, field inhomog., math. model, MRI appl. 10197
compensated network param. meas. by star-point current injection *(German)* 19368
design optimisation in theory and practice 11705
electrical/electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
electrodynamic vibrators, computational aspects 19925
electron beam block exposure syst., deflector/correction coil calibs. 13450
EM bearings using generalized bias current lin., fault tolerance 40271
EM launcher hypervelocity projectile passage sens. design 15335
EM separators, magnetising coils, thermal state 2192
failsafe contactors, electronic coil power economizers 29639
gradient coils act. acoustic and mag. screening 38054
gradient coils with mag. shielding/eddy shapes, coil shape optim. *(Japanese)* 21598
Hi-8 HD-VCRs, embedded thin film mag. head 9746
HV current meas., slow-wave Rogowski coil studies 4742
induction cooker coil CAD, Pascal program-based 36785
induction furnace, mag. caused dyn. deform., calc. and meas. 44591
induction launchers, projectile transverse motion/stabil. 15301
induction motors, stator insulation testing/eval. 19645
inductive coil mag. cct., design method *(Russian)* 6373
inductive coilguns, driving field/projectile motion synchronisation 15300
inductive sens. modelling by damping, metal *(German)* 34486
inductively coupled coil for implantable med. devices 35154
inductively coupled discharges, analytic models 21789
layered metals with continuous cond. profiles, eddy current testing 37553
lightning current meas. in building columns and girders, Rogowski coil 20123
LIM drive coil winding actuators, control design 44257
lin. induction launcher, multi-sect. transit. simul. 15299
lin. PM motors, design/anal. 11072
machine wear debris monitoring, transducer design 25779
mag. fields from appliances meas., coil probe dimens./uncertainties 3813
mag. film resist./permeab., simultaneous measuring 3957
Maglev, instantaneous current detect., PWM converter *(Japanese)* 44563
Maglev power feed ccts., impedance freq. characts. 11406
MAGLEV train coil syst., transient induced voltages study 11428
magnetless voice coil motor, driving characts. *(Japanese)* 44088
massive current coil, mag. field and pot. eval. 40230
microstrip pickup coil for thin-film permeance meters 17718
microwave LC filters, accurate small air-wound inductor design, program 823
moving-magnet actuator for disk drives, low-profile design 7180
MR vol. coil design/test, high field imaging 26327
MRI, inner ear/brainstem, phased array RF coils 43219
MRI, multiloop coupled resonator coil design 35044
MRI RF coils, thin film high temp. supercond. 10196
NKK DC arc furnaces, technol. *(Japanese)* 20131
noniterative PC-based coil design method 29617
pancake coil for pulsed power amplif. of electrothermal load, freq. effects 36239
pass. multilayer component CAD, EM field computation 6364
PM vernier motors, anal. *(Japanese)* 10974
pot core transformers, coupling coeffs., num. study 38053
power contactor armature posn. sens., rem. auxiliary contacts 29645
power electronics current sens., Rogowski coil-based 21107
quadrature surface coil for MR imaging, design 35040
railgun plasma armatures, dyn./struct. studies 15333
RF coil design, act. screening, NMR appl. 26347
RF transmit coil for transverse magnet based MRI systs. 35064
Rogowski sens., geom. props. 34483
Rogowski transducers for high bandwidth high current meas. 34484
semi-continuous magnetic fields optimisation of coils 23514
shielding by short ferromag. tube 23692
shunt inductance coil isolation, voltage surges *(French)* 29619
single-turn coil impedance, double-layered sphere, varying props. 40235
substation, filter coil overheat fault diagnosis, 7th harmonic *(Chinese)* 44243
three-phase machine ring winding, end turn leakage inductance calc. *(Russian)* 43973
tokamak winding, truncated coil, resist. meas. 2191
transm. line transient current meas., Rogowski coil *(Korean)* 27286
twin relay develop. for automotive appl. 29637
wide-band noise filter, mag. cct. 21400
Si micromachined 2D galvano opt. scanner 17719
coincidence circuits
see also counters
fast timing coincidence syst., gamma speed meas. 34958
NIM ADC, fast VMEbus interface 26237
coincidence techniques
2D posn. sensitive detector for coincidence expts. 10120
act. well coincidence counter meas. of high enriched U material 4229
BNL scintillation detector, unique geom. 43121
complex coincidence matrices, energies extraction, intens. 18346
Compton spectrometer, scintillator nonlin., energy resoln. 18309
High Level Neutron Coincidence Counter, neutron burst meas., cold fusion 18298
liq. scintillator response, COCO, Compton coincidence expt. 18310
multidetector photon intens. interferometry 10113
posn. sensitive β-γ coincidence, multiplexed gamma spectrometry 18363
scintillating tile hodoscope with WLS fibre readout 34928
coincidence techniques continued
TAGS, β^--decay intens. distribs. meas. 10153
γ-ray spectrometers, background spectrum, cosmic muons contrib. 10158
Ge(HP) detector, efficiency calib., 6-25 keV 18324
HPGe detect. with BGO shield, high energy γ-rays resp. 10114
^{22}Na radioactivity, absol. meas. *(English)* 4151
cold-cathode tubes
see also photomultipliers
annular thyratron, microwave-triggered 29816
compact amplifier using time gated beam sources 6512
gyrotron expts., 330 Hz PRF tunable design 12998
BeO CFA tube cathodes, secondary electron emission props. 6475
cold rolling
aluminium cold rolling mill, AC drives, control syst. 44490
metall. indust., thermal proc., optimal control software 44628
strip rolling, proc. output optim. studies 11496
(Bi,Pb)$_2$Sr$_2$Ca$_2$Cu$_3$O$_X$-Ag, crit. current dens., rolling 22717
(Bi,Pb)-Sr-Ca-Cu-O/Ag supercond. composite wires and tapes 14271
cold shortness *see brittleness*
cold working
see also bending; cold rolling; plastic deformation; work hardening
AlN, 3D interconnected porous composites, proc., electronic packaging 146
Pb-acid secondary batts., PbSbSn grid precip. hardening 36560
W-Ir space power thermionic convertor alloys, work fn. expts. 18747
collaborative work *see groupware*
collagen *see proteins*
collections of physical data
effective dose estim. in diagnostic radiology 26510
ITS-90, temp.-EMF ref. fns., thermocouple types 20224
collective accelerators
see also wakefield accelerators
500 kV LIA-30 radial line charging Marx generator pulsed power supply 34753
charged particle laser accel. using plasmoid moving grating 43006
conference, laser-plasma interactions, Monterey, USA (Oct. 1993) 22
cyclotron autoresonance accel., beam energy limit 43016
dielec.-loaded reson. laser accelerator 34755
electron accel., relativistic electron plasma waves, laser opt. mixing 10081
electron-beam accel. by cyclotron-autoresonance interact. 18282
energetic light ion beams in PBFA 26021
extraction geometry B-diodes, PIC simulations 26048
extraction magnetically insulated diode study on Gamble II accelerator 26094
FET-switched induction accelerator cell 36410
four stage RHEPP accelerator testing, power supply 36302
hazardous pollution control, pulsed power accelerator appls. 36815
heavy ion fusion driver beams, longitudinal dynamics 26051
heavy ion ICF driver beams, charge neutralisation 26052
HI fusion accelerator research, LBL 43005
high voltage high brightness electron accelerators 10082
high-power X-band microwave generators, LLNL expts. 34827
induction accelerator, high current, relativistic magnetron 34745
induction accelerators, ion beam vel. control 26092
ion accel. by relativistic electron beam, neutral gas ioniz. 26024
L10M lin. induction accelerator 36362
LIA-30 lin. induction accelerator, 6 MJ capacitor bank 36633
lin. induction accelerators, 500 kV Marx generator 36361
lin. induction accelerators, relativistic microwave electronics 34752
lin. inductive accelerator, pulsed power supply 34817
LMF triaxial MITL voltage adder syst. Marx generator 36300
particle accel. in lab. plasmas 4034
PBFA II, applied-B ion diode, ion source divergence 26044
PBFA II, mag. insulated ion diode, meas. 26045
PBFA II ion diodes, 3D PIC simulations 26047
PBFA-II ion diode, field profile 26046
plasma accelerator, azimuthal electron drift, num. simul. 26085
plasma beat wave accelerator (GeV), prospects 18170
pos. ion driver, induction adder 36301
relativistic klystron two-beam accelerator, RF power extraction 10090
SABRE pos. polarity inductive adder MITL, refl. waves 34741
standing wave FEL two-beam accelerator, beam-break-up 34823
H^- extraction from mag. multipole plasma source and accelerator 10102
colliding beam accelerators
see also linear colliders
beam-beam interacts., large crossing angle 34815
BEPC accelerator control syst. design 18195
central tracking in high lumin. future colliders 4111
coherent bremsstrahlung, SLAC PEP-II and KEK Tristan-B B factories 40262
coil winder simul. for Superconducting Supercollider 22770
conference, e^+e^- colliders, Benalmadena, Spain (Oct./Nov. 1992) 5505
conference on accelerator physics, Dallas, USA (1992-1993) 36886
DAΦNE, DANTE control syst., Macintosh/LabVIEW based 18236
δf algm. for beam dyn. 26084
electron cooling, medium/high energy 34774
electron-proton colliders, linac-ring type and γp colliders 10078
Eloisatron, beam-beam/SR considerations 4097
Eloisatron, injector design 4100
Eloisatron, particle detect. 4231
Eloisatron beam dyn. 4101
Eloisatron dipole magnet design 4099
Fermilab Tevatron collider, bunched beam stochastic cooling 34777
fiber scintillating detectors appls. 4197
gamma-gamma collider, crab crossing 26067
gamma-gamma collider, detector requirements 26140
gamma-gamma colliders, high intens. lasers 26064
hadron colliders, scaling laws, cost optim. 4098
hadron supercolliders, wide-band transverse feedback 4108
hadron supercolliders study 4043
hadronic colliders, transverse beam dyn./losses 4103
HERA, collimators, diagnostic tools 10085
HERA, large electron spin polariz. 34816
HERA/LHC, dyn. aperture, truncated Taylor maps 4085
high lumin. TeV electron accelerators, laser interact. 4075
KEKB bunch feedback systs., 2-tap digital filters 43015
Ku band second harmonic gyroklystron expt. 6487
LEP2 at CERN, cryoplants 4037
LEP2 cryogenics, large indust. control syst. appl. 18239

colliding beam accelerators continued
LEP, large electron spin polariz. 34816
LEP accelerator beam dump control syst. 18198
LEP accelerator pretzel separators, control syst. 18261
LEP beam bumping kicker syst. high power pulse generator 34821
LHC accelerator, Pb ion accumulation scheme 34811
LHC expts., level-1 triggers 18387
liner within proton collider beam pipe, many holes impedance 4102
materials behavior in high radiation environ. 4044
muon collider, stochastic cooling 34781
muon colliders, stochastic cooling 34780
particle collider, high luminos., rad. damage, interact. region 4110
particle colliders, tracking and pattern recogn. 4112
perform. limitations beyond LHC/SSC 4096
proton accelerators, LF coupling impedance calc. 18216
Proton Synchrotron, LHC, transverse emittance conserv., low energy 4105
RD13 project (LHC), software engng., CASE tools 18228
RHIC, stochastic cooling, intra-beam scatt. 34778
RHIC accelerator control syst. design 18172
SPS/LEP commun. control network evol. 18197
SSC, emittance growth, computer simul. 26037
SSC, emittance growth, noise 26036
SSC, long. beam dyn., RF noise 4092
SSC, long. damper, design 4107
SSC, opt. fiber links, radiation effects 18206
SSC, plastic scintillator develop. 26216
SSC, transverse feedback systs. 4109
SSC control syst., develop. environ. 18229
SSCL, RF control, obj. oriented design approach 18277
storage ring, 100 TeV, transverse feedback 4104
storage ring, transverse injection oscill. dampers, requirements 4106
Tevatron collider, QCD, CDF, D0, recent results 34740
tracking calorimetry detector requirements 4113
tracking devices at future colliders, readout and data acquisition 4232
VLEPP based photon lin. collider, charged particle background 26028
$e\gamma/e^-e^-$ colliders, working group report 26063
$\gamma\gamma$, high energy, electron-positron collider, QCD 26027
μ cooling, high-intens. bunches prod. 34773
H^- injector design for SSC RFQ 4091
^4He superfluid cryogenics for LHC 4048

collimators (optical) *see optical collimators*

collision avoidance *see path planning; position control; robots*

collision avoidance, telecommunication *see telecommunication congestion control*

collision sequences, focused *see sputtering*

colloid chemistry *see colloids*

colloids
see also Brownian motion; electrophoresis; emulsions; gels; magnetic fluids
DI water filters, microcontamination prevention, IC fab. 38544
dye nanocrystals doped in polymer matrices prep. 22783
piezoelec. bimorphs, forces meas. in colloidal systs. 18114
rhodamine dye colloid solns., scatt. media, laser action 31203
sticky particles, pair distrib. fns./atten. rates 15409
surface-plasmon-reson. biosensor, particle-enhanced sensitivity 34602
ULSI, ILD film planarization, silica slurry/ammonium salt CMP 38962
CdS, colloidal microcrystallites, CW self-focusing/PM 31531
n-Si/Pt colloidal particle electrode for photoelectrochemical solar cells 5221
SiO_2, piezoelec. langasite and quartz crysts. polishing/etching 30581
TiO_2, microporous electrode, PV study 28803

colorimeters
see also colorimetry
fuzzy sens. for colour perception 3848
portable photometer, amniotic fluid, bilirubin conc. determ. 26307

colorimetry
see also colorimeters; spectrochemical analysis; spectrophotometry
annular color filters, opt. syst. polychromatic response control 39541
CCD TV camera test set *(Croatian)* 3665
endoscope, electronic, colour correction, colorimetric colour reprod. 26312
fuzzy sens. for colour perception 3848
gas/hydrocarbon transformer oil, furfuraldehyde anal. 14045
TV picture monitor class. and appl. *(Croatian)* 3679

colour
see also colour graphics; colour vision; image colour analysis
1/5-inch 270000 pixels color image sens. *(Japanese)* 3271
2D FIR-median hybrid interpolation filter design for HDTV *(Korean)* 42601
3D LCD on VLSI die, electrostatic anal. 42875
adaptive exposure image input syst. for obtaining high-quality colour inform. 8529
annular color filters, opt. syst. polychromatic response control 39541
CCD image sens., moire effect surface shape meas. 10017
CGH, multicolor imaging 7836
color-image quantization, fast binary splitting tech. 2591
conical holographic stereogram 7832
double colour-pumped oscillator, high-power beam steering by Brillouin four-wave mixing 15104
dye color/conc. detect. by realtime opt. sens. *(Japanese)* 18138
dye-mixture laser tunable in primary color regions by lin. variable filter 39685
endoscope, electronic, colour correction, colorimetric colour reprod. 26312
extraction of color texture by neural nets 41214
field-emission flat panel displays, beam focusing 18009
global color constancy, obj. recogn., illum.-invariant props. 2599
image proc./transm. technols. *(Japanese)* 41745
indicator and control coding *(Italian)* 17994
isolated noise detect. and reduction in color images 2851
LCD kinoform, animated color 3D image 7830
LCDs, field-seq.-color tech. 7408
materials, dichromatic refl. models 8475
multi-color rainbow hologram recording, energy utilization coeff. *(Chinese)* 15165
NEC 24 cm TFT color LCD module, develop. *(Japanese)* 3937
NEC 24 cm TFT full-color LCD module, develop. *(Japanese)* 3936
NEC high-dens. color display tube, Earth magneto effects *(Japanese)* 3938
optimal color filters for multi-illuminant color correction 39537
poly(p-phenylene vinylene), color changes in photolum., doping/conversion time effects 1794
proximity sens. syst. for spatial sens. and colour perception 42776

colour continued
rainbow shadow holograms, single exposure color mixing tech. 7835
RGBW fluoresc. lamps, color temp. control *(Japanese)* 11454
temporal-color space anal. of refl. 2598
three-color holography, wavelength selection 7837
two-colour dye laser syst., four-wave rot. Raman mixing 14724
variable colour polymer blend LED 7475
vol. recording media color holographic gratings, ang. selectivity 23470
Ag halide refl. holograms 7838
$Ca_3Ga_2Ge_3O_{12}$:Cr^{4+} single crysts., growth and photolum. 28710
Cu surface two-color photoemission on fs laser pulse irrad. 38208
KBr electrolytically colored crysts., nonlin. amplit. recording of holographic gratings 23469
Nd:YAG/CO_2 laser three-color opt. range finding 7863
NiO electrochromic films, sputtering atm. H_2 content effects *(Japanese)* 37489
TeO_2 HF two-color laser radiation splitting 1752
ZnCdSe-ZnSe superlattices, stimulated blue light emission mechanisms *(Japanese)* 38340
ZnS:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
ZnSSe:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561

colour blindness *see colour vision; vision defects*

colour centre lasers
methane mol., saturated absorpt. reson., R-line 7734
progress and trends 39748
tunable lasers for rare-earth laser materials diagnostics 15200
LiF cryst. F_2^- colour centre laser luminesc. quantum efficiency 1912
LiF:F_2 color center laser progress 39727
LiF:F_2^+ laser pumped by a flash lamp, multimode oscill. 7596
NaCl:OH cryst. color centers stable at RT, ps lasing 14827
NaCl(OH^-):$(F_2^+)_H$ color center laser, improved output 14831
SiO-LiF:F_2 evanescent field thin-film opt. amp. 14775
Ti:sapphire laser, flashlamp pumped narrow-linewidth, dual-wavelength operation 14793

colour centres
diamond:He^+ film detector, Raman/photoluminesc. charactn. 43089
SiO_2 fused fibre, pulsed UV laser radiation, photodegradation and nonlin. effects 39362
Nd:silicate glass fiber waveguide lasers review 31223
SiO_2 pure silica fibres, radiation colour centres 22844

colour filters *see optical filters*

colour graphics
2D colour pattern load anal., DSS tool supporting DSM 27053
dial-up rem. access image database 16829
differential operators for color edge detect. based on human vision 16345
dithering, fast source-based for networked digital video 16070
graph theoretic method, color scene matching 32961
head-mounted high-resolution field-sequential display for virtual reality 18017
TMC22090 video encoder for computer graphics in TV format 29267
VGA colourmap optim. methods compared 33022
video decoding algm. mapping, mixed sig. IC 8553

colour perception *see colour vision*

colour photography
adaptive exposure image input syst. for obtaining high-quality colour inform. 8529

colour television *see television*

colour vision
see also eye
color-image quantization, fast binary splitting tech. 2591
global color constancy, obj. recogn., illum.-invariant props. 2599
HID headlamps, in-traffic perform. eval. 28161
images anal., biol.-like neural net model 41212
materials, dichromatic refl. models 8475
optimal color constancy, generalized diagonal transforms 2600
temporal-color space anal. of refl. 2598

coma *see aberrations*

combination locks (electronic) *see digital circuits; safety systems*

combination scattering spectra *see Raman spectra*

combinational circuits
see also combinational switching
1.5 V full-swing BiCMOS dyn. logic gate cct., LV BiCMOS VLSI 12424
(31, 9) RS codecs, fast prototyping complex digital systs., FPGAs 6117
A, testable design of logic ccts. under highly observable condition 12456
aliasing computation, fault simul., fault dropping 21219
analog combinatorics and cellular automata 21639
AND-OR-XOR expansion of logic fns., upper bound on no. of products, CMOS 29195
ATPG algms., combinat. gate-level designs, backtracing 12421
B^2CMOS, bootstrapped BiCMOS gate for LV appls., HSPICE simul. 12477
BDD-based algorithm for computation of exact fault detection probabilities 29178
BiPMOS pull-down device struct., LV dyn. BiCMOS VLSI, device-level anal. 21285
Boolean neural net, dynamically configurable combinatory logic array 29451
bounding fault detection probabilities in combinational circuits 37733
CMOS digital combinat. ccts., stat. delay charactn. 13891
CMOS iter. ccts., stuck-open faults modelling 12474
CMOS logic ccts., stuck-open fault detect. 12429
CMOS logic gates testing for realistic shorts 6083
CMOS power dissipation at logic level, simul. mapping 21199
CMOS VLSI ccts., design optim., genetic algm. 39015
cumulative bal. testing of logic ccts. 29135
delay fault coverage and test set size for combinat. ccts. 12402
delay fault testability of combinat. ccts. 12469
delay-verifiable combinat. ccts. synthesis 21265
embedded modules testing, multi-bit-paths sensitisation 21241
fault simul. method, primary output based *(Korean)* 21274
fault simul. of digital designs on parallel proc., distrib. algm. 37685
FPGA logic implement., optimisation techs. based on genetic algms. 6108
FSM compiler and simulator 29133
fuzzy logical ccts., fund. 6138
GLFSR test pattern generator for BIST 6085
hierarchy use in logic cct. fault simulation 21206
high-level synthesis, practical method from VHDL 28964
I_{DDQ} subset selection algms. for bridging faults 6084
iRULE, fast hot-carrier reliab. diagnosis using macro-models, MOS digital logic 29114

combinational circuits continued
k-bounded combinat. ccts., fault detect. method *(Korean)* 12410
knowledge modelling, hierarchical of combinat. cct. *(Japanese)* 5970
large combinat. ccts., fault models, zero aliasing compression 37749
layout driven test generation for CMOS combinat. ccts. 6863
low-power digital ccts. based on adiabatic-switching 636
LUT-based FPGA technol. mapping, nominal delay minimization 12422
min. test sets for locally exhaustive testing 12466
multilevel logic optim., pseudo max. sets of permissible fns. 21204
multilevel logic optim., redundancy addit. and removal 21202
multilevel logic optim. cct. activity driven, low power oper. 21201
multilevel synthesis, coherent optim. strategies 21203
multiple design error correction for combinat. ccts. and finite state machines 21177
multiple fault diagnosis of combinat. ccts., efficiency improvements 12444
multiple fault test generation, efficient techs. 12441
multiple stuck-at fault test generation for combinat. ccts. 644
multiple-line redundant combinat. ccts., anal. 6129
multiple-output ccts., efficient test response compression 6087
multiplexer logic network design, spectral method 6059
negation-limited cct. complexity of clique fns. 29173
NEUDEM, neural network based ATPG for digital ccts. 648
NORA dyn. logic cct., technol. ,mapping algm. 21197
nuc. reactor digital ccts., automatic testing pattern generation 4770
parallel eval. algm. for fast fault simul. *(Korean)* 21271
parallel logic simul., benchmark ccts., dyn. scheduling 12428
partitioned struct. description fns., combinat. cct. path anal. *(Japanese)* 6056
path delay fault testing, cube partitioning 21233
pipelined pseudo-exhaustive testing, simulated annealing, combinat. cct. partitioning 29113
PLA self-testing checkers for 1-out-of-n codes 21181
power constrained logic cct., optimized perform., single independent path anal. 21284
prog. space compactors selection for BIST 12459
redundant divider design, DCFL GaAs and CMOS implement. comparison 29201
redundant faults in combinat. ccts., test generation 12447
scan testing accel. in IEEE 1149.1 archits. 6077
scan-designed ccts., test time reduction, sliding compatibility 12472
self-checking ccts. with combinat. logic, fail-safe eval. 37741
self-checking combinat. devices constr. 12417
self-checking combinat. logic design, weighted-output based approach 29153
self-checking combinat. logic synthesis techs. 21226
self-timed ccts., self-checking combinat. logic and seq. machines 37739
semi-deterministic fault-independ. test gen., ATPG perform. impact 21182
shortest clock period achievement by inserting min. amount of delay 29149
shortest signature analyzer 12418
single bridging faults diagnosis in CMOS combinat. ccts. 13883
single test point insertion, testability anal. 5954
SOPRANO, ATPG for stuck-open faults in CMOS combin. ccts. 21225
spectral coeff. calc., cct. output probabilities 2513
spurious sigs. detectability in combinat. ccts. 12455
static timing analyzers, sensitizable path anal., reconvergence method 28931
std.-cell VLSI cct. design, timing and area optim. 21256
std.-cell VLSI cct. design, timing/area optim. 37706
stuck faults modelling in CMOS nonthreshold combinat. ccts. 21270
stuck-at fault simul. 12443
switch-level test generation, sync. and asynchronous ccts. 21242
test synthesis, data transfer anal. based behavioral description 29198
tight lower bounds on detect. probabilities of single faults, internal sig. lines 6123
time optimized technol. mapping syst. for logic CAD *(Korean)* 12411
TTL combinat. ccts., random test input generation 12450
VLSI bipolar cct. simul. techs. based on waveform relax. 38998
VLSI ccts., hierarchical test anal., random BIST 37694

combinational mathematics *see combinatorial mathematics*

combinational switching
see also combinational circuits
torus networks, struct. commun. 16449
two-level logic minimization, overview 630

combinatorial circuits *see combinational circuits*

combinatorial mathematics
see also graph theory; sorting; travelling salesman problems; trees (mathematics)
AC motor multirate motion control algms. parallel proc. 10966
authentication and secrecy codes, constr. 40694
binary matroid ports learning 5782
cellular mobile networks, freq. assignment 25423
computer commun. networks, topol. design, simulated annealing 33542
computer commun. networks with unreliable links, capacity assignment 3209
computing $\pi(x)$, $M(x)/\Psi(x)$ 20554
cyclic convolutional self-orthogonal codes, combinat. constr. 32135
design spec. component selection, genetic algm.-based 37024
distrib. network expansion planning, multi-stage branch exchange method 27151
distrib. network loss minimization re-config., genetic algm.-based *(Japanese)* 43746
distrib. network optimal switching planning, fuzzy inference-based 27179
distrib. network optimal switching planning, fuzzy inference appl. 19268
$E_l/E_k/1$ queue, restricted min. lattice paths 20506
error-correcting codes, Gilbert channel, perform. eval. 15749
exact anal. of priority queue algm. for random variate generation 5754
fighter aircraft target detect., PRF set selection 4437
generation expansion planning, parallel GA, parallel proc. *(Japanese)* 27086
Godel's theorem, historical background 20557
Hopfield neural combinat. optim. algms., math. prog. formulation *(Japanese)* 28632
ident. schemes, short-size keys, design 32167
kappa distribs., symmetric, MRPP rank tests, empirical powers 28592
key distrib. patterns, Minkowski planes 40693
maint. scheduling, Hopfield neural net appls. *(Japanese)* 43893
modular arith./dist. criteria, tiling, polyominoes 40644
monadic quantifiers nos. in monadic Σ_1^1 28622
multisecret sharing schemes based on transversal matroid, access struct. *(Japanese)* 40624
optim., equivalence of dyn. systs. 11948
optim. problems, annealing imitation method modif. 28639
optimisation, combinat., constrained Potts systs. 777

combinatorial mathematics continued
parallel bodies, vol., probabilistic Steiner formula 37242
power syst. contingency screening method, genetic algm.-based *(Japanese)* 26994
power syst. generation expansion planning, parallel genetic algm.-based 19206
quasi-symmetric 2-(28,12,11) and 2-(36,16,12) designs 32074
randomization procedures, Gray codes 2398
randomness, invariant for no. representations 20547
resilient fns. and orthogonal arrays, bounds 28618
S_n-modules as codes, Specht modules 40584
secret sharing schemes based on combinat. designs *(Japanese)* 40621
separable convex fn., minimisation, greedy algm. 37284
SMDS networks, link set capacity augmentation algms. 16435
stochastic independence, alg. independence and abstr. connectedness 261
switching systs. carrying multi-channel traffic streams, combinat. anal. 41930
topol. reconstruction, smooth manifold solid from occluding contour 24437
translational combinat. metrics, plane/codes tilings 40643
transm. network expansion planning, neural net/genetic algm.-based *(Japanese)* 10716
word problem and determ. of finite abstr. group 20539

combinatorial switching *see combinational switching*

combined cycle power stations
1 MW PFBC combined cycle plant cyclone separators 27589
10 MW pressurised CFBC combined cycle pilot power plant 27586
42.5 MW paper mill combined cycle CHP project, UK 4852
70 MW Four Rivers combined cycle PFBC CHP project, USA 27601
300 MW combined cycle power station operator training simulator *(French)* 27594
360 MW Karita PFBC combined cycle power project, Japan 36026
463 MW Vuosaari B combined cycle CHP project, Finland 43926
600 MW MHD steam combined cycle power plants 20014
700 MW Rye House combined cycle power plant project, UK 10864
750 MW Franken II combined cycle power plant project, Germany *(German)* 43934
1800 MWe combined cycle CHP district heating project, Russia 27593
2500 MW Black Point power plant distributed control project 19528
air-blown fluidized bed GCC 10866
ASPEN PLUS shell, combined cycle power plant simul. package 27582
automation, rem. operation 43941
bottoming cycles, Kalina/steam cycle comparison 36022
CCGT plants, repowering from steam turbine plants 43935
CHP plant step swirl combustor perform. optim. 36025
CHP plants, PFBC gas expander design 27588
CHP power plant telecontrol projects, Denmark *(German)* 4850
CHP project, gas/refuse-fired, Denmark 4851
circulating bed granular dust filter develop. 27590
coal usage, combustor 27602
coal-fired 27583
coal-fired combined cycle power generation concepts, USA 43927
combined cycle/cogeneration systems, IEE Colloquium, London (1995) 36882
conference, Calcutta, India (1994) 5492
cooling syst. design economics, UK 27596
diesel combined cycle power generation concept 43937
district heating, characts. 10865
dry low NO_x combustor/IGCC technols., Tracy power station 43928
dual gas turbine combined cycles, thermodynamics modelling 19525
endoreversible Carnot combined power plant, max. power 36029
Enel power plant automation, user interface *(Italian)* 43929
Ferndale 245 MW combined cycle plant, location, environ. aspects 10867
fossil plant operation improvement, compact simulator 43908
freq. regulating duty dyn. response characts. 43932
gas turbine power plants, freq. control capability 43933
gas turbine systs., math. modelling studies 36023
generating plant freq. control capability, IEE Colloquium, London (1995) 20254
heat recovery steam generator designs 27585
heat recovery steam generators 27584
ideal combined cycle power station, design considerations 27581
IGCC, gasifiers, fuels, environ. impact, economics 4853
IGCC power plant hot-gas cleanup technols. 27591
irreversible heat transfer, exchange equipt. allocation 19555
Kalina heat engine appls., thermal anal. 27598
lignite fired power station technol. develop. *(German)* 43911
MHD steam combined cycle, natural gas fuel 27654
Mitte district heating power plant, Berlin 27597
MS 9001 F gas turbine for 50 Hz power plants 43925
multivariable controllers, perform. eval. 43931
natural gas fired combined cycle, perform. anal. 27599
natural gas fired combined cycle plant, efficiency improvement 10871
natural gas-fired power plants, develops. 10863
natural-gas-fired combined cycle CHP plant, NO_x emissions control 10868
nuc. plants, repowering, combined-cycle steam turbine/gas turbine plants 36031
PFBC combined cycle power plant experiences, UK 27595
PFBC power plant particulate control, FIBROSIC filter tests 27600
power syst. peak load capacity planning studies, China *(Chinese)* 35574
pressurised CFBC combined cycle power plant simul. 27587
reliab./availability guarantees 19523
Rye House combined cycle gas turbine power plant 36024
Schwabisch Hall (Germany) combined cycle power station and network control technol. *(German)* 19527
SOAPP software, advanced power plant design 43921
SOFC/combined cycle power generation proc. studies 27653
standardised modular power equipt. 36030
steam cycle develop. prospects overview 10869
steam power plant repowering projects design, Italy 10870
steam turbine design, combined cycle recovery units 35999
Suomenoja combined cycle CHP plant control upgrade, Finland 43936
T-150-7.6 steam turbine plants, low pot. sect. 36000
technol. improvements *(German)* 4824
three-press. steam turbine installations 36027
turbines, clean combustion technol. review 43930
two-stage endoreversible combined cycle, max. specific power output 36028
ultra-efficient desalination, dual purpose plant 28201
Westinghouse SOFC technol., power plant appls., Japan 43958
CO_2 flue gas clean-up projects, Russia 27592

combined cycle power stations continued
NO$_x$ reducing combined-cycle power plant availability anal. 19529
combined heat and power generation *see cogeneration*
combustion synthesis
diamond, oriented growth, combustion flame lin. vel. effect 37378
diamond film deposition in hydrogen-oxyacetylene combustion frame 28822
diamond film growth, low press. premixed ethylene-O$_2$ flames 5859
ferrites, self-propag. high temp. synthesis 1577
microcrystalline diamond deposition, inert-gas curtain combustion-flame method 388
SOFC components, perovskite oxides combustion synthesis 44311
comets
high-resoln. imaging, bispectral techs. 33140
COMFET *see insulated gate bipolar transistors*
command and control systems
ABB BWR 90 design and characts. *(French)* 43838
ASAT battle mgt., evol. prog. 10593
C^2 systs., game theory/tree lookahead archit. appl. 26814
Canadian patrol frigate multi-sens. data fusion implement., perform. eval. 18981
Cassini spacecraft, command and data subsystem 10367
embedded real-time syst., effective software reuse 26813
fire support test syst., distributed C^2 simul. 26815
H-II launch vehicle, commun. subsystem develop. *(Japanese)* 43427
IEEE MILCOM conf., Boston, USA (1993) 36897
INSAT-2 series satellites, telemetry, tracking and command transponder 35231
intrusion detect. syst., rem. operated, security appl., design 40904
microsatellite, telemetry/commun. subsystem design 33968
mil. tracker perform., eval. 18984
Mission Effectiveness Model ballistic missile defense simulator 26842
multitarget tracking/data fusion in air-land syst. 35387
NORAD/USSPACECOM command center, obj.-oriented decomp. 26820
nuc. attack C^2 sigs., Bayesian interp. 43576
Optical Communications Demonstrator, control proc. syst. archit. 17314
RF Mission Planner, warfare commun. simul. 26816
S-band TT&C up link transmitters, DDS 42740
strategic (military) commun. networks, HiFiNS simulator 26819
Theater Air Command and Control Simulation Facility 26838
Theater Air Command and Control Simulation Facility 18702
unmanned underwater vehicles characts. 11410
command, control and communication systems *see command and control systems*
commerce
see also banking; business data processing; credit transactions; finance; international trade; investment; marketing
access network evol., market and regulatory issues *(English, Italian)* 33668
Asia, satellite TV deregulation 42567
Asia, telecomms. sector reform 3013
Asia Pacific region developing economies, computer security 3068
Asia-Pacific commun. satellites, AsiaSat I and Star TV case study 3650
Asia-Pacific countries, operator privatization vs. alternative restructuring methods 3007
AT&T Switching Systems Business Unit, customer-focused mfg. 16538
AT&T Switching Systems Business Unit, TQM 11626
ATM, evol., broadband services 8804
Australia's deregulated telecomms. indust. and Telecom 2999
automated internat. telecomm. charge card service, "89" service 3120
BT's architectural approach to develop. of products, systs. and services 16543
business cash-in-advance economy, stationary sunspot equilibria 28379
business mgt. challenges, Russia 36972
business proc. re-engng. concept, overview 36970
Chile, telephone services market 3111
corporate mgt., inform. age consequences 11628
defense technol. indust. base, preliminary forecast methodology 11644
design for manufacturability within Motorola, Bandit and MicroTAC programs 11704
developing countries, impact of accounting rates upon telecomms. carriers 3006
developing countries, investment in telecomms. infrastructure 3015
developing countries, telecomms. business legal issues 3014
distrib. mgt. strategy, elec. utility benefits 27152
Eastern and Western Europe, telecomms. engineers 16545
EDI, commercial uses/legal aspects 3155
EDI and inter-firm rels., coord. proc. standardization 33482
elec. power market overview *(Chinese)* 43700
elec. utility energy policy overview, Europe 43694
elec. utility operation/maintainance, business strategies adoption 10637
energy consumption change forecasting, Slovenia 26932
engng. entrepreneurship develop., academia role, India 5557
European energy economy prospects w.r.t. fixed carriers *(German)* 4527
European telecomms., towards more dyn. *(German)* 33322
European Union, infrastructure competition strategy 8808
European Union's telecomms. policy, infrastructure competition 8807
foreign ownership in telecomms., policy perspective 33328
global marketplace, product design, develop. and mktg. for different cultures 41602
global marketplace for telecomms. services and networks 3038
global networks, emerging inform. technols. 33309
global pers. commun. services 3362
Global System for Mobile Communications (GSM) 42285
HDTV and East Asian newly indust. economies 3673
high technol. R&D, internat. patenting overview 36966
high-technol. mfg., business cycle anal., USA 11673
Hong Kong, telecomms. hub and bridge, Chinese market 3045
Hong Kong and Asia, EDI for paperless trading 3063
India, telecomms. liberalisation 3022
indust. productivity paradox, theoretical anal. 11660
inform. and commun. technol., impact on business organization 8796
INMARSAT-C maritime appls. *(Croatian)* 3502
interactive EDI, IT and commerce in 21st century 41642
international business, role of international communication 28365
Internet, commercial services 25013
IS develop. project risk mgt., case study 36971
ISO 9000 QC Standard revision, small business perspective 11829
Japan's telecomms. indust., competition and regulatory reform 8811
Japanese telecomms. indust. in 21st century, indust. struct. 8795
key industries selection, Saaty's AHP-based 11659
Korea Telecom's business strategy, CATV indust. in Korea 3678
commerce continued
LAN/WAN aspects of enterprise computing 33479
Latin America telecomms. privatization, macroeconomic policies/strategies 3008
Maitland report, commun. and develop. ten yrs. 3003
Maitland Report, telecomms. and develop. 3036
manager selection/training/employment in Russian market economy 82
multimedia, business plans and develop. *(Japanese)* 25124
multinational enterprises, R&D technol. transfer overview 36968
NAFTA and telecomm. opportunities in Mexico 3021
New Zealand, telecomms. and broadcasting deregulation 3037
New Zealand telecomms. regulation, Clear Communications vs. Telecom Corporation 33307
Nikola Telsa mobile telephone syst. NMT 450, functionality upgrading project 33857
NTT, customer globalization trends 41590
NTT's overseas carrier business 41589
NTT group's overseas activities 41587
NTT internat. cooperation activities, present status 41588
Ohio metropolitan area, telecomms. infrastructure needs 8798
Pacific Rim, financing telecomms. infrastructure develop. 3012
Pacific Rim's trade in telecomms. equipt., Chinese case study 3018
PanAmSat, private global satellite service provider 3047
PCS retailers, network infrastructure wholesale opportunities 25430
petroleum refinery/elec. utility collaboration, overview 5414
plaintext signatures for E-mail, legal aspects 3148
post-takeover R&D fns. integrat., empirical study 36943
product develop. mgt., product and cycle-time methodology 37004
product diversification strategies, Sweden 20352
RACE 2087 TITAN project, opt. access network risk assess. and economics *(English, Italian)* 33987
short-term intersectoral factor immobility 28380
Singapore Telecom, privatisation/regulation 3009
Spain, telecomm. network facilities in competitive environ. 8809
Sri Lanka's telecomms. infrastructure, private sector contrib. 3032
submarine cable network procurement in 2000 and beyond 3034
tech. intell., R&D mgt. appl. 20356
technical messages from business professionals to international audiences 28299
technol. innovation strategy, dominant design anal. 20374
telecomm. network evol. in competitive environ. 33312
telecomm. networks, compatibility std. and competition economics 33320
telecomms., aspects of future network planning 33310
telecomms., cost reductions by coalitions in internat. network 33300
telecomms., dyn. network control strategies in competitive environ. 33313
telecomms., universal service reform 33304
telecomms. indust., competitive intell. gathering 3054
telecomms. indust., internat. cooperation 3027
TQM programme neg. impacts, case study 11642
US telecom. indust., firm level efficiency 33324
US-Japan telecomms. trade, Japanese inform. infrastructure develop. 8799
USA, ATM and frame relay services 8816
USA, microwave radio market 25224
USA, regulatory climate for foreign investment in telecomms. 3030
USA and Japan, inform. infrastructure develop. 8887
USA local telecomms., competitive self policing 41593
USA national inform. infrastructure initiative, public vs. private objectives 8793
Venezuela, telecomms. develop. 3023
Venezuelan telecomms., network planning 2985
venture capital, IEE Colloquium, London (1995) 36860
VSAT service in Pacific region 3516
worldwide telecomms. networks, investment in transitional economies 3005
Nd:YAG laser radar for wide-area fire detect. 17451
commissioning
see also installation
10 MW pressurised CFBC combined cycle pilot power plant 27586
110 kV switchyard PYRAMID digital control syst. installation project 36483
908 MW thermal power plant control/monitoring integrat., Australia 19508
1320 MW NPP auxiliary power syst. hist., UK 19415
building services projects CAD, STEP technol. 11315
gas turbine packaging proc., installation/startup benefits 27570
induction motor drive self-commissioning, param. estim. accuracy 5297
series compensated power syst. protection relays, perform. studies 4709
steam power plant distributed control, commissioning perform. audit, USA 27561
common channel signalling *see telecommunication signalling*
common-sense reasoning
image seq. interp., qualitat. predicting rels. 16405
MOS analog IC design automation, automated cct. correction, qualitat. reasoning 21454
power syst. short-term operational planning security assess. 27109
semi-quantitat. MBR syst. for ECG diagnosis 10239
communicating sequential processes
automatic train protection syst. develop., formal methods appl. 36744
commun. software evol., design method 3071
finite state machines, diagnostic tests 2904
multiphase commun. protocols, constr. 2936
protocol modeling/validation, symbolic simul., theory/appl. 2933
protocol specs., message collisions, automated synthesis 2935
rewriting syst., communicating machines with identical symmetrical/dual processes 2962
single-link and time communicating finite state machines 2934
TRAPPER approach for monitoring T9000 proc. 37805
videoconferencing, transputer-based implement. of video codec interface 33616
communication aids for handicapped *see handicapped aids*
communication cables *see telecommunication cables*
communication channels *see telecommunication channels*
communication complexity
asymptotically optimal election on weighted rings 24743
bidirectional networks, link failures, global computation complexity 41510
cascade vulnerability problem solving algm. 33538
cell size vs. receiver complexity assess. in urban areas 9325
commun. network constr., online algms. 16517
const. space symm. breaking, nonexploratory self stabilization 33585
deterministic commun. complexity, lower bound methods 33284

communication complexity continued
  Las Vegas protocol, commun.-randomness tradeoff for two-proc. systs. 24814
  low complexity network sync. 41393
  message optimal protocols for fault tolerant broadcasts/multicasts 24833
  message terminating algms. for anonymous rings of unknown size 41895
  O(1) quorum consensus protocol tailored for client/server archit. 41879
  OSI Directory Information Base, hash-based high-perform. name resoln. method *(Japanese)* 33438
  parallel proc. for test generation, perform. anal. 17662
  partial-order transport service for multimedia and appls. 2920
  private computations, integers 41532
  radar pulse train deinterleaving via Hough transform 34141
  randomised distributed agreement protocol for asynchronous networks 33279
  reversible logic, encoded arith. 8699
  secure voting, part compatible homomorphisms 32184
  small diam. spanning tree maint. 25052
  vector-valued fns., commun. complexity 24737
  wireless commun., filter struct. for equalization and diversity combining 33875
  witness hiding protocols, partial knowledge proofs/simplified design 32168
  workstation clusters, data partitioning for networked parallel proc. 41880
communication congestion control *see telecommunication congestion control*
communication engineering education *see telecommunication engineering education*
communication equipment *see telecommunication equipment*
communication equipment testing *see telecommunication equipment testing*
communication exchanges *see telecommunication exchanges*
communication links *see telecommunication links*
communication network management *see telecommunication network management*
communication network reliability *see telecommunication network reliability*
communication network routing *see telecommunication network routing*
communication networks *see telecommunication networks*
communication overhead transmission lines *see telecommunication transmission lines*
communication power supplies *see telecommunication power supplies*
communication services *see telecommunication services*
communication signalling *see telecommunication signalling*
communication standards *see telecommunication standards*
communication terminals *see telecommunication terminals*
communication theory *see information theory*
communication traffic *see telecommunication traffic*
communication traffic recording *see telecommunication traffic recording*
communication transmission lines *see telecommunication transmission lines*
communications applications of computers *see telecommunication computing*
communications applications of control *see telecommunication control*
communications computer control *see telecommunication control*
communications computing *see telecommunication computing*
communications control *see telecommunication control*
community antenna television
  hybrid fiber/coaxial CATV network power distrib. systs. 42627
  Er doped fibre amps., minimised gain tilt for CATV transm. systs. 3554
community planning *see town and country planning*
commutation
  see also commutators
  1-phase supply, drive appl., DC/AC outputs control, thyristor ccts. 5343
  2×3-phase sync. machine, extended Park's transform. 44020
  3.5 MW sync. motor drive, cycloconverter-fed, modelling 5323
  3-phase stepping motors positon control *(German)* 44089
  100 kA, 5 kV solid state opening switch, railgun appl. 31762
  AC/AC converters, vector control, min. energy storage 19758
  AC/DC converters, line current harmonics, predeterm. 44124
  AC/DC drives, prog. high speed digital control 44498
  AC/DC PWM power convertor, quasi-optimal control 44165
  AC/DC six-pulse power convertors, steady-state modelling 44123
  AC/DC/AC PWM power converters, DC link energy storage reduction 36343
  anisotropic laminated brush, reactance freq. characts. *(Polish)* 44009
  asynchronized sync. machines, self-contained power systs. 44028
  automotive alternator, commutating inductance value determ. 4925
  bimetallic riveted contacts, thermal modelling studies *(Russian)* 6382
  bond graphs and variable causality 20546
  boost converter surge suppression, act. filter 11154
  brushless DC motors, design/selection 19656
  brushless DC motors, modelling, 120° commutation seq. *(French)* 11065
  buck converter design, zero-current turn-off, MCT 19748
  buck ZCS-ZVS PWM DC/DC power converter topol. 11167
  buck ZVC-ZCS HF PWM power converter studies 19716
  commutating machines simul., ANN appl. 10960
  contactless AC starters, 44040
  cycloconverter, math. model *(Chinese)* 36338
  cylindrical array antenna design and configs. 23954
  DC generator commutation curve anal., eigenvector method *(Japanese)* 11062
  DC machine, electronically assisted commutation, expt. 44068
  DC machine, electronically assisted commutation, terminal charact. 27755
  DC machine online spark detect. syst. develop. 4991
  DC machines, commutation, external power electronic assistance *(English, French)* 19657
  DC PM motor, electronically commutated 19663
  DC/AC PWM power convertor, quasi-optimal control 44165
  DC/DC converter, fuzzy optimal control commutation 44120
  domestic appliances, doubly salient PM motor, commutation, design/anal. 11491
  double induction output generator, commutation angle anal. 19638
  doubly salient doubly excited variable reluctance motor 19616
  elec. machines, permanent state simul., electronic commutation *(French)* 10950
  force commutated three level boost type rectifier 19856
  force-commutated supply, cost-optimal control algm. 44118
  forced commutated converters, voltage balancing, learning controller *(German)* 36368
  forward ZCS-QRC, distrib. power supply *(Spanish)* 12338
  full-bridge PWM DC/DC soft-switching power converter 19791
  HF switching power supply, commutation cct. design 29038
  HF switching reson. power convertor, reson. rectifier appl. 44135
commutation continued
  high-power gas switches, ferroelec. electron beam triggering 36406
  HVDC convertor, waveform distortion, freq. domain anal. 19234
  induction motor drive, SCR based, modulation strategies 20080
  induction motor drives, DC link soft-switching inverters 11374
  induction motors, capacitively compensated, line commutated power converter-fed 27732
  induction motors, power convertor-fed, torque pulsation calcs. 27731
  lin. hybrid syst. anal./charactn., bond-graphs 21094
  LV high output current AC/DC converter, boost struct. 19727
  LV hybrid AC cct. breaker switching params., computer simul. 19342
  matrix converter, low loss, input filter design 5132
  motion control systs. develop., motors, drives, user interface 44440
  multiterminal DC-AC syst. power flow anal. 27145
  nonequilibrium MHD generator/line commutated inverter, power control *(Japanese)* 36613
  nonpolluting automobiles, energy storage, propulsion 5326
  PM brushless DC motors, field weakening, control 11360
  PM brushless DC motors, laminated rotor, FEM modelling 11064
  PM brushless DC motors design, mag. ccts. 36191
  power electronics capacitors, inductance/EMI reduction 541
  PV power syst. max. power tracking, fuzzy neural net-based 19552
  PWM CSI DC link notching cct., switching loss reduction 44180
  PWM inverters, IGBT gate drive ccts., optimum switching 19809
  PWM self-commutated SVC, power syst. appls. 4511
  quasi-reson. DC link power convertor, topol., appls. 5084
  quasi-reson. HF PWM ZVS DC/DC power convertors 5061
  railgun air core compulsator, power electronics/controls 19783
  repetitive stacked Blumlein pulse generators 36322
  reson. DC link VSI, soft switched, cct. perform. studies 36282
  self commutated sync. motor nonlin., steady state operation 10996
  self-excited cycle mag. flux compressor 36286
  self-reson. DC-DC PWM power converter family 11168
  self-reson. PWM forward DC/DC power converter 44225
  series reson. convertor with third-order commutation network 36306
  ship propulsion, supercond. DC drives, torque react. windings 11402
  soft-commutated DC/AC converter for solar energy conversion *(French)* 19766
  soft-switched current-fed PWM inverter, struct., appls. 19735
  soft-switched PWM rectifiers, perform. improvement 11173
  soft-switching power converters, GTO/MCT characts. comparison 19849
  squirrel cage motors, LCI fed, starting, low speed operation 36176
  SRM drives, sliding mode observer controller 5301
  stepping motor positioning, closed loop optimal operation 11087
  switched-mode DC-DC converters for high-power appls. 11181
  sync. generators, static exciter, LCI 36142
  sync. motors, CSI-fed, rotor losses estim. 44013
  sync. motors, cycloconverter-fed, computer simul. 10999
  sync. motors, self-commutated, low-power, control device *(French)* 10989
  test labs., ident. method for certain procs. 5140
  thermally fused explosive switch, railgun appl. 31759
  three-level PWM motor inverters, harmonic loss calcs. 44175
  three-level rectifier/inverter, force-commutated 19733
  three-phase induction motors, math. modelling eqns. *(Polish)* 27703
  three-phase motor motion control, sinusoidal commutation-based 27665
  three-phase quasi-reson. AC/DC transistor power converter 5074
  three-phase VSI, space vector simplex PWM methods perform. 44174
  universal motors, commutation characts. anal. 36189
  variable speed squirrel cage motor drives, indust. appls. 5294
  VSI, digital adaptive hysteresis current control 19756
  VSI, IGBT-based, asynchronous machine appls. *(French)* 11193
  ZCS HF inverter/converter, overlapping commutation 19788
  ZCS/ZVS saturable inductor PWM DC-DC power converter 44224
  ZVS-clamped voltage DC/DC PWM single-switch power convertors 11169
  ZVS-ZCS-PWM self reson. DC-DC Sepic converter 44226
  KrF excimer lasers, HV pulsed power supplies 31171
  XeCl excimer lasers, HV pulsed power supplies 31171
commutator motors
  design, mag. field anal. *(Japanese)* 11018
  mass rapid transit three-phase traction motors, adhesion perform. *(German)* 28104
  optimal design algm. 10956
  PM commutator motor drives, const. power speed range 36724
  segmental PM DC commutator motor, design optim. 36193
  slotless PM servomotors, design/control 19679
  torque prod., unified theory 4930
commutators
  see also commutation; commutator motors
  elec. machine, brush friction coeff., current/temp. influence *(Croatian)* 4890
  hyper-cooled 6-phase sync. generator, pulsed load 36120
  motors, optimal design algm. 10956
  power converter, commutation cell bond graph model 21115
  reactive power compensators, inverter based, high freq. 5091
compact antenna test range *see antenna testing*
compact disc players *see Hi-Fi equipment*
compact disc storage *see CD-ROMs*
compact discs (audio) *see audio discs*
compacting *see densification*
compandor transmission *see compandors*
compandors
  see also interference suppression; pulse code modulation; radiotelephony; telephone interference
  adaptive compandor design, boundary adaptation rule 42176
  digital Doppler companding, canonical decomp. algm. 40883
  syllabic companders, strict sense envelope detect. 9162
  T1 carrier syst. companding noise statistics 41388
comparators (circuits)
  see also current comparators; phase comparators
  A/D comparator-convertor implement. *(German)* 21388
  AC/DC PWM power convertor, quasi-optimal control 44165
  algorithmic synthesis of high level tests for data path designs 29183
  bal. comparator employing overdamped Josephson jns., time resoln. 6254
  CMOS 10 b, 20 MS/s, 35 mW pipeline A/D converter 29308
  CMOS 10 bit 5 Msamples/s successive approx. ADC cell 29330
  CMOS 25 Msamples/s 8 bit full flash ADC for embedded VLSI appl. 29331
  CMOS autozeroed chopper-type comparators, offset errors *(Japanese)* 6260
  CMOS integrated micropower batt. monitor cct. 21112
  CMOS two-step flash converter, mixed sig. integrat. 695

comparators (circuits) continued
current domain regenerative comparators 3766
cycloconverter drives, ASIC chip set 5322
DC-DC power convertors, DC reson. link-based topol. 27832
DC/AC PWM power convertor, quasi-optimal control 44165
differential comparator, SC differencing cct. 6256
dual channel digital SQUID, DC-powered Josephson MUX readout 39256
Getreu comparator macromodel, anal. and design algms. 6257
Goto pair of tunnel Josephson jns., switching dyn. 14280
intell. opt. sens., multilayer opt. neural net, analogue VLSI 9938
LV analog ICs for 3 V systs. 771
MCT phase controlled rectifiers develop. 27833
mixed sig. device, high precision testing 766
mixed-sig. ICs, digital noise meas. 21449
parallel ADCs, asymmetric latches and nonideal perform. 12607
phase/freq. comparator and BPSK carrier demodulator 587
phased array defective element automatic diagnosis and localisation 23951
photoelec. sens., adaptive background suppression 3829
pipelined A/D converters, high resoln., fully digital self-calib. method 713
precision behavioural modelling of data converters components 701
propag.-type A/D converters, CMOS devices 12605
reliable min. finding comparator networks 33486
sampling oscilloscope front-end, HBT MMIC design 42869
Schmitt trigger, CMOS mixed-mode implement., equiv. cct. 21159
semicond. laser power digital stabilization 39765
semicond. press. sens., PWM output 17759
GaAs IC, ultrahigh speed pin-electronics and test station 6861
YBaCuO-YPrBaCuO-YBaCuO ramp jns./multilayers, prep., comparator appl. 39274

compasses
see also navigation
covariance anal. of strapdown INS, gyrocompass charact. 26695

compensation
see also error compensation; motion compensation
2.4 Gbit/s high perform. dispersion compensating fibre 30920
3-phase PWM rectifier, line current harmonics minimisation 44147
3D eddy current computation, surface impedance method, geometric sing. 40244
3D image recogn., optimum estim. and compensation *(Japanese)* 16370
10 Gb/s lightwave syst. dispersion compensation based on semicond. Mach-Zehnder modulator 25518
10-bit D/A converter, self compensation cct. *(Korean)* 29312
16-Gbit/s TDM/polariz.-division-multiplexed syst., compensation tech. 9126
230 kV FACTS power lines, advanced series VAr compensation *(Italian)* 4695
500 kV transm. syst., adaptive autoreclosure, ANN 4677
600 Mbps opt. receiver, high-speed AGC cct. *(Japanese)* 42469
622 Mbit/s TDMA PON, novel burst mode opt. transmitter *(English, Italian)* 33991
1200 W zero output impedance UPS inverter 44170
AC locomotives, line-side switching harmonics compensator 20101
AC PM servomotor digital controller, appls. 43979
AC power supply, instantaneous current distortion compensation *(Japanese)* 10964
AC servomotors, digital control, syst. dyns. *(Korean)* 36214
act. power filters, compensation, 3D space current co-ordinate *(Korean)* 29356
act. power harmonic filters, computer simul. studies *(Korean)* 28998
act. RC filters, HF compensation of FDNR *(Japanese)* 12639
act. sonar, adaptive beamformer delay compensation 34168
adaptive compensation of MOSFET-C filters 6217
adaptive nonlin. predistorter, high power amp. compensation *(Korean)* 25460
adjustable dispersion equaliser for 10/20 Gbit/s 160 km fibre transm. 9436
airborne laser commun. syst., adaptive jitter rejection tech. 17310
analog autocompensators, correl. feedback and direct calc. of weighting factor 32593
arc furnace supply plant, flicker/distortion compensation 20129
ARC-ccts. with intrinsic compensation, struct.-topol. 6209
ASD, power quality impact reduction 5269
asynchronous generators, asymmetric failure conditions studies 27729
automotive low dropout regulator, HV DMOS pass element 20113
autostereoscopic 3D image, data compression 32814
bandgap ref. temp. drift decrease, on-chip analogue ROM 12324
BiCMOS video sig. proc. IC for laser disk player 9756
Bragg opt. fibre gratings, temp.-compensating mounts 34097
Bragg-grating fiber filters with self-induced chirp, dispersion compensation 14352
brushless DC motors, torque control 11368
building HVAC nonlin. heater batt., neural net control 5239
capacitive load driving and stabilisation *(German)* 21127
CCD-based tracker for laser commmunication pointing acquisition and tracking control 17304
CCD-based tracking loop for precision beam pointing, digital control design 17307
CEMERLL (compensated Earth-Moon-Earth laser link) expt. 17287
chest radiographs, digital, scatt. radiation correction methods 43244
chirped grating integrated-optic dispersion compensator for fibre links 34016
closed-loop adaptive-optics optimisation, multiple control bandwidths 3776
CMOS 3 V rail-to-rail I/O op amp for VLSI cell libraries 6037
CMOS class-AB op amp, prog., hybrid nested Miller compen. 6036
CMOS DAC, 10 bit, 50 MHz, act. compen. of parasitic capacit. 29318
CMOS op amp, multipath Miller zero cancellation 29064
CMOS opt. receiver IC, wide dyn. range 34047
CMOS Permalloy magnetoresistive microbridge mag. field sens. syst. 34494
CMOS tunable current mirror tech. for HF analog design 37650
COMPLAB syst., adaptive interf. compensator simul. 28984
convertor efficiency meas. by compensation calorimetry *(German)* 44128
cryst. oscillator, temp. compen., two-port cryst. resonator 37666
cryst. oscillator compensation in DDS/PLL appl. 21135
current feedback mag.-multivibrator, oscill. freq. compensation 6046
current-mode quotient cct., nonideal act. elements 21406
Darlington transistor inverter, 99.3% efficiency 19743
DC elec. drive, current compensator/vel. control 28065
DC motor, separately excited; control, lin. 19659
DC rly. vehicles, act. power filter appls. *(German)* 11421
DC servo systs., integral of output error VSC 11090
DC servodrives, dyn. friction compensation 36644
DC servomotor machining motion control, parallel DSP 36192

compensation continued
digital mobile commun., adaptive Rayleigh fading compensation for coherent GMSK sigs. 3433
digital power syst. protection, sig. magnitude est. *(Polish)* 35671
digital PWM-VSI inverters, nonlin. compensation 36373
digitally prog. differential integrator, enlarged time const. 29349
direct drive robot, torque compensation 11359
distrib. network harmonic filters, EMTP-based anal. 4642
distrib. substations, thyristor controlled series capacitor appls. 27163
dual patch shielded antenna array element for mobile satellite commun. 23947
dual shaped reflector syst. distortion correcting plate design 23987
dual-input current-mode ratio fn. generation, CCIIs 772
dual-mode cryst. oscillators, B-C modes excited resonators 39104
dyn. DVM, rly. reactive power compensation appl. 3947
dyn. time-warp compensation for correl. of long seqs. 40944
Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
elec. actuator drives, mass neutralisation test equipt. appls. *(Russian)* 36492
elec. vehicles, induction motor drives, posn. sensorless 20097
emergency generators, rectifier supply, harmonic distortion 19536
external-cavity acoustooptically controlled semicond. lasers, tuning fidelity 15003
FACTS, advanced series VAr compensator appls. 27138
FADOF filter for space borne opt. commun., Doppler shift compensation 17325
failsafe contactors, electronic coil power economizers 29639
feedforward act. filter for output ripple cancellation 6024
feedforward pulse-width modulator for boost DC-DC power converters 29042
fibre Bragg grating, tunable chirping, cantilever beam 7279
fibre polariz. mode dispersion compensation by Kerr effect for nonreturn-to-zero sigs. 22820
fibre soliton self-freq. shift compensation, phase-sensitive parametric amps. 23358
FIR digital filter design by interconnected neural net *(Japanese)* 15937
flexible AC transm. systs., steady state/dyn. perform. eval. 35613
free space laser commun., demons. of jitter rejection tech. 17313
friction, accurate estim. 19654
gain-compensated SC integrator, four-input opamp based 6250
gas turbine engine, aerospace, control/stabil. 4362
generalised power flow controller, anal. *(Chinese)* 43629
harmonic drive DC motor torque control 44445
HBT MMIC distrib. amp. design based on atten. compen. techs. 12817
HF fully integrated OTA-C filters, 7.2 GHz bipolar OTA 6210
high-speed CMOS current mirror resistive compensation 21125
HV overhead line earth fault compensation coeff. modelling 19328
hybrid step motor control, reconstructed mag. flux sig. 11327
hydropower station, optimal compensation regulation, nonlin. network flow *(Chinese)* 36037
induction machine vector control, iron core loss considerations 4955
induction motor ASD, fuzzy on-line efficiency optimisation control 36659
induction motor drives, CSI fed, adaptive params. compensator 36698
induction motor servodrive, robust 2DOF posn. controller 36658
induction motor speed controller, line voltage feedforward-based 27712
induction motors, capacitively compensated, line commutated power converter-fed 27732
indust. appliances, load balancing/control, feedback elimination 4596
indust. power supply harmonic control, switched filter-based 4456
indust. power systs., reactive power compensation 26940
interconnected power syst. control design, SMES-based 27002
interpolating ring VCO, V-to-f lin. compensation 581
isolated half-bridge ZVS-PWM converter 44185
laser alignment meas. syst. based on opt. activity, adaptive noise cancelling 31691
laser commun., opt. commun. demonstrator 17289
lightwave syst. dispersion compensation design 42419
lin. chirped fiber Bragg grating for fibre link dispersion compensation 42444
LINE BACK, utility connected PV inverter 44204
long pitch fibre gratings, dispersion compensation 30919
low-power CMOS ULSI cct. techs., overview 39009
machine compensation windings, mag. field reduction 36094
mag. tape recorder for mass data storage 39183
Maglev rly. inverter harmonic suppression method 11423
MAGLEV systs., H_∞ control, exact lin. 40276
magnetooptic AC CT, intrinsic temp. compensation 17739
majority voting based VLSI fault-tolerant ccts., reliab. 641
MELACT-1100 Series power act. filters, IGBT-based *(Japanese)* 519
microsensor with auto-zero offset compensation 25800
motor drives, MRAC design, integral compensation 44434
motors, act. vibr., H_∞ control theory 10942
MOV series compensated transm. network, mag. pot. transformers 4624
moving-image quality of act. matrix LCD 18004
multi-view image set, data compression/interpolation 2647
multichannel transmitters, DSP/direct conversion 3323
multilevel inverter-based SVC, computer simul. 19122
multiphase power systs., harmonics/VAr control design 19087
multiple output forward converters, current control, small sig. anal. 11147
multiple-output DC/DC power converters, stacked secondary anal. 19793
multiple-output forward converters, small-sig. model 11146
multiresonant parallel ZVS power converter, anal., design 11171
MV distrib. network, compensated, phase-to-ground determ. 4649
N-tuple modular redundancy systs. reliab. modelling 37185
nonidealities of op amps, effects on act. filters, anal. study 21407
nonlin. systs. ident./compensation, sampling freq. 32778
nonsinusoidal power syst. supply quality improvement 19088
normal-refl. birefr., compensation detector 14339
NTC thermistors for temp. compen., SMDs 38048
OFDM-LAN transparent all-opt. interconnection 17346
on-board large mesh antenna reflector, high surface accuracy 15636
opt. disk, write compensation, thermal transfer fn. 22795
parallel act. power filter, control stabil. study 5112
parallel proc. UPS, harmonic suppression/VAr compensation 11175
photorefr. neural-network wt. decay, gain and exposure scheduling 39519
piezoresistor fabricated by high energy ion implant. 25823
PM sync. motor drive, flux-weakening control 20078
PM sync. servomotor drives, PWM inverter-fed, LF torque ripple 44479
polariz. insensitive fibre-optic white-light interferometry 34521
polariz.-independent directional coupler wavelength filters, birefr. compensation 39536
polyphase power syst. VAr compensation, computer simul. 4550

compensation continued
  power convertor harmonics, current compensation/act. filtering overview 19774
  power syst., modified Ward-type equiv. model, partitioning techs. *(Korean)* 35460
  power syst., nonactive power compensation, act. filters 27064
  power syst. harmonics compensation, pass./act. power filter syst. 4500
  power syst. harmonics meas./anal., China *(Chinese)* 43805
  power syst. harmonics minimisation, variable capacitance compensator 43611
  power syst. harmonics/reactive power/unsymm. load compensation 4474
  power syst. MOV protection, series compensation capacitors, response calc. 27251
  power syst. oscills. damping, control design 27004
  power syst. series reactive power compensation, bidirectional switches 43654
  power syst. stabilisation, variable struct. output feedback control 19090
  power syst. transient nonlin. generator excitation control 26992
  power syst. VAr compensation control planning, ES appls. 26961
  power syst. VAr compensation planning, Benders-type decomp. 26962
  power syst. VAr reserve problem simuls., Qatar 4458
  power syst. voltage distortion compensation, meas. aspects 4551
  power transm. equipt. reliab. IS, Canada 43722
  precision/low-cost temp. transducer, develop. 17762
  PWM AC/DC power converter, current control studies 5070
  PWM inverter drives, Kohonen self-organising ANN appl. 44447
  PWM inverters, AVS method, dead time compensation *(Japanese)* 11120
  PWM inverters, current-source compensated deadbeat control 11166
  PWM rectifier, state feedback nonlin. control 11153
  PWM VSI, AC machine control appls., perform. improvement 5043
  quasisynchronous sampling algorithm, spectrum analysis 24231
  Queensland-NSW power syst. interconnection, tech. aspects 26977
  radial distrib. syst., fixed/SC, optimal choice 19240
  RC act. filter design, input/output impedance effects 21417
  real-time atmos. compensation, SBS phase conjug. 31576
  reflector antenna surface distortion EM compensation syst. requirements 23872
  reflector surface distortion compensation by diffr. synthesis 23871
  reluctance motor drives, flux weakened operation, current regulator 5303
  repeaterless transm., 10 Gb/s, fiber, dispersion compen. 34020
  repeaterless transm., 2.4 Gbit/s, 306 km fibre, DFB LD 17231
  rural power network VAr compensation overview, China *(Chinese)* 35511
  sapphire resonator for ultra-stable oscillator capability 29574
  SC-filters, p-z transform, minimize charact. deform. 28996
  Schneider write equalizers for (1,k) peak detect. channel 7137
  sens. perform. improvement by neural nets 17726
  series compensated power syst. protection relays, perform. studies 4709
  shunt act. filter control, compensation strategies 10631
  shunt compensated power systs., voltage stabil. boundaries 19215
  single-phase act. power line conditioners 10673
  six-port module for built-in-test applications 25960
  slab solid-state geom. lasers, astigmatic compensation *(Chinese)* 14800
  smart material hysteresis, Preisach modeling and compensation 37546
  static neg.-phase-seq. current compensator, rly. 44537
  stochastic ANNs, CMOS analog implement., temp. effects modelling 29463
  straight line 20 Gbit/s transm., 617 km of singlemode fibre 25522
  struct. intermittent interf. at demodulator, compensator efficiency 40856
  Stuttgart TV prod. centre digital island planning and implement. *(German)* 17538
  subway elec. supply, energy saving, batt. storage plant 44539
  SVC, GTO-switched, elec. welding appls. 4531
  switched-current ccts., clockfeedthrough compensation 37901
  switchgear contact systs., electrodynamic forces compensation 19885
  switching regulator, freq. bandwidth widening, 2 DOF syst *(Japanese)* 5990
  TCXO with quartz cryst. resonators, cellular telephones appl. 39106
  telephone channels, discrete algms. for compensating elec. echo 2571
  temp. compensation of cryst. oscillators, microcontroller 39105
  temperature-compensated bridge circuit for resistive sensors 34448
  three-phase bridge rectifiers, harmonic filter studies *(Polish)* 5995
  three-phase load flow algm., decoupling-compensation Newton type *(Chinese)* 43603
  three-phase power systs., sinusoidal currents decomp. 4465
  three-phase power systs., supply quality-oriented theory 4466
  three-phase power systs., time/freq. domain decomp. 4467
  three-phase rectifier, deadbeat neural net predictive control 11174
  three-phase unbalanced power systs., act. power filter 10655
  thyristor controlled ractor compensator 19873
  tilt-sens. using mag. fluids, indication stabil. 42777
  transformer windings status assess., online stray inductance meas. 5013
  transm. line, thyristor controlled series capacitor compensation 27187
  two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638
  two-mode fiber equalizer ultrashort pulse transm., dispersion compensation 9472
  two-stage CMOS op amps, optimized compensation strategy 37640
  UHV electron microscope, Cockcroft-Walton generator, ripple compensation 1012
  ultra high bit rate soliton self-freq. shift and third-order dispersion 17268
  unity-PF PWM rectifier, DC ripple compensation *(Japanese)* 21098
  unrepeatered transm., 2.5 Gbit/s, 410 km of fibre 9428
  variable freq. induction motor drive, pulsating torque compensation 5290
  Vietnam 500 kV North-South transm. line project 26980
  voltage fed PWM inverter, zero current clamping elimination 19744
  Er-doped fiber amp., dyn. gain compensation for multiwavelength transm. systs. 9598
  Er-doped fibre amp. gain equalization by tunable coherent opt. transversal filter 39709
  Fe-cored compulsator modelling, num. anal. techs. 19784
  GaAs, dimethylaluminum methoxide-doped , shallow donors compensation 6617
  InGaAsP-InP directional coupler based tunable opt. filter 22910
  LiB_3O_5 ps Ti:sapphire-pumped opt. parametric oscillator 23420
  NaI(Tl) scintillation detectors thermal resist. improvement 34910
  Nd:YAG double-pass laser amp., NLC phase-conjug. mirror 7600
  NiZn ferrite head wear rate meas., custom high sensitivity elec. elements 7166
  Pr^{3+}-doped fiber amps., temp. effects on amplif. charact. 31221
  Si:Sb low compensation impurity band photoconductors 39551
competitive algorithms
  commun. network constr., online algms. 16517
  queueing systs., competitive systs. model 28579
competitive learning *see unsupervised learning*
compiler generators
  GaAs digital IC design, compiler methodology 37716
compilers (program) *see program compilers*
compilers (silicon) *see circuit layout CAD*
compiling programs *see program compilers*
complementary metal-oxide-semiconductor integrated circuits *see CMOS integrated circuits*
complete computer programs
  see also assembly language listings; BASIC listings; C listings; FORTH listings; FORTRAN listings; Pascal listings; subroutines
  WDM opt. network, time-wavelength assignment algms. 42375
complex systems *see large-scale systems*
complexity classes *see computational complexity*
compliance constants *see elastic constants*
composite insulating materials
  see also composite insulators
  composite aromatic polyamide insulation, conduction currents 14030
  disordered materials, charge carrier dynamics, elec. field depend. 14034
  EM response of thin layered conductor/insulator composites 7880
  glass fiber reinforced composite insulator, plasma surface treatment *(Korean)* 28874
  HTPB/Al particle composites, elec. cond., low fields 30589
  HV cables, synthetic elastomers, nonlin. I-V characts. 43767
  HV mineral particulate-filled epoxy composite insulation tests *(Korean)* 27657
  HV pulse low-inductive capacitors, high repetition freq. 36505
  lossless dielec. mixtures, effective permitt. calc., boundary integral method 13922
  mica-alumina insulation, dielec. props., EM pump appl. *(Japanese)* 39067
  multilayer radome wall synthesis criteria *(Russian)* 15676
  oil-impregnated pressboard, dielec. props., moisture depend. 14044
  oil-paper insulation, breakdown characts., impulse voltages 1561
  PCB resin/resin-glass composite insulation, moisture absorpt. effects 12942
  power transformer composite paper-oil insulation monitoring 19686
  PVDF/polyetherimide laminates, breakdown strength 13962
  resin based composite insulation, discharge barriers 1514
  SIRENS electrothermal launcher, plasma-material interaction 31766
  suspen. insulators, rods, long term mech. strength 4701
  AlN, 3D interconnected porous composites, proc., electronic packaging 146
  C furnace black-polyethylene composite, resist./dielec. props. 14073
  SiFe sheet insulation, elec. and phys. charact. 14002
composite insulators
  110-275 kV composite long rod insulator monitoring experiences, Australia 43788
  distribution syst. multiple dielec. lightning impulse strengths 35633
  EHV/UHV AC/DC overhead lines, porcelain/glass composite insulators 27241
  mech. perform., environ. factors 43792
  rly. overhead contact lines, high-speed insulator develop. 36748
  silicone insulators, naturally aged, wettability, TSC spectra 35666
  suspen. insulators, rods, long term mech. strength 4701
composite material interfaces
  see also delamination
  conf., interface control of elec., chem. and mech. props., USA (1993) 36832
  glass fiber reinforced composite insulator, plasma surface treatment *(Korean)* 28874
  glass fibre-reinforced epoxy resin composites, US eval. 28908
  imperfectly bonded fibers, leaky guided wave propag. 12240
  metal/ceramic laminates for electronic packaging, thermomechanical failure 12197
  opt. fibre-glass matrix sens. based composite, fracture 437
  plate wave velocities, field decay, acousto-US sigs. 10583
  polyamideimide glass composite films, dielec. breakdown/thermal degrad. *(Japanese)* 28875
  $BaTiO_3$/poly(vinylidene fluoride-trifluoroethylene) thin-film composites, pyroelec. props. 6908
  C fiber-reinforced composite surfaces, microwaves refl./absorpt. 12243
composite materials
  see also cermets; composite insulating materials; composite material interfaces; composite superconductors; concrete; fibre reinforced composites; fibres; filled polymers; laminates; particle reinforced composites; semiconductor doped glasses
  advanced composite materials, mil. electronics, environ. testing 5646
  borosilicate glass, cristobalite-free low-K dielec. 22632
  BWO spectrometry and composite structs. appl. 42907
  ceramic-polymer, dielec. behaviour 6905
  chiral and nonreciprocal chiral-ferrite media, fund. props. 23551
  chirality param. meas./calc. 23596
  COB technol. for low cost MCM 21750
  compact semi- and fully anechoic chambers, composite absorber 15529
  conference, materials processing, Singapore (1994) 20244
  cylinder, 1-3 composite, hydrostatic press. response 14081
  defect/damage, 3D US imaging 5924
  face plate effects on surface displacement profile in 2-2 piezoelec. composites 13987
  fatigue damage study by computed speckle decorrelation 40129
  ferroelec., polaris., poling/props. 6907
  ferroelec. ceramic-polymer composite, piezoelec./pyroelec. 6906
  ferromag. thin film-based high impedance anisotropic composites 14123
  fibre-optic sens. for smart struct. 3851
  glass ceramics, comps. and uses, review 20987
  HF power module using GaAs semiconds., low induct. design 29029
  IBM high perform. carrier technol. for PCB packaging/interconnects 37153
  isotropic chiral composite modeling 15619
  liq. cryst. polymer composite films, elec. characterisation 12200
  long term perform., prediction 439
  lossless composite chiral materials, params., full-wave computation 40279
  lossy dielec. spheres composite medium, dielec. const. 23590
  MCM, ceramic-conductors, stresses 21689
  metal-matrix composite proc., situ AE monitoring 21000
  microwave cavity resonators, modeling of testing params. 37561
  microwave circuitry, metal matrix composite packaging 12748
  mm-wave imaging syst., defect charactn. in dielec. slabs 37560
  multiphase composite, impedance spectrosc., simul. model 37566

composite materials continued
PCB ESD protection material selection, shielding effectiveness meter 28456
piezoceramic polymer composite, 2-2 connectivity, dyn. modelling 6900
piezoelec. ceramic fiber/polymer composites, transducer appls. 22661
piezoelec. ceramic-polymer composites, HF appls. 6921
plate wave velocities, field decay, acousto-US sigs. 10583
PMMA filled porous silica glass opt. composites 7262
polamide/$BaTiO_3$ ceramic composite grain boundary capacitors, prep. 6370
polymer composite materials, mag. field sensitive 5914
polymer composites, NDT techs. *(German)* 5918
polymer-ceramic composite batt. electrolyte develops. 27884
polymer-SiO_2 composite dielec., ULSI multilevel interconnect 38641
polymeric composite photorefr. materials for nonlin. opt. appls. 1651
preforms manufacture for ceramic- and metal-matrix composites 20426
pulsed microwave composite propag. expts. 42913
pyramidal horn antennas, composite inner E-plane walls 8057
railguns, composite electrodes, crit. current dens. 15364
rare-earth/α-Fe based composite magnets, remanence enhancement, 2D/3D calc. 7007
self-lubricating composite materials, contact characts. 6391
SIRENS electrothermal launcher, plasma-material interaction 31766
sliding contact characts. of composite materials 38062
smart composites with embedded sens., in situ monitoring, diagnostic systs. 12220
smart high temp. composites, opt. fibres, thermal spray/adhesive bonding 3853
solid oxide fuel cell composite electrodes, cond. and polariz. resist. 44343
solid polymer electrolyte composite fuel cells, precip. proc. 36585
sonar future transducers, transduction materials modeling 9662
space solar dyn. power systs., thermal storage studies 26557
spiropyran aggregates for multiple opt. memory 22790
thermal inspection IR thermal imagers, computer proc. 12230
thermal-wave image proc. for material flaws charactn. 5934
thermophotovoltaic cells, composite emitters develop. 27982
thermoset hardening, elec. impedance meas., piezoelec. sens. 5929
three-material pass. dI/dt limiter 7224
weakly conducting, separation, eddy current transducer params. 12234
struct. of complex materials, EM refl./transm. 31778
AlGaAs composites, As cluster dispersion, optoelectronic appls. 7456
Au cluster/SiO_2-Al_2O_3-Li_2O gel, nanocomposite capacitor 6358
Ba-ferrite/α-Fe composite particles, mag. props. 7029
C/MnO_2 composite primary cell electrode synthesis 11236
C-C composites, thermally conductive/CTE tailorable, MCM/PCB packaging 37146
C-based, optomechanical Raman strain sens. appl. 3814
C-bearing composite materials, surface cracks determ. 28904
Cu-Sn multilayer composite solder, fluxless proc. 11737
Cu-Sn/WS_2 composite material contacts, contact resist. 29627
Cu-matrix Mo particle composite low thermal expansion conductor 12198
Fe-polymer composite absorber chip for RF EMI filtering 37834
GaAs composites, As cluster dispersion, optoelectronic appls. 7456
Ni filaments in porous Si matrix, mag. props. 6996
Ni-Zn ferrite/rubber composite microwave absorber, additives effect *(Korean)* 20991
PCM/PVDF composite film, dielec./piezoelec. props. 22662
PZT/PVDF composite film, dielec./piezoelec. props. 22662
$R_2Fe_{14}B$/Fe nanocomposite exchange coupled magnets, struct./mag. props. 7009
$Sm_2Fe_{17}N_3$/$Fe_{65}Co_{35}$ composite aligned two-phase magnets 7008
V redox batts., C-polypropylene composite electrode expts. 27894
Y_2O_3-ZrO_2-Al_2O_3 composite planar SOFC electrolytes 27923

composite superconductors
see also multifilamentary superconductors; superconducting tapes
HTSC supercond. magnets, composite conductors stabil. 1628
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+\delta}$Ag tapes, crit. current dens., columnar defects 1596
(Bi,Pb)-Sr-Ca-Cu-O/Ag supercond. composite wires and tapes 14271
BiPbSrCaCuO/Ag tape, microstruct./supercond. props., Ag sheath alloying effect 39239
$Bi_{1.8}Pb_{0.4}Sr_2Ca_{2.2}Cu_3O_x$-Ag tapes/test magnets, prep./charact. 7248
$Bi_2Sr_2CaCu_2O_x$ superconds., reactive sintering 7226
$(Tl,Pb)(Ba,Sr)_2Ca_2Cu_3O_9/Ag_{0.37}$ thick c-axis textured supercond. tapes 1598
$(Tl_{0.6}Pb_{0.2}Bi_{0.2})(Sr_{1.8}Ba_{0.2})Ca_2Cu_3O_{9+x}$ powder/Ag-sheathed tape, synthesis/charact. 39251
$YBa_2Cu_3O_{7-x}$/Ag composites, melt growth, domain struct. 20992

composite systems *see large-scale systems*

composition measurement *see chemical analysis*

compressed air energy storage
status, develop., competitive business practices 10879

compressibility
see also compressive strength
porous piezoceramics, dyn. fluid compressibility/permeab. 18927
two-phase electronic cooling, mini-channel/micro-channel heat sink geom. 11759
Co-Pd multilayers, stress, opt. fibre Y branch non-contact displacement detector *(Korean)* 18083
$CuInSe_2$ films, laser ablation, stress-induced Raman freq. shift 37482
a-FeSiBC films, mag./magnetoelastic props. 14139
GaInAsP multilayer, gas source MBE, tensile/compressive strain modulation 12062
GaSb, semicond.-metal transit., crystallisation under press. 13078
GaSb-Ge, semicond.-metal transit., crystallisation under press. 13078
InGaAs-InAlGaAs strained/unstrained lasers, MBE grown 14975
$In_{0.4}Ga_{0.6}$As-GaAs quantum well IR photodetector 9906
InGaAsP strained quantum well, VPE, laser appl. 12130
InGaAsP-InP quantum well lasers, strain compensation 14871

compression, bandwidth *see bandwidth compression*

compressive strength
see also compressibility
glass fibre epoxy slender tubes, axial compression stress, appl. *(Polish)* 5904
harsh mortar compaction, US vibr. *(Japanese)* 4416
NPP, aircraft crash, react.-time response 43844
post-buckling of micromachined beams 30512
thin walled polymer insulators, mech. characts. 10760
water-absorbent polymer ground-resist. reducing material, characts. 37541

compressive testing
micromechanical testing of electronic packaging components and materials 11821

compressive testing continued
porous metal closed-die compression test, Gurson-type behavioural model 28886
thin walled polymer insulators, mech. characts. 10760

compressor-expandors *see compandors*

compressors
2-stage Stirling cycle cryogenic cooler, IR detector cooling 28037
10.6 kW air-source heat pump, defrost cycle perform. tests 20146
6000 hp compressor induction motor drives, harmonic torque 5255
15000 hp 6000 r/min ASD, petrochemical compressor appl. 5415
acoustic diagnostic method based on principal component anal. 26797
ASPEN PLUS shell, combined cycle power plant simul. package 27582
Brayton cycle appl. to space power 26655
brushless turbo compressor drive, intell. diagnostic syst. 36693
cylindrical small steam generators, power generation appls., Russia 27554
EM plasma dyn. accelerator, 2D MHD simul. code 15323
fuel gas reciprocating compressors, power generation appls. 35964
gas turbogenerator dyn. model 27569
gas-fired CHP plants, fuel compression study 35994
geothermal power plant noncondensible gas removal, turbine-driven compressor 27609
hermetic motor insulation reliab., HFC refrigerants, oils *(Japanese)* 11486
HFC 134a refrigerator rotary compressor 44609
Mitsubishi Electric twin-mechanism rotary refrigerator compressor 44610
natural gas fired combined cycle, perform. anal. 27599
nuc. gas turbine transportation engine, throttle valve control 28143
offshore gas pipeline compressors, sync. motor ASD 11518
pulsed power multistage mag. compressors, switch loss minimisation *(Russian)* 44209
reciprocal compressors, teaching, computer animation 5524
regenerative gas turbine cycle, water enhanced, perform. calcs. 19524
residential ASDs, simplified control scheme 5397
Siemens 3A gas turbine series, high efficiency 43919
single-screw compressor perform., computer-based anal. tools 44611
SOFC cogen. plants, gas proc. study 43963
thermal CHP generation, oil-free screw compressor appls. 35962
thermal CHP generation, oil-injected screw compressor appls. 35963
vapour compression heat pumps/refrigerators, perf. calcs. 20145

Compton effect
asymmetric Compton suppression spectrometer, Monte Carlo simul. 34975
capillary optics, beam intensifier for Compton X-ray source 10218
coherent Compton X-ray sources 10159
compact high-brightness radiation sources 43152
Compton scatter pipe wall imaging syst. 18094
FEL, high-power self-similar radiation pulse generation 23316
FEL amp., high-gain Compton regime, strong coupling operation 39912
FEL operation incl. space-charge effects, beam transport simul. 31440
FEL oscillators, sideband instabilities, electron dyn. 40009
FEL tapered undulator, high power self-similar radiation pulse 39972
gamma-gamma collider, crab crossing 26067
graphite mosaic monochromator cryst. for X-ray transport 10161
hard X-ray inverse Compton source, isochronous MM-wave FEL 39629
high-gain Compton FEL pulse evol., nonlin. macroscopic eqns. 39976
landmine detect., Compton backscatt. imaging, two-collision theory 18425
lin. polarized photons from laser Compton backscatt. 18293
med. FEL Compton X-ray program 10200
reson. inelastic X-ray scatt. spectrometer 43145
soft X-ray compact bright tunable CW source 43153
TIGRE, Tracking/Imaging Gamma Ray Experiment (1, 100 MeV) 18412
ultra-short X-ray pulses generation in electron storage ring 43168
X-ray prod. from relativistic electron beams 10160

Compton profile *see Compton effect*

Compton scattering *see Compton effect*

compulsators *see pulsed power technology*

computability
see also computational complexity; decidability
digital signatures, directed acyclic graphs and one-way fns. 32159
nonlin. alg. eqns. in implicit R-K methods, existence and uniqueness of solns. 266
satisfiability problem solving, static elec. field theory 15246

computability and decidability *see computability; decidability*

computation *see calculation*

computation theory
see also algorithm theory; automata theory; computational linguistics; formal logic; programming theory; switching theory
discrete interval orders and semi-orders, representation 20543
finite acyclic diagraphs training 20558
neural computation, phys. models and analogue VLSI implement. 6269
oracle quantum computing, complexity 14563

computational complexity
see also communication complexity; computability
0-1 knapsack problem, GUB struct., syst. reliab. optim. 37205
1-D and 2-D DCTs, high-throughput VLSI archits. 24582
1D logic gate assignment, parallel algm. 38975
2-D circ. convolutions/no. theoretic transforms, fast algms. 40803
2-D noncausal Gaussian Markov random field model, param. estim. 33078
2D and 3D optimal parallel image warping 41075
2D block adaptive FIR filtering algm. 33152
2D diffusion, finite difference scheme 276
2D systolic array proc. design *(Korean)* 681
2D θ-image encoding by Boltzmann machine 33066
2D zero-phase FIR filters, closed-form soln., least-sq. design problem 6236
3D conducting bodies, EM scatt. problem 7947
3D diffusion eqns., compact finite vol. soln. 28684
3D EM scatt. problems, fast multipole soln. 23537
3D LCR extraction and modeling of VLSI packages 5623
3D location estim. of airborne targets, Radon transform *(Korean)* 24676
3D objs., drawings, geometric characterisation 16240
3D planar quadrantal and diagonal symm. based Winograd FT algm. 33024
5.6 kb/s speech codec, pulse codebook/improved Viterbi decoding 32274
5.6 kbits/s PSI-CELP of half-rate PDC speech coding std. 8191
16-DAPSK, differential detect., Viterbi-algm. *(Japanese)* 24175
absol. moment block truncation coding, props. 24114
acoustic echo cancellers, exponentially weighted step-size projection *(Japanese)* 42096
adaptive antenna arrays controlled by gradient algms. 2351
adaptive equalization for fading mountainous terrain 3426
adaptive grid generation for semicond. device simul. 13584

computational complexity continued
adaptive IIR filtering, cascade struct. 8283
adaptive modular Laguerre nonlin. model 21427
adaptive multiresolution struct. for parallel image proc. 8514
adaptive reduced-state channel equalizer, T-algm. 9302
adaptive sig. proc. in subbands, sigma-DM tech. 32719
adder design modelling and comparison using Verilog HDL 29297
alg. computation trees in charact. $p>0$ 8178
alg. decision trees and Euler charact. 28582
algms. for coloring random graphs 28608
algorithmic number theory, conf., NY, USA, 1994 11565
alternating cycles, fixed vertices in edge-colored graphs 11932
annealing genetic algm., solve global energy minimization problem in mol. binding 215
antifuse based FPGA technol. mapping, matching, Boolean fns. 21248
arbitrary filter, approx., recursive implement. 15940
ARC-network design with op amp, parametric optim. subsystems 28982
architectural synthesis, possibilistic prog. 12276
area graphs for locally striking disasters, connectivity problems, direct NA-connection 41547
ARMA modelling methods for low bit rate speech coding 32273
array antenna excitation laws, synthesis methods 15655
asymmetrical DSL, echo cancellation 9089
asymptotically good codes, infinite trellis complexity 32061
ATM network nonstationary queue models 41477
ATM networks, simul. tech. for modelling burst scale queueing 33246
ATM traffic distorted by cell delay var., connection admission control 41444
ATPG for seq. ccts., genetic algms. 6075
augmented moment matrix LU-spatial decomp. 23610
B-ISDN, tree computation for reserved bandwidth traffic 33593
B-spline surface interpolation, parallel implement. 20583
banded Toeplitz lease sq. problem regularization, fast algms. 32486
Bayesian predictive densities, DOA estim./detect. 2477
Bayesian predictive densities, multiple cisoids detect./estim. 41006
BDD-based algorithm for computation of exact fault detection probabilities 29178
best k-link piecewise-lin. fn. approx., uniform metric 20585
bi-level MHT tracking algm. for two crossing targets in high clutter environ. 18978
binary, residue transform., respect, 2^m+1 moduli 626
binary code and binary-refl. Gray code conversion on binary cubes 24066
binary images, interpolation-based bintrees 41185
binary lin. block codes, trellis complexity 32062
biological body internal field matrix perturb. computation 26367
bit-serial multipliers and sq. 6124
blind equalization, ML/MMSE estim. 41021
blind equalization, recursive Bayesian techs. 15943
block adaptive algm., conjug.-gradient method, perform. 41041
block coded modulation schemes, design/eval. 15781
Boolean fns., real polynomials 20596
Boolean fns. representation, polynomials modulo composite nos. 20597
CACOP, random pattern testability analyzer 37730
cct. verification, O(n) algms. 28949
ccts. constructed, mod_q gates, compute "AND" in sublinear size 21283
CDMA mobile radio systs., multi-user detect. equalisers 17041
cellular mobile syst., additional channel assignment by graph theoretic model 33932
cellular radio systs., downlink power control algms. 25344
CELP coder, real-time wideband, for videophone appl. 33696
CELP coders, backward adaptive lattice/transversal predictors 2409
CELP speech coder, FS-1016, with multistage search, complexity reduction 33686
CELP speech coding, almost no codebook search 32387
ciphertext only attack for one-way fn. of MAP 32181
circle graph, max. wt. independent set, efficient algm. 5755
client-server behaviour modelling of parallel systs. via Petri nets 16730
clock-controlled seqs., cryptographic seq. generators 40686
cocomparability graphs treewidth and order-theoretic param. 28612
codebook generation for vector quantisation 32189
colour image, obj. location 2675
combinat. optim. problems, annealing imitation method modif. 28639
combined lin.-Viterbi equalizers, comparison and design 9175
commun. network, terminal assignment, genetic algms. 16556
complete wt. distrib. of RS codes, derivation *(Japanese)* 2367
complex cyclotomic polynomials for cyclic convolution 8307
complex polynomial zeros approx. 5773
complex polynomials and cct. lower bounds for modular counting 21280
computer network, trees/rings, fault-tolerant reconfiguration 3202
computer network multitype concentrator location 41755
conferencing network centralised and distributed control designs 41973
confluent Vandermonde lin. systs. and generalized Trummer's problem 37335
consecutive-k-out-of-n:F syst., $O(k^3 \cdot \log(n/k))$ algm. 28539
constraint based audio interpolators 16003
convolutional codes, min. error-trellises constr. 32129
corrugated periodic struct. noisefree static field calc. 31892
cryptanalysis for cryptosystem, involution *(Japanese)* 40622
data assoc. in multitarget tracking, efficient algm. 24331
data transm. SVD-based fractionally=spaced equaliser perform. 42043
DC small sig. symbolic anal. of large analog ICs 12281
DCT based image coding, error concealment tech. 33151
decimation FFT algm. generalisation 37375
decimation-in-time-freq. FFT algm. 32767
decision-feedback blind equalization based on strictly convex cost fn. *(Chinese)* 32005
decorrelation algm. for blind DFE, lattice structs. 24264
Delaunay triangulation, constrained 282
diagnosis algm. for const. degree struct., VLSI cct. testing appl. 38947
digit pipelined discrete wavelet transform 29381
digital cct. simulators, complexity eval. 480
digital curves, optimal polygonal approx. 41183
digital halftoning, 2-D carriers, noninteger period 41195
digital seq. reduced-state seq. estim. 40535
digital signature scheme alternatives 24106
digital sigs. with ISI, demodulation 40571
digital sound processing architectures, sound synthesis, complexity optimisation 34298
directly connected image guide 3dB directional couplers, transverse operator anal. 21517
discrete convolution algm. develop., parallel-decomp. algm. appl. 32632

computational complexity continued
discrete lin.-quadratic filtering 8361
discrete logarithms, rational subgroup of Jacobians of large genus hyperelliptic curves, finite fields 20548
discrete-time anal., busy/idle period distribs. of ATM multiplexer 3278
discrete-time periodic sigs., wavelet transforms 40898
discrete-time single-server queueing systs., general Markov-modulated arrival procs. 33226
disparity-space images and large occlusion stereo 24618
distributed scalable routing based on link-state vectors 2988
distributed telecomms. systs., sojourn time distrib. modeling 33237
DOA estim. via extended phase interferometry 24327
DOA max. likelihood, estim./detect. 2559
domain image fast progressive reconstr. 33021
double block length hash fns., attacks 8131
double-talk detect. for adaptive noise canceller 8182
DS-CDMA receiver complexity reduction 17011
dyn. word problems 5732
EDFA modelling, num. methods efficiency 14768
edge-based heuristic for Steiner routing of VLSI and PCBs 456
edge-coloured complete graphs, alternating paths 28601
elec. ccts., complex, nonlin., num. simul. 510
EM fields, multilevel eval., scatt. problems soln. 15387
EM problems, multilevel moment method multiplication correction algm. 23612
EM scatt., axisymmetric cases, integral eqns., parallel computing 2197
EM scatt. by z 23613
equaliser for IR-wireless LAN using RBF neural networks 33469
Euclidean Voronoi labelling on grid 41069
EVENODD, efficient scheme for tolerating double disk failures in RAID archits. 22703
exact nonlin. filters, theory and appls. 12644
excitation plane FDTD wideband absorbing boundary conditions 15423
expected time complexity of graph partitioning problems 37244
fast algms. for DCTs and discrete sine transforms 8371
fast computation of crit. sampled time-freq. sig. representations 32464
fast Hartley transform algm., radix-3/9 20642
fast motion estim. algm. for MPEG video coder 16195
fast real-valued transforms, complexity-based timing anal. 5800
fast sort, priority queue and convex hull on entropy bounded inputs 5752
fast VLSI-efficient self-routing permutation network 30420
fast-reponse ultrasonic distance sensors 26800
fault diagnosis problems on Hopfield neural network *(Japanese)* 34410
fault tolerant FIR adaptive filter, conjug. gradient algm. 29365
feature extraction, parallel, distributed memory computer 41101
FFT bit-reversal algm. 37376
Fibonacci p-codes, stack filtering, decomp. methods 24180
fictitious sources in GMT, improvements 23606
field-excited transm. line systs., time domain anal. 15495
finite cylindrical dielec. targets with gently varying cross-sections 23560
finite rect. array anal. with simultaneous integral eqns. 31976
finite-dimens. continuous-time dyn. systs., nonlin. ccts. appls. 514
finitely generated semi-groups appls. 20555
FIR composite length fast filtering on ADSP-2100 proc. 29389
FIR digital filter design, quadratic prog. 37884
fixed-polarity AND/XOR canonical networks minimisation 599
fractal-based image coding, fast decoder convergence 2740
fractionally-spaced equalization, lattice struct. 781
free energy minimisation algm. for decoding and cryptanal. 32111
freq. assignment problems, genetic algm. appls. 9199
freq.-selective Rayleigh fading channels seq. estim. 8373
frequency-selective fading channel orthogonalising simulator 40343
fringe thinning algms. in photomechanics, perform. eval. 41198
FS1016 CELP coder, stochastic codebook, dyn. partial search 33702
FSE/DFE-based HDSL equalizer, adaptive algms. 9087
FSS FDTD anal. with Floquet boundary condition 15625
full search vector quantisation algm., massively parallel implement. 15837
fully digital demodulator, combined interpolator filter for timing recovery 15707
functional sig. transforms without multiplication operations 8268
generalized and partial FFT 284
generalized Chen transform, fast transform for image compression 16319
generalized discrete Gabor expansion, fast algms. 2535
generalized multidelay adaptive filter, struct./convergence anal. 24199
generalized Riemann hypothesis verifying class no. 20552
genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
genotyping by multiplexing PCR *(French)* 24762
global block matching, video encoding 16098
globally convergent adaptive blind filters and blind equalisers 2863
globally optimal scalar quantiser, complexity reduction 32528
Golay-coded M-PSK, Rayleigh fading channel, decoding 32090
graph compression schemes for dense and complement graphs 28607
grey level co-occurrence matrix parallel array algm. 33019
grey level point distrib. models fitting, animals in scenes 24563
GSM full-rate vocoder chip design 42086
half-band filter synthesis, freq. response masking 15939
Hamilton cycles counting in dense graphs 5775
handwritten Chinese characters, stroke extraction based on modified polygonal approx. 24535
harmonious colouring for trees complexity 37243
head boundary location, fast algm. 16321
hi-fi mobile DAB scheme 9695
hierarchical and modular local ATM switch, design and anal. 33169
hierarchical commun. networks, message routing, polynomial-time algm. 8784
hierarchical scalable expanders, packaging/multiplexing 24765
high level architectural synthesis, precedence anal. and automatic cycle detect. in DFGs 21068
high range resoln. radar returns, model based ATR 17393
high-level synthesis, complexity of allocation problems 12268
high-speed cubic convolution, charact. of interpolation fn. *(Japanese)* 8254
high-speed staged decoder VLSI systolic archit. 40586
high-speed train, adaptive channel equalization 3423
HMM speech recogn. perform., MAP estim. params. 32266
horizontal and vert. elec. and mag. dipoles in multilayer media 23753
hybrid finite-vol. FDTD modelling of curved surfaces 23595
HYPER-LP, high-level synthesis syst., appl. specific datapath intensive CMOS ccts. 12401
IIR digital filter with real coeffs., design 32791

computational complexity continued
IIR digital filters, time-domain pipelining tech., stabil. 6225
IIR/FIR two-channel biorthogonal filter banks and wavelet bases 37880
image anal., recursive erosion/dilation/opening/closing transforms 24700
image compression, 2D DCT 24646
image compression, human visual syst. model and wavelet transform coupling 32831
image model bases, struct., inform.-theoretic clustering 2766
image primitive grouping, stochastic, graph-based 41110
images, pattern spectrum calc., chess-board dists. 24375
imprecise computations, scheduling algms., max. error minimization timing constraints 33277
indirect meas., error estim., tractability 3703
indoor wireless low complexity, low delay speech coding 8193
inexpensive Gabor decomp. 32517
infinite periodic array element behaviour computation using FFT 31972
inner-product proc., area efficient, VLSI implement. 12562
integrated scheduling, allocation and module selection for design-space exploration in high-level synthesis 21061
interval graph completion from path graph, NP-completeness *(Japanese)* 206
invariant image recogn., triple correl. and neural networks 33056
irreducible components of semialgebraic set, finding complexity 28660
irregular curve pyramids, parallel line grouping 16395
iRULE, fast hot-carrier reliab. diagnosis using macro-models, MOS digital logic 29114
isolated dielec. disc resonant freq. and far field computation 23828
isomorphism problem for directed path graph 37271
k-out-of-n:G and k-to-l-out-of-n:G systs. reliab., $O(n\cdot(\log_2(n))^2)$ algm. 28540
kernel design, alias-free time-freq. distribs. 32742
key generation systs., alg. aspects 8153
LAN, time complexity of exchanging messages, internetwork proc. *(Japanese)* 16719
land mobile commun., DFE, interpolation *(Japanese)* 17138
large-target scatt. cross-sections, fast multipole computation 25564
lattices, dens./length profiles and trellis complexity 24030
lin. block codes, dimens./length profiles and trellis complexity 24029
lin. block codes, soft-decision decoding 32093
local and global multiscale image class. 32835
local-control approx. algm. for multicommodity flow 5772
logic synthesis and optim. of multiple-valued logic fns. 6058
lossless data compressors, fixed dictionary, adaptive update algms. 32127
LOSSYWIRE, lossy coupled transm. line simul. kernel 33732
low complexity network sync. 41393
low-complexity bit-serial (inverse) DCT archit. 37790
LPC speech coding, fast LSP VQ algms. 15855
Lucas fn. security, public key systs. 32071
LUT-based FPGA technol. mapping, nominal delay minimization 12422
LZW coding/sliding window for data compression 40628
M-ary DPSK, MLSE differential phase detect. 2563
M-channel biorthogonal filter banks 21426
M-LCELP speech coding, 4 kb/s, multi-mode and multi-codebook 9120
M-wave scatt. bt. dielec. cylinders, weighted point-matching improvement 23611
M/G/1 type approx. of slot-occupancy pattern in DQDB network 3161
maneuvering target tracking, single Kalman filtering algm. 32724
map topol. clustering by genetic algm. 24378
Markov modulated Poisson stream loaded multiplexer loss probab. estim. 41483
matroids, common bases 28600
mean-field theory and multitarget tracking 15869
measured eqn. of invariance, computational savings 23605
mesh-restorable network spare capacity placement strategies 41550
message terminating algms. for anonymous rings of unknown size 41895
metrics, generalized bipartite, hypercube embedding 28599
microstrip antenna anal. moment method *(Croatian)* 2310
microstrip passive filter anal., FDTD algm. improvement 29536
microwave power amp. design, nonlin. mixed anal./optim. algm. 29558
microwave propag. model for (sub)urban macro celluar coverage prediction 33777
min. broadcast time problem 24897
min. complexity criteria, asymptotically optimal fn. estim. 32023
min. cost isolated failure immune networks 8788
min. delay placement, influ. of nets/hierarchical clustering 30411
min. representation of semiorders, intervals of same length 28604
min-cut replication in partitioned networks 12261
mixed searching and proper-path-width 20523
MLSE, dyn. threshold detect. 40881
MMSE seqs. for channel estim. 8083
mobile radio channel modeling by echo estim. *(English)* 9338
modified ISI canceller for digital microwave radio 9168
modified-geometry problems, full-wave EM scatt. fast algm. 23538
modular exponentiation algms., nonstandard arith. 32097
modular reduction algms., design methodology based on key/cryptosystem modif. 32075
module orient. problem based on Manhattan wire meas., NP-complete 1476
monadic quantifiers nos. in monadic $\Sigma_1{}^1$ 28622
morph. wavelet transform 28568
motion compensated visual pattern image seq. coding 16945
motion field determ., multiple image sens. integrat. 41111
motion from image seqs. and recursive affine struct. 24459
multi-channel/port traffic assignment fast algm. 8742
multi-commodity flow problem, computational complexity *(Japanese)* 12254
multi-layer multi-terminal topol. routing, vias-per-net *(Japanese)* 12250
multi-server discrete-time queues, transient anal. 2894
multi-service networks, mean-value anal. of call admission control thresholds 41394
multi-single-stage shuffling switch, design/perform. 16430
multi-user demodulation, real time, hybrid digital computer-Hopfield neural network CDMA detector 16459
multicarrier modulation syst. equaliser training algms. 40559
multichannel space-time sig. proc. providing local interf. suppression 32572
multicomponent radar interf., adaptive suppression 34120
multidimensional switching networks, universality 8704
multilayers, single row routing 29662
multilevel block codes for Rayleigh-fading channels 15768
multipath channel Viterbi algm. multitrellis decomp. 40558
multiple failure diagnosis, w.r.t. computational complexity 34354
multiple TCM reduced complexity seq. decoding 8094

computational complexity continued
multiresolution tree search, iterated transform. based coding *(Japanese)* 24119
multiresolutional target tracking 15878
multiscale stochastic models likelihood calc., appl., texture discrim. 24594
multispectral image enhancement, histogram explosion 24508
multispectral images, multivariate contrast enhancement tech. 26703
multistage decoders, complexity/perform. tradeoffs 15727
multistage networks, multicommodity flows 41402
multitarget tracking, dominant probab. data assoc. 15913
multitarget tracking, quick data assoc. algm. 16056
multivariate autoregressive model, max. likelihood estim. 2478
MUSIC estim. of real-valued sine-wave freqs. 40896
negation-limited cct. complexity of clique fns. 29173
negations needed to compute parity fns., NOT gates 29174
network reliab./sampling, Monte Carlo/Markov chain techs. 41396
networks with small failure sets, threshold reliab. 37200
neural nets, node complexity of threshold ccts. 6276
neural network simulations, educational environment, DSP based acceleration 21472
neural networks appl., lossless image compression 2546
NLMS/block RLS algms., block proc. algms. link 32553
Noether irreducibility forms and appls. 37311
noninteractive zero-knowledge proofs, complexity of bounded-interact. 8177
nonlin. filtered seqs., lin. complexity, FT approach 32178
nonlin. least sq., robust sig. modeling 40999
nonlin. speech predictors, recurrent nets 32425
nonperiodic BVP, polynomial time-marching 5784
normal bases computing in finite fields 20579
NP-hard graph problems, generating hard and diverse test sets 37252
NP-hard optimisation problems 20569
obj., 3D, reconstruction, min. vol. intersection no. 2855
obj. recogn., constraint satisfaction, Hopfield neural net 24722
obj. recogn. under projection distortion 33092
one-layer routing on the EREW PRAM, optimal parallel algms. *(Korean)* 21017
one-way fns., finite near-rings 32076
optimal coarse grid size in domain decomp. 272
optimal init. phase wavelet transform 24255
optimal trellis-coded 8-PSK and 4-AM modulations for Rayleigh channel 8104
OQPSK in indoor environ., perform. 9301
oracle quantum computing, complexity 14563
orthogonal least sq. algm., computational requirement 32782
orthogonal least sq. algm., computational schemes 24226
oversampled bandpass sigs., inphase/quadrature components extraction 2517
p-adic nos. complexity theory 5739
p-adic stationary proc., max. Ch-entropy estim./fast algm. 32768
packet routing algms. on mesh-connected computer 41403
packet routing schedule, O(congestion+dilation) algms. 16526
parallel form DFE, DFT 8383
parallel genetic algms. for earliness-tardiness job scheduling problem 28642
parallel proc. for test generation, perform. anal. 17662
parallel QR decomp. on network of transputers 37325
parallel SME filter for 3-D tracking of multiple targets 15871
parallel systolic algm. implement., RLS lattice example 37886
parallelizable adaptive least sq. algm., tracking abilities 32751
parallelization strategies eval. for incremental Delaunay triangulator in E^3 28694
partial response CPM decoder optim. by state-space partition 40588
partially adaptive lin. constrained arrays, sparse approach 41015
partially occluded planar curves matching 24598
patch resonator soln., combined complex image and contour integral method 29538
path-oriented algm. for cell selection problem 37705
path-oriented algm. for cell selection problem, logic gate networks 21255
pattern recogn., HVRI algm., VLSI implement. 41358
pattern recogn. by homomorphic graph matching, Hopfield neural networks 24567
pattern search, genetic algms. and neural network model 41354
PDC half-rate speech coding std., real time operating prototype 25163
pel-recursion with integer estim. updates, non-interpolative kernel 2850
permutation layout, topol. via minimization problem 37602
pipelining, throughput/resource utilization optim., transform. 12583
planar contours pair linkage, multiresoln. tiling 16352
Pocklington's eqn., CG-FFT method with nonuniform sampling 23818
polynomial time algm. for exact encoding of space containing polygonal obstacles 2366
polyphase quadrature filters fast algm. 6235
power syst. dyn. anal., num. efficient algos. 4499
prefix codes, equiprobable words and unequal letter costs 24108
prime implicants generation of logic fn., multilevel synthesis 5957
prog. space compactors selection for BIST 12459
progressive image transm., LOT, two-channel conjug. VQ 16382
projection approx. subspace tracking 24204
proportion-sign algo. for adaptive filtering, perform. anal. 2519
protocol conformance test generation *(Chinese)* 24810
public-key cipher syst. based upon diophantine eqns. 24065
pulse coded winner take all networks, VLSI implement. 796
QPSK adaptive DFE with MLSE 41385
QR decomp. method of least sq., neural network algms. 33153
QRD inverse-updates method for fast time-series adaptive filtering 32478
QRD-based sq. root free and division free algms./archits. 28656
quadratic m-seqs. 8132
random AM harmonics estim., higher order spectra 8406
rank and subspace tracking, lin. computational complexity, adaptive algm. 40912
RCS of large objs., fast far-field approx. 42489
real no. model in num. anal. 28644
real-time cyclic spectral anal., computational bal. 40939
real-valued decimation-in-time/decimation-in-freq. algms. 8437
RECALS II list scheduling algm. for high level synthesis 28970
reconfigurable knowledge database, nonlin. sig. proc. *(Japanese)* 24335
recursive const. modulus algm. for real-time array proc. 8352
recursive differentiators, design, quadratic prog. 763
recursive differentiators design, const. group-delay characts. 2521
recursive spline-based algorithm for spectrophotometric data correction 25771
Redei fns., fast eval. algm. 40687
reduced complexity ESPRIT method, generalization, antenna array 40911

computational complexity continued
reduced-state soft decision feedback Viterbi equaliser 3425
regularity of matrices in min-alg. and time-complexity 37318
reliable token dispersal, random faults 25006
representation of order, union of interval orders 28603
RESTART method, accelerated simul., multiple thresholds 33248
Rice/Rayleigh channels state estim., nonlin. filtering 8456
ring network, distributed multiset, finding extrema 41767
RLS based subspace tracking 32470
RNS to binary conversion, parallel algm., moduli set 29089
road boundary detect., parallel local, extraction 24596
road segment matching using probabilistic relax., hierarchical approach 8502
robustness of functional eqns. 11994
RS codes constr. by generalized multiple concatenated codes 24102
SAR based ATD/R, speckle reduction via wavelet shrinkage 34110
satellite reflector antenna diffr. synthesis optim. 23874
satisfiability problem solving, static elec. field theory 15246
Schur method for low-rank matrix approx. 32471
segmented channel routing complexity 12272
segmented channel routing problem, complexity 38953
self-calib. DOA estimator, computationally efficient 41050
semicontinuous HMM speech recogn., multiple VQ 2433
series-parallel variable resistor networks, geometric charactn. 479
Shiva multiprocessor syst., neural network simul. mapping 32427
short-lived dyn. syst. discrete adaptive filters 32650
simplified max. likelihood freq. detector perform. anal. 40552
single and multi microphone noise cancellation, fast algm. 32484
slowly evolutive waveguide reft. and transm. computation 23812
SMDS networks, link set capacity augmentation algms. 16435
software codec for PC based on DCT 16942
SONET rings, optim. problem, balancing loads 9553
source bearing estim., propagator method 40895
source bearing estim., propagator method, perform. anal. 40959
SP20, computing, compression 40797
sparse polynomial interpolation in nonstandard bases 37314
sparse polynomials, randomized interpolation and approx. 37313
sparse-matrix canonical-grid method for scatt. by many scatterers 31794
spatial freqs. estim. in sparse lin. array 32612
spatial-Doppler filter, projection method, calculate weighted coeff. vector 42492
spatio-temporal proc., high-resoln., fast algm. 8263
spectral coeff. calc., cct. output probabilities 2513
spectral rad. of sets of matrices 32526
speech coding, adaptive dens. pulse excitation 24158
speech coding, multipulse algm., adaptive Boltzmann annealing 15808
speech coding, variable bit rate ADPCM via arith. coding 32256
speech echo cancellation, adaptive-filtering techs. 32411
speech line spectral freq. params. coding 32335
speech LPC coeffs., VQ-lattice VQ 32333
speech recogn., HMM with duration modelling, parallel implement. 40745
speech recogn., multiple VQ and semicontinuous HMM 32224
SPN, structural perform. anal. 37264
stack filtering, parallel algms. and VLSI archits. 21422
stat. snakes, act. region models 41132
state-space modeling, direction finding of wide-band emitters 2554
std.-cell VLSI cct. design, timing and area optim. 21256
std.-cell VLSI cct. design, timing/area optim. 37706
Steiner min. trees in grid graphs, appl., VLSI routing 28925
step-shape charact. calc. in rect. waveguide 8024
stereo reconstruction tasks, increasing precision and reducing computational complexity 2691
stereoscopic viewing of at. struct. 34336
still video compression, DCT-based 8601
stochastic CFG rules learning from example text 32293
stochastic complexity and universal modeling 32120
sub-optimal nonlin. predictor, reduced complexity config. 8465
subband DFT, accuracy/complexity/appls. 40778
subspace tracking algm. based on SVD 41003
subspace-based line detect. algm. 8517
successive elimination algm. for motion estim. 16317
super-pattern matching, patterns of patterns 24670
surface, discrete, continuous resoln. polygonalization 16353
suspen. striplines, proper values/vectors calc. 37933
symbolic solns. for class of PDE 20620
symmetric matrix decomp. parallel structs. 28670
symmetric pos. definite lin. eqns. of displacement rank 2, fast algm. 32483
syst. reliab. estim. uncertainty eval. methods 11882
systolic array design for 1D discrete sine transform 8569
systolic array for finite elements 12404
systolic interconnection network 16537
target tracking, data assoc./nearest neighbour combinations 15914
TDMA satellite switched scheduling algm. 42309
telecomm. traffic, modified adaptive seq. projection algm. 41679
telecomms., adaptive routing for equitable load balancing 41575
telecommunication network optimal alternative routing algms. 41552
ternary lin. codes, NP-complete coding problems 40631
Texas Instruments and Analog Devices, fixed- and floating point DSP chips *(Polish)* 37791
thin conducting plate problem, biconjugate gradient FFT method appl. 40289
time-freq. complexity and inform. 32741
time-varying nonselective fading channels, max. likelihood data-aided symbol sync. algms. 41386
tracking, variable-dimens. filter, input estim. 24329
tree-struct. vector quantizer for image compression on MasPar MP-1 parallel machine 16189
trellis shaping schemes bandlimited PSK-sig. envelope control 8095
triangulation problem soln. 15903
Tutte polynomial coeffs. complexities 37295
two-level coding based on TCM and RS codes 15766
two-stage fast block matching algm., integral projections *(Korean)* 24684
two-terminal nets via minimization through dyn. prog., partitioning of terminals 5950
UltraSPARC μP verification 29287
UltraSPARC visual instruction set, MPEG video decoding 29289
unit memory codes, bounded min. dist. decoding 32067
upper sideband and lower sideband SSB sigs., ident. algm. 40900
VC-dimens. anal. for obj. recogn. 24462
vector addit. theorem computation 23549
VGA colourmap optim. methods compared 33022

computational complexity continued
video compression, optimal inter-frame alignment 24695
video data compression, adaptive speed VQ 8652
views of 3D objs., stabil. and likelihood 24436
virtual space teleconferencing, human fig. synthesis/animation 33619
Viterbi algm. simultaneous data detect. and channel estim. 8385
VLSI cell placement, self-organizing scheme 5962
VLSI RC parasitics modeling based on network reduction algm. 22536
VQ, fuzzy, algms., efficiency 2401
Walsh transform. for speech echo interf. suppression 24159
waveform relax., overlapping splittings 20631
waveguide dispersion anal., compact FDTD tech. 23778
waveguide open and slit coupled T-jns., single port mode matching 31895
wavelet extrema/zero-crossings representations, props./reconstruction 32708
wavelet transform quantised coeff. redundancy removal 41092
wavelet-packet-based multiple access commun. 33202
weighted integrity of graphs 11982
weighted median filters anal./design, fast algms. 33013
Whitney elements time domain methods for solving EM Maxwell eqn. problems 40183
wideband all-digital PLL design with multirate digital filter banks 37674

computational geometry
2D image partioning/recog., computational aspects 32922
3D digitized curves optimal length estim. 41182
3D image feature extraction, diff. geom. 2664
3D obj. reconstruction, vol. intersection 2778
3D obj. shape, pose, and deform. estim. 2758
3D rigid solid obj. recogn. from 2D projective images 41252
3D shape recovery from contour 24413
aerotriangulation using digitized images, OEEPE research project 41265
affine and projective normalization of planar curves and regions 24637
affine invariants appl. on perspective projections of plane curves 24368
alg. derivations of relative affine struct., 3D reconstruction 41336
approx. results on graph matching and related problems 37270
best k-link piecewise-lin. fn. approx., uniform metric 20585
Bezier and B-spline tensor products, computing values and derivatives 20575
brain anatomical struct. recog., genetic algm. 2799
CAD-based vision, conf., Champion, IL, USA (Feb 1994) 36878
camera calib. from spheres images 24605
canonic representations for geometries of multiple projective views 24481
chain of blossoms computing, appl., products of splines 11973
closed surfaces, parametrization, 3D shape description 32906
commun. network constr., online algms. 16517
computable error estim. for lin. and num. soln. of obstacle problems 37368
computer vision, 2-D chromosomes 8494
corner detect., model based segmentation 2667
CRIPT, OCR syst., multicolumn texts anal. 41239
curvature anal. and visualization for fns. defined on Euclidean spaces, surfaces 11975
curvature approx. of 3D manifolds in 4D space 11974
curve-surface registration, differential props. 24619
cylinders, right generalised geometric protective props. of contours 287
digital curves, coding scheme 24021
digital curves, optimal polygonal approx. 41183
digital multicolor well-composed pictures 41071
digital straightness, skeleton prop. 41070
distrib. networks, automatic cable router 43741
ellipses and circles, least-sq. fitting 20593
epipolar fields on surfaces 24435
epipolar geom., robust recovery for uncalibrated stereo rig 24479
Euclidean Voronoi labelling on grid 41069
expected time complexity of graph partitioning problems 37244
extrema curvature evol., scale-space 24444
fast sort, priority queue and convex hull on entropy bounded inputs 5752
feature-based approach, 3D obj. reconstruction 41262
finite elements, distortion, degeneracy and rezoning survey 281
fixating binocular vision syst., local surface shape estim. 24469
framework for cost-scaling algms. for submodular flow problems 5764
fund. matrix, stabil. anal. 24480
G^2 continuous β-spline curves defined on interval $\langle 0,1)$ 37317
geom. convergence of general iter. methods applied, nonunique solvable convex problems 37301
graphs, degree/diam. problem 2980
group extraction for recogn. 24463
Hamiltonian-Jacobi connection of mathematical morphology 24716
heavily covered points selection 5797
helicopter antenna pattern prediction, improved NEC code 26529
hierarchic shape description via sing. and multiscaling 2687
hierarchic Voronoi skeletons 41181
high order approx. method for curves 20574
image morph. struct., diff. eqns. 8518
image reconstr. from visibility graphs, completeness 2856
intrinsic stabilizers of planar curves 24636
lin.-size nonobtuse triangulation of polygons 20637
Min-k-overlap problems using principal lattice of partitions approach, approx. algms. 28657
motion video anal., planar parallax 8488
multi-level edge primitive matching, cooperative strategy 32851
multi-view image set, data compression/interpolation 2647
multiobjective LP, interior search directions generation, approx. gradients and anchoring points 233
obj., 3D, reconstruction, min. vol. intersection no. 2855
obj. space based surface reconstruction, discontinuities 41273
ocean wave directional spectra, HF radar computational geom. 26737
optimal order collocation method for first kind boundary integral eqns. on polygons 37364
optimal vertex-connectivity augmentation 11930
parallelization strategies eval. for incremental Delaunay triangulator in E^3 28694
param. free inform. preserving surface restoration 24621
periodically deformed cylinders/cylindrical shells, EM scatt. 31799
photom. ratios for 3D stereo 24623
planar shape recogn. under affine distortion 24574
polygonal contour extraction/lin. filtering 2693
polygonal slices, piecewise-lin. interpolation 20584
polynomial time algm. for exact encoding of space containing polygonal obstacles 2366
product range spaces, sensitive sampling, and derandomization 5762
quadratic Bezier curves approx. by arc splines 20591

computational geometry continued
quadrature formulas, symmetric interpolatory, efficiency measures 20615
raster-to-vector conversion by line fitting 41357
rational cubic curves, BR-curves 20573
real-time image generation *(Chinese)* 41283
scaling heuristic for reconstruction from slices 2723
scene reconstruct. multiple viewed scatt. data 2779
series-parallel digraph drawing 20560
series-parallel variable resistor networks, geometric charactn. 479
simulated annealing for graph bisection 5759
single line drawing interp. for obj. reconstruction 41243
sinuous spiral antenna geom. model 23831
skeletonisation, extended Euclidean dist. transform 41140
Smith chart CAL method 28290
solder joint shape prediction by computer modeling 11738
Steiner min. trees in grid graphs, appl., VLSI routing 28925
stereo images for deriving orient. cues 24470
surface curvature and orient. recovery from texture distortion 24468
surface feature extraction, 3D image partial derivatives 32907
surface reconstruction, adaptive mesh generation 2756
surface representation, 3D, based on invariant charact. *(Japanese)* 32864
task driven perceptual organization for extraction of rooftop polygons 8637
travelling cameraman problem, PC inspection 28516
true 3-D digital video effects proc., real-time computer graphics 41201
TV-Trackmeter, underwater stereoscopy, hostile environ. appls. 24483
unbiased least sq. fitting of circ. arcs 252
VC1 interpolant constr., triangles via edge deletion 11976
vector approx. in geometric vector optim. 227
vertex-symmetric digraphs, small diam. 37250
viewing graphs implications, geometric objs. 5758
visual learning and recogn. of 3D objs. from appearance 24572
weighted fractional and k-matching cumulating in hypergraphs 37297
WISE CAD software for indoor wireless systs. design 42189
computational linguistics
see also semantic networks
binary matroid ports learning 5782
connectionist parsing of spoken lang., complex output representation 32296
directory authentication framework 8954
ergodic HMM and polygrams for lang. modeling 32294
probabilistic lang. models, weakness anal. *(English)* 40736
pronunciation lexicon in automatic speech recogn. *(English)* 40734
robust lang. model, substring parser and extended n-grams 32295
speech recognizer, ref. model optimisation via pronunciation variability *(German)* 40738
stochastic CFG rules learning from example text 32293
word recogn. algm., part of speech tagging 2657
computer aided analysis
see also analogue simulation; CAD; circuit analysis computing; control system analysis computing; electric machine analysis computing; hybrid simulation; power system analysis computing
3D FDTD slotline anal. on limited memory PC 23789
coaxial-to-waveguide adaptor with probe/tuning post, anal. 21521
dairy barn environ. for arctic climates, computer anal. 11515
DIII-D tokamak, reflectometric dens. profile meas. advances 34679
direct-contact type lin.-image sens., readout characts. anal. 25878
EMC, conference, Dallas, TX, USA (1993) 36844
EMC compliance, software tools 23660
fatigue life of solder joints, FEM study of factors 11756
HF quartz resonators charact. anal. 30610
ISO FTAM basic file protocol, LOTOS specified, anal. 41538
leucosapphire disk dielec. resonator, temp. coeff./freq. depend. 30654
lin. accel. transducers, effect of random vibrs. 3810
monitored atmos. releases, radiological assess. codes benchmarking 4344
NPP, human related incidents, PC aided anal. *(Japanese)* 35820
PIN-PD model, OEIC CAA program *(Chinese)* 14597
product design proc. improvement, CAD tool-based 11697
target tracking, cpd. Markov chain anal. of false track generation 15868
waveguide cct. design by combination of field theory and nodal anal. *(German)* 23784
whispering gallery sapphire resonators, 2D finite element calc. 30625
XFACT, diffusion furnace anal. and charactn. tool 22557
$Li_2B_4O_7$ substrs., leaky SAW propag. props. 30638
computer-aided circuit analysis *see circuit analysis computing*
computer-aided circuit design *see circuit CAD*
computer-aided design *see CAD*
computer aided design and drafting *see CAD*
computer aided facilities layout
crosstalk modeling for automotive harnesses 15532
computer aided geometric design *see CAD; engineering graphics*
computer-aided geometric design theory *see computational geometry*
computer aided instruction
see also computer based training; courseware; education; intelligent tutoring systems
3-phase induction motor simul. for teaching purposes 66
ADAMLAB educational agency designs voice output commun. aid 41582
adaptive sig. proc., teaching, algm./architect./appl. 36925
audio coding demons. package for telecomms. education 33314
BLISSVOX, voice output commun. syst. for teaching disabled children 40724
CAMAD, Computer Aided Microwave Amplifier Design, undergraduate instruction package 5519
cct. simul., computer assisted learning, Windows Help files 5536
colloquium, education for biomedical science/engineering, London, UK (1995) 20235
computer-mediated commun., literacy, playfulness/gaming 41948
continuing engng. education, computer appl. prospects 69
CTA project, infrastructure for flexible dist. learning in Europe 16859
data acquisition tutor and prog. interface 65
deaf children, computer aided speech training 35182
DEDICATED's modular training syst., computer based teaching syst. 16860
developing countries, primary education, multimedia network 25114
digital ccts., arith. units simul. 5968
digital electronics, state machines, direct cct. implement. 5969
discrete event simul., computer based learning, hypertext 20407
dish antenna design alternatives, test beds for student investigs., DishPat and FeedPat programs 31915
dist. learning, digital video 41968
dist. learning and computer-mediated commun., interactivity 11620
computer aided instruction continued
dist. teaching of informatics, motivations, means, and alternatives 24934
dist. tutoring via integrated desks and ISDN 9021
DSP, practical approach 36922
DSP, teaching, computer based/dedicated hardware projects 36919
DSP demons. facility, sound card/MATLAB 36920
DSP education spreadsheet package and TMS320C25 simul. 36918
DSP teaching via sound demons. software 28339
dual field modelling, tubes and slices 28331
DYNASIM, dyn. systs. simul. package 28342
E-talk, computer-assisted classroom discussion, attitudes/motivation 33411
elec. ccts., energy, computer assisted learning/teaching 37589
elec. engng. continuing education in Malaysia, multimedia appl. 20298
elec. engng. course, computer tools introduction 20278
elec. engng. course, EM field visualisation software 20312
elec. engng. education, simul. modelling appl. 20299
elec. engng. lab. expts., software tools incorporation 20311
elec. engng. training programmes, overview 36935
elec. power engng. education, multimedia impact 20303
elec. undergraduate lab sessions, interactive multimedia syst. 20305
electric machine lab. PC data acquisition syst. 28336
electrical engng. education, learning technology appls. 28357
electronic design automation, classroom experience and student altitudes 28345
electronics lects., computer based presentation, graphical simul. 20308
EM CAD in undergraduate courses 2171
EM education, multimedia computing appl. 20313
EM education multimedia lessons 28286
empty pathways, computer mediated comm., faculty use 33409
EMTP as educational tool, power syst. transients anal. 4475
Eng. teaching, electronic brainstorming syst. appl. 9031
engineering communication, new frontiers, evol. of communic. vehicles 28309
engineering education, developments, courses conf., Washington, DC, USA (Nov. 1993) 36901
engng. degree lab., TMS320C25 DSP chip-based course 20345
engng. education, computer-aided lab. expt. interfaces 36939
engng. education, integrated experimentation/computerization 20304
engng. education, obj. recogn. algm., graph matching-based 20346
engng. instruction via computer alg. 36910
engng. undergraduates, expt. skills develop. 5538
Hawaii, developing virtual learning environ. 3058
Hawaii, school library networking 3198
hydroelectric power plant operator training simulator develops. *(German)* 4862
hypermedia learning appls., extended, using full motion video 42638
image commun., open distributed environ. 16864
induction machine behaviour anal., interactive colour graphics 11050
induction motor/transformer economics teaching, software package 27725
indust. engng. education, computer usage 11602
inform. rev., socioeconomic implications 41584
intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
interconnected LANs, desktop video conferencing syst. 33618
Internet for IS education 16764
introductory elec. engng. course, cct. simul. software 5530
introductory-level ccts. learning, develop. of interactive tutorials 20301
ISABEL, expt. distributed cooperative work appl., broadband networks 16863
lang. learning hypermedia syst., grammar implement. 34281
learning network design, coordinating group interacts. in formal learning environ. 11618
maint. of plants/equipt., learning environ., virtual reality *(Japanese)* 36486
MathCAD, expt. simul. lab for teaching sig. proc. 20294
Mathcad for elec. engng. 36911
Matlab for teaching DSP 20295
microelectronic devices, documentation, hypermedia approach 12589
microwave expts., multimedia in teaching 28338
Mosaic, WWW and networked multimedia, learning tools 20342
multimedia computer-based teaching, case study 20315
multimedia inform. mgt. syst. for network-based CAL 8972
multimedia materials, digital video for computer sci. education 17577
multimedia med. phys. course, imaging/instrumentation 43183
multimedia teleteaching syst. 5516
neurosurgery, video-as-data, ethnographic studt 43324
OPENet, collaborative learning environ. for education and training 3244
PC program in teaching ccts./systs. 5528
pers. DSP, teaching/learning role 36927
phys. lects., multimedia interact. 20310
physicians, Mosaic and World Wide Web guide 41799
power electronic circuit design, OO tools, PC based *(Spanish)* 12340
power electronics undergraduate/graduate education survey, USA 5532
Power Plant Analyser, MATLAB Toolbox package 35978
power semicond. syst. simul., educational tool 30200
power syst. anal. and design education, computer appl. 20314
power syst. contingency eval. training simulator, PC-based 4606
power syst. control, intell. data, expert systs. 19166
power syst. dyns., hands-on teaching package 19025
power syst. elements, EM anal. using finite difference method, software tool 40182
power syst. protection, interactive software, education/training appl. 35683
power syst. security computer anal., educational interactive program 20284
power syst. transient stabil. simul. package, teaching/research appls. 35426
PSpice for Laplace transform eqn. solving, undergraduate course 28351
react. time expts., CAI support syst. develop. *(Japanese)* 36930
reading and listening perform., computer-controlled speech and printed text presentations 67
reciprocal compressors, teaching, computer animation 5524
rect. Hall devices, pot. distrib. determ. software 30208
sci. teaching improved, electronic mail 36912
SGMOS, student-oriented program, microcomputer simul. of submicron-geom. MOSFETs 6753
Smith chart CAL method 28290
software develop., collaboration, tertiary institutions 20316
SPC toolbox for teaching sig. proc. concepts 20293
speech handicapped children's prod-oriented teaching/training syst. 4327
speech/data integrat., real-time interactive, on LANs, multimedia in commercial indust. environ. 25066
teaching real-time DSP, Univ. of Leicester 36921
teaching sig. proc. on Information Superhighway 20296

computer aided instruction continued
  tele-teaching over-dist. education, ISDN-based 20283
  telecomms. engineers, continuing professional develop. 33311
  teleconferencing for student learning, current practice 25074
  teleconferencing syst. for research and writing skills in computing 3247
  teletutoring, BETEL network 25115
  teleworking and telelearning, multimedia commun. 3064
  thermoelectrical power plant operation, CAI 35966
  transformer testing teaching lab., graphic user interface software 20309
  transient energy and stabil., interactive program 28335
  university education, electronic textbook appls. 28277
  variable speed drives, CASED educational software program 44442
  virtual cybercampus, med. education appl. 25096
  World-Wide Web, advanced educational uses 41869

computer aided learning *see computer aided instruction*

computer-aided logic design *see logic CAD*

computer aided manufacturing *see CAD/CAM; industrial control; manufacturing data processing; production engineering computing*

computer aided production planning
  see also control engineering computing
  ASIC mfg. line mgt., on-line scheduler 28435
  cct. board prod. lines, crane scheduling, time windows 37058
  finite capacity scheduling syst. for PC manufacture 11722
  FRACAS, failure reporting/corrective action, semicond. mfg. equipt. 28416
  IBM Austin Indust. Bus. Center total prod. maint. 36985
  LSI delivery management, lot-sampling scheduling 37041
  MES, Manufacturing Execution Systems, real-time control of factory floor resources 37036
  natural lang. part descriptions 28413
  PCB assembly, CAPP 29666
  PCB component assembly, lin. assignment algm. 29688
  semicond. mfg. syst. planning/yield learning 20381
  SLACK/OTD dyn. lot dispatch methodology, IC manufacture scheduling 22521
  technol. CAD cost/yield estim., virtual IC factory 22546

computer aided software engineering
  client/server-based CASE syst. design 16765
  ECG mapping, ambulatory, integrated software environ. 26431
  elec. plants, config. support syst. shell 27298
  ISO FTAM basic file protocol, LOTOS specified, anal. 41538
  LEP high level control syst., ORACLE online database 18234
  MEGUMI groupware platform, multimedia E-mail 16839
  power syst. control ES software design, OOP techs. 27070
  prog. DSP, scheduling/instruction selection 6184
  RD13 project (LHC), software engng., CASE tools 18228
  telecom. network mgt. using inform. and proc. models, spec. description 41669
  thermal power plant start-up/shut-down proc. automation 4823
  TPS life cycle evolution, object oriented CASE 42694
  train driving simulator, struct. software develop. 44574

computer-aided tomography *see computerised tomography*

computer algebra *see process algebra; symbol manipulation*

computer animation
  color 3D image display, LCD kinoforms *(Japanese)* 15158
  digital movies, optimized, maps 33047
  elec. engng. course, EM field visualisation software 20312
  EM education, multimedia computing appl. 20313
  EM education multimedia lessons 28286
  EM phenom., computer animation, graphics package 40195
  evol. algm. for phys. motion anal. 41228
  FM TOWNS, multimedia tools *(Japanese)* 42011
  heart, human, dyn. electrophysiological data visualization, 3D model 26439
  heart dyn., human, visualization from US echograms *(Japanese)* 35009
  holo-dyn. linking, interactive electronic media 7842
  LCD kinoform, animated color 3D image 7830
  METEOSAT IR image proc. and MPEG animation 10467
  min. invasive surgery, computer animation approach 34999
  multimedia computer-based teaching, case study 20315
  multimedia environ., interactive, artificial online community 9066
  real-time video proc. and video texture generation 24528
  reciprocal compressors, teaching, computer animation 5524
  sign lang. images, intell. commun., gesture description and dictionary struct. 4311
  stereoscopic displays and virtual reality, conf., San Jose (1994) 20239
  true 3-D digital video effects proc., real-time computer graphics 41201
  TV prod. technols. *(Japanese)* 34242
  virtual space teleconferencing, human fig. synthesis/animation 33619
  visual curve tracking appl., graphics 41323

computer architecture
  see also configuration management; interrupts; logic design; memory architecture; neural net architecture; parallel architectures; reconfigurable architectures; reduced instruction set computing
  1D interconnection parallel opt. data links 42431
  3B21D BIST/Boundary-Scan syst. diagnostic test 5590
  8-bit μP based fuzzy-proc. archit. 678
  777 Autopilot Flight Director System 10336
  777 Maintenance Access Terminal and Side Displays 10335
  address generation coprocessor, design and VLSI implement. 29302
  advanced avionics subsystem technol. demons. program 10366
  airborne systems, neural network technology for BIT applications 42730
  Alpha 21164 μP, internal archit. 29285
  Alpha AXP 21164 μP, testability strategy 6160
  ATM appl., digital avionics 10389
  bit-slice archit. verification, time-space modal model 12467
  bitonic sorting optoelectronic recirculating archit. 22971
  Canard rotor/wing aircraft, integrated navig./guidance/control 10340
  CMOS μP design, energy-efficient 12565
  cockpit display generator for electronic battlefield 10375
  color machine vision, true RGB line scan camera 17927
  column compression multipliers for sig. proc. appls. 29141
  complex digital devices testing on 100 MHz tester 9796
  conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
  DCT, 2D, bit-serial VLSI archit. 21362
  decision aid for enhanced situational awareness, knowledge-based 10361
  DoD's tri-service ATE R&D program 35381
  dual segment archit. for VLSI test syst. 6819
  fault tolerant air data inertial ref. syst. testing 10365
  fiber-optic array alg. opt. computer proc. archits. 22978

computer architecture continued
  flexible archits., key, low cost FBL 10388
  G_{MICRO}/400, 32-bit superscalar μP, embedded systs. 21349
  generalized multiclass Engset model, asymptotic solns. 41931
  HP2100 computer in US Navy test sets, replacement 35380
  IEEE P1149.5 MTM-Bus, backplane test/init. interface 9807
  IEEE P1149.5 standard module test and maintenance bus 42702
  IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
  interconnecting computers, archit./technol./economics 16702
  Kalman-filter-based measurand reconstruction architecture 25765
  MC68060 μP testability 6161
  medium-throughput sig. proc. on flexible instruction-set archits. 37797
  microelectronic syst. archit./design, conf., Darmstadt (1992) 11535
  Midwest Symp. on ccts. and systs., Detroit (1993) 33
  mil. autotest cost growth, commercial std. equipt. archits. 34364
  mixed sig. ATE, data driven archit. 9813
  mixed sig. testing, synchronized control/real-time DSP 6247
  mixed-sig. ATE develop. 25730
  modular data conversion archits. and functional building blocks 700
  μP archit. and technol. *(German)* 21360
  naval helicopter avionics, next generation 10339
  object-oriented architecture of measurement systems: The user-interface 34340
  Pentium μP archit., BiCMOS implement. 6179
  pick-and-place design methodology for complex VLSI archit. 21167
  portable data acquisition and control system, multitasking/multiprocessing 34414
  prog. digital radio common module prototype 10382
  rapid prototyping of appl.-specific sig. proc., architectural issues 29240
  real-time 3D rendering, soft breadboard 10376
  real-time narrowband beamforming, efficient archit. 9676
  reversible instruction set archit. and algms. 6120
  smart act. matrix LCD for Space Shuttle 10355
  Tartan Ada develops. for DSP 21355
  transputter-based measurement apparatus for induction motor meas. 27718
  two-stage fast block matching algm., integral projections *(Korean)* 24684
  virtual instruments in VXI 42704
  virtual lab., obj.-oriented framework 3744
  VISTA virtual instrum. std. test archit. 34398
  voltage division multiplexing in commun./computer engng. 24746
  VXI-based test system 42725
  Zero Instruction Set Computer, Higgs search 41284
  GaAs HMESFET SBFL based F-RISC/I microproc. 37802

computer based training
  300 MW combined cycle power station operator training simulator *(French)* 27594
  Air Vehicle Training Systems demons. project, software develop. 18699
  aircraft taxiing/landing, simul. 4349
  avionics maint. training, equipt. simul. 35236
  distrib. network operator training, DIAPASON simulator-based 19274
  distributed simul. for live training 35406
  distributed virtual simul., networking 18995
  distributed virtual simul., networking 25019
  elec. engng. education, interactive CBT syst. 20344
  elec. supply restoration training, Netherlands 19089
  elec. utility personnel education/training overview 26971
  elec./electronic engng., CBT products 20307
  HyperCard based interactive video simul., teaching preservice teachers 34270
  hypertext mathematics, multimedia interactivity 25112
  Informedia project, digital video access 16254
  integrated generation/transm. syst. simul. 35476
  microelectronic devices, documentation, hypermedia approach 12589
  Motorola training programme improved by virtual reality 36913
  multimedia electronic performance support systems 42729
  network training, self-help materials need 11622
  New York power pool simul., dispatcher training appl. 4584
  NTT Learning Systems Corporation, multimedia technol. in global market 41592
  power network mgt. training simulator, software develop. 19125
  power syst. contingency eval. training simulator, PC-based 4606
  power syst. control education, general-purpose software-based 26972
  power syst. dispatcher training simulator, GUI-based 19157
  power syst. dispatcher training simulator, problem-oriented teaching tech. 20306
  power syst. education, computer based learning 19048
  power syst. operator training, Kytken multimedia training syst. 19164
  power syst. restoration, training, ES appl. 19165
  power system remedial action modelling, operator training appls. 19139
  professional interpersonal skills training via interactive video 34273
  radar anal. experts modelling for training/aiding 20350
  skeletal anatomy teaching, multimedia CD-ROM 43182
  target ident./sens. perform., imagery-based targeting trainer 35233
  train driving simulator, struct. software develop. 44574

computer bootstrapping
  operator services automation, speech recogn. appl. 3141
  Philips automatic train timetable IS 3130

computer bureaux *see computer facilities*

computer centres
  Amadeus's computerized reservation syst., global outsourcing 16601
  BT customer network design centre for automated design 41579
  UPS, large scale, technol. *(Japanese)* 5034

computer communications software
  used for inter-computer communications
  see also terminal emulation
  Chameleon 4.0, TCP/IP for windows 16657
  commun. protocols, flexible and efficient implement. 8757
  conf. scheduling/voting facilities for multimedia conferencing syst. 3242
  delayed conferencing, act. multimedia syst. 16802
  File Transfer Protocol, Internet services 24976
  flexible high-speed transport MultiStream Protocol 41497
  FSM-based program generator for commun. protocol software 2913
  FTP MAIL,e-mail automatic file transfer syst. *(Spanish)* 3152
  gated, routing daemon 41701
  gigabit LAN interfacing to high perform. disk array file servers 33257
  internetworking software technol. *(Japanese)* 3213
  learning network design, coordinating group interacts. in formal learning environ. 11618

computer communications software continued
Network Time Protocol servers, survey tool for discovery 24959
OSI commun. protocols, obj.-oriented design approach 8749
OSIRIS high-speed network adaptor, software perspective 3205
parallel computing across ATM networks, commun. issues 16429
proc. group membership protocols 41535
protocol software implement., obj.-based approach 2948
QuickFlash network messaging program, review 24937
struct. TCP in std. ML lang. 2942
telecomm. service software archit. for next-generation networks 25083
World-Wide Web proxies 8892
computer companies *see DP industry*
computer conferencing *see teleconferencing*
computer crime
see also computer viruses
network security problems and solns *(Japanese)* 16610
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
computer debugging
see also program debugging
MicroSPARC RISC μP, scan based debug, case-study 6162
microSPARC testing and debugging, use of scan, case-study 6165
computer displays
3D stereoscopic imaging technol. 34630
10.4″ TFT-LCD module for 16.7 million color XGA *(Japanese)* 34636
acoustic display systs., environ. sounds synthesis *(Japanese)* 34647
biological EM field/health effects review 4332
desktop computer power mgt., cost-effective archit. 6012
DUALQUEST, real-time bifocal telecomm. network visualization syst. 41672
ECDIS/ARPA overlay systs., display requirements 25606
Enel power plant automation, user interface *(Italian)* 43929
Fujitsu 21-inch color plasma display and electronics *(Japanese)* 25918
group overview displays, nuc. plant operators 3945
head-mounted display calibration for augmented reality 17641
health hazards 26484
interactive stereoscopic image display syst. for PC 34623
large-scale telecomm. network, multi-fisheye distortion map 41618
monitor screens, mag. field corruption 3933
MPR2 test methods for VDUs 40368
PACS workstation monitors, image default display arrangements 35048
parallaxless input integrated flat panel display *(Japanese)* 9978
see-through head mounted display, electrochromic mirror *(Japanese)* 34646
stereoscopic imaging in window on computer monitor 34624
tactile display, 2D, archit. 43375
tactile inform., laterally moving, display 43374
true-colour high-refresh-rate displays, available IC products 25932
VDU bibliography and information pack 3943
VDU emissions, stds. 3934
VDUs, rel., health effects 4331
VDUs EM environ. meas. 26480
wideband amp. IC for three-channel video sigs. 6038
computer equipment evaluation *see equipment evaluation*
computer equipment selection *see equipment selection*
computer equipment testing
HDD spindle motor mech. testing, ANN 36210
MPR2 test methods for VDUs 40368
R^2SPG tech., systs. upset thresholds meas. 15496
testing/emulation of EFT systs., functional appraisal *(French)* 33539
computer evaluation
inform. proc. systs. eval. centre, reliab. improvement *(Japanese)* 16737
computer facilities
see also computer centres; consultancies
flexible facility and network engng. technols. *(Japanese)* 16608
NTT's CUSTOM, hardware and network config. 25005
Radio Television Malaysia's, computerised news centre 42577
computer games
human service practice, computer games and interactive video 34274
rem. collaboration control syst. employing manipulators *(Japanese)* 33420
speech handicapped children's prod-oriented teaching/training syst. 4327
computer-generated holography
2D Fourier kinoforms by genetic algm., quantized phase optim. 40160
3D image hardcopy, holoprinter develop. *(Japanese)* 2150
3D video display develop. *(Japanese)* 2147
achromatic computer generated HOE for coupling LD, single mode fiber 40144
alkali halide surfaces, opt. sens. 32981
analog apodizers, binary ang. sectors 22986
animated color 3D image display, LCD kinoforms *(Japanese)* 15158
antirefl.-coated diffractive opt. elements, thin-film deposition 7374
aspherical mirror testing, zone plate CGH common path interferometry 40122
binary phase only filter, spatial coded, simulated annealing algm. *(Korean)* 31064
binary-phase holographic gratings on sapphire, VLSI fab. tech. 15186
cell-oriented holograms, adaptive quantisation 31635
continuous-relief micro-opt. elements, laser writing, photoresists 7375
diffractive opt. elements, CAD 2139
diffractive opt. elements for opt. computing 7434
diffractive optics and CGH, opt. interconnects 31044
digital double-pulsed holographic interferometry for vibr. anal. 31633
digital opt. cellular image proc. parallel archit. 1772
digital phase holograms, reconstructed images, iter. and error diffusion method *(Japanese)* 23474
direct-write electron-beam lithog. kinoforms, proximity effect 23472
electro-holographic stereogram, vol. display syst. 7829
Fourier holograms based on pulse-dens. modulation 40127
free-space digital opt. SEED switching systs. 3301
free-space matrix multiplier, diffractive/refr. micro-optics 7489
Fresnel holograms, computer-generated image quantization, error diffusion algm. 23455
FT CGH, off-axis principle 7850
Gaussian beam at MM wavelengths, kinoform for spatial distrib. 15181
holographic stereograms, discrete imaging systs. 7833
holographic switches, LCD 31658
Hough-transform filter for plural element shape parallel detect. 33080
interactive holographic display syst. 7828
kinoform calc. by adaptive iter. method 2133
kinoform lens, phase fn., surface-relief profile 31641
computer-generated holography continued
kinoform lenses, solar cell light concentrator appl. 27972
laser beam phase sing. charge and posn. detect., holograms 23458
lateral shear interf. imagery, holographic grating 2138
LCD kinoform, animated color 3D image 7830
Lee sparse valued reconstruction computer generated holographic storage 31661
MCM, optoelectronic, layout, phys. models and algms. 29712
micro-optic element, opt. disc memory read/write heads 39309
multicolor imaging 7836
multiorder binary grating design, anal. init. approx. 2143
multiple-obj. computer-generated holographic discriminant correl. filter design 32967
nonplanar focal curves reconstruction, CGH design 15172
nonuniform wt. error diffusion CGH opt. interconnections 1839
opt. computing/neural net channel addressing 31632
opt. hologram, real-time parallel-computed holography *(Japanese)* 15157
particle trapping, doughnut beams, CGH 23467
pattern of points, image space/spectral anal. 40128
plane wave diffr. anal. of complex interferograms 40124
polariz.-selective birefr. CGH based intell. photonic switch 25538
polariz.-selective CGH, design/fab. 23461
prog. joint fractional Talbot CGH 23462
reflective FLC SLM, real-time binary phase holograms 22954
single-rail translation-invariant opt. associative memory for neural networks 22796
singlemode fibre digitally tunable wavelength filter, opt. transparent 17330
time-domain computer generated holographic images 40159
$BaTiO_3$ photorefr. opt. shift- and rot.-invariant associative memory 1657
computer graphic equipment
see also image scanners; interactive terminals; plotters; remote consoles
3D computer graphics media chip, single-chip archit. 12556
acoustic display systs., environ. sounds synthesis *(Japanese)* 34647
ARINC D-Size LCD display for aircraft 10391
counterbalanced CRT-based stereoscopic displays for virtual environ. 34634
dyn. gesture recogn., neural networks 32817
GMICRO/500 microprocessor application system, graphic primitives evaluation 29257
GVIP, scalable high-perform. graphics proc. 21366
head-mounted high-resolution field-sequential display for virtual reality 18017
MCM-C, four-ASIC, KISS principle based 21764
med. workstations for applied imaging and graphics research 18439
min. invasive surgery, computer animation approach 34999
realistic sensations transmission, virtual dome 16641
see-through head mounted display, electrochromic mirror *(Japanese)* 34646
stereoscopic imaging in window on computer monitor 34624
stereoscopic viewing systems using active and passive glasses, performance limits 18018
true-colour high-refresh-rate displays, available IC products 25932
video decoding algm. mapping, mixed sig. IC 8553
virtual reality display interfaces 18013
computer graphics
see also antialiasing; bit-mapped graphics; business graphics; colour graphics; computational geometry; computer animation; curve fitting; data visualisation; engineering graphics; graphical user interfaces; hidden feature removal; interactive systems; natural scenes; realistic images; rendering (computer graphics); solid modelling; virtual reality
3D computer-based imaging 16116
3D parts decomp. from sparse range data 2765
AELAP, Aircraft Load Anal. Program 26559
algms. for intersecting parametric and alg. curves, multiple intersections 37332
AVIP computer graphics syst., audio/video inform. proc. *(Japanese)* 25661
blind pers. audio-tactile graphics equipt. 43380
cement kiln optimisation experience, LINKman graphic 5425
cockpit display generator for electronic battlefield 10375
color recovery, millions of colors from 8-bit graphics device 32963
COMNET III, obj.-oriented network perform. prediction 16586
crosstalk reduction, stereoscopic views 32812
depth painting, images interactive transform., stereoscopic 3D 32811
document access/ref. environ., PC based interactive syst. 35413
electronics lects., computer based presentation, graphical simul. 20308
EM education, multimedia computing appl. 20313
enhanced image capture through fusion 24711
Ethernet and SCSI for digital video input/output 25007
Fourier descriptors 40684
GMICRO/500 microprocessor application system, graphic primitives evaluation 29257
IBM POWER Visualization System, digital post-prod. suite 42594
image coding, computer modelling 8673
image processing An EDDM based toolset 41305
image representation, quadtrees 33010
induction machine behaviour anal., interactive colour graphics 11050
interactive graphic syst., data network mgt./status visualization 24912
LANs, distributed planning/problem solving environ. 19222
med. appls., fast polygon scan conversion 2586
multi-window full-motion video and graphics, memory archits. 17579
multimedia full motion graphics/TV image storage in PC, compression algms. 41318
obj. ident., stochastic local fractal variables *(Japanese)* 30392
power syst., static security assess., graphic representation 4578
real-time image generation *(Chinese)* 41283
real-time video proc. and video texture generation 24528
spectral analyzer, graphic software syst. *(Chinese)* 34420
stereoscopic viewing of at. struct. 34336
computer industry *see DP industry*
computer installation
see also computer maintenance; distributed processing; storage media
Amadeus's computerized reservation syst., global outsourcing 16601
monitor screens, mag. field corruption 3933
NTT's corporate network, constr. and maint. *(Japanese)* 3214
computer installation management *see computer centres; DP management*
computer installations *see computer centres*
computer integrated manufacturing
3D image recogn., optimum estim. and compensation *(Japanese)* 16370
8 inch wafer pilot line in Taiwan, total prod maint. 37054
advanced IC mfg., future prospects 37049
advanced semicond. manufacture, conf., Boston, USA (Oct. 1993) 36877

computer integrated manufacturing continued
Alusaf project, automation mgt. 5573
ASIC mfg. line mgt., on-line scheduler 28435
chemical-mechanical planarisation, Run by Run controller 38566
CNMA, European initiative for OSI network mgt. 24921
electronic manufacturing/testing, FCIM environment 37002
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
FDDI commun., proc. control, fieldbuses connection 33497
high vol. wire bonding automation, pattern recogn./video lead locators 38167
inspection, visual, shape recogn./anal. 11832
LSI manufacturing yield, integrated database syst., cond. anal. 37040
MCM, mechanised assembly, competitive matrices 38181
mfg. execution systs. software selection guidelines 38967
mfg. test simulator, concurrent engng. tool 5597
open software archit. for semicond. indust. 37053
ORCHARD II, ASIC CIM syst., scalable and flexible, precise quick scheduler 28433
ORCHARD II, flexible ASIC CIM syst., prod. line mgt. 28414
PCB assembly rework cell controller, software modelling 115
PCB prod., computer-aided manual workstation, graphics generation 38112
photolithography procs., work cell design for high perform. 37027
Porta Systems opt. fiber cable splitters 14400
SEMI equipt. commun. std., automation guidelines 11716
semicond. mfg. material handling systs. design 11721
SMT prod., integrated process monitoring/testing 38111
steel mfg. integrated prod. IS, Japan *(Japanese)* 3212
supervisorless semicond. fab. environ., CIM productivity monitors 37052
telecomm. equipt. prod., CAT tool integrat. in factory inform. network 33341
virtual wafer fab./assembly/test facilities, operational planning 11699
wafer fab. line, feedback control syst., implementation 37043

computer interfaces
not used for human interfaces for which see "user interfaces"
see also computer communications software; computer peripheral equipment; data communication equipment; network interfaces; peripheral interfaces; system buses
ATE technology trends and appls. 42713
avionics ATE, joint Honeywell/Aerospatiale develop. 43438
CMIP-based OpS-WS interface supporting GUI 41673
computer sci. education, modern microelectronics appls. 28330
engng. education, computer-aided lab. expt. interfaces 36939
Ethernet and SCSI for digital video input/output 25007
FIFO design for high-speed network interface 33491
GIS data transfer interfaces 41644
GPIB-controlled VXI systs. perform. improvement 34377
HVDC real-time digital/analogue simulator interface 27142
indust. image proc., Micro Channel interface 41215
Los Alamos Nat. Laboratory gigabit network appls. 8918
multiphase AC power converters, modular interface/algm. 19880
multiprotocol transport networking, internetworking soln. 3219
Myrinet gigabit-per-second LAN 24972
neural nets, special, coprocessors 29497
PBX-computer connection technol. *(Japanese)* 16970
power switch, computer-controlled 12867
primary/secondary batts., testing, VXIbus 36510
protocol architectures, modularity considerations 3221
reliable packet delivery service interface for parallel systs. 41493
SMART test standard for commercial air transport industry 43433
subscriber interface, ARINC 629 current mode bus 35229
TMN interfaces for network mgt. 41662
TNet reliable syst. area network 24973
virtual instruments develop., ATE future 42707
virtual-memory-mapped network interfaces 24971
VXI based test systems develop. 42726
VXI implementation of millimeter wave measurement 25959
VXIbus card cage for transportable testers ruggedisation 42724
VXIbus interface hardware, FPGA implementation/testing 42735
zero-copy ATM memory-integrated network interface 24970

computer internal arrangement *see computer architecture*

computer languages *see programming languages*

computer literacy
network training, perceived need for self-help materials 20340
network training in Hawaii 20341

computer maintenance
NTT's corporate network, constr. and maint. *(Japanese)* 3214

computer manufacturers *see DP industry*

computer metatheory *see computation theory*

computer network management
academic networking in Peoples Republic of China 16743
admission control in ATM networks 24760
Amadeus's computerized reservation syst., global outsourcing 16601
ATM network protocol develop. package 41841
ATM traffic mgt., LAN internetworks 3086
ATM-based LANs, bandwidth mgt. 33517
Australia, electronic networking, social/policy aspects 16742
bandwidth cost mgt. 16598
cache-based transport protocols, modulo-N incarnation numbers 2955
Chameleon 4.0, TCP/IP for windows 16657
CHIP lang. impl., large computer network optimal mgt. 24985
CNMA, European initiative for OSI network mgt. 24921
COMNET III, obj.-oriented network perform. prediction 16586
conf. scheduling service, multimedia, network support 16830
cooperative computing/integrated syst. mgt. 24904
corporate network mgt. *(Japanese)* 16715
customer network mgt. in SMDS, subscriber's viewpoint 16706
decentralised sens. networks mgt. for reliab. 41887
desktop assets mgt. 41699
desktop CSCW syst. 16691
discovery/monitoring algms. integrat. 41840
distributed audit trail anal. 24968
distributed systs. mgt. 33385
dyn. routing in computer commun. networks, stabil. *(Chinese)* 8946
elec. power commun. network monitoring/mgt. *(Chinese)* 33428
embedded systs., network mgt. fns. 3162
enterprise network develop. and mgt. prospects *(Japanese)* 16751
ES, adaptive for network monitoring 3097
ESPRIT MIDAS project, secure rem. mgt. 8953
Ethernet switches extending 10BaseT lifetime 3163

computer network management continued
FDDI network perform. eval., guarantee probab. 41905
file allocation policy in networked DBMS 16582
file transfer protocol mgt. scheme 41839
flexible facility and network engng. technols. *(Japanese)* 16608
game-theoretic anal. of switch service disciplines 3206
gated, routing daemon 41701
global internetwork troubleshooting 16612
group admin. shell, GASH network computing environ. 41788
heterog. network mgt., composite perform. eval model 33546
home automation syst., data link layer design issues 3095
infinite SPN, matrix-geometric soln. 37265
intell. hub, enterprise networks mgt. 3089
intell. hubs archits. 33483
interactive graphic syst., data network mgt./status visualization 24912
internat. work flow, proc. mgt. syst. support 24956
ISO/Internet mgt. integrat. 24905
Japan Airlines' network IS 41665
KView II, network mgt. platform, appl. 33372
LAN, network mgt., capacity planning 33373
LAN switches, traffic monitoring problems 42118
LAN-based office, enterprise archit. 33519
leaky bucket regulator perform. in broadband integrated networks 8911
LF components of Internet load, dyn. and significance 41874
local computer networks, conf., Minneapolis, USA (1994) 20231
local/metropolitan ring networks, high perform. protocol 33506
MAC address test protocol for reconfigurable dual ring LAN *(Japanese)* 24947
managed networks, network mgt. impact 33370
ManageWORKS, user interface framework 41698
Minerva Network Management Environment 41770
Misnet, inexpensive network for PC connection 41889
MLAN Multimedia Local ATM Network archit. and perform. 16760
mobile computing, security related issues 33919
mobile users, identity privacy, authentication 33572
MPPS, multiparty presentation service 8958
MS3000/MS3100 multi-slot hub characts. *(Japanese)* 25001
multi-facility blocking models, stochastic, decomp. methods for anal. 24794
multimedia multiparty connection, resource allocation 33621
multimedia networks, binding archit. 16872
multinational enterprise networks, mgt. services and stds. *(German)* 33579
multiprocess commun. in LAN, switching server 24945
NCMS network mgt. syst. upgrade 16778
NERD, Network Event Recording Device, anom. detect./notification 24966
NetWare accounting, installation and usage 16578
NetWare security, guide for network managers 41687
network integrat., mgt. technols. *(Japanese)* 33378
network mgt. syst., distributed computing 41671
obj.-oriented network mgt. syst., formal spec. 33375
open archit. provisioning systs., total systs. mgt. 33371
open planning, scheduling and constraint mgt. archits. 24915
PC network mgt., are vendors meeting user needs 41688
pers. commun. services on distributed proc. environ. 41690
private commun. groups in packet-switched networks 8956
RACE NETMAN project, functional descriptions of network mgt. 16584
rem. monitoring probes and mgt. appls. 17694
rightsizing, distributed LANs, UNIX appl. servers 41771
routing/flow control, perform. anal. 8779
Saudi Arabia, Gulfnet, overview 41789
security of distributed systems conf., San Diego, USA (1994) 5452
SINA, Super-highway Information Networking Architecture 25054
slotted ring LAN, bandwidth allocation scheme 41906
SNIF, network inform. flow surveying tool 24967
SNMP local bridge ET1053C devel. *(Japanese)* 25002
SNMP manager Linenet-View, develop. *(Japanese)* 25046
SNMP protocol, merits/demerits, overview 33271
SNMP-based network mgt. appls. 41796
SNMP-based systs. mgt., fault detect./isolation 24903
spec. of network mgt. appls., high level notation 41838
SWITCH*, Swiss Univs.' computer network, growth/funding 25022
TMN and open systs. 41661
TMN interfaces for network mgt. 41662
TMN-based SDH mgt. syst. implement. in Japan 41685
token ring network, perform. mgt. 33381
token ring network mgt., change mgt. 33545
token ring network mgt., config. mgt. 16581
token ring network mgt., problem determ. 3169
university discless workstation network traffic charactn. 28347
virtual private networks characts. 41873
window flow control, perturb. anal. 8778
X.500 distributed services, network mgt. 8840

computer network reliability
ATM network virtual path restoration, multiring approach 41760
broadband ATM indoor radio, packet diversity 16700
car safety crit. fns., commun. protocols design 8934
CDMA wireless LAN, hybrid-ARQ error control scheme 8748
central servers, high-bandwidth network evol. 41786
client-server network technol. and OS trends *(Japanese)* 16753
client-server networks, recovery 3181
communicating finite state machines, diagnostic tests 2904
double counter-rot. ring, reliab. anal. 3193
enterprise network develop. and mgt. prospects *(Japanese)* 16751
expansion CAD, reliab. optim. 33575
extra-stage shuffle-exchange MINs, reliab. eval. 33576
fault tolerant syst. for distributed appls. 41881
fault-tolerant convergence routing 3203
FDDI dual homing networks, reliability anal. 33450
FDDI network perform. eval., guarantee probab. 41905
genetic algm. based reliab. improvement for computer networks and distributed systs. 3170
hierarchical inter-domain routing, on-demand TOS/policy resoln. 2958
hierarchical star-controlled rings for multiprocessors 16723
hybrid tree-loop networks reliab. anal. 8776
implosion-avoidance protocols for reliable group commun. 33270
k-resilient protocols, computing reliab. intervals 33276
multi-channel ARQ protocols, perform. anal. 8927
multimedia commun. terminal and human interface develop. trends *(Japanese)* 16936
multiprocess commun. in LAN, switching server 24945

computer network reliability continued
multitype concentrator location problem 41755
NERD, Network Event Recording Device, anom. detect./notification 24966
NTT's CUSTOM, hardware and network config. 25005
O(1) quorum consensus protocol tailored for client/server archit. 41879
polling systs. optim., Bernoulli schedules 41890
ring channel reliab. investig., computer networks 25035
SAFENET, fault-tolerance/timeliness, layered approach 33507
small diam. spanning tree maint. 25052
spanning tree and source routing LAN interconnection schemes 41810
survivable ring networks, wideband DCS role 41759
token ring network, reliab. improvement 8924
trees/rings, fault-tolerant reconfiguration 3202

computer networks
see also computer network management; computer network reliability; distributed processing; file servers; inter-computer links; internetworking; local area networks; metropolitan area networks; token networks; wide area networks
3D grid partitioning for network parallel proc. 16703
admission control in ATM networks 24760
agro-biotechnological teleworking commun. platform 41886
Alcatel 4400, DP and telecomms. syst. integrat. 41611
all-opt. formatted photonic packet switches archit. 3302
ANS project network, fine-grain simul. 33522
AOS, avionics OS for multi-level secure real-time environ. 8939
application-driven approach to networked multimedia systems 33465
Asia Pacific region developing economies, computer security 3068
AT&T's InterSpan ATM service for enterprise networking 41802
AT&T's open cooperative computing archit. 41801
ATM Canton switch, expt. infrastucture 42120
ATM concepts, archits., and protocols 24769
ATM network, service provision 16427
ATM stat. multiplexer, on/off sources and spacing, perform. anal. 3279
automatic network clustering for fast path selection 24843
automobile distributed onboard systs. and cruise control 8935
AXE 10 switching syst., software design support 42110
BBC Radio Digital Project and programme prod. efficiency 17533
Belgium, Philips X.25-based data technol. for Ladbrokes group 41812
Browns Ferry NPP, proc. data network archit. plan 27344
CAL, network-based, multimedia inform. mgt. syst. 8972
car safety crit. fns., commun. protocols design 8934
cascade vulnerability problem solving algm. 33538
character set codes transform. for network appl. 16744
commun. protocols, flexible and efficient implement. 8757
commun. protocols for embedded systs. 2918
communication protocols, Petri nets/self-stabilization 2964
computer and telecommunication systems, modelling and simulation, conf., NC, USA, Jan. 1995 11567
congestion avoidance in computer networks, fuzzy control 16732
continuous media networks, filter propag. in dissemination trees 8975
corporate networks, interworking ATM services 8879
corporate networks, multimedia appl. bandwidth 16908
data fusion, large multi-agent networks, struct./perform. 32802
data-cyclic shared memory (DCSM) in distributed environ. 24951
desktop CSCW syst. 16691
discrete-time anal., busy/idle period distribs. of ATM multiplexer 3278
dissemination-oriented commun. abstraction, multimedia multicast channel 41531
distrib. syst. data commun. integrat. 10735
distributed enterprise network security 41814
distributed multimedia computer network model 9045
distributed shared memory implement. based on DCE 25032
dithering, fast source-based for networked digital video 16070
double-loop networks, routing control *(Chinese)* 24848
DTM gigabit network 3190
dual-bus digital syst. semicond. opt. amplifer-based subcarrier add-drop multiplexer 17214
dyn. routing in computer commun. networks, stabil. *(Chinese)* 8946
dyn. scaled multimedia data streams, network support 9078
electronic inform. exchange, Signal Processing Information Base appl. 24247
embedded proc.-shared multiprocessor syst., bus arbitration 3290
ETS-V Asia-Pacific telecommun. network expts. 42319
evol. of computer commun. and networks 16725
fast packet switching, intell. user entities 8697
fault-detecting network membership protocols, design/anal. 41522
fault-tolerant data network, transputer based, for ATC *(Italian)* 8912
FDDI, ATM and fast Ethernet, eval. 3199
fiber-optic networks, fault-tolerant layered approach 16687
Fibre Channel, simulation design for verification and development 33461
frame relay computer commun. service for high-speed data 41807
frame-induced packet discarding, strategy for video networking 8677
generalized proc. sharing scheduling discipline, stat. anal. 2896
genotyping by multiplexing PCR *(French)* 24762
gigabit network develop. and prospects *(Japanese)* 16756
Hawaii, national and internat. network services for dist. education 3197
Hawaii, school library networking 3198
health care quality, telematic syst. 33554
heterog. multiserver network, job depend. dispatching scheme 24952
heuristic algorithm for embedding hypercube in irregular WDM network 33462
HiCon model, dyn. load proc. on computer networks *(German)* 33540
high speed networks, transport layer protocols, rate control 8993
high speed networks, two-level flow control scheme 8902
high-speed data transm., eval. of acknowledgement methods 16475
inform. explosion, document delivery and electronic networking 16767
information superhighway technologies, conf., San Francisco, USA, March 1995 28233
Internet expansion, small-channel satellite network 3526
IT and networking in Baltic countries, current develop. 16663
Japan, virtual communities 3195
KryptoKnight, protocols for authentication/key distrib. 25050
Kuperee, authentication, public keys 8952
light-wt. LLC protocol in slotted ring networks, perform. eval. *(Japanese)* 16503
load balancing in distributed environ., ES approach 8926
load modelling for commun. systs., Petri net-based model 25042
lossless digital image browsing, network support 16074
Markovian networks, extreme values of random times 33194

computer networks continued
MELUPS 8400N small-capacity UPS, distributed computing appl. *(Japanese)* 5038
mesh-connected opt. multiple-access bus interconnects 1770
microcontrollers, integrated CAN control 21346
MIDAS, med. library's database access syst. 41803
Midwest Symp. on ccts. and systs., Detroit (1993) 33
min. adaptive router, perform. anal. 25028
mobile computers, destination-sequenced dist.-vector routing 2990
mobile distributed telecomputing archit. requirements 16770
mobile wireless computing 25297
multi-address encoding for multicast commun. 24858
multi-site ref. station differential GPS 17506
multicast forwarding unified framework 8768
multiline server networks, mean-value anal. methods 16643
multimedia appls., advance reservation of network resources 16843
multimedia enhanced transport service, QoS Architecture 9076
multimedia environ., networked, Medusa 9067
multimedia equipt., electronic devices *(Japanese)* 16935
multimedia groupware for multimedia office *(Japanese)* 42004
multiple inform. bases, flexible and dyn. integrat. 33550
network layer scaling, congestion control in multimedia commun. 16878
network security in heterog. environ. 16651
network synchronized clocks, predictable timestamp 40605
nonoriented network models, loops 24844
North American inform. exchange network 3066
NTT's corporate network, constr. and maint. *(Japanese)* 3214
NTT's CUSTOM, hardware and network config. 25005
OPENet, collaborative learning environ. for education and training 3244
optimal inform. dispersal for reliable commun. in computer networks 8998
optimal NODUP all-to-all broadcast schemes in distributed computing systs. 3216
optoelectronic buses for high-perform. computing 1771
parallel computing across ATM networks, commun. issues 16429
parallel image proc. appls. on network of workstations 24410
parallel switched cct. simul. on networked workstations 5984
partitioned/parallel CRC, VLSI implement. 645
PC packet switching network flag detect. 8904
perform., ES 3194
perform. limits of elec. cables for intrasystem commun. 25195
perform. of scheduling algms. for channel reservation 3229
polarized target, SMC target, NMR polariz. meas., on-line syst. 34873
policy-free distributed general-purpose shared window syst. 25051
power syst. load dispatching real-time computer network *(Chinese)* 35515
private network-to-network interface (PNNI) for heterog. ATM networks 16699
PROMISE pan-European traveller inform. syst. 3462
protocol spec. synthesis from service specs., parallelly executable multiple primitives 8762
protocol synthesis based on LOTOS 8763
QuickRing network, perform. eval. 16704
rate-reservation protocols verification, flow theory 2966
real-time syst. design, temporal aspects 3228
reliable min. finding comparator networks 33486
reliable token dispersal, random faults 25006
ring network, distributed multiset, finding extrema 41767
ring network, spatial reuse, CQBT algm., perform. anal./design 16494
rly., automatic monitoring network syst. 9823
secure syst. anal. and integrat. 16650
security of data in computer networks *(Slovenian)* 41856
self-similar traffic modeling for high-speed networks 24981
slotted ring protocol for voice/data integrated network, perform. anal. *(Japanese)* 41512
SNR high-speed transport protocol, spec./anal. 2922
star-based/ring-based conf. authentication facilities 8951
STARNET WDM computer commun. network, combined freq. and AM 17174
state-transit.-based incremental protocol spec. 16493
Taiwan academic network (TANet), extension programs 3200
TCP-SS versus adaptive rate-based congestion control, perform. 2965
TCP/IP and SNA, interoperability issues 8744
telecomm. satellites power systs. study, USA 26619
telecomms. programs, Microphone Pro and Smartcom II 8950
telephone exchange rectifier syst., ring topol. 44192
token-based fault-tolerant distributed mutual exclusion algm. 24812
topol. design 33432
topol. design, simulated annealing 33542
traffic requirements, generation algms. 3188
trustworthy systs. and transparent mistrust 16649
UKUUG IP Workshop conf., London, UK (1994) 36909
upper layer products, archits. and appls., conf. Barcelona (1994) 29
VSAT, economical soln. for inform. networking 3510
VSAT systs. role in broadband networks and IN 42308
workstation networks, advantages and tech. difficulties 24975

computer operator training *see training*

computer performance evaluation *see performance evaluation*

computer peripheral equipment
see also add-on boards; computer displays; computer graphic equipment; data communication equipment; digital storage; image processing equipment; interactive devices; interactive terminals; mark scanning equipment; pattern recognition equipment; plotters; printers
virtual instruments in VXI 42704

computer peripherals *see computer peripheral equipment*

computer power supplies
bank computing centre support syst. reliab. anal. 11871
desktop computer power mgt., cost-effective archit. 6012
digital telecom. systs., UPS, config., elec. characts. 19863
high-perform. computer power distrib. syst., modeling and meas. 11178
Hitachi IKAP makes PCs smaller and extends batt. life 21340
indust. distrib. networks, harmonic reson. studies 20155
mainframe computer, stacked power syst., power conditioning 11118
MosquitoNet, commun. environ. switching 33557
PC power supplies, Pentium, PowerPC and beyond 27827
power saving in embedded proc. 6159
Tandem Computers test strategies, HALT/ESS 9800
TENOR, telecom./computer power supply, distrib. energy storage 12334
UPS, single power convertor/batt. scheme 36272
UPS, static power inverter, high perform. 19860
Ni-Cd intell. batts., charging/discharging algms., hardware 36545

computer power supplies continued
- Ni-MH intell. batts., charging/discharging algms., hardware 36545

computer printers *see printers*

computer programming *see programming*

computer programs (listings) *see complete computer programs*

computer programs, complete *see complete computer programs*

computer science
- KoREMA, conf., Zagreb, Croatia (Apr. 1993) 20203

computer science education
- *see also computer literacy*
- campus LAN layout, design and implement. 33549
- CPU design, 32-bit, VLSI project, C and GDT for computer sci. students 20291
- data acquisition tutor and prog. interface 65
- dist. teaching of informatics, motivations, means, and alternatives 24934
- distributed systs., teaching, Ada reusable software components 5560
- DSP teaching aid, algorithmic engng. 36926
- DSP teaching via sound demons. software 28339
- EDA in digital design education 5531
- elec. engng. university education, electronic textbook appls. 28277
- indust. engng. education, computer usage 11602
- Internet and electronic classroom 20343
- Internet for IS education 16764
- mfg. engng. education, computing technol. teaching experiences 36937
- mobile IP, secure short-cut routing 24845
- modern microelectronics appls. 28330
- multimedia materials, digital video for computer sci. education 17577
- neural network simulations, educational environment, DSP based acceleration 21472
- TEAMSS Project, multi-level staff training, interactive videodisc use 25676
- technical communication curriculum 28565
- teleconferencing syst. for research and writing skills in computing 3247
- Verilog-based computer engng. course and lab. 5517

computer selection and evaluation *see computer evaluation*

computer simulation by computers *see virtual machines*

computer storage devices *see digital storage*

computer subroutines *see subroutines*

computer supported collaborative work *see groupware*

computer terminals *see interactive terminals*

computer testing
- 3B21D BIST/Boundary-Scan syst. diagnostic test 5590
- AAMP5 μP, formal verification 29298
- Alpha AXP 21164 μP, testability strategy 6160
- automatic test generation, functional verification 12564
- complex MCMs test strategies 6461
- Diagnostician-on-a-chip, concepts/implement. 34357
- formal modeling and verification of μP 21353
- HDD spindle motor mech. testing, ANN 36210
- high speed μP test, meas. error calc. 9804
- Intel 32 bit μP, radiation tolerance for space appls., eval. 29306
- Intel μPs, total dose radiation testing 29305
- International Test Conf., Washington, DC (Oct. 1994) 61
- MAC address test protocol for reconfigurable dual ring LAN *(Japanese)* 24947
- MC68060 μP testability 6161
- microcircuit simul. and test develop. BEST TEST software 34407
- MicroSPARC RISC μP, scan based debug, case-study 6162
- microSPARC testing and debugging, use of scan, case-study 6165
- Pentium FDIV flaw and lessons learned 37787
- power quality vars. effect on PC, testing 5601
- PowerPC 603 μP, array BIST 6164
- PowerPC 603 μP, struct. and ad-hoc design for test 6163
- product reliab. testing, practical considerations 5680
- radiation effects Data Workshop, Snowbird, UT, USA (1993) 36859
- simul.-based proc. verification, automatic program generator 17663
- SOG-based RISC pro. tested for failsafe appl. 21344
- spacecraft electronics, single event effect proton/HI testing 29093
- ST9 8-bit Microcontroller testing 29281
- syst. test cost modelling, event rate anal. 5587
- Tandem Computers test strategies, HALT/ESS 9800
- TX2, 32-bit μP, efficient testable designs 21350
- VLSI complex devices, low power mode/IEEE 1149.1 compliance 6824
- VLSI syst. test design methods, problems and experience in μP testing, AFTG 21354
- workstation memories, automatic online testing 37768
- GaAs HMESFET SBFL based F-RISC/I microproc. 37802
- GaAs-AlGaAs HBT, high-speed register file, F-RISC/G proc. 37801

computer viruses
- network security problems and solns *(Japanese)* 16610
- transient faults, security maint. 32185

computer vision
- *see also active vision; motion estimation; robot vision*
- 2-D chromosomes 8494
- 2D image range estim., PM 10029
- 2D images, spatial organization 2793
- 2D partial shape recogn., interrelation vector *(Korean)* 24682
- 3-D obj. config. extraction 24551
- 3-D x-ray inspection of food products 24519
- 3D machine vision camera calib., genetic algm. 2803
- 3D meas. syst., continuous, high-speed 42932
- 3D model based obj. recogn. 32995
- 3D motion and shape estim., image struct. conditions 24441
- 3D motion estim. from noisy opt. flow, superior estimator, max. likelihood estimator 16328
- 3D obj. recog., probabilistic techs. 32923
- 3D objs., drawings, geometric characterisation 16240
- 3D position estimation, robot control model 25880
- 3D projective geom. based image reconstruction 41137
- 3D reconstruction, artificial points removal 41080
- 3D shape reconstruction by act. rangefinder 3888
- 3D shape reconstruction from 2D silhouettes 24418
- 3D shape recovery, deformable model 41133
- 3D shape recovery from image focus 32924
- 3D stereo depth determ. by photom. ratios 2604
- 3D surface reconstruction, polariz. state anal. 41290
- 4th international computer vision conf., Berlin, Germany, 1993 20268

computer vision continued
- 128×128 pn-np variable-sensitivity photodetector array artificial retina chip, edge extraction 24577
- act. shape models, training and appl. 24365
- active exploration, knowing when we are wrong 24710
- adaptive digital image screen halftoning, wavelet transform 41370
- adaptive Gaussian filter for noise reduction/edge detect. 33030
- affine and projective normalization of planar curves and regions 24637
- affine invariants appl. on perspective projections of plane curves 24368
- algm. and hardware co-design, mapping algms., platforms 41152
- angled facial data obtained by bright-spots matrix projection 3854
- AOI, detect. of enclosed shape boundaries 24522
- aperture-array dyn. sens. systs., high resoln. imaging 8556
- arbitrary filter, approx., recursive implement. 15940
- area and length preserving geometric invariant scale-spaces 24638
- artificial cpd. eye opt. sens. array 9852
- automated fiber pigtailing technol. 14383
- automated opt. mensuration using video camera, calib. method 2613
- automatic calib. of laser range cameras, arbitrary planar surfaces 17437
- automatic inspection of IC for pattern defects 37158
- automatic recogn. of partially occluded objs., genetic algm. 16286
- biological/computer vision, spatial freq. inform., self-organising feature map 33117
- BIRIS range sensor, for mobile robot 25586
- boundary contour syst., positional competition anal. 33055
- boundary-based correspondence computation, topol. constraint 41123
- CAD-based vision, conf., Champion, IL, USA (Feb 1994) 36878
- camera, rot., self-calib. from multiple views 24475
- camera motion determ. from dyn. perceptual grouping of line segments 41229
- canonic representations for geometries of multiple projective views 24481
- car, VITA II, collision avoidance in traffic, vision 36769
- CCD camera systs., image-sens. model/computer simul. 3875
- charact. meas. for 3D surfaces based on multiple filtering *(Japanese)* 2622
- CMOS VLSI smart visual micro-sens. based on insect vision 34569
- color constancy, generalized diagonal transforms 2600
- color machine vision, true RGB line scan camera 17927
- computational model of neural contour processing 24709
- conf., Stockholm, May 1994 11549
- conference, visual information processing, Orlando, FL, USA (1994) 20237
- config. problem solving, scene reconstruction 2645
- constraint creation, multiple attribute extraction *(Japanese)* 16371
- contactless obj. posn. and shape meas. *(Japanese)* 18098
- controlled act. vision framework, robotic and transportation problems 8642
- coplanar struct. perspective views matching 2773
- correl. chip for stereo vision 41224
- correspondence problem, Hopfield net approach 33062
- cylinders, right generalised geometric protective props. of contours 287
- depth from defocus, spatial domain approach 33102
- digital camera, CMOS intell. sens. 42848
- digital multicolor well-composed pictures 41071
- digital straightness, skeleton prop. 41070
- disparity detect. in stereo vision syst., cepstrum tech. 2853
- disparity-space images and large occlusion stereo 24618
- divergent stereo in autonomous navig., bees, robots 41084
- dyn. gesture recogn., neural networks 32817
- dyn. integrat. algm., model surfaces from multiple range views 41160
- dyn. space resection, straight lines 41280
- edge detect., relax. labelling tech. 41187
- elec. fuses; inspection, fast, using computer vision 21617
- ellipse param. estim. by image seqs. 41106
- embedded image proc. appl., top down struct. parallelisation 2810
- enhanced image capture through fusion 24711
- FCM and FCHM multiprocessors for computer vision 16334
- feature-based approach, 3D obj. reconstruction 41262
- fish-eye lens model, variable resoln. transform 41072
- FLIR image aspect angle estim., model-based vision approach 24545
- frame of wavelets for edge detect. 32825
- front-end/early vision syst., lin. scale-space 16238
- fund. matrix, stabil. anal. 24480
- fuzzy uncertain computer-aided meas. systs. 3739
- geometric invariant signatures and flows, class. and appls. in image anal. 32844
- gesture translation, musical instrums. 34302
- global color constancy, obj. recogn., illum.-invariant props. 2599
- gradient/curvature, photom.-stereo method, local confidence estim. 2603
- grayscale image preprocessing for viewpoint independent 3-D extraction of objs. 24521
- grouping of primitives, stochastic, graph-based 41110
- hierarchical Markov random fields, stable points 8496
- hierarchical stereo matching algm., wavelet representation *(Korean)* 24688
- high-precision opt. gauging of metal rings 18062
- human eye location for quantifying eye muscle palsy 41130
- human search/target acquisition perform. modeling, fixation-point 8599
- IC wire bond, automated visual inspection, auto-focusing 37163
- IEEE IECON '94 conf., Bologna, Italy (1994) 36823
- image coding, computer modelling 8673
- image compression, perception threshold matching 32878
- image recogn., analog neural net chip 41164
- image sensors/processing, conf., UK, 1994 5481
- image seq. anal. and appls. 16122
- image size fn. computation *(Italian)* 8591
- images using separable filters, fast computation of unbiased intens. derivatives 33101
- indust. electronics, trends/develop. 33431
- indust. image proc., Micro Channel interface 41215
- indust. robot calib. by opt. methods 10031
- indust. vision, image understanding syst. design *(Japanese)* 16372
- indust. vision syst., range/intens. image fusion 41103
- inspection, visual, shape recogn./anal. 11832
- intrinsic stabilizers of planar curves 24636
- intuitive camera calib. tool for natural images 41150
- invariants of 6 points from 3 uncalibrated images 24639
- IVHS, multisensor vision systs. 42840
- jn. class. by multiple orient. detect. 24443
- knowledge-based 3-D obj. recogn. 2683
- knowledge-based image understanding 2785
- Lambertian model generalization and implications for machine vision 41292
- lateral shear interf. imagery, holographic grating 2138
- lateral-stereo camera model for machine vision 16233

computer vision continued
light strip image anal. on cutting tools, extract 3-D wear inform. 24542
lin. pushbroom cameras 24478
low drag meas. by vision syst., IC appl. 9814
low-level cortical proc. in machine vision, analog VLSI massively parallel module 32947
machine operator safety, intell. image proc. 24523
machine vision optics, illumination, and image sensing, conf., Boston, USA (Sept. 1993) 20194
Markov random field models in computer vision 24630
materials, dichromatic refl. models 8475
MAVI, multi-agent syst. for visual integrat. 41114
mid-level vision techs. for video data compression/manipulation 16087
Midwest Symp. on ccts. and systs., Detroit (1993) 33
mirror uncertainty and uniqueness conditions for determining shape and motion from orthographic projection 33103
missing inform. principle in computer vision 24358
model based 3-D obj. recogn., intens. and range images 16275
model based 3D scene reconstruction from perspective images 41257
model based pose estim. of articulated and constrained objs. 24464
model supported exploitation, quick look, detect. and counting, and change detect. 8636
model validation for change detect. in machine vision 8638
model-based vision, aspect angle target estim. in forward-looking IR images 2714
monocular param. estim. from intersections, planar surfaces 16117
monocular pose determ. from lines 2774
motion anal., ANN 2686
motion boundary detect. in image seqs. by local stochastic tests 24626
motion clustering, stochastic 24628
motion field of curves, appls. 24440
motion video annotation and anal., overview 8547
motion-based recogn., survey 32852
moving obj. segmentation by robust motion param. estim., multiple frames 24627
multi-resoln. method for improving image search 41128
multiple image matching in automatic aerotriangulation syst. 2786
multispectral image data, panchromatic band sharpening 8498
neural network based image syst. class. algm. 2844
non-iter. contextual correspondence matching 24614
non-parametric local transforms for computing visual correspondence 24616
nonlin. generalisation of point distrib. models, polynomial regression 41134
nonlin. vision problem based on forward and approximated inverse optics models *(Japanese)* 16235
obj., 3D, reconstruction, min. vol. intersection no. 2855
obstacle detect. by binary expansion patterns recogn. 33070
occlusion reasoning for robust multiple car tracking 24455
occlusion-free monocular computer vision syst. 2719
occlusions and binocular stereo 41291
off-axis particle holograms image proc. 8536
online weld profile metrology, vision-based gauge 3891
opt. flow and discontinuities, determ., nonlin. diffusion 24625
opt. flow computations, wavelets, curvature and chaining issues 32842
opt. flow for autonomous navig. of moving vehicles 24449
optimisation approaches, CSP 41217
orient. estim. of indust. parts for automated inspection 5689
panoramic line-scan imaging syst. for teleoperator control 34564
pass. depth acquisition for 3D image displays 2644
pass. navig., pattern recogn. problem 41083
pass. ranging, image expansion 26549
pattern recog.,/vision, conf., New York, 1993 36
pattern recogn. by homomorphic graph matching, Hopfield neural networks 24567
pavement-rubber interface contact area, skid resist. study, machine vision meas. 8631
PCB automated component placement, shape-based technol. 12887
PCB solder joints vision inspection machine *(Italian)* 5687
PCB/SMD quality inspection by computer vision 37165
peripheral artificial vision, lateral inhibitory networks, IC implement. 23067
perspective views, 3, of 4 points, uniqueness 32927
photogrammetric anal. of image invariance, computer vision 41242
photogrammetric tech. integrat., conf., Orlando (1993) 36888
photom. stereo vision, arbitrary motion light source 2605
pixel labeling, neural approach 33061
planar shapes class., multiresolution circ. autoregressive models 8571
pose estim. using image, sens. and model uncertainty 41151
probing techs. for MCM and bare die 21734
prog. opt. pattern recogn. image proc. 2829
Prolog program, prog. fast colour recogn. hardware by symbolic reasoning 24546
quadratic filter and detect. 2668
quadric surface reconstruction from disparity meas. 24547
qualitat./quantitat. shape recovery integrat. 33104
range data, curvature based segmentation 24416
range estim. from camera blur, regularized adaptive ident. 32991
real-time motion stereo 2761
real-time synthesis of humanlike agent in response, user's moving image 41163
reconfigurable FPGA-based image coprocessor 12577
regions matching specified chromatic features, detect. 32910
regularisation vision chips, light-adaptive archits. 21458
relational matching by discrete relax. 41219
relative orient. of image triples, straight lin. 41338
relief, pictorial and otherwise 41216
rigid and affine registration of smooth surfaces, differential props. 24633
rigid objs. registration method without point matching 24615
road segment matching using probabilistic relax., hierarchical approach 8502
road vehicles, wide dyn. range vision sens. 42846
roads, cluttered scenes, real-time visual tracking 32950
robot vision-based calib. syst. 17658
robust computation of optical flow in a multi-scale differential framework 24707
roller bearing surfaces, 2D surface texture, machine vision opt. meas. tech. 8630
rot. symmetric surfaces recogn. 2760
rough surfaces, diffuse reflectance 16178
scale-space props. of quadratic edge detectors 24445
scene params. estimating method, color histograms 2601
security, site, visual surveillance by depth-from-focus 42686
semi-local projective and affine invariants 2670

computer vision continued
semicond. defect recog. fuzzy expert syst. 1192
sens. and light source positioning 24369
shape, surface reflectance, illuminant direction and illuminant intens. from images with shading 24571
shape modeling, front propag. 24415
shape/pose recovery from shading, contour 2759
SICE'94 conf., Japan, 1994 5455
SMDs, inspection/subpixel alignment, fuzzy morph. *(Korean)* 29691
spiking oscillator networks, on-focal-plane image preprocessing 29413
sq. root filtering in space-time estim. 16068
stat. model-based approach, topographic labels assignment 41203
stat. snakes, act. region models 41132
statistical regularisation and temporal integration framework for motion detection 24708
steel plant noncontact rail dimens. meas., machine vision-based 42931
stereo vision, ground plane obstacle detect. 8645
stereo vision feature correspondence, bipartite matching 24372
subthreshold analog, matching ccts., large output voltages 8626
superquadrics param. estim. from shading image, genetic algms. 41119
surface matching algm. 16169
surface roughness determ., refl. step edges 3974
surface texture anal., machine vision syst. 10023
symm. in 3D shape reconstruction from noisy images 24472
syst. for autonomous vehicle, develop. *(Japanese)* 2610
systs. characts. *(Japanese)* 32931
target discrim., computational vision human perception models 35393
task driven perceptual organization for extraction of rooftop polygons 8637
teeth, shape recording, computer vision 26335
temporal-color space anal. of refl. 2598
text-image anal., skew angle estim., SLIDE 2614
texture crack detect., automatic visual inspection 41161
thermal/visual imagery, robust phys.-based anal. 2597
three point perspective pose estim. problem 33105
traffic sign recogn. syst. 32951
transputer module array, computer vision embedded appls. 24484
transputer-based visual inspection syst. 28506
trilinearity in visual recogn. by alignment 24476
TV-Trackmeter, underwater stereoscopy, hostile environ. appls. 24483
two images tell us, third one 24477
two-stage approach, multi-sens. temporal data fusion 41230
underwater image shading, shape recovery 10532
unstructured video image seqs., automatic annotation 32883
user prog. visual inspection 41225
vehicles, intelligent, conf., Paris (1994) 28224
vel.-based vestibular-visual act. sens. integrat. 41108
versatile video pattern generator for vision test 16162
video annotation, representational frames 8552
viscosity meas. syst., falling ball method *(Japanese)* 42991
vision based aircraft navig., landing 10405
vision-based vehicle tracking, camera movement errors anal. 16293
visual cortex based neural archit. 29478
visual curve tracking appl., graphics 41323
visual echo anal. of multi-frame optical flow 24717
visual inspection, linguistic fuzzy inputs 38951
visual motion transducers using gratings 24718
well-composed sets, binary digital images 24367

computerised conferencing *see teleconferencing*

computerised control
see also building management systems; chemical engineering computing; command and control systems; control engineering computing; electrical engineering computing; industrial control; intelligent control; mechanical engineering computing; nuclear engineering computing; power system control; transport control
32-bit RISC proc., embedded control systs., CMOS VLSI implement. *(English)* 37795
35 GHz forward looking altimeter for terrain avoidance 25612
AC drive syst. load simulator, local vector control 28069
ACNET control syst., smart subsystems, shell software 18231
AGS accelerator distributed control syst. alarm, obj.-oriented design 18192
ALS, obj.-oriented software constr. 18227
AN/FPS-85 radar, peak power tailoring and phase nulling 34159
APS, hardware supported by control syst. 18203
APS accelerator and control syst. 18173
artificial lighting, computerised control, daylight use 28158
astron. Fabry-Perot imaging camera 9942
ATE station controller replacement, commercial products 34362
automated stereo camera mount control tasks, parallel implement. 16348
automatic sample prep./anal. syst. 34409
automotive engine mgt. syst., electronic ignition 36771
beam, bending wave structural intens., adaptive control 2543
Beijing FEL time resolved electron spectrometer, control/scanning syst. *(Chinese)* 34965
BEPC accelerator control syst. design 18195
biomedical microrobots driven by miniature cybernetic actuator 35139
brain blood vessel catheter, teleoperation 10255
bulk produce conveyors, drop dists., manual/electronic control 3803
Calvert Cliffs nuc. plant, digital instrumentation upgrades 19403
Canard rotor/wing aircraft, integrated navig./guidance/control 10340
catheter, micro act., with multiple d.o.f. 4289
CEBAF accelerator control syst. upgrade 18189
CERN PS accelerator, control syst. overview and status 18182
colour TV receiver, microcomputer control syst. 9709
conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
COSY control syst., RT/OS environ. 18209
cryst. oscillator compensation in DDS/PLL appl. 21135
DANTE control syst. for DAΦPNE, Macintosh/LabVIEW based 18236
DELPHI distributed IS, LEP appl. 18210
DFT/BIST hardware, chip-based, control strategies 9805
digital transducer design, control syst. aspects 34452
distrib. substation automation develop. 11214
drug delivery syst., μP-based pacemaker control 18582
drum-type boiler of power plant, automatic control *(Japanese)* 4840
DSP based controller for switching converter 6019
DSPs in high perform. controllers 37814
electro-hydraulic above-knee prostheses, gait control 43361
Elettra, beam line control syst. 18399
embedded controller, transputer-based, eval. for high dyn. control appls. 44260

computerised control continued
embedded diagnostic system for submarine ship control 42728
engng. education, integrated experimentation/computerization 20304
EPICS, obj.-oriented enhancement 18235
equipt. access software, distrib. UNIX-based accelerator control 18208
ESRF distrib. control syst., access control/security 18213
Ethernet, sharing resources, client-server model, ISIS facility 16688
EUV spectrograph, back-illum. ion-implanted CCD 9934
fast front-end computer design 18232
fault diagnosis in systs., fuzzy logic 28524
FBK-SDU series of digitally controlled uninterruptible power systs. *(Japanese)* 36339
fluidized bed utility boiler, computerised control 10856
force feedback system, surface display 18015
fuzzy logic controller for induction servo syst. 5002
GANIL ion accelerator, control syst. 18184
generic software tool kit, accelerator distributed control 18233
group geyser consumption patterns, single water heater and PC-based meas. and control syst. 4538
harmonic distortions detect./meas., computer controlled excitations 10011
high-speed peak detector for pulsed lasers meas. 40002
HIMAC synchrotron control syst. 18175
induction motor drives, μP-based, vector control algm. 36643
induction motor drives, sensorless vector control by Intel i860 and transputer network 44039
intell. robust private networks, call proc. structural concepts 33631
ISOLDE isotope separator control syst. design 18391
IUE astron. satellite, coarse-grained scheduling 26522
K4-K10 storage ring, bus controller for MIL-1553B/Multibus II 18211
KEK PS magnet power supplies and beam line control 18260
LEP2 cryogenics control syst. archit. 4036
LEP accelerator beam dump control syst. 18198
LEP accelerator pretzel separators, control syst. 18261
LEP high level control syst., ORACLE online database 18234
lin. reson. electron linac, control syst. 18178
LISA, supercond. linac, control syst. commissioning/operation 18179
MA818 controller for three phase 10 kVA voltage source PWM inverter 36283
micro mobile robot in water, mechanism and swimming expt. 30519
microcontroller-based batt. charger, neural-fuzzy technol. 6028
microcontroller-based real-time speed meas. for motor drive systs. 36648
microcontroller-driven gray scale plasma receiver 34638
MOS-controlled thyristor, AC switch and AC voltage controller appls. 22400
multimodal interface, speech and touch screen *(Japanese)* 24137
multirate controller for servo control, DSP based 8332
μP-based motorised satellite antenna 2324
Nobeyama Radio Observatory, telescope control syst. upgrade 17515
opt. meas. accuracy increase 18120
OTDR reflectometry meas., automation 22826
panoramic line-scan imaging syst. for teleoperator control 34564
parametric fuzzy control module, 16 bit std. microcontroller SAB 80C166 17677
paraplegic locomotion, hybrid functional elec. stimulation syst. 10273
phased-array radar, archit. and design 42517
physiotherapy, exercise bicycle computer control 26449
plastic molding control, ISA, PCMCIA data acquisition 42745
position and attitude sensing 25882
power station computerised voltage regulator 27305
power switch, computer-controlled 12867
proc. control, sig. sampling scheme in real-time 24314
PSI accelerator control syst. and tools 18194
quantizing errors in LTI digital dyn. devices 32629
reading and listening perform., computer-controlled speech and printed text presentations 67
real time galvanizing plant temp. control 28191
real-time control and monitoring single-chip microcomputers *(Croatian)* 667
real-time navig., global positioning syst. 18991
rem. collaboration control syst. employing manipulators *(Japanese)* 33420
RHIC accelerator control syst. design 18172
rocket-borne downconverter, space plasma turbulence meas. 35310
S-band TT&C up link transmitters, DDS 42740
SARA, control systs., PCs 18242
SEC 51C803/804 three-phase microcontrollers for variable-speed drives 5246
SEC 51C803/804 three-phase microcontrollers for variable-speed asynchronous motor drives 29263
SIBERIA SR source control syst. 18262
sinusoidal current tracking inverter control, neural networks *(Korean)* 27826
SPS/LEP commun. control network evol. 18197
SRRC storage ring, computer control and instrumentation syst. 18174
SSC control syst., develop. environ. 18229
SSCL, RF control, obj. oriented design approach 18277
State Notation Language, run-time sequencer, accelerator control 18278
surround sound prog. computer environ. 17617
switching control multiprocessor, fault tolerant software *(Japanese)* 33187
T700 series intell. press./differential press. transmitters *(Japanese)* 3823
tele-micro-handling/machining, inform. transform.-based 30522
Tesla linac test facility controls status and future plans 18258
Topaz-II, reactor control unit develop. 4358
TR13 H^- cyclotron control syst. for automatic isotope prod. 18180
tracking antenna controller, design/implement. 15677
triggering bus controlled test and meas. system 34341
Tritron tandem control syst. status report 18181
TRIUMF, device access, C++ on VAX/OpenVMS 18230
TRIUMF accelerator central control syst. upgrade 18186
UHV-STM syst. combined, MBE 5837
ultrasound phased-array controller for hyperthermia appls. 26316
UNK control syst. protocols 18207
UNK Project, accelerator control, MMI 18279
UVSOR SR source, gracefully-degraded operationable control syst. 18196
Windows-based control syst. for electron microscope 9817
ZIPI music description lang., origs. and motivations 25693
CsI/p-i-n detector based gamma ray spectrometer 43147
He cryoplants in CERN SPS, control aspects 10080
Si substr. MCM technol., sens. sig. proc./control 21769

computerised instrumentation
see also astronomy computing; automatic test equipment; automatic test software; biology computing; chemical engineering computing; chemistry computing; computerised monitoring; computerised tomography; data acquisition; electrical engineering computing; electronic engineering computing; geophysics computing; high energy physics instrumentation computing; nuclear engineering computing; physics computing; spectroscopy computing
3D coord. meas. machine, self-calib./error correction 18086
3D free-form surface noncontact opt. profile sens. *(Japanese)* 42941
3D image meas. of moving objs., laser rangefinding 3627
3D shape direction/posn. meas., opt. fibre sens. *(Japanese)* 10016
4π charged-particle detector array operating charact. 18341
AC complex mag. suscept. meas., RF range 18046
AC rly. power syst. protection/fault meas., PC-based 44536
actuator/sens. interface instrumentation 25727
adaptive whole-field opt. profilometry 18089
additive stroboscopic fibre optic TV holography, vibr. anal. 15153
AMK-S-03 automated mag. measuring syst. 3959
analog ramp generator for fast STM 585
ASD perform. eval. by PC-based meas. 36652
astron. Fabry-Perot imaging camera 9942
at. absorpt. spectrophotometric syst. for environ. water anal. 10564
ATE with adaptive fault detection, integrated technology enhanced 42709
autocalibration of fibre optic strain sensor 25860
automatic working resist. stds. 3717
AUTOTESTCON, conf., Anaheim, CA, USA (Sept. 1994) 20248
avionics computers, real-time, Ada 9X solns. 10370
AWG, arbitrary waveform generator, waveform creation problem simplification 17987
azo-dye-doped polymers opt. storage, holographic interferometry 15155
BATFISH, depth controllable towed body 10499
batt. capacity tests, computer based eval. 19954
batt. preventive maint., computerised eval. 11248
Battery Mgt. Syst., microcomputer based *(Japanese)* 5187
biofeedback cane syst., instrumentation/subj. appl. results 35180
biotechnology research lab. proc. control, GUI-based *(German)* 34984
birefr. eval. 5697
blood platelet aggregation, aggregates counting, laser light scatt. 26329
brain vol., rapid automatic, on basis of multispectral 3D MRI data on PC 43239
brightness meas. of rough surfaces, confocal microscopy/image anal. 18065
calibration of test equipment 42733
calorimetry at LHC, modular fault-tolerant approach 4237
Calvert Cliffs nuc. plant, digital instrumentation upgrades 19403
cameras, act. calib. 25712
capacitive displacement transduction method for press. meas. 18141
charged particle beam tomographic monitors, distrib. fns. meas. 34824
charged-particle beam param. sens. selection and design 4079
close range dimens. meas., grating techs. 18078
CMM, control input shaping against vibr. 17675
CMM, optimal posn./vibr. control design 3738
Cocolyzer brain fns. analyzing syst. 10246
coherent laser radar, appl., decontamination/decommissioning 42685
colour perception, fuzzy sens. 3848
conducting polymer sens. for electronic nose 3903
contactless lin.-dimens. monitoring, lin. and ang. 3986
contactless real-time meas. of robot pose 42529
continuous external train noise meas. 10073
control syst. aspects of digital transducer design 34452
coord. meas. machines, accuracy assess. 42933
coronary angiography beamline upgrade, NSLS 43269
correction method for single chip power meter 4740
cylindrical hot-film probes in water flows, calib. 10066
dairy cow oestrus detect., intell. syst. 9820
DC LV low power energy meter, μP based, design 10791
digital AC panel meter, design algms. 3734
digital analyzers for dyn. spectral anal. 3761
Digital Audio Laboratory Station 34285
digital image proc. tech. for crack growth detect. 28899
digital positional shaft encoders, patents review 34699
digitally based ΔE meas. syst., design 18039
displacement-freq. converter for μP dimens. meas./monitoring 3769
distribution network fault detection/protection, neural net-based 19249
DLTS meas., computerized digitizing tech. 18055
DMM computer instrumentation for power distrib. monitoring 4737
drives, computer controlled dynamometer test syst. 36695
DSP data acquisition and eval. board *(German)* 9825
dyn. DVM, rly. reactive power compensation appl. 3947
dyn. torque-speed meas., advanced intell. instrums. 44038
EDXRF analyzer, portable, PC based, environ. contaminants meas. 18799
elastic consts. meas., automated US device 4031
elec. drive μP control systs., regulation error meas. 44464
emitted gases anal. of methanol engine motorcars 10565
energy dispersive EXAFS, data acquisition, obj. oriented methods 42746
engng. education, computer-aided lab. expt. interfaces 36939
engng. education, integrated experimentation/computerization 20304
environ. impulsive sounds, phys. descriptor computation algm. 42998
Envisat-1 satellite radar-altimeter on-board real time software testing 43421
F-22 cockpit display syst. 10374
fabricated parts, US test equipt. 5925
fast batts. charger, voltage inflection points detect. 27908
fault diagnosis problems on Hopfield neural network *(Japanese)* 34410
ferromag. films, magnetoresist. meas., flexible test syst. 18040
Fizeau interferometer, phase-map extraction by moire tech. 17697
fluid density meas. by US techniques 25982
foetal ECG, antepartum, extraction/anal., PC instrum. 35087
food monitoring, nonmetal foreign body detection 25804
forward-based portable acoustic meas. syst. 17683
fringe projection micro-shape meas., high-sensitivity 18070
fuzzy ES for hydrostatic level meas. *(German)* 18160
fuzzy uncertain computer-aided meas. systs. 3739
gamma-ray spectrosc. counting syst. automation for NAA 17657
gel permeation chromatography, Tung integral eqn. deconvolution *(Chinese)* 3740
GPIB-controlled VXI systs. perform. improvement 34377
graphical prog., LabVIEW software *(Chinese)* 16647
harmonics power logger, adaptive storage/automatic data selection 34657
head-mounted displays, interactive stereoscopy optim. 34633
HF range M-seq. meas., interleaved sampling method 26017

computerised instrumentation continued
  high precision ADC syst. for instrumentation 3765
  high press. computer controlled dielec. meas. 17672
  high-accuracy microwave sens. and calib. 3964
  high-speed peak detector for pulsed lasers meas. 40002
  high-T_c supercond. meas., interf. reduction 34653
  HV equipt. insulation eval., intell. instrum. 19578
  HV power syst., overvoltage monitoring syst. *(Chinese)* 35696
  IEC555 parts 2 and 3, digital power analyser 34656
  IEEE conf. on instrumentation/meas., USA (1993) 20198
  induction motor meas., transputter-based measurement apparatus 27718
  induction motors, indust. meas. syst., LAN based 25728
  inertia tensor meas., expt. proposal 42955
  integrated flight path/terrain displays 26543
  intell. differential press. transmitter develop. 3786
  intell. missile black-box 4441
  intell. rod gauge, laser scanning based, develop. *(Chinese)* 10022
  ITER magnet cryogenic research facilities, computer-aided syst. 11719
  Kalman-filter-based measurand reconstruction architecture 25765
  laser-induced diffraction signals, digital signal processing 25972
  low coercive fields meas. 10003
  low drag meas. by vision syst., IC appl. 9814
  low-solids flux conc. analyser, automated 42976
  lung sound anal. toolkit, hardware/software 43224
  LV switchgear made-to-measure commun. 44241
  M700 series intell. auxiliary instrums. *(Japanese)* 3774
  mag. induction-transducers for charged particle beams meas. 18265
  mag. suspen. syst., real-time posn./attitude sens. 18088
  mammography, QC instrum., in-field testing 18496
  mass-flow rate digital meas. 10069
  MC68HC11 microcontroller based talking thermometer 3749
  measuring device input sigs., reverse filtration procedure 17678
  memorized testing/measuring technol. 3735
  MHD convertor plasma temp. meas., spectroradiometer-based 11305
  microcomputer syst. for controlling classical conditioning expts. 17691
  microprocessor based protection systems 9787
  microwave EM field simul., TLM method, computer graphic visualisation 10006
  microwave heating, refl. meas., pulsed/CW sigs., 2.45 GHz 11478
  microwave multimeter and operating algms. 10007
  millimeter wave measurement, VXI implementations 25959
  mobile autonomous sens. syst. for odor source localization 9954
  mobile CT unit for reinforced concrete column inspection 42737
  mobile robot posn. determ., visual landmark-based 9929
  MOS devices/ccts., radiation effects, meas. syst. *(Chinese)* 25729
  multichannel apparatus for biologically act. spots study 26266
  multichannel biomedical data acquisition, analog opt. link in SMT 17690
  multichannel pulse-height analyzer, computer controlled, calib. 3745
  multielement Ge detector, X-ray fluoresc. microprobe/microspectroscopy 42979
  multisensor data fusion, fuzzy methods 24431
  μP meas. IS for params. of motion 3747
  neural nets appls. 25723
  neural network controlled cryst. oscillator 39107
  neural networks based monitoring of indust. elec. loads 4537
  neurosurgery, stereophotogrammetric-controlled pointing device 43323
  neurosurgical navig., computer-assisted syst. *(Japanese)* 18589
  neutron depth profiling, Univ. of Texas 17667
  non-contact μP-based digital He-Ne laser scanning micrometer 18099
  noninvasive blood press. meas., arm soft tissue influence 43185
  nonsinusoidal power syst. meas., parametric approach 4748
  object-oriented architecture of measurement systems: The user-interface 34340
  ocean high perform. micro-power CTD sens. 10495
  oceanographic acoustic instrums., high level control 10538
  odor discrim., fuzzy reasoning and neural networks 9955
  odorant sens., SAW oscillator and neural network 17982
  opt. disk mech. characts., meas. syst. 10018
  opt. meas. accuracy increase 18120
  opt. polishing monitoring, computerised microscopy 17600
  opt. waveguides characts. meas., PC-based syst. 39385
  optothermal hybrid microscopy,coatings nondestructive/noncontacting testing 12216
  Optotrac, opt. non-contact 3D motion tracking instrum. 17659
  organics, trace, in aq. streams, automated determ. 18140
  otoacoustic emissions recording, DSP boards/computers 26365
  paper insulation, HV testing, μP based 30590
  parallel approaches for intensive computing and instrumentation upgrading 42736
  parametric fuzzy control module, 16 bit std. microcontroller SAB 80C166 17677
  particle image velocimetry, ultra-high-speed camera 3982
  PC based measurement and calibration systems 42732
  PC-based multi-resoln. spectrograph 2403
  PC-based multichannel scaler *(Bulgarian)* 26239
  PC-based softcopy photogrammetric syst., experience in low-cost survey of archit. 41337
  PCB diagnosis using artificial neural networks 38118
  photoelec. sens., intell. diagnostics 3828
  pipelined automatic meter reading scheme 35692
  plastic molding control, ISA, PCMCIA data acquisition 42745
  portable data acquisition and control system, multitasking/multiprocessing 34414
  portable SAW sens. for airborne organic gases meas. 25895
  position and attitude sensing 25882
  power supply quality class., neural net/ES-based 4741
  power syst., transformer inrush/steady-state currents, harmonics meas. 5022
  power syst., wide bandwidth fast act. power transducer 19371
  power syst. AMR, design considerations 27278
  power syst. fault level estim., computer-based 19058
  power syst. harmonic/reactive currents adaptive detecting method 27276
  power syst. harmonics meas. syst., PC-based 4750
  power syst. real-time harmonics/flicker meas., PC-based 19367
  power syst. voltage distortion compensation, meas. aspects 4551
  power system meas., transputers-based data acquisition 35694
  power transm. line harmonics measuring instrum., μP-based *(Chinese)* 43806
  precision freq. meas. tech. in MCXO 42886
  proc. instrumentation, proc./syst. interfaces 9789
  product temp. profile meas., IR linescanning 3879

computerised instrumentation continued
  pulse diagnosis, Chinese, computer/fuzzy theory 43203
  pulse discharge pattern anal., neural network appl. 3973
  pulsed damped-sine charactn. sig. anal., PC-based 34423
  pulsed fast neutron anal., cargo inspection, data acquisition 18413
  pulsed power syst. dielecs., real-time surface flashover detect. 36292
  Q-factor meas. of high-T_c supercond. resonators 1641
  quadrature components real-time eval., impedance meas. 25941
  quiet source acoustic meas. syst. 17682
  R&S Signal Generator SME extensions for testing, digital networks 9968
  radiation-acoustic sigs. effect, automated detector 28909
  radiotherapy, dyn. beam modulation, computer-controlled absorber 26460
  real-time lightning detect./location, power syst. appls. *(Chinese)* 27288
  rem. time scales comparison by satellite commun. channel 17636
  respiratory muscles, cyclic activity, automated meas., microcomputer syst. 4282
  RF vector analyzer based on synchronous sampling 25958
  road traffic flow meas., night scene image seq.-based *(Japanese)* 10070
  robot guidance, US arrays 4421
  rocket-borne downconverter, space plasma turbulence meas. 35310
  sampling oscilloscope calibration IEEE-1057 draft standards 25702
  SEDITRON, transputer based automated urine analyser 43197
  self tracking of human motion, virtual reality systs. 34685
  sharing of measuring inform. in CATV networks 42614
  ship attitude meas., servo-type accelerometers *(Japanese)* 25970
  shipboard toxic gas anal. by photoacoustic detectors *(Croatian)* 3902
  short lived isotopes, automated NAA syst. 17656
  sig. extraction from mag. flowmeters for dens. meas. 3763
  simultaneous high-speed measuring syst. of multiple points 3883
  simultaneous spectrosc. ellipsometry/reflectance, thin-film prep. monitoring 5880
  Sizewell B PWR control and instrumentation systs., reliab. assess. 35730
  soil, elec. cond./water content, TDR 4387
  soil moisture content detect. by TDR 10458
  spectral analyzer, graphic software syst. *(Chinese)* 34420
  spectral line emission measuring syst., calib. 17629
  spectrometric data correction, Kalman-filter-based algm. 15931
  stainless steel rolling strip flatness meas./control syst. 10015
  stationary batt. UPS systs., status determ. method 36549
  std. lamps, improved automated current control 3723
  steel plant noncontact rail dimens. meas., machine vision-based 42931
  step-freq. radar imaging for NDE/GPR appls. 42904
  stereoscopic syst., particle trajectories meas., underwater model 34732
  stereoscopic video, underwater rem. operated vehicle 32815
  stereoscopic viewing of at. struct. 34336
  stripchart recorder emulation; split screen, smooth scrolling 3924
  structural design of general-purpose automated sens. systs. 3805
  surface texture anal., machine vision syst. 10023
  suspens. and aggregates, combined rheometer/image analyser 25876
  swarming pulsive microdischarges, CAA 1538
  synthetic insulators, leakage current monitoring, coastal site 43784
  T780 series intell. EM flowmeters *(Japanese)* 3824
  Talyrond 100, precision meas. equipt. improvement *(Polish)* 34412
  tech. prod. reliab. dialogue syst. 11880
  tele-microscope for meas. of polished curved surfaces *(Japanese)* 2741
  temp. compensation of cryst. oscillators, microcontroller 39105
  thermal diffusivity meas. of refractory solid materials 25996
  thermal diffusivity meas. of thin films and foils 25994
  thermal imaging perform. eval., min. findable temp. difference 34572
  thermocouples, dyn. calib., multipoint sampling data, param. estim. *(Chinese)* 3777
  thermovisual syst. for NDE of objs. 18920
  three-channel homodyne interferometry, opt. thickness meas. 18074
  three-phase systs. distortion source ident. 43803
  time domain network analyzer 25745
  tomographic photopyroelectric imaging, thermal wave multi-probes appl. 3757
  touch/step voltages meas. method/instrum. 4710
  traffic noise meas. and param. estim. methods *(Croatian)* 4026
  transfer fn. in transformer testing 5012
  transformer windings status assess., online stray inductance meas. 5013
  transient signals meas., Wigner-Ville distribution appl. 24240
  transm. network optimal fault location, μP-based 4623
  transm. network voltage flicker studies, AC/DC furnace-generated 27124
  transputer-based data acquisition syst. for 256×256 pixel IR camera 42743
  transverse-flux induction heater exit temp., real-time meas. by transputers 44625
  triggering bus controlled test and meas. system 34341
  tunneling thermometer, std. appl. 9882
  turbogenerator rotor bore, automated US inspection syst. 19599
  UHV-STM syst. combined, MBE 5837
  VACM data recording package and memory syst. 10496
  video based tracker in computer aided surgery 42687
  videokeratoscope, SUN SK-2000 computer-assisted, clinical trial 43262
  virtual instrum. for determ. of elec. power quality 4739
  virtual instrumentation 34382
  virtual lab., obj.-oriented framework 3744
  viscosity meas. syst., falling ball method *(Japanese)* 42991
  VXI, std. instrum. drivers/soft front panels 34378
  VXI meas. and test systs. *(Slovak)* 25719
  VXIbus interface hardware, FPGA implementation/testing 42735
  walking rehabilitation robot, computer-aided 4310
  waste-handling monitoring, fiber-optic chem. sens. 18916
  watthour meter opt. character reading syst. *(Japanese)* 9969
  wideband inside micrometer, digital readout 18091
  Windows-based control syst. for electron microscope 9817
  work fn. meas., thermionic projection microscope 9818
  writing speed to hard disk improvement, alternate buffering 3733
  X-ray stereoscopy, real time, reverse geom. X-ray imaging 34968
  X-Y meas. of elec. fields, μP based device 9990
  XSH alacrite based mass stds. stabil., cleaning influence 34317
  CsI/p-i-n detector based gamma ray spectrometer 43147
  Nd:YAG laser, quasi-CW LD array pumped, absorpt. efficiency control method *(Japanese)* 31307
  O_3 conc. in water, automated meas. 26000

computerised monitoring
  11 kV distrib. network telecontrol/metering syst. 4660
  34 Mbps digital microwave syst., perform. monitoring 25268
  230 kV level load behaviour params., stat. anal. 35690

computerised monitoring continued
908 MW thermal power plant control/monitoring integrat., Australia 19508
actuator/sens. interface instrumentation 25727
aeronautical elec. equipt., microcomputer distributed meas. and control syst. 10343
Alcatel 1000 S12 exchange, ALAMOS generic alarm correl. syst. 3288
Alzheimer's disease, phys. activity monitoring 10171
anaesthesia documentation, automatic systs. 43201
anesthesia data, HUD, clinical eval. 43202
arc welding stat. proc. monitoring/interp. 11510
ATM networks, perform. modelling of adaptive connection admission control 41435
ATM peak cell rate monitor algm. dimensioning, discrete time anal. 41447
atrial fibrillation, intracardiac sig. anal., std. ambulatory monitoring equipt. 26438
automated syst. for mapping spatial movement patterns in behavioral research 17669
automatic syst. for monitoring fish passage, dams 24534
automobile two-state adaptive suspen., rule-based condition monitoring 5365
AXAF space observatory, power syst., CLIPS troubleshooting ES 26658
bearings, fault recogn., monitoring by neural nets 34391
Belfast, integrated urban-road/motorway control/informatics 17665
Bell Atlantic, centralization/automation in telecom. network testing 33355
boiler steam-water syst. diagnosis/monitoring, ES 19511
brushless turbo compressor drive, intell. diagnostic syst. 36693
brushless variable speed drive network, diagnostic ES 11370
car driver behavior evol. detect., fuzzy diagnosis proc. 34387
cardiotocograph data acquisition/replay, Microsoft Windows based appl. 10172
CATV status monitoring syst. using HDLC protocol, implement. *(Korean)* 42624
cct. breakers, on-line condition monitoring 44234
cement kiln dust recycling, water leaching, proc. control 17673
cement storage/dispatch terminal automation 3731
CHP plant intell. control/monitoring, μP-based 35993
computer networks, rem. monitoring probes and mgt. appls. 17694
condition monitoring syst., multilevel knowledge base 17679
contactless lin.-dimens. monitoring, lin. and ang. 3986
copper rod mfg., QC syst. upgrade, USA 5677
criminal electronic tagging, telecom.-based monitoring 28385
Croatian telemetry network requirements 41747
DELPHI distributed IS, LEP appl. 18210
design-of-expts. techs., SPC of high-purity gas prod. 20397
DESSY, Space Shuttle telemetry monitoring system with tolerance for real-time data problems 10342
Diagnostika motor drive testing automation software 44469
diesel CHP plant, intell. control/monitoring 4854
distrib. network disturbance waveforms class., neural net-based 27161
distrib. network rem. monitoring/control syst. develop. 4667
DMM computer instrumentation for power distrib. monitoring 4737
Dome Water Monitoring Instrumentation System, submarine sonar dome corrosivity meas. 17676
DYANA best-first hierarchical diagnosis, diff. eqn. models 19493
ECG data compression, VQ, k-dimens. tree for fast search 26437
ECG diagnosis, real-time ES 10245
ECG mapping, ambulatory, integrated software environ. 26431
elec. generator real-time condition monitoring 44007
elec. heat tracing, controls/monitoring 36783
elec. power commun. network monitoring/mgt. *(Chinese)* 33428
elec. rly. real-time control/monitoring syst. integrat. *(Chinese)* 36710
elec. vehicle fleet monitoring, batt./charger mgt. syst. 36728
EPRI instrum. calib./monitoring program for NPPs 27353
estuarine/coastal water harmful substs. monitoring 26775
Eurostar Informatique control syst. software 44573
expressway vehicle flow rate meas., TV picture *(Japanese)* 25726
flight data acquisition syst., multiprocessor 26547
foetal ECG anal., real-time, Windows appl. 26377
France Telecom's Regina syst. for collecting, managing/broadcasting alarms 24919
gearbox acoustic condition monitoring by neural net 34390
generators, condition based maint. 36095
generic software tool kit, accelerator distributed control 18233
GIS PD detect. automation method 36468
haemodynamics, noninvasive monitoring, impedance cardiography/cardiointervalography 35098
help desk problem resoln., rem.-control software 16638
HV machine stator insulation, discharge monitoring 19600
HV power syst., overvoltage monitoring syst. *(Chinese)* 35696
HV stator winding insulation, on-line discharge monitoring 36108
HVSE-I power line safety monitor, μP-based *(Chinese)* 27193
hydroelectric dam surveillance, ES/mgt. IS-based 19544
I_{DDQ}/I_{SSQ} testing, serially addressable flexible current monitor 6855
IC yield enhancement, real time mfg. proc. monitoring 20468
induction motor, condition monitoring, unsupervised learning ANN 4943
induction motor bearing damage detect., stator current monitoring 4968
induction motor drives, computerized test equipt., PC-based 44467
induction motors, on-line fault detect., stator current monitoring 4967
insulation PD pattern recogn., neural net-based 13920
interbay material handling/storage systs., large wafer fab, simul. tool 20413
intrinsic thermocouple monitor for laser wirebonding 29710
Kagoshima Prefecture, air pollution monitoring syst. 26772
kinematic GPS and ground-based pseudolite, approach integrity monitoring 3640
knowledge based monitoring/control of plasma, chromaticity meas. 12147
LAN switches, traffic monitoring problems 42118
large-picture technol. for workstations and monitoring *(German)* 42697
LEP accelerator pretzel separators, control syst. 18261
low-solids flux conc. analyser, automated 42976
mach. health assess., expert decision syst. 10928
machine stator winding insulation, on-line monitoring 36110
machine tools, wear/breakage model-based detect. 25731
machining, monitoring/supervising by neural net 34384
maglev contact anal. probe tool for automated IC manufacture 20415
mains insulation monitoring, computerised monitoring 39062
Malaysia, Klang Valley, traffic control/surveillance 17664
mass-prod. instrums., metrological charact. monitoring 119
mfg. execution systs. software selection guidelines 38967
mfg. proc. real-time empirical Bayes model-based monitoring 20425
milling cutter failure, power monitoring method *(Chinese)* 10916
Mobile Transit Network Traffic Monitoring System 25406

computerised monitoring continued
motor speed monitoring syst., PC based, noncontact 10961
Motorola IC yield enhancement, integrated approach 22520
motorway traffic supervision, video camera-based *(Italian)* 3686
multichannel PC-based helicopter electrical power monitor 26540
municipal wastes ash recycling, integrated monitoring/control syst. *(Japanese)* 183
NA35 streamer chamber, image data anal. 26234
NetWare accounting, installation and usage 16578
network mgt. syst., distributed computing 41671
network monitoring via adaptive ES 3097
neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
NPP, intell. monitoring and diagnosis 43834
NPP monitoring, sens. failure detect. ES 19400
NTT, explosion-proof liq.-level meter for underground light-oil tanks 42739
nuc. reactors, anom. detect. credibility, neural networks 4785
omnibus fleet mgt. syst., radio links 34389
on-line water contamination monitoring syst. 18912
paroxysmal atrial fibrillation episodes, self-monitoring in ambulatory patients, PAFHPI program 26434
patient monitoring and therapy mgt., intell. systs., research projects, survey 26447
patient-based integrated care syst., networked, as basis for achieving quality 35208
phased array radar transmitter, pulsed power monitor syst. 34153
power convertor fault diagnosis, ES-based 5053
power distrib. installations, intell. systs. *(German)* 35640
power distrib. line condition monitoring, neural net-based 43750
power line isolation monitoring syst., paging/fax commun. *(Japanese)* 27287
power plant life extension, boiler drum monitoring 19506
power plant life management, conf., Edinburgh, UK (1994) 5454
power station HV equipt. insulation, online PD anal. 4756
power station monitoring, fault diagnosis/isolation, TOPMUSS CAE syst. 27296
power supply current faults diagnosis, neural network 34374
power syst. emergency control, real time ES model 27041
power syst. monitoring, expert syst. 19162
power syst. protection/control, μP technol. *(English)* 43648
power systs., AI proc. monitoring/optim. 35698
power systs., operational intell. syst. appl. 43617
proc. monitoring, neural net-based *(Japanese)* 9790
PSAD, intell. monitoring diagnosis syst., nuc. plants 19402
PSCN 3020 distrib. network integrated protection/control syst. 27157
public data network mgt. syst., monitoring subsystem 24913
PWR containment integrity, SEXTEN monitoring syst. 35790
QMI, Qmimic, dyn. proc. monitoring/fault diagnosis 9815
QoS adaptation and flow filtering in ATM networks 16852
Quick Alert technol., linking sens., alphanumeric pagers 3372
real-time bearing monitor, microcomputer-based 34339
real-time control and monitoring single-chip microcomputers *(Croatian)* 667
rly., automatic monitoring network syst. 9823
rly. signalling equipt., condition-based maint. 44531
rly. signalling interf. prevention, high integrity monitor 44547
rocket engine, large, reusable, artificially intell. health monitoring 18770
Rohde & Schwarz Digital Direction Finder DDF 9184
Rohde & Schwarz Radiomonitoring System TS9965 9183
Rohde & Schwarz TV Inserter/Regenerator VIR, TV broadcast monitoring 9697
rot. machines, condition diagnosis, monitoring syst. *(Japanese)* 36087
SCADA systs. and water utility mgt. 3753
security, site, visual surveillance by depth-from-focus 42686
semicond. mfg., photoresist ashing, on-line diagnostic monitoring 22209
sens. sig. reliab. for knowledge based fault diagnosing syst. *(Chinese)* 32637
small power plant generators/auxiliaries, protection/monitoring concepts 27306
solar water-heating plant, PC-based DA syst. 42744
SONET maint. and mgt., intell. opt. service unit 33363
SONET operations support syst. 25493
Space Shuttle main propulsion syst. propellant loading, KBS 18774
specialised measuring instrum. charact. monitoring 42684
std. apparatus for automatic monitoring of sound-broadcasting sig. level 3658
steam generators, μP based steam leak detect. syst. 35985
steam power plant boiler online water chem. monitoring 4843
steam turbines, generators, on-line monitoring 36005
steel beam mill monitoring syst., PC-based 42949
SUNPAC, PV installations, rem. monitoring 20004
surface roughness online monitoring by laser scatt. *(Japanese)* 34700
SvSig92 rem. monitoring syst., central telecom. power plants 19573
synthetic insulators, leakage current monitoring, coastal site 43784
syst. availability enhancement by fault diagnosis, ANN 19526
tele-monitoring/computer-supported repair, multimedia syst. 42042
telecomm. energy mgt., Alenia distributed soln. 19835
telecomm. power plant, supervision/control 19818
telecomm. syst., rem. proc., universal monitoring syst. 16606
thermal power plant continuous emissions monitoring, software-based 27537
thermal power stations, generating unit diagnostic monitoring 35991
three-phase induction motor drives, online fault monitoring 20084
TIGER, model-based/rule-based real-time tool for monitoring and diagnosis of dyn. systs. 34393
turboalternators, vibr. features of faults, automatic recogn. *(Chinese)* 36139
turbogenerator rotor shorted turns, online monitoring 19598
turbogenerators, stator bar water cooling, fault diagnosis, model-based 27671
turbomachinery, condition monitoring 36096
two wire automatic rem. sens./eval. syst. 17686
urban traffic control, dyn. queue length modelling 34388
vac. switchgear technol., μP appls. 5145
valves, motor-operated, noninvasive diagnostics 19624
vehicle engine misfire detect., torque monitoring 25717
virtual instruments for use in test systems development 42727
VXI-based systs. for telecom. network perform. monitoring 24882
VXIbus embedded PC-based data acquisition 17688
workstation, intell. LAN-PBX interface 33339
CsI/p-i-n detector based gamma ray spectrometer 43147
Li ion batt. capacity monitoring 36547
Ni-MH batt. capacity monitoring 36547
Pb-acid elec. vehicle onboard batt. mgt. syst. 36727
Pb-acid stationary batt., computerized test equipt. 17674

- **computerised monitoring** continued
  - Pb-acid telecom. power supply batts., total monitoring syst. 41630
  - Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
- **computerised navigation**
  - airborne positioning and planning syst., avionics future archit. 10345
  - automobile navig. systs. *(Japanese)* 44579
  - automobile navig. systs., immobilisers, night vision, fuzzy logic 36763
  - Canard rotor/wing aircraft, integrated navig./guidance/control 10340
  - combined block adjustment, precise differential GPS data 42317
  - context-aware computing appls. 33560
  - Ecdis marine chart display IS navig. syst. 9681
  - ECDIS/ARPA overlay systs., display requirements 25606
  - fault tolerant air data inertial ref. syst. testing 10365
  - flight inspection develop. trends 10314
  - Flight Management Systems evol. 10337
  - marine traffic mgt., survey of current and possible future measures 25608
  - min. invasive surgery, computer animation approach 34999
  - mobile robot navig. laser range image acquisition 31692
  - mobile robot outdoor navig., tree detect./dead reckoning 41109
  - mobile robot posn. determ., visual landmark-based 9929
  - multi-site ref. station differential GPS syst. *(French)* 34190
  - neurosurgical navig., computer-assisted syst. *(Japanese)* 18589
  - opt. flow for autonomous navig. of moving vehicles 24449
  - real-time navig., global positioning syst. 18991
  - real-time stereo and motion integrat. for autonomous vehicle navig. 41241
  - Satnav programme, flight safety improvement *(French)* 3637
  - ship navig., electronic charts, GPS 36587
  - ship navig., radar picture and ARPA data stabilization 25607
  - solid-state gyroscope for robotics appls. 17733
  - spatial data syst. framework, national, GPS ref. stations 42325
  - stereoscopic video, underwater rem. operated vehicle 32815
  - vision-based vehicle tracking, camera movement errors anal. 16293
- **computerised numerical control**
  - 3D coord. meas. machine, self-calib./error correction 18086
  - design for cell-based mfg. 37009
  - machine tool digital joint motion controller 11509
  - robotic plasma arc cutting, laser sens.-based 126
  - steel mfg. integrated prod. IS, Japan *(Japanese)* 3212
- **computerised pattern recognition** *see pattern recognition*
- **computerised picture processing** *see image processing*
- **computerised process control** *see process control*
- **computerised signal processing** *see signal processing*
- **computerised spectroscopy** *see spectroscopy computing*
- **computerised test equipment** *see automatic test equipment*
- **computerised tomography**
  - *see also emission tomography*
  - 3D copying, surface-reconstruction from tomography-slices 24562
  - 3D ground penetrating radar imaging, multifrequency diffr. tomography 42505
  - 3D obj. shape, pose, and deform. estim. 2758
  - 3D representation method, indust. CT 33146
  - 3D X-ray imaging techs. 34335
  - array proc., polygon reconstruction from moments 24249
  - array proc., polygons reconstruction from moments 32552
  - automated extraction of lung cancer lesions from multislice chest CT images by 3D image proc. 26326
  - bone, CT images, binary segmentation 43245
  - charged particle beam tomographic monitors, distrib. fns. meas. 34824
  - CMOS max. entropy coprocessor for computed tomography 29432
  - computer aided detect. of abnormalities in mammograms 43218
  - conference, medical image processing, USA (1994) 20236
  - diffr. tomography, multistage parallel algm. 32970
  - discrete convolution backprojection algm. in computerized tomography 26354
  - disease focus posn. determ. in gamma knife operation, 3-D image reconstruction 26273
  - Doppler tomography approach for microwave imaging 24412
  - dose profile/index anal. 18658
  - DSP96002-based software pulse generator, NMR tomography/spectrosc. appls. 42683
  - dual-mode indust. CT 21010
  - effective dose assess. 18656
  - elec. impedance tomography and hyperthermia, clinical implement. 43350
  - facial trauma visualisation, 3D spiral/conventional tomography comparison 18441
  - fan-/cone-beam projection synthetic scanner array tomographic reconstructions 26320
  - fast X-ray CT images, brain vessels extraction 35056
  - fluoresc. scanning X-ray tomography, SR 43274
  - frameless registration of MR and CT 3D vol. data sets 10206
  - Fraunhofer tomographic scanner, reconstructed images, fractal theory 5937
  - general paresis, CT, MR, and SPECT findings 18446
  - generalized adaptive median filters, appl. in computed tomography 26323
  - geophys. computed tomography by neuro-fuzzy inversion 43500
  - geophys. resoln. and covariance estim. for large matrix inversions 43497
  - heart, human, dyn. electrophysiological data visualization, 3D model 26439
  - HV wire conductor, corona discharge, lumin., CT obs. *(Japanese)* 963
  - ICRP recommendations, radiological protection, med. 18641
  - image capture, formatting and display, conf., USA (1994) 11570
  - image quality criteria, diagnostic QA 18483
  - image reconstruction from divergent-ray projections 8575
  - image reconstruction from truncated, 2D parallel projections 43263
  - impedance tomography, cylinder/human thorax, finite element models 43288
  - ionos. CT, geometries comparison and image reconstruction 35307
  - IR radiometer, FOV, temp. distrib. meas. *(Japanese)* 4007
  - joint replacement, orthopaedic biomechanics computational problems 18618
  - liver, CT images, boundary detect. by neural nets 43259
  - material-selective transm. tomography, constrained dual-energy reconstruction method 18466
  - max. entropy data anal., Bayesian stats. 24323
  - meas./calc. organ doses comparison 18657
  - med. diagnosis via visualization techs. in facial surgery 41246
  - med. radiation exposures, UNSCEAR data collections, trends/consequences 18642
  - metal containing areas, CT scanning 18442
  - microfocus radiography producing microtomography 18471
  - microwave transm. CT, diffr. effect correction *(Japanese)* 10184
- **computerised tomography** continued
  - Mid-America computerized ionos. tomography expt. (MACE '93) 33957
  - mobile CT unit for reinforced concrete column inspection 42737
  - motion artifacts in X-ray CT image of revolving point obj. 26325
  - MRI reduced motion artifacts, spatio-temporal multiresolution reconstruction 35002
  - multiformat cameras image quality vars. assess. 18499
  - multiple energy computed tomography at NSLS, status report 43268
  - multiscan/fast ring CT systs., image quality, dose 18646
  - neonatal lung imaging, elec. impedance tomography 43294
  - neutron tomographic syst. developed, Rome research reactor 12221
  - nonlin. diffr. tomography, inverse scatt. for imaging 8554
  - orthopaedic surgical planning, computer assistance 18443
  - PACS design/evaluation, conf., USA (1994) 20213
  - paediatric exams., organ doses 18659
  - pancreatic CT, enhancement by simple cascading filter 35045
  - patient dose, bone mass/dens., radiation measuring instrums. 35199
  - patient dose, image quality, Dutch hospitals 18645
  - patient dose, image quality, United States experience 18644
  - patient dose, techs., QC measures, Sweden 18519
  - pelvic EIT images and assumed init. cond. distrib. 43311
  - phase-contrast X-ray computed tomography, biol./chem. appls. 43272
  - phase-contrast X-ray computed tomography using X-ray interferometer 26355
  - plastic scintillating opt. fibers, high energy CT imaging 4259
  - QC tests, Portugal, Denmark 18511
  - radar tomography, 3D images generation 42494
  - radiologic image compression, review 26287
  - scanner, Somatom Plus 4, A version, clinical experience 35054
  - SCT-4800T whole body X-ray CT scanner *(Japanese)* 18528
  - SR based high contrast computed tomography 43271
  - stereotactic ^{125}I seed brachytherapy, computer planning, malignant gliomas 26461
  - talocrural joint kinematics visualization and quantitat. anal. 18444
  - traveltime tomography, adaptive-grid formalism 43499
  - US tomograms, restoration based on Wiener proc. 43246
  - weighted least-sq. filtered backprojection tomographic reconstruction 41057
  - X-ray computed tomography, med. exposure source 18664
  - X-ray fan beam *z*-axis position measurement 26290
  - X-ray tomographic reconstructions, direct Fourier method, accurate sinogram simul. 26314
  - Si detector charact., indust. X-ray computed tomography 18323
- **computers**
  - *see also analogue computers; biocomputers; computation theory; computer peripheral equipment; data handling; digital computers; digital storage; file organisation; special purpose computers*
  - IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
  - metal cabinet enclosing PCB, radiation anal. 23695
  - surge protection 24875
- **concatenated codes**
  - binary partial-response channels, concatenated coding 15753
  - CDMA cellular systs., concatenated RS/convolutional coding 9358
  - CDMA mobile radio syst., turbo-codes appl. 9239
  - convolutional inner and outer codes 8144
  - decoding codes, inner convolutional codes 15729
  - dicode channel, concatenated coding scheme 8111
  - digital TV broadcast sig. error correction techs. *(Japanese)* 17546
  - double side inform. concatenated coding for fading environ. 15751
  - DS-CDMA mobile radio syst. using RAKE receiver, spreading codes 25437
  - high-speed staged decoder VLSI systolic archit. 40586
  - IEEE Symposium, Trondheim, Norway (1994) 28250
  - mobile radio postdetection diversity/concatenated channel coding 3341
  - modified erasure declaration Viterbi decoder based syst. 8173
  - multi-D trellis decoder for 155 Mb/s concatenated codec 33684
  - multiresolution modulation/concatenated coding, decoding algms. 8683
  - noisy (1,7) constrained channel, concatenated coding, perform. 40652
  - opt. commun., alg. constr. of codes, high reliab. fns. *(Japanese)* 15738
  - parallel concatenated block codes, av. perform. 24023
  - parallel concatenated recursive systematic (turbo) codes 32105
  - post-decision symbol reliab. inform. generation algm. 40591
  - Rayleigh fading, concatenated coding and ARQ, TCM 8102
  - Rayleigh fading channel, concatenated block coded modulation 9171
  - RS codes constr. by generalized multiple concatenated codes 24102
  - RS/trellis concatenated coded-modulation syst., bit error probab. *(Korean)* 32196
  - soft-output Viterbi decoder, high speed VLSI archit. 12586
  - soft-output Viterbi decoder archit. 40590
  - spherical codes, symmetric pointsets binary partitions generated 24090
  - turbo-codes, parallel concatenated coding schemes, perform. eval. 24025
- **concave programming**
  - bicriteria bottleneck LP problem 234
- **concentration measurement** *see chemical analysis; chemical variables measurement*
- **concentrators, telecommunications** *see line concentrators*
- **concepts (index language)** *see vocabulary*
- **concrete**
  - *see also cement industry*
  - 3D ground penetrating radar imaging, SAR focusing 42506
  - Bragg grating fiber optic sens. for C fiber prestressed concrete highway bridge 34545
  - CFGFRP-reinforced concrete, fracture self-diagnosis, material design 28897
  - EM modeling for GPIR, 3D FDTD modeling codes 42504
  - equiv. transm. line model for EM penetration, reinforced concrete 40377
  - fiber optic sens. for smart materials and struct. 17841
  - fuzzy sensor fusion, concrete mixing plant quality monitoring 25808
  - harsh mortar compaction, US vibr. *(Japanese)* 4416
  - reinforced concrete, stripping demolition, NPP appl. 35936
  - reinforced concrete building, elec. field atten. 23736
  - reinforced concrete column inspection, mobile CT unit 42737
  - reinforced concrete strain meas., opt. fiber sens. 34547
  - short fiber composite strain sens., elec. resist. change 28896
  - solar chambers, concrete thermal treatment, temp. calc. 11306
  - solar hot water/swimming pool heating, concrete collectors 20022
  - stress meas. fiber optic sens., polarimetric/white-light interferom.-based 25978
  - telecomms. building, simulated direct lightning surge current 24876
  - telephone exchange, equipt. enclosures, thermal control 16969
  - Pu prod. site cleanup, interim stabilization, recycled concrete 18918

concurrency (computers) *see multiprocessing programs; multiprocessing systems*

concurrency control
adaptive router on worst case permutations, perform. anal. 24854
CALS/CE-ATE Data Base requirements 34402
cyclic protocols, generalized fair reachability anal. 2931
frame synchronized ring bus modeling, predicate/transit. nets 25038
high speed WAN, distributed database syst., concurrency control 8906
INDIA project, IN mgt. distributed database 25088
k-ary n-cubes, perform. eval. of adaptive routing algms. 24853
multirate sig. proc. algms., compact code from dataflow specs. 40770

concurrent engineering
see also product development
CALS/CE-ATE Data Base requirements 34402
comparative cost simul. model, conventional/concurrent engng. 37034
component/proc. selection guidelines, SMT/PCB/fine pitch manufacture 38131
data path synthesis for easy testability 12470
dependability model automatic translation feasibility 11874
design for assembly strategy in global companies 37033
Diagnostician on-a-chip 12568
Ecofactory concept, ecologically conscious mfg. 37062
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
GEC-Marconi quality fn. deployment PC-based tool 28394
green engng. framework for concurrent design of products/procs. 5579
heatsink bonding, semicond. packages, silicone adhesive 5675
HV power supplies, electronic modules develop. 36327
integrated RTP/MOCVD technol., IC manufacture, model-based proc. control 22533
logic-based support syst. implement. 36999
MCM packages, design-specific basis 11780
MCMs with ASICs global optim., concurrent engng. approach 21743
multimedia satellite commun. systs., preliminary study 3519
Navy's integrated diagnostics support system 43595
packaging archit., concurrent design methodology 5659
packaging archit. design 20437
PCB CAD, integrat. with product design, concurrent engng. approach 37035
PCB concurrent design methodology, PLANET-TWINS *(Japanese)* 477
PCB SMA, DFM, Integrated Expert System Environment 29670
PDM product data mgt. syst. software package *(German)* 101
product design criteria 97
product/proc. design, integrat. differentiated approaches 11703
rapid prototyping of hardware components 5599
rocket engines, min. cost tolerancing, spreadsheet approach 18767
SEMATECH future factory design for wafer fabs 103
semicond. packages, bonding, silicone adhesive 28473
six sigma product quality design strategy *(German)* 167
student lab. project, concurrent engng. design 36940
systems engineering, IEE Colloquium, London (1995) 36862
test and maintenance improvements 42708
test errors detect./correction, concurrent engng. 6823
Univ. of Arkansas, electronics mfg. curriculum 28332
VlSI reliab. challenges, Japanese vs American industries 22527
weapon systems, design-for-test process improvements 43594

condensers (electric) *see capacitors*

condensers (steam plant)
alkali metal thermoelec. convertor design, wick-pumped, vapour-fed 20032
alkali metal thermoelec. convertors, high efficiency, remote condensing 20033
CHP steam turbines, efficiency, steam flow rates 36002
double-loop separate-type heat pipe, heat transfer perform. meas. 18132
fossil power plant zebra mussels control project, USA 27547
multi-press. condenser optim. *(Chinese)* 10851
NPP steam turbine low-press. cylinder hood designs 35740
nuc. power station heat supply, economic efficiency studies 27362
OC-OTEC syst., sea water temp./press. effects anal. *(Japanese)* 10893
Rye House combined cycle gas turbine power plant 36024
switches, free-standing air conditioning units *(French)* 20138

conductance, electric *see electric admittance*

conductance measurement, electric *see electric admittance measurement*

conducting materials
see also bimetals; conducting polymers; electrolytes; semiconductor materials; superconducting materials; synthetic metals
artificial chiral material, approx. model 23489
avionic switchgear contact material durability *(German)* 35259
infinite arrays of slots in thin conducting wedge, scatt. anal. 42479
internal resons., method soln., suppl. conditions 40292
layered nonlin. sheets, shielding props., prediction 15466
perfectly conducting cavities, apertures, scatt. elec. fields 40293
polyethylene, cond., preapplied voltage effect 14027
shield degrad. in presence of external conductors 15497

conducting polymers
see also molecular electronics
25 mil pitch SMT mount assembly, conductive adhesives/Pb-free solder 38152
adhesives and solders for SMT 38110
adhesives for HDI, props. 11813
adhesives for SMT PCB appls. 38107
Ballard mark IV solid polymer electrolyte fuel cell, mechanistic model develop. 19972
conjug. polymer LED on Si substrs. 1826
conjug. polymer LEDs 14643
conjug. polymer LEDs, μm- and nm-sized 39580
conjug. polymers and oligomers, electrolum. 23038
conjugated polymer interfaces, conf., Strasbourg, France (1994) 5497
dielec. behaviour 6905
electroconductive plastic composite, C fiber filler, resist. 5906
EM radiation shielding by intrinsically conducting polymers 2275
EM screening, intrinsically conductive polymers 2260
fine/ultrafine pitch epoxy printing, electroformed/laser cut/etched stencils 37152
isopolymers, prep., props. and appls. 37539
isotropic conductive adhesives, solder replacements 21654
LED at LV, I-V charact. 23040
MCM, thermally conducting adhesives, thermo-mech. study 28496
MEH-PPV sandwich devices, photosensitivity and implication, polymer electronic struct. 23013
metal-filled polymer conductive adhesives, elec. props. 438

conducting polymers continued
organic materials for electronic/photonics, conf., Japan (1993) 11532
PEEK films, DC cond., ionic behavior 30588
PEO-PC-LiClO$_4$ electrolyte batt., storage study 27895
photoactive solids, conf., Leuven, Belgium (1993) 11530
poly(1,4-phenylenevinylene) films, CVD, LED appls. 12182
poly(3,4-dialkyl-1,6-phenyleneethynylene), opt. props., LED appls. 14320
poly(3-alkylthiophenes)/O$_2$, reversible charge transfer complexes 20995
poly(3-butyl)thiophene, acceptor substituted, photocond. 39549
poly(3-methyl thiophene)/Al Schottky barriers 13212
poly(3-methylthiophene) conducting polymer films, photoelectrochemical response 13094
poly(aniline) film, glucose biosensor 3895
poly(N-methyl-10,10-dimethylphenazasiline)/ITO electrode electrochromic window syst. 22932
poly(p-phenylene) polymer, TSDC spectra 14037
poly(p-phenylene sulfide), thermally stimulated currents 13931
poly(p-phenylene vinylene)/tris(8-hydroxy) quinoline aluminum heterostruct. LED 31103
poly(p-phenylenevinylene), LED, charactn. 14645
poly(p-phenylenevinylene) LED, polaron/hole charge transport 14636
poly(peri-naphthalene) thin films, chem. vap. deposition, elec. cond. 12169
poly(phenylene acetylene) elec. symmetric diodes 23039
poly-yne, Pt containing, PV effect 14606
cis-polyacetylene, opt. nonlin., essential states mechanism 23409
polyaniline bilayer composite electrode for efficient polymer LEDs 23037
polyaniline conducting polymer films, photoelectrochemical response 13094
polyaniline electrolytic capacitor 29615
polyaniline film, magneto-opt. materials/devices 39503
polyaniline network electrode LED, enhanced perform. 23033
polyaniline-p-styrenesulfonic acid composite, synthesis and Schottky diode appls. 28885
polyaniline-sulphur cpds., batt. electrode appls. 36575
polydiacetylene waveguides, nonlin. absorpt. 31513
polydiacetylenes, opt. nonlin., essential states mechanism 23409
polyepoxide solid electrolyte electrochromic device 22947
polymer/metal/BaTiO$_3$ multi-component composites, dielec. props. 12195
polyphenylene, light-emitting copolymer, synthesis, luminesc. 14594
polypyrrole conducting polymer films, photoelectrochemical response 13094
polypyrrole free-standing films, electrochem. driven, actuation props. 28880
polypyrrole lines, lateral deposition, scanning electrochem. microscopy 28879
polypyrrole synthesis, Cu metallization 1294
polypyrrole-based sens., selective electrochem. cation in aza crown ethers 17747
polypyrrole-polyamide composite films, gas sens., NH$_3$, CO$_2$ 25899
polysilanes, opt. nonlin., essential states mechanism 23409
polythiophene, conducting derivatives, charge dissipation, electron-beam lithog. 6677
PPV, carrier deep-trapping mobility-lifetime products 1813
PPV conjug. polymer based electroluminescent devices, quantum efficiency 23024
semicond. polymers, carrier injection, Fowler-Nordheim field-emission tunneling 14644
silicone oil/polymer particles suspen., electrorheological effect 39066
solid polymer electrolytes, design concepts, materials 36508
TCNQ/polymer amorph. semicond. MISFET, cond. and field-effect mobility 13737
TFT archit. 6443
z-axis anisotropic polymer-matrix composite conducting film, SMT/PWC connectors 12196
C$_{60}$-conducting polymer jns., mol. D-A type photocells, spectral characts. 23018
ITO windows, polypyrrole-latex coatings, electrochem./spectroelectrochemical studies 39482
Li ion rechargeable cells, solid polymer electrolytes 36553
Li/polypyrrole polymer batt., ambient-temp. rechargeable 19936
Pb-free SMT/PCB/fine-pitch assembly, conductive polymer solders 38130
Si diodes, porous, immersed conducting polymer contacts, electrolumin. 39579
YBa$_2$Cu$_3$O$_{7-\delta}$/polypyrrole sandwich struct., reversible supercond. modulation 1616

conduction bands
see also Fermi level; semiconductor materials
graded HBTs, current transport, anal. model 38850
III-V quantum-well IR photodetectors, noise perform. 42788
indirect interband tunneling formulation for semiconds. 38315
metal-semicond. ohmic contacts, impurity bands 13208
surface-channel CCD, charge transfer inefficiency *(French)* 30369
AlGaAs/GaAs HBT I-V charact., graded/setback layers 22368
AlGaAs/GaAs HBT, surface passiv. layer struct., design considerations 6732
AlGaAs/GaAs heterostruct., electronic states, mobility 1100
Al$_{0.5}$Ga$_{0.5}$As/GaAs/Al$_{0.5}$Ga$_{0.5}$As SQW DB reson. tunneling diodes *(Korean)* 13590
Al$_x$Ga$_{0.52-x}$In$_{0.48}$P/GaAs, HBT, MOVPE, charactn. 13652
Al$_x$In$_{1-x}$As, MBE/CVD growth, elec. props. 12060
C$_{60}$-conjug. polymer supramolecular composite, role in photoelec. devices 31081
Cd$_x$Hg$_{1-x}$Te, long-channel MIS transistor charact. 30302
CdS/CuInSe$_2$(011) heterointerface, form., electronic props., XPS obs. 21951
CdTe, cryst. growth from melt 20658
Cs/InAs(110), giant band bending, interface form. 13222
GaAlAs asymmetric two-step quantum well for cascaded second-order procs. 13189
GaAs coupled quantum wells, far-IR radiation by difference freq. generation 23366
GaAs, δ-doping superlattices, pot. flucts., quantum effects 13167
GaAs/AlGaAs modulation doped heterojunctions, neg. photocond. 29919
GaAs/In$_x$Al$_{1-x}$As/GaAs heterojunction barriers, Γ-X transport 13117
GaInAs/InP high channel conductivity, HEMT appl. 13160
GaInP/Si/Al structs., Schottky barrier height modif. 13218
GaP/GaAsP strained-layer quantum wells grown by MOCVD 20800
GaP/InGaP strained-layer quantum wells grown by MOCVD 20800
InAlAs/InGaAs HJFETs, high In comp. channels, low noise/high gain 6797
In$_{0.52}$Al$_{0.48}$As/In$_{0.53}$(Al$_x$Ga$_{1-x}$)$_{0.47}$As, NPN DHBT, DC characteristics 13634
In$_{0.53}$Al$_{0.22}$Ga$_{0.25}$As/InP, HBT 13644
InAs/AlGaSb undoped quantum wells, neg. photocond. 29919

conduction bands continued
InAsP 1.3 μm compressively strained MQW lasers for high-temp. operation 39883
$In_{0.53}Ga_{0.47}As$ transistor channel, hot electron lumin. meas. 30377
InGaAs/GaAs piezoelec. [111] MQW p-i-n photodiodes, cond.-band engng. 1804
InGaAs/GaAs[111] MQW P-I-N photodiodes, cond. band engng. 1808
InGaAs/InAlAs heterobarrier diodes, delta doping enhancement 30221
InGaAs/InGaAsP MQW opt. modulator, nonlin. opt. absorpt., spatial band bending 2103
$In_{0.30}Ga_{0.70}As/In_{0.29}Al_{0.71}As$ heterojn. grown on GaAs substr., band offsets 6546
$In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ superlattice, electron-wave-fn. coherence length 13193
$In_{1-x}Ga_xAs$/InP quantum wells, cond.-band/valence-band struct. 1130
InGaAsP-InP 1.55-μm quantum-well lasers, temp. sensitivity of differential gain 31320
n-InP/metal systs., hydrogen plasma treatment, elec. props. 38598
a-Si:H, transport props., deposition condition effects 29869
Si/SiO_2 MOSFET, fixed and interface trap charges 38863
Si/SiO_2 amorph. QW struct., dispersive subband-reson. nonlin. 1146
$Si/SiO_2/Pt$ MOS diodes, surface state energy distrib., XPS meas. 29973
$Si-Si_xGe_{1-x}$ superlattices, energy band structs. 6554
a-SiC:H, transport props., deposition condition effects 29869
SiGe/Si heterostruct., segregant-assisted growth, opt. props. 37449
a-SiH, film, US assisted PECVD, in situ opt. diagnostics 28832
SrS phosphor thin-film electrolum. devices, rare-earth-ion-activated, transient emission 31090
ZnMgSe, mol. beam epitaxial doping, $ZnCl_2$ 38479
ZnS-ZnSe superlattices, electronic states and binding energies 13194
ZnSe-ZnS, strained-layer superlattices, absorpt. spectra, electronic struct 38245
ZnTe-ZnSe, strained-layer superlattices, absorpt. spectra, electronic struct 38245

conduction electron spin resonance *see CESR*

conduction, heat *see heat conduction*

conductivity, electrical *see electrical conductivity*

conductivity, ionic *see ionic conductivity*

conductivity, optical *see optical conductivity*

conductivity, thermal *see thermal conductivity*

conductors (electric)
see also bimetals; overhead line conductors; wires (electric)
2D and 3D conducting wedge problems, transient image theory 7953
2D skin effect in power foils for HF appls. 29003
3D axisymm. conductor, eddy current anal., vectorial BEM *(Korean)* 23512
3D conducting bodies, EM scatt. problem 7947
3D eddy-current computation, self-adaptive refinement tech. 40234
adverse mining environs., motor selection/appls. 20185
Archimedean spiral antenna, reflector backed, second-mode operation 8071
bundles of conductors, macroscopic elec. charactn. 38042
concentric cylinders, heat cond., electronic package appl. 149
contact resist. between plated conductors, current dens. distrib. 6383
distributed capacitance microstruct. in conductors 6343
elec. machine slot-bound conductors, eddy current effects 36097
EM response of thin layered conductor/insulator composites 7880
EM scatt., 3D perfectly conducting bodies, PO-MM hybrid method 23598
EM scatt. anal., dipoles model 23528
EM scatt. from dielec.-coated objs., GPMT 23583
EM wave scatt. by periodic strips, spectral theory 23786
enclosures, direct lightning strike, internal voltages 40189
finite ground plane with perforated apertures, RCS charactn. 9628
finite length multiconductor power line, impedance/line params. 4675
foil winding design, eddy current anal. approach 6375
Gaussian beam scatt. by coated conducting cylinder 40327
HF switching mode power transformers, optimisation of winding conductors *(Slovenian)* 21595
high cond. copper 6344
hollow circ. conductors, skin effect, math. model 43762
LIM, charact. anal., 1 A conductor *(Korean)* 36196
MCM, ceramic-conductors, stresses 21689
MRI slotted tube resonator, dielec. body loaded, num. anal. 26318
open circ.-cylindrical cavities, recursive aperture formulation 15392
partial capacitance calc., conductors, calculable resistor 12831
perfectly conducting corrugated surfaces, wave scatt. 40290
plane conducting screen/periodic mag. field interact. 23495
Poisson's eqn., wedge geom., image soln. 31696
power cable insulation, basic aspects 4683
protective conductor currents in studios and DP buildings *(German)* 27265
PWBs, current carrying capacity of Cu conductors 906
rly., third rail conductor inspection, video appl. *(German)* 11422
scatt. by coated bodies, higher order impedance boundary conditions 25544
spherical FEA 5790
sq. Archimedean spiral antennas, conductor-backed, anal./design 8070
surface charge dens. on a conductor, behavior 40215
TE eddy current problems with rot. symm., anal. solns. 40243
thick film/tape capacitor dielec., capacitance densities up, 3 nF/mm^2 6359
thin conducting plate problem, biconjugate gradient FFT method appl. 40289
unbounded skin-effect problems in presence of material inhomogeneities 38043
Ag/Pd thick-film conductors 29695
Cu thick film conductor, inorganic binders 6440
Cu-Ag alloy conductors develop., high field magnet *(Japanese)* 14258
Mo-Cu layered foil conductors, power hybrids, ceramic substrs. 21663

conduits, electric *see electric conduits*

configuration interactions
see also electron correlations
Cu polymer metallization, adhesion mechanisms, theoretical modelling 12212

configuration management
CASS syst. software config. mgt. 34396
co-operative software develop., distributed support environ. 25072
conf. scheduling service, multimedia, network support 16830
fission reactors, operability/reliab. enhancement 35923
hydropower station supervisory control syst. software environ. *(Chinese)* 19543
telecomms. services config., blackboard-based DSS 8834
token ring network mgt., change mgt. 33545

configuration management continued
token ring network mgt., config. mgt. 16581

confinement, plasma *see plasma confinement*

conformal antennas
array pattern synthesis by SVD 31966
circular cylinder cavity FEM boundary integral formulation 23822
curved-surface microstrip antenna conformal-grid FDTD anal. 23865
cylinder mounted microstrip array radiation pattern meas. and prediction 31977
hybrid FEM for EM, review 2314
probe-fed cylindrical annular-ring microstrip antenna characts. 23890
slot antenna radiation characts. in ground plane under DC magnetised ferrite slab 23826

conformal coatings
Cu/polyimide multilevel thin film struct., reliab. 11860
dielec., conformal, multipole-accelerated 3D capacitance extraction 22634
Parylene conformal coatings compatibility with no-clean flux residue 38109
PCB conformal coating methods, review 12909
PCB conformal coating proc., Nordson Selective Coating System 6430
Pulse Shooter solid-state conformal coating proc., PCB mask elimination 38139
stresses, SMT/fine pitch technol. 6431
Cu CVD for advanced on-chip interconnects, Motorola 28813
Cu CVD precursor chem./mol. struct., IC metallization 28812
SiO_xN_y, sidewall proc. and pattern transfer 13490

conformance testing
abstr. test suites validation, SDL 24828
ATM networks, cell conformance testing, respect, peak cell rate 41457
commun. protocol specs., structural anal. and max. fault coverage conformance test seq. generation 2921
commun. protocols, test generation, multi-level approach 33251
communication protocols, reverse-engineering 2967
consumer product in-proc. inspection/correction facilities 11838
deterministic FSM model, fault detect. and diagnosis capabilities of test seq. selection methods 33274
distributed ISDN test syst., monitoring/modelling 24824
Estelle, automatic test case generation 2969
expt. design, improved quality protocol testing 16786
HBM ESD testers/specs. anal., 4th order lumped element model 34422
hospital EM interf., European Union Directive 18685
IEEE Std. 488.2, generic test suite 34375
indust. and academic protocol testing, comparison 33250
ISO 9000 compliance of test/meas. equip., calib. aspects 3710
Medical Devices Directive and EMC directive overlap 18426
multimode opt. fibre complex param. meas. *(Russian)* 14409
multiple faults localization in protocols, test seq. generation 16491
mushroom, program for SCM protocol specification verification 2971
network protocols, interoperability testing 2977
nondeterministic protocol machines, conformance tests 2951
obj.-oriented design for distributed systs., OSI directory example 33433
OSI, interconnectability testing syst. design/implement. 41903
OSI, standardization and appl. promotion *(Japanese)* 8882
plug-in PC board testing, EMC Directive 21643
probabilistic conformance testing of protocols with unobservable transitions 2976
protocol, test path selection, effective domains based 2928
protocol conformance test syst. using Petri nets, correctness of test logic programs 8765
protocol conformance testing, quality 25009
protocol conformance testing, test seq. generation methods 2912
protocol engng. proc. conformance testing 24829
protocol test seqs., automated generation, formal specs. 2929
protocols, reduced length maximal fault coverage conformance test sequences 2968
Q.931 call protocol, LOTOS based validation/perform. 16797
session layer conformance testing 8774
telecomms. equipt. environ. conditions conformance testing 16540
test generation, efficient approach *(Chinese)* 24810
X.25 packet protocol conformance testing 24826

congestion control, telecommunication *see telecommunication congestion control*

conical antennas
biconical antenna for EMC meas. 23716
biconical antennas, antenna factor eval. for EMC meas. 40484
EMC appls., skeletal biconical antenna charact. 7996
microstrip antenna on conical surface, TM_{10} mode anal. 40474
resistively loaded bowtie antenna FDTD anal. and optim. for pulse radiation 23926
series-fed nested wide-angled conical monopole syst. 23882
TEM horn, ultrawideband, design 31946

conjugate gradient methods
2D EM scatt., MoM-CGM-FFT appl. *(Chinese)* 31804
3D EM scatt., parallel computation, finite elements 2216
3D mag. field anal. with edge element,magnetizing current dens., continuity 40185
3D micro-electro-mech. struct., self-consistent electromechanical anal. 1502
3D objs. embedded in multilayered media, scatt. 40303
3D scatt. problems, absorbing boundary conditions for FEM soln. 40309
adaptive sig. proc., recursive algm. for lin. eqn. *(Japanese)* 24337
atmos. blurred images, fast restoration 32822
block adaptive algm., conjug.-gradient method, perform. 41041
boundary element lin. systs., soln., iter. methods 37302
commutation test labs., ident. method for certain procs. 5140
convergence of conjug. gradient algms. 37304
dielec. scatt. problems, FFT-based methods comparison 40285
dielectric body anal., conjug. gradient method, test fns. 15379
domain decomp. of conjug. gradient method on Parsytec GCel-3/512 37310
explicit conjug. gradient method, preconditioning 254
fault tolerant FIR adaptive filter, conjug. gradient algm. 29365
fault-tolerant adaptive FIR filters, variable detect. threshold 29364
FEM, massively parallel computers, domain-decomp. methods 40203
geophys. resoln. and covariance estim. for large matrix inversions 43497
high wave no. EM scatt., soln. method 40308
hybrid CG methods, lin. nonsymmetric systs. 11989
ILU factorization, 5-point difference scheme 28562
image recovery algms., efficient implement. 24432
long. thin film hard disk media, demagnetization, inverse magnetostriction 30718
microstrip antennas, near fields computation 31928

conjugate gradient methods continued
- microstrip reflectarrays, modelling studies 31962
- MMP-CG-PET, param. estim., MMP code, conjug. gradients 15211
- non-uniform sampling theory, efficient num. methods 32689
- nonlin. generalized conjug. gradient methods 11961
- optimisation, combinat., constrained Potts systs. 777
- penetrable object inverse scatt. 23566
- Pocklington's eqn., CG-FFT method with nonuniform sampling 23818
- power system load flow anal., computer-based methods 19021
- power system state estimation weighted least square methods 19022
- preconditioned conjug. gradient method, distributed memory systs. 11969
- preconditioning strategies, Newton's method solvers 249
- recursive CR bounds, alg./stat. accel. 41321
- sq. unsymmetric Lanczos method 20590
- Strang's preconditioner generalization, iter. deconvolution appls. 32821
- thin conducting plate problem, biconjugate gradient FFT method appl. 40289
- Toeplitz systs., asymptotically ill-conditioned block, preconditioning strategies 20610
- ungauged 3D edge finite element anal., mixed soln. tech. 37370
- VLSI layout optimisation, preconditioned conjug. gradient interior point algms. 496

connecting *see joining processes*

connection admission control *see telecommunication congestion control*

connectionism *see neural nets*

connectors (electric) *see electric connectors*

consecutive system reliability
- k-out-of-n:G and k-to-l-out-of-n:G systs. reliab., $O(n \cdot (\log_2(n))^2)$ algm. 28540

consoles, remote *see remote consoles*

constant current modulation *see amplitude modulation*

constant current sources
- bidirectional current-controlled PTAT current source 12328
- CMOS high-speed high-resoln. D/A converters, self-calib. 704
- CMOS SOI transistors, matching props. 30475
- DC source, HV, 70 kV, 60 A, design and simul., EMTP software *(French)* 19767
- high speed digital design using Spice controlled sources, accurate I/O models 20451
- variable LF CR oscillator, output admittance *(Japanese)* 6047
- GaAs FET IC, const.-current cct.-biasing technol. 13901
- GaAs MESFET SC third order ellipt. lowpass ladder filter *(Korean)* 734

constant voltage diodes *see avalanche diodes; Zener diodes*

constants
- *see also elastic constants; gravitational constant; lattice constants; optical constants*
- amount of subst. and mole 34330
- Avogadro const. and silicon mole, workshop, Turin (1994) 11539
- Avogadro const. determ., Si crysts. dens. meas. 17647
- Avogadro const. determ. from elec. meas. 17645
- fast timing coincidence syst., gamma speed meas. 34958
- fund. consts. determ., X-ray/neutron interferometry 17646
- Japanese elec. and mass stds. 34325
- Josephson and Von Klitzing constants evaluation 25709
- mole concept, Amedeo Avogadro and others 17643
- N_A Avogadro projects, present status/future 17648
- N_A role in SI, at. path, kilogram 17644
- piezoelec. material consts. determ., improved resonator method 30580
- quasi-spherical solid dens. stds., vol. determ. 17649
- universal gas const./Boltzmann's const. meas., acoustic method 17642
- X-ray cryst. dens. method, hist./future outlook 18118
- Si growth, highly pure crysts. 12035
- ^{28}Si single crysts. growth, centrifugation method 12036

constitution diagrams *see phase diagrams*

constraint handling
- A2A3 air traffic control testbed using embedded AI technology 10418
- appl. distributed constraint satisfaction, commun. network path assignments 33384
- astron. imager with PM focusing, demagnetification *(Chinese)* 17923
- beamformer design, optim. result 40763
- computer vision, optimisation approaches, CSP 41217
- concurrent engng., logic-based support syst. implement. 36999
- IUE astron. satellite, coarse-grained scheduling 26522
- multiprojection algm., Bregman projections 11927
- obj. recogn., constraint satisfaction, Hopfield neural net 24722
- opt. flow constraints, anal. 33130
- phonology-phonetic-coupling in constraint-based gestural model *(German)* 40737
- private data network design, concentrator positioning optimisation 24986
- Prolog proc. design via VHDL-based methodology 12289
- space power distrib., model-based diagnostics 18765
- two level decision making, interconnected decision makers 20521
- vision constraint creation, multiple attribute extraction *(Japanese)* 16371
- Viterbi decoder implement., prog. act. memories 32088
- VLSI layout compaction, constraint graph generation algms. 12285
- water distrib. systs., model based fault diagnosis 3159

constraint propagation *see constraint handling*

constraint theory
- *see also operations research*
- 3D objs., drawings, geometric characterisation 16240
- entropy optim. models, convex constraints 20564
- genetic algms., multi-parent recomb. 37288
- gradient projection network, analog solver for lin. constrained nonlin. prog. *(Japanese)* 37281
- least sq. sig. reconstruction, normalized autocorrelation constraints 32735
- math. prog., exponential-penalty fn. 221
- motion boundary detect. in image seqs. by local stochastic tests 24626
- multi-user channel, capacity constraints 40524
- multiway syst. partitioning under constraints, integer prog. 21042
- opt. flow, multi-orient. filters 16166
- opt. flow, multiple constraints 24439
- opt. flow estim., fuzzy constraint line clustering *(Korean)* 33119
- parallax field, intens.-based estim., smoothness constraint 33124
- projective quasi-Newton method for nonlin. optim. 11944
- real-time opt. flow estim. 24720
- time-freq. kernel design, lin. constrained minimization approach 8341
- unified phase I-phase II semi-infinite constrained optim., steering param. *(Korean)* 28647

constraint theory continued
- vectorized systolic array for block constrained RLS 32752
- VLSI building block layout, floorplanning, topol. constraints 13843

construction *see building*

construction industry
- *see also civil engineering*
- building constr. regulations w.r.t fuel cells, technol. transfer 36581
- civ. engng. tandem rolling-rotor actuator synchronisation 11519
- EM modeling for GPIR, 3D FDTD modeling codes 42504
- multimedia product selector, X.500 directory service 9073
- US housing indust., energy efficiency barriers 28203

constructional engineering *see civil engineering*

consultancies
- engng. education, consultancy opportunity/challenges, India 5556
- NTT's overseas carrier business 41589
- university consultancy activities, IEE Colloquium, London (1995) 28275

consumer electronics
- batt. design, environ. factors 19926
- CAM syst. for fab. of PCB elec. tester fixture 6432
- car audio, high efficiency power amp. 11443
- conference, Hong Kong (1994) 5460
- custom IC, conf., San Diego, CA, USA (May 1994) 20247
- demand (in 1992/1993) *(Japanese)* 34278
- DS-SSMA, unknown seq. estimator, near-far problem 25361
- ethyl formate fuel cells for consumer electronics 11279
- European telecomms., towards more dyn. *(German)* 33322
- home commun. syst., PLC commun. reliab. 9157
- Home Net, user interface design 17601
- Hong Kong, consumer electronics indust. 5571
- human-controlled devices, programmed control 17580
- inform. superhighway, consumer electronics 5475
- IQTV multipurpose scanning rate converter IC 25664
- mag. fields from appliances meas., coil probe dimens./uncertainties 3813
- medium-throughput sig. proc. on flexible instruction-set archits. 37797
- MEGATEXT in Metz color TVs, teletext access and menu control 33422
- mfg. in Hong Kong 5476
- Mitsubishi Electric pers. handy-phone syst. PT-MDP *(Japanese)* 33896
- mixed technology RF ICs for UHF portable commun., projected develop. 21579
- optoelectronics, market outlook 7452
- PCB/electronics indust. trends 21642
- PL CEBUS with/without acknowledgment, perform. 16692
- reliab. and environ. stress testing 5709
- slow freq. hopped data commun. syst., design 9287
- usability issues for buyers/users of home electronic products 36996
- VCR, moving coil actuators, dyn. tracking syst. 17581
- video-rate 10-b triple-stage Bi-CMOS A/D converter 12591
- wireless commun. overview, consumer electronics perspective 9403
- wireless sig. transm. in consumer electronics, consumer's quality of life 5726
- z-axis conductive adhesives, fine pitch appls. in consumer electronics, accelerated life test 135
- GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805

contact angle
- *see also capillarity; surface tension; wetting*
- IC package assembly, organic contamination detect. 20429
- microelectronics packaging, preencapsulation cleaning 5666
- Cu/Sn(SnBi)(SnPb) solder systs., wetting tips, morph. and instabil. 28865
- Si:B(P), heavily doped, HF-treated surface behaviour 13353

contact EMF *see contact potential*

contact fatigue *see fatigue; wear*

contact potential
- *see also contact resistance*
- armature arcing voltage drop 15346
- MOS struct., effective contact pot. difference factor 6584
- twin relay develop. for automotive appl. 29637
- Co-SiC, interface microstruct., chem. and elec. props. 13213
- GaInAsP-InP inverted-rib LD, degrad. recovery 14847
- SiC/Si heterojunctions, elec. props. 1096
- SiO$_2$ charge/mobile ion conc. meas., MOS struct. 29964

contact resistance
- *see also contact potential*
- alloyed ohmic contact model, IC metallization sheet resist. 38985
- arcing contacts, concurrent testing syst. develop. 9811
- array probe card, micromachined, charactn. 20409
- ASMAT known good die microbump interconnection syst., anal. 37148
- base metals, contact resist. 2259
- busbars, joints, preliminary CAD 19325
- chem.-mech. planarization, elasticity theory, defect reduction 38570
- constriction resist. of two conducting spots 6384
- contamination in submicron contact holes, anal. by TDS 30112
- DC load contact switching eval., derating curves and life testing 29631
- diamond:B film/metal high temp. contacts, reliab. issues 22045
- diamond metal-semicond. and MIS structs., elec. charact. 6582
- diamond-ohmic contacts, specific contact resist. meas. 22030
- double polysilicon layer structs., plasma etching effects 13325
- electromechanical switches, contact elements wear 38066
- EM relays/elec. contacts, develop. and test methods 29640
- fuzz button interconnects, reliab. study 21656
- high temp. SOI devices, W metallization technol. 22279
- inverter perform. of 0.10 μm CMOS operating, room temp. 6865
- known good die, cost-effective design, MCM appl. 21677
- meas. techs., ohmic contact assess. 29625
- metal-semicond. contacts, contact resist. anal. 22025
- metal-semicond. ohmic contacts, impurity bands 13208
- metal/n-InAs/interlayer/n-GaAs struct., nonalloyed ohmic contact resist. 1154
- native oxides on Si surfaces of deep-submicron contact-hole bottoms 38617
- plated conductors, current dens. distrib. in contact spot 6383
- power syst. state control optim. algm. 19078
- pressure contact, nm-scale, surface layer effects 38060
- railguns, armature-rail interface, contact arcing transit. 15342
- RF reed relay for antenna-transmitter power amp. matching 29642
- rot.-slide contacts, power line noise 25966
- scaled vert. power DMOSFETs, static I-V charact., bipolar turn-on 30291
- self-lubricating composite materials, contact characts. 6391
- semicond. devices, pot. distrib. meas., Kelvin probe force microscopy 38373
- sliding contact characts. of composite materials 38062

contact resistance continued
squirrel cage motors, 3D eddy current field rotor modelling *(Chinese)* 44042
submicron contacts using selective CVD-W plug, jn. stabil. *(Korean)* 13418
switchgear, reduced emission control wires, fire testing 12857
TAB tape-based known good die method for MCM systs. 21678
thermally-pulsed plastic IC package, thermo-structural behavior, delamination 28483
Ag MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
Ag contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
Ag contacts, break arc discharge study 38061
Ag rivet contact perform., SiO_2, Al_2O_3 deburring media effects 29624
Ag-CdO(SnO_2) power print relay contact materials perform. 29632
Al contacts, plasma sputtered Cu coating, contact resist. 29626
Al-TiN high coverage barrier film form., ICB deposition 20955
Au MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
Au/Nb/AuGeNi, low resist. ohmic contact for GaAs, heterostruct. HEMT 29958
Au/Pd/Ti-based ohmic contact on AlGaAs/GaAs:C HBTs, elec./struct. props. 38701
Au/Pt/Ti/Ni/p-ZnTe ohmic contacts, props. 1153
Au/Zn/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
Au-Zn-Au ohmic contacts to p-InP, elec./metall. charact. 38388
AuGe/GaAs ohmic contacts, ion-assisted deposition 22265
AuGeNi, alloyed ohmic contacts, elec. modelling, charactn. 38408
AuPdTi-GaAs ohmic contact prep., Nd:YAG laser appl. 38370
CdTe/Ni-P, stable ohmic contact form., P diffusion from Ni-P 13225
p-$Cd_{0.95}Zn_{0.05}Te$/metal contacts, elec. props. and contact metall. 13226
Cu surface, contaminant films thickness, humidity effect 6385
Cu/Al(Ti)/SiO_2 interface, ultrathin sacrificial diffusion barrier anal. 38702
Cu/TiN/$TiSi_2$/n^+-Si contact syst., RTN and characts. 38700
Cu-Sn/WS_2 composite material contacts, contact resist. 29627
Cu_3Ge/n-GaAs ohmic contacts, microstruct./elec. charactn. 6573
GaAlAs/GaAs HBTs, emitter excess resist. 1357
GaAs, ECR plasma etching, surface damage 13384
n-GaAs, Pd/In/Pd(Pd-In/Pd)(Pd-In) ohmic contacts 13207
GaAs digital foundry, process, perform., reliab. charactn. 38958
n-GaAs, epitaxially lifted-off film, Pd/Ge ohmic contacts 29954
GaAs, low-temp. MBE, nonalloyed ohmic contacts 29961
GaAs, n-type, NiGe- and InAs-based ohmic contact metallizations 38655
a-GaAs:As, SI, elec. charact. by I-V meas. 13050
GaAs/AlGaAs HBT, InN ohmic contacts 38817
n-GaAs-InN contact resist. investig. 38393
GaAs-Si heteroepitaxial layers, ohmic contacts, RTA 22029
GaAsA/Al-Ni-Sn metallization scheme, ohmic contacts 1295
GaInAs/InP, regrown ohmic contacts, interface resist., TLM meas. 38417
p-GaSb-Au(Cr/Au)(Ti/Pt/Au), MBE growth, specific contact resistivities, surface prep. 29947
p-HgCdTe, Au ohmic contacts, low specific contact resist. *(English)* 38381
InAs/(AlGa)Sb quantum wells, supercond. transistors fab. 22727
n-InGaAs layer, thermal stabil. of ohmic contact 29953
p-InGaAs/InP/Pd/Zn/Pd/Au graded bandgap heterobarrier/ohmic contacts, resist. 38699
p-InGaAs/Pd-Zn(Cd)/Ge implanted shallow ohmic contacts, HBT appls. 38698
p-$In_{0.47}Ga_{0.53}As$/InP, modified sheet resist. of ohmic contacts 38374
InGaP/$In_{0.2}Ga_{0.8}As$:Si HEMTs, heavily Si-doped, MOVPE growth 5830
InP HEMTs, ohmic contacts, cap-layer doping 1438
p-InP, defect-assisted ohmic contacts 29948
InP/AlInAs/AuGe/Au HEMT struct., thermally stable ohmic contacts 30363
n-InP/Au/Ni, ultra-low resist. Ni-based contacts 38409
InP/InGaAs JFET/pin photodiodes for optoelectronic integrat. 1439
InP/InGaAs/InAlAs HEMT, ohmic contacts 13774
InPt-GaAs ohmic contact prep., Nd:YAG laser appl. 38370
Nb MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
Ni/Zn/Ni/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
Ni-NiIn-Ge-GaAs ohmic contacts, interface microstruct./reacts. 38396
Ni-based ohmic contacts to β-SiC, anneal temp. effects on elec. characts. 38410
Pb-Sn eutectic solder spheres, compressive melting 37064
Pd contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
Pd/Mn/Sb/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
Pd/Zn/Pd/Au(Pd/Au), ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
Pd-Ge-Ti-Pt ohmic contacts, p^+-GaAs:C/$Al_{0.26}Ga_{0.74}As$:C 38658
Pd-Zn-Pd-Au ohmic contacts to p-InGaAs-InP, optim. 38387
PdO form. caused by mechanochemical react. 6392
$ReSi_2$ thin film photoresistor, IR detect. appls. 34501
Rh-plated reed switch contact, surface deactivation-induced phenom. 29634
Si point-contact, force microscopy-supported resist. meas. 42887
Si/Si, polysilicon small geom. contacts, P implant. induced energy transfer 38296
β-SiC:N/Re(Pt)(Ta) contacts, contact resist. 22043
n-SiC/Ni high-temp. ohmic contacts, silicide form. 38372
n-SiC/Ni(Ti/Al), ohmic contact resist., reduction by heavy doping 22024
n-SiC-6H, Ohmic contacts prep. 1163
a-SiGe:H/SnO_2 solar cell struct., interfacial reduction 38294
Ti-Pt ohmic contacts to InAs emitter layer, AlGaAs-GaAs HBTs 38831
Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
Ti-Pt-Au-InN nonalloyed ohmic contacts, thermal stabil./contact resist. 38393
TiC Ohmic contacts on n-type 6H α-SiC 29956
TiC/β-SiC, low specific resist. ohmic contacts 1160
TiN/$TiSi_2$ bilayer form. by rapid thermal anneal at ULSI submicron contact, elec. props. *(Korean)* 30160
TiPtAu nonalloyed contacts on InP/InGaAs HBTs 6724
$TiSi_2$/Si BiCMOS technol., nonohmic contact resist., NFETs/PFETs/diffused resistors/NPNs 38631
W/TiN:F interfacial props., deposition temp. effects 393
W/WN/Si, nitride barriers for thermally stable metallization, TEM studies 38704

contact resistance continued
W-Pt ohmic contacts to InGaAs emitter layer, AlGaAs-GaAs HBTs 38831
WN diffusion barrier for n-GaAs/AuGeNi/Au ohmic contact *(Chinese)* 22036
$Y_{0.9}Ca_{0.1}Ba_2Cu_4O_8$-$Ag_2O$/Ag interface, contact charact. 14273
Zn/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411

contactors
see also relays; vacuum contactors
AC drive systs. reliab. for crit. appls. 36639
AC LV EM device CAD, PC-based *(Russian)* 7913
distrib. network capacitor banks, synchronised/soft switching 10722
failsafe contactors, electronic coil power economizers 29639
LV elec. power device, switching noise meas. 27858
switched power harmonic filters, anal., appls. 19741

contacts, electrical *see electrical contacts*

content-addressable storage
2D fiber optic bundle image associative memory sync. problem 1656
2D opt. three-layer neural associative memory 39524
analogue continuous time micropower CMOS Hopfield associative memory 29484
ANN, digital neuron model, custom hardware design 29516
ART1 memories, mixed analog/digital implement. 29404
associative memory, hysteresis network *(Japanese)* 12507
associative memory integrated syst. for character recogn. 660
associative memory syst., CMOS device mismatch limitations 659
bidirectional associative memory, optimal radix, searching algms. 21483
bidirectional associative multilayer neural network, robust capability, hardware appl. *(Korean)* 29518
binary associative memory neural net appl., document fax images anal. 41127
binary neural associative memory, hardware implement. 29464
CAM-based single-chip shared buffer ATM switch 9142
content addressable image database, appl.-independent, eval. 8483
Distributed multicast contention resoln., content addressable FIFOs 16964
embedded cache design, nonintrusive BIST 37759
estim., associative memory ANN 19335
exponential bidirectional associative memory capacity 21336
fault modeling/testing of CAM chips 37765
fax image recognition using neural nets 41172
fully-parallel multi-megabit integrated CAM/RAM design 37760
graph-based stack filter neural networks, associative representation 653
high-speed database proc. by opt. content-addressable parallel proc. 22970
high-speed median filter, shiftable CAM 6234
high-throughput data compressor, CAM 21324
higher-order opt. quaternary signed-digit arith. 1760
holographic associative memory, addressing accuracy improvement 7271
human-motion recogn. by fuzzy associative inference 8581
hybrid semicond./biomol. 3D memories and computers 12949
image associative memory for opt. neurochips 42854
image recog. by extended BAM neural nets 33065
image recogn., invariant, high-order neural nets 41379
IP multigigabit router design 8901
isolated utterance recogn. associative memory scheme 32423
Korean character recogn., opt. associative memory *(Korean)* 24674
labeling associative memory, access by content 21337
large-scale image associative memory, optoelectronic implement. 1655
Lempel-Ziv data compression cct., content addressable memory *(Japanese)* 12664
modular VLSI scheme for CAM design 21315
multiple-valued associative VLSI proc. 6174
noise canceling, autoassociative memory trained by order stats. 32623
ODE associative memory 15744
opt. addressable SLM, image readout 31008
opt. associative memory design based on coherent four-wave mixing 1658
power syst. automation 19161
protein-based computers, parallel proc., 3D memories and neural networks 29698
Q-state neuron for Q-state associative memories 29444
random shift memory-type RAM, flexible associative data access 29215
real time video, differential vector quantisation, entropy biased ANN codebooks 32953
seismic event class. by fuzzy logic 35290
single-rail translation-invariant opt. associative memory for neural networks 22796
vehicle, intell., warning syst., CAM 36773
video compression, real-time, using differential VQ 24581
$BaTiO_3$ photorefr. opt. shift- and rot.-invariant associative memory 1657
O_3 short-term forecasting by bidirectional associative memory, Mexico City 26773

context-free grammars
see also attribute grammars; context-free languages
Bayesian belief networks stochastic parsing 24131
large-vocab. connected speech recogn. 32393
robust lang. model, substring parser and extended n-grams 32295
speech recogn. candidates, chart parsing 32368
spontaneous speech recogn. search algm. 32392
SSS-LR continuous speech recogn., non-uniform unit parsing 32394
stochastic CFG, sentence recogn. 32367
stochastic CFG rules learning from example text 32293

context-free languages
see also context-free grammars
generic floorplanning methodology 30397

context-sensitive grammars
see also context-sensitive languages
continuous speech recognizer, context-depend., and models 32338
intonation spec. from context for speech synthesis 2436
speech recogn., vocab.-independent, phoneme-level HMM modelling 32339

context-sensitive languages
see also context-sensitive grammars
voice-controlled telecomm. terminal for phys. handicapped 4313

continuing education
CBT products for elec. and electronic engng. 20307
colloquium, education for biomedical science/engineering, London, UK (1995) 20235
elec. engng. continuing education in Malaysia, multimedia appl. 20298
engng. education, 3rd Erlang formula 73
engng. education, computer appl. prospects 69

continuing education continued
engng. education, workplace-based, India 5547
engng. education projects, India 5548
probabilistic methods, continuing engng. education 71
radiographers, radiation protection education/training 18640
stochastic modelling, continuing engng. education approaches 68
stochastic procs. teaching, comments 70
technical professional continuing engng. education overview 28352
telecomms. engineers, continuing professional develop. 33311
time series education, graduate engng. student courses 72
TQM continuing education, stats. role 74

continuing engineering education *see continuing education; engineering education*

continuing professional development *see continuing education*

continuous phase modulation
A-level bandwidth-efficient CPM 8101
binary CPM-DPD, diversity in Rician fading channels 32042
block encoding, CPM 15764
channel coding/multiple-sym. diff. demod. of CPM sigs. 24078
coded quaternary CPM scheme, satellite-vehicle/pers. commun. 42265
consecutive full-response 4-CPFSK trellis coding 40587
CPFSK opt. receivers with Gaussian freq. pulse shape, perform. anal. 42436
CPFSK sigs., nonlin. multi-pulse block coding 8172
demodulator for CPM 40567
digital PM, carrier tracking and sym. detect., nonlin. filtering 8107
DS-SS, multi-h CPM, indoor mobile radio, perform. 3474
error rate for differential demodulation of 2-h CPM *(Korean)* 24018
FH-SSMA, band-efficient modulations, cellular radio channels 25367
FH/CPFSK syst. with partial-band jamming, perform. anal. *(Korean)* 17005
GLONASS DS-SS sigs., radioastronomy impact 25620
GMSK modulation, expt. investig. 15715
indoor radio, trellis-coded CPFSK, adaptive soft-decision feedback equalization 9357
mobile radio diversity operations, perform. 17119
narrowband CPM async. CDMA syst. all-digital receiver design 42150
neural receiver for CPM sigs. 33913
nonlin. asymmetrical multi-h phase codes combined, CPM 15699
nonlin. multi-h phase codes, full response and partial response CPFSK 8171
OFDM, guard interval and sub-channel equalization for digital TV broadcasting 9699
OFDM in amplit. limiting channel 8106
partial response binary CPM (h=1/2) anal. algm. 32035
partial response CPM decoder optim. by state-space partition 40588
partially coherent CPM receiver, cochannel interf. 8105
quaternary const.-envelope modulation, 4D trellis coding 15703
quaternary full response CPM sigs., generation/coherent detect. 3434
quaternary partial response CPM digital transm. syst. 40557
satellite mobile channel, FSK-DPD/CPM-DPD, pulse shaping 25304
sigs., backtracking seq. detect. 15956
sub-optimum receiver, convolutional codes optim. 42170
GaAs cryst. photorefr. response time meas. by PM in two-wave mixing 2066

continuous time filters
analogue IC mismatch simul., stat. modeling techs. 30441
CAD, Cadence Edge syst., num. optim. 21413
CMOS triode-transistor transconductor for HF continuous-time filters 728
CMOS VLSI continuous-time HF prog. nonrecursive filters 735
HF fully integrated OTA-C filters, 7.2 GHz bipolar OTA 6210
lin. differential transconductors in subthreshold CMOS 29357
lin. optimal stochastic observers, sensitivity anal. 32578
mag. recording, adaptive continuous-time equalization and FDTS/DF seq. detect. 30725
MOS micropower analogue second-order continuous-time filter, SPICE simul. 37846
MOSFET-C filters, on-line error detect. 29361
multi-level decision feedback equalization realization of FDTS/DF for hard disks 30729
nonrecursive FIR filter, digital control 760
OTA-C ccts., continuous-time filters 37854
PRML mag. read channels, high speed, CMOS analog front-end archits. 30727
self-tuned continuous-time notch filters, CMOS implement. 21412
SPICE macromodel for OTA 37844
uncertain continuous-time systs., freq. response envelopes, ellipt. filters 37837
GaAs MESFET transconductors, DC gain enhancement 730

continuous time systems
see also continuous time filters
analogue continuous time micropower CMOS Hopfield associative memory 29484
bidirectional boost converter, nonlinear continuous time control 19803
CMOS continuous-time analog defuzzifier 29417
finite-dimens. continuous-time dyn. systs., nonlin. ccts. appls. 514
flexible shaft sync. motor, control techs. 27689
MIMO lin. time-variant syst., cyclic higher order stat. 40897
RF amp. lin., continuous-time adaptive control 12349
robust $\mathcal{H}_\infty$ filtering for continuous time varying uncertain syst. 40813
shift-invariant continuous time cellular ANNs, dense CMOS design 29494
sing. perturbed continuous time systs., discrete time observers 27692
continuous-time/discrete-time nonlin. parametric models 32783

continuous wave radar *see CW radar*

continuously variable slope delta modulation *see delta modulation*

continuum hypothesis *see set theory*

contours, surface *see surface topography*

contracts
see also product liability
700 MW Rye House combined cycle power plant project, UK 10864
dependability, element of contractual agreements 11864
document imaging technol. for contract mgt. 41721
EDI, commercial uses/legal aspects 3155
elec. power markets, optional forward contracts 4572
European Safety & Reliab. Conf., Munich (1993) 11584
European satellite syst. antennas, R&D 15631
gas turbine/combined cycle units, reliab./availability guarantees 19523
key distrib. systs., known-key attack, risk 32176
medium scale CHP scheme implement. 10849
model contract forms, overview 11629
outsourcing trends in contract mfg. 28384

contracts continued
power stations, lifetime mgt., integrated approach 19377
supply company tariff calc. and contract data acquisition *(German)* 43689

contrast transfer function *see optical transfer function*

control devices, electric *see electric control equipment*

control engineering
see also control engineering computing; control engineering education
elec. drives, anal., simul., software package 20077
KoREMA, conf., Zagreb, Croatia (Apr. 1993) 20203
KoREMA, conf., Zagreb, Croatia (APR. 1994) 20202
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239

control engineering applications of computers *see control engineering computing*

control engineering computing
see also computerised control; control system analysis computing; control system CAD
32-bit RISC proc., embedded control systs., CMOS VLSI implement. *(English)* 37795
DANTE control syst. for DAΦPNE, Macintosh/LabVIEW based 18236
elec. drives, digital control systs. design 11383
MSC/EMAS, CAE software for EMC anal. 23720
nuc. plant group overview displays, operator perform. support 3945
wind-solar power plant control, Petri net-based model 19575

control engineering education
engng. education, integrated experimentation/computerization 20304
power station operator training, techs. and perform. 28279
stochastic modelling, continuing engng. education approaches 68

control equipment
see also actuators; controllers; cryostats; electric control equipment; mechanical control equipment; relays; valves; variable speed gear
color coding, indicator and control coding *(Italian)* 17994
LSA coord. substation protection/control syst. *(English)* 44250
microcontroller, universal real-time, fast calc. 6172
rly. signalling equipt., condition-based maint. 44531
small power plant generators/auxiliaries, protection/monitoring concepts 27306
telecom. power supply systs., μP control appls. 41626

control facilities
ABB BWR 90 design and characts. *(French)* 43838
Enel power plant automation, user interface *(Italian)* 43929
multimedia ATM broadband AIN control station testbed 41990
oil refinery substation alternative config. reliab. anal. 20170
Stuttgart TV prod. centre digital island planning and implement. *(German)* 17538

control gear, electric *see electric control equipment*

control nonlinearities
see also bang-bang control; hysteresis; nonlinear systems
A/D convertor on-line error detect. and correction 12610
DC servomotor, fuzzy precompensated PID controllers 11068
induction motor adaptive tracking control 36152
neural network based flight control, validation methodology 10362
SRM actuated rigid-link robot hybrid adaptive tracking control 36650
steam turbine robust controller design 35968
step motors, hybrid, posn. determ. from EMF sigs. 11095
weapons, laser pointing, observer-based adaptive control 10588

control panels *see remote consoles*

control rooms, radio *see radio studios*

control system analysis
see also Bode diagrams; control system analysis computing; correlation methods; describing functions; frequency response; linearisation techniques; perturbation techniques; phase space methods; piecewise-linear techniques; poles and zeros; root loci; sensitivity analysis; stability; state-space methods; step response; transfer functions
130 kV rly. power syst. operation optim., Sweden 44534
275 kV power cable systs., voltage/VAr control develop. 27031
AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
AC motor drive invertors, circ. space vector modulation control 44481
AC motor drives, CSI-fed, exact lin. H_∞ control *(Japanese)* 28063
AC power supply, instantaneous current distortion compensation *(Japanese)* 10964
AC/AC back-to-back power converters, capacitor minim. 5118
AC/DC PWM power convertor, quasi-optimal control 44165
automobile dyn. spark ignition engine control modelling 11438
autotransformer tertiary winding voltage regulation study *(Russian)* 44107
axial flux interior PM sync. elec. vehicle motor drives 36756
boost PWM power convertor anal., averaging theory extension 11151
brushless direct drive motor, robust speed control design 5287
buck rectifier, unity PF, nonlin. ripple feedback 36244
closed loop syst., anal., static converter, steady state stabil. *(Russian)* 27823
cold strip rolling, proc. output optim. studies 11496
controllable M/M/2 syst. reliab. with warm standbys operating under triadic (0, Q, N, M) policy 11900
current-mode controlled converters, instabil. predictions 11182
DC drives, fuzzy control 5315
DC motor, PID/fuzzy posn. controllers comparison 11070
DC motor drive indirect control, state stimulator-based 36646
DC motor drive sensorless operation, Kalman filter-based 36674
DC motor drives, supervised neural net-based control 11340
DC rly. power systs., intell. traction power control 28126
DC/AC PWM power convertor, quasi-optimal control 44165
DC/AC switched-mode PWM inverter, stabil. anal. 11127
DC/DC LCC reson. power converter, digital control models 6010
DC/DC PWM push-pull power converter, robust state feedback control 27808
double-fed induction generators, PLL controlled, stabil. anal. 44061
doubly-salient variable-reluctance motor, starting model *(French)* 10993
elec. machine act. vibr. control, piezoelec. actuator-based, simul. 36090
elec. machine mag. bearing-based vibr. control simul. 36091
electric generator adaptive fuzzy speed control, rule-based 19582
extrusion proc. DC motor drive cascaded control design *(Russian)* 11497
FACTS inter-area dynamics, nonlinear modelling 19138
flexible AC transm. systs., steady state/dyn. perform. eval. 35613
generalised power flow controller, anal. *(Chinese)* 43629
GTO inverters, PWM voltage control improvement 19750
hydro turbine governor model struct./params., power syst. stabil. 4861
induction machine ident./control, neural net-based 44057
induction machine low speed region control method 44051
induction machine vector control, iron core loss considerations 4955

control system analysis continued
induction machines, core loss/mag. saturation model 4978
induction motor drive field weakening voltage control strategy 44482
induction motor drive flux/torque MRAC design 11348
induction motor drive speed vector control, rotor speed meas. methods 44478
induction motor drives, discrete-time sliding mode digital control 11390
induction motor drives, thyristor switched, control algm. studies 44461
induction motor drives, vector controlled, iron loss effects 5280
induction motor drives, VSI-fed, generalized predictive control 5248
induction motor drives, VSI-fed, predictive vector current control 44492
induction motor speed control, neural fuzzy controller design 44052
induction motor speed control, stator resist. estim. 36155
induction motor starting, optimal control anal. *(Russian)* 11012
induction motor vehicle drives, static characts. modelling *(Russian)* 44570
induction motors, doubly-fed, IP control transient stabil. anal. 27740
induction motors, field accel. controlled, energetic efficiency 11036
induction motors drives, av. params. field oriented control 5281
induction servomotor drives, LQG/LTR digital control design 36641
inertial elec. drives, monotonous ang. vel. control model *(Russian)* 44487
interconnected power syst. control design, SMES-based 27002
LIM drive coil winding actuators, control design 44257
LIM vector control algm., perform. modelling 44053
mine elec. locomotive braking, pulsed control syst. modelling 28202
multimachine power syst. coord. control, reinforcement learning 4539
multimedia PCN medium access control in mixed traffic environ. 41972
multiphase feed power source, voltage control characts. *(Russian)* 11107
multiphase power systs., harmonics/VAr control design 19087
multiple-output buck-type power converter, dyn. characts. 44153
multivariable combustion control design, indiv. channel design framework 27525
parallel-module power converter, current bal. controlled, dyn. anal. 44140
PM brushless DC drive, var. struct. speed control 36665
PM sync. motor feedback lin. decoupling torque control 4933
PM sync. servomotor drives, optimal/VSS control 5288
PM sync. servomotor drives, PWM inverter-fed, LF torque ripple 44479
power cct. variable act.-pass. reactance studies *(Japanese)* 12311
power syst. anticipatory fuzzy control, neural net-based 43666
power syst. automatic voltage control, math. modelling 27015
power syst. economic dispatch optim., genetic algm.-based *(English)* 43698
power syst. extended optimal power flow algm. anal. 27023
power syst. fast transient control, energy-based sensitivity method 10672
power syst. generator operating point, fuzzy control *(Japanese)* 4592
power syst. hybrid fuzzy/PSS control method 10668
power syst. lin. optimal regulator, fuzzy neural net-based 19094
power syst. on-load tap changer/voltage stabil. rel. anal. *(Chinese)* 43633
power syst. operational planning, reliab. eval. method 27090
power syst. optimal load tracking, nonlin. parametric approach 27024
power syst. probabilistic constrained load flow, sensitivity anal.-based 4613
power syst. robust multivariable PI secondary voltage/VAr control 27016
power syst. single on-load tap changer, reverse control anal. 27028
power syst. state control optim. algm. 19078
power syst. sync. generator dyn. stabil. control enhancement 43706
power syst. transient nonlin. generator excitation control 26992
power syst. transient stabil., SVC fuzzy control design 19101
power syst. underfreq. load shedding optim. algm. eval. 26964
power syst. voltage instabil., load flow-based preventive control 35554
power system stability, potential energy boundary surface modelling 19023
power systs., indiv. efficiency control theory *(Russian)* 43635
PSS, fuzzy control design studies 4508
PSS, fuzzy controller studies *(Chinese)* 27038
PSS controller tuning, systematic design method 27056
PSS SVC fuzzy logic switching design 19102
PV array max. power point tracking, power convertor-based 11296
PV power syst. invertors, instantaneous current tracking control *(Korean)* 27620
PWM AC/AC power convertor, freq. control method 29044
PWM invertor AC motor drives, chaotic current control anal. 44480
PWM invertor drivers, device current utilisation optim. 5067
PWM rectifier, state feedback nonlin. control 11153
PWM voltage-type rectifier, I-V control studies 19796
PWM VSI, tolerance band control chaotic procs. 5065
quasiresonant power converters, small-sig. modelling 11139
salient-pole brushless motors, starting method 5286
saturated sync. motor drives, control modelling 5324
semicond. short run mfg., Kalman filtering proc. control 37166
sensorless brushless DC motor drive control studies 44474
series reson. DC/DC power converter, IP regulator-based control 44221
SISO feedback control ident., lin. PWM block pulse fns. 24008
Space Station Freedom power system, small-signal stability 26593
squirrel cage drives, adaptive sliding mode speed control 36666
squirrel cage motor rotor time const. ident. studies 4953
squirrel cage motor vector controllers, rotor models improvement 4975
squirrel cage motors, field oriented control param. estim. 4979
static power converter hybrid control modelling, reliab./safety appls. *(French)* 27799
static power converters, voltage control modelling *(French)* 27798
steel rolling mill two-inertia syst. control *(Japanese)* 11501
stepping motors, closed-loop posn. feedback control 19672
SVC H^{∞} controller, anal. and design 10652
switch-mode power convertor predictive control, current prog. tech. 44152
sync. motor drives, self-controlled, steady state perform. 11389
sync. salient pole/wound rotor motors, control studies 4919
three-phase AC machine switching power converters, current control 44179
three-phase AC-AC power convertor, cct./control anal. *(Japanese)* 11191
three-phase AC/DC boost rectifier, feedforward-feedback control 36374
three-phase AC/DC step-up power convertor anal. 36372
three-phase current-controlled reversible AC-DC converter 11183
three-phase single-switch PWM rectifier develop. 5127
three-phase voltage-source utility interface power convertor 19737
three-phase VSI, space vector simplex PWM methods perform. 44174
transm. network series power flow control, GTO VSI-based 27125
transmission network static voltage stability indices, numerical comparison 19225
Tri-Level PWM CSI, lin. controlled boost voltages 27806
two-inertia motor syst., closed-loop PID speed control design *(Japanese)* 27669
two-input PSS develop., LF oscills. control appls. *(Japanese)* 26995
two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638
unbalanced AC voltage supplies, SVC dyn. anal./design 19124

control system analysis continued
variable impedance power syst., decentralised stabilisation scheme *(Japanese)* 43681
variable reluctance stepping motor rotor oscill. control 11376
variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
variable speed induction motor drive, adaptive fuzzy control 11392
variable speed induction motor drives, controller synthesis 11353
variable speed induction motor drives, neural net-based vector control 36685
variable speed sync. motor drives, stator flux-oriented control 36667
water pumping windmills, continuously variable transm. simul. 20179
wind power self-excited induction generators, rectifying bridge studies 36084
wind-diesel hybrid power plant, robust control 10912
wind-diesel hybrid power plant, robust control and anal. 19574
wind-solar power plant control, Petri net-based model 19575
ZVS PWM inverters, DC voltage notching scheme 19736

control system analysis computing
300 MW combined cycle power station operator training simulator *(French)* 27594
AC motor drives, six-step power convertor-fed, anal. 20082
act. power harmonic filters, computer simul. studies *(Korean)* 28998
air conditioner direct load control, multipass dyn. prog. algm. 27055
automobile anti-skid braking systs., slip estim. 5375
automobile engine powertrain nonlin. sliding control design 5373
batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966
brushless doubly-fed induction motor drives, speed control 20055
building HVAC nonlin. heater batt., neural net control 5239
chem. syst. hazard anal. integrat. 20173
coil winder simul. for Superconducting Supercollider 22770
DC motor drives, optimal speed control method *(Polish)* 36647
DC motor drives, separately excited, tunable fuzzy logic control 20076
DC servomotor fuzzy logic VSS control design *(Korean)* 27744
DC/DC power convertors, parallel-connected, current distrib. control 44141
DC/DC PWM power convertor, small-sig. modelling 11148
DC/DC PWM step-up power supply, SC cct.-based 27807
direct AC-AC matrix power convertor, AC motor appls. 19738
distrib. network power capacitor placement/replacement/control, computer simul. 35622
district heating syst. operational optim. simul., PC-based 43906
doubly-fed induction machines, torque/VAr control 4973
dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
elec. generator modelling, power syst. simulator-based method *(Russian)* 43995
elec. locomotives, adaptive output power control studies *(Japanese)* 28112
failure delay syst. reliab. assess., DYLAM-3 code 11872
flexible AC transmission control simulation, EMTP package-based 35614
GTO PWM three-level VSI, induction motor drive appls. 19761
HF switched-mode PWM power amp., perform. anal. 542
high-order systs., model ref. adaptive fuzzy control 5245
high-speed vehicle convoy, control feasibility simul. *(Japanese)* 28107
HVDC transmission links control stability, L_{∞} robustness anal. 19235
hydraulic turbogenerators, intell. sync. control *(Chinese)* 10877
induction motor drive control, rotor time const. ident. 11369
induction motor drive vector control, neural net flux estimator 5296
induction motor drives, closed-loop phase angle control 5260
induction motor drives, CSI-fed, field-oriented predictive control 5259
induction motor drives, CSI-fed, torque angle control algm. 28091
induction motor drives, digital control strategy 5268
induction motor drives, indirect field-oriented control slip gain tuning 28093
induction motor drives, sensorless speed control, neural net-based 20063
induction motor drives, universal field oriented control simuls. 36640
induction motor modified flux orient. control scheme 11046
induction motor vector control, param. ident. software 4950
induction motors, sensorless vector speed control scheme 19632
induction motors, speed sensorless indirect field oriented control 11045
induction motors drives, real-time PWM vector control studies 28100
induction servomotor drive control studies *(French)* 11335
induction servomotors, cycloconverter-fed, sliding mode control 4983
LCC parallel reson. power converter, small sig. anal. 11129
LIM drives, transvector control syst. computer simul. *(Russian)* 44437
lin. reluctance servomotor drives, control perform. 5319
long. vehicle dist. control, meas. error effects *(Japanese)* 10028
long-dist. power syst. adaptive generation control *(Japanese)* 10689
Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
motion control syst. CAD, SOAP software tool 11222
multiarea power syst. automatic generation control simul. 10666
multiple current-source GTO CSI, control techs. anal. 19853
multistate monotonic syst. reliab. anal. 11876
parallel DC-DC power converters, output droop characts. 11165
plant power/control syst., obj.-oriented simul. 20159
PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
PM sync. servomotor drive, VSI-fed, field oriented control 36675
polyphase power syst. VAr compensation, computer simul. 4550
power syst. adaptive dist. relay protection automation simul. 27259
power syst. discrete voltage control modelling, load flow soln. 26963
power syst. dyn. stabil., optimal control modelling 4515
power syst. fast decoupled load flow, control adjustments 26925
power syst. fuzzy adaptive excitation control method *(Chinese)* 43631
power syst. interarea/local generator reson. modes ident. 35486
power syst. load relief prediction/control, computer-based 26965
power syst. on-load power transformer tap changing modelling 4540
power syst. security assess./real power rescheduling 26968
power syst. SSR damping, SMES-based 10681
power syst. stabil., nonlin. SVC control studies *(Chinese)* 35527
power syst. stabil. robustness, control perform. anal. 4576
power syst. stabiliser, fuzzy logic based 10641
power syst. static security fuzzy optimal control simuls. 35479
power syst. sync. generator damping, SMES-based 10680
power syst. VAr compensation planning, Benders-type decomp. 26962
power syst. VAr compensation planning, computer model-based 26960
power syst. voltage contingency selection method 4557
power syst. voltage distortion compensation, meas. aspects 4551
power syst. voltage stabil., shunt VAr compensator effects *(Japanese)* 10709
power syst. voltage/VAr control, recurrent neural net-based 4512
PSS, fuzzy controlled SVC design *(Japanese)* 26939
PSS, intell. variable gain control, multitransputer-based *(Chinese)* 43691
PSS fuzzy excitation control syst. develop. 4509
PV array max. power extraction, fuzzy logic control 19560

control system analysis computing continued
PWM AC/DC power converter, current control studies 5070
PWM inverters, current-source compensated deadbeat control 11166
PWM power convertors, independent inputs, large-sig. modelling 11152
PWM reversible rectifier variable struct. control design 5054
PWM UPS inverter perform., computer simuls. 5077
reluctance generators, sensorless DC output voltage control 4927
reluctance motor drive, optimal current angle control algm. 36684
reluctance motor drives, axially laminated rotor, vector control 5258
rly. traction drive readhesive control studies *(Korean)* 28121
rot. machine act. noise control studies *(Korean)* 27668
series-reson. AC link inverter, output current anal. 11143
single-phase induction motors, multi-speed control studies 19621
sneak path anal. procedure and computer tool develop. 11714
split phase induction motor drives, vector control 5295
squirrel cage motors, torque vector control studies 4980
static power converter interactive control syst., computer simul. *(French)* 27800
supercond. magnet power supply convertor, current control studies *(Japanese)* 11188
switch-mode magnet power supply, modelling and control 29027
sync. generator nonlin. adaptive control, neural net-based 19607
sync. generators, neural network nonlin. adaptive controller *(Japanese)* 4924
sync. motor drives, inverter-fed, self-controlled, perform. characts. 5289
sync. motor drives, self-controlled, computer modelling 11337
sync. PM motor vector control, stator iron loss considerations *(Japanese)* 10968
three-phase turboalternator adaptive control, transputer-implemented 36119
three-phase UPS VSI, feedback control strategy 44173
turbogenerator shaft torque/fatigue life expenditure prediction 10958
UPS PWM inverter, instantaneous feedback controlled 11177
variable speed cycloconvertor AC drives, vector control simul. 5267
voltage source power convertors, current control loop simul. 5114

control system CAD
co-design method, combined models 28981
conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
fuzzy control design syst., DSP-based 687
induction motor control/fault diagnosis, observer 36153
indust. vision, image understanding syst. design *(Japanese)* 16372
interbay material handling/storage systs., large wafer fab, simul. tool 20413
motion control syst. CAD, SOAP software tool 11222
MOTOR ES, motor/cables/control gear selection appls. 10959
power equipt. control syst. design, ES-based interpolation methods 19494
Power Plant Analyser, MATLAB Toolbox package 35978
power syst. stabiliser, fuzzy logic based 10641
real-time digital control environ., controller develop. appls. 10674
submersible platform rem. control and commun. syst. design *(Croatian)* 4412
SVC develop. testing by simul. *(German)* 27879
sync. motor drives, self-controlled, computer modelling 11337
VLSI analog fuzzy controllers, hardware/software toolkit 37899

control system computer aided design *see control system CAD*

control system synthesis
see also Bode diagrams; control system CAD; correlation methods; describing functions; frequency-domain synthesis; frequency response; linearisation techniques; perturbation techniques; phase space methods; piecewise-linear techniques; poles and zeros; root loci; sensitivity analysis; stability; state-space methods; step response; transfer functions
3-phase PWM converter, act. filter, control cct. 36356
60 hp brushless doubly-fed pump drive, water treatment appls. 5431
130 kV rly. power syst. operation optim., Sweden 44534
200 W PV power syst. DC/AC power convertor control 43953
275 kV power cable systs., voltage/VAr control develop. 27031
AC machines, transducerless posn./vel. control 4910
AC motor, flexible struct. attached, H_∞ posn. controller design 10967
AC motor drives, asynchronous μP control design 36637
AC motor drives, CSI-fed, exact lin. H_∞ control *(Japanese)* 28063
AC/DC power syst. stabil., DC modulation control *(Chinese)* 35471
AC/DC PWM power convertor, quasi-optimal control 44165
AC/DC/AC PWM power converters, DC link energy storage reduction 36343
adaptive load freq. control with dual-rate sampling, design method 35559
adaptive power syst. stabiliser, freq. domain design 27043
aircraft automatic landing LQG/LTR controller design 35276
automobile anti-skid braking systs., slip estim. 5375
automobile engine powertrain nonlin. sliding control design 5373
autonomous power syst. higher harmonics reduction methods 43677
axial flux interior PM sync. elec. vehicle motor drives 36756
bi-directional AC/DC power converter, independ. reactive power control 36351
broadband network fair-efficient call admission control policies 41426
brushless DC motor, posn.-vel. tracking control, obs. integrator backstepping approach 27750
brushless DC motor drives, variable speed control design 5243
brushless DC motor posn.-vel. control design 36188
brushless DC motors, fuzzy speed control design 4989
brushless DC motors, nonlin. tracking controllers develop. 4994
brushless direct drive motor, robust speed control design 5287
brushless PM motors, cogging torque minimisation design 10946
buck rectifier, unity PF, nonlin. ripple feedback 36244
CD player, robust multivariable controller design 17615
CMM, control input shaping against vibr. 17675
CMM, optimal posn./vibr. control design 3738
compact disc player, QFT controller design/implement. 17614
composite PSS, auxiliary self-tuning/fixed param. controller design 35507
conferencing network centralised and distributed control designs 41973
Cuk convertor, nonlin. control methods 27801
DC motor, model following nonlin. control syst., GMDH algm. *(Korean)* 27746
DC motor drive digital regulator disturbance retuning design 11371
DC motor drive fuzzy logic control, neural net implement. 11316
DC motor drive indirect control, state stimulator-based 36646
DC motor drives, optimal speed control method *(Polish)* 36647
DC motor drives, separately excited, tunable fuzzy logic control 20076
DC motor drives, supervised neural net-based control 11340
DC motors, pulsed μP control design 11067
DC rly. power systs., intell. traction power control 28126
DC servomotor, robust digital optimal model following syst. *(Korean)* 27751
DC servomotor fuzzy logic VSS control design *(Korean)* 27744

control system synthesis continued
DC/AC PWM power convertor, quasi-optimal control 44165
DC/DC LCC reson. power converter, digital control models 6010
DC/DC power convertors, democratic load-current sharing cct. 44151
DC/DC power convertors, parallel-connected, current distrib. control 44141
DC/DC PWM push-pull power converter, robust state feedback control 27808
direct AC-AC matrix power convertor, AC motor appls. 19738
double-mass induction motor drive, vibr. control design *(Russian)* 28096
doubly-fed induction machines, torque/VAr control 4973
doubly-salient variable-reluctance motor, starting model *(French)* 10993
elec. drives, high inertia, optimal control design 5277
elec. locomotives, adaptive output power control studies *(Japanese)* 28112
elec. motor drives, control design algms. 44454
elec. vehicle drives, time-varying adaptive μP control 36739
electric generator adaptive fuzzy speed control, rule-based 19582
EMRAAT missile, sliding mode planar autopilot design 18957
extrusion proc. DC motor drive cascaded control design *(Russian)* 11497
finite wordlength digital filters/controllers, optim. realisations 37883
generic plant control, global optim. method 4985
GTO inverters, PWM voltage control improvement 19750
heat/power syst., suboptimal control, modal decoupling *(Chinese)* 43886
HF switched-mode PWM power amp., perform. anal. 542
hybrid step motor control, torque ripples minimisation *(Korean)* 27761
hybrid step motors, feedback-lin. control design *(Korean)* 27767
hybrid wind/diesel power syst. stabilisation, SMES controller design *(Japanese)* 27645
hydrogenerators, optimal robust governor design 43989
hydrothermal power syst., interconnected, adaptive load-freq. control 10627
independent power systs., decentralized open-loop control 19079
indirect method of nonlin. filtering, PLL synthesis appls. 32568
induction generator, squirrel cage, CSI exciter, voltage regulator 19635
induction machine ident./control, neural net-based 44057
induction machine low speed region control method 44051
induction machine sensorless vector control, HF current injection 4974
induction machine vector control, iron core loss considerations 4955
induction machines, nonstd., fuzzy control 44035
induction motor, 3-phase inverter, robust current controller, finite state automaton 36158
induction motor, field oriented control, H_∞ controller synthesis 11343
induction motor ASD, adaptive speed control, ANN 28080
induction motor ASD, fuzzy on-line efficiency optimisation control 36659
induction motor drive, fuzzy 2-DOF speed controller 36660
induction motor drive control, rotor time const. ident. 11369
induction motor drive field weakening voltage control strategy 44482
induction motor drive flux/torque MRAC design 11348
induction motor drives, closed-loop phase angle control 5260
induction motor drives, CSI-fed, torque angle control algm. 28091
induction motor drives, digital control strategy 5268
induction motor drives, discrete-time sliding mode digital control 11390
induction motor drives, fuzzy logic controller 20085
induction motor drives, indirect field-oriented control slip gain tuning 28093
induction motor drives, VSI-fed, generalized predictive control 5248
induction motor drives, VSI-fed, predictive vector current control 44492
induction motor fuzzy controller design 11024
induction motor modified flux orient. control scheme 11046
induction motor quasi-freq. control design 27721
induction motor servodrive, robust 2DOF posn. controller 36658
induction motor speed control, neural fuzzy controller design 44052
induction motors, indirect field oriented control perform., rotor speed error 4976
induction motors, inertia-lowering digital control studies *(Japanese)* 36162
induction motors, nonlin. observer-based tracking control 19622
induction motors, speed sensorless indirect field oriented control 11045
induction servomotor drives, LQG/LTR digital control design 36641
interconnected power syst. control design, SMES-based 27002
internal model control loops, asymptotic setpoint tracking 27772
Jones DC-DC converter, traction drive appls., av. modeling 19812
LIM, control obj., math. model *(Russian)* 27759
LIM drives, transvector control syst. computer simul. *(Russian)* 44437
LIM field control perform. improvement 11035
LIM vector control algm., perform. modelling 44053
lin. pulse motors, vibr. suppression design 4996
mag. levitated lin. positioning syst., time-delay control 15341
MAGLEV systs., H_∞ control, exact lin. 40276
medium freq. converter with VSI, control syst. 19879
micro-moving stage positioning, accel. feedback-based *(Japanese)* 11224
missile, tail-control, LQG/LTR, eigenstruct. reassignment 18997
missile autopilot, multivariable H_∞, robustness eval. 18958
motor drives, MRAC design, integral compensation 44434
multiobjective controller design, guaranteed H_∞ control perform. 44062
multiphase power systs., harmonics/VAr control design 19087
multiple-output buck-type power converter, dyn. characts. 44153
multivariable combustion control design, indiv. channel design framework 27525
multizone HVAC syst. optimal control, aggregation/disaggregation method 28180
nonsinusoidal power syst. supply quality improvement 19088
packet switching network routing mgt. 41649
parallel act. power filter, control stabil. study 5112
physiochemical expt. dyn. controller develop. 34727
piezoelec. transformers and structs., controller design 30621
PM brush DC motors, tracking control studies 36190
PM stepping motor robust tracking control 36203
PM sync. motor feedback lin. decoupling torque control 4933
PM sync. motors, digital controller, Park model 10992
PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
PM sync. servomotor drive, VSI-fed, field oriented control 36675
PM sync. servomotor drives, optimal/VSS control 5288
power plant control, state space and freq. domain predictive controller design 27524
power syst. adaptive underfreq. emergency control schemes 43676
power syst. anticipatory fuzzy control, neural net-based 43666
power syst. dyn. stabil. improvement, SMES-based design 27003
power syst. fast transient control, energy-based sensitivity method 10672
power syst. fuzzy optimal load freq. control design *(Japanese)* 43682
power syst. generation control automation, fuzzy controller design 35545
power syst. generator operating point, fuzzy control *(Japanese)* 4592
power syst. H_∞ oscills. damping controller design 35483
power syst. hierarchical optimal control design 4517

control system synthesis continued
power syst. hybrid fuzzy/PSS control method 10668
power syst. lin. optimal regulator, fuzzy neural net-based 19094
power syst. load freq. control, disturbance accommodating optimal controller *(Korean)* 26988
power syst. load freq. optimal PID controller design *(Korean)* 26922
power syst. load shedding optimal fuzzy control design *(Korean)* 35542
power syst. load-freq. control, H_∞ optim. 43675
power syst. modular secondary voltage fuzzy control design *(Slovenian)* 43690
power syst. optimal controller design with prescribed eigenvalues 35522
power syst. optimal load tracking, nonlin. parametric approach 27024
power syst. oscills. damping, control design 27004
power syst. phase asymmetry relay control design 27057
power syst. preventive control design, nonlin. optim.-based 26956
power syst. real-time economic dispatch design 4569
power syst. real-time voltage/VAr control, optim. algms. 10630
power syst. robust multivariable PI secondary voltage/VAr control 27016
power syst. sliding mode control, phase shifter-based design *(Japanese)* 26996
power syst. SSR damping, SMES-based 10681
power syst. stabil., nonlin. SVC control studies *(Chinese)* 35527
power syst. sync. generator dyn. stabil. control enhancement 43706
power syst. transient nonlin. generator excitation control 26992
power syst. transient stabil., SVC fuzzy control design 19101
power syst. transient stabil. assess., neural net-based 10626
power syst. transient stabil. cooperative control design *(Japanese)* 10617
power syst. underfrequency load shedding, control design 4556
power syst. VAr control algms., formulation requirements 19085
power syst. voltage contingency selection method 4557
power syst. voltage instabil., load flow-based preventive control 35554
power syst. voltage/VAr security enhancement control design 27017
power system oscillations, hierarchical control algm. 19121
power systs., indiv. efficiency control theory *(Russian)* 43635
PSS, design, μ synthesis 43671
PSS, fuzzy control design studies 4508
PSS, fuzzy controlled SVC design *(Japanese)* 26939
PSS, fuzzy controller studies *(Chinese)* 27038
PSS, SMES-based, neural network-controlled 27030
PSS controller tuning, systematic design method 27056
PSS design, self-tuning regulator 19194
PSS design method/algm. 4560
PSS intell. supervisory fuzzy control design 19103
PSS SVC fuzzy logic switching design 19102
PV array max. power extraction, fuzzy logic control 19560
PV power syst. invertors, instantaneous current tracking control *(Korean)* 27620
PWM AC/AC power convertor, freq. control method 29044
PWM DC/DC full-bridge ZVS power converter anal. *(Chinese)* 36337
PWM invertor optimal PI current control, neural net-based 19734
PWM rectifier, state feedback nonlin. control 11153
PWM regenerative sinusoidal converters, H^∞ control 5131
PWM reversible rectifier variable struct. control design 5054
PWM voltage-type rectifier, I-V control studies 19796
PWM VSI AC motor drives, sync. quasi-vector control 11351
rehabilitation robotic feeder design 35181
reluctance motor drive, optimal current angle control algm. 36684
reluctance motor drives, axially laminated rotor, vector control 5258
reluctance motor drives, flux weakened operation, current regulator 5303
rigid rotor mag. bearing syst., nonlin. control 27681
RLCG transm. line, LQ control synthesis 43730
rly. traction drive readhesive control studies *(Korean)* 28121
robot adaptive electrohydraulic servoactuator control synthesis 36497
robotic arm ASIC-based motor controller develop. 11227
robotic servoactuators, quasi-optimal control design 36496
robots, PM sync. motor drive, robust adaptive control 20054
robust observer design for biomedical systs. 43198
rolling rotor SRM, optimal digital control design 36134
satellite tracking, low-orbit, antenna servo design 23857
sensorless brushless DC motor drive control studies 44474
series reson. converter, clamped capacitor voltage 11163
series reson. DC/DC power converter, IP regulator-based control 44221
servomotor, bang-bang fuzzy controller, time optimal/min. chatter 27769
servomotor drives, predictive posn. control design 28087
single-phase multilevel power converter, control method 11136
six-phase salient-pole PM motors, optimal control studies 27675
solid-state relay design, aerospace appls. 26546
Space Station Freedom power system, small-signal stability 26593
spacecraft pitch attitude and momentum LQG/LTR control 35238
split phase induction motor drives, vector control 5295
squirrel cage drives, adaptive sliding mode speed control 36666
SRM drives, sliding mode observer controller 5301
static VAR compensator, nonlin. control design 10651
steam turboalternator freq. control governor design 43909
steel rolling mill two-inertia syst. control *(Japanese)* 11501
stepping motors, closed-loop posn. feedback control 19672
supercond. magnet power supply convertor, current control studies *(Japanese)* 11188
SVC H^∞ controller, anal. and design 10652
switch-mode magnet power supply, modelling and control 29027
switch-mode power convertor predictive control, current prog. tech. 44152
sync. generator nonlin. adaptive control, neural net-based 19607
sync. generators, automatic voltage regulators design 36116
three phase ASD PWM rectifier, neural net-controlled 5120
three-phase AC machine switching power converters, current control 44179
three-phase AC/DC boost rectifier, feedforward-feedback control 36374
three-phase multifn. batt. energy storage syst. 43967
three-phase PWM inverter UPS, robust μP control 36248
three-phase regenerative power convertor design project 5119
three-phase turboalternator adaptive control, transputer-implemented 36119
three-phase UPS VSI, feedback control strategy 44173
thyristor inverters, freq./voltage optimal control design 5098
thyristor power converters, nontunable pulse-phase control syst. 5102
turbines, intell. adaptive controller 43816
two-inertia motor syst., closed-loop PID speed control design *(Japanese)* 27669
two-input PSS develop., LF oscills. control appls. *(Japanese)* 26995
two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638
unbalanced AC voltage supplies, SVC dyn. anal./design 19124

control system synthesis continued
variable impedance power syst., decentralised stabilisation scheme *(Japanese)* 43681
variable reluctance machines, demagnetisation control designs 36138
variable reluctance motors, torque ripple minimization 11007
variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
variable speed drive inverse nonlin. speed controller design 11349
variable speed induction motor drive, adaptive fuzzy control 11392
variable speed induction motor drives, controller synthesis 11353
variable speed induction motor drives, neural net-based vector control 36685
variable speed sync. motor drives, stator flux-oriented control 36667
variable speed wind turbine, drive syst. dyn., modelling and ident. 36067
variable speed wind turbine, test-rig, controller design 36068
wind power self-excited induction generators, rectifying bridge studies 36084
wind-diesel hybrid power plant, robust control 10912
wind-diesel hybrid power plant, robust control and anal. 19574
zero-admittance switch-mode power converter synthesis 36242
ZVS PWM inverters, DC voltage notching scheme 19736
GaAs, LEC cryst. growth, analytic model, proc. control 28715
Pb-acid elec. vehicle batts., monitoring/control model 36539

control systems
see also adaptive systems; closed loop systems; delay-differential systems; delay systems; discrete time systems; distributed parameter systems; model reference adaptive control systems; multidimensional systems; multivariable control systems; nonlinear control systems; optimal control; physical instrumentation control; reduced order systems; sampled data systems; SCADA systems; singularly perturbed systems; time-varying systems
3-phase controllable bridge rectifier, μP based 5104
110 kV switchyard PYRAMID digital control syst. installation project 36483
advanced digital reactor control systs., safety policies 19456
advanced LMR plant control syst. 35927
ATM subnetwork syst. fns., timer-related perform. issues 24766
autonomous voltage inverters, μP control 5100
Bayerische Rundfunk TV prod. studio refurbishment *(German)* 25655
cement storage/dispatch terminal automation 3731
CHP, gas turbine gensets 43924
co-design method, combined models 28981
develop. of inform./control theory 32020
drum-type boiler of power plant, automatic control *(Japanese)* 4840
EMC of microelectronic rly. traffic control systs. 28117
FACTS, interphase power controller, voltage injection 4520
fire-resistant and cryogenic opt.-fiber cable 5569
FM transducers in measuring, monitoring, and control 3807
high speed elec. rly., power/control systs. *(French)* 11427
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
medium freq. converter with VSI, control syst. 19879
mine winder motor drives, digital control systs. 44645
motors, interactive DSP-based acquisition/control syst. 10949
nuc. plant, μP-based reactor protection systs. 35929
polarized target 34873
power station advanced control systs., μP-based 27295
SMC polarized target, computer control 34874

control theory
see also adaptive control; bang-bang control; cascade control; compensation; control nonlinearities; control system analysis; control system synthesis; controllability; fuzzy control; minimum principle; observability; on-off control; optimal control; periodic control; predictive control; proportional control; relay control; stability; three-term control; two-term control
develop. of inform./control theory 32020
dexterous motions, nonlin. cct. theory for robot control problems 21090
microfabricated actuator arrays, manipulation/control theory 30507
Midwest Symp. on ccts. and systs., Detroit (1993) 33
quadratic operator eqns. and periodic operator continued fractions 37328

controllability
see also stability
ATPG for heat dissipation minimization, test appl. 6856
CACOP, random pattern testability analyzer 37730
coherent opt. controlled phased array antenna syst. 7324
controllable M/M/2 syst. reliab. with warm standbys operating under triadic (0, Q, N, M) policy 11900
DSP syst. functional controllability indicators *(Russian)* 16053
Eastern European power network regulation test planning and eval. *(German)* 35550
fault detect. cost reduction, BDD formalism 21015
feedforward multilayer ANN, testability, behavioral approach 37917
GPS, block triangulation, aerial control, reliab. 42546
hardware for testability adding in synthesised data paths 21187
high wave no. EM scatt., soln. method 40308
hybrid transducer-type US motor, speed control expts. *(Japanese)* 11082
most nearly rank-reducing struct. matrix perturb. computing 37323
multimachine power syst. stabilizers, location/design 26926
observability environ., seq. test generation 12449
power syst., adaptive multivariable optimal controller 4579
test pattern generation algorithm acceleration, probabilistic measures 42722
weapon systems, design-for-test process improvements 43594

controllers
for computer peripheral controllers see computer interfaces
see also cryostats; instruments; programmable controllers; servomechanisms
3-phase PWM VSI, ANN current regulator 44119
3D laser-based sens. for robotics 17763
4 wheel drive elec. vehicle, integral batt. charger 5359
AC drives, current trajectory tracking control, sync. PWM 5311
AC motor, flexible struct. attached, H_∞ posn. controller design 10967
adaptive PSS, turbine governor control 4564
advanced SCADA concepts, substation appl. 19131
AGC syst. LQG controller design 35520
aircraft automatic landing LQG/LTR controller design 35276
aircraft intell. rem. power controller 26682
Aqua Explorer 1000 for inspection of underwater cables 9156
array beam steering, acousto-optic control of time delays 8662
ATE station controller replacement, commercial products 34362
BiCMOS laser control chip combining power control and 622 Mbit/s modulator 31426
brushless DC servomotor, optimal DSP control 36195

controllers continued
  brushless PM sync. motor drive, predictive control 20087
  DC arc furnace control, simul. *(German)* 44590
  DC drives, fuzzy control 5315
  DC drives, nonlin. controller, bi-orthogonal decomp. 5314
  DC motor, PID/fuzzy posn. controllers comparison 11070
  DC motor ASD, self-tuning digital controllers appl. 5316
  DC servomotor machining motion control, parallel DSP 36192
  distrib. transformer oil drying controller 19705
  drive, regulator/observer, multi-mass elastic obj. *(Russian)* 44436
  DSP based controller for switching converter 6019
  DSPs in high perform. controllers 37814
  elec. heat tracing, controls/monitoring 36783
  elec. wheelchair motors, fuzzy posn. controllers *(French)* 10283
  engine control module, hybrid interconnect technols. 28154
  FACTS, interphase power controller, voltage injection 4520
  fan-cooled power systs., telecom appls. 19837
  fuzzy controller, analog implement. 773
  fuzzy controller, pipeline custom design 650
  fuzzy controller design mixing analogue and digital techs. 770
  fuzzy controllers, FPGA implement. 6140
  hermetic advanced power package, solid state power controller 20458
  Huygens power system, power control/distrib. 26648
  HV AC-DC systs., multivariable adaptive control 4549
  hybrid vehicles, energy flows mgt., fuzzy logic controller 20111
  hydro turbine governor model struct./params., power syst. stabil. 4861
  I/V converter, thermally regulated, using Peltier heat pumps 18023
  induction generator, squirrel cage, CSI exciter, voltage regulator 19635
  induction motor, 3-phase inverter, robust current controller, finite state automaton 36158
  induction motor, terminal-impedance control, energy-saving 4981
  induction motor, transputer based digital controller 44050
  induction motor ASD, adaptive speed control, ANN 28080
  induction motor ASD, design/anal., CASED simul. tool 5313
  induction motor ASD, fuzzy on-line efficiency optimisation control 36659
  induction motor drive, fuzzy 2-DOF speed controller 36660
  induction motor drives, digital adaptive control, transputer based 11379
  induction motor drives, feedback lin. control 36696
  induction motor drives, fuzzy logic controller 20085
  induction motor drives, speed sensorless field-oriented control 5298
  induction motors, indirect field oriented control perform., rotor speed error 4976
  induction motors, sensorless field accel. method, stabil. anal. 11047
  induction motors, single/3-phase, speed control, AC regulators, freq. division 11034
  induction motors, speed control, VSS, load torque observer *(English)* 36175
  indust. motor controllers, self-tuning digital control 20154
  JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
  K4-K10 storage ring, bus controller for MIL-1553B/Multibus II 18211
  lin. DC motor actuator, wire-driven syst., robust control *(Japanese)* 19667
  lin. pulse servomotor control, 2 DOF controller *(Japanese)* 44074
  lin. tubular induction drive, DSP posn. controller 11342
  logic controller, MR imaging cardiorespiratory synchronisation 26362
  microcontroller, universal real-time, fast calc. 6172
  min. effort estimators/controllers, perform. surfaces 32561
  motion control systs. develop., motors, drives, user interface 44440
  multimodule parallel series-loaded reson. converters 29002
  Neutral-Point-Clamped PWM inverters, voltage vector control 11141
  New Wireless LinguControl 43370
  nonpolluting automobiles, energy storage, propulsion 5326
  Optical Communication Demonstrator, laser transmitter assembly 17303
  Petri-net-based algms. for parallel-controller synthesis 601
  phased-array antennas, liq. cryst.-based opt. controllers 7398
  PM brushless DC drive, var. struct. speed control 36665
  PM sync. motors, digital controller, Park model 10992
  power controller, fuzzy chip-based fault classifier 11131
  power syst., HWL-01 excitation regulator, STD bus *(Chinese)* 35529
  power syst. optimal controller design with prescribed eigenvalues 35522
  power syst. stabilizers, real-time, fuzzy controller optim. 4913
  proc. control, torque disturbance effects 5265
  real-time digital control environ., controller develop. appls. 10674
  reconfigurable analog fuzzy logic controller 779
  reluctance motor drives, flux weakened operation, current regulator 5303
  reluctance motor drives, sensorless posn. meas. 11318
  robots, PM sync. motor drive, robust adaptive control 20054
  rocket engine, large, reusable, artificially intell. health monitoring 18770
  scanning laser vibrometers, directing meas. point 31693
  series reson. converter, clamped capacitor voltage 11163
  series-parallel reson. converter, magamp postregulators 6020
  SG7915 voltage regulator, temp. depend. SPICE macromodel 5997
  single machine infinite-bus power syst., nonlin. excitation control 27075
  smart DTMF telecontroller for home automation systs. 8875
  space platforms, power syst. control/protection integrat. 26680
  Space Station Freedom, UPS orbital replacement unit 18762
  Space Station Furnace Facility, sliding mode thermal control syst. 26690
  space station power mgt./distrib., intell. load controller 26659
  spacecraft DC power systs., series arcing detect. 26564
  squirrel cage motor drives, self-commissioning scheme 5300
  SRM drive control, DSP based syst. archit. 11380
  SRM drives, sliding mode observer controller 5301
  SSC control syst., develop. environ. 18229
  stabiliser RMS nonsinusoidal voltage/current *(Polish)* 5992
  stepper motor, CAMAC controller 4998
  supply-side loading minimisation, intelligent SVC control 43656
  switched reluctance starter/generator, aircraft engine 43457
  switching regulators, general algm. for anal. *(Japanese)* 12279
  sync. generators, automatic voltage regulators design 36116
  TW US motor actuated servo drive, fuzzy control 11091
  unmanned underwater vehicles characts. 11410
  variable reluctance motors, indirect rotor posn. sens. 5302
  VLSI analog fuzzy controllers, hardware/software toolkit 37899
  VSI-fed PWM motor drives, predictive fuzzy control 5273
  WDMA network, acousto-optic tunable filters and TAXIChip-based control channel 9562
  ZIPI music description lang., origs. and motivations 25693
  Li ion batts., charging, IC controller 36544
  Ni-Cd batts., charging, IC controller 36544
  NiMH batts., charging, IC controller 36544
  Pb-acid batts., charging, IC controller 36544

controllers (computer peripherals) *see computer interfaces*

convection
  conference, thermal problems, numerical methods, Swansea, UK (July 1993) 36887
  dielec. liq. with unipolar injection, EHD convection 40206
  discrete surface source with substr. heat sink, conjug. heat transfer 37123
  elec. launcher plasma-surface interact., computer simul. 15372
  electronics cooling field, heat transfer decoupling 11761
  fission reactors, thermogravitational convection heat transfer 27455
  gas flow, thermal radiation flux meas., Cuernavaca instrum. 34725
  geothermal convector design 4855
  laser beam, transverse blowing, thermal self-action reduction 7718
  LMR, wire wrap modelling, computer code BACCHUS 4801
  long. fin heat sink perform., flow bypass effect 148
  mixed convection cooling of electronic components in open ended channels 37100
  mixed convection from simulated electronic components, posn. effects 11763
  mulberries solar drying proc., IR heat treatment effects 20174
  PCB substr. cond. effects, electronic components, convective cooling 909
  petroleum storage tank recirculatory flow, electrostatic charge estim. 15215
  planar SOFC, syst. dyns. simul. 44369
  power syst. busbars, steady-state/transient ampacity calcs. 4448
  power transformer insulating oils, pulsating laminar flow studies 44103
  RTP furnace, 3D temp. uniformity model 22231
  sing. perturbed high-order ellipt. two-point BVP 37357
  single-phase submerged-jet impingement cooling for electronic components 151
  SMT rework, conductive/convective hand tools 38161
  space vehicle, solar-dyn. receivers, atten. thermal storage 35242
  steam generators, boiling heat transfer, French plants, 900/1300 MWe, data anal. 4799
  telecomm. cabinets, thermo-hydraulic simul. 16541
  thermohydraulics, optimized locally exact num. scheme 35780
  vert. channel, protruding heat sources, 3D convective cooling 37126
  water flow profiles, cylindrical container, microwave heating 28169
  $(Bi_xSb_{1-x})_2Te_3$ molten zones, buoyancy-driven convection 12020
  CdTe, crystn. in presence of convective flows in melt 294
  GaAs LPE process, cavity geometric effect 37414
  GaAs micromachined mass-flow sens. 9880
  InGaAs temp. difference growth, num. anal. of soln. convection *(Japanese)* 37380
  N_2/convection reflow soldering oven, input gas flow var. influence 38148
  Si RTP, optimum gas flow engng. 22230
  Si wafer temp. var. during RTA, 3D asymmetrical model 22103

convergence
  see also convergence of numerical methods
  1D refr. index struct., modal fields calc. by finite difference beam propag. method 14447
  2D adaptive lattice struct. for noise cancelling 32680
  2D transform domain adaptive FIR filtering 2575
  3D obj. recogn. by hybrid Hopfield neural net 33028
  77 K MOSFET simul., increment limit method *(Chinese)* 38783
  adaptive array covariance matrix eigenvalues rel. to mutual coupling 23973
  adaptive feedforward lin., convergence behaviour 3324
  adaptive line enhancers, fourth-order enhancement *(Japanese)* 12620
  adaptive sig. proc. in subbands, sigma-DM tech. 32719
  adaptive sinusoid detect., IIR notch filters and multirate techs. 2548
  anchored const. modulus algm. for blind equalization 16410
  binary commun. channel equalisation, feedforward neural net 15680
  CMOS max. entropy coprocessor for computed tomography 29432
  constrained anti-Hebbian learning algo. for total least sq. estim. 2549
  controlled Markov chains, empirical measures, rate of convergence 5747
  convex quadratic semi-infinite prog. problems 11942
  delayed LMS algm. for adaptive FIR filtering 32677
  discrete-time cellular neural net., convergence and implement. 12683
  discrete-time multichannel sigs., neural net modelling 15976
  distributed power balancing, sparse inform. link 9250
  echo canceller with adaptive FIR filter, anal. for Gaussian sigs. 32747
  echo path modelling, chaotic-driven, coding strategy 33398
  economic dispatch, nonmonotonically increasing incremental cost 19109
  entropy-based approxs. for moment problems, convergence 242
  equiv. current reconstruction for EM imaging 8512
  evoked pot. estim., multilayer perceptron appl. 18547
  evol. algms., selection methods, empirical comparison 11953
  fast blind equalization, block-updated algm. 24349
  fast decoupled Newton optimal power flow *(Chinese)* 10633
  fast min. error probab. blind equalization algm. 16028
  FIR channel fractionally-spaced blind equalisation and estim. 41384
  fractionally spaced adaptive blind equalization 24265
  G/G/I queueing syst., bursty traffic 194
  genetic algm., convergence, type II two bit problem *(Japanese)* 28633
  genetic algm., selection schemes, convergence models 37289
  globally convergent adaptive blind filters and blind equalisers 2863
  graph-based stack filter neural networks, associative representation 653
  HMM for blind channel charactn. and data detect. 40943
  hydrothermal power systs., unit commitment/economic dispatch 19111
  IIR adaptive filter, globally convergent, output error formulation *(Japanese)* 21437
  image data compression, ART network, fuzzy control 2857
  image segmentation, variational vs. Markov random field methods 8492
  induction machines, flux observer design 27710
  induction motors, rotor flux/speed ident., polar coord. method *(Korean)* 36174
  inter base station synch. via common broadcast control channel 9279
  isolated utterance recogn. associative memory scheme 32423
  lin. semi-infinite prog. problems, inexact approach 235
  LMS adaptive algms., DC offset effects, comparison 40852
  load flow calc. convergence improvement *(Chinese)* 35514
  load forecasting, weather-sensitive short-term, neural net approach 10701
  M-ary PSK non-decision-aided feedforward carrier sync. asymptotic cycle slip probab. 40554
  modified genetic channel router 13844
  multiple servers under threshold-type scheduling, resequencing delay 24789
  multiple-error and block LMS adaptive algms., anal. 24342
  nonlin. adaptive IIR digital filters 756
  nonlin. DFEs based on functional-link neural network 9153
  optimal mean-sq.-error batch sizes 37238
  optimum convergence factor for adaptive filters *(Korean)* 21439
  planar EM anals. validation, ultra-high precision benchmark 824

convergence continued
power syst. economic dispatch, decomp.-coord. theory *(Chinese)* 27036
proportion-sign algo. for adaptive filtering, perform. anal. 2519
random fuzzy sets and fuzzy martingales 28614
reduced-state soft decision feedback Viterbi equaliser 3425
RG algm., blind equalization algm. *(Chinese)* 8403
rib waveguide anal. by wide-angle techs., convergence props. 15582
right-angle H-plane waveguide double bend 23772
Schering bridge sensitivity and convergence for AC machine anti-discharge varnish ageing tests *(French)* 9973
short-lived dyn. syst. discrete adaptive filters 32650
sig. proc., neural networks, convergence 24357
slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
sources separation, analogue hardware, neural 40903
SR-latch cct. using Hopfield neural networks, design 12432
static timing analyzers, sensitizable path anal., reconvergence method 28931
subband adaptive digital filter, convergence speed, multirate repeating method *(Japanese)* 21435
subband adaptive filtering algo., intersubband tap-assign. 2516
symmetric matrix, largest eigenvalue minimisation 188
TDMA-TDD commun. syst. semiautonomous frame sync. 33829
unified phase I-phase II semi-infinite constrained optim., steering param. *(Korean)* 28647

convergence of numerical methods
see also numerical stability
2D block adaptive FIR filtering algm. 33152
2D FIR digital filters, weighted LMS design 2488
2D FIR digital filters, weighted LMS design 8364
2D nonlin. eddy currents, iter. BEM convergence 40252
2D separable FIR Wiener filter design, iter. method 24214
3D micro-electro-mech. struct., self-consistent electromechanical anal. 1502
absorbing boundary condition for EM scatt. 40307
acoustic ARMA sig. modeling, iter. Prony method 24221
acoustic echo cancellers, exponentially weighted step-size projection *(Japanese)* 42096
adaptive algms. for time delay estim./IIR filtering 40830
adaptive antenna arrays controlled by gradient algms. 2351
adaptive echo canceler, time varying normalized LMS algm. 24348
adaptive equalizers, LMS-based, fast convergence 6258
adaptive estim. of eigensubspace 32550
adaptive filter, multirate proc., convergence speed improvement 8411
adaptive filtering, sign algm., convergence anal. 32531
adaptive filtering in data commun., self improved error ref. 33160
adaptive Gauss-Seidel method for lin. systs. 258
adaptive IIR filtering, cascade struct. 8283
adaptive IIR filtering, composite prefiltered regressor method 32775
adaptive IIR filtering, fast convergent genetic search 32705
adaptive IIR filtering algm., sig. proc. appls. 24194
adaptive lattice filter, convergence props. 15882
adaptive phase control, RLS phase estim. 40799
adaptive RLS filtering, iter. version of QR-decomp. 32479
adaptive weighted norm extrapolation algms., convergence anal. 8304
adaptive/iter. blind source separation, composite criterion 40960
additive Schwarz domain decomp. methods for ellipt. problems 12003
Adomian's polynomials, convergence of decomp. methods 28677
alternating direction implicit method accel. by SOR 256
antenna syst. for multiple suppression 31992
area based opt. flow, Poisson solvers and semi-direct methods 8523
array antenna excitation laws, synthesis methods 15655
array proc., adaptive rational subspace estim. for non-white additive noise 32452
asynchronous parallel matrix multisplitting relax. iters. model 37309
atmos. blurred images, fast restoration 32822
band-limited sigs. restoration from noisy obs. 40877
best approx. by incomplete polynomials, error curve, extreme points distrib. 5768
blind adaptive equalizers convergence, input data correl. 32738
blind deconvolution of colored input sigs., criterion 8369
block adaptive algm., conjug.-gradient method, perform. 41041
boundary element lin. systs., soln., iter. methods 37302
broad wall coupler between dissimilar rect. waveguides, S-matrix 12714
Cauchy integral eqns., uniform convergence of perturbed collocation method 37362
cct./device steady-state simul., nonlin. elimination 21025
charge iter. procedure for unbounded elec. field problems, fictitious boundary 40187
circ. symmetric objs., inverse EM scatt. 7960
circular reflector antenna anal., complex source approach 23927
coax step discontinuities, method of moments num. anal. 29525
coherent opt. proc. for inverse filter generation 39511
color-sig. separation, constrained nonlin. optim. approach 16314
complex exponential sigs. param. estim. 2569
computer vision, hierarchical Markov random fields, stable points 8496
conducting enclosures, direct lightning strike, internal voltages 40189
conjug. gradient algms., convergence 37304
constrained optimisation, nonmonotone line search 230
convex projection method, Browder strong convergence theorem appl. *(Japanese)* 32859
coplanar strips, anal. considering finite strip metal. thickness 2295
coplanar waveguide multistep discontinuity anal. 23776
covariance estim. for multidimensional data 8285
data transm. SVD-based fractionally=spaced equaliser perform. 42043
decomp. method, convergence 20612
decoupled methods for semicond. device modeling, Gummel iter. 1325
deep-bar induction machine dyn. params. determ. 4964
delay Volterra integral eqns., collocation and Runge-Kutta methods 12010
diagonal implicit scheme for quasi-lin. parab. syst. *(Chinese)* 5787
dielec. scatt. problems, FFT-based methods comparison 40285
dielec.-covered microstrip line slot antenna anal. 2331
difference operators in method of lines, higher order approx. 20618
difference schemes for parab. eqns., time-adaptive grids 28691
diffusion eqns., alternating segment explicit-implicit method 269
digital storage channels, knowledge-based adaptive channel estim. 7192
Dignet unsupervised-learning clustering/data fusion algm. 32854
discrete-time/continuous-time const. modulus algm. anal. 29383
distrib. network loss minimization re-config., genetic algm.-based *(Japanese)* 43746
E-algm., general extrapolation procedure 5766

convergence of numerical methods continued
eddy current, 2D, iter. domain decomp. algms. 2181
edge detect., probabilistic and dictionary-based relax. techs. 8503
eigenvalue calc., AESOPS algm. improvement 4489
EM field quantities/forces comp. by superconverg. in finite elements 40188
EM scatt. by large open-ended cavities, iter. PO 40278
EM wave diffr. on cylindrical vibrator surface 40299
EM wave scatt. by periodic strips, spectral theory 23786
explicit method for resoln. of semicond. device eqns. 38779
extrapolated AOR and SOR iter. methods, convergence 11983
fast convergent Jacobi algms. for VLSI sig. proc. 32597
fast converging low complexity adaptive filtering algm. 15987
fault tolerant FIR adaptive filter, conjug. gradient algm. 29365
fault tolerant FIR adaptive filter based on FFT 32753
fault-tolerant adaptive FIR filters, variable detect. threshold 29364
FEM, spatial discretization/num. precision errors 8019
finite element discretization of Hamiltonian systs. 28702
finite element eqns., nonnested multigrid methods, degenerate meshes 28695
finite ground plane with perforated apertures, RCS charactn. 9628
finite precision arith., matrix powers 37333
finite-element soln., ellipt. sing. perturbed problem, error estim. 37293
FIR filter design, complex Chebyshev approx. 40855
FIR filters, complex Chebyshev error criteria, optimal design 40805
FIR filters iter. reweighted least-sq. design 2465
first-order convergent seqs. characterisation 20532
forward-backward lin. predictor, DOA estim., Kalman-based 24332
fractal-based image coding, fast decoder convergence 2740
fractionally spaced equalizers, adaptive sampling 33161
fractionally-spaced blind equalization algms., results 15946
FSE/DFE-based HDSL equalizer, adaptive algms. 9087
fuzzy based syst. ident. 32772
generalized eigenvalue minimisation 11894
generalized multidelay adaptive filter, struct./convergence anal. 24199
generalized URV subspace tracking LMS algm. 32757
GIVE, IIR adaptive echo canceler 15883
global convergence of descent procs. for solving nonstrictly monotone variational inequalities 28649
gradient ADF and convergence anal., arbitrary inputs *(Japanese)* 29367
H_z wave inverse scatt. soln. using subscatterer T-matrices 20599
hemispherical shell Neumann scatt., modal series accel. 31798
Hertzian dipole radiation from centre of anisotropic sphere 23829
high power microwave aperture antennas, TD-FE anal. 40489
higher order iter. methods for lin. alg. systs. 253
homoclinic bifurcation points, num. approxs., convergence rate 37355
IIR digital filter with real coeffs., design 32791
ILU factorization, 5-point difference scheme 28562
implicit schemes for algm. for determining boundaries of complex spectrum 11991
inconsistent sig. feasibility problems solns. 2468
induction motor drive control, rotor time const. ident. 11369
infinite periodic array element behaviour computation using FFT 31972
ISDN U-transceiver adaptive filters, DSP based real time simul. 29260
iter. aggregation method, lin. systs./Markov operators, convergence 11963
iter. methods, convergence speed *(English)* 248
iter. reconstruction of moving obj. from image seqs., struct. noise 24525
iter. total least sq. methods, straight line extraction 41178
iterated random maps convergence 201
Jacobi-type methods, monitoring diagonalization stage 32764
Katzenelson-like algm., nonlin. resistive networks, quadratic convergence 5979
LCNO Sturm-Liouville problems 20624
least sq. lattice filters, nonstationary chirp input, PARCOR 40831
least-sq. lattice interpolation filters 12654
Legendre methods, NS eqns. 273
lin. convergence for vector seqs. and appls. 37291
lin. eqn. iter. method, convergence and accel. *(Chinese)* 5778
lin. summability methods, accelerating convergence 11986
Lloyd-Max algm., init. param. estim. *(Korean)* 20595
LMS acoustic echo cancelers, slow asymptotic convergence 24313
LMS adaptive FIR filter dimens., learning rate 32756
LMS algm., short-time instabilities 24268
LMS algm. for adaptive sig. proc. *(Chinese)* 8400
LMS-Newton adaptive filtering algm., variable convergence factor 40806
LS based, gradient type adaptive algm. 32758
LS based gradient type adaptive algo., least sq. gradient 2514
match-length fns. for data compression 32123
math. prog., exponential-penalty fn. 221
mean field annealing, VLSI design appl. 38974
median/weighted median filters, convergence props. 8427
microstrip antenna anal. moment method *(Croatian)* 2310
microstrip discontinuities, combined mode-matching/method-of-lines procedure 31912
microstrip line syst. spectral domain quasistatic anal. 31874
microstrip lines inside rect. cavities, full-wave anal. 31901
microwave EM imaging, convergent iter. algm. 42917
mixed time av., asymptotic theory, cyclic-moment/cumulant stats. 24286
modified block incomplete factorizations, ordering strategies 28687
modified Broyden algms., convergence 241
monotonic convergence property for multivariate Bernstein-type operators 11978
MOS hydrodynamic simul., nonlin. relax. 22326
MOSFET, Monte Carlo simulator, Poisson-transport iter. 22406
multialternative seq. threshold rule convergence by correl. obs. 32014
multiconductor lines, planar or cylindrical, multilayered substrs., capacitance matrix 23790
multigrid algms., recombining iterants, problems with small islands 20630
multilayer adaptive filters, BP trained, stat. approach 2556
multilayer high-T_c supercond. CPW, anal. 12691
multilayered lossy planar line params. calc. method 2289
multilevel iter. algms., cct. struct. decomp. methods 5951
multiple Mellin-Barnes contour integrals, convergence 12009
multistage CMA adaptive beamformer, convergence props. 8351
multivariate autoregressive model, max. likelihood estim. 2478
nearest neighbor rule estim., arbitrary sampling 32653
neural network equalizers, perform. improvement 8308
non-homog. DNLMS algm., decreasing step size, convergence 32755
nonconforming element multigrid method, parab. eqns. *(Chinese)* 5795
nonconvex quadratic prog. problem, act. set methods *(Chinese)* 5760
noniterative/fast iter. methods for interpolation/extrapolation 2503
nonlin. BVP, appl., semicond. device eqns. 1322

convergence of numerical methods continued
nonlin. generalized conjug. gradient methods 11961
nonlin. mag. field problems soln., Newton-Raphson method 40224
nonlin. mag. fields, hp-version adaptive anal., quadrilaterals 40198
nonlin. magnetostatics calc., vol. integral eqn. method 40226
nonlin. syst. ident., nonparametric deconvolution 40874
nonnegative sigs., relax. procedure for phase retrieval 2472
normed LMS algm., error feedback delay, convergence 5769
open asymmetrical multiconductor transm. lines, spectral-domain anal. 40390
open dielec. waveguide anal., quasi-wavelet expansion 31894
opt. overlapping PPM channels, capacity/cutoff rate 15704
optimum adaptive combiner for ciclostationary sigs. 16006
order stat. LMS algms. for non-Gaussian noise 2467
orthogonal matching pursuit, wavelet decomp. 8272
outer approx. methods for semi-infinite optim. 11949
outer radiating boundary condition convergence rates 15424
output error method IIR ADF, stabil./globally convergence 32704
oversampled subband acoustic echo cancelers, anal. filters, expt. 24273
oversampled subband acoustic echo cancellers 25136
p-version FEM, high accuracy *(Chinese)* 5794
Papoulis-Gerchberg algm., sig. extrapolation in wavelet subspaces 24318
pass. stochastic approx. with averaging along trajectory, optimal algm. 37240
piecewise-lin. ccts., contraction algo. for finding DC solns. 506
power syst. dist. protection, microcomputer Kalman filter algm.-based *(Chinese)* 43795
power syst. economic dispatches, seq. decision dyn. prog. improvement 35521
power syst. load flow calcs., modified incomplete Cholesky method 26864
power syst. Newton optimal power flow convergence studies 26848
power syst. static voltage collapse anal., HARKAL package-based 26895
power syst. unbalanced load flow anal. program 4444
power syst. voltage contingency selection method 4557
power system load flow anal., computer-based methods 19021
power system VAr planning, enhanced quadratic interior point method 19204
projective quasi-Newton method for nonlin. optim. 11944
pseudolinear regression IIR adaptive algm., filter design 24185
pure alternating block explicit-implicit method 270
QAM systs., globally convergent blind equalization 32740
qd-algm., multivariate homog., convergence 20592
QR decomp. method of least sq., neural network algms. 33153
QR-decomp. based adaptive bilinear lattice algms. *(Korean)* 37876
quasi-Gauss-Newton methods for nonlin. problems, convergence 28679
random branching procs., entropies, convergence results 40539
range arith., precise optim. 11954
rect. antenna cavity, dominant mode waveguide loaded slots array 2348
rect. top horn offset coaxial transm. line, sphere-TEM mode 9154
recursive const. modulus algm. for real-time array proc. 8352
recursive CR bounds, alg./stat. accel. 41321
reflector antennas, surface error meas. by phase retrieval holography *(Japanese)* 15647
regularized continuous method of second-order gradient projection 11950
resistive strip gratings on dielec. slab 23541
reson. cavities, design, multilevel methods 15569
RLS algm. based on var. characts. of room impulse response 32749
saturating/hysteretic inductor nonlin. cct. anal. by harmonic-bal. tech. 37610
scalar sig. separation, decorrelation 32697
second-/higher order stats., adaptive blind equalization 15890
semicoercive variational inequalities, approx., error/estim. 11955
seq./parallel image restoration, neural network appl. 2729
Shannon lower bound, asymptotic tightness 23998
shape from shading, convergent algms. and uniqueness results 24624
sig. reconstruction from unevenly spaced sampled data, iter. methods 24304
single proc. array for pipelining multiple SVD 32459
sinusoidal param. estim., real time cascade adaptive notch filter 2524
solid finite elements devel. 280
source coding theorem, convergence rates, quantizer design 24028
source separation with noisy obs., noise cancellation 40862
space commun. adaptive arrays, 2D wavelets/filterbanks appl. 9408
sparse-tap adaptive FIR filters, multiple echoes, fast convergence algm. 32693
spatial microstrip dyadic Green's fn., radial and asymptotic closed form representation 40450
spherical subspace updating, asymptotic anal. 8305
Steiglitz-McBride method, convergence/convergence point/convergence rate 32770
stochastic approx. algm., normalized, time-shift param. *(Japanese)* 11960
stochastic CFG, sentence recogn. 32367
stochastic event graph, iter. algm. for perform. eval. 5750
stochastic gradient adaptive filters, partial updating 24267
stochastic particle method for Kolmogorov eqn. with variable coeffs., rate of convergence 275
struct. rank deficient matrices, struct. total LS problem 2482
subband adaptive digital filter, perform. anal./appls. 40779
superconvergence, finite element solns. 20636
superimposed exponential sigs. estim. methods 2530
surface interpolation, fast, using multi-resoln. wavelet transform 28655
thin conducting plate problem, biconjugate gradient FFT method appl. 40289
three-phase load flow algm., decoupling-compensation Newton type *(Chinese)* 43603
time const.-based variable LMS algms. for adaptive filtering 8466
time varying step size normalized LMS echo canceler algm. 32603
time-freq. conc. sigs., wavelet representation 24254
time-varying filter banks and multiwavelets 24260
transform-domain adaptive filters, anal. method 32551
transform-domain split-path adaptive filter, convergence optimality 32760
transient 2D eddy current problem, domain decomp. 23511
transm. lines with arbitrary nonlin. loads, time-domain anal. 40393
transverse ground-plane slot in boxed-stripline, radiation effic. optim. 2345
TRASIM, 2D transient simulator for planar semicond. devices 38778
tropos. EM wave propag. eqn., soln., box method 40350
two-level multiobjective decision making, interactive algm. *(Chinese)* 79
uniform current cylindrical dipole antenna vector pot. and elec fields 23877
universal coding, param. estimators, convergence rates bounds 32143
universal motors, commutation characts. anal. 36189
variable local relax. tech. in nonlin. mag. problems 40197
vertical antenna penetrating dielec. half-space, complex image soln. 31921
VLSI bipolar cct. simul. techs. based on waveform relax. 38998

convergence of numerical methods continued
Walsh transform. for speech echo interf. suppression 24159
wavelet transform adaptive filtering 32524
weak/very weak Bernoulli procs., waiting time results 40537
Weierstrass formula and zero-finding methods 20581
Zincenko's iter., improved, posteriori error bounds 243

conversion electron spectra
Fe-silicides, depth-selective conversion electron Mossbauer spectrometry 38677

convertors
see also analogue-digital conversion; code convertors; digital-analogue conversion; direct energy conversion; driver circuits; frequency convertors; image convertors; impedance convertors; invertors; magnetohydrodynamic convertors; phase convertors; power convertors; solar absorber-convertors; voltage-frequency convertors
80 Msamples/s BiCMOS flash ADC 29325
analog opt. converter modules *(Japanese)* 25511
car engine fan, digitally controlled induction motor 27719
closed-loop switching cct., convolution integral, steady state anal. 12674
CMOS differential voltage-to-current converter 21467
current-freq. converter, integrator discharge anal. 37904
DC-DC convertor optimum control 36308
displacement-freq. converter for μP dimens. meas./monitoring 3769
exponential hold cct., fast AD convertors 29322
FET, output pulse, parasitic bipolar transistor effect 1434
high-speed current-mode A/D converter *(Korean)* 21390
I/V converter, thermally regulated, using Peltier heat pumps 18023
input filter design optimisation for low loss matrix converter 893
low power TTL-to-CMOS converter design *(Korean)* 29103
macromodelling series-reson. convertor ccts. 21469
multirate converters, signed-digit-based multiplier-free realizations 40807
power semicond. syst. simul., educational tool 30200
protocol half-converters derivation, formal approach 16477

convex programming
branch and bound algm. for integer quadratic knapsack problems 28638
convex quadratic semi-infinite prog. problems 11942
entropy optim. models, convex constraints 20564
finite wordlength digital filters/controllers, optim. realisations 37883
general convex programs, stabil. under Slater's condition and primal soln. boundedness 37277
geom. convergence of general iter. methods applied, nonunique solvable convex problems 20589
IC design centering, convex polytope approx. 474
IC interconnect design, convex optim. 30149
linesearch method for quadratically constrained convex prog. 220
product range spaces, sensitive sampling, and derandomization 5762
value fn. in convex parametric prog. 236

conveyors
bulk produce conveyors, drop dists., manual/electronic control 3803
electrostatic chucks for semicond. IC prod. equipt. 2186
golf car arc welding modernisation project, USA 5400
mass-prod. instrums., metrological charact. monitoring 119
steel mfg. integrated prod. IS, Japan *(Japanese)* 3212
wave-soldered SM solder joints, size/shape prediction, model 38122
weighing feeder retrofits/upgrades 3996

convolution
see also acoustic convolution
2-D circ. convolutions/no. theoretic transforms, fast algms. 40803
2D generalised Hartley transforms, fast computation 32631
2D polynomial RNS 15981
acoustic wave/diode convolver, improved surface *(Chinese)* 14084
AICE-CRT/DSP algms. 32675
ARC-network design with op amp, parametric optim. subsystems 28982
audio sig. compression, circ. wavelet packets 32525
AVIRIS calib. of Japanese Earth Resources Satellite-1 opt. sens. 17959
causal lin. systs., transient anal., microwave freqs. 21082
closed-loop switching cct., convolution integral, steady state anal. 12674
complex cyclotomic polynomials for cyclic convolution 8307
coupled transient simul. of ccts. and 3D packaging, algos. 21070
depth-from-defocus, camera aperture change, spatial domain 2753
DHTs, generalised running and real-time analysers 29394
digital opt. matrix-vector multiplication realization 22976
discrete convolution algm. develop., parallel-decomp. algm. appl. 32632
discrete convolution by forward/backward modeling, comments 40822
edge detect., convolution, FT, maths courses 8600
fast algms. for matrix multiplication, no. theoretic transforms 20605
Fermat no. transform, algm.-based fault tolerant array archit. 32498
FFT multiple half-screen diffr. model for cellular commun. 3417
fiber-optic array alg. opt. computer proc. archits. 22978
fractional Fourier domains, convolution and filtering 32978
functional sig. transforms without multiplication operations 8268
gate array chip, HF DSP appls. 12576
generalized and partial FFT 284
hall electroacoustic syst. response 3692
high speed interconnects, simul., packaging simulator 20438
high-speed cubic convolution, charact. of interpolation fn. *(Japanese)* 8254
IIR dispersive channels, min. Euclidean dist. of modulated sigs. 15709
image filtering, fast implement. 41360
LCRG nonuniform transm. line, sig. restoration 2278
LMS adaptive filtering algm. 8330
long data stream convolution, opt. implement. 1762
multiconductor CPW transm. lines, [C] and [L] matrices computation 12791
multiple-obj. recogn., optoelectronic morph. scheme 8596
multiscale Wiener filter, fractal sigs. restoration 2470
multispectral image sharpening, spatial freq. models 16264
near-sens. image proc. 2725
NET32K high speed image understanding syst. 34429
neural syst. for high-speed pattern recogn. and image anal. 29473
one- and two-level filter-bank convolvers 24300
opt. cellular neural network, contrast enhancement 794
opt. pattern recogn., random PM techs. 32943
parallel image proc. appls. on network of workstations 24410
power quality, real-valued fast convolution algm. perform. 35606
PRISM-3 real time image matching syst. 8549
products, smooth refinable fns./wavelets 24165
pulse radar, range sidelobe suppression by locally weighted filter *(Japanese)* 42490
Rader's algm., recursive extensions, no.-theoretic transforms 28705

convolution continued
radiowave propag. problems, horiz. parab. eqn. soln. 23642
random vibr. control algm. 25979
real-valued decimation-in-time/decimation-in-freq. algms. 8437
regions matching specified chromatic features, detect. 32910
scan line array proc., image proc. algms. 16292
semi-anal. recursive algms. for convolution calcs. 37870
semiconds., multicrystal X-ray rocking curve simul., convolution 18416
separable transform for image proc. 32974
SISO feedback control ident., lin. PWM block pulse fns. 24008
space-time compression for convoluting systs. diagnosis 32107
Spirit III radiometer, scanned image constr. via optimal interpolation 24511
stochastic algm. for parametric/non-parametric estim. 40859
straight-line feature enhancement, rot.-kernel min-max algorithms 24488
strip-map SAR autofocus, approach 25550
subband image coding, watershed/watercourse lines of wavelet transform 2727
SWEC, stepwise equiv. conductance, MOS VLSI simul. 13899
target HF ultrawideband radar sig. response, PO computation 34127
texture anal., center-symmetric autocorrelation 24370
underwater commun./sonar, filtering, transform 8320
VLSI array design for DHT, cyclic convolution 29191
Volterra models, stochastic, Kalman-Bucy filtering 20505
wavelet-based subband decomp., multichannel image restoration 2731

convolutional codes
2D convolutional codes, duality anal. 32136
ARQ scheme, convolutional coded for moderately time-varying channels 40583
best convolutional codes search on basis of wt. distrib. 8114
binary block codes, scarce-state-transit. error-trellis decoding 40705
binary partial-response channels, concatenated coding 15753
binary symmetric channel, zero-temp. error-correcting code 15737
catastrophic convolutional encoders, determ. 32133
CDMA cellular systs., bandwidth efficiency 17085
CDMA cellular systs., concatenated RS/convolutional coding 9358
CDMA mobile radio syst., turbo-codes appl. 9239
CDMA multirate radio interface implement. 42192
CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
Cedervall-Johannesson algm. for computing dist. spectrum of convolutional codes *(Japanese)* 40623
coded direct-seq. systs., rake reception, multipath fading 33905
coded modulation, error probab., upper bounds calc. 15748
concatenated codes, convolutional inner/outer codes 8144
concatenated codes, inner convolutional codes 15729
concatenated coding scheme for dicode channel 8111
connectivity based table-driven decoder 40668
consecutive full-response 4-CPFSK trellis coding 40587
constrained joint source/channel coder design 15719
cyclic convolutional self-orthogonal codes, combinat. constr. 32135
DECT unequal error protected p×8 kbit/s video transm. 8850
diffuse codes, min. guard space 32137
digital cellular syst., channel/speech coding combination 8192
DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
DS-CDMA radio commun., low rate coding methods 25249
DS-SSMA syst. based on $\pi/4$ DQPSK and convolutional coding 25369
DS/CDMA diversity combining, convolutional encoding/Viterbi decoding 9380
dyn. syst. point of view 40662
fast seq. decoding algm. based on dyn. searching strategy 2376
feedforward convolutional encoders, expansion property 32134
GSM adaptive type-II hybrid ARQ/FEC protocol 3445
high rate, class., theory 40671
high-rate orthogonalizable convolutional codes 40632
HMM for blind channel charactn. and data detect. 40943
hybrid-ARQ scheme, convolutional code and Viterbi decoding 32099
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
joint source/channel coder design 40589
locally invertible rate-1/n convolutional encoders 32132
Markovian tech., exact perform. calc. 32055
matched filter derived and code-assisted bit sync. 41392
min. error-trellises constr. 32129
min. generator matrices, counting 32131
mobile commun., variable rate speech/channel coding 9222
mobile radio commun., speech/channel coding 3346
multi-beam mobile satellite commun., Viterbi decoding 25307
multidimensional 6PSK trellis code design 40585
multilevel-coded quaternary partial-response sigs., soft-decision multistage decoding 8174
opt. direct-detect. channel, coded multi-pulse PPM perform. 8170
opt. heterodyne PPM, convolutional coding 9474
orthogonal convolutional codes, CCI cancellation 25242
P^2 codes, pragmatic trellis codes utilizing punctured convolutional codes 32114
parallel concatenated recursive systematic (turbo) codes 32105
phase modulated FCMA syst. convolutional coding 25462
phase tracking Viterbi demodulator *(Japanese)* 24176
photonic SONET fund. frame structs. 42362
rate-compatible punctured convolutional codes for Viterbi decoding 15765
rational convolutional encoding matrices, predictable degree property 32130
Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
reduced-search decoder, storage requirements, optim. algm. 40672
RFI, noninterleaved Viterbi decoder, importance sampling anal. 15966
Rician-fading channels, convolutional codes, finite interleaving depth 33911
scarce state transit. Viterbi decoder, nonsystematic convolutional codes *(Japanese)* 32072
self-dual codes, convolutional encoding 32128
self-orthogonal convolutional codes, small dist. 15734
seq. decoding, pairwise error probab. 32115
single-chip Viterbi decoder for binary convolutional code 40582
slow fading channel bandwidth-efficient coded freq. diversity 32086
slowly time-varying commun. channels, adaptive hybrid ARQ scheme 15782
soft output Viterbi algm., turbo-codes decoding 40666
soft-output Viterbi decoder archit. 40590
spectral efficiency in future commun. 17116
sub-optimum receiver, convolutional codes optim. 42170
systematic TCM in coded modulation 8093
tailbiting convolutional code decoding, circ. Viterbi algm. 32085
TCM sig. design for class-A impulsive noise channel 40569

convolutional codes continued
TDMA indoor wireless cellular systs., punctured convolutional codes, optimal coding 33872
telecomms. syst., forward error control, simul. techs. 42450
time-varying errors/Kalman error-correction for fault tolerance 40664
trans-oceanic opt. systs., forward error control 42449
trellis path uniqueness codes, digital data commun. appl. 15797
trellis shaping schemes bandlimited PSK-sig. envelope control 8095
turbo codes, interleaver design 8110
turbo-codes, parallel concatenated coding schemes, perform. eval. 24025
turbo-codes interleaver for trellis termination in same state 15762
type-II hybrid SR ARQ, punctured convolutional coding 15780
unit memory codes, bounded min. dist. decoding 32067
variable-redundancy hybrid ARQ, invertible convolutional codes 17055
Viterbi decoder, state metrics, num. range reduction 40670
Viterbi decoder implement., prog. act. memories 32088
Viterbi decoding 40669
Viterbi decoding burst error statistics HMM 40592

coolant-fuel interactions
see also fuel element failure
PWR fuel assemblies, transient void fraction meas. 19427

cooling
see also low-temperature production; magnetic cooling; quenching (thermal); refrigeration; supercooling; undercooling
2-stage Stirling cycle cryogenic cooler, IR detector cooling 28037
2D heat transfer in semicond. device modules on PCBs, num. prediction 37070
6 MW GTO locomotive power convertor, insulation/corros. tests 36352
7 kW three-phase soft-switched telecom. rectifier 19799
10.6 kW air-source heat pump, defrost cycle perform. tests 20146
10 kW DC/DC PWM ZVS bipolar SIT-based power converter 19830
48 V, 200 A high dens. rectifier, PF correction 19864
110 kV forcibly cooled and HTS power cable comparison *(German)* 27211
120 kW coaxial winding transformer, elec. vehicle appls. 20103
acoustic transducer for undersea use, piezoelec., cooling 18885
air jet impingement cooling of simulated MCM 37087
air-cooling fan, async. motor drive, quasi-freq. control 28177
aircraft avionics cooling, microchannel heat sink 26542
anisotropic thermoelec. cooler, generalized theory 44422
Army ground-mobile electronic systs., energy mgt. 18968
ATM cross-connect archit., expandability and non-blocking 3295
ATM switching MCMs, heat-pipe cooling technol. 25183
ATM switching syst. hardware based on Cu-polyimide MCM, 320 Gb/s 16973
ATPG for heat dissipation minimization, test appl. 6856
bank computing centre support syst. reliab. anal. 11871
binary fluid mixtures, pool boiling crit. heat flux on surface 37127
blocks, heated, flow and heat transfer from an array, computational/expt. results 37069
BTPFL-C2 immersion-cooled electronic clamshell module, aircraft avionics 4432
CELSIUS electron cooler, design, constr. 34791
CELSIUS electron cooling syst., collector efficiency 34793
cement plant, clinker, ventless grate coolers 5422
cement plant design for stringent environ. stds 5427
centrifugal chiller refrigerants, Montreal Protocol compliance 20149
CFD thermal CAD technol. for electronic packaging thermal mgt. 11787
CHP steam turbines, efficiency, steam flow rates 36002
CMOS μP, energy-efficient instruction set archit. 12566
CMOS μP design, energy-efficient 12565
combat vehicle EM weapon syst. integrat. design 18961
combined cycle gas turbine systs., math. modelling studies 36023
combined cycle power plants, cooling syst. design economics, UK 27596
commercial building cooling energy use, ANN modelling 36635
commercial building envelope loads, elec. use simul., Hong Kong 36794
commun. centres, air conditioning installations overview 20143
computational fluid dyn. thermal modelling for workstation design 11702
computer convective cooling, flow resist. model 37071
computer syst. enclosures, CFD tool for syst.-level thermal simul. 5630
condensation inert heating mass reflow soldering systs., challenges 38162
conference on beam cooling, Montreux, Switzerland (Oct. 1993) 20271
conjug. heat transfer, convectively cooled discrete heat source, conductive substr., BEM 28475
convective heat transfer from PCBs, num. anal. interface, GUI appls. 12891
core materials for SMT appls., engng. props. 21645
Cyclotron Maser Cooling, Liouville's theorem 34776
digital ICs, power-reduction schemes 21168
discrete surface source with substr. heat sink, conjug. heat transfer 37123
distributed power modules, decentralized systs., telecom. appl. 19816
domestic heating syst. thermionic converter design 28176
dry turbo vac. pump appl., semicond. mfg. procs. 22204
edge-cooled MCM, heat removal, substrs. comparison 21770
elec. multiple units, 3-level IGBT traction inverter 5361
electron beams, radiative laser cooling syst. 43022
electron cooling, mol. dyn. simul. 34792
electron cooling devices, secondary electron current loss 10087
electronic enclosures, thermal mgt. and design , software simul. tool 28445
electronic equipt. cooling fans, air vel. problems 20139
electronic equipt./systs., thermal mgt./engng. 5586
electronic switching telephone exchange air flow meas., France 20142
electronic systs., enhanced convective cooling, surface roughness 37085
electronics cooling, adiabatic heat transfer coeff. on cube faces 37122
electronics cooling field, heat transfer decoupling 11761
electrons, opt. stochastic cooling, transit-time method 4047
enclosure losses in high power systs., elec. arc furnace appls. 20128
endoreversible Carnot refrigerator, specific cooling load 28182
ES9000 multi-chip hybrid package, proc. modelling/design techs. 29716
ESR storage ring, GSI, fragment beam stochastic precooling 34779
extruded heat sinks, natural-convection cooling, convective thermal resist. 37104
fan-cooled power systs., telecom appls. 19837
Fermilab Tevatron collider, bunched beam stochastic cooling 34777
finned LSI packages, thermal resist., num. simul. 37106
flip-chip package, high-power, cooling 28498
forced convection cooling, electronic components, heat sink effects, num. study 37097
free-ion lasers, radiative ion cooling 7694
free-ion lasers, radiative ion cooling 39929
fuel cell, DC interconnection converter, input current control 44345

cooling continued
gas turbine CHP, turbine cooling, part load control 36017
gas turbine intake air cooling, absorpt. chiller-based 27567
gas turbines, ceramic components, intercooling, recuperation 43918
GTO-thyristor, nonplanar, thermal runaway, 2D simul. 22392
Heat Pac PCM thermal storage, telecom. equipt. rooms 44430
heat pipe heat sink thermal resist., fn. of length 37145
heat pipe wick, rectangular groove, rewet perform. 11891
heated blocks array in rect. channel, simul. of convective heat transfer 37083
HF transformers/inductors, naturally cooled, design, noniterative method 12851
HI, opt. stochastic cooling, transit-time method 4047
high flux MCM config., liq. immersion cooling systs., substr. thickness 37103
high power e-beam induced switching in diamond 36447
high T_c DC SQUID magnetometers, closed-cycle gas flow cooling syst. 34435
high-power devices, flexible-heat-pipe cooling 11781
high-power flip-chip multi-chip modules, backside cooling soln. 11789
high-speed MCM ATM switching syst. hardware technols. 25191
horiz. rect. duct for packaging of two PWBs, cooling by laminar airflow 37101
HVDC thyristor valves, water cooling 5032
hyper-cooled 6-phase sync. generator, pulsed load 36120
hysteresis machines, high T_c supercond. rotor 10976
IC plastic packages, thermal enhancement 28470
immersion-cooled std. electronic clamshell module, high-flux avionic systs. 37102
impingement cooling fins, improved heat-transfer rates for electronic devices 37099
impingement heat sink, flow and heat transfer, num. prediction 37107
impregnated cathode, emission materials, develop., reliab. tests *(Japanese)* 6472
induction motors, speed control, low-noise compact inverter *(Japanese)* 11016
inserted film resistors, future prospects 21582
integrable power semicond. devices, heat dissipation 21121
integrated IR sens. design, computer-aided trade-off study 3838
interstitial laser heating, large vessel cooling 26464
ion beams, transverse laser cooling in storage ring 18266
IR photodetector cooling by opt. immersion lens 3833
IVS, integrated vol. visualization syst. for electronic package cooling 37092
Josephson jn. IC opt. input/output interface syst. 1625
laser mirror jitter, overview of theoretical/expt. work 39999
laser-cooled ion beam, anom. Schottky sigs. 18251
LEAR, electron cooling, variable current electron gun 34784
LEAR electron cooler, servo-syst., neutralisation 34785
liq. cooling module, heat transfer design 37124
liq. immersion cooled Si MCM, substr. thickness optim. 20440
long. fin heat sink perform., flow bypass effect 148
long. fin heat sink perform. in arrays of low-profile electronic packages 37098
low-bandgap thermophotovoltaic system design 20003
low-power IC design, power conscious CAD tools and methodologies 38970
LSI electronic packages, cooling enhancement by modified barriers 37086
LSI packages with long. fins in free air stream, heat transfer 37096
manifold cooling, supercritical H_2, flowdown 11782
MBE growth, calib. drift, source flange cooling 12095
MCM, 3-D, liq. cooling, miniature heat sink 29733
MCM, immersion cooling by pool boiling of FC-86 38193
MCM, thermally conducting adhesives, thermo-mech. study 28496
MCM burn-in experience 21699
MCM technol. selection for thermal perform., FEA 21761
MCM thermal anal., iter. direct soln. method 11768
MCM-L in APACHIP, European Cooperative Program 21745
MCT, active cooling, Venturi flow 13668
metals indust., elec. equipt. rooms ventilation 20164
micro-stack IGBT, 2.5 kV, 100 A, reliable design 30325
microchannel cooling passages in a chip substr., fluid flow and heat transfer 37088
microwave amplifiers, cooling, supercritical hydrogen 12774
microwave oscillators, high-Q temp. stabilized sapphire resonators 30623
mixed convection cooling of electronic components in open ended channels 37100
mixed convection from simulated electronic components, posn. effects 11763
MOS struct., interface state dens., postoxidation cooling 22057
MQW opt. amps., pump probe meas. and carrier overflow effects anal. 14954
multi-zone cooling systs. with storage, efficient operation 20148
muon collider, stochastic cooling 34781
muon colliders, stochastic cooling 34780
μP thermal design, simul. and phys. models 12571
natural convection from vert. parallel plates array 20432
offset fins, heat transfer and press. drop 37084
opt. solar reflectors, low absorptivity, environ. stabil., spacecraft charging 18690
parallel plate stack, free stream cooling 11754
partially porous channel, localized heat sources, forced convection 37125
PCB convective cooling, conjug. heat transfer, boundary element formulation 12896
PCB cooling optim., reflow soldering in N_2-O_2 atmos. 38156
PCB substr. cond. effects, electronic components, convective cooling 909
Pentium proc. package, thermal modelling, reliable operation 12575
physiochemical expt. dyn. controller develop. 34727
planar spreaders with finned heat sinks, optimal sizing 37105
power bipolar transistor elec. props., temp. influence 30254
power IC packaging, thermal mgt. 37120
protons, opt. stochastic cooling, transit-time method 4047
pumps, DIAPO diagnostic expert syst., domain models 19585
QFP family, thermal perform. limits, finite difference based software 5631
QFP PowerQuad2, 28×28 mm, thermal perform. 11788
railgun, seq. fired, thermal loading, heat removal 15271
RAMO telecomms. environ. equipt. mgt. network 19870
regenerative gas turbine cycle, water enhanced, perform. calcs. 19524
residential heat pumps, improper refrigerant charging expts. 28187
RHIC, stochastic cooling, intra-beam scatt. 34778
RTP furnace, 3D temp. uniformity model 22231
shallow horiz. air layers encountered in electronic cooling, natural convection 37095
single-phase submerged-jet impingement cooling for electronic components 151
single-screw compressor perform., computer-based anal. tools 44611

cooling continued
small planar packaging syst., card on board, high-dens. ATM switching systs. 28459
Sofradir flat struct. longwave IRFPA, Joule-Thomson cooler 11777
solar heating forced water cooling syst., PV array/solar collectors 20023
solder joint failure, thermal cycling fatigue, crit. accumulated strain energy 120
solid state relay design model, thermal effects 38063
solid-state lasers, liq. cooling agents and opt. filters 14825
space power liq. metal thermoelec. generator thermodyn. 26554
Space Station Freedom Maint. Workstation, thermal control syst. 18691
space vehicle avionics upgrades, thermal design challenges 43429
spindle motor heat generation, thermal anal. studies *(Japanese)* 10924
SS-1 supercomputer cooling syst., 3D packaging config. 136
SS-1 supercomputer storage card design, packaging challenges 144
steam turbines, generators, on-line monitoring 36005
StratEdge ceramic packaging for microwave and MM-wave appls. 23984
stretched power transformer windings, short-cct. perform. calcs. 19688
supercond. coil, forced flow cooled, quench propag. *(Japanese)* 7252
supercond. magnet winding struct., conductor cryostability 7250
switches, free-standing air conditioning units *(French)* 20138
tall enclosures with flush-mounted heat sources, convective flow and heat transfer 37094
tape carrier package, thermal charactn. 28471
tape carrier package, thermal charactn., PCB enhancements 11798
telecom. equipt. PAFC CHP syst., adsorpt. refrigerator-based cooling 41622
telecomms. switch room cooling, natural convection-based 20140
telecomms. syst. air conditioning, PAFC heat dissipation-based 20137
telephone exchange air conditioning units, air flow studies 20141
thermal detectors, theoretically limited temp. sensitivity 17793
thermal power plants, optimisation, init. inform. uncertainty 19491
thermo-optic planar waveguide, temp. profile anal. 1710
three-by-three array of protrusions cooled by liq. immersion, substr. thermal cond. 37093
three-phase power transformer constr. and charactn. *(German)* 11103
through-substr. cooling of high power IC packages for avionics 37091
TIPACS temp.-initiated pass. cooling syst., perform., appls. 28181
TSR operation, close, transit. energy, strong cooling 34843
TSR storage ring, $^7Li^+$ ion cooling, laser bunching 34794
turbogenerators, rotor hydrogen cooling, temp. distrib., clogged vents *(Chinese)* 43999
turbogenerators, stator bar water cooling, fault diagnosis, model-based 27671
two-phase electronic cooling, mini-channel/micro-channel heat sinks 11758
two-phase electronic cooling, mini-channel/micro-channel heat sink geom. 11759
two-phase electronic cooling using mini-channel/micro-channel heat sinks, design 37089
two-phase electronic cooling using mini-channel/micro-channel heat sinks, flow rate 37090
two-phase thermosyphon cooling of array of discrete heat sources in rect. cavity 37108
ultra-short X-ray pulses generation in electron storage ring 43168
unshrouded pin fin heat sinks, pin fin dens. effect on thermal perform. 11760
US housing indust., energy efficiency barriers 28203
vert. channel, protruding heat sources, 3D convective cooling 37126
vibrs. of piezoelec. body, thermal dissipation effect 30609
AlGaInAs-InP strained layer QW lasers in FITL 7684
Ar air-cooled 75 mW laser develop. *(Japanese)* 7511
Ar+water-cooled low-cost ion laser *(Japanese)* 7512
Bi-Sr-Ca-Cu-O/Ag 2212 supercond. magnet, RT bore of 45 mm diam., 20 K 30803
C-C composites, thermally conductive/CTE tailorable, MCM/PCB packaging 37146
CO fast-flow coaxial laser, output power *(Chinese)* 39663
$Cr:LiSAF_6$ slab laser perform. 31294
CuMn spin glasses, cooling/ageing, field depend. suscept. 6933
GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805
GaAs power devices, heat transfer, flip chip technol. 30378
H_2/F_2 pulsed chem. laser, temp. reduction effect 31191
HgCdTe IR CCD-based FPA, thermoelectrically cooled 17952
HgCdTe MWIR image sens., thermoelectrically cooled 17944
InGaAs high power quantum well diode laser, MOVPE fab. *(Korean)* 39803
Nd:YAG laser, diode-pumped, Q-switching study 31299
Pb-acid batt. pastes, mixing proc. study 36530
PtSi FPA-based Inframetrics InfraCAM thermal imaging camera 17955
PtSi middle wavelength 240×320 IR staring FPA 17954
Si:transition-metal silicides, CZ grown, precip. 5803
Si(111) for APS, bending magnet/insertion device, FEA 43149
$YBa_2Cu_3O_{7-x}$, Josephson jns., SQUIDs, cryo-refrigeration 1605

cooling towers
see also water supply
combined cycle power plants, cooling syst. design economics, UK 27596
legionella Code of Practice compliance, engng. aspects 5568
zero discharge wastewater treatment, power plant design 27536

Cooper Hewitt lamps *see mercury vapour lamps*

Cooper pairing *see Cooper pairs*

Cooper pairs
see also BCS theory; Josephson effect
mesoscopic 2DEG coupled to superconds., quasiparticle interf. 22747
supercond. single electron transistor in high impedance environ. 22748
NbTi multifilamentary wires, proximity-induced Cu-Mn matrices, upper crit. fields 30770

cooperative systems
AT&T's open cooperative computing archit. 41801
broadband network fair-efficient call admission control policies 41426
computational components for sync. cooperation on multimedia inform. 16871
data fusion, large multi-agent networks, struct./perform. 32802
dyn. environ., distributed problem solving systs. 27054
dyn. problems, cooperative search scheme 24851
elec. distrib. mgt., cooperative & intell. systs. 27063
intell. agents in multi-media systs. *(English)* 25125
MAVI, multi-agent syst. for visual integrat. 41114
mobile distributed telecomputing archit. requirements 16770
multiagent coord. decision-making, epistemic utility theory 11920
multimedia commun. distributed co-operative multiagent IN syst. 41976
obj. recogn., distributed cooperative vision syst. 41112

cooperative systems continued
  online machine learning, knowledge acquisition appl. 16611
  SNMP-based systs. mgt., fault detect./isolation 24903
  VLSI CAD, cooperative problem solving 492

cooperative work *see groupware*

copiers *see photocopying*

coplanar waveguides
  11 GHz folded slot antenna for planar quasi-opt. mixer 23909
  94 GHz integrated monopulse receiver 23968
  broadband CPW-coplanar strip-fed spiral antenna 15643
  C-band linearly tapered slot antenna on Si substr. 23908
  conductor and dielec. losses of transm. structs., calc. 15574
  coupled CPW, modal capacitances anal. 31888
  DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW 21556
  distributed baseband amp. IC module and MCM, 60 GHz bandwidth 6334
  full-wave anal. of coplanar strips 2295
  high speed MMICs/digital ICs, fab., T-gate technol. 858
  in-plane gate transistor integrated with photoconductive switches, ultrafast characts. 29555
  $\lambda_{g0}/4$ CPW-based bandpass filters, spurious response suppression 12721
  layered anisotropic media planar transm. lines, characts. anal. 23796
  linear tapered slot antenna with coplanar waveguide feed 23878
  meander transm. lines, slow-wave charact. 12698
  microstrip-slot and CPW-slot lines, optoelectronics appls. 12697
  MM-wave CPW, air-bridges, mode spectrum 800
  MM-wave monolithic ccts., appl. of coplanar elements 38013
  MMICs, T and cross sects., lumped elements 21560
  monolithic 250 GHz Schottky-diode receiver, slot antenna based 12813
  monolithic coplanar elements, cct. design, 67 GHz 12787
  monolithic MM wave IC, high speed opt. detectors 9534
  multiconductor CPW transm. lines, [C] and [L] matrices computation 12791
  multilayer high-T_c supercond. CPW, anal. 12691
  multistep discontinuity anal. 23776
  nonlin. transm. line CPW MMIC, design, modelling, fab. 12808
  optoelectronic waveguide gratings, light-induced microwave refl. coeff. 14483
  orthonormal wavelet expansions anal. of integrated mm-wave/sub-mm-wave waveguides 12809
  packaged CPW ccts., single mode operation 6278
  phase shifts in CPW, patterned conductive top covers 29524
  radiation from ang. and circ. bends 21509
  Schottky varactors, sidewall-etched, sub-mm-wave sampling cct. 38028
  shielded CPW resonator anal. *(Korean)* 21525
  strips on finitely thick substr., quasistatic params. calc. 23798
  THz all-electronic planar antennas 6279
  THz-bandwidth characts. of coplanar transm. lines on low permit. substrs. 12696
  triple coupled CPW lines, MMIC bandpass filter elements 6325
  ultra-short pulse propag. on complex planar structs., anal. 37961
  uniplanar CPW hybrid-ring couplers and magic-T's 12732
  V-shaped microshield CPW coupled lines 31868
  W-band high gain monolithic LNAs based on HEMTs 12818
  CdS film CPW, high-refl. 30 GHz grating struct. 29529
  GaAs CPW opt. illum. 3D full-wave anal. 23810
  GaAs MESFET CPW oscillators, supercond. resonator stabilization *(Chinese)* 37968
  GaAs broadband CPW SPDT PIN diode switch, 50 MHz-30 GHz 21557
  GaAs substrs., coplanar strip lines/waveguides, ultrashort elec. pulse generation 39562
  GaAs wide-bandwidth MSM photodiode, extrinsic freq. response 39570
  GaAs-Al_2O_3 flip chip modules, AuPd wire bump thermomechanical integrity 11824
  InGaAs/InP p-i-n waveguide photodetector, dyn. range 34069
  InGaAs-GaAs MODFET MIMIC amp., 5-80 GHz, CPW 38026
  $LiNbO_3$ high-speed electro-optic modulator, travelling wave electrode optimisation 1735
  $LiNbO_3$:Ti 75-GHz opt. CPW modulator 7359
  $LiNbO_3$:Ti electro-opt. modulator, CPW, optimum design 30997
  $LiNbO_3$:Ti guided-wave light modulators, filter-type electrodes 30987
  $LiNbO_3$:Ti opt. modulator, CPW characts., cross sectional deform. 7402
  $YBa_2Cu_3O_{7-\delta}$ thin films, microwave surface impedance determ. 25946
  $YBa_2Cu_3O_{7-x}$ HTSC coplanar microstrip transm. lines 12693
  $YBa_2Cu_3O_{7-x}$ grain boundary, CPW microwave mixer 6317
  YBaCuO/Ag coplanar lines, charactn. and EM modeling 37936
  $YBa_2Cu_3O_7SrTiO_3$ CPW, elec. controlled 803

copolymers *see polymer blends*

coprocessors
  address generation coprocessor, design and VLSI implement. 29302
  CMOS expandable sorting engine, rebound sorting algm., pipelining scheme 12559
  CMOS max. entropy coprocessor for computed tomography 29432
  fast defuzzification by adaptive integrat., hardware implement. 29284
  FPGAs, configurable DSP coprocessors 6177
  Intel μPs, total dose radiation testing 29305
  Kalman-filter-based measurand reconstruction architecture 25765
  MPEG-2 video data stream, real-time decompression chip 42047
  neural nets, special, coprocessors 29497
  neural network simulations, educational environment, DSP based acceleration 21472
  PGM crypto-chip, parallel permutation multiplier 29189
  QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
  Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
  recurrent computations, coprocessor design 37807
  scalable array proc. in SUN SPARCstation 1, perform. meas. 29252
  self-actuated mobile device for load carrying 35170
  self-timed floating point coprocessor prototyping, FPGAs 21288

copyright
  Australia, document delivery services, 1980-94 overview 33434
  intellectual property protection survey, Africa 36967
  multimedia, copyright law and inform. services 9059

Corbino effect
  see also Hall effect
  GaAs/AlGaAs multiple bridge devices in quantizing mag. fields, pot. distrib. 38291

CORDIC *see digital arithmetic; signal processing*

cordless telephone systems
  3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
  3D functional modules, SMD miniaturisation for portable telephones 5621
  864 to 868 MHz portable telephone indoor propag. loss anal. 33776
  BAR 63 and 80 series PIN diodes for antenna switches in mobile commun. 1334
  binary FSK direct conversion receivers 3463
  cellular pers. commun., handset antenna/human EM interact. 9343
  channel codec LSI for digital cordless telephones 25161
  CMOS/PLL LV synthesizer, SIMOX technol. *(Japanese)* 21152
  complex geom. indoor radio propag. ray-splitting model 31825
  compression techs. conserve EM spectrum space 3380
  corporate mobile commun. solns. 41725
  CT2 syst. for data services, perform. 3495
  CT2Plus based wireless PABX, traffic capacity perform. 9205
  DECT, adaptive antenna demonstrator, develop. 33852
  DECT, antenna diversity, practical considerations 17072
  DECT, multibearer connections syst., ARQ protocols perform. 17051
  DECT, rural/urban wireless local loop access 42273
  DECT channel error profiles 3123
  DECT data services 42251
  DECT for business commun. 42220
  DECT for commun. needs of small office/home office users 42221
  DECT for wireless local loop 42274
  DECT handover and channel mgt. schemes for indoor scenarios 8849
  DECT handset, low profile reson. slot antenna 23901
  DECT in radio local loop appl. 8852
  DECT in telepoint environ., dispersion-reduction techs. 3126
  DECT multibearer channels 3494
  DECT prod. test requirements and strategies *(German)* 42216
  DECT radio local loop appl., radio access, repeater 25434
  DECT solid state radio front end, perform. eval. 3468
  DECT syst., mobile audio-visual terminal 17118
  DECT systs., low time-dispersive channels, adaptive equalization 3498
  DECT technol. for radio in local loop 8853
  DECT technols. and pot. markets 41714
  DECT unequal error protected $p\times8$ kbit/s video transm. 8850
  DECT-PCS implement., archit. and perform. 8854
  DECT-type systs., non-coherent equaliser receiver struct. 8855
  digital cordless telephone terminals 25151
  digital-wireless commun., test equipt. selection 116
  DS-SS cordless telephone *(Japanese)* 25149
  dual mode GSM/DECT handset 25152
  echo suppression in digital commun. 16620
  EM field calcs., health effects 17035
  EURESCOM project 230, combined pers. and terminal mobility in IN environ. *(Italian, English)* 42291
  European mobile commun., future trends 17123
  European R&D activities in mobile multimedia commun. 9041
  fixed radio access for wireless subscriber connection *(German)* 33765
  France Telecom's Amarys range of telephones 25150
  freq. channel doubly-reused cellular systs. 17043
  GSM mobile telephones, type approval methods 16616
  high dens. SDMA, double freq. reuse 25421
  IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
  IN, pan-European, mobility effects, Eurescom project P230 41959
  IN-based approach for PCS service provision, PSTN infrastructures *(Italian, English)* 41963
  indoor cordless commun., teletraffic perform. 3488
  integrated rural subscriber access systs. for developing countries 25429
  iOX100 series PBX, digital cordless telephone syst. appl. 25186
  Japanese Personal Handy Phone/DECT, IF modulator, DDS 3465
  LAN environ. mobile computing 8990
  low bit-rate coded video transm., radio links 8633
  Mitsubishi Electric pers. handy-phone syst. PT-MDP *(Japanese)* 33896
  MLC dielec. stripline planar filter for portable telephones 805
  mobile data services, IEE Colloquium, London (1995) 28232
  narrowband microcellular speech transm. schemes 3332
  operators, head induced EM fields 35192
  PCS evol. 3352
  pers. digital cordless telephone syst. *(Japanese)* 17136
  pers. handy phone syst., telecomm. service enhancement 3115
  pers. handy phone syst. for public services network *(Japanese)* 33895
  pers. handy phone syst. portable station design for hand-over operation 42218
  pers. handy phone syst. terminal design for home 42217
  Philips DECT technol. for wireless local loop networks 42063
  $\pi/4$-shift QPSK baseband modulator for pers. handy phone syst., CMOS mixed-sig. IC 29078
  point-to-multipoint wireless telephone syst. trends *(German)* 33400
  Pointel portable phone, indoor environ., power loss models 9261
  pseudomorphic power HEMT, 2 V, cellular phone appl. 21551
  radio access network, evol. trends and economic considerations 41707
  radio in the local loop, economics and operation 42068
  RF design in mobile radio transceivers, IEE Colloquium, London (1994) 5483
  RF SAW filters for mobile telephones 37836
  routing, cct.-switched network with wireless subscribers, optimal FCL table *(Korean)* 41566
  rural telecomm. networks, integrated cordless access 9208
  SAW resonator filters for digital radio systs., review 37832
  Siemens DECT-prototype Gigaset 95x perform. indoors 9108
  sigma-delta codec for mobile telephone appls., design 3276
  syst. controller for mobile audio visual terminal 42275
  TDMA struct. DECT syst., data services 16621
  transmit antenna selection diversity, prediction 9304
  UMTS/FPLMTS, networks, users and terminals 3491
  wireless pers. commun., overview 17107
  AlGaAs/GaAs directly connected HBT UHF MMIC amp., high gain, portable cellular appl. 6326
  GaAs FET power amp. for digital cellular portable telephones, phase charact. 3358
  GaAs MESFET switch IC for handy phone 38024
  GaAs MESFET-based power module, optimum LV/high-efficiency design 11749
  GaAs MMIC LNA for wireless commun., ultralow noise 42235
  GaAs power MMIC for 1.9 GHz digital cordless phones 12823

cordless telephone systems continued
Si power MOSFET, UHF-band RF power amp. appl. 837

core levels
diamond nucleation and growth, SR studies 404
Pd/Si interface, interface react., silicide form., XPS obs. 29960
Pt/Si(111) interface and props. of thin Pt layers on Si 1166
Si(100) surface, thermal nitridation, Si 2p core-level shifts 13366

cores
see also magnetic cores; saturable core reactors
FET-switched induction accelerator cell 36410
planar inductors charactn., 1 MHz, large excitation 6379
ZVS forward multi-reson. converter, saturable core 12331

cornea *see eye*

corona
see also electric breakdown; flashover
3-phase power transm. lines, corona losses 19307
270 V DC aircraft components, corona testing 26594
500-1150 kV overhead lines, corona loss calc., probab. method *(Russian)* 27231
AC power line corona loss, charge simul. calc. method 19289
air gap flashover, charged droplets, lightning impulse voltage *(Japanese)* 35685
air gaps with artificial floating metals under DC voltage, breakdown characts. 35664
atmos.-press. pulsed-corona plasma appls. 38616
barbed plate-to-plate precipitator, elec. field/space charge, 3-D model 15249
bipolar dc corona, PIC simul., HVDC transm. lines 13978
charged dielec./metal thin films, peeling ESD 7901
compact 230 kV line, corona perform. 27221
crit. corona/avalanche threshold, nonuniform air-gaps 13976
direct corona imaging, dielec. transparency 6898
discharge-electron beam combustion FGD 19495
elec. machine stator insulation, corona activity studies 19586
elec. wind meas., opt. fiber interferometer 42830
ESPM, electrostatic precipitator model 7924
gas-discharge lasers, mag.-spiker excitation 1845
GIS charged conducting particles, motion meas. 11205
hazardous gas treatment, pulsed corona reactor 36814
HV elec. power apparatus monitoring by opt. fiber sens. *(Japanese)* 3859
HV transm. line, wide bandwidth corona model 27189
HV wire conductor, corona discharge, lumin., CT obs. *(Japanese)* 963
HVDC transm. line, bipolar ionised field, FEM 43735
HVDC transm. line, monopolar ionized field, ion diffusion 43736
HVDC transm. lines, twin conductors, DC corona anal. 4634
insulating materials, PD 1512
ion flow in 3D elec. field, charge dens. distrib. 31737
line conductors, elec. field meas., oscill. transients, static probe 4693
long pulse electron beams from cathode 21795
metal-oxide based gels, organically doped, nonlin. opt. props. 15091
motor/generator stator windings, in-service PD tests 36101
narrow pulsed corona discharge, FGD appl. 19496
overhead lines, corona effects anal., probab. method 10750
overhead power transm. lines, EM anal. 27233
PD and their effects on materials 22642
polymer ageing kinetics, elec. meas. 1515
polymer waveguides, electro-opt. appls. 14457
polypropylene, corona streamer degrad., humidity effect 1541
powder flow syst., pulse charge injection modelling 28887
power plant emissions control, pulsed corona discharge modulators 35998
power plant flue gas scrubbing, pulsed corona/electron beam technols. 35997
power transm. lines transient anal., method of charact. 27191
probing elec. discharges, opt. fibres 17828
pulse voltage generators eval. 44210
pulsed corona discharge ion cloud, motion modelling 7898
pulsed corona precipitator, charged aerosols modelling 15247
reduced-scale line modelling for hybrid corona 13984
reduced-scale two-conductor hybrid lines, corona tests 13985
skipping-sparks in discharges, dielec. surface 6897
transm. lines, corona, transients simul., method of characts. 19231
US diagnostic tech. for elec. machine insulation 14003
Ar, gaseous and liq., onset voltage for corona pulses high press. gas breakdown 30554
CO_2 large-vol. sub-atmos. pulsed laser, segmented ballasted electrodes 31168
CdS electrophotographic discharge, surface-depletion discharge model 22997
NH_3 removal from gases, semi-wet type plasma reactor 43534
NO removal from gases, semi-wet type plasma reactor 43534
NO_x removal from gases, semi-wet type plasma reactor 43534
NO_x removal rate, corona radical shower syst. 13977
O_3 generation, pulsed corona discharge, wire/cylinder apparatus 22657
SF_6 AC corona discharge, decomp. product gases meas. *(Japanese)* 22656
SF_6, asymmetrically perturbed gap, corona studies 13983
SF_6, leader discharges, UHF detect. 36479
SF_6, negative corona discharges 13981
SiO_2 charge/mobile ion conc. meas., MOS struct. 29964
XeCl laser pre-preionization, mag.-spiker sustainer 7532

corporate communication *see business communication*

corporate modelling
comparative cost simul. model, conventional/concurrent engng. 37034
high-technol. mfg., business cycle anal., USA 11673

correlation methods
see also acoustic correlation; correlators; optical correlation
RC calibration standards, multifreq. binary testing 25704
adaptive 3D DCT image coding, variable length coding scheme *(Korean)* 2826
adaptive arrays, dyn. syst. model/equiv. steering sig. 8253
adaptive beamformers based on cyclostationary sig. props. 8353
adaptive correl. based tracking algm. 16281
adaptive KL-transform coding of images based on variable block shapes 16132
adaptive multiuser detect., survey 24353
airport surface movements radar surveillance 43460
analog autocompensators, correl. feedback and direct calc. of weighting factor 32593
AR order selection methods, comparison 15977
AR proc., non-Gaussian source, Gaussian mixture dens. modeling 40835
auditory model inversion for sound separation 32383
auto-/cross-trispectra, computation/interp. 40994
auto-correl. polyphase seqs. of prime length 40545

correlation methods continued
autocorrelation method for high-quality time/pitch-scaling 15999
bal. nonbinary seqs., periodic correl. props. 32010
beamformers output powers var., coherent source model 24217
binary circ. harmonic fn. for rot. invariant digital pattern recogn. 24554
binary seqs. and arrays, optimum odd-autocorrelation *(German)* 8158
blind adaptive equalizers convergence, input data correl. 32738
blind channel estim./equalization, partial-response input sigs. 33162
block adaptive filter, interf. robust, correl. sig. input 32701
block-coded image recovery from channel errors 41094
BPSK modulated co-channel sigs. reception, dual sig. receiver 33886
C/A-code tracking differential GPS, category IIIB automatic landings 3638
carrier freq. error estim. of $\pi/4$ DQPSK transmitter sig. 8096
CDMA, chaotic Chebyshev bit seqs., even-/odd-correl. fns. 25262
CDMA commun. systs., subspace-based delay estim. 42166
CDMA decorrelating detector for antenna arrays 15954
CDMA demodulator, interf. robust, spectral correl. props. 3327
CDMA rapid acquisition schemes in multipath delay fading environ. 33208
CDMA systs., pre-decorrelating single user detect. 9238
cellular mobile radio systs., spectrum efficiency 17124
Chebyshev binary/bit seqs., correl. props. 40612
CMOS VLSI analogue sampled-data motion chip for visual motion detector 2845
code size, cross-correl., lower bounds 40609
CODSIM, simul. environ. for spreading codes 3325
coherent radar PSK sigs., complementary C-seqs. 17381
color images in RGB domain, lossless compression 24505
complex valued spreading seqs., crosscorrelation props. 32091
contactless velocimetry of vehicles, microwave speckles appl. 18105
contour fig., extraction 8646
coord. digital transm. 15861
correl. chip for stereo vision 41224
counterpropagation nets, rem. sens. class. appl. 43536
cpd. sig. modified recurrent search *(Russian)* 16051
cross-correl. neural network models 2490
CW radar, wt. effects on periodic ambiguity fn. 34115
data compression, context allocation 32125
data fusion, random-set approach 15960
data-adaptive evol. spectral estim. 24209
deconvolution regularization, SNR, stat. estim., multiscaling 40782
DFT, bivariate orthogonal white noise series synthesis 40817
digital pulse compression radar systs., polyphase spreading codes 25570
digitally FM sigs., modulation class., higher-order correl. 15698
discrete convolution algm. develop., parallel-decomp. algm. appl. 32632
discrete convolution by forward/backward modeling, comments 40822
distrib. ident. algm. appl., sig. detect. 8294
diversity combining, correl. slowly flat-fading Rayleigh channels 8374
DMSK digital packet sync., preamble design 9362
DOA estim., min.-norm method without eigendecomposition 40951
DOA estim. in unknown correl. noise, MUSIC and higher-order stats. 32481
DPCM image coding, correl. sources decoding 8615
DS-CDMA, Hadamard codewords, orthogonal spreading seqs. for mobile radio 33845
DS-CDMA low crosscorrel. seq. iterative constr. 41463
DS-CDMA mobile radio syst. using RAKE receiver, spreading codes 25437
DS-CDMA systs., hybrid acquisition schemes 9384
DS-SS communications, doubly selective fading channel, spreading seqs. 17016
DS-SS serial search, multiple-dwell code acquisition detector rules 32092
DS-SS systs., periodical seqs., Doppler mismatched filters 33752
DS-SSMA, unknown seq. estimator, near-far problem 25361
DS-SSMA commun. systs., approach 42167
DS-SSMA commun. systs., signature pairs 42181
DS-SSMA systs., aperiodic cross-correl. model 16461
DS-SSMA unslotted PRN 25257
DS/FFH SS commun. syst., multiple access interf. 25245
DSP-based image proc. syst., real time meas. of knee joint movement 26270
dyn. time-warp compensation for correl. of long seqs. 40944
E-seq. synthesis, ACF zero values in even shifts 40634
echo cancellation, voice commun., sig. proc. methods *(German)* 42048
EDTV-II helper sig., correl.-based visibility reduction method *(Japanese)* 34259
EHV lines fault location simul., DS-SS techs. 19356
estim. cyclic correl. matrices, asymptotic moments 24205
evol. max. entropy spectral anal. 40963
exponentially damped sinusoids, param. calc., third-order stat. 40863
fading channels, FEC perform. 32140
four-wire loop systs., correl. AR subscriber sigs., echo canceler perform. 25144
freq. hopping seqs., small cross-correl. 32109
FS1016 CELP coder, stochastic codebook, dyn. partial search 33702
functional sig. transforms without multiplication operations 8268
Galois rings, exponential sums, upper bound 40607
Gaussian sig., analytic generating fn., autocorrelation 32640
generalized URV subspace tracking LMS algm. 32757
GTEM, OATS radiated emissions correl. from 1-5 GHz 15512
GTEM for EM emission meas., test result correl. 15524
helicopter avionics, LAMPS MK III block II simul. 10344
Horton's law, appl., telecomms. networks *(Japanese)* 42061
HOS for blind channel estim. and deconvolution in colored noise 32457
hydrothermal power syst. reliab. assess., computer-based 26888
hyperspectral imagery compression, 3D DCT and hybrid DPCM/DCT 24384
IC defects, proc. induced/elec. act., ident. methodology 20469
image coding, directional ADPCM 24504
image line permutation coding/reconstruction *(Japanese)* 24403
image noise reduction, prior knowledge, constraint 16198
image proc., automatic multilevel thresholding 24702
impulse response meas. using sliding correl., dyn. range, self-noise 33155
induction motor EM procs. calcs., tensor methodology *(Russian)* 44055
interf. cancellation, min. redundancy array struct. 41048
ionos. irregularities study, HF channel 35308
iron rolling mill motor drive, random disturbance studies 11499
isolated utterance recogn. associative memory scheme 32423
K-out-of-M multiple-access channel, source correl. 32007
least sq. lattice filters, nonstationary chirp input, PARCOR 40831
LEO satellites, PN code acquisition schemes 33951
lin. block codes, soft-decision decoding 32093
lin. pulse motor mag. reluctance distrib., structural depend. anal. *(Japanese)* 44072

correlation methods continued

- live speech network assess., digital adaptive filter 40750
- LMS adaptive FIR filter dimens., learning rate 32756
- long. fin heat sink perform., flow bypass effect 148
- look-down radars, carrier-free sig. design 35388
- low bit rate speech coding, split residual VQ 32328
- LSI manufacturing yield, integrated database syst., cond. anal. 37040
- LV network short-cct. charact. quantities *(German)* 43734
- M-ary wideband commun. syst., multipath channels appl., perform. 17019
- m-MMBP charactn. of departure proc. of m-MMBP/Geo/1/K queue 33222
- MACE prefilter networks for ATR 16283
- macro-/micro-cellular radio systs., throughput perform. 9295
- mag. thin film media, transit. noise spectral meas. 7119
- McEliece's open problem on min. aperiodic correl. 40611
- mean-field theory and multitarget tracking 15869
- meteor shower detect. by radar 25623
- mobile flight test support 10316
- mobile sig. reception, stat. model 31833
- MOS transistors, carrier multiplication noise sources, low freqs., correl. meas. 1388
- MR image restoration, basis image priors effects 35026
- multichannel sig. detect. in correl. non-Gaussian random noise 8286
- multicomponent radar interf., adaptive suppression 34120
- multicovariance matched filter for target detect. and background recogn. 16107
- multidimensional block coded modulation perform. with time-correl. fading estim. 40549
- multiple auditory template matching, expansion 8381
- multiple model adaptive estimator target tracker, accel. models 32542
- multiplicative white stochastic proc., wavelet transform, stats. 32666
- multisensor target recogn. syst. (MUSTRS) 8558
- multispectral imagery, transform coding 24501
- noise reduction syst., voice activity detector influence 40752
- nonlin. mag. transit. shift, algm. for real time meas. 14235
- nonminimum phase channel deconvolution 2475
- nonnegative sigs., relax. procedure for phase retrieval 2472
- nonstationary random procs., second-order time-freq. synthesis 24289
- obj. recogn., neural network config. design 33032
- odd-perfect, almost binary correl. seqs. 32545
- opt. disc tracking adaptive learning control *(Japanese)* 14344
- opt. flow and discontinuities, determ., nonlin. diffusion 24625
- opt. orthogonal codes, unequal auto-/cross-correl. constraints 24089
- optimum detect. in dual-channel Gaussian data, localized interf. 15867
- partially adaptive array design, DOA estim. and null steering 23958
- partially adaptive beamforming for correl. interf. rejection 32558
- peak-holding navig. syst., obj. coord. correction 25604
- perfect periodic correl. seqs. 32116
- perturbed correl. method, effect on OCR 41362
- piecewise-planar representation of images, bit allocation 41177
- pitch detect. of speech sigs., segmented autocorrelation 32438
- polyphase seqs., periodic/aperiodic autocorrelations 40531
- power demand modelling considering meteorological factors 4608
- power syst. short-cct. power meas., probab. estim. 19374
- PR-QMF banks/ wavelets, stat. optim. 32707
- PRISM-3 real time image matching syst. 8549
- prog. blind adaptive spatial filtering 40917
- prog. canonical correl. anal. for blind adaptive spatial filtering 9167
- prog. high-rate PCM telemetry frame synchronizer *(Chinese)* 41748
- projections onto convex sets, damaged block transform coded images 33131
- pseudorandom patterns, low lin. depend./equi-distrib. 12465
- pseudorandom seqs., correl. property testing 32692
- q-ary interleaved seqs., theory/appls. 32051
- QAM signaling, Rician-fading diversity channels, error probab. 32040
- quasi-orthogonal cyclic codes of max. capacity, synthesis 32083
- quaternary CDMA syst. perform., code props. 33205
- quaternary seqs., low correl. 40608
- radar clutter, spatial correl., simul. 34135
- radar scan frame time maximization for tracking maneuvering target 17369
- radar target ident., bispectrum 34112
- railgun plasma armatures, dyn./struct. studies 15333
- Rayleigh fading mobile channel, direct-seq. code acquisition 17103
- rhythmic sig. stochastic recurrence period 2551
- Rician-fading channels, convolutional codes, finite interleaving depth 33911
- RITE algm., pipelined regular array proc. implement. 8370
- RLS algm., wt. misadjustment, input sig. correl. effect 40843
- road pricing, RF/vision syst. 42187
- robust backward adaptive pitch prediction for speech coder 32439
- RS coding, freq.-hop commun., correl. fading 17024
- run-length coded images, correl. fn./dist. calc. *(Japanese)* 41293
- scanned halftone images reconstruction, filters appl. 33129
- second order blind separation, asymptotic perform. 40961
- segmental SNR weighting, degraded word recogn. 32311
- self-similar procs., increments, sig. modeling 40930
- separable transform for image proc. 32974
- ship's screw cavitation recording, angle sampling control *(Croatian)* 3685
- side data anal. of DLTS spectra for multipoint correl. 42921
- sig. correl. matrix, array receivers phase delays estim. 32611
- sig. restoration, correl. accumulation 2522
- single and multi microphone noise cancellation, fast algm. 32484
- single-chip CCD colour video camera vert. false colour sig. reduction *(Japanese)* 17588
- solar RF emission anal., spectrometer methods and obs. *(German)* 25625
- source-controlled channel decoding 40667
- spectral anal., ML method based on correl. matrix lin. symm. 32574
- spectral estim. problem with gaps, max. entropy algm. 40996
- speech recogn., subband-autocorrelation anal. 32405
- speech recogn. in noisy car environ., OSALPC representation 32382
- SS commun. syst. without ref. sig. for freq.-selective fading channel *(Japanese)* 25206
- stereo image pairs and streams compression 32816
- subband adaptive digital filter, perform. anal./appls. 40779
- submarine, unmanned, obj. tracking, image proc. 24724
- suboptimum binary phase code search, genetic algm. 40577
- subspace-constrained SCORE algms. 8365
- sync. DS-SSMA, decorrelating decision-feedback detect. 42164
- target recogn., neural net based, MACE prefiltering 33048
- target tracking, effect of cross correl. on track-to-track fusion 18979
- texture anal., center-symmetric autocorrelation 24370
- threshold sources detect., prewhitening of colored noise fields 8293

correlation methods continued

- time-correl. method of calculating mag. recording nonlin., pseudorandom seqs. 7184
- time-domain scatt. sig. extraction, BP neural net *(Chinese)* 8657
- track-to-track fusion problems, scoring algms. 15920
- transform domain VQ for image and video compression 41095
- UN-MUSIC/UN-CLE, DOA in unknown noise, perform. anal. 32554
- vehicular traffic control, act./pass. IR sens. 11429
- visual inform. proc. syst. *(Japanese)* 2616
- vowel class. using neural predictive HMM, discriminative training 32432
- walking, cyclic motion detect./recogn. 16146
- wavelet domain bearing estim., unknown correl. noise 40926
- wavelet transform domain filters, noise filtration tech. 2726
- wide band indoor channel sounder, high delay resoln. 9178
- wideband array proc., two-sided correl. transform. 24303
- wireless appls., correl. lognormal sum distribs./outages 3413
- GaAs, current oscills., nonlin. dyn., time series anal. 29865
- $(K_xNa_{1-x})(Sr_yBa_{1-y})Nb_2O_6$:Cu, self-pump phase conjug., four-wave mixing 2063

correlation theory

see also correlators; information theory

- adaptive array covariance matrix eigenvalues rel. to mutual coupling 23973
- adaptive detect. of subpixel targets, unknown spectral charact. 16103
- adaptive lattice filter, convergence props. 15882
- adaptive prefiltering for blind equalization *(Japanese)* 40769
- almost-perfect autocorrelation seqs. 24002
- asynchronous packet transm. optimum frame sync. 41418
- ATM multiplexer traffic model for correl. periodic real-time and independ. batch Poisson traffic 41429
- ATM node buffer allocation algm. for correl. arrivals 41478
- ATM switch bursty and correl. mean delay and cell loss probab. 41410
- ATM traffic connection admission control, stream correl. effect 41428
- blind deconvolution of colored input sigs., criterion 8369
- blind syst. ident. from output autocorrel. 8085
- CDMA approx. synchronized syst. sig. design 24784
- CDMA fiber-optic LAN, opt. orthogonal codes, perform. 8969
- CDMA opt. fiber networks, syst. and sync. perform. anal. 17270
- cellular radio, correl. co-channel log-normal interferers 17047
- cellular radio, correl. log-normal random variables 3406
- Chebyshev binary/bit seqs., correl. fns., Perron-Frobenius operator 15745
- complex sig. correl. fns., inform. props. 15904
- cubic phase seqs. with low correl., CDMA 24777
- cyclic MUSIC method, direction estim. of cyclostationary sigs. 2476
- d-form seqs., families, low correl. values/large lin. spans 32053
- data transm. SVD-based fractionally=spaced equaliser perform. 42043
- DC3T, residual correl., transform gain, entropy, energy compression *(Chinese)* 28703
- decimation FFT algm. generalisation 37375
- delta-sigma modulators with zero mean stochastic inputs, anal. 37819
- digital mobile radio, adaptive arrays, fading correl. effect 3343
- Doppler radar IF spectrum, range correl. and LO phase noise effects 34140
- double-loop sigma-delta converter with sinusoidal input, quantization noise spectrum 710
- DS-CDMA mobile radio, sliding window decorrelation, anal. 25283
- extended m-seqs. and related seqs., auto- and cross-correl. 24125
- fast fading indoor radio channel characts. 33817
- fractional Brownian motion, extended self-similarity 8430
- freq. domain filtering for Gaussian seqs. generation 40978
- Fresnel approx., spectral transforms of broadband fields and correl. charact. 41200
- Gaussian sig., analytic generating fn., autocorrelation 32640
- higher order moment matrices invertibility 40812
- land mobile radio channel multipath excess delay, probab. dens. 3365
- lin. antenna stat. synthesis, random error param. effects *(Russian)* 15623
- lin. antenna stat. synthesis, sensitivity and stabil. *(Russian)* 15624
- mode-space spatial spectral estim. for circ. arrays 2560
- multiple cyclostationary sigs., power/timing param. estim. 40864
- multiple sigs. dyn. coord. reception in correl. noise 40880
- multistage ATM switch fabrics, approx. model 41443
- multivariate model fit checking, generalized Wishart-stat. variance 3707
- nonlin. FM sigs., spectral-correl. charact. 2573
- opt. CDMA with prime codes, perform. anal. 34073
- orthogonal nonlin. cyclic codes, double cyclic shifts, synthesis 15716
- OTH radar receiving array terrain compensation 25562
- p-ary seqs., odd-correl. distrib. approx. 24126
- plane wave diffr. anal. of complex interferograms 40124
- PWM generalised block pulse fns. 32638
- quasiorthogonal codes, inverse continuation 8108
- radar ionos. refr. angle meas. allowing for incidence flucts. *(Russian)* 17406
- reciprocal Gaussian random procs., model param. estim. 40824
- resilient fns. and orthogonal arrays, bounds 28618
- reverberation chamber fields, spatial correl. fn. 31697
- self-similar VBR video traffic, anal., modeling and generation 2883
- sinusoidal params. estim. in meas. noise by cross-spectral method 16026
- tracker correl. gate size optim. for maneuvering targets 18977
- travelling salesman problem, operators, correl. anal. 37273
- underwater acoustics, hybrid/polarity-coincidence correl. proc. 16062
- Weil exponential sums over Galois rings, upper bound 32057

correlators

see also correlation methods; correlation theory; information theory

- acousto-optic correlator for radar report-track assoc. 7423
- act. sonar, lin. FM waveforms detect. 9675
- autocorrelation in micropower analog CMOS 21462
- CDMA, imperfect power control, acquisition-based capacity estim. 25256
- differentially detected π/4-DQPSK syst. perform., AWGN/Rayleigh fading 40568
- DS-SS RAKE receiver, ASIC implement. 9191
- DS-SS serial search, multiple-dwell code acquisition detector rules 32092
- FFH-CDMA packet radio network, capacity 42142
- gate array chip, HF DSP appls. 12576
- hybrid analog/digital VLSI sig. proc., single bit modulators 12661
- microwave correl. temp. of isothermal lossy material 3966
- multiple target detect., fringe-adjusted joint transform correlator 16277
- multipurpose DSP ASIC for receiver implement. 683
- on-board satellite SS correlator 25469
- quadratic correl. archit. based single loop synthesizer and modulator 9176
- radar sig. proc., space/time integrat. acoustooptic archits. 7424
- second- and higher-order cyclostationary proc., acousto-optics 32455
- short-range 2D positioning by microwave cellular telemetry 3975

correlators continued
  time domain SS proc. syst., large TBP 25216
  wideband analog continuum correlator for radio astron. 17514
correlators, optical *see optical correlation*
corrosion
  see also corrosion fatigue; corrosion protection; corrosion testing; electrochemistry; stress corrosion cracking; surface chemistry
  200-660 MW steam power plant FGD scrubbers design 27545
  Al interconnect film etching, stat. optimisation 38696
  Diablo Canyon, condensate dissolved O_2 control, corros. transport 35868
  EM gun technol., Cu/Al component protection coatings 15331
  hybrid fibre/coaxial syst., power/backup power supply 44133
  LV aerial bundle cables, moisture ingress 35655
  neuromuscular stimulation electrodes, elec. transients/corros. responses 18603
  NPP service water piping, corros., exam. 27377
  NPP service water piping syst. materials, corros. eval. 27376
  optoelectronic packages, spot-welding tech. 5645
  plastic assembly procs., eval. for high reliab. IC appls. 6452
  PWB conductive anodic filaments, x-ray microtomography/SEM serial sectioning 12881
  PWR steam-generator corros., molar ratio control 19468
  steel, H-charged, defects presence eval., positron annihilation method 28922
  via holes, corrosive outgasses, TDS 38690
  ZJ-10 med. linac. waveguide corros. mechanism *(Chinese)* 34754
  Al microchip bond pads, oxide layer F contamination, wafer storage 30141
  Be foils for devices and phys. expts. 37528
  C, DLC protective PECVD film, thin film mag. disk 7152
  Co-Pt alloys, ordered/disordered, PAFC, corros. test 5207
  Cu surface/interface modif. for IC appls. 38647
  Cu thin films, chem. mech. polishing, surface layer form. 38572
  Fe-Al-Ta-C nanocrystalline films, soft mag. props./corros. resist. 6991
  Li-$SOCl_2$ batt. develop. 26674
  Mg-AgCl batts., Mg alloy corros. rate studies 27890
  Nd-FeCoNi-B-AlTi melt-spun ribbons, corros./mag. props. 30681
  $Nd_2Fe_{14}BH_x$ powders, synthesis and mag. props. 39128
  Ni, nanocrystalline, elec., mag., mech. props. 39127
  PB-acid batt. service life prediction, PV systs. 36527
  Pb-acid secondary batts., PbCaSn electrode passiv./corros. 36561
  Pb-acid secondary batts., PbSb grid corros. study 36564
  Pb-acid secondary batts., PbSb:Bi grid age-hardening/corros. 36562
  Pb-acid secondary batts., pos. post chloride corros. 36565
  Pb-acid stationary telecom. batts., pos. grid studies 41621
  PbCaSn wrought tubular Pb-acid batt. grids 36523
  $SnSO_4$ in H_2SO_4 electrolyte, electrochem., Pb-acid batt. 11264
corrosion control *see corrosion protection*
corrosion fatigue
  SiO_2 fiber coatings, fatigue behavior 14355
  SiO_2 opt. fiber, mech. reliab. assess. 14357
corrosion fatigue testing *see corrosion testing*
corrosion inhibition *see corrosion protection*
corrosion prevention *see corrosion protection*
corrosion protection
  see also anodisation; corrosion; corrosion protective coatings; packaging; pH control
  443 MW steam power plant scrubber renewal project, USA 27544
  aircraft corros. monitoring and control 5935
  alkaline manganese batt., mercury free *(Japanese)* 5175
  automatic cathodic protection syst. control cct. 29425
  core materials for SMT appls., engng. props. 21645
  Davis-Besse PWR, OTSGs, secondary-side pH control amines 27355
  MV overhead XLPE insulated Al alloy conductors, experience 43775
  NPP service water syst. corros. and deposition handbook 27429
  reactor layup ageing, maint. practices, corros. control 35872
  sealed motors, sleeve losses calc. studies 10945
  SOFC, high temp., metals/alloys appl. 44382
  steam power plant boiler online water chem. monitoring 4843
  steam power plant flue gas cleaning syst. corros. protection *(German)* 43912
  steam power plant water treatment optim., economic benefits 43901
  Cu/Al(Ti)/SiO_2 interface, ultrathin sacrificial diffusion barrier anal. 38702
  Pb-Ca type car batt., high-temp. durability *(Japanese)* 5328
  Zn secondary batts., organic corros. inhibitor studies 27903
corrosion protective coatings
  EM gun technol., Cu/Al component protection coatings 15331
  flux selection, PCB component and wire tinning appls. 38140
  optothermal hybrid microscopy,coatings nondestructive/noncontacting testing 12216
  plastic IC package params., effect on temp. cycling failures 5674
  Fe pigments protection with amine-quinone polymers, metal particle tape appls. 7145
  Fe-Al-Ta-C nanocrystalline films, soft mag. props./corros. resist. 6991
  γ-Fe_2O_3:Co mag. tapes, waterborne formulation prep., dispersion quality 7133
  Si_3N_4 plasma deposited coatings for sealed COB MCM technol. 12961
  SiO_2 fiber coatings, fatigue behavior 14355
corrosion testing
  6 MW GTO locomotive power convertor, insulation/corros. tests 36352
  advanced composite materials, mil. electronics, environ. testing 5646
  aircraft corros. monitoring and control 5935
  flex coating reliab., high-perform. MCM-PCB interconnection 12945
  manual/automated offshore NDE, colloq., London (1994) 20259
  metal particle tape, archivability, corros.-accelerating environ. tests 7131
  noncontacting current meas. in underground pipelines, geom. instabil. 42883
  nonrosin solder flux residue corrosivity testing, PCB manufacture 12941
  NPP generating equipt., struct. materials longevity determ. 35743
  PCB flux residue influence, electronic assembly quality 937
  quartz cryst. electrochem. microbalance, LF mode spatial localization 34710
  submarine sonar dome, corrosivity meas., Dome Water Monitoring Instrumentation System 17676
  thermal power plant FGD ESP, corros. wear testing *(German)* 4822
  Co-Pt alloys, ordered/disordered, PAFC, corros. test 5207
  Fe pigments protection with amine-quinone polymers, metal particle tape appls. 7145
  FeXN (X=Ta,Hf,Cu,Si,Zr) high moment thin film head materials, electrochem. corros. 6942
  Mg-AgCl batts., Mg alloy corros. rate studies 27890
  Ni-H_2 secondary batts., H_2 storage microencapsulation expts. 27897
  Pb-acid standby power batts., life testing methods 19962
corrosion testing continued
  Pb-acid valve regulated batts., ageing effects tests 19963
  Pb-acid valve regulated secondary cells, PbCaSn grid expts. 36559
corrugated horn antennas *see horn antennas*
cosmic radiations, radiofrequency *see radiofrequency cosmic radiation*
cosmic radio waves *see radiofrequency cosmic radiation*
cosmic ray apparatus
  ARGO RPC carpet, small EAS detect. 34906
  Cherenkov charge detector, total internal refl. 4219
  D0 upgrade, scintillating fiber detectors 4155
  D-Zero prototype fiber tracker cosmic-ray test, D0 detector 4157
  ICARUS detector, data reduction techs., phys. param. extraction 10125
  ICF implosions, MEDUSA large scintillator arrays 26168
  KASCADE EAS expt., trigger electronics 26240
  Large Volume Detector, Gran Sasso Laboratory, status 34913
  liq. Xe detector, dark matter/neutrino detect. 4196
  scintillators, low activity, dark matter search 34915
  SDC detector, muon drift tubes, cosmic ray tests 4167
  Ulysses space mission, helios., 3 dimens. modelling 43420
  HgI_2, X- and gamma-ray detectors for space appls. 43072
  Soviet-American Ga expt. at Baksan Neutrino Observatory, solar ν flux 34914
  Xe liq. detector, dark matter search 34916
cosmology
  large scale struct., parallel algm. appl. 32918
cosmotrons *see proton accelerators; synchrotrons*
cost-benefit analysis
  DFT, full/boundary scan, economics 11676
  GOLDSMITH, DSM cost/benefit options 19132
  hydro power plants, financing, Build-Operate Transform model 19546
  intangible benefits appraisal from IT investment 41737
  MCM-L cost model and appl. case study 25180
  net-present-value cost/time tradeoff 36976
  product defects, stress testing 28422
  product design for recyclability and its appl., cost-benefit anal. model 5713
  pumped-storage plant static/dyn. benefit eval. *(Chinese)* 36046
  RACE 2087 TITAN project, opt. access network risk assess. and economics *(English, Italian)* 33987
  rem. seminars, multimedia conferencing, MICE project 25118
  CO_2 emissions abatement, energy strategies, Brazil 27300
cost optimal control
  ATPG for heat dissipation minimization, test appl. 6856
Costa Ribeiro effect *see dielectric properties*
costing
  see also software cost estimation
  6-sigma fixturing QC program, electronics assembly environ. 37176
  96-hour power meas. experiences *(German)* 35704
  256Mb/1Gb DRAM develop. implications, Japanese semicond. indust. 11717
  agricultural mach. preventive maint./replacement optim. 11682
  ASIC test cost/strategy trade-offs 6070
  Australian elec. indust. reform, national grid develops. 19184
  automotive fuel economy improvement, near-term technol. 28139
  bandwidth cost mgt. 16598
  building HVAC retrofits, postponement economics overview 44432
  business cash-in-advance economy, stationary sunspot equilibria 28379
  campus LAN layout, design and implement. 33549
  campus network traffic anal. prevention method 8940
  Centrex services in AXE 10 42122
  CMOS latchup detect., low cost laser scanning tech. 30450
  CMOS multiply charged ion implants, cost of ownership model 37056
  cogen. projects, economic attractiveness study 43895
  cogenerator-customer wheeling syst., buy-back syst. 10667
  computer commun. networks with unreliable links, capacity assignment 3209
  convection reflow soldering oven, N_2 inerting, cost implications 38147
  crit./noncritical stepper mixing, lithog., IC manufacture 13440
  decentralised optimal power pricing, parallel programming development 27066
  design for manufacture implement., PCB manufacture 38103
  diamond, polycryst. CVD, cost factors 5899
  diamond packaging, CVD, tech. cost modelling, scale-up factors 37527
  distrib. network asset replacement programmes, reliab. worth calcs. 43754
  distrib. network sectionalizer allocation, genetic algm.-based 10729
  elec. drives energy conservation, energy efficient options 28098
  elec. generation, real cost eval. method 35558
  elec. interchange pricing, probabilistic prod. simul. *(Chinese)* 27039
  elec. power markets, optional forward contracts 4572
  elec. power tariff-fixing, cost orient. basis *(German)* 27051
  elec. pricing, discounting methods discussion 35531
  elec. pricing, Sweden 4513
  elec. service reliab., customer cost eval. 35494
  elec. utility DSM, net benefits estim. approaches 26990
  elec. utility DSM programmes assess. methods 26991
  elec. utility reliab. assess./maint./life cycle costing, UK 43686
  elec. utility-cogenerator elec. market, game model 4577
  electronic product test data anal., product costs improvement 37175
  embedded ATM networks, distributed pricing 41677
  energy technol. choices modelling, investment theory 27318
  engng. change mgt., activity-based costing model 11672
  enterprise network develop. and mgt. prospects *(Japanese)* 16751
  EOS/ESD failure anal., CMOS IC mfg. proc., extent/cost 30545
  European Fast Reactor project status (1994) and prospects *(French)* 43866
  European SOI technol. develop., review 38428
  fibre optic cable design, integrated environ. 17355
  FTP traffic on Internet, optimisation 41834
  gas distrib. systs. contamination, cost optimisation 38988
  gas handling in semicond. manufacture, cost-purity trade-off 6598
  German cost-reflective power supply pricing investig. *(German)* 19177
  green IC fab., recycling/environ. contamination control 37208
  green strategies for electronic products' energy and end of life 11887
  greenhouse gas abatement, Senegal, least-cost options 27325
  greenhouse gas abatement costing, Zimbabwe 27301
  HV power switch reliab. and maint. cost survey *(German)* 36467
  hydro-power sales data fuzzy interpolation 4865
  hydroelectric power syst. decentralised planning 35568
  imprecise probab., expert forecasting, elec. utility 4544
  indust. elec. contract prices anal., UK 35536
  indust. elec. pricing, voluntary TOU tariff 44622

costing continued
inter-regional telephone call flows anal. *(Japanese)* 3106
interconnecting computers, archit./technol./economics 16702
known good die selection tradeoffs, cost model, MCM burn-in tests 21704
large area MCM proc., cost implications 21682
life cycle cost and reliab. in electronic product, dyn. study 11862
life cycle cost and reliab. in electronic products, dyn. study *(Chinese)* 11843
Lithuania, energy consumption/efficiency prospects 27313
lunar base power systs., life cycle cost 26517
MLC prod., advanced dielec. powders 5912
multiple product/multiple proc. factory cost anal. 36960
MV overhead XLPE insulated Al alloy conductors, experience 43775
N$_2$-purity selection guideline, controlled atmos. reflow soldering 38104
narrowband and video distrib. services, syst.-sharing config. 25139
network traffic, encryption 8908
new product introduction teams, SMT/PCBs, design for manufacturability 37030
New Zealand telecomms. regulation, Clear Communications vs. Telecom Corporation 33307
nonzero-sum stochastic games, discounted/av. cost 11919
Nuremberg regional power supply undertaking restructuring *(German)* 10649
open access power transm., anal. software 19129
open access transm. services pricing appl. 35598
patterned wafer inspection, IC yield/cost-of-ownership factors 37157
plasma source ion implant., cost estim. 22148
point-to-multipoint wireless telephone syst. trends *(German)* 33400
power electronics design, educational strategies 29013
power supply undertakings, tech. and cost anal. integrat. *(German)* 19176
power syst., dispersed generation/time of pricing effects *(Japanese)* 26937
power syst. emissions-constrained optimal power flow calcs. 10610
power syst. marginal outage costs eval., quantitative reliab. 26918
power syst. operation, marginal pricing effects 19145
power syst. planning/operation, R&D trends, probab. appls. 4597
power syst. pricing update, MBR 27067
power syst. reliab. worth eval. tech. 27058
power syst. stochastic prod. cost simul. method 27061
power transm. services, marginal pricing, cost recovery anal. 35592
proc. gas improvements, cost of ownership model 36961
proc. variability control, PCB/SMT manufacture 37193
pumped storage operation, economic assess., spot pricing 27618
qualified manufacturers list approach in electronic packaging 28450
RACE 2087/TITAN, access network alternatives *(Italian, English)* 42071
regional power supply undertaking, monitoring/costing syst. *(German)* 43688
repair/replacement policies, marginal cost anal. appl. 28386
short-term intersectoral factor immobility 28380
solar power satellites, life-cycle energy recovery study 35210
solder masks, PCB manufacture, cost reduction/quality improvement 38099
SONET DCS mesh archit. survivability with distributed control restoration 41567
SONET-based survivable interoffice network archit. selection 41548
SPC program anal., Hughes Aircraft MCM Operations 37039
squirrel cage motors, computer-based design assistant 19643
static protective shrink wrap film for JEDEC tray packaging 28454
steel plant availability anal. 20165
supervisorless semicond. fab. environ., CIM productivity monitors 37052
surprise calls, proposed, telephone service for residential customers 33403
survivable internat. network archit. and dimensioning 41549
Swiss elec. prod., ecological and social aspects *(German)* 10795
syst. test cost modelling, event rate anal. 5587
technol. CAD cost/yield estim., virtual IC factory 22546
telecomms., cost reductions by coalitions in internat. network 33300
telecomms. network cct. optim., detailed traffic data 41570
telecomms. network design, time-series traffic data *(Japanese)* 41564
test proc. optim. and cost modeling tool 5588
thermal power plant third order composite generation prod. cost fn. 10847
transformer and induction motor losses cost anal. interactive software package 28333
transm. network probabilistic prod. costing simul. 27120
transm. network use charging, marginal cost methods 27121
transm./distrib. services, optimal pricing 19223
ultrathin MLB optim., materials and PCB fab. issues 38128
urban household water pumping, energy alternatives eval. 44433
US nuc. plants, cutting operation and maint. costs 19418
US semicond. indust., cost reduction 36959
USA LEC, productivity meas. and price cap regulation 41594
VLSI mfg., research, min. capital cost 36955
water soluble/no-clean selection guidelines, PCB/SMT/fine pitch soldering 38151
wind-diesel energy syst. perform., probabilistic eval. 10913
CO$_2$ abatement costing, Egypt, top-down/bottom-up approaches 27324
CO$_2$ abatement costs, comparable assess. 27323
^{60}Co, source-to-axis dist. teletherapy units 35142
GaAS IC lab. at Motorola, CS-1 facility 37046
GaAs IC mfg., high vol., Anadigics experience 37045
GaAs MMIC technol./manufacture, MIC comparisons, status review 29580
N$_2$/convection reflow soldering oven, input gas flow var. influence 38148
SiO$_2$ layer planarization by chem.-mech. polishing, IC manufacture 38569

Cotton-Mouton effect *see magneto-optical effects*

Cottrell atmospheres
Ge$_{0.3}$Si$_{0.7}$/Si heterostruct., minority/majority-carrier trapping 21950

Cottrell locking *see Cottrell atmospheres*

Coulomb blockade *see quantum interference phenomena*

coulometry *see electrochemical analysis*

counter accessories
see also counting circuits
double-sided Si microstrip detectors, probe fixture 34940
micro-strip gas counter test with RD20 front-end 34929
very high gain APD, radiation detect. 14601
Si detectors, polariz. voltage control, automated syst. 43058

counters
see also Cherenkov counters; fission counters; Geiger counters; proportional counters; scintillation counters; semiconductor counters
free-space holographic parallel optoelectronic computer, 300-MHz optoelectronic counter 7429

counters (circuits) *see counting circuits*
counting circuits
see also coincidence circuits; pulse height analysers; scaling circuits
AC servomotor integrated single-output sig. rotary encoder 10934
accuracy improvement of time intervals meas., pulse counting 3995
algorithmic synthesis of high level tests for data path designs 29183
bit-pair recoding Booth algm. 32×32 bit high speed parallel multiplier *(Korean)* 37715
calculational derivation, bounded response time and bounded power dissipation 37681
fast timing coincidence syst., gamma speed meas. 34958
systolic freq. dividers/counters, cct. implement. 620
three-phase PWM invertors, real-time harmonics control 19722
twin-counter digital-loop preset freq. synthesizer 12615
SiC NMOS digital IC, logic gates 632
country planning *see town and country planning*
county planning *see town and country planning*
coupled circuits
capacitively coupled driving method for TFT-LCDs 18003
coupled oscillators, retrieval states, natural freq. distrib. effects 12355
electronic beam scanning by coupled MESFET oscillators 23970
lossy VLSI interconnect, sig. transients, propag., crosstalk 30426
multi freq. antenna tech., closely-coupled resonators 2322
multiple-crit.-pole-coupled act. filters for FLF, SCF, CBQ, and LF struct. 12637
oscillator array dyn., broadband N-port coupling networks 832
oscillators, modulated sig. sync. 12367
oscillators coupled by resistor, sync. phenom. 21147
phase systs., locking response 12380
stray capacitances of two coupled inductors 21596
sustained oscillators each with own time const., order-chaos transit. 21141
transformer coupled bridge, capacitance meas. errors 25940
unified theory of compatible impedances 21016
Fe-cored compulsator modelling, num. anal. techs. 19784
coupled mode analysis
coaxial waveguide cavity resonators, varying rad. center/outer conductors, mode coupling 29547
CPW, modal capacitances anal. 31888
DFB lasers, dephased index and gain coupling 23194
electron wave directional couplers, coupled mode theory 13828
EM wave propag. in laterally non-uniform atmos. duct, coupled mode anal. *(Japanese)* 7971
enclosed rect. microstrip patch degenerate mode coupling, EFIE soln. 29535
FEL, collective regime, 3D coupled-mode theory 39928
graded index channel waveguides, asymmetric directional couplers, spectral charact. 22889
gyrotropic medium, light freq. translation, electro-optic modulation 30994
microwave filter response of nonuniformly corrugated circ. waveguide 37965
nonlin. waveguide arrays, spatially solitary wave evol. 39426
nonparallel dielec. waveguides, coupling charact. 8023
open-boundary Cerenkov laser, dyn. behavior anal. 14980
opt. directional coupler, nonparallel transit. sects. *(Japanese)* 7364
periodic waveguides, coupled-mode/FEA *(Japanese)* 14424
poly-phenyl-acetone opt. waveguides, nonlin. coupling and propag. 39432
rect. waveguide, isotropic/anisotropic obstacles, discontinuities anal. 2299
spun lin. birefr. fibres, current sens., temp. compensation 3863
symmetric nonlin. directional coupler, coupled mode anal. 7366
tapered fibres, field power distrib. for optimal coupling 39368
two-conductor multilayer microstrip line coupling 31873
US piezoelec. transducer array elements, general approximated 2D model 35366
waveguide grating couplers, nonlin. optics, modal anal. 14458
waveguides, excitation conditions, math. refinements 39407
Ba$_2$NaNb$_5$O$_{15}$/KTiOPO$_4$ film waveguides, noncritical phase-matching 39384
GaAs-AlGaAs MQW waveguides, coupling props. 14467
InGaAsP-InP, low-loss pass. polariz. convertor 14500
n-InSb doped crysts., parametric amplif. and oscill. 40115
KNbO$_3$:Fe photorefr. ring resonator, transverse mode oscills., spatiotemporal dyn. 23436
LiNbO$_3$ cladded fibers, acoustic wave propag. 35363
LiNbO$_3$ planar waveguides, multifrequency acoustooptic interact., modeling 14551
LiNbO$_3$:Ti nonlin. directional coupler 39401
LiNbO$_3$(LiTaO$_3$) SAW devices, electrode periodic syst., Green's fn. anal. 30631
coupled networks *see coupled circuits*
coupled superconductor devices *see superconducting junction devices*
couplers (electric connectors) *see electric connectors*
couplers (waveguide) *see waveguide couplers*
coupling (process) *see joining processes*
coupling circuits *see coupled circuits*
courseware
Auburn Univ., power engng. curriculum and GUI software 28337
dist. education, multimedia environ., computer-supported collaborative learning 11619
DSP, modular courses design 36929
elec. engng. education, interactive CBT syst. 20344
elec. power engng., intell. tutoring syst. 20302
electronic design automation, classroom experience and student altitudes 28345
electronics, computer-aided lab. 20319
Footsteps for navigating World-Wide Web 41870
HyperCard based interactive video simul., teaching preservice teachers 34270
hypertext mathematics, multimedia interactivity 25112
interactive education, CD-ROMs and WWW 8895
LPTT linear programming teaching software tool 11609
MATHEMATICA, switch mode DC/DC power conversion appls. 5533
MATLAB,, switch mode DC/DC power conversion CAI appls. 5533
multimedia resources, networked delivery, academic community 25117
PSpice, power electronics education appls. 5532
solid-state device electronics demons., multimedia textbook paradigm 20300
SPICE, switch mode DC/DC power conversion CAI appls. 5533
TLINE software package for sinusoidal steady-state anal. of transm. lines 31867
transformer and induction motor losses cost anal. interactive software package 28333

courseware continued
two-way dual-view teleteaching syst., gestures/chalkboard 16890
undergraduate digital design courses using PLD 28346
undergraduate EM education, CAEME software experiences 28285

covariance analysis
2D autoregressive noise model, broadband planewave detect. 40840
biased estim. of variance components 28587
candidate target detect., likelihood interpolation for peak detect. 15879
digital commun. sigs. separation, joint space-time decorrelation 40935
disk recording channels with sig. depend. noise, model 30720
DOA estimators, covariance based, robustness property 2505
EKF freq. tracker, design 32781
Gaussian AR noise, nonGaussian sig. detect., lattice struct. 40989
Gaussian procs., generalized spectral-centroid estimator 24170
Gaussian random fields, max. entropy property proof 2356
image, class., robust by neural nets 16186
IR imaging of mil. ground vehicles, clutter metric based on texture 10592
line and edge, extraction based on covariance models 16290
manoeuvring target tracking, multi-model adaptive Kalman filter 15964
motion detect. in security appls., tracking and hierarchy 24539
nonlin. predictor, zero-memory nonlin., second order Volterra filter 40985
nonstationary sigs., instantaneous spectral estim. 41053
optimal receiver design, wavelet bases 40929
partially known sigs. in unknown noise fields, optimal localization 40947
periodic instrumental variable ident. method 34303
pseudorandom seqs., correl. property testing 32692
randomly fluct. wavefronts, stat. models *(French)* 16036
spatial smoothing, optimal subarray size 24320
stationary procs., sample cumulants, asymptotic results 40841
strapdown INS, gyrocompass charact. 26695
TAB, generic tolerance anal. model 38174
Taguchi method of environ. stress testing for PWB prod. proc. 29678
texture anal., center-symmetric autocorrelation 24370
time-domain procedures for testing that stationary time-series, Gaussian 32490
track, track fusion algms. 15911
track-to-track fusion problems, scoring algms. 15920

covariance matrices
1-MeV equiv. neutron fluence estim. from dosimetry responses 18372
2-D MUSIC/2-D MP estimators, asymptotic props. 15978
adaptive array covariance matrix eigenvalues rel. to mutual coupling 23973
adaptive detect. of subpixel targets, unknown spectral charact. 16103
adaptive detectors, effects of sig. contamination 32543
adaptive estim. of eigensubspace 32550
adaptive filtering, sign algm., convergence anal. 32531
AR param. estim., noisy data, EM algm. appl. 40921
ballistic missile track initiation from satellite obs. 18982
binary adaptive detectors, convergence perform. 24326
blurred images, point source localization, eigenvector based method 8557
chaos in nonlin. ccts./dyn. systs., SVD 12301
continuous speech recogn., suprasegmental 32401
DCT asymmetrical perform. 2370
direction finding, large arrays/finite data, perform. anal. 32555
direction finding, state-space approach 2492
DOA estim., optimal spatial instrum. var. method 40886
DS-SS, directionally constrained adaptive beam forming 17003
electrocortical generators posn. estim. via subspace techs. 43320
element quality anal., accuracy of ephemeris prediction from satellite orb. elements 18985
extended inverse QR adaptive filtering algm. 15983
fast converging low complexity adaptive filtering algm. 15987
geophys. resoln. and covariance estim. for large matrix inversions 43497
Gerschgorin disks, source no. estimator 40956
global array calib. method 40922
high-resoln. beamforming in coherent interf./correl. noise 24263
hyperb. updating of LDU decomp. 24270
intrinsic dimens. estimators eval. 16297
lin. discriminant anal., shrinkage param. 33093
LMS adaptive FIR filter dimens., learning rate 32756
maneuvering target tracking, adaptive interact. multiple model algm. 15921
model order estim. from covariance matrix eigenvectors 24251
moving av. proc., spectral factorization, cepstrum *(Japanese)* 11922
moving sources localization, deconvolution approach 32613
multichannel Gaussian sigs., low rank detect., constrained inverse 40952
multichannel Gaussian sigs., low-rank detect., matrix approx. 24212
multidimensional data covariance estim. 8285
multivariate complex normal distrib., generalization 28584
MUSIC, conjug. symmetric beamformers, perform. anal. 40816
noisy images, point reconstruction 32937
non-Gaussian coherent radar clutter models 42495
non-Gaussian correl. radar clutter, computer generation 34113
nonstationary random sigs. detect. in colored noise 41055
parallel arrays, simultaneous centre freq. and DOA estim. 24277
parametric ident. problems 8335
pattern class. perform./design sample size, comparison 32676
planar array, mutual coupling estim./modelling 41018
plane surface elec. params. meas., radio-thermal radiation 10010
pole-zero syst. model order estim. algm. 40848
QR-decomp. based adaptive bilinear lattice algms. *(Korean)* 37876
radar sigs., wavelet subband decomp. in adaptive arrays 17395
randomly time-varying channels tracking algms. 2466
robust Kalman filtering, QQ-plot approach 32681
selective attention in multisensor obj. recogn. 24643
slow fading channel bandwidth-efficient coded freq. diversity 32086
slow flat Rician fading, covariance matrix, ML detect. 25306
spatial smoothing, optimal subarray size 24320
spatial-Doppler filter, projection method, calculate weighted coeff. vector 42492
speech template matching tech., subspace approach 15854
stepped freq. CW ground penetrating radar 42478
subspace-constrained SCORE algms. 8365
surface geom. and segmentation, covariance techs. 8519
target tracking, effect of cross correl. on track-to-track fusion 18979
telecomm. traffic, modified adaptive seq. projection algm. 41679
time difference of arrival meas., closed-form localization soln. 32616
tracking, fused noncoincident meas. 17368
tracking in clutter, adaptive waveform selection 15948
Volterra filtering, spectral constraints 40933

CPFSK *see frequency shift keying*

CPW *see coplanar waveguides*

CR-39 detectors *see solid-state nuclear track detectors*

crack detection
see also cracks
ball grid array package, popcorn cracking 11812
boiler superheater headers, crack growth/stress prediction 19507
bronze-graphite materials, repeated indentation, local brittleness, AE 28910
contouring, interferometric digital proc., Hough transform 12238
digital image proc. tech. for crack growth detect. 28899
ferromag. components, artificial/natural surface defects determ. 28903
generators, transverse edge-cracked rotor vibr. 19579
holographic NDT, neural network approach 31662
IC thin film cracking detect., test chip design 11861
laser interferometer, nanometer resolution crack meas. appl. 25971
lead-on-chip package, temp. cycle-induced chip surface damage 20435
MCM HTSC thin film interconnects, fracture strain meas. 12249
metals, surface cracks, microwave detect., rect. waveguides 21011
microwave NDT, refl. props. of dominant TE_{10} mode 42914
MLC actuators using antiferroelecs., destruction mechanism 39110
MLC capacitors, nondestructive defect detect. tech. 6371
mm-wave NDT of glass fiber/epoxy composites 37559
PCB mounted ceramic SMDs, capacit. monitoring while flex testing 12878
quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
sizing finite cracks on metal surfaces, microwave tech. 42902
steel, ferromag., surface imaging using Barkhausen effect 14122
stone block, Rayleigh-wave surface flaw detect. 12229
strip-like crack, US scatt. expts., syst. model 18952
surface cracks in metals detect., microwave method 37552
surface mount ceramic capacitor failure test, board bending 29653
texture crack detect., automatic visual inspection 41161
TV-holography in artwork nondestructive diagnostics 31679
Al, cracks, NDT, two-hole HTSC rf-SQUID 37564
C fibre composites, delamination cracks, SAM image anal. 20999
C-bearing composite materials, surface cracks determ. 28904

crack inspection *see crack detection*

cracking *see cracks; fracture*

cracking, stress corrosion *see stress corrosion cracking*

cracking, thermal stress *see thermal stress cracking*

cracks
see also crack detection; crazing; fatigue cracks; stress corrosion cracking; thermal stress cracking
borehole radar sig. ident., time-freq. distrib. 26706
boundary layer fracture of copper/composite solder interfaces in electronic packaging 37131
diamond films, hot filament CVD on sapphire 20929
electronic systs., package cracking, probabilistic sensitivity anal. of dyn. response 5664
fission RPV, axial cracks 35940
graphite fibre reinforced epoxy laminated panels, opt. fiber embedded, low vel. impact 12194
heatsink bonding, semicond. packages, silicone adhesive 5675
high-temp. elec. heating elements, oxygen getters *(German)* 11472
HV insulation, crack resist. epoxy resin, testing *(Japanese)* 14012
internal crack in half-plane solid, clamped boundary 28693
ionic salt photodefinable polyimides, MCM-D dielec., Cu metallization 21740
lead-on-chip packages, cracking failures 5672
lead-on-chip packages, cracking failures induced by chip backside contamination 20439
molding cpds. for IC plastic packaging, fracture props. 5671
nuc. power piping syst., circumferential crack, J-integral 35866
optoelectronic packages, spot-welding tech. 5645
package cracking, molding cpd. and die attach adhesive 5665
plastic thermally enhanced QFP packages, moisture sensit./reliab. 11803
short fiber composite strain sens., elec. resist. change 28896
single cryst. fibres, temp. gradients, laser heated pedestal grown 30858
space power thermionic fuel elements, fission gas pressure anal. 18736
$BaTiO_3$-based PTC thermistors, delamination fracture 28869
$Bi_2Sr_2Ca_2Cu_3O_x$:Pb/Ag, monofilamentary tapes, Hall sens. magnetometry 39228
$Bi_3YFe_{3.5}GaO_x$ films, pulsed laser ablation, mag. props. 30686
GaAs:C, elemental Ga/As sources and CCl_4 gas source, MBE growth 28739
Li-$SOCl_2$ batt. develop. 26674
$Li_2B_4O_7$ single cryst. growth, CZ method 30579
SiC, seeded Lely growth, cryst. macro-defects 5811
SiO_2 opt. fiber, Vicker's indentation modeling 14358
SiO_2 opt. fiber, mech. reliab. assess. 14357
Xe lamp pulse power-pumped Nd:glass laser, crack mechanisms 31457
ZnSe MOVPE growth, O and Te impurities effect 20890

cranes
see also hoists
asynchronous motor, 3-phase stator 36708
cct. board prod. lines, crane scheduling, time windows 37058
horiz.-arm layout coord. meas. machines 5611

Cray computers
SAG-MESFET for supercomputers, proc., implement. 37721
supercomputer in computer network, A.I.S.T *(Japanese)* 8885

crazing
see also stress corrosion cracking
electro-discharge machined surfaces modif., CO_2 laser *(Japanese)* 5613
ferromag. components, artificial/natural surface defects determ. 28903
flip chip solder joints, surface cracks, fatigue life 29708
metal/ceramic laminates for electronic packaging, thermomechanical failure 12197
metals, surface cracks, microwave detect., rect. waveguides 21011
C-bearing composite materials, surface cracks determ. 28904
SiC epitaxial growth on Si(001), Si out-diffusion related defects 20900

credit transactions
telecomms., universal service reform 33304

creep
see also creep fracture; creep testing; irradiation induced creep; stress relaxation
domestic heating syst. thermionic converter design 28176
fatigue life of solder joints, FEM study of factors 11756
high-temp. elec. heating elements, oxygen getters *(German)* 11472
opt. waveguide cable short-term props. and creep behaviour *(German)* 10742

creep continued
- PCB thermally loaded solder joints, fatigue life prediction methods, finite element study 38121
- piezoelec. actuator, precise positioning, open-loop control *(Japanese)* 39072
- polyimide film, water immersion effects on mech. behavior 12202
- polyimide thin film, time-depend. inelastic deform. 28881
- polyimide thin-film on ceramic struct., MCM appls., thermomechanical stress anal. 20441
- polyimides used in MCM HDI, charactn. 11748
- power plant components, long term creep prediction model 19389
- SMT solder joint reliab., voids and void interacts. 178
- SMT solder joints, stress anal. model for fatigue prediction 37114
- solder joint failure, thermal cycling fatigue, crit. accumulated strain energy 120
- space power thermionic conversion, particle strengthened Mo appls. 18746
- space power thermionic fuel elements, fission gas pressure anal. 18736
- steel, Cr-Mo, ferromag., creep damage, mag. study 14128
- thick-film strain gauges on stainless steel substrs., co-firing effect 3779
- wirebond geom. and die setting, effect on wire sweep 20445
- Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417
- Cu-Sn multilayer composite solder, fluxless proc. 11737
- Fe-Cu-Nb-Si-B, nanocrystalline ribbons, creep induced mag. anisotropy 14138
- a-$(Fe_{0.06}Co_{0.94})_{72.5}Si_{12.5}B_{15}$, creep-induced mag. anisotropy 1571
- Pb and Pb-free solder joints, thermomech. and fatigue behavior 37557
- Pb-Sn, eutectic solders, creep strength, microelectronic appl. *(Korean)* 20428
- Pb-Sn solder interconnects, creep deform. under bending/twisting 12186
- PbCaSn wrought tubular Pb-acid batt. grids 36523
- Sn-Ag solder interconnects, creep deform. under bending/twisting 12186
- Sn-Bi solders, microstruct. evol., mech. prop. 37529
- Sn-Pb-Ag solder interconnects, creep study 37128
- Sn-Pb-Ag solder joints, thermal fatigue/isothermal mech. fatigue damage 37112

creep fracture
- continuum damage mech. model, cyclic creep fracture anal. of solder joints 28489
- polymers/composites, prediction of long term perform. 439
- steam power plant boiler life, thermal transients effects 19519
- Sn-Pb-CeLa solder props. rel., rare earth components 11741

creep rupture strength *see creep fracture; fracture toughness*

creep testing
- leaded SM devices, creep strain response of solder joints, temp. profile params. 38163
- reinforcement fibres, strain rates meas. 37569
- surface mount connector design, respect, solder creep 28503
- In-Sn eutectic solder, substr. effects, microstruct./mech. behavior 11743
- Sn-Cu(Pb) solder joints, thermal cyclic shear stress/strain hysteresis 11742

crestatrons *see travelling wave tubes*

critical current density (superconductivity)
- 2DEG-supercond. planar junctions, proximity and Josephson effects 30794
- AC supercond. current limiters, design and modelling 4731
- Bean's model, homogenization in three dimens., transverse cond., coil quenching 39293
- classical superconds., props. *(Polish)* 39220
- cuprate supercond. jns., crit. current theory 30792
- current leads develop., high T_c supercond., Ag addit. *(Japanese)* 19302
- high T_c supercond. wires, elec. power appls. 27218
- high-T_c supercond. meas., interf. reduction 34653
- HTSC, conf., Tsukuba, Japan (Dec. 1993) *(Japanese)* 2
- HTSC, depend. of J_c on microstruct. and proc. 7227
- HTSC, Z 7
- HTSC composite conductors, fab. and charact. 39240
- HTSC develop. 30789
- HTSC eptiaxial films/multilayers, growth *(French)* 28728
- HTSC planar transm. lines, propag. params. calc. 40415
- Josephson contacts, nonlin. vortices dyn. 30797
- Josephson jn. array, resistively shunted, shielding 39269
- low-temp. two-axis goniometer, accurate temp. control 9874
- MAGLEV, pass. mag. bearings, superconductors, PM *(French)* 7258
- measuring probe, high mag. fields 17746
- meshed supercond. LVdc lines, supercond. current transfer devices 4636
- noninductive reactor type supercond. fault current limiter 4718
- noninductive supercond. fault current limiter, simul. *(Korean)* 27274
- supercond. floating flywheel *(Japanese)* 36634
- supercond./insulator multilayer appls., review 1600
- thin film superconds., gamma-ray and fast neutron radiation effects 14276
- $YBa_2Cu_5O_{7-x}$ high temp. supercond., mag. shielding 2274
- Ag/BiSrCaCuO supercond. tapes, joining technol. 30771
- $(Bi,Pb)_{2+x}Sr_2Ca_2Cu_3O_{10+d}$/Ag, high temp. supercond. tapes, proc. 1602
- $(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+\delta}$Ag tapes, crit. current dens., columnar defects 1596
- $(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+y}$-Ag tapes with 2212 phase, flux pinning 39226
- $(Bi,Pb)_2Sr_2Ca_2Cu_3O_X$-Ag, crit. current dens., rolling 22717
- $(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$ tapes, Ag-sheathed, mag. behaviour 7228
- $(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$-Ag tapes, crit. curr. dens. 39223
- (Bi,Pb)-Sr-Ca-Cu-O/Ag supercond. composite wires and tapes 14271
- Bi-Pb-Sr-Ca-Cu-O, hot pressing, mag. melt texturation 39238
- Bi-Sr-Ca-Cu-O/Ag 2212 supercond. magnet, RT bore of 45 mm diam., 20 K 30803
- BiPbSrCaCuO mag. shield, trapping props., grains priority orient. effect 39248
- BiPbSrCaCuO/Ag tape, microstruct./supercond. props., Ag sheath alloying effect 39239
- $(BiPb)_2Sr_2Ca_2Cu_2O_{10}$/Ag multifilamentary tapes and solenoids 1633
- $Bi_{1.8}Pb_{0.4}Sr_2Ca_{2.2}Cu_3O_x$-Ag tapes/test magnets, prep./charact. 7248
- $Bi_{1.8}Pb_{0.4}Sr_2Ca_{2.2}Cu_3O_y$-Ag tapes, crit. current dens. 30772
- BiSrCaCuO 2212 tape, Ag-sheathed, I-V characts. 39218
- BiSrCaCuO supercond. coils, design, fab. and test 1630
- $Bi_2Sr_2Ca_2Cu_3O_x$ epitaxial thin films, crit. current dens., vortex-glass transit. *(Japanese)* 7225
- $Bi_2Sr_2Ca_2Cu_3O_y$ tapes, mech. props., J_c effect 1587
- $Bi_2Sr_2CaCu_2O_{8+\delta}$ supercond., flux dens. distrib. *(Japanese)* 7231
- $Bi_2Sr_2CaCu_2O_x$, melt proc., DTA, XRD, texture 30773
- $Bi_2Sr_2CaCu_2O_x$ superconds., reactive sintering 7226
- $Bi_2Sr_2Ca_2Cu_3O_x$:Pb/Ag, monofilamentary tapes, Hall sens. magnetometry 39228
- BiSrCaCuO/Ag tapes, 2223 phase, mag./transport studies 39222
- BiSrCaCuO/Ag tapes carrying transport current, mag. field in vicinity 1588

critical current density (superconductivity) continued
- $Bi_2Sr_2CaCu_2O_{10}$/Ag HTSC ribbons, crit. current dens., field/temp./angle depend. 39234
- $Bi_2Sr_2CaCu_2O_y$/Ag tapes, electrophoretic deposition, high J_c 14278
- $HoBa_2Cu_3O_x$ nanobridges, critical-current studies 30791
- Nb coated 1.5 GHz accelerating cavities, supercond. props. 4049
- Nb/AlO_x/Nb Josephson jn. tech., high-speed single flux quantum cct. 21249
- Nb/AlON-Al/Nb, Josephson jns., tunnel barrier growth, reflectivity 22745
- Nb-Al_2O_x-Nb, 1D parallel Josephson-jn. arrays, cct. diagnostics 1619
- Nb-AlO_x-Nb Josephson-CMOS ICs, monolithic fab., RAM appl. 21312
- Nb-Ti multifilamentary wires, artificial Nb pins, high field AC supercond. magnet 30804
- Nb_3Sn fiber-reinforced superconds., pulsed magnet appls. 1631
- Nb_3Sn fiber-reinforced superconds., thin film prep. *(Japanese)* 22721
- Nb_3Sn supercond. wire/generator R&D, Japan *(Japanese)* 19303
- NbTi multifilamentary wires, proximity-induced Cu-Mn matrices, upper crit. fields 30770
- $(Tl,Pb)(Ba,Sr)_2Ca_2Cu_3O_9/Ag_{0.37}$ thick c-axis textured supercond. tapes 1598
- TlBaCaCuO microstrip ring resonator, double reson. behavior 12727
- TlBaCaCuO tape, Ag-sheathed, flux pinning and motion 22723
- TlBaCaCuO thin film ring resonator, J_c distrib. 37953
- $Tl_2Ba_2Ca_2Cu_3O_{10}$, mag. shields 39247
- $(Tl_{0.6}Pb_{0.2}Bi_{0.2})(Sr_{1.8}Ba_{0.2})Ca_2Cu_3O_{9+x}$ powder/Ag-sheathed tape, synthesis/charact. 39251
- Y-based HTSC, relax. US proc., mech. stabil. 39242
- YBaCuO DC-SQUIDs, step edge junctns., anom. voltage modulation 39267
- YBaCuO Josephson jns., bicrystalline substrs. 22764
- YBaCuO biepitaxial Josephson jns. on SOS substrs. 22761
- YBaCuO high T_c supercond. current limiter, props. *(Korean)* 35687
- YBaCuO melt-textured materials for trapped field magnets, levitating bearings 39245
- YBaCuO, proton implanted layers, crit. currents 1590
- $Y_1Ba_2Cu_3O_{7-x}$ tapes, in-plane aligned on metallic substr. by CVD 399
- $YBa_2Cu_3O_7$ bridges, crit. current, mag. field depend. 30793
- $YBa_2Cu_3O_7$ microwave coplanar resonators, power-induced switching 37970
- $YBa_2Cu_3O_7$ thick-film flux transformers 1608
- $YBa_2Cu_3O_{7-\delta}$ high current thick films on flexible Ni substrs. 1597
- $YBa_2Cu_3O_{7-x}$ inhomog. superconds., mag.-flux dyn., low-field aspects 39278
- $YBa_2Cu_3O_{7-x}$ parallel connected elements, current distrib. 7229
- $YBa_2Cu_3O_{7\pm x}$, single particle tunneling, single cryst. break jn. 30795
- $YBa_2Cu_3O_{7-y}$ high T_c current limiting element 10776
- $YBa_2Cu_3O_x$, high J_c, modified melt techs. 22715
- YBaCuO:Ag films on sapphire, microwave surface resist./residual losses 39236
- $YBa_2Cu_3O_{7-\delta}$/polypyrrole sandwich struct., reversible supercond. modulation 1616
- $YbBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795

critical currents
- *see also critical current density (superconductivity); flux creep; flux flow; flux pinning*
- DC SQUID, indiv. weak links, crit. currents 1604
- HTSC ceramics, pinning strength inside grains, meas. method 1591
- Josephson-jn. ladders, random mag. fields, phase roughening transit. 1626
- layered supercond. dc flux transformer with Josephson coupling, modelling 30802
- mesoscopic 2DEG coupled to superconds., quasiparticle interf. 22747
- railguns, composite electrodes, crit. current dens. 15364
- RF pumped double SQUID,output charact. models 22746
- s-wave/$d(x^2-y^2)$-wave supercond., Josephson effect, phase depend. 39266
- SMES 200 kA cable-in-conduit conductor, perform. tests 4691
- SQUID control, transport current, crit. current, mag. flux 39261
- Bi-Sr-Ca-Cu-O HTSC 2212 coils, proc. and props. 39296
- $Bi_2Sr_2Ca_1Cu_2O_{8+x}$ thin films, micropatterning, Nb lift-off 30764
- BiSrCaCuO/Ag 2212 ribbons, crit. currents 39224
- BiSrCaCuO/Ag supercond. coils, develop. and test 1629
- BiSrCaCuO/Ag tapes, 2223 phase, flux pinning, crit. currents 39225
- BiSrCaCuO-Ag tapes, 2223 phase, crit. currents 39221
- InAs-coupled Josephson jns., crit. current, mesoscopic fluct. 22732
- Nb, supercond. disks, field depend. crit. currents 22716
- NbTi Demo Poloidal Coil with uniform current distrib., stabilized operation 7251
- PbHgBaCaCuO, I-V characts., Ambegaokar-Halperin model 1589
- YBaCuO microbridge, 2D array, weak links 22763
- YBaCuO rods for current lead appls., directional solidif. 290
- $YBa_2Cu_3O_7$ Josephson jn.-based digital ccts., nanoscale patterning 14298
- $YBa_2Cu_3O_7$ flux-transformers, input coils 1613
- $YBa_2Cu_3O_{7-x}$ thin film multiturn coil, laser scanning imaging 1632
- $YBa_2Cu_3O_7/PrBa_2Cu_3O_7$ multilayer, spatially resolved elec. charact. 22720
- $YBa_2Cu_3O_{7-\delta}/YBa_2Co_xCu_{3-x}O_y$ Josephson jns., flux flow 39263
- $YBa_2Cu_3O_7$-Josephson jns., mech. induced growth disorder 39273

critical field, superconducting *see superconducting critical field*

critical path analysis
- *see also project engineering; systems analysis*
- candidate paths method for perform. optim. 21048
- CHAN, CPA algm. for timing anal. 21046
- DRAMs characterisation, 500 MHz interface 6150
- Jacobi algm. space, systematic exploration 32475
- net-present-value cost/time tradeoff 36976
- PACE programme anal., control and eval. 36975
- PERT/CPM network params. eval. 20394
- seq. ccts., crit. path tracing algm. 21251

critical path scheduling *see critical path analysis*

critical phenomena, magnetic *see magnetic transitions*

critical temperature, superconducting *see superconducting transition temperature*

CRMA *see cyclic reservation multiple access*

CRO *see cathode-ray oscilloscopes*

crops *see farming*

cross linked polyethylene insulation *see XLPE insulation*

crossed-field tubes *see microwave tubes*

crosspoint switches *see electronic switching systems; telecommunication switching*

crosstalk
- *see also optical crosstalk*
- 2D digital video filters for PALplus-compatible HDTV transm. encoder 42604
- 3D environ., cross-talk determ., simul. methods 15530

crosstalk continued
3D LCR extraction and modeling of VLSI packages 5623
6 Mb/s ADSL, constellation TDM 16922
adjacent vias in multilayered digital ICs, coupled noise anal. 12394
ADSL, noise environ./syst. perform. 16918
array probe card, micromachined, charactn. 20409
asymmetric DSL ideal discrete multitone signalling 42051
at-speed ASIC testing, defect types 12396
BiCMOS 9-32 Mbit/s single-chip read/write channel for disk-drive appls. 29409
binaural recording playback through loudspeakers, room impulse response 34296
BPDA-PDA polyimide in multilayer thin-film packages, dielec. anisotropy meas. 6464
buffer distrib. algm. for high-perform. MCM/VLSI clock net optim. 29335
cable bundles, per-unit-length params., MoM 15531
cable harnesses, capacitance calcs., method of moments 33741
CMOS IC, coupling characterisation, meas. techs. 15491
CMOS IC crosstalk extraction from mask layout 22568
coaxial cable harnesses, EMC problems and perform. 889
coaxial SMD module connector for high-speed MCMs 6399
coord. digital transm. 15861
discrete discontinuities along coupled PCB traces, meas./simulation 21506
dual isotope imaging, crosstalk contamination meas., energy spectra 18453
Eigenlips for robust speech recogn. 32433
EMC, conference, Sendai, Japan (1994) 11561
EMC conference, Chicago, USA (1994) 5471
EMC device for telecomms. equipt. *(Japanese)* 31861
FDM coherent opt. networks, interchannel interf. 17271
hierarchical and modular local ATM switch, design and anal. 33169
hierarchical VLSI logic ccts., crosstalk fault detect. 12454
high dens. multilayer substr. for Si on Si high speed module 29719
high speed digital sig. transm. line, crosstalk *(Korean)* 31871
high speed logic ccts., crosstalk, printed patterns 21637
high-dens. pin-board-matrix switch, crosstalk charact. *(Japanese)* 9125
high-speed MCM using Cu/polyimide multilayer substr., B-ISDN 37080
high-speed MCMs, simul. of crosstalk 38198
interconnected mesh power syst. MCM topol., elec. charactn. 21722
interconnected mesh power syst. MCM topol., elec. charactn. 12972
interferometric opt. fibre sens. network, CDMA/WDM multiplexing 17906
intra-syst. interconnects for digital commun., cable elec. perform. 12856
Josephson jn. IC opt. input/output interface syst. 1625
laser rangefinder, error sources 2156
locally nonuniform mesh FDTD anal. 15541
lossy transm. line simulator in PCB layout package 21638
lossy VLSI interconnect, sig. transients, propag., crosstalk 30426
master slice-type transimped. amp. photosensors, PIN-bipolar proc. 25835
MCM, crosstalk driven router 12965
MCM interconnect considerations 38199
microstrip transm. lines, crosstalk prediction 6277
mixed analog/digital ICs, substr. material effect on crosstalk 21447
mixed-sig. commun. LSIs, design, device/crosstalk noise 12660
mixed-sig. Si-on-Si MCMs, crosstalk noise 21771
modeling for automotive wiring harnesses 15532
MSC/EMAS, CAE software for EMC anal. 23720
multipair symm. cables at 1 kHz-2 MHz, crosstalk/transm. 16927
mutually coupled line propag. charact., digital anal. method 40394
no-clean low residue solder paste for fine pitch appls. 939
NTT's local networks, HDSLs/ADSLs range 16917
NTT's local networks, range of baseband/passband HDSLs 25140
PCB crosstalk reduction with additional center traces 21618
PCB inductance ident./quantification 12873
PCB interconnects, routing advice, crosstalk noise requirements 12892
PCB refl. and crosstalk effects simul. 908
PCBs, radiation/crosstalk, edge-elements charactn. 12872
PCBs, refls. anal., ROSAR rule oriented syst. 21632
PCBs design, refl. and crosstalk effects simul. 907
pole trimmed inductive thin film head, off-track capability 7095
shielding enclosures, hybrid finite element-anal. solns. 7999
slanted contact MR head, 500 Mb/in^2, elec. characts. 7081
spurious sigs. detectability in combinat. ccts. 12455
stripline PCB with center traces, crosstalk reduction 21627
terrain imaging by radar, dual-channel radar calib. 43469
thin-film diode LCDs, high-quality display design 25920
thin-film MCM materials for high-speed appls., eval. 29715
transaural stereo, develop. 15995
transm. line, crosstalk coupling, digital noise propag. 25200
twisted-wire pair, capacity calc. 40523
unshielded twisted-pair transm. line, method-of-moments soln. 33740
UTP cable categories, stds. and advantages *(Dutch)* 16998
VLSI channel router under crosstalk constraints *(Korean)* 490
wavelength switching in opt. networks 17229
WDM sig. transm., crosstalk elimination cct. 3552
wideband amp. IC for three-channel video sigs. 6038
AlGaAs-InGaAs-GaAs HEMT monolithic LNA array, W-band 38027
AlN ball/pad grid array MCM-C/D, elec. charactn. 21778
Cu/polyimide MCM, embedded microstrip transm. line sig. characts. 6465
GaAs-AlGaAs-AlAs proton-implanted top-surface-emitting semicond. lasers 23206
InGaAs/AlGaAs/GaAs grating demultiplexer/detector array integrat. 9422

CRT *see cathode-ray tubes*

crushing
cement plant, roll crusher, variable speed DC drive 5419
cement prod., hydraulic roll crushers, motor appls./selection 5421
metal-matrix composite proc., situ AE monitoring 21000

crushing strength *see compressive strength*

cryobiology *see biothermics*

cryogenic cables *see superconducting cables*

cryogenic electronics
used for low temperature operation of conventional electronics. For superconducting electronics, use "superconducting devices" or NTs as appropriate
77 K MOSFET simul., increment limit method *(Chinese)* 38783
bolometers readout, FIR/mm-wave, astrophys. appls. 34504
C-band superconductive input multiplexer for commun. satellites 12776
carrier freeze-out effect, low temp. semicond. device props. *(Chinese)* 22340
CMOS preamplifier, 4.2 K operation, human biomag. field meas. 34994
cryogenic charge sensitive amp. for X/γ-ray spectrometer 18382
dual-piston Stirling cryocoolers for IR imaging systs. 34577

cryogenic electronics continued
IGBTs, asymmetric n-channel, cryogenic operation 22366
low noise JFET cooled amp. for DC SQUID 6031
low-pass elec. filters for cryogenic detectors 37830
MOS device phys., low temp. electronics 1172
MOSFETs, short-channel, series resist. 1406
MOSFETs from liq.-nitrogen to RT, num. Gummel model 13678
NMOSFETs at 77 K, double channel hot-carrier injection effects meas. 22403
opt. interconnection for mil. hostile environ. 43568
opt. readout, LD appl. 29132
power bipolar transistors, cryogenic operation 30259
power MOSFETs operated at cryogenic temps., ionizing radiation effects 13732
power semiconds., low temp. modeling 30203
readout electronics for far-IR arrays 34579
RF SQUID readout, super Schottky diodes, demodulation 21538
RLC miniature elec. filters for single electron devices 37829
sapphire dielec. resonator microwave oscillators 12760
SOI MOSTs, partially depleted, body ties, cryogenic operation 1405
submicron MOSFETs at 4.2 K, drain threshold voltage 30293
$Bi_{2-x}Pb_xSr_2Ca_2Cu_3O_x$, current leads, power device appl. 14316
$Bi_2Sr_2CaCu_2O_x$, current leads, power device appl. 14316
GaAs JFETs, deep cryogenic readout electronics appl. 30371
GaAs monolithic C-HFET preamplifier 4234
GeSi HBT, liq. He temp. operation 30249
Si MOSFETs, LDD struct., low temp. operation 13762
Si bipolar transistors, optimized base design for low temp. operation *(Chinese)* 22378
Si cryogenic accumulation mode MOST, LF noise meas. 38904
Si deep sub-μm MOSFETs under cryogenic conditions, quantum interf. flucts. 1389
Si:Li, fast Li electromigration, low temp. device creation 30047
SiGe-base HBT 2D device-level simul., transient/DC behavior, ECL buffer 13658
SiGe-base bipolar technol., epitaxial emitter-cap, liq.-nitrogen temps., ECL 633
$YBa_2Cu_3O_7$, current leads, power device appl. 14316

cryogenics
see also cryogenic electronics; cryostats; cryotrons; low-temperature production; low-temperature techniques; magnetic cooling; refrigeration
2-stage Stirling cycle cryogenic cooler, IR detector cooling 28037
Eloisatron dipole magnet design 4099
fire-resistant and cryogenic opt.-fiber cable 5569
hadron colliders, scaling laws, cost optim. 4098
ITER magnet cryogenic research facilities, computer-aided syst. 11719
LEP2 at CERN, cryoplants 4037
LEP2 cryogenics, large indust. control syst. appl. 18239
LEP2 cryogenics control syst. archit. 4036
low-energy X-ray detect. in cryogenic detectors 26258
metropolitan power systs., supercond. cable losses simul. *(Japanese)* 27216
MRI, RF coil/cryogenic preamplifier, high temp. supercond. 35069
multi-tank cryogenic storage syst. anal., space appls. 35253
rocket engine, liq. H_2 turbine, expander bleed cycle 26692
skin cryosurgery, MRI monitored, integrated probe 35059
thin rect. plates, eddy current loss calc., cryogenic temps. 7908
GaAs, MOS-hydride epitaxial growth, cryogenic purification of arsine 28737
H_2-O_2 fuel cell vehicle liq. storage *(German)* 36746
HD solid polarized target, transport, in-beam cryostat 34879
He cryoplants in CERN SPS, control aspects 10080
^{4}He superfluid cryogenics for LHC 4048

cryosorption *see sorption*

cryostats
cryostat for beam test, 1.3 GHz SC-cavity, 1.8 K 1627
field stabilization of supercond. magnet, He press. control 22767
HD solid polarized target, transport, in-beam cryostat 34879

cryotrons
HTSC single-cryst. supercond. crossotron switching element 1623

cryptography
see also computer installation; data privacy; public key cryptography
4-move perfect zero knowledge interactive proof for promise problems 32080
16-round Khufu cryptosystem, chosen plaintext attack 32180
access control in hierarchy, cryptanalysis 15760
alg. nonlin. and appls., cryptography 2395
analogue speech channel spectrum scrambling encryption with isomorphic emphasis 33802
AT&T's Smart Card, secure network access for multiple appls. 15722
authentication and secrecy codes, constr. 40694
bent mappings for fast implement. 8133
bit commitment, secure, lang.-depend. 32169
block cipher design, cryptographic finite state machine approach 8120
block cipher incl. variable permutations 8136
block cipher proposal for high speed software 8121
Boolean fns., propag. characts. and bal. 32077
byte-oriented block-ciphering algm. 8119
cell-based ATM phys. layer, parallel DSS implement. 8729
certified electronic mail 16631
chaos in signal processing, IEE Colloquium, London (1994) 19
chaotic cryptology, speech encoding/decoding 24113
chosen plaintext, known-plaintext and ciphertext-only attacks 15721
cipher block chaining security 32179
ciphertext only attack for one-way fn. of MAP 32181
clock controlled shift registers, cryptanalysis 8129
clock-controlled seqs., cryptographic seq. generators 40686
CMOS analogue chaotic oscillator for sig. encryption 34433
collision intractable hash fns. 32078
commun. security equipt., anal and selection 41637
communication and signal processing, conf., South Africa (1993) 5502
complex multiplication field algms. 20549
computer networks, star-based/ring-based conf. authentication facilities 8951
conf., Santa Barbara, CA (Aug. 1994) 32150
conf. on security technol., Ottawa, Canada, Oct. 1993 36875
conspiracy attacks on threshold RSA signature scheme 2391
continued fraction based, cryptographic syst. 40700
conventional cryptographic algms. 24062
cryptanalysis and protocol failures 24061
cryptanalysis for cryptosystem, involution *(Japanese)* 40622
cryptographic protocol verification software 24071

cryptography continued
cryptographic protocols and computer voting 24815
cryptographic protocols for auctions and bargaining 24816
Data Encryption Standard, expt. cryptanalysis 32151
database encryption, key distrib. and mgt. *(Chinese)* 2365
DES S-boxes, pairs and triplets 40625
DFT, arbitrary blocklength in finite fields 2558
DFT of arbitrary blocklength in finite fields *(Chinese)* 32044
differential cryptanalysis, natural stream cipher design 8127
differential cryptoattack, provable security 40626
differential-lin. cryptanalysis of 8-round DES 32153
Diffie-Hellman protocol breaking equiv., computing discrete logarithms 32174
digital signature, (t,n) shared verif. based on discrete logs. 24027
digital signature schemes, suscept., universal forgery 8154
digital signatures, cryptological applications of square roots in Z_{pq} 8162
digital signatures and their uses 2369
discrete logarithms, rational subgroup of Jacobians of large genus hyperelliptic curves, finite fields 20548
discrete logarithms in real-quadratic orders, cryptographic protocols 32157
disk drive air turbulence, cryptographic randomness 32162
distributed database security 15769
distributed enterprise network security 41814
double block length hash fns., attacks 8131
DSA type secure interactive batch verification protocols 24079
dyn. cryptographic key generation scheme for hierarchy 8118
dyn. threshold scheme constr. 2387
electronic document distrib. 15723
elementary abelian p-group factorizations, cryptographic significance 2394
ellipt. curves constr., given group order, large finite fields 20553
ellipt. curves with controllable lower boundary of extension degree, design for cryptographic reduction attacks 32156
Enigma type rotor machine, shift register 8124
error control, cryptology, speech compression conf., Moscow (1993) 43
failure modes of cryptographic systs. 24107
Fast Data Encipherment Algorithm, lin. cryptanalysis 32152
FEAL-32 encryption LSI *(Japanese)* 42093
Feistel ciphers, secure syst. design principles 8137
finest homophonic partition and related code concepts 32103
finite automaton one-key cryptosystems 8130
finitely generated semi-groups appls. 20555
free energy minimisation algm. for decoding and cryptanal. 32111
hashing, SL_2 matrices 32155
health care, secure multimedia appls. and teleservices 16855
hist., mil. code breaking computing, Bletchley Park scientists 32100
ident. schemes, length of cryptographic hash-values 32170
IN, strong user authentication 25090
incremental cryptography, hashing/signing 32171
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
input plane/Fourier plane random encoding, opt. image encryption 41302
inter-LAN security, trusted routers 16671
interferometric quantum entanglement, quantum cryptography 15793
Internet, security, protocols 16669
Internet, trusted software distrib. 24963
intersecting codes and independent families 24038
IP/Secure for security on datagram delivery for mobile host environ. 41784
IS-54-B portable digital cellular phone *(Japanese)* 42288
iter. modular multiplication algm. without magnitude comparison, cryptosystems 2386
key agreement protocols based on tamper-proof hardware 15736
key distrib. patterns, Minkowski planes 40693
key rels., cryptanalytic attacks 2396
keystream ciphers, comparison of two methods 8125
keystream generators, shift register based, security 8126
Korean speech recogn., synthesis, and cryptography 32017
KryptoKnight, protocols for authentication/key distrib. 25050
LAN environment, security system implementation 33459
LFSR-based hashing and authentication 32164
lin. code based unconditionally secure authentication syst. 15785
lin. cryptanalysis, multiple approxs. 32154
Lu-Lee cryptosystem breaking method 40706
MICE project, security fns. for multimedia conferencing appls. 16854
mistaken beliefs 2383
mobile computing environ., anonymity 33918
modular exponentiation algms., nonstandard arith. 32097
multi-exponentiation in cryptographic protocols 2899
multi-secret sharing schemes 32166
multiloop Vigenere cipher, exceptionally long component series 2390
multiple secrets, secure transm. in broadcasting networks 40697
multiround authentication protocol cryptanalysis 32163
multisecret sharing schemes based on transversal matroid, access struct. *(Japanese)* 40624
multisecret-sharing scheme based on one-way fn. 15790
network security problems and solns *(Japanese)* 16610
network synchronized clocks, predictable timestamp 40605
network traffic, encryption 8908
Neuman-Stubblebine authentication protocols 24069
NIKS-TAS cryptographic scheme, attack method 32175
non-interactive ID-base key sharing schemes and perform. 32081
noninteractive zero-knowledge proofs, complexity of bounded-interact. 8177
nonlin. criteria of Boolean fns. 24122
nonlin. filtered seqs., lin. complexity, FT approach 32178
one-way fns., finite near-rings 32076
operation modes of cryptosystem 8128
orders of optimal normal basis generators 24111
parallel scrambling techs. for multibit-interleaved multiplexing environ. *(Korean)* 16422
password ident. scheme, cryptanalysis, quadratic residues 15761
periodic polyalphabetic substitution ciphers 2389
PGM crypto-chip, parallel permutation multiplier 29189
plaintext signatures for E-mail, legal aspects 3148
PMR systs. security 33915
prime nos., provable, fast generation using searching in arith. progressions 28619
pseudo-random nos., cryptographic in simul. 8134
pseudo-random seq. generator, clock-controlled *(Japanese)* 12614
pseudorandom permutations constr. 8150
PSTN, secure speech/data commun. 33397
public-key cipher syst. based upon diophantine eqns. 24065
quadratic m-seqs. 8132

cryptography continued
quantum bit commitment scheme provably unbreakable by both parties 8753
quantum cryptography, operational syst. 24064
quantum cryptography, photon pairs 15792
quantum cryptography, polariz. feedback 15791
quantum cryptography, polarized photons in opt. fibres 17342
quantum cryptography fiber commun. 24109
quantum oblivious transfer, secure against, indiv. meas. 8147
randomness-rounds tradeoff in private computation 32183
RC5 encryption algm. 8149
Redei fns., fast eval. algm. 40687
rem. chaos replication cryptosystems, cryptanalysis 32177
resilient fns. and orthogonal arrays, bounds 28618
SASC distrib. comp. protocol, info. leakage meas. 32082
secret key cryptosystems, stat. attack 40707
secret sharing, robust, dealer, honest, cheating 32094
secret sharing scheme and GS^3 model 8112
secret sharing schemes, inform. rate, new bounds 32009
secret sharing schemes, lin. alg. approach 8138
secret sharing schemes and graph decomp. 40627
secret sharing schemes based on combinat. designs *(Japanese)* 40621
SecuDE security toolkit, towards trustworthy commun. systs. 8955
secure addit. chain for SASC protocol appls., cryptanal. 24026
secure commun. by chaotic encryption 15686
secure commun. using chaos, security testing 15728
secure digital mobile commun., conf. key distrib. 25318
secure voting, part compatible homomorphisms 32184
security issues in inform. age 16551
security technols. in telecomms. 16550
separating systs. theory 15679
shrinking generator, pseudorandom nos. for additive stream ciphers 8123
signature scheme, existentially unforgeable, efficient, appls. 32172
smart cards, ID-based non-interactive group commun. key sharing 3070
software stream cipher based on Fibonacci shrinking 8122
substitution box design pitfalls 32182
successful deception probab., max. no. of messages estim. 15731
systs. failure 24060
telecomms. indust., competitive intell. gathering 3054
third-generation mobile systs. security 33916
traitor tracing, cryptographic schemes 32173
transient faults, security maint. 32185
trusted multicasting elements 2926
universal pers. commun., security archit. 24930
variable-length key 64-bit block cipher 8135
William F. Friedman's transcription of Voynich Manuscript 40682
witness hiding protocols, partial knowledge proofs/simplified design 32168

crystal chemistry
see also crystallography; stoichiometry
B, borides and related compounds, conf., Tsukuba, Japan (1993) 11553
Ni batt. electrodes, Mn substitution expts. 27885

crystal cleavage *see specimen preparation*

crystal defects
see also Cottrell atmospheres; defect absorption spectra; dislocations; grain boundaries; point defects; stacking faults; twinning; voids (solid)
book, Si and Si alloy based materials/devices 11540
GaInAs-InP heterostruct., elec. props./interface defects 13103
GTO thyristor failure mechanisms 1378
HTSC eptiaxial films/multilayers, growth *(French)* 28728
HTSC RF SQUIDs made by O-ion irrad., LF noise 39272
II-VI blue-green emitters, failure mechanism 14630
mag. materials, lattice defects study, ultra-compact LC-oscillator appl. 25955
Nordic semicond. meeting, Iceland (Jun. 1994) 27
post-chem.-mech. planarization cleaning, secondary platen press. 38534
α-quartz, facets, charging, SEM anal. 14000
rapid isothermal proc., photophysical/photochem. effects 22232
semicond. cryst. lattice defects, nonlin. microwave scatt. 38293
semicond. elements, 1/f noise and wandering defects 13585
semiconds., killer defects, automatic in-line meas. 6602
AlGaAs-GaAs HBT with strain-relaxed base, improved reliab. 38826
AlN film growth on 6H-SiC, plasma assisted GSMBE 12090
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+\delta}Ag$ tapes, crit. current dens., columnar defects 1596
Bi_2Te_3:In,Pb, intrinsic defects, elec. method studies 1068
C_{60}, thin film growth, MBE growth, film struct. 37395
C_{70}, thin film growth, MBE growth, film struct. 37395
CdSe quantum wells, single-shot lasing, microscopic studies 23299
$(CuFe)_{2.2}Te_2$, synthesis/charactn. 20650
$CuInS_2$ polycryst. thin film solar cells 27954
$CuInSe_2$ polycryst. thin film solar cells 27954
GaAs:Si, MESFET, ion implant., mass resoln. effects 30039
$GaAs:Si^+,Se^+$, ion implant., struct. anal. 30031
HgCdTe MSM detector, defect mapping by nuc. microprobe 42800
HgCdTe detector, multi-element lin. arrays, SR topography *(Chinese)* 17796
$Hg_{1-x}Cd_xTe$ MSM IR detectors, nuc. microprobe defect anal. 29987
HgI_2:Ag crysts., defects, rel. to X-ray/γ-ray detector perform. 43075
$InAs/GaAs(Ga_{0.47}In_{0.53}As)$ heterostructs., MBE, defect control 12046
InGaAs/InAlAs epilayers, MBE on InP patterned substrs., TEM 5838
InP:Fe single-cryst. ingot, cryst. growth, large-scale clusters 20657
InP: S(Sn)(Fe) substrates, scatt. defects, laser scanning tomography 13043
$Li_2B_4O_7$, Bridgman grown, defects and SAW appl. 30634
$Nb-Al-AlO_x-Nb$ tunnel jn. photon detectors, TEM/AFM anal. 39287
Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
PZT ferroelec. thin film capacitors, fatigue and photoresponse 39102
Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
$Rb(Ti_{1-2x}Ln_xNb_x)OAsO_4$, defect chem., opt. props. 7774
Si amorph. film, grain growth/defects obs. *(Korean)* 21930
Si anisotropic etching, hillock defects 30106
Si, float-zone grown/NTD, positron annihilation obs. 38470
Si, flow pattern defects, nonagitated Secco etching 1023
Si homoepitaxy on Si(111), surface defect mediated 12087
Si, ion implanted, defect prod., structural transforms. 30060
Si, ion-induced amorphization, model 1231
Si, irrad. effects, reverse annealing, simplistic model 22093
Si multicrystalline solar cells, gettering, passiv. 27955
Si porous nanostructures, electronic excitation, relax. mechanisms 14588
Si surface deform., time-resolved X-ray diffr. meas. 38476
Si thin film solar cells, zone melting recryst. 44404

crystal defects continued
- Si wafer oblique angle inspection, contaminant/cryst. particle differentiation 11825
- Si wafers, light scatt. tomography detecting defect, annealing 38468
- Si wafers, photocurrent imaging, electrolyte contacts 31069
- Si:B(P), low-energy implant., RTA/furnace annealing, XRD optimisation 22102
- Si:F, recrystn., at. redistribution, F 1s NEXAFS 38521
- a-Si:H TFT, multiple stress accelerated degrad. *(Korean)* 22442
- Si:O near-surface/subsurface defects, opt. prod. profiling 29992
- Si:P, ion-implanted, flash-lamp annealing, Raman image study 38472
- Si:Ru, ion implant., Ru-related defects, elec./opt. props. 38228
- Si/SiO_2:N, plasma action under PECVD conditions 5882
- Si-SiO_2 MOS surface layer defects, ECR etching in Cl_2/O_2 plasma 6631
- SiC, props./growth, rel. to HF device appls. 1072
- SiC:Ga^+, defect prod., annealing 22105
- SiC-SiN_x multilayer x-ray lithog. membranes by ECR CVD 6698
- SiO_2 films, thermal CVD, microdefects 407
- a-SiO:H films, plasma CVD, solar cell appl. 5213
- SiO_2-Si, stacked RTO/RTCVD oxide gate dielec., elec. props. 22637
- YBaCuO, proton implanted layers, crit. currents 1590
- $(ZnS)_3(ZnSe)_{42}$:I, ALE grown, carrier transport props. 38259

crystal dislocations *see dislocations*

crystal electron states *see energy states*

crystal etching *see etching*

crystal filters
- *see also surface acoustic wave filters*
- all pole/finite pole filter and delay equalizer design, monolithic dual resonators 39082
- BAW act. piezoelec. filters 30652
- even-degree lower-sideband polylithic cryst. filters, design 12629
- frequency control, symp., Salt Lake City (Jun. 1993) 34
- frequency control symp., Boston, MA, USA (Jun. 1994) 28221
- HF monolithic cryst. filters, 30-150 MHz 30622
- microwave dielec. ceramic filters, prep. and anal. 12723
- multicrystal lattice filter design, lattice cascade splitting 37831
- multiple cryst. filter IF strips, spec., design, and anal. 39080
- rect. piezoceramic resonator, AM filter appl. *(Japanese)* 39089
- simultaneous real-time cryst. filter alignment in freq./time domains 39081
- single sect. lattice cryst. filters, normalized design 39079
- surface mount RF/microwave filters, high dielec. const. ceramics 21401
- $Li_2B_4O_7$ promising material for BAW filters 30582

crystal growth
- *see also crystal growth from melt; crystal growth from solution; crystal growth from vapour; crystal purification; crystallisation; dendrites; epitaxial growth*
- 3-methyl-4-methoxy-4′-nitrostilbene, cryst. growth and second order nonlin. opt. props. *(Chinese)* 2051
- N-(4-nitrophenyl)-N-methylaminoacetonitrile, cryst. and fibres, SHG 15092
- oxide cryst. lasers, act. ion oxid. states 39749
- HgCdTe, quench recrystn. growth 5805
- MnBi films, low temp. cryst. growth in Mn/Bi layer syst. 12133
- Si wafer oblique angle inspection, contaminant/cryst. particle differentiation 11825
- Si wet chem. etching mechanism 30105
- SiC, props./growth, rel. to HF device appls. 1072
- SiC, seeded Lely growth, cryst. macro-defects 5811

crystal growth from melt
- *see also liquid phase epitaxial growth; zone melting*
- compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
- dil. mag. semiconds. for opt. sens./nonreciprocal devices 31018
- First Material Processing Test microgravity expts., image furnace and egg rack *(Japanese)* 12027
- fluoride laser crysts., growth atmos. contamination effects on opt. quality 14327
- laser cryst. growth techs. 12132
- oxide laser crysts., CZ growth 14828
- Si, cryst. growth simul. program, automatic parallelization 12034
- single cryst. fibres, temp. gradients, laser heated pedestal grown 30858
- Au/$Zn_{0.4}Cd_{0.6}Te$:In solar cell, fab./charact. *(Korean)* 19985
- Bi_2Te_3-Sb_2Te_3 solid solns., thermoelec. props., excess Te/growth effects 13084
- $Ca_3Ga_2Ge_3O_{12}$:Cr^{4+} single crysts., growth and photolum. 28710
- CdTe, cryst. growth from melt 20658
- CdTe, crystn. in presence of convective flows in melt 294
- CdTe gamma-ray spectrometers perf. 43159
- CdTe:Ti(V), charactn., time depend. charge meas., PICTS 30020
- CdTe:V,Z,Cl, Bridgman/traveling heater grown, detector appl. 43101
- CdTe/CdZnTe, accelerated crucible rot. growth 5804
- GaAs, (001)-cut, CZ grown, disloc. dens.-depend. photorefr. effect 14319
- GaAs, CZ grown, ion implant., struct./mech. props. 13305
- GaAs, LEC cryst. growth, analytic model, proc. control 28715
- GaAs, bulk cryst. growth, rare earth effect 20656
- GaAs, growth techs. effect on photon detect. capabilities 43100
- GaAs, huge crysts., growth, charactn. 293
- GaAs, substrs., vapour press. controlled CZ growth 12028
- GaAs, vert. gradient freeze growth, residual impurities/defects, IR absorpt./Hall effect 12031
- GaSb single crysts. doping, various elements 22140
- GaTe semicond. superlattice, Bridgman growth, elec. anisotropy 37384
- $Hg_{1\text{.}}Cd_xTe$ cryst. growth, travelling heater method 5806
- $Hg_{1-x}Cd_xTe$, accelerated crucible rot. growth 5804
- InGaAs crystals, LEC growth, props. 12023
- $In_xGa_{1-x}Sb$, voids in cryst. grown by US-vibr.-introduced CZ method 12019
- InP, CZ grown, ion implant., struct./mech. props. 13305
- InP, LEC growth, thermal stresses, disloc. form. 12030
- InP, LEC-growth, thermal anal. 12029
- InP, MOCVD/LEC grown, electron radiation resist. 21904
- InP, P-rich, one step in-situ MLEK angst. growth process 12022
- InP, bulk cryst. growth, rare earth effect 20656
- InP crysts., vapour press. controlled Czochralski growth 12024
- InP substrates, VGF growth process 12021
- InP, substrs., vapour press. controlled CZ growth 12028
- InP, vert. gradient freeze growth, charactn. 12032
- InP wafers, LEC growth, flats location/control 12086
- InP:CdTe, LEC growth and double doping, dislocations 12025
- InP:Fe, LEC growth, wafer annealing controlled doping 28712
- InP:Fe, photolum., Fe concentration depend. 13045
- InP:Fe single-cryst. ingot, cryst. growth, large-scale clusters 20657

crystal growth from melt continued
- InP:S, low dislocation density, LEC cryst. growth 12026
- KLiNbO fibre growth, blue-violet light generation 31595
- $La_3Ga_5SiO_{14}$ crysts. and resonators study, X-ray topography 30577
- $La_3Ga_5SiO_{14}$, langasite, growth and opt./piezoelec. props. 30576
- $Li_2B_4O_7$, Bridgman grown, defects and SAW appl. 30634
- $Li_2B_4O_7$ single cryst. growth, CZ method 30579
- $LiNbO_3$ acoustic superlattice, growth/transducer props. 13995
- $LiTaO_3$ opt. waveguides, controlling birefr., nonisovalent ion exchange 14421
- $LiTaO_3$ single crysts. for SAW device appls. 14093
- $Mg_xZn_{1-x}Se$ mixed crysts., high press. Bridgman growth method, luminesc. 31072
- Nd laser hosts, fluoro-apatite struct., CZ growth 14829
- Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
- Ni^{2+}:$Gd_3Ga_5O_{12}$ pulsed laser operation 23155
- Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
- Si, CZ grown, equiv. element Ge doping, effects on O_2 donors *(Chinese)* 38519
- Si, EFG growth in CO ambient, gettering 20647
- Si growth, highly pure crysts. 12035
- Si, ion implant. proc. problems, surface photovoltage detect. 30017
- Si, molten, surface tension var. meas. by ring method 28709
- Si polycryst. solar cells, hydrogen passivated 44407
- Si wafers, heat treated, microdefect depth distrib. due to nonequilib. self-interstitials 38474
- Si:B CZ cryst., O-incorporation, precip. 20655
- Si:B, CZ grown, O/C effects on thermal donor form. 29827
- Si:Fe,Al(B), lifetime effects of Fe/Fe complexes 29826
- Si:O, CZ-grown, lattice strain and oxygen precip. 20648
- Si:transition-metal silicides, CZ grown, precip. 5803
- $TlBr_xI_{1-x}$ photodetectors for scintillation spectrosc., eval., prep. 10128
- YBaCuO rods for current lead appls., directional solidif. 290
- ZnSe crysts., melt growth, twin reduced 291

crystal growth from solution
- *see also liquid phase epitaxial growth*
- Diamond low press./temps. liq.-phase seed epitaxy hydrothermal synthesis 37379
- dye nanocrystals doped in polymer matrices prep. 22783
- L-histidine tetrafluoroborate soln.-grown semiorganic cryst. for nonlin. freq. conversion 23439
- nitroaniline based nonlin. opt. syst., cryst. growth 15066
- quartz, hydrothermal cryst. growth 13994
- quartz cryst. growth, temp. sens. appl. 34475
- quartz cryst. growth technol., platinum vessel 5808
- AgBr nanocrystal indirect bandgap semicond., lumin. props. 20653
- AlN, high press. crystn. 37377
- AlN, thermodyn. and cryst. growth, high N_2 press. 37381
- c-BN, ultra-hard materials, high press. synthesis 12033
- β-BaB_2O_4 cryst. growth by induction heating, nonlin. opt. appls. 23391
- CdTe, traveling-solvent method growth, pseudo-steady-state calc., computer simul. 20652
- $CuGaS_2$, travelling heater growth, CuI solvent 5810
- GaN, high press. crystn. 37377
- GaN, thermodyn. and cryst. growth, high N_2 press. 37381
- HgI_2, cryst. growth from soln. in space/on ground 37382
- $Hg_{1-x}Mn_xTe$, travelling heater growth method 28713
- InGaAs temp. difference growth, num. anal. of soln. convection *(Japanese)* 37380
- InN, thermodyn. and cryst. growth, high N_2 press. 37381
- $KNb0_3$, single cryst., growth, SHG, appls. 2113
- $KTiOPO_4$ nonlin. devices, temp. dispersion 15121
- $KTiOPO_4$, solid state eyesafe wavelength converter, YAG lasers 7768
- Si wet chem. etching mechanism 30105
- YVO_4:Nd(Er)(Ho) single crysts., growth, opt. props. 1905
- ZnS:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
- ZnSSe:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561

crystal growth from vapour
- *see also vapour phase epitaxial growth*
- conference, vapour growth/epitaxy, Freiburg, Germany (1994) 20217
- diamond:Na (Rb) (P), low energy implant., detector appl. 38497
- intermetallic complex cpds. prep., high-purity 28714
- AlSb, closed-tube vap.-phase growth syst., transport rate, thermodyn. calc. 20651
- CdTe:Ti(V), charactn., time depend. charge meas., PICTS 30020
- $CoWN_2$, synthesis, hexagonal struct. 20649
- $MnWN_2$, synthesis, hexagonal struct. 20649
- $NiWN_2$, synthesis, hexagonal struct. 20649
- Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
- ^{28}Si single crysts. growth, centrifugation method 12036
- SiC crysts., growth, LETI/Lely methods 20660
- SiC device proc./substr. fab., high power/temp. microwave 37990
- SiC, single-crysts., sublimation growth 20661
- SiC sublimation method cryst. growth, growth zone role 292
- ZnSe, phys. vap. transport, mass flux 20659

crystal hyperfine field interactions *see hyperfine interactions*

crystal imperfections *see crystal defects*

crystal interstitials *see interstitials*

crystal microphones *see microphones*

crystal oscillators
- *see also surface acoustic wave oscillators*
- 900 MHz transmitter syst., highly integrated ASIC 9353
- BAW/SAW quartz resonators, noise charact. 37660
- biosensors mimicking biological taste/smell senses 25889
- CD digital audio, high order phase lock loop for jitter reduction 6050
- CMOS cryst. oscillators, neg. resist./equiv. capacitance 6925
- design and spec., tutorial 39086
- driving power meas. of quartz cryst. units 30618
- dual-mode cryst. oscillators, B-C modes excited resonators 39104
- floating resonator terminal cryst. oscillators, freq. charact. meas. of neg. resist. *(Japanese)* 22680
- frequency control, symp., Salt Lake City (Jun. 1993) 34
- frequency control symp., Boston, MA, USA (Jun. 1994) 28221
- HF electronic component measuring syst. 9821
- LO for commun. satellite transponder, 2.8 GHz *(Korean)* 12763
- long-term stabil. quartz oscillator, GPS filter 42324
- low-noise oscillators design/optim., nonlin. CAD 29072
- microcontroller-based compensation in DDS/PLL appl. 21135
- micropower batt.-operated CMOS cryst. oscillator, anal. 6045

crystal oscillators continued
microwave oscillators, high-Q temp. stabilized sapphire resonators 30623
MIL-O-55310/MIL-C-49468 stds., quartz cryst. oscillators/resonators 43590
neural network controlled cryst. oscillator 39107
ovenized cryst. oscillators, VLF transmitter freq. synchronized 39074
precision freq. meas. tech. in MCXO 42886
quartz cryst. oscillators, freq. instabilities 30626
quartz cryst. oscillators, porous layers, damping effect 30600
quartz cryst. oscillators CAD 39103
quartz crysts., test oscillator for drive level study 30617
quartz resonators/oscillators, 1/f freq. flucts./nonlin. 30627
resonator selection in quartz oscillators 37663
round quartz blank sorting by Ω-scan, cryst. oscillator manufacture 39078
round quartz blanks, AT-cutting angles/X-miscutting angles meas. 30613
sapphire resonator-oscillator, cryogenic, exceptional stabil. 30624
SC-cut resonators appl., high stabil. oscillators 39108
self-excited chopper, quartz micromachined, opt. sens. appl. 30978
series reson. oscillator design tech. for VHF/UHF ccts. 21136
SONET opt. commun. components, cryst. controlled 17171
std. freq. generators, environ. sensitivities 42663
TCXO with quartz cryst. resonators, cellular telephones appl. 39106
temp. compensation of cryst. oscillators, microcontroller 39105
temp.-compensated cryst. oscillator, two-port resonator 37666
X-band sapphire resonator-oscillator, temp. stabil. 29572
crystal purification
GaAs, MOS-hydride epitaxial growth, cryogenic purification of arsine 28737
$TlBr_xI_{1-x}$ photodetectors for scintillation spectrosc., eval., prep. 10128
crystal resonant gamma-ray interactions *see Mossbauer effect*
crystal resonators
see also crystal oscillators; surface acoustic wave oscillators; surface acoustic wave resonators
all pole/finite pole filter and delay equalizer design, monolithic dual resonators 39082
AT-cut quartz crysts., high-temp. acoustic loss 34476
dB down terminology for cryst. resonators 39083
frequency control, symp., Salt Lake City (Jun. 1993) 34
frequency control symp., Boston, MA, USA (Jun. 1994) 28221
HF quartz resonators charact. anal. 30610
ISO9000 quality syst. std. implement. in small company 28518
micro-domains generation in AT-cut quartz, thermal proc. 30602
microgravimetry, soln.-phase, using oscillating quartz microbalance 42956
MIL-O-55310/MIL-C-49468 stds., quartz cryst. oscillators/resonators 43590
multifunctional piezoceramic resonators, design and size reduction 39084
multipurpose sens., thermosensitive quartz resonator 25814
near field opt. microscope, piezoelec. tip-sample dist. control 39088
nonohmic piezoelec. resonator contacts obs./anal. 6920
piezoceramic resonator anal., inplane fork-mode vibr. *(Japanese)* 14086
piezoceramic resonators, microcontroller timing, LV operation 39085
piezoelec. composite microcantilever for accelerometer appls. 30605
piezoelec. langasite and quartz crysts. polishing/etching 30581
piezoelec. lens elements, freq. dists., anharmonic oscills. 1564
piezoelec. material consts. determ., improved resonator method 30580
piezoelec. resonator materials metric for materials eval. 30574
piezoelec. resonators, elec. params. meas. 30593
quartz, very high freq. resonators, LD-based mode-shape meas. syst. 22679
quartz bulk piezoelec. odour sens. array, coating materials 34450
quartz cryst. electrochem. microbalance, LF mode spatial localization 34710
quartz cryst. growth, temp. sens. appl. 34475
quartz cryst. resonator, extralow excitation, stationary acoustic vibrs. 14085
quartz cryst. resonator stabil., electrode metallization barrier layer 39075
quartz cryst. units, irreversible freq. vars. 30628
quartz monolithic struct. vibr. beam accelerometer 34492
quartz outgassing meas., mass spectrometer 30601
quartz plates, weak spurious modes, surface charge distrib. 22678
quartz reson. sens., develop., FEM 9848
quartz resonator mag. sensitivity, orig. and meas. 30615
quartz resonator param. meas., IEC 444-5 direct transm. method 39077
quartz resonators with beveled cylindrical edges, transversely varying thickness modes 6923
quartz resonators/oscillators, 1/f freq. flucts./nonlin. 30627
quartz tuning fork resonators, overtone mode 30604
rect. AT-cut quartz resonators, charge distrib. meas. and anal. 39091
rect. piezoceramic resonator, AM filter appl. *(Japanese)* 39089
rect. quartz plates vibrs. characts. meas. 30614
rotated Y-cut quartz plate resonator, c-mode oscill. 30611
sapphire resonator for ultra-stable oscillator capability 29574
SC-cut quartz resonator, fab. imperfections effects 30606
spurious resons. meas. of cryst. units 30616
stepped flexural mode quartz cryst. resonator, reson. freq. 39090
thickness mode quartz transducers, mounting effect on vibr. charact. 35371
thickness-field excited thickness-shear resonators 30592
transm.-line analogs of piezoelec. plate resonator 30612
trapped energy resonators, transversely varying thickness modes anal. 30607
US atomizing device, coupled-mode vibr. 4428
whispering gallery sapphire resonators, 2D finite element calc. 30625
Ag-Ni laminated electrodes for quartz piezoelec. resonators 39076
$GaPO_4$ and $La_3Ga_5SiO_{14}$ crysts. and resonators study, X-ray topography 30577
$Li_2B_4O_7$ promising material for BAW filters 30582
PZT disk plates, multimode coupling vibr. in piezoelec. ceramics *(Chinese)* 30620
thermally compensated materials, $AlPO_4$, $GaPO_4$ and $La_3Ga_5SiO_{14}$ 30578
crystal surface and interface vibrations *see interface phonons; surface phonons*
crystal vacancies *see vacancies (crystal)*
crystal whiskers *see whiskers (crystal)*
crystallisation
see also crystal growth; dendrites; heat of crystallisation
conducting isopolymers, prep., props. and appls. 37539
cytochrome b_{562}, electroactive protein for bioelectronics 21665
glass ceramics, comps. and uses, review 20987
glass-ceramic, laser-stimulated opt. props., local change 7259
HTPB/Al particle composites, elec. cond., low fields 30589
$LiMn_2O_4$ films, sputtered, charactn. for rechargeable microbatteries 11232
phase-struct. writing mechanism, crystallisation proc., num. simul. 14331
polyethylene-2, 6-naphthalate film, morphology, dielec, strength, thermal effects 14054
crystallisation continued
polysilicon bottom gate TFTs, excimer laser crystn. 38880
AlN, high press. crystn. 37377
$BiDy(FeGa)_5O_{12}$ garnet films, sputter deposition and struct. props. 7037
CdTe, cryst. growth from melt 20658
CdTe, crystn. in presence of convective flows in melt 294
$(DyBi)_3(FeGa)_5O_{12}$ films, crystn., Faraday effect *(Chinese)* 14166
α-Fe/$Nd_2Fe_{14}BTi_x$ nanocrystalline alloys, coercivity 7011
Fe-BN films, deposition conditions and mag. props. 5889
Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
a-$Fe_{73.5}CuNb_3Si_{13.5}B_9$ ribbons, mag. domain struct., crystn. effect 14142
FeNbCuSiB ribbons, fast dc Joule heating, nanostructured materials prep. 14137
FeSiB amorph. wires, annealed, engng. magnetostriction meas. 14132
FeSiBCuNb amorph. wires, crystn. proc. and mag. props. 14136
FeZrB(Cu) amorph. and nanocrystalline alloys, mag. and transport props. 14130
GaN, high press. crystn. 37377
a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
GaSb, semicond.-metal transit., crystallisation under press. 13078
GaSb-Ge, semicond.-metal transit., crystallisation under press. 13078
a-Ge particles form., nm dimens. and their behaviour, annealing 1058
a-Ge/Ag layered systs., metal-mediated crystn. 38404
a-Ge/Bi annealed bilayer, crystalliz. effect on conduct. 21926
In_3SbTe_2 phase-change opt. disks, crystn. 22798
$Nd_2(Fe_{1-x}Co_x)_{23}B_3$ ($0\leq x\leq 1.0$), struct., mag. props. 6980
PZT ferroelec. capacitors, integrat./materials interacts. 39099
PZT films, sol-gel deposition, Ti buffer layer 20915
PZT films, sol-gel derived, solid phase epitaxial growth 28731
Pb_5CrO_8 films, optoelectronic props., contact-type line-image sens. appl. 42789
PrNdFe, melt spun magnets, mag. viscosity, prep. from amorph. precursors 39194
PrNdFeB amorph. precursors, mag. hardening by crystn. 6987
$R_2Fe_{14}B$/Fe nanocomposite exchange coupled magnets, struct./mag. props. 7009
Sb-Ge amorph. films, crystn. kinetics, in situ studies 20914
Si TFTs fab., min. glass substr. deform., RTA control 30007
Si, film, on SiO_2, CVD growth, defects, TEM obs. 21878
a-Si films, crystn., SiO_2 surface treatment effects 13393
Si, polycryst. thin-film solar cells, solid phase crystn. 5214
a-Si thin films, glass substrs., excimer crystallisation simul. 13075
Si:H films, amorph./microcrystalline, selective deposition/etching 12179
a-Si:H films, recrystn. by XeCl excimer laser irrad. 28797
Si:H, microcrystalline layer, at. H etching, spectroellipsometry 12136
a-Si:H thin films prepared by layer-by-layer deposition 427
n-Si:P amorph. CVD films, crystn., elec. props. 405
a-Si/Ag layered systs., metal-mediated crystn., TEM obs. 38403
Si-$NiSi_2$ microcrystalline composite thin films, struct./elec. transport 38402
SiGe, SPE, comp. depend., time-resolved reflectivity meas. 38270
a-$Si_{1-x}Ge_x$ MBE films, solid phase crystn. 37437
$Si_{1-x}Ge_x$ polycryst. film prep., excimer-laser proc. 28796
$Si_{1-x}Ge_x$ thin film, form. from heavily Ge-implanted Si, morph. 28795
$Si_{1-x}Ge_x$ thin films, plasma-enhanced very-LPCVD 37475
Sm-Fe-Ti, rapidly quenched, struct./mag. props. 39206
$YBa_2Cu_3O_x$, high J_c, modified melt techs. 22715
crystallography
see also lattice constants; space groups; X-ray crystallography
Pockels effect opt. fibre elec. field sens. 17868
InGaAs-InP strained QW lasers, linewidth enhancement factor depend. on cryst. orient. 14858
$NaNO_3$ cycloidal diffr. gratings, propag. eqn. and boundary conditions 23607
CSCW *see groupware*
CSMA *see carrier sense multiple access*
CSMA/CD *see carrier sense multiple access*
CSP *see communicating sequential processes*
CSP lasers *see semiconductor lasers*
CT-2 telephone systems *see cordless telephone systems*
cube-connected cycle networks *see hypercube networks*
Cuk convertors *see power convertors*
cumulants *see higher order statistics*
Curie point *see Curie temperature; ferroelectric Curie temperature*
Curie point writing *see thermomagnetic recording*
Curie temperature
see also ferroelectric Curie temperature
ferrite tiles, temp. behaviour of reflectivity 14198
mixed ferrites, elec. resist., Curie point 21924
PM, materials, review 39155
refl. pulse method for material props. determ. 9829
$Cd_{1-x}Mn_xTe$, magnetis. and photomagnetic effects 1071
$Ce_2Fe_{17}H_x$, press. effects on mag. props. 39160
$CuCr_2Se_4$:As, mag. props., doping effects 14157
Dy/$DyFe_2$ eutectic, magnetisation, stress effects 7006
$Dy_2Fe_{17-x}Ga_xC_2$, arc melting prep., mag. props. 39138
Fe, BCC, ferromagnetism, temp. depend. electronic struct. 7000
Fe-Zr film, amorph., antiferromag./ferromag. cluster coexistence 14117
FeGdN, soft mag. thin film material 14151
FeZrB(Cu) amorph. and nanocrystalline alloys, mag. and transport props. 14130
GdTbFe(Co) magneto-optic media, domain wall mobility meas. 14232
$Ho_2Fe_{17-x}Ga_x$, mag. props., struct. 7217
$La_2Co_{17-x-y}Fe_xTi_y$ intermetallic cpds., mag. props. 1568
$La_2Co_{17-x-y}Fe_xTi_yN_\delta$ intermetallic cpds., mag. props. 1568
$LiTaO_3$, 36°YX, wafer characts. line-focus-beam acoustic microscopy, SH-type devices 14088
$LiTaO_3$ channel waveguide phase matched SHG 15150
$LiTaO_3$ opt. waveguides, controlling birefr., nonisovalent ion exchange 14421
$Li_{0.3}Zn_{0.4}Fe_{2.3}O_4$, additives, material property changes 39167
Nd-Fe-B sintered magnets, Nd-Fe-O intergranular phase, coercivity effect 39190
Nd-Fe-Co-B die-upset magnets from dissimilar ribbon blends 6965
$Nd_2Fe_{14}BH_x$ powders, synthesis and mag. props. 39128
$Nd_2(Fe_{1-x}Co_x)_{23}B_3$ ($0\leq x\leq 1.0$), struct., mag. props. 6980
$NdFe_{12-x}V_x$, mag. props. 39150
$NdFe_{12-x}V_xN_y$, mag. props. 39150
R_2Fe_{17} (R=rare earth), interstitial insertion, vol. effects, mag. props. 39144

Curie temperature continued
- $R_3(Fe,M)_{29}X$ (R=Ce,Pr,Nd,Sm,Gd; M=Ti,V,Cr,Mn; X=H,N,C), permanent mag. props. 6944
- $RFe_{10.5}Mo_{1.5}C_x$ series (R=rare earth), synthesis, mag. props. 30669
- $RFe_{11.35}Nb_{0.65}N_y$, pure and nitrided, (R=Y,Sm,Gd,Tb,Dy,Ho,Er,Lu), struct. and mag. props. 22688
- $R_2(Fe_{1-x}Si_x)_{17}$ (R=Dy,Y), struct. and mag. props. 7017
- Sm-Fe-Ti/nitrides, mag. props. 14160
- $Sm_{10}(Fe,V)_{90}N_y$ with $TbCu_7$-type struct., melt-spun, mag. props. 14159
- $Sm_{12.5}Fe_{87.5}$ nitride, mech. alloyed, nitrogenation behaviour and thermostability 1574
- Sm_2Fe_{17}, SiH_4 treatment, mag. props. 39142
- Sm_2Fe_{17}, high field magnetis. 7198
- Sm_2Fe_{17} powder, Nb-modified, nitriding 6947
- $Sm_3(Fe,Ti)_{29}N_5$, mag. props. 14155
- $Sm_2Fe_{17-x}Al_xC$ (x=2-8), arc melted, struct., mag. anisotropy 7215
- $Sm_2(FeAl)_{17}C_x$, arc-melted, Al-effect on mag. props. 39201
- $Sm_2Fe_{17}C_x$, high field magnetis. 7198
- $Sm_2Fe_{17}C_xH_{5-x}$, high field magnetis. 7198
- $Sm_2Fe_{17}C_xN_y$, synthesis and mag. props. 1573
- $Sm_2Fe_{17-x-y}Co_yAl_x$, uniaxial mag. anisotropy 7216
- $Sm_2Fe_{17-x-y}Co_yGa_x$, uniaxial mag. anisotropy 7216
- $Sm_2(Fe_{1-x}Co_x)_{14}Ga_3C_2$, arc melted, struct., mag. props. 7219
- $Sm_2Fe_{14-x}Co_xSi_2$-based quasiternary syst., mag./struct. props. 6946
- $Sm_2(Fe_{1-x}Ga_x)_{17}$ (x=0-0.5) cpds. and nitrides, mag. props. 7218
- $SmFe_{12-x}Mo_x$, magnetocrystalline anisotropy 39151
- $Sm_2Fe_{17}N_x$ with discontinuous nitrogen profiles, mag. props. 39203
- $Sm_{1-y}Pr_yCo_{4-x}Fe_xB$, mag. material by substitution/nitridation 7200
- $(Sm_{1-x}Pr_x)_2Fe_{17}$, Curie temp., coupling model 7018
- Tb-Dy-Fe, Terfenol-D, mag. props., hydrogenation effects 7015
- Y_2Fe_{17}, SiH_4 treatment, mag. props. 39142
- $Y_2Fe_{17-x}Ga_x$, mag. props., struct. 7217
- $Y_2Fe_{17-x}Ga_xC_2$, form. and mag. props. 39141
- $Y_2Fe_{17-x}M_x$ carbides (M=Al,Si), mag. props. 39140

Curie-Weiss law *see magnetic susceptibility*

current (electric) *see electric current*

current collection, traction *see traction current collection*

current comparators
- bipolar AGC IC for hearing instrums. 35168
- CMOS prog. current comparator for analog VLSI neural nets 29430
- current mode BiCMOS ccts., 1 V supply voltage, ADC appl. 37898
- two-step flash ADC for digital CMOS technol. 693

current control, electric *see electric current control*

current-controlled current sources *see active networks*

current-controlled voltage sources *see active networks*

current conveyors
- analogue signal proc., symp., London, UK (Oct. 1994) 28263
- bidirectional current-controlled PTAT current source 12328
- canonic RC-act. oscillators using CCII, synthesis 579
- CCII biquads, high-input impedance 727
- CCII-based analog sig. filtering ccts., synthesis 722
- CCII-based multiphase sinusoidal oscillators 29068
- CCII-K ccts., variable gain, optimal design for HF appls. 21418
- CCIIs, act. network anal. 6212
- CCIIs, current followers, biquadratic current transfer fn. *(Japanese)* 6207
- class AB CMOS first-generation current conveyor 29353
- CMOS implement. *(Polish)* 724
- current-mode biquad based on act. RC biquad 37841
- current-mode quotient cct., nonideal act. elements 21406
- current-mode single-element-controlled bandpass/lowpass filters 37857
- dual-input current-mode ratio fn. generation, CCIIs 772
- high speed current-conveyor, accuracy in I-V transfer fns. 37847
- insensitive current mode variable gain allpass filter, current conveyors *(English)* 6219
- insensitive second-order filters, high input impedance, current conveyors 12640
- Kerwin-Huelsman-Newcomb biquad cct., current conveyors 731
- KHN-equiv. biquad, current conveyors 37851
- prog. CCII, variable current gain 37859
- RC op amp and RC current conveyor filters, comparison 6216
- RC oscillator ccts., CCII+ based, grounded resistors, lossy capacitors 37669
- single-element-controlled oscillator, current-conveyor-based 37668
- single-resist.-controlled VCO, current conveyors 21144
- temp. independ. current conveyor precision rectifier 5985
- third-generation current conveyor, config., CCIIs 29348
- third-order Butterworth characts., insensitive current mode realization, current conveyors 12641
- universal current-mode filter, non-inverting CCIIs 37858
- universal voltage-mode filter, current conveyors 6206
- variable LF CR oscillator, output admittance *(Japanese)* 6047
- voltage integrators using op-amps, current conveyors and transconductance amps 21408
- voltage-mode filter with three current conveyors, comment 21416

current density
- *see also critical current density (superconductivity); electron density*
- 3D mag. field anal. with edge element,magnetizing current dens., continuity 40185
- 3D semicond. device simul., adaptive mesh generation 1329
- 10-110 kV power overhead lines, current dens. estim. *(Russian)* 27230
- 30 GHz bipolar transistors, laterally scaled, 18 ps ECL-gate delay 21548
- 60 Hz mag. fields exposure, human model, current dens. 26491
- alkali metal thermoelec. convertor, ceramic electrode characts. 20027
- armature arcing voltage drop 15346
- augmented railgun-based fusion reactor solid H_2 pellet accel. 15283
- axisymmetrical radiating struct., simul./optim. software 15626
- barbed plate ESP, particle motion meas. 7922
- barbed plate-to-plate precipitator, elec. field/space charge, 3-D model 15249
- charge mobility modelling in high elec. fields 7899
- CMOS ULSI IC design, high perform. metallization issues 38642
- contact resist. between plated conductors, current dens. distrib. 6383
- cylindrical antennas in multilayer medium, model 31923
- DC current distribs. in solid conductors and mag. fields 40229
- diamond power transistor perform. 13796
- dielec. liqs., elec. cond. injection-dissoc. model 13921
- dielectric body permitt. reconstr., current modelling and Tikhonov regularisation 23565
- direct methanol fuel cell, H_2 ref. electrode test method 11282
- discontinuous expansion and testing fns. in method of moments 23817

current density continued
- distributed plasma armature, electromagnetism, lumped element description 23523
- dual lateral channel emitter switched thyristor characts. 13667
- edges of perfectly conducting wedges, PO current dens. correct. 7940
- electron beam producing cathode, pulsed power-supplied 34858
- electrorefining proc., anode passiv. expts. 28192
- ELF-microwave radiation dosimetry num. methods 35186
- EM launcher, plasma armatures, 3D MHD modelling, equiv. network 15313
- EM scatt. from plane wave or dipole excited finite grounded dielec. substrate 23849
- EM wave diffr. on cylindrical vibrator surface 40299
- emitter switched thyristor, p-channel diverter 22394
- emitter switched thyristors, forward biased SOA 13669
- equiv. current reconstruction for EM imaging 8512
- explosive whisker emission cathode materials study 29754
- FDTD, ESD source modeling 15217
- ferroelec. cathodes, electron emission, meas. 29753
- force-bal. supercond. coil studies, SMES appls. *(Japanese)* 11311
- gas-diffusion electrodes for PAFC, limiting current 5206
- high electron current dens., plasma edge cathode 29752
- human model, AC field exposure, induced current densities 26485
- human model in power freq. elec. field, induced current densities 26492
- HV appls. of IGBT or MCT in conjunction with diode, limits 30338
- HV dual-channel MOS-gated thyristor struct. 30270
- HV wire conductor, corona discharge, lumin., CT obs. *(Japanese)* 963
- HVDC transm. line, monopolar ionized field, ion diffusion 43736
- indirect interband tunneling formulation for semicon
ds. 38315
- induction coil launcher armature perform., computer simuls. 15302
- ion flow in 3D elec. field, charge dens. distrib. 31737
- ISL-EMA railguns, phase controlled thyristor main switches 31758
- isotropic chiral media, effective charge densities and current densities 23491
- large-aperture semicond. laser amps., sidelobes, injection current profile shape 39831
- lateral emitter switched thyristor, CMOS compatible 1376
- lateral IGBT and MOS-controlled thyristor structs. in SOI 30345
- light ion beam accelerator, commissioning technological appls. 26057
- low-noise TW front-end for coherent opt. receiver 9577
- MCFC, indirect internal reforming, math. modelling 11281
- method of moments, react., variational aspects 23490
- MGBT, MOS-gated power bipolar transistor, 750 V 1365
- microcavity semicond. laser modulation bandwidth 7636
- microwave EM imaging, convergent iter. algm. 42917
- MODFET, extended drift-diffusion model, 2D num. anal. 38924
- MOS controlled thyristors, buffer layer/anode short struct., 4.5 kV 30271
- MOSFETs, Fowler-Nordheim tunneling of carriers, gate current simul. 38896
- MRI antenna, inhomog. surface current, model 40448
- muzzle-fed railguns, EM/thermal anal. 15345
- n- and p-channel IGBT structs., wider safe SOA 30340
- N-channel emitter switched thyristors, 550 V, at.-lattice-layout geom. 1375
- normal zone propag. in Rutherford-type supercond. cables 27217
- PCB radiation aspects calc., EMC workbench 21634
- planar busbar low inductive connections, power electronics 12868
- planar SOFC, 2D distributed param. perform. model 44362
- planar SOFCs, param. design optimisation 44364
- plasma etching, helicon/ECR sources, Langmuir probe diagnostics 22194
- polyethylene, semi-empirical high-field cond. model 30535
- power bipolar transistor perform. optimisation, high current dens. 30253
- quasistatic elec. field design problems *(Russian)* 7882
- railgun plasma armatures, dyn./struct. studies 15333
- railgun projectile accel., plasma armature 15344
- railguns, composite electrodes, crit. current dens. 15364
- relativistic electron beam, space-charge limiting current, self-consistent calcs. 10100
- relativistic electron beam propag. through gas, time-resolved partition meas. 26056
- repetitive electron beam source for high power microwave expts. 26088
- reradiation antenna anal., integrodifferential-eqn. method 2316
- Schottky diodes, drift-diffusion theory of current dens. 6719
- Schwartz-Christoffel transform. of electrostatic field 15216
- SEMDEM bipolar power diode/thyristor modelling program 30199
- semicond. laser, AM/FM noise from coherent feedback 14864
- sinuous spiral antenna geom. model 23831
- solid armature railgun, current/heat transient diffusion 15310
- superconductive circ. two-wire transm. line, AC resist. and internal inductance 40391
- surface antenna on polyhedron, radiation charact. 2311
- surface charge dens. on a conductor, behavior 40215
- thin photoconductive layers, nonsteady-state photo-EMF 1791
- three-phase machine ring winding, end turn leakage inductance calc. *(Russian)* 43973
- trench gate emitter switched thyristors 30272
- trench MOS barrier Schottky rectifier, breakdown voltage 38810
- trench MOS-gated power devices 6706
- VIRA-2P pulsed power X-ray generator, electron beam size meas. 34973
- VLSI interconnect reliab. studies, computer simul. 22553
- waveguide FEL amp., low- and HF waves 39981
- wire ion plasma source, electrical characts. 21796
- Zener diodes, reverse I-V characts. 30210
- Al-Si resistors, electromigration noise depend. on characts. 865
- AlGaAs/GaAs pnp HBT, Al graded base, 37 GHz cutoff freq. 21534
- $Al_{0.3}Ga_{0.7}As/In_{0.2}Ga_{0.8}As$ doped-channel FETs, lin. improvement 12767
- AlGaAs-GaAsP 770-nm tensile-strained QW LD 23221
- AlSiCu lines, electromigration lifetime, min. time to failure testing 38637
- Au-GaAs Schottky diodes, cryogenic/RT, current transport 38390
- C electrode/polyacrylonitrile-based polymer electrolyte Li cells 5188
- C/MnO_2 composite primary cell electrode synthesis 11236
- a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
- Cs thermionic generators, low pressure self-extinguishing discharges 26591
- Cu electrolytic refining, energy consumption expts. 11495
- Cu electroplating of PCB PTH, current dens. effects 6409
- $Cu/TiN/TiSi_2/n^+$-Si contact syst., RTN and characts. 38700
- D/Pd cold fusion syst., excess heat prod. expts. 27886
- GaAs low-noise broad-band MESFET monolithic distributed preamplifier 42391
- GaAs:C films, MBE, C^+ beams, photolum. 28789
- GaAsP-Si 2 terminal tandem solar cells 20008
- GaInAs/GaInAsP MQW tuned lasers fabricated by photoabsorption induced disordering 1957

current density continued
GaInAs/GaInAsP/GaInP LD, barrier comp., props. 31345
Ge_xSi_{1-x} HBTs, graded and uniform base study 13647
H storage alloys, electrochem. capacity, for Ni-MH batt. 36543
H_2-O_2 SOFC, variable regime operation modelling 44363
InGaAs high power quantum well diode laser, MOVPE fab. *(Korean)* 39803
InGaAs/AlInAs vert. transit. quantum cascade laser, Bragg confined excited state 23260
InGaAs/InGaAsP strained QW lasers lattice matched to GaAs, high temp. charact. 7632
InGaAs-GaAs MQW lasers, low growth temp., photolum. 14965
InGaAs-InAlAs MBE p-type strained layer quantum well IR photodetector, FPAs 17786
InGaAsP semicond. lasers, directly bonded InP-SiO_2-InP current-blocking struct. 14852
InGaP strained quantum-well lasers, gain, threshold currents 23265
InGaP-Si 2 terminal tandem solar cells 20008
p-InP, photoelectrochem. solar cells, charge transfer, open-cct. impedance 36599
La(Sr)CrO_3, sintered bar electrodes, MHD generator appl. 5232
LiAl-CuO primary batts., cathode material expts. 11237
Li_2SO_4-Al_2O_3 electrolytes, intermediate temp. fuel cells 27926
Na-$SeCl_4$ molten salt batt., math. modelling 19950
PZT:Er ferroelec. thin film prep. by sol-gel proc., RAM appl. *(Japanese)* 1553
Pb-acid automotive batt., pos. plate energetics expts. 36533
Pb-acid secondary batts., PbSn electrode pass. layers 36573
PbO tubular electrodes, discharge behaviour, Pb-acid batt. 44281
Pd-InP Schottky diodes, cryogenic/RT, current transport 38390
$RbNO_3$-Al_2O_3 electrolytes, intermediate temp. fuel cells 27926
Si MOSFET with internal matching cct., 1.5 GHz, 35 W 29562
Si solar cell, efficiency limits, light trapping technol. *(Chinese)* 44417
a-Si:H and poly-Si thin films, P ion shower doping study *(Korean)* 13284
a-Si-SiO_2-Si Fabry-Perot opt. intens. modulator by merged ELO 14647
V redox batts., C-polypropylene composite electrode expts. 27894

current distribution
see also current density
3D EM simulator, IE3-D, HF and high-speed cct. appls. 21071
15 mm sq.-bore railgun, EM field meas. 15330
air-core foil-wound pulse power transformer design concept 36358
aperture antenna Fresnel zone field estim. 23843
aperture coupled microstrip antennas, charact. 23855
Archimedean spiral antenna, reflector backed, second-mode operation 8071
Archimedean spiral antenna anal. 23880
ARES EMP simulator, EM fields radiation 7997
barbed plate ESP, particle motion meas. 7922
biconical antenna for EMC meas. 23716
building columns/girders, equiv. imped. for lightning surges 20385
buried line conductors, EM modelling, integral eqn. 40256
busbars, EM proc. calcs., FEM-based 18998
circ. loop antenna, radiated emissions, finite ground plane effect 8046
circ. polarised microstrip antennas, mutual coupling anal. 23938
circ. sector microstrip antenna, electroacoustic radiation charact. 40451
coated wire antennas/scatterers, anal. 31933
coaxial probe excited hemispherical dielec. resonator antenna input impedance 31918
coaxially-fed rect. patch antenna input impedance rel. to substr. thickness 31939
conducting strip, line source EM wave diffr./scatt. 23575
conductor-above-the-ground type line, impedance var. 31922
contact resist. between plated conductors, current dens. distrib. 6383
convex-concave cylinder with impedance boundary, Toeplitz matrix/SOR anal. 25560
cylindrical antennas in multilayer medium, model 31923
cylindrical dipole arrays, two-term theory, variational-principle 40498
DC current distribs. in solid conductors and mag. fields 40229
DC/DC power convertors, parallel-connected, current distrib. control 44141
dielectric body permitt. reconstr., current modelling and Tikhonov regularisation 23565
distributed plasma armature, electromagnetism, lumped element description 23523
dyadic Green's fns., radially multilayered chiral media 40291
electrically thick monopole admittance calc. 23847
electron beam producing cathode, pulsed power-supplied 34858
EM dyadic Green's fn. in spherically multilayered media 15382
EM environ., struct., lightning stroke 23761
EM launchers, multi-fibre brush armature perform. simul. 15321
EM launchers, solid armatures, current wave/saw effect phenom. 15318
EM scatt. and radiation, moment matrix spatial interpolation 23845
EMC problems, inverse-forward anal. 23738
EMP illum. impedance wedge, current eval. 23657
fictitious sources in GMT, improvements 23606
finite dipole FSS, transm. perform., curvature effects 15662
flat surface radiation and scatt., measured eqn. of invariance 23604
foil winding design, eddy current anal. approach 6375
force-bal. supercond. coil studies, SMES appls. *(Japanese)* 11311
fractal antenna arrays radiation patterns 31983
freq.-selective screens, complementary elements, num. simul. 2313
GIS incomplete contact detect., mag. sens.-based 27841
HF band handheld radio param. effects of operator's body 33862
horn antenna radiation pattern anal. by moment method 23935
HTSC planar transm. lines, propag. params. calc. 40415
human model in power freq. elec. field, induced current densities 26492
induced fields/currents in theory of antenna arrays 23962
induction/PM sync. motors, radial posn. control 10979
integral eqn. direct integrat. method *(Croatian)* 277
isolated dielec. disc resonant freq. and far field computation 23828
leaky coaxial cable with periodic symm. slots, propag. mode anal. *(Korean)* 33735
LV distrib. feeders, neutral conductor current distrib. 19272
meshed supercond. LVdc lines, supercond. current transfer devices 4636
metallic enclosure model source, EM emission estim. by inverse-forward anal. 40374
microstrip antenna surface wave efficiency comparison 23839
microstrip discontinuities anal., spectral domain moment method 15595
microstrip discontinuity radiation effects, full-wave anal. 23837
microstrip struct. anal., simulated matched load termination 29539
microstrip Yagi antenna, iter. MPIE formulation anal. 23942
microwave HBT perform., impact of thermal distrib./emitter length 38005

current distribution continued
monofilar Archimedean spiral slot antennas 8074
MRI antenna, inhomog. surface current, model 40448
MRI antenna, RF mag. field penetration in body *(Japanese)* 4261
multi-strand supercond. cable stabil., partial current distrib. *(Japanese)* 27215
nonreciprocal ferrite substr. microstrip open-end discontinuity, MIC appls. 12810
null steering of adaptive arrays, min. approx. 31963
pancake coil for pulsed power amplif. of electrothermal load, freq. effects 36239
parallel DC-DC power converters, output droop characts. 11165
patch microstrip resonator array on anisotropic substr., anal. 21522
PCB radiation, lossy finite width image planes influence 21636
planar microstrip config., anal., closed-form Green's fns. 23792
planar SOFC, 2D distributed param. perform. model 44362
planar SOFCs, param. design optimisation 44364
planar spiral antenna above double-dielec. loaded ground plane 23868
polyhedron-approx. reflector antenna, radiation characts. anal. 23888
power convertor busbar struct., current distrib. effects simul. *(Russian)* 44112
power HBTs, stabil., emitter ballasting resist. effects, empirical anal. 6734
quasiperiodic struct., coupling, asymmetric output arm 15568
railgun, operating current limit increase, EM shields 15266
railgun meas., high accuracy 15374
railgun pulsed power superspeed contacts, inverse problem calcs. 36311
railguns, 3D current distrib./EM fields soln. 15319
railguns, mid-range integrated launch package, current maldistrib. 15348
rect. microstrip patch antennas, EM coupled feed struct. *(Korean)* 15638
rect. waveguide, elec. dyadic Green's fns. 31905
rectifier converter, branches current distrib., math. model 44130
RF marking principle for antenna analyzer 15660
round bore railguns, rot. forces 15347
ship tapered resistively loaded monopole antenna characts. 40490
short const.-width slot antenna, radiation pattern 15644
short helical antenna backed by cavity, radiation field 40487
single core cable, short cct., current distrib. *(Croatian)* 4684
solid armature railguns, contact transit. anal. 15355
spherical array excitation currents, far-field synthesis 31973
spin-valve struct., current distrib., passivated giant magnetoresist. 14206
sync. machines, damper winding/rotor iron currents modelling 11004
telecomm. cables lightning currents interf., computer model 15539
telecomms. building, simulated direct lightning surge current 24876
thin conducting plate problem, biconjugate gradient FFT method appl. 40289
trench gate emitter switched thyristors 30272
two-arm slot spiral antenna 8073
uniform current cylindrical dipole antenna vector pot. and elec fields 23877
variational cct. anal. techs., introduction 28924
vertical antenna penetrating dielec. half-space, complex image soln. 31921
wideband high-gain stacked microstrip antenna element 23981
wire antenna, currents due to incident EM wave, meas. using mag. field 15649
CO_2 gas lasers, power supplies comparison 1861
Li solid polymer electrolyte thin film batt., current distrib. 44283
Na-$SeCl_4$ molten salt batt., math. modelling 19950
Pb-acid secondary batts., PbO_2 paste electrode behaviour 36574
PbO tubular electrodes, discharge behaviour, Pb-acid batt. 44281
$YBa_2Cu_3O_{7-\delta}$ planar multiline struct., current distrib. 14287
$YBa_2Cu_3O_{7-\delta}$ thin films, microwave surface impedance determ. 25946

current fluctuations
see also noise
hot electron noise in semicond. materials for high-speed devices 1314
IEC555 parts 2 and 3, digital power analyser 34656
LF noise in bipolar transistors, impact of series resist. 1350
lin. inertial networks, wideband param. flucts. 21148
mesoscopic conductors, conductance flucts., low temps. 1109
MOS microstruct., dielec. breakdown and reliab. 22062
MOSFETs, current flucts., device scaling 1386
GaAlAs injection LD, freq. flucts. 23301
GaAs, current oscills., nonlin. dyn., time series anal. 29865
n-GaAs, current oscills., self-generated/externally driven 13039
InGaAs/InAlAs diffusive quantum wires, spin-orbit scatt. 38368
InP/InGaAs/InP photodetector arrays, noise/current meas. 17774
Pt/SiO, ultrasmall double tunnel jns., two level current flucts. 29875
Si deep sub-μm MOSFETs under cryogenic conditions, quantum interf. flucts. 1389
SiN-based antifuses, stress-induced leakage current, dielec. breakdown 38448

current limiters
see also current limiting reactors
1 MJ pulse power capacitor bank short-cct. current protection 11228
AC supercond. current limiters, design and modelling 4731
AI action model 544
boost-based resistor emulators, act. inrush current limiting 44202
distrib. network fault current reson. grounding project, Australia 19258
distrib. substations, thyristor controlled series capacitor appls. 27163
extended magnet in pass. dI/dt limiter 10778
fuzzy logic power supply protection cct. for severe transients 44188
high T_c supercond. fault current limiters, mag. shield *(Japanese)* 10782
HTSC, mag.-shield type supercond. fault current limiter *(Japanese)* 7254
HTSC inductive current limiter for power systs. 4719
HV current limiting fuses, low current interruption 27842
I_s-Limiter, distrib. switchboard short-cct. protection 19339
indust. distrib. networks, capacitor overcurrent protection 4653
LV cct. breakers, overcurrent discrim. modelling *(French)* 11210
LV cct. breakers, principles and develop. 19886
noninductive reactor type supercond. fault current limiter 4718
noninductive supercond. fault current limiter, simul. *(Korean)* 27274
polypropylene film type capacitor for HF HV appls. 11229
power apparatus, state-of-the-art supercond. material appls. 43972
power IGBT converters, overcurrent fuse studies 6016
power overhead line overcurrent protection devices, recent develops. 43778
power semicond. fuse selection, surge current tests 6015
power supply quality improvement by short-cct. current limitation on distrib. nets 27269
power syst. HTSC short-cct. current limiter studies 19341
power syst. overdutied cct. breakers, intell. reclosing 27271
power syst. short-cct. arcing fault effects limitation 19344

current limiters continued
single-phase transformer magnetis. and inrush currents *(German)* 11102
smart power IC, current limiter 30424
supercond. current limiter, quenching *(Japanese)* 35688
supercond. fault current limiter develop. 4689
supercond. fault current limiters, spec. *(Japanese)* 4732
supercond. materials, power systs./transportation appl. possibilities 43612
supercond. transm. systs., quenching current level coord. 10777
GaAs FET cct. power supply 21096
YBaCuO high T_c supercond. current limiter, props. *(Korean)* 35687
$YBa_2Cu_3O_7$ HTSC film fault current limiter 7255
$YBa_2Cu_3O_{7-y}$ high T_c current limiting element 10776
current limiting reactors
see also current limiters
distrib. systs., capacitor placement, fuzzy algm. 10725
rectifier converters, opposed stars connection, anal. 11124
$YBa_2Cu_3O_{7-x}$ parallel connected elements, current distrib. 7229
current measurement, electric *see electric current measurement*
current mirrors *see amplifiers*
current-mode logic
see also emitter-coupled logic
BiCMOS ADC, 500 kHz, 14-bit, multiplexed appls. 694
CMOS analog current-mode ART1 algm. implement. 29475
CMOS pipeline current mode ADC, redundant signed digit algm. 29329
CMOS quaternary multiplier cct. 21230
CMOS VLSI chaotic neural nets, current-mode 29513
continuous-time cellular neural network chip, direction-selectable connected component detect. 29474
delay components, current dependency 12423
high-speed current-mode A/D converter *(Korean)* 21390
multiple-valued logic design of neural nets, CMOS implement. 6275
multiple-valued logic in FPGAs, current-mode CMOS implement. 6137
multiple-valued PLA, RTT model 623
scaled BJT in 0.35 μm high-dens. BiCMOS SRAM technol. 30486
two-step flash ADC for digital CMOS technol. 693
AlGaAs-GaAs HBT gate array for 5 GHz ASIC, cell libr. 37719
GaAs-AlGaAs HBT, high-speed register file, F-RISC/G proc. 37801
current sources *see constant current sources*
current transformers
see also electric current control; electric current measurement
120/5 A CT model, mag. nonlin. 5011
current meas., mag. sens. 34654
Darlington transistor inverter, 99.3% efficiency 19743
DC/AC power CT, operating principle 19701
freqs., than 50 Hz *(German)* 6374
intell. magneto-optic CT, 220 kV, 2500 A *(Chinese)* 39504
magnetooptic AC CT, intrinsic temp. compensation 17739
meas. transformer harmonisation, electronic systs. *(German)* 10788
motor/generator stator windings, in-service PD tests 36101
motors, core bal. ground fault protection 4894
power syst., CT props., short cct. transients 19373
power syst. fault current estim., Kalman filter 19190
power syst. fault quantities on-line meas. 19372
power syst. protective CT, transient perform. calcs. 19340
power syst. relay protection, low ratio CTs, high fault currents 35675
power syst. short-cct. current meas., transreactor-based, calcs. 19362
power transformer relay protection CAD, ES-based *(Chinese)* 44094
power transformer time-impulse diff. protection selection *(Russian)* 44106
simul. hysteresis loop reconstr. *(German)* 19700
substation cables, induced transients meas./models 5157
three-phase CT protection, computer simul. 19691
Fe-based nanometer cryst. alloy power CT core *(Chinese)* 27786
current transients *see transients*
curvature measurement
3D attitude determ., curvature fns. 2660
attached holographic adaptive base interferometer 40123
ESPI for spatial variables meas. 31681
freq.-guiding filter in opt. soliton transm., peak curvature meas. 9425
gradient/curvature, photom.-stereo method, local confidence estim. 2603
mirrors, concave, rad. meas. by zone plate interferometry 42924
opt. fibers, ellipt., single-filament, interferometric meas. during continuous drawing 39367
photoresist glass transit. temp., wafer curvature meas. 38741
Si single-cryst. spheres, fab./sphericity meas. 18100
curvature of field *see aberrations*
curve fitting
see also surface fitting
2D eqns. for guided EM waves, anisotropic plates 31907
augmented device simul. models incorporating IV continuation and cct. element eqns. 1324
brain, 3D multimodality images, registration by curve matching 35068
circ. arcs in digital curve fitting 11964
commutation test labs., ident. method for certain procs. 5140
cumulants in wavelet anal. 32451
depth-from-focus/defocus, Fibonacci search/curve fitting 2754
ECG sigs., computer aided interp. 10244
edge detect., regularized cubic B-spline fitting 32919
ellipses and circles, least-sq. fitting 20593
ellipt. waveguide, eigenmode seq. 15577
exogenous model fitting to meas. data 25762
extrema curvature evol., scale-space 24444
hybrid finite-vol. FDTD modelling of curved surfaces 23595
hybrid neuro-fuzzy power syst. stabilizer 27069
interpolation by piecewise smooth plane curves *(Japanese)* 246
Lloyd-Max algm., init. param. estim. *(Korean)* 20595
multicomponent exponential transients, time-domain method anal. 25749
noisy image nonparametric regularization 8538
non-parametric multiscale curve smoothing 32994
nonnormal proc. distribs., SPC for semicond. procs. 11718
nonparametric estim., neural networks 41207
optimal regularization param. determ., L-curve 11962
orthogonal regression models, nonlin. param. estim., algms. and appls. 28662
parallel reson. transistor microwave oscillator cct., computer-aided sensitivity anal. 6308
power syst., fault current waveform, freq. phasor/DC components determ. 27268
Prony algm. modified for exponential fn. fitting 20586
sampling oscilloscope calibration IEEE-1057 draft standards 25702
curve fitting continued
seal imprint verification, automatic 33012
SIMOX/ZMR/direct bond SOI struct., opt. charactn. *(Japanese)* 38430
Stanford TCAD, next generation, PISCES 2ET and SUPREM 007 22543
steplength algms. for tracing soln. curves in bipolar analogue LSI simul. *(Japanese)* 37591
subspace-based line detect. algm. 8517
texture anal. by multiple space filling curves 16363
three-channel homodyne interferometry, opt. thickness meas. 18074
underground metal pipes detect., EM induction sens. 18044
GaAs devices, plasma-assisted passivating proc., LF noise meas. 13410
H masers Frequency control, high accuracy calibs. 39635
$He-Cd^+$ pos. column type UV 325 nm lasers *(Japanese)* 14683
custom integrated circuits *see application specific integrated circuits*
customs and excise *see tariffs*
cutting
see also arc cutting; machine tools; machining
3D microstruct. constr. by multi-face FAB/robot 30521
automotive parts cutting, Nd:YAG lasers and robots appl. 15197
conference, materials processing, Singapore (1994) 20244
five-axis EDM machine tool, CAD/CAM syst. develop. *(Japanese)* 11511
indust. cutting, YAG laser power transm., opt. fiber *(Japanese)* 124
indust. laser cutting syst., knowledge-based adaptive control 5614
industrial appls. of laser materials proc., conf., Vienna (1994) 36867
knives edge profile meas., image automated anal. 3979
laser cutting machine, accuracy/error compensation *(Japanese)* 5608
laser materials processing/machining, conf., Frankfurt, Germany (1994) 11555
laser-cut stencils, no-clean solder cream printing 12898
milling, cutting vibr. control, impact damper *(Japanese)* 42952
milling cutter failure, power monitoring method *(Chinese)* 10916
opt. fiber, press. cutting, AE testing 30897
PCB component lead trimming shock meas. 29667
phase retarders, metallic grating based, laser cutting appls. 125
proc. monitoring, neural net-based *(Japanese)* 9790
rocking mirror laser cutting machine, opt. design *(Japanese)* 5612
round quartz blanks, AT-cutting angles/X-miscutting angles meas. 30613
teflon film, laser through-hole drilling and cutting 20423
thick-film resistors, excimer laser trimming *(German)* 6438
wafer dicing process optim. 38956
CO_2 TE laser, high repetition rate, long pulse *(Japanese)* 31199
O_2-I photocatalytic laser, materials proc. appls. *(German)* 7865
CVD *see chemical vapour deposition*
CVD coatings
see also plasma CVD coatings
anom. solid form., exhaust systs. of LPCVD/PECVD semicond. procs. 20954
ceramics indust. continuous fiber coating, CVD equipt. *(Japanese)* 28198
diamond:B film/metal high temp. contacts, reliab. issues 22045
diamond:B films, homoepitaxial and polycryst., elec. props. 21890
diamond:He^+ film detector, Raman/photoluminesc. charactn. 43089
diamond:N,P, cvd epitaxy, enhanced dopant incorporation 30046
diamond, CVD films, seeding patterning, field emission props. 12988
diamond, CVD grown, photoconductive spectrosc. 38244
diamond, opt. switch, photocond. props. in high elec. field 31083
diamond, polycryst. CVD, cost factors 5899
diamond, single-cryst. chem.-vap.-deposited, electron affinity 1018
diamond CVD films, elec. props., detector appl. 38233
diamond deposition domain from various C-H-O(-Ar)-containing gaseous mixtures, press. influence 37477
diamond films, biased hot filament CVD, nucleation, selected area deposition 20958
diamond films (111), H exposure, XPS/UV PES 13365
diamond films rough surfaces modelling, self-limiting laser ablation, polishing 37476
diamond thin films, indentation response 20932
edge-cooled MCM, heat removal, substrs. comparison 21770
elastic props. of LPCVD SiN_x/LPCVD polysilicon 39033
III-V semicond. films, low carbon levels by activating $Ga-CH_3$ bond 20925
MOS transistors, n-channel, CVD grown, channel mobility 13712
multi-diode thermionic converter, feasibility expts. 28028
poly-Si/Ta_2O_5/TiN capacitors for DRAM appls., thermal stabil. 21316
polysilicon films, CMOS TFTs, low temp. proc. 38879
self-planarizing CVD oxide for interlayer dielec. appls. 22262
space power thermionic electrodes, CVD diamond film appls. 18745
submicron contacts using selective CVD-W plug, jn. stabil. *(Korean)* 13418
UMOSFET, high-speed, double-layer W gate, selective CVD 30343
Al/TiN/CVD-W deep submicron interconnects, sheet resist. 38683
AlGaAs, MOCVD/MBE on GaAs, elastic consts., Poisson ratio 28752
AlGaAs/GaAs integrated lin. injection laser array, emission charact., pumping appls. 39759
Au-SiN mask technol. for x-ray nanolithography 6683
a-$BaTiO_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
C, diamond, polished CVD films, macro/micro-tribological props., trial proc. 22626
C:P(B) polycryst. diamond films, electron emission, vac. microelectronics 12993
3C-SiC CVD grown epilayer, carrier lifetime, deep levels *(Japanese)* 1066
3C-SiC undoped CVD epilayer, carriers orig. *(Japanese)* 1067
CdSe nanocryst/ZnSe matrix II-VI quantum dot composites, electrospray OMCVD prep. 20946
GaAs MISFETs, photo-CVD P_3N_5 insulators, sulfide passiv. 38882
GaAs microcryst./AlGaAs interlayers low-press. MOCVD growth 20945
GaAs:Be, polycryst., heavily doped, diffusion props. 1043
GaAs:C films, MOCVD grown, heavily doped, elec. props. 38253
GaAs:C, polycryst., heavily doped, diffusion props. 1043
n- GaAs-InP, CVD layers/MESFET, elec./optical charactn. 13104
GaAs(001), Ga adsorpt., TMGa exposure 20692
$Ga_{0.32}In_{0.68}As/Ga_{0.61}In_{0.39}As$ MQW, strain compensated, growth optimisation 418
GaInP/GaAs HBT, MMIC power amps., MOCVD growth 12165
GaN, MOCVD growth on 0001 sapphire, X-ray crystallography studies, blue LEDs 7473
GaN film, opt. pumped, UV lasing 14907
GaN, low temp MOCVD epitaxy, photolum. 365
GaP, MOCVD on Si, etch pit obs. 13354
a-Ge:H, electron transport through Si:H barriers 21961
HgCdTe, MOCVD layers, excess carrier lifetimes 38254
HgCdTe, film, hot wall MOCVD, Hg distrib. coeff. *(Chinese)* 6527
InAlAs/n^+-InP, monolithic tunable high-Q 12800

CVD coatings continued
InAs MOCVD growth from monoethyl arsine 20962
InAs, MOVPE, high mobility on GaAs 29853
InAs$_{0.3}$Sb$_{0.7}$, MOCVD on GaAs, carrier transport 6529
InGaAlP/GaAs hybrid-type DBR for InGaAlP LED 1819
InGaAs/Ga(Al)As dots, MOCVD, area dens. control 5867
InGaAs/InP QW lasers, AP-MOCVD, liq. group V sources 12069
InGaAs-GaAs-AlGaAs strained layer broad spectrum QW LED fab. 7474
InGaAsP MQW laser, MOCVD growth 12068
InGaAsP/InP quantum well lasers, watt-ampere charact. 39760
InGaP/GaAs multilayer reflector, MOCVD grown, VCSEL appl. 39865
InP, MOCVD/LEC grown, electron radiation resist. 21904
p-InP, defect-assisted ohmic contacts 29948
InP quantum islands/InGaP/GaAs(001) substr., coherently strained self-assembly 20947
InP/InGaAs/InP heterostruct., highly strained, mobility enhancement 13111
InP/InGaAsP(GaAs), MOCVD growth, interface characterisation 12150
InP-AlInAs type II syst., laser emission 14928
Mo-diamond:C CVD film, solid state react. 37491
Si amorph. film, grain growth/defects obs. *(Korean)* 21930
Si epitaxial solar cells, internal quantum efficiency 36591
Si, film, on SiO$_2$, CVD growth, defects, TEM obs. 21878
Si, polycryst. films, furnace/laser annealing 28855
Si, porous struct. from lithographically patterned substrs., photolumin. obs. 20983
Si rapid thermal CVD on Si$_{0.68}$Ge$_{0.32}$ substrs., AFM 12139
Si thin film solar cells, zone melting recryst. 44404
Si$_{60}$ nanoclusters, luminesc., chem. synthesis 31074
a-Si:H, homog. CVD, props., prep. conditions effect 20949
Si:O films, low temp. CVD grown, struct. 20974
Si:P(As)(B), heavily doped, temp. effects 1021
Si:P,B CVD film struct./morph. 29841
Si/Si$_{1-x}$Ge$_x$ modulation-doped heterostruct., hole transport props. 29885
Si/SiGe modulation-doped heterostruct., extremely high electron mobility 29920
Si-Ge-C materials, CVD prod. 12145
SiC, 6H, CVD layers, electron effective mass/mobility 13086
6H-SiC CVD layers, minority carrier lifetimes 21931
SiC, multipolytype epilayers, device config., X-ray topography 37458
SiC/Si heterojunctions, elec. props. 1096
a-SiC/Si:P structs., P diffusion and interface segreg., HBT appls. 13118
SiGe strained layer growth from disilane/germane 370
Si$_3$N$_4$ thin films, MNS capacitors, jet vap. deposition 37504
SiO$_2$/SiN PECVD coatings, multicryst. Si solar cells 27955
SnO$_2$:Pd thin-film micro-gas sens., CH$_3$SH detect. 17983
Ta$_2$O$_5$ films, DRAMs, leakage currents and defect states 39038
Ta$_2$O$_5$(TiO$_2$) LPCVD DRAM storage dielec. film, leakage current reduction, RTA 22094
TiC Ohmic contacts on n-type 6H α-SiC 29956
TiCN, CVD contact barrier metallization for submicron devices 1297
TiN-Si CVD for sub-0.5 μm technol. 13415
TiS$_2$ diffusion barrier, RTN, CVD-Al contact plug 38686
TiSi$_2$ SALICIDE, dual gate CMOS struct. 38682
W nucleation on SiO$_2$, selective CVD 6663
WSi$_x$ CVD as-deposited/oxidized films, DCS-based, comp./struct. 38664
WSi$_x$ films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
ZnS-ZnTe/GaAs MQW on refl. at RT, picosecond opt. bistability 38353
ZnSe/Ge/GaAs, lattice matched HBT, DC/AC charact. 13631
ZnSe/InGaAs/GaAs, lattice matched HBT, DC/AC charact. 13631
diamond temp. microsensors, B-doped, vap.-deposited 9881
CVD epitaxial growth *see vapour phase epitaxial growth*
CVD thin films *see CVD coatings*
CVSDM *see delta modulation*
CW radar
3-D contouring by opt. radar syst. (ORAS) 17447
autonomous intell. cruise control radar syst. 34151
delay-Doppler perform., wt. fn. effects 34115
Delft FM-CW radar, Doppler-polarimetric research *(English)* 3612
Doppler radar IF spectrum, range correl. and LO phase noise effects 34140
FMCW weather radar for PBL study 35304
FMCW-LIDAR, tunable twin-guide LD 17449
freq. control requirements of radar 42521
freq.-stepped CW radar data, optimal sig. proc. 17374
LFM-CW lidar for rem. detect. of saturated hydrocarbons 17450
μP controlled microwave ranging, indust. appls. 3606
odd-perfect, almost binary correl. seqs. 32545
road rear-end collision avoidance, 60 GHz radar 34152
sens. for automatic AICC 5377
sens. for car appls. 5378
stepped freq. CW ground penetrating radar 42478
GaAs power MMICs for X-band radar appls. 6341
cyclic accelerators
see also betatrons; cyclotrons; storage rings; synchrotrons
high energy cyclic accelerators, introductory course 76
Mobius accelerator, colliding beam operation 34767
nonlin. betatronic motion, LHC/SPS appl. 34839
cyclic codes
Abelian codes over Z$_m$, generalized DFT 24052
BCH codes, duals, min. dist. bounds 32145
binary primitive cyclic codes, wt. distribs. 24049
block codes definable, multiple finite fields 24116
CDMA codes, coding theory 2893
CDMA packet combining error control 25368
CMOS LSI archit., ultra-high speed error correction, majority decoding 29200
const. wt. cyclically permutable codes, cyclic codes 40710
convolutional self-orthogonal codes, combinat. constr. 32135
CRC perform. and interact., data scrambler 25178
decoding, min. dist., matrices generation 40636
DFT, arbitrary blocklength in finite fields 2558
digital inform. protection 40683
DS-CDMA commun., indoor mobile, code phase assignment 9206
DS-CDMA mobile radio syst. using RAKE receiver, spreading codes 25437
exact min. dist. 40595
Fire code, modified decoding algm., fast burst error correction 24073
generalized quadratic residue codes, automorphism groups 32049
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250

cyclic codes continued
LFSR-based hashing and authentication 32164
McEliece's open problem on min. aperiodic correl. 40611
min. wt. codewords, alg. charactn. 32148
multiprocessor implement. of protocols, locking effects 2919
optimal const. wt. cyclically permutable codes/difference families 40709
optimal const. wt. cyclically permutable codes/difference families 24087
optimal cyclically permutable const. wt. codes, constr. 32056
orthogonal nonlin. cyclic codes, double cyclic shifts, synthesis 15716
partitioned/parallel CRC, VLSI implement. 645
periodically disturbed data channels, error correcting codes 32142
probabilistic burst-error-correcting scheme, interleaving method based *(Japanese)* 24103
q^m-ary cyclic code, q-ary image 32050
q-ary images of codes, burst correction 40594
quasi-cyclic codes, computer search 32144
quasi-orthogonal cyclic codes of max. capacity, synthesis 32083
quaternary quadratic residue codes/unimodular lattices 32048
repeated-root (cyclic) codes, freq. domain description 32149
RS codes, soft decision trellis decoding 2374
short binary cyclic codes, decoding via covering polynomials 15726
single-bit error-correction cct. for ATM interfaces 42080
TDMA-TDD personal commun. syst. ADPCM voice transm. improvement 33830
cyclic reservation multiple access
CRMA network real-time appls., perform. anal. 41525
CRMA/ATM interworking unit,a loss free access, buffer sizing 8968
CRMA/ATM network interconnection flow control protocol 41762
Gbit/s range LANs and MANs, media access protocol perform. comparison 24803
Gbit/s-LANs, ATMR/CRMA-II, perform. comparison 16710
inter-vehicle packet radio commun., network archit. 42243
MAN protocol, anal. 33502
cycloconvertors
3.5 MW sync. motor drive, cycloconvertor-fed, modelling 5323
3-phase cycloconverter control, space-vector method 11365
drives, ASIC chip set 5322
EMALS EM aircraft launch syst., aircraft carrier appls. 15304
EMC problems, stochastic anal. appls. 5076
fault diagnosis, ES-based 5053
gas turbine PM generator cycloconverter, digital control 10859
induction motor ASD, inverter/cycloconverter fed, single-phase inputs 44489
induction motors, single/3-phase, speed control, AC regulators, freq. division 11034
induction servomotors, cycloconverter-fed, sliding mode control 4983
Maglev rly. inverter harmonic suppression method 11423
marine propulsion cycloconvertors, harmonic voltages elimination 5346
math. model *(Chinese)* 36338
mine hoist cycloconvertor sync. motor drives 44643
motor drive digital control, graphic software designer appls. 36692
multiple noninteger harmonics, act. filtering 5125
nonpolluting automobiles, energy storage, propulsion 5326
power electronics and variable speed drives, IEE conf., London, (1994) 37
pumped storage plant, converter-fed var. speed generator-motor *(Japanese)* 36047
pumped storage plant, converter-fed var. speed generator-motor, fault current *(Japanese)* 36048
PWM cycloconverter control, induction heating appls. *(Korean)* 36786
series-reson. AC link inverter, output current anal. 11143
series-reson. DC-AC power converter, switching control *(Japanese)* 11190
ships, cycloconverter drives 36755
single phase cycloconverter, steady-state proc. 44187
sync. motors, cycloconverter-fed, computer simul. 10999
three-phase power convertor, quasi-reson. DC/HF transformer links 5088
underground hoist, digital controlled cycloconverter induction motor drive 11323
universal motor cycloconverter control, microcontroller-based 44002
variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
variable speed cycloconvertor AC drives, vector control simul. 5267
cyclotron autoresonance masers *see cyclotron masers*
cyclotron masers
autoreson., efficiency enhancement, mag. field profiling 31136
backward-wave cyclotron maser oscillator expt. 29806
bifurcations leading, stochasticity 7501
CARM amps., effective bandwidth and Kompfner dip 14677
cooling, Liouville's theorem 34776
double-stream cyclotron masers, 2D nonlin. theory 23069
dyn. of CARM oscillator, relativistic regime 7499
ECRM, props., electron beam geom. deform. *(Chinese)* 31137
electron and field dyn., Landau-Ginzburg eqn. 7500
electron-gun pulser for table-top maser expts. 39628
FEL conf., Stanford, CA, USA (1994) 36818
freq. up-shifted gyrodevices, cyclotron harmonics vs. CARM's 6486
G-band FEL amp. for cyclotron reson. heating in mag. fusion reactors 39921
gyrotron amp., axially modulated, cusp-injected, large-orbit 6497
Hamiltonian theory of gyrotron and CARM 40257
high power microwave sources, pulsed power requirements 29794
phase mixing of electron bunches, neg.-mass instabil. increments 31135
reson. maser expt., nondispersive waveguide 39623
submillimeter wavelength CARM electron opt. syst. 39915
UHF free-electron maser oscillator expt. 39918
cyclotron resonance
for ion cyclotron resonance spectroscopy see mass spectroscopy; for ion cyclotron resonance heating see plasma heating
see also cyclotron masers; diamagnetism
compact ECR plasma syst., fab. and charactn. *(Korean)* 13332
electron-beam accel. by cyclotron-autoresonance interact. 18282
EM wave wiggler and axial guide mag. field, orbit dynamics 23516
freq. up-shifted gyrodevices, cyclotron harmonics vs. CARM's 6486
maser, electron and field dyn., Landau-Ginzburg eqn. 7500
microwave devices, magnetized electron beam, nonlin. Faraday effect 976
phonon-difference FIR lasers, neg.-effective-mass generators 14890
UHV ECR CVD reactor, in-situ Si wafer surface cleaning *(Korean)* 13331
vircator with long. mag. field, EM waves amplif. 38218
GaAs passiv., integrated plasma clean/CVD/RTA, Si$_3$N$_4$ encapsulation 22224
GaAs/AlGaAS quantum wells, high mobility, electron cyclotron oscills. 21997

cyclotron resonance continued
GaN films, ECR MBE, (001)/(111) Si substr., microstruct. 5822
Ge p-type cyclotron reson. laser emission lines 14955
SiC, 6H, CVD layers, electron effective mass/mobility 13086
SiC-SiN$_x$ multilayer x-ray lithog. membranes by ECR CVD 6698
SiN$_x$ films, ECR plasma synthesis 30131

cyclotron resonance masers *see cyclotron masers*

cyclotrons
see also microtrons; synchrocyclotrons
250 MeV proton cyclotron, central region design 34836
autoresonance accelerator, electron beam quality 4032
AVF cyclotrons, HF accel. *(Dutch)* 43013
beam dyn., particle trajectory, ion optics 4124
conference, nuclear physics, Zakopane, Poland (Sept. 1994) 36817
GANIL, radioact. beam facility, SPIRAL project 34850
GANIL ion accelerator, control syst. 18184
injection, extraction, external ion sources 4125
Jyvaskyla HI-cyclotron, IGISOL, on-line mass separator 34739
PSI accelerator control syst. and tools 18194
SARA, control systs., PCs 18242
TR13 H$^-$ cyclotron control syst. for automatic isotope prod. 18180
transportable supercond. cyclotron, neutron radiography 18463
TRIUMF, device access, C++ on VAX/OpenVMS 18230
TRIUMF accelerator central control syst. upgrade 18186
TUE cyclotron building, particle accelerators *(Dutch)* 43003
NaI(Tl) scintillator, proton beam energy meas. 4163
^{99}Tc$_m$ cyclotron prod. feasibility 10185

cylindrical waveguides *see circular waveguides*

Czochralski method *see crystal growth from melt*

D/A conversion *see digital-analogue conversion*

DAB *see digital audio broadcasting*

dairying
barn environ. for arctic climates, computer anal. 11515
cow oestrus detect., intell. syst. 9820
milking systs., automatic, opt. teat inspection 34533

DAMA *see demand assigned multiple access*

damage, radiation *see radiation effects*

damping
138 kV power line damper repair, live-line working 10751
AC drives, on-line unity PF PWM rectifier 5305
adaptive beam with embedded devices, dyn. response 37548
adaptive PSS, turbine governor control 4564
automobile two-state adaptive suspen., rule-based condition monitoring 5365
channel residual damping depend. on carrier freq. separation *(Russian)* 15695
damped harmonics and polynomial phase sigs. 32463
dark soliton interact., periodic wave 40072
DC rly. vehicles, narrow-band LF act. filters 20102
domestic appliances, rotor vibr. transm. prevention *(Japanese)* 11489
fibre-optic transm. lines, external subcarrier modulation integrated-opt. components *(Russian)* 17353
high-Q piezoelec. materials and BAW/SAW resonator devices, advances 39046
hybrid neuro-fuzzy power syst. stabilizer 10609
hybrid neuro-fuzzy power syst. stabilizer 27069
in-pipe microrobot, earthworm motion *(Japanese)* 44252
inductive sens. modelling by damping, metal *(German)* 34486
ion-ripple laser kinetic theory, beam long. momentum spread 2015
laterally driven microresonators, viscous air damping 34477
long. power systs., autoparametric reson. LF oscills. *(Japanese)* 43624
mech. vibr. damping by YBa$_2$Cu$_3$O$_{7-x}$ in mag. field 22722
microgravimetry, soln.-phase, using oscillating quartz microbalance 42956
micromachine PSS, real-time fuzzy control 10679
milling, cutting vibr. control, impact damper *(Japanese)* 42952
multigenerator power systs., damping anal. program 4486
multimachine power syst., optimal robust stabiliser 27022
multimachine power syst. auto-parametric reson. calcs. 26896
opt. head lens actuator, high bit rate recording 7105
overhead transm. lines, spacer dampers energy dissipation 27232
parallel turbogenerators, phase shifts, SSR, incipient stabil. 43978
PF preregulators, Sepic/Ćuk converter based 19753
piezoceramic lin. motor, flexible space struct. control 4995
piezoelec. discs with elastic addits., vibr. anal. 26789
PLLs, large damping, homoclinic points and chaos 12376
power overhead line mech. self-damping meas. methods *(German)* 10754
power syst. dyn. stabil. assess., Rayleigh's quotient *(Japanese)* 35453
power syst. H$_\infty$ oscills. damping controller design 35483
power syst. hybrid fuzzy/PSS control method 10668
power syst. interarea/local generator reson. modes ident. 35486
power syst. oscills. damping, control design 27004
power syst. SSR damping, SMES-based 10681
power syst. sync. generator damping, SMES-based 10680
power syst. transfer fn. ident. methods. comparison 4595
power system oscillations, hierarchical control algm. 19121
PSS, multilayer ANN appl. 43670
PSS, rule-based, variable-gain 19082
quantum excitation, equilib. beam props. 4074
quartz cryst. oscillators, porous layers, damping effect 30600
Queensland-NSW power syst. interconnection, tech. aspects 26977
radiation damping, electron accelerators 4073
rolling mill ASDs, torsional vibr. damping 36800
salient pole sync. generator, transient stabil. anal. 4920
salient-pole saturated alternators, damping/synchronising torque calc. 44015
semi act. suspens., electrorheological fluid dampers, HV supply unit 44131
semiactive control for vibr. atten. 5916
shape memory wires for pass. structural damping 28895
shock machines standardisation, SRS anal. 10033
small DC motors, brush mechanism, vibr. damping materials *(Japanese)* 11080
solid-state actuators, periodic forces cancellation 30755
spinning spacecraft, coning motion stabil., Lyapunov anal. 10305
supercond. mag. levitated vehicle syst., damping charact. *(Japanese)* 28130
SVC develop. testing by simul. *(German)* 27879
sync. generator, damper winding, block diag. transfer fn. 4917
sync. generator nonlin. adaptive control, neural net-based 19607
sync. generator oscill. damping, state feedback controller 4594
sync. machine, reduced models, charact. params. 10980
sync. machines, damper winding/rotor iron currents modelling 11004

damping continued
sync. machines, model struct. ident., SVD *(Chinese)* 4911
sync. motors, CSI-fed, rotor losses estim. 44013
sync. wind power generator, operating conditions 10907
turboalternator third-order SSR stabil. models 44018
turboalternators, shaft torsional vibr., PSS effects *(Chinese)* 36140
turbogenerator stabil., robust optimal control, PSS design 27019
two-input PSS develop., LF oscills. control appls. *(Japanese)* 26995
vibr. microactuators, energy dissipation mechanisms 30514
vibrs. of piezoelec. body, thermal dissipation effect 30609
wind powered sync. generator, operating conditions improvement *(Russian)* 27650
(Bi$_x$Sb$_{1-x}$)$_2$Te$_3$ molten zones, buoyancy-driven convection 12020
O$_2$ effects on solder surface, PCB assembly options 38153

dams
see also civil engineering; hydroelectric power stations
Bhumibol hydro station, pumped storage unit addit. 36050
Bieudron (Switzerland) power station 465 MVA turboalternators *(French, German)* 36043
displacements meas., inductive transducer-based 9847
hydroelec. power plant rainfall runoff ratio estim. neural net *(Japanese)* 4864
hydroelectric dam surveillance, ES/mgt. IS-based 19544

dangling bonds
diamond CVD growth, surface free energies 37484
metal-semicond. interfaces, Schottky barriers tuning, layer control 1167
polysilicon bottom gate TFTs, excimer laser crystn. 38880
polysilicon grain boundary struct. characterisation by opt. SHG 29825
Al-porous Si jn., elec. behaviour 22049
CdTe bulk substrs., intrinsic defects, vacancies, dangling bonds 38255
GaAs/AlGaAs heterostruct., plasma etching damage 30109
Ge heteroepitaxy on Si(111), surfactant effects 317
Ge/GaAs, heteroepitaxy, As segreg., passiv. 37396
Pt/SiO$_2$/Si MOS devices, interface states, XPS meas. 38436
Si MOS diodes, interface-state passiv., surface pot. depend. 1182
Si, SR-excited ALE growth, TOFMS 37447
Si, glow-discharge polycryst. films, grain boundary defects 20936
Si, polycryst., grain-boundary defects, plasma treatment effects 13321
Si, surface cleaning for VPE by photoexcited F$_2$ gas 38625
Si:B porous film, photolum., Auger spectr., annealing, solvent effects 38238
Si:H, defect passiv./light-induced metastability 13359
a-Si:H, microscopic struct. determ. of dangling bonds by pulsed ESR 1646
Si:H, porous, lumin., surface modif. effect 1246
a-Si:H, pulsed-light soaking 1060
Si:N, ion implanted buried SiN$_x$ films, EXAFS and NEXAFS obs. 38440
Si/SiO$_2$, low-field charge-buildup instabil., diffusion-react. model 29972
Si/XeF$_2$ syst., etching react., SHG 22165
Si(100), Sb-terminated, HBO$_2$(Sb) adsorpt. suppression 20701
Si(111), H adsorpt./dissolved O in hot water 38604
Si(111), surface oxide layer, dissolving in hot water, vert. dihydrides 38541
SiGe, SPE, comp. depend., time-resolved reflectivity meas. 38270
a-Si(Ge) thermopower behaviour modelling 27990
SiO$_2$-Si interface struct. modif. by Fe$^+$/H$^+$ ion implant. *(Chinese)* 22061

dark conductivity
bipolar photoconductors with arbitrary level struct., nonsteady-state photoelectromotive force 39553
copper dicyanoanthraquinone diimine thin film electrodes, H sens. 17976
cubic cryst. planar waveguides, photorefr. effect 39431
diamond MSM device, detector appl., photoresponse 38447
disordered semiconds. and devices, mobility edge concept 29823
III-V quantum-well IR photodetectors, noise perform. 42788
IR HET, narrow bandpass filter 17784
large CCD arrays, dark current, proton-induced elastic reacts., spallation reacts. 17966
multicolor IR detect., voltage tunable bandpass filter 17765
poly-(para-phenylene-vinylene) films and photodiodes, photoinduced current, ESR 14600
polymer composite materials, mag. field sensitive 5914
AlGaAs quantum waveguides, neg. differential cond. 6567
As$_2$S$_3$(Se$_3$) MChDS structs., photocharging characts., opt. memory appl. 22053
BaTiO$_3$:Co, light-induced dark decay and sublinear intens. depend. 31483
a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
CdS electrophotographic discharge, surface-depletion discharge model 22997
CdS, film, chem. bath deposition, props. 28799
CdSbTe RF sputtered films, struct./opt./elec. props. 38260
Ga(Al)Sb mesa photodiodes, dark current improvement, (NH$_4$)$_2$S treatment 14604
GaAs photoconductors, compensated/partially compensated opt. gain 39547
GaAs, subpicosecond elec. pulses, Monte Carlo investig. 22992
GaAs/Al$_x$Ga$_{1-x}$As quantum-well IR photodetectors, design, perform. 9905
n-GaAs/AlAs/Al$_{0.3}$Ga$_{0.7}$As double barrier QW, tunneling assisted thermionic emission 38326
GaAs/AlGaAs quantum well IR photodetector arrays, thermal imaging appl. 3844
a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
GaSb:S, Hall/photo-Hall effect meas. 38252
a-Ge:H,S, optoelectronic props, effects of S incorporation 39556
Hg$_{1-x}$Cd$_x$Te MIS IR detectors, 1/f noise, temp. depend. 17768
α-HgI$_2$, surface modifs., dark currents 43082
HgI$_2$:Ag crysts., defects, rel. to X-ray/γ-ray detector perform. 43075
InGaAs/GaAs-on-GaAs superlattices, metal-semicond.-metal photodetectors, carrier trapping 22014
In$_2$O$_3$-ZnSe-(Zn$_{1-x}$Cd$_x$Te)$_{1-y}$(In$_2$Te$_3$)$_y$ heterostruct., current transport 21963
Pb$_5$CrO$_8$ films, optoelectronic props., contact-type line-image sens. appl. 42789
PbTe:Cl, excess Te films, photosensitivity 1070
Si, electrocatalysis, opt./elec. props., solar cell appls. *(German)* 38243
Si, mesoporous, photocarrier grating tech. 22999
Si microvolume CID sens. arrays, Monte Carlo/analytic treatments of displacement damage 17961
Si,porous, laser induced form. 29840
Si, porous, photoconduction effects and luminesc. props. 39552
Si solar cells, 23% efficient, limiting loss mechanisms 44401
a-Si:H, film, light soaking effect on DC cond. 38235
a-Si:H films, VUV laser CVD, gas phase chem./modelling 28840
a-Si:H, laser annealing, light-emitting Si prep. 23005

dark conductivity continued
Si:H, microcrystalline, elec. props., degrad. kinetics 21881
a-Si:H nip and pin diodes, 1/f noise anal. 38798
a-Si:H solar cell, Hg-sensitized photochem. vap. deposition, H_2 dilution tech. 5217
a-Si:H,B(P), PECVD film, opt. props., photo/dark cond. 29830
n-Si(111), electrolytic hydrogenation, FT IR spectrosc. 38558
SiC devices, high-dark-resist., photoconductive and PV response 31077
SiC thermally crystallized films on sapphire, electronic transport 21937
β-SiC(111)/TiC(111) MOS capacitor, charactn. 1177
SnO_2/a-SiC/Au Schottky cells, photocurrent multiplication model 44396
dark space *see discharges (electric)*
Darlington transistors *see bipolar transistors*
Darrieus turbines *see wind turbines*
DASD *see magnetic disc storage*
DAT *see digital audio tape*
data abstraction *see data structures*
data access *see information retrieval*
data acquisition
see also CAMAC; data handling; indicators; recorders; SCADA systems
2 μm LIDAR for laser-based rem. sens. 10384
3-winding transformer, digital relaying, data skew 19704
3D ground penetrating radar imaging, SAR focusing 42506
3D reconstruction of objs., large depth vars. 17929
35 GHz forward looking altimeter for terrain avoidance 25612
accelerator distributed control syst., stand-alone Internet nodes appl. 18200
acoustic microscopy, quadrature sig. error estim. and correction 32682
act. multi-static sonar acquisition/proc. syst. 9660
ADC, noise filtering 34418
analogue input/other specs. of data acquisition boards 3750
antenna modelling and testing, combined facility 28289
arc welding stat. proc. monitoring/interp. 11510
assoc. particle imaging, 4D image display 18465
atmos. & ocean data, buoy for Antractic deployment 18858
automated visual indust. QC, data visualization and num. assess. of class separability 41221
AutoMax distributed power/control syst. 10710
BATFISH, depth controllable towed body 10499
batt. preventive maint., computerised eval. 11248
Big Liquid Argon Spectrometer, data acquis. electronics, Tagged Neutrino Expt. 25738
bolometer and photodiodes, absol. calib. 4077
buoy and telemetry, EMB30 for sea & atmos. obs. 10540
BWR, operating data monitoring, fatigue eval. systs. 27406
C-17 avionics, support equipt. data acquisition/control 35226
cardiac physiological/US data, simultaneous acquisition/proc. syst. 35031
cardiotocograph data acquisition/replay, Microsoft Windows based appl. 10172
computer syst., real-time, document prep. *(Japanese)* 3754
conference, high energy physics calorimetry, Italy (Sept. 1993) 20228
CTD and O_2 instrum., AMBRE, data acquisition syst. 10544
cylindrical drift chamber, 3D data output 34907
dam displacements meas., inductive transducer-based 9847
defibrillation/ECG pots., acquisition/display, 528 channel syst. 18584
DELPHI distributed IS, LEP appl. 18210
Diagnostika motor drive testing automation software 44469
digital line differential protection, auxiliary cores *(German)* 35682
digital pulse height anal., radiation spectrosc. 18401
digital underwater commun., adaptive beamformer perform. 9659
distrib. substation automation develop. 11214
distributed visual programming environment: Applications within data-acquisition 25724
Dosicard, indiv. dosimetry syst., on-site eval. 43394
drainage and water quality studies, instrumented field-scale research facility 35356
DSP data acquisition and eval. board *(German)* 9825
dyn. DVM, rly. reactive power compensation appl. 3947
ECG, 12-lead, ES for complex anal. 26436
EHV/HV networks, reliab. data collection 26857
elec. vehicle fleet monitoring, batt./charger mgt. syst. 36728
electric machine lab. PC data acquisition syst. 28336
electrothermal-chem. gun, meas. techs. 31751
EM launcher hypervelocity projectile passage sens. design 15335
EM modeling for GPIR, 3D FDTD modeling codes 42504
energy dispersive EXAFS, data acquisition, obj. oriented methods 42746
engng. education, computer-aided lab. expt. interfaces 36939
enhanced parallel port for two-way commun., PC/data acquisit. instrums. 25733
error model of data acquisition systems 34415
ESRF accelerator, VME image acquisition/proc., TV CCD cameras 18272
Fastbus data acquisition syst., LabVIEW graphical software *(Chinese)* 16647
flexible 8-channel data acquisition device for sig. proc. and anal. 25737
flight data acquisition syst., multiprocessor 26547
flight instrum. test facility, control and data acquisition 26531
forward-based portable acoustic meas. syst. 17683
France Telecom's Regina syst. for collecting, managing/broadcasting alarms 24919
fused X-band radar/IR target detect. 8617
gamma-ray spectrometer, data acquisition syst. 34969
gamma-ray spectrosc. counting syst. automation for NAA 17657
gaseous 2D detectors, PC-based fast readout electronics 18384
gel permeation chromatography, Tung integral eqn. deconvolution *(Chinese)* 3740
generic software tool kit, accelerator distributed control 18233
generic test/maint. node for embedded syst. test 9795
granular particle, lin. flow vel. meas., image sens. 3993
Grohnde PWR, on-line pipe monitoring syst., stress and temp. meas. 27409
high resoln. struct. studies 43169
high-precision opt. gauging of metal rings 18062
high-rate data acquisition device 42741
HP8410 ANA syst. response calib. 34385
HP data acquisition syst., computer-controlled test station 34416
IEC 801.3 automated testing 15469
IEEE conf. on instrumentation/meas., USA (1993) 20198
induction machine equiv. cct. models, comparison 27742
integrated data acquisition syst. for satellite struct. testing 18707
integrated target acquisition/fire control systs., conf. (1991) 28259

data acquisition continued
intracardiac electrograms, data collection syst., pacemakers appl. 4286
ISOLDE isotope separator control syst. design 18391
ITER magnet cryogenic research facilities, computer-aided syst. 11719
L3 silicon microvertex detector and electronics 10106
lab. of indust. control systs. 17689
LAMPF data acquisition and control syst., virtual data syst. 18217
LEP machine/expts., data exchange 18212
lin., extraction by least sq. template matching 41253
long-term data acquisition/recording/storage and sig. proc. syst. 25734
low-noise CCD sig. acquisition 34417
lung sound anal. toolkit, hardware/software 43224
mammography, μ-strip Si detector, transputer DAQ 35066
marine (underwater) telemetry, acoustic LAN protocol 10446
MeV ion microbeam anal., transputers in data collection syst. 24991
microcomputer syst. for controlling classical conditioning expts. 17691
Minerva Network Management Environment 41770
mixed-sig. PC-based data acquisition systs. 25736
mobile flight test support 10316
model farm PV and biogas power supply *(German)* 20176
monitoring power supply current, neural network 34374
monopolar voltages, phase response props. mapping 26369
motors, interactive DSP-based acquisition/control syst. 10949
multichannel biomedical data acquisition, analog opt. link in SMT 17690
multiparameter meas., PC-CAMAC based data acquisition 26236
multiple energy computed tomography at NSLS, status report 43268
MW solid-state cct. breaker pulsed power supply, GTO-based 36461
NDT data collection/interpret., colloquium, London, UK (1994) 5507
network control syst. nonredundant rational data input *(German)* 43693
neuro-PET scanner, 3D dyn. acquisition develop. 43228
neutron depth profiling, Univ. of Texas 17667
NIM ADC, fast VMEbus interface 26237
ocean acoustic tomography, shore station equipt. 18901
oceanographic acoustic instrums., high level control 10538
on-board diagnostic support, time stress meas. 43432
Operational Avionics Smart Instrumentation System (OASIS) 10331
oversampling A/D converters, delta-sigma modulator structures 25758
particle colliders, tracking devices, readout and data acquisition 4232
PC compatible opt. data acquisition unit 3751
PD sig. generation transm. and acquisition 22643
physiochemical expt. dyn. controller develop. 34727
plastic molding control, ISA, PCMCIA data acquisition 42745
portable data acquisition and control system, multitasking/multiprocessing 34414
power station lab. data inform./mgt syst. *(German)* 4752
power syst., transformer inrush/steady-state currents, harmonics meas. 5022
power system meas., transputers-based data acquisition 35694
power transformers, DC bias-exposed, VAr demand meas. 11100
proc. control, sig. sampling scheme in real-time 24314
proc. plant digital image archives, rem. meas. syst. 25732
prostate, 3D US, vol. assess. 10190
public data network mgt. syst., inform. model 24911
pulse discharge pattern anal., neural network appl. 3973
pulsed fast neutron anal., cargo inspection, data acquisition 18413
PWR, automated US inspections, data collection/interp. software 35374
PWR, transient monitoring systs., fatigue meters 27407
PWRs, incore-excore nuc. instrumentation recalibration 35876
quiet source acoustic meas. syst. 17682
random analogue data, optim. of digital storage 3773
RD13 project (LHC), software engng., CASE tools 18228
reactor deformed components profiling, ultrasonic pulse echo ranging 27416
relay test automation/data acquisition, PC-based 29644
residential consumer's energy anal. environ. 28055
RIE, time series modeling, neural networks 22556
robotic soil anal. for phosphorous determ. 25714
ROV 6000 advanced data mgt. 16772
SAMPLE syst., concept of benthic station 26759
seismic sens., real-time sig. class., neural nets 2743
sensing gluten development during bread dough mixing 25806
serum Ca, low-level potentiometric data acquisition syst. 26401
shipboard toxic gas anal. by photoacoustic detectors *(Croatian)* 3902
short lived isotopes, automated NAA syst. 17656
solar water-heating plant, PC-based DA syst. 42744
Space Station Freedom, UPS orbital replacement unit 18762
Space Station Freedom wireless commun. propag. theory and expt. 31816
spectral estimation using distorted-timebase digitizer 25735
spectral line emission measuring syst., calib. 17629
speech recogn. based telephone service perform. 3139
SRM drive control, DSP based syst. archit. 11380
SSC accelerator systs. string test software archit. 18176
stationary batt. UPS systs., status determ. method 36549
steel, unalloyed sheet, surface condition, ferromag. monitoring 12224
submarine, perform. meas., underwater data acquisition syst. design 34419
supply company tariff calc. and contract data acquisition *(German)* 43689
target acquisition modeling, atmos. blurring effects 31844
technician centered test concepts 34367
towed ocean bottom instrum. image proc. 26728
traffic vibrs., PC-based meas./anal. 34707
transm./distrib. equipt. reliab. assess. approach, Canada 43614
transputer-based data acquisition syst. for 256$\times$256 pixel IR camera 42743
turbine blade, faults, intell. diagnosis, neural nets/fuzzy logic 35714
tutoring syst. and prog. interface 65
UH-60A airloads data acquisition and proc. syst. 10313
undergraduate lab. data acquisition, digital oscilloscope appls. 20285
VACM data recording package and memory syst. 10496
VC-dimens. anal. for obj. recogn. 24462
very high resolution network analyser design 25746
virtual instrumentation 34382
Visual Designer software,data acquisition/anal./control 9827
VLSI mfg. line mgt. and troubleshooting, ES 28415
VLSI testing, online data collection/anal. syst. 6827
VXIbus embedded PC-based data acquisition 17688
weapon systems, two level maintenance environment/data collection 42742
well logging, elemental anal., natural gamma-ray spectrosc. 18795
wind induction generators, harmonics prediction/ident. 43960
GaAs MBE growth monitoring, single photon ionization TOF mass spectrosc. 28723
InSb FPA-based IR camera for astron. telescope, electronic testing 17937
Pb-acid telecom. power supply batts., total monitoring syst. 41630
Si wafer noncontact temp. meas., real-time image proc. techs. 2718

data acquisition continued
Si-hybrid gas detector, cluster breakup appl. 10111

data analysis
see also data reduction
2D detector systs., distortions calib. and correction 43151
3D coord. meas. machine, self-calib./error correction 18086
A/D convertors, transient and overvoltage recovery testing 12596
accelerated IC life tests, time reduction by progressive censoring 20491
ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
automated syst. for EMI/C meas. 23737
autostereoscopic 3D image, data compression 32814
cardiac angiography, patient exposures, data anal. 18520
computer syst., real-time, document prep. *(Japanese)* 3754
CRIPT, OCR syst., multicolumn texts anal. 41239
cruise missile tests, perform. anal., ES 35404
cryptographic randomness from air turbulence in disk drives 32162
DELPHI distributed IS, LEP appl. 18210
distrib. indust. mgt. IS, data anal. integrat. 19253
distributed audit trail anal. 24968
DYNASIM, dyn. systs. simul. package 28342
ECG mapping, ambulatory, integrated software environ. 26431
electronic product test data anal., product costs improvement 37175
fibre Fabry-Perot sens., absol. strain meas. 17904
hadronic colliders, transverse beam dyn./losses 4103
HBM ESD testers/specs. anal., 4th order lumped element model 34422
high-dimens. obs. vector sample comparison 28570
imagery, video, and assoc. data, interactive anal. tools 8489
laser scanners, OS *(German)* 40175
launch platform develops., weapon simulators 35405
load forecasting, data anal., Kohonen feature maps 19207
long-term data acquisition/recording/storage and sig. proc. syst. 25734
LWR control rod wear data, intell. DP syst. 4819
max. entropy data anal., Bayesian stats. 24323
MSX early midcourse algm. testbed 16111
multicomponent exponential transients, time-domain method anal. 25749
multifreq. synthesis techs., radio interferometric imaging 9685
multisensor/knowledge fusion, seismic prospecting 43464
NA35 streamer chamber, image data anal. 26234
NDT data collection/interpret., colloquium, London, UK (1994) 5507
network data anal., complementary graphical methods 41675
neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
nonnormal proc. distribs., SPC for semicond. procs. 11718
NPP, safety systs. software, data prep./validation 43847
num. data sets, text generation techs. for explaining trends *(Japanese)* 28588
ocean surface currents meas., HF ground wave radar 10556
opt. polishing monitoring, computerised microscopy 17600
pass. components for aerospace appls., screening methods/data anal. 5684
PD induced ageing, pulse-seq. anal. 22653
PD pulse distrib. pattern anal. 1520
portable underwater acoustic meas., anal., and tracking systs. 17459
PWR, automated US inspections, data collection/interp. software 35374
radiation protection, QC, inform. modelling 18648
re-engng. approach, ATE 34372
ROV 6000 advanced data mgt. 16772
self-sorting in-place FFT algm. suitable for vector and parallel proc. 286
side data anal. of DLTS spectra for multipoint correl. 42921
sig. class., local discriminant bases 32500
spaceborne MOMS-02 sens., spectral/panchromatic band design 43440
SPEAR (Signal Processing Environment for Analysis and Reduction) 25777
speech recogn. based telephone service perform. 3139
steel, unalloyed sheet, surface condition, ferromag. monitoring 12224
stereo imaging effectiveness testing 34632
TACOM thermal image model, field test validation 32902
tech. document characterisation by data anal., NPP app. *(French)* 43843
US eval. of adhesive fillet, neural nets appl. 12245
virtual instrumentation 34382
Visual Designer software,data acquisition/anal./control 9827

data communication
see also data communication equipment; radio data systems
1D interconnection parallel opt. data links 42431
2.45 GHz radio syst. for automatic passenger gates 9192
2.4 GHz low power data commun. syst., develop. *(Japanese)* 42179
3-D optoelectronic interconnect 9542
4 km 155 Mbit/s terrestrial LOS opt. free space link 17291
10 Gbit/s data switched semicond. laser amp. nonlin. loop mirror 17326
60 GHz indoor commun. systs. for data/video commun. 40354
60 GHz indoor wireless data systs. channel modelling, ray-tracing 8933
100VG-AnyLAN, network operation/real-time capabilities 33504
155.52 Mb/s data transm. on category 5 cable plant 42044
adaptive filtering in data commun., self improved error ref. 33160
adaptive rate control for delayed feedback sources 24745
agro-biotechnological teleworking commun. platform 41886
air/ground digital commun. for ATC 10420
aircraft navig. and data links, automatic depend. surveillance (ADS) *(French)* 3378
Alcatel 4400, DP and telecomms. syst. integrat. 41611
amplit. limited multitone sigs., perform. 8092
analog coding/decoding, data transm., fading channels 8169
ARQ policy in data transm. *(Japanese)* 15682
ARQ protocols for high speed hardware implement. 41541
Ascom TCS P7 series test instrums. for telephone and data network fault finding 33391
AT&T's PassageWay Solutions family of computer telephone integrat. products 41800
ATC on airport surface, VHF data link 10422
ATM, connectionless service support 16782
ATM, multimedia and mobile commun. 33660
ATM adaptation layer, service specific connection oriented protocol 2960
ATM and frame relay switching technol. 41424
ATM appl., digital avionics 10389
ATM based B-ISDN, virtual spacing for traffic control 25060
ATM for voice, video and data commun. 41620
ATM LANs, exposed buffering/sub-datagram flow control 33516
ATM network traffic control schemes for no resource reservation data commun. 41440
ATM networks, high-speed data commun., VP dimensioning 24907
ATM networks, resource sharing schemes in connectionless server 41438
ATM node, syst./perform. design 16701

data communication continued
ATM switch for data commun., PVC reservation 9140
ATM technol., transit., advanced telecomm. networks 8824
ATM video commun., implement. issues 41950
ATM-based network environ., media schedular for AAL 42039
ATM-Internet, class D service archit. 8992
Australian ESI, commun. develops. 26975
automatic retransmission rather than ARQ 3364
automatic train protection syst., commun., rails 11411
automatic vehicle location subsystem interfaces 3461
B-ISDN, error recovery scheme perform. comparison 41926
B-ISDN interworking, data services and signalling 25064
backbone ATM switch, cost and complexity issues 42111
banyan-based B-ISDN switches, priority perform. 9006
BATFISH, depth controllable towed body 10499
Belgium, Philips X.25-based data technol. for Ladbrokes group 41812
Berlin-Bonn inform. link BRAVO project *(German)* 8915
bidirectional star network, secure data commun. protocols 33286
binary code struct. anal. based on combinat. presentations *(Russian)* 15798
broadband integrated voice/data networks, bandwidth assignment 16557
broadband network evol. 8821
broadband networks, resource allocation 9017
brushless motor drives, high power, intell. interface 5271
BT screenphone services in UK 42077
cable TV, structural reliab., open syst. for data commun. 34267
cableless LANs, emerging technol. 41900
CATV data network syst. security 34264
CDMA cellular systs., concatenated RS/convolutional coding 9358
CDMA integrated voice/data cellular packet network 17095
CDMA networks, integrated voice/data traffic, code allocation 33908
CDMA VSAT rural commun. systs. for developing countries 3513
CDPD network, cellular digital packet data transm., 19.2 kbps 17114
CELARN, cellular local area radio network 3484
cell-based ATM phys. layer, parallel DSS implement. 8729
cellular digital packet data, perform. anal. 42271
cellular digital packet data on analog systs. 25416
cellular mobile commun. systs. for data transm. 25349
cellular systs. with virtually fixed channel assignment, perform. anal. 17050
cellular-ISDN systs., accessing protocols/network reconfigurations 9377
centralized multihop packet radio network, simul. model 9160
CIO multimedia commun. platform 16884
client-server networks, recovery 3181
CMOS 625 Mb/s data recovery cct. 29340
CMOS multi-channel data compression chip, parallel archit.. 21376
coherent detect. mobile wireless commun., phase ambiguity resolver 33876
commun. networks, perform./reliab. design 41442
commun. networks in transportation 36743
communicating appls., archit. 33565
communication networks in transportation, IEE Colloquium, London (1995) 20252
computer-power converter commun. link, syst./alarm mgt. 41826
Concert packet services network, planning 16533
controllable delay devices in two-level-freq. synthesis systs. 29067
COST 226 project, network integrat. by satellite 42306
CPM coded quaternary scheme for satellite-vehicle/pers. commun. 42265
CSMA/CD LAN interconnection by bridge, finite buffer *(Japanese)* 8947
CT2 syst. for data services, perform. 3495
customer preference for data and voice mail services, conjoint anal. *(Japanese)* 8817
DATAVIDEO service, tech. and operational charact. *(Italian)* 8814
DECT, multibearer connections syst., ARQ protocols perform. 17051
DECT data services 42251
DECT multibearer channels 3494
delay-insensitive codes, power-efficient, for data transm. 15759
design and anal. of data commun. systs. 16518
digital data transm., optimum stuff threshold modulation schemes 40573
digital data transm., unshielded copper wire emission 15478
digital Holter monitoring syst., noise cancelling filter 35130
digital underwater commun., adaptive beamformer perform. 9659
direct-carrier-modulation, low data-rates, sync. perform. 40613
dispersive fading channel, high-speed data transm., SR-chirp PSK 9356
distrib. substation automation develop. 11214
distrib. syst. data commun. integrat. 10735
distributed algms. for unidirectional networks 8766
distributed control appls., home power ccts. 9039
distributed power balancing, sparse inform. link 9250
distributed radio port controller archit., develop. 25381
DS-CDMA, integrated voice/data wireless networks, grade of service 9364
DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
DS-CDMA for portable multimedia commun. appl. 25443
DS-CDMA networks, multi-media integrat. 25235
DS-SS CDMA cellular voice/data commun. 25342
DUALCAST, reliable multicasting scheme 2925
efficient multimedia satellite networks 41985
elec. utilities, involvement in inform. superhighway develop. 43658
enterprise network ATM switching paradigm 41408
EURADAT, pan-European data transm. network *(German)* 8813
EUROLOOP, train control data commun. syst. 41633
European ATC develops., satellites 26697
European R&D activities in mobile multimedia commun. 9041
European syst. for transm. of digitized TV sigs. via satellite 9694
facsimile commun. time in analog/digital cellular systs. 8871
fast packet technol., corporate network choices 33581
fast reservation shaper, novel approach for fast resource mgt. 41683
FASTPAC for frame relay 16555
fault-tolerant data network, transputer based, for ATC *(Italian)* 8912
FH-SS PRN, channel access protocol perform. 8756
fiber optic data links for satellite data mgt., particle-induced bit errors 17262
flexible high-speed transport MultiStream Protocol 41497
FM multiplex broadcasting syst. DARC devel. by NHK 42264
fractionally spaced equalizers, adaptive sampling 33161
fractionally-spaced blind equalization algms., results 15946
frame relay computer commun. service for high-speed data 41807
frame relay service and switching syst. constr. technols. 41808
French activity in data link mode S, ADS appls. *(French)* 35274
French telecommun. services, CNET speech technol. appl. 3081
Fujitsu multimedia network, satellite distrib. syst. *(Japanese)* 42002
genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
GIS data commun. 33487

data communication continued
GIS data transfer interfaces 41644
global mobile satellite complement, terrestrial cellular commun. 42307
global power architect. 19813
globally convergent adaptive blind filters and blind equalisers 2863
GNSS augmentation data link 10377
GNSS transponder and self organising TDMA data link 10378
GPS automatic depend. surveillance of aircraft, spontaneous mode S broadcast messages 4377
group randomly addressed polling for multicell data networks 8771
GSM adaptive type-II hybrid ARQ/FEC protocol 3445
GSM data services, overview 42248
GSM data services for the mobile office, field trial 42250
GSM home location register, advantages/challenges 25385
GSM signalling protocol $LAPD_m$, perform. anal. 3499
GSM/DCS air interface enhancement for high speed data appl. 25408
handover during mobile data commun., error reduction 16635
handwriting proc. in indoor/outdoor environ. for multimedia 9063
Hawaii, dist. learning technol. 3059
Hawaii State Dept. of Education future high speed IN 3251
health care, Quality of Care Development policy, implications for case-based telematic systs. in Europe 35207
health care equity, case-based telematic systs. 35206
HEMT 20 Gb/s 2:1 data selector IC for commun. appl. 29339
heterog. data networks, addressing/routing 24841
high integrity data commun. for light rail transport syst. 36742
high level DSP code synthesis, dyn. data flow/control flow 32654
high speed data communications for rural areas 8826
high speed data networks, transit. splitting for estim. of rare events 33200
high speed network protocol eval., transputer based network simulator 41527
high-speed data transm., eval. of acknowledgement methods 16475
high-speed transport protocols, local workstation environ., flow control 33492
HMM for blind channel charactn. and data detect. 40943
home automation syst., data link layer design issues 3095
I-NET, Packet Switched Public Data Network, India 24893
IEEE 802.6 based PCN, distributed paths migration 9363
IEEE 802.6 DQDB MAN protocol, perform. anal. 3180
IIR filtering for adaptive phase jitter cancellation 32748
indoor cordless commun., teletraffic perform. 3488
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
integrated video and data commun., dyn. quality and congestion control 24738
integrated voice/data mobile radio, design/perform. 17106
integrated voice/data network, cellular packet CDMA, perform. 17131
inter-administrative domain data commun., policy control 8903
inter-satellite commun. technol. *(Japanese)* 33954
inter-vehicle networking method, laser media 3078
IP networks, congestion avoidance for video 16680
IR wireless indoor channel, freq. response 17247
ISDN technol. for local loop special services transm. syst. 41924
ITU-T recommendation V.34 for high speed modems 42082
IVHS, packet success probabs., meas. headway distribs. 42239
joint blind equalization/phase recovery scheme for data commun. 3431
L-band steerable antennas for land mobile terminals 3479
LAMS-DLC perform., protocol for low altitude satellite networks 33940
LAN environ. mobile computing 8990
large-core silica fibers for data commun. appls. 42406
leased cct., low speed data/analogue voice band subscriber equipt. *(Japanese)* 25143
LEO satellite commun., nonuniform traffic, integrated voice/data syst. 25454
LEO satellite networks data link control protocol, datagram service 24835
LEO satellite systs., link mgt., throughput efficiency 3529
LEO satellite systs., perform. eval. 25309
LEO satellites, global store/forward commun. syst. 25467
LEP machine/expts., data exchange 18212
load-adaptive/TDMA systs. perform., satellite networks appl. 9415
local ATM network. Internet protocol, design 8994
local pers. commun., archit. 25382
local/metropolitan ring networks, high perform. protocol 33506
Loran-C, GRI ranking based on cross-rate interf. 25609
lossless data compression for data transm. and storage 24881
Maitland report, commun. and develop. ten yrs. 3003
metropolitan freeway monitoring, random access channel 3075
microcontrollers, integrated CAN control 21346
microwave radio, optimum soln. for public and private appls. 42159
mixed X.25/frame relay networks congestion control 16447
mobile commun. mgt. and digital cash replacement 8845
mobile computing, group commun. approach 33562
mobile data network services 3377
mobile data services, IEE Colloquium, London (1995) 28232
mobile satellite fading channels, M/QPR-TCM perform. 17096
Mobile-IP, transparent resource discovery for mobile computers 33563
MOBITEX and mobile data systs. 41859
Mobitex data networks 42252
monolithic photonic/optoelectronic switching technol. 9146
Moscow data network struct. 16548
Moscow-Maribor satellite link for internetworking 41832
MPEG2 codec, video DSP archit. 33699
multi-provider environ., multi-service mgt. 41692
multi-site ref. station differential GPS 17506
multiaccess scheme, implicit reservation for VSAT data commun. *(Korean)* 25459
multicarrier modulation impulse noise mitigation strategies 40561
multicarrier modulation syst. equaliser training algms. 40559
multimedia appls., multipeer transport services 25097
multimedia radio commun., variable-rate FEC perform. anal. 9044
multimedia satellite commun. systs., preliminary study 3519
multimodulation acoustic commun. syst. 9658
multiplexing voice with data, hybrid transm. algms. 16415
multitone sync. for fading channels 8459
near-IR large-core high-bandwidth GRIN polymer opt. fiber multimedia network 42389
network control proc. data transm., IEC 870-6 OSI protocols *(German)* 19179
network mgt. 16587
New Zealand HV power syst., communs./control systs. 26973
next-generation PCN multimedia traffic support 41979
non-lin. adaptive filters for time-variant equalization 29363
North Carolina Information Highway, evol. 9012

data communication continued
North Carolina Information Highway, NC-REN for research collaboration 5537
NPP, plant commun. and computing archit. plan methodology 27367
NTT Data Communications, internat. business operations 41591
open archit. for digital commun. systs. 8945
opt. commun. codec, high data rate error correction coding 17316
opt. fiber channels, sliding-block line codes, dispersion limitations 40578
opt. fibre multifrequency SWFM bidirectional data transm. syst. 9610
optimized group randomly addressed polling for wireless data network 16677
ORBCOMM data commun. and messaging in Pacific Rim 3514
P1394 serial bus std. specs. 41751
Pacific island nations, data services 3062
packetized data commun., sync., DFT appl. 33201
parallel combinatory SSMA systs., Rayleigh fading channel, perform. eval. 25244
PBX systs. for data commun. 3165
PC packet switching network flag detect. 8904
PCN, data services 42249
PEACESAT program, Pan-Pacific Education and Communications Experiments by Satellite 3518
periodically disturbed data channels, error correcting codes 32142
pers. commun. services, perspective 17132
pers. commun. systs., packet transm. 25415
pers. digital cordless telephone syst. *(Japanese)* 17136
Philips SOPHO iS3000 ISPBX, internal/external commun. for cruise liners 42114
Philips voice module for voice commun., data networks 41715
pilot situational awareness enhancement, airport surface movement area 10423
pilot sym.-aided transm. for satellite/terrestrial mobile systs. 25403
pipelined automatic meter reading scheme 35692
polymer opt. fibre/high-speed LD, data transm. 34051
PON, ATM protocol 42069
portable computing, cellular digital packet data (CDPD) air interface 25352
portable telephone for pers. digital cellular syst. 3467
power line isolation monitoring syst., paging/fax commun. *(Japanese)* 27287
power line SSMA, error correction, IFMV9 coded overlapped PN seq. 25198
power syst., intertripping relay, design/appl. 4726
PRMA integrated data and speech transm. 41496
PRMA integrated voice/data syst., data steal, voice 17089
PRMA-ISA protocol for multiple access of voice/data traffic 9297
proc. instrumentation, proc./syst. interfaces 9789
PROMISE pan-European traveller inform. syst. 3462
PSTN, secure speech/data commun. 33397
public key cryptography, benefits and limitations 15720
QPR-TCM, fading mobile satellite channel, perform. anal. 9336
quantum cryptography, operational syst. 24064
RACE II project Combine, broadband network interworking 33353
rack syst. with coaxial board connectors, high-speed transm. 42095
Radon transform based constellation ident., anal. 33683
RDS channel, Navstar GPS correction data transm. 34192
ref. sig. generator echo cancellation, ISI receiving schemes 32725
RG algm., blind equalization algm. *(Chinese)* 8403
ROMANTIS, satellite services for Eastern Europe 33938
ROSICUM, data network archit. 16549
ROV 6000 advanced data mgt. 16772
RTI related services, packet based data link protocol 8769
RTI/IVHS data distrib., virtual beacons 3459
RTT infrastructure/vehicle-roadside commun., perform. anal. 3457
rural telecomm. networks, integrated cordless access 9208
rural telecommunication using optical fibre 9093
satellite laser commun. links *(Japanese)* 17341
secure commun. using chaos, security testing 15728
security in telecomms., subscriber perspective 33351
selective repeat ARQ for data commun. 17053
self-similar Ethernet LAN traffic, stat. anal. and stochastic modeling 33586
semidynamic/dyn. transm. algms. for voice/data multiplexing 41420
shallow water channel estim. methods, comparison 17460
ship-to-ship teleconferencing, reengineering LAMPS MK III 16808
SINA, Super-highway Information Networking Architecture 25054
sinewave modulation, DDS/sigma delta techs. 12353
single event effect ground test results, fiber optic data interconnect 18708
slotted ring protocol for voice/data integrated network, perform. anal. *(Japanese)* 41512
slow freq. hopped data commun. syst., design 9287
small opt. user terminal, flight config. 17292
small-cell environ., radio channel characts. prediction 3335
smart batts., elec. protocol, data content 36546
SMD high-speed modem design *(German)* 16937
SMDS networks, congestion notification technique 3223
SMDS networks, link set capacity augmentation algms. 16435
SMDS technol. test results and issues 41764
SOCRATES in Europe and TANGO field trial in Gothenburg 3076
SOCRATES/RHAPIT pilot evol., commercial syst. 3077
soliton data transm. over 200 km, polaris./time-domain multiplexing, 160 Gbit/s 34070
speech coding for pers. commun. 8196
speech/data integrat., real-time interactive, on LANs, multimedia in commercial indust. environ. 25066
Sri Lanka's telecomms. infrastructure, private sector contrib. 3032
SS7 network infrastructure, connection-less packet data transm. 25414
SS commun. noise, chip interleaving/hard limiter 25232
SS techs. for consumer commun. 25237
stat. data forks, packet flow control 16436
STU-III-multilevel secure computer interface 9082
submarine cables, EDFA repeaters, data transm. 33981
subscriber loop, data transm., RF exposure effects 7992
subsea acoustic rem. commun., adaptive receiving beamformer 9613
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
SVD-based fractionally=spaced equaliser perform. 42043
T1 carrier syst. companding noise statistics 41388
tandem servers, k-stage blocking and commun.-type flow 24786
TCP/IP, mobility impact, simul. study 3201
TCP/IP local environ., integrat. of voice and data, perform. eval. 8928
TCP/IP perform., satellite 25468
TDMA access for third generation cellular commun., resources 25394
TDMA digital cellular networks, voice/data channel access 3338
TDMA frame synch. of mobile stations, radio clock sig. 9337
telecom. networks/equipt. develop. overview, Europe 16563

data communication continued
telecomm. network optim. 3073
telecomm. networks, compatibility std. and competition economics 33320
telecomm. networks, routing, economic regulation 33299
telephone cct. holding time distribs. 33404
telephone exchange alarm traffic charactn., methodology and case study 33406
TETRA std. for private mobile radio 42219
text commun. via multimedia services for people, speaking disabilities 41981
third generation mobile systs., adaptive radio interface 25395
tobacco factory automation, SINEC commun. network 41899
token ring LANs, multimedia support, multiple priorities, perform. 33653
trains computer and radio control 9283
transactions via short range commun. links 9355
transport enterprises, mobile data comms./EDI 42238
trellis path uniqueness codes, digital data commun. appl. 15797
TRT's Sematrans 256 modem, 32 kbit/s transm. on telephone network 42084
two wire automatic rem. sens./eval. syst. 17686
two-way opt. fiber wideband FM sig. transm. 3553
UHF digital cellular syst., network archit. 25407
UMTS and RACE II CODIT project 9392
underwater acoustic data commun. link adaptive equaliser 9612
underwater acoustic data-commun., bandwidth efficient modulation 9657
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
unlicensed PCS band, wireless operation 25428
VCSELs, multiple transverse mode, high speed data commun. 39806
video commun., low latency, over high bandwidth-delay networks, using FEC 25134
video response syst. based multimedia on demand *(Japanese)* 42008
Videotex commun. network, latest develop. 24892
VLSI byte-wise CRC generator chip, hardware design 37697
voice supported multimedia service on data commun. 9047
VSAT network design tradeoffs 3511
wide area wireless data networks, connectivity 25057
wireless access commun. syst., radio link access procedure 9365
wireless data services, archit. alternatives 25135
wireless digital data commun. 25325
wireless integrated multiple access protocols 16501
wireless local telephone service, effective implement. 3118
wireless local telephone service, pricing, planning and regulation issues 42210
wireless multiservice CDMA environ., adaptive packet decoding 9360
wireless syst. appls. of SS commun. 25214
workstation, intell. LAN-PBX interface 33339
$Ga_{0.51}In_{0.49}P$/GaAs PV converter, opt. power/data transm. 27943

data communication equipment
see also computer peripheral equipment; modems
4-Mbit sync. DRAM for multimedia eqpt. *(Japanese)* 21298
400 MHz band data transm. radio equipt., RF module *(Japanese)* 9701
ATM cross-connect syst., archit., develop. and field trial 3294
AXE syst. for CIS market *(Croatian)* 3286
buffered telemetry demodulator for Galileo mission 9420
CMOS 625 Mb/s data recovery cct. 29340
CMOS low-power chipset for portable multimedia I/O terminal 9114
CMOS multi-channel data compression chip, parallel archit. 21376
CMOS SDH termination chip for 622 Mbps STM-4c B-ISDN 16932
communicating appls., archit. 33565
context-aware computing appls. 33560
distributed rem. data terminals, develop. *(Chinese)* 19130
ERIPAX syst. switches and frame relay *(Croatian)* 3287
error detector systs., analog and digital 3303
ET10071, LAN coaxial transceivers *(Japanese)* 25169
fiber optic module interconnection, parallel data bus 42474
Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
GlobeView-2000, AT&T's ATM products 9138
HEMT 20 Gb/s 2:1 data selector IC for commun. appl. 29339
high-dens. pin-board-matrix switch, crosstalk charact. *(Japanese)* 9125
intell. hubs archits. 33483
IP multigigabit router design 8901
IR optoelectronic data transm., interfaces 34042
ISDN routers and LAN traffic 8899
L-band steerable antennas for land mobile terminals 3479
LAN switch traffic overflow 16722
MCM-D technol. for data commun. appl. 21744
mobile speech, video and data transceiver 3266
MS3000/MS3100 multi-slot hub characts. *(Japanese)* 25001
multipoint multimedia services, high perform. support 16877
nonlin. amps., intermodulation power, data modulation 560
nonlin. echo cancelling, look-up tables/Volterra systs. 2564
NSFNET routing arbiter archit. 24846
operational monitoring optimisation 42752
opt. backplane for broadband switching syst. 25174
opt. fiber links, radiation effects, SSC 18206
P1394 serial bus std. specs. 41751
packet satellite commun., combined free/DAMA protocol 9418
PROMISE pan-European traveller inform. syst. 3462
RACE II project Combine, broadband network interworking 33353
rack syst. with coaxial board connectors, high-speed transm. 42095
SDH 600 Mbps line termination and multiplexing equipt. 25179
SMSK/MSK-modulated inputs recovery, modulator config. 25157
SNMP local bridge ET1053C devel. *(Japanese)* 25002
stackable hubs for networks 16652
STEL-1103, low cost return path CATV transmitter ASIC 42609
STU-III-multilevel secure computer interface 9082
SVD-based fractionally=spaced equaliser perform. 42043
thick film hybrid implement. of data transm. filter 6218
two-way opt. fiber wideband FM sig. transm. 3553
underwater acoustic data commun. link adaptive equaliser 9612
use and technology, conf., Bad Nauheim, Germany (Nov. 1994) *(German)* 16718

data compression
see also arithmetic codes; bandwidth compression; information theory; source coding; vector quantisation
1-D and 2-D DCTs, high-throughput VLSI archits. 24582
2-D lattice filters, image compression 16339
2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
2D θ-image encoding by Boltzmann machine 33066
3D archit. for high resoln. imaging 34583
3D video player (based on MPEG 1) *(Japanese)* 3680

data compression continued
3D-DCT pipe coding, video seq. coding 24506
64 kbps switched internat. ISDN, transm. perform. 16795
adaptive image sampling/interpolation 16387
adaptive subregion variable shape block motion compensated prediction 24500
airborne pulse Doppler radar, pulse compression proc. implement. 10368
ambulatory ECG, adaptive data compression *(Japanese)* 4285
American satellite TV public broadcasting service (PBS) 42566
analogue TV, digital techs. 3666
APC, transform domain quantization 15774
arith. codes, finite-precision implement. 40629
arm modeling for anal./synthesis image coding 8564
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
astron. images, real-time compression and retrieval 24721
asymmetrical filter banks, subband image coding 33132
asynchronous video coding for wireless transport 32187
ATM, hitless path protection switching techs. 16420
ATM video, performs. and error control 8612
audio CD, high-rate buried-data channel 34289
audio description on TV, speech compression 15853
audio sig. compression, circ. wavelet packets 32525
automatic syst. for monitoring fish passage, dams 24534
autostereoscopic 3D image, data compression 32814
binary image shrinking parallel algm. 24597
binary images, interpolation-based bintrees 41185
blind pers. speech technol. develop. 4317
block adaptive subband coding, optimized AMBTC 8117
block adaptive subband VPIC 8116
block-adaptive scanning for efficient encoding of DCT blocks 24401
Booth encoding in parallel multipliers, compressors 6127
broadband satellite digital video transm. technol. *(Japanese)* 17542
broadcast-quality compressed video, subjective testing 25633
buffer control strategy for image data compression 16229
butterfly algm. and VLSI archit. for image decorrelation 16096
cable TV networks measuring data compression 42613
cct. simul. compression by sampling *(Korean)* 12266
CD-ROM, quadruple dens. opt. disc technol. *(Japanese)* 3682
cellular commun. noise suppression 3500
class.-based motion estim. for video coding 16385
CMOS 1.2 GIP general purpose digital image proc. 21374
CMOS array proc. for digital image compression 29247
CMOS high-speed VLSI pipelined proc. design for lossless image data compression 29274
CMOS multi-channel data compression chip, parallel archit. 21376
color image coding, morph. pyramid decomp. 24592
color image compression, fractal-based method 41193
color image compression, neural nets 16347
color images in RGB domain, lossless compression 24505
color-image quantization, fast binary splitting tech. 2591
colour digital still camera, video CCD sens. 9715
colour photograph transm. via INMARSAT-A syst. *(Croatian)* 3505
colour video compression strategy, 3-D subband coding 16086
colour-mapped image compression by DPCM 41098
commun. sig. proc., complex arith. proc. archit. 29239
compressed digital video services 33966
compressed video, high-end appls. 33623
compression of Huffman code table and appls. *(Japanese)* 15799
compression techs. conserve EM spectrum space 3380
computationally fast wavelet-based video coding scheme 16191
computer graphics, Fourier descriptors 40684
concurrent lossless coder for video compression 32939
const. wt. covering codes, size bounds 40691
consumer videophone, CMOS ASIC video codec, low cost 25166
content-based manipulation of image databases, Photobook 8480
context allocation 32125
convoluting systs. diagnosis by space-time compression 32107
cryptology, error control, speech compression conf., Moscow (1993) 43
curve compression, fuzzy by neural net 24355
custom IC, conf., San Diego, CA, USA (May 1994) 20247
DAB, dyn. range control and music/speech control 25641
DC3T, residual correl., transform gain, entropy, energy compression *(Chinese)* 28703
DCT coeff. distrib., image compression algm. 8566
DCT coeffs., adaptive quantization, subjective redundancy removal 8613
decompressed image enhancement, low bit rates 32829
desktop computers, video commun. and presentation 16077
dial-up rem. access image database 16829
digital acoustic underwater phone 17357
digital audio data compression 32688
digital HDTV studio mag-tape-recording hardware codec *(German)* 9727
digital Holter monitoring syst., noise cancelling filter 35130
digital image compression, wavelets and wavelet packets 32830
digital images, compression, decompression and syst. implement. 41317
digital images, visual appearance/fidelity eval. 2611
digital MMDS, wide area service alternative, satellite DBS 3654
digital movies, optimized, maps 33047
digital TV image wavelet transform coding and sync. loss recovery 42584
digital VCR coding scheme for HDTV recording 9753
digital VCR for consumer use, develop. 34271
digital video on PC, hardware accel. 16075
digital video on PC, implement. and perform. 16076
digital video recording data reduction strategies *(German)* 17583
digital video services, technols. and network archits. *(German)* 42626
digitally compressed video, perform. eval. 24603
dist. learning, digital video 41968
dyn. scene objs., spatiotemporal representation 2746
ECG, ambulatory, adaptive data compression, multi-template matching 26432
ECG, morph. similar complexes, neural network compression 35115
ECG compression, adaptive Hermite models, perform. eval. 26408
ECG compression, adaptive lin. prediction 43301
ECG compression, Fourier series, FFT, adaptive coeff. estim. 43291
ECG data compression, dictionary based coding 26410
ECG data compression, μP 10235
ECG data compression, VQ, k-dimens. tree for fast search 26437
edge detect., multilayer neural net 16147
educational use, compressed digital videoconferencing 25075
electro-holography, inform. reduction *(Japanese)* 2148

data compression continued
- entropy-constrained CELP quantization 40646
- error bound, hypothesis testing 40868
- error concealment algms. for ATM videoconferencing syst. 9030
- European digital TV, stds. develop. 34210
- fast approx. Karhunen-Loeve transform for data compression 16379
- fast Huffman decoder, high speed pattern matching 41078
- fast motion estim. algm. for MPEG video coder 16195
- fingerprint image compression, wavelet scalar quantization vs. JPEG 41194
- flexibly digitized speech sounds compressibility on naturally sounding speech synthesis 40739
- fractal image coding eval. 16252
- fractal image compression, crit. review 41295
- fractal image compression, iterated contractive transform. *(Korean)* 24690
- fractal image compression, literature review 2688
- fractal video communicator simul. 8851
- France Telecom digital compression perspective 3506
- FT VQ, sig. compression 16011
- full digital HDTV syst., develop. 9728
- gambling for mnemonically impaired 40538
- generalized Chen transform, fast transform for image compression 16319
- GMS images, digital transm., ships *(Japanese)* 8870
- Grand Alliance syst. for US HDTV 25665
- gray-scale image compression/coding 24376
- grey-level images, entropy estim. algm. 8584
- halftoning opt. neural learning algm. 16305
- harmonics power logger, adaptive storage/automatic data selection 34657
- HDCC, software based compression algm. for video conferencing 16813
- HDTV digital codec, high compression, develop. 42607
- HDTV image compression, MPEG/autosophy comparison 42606
- HDTV images, noise resistant sync. 16288
- HDTV syst., fully digital, algms. and implement. 9733
- HDTV systs. video coding 3671
- hierarchical coding scheme based on polar mass distrib. 16342
- hierarchy embedded differential image, progressive transm., lossless compression 24580
- high quality image encoding, important distortion factors 24497
- high sensitivity satellites/voice compression, PCN 42331
- high-dens. pin-board-matrix switch, crosstalk charact. *(Japanese)* 9125
- high-resoln. image compression, visually transparent techs. 24503
- high-throughput data compressor, CAM 21324
- holographic 3D image, data compression *(Japanese)* 16130
- home-use digital VCR, SBC with block-adaptive quantization, image data compression *(Korean)* 34282
- Huffman decoding of compressed data, efficient scheme 8159
- hyperspectral image compression, 3-D DCT and entropy-constrained trellis quantization 16266
- hyperspectral imagery, appl. of Krawtchouk polynomials 15959
- hyperspectral imagery compression, 3D DCT and hybrid DPCM/DCT 24384
- IBM POWER Visualization System, digital post-prod. suite 42594
- image coding for telecomms. 16161
- image commun., open distributed environ. 16864
- image compression, 2D DCT 24646
- image compression, comparison of fractal methods, DCT and wavelets 8499
- image compression, human visual syst. model and wavelet transform coupling 32831
- image compression, hybrid neural networks 16226
- image compression, lossless, hybrid fractal-LZW encoding tech. 16346
- image compression, methods, parallel proc. 24645
- image compression, modeling of DCT and subband data 24593
- image compression, neural net based 8537
- image compression, PDF estimators 33011
- image compression, perception threshold matching 32878
- image compression, random network learning 33046
- image compression, real time, feature visibility criterion 32882
- image compression anal., weighted finite automata 15783
- image compression for radiology and telemedicine 26321
- image compression strategies, comparative anal. 33023
- image compression technol., review 24561
- image compression technology 41171
- image data compressed sigs. recording on mag. media 17596
- image data compression, ART network, fuzzy control 2857
- image descriptions, learning, fractals 32957
- image line permutation coding/reconstruction *(Japanese)* 24403
- image proc., adaptive computer facilities 33071
- image quantisation error diffusion and min. av. error algms. 16306
- image quantization and rel., network struct. procs. 33088
- image seqs., temporal filtering, short-kernel filter pairs appl. 41077
- image shrinking, zooming, scaling and compression techs. *(German)* 8513
- image transform coding based on fractal functional set *(Japanese)* 24671
- image/video compression *(Japanese)* 33648
- image/video compression algms., mean field annealing recovery techs. 24398
- images, pyramidal coding, QMF 24433
- incoherent radar ship target recogn., wavelet transform approach, extraction 34143
- Indeo 3.2 video codec 3275
- inform. theory, typical seqs. 33029
- intell. control of sig. proc. algms. in commun. 16575
- intell. vehicle/highway systs., compressed video commun. 8682
- internetworking archit. for integrated voice and data commun. 9007
- IR seeker imaging simul. real-time model based on fractal theory 18989
- ISDN and ISO/MPEG layer III audio coding, broadcast audio prod. 3238
- ISO-MPEG-1 audio, high-quality digital audio generic coding std. 2392
- ISO/MPEG Audio MUSICAM family 32625
- iterated fn. syst. codes calc., ANN appl. 33053
- iterated fn. syst. model based data detect. 8382
- ITU generic coding for digital TV broadcasting *(Japanese)* 34211
- JAGUAR, pipelined VLSI archit. for JPEG image compression 21341
- Jong-Nang variable length code for image data compression 8180
- JPEG, fuzzy logic appl. 16232
- JPEG image compression hardware implement. 16079
- JPEG image data compression, fuzzy logic algm. 41076
- JPEG picture retrieval in portable hypermedia documents 8602
- JPEG-encoded med. video, transm. and storage 18447
- LAN environ., audiovisual appls. 8941
- land mobile radio networks, digital video/speech transm. 17048
- Lempel-Ziv algm., improved redundancy 32122
- Lempel-Ziv data compression cct., content addressable memory *(Japanese)* 12664

data compression continued
- Lempel-Ziv fixed-database algm., redundancy/distrib. 32021
- Lempel-Ziv parsing trees, noiseless data compression algms. 32651
- Lempel-Ziv universal data compression algm., overview 16380
- lin. predictive speech compression, trellis codes 8198
- lossless data compression for data transm. and storage 24881
- lossless data compressors, fixed dictionary, adaptive update algms. 32127
- lossless image compression, block scans codebook 15886
- lossless image compression, context-depend. distrib. shaping and parameterization 24502
- lossless image compression techs., comparison 8628
- lossy sig. compression archit., single-chip implement., ECG data 29275
- lossy/lossless compression techs. for encoding audio sigs. for digital proc. 16947
- low bit rate video hybrid codec 42088
- low bit-rate image seq. compression method 24726
- LZW coding/sliding window for data compression 40628
- magneto-opt. disk video server syst. *(Japanese)* 25680
- Mahalanobis Distance and Standard Hough Transform comparison 24442
- match-length fns. for data compression 32123
- MC-DCT compressed video, manipulation/compositing 16121
- med. image combined coding scheme, transform/neural net approaches 43207
- med. image data transm., compressed video teleconference codecs 18461
- med. image lossless compression, multiresolution multiplicative autoregressive models 2848
- medical image capture, formatting and display, conf., USA (1994) 11570
- METEOSAT IR image proc. and MPEG animation 10467
- mid-level vision techs. for video data compression/manipulation 16087
- mobile commun., digital voice compression technol. *(Japanese)* 33902
- motion JPEG digital video storage, retrieval, and edit 16357
- Motion Picture Parser, video scene decomp. 16081
- motion vector estim. in video coding, stochastic approach 8497
- moving image, coding/decoding, cellular neural network 24735
- moving image compression, motion field segmentation-based *(Japanese)* 41325
- moving picture coding syst., MPEG2 based, quantisation control 16227
- moving-target detect. efficiency, effect of ignoring broadband props. of sigs. 34126
- MPEG2, TV receiver appl. 34227
- MPEG, digital audio coding, standardization 15777
- MPEG, full-motion internat. video compression std. 16365
- MPEG, technol. basis for multimedia appls. 41967
- MPEG 1 video compression std., rem. delivery of broadcast-quality video 42625
- MPEG 2 appls. 32877
- MPEG codecs in the presence of errors, perform. 16386
- MPEG compressed video, picture-header loss, error concealment strategy 16073
- MPEG decoder, high-perform. cross-platform 16089
- MPEG digital storage media control command 41607
- MPEG encoders bit-rate control 41090
- MPEG player for network karaoke *(Japanese)* 3681
- MPEG video, lossless smoothing algm. 2814
- MPEG-1 audio std., guide 15963
- MPEG-2, ATM 33598
- MPEG-2, digital sig. compression std., develop. 32958
- MPEG-2, IEE Colloquium, London, UK (1995) 11597
- MPEG-2 std. digital TV receiver IC *(German)* 25648
- MPEG-2 systs. 16091
- MPEG-2 video compression tutorial 32959
- MPEG-2 video data stream, real-time decompression chip 42047
- MPEG/audio compression algm. 17603
- multi-camera 3D images, data compression scheme 8649
- multi-std. video codec data flow proc. 25130
- multi-view 3-D image, interpolation/data compression *(Japanese)* 16127
- multi-view image set, data compression/interpolation 2647
- multichannel video transm., sync. digital fiber-optic networks 34021
- multimedia full motion graphics/TV image storage in PC, compression algms. 41318
- multimedia image techniques *(Japanese)* 32930
- multimedia systs., develop. 9064
- multimedia video proc., parallel archit. DSP chip 21372
- multiresolution approx. of fractal transforms 32624
- multiresolution image compression, Gaussian Markov random fields 2399
- multispectral image compression designs, syst. considerations 16308
- multispectral imagery, transform coding 24501
- multispectral imagery, wavelet/KLT data compression 8270
- multitransform/multidimensional image sig. representation, reconstruction 8627
- MULTIWAVE, multiresolution wavelet-based ECG data compression algm. 26409
- natural images stats. 2703
- NEC's High-Tech Koban syst. for police commun. *(Japanese)* 41708
- NEC's VisuaLink 5000EX10 video codec *(Japanese)* 42090
- NEC video compression technol. *(Japanese)* 41352
- NET32K high speed image understanding syst. 34429
- network karaoke syst., develop. *(Japanese)* 42648
- network link congestion control appls. 40793
- neural networks appl., lossless image compression 2546
- noisy curve shape restoration 32828
- non-lin. noise filtering, piecewise lin. compression 29382
- nonlin. AV workstation characts. *(Japanese)* 25775
- nonuniform sampling DM, appl. 8098
- NTT voice message summary for voice services 3151
- NYNEX interactive speech/lang. systs., telecommun. appl 2443
- obj. based archit. for digital compression camera 33620
- oceanographic data, params. extraction 35343
- opt./mag. recording, digital compression appl. 25677
- optimal zone coding, slant transform 24123
- orthogonal transforms for image compression 32973
- parallel fractal image compression algm. for hypercube multiprocessors 32960
- parallel image and signal algorithms texture analysis, conf., Genoa, May 1994 11593
- parameterized Gaussian-like filters, synthesis by approx. 32646
- partially condensed 1D index space data, compression, tree constr. *(Japanese)* 8533
- perceptually motivated three-component image model, compression appl. 33128

- **data compression** continued
  - permutation coding in 1D transform domain 8176
  - Philips voice module for voice commun., data networks 41715
  - photographic image coding, methods and appls. *(Italian)* 2804
  - pixel size and compression effect on digital aerial image metric quality 41264
  - planar contours pair linkage, multiresoln. tiling 16352
  - possibility theory, inform. compression view 203
  - power syst. post-disturbance anal., records reduction/compression 26900
  - prog. image coding syst., arith. codec, LSI-CAD 33700
  - progressive perceptually transparent coder for high quality images 24498
  - pyramid encoding by LRAAM neural net 16187
  - pyramid sub-band filtering for image compression 33098
  - Q-coders parallel design for bilevel image compression 16188
  - QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
  - QoS adaptation and flow filtering in ATM networks 16852
  - radar target classif., extraction, wavelets *(Chinese)* 34134
  - radiologic image compression, review 26287
  - rate buffer control strategy for image coding 8648
  - real-time parallel DCT/DST lattice structs. for video commun. 29266
  - real-time video variable length decoding cct. using adaptive tree search, 162 Mbit/s 25131
  - recording compressed digital video pictures 17598
  - recursive seq. codes, lossless compression, OPTA fn. 32121
  - region-based segmentation for images/image seqs. compression 32972
  - RIQ-DPCM, audio sigs. compression 15775
  - robot vision, general learning algm. 8491
  - Sarnoff engine, massively parallel computer for high defn. syst. simul. 12587
  - scalable video server elements for multimedia systs. 33662
  - self-similar VBR video traffic, anal., modeling and generation 2883
  - Silicon Audio, audio-data compression/storage syst. 42644
  - Slepian-Wolf data compression syst., universal coding 24041
  - smart compression, embedded zerotree wavelet algm. 8603
  - software codec for PC based on DCT 16942
  - software only video decompression, 4×4 DCTs and moving 4×4 blocks 16192
  - software video, extended color cell compression 16851
  - software-only playback, video codec algms. 16940
  - Sony Digital Betacam format for broadcast digital recording 17594
  - SP20, computing, compression 40797
  - SP theory and syst., computing, compression 40620
  - space data compression stds. 2457
  - speech compression, ARMA model/wavelet transform 32261
  - speech compression, hierarchical stochastic modelling 40919
  - speech single stage spectral quantization, 20 bits 32336
  - speech spectral inform., segmental quantization 32334
  - stat. inverse DCT for image compression 16193
  - stereo image pairs and streams compression 32816
  - stereoscopic images, matching point detect. optim. *(Japanese)* 16128
  - stereoscopic video coding for virtual reality appls. 8687
  - still colour image compression, delayed decision copy coding *(Japanese)* 32929
  - still image compression algm. based on JPEG systs. *(Korean)* 24680
  - still video compression, DCT-based 8601
  - storage and recording systems, conf., Keele, UK (1994) 11550
  - straight line recogn., Hough transform memory compression 32845
  - strip-map SAR autofocus, approach 25550
  - student career counselling via HTML and MOSAIC on Internet 25014
  - subband coding syst., motion compensation techs. for picture compression *(Korean)* 41168
  - subband image coding, watershed/watercourse lines of wavelet transform 2727
  - subimage class., adaptive image data compression, fuzzy syst. *(Korean)* 24560
  - superhighway , digital TV transm. 3656
  - sync. DRAM, 4-/16-Mbit, for high-speed image proc. 12542
  - syst. for real-time video image compression appls. 41079
  - TDMAX and FASTCOM, Alcatel satellite systs. for domestic and corporate commun. 25450
  - teleconferencing variable resoln. image compression 33615
  - text compression, adaptive algo., subdictionaries class. 2371
  - texture anal., SVD 24533
  - TRT's Sematrans 256 modem, 32 kbit/s transm. on telephone network 42084
  - TV sig. broadcast, high quality video codecs *(Japanese)* 42092
  - UltraSPARC visual instruction set, MPEG video decoding 29289
  - universal data compression algms. 32124
  - USA HDTV standardisation status and specs. *(Japanese)* 17568
  - variable-rate predictive residual vector quantizer 41059
  - VBR MPEG traffic in interactive appls., resource requirements 16879
  - VBR MPEG video, charact., modeling and multiplexing 33147
  - very large speech corpora, develop. of file formats 32237
  - video channels, stat. real-time, over multiaccess network 16072
  - video codec for CD-ROM based video playback 16941
  - video coding, variable block-size segmentation by motion vectors 16383
  - video coding bit rate reduction tech. 16403
  - video coding VLSIs, overview, prog. DSPs and building block approach 16155
  - video compression, optimal inter-frame alignment 24695
  - video compression by coeff. compensation 16194
  - video compression by computational image sens. *(Japanese)* 16375
  - video data placement, scalable, on parallel disk arrays 9745
  - video decompression into arbitrary shapes, software based 16071
  - video layout strategy eval. on high-bandwidth file server 16666
  - video segmentation coding applied, H.261, low/low bitrates *(Italian, English)* 41353
  - video seqs., DCT/Quadtree motion compensated coding 16085
  - video streams, encoded, efficient transm. on high-speed networks, frame-induced packet discarding 16911
  - videoconferencing, transputer-based implement. of video codec interface 33616
  - visual commun. channels, inform. lossless transm. 32936
  - VLSI archits. for video compression, survey 24394
  - VLSI implement. of Huffman codec for digital video 33704
  - voice proc. technols. and appls., develops. 8214
  - voice sig. proc. *(English, French)* 40713
  - voice supported multimedia service on data commun. 9047
  - vol. rendering of DCT based compressed 3D scalar data 32110
  - VQ for Jacquard looms textile patterns 16337
  - wavelet transform quantised coeff. redundancy removal 41092
- **data compression** continued
  - wavelet-based approaches vs. subband coding techs. for still image coding 32826
  - wavelet-based multiresolution image compression 8616
  - wavelets and image compression 8540
  - weighted finite transducers in image proc. 41282
  - WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
  - window compression-rejection algms., elimination of errors 3704
  - XTP multicast for high quality video distrib. 16484
- **data conversion**
  - *see also analogue-digital conversion; digital-analogue conversion*
  - analogue TV, digital techs. 3666
  - character set codes transform. for network appl. 16744
  - circuits systs., symp., Chicago, USA (May 1993) 31
  - electron beam lithog., character projection data conversion syst. 22283
  - INFONAVI, in-vehicle navig. syst., radio pager 42542
  - SDH sig. transfer method based on ATM techs. 2886
  - table-lookup for binary/residue and residue/binary conversions 6196
  - telephony, archit. for defining, and exploring interacts. 3146
- **data conversion (software)** *see electronic data interchange*
- **data description**
  - ZIPI music description lang., origs. and motivations 25693
  - ZIPI Music Parameter Description Language 25694
- **data dictionaries** *see database management systems*
- **data encapsulation**
  - ATM socket family implement., experience and results 8921
  - obj.-oriented user interface toolkit, adding digital video 34279
  - radar anal. model encapsulation 25569
- **data exchange** *see electronic data interchange*
- **data flow computing**
  - celestial image proc. on symm. multi-proc. 24532
  - chain-struct. sync. dataflow programs, memory requirements 32619
  - DSP real-time implement. on multiprocessors, CAD environ. 12584
  - DSP software synthesis, Ptolemy environ. 40800
  - DSP synthesis tools for real time systs. 40802
  - graphical prog., LabVIEW software *(Chinese)* 16647
  - high level DSP code synthesis, dyn. data flow/control flow 32654
  - logic simul. accel., data flow archit. 21060
  - medium-throughput sig. proc. on flexible instruction-set archits. 37797
  - multirate sig. proc. algms., compact code from dataflow specs. 40770
  - open client-server networks, heterog. data bank integrat. *(German)* 8886
  - protocol, test path selection, effective domains based 2928
  - RT-level transformations for gate-level testability 21188
  - shop floor control inform. flow, PCB assembly 5600
  - sonification tools, suppl. dataflow visualization 3699
  - VHDL seq. statement synthesis, RTL *(Korean)* 12388
- **data flow graphs**
  - algm.-based fault tolerance, canonical computational model 32497
  - application specific syst. partitioning algm. 21198
  - asynchronous syst. high-level synthesis, scheduling, synchronis. 21183
  - behavioural synthesis, scheduling problem, Hopfield network 37604
  - bit-serial systolic array for DSP, reconfigurable arith. operators 29255
  - chain-struct. sync. dataflow programs, memory requirements 32619
  - data path synthesis, scheduling algm., Tabu search tech. 21044
  - event controlled asynchronous μP, design method eval. 29254
  - formal problem description, data path synthesis 12389
  - heuristic tech. for synthesis of complex functional units 21050
  - high level architectural synthesis, precedence anal. and automatic cycle detect. in DFGs 21068
  - high-level DSP synthesis, concurrent algm. 37793
  - high-level DSP synthesis using concurrent transforms., scheduling, and allocation 21363
  - incompletely specified data-paths, assign. tech. 21041
  - Intel i860, backtrack scheduler for dual operation instructions *(Japanese)* 29303
  - low-complexity bit-serial (inverse) DCT archit. 37790
  - module selection and scheduling using unrestricted libraries 21049
  - multirate sig. proc. algms., compact code from dataflow specs. 40770
  - partial scan designs for DSP appls., behavioral synthesis 29190
  - PHIDEO, high-level synthesis for high throughput appls. 41173
  - quadratic zero-one prog.-based synthesis of appl.-specific data paths 12400
  - RECALS II list scheduling algm. for high level synthesis 28970
  - regularity extraction approach to scheduling and allocation 21051
  - telecomms. distributed maint, systs., abstr. design method 41655
  - GaAs implement., systolic floating point proc. element 29253
- **data flow languages** *see parallel languages*
- **data fusion** *see sensor fusion*
- **data gloves**
  - 3D human image reproduction in virtual space teleconferencing 16823
  - virtual space teleconferencing, 3D human images reprod. 41949
- **data handling**
  - *see also associative processing; cryptography; data analysis; data privacy; data reduction; document handling; electronic data interchange; list processing; merging; multimedia computing; sorting; string matching; symbol manipulation; table lookup; text editing*
  - ATE management in 90's 42690
  - character set codes transform. for network appl. 16744
  - DC motor, model following nonlin. control syst., GMDH algm. *(Korean)* 27746
  - generic software tool kit, accelerator distributed control 18233
  - impulsive noise removal from measurement data 25772
  - integrated data acquisition syst. for satellite struct. testing 18707
  - mobile wireless computing 25297
  - NERD, Network Event Recording Device, anom. detect./notification 24966
  - pass. fibre optic gyroscope develop. 17888
  - power syst. control, intell. data, expert systs. 19166
  - procedural interface, test 9801
  - spectrophotometric data correction, Kalman filter algorithms 25770
  - TQM, role of test 28505
- **data hiding** *see data encapsulation*
- **data integrity**
  - augmented priority ceiling protocol, task sync. for preemptive real-time systs. 16492
  - CT2 syst. for data services, perform. 3495
  - dynamic congestion control schemes in high-speed multimedia networks 33594
  - electronic document signing, public-key cryptography 32046
  - FEC 2381

data integrity continued
Internet, trusted software distrib. 24963
microprocessor-based systems, data corruption risk 29296
mobile environ., file access design 33556
monitoring system with tolerance for real-time data problems 10342
MosquitoNet, commun. environ. switching 33557
network perimeter, secure external access 16674
OSI secure commun., implement. and eval. of SCSE 8752
SNIF, network inform. flow surveying tool 24967
data interchange *see electronic data interchange*
data interfaces *see electronic data interchange*
data loggers
ADC, noise filtering 34418
Antarctic predators, heart rate/body temp., implantable logger 43191
BIST and fault location 6820
DMM computer instrumentation for power distrib. monitoring 4737
harmonics power logger, adaptive storage/automatic data selection 34657
Philips SL20 LINAC, automatic param. logging software syst. 43343
SAMPLE syst., concept of benthic station 26759
synthetic insulators, leakage current monitoring, coastal site 43784
tutor and prog. interface 65
data models *see data structures; database management systems*
data portability *see electronic data interchange*
data preparation
see also word processing
3D intracellular ion meas., visualisation/quantification 43189
NPP, safety systs. software, data prep./validation 43847
data privacy
see also cryptography
Asia Pacific region developing economies, computer security 3068
AT&T's Smart Card, secure network access for multiple appls. 15722
Caller ID and meaning of privacy 3124
CATV data network syst. security 34264
commun. security, terminals/access mechanisms 3049
computer and network systs., secure syst. anal. and integrat. 16650
computer equipt., wave fields modeling 2164
computer network security in heterog. environ. 16651
cryptographic algms., conventional 24062
cryptography, conf., Santa Barbara, CA (Aug. 1994) 32150
database encryption, key distrib. and mgt. *(Chinese)* 2365
discrete data protection, inform.-theoretic problems 15732
distributed database security 15769
distributed enterprise network security 41814
electronic mail and privacy in corporate environ. 16630
electronic mail security *(Slovenian)* 41738
electronic mail systs., privacy protection principles 33412
ELM, privacy enhanced mail modules problem 16632
GSM syst., security aspects/mgt. 3351
IN, detecting, interacts. 3258
Internet, privacy, voluntary guidelines 25024
Internet privacy, voluntary guidelines 16740
mobile computing environ., anonymity 33918
mobile users, identity privacy, authentication 33572
multiprocess commun. in LAN, switching server 24945
Nat. Information Infrastructure project *(Japanese)* 3184
networked computing, transparent mistrust 16649
Ohio metropolitan area, telecomms. infrastructure needs 8798
PCS, pers. mobility 3366
PEM public key certificates, X.500 directory service 16633
PON, private/authentic commun. 42072
private commun. groups in packet-switched networks 8956
public key cryptography, benefits and limitations 15720
quantum oblivious transfer, secure against, indiv. meas. 8147
randomness-rounds tradeoff in private computation 32183
secret sharing scheme and GS^3 model 8112
secure digital mobile commun., conf. key distrib. 25318
security issues in inform. age 16551
security technols. in telecomms. 16550
telecomms. indust., competitive intell. gathering 3054
data processing *see DP industry*
data processing (administrative) *see administrative data processing*
data processing industry *see DP industry*
data querying *see query languages; query processing*
data recording
act. multi-static sonar acquisition/proc. syst. 9660
AFIT multiplexed multi-electrode array and implant. package for neural recording and stimulation 35089
atrial fibrillation, intracardiac sig. anal., std. ambulatory monitoring equipt. 26438
digital recorder data detecting cct. *(Japanese)* 3762
ECG, 12-lead, ES for complex anal. 26436
foetal ECG anal., real-time, Windows appl. 26377
ID-1 data recorder, high perform., develop. 25908
integrated data acquisition syst. for satellite struct. testing 18707
long-term data acquisition/recording/storage and sig. proc. syst. 25734
mag. tape recorder for mass data storage 39183
navy shipboard systs., expert maint. advisor develop. 9812
neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
opt./mag. recording, digital compression appl. 25677
paroxysmal atrial fibrillation episodes, self-monitoring in ambulatory patients, PAFHPI program 26434
plastic hard disks, pre-embossed servo pattern, magnetis. 7174
qtr.-inch tape drives for secondary storage 25909
sleep lab., digital recording and anal., implement. and validation 26406
VACM data recording package and memory syst. 10496
PZT film-based metal-ferroelec.-semicond. struct., memory effect 39068
data reduction
see also data analysis
accelerated IC life tests, time reduction by progressive censoring 20491
automated emission meas., data reduction algm. 15487
cryptographic reduction attacks, ellipt. curves, controllable lower boundary, design strategy 32156
digital audio storage/transm., data reduction 17547
holographic interferometer for flatness testing, common-path design 18067
ICARUS detector, data reduction techs., phys. param. extraction 10125
micromechanical fibre optic press. sens., temp. cross-sensitivity 17862
MSX early midcourse algm. testbed 16111
data reduction continued
orthopaedic surgical planning, computer assistance 18443
pixel size and compression effect on digital aerial image metric quality 41264
power syst. post-disturbance anal., records reduction/compression 26900
spacecraft vehicle health mgt. systs., large-size data reduction/fusion algm. 18725
SPEAR (Signal Processing Environment for Analysis and Reduction) 25777
speech coding, nonuniform sig. sampling method 24135
surface barrier detectors, pile-up/defective pulse rejection 10145
thermal diffusivity meas., thermal diffusivity 9840
towed ocean bottom instrum. image proc. 26728
VQ, min. free energy, annealing control 28635
CO_2 laser for rem. sens. meas. 18830
GaAs HV photocond. switches, electro-optic imagery 14598
data representation *see data structures*
data security *see security of data*
data structures
see also abstract data types; spatial data structures; tree data structures
3D semicond. proc. and device simul., solid modeling 1482
act. memory syst. for network appls., design 37762
associative memory, labeling, access by content 21337
ATM switch, integrated control/mgt. model 8844
BDD-based algorithm for computation of exact fault detection probabilities 29178
Boolean fns., probabilistic manipulation, free Boolean diags. 12260
casting proc. product inform. model, STEP-based 11740
cct. verification, O(n) algms. 28949
constr. indust., multimedia product selector, X.500 directory service 9073
data fusion systs., eval. model 8296
digital ccts., data struct., solve satisfiability problem 29131
distributed logic simul., test environ. 12496
fast sort, priority queue and convex hull on entropy bounded inputs 5752
formal modeling and verification of μP 21353
graph driven binary decision diags., data struct. for Boolean fns. 29199
graphical tool for telecomm. network defn. and presentation 41560
hierarchy embedded differential image, progressive transm., lossless compression 24580
information technologies/systs., conf., Ukraine, 1993 3
interactive graphic syst., data network mgt./status visualization 24912
iterated fn. syst. model based data detect. 8382
library-based FPGA, logic synthesis 29130
lossless data compressors, fixed dictionary, adaptive update algms. 32127
modular exponentiation algms., nonstandard arith. 32097
multi-purpose interface for still/moving image retrieval 24520
multilevel stereo local/global matching 2777
offline power syst. planning, relational database concept 27097
opt. Chinese handwritten character recogn., feature-based noise reduction 24550
OSIRIS high-speed network adaptor, software perspective 3205
Protel TRAXEDIT PCB file package *(Chinese)* 6406
public data network mgt. syst., inform. model 24911
public data network mgt. syst., monitoring subsystem 24913
SEPIA, cooperative hypermedia authoring environ. 16806
SESES, micro electro mech. systs. CAD modelling syst. 30498
symbolic trajectory eval. and BDDs, theorem prover, VLSI design 37587
telephony, computer-aided, user-oriented dialogue struct. 16615
token based mutual exclusion algm. in distributed syst. 33484
universal pers. telecomms. syst., interact. restructuring 3145
very large speech corpora, develop. of file formats 32237
video databases, metadata 8472
data tables *see collections of physical data*
data transfer formats *see electronic data interchange*
data transmission equipment *see data communication equipment*
data visualisation
3D intracellular ion meas., visualisation/quantification 43189
3D rendering, sci./engng. tool 15434
3D vector field magnitude and direction 28288
automated visual indust. QC, data visualization and num. assess. of class separability 41221
biological/physiological inform. visualisation *(Japanese)* 35025
brain lesions, multispectral mag. reson. images, segmentation and visualization 43238
cardiac intracavitary pot. data, visualisation on reconstructed surface 26370
coronary artery segments, stenosed, 3D densitometric reconstruction and visualization 43240
curvature anal. and visualization for fns. defined on Euclidean spaces, surfaces 11975
curvature approx. of 3D manifolds in 4D space 11974
cylindrical resonators reson. freqs. anal. 29551
distributed simul. for live training 35406
DUALQUEST, real-time bifocal telecomm. network visualization syst. 41672
ECGs, parametric image display 35110
elec. engng. course, EM field visualisation software 20312
EM education, multimedia computing appl. 20313
EM fields in waveguides, interactive visualization 29521
fine pitch ball bonding optim., RSM, 3D/contour charts 38169
fish tank virtual reality 42881
fluid flow visualisation, recent trend *(Japanese)* 34733
heart, human, dyn. electrophysiological data visualization, 3D model 26439
heart dyn., human, visualization from US echograms *(Japanese)* 35009
IVS, integrated vol. visualization syst. for electronic package cooling 37092
laser range data, multidimensional shape and texture visualization 32975
manual/automated offshore NDE, colloq., London (1994) 20259
med. diagnosis via visualization techs. in facial surgery 41246
medical image capture, formatting and display, conf., USA (1994) 11570
microwave EM field simul., TLM method, computer graphic visualisation 10006
MR images, vol. segmentation 26271
multidimensional MR image segmentation, fuzzy neural network 26322
multispectral imagery, wavelet/KLT data compression 8270
network data anal., complementary graphical methods 41675
num. simul. and visualization of ultrasounds propag. in carotidean region 4273
PAGEIN project, networking issues 16728
perspective terrain visualization using rem. sens., GIS and computer graphics 18919
polysilicon emitter BJTs,ionizing-radiation and hot-carrier stress response, visualization 22361

data visualisation continued
- power station mgt., proc. visualisation and multimedia technol. *(German)* 19381
- power syst., static security assess., graphic representation 4578
- power syst. control, data visualisation techs. 26921
- power syst. security margins, spatial aspects visualisation methods 26970
- Projection Pursuit, optimal transforms. for multispectral change detect. 16265
- Sarnoff engine, massively parallel computer for high defn. syst. simul. 12587
- sonification tools, suppl. dataflow visualization 3699
- spacecraft engng. subsyst. operations, Engng. Anal. Subsyst. Environ. 26519
- stripchart recorder emulation; split screen, smooth scrolling 3924
- technician centered test concepts 34367
- televirtuality, telecomms./VR merging 8828
- true 3-D digital video effects proc., real-time computer graphics 41201
- ultrafast opt. phenom., visualisation *(Japanese)* 32932
- Verilog design anal., time dimens., visualisation tools 21218
- video based tracker in computer aided surgery 42687
- VIDS, visual interp. for device simul., proc. models 22544
- visual data exploration conf., San Jose, USA (1994) 23

database machines
- high-speed database proc. by opt. content-addressable parallel proc. 22970
- LSI manufacturing yield, integrated database syst., cond. anal. 37040

database management systems
- *see also active databases; database machines; database theory; deductive databases; distributed databases; object-oriented databases; relational databases; statistical databases; very large databases; visual databases*
- 800 MHz PCS, IN technol. appl. 25433
- ATR research activities on speech translation 2444
- Automated Distrib. Syst. Modeler, OO design 35623
- Bangla speech over telephone channel, on-off charact. anal. 40756
- BT customer networks, ensuring quality in design 16534
- bulk power network restoration, ES support syst. 19140
- casting proc. product inform. model, STEP-based 11740
- cement kiln dust recycling, water leaching, proc. control 17673
- computerised commercial office mgt. syst. 3091
- connecting geographical inform. syst., telecom. inform. syst. database 33342
- data based testability analysis system 37000
- digital parallel VLSI archit., fuzzy database mining 677
- directory assistance, speech recogn. issues 3128
- distrib. syst. data commun. integrat. 10735
- elec. utility network IS, requirements and uses *(German)* 4586
- encryption, key distrib. and mgt. *(Chinese)* 2365
- face retrieval, used 8316
- feeder database, work ordering syst. 43745
- heterog. multiserver network, job depend. dispatching scheme 24952
- high perform. transparent bridge modular archit. 41404
- high-speed database proc. by opt. content-addressable parallel proc. 22970
- ident. card mgt. syst. for Tokyo International Airport *(Japanese)* 10411
- interactive terminal sliding algm. for hybrid IC planar layout *(Japanese)* 29696
- interface, pen-based for mobile computers 33566
- KT-STOCK large vocab. speaker independent recogn. syst. 2440
- logic diags., automatic input, loop syms. recogn. 5971
- mail-based teleservice archit. for retrieving multimedia documents 16868
- MEET database tools for nuc. plant maint. 43841
- mil. tracker perform., eval. 18984
- mobile environ., file access design 33556
- Nat. Grid power syst. anal./data mgt. rationalisation 19126
- NCMS network mgt. syst. upgrade 16778
- NYNEX interactive speech/lang. systs., telecommun. appl 2443
- on-line access, patents database 36587
- open client-server networks, heterog. data bank integrat. *(German)* 8886
- OSI Directory Information Base, hash-based high-perform. name resoln. method *(Japanese)* 33438
- PC based OSI rem. database access client syst. 8759
- PCB assembly/soldering defects, inspection/SPC work stations 5696
- perturbed correl. method, effect on OCR 41362
- Philips automatic train timetable IS 3130
- power restoration support syst. for large-scale bulk power networks 10664
- power syst. control, intell. data, expert systs. 19166
- power syst. engng. anal., GUI database appls. 35436
- power syst. load dispatching real-time computer network *(Chinese)* 35515
- power transm. equipt. reliab. IS, Canada 43722
- RACE 2087/TITAN, access network alternatives *(Italian, English)* 42071
- speech guiding syst. and speech database for automatic traffic mgt. 24145
- steel mfg. integrated prod. IS, Japan *(Japanese)* 3212
- Swedish NPP safety database, incident and trend catalogues 19406
- telecomm. databases, knowledge acquisition and proc. 41559
- telecomm. software automatic generation technol. *(Japanese)* 16512
- X.500 cache partitioning for faster name resoln. in X.400 8959

database querying *see query languages; query processing*

database theory
- encoded opt. disks, database opt. correl. 30835
- traitor tracing, cryptographic schemes 32173

databases *see database management systems; information services*

databases, online *see information retrieval systems; information services*

dawn chorus *see atmospherics*

DBR lasers *see distributed Bragg reflector lasers*

DBS *see direct broadcasting by satellite*

DC-AC power convertors
- *see also invertors*
- 1 MW grid connected PV plant, perform. anal. 27636
- 2.5 kW NASA spacecraft ion thruster/power proc., develop. status 35267
- 2-switch current regulated DC/AC converter 44212
- 3-phase act. power filter, sliding mode control 19759
- 5/220 V thermionic generator power convertor design 28031
- 12 kW/250 kHz series resonant power convertors, induction heating appls. 36787
- 200 V KZ-DHC32 IGBT invertor-based induction heating cooker *(Japanese)* 44588
- 200 W PV power syst. DC/AC power convertor control 43953
- 250 kW AC batt. syst., Pb-acid marine cell-based 36552
- 1200 W zero output impedance UPS inverter 44170
- aircraft power conversion systs., soft switching appls. 43452
- arc welding forward PWM inverter power source anal. *(Chinese)* 44633
- ASCR thyristor-based CSI, induction heating appls. 36790
- batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966

DC-AC power convertors continued
- broadband multimedia communs., distrib. power archit. 44132
- brushless PM sync. motor drive, predictive control 20087
- computer/telecom. UPS, static power inverter, high perform. 19860
- Darlington transistor inverter, 99.3% efficiency 19743
- DC converted power systs., energy conservation benefits 35615
- DC link power converter, induction motor drive appls. 44450
- DC motor drives, fuzzy speed/voltage control 28099
- DC rly. vehicles, narrow-band LF act. filters 20102
- dual induction motor vehicle drives, control methodology 11418
- elec. vehicle propulsion inverter, power electronics design 44485
- electronic welding, HF reson. inverter-based 36802
- fluoresc. lamp current var., electronic ballast tolerances, PSPICE 11460
- fuel cell power syst. conditioners, microcomputer control appls. 43968
- Fuji Electric moulded IGBTs, voltage reson. invertor appls. 27824
- Fuji Electric power IGBT modules, elec. vehicle invertor appls. 28133
- Fuji Electric products and appls. 21117
- full-bridge MOSFET inverter, US transducer power supply appls. 44166
- gas turbine engines, SRM fuel-lube pump drive 20053
- halogen cycle lamps, HF power supply transformer 11446
- hard switched/reson. link inverter output spectra comparison 44205
- harmonic-free 3-phase inverters, synthesis/anal. 11114
- HF discharge lamp ballasts, white noise modulation 11457
- HF reson. inverter freq. control, induction heating appls. 36789
- high power DC SMPS, electron gun appl. 19755
- high power FET/IGBT gate driver cct. 13701
- induction generator, squirrel cage, CSI exciter, voltage regulator 19635
- induction motor, 3-phase inverter, robust current controller, finite state automaton 36158
- induction motor ASD, inverter/cycloconverter fed, single-phase inputs 44489
- induction motor drive, CSI-fed, field oriented control, CASED simul. 44495
- induction motor drive, CSI-fed, microcomputer-DSP control 20072
- induction motor drive, VSI fed, DSP based variable struct. control 44049
- induction motor drives, vector control 44443
- LCC reson. inverter, design, HF AC distrib. syst. 21106
- LINE BACK, utility connected PV inverter 44204
- Maglev rly. inverter harmonic suppression method 11423
- medium freq. converter with VSI, control syst. 19879
- metal induction heating, MF parallel power converter appls. 20163
- multi-MW batt. storage plant, power conditioning reliab. 36081
- multiple current-source GTO CSI, control techs. anal. 19853
- orthogonal core, optimum design based on mag. cct. 7197
- parallel reson. CSI, cct. design/anal. 44136
- planar integrated reson. LCT cct. design 12321
- PM sync. motor drives, high-efficiency, PF control 36642
- power electronics conf., Cuernavaca, Mexico (Aug. 1993) 11564
- PV R&D projects, single module inverter, New Eng. Electric 43950
- PV water pumping, SRM drive-based, perform. anal. 10890
- PWM CSI DC link notching cct., switching loss reduction 44180
- PWM invertors, additional zero-seq. harmonics techs. 44163
- PWM invertors, telecomm. power supply appls. 19801
- PWM power convertor, quasi-optimal control 44165
- PWM VSI, deadbeat control cct. 44176
- PWM VSI AC motor drives, sync. quasi-vector control 11351
- rem. telecom. site, engine-generator power supply 19538
- reson. DC link IGBT ZVS invertors, optimal design 36342
- reson. DC link VSI, soft switched, cct. perform. studies 36282
- reson. DC link ZVS VSI topol. studies 36281
- reson. DC/DC power converter, Class D inverter, Class E rectifier 37627
- reson. link inverter topologies, UPS appls. 44206
- series reson. DC link GTO invertor expts. 44167
- series-reson. DC-AC power converter, switching control *(Japanese)* 11190
- single-phase PWM VSI, residential PV power syst. appls. *(Japanese)* 36346
- soft-commutated DC/AC converter for solar energy conversion *(French)* 19766
- soft-switched current-fed PWM inverter, struct., appls. 19735
- soft-switched parallel inverter, topol. anal. 11144
- soft-switched PWM current source rectifier/inverter 11145
- SRM drives, novel C-dump inverter develop. *(Korean)* 28085
- static power converter hybrid control modelling, reliab./safety appls. *(French)* 27799
- SVC, three-level invertor-based, expt. investig. 43665
- switched-mode AC/AC voltage regulator, anal., design 5113
- switched-mode PWM inverter, stabil. anal. 11127
- TECTEM central heating facility, thermionic conversion 20040
- telecomm. equipt. air conditioning, power supply 44602
- three-level PWM motor inverters, harmonic loss calcs. 44175
- three-level rectifier/inverter, force-commutated 19733
- three-phase bidirectional PWM power convertor config. 5126
- three-phase invertor-based act. power harmonic filter 19740
- three-phase quasi-reson. soft switched thyristor invertor 19732
- three-phase rectifier, deadbeat neural net predictive control 11174
- three-phase UPS VSI, feedback control strategy 44173
- traction reson. DC link inverters, soft/hard switching methods 44568
- UPS, half-bridge inverter/converter cct. 44200
- UPS CSI, DSP-based output voltage control 44172
- UPS PWM inverter, instantaneous feedback controlled 11177
- utility/PV lines, automatic interconnecting syst. 43954
- VSI, digital adaptive hysteresis current control 19756
- VSI, IGBT-based, asynchronous machine appls. *(French)* 11193
- VSI, shunt act. filter control, CAD 44186
- wind energy utilisation, fuzzy logic controller 36065
- wind power converter/inverter syst., 600 A/1200 V intell. IGBT module 19567
- ZCS HF inverter/converter, overlapping commutation 19788

DC amplifiers
- current amp., noise anal. simul., PSpice-based *(Japanese)* 6029
- digital portable phone transmitting amp., converter-control IC 25284
- low noise JFET cooled amp. for DC SQUID 6031
- radiotelescope continuum receiving syst. *(Korean)* 42553
- RF power meter, lin. scale 34620
- SpiceAge for Windows, DC modelling 5972
- very low level DC current amp., distributed capacitances, ground anal. *(Japanese)* 29053
- AlGaAs-GaAs HBT-based direct coupled feedback transimpedance amp. 29065

DC-DC power convertors
- 1.9 kW ZVS PWM phase switched DC/DC converter 44193
- 1 kW third-harmonic modulated AC/DC power electronics interface 44213

DC-DC power convertors continued
1 kW two-stage batt. charger cct. design 5071
1-phase supply, drive appl., DC/AC outputs control, thyristor ccts. 5343
3.3 V DC/DC conversion, optimised sync. rectification 6003
3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
3-phase PWM rectifier, line current harmonics minimisation 44147
-48 V DC reserve systs., telecom. indust. 19857
10 kW DC/DC PWM ZVS bipolar SIT-based power converter 19830
10 W thin DC/DC converter, coreless wire transformer-based 6011
15 kW DC/DC IGBT ZVS reson. power converter 5080
30 W HF foil-type air-core power convertor transformer 6381
45 kW DC-DC PWM rly. car power converter, design optim. 11414
48 V DC reson. power converter distributed power supply 5049
50 W DC/DC PWM soft-switched power converters 19790
50 W DC/DC ZVS PWM half-bridge power convertor 44194
66 J magnetron pulsed power supply, flyback convertor-based 36321
150 W multi-reson. DC/DC converter, high efficiency 44138
500 W DC-DC converter, power MOSFETs, 200°C operation 12322
500 W/1 MHz reson. telecom. power supply develop. 19866
AC-DC boost power converter, high PF, cct. anal. *(Japanese)* 11189
act. clamp PWM forward sync. rectifier power converter 19822
ALCATEL 1000 S12 switching syst. decentralized DC power supply 19869
AMPhibian hybrid elec. vehicle, regenerative braking effects 28147
ART2800 DC/DC converter family, 7846 post regulator, space radiation charactn. 29051
bidirectional boost converter, nonlinear continuous time control 19803
board-mounted telecom. power supply modules 44196
boost converter, control, dyn. response *(Chinese)* 11186
boost converter, current programmed, large sig. model 12314
boost converter, PF correction cct. simul. 11162
boost converter surge suppression, act. filter 11154
boost PWM converter, feedback controlled, averaging theory 19770
boost PWM power convertor anal., averaging theory extension 11151
boost-based resistor emulators, act. inrush current limiting 44202
broadband multimedia communs., distrib. power archit. 44132
buck and boost DC-DC PWM convertor anal. 11184
buck converter, ANN controlled, simul. 37637
buck converter design, zero-current turn-off, MCT 19748
buck ZCS-ZVS PWM DC/DC power converter topol. 11167
buck ZVC-ZCS HF PWM power converter studies 19716
capacitive idling converters, input current shaping 19789
clamped ZVS DC/DC converters, topol., operation and calc. *(Chinese)* 28997
class D^2 DC/DC parallel reson. MOSFET power supply 44223
Class E reson. rectifier with series capacitor, reson. DC/DC converter 12327
control param. optimisation 21101
cross regulation charactn., SPICE-based 19794
Cuk convertor, nonlin. control methods 27801
Cuk PWM DC/DC soft-switching power convertor 19795
current runaway anal. for current injected control *(Japanese)* 5989
current-mode controlled converters, instabil. predictions 11182
current-source parallel-reson. DC/DC converter 36335
current-source reson. DC-DC MOSFET power converter anal. 44222
DC drives, nonlin. controller, bi-orthogonal decomp. 5314
DC power lines, SMES, input cct. 10718
DC reson. link-based topol. 27832
DC rly. locomotives, induction motor-driven, computer simul. 5348
democratic load-current sharing cct. 44151
digital portable phone transmitting amp., converter-control IC 25284
discontinuous PWM preregulators, conducted EMI reduction 11161
distrib. fuse fault clearing study 44144
distributed power archits., bus voltage level comparisons 36325
distributed power modules, decentralized systs., telecom. appl. 19816
elec. vehicles, 40 kHz, 1.5 kW DC/DC converter 20117
energy recirculation/storage converters, PF correction 11160
feedforward act. filter for output ripple cancellation 6024
feedforward pulse-width modulator for boost DC-DC power converters 29042
FET-switched induction accelerator cell 36410
film shape transformer for push-pull DC-DC converter 19713
flyback converters, soft switching, act. clamp cct. 6004
flyback PWM power convertor, nondissipative snubber optimal design 19709
flyback ZVS PWM power converter-nondissipative snubber calcs. 5047
fourth-order DC/DC power converters, limited duty cycle range 19792
fuel cell, DC interconnection converter, input current control 44345
full-bridge DC/DC power converter, extreme conditions operation 44137
full-bridge PWM DC/DC soft-switching power converter 19791
full-bridge ZVS PWM DC/DC power converter 19852
functional models for space power electronic ccts. 35244
fuzzy control based on quasilinear modelling 36369
fuzzy logic optimal control, cell state algm. 44121
fuzzy optimal control commutation for current mode 44120
half-bridge bidirectional DC-DC converters anal. 6006
HF high perform. power supplies, SMT 12332
HF SMPS, solid Ta power capacitor appls. 19826
HF switching DC-DC convertors using canonical switching cell 19773
HF switching power supply, commutation cct. design 29038
high PF convertor, single-switch single-stage 29041
high power DC SMPS, electron gun appl. 19755
high power DC-to-DC soft-switched converter topologies 19754
hybrid elec. vehicle drive, capacitor storage, converter 20096
hybrid/elec. vehicles, DC/DC power converters 20100
IEEE power electronics conf., Seattle, USA (June 1993) 36843
INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
isolated DC-DC converter, ZCS IGBTs, symm. topol. 6008
isolated high power boost topol., transformer models 19745
Jones DC-DC converter, traction drive appls., av. modeling 19812
LCC reson. power converter, digital control models 6010
LV analog ICs for 3 V systs. 771
LV high output current AC/DC converter, boost struct. 19727
LV operation of portable systs., design techs. 29004
motor drives, separately excited, tunable fuzzy logic control 20076
multi-output DC/DC PWM ZVS quasi-reson. power converter 19824
multi-output reson. DC/DC space power converters 4361
multiple-output DC/DC power converters, stacked secondary anal. 19793
Ni-H_2 batt. power syst., μP charger control 27921
noncontact batt. charging, EM coupling 19859
optimum control of DC-DC convertors 36308
pacemaker power supply convertor, flat transformer-based 10277

DC-DC power convertors continued
parallel DC-DC power converters, output droop characts. 11165
parallel-connected, current distrib. control 44141
periodically switched networks modelling, Cuk converter 11164
PF correction, techs., converter topologies, control ccts. 35503
PF preregulators, Sepic/Cuk converter based 19753
PV array max. power point tracking scheme 19559
PWM boost power converter, switching capacitor-based 44195
PWM DC-DC converters, voltage control, feedforward/feedback 11117
PWM DC/DC full-bridge ZVS power converter anal. *(Chinese)* 36337
PWM power convertor, small-sig. modelling 11148
PWM push-pull power converter, robust state feedback control 27808
PWM reson. power converter topol., pulse load appls. 11172
PWM step-up power supply, SC cct.-based 27807
PWM switching regulators, fn. control 29022
PWM ZVS reson. power convertor develop. 5078
quasi-lin. controller, DSP-based 11149
quasi-reson. HF PWM ZVS DC/DC power convertors 5061
quasi-reson. power converters, generalized state space averaging anal. 11150
quasi-reson. ZCS power convertor topologies 44220
random switching control, LF noise studies 44155
reliab. enhancement technols. 29017
residential solar-powered air conditioners 5393
reson. DC/DC converter, simul./testing, laser supply appl. 36279
reson. DC/DC power converter, Class D inverter, Class E rectifier 37627
rly., traction drive, snubber energy recovery cct. 44540
self-excited forward DC-DC PWM ZVS power converter 36241
self-reson. DC-DC PWM power converter family 11168
self-reson. PWM forward DC/DC power converter 44225
series connected batt. strings, charge equalization 44306
series connected batt. strings, charge equalization 19932
series reson. converter, parallel reson. cct. under parallel reson. freq. 21099
series reson. DC/DC power converter, IP regulator-based control 44221
series reson. DC/DC power convertors, perform. prediction 19708
single phase quasi-reson. rectifier, unity PF 44146
single-phase telecom. supply PF correction cct. 41627
single-switch discontinuous-mode boost PF corrector 44211
sliding mode control via extended lin. 520
SMPS, forward ZCS-QRC, practical design 19805
SMPS, MOSFET-based, capacitive isolation method *(Japanese)* 6025
SMPS PF correction, microcontroller 44116
SMPS power converters, planar integrated filter/snubber cct. 19763
SMT MOSFETs, VDMOS technol.-based 36345
soft switching DC converter, PF correction 19752
soft-switching full-bridge converter, mag. amps. 44139
soft-switching PWM boost converter, config., anal. 6000
Space Station Freedom power system, small-signal stability 26593
space station secondary elec. power syst. modeling/simul. 26612
spacecraft distributed power systs. design 26595
SRM novel buck power converter topol. *(Korean)* 27691
standalone PV syst., concepts, economic anal. 36056
subway elec. supply, energy saving, batt. storage plant 44539
switch converters, transfer fn. determ. 5103
switch-mode DC-DC power converter dyn. response, CAI 5533
switched DC-DC converters, control, educational workbench *(Spanish)* 19876
switched-mode DC-DC converters for high-power appls. 11181
switching converters anal., grid-point approach 37625
switching ripples, averaging anal. method *(Japanese)* 27795
telecomm. syst., on-board DC/DC PWM converters anal. 19823
three-phase boost power convertor, interleaved switching topol. 5124
three-phase PWM boost rectifiers 11159
three-phase PWM reson. buck converters, power control 5060
TK75001/75003 five-pin PWM SMPS IC 29015
two-port lossless switching cct. design algm. *(Polish)* 36280
ultrathin dc/dc converters for compact PCMCIA cards 12329
unity PF boost converter control 19284
unity PF ccts., boost/Cuk topologies comparison 5069
utility/PV lines, automatic interconnecting syst. 43954
variable freq. DC-DC converter nonlin. control 21100
voltage-reson. converter, AC dyn. characts. anal. 21110
ZCS HF inverter/converter, overlapping commutation 19788
ZCS-QRC, two fully regulated outputs 19806
ZCS/ZVS saturable inductor PWM DC-DC power converter 44224
zero-current-transit. PWM boost converters 11116
Zeta converter, PF correction appl. 11158
ZVS power convertor, batt./solar cell sources 44169
ZVS PWM forward power converter design 5045
ZVS PWM full-bridge power convertor, MOSFET-based 5044
ZVS-clamped voltage DC/DC PWM single-switch power convertors 11169
ZVS-PWM full bridge DC/DC converter, losses, appl. 5089
ZVS-ZCS-PWM self reson. DC-DC Sepic converter 44226

DC generators
see also homopolar generators
Blue Angel hybrid petrol/elec. road vehicle *(German)* 11440
commutation curve anal., eigenvector method *(Japanese)* 11062

DC machines
see also DC generators; DC motors; homopolar machines
AC drive syst. load simulator, local vector control 28069
commutation, external power electronic assistance *(English, French)* 19657
distributed exciting winding, calc. 36182
electromechanical energy convertors, develop. overview *(Russian)* 43993
electronically assisted commutation, expt. 44068
electronically assisted commutation, terminal charact. 27755
online spark detect. syst. develop. 4991

DC motor drives
adaptive neural speed regulators 36655
ASD, self-tuning digital controllers appl. 5316
ASICs, DC elec. motor control and monitoring 11329
automatic modeling of elec. drive syst., fuzzy logic 19664
brushless, inverter design, optocouplers 28073
brushless, math. modelling 44494
brushless DC drives, control strategies comparison 44476
brushless DC motor drives, variable speed control design 5243
brushless DC motors, torque control 11368
brushless PM DC motor drives, torque ripple reduction 44477
cement plant, roll crusher, variable speed DC drive 5419
cement prod., hydraulic roll crushers, motor appls./selection 5421
chopper driven actuator, model, robot appl. 28101

DC motor drives continued
chopper fed PMDC motor elec. vehicles drive, adaptive ANN rule-based controller 36721
chopper-fed, fault conditions anal. 5276
coal mine transportation arcing, detection/suppression method 20107
current compensator/vel. control 28065
digital regulator disturbance retuning design 11371
digitally controlled 20088
elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
elec. locomotive DC traction motor drives, electromech. proc. modelling *(Russian)* 36719
elec. vehicle drives, time-varying adaptive μP control 36739
EPNM DC elec. drive, characts./components 44470
extrusion proc. DC motor drive cascaded control design *(Russian)* 11497
fault isolation filter design for lin. systs. 11382
field-weakening range, dyn. perform. 11345
fuzzy control 5315
fuzzy logic control, neural net implement. 11316
fuzzy speed controller 36654
fuzzy speed/voltage control 28099
harmonic drive DC motor torque control 44445
HDD, motor-control servo power IC 36671
indirect control, state stimulator-based 36646
industrial drive control systs., DSP based tool 44441
Jones DC-DC converter, traction drive appls., av. modeling 19812
Josephson and Von Klitzing constants evaluation 25709
lin. DC actuator, valve control 4352
lin. step motors, static charact., control rod drives, nuc. reactors 44438
mine hoist winder drive control upgrade project, South Africa 44644
neural net adaptive control of DC drive 44446
nonlin. controller, bi-orthogonal decomp. 5314
optimal speed control method *(Polish)* 36647
PM brushless DC drive, var. struct. speed control 36665
PM brushless DC motors, field weakening, control 11360
PM brushless motor drives, state-of-the-art 36677
PM DC motor drives, AI speed control strategies 5285
prog. high speed digital control 44498
quantum series reson. inverter, optimal predictive current control 11387
railgun, lin. DC motor-based, stabilisation study 31768
regenerative DC drive, sinusoidal line current consumption 5321
rly. traction vehicles, tractive factor calcs. *(German)* 28105
salient-pole brushless motors, starting method 5286
sensorless operation, Kalman filter-based 36674
sensorless operation, neural network-based 36676
separately excited, tunable fuzzy logic control 20076
servodrives, dyn. friction compensation 36644
ship propulsion, supercond. DC drives, torque react. windings 11402
speed control, torque estim., torque compensation, adaptive control 4993
speed ident. 44459
supervised neural net-based control 11340
three-phase AC/DC universal traction drive syst. design 44542
three-phase PWM bridge-rectifier, harmonic minimization 19810
thyristor/chopper/power converters 36734
universal fuzzy posn. controller for motor drives 36653
variable speed DC motor drives, fuzzy self-organising control appl. 36689
Ward-Leonard drive, digital control, roughing mill appl. 44624
Ni-H_2 batt.-powered bicycles, propulsion motor options 28144

DC motors
see also brushless DC motors; DC motor drives; homopolar motors
adaptive control, two stage ident. 27752
adaptive neural net controllers, online training 44066
armature reaction EM field, FEM-based anal. 19660
biomimetric powered prosthetic hand, myoelectrogram controlled *(Japanese)* 26471
CAMAC-PC based automatic expt. investig. syst. 36185
chopper fed PMDC motor elec. vehicles drive, adaptive ANN rule-based controller 36721
chopper traction systs., computer simul. *(Chinese)* 28128
DMOS analogue HV control IC for small DC motors, PWM scheme 29048
DP 25 DC micromotor, PM excitation, video recorders 4992
elec. road vehicle drive syst. thermal behaviour *(German)* 36745
EM noise emitted from elec. vehicle 28116
friction, accurate estim. 19654
generic plant control, global optim. method 4985
high T_c supercond. field winding, slotless armature 4986
HV input, rectifier-chopper control 27753
indust. truck power steering, DC motor appls. 11442
lin. DC actuator, valve control 4352
lin. DC motor actuator, wire-driven syst., robust control *(Japanese)* 19667
lin. DC motor posn. syst., tracking perform., neural net *(Japanese)* 44071
lin. DC motors, high response, mag. materials *(Japanese)* 44075
model following nonlin. control syst., GMDH algm. *(Korean)* 27746
motion controllers, software switch 19662
moving magnet lin. DC motor, const. vel. control *(Japanese)* 44073
moving magnet lin. DC motors, capacitive type posn. sens. *(Japanese)* 44076
multicriteria fuzzy control, DC servomotor posn. control 11061
neuro-fuzzy nets, nonlin. systs. control appl. 44065
nonsalient pole DC motor, stator reconstr., elec. steel use 36183
num. anal., FEM 36194
permanent magnet DC motor, computer modelling 19661
PID/fuzzy posn. controllers comparison 11070
PM brush DC motor design principles 36186
PM brush DC motors, tracking control studies 36190
PM brushless motors, EM/thermal design 36104
PM DC machines, mag. field anal., FEM 44067
PM DC motor, power efficiency 44063
PM DC motor control, fuzzy proportional-derivative tech. 19665
PM DC motors, hysteresis loop, num. model 11066
PM motor, electronically commutated 19663
power electronics, drives and motors, conf., Taormina, Italy (1994) 28252
pulsed μP control design 11067
PV DC motor pumping syst., design optim. 19553
PV DC motor water pumping syst., characts. anal. 27638
PV water pumping systs., optim. techs. 27628
robotic arm ASIC-based motor controller develop. 11227
segmental PM DC commutator motor, design optim. 36193
separately excited DC motor, vel. control without meas. 19653

DC motors continued
separately excited DC motor control, lin. 19659
servo motor, fuzzy PID control, accelerated reasoning 5167
servo systs., integral of output error VSC 11090
servomotor, fuzzy precompensated PID controllers 11068
servomotor, robust digital optimal model following syst. *(Korean)* 27751
servomotor fuzzy logic VSS control design *(Korean)* 27744
servomotor fuzzy speed control 11069
servomotor machining motion control, parallel DSP 36192
servomotor posn. control, fuzzy precompensated PD controller 19658
servomotor posn. control, fuzzy-Lyapunov fn.-based *(Korean)* 27745
servomotor stochastic logic PI control 44064
sheet metal bending, lin. hydraulic DC servomotor valve appls. *(Japanese)* 36493
small DC motors, brush mechanism, vibr. damping materials *(Japanese)* 11080
solar heating forced water cooling syst., PV array/solar collectors 20023
speed control, binary rate modulation 27749
speed control, self-tuning fuzzy controller 27748
speed control syst., ANN *(Korean)* 44069
sync. DC motors, nonlin. control 27754
two-link collision free robot positioning, microcontroller-based 11226
two-stage dyn. ident. 11063
universal motors, commutation characts. anal. 36189
water pumping PV DC solar pump, simul. model 19554
YBaCuO supercond. magnets in DC motor, constr. 39297

DC power transmission
see also HVDC power transmission
Central/East China power systs. connection *(Chinese)* 35509
meshed supercond. LVdc lines, supercond. current transfer devices 4636
multiterminal DC-AC syst. power flow anal. 27145
network, steady state calc., iter. calc. 27144
power electronics appls., Japan 35563
power lines, SMES, input cct. 10718
power transm. systs., power electronics growth overview 35594
spacecraft DC power systs., series arcing detect. 26564
wind energy induction generator DC link, fuzzy control 10908

DC sputter deposition *see sputter deposition*

DC sputtered coatings *see sputtered coatings*

DC sputtering *see sputtering*

DC to AC invertors *see invertors*

DC transformers
film shape transformer for push-pull DC-DC converter 19713
HV DC source, dry-type transformer cascade, EMTP software simul. *(French)* 19767

DC transmission networks
see also HVDC power transmission
HVDC transm. network computer simul. methods comparison 35617
HVDC transm. systs., dyn. digital simul. studies 19236
LV high T_c supercond. DC transm. network 10719
power lines, SMES, input cct. 10718

DCFL *see direct coupled FET logic*

DCT *see discrete cosine transforms*

DDA *see digital differential analysers*

DDC *see direct digital control*

DDS *see direct digital synthesis*

deadlocks (computers) *see concurrency control; operating systems (computers); system recovery*

deBruijn networks *see hypercube networks*

debugging, computer *see computer debugging*

debugging, program *see program debugging*

Debye-Scherrer cameras *see cameras; X-ray apparatus; X-ray crystallography*

Debye temperature
see also specific heat
MQW gain-coupled DFB lasers, wide temp.-range singlemode operation 1938
GaInAsSb-AlGaAsSb 1.9 μm ridge-waveguide QW lasers 31328
InGaAs/InGaAsP strained QW lasers lattice matched to GaAs, high temp. charact. 7632
InGaAs-InGaP strained QW lasers, 0.98 μm, charact. temp. 23185
InGaAsP-InP MQW-LD fabricated by LPE, opt. charact. *(Korean)* 39802
a-Si:Kr, sputtered layers, Kr-incorporation obs. 38268

DEC computers
NetWare protocols, syst. manager's guide 41816
polarized target, SMC target, NMR polariz. meas., on-line syst. 34873
TRIUMF, device access, C++ on VAX/OpenVMS 18230
World-Wide Web server, Digital Equipment Corp. 8896

decentralised control
3 DOF Maglev, actuators, PM *(Japanese)* 39216
66/6 kV distrib. substation develop. project, Japan *(Japanese)* 35630
AC/DC power syst. stabil., DC modulation control *(Chinese)* 35471
AF rem. control sig. decentralised prod. *(German)* 27052
bulk power network restoration, ES support syst. 19140
dyn. interconnected systs., decentralized pole-assignment self-tuning controller 35560
elec. load profile control, decentralised AI controllers 4536
elec. power model syst., stabil. anal. of fuzzy decentralized control 19173
gas turbine engine, aerospace, control/stabil. 4362
independent power systs., decentralized open-loop control 19079
LSA coord. substation protection/control syst. *(English)* 44250
machining robot control, inductive power/sig. transm. 20167
MELECON '94, conf., Antalya, Turkey (1994) 5470
mobile commun., hand-off channel decentralized control 42245
MV distrib. network control/protection, PLC-based 4655
power syst. secondary voltage control, voltage instab. *(English)* 10686
power syst. transient stabil., optimal decentralised control *(Korean)* 35543
power system decentralised control, neural net-based 19119
PSS, dyn. stabilisation tech. 43653
PSS decentralized control, multilayer feedforward neural net-based 19100
routing control, overlapping decomp. 16531
telecomm. power systs., IN 19147
variable impedance power syst., decentralised stabilisation scheme *(Japanese)* 43681

decentralised systems *see multivariable systems*
decidability
see also computability
Boolean vector fn. synthesis, interior point approach 189
cyclic protocols, generalized fair reachability anal. 2931
digital ccts., data struct., solve satisfiability problem 29131
many-valued logic and mixed integer prog. 11951
Mobility Workbench, tool for π-calculus 25327
decision circuits
fault-tolerant analogue filtering based on triplication 37827
AlGaAs-GaAs HBTs for high-speed opt. modulator driver cct. 42405
GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
SiGe base bipolar analog ICs for 20 Gb/s opt. receiver 9545
decision feedback communication *see automatic repeat request*
decision feedback equalisers
adaptive Bayesian decision feedback equaliser, CCI compensation 15941
adaptive equalization for fading mountainous terrain 3426
adaptive equalization for multipath fading environ. 3429
adaptive equalizer for digital FM 3428
adaptive nonlin. equalisation of digital commun. channels 15985
adjacent-channel, cochannel, and ISI suppression 15519
anchored const. modulus algm. for blind equalization 16410
asymmetric DSL ideal discrete multitone signalling 42051
Bayesian techs. for rapidly fading channels equalization 3436
blind equalization, strictly convex cost fn. *(Chinese)* 32005
block transm. systs., channel equalization 15888
CDMA autonomous multipath diversity receiver 25440
CDMA mobile radio systs., joint detect., diversity 25343
CDMA mobile radio systs., multi-user detect. equalizers 9237
coord. digital transm. 15861
deconvolution, Bayesian decision feedback techs. 15892
decorrelation algm. for blind DFE, lattice structs. 24264
DECT systs., low time-dispersive channels, adaptive equalization 3498
digital acoustic underwater phone 17357
digital commun. channel equalizer, Kalman-trained neural network 33156
digital mag. recording channels, different detect. techs., comparison 30731
digital mag. recording systs., adaptive nonlin. DFE 40854
digital QAM ADSL systs., adaptive sig. proc. 9096
digital satellite channels, adaptive DFE, multilayer neural networks 25453
fast decision feedback LMS algm., multiple step sizes 8462
fast Newton multichannel algm. for decision feedback equalization 24309
fast transversal filter for decision feedback equalization 15942
FDMA cellular systs. capacity, ACI effects 3334
FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
FSE/DFE-based HDSL equalizer, adaptive algms. 9087
HDTV channel equalization, recursive Bayesian techs. 9734
hybrid DS/FH SS syst. for mobile radio channel 3483
ideal zero-forcing DFE syst. capacity penalty 41383
indoor radio, trellis-coded CPFSK, adaptive soft-decision feedback equalization 9357
indoor radio channel, neural-based packet equalization 9307
IQ filter struct. for use in adaptive equalisation, LTE/DFE, digital commun. 3313
ISI nonlin. equalization, further decision prediction *(Polish)* 40794
land mobile commun., DFE, interpolation *(Japanese)* 17138
LMS error decision feedback equaliser 8357
M-QAM digital mobile radio systs., diversity/equalisation 9270
mag. HDD, adaptive RAM-DFE read channel 30730
mag. recording, adaptive continuous-time equalization and FDTS/DF seq. detect. 30725
mag. recording, RAM-DFE archit. 30739
mag. recording channel, binary/ternary DFE 7191
mean recovery time tight bounds 41382
mobile commun., adaptive equalization, DSP technol. *(Japanese)* 33903
mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
multi-level decision feedback equalization, syst. archit., mag. recording 7177
multi-level decision feedback equalization realization of FDTS/DF for hard disks 30729
multiple-head digital mag. recording, multichannel sig. proc. 8333
multipurpose DSP ASIC for receiver implement. 683
nonlin. adaptive clustering 16024
nonlin. DFEs based on functional-link neural network 9153
nonlin. ISI channels, improved detector 7195
OQPSK in indoor environ., perform. 9301
parallel DFE, RNS 32727
parallel form DFE, DFT 8383
PPM, seq. detect. and equalization 15710
QPSK adaptive DFE with MLSE 41385
reduced-state soft decision feedback Viterbi equaliser 3425
RLS bilinear filter for channel equalization 32728
sector antenna/DFE modems for indoor radio commun. 3167
stabilized fast transversal filter algm., sig. proc. appls. 37871
TCM sig. detector, time-dispersive channels 15957
TDMA selection diversity, DFE 9271
terrestrial digital radio links, reduced state seq. estim. 9190
underwater acoustic commun. digital receiver 17359
unshielded magnetoresistive heads, single and dual element, sig. proc. 30732
decision support systems
see also group decision support systems; negotiation support systems
2D colour pattern load anal., DSS tool supporting DSM 27053
aircraft guidance/decision aid for wind shear avoidance 35219
analogue IC CAD, spreadsheets 28945
battle-suitable, electronically provided inform. 10598
cars, ProLab2 driver support syst., user interface 36772
coal/elec. delivery syst., China, planning, DSS 43669
cost effective logistic support for electronic assemblies 43593
decision aid for enhanced situational awareness, knowledge-based 10361
decision making, visualization effect, AHP 16903
DESSY, Space Shuttle telemetry monitoring system with tolerance for real-time data problems 10342
distrib. line overcurrent protection settings determ., DSS-based 19259
distrib. network, load forecasting, decision making, hybrid ES 19270
ECG sig. and echocardiographic image proc., ES 35135
elec. distrib. mgt., cooperative & intell. systs. 27063
emergency engng./mgt., ES-based DSS approaches 43875
Flight Management Systems evol. 10337
Formentor risk prevention DSS project 11690
gas turbine power plant operations scheduling 43922
decision support systems continued
hydro-power sales data fuzzy interpolation 4865
instrum. fault detect., designers' decision aid 34331
internat. work flow, proc. mgt. syst. support 24956
LANs, distributed planning/problem solving environ. 19222
mach. health assess., expert decision syst. 10928
machining, monitoring/supervising by neural net 34384
maint. mgt., computer-aided syst. appls. 28388
mgt. decision anal. human error, computer critic appls. 11654
multicriterion nature of diagnosis 42718
NPP safety, knowledge-aided decision-making appls. 43873
optimal alarm-sig. algms. for gas analyzers 3910
Palo Verde NPP, safety param. display syst., ES 10806
patient recruitment, improved efficiency, automated telephone screening syst. 43327
PCB assembly, DSS develop. 28407
power syst. control, AI-based DSS 10648
power syst. control, DSS 27044
power syst. control room DSS, user interface 4563
power syst. interactive DSS, obj.-oriented framework 19095
power syst. monitoring, expert syst. 19162
power syst. pricing update, MBR 27067
power syst. protection perform. anal., ES appl. 4712
power syst. short-term load forecasting, DSS appls. *(Chinese)* 35565
Rotorcraft Pilot's Associate cognitive decision aiding systs. develop. 10597
SMART project, aircraft survivability models and simul. 26534
SMT PCB assembly, placement machine, multi-criteria DSS 28424
SONET Toolkit, DSS for robust network design 42378
strategic R&D project selection/resource allocation, DSS-based 11657
telecomms. services config., blackboard-based DSS 8834
URD, primary cable routing, intell. syst. 19247
virtual wafer fab./assembly/test facilities, operational planning 11699
decision tables
automated detect. of interacts. in telephone services 3142
circ. self-test path tech. for real ccts. 6098
image data compression, ART network, fuzzy control 2857
ternary cellular arrays fault isolation, decision diags. appl. 12457
decision theory
see also Bayes methods; distributed decision making; dynamic programming
3D objs., drawings, geometric characterisation 16240
alg. decision trees and Euler charact. 28582
assess. in imperfectly supervised environ. 16279
asynchronous packet transm. optimum frame sync. 41418
ATM networks, adaptive call admission control 41436
Bayes theory, joint discrim., detect., estim. and ident. of sigs. 15902
broadband network fair-efficient call admission control policies 41426
continuous speech recogn., HTK software toolkit 32388
decentralized detect. systs. design, unified approach 32538
digitally FM sigs., modulation class., higher-order correl. 15698
discrete type shock semi-Markov decision procs., Borel state space 199
distrib. power lines fault diagnosis, neural net-based 19242
distributed binary hypothesis testing, feedback 8405
distributed neural control of commun. network traffic 24901
dyn. prog., Markov decision proc. 28646
edge detect., probabilistic and dictionary-based relax. techs. 8503
enhanced recogn. syst. perform., adaptive learning concepts 16280
extended sources, resoln./detect. 2539
fault detect. for nonlin. state-space systs. 11840
FH-SS commun., Bayesian erasure techs. 25248
gambling, decisions under risk with incomplete knowledge 5738
group choice problems, formalization and anal. 197
IC proc. flow mgt., decision-making 29693
inspection, sampling strategy eval. under two criteria 5692
iter. speech enhancement, min. cost based phoneme class detect. 32376
line extraction from image, variable Hough transform *(Japanese)* 16300
low sig.-to-clutter ratio proc. of radar sigs. 17362
M-ary opt. polariz. modulation detect. in commun. channel 17318
Markov decision proc., fuzzy approach 5736
Markovian decision procs., modelling and appls, China 196
mgt. decision anal. human error, computer critic appls. 11654
motion segmentation, adaptive Bayesian decision model 16360
multi output systs., online fault diagnosis, Kalman filter/neural net appl. 11830
multialternative seq. threshold rule convergence by correl. obs. 32014
multicontingency power syst. transient stabil. assess. decision trees 26860
multiobjective decision making problem 20520
multiset decipherability decision 24099
MUSIC algm., probab. of resoln. 40842
neural network decision directed edge-adaptive Kalman filter 33060
neural networks, decision based, sig./image class. appl. 15899
nonadditive measures, additive representations, and the Choquet integral 28593
nuc. attack C^2 sigs., Bayesian interp. 43576
ordering method for grey decision, multi-targets 198
p-adic nos. complexity theory 5739
pattern class., probab. measures, learning decision rules 41208
plant safety and availability, integrated dyn. decision anal. 11680
power syst. economic dispatches, seq. decision dyn. prog. improvement 35521
power syst. expansion planning, optimal generation mix algm. 27099
power syst. expansion planning under uncertainty 27098
power syst. protection, probabilistic decision approach 10768
power syst. real-time economic dispatch design 4569
power syst. security assess., patt. recogn./decision trees 19159
power syst. security assess. neural nets, perform. eval. 19134
QA inspection, multicriteria decision procedures 37154
rational choice based on vague preferences 28580
rot. mach. early failure diagnosis, ROMADIS package 11681
speech recogn., vocab.-independent, phoneme-level HMM modelling 32339
std. cell VLSI placement, fuzzy logic approach 1474
sym.-by-sym. detector for lin. dispersive AWGN channels 16017
team ROC curve in binary hypothesis testing environ. 32011
traffic sign recogn. syst. 32951
tranquillity under choice, empirical study of continuum of tranquillity 11917
trans-oceanic opt. systs., forward error control 42449
two level decision making, interconnected decision makers 20521
two-level multiobjective decision making, interactive algm. *(Chinese)* 79
two-level multiobjective decision making method 20522
two-pattern class./feature extraction, neural networks 41209

decision theory continued
uncertainty and decision-making problems in fuzzy expts. 37233
unconstrained handwritten numerals recogn., combining multiple experts method 16298
US telecom. indust., firm level efficiency 33324
VLSI/WSI defect tolerant arrays, optimal group diagnosis 13837
wind turbine installation site selection, fuzzy set theory 27647

decision theory and analysis *see decision theory*

decoding
see also adaptive decoding; demodulation; maximum likelihood decoding; sequential decoding; Viterbi decoding
1st order Reed-Muller code decoding on SIMD machines 8115
32 kb/s ADPCM, frame erasures, perform. 8210
adaptive MLSE, fading environ., equalization/decoding 15887
alg. geom. codes, generalized Berlekamp-Massey decoding 40656
alg. geometric codes, generalized min. dist. decoding 40654
almost block-decodable runlength-limited codes constr. 24097
American digital cellular syst. spectral efficiency 9275
analog coding/decoding, data transm., fading channels 8169
aperiodic/semi-periodic perfect maps 24088
Arabic alphanumeric dot matrix decoder, PLD based design 29099
arith. codes, finite-precision implement. 40629
ASN.1, efficient packed encoding rules *(Japanese)* 40695
attached holographic adaptive base interferometer 40123
automatic formant tracking, paradigm 32407
AVLSI decoder archit. for TCM 9731
AWGN, block and decoded error probabilities of DPSK 15763
bal. codes, parallel encoding/decoding 40640
BCH codes decoding, modified Berlekamp-Massey algm. 40615
binary bar codes, decode algm. 15788
binary BCH codes, fast decoding algm. 8166
binary ECCs over Gaussian QAM channels, perform. eval. 2377
binary lin. block codes in Rayleigh fading channels, decoding algms. 40681
binary partial-response channels, concatenated coding 15753
binary symmetric channel, zero-temp. error-correcting code 15737
bit stream generator for HDTV, SCSI hard disc 9732
block codes, decoding for transm. without sync. 40601
block modulation codes, differential encoding/decoding 40603
bounded-delay encodable modulation codes, constr. method 40647
bounded-dist. decoding algm. for lattices 24051
byte-organized memory systs., error-locating codes 24036
CDMA coded packet cellular networks, code rate optim. 25384
CDMA syst., coherent light pulse, encoding/decoding 42420
CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
cell-based ATM phys. layer, parallel DSS implement. 8729
Clean PAL, IEE Colloquium, London (1994) 15
Clean PAL concept and hist. 9722
CMOS 12 bit 1 MHz ACD, 1 mW power consumption 29320
CMOS ADC, 10 bit, 20 MS/s, 3 V supply, VLSI appl. 6191
CMOS analogue front-end for terrestrial/satellite integrated D2MAC decoder 34230
CMOS LSI archit., ultra-high speed error correction, majority decoding 29200
CMOS wireless vol. control receiver for hearing aids 18606
code diversity FH-SSMA commun. systs., optimal receivers 9179
Colossus, WWII German sig. code breaker, restoration 40685
compressed data, efficient Huffman decoding 8159
concatenated block coded modulation in Rayleigh fading channel 9171
concatenated codes, convolutional inner/outer codes 8144
concatenated codes, inner convolutional codes 15729
const.-luminance colour TV principle and appl. *(German)* 42563
continuous speech recogn., HTK software toolkit 32388
continuous speech recogn. of Wall Street Journal data 32389
continuous speech recognizer, context-depend., and models 32338
cpd. sig. modified recurrent search *(Russian)* 16051
CPM sigs., channel coding/multiple-sym. diff. demod. 24078
cryptographic syst., continued fraction based 40700
custom document image decoder generation 41359
cyclic codes, decoding, min. dist., matrices generation 40636
cyclic convolutional self-orthogonal codes, combinat. constr. 32135
d=1 channel codes, sig. proc. tech. 32070
data compression, hypothesis testing, error bound 40868
decoded RAM storage reprogrammable interconnect archit. 22599
digital commun. education course, senior undergraduate project 20282
digital compact cassette, seq. estim. algms. appl. 17582
digital equipt., error correcting tech. 24024
digital FM transm., Rayleigh fading, RS codes appl. 25346
digital video services, technols. and network archits. *(German)* 42626
digital VTRs, ECC, pipelined decoder *(Japanese)* 9747
discriminative HMMs, non-lin. input transforms. 32265
discriminative training of high perform. speech recognizer 32359
dist.-based coding for binary trees 40678
double error correcting RS decoding without Chien search 2400
DS-CDMA, integrated CCI cancellation and decoding, fading multipath channel *(Japanese)* 25276
DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
DS-CDMA outage perform., mobile satellite channel 33906
DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
DS/CDMA, multilevel coded modulation, integrated receiver struct. 42144
encoding of codes on curves 40660
error correcting decoder implemented, digital neural net 8152
error-correcting codes, Gilbert channel, perform. eval. 15749
error-diffused image compression, decoder/VQ 2735
fast decoding method of AG codes from Miura-Kamiya curves C_{ab} up, half Feng-Rao bound 40619
fast Huffman decoder, high speed pattern matching 41078
fast VLSI systolic array for large modulus residue addit. 21245
FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
FH-SS commun., Bayesian erasure techs. 25248
Fire code, modified decoding algm., fast burst error correction 24073
fractal-based image coding, fast decoder convergence 2740
free energy minimisation algm. for decoding and cryptanal. 32111
full digital HDTV syst., develop. 9728
Gaussian multiple access channel, single-user decodable codes 40525
generalized product codes and their perform. 32194
geometric Goppa codes, designed min. dist., decoding 40657
Golay-coded M-PSK, Rayleigh fading channel, decoding 32090
Grobner bases, alg.-geometric codes decoding 40658
Gx-2001 microcontroller, multi-fn. TV technol. appl. 6176

decoding continued
halftone, continuous-tone conversion of error-diffusion coded images 24595
HDTV decoders testing, boundary scan test impact 9725
HDTV receivers, efficient 2D inverse DCT algm. 25645
HDTV syst., fully digital, algms. and implement. 9733
Hermitian code for burst errors 40661
Hi-Vision 32C-HD3 MUSE decoder, design *(Japanese)* 3668
higher order moments, channel adaptive coding techs. 32141
hybrid CCMA/SSMA coding scheme 8733
image block truncation coding, reduced-rate, error diffusion 41058
image compression, VQ, codebook generation 2694
image transform coding based on fractal functional set *(Japanese)* 24671
index transform. algms. in lin. alg. framework 2397
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
inhomog. block codes, constr./decoding 40638
input-constrained channels, encoders, decoding delay 40648
insertion/deletion correcting runlength-limited codes 24035
invertor control/status sigs., fault resistant opt. fibres 5134
isolated word recogn., model topol. selection 32360
Jong-Nang variable length code for image data compression 8180
K-out-of-M multiple-access channel, source correl. 32007
lin. block codes, optimal inform. bit decoding 24091
lin. code, threshold probab. 32058
low complexity decoder for turbo-codes 24022
M-Choose-T commun., multiple-access adder channel 32098
mapping matrices, permutation decoding, props./appls. 40637
MC-DCT compressed video, manipulation/compositing 16121
MEGATEXT, teletext IC, graphics for color TV 41750
MEGATEXT in Metz color TVs, teletext access and menu control 33422
memoryless multiaccess channel, multirate achievability 40528
metric, channel capacity 24084
Mini-MAP reduced OSI stack, perform. eval. 3168
mismatched decoders, inform. rates 24045
mobile radio commun., speech/channel coding 3346
Morse decoders, electronic, noise-masked telegraphy decoding perform. 41730
moving image, coding/decoding, cellular neural network 24735
MPEG2 codec, video DSP archit. 33699
MPEG audio decoder chip 37788
MPEG video in software, representation, transm., and playback 17578
MPEG-2 video data stream, real-time decompression chip 42047
multi-rate bandpass filter bank, QRNS complex arith. 6229
multilevel block codes for Rayleigh-fading channels 15768
multilevel coded FSK/PSK modulation 15746
multilevel diversity coding, distortion 32052
multiscale difference eqn. sig. modeling/anal. techs. 32784
multistage decoders, complexity/perform. tradeoffs 15727
MUSE decoder chip set for HDTV, low power operation 17565
MUSE sig. decoding, integrated image DP *(Japanese)* 34257
MUSE syst., picture quality improvement by resoln. enhancement *(Japanese)* 34253
n-track (d, k) codes with redundancy, new constr. 40650
narrowband PSK data transm. via opt. fiber, encoding/decoding ccts. 9527
New Wireless LinguControl 43370
nonuniform sampling DM tech. 8155
opt. decoding archit., iterated fn. syst. code algm. 33079
optoelectronic buses for high-perform. computing 1771
Osman Nuri Ucan receiver, trellis coded M-QAM schemes, partial response channels 40704
PAL decoding technol. 9710
parallel concatenated recursive systematic (turbo) codes 32105
partial response CPM decoder optim. by state-space partition 40588
partial-response systs., codes, quasi-catastrophic error propag. 32069
partitioned/parallel CRC, VLSI implement. 645
periodically disturbed data channels, error correcting codes 32142
photonic CDMA coherent matched filter time-addressed coded opt. ladder networks 9445
polynomial GCD computation, finite field division, VLSI array synthesis 12570
portable video-on-demand syst. in wireless commun. 42593
post-decision symbol reliab. inform. generation algm. 40591
prog. image coding syst., arith. codec, LSI-CAD 33700
QPSK block-modulation codes for unequal error protection 32064
Rayleigh fading mobile channel, direct-seq. code acquisition 17103
realtime MPEG video via software decompression on PA-RISC proc. 33656
reduced-search decoder, storage requirements, optim. algm. 40672
ref. sig. generator echo cancellation, ISI receiving schemes 32725
RLL (d,k) coding, struct. VQ 40653
rot. invariant nonlin. trellis codes for 2D modulation 24031
RS codes, coord. codes based, subfield-level decoding 40616
RS codes, decoding, fast parallel algms. 40618
RS codes, self-checking decoding algm. 8141
RS codes constr. by generalized multiple concatenated codes 24102
RS decoder, systolic-array struct. 25159
runlength-limited block codes, small error propag. 40649
S-set decoding method 8146
satellite commun., multicast hybrid ARQ scheme, stored error recovery 17147
segmentation-based predictive multiresolution image coder 16311
semicond. memory testing, MTA code *(Korean)* 29226
shadow-casting multi-input opt. parallel logic proc. 22969
short binary cyclic codes, decoding via covering polynomials 15726
side-inform., rate distortion fn. 24047
sig. normalisation module for posn.-sensitive devices 34431
SIMD DSP for real-time MPEG video encoding/decoding 29268
simul. tech. for assessing coding syst. perform. 2378
Slepian-Wolf data compression syst., universal coding 24041
sparse polynomial interpolation in nonstandard bases 37314
speech, discriminative training for neural prediction systs. 32267
Sphinx-II recogn. search, integrat. semantic constraints 32369
staged decoder for BCM sigs., CMOS VLSI implement. 29270
stereoscopic video coding for virtual reality appls. 8687
subband low power video decoder archit. 33666
systematic TCM in coded modulation 8093
t-error correcting and unidirectional error detecting (t-EC/AUED) codes 24077
T-user q-ary multiple access permutation channel, transm. 40526
TCM decoder perform., 8 PSK, 8 PAM, 16 QAM, additive mixture Gaussian/impulsive noise *(Korean)* 32195
ternary lin. codes, NP-complete coding problems 40631

decoding continued
text understanding via hierarchical HMMs 41311
trans-oceanic opt. systs., forward error control 42449
tree-struct. vector quantizer for image compression on MasPar MP-1 parallel machine 16189
trellis coded multi-amplit./-PM, noncoherent detect. 24281
trellis decoding tech. for block RLL/ECC codes 40651
turbo-codes, parallel concatenated coding schemes, perform. eval. 24025
turbo-codes interleaver for trellis termination in same state 15762
TV microcontrollers, on-board teletext decoder 41749
two-level coding based on TCM and RS codes 15766
UltraSPARC visual instruction set, MPEG video decoding 29289
variable length code decomp., coding efficiency maint. *(Chinese)* 8157
video decoding algm. mapping, mixed sig. IC 8553
Viterbi algm. simultaneous data detect. and channel estim. 8385
VLSI archits. for video compression, survey 24394
wavelet transform image coding, successive approx. quantization/generalized decoding 8604
WDM quasi-all-opt. broadband networks, packet headers encoding 16448
word recogn., large vocab., tree-trellis search 32391
GaAs-GaAlAs MQW electro optic modulator opt. data self-routing 13153

deconvolution
1D input sigs. recovery in discrete time-varying lin. and bilinear systs. 2537
3-D light microscopy, simultaneous image and point spread fn. reconstruction 16219
3D intracellular ion meas., visualisation/quantification 43189
adaptive blind equalization, weighted cumulant slices 41026
adaptive deconvolution method time jitter effect elimination 2354
astron. radio images, adaptive deconvolution 34198
astron. small bodies imaging, bispectral techs. 33140
atmos. blurred images, fast restoration 32822
Bayesian conditional decision feedback techs. 15892
Bayesian techs. for rapidly fading channels equalization 3436
blind deconvolution, iter. method 2638
blind deconvolution algm. 24177
blind deconvolution of colored input sigs., criterion 8369
blind equalization, deterministic approach 8086
blind equalization, recursive Bayesian techs. 15943
blind fractionally-spaced equalization, filter banks/lin. prediction 41024
blind fractionally-spaced equalization based on cyclostationarity 8387
blind sigs. deconvolution, complex recurrent neural network 15915
bounded uncertainty problems 24297
broadband sampling oscilloscope, nose-to-nose calibration 25913
co-channel speaker separation, max.-likelihood deconvolution 32215
depth-from-defocus, camera aperture change, spatial domain 2753
detector-amp. config., pulse deconvolution 10143
diffr. limited slit-spectrography 16213
digital sigs. with ISI, demodulation 40571
electro-opt. sens., point source algms. for optimum acquisition range 15866
EM syst., impulse response, deconvolution/total least sq. 40389
EVAM, eigenvector-based algm., multichannel blind deconvolution 24301
gel permeation chromatography, Tung integral eqn. deconvolution *(Chinese)* 3740
HDTV channel equalization, recursive Bayesian techs. 9734
higher-order stats., allpass systs. ident. algm. 32648
HOS for blind channel estim. and deconvolution in colored noise 32457
image noise reduction, prior knowledge, constraint 16198
image reconstruction, iter. deconvolution, variable convergence speed 41235
image restoration, wavelet transform and multiresolution support constraint 16204
impedance-loss profile of interconnection struct. 22559
independent sources, adaptive separation, deflation approach 40914
intens. estim. from shot-noise data 15925
internal combustion engines, combustion press. proc. modeling 4841
IR detector array, point spread fn. from imprecise meas. data 17788
iterative frequency domain deconvolution, microstrip line appl. 24229
L^2 deconvolution, fast seq. algm. *(French)* 41035
MLC package, time-domain charactn. 28462
moving sources localization, deconvolution approach 32613
multi-channel deconvolution, generalized sampling approach 15924
multichannel sig. modeling and separation 24253
multiscale image restoration by A Trous algm. *(French)* 16223
noisy Gaussian filters, deconvolution, modified Hermite expansion 24589
nonlin. syst. ident., nonparametric deconvolution 40874
nonminimum phase channel deconvolution 2475
optimal deconvolution filter design, channel sensitivity 2526
param. estim., higher order stats./inverse filtering 40762
period estim., min. entropy deconvolution 24136
phase diversity imaging, atmos. turbulence 33089
plasma assisted chem. etching, surface shaping/smoothing 13379
regularization, SNR, stat. estim., multiscaling 40782
Richardson-Lucy blind deconvolution algm. 24361
roundness meas., on-machine mixed method 10025
SAR image quality improvement, ideal filter concept 42526
seismic data homomorphic deconvolution effectiveness 35291
seismic surveying, marine, deconvolution by adaptive algm. 18811
self-tuning deconvolution filter, ARMA sigs. 8337
sens. array sigs., multi-scale deconvolution, higher order spectra appl. 40987
sens. array sigs. deconvolution, time-scaling 32615
sig. averaging enhancement by jitter deconvolution, ECG appl. 35080
solar image, segmentation, parallel blind deconvolution methods 33087
sparse deconvolution, Gaussian mixtures 24242
sparse spike time series recovery by L_1 norm deconvolution 8415
speech dereverberation, cepstrum based deconvolution 32212
speech recogn. in noise, root adaptive homomorphic deconvolution schemes 32315
spherical acoustic objs. in motion, ident. 34167
Strang's preconditioner generalization, iter. deconvolution appls. 32821
TDR for low loss dielec., deconvolution tech. 42895
thermal-wave image proc. for material flaws charactn. 5934
ultrasound images, blind deconvolution 35000
unconventional cryptographic keying variable mgt. 15767
underwater target, causal impulse response estim. 34180
Van Cittert iter. method of image deconvolution, general relax. factor 2594
wavefront sens., lin. and speckle image reconstruction 16212
InP waveguide mode field determ. from intens. profiles 39468

DECT *see cordless telephone systems*
dedicated computers *see special purpose computers*
deductive databases
see also active databases
INFOSTEL, IS for telecomms. networks 41658
intell. DBMS for ground proc. systs. in EOS era, telecomm. issues 17687
semiconductor manufacturing, fault isolation using automated discovery from wafer tracking databases 6605
deductive inference *see inference mechanisms*
deep level transient spectra *see deep level transient spectroscopy*
deep level transient spectroscopy
see also deep levels
computerized digitizing tech. 18055
directly bonded wafer, point defects, bonded SOI wafer 38431
pulsed power photoconductive switch charactn., deep level spectrosc.-based 36424
quantum well struct., doped n-type, carrier and impurity profiles 13170
side data anal. of DLTS spectra for multipoint correl. 42921
SOI bonded wafer, eval. and PIN photodiode characts. 14609
spectrometer, LF pulse generator 3971
Al-SiN-Si syst., laser CVD, TFD charact. by DLTS 13597
$Al_xGa_{1-x}As$, OMVPE grown, elec. charactn. 13223
$Al_{0.3}Ga_{0.7}As$:Si/GaAs heterostruct., MODFET structs., DX centers 13120
AlGaAs/GaAs vis. lasers, degrad. related defects, DLTS study 31396
$Al_xIn_{1-x}As$, MBE/CVD growth, elec. props. 12060
AlInAs:Si, MBE, doping characts., deep levels 1219
Au/Ta_2O_5/n-InP, interface state dens. determ. 13255
Au/n-GaAs:Ar Schottky barrier study, ion implant. damage 22035
Au-Cr-Au-Zn-Au multilayer metallizations to InP, elec. props. 38660
AuGe/GaAs ohmic contacts, ion-assisted deposition 22265
3C-SiC CVD grown epilayer, carrier lifetime, deep levels *(Japanese)* 1066
CdTe:Cl, X-ray detector material, deep levels, PICTS study 43156
CdTe:Ti(V), charactn., time depend. charge meas., PICTS 30020
GaAs MBE layers, dominant deep level 13054
n-GaAs, MOVPE, MBE, electron irrad., schottky diode charact. 28741
GaAs VPE grown films, DTLS 20869
GaAs, dimethylaluminum methoxide-doped , shallow donors compensation 6617
GaAs epitaxial layers, charactn., annealing effects 13277
n-GaAs surface, N^+-implanted, post-anneal perform., N role 38384
GaAs:Cr, X-ray detector material, deep levels, PICTS study 43156
GaAs:III-VI gallium chalcogenides(100), passiv. 30077
GaAs:Li, shallow and deep level passiv. by lithium 1052
GaAs:Sb grown by LPE, electron traps, DLTS 21918
n-GaAs:Yb, electron irrad., defect form., cond. compensation 21911
GaAs/AlGaAs heterojunctions, deep-level defects, review 13123
GaAs/InGaAs/GaAs SQW, current transport and deep levels 21994
n- GaAs-InP, CVD layers/MESFET, elec./optical charactn. 13104
GaAs-SiN, passiv. film form. by laser CVD 13370
GaN:Si metal-organic VPE, shallow/deep levels charactn. 13052
$Ge_{0.3}Si_{0.7}$/Si heterostruct., minority/majority-carrier trapping 21950
HgCdTe photodiodes, MBE-grown, DLTS deep levels study 13060
$Hg_{1-x}Cd_xTe$, p^+n jn. photodiodes, deep defect levels *(Chinese)* 14605
$In_{0.53}Ga_{0.47}As$, gettered LPE grown, DLTS study 20745
InGaAs/GaAs-on-GaAs superlattices, metal-semicond.-metal photodetectors, carrier trapping 22014
InGaAs/InP:Fe enhancement layer Schottky contacts 1149
InGaP HBTs, high-temp./microwave power appls. 38838
InGaP, deep center scatt. pot. 6532
$In_{0.5}Ga_{0.5}P$ Schottky contacts, $(NH_4)_2S_x$-treated, interface props. 29949
$In_{0.5}Ga_{0.5}P_{0.99}As_{0.01}$ epilayers, doped and undoped, deep level studies 29852
InP, MOCVD/LEC grown, electron radiation resist. 21904
InP, P-rich, one step in-situ MLEK angst. growth process 12022
InP solar cells, electron radiation damage, irrad. temp. depend. 44415
InP thermally diffused solar cells, photo-injection annealing 19993
InP/GaAs heterostruct., H-passiv., carrier trapping by disloc. 38304
InP/InGaAs, rapid thermal annealing, MISFET appls. 13274
n-InP/metal systs., hydrogen plasma treatment, elec. props. 38598
Si, B implants through SiO_2 films, implant. damage/anom. diffusion 13283
Si, EFG growth in CO ambient, gettering 20647
Si, irrad. detectors, neutron fluence, DLTS, CV characts. 38794
Si, plasma etching edge-type exposures effects 1258
Si, polycryst., SI, deep-levels, transient current spectra 38226
N-Si, proton irrad., defects 13032
Si, radiation-induced defect introduction rates 13116
Si solar cells, charged defect conc. profile, C-V meas. 27947
Si, substr. surface treatment 38535
Si, surface mech./pulsed photon proc., DLTS 13351
Si varactor struct., DLTS study of deep traps 38052
p-Si:Cu, RTA, OISF, deep states, Cu diffusion 13034
Si:Fe, LEC grown, Fe contamination influence on LSI-yield related cryst. quality 29828
Si:Fe based MOS structs., deep levels, thermal behavior 29971
Si:Fe,Al(B), lifetime effects of Fe/Fe complexes 29826
n-Si:Li,Au, defect complexes, DLTS/SIMS/C-V profiling 38601
Si:O wafers, deep levels under posthydrogen-plasma thermal anneal 38467
Si:Ru, ion implant., Ru-related defects, elec./opt. props. 38228
Si-GaAs, X-ray detector material, deep levels, PICTS study 43156
$Si-Si_{1-x}Ge_x$ epitaxial devices, Ge content depend. of radiation damage 13638
$Si-SiO_2$ MOS interface, tunnelling emission, const. voltage DLTS 6585
p-Si(100)/Hf interfaces, elec. charact., H-termination 38397
SiC:Al,N Schottky diode, DLTS/admittance spectrosc. 22353
n-SiC:V, 6H, elec./opt. props. 6539
Si_3N_4/Si struct., PECVD 424
TiN/n-GaAs Schottky contact interface post-anneal perform., N role 38384
$ZnO:Al_2O_3(AgO)$ varistors, DLTS 6813
ZnSe Schottky diode, seeded phys. vap. transport, DLTS study 13594
n-ZnSe:Cl, doping characts. 21921
ZnSe:Cl epilayers, deep defect conc., after growth treatment effects 29850
p-ZnSe:N, doping characts. 21921
deep levels
see also deep level transient spectroscopy; defect states
amorph. semiconds., TSC 29868
barrier height determ. from Schottky jn. C-V meas. 38813
compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
diodes, deep levels, charge exchange, injected minority carrier accumulation 13580
irrad. MOSFETs, punch-through characts. study 13731
MOS struct., slow surface levels, elec. props. 29967

deep levels continued
photolum. spectra study of MESFET and HEMT 38933
PMMA-based photorefr. polymer opt. trap activation 1654
PPV, carrier deep-trapping mobility-lifetime products 1813
SOI bonded wafer, eval. and PIN photodiode characts. 14609
Al/n-AlGaAs jns., anom. thermionic-field emission 13220
AlAs-GaAs luminesc. p-n-i-n$^+$ dynistor, behaviour 23025
$Al_xGa_{1-x}As$, graded p-n jns., capacitance, frozen dopant levels 29887
AlGaAs:(Si), MBE grown, positron annihilation studies 21915
AlGaAs:N,C, thermally stable C-N deep level 28742
$Al_{0.3}Ga_{0.7}As$:Si/GaAs heterostruct., MODFET structs., DX centers 13120
AlGaAs/GaAs HBTs, surface recomb., 2D anal. 22369
AlGaAs/GaAs MQW, opt.-modulator struct., hydrogenation 1803
AlGaAs/GaAs vis. lasers, degrad. related defects, DLTS study 31396
$Al_{0.43}Ga_{0.57}As/In_{0.2}GaAs$:Te modulation doped heterostruct., carrier confine. 29881
AlGaAs-InGaAs HJFET, freq. depend. drain cond. 6795
AlGaInP:Si(Zn)/GaAs LED, low-press. metallorganic VPE 39583
AlInAs:Si, MBE, doping characts., deep levels 1219
Au/CdTe/Au, impurity level energy effect 1185
$Cd_{1-x}Mg_xTe$, doping, MBE 38490
CdTe:Cl, elec./opt. props., detector appl. 43085
CdTe:Ti(V), charactn., time depend. charge meas., PICTS 30020
CdTeSe:Cl, elec./opt. props., detector appl. 43085
Fe silicide contacts to n- and p-type Si, props. 1104
GaAs MBE layers, dominant deep level 13054
GaAs, MBE layers, low temp. grown, elec. props. 13066
GaAs MESFETs, substr.-related kink phenom., 2D anal. 6802
GaAs, MOS-hydride epitaxial growth, cryogenic purification of arsine 28737
GaAs, MOVPE, trialkyl-group-V-precursors 314
GaAs, SI, EL2 metastability, temp. depend. 6533
GaAs detector diodes, deep-levels, impedance spectrosc. anal. 43099
GaAs, dimethylaluminum methoxide-doped , shallow donors compensation 6617
p-GaAs epilayers, MBE grown, deep acceptor impurities 1037
GaAs, excess carrier transfer, time-resolved photovoltage meas. 22995
GaAs microwave FETs, deep level characterisation 38001
GaAs p$^+$-SI-n$^+$ SI struct., I-V charact. 38300
GaAs, radiation induced order effect, mobility study 13061
n-GaAs surface, N$^+$-implanted, post-anneal perform., N role 38384
a-GaAs:As, SI, elec. charact. by I-V meas. 13050
GaAs:Er, ion implant./MBE, Er-related deep centres 38516
GaAs:Li, shallow and deep level passiv. by lithium 1052
GaAs:N,C, thermally stable C-N deep level 28742
GaAs:O, MOVPE, ultrafast photodetector materials appl. 23064
GaAs:Si, at. layer MBE, shallow deep levels 347
GaAs:Si/GaAs(111)A, p-n struct. charactn. 29876
GaAs:Te, highly doped, EL2 trap, jn. spectrosc. 13124
$GaAs/Al_xGa_{1-x}As$, MOVPE, n-doping, 2D electron gas struct. 22152
GaAs/AlGaAs heterostruct., deep impurity doped, elec. field and refr. index change 30817
GaAs/AlGaAs modulation-doped heterostruct., DX centers 29938
n-GaAs(100), surface photo-emf spectra 1051
GaN:Si metal-organic VPE, shallow/deep levels charactn. 13052
GaSb:S, Hall/photo-Hall effect meas. 38252
GaInP layers, P-vacancy-related deep levels 29878
Ge:Hg, Poole-Frenkel effect, centre ionis. deep impurity 21889
HgCdTe photodiodes, MBE-grown, DLTS deep levels study 13060
$Hg_{1-x}Cd_xTe$, p$^+$n jn. photodiodes, deep defect levels *(Chinese)* 14605
In-ZnTe Schottky diodes, RF sputtered, elec. props. 30215
InAlAs/InGaAs SQW struct., electron traps, admittance spectrosc. 21991
InAlAs/n$^+$-InGaAs MISFET, deep levels 13696
InGaAlP, H passiv. effects 6650
InGaAlP epilayers, metalorganic CVD using tertiarybutylphosphine, deep levels 20751
$In_{0.2}Ga_{0.8}As-Al_{0.52}In_{0.48}P$ HEMT, gas source MBE growth 13817
InGaP, H passiv. effects 6650
InGaP, deep center scatt. pot. 6532
$In_{0.5}Ga_{0.5}P$ Schottky contacts, $(NH_4)_2S_x$-treated, interface props. 29949
InP, P-rich, one step in-situ MLEK angst. growth process 12022
InP, electronic props., annealing in P atmosphere 13044
InP p$^+$n and n$^+$p structs., electrochem. anal. solar cells appl. 13107
InP:Fe, nonlinear behaviour under high elec. field 13046
InP:Fe, photolum., Fe concentration depend. 13045
p-InP/n-InP/InGaAs, S-doped DH-HEMT, props. 13787
K_xC_{60}, thin films, photocond., absorpt. spectra 39550
$PbSe/BaF_2$, MBE layers, long-term photocond. 21934
Si, detector grade, bulk defects, radiation damage 43105
Si detectors, deep level compensated, X-ray appl. 43160
Si, neutron-irrad. single cryst., elec. params. *(Chinese)* 1016
Si, polycryst., SI, deep-levels, transient current spectra 38226
Si power devices, combined electron and ion irrad., local lifetime tailoring 30204
Si varactor struct., DLTS study of deep traps 38052
Si wafer mapping, lifetime/resist./oxygen precip. meas. 25945
Si:Fe based MOS structs., deep levels, thermal behavior 29971
a-Si:H MIS struct., response time/capture cross sect., gap states *(Chinese)* 22060
a-Si:H, Staebler-Wronski effect, trapping and recomb. procs. 39555
Si:H$^+$, ion implant. deep levels, elec. field perturb. 38480
Si:Mo p/p$^+$ epitaxial wafers, Mo contamination 38236
Si:O wafers, deep levels under posthydrogen-plasma thermal anneal 38467
Si/SiGe:H epilayers, misfit disloc., elec./opt. props. 6628
Si/SiO_2 MOSFET, fixed and interface trap charges 38863
$Si-Dy_2O_3$ MIS structs., UV irrad., charge accum. 22056
SiC high-temp. JFETs, neutron damage anal. 13789
n-SiC:V, 6H, elec./opt. props. 6539
$Si_{1-x}Ge_x$ epilayers, compositionally graded, relax., MBE, charactn. 383
SiON:Er,Yb low-loss waveguides, deep implant codoping 39439
SnS_2:In, elec. props./photolumin. study 30054
$SrBaNb_2O_6$ four-wave phase conjug. of time-depend. spatial struct. sig. 40102
ZnSe:Cl epilayers, deep defect conc., after growth treatment effects 29850
p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413
ZnSe/GaAs heterostruct., deep level electronic struct. 38301

deep space communications *see space communication links*

deep-UV lithography *see photolithography*

defect absorption spectra
see also impurity absorption spectra
diamond, CVD grown, photoconductive spectrosc. 38244
ultrafast nonlin. in semicond. laser amps. 7670
AlN sintered ceramics for electronic packaging, oxygen-related defect 12191
CdS, film, chem. deposition, struct., props., solar cell appl. 28798
CdS, optoelectronic charactn. by photothermal deflection 38229
β-$FeSi_2$ thin films, photocurrent spectra 22998
GaAs, SI props. of low-temp.-grown material 13038
GaAs, vert. gradient freeze growth, residual impurities/defects, IR absorpt./Hall effect 12031
GaAs/AlAs superlattice, random, electronic/opt. props., disorder effect 6558
p-GaAs/AlGaAs quantum wells, reson. absorpt. and photoresponse 38318
HgI_2, electronic and opt. props. 43077
In_2O_3-ZnSe-CdTe-In, injection-contact phenom. in sub-micron layers 38313
In_2O_3-ZnSe-In, injection-contact phenom. in sub-micron layers 38313
PZT thin film memory materials, fatigue mechanisms 30569
Sb_2S_3, films, microcrystalline, soln. growth from thioacetamide bath 20912
Si, optoelectronic charactn. by photothermal deflection 38229
a-Si:H, film, light induced defects, spatial distrib. 29839
Si:He, bubbles, struct./opt. props. 30050
n-SiC:V, 6H, elec./opt. props. 6539
ZnCdSe/ZnSe MQW, photocurrent/absorpt. spectrosc. 29910
ZnSe/ZnSSe symmetric superlattices, radiative mechanisms 29911
ZnSe-ZnS, strained-layer superlattices, absorpt. spectra, electronic struct 38245
ZnSe-ZnS superlattices opt. waveguide, opt. bistability 39380
ZnTe-ZnSe, strained-layer superlattices, absorpt. spectra, electronic struct 38245

defect electron energy states *see defect states*

defect states
see also colour centres; dangling bonds; deep levels; defect absorption spectra
diamond, CVD grown, photoconductive spectrosc. 38244
high press. semicond. physics, conf., Vancouver (Aug. 1994) 28247
IC defects, proc. induced/elec. act., ident. methodology 20469
IGFET, threshold voltage shift, oxide field depend. 30303
Nordic semicond. meeting, Iceland (Jun. 1994) 27
physics of semiconductors, conf., Beijing, China (1992) 11542
polysilicon TFT, trap-state dens. model *(Korean)* 30347
polysilicon TFT, ultralarge grain film, excimer laser recrystn., elec. props. 30285
n-AlGaAs, DX levels, carrier conc. saturation effect 29860
AlGaAs/GaAs:Si, QW, δ-doped, subband carrier mobilities 29863
AlN sintered ceramics for electronic packaging, oxygen-related defect 12191
3C-SiC undoped CVD epilayer, carriers orig. *(Japanese)* 1067
CdTe:Cl, I-V characts., detector appl. 43087
$Cd_{1-x}Zn_xTe$:In, pure and doped, doping induced defects, photolum. obs. 22142
$CuIn_xGa_{1-x}Se_2$ thin-film polycryst. solar cells, 1.3-1.5 eV band gap 19994
GaAs, H passivated, EL2 defect 1262
GaAs, SI props. of low-temp.-grown material 13038
GaAs, neutron-transmutation-doped, annealing/hydrogenation effect 13276
GaAs:Te, highly doped, EL2 trap, jn. spectrosc. 13124
$GaAs/Al_xGa_{1-x}As/GaAs$, electron tunneling, DX defect effects 1080
GaAs/AlAs superlattice, random, electronic/opt. props., disorder effect 6558
GaAs/AlGaAs heterojunctions, deep-level defects, review 13123
GaInP/GaAs/GaInP quantum wells, persistent photocond. 13174
$Ge_{0.3}Si_{0.7}/Si$ heterostruct., minority/majority-carrier trapping 21950
HgI_2:Cu,Ag X-ray spectrometers, defect traps, photoionization 4247
$In_{0.53}Ga_{0.47}As$, gettered LPE grown, DLTS study 20745
InGaP HBTs, high-temp./microwave power appls. 38838
$In_{0.5}Ga_{0.5}P_{0.99}As_{0.01}$ epilayers, doped and undoped, deep level studies 29852
InP, MOCVD/LEC grown, electron radiation resist. 21904
InP, P-rich, one step in-situ MLEK angst. growth process 12022
InP solar cells, electron radiation damage, irrad. temp. depend. 44415
InP:Fe epitaxial layers, CVD growth 12053
InP/GaAs heterostruct., H-passiv., carrier trapping by disloc. 38304
In_2SnO_3:In$^+$, native defects donor generation by In implant. 38485
PbSe film, intrinsic at. defect charge state 13088
PbSe:Bi films, amphoteric doping behavior 22146
Si, detector grade, bulk defects, radiation damage 43105
Si detectors, deep level compensated, X-ray appl. 43160
Si, plasma etching edge-type exposures effects 1258
N-Si, proton irrad., defects 13032
Si, radiation-induced defect introduction rates 13116
a-Si:H, Staebler-Wronski effect, trapping and recomb. procs. 39555
a-Si:H, film, light induced defects, spatial distrib. 29839
Si:Ru, ion implant., Ru-related defects, elec./opt. props. 38228
Si/SiGe double barrier reson. tunneling struct., fab. 29942
$Si-SiO_2$ MOSFET interface, indiv. interface traps 13758
n-SiC:V, 6H, elec./opt. props. 6539
SiO_2 on Si, E′ center charge traps, obs./electronic charact. 1176
SiO_2/Si, thermal oxide, natural intrinsic EX center, ESR 29984
SiO_2-Si, EX centres, ESR study 6641
Ta_2O_5 films, DRAMs, leakage currents and defect states 39038
$YBa_2Cu_3O_{7-\delta}$, thin-film microbridges, normal state, 1/f noise 22737
$ZrSe_2$ single crysts., selenium atmos. annealing, elec. props. 38276

defectoscopy *see flaw detection*

defects, crystal *see crystal defects*

defects, noncrystalline *see noncrystalline defects*

defibrillators
see also patient treatment
atrial fibrillation misdiagnosis by implantable defibrillator algms. 35083
cardioverter defibrillator, low power intracardiac electrogram class. 35123
cardioverter-defibrillator implants, waveform anal. viability 35156
computers in cardiology, conf., London, UK (1993) 11543
external cardiac defibrillation, current/energy 43359
implantable cardioverter-defibrillator, arrhythmia recogn. strategies 26473
implantable electrodes, customisation, finite element model 18613
pacer-cardioverter-defibrillator, tachycardia/fibrillation discrim. 35155

deformation
see also bending; cold working; creep; drawing (mechanical); elastic deformation; elongation; plastic deformation; thermomechanical treatment
15 kV power cable FEM modelling, computer-based 4686
amorph. soft mag. ribbons, stress magnetis. props. *(Japanese)* 30673

deformation continued
attached holographic adaptive base interferometer 40123
azo-dye-doped polymers opt. storage, holographic interferometry 15155
Bragg opt. fibre gratings, temp.-compensating mounts 34097
ceramic BGA package mfg. vars., effects on solder joint reliab. 11856
close range dimens. meas., grating techs. 18078
D0 detector, scintillating/clear fibers, stress, strain 4156
EM gun technol., Cu/Al component protection coatings 15331
ESPI deform. anal., phase eval. 40161
fibre Bragg grating, tunable chirping, cantilever beam 7279
fibre-optic sens. for mech. deform. meas. 17856
$Ga_{1-x}In_xAs$-$InAs_yP_{1-y}$-InP, strain relax., photodiode appl. 12054
giant far action lateral phenom., ion/laser beam IC fab., reliab. 20488
heterodyne polarimetric fiber-coil deform. sens. *(Japanese)* 3857
induction motor, single phase, stator-yoke deform. *(Polish)* 27704
InP and related devices, resonant acousto-optic effects 14555
lin. underwater acoustic array, random deform., gain degrad. *(French)* 18942
low drag meas. by vision syst., IC appl. 9814
mag. laminated tapes, deform. 7168
MCM packaging, high reliab., low stress epoxy resin 6469
microbend sens. perform., finite element/beam propag. methods 17858
microscopic displacement pattern, holographic, 3D graphic image representation using cubic spline fn. 15152
MLC capacitors, nondestructive defect detect. tech. 6371
nondestructive inspection using shearography, indust. appls. 18108
on-board large mesh antenna reflector, high surface accuracy 15636
optical instrumentation for process industries, conf., Germany (1994) 5486
PCB, thermal deform. anal., holographic tech. 21623
PCB deformation anal. holographic pattern meas. 21619
polysilicon emitter transistors, phosphorus doped, band deform. 30240
projection displays, metallized viscoelastic control layers 25923
railgun accelerator, structural response num. simul. 15322
reactor deformed components profiling, ultrasonic pulse echo ranging 27416
real-time shearography, fractional fringe order by phase shifting 32856
RTP modeling and simul. incl. thermal stress anal. 22551
SESES, micro electro mech. systs. CAD modelling syst. 30498
SMT solder joint reliab., voids and void interacts. 178
SOI films prod. by ZMR, strain anal. 29977
sonar beam pattern disturbance of deformable supple array *(French)* 17483
space power thermionic fuel elements, UO_2 swelling simul. 18744
superimposed holographic interferometer, welding control appl. 15156
superplastic micro-forming of microstruct. 30525
thermal deform. meas. of PCB, holography 6404
transformer winding deform. probab., external fault *(Russian)* 36229
transformer windings status assess., online stray inductance meas. 5013
two-wavelength holographic interferometry, large deform. meas. 40150
waveguide polariz. controller, anal. and implement. 807
AlFe, hot rolling, strong (100)[001] texture component 14145
$Al_xGa_{1-x}N$, self-nucleated layers, MOCVD 414
$Bi_2Sr_2Ca_2Cu_3O_x$:Pb/Ag, monofilamentary tapes, Hall sens. magnetometry 39228
Cu, electrodeposited/electroless for PCBs, mech. props. 12940
GaAs, (001)-cut, CZ grown, disloc. dens.-depend. photorefr. effect 14319
GaAs, LEC-grown, slip generation by thermal annealing, residual strains 1199
GaAs and related devices, resonant acousto-optic effects 14555
GaAs, substrs., vapour press. controlled CZ growth 12028
GaAs surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
GaAs thin film, GaAs substr., eutectic bonding-induced in-plane strain 38341
GaAs thin film, Si substr., eutectic bonding-induced in-plane strain 38341
GaAs/InAs, GaAs capping layer growth, island induced strain driven adatom migration 354
GaAs-AlGaAs MQW, $LiTaO_3$ substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs MQW, Si substr., eutectic bonding-induced in-plane strain 38341
n- GaAs-InP, CVD layers/MESFET, elec./optical charactn. 13104
GaInAsP multilayer, gas source MBE, tensile/compressive strain modulation 12062
GaP surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
Ge, surfactant-mediated growth on Si(001), strain relief by microroughness 386
GeSi:P-Si pseudomorphic MBE films, RTA vs. steady-state furnace annealing 22095
InAs surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
$InAs_{1-x-y}Sb_xBi_y$/InSb strained heterostruct., phys. props. 21965
InGaAlP strained multiquantum-well LD, photolum. meas. 14920
InGaAs/InGaAsP strained quantum-well lasers, threshold current dens., well width depend. 1934
InGaAs-InAsP three-band near-IR FPA for 1.0-2.5 μm 17935
$In_{1-x}Ga_xAs$-$In_{0.53}Ga_{0.47}As$ strained superlattice, gas source MBE 12056
InGaAsP/InP, strained-layer QW lasers, intrasubband scatt. rates 7661
InGaAsP-InP quantum well lasers, strain compensation 14871
InP crysts., vapour press. controlled Czochralski growth 12024
InP, substrs., vapour press. controlled CZ growth 12028
InP surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
Ir/p-Si jns., Schottky barrier heights 38380
Ir/p-$Si_{1-x}Ge_x$ jns., Schottky barrier heights 38380
Nb_3Sn fiber-reinforced supercond s., pulsed magnet appls. 1631
PZT, piezoelec. patch actuators, integrat., design 30599
PZT thin ferroelec. films, dyn. deform. sens. 25794
Si TFTs fab., min. glass substr. deform., RTA control 30007
Si, epilayers on Si, deposited after DC H_2 cleaning, X-ray curve charactn. 38618
Si, single-cryst. surfaces, diamond turned, cross-sect. TEM 1274
Si/$Si_{1-x}Ge_x$ strained heterostruct., thermal stabil. 37406
Si/SiO_x, improved SIMOX material, Si overlayer, strain reduction 22075
SiC, seeded Lely growth, cryst. macro-defects 5811
SiGeB-Si heterostruct., B thermal stabil., stress compensation 13130
UC-ZrC/NbC high temp. nuc. fuel tests 35767
UO_2 thermionic fuel elements simul., thermocycling 28024
ZnS/GaAs heterostruct., H transport VPE, struct. anal. 37393

degenerate four wave mixing *see multiwave mixing*

degenerate semiconductor materials *see degenerate semiconductors*

degenerate semiconductors
see also heavily doped semiconductors
$Cu_x(Dy_2S_3)_{1-x}$, thermoelec. props., elec. resist. 13093
In_2O_3:Sn films, phys. props., doping-induced changes 30034
n(p)-Si, Einstein rel., high temps. 13026

delamination
ball grid array package, popcorn cracking 11812
composite materials, defects/damage, 3D US imaging 5924
composite plates, delaminations, Lamb wave eval. 28915
exposed silicon plastic package, thermal enhancement 5658
fine line cct. mfg. technol., electroless Cu plating 12929
lead-on-chip packages, cracking failures 5672
lead-on-chip packages, cracking failures induced by chip backside contamination 20439
metal/polyimide fine line struct., adhesion and fracture anal. 1171
mm-wave NDT of glass fiber/epoxy composites 37559
mold proc. params. and tooling variables for high quality plastic packaging 28451
molding cpd. materials for IC plastic packaging, fracture props. 5626
molding cpds. for IC plastic packaging, fracture props. 5671
multilayer thin film package, 3D fracture mech. anal. 28490
PCB resin/resin-glass composite insulation, moisture absorpt. effects 12942
plastic IC package, structural integrity eval., soldering proc. 28485
plastic IC package params., effect on temp. cycling failures 5674
plastic SM IC packages, moisture/reflow induced delaminations, IC thermal perform. 11797
PLCC temp. cycling failures, die coatings, mold cpds., and test conditions effects 28469
polyimide thin-film on ceramic struct., MCM appls., thermomechanical stress anal. 20441
polyimides, thermomechanical props. and interfacial fracture 12210
PWBs, glass fibre reinforced epoxy laminate, interfacial debonding 11819
thermally-pulsed plastic IC package, thermo-structural behavior, delamination 28483
thin SOP delamination, moulding cpd./polyimide interface chem. 37078
TV-holography in artwork nondestructive diagnostics 31679
US diagnostic tech. for elec. machine insulation 14003
VLSI microelectronic packaging, nonlin. finite element model 28443
VLSI plastic packages, reflow soldering perform. improvement 6840
$BaTiO_3$-based PTC thermistors, delamination fracture 28869
C fibre composites, delamination cracks, SAM image anal. 20999
Cu/polyimide, adhesion strength, continuous micro-wedge scratch test, metallisation appls. 37570
Ta sputtered film, compressive stress rel., thermal cycling 22266
W/SiO_2, W fine lines, micro-wedge scratching 38705

Delaunay triangulation *see mesh generation*

delay circuits
see also delay lines; phase shifters
2D IIR digital filters with lin. phase, design 24346
all pole/finite pole filter and delay equalizer design, monolithic dual resonators 39082
anal./synthesis filter banks, phase lin. 33149
asymmetrical filter banks, subband image coding 33132
behavioral simul. techs. for phase/delay-locked systs. 29402
cascade forms perfect-reconstruction two-channel filter banks design 32723
CDMA syst., one and two branches DLL comparison 3472
clock synthesis for SC filters, microcontrollers 12638
CMOS delay-locked loop for 18 Mbit, 500 Mbyte/s DRAM 6155
CMOS FIR/IIR filter power minimization, architectural/computational transforms. 29373
controllable delay devices in two-level-freq. synthesis systs. 29067
coupled phase systs., locking response 12380
delay locked loop, Doppler and data modulation effects 32036
differential GMSK perform. eval. using K^{th} order detectors 32032
digital filter with arbitrary piecewise-lin. freq. response, impulse response 24305
FIR digital filters, iter. reweighted least sq. 32785
FIR filters, powers of two coeffs. design 32789
FIR variable fractional-sample delay filters eval. 32798
generalized multidelay adaptive filter, struct./convergence anal. 24199
IIR Powell and Chau lin. phase filters design 29390
IIR/FIR two-channel biorthogonal filter banks and wavelet bases 37880
interpolation/decimation filter banks, fast algms. 32769
lin.-phased IIR Nyquist filters, design 12646
M-band pseudo QMF banks, prototype filters design 37882
minmax FIR filters design, gradient approx. method 16012
mobile commun., delay lock loop, delay path cancellation *(Japanese)* 25274
modified DFT polyphase SBC filter banks, almost perfect reconstruction 32714
MOS VCO cct., current-controlled differential delay cell 12362
multiband least sq. FIR filter design 29369
narrow-band lin. phase FIR filter, conversion, IIR filter 24307
noncoherent second-order delay lock loop optimal design 41389
nonlin. adaptive prediction of nonstationary sigs. 32560
nonrecursive lin.-phase filters, least-sq. design 761
nonuniform division multirate FIR filter banks, design 24344
prog. fractional sample delay FIR filter coeffs. 12649
recursive digital filter design, parallel allpass sects. and delay elements 29372
regular M-band modulated orthogonal transforms 32710
speaker ident. bt time delay neural net 32421
SSB radio channels, received SNR increase, anal. sig. rooting 42147
sub-band coder for low-bit rate, fixed and variable band coding 32364
subband image coding, lin. phase filter banks design 24583
tapered waveguide-type delay equalizer, quadratic/cubic delay distortions 815
time-delay neural networks, systolic computation scheme 6268
time-delayed Chua's cct., chaotic behavior in lumped-distributed ccts. 12302
tunable fractional delay filter, finegrain delay estim. 12647
two-band QMF banks, anal. 32562
valves, motor-operated, noninvasive diagnostics 19624
voiced stop consonant recogn. by block-windowed ANN 32422
wireless commun., filter struct. for equalization and diversity combining 33875

delay-differential systems
Runge-Kutta methods, delay diff. eqns., stabil. 37354

delay elements (circuits) *see delay circuits*

delay lines
see also acoustic delay lines; optical delay lines
2D posn. sensitive detector for coincidence expts. 10120
40 GHz band 30 W space TWT, RF power amp. *(Japanese)* 6030
articulatory speech synthesis, fractional delay waveguide filters 32349
autocorrelation in micropower analog CMOS 21462
CMOS digital video delay line, embedded ADC/DAC/SRAM 34434
current transistor-transistor-inductor oscillator 580
discrete convolution by forward/backward modeling, comments 40822
DRFMs, digital RF memories, phase perform., radar and ECM equipt. 4436
LV fully differential class-AB switched-current ccts. 6248
metal-dielec.-ferrite-dielec.-metal layered magnetostatic-wave delay lines 22708
multipath interf. suppression cct. 40382
nonlin. adaptive prediction of nonstationary sigs. 32560
on-board satellite SS correlator 25469
pers. commun. systs., propag. channel model 3415
photonic beamformer archit. for multi-beam act. phase arrays 32004
radar systs. of LDV, detect. devices 3771
refl. topol. building blocks for adaptive microwave sig. proc. appls. 29588
split gate trackers, tapped delay errors 26827
waveforms, graphical anal. 21089
$YBa_2Cu_3O_7$ HTSC delay line, kinetic inductance, elec. tuning 14313
YIG cascaded magnetostatic soliton waveguide, short pulses 30753
YIG film, magnetoelastic waves, delay line appl. 14192

delay systems
see also delay-differential systems
indust. elec. heater, discrete optimal tracking controller 44589
mag. levitated lin. positioning syst., time-delay control 15341
multiple call hand-off, queued hand-offs/mixed platform types 33855
party line, teletraffic model 16407

delays
see also delay circuits; delay systems; distributed parameter systems
1.8 GHz mobile radio propag. meas. in mountainous areas 33784
1-persistent CSMA bus throughput, discrete space-time model 33212
2-D lin. phase IIR filter, symbolic computation routines, design 37885
2D FIR digital filters, VLSI struct. 6224
2D prog. photonic time-delay device for MM-wave sig. proc. appls. 14576
30 GHz bipolar transistors, laterally scaled, 18 ps ECL-gate delay 21548
60 GHz indoor wireless data systs. channel modelling, ray-tracing 8933
100 base-VG demand priority protocol, real-time commun. 16490
915 and 1900 MHz domestic RF channel charactn. 31822
1800 MHz radio propag., time dispersion meas. syst. 9319
1890 MHz delay spread meas. in Melbourne 3407
acoustic event localization, crosspower-spectrum phase based tech. 32606
adaptive algms. for time delay estim./IIR filtering 40830
adaptive rate control for delayed feedback sources 24745
adaptive separation of sound sources, Herault-Jutten network 26782
adder design modelling and comparison using Verilog HDL 29297
adders, parametric delay and area models 6066
advanced interconnect modelling, VLSI design tool 22550
algorithms on dynamic priority scheduling for heterogeneous traffic in ATM 33708
allpass transfer fns., prescribed group delay 32792
ARAKE type receiver struct. for narrow band wireless systs. 15955
asynchronous cct. design, space and timing factor quantification 29119
asynchronous chaotic neural networks, pulse propag. dyn. *(Japanese)* 37909
asynchronous design methodologies, overview 6142
ATM, threshold priority queueing syst., anal. 33173
ATM, VBR video transm., predictive dyn. bandwidth allocation 16419
ATM based B-ISDN, virtual spacing for traffic control 25060
ATM bursty user traffic allowed by jitter tolerant leaky bucket 2872
ATM multiplexer, jitter/delay anal. 16439
ATM network, flow control, hysteresis effect *(Korean)* 33188
ATM network end-stations, perform. charact. 33175
ATM network source traffic priority shaping fn. 41551
ATM network traffic control schemes for no resource reservation data commun. 41440
ATM networks, multi-rate traffic shaping/perform. 2879
ATM networks, multiplexing for cell delay var. 16441
ATM node, syst./perform. design 16701
ATM queues with random order of service, delay anal. 24796
ATM switch, weighted round-robin cell multiplexing 8720
ATM switch bursty and correl. mean delay and cell loss probab. 41410
ATM switches, queue mgt., multiple delay/loss priorities 8726
ATM video, performs. and error control 8612
AUV positioning/guidance, acoustic differential delay/Doppler tracking 25601
banyan-based B-ISDN switches, priority perform. 9006
base width, optim. for min. ECL propag. delay/max. oscill. freq. 12494
BATS, transport syst. for broadband appls. 33374
Bayesian techs. for rapidly fading channels equalization 3436
Bayesian time delay estim. for ocean acoustic tomography 35344
BER, influence of multipath propag. *(German)* 23635
BiCMOS buffer ccts., delay modelling and optim. 647
binary CPM-DPD, diversity in Rician fading channels 32042
bit-pair recoding Booth algm. 32×32 bit high speed parallel multiplier *(Korean)* 37715
bit/packet opt. sync., fiber switching node inputs 25482
boundary-scan based archits., delay fault test *(Korean)* 21272
bounded-delay encodable modulation codes, constr. method 40647
broadband integrated voice/data networks, bandwidth assignment 16557
broadband network grade-of-service achievability conservation laws 41476
broadband networks, resource allocation 9017
burst admission-control protocols, perform. anal. 33263
calibration of electroacoustic transducers, parametric technique 22681
campus-wide network, packet voice distrib. 33520
CDMA cellular network, forward link perform. 25366
CDMA commun. systs., subspace-based delay estim. 42166
CDMA networks, integrated voice/data traffic, code allocation 33908
CDMA syst., macro-/micro-cellular environ., perform. 3471
CDMA systs., multipath delay/fading 3473
cellular syst. traffic perform. with mixed platform types and queued handoffs 33808
CELP coder/decoder for indoor wireless systs. 3469
chip sizing, syst. delay quality level maximization 12966
circuit delay optim., multiple choice lin. knapsack problem 21045
clock distrib. networks, topol. design 715

delays continued
CML cct. delay components and current dependency 12423
CMOS buffer ccts., transit. time formulae 6067
CMOS buffer design, split inherent-capacit. load model 29101
CMOS cct. arith. elements optim. for sig. proc. 29142
CMOS cct. timing, device resist. estim. tech. 30457
CMOS digital combinat. ccts., stat. delay charactn. 13891
CMOS digital VLSI designs, transistor sizing algms. *(Korean)* 12387
CMOS iter. ccts., stuck-open faults modelling 12474
CMOS latches, metastability rel.to loading, power supply and scaling 13887
CMOS logic gate delay computation, slope considerations in probabilistic simul. 29115
CMOS tapered buffers, unified design methodology 29136
CMOS VLSI logic ccts., reliab. prediction, estim. of the switching activity 29116
combinat. cct. delay fault testing, cube partitioning 21233
combinat. ccts., delay fault coverage 12402
combinat. ccts., delay fault testability 12469
combinat. test pattern generator 29151
complementary noise immune logic in high speed ECL technol. 6069
composite propag. expts. on pulsed microwaves 42913
computer network routing, perform. anal. 8779
conferencing, delayed, act. multimedia syst. 16802
continuous speech recogn., expert-TDNNs/HMMs hybrid syst. 32398
coverage of delay faults, 13% and 99% mean same 37748
CSMA/CD LAN interconnection by bridge, finite buffer *(Japanese)* 8947
cursive handwriting recogn., online connectionist recogniser 33041
cursive script recogn., time delay neural networks and HMM 32661
custom design of digital filters, save Si area 29384
CW radar, wt. effects on periodic ambiguity fn. 34115
data compression, network link congestion control appls. 40793
DC motor control based on ANN *(Korean)* 44069
DECT systs., low time-dispersive channels, adaptive equalization 3498
deep submicron CMOS devices, fab. and delay time anal., simul. models 30361
deep water acoustic LAN, adaptive lin. multiuser receiver 34181
delay-insensitive codes, power-efficient, for data transm. 15759
delay-verifiable combinat. ccts. synthesis 21265
demand assignment packet switch for terrestrial and satellite networks 17151
digital commun. systs. degrad., multipath environ. 3412
digital FIR filter for satellite appls., 240 Msample/second 37893
digitised voice over high speed LANs, error control scheme 33445
distant sample prediction, speech coders 8205
distributed power SS cellular syst., perform. 25363
double-scroll oscillator, chaos delayed feedback control 573
double-talk detect. method, detecting echo path fluct. *(Japanese)* 40719
DQDB analytical model 33448
DQDB behavioural simul., data and multimedia traffic 2917
DQDB protocol erasure-nodes modif., fairness and perform. 33283
DQDB subnetworks, hierarchical commun. syst., perform. 8987
DQDB/B-ISDN gateway, UPC mechanisms comparison 33503
DS-CDMA cellular slotted syst., throughput/delay anal. 25438
DS-SS CDMA cellular voice/data commun. 25342
DS-SS commun. multipath diversity combination 42196
DS-SS ISM band radio LANs, receiver techs. 25261
DS/CDMA digital cellular systs., error control algms. 9361
DS/SS systs., coherent chip-asynchronous, signature delay estim. 17014
dynamic congestion control schemes in high-speed multimedia networks 33594
Elmore delay model for optimal wiresizing, VLSI interconnect delay 22277
envelope delay test time meas. methods, modem design 42085
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
failure delay syst. reliab. assess., DYLAM-3 code 11872
fair distributed queue network priority schemes 41479
fast PRMA protocol, perform. eval. 33249
fast reservation protocol/stat. multiplexing 16438
FDDI commun., proc. control, fieldbuses connection 33497
fDDI-2 packet services and latency adjustment buffers 33454
FDDI-II MAC protocol, assessment and alternative design 33457
financial data broadcasting, VBI teletext 8876
FIR filters, magnitude/group delay, multiple criterion approx. 32549
FIR low delay filter banks 24262
fourth-order stats., freq.-/time-delay of arrival estim. 8315
FPGA, long-lines, top-down hierarchical routing algm. *(Japanese)* 29107
freq.-selective fading channel, differential detect. 2217
freq.-stepped CW radar data, optimal sig. proc. 17374
frequency-selective fading channel orthogonalising simulator 40343
gate-level transient fault simulation environment 29179
Gaussian procs., phase jitter, probab. distrib. changes 16015
Gbit/s-LANs, ATMR/CRMA-II, perform. comparison 16710
generalized inverses in sig. proc./rem. sens. 8344
global router for high-speed bipolar LSIs 13870
GLONASS P-code, L1/L2 freqs., perform. 17505
GSM adaptive type-II hybrid ARQ/FEC protocol 3445
handwritten digit recogn., time delay neural network 33040
hazard-free asynchronous ccts. with bounded wire delays, synthesis 12403
heuristic algorithm for embedding hypercube in irregular WDM network 33462
high speed CMOS ccts., skew and delay minimization, stochastic optim. 29086
high speed digital interconnects, hierarchical simul., packaging simulator 5660
high speed networks, multicast transport protocols 2924
high speed VLSI interconnects, stat. anal., moment method 28442
high-capacity broadband packet switch archit., multilink approach 41912
high-level appls., layout-driven topol./functionality-based delay estim. 609
high-level DSP synthesis, concurrent algm. 37793
high-level DSP synthesis using concurrent transforms., scheduling, and allocation 21363
high-speed arithmetic codec archits. using interval tree search 42087
high-speed B-ISDN data terminal adaptor design 41915
high-speed MCMs, simul. of crosstalk 38198
high-speed network QoS, per-session end-to-end delay and call admission 33168
high-speed opt. fiber LAN, WDM access protocols *(Korean)* 17180
high-speed packet switch, input access, perform. anal. 16794
hybrid Go-Back-N ARQ scheme, repeated transms. 8689
IC elements, delay time, strips metallization effect 853
IC gate sizing algms. for power optim. 13841
IC interconnect design, convex optim. 30149

delays continued
IEEE 802.5 token ring LANs for multimedia traffic, priorities effectiveness 33441
image motion estim. algms., cumulants 24701
indoor mobile commun., CCI and multipath delay 17098
indoor radio, omnidirectional/sectored antennas, ray tracing model 33853
indoor radio propag., multipath charact. for shielded building *(Japanese)* 23626
information/control frame multiplexer, perform. study 33473
input-constrained channels, encoders, decoding delay 40648
integrated polyspectrum, time-delay estim. 32617
integrated services network scheduling and admission control priority token bank 41916
integro-differential systs. with delays, modelling, simul. and control 37350
interconnected mesh power syst. MCM topol., elec. charactn. 12972
interconnected mesh power syst. MCM topol., elec. charactn. 21722
interf.-tolerant time-delay estim. 8418
inverter perform. of 0.10 μm CMOS operating, room temp. 6865
ionos. satellite-to-Earth commun. channel, sig. delay 2228
ISI pilot symbol asisted modulation perform. and delay spread sensitivity 32031
ITC test conference, USA (1993) 36853
LAN, all opt., multiaccess with wavelength/code concurrency 41797
LAN protocol, modelling/perform. eval. 16707
land mobile radio channel multipath excess delay, probab. dens. 3365
large-scale packet switch interconnection archit. using overflow switches 41416
large-scale video servers, buffering/caching 34246
lean integrat., perform. and cost improvement of logic LSIs 29146
LF components of Internet load, dyn. and significance 41874
LGA, low temp. co-fired ceramic, high speed digital appls. 20443
LMS algm. for adaptive FIR filtering 32677
load-adaptive/TDMA systs. perform., satellite networks appl. 9415
long local computer networks, methodology for partitioning 3171
Loran-C skywave delay estim., eigen-decomp. 17500
low-power CMOS ULSI cct. techs., overview 39009
low-power operation, self-timed ccts. and supply voltage scaling 593
LUT-based FPGA technol. mapping, nominal delay minimization 12422
LV full-swing noncomplementary BiCMOS buffers 12489
macrocellular PCS propag. channels, 1850-1990 MHz band 31836
MAN/WAN integration, ATM-to-DQDB case 33446
Mandarin consonants recogn., large phonemic time-delay neural net 8189
Mandarin speech recogn. syst., large vocab. 24142
maneuvering target, underwater tracking, time delay meas. 25594
media access schemes, CTMA and CRMA for hidden terminal problem 3173
microwave transversal fiber-optic tunable filter 25513
MIMO LAN interconnection over high-speed gateway 41756
min. delay placement, influ. of nets/hierarchical clustering 30411
MM-wave indoor LAN syst., min. delay spread 41752
mobile commun., slow freq. hopping, time offset effect 42272
mobile radio channel, wideband micro-/macro-diversity meas. 3411
mobile radio channel heavy time dispersion estim. by path tracing 33821
mobile radio postdetection diversity/concatenated channel coding 3341
mobile radio syst. design for mountainous terrain 33785
mobile-satellite pers. commun. syst., voice transm. quality 25322
modified PDAMA protocol for mobile satellite commun. systs. 25320
multicarrier coded 16QAm syst. 33780
multicast ATM switch copy network shared-buffer archit. 41417
multichannel fiber-optic optoelectronic correlator 24427
multilevel network mgt. of syst. ident. 41670
multimedia conf. syst. on FDDI, TCP/UDP 16819
multimedia conference system on broadcast networks, design and implement. 33614
multimedia packet switching network, capacity assignment algm. 9040
multimedia PCN medium access control in mixed traffic environ. 41972
multimedia sync. scenario method for sync. anom. *(Korean)* 33663
multimedia traffic, loss/delay priorities, Markov-modulated fluid model 8694
multiple servers under threshold-type scheduling, resequencing delay 24789
multiple-access networks, opt. TDM 42128
multipoint cell buffering in ATM, perform. eval. 33178
multiprobe sigs., delay reconstruction 15958
near-far resistant DS-CDMA receivers, sensitivity anal. 9236
no slot wasting bandwidth balancing of TAR bit 8985
non-homog. DNLMS algm., decreasing step size, convergence 32755
normed LMS algm., error feedback delay, convergence 5769
ocean acoustic tomography, probabilistic ray ident. 35342
open distributed environ. perform. considerations 41957
opt. FSK receivers, line coding, anal. 42345
opt. guiding struct., chromatic dispersion 7305
optimized group randomly addressed polling for wireless data network 16677
optimum sounding sig. for time-delay measuring syst. 16063
optoelectronic feedback based meas. 42946
packet satellite commun., combined free/DAMA protocol 9418
packet switch, output buffering/imbalanced correl. traffic, anal. 8716
packet switching nodes, message delays eval. 16457
packet switching syst., propag. delay, nonuniform traffic scheduling 33164
Panda-Map, optimal perform.-directed logic mapping algm. for TLU-based FPGA *(Chinese)* 12397
pass. echo-canceler, single microphone 2536
pass. sonar time delay estim. 9655
path-oriented algm. for cell selection problem 37705
PC, real-time commun. protocol, contention-resolving algm. 41505
PCS traffic perform. stds. 25427
PGA package, high speed elec. charactn./simul. 20442
PL CEBUS with/without acknowledgment, perform. 16692
power constrained logic cct., optimized perform., single independent path anal. 21284
power IC packages, transient thermal impedance tester 137
prioritized distributed queueing random access protocol 33500
PRMA integrated data and speech transm. 41496
PRMA integrated voice/data syst., data steal, voice 17089
prog. CMOS pulse generator ASIC, US transducer array driver 29075
prog. ultrashort opt. pulse delay by acousto-opt. deflector 31020
quadrature component generation anal., narrow-band oscills., delay method 40766
queue monitoring, delay jitter mgt. policy on audio/video computer based confs. 9034

delays continued
RC act. filter time-domain props., effect of gain bandwidth 6215
RC interconnect of CMOS logic gates, effective capacitance modeling 1495
Real-Time VirtualClock, network traffic control mechanism for real-time commun. 8910
recursive differentiators, design, quadratic prog. 763
recursive differentiators design, const. group-delay characts. 2521
recursive DSP algms. mapping, multiprocessor 28953
redundant faults in combinat. ccts., test generation 12447
RESIST, recursive test pattern generation algm., path delay faults, test classes 613
rotation counter protocol, token-ring protocol for integrated services 33471
S-CDMA cellular radio syst., interf. calcs. 17121
SAFENET, fault-tolerance/timeliness, layered approach 33507
scaled CMOS technol. for LV/low power appls. 22597
SCFL inverters, anal. delay expression 37696
self-excited oscillator, inertia, external noise sig. effect 6042
self-learning blind sig. separation of time delay narrow band sigs. *(Chinese)* 32449
separate discrete filtration of freq. and sig. time delay 32575
series-connected MOS struct., internal parasitic capacit. effect 30435
shared time division duplexing for wireless digital speech commun. 3333
shared time-division duplexing for wireless speech commun. 3442
short-time sig. anal., miogram, speech appl. 32445
shortest-path first routing algms. 24847
sig. correl. matrix, array receivers phase delays estim. 32611
sig. integral, time delay estimator, ECG sigs., perform./testing 4280
simultaneous driver/wire sizing for perform./power optim. 494
single sect. lattice cryst. filters, normalized design 39079
single-freq. GPS systs., ionos. time delay *(Korean)* 34197
single-node DQDB anal. model, network-wide perform. 41540
single-server syst. with limited service policy 33219
slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
small-cell environ., radio channel characts. prediction 3335
SMDS network simul. 33477
source/receiver relative posn. determ., time delay spectrometry 18167
special purpose array proc. for digital logic simul. 38960
speech stat. multiplexing, resource auction multi-access excess capacity 42200
split gate trackers, tapped delay errors 26827
SS PRN, delay capture, arrival-time distrib. 9174
SS sigs., freq. domain delay/multiply receivers 42154
std.-cell VLSI cct. design, timing/area optim. 37706
still colour image compression, delayed decision copy coding *(Japanese)* 32929
Stuttgart TV prod. centre digital island planning and implement. *(German)* 17538
sub-0.1 μm double-gate SOI MOSFETs, design and perform. considerations 22472
switching systs., Markovian, 1-step fixed-lag smoothers 15910
sync. seq. ccts., fault simul. 12437
sync. syst., stat. method of noise estim. 5638
systolic array partitioning problem, scheduling scheme 28952
talker localisation in room, microphone array 32410
test generation for path delay faults, binary decision diags. 29171
TFSOI complementary BiCMOS technol. for low power appls. 30482
time optimized technol. mapping syst. for logic CAD *(Korean)* 12411
time-of-arrival prediction model for transionospheric EMP 25458
time-variant delayed cellular neural network stabil. 21490
timing synthesis from VHDL description *(Korean)* 21273
token protocols for high-speed multiple-ring networks 3226
token ring protocol for single/dual ring LAN systs. 2916
TRACER-fpga, router for RAM-based FPGAs 37709
trellis coded 16 QAM/TDMA, space diversity combining, multipath fading *(Japanese)* 42172
two-mode fiber-optic time-delay scanner for white-light interferometry 25854
two-stage VQ-lattice VQ 24093
ULSI multilevel interconnects, proc. integrat./manufacturability 38641
ultrafast opt. CDMA all-serial coding archit. 42356
underwater high data rate transm. equalizer 9611
unidirectional-bus networks, slot occupancy, Bernoulli approx. 8988
uplink multiple access protocols in meshed VSAT satellite networks 16480
urban microcells, direction biased handoff algms. 3399
urban microcellular environ., time dispersion meas. 3408
Verilog, standardizing delay calc. 28974
video commun., low latency, over high bandwidth-delay networks, using FEC 25134
virtual cellular network, wireless commun. archit. 9280
virtual reality target acquisition, lag/frame rate effects 18006
VLSI, optimal wiresizing under Elmore delay model 37572
VLSI design, cct. representation, Boolean proc. 12461
VLSI timing optim. by gate resizing and crit. path ident. 21176
Volterra models, stochastic, Kalman-Bucy filtering 20505
wave-domino logic, theory and appls. 21278
wave-pipelined 8×8 b multiplier in CMOS technol., design and realisation 29139
wide band indoor channel sounder, high delay resoln. 9178
wideband microcellular environ., multipath propag. 3409
wideband sigs., time delay/Doppler stretch estim. 40836
wireless LAN, 10 Mbits/s Ethernet data frames, DPSK 16711
wireless LAN TDD channel contention-based reservation protocol 41820
wireless multiservice CDMA environ., adaptive packet decoding 9360
wireless pers. commun., tree-search resource auction multiple access 9290
Xpress transfer protocol, error control mechanism 33260
zero-skew clock net constr., simulated annealing, VLSI layout 29336
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
Cu metallization technol. for deep submicron ULSIs 30140
Cu/polyimide MCM, embedded microstrip transm. line sig. characts. 6465
Cu-based metallization, ULSI struct., IC interconnects 30136
GaAs DCFL logic gates, timing macromodel 37717
GaAs DCFL ccts., timing macromodels 37710
GaAs DCFL logic gate ccts., delay/transit. time macromodels 21261
GaAs detector-switched monolithic time-delay network for opt. control of phased arrays 31129
GaAs high-power high-speed photoconductive switching devices, temp.-depend. delay time 14532
TeO_2 long time aperture acousto-optic delay line, design and charactn. 31021

delta modulation
see also sigma-delta modulation
act. power harmonic filters, computer simul. studies *(Korean)* 28998
arith. FT, alternate realizations 8298
nonuniform sampling DM, appl. 8098
nonuniform sampling DM tech. 8155

demagnetisation
see also magnetisation
10 Gbit/in^2 mag. recording, thermal instabil. 7181
DC motor armature reaction EM field, FEM-based anal. 19660
disk magnetized to saturation in parallel field, demagnetizing field 25952
hard mag. particles in 2D and 3D, nucleation fields, micromagnetic calcs. 6948
high efficiency forward converter topologies 6001
long. thin film hard disk media, demagnetization, inverse magnetostriction 30718
parallel ferromag. rods, mag. interact. 25953
Permalloy thin-film/micro-fiber magnetoresistive sens. 17712
PM, highly uniform field generation, review 7204
PM, mag. field/irreversible demagnetisation loss calcs. 30750
PM machines, irreversible demagnetization loss calcs. 36098
PM magnetisation, thyristor-based, calib. appls. 536
rect. magnetised PM, demagnetisation factor 7213
steel, Cr-Mo, ferromag., creep damage, mag. study 14128
variable reluctance machines, demagnetisation control designs 36138
Ba ferrite particles, substituted, high dens. mag. recording, remanence 39165
Co-Ag granular films, giant magnetoresist. 6981
Fe-Ag granular films, giant magnetoresist. 6981
FeAu, domain wall pinning, mag. viscosity/activation vol. 14148
Nd-Dy-Fe-B sintered PM, coercivity ang. depend. 39196
Nd-Fe-B PM, magnetis. procs., torsion pendulum magnetometry 39133
Nd-Fe-B magnets, texture determ. method 7206
NdFeB PM operating conditions in elec. machines 43998
NdTbDyFeCo/DyFeCo-ultrathin bilayer, thermomagnetic recording behavior 14231
Sm$_{12.5}$Fe$_{87.5}$ nitride, mech. alloyed, nitrogenation behaviour and thermostability 1574
Sm$_2$Fe$_{17}$N$_3$, Zn-bonded magnets, AC/differential DC-suscept. 39191
Sm$_2$Fe$_{17}$N$_x$ powders, powder and HDDR method prep., coercivity mechanism 22686
YIG film, magnetoelastic waves, delay line appl. 14192

demagnetisation, adiabatic *see magnetic cooling*

demand assigned multiple access
COST 226 project, network integrat. by satellite 42306
digital SCPC DAMA, optimal satellite-based voice networks 3512
interactive teleteaching via satellite 33209
modified PDAMA protocol for mobile satellite commun. systs. 25320
next-generation PCN multimedia traffic support 41979
packet satellite commun., combined free/DAMA protocol 9418
PCN voice transm., PRMA and DAMA comparison 33839
satellite commun. access optim., simul. 17154
TDMAX and FASTCOM, Alcatel satellite systs. for domestic and corporate commun. 25450

demand side management
2D colour pattern load anal., DSS tool supporting DSM 27053
air conditioner direct load control, multipass dyn. prog. algm. 27055
cogen. planning optim., time-of-use rates-based 10846
commercial power syst. DSM, PLC-based scheme 35490
composite power syst. demand-side reliab. eval. 27029
customer energy needs assess. project, Australia 4503
decentralised AI controllers, intell. home automation 4536
deregulated power markets, planning/operation anal. *(Japanese)* 43679
distrib. network DSM/automation commun., added utilisation costs 27160
distrib. syst., automation/DSM/AMR study 43761
DSM and resource planning, IEE Colloquium, London (1994) 14
DSM in power syst. develop. 10697
elec. consumption forecasting, temp. inputs 19174
elec. end-use efficiency, worldwide experience 19084
elec. power markets, optional forward contracts 4572
elec. tariff syst. principles, Croatia *(Croatian)* 10625
elec. utility distrib. planning, feeder config. 35526
elec. utility DSM, customer commun. appls. 10659
elec. utility DSM, net benefits estim. approaches 26990
elec. utility DSM opportunities case study, India 35535
elec. utility DSM overview, UK 10657
elec. utility DSM planning, elec. cooking implications, Nepal 35475
elec. utility DSM programmes, concepts and eval. 43697
elec. utility DSM programmes assess. methods 26991
elec. utility DSM programs, competition effects 4566
elec. utility DSM strategy economics, math. anal. 35533
elec. utility energy services/DSM, objectives overview 10660
elec. utility sales/revenues link, DSM, stat. recoupling 4514
eval., T&D level 4570
GOLDSMITH, DSM cost/benefit options 19132
group geyser consumption patterns, single water heater and PC-based meas. and control syst. 4538
local transm./distrib. planning, load research appls. 27079
modular power generation/storage, targeted DSM 43672
neural networks based monitoring of indust. elec. loads 4537
residential elec. water heater loads, aggregate model 20127
two-way customer commun. systs. for utilities 41586

demodulation
see also demodulators; modulation
2.45 GHz radio syst. for automatic passenger gates 9192
3 by 3 fibre coupler phase jitter, pass. homodyne demodulation 30923
4-CPSK, carrier recovery scheme 8099
16-channel 622-Mbit/s FDM heterodyne syst., error-rate degrad., fiber four-wave mixing 17218
16-DAPSK, differential detect., Viterbi-algm. *(Japanese)* 24175
16-DAPSK, multiple-sym. differential detect. *(Japanese)* 24010
256-QAM syst. in presence of phase jitter and CCI 24009
adaptive HMM filters for sigs. in noisy fading channels 32736
adaptive multiuser demodulation, neural network techs. 17001
asynchronous CDMA systs., lin. adaptive transmitter-receiver 25243
AWGN, block and decoded error probabilities of DPSK 15763
Bayesian techs. for rapidly fading channels equalization 3436
bipolar op amp, demodulation RFI 550
block demodulation, overview 24019
BPSK homodyne detect. expt. with solitary DFB LD, 10 Gbit/s 17329

demodulation continued
BPSK modulated co-channel sigs. reception, dual sig. receiver 33886
CDMA for terrestrial/mobile satellite commun. networks 17049
CDMA mobile radio schemes, modeling/perform. 25373
CDMA receiver, near-far immunity 25228
CDMA systs., error-correcting coding 24782
channel residual damping depend. on carrier freq. separation *(Russian)* 15695
chirped laser radar, optoelectronic chirp generation and sig. demodulation 17444
chirped laser radar, optoelectronic sig. demodulation 17448
CMOS digital DSB-to-SSB converter, FIR Hilbert transform filter chip 12655
coherent detect. photodiode, optimum opt. LO power levels 25847
coherent laser radar with diffuse/aerosol targets, heterodyne efficiency 3620
covert commun. employing wavelet technol. 9164
CPM sigs., channel coding/multiple-sym. diff. demod. 24078
cryogenic RF SQUID readout, super Schottky diodes for sig. demodulation 21538
decision feedback multiple-sym. differential detect., diversity 9200
deconvolution, Bayesian decision feedback techs. 15892
DECT-type systs., non-coherent equaliser receiver struct. 8855
dielec. surface asperities, near-field opt. detect. 31792
differential GMSK perform. eval. using Kth order detectors 32032
differential parallel combinatory SS commun. systs. *(Japanese)* 25207
differentially detected π/4-DQPSK syst. perform., AWGN/Rayleigh fading 40568
digital interface for quadrature demodulation of interferometer sigs. 25773
digital sigs. with ISI, demodulation 40571
digital transm. over degraded channels, coded modulation 8103
digital TV broadcasting, modulation/demodulation *(Japanese)* 34217
DIII-D tokamak, reflectometric dens. profile meas. advances 34679
DMT/DWMT systs. and digital filter banks 9091
DOQPSK, differential demodulation of filtered offset QPSK 17073
DPSK differential detect. scheme, phase seq. estim. 32684
DPSK receiver, opt. preamplified/demodulated, act. delay-line stabilization 17208
DPSK/FSK, differential phase detect., bit/sym. error probabilities 40614
DS-CDMA systs., hybrid acquisition schemes 9384
DS-SS communications, doubly selective fading channel, spreading seqs. 17016
DS/CDMA, M-ary orthogonal modulation in multipath fading channels 8736
DS/CDMA adaptive interf. canceller, differential detect. 9240
DS/CDMA adaptive interf. canceller for fast fading channel *(Japanese)* 25277
DS/CDMA prototype syst. for voice/ISDN sigs. 3320
DS/CDMA systs., coherent detect. syst., suppressed pilot channel *(Japanese)* 25279
dual-filter heterodyne FSK opt. syst., BER eval. 17251
dual-mode dielec. resonator freq./phase discriminator 12740
Earth satellite commun. systs. with low orbits, Doppler shift effects 17146
error rate for differential demodulation of 2-h CPM *(Korean)* 24018
extended H$_\infty$ filter, robust EKF 40942
FH-SS commun., Bayesian erasure techs. 25248
fiber magnetometer, rem. hybrid heterodyne technol. 34526
fibre Fabry-Perot sens., absol. strain meas. 17904
freq.-selective fading channel, differential detect. 2217
functional sig. transforms without multiplication operations 8268
heterodyne ASK lightwave systs., IF flucts. 17253
heterodyne opt. interferometry, LD power change effects 42965
heterodyne polarimetric fiber-coil deform. sens. *(Japanese)* 3857
HTSC tunnel jns., photon detectors 39283
hybrid commun./positioning syst., two geostationary satellites 17155
hybrid DS/SFH SSMA commun., nonselective fading channels 3321
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
interferometric sens., opt. demodulated 17852
laser binary FSK communication, integrated heterodyne receiver/spatial tracker 17296
laser rangefinder, error sources 2156
long-span 2.5-Gbit/s CPFSK coherent opt. transm., power EDFA boosters 34000
M-ary orthogonal signalling, near-max.-likelihood demodulation 32030
M-ary phase coding for noncoherent AWGN channel 24046
M-DPSK multi-sym. diff. detect. by neural net 40575
Mach Zehnder electro optic modulator for sideband suppressed carrier modulation of opt. fields 42394
Mach-Zehnder interferometric opt. fiber sens., act. homodyne demodulation 34531
Mitsubishi Electric base-station modulation/demodulation eqpt. *(Japanese)* 33892
MM-wave modulated opt. sigs., heterodyne reception, HEMT 3544
mobile radio channel, multiple sym. differential detect. 33874
mobile radio commun., speech/channel coding 3346
mobile radio syst. digital modulation scheme selection 33778
MSK timing recovery algms. 9372
multi-carrier demodulators, bulk FFT struct., distortion anal. 40572
multi-user demodulation, real time, hybrid digital computer-Hopfield neural network CDMA detector 16459
noisy phase or freq. modulated sigs., demodulation, Kalman filters 40574
nonselective fading, two-stage carrier sync. 25345
nonselective Rayleigh fading channels, sym.-aided channel estim. 7975
nonuniform sampling DM, appl. 8098
opt. FSK-FDM heterodyne detect. syst., cross-PM 17217
opt. heterodyne receivers, noise perform. of AFC loops 42407
optimum combining in wireless systs., BER upper bounds 9170
packet-based mobile radio, digital MSK receiver 3435
pass. demodulated Michelson/polarimetric coupled fiber strain sens. 17866
phase tracking Viterbi demodulator *(Japanese)* 24176
PLL interferometric profilometry 3984
PLLs, sig. injection, sync. systs., anal./optim. 16014
PPM sigs., airborne/underwater opt. commun., optimum detectors 41100
preamble-less packets surrounded by noise, optimum frame sync. 8715
pulsed coherent Doppler lidar with opt. amp., heterodyne detect. 3622
Rake receiver archit., perform. 25264
rapidly tuned FDM laser transm. receiver, multichannel heterodyne detect. 9499
rare earth doped opt.-fiber preamplifiers for ladar detect., SNR 9653
Rayleigh fading mobile channel, direct-seq. code acquisition 17103

demodulation continued
Sagnac interferometer, elec./mag. fields simultaneous meas. 17865
satellite mobile channel, FSK-DPD, pulse shaping/transmitter filter 42304
satellite TDMA binary PSK sig. demodulation without explicit carrier sync. 40553
sawtooth fringe counting for demodulated interferometric strain gauge 17881
secure commun. systs., chaotic chips/Chua's ccts. 8690
self-excited chopper, quartz micromachined, opt. sens. appl. 30978
self-referenced fiber optic sens. for microdisplacement meas. 34537
sens. array sig. proc. tech. 32731
sig. quadrature proc. in bandpass non-Gaussian interf. 32566
sine/cosine ref. generator, high-perform., design 8350
single mode dye laser freq. stabilization, forward scatt. 7536
sliding multiple sym. differential detect. of trellis-coded MDPSK *(Korean)* 15725
small earth station hardware, IEE Colloquium, London (1995) 28267
smart struct. sens., Bragg grating laser systs. 34538
SNR degrad. due to amplit. ripple, comments 24294
software demodulation, satellite/GPS/cellular receiver 42329
spatial vision, demodulation and predictive coding 41155
spectral filtering lidar light possessing non-Gaussian stats. 3616
spectrally efficient modem for land-mobile radio, perform. 9272
SQW LD guided-wave devices, heterodyne nondegenerate pump-probe meas. 25990
struct. intermittent interf. at demodulator, compensator efficiency 40856
suppressed carrier coherent fiber optic transm. PSK modem 3590
tanlock carrier phase recovery without divider and VCO 588
time-freq. distrib., laser radar backscatt., FM demodulation 34166
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
underwater commun., self-optimized adaptive algm., equalization *(French)* 25592
video decoding algm. mapping, mixed sig. IC 8553
VIF/SIF/PLL, TV sets/VCRs multistandard sig. detect. 42581
wavelet-packet-based multiple access commun. 33202
wind meas. by heterodyne coherent laser radar 43504
CO$_2$ IR coherent lidar, enhanced opt. heterodyne detect. 3617
Cs FIR laser lines around 1.2/1.6 THz, heterodyne freq. meas. 23081
GaAs MMIC delay line/quadrature demodulator in opt. receiver 17199
GaAs, high freq. photomixing 15109
Ge:Zn, impurity photoresistor, pulsed-opt.-heterodyning mode 31080
InP monolithically integrated tunable polariz. diversity heterodyne receiver OEIC 25484
InP polariz. diversity receiver OEIC heterodyne receiver frontend module 23061
Nd:YAG birefr. microchip laser used in heterodyne vibrometry 23481
Si electrostatic servo-type three-axis accelerometer 17744
XeF(C-A) long-pulse e-beam excited excited laser, single-freq. operation 14708

demodulators
see also demodulation; discriminators; modems
1.8-μm CMOS 60-MBaud single-chip QAM proc. for digital radio appls. 21369
60 Mb/s QPSK/OQPSK burst digital demodulator for radio appl., CMOS VLSI implement. 17006
BiCMOS video sig. proc. IC for laser disk player 9756
BPSK/QPSK demodulator chip-set for satellite appls. 42561
buffered telemetry demodulator for Galileo mission 9420
CDMA demodulator, interf. robust, spectral correl. props. 3327
channel demodulator IC for DAB, design, silicon compiler 21155
CPM, matched filters reduction 40567
DECT channel error profiles 3123
digital demodulator for rem. sens. satellites, perform. 33969
digital demodulators using fixed point FIR interpolators, BER perform. 32037
digital phase recovery in presence of freq. shift 8458
direct conversion receiver, FSK digital phase-shifting demodulator 3359
DS-CDMA field trial syst., down-link design 9391
DS-SS systs., narrowband interf. rejection 33750
FH-SS commun., PLL demodulator response 12377
fiber optic hydrophones, demodulator optim. 18941
fully digital demodulator, combined interpolator filter for timing recovery 15707
IF amp. having low noise and wide AGC range *(Korean)* 37647
MMIC design and GaAs foundry 21566
MSK signals, orthogonality 8100
multi-carrier demodulators, bulk FFT struct., distortion anal. 40572
MW SSB and DSB compatible receiver, AM dual-mode design 9708
NEC's approach, digital cellular commun. *(Japanese)* 17077
neural demodulator for ASK sigs. 29512
nonselective fading, two-stage carrier sync. 25345
phase/freq. comparator and BPSK carrier demodulator 587
PLLs, large damping, homoclinic points and chaos 12376
QAM demodulator appls., 6-GOPS sig. proc., archit. and CMOS cct. design 33681
syllabic companders, strict sense envelope detect. 9162
tanlock carrier phase recovery without divider and VCO 588
time-freq. distrib., laser radar backscatt., FM demodulation 34166
GaAs MMIC demodulator, distrib. mixing for CPFSK receiver 12801

demography
Australia, document delivery services, 1980-94 overview 33434
forecasting broadband demand, geographic areas 33348

demonstrations *see student experiments*

Dempster-Shafer theory *see inference mechanisms; uncertainty handling*

demultiplexers *see demultiplexing equipment*

demultiplexing
see also demultiplexing equipment
10 Gbit/s WDM 1310-nm opt. transm., 63.5-km std. single-mode fiber, opt. preamplifiers 17349
100 Gbit/s multichannel TDM demultiplexer by multiwave mixing 3297
100-Gbit/s TDM opt. transm., two tunable Er-doped fiber lasers 9490
250-Gb/s self-clocked opt. TDM, polariz.-multiplexed clock 42376
400 nm/3.4 μm fiber components and lasers 7562
all-opt. network using dyn. wavelength routers, crosstalk penalty 9585
Fabry-Perot single-cavity demultiplexer OFDM networks, finite laser linewidth 25529
four-channel WDM/PDM transm., 10 Gbit/s, 340 km 17230
interconnecting computers, archit./technol./economics 16702
LED spectral slicing, modelling of interchannel crosstalk 1828

demultiplexing continued
multiplexing/demultiplexing techs., ultrafast transm. 17226
multivendor ATE, test software generation 3727
nonlin. fiber Sagnac opt. TDM switch 17336
polariz.-independent regenerator, nonlin. optoelectronic PLL 14655
sliding-filter-controlled soliton transm., 20 Gbit/s, 14 Mm 25505
tapered nonlin. waveguides, num. simul. of pulse propag. 40431
twin-core fibre opt.-to-electrical demultiplexing detector 34087
twin-core opt. fibres, UV tuning of coupling 7280
zero-dispersion dispersion-flattened nonlin. fibre loop mirror demultiplexing 3561

demultiplexing equipment
see also multiplexing equipment
100 Gbit/s multichannel TDM demultiplexer by multiwave mixing 3297
250-Gb/s self-clocked opt. TDM, polariz.-multiplexed clock 42376
Bragg fibre grating develop. for WDM appls. 39340
CMOS 625 Mb/s data recovery cct. 29340
CMOS SDH termination chip for 622 Mbps STM-4c B-ISDN 16932
coupled antiresonant reflecting opt. waveguides based wavelength selective device 14472
dual wavelength opt. fiber HDTV distrib. networks 17571
Fabry-Perot single-cavity demultiplexer OFDM networks, finite laser linewidth 25529
fibre gratings, demultiplexing filters for WDMA networks 39345
flat-field broadband planar waveguide spectrograph design 39457
freq.-selective waveguide multiplexing receivers 9594
Littrow hologram substr. guided wave WDM demultiplexer 42445
long-dist. soliton transm., 20 Gbit/s, alternating-amplit. solitons and opt. TDM 34018
low-loss compact all-fibre wavelength drop and insert filter 9437
mobile satellite commun., channel-indiv. adaptive beamforming 25321
nonlin. opt. loop mirror demultiplexer, extinction ratio and switching efficiency, error rate perform. 17176
OC-12/STS-3c/ATM transm. interface for AURORA Gigabit Testbed 41766
opt. fibre FDM FSK syst., channel spacing, crosstalk *(Chinese)* 42354
opt. fibre monolithic wavelength demultiplexing switch arrays 42374
photoimprinted Bragg grating all-fiber dense WDM/demultiplexer 42388
photonic ICs, low loss mirrors, etching 14503
polaris. independ. nonlin. opt. loop mirror demultiplexers 34079
rem. prog. all-opt. routing device, clock division 9531
semicond. laser amp., π phase shift recovery, demultiplexing 25508
silica-based planar lightwave ccts., opt. filters develop. *(Japanese)* 17182
simultaneous temp./strain meas., four connecting wires 42780
stable soliton transm. in nonlin. nonlin. amplif. loop mirror gain syst. 42459
substr.-mode holographic polariz.-division multi/demultiplexer for opt. commun. 25173
three-wavelength Mach-Zehnder demultiplexer, BPM simul., fab. 17166
twin-core fibre opt.-to-electrical demultiplexing detector 34087
two-sect. travelling-wave semicond. laser amp. optoelectronic time division demultiplexer 42100
vert. cavity waveguide spectrometer, WDM commun. 34063
wavelength division demultiplexer, multiplexed waveguide holograms 17281
zero-dispersion dispersion-flattened nonlin. fibre loop mirror demultiplexing 3561
AlGaAs nonlin. directional coupler, time-domain all-opt. demultiplexing 39377
InGaAs/AlGaAs/GaAs grating demultiplexer/detector array integrat. 9422
InGaAsP-InP pol.-independ. four-channel tunable opt. filter 25477
InP tunable phased-array wavelength demultiplexer 17257
K$^+$-ion diffused waveguides, coupler-type wavelength demultiplexer 9554
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
SiO$_2$-on-Si Mach-Zehnder 1.3/1.5 μm demultiplexer 34032

dendrites
see also crystal growth
polyethylene insulators, dendrites, fractal charact., time var. 1543
water soluble fluxes, SIR/electrochem. migration testing 28438

dendritic crystals *see dendrites*

densification
see also density; powders; sintering
metallic substr. tubular SOFC, flame coated 44328
porous metal closed-die compression test, Gurson-type behavioural model 28886
AlN, 3D interconnected porous composites, proc., electronic packaging 146
12H-AlN-polytypoid ceramics, fab. 37534
BPSG dielec. film fusion, steam reflow and RTA/furnace annealing 20997
Fe$_{86}$Zr$_7$B$_6$Cu soft-mag. compacts, nanocryst., high saturation magnetis. 1572
GeO$_2$-SiO$_2$ glass, thin films, planar waveguide appls. 7350
Nd-Fe-B high-dens. bonded magnets, PTFE 5907
Ni-Cu-Zn powder ferrite for multilayer chip inductors 14186
SiC/Si wafer bonding, CVD and etching 13392
SiO$_2$ films, HI irrad., densification and plastic flow 1312
W-AlN cofired multilayer substrs., low temp. sintering 11744
α-β-YSiAlON:Sm$_2$O$_3$, densified ceramics, react. seq. 37535
ZnO dense non-ohmic electrode, humidity sensitive elec. props. 34457

densimeters *see densitometry*

densitometers *see densitometry*

densitometry
see also photometry
coronary artery segments, stenosed, 3D densitometric reconstruction and visualization 43240
CR-39 dosemeter, wide-range neutron dose determ. 43395
multiformat cameras image quality vars. assess. 18499
precision dens. meter for film dosimeters 34911

density
see also density measurement
borosilicate glass, cristobalite-free low-K dielec. 22632
diamond films adhesion on Mo/W/carburized W substrs. 37478
max. entropy reconstruction, derivative inform. 24197
piezoelec. resonator materials metric for materials eval. 30574
plate wave velocities, field decay, acousto-US sigs. 10583
CdS$_{1-x}$Se$_x$ hexagonal alloy films, epitaxial growth, photolum. 20882
Cu-matrix Mo particle composite low thermal expansion conductor 12198
InGaP epitaxial layer growth, yo-yo solute feeding method *(Japanese)* 20895
Li$_{0.3}$Zn$_{0.4}$Fe$_{2.3}$O$_4$, additives, material property changes 39167
PZT ceramic substr., BGS wave resonators 14087
Pd(-Ag) spherical powders prod. for MLC capacitors 37532

- **density** continued
  - Si, molten, surface tension var. meas. by ring method 28709
  - a-SiC:H,F films, plasma deposition, props. 5878
  - SiO_2/Si, low-temp. grown oxide film, X-ray reflectivity 38610
  - U gas, nuc. rocket fuel, opt./thermophysical props. 4370
- **density measurement**
  - absol. water dens. meas., 1°C, 40°C 18119
  - dust cloud dens. estim., single wavelength lidar 17439
  - elastic consts. and mass dens., acoustic microscopy meas. 35364
  - fluid dens. meter, press. gradient var. *(Japanese)* 42958
  - fluid density meas. by US techniques 25982
  - IgG Langmuir films oriented by protein A sublayer 42857
  - liq. dens. meas., ultrasound 18117
  - N_A role in SI, at. path, kilogram 17644
  - porous samples dens. determ. hydrostatic weighing appl. 42957
  - precision dens. meter for film dosimeters 34911
  - pseudospark switch, metal vap. densities/excitation temps. 36407
  - quasi-spherical solid dens. stds., vol. determ. 17649
  - semiautomatic apparatus for liqs. viscosity/dens. meas. 4030
  - sig. extraction from mag. flowmeters for dens. meas. 3763
  - X-ray cryst. dens. method, hist./future outlook 18118
  - Pb-acid batts., condition assess., batt. monitors 44279
  - Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
  - Si single-cryst. spheres, fab./sphericity meas. 18100
- **density of states, electron** *see electronic density of states*
- **deperming** *see demagnetisation*
- **deposition, chemical vapour** *see chemical vapour deposition*
- **deposition, electroless** *see electroless deposition*
- **deposition, electrolytic** *see electrodeposition*
- **deposition, electron beam** *see electron beam deposition*
- **deposition, ionised cluster beam** *see ionised cluster beam deposition*
- **deposition, plasma** *see plasma deposition*
- **deposition, sputter** *see sputter deposition*
- **deposition, vacuum** *see vacuum deposition*
- **deposition, vapour** *see vapour deposition*
- **depth first search** *see tree searching*
- **depth measurement** *see bathymetry; spatial variables measurement*
- **desalination**
  - Al Ghubrah combined power/waste heat recovery plant 10860
  - cogen. desalination plant, desalter, fuel cost 35984
  - electrodialysis systs., PV powered 11516
  - ultra-efficient desalination, dual purpose plant 28201
- **desalting** *see desalination*
- **describing functions**
  - *see also control system analysis*
  - ECM baseband freq. models with IF nonlinearity describing fns. 34138
  - series reson. convertor with third-order commutation network 36306
  - series reson. DC/DC power convertors, perform. prediction 19708
  - series-parallel reson. power converter, small-sig. modelling 5122
  - Volterra model, generalized describing fns. *(Japanese)* 11896
  - wind-solar power plant control, Petri net-based model 19575
- **descriptors** *see vocabulary*
- **design aids**
  - *see also design engineering; nomograms*
  - mag. EM wave absorber at 9.45 GHz, design chart 39214
  - MCM design technol., review 6466
  - phase shift masks, design, SIMPHAD program 13435
- **design data management** *see design engineering; visual databases*
- **design engineering**
  - *see also design for manufacture; design for testability; product development; project engineering; reverse engineering; systems engineering*
  - 0.5 kW domestic CHP Stirling engine, thermodyn./detail design 27531
  - 0.5 kW portable alkali metal thermoelec. convertor develop. 20036
  - 1 MJ transportable pulsed power source, electrothermal gun appls. 36314
  - 2.2-1500 kW SIMOVERT MASTER DRIVE power convertors, AC drive appls. 44216
  - 2.5 kW NASA spacecraft ion thruster/power proc., develop. status 35267
  - 5 kW marine propulsion SRM/propeller drive 5340
  - 5 kW wind turbine induction generator, expt. design 10902
  - 6-380 V light-sig. equipt. develops., Russia 44585
  - 10 MW pressurised CFBC combined cycle pilot power plant 27586
  - 10 W second generation Stirling engine generator set perform. 28043
  - 11 kV rural distrib. network perform. improvement designs, UK 43752
  - 12/36/145 kV distrib. cct. breakers, utility experiences 4668
  - 50 mm diam. induction coilgun launcher, design, eval. 15296
  - 50 mm solid armature pulsed power EM launcher develop., USA 31749
  - 90 mm railgun-fired air defense projectiles 18966
  - 100 MJ flux compression pulse power systs., design considerations 36298
  - 110 kV XLPE power cable installation project, China 27196
  - 120 kW coaxial winding transformer, elec. vehicle appls. 20103
  - 200 MWe MHD generator channel, supercond. magnet optim. 4871
  - 200-660 MW steam power plant FGD scrubbers design 27545
  - 250 kW AC batt. syst., Pb-acid marine cell-based 36552
  - 250 kW MCFC demons. power plant project, USA 36075
  - 250 MW pulsed power thyratron, design anal. 36462
  - 500 kV XLPE underground power cables, insulation tests 4681
  - 500 W thermoelec. generator power supply, preliminary design 27992
  - 600V punch-through-epilayer IGBTs for HVIC switching, cell design 30198
  - 2500 MW Black Point power plant distributed control project 19528
  - AC motor variable speed drives, design specs. 20062
  - advanced IC mfg., future prospects 37049
  - air conditioning, thermoelec. conversion-based designs *(Japanese)* 44601
  - air curtain, anal. design 28174
  - air-core foil-wound pulse power transformer design concept 36358
  - airport transit syst. power distrib. design project, USA 44571
  - alkali metal thermoelec. convertor design, wick-pumped, vapour-fed 20032
  - AMPhibian hybrid elec. vehicle, regenerative braking effects 28147
  - artificial heart lin. oscillatory actuator, structural anal. 35167
  - ASICs and design methodologies 21160
  - automotive EM particle clutch, design anal. 11435
  - autonomous underwater vehicles, variable length, parametric perform. anal. 28138
  - BT's architectural approach to develop. of products, systs. and services 16543
  - building cogen. systs., design methodology 4827
  - building services projects CAD, STEP technol. 11315
  - CAD, AI prog. approach 37021
  - CAD/design data mgt. syst. *(Japanese)* 1460
- **design engineering** continued
  - cannon caliber EM launcher syst., air core compulsator design 31740
  - cannon calibre EM railgun, discarding armature, design 18965
  - Cassini spacecraft power convertor unit design 26588
  - cct. breakers, fast-acting, EM/inductor drive design *(Russian)* 11195
  - closed-cycle gas turbines, combined pinch/exergy anal. 36009
  - coal-fired power plant FGD scrubber designs 27546
  - coal-fired power plant reverse air fabric filter designs 43902
  - COB, SMT and TAB packaging technols., design tradeoffs 28449
  - cogen. practice, options and design stds. *(Italian)* 19504
  - combat vehicle EM weapon syst. integrat. design 18961
  - combined cycle CHP plants, PFBC gas expander design 27588
  - combined cycle power plant heat recovery steam generators 27584
  - combined cycle power plants, cooling syst. design economics, UK 27596
  - combined cycle power plants, heat recovery steam generator designs 27585
  - commutator motors, optimal design algm. 10956
  - comparative cost simul. model, conventional/concurrent engng. 37034
  - concurrent engng. design, student lab. project 36940
  - custom IC design co-operation *(German)* 5572
  - custom Si IC design, project mgt., coord. struct. 20392
  - DC motor armature reaction EM field, FEM-based anal. 19660
  - DC/DC board-mounted telecom. power supply modules 44196
  - design brief expansion syst., proc. validation issues 37007
  - developments, courses conf., Washington, DC, USA (Nov. 1993) 36901
  - digital commun. education course, senior undergraduate project 20282
  - direct carbonate fuel cell power plant, stack engng. efforts 27651
  - disc-type eddy current dynamometers, torque design formula 27659
  - distrib. network overhead line fiberglass poles, case study 27172
  - distrib. substation earthing systs., safety design 4662
  - distrib. substations, switchgear internal arc fault protection design 4661
  - distrib. switchgear, design overview 4670
  - distributed power archits., bus voltage level comparisons 36325
  - domestic heating syst. thermionic converter design 28176
  - Earth/space obs. spacecraft, pulsed power insulation design 35257
  - education, project mgt. teaching principles 37022
  - ejector expansion heat engine, refrigeration appl. design 28184
  - elec. belt drive design, energy models 44462
  - elec. control room fire protection, sprinkler syst. options 92
  - elec. lin. actuators, make-or-buy guidelines 11223
  - elec. proc. heating, thermal/control considerations 5382
  - elec. road vehicles, induction motor design criteria 11415
  - elec. utility distrib. automation syst. project, India 27170
  - electronic packages, life enhancement, design optim. 28497
  - electronics indust., environ. design considerations 28547
  - electrothermal launcher solid armatures, design optim. 15352
  - EM guns, launch package integrat. design 18963
  - EM launcher hypervelocity projectile passage sens. design 15335
  - emergency generators, reliab. improvement anal. 27679
  - energy efficient building design research programmes, Europe 11314
  - evolutive trends *(Italian)* 37012
  - extended design tools for integrated opt./electronic ccts. 23059
  - fatigue test data, Weibull distrib. anal. 5702
  - flat EM relays, develop. status overview *(Russian)* 7932
  - flip-chip bonds, phys.-of-failure design 21671
  - flywheel energy storage, high T_c supercond. mag. bearing appl. 28050
  - FM transducers in measuring, monitoring, and control 3807
  - FMEA, failure modes and effective anal. design tool 28401
  - foil winding design, eddy current anal. approach 6375
  - fossil power plant cycling operation, steam bypass systs. 27550
  - fuel gas reciprocating compressors, power generation appls. 35964
  - general design theory, crit. review 37017
  - GIS elec. utility experience, USA 27866
  - green engng. framework for concurrent design of products/procs. 5579
  - Gulf Stream-based hydroelec. generation, project overview 19542
  - hands, myoelec., design modif., quality fn. 4307
  - harmonic filter design trends 4633
  - high speed elec. rly., power/control systs. *(French)* 11427
  - human factored fn. allocation, syst. enhancement 5570
  - induction cooker coil CAD, Pascal program-based 36785
  - inductive coil mag. cct., design method *(Russian)* 6373
  - indust. needs for electronic systs. designers, degree course, VLSI theme 20292
  - injection mould design, intell. support syst. 37023
  - instrument design for reliability 9786
  - K factor power transformers, orig., design, develop. 19693
  - Ku band second harmonic gyroklystron expt. 6487
  - LCD backlight, case study in cct. design 37031
  - LIM, single-sided, theoretical perform. anal. *(Japanese)* 44045
  - lin. switched reluctance machines, high force dens. designs 36135
  - line focus solar Stirling power generation syst. 27625
  - long dist. opt. soliton commun., optimal design *(Chinese)* 9532
  - mag. machine bearings, develop. update 7936
  - Maglev test facility vehicle design, Japan 5336
  - MECHANICA/Applied Struct. FEM package, engng. design 37011
  - metalclad switchgear, HV/small size design develops. 11207
  - MF power transformers, amorph. metal core studies 5015
  - MHD generator, kerosene oil-heavy oil fuelled, optimum perform. design 44420
  - MHD generators, gas dyn. design optim. 27965
  - microwave oven design, EM wave anal. methods *(Japanese)* 44619
  - MMI design for syst. quality improvement 11837
  - module-type SMES syst., perform. studies *(Japanese)* 28046
  - motion control optimisation, motor control gear designs 5166
  - multi-lamp solar simulator, collector testing appls. 11456
  - multi-MW batt. storage plant, power conditioning reliab. 36081
  - multichip packaging in commercial electronic systs., proven design methodology 21787
  - multifunctional piezoceramic resonators, design and size reduction 39084
  - multiple cryst. filter IF strips, spec., design, and anal. 39080
  - multiturn HF coaxial winding power transformers 19699
  - MV enclosed switchgear, size reduction innovations 27849
  - national power syst. develop. policy, Romania 27116
  - NEMA 7 safety enclosure design, mfg. viewpoint 91
  - nonequilibrium disk plasma MHD generator, conceptual design 27966
  - NPP, inherent safety design efforts 43874
  - NPP steam turbine low-press. cylinder hood designs 35740
  - nuc. generation option, elec. utility requirements 27337
  - office building power quality survey, Hong Kong 4501
  - offshore wind turbogenerators, foundations design optim. 10895
  - optimisation methods 11705

design engineering continued
overhead distrib. line pole struct., risk-based design 43755
packaging archit., concurrent design methodology 5659
param. selection, noise 5574
PCB CAD, integrat. with product design, concurrent engng. approach 37035
PCB layout, concurrent design approach 21630
PDM product data mgt. syst. software package *(German)* 101
Pegasus II pulsed power capacitor bank explosive closing switch 36454
PET, high resoln. detector array module, design/perform. 43226
PF preregulator power convertors, EMI emission studies 10653
pick-and-place design methodology for complex VLSI archit. 21167
piezoceramic resonators, microcontroller timing, LV operation 39085
planar mag. components, inductance calcs. 886
planar SOFC stacks, bipolar plate/manifold design tool 44368
planar SOFCs, param. design optimisation 44364
planar SOFCs, stacking perform. expts., Denmark 44323
plasma source ion implanters, pulse power modulator design optim. 36803
PM brush DC motor design principles 36186
PM machines, irreversible demagnetization loss calcs. 36098
PM reluctance motor drives, axially-laminated interior rotor design 36664
PM sync. elec. vehicle motor drive, design, testing 11417
PM sync. motor efficiency optim. design method *(Korean)* 27690
PM-excited sync. motorcar generator, design optim. 5379
pole changing induction motors, pole AM studies *(Japanese)* 11020
portable equipt. power supply design, intell. batt. mgt. 36274
power bipolar transistor perform. optimisation, high current dens. 30253
power distrib. cables, long service life designs 43770
power electronics design, educational strategies 29013
power IGBTs, parallel operation guidelines 21103
power line EM field prediction, educational design project 11610
power overhead line H-frame towers, design strength improvement 27243
power overhead line survival anal., stat. method-based 43780
power soft recovery diodes, design and technol. 30228
power syst. AMR, design considerations 27278
power syst. multiple single-tuned harmonic filters, ratings selection 26874
power syst. SVC design, math. modelling 4561
power syst. transm./microwave towers, mech. design 27234
power transformer magnet wire, selection/perform. overview 5004
power transformer reliab., design considerations 44096
problem categorisation, eight-factor nonorthogonal taxonomy 37025
product design process improvement, IEE Colloquium, London (1994) 49
product design/prototyping, accelerated life testing 20400
projects, preserving knowledge, what designers need to know 37032
proof of designed reliability, IEE Colloquium, London (1994) 5511
pulsed coilguns, two-step design procedure 15303
pulsed power adiabatic transformer, semicond. switched, design/perform. 36295
PV DC motor pumping syst., design optim. 19553
PWM Sinewave invertor design, outdoor remote area power supply appls. 36371
quality fn. deployment for product design 164
quartz cryst. mount design optim. via holographic interferometry 39073
quartz tuning fork resonators, overtone mode 30604
railgun armour penetrating projectiles, armature designs 18964
railguns, launch-induced static/dyn. deflection calcs. 15363
railguns, multi-point/packed wire/monolithic solid armatures 15361
railguns, solid armature develop. programme, USA 15351
rare-earth PM motor, optimal design *(Chinese)* 44092
rehabilitation robotics, design issues review 35158
reliab., stds. develop. 20390
reliab. design error effect anal. 11713
reliab.-centered test methods, overview 20478
reson. switching power convertors, HF mag. design 44207
RF/microwave circuitry packaging, design considerations 37067
robust design, tutorial 11709
scenario-based design representation 5581
sealed motors, sleeve losses calc. studies 10945
segmental PM DC commutator motor, design optim. 36193
separated drift field magnetotransistor, design, fab. *(Korean)* 25778
seq. control ccts. with timing coord., design verification based on theorem-proving tech. *(English)* 29106
series consecutive-k-out-of-n:G systs., optimal design 172
single-phase doubly salient PM sync. generator 4926
six sigma product quality design strategy *(German)* 167
small-scale rem. PV power systs. design 43956
SMES coil design optim. 20047
SMPS, power syst. harmonic compatibility design 5031
SMPS planar inductors, design/fab. study 44109
sneak path anal. procedure and computer tool develop. 11714
SOFC, worldwide R&D efforts 44346
SOFC power plants, fuel proc. syst. designs 43962
SOFC R&D programmes overview, USA 44349
SOFC stack modelling, num. simul. methods 44361
SOFC tubular cogen. syst. design 43964
solar cells, thermophotovoltaic power appls., design/modeling 27944
solar elec. vehicle, PM brushless DC motor drive 5355
solar power plant free-piston Stirling engine design calcs. 19548
spacecraft line-focus refr. concentrator solar arrays 26602
spacecraft power syst., multivariate nonlin. design optim. 26678
spec. component selection, genetic algm.-based 37024
SRM actuators, axially laminated anisotropic rotor design 27701
static control footwear, perform.-oriented design and test procedures 31715
steam power plant repowering projects design, Italy 10870
steam turboalternator freq. control governor design 43909
supercond. commutatorless motors, fund. design, elec. characts. 36686
surface elec. motors, translational motion design 4902
switched reluctance machines, torque optim. design *(French)* 10990
switchgear design, ANSI/IEC stds. differences 27848
switching syst. software OO design 42103
sync. reduction motor design, step/rot. regimes *(Russian)* 36118
sync. reluctance drive technol., theoretical overview 44473
syst. design, project mgt., ergonomics *(French)* 5582
teaching, courses, group work 5578
telecom. DC power supply equipt, product safety engng. 41625
telecommunications, environmental engng. concerns 33329
telephone earth station satellite commun. link, engng. design *(Chinese)* 42322
thermal CHP generation, oil-free screw compressor appls. 35962
thermal CHP generation, oil-injected screw compressor appls. 35963
thermal power plants, flexible operation design options 43899

design engineering continued
three-phase AC/DC universal traction drive syst. design 44542
three-phase regenerative power convertor design project 5119
turbogenerator insulation design, mech. stress considerations 44003
turbogenerator stator end core zone, EM procs. anal. *(Russian)* 36107
two-phase disc magnet stepping motor design *(French)* 11355
UBOCELL SOFC design, small-scale power generation appls. 43965
Universal Networker elec. multiple unit 44527
university central CADD service experiences, UK 11706
user interface design methodologies 34373
vac. interrupter contacts, switching endurance improvement *(Russian)* 44239
variable reluctance machines, demagnetisation control designs 36138
village power supply, coal-fired Stirling engine-based 27540
VLSI design proc. mgt., reconfigurable distributed framework 5580
washing machine energy efficient brushless motor drive 5396
wealth creation from design, IEE Colloquium, London (1995) 28269
ZX1 VISIO-COMPACT MV gas-insulated switchgear 11200
AlGaAs/GaAs HEMT design, inverse modeling 38909
GaAs SIT-based pulsed power switch develop. 36427
GaAs/Ge Clementine spacecraft solar cell array studies 26603
Li-SOCl$_2$ thin parallel plate batteries, space power appls. 27891
NdFeB PM hysteresis motors, starting/synchronisation studies 10977
Ni-H$_2$ single press. vessel space power batt. designs 43446
Ni-MH$_x$ space power secondary batt. develops. 43447
Pb-acid batt. elec. buses, design/develop progress 36726
Pb-acid high-rate fast-charge batt. design 36522
Pb-acid secondary batt. separator technol. 36531
Pb-acid secondary batt. state-of-charge, float current monitoring 44303
Pb-acid secondary batts., distributed/bulk power design concepts 44284
Pb-acid secondary batts., life extension designs 11251
Pb-acid valve-regulated batts., glass fibre separator design 36569
SF$_6$ 145 kV cct. breakers, develop. efforts 4669
SF$_6$ 145 kV dead tank cct. breaker develop. 5151
SF$_6$ 145 kV type F75 GIS develop. 5152
SF$_6$ 24 kV ring main switchgear, thermal behaviour modelling 5147
SF$_6$ power distrib. equipt. enclosures, ventilation requirement calcs. 35628
SF$_6$ ring main distrib. switchgear, latest trends 5146
Si-Ge thermoelec. generators, exhaust gas heat-based 5234

design for manufacture
see also design for testability
advanced IC mfg., future prospects 37049
assembly automation and design for assembly *(Polish)* 28405
AT&T, technol. CAD, IC fab. proc. design 38989
board-level simul., IC design/testing develop. 13869
cell-based mfg. 37009
concurrent product design for mfg. syst. perform. 11698
custom Si IC design, project mgt., coord. struct. 20392
design-mfg. practice, USA/Sweden 28398
elec. motor drive mfg., design reliab. methodology 28076
electronic enclosures, thermal mgt. and design , software simul. tool 28445
implement., PCB manufacture 38103
integrat. of design, mfg. and testing 6828
interlevel dielec. thickness var., stat. metrology, IC test 22549
low-power IC design, power conscious CAD tools and methodologies 38970
MAPEX CAD manufacturability anal. environ., yield design attributes 28408
MCM EDA tools and procs. 38194
mfg. test simulator, concurrent engng. tool 5597
microelectronic mfg. procs., design of expt. techs. 21674
microelectronics mfg., yield, and reliab., conf. (1994) 5438
mil. test set, design for manufacture/assembly 35403
Motorola's Bandit and MicroTAC programs 11704
new product introduction teams, SMT/PCBs, design for manufacturability 37030
PCB assembly yield, design factors, stat. and ANN models 38080
PCB design appl. 38078
PCB packaging matching for DFM 38087
PCB SMA, DFM, Integrated Expert System Environment 29670
power subsystem prod., design/test for quality 37626
product design criteria 97
pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
semicond. mfg., multiple-response optim. 28404
six sigma design, worksheets. anal. methodologies 37013
SMT, DFM automated tools, manufacturable data 903
stat. metrology for IC mfg. control, DFM implement. 20406
step-by-step SMT design for manufacture 38132
strategy in global companies 37033
TCAD for semicond. device/IC/proc. design and modelling 13861
InP-based heterostruct. device/cct. proc. facility design 29996

design for testability
see also design for manufacture
A, testable design of logic ccts. under highly observable condition 12456
Alpha AXP 21164 μP, testability strategy 6160
analogue IC, automated test design method *(Japanese)* 30418
approx. algms., testability measure improvement 12392
Asian Test Symposium, Japan, Nov. (1994) 5504
ASIC, Conf., Rochester, USA (1993) 36858
ASIC chips, partial scan and seq. ATPG 3741
ASIC test cost/strategy trade-offs 6070
ATS 93 test conf., China (Nov. 93) 36857
automation, conf., Dallas, TX, USA (Jun. 1993) 36904
AUTOTESTCON, conf., Anaheim, CA, USA (Sept. 1994) 20248
BiCMOS logic ccts., fault anal. and DFT *(Korean)* 39023
BiCMOS logic gates, delay fault detect., DFT 29194
BIST algms. for dual port memories faults 6152
BIST scheme for ring-address FIFO memories 6149
board-level simul., IC design/testing develop. 13869
built-in diagnostics for advanced power mgt. 34356
C-testable carry-free array divider, design 638
C-testable design techs. for iter. logic arrays 29138
C-testable multipliers based on modified Booth algm. 12453
CASS, design for supportability 17670
CASTOR, computer aided syst. testability optimizer 34386
cellular arrays realizing multiple-valued logic fns., design and fault diagnosis 6125
chip-based DFT/BIST hardware, control strategies 9805
CMOS self-checking seq. ccts., bridging faults detect., DFT 617
CMOS total self-checking design 22566

design for testability continued
CMOS VLSI ccts., transient power supply current monitoring 21240
combined folding/testing for PLAs 606
concurrent engng., DFT in digital syst. 5576
constrained state assignment of easily testable FSMs 21275
D/A converters testing, BIST approach 12600
data based testability analysis system 37000
data path synthesis for easy testability 12470
delay fault testability of combinat. ccts. 12469
design automation and ASIC design, conf., Paris (1993) 20199
develop. trends 6818
develop. trends in electronics testing 5575
diagnostic inference model error sources 34355
differential split-level CMOS cct. testing 624
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
finite state machines, testable synthesis and testing 12468
fixed-biased pseudorandom BIST for random pattern ccts. 6096
flip-flops configuring, BIST registers 6097
full/boundary scan, economics 11676
generic floorplanning methodology 30397
generic test/maint. node for embedded syst. test 9795
global test schedules assembling, unified method 12464
hardware for testability adding in synthesised data paths 21187
hierarchical environ. for interactive test engng. 6821
hierarchical test generation for VHDL behavioral models 21190
high dens. DRAMs, elec. failure anal. 37757
high level testability anal. using VHDL descriptions 21189
high speed testing, optoelectronic techs. 6825
hybrid DFT, scan and clock line control 6080
IC testing courses at Universite Montpellier, indust. testing, simul. tools *(French)* 20328
IC testing/testability practices 5596
implicit testability constraints 6102
integrat. of design, mfg. and testing 6828
integrated product development/concurrent engineering 37026
interacting finite state machine design with self-checking capability 29188
International Test Conf., Washington, DC (Oct. 1994) 61
ITC test conference, USA (1993) 36853
logic cct. DFT, orthonormal expansions *(Japanese)* 12425
logic simulation, design and test generation 42721
MC68060 μP testability 6161
MCM burn-in experience 21699
MCM manufacture, assembly and testing guidelines 12964
MCM testing 12976
MCM testing methodologies 6458
MCMs with ASICs global optim., concurrent engng. approach 21743
memory technol./design/testing, workshop, San Jose (1994) 36826
mfg. test simulator, concurrent engng. tool 5597
microelectronic component testing using circuit modeling 38963
MicroSPARC RISC μP, scan based debug, case-study 6162
MIMOLA hardware design syst., tools cooperation 21032
model based diagnostic systs., pitfalls 34380
multi-freq., multi-phase scan chain 6078
multisignal flow graphs, syst. testability anal./fault diagnosis 34353
Navy's integrated diagnostics support system 43595
new product introduction teams, SMT/PCBs, design for manufacturability 37030
parallel pattern fast fault simul., three-state ccts. 6088
partial scan algm. based on reduced scan shift 12473
partial scan designs for DSP appls., behavioral synthesis 29190
PCB manufacture 38103
PLA self-checking cct., automatic generation algm., parity codes 21185
portable 3-axis 11-bit shock meas. cct. 34702
PowerPC 603 μP, struct. and ad-hoc design for test 6163
product design criteria 97
product test information model 37048
prototyping, A/D mixed tester 688
pseudo-exhaustive testing, VLSI ccts., cct. partitioning and test generation method 37573
pseudo-exhaustive testing, VLSI ccts., coord. cct. partitioning/test generation 21260
pseudorandom testing of seq. ccts., struct./tech. 21244
random pattern testable ccts., automated logic synthesis 6073
random pattern testable floating point adders 12458
Reed-Muller generalised expressions, easily testable logic design 12452
ring-address SRAM-type FIFOs, BIST tech. 37770
RT-level transformations for gate-level testability 21188
scan-designed seq. ccts., test clock reduction 6079
scanned seq. ccts., global strategy for design and test 28976
self-checking ccts. design, byte error detecting codes 12391
self-checking mixed-sig. ICs, analogue sect. design, safety appls. 29408
semicond. memory testing, tutorial 12508
seq. ccts. with embedded RAMs, test generation 12434
sequential cct., partial reset DFT method 21186
single-wire analog testability bus, struct. and metrology 6240
stds. impact on product life-cycle costs reduction 28395
sync. seq. ccts. testability 6104
synchronous sequential ccts. design and synthesis for testability 29185
syst.-level testability of hardware/software systs. 9794
Tandem Computers test strategies, HALT/ESS 9800
TEAMS, testability engng./maint. syst. 11708
technol. mapping, testability considerations 12451
ternary cellular arrays fault isolation, decision diags. appl. 12457
TIES, testability increase ES for VLSI design 37598
tight-tolerance fixturing problems for loaded PCB prod. 12924
top down ASIC design, test design compilers 42723
TOPS, partial scan design package based on simulated annealing 21059
virtual test tools for improved test-develop. productivity 3729
VLSI regular arrays, test strategy 37686
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
weapon system, design-for-test process improvements 43594
parallel testing graph, test subsession partitioning 17661
ASICs, DFT tools and method selection 37684
GaAs ASIC set for deep space receiver 42336
GaAs HMESFET SBFL based F-RISC/I microproc. 37802

design of experiments
accelerated degrad. tests, expt. design 105
band limited PRBS, PSK syms. 8388

design of experiments continued
chip capacitor attach, CFC solvent elimination, qualif. by comparison 38172
D-optimal designs, soft selection 37290
diesel powertrain for heavy trucks, dyn. behaviour 28137
environ. stress screening, Taguchi method 11727
error-correcting codes, orthogonal arrays/expts. design 40641
expt. designs for syst. assess. and improvement, noise factors are correl. 11831
fine pitch ball bonding optim., RSM, 3D/contour charts 38169
fine pitch QFP in SMT, solder joint quality, optim. 37075
HV power supplies, electronic modules develop. 36327
inert gas wavesoldering, proc. variables, PBA KBS appls. 12935
interlevel dielec. thickness var., stat. metrology, IC test 22549
laser induced vert. vias for prog. MCMs 21775
local regression, optimized, moving av. case, computational methods 28590
low temp. cofired ceramics for MCMs, laser machining of cavities 21774
mfg. lead time anal., simul./design of expts. 37060
mfg. optim., simul., response surface/Taguchi methods 28404
microelectronic mfg. procs., design of expt. techs. 21674
Norcross Project, manual/robotic wafer handling, degraded cleanroom 22086
optimal block designs constr., CAD 99
product reliab. testing, practical considerations 5680
R&D work group research, strategies/opportunities 28361
SMT prod., integrated process monitoring/testing 38111
SPC of high-purity gas prod. 20397
Taguchi method of environ. stress testing for PWB prod. proc. 29678
texture description, stat. design of expts. 16250
wafer dicing process optim. 38956

desk-top computers *see microcomputers*

desorption
see also electron stimulated desorption; photon stimulated desorption; thermally stimulated desorption
conference, laser techniques for surface science, Los Angeles, CA, USA (Jan. 1994) 28208
contamination in submicron contact holes, anal. by TDS 30112
diamond films (111), H exposure, XPS/UV PES 13365
dispenser cathodes, Ba transport modelling 6473
gas distrib. systs. contamination, cost optimisation 38988
polymer outgassing under thermal stress, semicond. technol. effects 29997
quartz outgassing meas., mass spectrometer 30601
AlAs ALE growth mechanism 20696
CdSe, MOVPE, precursor gas monitoring by photolum. 34617
CdTe, metalorganic VPE, situ laser reflectometry 20726
Co-phthalocyanine thin films, elec. cond., O doping, IV charact. 21939
GaAs ALE, As desorpt., real-time in situ gravimetric monitoring 20868
GaAs, ALE using trimethylgallium, kinetics, mechanism 20685
GaAs MBE growth monitoring, single photon ionization TOF mass spectrosc. 28723
GaAs surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
GaAs(001), metalorganic CVD, surface photoabsorpt. obs. 20720
GaAs(100) surface, NH_3-plasma-nitridation, angle-depend. XPS 38594
GaP surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
Ge, ALE, ideal growth rate 20708
Ge(100)-(1×1), S-passiv. 30092
HgTe, metalorganic VPE, situ laser reflectometry 20726
InAs surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
InP surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
Nd-Fe-B anisotropic powder, H decrepitated, XRD obs. 6971
Nd-Fe-B, hydrogenation/disproportionation/desorpt./recomb. study 6970
Nd-Fe-B-Co(Ga)(Zr) anisotropic powders, HDDR treatment, mag. props. 6984
$(NdDy)_{15}Fe_{78.3}Al_{0.7}B_6$, sintered, electrochem. hydrogenation 6972
$(NdDy)_{15}Fe_{67}Co_5V_4Al_2B_7$, sintered, electrochem. hydrogenation 6972
$Nd_{14}Fe_{79}B_7$ magnets, recomb. and desorpt., HDDR proc. 6983
SF_6 circuit breaker, gas integrity and adsorbent performance 19902
Si, SR-excited ALE growth, TOFMS 37447
Si, excimer laser-assisted etching in chlorine, adsorpt./desorpt. 30096
Si growth kinetics on Ge(100), gas-source MBE/low press. CVD 28730
Si porous nanostructures, electronic excitation, relax. mechanisms 14588
Si, rapid thermal CVD, O/C low thermal budget removal 28735
Si, thermal oxid. mech., form. and diffusion of volatile SiO mols. 6642
Si:H surfaces, nanometer scale patterning/oxid., UHV STM 13496
Si/Ge epitaxy from gaseous hydrides, growth dyn. studied by RHEED 5853
Si(100), XeF_2 spontaneous etching 6634
Si(100) surface, nanoscale STM-patterning, chem. modif. 30175
$Si_{1-x}Ge_x$/Si heterostruct., adaptive temp. program ALE from Si_2H_6/Ge_2H_6 20705
Tb-Dy-Fe, Terfenol-D, mag. props., hydrogenation effects 7015
ZnTe epitaxial growth mechanism on (001) CdTe 37441

detection (demodulation) *see demodulation*

detector circuits
see also demodulation; demodulators; peak detectors
charge pump phase detector for digital PLL 37678
CMOS adaptive equalizer/Viterbi seq. detector, Class IV PRML 21156
CMOS neural network IC for high-energy phys. 29476
CMOS PLL, 1.5-3 V, 250-622 MHz, precharge type phase-freq. detector 37824
digital recorder data detecting cct. *(Japanese)* 3762
EM disturbance, telecomms. equipt., maint./support *(Japanese)* 31864
fast response phase detector for PLL 29081
low-power analog sampled-data VLSI archit. for mag. recording channel 29411
multiparameter meas., PC-CAMAC based data acquisition 26236
multisection proportional chamber for P-viol. meas., design/ccts. 4171
phase/freq. detectors for opt. transm. systs. clock sync. 3568
single chip neural network photon trigger 29483
static timing analyzers, sensitizable path anal., reconvergence method 28931
UHF receiver archit., high sensitivity/low power consumption 17000
XSPRESS detector syst. for EXAFS studies 43165
Si drift chamber, high-resoln. X-ray spectrosc. 26254
Si drift detector with on-chip electronics, design 26155
Si strip detectors, binary readout, fast bipolar front-end 4172

detectors *see sensors*
determinants
see also matrix algebra
blind sym. estim., deterministic approach 8398
linear N-port network, stabil., return ratios 37606
op amp incorporation, pass. networks *(Polish)* 37833
symbolic anal. of networks with nullors, cct. level decomp. 460
waveguide mode computation using wave-like basis fns. 31893
deterministic algorithms
blind equalization, deterministic approach 8086
discrete models for energy-minimizing segmentation 24714
Hopfield neural combinat. optim. algms., math. prog. formulation *(Japanese)* 28632
Internet protocol, connection-oriented networks and distributional paging 16489
message terminating algms. for anonymous rings of unknown size 41895
multi-channel FIR systs., blind ident., deterministic approach 41023
power syst. act. power reserve scheduling 27088
product range spaces, sensitive sampling, and derandomization 5762
security difficulties, chaotic based commun. techs. 2864
sig. proc., neural networks, convergence 24357
testing equalities of multiplicative representations in polynomial time 5780
detonation
see also explosions; shock waves
F_2-H_2 pulse-periodic chem. lasers, detonation suppression 39645
detonation spraying *see spray coating techniques*
deuteron effects
CR-39 detector, etch-pit rad. growth curve 10137
dielec., charged particle irrad., current reversal 39036
deuteron sources
intense diagnostic neutral beam development 26109
developers (photographic) *see photographic materials*
development management *see research and development management*
development systems
analog neural net develop. syst., online training 37908
AXE 10 switching syst., software design support 42110
DSP real-time implement. on multiprocessors, CAD environ. 12584
flexible network characts. and develop. prospects *(Japanese)* 16570
GENESIS, seamless environ. for telecomms. networks 24884
MEGUMI groupware platform, multimedia E-mail 16839
Rapid-2 accelerating board, develop. environ. 28968
sig. proc. algms., software environ. for develop./testing 40796
Software Assembly Workbench, hardware-like constr. 41827
telecomm. feature interacts., building block approach, detect. 3084
TMN, develop. environ. 3094
DFB lasers *see distributed feedback lasers*
DFE *see decision feedback equalisers*
DFT (design) *see design for testability*
DFT (transforms) *see discrete Fourier transforms*
DGPS *see Global Positioning System*
DH lasers *see semiconductor lasers*
diagnosis, patient *see patient diagnosis*
diagnostic expert systems
see "medical expert systems" for medical diagnostic expert systems
Alcatel 1000 S12 exchange, ALAMOS generic alarm correl. syst. 3288
alternators, fault diagnosis, ES 35784
autonomous real time space mission control, event diagnosis/recovery 43422
AXAF space observatory, power syst., CLIPS troubleshooting ES 26658
boiler steam-water syst. diagnosis/monitoring, ES 19511
brushless variable speed drive network, diagnostic ES 11370
charged-particle beam param. sens. selection and design 4079
cruise missile tests, perform. anal., ES 35404
DARTS enabling technology for concurrent engineering 42717
distrib. network substation fault diagnosis, connectionist ES-based 27182
DIVA/DIAPO expert systs., domain models 19585
ECXpert, event correl. in telecomms. 24917
Egypt Power Network fault diagnosis, ES 19333
elec. generator stator insulation diagnosis, ES-based *(Russian)* 10918
failure detect./accommodation, stable neural learning 5712
FAMAP generic fault mgt. package for telecom networks 16604
FPGA implement. of ANNs, med. expert syst. appl. 29509
functional and behavioural models for accurate failure diagnosis 12283
gamma camera QC ES, knowledge acquisition/representation 18493
heterog. networks supervisor, intell. fault mgt. *(French)* 16603
HV substations/MV networks operation, diagnostic ES 19909
hydroelectric dam surveillance, ES/mgt. IS-based 19544
IC tester diagnosis, Bayesian network appl. 30428
induction motors, on-line fault detect., stator current monitoring 4967
intell. maint. aid software 34370
knowledge representation, verification and reasoning, real time systs. 3737
LANGAGE, expert system for real-time diagnosis of hydroelectric power system faults 10690
LDPE insulation diagnosis, pattern recogn. ES-based 6895
mach. health assess., expert decision syst. 10928
machine fault diagnosis, acoustic and ES 26806
mammogram tumour pattern recogn., pyramidal neural networking 35046
MAX telephone diagnostic ES, param. tuning 3105
med. thermal vision ES, constr. principles 26303
MOLTKE, integrated workbench for fault diagnosis in engng. systs. 3743
multi-faults diagnosis model, set-covering/certainty factors 3701
multicriterion nature of diagnosis 42718
navy shipboard systs., expert maint. advisor develop. 9812
NPP, intell. monitoring and diagnosis 43834
Palo Verde NPP, safety param. display syst., ES 10806
patterned wafer defects, automatic fuzzy logic class. 37168
PCB visual inspection-diagnosis expert system, reverse engineering 29651
power distrib. fault diagnosis, obj.-oriented ES 27131
power grid, fault diagnosis, ES/neural networks 43618
power syst. fault diagnosis, diagnostic ES shell-based 35431
power syst. fault diagnosis, fuzzy ES-based 19031
power syst. fault diagnosis, parallel proc. ES-based 19029
power syst. fault ident./alarm proc., OO expert syst. 19154
power syst. harmonics, expert syst. anal. 43620
power syst. maint., ALICE-ES software-based 19056
power syst. protection perform. anal., ES appl. 4712
power syst. tech.-economical condition, diagnostic ES *(Russian)* 43634
qualitat. dyn. models, continuous systs. diagnosis 34411
diagnostic expert systems continued
satellite fault diagnosis, possibility theory 10304
semi-quantitat. MBR syst. for ECG diagnosis 10239
semicond. defect recog. fuzzy expert syst. 1192
sens. sig. reliab. for knowledge based fault diagnosing syst. *(Chinese)* 32637
space power distrib., model-based diagnostics 18765
Space Shuttle main propulsion syst. propellant loading, KBS 18774
spacecraft qualitat. model-based diagnosis, possibilistic approach 18695
squirrel cage motor rotor winding fault detect. ES 44059
squirrel cage motors, rotor/winding faults anal. 11043
substation intell. control, fault diagnosis/proc. *(Chinese)* 36471
telecomms. digital multiplexers, diagnosis/repair, ES 9128
telecomms. operation and maint. workstation model, ES module 33369
thermal power stations, generating unit diagnostic monitoring 35991
TIGER, model-based/rule-based real-time tool for monitoring and diagnosis of dyn. systs. 34393
transm. network maint./fault diagnosis experiences, Hungary *(French)* 35601
turbine blade, faults, intell. diagnosis, neural nets/fuzzy logic 35714
turbine engine, expert diagnostic syst. 34394
turboalternator diagnosis via knowledge base mgt. syst. *(Chinese)* 36127
turbogenerator fault diagnosis, consultative ES-based 19595
VLSI design, categorization-based diagnostic systems 5959
water distrib. systs., model based fault diagnosis 3159
WESDA, multimedia expert system for wafer polisher maintenance 5566
workflow management, diagnostic and repair expert system tools 42715
Yonggwang NPP, alarm proc., on-line ES 10805
diagnostic radiography
see also angiocardiography; computerised tomography
3D obj. reconstruction from stereoscopic images 41268
abdominal radiology, effective dose estim. methods 18654
angiographic systs. develop., MH-100 and MH-51BM/CM *(Japanese)* 18532
angiography, digital, DIGITEX 2400CX/UX syst. develop. *(Japanese)* 18531
angiography, obj. reconstr. by Hopfield neural net 43276
antiscatter grids design optimisation, computer modelling 18651
assoc. particle imaging, 4D image display 18465
automatic exposure control syst., perform. optimisation 26284
beam quality rel., voltage ripple 26359
biomedical image enhancement, rot. 2nd order difference filter *(Japanese)* 32996
blood vessels, 3D imaging, X-ray rot. angiography 43230
breast cancer calcification detect., monolithic Si pixel detector 10214
breast cancer detect., neural net spectral anal. 18455
breast tissue phantom, image quality, subjective eval. 26340
capillary optics, beam intensifier for Compton X-ray source 10218
cardiac angiography, patient exposures, data anal. 18520
cardiac angiography, radiation exposure, personnel 18668
CCD based focal spot camera, X-ray sources assess. 26331
CCD X-ray imaging syst., opt.-coupled, lesion detectability 43232
chest digital radiography, adaptive image enhancement *(Korean)* 26364
chest radiographs, digital, scatt. radiation correction methods 43244
chest radiography, children, dose distrib. 18673
chest radiography, effective doses, different techs. 18655
chest radiography, image quality assess., West Midlands 18491
chest radiography, patient dosimetry 18669
chest radiography, true film-screen sensitivity 18504
computed tomographic exams., children, organ doses 18659
computed tomography, QC, image quality criteria 18483
computer aided detect. of abnormalities in mammograms 43218
conf., modern imaging technol. clinical appls., USA (1994) 20212
conference, medical image processing, USA (1994) 20236
conventional diagnostic radiology, QC, Greece 18502
coronary angiography, double beam bent Laue monochromator 43270
coronary angiography, radiologists/patients radiation risk 18674
coronary angiography beamline upgrade, NSLS 43269
coronary artery segments, stenosed, 3D densitometric reconstruction and visualization 43240
cpd. hard tissue phantom, radiologic diagnostic optimisation 18498
CT scanning of areas containing metal 18442
data anal., inform. modelling 18648
daylight film proc.-loader systs., perform., distrib. 18513
dental radiological equipt., radiation protection problems 18512
digital fluoroscopy systs., patients, radiation exposure 18521
digital imaging, image quality anal., std. tools 18485
digital mammography, SR 43266
digital radiography, image quality criteria 18484
digital syst., variable magnification 26313
digital systs., MTF, noise power spectra, noise equiv. quanta 35034
digital/conventional screen-film image comparison, SYRMEP program *(Italian)* 26366
dose-area product, body doses 18653
dual plate computed radiography, image quality 26341
ductal carcinoma class., digital mammograms, calcifications image anal. 26339
edge detect. for radiographic med. meas. automation 43275
effective dose estim. in diagnostic radiology 26510
facial trauma visualisation, 3D spiral/conventional tomography comparison 18441
film syst. params., detail perception 18486
film-screen mammography, patient doses, radiation risks, Finland 18518
fluoroscopic imaging, automatic exposure control 26298
fluoroscopic syst. upgrading to digital specs., experiences 35052
fluoroscopy, FAXIL threshold contrast detail detect. test objs. 26337
fluoroscopy, OPESCOPE mobile C-arm syst., develop. *(Japanese)* 18534
fluoroscopy equipt. write-off, patient dose, image quality 26295
gamma camera QC ES, knowledge acquisition/representation 18493
gastrointestinal tract, radiological exams., skin absorbed dose 18675
general paresis, CT, MR, and SPECT findings 18446
grid design, optimisation, Monte Carlo model 18494
ICRP recommendations, radiological protection, med. 18641
image capture, formatting and display, conf., USA (1994) 11570
image contrast enhancement, discrete dyadic wavelets 34985
image quality, exam. hazards, diagnostic objectives 18476
images, CEC quality criteria, basic concepts 18480
images, quality criteria, CEC trial 18481
integrated radiographic syst. *(Japanese)* 18533

diagnostic radiography continued
interventional radiology, occupational exposure, pers. dosimetry guidance 10297
intestinal biopsy, children, coeliac disease, radiation dose/risk 18672
ionisation chamber spatial/temporal response characts. 18472
ionisation chambers, general ion recomb. 26358
JPEG-encoded med. video, transm. and storage 18447
K-edge filters, efficacy in diagnostic radiology 43236
large area image plane sens. for radiography 9937
light photon equalization, appl., X-ray film digitization 43242
lumbar spine exam., lateral lumbosacral projection, patient doses 18666
lumbar spine radiographs, entrance surface doses comparison 18517
mammogram anal., design of analogic CNN algms. 26368
mammogram tumour pattern recogn., pyramidal neural networking 35046
mammograms, detect. of microcalcifications, wavelets 35001
mammograms segmentation, multiple linked self-organising neural nets 35032
mammographic cancer screening, risk-benefit anal., computer model 18495
mammography, air kerma/glandular tissue dose conversion factors 18660
mammography, breast doses reduction, recommended actions, Madrid 18667
mammography, cumulant slices for 2-D autoregressive sig. modelling 32820
mammography, digital, amorph. Se photocond. receptors efficiency 35033
mammography, digital, using SR 26317
mammography, dose meas. protocols comparison 18661
mammography, higher order spectral estim., AR modelling 10195
mammography, image quality optimisation 18487
mammography, mean glandular dose estim. 18662
mammography, μ-strip Si detector, transputer DAQ 35066
mammography, pattern class., multistage neural net 43257
mammography, QA, patient dosimetry 18647
mammography, QC, exposure params. automatic acquisition 18649
mammography, QC instrum., in-field testing 18496
mammography, QC project, Greece 18510
mammography exposure std., free-air ionization chamber design 43212
mammography image quality, UK survey 18489
mammography image quality improvement, recommended actions 18488
mammography QC, breast screening, Bas-Rhin region 18509
mammography screening programme, pop. radiation dose, New Zealand 18671
material-selective transm. tomography, constrained dual-energy reconstruction method 18466
med. exam./treatment, ionising radiation, patient dose reduction 18638
med. radiation exposures, UNSCEAR data collections, trends/consequences 18642
med. radiography screen-film systs., speed determ. 26296
med. X-ray diagnostic units, QA programme, Belgium 18506
microfocus radiography producing microtomography 18471
mobile X-ray equipt., QA programme 26285
monochromatic X-rays in med. diagnosis and therapy 10198
national patient dose meas. protocols, ICRU investig. 18516
neurosurgery, on-line stereoscopic image-guidance 43322
nuc. med. instrums. QC, Argentina 18515
optimisation programme, Madrid area 18501
orthopaedic surgical planning, computer assistance 18443
PACS design/evaluation, conf., USA (1994) 20213
paediatric fluoroscopy, radiation dose reduction by added filtration 35050
paediatric radiology, QA evol. 18482
patient dose, bone mass/dens., radiation measuring instrums. 35199
patient dose, image quality 18490
patient dose, image quality, United States experience 18644
patient dose, rational reduction, WHO activities 18637
patient dose meas./reduction, East Anglia (UK) 18670
patient dose protocols/trends, UK 18652
phase-contrast X-ray computed tomography, biol./chem. appls. 43272
photographic films, dosimeters survey, interventional radiology 43402
photon counting X-ray radiography syst. *(Japanese)* 18526
QA, IEC projects 18479
QA programme, constancy check level 26297
QC, KBS 18492
radiation doses, IAEA-CEC coord. research programme 18643
radiation protection, computer appls. 18650
radiographers, radiation protection education/training 18640
radiographs under viewer glare, freq. depend. of min. perceptible contrasts 18451
radiologic image compression, review 26287
radiological departments QC, Florence General Hospital 18507
radiology/nuc. med., Netherlands Cancer Inst., QC 18514
review, med. X-ray imaging evol. 35051
SIENET, hospital X-ray dept., routine digital operation 35053
spherocytosis, hereditary, mag. reson. findings 43243
SR based high contrast computed tomography 43271
std. breast dose estim., perspex block thickness 26502
stereo image pairs proc., depth planes elimination 32810
stomach X-ray images, cancer detect., line fig. pattern *(Japanese)* 2626
talocrural joint kinematics visualization and quantitat. anal. 18444
tube current calib., noninvasive method 18497
wavelet based image proc. algms., quantitat. eval. 35003
Wiener spectra meas., digital systs. 26299
X ray diagnosis and nuc. med. trends 18477
X ray image intensifier systs., contrast-detail testing techs. 26294
X ray units database, Lower Saxony, radiation protection, QC 18500
X-ray angiography, 3D blood vessel reconstruction 10180
X-ray exams., Estonia hospitals, QC, patient dose 18503
X-ray film, image viewing conditions survey 18505
X-ray sources for angiography comparison, bremsstrahlung and monoenergetic 10199
X-ray tube filtration, simple test 26253
X-ray units, RTI DIGI-X Plus QA syst. 18508
CdTe detector for X-ray imaging, capacitance loading/discharging 4267
CdZnTe energy selective arrays for indust. and med. radiation imaging 18407
CsI photodiode detectors for gamma rays and their clinical appls. 18469
CsI:Tl, struct. film, med. radiation imaging appl. 43231
Si X-ray detector for SR digital radiology 18352
Si pixel X-ray detector for digital mammography 35060

diagnostic reasoning
DARTS enabling technology for concurrent engineering 42717
Diagnostician on-a-chip 12568
Diagnostician-on-a-chip, concepts/implement. 34357

diagnostic reasoning continued
error sources, inference model based tools 34355
fault diagnosis algms. for analog/mixed sigs. 29403
functional and behavioural models for accurate failure diagnosis 12283
motor fault detect., hybrid fuzzy/neural syst. used extract heuristic knowledge 4984
multiple failure diagnosis, w.r.t. computational complexity 34354
semiconductor manufacturing, fault isolation using automated discovery from wafer tracking databases 6605
spacecraft electrical power system fault detection and diagnosis, model-based reasoning 10397
test systs. diagnostic models, standardization activities 34352

diagnostics, particle beam *see particle beam diagnostics*

diagnostics, plasma *see plasma diagnostics*

diagnostics, program *see program diagnostics*

diagrams
see also Bode diagrams; circuit diagrams; flowcharting; nomograms; Nyquist diagrams; phase diagrams
acoustic display systs., environ. sounds synthesis *(Japanese)* 34647
binary decision diags. for logic synthesis of FPGAs 29162
Boolean fns., probabilistic manipulation, free Boolean diags. 12260
cellular arrays, ternary, design, ternary decision diags. 37732
fault detect. cost reduction, BDD formalism 21015
gossip schemes, representation 24005
line-drawings from piecewise planar objs., edge detect. 24473
product design proc. improvement, CAD tool-based 11697
switching syst. software OO design 42103
telecom. network mgt. using inform. and proc. models, spec. description 41669

diakoptics *see network topology*

dial-up links *see inter-computer links*

dialogue programming *see interactive programming*

dialogue systems *see interactive systems*

diamagnetic materials
a-C:Cu cluster superconds., crit. temp. meas., mm-wave interf. method 39235

diamagnetic resonance *see cyclotron resonance*

diamagnetism
see also cyclotron resonance; diamagnetic materials
classical superconds., props. *(Polish)* 39220

diameter measurement
cineangiograms, computerised vessel diam. meas., magnification effect *(Japanese)* 4271
dual wavelength beat wave interferometry for large diams. meas. *(Chinese)* 42928
high-Δ fiber core rad. meas. by opt. method 14386
high-precision opt. gauging of metal rings 18062
hole diam. opt. meas. instrum. develop. *(Japanese)* 42939
IC wire bond, automated visual inspection, auto-focusing 37163
intell. rod gauge, laser scanning based, develop. *(Chinese)* 10022
mirrors, concave, rad. meas. by zone plate interferometry 42924
non-contact μP-based digital He-Ne laser scanning micrometer 18099
oblique incidence opt.-fiber diam. determ. by scatt. 7274
opt. fiber cladding diam. by meas. of reson. peaks in elastic-scatt. spectra 7314
relativistic e-beam, rad. meas. time-resolved images 31732
SEM electron probe diam. determ. 3987
simultaneous particle size/3D posn./vel. meas. 18075
wire extrusion lines, diam. gauges, control systs. 5399

diaphragms
see also valves
electrostatically deformed diaphragms, self-consistent simul. 30499
finite thickness diaphragms in circ. waveguide, optimal filters 37956
piezoresistive humidity sens., design, simul. and metrological charact. 3795
press. meas., smart capacitive displacement transducer 10061
press.-measuring diaphragm approx. model *(Japanese)* 25740
rect. waveguide, optimal filters based on finite thickness inductive diaphragms 12724
rectangular waveguide capacitive post and diaphragm anal. by method of moments 23777
Stirling refrigerator, diaphragm defined 28021
valves, normally-closed, elec. activation 6879
WePrint 200, electron-beam printer, throughput 30185
Al scrap electrorefining, chloride melts-based 28193
Si diaphragm thickness, wet etching, opt. monitoring 30124
Si flow sens., air flow detect. *(Korean)* 17722
Si microphone fab. for 3D acoustic holography 10575
Si micropump, design/proc. techs., fabr. *(Korean)* 30526
Si piezoresistive circ. diaphragm sens., low-press. meas. 34491
Si piezoresistive press. sens., electro-elastic simul. 42778
Si, piezoresistive press. sens., high-press. meas. 34490
Si rect. diaphragm press. sens. 17753

dichroism
see also circular dichroism; pleochroism
Dispersed Red 1 in PMMA film, photoisomerisation, photoinduced orient. and orient. relax. 15144
oligothiophenes, conjug., transistors and SLM 22931
void forms. in aircraft LCD 10350
$Cd_{0.6}Mn_{0.4}Te$, time-nonreversible lin./nonlin. opt. phenom. 23404
Er-doped fiber amplifer ultralong commun. systs., polariz.-depend. gain and loss 17240
InGaAs thermophotovoltaic energy conversion 27994

dictation
continuous speech recogn. of Wall Street Journal data 32389
LIMSI continuous speech dictation syst., eval. 32342
Mandarin Chinese, dictation syst., R&D 24144
speaker-independent continuous speech dictation 2413
speech recogn. in the office, technol. supports dictation 32414

dictionaries *see glossaries*

die attach *see microassembling*

die bonding *see microassembling*

dielectric breakdown *see electric breakdown*

dielectric constant *see permittivity*

dielectric depolarisation
see also dielectric polarisation
ferroelec. thin films, switching and fatigue, depletion and depolarizing effects 39057

dielectric depolarisation continued
H_z wave inverse scatt. soln. using subscatterer T-matrices 20599
machine stator winding varnish ageing, TSC anal. *(French)* 10937
polymer-insulated MV cable ageing diagnosis from post-discharge meas. *(German)* 10743
solid dielec., quantized thermal depolarization, relax. model 30533
PZT thin film capacitors, domain behavior 39058
$Pb(Zr_{0.4}Ti_{0.6})O_3$ thin-film capacitors, depol. orig. 12838
$(SrPb)(CaMg)TiO_3$-$Bi_2O_3 \cdot 3TiO_2$ ceramic charged particles, elec. props. *(Korean)* 22665
dielectric devices
see also capacitors; dielectric resonators; ferroelectric devices; piezoelectric devices; pyroelectric devices; space-charge limited devices
1D dielec. leaky-wave antennas, radiation anal. 40468
CMOS cascode current mirror, HF response 12351
impedance spectrosc. on dielec. gas sens. 3918
monolithic UHF/VHF filters on two-layer dielec. bar 37835
multiplexer, qtr. wave distributed lines, high dielec. ceramics 16951
neuro/fuzzy systs., analogue, CMOS design, basic building block approach 790
super wide-band EM wave absorber, design and charact. *(Japanese)* 15398
thin-film electroluminescent indicators, composite liq. dielec. 1812
dielectric dispersion *see permittivity*
dielectric-filled waveguides *see dielectric-loaded waveguides*
dielectric function
semicond. laser, modulation response, carrier conc./temp. 23217
semicond. multilayers, NDT charactn. 20998
TE EM waves in nonlin. film, closed dispersion curves 40302
X-ray resist-substr. interfaces, parametric modeling 13533
$Ba(Y_{1/2}{}^{+3}Ta_{1/2}{}^{+5})O_3$, struct., dielec. props., 10^2-10^{14} Hz, 20-600 K 6890
GaAs, electron scatt. at low dens., dens. depend. 1053
GaAs, impact ionization, ensemble Monte Carlo simul. 21879
GaAs, intrinsic and p-doped, highly photoexcited carriers, femtosecond relax. 1036
Ge thin films, opt. props., thickness depend. *(Japanese)* 39303
HgI_2, electronic and opt. props. 43077
HgI_2, variable angle spectrosc. ellipsometry 43094
$Hg_{0.85}Zn_{0.15}Te$, surface comp., chem. treatment effects 13360
Si, impact ionization, ensemble Monte Carlo simul. 21879
dielectric heaters *see dielectric heating*
dielectric heating
slow-way systs. as heaters for thermal treatment of dielec., optim. 44587
dielectric hysteresis
dielectric polarisation, Monte Carlo simulation 13929
epitaxial ferroelec./conductive perovskite heterostruct., leakage current/memory effect 13991
ferroelec. thin films, switching and fatigue, depletion and depolarizing effects 39057
nylons of metaxylylenediamine and aliphatic dicarboxylic acids, ferroelec. behaviour 14001
PVDF copolymers, ferroelec. behaviour/phys. props. 6904
smart material hysteresis, Preisach modeling and compensation 37546
Symetrix Y-1 ferroelec., memory cell, C-V characts. 39056
$Bi_4Ti_3O_{12}$ films, MOCVD, memory device appls. 37514
$KTa_{(1-x)}Nb_xO_3$ thin films, ferroelec. hysteresis, electro-optic response 13996
$Li_{0.4}K_{0.6}NbO_3$ cryst., dielec./ferroelec. props. 22659
PLZT, ferroelec. ceramics, non-lin. behavior, micromechanical theory 37551
PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
$(Pb,La)(Zr,Ti)O_3$ thin-film capacitors, imprint/O deficiency 30619
$(Pb_{1-x}Ba_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$(Pb_{1-x}Ca_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$PbMgNbO_3$-$PbTiO_3$ ceramics, domain walls, piezoelec. and electrostrictive props. 22663
PbO-B_2O_3-SiO_2-GeO_2 glasses passiv. of MOS capacitors 13245
$(Pb_{1-x}Sr_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$PbTiO_3$ sol-gel derived ferroelec. thin films 13997
$SrBi_2Ta_2O_9$ thin films, prep. and ferroelec. props. 22658
dielectric isolation technology *see isolation technology*
dielectric liquids
see also insulating oils
cond., breakdown, conf., Switzerland (1993) 5444
cyclohexane dielec. liq., cathode streamer initiation obs. 13957
DOP-ACT-water cluster liq. dielec., cond. props. 13938
EHD convection, unipolar injection 40206
elec. cond., field-depend. injection-dissoc. model 13921
hexane liq., cathode prebreakdown modelling 13959
insulating liq. flow electrification, physicochem. explanation 15219
MCM, 3-D, liq. cooling, miniature heat sink 29733
microwave meas. chamber for liq. dielec., 37-47 GHz 42893
organic liqs., microwave freq. permitt. meas. 18034
petroleum storage tank electrostatics, stream fn. distrib. 15220
photoimageable liq. dielec. for seq. PWB fab. 38124
prebreakdown phenom. in dielec. liqs. 13945
pumped dielectric fluids, electrokinetic effects 13926
streamer propag., computer simul. 1533
water, pulsed breakdown rel., hydrostatic press. and liq. cond. 13947
water mist form. in vap.-mist dielec. 1545
Ar, gaseous and liq., onset voltage for corona pulses high press. gas breakdown 30554
dielectric-loaded antennas
2D ferrite-loaded cavity-backed slot antenna scatt. 31920
aperture coupled unidirectional dielec. radiator in NRD struct. 23860
axial slot antenna on anisotropic dielec.-coated circ. cylinder 2336
bodies of revolution near arbitrary surfaces, integral eqn. formulation 23816
body of revolution/wire radiator spin by method of moments 23815
broadband low-crosspolarisation horn design 8044
circ. polarised rect. dielec. resonator antenna 31948
dielec.-covered microstrip line slot antenna anal. 2331
EM scatt. from plane wave or dipole excited finite grounded dielec. substrate 23849
hemispherical dielec. resonator antenna anal. 40473
low-profile circ. disk DR antenna, characts. 31947
miniature radiator, microstrip-like antenna, theory/practice 15632
miniature waveguide-antenna apertures, matching by air gap tuning 40499
MM wave imaging aperture antenna feed array design and test results *(Russian)* 17428
MM-wave band antennas, electronic beam scanning 15620
multistacked dielec. omnidirectional antenna, cavity-restrained type 8045
dielectric-loaded antennas continued
parab. reflector antenna perform., dielec. coatings effect 31956
planar spiral antenna above double-dielec. loaded ground plane 23868
pyramidal horn antennas, composite inner E-plane walls 8057
radial line slot antenna, slot coupling charact. *(Japanese)* 23854
rect. microstrip patch antenna, reson. freq. calc., cavity model 2330
wire scatterers/antennas, time domain anal. 15654
dielectric-loaded waveguides
see also ferrite-loaded waveguides
3D EM cavity anal. using high order edge elements, microwave ovens 37964
broadband low-crosspolarisation horn design 8044
capacitance of transm. line of parallel cylinders, dielec. coatings 31883
circ. dielec. waveguide, periodic metallic strips, dispersion charact. 2296
CPW ccts., single mode operation 6278
dielec. Cherenkov masers, powerful amps., superwide bandwidth 1843
eccentric coaxial line, inner conductor, dielec. support effect 33733
HF charact. determ., pseudo-num. tech. 42894
high Q dielec. resonators, supporting struct. effects 30657
high T_c supercond. thin film, surface resist., microwave power transm. 18052
HTS ferroelec. phase shifters, high power, config. 12707
long. magnetized ferrite loaded rect. waveguides 12699
long. multilayered isotropic dielec. filled rect. waveguide 2303
miniature radiator, microstrip-like antenna, theory/practice 15632
miniature waveguide antennas, aperture matching, air-gap technique 23893
miniature waveguide-antenna apertures, matching by air gap tuning 40499
multilayer planar opt. waveguide with buffer layers, guided modes 7343
omnidirectional slot array antenna, moment method anal. 31959
open slotted structs. with layered dielec. filling, calc. 40395
plates, permitt./$\tan\delta$ meas., dielec. loaded cavity resonator in UHF band *(Japanese)* 25951
quasi-periodic struct. high power microwave sources, output sect. 29804
rect. antenna cavity, dominant mode waveguide loaded slots array 2348
rect. waveguide, striplike resistive struct., EM waves scatt. 12689
rectangular waveguide, inserted nonlin. dielec. slab, wave propag. 23807
sample holder filled method, dielectric meas. 25949
slitted asymmetric ridge waveguides, lin. phase arrays 31961
slow-wave FEL with dielec. loaded guide, hybrid mode anal. 7693
T-septum waveguides, cutoff/bandwidth props. 21510
vector FEM, mixed-interpolation-type triangular-prism element 15566
$Ba_xSr_{1-x}TiO_3$ electronically steerable leaky wave antenna, tunable ferroelec. material 8067
dielectric loss angle *see dielectric losses*
dielectric loss-angle measurement *see dielectric loss measurement*
dielectric loss measurement
see also dielectric losses
20 kV plastic cable repair by silicone injection *(German)* 27214
alumina, dielec. loss tangent meas., microwave freqs. 9995
commercial petrol, microwave props., 900 MHz, 9 GHz 42896
elec. device insulating params., computerised tester *(Chinese)* 27658
elec. machine failure anal., insulation testing 4882
MM wave aquametry for water content determ. 42996
nonradiating metal-dielec. waveguide, dielec. params. meas. 18033
plates, permitt./$\tan\delta$ meas., dielec. loaded cavity resonator in UHF band *(Japanese)* 25951
turbogenerator stator dissipation factor testing 44008
dielectric losses
110 kV forcibly cooled and HTS power cable comparison *(German)* 27211
castor oil, elec. permitt. and dielec. loss, high press. transform. 14014
chalcogenide glasses, small-bipolaron hopping cond. 1059
coaxially-fed rect. patch antenna input impedance rel. to substr. thickness 31939
compact semi- and fully anechoic chambers, composite absorber 15529
composite medium composed of lossy dielec. spheres, dielec. const. 23590
composites, dielec. behaviour 6905
coupled transm. lines in lossy medium, transient anal. 31876
cylindrical resonator, insert made of absorptive dielec. 15588
epoxy resin, neutron induced changes, dielec. response 14046
furnace black-polyethylene composite, resist./dielec. props. 14073
HTS ferroelec. phase shifters, high power, config. 12707
HV insulation, crack resist. epoxy resin, testing *(Japanese)* 14012
HV motors insulation, dielectric diagnosis 14008
HV power cable thermovisual monitoring studies 35643
LB film pyroelec. heat sens. 14094
low temp. co-fireable ceramics, wideband elec. charactn. 34673
LV equipment insulation characteristics at high freq. 19323
microstrip and coplanar structs., dielec. losses calc. 15574
microwave cct. boards, elec. perform. 12741
microwave oven, high loss dielec., EM fields, FD-TD anal. *(Japanese)* 28186
multiport finline couplers, propag. characts. 12709
NRD guide, curved bends, insertion losses 21504
organic liqs., microwave freq. permitt. meas. 18034
P(VDF/TrFE) copolymer pyroelec. thin film sens. and arrays 42817
planar microwave struct., discontinuities modeling 12701
planar supercond. waveguides in DC mag. field 37937
planar transm. lines, ps pulse propag. 40387
polamide/$BaTiO_3$ ceramic composite grain boundary capacitors, prep. 6370
polymer-ferroxide film absorbers, microwave, mag., dielec. props. 14102
polymers, dielec. behaviour 6905
pulsed power capacitor dielec. eval., ringing conditions 36499
quasistatic elec. field design problems *(Russian)* 7882
super wide-band EM wave absorber, design and charact. *(Japanese)* 15398
thin-film MCM materials for high-speed appls., eval. 29715
UHF power capacitors, thermal rating characteristics 6362
vector reflectometer, portable, appl. for thickness and permitt. dielec. meas. 18048
window materials for 110 GHz and 280 GHz gyrotron 38216
Al electrolytic capacitor failure, impact of halogenated fluids 6367
AlN sintered ceramics for electronic packaging, oxygen-related defect 12191
Au-SiO_x-Au sandwich structure, AC elec. cond. 22083
$Ba_{0.5}Sr_{0.5}TiO_3$ thin films, sputtering, electric props. 20965
$Ba_{0.5}Sr_{0.5}TiO_3$ thin films, structural and elec. props., thickness depend. 20984
$Ba_{1-x}Sr_xTiO_3$ tunable capacitors with $Tl_2Ba_2Ca_1Cu_2O_x$ electrodes, fab. 6356
$Ba_xSr_{1-x}TiO_3$, voltage depend. dielec. losses for ferroelec. MMIC devices 39054
$Ba(Y_{1/2}{}^{+3}Ta_{1/2}{}^{+5})O_3$, struct., dielec. props., 10^2-10^{14} Hz, 20-600 K 6890
$Bi_4Ti_3O_{12}$ films, spin-coating pyrolysis, surface morph., O_2 effect 13988
EuF_3 thin films, dielec., cond. and breakdown studies 1544
Eu_2O_3, thin film capacitors, elec. props. 38446
$Fe(OH)_3$ thin films form. at soln.-gas interface, dielec. props. 22080

dielectric losses continued
Li-Mg-Zn-Ti-Mn-Fe-O, substituted spinels, mag./dielec. props., microwave appl. 30532
Li-ferrite, Ti-doped, mag. aftereffect meas. 14197
$LiNbO_3$ acoustic superlattice, growth/transducer props. 13995
$Mn_{0.05}Mg_{1.9-2x}Fe_{4x}O_{4+\gamma}$-$Al_2O_3$ ferrite, microwave loss *(Korean)* 30687
Ni-Zn ferrites, films, microwave props. annealing effects 14178
PLZT, ceramic, surface layers effect on dielec. props. 39096
PLZT ferroelec. thin film capacitors, DRAMs, polariz. loss, elec. stress params. 37752
PLZT thin-film decoupling capacitors for MCMs 29737
PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
PZT, film, sputtered, poling effect on dielec. props. 39043
PZT multilayer electromechanical actuators, fab. and charactn. 39111
PZT, surface-acoustic-wave atten., mech./dielec. losses 39052
$(Pb,La)(Zr,Ti)O_3$ ferroelec. films, metalorganic CVD/elec. props. 20758
$Pb(Mg_{1/3}Nb_{2/3})_xTi_{1-x}O_3$ thin films, deposition, charactn. 400
$PbTiO_3$ sol-gel derived ferroelec. thin films 13997
$PbTiO_3$, surface-acoustic-wave atten., mech./dielec. losses 39052
$PbZr_{0.53}Ti_{0.47}O_3$:Ca transducers, acoustic props. 30633
Si, porous, single gas sens., species ident. *(Japanese)* 42866
$SrTiO_3$, voltage depend. dielec. losses for ferroelec. MMIC devices 39054
Ta_2O_5 sputtered films, elec. and optical props. 13958
ZnO varistors, degradation, dielec. relax. 12834

dielectric materials
see also antiferroelectric materials; dielectric liquids; dielectric properties; dielectric thin films; electrets; ferroelectric materials; glass; insulating materials; insulation; piezoelectric materials
1960's radiation effects research on semicond. devices/materials 11558
bistatic specular scatt. from rough dielec. surfaces, comments 31782
bistatic specular scatt. from rough dielec. surfaces, comments/reply 31783
borosilicate glass, cristobalite-free low-K dielec. 22632
broadband compact absorber for EMC chamber appls. 15515
broadband EMI shielding for electro-opt. systs. 15507
ceramics, sol-gel proc., elec./mag. props. 12190
characterisation, colloq., London (Apr. 1994) 21
circ. rim in elec. field, sing. 23498
coated wire antennas/scatterers, anal. 31933
composite medium composed of lossy dielec. spheres, dielec. const. 23590
condensed dielec., breakdown develop., fractal model 39041
DC/AC power convertor planar integrated reson. LCT cct. design 12321
dielec., charged particle irrad., current reversal 39036
direct corona imaging, dielec. transparency 6898
distribution syst. multiple dielec. lightning impulse strengths 35633
elec. augmented filter, conducting/dielec. fibres comp. 4410
EM multiple scatt. by dielec. spheres random distrib. 31795
EM plane wave scatt. by lossy dielec. prolate spheroids 40296
EM scatt., free space nonlin., moment method/Wolfe's procedure 15399
EM scatt. by nonlin. bounded dielec., FDTD approach 15386
EM scatt. from dielec. coated infinite cylinder 15400
EM scatt. from dielec.-coated objs., GPMT 23583
EM wave scatt. from penetrable cylinder 15401
fine line thin dielec. cct. board, charactn. 12877
fluoropolymer-based dielec. materials for PCBs, fab., proc. considerations 29679
Jauman absorbers design 25579
low temp. co-fireable ceramics, wideband elec. charactn. 34673
MCM, miniaturization in telecomms. and workstations 38179
microwave diffr. tomography, adaptive imaging algm. 16349
microwave rect. waveguide applicator for dielec. sheet materials proc. 5385
MLC prod., advanced dielec. powders 5912
monolithic UHF/VHF filters on two-layer dielec. bar 37835
MRI slotted tube resonator, dielec. body loaded, num. anal. 26318
multi-layer PWB for high-speed/HF appls., low-dielec. materials *(Japanese)* 924
multi-layer wave-absorber for oblique incidence, point freq. matching method 23579
multilayered media electrostatic pot., complex image calc. 23502
NDT by extinction pulse tech. 21014
oil, high stress aggregation and electron transport 13935
organic liquids, streamer initiation under uniform field conditions 13953
PBZT particle/suspension in mineral oil, electrorheological responses 13933
PD, dielec. degrad., time-resolved meas. 22648
PD induced ageing, pulse-seq. anal. 22653
phased antenna array charact., effect of atmos. precip. 31985
photoimageable thick films for MCM 21726
Poisson's eqn., wedge geom., image soln. 31696
polyethylene, semi-empirical high-field cond. model 30535
polyimide nanofoams, high temp., for interlayer dielec. appls. 12207
polyolefins, homog. ac aging field, electrolum., surface roughness 30548
primer for investig. and interp. in insulators and dielec. materials 5725
α-quartz, dielec. strength, size effect. Monte Carlo anal. 13980
sapphire, insulator props. rel. to tribology/space charge 13952
solid dielec., elec. strength, kinetic theory *(Russian)* 6889
solid dielec., quantized thermal depolarization, relax. model 30533
solid dielectrics, high field conductivity implications 13968
spherical dielec. particles, dielectrophoretic interact. 7905
Swiss microsensor and mobile commun. research programme *(German)* 3778
Teflon PCBs, fab., proc. considerations 12932
thermally stimulated current in solid dielec. 13924
thick film paste dispersion procs., pass. electronic component manufacture 6439
thick film/tape capacitor dielec., capacitance densities up, 3 nF/mm^2 6359
ULSI multilevel interconnects, proc. integrat./manufacturability 38641
universal dielec. response, energy criterion 13927
waves in nonstationary media 2242
$Ba_{6-3x}Sm_{8+2x}Ti_{18}O_{54}$, microwave dielec. props. 22638
$BaTiO_3$ Y5V 0603 ceramic chip capacitor 12839
Cu-Cr bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
Cu-Ti bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
CuCr alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
CuTi alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
$LiNbO_3$ elec. controlled supergaussian mirrors 14482
$LiNbO_3$-$LiTaO_3$, direct heterobonding 30932
a-Si-SiO_2-Si Fabry-Perot opt. intens. modulator by merged ELO 14647
ZnO varistors, dielec. charactn./equiv. cct. studies 867
ZnO varistors, mixed multi-impulse/AC 50 Hz tests 868

dielectric measurement
see also dielectric loss measurement; dielectric properties; permittivity measurement
2.45 GHz microwave-based air pollution control, dielec. props. meas. 11474
2D hybrid element image reconstruction for TM illum. 43222
automated null ellipsometer, rot. analyzer 10047
broad-band time-domain spectrosc. for biological effects of EM waves 26482
cement compressive strength estim., nondestructive microwave reflectometry 37562
coaxial cavity syst. for dielec. materials charactn. 18029
coaxial slot antenna dielec. meas. model 23906
complex dielec./mag. permeabilities meas., coaxial resonator appl. 42900
cylindrical objs. dielec. meas. in rect. waveguide 18030
electrical insulation and dielec. phenomene, conf., Pocono Manor, Pa, USA (Oct. 1993) 11586
HF charact. determ., pseudo-num. tech. 42894
high press. computer controlled dielec. meas. 17672
HP 4192A LF analyser for 5-100 Hz range 9997
insulators, space charge meas. 9996
low loss dielec. materials meas., 60 GHz band 3955
low temp. co-fireable ceramics, wideband elec. charactn. 34673
materials charactn., colloq., London (Apr. 1994) 21
microwave cavity resonators, modeling of testing params. 37561
microwave freq. range, indust., scientific and med. appls. 34663
microwave imaging, cost minimisation approach, simulated annealing 43277
microwave imaging for tumour detect. 18459
mm-wave imaging syst., defect charactn. in dielec. slabs 37560
mm-wave meas. of sub-wavelength thickness 42936
noncontact thickness meas. of dielec. coatings 42937
organic liqs., automatic meas. syst. 18032
PD, dielec. degrad., time-resolved meas. 22648
PD induced ageing, pulse-seq. anal. 22653
piezoelec. material consts. determ., improved resonator method 30580
polyethylene, time-resolved discharge meas. 1523
sample holder filled method, time-domain meas. 25949
surfaces, pot. meas., pulse method 25950
TDR for low loss dielec., deconvolution tech. 42895
through-plane thermal props. meas. of dielec. films 21738
tissue dielec. meas., coaxial probe, qtr.-wave choke 35124
transformer oil, voltage controlled double layer 14026

dielectric phenomena *see dielectric properties*

dielectric polarisation
see also Barkhausen effect; dielectric depolarisation
composite aromatic polyamide insulation, conduction currents 14030
conducting objs, buried in dielec. half-space, 2D act. imaging polaris. effects 25548
cross-linked polymers, thermal stabil., electro-optic appls. 14517
DAN/PMMA polymers, SHG, temporal stabil., orient. pair correl. 15129
dielec., charged particle irrad., current reversal 39036
electrical insulation and dielec. phenomene, conf., Pocono Manor, Pa, USA (Oct. 1993) 11586
electro-optical polymers, poling 13930
EPR, filler conc. effects on elec. cond. and ultralow-freq. dielec. props. 30587
ethylene-propylene copolymer, charge injection/polarisation 14036
ferroelec. ceramic-polymer composite, piezoelec./pyroelec. 6906
ferroelec. composites, polaris., poling/props. 6907
ferroelec. polymers, polaris., poling/props. 6907
ferroelec. polymers, struct./props. 6901
ferroelec./semicond. struct. capacitance disk memory, noncontact eval. 1565
functionalized polymers, third-order nonlin. opt. props. 15137
insulating materials, electron beam excited luminescence 14074
Josephson effect in jn., ferroelec. 14299
LDPE, AC aged, liq. electrodes, dielec. polarisation/relax. 13940
LDPE, space charge form., additive/polarisation temp. effects 14033
main-chain polyester containing 3,6-disubstituted carbazole, depoling mechanism 23348
metal-oxide based gels, organically doped, nonlin. opt. props. 15091
Monte Carlo simulation 13929
nylons of metaxylylenediamine and aliphatic dicarboxylic acids, ferroelec. behaviour 14001
P(VDCN-VAc), elec. polarisation, thermal pulse study 13934
P(VDF/TrFE) copolymer pyroelec. thin film sens. and arrays 42817
phase matching tech. for poled polymer waveguide 22866
phase-matched freq. doubling polymers, opt. prep. 23344
PMMA films with dye mols., 2D opt. nonlin. 15093
poled polymer films, freq. conversion and relax. phenom. 2091
poling-induced opt. loss in nonlin. opt. polymeric waveguide 30937
polyethylene/ionomer blends, space charge, TSC meas., dielec. strength 30547
polymer waveguide second harmonic light phase matching tech. 31614
polymer waveguides, electro-opt. appls. 14457
polyurea films, pyroelec./piezoelec. 6903
PVDF copolymers, ferroelec. behaviour/phys. props. 6904
PVDF films, gas emissions, poling conditions influence 14039
α-quartz, facets, charging, SEM anal. 14000
sapphire, insulator props. rel. to tribology/space charge 13952
sol-gel nonlin. opt. polymers, improved poling, thermal stabil. 2108
solid dielec., quantized thermal depolarization, relax. model 30533
universal dielec. response, energy criterion 13927
vinylidene fluoride-trifluoroethylene copolymer films, electrostriction 39060
water-treed additive-free LDPE, TSDC spectra, power cable insulation 14021
XLPE cable insulation, TSDC meas. 14064
XLPE thermally aged cable models, relax. processes 14066
Y_2O_3-La_2O_3, space charge form., free energy variation 13928
$(BaSr)TiO_3$, elec. field biased ferroelec., electromechanical response, polariz. 39045
$BaTiO_3$ perovskite ceramics, ferroelec. fatigue, compositional control 1556
$BaTiO_3$/poly(vinylidene fluoride-trifluoroethylene) thin-film composites, pyroelec. props. 6908
$Bi_4Ti_3O_{12}$ films, MOCVD, memory device appls. 37514
$Bi_4Ti_3O_{12}$ films, spin-coating pyrolysis, surface morph., O_2 effect 13988
EuF_3 thin films, dielec., cond. and breakdown studies 1544
GaAs, MSM photodetectors, temporal response, polariz. depend. 17767
Ir-stilbazole complex LB films, temp.-depend. polariz. 22636
$KTiOPO_4$ opt. waveguides charact. by second harmonic spectrosc. 1712
$Li_{0.4}K_{0.6}NbO_3$ cryst., dielec./ferroelec. props. 22659
$LiNbO_3$ waveguides, quasi-phasematched SHG conversion efficiency 22878
$LiTaO_3$ single cryst., thermally stimulated charge and light emission 13990

dielectric polarisation continued
PLZT, ceramic, surface layers effect on dielec. props. 39096
PLZT, ferroelec. ceramics, non-lin. behavior, micromechanical theory 37551
PLZT ferroelec. thin film capacitors, DRAMs, polariz. loss, elec. stress params. 37752
PLZT thin films, voltage offsets 30572
PMN ferroelec. relaxors, inhomog. dyn. strain charact. 30563
PZT ferroelec. relaxors, inhomog. dyn. strain charact. 30563
PZT ferroelec. thin film capacitors, fatigue and photoresponse 39102
PZT ferroelec. thin films, sol-gel deposition 1559
PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
PZT, film, sputtered, poling effect on dielec. props. 39043
PZT films by MOD technol. for nonvolatile memory and DRAM appls. 13999
PZT films on Ni alloy/SiO_2-Si, ferroelec. props. 13998
PZT films, polaris. reversal, adaptive learning metal-ferroelec.-semicond. FET appl. 39098
PZT films, reactive co-sputtering/elec. props. 39059
PZT piezoelec. ceramics, capacitance, dyn. meas. 39050
PZT thin film capacitors, domain behavior 39058
PZT thin films, MOCVD, Pb precursor 37516
PZT thin films, ferroelec. fatigue, compositional control 1556
PZT thin-film capacitors, nonvolatile memory appls. 30594
PZT/Pt ferroelec. capacitors, passiv., SOG 39100
$(Pb,La)(Zr,Ti)O_3$ ferroelec. cathodes, repeatable electron emission, DC reset 971
$(Pb,La)(Zr,Ti)O_3$ ferroelec. films, metalorganic CVD/elec. props. 20758
$(Pb,La)(Zr,Ti)O_3$ thin-film capacitors, imprint/O deficiency 30619
$(Pb_{1-x}Ba_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$(Pb_{1-x}Ca_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$PbHPO_4$, dielec./acoustic props. near ferroelec. phase transit. 30562
$PbMgNbO_3$-$PbTiO_3$ ceramics, domain walls, piezoelec. and electrostrictive props. 22663
$Pb(Mg_{1/3}Nb_{2/3})_xTi_{1-x}O_3$ thin films, deposition, charactn. 400
PbO thin films, MOCVD, Pb precursor 37516
$(Pb_{1-x}Sr_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$PbTiO_3$ sol-gel derived ferroelec. thin films 13997
$PbTiO_3$ thin films, MOCVD, Pb precursor 37516
$PbTiO_3$:Cu, film, sol-gel prep., charactn. 6912
$PbZr_{0.53}Ti_{0.47}O_3$:Ca transducers, acoustic props. 30633
Si_3N_4 thin films on n-Si, relax. polariz./charge injection 13916
SiO_2 thermally poled opt. fibres, Pockels effect 14376
$(SrPb)(CaMg)TiO_3$-$Bi_2O_3 \cdot 3TiO_2$ ceramic charged particles, elec. props. *(Korean)* 22665

dielectric power factor *see power factor*

dielectric properties
see also antiferroelectricity; capacitance; dielectric depolarisation; dielectric function; dielectric hysteresis; dielectric losses; dielectric polarisation; dielectric relaxation; dielectric resonance; electric strength; ferroelectricity; optical susceptibility; permittivity; photodielectric effect; piezoelectricity; pyroelectricity
2.45 GHz microwave-based air pollution control, dielec. props. meas. 11474
absorber tip diffr. coeff. 7942
broad-band time-domain spectrosc. for biological effects of EM waves 26482
conjug. gradient method anal., test fns. 15379
EM scatt. from dielec. coated infinite cylinder 15400
EM wave scatt. from penetrable cylinder 15401
generalized multipole tech./FEM, coupling 15414
inhomog. dielec. modeling, integral eqn. soln. 15393
magnetodielectric bodies, wave scatt., discrete source method 15428
mica-alumina insulation, dielec. props., EM pump appl. *(Japanese)* 39067
microwave imaging, cost minimisation approach, simulated annealing 43277
microwave ovens, rect. waveguide trough model 11476
mixed dielec./poor absorber, microwave heating, thermal effects 44592
MLC prod., advanced dielec. powders 5912
noninvasive diagnostics, Gibbs act. EM method 35029
optim. tech. for time domain appls. 12700
PEEK, poly(ether ether ketone), crystallinity and dielec. props. 14015
periodic wedge absorber, full wave anal. 2215
plant material oil constituents extraction, microwave heating 28170
plastic tape covered winding wire, transformers, characts. *(Japanese)* 12853
poly(1,4-phenylene-1,2-bis(4-methoxyphenyl)vinylene) opt. waveguides, prism coupling 22870
polymer insulation PD stabil., energy characts. *(Russian)* 6894
rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658
snow covered first-yr. sea ice, microwave scatt. 7973
TLM num. dispersion removal using Glimm's random choice 15554
$BaTiO_3$ thin film capacitor dielec. props., Pt bottom electrode 38050
$BaTiO_3$ thin film capacitor dielec. props., W_2N-W bottom electrode 38050

dielectric relaxation
see also dielectric resonance
cable insulation, void discharge deterioration, semicond. layer effect *(Japanese)* 43771
composites, dielec. behaviour 6905
conjug. polymers with large opt. nonlin., ultrafast relax. 2092
EPR, filler conc. effects on elec. cond. and ultralow-freq. dielec. props. 30587
EPR dielec. relax., clay effect, TSDC meas. 14057
LB film pyroelec. heat sens. 14094
LDPE, AC aged, liq. electrodes, dielec. polarisation/relax. 13940
perovskites, rf dielec. relax., measuring methods 30573
polymers, dielec. behaviour 6905
polymers for second-order nonlin. optics, elec.-field induced orient. and relax. 2095
sapphire, insulator props. rel. to tribology/space charge 13952
solid dielec., quantized thermal depolarization, relax. model 30533
TGS, relax. currents and elec. cond. 30559
water-treed additive-free LDPE, TSDC spectra, power cable insulation 14021
$(As_2S_3)_{1-x}(PbS)_x$, vitreous semicond., electronic cond. 29867
$(Ba,Sr)TiO_3$, diffuse ferroelec. transit., relax. dipolar freezing 30568
C furnace black-polyethylene composite, resist./dielec. props. 14073
$KTaO_3$:Li, pure and doped, polar config., SHG obs. 22660
Li_2SnO_3 thick film humidity sensitive material, elec. cond. 3782
PCM/PVDF composite film, dielec./piezoelec. props. 22662
PMN-$PbTiO_3$ ceramic relaxors, high-field electromechanical props. 30560
PZN, perovskite local at. struct., ionicity/covalency, XANES obs. 30556
PZT/PVDF composite film, dielec./piezoelec. props. 22662
$PbHPO_4$, dielec./acoustic props. near ferroelec. phase transit. 30562

dielectric relaxation continued
a-Si:H, low-temp. recomb., elec. field depend. 29872
$(SrBa)_0.8Na0.4Nb_2O_6$, tungsten bronze ceramics, relaxor ferroelec. behaviour 30558
ZnO varistors, degradation, dielec. relax. 12834
ZnO varistors, dielec. charactn./equiv. cct. studies 867

dielectric resonance
see also dielectric relaxation
$Pb(Mg_{1/3}Nb_{2/3})O_3$ multilayer capacitors, electromechanical resons. 21587
$YBa_2Cu_3O_{7-x}$, microwave EM field-induced dielec. reson. 30809

dielectric resonator oscillators
ceramic DRO aging 29575
common-collector bipolar transistor based oscillator design 830
cryogenic sapphire dielec. resonator microwave oscillators 12760
high Q dielec. resonators, supporting struct. effects 30657
L-band low noise DRO 29576
microwave oscillator with dielec. disk resonator, thermal AFC 37983
MM-wave solid-state oscillator, quasioptical metal-dielec. resonator 37977
phase-locked DRO, noise model 21153
road vehicle 24 GHz dual channel microwave front-end 11444
sapphire disk DRO, combined stabilization 30655
VCO, low phase noise, analog cellular portable radio appl. 12356
GaAs microstrip Gunn oscillator, highly stable, U-Band 37975
GaInP/GaAs HBT K-band DRO 6307

dielectric resonators
see also dielectric resonator oscillators
bandpass filters, triple-mode dielec. rod resonators *(Japanese)* 21403
body of revolution/wire radiator spin by method of moments 23815
circ. polarised rect. dielec. resonator antenna 31948
coaxial dielec. resonator, circ. propag. mode 6289
coaxial probe excited hemispherical dielec. resonator antenna input impedance 31918
cylindrical dielec. resonator equiv. cct. 14096
cylindrical resonator, insert made of absorptive dielec. 15588
disk radiator, slot excitation 31929
disk resonator, azimuthal waves interfer. and interact. 12705
dual-mode dielec. resonator freq./phase discriminator 12740
EM surface-wave resonator, high order modes *(French)* 21524
ground-plane-backed dielec.-resonator antennas, imperfections 40462
handy phone, miniaturized dielec. filter *(Japanese)* 42290
hemispherical dielec. resonator antenna anal. 40473
hemispherical dielec. resonator antennas, mutual impedance 23940
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
integrated rect. dielec. resonator antenna config. 23910
isolated dielec. disc resonant freq. and far field computation 23828
leucosapphire disk dielec. resonator, temp. coeff./freq. depend. 30654
low-profile circ. disk DR antenna, characts. 31947
microstrip discontinuity meas., resonator techs. *(Croatian)* 809
microstrip tuning tech. 12713
microwave commun., dielec. filters *(Japanese)* 37973
microwave dielec. ceramic filters, prep. and anal. 12723
microwave dielec. resonator oscillator charact. meas. *(Croatian)* 569
microwave microstrip dielec.-resonator filters, 3D FEM simul. 37947
MM wave monolithic IC, dielec. resonators, whispering gallery mode, model 6330
opt. tuned microwave DRO, cct. and design method 840
sapphire dielec. resonator transducer, whispering gallery modes 30656
sapphire loaded microwave resonators, enhanced quality factor 29577
single-block ceramic microwave bandpass filters 820
solid-state bandpass filters, coaxial-to-coaxial type resonators 15590
stress induced freq. shift 30658
surface resist. meas. method, dielec. resonator struct., supercond. appls. 39237
surface resist. microwave meas. by parallel-plate dielec. resonator method 34674
VCOs for microwave commun. equipt. *(Japanese)* 37671
$Ba_{6-3x}Sm_{8+2x}Ti_{18}O_{54}$, microwave dielec. props. 22638
$YBa_2Cu_3O_{7-x}$ high T_c film dielec. resonator, MM-wave filter develop. 811
$YBa_2Cu_3O_{7-x}$- $SrTiO_3$ 1 GHz tunable parallel plate dielec. resonator 37967

dielectric strength *see electric strength*

dielectric susceptibility *see optical susceptibility*

dielectric thin films
see also ferroelectric thin films; insulating thin films; optical films; piezoelectric thin films
1 μm BiCMOS proc., 200 Å gate oxide charactn./manufacturability 13902
air-coupled capacitance transducers, micromachining, reproducible charact. 18930
aircraft fuselage coating, scatt. signature optim. 40314
anom. solid form., exhaust systs. of LPCVD/PECVD semicond. procs. 20954
BCB layers for MCM-D/L appls., attenuated refl. IR microscopy 12982
buried dielec./mag. gratings of fibers, refl. 15411
charged dielec./metal thin films, peeling ESD 7901
chem. mech. polishing abrasive slurries, IC dielec./metallization 38571
chem.-mech. polishing, IC interlayer dielec. planarisation, review 13340
CMOS FET oxide reliab., plasma-induced gate oxide degrad. 20490
CMOS input gate, latent ESD damage ident. and anal. 30464
CMOS multilevel metallization dielec., chem.-mech. polishing 38573
CMOS proc. appl., wafer level reliab. SPC program 20493
conf., thin film physics/appl., Shanghai, China (1994) 28235
dielec. film periodically nonstationary nonuniformities, EM interact. 40330
5-n-docosylbarbituric acid pyroelec. LB film structs. 13918
dual-poly CMOS, B diffusion, O_2 and N_2O gate dielecs. 22575
gate oxide defect screen for VLSI CMOS reliab. 22588
gate oxide proc.-induced damage, low/high temp. anneal effect 1202
gate oxide quality improvement by H annealed wafer 22091
IBM MCM-D, polyimide dielec. material appls. 37542
IC reliab. improvement, alkali metal ion contamination reduction 20492
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
interlayer dielec. films, postchemical-mech. planarization cleanup 13391
interlevel dielec. thickness var., stat. metrology, IC test 22549
ionic salt photodefinable polyimides, MCM-D dielec., Cu metallization 21740
LB film pyroelec. heat sens. 14094
liq. cryst. polymer composite films, elec. characterisation 12200
logic IC interconnection technol., syst. engng., manufacturability 37723
MCM-LD, photosensitive-BCB on laminate technol. 12978

dielectric thin films continued
- microstrip phase-trim device, dielec. overlay 806
- miniaturised MMIC amps., thin dielec. layers 29586
- mm-wave imaging syst., defect charactn. in dielec. slabs 37560
- mm-wave meas. of sub-wavelength thickness 42936
- MOS capacitor ultra-thin oxide/oxynitride dielec. films, reliab. characts., surface prep. 22066
- MOS capacitors/FETs stress-induced current in nitride/oxidized nitride thin films 6589
- MOS struct., defective dielec., microcracks 29983
- multifunctional thin-film transducer of phys. quantities 9867
- multilayer, phase-anisotropic dielec. mirror 2032
- multilayer planar opt. waveguide with buffer layers, guided modes 7343
- multilevel high dens. ASIC defect isolation, electron beam probing RIE 21169
- non-invasive dielec. meas., scanning pot. microscope 3954
- noncontact thickness meas. of dielec. coatings 42937
- nonvolatile memory devices, plasma-induced in-line charging and damage, CMOS 21313
- oligophenylene thin films, vac.-deposited, elec. props. 13923
- oxide film deposition, rapid isothermal proc.-MOCVD 20846
- oxides reliab., low temps. 28406
- permitt. meas. using unguarded disc electrodes, capacitance correction 1504
- photodefinable benzocyclobutene thin films for MCM/IC packaging appls. 12206
- plane wave scatt. by coated dielec. ellipt. cylinder 7950
- poly-Si/Ta_2O_5/TiN capacitors for DRAM appls., thermal stabil. 21316
- polyimide dielec. films for electronics packaging, plasma etching 20462
- polyimides/copolyimides for IC interlayer dielec., props. 39037
- polymer-ferroxide film absorbers, microwave, mag., dielec. props. 14102
- polysilicon DRAM cell capacitors, Si_3N_4 dielec. films, RTP 22069
- RF-absorbing dielec. structs., resistive-capacitive layers 23593
- RTO/nitridation clusterable reactor, MOS gate oxides 22219
- scribe line capacitors, thin oxide monitoring, nonvolatile memory devices 20489
- self-planarizing CVD oxide for interlayer dielec. appls. 22262
- Si-SiO_2-polySi:P, $TiSi_2$ superlayer, thin film oxide injection degrad. 22059
- skipping-sparks in discharges, dielec. surface 6897
- SOG film form., Al metal layers for double metal proc. *(Korean)* 30148
- SOI struct., buried dielec. films, ion form. 38441
- sub-5-nm oxynitride dielecs. prepared in NO ambient using RTP, props. 6590
- substr. for ITME thick film resistors 6347
- superthin ONO stacked dielec. high-dens. memory devices 1503
- thick film multilayer material systs. for thermal cycle appls. 21660
- thin films with surface corrugation, guided-mode interacts. 7363
- through-plane thermal props. meas. of dielec. films 21738
- ULSI, ILD film planarization, silica slurry/ammonium salt CMP 38962
- ultra-thin dielec., plasma-assisted/RTP 22167
- ultrathin dielec., microwave afterglow O_2/N_2O plasma growth 37505
- VDMOS transistors, self-shielding phenom. 30310
- vinylidene fluoride-trifluoroethylene copolymer films, electrostriction 39060
- Al-SiO_2-Si MOS struct., charge build-up/oxide wear-out, Fowler-Nordheim stress 13234
- AlN, ion plated films, opt. applicability 28850
- BN thin films, plasma-enhanced CVD, structural props. 20953
- BPSG dielec. film fusion, steam reflow and RTA/furnace annealing 20997
- $BaTiO_3$ films on Si, heteroepitaxial growth by pulsed laser deposition 28757
- $BaTiO_3$ high dielec. ceramic thin films proc., stress develop., IC packaging 21590
- Cu interconnects, diffusion/drift barriers for Si and SiO_2 30138
- Cu metallisation/low k dielec. IC interconnect materials technol. 38635
- GaAs passiv., integrated plasma clean/CVD/RTA, Si_3N_4 encapsulation 22224
- Ga_2O_3 films, electronic/optoelectronic appls. 22640
- HfO_2/SiO_2 dielec. layers, excimer laser ablation patterning 30121
- NO dielec. film, low press. CVD/nitridation 13942
- ON dielec. films, Si_3N_4 ultrathin capacitors for advanced DRAM cells, in-situ multiprocessing 21589
- $(Pb_{0.72}La_{0.28})TiO_3$/Pt films, elec. props., interface effects 1159
- Si, B implants through SiO_2 films, implant. damage/anom. diffusion 13283
- Si RT oxid. catalyzed by Cu_3Si 38578
- Si VLSI ESD sensitivity, thermal/dielec. breakdown 30462
- a-Si, mm/submm dielec. const./surface resist. meas. 18047
- Si photodiode, thickness meas. of SiO_2 film 18079
- Si-SiO_2 MOS devices, quasi-breakdown of ultrathin gate oxide under high field stress 22067
- SiN thin films, thermal cond./diffusivity determ 34726
- Si_3N_4 thin films on n-Si, relax. polariz./charge injection 13916
- SiN_x based metal-to-metal antifuse for FPGA appl. 21217
- SiN_x films, ECR plasma synthesis 30131
- SiN_x mask, mag. confined dry etching, GaAs device technol. 38586
- SiO, mm/submm dielec. const./surface resist. meas. 18047
- SiO_2 1.5 μm thick films, rapid nitridation in NH_3 ambient, SIMS study 13328
- SiO_2 RIE, modelling using neural networks, ICs and MCMs 6656
- SiO_2 RTCVD/RTO/thermal oxide thin films, tunnelling current characterisation 22226
- SiO_2 advanced planarization by SiO_x PECVD/SiH_4-H_2O_2 CVD combination 37479
- SiO_2 charge/mobile ion conc. meas., MOS struct. 29964
- SiO_2 films by rem. plasma CVD form organo-silicon source *(Japanese)* 37490
- SiO_2 films, chem. mech. polishing, planarization ability 38575
- SiO_2 films, plasma CVD, breakdown characts. 13960
- SiO_2 inter-poly oxides, MOS capacitors, lifetime/failure probab. 13236
- SiO_2 layer characterisation, Electrotech ND6210 PECVD syst. 28816
- SiO_2 layer planarization by chem.-mech. polishing, IC manufacture 38569
- SiO_2 mask, mag. confined dry etching, GaAs device technol. 38586
- SiO_2, mm/submm dielec. const./surface resist. meas. 18047
- SiO_2 plasma-grown on Si, extremely low interface state densities 13233
- SiO_2 porous thin films, interlevel dielec. in IC packaging, sol-gel proc. 12141
- SiO_2 surface damage, chem. mech. polishing on IC-60 pads 38576
- SiO_2 thin film thickness meas., Brewster angle reflectometer 34686
- SiO_2 thin films, N_2O RTP/oven nitridation, elec. characterisation 13327
- SiO_2 thin films, RTN in NH_3, N_2O for EEPROM appls. 13329
- SiO_2:H ECR oxides, stress-temp. behavior, hydrogenous species conc. 37513
- p-SiO_2/polymer, dielec. double-layer structs., elec. cond. 30534
- SiO_2-Si MOS struct., oxide layer cond., X-ray irrad. effects 13238
- SiO_2-Si, stacked RTO/RTCVD oxide gate dielec., elec. props. 22637

dielectric thin films continued
- SiO_2-Si ultrathin CMOS gate dielec., RTP growth in N_2O ambient 22221
- SiO_2-Si wet oxid. by RTP, homog. 22222
- SiO_2-Si_3N_4-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- SiO_xN_y film growth by RTO of Si in N_2O 22220
- SiO_xN_y nanometer thin films, nitridation, phys. charact. 30073
- SiO_xN_y thin dielec. on Si, N_2-rich thermal growth, RTA 22255
- SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
- SiO_xN_y-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- SiO_2(ON)-Si device reliab., surface cleaning effects, ultrathin oxides/oxynitrides 22207
- Ta_2O_5 sputtered films, elec. and optical props. 13958
- Ta_2O_5 thin high-dielec. films, leakage current, elec. props. 13915
- $Ta_2O_5(TiO_2)$ LPCVD DRAM storage dielec. film, leakage current reduction, RTA 22094
- W IC metallisation, chem.-mech. polishing, halogen-based slurries 38574
- ZnS:Mn RF-magnetron sputtered films, breakdown 1507
- chem. mech. polishing, polishing pad material props. effects 38584

dielectric triodes *see space-charge limited devices*

dielectric waveguides
- *see also nonradiative dielectric waveguides; optical waveguides*
- bent dielec. waveguides, finite difference BPM anal. 23803
- broadside coupled strip inset dielec. guide, directional coupler appl. 29526
- ceramic 3-dB directional coupler, surface mountable, dielec. E-plane waveguide 814
- Cherenkov maser, nonaxisymmetric mode, beam-wave interactions 23068
- circ. dielec. waveguide anal., variational-difference method 801
- coupled planar dielec. waveguides, different params. 12687
- discontinuities, freq. charact., FD-TD method *(Japanese)* 30927
- disk resonator, azimuthal waves interfer. and interact. 12705
- double grating couplers, second-order Bragg interact., TM mode 8020
- dual-beam flat antenna, grating structs. on dielec. waveguide 40465
- ferrite-semicond. MM-wave dielec. strip waveguides 37929
- hollow circ. waveguides, atten. const., curvature effect 15601
- inset dielec. guide structs. and vars., anal. 31913
- Ka-band layered ridge dielec. waveguide leaky-wave antenna develop. 23965
- lossless multilayer dielec. waveguide radiation modes 23797
- MCM logic modules, leaky wave antenna radiative interconnects 12970
- MM-wave planar dielec. beam antennas, low side lobe level 40466
- monolithic dielec. filters based on integrated waveguide technol. 37944
- multilayered dielec. waveguide anal., variational treatment 2304
- nonlin. planar opt. waveguide MOL and FDBPM simul. 40432
- nonparallel dielec. waveguides, coupling charact. 8023
- nonradiating metal-dielec. waveguide, dielec. params. meas. 18033
- NRD-guide/H-guide higher-order modes, phys. and nonphysical ranges 15607
- open dielec. waveguide anal., quasi-wavelet expansion 31894
- open planar waveguide screens, EM waves scatt. 15593
- orthonormal wavelet expansions anal. of integrated mm-wave/sub-mm-wave waveguides 12809
- parab. cylindrical dielec. waveguide, modal power loss 30941
- parallel coupled inset dielec. guides, hybrid mode anal. 31882
- parallel two-wire line covered with three-layer media, anal. 15570
- rect. dielec. waveguide scalar variational anal. by Hermite-Gaussian modal approxs. 40403
- semi-infinite screen-magnetodielectric coaxial rod struct. 15558
- shielded waveguide spectrum, complex waves mechanism 12688
- skew rect. dielec. waveguides, transverse coupling 15594
- slanted grating, propag. charact. 8031
- sq./rect. core dielec. waveguide anal. by modified Fourier decomp. 31914
- sq./rect. core fibre scalar anal. by Fourier decomp. method 39325
- stratified slab waveguide, line source, radiation field 8030
- thin films with surface corrugation, guided-mode interacts. 7363
- three-layer dielec. clad parab. cylindrical chirowaveguide, anal. study 40442
- transverse operator method for general waveguide problems 40419
- transverse vector wave eqn., variational derivation 30935
- Si photocontrolled microwave modulator, atten. drop kinetics 589
- Ta_2O_5 sputtered films, elec. and optical props. 13958

dielectrics *see dielectric materials*

dielectronic recombination *see ion recombination*

diesel-electric generators
- 10-100 kW hybrid diesel/renewable power systs., developing country appls. 36032
- 37.3 MW diesel power plant demons. project, Japan 27603
- 50 MW barge-mounted low-speed diesel elec. generator 19530
- 2000-4000 kW Wartsila high-speed diesel generator 36033
- amphibious landing ship, diesel-elec. propulsion 11416
- asynchronized sync. machines, self-contained power systs. 44028
- CHP plant, intell. control/monitoring 4854
- CHP syst. condition monitoring/predictive maint. 19539
- combined cycle power generation concept 43937
- diesel/closed cycle gas turbine power plant thermodyn., LNG-fired 27605
- distrib. feeders, voltage flicker studies 43938
- economic utilisation, max. demand charges minimisation 10872
- emergency generators, rectifier supply, harmonic distortion 19536
- hybrid PV/diesel power supply, mobile radio repeater 19563
- hybrid PV/wind/diesel power systs., computer modelling 19571
- hybrid renewable energy prod. projects, Germany *(German)* 19551
- Lebanese telecom. network, diesel generator power plants 19537
- rem. telecom. site, engine-generator power supply 19538
- Resse motor-driven heating plant, operation/optimisation *(German)* 43940
- telecom. terminal auxiliary permanent on-site generator sets 43939
- telecomms. power plants, diesel-elec. CHP systs., Japan 19535
- turbocharger retrofitting overview 19531
- TZ standby UPS/diesel generating set 19786
- unconventional power systs., scheduling/resource allocation 35496
- wind-diesel energy syst. perform., probabilistic eval. 10913
- wind-diesel hybrid power plant, robust control and anal. 19574
- wind-diesel syst., probabilistic/time series model 10915

diesel-electric locomotives
- bogie, traction motor drive 5333
- JR Freight prototype elec./diesel-elec. locomotives 11399
- rly. traction vehicles, tractive factor calcs. *(German)* 28105

diesel-electric power stations
- 10-100 kW hybrid diesel/renewable power systs., developing country appls. 36032
- 37.3 MW diesel power plant demons. project, Japan 27603
- CHP plant, intell. control/monitoring 4854
- CHP syst. condition monitoring/predictive maint. 19539

diesel-electric power stations continued
combined cycle power generation concept 43937
diesel/closed cycle gas turbine power plant thermodyn., LNG-fired 27605
distrib. feeders, voltage flicker studies 43938
hybrid PV/wind/diesel power systs., computer modelling 19571
hybrid renewable energy prod. projects, Germany *(German)* 19551
hybrid wind/diesel power syst. stabilisation, SMES controller design *(Japanese)* 27645
Lebanese telecom. network, diesel generator power plants 19537
telecomms. power plants, diesel-elec. CHP systs., Japan 19535
turbocharger retrofitting overview 19531
wind-diesel energy syst. perform., probabilistic eval. 10913
wind-diesel hybrid power plant, robust control 10912
diesel engines *see internal combustion engines*
diesel generators *see diesel-electric generators*
diesel power stations *see diesel-electric power stations*
difference amplifiers *see differential amplifiers*
difference equations
see also finite difference methods
3D charact.-based time-domain Maxwell eqns. solver 40180
adaptive lattice filter, convergence props. 15882
circ. dielec. waveguide anal., variational-difference method 801
DC motor dyn. ident. 11063
elec. machine conjug. EM field calcs., Newton-Raphson method-based *(Polish)* 36093
element quality anal., accuracy of ephemeris prediction from satellite orb. elements 18985
FIR decimators and interpolators, systolic implement. 6226
FT of translating objs. image, diff. eqn. 24381
$G/M^{a,b}/1$ queues, server vacations 37228
high-order finite difference methods, num. behavior 20628
impulsive differential-functional eqns., difference methods 37346
independent power systs., decentralized open-loop control 19079
infinite-dimens. EM syst., chaotic dyn. 2283
internal combustion engines, combustion press. proc. modeling 4841
lin. dispersive media, EM wave propag., FDTD methodologies 40281
lin. time-variant digital filters synthesis 2527
med. image lossless compression, multiresolution multiplicative autoregressive models 2848
multiscale difference eqn. sig. modeling/anal. techs. 32784
mutually coupled line propag. charact., digital anal. method 40394
opt. beam, thermal self-interact. conditions, perturb. approxs. 40024
optimally scaled systs. for second-order scalar sing. perturbed problems 37359
parab. eqns., time-adaptive grids 28691
PDE with delay, difference analogues 20621
plasma deposition proc., modelling/robust control 12171
power syst. voltage stabil. anal., dyn. load model *(Japanese)* 26852
Prony algm. modified for exponential fn. fitting 20586
repairable systs. reliab., time-varying failure rates 28541
second-order accurate difference schemes for quasi-lin. parab. eqns. *(Chinese)* 5786
sig. proc., wavelets 24324
space power thermionic convertors, thermal modelling 18740
stabil. and regularization of difference schemes 20622
SVC TCR dyn. behaviour modelling, computer-based 4532
transversal filter algm. for recursive LS adaptive filtering 2531
vectorial beam propag. method based on EM field directional decomp. 40429
continuous-time/discrete-time nonlin. parametric models 32783
difference frequency generation (optical) *see optical frequency conversion*
differential amplifiers
see also instrumentation amplifiers
1 Hz MOS integrated low-pass filter, high dyn. range/low distortion 29345
200 W FM-band high-efficiency power amp. develop. *(Japanese)* 17548
analog CMOS differential stages, hot-carrier-induced offset voltage 22574
ARC-ccts. with intrinsic compensation, struct.-topol. 6209
bal. lin. diff. ccts. anal. education 20280
biopotential amps., 2-/3-electrode, power-line interf. anal. 26403
bipolar op amp, demodulation RFI 550
buffered direct injection multiplexer for IR cameras 34562
car audio, high efficiency power amp. 11443
CMOS +1V to -1V, rail, rail differential op amp 37653
CMOS differential difference amp., mixed analog/digital VLSI systs. 37642
CMOS fully differential difference amps., unity-gain difference feedback 37641
CMOS multiplier design, differential difference amp. 6252
CMOS triode-transistor transconductor for HF continuous-time filters 728
current mode S/H cct. *(Japanese)* 6259
distributed-gain amps., component param. spread effects 559
FIR filters using resistor array, simple design *(Korean)* 29386
floating-gate MOS differential amps., analog computation 6032
fully differential feedback amp. ccts., return ratio simul. 21131
high speed CMOS current op amp, bandwidth optim. 21126
high-drive low-power BiCMOS buffer amp. 6034
lin. differential transconductors in subthreshold CMOS 29357
lin. techs. in IC design 12352
read/write amp. design considerations for MR heads 29052
S/H cct. for high freq. appls. 12673
VLSI ccts. for optoelectronic neural network wt. setting 1501
AlGaAs-GaAs HBTs for high-speed opt. modulator driver cct. 42405
GaAs 2-to-4 level convertor IC for SOA modulators 42403
GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
GaAs HBT multifunctional microwave-analog VGA 38023
GaAs buffered DCFL gate array, differential push-pull I/O 37720
GaAs image rejecting downconvertor, single chip, 2.44 GHz 42161
GaAs-InP MESFETs and ccts. fro OEICs 39598
InAlAs-InGaAs HBT X-band double-balanced upconvertor 38021
differential calculus *see differentiation*
differential delay systems *see delay-differential systems*
differential detection *see demodulation*
differential equations
see also boundary-value problems; difference equations; elliptic equations; Green's function methods; hyperbolic equations; integro-differential equations; linear differential equations; Navier-Stokes equations; nonlinear differential equations; parabolic equations; partial differential equations
1/f noise universality in high-technol. appls. 34313
2D eddy current problem, domain decomp., serial/parallel 40250
AC/DC power syst. saddle node bifurcations detect. 35508
differential equations continued
algorithmic work, orthogonal polynomials and special fns. 20580
alternating block Crank-Nicolson method for 3-D heat eqn. 37343
approx. identity neural nets for analog synthesis of nonlin. dyn. systs. 12682
associative memory, ODE 15744
classic four-stage fourth order Runge-Kutta formula, error estim. 28654
CMOS analogue chaotic oscillator for sig. encryption 34433
common store queueing syst., threshold-type foreground-background congestion control 24788
complex structural el. fatigue lifetime eval. 11868
computational procedure for solving chem. flow reactor problem, shooting method 37358
connecting orbits, algm., Sine-Gordon and Hodgkin-Huxley eqns. 12000
convergence results for multistep Runge-Kutta methods on stiff mech. systs. 28690
current power converter transformers, short-cct. inductance calcs. 19771
curve-surface registration, differential props. 24619
DC/DC converter, simul./testing, laser supply appl. 36279
distrib. systs., sig.-spectrum anal./diff. eqn. 35635
DYANA best-first hierarchical diagnosis, diff. eqn. models 19493
eddy current, 2D, iter. domain decomp. algms. 2181
EDFA modelling, num. methods efficiency 14768
elec. ccts., complex, nonlin., num. simul. 510
electromagnetostatics in uniaxial bianisotropic media 15203
electron linac, reson. freq., temp. stabilization 34766
electrothermal capillary optimisation 15287
EM, time-domain modeling 2174
EM field quantities/forces comp. by superconverg. in finite elements 40188
equilib. equivalence theorem, stabil. anal. 35459
fast simul. of semicond. devices, multigrid method 38782
finite element eqns., nonnested multigrid methods, degenerate meshes 28695
fourth order Runge-Kutta formula based on harmonic mean 268
fs opt. solitary wave propag. at the zero dispersion point, nonlin. dyn. 22814
general differential alg. eqns. solvability 28685
half-lin. diff. eqn., dist., zeros 28681
HF transformer windings, model, FEM tool 6377
high-power microwave pulse, propag., air breakdown, anal. 23633
images chaotic scanning/recogn. in neuron-like systs. 8474
index 2 differential alg. problems, Runge-Kutta methods 20627
induction motor starting transients, simul. algm. 19631
induction motors, single phase, starting transients calc. 11039
induction motors, two rotor ccts., reduced order models 11054
indust. fire simul. and conseq. eval. empirical models 20171
indust. power systs., electromech. response 20186
interact., pulsed EM field and horn antenna 8033
interact., pulsed EM field/horn antenna 15618
Kerr-type nonlin. dielec. slabs, TM mode propag. 40398
lin. generators, railgun pulsed power supply appls. 36309
lin. multistep methods and concepts of p-stabil. 37341
LMS median filter, local stabil. 2462
Markovian queueing networks, unsteady state probabilities 16466
matrix diff. eqns., continuous num. solns. 12001
medium freq. converter with VSI, control syst. 19879
method of computing local shape-from-texture 8605
modal shapes meas. of inhomog. cantilevers, opt. deflection 25974
modified nonlin., one-step method for num. integrat. of ordinary DEs 12005
motion understanding, image seqs., Hopfield neural net 33045
multigrid algms., recombining iterants, problems with small islands 20630
multilayer-coated diffr. gratings, differential method 1702
multiplex systs., reliab. models eval. 37192
neural net, feedforward, Lyapunov fn. 29445
nonautonomous Riccati-type matrix diff. eqns., existence interval 37356
nonconforming element multigrid method, parab. eqns. *(Chinese)* 5795
nonlin. waveguide arrays, spatially solitary wave evol. 39426
num. soln. of $y'=f(x,y)$ by class of nonlin. trapezoidal formulas 271
ODE, B-spline solns. 37340
ODE, num. soln., stabilized 4th-order extended methods 11998
ODE, stabilized extended one-step methods 37294
ODEs, consistent, zero-stable, optimal, 4-step lin. method 20617
opt. flow, computation in multi-scale differential framework 24575
opt. flow estim. via local differential techs. 24438
opt. planar waveguides, spatial solitons polaris. interact. 14475
parallel algm. for stiff ODE 37352
partially magnetized ferrites, FDTD treatment 39210
planar electron beams, optics, shaping electrodes calc. 2184
planar shape recogn. under affine distortion 24574
planar SOFCs, param. design optimisation 44364
PM 2-phase sync. FHPM, self starting 36678
point relax. in multigrid, subsonic Euler-flow computations 37348
power electronic converters, stochastic models 5998
power plant generator control, fuzzy modeling 4889
power syst. dyn., diff./alg. systs. 43701
power syst. load voltage dyn., state variable description *(Japanese)* 10615
power system dynamic response anal., nonlinear terms significance 19020
power transm. line dist. relaying algm., diff. eqn.-based *(Korean)* 27244
Prony algm. modified for exponential fn. fitting 20586
PSpice for Laplace transform eqn. solving, undergraduate course 28351
quality assess. models for init. prod. proc. control 20474
quantum transport eqns., absorbing boundary conditions 13824
rectifier cct. transient anal., diode modelling, SPICE-based 12325
Riccati diff. eqn. soln., transm. line modelling tech. 21402
RLC cct. transient anal., matrix topol. methods *(Russian)* 6205
scatt. by coated bodies, higher order impedance boundary conditions 25544
sens. systs. optimal operation, transputers 24317
shaping electrodes in axisymmetrical electron-beam optics, calc. 15242
simple diff. eqns., simple exact solns. 20619
single phase cycloconverter, steady-state proc. 44187
SRM drive, asymm. half bridge fed, discrete modelling 44497
stable barrier-projection and barrier-Newton methods in LP 212
starting procedure, variable-stepsize variable-order PECE codes 12007
symmetric comp. methods for num. integrat. of ODE 20614
sync. generator, back-swing phenom. anal. 11000
thermionic converters, 1D universal TOR model 28032
thermo-resistive solar radiation sensors identification 25805
transm. line struct. on PCBs and dielec. substrs. 21622
transputers and num. solns. of diff. eqns. 37353
turbogenerator shaft torques/fatigue life, freq./time domain anal. 4887
voltage collapse determ., power syst. transient 4450
waveform relax., overlapping splittings 20631
Wien-bridge oscillator, modified for chaos generation 21143

differential equations continued
continuous-time/discrete-time nonlin. parametric models 32783
InGaAs temp. difference growth, num. anal. of soln. convection *(Japanese)* 37380
KNbO$_3$:Fe photorefr. ring resonator, transverse mode oscills., spatiotemporal dyn. 23436

differential games
lin. differential games with integral constraints, resolving fns. method 200
pursuit game, possible break in dyn. 11918
surface-to-air missiles optimal guidance, differential games *(Chinese)* 43583

differential GPS *see Global Positioning System*

differential phase shift keying
16-DAPSK, differential detect., Viterbi-algm. *(Japanese)* 24175
16-DAPSK, multiple-sym. differential detect. *(Japanese)* 24010
adaptive HMM filters for sigs. in noisy fading channels 32736
AWGN, block and decoded error probabilities of DPSK 15763
binary transm. in slow four params. fading channels, errors *(Polish)* 33742
cellular capacity rel. to DPSK modulation level and block coding 33779
circ. 16-DAPSK in fading channels, diversity recept., error anal. 2363
coherent opt. DPSK systs., phase noise corrupted, BER perform. 17327
digital indoor radio channels, diversity, block error probab. *(Japanese)* 42173
digital transm. over degraded channels, coded modulation 8103
distributed power SS cellular syst., perform. 25363
DOQPSK, differential demodulation of filtered offset QPSK 17073
DQPSK AM-VSB/compressed-digital-video transm. syst. clipping penalty 9464
DS-CDMA cellular syst. perform. anal. 33910
DS-CDMA digital mobile radio systs., unequal error protection 9373
DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
DS-SS digital diversity receiver for multipath fading channels 25436
DS-SS ISM band radio LANs, receiver techs. 25261
DS-SSMA syst. based on $\pi/4$ DQPSK and convolutional coding 25369
dual sig. receivers perform. 33886
error probab. on M-PSK/M-DPSK/fading diversity channels 2360
GMSK perform. eval. using Kth order detectors 32032
hybrid SC/MRC 2DPSK RAKE receiver BER perform. 9232
Japan mobile telephone syst., detect. study 9273
land mobile satellite channel with max. ratio combining, BER and outage probab. 42259
land mobile satellite commun. channel, M-ary FSK perform. 25401
M-ary DPSK, MLSE differential phase detect. 2563
M-ary DPSK on freq.-selective Ricean channels 9274
M-ary DPSK/D^{2}PSK channel capacity with time-selective Rician fading 32033
M-ary DPSK/FSK, differential phase detect., bit/sym. error probabilities 40614
M-DPSK in fading channels with diversity reception, error bound anal. 3355
M-DPSK multi-sym. diff. detect. by neural net 40575
microwave link for indoor wireless LANs, perform. 33759
mobile fading channel 16-DAPSK perform. calc. and simul. 33798
mobile radio channel, multiple sym. differential detect. 33874
mobile radio commun., speech/channel coding 3346
mobile radio postdetection diversity/concatenated channel coding 3341
mobile radio RAKE receivers, synchronisation, BER perform. 25445
mobile satellite commun., MFSK/DPSK sigs., cutoff rates 25301
Nakagami faded sigs., Gaussian noise perturbed, phase diff. distrib. 32024
noncoherent orthogonal coding improvement by time overlapping 2375
opt. DPSK/heterodyne detect. scheme, two polariz. planes *(Japanese)* 17265
opt. heterodyne binary-DPSK receiver suppressing phase noise 42372
opt. heterodyne binary-DPSK systs., anal./perform. 42346
opt. preamplified/demodulated DPSK receiver, act. delay-line stabilization 17208
optimum combining in wireless systs., BER upper bounds 9170
phase seq. estim. for differential detect. scheme 32684
$\pi/4$-DQPSK on microcellular radio channels, diversity/interf. 17101
$\pi/4$-DQPSK syst. perform., AWGN/Rayleigh fading 40568
preamble-less packets surrounded by noise, optimum frame sync. 8715
Rake receiver archit., perform. 25264
Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
Rician-fading channels, convolutional codes, finite interleaving depth 33911
Rician-type error probabilities, tight bounds and appls. 15712
satellite reception, DSPN signalling in mobile dense scatterer ray tracing model 33944
shared time division duplexing for wireless digital speech commun. 3333
shared time-division duplexing for wireless speech commun. 3442
sliding multiple sym. differential detect. of trellis-coded MDPSK *(Korean)* 15725
slow flat Rician fading, covariance matrix, ML detect. 25306
subsea acoustic rem. commun., adaptive receiving beamformer 9613
TDM/SS packet radio, modulation/coding 33753
trellis coded multi-amplit./-PM, noncoherent detect. 24281
trellis-coded MDPSK, sliding multiple sym. detect. *(Korean)* 24120
uncoded M-DPSK non-redundant error correction 8460
underwater acoustic commun. syst. perform., stochastic model 16639
VHF channels, digital fading mobile, Markov charactn. 3337
wireless LAN, 10 Mbits/s Ethernet data frames, DPSK 16711
wireless multiservice CDMA environ., adaptive packet decoding 9360
Er-doped in-line fiber amp. Kerr nonlin./noise 9444

differential pulse code modulation
see also delta modulation
2-D DPCM/DCT video/image coding algm., simul. 32905
3D subband coding of video 24590
32 kb/s ADPCM, frame erasures, perform. 8210
adaptive subregion variable shape block motion compensated prediction 24500
ADPCM, destabilization effects of adaptive quantization 24151
ADPCM speech coding based on adaptive mel-cepstral anal. *(Japanese)* 15812
CELP coder/decoder for indoor wireless systs. 3469
colour-mapped image compression 41098
digital audio, wide-band and wide-dyn.-range recording and reprod. 34291
diversity systs., packetized speech appl. 8223
ECG compression, adaptive lin. prediction 43301
ECG data compression, μP 10235
embedded ADPCM coder for speech 40747
HDTV, adaptive coding algm., quantizer vector codebook *(Korean)* 42602
hyperspectral imagery compression, 3D DCT and hybrid DPCM/DCT 24384

differential pulse code modulation continued
image coding, correl. sources decoding 8615
image coding, directional ADPCM 24504
line spectrum pairs, scalar quantisation algm. 40740
mobile speech, video and data transceiver 3266
RIQ-DPCM, audio sigs. compression 15775
shared time division duplexing for wireless digital speech commun. 3333
shared time-division duplexing for wireless speech commun. 3442
speech coding, adaptive mel-cepstral anal. 32258
speech coding, neural networks in adaptive DPCM 15717
speech coding, variable bit rate ADPCM via arith. coding 32256
speech coding for pers. commun. 8196
speech line spectrum pair params., optimal transform coding based on spectral-weighted error criterion 2405
TDMA-TDD personal commun. syst. ADPCM voice transm. improvement 33830
video compression, real-time, using differential VQ 24581

differential scanning calorimetry *see thermal analysis*

differential thermal analysis *see thermal analysis*

differentiating circuits
digitally prog. integrator/differentiator ccts., OTA biasing 37860
dual-input current-mode ratio fn. generation, CCIIs 772
equi-ripple higher-order differentiators, weighted least-sq. design 32634
parametric pulse selector design and operation *(Russian)* 12383
recursive differentiators, design, quadratic prog. 763
recursive differentiators design, const. group-delay characts. 2521

differentiation
see also differential equations
3D gradient recovery by local smoothing of finite-element solns. 28680
automatic differentiation on distributed memory MIMD systs. 11996
derivative computation by Chebyshev differentiation matrix, roundoff error 20594
device simulators, derivatives, automatic num. eval. 20613
dual polynomial bases 5767
equi-ripple higher-order differentiators, weighted least-sq. design 32634
multicomponent exponential transients, time-domain method anal. 25749
multilayer planar opt. waveguiding struct., eigenvalue eqns. 14449
multiscale, multi-orient. fields, local differentiation filters *(Japanese)* 24672
opt. flow, multiple constraints 24439
variational method for num. differentiation 37336

diffraction gratings
see also holographic gratings
1.55 μm DFB lasers with strained-layer MQW act. grating, transfer-matrix dyn. model 1993
2D bi-periodic grating coupled quantum well IR photodetector, two-colour appl. 25836
3D obj. profilometry based on direct fringe displacement anal. 18085
4BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 15070
9BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 31489
400 nm/3.4 μm fiber components and lasers 7562
980 nm Bragg fibre grating coupled diode laser wavelength and intens. stabilisation 9431
aberchrome doped polymer photochromic film, nonlin. opt. gratings 39471
absorptive-grating gain-coupled DFB semicond. lasers, opt. pulse chirp 14947
achromatic diffractive fan-out systs. 39448
achromatic diffractive optics, LD fibre optic coupling 39445
ACOFT, optical fibre technol. conf., Australia (1994) 28253
adaptive whole-field opt. profilometry 18089
adjustable dispersion equaliser for 10/20 Gbit/s 160 km fibre transm. 9436
AlGaAs-GaAs waveguide gratings, polariz.-insensitive outcoupling 7360
ang. bandpass filters, improved design flexibility 37828
angled facial data obtained by bright-spots matrix projection 3854
anticrosstalk arrayed-waveguide add-drop WDM multiplexer 3283
apodised in-fibre Bragg grating reflectors, photoimprinted 22812
arrayed waveguide N×N wavelength multiplexer transm. charact. 42353
asymmetrical grating assisted coupler calc. by eigenmode expansion/coupled mode theory 39419
ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
binary opt. elements, SLM 39479
binary phase fan-out elements, opt. optim. 14558
binary/multilevel diffractive lenses, submicrometer, sizes 7373
book, integrated optics design/modeling 36821
Bragg fiber grating fab., prism-based scheme 14350
Bragg fiber gratings lin. chirped by temp. gradient 14349
Bragg fibre grating develop. for WDM appls. 39340
Bragg fibre gratings, fab. for spectral response apodisation 22811
Bragg grating fiber optic sens. for C fiber prestressed concrete highway bridge 34545
Bragg grating fibre laser, compressive stress tuning 14742
Bragg grating sens., temp. and strain meas. 42826
Bragg grating temp. and strain sens. 17902
Bragg gratings, parametric amplif. 40038
Bragg gratings in fibres, charactn., heat-scan tech. 39370
Bragg opt. fibre gratings, temp.-compensating mounts 34097
Bragg-grating fiber filters with self-induced chirp, dispersion compensation 14352
buried dielec./mag. gratings of fibers, refl. 15411
cascaded chirped fibre grating transm. filters, dispersion compensation 39342
cascaded gratings design, fuzzy ARTMAP neural net appl. 40445
CDMA syst., coherent light pulse, encoding/decoding 42420
channel-dropping filter by grating-frustrated coupling in single-mode opt. fiber 7311
Cherenkov masers, rectangular gratings, and., expts. 7502
chirped Bragg gratings for all-fibre fs pulse amplif. cct. 31230
chirped fibre Bragg grating dispersion compensator, directly modulated laser appl. 25521
chirped fibre grating fab., stretch and write tech. 14375
chirped fibre gratings prod. by fibre tilting 22799
chirped fibre moire grating transm. filters, wide stopband 30874
chirped grating integrated-optic dispersion compensator for fibre links 34016
chirped resonator fibre grating transm. filters 39339
circ. grating waveguide devices, integrated optics/optoelectronics 7481
close range dimens. meas., grating techs. 18078
color separation, moire patterns, spectral anal./minimization 2641
complex coupled DFB laser narrowband amp. props. 39861
concave grating planar waveguide device diffr. 30963

diffraction gratings continued
conference, optical fibre gratings and appls., London, UK (1995) 20234
corrugated waveguide, SHG, light diffr. 14459
coupling lenses, 3D profiling, e-beam lithog./RIE 14568
CPW optoelectronic gratings, light-induced microwave refl. coeff. 14483
cross-PM for opt. A/D converter, high resoln. spectra 7793
desktop printer, diffractive optic elements fab. 39452
DFB Bragg grating struct., phase-shifted, fab. 39338
DFB laser-fibre grating dispersion compensator, transm. dist. extension 39344
DFB lasers, 1.55 μm, grating struct. and mirror posns. rel. to lasing characts. *(Korean)* 31413
DFB lasers, dephased index and gain coupling 23194
dielec. laser mirror, phase anisotropy 2032
diffr. grating, opt. induced, in waveguides/waveguide couplers 22902
diffractive opt. element for laser beam sharpening 23328
diffractive opt. elements, variable shaped electron beam lithog. 14492
diffractive opt. interconnect element design for digital switching 39593
diffractive optics, radiation resist., electroforming *(German)* 31058
diffractive/holographic optics, conf., Los Angeles, CA, USA (Jan. 1994) 36836
directional coupler, opt. induced grating 40438
disordered media, nonlin. optics, photon localization effects 15101
distributed sens., grating Fabry-Perot interferometers 17740
double grating couplers, second-order Bragg interact., TM mode 8020
double phase conjug. four wave mixing mirrors 23438
double-surface corrugated grating waveguides, opt. input coupling 22888
dual-beam flat antenna, grating structs. on dielec. waveguide 40465
dye doped film phase-matched grating generated by enhanced forward DFWM 15077
dye lasers, tunable, acousto-optic deflector spatially modulated grating excitation 39682
dye solns., light-induced SHG, six-wave mixing 7795
EHF waveguide grating syst., elec. characts. 29527
electron beam collimating grid opt. inspection/QC 157
EM beam diffr. by planar periodic metal-strip grating 40295
EM wave scatt. by periodic strips, spectral theory 23786
EUV projection lithog., diffr. mirror optics 38722
external cavity fiber grating laser, coherent opt. freq. domain reflectometry 18122
external cavity LD, freq.-shifted feedback 39828
external-cavity acoustooptically controlled semicond. lasers, tuning fidelity 15003
Fabry-Perot laser/fibre grating, pulse compression/mode selection 23225
far-IR grating FEL, tunable, compact, high power 7689
FDM-channel selection filter, arrayed-waveguide grating multiplexer 9433
fiber Bragg grating systs., cubic/quadratic dispersion compensation 39360
fiber FT spectrometer, Bragg grating sens. decoding 17840
fiber photorefr. grating ps pulse refl. 22860
fiber-grating transm. filters in all-fiber demultiplexer 7312
fiber-optic mode converter, reflective, nonlin. perform. 22800
fibre Bragg grating, tunable chirping, cantilever beam 7279
fibre Bragg grating sens. for aerospace smart struct. 42825
fibre Bragg gratings, pulse self-switching 22819
fibre chromatic dispersion compensation, chirped fibre Bragg gratings 39330
fibre grating interferometric characterisation 39337
fibre grating sens., high temp. capabilities/limitations 17876
fibre gratings, demultiplexing filters for WDMA networks 39345
fibre laser sens. syst., interferometric read-out/WDM 17882
fibre optic sens. and Bragg gratings, mining appls. 17839
fibre photorefr. gratings, appls., high capacity transm. systs. 39343
fibre sens. based on multimode fiber Bragg gratings 17878
fictitious sources method applied, diffractive gratings 15416
flat-field broadband planar waveguide spectrograph design 39457
four-element fiber grating sens. array, phase-sensitive detect. 17816
four-grating interferometer for opt. logic gate implement. 31047
fuzzy ARTMAP neural networks for gratings/FSSs design 40449
gain-coupled MQW DFB lasers, 1.55 μm, Ti surface Bragg grating 23274
gap soliton propag., interface effects, effective particle picture 31628
germanosilicate fiber Bragg gratings, γ-ray exposure written, low dose rate 7286
grating coupler SHG, coupled mode formalism 1722
grating couplers, nonlin. optics, modal diffr. theory 15071
grating-assisted coupler design, rigorous anal. of power transfer 39413
grating-frustrated coupler in WDM bandpass filtering appls. 34035
guest-host photorefr. polymers 22781
H-loaded, depressed-cladding UV-written Bragg fibre gratings, cladding-mode coupling 30909
highly overcoupled fibre couplers to detect shifts in Bragg wavelength, strain sens. 34532
holographic image reconstruction, spatial freq. filtering 23459
hybrid grating-prism stretcher-compressor, cubic phase tunability 2046
identical period double surface corrugated planar waveguide grating coupler anal. 30928
in-fibre grating systs., pulse compression, dispersion charact. 39341
in-fibre wideband Fabry-Perot filter/resonator fab. 31066
injection laser-modulator combinations, time-depend. simul. 14952
intens.-based sens., fibre optic Bragg gratings 34519
interferometer for embedded fibre optic polarimetric interferometer 17842
interferometric 2D imaging amplit. correlator for ultrashort pulses 34720
interferometric fiber strain sens., chirped Bragg grating element 17879
interferometric meas. of strain, grating-coupled LED sources 18113
IR photodetectors, very long wavelength QW, 2D gratings optim. 3831
large-depth obj. 3D reconstruction, Ronchi grating Fresnel diffr. 32982
large-screen HDTV projector, opt. config. 25922
leaky NRD guide, grating struct. based 12686
light valve, high resoln. displays, surface micromachined device 25927
light-shift grating, phase-conjug. sig. dyn. 40066
lin. chirped fiber Bragg grating for fibre link dispersion compensation 42444
lin./chirped opt. generated liq. cryst. gratings 1751
liq. photopolymers, radiation curable, diffractive optics replication 39453
long pitch fibre gratings, dispersion compensation 30919
low-loss compact all-fibre wavelength drop and insert filter 9437
metal diffr. gratings, laser power, energy dividers 15008
metallic Fourier grating, EM wave diffr., extended boundary condition *(Japanese)* 40336
micro optics, excimer laser material proc. *(German)* 7867
micro-optic element, opt. disc memory read/write heads 39309
micron-scale grating form., excimer laser irrad. phase masks 31052
MM-wave elec. and opt. controlled screens 37972

diffraction gratings continued
MM-wave radiation source, dual grating resonator 2019
Moiré interferometry anal. of laser weld induced thermal strain 2161
monolithic grating-based components for WDM networks 9131
MQW LD mode-locking proc., transient gratings *(Chinese)* 39795
multichannel joint-transform correlator, multiobject recogn. 24426
multifrequency waveguide grating MQW laser fab. by selective area epitaxy 7627
multilayer grating assisted directional coupler waveguides, normalized radiation modes 14448
multilayer-coated diffr. gratings, differential method 1702
multilevel diffractive opt.-elements, Gaussian beam shaping 39449
multiple vernier grating monochromator etalon design *(Chinese)* 10046
multiple-obj. recogn., optoelectronic morph. scheme 8596
multistage opt. butterfly interconnection and optoelectronic logic operations 1759
narrow band opt. fibre transm. Bragg grating filters 31065
nonlin. directional coupler, opt. induced grating 7361
nonlin. grating couplers, anal. by sing. perturb. tech. 14445
nonlin.-opt. loop mirror/fibre Bragg grating, bandpass switching 31499
nonuniform gratings, gap solitons, launching power estim. 15036
obj. with steps, profile meas. by two gratings projection 34697
opt. fibre transversal filter sig. proc., grating reflectors 30918
opt. material proc., diffractive optics 39446
opt. spectrum meas. syst., high resoln. 4003
opt./quasioptical diffr. focusing elements, appls. 39529
organic waveguide couplers, 2-photon absorpt.-induced luminesc. 30940
packaged fibre gratings for telecomms., fab. and perform. 39336
partial pixel diffractive display archit. 25917
perfectly conducting corrugated surfaces, wave scatt. 40290
periodic dielec. struct., EM wave interacts., finite element modeling 15565
periodic waveguide gratings design, asymmetric discrete-time anal. 22897
phase gratings, fab., FIB milling/e-beam lithog. 14496
phase retarders, metallic grating based, laser cutting appls. 125
photogenerated in-fiber gratings, simultaneous strain and temp. sens. 25873
photoimprinted Bragg grating all-fiber dense WDM/demultiplexer 42388
photolithographic mask aligner based on moire interf. tech. 38709
photorefr. crysts., Gaussian beam compression, self-bending, and collapse 2068
photorefr. crysts., speckle beam self-bending, space charge 2049
photorefr. grating opt. resonator, self-organized learning of purely temporal inform. 14329
photorefr. gratings kinetics, light phase-shift effects 40051
photorefr. mutually pumped phase conjug., partially coherent pump beams 23343
photorefr. planar waveguides, phase-locked detect. mechanism 14453
photorefr. polymer four wave mixing opt. correlator/computer 24425
photosensitive grating struct. opt. waveguide photoimprinting 30949
planar opt. waveguides, highly directional surface emission from concentric-circle gratings 23766
planar waveguide diffractive beamsplitter 3D integrated optics 39392
planar waveguides, guided modes via grating rotation deflection 22863
planar-optic-disk pickup, diffractive micro-optics 7368
plane grating focusing for soft X-ray monochromators, review 26262
plane wave diffr. anal. of complex interferograms 40124
PMMA, grating and dot pattern nanofabrication, electron holographic lithog. 38706
PMMA-based photorefr. polymer opt. trap activation 1654
poly-phenyl-acetone opt. waveguides, nonlin. coupling and propag. 39432
PPV composite film elastic moduli meas. by ps transient grating study 23392
printed antenna cross-polaris. suppression by strip grating 23859
profilometry by phase-shifted Talbot images 17727
prog. Dammann grating, interconnections, FT lens, SLM 39450
pseudo external cavity tunable diode laser 39773
quantum well DFB rib waveguide LD design, spectral index method appl. 39876
quasioptical systs., diffr. at gratings, resonator design 37952
ray tracing facility for soft X-ray/VUV monochromators 10164
rect. grooved metallic surface light scatt. 2195
refl. echelon and echelette gratings, millimetre wave antennas 8048
refr. eye microsurgery, laser tracking 17452
reversible storage of light-induced gratings in low molar mass liq. crysts. 22785
rhodamine 6G dye lasers, Cu laser pumped, tunable collinear operation 23107
rhodamine B-doped glass planar waveguide, light amplif. 30933
rhodamine perchlorate dye-doped sol-gel silica laser, XeCl laser-pumped, wideband tuning 31204
rib waveguides, grating fab., electron-beam/X-ray lithog. 14461
ribbed cylindrical shells, ident. by acoustic Bragg diffr. patterns 17475
ribbon FEL, 1D DFB 39910
Rowland circle grating photonic integrated device for WDM appls. 9441
ruby laser, thermal gratings, DFWM 23407
second-order grating waveguide-to-fiber coupling 39404
SEL, 1.55 μm, very low threshold, grating coupled 14905
self-referenced fiber optic sens. for microdisplacement meas. 34537
self-written glass slab waveguides 30958
semicond. DFB laser, stochastic reson. 1952
semicond. doped glasses, opt. storage by laser beam written gratings 22789
semicond. lasers, soliton generation, opt. switching appls. 7651
single leakage-channel grating coupler, wet-chem. fab. 39412
single-mode fibre coupler/filters, coupling suppression by periodic index modulation 30912
singlemode fibre digitally tunable wavelength filter, opt. transparent 17330
smart pixels, high-resoln. liq.-cryst. gratings, PWM drive tech. 31012
smart struct. sens., Bragg grating laser systs. 34538
Smith-Purcell FEL, amplif., single-particle classical theory 23313
spectrum analyzer selection, sensitivity, dyn. range, resoln. and accuracy 42747
submicrometer feature etched IC fab. proc. control, UV-vis. ellipsometry 30078
substr.-mode grating struct. opt. switches 7754
superimposed grating for magneto-opt. disk heads 7377
superimposed multiple Bragg fibre gratings 1678
tapered strain-gradient chirped fibre Bragg gratings, fab. 22847
TE-TM nonlin.-grating MQW polariz. switch 23427
thin-film waveguide, grating coupler optimisation, Si substr. 14442
transform-limited opt. pulse generation, 10 GHz 39493
travelling-wave grating filter design, inverse scatt. 31067
tunable semicond. lasers, continuously chirped DFB gratings 1954

diffraction gratings continued
two freq. gas laser, phase anisotropic mirror resonator 7700
two-mode semicond. laser dyn., carrier diffusion effects 31394
UV grating written planar silica waveguide semicond. external cavity laser 34034
UV light written grating planar silica waveguides 1720
UV written refl. grating structs. in photosensit. opt. fibres 1679
UV-induced fiber Bragg gratings decay 7310
UV-written grating planar silica waveguide external-cavity semicond. laser 9570
visual motion transducers using gratings 24718
waveguide grating couplers, nonlin. optics, modal anal. 14458
waveguide-grating filters, plane wave and Gaussian beam illum. 30950
WDM arrayed-waveguide grating multiplexer, flat spectral response 25497
WDM cross connector electro-opt. controlled multiwavelength switch 34008
WDM unidirectional ring network, wavelength reuse scheme, fibre grating add/drop multiplexer 34054
wide continuous tuning LDs, hybrid reson. opt. reflector 7658
X-ray lithog., subnanometer alignment syst. 13482
As-S-Se resists, diffractive opt. elements, asymmetric profile fab. 39455
$BaTiO_3$ cat conjugator, real-time image proc. 24491
$BaTiO_3$ cryst. multiple wavelength phase-conjug. shear interferometry 2087
$BaTiO_3$ photorefr. phase conjug. beam time evol., multigrating operation 31522
$BaTiO_3$:Fe, beam fanning, edge enhancement, contrast reversal, logic operation 30822
$Bi_{12}SiO_{20}$, photorefr., charge carriers grating competition 22778
$Bi_{12}SiO_{20}$ photorefr. cubic media far from paraxial limit, wave coupling anal. 40062
$Bi_{12}SiO_{20}$, photorefr. response LF peculiarities 14322
$Bi_{12}SiO_{20}$, photorefr. response incoherent enhancement, subharmonic interact. 40158
$Bi_{12}TiO_{20}/Bi_{12}GeO_{20}$ planar waveguides, photorefr. gratings 15111
CO lasers, act. medium phase-conjug. 31480
CO_2 laser, relax. time of phase-conjug. refl. via four-wave mixing 1850
CO_2 lasers, act. medium phase-conjug. 31480
CO_2 lasers, phase conjug. 15059
CdTe nanostructures, opt. studies 1793
CdZnTe:In, thick plasma gratings, local photorefr. effect 22777
Er modelocked fibre laser, 10 nJ ps pulse generation 23112
Er^{3+}:GeO_2-Al_2O_3-SiO_2 opt. fibres, two photon reson. SHG 2070
Er^{3+}:Yb^{3+}-codoped fiber DFB laser 23116
Er^{3+}:Yb^{3+}-doped low-noise grating-feedback fiber laser 7567
Er-doped coupled-cavity fiber lasers incorporating fiber-grating reflectors 7564
Er-doped fiber MOPA, act. noise reduction 7563
Er-doped fiber amplifiers, nonlin. wave mixing and dyn. controlled gratings 7577
Er-doped fiber grating laser transmitter at 5/2.5 Gb/s, long-term BER transm. 34038
Er-doped fiber laser based fiber sens. 9920
Er-doped soliton fiber laser based on pulse width control, chirped fiber Bragg gratings 23129
Er^{3+}-doped fibre dispersion-modified act. modelocked laser, chirped fibre grating 7552
GaAs bistable Fabry-Perot device, array format operation 23378
GaAs cascaded guided wave gratings, out-of-plane opt. sig. proc. 14481
GaAs:Cr, free-carrier grating dyn., picosecond meas. 14341
GaAs:Cr, picosecond transient gratings, expts./modelling 31491
GaAs:Cr/AlGaAs SI MQW photorefr. device 22942
GaAs/AlAs quantum heterostruct., local space charge field 30816
GaAs/AlGaAs, MQW IR detector, wideband response *(Chinese)* 17809
GaAs/AlGaAs MQW, refr. index, grating coupling tech. 22012
GaAs-AlAs semicond. superlattice deep gratings, nonlin. optics 31631
GaInP/AlGaInP DFB QW lasers, fab., room temp. operation 23273
Ge-doped opt. fiber Bragg gratings, polariz. and temp. depend. of photosensitivity 7336
H_2-sensitized GeO_2 doped opt. fibers, refr.-index changes 7307
HCN waveguide laser, duplex radiation output, polaris. and energy charact. 39642
InGaAs/AlGaAs lasers, integrated optoelectronics, grating fab. 39596
InGaAs/InGaAlAs gain coupled DFB lasers, masked implant. enhanced intermixing 14887
InGaAs-AlGaAs laser oscillator surface grating output couplers 23255
InGaAs-GaAs low threshold CW circ.-grating surface-emitting DBR lasers 7628
InGaAs-GaAs-AlGaAs laterally-coupled DFB ridge LD, CW perform. 31318
$In_{0.53}Ga_{0.47}As$-InP reson. plasma waveguide modulator for mid IR 1734
InGaAsP/InP grating-assisted directional coupler, act. filter *(Japanese)* 7365
InGaAsP-InP pol.-independ. four-channel tunable opt. filter 25477
InP, selective-area MOVPE, optoelectronic appls. 381
InP tunable phased-array wavelength demultiplexer 17257
InP:Fe double phase conjug. mirror, telecomm. appls. 23452
$KNaSrBaNb_2O_6$:Cu two-wave coupling, red light 31567
$KNbO_3$:Fe photorefr. reconfigurable hexagonal spot array, self-organization of scatt. 22779
$KNbO_3$:Fe photorefr. ring resonator, transverse mode oscills., spatiotemporal dyn. 23436
$KTa_{1-x}Nb_xO_3$ crysts., photorefr. diffr. dyn. 31618
$KTiOPO_4$ sync. pumped opt. parametric oscillator, design, fab. and perform. 40052
$LiNbO_3$, ion beam induced domain-inverted grating, SHG study 31556
$LiNbO_3$, periodic domain inverted struct., nonlin. optics 23394
$LiNbO_3$, proton exchanged waveguides, deeply inverted periodic domains 22879
$LiNbO_3$ waveguide QPM-SHG device, tuning bandwidth *(Japanese)* 7746
$LiNbO_3$ waveguide quasi-matching SHG devices 22880
$LiNbO_3$:Fe, forward phase conjug. wave generation by two-wave mixing 40071
$LiNbO_3$:Ti,Er integrated opt. DBR waveguide laser, 1531 nm 31304
$LiNd(PO_3)_4$ multimode laser, antiphase dyn., Shil'nikov chaos 14812
$LiTaO_3$ DBR grating for LD freq. doubling 31382
$LiTaO_3$, ion beam induced domain-inverted grating, SHG study 31556
$LiTaO_3$, periodic domain inverted struct., nonlin. optics 23394
$LiTaO_3$, proton exchanged waveguides, deeply inverted periodic domains 22879
$LiTaO_3$ waveguide SHG of LD radiation 23442

diffraction gratings continued
$NaNO_3$ cycloidal diffr. gratings, propag. eqn. and boundary conditions 23607
Nd^{3+} doped silica based fiber laser, Bragg grating 39713
Nd:YAG laser resonator with internal phase gratings, high modal discrim. 14783
Nd:YAG, saturable amp., pulsed phase conjug. modeling 2065
Nd:YLF, additive-pulse mode-locked laser, diode pumped, pulse compression 31298
Nd:fibre laser, quenched ion fluoresc., radiative lifetime 39705
Nd:glass lasers, thermal gratings, DFWM 23407
Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
Nd-doped silica planar waveguide lasers fabricated by flame hydrolysis deposition/RIE 31260
PLZT-based scanning grating lobe opt. array generators, design and simul. 14523
Pt silicide Schottky barrier IR detectors, opt. response 3840
Si wafer noncontact temp. meas., real-time image proc. techs. 2718
a-Si:H films, nonlin. opt. suscept., laser-induced transient grating tech. 31546
SiO_2, submicron parallelogramic-shaped gratings fab. proc. 7345
SiO_2:Ge Bragg reflectors, UV laser fab. 14436
SiO_2/Si arrayed-waveguide grating multiplexer 22909
SiO_2-GeO_2 fibres, Bragg grating, UV writing, spectra 15038
SiO_2-GeO_2 preforms and fibres, UV photosensitivity 39334
$Sr_{0.60}Ba_{0.40}Nb_2O_6$, light-induced grating, nonlin. opt. responses 31492
$SrBaNb_2O_6$ four-wave phase conjug. of time-depend. spatial struct. sig. 40102
Tb^{3+}-doped silica fibres, laser-induced photochromic effect 1676
Ti:sapphire chirped pulse amplif. beyond 1 μm 31258
Ti:sapphire laser amplifer/pulse compressor, gain-narrowing limit 23151
Ti:sapphire regenerative amp. for ultrashort high-power multi-kHz pulses 31251
Ti:sapphire ultrashort laser pulse compression, single shot meas. 23152

diffusion
see also biodiffusion; diffusion barriers; electromigration; osmosis; permeability; self-diffusion; surface diffusion; thermal diffusion
BiCMOS, 2D transient enhanced diffusion and impact on bipolar transistors 22620
bipolar transistor ccts., LF phase and amplit. noise 40381
buried waveguides fabricated by purely thermal ion back diffusion 39466
capacitance, space-charge-layer thickness modulation effect 1077
channel waveguides, index profile 39417
CONCAVE-DMOSFET, super-low on-resist. power MOSFET 38877
deep submicrometer MOSFETs, intrinsic capacitance modeling 30290
n-diamond:N,P,Li,Na,S,O, doping, review 6614
dopant diffusion in vacancy gradients, theories eval. 38225
dopant diffusion modelling, mesh adaption, flux discretizations 1222
dual polycide gate and buried contact technols. for CMOS SRAM cell 21333
dual-poly CMOS, B diffusion, O_2 and N_2O gate dielecs. 22575
EM fields and screens, diffusion interact. procs. anal. 31698
epoxy, water diffusion profile meas., neutron radiography 12222
guided photon-dens. waves, diffusion theory 23782
hadronic colliders, transverse beam dyn./losses 4103
HVDC transm. line, monopolar ionized field, ion diffusion 43736
image enhancement, nonlin. diffusion proc. 2662
ion implant., point-defects, lateral diffusion 22114
ion-exchanged glass waveguides, secondary ion mass spectrometry charactn. 30934
Laplace domain FEM, diffusion/propag. problems in elec. engng. 278
LSIs, self-aligned complementary bipolar technol. 30442
MOSFET simul., coupling drift-diffusion and Monte Carlo models 38905
n-MOSFETs, substr. current simul., nonlocal impact ionization model 30359
p-MOSFETs, trench-isolated buried-channel, narrow channel effect 6769
n-p-n transistors, thin base, lateral ion implant., enhanced diffusion 30245
non-Fickian microscopic diffusion, interfaces and in SOI thin films 1174
nonhermetic enclosures and packages, moisture ingress model 5673
Novolak-based photoresist, dissolution, developer diffusion model 22297
opens defects repair in MCM, diffusion bonding 21729
opt. waveguides, modes, diffusion 14434
PCB laminate materials, moisture absorpt. 29690
photomultiplier tube solid angle fn. math. modeling, transm., diffusive plane 29813
planar polymer substr., gradient-index profiles, lithographic tech. 14489
planar waveguides in glass, nonlin. diffusion procs., refr. index profile 1713
polyethylene high voltage cable insulation, diagnostic methods 14065
polysilicon emitter bipolar transistors, power appls. 22367
p^+-polysilicon gated p-MOSFET, reverse short-channel effect 1400
polysilicon TFT, plasma hydrogenation effects *(Korean)* 30348
power p-i-n diodes, PSpice-based modelling 5987
power VDMOSFETs, channel doping profile proc. design/optim. 30311
proton-exchanged waveguide devices, lifetime projections 22884
randomly inhomog. medium, effective index of refr. 15420
rapid isothermal proc., photophysical/photochem. effects 22232
RTO proc., opt./elec./mech. charactn. 22227
semicond. device drift-diffusion eqns., artificial diffusion *(Spanish)* 30195
semicond. wafers, rapid diffusion furnace, temp. distrib. 1187
semicond.-liq. cryst. interfaced opt. addressed SLM 14536
SI buried crescent laser regrowth tech. 31358
simulated diffusion algm. for global optim. of device model params. 1323
sing. perturbed high-order ellipt. two-point BVP 37357
single-mode fiber, polariz. effect on four-wave mixing efficiency, comment 30878
SSC, long. beam dyn., RF noise 4092
stochastic particle method for Kolmogorov eqn. with variable coeffs., rate of convergence 275
strategic sens. and spy sens. 34437
thermohydraulics, optimized locally exact num. scheme 35780
two-mode semicond. laser dyn., carrier diffusion effects 31394
VCSEL, 2D diffusion eqn. 23208
volatile cpds., ECR ion source, metal ion beams 10103
Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
AlInAs:Be, MBE growth, Be acceptor diffusion 338
B polyemitter form., role of point defect sources 22381
CdTe:I, doping, interact. between I in closed tube diffusion 13316
CdZnSe-ZnSe strained layer superlattice disordering, diffusion/ion implant. *(Japanese)* 38339
$CoSi_2$ doping source for RTA of shallow p^+-n jns. 22099

diffusion continued
Cu_3Ge thin films on $Si(SiO_2)$, stabil. 1301
$CuInSe_2/SnO_2$, PV solar cell material 36605
Cu_2O ultrafine particles in organosols, diffusion and carrier recomb. 40028
Cu_5Si passiv. layer, growth kinetics and materials props. 38577
Er-doped planar waveguide lasers, theoretical modeling of relax. oscills. 14818
Ga(Al)As:H,S(Se)(Te), hydrogen-group VI donor interacts., passiv. 38258
GaAs based cpds., Si diffusion, doping profile control and 2DEG form. 6627
GaAs, n- and p-type, effect of ion energy on H diffusion 29861
GaAs p-n jns. and ohmic contact form. by laser solid-phase diffusion 30052
GaAs passiv., integrated plasma clean/CVD/RTA, Si_3N_4 encapsulation 22224
GaAs:Be, polycryst., heavily doped, diffusion props. 1043
GaAs:C, polycryst., heavily doped, diffusion props. 1043
GaAs:Si QW, uniform intermixing in p-i-n modulator structs. 39605
GaAs:Si, Si diffusion by RTO 38523
GaAs:Si, at. layer doped, thermal stabil. 22110
GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
GaAs:Zn, Zn incorporation, OMVPE growth 30019
GaAs:Zn(Sn), p/n-type impurity diffusions, doped silica films 38500
GaAs/AlGaAs MQW zero-gap directional coupler, disordered branching waveguides 14491
n-GaAs/AlGaAs:Zn/AlGaAs:Se struct., Zn diffusion mechanism 21955
GaAs-AlGaAs antiguided laser array fabricated by superlattice struct. 1988
GaInAs:Be, MBE growth, Be acceptor diffusion 338
GaSb, chem. etching in Br_2-methanol solns. 1259
He-based gas mixtures, drift chambers operation 4166
(Hg,Cd)Te:In, diffusion and elec. activity 6621
HgCdTe bulk wafer-based two-colour IRFPAs, design/fab. 17943
$In_{0.52}Al_{0.48}As$:Fe,Ti, compensation implants 13287
InGaAs temp. difference growth, num. anal. of soln. convection *(Japanese)* 37380
InGaAs/GaAs quantum wells, MBE, selective area bandgap modif. 12118
InP:B(O)(Fe), p^+ epilayers, elec. isolation by MeV ion implantation 13289
InP:Be, Be distrib. control in gas-source MBE 12064
InP:Sn, ion implant, RTA, anal. meas. 38465
InP:Ti, compensation implants 13287
$InP/In_{0.53}Ga_{0.47}As/InP$, Zn area-selective diffusion for lateral pn photodiodes 29855
InP/InGaAs HBT, MOCVD, Zn diffusion, growth temp. depend. 22385
InP/InGaAs/InP DHBTs, microwave power performance 12765
InP(100),(111), $HBr-K_2Cr_2O_7-H_2O$ etching 13399
K^+-Na^+ ion-exchanged channel waveguide profile params. by mode-index meas. 39388
K^+-ion diffused waveguides, coupler-type wavelength demultiplexer 9554
LiAl foil compressed secondary anodes, cycling perform. 11253
$LiCoO_2$ MCFC porous cathode studies 11280
$LiFeO_2$ MCFC porous cathode studies 11280
$LiNbO_3$ integrated AO space-division opt. crossbar 7426
$LiNbO_3$ planar waveguide fab., Zn diffusion 39374
$LiNbO_3$ quasi-phase-matched waveguide, periodic domain-inversion 39400
$LiNbO_3$:Ti, nearly cut-off modes caused by diffusion 7349
$LiNbO_3$:Ti, periodically segmented waveguides, loss mechanisms 1706
$LiTaO_3$ proton-exchanged opt. waveguides, electrooptic consts. 14471
$LiTaO_3$ proton-exchanged waveguides fab., cinnamic acid 39422
$LiTaO_3$:Ni opt. waveguides, fab., Ni diffusion 22885
$Li_{0.3}Zn_{0.4}Fe_{2.3}O_4$, additives, material property changes 39167
$Ni-H_2$ space power battery, gas diffusion electrodes 26582
Ni-InP syst., interfacial reacts. and phase stabil. 38391
NiO(Li) MCFC porous cathode studies 11280
Pd-Ge-Ti-Pt ohmic contacts, p^+-GaAs:C/$Al_{0.26}Ga_{0.74}As$:C 38658
$Ru(bpy)_3^{2+}$ luminesc. probe, microenvironmental studies 34612
SIMS and microelectronics 1465
SO_2 emission effects on aerosols 35973
SOI wafer, counter-oxid. of superficial Si 13320
Si, B implants through SiO_2 films, implant. damage/anom. diffusion 13283
Si, dopant diffusion modeling, automatic grid refinement 22115
Si, implanted impurity diffusion, simul. 22120
Si, oxid., VLSI gate dielec. appls. 30086
Si oxid. proc., fractal aspects 30125
Si porous membranes, gas sens. appls. 25900
Si, porous, photocarrier electronic states, photomodulated IR spectrosc. 6653
Si porous wells for power devices 22508
Si, rapid isothermal diffusion, photoeffects, semicond. devices 1084
p-Si, soft sputter etch cleaning, H passiv. 38619
Si solar cells, high efficiency, pilot prod. 44402
Si solar cells, radiation stimulated diffusion, impurities distrib. 11290
Si, subsurface diffused layers, resist. curves 13037
Si, vacancy-mediated dopant diffusion at high doping levels, models 1026
Si varactor struct., DLTS study of deep traps 38052
Si wafer, P doping, P_xO_y conc. profile model 1215
Si wafers, heat treated, microdefect depth distrib. due to nonequilib. self-interstitials 38474
Si:As MOSFET *(Japanese)* 13681
Si:As, enhanced diffusion caused by elec. deactivation 22158
Si:Au, Au diffusion, carrier conc. profile, preannealing effects 29831
Si:Au, Ne implant. gettering 22119
Si:B MOS ULSI, MOSFET B diffusion model incorporating disloc. loop growth 22610
Si:B, ULSI high conc. diffusion modelling, dyn. clustering, init. conditions 38520
Si:B, δ-doping, ultra-shallow/abrupt profiles 38499
Si:B, diffusion during post-implant annealing, damaged/amorphizing conditions, model 22107
Si:B, enhanced diffusion due to ion implant. in thin-base npn BJTs, model 38997
Si:B, implant. and transient B diffusion, interstitials 1228
Si:B,F(Ne), boron diffusion, ion implant. effects, proc. modeling params. 38505
Si:C,O plates with nonuniform stress distrib., mechanisms for O gettering 29833
p-Si:Cu, RTA, OISF, deep states, Cu diffusion 13034
Si:F/SiO_2 TFT, F^+ implant. effects 38883
a-Si:H films, nonlin. opt. suscept., laser-induced transient grating tech. 31546
a-Si:H, microscopic struct. determ. of dangling bonds by pulsed ESR 1646
a-Si:Kr, sputtered layers, Kr-incorporation obs. 38268
Si:O, H-enhanced thermal donor form., depth profiles, spreading resist. probe meas. 38493

diffusion continued
Si:O near-surface/subsurface defects, opt. prod. profiling 29992
Si:O,C,Si,P, P-diffusion, ion implant. damage effects 6523
a-Si:P/Si, shallow jn. form., diffusion from spike-doped CVD amorph. layer 38514
Si:P(B)(As) VLSI submicron jns., proximity rapid thermal diffusion 6625
Si:P,B(As), phosphorus diffusion 29844
Si:Sb, heavily doped, elec. act. impurity diff. 13033
Si:Sb,B, heavily doped wafers, annealing, fluoresc. EXAFS anal. 38475
$Si/Si_{1-x}Ge_x$ strained heterostruct., thermal stabil. 37406
Si(100), XeF_2 spontaneous etching 6634
SiC-6H, encased diffused epitaxial diode 38802
SiO_2 1.5 μm thick films, rapid nitridation in NH_3 ambient, SIMS study 13328
SiO_2 fibres, polymer clad, mode coupling, diffusion proc. 22834
SiO_2-Si ultrathin CMOS gate dielec., RTP growth in N_2O ambient 22221
SiO_xN_y nanometer thin films, nitridation, phys. charact. 30073
Sm_2Fe_{17} powder, Nb-modified, nitriding 6947
SnSb solder/evaporated Al-Cr-Ni-Ag multilayer, bonding mechanism, IC packaging 11814
Ti silicidation, effect on type II end-of-range disloc. loops 38581

diffusion barriers
3D simul. of impurity diffusion in thin-film diffusion barriers 13424
CVD diamond, metallization and die attach 38662
mag. thin-film disk packaging, desiccant humidity barrier 30744
quartz cryst. resonator stabil., electrode metallization barrier layer 39075
surface metall., solder flip chip, wirebond and TAB interconnections 21783
Ag-Au interconnects, transit. via fill material 30152
Al ultrathin films for Cu oxid. prevention *(Korean)* 38638
Al/TiN/CVD-W deep submicron interconnects, sheet resist. 38683
Al-Si-Cu VLSI interconnect void-related early failure, subpopulation model 22271
Al-Si-Cu/TiN/Ti/Si systs., solid-phase reacts., TEM obs. 38685
Al-TiN high coverage barrier film form., ICB deposition 20955
AlCu-TiN VLSI interconnect systs., design and building-in reliab. 38645
Au/Pd/Ti-based ohmic contact on AlGaAs/GaAs:C HBTs, elec./struct. props. 38701
$BaTiO_3$ thin film capacitor dielec. props., Pt bottom electrode 38050
$BaTiO_3$ thin film capacitor dielec. props., W_2N-W bottom electrode 38050
Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
Cu IC interconnections, materials issues 30137
Cu MOCVD, Cu-betadiketonate precursors, surface effects 37492
Cu grain growth during Cu-Cr and Cu-Ti thin film nitridation, situ TEM 38583
Cu interconnects, diffusion/drift barriers for Si and SiO_2 30138
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
Cu metallization mfg. issues for future ICs 38643
Cu metallization, oxid. barrier layers 38689
Cu metallization technol. for deep submicron ULSIs 30140
Cu surface/interface modif. for IC appls. 38647
Cu/Al(Ti)/SiO_2 interface, ultrathin sacrificial diffusion barrier anal. 38702
Cu/TiN/Si(100) heterostruct., pulsed laser deposition and charactn. 421
Cu-Cr bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
Cu-SiO_2 IC metallisation, refractory metal encapsulation/barrier layer 38650
Cu-Sn intermetallic form. at solder-Cu interface, in-situ TEM 12188
Cu-Ti bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
Cu-Ti(Cr) self-encapsulated metallization, TiN(CrN) diffusion barriers 38651
CuCr alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
CuTi alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
GaAs MBE on Si, InGaAs/GaAs strained-layer superlattice effects 5842
GaAs, n-type, NiGe- and InAs-based ohmic contact metallizations 38655
GaAs thin film, GaAs substr., eutectic bonding-induced in-plane strain 38341
GaAs thin film, Si substr., eutectic bonding-induced in-plane strain 38341
GaAs/Si/SiN_x syst. diffusion barriers, MBE 1289
GaAs-AlGaAs MQW, $LiTaO_3$ substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs MQW, Si substr., eutectic bonding-induced in-plane strain 38341
InGaAs/InGaAsP QWs, interdiffusion 13138
n-InP/Au/Ni, ultra-low resist. Ni-based contacts 38409
Ni-NiIn-Ge-GaAs ohmic contacts, interface microstruct./reacts. 38396
Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
Si-$TaSi_2$-TiN-AlSi multilayer thin film contacts, electromigration testing 38654
Ta-Si-N diffusion barriers, RIE 22198
$Ta_{36}Si_{14}N_{50}$ diffusion barrier RIE in CF_4/O_2 gas mixtures 38675
TiH_2 diffusion barrier stabil., SiO_2 substrs. 38649
TiN MOCVD films, IC diffusion barriers/adhesion layers, TEM study 37420
TiN collimated PVD, EVOLVE simul. 38669
TiN diffusion barriers for sub-0.5 μm planarized Al IC technol. 38653
TiN rapid thermal CVD for diffusion barrier appl. 20970
TiN_x, CVD, organometallic precursors, surface spectrosc. study 37495
TiN/$TiSi_2$ form., TiN_x layer, ULSI technol. 38684
TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270
TiN-Si CVD for sub-0.5 μm technol. 13415
TiO conductive films, reactive ion-beam sputtered, VLSI metallisation 37494
TiS_2 diffusion barrier, RTN, CVD-Al contact plug 38686
TiW barrier layer, $TiSi_2$ form., RTA, SIMS/XPS study 22276
TiW, sputtered Schottky barrier, AES, SEM 29957
TiW thin films, sputter deposition 28829
W/WN/Si, nitride barriers for thermally stable metallization, TEM studies 38704
WN diffusion barrier for n-GaAs/AuGeNi/Au ohmic contact *(Chinese)* 22036
WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676

diffusion coefficient *see diffusion*
diffusion in plasma *see plasma transport processes*
diffusivity *see diffusion*
diffusivity, thermal *see thermal diffusivity*
digital-analogue conversion
see also analogue-digital conversion
10-bit D/A converter, self compensation cct. *(Korean)* 29312
adaptive VLSI neural network chip 29436

digital-analogue conversion continued
analog multiplication division scheme based on D/A converters 12671
analog testability anal., fault diagnosis, behavioral modeling 28942
BIST, CMOS technol. 12600
class D output stages lin. for high-perform. audio power amps. 3697
CMOS 130 μW DAC for low-power video systs. 29319
CMOS analog/digital interface for cellular telephony 33774
CMOS DAC, 10 bit, 50 MHz, act. compen. of parasitic capacit. 29318
CMOS digital video delay line, embedded ADC/DAC/SRAM 34434
CMOS digitally-prog. analog cells for ANN 29450
CMOS high-speed DAC, embedded prog. video FIR filtering fn. 29326
CMOS high-speed high-resoln. D/A converters, self-calib. 704
CMOS low-power chipset for portable multimedia I/O terminal 9114
CMOS triple 8 bit DAC, on-chip PLL and hardware cursor 6192
CMOS video D/A converter, HDTV, low glitch 10-bit 75-MHz design 12594
comparative analysis of digital sinewave generation methods 25904
conference, Cambridge, UK (July 1994) 45
custom IC, conf., San Diego, CA, USA (May 1994) 20247
DDS-based synthesizer for mil. spaceborne appls. 43581
delta-sigma ADC, noise shaping, distributed zeros, new archits. 6189
design prototyping, A/D mixed tester 688
direct digital synthesizers, error feedback loops for lin. 563
DMT-based ADSL systs., clipping effect anal. 9088
DRFMs, digital RF memories, phase perform., radar and ECM equipt. 4436
DSP μP-based programmable interface components 29324
dual bitstream continuous calib. CMOS D/A converter, 110 dB dyn. range, 3.4V 692
error model of data acquisition systems 34415
exponential-hold circuit, properties and applications 29424
FIR filters using resistor array, simple design *(Korean)* 29386
fn. generator, prog., PC-based *(Bulgarian)* 25905
high speed current steering CMOS DACs, self-calib. 705
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
long-term CMOS storage cell performing ADC/DAC for analogue neural net 6263
look-ahead decision-feedback $\Sigma\Delta$ modulation 32043
LV analog ICs for 3 V systs. 771
mixed sig. device, high precision testing 766
mixed sig. devices testing in Sony 765
mixed-mode archit. for analog neural network implement. 37924
multibit DAC, intersample distortion/sample jitter sensitivity 9762
nonlin. signature anal. of data converters, automatic 3767
Nyquist data converters, verif., behavioral simul. 37816
OTA-based current-switching DAC 12593
OTA-based multifunction act. filter, prog., microcontroller appl. 12636
power DAC, Σ-Δ modulator, controlled limit cycles 21386
power syst. stabilizers, real-time, fuzzy controller optim. 4913
semicond. laser power digital stabilization 39765
service adaptive access SLIC, CMOS prog. DSP, oversampled ADC/DAC 21378
SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
sigma-delta codec for mobile telephone appls., design 3276
sigma-delta DAC, interpolator archit. 21380
spectral props. of direct digital freq. synthesizers, simul. 37658
tone-free $\Sigma\Delta$ modulators, design aspects 12598
top-down constraint-driven CAD of n-bit DACs 28941
uncooled thermal imagers, next-generation, quantiser requirements 3890
video decoding algm. mapping, mixed sig. IC 8553
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
GaAs DDS, FM-CW, 1.25 GHz 37672

digital arithmetic
see also adders; carry logic; coprocessors; counting circuits; dividing circuits; floating point arithmetic; multiplying circuits; pipeline arithmetic; redundant number systems; residue number systems; roundoff errors
2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
2D FIR digital filters, weighted LMS design 2488
2D PCAS digital filter design based on restrictive coeff. sets 37888
2D scaled state space filters, fixed point arith. 12648
8 kbit/s ACELP speech coding, CCITT standardization candidate 33691
8-kbit/s conjug. struct. CELP speech coder, perform. 33690
16-bit CMOS divider/sq.-root cct. design 6171
adaptive echo canceller, finite wordlength effects, modelling 16626
adaptive RLS filtering, iter. version of QR-decomp. 32479
adders, parametric delay and area models 6066
AICE-CRT/DSP algms. 32675
application-specific array processors, conf., Venice (Oct. 1993) 36903
arith. FT, alternate realizations 8298
array multiplication scheme using (p, 2) counters and pre-addit. 37728
bi-imaginary no. syst. for opt. complex calc. 16144
bidirectional associative memory, optimal radix, searching algms. 21483
binary serial-parallel multiplier, hardware approach 37703
bit-serial multipliers and sq. 6124
Booth encoding in parallel multipliers, compressors 6127
C-testable carry-free array divider, design 638
cache-based transport protocols, modulo-N incarnation numbers 2955
CMOS bit-serial fixed-point two's complement multiplier for neural network algms. 12486
CMOS cct. arith. elements optim. for sig. proc. 29142
CMOS multipliers for digital filtering appls. 6134
column compression multipliers for sig. proc. appls. 29141
commun. sig. proc., complex arith. proc. archit. 29239
complex opt. matrix-vector multiplication, neg. binary inner products 1756
concurrent error detect. in serial-parallel multipliers 37704
cryptological applications of square roots in Z_{pq} 8162
decimation filter for sigma-delta converters, high fidelity 690
decimation-in-time-freq. FFT algm. 32767
demodulators using fixed point FIR interpolators, BER perform. 32037
develop. of multiple-valued logic 37729
discrete sine transform, regular recursive algm. 28708
DSP algms. mapping, multiprocessors by simulated annealing 8355
DSP appls., FPGA-based custom computers anal. 29192
fast serial-parallel multiplier, two's-complement method 21252
fault-tolerant systolic array multiplier, time redundancy 12412
Fermat no. transform, algm.-based fault tolerant array archit. 32498
FFT bit-reversal algm. 37376
fiber-optic array alg. opt. computer proc. archits. 22978
finite precision arith., matrix powers 37333

digital arithmetic continued
FIR decimators and interpolators, systolic implement. 751
FIR high-precision time varying multiplier-free filters 37881
fixed-point digital filters, effects of overflow and quantization 2512
gray-scale morph. filtering, digit-serial archit. 21277
high-speed IIR digital filters, arith. designs 29375
higher-order opt. quaternary signed-digit arith. 1760
IIR real coeff. digital filters realizations sensitivity 32794
image transform coding, integer cosine transform-based error minim. 41073
integrated opt. symm. no. syst. ADC, 8 bit 21392
Jacobi sig. proc. unit for time-adaptive SVD 32655
Jacobi-type methods, monitoring diagonalization stage 32764
LMS-Newton adaptive filtering algm., variable convergence factor 40806
LUC digital signature computation, fast algms. 32188
max.-redundancy radix-8 SRT division/sq.-root method 12476
measurement system resolution improvement through optimal filtering 25766
Midwest Symp. on ccts. and systs., Detroit (1993) 33
modular exponentiation algms., nonstandard arith. 32097
multicopy ARQ strategies, Stutter XOR strategies 2927
N-bit parallel opt. adder, fully parallel arith. algm. 31024
negabinary encoding for opt. complex matrix operation 16142
nonlin. eqns. soln., interval anal./rational arith. *(Japanese)* 11993
opt. computing, magneto-optic SLM 7428
opt. computing, symbolic substitution implement. 39525
opt. matrix-vector multiplication realization 22976
optimal VLSI archit. for distributed arith.-based algms. 29090
optoelectronic matrix-vector multiplier, computational accuracy anal. 31027
parallel adder design, algo. implement. for high dens. codes 6063
parallel modified signed-digit computing for large-scale 2D data array 31032
pipelined parallel multiplier implement. 6061
prime factor DCT, software realization 28707
prime factor DST, computation 41043
prime-factor DCT algms. 40818
pulse arith. based neural network implement. 21470
QR-RLS algm., stabil. anal., finite-precision arith. 8325
QRD-RLS/STAR-RLS adaptive filters, fixed/floating point error anal. 32700
radial fns. hardware generator for neural comps., VLSI design 29507
radix digit-serial pipelined divider/sq.-root archit. 600
RAN^{2}SOM, reconfigurable neural network archit. 29471
real-time parallel DCT/DST lattice structs. for video commun. 29266
RLSL algms., comparative anal. regarding num. behavior 32480
rot. cct., VLSI transform proc. appl. 29088
second-order digital filter sects., sum of power-of-two coeffs., low roundoff 758
serial-parallel multipliers 6060
sigma-delta A/D converters, VLSI decimation filter 691
single-step opt. matrix-matrix multiplier, diffractive opt. elements 31040
state-space digital filters using distributed arith., VLSI archit., control systs. *(Japanese)* 37875
swing restored pass-transistor logic based multiply/accumulate cct. 29110
symbolic trajectory eval. results comp. 21064
systolic parallel Booth multiplier, area/time efficient 6135
table-lookup for binary/residue and residue/binary conversions 6196
Texas Instruments and Analog Devices, fixed- and floating point DSP chips *(Polish)* 37791
twos-complement parallel array multiplication algm. for complex matrix operation 31031
VLSI array design for DHT, cyclic convolution 29191
VLSI fast algms. for division and sq. root 12585
VLSI signal proc., conf., Napa, CA, USA (Oct. 1992) 11583
VLSIs, arith. execution units, BIST struct. *(Japanese)* 6815
word-length determ./scaling software for sig. flow block diag. 28969
GaAs precharged low-power logic family, adder implement. 21264

digital audio broadcasting
Bavaria DAB single freq. network, field tests results 25638
Bavarian DAB common-wave network, field trial results *(German)* 9693
BBC Radio Digital Project and programme prod. efficiency 17533
BER, influence of multipath propag. *(German)* 23635
Canada, strategic approach 42574
channel demodulator IC for DAB, design, silicon compiler 21155
DARC encoder for mobile commun. appls. 25631
DBS-satellites, mobile reception, adaptive antenna array 15664
degrad., multipath environ. 3412
DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
dyn. range control and music/speech control 25641
EBU studies on DAB freq. planning *(German)* 9690
European DAB sig. proc. *(Croatian)* 3647
Euroradio control centre in Geneva 42572
field tests in Italy 42573
Finland DAB field trials 25639
FM subcarrier data syst., develop. *(Japanese)* 3649
freq. block allocation, aid of simulated annealing *(German)* 9691
hi-fi mobile DAB scheme 9695
high-power VHF single freq. network for DAB, field trials 25640
ITU-R DAB System A, local broadcasting issues 42578
medium-wave radio transmitter perform., hybrid modulation *(Japanese)* 17549
multicarrier modulation impulse noise mitigation strategies 40561
music services delivered via cable syst. 33343
network and OS support for digital audio/video, conf., Lancaster, UK (Nov. 1993) 5450
overview of emerging technols. 34203
radio channel stat. charact., expt. eval. *(Italian)* 9688
radio studios and workstations 17605
radiocommunication, technol. and regulations 25627
RF channel and mobile reception, common-wave network meas. in Bavaria *(German)* 9692
single freq. network project 17536
storage/transm., data reduction 17547

digital audio discs *see audio discs*

digital audio tape
asynchronous low-power error corrector for DCC player 9769
fast DDS-2 DAT drive 14242
future broadcast technols. 3651
network and OS support for digital audio/video, conf., Lancaster, UK (Nov. 1993) 5450
recording techs. in acoustics 9771

digital audio tape continued
stationary-head multi-track mag. recorder, design 34286
wide-band and wide-dyn.-range recording and reprod. 34291
digital circuits
see also adders; decision circuits; digital filters; digital integrated circuits; digital phase locked loops; direct digital synthesis; pulse circuits; switching circuits
3D EM simulator, IE3-D, HF and high-speed cct. appls. 21071
AC bridge for impedance meas., anal./design/implement. 12613
act.-R fn. generator, digitally prog. freqs. 12370
arith. units simul. 5968
automating verification by functional abstraction, syst. level 41503
circuits systs., symp., Chicago, USA (May 1993) 31
closed loop carrier phase sync. techs. 8461
compact time and space-integrat. SAR proc. 17418
complexity eval. of digital cct. simulators 480
deadband effect generation in digital ccts. 6053
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
discrete-time cellular neural net., convergence and implement. 12683
EM emission from PCB sig. line, peak freq. prediction 38073
EM noise emission anal., cepstrum 23678
EMC, digital waveforms spectral dens. 2509
ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
EXOP, Extended Operation, logical fault model for digital ccts. 29176
ground-current control, enhance dyn. range in high speed ccts. 29084
high speed interconnects, simul., packaging simulator 20438
IDaSS, interactive design and simul. syst. for digital ccts. *(English)* 37594
microelectronics for IT, conf., Stuttgart, Germany (1992) 11534
microwave receiver, lin. amp./ADC anal./design 29311
MLC series-connected C-R chip, data bus impedance matching 6194
multichannel transmitters, DSP/direct conversion 3323
multiconductor lossy transm. lines, causal time domain anal. 23765
nuc. reactor digital ccts., automatic testing pattern generation 4770
orthogonal transform. instrumental control *(Russian)* 16052
phase recovery techs., freq. shift 8458
pseudo-random seq. generator, clock-controlled *(Japanese)* 12614
pulse arith. based neural network implement. 21470
Reading Univ. electronic engng. course, DSP 36917
simul. code generation, KBS 21080
state machines, direct cct. implement. 5969
test pattern generation algorithm acceleration, probabilistic measure 42722
testing of ccts., probab. converter synthesis 37688
Cu/polyimide MCM, embedded microstrip transm. line sig. characts. 6465
digital communication
see also digital radio; digital television; ISDN; optical communication
2 Mbps interface module, PLL tech. *(Japanese)* 42050
3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
10 Gbit/s data switched semicond. laser amp. nonlin. loop mirror 17326
10 Gbit/s soliton transm. expt., 1 Mm, 105 km amp. span 25475
12-channel fiber optic communs. equipt. *(Japanese)* 25510
22-GHz band satellite broadcasting multibeam antenna, breadboard model 3532
40 Gbit/s transm., 202 km of fibre, midspan spectral inversion 25504
acoustic underwater phone 17357
adaptive nonlin. equalisation of digital commun. channels 15985
adjustable dispersion equaliser for 10/20 Gbit/s 160 km fibre transm. 9436
AES/EBU digital audio sigs., twisted-pair cables 42139
air/ground digital commun. for ATC 10420
Alcatel 1000 E10 digital switching syst. 42106
analogue TV, digital techs. 3666
ARQ policy in data transm. *(Japanese)* 15682
ASDL links maint. approach and fns. 16916
ASDL wideband noise meas. and implications for sig. proc. 16923
ASK opt. transmitter, 790 nm LD for LANs 25507
asymmetric DSL ideal discrete multitone signalling 42051
ATM switches with single hot spot traffic, buffer occupancy 16450
atmos. opt. commun. 3588
automatic line protection testing, SDH/opt. fibre amp. 9530
avionics interf., airborne pers. electronic devices 10347
bal. multiple-pair telecomm. sig. ports disturbances meas. 23744
bandlimited orthogonal wavelet syms. 8347
BH light-emission/detect. diode module for subscriber TCM transm. systs. 25472
binary CPM-DPD, diversity in Rician fading channels 32042
binary receivers, Gaussian/α-stable impulsive noise, perform. anal. 40941
blind channel estim./equalization, partial-response input sigs. 33162
blind equalization, higher order cumulants/neural networks 2862
blind equalization, recursive Bayesian techs. 15943
blind fractionally-spaced equalization, filter banks/lin. prediction 41024
blind fractionally-spaced equalization based on cyclostationarity 8387
blind sym. estim., deterministic approach 8398
BPSK homodyne detect. expt. with solitary DFB LD, 10 Gbit/s 17329
BPSK with open-loop tanlock carrier recovery, perform. 24015
burst-mode compatible receivers, high speed digital opt. commun. 42412
carrier leakage, carrier freq. error estim. 8097
cascaded hybrid silica and fluoride-fibre-based amps., perform. 31239
CATV, evol., digital technol. 9739
CATV network, digital telephone service *(Japanese)* 41709
channel coded modulation 8103
channel equalizer, Kalman-trained neural network 33156
channels with spectral nulls, flexible precoding 24117
Chebyshev binary/bit seqs., correl. fns., Perron-Frobenius operator 15745
circ. 16-DAPSK in fading channels, diversity recept., error anal. 2363
CLAD implement. and expt. results in ATM networks *(Japanese)* 24948
CMOS 248 Mb/s transimped. amp. and 155 Mb/s LED driver for fiber links 9543
CMOS 625 Mb/s data recovery cct. 29340
CMOS multi-channel data compression chip, parallel archit. 21376
CMOS prog. on-chip anticlipping cct. for digital telephones 33706
CMOS quadrature digital synthesizer/mixer, 200 MHz 29245
code-synchronized transm. syst., design params. 24739
coding syst. perform. assess., simul. tech. 2378
coherent opt. DPSK systs., phase noise corrupted, BER perform. 17327
colliding-pulse-modelocked quantum well laser, 15.8 Gbit/s syst. transm. expt. 25502
colour photograph transm. via INMARSAT-A syst. *(Croatian)* 3505
common channel signalling network mgt. model 41660
communication and signal processing, conf., South Africa (1993) 5502
digital communication continued
composite noise generator, noise immunity tests for dig. systs. and TV pictures 40371
const. modulus algm. with periodic sources, assess./guidelines 24266
convolutional coded ARQ scheme for moderately time-varying channels 40583
coord. digital transm. 15861
cordless telephone terminals 25151
coupled digital oscillators class, dyn. 6049
CPFSK opt. crossconnect systs. with noncoherent detect., interf. 9434
data courier satellite syst. concept 33943
data transm., optimum stuff threshold modulation schemes 40573
deconvolution, Bayesian decision feedback techs. 15892
deconvolution filter design considering channel sensitivity 2526
dispersion-supported transm., 20 Gbit/s, 53 km fibre 34071
distributed digital sig. transm. syst., sig. recovery, estim. method *(Japanese)* 15771
DS-SS digital commun., sig. detect., hybrid syst. model 24272
duobinary opt. transm. syst., no receiver sensit. degrad. 25506
DYANET(C), dyn. channel assigning/routing satellite aided digital networks 3525
echo control 16620
education course, senior undergraduate project 20282
EMI field emitted from telecomms. line, estim. 40373
equalization, recurrent radial basis fn. networks 2555
error detector systs., analog and digital 3303
error probab. on M-PSK/M-DPSK/fading diversity channels 2360
fast blind equalization, block-updated algm. 24349
fast seq. decoding algm. based on dyn. searching strategy 2376
fast transversal filter for decision feedback equalization 15942
fault-tolerant transputer based digital commun. syst. 43461
femtosecond soliton transm., pol. depend. of soliton interacts. 34019
fiber optic module interconnection, parallel data bus 42474
fiber optics, 2.5 Gbps sig., repeaterless transm. *(Korean)* 17179
fibre commun. network, operation/maint. strategy 25541
FIR channel fractionally-spaced blind equalisation and estim. 41384
FIR channels blind ident. via antenna arrays 8366
FIR channels fractionally spaced blind equalization 8368
FITL syst., opto-electronic IC impact 42052
fixed L-ary seq. in random data, search duration 40543
four-channel freq. locking, fibre-fed Fabry-Perot filter 17328
four-channel WDM/PDM transm., 10 Gbit/s, 340 km 17230
fractionally spaced equalizers, adaptive sampling 33161
FTTH trial network in Bastia, Corsica 25142
future broadcast technols. 3651
gamma filter for echo cancellation in subscriber loop 33674
global fibre transm. expt. for max. repeater spacing 9424
GMS images, digital transm., ships *(Japanese)* 8870
HDSL, discrete multitone transceiver soln. 9083
HDSL archit./perform., practical implement. 9104
HDSL design, computer based optim. techs. 16921
HDSL equal-power coord. transm. 16924
HEMT 20 Gb/s 2:1 data selector IC for commun. appl. 29339
Hermite wavelets for multicarrier data transmission 9092
hierarchical digital broadcasting, adaptively weighted CDM 25628
hierarchical TV transm., SS multiplexing 25632
high speed access technology, IEE Colloquium, London (1994) 13
high speed data communications for rural areas 8826
high-speed copper access transm. systs. 16915
high-speed digital systs., jitter anal. 33985
high-speed public transport for enterprise networks 8825
HMM for blind channel charactn. and data detect. 40943
HOS for blind channel estim. and deconvolution in colored noise 32457
IDUN, broadcast multimedia syst. 25106
imaging technol. develop. for gigabit transm. *(Japanese)* 16568
instantaneous multiple access commun. system 16462
integrated services digital broadcasting, transport struct. 24886
internat. digital route outer codec for satellite links 3268
intra-syst. interconnects for digital commun., cable elec. perform. 12856
iOX100 series PBX, digital cordless telephone syst. appl. 25186
IQ filter struct. for use in adaptive equalisation, LTE/DFE, digital commun. 3313
ISO-MPEG-1 audio, high-quality digital audio generic coding std. 2392
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
jitter testing of Synchronous Digital Hierarchy equipt. 8819
joint space-time decorrelation, sigs. separation 40935
Ku-band direct, home video broadcasting in rainy regions 3653
Kullback dist. based nonlin. phase estimators 41011
L-band GPS receiver, digital downconversion test 9682
local networks, novel sync. procedure 16547
long dist. opt. soliton commun., optimal design *(Chinese)* 9532
low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
M-ary/SS commun. syst., frame sync. method 17008
M-LCELP speech coding, 4 kb/s, multi-mode and multi-codebook 9120
magneto-opt. disk video server syst. *(Japanese)* 25680
MFSK signalling for RS coded freq.-hopped multiple-access commun. 2891
MMDS, wide area service alternative, satellite DBS 3654
mobile commun., adaptive Rayleigh fading compensation for coherent GMSK sigs. 3433
mobile multimedia commun. network prospects *(Japanese)* 16906
modems, sym. synchronizer perform. 8457
MPEG compressed video, picture-header loss, error concealment strategy 16073
MSK multichannel coherent SCM lightwave syst. 17340
multibit DAC, intersample distortion/sample jitter sensitivity 9762
multicarrier transm. schemes, block coding 8109
multichannel FIR filters, blind ident., subspace methods 32559
multipair symm. cables at 1 kHz-2 MHz, crosstalk/transm. 16927
multipath channels blind identifiability 24290
multiple sigs. dyn. coord. reception in correl. noise 40880
multiplexing voice with data, hybrid transm. algms. 16415
mutually coupled line propag. charact., digital anal. method 40394
narrowband PSK data transm. via opt. fiber, encoding/decoding ccts. 9527
NEC, digital video transm. technol. develop. *(Japanese)* 42617
network access to low demand areas, develop. strategies 3016
new telecomms. technols., social effects 3001
nonlin. DFEs based on functional-link neural network 9153
nonminimum phase channel deconvolution 2475
nonuniform sampling DM, appl. 8098
NTT's local networks, range of baseband/passband HDSLs 25140

digital communication continued
- NTT's trunk link systs., phase II SDH transm. syst. 24891
- NTT SDH network/SDH 52/156 Mbps (VC-3/4) DCS 8841
- OFDM, guard interval and sub-channel equalization for digital TV broadcasting 9699
- Ohio metropolitan area, telecomms. infrastructure needs 8798
- on-site freq. calib., freq. counter appl. 25910
- opt. backplane for broadband switching syst. 25174
- opt. commun. syst., characts. anal. 9455
- opt. DCS for very-high-speed networks 9151
- opt. fibre PPM slot/frame spectral props., timing extraction 3576
- opt. transm. syst., min. BER degrad. 25473
- orthogonal multicarrier syst. max. likelihood freq. detectors 41387
- Pacific island nations, data services 3062
- PEACESAT program, Pan-Pacific Education and Communications Experiments by Satellite 3518
- penalty-free 100 Gbit/s opt. transm. of transform-limited pulses 25471
- penalty-free 2.5 Gbit/s photonic switching, opt. amp. module 33728
- pers. multimedia systs. *(Japanese)* 33648
- phase recovery techs., freq. shift 8458
- Philips SOPHO iS3000 ISPBX, internal/external commun. for cruise liners 42114
- photonic networks, pulsed lightwave freq. supply module 9605
- polariz. shift keying, opt. digital transm., direct detect. 42344
- polymer electro-optic waveguide modulators for data commun. 31000
- portable digital satellite news gathering (SNG) RF terminal, flat antenna 25168
- Prabhu upper error bound for digital commun. syst. 15688
- QPSK block-modulation codes for unequal error protection 32064
- quaternary partial response CPM digital transm. syst. 40557
- R^{2}SPG tech., systs. upset thresholds meas. 15496
- receivers, sampling rate, sampling rate, stats. 15965
- rectifier power supply, telecom. services appls. 19829
- recurrent ANNs, adaptive equalizers in digital commun. 32585
- repeaterless transm., 10 Gb/s, fiber, dispersion compen. 34020
- repeaterless transm., 2.4 Gbit/s, 306 km fibre, DFB LD 17231
- Rice/Rayleigh channels state estim., nonlin. filtering 8456
- Rician-type error probabilities, tight bounds and appls. 15712
- RLS adaptive equaliser digital commun., importance sampling 16409
- ROV 6000 advanced data mgt. 16772
- rural telecommunication using optical fibre 9093
- satellite channel, adaptive DFE, multilayer neural networks 25453
- SCPC DAMA, optimal satellite based voice networks 3512
- SDH fibre-optic transm. systs., forward ECC 42455
- SDH multiplexing and multiplexers 16421
- secure digital audio teleconferencing 25071
- seq., reduced-state seq. estim. 40535
- shipboard digital intercom and public address syst. *(Croatian)* 3050
- sig. MLS estim. by neural net 32621
- slave clocks in chain, random noise accumulation 42954
- sliding-filter-controlled soliton transm., 20 Gbit/s, 14 Mm 25505
- Solid State Logic and workstations for professional audio 17616
- soliton transm., 10 Gbit/s up, 27 Mm, sig. freq. sliding 17232
- soliton transm. syst., 20 Gbit/s, 100 km spacing, 1000 km, robustness 42456
- SONET, digital network sync. 42379
- spatial sig. distrib., reliable sig. transm. 24741
- STM 16 syst. operation, 1.55 μm DFB laser module 34072
- straight line 20 Gbit/s transm., 617 km of singlemode fibre 25522
- subscriber loop, data transm., RF exposure effects 7992
- subsea acoustic rem. commun., adaptive receiving beamformer 9613
- switching center, cellular and PCS digital-mobile services 17042
- switching syst. MD110, appl. develop. functionality expansion 42109
- systs., UPS, config., elec. characts. 19863
- T1 carrier syst. companding noise statistics 41388
- TCM, probab. dens. of ISI 15713
- telecom. network sync., phase noise eval., time domain meas. 24887
- telecomm. channel predistorter design by neural net 41638
- telecomm. systs., BER estim. for transverse lightning surge *(Japanese)* 15690
- telecomms., dyn. network control strategies in competitive environ. 33313
- telecomms. infrastructure, geographical planning support syst. 33292
- telecomms. networks, access link systs. 25145
- telephone switch alarm proc. ES 33717
- transm. line, crosstalk coupling, digital noise propag. 25200
- transm. syst. unavailability, component failure rate calc. 42135
- trellis path uniqueness codes, digital data commun. appl. 15797
- TV, terrestrial broadcasting, modulation 17534
- TV image wavelet transform coding and sync. loss recovery 42584
- TX-2000 multimedia multiplexer, digital network *(Japanese)* 25176
- uncoded M-DPSK non-redundant error correction 8460
- underwater acoustic commun. digital receiver 17359
- underwater commun., adaptive beamformer perform. 9659
- underwater high data rate acoustic commun. systs. perform. 17360
- unrepeatered transm., 2.5 Gbit/s, 410 km of fibre 9428
- video multiplexing, pulsed coded fiber optics 8676
- video on demand systs. *(Japanese)* 33648
- video-on-demand service, distrib. store-and-forward archit. 16561
- wavelets and waveform coding 32510
- WDM channel NRZ, RZ format conversion, single semicond. laser amp. 25503
- WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
- wireless sig. transm. in consumer electronics, consumer's quality of life 5726
- Er^{3+}-doped fibre amps. for telecomm. systs. 17274
- GaAs MMIC demodulator, distrib. mixing for CPFSK receiver 12801
- GaInAs PIN/HEMT receiver OEICs for Gb/s opt. systs., fab. 25495
- InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 14498
- InGaAsP MQW modulator/DFB laser integrated light source 30965
- InP-based 10 Gbit/s photoreceiver OEICs, noise and perform. 9429
- InP-based opt. multiplexer integrated, MQW modulators 34074
- Si bipolar 156 Mb/s clock/data recovery PLL cct., S/H tech. 6052
- Si bipolar 4:1-multiplexer IC, 12 Gb/s, SDH syst. appl. 25177
- Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046
- Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
- Si bipolar wideband amp., 15 Gbit/s, opt. commun. appl. 21122

digital computers

for computer applications see under relevant applications e.g. administrative data processing; computerised control; natural sciences computing see also Apple computers; bit-slice computers; Cray computers; DEC computers; digital systems; file servers; general purpose computers; Hewlett Packard computers; IBM computers; mainframes; microcomputers; parallel machines; satellite computers; special purpose computers
- quantum computers, two-bit gate design 6118

digital control

see also direct digital control; numerical control
- 3-phase PWM converters, small-sig. model, control 19760
- 3-phase squirrel cage motor drive, thyristor controlled 11364
- 3-phase stepping motors positon control *(German)* 44089
- 3-phase ZVS-PWM rectifier, reson. DC link, digital control 5068
- 60 hp brushless doubly-fed pump drive, water treatment appls. 5431
- 500 kV LIA-30 radial line charging Marx generator pulsed power supply 34753
- AC motor drives, asynchronous μP control design 36637
- AC motor drives, state-of-the-art, overview 44453
- AC motors, four-quadrant digital control scheme 10954
- AC PM servomotor digital controller, appls. 43979
- AC servo motor for welding robots *(Japanese)* 11078
- AC servomotors, digital control, syst. dyns. *(Korean)* 36214
- AC/DC drives, prog. high speed digital control 44498
- AC/DC PWM power convertor, quasi-optimal control 44165
- adaptive load freq. control with dual-rate sampling, design method 35559
- AutoMax distributed power/control syst. 10710
- automobile control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
- automobile hybrid internal combustion engine, computer controlled 28156
- automobile powertrain electronics, engine/transm. controls 36780
- brushless AC motors, digital servo amp. concept 11338
- brushless DC drives, control strategies comparison 44476
- brushless DC drives, math. modelling 44494
- brushless DC motors, nonlin. tracking controllers develop. 4994
- brushless DC servomotor, optimal DSP control 36195
- brushless direct drive motor, robust speed control design 5287
- brushless motor drives, high power, intell. interface 5271
- building HVAC nonlin. heater batt., neural net control 5239
- car engine fan, digitally controlled induction motor 27719
- CBC's Toronto Broadcast Centre master control room 42595
- CCD-based tracking loop for precision beam pointing, digital control design 17307
- cct. testing, probab. converter synthesis 37688
- central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
- Cologne transfer station control technol. *(German)* 36488
- computer-controlled digital HDTV chroma-key syst. 42608
- consumer camcorder image stabilisation, digital and opt. methods *(German)* 42637
- controllable delay devices in two-level-freq. synthesis systs. 29067
- controllable elec. drives, status overview, former USSR 44452
- COSY, digital phase control syst. design *(German)* 43014
- DC arc furnace control, simul. *(German)* 44590
- DC drive, digitally controlled 20088
- DC motor ASD, self-tuning digital controllers appl. 5316
- DC motor drive digital regulator disturbance retuning design 11371
- DC motor drive fuzzy logic control, neural net implement. 11316
- DC motor drive sensorless operation, Kalman filter-based 36674
- DC motor drive sensorless operation, neural network-based 36676
- DC motor speed control, binary rate modulation 27749
- DC motors, motion controllers, software switch 19662
- DC motors, pulsed μP control design 11067
- DC rly. vehicles, narrow-band LF act. filters 20102
- DC servodrives, dyn. friction compensation 36644
- DC servomotor, robust digital optimal model following syst. *(Korean)* 27751
- DC servomotor stochastic logic PI control 44064
- DC-DC convertor control param. optimisation 21101
- DC/AC PWM power convertor, quasi-optimal control 44165
- DC/DC converter, fuzzy optimal control commutation 44120
- DC/DC LCC reson. power converter, digital control models 6010
- DC/DC power converter quasi-lin. controller, DSP-based 11149
- domestic appliances, μP fuzzy logic control technol. *(Japanese)* 44616
- doubly-fed induction machines, torque/VAr control 4973
- elec. drive digital control methodology *(Italian)* 28059
- elec. drive μP control systs., regulation error meas. 44464
- elec. drives, digital control systs. design 11383
- elec. generator protection, digital integrated relay-based 4891
- elec. motor drives, single-chip microcontroller appls. 44460
- elec. vehicle drives, time-varying adaptive μP control 36739
- elec. vehicle fleet monitoring, batt./charger mgt. syst. 36728
- electric generator adaptive fuzzy speed control, rule-based 19582
- electronic cams, mfg. motion control appls. 44632
- FBK-SDU series of digitally controlled uninterruptible power systs. *(Japanese)* 36339
- flexible archits., key, low cost FBL 10388
- fuzzy controller; on-chip learning, stochastic logic 6166
- gas turbine digital control syst. develop. 36012
- gas turbine PM generator cycloconverter, digital control 10859
- GE SPEEDTRONIC Mark V turbine control syst. 43923
- Harris 20-20 intell. dispatching syst. *(Chinese)* 19255
- hydroelectric generator nonlin. governor control *(Chinese)* 4856
- induction machine sensorless vector control, HF current injection 4974
- induction machines, field-oriented sliding mode digital control 4952
- induction machines, stator flux oriented digital control scheme 4951
- induction motor, transputer based digital controller 44050
- induction motor ASD, design/anal., CASED simul. tool 5313
- induction motor drive, VSI fed, DSP based variable struct. control 44049
- induction motor drive vector control, neural net-based 5291
- induction motor drives, digital adaptive control, transputer based 11379
- induction motor drives, digital control strategy 5268
- induction motor drives, discrete-time sliding mode digital control 11390
- induction motor drives, microcomputer control components *(Slovenian)* 44471
- induction motor drives, microprocessor based digital control 36687
- induction motor drives, neural net-based param. estim. 20061
- induction motor drives, position/speed dyn. control, DSP 20069
- induction motor drives, sensorless speed control, neural net-based 20063
- induction motor drives, thyristor converter-fed, μP control 44457
- induction motor stator current control, neural net-based 19629

digital control continued
induction motors, inertia-lowering digital control studies *(Japanese)* 36162
induction motors, PWM VSI-fed, ASIC/microcontroller control comparison 36180
induction motors, voltage fed, current regulated, field oriented control 19630
induction motors drives, real-time PWM vector control studies 28100
induction servomotor drives, LQG/LTR digital control design 36641
indust. motor controllers, self-tuning digital control 20154
intell. sync. servodrive, fuzzy/digital cascaded state controllers comparison 44012
length-varying computer-controlled fibre drawing 1698
lin. four-port network 463
lin. servomotor drives, fuzzy logic/PID control comparison *(German)* 5278
lin. tubular induction drive, DSP posn. controller 11342
MA818 controller for three phase 10 kVA voltage source PWM inverter 36283
matrix power converter, switching freq. harmonics studies 5051
mechatronics fund., meas. sci. and technol. 9850
MELUPS 8400V medium-capacity UPS *(Japanese)* 5037
microrobot PM step servomotor drive, VSS control 11354
mine hoist winder drive control upgrade project, South Africa 44644
mine winder motor drives, digital control systs. 44645
motion control syst. CAD, SOAP software tool 11222
motion control systs. develop., motors, drives, user interface 44440
motor drive control automation R&D, Russia 44465
motor drive digital control, graphic software designer appls. 36692
motors, interactive DSP-based acquisition/control syst. 10949
MS90 digital control syst. *(Japanese)* 4839
multichannel simultaneous digital tracking filters, vibr. control 17993
multiphase AC power converters, modular interface/algm. 19880
MW solid-state cct. breaker pulsed power supply, GTO-based 36461
Ni-H_2 batt. power syst., μP charger control 27921
NIST-7 freq. std., hybrid digital/analog servo 42667
NPP, digital control systs. 35742
opt. controlled phased array antenna 15668
phased antenna arrays, Hopfield network based adaptation algm. 15663
photoelec. sens., intell. diagnostics 3828
piezoelec. digital actuator, max. bit enlargement 39097
PM brush DC motors, tracking control studies 36190
PM DC motor control, fuzzy proportional-derivative tech. 19665
PM DC motor drives, AI speed control strategies 5285
PM sync. elec. vehicle motor drive, design, testing 11417
PM sync. motor drive, digital current control, state observers 44475
PM sync. motor drive, flux-weakening control 20078
PM sync. motor feedback lin. decoupling torque control 4933
PM sync. motors, digital controller, Park model 10992
PM sync. motors, digital self-tuning tracking controller 11009
PM sync. servomotor drive, VSI-fed, field oriented control 36675
PM sync. servomotor drives, optimal/VSS control 5288
power converters, digital current mode control charactn. 5116
power station, islands of automation integrat., distrib. control 10853
power syst., μP based protection, synthesised filtering algm. 27245
power syst. reliab. improvement, digital control 35525
prog. differential integrator, enlarged time const. 29349
PV array max. power extraction, fuzzy logic control 19560
PWM inverter drive syst. adaptive control 5254
PWM invertor optimal PI current control, neural net-based 19734
PWM invertor space vector modulation strategy, PC-based 44164
PWM VSI, AC machine control appls., perform. improvement 5043
PWM VSI AC motor drives, sync. quasi-vector control 11351
PWM-VSI inverters, nonlin. compensation 36373
quantizing errors in LTI digital dyn. devices 32629
real-time digital control environ., controller develop. appls. 10674
rectifier telecom. power supplies, digital current control 19797
relays, digital control interface design 29641
reluctance motor drive, DSP-based sliding mode control 44493
reluctance motor drives, axially laminated rotor, vector control 5258
robotic arm ASIC-based motor controller develop. 11227
robots, AC drives, optimised DSP field oriented control 36683
rolling rotor SRM, optimal digital control design 36134
rot. machine act. noise control studies *(Korean)* 27668
S-band TT&C up link transmitters, DDS 42740
salient reluctance generator voltage control, DSP-based *(Korean)* 36113
servodrives, all-digital current control loops limits 28071
SmartMotor 32-bit stepping servomotor motion control syst. 5165
space vehicle power control syst., automated fault diagnostics 26681
SRM drive control, DSP based syst. archit. 11380
SRM drive speed/current regulation, microcontroller-based 11350
SRM drives, brushless DC motor microcontroller appls. 36679
state-space digital filters using distributed arith., VLSI archit., control systs. *(Japanese)* 37875
static converter/machine set, digital control, emulator 36375
static neg.-phase-seq. current compensator, rly. 44537
steam turboalternator freq. control governor design 43909
supercond. supercollider pulsed power supply thyratron modulators 34750
supply-side loading minimisation, intelligent SVC control 43656
sync. generators, static exciter, LCI 36142
sync. motor, nonlin. digital controls comparison 27697
sync. motor control, sing. perturbed methods 27696
sync. salient pole/wound rotor motors, control studies 4919
sync. servomotor, space voltage vector PWM control *(Korean)* 27694
three phase ASD PWM rectifier, neural net-controlled 5120
three-phase AC/DC PWM ZVS power convertor develop. 5082
three-phase AC/DC ZVS power convertor topol. 19839
three-phase motor motion control, sinusoidal commutation-based 27665
three-phase power convertor, quasi-reson. DC/HF transformer links 5088
three-phase PWM GTO invertor, design, constr. 5090
three-phase PWM inverter UPS, robust μP control 36248
three-phase PWM inverter voltage control, μP-based *(Russian)* 11108
three-phase PWM invertors, real-time harmonics control 19722
three-phase PWM rectifier, unity PF microcontroller 44177
three-phase rectifier, deadbeat neural net predictive control 11174
three-phase turboalternator adaptive control, transputer-implemented 36119
travelling-wave US servomotor, speed tracking control 4999
turbines, intell. adaptive controller 43816
turbo-alternator predictive excitation control 36131
turbogenerator stabil., robust optimal control, PSS design 27019
TW US motor actuated servo drive, fuzzy control 11091
two-phase disc magnet stepping motor design *(French)* 11355

digital control continued
underground hoist, digital controlled cycloconverter induction motor drive 11323
universal motor cycloconverter control, microcontroller-based 44002
UPS CSI, DSP-based output voltage control 44172
US cleaning for PCB manufacture, induced damage/fatigue reduction 38092
US motor actuated valve, direct drive fuzzy motion control 5284
variable freq. induction motor drive, pulsating torque compensation 5290
variable reluctance motors, indirect rotor posn. sens. 5302
variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
variable speed induction motor drives, neural net-based vector control 36685
variable speed squirrel cage motor drives, indust. appls. 5294
voltage source power convertors, current control loop simul. 5114
VSI, digital adaptive hysteresis current control 19756
Ward-Leonard drive, digital control, roughing mill appl. 44624
Westinghouse NPP and advanced PWR design *(French)* 43837
XRAM pulsed power supply cct., repetitive operation studies 36256
Pb-acid elec. vehicle onboard batt. mgt. syst. 36727

digital differential analysers
PLL for power conversion ASIC, implementation 21393

Digital Equipment Corporation computers *see DEC computers*

Digital European Cordless Telephone *see cordless telephone systems*

digital filters
see also FIR filters; IIR filters; median filters; multidimensional digital filters; quadrature mirror filters; recursive filters; signal processing; wave digital filters
1st-order digital allpass filter sects., comparative study *(English)* 6232
2-level quantised Gaussian signals, digital filtering 40783
2D digital filters implement., matrix decomp. 32674
2D FIR digital filters, VLSI struct. 6224
2nd and 3rd order digital filters 29370
acoustic echo-canceler for teleconferencing syst. 16912
acoustic state estim., transit. probab. digital filter 40885
act. control, IIR filters 32602
adaptive algms. for speech sig. proc., comparative study 2430
adaptive blind equalization algm. for const. modulus constellations 32739
adaptive IIR filtering, fast convergent genetic search 32705
adaptive nonlin. neural filters, algm. 32702
affine phase complex FIR filters, design/charactn. 8359
airborne US rangefinders, adaptive target tracking algms. 42533
aircraft roll attitude meas. using solid state devices 26541
allpass fns., sum, digital filters synthesis 37864
allpass networks, phase design, eigenvalue problem 8257
allpass transfer fns., prescribed group delay 32792
anal./synthesis filter banks, phase lin. 33149
approx. rank-order filters, VLSI implement. 29377
asymmetric DSL ideal discrete multitone signalling 42051
asymmetrical filter banks, subband image coding 33132
blind spatio-temporal equalizer for radio-mobile channel 33937
block adaptive filter, interf. robust, correl. sig. input 32701
CCD-based tracking loop for precision beam pointing, digital control design 17307
CDMA adaptive SS receivers, CCI suppression 33883
CMOS digital DSB-to-SSB converter, FIR Hilbert transform filter chip 12655
CMOS FIR/IIR filter power minimization, architectural/computational transforms. 29373
CMOS multipliers for digital filtering appls. 6134
CMOS prog. digital filter proc. chip, ring topol. 29378
commun. receivers, time reversed IIR filtering 33877
complex all-pass IIR digital filters, design 15908
complex coeff. FIR digital filter design by complex weighted LSA 6237
complex FIR filter design, Remez multiple exchange algm. 32787
condition monitoring syst., multilevel knowledge base 17679
constrained FIR filter design for 2-band filter banks and orthonormal wavelets 21425
constrained roundoff noise minimisation in digital filters, algm. 15962
continuous media networks, filter propag. in dissemination trees 8975
continuous time nonrecursive FIR filter,digitally prog., digital control 760
cosine-modulated wavelet orthonormal bases 24312
cost fn. for syst. ident. utilizing parallel adaptive filter 2515
custom design of digital filters, save Si area 29384
custom IC, conf., San Diego, USA (1993) 36842
data detecting cct. for digital recorder *(Japanese)* 3762
deadband effect generation in digital ccts. 6053
Decca Navigator radionavigation receiver design and DSP 42543
delayed LMS transversal adaptive filter vectorization 741
design, order reduction tech., Chebyshev polynomial 21430
digit pipelined discrete wavelet transform 29381
digital signal processing, conf., Yosemite, CA, USA (1994) 11548
digital/analogue filters, symp., London, UK (Nov. 1994) 28264
direct form block floating digital filters, asymptotic behaviour 32796
discrete coeff. FIR digital filters, design 24306
discrete/CW transforms, single chip/SIMD computers 37799
DMT/DWMT systs. and digital filter banks 9091
Doppler optimised compression filters 34125
DS-SS receiver, digital matched filters, quantization effects 25259
DSL discrete multitone modulation, high-speed full-duplex echo cancellation 40560
DSP based controller for switching converter 6019
DSP education spreadsheet package and TMS320C25 simul. 36918
DSP-based integrated software environ. for filter design 5952
dual-tone multifrequency (DTMF) detect. improvement 33394
ECG, digital filtering anal. in high-resoln. ECG 18555
ECG sigs., HF low-amplit., detect. in time seq. 26415
ECG sigs., real time software filters 35122
echo canceller with adaptive FIR filter, anal. for Gaussian sigs. 32747
echo path modelling, chaotic-driven, coding strategy 33398
embedded CMOS SRAM for ASIC implement. of transmultiplexer 9410
EMP, measuring syst. deformed, reconstruction 23700
envelope-constrained filters with uncertain input, sensitivity 32795
equi-ripple higher-order differentiators, weighted least-sq. design 32634
extended H_∞ filter, robust EKF 40942
extended inverse QR adaptive filtering algm. 15983
extended threshold Boolean filters, min. MSE filtering 33148
filter bank optim. for subband coding *(Japanese)* 24338
finite wordlength digital filters/controllers, optim. realisations 37883

digital filters continued
FIR causal matrices with anticausal inverses, biorthonormal filter banks 32721
FIR composite length fast filtering on ADSP-2100 proc. 29389
FIR decimators and interpolators, systolic implement. 751
FIR decimators and interpolators, systolic implement. 6226
FIR digital filter design, quadratic prog. 37884
FIR digital filter design by interconnected neural net *(Japanese)* 15937
FIR digital filter types, interrelationships 2532
FIR digital filters, data detect., modified window fn. 8264
FIR digital filters, iter. reweighted least sq. 32785
FIR digital filters, subband decomp., tuning algm. 8311
FIR filter, satellite appls., equaliser 37893
FIR filter design, complex Chebyshev approx. algm. 32786
FIR filters, powers of two coeffs. design 32789
FIR filters, self test, fault coverage 29374
FIR filters using pipelined multipliers, FPGA implement. 21441
FIR filters using resistor array, simple design *(Korean)* 29386
FIR high-precision time varying multiplier-free filters 37881
FIR lin. phase digital filter, unit step response, design *(Polish)* 747
FIR low delay filter banks 24262
FIR optimal least sq. multiband filter design 24259
FIR stat. optimum filter bank design 24261
FIR unitary time-varying filter bank trees and wavelets 40809
FIR variable fractional-sample delay filters eval. 32798
first-order lossless digital two-pair realisation 21423
fixed-point digital filters, effects of overflow and quantization 2512
foetal ECG sigs., matched filter template, iter. method 43290
FPGAs, configurable DSP coprocessors 6177
freq. sampling filter banks, alias-free charact. *(Japanese)* 12651
freq. synthesis, ECG appl. 6222
fully digital demodulator, combined interpolator filter for timing recovery 15707
fuzzy filtering for mixed noise removal, image proc. 2791
fuzzy rule based adaptive nonlin. filter for myoelectric sigs. 35132
Gamma and Laguerre filters equivalence 37892
gamma filter, adaptation of memory depth 37891
gamma filter for echo cancellation in subscriber loop 33674
generalized higher order complementary filters design 8356
generalized magnitude and power complementary filters 29392
GIC, complex digital filters design 12653
gradient ADF and convergence anal., arbitrary inputs *(Japanese)* 29367
graph-based stack filter neural networks, associative representation 653
half-band filter synthesis, freq. response masking 15939
high speed digital filters, design automation 37878
high-level synthesis of sig. flow graphs, algm. based fault tolerance 32496
high-speed QAM modem CAD tools 42081
human ECG proc. and anal., digital filters 18548
hybrid RNS-binary arith., digital filter implement. 15980
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
IIR adaptive filters, optimum order assign. on numerator/denominator 744
IIR ADF for line canceller and pole-control algm. *(Japanese)* 21436
IIR digital allpass fns., specified phase tolerances *(Japanese)* 37874
IIR digital filter struct., stable pipelined config. 764
IIR digital filter with real coeffs., design 32791
IIR filtering for adaptive phase jitter cancellation 32748
IIR Hilbert transformers, optimal design *(Japanese)* 740
IIR Powell and Chau lin. phase filters design 29390
IIR real coeff. digital filters realizations sensitivity 32794
IIR sub-band adaptive filter banks 755
images, enlargement, reduction, min. inform. loss 32872
impulse response, filter, arbitrary piecewise-lin. freq. response 24305
impulse response estim., subband adaptive digital filter 8390
input filter design optimisation for low loss matrix converter 893
interpolation/decimation filter banks, fast algms. 32769
IQ filter struct. for use in adaptive equalisation, LTE/DFE, digital commun. 3313
KEKB bunch feedback systs., 2-tap digital filters 43015
LDI lattice digital filters, exact design 762
Lee filter for speckle suppression in SAR images, alternative form 32917
LF equalisation, adaptive digital filters 24295
LF sound meas., wind noise compensation by digital filter 26018
lin. phase FIR digital filters, max. SNR, design 15982
lin. phase FIR digital filters with const. passband amplit., design *(Japanese)* 37873
lin. systs., high throughput/low latency/low cost struct. design 28989
lin.-phase biorthogonal wavelet fn., arbitrary regularity *(Japanese)* 16234
live speech network assess., digital adaptive filter 40750
long-term stabil. quartz oscillator, GPS filter 42324
low roundoff noise digital filters, optimal floating point structs. 37867
low sensitivity state space digital filters, Pareto optimal design 32788
low-pass sampled-data/digital filters, equiripple charact. 12656
LTI digital filters design, error criteria 32790
M-ary wavelet transform and formulation reconstruction 8426
M-channel biorthogonal filter banks 21426
marginal data ordering, multichannel L-filter design 32703
Matlab for teaching DSP 20295
microcontroller implement. of adaptive myoelec. filter 26474
min. state requirement of digital filter 6227
minmax FIR filters design, gradient approx. method 16012
model based filter design, median of sq. of residuals 2585
multi-channel decimator for tri-level delta-sigma modulator 29080
multi-rate bandpass filter bank, QRNS complex arith. 6229
multiple model EKF, blurred images restoration 33139
multiple poles, perturb. effects 29393
multirate filter design, multirate components anal. 32709
multirate filters design, operational-graph approach 12657
multirate systs., aliasing effects and non-stationary quantization noise 32720
multiscale, multi-orient. fields, local differentiation filters *(Japanese)* 24672
narrow-band lin. phase FIR filter, conversion, IIR filter 24307
neural net filter, nonlin. fn. optim. *(Japanese)* 21434
non-lin. noise filtering, piecewise lin. compression 29382
non-lin. systs. modelling, novel archit. 40932
nonGaussian stochastic syst. state estim. based on time transits. of moment and probab. fn. 2544
nonlin. adaptive IIR digital filters 756
nonlin. digital filters, neural network structs. 8451
nonrecursive lin.-phase filters, least-sq. design 761
nonuniform bandpass sampling generalization 40811

digital filters continued
one- and two-level filter-bank convolvers 24300
one-sided/two-sided lin. prediction 24218
optimal edge-preserving hybrid filters 2737
optimal fuzzy filter synthesis, local stats. based *(Japanese)* 21433
optimal recovery based FIR synthesis filters 21424
optimal stack filters, rank selection/structural constraints 40780
optimum DSP for radiation spectrosc. 18390
optimum subband filter bank design/compensation 8279
order stat. algm. for rank order/stack filters 29380
output error method IIR ADF, stabil./globally convergence 32704
oversampled bandpass sigs., inphase/quadrature components extraction 2517
oversampled bandpass sigs., inphase/quadrature components extraction 24183
parallel adaptive IIR digital filters, Kalman filters *(Japanese)* 12652
parallel algm., digital filtering 2567
parallel DFE, RNS 32727
parallel systolic algm. implement., RLS lattice example 37886
paraunitary matrices factorization, pairwise mirror-image symm. 40845
partial scan designs for DSP appls., behavioral synthesis 29190
PDF estim., order stat. filter bank 32799
peak-constrained least-sq. digital filters design 8360
perfect reconstruction filter banks design 32722
perfect reconstruction subband coding stable IIR filter banks 15938
periodically time-varying state-space digital filters study 8255
pipelined IIR digital filters, design/implement. 37879
pitch sync. innovation CELP (PSI-CELP) speech coding, basic algm. 24149
pole/zero sensitivity minimization, sparse struct. consideration 29391
polynomial interpolation, filter digitization 40820
polyphase quadrature filters fast algm. 6235
power syst., μP based protection, synthesised filtering algm. 27245
power syst. dist. relaying, Kalman stat. filter testing 10779
power syst. voltage measuring syst., fast sampled data, DSP 10790
Princen-Bradley filter bank implement. 742
proc. control, sig. sampling scheme in real-time 24314
PWM invertors, transient regime output params. correction *(Russian)* 44113
QAM ADSL systs., adaptive sig. proc. 9096
QR-decomp. based adaptive bilinear lattice algms. *(Korean)* 37876
quantizing errors in LTI digital dyn. devices 32629
rank order filters, sorting network-based archits. 754
Reading Univ. electronic engng. course, DSP 36917
real-time adaptive filtering algms., parallel archits., perform. eval. 37894
real-time pulse shaping in radiation meas., digital techs. 18383
receivers, sampling rate, sampling rate, stats. 15965
recursive differentiators, design, quadratic prog. 763
regular M-band modulated orthogonal transforms 32710
regularity extraction approach to scheduling and allocation 21051
rem. area power supply systs. load forecasting, neural nets 35570
RF power amp., digital predistortion lin., reconstruction filters 25231
RNS FIR digital filters, bit-serial VLSI implement. 750
robust block adaptive filter for colored sig. input 37865
robust speech recogn., telephone line equalization 8231
room acoustics, digital equalization 9761
room impulse responses approx. based on wavelet decomp. 15991
SC-filters, p-z transform, minimize charact. deform. 28996
second directional derivative edge detector, sampling/quantization/noise effects 33122
separable-denominator 2D digital filters, optimal design *(Japanese)* 21432
service adaptive access SLIC, CMOS prog. DSP, oversampled ADC/DAC 21378
sigma-delta bitstream FIR filter, VLSI design 37887
sigma-delta codec for mobile telephone appls., design 3276
software digital filters, real-time, design 6223
speech enhancement via adaptive eigenfiltering 24140
speech noise whitening filter for syst. ident. 40746
speech param. extraction, noisy environ., masking model 32384
SPRITE-based syst., image proc. 34575
stabilized fast transversal filter algm., sig. proc. appls. 37871
stack filtering, parallel algms. and VLSI archits. 21422
stack filters, efficient implement. 6228
stack filters, rank selection probabilities 2496
state digital filters, design 24187
state-space digital filters, noise reduction, error feedback *(Japanese)* 739
state-space digital filters free of overflow oscills. 2498
state-space digital filters using distributed arith., VLSI archit., control systs. *(Japanese)* 37875
sub-band coder for low-bit rate, fixed and variable band coding 32364
subband adaptive digital filter, convergence speed, multirate repeating method *(Japanese)* 21435
subband adaptive digital filter, perform. anal./appls. 40779
subband adaptive digital filter with crit. sampling, perform. 745
subband adaptive filter allowing max. decimation 12645
subband adaptive filtering algo., intersubband tap-assign. 2516
subband adaptive syst., equiv. model, perform. anal., Wiener filters *(Japanese)* 29368
subband adaptive systs., perform. anal., equiv. model 32696
subband filter design, approach 8278
systolic multipliers/digital filters, sig. flow-graph 12485
teaching DSP via sound demons. software 28339
thyristor converters, zero crossing detect., noise reduction, digital filtering 27805
time-delay neural networks, systolic computation scheme 6268
time-varying filter banks, time-reversed inversion 8275
time-varying filter banks and multiwavelets 24260
time-varying filter banks and wavelets 2471
time-varying FIR filter banks, novel struct. 32716
traffic vibrs., PC-based meas./anal. 34707
transfer fns., freq. response bounding 24184
tunable fractional delay filter, finegrain delay estim. 12647
TV ghost cancelling method, multiplicationless adaptive ident., multipath channel *(Korean)* 3657
two-channel rejection filters with countable coeffs., optim. 32571
VLSI signal proc., conf., Napa, CA, USA (Oct. 1992) 11583
Volterra filtering, spectral constraints 40933
weighted order stat. filters design, perceptron algm. 2634
wideband all-digital PLL design with multirate digital filter banks 37674
wireless commun., filter struct. for equalization and diversity combining 33875
zero-delay convolver, block FFT implement. 40892

digital instrumentation
see also digital multimeters; digital readout; digital storage oscilloscopes; digital voltmeters
AC machines, digital transient torque meas. 10951
AC panel meter, stat.-based design algms. 3734
ALWR plants, integrated digital instrumentation and control *(Japanese)* 4771
analyzers for dyn. spectral anal. 3761
anemometer for air flow meas. 25907
angle and displacement meas., seq./cyclic-seq. coding *(German)* 18101
arbitrary waveform generators, universal sig. source, real world simul. 17989
ATLAS lang., instrums. technols. develop. 34344
ATM appl., digital avionics 10389
avionics, certification issues for complex digital hardware 10346
avionics systems, conf., (Nov. 1994) 5456
behavioral stimulus generation for digital test programs 34358
bench-top tester requirements, mil. shop environ. 35382
blood pressure measuring instrument with Korotkoff sensor 26269
Calvert Cliffs nuc. plant, digital instrumentation upgrades 19403
digitally based ΔE meas. syst., design 18039
DL5180/5140 digital oscilloscopes 9970
DSP syst. functional controllability indicators *(Russian)* 16053
electronic energy meters, develop. prospects *(French)* 10792
EMI environ. meas. syst. employing freq. level selective proc. *(Japanese)* 8001
heavy-current meas. transducer technol. *(German)* 18024
high-temp. digital fiber-optic thermometer 17848
IEC555 parts 2 and 3, digital power analyser 34656
induction motor drives, torque control, digital meas. accuracy 20056
LDA, single-freq. sig., digital meas. 4018
line differential protection, auxiliary cores *(German)* 35682
linearity of fast digital oscilloscopes improvement 25753
mag. recording in severe environ., error stats. 14253
mammography, SR 43266
mass-flow rate digital meas. 10069
microsensor with auto-zero offset compensation 25800
Model 2531 digital power meter 9971
multichannel simultaneous digital tracking filters, vibr. control 17993
nonsinusoidal 3-phase systs., real/imaginary power defn./meas. *(Italian)* 4733
ohmmeter, 3-lead cct. 34619
orthogonal transform. instrumental control *(Russian)* 16052
PC-based multichannel scaler *(Bulgarian)* 26239
PD diagnosis and pattern recogn. 22652
pole transformers/induction motors, harmonic losses meas. 5029
power syst. voltage measuring syst., fast sampled data, DSP 10790
proc. indust. fieldbus technol., standardisation efforts 41795
projection display, Digital Micromirror Device 39028
prospecting equipt., adjustment/testing 4388
random pulse sigs., param. meas., digital device 3770
RF field strength testing, digital hand-held meter 17995
Rohde & Schwarz Digital Direction Finder DDF 9184
space solar concentrators, glass reflectors, optical eval. 26644
tachometer, digital, precision vel. meas. 42948
test system extension to Gbps range 25720
thermistor anemometer for low flow rate meas. 4012
traceability in power/reactive power meas., NPL approach 34655
transfer fn. in transformer testing 5012
transient sigs. anal. equip., digital sampling techs. 3730
GaAs-GaAlAs heterojunction, magneto resist./Hall effect meas. 21945

digital instruments *see digital instrumentation*

digital integrated circuits
see also BiCMOS digital integrated circuits; bipolar digital integrated circuits; cellular arrays; CMOS digital integrated circuits; field effect digital integrated circuits; integrated logic circuits; integrated memory circuits; microprocessor chips; storage management chips; very high speed integrated circuits
adjacent vias in multilayered digital ICs, coupled noise anal. 12394
ANN fast prototyping, goal seeking neuron digital implement. 29465
ASIC design, AHPL 12616
at-speed testing in IC manufacture 1472
avionics, certification issues for complex digital hardware 10346
batt.-operated ultra-high data rate ULSIs, low power bus archit. 37812
Berger code self-testing checkers 595
BiNMOS fast resolving synchronizer for parallel proc. interconnect 21395
board simul. 37596
bonded etch-back SOI based interconnect for high speed ICs 22263
BPSK/QPSK demodulator chip-set for satellite appls. 42561
channel codec LSI for digital cordless telephones 25161
clock distrib., retiming algm. 473
concurrent checking based strongly fail-safe interfaces 12440
custom design of digital filters, save Si area 29384
custom IC, conf., San Diego, USA (1993) 36842
data commun., sinewave modulation, DDS/sigma delta techniques 12353
dyn. terminations for low-power high-speed chip interconnection 37692
EM radiation from packaged ICs, anal. 21621
EUROCHIP initiative, VLSI design training, Univ. College London 22514
Eurochip Workshop on VLSI Design Training, conf., Grenoble (Sept./Oct. 1992) 20226
flip-chip bonding proc., multi-stacked μ-Au bumps 12956
generic test/maint. node for embedded syst. test 9795
HDTV compact digital camera, CCD image sens. 42598
high-altitude CPU reliab. anal. 18724
high-speed VLSI interconnects, freq./time domain simul. 12287
I/O-buffer modeling spec simplifies simul. for high-speed systs. 37693
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
LGA, low temp. co-fired ceramic, high speed digital appls. 20443
local bypass capacitors, high-speed-syst. demands 21113
LV mixed-sig. ccts., digital CMOS technols. 12662
LV operation of portable systs., design techs. 29004
mass-flow rate digital meas. 10069
membrane probe, increase digital/RF IC testing 20402
microelectronics for neural nets and fuzzy systems, conf., Italy (1994) 28223
MOS digital ccts., fast timing simulator, feedback proc. 592
multilayer PGA, ground plane induct. and simul. 20444
NEC, 10 GHz Si bipolar static prescaler *(Japanese)* 37682
neural network, kanji character-recogn. appl. *(Japanese)* 786
parallel feedback-based scheme for BIST 12395
perform. optim. algm. for custom ICs 28937

digital integrated circuits continued
power-reduction schemes for cool digital ICs 21168
PPC scanner motor, power brushless type *(Japanese)* 10931
radiation effects Data Workshop, Snowbird, UT, USA (1993) 36859
radiation effects workshop, Tucson, AZ, USA (Jul. 1994) 28240
rot. cct., VLSI transform proc. appl. 29088
self-organizing maps, digital implement. 29469
SEU and charge collection meas. 12393
SEU testing of modern ccts., incidence angle implications 11724
SEUs in ICs due to terrestrial cosmic rays, modelling 13867
space environ., proton irrad. effects, advanced digital/microwave III-V components 12803
spacecraft electronics, single event effect proton/HI testing 29093
static fault detect. syst., digital IC 22523
SWIM, knowledge-based digital cct. simulator 21173
sync. clocking schemes for large VLSI systs. 6195
table-lookup for binary/residue and residue/binary conversions 6196
tape carrier package for high-speed LSIs, lead inductance 5643
testing, intell. software-integrated environ. 9802
TOPS, partial scan design package based on simulated annealing 21059
TV coding/decoding chipset, spec. and develop. 34248
VLSI CAD tools based on probab. 28971
VLSI cct. testability and coverage estim. 22518
VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938
VLSI interconnect struct., mixed freq.-time domain anal. 22512
VLSI neurochips, develop. *(Japanese)* 785
VLSIs, arith. execution units, BIST struct. *(Japanese)* 6815
GaAs IC, conf., San Jose, USA (1993) 36852
GaAs high perform. comput. and commun., ARPA research 38957
GaAs high-speed digital IC, direct electro-optic sampling *(Chinese)* 13858
$YBa_2Cu_3O_7$ Josephson jn.-based digital ccts., nanoscale patterning 14298

digital magnetic recording
1/2 inch composite digital VTR for broadcast 25675
198-Mb/s recording channel, sig. proc. 9751
acoustics related appls., digital recording techs. 9771
adaptive nonlin. DFE, channel estim./timing recovery 40854
areal dens. 7069
ATV transparent recording method, consumer digital VCR 17592
class-IV partial response equalizer, nonlin. filtering, error confine. 7178
CMOS adaptive equalizer for partial-response channels 29246
CMOS preamplifier for IC-magneto-resistive read elements, $0.8nV/\sqrt{Hz}$ 7142
CMOS VLSI trellis-coded partial response channel codec 29249
commun. channel model 30743
compact cassette recorder, seq. estim. algms. appl. 17582
compressed digital video pictures recording 17598
d=1 channel codes, sig. proc. tech. 32070
data storage channels, nonlin. equalization 7141
detect. techs., digital mag. recording channels, comparison 30731
DVCR, channel code, embedded pilot tracking tones 42636
EEPR4 detect., digital read/write channel 30738
error-correcting 2D modulation codes 15754
HDTV digital baseband VCR, visual investig. of head-tape interface 9749
HDTV studio mag-tape-recording hardware codec *(German)* 9727
helical scan tape recorder noise, investig./modelling 25678
helical-scan digital video recorder, playback, channel investigs. 17593
helical-scan recording, lumped modeling of rotary transformers and heads 34272
high-dens. mag. recording channels, nonlin. compensation 7102
ID-1 data recorder, high perform., develop. 25908
image data compressed sigs. recording on mag. media 17596
M-ary (d,k) codes for high dens. disk recording, improved dist. 30735
mag. recording in severe environ., error stats. 14253
material requirements and innovations *(Japanese)* 14248
multi-level decision feedback equalization, syst. archit., mag. recording 7177
multiple-head digital mag. recording, multichannel sig. proc. 8333
n-track (d, k) codes with redundancy, new constr. 40650
nonlin. model, mag. recording channels 7182
opt./mag. recording, digital compression appl. 25677
optim. of azimuth angle/geom. params. 14238
partial response channels in mag. recording, fast timing recovery 24166
partial response syst. in perp. mag. recording, perform. 22700
PRML digital mag. recording systs. anal. by write and read equalization 30723
replay proc. in digital mag. recording, output waveforms 39180
RLL (d,k) coding, struct. VQ 40653
Schneider write equalizers for (1,k) peak detect. channel 7137
Sony Digital Betacam format for broadcast digital recording 17594
stationary-head multi-track mag. recorder, design 34286
storage and recording systems, conf., Keele, UK (1994) 11550
storage channels, knowledge-based adaptive channel estim. 7192
tape storage syst., 2D coding 7175
thick, thin and multilayered media, digital recording props. 14251
thin film mag. recording media noise, cluster size effects 30719
trellis-coding for partial-response channels, Viterbi detectors 30733
two-track codes for mag. recording channels 39185
VCR for consumer use, develop. 34271
VHS tapes used in digital recording, characts. 17599
video recorders, future 17595
video recording, feedforward vs. feedback video coding 17597
VTR high-dens. recording techs. *(Japanese)* 17586

digital mobile radio *see digital radio; mobile radio*

digital multimeters
see also digital voltmeters
AC voltages/currents, precise power/RMS values meas. *(Croatian)* 25939
multifunctional autoranging DMMs, mixed-sig. chip set 34618
power distrib. monitoring and energy mgt. 4737

digital phase locked loops
2 Mbps interface module, PLL tech. *(Japanese)* 42050
900 MHz transmitter syst., highly integrated ASIC 9353
BiCMOS SRAMs, PLL timing design techs. 29220
carrier tracking/sym. detect., nonlin. filtering approach 8107
CD digital audio, high order phase lock loop for jitter reduction 6050
charge pump phase detector for digital PLL 37678
CMOS PLL, 1.5-3 V, 250-622 MHz, precharge type phase-freq. detector 37824
CMOS PLL-based prog. clock generator for video sig. proc. 12611
CMOS triple 8 bit DAC, on-chip PLL and hardware cursor 6192

digital phase locked loops continued
- coherent FH-SS commun. syst. capacity 40551
- controlled-root formulation for digital PLL 29076
- coupled digital oscillators class, dyn. 6049
- data detecting cct. for digital recorder *(Japanese)* 3762
- data transm., optimum stuff threshold modulation schemes 40573
- high-speed freq. dividers/PLLs in deep submicron CMOS 21394
- high-speed freq.-switching synthesizer, fractional N PLL 561
- many coupled oscillators, self-sync. 37823
- power conversion ASIC, implementation 21393
- real-time navig., global positioning syst. 18991
- RISC proc., PLL clock generation syst., 1.5% jitter 29337
- stationary-head multi-track mag. recorder, design 34286
- triangular type phase detector based synchronizer, cycle slip time 8248
- twin-counter digital-loop preset freq. synthesizer 12615
- UHF single ASIC CDMA digital receiver for space appl. 9414
- wideband all-digital PLL design with multirate digital filter banks 37674
- GaAs PLL-based clock generator, 3.2 GHz, 50 mW, 1 V supply 12612
- GaAs on Si PLL freq. synthesizer IC, chip on chip technol. 29338

digital radio
- *see also digital audio broadcasting*
- 1.8-μm CMOS 60-MBaud single-chip QAM proc. for digital radio appls. 21369
- 4 GHz 88 km overwater digital radio link perform, characts. 42184
- 5.0 kb/s coder for vehicular appl., acoustic echo/noise canceller 9123
- 5.6 kbits/s PSI-CELP of half-rate PDC speech coding std. 8191
- 6 GHz digital microwave transmitters, repair 25225
- 16 QAM modulation, OFDM in Rayleigh-fading channel 9218
- 29 GHz indoor wireless commun., radio link design 33835
- 34 Mbps digital microwave syst.; perform. monitoring 25268
- 60 GHz indoor commun. systs. for data/video commun. 40354
- 60 Mb/s QPSK/OQPSK burst digital demodulator for radio appl., CMOS VLSI implement. 17006
- 900 MHz transmitter syst., highly integrated ASIC 9353
- adaptive equalization for fading mountainous terrain 3426
- adaptive equalization for multipath fading environ. 3429
- adaptive equalizer for digital FM 3428
- adaptive multistage interf. cancel. for CDMA, perform. limits 7990
- adaptive reduced-state channel equalizer, T-algm. 9302
- air/ground digital commun. for ATC 10420
- Alcatel millimetric wave transm. equipt. 25221
- American digital cellular syst. spectral efficiency 9275
- amplit. limited multitone sigs., perform. 8092
- antenna array, multiple co-channel digital sigs., blind estim. 8306
- bandlimited channel 8D 4-pulse 2-carrier signalling scheme 40547
- BAR 63 and 80 series PIN diodes for antenna switches in mobile commun. 1334
- Bayesian techs. for rapidly fading channels equalization 3436
- BER, influence of multipath propag. *(German)* 23635
- binary FSK direct conversion receivers 3463
- binary transm. in slow four params. fading channels, errors *(Polish)* 33742
- blind clustering equalizer for digital mobile radio channels 3432
- blind spatio-temporal equalizer for radio-mobile channel 33937
- BPSK receiver, class-A impulsive noise quadrature components 25220
- broadband CDMA overlaying GSM cellular syst., capacity 3387
- broadcasting facilities/operations *(Japanese)* 34215
- buffered telemetry demodulator for Galileo mission 9420
- burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
- car RDS receivers practical considerations 34226
- cct.-mode data on wireless links, retransmission scheme 17090
- CDMA adaptive SS receivers, CCI suppression 33883
- CDMA cellular networks, antenna arrays, downlink perform. 17093
- CDMA coded packet cellular networks, code rate optim. 25384
- CDMA digital cellular, field test results 3383
- CDMA mobile radio systs., joint detect., diversity 25343
- CDMA multirate radio interface implement. 42192
- cellular digital packet data, perform. anal. 42271
- cellular digital packet data on analog systs. 25416
- cellular mobile telephone syst., service areas assignment 9349
- cellular phones, speech proc. technol. *(Japanese)* 42289
- cellular syst., channel/speech combined coding 8192
- cellular syst. radio link protocol throughout perform. 33799
- cellular systs., multi-rate speech coding, network fns. 3440
- cellular TDMA evol. for personal commun. 42225
- cellular telephony, analog/digital interface 33833
- cellular-PSTN interconnection quality assess. 42228
- CELP coder for mobile commun., design 17038
- CELP coding of speech, phonetic classif. 2427
- centralized multihop packet radio network, simul. model 9160
- channel ident. for multipath wireless channels 9303
- channel transm. with multichannel modulation 32034
- chip sets for digital cellular handsets 17036
- chirp SS techs., multipath interf. suppression 25250
- CODIT, testbed project, DS-CDMA for UMTS/FPLMTS 3385
- combined lin.-Viterbi equalizers, comparison and design 9175
- commun. sig. proc., complex arith. proc. archit. 29239
- communication and signal processing, conf., South Africa (1993) 5502
- COST 226 project, network integrat. by satellite 42306
- CPM sigs. neural receiver 33913
- CT2Plus based wireless PABX, traffic capacity perform. 9205
- cyclic sig., adaptive beamforming and fast implement. 40938
- D1900 micro cell indoor/outdoor appls. 25435
- data predistortion, neural-net-with-memory model 42149
- decision feedback multiple-sym. differential detect., diversity 9200
- DECT, adaptive antenna demonstrator, develop. 33852
- DECT, multibearer connections syst., ARQ protocols perform. 17051
- DECT channel error profiles 3123
- DECT data services 42251
- DECT in telepoint environ., dispersion-reduction techs. 3126
- DECT multibearer channels 3494
- DECT radio local loop appl., radio access, repeater 25434
- DECT solid state radio front end, perform. eval. 3468
- DECT syst., mobile audio-visual terminal 17118
- DECT systs., low time-dispersive channels, adaptive equalization 3498
- direct conversion receiver, FSK digital phase-shifting demodulator 3359
- diversity gain of transmit diversity in Rayleigh fading systs. 9193
- diversity receiver, SS commun., multipath fading channels 25436
- DMSK digital packet sync., preamble design 9362
- Doherty microwave amp. for digital radio systs. 37644

digital radio continued
- DOQPSK, differential demodulation of filtered offset QPSK 17073
- DPSK differential detect. scheme, phase seq. estim. 32684
- DQPSK in fading channels, unified error anal. 8090
- DRFMs, digital RF memories, phase perform., radar and ECM equipt. 4436
- DS-CDMA, Hadamard codewords, orthogonal spreading seqs. for mobile radio 33845
- DS-CDMA 4-phase mobile radio receiver in non-Gaussian environ. 25442
- DS-CDMA digital mobile radio systs., unequal error protection 9373
- DS-CDMA for portable multimedia commun. appl. 25443
- DS-CDMA interf. cancellation schemes 17084
- DS-CDMA mobile syst., fading channel, anal./simul. 3391
- DS-CDMA/TDMA for digital cellular systs. 3390
- DS-SS RAKE receiver, ASIC implement. 9191
- DS-SS transceiver, digital IF BPSK, CMOS technol. 9182
- DS-SSMA diversity commun. in fading channels, error perform. 3357
- DS-SSMA indoor cellular radio perform. 25370
- DS-SSMA syst. based on $\pi/4$ DQPSK and convolutional coding 25369
- DS/CDMA digital cellular systs., error control algms. 9361
- elec./electronic syst. and mobile phone equipt., EM environ. 25290
- Ericsson's CME 20 implement., GSM network soln. 33771
- Ericsson turnkey syst. for GSM 900/DCS 1800 networks 42257
- European GSM and PCN portable phone develop. *(Japanese)* 17078
- European mobile commun., future trends 17123
- European research program for advanced mobile systs. 25330
- facsimile commun. time in analog/digital cellular systs. 8871
- fading dispersive WSSUS channel, analytic discrete-time model 3414
- FH-SS transceiver, 900 MHz, low-power CMOS chip 33745
- FM multiplex broadcasting syst. DARC devel. by NHK 42264
- FM transm., Rayleigh fading, RS codes appl. 25346
- France Telecom digital compression perspective 3506
- freq. hopped systs. for PCS 25360
- freq. hopped TDMA cellular syst., down-link capacity 9285
- freq. hopping commun., blind adaptation algm. 9166
- freq.-phase detector for carrier recovery 3316
- freq.-selective fading channel, differential detect. 2217
- future broadcast technols. 3651
- Global System for Mobile Communications (GSM) 42285
- GSM900/DCS1800 systs., adaptive antenna arrays 3480
- GSM adaptive type-II hybrid ARQ/FEC protocol 3445
- GSM archit. 42286
- GSM coverage estim., 900 MHz multipath meas. 9320
- GSM internat. standardisation *(German)* 9225
- GSM mobile telephones, type approval methods 16616
- GSM network, adaptive antennas for freq. re-use 9395
- GSM network, TMN appl. 42260
- GSM network archit. issues for next century 3444
- GSM network evol. 3449
- GSM networks, test products develop. 9201
- GSM syst., speech and channel coding for half-rate channel 33927
- GSM syst. multipoint-to-point link improvement 25270
- GSM-syst., interf. anal. 3492
- GSM/DCS1800 syst., base station, diversity reception 3497
- hand-held GSM digital mobile telephones, near E-field magnitude 42284
- handover algms., propag. depend. params. 3393
- HDTV introduction, terrestrial networks *(Croatian)* 3669
- HF FSK radio links, optimal syst. params. choice 17018
- high speed adaptive equalizers, complexity reduction 33768
- high-capacity cell config. strategy 33811
- high-speed train, adaptive channel equalization 3423
- high-speed trains, GSM-based commun. syst. 9284
- idle-slot broadcasting multiple access for mobile satellite commun. 9213
- IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
- IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
- indoor cordless commun., teletraffic perform. 3488
- indoor radio channels, diversity, block error probab. *(Japanese)* 42173
- indoor radio propag. channels phase modelling 9177
- integrated rural subscriber access systs. for developing countries 25429
- inter base station synch. via common broadcast control channel 9279
- intermediate reuse factors for capacity eval. 17058
- IQ filter struct. for use in adaptive equalisation, LTE/DFE, digital commun. 3313
- IS 54C digital control channel, PCS support 33843
- IS-54-B portable digital cellular phone *(Japanese)* 42288
- Japan digital cellular syst., field test results 3439
- Japan mobile telephone syst., detect. study 9273
- Japanese digital cellular std., IN archit. 42258
- Japanese Personal Handy Phone/DECT, IF modulator, DDS 3465
- Japanese std. based digital cellular syst. perform 33807
- key distrib. protocol for mobile commun. systs. 33775
- LAN environ. mobile computing 8990
- land mobile radio, commun. channel simulator *(Japanese)* 17137
- land mobile radio, RS coding for CELP error detect. and control 33832
- land mobile radio networks, digital video/speech transm. 17048
- lattice seq. estimator, perform. 42169
- LEO satellites, PN code acquisition schemes 33951
- lin. power amp. for cellular telephone, envelope feedback method 12342
- LOS links, diversity considerations, review 3330
- low bit-rate coded video transm., radio links 8633
- low-power 900-MHz mobile RF synthesizer, CMOS chip 33861
- low-power quadrature modulator ICs for digital mobile commun. 42214
- M-ary DPSK on freq.-selective Ricean channels 9274
- M-LCELP speech coding, 4 kbps 33688
- M-QAM digital mobile radio systs., diversity/equalisation 9270
- ME2632A/B/C digital mobile radio test syst. for PDC/PHS phone prod. *(Japanese)* 33769
- microcell base station locations, simulated annealing appl. 9255
- microcellular aggressive dyn. channel assignment 3342
- microcellular personal commun. service F-QPSK perform. 33781
- microwave LOS 42183
- microwave radio, optimum soln. for public and private appls. 42159
- microwave radio commun. systs., DSP and VLSI technol. 25223
- microwave radio symbol-rate-increased TCM scheme 42148
- Mitsubishi Electric 800 MHz PDC spec. cellular phone *(Japanese)* 33890
- Mitsubishi Electric base-station antenna systs. *(Japanese)* 33893
- Mitsubishi Electric base-station modulation/demodulation eqpt. *(Japanese)* 33892
- Mitsubishi Electric digital cell phones for Europe/North America *(Japanese)* 33891
- Mitsubishi Electric multi-channel access syst. *(Japanese)* 33897

digital radio continued
Mitsubishi Electric pers. handy-phone syst. PT-MDP *(Japanese)* 33896
mixed-sig. codec for GSM voice/RF interface 42089
MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
MLSE receiver for GSM digital cellular syst. 3424
MM-wave indoor high-capacity transm. charact. *(Japanese)* 7987
MM-wave indoor LAN syst., min. delay spread 41752
mobile commun., blind seq. detect. 17039
mobile commun., digital voice compression technol. *(Japanese)* 33902
mobile data services, IEE Colloquium, London (1995) 28232
mobile radio, adaptive arrays, fading correl. effect 3343
mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
mobile radio, model based adaptive channel ident. algms. 17100
mobile radio commun., speech/channel coding 3346
mobile radio digital modulation error perform. improvement by quaternary phase transition FSK 33782
mobile radio syst. design for mountainous terrain 33785
mobile radio syst. digital modulation scheme selection 33778
mobile radio systs., anti-multipath modulation techs. 17075
mobile radio systs., seq. detect. algms. 3437
mobile satellite commun., channel-indiv. adaptive beamforming 25321
mobile systs., transit. path, European view 25334
mobile telephony, present status and future trends 42209
MOBITEX and mobile data systs. 41859
modified ISI canceller for digital microwave radio 9168
modulation for 12 GHz band integrated services digital broadcasting 9689
Moscow-Maribor satellite link for internetworking 41832
motorway commun., radio distrib./opt. transm. network 42157
MPSK (un)coded transm. on multipath fading channels 9169
MT2607A/B/C PDC handyphone tester used service shops *(Japanese)* 34334
multi-carrier CDMA in indoor Rician fading channel, controlled equalization 9219
multilevel PAM/QAM syst. jitter-reduced digital timing recovery 40563
multipath environ., syst. degrad. 3412
multipath fading channels simul., Monte-Carlo method 15683
multipurpose DSP ASIC for receiver implement. 683
multiuser collaborative coding schemes, complex-value receiver 24779
narrow band satellite commun. systs., automatic freq. correction 37680
narrowband CPM async. CDMA syst. all-digital receiver design 42150
Natel D GSM syst. for digital mobile commun. *(German)* 42299
NEC's approach, digital cellular commun. *(Japanese)* 17077
NEC's digital cellular base station syst. *(Japanese)* 17081
NEC's digital cellular center, syst. archit. *(Japanese)* 17080
NEC's pers. digital cellular telecomm. syst., develop. *(Japanese)* 17079
NEC's portable phone for pers. digital cellular syst. *(Japanese)* 16929
nonlin. phase precoding for pers. commun. 2385
nonlin. satellite channel, optimum receiver for QPSK sigs. 3507
nonstationary channels tracking, optimal windowed RLS algm. 17097
Northern American Digital Cellular Syst. adaptive algm. fading channel tracking props. 33825
office building, propag. charact. meas./freq. reuse 9322
open-loop max. likelihood carrier sync. 42152
orthogonal coherent digital MFSK systs. in Gaussian noise and Rayleigh fading 40795
outage probab./BER estim., dual protection margins 17056
output-based objective speech quality 8195
packet-based mobile radio, digital MSK receiver 3435
partial response binary CPM (h=1/2) anal. algm. 32035
PCN, data services 42249
PCN, teletraffic perform. of GSM900/DCS1800 in street microcells 42261
PCS, advanced digital receiver principles and technols. 17111
PCS, antenna arrays, co-channel digital sigs. reception 17092
PCS, spectral efficiency of multitone freq. hopping syst. 9217
PCS hand-off and init. access, queueing channel assignment 25391
PDC half-rate speech coding std., real time operating prototype 25163
pers. digital cordless telephone syst. *(Japanese)* 17136
pers. handy phone syst. for multimedia wireless commun. *(Japanese)* 25127
pers. handy phone syst. for public services network *(Japanese)* 33895
pers. handy phone syst. portable station design for hand-over operation 42218
pers. handy phone syst. terminal design for home 42217
personal commun. service dyn. time slot assignment strategies 42224
pilot sym.-aided tech., digital sigs. in multipath environ. 9366
pilot sym.-aided transm. for satellite/terrestrial mobile systs. 25403
point-to-multipoint wireless telephone syst. trends *(German)* 33400
portable cellular telephone for 1.5-GHz band digital mobile syst. *(Japanese)* 42287
portable computing, cellular digital packet data (CDPD) air interface 25352
portable phone transmitting amp., high-speed converter-control-IC 25284
portable telephone for pers. digital cellular syst. 3467
private mobile radio systs., power utility appl. suitability 25285
PRMA, Rayleigh fading effects 8739
prog. digital radio common module prototype 10382
PROMISE pan-European traveller inform. syst. 3462
PSI-CELP speech coding for digital cellular mobile radio 25324
QAM demodulator appls., 6-GOPS sig. proc., archit. and CMOS cct. design 33681
QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
QPSK TDMA digital radio link, analog FM interf. 33841
R&S Signal Generator SME extensions for testing, digital networks 9968
radar interf. canceller, bit interleaving tech. 33743
Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
RDS for digital traffic inform. 9185
real-time in-door radio commun., antenna diversity *(Japanese)* 42180
receivers, time reversed IIR filtering 33877
Rohde & Schwarz Digital Radiocommunication Testers CMD 54/57 9341
rural cellular telephony, cost effective commun. 42191
satellite news gathering, develop. *(Japanese)* 34213
satellite news gathering syst. *(Japanese)* 42091
SAW filter appls. *(Japanese)* 39122
SAW resonator filters for digital radio systs., review 37832
SDH compatible digital radio syst. error perform. requirements 42153
SDH microwave transm., network appls. and Alcatel products 25222
SDH radio, new generation, innovation 42186
sector antenna/DFE modems for indoor radio commun. 3167
secure digital mobile commun., conf. key distrib. 25318
security in telecommunication networks, IEE Colloquium, London (1995) 20253

digital radio continued
SH7600, RISC microcomputer for pers. commun./multimedia eqpt. 12582
shared time division duplexing for wireless digital speech commun. 3333
shift-register seqs./SS commun. 24124
short-block digital transm., adaptive MLSE for mobile radio 3427
Siemens DECT-prototype Gigaset 95x perform. indoors 9108
sigma-delta codec for mobile telephone appls., design 3276
simulcast trunking syst. fine tuning 3373
small-cell environ., radio channel characts. prediction 3335
SOCRATES in Europe and TANGO field trial in Gothenburg 3076
SOCRATES/RHAPIT pilot evol., commercial syst. 3077
spectral efficiency in future commun. 17116
spectrum phase interpolation, detect. tech. 9381
sq.-QAM adaptive modulation/TDMA/TDD syst., modulation level estim. 25272
SR 2/8 10000 QPSK digital microwave radio relay syst. 17028
SS digital data link for aviation 10379
SS transm. quality improvement, diversity transm. 17013
TCM sigs., tunable complexity RSSE decoding 40673
TCM/M-PSK, trellis-coded M-ary PSK for digital land mobile commun. *(Korean)* 17045
TDMA digital cellular commun., adaptive channel equalization 42267
TDMA digital cellular networks, voice/data channel access 3338
TDMA digital cellular radio unified MLSE detect. 33823
TDMA digital cellular syst. time slot assignment techs. 33824
TDMA digital cellular systs., PDC std. based 3441
TDMA digital mobile radio, adaptive diversity receivers 9306
TDMA half rate digital cellular channel, speech and channel codec 33687
terrestrial digital radio links, reduced state seq. estim. 9190
TETRA radio terminal design, phys. layer 42282
TETRA std. for private mobile radio 42219
third generation cellular radio, location mgt. 3486
time-variant multipath channel, simul. 33847
trends/developments 33430
UHF diffr. propag., telecomm. appl. *(Chinese)* 33767
UHF digital cellular syst., network archit. 25407
UHF single ASIC CDMA digital receiver for space appl. 9414
UMTS, advanced TDMA mobile access syst. 25332
UMTS, CDMA-based radio access design 25333
UMTS/FPLMTS, networks, users and terminals 3491
universal pers. commun., indust. paradigm shift 17128
USA, future prospects of pers. commun. 3112
variable-redundancy hybrid ARQ, invertible convolutional codes 17055
VHF channels, digital fading mobile, Markov charactn. 3337
VICS radio beacon, in-tunnel transm. charact. 42340
video sig. transm. via RAI analogue FM radio links *(Italian)* 9158
Walkstation transceiver design 3464
WC-281 circ. waveguide, mode conversion, echo anal. and correction, digital radio 33760
wideband microcellular environ., multipath propag. 3409
wireless appl., lognormal sum distribs./outages 9374
wireless appls., correl. lognormal sum distribs./outages 3413
wireless commun., standardization 25358
wireless commun., test equipt. selection 116
wireless commun. syst. adaptive array sig. acquisition and tracking 33792
wireless digital data commun. 25325
wireless LAN, high perform., implement. 25058
wireless LAN MAC protocol selection for indoor environ. 41818
wireless pers. commun., overview 17107
wireless pers. commun., TDMA methods 17109
GaAs FET power amp. for digital cellular portable telephones, phase charact. 3358
GaAs MESFET lin. power amp., digital mobile commun. appls., 1.9 GHz, 2.7 V supply 42298
Si chip digital end-user mobile commun. syst. 42193
Si-bipolar front-end IC for 900 MHz homodyne wireless receivers, 3 V, 28 mW 21567
SiGe HBT technol. appls. in radio digital commun. 38999

digital radiography *see radiography*

digital radiography (medical) *see diagnostic radiography*

digital readout
see also digital instrumentation
CMOS Permalloy magnetoresistive microbridge mag. field sens. syst. 34494
dual channel digital SQUID, DC-powered Josephson MUX readout 39256
fast-RICH prototype with VLSI readout, beam tests 4164
gaseous 2D detectors, PC-based fast readout electronics 18384
IR imager detector array MOS readout IC 34598
IR readout electronics, conf., Orlando, FL, USA (Apr. 1994) 20262
mag. recording, EEPR4 detect., digital read/write channel 30738
wideband inside micrometer, digital readout 18091
HgCdTe IRFPAs, IRCCD and IRCMOS detectors 17950
HgCdTe longwave IR scanning FPAs, CMOS readout IC, surveillance appls. 17947
PtSi 640×480 IRFPA, third generation, MOS readout multiplexer 17953
PtSi hybrid FPA, CMOS multiplexer readout 17946
PtSi middle wavelength 240×320 IR staring FPA 17954
Si multiplexers for lin. IR photodiode arrays 25875

digital signal processing *see digital signal processing chips; signal processing*

digital signal processing chips
1.8-μm CMOS 60-MBaud single-chip QAM proc. for digital radio appls. 21369
1D fully pipelined VLSI archit. for DFT 682
2D DCT for image coding, implement. on DSP96002 proc. 2836
2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
2D DCT systolic archits. based on CORDIC techs. 12573
2D DCT/IDCT VLSI, fully bit-serial archit. *(Korean)* 21367
2D FIR digital filters, VLSI struct. 6224
2D systolic arrays for DCT/DST/DHT hardware implement. *(Korean)* 37796
3.3V MUSE decoder sig. proc. LSI *(Japanese)* 34254
3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
3-phase PWM converters, small-sig. model, control 19760
3-phase ZVS-PWM rectifier, reson. DC link, digital control 5068
3D computer graphics media chip, single-chip archit. 12556
3D stackable MCM-D on C sig. proc. 21767
7 KHz handfree telephony CMOS ASIC chip set 21371
8 kbit/s ACELP speech coding, CCITT standardization candidate 33691
8-kbit/s conjug. struct. CELP speech coder, perform. 33690
16-bit CMOS divider/sq.-root cct. design 6171

digital signal processing chips continued
200-MHz quadrature digital synthesizer/mixer in 0.8-μm CMOS 21370
525-line progressive scanning TV camera, 16:9 aspect ratio 34235
900 MHz transmitter syst., highly integrated ASIC 9353
AC ASD, DSP technol. appl. 44486
AC bridge for impedance meas., anal./design/implement. 12613
AC motors, four-quadrant digital control scheme 10954
acoustic echo cancellers, exponentially weighted step-size projection *(Japanese)* 42096
acoustic echo-canceler for teleconferencing syst. 16912
adaptive beamforming, systolic spatial proc. tech. 25598
ADSL, DSP-based prototype reverse channel transmitter/receiver 33673
appl.-specific chip design, behavioral silicon compiler 680
application-specific array processors, conf., Venice (Oct. 1993) 36903
approx. rank-order filters, VLSI implement. 29377
ASIC implementation of image proc. algm., silicon compilation 21343
ASIC macrocell multiplier for complex numbers 21214
ASIC sig. proc. archits. with min. structural complexity, ILP synthesis 29251
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
ATM exchange, parallel computer architect., perform. modelling 42125
audio-visual sig. proc., Alis logic synthesis syst. 29301
audio-visual-audio inform., hierarchical sens. fusion *(Japanese)* 16054
autoregressive spectral estimation fro NMR spectroscopy 24233
batt.-operated ultra-high data rate ULSIs, low power bus archit. 37812
beamformer for underwater acoustic commun., hardware efficient 26783
bi-level image high speed codec, architectural design 9124
BiCMOS ULSI video sig. proc. for single chip teleconferencing syst. 34432
binary, residue transform., respect, 2^m+1 moduli 626
binaural recording playback through loudspeakers, room impulse response 34296
bit-serial systolic array for DSP, reconfigurable arith. operators 29255
brushless DC drives, control strategies comparison 44476
brushless DC servomotor, optimal DSP control 36195
CD player multivariable control, DSPs 17612
CELP coder, real-time wideband, for videophone appl. 33696
CELP coder for mobile commun., design 17038
channel demodulator IC for DAB, design, silicon compiler 21155
chip sets for digital cellular handsets 17036
CMOS 1.2 GIP general purpose digital image proc. 21374
CMOS adaptive equalizer for partial-response channels 29246
CMOS array proc. for digital image compression 29247
CMOS chip set for pipeline and parallel pipeline FFT archits. 21357
CMOS DSP core for speech coding appls. 33701
CMOS five-stage pipelined FFT proc. chip 12578
CMOS high speed pipelined multiplier-accumulator 12579
CMOS high-speed DAC, embedded prog. video FIR filtering fn. 29326
CMOS high-speed VLSI pipelined proc. design for lossless image data compression 29274
CMOS low-power chipset for portable multimedia I/O terminal 9114
CMOS multi-channel data compression chip, parallel archit. 21376
CMOS PLL-based prog. clock generator for video sig. proc. 12611
CMOS prog. digital filter proc. chip, ring topol. 29378
CMOS quadrature digital synthesizer/mixer, 200 MHz 29245
CMOS real time image class. proc., parallel archit. 21375
CMOS real time image proc. systs., mfg. products defect detect. 32940
CMOS real-time obj. extraction proc. chip 29250
CMOS video sig. proc. chip, 1.5 GIPS 21373
CMOS VLSI adaptive high-speed VQ archit. 29273
CMOS VLSI array proc. for basic arith. operations, redundant no. syst. 29265
CMOS VLSI implement. of 8192 complex point FFT 29248
CMOS VLSI opto-electronic array proc., morph. image proc. 29277
CMOS VLSI predictive tree-searched vector quantizers for real-time video compression 29276
CMOS VLSI trellis-coded partial response channel codec 29249
code-string matching proc., design, EWLD algm. *(Korean)* 12555
colour digital still camera, video CCD sens. 9715
commun. headsets, act. noise reduction 3690
commun. sig. proc., complex arith. proc. archit. 29239
complementary CCD DSP chip for digital still cameras 6188
complex exponentials sum, matrix pencil method, param. estim. 40894
concha, digital hearing aid 18610
concurrent VLSI archits., partitioning and prog. lin. alg. algms. 37792
continuous speech recogn., large vocab., fast match acoustic models 32396
control appls., low cost DSP 37814
control software for embedded DSPs, robot appl. 19923
CORDIC array struct. for implement. of DCT 21359
correction method for single chip power meter 4740
CPM sigs. neural receiver 33913
current source converter, patt. generator switching freq. minimization 19729
custom IC, conf., San Diego, CA, USA (May 1994) 20247
custom IC, conf., San Diego, USA (1993) 36842
data acquisition and eval. board *(German)* 9825
DC servodrives, dyn. friction compensation 36644
DC servomotor machining motion control, parallel DSP 36192
DC/DC power converter quasi-lin. controller, DSP-based 11149
DCT, 2D, bit-serial VLSI archit. 21362
DCT chip, VLSI archit., 100 MHz, 0.8 μm CMOS implement. 6187
DCT IC chip design using RNS 21345
direct digital freq. synthesizer, DSP μP IIR filter appl. 29073
discrete wavelet transform, VLSI archit. 6186
discrete/CW transforms, single chip/SIMD computers 37799
DS-SS RAKE receiver, ASIC implement. 9191
DSP96002-based software pulse generator, NMR tomography/spectrosc. appls. 42683
DSP based controller for switching converter 6019
DSP real-time implement. on multiprocessors, CAD environ. 12584
DSP-based parallel archit. for neural network simul. 29259
edge detector, Sobel operator, VLSI implement. 30473
engng. degree lab., TMS320C25 DSP chip-based course 20345
error correcting decoder implemented, digital neural net 8152
extraction chip for high speed OCR *(Korean)* 24678
fast Huffman decoder, high speed pattern matching 41078
fast LMS-based algm., real-time echo cancellation 33408
fault-tolerant sig. proc., redundant finite rings 29244
FEAL-32 encryption LSI *(Japanese)* 42093
FFT, 8192 complex points, single-chip implement. 21377
fieldbus commun. controller chips 6169
filter design, integrated environ., DSP techs. 5952

digital signal processing chips continued
flexible 8-channel data acquisition device for sig. proc. and anal. 25737
floating-point systolic array PE, serial commun./BIST 21356
foetal ECG monitor, abdominal, real-time multichannel, using digital sig. coprocessor 43299
FPGA, appl. specific archit. 29262
FPGAs, configurable DSP coprocessors 6177
Fujitsu 21-inch color plasma display and electronics *(Japanese)* 25918
fuzzy control design syst., DSP-based 687
gate array chip, HF DSP appls. 12576
German portable reading device for blind 4318
GFLOPS, real-time image proc. parallel VLSI archit. 29272
gray-scale morph. filtering, digit-serial archit. 21277
GSM full-rate vocoder chip design 42086
GSM handsets, three-chip struct. 17034
GVIP, scalable high-perform. graphics proc. 21366
half-pel precision motion estim. proc. for NTSC-resoln. video 16156
heuristic transform. techs. for simultaneous optim. of latency/throughput 29261
hierarchical multiprocessor archit. for video coding 33698
high resoln. motion sens., ASIC implement. 37808
high sample rate archits. for median filters 29379
high speed digital filters, design automation 37878
high-level DSP synthesis, concurrent algm. 37793
high-level DSP synthesis using concurrent transforms., scheduling, and allocation 21363
high-throughput DSP appls., ASIC design strategy 29271
Hough transform chip-set, config., CMOS implement. 29269
ICVision, VLSI-based diffractive display, holographic stereograms 9987
image proc., parallel DSP archits. 29242
image proc. syst., real time meas. of knee joint movement 26270
image proc./computer vision systs. characts. *(Japanese)* 32931
image recovery appls. *(English)* 24569
induction motor, nonlin. control, DSP 28067
induction motor ASD, fuzzy on-line efficiency optimisation control 36659
induction motor drive, CSI-fed, microcomputer-DSP control 20072
induction motor drive, VSI fed, DSP based variable struct. control 44049
induction motor drives, field oriented control, parallel proc. 36700
induction motor drives, position/speed dyn. control, DSP 20069
induction motor drives, sensorless vector control by Intel i860 and transputer network 44039
induction motor nonlin. control, DSP approach 11057
induction motor servodrive, robust 2DOF posn. controller 36658
induction motors, inertia-lowering digital control studies *(Japanese)* 36162
induction motors, speed control, VSS, load torque observer *(English)* 36175
induction motors drives, real-time PWM vector control studies 28100
induction servodrives, field-oriented control, fixed-point DSP 11358
indust. robot/CNC machine tool digital joint motion controller 11509
industrial drive control systs., DSP based tool 44441
inner-product proc., area efficient, VLSI implement. 12562
instruction sets, RISC/DSP type instructions *(Japanese)* 12561
integrated memory array proc., image proc. appl. *(Japanese)* 29210
intell. video camera, serial control interface 9754
IR3Y18 video sig. proc. IC for TFT LCD *(Japanese)* 664
ISDN U-transceiver adaptive filters, DSP based real time simul. 29260
ISHTAR, real-time time-varying image proc. *(Japanese)* 42754
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
JAGUAR, pipelined VLSI archit. for JPEG image compression 21341
JPEG image coding algm. Huffman codec *(Japanese)* 16943
laser commun., acquisition and tracking, CCD 17306
lin. tubular induction drive, DSP posn. controller 11342
lin.-phase equalizer in digital audio sig. proc., design and implement. 34292
lossy sig. compression archit., single-chip implement., ECG data 29275
LSI, multimedia ASSP *(Japanese)* 3261
M-LCELP speech coding, 4 kb/s, multi-mode and multi-codebook 9120
magneto-opt. disk unit, data/disk servo control chips *(Japanese)* 22962
mapping of cepstrum algms. on reconfigurable CORDIC syst. 32600
matched filter derived and code-assisted bit sync. 41392
MATRA DEFENSE develops., DSP fn., MCM technol. 21741
MC68356 integrated DSP/RISC microcontroller, V.34 modem appl. 9118
medium-throughput sig. proc. on flexible instruction-set archits. 37797
MEGATEXT, teletext IC, graphics for color TV 41750
MELUPS 8400V medium-capacity UPS *(Japanese)* 5037
microcontroller, universal real-time, fast calc. 6172
micropipeline asynchronous digital logic design, systolic arrays, DSP appls. 29124
microrobot PM step servomotor drive, VSS control 11354
microwave radio commun. systs., DSP and VLSI technol. 25223
mobile ATE for flightline and forward battle areas 34366
mobile commun., DSP for digital multi-beam forming antenna 17068
modular mixed sig. testing, high speed/high resoln. 6239
motion estim. VLSI proc., block matching algm. *(Korean)* 37789
Motorola's DSP56001, med. sig. proc. appl. 4258
motors, interactive DSP-based acquisition/control syst. 10949
MPEG2 codec, video DSP archit. 33699
MPEG2 real-time codec, video DSP appl. *(Japanese)* 25165
MPEG audio decoder chip 37788
MPEG stds., audio/video codecs, LSI chips 16944
MPEG-2 std. digital TV receiver IC *(German)* 25648
multi-DSP archit., high perform. appl., expt. eval. 12588
multi-rate bandpass filter bank, QRNS complex arith. 6229
multi-std. video codec data flow proc. 25130
multichannel combined R2MFC/DTMF/CCT receiver, single-chip DSP *(Korean)* 42112
multimedia equipt., electronic devices *(Japanese)* 16935
multimedia video proc., parallel archit. DSP chip 21372
multiplexed DSP archit., hardware allocation, bit-align. 21342
multipurpose DSP ASIC for receiver implement. 683
multistreaming RISC proc., VLSI, pipeline execution 2846
μP-based programmable interface components 29324
musical sigs., loose-harmonic matching fund. freq. estim. 34300
neural computation, phys. models and analogue VLSI implement. 6269
neural network simulations, educational environment, DSP based acceleration 21472
nodal chip for parallel neural sig. proc. 29520
num. C for efficient DSP code 679
opt. image sens., digital CMOS approach 42847
Optical Communications Demonstrator, control proc. syst. archit. 17314
order stat. algm. for rank order/stack filters 29380

- **digital signal processing chips** continued
  - parallel neural network emulator based on appl.-specific VLSI commun. chips 29472
  - parallel proc. for image segmentation 12574
  - PCS, advanced digital receiver principles and technols. 17111
  - PGM crypto-chip, parallel permutation multiplier 29189
  - Philips voice module for voice commun., data networks 41715
  - pipelining, throughput/resource utilization optim., transform. 12583
  - playback-only MD syst. chip set *(Japanese)* 42650
  - polynomial GCD computation, finite field division, VLSI array synthesis 12570
  - portable video-on-demand syst. in wireless commun. 42593
  - power controller, fuzzy chip-based fault classifier 11131
  - power syst. load flow calcs., floating point DSP 26890
  - power syst. real-time harmonics/flicker meas., PC-based 19367
  - power syst. voltage measuring syst., fast sampled data, DSP 10790
  - prog. DSP, scheduling/instruction selection 6184
  - programs, concurrency charact. 30413
  - PSTN, secure speech/data commun. 33397
  - QAM demodulator appls., 6-GOPS sig. proc., archit. and CMOS cct. design 33681
  - QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
  - rapid prototyping of appl.-specific sig. proc., architectural issues 29240
  - real time class. proc., conventional and neural techs. 16284
  - real-time extraction of direction vectors from binary images, VLSI chip 6173
  - real-time narrowband beamforming, efficient archit. 9676
  - real-time parallel DCT/DST lattice structs. for video commun. 29266
  - reconfigurable FPGA-based image coprocessor 12577
  - reduced systolic engine for nonlin. dyn. systs. anal. 29243
  - regularized param. estimator, systolic implement. 29279
  - reluctance motor drive, DSP-based sliding mode control 44493
  - reluctance motor drives, axially laminated rotor, vector control 5258
  - RISC proc., single event effects/perform., space appls. 6182
  - RNS FIR digital filters, bit-serial VLSI implement. 750
  - robots, AC drives, optimised DSP field oriented control 36683
  - robust speech recogn., telephone line equalization 8231
  - running bispectra computation and implement. 40849
  - salient reluctance generator voltage control, DSP-based *(Korean)* 36113
  - Sanyo multi-gray-scale proc. LSI for TFT-LCD *(Japanese)* 669
  - Sarnoff engine, massively parallel computer for high defn. syst. simul. 12587
  - scalable hardware accelerator 29241
  - scalable/foldable VLSI archit. for Viterbi algm. 29293
  - scheduling with register constraints, DSP archits. 12558
  - SDA 9189X proc. chip for picture-in-picture systs. 42583
  - service adaptive access SLIC, CMOS prog. DSP, oversampled ADC/DAC 21378
  - SH7600, RISC microcomputer for pers. commun./multimedia eqpt. 12582
  - ship data fusion target tracking, 21020 DSP family, multisensor SIMD archit. 10589
  - SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
  - sig. proc. ASIC, digital SS modem for power line commun. 21379
  - sigma-delta bitstream FIR filter, VLSI design 37887
  - Silicon Audio, audio-data compression/storage syst. 42644
  - SIMD DSP for real-time MPEG video encoding/decoding 29268
  - SNUFEC ultra-high-speed CMOS VLSI Viterbi decoder 12557
  - soft-output Viterbi decoder, high speed VLSI archit. 12586
  - solid-state image sens. for visual spectrum *(Japanese)* 17967
  - sonar sig. proc. syst. based on TMS320 series 17488
  - sound processing architectures, sound synthesis, complexity optimisation 34298
  - sound sens., intell., audio-visual sens. fusion syst. 40787
  - speech commun., multichannel spatial auditory display 2437
  - spoken digit recogn., URAN VLSI chip 8203
  - sq.-root, reciprocal, sine/cosine, arctangent cell, design 32656
  - sq.-root info. Kalman filter, Jacobi-type systolic array implement. 21358
  - SRIF DSP algo., VLSI systolic array implement. 665
  - SRM drive control, DSP based syst. archit. 11380
  - SS systs., DSP appl. 25238
  - stabilized fast transversal filter algm., sig. proc. appls. 37871
  - staged decoder for BCM sigs., CMOS VLSI implement. 29270
  - steam generators, μP based steam leak detect. syst. 35985
  - stereo echo canceller, implement./perform. eval. 34287
  - subband low power video decoder archit. 33666
  - sync. DRAM, 4-/16-Mbit, for high-speed image proc. 12542
  - sync. motors, self-commutated, low-power, control device *(French)* 10989
  - sync. servomotor, space voltage vector PWM control *(Korean)* 27694
  - syst. controller for mobile audio visual terminal 42275
  - systolic VLSI implementation of Galois field arith. algm. 22569
  - Tartan Ada develops. for DSP 21355
  - teaching real-time DSP, Univ. of Leicester 36921
  - teleconferencing syst., perform. eval. 16815
  - Texas Instruments and Analog Devices, fixed- and floating point DSP chips *(Polish)* 37791
  - Texas Instruments Multimedia Video Processor for DSP appl. 25108
  - three-level PWM invertor, optimal design studies 19719
  - three-phase AC/DC ZVS power convertor topol. 19839
  - TMC22090 video encoder for computer graphics in TV format 29267
  - torque-speed characteristics meas. of electric machines 25718
  - tri-array VLSI archit. for higher order moment estim. comp. 29294
  - two scan algm. implement. on systolic array/multicomputer 12569
  - UHF single ASIC CDMA digital receiver for space appl. 9414
  - UPS CSI, DSP-based output voltage control 44172
  - variable freq. induction motor drive, pulsating torque compensation 5290
  - variable precision IEEE floating point simul. using C++, DSP design 6175
  - VHDL based macrocell libr., develop., modelling 21165
  - video coding VLSIs, overview, prog. DSPs and building block approach 16155
  - video DSP, pipeline archit., MPEG2 CODEC 8664
  - VLSI, DSP synthesis, high-level algm./archit. transforms. 37798
  - VLSI archit. for motion estim. algms. 12580
  - VLSI archit. for video real-time hierarchical encoding/decoding 33697
  - VLSI archits. for video compression, survey 24394
  - VLSI fast algms. for division and sq. root 12585
  - VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938
  - VLSI low-power sig. proc. systs. 29264
  - VLSI signal proc., conf., Napa, CA, USA (Oct. 1992) 11583
  - VLSI signal processing, conf., Veldhoven (Oct. 1993) 36900
  - WDF for TI's sens. sig. proc. MSP430, CAD 738
- **digital signal processing chips** continued
  - word-length determ./scaling software for sig. flow block diag. 28969
  - GaAs ASIC set for deep space receiver 42336
  - GaAs implement., systolic floating point proc. element 29253
  - Si chip digital end-user mobile commun. syst. 42193
  - Si substr. MCM technol., sens. sig. proc./control 21769
- **digital signals**
  - 2 Mbps interface module, PLL tech. *(Japanese)* 42050
  - 2D sigs., data-depend. sampling 33123
  - adaptive beamformers based on cyclostationary sig. props. 8353
  - antenna array, multiple co-channel digital sigs., blind estim. 8306
  - audio data compression 32688
  - bandlimited orthogonal wavelet syms. 8347
  - blind adaptive array simul. for realistic mobile channel 33795
  - CDMA sigs., charactn., spectrum analyzer 18019
  - cellular multichannel video/data commun. optoelectronic components 34080
  - common channel signalling network survivability using DCS 41648
  - constraint based audio interpolators 16003
  - CPM sigs., channel coding/multiple-sym. diff. demod. 24078
  - data acquisition, ADC, noise filtering 34418
  - deconvolution filter design considering channel sensitivity 2526
  - demodulation of digital sigs., ISI 40571
  - distributed digital sig. transm. syst., sig. recovery, estim. method *(Japanese)* 15771
  - double FM synthesis, real-time implement. 9775
  - DS-CDMA/DQPSK sig. in indoor radio channel *(Korean)* 17046
  - DSP syst. functional controllability indicators *(Russian)* 16053
  - FM sigs., modulation class., higher-order correl. 15698
  - HDTV sigs., VCR coding scheme for recording 9753
  - high-speed digital sigs., digital-video pipeline, existing channels 25652
  - high-speed digital sigs., effects, radiation problems, interf. 12384
  - indoor telecomm. line noise voltage due to AC supply lines, estim. 16988
  - joint space-time decorrelation, sigs. separation 40935
  - multicast software develop. 25158
  - multichannel video transm., sync. digital fiber-optic networks 34021
  - multilevel digital sigs. estim., impulsive interf. presence 24208
  - multiple sigs. dyn. coord. reception in correl. noise 40880
  - Nakagami faded sigs., Gaussian noise perturbed, phase diff. distrib. 32024
  - narrowband digital FM sigs., seq. estim. 24280
  - nonlin. channel, amplit. estim. for pulse sig. transfer 32026
  - oblique projections in discrete sig. subspaces of l_2 and wavelet transform 32503
  - orthogonal transform. instrumental control *(Russian)* 16052
  - oversampled bandpass sigs., inphase/quadrature components extraction 24183
  - PCS, antenna arrays, co-channel digital sigs. reception 17092
  - pilot sym.-aided tech., digital sigs. in multipath environ. 9366
  - prog. neural net archit., BiCMOS 37913
  - PSK sigs., low SNR approx., phase PDF 2364
  - satellite TDMA binary PSK sig. demodulation without explicit carrier sync. 40553
  - SDH multiplexing and multiplexers 16421
  - SONET, digital network sync. 42379
  - spur-reduced digital sinusoid generation, higher-order phase dithering 8372
  - SS multiplexing, hierarchical TV transm. 25634
  - struct. intermittent interf. at demodulator, compensator efficiency 40856
  - TV broadcast sig. error correction techs. *(Japanese)* 17546
  - twin emitter semicond. laser arrays, high-speed modulation 7659
  - VQ sigs. transm., Rayleigh fading channels 8448
  - waveform synthesis, filtering 8444
  - wireless LAN MAC protocol selection for indoor environ. 41818
  - Cu/polyimide MCMs, microstrip interconnects, digital sigs. 29729
- **digital simulation of computers** *see virtual machines*
- **digital storage**
  - *see also content-addressable storage; cryotrons; ferroelectric storage; interleaved storage; magnetic storage; optical storage; random-access storage; read-only storage; self-organising storage; semiconductor storage; storage units*
  - archive digital data storage device based on home video recorder 39182
  - autonomously responsive syst., acoustic preprocessor 32584
  - batt.-powered portable computers, technol. trends 37810
  - chain-struct. sync. dataflow programs, memory requirements 32619
  - computer memory, systematic SEC-DED codes, error detect./correction 32066
  - data courier satellite syst. concept 33943
  - general defective channel, informed encoder, constrained memories 24037
  - micromechanical struct. 39029
  - MPEG digital storage media control command 41607
  - PCMCIA standardization for PCB design, manufacture and assembling 12927
  - psycho-acoustic masking phenom., digital sound storage/transm. 9772
  - reduced-search decoder, storage requirements, optim. algm. 40672
  - scalable storage servers for digital audio/video 25686
  - semicond. device defects, image display/anal., laser scanner 32818
  - VACM data recording package and memory syst. 10496
  - video-on-demand syst., probabilistic assignment of movies, storage devices 9719
- **digital storage oscilloscopes**
  - 12-bit resoln. DSO *(German)* 25916
  - fast digital oscilloscopes, averaging mode, lin. improvement 17699
  - fast sampling and display tech. *(German)* 25915
  - FFT, digital sampling oscilloscopes *(Italian)* 25906
  - impedance loci, slot-type effect studies *(Japanese)* 11056
  - market review 3923
  - Rohde & Schwarz TV Network Analyzer SOKF, integral digital oscilloscope 9832
  - sampling oscilloscope front-end, HBT MMIC design 42869
  - trends/develop. 34338
  - undergraduate lab. data acquisition, digital oscilloscope appls. 20285
  - GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
- **digital systems**
  - *see also computer networks; digital communication; digital computers; multi-access systems; multiprocessing systems; real-time systems; smart cards; time-sharing systems*
  - advanced digital reactor control systs., safety policies 19456
  - ALWR plants, integrated digital instrumentation and control *(Japanese)* 4771
  - Digital Audio Laboratory Station 34285
  - med. digital imaging systs., undersampling effects 35034

digital television
  Alcatel 1570 BB single mode opt. fibre CATV syst. 42615
  analogue TV, digital techs. 3666
  ATV, digital transm. technol. *(Japanese)* 34232
  AVLSI decoder archit. for TCM 9731
  B-ISDN, VBR coder traffic, stat. model 9014
  BPSK/QPSK demodulator chip-set for satellite appls. 42561
  broadband satellite digital video transm. technol. *(Japanese)* 17542
  broadcast multipath environ., multicarrier modulation perform. 34224
  broadcast sig. error correction techs. *(Japanese)* 17546
  broadcast systs. characts. *(Japanese)* 34250
  broadcast-quality compressed video, subjective testing 25633
  broadcasting, modulation/demodulation *(Japanese)* 34217
  broadcasting facilities/operations *(Japanese)* 34215
  broadcasting promotion *(Japanese)* 34216
  broadcasting service trends and tech. problems *(Japanese)* 17541
  broadcasting syst. requirements *(Japanese)* 17540
  broadcst techs. 34204
  CATV, digital services, broadband delivery 42054
  CATV, QAMVSB modulation comparison 34263
  CATV near-future archit., broadcast channels capacity 42616
  CATV network, high-perform. multimedia transm. 9740
  CATV technol. studies *(Japanese)* 34265
  CBC's Toronto Broadcast Centre master control room 42595
  CMOS VLSI implement. of 8192 complex point FFT 29248
  coding/decoding chipset, spec. and develop. 34248
  COFDM for TV broadcasting, overview 42560
  composite compatible component coding (Com) 42596
  composite noise generator, noise immunity tests for dig. systs. and TV pictures 40371
  compressed digital video services 33966
  computer-controlled digital HDTV chroma-key syst. 42608
  control syst., LAN appl. *(Japanese)* 34240
  D3/D5 digital VTR, trends *(Japanese)* 34276
  data and filter requirements of D-A conversion 41356
  double half-bandwidth OFDM syst. for digital video broadcasting 9698
  DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
  DRAM based CMOS TV ccts. for advanced services/features 9706
  DVCR, channel code, embedded pilot tracking tones 42636
  EDTV, 2nd generation, policy and digitalisation *(Japanese)* 34249
  ETS-V Asia-Pacific telecommun. network expts. 42319
  European digital TV, stds. develop. 34210
  European image media trends *(Japanese)* 17544
  European syst. for transm. of digitized TV sigs. via satellite 9694
  EUTELSAT developments, IEE Colloquium, London, UK (1995) 11598
  EUTELSAT digital TV, perspective 33965
  EUTELSAT satellites, generation 33962
  FFT, 8192 complex points, single-chip implement. 21377
  field pick-up unit, future develop. *(Japanese)* 34239
  Grand Alliance syst. for US HDTV 25665
  HDTV, all digital sigs., terrestrial transm. 9735
  HDTV, digital transm. syst. 9736
  HDTV compact digital camera, CCD image sens. 42598
  HDTV digital codec, high compression, develop. 42607
  HDTV picture quality eval, modified EBU method 42605
  HDTV progressive and interlace scanning, camera SNR and bit rate reduction 25668
  HDTV receivers, efficient 2D inverse DCT algm. 25645
  HDTV studio mag-tape-recording hardware codec *(German)* 9727
  HDTV syst., fully digital, algms. and implement. 9733
  HDTV systs., channel equalization techs. 17566
  Hi-8 HD-VCRs, embedded thin film mag. head 9746
  Hi-Fi audio coding technol. and standardisation *(Japanese)* 17545
  hierarchical channel coding, turbo-codes 8684
  hierarchical digital broadcasting, adaptively weighted CDM 25628
  hierarchical modulation schemes for digital broadcasting, power assignment 25630
  hierarchical TV transm., SS multiplexing 25632
  high integrity data commun. for light rail transport syst. 36742
  high-resoln. digital satellite commun. syst. *(Japanese)* 25637
  high-speed digital sigs., digital-video pipeline, existing channels 25652
  IBM POWER Visualization System, digital post-prod. suite 42594
  image wavelet transform coding and sync. loss recovery 42584
  interlaced digital HDTV image coding field/frame mode selection *(Korean)* 25672
  introduction 42579
  ITU generic coding for digital TV broadcasting *(Japanese)* 34211
  LSI technol. impact on systs. develops. 17532
  master equipt., develop. *(Japanese)* 34238
  MPEG2, TV receiver appl. 34227
  MPEG 1 video compression std., rem. delivery of broadcast-quality video 42625
  MPEG-2 for DVB and cable 34219
  MPEG-2 std. digital TV receiver IC *(German)* 25648
  MPEG-2 std. flexible digital data transm. *(German)* 17539
  NTT's HDTV opt. fiber transm. syst. 42603
  objective picture quality scales for digital moving pictures 24400
  OFDM, guard interval and sub-channel equalization for digital TV broadcasting 9699
  OFDM for digital TV broadcasting 3646
  overview of emerging technols. 34203
  pyramidal multiresolution source coding for progressive seqs. 16225
  radio channel stat. charact., expt. eval. *(Italian)* 9688
  satellite news gathering, develop. *(Japanese)* 34213
  satellite TV, trends/develop. 34202
  Scientific-Atlanta interactive video services 42590
  sig. transm. struct. of digital broadcasting 9700
  SS multiplexing, hierarchical TV transm. 25634
  SS techs. for consumer commun. 25237
  STEL-1103, low cost return path CATV transmitter ASIC 42609
  still camera, visual optim. proc., color correction 9714
  Stuttgart TV prod. centre digital island planning and implement. *(German)* 17538
  sub-control room video effect equipt. *(Japanese)* 34237
  superhighway , digital TV transm. 3656
  TBS Broadcast Center in Tokyo, full-digital transm. syst. 42576
  terrestrial broadcasting, modulation 17534
  terrestrial TV broadcasting, transm. techs. 34221
  TV broadcasting, waveform transm. technol. *(Japanese)* 34214

digital television continued
  TV broadcasting stations, develop. *(Japanese)* 34212
  TV prod. non-std. platforms in digital era 17557
  TV sig. broadcast, high quality video codecs *(Japanese)* 42092
  TV studio digital video equipt., meas. *(Japanese)* 34241
  video delivery options 9718
  video on demand services, hierarchical storage dimensioning 17573
  video recording data reduction strategies *(German)* 17583
  video services, technols. and network archits. *(German)* 42626
  VLSI implement. of Huffman codec for digital video 33704
  VSB/QAM for hybrid fiber/coax, digital transm. 42610
  VTR, standalone equipt., operation *(Japanese)* 34275
  wide area video commun. network *(Japanese)* 42618
  LiNbO$_3$ opt. waveguide modulator for bidirectional transm. 42442
digital voltmeters
  dyn. DVM, rly. reactive power compensation appl. 3947
  quantized Hall resist. std. 3721
  thermal cells, tester develop. 36511
digitisers *see analogue-digital conversion*
digraphs *see directed graphs*
dilatometers *see extensometers*
dilute magnetic materials
  see also magnetic impurities; semimagnetic semiconductors
  a-Fe$_{90}$Sc$_{10}$:^{119}Sn, spin correl./relax., Mossbauer obs. 6932
diluted magnetic semiconductors *see semimagnetic semiconductors*
dimensions
  DC electromagnet pole dimens. selection method *(Russian)* 7928
dimer lasers *see excimer lasers*
dining philosophers problem *see concurrency control; resource allocation*
diode lasers *see semiconductor lasers*
diode sputter deposition *see sputter deposition*
diode sputtered coatings *see sputtered coatings*
diode sputtering *see sputtering*
diode tubes *see diodes*
diodes
  see also plasma diodes; rectifiers; semiconductor diodes; vacuum tubes
  2 kW series resonant converter, CO$_2$ gas discharge laser appl. *(Spanish)* 19877
  2-stage ion diode, mag. insulated 34853
  3-phase diode rectifier, input current waveform *(Korean)* 36366
  4.5 MJ modular pulse power supply, electrothermal gun 31764
  300 keV X-ray source develop., pulsed electron beam diode-based 36270
  300 kJ ion beam accelerator, Marx generator power supply 34749
  automatic beam optimiser reverse-swing diode electron gun *(Japanese)* 12989
  cylindrically-symm. vircator high power microwave source 29766
  DC anal. of ideal diode network, decomposed piecewise-lin. model 511
  electrothermal-chem. gun, meas. techs. 31751
  field emission diodes using sharp vert. edge struct., fab. 12995
  high voltage high brightness electron accelerators 10082
  HV vac. diode insulators, elec. breakdown 35659
  I-3000 accelerator, electron spectrometer, TF 34960
  IGBT switching losses, hard switching, ZVS, ZCS 6757
  impregnated cathode, degrad. mechanism *(Japanese)* 12984
  LEP beam bumping kicker syst. high power pulse generator 34821
  LMF triaxial MITL voltage adder syst. Marx generator 36300
  MIM diode, N-shaped I-V charact., mechanism 13262
  pulsed ion diodes, temp. controlled, beam-target interact. expts. 34854
  repetitive e-beam diode develop. 36285
  RF power meter, lin. scale 34620
  RUSLAN e-beam accelerator, Marx generator supply 34738
  S-band klystrons, 150-MW, design and perform. 21845
  SABRE pos. polarity inductive adder MITL, refl. waves 34741
  shaping electrodes in axisymmetrical electron-beam optics, calc. 15242
  sinusoidal converters, high PF 19725
  thermionic vac. tube devices, micron-scale dimens., fab. 21806
  two-stage diodes, recent results from Sandia Nat. Lab. 960
  unity PF 3-phase dither rectifier, one switching device 19724
  vac. diode, Bursian instabil., (η,ϵ) diags. 12992
  vac. diodes, breakdown 29762
  virtual cathode oscillator, high-power microwave generation 29776
  voltage amplif., coaxial mag. insulated switch 36420
  Wright Laboratory thermionic conversion programs 28022
  KrF laser amp., Titania, pulsed power syst. 31189
diplexers *see multiplexing equipment*
dipole antenna arrays
  94 GHz integrated monopulse receiver 23968
  axial dipole arrays on cylindrical surfaces, low sidelobe pattern optim. synthesis *(Chinese)* 31994
  base station antennas, evol. 2321
  cavity-backed printed dipole arrays with substr. mode control 23966
  conductor-above-the-ground type line, impedance var. 31922
  cylindrical dipole arrays, two-term theory, variational-principle 40498
  diversely polarized array, MUSIC/Pencil-MUSIC algm., perform. anal. 2486
  diversely-polarized array, MUSIC and Pencil-MUSIC algms., perform. anal. 40946
  EM waves, partially polarized, param. estim. 40329
  EMC of surveillance devices, rem. deactivation 23663
  FD-TD method, strip dipole with window, stripline fed, anal. *(Japanese)* 31981
  finite dipole FSS, transm. perform., curvature effects 15662
  finite scanned arrays, standing waves in scan impedance 31997
  HF radio sigs., adaptive proc., receiving antennas 40773
  indoor space diversity antennas, proximity effects 25374
  infinite printed-dipole array input impedance rel. to random posn. errors 23977
  K/K$_a$-band series-fed dipole and slot arrays transversely coupled to microstrip line 23944
  linear active dipole array loading by neg. resist. devices 23980
  mobile radio, base station polariz.-sensitive adaptive antenna 33879
  omnidirectional slot array antenna, moment method anal. 31959
  orthogonal vee dipole pair omnidirectional circularly polarised far field 31964
  partially polarized EM waves, param. estim. 2483
  plane fan dipoles, approx. formulas for calculating radiation patterns 31984
  printed transverse dipole arrays, design *(French)* 2343

- **dipole antenna arrays** continued
  - rectangular dipole array reform. rel. to pattern of elements 31974
  - resistively loaded printed triangular dipole design for wideband array 23957
  - shortened two-element director antennas, bandwidth 31987
  - thick film HTSC supergain printed dipole arrays 31960
- **dipole antennas**
  - *see also dipole antenna arrays*
  - 905 MHz radio propag. in an office, metal low-partitions effect 31830
  - antenna factor meas. on ground plane by 3-antenna method 40483
  - antenna factors meas., 3-antenna method 23899
  - aperture-coupled printed wire antenna full-wave anal. 23840
  - bandwidth extension by parasitic elements and varactors 23915
  - base station antennas, evol. 2321
  - broadband, isotropic, electric-field probe with tapered resistive dipoles 25798
  - center-fed strip dipole, impedance, Poynting vector method 40475
  - chirostrip dipole antenna, scanning behavior, substr. effects 8052
  - coated wire antennas/scatterers, anal. 31933
  - digital data transm., unshielded copper wire emission 15478
  - El in magnetoactive plasma, radiation 15635
  - ellipt. polarized elec. field, elec. field meter 18020
  - EMC appls., skeletal biconical antenna charact. 7996
  - EMI dipole antennas 40372
  - EMI meas., std. antennas calib. 7991
  - EMI meas. dipole antennas 23898
  - FDTD method, absorbing boundary conditions synthesis 31935
  - flat surface radiation and scatt., measured eqn. of invariance 23604
  - full-wave dipole antenna, radiation resist./gain 2339
  - GTEM, OATS radiated emissions correl. from 1-5 GHz 15512
  - Hertzian dipole radiation from centre of anisotropic sphere 23829
  - HF band handheld radio param. effects of operator's body 33862
  - lin.-antenna theory, transm. line eqns. determ. 23762
  - Loran-C waves near huge bridge, phase disturbances *(Japanese)* 42550
  - MM-wave band antennas, electronic beam scanning 15620
  - mobile systs., broadband dekameter local-commun. mast antenna 31944
  - moving electrodynamic tethers, mag. antennas, fields, currents 23894
  - multi freq. antenna tech., closely-coupled resonators 2322
  - near field of antenna surrounded by dielec., two teeth 31925
  - near-/far-field antenna factor, meas./modeling 15492
  - Poynting's theorem for FDTD method 40447
  - printed antenna computation, SVD tech. 23846
  - printed antenna cross-polaris. suppression by strip grating 23859
  - printed dipole antenna, opt. control *(Japanese)* 31957
  - propagation from vert. dipole in prescence of two or three layers 23628
  - radiated interf. field estim. for electronic equipt. 31866
  - radiated interf. of electronic equipt., randomly assigned phase terms 31857
  - shielding effectiveness meas., opt. coupled elec. field sens. 2249
  - spherical dipole antenna 23900
  - spherical dipole antenna, shielding effectiveness meas. 15461
  - superquadratic loop antenna circuits for mobile commun. 23867
  - suspen., low metal screen 2315
  - TEM cell, field strength meters calib./antenna factors 25937
  - uniform current cylindrical dipole antenna vector pot. and elec fields 23877
  - vertical antenna above dielec. half-space, complex image-induced EMF 31916
  - VLF wave from dipole antenna in atmos., full-wave anal. method 31814
  - Yagi-Uda antenna, FDTD anal. 15670
- **dipole moments, magnetic** *see magnetic moments*
- **direct access storage devices** *see magnetic disc storage*
- **direct broadcasting by satellite**
  - 22 GHz DBS HDTV antenna design and rain fade compensation 31950
  - 22-GHz band satellite broadcasting multibeam antenna, breadboard model 3532
  - Asia, satellite TV deregulation 42567
  - Asia-Pacific commun. satellites, AsiaSat I and Star TV case study 3650
  - BPSK/QPSK demodulator chip-set for satellite appls. 42561
  - broadband satellite digital video transm. technol. *(Japanese)* 17542
  - broadcasting schedule optim., Hopfield neural net mean field annealing 25461
  - CATV technol. studies *(Japanese)* 34265
  - colour TV receiver, microcomputer control syst. 9709
  - differential GPS data format stds. and trends *(Japanese)* 17510
  - digital broadcasting using sync.-CDMA, multipath channels 33952
  - digital satellite TV, trends/develop. 34202
  - digital TV broadcast sig. error correction techs. *(Japanese)* 17546
  - digital TV broadcasting *(Japanese)* 34216
  - digital TV broadcasting syst. requirements *(Japanese)* 17540
  - education using satellite technology 28307
  - European DAB sig. proc. *(Croatian)* 3647
  - European image media trends *(Japanese)* 17544
  - European syst. for transm. of digitized TV sigs. via satellite 9694
  - Eutelsat HOT BIRD 2 payload 33963
  - frame-sync. for satellite video sig. transm. 34233
  - HDTV GEO satellite, nuclear power/propulsion appls. 18753
  - HDTV systs., global research advances, Chinese research issues 3674
  - Hi-Vision 32C-HD3 MUSE decoder, design *(Japanese)* 3668
  - hierarchical modulation schemes for digital broadcasting, power assignment 25630
  - high-resoln. digital satellite commun. syst. *(Japanese)* 25637
  - internat. video transm. network and cable conditions and trends *(Japanese)* 17574
  - Ku-band direct, home video broadcasting in rainy regions 3653
  - microstrip planar antenna array, direct broadcast satellite receiver 8068
  - mobile DBS reception single-layer leaky-wave slotted waveguide array 23945
  - mobile receiver, design *(Japanese)* 17144
  - mobile reception, adaptive antenna array 15664
  - modulation for 12 GHz band integrated services digital broadcasting 9689
  - MPEG-2 for DVB and cable 34219
  - MUSE syst., frame pulse protection *(Japanese)* 34255
  - national broadcasting network syst., reliab. anal. 17535
  - Pacific region, value-added video services develop. 3527
  - phase correcting zonal reflector incorporating rings 40469
  - radial line slot antennas, rot. symm. of inner field 15672
  - receiver, high T_c supercond. coupling device *(Japanese)* 34228
  - rot. mode radial line slot antenna fed by cavity resonator 40518
  - SHF TWTA for broadcasting satellites, 12 GHz, 110-170 W 13008
  - superhighway , digital TV transm. 3656
  - TV broadcast systs. characts. *(Japanese)* 34250
  - TV broadcasting, multifunctional receiving antennas 31943
  - TV broadcasting service trends and tech. problems *(Japanese)* 17541
- **direct broadcasting by satellite** continued
  - TWTAs, microwave power modules, radiation cooled collectors 26553
  - USA, public participation in FCC rulemaking proc. for DBS 34223
  - USA DirecTv DBS shaped reflector breadboard verification 23921
  - USA DirecTv DBS shaped reflector design 23920
  - video delivery options 9718
  - WARC 77 plan modernisation *(Croatian)* 3645
  - wide-band radial line slot antenna 40517
  - AlGaAs-GaAs HEMT monolithic downconvertor for X-band DBS 42315
  - GaAs MMIC dual-channel Ku-band DBS downconvertor 42316
- **direct coupled amplifiers** *see DC amplifiers*
- **direct coupled FET logic**
  - dual modulus prescaler IC, PHEMT struct. on Si substrs. 21296
  - E/D-DCFL inverters, sub-1V, propag. delay 12415
  - prescaler IC, dual modulus 29082
  - redundant divider design, DCFL GaAs and CMOS implement. comparison 29201
  - AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
  - AlGaAs-InGaAs E/D-HJFET LSI technol., 0.6 V 39022
  - AlGaAs-InGaAs MODFET based broadband dyn. freq. divider 38016
  - GaAS DCFL logic gates, timing macromodel 37717
  - GaAs ASIC set for deep space receiver 42336
  - GaAs DCFL ccts., timing macromodels 37710
  - GaAs DCFL logic gate ccts., delay/transit. time macromodels 21261
  - GaAs PB-SAG DCFL, cct. design *(Chinese)* 604
  - GaAs PLL-based clock generator, 3.2 GHz, 50 mW, 1 V supply 12612
  - GaAs SAG-MESFET for supercomputers, proc., implement. 37721
  - GaAs VLSI IC, current status, future prospects 30481
  - GaAs buffered DCFL gate array, differential push-pull I/O 37720
  - GaAs high speed IC design, buffered DCFL logic 29202
  - GaAs high speed cct. design/perform. estim., normally-off logic 29126
  - GaAs serial dyn./static divider for solid modelling accelerator 29129
  - GaAs tri-state driver flip flop, HFET LSI 37718
- **direct current amplifiers** *see DC amplifiers*
- **direct current generators** *see DC generators*
- **direct current machines** *see DC machines*
- **direct current motors** *see DC motors*
- **direct current power transmission** *see DC power transmission*
- **direct digital control**
  - *see also control systems*
  - induction actuators, fully digital field oriented control syst. 19678
  - JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
  - stepping motor drives, PC-based control syst. 44468
  - variable speed induction motor drive, adaptive fuzzy control 11392
  - VENUS vertex chamber, temp. DDC 10115
  - VSI, shunt act. filter control, CAD 44186
- **direct digital synthesis**
  - analog and direct digital freq. synthesis, comparison 21132
  - chirped laser radar, optoelectronic chirp generation and sig. demodulation 17444
  - chirped laser radar, optoelectronic sig. demodulation 17448
  - CMOS quadrature digital synthesizer/mixer, 200 MHz 29245
  - cryst. oscillator compensation in DDS/PLL appl. 21135
  - data commun., sinewave modulation, DDS/sigma delta techniques 12353
  - error feedback loops, direct digital synthesizer lin. 563
  - FM and PM gen. with DDS, modulating sig. sampling effects 37657
  - freq. synthesizer, DSP μP IIR filter appl. 29073
  - Japanese Personal Handy Phone/DECT, IF modulator, DDS 3465
  - mil. spaceborne appls. 43581
  - modulated sigs. generation, perform. 16018
  - quadratic correl. archit. based single loop synthesizer and modulator 9176
  - quadrature components real-time eval., impedance meas. 25941
  - S-band TT&C up link transmitters, DDS 42740
  - spectral props. of direct digital freq. synthesizers, simul. 37658
  - GaAs DDS, FM-CW, 1.25 GHz 37672
- **direct energy conversion**
  - *see also bioenergy conversion; cells (electric); chemical energy conversion; magnetohydrodynamic conversion; magnetohydrodynamic convertors; plasma diodes; solar energy conversion; thermionic conversion; thermoelectric conversion*
  - biomass feedstocks conversion, fast pyrolysis 27333
  - biomass gasification, PCFB, particulate/alkali removal 27332
  - biomass pressurised gasification, catalytic gas treatment 27331
  - cogen., thermophotovoltaic conversion, wood powder combustion 28001
  - exergy use, energy/material resources conversion, Italy 4759
  - high power dens. thermophotovoltaic energy conversion 28000
  - neg. ion NBI syst., energy recovery 44424
  - neutron-lean fusion reactors, innovative energy prod. 35959
  - regenerative energy storage possibilities *(German)* 11310
  - RENUGAS proc., biomass gasification, fluidised bed 28033
  - thermophotovoltaic conversion, vert. multi-jn. cells 27975
  - TW direct energy converter for D-^{3}He fusion reactor 36628
  - D-^{3}He fusion reactor, E×B drift type direct energy converter 36627
  - D-^{3}He fusion reactor, direct energy conversion syst. 44423
  - InGaAs thermophotovoltaic energy conversion 27994
  - $In_xGa_{1-x}As$ thermophotovoltaic cell perform. vs. bandgap 27976
- **direct marketing** *see marketing*
- **direct memory access** *see file organisation*
- **directed graphs**
  - *see also flow graphs; Petri nets*
  - binary lin. block codes, trellis complexity 32062
  - bipartite graph crossing reduction, assignment heuristic 21018
  - cascade vulnerability problem solving algm. 33538
  - commun. networks, routing/flow control, neural networks approach 33297
  - concealed obj. surface reconstr. using dist. metric 33026
  - consistency algorithms for optimistic replication 3224
  - de Bruijn graph, perfect factors 28626
  - digital signatures, directed acyclic graphs and one-way fns. 32159
  - distributed connection manager, obj.-oriented interface 9057
  - ECFSM model for commun. protocols, verification method *(Japanese)* 41511
  - extended lock graph theory, optim. 21210
  - finite acyclic diagraphs training 20558
  - generalized dominators 20559
  - graphical tool for telecomm. network defn. and presentation 41560
  - hierarchical queueing networks, lumpability/nearly-lumpability 37266
  - input-constrained channels, encoders, small decoding look-ahead 24086

directed graphs continued
isomorphism problem for directed path graph 37271
Jacobi algm. space, systematic exploration 32475
k-order reduced graph method for finding k-order cofactor *(Chinese)* 12251
library-based FPGA, logic synthesis 29130
mixed polarity Reed-Muller represent., technol. mapping 21162
most vital edges determ., spanning trees 20541
multistage networks, multicommodity flows 41402
negation-limited cct. complexity of clique fns. 29173
networks with small failure sets, threshold reliab. 37200
parallel feedback-based scheme for BIST 12395
pipelined pseudo-exhaustive testing, simulated annealing, combinat. cct. partitioning 29113
protocol conformance testing, test generation, multi-level approach 33251
pyramid encoding by LRAAM neural net 16187
RECALS II list scheduling algm. for high level synthesis 28970
regular min. broadcast digraphs constr. *(Korean)* 24866
representation of order, union of interval orders 28603
semicond. devices, proc. flows, automatic synthesis 1266
series-parallel digraph drawing 20560
SNMP-based systs. mgt., fault detect./isolation 24903
static task allocation heuristic eval. by random acyclic diagraph generation 28617
static timing analyzers, sensitizable path anal., reconvergence method 28931
structural eqn. models, non-recursive, equivalence 28630
sync. seq. ccts., state assignment for low power dissipation 29095
unique input output test seqs. length, lower bounds 41492
vertex-symmetric digraphs, small diam. 37250

direction finders, radio *see radio direction-finding*

direction-of-arrival estimation
2D/3D pass. imagings of EM radiation sources 23497
3-D array, plane sine wave sig., azimuth/elevation angles estim. 2501
900 MHz complex impulse responses and topographical map data 9323
acoustic event localization, crosspower-spectrum phase based tech. 32606
adaptive DOA tracking, QR updating/exponential sliding windows 32726
adaptive rational fn. filter for estim./detect. 8416
additive unknown colored noise, max. likelihood DOA estim. 40839
angle of arrival estim., neural network 8407
antenna array, multiple co-channel digital sigs., blind estim. 8306
antenna syst. for multiple suppression 31992
ARAKE type receiver struct. for narrow band wireless systs. 15955
array calib./self-calib. methods, class. *(French)* 16039
array proc., neural nets appl. 24315
array sig. no. detect. for coherent/incoherent sigs. 40955
Bayesian approach, direction finding, parametric array uncertainty 40923
Bayesian predictive densities, DOA estim./detect. 2477
biomag. spatiotemporal data, sig. source localization, sig. subspace method *(Japanese)* 35057
blurred images, point source localization, eigenvector based method 8557
broadband bearing estim., array model errors 8262
calib. of direction finding array sens. 24195
closed-form 2D angle estim., uniform circ. array 8281
cyclic MUSIC method, direction estim. of cyclostationary sigs. 2476
decentralized array proc., MODE algm. 32673
direction finding, large arrays/finite data, perform. anal. 32555
direction finding, state-space approach 2492
diversely polarized array, MUSIC/Pencil-MUSIC algm., perform. anal. 2486
diversely-polarized array, MUSIC and Pencil-MUSIC algms., perform. anal. 40946
DOA estim., modified cumulant matrix 2506
DOA estimators, covariance based, robustness property 2505
dual baseline triangulation 32672
electrocortical generators posn. estim. via subspace techs. 43320
EM waves, partially polarized, param. estim. 40329
estim. cyclic correl. matrices, asymptotic moments 24205
extended phase interferometry 24327
forward-backward lin. predictor, DOA estim., Kalman-based 24332
fourth-order cumulants, direction-finding algms., perform. anal. 24210
global array calib. method 40922
HF direction finding systs., polariz. diversity contrib. 34187
high resoln. space-time anal. by act. array *(French)* 41034
independent sources, adaptive separation, deflation approach 40914
joint space-time max.-likelihood estimator 8250
Kalman-based estimator 8434
lightning elec. field derivatives, source location method 10480
lin. array, shape reconstruction 42536
lin. equispaced arrays, joint DOA estim. and phase calib. 8421
lin.-array, ambiguities study 41017
maneuvering targets tracking, multiple intermittent sens. 8295
max. likelihood DOA estim./detect. 2559
min.-norm method without eigendecomposition 40951
mobile commun., adaptive antennas, digital beamforming 33914
mobile commun., high-resoln. array proc. 33880
mobile commun. systs. design, array proc. 17142
MODE direction finding algm. 24216
moving sources localization, deconvolution approach 32613
multichannel direction-finding syst. using MUSIC algm. 25616
multiple narrowband/broadband sources 15984
multiple narrowband/broadband sources, MUSIC approach for DOA estim. 8318
multiple transients, param. estim., SDMP method 40949
multisensor bearings-only tracking, min. description length 8287
multistage CMA adaptive beamformer, real-time implement. 9227
MUSIC, conjug. symmetric beamformers, perform. anal. 40816
MUSIC and higher order stats. for DOA estim. in unknown correl. noise 32481
nonGaussian noise, arrival angle estim. 40948
nonlin. least sq., robust sig. modeling 40999
nonlin./non-Gaussian filtering and bootstrap filter 8464
ocean acoustic tomography, arrival angle & time determ. 18899
optimal spatial instrum. var. method 40886
PARADE, sigs. nos. determ. in unknown noise environ. 24222
parallel arrays, simultaneous centre freq. and DOA estim. 24277
partially adaptive array design, DOA estim. and null steering 23958
partially known sigs. in unknown noise fields, optimal localization 40947
phased antenna array with discrete phasing, direction-finding accuracy enhancement 31986

direction-of-arrival estimation continued
pseudo roots and effects of model order overestimation on ESPRIT algm. 40983
radio direction finding, nonbiased estim. of ang. coord. 17494
rank ambiguity free arrays constr. 41016
rank and subspace tracking, lin. computational complexity, adaptive algm. 40912
reduced complexity ESPRIT method, generalization, antenna array 40911
RITE algm., pipelined regular array proc. implement. 8370
RLS based subspace tracking 32470
robotic wrist, underwater acoustic array tracking 9822
robust nonlin. least sq., data modeling 16009
robustised broadband freq. domain LMS adaptive beamformer 8377
self-calib. DOA estimator, computationally efficient 41050
sens. array proc., DOA/ang. vel. estim., accuracy 40761
sig.-subspace param. estimators, resoln. thresholds, defn./eval. 40945
sig.-subspace selectivity, 2-D wavenumber estim. 24178
single-channel direction finders, ang. coord. resoln. improvement 42539
source bearing estim., propagator method 40895
source bearing estim., propagator method, perform. anal. 40959
source localization, lower bounds, sens. posn. uncertainties *(French)* 16037
spatial anal. methods, model errors influence *(French)* 16038
spatial smoothing for arrays, arbitrary geom. 41008
spatio-temporal proc., high-resoln., fast algm. 8263
SS receivers, diversity reception improvements 25444
SS sigs. reception, bearing estim. 32581
state-space modeling, direction finding of wide-band emitters 2554
submarines detect./location, sonar array studies 4438
talker localisation in room, microphone array 32410
threshold sources detect., prewhitening of colored noise fields 8293
time difference of arrival meas., closed-form localization soln. 32616
time-varying arrays, direction finding 40838
triangulation problem soln. 15903
UHF DOA inside/outside buildings 9312
UN-MUSIC/UN-CLE, DOA in unknown noise, perform. anal. 32554
undersampled sig. freq. and DOA determ. 25617
underwater acoustics, pass. array shape calib. 8376
underwater far field array proc., neural networks 32608
underwater moving sig. adaptive detect., hydroacoustic data 34175
Unitary ESPRIT, rel., relational invariance struct. 40950
unknown sig. wavelength and array proc. 41051
URV ESPRIT for tracking time-varying sigs. 8420
wavelength, gain, and phase errors 24211
wavelet domain bearing estim., unknown correl. noise 40926
Weiss-Friedlander/propagator methods, comparison *(French)* 16042
wideband array proc., two-sided correl. transform. 24303
wideband multiple target tracking 41010

directional antennas *see directive antennas*

directional couplers
see also microstrip directional couplers; millimetre wave directional couplers; optical directional couplers
branch line quantum directional coupler 1454
branch-line eight-port hybrid cct. 21518
broadside coupled strip inset dielec. guide, directional coupler appl. 29526
CATV transmitting ccts., tap-off, coupled-line theory *(Korean)* 25674
ceramic 3-dB directional coupler, surface mountable, dielec. E-plane waveguide 814
coupled strip lines, short-duration pulses caused by unequal phase velocities 31877
diazo dye attached electro-optic polymer waveguide modulator 1737
electron wave directional couplers, coupled mode theory 13828
FETs, controllable couplers, comparison 6801
Ku-band waveguide cross guide directional coupler *(Korean)* 29541
micro-directional couplers for freq. selection 30644
optoelectronic TOF all-opt. stored program digital computer design 1769
phase locking of two long-pulse high-power magnetrons 987
rect. waveguide multiple-slot narrow-wall couplers, 2D FDTD anal. 817
scalar meas. error in microwave/RF test configs. 42909
Er-doped fig.-8 mode locked fiber laser stabilization 7568
$LiNbO_3$ integrated acousto-opt. mode converters/tapered couplers , Tapered acoustical directional couplers 39506

directional patterns *see antenna radiation patterns*

directive antennas
see also horn antennas; lens antennas; loop antennas
1.9 and 4 GHz exterior wall refl. coeff. meas. 31820
10 GHz Vivaldi antenna microstrip-to-slot-line transition 31941
60 GHz vehicle-to-vehicle commun., time/freq. selectivity 9316
axial dipole arrays on cylindrical surfaces, low sidelobe pattern optim. synthesis *(Chinese)* 31994
CDMA MM wave indoor radio capacity study 9202
cellular network, CCI reduction, vert. antenna directivity 17071
cellular radio, correl. co-channel log-normal interferers 17047
confocal parabolic reflector antenna design tradeoffs 23924
curved-surface microstrip antenna conformal-grid FDTD anal. 23865
dipole antenna suspen. low, metal screen 2315
ground refl. wave suppressed test sites 23670
high power microwave aperture antennas, TD-FE anal. 40489
indoor wireless commun. syst., distributed antennas advantages 17070
low-sidelobe array degrad. rel. to element VSWR 23979
mobile radio syst. design for mountainous terrain 33785
optim., directivity/scatt. coeff. ratio 15629
radiated-suscept. tests, absorber-lined chambers, field homog. 15482
sectorized cellular commun., channel borrowing without locking 3345
shortened two-element director antennas, bandwidth 31987
space fed planar array, vehicle roof refl. charact. 23941
thick film HTSC supergain printed dipole arrays 31960
urban microcellular environ., time dispersion meas. 3408
Yagi-Uda antenna, FDTD anal. 15670

dirty superconductors
NbTi multifilamentary wires, proximity-induced Cu-Mn matrices, upper crit. fields 30770

disabled persons' aids *see handicapped aids*

disasters
automatic voice call-response syst., speech interface *(Japanese)* 24926
Chernobyl accident, 30-km zone, emergency countermeasures effectiveness 4339
client-server networks, recovery 3181
indust. safety, mgt. factors, model and tools 11679
Inmarsat emergency satellite commun. 3522

disasters continued
- LAN/WAN environ., contingency planning 41901
- LASCOM-NET (Japanese Local Authority Satellite Communications Network) 3523
- Turkey Point PWR staff, effect of hurricane Andrew 4767

disc controllers *see floppy discs; hard discs; input-output programs; optical disc storage*

disc storage *see magnetic disc storage; optical disc storage*

discharge lamps
- *see also arc lamps; flash lamps; fluorescent lamps; metal vapour lamps*
- bactericidal radiation, gas-discharge sources, dosimeters 26305
- excimer lamps, UV/VUV , barrier discharge pumping 11450
- HF discharge lamp ballasts, white noise modulation 11457
- HID headlamps, in-traffic perform. eval. 28161
- high-press. discharge lamps, electronic starters *(German)* 28163
- light modulation flicker expts. 11449
- multi-lamp solar simulator, collector testing appls. 11456
- num. simul. study 11455
- thermionic converters, photoelec. emission-based characts. tests 28030
- H_2 discharge lamp Lyman-α radiation sources, ZrCo, H reservoir 12983

discharge lasers *see gas lasers*

discharge tubes *see gas-discharge tubes*

discharges (electric)
- *see also arcs (electric); electron avalanches; electrostatic discharge; flashover; glow discharges; high-frequency discharges; lightning; partial discharges; positive column; sparks; surface discharges; Townsend discharge*
- 3-layer insulation syst., discharge, dielec. characts. 22668
- aerial insulated wires, support points impulse creeping discharges 14009
- bipolar dc corona, PIC simul., HVDC transm. lines 13978
- compact discharge electrodes design for pumped lasers 7534
- condensed dielec., breakdown develop., fractal model 39041
- Crossatron-based modulator for plasma discharges 12382
- cyclohexane dielec. liq., cathode streamer initiation obs. 13957
- dielec., discharges, tree-shaped breakdown struct. 1529
- dielec. liqs., streamer propag., computer simul. 1533
- distributed const. syst., gap discharge, voltage transients meas. 25936
- electron beam generation pulsed power supplies, back-lighted thyratron-based 36359
- electrothermal launchers, powder materials accel. studies 15340
- ESP, particle charging, unipolar ionic bombard., AC elec. field 7925
- excimer laser discharge electrode design techs. 31182
- excimer lasers, discharge-pumped, 1D computation 14707
- gaseous organic cpds., low temp. discharge plasma proc. 13941
- HV machine stator insulation, discharge monitoring 19600
- HV stator winding insulation, on-line discharge monitoring 36108
- inductive storage, high repetition rate opening switch 36629
- inductively coupled discharges, analytic models 21789
- layered dielec., discharge develop. *(Russian)* 6892
- leader current, equiv. elec. network modelling 30531
- liqs., elec. discharges under direct voltage 1511
- low-press. gas discharge pulsed power switches, mag. delayed 36415
- low-press. UV source modelling, sterilisation appls. 20504
- magnetised coaxial plasma gun, electric propulsion appls. 31773
- microorganisms, pulsed HV discharge, chem. species form. 6891
- mineral oil, leader discharges, time resolved study 30549
- MV transformer diagnostics, RFI meas. 5026
- organic liquids, streamer initiation under uniform field conditions 13953
- pattern recogn. in HV equipt. 22647
- plasma=propellant interaction expt. construction and operational characts. 31771
- power cable faults, capacitor discharge effects calcs. *(Russian)* 10740
- pulsed capacitively coupled discharges, pulse generator 28204
- pulsed gas laser discharge, inductance and resist. effects 23101
- pulsed power capacitor rapid discharge ccts., param. estim. 27825
- railguns plasma armature exploding wires, vis./UV spectrosc. 15328
- repetitive discharge-excited laser, discharge triggered switch 23076
- resin based composite insulation, discharge barriers 1514
- RF discharges, low press., for lighting 28164
- three-electrode excimer laser, middle control electrode 39672
- TMAE-He mixture in avalanche chamber, first Townsend coeff., E-field depend. 10127
- universal pulsed Foton series lasers, self-maintained discharge pumped 31192
- water, near-electrode forms., fractal charact. 22633
- wire ion plasma source, electrical characts. 21796
- XeCl laser, controllable pulse duration 7533
- ArF avalanche discharge laser, gas life time expts. 31181
- ArF excimer laser discharge simul., plasma charact. 39652
- CO_2 high-power indust. lasers, gas discharge and opt. schemes 31165
- CO_2, high-power lasers, RF gas discharge scalability 31147
- Cs thermionic generators, low pressure self-extinguishing discharges 26591
- Cu vapour laser, long. elec.-discharge pumped, elec. field evol. 39650
- HF pulsed chem. laser, discharge pumped, energy charact. 23085
- KrF avalanche discharge laser, gas life time expts. 31181
- Ni-H_2 secondary cells, Ni electrode discharge FEM model 27918
- Sr^+ discharge-excited ion recomb. laser, repetition-rate scaling 14685
- XeCl excimer laser, phototriggering discharge pumping, uniformity anal. 31179
- XeCl pulse-periodic excimer laser, output energy and service life enhancement 23096

discharges (partial) *see partial discharges*

discontinuous control systems *see sampled data systems*

discontinuous metallic thin films
- microstruct., fab., retarding-field focused ion beams 13485
- Ag-Co granular epitaxial layers, struct./giant magnetoresist. 14164
- Ag-Ni granular epitaxial layers, struct./giant magnetoresist. 14164
- Au island mask-GaAs nanostruct. fab., MBE/MOVPE 385
- $CrSi_2$ thin films on Si(111), heteroepitaxial rels. 37439
- Fe island growth on CaF_2/Si(111), selective nucleation, SEM obs. 12177
- GaAs/AlGaAs, column fab., RIE using Au island etching mask 30162
- n-Si/Pt colloidal particle electrode for photoelectrochemical solar cells 5221

discrete cosine transforms
- 1-D and 2-D DCTs, high-throughput VLSI archits. 24582
- 2-D DPCM/DCT video/image coding algm., simul. 32905
- 2D DCT for image coding, implement. on DSP96002 proc. 2836
- 2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
- 2D DCT systolic archits. based on CORDIC techs. 12573
- 2D DCT/IDCT VLSI, fully bit-serial archit. *(Korean)* 21367

discrete cosine transforms continued
- 2D systolic arrays for DCT/DST/DHT hardware implement. *(Korean)* 37796
- 3D adaptive transform coding techs. for moving images 41089
- 3D-DCT pipe coding, video seq. coding 24506
- adaptive 3D DCT image coding, variable length coding scheme *(Korean)* 2826
- adaptive DCT image coding in combination with M-transform, channel coding perform. 16133
- adaptive image coding based on visual activity level 24499
- adaptive subregion variable shape block motion compensated prediction 24500
- asymmetrical perform. 2370
- bit-serial VLSI archit. for 2D DCT 21362
- block-adaptive scanning for efficient encoding of DCT blocks 24401
- CMOS DCT chip, VLSI archit., 100 MHz 6187
- codec for mobile video coding 17125
- coeffs., adaptive quantization, subjective redundancy removal 8613
- colour-mapped image compression by DPCM 41098
- CORDIC array struct. for implement. of DCT 21359
- data compression, image quality effects 2590
- DC3T, residual correl., transform gain, entropy, energy compression *(Chinese)* 28703
- DCT coeff. distrib., image compression algm. 8566
- decompressed image enhancement, low bit rates 32829
- differential image bitrate reduction by interleaving DCT coeffs. *(Korean)* 2824
- digital HDTV studio mag-tape-recording hardware codec *(German)* 9727
- digital VCR for consumer use, develop. 34271
- digital video recording data reduction strategies *(German)* 17583
- digitally encoded pictures for broadcast, objective picture quality scales 24400
- directional filters constr. scheme, appl., two-channel image coding *(Japanese)* 32861
- distributed digital sig. transm. syst., sig. recovery, estim. method *(Japanese)* 15771
- domain image fast progressive reconstr. 33021
- ECG P wave delineation, parametric tech. 35131
- fast algms. for DCTs and discrete sine transforms 8371
- fast motion estim. algm. for MPEG video coder 16195
- fast recursive algms., further results 283
- forward/inverse DCT computation 15906
- fractal image compression, iterated contractive transform. *(Korean)* 24690
- fractal-based image coder, complexity reduction 24405
- generalized Chen transform, fast transform for image compression 16319
- Grand Alliance syst. for US HDTV 25665
- graphics segmentation based coding of multimedia images 33097
- half-pel precision motion estim. proc. for NTSC-resoln. video 16156
- HDTV, adaptive coding algm., quantizer vector codebook *(Korean)* 42602
- HDTV, parallel divide-and-conquer video decompression 42599
- HDTV digital codec, high compression, develop. 42607
- HDTV receivers, efficient 2D inverse DCT algm. 25645
- hyperspectral image compression, 3-D DCT and entropy-constrained trellis quantization 16266
- hyperspectral imagery compression, 3D DCT and hybrid DPCM/DCT 24384
- IC chip design using RNS 21345
- IDCT finite word-length calc., error estim. 12018
- image coding, error concealment tech. 33151
- image coding, uniform/piecewise-uniform VQ 24591
- image compression, 2D DCT 24646
- image compression, comparison of fractal methods, DCT and wavelets 8499
- image compression, modeling of DCT and subband data 24593
- image compression for radiology and telemedicine 26321
- image line permutation coding/reconstruction *(Japanese)* 24403
- image seq. compression, intraframe coding, DCT-VQ 16389
- image seqs. coding by wavelets and subband schemes 16287
- image transform coding, integer cosine transform-based error minim. 41073
- interpolation, type I DCT transform 11971
- JAGUAR, pipelined VLSI archit. for JPEG image compression 21341
- low-complexity bit-serial (inverse) DCT archit. 37790
- MC-DCT compressed video, manipulation/compositing 16121
- mobile speech, video and data transceiver 3266
- motion compensated prediction coding, isodensity areas based *(Japanese)* 16152
- motion picture coding, hybrid transform *(Japanese)* 24668
- MPEG2 codec, video DSP archit. 33699
- MPEG audio decoder chip 37788
- MPEG-2, ATM 33598
- MPEG-II video encoding, socket prog. in LAN 16088
- multimedia image techniques *(Japanese)* 32930
- multispectral imagery, transform coding 24501
- multitransform/multidimensional image sig. representation, reconstruction 8627
- NEC video compression technol. *(Japanese)* 41352
- nodal-based deformable block matching, motion-compensated prediction 41175
- parallel opt. inform. proc., appl. *(Japanese)* 32853
- perceptually motivated three-component image model, compression appl. 33128
- photographic image coding, methods and appls. *(Italian)* 2804
- polyphase quadrature filters fast algm. 6235
- prime factor DCT, software realization 28707
- profile/frontal face recogn. syst. comparison 32841
- progressive image transm., partition priority coding *(Japanese)* 41166
- projection-based face recogn. 32840
- pyramid, layered image coding 33137
- pyramid sub-band filtering for image compression 33098
- real-time parallel DCT/DST lattice structs. for video commun. 29266
- real-time video variable length decoding cct. using adaptive tree search, 162 Mbit/s 25131
- recursive algm. 40872
- recursive algm., regular struct. transform 5798
- recursive filter, implement. 8412
- recursive scaled DCT algm., ASIC implement. 16080
- recursive struct. realisation, direct formulation 11897
- recursive struct. realization 32763
- RNS-based image coder for progressive transm. 32985
- rot. cct., VLSI transform proc. appl. 29088
- scaled DCT's, composite input sizes 20644

discrete cosine transforms continued
SIMD DSP for real-time MPEG video encoding/decoding 29268
sine transform, prime factor decomp. algm. 2497
software codec for PC based on DCT 16942
software only video decompression, 4×4 DCTs and moving 4×4 blocks 16192
speech transform trellis coded quantization 32253
stat. inverse DCT for image compression 16193
still image compression algm. based on JPEG systs. *(Korean)* 24680
still video compression, DCT-based 8601
syst. for real-time video image compression appls. 41079
teleconference traffic from VBR video coders, modeling 16818
transform-domain adaptive filters, anal. method 32551
TV systs. develop. w.r.t. LSI technol. 17532
video coding, shape-adaptive DCT 24586
video coding bit rate reduction tech. 16403
video coding scheme, DCT-pyramid VQ 24698
video compression by coeff. compensation 16194
video seqs., DCT/Quadtree motion compensated coding 16085
VLSI archits. for video compression, survey 24394
VLSI implement. of Huffman codec for digital video 33704
vol. rendering of DCT based compressed 3D scalar data 32110
wavelet transform adaptive filtering 32524
wavelet-based multiresolution image compression 8616

discrete event simulation
see also time warp simulation
adder design modelling and comparison using Verilog HDL 29297
ATM Clos switch under symmetric bursty geometric traffic, perform. anal. 41449
ATM computer network concurrent access, discrete event simul. modelling 24997
ATM fast packet switches, simul. environ. 25172
ATM network modeling, obj. oriented simul. 24768
CDMA integrated voice/data cellular packet network 17095
communicating vehicles, event-driven simul., diffusive dyn. load balancing by terrain parcel swaps 43577
computer based learning, hypertext 20407
conservative simul. protocols, deriving global virtual time algms. 41539
diff. eqns. soln. by event driven techs. for param. optim. 37351
distributed access network perform. eval. by DEVSim++ 25141
distributed ISDN test syst., monitoring/modelling 24824
distributed logic simul., test environ. 12496
distributed simul., transputer version of time warp OS 37803
dyn. PSA by Monte Carlo event simul. 11686
event-driven simul. scheduling cost reduction, clustering 21027
GI/G/1 queue with Bernoulli service discipline, on-line derivative estim. 33241
LAN/B-ISDN interworking unit, congestion control, perform. eval. 25053
LEO satellite systs., perform. eval. 25309
LSI delivery management, lot-sampling scheduling 37041
modified RESTART-method using LRE-algm., rare event simul. 33247
multipath mobile channels, simul./modelling 3410
packet switch, quick simul. of stationary tail probabilities 41433
parallel logic level simul. of VLSI ccts. 12274
parallel-pattern/multiple-fault-propag. concurrent fault simul. 12435
payload jitter simul., SDH network 17354
power syst. dispatcher training simulator, GUI-based 19157
prod. syst. functional discrete event modelling 11729
protocol modeling/validation, symbolic simul., theory/appl. 2933
RESTART method, accelerated simul., multiple thresholds 33248
robust design, tutorial 11709
RPC protocol for interconnecting distributed discrete event simul. syst. 33481
satellite commun. access optim., simul. 17154
seismic event class. by ANN 35288
semicond. wafer mfg., prod. control, fuzzy simul. model 20399
speech stat. multiplexing, resource auction multi-access excess capacity 42200
SPN, structural perform. anal. 37264
strategic commun. networks simul. 26819
TDMA digital cellular syst. time slot assignment techs. 33824
Totem protocol develop. environ. 2937
wireless cellular commun., dyn. channel assignment, parallel simul. 25291

discrete event systems
diagnosability and cct. testing appls. 121
ergodic Markov chains, large, perform. eval. 37241
FDDI perform. eval. based on LOTOS formal description tech. 25490
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
Midwest Symp. on ccts. and systs., Detroit (1993) 33
power static converters, bond-graph config. enumeration 21114
queueing syst., perturb. anal., optim. 195
rapid learning techs. and appls., traffic smoothing 41568
semicond. mfg. syst. planning/yield learning 20381
single-server queues, derivative estim., structural infinitesimal perturb. anal. 20513
stochastic event graph, iter. algm. for perform. eval. 5750

discrete Fourier transforms
1D fully pipelined VLSI archit. for DFT 682
2D-FDTD method, DFT appl. 15579
3D planar quadrantal and diagonal symm. based Winograd FT algm. 33024
Abelian codes over Z_m, generalized DFT 24052
AC skin impedance meas., real-time direct method, ANN based 43315
arbitrary blocklength, finite fields, appls. *(Chinese)* 32044
bivariate orthogonal white noise series synthesis 40817
damped harmonics and polynomial phase sigs. 32463
dampled sinusoidal signals anal. freq.-domain 24235
data reduction in thermal diffusivity meas., flash method 9840
DHTs, generalised running and real-time analysers 29394
distributed digital sig. transm. syst., sig. recovery, estim. method *(Japanese)* 15771
DOA estim., min.-norm method without eigendecomposition 40951
elec. motor winding interturn switching transient voltage studies 43985
envelope delay test time meas. methods, modem design 42085
fast MM-wave imaging algm., act. guidance appl. 41156
flexible 8-channel data acquisition device for sig. proc. and anal. 25737
frequency estimation, parametric/non-parametric methods comparison 24239
fully digital demodulator, combined interpolator filter for timing recovery 15707

discrete Fourier transforms continued
harmonic distortion and S/N ratio computation 24232
heart arrhythmia detect. by digital spectral anal. of ECGs 10238
IEC555 parts 2 and 3, digital power analyser 34656
image restoration in freq. domain, EM algm. 16391
IR and pass. millimetre wave images, line pattern removal 24515
min. Renyi inform., complex sig. reconstruction 24509
modified DFT polyphase SBC filter banks, almost perfect reconstruction 32714
multichannel combined R2MFC/DTMF/CCT receiver, single-chip DSP *(Korean)* 42112
multidimensional DFTs on parallel machines, implement. 24215
multiterminal array mode-forming network systematic design 23975
multitone signal components estim., low sidelobe time windows appl. 8445
multitone sync. for fading channels 8459
non-uniformly sampled finite length data, Nyquist's theorem extension 32686
nonuniform repetition interval pulse-Doppler radar 34137
optoelectronic parallel computer, opt. interprocessor connections 39509
orient. estim. of indust. parts for automated inspection 5689
orthogonal nonlin. cyclic codes, double cyclic shifts, synthesis 15716
packetized data commun., sync., DFT appl. 33201
parallel form DFE, DFT 8383
parametric estim. of ocean surface currents, HF radar 43526
poly-phase struct. for syst. ident./adaptive filtering 32762
power syst., fault current waveform, freq. phasor/DC components determ. 27268
power system meas., transputers-based data acquisition 35694
prime factor DST, computation 41043
prime no. blocklength RS code, FT algm. 40617
prime-factor DCT algms. 40818
profile/frontal face recogn. syst. comparison 32841
pulsar radio survey sig. proc., noise suppression filter 17516
quasi-orthogonal cyclic codes of max. capacity, synthesis 32083
quasi-spherical solid dens. stds., vol. determ. 17649
quasiorthogonal codes, inverse continuation 8108
Quasisynchronous sampling algorithm, average values meas. 24230
quasisynchronous sampling algorithm, spectrum analysis 24231
quick DFT 32765
real-valued decimation-in-time/decimation-in-freq. algms. 8437
real-valued seqs., FFT vs. fast Hartley transform algms. 2495
shallow water acoustic channel, multicarrier transm. syst. design 17462
short-time FT based on nonuniform filter bank 37374
sig. proc., transform. of operators and scale 32488
STFT anal., quality vs. efficiency tradeoffs 40844
STFT/DFT approxs., incremental refinement 24319
subband adaptive filter allowing max. decimation 12645
subband DFT, accuracy/complexity/appls. 40778
subband DFT, defn./interp./extensions 40777
super-resoln. range-Doppler imaging 25556
syllabic companders, strict sense envelope detect. 9162
systolic array design for 1D discrete sine transform 8569
time-domain scatt. from metal or dielec. (coated) bodies of revolution 23558
transform-domain adaptive filters, anal. method 32551
transient EM modeling, generalized k-space method 15396
undersampled sig. freq. and DOA determ. 25617

discrete Hartley transforms *see Hartley transforms*

discrete Hilbert transforms *see Hilbert transforms*

discrete Radon transforms *see Radon transforms*

discrete systems
see also discrete event systems; discrete time systems; sampled data systems
act. mag. bearings, unbalancing estim. 30758
ball-bearing syst. replacement, discrete-time dyn. prog. 36981
CDMA systs., robust/lossy discretization 41473
DC motor drive digital regulator disturbance retuning design 11371
fault detect., lin. dyn. systs., functional vector method *(Japanese)* 176
image segmentation, variational vs. Markov random field methods 8492
LIM drive coil winding actuators, control design 44257
power syst., optimal voltage-ractive power control *(Chinese)* 43628
power syst. discrete voltage control modelling, load flow soln. 26963
random fields source coding theorem 40677
reciprocal Gaussian random procs., model param. estim. 40824
sig. proc., transform. of operators and scale 32488
turbines, intell. adaptive controller 43816

discrete time filters
see also sampled data filters
allpass transfer fns., prescribed group delay 32792
exact nonlin. filters, theory and appls. 12644
filtered EM algm. for joint HMM and sinusoidal param. estim. 24220
finite wordlength digital filters/controllers, optim. realisations 37883
IIR dispersive channels, min. Euclidean dist. of modulated sigs. 15709
LDI lattice digital filters, exact design 762
lin. optimal stochastic observers, sensitivity anal. 32578
low roundoff noise digital filters, optimal floating point structs. 37867
multivariable robust filtering/open-loop control, probab. 32529
power syst. switching transients simul., multiport equivalencing 26872
prog. fractional sample delay FIR filter coeffs. 12649
short-lived dyn. syst. discrete adaptive filters 32650
silicon cochlea, switched current 29420
wavelet extrema representation, design/reconstruction 40810
wavelet transforms for discrete-time periodic sigs. 40898
windows, rapidly decaying sidelobes and steerable sidelobe dips 32797

discrete time systems
see also discrete time filters; sampled data systems
1-persistent CSMA bus throughput, discrete space-time model 33212
anal. of discrete-time queue, gate 33225
ATM multiplexer, discrete-time anal. of busy/idle period distribs. 3278
ATM multiplexer output busy/idle periods for homog. ON/OFF sources 33233
ATM multiplexer supporting bursty traffic, perform. computation 41427
ATM network, cell delay var., discrete time queueing model 3277
ATM networks, end-to-end queueing delay 33216
ATM peak cell rate monitor algm. dimensioning, discrete time anal. 41447
ATM queues with random order of service, delay anal. 24796
ATM switch, minislot synchronized, output queue contents 33177
ATM switches, frame-oriented queueing control policy for real/non-real-time traffic 33592
ATM traffic, min. ON/OFF source models 33230

discrete time systems continued
ATM traffic connection admission control, stream correl. effect 41428
chaotic sigs., detect./charactn. 8291
circularity and discrete-time random sigs. *(French)* 41036
CMM, control input shaping against vibr. 17675
CMOS current-memory sigma-delta modulators, discrete-time simul. 29327
controllable multidimensional shaping filter synthesis for discrete-value Markov seqs. 29371
dead-beat chaos sync. in discrete-time systs. 24001
edge detect., discrete time cellular neural networks 32900
fading dispersive WSSUS channel, analytic discrete-time model 3414
flexible shaft sync. motor, control techs. 27689
generalized SBBP/G/1 queue and appls. 2895
H_∞ norm approx. of discrete-time systs. by const. matrices 37330
high speed data networks, transit. splitting for estim. of rare events 33200
hydroelectricity, reservoir syst., optimal policies 35726
impulsive interf. mitigation, arbitrary IID state noise 8290
induction motor, nonlin. control, DSP 28067
induction motor drives, discrete-time sliding mode digital control 11390
induction motor nonlin. control, DSP approach 11057
indust. elec. heater, discrete optimal tracking controller 44589
integrated services networks, perform. eval., iter. approach 3236
lin. systs. with non-Gaussian state and meas. noises, recursive estim. 40974
lin. time- and freq.-variant systs., impulse and cissoid response *(German)* 12307
lin.-quadratic sys. ident., freq. domain region 24213
logarithmic error measure, pole-zero approxs. design 2494
M-ary PSK single-sample symbol sync. algms. 40562
m-MMBP charactn. of departure proc. of m-MMBP/Geo/1/K queue 33222
ME-based approxs. for general discrete-time queueing models 3280
MIMO lin. time-variant syst., cyclic higher order stat. 40897
moving image, coding/decoding, cellular neural network 24735
multi-server discrete-time queues, transient anal. 2894
nonlin. parametric models, kernel invariance method 32783
oblique projections in discrete sig. subspaces of l_2 and wavelet transform 32503
perform. robustness anal. of Kalman filter for lin. discrete-time systs. 21397
power generation boiler, steam temp. MRAC *(Japanese)* 43905
power syst. economic dispatches, seq. decision dyn. prog. improvement 35521
PR FIR filter banks and discrete biorthogonal wavelets via block circulant matrices 32505
queueing anal. of partial buffer sharing, Markov modulated Poisson inputs 33220
RF vector analyzer based on synchronous sampling 25958
robust failure detect., filtered meas. parity check 28521
secure commun. systs., chaotic chips/Chua's ccts. 8690
sing. perturbed continuous time systs., discrete time observers 27692
single-server queueing systs., general Markov-modulated arrival procs. 33226
SRM drive, asymm. half bridge fed, discrete modelling 44497
stat. multiplexer with generalized periodic sources, anal. 24750
state reconstruct. filter for lin. discrete-time stochastic syst. *(Korean)* 24340
stochastic discrete-time systs., optimal filtering 8404
sync. motor control, sing. perturbed methods 27696
tracks stabilization, multiple model filters 32694
traction drive robust H_∞ control 20066
unity PF boost converter control 19284
variable freq. DC-DC converter nonlin. control 21100
VSC robust control of induction motor servodrive 19922
wavelet-based approaches vs. subband coding techs. for still image coding 32826

discriminators
see also demodulators
adaptive equalizer for digital FM 3428
amplit. discriminators, variable hysteresis voltage 4238
digital radio systs., freq.-phase detector for carrier recovery 3316
dual-mode dielec. resonator freq./phase discriminator 12740
FH/CPFSK syst. with partial-band jamming, perform. anal. *(Korean)* 17005
FIR digital filter types, interrelationships 2532
gaseous 2D detectors, PC-based fast readout electronics 18384
injection-locked hybrid discriminator, interf.-immunity 826
microwave pass. discriminator, co-channel monotone interf., perform. 825
narrow band satellite commun. systs., automatic freq. correction 37680
narrowband digital FM sigs., seq. estim. 24280
radiation flux intens. meas. of ionizing radiation 18375
S-param. cct. anal., appl. of artificial two- and four-ports *(English)* 21531
surface barrier detectors, pile-up/defective pulse rejection 10145
time-freq. distrib., laser radar backscatt., FM demodulation 34166
GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
InGaAs/InP SEED, opt. switch/power discriminator 15112

dislocation arrays
GaSb films, MBE, lattice mismatch accommodation, disloc. threading, GaAs (001) substrs. 297
InGaAs/GaAs MQW pin diode stained struct., leakage current mechanisms 1129

dislocation density
diamond, synthetic type IIa, carrier mobility/lifetime 38234
diamond films, microwave plasma CVD, charactn. 6521
diamond/Si(001), heteroepitaxial films, interface study 21940
ion implanted opt. waveguides, disloc. distribs. 7348
AlAs/GaAs vert. cavity epitaxial struct., defects, X-ray obs. 14927
AlGaAs/GaAs/InGaAs QW lasers, threshold current dens., disloc. effects 14895
GaAs MBE on Si, InGaAs/GaAs strained-layer superlattice effects 5842
n-GaAs, carrier conc. and disloc. dens. nondestructive mapping 1044
GaAs layers on Si(001), MBE/ALE grown, defect struct. 12113
GaAs, substrs., vapour press. controlled CZ growth 12028
GaAs, vert. gradient freeze growth, residual impurities/defects, IR absorpt./Hall effect 12031
GaAs/AlGaAs, MOCVD, regrown, interface contamination, gas etching 22242
GaAs/GaAsP strained-layer quantum well struct., photolum. linewidth 23002
GaAs/Si heteroepitaxy, disloc./antiphase domain boundary interacts. 309
n- GaAs-InP, CVD layers/MESFET, elec./optical charactn. 13104
GaN-based LED, high efficiency, high disloc. densities 31099
GaSb films, MBE, lattice mismatch accommodation, disloc. threading, GaAs (001) substrs. 297
GaSb:Cu single crysts., Cu doping 13302

dislocation density continued
$Ge_{0.3}Si_{0.7}$/Si heterostruct., minority/majority-carrier trapping 21950
HgCdTe, quench recrystn. growth 5805
InAs/GaAs mismatched heterostruct. growth, defect control 20876
$InAs_{0.3}Sb_{0.7}$, MOCVD on GaAs, carrier transport 6529
InGaAs lin. graded comp. buffer layers, strain relief 367
$In_xGa_{1-x}As$ cryst., LPE/electroepitaxy growth, internal strain, disloc. 37445
InGaAs/AlGaAs HEMT hetero-interfaces, misfit disloc., diffuse X-ray scatt. 38305
InGaAs/InP strained quantum wells, stress relax., X-ray topography 21906
InP, LEC growth, thermal stresses, disloc. form. 12030
InP crysts., vapour press. controlled Czochralski growth 12024
InP p^+n and n^+p structs., electrochem. anal. solar cells appl. 13107
InP, substrs., vapour press. controlled CZ growth 12028
InP wires on planar GaAs substrs., maskless selective growth 344
InP:CdTe, LEC growth and double doping, dislocations 12025
InP:S, low dislocation density, LEC cryst. growth 12026
Si substr. MOVPE grown, novel pseudomorphic struct. 20824
Si:B, ion implanted, defects, seq. annealing 13306
Si:O-on-insulator, implant.-induced stresses, defect pair 30044
Si/Ni, solid state react., point defect creation 13224
SiGe buffer layers, epitaxial growth, defect dens. 28786
$Si_{1-x}Ge_x$ epilayers, compositionally graded, relax., MBE, charactn. 383
ZnCdSe based II-VI heterostruct. for blue-green lasers, structural props. 23293
$ZnGeP_2$/GaP multiple heterostruct. on GaP substrs. 21959
ZnS/GaAs heterostruct., H transport VPE, struct. anal. 37393

dislocation dipoles
ZnMgSSe blue LED, current injection, defects 31098

dislocation etching
AlGaAs/GaAs vis. lasers, degrad. related defects, DLTS study 31396
CdTe, detector grade, crystallograph./metallurg. charact. 43102
n-GaAs, carrier conc. and disloc. dens. nondestructive mapping 1044
GaAs, vert. gradient freeze growth, residual impurities/defects, IR absorpt./Hall effect 12031
GaP, MOCVD on Si, etch pit obs. 13354
InP wafers, LEC growth, flats location/control 12086
InP:S (Sn) (Fe) (ND), defects, photolum. obs. 13049
InP:S, low dislocation density, LEC cryst. growth 12026
3C-SiC on Si, heteroepitaxial growth, etch pit reduction 28781

dislocation loops
GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
$In_{0.65}Ga_{0.35}As$ epilayers, MBE growth on InAlAs/InP heterostruct. 12091
Si, dry etch-induced damage, surface anal. 13390
Si:B MOS ULSI, MOSFET B diffusion model incorporating disloc. loop growth 22610
Si:B, simultaneous B^+ implant./photoexcitation 22109
p-Si:Cu, RTA, OISF, deep states, Cu diffusion 13034
Si:O-on-insulator, implant.-induced stresses, defect pair 30044
Si/Ni, solid state react., point defect creation 13224
Ti silicidation, effect on type II end-of-range disloc. loops 38581
ZnMgSSe blue LED, current injection, defects 31098

dislocation scattering
used for carrier scattering by dislocations
$CoSi_2$/Si(111) epitaxial films, situ study by BEEM 22037
$Hg_{1-x}Cd_xTe$, hole scatt. mechanisms 13063
InSb-InAs material syst., hole transport 21910

dislocations
see also "dislocation ......"
see also Cottrell atmospheres; edge dislocations; grain boundaries; screw dislocations
diamond, synthetic, X-ray study, dosimeter appl. 43404
high-Q piezoelec. materials and BAW/SAW resonator devices, advances 39046
metal/n-InAs/interlayer/n-GaAs struct., nonalloyed ohmic contact resist. 1154
MOS I/O device degrad., ESD-induced disloc. 22605
pump LD, rapid degrad., TEM study 14866
semiconds., lattice-mismatched heteroepitaxial growth, roughening/facetting 12114
SIMOX, stacking fault growth/shrinkage 22074
steel, Cr-Mo, ferromag., creep damage, mag. study 14128
steel, ferromag., coercivity var. during cyclic stressing 14127
AlGaAs, epilayers, MOCVD grown, HRTEM charactn. 20772
AlGaN epitaxy on sapphire using AlN buffer layers, cryst. struct. 364
$CrSi_2$/Si(111), monotype domains, SPE on vicinal surface 5832
GaAs, (001)-cut, CZ grown, disloc. dens.-depend. photorefr. effect 14319
GaAs MMIC manufacture, proc.-induced defects 12804
GaAs, epilayers, MOCVD grown, HRTEM charactn. 20772
GaAs, huge crysts., growth, charactn. 293
GaAs, low press. MOCVD on Si, defect reduction 20768
GaAs/AlAs:C, LV VCSEL, low resist. C-doped mirrors 1946
GaAs/InGa(Al)As(ZnSe) heterostruct., phase stabil. and mech. defects under press. 38289
GaInAs, MOVPE, coherency limits 315
GaInP, MOVPE, coherency limits 315
GaP, epilayers, MOCVD grown, HRTEM charactn. 20772
GaSb:Se, heavily doped, extended defects, TEM 13303
Ge heteroepitaxy on Si(111), surfactant effects 317
Ge islands on Si(111), three-stage lattice relax., STM 28749
InGaAs surfaces, MBE growth on InP substrs. 20853
InGaAs/GaAs LD, degrad., possible sources 14925
InGaAs/GaAs quantum wells on GaAs(111)A, MBE, photolum. 12125
InP, (001) homoepitaxial growth, twin generation, tip struct. 5828
InP, low press. MOCVD on Si, defect reduction 20768
InP:Zn, LEC grown, heavily doped, struct. charactn. 13301
InP/GaAs, anti-phase direct bonding, 1.55 μm laser fab. 29999
InP/InGaAs/InP photodetector arrays, RTS noise and excess currents 17773
InP/Si, bonding using InSb, Au-based eutectic alloys 13269
InP(100),(111), $HBr-K_2Cr_2O_7-H_2O$ etching 13399
$Li_2B_4O_7$, Bridgman grown, defects and SAW appl. 30634
Si, metal contamination defects, Cr-free etch anal. 1282
Si polycryst. solar cells, hydrogen passivated 44407
Si, single-cryst. surfaces, diamond turned, cross-sect. TEM 1274
Si solar cells, high efficiency, pilot prod. 44402
Si wafers, direct bonding, interfacial props. 30001
Si:Al solar cells, minority carrier diffusion length, Al gettering 44416

dislocations continued
- Si:Au, mega-electron volt implant., backscatt. and electron microscopy study 6626
- Si:B micromachined cantilevers, ageing, doping effects 22624
- Si:P, enhanced P diffusion, grain boundaries 19983
- Si/CoSi$_2$(FeSi$_2$) epitaxial silicide systs., ion channeling studies 6577
- Si/Si$_{1-x}$Ge$_x$ strained heterostruct., thermal stabil. 37406
- Si/SiGe:H epilayers, misfit disloc., elec./opt. props. 6628
- Si/SiO$_x$, improved SIMOX material, Si overlayer, strain reduction 22075
- Si-sapphire, porous, photolumin., microstruct. effects 6618
- Si$^+$-self implant induced damage, characts., annealing behavior *(Korean)* 29842
- SiC, seeded Lely growth, cryst. macro-defects 5811
- ZnMgSSe/ZnSSe/ZnCdSe blue-green diode lasers, degrad. 39884

dispatching
- *see also goods distribution; load dispatching*
- semicond. testing operations, dispatching rules 28419
- SLACK/OTD dyn. lot dispatch methodology, IC manufacture scheduling 22521

disperse systems
- *see also aerosols; Brownian motion; colloids; dust; emulsions; foams; fog; gels; polymer dispersed liquid crystals; powders; smoke; sols; suspensions*
- acoustic birefr. in particle dispersions, time-resolved meas. 31022
- aerogel appl. in threshold Cherenkov counter 34931
- IR detectors, dispersed systs. of fine particles 25834
- thick film paste dispersion procs., pass. electronic component manufacture 6439
- two-phase flows, LDA, integral effects 4016
- two-phase high-temp. media, radiation transfer 10049
- BaFe$_{12}$O$_{19}$ hand spread coatings, transverse suscept. and remanence characts. 7027
- CO$_2$ laser beam, focal params. direct visualization 7723
- GaAs, dispersed semicond. particles, doping effects *(Korean)* 13263
- Si, dispersed semicond. particles, doping effects *(Korean)* 13263
- ^{90}Sr activity meas., Cherenkov radiation in silica aerogel 18343

dispersion (wave)
- *see also acoustic dispersion; optical dispersion*
- 2D EM field propag. problem, TLM model, fourth-order in space and second-order in time 23588
- 3D FDTD slotline anal. on limited memory PC 23789
- absorbing dispersive dielec., energy-vel. description of pulse propag. 31779
- chem. waveguide theory, dispersion characts. 8016
- circ. dielec. waveguide, periodic metallic strips, dispersion charact. 2296
- circ. groove guide for short mm- and submm-waves 21508
- closed cavity gyrotrons, mode locking 21837
- cyclic sig./mean estim., vibrodiagnostics 40765
- directly connected image guide 3dB directional couplers, transverse operator anal. 21517
- EM wave atten. along ideally conductive irregular edge 31786
- FDTD formulation for dispersive media, state-space approach 40316
- ferrite-loaded multilayer planar line 2D-FDTD dispersion anal. 23811
- ferrite-loaded waveguides, dispersion characts., FDTD anal. 23788
- finite difference TLM method, first-order absorbing and dispersive boundary conditions 23764
- finite thickness transm. lines above periodically perforated ground plane, packaging 23757
- gyrotropic chirowaveguides, guided EM waves 2293
- high-power Cherenkov device, superdimens. slow wave struct., simul. 29812
- high-power wideband beam-plasma microwave amps./generators 974
- homog. filled waveguides, transient field expressions 2294
- inset dielec. guide structs. and vars., anal. 31913
- lin. dispersive media, EM wave propag., FDTD methodologies 40281
- microstrip line energy fluxes for ferrite substr., mag. biasing 12694
- microstrip passive filter anal., FDTD algm. improvement 29536
- multilayer microstrip struct., freq.-depend. permitt., quasistatic model 40439
- nonlayered substrs., striplines, slotlines, Green's impedance fn. 15567
- NRD-guide/H-guide higher-order modes, phys. and nonphysical ranges 15607
- open uniaxial anisotropic waveguide used as electrooptic modulator, anal. 40408
- partly loaded circ. chirowaveguides, dispersion curves 15581
- planar cct. microstrip line, edge boundary conditions, specific modes, 2D anal. 40420
- planar transm. lines, ps pulse propag. 40387
- satellite reception, DSPN signalling in mobile dense scatterer ray tracing model 33944
- slow wave cyclotron interact. in folded rect. waveguide, theory 13014
- suspen. striplines, proper values/vectors calc. 37933
- TE EM waves in nonlin. film, closed dispersion curves 40302
- time-domain TLM anal., wideband absorbing boundary conditions 15613
- transparent dispersive media, regularities of radio-pulse propag. 15446
- trapped image guide type directional couplers 813
- uniaxial chiro-omega slab, EM plane wave refl. and transm. 2204
- waveguide dispersion anal., compact FDTD tech. 23778

dispersion power, rotatory *see optical rotation*

dispersion relations
- *see also dispersion (wave); Kramers-Kronig relations; phonons; plasma instability; plasma waves; S-matrix theory*
- 2D eqns. for guided EM waves, anisotropic plates 31907
- 3D distrib. node TLM mesh, cells of arbitrary aspect ratio 15596
- CARM amps., effective bandwidth and Kompfner dip 14677
- Cherenkov maser, rectangular grating, hybrid modes, dispersion relation 23070
- coaxial electron beam, cyclotron harmonic wave growth 37934
- dielec. Cherenkov masers, powerful amps., superwide bandwidth 1843
- disk-loaded travelling wave accel. struct., props., scaling laws 4095
- double-stream cyclotron masers, 2D nonlin. theory 23069
- FDTD method in general curvilinear coord. 5801
- FEL, collective regime, 3D coupled-mode theory 39928
- ferrite-semicond. waveguide, surface MSW propag. 14263
- gyrotron TWT, launching loss, Weibel instabil. 29800
- ion-ripple laser, effects of long. momentum spread 7696
- IREB, slow-wave struct., Pierce-type dispersion rel. 29807
- isotropic Maxwellian plasma point source, electrostatic pot. 40493
- lossy parallel-plate uniaxial chiro-omega waveguide, mode characts. 15599
- magneto-optic nonlin. waveguides, TM waves, power flow study 22965
- Maxwell's eqns., time-domain num. soln. errors 2178
- nonlin. lossless transm. lines and equiv. ccts. anal. 31879

dispersion relations continued
- open asymmetrical multiconductor transm. lines, spectral-domain anal. 40390
- periodic wedge absorber using transm. mode approx., permitt. anal. *(Japanese)* 23536
- relativistic BWO with end reflectors, EM wave excitation 13009
- slow wave cyclotron interact. in folded rect. waveguide, theory 13014
- TLM mesh of symm. condensed nodes with stubs, dispersion anal. 23758
- TLM num. dispersion removal using Glimm's random choice 15554
- TLM symm. supercondensed node, dispersion anal. 8009
- travelling wave tubes, collective effects, theoretical anal. 6515
- uniaxial planar waveguides, hybrid mode FEA by iter. method 23799
- X-band slow wave structures, EM props. study 13010
- X-ray multisection FEL, dispersion and undulator sects. 39904
- GaAs MQW directional coupler waveguide saturable Kerr effect 15118
- Na$^+$-Ag$^+$ ion exchanged waveguides, nonlin. TE wave anal. 39424
- YIG ferromag. substr., nonlin. MSWs 1585
- YIG film, magnetoelastic waves, delay line appl. 14192

dispersions *see disperse systems*

dispersoids *see disperse systems*

displacement control
- DC arc furnace control, simul. *(German)* 44590
- piezoelec. digital actuator, max. bit enlargement 39097
- refr. eye microsurgery, laser tracking 17452

displacement measurement
- absol. air refractivity meas. 10473
- absol. mag. scale, nonrepeated codes *(Japanese)* 34693
- act. mag. suspen. systs., PLL appl. *(Japanese)* 39215
- amorph. materials in sens. appls. 34480
- angle and displacement meas., seq./cyclic-seq. coding *(German)* 18101
- automatic vernier scale method by CCD lin. sens. 3882
- bio-mech. movements obs., magnetometer sens. appl. 34986
- capacitance based meas. of ang./lin. displacements 18087
- capacitive displacement transduction method for press. meas. 18141
- conference, interferometry, photomechanics, Poland (1994) 28210
- coord. meas. machines, accuracy assess. 42933
- dam displacements meas., inductive transducer-based 9847
- electronic speckle photography, systematic/random errors 7810
- ESPI, speckle size, optimum determ. 15185
- ESPI for spatial variables meas. 31681
- fibre optic displacement sens., intell. proc. monitoring 17898
- fibre optic displacement sens. for shaft runout inspection 42828
- fibre optic interferometric sens., source coherence synthesis, dyn. spectral filtering 34520
- fibre optic sens., commercially available, 1985-95 develops. 17877
- inductive displacement pickups, ratiometric correction of sampled data 17736
- intens.-based sens., fibre optic Bragg gratings 34519
- interferometric straightness meas. syst., holographic grating *(Japanese)* 18096
- laser interferometer, nanometer resolution crack meas. appl. 25971
- lateral displacement sens., 4Q detector 18090
- long-dist. fibre-optic displacement sens. syst. 25872
- mag. sens. for tracking devices 34438
- magneto-opt. high resoln. meas. of small displacements 18081
- mechatronic appls. of eddy-current sens. 17750
- micro-extension meas. unit for Instron 1185 25969
- micromechanical photonics, microresonator displacement meas. by external cavity LD 34691
- micrometer/nanometer displacement and refractivity meas. by laser beam 4000
- miniature split-Stirling cryocooler, noncontact displacer motion meas. 42923
- MLC actuators, intell. proc. monitoring, fiber sens. 10030
- MLC capacitors, nondestructive defect detect. tech. 6371
- motion params. meas. by speckle-optics methods 18076
- multi-laser displacement sens. used in accurate digitizing tech. 9897
- multiple-refl. beams for simplified heterodyne interferometers 17705
- μP dimens. meas., inductance-freq. converter 3769
- on-orbit calib. of inductosyn error 18720
- opt. analog computing appls. 7439
- opt. feedback displacement sens., LD appl. 18097
- outdoor HV substations, short-cct. mech. tests 19914
- particle image velocimetry, ultra-high-speed camera 3982
- PCB, displacement meas., shadow moire 29656
- piezoelec.-driven inertial slider based STM 6926
- precision optoelectronic devices, mech. displacement meas., automated pulsed-emission 23017
- quartz cryst. mount design optim. via holographic interferometry 39073
- real-time shearography, fractional fringe order by phase shifting 32856
- reinforced concrete strain meas., opt. fiber sens. 34547
- rough surface transversal displacement/rot., speckle movement 3977
- roundness meas., on-machine mixed method 10025
- sapphire dielec. resonator transducer, whispering gallery modes 30656
- scanning force microscope, piezoelec. excitation/detect. 25822
- self-referenced fiber optic sens. for microdisplacement meas. 34537
- speckle interferometry based lin. displacement transducers, error avoidance techs. 9889
- speckle methodology, liq. cryst. TV and posn. sensitive device 39499
- speckle metrology, lens aperturing 42945
- split image vision sens., optimal design 34599
- stratified liqs., opt. detector for internal waves amplit. 4386
- T700 series intell. press./differential press. transmitters *(Japanese)* 3823
- thick film ceramic capacitive sensor, embedded in polymer 25797
- tilt-sens. using mag. fluids, indication stabil. 42777
- underwater displacement meas., acoustic reson. freq. 42922
- wideband low noise accelerometer, inductive displacement sens. 42766
- Co-Pd multilayers, stress, opt. fibre Y branch non-contact displacement detector *(Korean)* 18083
- GaAlAs LD feedback interferometer for displacement meas. 23479

display devices
- *see also cathode-ray tube displays; electrochromic displays; electroluminescent displays; flat panel displays; gas-discharge displays; liquid crystal displays*
- anesthesia data, HUD, clinical eval. 43202
- Arabic alphanumeric dot matrix decoder, PLD based design 29099
- automobile navig. syst., visibility meas./eval. syst. *(Japanese)* 25684
- comb-shaped field emitter array for vac. microdevices *(Japanese)* 21803
- digital micromirror device, projection display 18007
- electro-holographic stereogram, vol. display syst. 7829

display devices continued
force feedback system, surface display 18015
grating light valves for high resoln. displays 25927
head mounted display, eye movement tracking 9981
head-mounted display, 100 million pixel display 18016
head-mounted displays avoiding visual deficit 3929
helmet mounted displays, Schmidt optical relays 18014
Hong Kong electron devices meeting (July 1994) 36827
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
interactive holographic display syst. 7828
mag. sens. for tracking devices 34438
optoelectronics, market outlook 7452
pass. depth acquisition for 3D image displays 2644
projection display, Digital Micromirror Device 39028
speech commun., multichannel spatial auditory display 2437
virtual reality display interfaces 18013
virtual reality target acquisition, lag/frame rate effects 18006
virtual/real environments, video see-through design 17591
vol. 3 D display 9974
Si, conical field emitters, fab., elec. characts. 38211
ZnS:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
ZnSSe:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561

display equipment *see display instrumentation*

display instrumentation
see also aircraft displays; cathode-ray tube displays; computer displays; display devices; large screen displays; logic analysers; oscilloscopes; radar displays; screens (display); three-dimensional displays
3D obj. composite Fourier hologram optim. 40162
act. multi-static sonar acquisition/proc. syst. 9660
aircraft parking posn. display and guidance syst. *(Japanese)* 10410
ATRAS air traffic surveillance, Nippon Airways *(Japanese)* 10416
audio display and virtual auditory environ. 34284
blood pressure measuring instrument with Korotkoff sensor 26269
Canadian patrol frigate, implement. of AAW sens. fusion 18980
CGH, 3D video display develop. *(Japanese)* 2147
CRT driver stage, IC introduction 42876
defibrillation/ECG pots., acquisition/display, 528 channel syst. 18584
electro-holography, inform. reduction *(Japanese)* 2148
head-related transfer fns., multidimensional scaling anal. 15992
hybrid sparse-wavelength angle-multiplexed opt. data storage syst. 22794
image transfer microlens array design and anal. 9980
integrated flight path/terrain displays 26543
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
partial pixel diffractive display archit. 25917
passenger IS for Kansai International Airport *(Japanese)* 10412
polygon display, holistic peripheral proc. 42873
projection displays, metallized viscoelastic control layers 25923
R^{2}SPG tech., systs. upset thresholds meas. 15496
spatial synthesis, head-related transfer fns. interpolation 15993
stereographic displays, visual attention shifting 42872
thermal imaging syst., perform. model 34574
vacuum electronics and displays, conf., Garmish-Partenkirchen (1992) 20196
VDT, radiated elec./mag. fields meas. 23702
viewpoint-controlled displays for teleoperated robots, perform. eval. 34629
visor-display design, planar holographic optics based 31659

display instruments *see display instrumentation*

display systems *see display instrumentation*

display tubes, television *see television picture tubes*

displays, radar *see radar displays*

disruptive voltage *see electric breakdown*

dissemination of information *see information dissemination*

dissipation (heat) *see cooling*

dissolution *see dissolving*

dissolving
aq. rosin flux cleaning, PCB manufacture, thermodyn./kinetics 38142
chem. amplif. resist syst., dissolution inhibitor, mol. design 30164
chem. amplified deep UV resist, dissolution kinetics 22296
chem. amplified resist, self-solubility accel. effect 1309
deep-UV resists, neg.-tone, benzylic crosslinking 13511
deuterated butanol-D$_2$O mixture, EHBA-Cr(V), dilution factor 34876
Novolak-based photoresist, dissolution, developer diffusion model 22297
poly(methylmethacrylate), lithographic and dissolution behavior, residual casting solvent effect 38750
polyhydroxystyrene, chem. amplified monodispersal pos. resist 22298
reactor bottom head dissolution, melt pool 35834
single-layer-resist proc., energy-depend. aspect ratios, 0.2-μm e-beam lithog. 13515
As-S layers, pos./neg. etching, submicron photoresists 22173
Co-Pt alloys, ordered/disordered, PAFC, corros. test 5207
Cu thin film dissolution in dil. CuCl$_2$, microstruct. effects 13433
Cu thin films, chem. mech. polishing, surface layer form. 38572
In-Sn based VLSI interconnections, solder joint reliab. 30146
(NdDy)$_{15}$Fe$_{78.3}$Al$_{0.7}$B$_6$, sintered, electrochem. hydrogenation 6972
(NdDy)$_{15}$Fe$_{67}$Co$_5$V$_4$Al$_2$B$_7$, sintered, electrochem. hydrogenation 6972
Si crysts., anisotropic KOH soln. etching 13395
Si(111), H adsorpt./dissolved O in hot water 38604

distance measurement
see also laser ranging
2D image range estim., PM 10029
3-D holographic DP and wavelength readout for range-doppler-angle radar, SAR 9640
3D meas. syst., continuous, high-speed 42932
3D position estimation, robot control model 25880
3D reconstruction of objs., large depth vars. 17929
3D shape direction/posn. meas., opt. fibre sens. *(Japanese)* 10016
absol. dist./vel. meas., double integrated heterodyne interferometer 18073
act. vision, depth cues comparison 2768
air-coupled US and NDE, micromachined capacitance transducers 18931
airborne DGPS, DME navig. aid coord. and calib. error detect. 25605
airborne US rangefinders, adaptive target tracking algms. 42533
assembly parts hole dist. optimal estim., Kalman filters 8623
ATM over PON access systs., out-of-band ranging method *(English, Italian)* 33990
bathymetric mapping from autonomous underwater vehicles 8619
CCD image sens. range cameras, focal error based 3872
coord. meas. machines, accuracy assess. 42933
delay meas., self-pulsating laser 42946

distance measurement continued
depth estim. from image defocus, fuzzy logic 2792
depth-from-defocus, camera aperture change, spatial domain 2753
digital range imaging VLSI sens. 13852
directional PE sig., obj. location 43560
dual baseline triangulation 32672
fast-reponse ultrasonic distance sensors, neural nets appl. 26800
FPGA archits. for range/image sens. 3881
GEO satellite aircraft ranging and positioning, flight route and orbit effects 17493
geolocalization, range difference/range rate difference meas. 35292
GPS, baseline length estim. algms. *(Japanese)* 34195
high precision opt. meas. methods 18061
high-speed vehicle convoy, control feasibility simul. *(Japanese)* 28107
hybrid commun./positioning syst., two geostationary satellites 17155
image-based air target ident. 26823
indust. vision syst., range/intens. image fusion 41103
Ka-band mm-wave radar transceiver assembly, common waveguide cavity design *(Chinese)* 25578
large-area US gap profile meas., 2D PVDF blanket array transducers 18946
laser appl. 10064
laser-induced diffraction signals, digital signal processing 25972
long. vehicle dist. control, meas. error effects *(Japanese)* 10028
long-dist. meas. syst., metrological chain, comment 34323
microwave front end for automotive true ground speed meas. 28152
mine counter measures, ocean bottom acoustic interacts. 18992
mobile robot environ. recogn., US sens., CCD camera 43556
mobile robot navig., sonar range data segmentation 43561
mobile robots, tri-aural perception, correspondence problem, max. likelihood algm. 43555
multifrequency AM-based US syst. for dist. meas. 17473
μP controlled microwave ranging, indust. appls. 3606
opt. dist. meter, LD/APD 25975
optoelectronic rangefinder phase meas., double referent mixing *(Croatian)* 3625
planar dist. and vel. sens. 3992
proximity sens. syst. for spatial sens. and colour perception 42776
radar target modeling, GTD-based approach 17394
radio waves propagated dist., multiple-diffr. components meas. *(Japanese)* 31838
range views integrat., general surface approach 41287
road vehicle opt. detector, range finding method 42770
security, site, visual surveillance by depth-from-focus 42686
slider-disc clearance meas. in magnetic disc drives 22702
smart US sens., meas. principle 25824
source/receiver relative posn. determ., time delay spectrometry 18167
stereoscopic viewing through corrugated refr. interface, obj. localization 24513
surface inspection by opt. triangulation 18069
TMS320 series based sonar sig. proc. syst. 17488
two-posn. radar, low-flying target detect. and height meas. 17377
underwater robotics, opt./acoustic range sens. 8620
US scanning, obj. recogn./localization 18955
vehicle-to-vehicle commun. ranging, SS radar 42244
white-light scanning fiber Michelson interferometer for absol. posn.-dist. meas. 42832

distillation
see also isotope separation
destructive distillation waste-to-energy power plant technol. 27564
salino voltaic cells, solar elec. generation, solar stills 28036
ultra-efficient desalination, dual purpose plant 28201

distortion, electric *see electric distortion*

distortion measurement, electric *see electric distortion measurement*

distributed algorithms
see also parallel algorithms
bidirectional networks, link failures, global computation complexity 41510
CASA project, high-perform. distributed computing environ. 16727
cellular radio, distributed algms. for dyn. channel allocation 25420
commun. protocol, stabilization, modified distributed snapshots algm. 3208
consensus nos., exotic behaviour 41500
consistency algorithms for optimistic replication 3224
CSMA/CD LANs, packet starvation effect and soln. 33510
CSMA/CD network all-sharing load-balancing scheme 33574
fuzzy set delay representation, WAN routing algorithms 8963
global and distributed dyn. channel allocation algms., perform. comparison 9244
high speed WAN, distributed database syst., concurrency control 8906
low complexity network sync. 41393
mobile systs., causally ordered message delivery 33917
perform. anal. of distributed quorum attainment protocols 8751
randomised distributed agreement protocol for asynchronous networks 33279
ring network, distributed multiset, finding extrema 41767
shadow fading dyn. channel assignment and power control capacity 42202
single-link and time communicating finite state machines 2934
sliding-window protocol 41530
SONET DCS self-healing network service restoration time 42361
strongly connected unidirectional data commun. network 8766
telecomms., distributed scalable routing based on link state vectors 2988
telecommunication network optimal alternative routing algms. 41552
token based mutual exclusion algm. in distributed syst. 33484
video-on-demand syst., distributed hierarchical storage manager 9743
wireless cellular network distributed dyn. channel allocation 42229

distributed amplifiers
see also travelling wave amplifiers
2-18 GHz low-DC power monolithic matrix amp. 859
baseband amp. IC module and MCM, 60 GHz bandwidth, design 6334
distributed-gain amps., component param. spread effects 559
field emitter array MM-wave power amp. 38213
HBT MMIC distrib. amp. design based on atten. compen. techs. 12817
high isolation distrib. amp., 5 and 10 MHz 42756
Lange coupler power-distributed amp., high-perform. design 12814
MMIC distributed amp. based on design-oriented FET model 21564
MMIC matrix/distributed amps., comparison 29579
pseudomorphic HEMT power amp. MMIC, wide/med. band 38033
two-port network, noise anal., recursive algm., S-wave approach 829
very low level DC current amp., distributed capacitances, ground anal. *(Japanese)* 29053
GaAs MMIC distributed amps., design 12806
InAlAs-InGaAs-InP V-band monolithic HEMT downconvertor 38019

distributed amplifiers continued
InGaAs-GaAs MODFET MIMIC amp., 5-80 GHz, CPW 38026
distributed Bragg reflector lasers
2.5-Gbit/s return-to-zero integrated DBR laser/modulator transmitter 9459
10 Gbit/s sig. repeated wavelength conversion, wavelength-tunable semicond. lasers 25496
act. mode-locked telecomms. semicond. lasers, soliton generation 31415
cross-connect opt. systs., FDM technol. 9145
diamond channel radiation X-ray laser 23201
fibre laser, tunable, sampled fibre Bragg gratings 14764
high-power MOPA LD 7657
hybrid laser, high-power, narrow-linewidth, stable single-mode 7674
InGaAsP-InP four-wavelength DBR laser array, selective MOCVD 14960
injection laser-modulator combinations, time-depend. simul. 14952
integrated DBR laser/modulator transmitter, 5.0 Gbit/s transm., 192 km 14878
integrated laser/modulator, long-dist. transm., 2.5 Gbit/s 14880
LD, freq. doubling, domain-inverted waveguide 31382
light source for step-like opt. freq. sweep generator 23254
master oscillator power amplifers, fiber external cavity 39762
microcavities, spontaneous emission 23323
MQW DBR laser with electro-opt. tuning sects., high FM bandwidth 7678
quasi phase matched periodically segmented waveguides, lin./nonlin. effects anal. 40437
QW lasers/opt. amps., ultrafast gain dyn. 31339
SEL, circ. gratings, lithographic fab. 14940
semicond. LD, ultrafast pulse train *(Japanese)* 7625
short cavity DBR lasers, narrow band Bragg mirror, dyn. charact. 14788
three-sect. DBR lasers, fast wavelength switching 25479
tunable four-sect. DBR LD, lasing charact. modelling 14845
two-sect. DBR laser freq. and power control by dual act.-/Bragg-sect. tuning 9503
two-sect. DBR laser transmitters in opt. FDMA networks 9500
ultra-fast opt. switching operation, electro-opt. tuning sect. 34005
unidirectional-output wavelength conversion device, saturable absorber region 23196
unstable resonator semicond. laser with DBR mirrors, 941 nm 23320
VCSEL, Bragg mirrors, thermal cond. anal. 39785
VCSEL, integrated opt. beam router, opt. interconnection 23305
VCSEL diodes, MOVPE 5852
vert.-cavity lasers fabricated by selective oxid., low threshold voltage 1989
wavelength converter, bit-rate-independent operation, 10 Gbit/s 14903
(Al,Ga)InP-oxide epitaxial DBR in vis.-wavelength opt. devices 39800
p-AlAs:Zn, MOCVD for low-resist. VCSEL 23246
AlAs/GaAs DBR VCSEL diode on Si, MOCVD and struct. 39882
AlAs/GaAs/InGaAs, VCSEL, transverse lasing mode, temp. depend. 39989
AlGaAs/GaAs quantum well DBR laser, femtosecond upconversion, time-resolved study 31374
AlGaAs-AlAs DBR QW microcavity, fast coherent emission 31376
AlGaInP QW partial top dielec. stack DFB red VCSEL arrays 14850
Al_xO_y/GaAs VCSEL laser with high-contrast mirrors, gain switching 23231
AlPSb/GaPSb Bragg reflector 1.55 μm LD 7619
Er^{3+}-doped fibre dispersion-modified act. modelocked laser, chirped fibre grating 7552
GaAlAs-GaAs ultrahigh finesse microcavity, DBR 2029
GaAs/(AlGa)As DBR, reflectivity, disordering 2035
GaAs/AlAs:C, LV VCSEL, low resist. C-doped mirrors 1946
GaAs/AlGaAs, VCSEL, thermally stable elec. characts. 39768
GaInAsP/AlGaInP-based near-IR (780 nm) VCSEL 31404
InGaAs/AlGaAs flared amp. monolithically integrated arrays, DBR laser driven 23262
InGaAs-InGaAsP strain-compensated MQW dielec.-bonded long wavelength vert. cavity laser 14851
InGaAsP/InP MQW integrated DFB-DBR laser modulator, MOVPE growth 23247
InGaAsP/InP monolithically integrated multi-wavelength MQW-DBR LD, MOVPE 23239
InGaAsP/InP-AlAs/GaAs long-wavelength vert.-cavity lasers, wafer fusion 23303
InP monolithically integrated tunable polariz. diversity heterodyne receiver OEIC 25484
$LiNbO_3$:Ti,Er integrated opt. DBR waveguide laser, 1531 nm 31304
Nd:glass($LiNbO_3$) waveguide lasers 31303
ZnSe-based vert.-cavity surf. emitting lasers, blue emission 23295
distributed control
see also decentralised control
2500 MW Black Point power plant distributed control project 19528
accelerator distributed control syst., stand-alone Internet nodes appl. 18200
advanced telecomms. services, distributed control archit. 25084
aeronautical elec. equipt., microcomputer distributed meas. and control syst. 10343
AGS accelerator distributed control syst. alarm, obj.-oriented design 18192
ATM network virtual path restoration, multiring approach 41760
audio-visual control, message obj. transm. 17560
AutoMax distributed power/control syst. 10710
Aylesford paper mill CHP plant, distrib. control syst. 11513
B-ISDN hierarchical control approach 41925
BEPC accelerator control syst. design 18195
causally ordering group commun. protocol 8997
CCS networks, release message avalanche prevention 33158
cct. breaker operation seq. recording, fault *(Chinese)* 36382
cellular radio systs., constrained power control 9249
cellular radio systs., downlink power control algms. 25344
conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
COSY control syst., RT/OS environ. 18209
distrib. syst., SCADA syst. spec./anal., IEEE std. 27175
EMS real-time distributed archit. project, Australia 19187
equipt. access software, distrib. UNIX-based accelerator control 18208
ESRF distrib. control syst., access control/security 18213
ESRF linac, obj.-oriented control syst. 18185
expanded delta fast packet switch 9141
FDDI-II networks, method for isochronous bandwidth allocation 24955
fiber-optic networks, fault-tolerant layered approach 16687
generic software tool kit, accelerator distributed control 18233
group commun. protocol, causally ordered, using seq. nos. of messages *(Japanese)* 41533
high-speed cell-based network congestion mgt. techs. 33382
high-speed channel, selective total-ordering group commun. 2939
home power ccts. based implement. 9039
distributed control continued
indust. control syst. lightning protection, grounding/shielding studies 20160
intell. robust private networks, call proc. structural concepts 33631
K4-K10 storage ring, bus controller for MIL-1553B/Multibus II 18211
KEK PS magnet power supplies and beam line control 18260
LEP2 cryogenics control syst. archit. 4036
lighting control syst., Local Operating Network appl. 20122
microcellular radio, distributed control channel allocation 9351
microcellular systs., distributed adaptive channel assignment 42297
multi-machine syst. learning coord. control 36121
multiprocessor syst., distributed data, overload control 42119
network control technol., user appls. *(German)* 43692
neural control of commun. network traffic 24901
NSLS accelerator control syst. upgrade 18188
particle accelerator devices, persistent software objs. 18199
pers. commun. service, distributed commun. control archit. 25380
plant automation, parallel computers/fiber optic commun. links interface 34026
power plant control and monitoring systs. 10642
power station, islands of automation integrat., distrib. control 10853
power syst., distributed SCADA syst., design/archit. *(Chinese)* 43649
power syst., secondary voltage control, fuzzy sets 19143
power syst. real-time SCADA/EMS, OOP concept 26955
PSI accelerator control syst. and tools 18194
radio networks, distributed power control 9376
radio port controller archit., develop. 25381
reactive software agents, distributed control of telephone networks 41713
rem. station, distributed control syst., real-time commun. *(Korean)* 41805
residential video broadband switching network archit. 41554
robots, AC drives, optimised DSP field oriented control 36683
SCADA/EMS syst., Unix based, Johannesburg 4519
SDH transport networks, distributed control 16588
shadow fading dyn. channel assignment and power control capacity 42202
SONET DCS mesh archit. survivability with distributed control restoration 41567
SONET DCS self-healing network service restoration time 42361
SSC accelerator proc. control syst. 18177
star opt. network, distributed channel controllers 9446
STC104 packet routing chip for parallel systs. 29290
steam power plant distributed control, commissioning perform. audit, USA 27561
stepping motor, intell. controller, actuator, design 19677
substation VAr/volt supervision/control units, fault tolerant *(Chinese)* 36472
switching control multiprocessor, fault tolerant software *(Japanese)* 33187
syst. testing archit. for distributed switching syst. 16957
telecomm. power systs., IN 19147
thermal power plant start-up/shut-down proc. automation 4823
tracking antenna controller, design/implement. 15677
VENIS real-time distributed prototype syst. 4442
wire mfg., distributed power syst. control concept 11503
Si chip digital end-user mobile commun. syst. 42193
distributed databases
see also database management systems; database theory; distributed processing; operating systems (computers); replicated databases
adaptive protocols, simul. model 41528
appl. partitioning, client server develop. 41892
appl. partitioning for client server archits. 41893
cache coherence, large granularity, for intermittent connectivity 24960
constr. indust., multimedia product selector, X.500 directory service 9073
control syst. design, real-time commun. *(Korean)* 41805
counter-based reliable broadcast protocol 33266
Croatian telecomm. mgt. network 41659
EAN directory service, support for transactions and replication 8960
electronic secretary syst. *(Japanese)* 24940
file allocation policy in networked DBMS 16582
GSM home location register, advantages/challenges 25385
high speed WAN, distributed database syst., concurrency control 8906
High-speed Distributed File System for multimedia commun. 9046
Hyper-G for serving inform., World Wide Web 41871
INDIA project, IN mgt. distributed database 25088
INFOSTEL, IS for telecomms. networks 41658
multimedia IRS FIND2 for white collar workers *(Japanese)* 41894
multiple inform. bases, flexible and dyn. integrat. 33550
network bottlenecks in mobile computing, Coda file syst. 33555
O(1) quorum consensus protocol tailored for client/server archit. 41879
open distributed proc. trader federation, X.500 directory approach 41761
PCS, no. mobility techs. 25386
power syst. load dispatching tech. IS 19096
security challenges, distributed databases 15769
speech sig. proc., complex database 15856
telecomm. services, mobile users security 25388
UMTS, distributed database archit., hierarchical struct. 25387
UMTS directory services, security aspects 9209
workflow automation and electronic commerce via distributed messaging 41634
distributed decision making
decentralized binary hypothesis testing, fund. struct. 15970
multiagent coord. decision-making, epistemic utility theory 11920
multimedia commun. distributed co-operative multiagent IN syst. 41976
power network mgt., KBS and distributed problem solving 10650
power syst. distributed online fault sect. estim., neural net-based 26873
speaker verification, distributed decision approach 32244
distributed feedback lasers
1.55 μm DFB lasers with strained-layer MQW act. grating, transfer-matrix dyn. model 1993
1.55 μm DFB-LD/modulator integrated light sources, MOVPE grown 9478
1.55 μm semicond. laser source, gigabit/second integrated electroabsorptive modulator 1741
1.5 μm MQW DFB VUG laser opt. harmonic converter for MM wave radio appls. 3558
1 Gbit/s QPSK opt. microwave transmitter, SOA modulator based 9561
2.5 Gbit/s DFB LD/modules for long-haul opt. transm. 34002
2.5-Gbit/s CPFSK transm. expt., AMI-encoded data 9578
10 Gbit/s opt. transmitter module, integrated electroabsorption modulator/DFB LD 9477
400 nm/3.4 μm fiber components and lasers 7562
1300 nm gain-clamped MQW laser amps., reduced IMD 34006
1310-nm DFB lasers, correl. of leakage-induced distortion, I-V charact. 7685

distributed feedback lasers continued
above-threshold stabil., num. model 39875
absorptive-grating gain-coupled DFB semicond. lasers, opt. pulse chirp 14947
aging-induced wavelength shifts, 1.5 μm DFB lasers 7676
AM-SCM lightwave syst., simultaneous scatt./interf. suppression 17175
analog DFB laser modules, second-order IMD 7680
asymmetric three-phase-shift DFB LD, design 14921
bistability, waveform reshaping, side-mode light injection 23250
book, bistabilities and nonlinearities in laser diodes 58
BPSK homodyne detect. expt. with solitary DFB LD, 10 Gbit/s 17329
broadband CATV video systs., DFB lasers 9555
broadband multi-purpose networks, laser transmitter selection 42383
CATV 151-channel AM-FDM transm., 1.3 μm SL-MQW-DFB laser, high opt. output power 25542
CATV DFB LD, second-order distortions meas. 34004
CATV return path laser systs. 42620
CATV videocommun. networks, AM-VSB TV sig. opt. transm. 17570
CATV/FITL video-transm. DFB laser components and systs. 17193
chirped DFB fibre lasers, transm. charact. 39702
chirped fibre Bragg grating dispersion compensator, directly modulated laser appl. 25521
coherent FSK syst. DFB lasers, thermal contrib., FM response 3585
coherent opt. syst. nonuniform FM response, semicond. laser model 9471
commun. LD FM transfer fn. modelling 1977
compact holographic solid-state DFB laser 7581
complex coupled DFB laser narrowband amp. props. 39861
complex-coupled DFB semicond. lasers, mode stabil. 14897
delay-and-multiply opt. FSK receivers, line-coding, anal. 42345
detuned gain-coupled DFB laser, opt. feedback immunity 31310
DFB laser-electroabsorption modulator integrated light source 39472
diamond channel radiation X-ray laser 23201
directly modulated laser source for opt. commun. syst. 39344
distributed coupling coeff., spectral charact. 23278
dye mixture DFB laser, nanosecond excitation, picosecond emission 39681
Fabry-Perot DFB lasers, mode nonorthogonality study 23342
FEL, 2D DFB, dyn. 2011
FEL with 2D DFB, time domain anal. 39926
FMCW-LIDAR, tunable twin-guide LD 17449
free-running DFB laser modules, long-term wavelength drift 7675
freq. chirp, integrated external modulators 14953
gain-coupled MQW DFB lasers, 1.55 μm, Ti surface Bragg grating 23274
gain-switched pulse DFB laser 7621
grating fab., laser holographic syst. 15183
grating struct., mirror posns., lasing characts., 1.55 μm *(Korean)* 31413
hybrid multichannel AM/16QAM video lightwave syst., digital channel degrad. 17210
IM/DD TDM high bit rate opt. systs., modelling and anal. 34067
injection laser-modulator combinations, time-depend. simul. 14952
injection-locked directly modulated lasers in multigigabit-per-second std.-fiber transm. 9516
injection-locked dispersive bistable LD, fast opt. switching 39817
integrated DFB LD modulator for 2.4 Gbps opt. transm. *(Japanese)* 39618
IR lasers, conf., Ascona, Switzerland (1994) 5485
$\lambda\approx1.57$ μm DFB LD gas sens., overtone and combination band absorpt. 9961
laser chirp pulse pattern dependency, modulation and transm. perform. *(Japanese)* 39801
laterally coupled, fab., electron-beam lithog./CAIBE 14941
laterally-coupled DFB laser, EBL/CAIBE fab. 31410
lightwave systs., parametric gain, four-photon mixing 17219
linecoded opt. heterodyne FSK systs., nonuniform laser FM response 42457
linewidth-insensitive coherent AM opt. link, direct/external modulation format comparison 42410
local intens. modulation response, direct meas. 31323
long. spatial hole burning, single mode stabil. 7679
Mitsubishi DFB LD/module for CATV systs. 34261
MM-wave source, dual-mode DFB semicond. laser 23486
monolithic integrat. of laser, electroabsorption modulator 1831
MQW DFB laser with 25 GHz modulation bandwidth, packaged, 1.55 μm 3584
MQW DFB lasers, electroabsorption modulators, monolithic integrat. 7384
MQW DFB lasers, external modulation, freq. chirp simul. 31348
MQW DFB semicond. laser, spontaneous-emission noise 1965
MQW DFB tunable laser, enhanced plasma effect 31350
MQW gain-coupled DFB lasers, wide temp.-range singlemode operation 1938
MQW laser, carrier and radiation confine. 14931
MQW lasers, gain coupled, wavelength filtering 39864
MQW-DFB-LD modules for SCM fiber-optic transm. *(Japanese)* 42468
multielectrode DFB laser self-pulsation charactn. 31327
multielectrode DFB lasers, transfer matrix method based large-sig. dyn. model 1995
mutual injection locking of fibre laser and DFB semicond. laser 14758
near field holographic grating mask technol. 15187
nonlin. distortions, power-depend. loss, long. hole-burning effect 31355
nonlin. opt. loop mirror extinction ratio improvement 15122
optoelectronic device fab. by CBE 37417
output wavelength electronic tuning 1970
partially-corrugated-waveguide LD, low modulation distortion for SCM telecom. appls. 17194
pass./act. periodic nonlin. media, solitons 15060
periodic Bragg reflecting struct. 23194
perylimide dye doped SiO_2-PMMA glass, superradiant film laser operation 14729
phase tunable, flat FM response 14972
phase-shifted DFB laser stabil. against hole burning 1996
push-pull modulated DFB lasers, enhanced AM bandwidth 7635
quantum well DFB rib waveguide LD design, spectral index method appl. 39876
quasi-Cherenkov surface emitting FEL, linac 39982
quasi-Cherenkov X-ray DFB FEL under multi-wave diffr. 39978
QW lasers, gain compression factor determ. 23189
repeaterless transm., 2.4 Gbit/s, 306 km fibre, DFB LD 17231
ribbon FEL, 1D DFB 39910
ridge-waveguide MQW DFB lasers, static and dyn. simul. 23193
self-seeded gain-switched Fabry-Perot laser, low jitter single-mode pulse generation 14884
semicond. DFB laser, stochastic reson. 1952
semicond. DFB lasers, dyn. spatial hole burning effect 23222

distributed feedback lasers continued
semicond. laser, 1.55 μm, 185 fs pedestal-free pulse gen. 23186
semicond. laser pulse generation, soliton effect pulse compression fibre 39772
semicond. lasers, soliton generation, opt. switching appls. 7651
semicond. lasers, threshold condition, Bloch-wave propag. const. 14914
semicond. LDs, elec. and opt. photocurrent noises correl. 1922
semicond.-laser freq. locking, C_2HD, $^{13}C_2H_2$ absorpt. lines 7642
STM 16 syst. operation, 1.55 μm DFB laser module 34072
time/polaris. multiplexed opt. fiber soliton transm. 9467
tunable semicond. lasers, continuously chirped DFB gratings 1954
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
UV grating written planar silica waveguide semicond. external cavity laser 34034
WDM transceiver OEIC modules for local access fibre networks 17331
AlGaAs-GaAs-InGaAs DBR elec. pumped VCSEL 31314
AlGaInAs/GaInAs, tunable lasers by masked implementation enhanced intermixing 14872
AlGaInAs/InP 1.5 μm MQW DFB LD exceeding 20 GHz bandwidth, MBE/MOCVD 23229
Er^{3+}:Yb^{3+}-codoped fiber DFB laser 23116
GaAs-AlGaAs QW DFB VCSEL, temp. depend. of transverse mode evol. 7669
GaInAsP DFB lasers, fab., maskless FIB implant. 39825
GaInP/AlGaInP DFB QW lasers, fab., room temp. operation 23273
InGaAs/InAlGaAs QW DFB laser facet influence on wavelength tunability and linewidth-chirp 39860
InGaAs/InGaAlAs gain coupled DFB lasers, masked implant. enhanced intermixing 14887
InGaAs/InGaAsP quantum well DFB lasers, high speed dyn., intrinsic params. 1932
InGaAs/InP, strained QW lasers, operating characts., 100-315 K 39854
InGaAs-GaAs-AlGaAs laterally-coupled DFB ridge LD, CW perform. 31318
InGaAs-InAlGaAs strained/unstrained lasers, MBE grown 14975
InGaAs-InGaAsP MQW DFB LDs, 1.5 μm, MOVPE growth 7616
InGaAsP 1.5 μm DFB laser study by Gires-Tournois interferometer 1940
InGaAsP DFB single-mode LD, small sig. cct. model 39821
InGaAsP MQW modulator/DFB laser integrated light source 30965
InGaAsP gain switched DFB laser, nearly transform limited pulses, pol. dispersion effect 14885
InGaAsP strained layer MQW laser for opt. fibre transm. systs. 31352
InGaAsP/InP DFB laser, wavelength shifts, ESD 23276
InGaAsP/InP DFB lasers, wavelength and polaris. switching 31349
InGaAsP/InP MQW integrated DFB-DBR laser modulator, MOVPE growth 23247
InGaAsP/InP PBH-DFB-LD for 2.5 Gbps opt. fiber commun., fab./characts., 1.55 μm *(Korean)* 39769
InGaAsP-InP DFB lasers, long. mode hole burning 1997
InGaAsP-InP MQW-DFB lasers, multiple phase-shifts, spectral charact. 39764
InGaAsP-InP multi-λ ridge waveguide gain-coupled DFB laser array 23277
InGaAsP-InP tunable DFB laser freq.-drift suppression 9596
InP monolithically integrated Wannier Stark modulator/strained MQW DFB 1.55-μm laser 22940
Nd^{3+}:YAG DFB lasers, modulation bandwidth, nonlin. effects influence 23341
ZnSe-based nanostructures, waveguide DFB laser appls. 23296

distributed feedback oscillators *see feedback oscillators*

distributed file systems *see distributed databases; network operating systems*

distributed memory systems
see also transputer systems
3-D semicond. device simulator on distributed-memory MIMD/SIMD machines 1317
3D scatt. FEA absorbing boundary condition code parallelisation 23556
ATM networks, low-latency commun., act. messages 24974
automatic differentiation on distributed memory MIMD systs. 11996
DCE, distributed shared memory implement. 25032
DSP algms. mapping onto multiprocessors, cost fns. 24225
dyn. load-balancing for PDE solvers on adaptive unstructured meshes 28682
EM scatt., axisymmetric cases, integral eqns., parallel computing 2197
fault-tolerant multiprocessor cache memory, CMOS 37761
feature extraction, parallel, distributed memory computer 41101
file migration policy, finite storage, limited effects 33518
heterog. data networks, addressing/routing 24841
image recogn., 2D sparse distributed opt. neural memory 32895
image restoration, adaptive noise filter, parallel implement. 8585
Linda implement. on LAN 25034
opt. interconnected distributed shared memory syst., memory and network archit. interact. 41491
parallel lin. eqn. solvers for computational electromagnetics problems 23557
power syst. optimal power flow simul., security constrained 10603
scalable storage servers for digital audio/video 25686
Si, cryst. growth simul. program, automatic parallelization 12034
torus networks, struct. commun. 16449
tridiagonal lin. syst. and Poisson's eqn. soln., distributed memory systs. 28669
two scan algm. implement. on systolic array/multicomputer 12569
workstation clusters, data partitioning for networked parallel proc. 41880

distributed operating systems *see network operating systems*

distributed parameter networks
see also distributed amplifiers
3dB 180° hybrid, asymmetrically terminated impedances *(Korean)* 21398
adjacent vias in multilayered digital ICs, coupled noise anal. 12394
asymmetric cross-coupled filters, synthesis 12628
branch-line hybrid-rings, coupled-lines 37943
CFH, complex freq. hopping anal. of interconnect networks 21083
coupled strip lines, short-duration pulses caused by unequal phase velocities 31877
coupled transient simul. of ccts. and 3D packaging, algos. 21070
elec. multiconductor line systs., internal/external interfs. 23685
high speed interconnects, simul., packaging simulator 20438
high-speed VLSI interconnects, freq./time domain simul. 12287
interconnected mesh power syst. MCM topol., elec. charactn. 21722
lossy coupled transm. lines simul., window partitioning, waveform relax. 13422
lossy distributed networks, successive asymptotic waveform eval. 1467
lossy transm. line cct. anal. via approximated state-space models 505
lossy VLSI interconnect, sig. transients, propag., crosstalk 30426
microwave ccts., pole-zero computation, multipoint Pade approx. 21528

distributed parameter networks continued
nonuniform freq.-depend. interconnections, PSPICE simul. 23755
RLC miniature elec. filters for single electron devices 37829
T-jn. microwave ccts., prescribed response characts., design/anal. 862
transm. lines, efficient freq.-domain modeling and cct. simul. 5977
VLSI interconnects, high-speed, time domain sensitivity 13862
wideband bandpass filter, three parallel-coupled lines 6282
ZnO varistors, dielec. charactn./equiv. cct. studies 867

distributed parameter systems
see also flexible structures
cantilever beam state meas., distributed PVDF film sens. 42775
LIM, control obj., math. model *(Russian)* 27759
piezoceramic lin. motor, flexible space struct. control 4995
PVDF, piezoelec. bimorph actuators, force improvement 39109
rapid thermal procs., model-based control 13866
RLCG transm. line, LQ control synthesis 43730

distributed processing
see also client-server systems; computer networks; distributed algorithms; distributed databases; message passing; multiprocessing programs; multiprocessing systems; network operating systems; parallel processing; pipeline processing; processor scheduling; remote procedure calls
Ada, distributed, implement. 26538
ASTRA knowledge based syst., transformer assess./diagnosis 19695
AT&T's open cooperative computing archit. 41801
ATM subnetwork syst. fns., timer-related perform. issues 24766
autonomous load sharing, mutual priority protocol 8747
B-ISDN, hyperdistributed switching syst. archit. 33588
BBN advanced acoustic proc. family, overview 9664
bearings-only tracking in distributed sens. network, reduced sufficient stats. 15877
broadband network services, distributed multimedia support-environ. 16870
call proc. archit., design/implement. 9010
checkpointing recovery in distributed syst. on CSMA/CD network 41472
civ. aviation flight decks and ATC, interface mgt. 26536
co-operative software develop., distributed support environ. 25072
commun. network control archit., integrate service control and mgt. 25063
commun. networks with semi-shortest routing, loss probab. *(Japanese)* 16455
communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
competitive distributed deadlock resoln. and resource allocation, local optim. of global objectives 16686
computational components for sync. cooperation on multimedia inform. 16871
computer and telecommunication systems, modelling and simulation, conf., NC, USA, Jan. 1995 11567
computer network, trees/rings, fault-tolerant reconfiguration 3202
computer network clocks, improved sync. algms. 2949
conferencing syst. and shared whiteboard, distributed multimedia appl. testbed 9071
continuous media networks, filter propag. in dissemination trees 8975
cooperative computing/integrated syst. mgt. 24904
counter with bounded response time and bounded power dissipation, calculational derivation 37681
CTA project, infrastructure for flexible dist. learning in Europe 16859
data fusion of assoc. hypotheses in distributed sens. network 15873
data-cyclic shared memory (DCSM) in distributed environ. 24951
decentralised sens. networks, routing for reliab. 15952
DELPHI distributed IS, LEP appl. 18210
Diagnostician-on-a-chip, concepts/implement. 34357
directory authentication framework 8954
distrib. syst., SCADA syst. spec./anal., IEEE std. 27175
distributed multimedia, user perception/dyn. quality of service 16887
dyn. cryptographic key generation and inform. broadcasting scheme 15770
embedded ATM networks, distributed pricing 41677
fast distributed network restoration algm. 3548
fault tolerant protocol for distributed mutual exclusion 2903
FIND2, multimedia/distributed inform. sharing systs., develop. *(Japanese)* 3264
fire support test syst., distributed C^2 simul. 26815
flow mgt. in quality of service archit. 25099
FODATEC, open document manipulation syst. 8957
fully distributed proc. strategy for Unix LAN 25037
future global multi-service networks, distributed mgt. 16607
GCommS project, group commun. support for distributed multimedia systs. 16858
GENESIS, seamless environ. for telecomms. networks 24884
genetic algm. based reliab. improvement for computer networks and distributed systs. 3170
GMICRO/500 microprocessor application system, graphic primitives evaluation 29257
GMICRO/500 microprocessor performance evaluation for CTRON based kernel 29256
hard real-time commun. in multiple-access networks 33211
hierarchical membership protocol for sync. distributed systs. 41544
high-perform. distributed computing, architectural support 2907
highly available/reliable commun. protocols for heterog. systs. 41508
hot potato routing 16777
IEEE 802.6 based PCN, distributed paths migration 9363
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
image commun., open distributed environ. 16864
IN, detecting, interacts. 3258
in-line particle holograms image proc. 33008
inform./accuracy in distributed detect./estim. 32599
integrated services engng. 41693
intell. agents in multi-media systs. *(English)* 25125
inter-media sync. in distributed and heterog. multimedia systs. 33641
Internet, multimedia services, distributed sync. protocols 3263
ISABEL, expt. distributed cooperative work appl., broadband networks 16863
load balancing in distributed environ., ES approach 8926
logic cct. simul., network of workstations 21053
low earth orbit satellite commun. appl., distributed simul. 25464
MARS, large scale multimedia storage server, design 16904
medium/small-scale UPS, distrib. networks appls. *(Japanese)* 5035
mfg. message spec., protocol design/anal., Petri net-based 8873
model for flexible config. of appl. oriented commun. services 33273
modular fault tolerant protocol constr. 41536

distributed processing continued
multimedia conferencing network centralised and distributed control designs 41973
multimedia conferencing services in open distributed environ. 16862
multimedia systs., distributed, network mgt. archit. 3270
multimedia systs., software engng. tech. 41966
multipoint multimedia services, high perform. support 16877
multisensor decentralized filtering systs., optimality 8379
network and distributed systs. mgt. 33385
network mgt. syst., distributed computing 41671
network synchronized clocks, predictable timestamp 40605
obj. recogn., Bayes, distributed, geom. hashing 2767
obj. recogn., fuzzy relational inference logic 16274
observer concept for formal online validation of distributed systs. 16690
off-board augmented fusion for target detect./tracking 9637
online transaction proc., scalable net modelling 41878
open distributed environ. perform. considerations 41957
optical network interface unit for multichannel ring networks 3227
optimal NODUP all-to-all broadcast schemes in distributed computing systs. 3216
PC, real-time commun. protocol, contention-resolving algm. 41505
polarized target 34873
portable notebook computers, connected/disconnected operation in distributed systs. 33564
power syst. dyn. anal., simulated distributed computing tool 4454
power systs., technols. *(Chinese)* 43650
protocol spec. synthesis, service specs., distributed systs., marked graph 8761
protocol specs. from service specs. *(Japanese)* 33289
QoS, end-to-end mgt. scheme 16585
QoS negotiation for orchestrated, distributed multimedia presentation 25100
real-time, multi-access protocols schedulability anal. 2911
rel/REL, reliable multicast protocols for distributed systs. 24798
reliable distributed systs. conf., Princeton, USA (1993) 36876
rem. data terminals, develop. *(Chinese)* 19130
RFC 1327 mapping rules distrib. via Internet DNS 16747
Safe-Tcl lang. for enabled mail 8867
selectively totally ordered broadcast protocol on single channel network *(Japanese)* 16514
self-stabilizing wait-free clock sync. 24836
simul. for live training, mil. environ. 35406
SINA, Super-highway Information Networking Architecture 25054
SNMP-based systs. mgt., fault detect./isolation 24903
spec. and verification of distributed real-time protocol 41543
switching archit., trends and concepts 16948
switching center, cellular and PCS digital-mobile services 17042
switching software, scheduling mechanism of general service order seq. and limited service discipline 9133
syst. testing archit. for distributed switching syst. 16957
telecomm. network distributed mgt. syst., formal design 33296
telecomm. network distributed proc. technol. *(Japanese)* 16754
telecomm. network line quality inform. proc. syst. *(Japanese)* 24920
telecomm. network mgt. syst. based on ES 3098
telecomm. services, archit., prevent, interact. 3082
telecomm. services, rem. operations in test appl. 33480
telecomm. syst. design, ODP approach 24954
telecomm. systs., configurable call/service proc. 41955
telecomms. networks, distributed restoration 41689
telecomms. systs., sojourn time distrib. modeling 33237
teleworking and telelearning, multimedia commun. 3064
TMN appl., highly reliable distributed switching node 41667
TMN-based service control, Personal Communication Support System 41691
Totem protocol develop. environ. 2937
ToTo, protocol for early delivery totally ordered multicast in asynchronous environments 33281
TX2 microprocessor design based on TRON specifications 29258
universal multimedia switching archits., anal. 16837
video-on-demand service, distrib. store-and-forward archit. 16561
virtual reality system, distributed, aural renderer 17609
VISTAnet gigabit networking testbed, traffic meas. anal. 24749
VLSI design proc. mgt., reconfigurable distributed framework 5580
XTP over BERKOM B-ISDN network, perform. comparison, TCP/IP 2905
rem. authentication tech. 15735

distributed queue dual bus *see access protocols; metropolitan area networks*

distribution networks
see also building wiring; substations; underground residential distribution systems
3-phase, lightning perform. *(Japanese)* 10739
3-phase PWM AC/DC converter, voltage unbalance, harmonics *(English)* 27811
3-phase TSC-TCR SVC anal., recurrences theory 19924
3-phase unbalanced nonradial power distrib. systs., fault anal. 43758
10 kV rural distrib. ABC installations, Eire 43776
11 kV distrib. network telecontrol/metering syst. 4660
11 kV distrib. switchgear innovation prospects, UK 4673
11 kV rural distrib. network perform. improvement designs, UK 43752
12/36/145 kV distrib. cct. breakers, utility experiences 4668
13.2 kV underground feeder project, USA 27185
13 kV distrib. network solid-state cct. breakers 4672
15 kV URD syst., transients, above ground detect./interp. 27159
20 MW batt. storage syst., distrib. network stabil. appls. 35637
60 Hz EMF effects reduction 18628
66/6.6 kV power receiving/transformer facility project, Japan *(Japanese)* 35629
66/6 kV distrib. substation develop. project, Japan *(Japanese)* 35630
400 kV distrib. substations, conductor short-cct. effects simul. 19281
500 kVA distrib. transformers, swept freq. response tests 36237
ABB BWR 90 design and characts. *(French)* 43838
AC distrib. networks, harmonic distortion reduction 35634
AC locomotive PWM rectifiers, harmonic current calcs. 36760
AC power lines/radio commun. sites, min. separation dist. 15508
AC rly. power syst. protection/fault meas., PC-based 44536
AC rly. syst. energy conservation, optim. train running curves 44530
AC/DC power convertor harmonics, load modelling 35638
adaptive high/low impedance fault detect. 4644
AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
aircraft intell. rem. power controller 26682
airport transit syst. power distrib. design project, USA 44571
AM/FM/GIS implement. 10734

distribution networks continued
amphibious landing ship, diesel-elec. propulsion 11416
arcing fault detection/classification, neural net-based 19250
area power generation control, implement. issues 10645
asset replacement programmes, reliab. worth calcs. 43754
AUSTRAL, distrib. syst. power restoration ES 19246
auto-reclosers/sectionalisers operation 43796
Automated Distrib. Syst. Modeler, OO design 35623
automatic cable router 43741
automatic distrib. node transfer, electronic cct. *(Spanish)* 19282
automatic fault location/isolation syst. *(Japanese)* 10736
automatic multiple-cct. switchgear develop. 4659
automation/DSM/AMR study 43761
AVC relays, sensitivity anal., PF changes 4652
buried distrib. cable syst., rem. absol. phase meas. 27158
capacitor bank failures, harmonics effects 19262
capacitor banks, synchronised/soft switching 10722
capacitor placement, fuzzy algm. 10725
Cassini power management and distribution 26647
cement plant, power distrib., IEEE std. 36808
central office building power distrib., loop voltage drop optim. 43748
Channel Tunnel traction/auxiliary power supplies 44533
chem./plastics plant elec. modernization project 5405
CHP plant power syst. short cct. calc., simul. package 19505
contactless power delivery syst., mining appls. 20188
control, obj. oriented environ. appls. 27154
control automation, recent develops. 27149
data commun. integrat. 10735
DC elec. rly., pulsed power switch-based protection 36712
DC telecom. power distrib. syst. overcurrent protection, batt. model 43749
DC/DC convertor plants, distrib. fuse fault clearing study 44144
decentralised AI controllers, intell. home automation 4536
delta-delta connected distrib. syst., single-line faults 4658
design, nonsinusoidal load operation 43757
designated distrib. area, short range planning, computerized procedure 10699
Deutsche Bahn elec. rly. operation review, 1994 *(German)* 44500
develop., reliab. anal. *(Russian)* 43739
Diagnostician, submarine power distrib. syst. appl. 28113
diesel engine generator distrib. feeders, voltage flicker studies 43938
dispersed PV power systs., islanding phenom. 43947
distrib. network, post-fault service restoration, network reconfig. 4645
distrib. network adaptive high/low impedance fault detect. 4644
distrib. network real-time SCADA systs., AM/FM appls. 19273
distrib. substations, thyristor controlled series capacitor appls. 27163
distrib. syst. online mgt./control, ES-based 19271
distributed control appls., home power ccts. 9039
disturbance waveforms class., neural net-based 27161
disturbances, light flicker voltage requirements 20125
disturbances prediction, Kalman filter-based 10724
domestic appliances, impact on Mexican distrib. lines *(Spanish)* 20152
double-cct. lines, dist. protection relay calcs. 19260
drawings, graphic representation, computer programme 19280
DSM, eval., T&D level 4570
DSM/automation commun., added utilisation costs 27160
economically justified modif., radial power network 35519
education, distrib. feeder power quality calcs. 20348
EHV transmission/distrib. power lines, EM fields studies 19286
elec. load flow problem, ES appl. 4627
elec. rly. power consumption characts. estim. *(German)* 44503
elec. utility customer service improvement, distrib. automation-based, UK 43684
elec. utility distrib. automation syst. project, India 27170
elec. utility distrib. planning, feeder config. 35526
elec. utility distributed resources planning, optimum location 10692
elec./telecom. infrastructure develop. projects, Estonia 43639
EM environ. meas., catalogue, 30-300 Hz 31850
EMF health risks for elec. utility workers 43386
EPRI Distrib. Engn. Workstation, appl. programmer interface 35627
equipt. condition monitoring, fibre optic sens.-based 43616
equipt. reliab. assess., data concepts 43613
equipt. reliab. assess. approach, Canada 43614
expansion planning, multi-stage branch exchange method 27151
fault current reson. grounding project, Australia 19258
fault detection/protection, neural net-based 19249
fault diagnosis, neural net-based 19241
fault diagnosis, obj.-oriented ES 27131
fault locator design 4651
feeder database, work ordering syst. 43745
feeder elec. heating load prediction, computer-based 35620
feeders, nonlin. loads, harmonics effects, economics 27167
feeders, nonlin. loads, voltage distortion forecast 27166
FITL powering, batt. reserve sizing calcs. 42066
Frankfurt (Main) city network control syst. *(German)* 35551
frequently operated vac. cct. breakers, plant insulation failures 4650
fuel cells, optimal deployment genetic algm. 19257
glass fibre epoxy slender tubes, axial compression stress, appl. *(Polish)* 5904
ground fault discrim. method, computer-based *(Japanese)* 27174
grounding electrodes, impulsed ground impedance studies 19251
harmonic current prediction, ANN/GMDH comparison *(Korean)* 27178
harmonic filter CAD, genetic algm.-based 4641
harmonic filters, EMTP-based anal. 4642
harmonics, motor load effects modelling 19267
harmonics anal., single-phase power electronic load generated 27171
Harris 20-20 intell. dispatching syst. *(Chinese)* 19255
HF AC power distrib., telecom. power supply appls. 44143
high T_c superconds., power indust. appl. prospects 27068
home appliances, effect of overvoltages in power distrib. syst. 11492
Huygens power system, power control/distrib. 26648
HV substations/MV networks operation, diagnostic ES 19909
hybrid fiber/coaxial CATV network power distrib. systs. 42627
hybrid opt./coaxial telecom. power distrib. options 42138
I_s-Limiter, distrib. switchboard short-cct. protection 19339
independent power generation protection, tie bus cct. breaker 10771
induction motor starting transients, simul. algm. 19631
indust. distrib. network improvement, Clean Air Act effects 11493
indust. distrib. networks, capacitor overcurrent protection 4653
indust. distrib. networks, harmonic reson. studies 20155
indust. feeder load interruptions, fast breaker tripping impact 20158
indust. mgt. IS, data anal. integrat. 19253

distribution networks continued
inform. highway power distrib. archits. 42137
INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
interconnected, relay protection coord. 4639
intermittent arcing grounding overvoltage restraint *(Chinese)* 35632
LF EM fields, living organism health effects 4329
lightning distrib., earthing systs. 19349
lightning outage ratio anal. *(Japanese)* 10737
lightning surge protection, scale model expts. *(Japanese)* 43747
line protection practices, indust. survey 27162
load forecasting, decision making, hybrid ES 19270
load restoration planning algm., ES-based 19245
load-flow eqns., starting point 27147
local transm./distrib. planning, load research appls. 27079
long radial supply syst., SVC, operational aspects 26984
loss minimization re-config., genetic algm.-based *(Japanese)* 43746
loss reduction, syst. reconfig. 10728
LV distrib. feeder pillars/cutouts overview 43759
LV distrib. feeders, neutral conductor current distrib. 19272
LV distrib. networks, computer optimised planning 27177
LV elec. power device, switching noise meas. 27858
LV power distrib. lines, lightning overvoltage effects study 10727
LV power distrib. network commun. sig. transm. *(Croatian)* 3309
marginal distrib. capacity costs, area/time specific 4656
mgt., intell. support syst. 19275
mgt. by KBS and distributed problem solving 10650
mgt. strategy, elec. utility benefits 27152
mgt. syst., power anal. software integrat. 19252
mobile power plants, maint./emergency appls. 10730
multiobjective model optim. of elec. energy distrib. systs. design 35631
multiple dielec. lightning impulse strengths 35633
MV cable network displacement voltage increase *(German)* 4638
MV distrib. network, compensated, phase-to-ground determ. 4649
MV distrib. network control/protection, PLC-based 4655
MV distrib. network harmonic and AF behaviour *(German)* 4637
MV distrib. network protection/control integrat., reliab. design 43751
MV distrib. switchgear, internal fault withstand tests 19887
MV mine distrib. network, ground fault simul. 20193
MV power syst. planning, energy storage, ES 27176
narrow-gauge rly. line catenary systs., R&D results 36750
national power syst. develop. policy, Romania 27116
neural networks based faults detect./class. 4657
operator training, DIAPASON simulator-based 19274
opt. current sens. *(Japanese)* 27180
optimal config. planning, branch exchange methods 27153
optimal design, nonserial dyn. prog. 27148
optimal multistage distrib. network planning, genetic algms. 4615
optimal supply restoration, develop. countries 27169
optimal switching planning, fuzzy inference appl. 19268
optimal switching planning, fuzzy inference-based 27179
optimum planning, branch and bound method *(Chinese)* 43740
outage costs/reliab. indices eval. 35625
overcurrent protection settings determ., DSS-based 19259
overhead distrib. line pole struct., risk-based design 43755
overhead distrib. systs., Japanese approach 43743
overhead line accessories/fittings develop., manufacturer/user rels. 43785
overhead line assets mgt., technol. 43744
overhead line fiberglass poles, case study 27172
overhead rural distribution, IEE Colloquium, London (1995) 28273
overhead switchgear develops., South Africa 4666
overvoltage phenom., motor load disconnection-induced 4640
OXR overhead distrib. line pole-mounted auto-recloser 27156
periodic steady state anal. methods 19248
pers. protective grounding, param. anal., software 20384
planar SOFC, EPRI R&D efforts overview 44347
planning, economic/environ. considerations 43742
planning, fuzzy math. prog.-based 27155
planning inform. syst. *(German)* 10723
Pluto East Flyby mission, power subsyst., RTG 26649
post-fault service restoration, network reconfig. 4645
post-outage restoration, infrastructure enhancement 10726
power capacitor placement/replacement/control, computer simul. 35622
power capacitor placement/replacement/control optim. 35621
power distrib. cables, long service life designs 43770
power distrib. installations, intell. systs. *(German)* 35640
power distrib. line condition monitoring, neural net-based 43750
power feeder EMI/RFI filters, nonlin. load effects 19279
power lines fault diagnosis, neural net-based 19242
power quality monitoring 27165
power syst. control room DSS, user interface 4563
power syst. economic distrib. planning, computer-based *(Russian)* 10691
power syst. online anal./data mgt., open syst. approach 19127
power syst. reliab. assess., concepts/hist. review 26917
power syst. reliab. planning, customer outage costs-based 27078
power syst. reliab. worth eval. tech. 27058
power systems computation, conf., Avignon, France (1993) 11544
protection, overhead auto-recloser automation 4664
protection, pos. temp. coeff. thermistors 4643
PSCN 3020 distrib. network integrated protection/control syst. 27157
PV grid connected buildings, energy flow, economics 43955
PV systs., grid connection 10882
quality improvement by short-cct. current limitation on distrib. nets 27269
quality/reliab. improvement options 43760
radial distrib. networks, optimal capacitor selection search method 19264
radial distrib. syst., fixed/SC, optimal choice 19240
radial distrib. syst., value based reliab. assess. 27168
radio/TV interf. detect. experiences, USA 27186
RAMO telecomms. environ. equipt. mgt. network 19870
reactive power compensators for distrib. systs., harmonic distortion 19256
real time service restoration 4647
real-time anal., business opportunity/experiences 19254
real-time control tools 10731
real-time SCADA systs., AM/FM appls. 19273
refinery MV distrib., capacitor switching characts./meas. 20168
reliab. eval., fuzzy set theory-based 27150
rem. monitoring/control syst. develop. 4667
residential load aggregation, max. likelihood duty cycle forecast validation 36793

distribution networks continued
restoration, ES-based heuristic methods 19244
restoration operations planner, IKBS-based 19243
restoration support syst. for large-scale bulk power networks 10664
revitalisation project overview, Bahrain 19283
ring main substation protection, HV HRC fuse appls. 4663
rly. feeder overhead lines, hard-drawn stranded wire testing 36749
rly. feeder traction substations, harmonic prediction formulae *(Chinese)* 44249
rly. low freq. supply networks protection 5329
rly. power syst. stabil./power flow limit calcs. 5341
rly. traction power supply, 130 kV transm. lines *(German)* 44521
rly. traction transformers, asymmetry/harmonic/fluct. loss calcs. *(Chinese)* 44564
robust control, power distrib. approach 43713
rural distrib. network auto-reclose protection telecontrol 4665
SCADA syst. installation project, USA 10732
SCADA syst. spec./anal., IEEE std. 27175
secondary distrib. directly buried T-branch power cable joint *(Japanese)* 27183
sectionalizer allocation, genetic algm.-based 10729
services, optimal pricing 19223
shipborne MV distrib. network anal. *(Croatian)* 4648
sig. proc. ASIC, digital SS modem for power line commun. 21379
sig.-spectrum anal./diff. eqn. 35635
solar space power, RTG, parametric cost model 26654
space power distrib., model-based diagnostics 18765
space power syst., wiring syst. safety 26597
space power syst. wiring syst. safety 26597
Space Station Freedom PMAD syst., thermal anal. 18763
Space Station Freedom power system, on-orbit floating potentials 26592
space station power mgt./distrib., intell. load controller 26659
space vehicle power control syst., automated fault diagnostics 26681
spacecraft, fault-tolerant power distrib. module 26563
spacecraft DC power systs., series arcing detect. 26564
spatial load forecasting, three stage method 43717
SPIDER MicroSCADA distrib. network control syst. 27184
state estim. algm., observability anal. 35619
state estim. method, branch-current-based 35626
STRV-1 spacecraft power conditioning syst., in-orbit perform. 26683
substation earthing systs., safety design 4662
substation fault diagnosis, connectionist ES-based 27182
substation transformer cold load pickup modelling 19265
substations, lightning/surge protection 19918
substations, thyristor controlled series capacitor appls. 27163
superimposed power line voltage disturbances detect., analog method 19360
switchgear, design overview 4670
switchgear, historical overview 5139
switchgear internal arc fault protection design 4661
telecom. power supply systs., μP control appls. 41626
telecomm. DC distrib. networks, overcurrent fuse simul. model 19276
telecomm. equipt., 2-step ohmic distrib. syst., printed board assemblies 19838
telecomm. rectifiers, AC power line disturbance effects 44150
telecomm. systs. DC distrib. network grounding, EMC aspects 19269
telephone DC distrib. networks, arc detect. 19277
three-phase distrib. network CAD, multiobjective optim. approach 27146
three-phase distrib. networks, harmonic current reduction 4654
three-phase four-wire distrib. syst. act. power filter 19278
three-wire DC distrib. telecom. power supply 41624
three/zero phase current sens., Hall IC-based 35639
thyristor-based nonlin. loads, harmonic effects 19266
traction power supply maint. project mgt., UK 44525
transformer EMC planning *(German)* 11104
transient anal., equiv. homog. line model *(Japanese)* 10738
transmission and distrib. equip. reliability, IEE conf., Warwick, UK (1995) 36831
unbalanced radial distrib. system, power flow algm. 19263
underground distrib. syst., overvoltage protection, pad mounted switchgear 27164
unity PF boost converter control 19284
urban distrib. systs. operational structuring, reliab. aspects 43753
vac. cct. breakers *(French)* 35636
VLF switching sigs. over local power lines, fraud countermeasures 43811
voltage control, wind power generator effects 10720
wind turbines, weak distrib. syst. connection, generation limits 43970
ZX1 VISIO-COMPACT MV gas-insulated switchgear 11200
AlCuMg based alloy overhead line conductors 27220
SF_6 145 kV cct. breakers, develop. efforts 4669
SF_6 145 kV distrib. substation metal oxide surge arresters 4674
SF_6 24 kV ring main switchgear, thermal behaviour modelling 5147
SF_6 MV distrib. substation switchgear develop. 5148
SF_6 distrib. transformer protection, develop. trends 4671
SF_6 insulated distrib. transformer substation equipt. *(Italian)* 11215
SF_6 power distrib. equipt. enclosures, ventilation requirement calcs. 35628
SF_6 ring main distrib. switchgear, latest trends 5146
$YBa_2Cu_3O_{7-y}$ high T_c current limiting element 10776

distributions, statistical *see statistical analysis; statistics*

distributive data processing
see also stock control data processing
EDI at Brun Passot, office supplies distrib. company 16642
multimedia services for distrib. industries *(Japanese)* 42025

district heating
30 MW Lieksa CFBC cogen. project, Finland 19513
463 MW Vuosaari B combined cycle CHP project, Finland 43926
927 MW CHP plant AFBC boiler retrofit, Czech Republic 19515
1800 MWe combined cycle CHP district heating project, Russia 27593
CHP plant, stochastic heat storage, progressive hedging algm. 19499
cogen. district heating develop. overview, Russia 27533
combined cycle CHP power plant telecontrol projects, Denmark *(German)* 4850
combined cycle CHP project, gas/refuse-fired, Denmark 4851
combined cycle plant, district heating, charaсts. 10865
forecast, ANN appl. 19500
gas turbine CHP plant, multi-objective operation optim. 36010
gas turbine CHP plants, steam-injected, operation optim. 36011
gas turbine CHP/heat pump facility perform. optim. 36006
gas turbine cogen. installations, output characts. 27573
heat generation, shadow prices, time depend./dyn. energy systs. 4835

district heating continued
miniature CHP syst., solar heat engine-based 27627
Mitte district heating power plant, Berlin 27597
model farm PV and biogas power supply *(German)* 20176
nuc. power station district heating, economic/ecological effectiveness 27361
operational optim. simul., PC-based 43906
PFBC boiler operation, Aachen Heating Power Plant *(German)* 43896
power plant piping networks, press. and flow transient response prediction 4844
Resse motor-driven heating plant, operation/optimisation *(German)* 43940
Suomenoja combined cycle CHP plant control upgrade, Finland 43936
Swiss elec. prod., ecological and social aspects *(German)* 10795
thermal CHP plant leak sealing safety experiences, Germany *(German)* 4821

divacancies *see vacancies (crystal)*

diversity reception
see also fading
4 GHz 88 km overwater digital radio link perform, characts. 42184
16 QAM modulation, OFDM in Rayleigh-fading channel 9218
adaptive algms. for flexible equaliser in mobile receiver 42270
adaptive blind diversity combining for antenna arrays 31978
adaptive diversity reception, prediction, smoothing, interpolation 25447
adaptive interf. canceling equalizer 9383
adjacent-channel, cochannel, and ISI suppression 15519
analog coding/decoding, data transm., fading channels 8169
antenna heights effect on multipath propag. occurrence 31839
asymptotically optimum space-diversity detect. in non-Gaussian noise 15969
base station macro-diversity combining merge cells in mobile systs. 17104
base station polaris. diversity, antenna config. 3478
binary CPM-DPD, diversity in Rician fading channels 32042
binary lin. block codes in Rayleigh fading channels, decoding algms. 40681
blind adaptive beamforming and equalization 9228
broadband ATM indoor radio, packet diversity 16700
broadband channel modelling and perform. anal. 33849
C-band overwater LOS links in mid-Atlantic coast 9194
CDMA, TU Delft research, overview 25255
CDMA autonomous multipath diversity receiver 25440
CDMA cellular syst. with macrocell diversity, perform. 33865
CDMA joint detect. mobile radio systs., interfer. suppression 33887
CDMA MM wave indoor radio capacity study 9202
CDMA mobile radio, joint detect./coherent receiver antenna diversity 25364
CDMA mobile radio syst., turbo-codes appl. 9239
CDMA mobile radio systs., joint detect., diversity 25343
CDMA multiple band-shared LEOS systs., capacity 9369
CDMA packet combining error control 25368
CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
cellular base station phased array antenna syst 33794
cellular environ., resource auction multiple access 9291
cellular environ., resource auction multiple access 3348
cellular mobile systs., blind combiner for space diversity 42280
cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
channel, mobile radio channel, wideband micro-/macro-diversity meas. 3411
circ. 16-DAPSK in fading channels, diversity recept., error anal. 2363
code diversity FH-SSMA commun. systs., optimal receivers 9179
coherent-OTDR, reduction of stochastic amplit. fluct. 18121
combined postdetection diversity/concatenated channel coding 3341
communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
correl. slowly flat-fading Rayleigh channels 8374
coset codes on fading channel matched constellations 32138
CPM perform., mobile radio diversity operations 17119
decision feedback multiple-sym. differential detect., diversity 9200
DECT, antenna diversity, practical considerations 17072
DECT, multibearer connections syst., ARQ protocols perform. 17051
DECT in telepoint environ., dispersion-reduction techs. 3126
differential parallel combinatory SS commun. systs. *(Japanese)* 25207
digital cellular syst. radio link protocol throughout perform. 33799
digital indoor radio channels, diversity, block error probab. *(Japanese)* 42173
digital LOS links, diversity considerations, review 3330
direct-seq. systs. in lineal microcells, perform. eval. 25365
distributed antenna syst., freq. selective fading, perform. 17091
DPCM for diversity systs., packetized speech appl. 8223
DS-CDMA, integrated CCI cancellation and decoding, fading multipath channel *(Japanese)* 25276
DS-CDMA, shadowed Rician fading land-mobile satellite channel 9268
DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
DS-CDMA mobile radio, sliding window decorrelation, anal. 25283
DS-CDMA SS systs., permutation modulation 17126
DS-CDMA syst., macro diversity perform. 3389
DS-CDMA syst., perform. of space diversity 33840
DS-SS commun. multipath diversity combination 42196
DS-SS commun. syst., path-diversity based on multiple path selection *(Japanese)* 25275
DS-SS digital diversity receiver for multipath fading channels 25436
DS-SS ISM band radio LANs, receiver techs. 25261
DS-SS sigs. time division duplex transm. 9203
DS-SSMA commun. in Nakagami fading channels, path diversity 9345
DS-SSMA diversity commun. in fading channels, error perform. 3357
DS-SSMA multitone syst. in multipath Rician fading channel 16463
DS/CDMA diversity combining, convolutional encoding/Viterbi decoding 9380
DS/CDMA systs., coherent detect. syst., suppressed pilot channel *(Japanese)* 25279
DS/CDMA systs., eval. of handover perform. *(Japanese)* 25281
DS/FH-CDMA syst., fading channels, near-far problem *(Japanese)* 25210
dual-rate alg. CELP-based speech transceiver 9221
Earth-space syst., site diversity, rain atten., interf. anal. 15440
error probab. on M-PSK/M-DPSK/fading diversity channels 2360
fast fading indoor radio channel characts. 33817
fast freq. hopped NCMFSK, Rayleigh fading, diversity combining 33762
fast freq. hopped NCMFSK, time diversity combining 25253
FDMA cellular systs. capacity, ACI effects 3334
FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
FH-CDMA cellular network eval. rel., handover strategies 9332
FH-SS transceiver, 900 MHz, low-power CMOS chip 33745
freq. hopped TDMA cellular syst., down-link capacity 9285
freq.-selective fading mobile radio channel, capacity eval. 17066
freq.-selective Rayleigh fading channels seq. estim. 8373

diversity reception continued
GSM, M-detector, coherent receiver antenna diversity, perform. 17040
GSM syst. MLE receiver space diversity techs. *(German)* 25335
GSM/DCS1800 syst., base station, diversity reception 3497
handheld transceiver planar inverted-F diversity antenna FDTD anal 25353
HF direction finding systs., polariz. diversity contrib. 34187
hi-fi mobile DAB scheme 9695
hybrid DS/FH SS syst. for mobile radio channel 3483
hybrid SFH-multitone DS SSMA syst., perform. 9172
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
incoherent freq. hopping multiple access systs., diversity combining 25311
indoor space diversity antennas, proximity effects 25374
indoor wireless low complexity, low delay speech coding 8193
intermediate reuse factors for capacity eval. 17058
IR wireless indoor channel, freq. response 17247
Italsat-Olympus 20-GHz orb. diversity expt. 25456
Japan mobile telephone syst., detect. study 9273
K user union channel, multiuser syst. 40527
LEO channel, downlink DS CDMA perform. 25372
M-ary DPSK on freq.-selective Ricean channels 9274
M-DPSK in fading channels with diversity reception, error bound anal. 3355
M-QAM digital mobile radio systs., diversity/equalisation 9270
macrocellular PCS propag. channels, 1850-1990 MHz band 31836
macrodiversity cochannel interf. anal. 40383
microcellular Ricean channels, switched diversity 3336
mobile fading channel 16-DAPSK perform. calc. and simul. 33798
mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
mobile user satellite systs., multiple-access capacity 25302
MPSK (un)coded transm. on multipath fading channels 9169
multi-beam mobile satellite commun., Viterbi decoding 25307
multi-cell direct-seq. microcellular systs., perform. eval. 33907
multicarrier coded 16QAm syst. 33780
multipath compensation for underwater acoustic commun. 9614
multiple sym. differential detect., perform. 33874
multistage CMA adaptive beamformer, real-time implement. 9227
multiuser collaborative coding schemes, complex-value receiver 24779
Nakagami fading channel block error probabs. 33800
Nakagami fading channel capacity eval. 33801
Nakagami fading sigs. reception, sq.-law combiner perform. 42155
OLYMPUS satellite 12/20/30 GHz propag. expt. results 31818
parallel combinatory SSMA systs., Rayleigh fading channel, perform. eval. 25244
PCS, spectral efficiency of multitone freq. hopping syst. 9217
pers. commun. systs., packet transm. 25415
pers. wireless commun., antennas charactn. 17129
$\pi/4$-DQPSK on microcellular radio channels, diversity/interf. 17101
PSK M-ary modulated sigs., CCI estim. 33884
QAM signaling, Rician-fading diversity channels, error probab. 32040
QPSK coherent detect., phase ambiguity removal for diversity combining *(Japanese)* 41040
QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
RAKE receiver, synchronisation, BER perform. 25445
Rayleigh fading, diversity reception, vel. estim. 3454
Rayleigh fading channel, adaptive diversity receiver, error probab. 25263
Rayleigh fading systs., transmit diversity, diversity gain 9193
real-time in-door radio commun., antenna diversity *(Japanese)* 42180
RF syst., diversity combining, sectored antennas 33755
RS coded slow freq. hopped TDMA cellular syst. perform. 33827
sectored antennas, indoor radio, optimum combining diversity 42281
sectorized mobile microcellular radio syst., perform. anal. 3451
sens. array sig. proc. tech. 32731
short-block digital transm., adaptive MLSE for mobile radio 3427
Siemens DECT-prototype Gigaset 95x perform. indoors 9108
sig. reception, stat. model 31833
slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
slow fading channel bandwidth-efficient coded freq. diversity 32086
smart antennas, IEE Colloquium, London, (1994) 5509
spatial channel simulator for phased arrays 9318
spectral efficiency in future commun. 17116
SS receivers, diversity reception improvements 25444
SS transm. quality improvement, diversity transm. 17013
SS-CDMA PCS in-building systs., distributed antenna 9231
SS-orthogonal FDM syst. combination, interfer. rejection 33746
superquadratic loop antenna circuits 23867
switched pattern diversity antenna comparison 33793
TCM-QAM for flat fading and AWGN channels, design 24118
TCM/M-PSK, trellis-coded M-ary PSK for digital land mobile commun. *(Korean)* 17045
TDMA digital cellular radio unified MLSE detect. 33823
TDMA digital mobile radio, adaptive diversity receivers 9306
TDMA low-power wireless access syst., coverage/handoff tests 25412
TDMA satellite commun. systs., transm. power control 17145
TDMA selection diversity, DFE 9271
transmit antenna selection diversity, prediction 9304
trellis coded 16 QAM/TDMA, space diversity combining, multipath fading *(Japanese)* 42172
trellis coded diversity receivers, slowly fading Rayleigh channels 33763
tropos. scatter radio commun., space diversity and space-time sig. proc. 32690
unbalanced orbital diversity Earth-space syst. 42302
wireless commun., filter struct. for equalization and diversity combining 33875
wireless LAN, high perform., implement. 25058
wireless pers. commun., TDMA methods 17109

divertors
see also surge protection
generator power transformers, tapchanger diverter monitor 5019
JET divertor assembly and early operation 7242
LV high T_c supercond. DC transm. network 10719
LV installation divertor coord. principle *(German)* 35689

divide and conquer methods
bidiagonal SVD, divide-and-conquer algm. 37322
confluent Vandermonde lin. systs. and generalized Trummer's problem 37335
datapath compiler, mixed random logic and optim. blocks 21040
Delaunay triangulation, constrained 282
keystream generators, shift register based, security 8126
layout driven test generation for CMOS combinat. ccts. 6863

divide and conquer methods continued
symmetric tridiagonal eigenproblem, divide-and-conquer algm. 37324

dividers, frequency *see frequency dividers*

dividers, voltage *see voltage dividers*

dividing circuits
see also frequency dividers; voltage dividers
16-bit CMOS divider/sq.-root cct. design 6171
analogue divider, current feedback amps. 21463
C-testable carry-free array divider, design 638
concurrent-error detect. in high-speed carry-free dividers 597
max.-redundancy radix-8 SRT division/sq.-root method 12476
prescaled max.-redundant radix-4 SRT divider 615
pulse arith. based neural network implement. 21470
redundant divider design, DCFL GaAs and CMOS implement. comparison 29201
self-timed floating point coprocessor prototyping, FPGAs 21288
VLSI fast algms. for division and sq. root 12585
GaAs serial dyn./static divider for solid modelling accelerator 29129

DLTS *see deep level transient spectroscopy*

DMM *see digital multimeters*

DMOS integrated circuits *see MOS integrated circuits*

DOA estimation *see direction-of-arrival estimation*

document delivery
Australia, document delivery services, 1980-94 overview 33434
conference, New Face of Technical Communications, Philadelphia, PA, USA (Oct. 1993) 28216
electronic mail using X.400 protocol, British Library DSC 41736
fax usage and online services 16637
full-text inform. delivery, electronic, US infrastructure 16546
inform. explosion, document delivery and electronic networking 16767
Internet, sharing resources in academic libraries and inform. centres 16721
libraries, Third World, inform. access improved by utilizing advanced IT 41743

document folding machines *see mailing systems*

document handling
see also document image processing; page description languages; word processing
2D HMMs for document image recogn./normalization 41312
Adobe's Acrobat for electronic document exchange on Internet 24938
bi-level image high speed codec, architectural design 9124
character recogn. syst., pattern and symbolic proc. *(Japanese)* 32863
data acquisition/anal. computer syst., real-time, document prep. *(Japanese)* 3754
Document Transfer & Manipulation std. 41499
electronic document distrib. 15723
FODATEC, open document manipulation syst. 8957
HALdoc, document mgt. syst. 16763
incremental cryptography, hashing/signing 32171
journal articles, transm. via Ariel software *(Hebrew)* 41791
Korean document, picture/character extraction/segmentation 16069
MARC, multimedia appl. for radiologist commun. 16910
MultimETH, conferencing and joint editing syst. 9065
service mgt. ref. platform in shared business environ. 16596
struct. recogn. of various kinds of table-form documents 8526
sync. generators, computerised design proc. 27693
telecomm. switching syst. develop., documentation 33711

document image databases *see visual databases*

document image processing
see also image scanners
2D HMMs for document image recogn./normalization 41312
bi-level image high speed codec, architectural design 9124
class. of image blocks, MCR stroke index 33142
contract mgt. using document imaging 41721
custom document image decoder generation 41359
fax image recognition using neural nets 41172
flexible montage retrieval for image data 8479
HALdoc, document mgt. syst. 16763
JPEG picture retrieval in portable hypermedia documents 8602
logic diags., automatic input, loop syms. recogn. 5971
mixed documents recogn., texts and graphic images *(Korean)* 24681
NET32K high speed image understanding syst. 34429
physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
raster adaptive document binarisation tech. 8511
text-image anal., skew angle estim., SLIDE 2614

document management systems *see document handling*

document retrieval *see information retrieval*

documentation *see information science*

documentation, program and system *see system documentation*

Doherty amplifiers *see power amplifiers*

domains
see also electric domains; magnetic domains
conformal mapping of interior, exterior and doubly-connected domains 12008
SiC, seeded Lely growth, cryst. macro-defects 5811
$YBa_2Cu_3O_x$, $Nd_{1+x}Ba_{2-x}Cu_3O_y$ seeded melt growth, levitation appl. 7249

domestic appliances
see also ovens; refrigerators
20 kW Vuilleumier heat pump, test programme results 28175
air conditioning, controllable induction micromotor 5395
central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
cooker rangehood oil-dirt removal, polymer paint/fuzzy air flow control *(Japanese)* 44615
distributive lighting control syst., Local Operating Network appl. 20122
doubly salient PM motor, commutation, design/anal. 11491
energy conservation pot., former USSR 28185
energy consumption, economic approach 44620
farmhouse power consumption limiters, methods and advantages *(Russian)* 4589
group geyser consumption patterns, single water heater and PC-based meas. and control syst. 4538
hot water supply, elec. heating energy savings 5381
HX-SE3h eat storage elec. fan heater *(Japanese)* 5392
impact on Mexican distrib. lines *(Spanish)* 20152
induction cooker, halogen lamp-based *(Japanese)* 44613
induction kitchen range, reson. power converter-based 36788
International Appliance Technical Conf., Madison, WI, USA (1994) 36908
mag. fields from appliances meas., coil probe dimens./uncertainties 3813

domestic appliances continued
- mechatronics fund., meas. sci. and technol. 9850
- microwave clothes dryer, fuzzy logic controls 5398
- miniature SMPS, domestic appliance appls. *(Japanese)* 44618
- multifn. single-phase PWM power supplies, residential appls. *(Japanese)* 27813
- μP fuzzy logic control technol. *(Japanese)* 44616
- overvoltages in power distrib. syst., effect on appliances 11492
- PC rem. control of appliances by telephone lines 41746
- portable appliances, human head model, mag. field-induced currents 43388
- quasi-reson. HF ZVS IGBT invertor, induction heating appls. 5087
- radio equipt., solar cell power supply tests 20151
- radio equipt. power supplies, solar cell-based 20150
- residential ASDs, simplified control scheme 5397
- residential energy demand sector restructuring, South Bohemia 26933
- residential energy use patterns survey, Philippines 35474
- residential fuel cell systs., elec. utility R&D projects, USA 44340
- residential heat pump air conditioning technols. 44608
- residential heat pumps, improper refrigerant charging expts. 28187
- rotor vibr. transm. prevention *(Japanese)* 11489
- uprating trends *(German)* 11490
- usability issues for buyers/users of home electronic products 36996
- vac. cleaner motors, small, lightweight *(Japanese)* 11488
- washing machine energy efficient brushless motor drive 5396
- SiC thin film thermistors, gas cooking hob appls. *(Japanese)* 42968

donor levels *see impurity states*

doping profiles
- 0.1 μm CMOS technol., tilt-implanted punchthrough stopper 13895
- 2D dopant profiling in VLSI devices, AFM study 30391
- 2D MOSFET doping profile, extraction via inverse modeling 13703
- 2D MOSFET simul., local NMOS mobility model, screened minority impurity scatt. 1412
- 3D semicond. proc. simul. for 1990s 38996
- 30 GHz bipolar transistors, laterally scaled, 18 ps ECL-gate delay 21548
- 600V punch-through-epilayer IGBTs for HVIC switching, cell design 30198
- deep-submicron MOSFET scaling study 38855
- δ-doping during MBE, impurity atom distrib. 13296
- DMOS transistors, drain doping anal., hump in leakage current 6758
- dual-collector magnetotransistors in SOI technol. 25790
- effective channel length in 0.1-μm MOSFETs 30351
- fully depleted SOI PMOSFETs, LF noise 1385
- GaAs:Si, deltalike impurity confine. 38256
- high-low emitter bipolar power transistor, characts. 22379
- IGBT and MCT struct., 2D dopant profiles 30280
- ion implant., neg. ion tandem high energy accelerators 30024
- IR photodetectors, 2-12 μm, high perform. near RT 17787
- KYOKO, 2D proc. and device simul. coupling, NMOS transistors 1419
- laminated semicond. struct., dopant profile control by IR spectrophotometry 38518
- LDMOS RESURF devices for HVIC switching, on-resist. modelling/improvement 30313
- low threshold voltage CMOS devices for 1 V appls., fab. 22585
- MESFETs, HF charact., self consistent 2D Monte Carlo simul. 13809
- Miller's approx. in advanced bipolar transistors 6740
- MOS I/O device degrad., ESD-induced disloc. 22605
- MOSFET, threshold voltage model, reverse short channel effect 30287
- MOSFET C-V charact. dispersion, random channel dopant ion distrib. 1393
- MOSFET hot-carrier aging, modeling, charge pumping methods 22444
- MOSFET threshold voltage fluct., stat. var. of channel dopant no. 1392
- n-MOSFETs, counter doped, mobility, reverse short channel effect 38873
- MOSFETs, profile doped elevated source/drain struct. 22422
- non-Fickian microscopic diffusion, interfaces and in SOI thin films 1174
- p-n jn. shift eval. by C-V method 21956
- planar devices, minority carrier diffusion length, direct meas. 13659
- planar p-n jn. termination, theoretical investig. 29888
- polysilicon, dyn. grain-growth and static clustering effects on dopant diffusion 1221
- polysilicon thin film doping, atmos. furnace 22138
- power VDMOSFETs, channel doping profile proc. design/optim. 30311
- pulse-doped diamond p-channel MESFET, fab. and characts. 13778
- radiation-hardened CMOS for cryogenic analog appls. 30447
- scaled CMOSFETs, implant. fab., elec. characts. 13879
- scanning surface harmonic microscopy 38491
- Schottky diodes, drift-diffusion theory of current dens. 6719
- SOI MOSFETs, threshold voltage sensit. reduction 30294
- sub-0.5 μm CMOS, shallow source/drain jn. technol. 1496
- submicron NMOSFET, transcond. enhancement, back bias 13746
- trench VDMOST struct. with no quasi-saturation, anal. 38897
- VDMOS devices, LV, on-resist. model 13761
- Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
- AlGaAs/GaAs multiemitter finger HBT, model, self-heating and thermal coupling effects 841
- AlGaAs-GaAs modulation-doped heterostructs., microwave I/V characts. 1075
- AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
- $Al_{0.60}In_{0.40}As$/GaInAs/InP single pulse doped HEMTs for Q-band power appls. 29566
- B polyemitter form., role of point defect sources 22381
- BPSG dielec. film fusion, steam reflow and RTA/furnace annealing 20997
- Cu surface/interface modif. for IC appls. 38647
- $CuInSe_2/SnO_2$, PV solar cell material 36605
- GaAs based cpds., Si diffusion, doping profile control and 2DEG form. 6627
- GaAs, δ-doping superlattices, pot. flucts., quantum effects 13167
- GaAs, dispersed semicond. particles, doping effects *(Korean)* 13263
- GaAs, n- and p-type, effect of ion energy on H diffusion 29861
- GaAs, open-tube impurity doping, spin-on silica films *(Japanese)* 22145
- GaAs power MESFET, MBE growth, 4.7 V operation, 900 MHz charact. *(Korean)* 38920
- GaAs:Si, decoration phenom. during planar doping, magnetoresist. effects 13285
- GaAs:Si, quantitat. anal., quadrupole-based SIMS *(Chinese)* 30053
- GaAs:Si(Be), low-temp. MBE, dopant effects 21917
- GaAs:Si,Be, periodically δ-doped, carrier lifetime meas. 21907
- GaAs/AlGaAs quantum wells, doping dens. and barrier lowering effect, IR detectors 23019
- GaAs/InGaAs two step doping channel FET, symmetric normally on/normally off characts. 38937
- GaAs-InGaAs δ-doped real-space transfer transistor 30367

doping profiles continued
- Ge ultrathin δ-layers in Si matrices, SIMS profiling 38241
- GeSi HBT, liq. He temp. operation 30249
- GeSi:P-Si pseudomorphic MBE films, RTA vs. steady-state furnace annealing 22095
- GeSi/Si bistable tunnel diode based SRAM cell 21311
- (Hg,Cd)Te:In, diffusion and elec. activity 6621
- $Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
- $In_{0.52}Al_{0.48}As$:Fe,Ti, compensation implants 13287
- $In_{0.53}Ga_{0.47}As$:C, metalorganic MBE, doping profiles, carrier dens. 28777
- InGaAs/InAlAs heterobarrier diodes, delta doping enhancement 30221
- InP:Fe, hydride-vap. phase epitaxial growth, FeP precip., anal. 20810
- InP: S(Sn)(Fe) substrates, scatt. defects, laser scanning tomography 13043
- InP:Sn, ion implant, RTA, anal. meas. 38465
- InP:Ti, compensation implants 13287
- InP/AlInAs/AuGe/Au HEMT struct., thermally stable ohmic contacts 30363
- InP/GaInAs HBTs, ultra high base doping, high emitter effic. 30248
- $LiNbO_3$ planar waveguide fab., Zn diffusion 39374
- PbSe:Bi films, amphoteric doping behavior 22146
- Si, 2D surface dopant profiling, scanning Kelvin probe microscopy 30018
- Si, B implants through SiO_2 films, implant. damage/anom. diffusion 13283
- Si MOSFETs, simul. by cellular automaton method 22431
- Si RTP temp. uniformity, crit. wafer/syst. param. anal. 22228
- Si bipolar transistors, optimized base design for low temp. operation *(Chinese)* 22378
- Si depth profiling, marker layers, ion beam sputtering anal., depth resoln. 21876
- Si, detector grade, bulk defects, radiation damage 43105
- Si, dispersed semicond. particles, doping effects *(Korean)* 13263
- Si, dopant profile, scanning surface harmonic microscopy 1223
- Si epitaxial multilayers, auto-doping phenom. *(Chinese)* 22141
- Si films, ion beam epitaxy, UHV, sputtering-type metal ion source 37405
- Si, implanted impurity diffusion, simul. 22120
- Si shallow-jn. form., RTA doped SOG films 21964
- Si, subsurface diffused layers, resist. curves 13037
- Si varactor struct., DLTS study of deep traps 38052
- Si wafer, P doping, P_xO_y conc. profile model 1215
- Si wafer surface minority carrier lifetime meas. tech. 30388
- Si:Al,P, diffusion profiles under RTP conditions 21875
- Si:As, deeply-channeled implanted profiles, Monte Carlo simul. 1220
- Si:As single-cryst., deeply-channeled implanted profiles simul. 30023
- Si:Au, mega-electron volt implant., backscatt. and electron microscopy study 6626
- Si:B, MeV implant., masking effects 30040
- Si:B, δ-doping, APCVD 22112
- Si:B, δ-doping, ultra-shallow/abrupt profiles 38499
- Si:B depth profile, proton scatt. anal., alpha spectra simul. 21877
- Si:B doping, proximity rapid thermal diffusion from spin-on-dopants 22144
- Si:B, enhanced diffusion due to ion implant. in thin-base npn BJTs, model 38997
- Si:B, epitaxy, B incorporation 12101
- Si:B, form./control of B buried layers, excimer laser 13291
- Si:B, implanted impurities, misfit elastic stress, simul. 13307
- Si:B reson. sens., fine freq. tuning 30517
- Si:B^+,N^+, dual implant. depth distrib., radiation defects 22136
- Si:B(P), ion-implanted, sheet resist. and noise props. 38232
- Si:B(P), low-energy implant., RTA/furnace annealing, XRD optimisation 22102
- Si:B,O, heavily doped, interstitial O conc., neutron irrad./FTIR anal. *(English)* 6612
- a-Si:H plasma CVD films, H profile, DC bias/substr. table area effects *(Japanese)* 20966
- Si:In, LED, porous Si device, enhanced blue light emission 1818
- Si:In, MBE doping kinetics, rate eqn. model 1211
- Si:N, plasma ion implant., depth profiles 6615
- Si:P, 2D dopant profile meas., scanning capacitance microscopy 13309
- Si:P, elec. act. P profile, thermal oxid. 6624
- a-Si:P/Si, shallow jn. form., diffusion from spike-doped CVD amorph. layer 38514
- Si/Si_xGe_{1-x}/Si HBT with δ-doped base, multistep charact. 38845
- Si-SiGe p-MOSFETs, optimised Ge channel profiles 22434
- SiC:Ga^+, defect prod., annealing 22105
- SiC:N,Al,B, CVD, unintentional contaminants incorporation 20901
- SiC/SiO_2/Al struct., elevated temps., HF capacitance relax. features 13230
- SiGe HBTs, output conductance anoms., modelling 22389
- SiGe:B(P)-Si strained heterostruct., RTP/very LPCVD growth, in-situ doping 20844
- $Si_{1-x}Ge_x$/Si HBT model 22382
- SiO_2 1.5 μm thick films, rapid nitridation in NH_3 ambient, SIMS study 13328
- SiO_2:N thin films, grown/processed in N_2O, N depth profiles 38524
- SiON:Er,Yb low-loss waveguides, deep implant codoping 39439
- $Sm_2Fe_{17}N_x$ with discontinuous nitrogen profiles, mag. props. 39203
- ZnO:Ga varistor, grain boundary, Ga donor doping 6345
- ZnS:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
- ZnSSe:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
- n-ZnSe:Cl, doping characts. 21921
- ZnSe:N, N-doping effects 38508
- p-ZnSe:N, doping characts. 21921
- ZnSe:Te,N, N-doping effects 38508

doping, semiconductors *see semiconductor doping*

Doppler broadening
- *see also Doppler shift*
- FIR gas lasers, bi-directional pumping, Lamb-dip line shape 31170
- laser ring resonators with Doppler-broadened act. medium, natural oscill. calcs. 31452
- positron Doppler broadening meas., LINAC-based slow positron beam 26083
- Al/GaAs, interface annealing studies, variable energy positron beam 22041
- Au/GaAs, interface annealing studies, variable energy positron beam 22041
- HPGe detect. with BGO shield, high energy γ-rays resp. 10114
- Si, float-zone grown/NTD, positron annihilation obs. 38470

Doppler effect
- *see also Doppler broadening; Doppler measurement; Doppler shift*
- 2D spectrum estim. method for bearings and Doppler freq. determ. 16027
- atmos., radar interferometric techs. and vol. scatter 35306
- AUV positioning/guidance, acoustic differential delay/Doppler tracking 25601

Doppler effect continued
Bayesian techs. for rapidly fading channels equalization 3436
blind clustering equalizer for digital mobile radio channels 3432
cellular systs., handoffs, adaptive averaging 25341
code sync., principles/techs., review 25236
cyclotron autoresonance klystron operating, Doppler-shifted harmonics 29790
delay locked loop, Doppler and data modulation effects 32036
digital Doppler companding, canonical decomp. algm. 40883
digital mobile commun., adaptive Rayleigh fading compensation for coherent GMSK sigs. 3433
diversity reception, vel. estim. 3454
EM waves, Doppler/aberrational effects in dispersive medium 2243
generalized inverses in sig. proc./rem. sens. 8344
high intens. particle beam, distant source accel. 34860
ionos. sig., stochastic props. of phase derivative 32594
land mobile satellite commun. systs., field strength prediction *(English)* 42222
LEO satellites, PN code acquisition schemes 33951
microwave imaging, Doppler tomography approach 24412
microwave sens. SMX-1, motion meas. 34470
multi-carrier CDMA modem design 9220
noncoherent second-order delay lock loop optimal design 41389
pulse compression, neural nets appl. 9632
radar detect., super noncoherent integrat. 17363
Rayleigh fading channel, adaptive diversity receiver, error probab. 25263
ring trap for freq. std. appl. *(Japanese)* 42662
sonar navig., matrix algm. 34170
spherical acoustic objs. in motion, ident. 34167
TCM/M-PSK, trellis-coded M-ary PSK for digital land mobile commun. *(Korean)* 17045
vehicle-to-vehicle commun. for AVCS platooning 5354
weak narrowband sigs., estim. and HMM tracking 40972
wideband all-digital PLL design with multirate digital filter banks 37674
wideband radio channel time vars., random receiver movements 33848
wideband sigs., time delay/Doppler stretch estim. 40836

Doppler lidar *see Doppler radar; optical radar*

Doppler measurement
see also Doppler radar
3D TDM LDA 18151
act. airborne sonar target tracking 34172
automotive alarm syst. 20112
autonomous underwater vehicle navig., sparse ref. points 34171
cardiac physiological/US data, simultaneous acquisition/proc. syst. 35031
continuous Doppler ultrasound, parametric/nonparametric spectral estim. 26319
Doppler estimators perform. losses, noise/equivocation effects 10561
fiber optic non-contact accelerometer 34530
fibre optic laser Doppler velocimeter, coherence dependence 26014
foetal activity, Doppler US sigs., real-time proc. 10183
heterodyne transducer for laser velocimeter, metrological charact. 3809
Ka-band mm-wave radar transceiver assembly, common waveguide cavity design *(Chinese)* 25578
laser Doppler airflow velocimeter, receiving antenna sig. estim. 4020
laser Doppler anemometer for turbulent Reynolds stresses meas. 10032
laser Doppler global velocimetry for vortical flow fields 4023
laser-induced surface hydrodynamic procs., Doppler backscattered-sig. diagnostics 42981
med. US waveform index eval., electronic injection phantom 18523
microcirculation, laser Doppler monitoring, emergency radio call syst. *(German)* 10174
microwave front end for automotive true ground speed meas. 28152
neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
paper sheet no. meas., microwave counter 3983
particle sizing by planar-phase Doppler syst. 34692
pass. Doppler-bearing tracking, pseudo-lin. estimator 40887
radar systs. of LDV, detect. devices 3771
radiocommunications medium, novel study 17117
relative airflow velocities, CO_2 lasers appl. 4019
shock-absorpt., act.-pass., and gravimetric obs. 3991
superposed flow between contrarotating discs, LDA 18145
turbulent liq. channel flow, LDV 18144
two-phase flows, LDA, integral effects 4015
US blood vel. meas. syst. beyond Nyquist limit 35006
US sigs., predictive ADC 35004
vortex breakdown location flucts., vel. meas., flow visualisation 18149

Doppler radar
2 μm LIDAR for laser-based rem. sens. 26552
3-D holographic DP and wavelength readout for range-doppler-angle radar, SAR 9640
42 GHz bistatic Doppler radar for wind/fog/precip. meas. 18835
advanced SS radar, acousto-optic range-Doppler proc. 18988
airborne antenna testing, Indoor Doppler Antenna Test Range 35217
airborne CW Doppler lidar, wind field meas. 26726
airborne pulse Doppler radar, pulse compression proc. implement. 10368
airborne radar clutter suppression, adaptive antenna proc. 25559
autonomous underwater vehicle navig., sparse ref. points 34171
bistatic dual-Doppler radar, 3D vector wind retrieval 10482
coherent laser radar, spectral matched filters 3621
coherent laser radar with diffuse/aerosol targets, heterodyne efficiency 3620
CW radar, wt. effects on periodic ambiguity fn. 34115
Delft FM-CW radar, Doppler-polarimetric research *(English)* 3612
DS-SS systs., periodical seqs., Doppler mismatched filters 33752
dual-beam flat antenna, grating structs. on dielec. waveguide 40465
dyn. simul. of Doppler spectra of targets, rot. parts 17398
ELDORA/ASTRAIA airborne X-band Doppler weather radar 10483
forward-looking radar reconstruction, long-wavelength holography 17397
freq. control requirements of radar 42521
HF receiver for Doppler studies, design and fab. 42525
hydrol. radar DP systs. design 35353
IF spectrum, range correl. and LO phase noise effects 34140
LDV, detect. devices 3771
lidar profiles, deconvolved, pulse-shape uncertainty effect on accuracy 25587
LIDAR wide-band Doppler detect. tech. 42530
look-down radars, carrier-free sig. design 35388
massively parallel sig. proc. archit. based on response of retina cells 32824
mesoscale convective systs. anal., synthetic dual-Doppler tech. 18823
meteorological doppler radar syst. for airports *(Japanese)* 10409

Doppler radar continued
meteorological radar, IEE Colloquium, London (1995) 28266
multiphase complementary pulse compression codes *(Chinese)* 9627
narrow-/broadband polarimetric radars, signatures/sig. proc. 42499
nonuniform repetition interval pulse-Doppler radar 34137
ocean surface currents meas., HF ground wave radar 10556
ocean wave directional spectra, focussed array radar method 43523
on-platform radar and opt. track fusion 9647
optimised compression filters 34125
pulse compression, neural nets appl. 9632
pulse-Doppler radar data secondary proc. syst., false blips flux dens. 17378
pulsed coherent Doppler lidar with opt. amp., heterodyne detect. 3622
radar imaging, automatic estim. and compensation of target kinematics 17392
radar target recogn. schemes, neural networks 34157
RADOBS, intrusion detect. sens., environ. effects reduction 42520
road vehicle 24 GHz dual channel microwave front-end 11444
road vehicle Radar Speed Monitoring System 42511
S-band Doppler radar for tropical precip. charact. meas. 35330
SAR, nonuniform pulse repetition interval 34133
single-transmitter bistatic dual-Doppler radar network 18819
sodar, atmos. wind meas. 18832
spaced-antenna radar meas. for winds study 43514
spatial-Doppler coherent proc. channel, quantization noise estim. 34121
spatial-Doppler filter, projection method, calculate weighted coeff. vector 42492
super-resoln. range-Doppler imaging 25556
target image synthesis by math. simul. of Doppler portrait 17380
ultra-wideband or short-pulse radar, time-domain imaging 42487
ultrawideband radar, tech. issues 42516
urban radiowave propag., IEE Colloquium, London (1994) 5480
weather radar, av. wind vel. meas., mean Doppler freq. estim. 43515
weather radar polarimetry, path integrated differential phase shift 43517
CO_2 coherent lidars for measuring wind vel. /atmos. turbulence 3628
CO_2 pulsed TE laser radar, freq. spectral meas. 3618
HgCdTe varactor photodetectors for space-borne wind lidar, heterodyne tech. 34162

Doppler shift
see also Doppler broadening
2 GHz radio propag. for local loop appls. 33844
binary CPM-DPD, diversity in Rician fading channels 32042
blind adaptive array simul. for realistic mobile channel 33795
digital pulse compression radar systs., polyphase spreading codes 25570
digital radio, spectrum phase interpolation, detect. tech. 9381
digital transm. over degraded channels, coded modulation 8103
Earth satellite commun. systs. with low orbits, Doppler shift effects 17146
FADOF filter for space borne opt. commun., Doppler shift compensation 17325
four-wave mixing mirror response, spectrally broadened sig. beam 40088
freq. up-shifted gyrodevices, cyclotron harmonics vs. CARM's 6486
Galileo entry probe tracking, Jupiter wind profiles determ. 42337
HF sigs. scatt. by artificial ionos. turbulence, Doppler shift 40342
hydroacoustic commun. channel, Doppler scatt. adapted reception 42476
IR FEL, down-shifted freq. pumping 39888
large scale sewer US flow vel. meas. 42992
millimetre wave radar imaging 17412
noncoherent second-order delay lock loop optimal design 41389
nonstationary turbulent atm. EM wave scatt. spectra *(Russian)* 15421
quadrature component generation anal., narrow-band oscills., delay method 40766
quasi-opt. Doppler freq. shift device 37951
radiocommunications medium, novel study 17117
radioelectronic landing syst., aircraft ang. coord. determ. 18711
robust mobile satellite CDMA syst. 42303
sonar echo from moving target in ocean waveguide, simul. 34169
Stark anom. dispersion opt. filter for doubled Nd:YLF lasers 14575
underwater commun., self-optimized adaptive algm., equalization *(French)* 25592
whistler-mode sigs. from LF Decca transmitter, propag. charact. *(Japanese)* 40346
Wigner distribution of complex spreading sequences 9188
Cs beam freq. std., vel. distribs. determ. 42666
HgCdTe varactor photodetectors for space-borne wind lidar, heterodyne tech. 34162

dosemeters *see dosimeters*

dosimeters
see also dosimetry; thermoluminescent dosimeters
alanine dosimeter for γ-ray meas., props., ESR spectrosc. 26504
bactericidal radiation, gas-discharge sources, dosimeters 26305
Bonner sphere response matrices, perform. comparison 18679
CR-39 dosemeter, wide-range neutron dose determ. 43395
CR-39 track detector, multi-field eval., pass. pers. dosemeter 10134
diamond, synthetic, X-ray study, dosimeter appl. 43404
Eberline RO-2 ion chamber, β skin dose monitor 18629
Eberline RO-2 ion chambers used beta radiation skin-dose monitors 4342
free-radical dosimeters, mailing dosimetry, γ/e^- dose intercomparison 35203
gamma-ray radiation dosimetry, Zener diodes 43137
hydrogenous material for sensitizing pMOS dosimeters, neutrons 26496
intestinal biopsy, children, coeliac disease, radiation dose/risk 18672
ionisation chambers, general ion recomb., diagnostic radiology 26358
liq. ionisation chambers, low-dose-rate brachytherapy appl. 43410
micromechanical UV radiation dosimeter 43391
MOSFET miniature radiation dosimeter probe 10298
neutron dosimeter develop., CR-39 detector 26495
parallel-plate chambers, calib. methods comparison 18631
PCS opt. fiber for dose level sens. appl. 17892
photographic films, dosimeters survey, interventional radiology 43402
PMOS dosimeter, fading, gate bias/oxide thickness depend. 18632
pMOS dosimeters, energy depend., package geom. effects 26497
pMOS dosimeters, sensit. increase, stacked RADFET approach 26498
precision dens. meter for film dosimeters 34911
radiation protection meas. techs., recent develop. *(German)* 26501
radiation sens., fiber-optic-based, ionizing radiation det. 26503
room-return neutron spectra determ. 4341
sealed water calorimeter for measuring absorbed dose 4343
UVSC photochromic dosimeter film for x-ray lithog. source eval. 6693
Ge, spectrometer, in situ gamma ray dosemeter 43397
Si-SiO_2 MOS transistor, ionizing radiation dosimetry 43405

dosimetry
see also dosimeters; radiation detection; radiation monitoring
1-MeV equiv. neutron fluence estim. from dosimetry responses 18372
abdominal radiology, effective dose estim. methods 18654
absorbed dose, ionizing radiation, water unit realisation 34312
antiscatter grids design optimisation, computer modelling 18651
APS SR beam lines, shielding 10290
Bonner sphere response matrices, perform. comparison 18679
Borssele PWR, radiation protection experience 27364
cardiac angiography, patient exposures, data anal. 18520
cardiac angiography, radiation exposure, personnel 18668
cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
Chernobyl, contaminated territories, dosimetric criteria, Urals 35358
Chernobyl accident, 30-km zone, emergency countermeasures effectiveness 4339
Chernobyl fallout, external γ-dose rates, Belarus 35354
chest radiography, children, dose distrib. 18673
chest radiography, effective doses, different techs. 18655
chest radiography, image quality assess., West Midlands 18491
chest radiography, patient dosimetry 18669
coal-fired power plants, radiological impact, dose assess. 4345
committed effective dose equiv., US NRC guide calcs. 4338
computed tomographic exams., children, organ doses 18659
computed tomography, dose profile/index anal. 18658
computed tomography, Dutch hospitals, patient dose, image quality 18645
computed tomography, QC, image quality criteria 18483
computed tomography dose assess., practical approach 18656
computed tomography practice, Sweden, QC, techs., patient dose 18519
conference, radiation meas./appls., Ann Arbor, USA (May 1994) 5488
contaminated wounds, Pu/Am assess., semicond. detectors 35202
coronary angiography, radiologists/patients radiation risk 18674
CR-39 dosemeter, wide-range neutron dose determ. 43395
crit. accident dosimetry, CRISIS, KBS 35196
CT exams., meas./calc. organ doses comparison 18657
diagnostic radiographic images, quality criteria, 1991 CEC trial 18481
diagnostic radiology, grid design optimisation 18494
diagnostic radiology, image quality, patient dose 18490
diagnostic radiology, QA, IEC projects/achievements 18479
diagnostic radiology, radiation doses reduction, IAEA-CEC research programme 18643
diagnostic radiology equipt., tube current calib., noninvasive method 18497
diagnostic radiology optimisation programme, Madrid area 18501
diamond, synthetic, radiophotoluminesc., dosimetry 43403
digital fluoroscopy systs., patients, radiation exposure 18521
digital imaging, image quality anal., std. tools 18485
digital radiography, image quality criteria 18484
discrete radioact. particles, nuc. indust. experience 43842
dose-area product, body doses 18653
Dosicard, indiv. dosimetry syst., on-site eval. 43394
effective dose estim. in diagnostic radiology 26510
electron storage rings, gas bremsstrahlung, photon-neutron shielding 26506
ELF-microwave radiation dosimetry num. methods 35186
embryo, fetus or nursing child, protection from radiation exposure 26509
environ. dosemeters, ninth internat. miniintercomparison 43392
European LWRs, occupational radiation exposure 1981-1991 35745
fibre optic sens. for radiation dosimetry 18678
film-screen mammography, patient doses, radiation risks, Finland 18518
fluoroscopic imaging, automatic exposure control 26298
fluoroscopy equipt. write-off, patient dose, image quality 26295
gas bremsstrahlung evals. for Φ-Factory, adsorbed dose 35198
gastrointestinal tract, radiological exams., skin absorbed dose 18675
Hiroshima/Nagasaki, posteriori track recorder neutron dosimetry 10295
intensive care unit, radiological activity, patient/worker exposure 18665
internal dose, dosimetric/biokinetic models 35194
interventional radiology, occupational exposure, pers. dosimetry guidance 10297
intestinal biopsy, children, coeliac disease, radiation dose/risk 18672
IRPA regional congress, Portsmouth, UK (1994) 11566
laser appls. in med., conf., Budapest, Hungary (1993) 20211
laser-tissue interaction, conf., Lille, France (1994) 20265
low energy X-ray radiation source calib., dosimetry 18415
lumbar spine exam., lateral lumbosacral projection, patient doses 18666
lumbar spine radiographs, entrance surface doses comparison 18517
mailing dosimetry, free-radical dosimeters, γ/e^- dose intercomparison 35203
mammography, air kerma/glandular tissue dose conversion factors 18660
mammography, breast doses reduction, recommended actions, Madrid 18667
mammography, dose meas. protocols comparison 18661
mammography, mean glandular dose estim. 18662
mammography, QA, patient dosimetry 18647
mammography, QC, exposure params. automatic acquisition 18649
mammography, QC instrum., in-field testing 18496
mammography, QC project, Greece 18510
mammography exposure std., free-air ionization chamber design 43212
mammography image quality, UK survey 18489
mammography image quality improvement, recommended actions 18488
mammography screening programme, pop. radiation dose, New Zealand 18671
med. exam./treatment, ionising radiation, patient dose reduction 18638
med. radiation exposures, UNSCEAR data collections, trends/consequences 18642
med. radiography screen-film systs., speed determ. 26296
med. X-ray diagnostic units, QA programme, Belgium 18506
microwave appls. in medicine, colloquium, London, UK (1995) 28227
mobile X-ray equipt., QA programme 26285
monitored atmos. releases, radiological assess. codes benchmarking 4344
multiscan/fast ring CT systs., image quality, dose 18646
national patient dose meas. protocols, ICRU investig. 18516
nuc. med., conf., Orlando, FL, USA (1994) 20218
nuc. med., urinary nuclides excretion, pharmacokinetics model 18663
nuclear and space radiation effects, conf., Tucson (1994) 5489
occupational exposure to opt. radiation, elec. and mag. fields 26489
paediatric fluoroscopy, radiation dose reduction by added filtration 35050
paediatric radiology, QA evol. 18482
patient dose, bone mass/dens., radiation measuring instrums. 35199
patient dose, image quality, United States experience 18644
patient dose, rational reduction, WHO activities 18637
patient dose meas./reduction, East Anglia (UK) 18670
patient dose protocols/trends, UK 18652
photodynamic therapy conf., Los Angeles, CA, USA (1994) 5464
photon fluence spectra determ., NPL Mobaltron ^{60}Co unit 26508

dosimetry continued
photoneutrons from med. LINAC, spectrum/dose meas. 43409
photothermal therapy of vascular lesions and cancer 35149
pop. radiation absorbed dose, diagnostic nuc. med., Iran 43399
primary dental care, radiology stds. guidelines 10219
radiochemical plant personnel, ^{241}Am excretion, urine 35200
radiographic automatic exposure control syst., perform. optimisation 26284
radioimmunotherapy dose meas., miniature MOSFET dosimeter probe 35195
radiological investigs., probab. methods 35201
radiotherapy, multileaf collimator, commercial, dosimetric characts. 35204
radiotherapy, portal imaging, exit dosimetry/QC meas. 43408
skin hemangioma radiotherapy, infancy, thyroid cancer risk 10264
std. breast dose estim., perspex block thickness 26502
thermolum. dosimetry, med. appls., phys., materials, equipt. 43406
TLD dose meas. precision, automatic TLD reader 26499
TLD element readings, mixed field dosimetry algm. sensitivity 35197
UV radiation hazards, conf., Los Angeles, CA, USA (1994) 11572
Varian 600C LINAC, dosimetric methods comparison 43411
Varian LINAC, dyn. wedges, beam data meas. 35148
VDT, VLF meas., user dose assess. protocols 43401
wavelength shifter, scintillator, dose rate 26218
Wiener spectra meas., digital systs. 26299
X-ray computed tomography, med. exposure source 18664
X-ray exams., Estonia hospitals, QC, patient dose 18503
X-ray spectral energy distrib./flux dens. meas. 18414
Ge, spectrometer, in situ gamma ray dosemeter 43397
H_2, tissue equiv. proportional counter, radiation protection microdosimetry 43393
^{125}I brachytherapy sources, air kerma rate meas. 26466
^{226}Ra treatment, skin hemangiomas, children, organs absorbed dose 10292
^{222}Rn gas, low-emanating materials, sensitive effluent method 18630
^{222}Rn progeny inhalation dose, Japanese NPP 18677
Si photodiode, X/γ-ray detector 43163
Si photodiode, X-ray lithog. dosimetry 13567
Si solid-state microdosimeter for radiation monitoring in spacecraft/avionics 18636
a-Si:H/CsI(Tl) X-ray detectors for radiation monitoring 43161
^{90}Y bremsstrahlung quantitation, planar gamma camera imaging 10262

dot matrix printers *see matrix printers*

double heterostructure lasers *see semiconductor lasers*

double refraction *see birefringence*

double refraction, electric *see electro-optical effects*

double refraction, magnetic *see magneto-optical effects*

doublet antennas *see dipole antennas*

DP industry
Australia and Asian countries, commun. and IT appl. 3011
corporate commun. in cyberspace via Internet, rhetorical dyn. 33577
corporate struct., R&D and incentives *(English, French)* 41581
European telecomms., towards more dyn. *(German)* 33322
IBM Microelectronics, MLC packaging plant 11762
indust. and academic protocol testing, comparison 33250
inform. marketplace, competition, telecom innovation 8803
Internet, electronic payments 24965
multimedia, impact on indust. 33659
optoelectronics, market outlook 7452
Silicon Glen, Scottish electronics indust. 37215
syst. test cost modelling, event rate anal. 5587
technols., recent progress *(Chinese)* 5723
Vobis Microcomputer AG internat. ISDN *(German)* 41922
World-Wide Web server, Digital Equipment Corp. 8896

DP management
see also auditing; capacity management (computers); computer evaluation; computer installation; contracts; cryptography; data privacy; resource allocation; security of data; software management; software selection
desktop assets mgt. 41699
intangible benefits appraisal from IT investment 41737
Internet project for 100000 users in Thailand 41777
NetWare security, guide for network managers 41687
networking for learning, Newham Community College Library 8977
PC network mgt., are vendors meeting user needs 41688
PTT Telecom BV, IT investment eval., policy and practice 41595
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824

DPCM *see differential pulse code modulation*

DPSK *see differential phase shift keying*

DQDB *see access protocols; metropolitan area networks*

DRAM chips
1 Gbit DRAM cell, diagonal bit-line config. 21323
1 Gbit DRAM prod., ion projector, crit. design params. 38760
3D computer graphics media chip, single-chip archit. 12556
4-Mbit sync. DRAM for multimedia eqpt. *(Japanese)* 21298
16 Gbit DRAM, 2D power-line selection, subthreshold current reduction 29231
16 MB DRAM trench depth charactn., dome scatterometry 29225
32 ns 64 Mb DRAM, extended second metal line archit. 29233
64 Mbit DRAM fab., SR X-ray lithog. 13528
64 Mbit DRAM mfr. *(German)* 29229
256Mb/1Gb DRAM develop. implications, Japanese semicond. indust. 11717
1995 forecast for solid-state technol. 30389
Al-reflow proc., 256 Mbit DRAM appl. 22261
cache DRAM testing, 256k word x 16 bit 6144
channel demodulator IC for DAB, design, silicon compiler 21155
CMOS 16 Mbit DRAMs for mass memory appls., space radiation eval. 12527
CMOS 64 Mbit DRAM, design, fab., packaging, perform. 37778
CMOS delay-locked loop for 18 Mbit, 500 Mbyte/s DRAM 6155
CMOS DRAM based TV ccts. 9706
CMOS DRAM sense amp. designs for improved SEU perform. 12517
CMOS RAM test complexity reduction, I_{DDQ} and voltage testing 37776
crit./noncritical stepper mixing, lithog., IC manufacture 13440
deep UV phase shifted-single layer halftone reticles, 256 Mbit DRAM cell patterns 13556
die-level-burn-in, temporary carriers comparison 21672
double-sided rugged poly-Si technol. for high dens. DRAMs 29230
dyn. of DRAM technol., design options 21318
EDRAM test methods, verification 6146

DRAM chips continued
- electron beam lithog., cell projection, proximity effect correction 22286
- electron beam lithog., character projection data conversion syst. 22283
- electron-beam cell projection lithog., accuracy and throughput 13449
- EUV lithog., resist pattern flucts. 22313
- failure anal., EB tester voltage contrast image 21317
- ferroelec. memories and DRAM develop. 12547
- FPGA memory controller for linking embedded μP, cache enhanced DRAM 29213
- high dens. DRAM, automatic failure anal. 6151
- high dens. DRAMs, elec. failure anal. 37757
- high speed DRAMs testing 6145
- high speed sync. DRAMs, testing issues 6147
- high-bandwidth DRAM testing, 500MHz interface 6150
- high-speed I/O interface ccts. for memory bus appl. 12505
- high-speed low-power high-dens. 64-Mbit DRAM 21299
- highly-scaled DRAMs, radiation effects study 12535
- IEDM 1994 conf. on IC and electron devices 652
- image sens., smart, custom, develops. 17962
- interplan. satellites, solar particle event models 18716
- ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
- lead on chip plastic package adhesive tapes 11800
- LOCOS isolation technol. for 256 Mbit DRAM 22609
- low-power RAM cct. technol. trends 37779
- LV multi-bit DRAM cell, built-in gain stage 29232
- mask defect inspection, database comparison 22302
- MCM product, computer building block, design and test 21697
- mfg., cluster tools 30436
- MOS capacitors/FETs stress-induced current in nitride/oxidized nitride thin films 6589
- MPC105 PCI bridge/memory controller 37786
- MPEG2 codec, video DSP archit. 33699
- multiple-registered DRAM for low-cost 2 MB/chip secondary cache, 180 MHz 29221
- multiprogramming environ., perform. eval. *(Korean)* 21325
- opt. lithog., annular pupil filtering, mask modif. 12541
- parallelism for cct simul., tearing approach 21026
- partially depleted SOI CMOS ccts., dyn. floating-body instabilities 22589
- pass transistor designs for 256 Mbit DRAM 21302
- phase-shifting lithog., duty ratio of line and space, DRAM chips 30161
- phase-shifting masks, design, compactor 13548
- poly-Si/Ta_2O_5/TiN capacitors for DRAM appls., thermal stabil. 21316
- polysilicon DRAM cell capacitors, Si_3N_4 dielec. films, RTP 22069
- proton SEU rates in space compared to rates meas. on CRRES satellite, DRAMs 12532
- proximity X-ray lithog. towards sub-100 nm domain 38766
- radiation hardening, dummy cell concept 37772
- radiation sens. appl. employing SEU 18316
- radiation-induced errors, SIL memory module 6822
- reliable 256 Mbit/1 Gbit DRAMs, mfg. proc. technol. 21322
- SALOT, self-aligned LOCOS/trench combination isolation, chem. mech. polishing 21329
- scaled DRAMs, α-particle-induced soft errors 21320
- SEU tolerant DRAM cell technol. 12518
- single event hard errors in DRAMs 12519
- stacked capacitor half-micron ferroelec. NVDRAM memory cell 21330
- superthin ONO stacked dielec. high-dens. memory devices 1503
- sync. DRAM, 4-/16-Mbit, for high-speed image proc. 12542
- TiCa, timing capture tool for design/test generation of digital ICs 37683
- triple dens. DRAM cell, Si SEG channel and NAND-struct. 21321
- ULSI thin-film DRAMs, electrode-dielec. interface 29227
- variable precharge voltage sens. 12515
- VLSI, future technol./economic prospects 38965
- wafer flatness control, stepper chucks 38966
- B-implanted layer, carrier suppression, soft error reduction 22108
- (Ba,Sr)TiO_2, chem. vap. deposition, DRAM appls. 12163
- PLZT ferroelec. thin film capacitors, DRAMs, polariz. loss, elec. stress params. 37752
- PLZT thin film capacitors, CMOS ULSI DRAM appls., post proc. damage 21310
- PZT films by MOD technol. for nonvolatile memory and DRAM appls. 13999
- Si ULSI device fab., wafer specs./design rules trends 38982
- Si devices, proc./manufacture, 0.25 μm technol., trends 6814
- Si hemispherical-grained storage electrodes for high-dens. DRAMs 12544
- Si scaled submicron ultra-low power CMOS technol. 39008
- Si:P(B)(As) VLSI submicron jns., proximity rapid thermal diffusion 6625
- Si_3N_4 ultrathin capacitors for advanced DRAM cells, in-situ multiprocessing 21589
- $SrTiO_3$ film DRAM stacked capacitor technol., MOCVD fab. 21592
- Ta_2O_5 MIM-CROWN cell and proc. technols. for 1 Gbit DRAMs 21335
- Ta_2O_5 films, DRAMs, leakage currents and defect states 39038
- Ta_2O_5 thin film capacitor for giga-bit DRAMs, low-temp. integrated proc. 21594
- Ta_2O_5 thin film capacitors for 1 Gbit DRAM 21593
- $Ta_2O_5(TiO_2)$ LPCVD DRAM storage dielec. film, leakage current reduction, RTA 22094

drawability *see ductility*

drawing (mechanical)
- conference, materials processing, Singapore (1994) 20244
- fiber drawing induced opt. losses, fluorine's effect 7291
- opt. fibers, ellipt., single-filament, interferometric meas. during continuous drawing 39367
- polyimides, low dielec. const., opt. props./orient. effects 12209
- Porta Systems opt. fiber cable splitters, CIM 14400
- rare earth doped fibres, metallic coated, fluoresc. decay-time vars. 39359
- sapphire fibers rapid drawing, LHPG 7334
- scanning opt. microscope near-field fibre probes fab. and charactn. 30870
- P_2O_5-SiO_2 core single-mode fiber drawing, low Rayleigh-scatt. loss 7292

drift chambers
- AMY Vertex Detector, design, beam tests, calibr., fate 34897
- cylindrical drift chamber, 3D data output 34907
- double beta decay meas., prototype tracking detector, NEMO 26124
- FINUDA, tracking device, DAΦNE, high resoln. spectrosc. 4195
- HADES, proposed dilepton spectrometer, design, perform. 34959
- induction drift chamber for COSY, high rate effects *(German)* 43063
- KEDR tagging syst. for two-photon phys., VEPP-4M 34924

drift chambers continued
- L3 Muon Chamber, N_2 contamination effects in mag. fields 10117
- L3 muon drift chambers, spatial resol./induction-crosstalk, cosmic rays 26233
- large area Xe drift chambers for high energy gamma-ray astrophys. 4199
- radiative muon capture spectrometer, TRIUMF 34964
- SDC detector, muon drift tubes, cosmic ray tests 4167
- SLC/SLD, lin. collider expt. experience 34842
- VENUS vertex chamber, heat input from TRISTAN beams *(Japanese)* 34951
- VENUS vertex chamber, status, phys. 34896
- wire tension determ., front-end electronics use 26163
- He-based gas mixtures, drift chambers operation 4166
- Si drift chamber, high-resoln. X-ray spectrosc. 26254

drift waves (plasma) *see plasma drift waves*

drilling (machining) *see machining*

driver circuits
- 3D power cct. package for aircraft appls. 26687
- 10.4″ TFT-LCD module for 16.7 million color XGA *(Japanese)* 34636
- 10 kW DC/DC PWM ZVS bipolar SIT-based power converter 19830
- 32 ns 64 Mb DRAM, extended second metal line archit. 29233
- 400 V/10 A matrix power converter, induction motor drive appls. 19811
- ASIC, Conf., Rochester, USA (1993) 36858
- automobile electronic fuel injection, quad injector driver power IC 36777
- automotive engine mgt. syst., electronic ignition 36771
- automotive ICs, dedicated protective fns. 36765
- bridge cct. IGBTs, gate drive methods 6013
- capacitively coupled driving method for TFT-LCDs 18003
- CMOS 248 Mb/s transimped. amp. and 155 Mb/s LED driver for fiber links 9543
- CMOS cell embedded SRAM technol. 21297
- CMOS driven, center tap terminated network in shared bus design, optimisation 11769
- CMOS driver loading conditions rel., simultaneous switching noise 6864
- COG, COG technol. for LCD driver LSIs, resin and flexible metal bumps 134
- COG photosensitive adhesive resin interconnection technol., LCD driver LSIs *(Japanese)* 953
- consumer VCR, moving coil actuators, dyn. tracking syst. 17581
- controlled refl. design in high speed digital computers 21175
- coupled transient simul. of ccts. and 3D packaging, algos. 21070
- coupled transient simul. of ccts. and 3D packaging, algms. 11808
- Crossatron-based modulator for plasma discharges 12382
- cryo-electronics opt. readout. LD appl. 29132
- current-source parallel-reson. DC/DC converter 36335
- Darlington transistor inverter, 99.3% efficiency 19743
- DMT-based ADSL systs., clipping effect anal. 9088
- electronic lamp starter driver IC *(German)* 28160
- Fuji Electric IGBT intell. power module products 21118
- Fujitsu 21-inch color plasma display and electronics *(Japanese)* 25918
- ground recirculation parasitics in power ICs, protect. tech. *(English)* 30419
- GTO gate-drive, power supply optimisation 11109
- GTO thyristors, gate drive cct., high speed operation 29021
- high power FET/IGBT gate driver cct. 13701
- high-speed I/O interface ccts. for memory bus appl. 12505
- high-swing high-drive CMOS buffer, large capacitive loads 37645
- HIP2030 power gate driver IC, MCT module appls. 29006
- hybrid MOS-bipolar transistor switching, profiled drive sig. 521
- ICs boost of video perform. 25663
- IGBT driver PC928, short cct. protection, OPIC photocoupler *(Japanese)* 529
- IGBT power convertors, turn on/off behaviour studies 44218
- IGBT power module gate drive considerations 37632
- IGBT PWM invertors, indust. appls. 5066
- intell. power IGBT modules, motor drive appls. 532
- LCD driver, 50-V, integrated in std. 5-V CMOS proc. 29083
- LCD driver IC, high slew rate op amp 21464
- LCDs driving efficiency improvement, overlap scanning method *(Korean)* 25934
- lossy nonlin. terminated packaging interconnection, S-param. transient simul. 5636
- low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
- MCT, gate drive cct., overcurrent protection 12323
- mixed sig. device, high precision testing 766
- monolithic BCDMOS quad line driver for indust. appls. 29050
- multilayered packaged CMOS drivers, simultaneous switching noise 11807
- Nat. Ignition Facility, ICF, laser flashlamp power conditioning syst. 5106
- on-chip power supply coupling diodes, ESD protection, noise immunity 5986
- opt. intersatellite commun., LD transmitter 17173
- Optical Communication Demonstrator, laser transmitter assembly 17303
- plasma source ion implant., pulsed power modulator totem pole drive 36804
- PM hybrid stepping motor, PWM inverter-fed 11088
- polysilicon CMOS TFT LCD driving ccts. *(Korean)* 17999
- polysilicon TFT and driver integrat. technol. for LCDs 25919
- polysilicon TFT proc. for CMOS, HDTV LCDs appl. *(Japanese)* 1492
- power electronics design, educational strategies 29013
- power MOSFET switching, transformer-isolated gate drive cct. 535
- power MOSFET/IGBT optimal driver ccts. 29040
- prog. CMOS pulse generator ASIC, US transducer array driver 29075
- pulsed gas laser, external cct. effects on spark-gap arc-discharge 23100
- PWM IGBT invertor power supplies, case study 36353
- PWM inverters, IGBT gate drive ccts., optimum switching 19809
- PWM invertor drivers, device current utilisation optim. 5067
- PWM invertor IGBT gate drive IC, eval. and appls. 5052
- SCI-LVDS 500 MHz CMOS differential pad drivers 22583
- simultaneous driver/wire sizing for perform./power optim. 494
- smart power technol. evol., overview 29012
- three-phase PWM GTO invertor, design, constr. 5090
- transm. line impedance, driver impedance effect 15548
- AlGaAs-GaAs HBTs for high-speed opt. modulator driver cct. 42405
- GaAs 2-to-4 level convertor IC for SOA modulators 42403
- GaAs IC, ultrahigh speed pin-electronics and test station 6861
- GaAs tri-state driver flip flop, HFET LSI 37718
- GaAs-InP MESFETs and ccts. fro OEICs 39598
- InGaAs-InP double HBT, high speed/voltage driver circuit appl. 13876
- Ni-H_2 common pressure vessel batt., spacecraft, impedance 26568
- Si 10 Gbit/s bipolar LD driver IC for direct modulation 29047

driver information systems
see also automated highways
automobile navig. systs. *(Japanese)* 44579
FM multiplex broadcasting syst. DARC devel. by NHK 42264
ground to train radio, multi std. internat. syst. 42171
highway advisory inform. radio syst., speech synthesizer 42568
INFONAVI, in-vehicle navig. syst., radio pager 42542
interface design, vehicle-driver, conf., London (1995) 20205
navig., built up areas, GPS 9684
SOCRATES, driver inform. and fleet mgt. syst., appls. and archit. 33924
SOCRATES, dyn. car navig., driver inform. and fleet mgt. syst. 33923
SOCRATES, European in-car radio navig. syst. 42540
SOCRATES commun. syst., in-car inform. and navig. syst. 33925
SOCRATES in-car equipt. 33926
user interface of ProLab2 driver support syst. 36772
VICS radio beacon, in-tunnel transm. charact. 42340

drivers *see driver circuits*

drives
see also clutches; electric drives; propulsion
micro-mobile mechanisms, thermal expansion 36494

DRO *see dielectric resonator oscillators*

drying
CHP, gas turbines, dryers, hot water boilers 36018
Danfoss DH series filter-dryers *(German)* 11487
distrib. transformer oil drying controller 19705
EM paper drying, nonlin. problem soln. 28167
heat pipe wick, rectangular groove, rewet perform. 11891
in-bin grain drying energy systs., computer simul. 28200
karakul skins dryer, combined solar/elec. air heating 44598
lignite fired power station technol. develop. *(German)* 43911
microwave clothes dryer, fuzzy logic controls 5398
microwave heating cavity, FDTD simul. 11475
microwave moisture sens., green tea prod. appl. 3963
mulberries solar drying proc., IR heat treatment effects 20174
transformer elec. insulating oils, pre-treatment, testing procedures 22670
ULSI devices, static charge removal, IPA soln. 1236

DSC *see thermal analysis*

DSM *see demand side management*

DSO *see digital storage oscilloscopes*

DSP chips *see digital signal processing chips*

DTA *see thermal analysis*

dual codes
Abelian codes over Z_m, generalized DFT 24052
asymmetric representations of $GF(q^m)$ and self-dual codes 24070
BCH codes, duals, min. dist. bounds 32145
binary lin. codes, Hadamard matrices based, wt. distribs. 32146
binary wt. spectrum of extended $(2^m,5)$ RS code and dual code 40633
convolutional encoding 32128
quaternary quadratic residue codes/unimodular lattices 32048

dual offset reflector antennas *see offset reflector antennas*

duality (mathematics)
2D convolutional codes, duality anal. 32136
bianisotropic media, duality transforms., Green dyadics, plane-wave solns. 40322
dyn. approach, timed behaviour 28640
entropy optim. models, convex constraints 20564
fractional prog., duality concepts 231
geometric vector optim., vector approx. 227
grey-level morph., lin. structuring fn. 8587
lin. stochastic functional evol. eqns. in Hilbert spaces, estim./control duality 37305
LP, primal-dual logarithmic barrier method 5761
min. paths and cuts of graph, enumeration algm. 37253
nonlin. prog. duality, convex fns. 229
perturb. dual problems, charactns. 11937
preconditioning nonsymmetric indefinite capacitance matrix problems 28672
symmetric definite pencil eigenvalue optimisation 11895
value fn. in convex parametric prog. 236
variational problems, symmetric duality 228
Weyl-Minkowski duality for integral monoids 237

ductile fracture
MCM, ceramic-conductors, stresses 21689
GaAs LSI chips, back-grinding, mech. reliab. 1498

ductility
see also ductile fracture
boundary layer fracture of copper/composite solder interfaces in electronic packaging 37131
power plant components, long term creep prediction model 19389
pulse reversal plated Cu for PCBs 21652
PWR reactor internals, irrad. embrittlement 35863
AlN particle filled Al, low CTE thermal conductor 12199
Cu, electrodeposited/electroless for PCBs, mech. props. 12940
Mo-La_2O_3 thermionic electron-emission material, mech. and emission props. 38203
Sn-Bi solders, microstruct. evol., mech. prop. 37529
Sn-Sb solder, room temp. tensile prop. 434

ducts, cable *see electric conduits*

duoplasmatrons
mag. confined hollow cathode duoplasmatron for PINSTECH ion implanter 10101

[illegible]
airborne dust elec. mobility meas. and eqpt. 40261
combined cycle power plant circulating bed granular dust filter develop. 27590
EHF waves cross-polaris./atten. in sand and dust storms 15445
low energy electron dust particle removing syst. 7915
LSI fab., dust sources 30403
mine respirable coal dust meas., fire sens.-based 20187
opt. disk, readout sig. deterioration , dust induced 39306
oxide dusts, environ. materials, SNMS anal. 26004
pulsed corona precipitator, charged aerosols modelling 15247
single wavelength lidar for dust cloud dens. estim. 17439
storms, mm wave propag., theory for losses 2220
submicron particles scavenging by coarse particles 40210
Si, dust particles, cleaning, laser-generated nonlin. SAW 1239

dust cores *see powder cores*

dust storms *see storms*

DVM *see digital voltmeters*

dye lasers
act./pass. glass waveguides, sol-gel method prep., laser props. 14810
cell, plane-convex cylindrical lenses 39683
compact holographic solid-state DFB laser 7581
CW, diode pumping 7545
DFB laser, nanosecond excitation, picosecond emission charact. 39681
4-dicyanomethylene-2-methyl-6-p-dimethylaminostyryl-4H-pyran, photostability 39692
dye activated polymeric lasers, photophysical props., thermooptical props. 7540
dye impregnated polymer lasers, beam control elements 7541
dye-mixture laser tunable in primary color regions by lin. variable filter 39685
flash lamp pumped, beam quality 7719
flashlamp pumped laser, single-mode operation 23108
freq. stabilization by polariz. spectrosc. 23109
heptamethine thiapyrylium IR tunable laser dyes of superior photostability tunable 14723
high Fresnel no. dye laser, weak turbulence 23111
high-repetition-rate electrooptic cavity dumping 30999
interferometric meas. of phys. consts. of laser dye solvents 23339
IR switching, mode-locking *(Chinese)* 14727
long pulse dye laser develop., high resoln. spectrosc. appls. *(Japanese)* 7549
micro spherical cavity laser reson. control 31207
multicolour dye laser, resonator constr. 7701
near-IR dye laser for diode-pumped operation 23106
organic dye-doped polymer opt. fiber amp. 23110
perylene-/pyrromethene-doped xerogel pulsed laser 39684
perylimide dye doped SiO_2-PMMA glass, superradiant film laser operation 14729
phase-polarizing wavelength selector, generation characts. 39689
poly(methyl methacrylate)-doped solid-state dye laser 39687
polyacrylamide gel, dye doped, laser host 7544
polychromatic dye laser, comb-like lasing spectrum 7542
polymethine dyes, lasing props., temp. effect 39688
pulsed dye laser amplif., nanosecond phase dyn. 7550
pyrromethene-BF_2 complex dye, polymer host, lasing perform. 7543
pyrromethene-BF_2 complex dye solns., laser perform., spectrosc. 7548
pyrromethene-BF_2 doped polymer matrix, laser perform. and material props. 14732
pyrromethene-BF_2 laser dyes, pumping, perform. 7547
red perylimide dye lasers, photostability, loss mechanism 39691
rhodamine 640 doped copolymers, laser action study 31202
Rhodamine 640 dye in strongly scatt. media, spectral/temporal meas. of laser action 14725
rhodamine 6G dye lasers, Cu laser pumped, tunable collinear operation 23107
rhodamine 6G laser, parametric nonlin. mirror, refl. coeff. 31205
rhodamine 6G regenerative-feedback mode-locked dye laser, acousto-optic mode locker 39686
rhodamine dye colloid solns., scatt. media, laser action 31203
rhodamine dye laser, CW, diode pumping 7546
rhodamine dye laser, waveguide N_2 laser pumped 7538
rhodamine perchlorate dye-doped sol-gel silica laser, XeCl laser-pumped, wideband tuning 31204
ring dye laser, intracavity freq. shift, self-pulsing and instabilities 39690
second harmonic conversion, appl., tropos. OH detect. 7864
single mode dye laser freq. stabilization, forward scatt. 7536
single-mode dye laser models, multiplicative colored noise 31206
sol-gel lasers, dye-doped, tunable laser action 14730
sol-gel matrix solid state dye lasers 14731
solid-state dye laser for med. appls. 18598
spherical liq. dye lasers, wavelength tuning, cavity Q values 14726
suspen.-single-droplet dye laser, wavelength shifts, pumping 1871
threshold long. pump power, spontaneous emission influence 14728
thresholdless opt. dye microlaser, picosecond pulse generation 1870
transients, unified colored-noise approx. 1869
tunable laser, acousto-optic deflector spatially modulated gratings excitation 39682
two-colour dye laser syst., four-wave rot. Raman mixing 14724
UV high repetition rate tunable sources by dye laser beam freq. conversion 15035
vis. emitting fluoresc. dye solid state tunable lasers 14804
vis./UV lasers conf., Los Angeles, CA, USA, (Jan. 1994) 50
Ti:sapphire/DDI ps cw pass. mode-locked laser starting dyn. 23171
U isotope separating dye laser wavelength control syst. *(Japanese)* 7872

dye penetrant tests *see nondestructive testing*

dyeing
SiO_2-TiO_2-SiO_2-Si ARROW opt. waveguides, sol-gel multilayer struct. 14417

dynamic analysis (programs) *see system monitoring*

dynamic braking *see braking*

dynamic nuclear polarisation
axions, dark matter detectors using polarized targets 34880
Bonn polarized target NMR-syst., dyn. polariz. meas. 34870
butanol, EHBA-Cr(V) doping, dyn. nuc. polariz. 34865
conference, polarised targets, Bad Honnef, Germany (June 1994) 28245
deuterated butanol-D_2O mixture, EHBA-Cr(V), deep inelastic μd scatt. 34876
FM effect 34875
large polarized target, high precision polariz. meas. 34871
nuclear spin targets for biological struct. research, p/d types 34881
pentanol and polyethylene, deuterated cpds., polarized target materials 34863
polariz. reversal, adiabatic fast passage 34877
SMC target, NMR polariz. meas., nonlinearity 34872
SMC target, NMR polariz. meas., on-line syst. 34873
spin refrigerator polarized target, nuc. phys. expts. 34887
HD solid polarized target, transport, in-beam cryostat 34879
NH_3 irradiated target, ^{14}N pol. meas. using NMR 34869
$^{15}NH_3/^{15}ND_3$ Virginia/Basel/SLAC polarized target 34862

dynamic programming
see also integer programming
air conditioner direct load control, multipass dyn. prog. algm. 27055
attributed relational tree approach, sig. classif. 2806

dynamic programming continued
ball-bearing syst. replacement, discrete-time dyn. prog. 36981
chain-struct. sync. dataflow programs, memory requirements 32619
computer vision, pixel labeling, neural approach 33061
cursive Hangul character recogn. via stat. approach 41310
decentralised sens. networks, routing for reliab. 15952
deinterleaving pulse trains 2481
dim objs., detect. and tracking, fuzzy evidential filter 41031
disparity-space images and large occlusion stereo 24618
distrib. nets, optimal design, nonserial dyn. prog. 27148
dyn. time-warp compensation for correl. of long seqs. 40944
fixed-rate entropy-coded VQ algms. 8151
generators/boilers, overhaul scheduling, dyn. prog. *(Chinese)* 43976
gesture recogn., recurrent neural networks vs. competing techs. 35171
globally optimal scalar quantiser, complexity reduction 32528
hydrothermal power syst., unit commitment, knowledge based dyn. prog. 19017
hydrothermal power systs., unit commitment/economic dispatch 19111
hydrothermal syst. short-term coord., multi-pass dyn. prog. 19043
image contour detect./tracking/matching, dyn. prog. 32926
isolated Mandarin syllable recogn., segmental 32413
lin. antenna arrays, optimum thinning, partioned dyn. prog. *(Chinese)* 31996
Markov decision proc. 28646
Markov decision proc., fuzzy approach 5736
minimizing channel dens. by lateral shifting of components 5973
multi-zone cooling systs. with storage, efficient operation 20148
multizone HVAC syst. optimal control, aggregation/disaggregation method 28180
non-stop software extensible syst., dyn. program modif. 16558
occlusions and binocular stereo 41291
optimal freq. distrib. in group of radio links 3315
partially occluded planar curves matching 24598
polygonal slices, piecewise-lin. interpolation 20584
power syst. economic dispatches, seq. decision dyn. prog. improvement 35521
power syst. expansion planning, optimal generation mix algm. 27099
power syst. optimal generation mix, fuzzy algm. 4598
power syst. unit commitment methodology, computer-based *(Korean)* 27077
power syst. unit commitment problem, ES approach 35532
power syst. weekly thermal unit commitment scheduling method 27105
robust quantization of LPC params., vector and scalar codebook 32206
scene segmentation in rem. sensed image, cost minimization approach 41331
semi-automatic road extraction by dyn. prog. 41254
semicond. device simul., phys.-model description lang. 1327
semicond. testing facility, scheduling algm., Lagrangian relax. based 20403
sens. systs. optimal operation, transputers 24317
sentence spotting applied, partial sentences and unknown words 32297
single-server queueing networks optimal control 11910
speech lin. predictive coeffs., variable dimens. VQ 32331
stacked layouts in CMOS analog ccts., automatic generation algm. 13878
Steiner min. trees in grid graphs, appl., VLSI routing 28925
surface-based obj. reconstruction, parallel algm. 16241
telecom. networks, fuzzy dyn. prog. for capacity expansion problems *(Japanese)* 41565
tidal power generation, optimal control model 43945
time-seq. range thermal images 16165
tree-to-tree dist. computation algm. on VLSI archit. 12498
two-terminal nets via minimization through dyn. prog., partitioning of terminals 5950
unconstrained-endpoint dyn. space-warping algm., binary Eng. character images 24411
unit commitment, spinning reserve effects 19107
unit commitment with fuel storage constraints 19108
unit commitment/economic dispatch, equiv. incremental cost 19106
video compression, optimal inter-frame alignment 24695
vocab. independent wordspotting, fast lattice-based approach 32299
weekly thermal unit commitment scheduling *(Japanese)* 27522

dynamic RAM *see DRAM chips*

dynamic response
see also transient response
adaptive beam with embedded devices, dyn. response 37548
axial-field actuators for controllable bidirectional rot. 15255
boost converter, control, dyn. response *(Chinese)* 11186
brushless PM motor/induction motor drives comparison 5274
circ. shaft, dyn. response, piezoelec. sens. 9890
combined cycle power plants, freq. regulating duty dyn. response characts. 43932
DC motor drives, separately excited, tunable fuzzy logic control 20076
electronic systs., package cracking, probabilistic sensitivity anal. of dyn. response 5664
GPS synchronized power syst. phase angle meas. 19369
hydrogenerators, adaptive speed control, RLS ident. 43988
induction motor drive, voltage control, field weakening region *(Korean)* 28088
induction motor drive field weakening voltage control strategy 44482
induction motor drive speed vector control, rotor speed meas. methods 44478
LCC parallel reson. power converter, discrete time domain modelling 36249
mine winder motor drives, digital control systs. 44645
parallel-module power converter, current bal. controlled, dyn. anal. 44140
power syst. dyn., induction motor loads aggregation 4491
PSA by Monte Carlo event simul. 11686
railgun armature contact load dyn. 15359
rect. plate, dyn. response to shock load, package appls. 11811
SEL mirror effects on dyn. response 31315
sheet metal bending, lin. hydraulic DC servomotor valve appls. *(Japanese)* 36493
struct., foreign obj. impact ident., distributed sens. 10038
switch-mode DC-DC power converter dyn. response, CAI 5533
switch-mode magnet power supply, modelling and control 29027
three-phase SVC, voltage controlled CSI-based 10654
three-phase UPS VSI, feedback control strategy 44173
three-phase voltage-source utility interface power convertor 19737
US defect ident. with laser generation, neural network appl. *(Japanese)* 21008
variable speed drive three-phase induction motor control *(Italian)* 11330
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 1729

dynamic stability *see stability*

dynamic testing
see also fatigue testing
conformal coatings, dyn. thermal mech. anal. 451
connectors, vibr. testing methodology 12870
HDD spindle motor mech. testing, ANN 36210
micromachined materials mech. props. 5926
packaging connectors, vibr. induced wear 29648
PWBs, crit. vibr. behavior, holography, finite element modeling 921
TAB tape-based known good die method for MCM systs. 21678
Taguchi method of environ. stress testing for PWB prod. proc. 29678
transverse flux EM vibrator, test equipt. appl. anal. 7935
vehicle electronic systs., vibr. design/testing 44584
VLSI component test vectors, automatic generation, student training *(French)* 20329
wrapped screen wick Cu/H_2O heat pipe, capillary limit, long. vibr. 34703
Ni-Mh_2 bipolar elec. vehicle batt., cell design/eval. 36714
Si microgimbals for super-compact rigid disk drives 30490
Zn-MnO_2 cells, mercury free, perform. 19930

dynamics
see also friction; kinematics; resonance; robot dynamics
combined Maglev levitation, propulsion, guidance syst., anal. 28134
constrained dyn. systs. stabil., appl. 19091
convolutional codes 40662
DC-motor-chopper drive, model, robot appl. 28101
dyn. analogies in parametric proc. theory 28991
equilib. equivalence theorem, stabil. anal. 35459
Fabry-Perot lasers, loss-modulated two-mode, antiphase dyn. 1887
FEL, 2D DFB, dyn. 2011
heart dyn., human, visualization from US echograms *(Japanese)* 35009
LD for chaotic opt. commun. 17249
overlapping generations models, inverse problem soln. 28378
phase-syst. cascading, nonlin. dyn., modeling 12368
PWM inverter drive syst. adaptive control 5254
space-periodic phase screens, ray propag. dyn. 15419
storage ring, trapped secondary particle motion 43025
variable freq. DC-DC converter nonlin. control 21100

dynamometers
see also force measurement
disc-type eddy current dynamometers, torque design formula 27659
drives, computer controlled dynamometer test syst. 36695
variable speed AC motor drive testing, dynamometer control 5293

dynamos *see DC generators*

E-mail *see electronic mail*

ear
see also auditory evoked potentials; hearing
auditory model inversion for sound separation 32383
autonomously responsive syst., acoustic preprocessor 32584
cochlea, driving currents for focused stimulation, implants appl. 35165
cochlear implant, technol. for profoundly deaf 43363
MRI, inner ear/brainstem, phased array RF coils 43219
otolaryngology, solid state laser 43333
silicon cochlea, switched current 29420
tinnitus suppressor, elec. implant, develop. *(Japanese)* 4301
voiced speech/perceptual cost fns., mixed-phase AR models 32260

ear microphones *see microphones*

early Universe *see cosmology*

earphones
see also hearing aids; telephone sets
piezoelec. telephone handset, acoustic param. estim. by Monte Carlo method *(Japanese)* 33675

Earth
see also Earth rotation
electromech. syst. description 20011

earth (electric) *see earthing*

earth (soil) *see soil*

Earth crust
see also oceanic crust
earthquake prediction, VLBI/satellite laser ranging 43477
fractal magnetis. models, mag. interp. 10430
gravity anoms. for Earth struct., satellite altimetry method 35279
seasonal deform., Earth's rot. params. determ. 10439
Tokyo metropolitan area, crustal deform. obs. from space *(Japanese)* 18804
traveltime tomography, adaptive-grid formalism 43499

Earth electricity *see terrestrial electricity*

earth electrodes
composite power syst., earth fault currents/pot. distrib. 43619
distribution network grounding electrodes, impulsed ground impedance studies 19251
electronic systs. earthing, parts, perform., cabling, impact *(French)* 15521
LV power syst., earth ground resist. testing 19355
power syst. grounding syst. anal., EMTP based model 4721
three-phase distrib. network CAD, multiobjective optim. approach 27146
transient behaviour, computer models 19352

Earth-ionosphere waveguide
auroral ionos. HF channel, oblique sounding 23621
ELF/VLF propag., AD 1989 Atlantic obs. 40341
HF ionos. propag., solar/geomag. activity effect 40338
HF ionos. refl. channel, Fresnel filtering 31840
high-lat. bottomside F region, high freq. ducting 40355
irregularities study, HF channel 35308
LF/MF skywave propag., daytime 40337
low lat. whistlers propag. mech., direction finding meas. 23644
low-lat. whistler propag., review 31812
radio wave propag. from satellite altitude antennae 7984
satellite-to-Earth commun. channel, sig. delay 2228
Schumann resons., mag. field components 31811
tweek atmos., propag. characts., lower ionos. height 23638
VHF long dist. TV sigs., meteor showers 15432
VLF anom. sigs. assoc., strong earthquakes 7974
VLF sigs., nighttime D-region heating 15443

earth leakage circuit breakers *see residual current devices*

Earth magnetic field *see geomagnetism*

Earth magnetic field variations *see geomagnetic variations*

Earth mantle
gravity anoms. for Earth struct., satellite altimetry method 35279

Earth rotation
environ. effects, VLBI meas. 25621
fiber optic gyroscope North finder 18803
seasonal deform. in Earth's crust determ. 10439
universal time scale reprod., astro-opt./satellite data 9783

earthing
see also antenna earths; earth electrodes
6-10 kV power syst. overvoltage protection 27260
6/12 kV MV power syst. cables, arc fault tests 19363
50 to 300 kVA UPS installation guide 19875
132 kV indoor substation earthing, pot. gradients control 36481
400 kV transm. line earth fault location algm. 43763
500 kV transm. line, 3-ground-wires, impulse response *(Japanese)* 4697
1000 kV power line maint. IS, meas.-based 27126
AC electrified rly., AT power supply syst., earth pot. 28114
AC standby generators, grounding/ground fault protection 43992
bonding config. in telecomm. centers, EFT field tests 23707
cable bundles, per-unit-length params., MoM 15531
cable EM induction shielding methods, theoretical anal. *(Japanese)* 2277
cart grounding chain effectiveness, unexpected insulating wheels behaviour 31714
Channel Tunnel rly. and power supply equipt. *(Italian)* 11404
Channel Tunnel traction/auxiliary power supplies 44533
commercial facility, power quality improvement, student project 35618
common-tower double-cct. power lines, earthing switch simul. *(Chinese)* 35653
DC elec. rly., pulsed power switch-based protection 36712
DC electrified rly. traction syst., stray currents control 44546
DC/DC SMPS, MOSFET-based, capacitive isolation method *(Japanese)* 6025
distrib. line overcurrent protection settings determ., DSS-based 19259
distrib. lines lightning surge protection, scale model expts. *(Japanese)* 43747
distrib. network, intermittent arcing grounding overvoltage restraint *(Chinese)* 35632
distrib. network automatic fault location/isolation syst. *(Japanese)* 10736
distrib. network fault current reson. grounding project, Australia 19258
distrib. network ground fault discrim. method, computer-based *(Japanese)* 27174
distrib. network line protection practices, indust. survey 27162
distrib. substation earthing systs., safety design 4662
distrib. syst., transient anal., equiv. homog. line model *(Japanese)* 10738
electrothermal-chem. gun, meas. techs. 31751
EMC, conference, Sendai, Japan (1994) 11561
EMC, resin material, metallic layers 21606
fibre-optic cables installed on overhead power transm. lines 17334
finite length multiconductor power line, impedance/line params. 4675
foundation earthing devices, DIN 18014 std. spec. *(German)* 10775
France Telecom power syst. lightning protection 19332
generator-transformer unit faults, relay protection algms. 27680
generators, neutral grounding *(Chinese)* 27678
ground pot. var., frame wiring, induced noise 23696
grounding principles, cct. design 12255
GTEM, OATS radiated emissions correl. from 1-5 GHz 15512
heat-shrink MV cable transit. sleeves *(German)* 27242
Hi-PAS, EMC design for high-dens. packaging syst. *(Japanese)* 31862
human body ESD, charge/pot. control 7907
HV overhead line earth fault compensation coeff. modelling 19328
HV plant, PD monitor, transient earth voltage tech. 1537
HV transm. line, wide bandwidth corona model 27189
HVSE-I power line safety monitor, μP-based *(Chinese)* 27193
hydrogenerators, PD spectra, HF grounding 4897
inductive coupling on cables, freq. charact. 23706
indust. 110 kV network intermittent earth fault limitation *(German)* 4708
indust. control syst. lightning protection, grounding/shielding studies 20160
indust. electrostatic hazards investigs., UK 7906
INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
intell. building, lightning induced voltages 8005
internally protected universal ground adapter, cable EM protection 15502
lightning distrib., earthing systs. 19349
lightning protection, 22nd Internat. Conf., Budapest (1994) *(German)* 35680
LV power distrib. lines, lightning overvoltage effects study 10727
motors, core bal. ground fault protection 4894
mountaintop stations installations, lightning protection 23688
multilayer PGA, ground plane induct. and simul. 20444
multilayer PWBs, segmented ground planes, common mode currents 15477
multilayered earth excited by overhead wire, EM field components 2179
multimedia workstations, elec. protection 43798
MV cable earth fault neutralisation by conductor earthing *(German)* 4707
MV cable network displacement voltage increase *(German)* 4638
MV distrib. network, compensated, phase-to-ground determ. 4649
MV power syst. earthing, phase-to-ground fault current selection 19327
MV power syst. protection, neutral earthing techs. *(French)* 10772
neutral grounding reactor ratings selection 36231
North American elec. motor market, German expert guidelines *(German)* 10940
PCB ESD protection material selection, shielding effectiveness meter 28456
PCB groundplanes, radiated emission reduction 23668
pers. protective grounding, param. anal., software 20384
power overhead line tower impulse characts., simul. theory *(Chinese)* 35656
power overhead lines, lightning-induced voltage expts. *(Japanese)* 4696
power syst. differential ground fault protection 19337
power syst. digital impedance relay, improved perform. *(Chinese)* 27263
power syst. grounding expts., lab. two-layer soil model *(Chinese)* 10767
power syst. multiple fault computation algm. 19060
power syst. relay protection setting/coord., ES-based 27256
power transm. line shield wires, unbalanced , modelling/simul. 4676
protective conductor currents in studios and DP buildings *(German)* 27265
protective multiple earth, overhead distributors 10781
Space Station Freedom power system, on-orbit floating potentials 26592
spacecraft common mode transients, short cct./fuse blowing events 4347
static control footwear, perform.-oriented design and test procedures 31715
substation earthing systs., 3D CAD studies 5160
substation struct./grounding syst., lightning strike, transient anal. 44251
telecom. network line interface overvoltage/overcurrent protection 16573
telecomm. cable metallic sheath, shielding factor 25194
telecomm. cables lightning currents interf., computer model 15539
telecomm. equipt., global grounding topolgy, interface specs. 44148
telecomm. equipt. EMI bonding topol. studies 15523

earthing continued
telecomm. power/earthing syst. connectors, QA 43787
telecomm. systs. DC distrib. network grounding, EMC aspects 19269
telecomms. equipt. earthing/bonding, prETS 300253 European draft std. 15522
three-phase power syst. earth fault factor determ. 19066
three-wire DC distrib. telecom. power supply 41624
touch/step voltages meas. method/instrum. 4710
transm. tower model, simul. upward lightning current path *(Japanese)* 10764
underground conductors, conductive coupling, earth effect 23759
underground power cable fault location, fiber optic sens.-based 27277
underground power cables, mag. field shielding studies 10747
underground transm. syst., surge arresters, overvoltage anal. *(Korean)* 35686
water-absorbent polymer ground-resist. reducing material, characts. 37541

earthquake recorders *see seismometers*

earthquakes
3D inhomog. media local earthquakes, mechanisms determ. 43498
BUG small array data, events automated class. scheme 26699
E. North America, NPP design basis ground motion determ. 27352
ELF radiation and Ito 1993 earthquake clusters 23634
ELF/VLF emissions, low-altitude satellite recodings 15444
HV switchgear seismic withstand capability 36451
local data, arrivals picking, ANN 26700
Lotung Large-Scale Seismic Expts., NPP site geotechnical synthesis 27381
NPP safety, ground motion effects 27348
nuc. plants, HF seismic event anal. 27346
precursory radiowave propag. anoms., charged aerosols 7962
prediction, VLBI/satellite laser ranging 43477
PWR power plant, seismic PSA, uniform risk spectra 43856
seismogenic EM emission, radiation/transm., stat. anal. 23578
Tokyo metropolitan area, crustal deform. obs. from space *(Japanese)* 18804
VLF anom. sigs. assoc., strong earthquakes 7974

Eberhard effect *see photographic materials*

EBIC
see also OBIC
IGBT and MCT struct., 2D dopant profiles 30280
planar devices, minority carrier diffusion length, direct meas. 13659
quantum wells, Schottky contacts, selective electrochem. proc. 38398
semicond. device failure anal., SEM 22318
AlGaAs lasers, nonplanar MOVPE, lateral p-n jns. containing p-type (311)A facets 1943
AlGaAs:Si lateral jns., MBE growth on patterned substrs. 21947
n-CuInS$_2$, minority carrier diffusion length, EBIC meas. 29873
GaAs:Si lateral jns., MBE growth on patterned substrs. 21947
Ge$_{0.3}$Si$_{0.7}$/Si heterostruct., minority/majority-carrier trapping 21950
InP Schottky barriers, minority carrier diffusion length 13210
n-Si, bulk/surface transport, injection dose effect 1029
Si:Li, fast Li electromigration, low temp. device creation 30047
Si/SiGe:H epilayers, misfit disloc., elec./opt. props. 6628

ECCM *see electronic countermeasures*

ECG *see electrocardiography*

echelles *see diffraction gratings*

echelons *see diffraction gratings*

echo
see also anechoic chambers; architectural acoustics; clutter; reverberation; sonar
act. sonar, lin. FM waveforms detect. 9675
bathymetry data postprocessing/corrections, sidescan sonar syst. 10560
chaotic-driven echo path modelling in telephony 33398
data matrix, SVD, ARMA model order estim. 24196
large-area US gap profile meas., 2D PVDF blanket array transducers 18946
live speech network assess., digital adaptive filter 40750
mobile radio channel modeling by echo estim. *(English)* 9338
quantitat. seafloor charactn., bathymetric sidescan sonar 10558
speech noise whitening filter for syst. ident. 40746
underwater sound, refl. coeff. control, piezoelec. materials 26795
underwater target, causal impulse response estim. 34180
US echo sigs., time delay meas., averaging method 35377
US sens., temp. effects 4420
PZT porous ceramics, prep. and elec. props., echo sounder transducers *(Korean)* 35365

echo cancellation *see echo suppression*

echo suppression
5.0 kb/s coder for vehicular appl., acoustic echo/noise canceller 9123
7 KHz handfree telephony CMOS ASIC chip set 21371
acoustic echo cancellers, exponentially weighted step-size projection *(Japanese)* 42096
acoustic echo-canceler for teleconferencing syst. 16912
acoustic transfer fns. modelling 32633
adaptive echo canceler, time varying normalized LMS algm. 24348
adaptive echo canceller, finite wordlength effects, modelling 16626
adaptive filtering, FFT/displacement struct., subsampled-updating RLS algm. 2552
adaptive FIR filter echo canceller for Gaussian sigs. 32747
asymmetrical DSL, echo cancellation 9089
digital network technols. 16620
discrete multitone systs., timing recovery 9090
DMT-based ADSL, concept, archit., and perform. 9105
double-talk detect. for adaptive noise canceller 8182
double-talk detect. method, detecting echo path fluct. *(Japanese)* 40719
DSL discrete multitone modulation, high-speed full-duplex echo cancellation 40560
DSP implement./perform. eval. of stereo echo canceller 34287
DSP-based teleconferencing syst., perform. eval. 16815
E-polarised plane wave scatt. from coated cylindrical cavity-backed aperture 25566
echo cancellation, voice commun., sig. proc. methods *(German)* 42049
fast converging low complexity adaptive filtering algm. 15987
fast LMS-based algm., real-time echo cancellation 33408
four-wire loop systs., correl. AR subscriber sigs., echo canceler perform. 25144
full-band acoustic echo cancellers, steady-state perform. 33676
full-duplex speaker phone based on adaptive predictor 9109
gamma filter for echo cancellation in subscriber loop 33674
GIVE, IIR adaptive echo canceler 15883
gradient-based algms. for echo compensation 15988
hands-free telephone sig. proc. methods *(German)* 8846

echo suppression continued
hands-free telephony acoustic echo cancellation 8858
HDSL chipset for high-speed transm., copper 16920
IEEE audio/acoustics sig. proc. workshop, New Paltz, USA (1993) 5445
ISDN U-transceiver adaptive filters, DSP based real time simul. 29260
LMS acoustic echo cancelers, slow asymptotic convergence 24313
mobile radio syst. design for mountainous terrain 33785
multimedia commun., acoustic echo canceller develop. *(Japanese)* 42014
NEC's VoicePoint AEC-50 acoustic conferencing syst. *(Japanese)* 42646
nonlin. echo cancelling, look-up tables/Volterra systs. 2564
oversampled subband acoustic echo cancelers, anal. filters, expt. 24273
oversampled subband acoustic echo cancellers 25136
pass. echo-canceler, single microphone 2536
ref. sig. generator echo cancellation, ISI receiving schemes 32725
RLS algm. based on var. characts. of room impulse response 32749
room transfer fns., common acoustical pole/zero model. *(Japanese)* 40893
sparse-tap adaptive FIR filters, multiple echoes, fast convergence algm. 32693
speech echo cancellation, adaptive-filtering techs. 32411
stabilized fast transversal filter algm., sig. proc. appls. 37871
subband adaptive systs., perform. anal., equiv. model 32696
telecomm. systs., transfer charact., test sig. appl. 16562
telephone channels, discrete algms. for compensating elec. echo 2571
telephone speech scrambler echo cancellation 41722
telephones, echo control, Kalman filter algm. 42045
time varying step size normalized LMS echo canceler algm. 32603
trellis codes for primary rate ISDN 16791
TV receiver network echo-sig. protection 3667
voice commun., sig. proc. methods *(German)* 42048
voice-controlled telecomm. terminal for phys. handicapped 4313
Walsh transform. for speech echo interf. suppression 24159
WC-281 circ. waveguide, mode conversion, echo anal. and correction, digital radio 33760
Weaver SSB subband acoustic echo canceller 16822
Si integrated adaptive LMS echo canceller, variable step size 16926
echocardiography
3D echocardiography, miniature mag. posn./orient. locator 18473
computers in cardiology, conf., London, UK (1993) 11543
dyn. visualization of human heart from US echograms *(Japanese)* 35009
image segmentation, Markov random fields 26334
left ventricle boundary extraction problem 35010
left ventricle contour detect., Hough transform 10207
mathematical methods in medical imaging, conf., USA (1994) 20238
physiological/US data, simultaneous acquisition/proc. syst. 35031
tissue charactn., unprocessed RF data, online digitisation 35030
echolocation (physiological) *see bioacoustics; mechanoception*
ECL *see emitter-coupled logic*
ECM *see electronic countermeasures*
ecology
centrifugal chiller refrigerants, Montreal Protocol compliance 20149
CO_2 emissions mitigation technols., Japan *(Japanese)* 4755
decentralised PV syst., value, society 27634
Eastern Europe sustainable develop., energy policy 26930
eco-balancing in quality mgt. *(German)* 160
Ecofactory concept, ecologically conscious mfg. 37062
elec. utility environ. policies, planning/operations effects 35530
elec. vehicle secondary batts., recycling infrastructure, USA 44511
electronics indust., environ. design considerations 28547
energy policy for sustainable develop. 26931
European-wide power syst. interconnection, tech. limits 19076
household batts., mercury environ. considerations, USA 44262
ICE elec. locomotives, energy consumption/pollution study, Germany *(German)* 44502
nuc. power station district heating, economic/ecological effectiveness 27361
offshore wind power plant, environ. impact study, Sweden 19568
portable equipt. secondary batt. cycle life, waste reduction impact 44274
recovery, eastern Europe, subsidy strategy 27307
renewable energy develops., ecological aspects, Switzerland *(Spanish)* 4760
Swiss elec. prod., ecological and social aspects *(German)* 10795
terrestrial energy conversion, aerospace technol. appls. 35710
trophical and morph. status of water resources, airborne hyperspectral algms. 18878
undergraduate engng. curricula, environ. topics 11614
vegetation, helicopter-based lidar meas. syst. 25589
NO emission reduction, thermal power plants, economics 35989
Ni-Cd secondary batt. recycling, high-temp. recovery experience, USA 44273
Ni-Cd secondary batts., collection/recycling efforts, USA 44272
econometrics *see economic cybernetics*
economic cybernetics
indust. productivity paradox, theoretical anal. 11660
PEM fuel cells, transportation elec. drives 36720
economics
see also commerce; investment
2.3 GHz TV broadcasting, mobile live reporting *(German)* 34222
2-area power syst. prod. cost, cumulant method *(Chinese)* 27034
20 MW batt. storage syst., distrib. network stabil. appls. 35637
20 MW gas turbine CHP plant, thermoeconomic anal. 27571
100 kW SOFC, market pot., Netherlands 44339
100 MJ flux compression pulse power systs., design considerations 36298
110 kV forcibly cooled and HTS power cable comparison *(German)* 27211
300 MW submarine power syst. link project, South Korea 19238
600 MW MHD steam combined cycle power plants 20014
ABBET component std., test inform. mismanagement reduction 34346
AC line point of utilization power quality study, USA 19288
AC motor variable speed drives, design specs. 20062
AC rly. syst. energy conservation, optim. train running curves 44530
access network upgrades, dyn. eval. method 42073
active infrared sensors for robotics 25838
advanced geothermal plant develop./costs, USA 27607
advanced semicond. manufacture, conf., Boston, USA (Oct. 1993) 36877
agricultural elec. demand, pricing effects model, USA 36809
airborne systems, neural network technology for BIT applications 42730
Al interconnect film etching, stat. optimisation 38696
alternative transportation fuels, biomass-derived 35718
anthropogenic peat biomass, atmos. CO_2 level control appls. 36623
area power generation control, implement. issues 10645
Asia, telecomms. sector reform 3013
economics continued
Asian Test Symposium, Japan, Nov. (1994) 5504
ATE, off-equipment integrated diagnostics 42714
ATE management in 90's 42690
ATM internetwork, cost-effective migration strategy 41883
ATPG for heat dissipation minimization, test appl. 6856
Australia's deregulated telecomms. indust. and Telecom 2999
Australia and Asian countries, commun. and IT appl. 3011
Australian elec. indust. reform, national grid develops. 19184
Australian electronics indust., global posn., overview 28410
automobiles, elec. distrib. syst. archits. 20115
autonomous underwater vehicles, power systs. comparison 28106
aviation boresight support for tri-services, cost effectiveness 35414
avionics, conf., London, UK (Dec. 1992) 11585
batt. powered vehicles, batt. exchange concept 44514
Battelle biomass gasification syst., gas turbine generation 28034
behavioral stimulus generation for digital test programs 34358
benefits of software reusability, ATE users/vendors 34371
board-based syst. power distrib., onboard regulators 38088
Boeing 777 onboard maint. syst., Maintenance Terminal Function 10320
Brayton engine, solar receiver, turbo-charger 28035
breakwater power plants, wind energy eval. 10901
broadband distrib. networking, changes/progress 33672
BT and MCIs' global managed platform, unified managed transport network 41696
building cogen. systs., design methodology 4827
building HVAC retrofits, postponement economics overview 44432
built-in diagnostics for advanced power mgt. 34356
business cash-in-advance economy, stationary sunspot equilibria 28379
business mgt. challenges, Russia 36972
business proc. re-engng. concept, overview 36970
C-17 ATE support, successful appl. of existing equipt. 34369
carpet waste, economical alternative fuel 43889
CCGT plants, repowering from steam turbine plants 43935
cement indust., 1990 Clean Air Act Amendments impact 5426
cement indust., waste fuel burning, economics 5423
cement plant design, power/emissions reduction 44637
cement plant elec. network design, ADELIA expert syst. 5417
central office building power distrib., loop voltage drop optim. 43748
Central/Eastern Europe, energy, environ. impact, internat. finance 27294
China, telecomm. network develop. 3020
China's economic develop., fiber optic networks 3044
Chinese power network, commercialization operation *(Chinese)* 35516
chip technol., economics and support *(Dutch)* 80
CHOPIN, heuristic model, transm. expansion planning 4614
CHP, fuel cell based, future develop. 43898
CHP, indust. auto-producers, remuneration models *(German, English)* 35976
CHP plant, fuel consumption/costs distrib. 19488
CHP plant, gas turbine, HRSG, exergoeconomic optim. 4849
CHP plant daily operation scheduling, num. model *(English)* 27548
CHP plant structural reliab. optim. 19489
closed-cycle gas turbines, combined pinch/exergy anal. 36009
CMOS multiply charged ion implants, cost of ownership model 37056
co-developed knowhow assets in technology partnerships 36949
coal-fired combined cycle power generation concepts, USA 43927
cogen., investment cost recovery period calc. *(Korean)* 27528
cogen. desalination plant, desalter, fuel cost 35984
cogen. district heating develop. overview, Russia 27533
cogen. planning optim., time-of-use rates-based 10846
cogen. power stations, cost sharing calc. methods 27534
cogen. projects, economic attractiveness study 43895
cogenerator-customer wheeling syst., buy-back syst. 10667
Cologne transfer station control technol. *(German)* 36488
combined cycle power plants, cooling syst. design economics, UK 27596
combined cycle power plants, heat recovery steam generator designs 27585
commercial buildings, PV integrat., economics 10884
commun. energy systs. control, QA 19834
concurrent product design for mfg. syst. perform. 11698
constrained power economic dispatch, optim. algm. 4574
consumer product in-proc. inspection/correction facilities 11838
contingency constrained generation scheduling, ANN 19380
controllable reactors/thyristor devices comparison 5027
cooperative R&D, partners' success meas. 20358
corporate commun. in cyberspace via Internet, rhetorical dyn. 33577
corporate mgt., inform. age consequences 11628
corporate struct., R&D and incentives *(English, French)* 41581
cost effective ceramic surface mount packaging 20448
customer energy needs assess. project, Australia 4503
cycle time reduction strategies implement. for new package introd. 36950
daily load forecasting, multilayer ANN *(Japanese)* 10707
data courier satellite syst. concept 33943
DC motor drives, optimal speed control method *(Polish)* 36647
decentralised optimal power pricing, parallel programming development 27066
decentralised PV syst., value, society 27634
defence technol. develop., commercial sector interact. 4430
defense mfg. environ., flexible develop. and prod. 28421
developing economies and internat. deregulation 3019
developing nation telecomms., satellite and mobile solns. 3515
developing nations, submarine fiber-optic systs., economic building block 3307
DFT, full/boundary scan, economics 11676
diagnostic engng. tool set for mil. environ. 35383
diamond, polycryst. CVD, cost factors 5899
diesel generators, economic utilisation, max. demand charges minimisation 10872
differential press. method for fluid flow control 18153
digital services, broadband delivery 42054
diode array-pumped solid-state lasers, economic issues 31281
diode-pumped solid-state-lasers, high-duty-factor, high-av.-power, economics 31365
dispersed CHP sources/boilers coord., optimal operation *(Japanese)* 27523
dispersed generation, optimal planning, economics *(Japanese)* 27087
display-based subscriber service trials and prospects 42078
distrib. mgt. strategy, elec. utility benefits 27152
distrib. network asset replacement programmes, reliab. worth calcs. 43754
distrib. network harmonic filters, EMTP-based anal. 4642
distrib. network planning, economic/environ. considerations 43742
distrib. network quality/reliab. improvement options 43760

economics continued
distrib. network sectionalizer allocation, genetic algm.-based 10729
distributed power plants, telecom. appl. 19817
district heating syst. operational optim. simul., PC-based 43906
domestic appliances, energy consumption, economic approach 44620
domestic hot water supply, elec. heating energy savings 5381
DSM in power syst. develop. 10697
DSM/automation commun., added utilisation costs 27160
Dutch microelectronics, university research/indust. needs, overview 30398
dyn. bandwidth allocation scheme for ATM networks 3092
East European countries, safe nuc. power *(French)* 4765
eastern Europe, energy conservation, economic aspects 27310
Eastern Europe, telecomms. network planning 33301
Eastern Europe sustainable develop., energy policy 26930
ecology recovery, eastern Europe, subsidy strategy 27307
economic dispatch, nonmonotonically increasing incremental cost 19109
economy energy wheeling, benefits, Canada 4622
elec. consumer demand cycle optimis., cost savings *(Italian)* 4591
elec. distrib., customer service improvement/cost reduction 35517
elec. drives energy conservation, energy efficient options 28098
elec. generation, environ. economics 10794
elec. generation, real cost eval. method 35558
elec. heat pump, future prospects, domestic use 11482
elec. interchange pricing, probabilistic prod. simul. *(Chinese)* 27039
elec. lin. actuators, make-or-buy guidelines 11223
elec. power indust. develop., global issue 27535
elec. power indust. reshaping 27304
elec. power market overview *(Chinese)* 43700
elec. power markets, optional forward contracts 4572
elec. pricing, discounting methods discussion 35531
elec. risk/reliab. calcs., PC-based 4553
elec. supply, customer outage costs, probab. distribs. 4545
elec. supply indust., prices/profits survey *(English)* 35502
elec. tariff syst. principles, Croatia *(Croatian)* 10625
elec. transm. pricing, spot price calcs. 26959
elec. utility distrib. automation syst. project, India 27170
elec. utility DSM, net benefits estim. approaches 26990
elec. utility DSM programmes assess. methods 26991
elec. utility DSM programs, competition effects 4566
elec. utility DSM strategy economics, math. anal. 35533
elec. utility energy services/DSM, objectives overview 10660
elec. utility environ. policies, planning/operations effects 35530
elec. utility harmonics reduction efforts, tariff-based 26993
elec. utility operation/maintainance, business strategies adoption 10637
elec. utility policy issues for 1990s 35497
elec. utility reliab. assess./maint./life cycle costing, UK 43686
elec. utility reliab. concepts integrat., New Zealand 27062
elec. utility sales/revenues link, DSM, stat. recoupling 4514
elec. utility-cogenerator elec. market, game model 4577
elec. vehicle energy sources, current technol. review 44524
elec. vehicle secondary batts., cost reduction efforts 44513
elec. vehicle secondary batts., mix/demand study, USA 44512
electronics indust., phys. test access 5589
electronics product and proc. design eval. 28403
ELFE recirculating linac, design, cost 34748
emission constrained economic dispatch 4583
endoreversible Carnot refrigerator, specific cooling load 28182
endoreversible power plants, thermoeconomics optim. 27293
energy billing syst., Central China Power Network *(Chinese)* 43630
energy consumption change forecasting, Slovenia 26932
energy efficiency, bottom-up economic meas. approach 28054
energy efficiency, markets, market failures, economics anal. 27316
energy efficiency markets, perform. assess. 28053
energy policy for sustainable develop. 26931
energy scarcity, economic growth effects anal., USA 19394
energy use/conservation, climate change, economics 27314
energy-efficiency gap, market barriers/failures 27315
Eng. & Wales elec. power syst. tariff develop. *(German)* 35549
engng. change mgt., activity-based costing model 11672
engng. manpower education and economic develop., India 5550
engng. projects, dyn. measures for economic worth of investment 11701
entry level MCM/MCP trade-offs and considerations 12973
environ. constrained optimal economic dispatch, genetic algm. 19168
environ. stress screening, 3-level syst. 20411
EU support programs for internat. R&D projects 11645
European benefits of advanced commun. 41598
European GEO and freq. resource allocation, economic assess. 33306
European telecomms. strategy 24874
European-wide power syst. interconnection, tech. limits 19076
EW testing at flightline 43587
fault tolerant air data inertial ref. syst. testing 10365
FBR, devlop./funding, France/Japan 43845
Federally Funded R&D Centers, technol. transfer 11650
feeder load interruptions, fast breaker tripping impact 20158
feeders, nonlin. loads, harmonics effects, economics 27167
fibre optic cable design, integrated environ. 17355
FITL systs., MPEG encoding/ATM transport, video services delivery 42053
fluoresc. lamps supply 527
force-commutated supply, cost-optimal control algm. 44118
forecasting broadband demand and traffic, multi-faceted approach 33346
foreign ownership in telecomms., policy perspective 33328
forestry waste biomass-based energy prod. possibilities 27555
former Soviet republics, energy efficiency, western opportunities 27312
former-USSR energy syst., energy efficiency improvement 27311
fossil plant operation improvement, compact simulator 43908
France Telecom power syst. lightning protection 19332
fuel cell cogen., commercial/residential appls. 36791
fuel cells, building CHP appls., perform./cost requirements 36077
gas distrib. systs. contamination, cost optimisation 38988
gas turbine CHP plant, multi-objective operation optim. 36010
gas turbine CHP plants, steam-injected, operation optim. 36011
gas turbine cogen., rural develop. appls. 27566
gas turbine cogen. plants, economic efficiency, appls. 27574
gas turbine intake air cooling, absorpt. chiller-based 27567
generating unit preventive maint. scheduling, energy cost method 19378
GIS elec. utility experience, USA 27866
global energy problem solving, computer models 43821
GOLDSMITH, DSM cost/benefit options 19132
greenhouse gas abatement, Senegal, least-cost options 27325
Gulf Stream-based hydroelec. generation, project overview 19542

economics continued
HDTV and East Asian newly indust. economies 3673
head-up guidance, situation awareness systs. 10328
heat generation, shadow prices, time depend./dyn. energy systs. 4835
heating load mgt., radio teleswitching 5380
helicopter aging support equipment, maintenance alternatives 43574
high-leverage SOI technol., appls., CMOS and BiCMOS designs, material/device problems 30003
high-perform. MCM, low cost design 11775
high-rise flats, CHP systs., financial assess. 10844
high-technol. mfg., business cycle anal., USA 11673
Hong Kong, telecomms. hub and bridge, Chinese market 3045
household appliances, energy conservation pot., former USSR 28185
HV cct. breakers, reliab./maint. cost data, CIGRE 13.06 WG 19894
HV substation reliab. centered maint. project, France 44248
HV/EHV power systs., boost transformers, optimal phase angles 43663
hybrid fiber/coaxial CATV network power distrib. systs. 42627
hybrid lithog., e-beam direct writing and opt. stepper 38769
hybrid PV-wind power syst., optimal unit sizing 10894
hydro HVDC/thermal HVAC power options comparison, Africa 35602
hydro power plants, financing, Build-Operate Transform model 19546
hydroelectric power stations, press. cushion lubrication automation *(Spanish)* 4859
hydroelectric power syst. decentralised planning 35568
hydroelectricity, reservoir syst., optimal policies 35726
hydrothermal power syst., real/reactive power economic dispatch *(Chinese)* 10632
hydrothermal power syst. prod. costing, chron. operation representation 27091
hydrothermal power systs., economic operation, equal incremental eqns. *(Chinese)* 10636
hydrothermal power systs., unit commitment/economic dispatch 19111
I_{DDQ} yield loss problems, economic issues 6860
IC manufacture, self-directed work team evol. 36953
ideal combined cycle power station, design considerations 27581
IGCC, gasifiers, fuels, environ. impact, economics 4853
IGCC power plant hot-gas cleanup technols. 27591
in-bin grain drying energy systs., computer simul. 28200
India, energy use/carbon implications, CO_2 emission 28190
India telephone demand pot. 3103
induction motor/transformer economics teaching, software package 27725
indust. elec. consumers, competition-led CHP markets 43640
indust. elec. contract prices anal., UK 35536
indust. feeder load interruptions, fast breaker tripping impact 20158
indust. plant maint., equipt. availability, economics 36995
indust. plant power syst. planning, tech.-economical eval. *(Russian)* 44621
indust. productivity paradox, theoretical anal. 11660
inform. highway power distrib. archits. 42137
inform. superhighway and regulatory proc. 8805
integrated power packaging, trends, driving forces 11752
integrated tidal barrage network, power supply reliab./economics 10878
intellectual property protection, technol. protectionism 36965
interconnected power syst., min. prod. cost model *(Chinese)* 27033
interconnected power systs., economic dispatch deviation cost penalty 35491
intercontinental elec. connections, rational use/efficiency anal. 26934
Internet, electronic payments 24965
Internet, public good and trading 16741
Internet public goods, funding 25023
joint automatic generation control regulation 4580
k-out-of-n:G systs. spares cost optim. method, computer-based 20484
key industries selection, Saaty's AHP-based 11659
Latin America telecomms. privatization, macroeconomic policies/strategies 3008
LD array economics, price/vol. market 31363
lean prod. in semicond., new process introduction 36951
life-cycle costs reduction in ATE technol. insertion 34360
lin. PM motor traction drives, basic considerations 11419
Lithuania, energy consumption/efficiency prospects 27313
local power syst., VAr benefits optimisation *(Chinese)* 43642
local transm./distrib. planning, load research appls. 27079
localized technol. change and evol. of stds., economic institutions 33319
logistic support for electronic assemblies 43593
long-term coord. 19214
long-term energy modeling, current techs. 26924
LSI manufacturing yield, integrated database syst., cond. anal. 37040
lunar base power systs., life cycle cost 26517
LV distrib. feeders, neutral conductor current distrib. 19272
LV distrib. networks, computer optimised planning 27177
Maitland Report, telecomms. and develop. 3036
MAPEX CAD manufacturability anal. environ., yield design attributes 28408
marginal distrib. capacity costs, area/time specific 4656
MCM technol., plastic encapsulated, high vol./low cost 21725
MCM test trade-offs 6459
MCM-D, low cost fab., thin film transfer proc. 21719
MCM-D, low-cost, technol. choice impact 38190
MCM-D substr. fab., cost reduction approaches 957
MCM-D technol. for data commun. appl. 21744
MCM-L, laminate substr. current state 38192
MCM-L cost model and appl. case study 25180
MCM-L product develop. proc. for low-cost MCMs 21749
MCM-L technol., systs. cost anal., automotive appl. 21736
MCM-L technol., systs. cost anal. for high vol. automotive electronics appl. 21716
Mead-Phoenix transm. line project 43782
metropolitan power systs., supercond. cable losses simul. *(Japanese)* 27216
MHD repowering projects, environ./economic benefits 19576
MHD steam combined cycle, natural gas fuel 27654
microcircuit simul. and test develop. BEST TEST software 34407
microelectronics in today's indust. rev. 36934
MicroInterconnect Technology for redefining economics of MCM appls. 21710
micromechanics, commercial difficulties 9856
mil. autotest cost growth, commercial std. equipt. archits. 34364
mil. test set, design for manufacture/assembly 35403
min. cost power transm., EM field considerations 35650
missile joint service testing, Navy/Air Force CASS 35412
mobile commun. regulation 33928
modelling enhanced microelectronic component testing 38963
modular power generation/storage, targeted DSM 43672

economics continued
motor purchase/repair/replacement, economics, efficiency factors 19591
MUL-TECH corporations, technol. diversification 20369
multi-area fuel cell CHP power systs., elec. wheeling anal. 10644
multi-level/period elec. tariff, unit cost calc. *(Italian)* 4565
multinational enterprise networks, mgt. services and stds. *(German)* 33579
multiple product/multiple proc. factory cost anal. 36960
multizone HVAC syst. optimal control, aggregation/disaggregation method 28180
network opportunities eval. on geographic basis 24878
next generation mfg. enterprise, perform. capabilities 28420
nitride PECVD, plasma clean cycle, cost of ownership model 38607
no-clean fluxes and solder pastes technol. 21649
nonutility generation in customer delivery syst. planning 4611
North American dual-mode cellular syst. traffic advantages 33815
North American power symposium, Washington, DC, USA, (1993) 11522
nuc. generation option, elec. utility requirements 27337
nuc. power privatisation options, UK 43846
nuc. power project cooperation, pan-Asian model 4764
nuc. power station district heating, economic/ecological effectiveness 27361
nuc. power station heat supply, economic efficiency studies 27362
nuc. power station in-service inspection methods 19414
offshore wind turbine demons., UK, feasibility study 10897
offshore wind turbogenerators, foundations design optim. 10895
Ohio metropolitan area, telecomms. infrastructure needs 8798
on-site nitrogen supply for electronics assembly market 28412
open access transm. services pricing appl. 35598
optical/hybrid access networks, conf. (1993) 36850
optimal generation scheduling, ramping costs 35708
outage costs/reliab. indices eval. 35625
overlapping generations models, inverse problem soln. 28378
PAFC CHP feasibility, multiobjective optimal unit sizing 36074
PAFC cogen., natural gas fired, building appls. 36580
Parylene conformal coating economies 933
PCB manufacture, chem./rinse water saving method 21651
personnel reward systs., current trends 11627
petrochemical plant, elec./proc. control systs. integrat. 5410
petroleum pipeline service, peak shaving generator appl. 5408
petroleum refinery/elec. utility collaboration, overview 5414
physicians, job dismissal for economic reasons, ethical considerations 43184
pipelines, skin effect/impedance heat tracing, appl./control 5387
planned lifetime mgt., availability, cost reduction 11651
plug connector selection criteria and reliab. *(German)* 21615
pollution meas. and control, portable analyser *(Czech)* 26768
power distrib. installations, intell. systs. *(German)* 35640
power generation costs reduction, valve develops. 19391
power indust. develop. prospects, far East Russia 19074
power indust. develop. prospects, Lithuania 27046
power plant emissions control, pulsed corona discharge modulators 35998
power radial network, economically justified modif. 35519
power station fire protection systs. upgrade 43813
power stations, lifetime mgt., integrated approach 19377
power supply quality, network operator's viewpoint *(German)* 27134
power syst. act. power reserve scheduling 27088
power syst. economic dispatch, decomp.-coord. theory *(Chinese)* 27036
power syst. economic dispatch, interior point methods 19112
power syst. economic dispatch optim., genetic algm.-based *(English)* 43698
power syst. economic dispatch optim., refined genetic algm.-based 35482
power syst. economic distrib. planning, computer-based *(Russian)* 10691
power syst. emissions-constrained optimal power flow calcs. 10610
power syst. expansion LCP, Eastern Europe 10698
power syst. expansion planning, optimal generation mix algm. 27099
power syst. expansion planning optim., CO_2 emissions constrained *(Japanese)* 43719
power syst. expansion planning under uncertainty 27098
power syst. fuel scheduling, optim. techs. comparison 4600
power syst. generation expansion planning, fuzzy no.-based 19205
power syst. global uncertain planning methodology, computer-based 27117
power syst. load relief prediction/control, computer-based 26965
power syst. marginal outage costs eval. 10671
power syst. mgt. agreement, former USSR 19073
power syst. operation, marginal pricing effects 19145
power syst. operational planning, reliab. eval. method 27090
power syst. optimal generation mix, CO_2 emissions constrained 4599
power syst. real-time voltage/VAr control, optim. algms. 10630
power syst. reinforcement planning, fuzzy optimal power flow 19213
power syst. reliab. optim., elec. utility efforts 4555
power syst. reliab. planning, customer outage costs-based 27078
power syst. reliab. worth assess., Monte Carlo simul.-based 26945
power syst. reliab. worth eval. tech. 27058
power syst. reliab.-centred maint., economic eval. 19080
power syst. security, economic dispatch coord. 19153
power syst. stochastic prod. cost simul. method 27061
power syst. tech.-economical condition, diagnostic ES *(Russian)* 43634
power syst. transm. open access, internat. experience 35593
power syst. value based planning, probab. tech. 4617
power syst. VAr allocation planning, ADAPOS package-based 27092
power syst. voltage/reactive power control, coupling-transformers *(Chinese)* 27035
power syst. with PV syst., reliab./economics anal. 35504
power systems computation, conf., Avignon, France (1993) 11544
power transm. services, marginal pricing, cost recovery anal. 35592
proc. gas improvements, cost of ownership model 36961
prod. logistics, cost reduction appls. *(Italian)* 98
product design for recyclability and its appl., cost-benefit anal. model 5713
product design quality, economic tolerance models 37019
production costing, Markovian model 19110
pump/ventilation elec. drives, energy consumption reduction 28077
pumped storage operation, economic assess., spot pricing 27618
PV DC motor pumping syst., design optim. 19553
PV grid connected buildings, energy flow, economics 43955
PV syst. needs/prospects, European perspective 27621
PV systs. sizing optimisation, Algeria 36057
PV water pumping syst., environ./economic concerns, Brazil 27637
PWR life mgt., EDF approach 19510
QC, strategic follow-up failure costs *(German)* 158
quality avionic systs., systs. develop. guide 10325
R&D project selection project, seq. decisions, uncertainty 20393
R&D technol. mgt. economics 20354

economics continued
RACE 2087 TITAN project, opt. access network risk assess. and economics *(English, Italian)* 33987
RACE 2087/TITAN, access network alternatives *(Italian, English)* 42071
radial distrib. networks, optimal capacitor selection search method 19264
radial distrib. syst., value based reliab. assess. 27168
radio access network, evol. trends and economic considerations 41707
radio in the local loop, economics and operation 42068
rational energy conservation policy, economics 27317
re-engng. approach, ATE 34372
real-time economic dispatch design 4569
reliab. centred maint., economic considerations 19226
rem. power generation sources for harsh environ. 35711
renewable energy power generation, status, prospects, economics 35721
renewable energy resource develop. prospects, former USSR 27309
renewable energy resources develop. perspectives 27308
repair/replacement policies, marginal cost anal. appl. 28386
residential consumer's energy anal. environ. 28055
residential lighting, energy efficiency opportunities, Mexico 28157
resource planning, risk mgt. eval. 35567
Resse motor-driven heating plant, operation/optimisation *(German)* 43940
RF ATE development, Modular Measurement System develop. 42688
rly., safety, quantified risk assess. 36987
road vehicles, fuel usage, dimens. anal. 27330
rural cellular telephony, cost effective commun. 42191
rural telecommunication using optical fibre 9093
SDH network evol. in Japan 33376
secondary cells, economical acquisition/use, recommendations 19957
secondary elec. rly. lines, low cost operation, Italy 44529
segmental PM DC commutator motor, design optim. 36193
self-directed work team evol. 36953
SEMATECH future factory design for wafer fabs 103
semicond. fab., syst. dyn. model 36954
semicond. mfg., economics 29998
semicond. short run mfg., Kalman filtering proc. control 37166
shielded motors prod., enclosed motor basis, former USSR 36143
short-term intersectoral factor immobility 28380
smart substr. MCM, feasibility study 6457
SMT prod., integrated process monitoring/testing 38111
SOFC, internal methane reforming 44383
SOFC exergy anal. methods 44355
SOFC mfg., ceramic components proc. 44310
SOFC/combined cycle power generation proc. studies 27653
SOI, high-leverage technol., mfg. impact and appls. 6841
solar heat supply devices efficiency, Russia 11307
solar hot water/swimming pool heating, concrete collectors 20022
solar power generation, aerospace technol.-based 26520
solar power satellites, life-cycle energy recovery study 35210
solar space power, RTG, parametric cost model 26654
space mfg. facilities develop., self-reproducing 26514
space power generation, develops., economic incentives overview 43417
space PV, future trends 18728
space stations, solar dyn. demons. 35250
spacecraft PV power technols., future trends 26685
SPATE Special Purpose Automatic Test Equipment 34361
squirrel cage motors, computer-based design assistant 19643
standalone PV syst., concepts, economic anal. 36056
stds. impact on product life-cycle costs reduction 28395
steam power plant water treatment optim., economic benefits 43901
storage power station economic viability anal. *(German)* 36051
submarine opt. cable systs., networking trends 3305
subtransmission network reliability, customer interruption costs eval. 27119
subway elec. supply, energy saving, batt. storage plant 44539
Super-16 recording for 16:9 TV prod. *(German)* 9726
survivable internat. network archit. and dimensioning 41549
survivable interoffice networks, video/inform. transport 9099
survivable ring networks, wideband DCS role 41759
sustainable renewable energy technol. devlop. Africa 19395
SVC, three-level invertor-based, expt. investig. 43665
SWITCH*, Swiss Univs.' computer network, growth/funding 25022
syst. test cost modelling, event rate anal. 5587
tandem induction furnaces, cost-effective smelting *(German)* 11500
telecomm. networks, compatibility std. and competition economics 33320
telecomm. power systs., IN 19147
telecomm. services in residential market, long-term demand 33347
telecomms., cost reductions by coalitions in internat. network 33300
telecomms., inform. infrastructure strategic issues 8806
telecomms., security, subscribers view 33351
telecomms. in developing countries, regulatory, investment and personnel issues 3028
telecomputations, telecomms. and computing convergence 3249
telephone earth station satellite commun. link, engng. design *(Chinese)* 42322
test proc. optim. and cost modeling tool 5588
thermal cogen. with wheeling, model anal. *(Japanese)* 10850
thermal power generation, environ. damage, economics 4836
thermal power generation, natural gas-fired, future prospects 35965
thermal power plant emissions control, cost-effective techs. 43887
thermal power plant third order composite generation prod. cost fn. 10847
thermal power plants, carbide-acetylene combustion technol. economics 27530
thermal power syst. short-term operation planning calcs. 27106
thermal units, power generation commitment, genetic algorithms anal. 35523
thermal/pumped storage units, unit commitment *(Japanese)* 26938
thermoelec. heat pump perform., multi-stage cascade expts. 20038
thermophotovoltaics, appls., cost, GRI research 27995
three-phase distrib. network CAD, multiobjective optim. approach 27146
TPS cost management, CASPER expert system 42711
traction power supply maint. project mgt., UK 44525
transm. network expansion planning, computer software appl. 10712
transm. network probabilistic prod. costing simul. 27120
transm. network use charging, marginal cost methods 27121
transmission syst. model reliab. anal., freq. and duration method 35604
transmission syst. model reliab. anal., probab. method 35605
Trojan PWR, decommissioning strategies, decision anal. prioritisation 27354
TRSL std., ProgramGuide implement. 34343
TsV centrifugal fan induction motor drive selection program 44603
turbogenerator shaft torque/fatigue life expenditure prediction 10958
UBS, uninterruptible batt. syst., telecom. equipt. appl. 19787
UK renewable energy strategy, longer-term support 27326

economics continued
ultra-efficient desalination, dual purpose plant 28201
unconventional power systs., scheduling/resource allocation 35496
undergraduate engng. curricula, environ. topics 11614
unit commitment/economic dispatch, equiv. incremental cost 19106
urban distrib. systs. operational structuring, reliab. aspects 43753
urban household water pumping, energy alternatives eval. 44433
urban power networks, develop. prospects, China *(Chinese)* 35575
US opt. sens. for monitoring indust. surfaces 18944
US semicond. indust., cost reduction 36959
US telecom. indust., firm level efficiency 33324
USA and Japan, inform. infrastructure develop. 8887
USA LEC, productivity meas. and price cap regulation 41594
VAr planning, decomp. techs. 4609
VAr planning, enhanced quadratic interior point method 19204
video dial tone powering issues 19814
virtual instruments for use in test systems development 42727
VLSI, future technol./economic prospects 38965
VLSI designs, yield and mfg. prediction model 30432
VLSI manufacturability, component level yield/cost model, mixed technols. 28409
VLSI mfg., research, min. capital cost 36955
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
voltage limited transm. interface constraints, lin. model 35591
VSAT, economical soln. for inform. networking 3510
VVER-440/213 reactors decommissioning, liquidation variants, time depend. *(Czech)* 27402
wafer-level burn-in technol., cost-effective technol. 21731
wastewater plant, var. freq. drive. parallel act. harmonic filter 36810
water pumping PV DC solar pump, simul. model 19554
weighing feeder retrofits/upgrades 3996
West Beacon Power Farm, PV implement. 10887
Westinghouse SOFC technol., power plant appls., Japan 43958
wind power, near-term generation option technol., USA 36064
wind turbine flywheel energy storage 27656
wind-diesel energy syst. perform., probabilistic eval. 10913
worldwide telecomms. networks, investment in transitional economies 3005
Ztek advanced planar SOFC, utility power generation appls. 27928
AlCuMg based alloy overhead line conductors 27220
CO_2 abatement costing, Egypt, top-down/bottom-up approaches 27324
CO_2 abatement costs, comparable assess. 27323
CO_2 emissions abatement, energy strategies, Brazil 27300
CO_2 generation emission abatement challenges, Thailand 27303
CO_2 generation emissions reduction cost curves, Denmark 27302
CO_2 mitigation technol. options assess., China 27322
CO_2 power generation emissions reduction anal., Japan *(Japanese)* 10797
CdTe polycryst. thin-film solar cells 27938
$CuInSe_2$ polycryst. thin-film solar cells 27938
GaAS IC lab. at Motorola, CS-1 facility 37046
GaAs IC mfg., high vol., Anadigics experience 37045
GaAs wafer breakage, impact on proc. facilities 38459
GaSb thermophotovoltaic cells, tech./economic anal. 28002
H_2 energy storage medium, elec. utility appls. overview 28051
NO emission reduction, thermal power plants, economics 35989
Ni-Cd batts., costs reduction, space indust. 26671
Pb-acid valve-regulated telecom. batts., maint. costs reduction 36571
SF_6 power distrib. equipt. enclosures, ventilation requirement calcs. 35628
Si solar cells, PV power generation prospects 36060
a-Si:H polycryst. thin-film solar cells 27938

EDAX *see X-ray chemical analysis*

eddy current braking
exercise bicycle eddy-current brake computer model 36651

eddy current losses
conducting mag. materials, hysteresis curves, freq. depend. 6931
converter transformer cores, losses modelling, failure 44108
cylindrical shells in mag. fields, eddy losses, power shielding 40249
enclosure losses in high power systs., elec. arc furnace appls. 20128
inductive mag. sens., eddy current losses 42771
mag. core loss charactn., practical approach 30746
NANOCON mag. materials, soft mag. props. 13905
power cable mag. fields calc., conductors subdivision method 19297
power transformer inrush current calc., hysteresis loops 19702
power transformer time-domain K-factor computation methods 36222
reluctance motors, modelling/param. meas. methods *(Japanese)* 10973
resist. charactn. by improved eddy-current decay method 18026
reson. switching power convertors, HF mag. design 44207
SRM, core losses calc., mag. flux 10983
stat. distrib. material, eddy current loss calc. 40248
sync. PM motor vector control, stator iron loss considerations *(Japanese)* 10968
thin rect. plates, eddy current loss calc., cryogenic temps. 7908
transformer/coils 2D FEM-based eddy current loss calcs. 888
Co-Zr-Ta-Nb amorph. thin film deposited cores on polyimide sheets *(Japanese)* 30662
Fe-based NANOCON materials, soft mag. props. 39123
MnZn ferrite, low loss, role of microstruct. 7021
MnZn ferrites for high freq. power supplies, mag. props. 30684

eddy current testing
alloys, magneto-inductive testing, sig. excitation/proc. methods 12227
analog sens. sig. quantisation, effective no. of bits *(German)* 17703
austenitic weld seam testing, SPC *(German)* 5919
composite material, weakly conducting, separation, plane-parallel field 12234
ferromag. materials, eddy current NDT sens. 12217
layered metals with continuous cond. profiles, eddy current testing 37553
mechatronic appls. of eddy-current sens. 17750
metal coating elec. cond./thickness, eddy current data rapid inversion 42890
metallic coatings, eddy current thickness inspection optim. 28919
micro-eddy current testing by micro-mag. sens. array 12219
NDE 5917
PHWRs in India, solns., channel problems 27394
profile imagery, flat eddy-current proximity sens. 10027
quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
rem. field eddy current defect interacts., external field 5928
rem. field eddy current test syst., EM field anal. 40232
resist. charactn. by improved eddy-current decay method 18026
rly. feeder overhead lines, hard-drawn stranded wire testing 36749
transducer appl. in fault diagnosis *(Chinese)* 34487
C-bearing composite materials, surface cracks determ. 28904

eddy currents
see also induction heating
2D eddy current problem, domain decomp., serial/parallel 40250
2D nonlin. eddy currents, iter. BEM convergence 40252
3D axisymm. conductor, eddy current anal., vectorial BEM *(Korean)* 23512
3D dyn. nonlin. mag. field in elec. machine, time-periodic FEM 40246
3D eddy current computation, surface impedance method, geometric sing. 40244
3D eddy currents in conducting and mag. shells, impedance-type boundary conditions 40238
3D eddy-current computation, self-adaptive refinement tech. 40234
3D integral eqn. method for eddy current EM field anal. in anisotropic materials 39145
3D transient eddy current calc., hybrid FE-BE method, mag. field intens. 40245
3D unbounded eddy current problems soln., asymptotic boundary conditions 40240
AC screened pole electromagnets, params. estim. *(Russian)* 7929
BE anal. of eddy current problems, regularized formulas 40251
BEM anal., impedance boundary condition 40253
BEM-FEM-coupling method, domain decomp. 40254
coil shielding by short ferromag. tube 23692
converter transformer cores, losses modelling, failure 44108
cpd. turbogenerator electrodyn. props., rotor eddy current effect *(German)* 10985
cylindrical shells in mag. fields, eddy losses, power shielding 40249
DC magnet moving over Fe rail, finite element calc. 15238
deep heating hyperthermia, induction applicator 26468
disc-type eddy current dynamometers, torque design formula 27659
discrete seq., mixed finite elements, gauge condition, vector pot. 40242
domain-wall motion, nonequilibrium dyn., chaos 7188
edge element anal. of magnetostatic and transient eddy current fields 40223
elec. machine rotor drag torque estim. algm. *(Russian)* 43974
elec. machine slot-bound conductors, eddy current effects 36097
ELF mag. field effects 26486
EM field num. anal., BEM/FEM appls. *(Japanese)* 15205
EM fields and screens, diffusion interact. procs. anal. 31698
exercise bicycle eddy-current brake computer model 36651
ferromag. sheets, mag. field effect, skin effect 30680
field variables, BEM formulations 40239
foil winding design, eddy current anal. approach 6375
gradient coils with mag. shielding/eddy shapes, coil shape optim. *(Japanese)* 21598
HF power transformer CAD optim., scant modelling 19685
HTSC flywheel levitation force, num. eval. 1583
human head, MRI, imperilled areas anal. 18474
hybrid FEM/BEM mag. field anal. 31702
idealized exciting current sources modelling in FEM, EMC, Eddy currents 40365
induced elec. charges, spatial cond. change 40237
inductive mag. sens., eddy current losses 42771
iter. domain decomp. algms. for 2D eddy currents 2181
LIM, moving conductors eddy current anal. method 27724
LIM, slitted react. plate, 3D FEM anal. *(Japanese)* 19668
Maglev, instantaneous current detect., PWM converter *(Japanese)* 44563
metal objs. exposed to ELF mag. field, assoc. mag. field 23494
moving conductors, eddy current comps. by hybrid FE-BE method 40247
moving electrodynamic tethers, mag. antennas, fields, currents 23894
pass. damper for mag. suspen. 14266
plunger type solenoids, dyn. model of deenergizing state 40272
polycryst. semicond. ceramics, pot. mapping tech. 1054
power dissipation, sharp corners 40255
power transformer dyn. hysteresis losses 27778
profile imagery, flat eddy-current proximity sens. 10027
relay, nonlin. ferromag. materials, mag. field calc. 38067
revolving PM magnet wheels, static characts. anal. *(Japanese)* 44255
shell element for computing 3D eddy currents, earthing transformer appl. 44099
single-turn coil impedance, double-layered sphere, varying props. 40235
squirrel cage motors, 3D eddy current field rotor modelling *(Chinese)* 44042
stat. distrib. material, eddy current loss calc. 40248
steel, unalloyed sheet, surface condition, ferromag. monitoring 12224
TE eddy current problems with rot. symm., anal. solns. 40243
time-varying mag. field, conductive plate, induced eddy currents, Tokamak fusion reactor 31725
transient 2D eddy current problem, domain decomp. 23511
transient 3D eddy currents in nonlin. media, calc. 40236
transient quasi-static 3D eddy current, fully gauged T,Ψ-A-Ψ formulation 40241
triangular elements for moving conductor eddy current problems, finite element soln. 15236
vortex mag. separation 15257
Al/insulator syst., EM separation 15256
Fe core slab, mag. field diffusion, hysteresis models 39146
Fe-Si, magnetodynamic field, rate-depend. Preisach model 14112
Fe-based NANOCON materials, soft mag. props. 39123
$Fe_{77.5}Si_{7.5}B_{15}$, amorph. wires, domain wall shape/dyn. 14105
Si, thick wafers, bulk carrier lifetime, contactless meas. 13036

eddy diffusion *see diffusion*

edge-defined film fed growth *see crystal growth from melt*

edge detection
3D edge location in motion based vision 32885
3D image feature extraction, diff. geom. 2664
3D indust. obj. recogn., vision based profiling method 41117
3D surface rendering, stereo image disparity map smoothing algm. 33025
128×128 pn-np variable-sensitivity photodetector array artificial retina chip, edge extraction 24577
adaptive Gaussian filter for noise reduction/edge detect. 33030
ATR, act./pass. cooperative image segmentation 25588
bar-code scanners, high-speed edge-detect. algm. 16320
blurred image restoration, layered and Hopfield neural nets *(Japanese)* 8666
border detect., obj. segmented by pyramid linking method 8665
boundary-based corner detect., wavelet transform 32888
building detect. by range and image data fusion 41256
car outline extraction by neural net 41374
close range dimens. meas., grating techs. 18078
cloud IR rem. sens., shape segmentation method 18834
cluttered images, robust model-based edge recogn. 2676
color edge detect., differential operators based on human vision syst. 16345

edge detection continued
- colour images, isolated noise detect./reduct., median filter 2851
- conference, computers in cardiology, London, UK (1993) 11543
- constrained contouring in polar coord. 2666
- contour extraction of moving objs. in complex outdoor scenes 24576
- contrast enhancement of blurred images, fuzzy logic based *(Korean)* 24694
- convolution, FT, maths courses 8600
- corner detect., model based segmentation 2667
- crater detect. by lin. filters representing Hough transform 41266
- cube, 3D motion compensation *(Japanese)* 33108
- cursive handwriting recogn., online connectionist recogniser 33041
- depth extraction by time disparity, real image seqs. *(Japanese)* 2617
- discrete-time cellular neural networks 32900
- dyn. threshold determ. by local and global edge eval. 41346
- edge maps, neural network arbitration 41322
- edge-moment-based 3D obj. recogn. 2716
- ellipse param. estim. by image seqs. 41106
- expansion matching, optimal edge detect. and generic recogn. 8625
- extrema curvature evol., scale-space 24444
- feature-based approach, 3D obj. reconstruction 41262
- feature-based stereo matching algm. 16338
- ferritic steel weld images, automatic thresholding/edge linking 16135
- FIRE operators, fuzzy inference edge detect. 2680
- First Sight, human body outline labeling syst. 41288
- FPGA archits. for range/image sens. 3881
- frame of wavelets for edge detect. 32825
- framework for low level, extraction 24632
- fringe thinning algms. in photomechanics, perform. eval. 41198
- fuzzy neural networks, training, model-based method 8582
- Gabor wavelets for texture edge extraction 41274
- generalized adaptive median filters, appl. in computed tomography 26323
- geometric meas. based on photom. inform. 2685
- global perceptual contours inference from local 16396
- global surface reconstruction, viewpoint adjustment 16164
- gradient-based block truncation coding 24664
- grayscale image preprocessing for viewpoint independent 3-D extraction of objs. 24521
- head boundary location, fast algm. 16321
- heart, left ventrical boundary extraction in echocardiography 35010
- hierarchical stereo matching algm., wavelet representation *(Korean)* 24688
- hierarchical texture anal., Gabor expansion *(Japanese)* 33113
- high sampling resolution tactile sensor for object recognition 25807
- high-precision opt. gauging of metal rings 18062
- Hopfield neural network, optim. problems 8598
- human eye location for quantifying eye muscle palsy 41130
- image encoding, edge field, Laplacian operator 33002
- image segmentation, Canny-Deriche filter and ANN appl. 33054
- image sens., smart, custom, develops. 17962
- image-based air target ident. 26823
- indust. laser cutting syst., knowledge-based adaptive control 5614
- jn. class. by multiple orient. detect. 24443
- key-points role in finding contours 24631
- knives edge profile meas., image automated anal. 3979
- Landsat TM imagery, lines of commun. extraction syst. 16261
- Landsat TM imagery, perceptual grouping, extract extended lin. 16258
- Landsat-TM scene lin. LOC segment detect. using morph., model-based approach 16257
- Laplacian-of-Gaussian detector, noise removal 24382
- lin., extraction by least sq. template matching 41253
- line and edge, extraction based on covariance models 16290
- line correspondence in aerial images, stochastic relax. 41240
- line parameterization conditions 41067
- line-drawings from piecewise planar objs., edge detect. 24473
- line-edge ambiguities resoln., probabilistic relax. 2781
- lines recogn. in digital images 41327
- local and global multiscale image class. 32835
- localisation, nonparametric algm. 16400
- Markov random field models use, optim. and param. estim. *(Japanese)* 16237
- med. obj. detect., transputers 26336
- mfg. product defect detect., CMOS real time image proc. systs., AOI 32940
- MM-wave radar sens. for road vehicle positioning 42512
- morph. edge detect., real-time, low-cost approach 8586
- moving obj. robust extraction, edge grouping, neural 41378
- MR images, vol. segmentation 26271
- multi-level edge primitive matching, cooperative strategy 32851
- multilayer neural net appl. 16147
- multiresolution edge detect. techs. 24599
- multiscale contour approx., adaptive smoothings *(Japanese)* 2655
- multiscale corner detect. by wavelet transform 16316
- multiscale image struct. detect. algm. 16393
- multiscale struct. from multiviews by $\nabla^2 G$ filtered 3D voting *(Japanese)* 33110
- neural net based edge detect., line proc. 41372
- neural network decision directed edge-adaptive Kalman filter 33060
- neural networks appl. 8559
- obj. recogn., multiscale shape simplification 32832
- obj. recogn. under projection distortion 33092
- opt. flow computations, wavelets, curvature and chaining issues 32842
- optimal discriminative SNR, edge detect. and extraction 16398
- optimal edge-preserving hybrid filters 2737
- perceptually motivated three-component image model 33126
- pixel-feature-controlling edge detect. based on regularisation 33020
- plane orient. from skew symm. 2663
- polygonal contour extraction/lin. filtering 2693
- posterior mean method of image restoring and edge extracting 16355
- probabilistic and dictionary-based relax. techs. 8503
- quadratic filter and detect. 2668
- radar pulse train deinterleaving via Hough transform 34141
- radiographic med. meas. automation, edge detect. 43275
- real-time edge linker 16399
- rect. pixel image, modified moment-based edge operator 8671
- recursive algm., edge intens. and gray-level thresholds selection *(Japanese)* 2620
- region-based image edge profile acutance algm. 41197
- regularized cubic B-spline fitting 32919
- relax. labeling tech. 41187
- reversed projection blurring model, occluding edge photom. props. *(Japanese)* 32862
- road extraction from aerial images, semi-automatic 41258

edge detection continued
- robot skills development using a laser range finder 25585
- robust nonlin. filter for noise-smoothing and edge-enhancement 2847
- rot. symmetric surfaces recogn. 2760
- rubber tyre image, characters, edge detect., fuzzy α-cut set *(Korean)* 24677
- saddle-node dyn. for edge detect. 8679
- safe-point thinning algm. 24383
- scale-space props. of quadratic edge detectors 24445
- second directional derivative edge detector, sampling/quantization/noise effects 33122
- second/higher order stats. change detect., texture segmentation 8560
- shape adapted smoothing in estim. of 3D depth cues 24471
- signature based edge classification using scale space methodology 24712
- Sobel operator-based edge detector, VLSI implement. 30473
- SPRITE-based syst., image proc. 34575
- subpixel edge localization/interpolation of still images 32875
- subspace-based line detect. algm. 8517
- surface curvature segmentation by photom. invariant 2606
- surface feature extraction, 3D image partial derivatives 32907
- surface roughness determ., refl. step edges 3974
- syntactic contextual detector, rewriting 41122
- two scales algm. 16397
- visual motion detect., BP learning, internal neural struct. 41375
- VQ for edge preserving by neural net 41371
- wavelet transform domain filters, noise filtration tech. 2726
- $BaTiO_3$ cat conjugator, real-time image proc. 24491
- $BaTiO_3$, photorefr. crysts., variable edge enhancement 8593
- Si retina analog image proc. 776

edge dislocations
- α-GaN films, OMVPE, microstruct. charactn. 28734
- Si:P gate form. of MOSFETs, mech. stress simul. 38894

edge extraction *see edge detection*

EDIF *see electronic data interchange*

editing, text *see text editing*

EDP management *see DP management*

EDTV *see high definition television*

education
- *see also biomedical education; computer science education; continuing education; control engineering education; educational administrative data processing; educational aids; educational courses; educational technology; engineering education; management education; teaching; training*
- adaptive seq. testing, educational eval. 20327
- Australian microelectronics, conf., Gold Coast, Qld (1993) 5449
- career development reinventing 36874
- CREAD, inter-American effort for collaboration in dist. education 3048
- EMTP as educational tool, power syst. transients anal. 4475
- ETS-V satellite workshop expt. 3528
- GATES, global access tele-health and education syst. 33955
- German higher education, supporting excellence 11604
- global learning network, educational alternatives for developing economies 3043
- Hawaii, developing virtual learning environ. 3058
- Hawaii, dist. learning technol. 3059
- hyperb. 1D wave eqn. soln., spreadsheet program 5525
- IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
- Indian Inst. of Technology, undergraduate education 5541
- integrated analogue-digital microsystems, challenges for research and education 37826
- intell. materials, materials education appl. 28889
- international technical communication, American-Russian collaboration 28308
- KoREMA, conf., Zagreb, Croatia (APR. 1994) 20202
- marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
- Mexico, drive toward 1st world telecomms. infrastructure and education 3046
- microelectronics in today's indust. rev. 36934
- mixed media open networks for dist. learning 3069
- multimedia, marketplace pot. 25110
- multimedia and community *(Japanese)* 42021
- network training, self-help materials need 11622
- North Carolina Information Highway, ATM switching/CPE 8823
- North Carolina Information Highway, NC-REN for research collaboration 5537
- OfficeMermaid, multimedia groupwork syst. *(Japanese)* 42033
- PEACESAT program, Pan-Pacific Education and Communications Experiments by Satellite 3518
- powder manufacturing and industry trends, conf., Canada (1994) 28226
- South Pacific countries, provision of dist. education by satellite 3065
- Southeast Asia, educational telecomms. 3042
- tech. institutions mgt. 5542
- technical education, video protection 28306

educational administrative data processing
- campus LAN layout, design and implement. 33549
- Footsteps for navigating World-Wide Web 41870
- HTML and MOSAIC for student career counselling on Internet 25014
- mass IS, case study 33425
- multimedia campus directory design 9048
- student perform. eval/follow-up, graphical software tool 11616
- understanding pot. scores, S-P chart based estim. 11603

educational ADP *see educational administrative data processing*

educational aids
- DAMA syst. for interactive teleteaching via satellite 33209
- distance training syst., design 5559
- electrical engng. education, learning technology appls. 28357
- electronics lects., computer based presentation, graphical simul. 20308
- ETS-V Asia-Pacific telecommun. network expts. 42319
- IDaSS, interactive design and simul. syst. for digital ccts. *(English)* 37594
- Informedia project, digital video access 16254
- low cost audio analog vector voltmeter/wattmeter 18022
- multimedia resources, networked delivery, academic community 25117
- NEC's VisuaLinks AD-EX series teleconferencing syst. *(Japanese)* 41946
- orienting activities in cooperative learning, effect on behavior 42641
- radar anal. experts modelling for training/aiding 20350
- satellite technology, use in education 28307
- sci. teaching improved, electronic mail 36912
- switched DC-DC converters, control, educational workbench *(Spanish)* 19876
- tele-teaching over-dist. education, ISDN-based 20283

educational aids continued
video production in technical education 28306

educational computing
see also computer aided instruction; educational administrative data processing
ACES project, providing Internet connectivity for rem. Alabama offices 8981
adaptive seq. testing, educational eval. 20327
Byelorussia, networking for sci. and education 41775
campus-wide inform. syst. develop. 25003
compressed digital videoconferencing, educational 25075
computer sci. education, modern microelectronics appls. 28330
computer-based pump testing expt. 5523
distributed virtual simul., networking 18995
elec.-structural engng. finite element modelling education rels. 5535
electronic design, multiple media 20317
electronic mail infrastructure, develop., LAN/Internet solns. 41732
electronic network conferencing for M.Sc. education 16820
engng. education, educational technol. overview, India 5549
handicapped students' speech recogn. syst. 43381
Hawaii, e-mail/LAN pilot project 3154
Hawaii, national and internat. network services for dist. education 3197
Hawaii Department of Education, online media catalog and booking syst. 3060
Indiana Cooperative Extension Service, Internet links, field offices 8982
Informedia project, digital video access 16254
Internet and schools, networking activities 25011
Internet for educators, user's guide 24982
Internet project for 100000 users in Thailand 41777
LAN, educational practice 11621
mixed media open networks for dist. learning 3069
multimedia appls., fn.-based commun. protocols 9074
multimedia messages, Chilean network for primary schools 41982
power electronics design, educational strategies 29013
Romanian Nat. Academic and Res. Network, Cluj-Napoca node 41831
SEMDEM bipolar power diode/thyristor modelling program 30199
Taiwan academic network (TANet), extension programs 3200
telematics, creative 2998
university discless workstation network traffic charactn. 28347
university teaching profession, multimedia in context 20273
World Wide Web pages for academic department 24943

educational courses
3-phase induction motor simul. for teaching purposes 66
adaptive sig. proc., teaching, algm./architect./appl. 36925
ASIC VLSI design courses, EUROCHIP initiative 20288
Auburn Univ., power engng. curriculum and GUI software 28337
centimetric ground radars, pers. reminiscence 34148
computer industry, technical communication curriculum 28565
continuing engng. education, 3rd Erlang formula 73
continuing engng. education, workplace-based, India 5547
continuing engng. education projects, India 5548
CPU design, 32-bit, VLSI project, C and GDT for computer sci. students 20291
curriculum, technol. and staff develop., college-school partnership 20272
DEDICATED's modular training syst., computer based teaching syst. 16860
design engng. education, project mgt. teaching principles 37022
DFT courses at Universite Montpellier, indust. testing and simul. tools *(French)* 20328
digital commun. education course, senior undergraduate project 20282
dist. education, multimedia environ., computer-supported collaborative learning 11619
DSP, modular courses design 36929
DSP, practical approach 36922
DSP, teaching, computer based/dedicated hardware projects 36919
DSP demons. facility, sound card/MATLAB 36920
edge detect., convolution, FT, maths courses 8600
EDUCATE project, end-user courses in inform. access, commun. technol. 20339
elec. engng. course, computer tools introduction 20278
elec. engng. education, European stds. assess. project, Netherlands 20322
elec. engng. training programmes, overview 36935
elec. engng. university education, electronic textbook appls. 28277
elec. equipt., general course, Moscow Power Inst. 77
elec. network anal. course, content/results/instruction 20276
elec. network anal. course, problem types/sequencing 20277
electrical/electronic engng. education, experience-based learning approach 28353
electronics mfg. engng. curriculum, USA 11613
EM CAD in undergraduate courses 2171
EM wave propag., Brewster's angle teaching approach 20347
engineering education, developments, courses conf., Washington, DC, USA (Nov. 1993) 36901
engineering R&D management education overview, South Africa 28354
engng. curricula, indust. perception, India 5554
engng. degree education, quality achievement, UK 20323
engng. degree lab., TMS320C25 DSP chip-based course 20345
engng. design, teaching, courses, group work 5578
engng. education, indust.-university cooperation, India 5546
engng. education, Prof. James R. Melcher contribs. 36932
engng. education courses, foreign lang. learning incorporation 28283
engng. entrepreneurship develop., academia role, India 5557
engng. mgt. masters course develop., South Africa 11623
engng. programme student success prediction 11608
engng. programs enhancement, QA review proc. 11607
engng. undergraduates, expt. skills develop. 5538
engng. with sig. proc., introduction 20297
FPGAs in the Australian undergraduate curriculum, practical appls. 29118
hearing aid new users, commun. course eval. 43358
indust. needs for electronic systs. designers, degree course, VLSI theme 20292
indust. quality engng. course develop. framework 11606
indust. relevance of VLSI undergraduate training 20287
integrated power electronics education, undergraduate courses, USA 11611
internat. educational exchanges, pitfalls and possibilities 28282
international technical communication, American-Russian collaboration 28308
introductory elec. engng. course, cct. simul. software 5530
local government mgt. education unit 20318
MathCAD, expt. simul. lab for teaching sig. proc. 20294
Mathcad for elec. engng. 36911

educational courses continued
mfg. engng. education, computing technol. teaching experiences 36937
mfg. engng. technol., accredited education programmes, USA 36936
mobile IP, secure short-cut routing 24845
MOSIS designed CMOS/BiCMOS arrays, teaching VLSI courses 5529
multimedia med. phys. course, imaging/instrumentation 43183
network anal., student lab. course, knowledge validation 20279
phys. lects., multimedia interact. 20310
power electronics undergraduate/graduate education survey, USA 5532
power systs. bifurcations/chaos education, student lab. 20349
professional engineer career develop., education effectiveness study 20326
project-oriented power engng. curriculum 28278
PSpice for Laplace transform eqn. solving, undergraduate course 28351
RCS graduate level course 28287
react. time expts., CAI support syst. develop. *(Japanese)* 36930
Reading Univ. electronic engng. course, DSP 36917
stochastic modelling, continuing engng. education approaches 68
student perform. eval/follow-up, graphical software tool 11616
switched DC-DC converters, control, educational workbench *(Spanish)* 19876
teaching DSP at degree level, experiences 36928
teaching real-time DSP, Univ. of Leicester 36921
teaching sig. proc. on Information Superhighway 20296
technical and business communic. course, teaching to foreign language audience 28301
technical writing course evol. 28291
technol. mgt., educational trends survey 20367
tele-teaching over-dist. education, ISDN-based 20283
time series education, graduate engng. student courses 72
undergraduate digital design courses using PLD 28346
undergraduate elec. engng. curricula accreditation, USA 11617
undergraduate EM education, CAEME software experiences 28285
undergraduate engng. curricula, environ. topics 11614
undergraduate sig. proc., Royal Naval Engineering College 36924
Univ. of Arkansas, electronics mfg. curriculum 28332
university engng. course, professional skills education, UK 28281
university engng. degree courses overview, UK 28280
university engng. degree education overview, Germany 28284
Verilog-based computer engng. course and lab. 5517
VLSI design, Technical Univ. of Madrid, teaching 20289
VLSI design courses, indust. participation 5518
VLSI design training, Univ. of Twente, student design teams 20290
VLSI testing teaching, Univ. of Paris *(French)* 20331

educational psychology *see education; psychology*

educational technology
see also educational computing
curriculum, technol. and staff develop., college-school partnership 20272
distance training syst., design 5559
engng. education, educational technol. overview, India 5549
internetworking, user soln. 33509
multimedia teleteaching syst. 5516
open and dist. education, interactive multimedia uses, emerging trends and develop. 20274
orienting activities in cooperative learning, effect on behavior 42641
technical professional continuing engng. education overview 28352
teleteaching syst. in university environ., expt. monitoring *(Italian)* 28344

EDX *see X-ray chemical analysis*

EEG *see electroencephalography*

EELS *see electron energy loss spectra*

EEPROM *see EPROM*

effective mass
see also band structure
double-barrier reson.-tunneling struct., quantum magnetotransport of electrons 21946
indirect interband tunneling formulation for semiconds. 38315
IR photodetectors, MQW/superlattice, Monte Carlo simul. 13581
MOSFETs, Fowler-Nordheim tunneling of carriers, gate current simul. 38896
p-n jns., thermal equilib., electronic states 21954
phonon-difference FIR lasers, neg.-effective-mass generators 14890
press.-measuring diaphragm approx. model *(Japanese)* 25740
VCSELs with strained QWs, opt. gain, cryst. orient. depend. 1948
$Al_xGa_{1-x}As/AlAs/GaAs$ quantum wells, reson. electron capture 22019
AlGaInP/GaInP strained quantum wells, opt. gain 31377
$Al_{0.48}In_{0.52}As/Ga_{0.47}In_{0.53}As$ heterostruct., δ-doped, second subband pop. 29890
GaAs films, anom. PV effect/neg. photocond. 39554
GaAs:C films, MOCVD grown, heavily doped, elec. props. 38253
$GaAs/Al_xGa_{1-x}As$ double-barriers, electron transm. 13113
GaAs/AlAs superlattice, X valley minibands, neg. differential cond. 1088
GaAs/AlGaAs, H impurity near interface, binding energy effect *(Chinese)* 6542
$GaAs\text{-}Ga_{0.51}In_{0.49}P$ QW heterostruct., reson. magneto-tunnelling of holes 13201
GaAs-Si films, anom. PV effect/neg. photocond. 39554
(GaIn)As/Ga(AsP) MQW, excitonic binding energies 15080
GaN-related alloys, acceptor binding energy 13068
Ge_xSi_{1-x} HBTs, graded and uniform base study 13647
$Hg_{1-x}Cd_xTe$, hole scatt. mechanisms 13063
$InAs/Ga_{1-x}In_xSb$ superlattices for long-wavelength IR appls. 17799
InGaAs heterostruct., nanostructure fab., FIB technol. 13312
InGaAs/GaAs quantum wells, strained, absorpt. coeff. and refr. index 1136
InGaAs/InP quantum wells, electrons in-plane effective mass 38329
$In_{1-x}Ga_xAs/InP$ quantum wells, cond.-band/valence-band struct. 1130
InGaAs-InAlAs quantum-well lasers, TE-TM mode switching *(Japanese)* 31329
$In_{0.4}Ga_{0.6}As\text{-}GaAs$ quantum well IR photodetector 9906
InGaAsP quantum well laser, 2D model 14976
InP strained wires and dots, localized confine. pot. 6562
In_2S_3 crysts., thermoelec. power, electron/hole mobilities 1062
Si films, anom. PV effect/neg. photocond. 39554
Si, nonlin. transport, model hyperfrequency differential-mobility 21880
a-Si single-barrier device, neg. resist. charact. 6811
$Si/Si_{1-x}Ge_x/Si$ heterostruct., 2D hole gases, magnetotransport and photolumin. 21993
SiC, 6H, CVD layers, electron effective mass/mobility 13086
SiC single-barrier device, neg. resist. charact. 6811
ZnCdSe/ZnMgSSe strained layer quantum well blue-green lasers, opt. gain 39755

EFG *see crystal growth from melt*
EFTPOS *see EFTS; point of sale systems*
EFTS
see also automatic teller machines; point of sale systems
Internet, electronic payments 24965
mobile commun. mgt. and digital cash replacement 8845
motorway toll syst., IR technol., enforcement syst. 42820
network security problems and solns *(Japanese)* 16610
road pricing, RF/vision syst. 42187
roads, beacons/protocols for fee collection/route guidance 41521
testing/emulation of EFT systs., functional appraisal *(French)* 33539
EHD *see electrohydrodynamics*
eigenfunctions *see eigenvalues and eigenfunctions*
eigenstructure assignment
direction finding array sens., calib. 24195
Gerschgorin disks, source no. estimator 40956
missile, tail-control, LQG/LTR, eigenstruct. reassignment 18997
eigenvalues and eigenfunctions
see also eigenstructure assignment
2×3-phase sync. machine, extended Park's transform. 44020
2D leaky opt. waveguides, vectorial FEM modelling 39406
2D transform domain adaptive FIR filtering 2575
2D-FDTD method, DFT appl. 15579
AC/DC power syst. stabil., DC modulation control *(Chinese)* 35471
accelerated overrelaxation method for AX-XB=C 11984
acoustic Helmholtz resonator, EM analogue, wave scatt., poles *(Russian)* 15418
acoustic waveguide jns., low freq. impedance matrix 4415
act. cylindrical waveguides with step-index profiles, transverse modes 30953
adaptive array covariance matrix eigenvalues rel. to mutual coupling 23973
adaptive estim. of eigensubspace 32550
algms. for intersecting parametric and alg. curves, multiple intersections 37332
alternating projections method 37326
anal./synthesis filter banks, phase lin. 33149
analog cct. for eigenvalue calc. and rank filtering 778
analogue syst., eigenvalue computation and sorting, matrix flow 12669
anistropic channel waveguide coupling, finite-difference freq.-domain anal. 31897
antenna syst. for multiple suppression 31992
asymmetrical grating assisted coupler calc. by eigenmode expansion/coupled mode theory 39419
ATM stat. multiplexer multidimens. diffusion model 41431
axially symm. four waveguide coupler design 30951
band-limited sigs., lost samples recovery, stabil. 15907
beamspace noise eigenvectors, multirate proc. 40906
bianisotropic and inhomog. multilayer and waveguide anal. 23774
bianisotropic waveguides, lin.-operator formalism 31911
bidirectional opt. waveguide propag. modelling, mode expansion/matching 15560
bihelicoidal laser eigenstate opt.-activity meas. 42960
birefr. fibres, solitons 7297
blind MA-syst. ident. based on higher order cumulants 32491
boundary element approxs., elec./mag. fields, iter. soln. 2177
broadband max. energy array, spatial/freq. constraints 41013
brushless doubly-fed induction motor drives, speed control 20055
CDMA commun. systs., subspace-based delay estim. 42166
CFH, complex freq. hopping anal. of interconnect networks 21083
chaotic sig. proc. via unstable cycle extraction 32780
circ. curved integrated opt. channel waveguides, source-type integral eqn. anal. 22881
circ. groove guide, propag. charact., tolerance effect 2297
circ.-polarized annular microstrip antenna, tuning stub anal. *(Japanese)* 40522
coaxial dielec. resonator, circ. propag. mode 6289
complex all-pass IIR digital filters, design 15908
conductor and dielec. losses of transm. structs., calc. 15574
conformal mapping-based image proc., theory/appls. 41176
constrained anti-Hebbian learning algo. for total least sq. estim. 2549
coronary artery disease, diastolic heart sounds, harmonic decomp. 26288
corrugated periodic struct. noisefree static field calc. 31892
curved waveguides, eigenmodes and ang. propag. consts. *(Chinese)* 31909
curved waveguides, eigenmodes and ang. propag. consts. 2300
cylindrical microwave struct., semi-inversion method 15557
cylindrical wave diffr. by ideally conducting wedge 23594
data transm. SVD-based fractionally=spaced equaliser perform. 42043
DC generator commutation curve anal., eigenvector method *(Japanese)* 11062
derivative computation by Chebyshev differentiation matrix, roundoff error 20594
digital allpass networks design, eigenvalue problem based 8257
discriminant anal. based on exponential possibility distribs. 8579
disordered quantum wires, DOS/conductance 38342
distribution networks, periodic steady state anal. methods 19248
DOA estim., min.-norm method without eigendecomposition 40951
DOA estim. in unknown correl. noise, MUSIC and higher-order stats. 32481
DOA of multiple narrowband/broadband sources, estim. 15984
edge-element method for simul. and anal. of EM fields *(Chinese)* 31707
eigenproblem of banded symmetric Toeplitz matrices soln. on multicomputers 20603
eigenproblem of pos. definite matrices, parallel processed scheme 20608
elec. machine state eqns., inductance matrices eigenvalues *(Russian)* 43975
electromechanical oscills. damping, controllable capacitors 4521
entropy min., spectral estim., inform. theory 40772
estim. in quadratic formulas 11988
EVAM, eigenvector-based algm., multichannel blind deconvolution 24301
exponentially damped sinusoids, param. calc., third-order stat. 40863
fast decision feedback LMS algm., multiple step sizes 8462
fault-detect. filter, optimal detect. filter 8252
FEL, biased double-well heterostruct. 7695
FEL, collective regime, 3D coupled-mode theory 39928
ferrimag. tridisk-coupled resonator, modal characts. 12715
fiber links, polariz. mode dispersion meas. 7342
finite-pot. and gate-induced electron waveguides, discontinuities 1126
FIR all-pass opt. dispersion compensators for high-speed long-haul systs. 42366
generalized eigenvalue minimisation 11894
generalized symmetric tridiagonal eigenvalue problem 11987
generalized URV subspace tracking LMS algm. 32757
eigenvalues and eigenfunctions continued
gyroelectric chiral media, field representation by cylindrical vector wavefunctions 31887
harmonics no. detect., max. eigenvalue varied rate criteria *(Chinese)* 8401
Helmholtz eqn., eigenvalue problems, adaptive boundary element 11999
Hermitian pos.-definite matrix, smallest eigenvalue, lower bounds 28557
high-order opt. soliton splitting under two-photon absorpt. 31629
high-Q opt. cavities and mirrors, laser gain meas. 7705
hybrid wind/diesel power syst. stabilisation, SMES controller design *(Japanese)* 27645
hyperb. updating of LDU decomp. 24270
implicit schemes for algm. for determining boundaries of complex spectrum 11991
injection laser polariz. dragging 2001
injection laser-modulator combinations, time-depend. simul. 14952
interconnected power systs., small-sig. stabil., eigenvalue method, parallel proc. 35493
interferometric fiber-optic sens. arrays, eigenvalues determ. 17908
interval matrices, eigenvalue bounds 5731
intrinsic dimens. estimators eval. 16297
IR FPA, high-resoln. closely spaced obj. location algms. 3885
irrotational mag. eigenfunctions belonging, complex cavities 15564
Karhunen-Loeve expansion stabil. in pattern recogn. problems 2692
Kerr-type nonlin. dielec. slabs, TM mode propag. 40398
ladder network resonators 6202
large image sets partial eigenvalue decomp. 41186
lin. phase FIR digital filters, max. SNR, design 15982
linesearch method for quadratically constrained convex prog. 220
LMS acoustic echo cancelers, slow asymptotic convergence 24313
Loran-C skywave delay estim., eigen-decomp. 17500
lower triangular moment matrices, generalized eigenvectors 5729
LS/SVD based techs. for high-resoln. freq. estim. 24203
magnicon amp., efficiency optimisation 29770
metallic waveguides, rect. boundaries, finite-difference anal. method 23791
min. effort estimators/controllers, perform. surfaces 32561
model order estim. from covariance matrix eigenvectors 24251
multilayer planar opt. waveguiding struct., eigenvalue eqns. 14449
multilayer-coated diffr. gratings, differential method 1702
multilayer-multiconductor transm. line network, pulse propag. *(Korean)* 37931
multimode GRIN fibers, mode-noise anal. 39357
multiple narrowband/broadband sources, MUSIC approach for DOA estim. 8318
multispectral imagery, transform coding 24501
multivalued Bartlett proc., source tracking 15971
MUSIC, conjug. symmetric beamformers, perform. anal. 40816
nonlin. channel waveguides, variational anal. 23805
nonlin. sig. proc., slope transforms, theory/appl. 40832
nonparallel dielec. waveguides, coupling charact. 8023
nonparaxial propag., reflecting opt. waveguide, 3D vectorial eigenmode algm. 14439
nontransparent waveguides, bound and leaky eigenmode techs. 39393
num. soln. of secular eqn. 28676
obj. recogn. from appearance, parametric eigenspace method *(Japanese)* 16302
open asymmetrical multiconductor transm. lines, spectral-domain anal. 40390
optimal receiver design, wavelet bases 40929
orthogonal spline collocation, matrix decomp. 28671
overhead transm. lines, spacer dampers energy dissipation 27232
parametric estim. of ocean surface currents, HF radar 43526
partially adaptive array design, DOA estim. and null steering 23958
periodically stratified media light, Bloch eigenvalue eqn. 2196
photorefr. oscillator, weakly multimode dyn. 15072
planar lines and antennas, 3D full-wave anal. 2280
planar opt. waveguides, travelling modes, generalized theory 22869
plane wave scatt. by coated dielec. ellipt. cylinder 7950
PM sync. motors, stable nonlin. observer design 44023
pole-zero syst. model order estim. algm. 40848
power syst., small sig. stabil. anal., eigenvalue clusters calc. 35437
power syst. chaotic phenom. model, computer-based 4480
power syst. dyn. stabil. assess., Rayleigh's quotient *(Japanese)* 35453
power syst. dyn. stabil. improvement, SMES-based design 27003
power syst. eigenvalue calc., AESOPS algm. improvement 4489
power syst. EM transient simul., matrix-based 4484
power syst. load flow calcs., modified incomplete Cholesky method 26864
power syst. optimal controller design with prescribed eigenvalues 35522
power syst. oscills. damping, control design 27004
power syst. small sig. stabil. anal., computer programs *(Japanese)* 26875
power syst. small sig. stabil. anal., SMAS3 package 26897
power syst. SSR damping, SMES-based 10681
power syst. stabil., bifurcations, voltage collapse, load modeling 35440
power syst. stabil., subsystems interact. 19092
power syst. stabilizer design, pole-placement algm. 43678
power syst. state estim., Otten partitioning method 26884
power syst. sync. generator dyn. stabil. control enhancement 43706
power syst. voltage stabil. anal., load modelling, eigenvalue calc. 26869
power system voltage collapse point estim. algm. 19034
product rules for displacement of near-Toeplitz matrices 264
Prony based methods for simultaneous ident. of transfer fns. and init. conditions 32587
PSS controller tuning, systematic design method 27056
PWBs, crit. vibr. behavior, holography, finite element modeling 921
QMF filters, eigen design 24433
quantum waveguides, 2D/3D, curvature-induced bound states 22016
quantum well lasers, 2D self-consistent simul. 39790
random act.-region width coupled semicond. laser arrays, lin. sensitivity anal. 31312
randomly generated matrices, computation of eigenvalues 37320
randomly time-varying channels tracking algms. 2466
rank and subspace tracking, lin. computational complexity, adaptive algm. 40912
reciprocal cct. model, lossy waveguide struct., orthogonality of eigenmodes 15563
rect. cavities and waveguides, EM dyadic Green's fns. 31904
rect. waveguide, elec. dyadic Green's fns. 31905
reson. cavities, design, multilevel methods 15569
reversing lattice filter, no. of sources of interf. estim. 2574
ridges for image anal. 16239
ring fibre interferometer, sig. drift by transient polaris. effects 3849

eigenvalues and eigenfunctions continued
- ring laser gyroscope design, spatially resolved eigenstates for traveling/standing waves 14997
- RITE algm., pipelined regular array proc. implement. 8370
- RLS algm., wt. misadjustment, input sig. correl. effect 40843
- self-adjoint eigenvalue problems, comparison of errors in upper and lower bounds, eigenvalues 11992
- sig. correl. matrix, array receivers phase delays estim. 32611
- single proc. array for pipelining multiple SVD 32459
- single server queue, discouraged arrivals 20519
- slow flat Rician fading, covariance matrix, ML detect. 25306
- smart antenna appls. in mobile commun., const. modulus factorization 32465
- smooth nonseparable N-dimens. scaling fns. 32506
- SMT solder joints, stress anal. model for fatigue prediction 37114
- SMT stress sing. allowing for local plastic deform. 29660
- spatial smoothing, optimal subarray size 24320
- speech enhancement via adaptive eigenfiltering 24140
- speech template matching tech., subspace approach 15854
- sphere of small rad. embedded into dielec. one, EM scatt. 15384
- spherical subspace updating, asymptotic anal. 8305
- spiral phaseplate prod. helical-wavefront laser beams 2043
- spun lin. birefr. fibres, current sens., temp. compensation 3863
- sq. unsymmetric Lanczos method 20590
- stat. model-based approach, topographic labels assignment 41203
- state depend. multiserver queues busy period 20508
- static voltage stabil limit determ., load flow algm. *(Chinese)* 26907
- struct. preserving power syst. model, voltage stabil. 4497
- structurally chiral medium, piezoelec. wave prop. 13986
- Sturm-Liouville eigenvalues, finite-element estim. 12013
- sub-optimal nonlin. predictor, reduced complexity config. 8465
- subband adaptive digital filter, perform. anal./appls. 40779
- subspace-constrained SCORE algms. 8365
- superlattice, -1 Stark ladder transit., electro-opt. modulator appls. 14521
- superlattice, transm. spectrum, elec.-field-induced changes 29916
- symmetric definite pencil eigenvalue optimisation 11895
- symmetric matrix, largest eigenvalue minimisation 188
- symmetric tridiagonal eigenproblem, divide-and-conquer algm. 37324
- symplectic pencil, eigenvalues computing 263
- TE-TM nonlin.-grating MQW polariz. switch 23427
- telecomms. models anal., perform. 2861
- thyristor-controlled series capacitors tuning by eigenvalue sensit. anal. 4630
- time-freq. projection filters/sig. expansions 8414
- TLM mesh dispersion anal., scatt. matrix formulation 23763
- transm. lines, corona, transients simul., method of characts. 19231
- two-sided eigenvalue bounds of 1D Schrodinger eqn. soln., Rayleigh-Ritz method 37327
- Van Cittert iter. method of image deconvolution, general relax. factor 2594
- visual learning and recogn. of 3D objs. from appearance 24572
- wave guidance between parallel artificially hard surfaces 23779
- wavefront simul. for atmos. turbulence 15448
- waveguide discontinuities, vector FEM, mixed-interpolation-type triangular-prism element 15566
- waveguide polariz. controller, anal. and implement. 807
- waveguide transfer problem, FEA, coaxial line syst. 15608
- WDM cross connector electro-opt. controlled multiwavelength switch 34008
- Ar^+ wide-aperture laser waveguide operation 1847
- Ar+ ion multimode lasers, polariz./intens. correl. 1851
- Er-doped fiber amp. CATV, polariz.-mode dispersion meas. 25509
- Er-doped fiber laser model, two-wavelength operation 39716
- GaAs-AlGaAs quantum wells, periodic pot., cct.-theoretical anal. 13191
- InAs-GaSb quantum wells, periodic pot., cct.-theoretical anal. 13191
- InP waveguide mode field determ. from intens. profiles 39468
- $LiNbO_3$ plates, electronic image reconstruction by electrooptic tech. 2134
- Nd-doped fiber laser, CW/self-pulsing regimes, stabilis. 39714
- Nd-doped fiber laser, feedback-induced polariz. switching 14741
- Si, nonlin. transport, model hyperfrequency differential-mobility 21880

eigenvectors *see eigenvalues and eigenfunctions*

EISA *see system buses*

elastic constants
- *see also elastic moduli*
- acoustic microscopy meas. of elastic consts. and mass dens. 35364
- high-Q piezoelec. materials and BAW/SAW resonator devices, advances 39046
- micromechanical UV radiation dosimeter 43391
- piezoelec. resonator materials metric for materials eval. 30574
- piezoelec. sandwich US transducers with large cross-sect., design 43558
- polyurea films, pyroelec./piezoelec. 6903
- rainbow devices, ferroelec. electromechanical actuators, reson. props. 39114
- S-bend lead design for SM components, clip-leads appl., compliance metric 140
- SC-cut quartz resonator, fab. imperfections effects 30606
- SOFC thin tape-cast YSZ materials, Young's modulus expts. 44391
- AlGaAs, MOCVD/MBE on GaAs, elastic consts., Poisson ratio 28752
- FeCr, layer systs., local/nonlocal dens. fn. studies 6999
- NH_4LiSO_4, elastic consts. meas., automated US device 4031
- NdBFe magnet-$YBa_2Cu_3O_{7-\delta}$, vert. mag. force/stiffness 14270

elastic deformation
- *see also bending; elasticity; electrostriction; stress-strain relations*
- deep X-ray lithog., masks, thermoelastic deform. 38744
- fatigue life of solder joints, FEM study of factors 11756
- nonrigid motion anal. in 3D images, vibr. modes 24461
- solder joint fatigue testing, elec. resist. spectrosc. 28477
- C, diamond, polished CVD films, macro/micro-tribological props., trial proc. 22626
- CdTe/ZnTe/GaAs, hot wall epitaxy, elastic strain effects 20841
- GaAs heteroepitaxial MBE growth on GaP, growth mode transit. *(Japanese)* 37408
- GaAs/AlAs, lateral surface superlattices, pot. modulation 29931
- $KNbO_3$ crysts., electro- and acousto-optic props. 30555
- Si surface layer elastic deform., photoelectron emission meas. 21005

elastic hysteresis
- shape memory wires for pass. structural damping 28895
- VLSI metallization by coherent magnetron sputtering 38668

elastic moduli
- *see also Poisson ratio; shear modulus; Young's modulus*
- buckled membranes for microstruct. 30513
- diamond membranes for x-ray lithog. masks 6688
- diamond polycryst. films for x-ray lithog. masks 6703
- diamond thin films, indentation response 20932

elastic moduli continued
- elec. connectors, metall. considerations in FEM modeling 12869
- IBM MCM-D, polyimide dielec. material appls. 37542
- low-temp. cofired ceramic, struct.-property rels. 28871
- plate wave velocities, field decay, acousto-US sigs. 10583
- PVDF copolymers, ferroelec. behaviour/phys. props. 6904
- shadow mask thermal deform. FEA *(Korean)* 25662
- z-axis anisotropic polymer-matrix composite conducting film, SMT/PWC connectors 12196
- Cu_5Si passiv. layer, growth kinetics and materials props. 38577
- ErN(P)(As), electronic struct., metallization appls. 38670
- GdN(P)(As), electronic struct., metallization appls. 38670
- Nb_3Sn fiber-reinforced superconds., pulsed magnet appls. 1631
- Nd^{3+}-doped semicond. glasses, elastic props., lasing transit. 23290

elastic moduli measurement
- acoustic microscopy meas. of elastic consts. and mass dens. 35364
- dual-coated opt. fiber specimens, interfacial shearing stress, double lap shear joint 14384
- fruit tester, portable, microcomputer-based 9819
- PPV composite film elastic moduli meas. by ps transient grating study 23392

elastic waves
- *see also acoustic waves; Love waves; magnetoelastic waves; Rayleigh waves; seismic waves*
- inclined transducer, directivity, contact region dimens. influence 21004
- quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
- quartz reson. sens., develop., FEM 9848

elasticity
- *for crack problems in elasticity see crack-edge stress field analysis*
- *see also elastic constants; elastic moduli; elastoplasticity; ferroelasticity; photoelasticity*
- aerodynamics and aeroelasticity, aerospace indust. progress 10302
- chem.-mech. planarization, elasticity theory, defect reduction 38570
- noninvasive blood press. meas., arm soft tissue influence 43185
- nuc. power piping syst., circumferential crack, J-integral 35866
- organically modified ceramics hardness and elasticity characts. *(German)* 20993
- quartz reson. sens., develop., FEM 9848
- single cryst. fibres, temp. gradients, laser heated pedestal grown 30858
- smooth boundary integrat. method in lin. 2D problem of incompressible fluid and solid 37363
- superplastic micro-forming of microstruct. 30525
- vibr. microactuators, energy dissipation mechanisms 30514
- InGaP/GaAs, misfit accomodation, substr. tilt 29892
- Nd^{3+}-doped semicond. glasses, elastic props., lasing transit. 23290

elasto-optical effects *see photoelasticity; piezo-optical effects*

elastomers
- *see also rubber*
- HV cables, synthetic elastomers, nonlin. I-V characts. 43767
- HV power cable elastomer materials, nonlin. V-I charact. *(Russian)* 43766
- matrix metal-on-elastomer microwave connector 29552
- MCM packaging, high reliab., low stress epoxy resin 6469
- Li polymer electrolyte secondary cell expts. 11247

elastoplasticity
- arbitrary heterog. materials with Voronoi cell FEA, elastic-plastic anal. 28697
- bimaterial beams, elastic plastic anal., packaging appls. 28482
- IC packages, molding, wirebond deform. 28495
- stress transducers, shock loading/unloading, piezoresistance gauges 34443
- unified approach for variationally consistent finite elements in elastoplasticity 28696
- VLSI TAB packaging, elasto-plastic behavior of epoxy rel.to thermal stresses 28484
- Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417

elastostatics *see elasticity*

electrets
- *see also dielectric devices; electrostatics*
- airborne dust elec. mobility meas. and eqpt. 40261
- artificial electret material, EEPROM technol. 3797
- electrostatic actuator, electret 23518
- fibre optic electrets and electro-acousto-optic transduction 17820
- insulator surfaces, elec. field/pulsed laser heating 15198
- motors, EM force calc. methods 44085
- Teflon-Af films, spin-coated, electret props. 13932

electric actuators
- *see also intelligent actuators; microactuators; micromechanical devices; piezoelectric actuators*
- 3 DOF Maglev, actuators, PM *(Japanese)* 39216
- 3-phase tubular induction actuator, CAD 19670
- 3D force prediction in model lin. brushless DC motor 19652
- actuator/sens. interface instrumentation 25727
- adaptive time optimal control of disk drive actuator, neural network 7179
- artificial heart lin. oscillatory actuator, structural anal. 35167
- automotive rotary actuator homopolar PM motor studies 11436
- axial-field actuators for controllable bidirectional rot. 15255
- civ. engng. tandem rolling-rotor actuator synchronisation 11519
- consumer VCR, moving coil actuators, dyn. tracking syst. 17581
- design aspects of EM actuators 36495
- design optimisation in theory and practice 11705
- drives, mass neutralisation test equipt. appls. *(Russian)* 36492
- electrostatic actuator, electret 23518
- EM bearings using generalized bias current lin., fault tolerance 40271
- EM CAD in undergraduate courses 2171
- EM forces calc., num. methods assess. 5169
- gas turbine digital control syst. develop. 36012
- HBC Limitorque valve gear operators, repair guidelines 27874
- induction actuators, fully digital field oriented control syst. 19678
- intelligent motion, conf., Dallas, USA (1994) 5506
- LIM drive coil winding actuators, control design 44257
- lin. actuators, make-or-buy guidelines 11223
- lin. DC actuator, valve control 4352
- lin. DC motor actuator, wire-driven syst., robust control *(Japanese)* 19667
- lin. pulse motor actuators, principles and characts. 44256
- lin. pulse motors, vibr. suppression design 4996
- mag. suspen., PM/lin. actuator reluctance control-based 28127
- magnetostrictive devices, FEM modelling for mag. cct. design 39212
- micro-moving stage positioning, accel. feedback-based *(Japanese)* 11224
- MLC actuators using antiferroelecs., destruction mechanism 39110
- moving-magnet actuator for disk drives, low-profile design 7180

electric actuators continued
- multi DOF spherical US motor 39092
- NPP, valves with elec. actuator drives, actuating power reserve *(German)* 27360
- PM sync. motors, digital controller, Park model 10992
- polypyrrole free-standing films, electrochem. driven, actuation props. 28880
- railgun, lin. DC motor-based, stabilisation study 31768
- rainbow devices, ferroelec. electromechanical actuators, reson. props. 39114
- revolving PM magnet wheels, actuators, lin. drive *(Japanese)* 44254
- revolving PM magnet wheels, static characts. anal. *(Japanese)* 44255
- robot adaptive electrohydraulic servoactuator control synthesis 36497
- robotic servoactuators, quasi-optimal control design 36496
- sheet glass mfg., LIM-based elevation control studies *(Japanese)* 44636
- space/aircraft actuators, integrated control *(French)* 10952
- SRM actuators, axially laminated anisotropic rotor design 27701
- stepping surface motor, approx. 3D anal. *(Japanese)* 27762
- US motor actuated valve, direct drive fuzzy motion control 5284
- wire rope type vibro-actuator, travelling wave expts. 27872
- $Pb(MgNbTi)O_3$, relaxor ferroelec. for large strain sonar appl. 9670

electric admittance
- 2D chirowaveguides, FEA 2298
- 3-phase unbalanced nonradial power distrib. systs., fault anal. 43758
- AC/DC multi-machine power syst., SSR, shaft torsional vibr. *(Chinese)* 35470
- aperture-coupled NRD-fed patch antenna model expansion anal. 23912
- blood, flow-related admittance changes, impedance cardiography appl. 35094
- Bode's integrals, imaginary part of antenna's admittance calc. 31936
- bridge jn. in supercond. film, ballistic resist. 7239
- chirowaveguide, modal cutoff conditions for annular core 40405
- coaxial probes, relative complex dielec. permitt., nondestructive meas. 25964
- coaxial slot antenna dielec. meas. model 23906
- complex admittance/power defns. 10606
- complex power/admittance notions/defn. *(Russian)* 26915
- complex waveguides, crit. wavelength calc., transverse reson. method 40411
- controllable planar layered medium, refl. coeff., freq. characts. 23592
- disordered quantum wires, DOS/conductance 38342
- distrib. syst., transient anal., equiv. homog. line model *(Japanese)* 10738
- dyadic Green's fns., radially multilayered chiral media 40291
- electrically thick monopole admittance calc. 23847
- elliptical annular microstrip antenna full Mathieu formulation 23929
- EM scatt. from 3-D arbitrary coated cavities, connection scheme 15390
- field-excited transm. line systs., time domain anal. 15495
- floating-inductor simulator, current-feedback amps. 21411
- generalised load modelling in presence of harmonics and distortion 35607
- interdigital SAW transducers, scatt. params. calc. 6927
- long. slot in sectorial waveguide wall, reson. cond. 15605
- MAGLEV train coil syst., transient induced voltages study 11428
- magnetron oscillator, dyn. flucts. of freq. 978
- mesoscopic conductors, conductance flucts., low temps. 1109
- microstrip ring vibrator params. on ferrite substructure 37957
- miniature radiator, microstrip-like antenna, theory/practice 15632
- mitered E-plane bends in rect. waveguide, mode matching anal. 8028
- MODFET, extended drift-diffusion model, 2D num. anal. 38924
- multilayered spherical chiral media, Dyadic Green's fns. 40323
- multiple-output buck-type power converter, dyn. characts. 44153
- multiport finline couplers, propag. characts. 12709
- MV distrib. network, compensated, phase-to-ground determ. 4649
- node expansion theorem for controlled sources 5943
- op amp incorporation, pass. networks *(Polish)* 37833
- partially filled rect. waveguides, external params. of offset connection 37955
- piezoelec. stack act. member, power consumption, electromechanical anal. 30598
- plane wave refl. and transm. at isotropic pseudochiral interfaces 23564
- power syst., modified Ward-type equiv. model, partitioning techs. *(Korean)* 35460
- power syst. dyn. anal., protective syst. modelling 4716
- power syst. fault diagnosis, interval based approach 19040
- power syst. load flow, Z-matrix algms., triangular factors 26865
- power syst. voltage stabil. anal., dyn. load model *(Japanese)* 26852
- pseudomorphic MODFETs, charge control modelling/expt. perform. 6800
- PV syst. arrays, max. power operating point tracking 19982
- rect. aperture in waveguide jns., scatt. 2302
- rly. traction substation transformers, unbalance modelling 44520
- round massive core electromagnet, dyn. characts. calc. *(Russian)* 7930
- sectoral waveguide radiating slot, equiv. params. 8081
- self-excited induction generators, circle diagram approach 19628
- semicond. film anisotropy in field of slow wave 13006
- ship tapered resistively loaded monopole antenna characts. 40490
- static voltage stabil limit determ., load flow algm. *(Chinese)* 26907
- symbolic anal. of networks with nullors, cct. level decomp. 460
- unilateral fin line resonate on biaxial substrates, spectral-domain anal. 21527
- variable LF CR oscillator, output admittance *(Japanese)* 6047
- water trees, network model 13975
- zero-admittance switch-mode power converter synthesis 36242
- AlGaAs-GaAs Schottky quantum point contacts, airbridge post 1091
- $Al_xIn_{1-x}As$, MBE/CVD growth, elec. props. 12060
- Au/Ta_2O_5/n-InP, interface state dens. determ. 13255
- GaAs switches, e-beam activated, optimisation 36429
- InAlAs/InGaAs SQW struct., electron traps, admittance spectrosc. 21991
- PZT sens.-actuator, truss struct. integrity ident. 34467
- Si single electron transistor at RT, conductance oscills. 22323
- Si ultra-fine wire fabricated by SIMOX technol., quantized conductance 38354
- a-Si:H MIS struct., conductance mechanisms *(Chinese)* 38439
- a-Si:H MIS struct., response time/capture cross sect., gap states *(Chinese)* 22060
- SiC, MOS capacitors, surface pot. flucts. 1316
- SiC:Al,N Schottky diode, DLTS/admittance spectrosc. 22353
- SiGe HBTs, output conductance anoms., modelling 22389
- SrF_2/InP(100) epitaxial diodes, elec. cond. 22065

electric admittance measurement
- AC elec. charactn. of solder paste 9994
- material characterisation using coaxial aperture electromagnetic sensor 25784
- multicell batt. strings, single sens. wire monitoring 44264
- Pb-acid valve regulated batts., conductance testing 19967
- SOI MOSFETs, AC cond. tech. for self-heating meas. 22420
- substr. absorbed gases, surface conductance meas. 11774
- $Bi_2Sr_2CaCu_2O_{8+x}$-based sens. for CO and NO 34614

electric admittance measurement continued
- Eu_2O_3, thin film capacitors, elec. props. 38446
- InP MOS tunnel diodes, elec. charactn. 38814
- Pb-acid flooded batts., perform. monitoring, telephone office 44198
- Pb-acid valve-regulated 24 V aircraft batts., conductance testing 43445
- Pb-acid valve-regulated batts., reliab. testing 19968
- Pb-acid valve-regulated secondary batt., conductance/impedance tests 44298
- Pb-acid valve-regulated telecom. power supply batt. perform. 41623

electric amplifiers *see amplifiers*

electric arc furnaces *see arc furnaces*

electric arc welding *see arc welding*

electric arcs *see arcs (electric)*

electric birefringence *see electro-optical effects*

electric breakdown
- *see also avalanche breakdown; discharges (electric); trees (electrical); vacuum breakdown*
- 0.25 μm gate length CMOS technol., design/proc. depend. 13894
- 1 μm BiCMOS proc., 200 Å gate oxide charactn./manufacturability 13902
- 6 MW GTO locomotive power convertor, insulation/corros. tests 36352
- 15 kV power cable FEM modelling, computer-based 4686
- 15/35 kV EPR insulated cables, field aging assess. 27201
- 63/90 kV power overhead line insulators, overvoltage breakdown characts. 35661
- 275-345 kV porcelain surge arresters, contamination withstand characts. *(Japanese)* 43800
- 345 kV porcelain suspen. insulators, replacement experience 10757
- 500 kV insulator string overvoltages, lightning stroke inclination expts. 35667
- 500 kV overhead power line insulators, natural contamination expts. *(Chinese)* 43783
- 500 kV XLPE power cables, extrusion-moulded joint tests 4682
- 500 kV XLPE underground power cables, insulation tests 4681
- 600V punch-through-epilayer IGBTs for HVIC switching, cell design 30198
- AC breakdown voltage testing of insulation liqs., test practices 22671
- AC motor failure, steep fronted switching surges 19590
- aerial insulated wires, support points impulse creeping discharges 14009
- air gaps, impulse strength, nonstand. lightning surges 4722
- array probe card, micromachined, charactn. 20409
- artificial acid rain, surface impulse breakdown tests 1505
- asymmetrical double recessed power MESFETs, breakdown anal. 13802
- bulk dielectrics, partial discharge related stresses 13966
- bundle conductors, phase-to-ground/phase air gaps, flashover voltage 27219
- C black-filled semicond. materials, props., HV power cable appls. 13974
- cable joints, interface insulation, elec. breakdown *(Japanese)* 10763
- charge pump cct. for high output current EEPROM appls. 29046
- CMOS FET oxide reliab., plasma-induced gate oxide degrad. 20490
- CONCAVE-DMOSFET, super-low on-resist. power MOSFET 38877
- cylindrical jns., breakdown voltage, interface charge 38316
- deep submicron nMOSFETs under high current snapback conditions 22438
- diamond, electronic/sens. props., review 6520
- dielec., discharges, tree-shaped breakdown struct. 1529
- dielec. degrad. obs., PD mechanisms in voids 22648
- dielectric liquids, cond., breakdown, conf., Switzerland (1993) 5444
- distribution network grounding electrodes, impulsed ground impedance studies 19251
- EEPROM ultrathin thermal oxide, elec. and reliab. props., surface prep. 1278
- elec. generator stator insulation diagnosis, ES-based *(Russian)* 10918
- electrode surface flashover, space charge 13950
- epoxy resin insulation, PD resist. improvement 22673
- ethylene-propylene rubber cable insulation, damaged, breakdown volt. 14071
- ferroelec. ceramics, twinning-induced stress, elec. field conc. 37537
- fixed wand electronic flame-off, ball bond form., wire bonding proc. 6445
- fluoropolymer insulator, γ-ray irrad., ageing effect, position annihilation meas. 14048
- gate oxide defect screen for VLSI CMOS reliab. 22588
- gate oxide proc.-induced damage, low/high temp. anneal effect 1202
- gate oxide quality improvement by H annealed wafer 22091
- gate oxide reliab. in power MOSFET, ion irrad. 22466
- GIS abnormality detect., self-organizing neural net appls. 27854
- GIS epoxy insulating spacers, AC/impulse voltage deterioration characts. *(Japanese)* 27240
- GIS insulation diagnostics, UHF techs. 19910
- GIS PD detect. automation method 36468
- hexane liq., cathode prebreakdown modelling 13959
- HF high power SIT 38916
- high power microwave pulse propag. in self-generated plasma, freq. up-conversion 23654
- high-power microwave pulse, propag., air breakdown, anal. 23633
- home appliances, effect of overvoltages in power distrib. syst. 11492
- HV bipolar SOI transistor, fully depleted collector 13617
- HV mineral particulate-filled epoxy composite insulation tests *(Korean)* 27657
- HV motors insulation, dielectric diagnosis 14008
- HV power cable thermovisual monitoring studies 35643
- HV power syst. synthetic insulators, state-of-the-art *(French)* 10762
- HV semicond. devices breakdown, model, phenomenological lifetime prediction 30282
- HV transm. line operation, simul. lunar environ. 35641
- HV trench drain LDMOS-FET, SOI wafer 30341
- HV vac. diode insulators, elec. breakdown 35659
- HVDC cables, paper insulated, breakdown, comment/reply 35647
- IEEE pulsed power conf., Albuquerque, USA (1993) 20246
- impulse breakdown of insulators and air gaps of similar electrode configs. 13946
- induction motor vac. cct. breaker switching surge anal. *(Korean)* 27706
- induction motors, stator insulation testing/eval. 19645
- insulating ceramics, high-radiation field elec. breakdown 4699
- insulating polymers, electrical ageing problems 13969
- insulation condition monitoring, acoustic/US techs. 18948
- insulation lab. charactn., microscopy/spectrosc. 13919
- insulation PD meas., optimal bandpass filter characts. 13917
- insulation PD pattern recogn., neural net-based 13920
- insulator damages related to charge detrapping 13970
- lateral emitter switched thyristor, CMOS compatible 1376
- layered dielec., discharge develop. *(Russian)* 6892
- LDPE insulation diagnosis, pattern recogn. ES-based 6895
- LDPE-based blended polymer materials, mech./dielec. props. *(Japanese)* 22674

electric breakdown continued
LEO spacecraft pulsed power systs., dielec. surface flashover expts. 35258
lipid bilayers, elec. field induced breakdown dyns. 6896
low noise 150 V self-aligned double diffused lateral p-n-p transistor 30262
low-press. gas breakdown in combined fields 1506
LV ABC, XLPE insulated, reliab. 43774
machine stator insulation, corona activity studies 19586
mica-alumina insulation, dielec. props., EM pump appl. *(Japanese)* 39067
microwave T/R switches, elec. field enhance./power absorpt. 21529
mineral oil, leader discharges, time resolved study 30549
MLSFET, metal/Langmuir-Blodgett/semicond. FET, device phys., elec. anal. *(Chinese)* 13671
MOS capacitor ultra-thin oxide/oxynitride dielec. films, reliab. characts., surface prep. 22066
MOS capacitors, gate oxides, repeated N_2O RTA 22071
MOS capacitors, N_2O-oxynitridation in resist. furnace, effects on thermal oxide breakdown 30126
MOS capacitors with N_2O oxides, elec. and reliab. props. *(Korean)* 30299
MOS capacitors/FETs stress-induced current in nitride/oxidized nitride thin films 6589
MOS microstruct., dielec. breakdown and reliab. 22062
MOS struct. with finite field plate, 2D field distrib. calc. 13232
n-MOSFET with thin gate oxide, plasma-induced transconductance degrad. 30357
MOSFETs and MOS capacitors, oxide reliab., nitrogen effects 38629
motor stator interturn short-cct. detect./location 10962
n^+-diodes, fab. by LOCOS/trench isolation, reverse breakdown characts. 6720
nonideal metal-semicond. contacts, Schottky diode soft-breakdown, hybrid diode 1342
organic liquids, streamer initiation under uniform field conditions 13953
p-i-n diodes, breakdown voltage, local/nonlocal calcs. 30214
paper insulation, HV testing, μP based 30590
PEEK, poly(ether ether ketone), crystallinity and dielec. props. 14015
PET films, elec. breakdown under hydrostatic press. 13949
planar p-n jn. termination, theoretical investig. 29888
polluted insulator flashover perform., air density effects 35670
poly-p-phenylene sulfide films, space charge, elec. breakdown 14031
polyamideimide films containing glass, sol-gel prep., dielectric breakdown 14053
polyamideimide glass composite films, dielec. breakdown/thermal degrad. *(Japanese)* 28875
polyethylene, oxidized, elec. breakdown, DC current pre-stress effect 22641
polyethylene, semi-empirical high-field cond. model 30535
polyethylene, treeing under AC voltage, space charge buildup, power cables 30584
polyethylene insulating walls, chink, AC breakdown *(Japanese)* 1547
polyethylene insulators, dendrites, fractal charact., time var. 1543
polyethylene-2, 6-naphthalate film, morphology, dielec, strength, thermal effects 14054
polyethyleneterephthalate films, radiation treatment *(Russian)* 6893
polymer insulation PD stabil., energy characts. *(Russian)* 6894
polymeric insulation, testing equipt./methods 1562
polymeric insulation radiation effects, reliab. testing tutorial 22639
polyolefins, homog. ac aging field, electrolum., surface roughness 30548
polypropylene film insulation, aging-model consts., HF HV fields 14019
polypropylene films, ultra thin, elec. props. 13955
polypropylene thin films, partial discharge and breakdown 13963
porcelain insulators, mech. stress test methods 43791
power bipolar transistor elec. props., temp. influence 30254
power cable insulating materials, lab. charactn. thermal anal. 19292
power CT, thermal short-cct. strength determ. 19690
power dual base transistor, voltage/current controlled FM *(Chinese)* 38846
power ICs, ion implant., edge struct. 29035
power MOSFET transistors, design methodology, simul. *(French)* 6751
power SOI lateral p^+-n jn. diode breakdown voltage *(Korean)* 28999
power station HV equipt. insulation, online PD anal. 4756
power syst. insulation co-ordination, IEC 71 std. *(French)* 35581
power syst. insulation monitoring, fibre optic sens. appls. 19359
power syst. lightning control, UV laser triggering expts. 27262
power syst. lightning protection, laser-generated plasma-based 27261
power syst. polymer arresters, moisture sealing testing 27272
power transformer aramid paper insulation, elec. strength tests *(Japanese)* 11106
power transformer composite paper-oil insulation monitoring 19686
power transformer cyclic loading evals., computer-based 27774
power transformer insulating oil test syringes, gas-tightness studies 36224
power transformer life extension, insulation preservation expts. 19698
power transformer overvoltages, no-load switching 27776
power transformers, oil-filled, paper degrad. by-products anal. 44097
prebreakdown phenom. in dielec. liqs. 13945
pulsed mag. field facility, capacitive storage 44114
pulsed power photoconductive semicond. switches, breakdown limitation 36430
pulsed power spark gap switches, voltage recovery expts. 36456
pulsed power supply slow capacitor banks, overcurrent protection 36313
purified water, saline solns., breakdown, press. depend. 30539
PVC cable components, reliab. test methods 29621
PVDF metal/polymer interface, dielec. breakdown 13961
PVDF/polyetherimide laminates, breakdown strength 13962
α-quartz, dielec. strength, size effect. Monte Carlo anal. 13980
railgun bore lifetime meas. expts. 15373
reduced-scale two-conductor hybrid lines, corona tests 13985
repetitive pulsed power spark gaps, breakdown recovery expts. 36457
RESURF LDMOS struct., breakdown props., analytic approach 30309
RF reed relay for antenna-transmitter power amp. matching 29642
rot. machine HV insulation condition monitoring strategy 19583
RTO proc., opt./elec./mech. charactn. 22227
RTV silicone rubber insulator coatings, hydrophobicity transfer *(Chinese)* 35665
rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658
second breakdown, power BJT/bipolar mode JFET comparison 30546
semicond., impurity band in high elec. field, interband and impurity breakdown 1013
short-pulse water breakdown power technol., electrode phenom. 36259
Siemens power DIMOS device, ESD gate oxide breakdown, stat. model 30307
silicone rubber outdoor HV insulators, breakdown strength 19318
SOG film form., Al metal layers for double metal proc. *(Korean)* 30148

electric breakdown continued
SOI lateral IGBT, breakdown voltage rel., implant. dose 22460
SOI power device blocking voltage, HVIC interconnection influence 29979
SOI technol. trends 22517
solid dielec. strength calc., kinetic theory-based 22655
solid dielectric deterioration, partial discharges, ageing 13972
solid dielectrics, high field conductivity implications 13968
solid polymeric insulators, breakdown, PD meas. 4705
space charge relaxation induced breakdown, energy release 13951
spacer surface discharges in gaseous insulation, nanosecond streak photography 30553
static power converters, burndown prevention 44126
submarine cables, dielec. mouldings, microscopy 9155
substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
superthin ONO stacked dielec. high-dens. memory devices 1503
sync. generator asphalt-mica stator insulation, service life tests 11003
thin SOI IGBT leakage current and struct. for high temp. 30344
transformer fault detect., oil gas discrim. method 29620
transformer fault/ageing detect., transfer fns. 27777
transformer oil, AC breakdown, thermal/flow effects 14040
transformer oil, elec. breakdown, dyn. barrier effect *(Russian)* 44105
trench IGBT, 600 V, develop. and perform. comparison 30346
trench MOS barrier Schottky rectifier, breakdown voltage 38810
turbogenerator rotor shorted turns, online monitoring 19598
turbogenerator stator dissipation factor testing 44008
ULSI thin-film DRAMs, electrode-dielec. interface 29227
ultrathin dielec., microwave afterglow O_2/N_2O plasma growth 37505
vac. cct. breakers, transient overvoltages, stat. model 27847
vac. diodes, breakdown 29762
vac./alumina interface, pre-flashover lumin. 13948
VDMOS transistors, self-shielding phenom. 30310
VLSI ESD sensitivity, thermal breakdown and dielec. breakdown 6844
water, pulsed breakdown rel., hydrostatic press. and liq. cond. 13947
water trees, network model 13975
WR-284 rectangular waveguide, air breakdown 21503
XLPE, field-aged, water trees conversion 14063
XLPE 250 kV DC cable, insulation develop./testing 27209
XLPE cable insulation, damaged, breakdown volt. 14071
XLPE insulated 230 kV cable syst., pre-qualification testing 27200
XLPE power cable insulation, degradation characts. 14072
XLPE power cable insulation characts., defects/moisture effects 4679
XLPE power cable insulation diagnosis, DC superimposition method *(Japanese)* 27194
XLPE power cable life, DC testing effects 10741
XLPE/EP insulated power cables, low temp. ageing 27202
Zener diodes, reverse I-V characts. 30210
Al-SiO_2-Si MOS struct., charge build-up/oxide wear-out, Fowler-Nordheim stress 13234
AlGaAs/GaAs HBT, thermal effects/instabilities 6731
AlGaAs/InGaAs/GaAs high breakdown PHEMT, Te doping 29567
AlGaAs/InGaAs/GaAs recessed-gate PHEMT, Si planar-doped etch stop layer 30382
$(Al_xGa_{1-x})_{0.52}In_{0.48}P$ p-i-n jns., impact ionisation 38302
$(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P/In_{0.15}Ga_{0.85}A$ s/GaAs HFET, characts. 12752
AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
AlInP/InP pseudomorphic HBT, struct., fab., characts. 13645
Al_2O_3, chemically etched, surface flashover performance 13956
Al_2O_3 insulator, DC/pulsed electro-opt. props., vac. 30550
AlSb/InAs HEMTs, 5 V gate breakdown voltage 835
$Ba_{0.5}Sr_{0.5}TiO_3$ thin films, structural and elec. props., thickness depend. 20984
$CeO_2/YBa_2Cu_3O_{7-\delta}$, supercond. FET, prep., charactn. 14301
EuF_3 thin films, dielec., cond. and breakdown studies 1544
GaAs MISFETs, MBE-grown GaAs insulator, breakdown voltage improve. 30337
GaAs, MOS struct., double oxide layer, RTA 29982
GaAs based HEMTs, recess depend. breakdown behavior 13777
GaAs photoconductive switches, filamentary elec. breakdown 23010
GaAs planar gate power MESFETs, gate-drain breakdown volt. 13801
GaAs power MESFET, MBE growth, 4.7 V operation, 900 MHz charact. *(Korean)* 38920
GaAs:Si, MESFET, ion implant., mass resoln. effects 30039
GaAs:Si p-n struct., MBE growth interruption effects on GaAs(111)A 336
GaAs/AlGaAs multilayer p-i-n struct. multilayers, ionization 38335
GaAs/InGaAs MIS-like pseudomorphic transistor, two-layer struct. 38854
GaAs/InGaAs two step doping channel FET, symmetric normally on/normally off characts. 38937
$Ga_{0.5}In_{0.5}P/In_{0.15}Ga_{0.85}As$ pseudomorphic p^+-Schottky-enhanced barrier HFET 6790
$Ga_{0.51}In_{0.49}P$/GaAs I-HEMT and I^2HEMT, GSMBE growth 13767
$Ga_{0.51}In_{0.49}P$/GaAs inverted-struct. HEMT, DC charactn. 6789
Ga_2O_3 films, electronic/optoelectronic appls. 22640
n-Ge, extremely strained crysts., nontrivial transport phenom. 38231
He, liq., quench-induced breakdown charact., thermal bubbles 30536
InAlAs/$In_xGa_{1-x}As$ HEMT, off-state/breakdown mechanism 22488
InAlAs/InGaAs MODFETs, off-state breakdown study 13764
InAlAs/InGaAs inverted HEMT, InAs inserted channel 38007
InAlAs/InGaAs modulation doped structs., MOCVD growth, breakdown volt. 411
InGaAlAs/InAlAs FET, breakdown voltages 13783
InGaAs/AlGaAs/GaAs MODFETs, high breakdown, fab. 22477
InGaAs/GaAs depletion-MIS-like delta-doped HFETs 13810
InGaAs-InP double HBT, high speed/voltage driver circuit appl. 13876
InP double HBT, quaternary collector, breakdown behaviour 13633
InP:Fe, nonlinear behaviour under high elec. field 13046
InP/InGaAs APDs, SAGCM, breakdown voltage modelling, temp. depend. 23016
InP/InGaAs HBTs, p^--n^- collector struct., breakdown-speed tradeoff 13627
InP-GaInAsP-GaInAs composite collector HBT/circuits 13663
InP-oxide-metal tunnel diodes, elec. charact./nature of interfacial oxides 38918
InSb/SiO_2 MIS structs., low interface trap dens. 29981
InSb-SiO_2-Si p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
N_2-filled tube, formative time determ., stat. methods 38201
NO dielec. film, low press. CVD/nitridation 13942
PZT thin films, donor doping, leakage resist. control 13992
Pt/SiC/Si vert. Schottky barrier diodes 22349
Rh-plated reed switch contact, surface deactivation-induced phenom. 29634
SF_6 AC corona discharge, decomp. product gases meas. *(Japanese)* 22656
SF_6 GIS, breakdown mechanism of gap, small arc current 19897

- **electric breakdown** continued
  - SF_6 HV switchgear reliab. monitoring automation 5153
  - SF_6 elec. equipt. insulation, quality standardisation 5142
  - SF_6, surface flashover voltage var., press. 19898
  - Si MOSFET with internal matching cct., 1.5 GHz, 35 W 29562
  - Si VLSI ESD sensitivity, thermal/dielec. breakdown 30462
  - Si bipolar devices, impact ionisation 22384
  - Si, dry etch-induced damage, surface anal. 13390
  - n-Si, extremely strained crysts., nontrivial transport phenom. 38231
  - a-Si in-situ doped gate MOS capacitors/transistors, elec. props. *(Korean)* 30298
  - Si pulsed power semicond. switches, p^{+}-n^{-}-n^{+}/n^{+}-n^{-}-n^{+} struct. 36436
  - Si, surface microroughness, oxide breakdown, SC1 proc. effects 38546
  - Si wafers, thermal proc., quartzglass materials influence 22208
  - Si/SiO_2 interface states and neutral oxide traps induced by surface microroughness 29968
  - Si-SiO_2 MOS devices, quasi-breakdown of ultrathin gate oxide under high field stress 22067
  - Si-SiO_2 MOS struct., dielec. breakdown, charge stabil. 22064
  - SiC films, high field effects 21788
  - SiC vert. submicron TFT 13759
  - SiC:Al HV rectifiers, expts. and simul. 1346
  - a-$Si_{1-x}C_x$:H p-i-n struct., electrolum. characts. 31091
  - SiN_x based metal-to-metal antifuse for FPGA appl. 21217
  - SiN-based antifuses, stress-induced leakage current, dielec. breakdown 38448
  - SiO_2, NO-nitrided, elec. props., chem. comp. effects 30076
  - SiO_2 RTCVD/RTO/thermal oxide thin films, tunnelling current characterisation 22226
  - SiO_2 RTO 10 nm films grown at different temps., MOS capacitor breakdown 1180
  - SiO_2 film, low temp. PECVD for TFT gate insulator *(Japanese)* 37524
  - SiO_2 films, high field dyn. stress 22063
  - SiO_2 films, plasma CVD, breakdown characts. 13960
  - SiO_2, fluorinated and N_2O plasma-annealed, elec. props. 1508
  - SiO_2 gate oxide films, ion-assisted oxid. 38592
  - SiO_2 inter-poly oxides, lifetime prediction method 6593
  - SiO_2, scaled, polarity depend. of dielec. breakdown in MOS ULSI capacitors 22608
  - SiO_2, stress-generated traps, voltage/fluence depend. 30540
  - SiO_2 thin film reliab. at direct-tunneling voltages, MOS VLSI technol. 22607
  - SiO_2 thin films, N_2O RTP/oven nitridation, elec. characterisation 13327
  - SiO_2 thin films, RTN in NH_3, N_2O for EEPROM appls. 13329
  - SiO_2 thin films, wearout and breakdown studies 39040
  - SiO_2 thin oxide wearout and breakdown, high field 38776
  - SiO_2 ultrathin films, MOS struct., ultra-dry proc. 13248
  - SiO_2/Si interface struct., reliab. charact. 13253
  - SiO_xN_y nanometer thin films, nitridation, phys. charact. 30073
  - SiO_2(ON)-Si device reliab., surface cleaning effects, ultrathin oxides/oxynitrides 22207
  - Ta_2O_5 sputtered films, elec. and optical props. 13958
  - $Ta_2O_5(TiO_2)$ LPCVD DRAM storage dielec. film, leakage current reduction, RTA 22094
  - TiW, sputtered Schottky barrier, AES, SEM 29957
  - Xe lamp pulse power-pumped Nd:glass laser, crack mechanisms 31457
  - ZnO UHV surge arresters, breakdown perform., computer simul. 19345
  - ZnO multilayer chip varistor, LV transient suppression 29607
  - ZnO surge arrester leakage current, external field effects 4728
  - ZnO varistors, mixed multi-impulse/AC 50 Hz tests 868
  - ZnS:Mn RF-magnetron sputtered films, breakdown 1507
  - p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
  - p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413
  - ZnSe/InP, HJFET, MOCVD fab., characts. 13776
- **electric cables** *see cables (electric)*
- **electric capacity** *see capacitance*
- **electric cells** *see cells (electric)*
- **electric charge**
  - *see also space charge*
  - asymmetric TEM cell, characteristic impedance, septum thickness effect 20417
  - charge-distrib. A-D converters, capacitance recharging error minimisation 37815
  - eddy current field, induced elec. charges, boundary integral eqns. 40237
  - electrostatic particulate materials bulk transport valve 7917
  - electrostatic powder painting, particle trajectories, math. model 7903
  - emitter-controlled punch-through, fast switching PIN-diode soft recovery 30218
  - ESP gas flow modif. by charged particles 7923
  - flow electrification boundary conditions, DC voltage appls. 15224
  - fuel oils combustion atomisation, charge injection nozzle 7904
  - GIS charged conducting particles, motion meas. 11205
  - hot circulating fluidized beds, electrostatic flow meas. 15221
  - human body ESD, charge/pot. control 7907
  - HV apparatus electrode elec. field calc., charge simul. method 19577
  - HV DC apparatus, charging condition, LCD indicator *(Japanese)* 36085
  - inductive particle charging, jumpwise motion in elec. field 15241
  - indust. electrostatic hazards investigs., UK 7906
  - isotropic chiral media, effective charge densities and current densities 23491
  - low cond. liqs., electrostatic safety modelling *(Russian)* 7897
  - low energy electron dust particle removing syst. 7915
  - micro EHD pumps, fabr./expts. *(Korean)* 30527
  - MOSFET interface states/trapped carriers, charge pumping/gate capacitance meas. 30301
  - moving elec. charge interact. law *(Russian)* 31716
  - multichannel pseudospark switches, expts. 36399
  - PD pattern recogn. for model electrodes 3972
  - petroleum storage tank electrostatics, stream fn. distrib. 15220
  - petroleum storage tank recirculatory flow, electrostatic charge estim. 15215
  - power diode reverse recovery, charge anal. approach 30217
  - pulsed corona discharge ion cloud, motion modelling 7898
  - rect. AT-cut quartz resonators, charge distrib. meas. and anal. 39091
  - spherical dielec. particles, dielectrophoretic interact. 7905
  - xerographic toner triboelectrification mechanism 7916
  - Si, ion implant. proc. problems, surface photovoltage detect. 30017
- **electric coils** *see coils*
- **electric condensers** *see capacitors*
- **electric conductance** *see electric admittance*
- **electric conductance measurement** *see electric admittance measurement*
- **electric conduction processes** *see electrical conductivity*
- **electric conductors** *see conductors (electric)*
- **electric conduits**
  - *see also cable sheathing; power cables*
  - cable, conduit, tray schedules, computer generation 19319
  - nontrenching power/telecom. cable conduit installation method *(Japanese)* 20383
  - North American elec. motor market, German expert guidelines *(German)* 10940
  - power cable ampacity, thermal effects studies 4680
  - power cable installation, guided boring method, IEEE Guide 35669
  - single core power cables, trefoil form. installation guidelines 19298
  - telephone central office cable tray support failures 43786
  - vac./tube method, opt. fiber laying alongside power cable 25520
- **electric connectors**
  - *see also cable jointing*
  - 270 V DC aircraft components, corona testing 26594
  - B-ISDN, high-dens. high-bandwidth connectors 9112
  - bare board test program generation, self-learn/netlist methods 38083
  - BNC-to-microstrip transit., EM undergraduate lab. appls. 20281
  - board-to-board connector shielding, transfer impedance meas. 15533
  - busbars, joints, preliminary CAD 19325
  - cable EM induction shielding methods, theoretical anal. *(Japanese)* 2277
  - card edge connector soldering, surface mount proc. 916
  - CATV, coaxial connectors *(Japanese)* 42631
  - coaxial SMD module connector for high-speed MCMs 6399
  - design, high dens./small size, PCB/backplane appls. 38069
  - distrib. substations, switchgear internal arc fault protection design 4661
  - electromechanical devices, tech. trends and motive technols. 6394
  - electronic components and technol., conf., Washington DC, 1994 5473
  - finite element modeling, metall. considerations 12869
  - flex coating reliab., high-perform. MCM-PCB interconnection 12945
  - flexible interconnection selection, PCB design 38070
  - flexible SMD connector for high-speed data bus 38068
  - flux selection, PCB component and wire tinning appls. 38140
  - fuzz button interconnects, reliab. study 21656
  - heat shrinkable power cable accessories, material props. 10761
  - high pin count QFP packages, carrier and socket technol. 11802
  - high pin count QFP packages, carrier/socket technol. 28476
  - high speed connectors, elec. props. and mech. requirements 21613
  - high-dens. high-pin-count flexible SMD connector 6398
  - HiPEC, high perform. elastic connection, reliable mixed sig. MCM device testing 21612
  - IBM high perform. carrier technol. for PCB packaging/interconnects 37153
  - intra-syst. interconnects for digital commun., cable elec. perform. 12856
  - LV aerial bundle cables, moisture ingress 35655
  - matrix metal-on-elastomer microwave connector 29552
  - MCM flex lead bending during thermal cycling, finite element stress model 12944
  - no-clean wave solder defect reduction, N_2 atmos. effects 38155
  - packaging connectors, vibr. induced wear 29648
  - PC card connectors, adoption of back connectors 21611
  - PCB connector reliab., no fault found category 5704
  - PCB interconnections, microwave charactn. 38164
  - PCMCIA specs. for PC card connectors selection 897
  - planar busbar low inductive connections, power electronics 12868
  - platable MLC termination materials/proc., PCB bend strength effects 6434
  - plug connector selection criteria and reliab. *(German)* 21615
  - PTH of PCBs, suitable conditions for connections 29692
  - rack syst. with coaxial board connectors, high-speed transm. 42095
  - RF cable assemblies, screening atten. meas. 23690
  - RF component testing, wireless equipt. appls. 117
  - single lap shear layers, stresses, FEA 29647
  - small planar packaging syst., card on board, high-dens. ATM switching systs. 28459
  - small planar packaging syst. for ATM switching systs. 33722
  - SMT connectors, lead/hold-down redesign, auto-placement 905
  - SMT proc., through-hole connectors, X-ray meas. 12922
  - SMT rework, conductive/convective hand tools 38161
  - solid dielec. power cable-to-air terminations 27237
  - spaceborne appls., RF connector and interconnect reliab. 18713
  - spaceborne appls., RF/microwave connector and interconnect reliab. 35232
  - spring contact, structural optim., area connector array CAD, C program 896
  - Stuttgart TV prod. centre digital island planning and implement. *(German)* 17538
  - subminiature/SIPAC-S connectors of EMC design, shielded housings 895
  - surface mount and fine pitch technol. advances, overview 37151
  - surface mount connector design, respect, solder creep 28503
  - surface mount connectors and assembly proc. develops. 894
  - surge/noise suppression 6400
  - telecomm. power/earthing syst. connectors, QA 43787
  - terminal struct. for automobile connector appls. *(Japanese)* 21614
  - TQM appl., pollution prevention in PCB manufacture 37212
  - vibr. testing methodology 12870
  - XLPE 500 kV power cables, installation, terminations 43768
  - XLPE insulated 230 kV cable syst., pre-qualification testing 27200
  - z-axis anisotropic polymer-matrix composite conducting film, SMT/PWC connectors 12196
  - Al/Cu thin-film interconnects, electomigration induced failures 21616
  - Al-Cu, simultaneous doping/CVD, interconnection form. 6831
  - Pd-Fe alloy electrolytic deposition 391
- **electric control equipment**
  - *see also controllers; electric actuators; electric sensing devices; electrohydraulic control equipment; electropneumatic control equipment; switches; voltage regulators*
  - 1 hp ASD IGBT control device tests 28070
  - 3-phase GTO PWM inverter for control, drive 11381
  - DC elec. motors, ASICs for monitoring/controlling 11329
  - DragCAD dragline excavator drive design optim. software 44557
  - electronic cams, mfg. motion control appls. 44632
  - extrusion proc. DC motor drive cascaded control design *(Russian)* 11497
  - GE SPEEDTRONIC Mark V turbine control syst. 43923
  - high-speed solenoid valve develop., diesel engine appls. 27873
  - HV soft recovery rectifiers, motor control appls. 27802

electric control equipment continued
- indust. truck power steering, DC motor appls. 11442
- lin. step motors nuc. reactor control rod drives, dyn. characts. 20075
- microrobot PM step servomotor drive, VSS control 11354
- Mitsubishi Electric Y Series multisplit air conditioners 44605
- motion control optimisation, motor control gear designs 5166
- motion control syst. CAD, SOAP software tool 11222
- MOTOR ES, motor/cables/control gear selection appls. 10959
- MV distrib. network protection/control integrat., reliab. design 43751
- Optra Series laser printer, brushless DC/stepper motor-based 44258
- photoelec. sens., intell. diagnostics 3828
- pole changing induction motors, pole AM studies *(Japanese)* 11020
- reluctance step motors, dissymmetrical stator theory *(French)* 36136
- residential heat pump air conditioning technols. 44608
- robotic arm ASIC-based motor controller develop. 11227
- SmartMotor 32-bit stepping servomotor motion control syst. 5165
- software for embedded DSPs, robot appl. 19923
- sphere joint PM stepping motor controller, robot appls. *(Chinese)* 11219
- steel rolling mill two-inertia syst. control *(Japanese)* 11501
- stepping motor positioning, closed loop optimal operation 11087
- sync. servomotors, LF torque pulsations control *(French)* 11010
- three-phase induction machines, two/three-level PWM invertor-fed *(French)* 11032
- two-link collision free robot positioning, microcontroller-based 11226
- variable reluctance stepping motor rotor oscill. control 11376
- variable speed fan motors, chopper control syst. *(Japanese)* 4884

electric control gear *see electric control equipment*

electric current
- *see also arcs (electric); corona; critical currents; current density; current distribution; current fluctuations; eddy currents; fault currents; leakage currents; short-circuit currents*
- 2D TW current strips, closed-form field expressions 23529
- 2D/3D pass. imagings of EM radiation sources 23497
- 16 Gbit DRAM, 2D power-line selection, subthreshold current reduction 29231
- 17 ns 1 Mbit CMOS SRAM, 100 nA stand-by current 29234
- bipolar transistor p-n heterojunction carrier generation-recomb. current modelling 6726
- buried dielec./mag. gratings of fibers, refl. 15411
- charge pump cct. for high output current EEPROM appls. 29046
- conducting enclosures, direct lightning strike, internal voltages 40189
- cylindrical wire kernel, uniform current vector pot. eval. 8034
- DC load contact switching eval., derating curves and life testing 29631
- DC-DC converter with current injected control, current runaway anal. *(Japanese)* 5989
- dielec., charged particle irrad., current reversal 39036
- dielec. liq. with unipolar injection, EHD convection 40206
- EM scatt. for oblique incidence on impedance bodies of rev. 23574
- EMC-disturbances on coupled microstrip lines, LF SPICE model 12695
- HEMT 1-50 GHz S-params. and DC drain current modelling 12757
- hot-electron damaged LDD NMOSFETs, modelling 13751
- impedance surface aperture, equiv. currents 8041
- LF image theory for current dipole in front of permeable sphere 31712
- low press. discharge tube, V-I charact. simul. model *(English)* 29815
- MHD generator, segmented Faraday channel, Q1D electrodyn. part 20012
- microbridge superconducting thin films, variable thickness, mag. field sensitivity 1603
- MOSFET lifetime cals., depth-depend. impact ionization 38895
- multilayer PWBs, segmented ground planes, common mode currents 15477
- n-MOSFETs, bias/temp. depend. of gate/substr. currents 22413
- PCB radiation aspects calc., EMC workbench 21634
- PCBs with attached cables, common-mode radiation 15476
- perfectly conducting cavities, apertures, scatt. elec. fields 40293
- planar freq. selective screens, nonrectangular patch geometries *(German)* 23832
- power bipolar transistor elec. props., temp. influence 30254
- power diode, fast reverse recovery perform. characterisation 30219
- power transformer excitation under geomag. induced currents 11101
- protective conductor currents in studios and DP buildings *(German)* 27265
- radiation currents, low contrast scatterers, surface integral eqn. 40288
- reflector antenna crosspolarization, fringe-current effects 23903
- RTD modelling, transfer matrix/Airy fns. 30212
- semicond. device defects, image display/anal., laser scanner 32818
- short gap discharges, meas. of fast transient fields 42882
- squirrel cage induction motor, solid state starter, low harmonic generation 36146
- thermally stimulated current in solid dielec. 13924
- TW current filaments, homog. space 15408
- $CoSi_2$ patterned layer buried Schottky contacts in Si, wafer bonding 38394
- GaAs power MESFET, MBE growth, 4.7 V operation, 900 MHz charact. *(Korean)* 38920
- InGaAs-GaAs heterostruct. and HFET appls. *(Chinese)* 22486
- InGaAs-InAsP three-band near-IR FPA for 1.0-2.5 μm 17935
- InSb-SiO_2-Si p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
- Ne-Ar gas glow discharge pos. column, elec. field-current charact. *(Japanese)* 29738
- Si 10 Gbit/s bipolar LD driver IC for direct modulation 29047
- SiO_2-Si_3N_4-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
- SiO_xN_y-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- SiO_2(ON)-Si device reliab., surface cleaning effects, ultrathin oxides/oxynitrides 22207

electric current control
- 1 kW AC/DC power factor pre-regulator, ZVS-PWM topology 19874
- 1-phase supply, drive appl., DC/AC outputs control, thyristor ccts. 5343
- 2 kV 10 kA pulsed GTO bridge fusion power supply 5128
- 2-phase stepping motor, PWM control, power FETs, multi-chip modules 27764
- 2-switch current regulated DC/AC converter 44212
- 3-phase act. power filter, sliding mode control 19759
- 3-phase PWM boost rectifiers, dual boost converter 19726
- 3-phase PWM converter, act. filter, control cct. 36356
- 3-phase PWM converters, small-sig. model, control 19760
- 3-phase PWM rectifier, line current harmonics minimisation 44147
- 3-phase PWM VSI, ANN current regulator 44119
- 4 wheel drive elec. vehicle, integral batt. charger 5359
- AC drives, current trajectory tracking control, sync. PWM 5311
- AC PM servomotor digital controller, appls. 43979

electric current control continued
- AC power supply, instantaneous current distortion compensation *(Japanese)* 10964
- AC/AC converters, vector control, min. energy storage 19758
- AC/DC PWM converters, on-line optimal control 36247
- AC/DC PWM power convertors, common mode conducted RFI emissions 5072
- act. power harmonic filters, computer simul. studies *(Korean)* 28998
- adjustable freq. quasi-reson. inverter, characts. *(Japanese)* 11135
- automatic cathodic protection syst. control cct. 29425
- automobiles, elec. power steering, present/future 5370
- BiCMOS controllable current amp. for hearing instrums. 35169
- bipolar PWM current controlled magnet power supply 18253
- boost converter, control, dyn. response *(Chinese)* 11186
- boost converter, current programmed, large sig. model 12314
- brushless AC motors, digital servo amp. concept 11338
- brushless DC drives, control strategies comparison 44476
- brushless DC servomotor, optimal DSP control 36195
- combined act. filter, high pass filter/current source converter 37861
- DC arc furnace control, simul. *(German)* 44590
- DC drives, fuzzy control 5315
- DC elec. drive, current compensator/vel. control 28065
- DC motor ASD, self-tuning digital controllers appl. 5316
- DC-DC converter with current injected control, current runaway anal. *(Japanese)* 5989
- DC/DC capacitive idling converters, input current shaping 19789
- DC/DC power convertors, democratic load-current sharing cct. 44151
- DC/DC power convertors, parallel-connected, current distrib. control 44141
- double-fed induction generators, PLL controlled, stabil. anal. 44061
- doubly-fed variable speed wind generator adaptive control 4876
- dual induction motor vehicle drives, control methodology 11418
- electrothermal guns, capacitor charging, voltage/current control 19777
- extrusion proc. DC motor drive cascaded control design *(Russian)* 11497
- FACTS, bilinear predictive control, thyristor controlled capacitor 4582
- FBK-SDU series of digitally controlled uninterruptible power systs. *(Japanese)* 36339
- force commutated three level boost type rectifier 19856
- force-commutated supply, cost-optimal control algm. 44118
- fuel cell, DC interconnection converter, input current control 44345
- gas discharge equipt. power supply, control syst. 5093
- ground-current control, enhance dyn. range in high speed ccts. 29084
- GTAW, sync. weld pool oscill. monitoring/control 5618
- HEMT LNA MMIC, act. regulated self-bias 12821
- HF switched-mode PWM power amp., perform. anal. 542
- hybrid step motor control, reconstructed mag. flux sig. 11327
- hybrid step motors, feedback-lin. control design *(Korean)* 27767
- hysteresis current controlled VSI, switching freq. control 11137
- induction actuators, fully digital field oriented control syst. 19678
- induction generator, squirrel cage, CSI exciter, voltage regulator 19635
- induction machine ident./control, neural net-based 44057
- induction motor, 3-phase inverter, robust current controller, finite state automaton 36158
- induction motor, nonlin. control, DSP 28067
- induction motor drives, CSI fed, adaptive params. compensator 36698
- induction motor drives, CSI-fed, field-oriented predictive control 5259
- induction motor drives, current controlled PWM inverters, simul. 11363
- induction motor drives, digital adaptive control, transputer based 11379
- induction motor drives, VSI-fed, generalized predictive control 5248
- induction motor drives, VSI-fed, predictive vector current control 44492
- induction motor servodrive, VSS robust control 44483
- induction motor starting, optimal control anal. *(Russian)* 11012
- induction motor stator current control, neural net-based 19629
- induction motor stator current control, trained ANN, syst. ident. 11059
- induction motors, CSI-fed, torque control, vector approx. 5310
- induction motors, PWM VSI-fed, ASIC/microcontroller control comparison 36180
- induction motors, single/3-phase, speed control, AC regulators, freq. division 11034
- induction motors, speed control, low-noise compact inverter *(Japanese)* 11016
- induction motors, voltage fed, current regulated, field oriented control 19630
- induction servodrives, field-oriented control, fixed-point DSP 11358
- induction servomotors, cycloconverter-fed, sliding mode control 4983
- induction/PM sync. motors, radial posn. control 10979
- indust. robot/CNC machine tool digital joint motion controller 11509
- interior PM sync. machines, tangential vibrs. rejection 4918
- inverters, av./RMS currents anal. 5135
- JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
- lin. motor EM accelerator, turbulent hydrodyn. mix studies 15278
- lin. reluctance servomotor drives, control perform. 5319
- Maglev, instantaneous current detect., PWM converter *(Japanese)* 44563
- microcontroller-based batt. charger, neural-fuzzy technol. 6028
- multiple output forward converters, current control, small sig. anal. 11147
- multiple-output forward converters, small-sig. model 11146
- Ni-H_2 batt. power syst., μP charger control 27921
- outdoor solar cell power unit *(Japanese)* 5215
- ozone-generator power source, current control 5099
- parallel DC-DC power converters, output droop characts. 11165
- parallel operating 3-phase PWM inverter, cross current control 11140
- parallel proc. UPS, harmonic suppression/VAr compensation 11175
- parallel reson. power converter, half-cycle current control 19714
- parallel-module power converter, current bal. controlled, dyn. anal. 44140
- PF correction, techs., converter topologies, control ccts. 35503
- PF preregulators, Sepic/Cuk converter based 19753
- plasma deposition proc., modelling/robust control 12171
- PM brushless DC drive, var. struct. speed control 36665
- PM sync. motor, adaptive nonlin. control 27688
- PM sync. motor, back EMF estim., torque harmonics minimisation 4916
- PM sync. motor drive, digital current control, state observers 44475
- PM sync. motor drive, flux-weakening control 20078
- PM sync. motor drives, sliding mode current control 5264
- PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
- PM sync. servomotor drive, VSI-fed, field oriented control 36675
- PM sync. servomotor drives, optimal/VSS control 5288
- PM sync./induction mag. levitated rot. motors *(Japanese)* 44026
- power converters, digital current mode control charactn. 5116
- power syst. on-load power transformer tap changing modelling 4540
- power transm. cable lines, online control/meas. proposal 19193

electric current control continued
PV power syst. invertors, instantaneous current tracking control *(Korean)* 27620
PWM AC-to-DC voltage-type convertors, current control 5062
PWM AC/DC power converter, current control studies 5070
PWM cycloconverter control, induction heating appls. *(Korean)* 36786
PWM inverter act.-pass. reactance power cct. 5030
PWM inverter-mounted induction motor, design 5306
PWM inverters, current-source compensated deadbeat control 11166
PWM invertor AC motor drives, chaotic current control anal. 44480
PWM invertor drivers, device current utilisation optim. 5067
PWM invertor optimal PI current control, neural net-based 19734
PWM UPS inverter perform., computer simuls. 5077
PWM voltage-type rectifier, I-V control studies 19796
PWM VSI, current regulation techs. review 44178
PWM VSI, tolerance band control chaotic procs. 5065
quantum series reson. inverter, optimal predictive current control 11387
quasi current reson. DC link AC/AC converter 11115
quasi-reson. soft-switching PWM conversion, space vector control 19757
quasiresonant power converters, small-sig. modelling 11139
railgun, operating current limit increase, EM shields 15266
rectifier telecom. power supplies, digital current control 19797
regenerative DC drive, sinusoidal line current consumption 5321
reluctance motor, rotor posn. meas., current meas. method 4934
reluctance motor ASD, 2-level bipolar current control 11385
reluctance motor drive, optimal current angle control algm. 36684
reluctance motor drives, axially laminated rotor, vector control 5258
reluctance motor drives, flux weakened operation, current regulator 5303
series connected batt. strings, charge equalization 44306
series connected batt. strings, charge equalization 19932
series-reson. AC link inverter, output current anal. 11143
servodrives, all-digital current control loops limits 28071
single phase quasi-reson. rectifier, unity PF 44146
single-phase IGBT switch-mode rectifier *(Japanese)* 11187
sinusoidal current tracking inverter control, neural networks *(Korean)* 27826
six-phase salient-pole PM motors, optimal control studies 27675
SMPS PF correction, microcontroller 44116
soft-switched current-fed PWM inverter, struct., appls. 19735
soft-switched parallel inverter, topol. anal. 11144
space/aircraft actuators, integrated control *(French)* 10952
squirrel cage motor, 3-phase, torque control, secondary current feedback *(Japanese)* 27708
squirrel cage motors, torque vector control studies 4980
SRM, speed control, magnetoresistive angle sens. 44030
SRM drive speed/current regulation, microcontroller-based 11350
std. lamps, improved automated current control 3723
supercond. magnet power supply convertor, current control studies *(Japanese)* 11188
SVC, GTO-switched, elec. welding appls. 4531
SVC H^∞ controller, anal. and design 10652
switch-mode power convertor predictive control, current prog. tech. 44152
switched reluctance motor, phase current, loss, model *(French)* 44029
sync. motor drives, VSI PWM inverter fed, design, params. 5283
sync. reluctance drive technol., theoretical overview 44473
sync. salient pole/wound rotor motors, control studies 4919
three-level rectifier/inverter, force-commutated 19733
three-phase AC machine switching power converters, current control 44179
three-phase AC/DC boost rectifier, feedforward-feedback control 36374
three-phase AC/DC step-up power convertor anal. 36372
three-phase bidirectional PWM power convertor config. 5126
three-phase diode rectifier utility interface, harmonics reduction 19751
three-phase unbalanced power systs., act. power filter 10655
three-phase UPS VSI, feedback control strategy 44173
three-phase voltage-source utility interface power convertor 19737
TK75001/75003 five-pin PWM SMPS IC 29015
utility-grid interactive three-phase inverters 5083
variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
voltage source power convertors, current control loop simul. 5114
VSC robust control of induction motor servodrive 19922
VSI, digital adaptive hystersis current control 19756
VSI, shunt act. filter control, CAD 44186
wind power self-excited induction generators, rectifying bridge studies 36084
XRAM pulsed power supply cct., repetitive operation studies 36256
CO_2 TE laser, high repetition rate, long pulse *(Japanese)* 31199

electric current measurement
see also ammeters
3 MJ railgun, expt./computer simul. studies 15281
110-275 kV composite long rod insulator monitoring experiences, Australia 43788
220/69/13.8 kV three-phase transformers, EM transients *(Spanish)* 5028
275-345 kV porcelain surge arresters, contamination withstand characts. *(Japanese)* 43800
AC voltages/currents, precise power/RMS values meas. *(Croatian)* 25939
aircraft shielding, swept freq. single point excitation tech. 18704
aircraft window, fast risetime EMP coupling 18705
artificial acid rain, surface impulse breakdown tests 1505
asynchronous machine, params. ident., RLS method 27711
asynchronous machines, standstill freq. response studies *(French)* 11044
AT&T round cells, short cct. current test 19966
Battery Mgt. Syst., microcomputer based *(Japanese)* 5187
beam-centroid tracking instrum. for ion thrusters 18768
bearingless PM sync. motor characts. 4932
Buran flight-model fuel cell, test programme 10398
CMOS custom automotive ICs, I_{DDQ} testing, fault coverage 36766
CMOS IC testing using IDDQ, QTAG Action Group 6850
CMOS logic gates testing for realistic shorts 6083
CMOS LSI, I_{DDQ} testing *(Japanese)* 1493
CMOS LSI with abnormal IDDQ, failure anal. 22595
CMOS VLSI ccts., transient power supply current monitoring 21240
correction method for single chip power meter 4740
current meas., mag. sens. 34654
DC motors, CAMAC-PC based automatic expt. investig. syst. 36185
deep-bar induction machine dyn. params. determ. 4964
defect classes, paradigm for CMOS IC testing 6858
digital AC panel meter, design algms. 3734
digital heavy-current meas. transducer technol. *(German)* 18024
digital PWM-VSI inverters, nonlin. compensation 36373
distrib. network, opt. current sens. *(Japanese)* 27180

electric current measurement continued
distrib. network automatic fault location/isolation syst. *(Japanese)* 10736
distrib. network rem. monitoring/control syst. develop. 4667
distrib. network three/zero phase current sens., Hall IC-based 35639
dyn. CMOS ccts. testing 22582
elec. heat tracing, controls/monitoring 36783
elec. utility sens. technol. improvement efforts, USA 43652
electrothermal-chem. gun, meas. techs. 31751
EM plant monitoring/mgt. instrumentation 19597
Faraday effect current sens., flint glass fibre 17886
Faraday effect current sens., improved sensitivity-bandwidth product 14548
Faraday effect magnetometers, vibr. induced birefr. modulation compensation 17814
fiber optic current sens. syst., birefr. exam. 9923
fibre optic current sens. for EHV, design optimisation 3855
fibre-optic current sens., Faraday effect 17822
forced commutated converters, voltage balancing, learning controller *(German)* 36368
generalised load modelling in presence of harmonics and distortion 35607
generator transient/subtransient params. ident. 4907
hard switching power IGBT modules, dyn. perform. tests 21102
HF EM waves coupling to aircraft wiring, test methodology 26526
HF oscill. param. current sens., feedback loop 34463
high current IGBT switching modules, dyn. perform. eval. 30316
high-T_c supercond. meas., interf. reduction 34653
HV current meas., slow-wave Rogowski coil studies 4742
HV elec. power apparatus monitoring by opt. fiber sens. *(Japanese)* 3859
HV power system metering/protection transducers 19364
I_{DDQ} BIT cct. for CMOS ICs 13884
I_{DDQ} built-in concurrent test for interconnects 6463
I_{DDQ} subset selection algms. for bridging faults 6084
I_{DDQ} yield loss problems, economic issues 6860
I_{DDQ}/I_{SSQ} testing, serially addressable flexible current monitor 6855
I/V converter, thermally regulated, using Peltier heat pumps 18023
IDDq meas. in CMOS VLSIs, fault detect. 13885
IEC proposal of harmonic currents measuring syst. 25938
IGBTs, current sens. for short-cct. protection 34474
III-V FETs, pulsed semicond. param. analyser syst. 1431
induction machine param. estim., standstill time-domain data 19642
induction motor bearing damage detect., stator current monitoring 4968
induction motor drive, rotor flux/time const., VSS observers 11325
induction motor drives, online current monitoring-based fault detect. 36704
induction motor field oriented torque control scheme 11014
induction motors, on-line fault detect., stator current monitoring 4967
insulation PD meas., optimal bandpass filter characts. 13917
integrated ATE amp., switch mode design 29054
interferometric opt. fiber HV/current sens., field test 17821
ion sources energy spread/ion current meas. 17693
iron rolling mill motor drive, random disturbance studies 11499
Josephson and Von Klitzing constants evaluation 25709
lightning current meas. in building columns and girders, Rogowski coil 20123
low-level meas. techs. for noisy environ. 17651
low-temp. two-axis goniometer, accurate temp. control 9874
mag. flows/MMF/currents, meas. device *(Russian)* 42899
magnetooptic AC CT, intrinsic temp. compensation 17739
MESFET, thermal and dispersion modelling 6798
monitoring power supply current, neural network 34374
MOSFET interface states/trapped carriers, charge pumping/gate capacitance meas. 30301
motor drives, inverter design, optocouplers 28073
motors, core bal. ground fault protection 4894
moulded case cct. breakers, hot gas ejection studies 19892
multichannel PC-based helicopter electrical power monitor 26540
multichannel pseudospark switches, expts. 36399
multijunction thermal converters by commerical CMOS fabrication 25801
μP-based portable test equipt. for elec. network 4736
n-channel IGBT integrated current sens. 34473
neural network based cct. faults diagnosis, current monitoring 17671
non-polar liqs., electrokinetic study, LDA 42985
noncontacting current meas. in underground pipelines, geom. instabil. 42883
nonsinusoidal power syst. meas., parametric approach 4748
off-chip IDDq current meas., telecomm. ASICs appl. 6853
opt. cryst. based devices for I-V meas. 34482
Pb-acid valve regulated batt. condition monitoring 19953
PET films, creepage surface discharge in SF_6 gas *(English)* 30585
plasma opening switch expts., long cond. time 36389
power cable current sens., mag. field meas.-based *(Japanese)* 35648
power convertor current meas., HF shunt designs 19718
power electronics current sens., Rogowski coil-based 21107
power IBGT module perform. testing, low inductance cct. 29009
power syst., transformer inrush/steady-state currents, harmonics meas. 5022
power syst. digital multirate meas. algms. 27279
power syst. harmonic loads ident. 35695
power syst. harmonic/reactive currents adaptive detecting method 27276
power syst. harmonics meas. syst., PC-based 4750
power syst. impulse voltage/current meas. correction 4749
power syst. monitoring, fibre optic sens. appls. 4734
power syst. opt. current transducers, review 4735
power syst. polymer arresters, moisture sealing testing 27272
power syst. relay protection DC current sens., meas. modelling *(Russian)* 35672
power transformers, DC bias-exposed, VAr demand meas. 11100
power transm. cable lines, online control/meas. proposal 19193
power voltage transformers, external compensation 5018
power-supply current monitoring/discrim. anal. 13847
PWM inverter drive syst. adaptive control 5254
PWM VSI, AC machine control appls., perform. improvement 5043
QTAG class 1 monitor for CMOS IC testing 6854
QTAG std. for test fixture I_{DDQ}/I_{SSQ} monitors 6852
quartz crysts., test oscillator for drive level study 30617
railgun meas., high accuracy 15374
reciprocal-compensated fibre optic elec. current sens. 17885
relax. spectrosc. tech. for solid interfaces 25711
reluctance motor, rotor posn. meas., current meas. method 4934
RF exposure, human body induced current meas. 26487
rly. signalling interf. prevention, high integrity monitor 44547
Rogowski sens., geom. props. 34483
Rogowski transducers for high bandwidth high current meas. 34484
Sagnac loop opt. fibre current sens., polariz. depend. 17916

electric current measurement continued
- shielded enclosure, EM leakage, slots 15498
- SOI thin film MOSFET with body terminal, photon emission 22475
- split phase induction motor drives, vector control 5295
- spun lin. birefr. fibres, current sens., temp. compensation 3863
- SRM drives, sliding mode observer controller 5301
- stand-alone PV power systs., batt. state-of-charge 19557
- stepping motors, sensorless rotor posn. control 11084
- subscriber telecomm. equipt., lightning-surge test method 25146
- substation cables, induced transients meas./models 5157
- substations, transient EMI meas. 5158
- superconds. transport crit. current dens. meas. 17746
- synthetic insulators, leakage current monitoring, coastal site 43784
- telecomms. building, simulated direct lightning surge current 24876
- thermionic CHP convertors, optimal perform. tests 28029
- thermophotovoltaic cells, expt. charactn. studies 28008
- thermophotovoltaic solar cell power expts., USA 27962
- thin oxide MOS capacitor, current spike obs. 6583
- three-phase induction motor drives, online fault monitoring 20084
- three-phase systs. distortion source ident. 43803
- transformer tap-changer monitoring syst., fibre opt. sens. 44100
- transm. line, current transient proc. meas. 23686
- transm. line dist. protection, power flow/voltage phasor oscill. meas. 4743
- transm. line transient current meas., Rogowski coil *(Korean)* 27286
- TTL combinat. ccts., random test input generation 12450
- tunnelling current/dist. charact. determ. unit *(German)* 6541
- twisting-annealing tech. for opt. fiber 14391
- two metal-coated single-mode opt. fiber interferometric lin. elec. current sens. 9916
- vibr. immunity for opt.-fibre current meas. 17825
- VIRA-2P pulsed power X-ray generator, electron beam size meas. 34973
- zero-flux type current sens., Hall element 9878
- CoSiB amorph. MI reson. multivibrator current sens. 17713
- GaAs-GaAlAs quantum point contact, dyn. response 6560
- InGaAs thermophotovoltaic cells, charactn. meas. techs. 28009
- Ni-Cd intell. batts., charging/discharging algms., hardware 36545
- Ni-MH intell. batts., charging/discharging algms., hardware 36545
- Pb-acid batt. temp. meas., subscriber loop carrier cabinets 44293
- Pb-acid sealed batts., deterioration estim. 44296
- Pb-acid secondary batt. state-of-charge, float current monitoring 44303
- Pb-acid telecom. power supply batts., total monitoring syst. 41630
- Pb-acid valve regulated batts. testing 44291
- Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
- SF_6 72 kV cct. breaker, arc models, test cct. 27845
- Si polysrystalline PV array, optimal operation ident., ANN *(Japanese)* 5231
- SiO_2-polysilicon MOSFET degrad., substr. hot electron stress 13680
- $(TbBi)_3(FeGa)_5O_{12}$ garnet film current/mag. field sens. by Faraday effect 42884
- YIG:Ga, Faraday effect current sens., sensitivity-bandwidth product 9853

electric discharge machining *see spark machining*

electric discharges *see discharges (electric)*

electric distortion
- *see also fading; harmonic distortion; intermodulation distortion; reception*
- 1.9 GHz-band RF IC chip-set for pers. commun. 863
- 1 Hz MOS integrated low-pass filter, high dyn. range/low distortion 29345
- asynchronous DS-SSMB commun. syst., TWT nonlin. distortion 25252
- cartesian feedback RF amp. lin., gain/phase margins 33758
- CATV perform. testing, spectrum analyzers 25673
- channel residual damping depend. on carrier freq. separation *(Russian)* 15695
- class D output stages lin. for high-perform. audio power amps. 3697
- class E power amp., 2nd order effects in collector AM 29057
- comparative analysis of digital sinewave generation methods 25904
- digital cellular-PSTN interconnection quality assess. 42228
- digital mag. recording channels, nonlin. model 7182
- digital modems, sym. synchronizer perform. 8457
- digital radio data predistortion, neural-net-with-memory model 42149
- feedback amp. nonlin. distortion anal., Volterra series *(Croatian)* 549
- feedforward act. filter for output ripple cancellation 6024
- handportable mobile satellite stations, power amp. design 37656
- HVDC convertor, waveform distortion, freq. domain anal. 19234
- identification of distortion source in power system 27283
- intell. half bridge power module, 75A/250V/75KHz, switching power amps. 6027
- nonlin. systs. ident./compensation, sampling freq. 32778
- nonlinear disturbance errors in lin. syst. identification 25701
- orthogonal FDM for mobile radio 9214
- power syst., high parallel capacitance, short cct. distortion *(Japanese)* 26910
- power systs. disturbances ident., digital method 19361
- pulse pile-up in nuc. energy spectra 10146
- PWM inverter, sinusoidal output current, pulse posn. selection *(Korean)* 27792
- radiometer receiver linearity characterization by intermodulation distortion 25795
- shared transmit-receive multichannel PM MM-wave syst. 42140
- sinewave parameter estimation, improved algorithm 24238
- sinusoidal oscillators, current feedback amp. based ccts. 12364
- spectral estimation using distorted-timebase digitizer 25735
- subsurface survey radar distorted pulse rectification 35280
- trellis coded 16 QAM/TDMA, space diversity combining, multipath fading *(Japanese)* 42172
- TWT lin. for future commun. satellites and ground stations *(German)* 6295
- voltage fed PWM inverter, zero current clamping elimination 19744

electric distortion measurement
- amplit. IMD meas., bridge method 42918
- CATV networks, spectrum analyzer in-service meas. 42623
- harmonic distortions detect./meas., computer controlled excitations 10011
- harmonics power logger, adaptive storage/automatic data selection 34657
- high-resoln. sigma-delta converters, nonlin. meas. 708
- IEC555 parts 2 and 3, digital power analyser 34656
- multitone AF testing of telecomms equipt. 3758
- op amp IMD determ. for PCB design 557
- oversampling noise shaping ADC, DNL meas. 709
- power systs. disturbances ident., digital method 19361
- radar ionos. refr. angle meas. allowing for incidence flucts. *(Russian)* 17406
- specialised measuring instrum. charact. monitoring 42684
- spectral estimation using distorted-timebase digitizer 25735
- spectrum analyser for distortion meas. 42919

electric distortion measurement continued
- THD meas., Volterra series, LMS adaptive algm. 34684
- three-phase systs. distortion source ident. 43803
- virtual instrum. for determ. of elec. power quality 4739

electric domain walls
- $PbMgNbO_3$-$PbTiO_3$ ceramics, domain walls, piezoelec. and electrostrictive props. 22663

electric domains
- *see also electric domain walls; ferroelectric materials*
- ferroelec. ceramics, twinning-induced stress, elec. field conc. 37537
- intell. ceramic materials, brittle fracture 28892
- Josephson effect in jn., ferroelec. 14299
- push-pull integrated-optics Mach-Zehnder interferometer, domain inversion 22922
- quasi phase-matched SHG, inverted ferroelec. domains 40094
- $LiNbO_3$ acoustic superlattice, growth/transducer props. 13995
- $LiNbO_3$, domain inversion by proton exchange and rapid heat treatment 30567
- $LiNbO_3$ opt. waveguides, ferroelec. domain inversion 22666
- $LiNbO_3$ proton exchanged waveguide, quasi-phase-matched SHG 14470
- $LiNbO_3$ waveguide quasi-matching SHG devices 22880
- $LiNbO_3$ waveguides, quasi-phasematched SHG conversion efficiency 22878
- $LiTaO_3$ antiparallel domains ident. by interferometric method 10041
- PZT ferroelec. film, neurodevice, adaptive-learning 39094
- PZT thin film capacitors, domain behavior 39058
- PZT:Nb transducers, sound wave vel. and Tawfik percentage 26786
- $PbLaTiO_3$, diffuse phase transit., microstruct. charactn. 30561
- $PbZr_{0.53}Ti_{0.47}O_3$:Ca transducers, acoustic props. 30633

electric double layer capacitors *see electrolytic capacitors*

electric double layers *see electrochemistry*

electric double refraction *see electro-optical effects*

electric drives
- *see also clutches; electric propulsion; motor drives; thyristor motor drives; variable speed drives*
- 2-phase stepping motor, PWM control, power FETs, multi-chip modules 27764
- 3-phase GTO PWM inverter for control, drive 11381
- 6-phase induction motor, split coil, EM proc. simul. 11021
- AC drive syst. load simulator, local vector control 28069
- AC drivers, power semicond. devices *(Slovenian)* 20052
- actuator drives, mass neutralisation test equipt. appls. *(Russian)* 36492
- AMPhibian hybrid elec. vehicle, regenerative braking effects 28147
- anal., simul., software package 20077
- belt drive design, energy models 44462
- bipolar HV amp. for precision piezodrive 14078
- brushless turbo compressor drive, intell. diagnostic syst. 36693
- certification testing lab. develop., Russia 44463
- continuous gravimetric dosing syst. elec. drives, microcomputer control 44623
- current-source drive cct., ZVS converters 11388
- cycloconverter drives, ASIC chip set 5322
- DC drives with flexible shafts, control config. 28068
- design and appls., conf., Lausanne, Switzerland (1994) 12
- digital control methodology *(Italian)* 28059
- direct drive robot, torque compensation 11359
- disk drive power consumption reduction by spin-down 11332
- disk drive power mgt. in portable computers, quantitat. anal. 11331
- DragCAD dragline excavator drive design optim. software 44557
- elec. machine control, harmonic anal. methods comparison 5320
- elec. rly. traction syst., EMI assess. modelling 44548
- elec. vehicle drives, series reson. DC link inverter 5358
- elec. vehicle propulsion inverter, power electronics design 44485
- electrified rly., EMC 44545
- energy conservation, energy efficient options 28098
- ERM spring drive, no-load dyn. modelling 5242
- harmonics effects on power quality/transformers, comments, reply 36796
- high inertia, optimal control design 5277
- hybrid elec. vehicle drive, capacitor storage, converter 20096
- hybrid step motor control, reconstructed mag. flux sig. 11327
- IDAS, power electronic/elec. drive simul. tool 11347
- inertial elec. drives, monotonous ang. vel. control model *(Russian)* 44487
- intell. IGBT power modules for driving systs. 36670
- intelligent motion, conf., Dallas, USA (1994) 5506
- KoREMA, conf., Zagreb, Croatia (Apr. 1993) 20203
- Kvazitron max.-current safety relays 4729
- lin. pulse motor, mag. suspen., contactless direct drive *(Japanese)* 44077
- lin. servomotor, integrated lin. scale *(German)* 44078
- lin. servomotor drives, fuzzy logic/PID control comparison *(German)* 5278
- Maglev carrying syst., LIM, driving characts. *(Japanese)* 44562
- multimachine power syst. resync., optimal variable aim control *(Chinese)* 10634
- multiple defects diagnosis algm. *(Russian)* 11317
- μP control systs., regulation error meas. 44464
- PEM fuel cells, transportation elec. drives 36720
- petroleum terminal ASDs, power quality issues 5413
- piezoelec.-driven inertial slider based STM 6926
- PM brushless drives, integrated CAD syst. 11344
- power distrib. installations, intell. systs. *(German)* 35640
- power electronics and variable speed drives, IEE conf., London, (1994) 37
- pump/ventilation elec. drives, energy consumption reduction 28077
- PWM inverter drive syst. adaptive control 5254
- PWM inverter drives, Kohonen self-organising ANN appl. 44447
- revolving PM magnet wheels, actuators, lin. drive *(Japanese)* 44254
- rolling mill elec. drive harmonics, computerised meas. syst. 36801
- servo drive posn. control, direct channel nonlin. element 28078
- servodrives, all-digital current control loops limits 28071
- sinusoidal current tracking inverter control, neural networks *(Korean)* 27826
- software based, testing/develop. 36694
- stepping driving systs., fuzzy control *(Chinese)* 11384
- stepping motor drive, real-time mech. params. estim. *(French)* 11324
- stepping servo motor drives, polyphase space-phasor theory 11346
- stepping surface motor, approx. 3D anal. *(Japanese)* 27762
- traction drive robust H_∞ control 20066
- traction drive submicrometer control 20067
- travelling wave US servo motor, speed tracking control 19676
- vac. manipulators, commercial elec. devices adaptation 44439
- washing machine energy efficient brushless motor drive 5396

electric energy consumption *see power consumption*
electric field effects
see also acoustoelectric effects; electric breakdown; electrical conductivity; electro-optical effects; electrochemistry; electrodynamics; electrohydrodynamics; electroluminescence; electromechanical effects; electromigration; electrophoresis; field emission; field emission ion microscopy; field ionisation; high field effects; magnetoelectric effects; particle optics
60 Hz EMF effects reduction 18628
bipolar photoconductors with arbitrary level struct., nonsteady-state photoelectromotive force 39553
buried waveguides fabricated by purely thermal ion back diffusion 39466
computer operators, hazards from monitors 26484
CR-39 detector, sensitivity, elec. field effects 43133
EHD augmented condensation heat transfer expts. 20021
electroporation in cells and tissues 35188
electrostatic micromotors, torque computation, 3D mesh generation 36213
ELF-microwave radiation dosimetry num. methods 35186
FEM computation of electrostatic fields/space charge effects 31705
food proc., microorganism inactivation by pulsed elec. fields, voltage waveforms 20178
human model, AC field exposure, induced current densities 26485
IBM 0.1 μm MOSFET anal. by simul., lateral elec. field effects 30194
insulator surfaces, elec. field/pulsed laser heating 15198
photoconductive cryst. under spatially asymmetric illum., rectification property 22996
polymeric materials for SHG and electro-optic appls. 23386
push-pull integrated-optics Mach-Zehnder interferometer, domain inversion 22922
reduced-scale two-conductor hybrid lines, corona tests 13985
semicond. doped glasses, opt. storage by laser beam written gratings 22789
slender axisymmetric liq. column EHD, 1D models 15208
spherical dielec. particles, dielectrophoretic interact. 7905
squaraine dyes in PMMA, third-order opt. procs. 23399
utility customer advice aspect *(German)* 35599
Y-jn. waveguide switch cross talk 22871
GaAs symmetric/asymmetric QW struct., lin./quadratic electrooptic effects 21999
InGaAs-InAlAs asymmetric coupled QWs, elec.-field-induced refr. index changes 21980
$NaVO_3$:La_2O_3 electrodes, solid-state batts. 27889
-aSe avalanche multiplication photocells 1799
SiC films, high field effects 21788
Si_3N_4 thin films on n-Si, relax. polariz./charge injection 13916
$SrBaNb_2O_6$ photorefr. holographic grating writing and readout by applied elec. fields 40154
electric field gradient
field-emission cathode arrays, elec. field gradients 29749
electric field measurement
see also field plotting
1 GHz sum/difference opt. modulator, E/H field meas. 18053
15 mm sq.-bore railgun, EM field meas. 15330
AC overhead lines, elec./mag. fields meas., IEEE std. 43810
amat. radio, hand-held transceivers, elec. field distrib. 25288
axisymmetric elec. field distrib., Kerr effect meas. 14535
boundary biased-probe method, I_p/I_{po}-V_b nonlin. 7918
broadband, isotropic, electric-field probe with tapered resistive dipoles 25798
charged dielec./metal thin films, peeling ESD 7901
computer equipt., wave fields modeling 2164
digital hand-held meter for RF field strength testing 17995
dipole antenna factor meas. on ground plane by 3-antenna method 40483
dual TEM cell, elec./mag. field shielding effectiveness 15501
electrosurgical units, elec. field strength creation 18686
ellipt. polarized elec. field, elec. field meter 18020
EM environ. in aircraft, single event rel. 26525
EM-field anal. of buildings, 3D wire-grid model 23513
EMC testing, near-field probes appl. 2245
EMI field emitted from telecomms. line, estim. 40373
EMI meas., std. antennas calib. 7991
fiber optic sens. develops., two-photon spectrosc. 17819
fibre optic electrets and electro-acousto-optic transduction 17820
graded birefringent media, light refraction, elec. field meas. 14326
hand-held GSM digital mobile telephones, near E-field magnitude 42284
impressed elec. field meas., coaxial ECR plasma source 34652
indirect furniture ESD and implications 31713
inline EMI checker for small elec. appliances 23673
large-scale anechoic chamber, EM fields, computational simul. 15505
lightning elec. field changes, sync. multipoint meas. *(Japanese)* 7895
lightning elec. field derivatives, source location method 10480
line conductors, elec. field meas., oscill. transients, static probe 4693
Mach-Zehnder interferometer for elec. field sens. 25817
MM-wave elec. field radiopulses, electroacoustic sens. 42758
near-/far-field charact. of perforated screens, shielding perform. 15503
noninvasive E-field meas., integrated opt. sens. 18431
opt. telemetry, elec. field perception, threshold eval. 26483
Pockels effect opt. fibre elec. field sens. 17868
power overhead lines, lightning-induced voltage expts. *(Japanese)* 4696
pulsed radar antennas, pattern meas. syst. *(Japanese)* 40500
radiated EM suscept., test requirements/procedures 15467
radiated interf. of electronic equipt., randomly assigned phase terms 31857
radiated interference field estim. for elec. equipt. 23739
radio waves propagated dist., multiple-diffr. components meas. *(Japanese)* 31838
refl. type electrooptic elec. field sens., $LiNbO_3$ opt. waveguide 25863
reinforced concrete building, elec. field atten. 23736
Sagnac interferometer, elec./mag. fields simultaneous meas. 17865
shielding effectiveness meas., opt. coupled elec. field sens. 2249
short gap discharges, fast transient elec. fields meas. 23507
short gap discharges, meas. of fast transient fields 42882
single-ended forward-feed converter, vert. radiated field strength of interf. 27817
small reinforced concrete building, EM field atten. 40376
substations, transient EMI meas. 5158
thunderstorm elec. fields, airborne meas., calib. 10479
triggered flash, EM field and step voltage obs. *(German)* 35681
ultrashort light pulse amplit./phase, autocorrelator/spectrometer meas. 2821
VDT, radiated elec./mag. fields meas. 23702
VDT, VLF meas., user dose assess. protocols 43401
vector components of elec. field meas., electrooptic sampling 34650
electric field measurement continued
whistlers, causative atmos. location, one station 23640
X-Y meas. of elec. fields, μP based device 9990
GaAs, bias, high field region imaging 18021
GaAs photoconductive switches, elec. field structs. 36448
$LiNbO_3$ elec. field sens., sensitivity improvement 14522
ZnSe pulsed power photoconductive switches, elec. field studies 36437
electric field meters *see voltmeters*
electric field strength measurement *see electric field measurement*
electric fields
see also electric field effects; electric field measurement; electromagnetic fields; electromagnetic waves; field plotting; field strength measurement
1D dielec. leaky-wave antennas, radiation anal. 40468
1D FEL model without slowly-varying approx. 39984
2-D soln. methods, axisymmetric systs. perturb. 31706
2D elec. cond., two-step lin. inversion 40280
2D hybrid element image reconstruction for TM illum. 43222
2D TW current strips, closed-form field expressions 23529
2D/3D pass. imagings of EM radiation sources 23497
3D conducting bodies, EM scatt. problem 7947
3D point-plane elec. field anal., Fredholm integral eqns. 40181
3D vector pot. formulation for electrostatic field comp. 40216
500 kV power line elec. and mag. fields 27225
AC HV insulators, elec. pot. and field comp. 19316
AM high power broadcast stations, EM environ. 25642
annular thyratron, microwave-triggered 29816
arc-stator motor taking, elec./mag. asymmetry 4903
arcs, plastic tubes, ablation gas vols. *(Japanese)* 965
axisymmetric finite element electrostatic anal., finite element electrostatic anal. 15227
barbed plate ESP, particle motion meas. 7922
barbed plate-to-plate precipitator, elec. field/space charge, 3-D model 15249
BiCMOS inverter IC, elec. field reduction struct. 29036
bidirectional opt. waveguide propag. modelling, mode expansion/matching 15560
boundary element approxs., elec./mag. fields, iter. soln. 2177
cavity fed by tangential elec. field in wall aperture, EM field 31900
charge iter. procedure for unbounded elec. field problems, fictitious boundary 40187
charge mobility modelling in high elec. fields 7899
circ. loop antenna, radiated emissions, finite ground plane effect 8046
circ. rim in elec. field, sing. 23498
cloud elec. struct. determ., space charge model-based *(Russian)* 10459
complex planar struct., static study *(French)* 12702
conformly bound regions, mech. effect *(Russian)* 40179
cross-field amplifier end-hat effects, 3D electron density meas. 6510
cylindrical wire kernel, uniform current vector pot. eval. 8034
DC drive, field-weakening range, dyn. perform. 11345
dielec. bodies of rev., EFIE 15213
dielec. surface asperities, near-field opt. detect. 31792
dipole antenna suspen. low, metal screen 2315
eddy current power dissipation, sharp corners 40255
effective E field derivation for short EM pulses 7891
EFIE, num. soln., transient antenna impedance determ. 15622
electromagnetostatics in uniaxial bianisotropic media 15203
electron gun simul., adaptive finite element mesh generation program 29756
electrorheological fluid oscillatory response 5915
electrostatic field calc. in electrophotographic develop. zone *(Japanese)* 31735
electrostatic induction motor, synthesis and modelling 44083
electrostatic particulate materials bulk transport valve 7917
electrostatic powder painting, particle trajectories, math. model 7903
electrostatic problems, boundary element anal. superposing known soln. 40208
EM coupled stacked rect. patch antennas 31927
EM wave propag. in laterally non-uniform atmos. duct, coupled mode anal. *(Japanese)* 7971
EM waves reflectionless absorpt. , perfectly matched layer concept 23600
EMC, power transm. systs. 44129
EMC problems, PEEC cct. models, stable time domain solns. 15511
ESD anals. for spacecraft in geosynchronous orbit 35213
ESP, particle charging, unipolar ionic bombard., AC elec. field 7925
far-zone elec. fields radiated by coax. cable aperture, perfectly conducting ground plane *(Korean)* 15639
FEA of Hall effect and magnetoresist. 13023
FEM computation of electrostatic fields/space charge effects 31705
ferromag. shields, EM transients anal. procedure 15486
freq.-selective screens, complementary elements, num. simul. 2313
gamma-irrad. polyethylene insulation, space charge accumulation meas. *(Japanese)* 43793
generation of predominantly elec., mag. fields in free space 40385
geoelectric sounding, finite elec. dipole 4384
GIS charged conducting particles, motion meas. 11205
glass photoinduced SHG, time-depend. beam-propag. model 15115
GTEM cell, elec./mag. fields calc. 8011
homogenous transm. line, heterogenous telegraphic eqns. *(Russian)* 43733
horiz. El above lossy ground, radiation field 23499
HV apparatus electrode elec. field calc., charge simul. method 19577
HV cables, synthetic elastomers, nonlin. I-V characts. 43767
HV overhead lines, mag./elec. fields calc, BEM *(Polish)* 43773
HV power cable elastomer materials, nonlin. V-I charact. *(Russian)* 43766
HV solid dielec., gaseous cavity, surface charge *(Russian)* 6917
HVDC transm. line, bipolar ionised field, FEM 43735
HVDC transm. line, monopolar ionized field, ion diffusion 43736
HVDC transm. lines, twin conductors, DC corona anal. 4634
indirect interband tunneling formulation for semiconds. 38315
induced elec. field intens. *(Russian)* 40233
induction motor, stator tooth zone, vibroacoustic proc. 4957
inductive particle charging, jumpwise motion in elec. field 15241
indust. electrostatic hazards investigs., UK 7906
inhomog. dielec. modeling, integral eqn. soln. 15393
integral operators $curl^{-1}$, div^{-1}, $grad^{-1}$, appls. *(Russian)* 23501
internal resons., method soln., suppl. conditions 40292
ion flow in 3D elec. field, charge dens. distrib. 31737
ISOMOM method for moment-method solns. in EM 31710
isotropic Maxwellian plasma point source, electrostatic pot. 40493
LEMP effects on subtransmission line, MOM 15480
lightning elec. field changes, sync. multipoint meas. *(Japanese)* 7895
lin., first order finite element pot. solns. 40196

electric fields continued
  low energy electron dust particle removing syst. 7915
  mag. enhanced RIE syst., wafer charge-up effect 22183
  magnetocumulative pulsed power generators, 1D calc. studies 36291
  micromotor, 3D electrostatic fields/forces, capacitance/torque calc. 36211
  microstrip problems, pole extraction 23767
  microstrip struct., surface impedance, conductor losses modelling 29522
  microwave EM imaging, convergent iter. algm. 42917
  microwave FEL, space-charge field meas. 2010
  microwave T/R switches, elec. field enhance./power absorpt. 21529
  microwave transm. line., photocond. switches simul. 31082
  mineral oils EHD, DC cond. expts. 2165
  mode stirred EMC facility, develop. 2266
  MOS struct. with finite field plate, 2D field distrib. calc. 13232
  MOSFETs, universality of electron mobility curves 13744
  moving charges, elec. field penetration into hollow conducting sphere 31729
  MPR2 test methods for VDUs 40368
  multi-layer materials, appls. of impedance boundary conditions 23711
  multibranching point of transm. line, EM wave radiation 2284
  nonaxisymmetrical X-ray image intensifiers design 18411
  nuc. EM pulse fields inside metallic container 31852
  oil tanker filling, electrostatic field estim. 40214
  open circ.-cylindrical cavities, recursive aperture formulation 15392
  overhead power lines, ice coating form. conditions *(Chinese)* 27228
  PCB radiation, lossy finite width image planes influence 21636
  PCBs EM radiation emission, moment method appl. 899
  perfectly conducting cavities, apertures, scatt. elec. fields 40293
  photopyroelectric thermal-wave imaging instrum., probe-tip optimisation 42790
  point charge in rect. conducting planes, complex images *(Chinese)* 31720
  polarised shells, magnetostatic/electrostatic fields anal., screening 23509
  polyhedron-approx. reflector antenna, radiation characts. anal. 23888
  power syst. geomag. induced currents, directional sensitivity 4449
  pulsed corona discharge ion cloud, motion modelling 7898
  quasistatic elec. field design problems *(Russian)* 7882
  radiated interf. of electronic equipt., randomly assigned phase terms 31857
  rect. grooved metallic surface light scatt. 2195
  repetitive pulsed power spark gaps, breakdown recovery expts. 36457
  RF immunity test facilities, conductive sphere 23741
  satisfiability problem solving, static elec. field theory 15246
  Schwartz-Christoffel transform. of electrostatic field 15216
  screening, polarized casings calcs. *(Russian)* 7881
  shaping electrodes in axisymmetrical electron-beam optics, calc. 15242
  short-channel MOSFETs, improved quasi 2D model 38902
  slender axisymmetric liq. column EHD, 1D models 15208
  Spindt-type emitter, elec. field and current anal. 38210
  storage ring, trapped secondary particle motion 43025
  TMAE-He mixture in avalanche chamber, first Townsend coeff., E-field depend. 10127
  travelling wave panel electrode design, computer user interface 15248
  tunnels, radiowave retransm., radiating cable 9267
  uniform current cylindrical dipole antenna vector pot. and elec fields 23877
  VDMOS transistors, self-shielding phenom. 30310
  VDUs EM environ. meas. 26480
  Whitney's edge/face elements for FETD soln. of Maxwell's eqns. 2175
  Cu vapour laser, long. elec.-discharge pumped, elec. field evol. 39650
  GaAs avalanche photoconductors, dyn. opt. probing meas. 31078
  GaAs high-power high-speed photoconductive switching devices, temp.-depend. delay time 14532
  GaAs photoconductive switches, elec. field structs. 36448
  GaAs photoconductive switches, illum. uniformity effects 14610
  HgCdTe heterojunction photodiodes, built-in elec. field 14612
  InGaAs/AlGaAs MQW pin diodes, optoelectronic effects and field distrib. 1341
  InGaAs-GaAs 111 strained layer piezoelec. QWs, electronic struct. and field screening effects 13192
  Li solid polymer electrolyte thin film batt., current distrib. 44283
  Ne-Ar gas glow discharge pos. column, elec. field-current charact. *(Japanese)* 29738
  SF_6 puffer cct. breaker, elec. strength restoration *(Russian)* 44238
  Si/Si p-n jns., pot. distrib., off-axis electron holography 1093
electric filters *see filters*
electric furnaces
  see also arc furnaces; resistance furnaces
  DynEAF dyn. modeling tool, integrated elec. steelmaking 44629
  fuzzy adaptive controller, proc. control appl. *(Korean)* 5389
  HV terrestrial AMTEC, design, appls. 28020
  induction channel furnace, build-up form. 44599
  induction furnace, mag. caused dyn. deform., calc. and meas. 44591
  metall. indust., thermal proc., optimal control software 44628
  tandem induction furnaces, cost-effective smelting *(German)* 11500
  TR-IA rocket, high temp. furnace *(Japanese)* 43419
  transm. network voltage flicker studies, AC/DC furnace-generated 27124
electric fuses
  3-phase indust. transformers, overcurrent protection 5014
  4.5 MJ Pegasus-II pulsed power capacitor bank protection fuse calcs. 36504
  35 kV transformer substation fuses, protection characts. optim. *(Russian)* 5162
  600 V current limiting fuses spec., AC switchboard appl. 19900
  DC/DC convertor plants, distrib. fuse fault clearing study 44144
  HRC fuses, badly manufactured, use, damage caused 11208
  HV current limiting fuses, low current interruption 27842
  HV fuses/switches, design tests, IEEE Std. 44236
  HV high-capacity fuses, develops., appls. *(Chinese)* 44229
  inspection, fast, using computer vision 21617
  metal-to-metal oxide antifuses, reliable for VLSI appls. 22079
  power IGBT converters, overcurrent fuse studies 6016
  power overhead line overcurrent protection devices, recent develops. 43778
  power semicond. fuse selection, surge current tests 6015
  power syst. LV fuse overcurrent behaviour 19343
  ring main substation protection, HV HRC fuse appls. 4663
  solid propellant electrothermal chem. launchers, pulsed power 31763
  spacecraft common mode transients, short cct./fuse blowing events 4347
  telecomm. DC distrib. networks, overcurrent fuse simul. model 19276
  three-terminal switching device, prog. fusible link 29630
  two-pole arc model *(German)* 29649
  underground distrib. syst., overvoltage protection, pad mounted switchgear 27164
  SF_6 distrib. transformer protection, develop. trends 4671
electric fuses continued
  SiN_x based metal-to-metal antifuse for FPGA appl. 21217
  SiN-based antifuses, stress-induced leakage current, dielec. breakdown 38448
  TiW thin films, sputter deposition 28829
electric generator control *see machine control*
electric generators
  see also AC generators; DC generators; diesel-electric generators; hydroelectric generators; magnetohydrodynamic convertors; permanent magnet generators; standby generators; turbogenerators
  6 kV/170 A supercond. power transm., PROMISE project *(Japanese)* 4626
  10 W second generation Stirling engine generator set perform. 28043
  adaptive fuzzy speed control, rule-based 19582
  automobile hybrid internal combustion engine, computer controlled 28156
  brake, thick film resistor 4906
  busbars, EM proc. calcs., FEM-based 18998
  coherent generator group recogn., dyn. equivs., ANN *(Korean)* 36105
  combined cycle power plants, standardised modular power equipt. 36030
  combined cycle/cogeneration systems, IEE Colloquium, London (1995) 36882
  condition based maint. 36095
  condition monitoring, IEE Colloquium, London, UK (1995) 11599
  doubly- and non-oriented sheets, anisotropic behaviour model 39126
  doubly-fed variable speed wind generator adaptive control 4876
  elec. utility generator VAr capability assess. experience, USA 35487
  electronics, high altitude NEMP hardening 19587
  embedded generators, pole slipping protection studies 4895
  excitation syst., gain scheduling control *(Chinese)* 4881
  FACTS, bilinear predictive control, thyristor controlled capacitor 4582
  flywheel energy storage program, Lawrence Livermore Nat. Lab. 28049
  generator-transformer set protection, microcomputer-based *(Chinese)* 36089
  generator-transformer unit faults, relay protection algms. 27680
  generator-transformer unit relaying scheme, PC-based 35684
  ground differential relaying 19589
  ground-fault protection, 3rd harmonic voltage 19584
  high T_c superconds., power indust. appl. prospects 27068
  HV AC-DC systs., multivariable adaptive control 4549
  HV insulation condition monitoring strategy 19583
  HV machines, condition monitoring, ScottishPower 36109
  hysteresis machines, high T_c supercond. rotor 10976
  IEEE industry applications, conf., Denver, USA (1994) 10
  INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
  isolated power systs., harmonic filtering, tined pass. filters 4455
  lin. generators, railgun pulsed power supply appls. 36309
  loaded elec. machines, noise meas., sound intens. method *(Chinese)* 10925
  Maglev on-board power supply lin. generator, math. model 36759
  maint. scheduling, simulated evol.-based 19602
  maint. scheduling, subjective constraints relax. *(Japanese)* 27663
  modelling, power syst. simulator-based method *(Russian)* 43995
  multigenerator power systs., damping anal. program 4486
  multimachine power syst. generator shedding, neural net-based 19098
  multimachine power syst. resync., optimal variable aim control *(Chinese)* 10634
  multimachine power syst. transient stabil., prediction/control *(Chinese)* 35513
  multimachine power systs., freq. control requirements 43703
  network/generators protection coord., CIGRE survey 27664
  neutral grounding *(Chinese)* 27678
  ocean-based force-of-gravity power conversion systs. 27616
  overhaul scheduling, dyn. prog. *(Chinese)* 43976
  power plant generator control, fuzzy modeling 4889
  power station auxiliary power systs., short-cct. current calcs. 19383
  power station HV equipt. insulation, online PD anal. 4756
  power syst., loss of grid protection, power based algm. 4713
  power syst., modified Ward-type equiv. model, partitioning techs. *(Korean)* 35460
  power syst. assoc. control services, generator level experience, France 43705
  power syst. chaotic phenom. model, computer-based 4480
  power syst. differential ground fault protection 19337
  power syst. dyn., coherency ident., neural net-based 4492
  power syst. fuzzy adaptive excitation control method *(Chinese)* 43631
  power syst. generator operating point, fuzzy control *(Japanese)* 4592
  power syst. interarea/local generator reson. modes ident. 35486
  power syst. short cct. currents, decaying AC contribs. 19052
  power syst. transient nonlin. generator excitation control 26992
  power syst. transient stabil., quasi stationary phasor dyns., error anal. 26886
  power syst. transient stabil. control, online calcs.-based *(Japanese)* 27042
  power syst. voltage collapse, load pattern anal. 4452
  power systems, power electronics appls., Japan 35563
  power transformers, tapchanger diverter monitor 5019
  protection, digital integrated relay-based 4891
  PSS fuzzy excitation control syst. develop. 4509
  PSS SVC fuzzy logic switching design 19102
  pumped storage plant, converter-fed var. speed generator-motor, fault current *(Japanese)* 36048
  pumped storage plant, converter-fed var. speed generator-motor *(Japanese)* 36047
  RAMO telecomms. environ. equipt. mgt. network 19870
  real-time condition monitoring 44007
  reliab. anal., retrospective data-based *(Russian)* 10917
  rem. telephone services, alternative power sources 3107
  reverse power flow protection, relays 4886
  small power plant generators/auxiliaries, protection/monitoring concepts 27306
  stator diagnostics, thermal monitoring 10955
  stator insulation diagnosis, ES-based *(Russian)* 10918
  stator windings, in-service PD tests 36101
  supercond. generator brushless excitation, mag. flux pump-based *(Japanese)* 10963
  supercond. generators, short-cct. rotor damper EM force calcs. 27676
  supercond. materials, power systs./transportation appl. possibilities 43612
  supercond./conventional generators, parallel running, transient stabil. *(Japanese)* 10965
  thermal power stations, generating unit diagnostic monitoring 35991
  transient/subtransient params. ident. 4907
  transm. network probabilistic prod. costing simul. 27120
  transverse edge-cracked rotor vibr. 19579
  two-input PSS develop., LF oscills. control appls. *(Japanese)* 26995
  written pole motor/generator, flywheel storage , telecom. sites 44203

electric generators continued
  Nb$_3$Sn supercond. wire/generator R&D, Japan *(Japanese)* 19303
electric glow *see corona*
electric heaters *see electric heating*
electric heating
  see also dielectric heating; domestic appliances; drying; electric furnaces; heating elements; induction heating; ovens; radiofrequency heating; resistance heating; space heating
  arrayed-waveguide grating multiplexer, phase error compen. 22919
  auxiliary heater, solar thermosyphon water heater, water load temp. effect 44586
  building HVAC nonlin. heater batt., neural net control 5239
  distrib. feeder elec. heating load prediction, computer-based 35620
  domestic hot water supply, elec. heating energy savings 5381
  elec. utility DSM planning, elec. cooking implications, Nepal 35475
  electro-technologies for waste processing, IEE Colloquium, London (1994) 5461
  environ. pollution prevention/reduction, elec. procs. *(German)* 44641
  glass recycling, elec. heating appls. 28199
  group geyser consumption patterns, single water heater and PC-based meas. and control syst. 4538
  heat pumps, future prospects, domestic 11482
  high-temp. elec. heating elements, oxygen getters *(German)* 11472
  HX-SE3h eat storage elec. fan heater *(Japanese)* 5392
  in-bin grain drying energy systs., computer simul. 28200
  indust. curing procs., electrotechnology appls. 28188
  indust. elec. heater, discrete optimal tracking controller 44589
  indust. energy/exergy anals., Turkey 20153
  insulator surfaces, elec. field/pulsed laser heating 15198
  karakul skins dryer, combined solar/elec. air heating 44598
  legionella Code of Practice compliance, engng. aspects 5568
  load mgt., radio teleswitching 5380
  melting shop, energy optimisation, control syst. *(German)* 11507
  persistent current switches, stabil. current perform. *(Japanese)* 7257
  petrochemical plant, elec./proc. control systs. integrat. 5410
  proc. heating, thermal/control considerations 5382
  reinforced concrete, stripping demolition, NPP appl. 35936
  residential elec. water heater loads, aggregate model 20127
  solar thermosyphon/elec. backup domestic hot water systs. simul. 36782
  swimming pool, open absorpt. heat-pump, energy saving 11517
  thermionic fuel elements, 2D transient anal. 18735
  Topaz-II single-cell thermionic fuel element design/testing 5235
  tracing, controls/monitoring 36783
  Al railgun material strength, pulsed heating conditions 15327
electric heating elements *see heating elements*
electric ignition
  automobile dyn. spark ignition engine control modelling 11438
  automotive engine mgt. syst., electronic ignition 36771
  car engine diagnosis, cyclostationary/time-freq. sig. anal. appl. 40936
  semicond. jn. igniter in 2.75 folding fin aircraft rocket, RF charact. 35398
electric immittance
  see also electric admittance; electric impedance
  filters, special mutators 16031
  GIC, complex digital filters design 12653
  lin. ccts., OTA/grounded capacitors, realization 37607
  rectangular microstrip patch radiation and loss anal. 23838
  SC higher-order immittance simul. ccts., synthesis 12308
electric immittance measurement
  see also electric admittance measurement; electric impedance measurement
  AC immittance spectrosc. of smart components and devices 18027
electric impedance
  see also electric reactance; electric resistance
  2D coupled cavity resonator cluster symm. anal. 31975
  3-phase multiconductor busbar systs., model validation 19904
  3-phase power syst. symm. components calc., state observer 19061
  3D eddy current computation, surface impedance method, geometric sing. 40244
  3D EM scatt. problems, fast multipole soln. 23537
  3D interface elements for modelling complex pot. drops 40193
  11 GHz folded slot antenna for planar quasi-opt. mixer 23909
  52 MJ railgun power supply perform. 19775
  330 kV compact transm. line, phase conductor configs. *(Chinese)* 35652
  1200 W zero output impedance UPS inverter 44170
  ACE 4 plasma opening switch/plasma filled diode charactn. 36391
  antenna design/optim., generalized multipole tech., perform 15634
  aperture coupled microstrip antennas, charact. 23855
  aperture-coupled multiplayer microstrip antenna anal. 31942
  aperture-coupled NRD-fed patch antenna model expansion anal. 23912
  array probe card, micromachined, charactn. 20409
  asymmetric TEM cell, characteristic impedance, septum thickness effect 20417
  axially oriented whisker in waveguide mount, anal. for MM-wave freqs. 40397
  bal. multiple-pair telecomm. sig. ports disturbances meas. 23744
  biconical antenna for EMC meas. 23716
  body resist. to elec. shock, review 20388
  broadband matched terminations in planar structs., simul. 12746
  broadband rect. microstrip antenna element 2328
  broadside coupled strip inset dielec. guide, directional coupler appl. 29526
  building columns/girders, equiv. imped. for lightning surges 20385
  buried line conductors, EM modelling, integral eqn. 40256
  CCII biquads, high-input impedance 727
  center-fed strip dipole, impedance, Poynting vector method 40475
  circ. impedance cylinder, chiral sheath coated, scatt. 15410
  circular patch antenna with sectoral slot anf shunt element 23933
  class DE RF power amp., impedance plane anal. 551
  coated body scatt. field computation 23546
  coated wire antennas/scatterers, anal. 31933
  coaxial probe excited hemispherical dielec. resonator antenna input impedance 31918
  coaxial-to-waveguide adaptor with probe/tuning post, anal. 21521
  coaxially-fed rect. patch antenna input impedance rel. to substr. thickness 31939
  complex planar struct., static study *(French)* 12702
  concentric microstrip ring resonators, props. 31949
  conductor-above-the-ground type line, impedance var. 31922
  crossed-slot antenna, paint-coated bar load, impedance 40477
electric impedance continued
  current distrib. on convex-concave cylinder with impedance boundary, Toeplitz matrix/SOR anal. 25560
  curved-surface microstrip antenna conformal-grid FDTD anal. 23865
  cylinders with anisotropic cond., surface impedance 15591
  cylindrical microstrip line mounted inside ground cylinder, quasistatic soln. 21505
  cylindrical microstrip-line-fed slot antenna anal. 31955
  cylindrical-circ. microstrip antennas, generalized transm. line model 31938
  cylindrical-rect. microstrip antennas theory 8049
  dielec.-covered microstrip line slot antenna anal. 2331
  dielectric body of revolution/wire radiator spin by method of moments 23815
  dipole antenna suspen. low, metal screen 2315
  distrib. network fault current reson. grounding project, Australia 19258
  distrib. syst., transient anal., equiv. homog. line model *(Japanese)* 10738
  distribution network grounding electrodes, impulsed ground impedance studies 19251
  dual patch shielded antenna array element for mobile satellite commun. 23947
  dual-band rect. microstrip antenna element 31937
  EFIE, num. soln., transient antenna impedance determ. 15622
  elec. shock safety, develop. 18624
  ELF-microwave radiation dosimetry num. methods 35186
  elliptical annular microstrip antenna full Mathieu formulation 23929
  EM coupled stacked rect. patch antennas 31927
  EM scatt., complex multipole beam approach 23609
  EM scatt. by impenetrable sheet with different face impedances 23543
  EM scatt. for oblique incidence on impedance bodies of rev. 23574
  EM wave atten. along ideally conductive irregular edge 31786
  EMC, line impedance stabilization network in noise meas. 40370
  EMC appls., skeletal biconical antenna charact. 7996
  EMI ferrites, wide freq. impedance modeling 15488
  EMI filters, dyn. prediction of insertion loss 23661
  EMP illum. impedance wedge, current eval. 23657
  equilateral triangular microstrip antenna, input impedance 15621
  equiv. transm. line model for EM penetration, reinforced concrete 40377
  FDTD computations, num. errors 5802
  ferroimpedance transducer, mag. field meas. 25793
  field-excited transm. line systs., time domain anal. 15495
  finite difference method, EM scatt. from impedance ellipt. cylinders 40301
  finite length multiconductor power line, impedance/line params. 4675
  finite scanned arrays, standing waves in scan impedance 31997
  generation of predominantly elec., mag. fields in free space 40385
  graded semicond. layers, electrodynamic props. 21869
  ground-plane-backed planar slot antenna expt. and calc. 23911
  H-wave scatt. from circ. curved impedance strip 15403
  hemispherical dielec. resonator antenna anal. 40473
  HF low impedance capacitor technol. *(Japanese)* 876
  high input impedance all-pass cct. 726
  high phase order systs., impedance relaying 35611
  higher order impedance boundary conditions, chiral coatings appl. 2214
  HTSC, mag.-shield type supercond. fault current limiter *(Japanese)* 7254
  HV overhead line earth fault compensation coeff. modelling 19328
  HVDC transm. lines, twin conductors, DC corona anal. 4634
  IEC555, harmonics and legislation 31865
  impedance antenna synthesis 2317
  indoor telecomm. line noise voltage due to AC supply lines, estim. 16988
  induction motor, terminal-impedance control, energy-saving 4981
  induction motor control/protection, Steinmetz model 4938
  induction motors, artificial loading condition impedance calcs. *(Russian)* 44034
  inductively coupled discharges, analytic models 21789
  infinite printed-dipole array input impedance rel. to random posn. errors 23977
  inhomog. dielec. modeling, integral eqn. soln. 15393
  interconnected mesh power syst. MCM topol., elec. charactn. 21722
  intermediate line power filters, impedance/EMI compatible designs 29008
  junctions between bodies of revolution and arbitrary surfaces 23825
  layered anisotropic media planar transm. lines, characts. anal. 23796
  LGA, low temp. co-fired ceramic, high speed digital appls. 20443
  lin. antenna, symbolic approach, inverse problems in moment method 2312
  localisation, CFIE soln. 31919
  long. multilayered isotropic dielec. filled rect. waveguide 2303
  low-noise TW front-end for coherent opt. receiver 9577
  Maglev power feed ccts., impedance freq. characts. 11406
  MAGLEV train coil syst., transient induced voltages study 11428
  magnetostrictive shaker, broadband perform. 30754
  metallized capacitors, mag. field/current distrib. 882
  microstrip and slotline planar struct. impedance matrix eqn. 23752
  microstrip antenna arrays, reduced time modelling 40509
  microstrip antenna on conical surface, TM$_{10}$ mode anal. 40474
  microstrip antenna resonant feeding networks 31999
  microstrip antennas, moment method, gain enhancement 40459
  microstrip antennas, near fields computation 31928
  microstrip patch antenna, laminated glass superstrate, perform. 2326
  microstrip step discontinuity, fractional dissipated power 856
  microstrip struct., surface impedance, conductor losses modelling 29522
  microstrip Yagi antenna, iter. MPIE formulation anal. 23942
  microstrip-patch antennas, tuning stubs 23858
  microstrip-slot and CPW-slot lines, optoelectronics appls. 12697
  modified transm. line antenna for portable telephone, anal. *(Japanese)* 8055
  MRI slotted tube resonator, dielec. body loaded, num. anal. 26318
  multi-layer materials, appls. of impedance boundary conditions 23711
  multibranching point of transm. line, EM wave radiation 2284
  multilayer PCBs, decoupling effects of Vcc/Vgg struct. 21635
  multipair symm. cables at 1 kHz-2 MHz, crosstalk/transm. 16927
  multiphase transformers, rot. mag. field, inductive impedance calcs. *(Russian)* 21603
  multiple-output buck-type power converter, dyn. characts. 44153
  mutual impedance, overhead/buried line, earth return 2253
  MV distrib. network harmonic and AF behaviour *(German)* 4637
  noise injection clamps charact. 23747
  offset dual-patch microstrip antenna anal. 2335
  optically fed patch array configs. and scan performs. 31970
  overhead lines, earth-return effects, freq.-independ. cct. model 43728
  parallel act. power filter, control stabil. study 5112
  patch antenna tuning stubs 23931
  PCB interconnections, microwave charactn. 38164
  PEO-PC-LiClO$_4$ electrolyte batt., storage study 27895
  phased antenna array charact., effect of atmos. precip. 31985

electric impedance continued
piezoelec. discs with elastic addits., vibr. anal. 26789
planar inductors charactn., 1 MHz, large excitation 6379
plasma opening switch, pos. polarity on Gamble I, flashboard plasma sources 44227
polarimetric microstrip antenna, spectral domain anal. *(Japanese)* 40481
power cable mag. fields calc., conductors subdivision method 19297
power electronic cct. design/layout, EMI reduction, perform. improvement 12312
power line switching transients immunity control spec. 19041
power station auxiliaries, var. speed squirrel cage motor drives *(Polish)* 43819
power syst. dyn. voltage instabil., induction motor model *(Korean)* 35461
power syst. fault detect., back-propag. ANN *(Korean)* 35702
power syst. fault impedance, fast estim. 19063
power syst. harmonics, external syst. model, bilinear theorem 35463
power syst. short cct. anal., characts. current method 35446
power syst. tapping transformers, dyn. interact. calcs. 27784
power syst. voltage surge eval. 35454
probe-fed cylindrical annular-ring microstrip antenna characts. 23890
probe-fed small circ. microstrip patch antenna 40488
public power supply network impedance and harmonics calc. *(German)* 35609
pulse amplit./synthesis converters, power syst. appls. 27809
pulsed voltage/current/power, stepped line conversion 36364
qtr.-wave stub, operation 2281
quadrature coupler, planar ellipt. shaped, theoretical anal. 21514
quadruple-ridged sq. waveguides, charact. impedance 40409
quadruple-ridged waveguides, anal. and design 15561
quasi-TEM coupled transm. lines, modal charact. impedance 23787
rectangular patch antenna feed microstrip line gap discontinuity anal. 32000
rep-rate pulser, high-power microwave source develop. 36323
RF absorptive cables, characts. calc. and meas. 890
SABRE pos. polarity inductive adder MITL, refl. waves 34741
scatt. by coated bodies, higher order impedance boundary conditions 25544
Schottky diode corner cube mixer, whisker antenna, embedding impedance 6316
self-excited induction generators, circle diagram approach 19628
semicond. film anisotropy in field of slow wave 13006
series connected batt. strings, charge equalization 19932
shaped dual-reflector antenna, impedance flanges, radiated fields *(Chinese)* 40444
shielding effectiveness, intrinsic param. 23708
shielding effectiveness calc., wave impedance concept 2257
ship tapered resistively loaded monopole antenna characts. 40490
slot-coupled cylindrical-rect. microstrip antenna anal. 40479
spacecraft distributed power systs. design 26595
spherical-annular microstrip antenna generalised transm. line model 23928
squirrel cage motor impedance loci, slot-type effect studies *(Japanese)* 11056
stacked EM coupled patch antennas anal. 40453
subscriber telecomm. equipt., lightning-surge test method 25146
superquadratic loop antenna circuits 23867
surface aperture, equiv. currents 8041
sync. generator, back-swing phenom. anal. 11000
telecomm. cable long-term influences of three-phase power cables *(German)* 16999
TEM horn antennas, charact. impedance calc. 23887
thermoset hardening, elec. impedance meas., piezoelec. sens. 5929
three-layer media, generalized Rayleigh solns. 23591
three-phase power transm. lines, EM transients simul. 19290
transient surface impedance boundary condition, model 40192
transm. line, current transient proc. meas. 23686
transm. line impedance, driver impedance effect 15548
transm. tower model, simul. upward lightning current path *(Japanese)* 10764
twisted-pair transm. line anal. by method of moments 23750
ultra-short pulse propag. on complex planar structs., anal. 37961
unified theory of compatible impedances 21016
vac. cct. breakers, switching surge voltage, travelling wave method *(Korean)* 27834
variable impedance power syst., decentralised stabilisation scheme *(Japanese)* 43681
vertical antenna above dielec. half-space, complex image-induced EMF 31916
vertical antenna penetrating dielec. half-space, complex image soln. 31921
void fraction meas. in vert. gas-liq. tube flow 10065
water trees, network model 13975
waveguide mode computation using wave-like basis fns. 31893
wideband gap-coupled microstrip antenna arrays, study 40502
wideband high-gain stacked microstrip antenna element 23981
Yagi-Uda antenna, FDTD anal. 15670
Cu/polyimide MCM, embedded microstrip transm. line sig. characts. 6465
GaAs microwave FETs, deep level characterisation 38001
GaAs/AlAs, RTD with asymmetric spacer layers, microwave impedance 13606
InGaAs-GaAs quantum-well lasers, impedance charact. 14857
p-InP, photoelectrochem. solar cells, charge transfer, open-cct. impedance 36599
$La_{0.6}Sr_{0.4}Fe_{0.8}M_{0.2}O_{3-\delta}$ cathode cones, impedance spectrosc. 44387
$Li-Li_xMn_2O_4$ secondary batts., electrochem. anal. techs. 27899
$Li_{0.4}K_{0.6}NbO_3$ cryst., dielec./ferroelec. props. 22659
Nb underdamped discrete supercond. vortex flow devices, Eck peak 7241
$Ni-H_2$ batts., in-orbit internal impedance determ. 26567
$Ni-H_2$ common pressure vessel batt., spacecraft, impedance 26568
Si power IC transient voltage suppressors 29019
Si/electrolyte interface, impedance, deconvolution 6594
$n-SrTiO_3$ photoelectrode in 0.1 M NaOH soln., impedance anal. 6597
$SrTiO_3$:Nb semicond. ceramics, electrode effects 13227
Ta capacitors, HF impedance reduction *(Japanese)* 880
$YBa_2Cu_3O_{7-x}$ high T_c film dielec. resonator, MM-wave filter develop. 811
YBaCuO/$LaAlO_3$/YBaCuO multilayered films for microwave appls. 1599

electric impedance imaging
bioimpedance act. electrode in vivo meas. 10231
brain activity, spatial/temporal imaging, visual selective attention 10234
haemodynamics, noninvasive monitoring, impedance cardiography/cardiointervalography 35098
hyperthermia and elec. impedance tomography, clinical implement. 43350
image reconstruction, modified back-projection method 43302
induced current elec. impedance tomography 43287

electric impedance imaging continued
internal resist. distrib. meas., elec. impedance tomography 9992
neonatal lung imaging, elec. impedance tomography 43294
neural network image reconstruction, elec. impedance tomography 10253
noncorrelated noise filtering 35076
optimized elec. impedance imaging reconstruction algm. 43319
pelvic EIT images and assumed init. cond. distrib. 43311
real-time tomography syst., design/preliminary results 18567
sig. proc., advanced tech. 18570
thorax models, impedance cardiogram multiple sources 18568
tomography, cylinder/human thorax, finite element models 43288
tomography, resistor network model 3951

electric impedance measurement
see also electric impedance imaging; electric reactance measurement; electric resistance measurement
AC bridge for impedance meas., anal./design/implement. 12613
AC elec. charactn. of solder paste 9994
AC rly. power syst. protection/fault meas., PC-based 44536
AC skin impedance meas., real-time direct method, ANN based 43315
bacterial growth analyser, multichannel, by impedance and turbidity 10228
bioimpedance act. electrode in vivo meas. 10231
biomedical impedance pneumography, sig.-to-motion artifact ratio 35075
board-to-board connector shielding, transfer impedance meas. 15533
building columns/girders, equiv. imped. for lightning surges 20385
Buran flight-model fuel cell, test programme 10398
cardiography, blood flow-related admittance changes 35094
electrochem. cells, electrode and bulk impedance meas., high DC bias 34661
electronic systs. earthing, parts, perform., cabling, impact *(French)* 15521
hemispherical dielec. resonator antennas, mutual impedance 23940
HF charact. of supercond. wire 22772
HF impedance analyzer up, 1.8 GHz 9828
HTSC surface impedance, microwave meas., cavity 3965
internal resist. distrib. meas., elec. impedance tomography 9992
living tissues monitoring by elec. impedance spectrosc. 4276
metal coating elec. cond./thickness, eddy current data rapid inversion 42890
moisture content meas. in seeds/kernals. impedance sensing 25942
multicell batt. strings, single sens. wire monitoring 44264
oral mucosa/skin irritation estim., elec. impedance device 43308
paediatric/infant apnoea monitoring, electrodes comparison 10237
peripheral blood flow estim. by impedance plethysmography 10227
plasma etch procs., discharge impedance meas. 22202
power overhead line impedance meas./anal. studies *(Japanese)* 4698
quadrature components real-time eval., impedance meas. 25941
resistively loaded printed triangular dipole design for wideband array 23957
rheopneumographic meas., respiratory artefact removal, adaptive FIR filters 10226
semicond. thin films, electrode and bulk impedance meas., high DC bias 34661
SMC target, NMR polariz. meas., nonlinearity 34872
space station, switching regulators, source-load interact. 26613
spacecraft common mode transients, short cct./fuse blowing events 4347
spectrosc., dielec. gas sens. 3918
thin film microstrip line dielec. thickness var. by TDR 38180
two winding ferrite core transformer, equivalant cct. 27782
UHV tower model, lightning surge anal. 27238
wrist pulse/respiratory sigs. detect., dry electrodes 10233
NH_3 irradiated target, ^{14}N pol. meas. using NMR 34869
Ni-YSZ cermet SOFC electrodes, kinetics expts. 44356
Pb-acid batt. impedance meas., maint. tool 44297
Pb-acid batt. impedance testing 44294
Pb-acid batt. strings, impedance meas. 19965
Pb-acid batts., Pb-Sb alloy electrochem. props. 11258
Pb-acid batts., condition assess., batt. monitors 44279
Pb-acid sealed batts. deterioration estim. method *(Japanese)* 19942
Pb-acid sealed valve regulated batt., impedance testing 19952
Pb-acid valve-regulated batts., reliab. testing 19968
Pb-acid valve-regulated secondary batt., conductance/impedance tests 44298
$YBa_2Cu_3O_{7-\delta}$ thin films, microwave surface impedance determ. 25946

electric impedance tomography *see electric impedance imaging*

electric load *see load (electric)*

electric locomotives
see also motorcoaches
3 kV DC rly. power syst. harmonics, time domain anal. 44553
6 MW GTO locomotive power convertor, insulation/corros. tests 36352
12X elec. locomotive, develop. and perform. *(German)* 28103
AC locomotive PWM rectifiers, harmonic current calcs. 36760
AC locomotives, line-side switching harmonics compensator 20101
AC locomotives, slip vel. feedback torque control *(Japanese)* 11407
AC rly. power syst. protection/fault meas., PC-based 44536
AC/DC 4000 kW dual mode inverter controlled locomotive 44506
AC/DC PWM GTO power converters, high-speed train appls. *(Korean)* 28120
adaptive output power control studies *(Japanese)* 28112
DC drives, thyristor/chopper/power converters 36734
DC motor drives, PWM rectifier retrofit project, Australia 44543
DC rly. locomotives, induction motor-driven, computer simul. 5348
DC rly. vehicles, act. power filter appls. *(German)* 11421
DC traction motor drives, electromech. proc. modelling *(Russian)* 36719
Deutsche Bahn elec. rly. operation review, 1994 *(German)* 44500
electrified rly. radio interf. 28115
fault-tree generation automation, ES-based 44551
high speed elec. rly., power/control systs. *(French)* 11427
ICE 2 series high-speed elec. locomotives *(German)* 44501
ICE elec. locomotives, energy consumption/pollution study, Germany *(German)* 44502
JR Freight prototype elec./diesel-elec. locomotives 11399
mine elec. locomotive braking, pulsed control syst. modelling 28202
motor wheel set drives, adhesion utilization improvement 36758
PEM fuel cell, terrestrial/marine vehicle appls. 36741
power syst. unsymmetrical load flow, elec. locomotive caused *(Chinese)* 35423
radio noise meas. 28129
railways in united Europe, IEE conf., Amsterdam (1995) 36833
rly. feeder traction substations, harmonic prediction formulae *(Chinese)* 44249
rly. power consumption characts. estim. *(German)* 44503
rly. traction drive readhesive control studies *(Korean)* 28121
rly. traction power supplies, overview 11425
Shinkansen develop., Hitachi technols. 44505

electric locomotives continued
total systs. simul., SIMULINK 44555
two freq. elec. locomotives, act. DC link filter 44541

electric machine analysis computing
3.5 MW sync. motor drive, cycloconvertor-fed, modelling 5323
3-phase induction motor simul. for teaching purposes 66
3-phase tetrapolar alternator model, bond-graph method 27695
3D dyn. nonlin. mag. field in elec. machine, time-periodic FEM 40246
6-phase induction motor, split coil, EM proc. simul. 11021
AC drives, decoupling control techs. 28082
AC motor drives, six-step power convertor-fed, anal. 20082
AC servomotors, digital control, syst. dyns. *(Korean)* 36214
aircraft AC generators, forced power transfer, dyn. modelling 26657
asynchronous machines, piecewise-const. approx. anal. method *(Polish)* 36148
automotive rotary actuator homopolar PM motor studies 11436
brushless DC drives, math. modelling 44494
brushless DC motors, computer simul. model 36184
brushless doubly-fed induction motor drives, speed control 20055
brushless PM DC motor drives, torque ripple reduction 44477
brushless PM motor/induction motor drives comparison 5274
commutating machines simul., ANN appl. 10960
DC machine, distributed exciting winding, calc. 36182
DC motor, model following nonlin. control syst., GMDH algm. *(Korean)* 27746
DC motor armature reaction EM field, FEM-based anal. 19660
DC motor chopper traction systs., computer simul. *(Chinese)* 28128
DC motor drives, chopper-fed, fault conditions anal. 5276
DC motor drives, optimal speed control method *(Polish)* 36647
DC motor drives, separately excited, tunable fuzzy logic control 20076
DC motors, CAMAC-PC based automatic expt. investig. syst. 36185
DC rly. locomotives, induction motor-driven, computer simul. 5348
DC servomotor fuzzy logic VSS control design *(Korean)* 27744
direct AC-AC matrix power convertor, AC motor appls. 19738
doubly-fed brushless motor, sync. frame model/decoupled control 11378
doubly-fed induction machines, torque/VAr control 4973
drives, software based, testing/develop. 36694
dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
elec. drives, anal., simul., software package 20077
elec. motor winding interturn switching transient voltage studies 43985
elec. vehicles, induction motor drives, posn. sensorless 20097
embedded controller, transputer-based, eval. for high dyn. control appls. 44260
embedded generators, pole slipping protection studies 4895
fault detect., hybrid fuzzy/neural syst. used extract heuristic knowledge 4984
faulted SRM drives modelling, evol. ANN 44448
fixed pitch WEC syst., induction generator, EMTP simul. 10910
gas turbogenerator cascade flow, 3D compressible Euler solver 36016
generator modelling, power syst. simulator-based method *(Russian)* 43995
generator transient/subtransient params. ident. 4907
generator-transformer unit faults, relay protection algms. 27680
high-order systs., model ref. adaptive fuzzy control 5245
HSPICE/EMTP comparison, power syst./power electronics anal. 4476
HV induction motors, overvoltage simul., pole closure 11052
hydraulic turbogenerators, intell. sync. control *(Chinese)* 10877
hydroelectric generators, ballhead motors, mech. governor perform. 43987
IDAS, power electronic/elec. drive simul. tool 11347
induction machine behaviour anal., interactive colour graphics 11050
induction machines, saturated, deep bar effect, transient models, simul. 19634
induction motor, dyn. behaviour/param. calc. optimisation 4942
induction motor, integrated on-line protection syst. 4969
induction motor, rotor time const., field oriented control, param. sensitivity 4944
induction motor, transputer based digital controller 44050
induction motor aggregate model/expt. responses comparison 4959
induction motor ASD, design/anal., CASED simul. tool 5313
induction motor drive, CSI-fed, field oriented control, CASED simul. 44495
induction motor drive, field oriented sliding mode torque/speed control 36699
induction motor drive, PC based perform. simul. 19648
induction motor drive control, rotor time const. ident. 11369
induction motor drive vector control, neural net flux estimator 5296
induction motor drives, closed-loop phase angle control 5260
induction motor drives, CSI-fed, field-oriented predictive control 5259
induction motor drives, CSI-fed, torque angle control algm. 28091
induction motor drives, current controlled PWM inverters, simul. 11363
induction motor drives, digital control strategy 5268
induction motor drives, fuzzy logic controller 20085
induction motor drives, indirect field-oriented control slip gain tuning 28093
induction motor drives, intelligent PWM power convertor develop. 28089
induction motor drives, neural net-based param. estim. 20061
induction motor drives, sensorless speed control, neural net-based 20063
induction motor drives, speed sensorless control, flux saturation effects 11328
induction motor drives, speed sensorless field-oriented control 5298
induction motor drives, universal field oriented control simuls. 36640
induction motor drives, vector control, auto-tuning method 36682
induction motor drives, vector control, feedback sigs. estim., ANN 44488
induction motor model, dyn. aggregation, power syst. simul. 4960
induction motor modified flux orient. control scheme 11046
induction motor offline param. ident., computer-based 4956
induction motor param. determ., genetic algms. appl. 4962
induction motor saturation modelling, computer-based 4937
induction motor starting transients, simul. algm. 19631
induction motor vac. cct. breaker switching surge anal. *(Korean)* 27706
induction motor vector control, param. ident. software 4950
induction motor/transformer economics teaching, software package 27725
induction motors, CSI-fed, torque control, vector approx. 5310
induction motors, doubly fed, torque/reactive power control 44058
induction motors, indirect field oriented control perform., rotor speed error 4976
induction motors, indirect vector control, ang. vel. calc. *(Korean)* 36173
induction motors, inverter-fed, computer-based torque simul. 27713
induction motors, rotor flux estim., Luenberger observers 11038
induction motors, sensorless field accel. method, stabil. anal. 11047
induction motors, sensorless vector speed control scheme 19632
induction motors, single phase, starting transients calc. 11039
induction motors, speed sensorless indirect field oriented control 11045

electric machine analysis computing continued
induction motors, torque oscills. reduction, supply switching 19636
induction motors, transient torque anal. *(Japanese)* 11031
induction motors, voltage fed, field orient. control 19639
induction motors drives, real-time PWM vector control studies 28100
induction servomotor drive control studies *(French)* 11335
induction servomotors, cycloconverter-fed, sliding mode control 4983
LIM, moving conductors eddy current anal. method 27724
LIM drives, transvector control syst. computer simul. *(Russian)* 44437
lin. reluctance motor can secondaries, suspen./propulsion forces 19671
lin. reluctance servomotor drives, control perform. 5319
mach. health assess., expert decision syst. 10928
Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
modelling, three-phase AC network simulator-based *(Russian)* 43994
motor design, mag. field anal. *(Japanese)* 11018
motor drive CAE computer program develops., former USSR 44455
motors, double power supply, LF oscillatory motion 4904
multimachine interconnected power syst., transient perform. model 19149
neural network/fuzzy logic technols. for fault detect. 4908
nonlin. SRM drive modelling, neural net-based 5256
permanent magnet DC motor, computer modelling 19661
PM brushless drives, integrated CAD syst. 11344
PM machines, air-gap flux dens. calcs., computer-based *(Chinese)* 10927
PM sync. machines, stabil., cage bar effects 36125
PM sync. motor, back EMF estim., torque harmonics minimisation 4916
PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
PM sync. servomotor drive, VSI-fed, field oriented control 36675
power convertors, 2D FEM computer modelling 36099
power syst. interarea/local generator reson. modes ident. 35486
power syst. short-cct. anal., charact. currents method 19057
power syst. voltage stabil. indication, rotor heating simuls. 35432
PSS design, self-tuning regulator 19194
reluctance generators, sensorless DC output voltage control 4927
reluctance machines, multiple coupled cct. modelling 10981
reluctance motor ASD, 2-level bipolar current control 11385
reluctance motor drive, DSP-based sliding mode control 44493
reluctance motor drive, optimal current angle control algm. 36684
reluctance motor drives, axially laminated rotor, vector control 5258
rly. traction drive readhesive control studies *(Korean)* 28121
rot. mach., fault prognosis, neural net 27683
rot. machine act. noise control studies *(Korean)* 27668
rot.-field machine control value fn. computation for single-sided grooving *(German)* 10938
rotors, rubbing fault, diagnostic methods *(Chinese)* 10926
salient pole sync. generator, transient stabil. anal. 4920
saturated deep bar induction machines, simul. model 4971
ship propulsion motor noise generation, computer modelling 5347
SIMSEN, power network/ASD simul. package 10608
single-phase induction motors, multi-speed control studies 19621
single-phase iron-core compulsator, computer modelling 36290
spacecraft, 3-phase PM step motor simul. 35230
split phase induction motor drives, vector control 5295
squirrel cage motor/sync. generator, skew, 2D FEM 4929
squirrel cage motors, computer-based design assistant 19643
squirrel cage motors, rotor/winding faults anal. 11043
squirrel cage PWM drives simul., MATLAB package 5275
squirrel-cage motor drive, inverter-fed, computer modelling 11386
SRM, switching angle, high speed operation *(Korean)* 36112
SRM design considerations, aircraft engine pump appl. 10982
SRM drive, nonlin. modelling, ANN 20074
SRM drives, dyn. simul., saturation/driver characts. 11362
SRM drives, generalised simul. approach *(Chinese)* 44472
SRM drives, sliding mode observer controller 5301
SRM faults/unbalance forces studies 36132
static converter/machine set, digital control, emulator 36375
supercond. commutatorless motors, fund. design, elec. characts. 36686
supercond./conventional generators, parallel running, transient stabil. *(Japanese)* 10965
switch-controlled drive ccts., EMTP compatible algm. 5244
sync. generator stabil. pattern class., neural net-based 11006
sync. generators, neural network nonlin. adaptive controller *(Japanese)* 4924
sync. machine modelling, freq. response data-based 36115
sync. machines, power convertor-fed, PC-based simul. 4921
sync. motor drive, inverter-fed, discrete time simul. 28094
sync. motor drives, inverter-fed, self-controlled, perform. characts. 5289
sync. motor drives, self-controlled, computer modelling 11337
sync. motors, cycloconverter-fed, computer simul. 10999
sync. PM motor vector control, stator iron loss considerations *(Japanese)* 10968
sync. posn. VSI fed, control laws, POSTMSYNC simul. program 36673
synchronous generator stabil., global detect., ANN 19608
synchronous motor, self-controlled, current fed, simul. 19613
three-phase cage rotor induction motor CAD 11366
three-phase induction machines, dynamic starting perform. models 19626
three-phase reluctance motors, single-phase-fed, transient anal. 36124
three-phase turboalternator adaptive control, transputer-implemented 36119
torque vector control studies 4980
transformer and induction motor losses cost anal. interactive software package 28333
turboalternator set, shaft torsional vibr. model for elec./mech. syst. interact. *(Chinese)* 36128
turbogenerator modelling, self-organizing neural net-based *(Chinese)* 27677
turbogenerator shaft torque amplif. prediction 36092
turbogenerator shaft torque/fatigue life expenditure prediction 10958
turbogenerators, winding shorts localisation, fuzzified ANN 44021
twin-shaft governor/gas turbine model, computer-based 36014
variable speed cycloconvertor AC drives, vector control simul. 5267
vibr. data validation/recovery, ANN 19593

electric machine CAD
3-phase tubular induction actuator, CAD 19670
AC/DC/reluctance motors, torque prod., unified theory 4930
alternators, buried PM retention, high speed, rotor laminations 4931
asynchronous machine vibroacoustic optim. by FEA *(German)* 11028
brushless DC motor controller design, software package develop. 19680
DragCAD dragline excavator drive design optim. software 44557
induction motor ASD, design/anal., CASED simul. tool 5313
induction motor drives, safe operating/design areas 5309
lin. step motors, FEM for nonlin. mag. fields, nuc. reactor appl. 19673

electric machine CAD continued
motor drive CAE computer program develops., former USSR 44455
MOTOR ES, motor/cables/control gear selection appls. 10959
nonlin. EM problems, hybrid finite element-BEM 40221
PAD 1.0 induction motor drive bearings CAD program 44466
PM brushless drives, integrated CAD syst. 11344
predesign ES, knowledge model *(French)* 10947
rare-earth PM motor, optimal design *(Chinese)* 44092
reactor control rod drives, lin. step motors, CAD 10822
single sided LIM, design, ANN, FEM, SUMT *(Korean)* 27758
squirrel cage motors, computer-based design assistant 19643
sync. generators, computerised design proc. 27693
three-phase cage rotor induction motor CAD 11366
turbine blades, detailed design, KBS 19512
virtual reality syst. for machine design 11096

electric machine computer aided design *see electric machine CAD*

electric machine control *see machine control*

electric machine testing *see machine testing*

electric machine theory *see machine theory*

electric machines
see also AC machines; brushless machines; DC machines; electric generators; electric motors; linear machines; machine bearings; machine control; machine insulation; machine testing; machine theory; machine windings; permanent magnet machines; rotors; small electric machines; stators; superconducting machines
3-phase ring winding leakage reactance, circ. coil 43991
AC/DC multi-machine power syst., SSR, shaft torsional vibr. *(Chinese)* 35470
act. vibr. control, piezoelec. actuator-based, simul. 36090
AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
bearings, inductive effects, shaft voltages 10922
brush friction coeff., current/temp. influence *(Croatian)* 4890
compensation windings, mag. field reduction 36094
condition monitoring, IEE Colloquium, London, UK (1995) 11599
conjug. EM field calcs., Newton-Raphson method-based *(Polish)* 36093
control, harmonic anal. methods comparison 5320
electric generator adaptive fuzzy speed control, rule-based 19582
EM plant monitoring/mgt. instrumentation 19597
EM speed reduction, phys. proc. modelling *(Russian)* 36106
failure anal., insulation testing 4882
high T_c superconds., power indust. appl. prospects 27068
HV machine stator insulation, discharge monitoring 19600
HV stator winding insulation, on-line discharge monitoring 36108
IEEE pulsed power conf., Albuquerque, USA (1993) 20246
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
laboratory PC data acquisition syst. 28336
mag. bearing-based vibr. control simul. 36091
malfunction diagnostics 10953
marine elec. machine bearings, operational state prediction 36709
Markovian decision procs., modelling and appls, China 196
MELECON '94, conf., Antalya, Turkey (1994) 5470
modelling, three-phase AC network simulator-based *(Russian)* 43994
motion control syst. CAD, SOAP software tool 11222
nonlin. control of elec. machine systs. 5001
permanent state simul., electronic commutation *(French)* 10950
planet Earth, electromech. syst. description 20011
power semicond. convertors, emergency state diagnostic calcs. 11138
power syst. dyn. stabil. models develop. 26898
rot. machine act. noise control studies *(Korean)* 27668
rot. machines, radial EM force, superposed mag. field *(Japanese)* 27662
rotor drag torque estim. algm. *(Russian)* 43974
rotors, rubbing fault, diagnostic methods *(Chinese)* 10926
self-excited cycle mag. flux compressor 36286
slot-bound conductors, eddy current effects 36097
starters/relays output control stand *(Russian)* 10923
state eqn. inductance matrices anal. *(Russian)* 44005
state eqns., inductance matrices eigenvalues *(Russian)* 43975
static converter/machine set, digital control, emulator 36375
stator winding insulation, on-line monitoring 36110
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
three-phase machine ring winding, end turn leakage inductance calc. *(Russian)* 43973
turbomachinery, condition monitoring 36096
vibrs., 3D FEM-based modelling 27674
wire rope type vibro-actuator, travelling wave expts. 27872

electric motor control *see machine control*

electric motors
see also AC motors; DC motors; fractional-horsepower motors; linear motors; micromotors; motor drives; motor protection; permanent magnet motors; piezoelectric motors; stepping motors; torque motors; traction motors
2-phase brushless motor, feedback phase winding current *(Russian)* 43996
20 kW Vuilleumier heat pump, test programme results 28175
act. vibr., H_∞ control theory 10942
adverse mining environs., motor selection/appls. 20185
arc-stator motor taking, elec./mag. asymmetry 4903
automobiles, elec. power steering, present/future 5370
British Rail elec. insulation experiences, UK 44569
centrifugal submersible oil pumps, insulation failures *(Russian)* 43997
distrib. network harmonics, motor load effects modelling 19267
distrib. network overvoltage phenom., motor load disconnection-induced 4640
domestic appliances, rotor vibr. transm. prevention *(Japanese)* 11489
double power supply, LF oscillatory motion 4904
drives design and appls., conf., Lausanne, Switzerland (1994) 12
elec. wheelchair motors, fuzzy posn. controllers *(French)* 10283
electret motors, EM force calc. methods 44085
electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
electrical systems, cards, standards and recommended practices 20169
EM speed reduction, math. anal. method 43990
flywheel energy storage program, Lawrence Livermore Nat. Lab. 28049
HV insulation condition monitoring strategy 19583
HV soft recovery rectifiers, motor control appls. 27802
hydroelectric generators, ballhead motors, mech. governor perform. 43987
indust. motor controllers, self-tuning digital control 20154
indust. power systs., electromech. response 20186
intelligent motion, conf., Dallas, USA (1994) 5506
interactive DSP-based acquisition/control syst. 10949

electric motors continued
International Appliance Technical Conf., Madison, WI, USA (1994) 36908
laser printers, polygon mirror scanner motors, fluid bearings *(Japanese)* 10932
loaded elec. machines, noise meas., sound intens. method *(Chinese)* 10925
magnetless voice coil motor, driving characts. *(Japanese)* 44088
metal/wood working, mechatronic components 44631
milling cutter failure, power monitoring method *(Chinese)* 10916
Mitsubishi Electric twin-mechanism rotary refrigerator compressor 44610
motion control optimisation, motor control gear designs 5166
motion control selection, torque determ. 27666
MOTOR ES, motor/cables/control gear selection appls. 10959
NEMA/IEC motor starters, protection, IEC Type 2 Coord. 4885
North American elec. motor market, German expert guidelines *(German)* 10940
optimal design, genetic algms. 19580
PPC scanner motor, power brushless type *(Japanese)* 10931
premium-efficiency motors installation for max. cost savings 10921
prod. scheduling, knowledge elicitation/IKBS develop. 43971
pumped storage plant, converter-fed var. speed generator-motor, fault current *(Japanese)* 36048
pumped storage plant, converter-fed var. speed generator-motor *(Japanese)* 36047
purchase/repair/replacement, economics, efficiency factors 19591
PWM VSI, motor appls., HF leakage currents modelling *(Japanese)* 27814
sealed motors, sleeve losses calc. studies 10945
ship propulsion motor noise generation, computer modelling 5347
small elec. motor diagnosis/QA, unsupervised classifier design *(German)* 11834
small motor thyristor power convertors, RFI generation study 44081
solid-state thermoelectric refrigeration develop. progress 20144
speed estim., shaft encoder meas.-based 44001
speed monitoring syst., PC based, noncontact 10961
spindle motor heat generation, thermal anal. studies *(Japanese)* 10924
stator interturn short-cct. detect./location 10962
stator winding maint., PD testing 4893
stator windings, in-service PD tests 36101
submerged water-filled elec. motors, insulation 10957
surface elec. motors, translational motion design 4902
three-level PWM motor inverters, harmonic loss calcs. 44175
three-phase power syst. reliab. rel., voltage unbalance 19232
two-inertia motor syst., closed-loop PID speed control design *(Japanese)* 27669
universal motor cycloconverter control, microcontroller-based 44002
vac. cleaner motors, small, lightweight *(Japanese)* 11488
variable speed fan motors, chopper control syst. *(Japanese)* 4884
vibr. control, act. by H_∞ control 44259
winding interturn switching transient voltage studies 43985

electric networks *see networks (circuits)*

electric noise measurement
1/f noise in SAW resonators 30653
915 and 1900 MHz domestic RF channel charactn. 31822
ambulatory ECG, amplif. electrode, noise immunity 26397
Automatic RF Techniques Group, conf., San Diego (1991) 28249
bipolar transistor, meas. method *(French)* 1356
bipolar transistor ccts., LF phase and amplit. noise 40381
bipolar transistors 1/f noise parameters meas. and anal. 22371
CATV networks, spectrum analyzer in-service meas. 42623
CCIR business/residential noise levels, update 18056
charge transport and device params. from noise meas. 3970
CMOS IC, coupling characterisation, meas. techs. 15491
CMOS transistors, flicker noise study 1383
compact 230 kV line, corona perform. 27221
double polysilicon self-aligned bipolar transistors, small-sig./noise model 21539
electron device reliab., noise, diagnostic tool 20496
EM noise emitted from elec. vehicle 28116
EMC, SCR radiated emissions meas. 15504
extremely low noise SAW oscillator 30648
German telephone network, impulsive noise survey for stat. modeling 16913
GIS RFI/transient field meas. 27867
gyrotron collective Thomson scatt. diagnostic, antenna decoupling requirements 29793
high-speed measuring syst. for testing mixed-sig.-LSI 767
high-speed syst. power/ground plane with ECL, switching noise 38081
impulsive noise extraction, spectrum pattern anal. 25967
indoor telecomm. line noise voltage due to AC supply lines, estim. 16988
interfacing act. devices, noise spectra analyser 9834
IR FPA non-uniformity meas., proposed std. 34571
L-band low noise DRO 29576
LF noise spectrosc. tech. for electron devices 3969
LV elec. power device, switching noise meas. 27858
microwave dielec. resonator oscillator charact. meas. *(Croatian)* 569
microwave oscillators, high-Q temp. stabilized sapphire resonators 30623
millimeter wave measurement, VXI implementations 25959
mixed-sig. ICs, digital noise meas. 21449
MM-wave BWO, flicker noise eval. 999
MOS microstruct., dielec. breakdown and reliab. 22062
MOS transistors, carrier multiplication noise sources, low freqs., correl. meas. 1388
multidiode waveguide oscillator, noise charact. 37984
multitone AF testing of telecomms equipt. 3758
NMOSFETs with nitrided-oxide, high-field mobility enhancement 1390
oscillator noise meas. techs. 582
PCB crosstalk reduction with additional center traces 21618
PDs, pulse shaped noise sigs., neural network anal. 1524
pulse noise generating source, direction finder develop. 23743
quartz resonators/oscillators, 1/f freq. flucts./nonlin. 30627
radar phase noise meas., digital DP 34156
radar phase noise meas., fiber-optic delay lines 34155
radiation-hardened CMOS for cryogenic analog appls. 30447
reliab./quality diagnostic tool for electronic devices 1315
RF instrum. accuracy, meas. uncertainty effects 42911
semi-anechoic chamber, ambient meas. 15479
semicond. devices, carrier fluct., excess noise generation 22348
semicond. LDs, elec. and opt. photocurrent noises correl. 1922
SSB noise fig. determ., microwave freqs. 18058
submicron MOS transistors degrad., 1/f noise spectral dens. 22463
surface transverse wave oscillators, extremely low thermal noise 30650

electric noise measurement continued
teed transm. systs., fault generated HF noise meas. 4746
time domain EMC testing syst. 23671
TV images, sig.-to-thermal noise ratio, automatic assess. 42611
Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
AlGaAs n^+nn^+ devices, self-heating, noise temp. meas. 38946
$Al_xGa_{1-x}As$ n^+nn^+ devices, Al content x, effects on hot electron noise 1433
GaAs JFETs, deep cryogenic readout electronics appl. 30371
GaAs devices, plasma-assisted passivating proc., LF noise meas. 13410
InP MOS tunnel diodes, elec. charactn. 38814
Si multiplexers for lin. IR photodiode arrays 25875
YBaCuO supercond. thin-films with differing axes of orient., elec. noise 1594

electric potential
see also contact potential; overvoltage; surface potential; voltage control; voltage measurement
3D interface elements for modelling complex pot. drops 40193
AC HV insulators, elec. pot. and field comp. 19316
axisymmetric pot. problems, floating random walk method 20531
bipolar op amp, demodulation RFI 550
bipolar photoconductors with arbitrary level struct., nonsteady-state photoelectromotive force 39553
calib. of dc emf measures and voltmeters 17637
charge insulator pot. decline, charge mobility *(French)* 10758
charge mobility modelling in high elec. fields 7899
charged human body, pot. atten. proc., anal. 23506
circ. rim in elec. field, sing. 23498
conducting enclosures, direct lightning strike, internal voltages 40189
cylindrical wire kernel, uniform current vector pot. eval. 8034
dipole antenna factor meas. on ground plane by 3-antenna method 40483
electrostatic pot., symm., modified slice-method 31721
EMC-disturbances on coupled microstrip lines, LF SPICE model 12695
floating-field-limiting rings in power MOSFET, pot. meas. by electron beam probe 30304
ground pot. var., frame wiring, induced noise 23696
hierarchical neural network appl. to ident. of defects, elec. pot. *(Japanese)* 21009
human model in power freq. elec. field, induced current densities 26492
indoor telecomm. line noise voltage due to AC supply lines, estim. 16988
isotropic Maxwellian plasma point source, electrostatic pot. 40493
LDMOS RESURF devices for HVIC switching, on-resist. modelling/improvement 30313
Lorenz condition and pot. theory 15209
low press. discharge tube, V-I charact. simul. model *(English)* 29815
microstrip antennas, near fields computation 31928
microstrip antennas, spatial-domain integral eqn. anal. 40456
MM-wave planar dielec. beam antennas, low side lobe level 40466
monopolar voltages, phase response props. mapping 26369
MOSFET carrier mobility model, phys.-based carrier screening effects 30360
multilayered media electrostatic pot., complex image calc. 23502
PCBs design, refl. and crosstalk effects simul. 907
PCBs with attached cables, common-mode radiation 15476
PM brushless machine, induced EMF/torque waveforms 10933
point charge in rect. conducting planes, complex images *(Chinese)* 31720
Poisson's eqn., wedge geom., image soln. 31696
pot. discharge from human body, num. inverse Laplace transform 40213
power systs., time integrated EMI safety margins 15465
radiated emissions from automotive multiplex bus wiring 15474
rect. Hall devices, pot. distrib. determ. software 30208
semicond. device drift-diffusion eqns., artificial diffusion *(Spanish)* 30195
semicond. devices, pot. distrib. meas., Kelvin probe force microscopy 38373
Spindt-type emitter, elec. field and current anal. 38210
static anal. using measured eqn. of invariance 23751
subscriber telecomm. equipt., lightning-surge test method 25146
surface charge dens. on a conductor, behavior 40215
telecomm. cable metallic sheath, shielding factor 25194
trench gate emitter switched thyristors 30272
twin particle syst., trajectories estim., superpotentials 7912
vertical antenna above dielec. half-space, complex image-induced EMF 31916
Si power diodes, electron/He ion irrad. for local lifetime tailoring 30197
Si solar cell, efficiency limits, light trapping technol. *(Chinese)* 44417
a-Si:H plasma CVD films, H profile, DC bias/substr. table area effects *(Japanese)* 20966
Si-SiO_2 accumulated MOS thin dielec. struct., quantum effects 13235
ZnSe semicond. lasers, linewidth enhancement factor and nonlin. gain 23224
ZrO_2 pump-gauge oxygen sens. 9952
ZrO_2 solid electrolyte O_2 sens., Y_2O_3 stabilised 17981

electric power generation
see also cogeneration; direct energy conversion; ocean thermal energy conversion; power plants; power stations; space power generation; wave power generation
2-area power syst. prod. cost, cumulant method *(Chinese)* 27034
5/220 V thermionic generator power convertor design 28031
AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
area power generation control, implement. issues 10645
automatic generation control, tie-line freq. bias settings 35498
autonomous decentralized power systs. growth modelling 26998
bulk power syst. reliab. perform. assess. 27059
bulk transmission security assess., nonutility generation representation 19224
Cassini power management and distribution 26647
Central/Eastern Europe, energy, environ. impact, internat. finance 27294
coal ash, U content., naturally occuring radioact. material class. 35719
composite generation-transm. syst., reliab. indices 35579
contingency constrained generation scheduling, ANN 19380
deregulated power markets, planning/operation anal. *(Japanese)* 43679
developing countries, elec. options/sustainable develop. 35720
dispersed generation syst. power conditioning technols. *(Japanese)* 35716
dispersed generation/storage, islanding protection 19334
dispersed power generation systs., develop. and appls. *(Japanese)* 35715
dispersed storage/generation pole slipping protection algm. 27250
elec. supply indust. challenges, Germany *(German, English)* 35500
elec. utility distrib. planning, feeder config. 35526
elec. utility integrated resources planning projects, Scotland 10658
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
energy conversion engng. conf., Atlanta, GA, USA (Aug. 1993) 20225
energy emission model, fuzzy sets based 35981
energy-supplying structs., fuel mixes, EU *(German, English)* 35722
environ. economics 10794

electric power generation continued
expansion planning, parallel GA, parallel proc. *(Japanese)* 27086
expansion planning integrat./enhancement *(Japanese)* 27084
field-stabilized two-phase fluidized flow, proc. concepts 40205
generating unit preventive maint. scheduling, energy cost method 19378
global issue in power indust. develop. 27535
greenhouse gas abatement costing, Zimbabwe 27301
high T_c superconds., power indust. appl. prospects 27068
hydroelectricity, reservoir syst., optimal policies 35726
hydrogen energy appl., develop./accomplishments, 1974-94 10799
independent power generation protection, tie bus cct. breaker 10771
induction generators, renewable energy generation appl. prospects 36178
interconnected power syst., min. prod. cost model *(Chinese)* 27033
interconnected power systs., economic dispatch deviation cost penalty 35491
isolated/multi-area systs., spinning reserve, probab. assess. 27060
joint automatic generation control regulation 4580
marginal outage costs eval., quantitative reliab. 26918
MHD, supersonic flows, purging fluid effects, optical diagnostics 20020
multiarea power syst. automatic generation control simul. 10666
NERC reliab. forecast, 2003 43718
open access power transm., anal. software 19129
optimal generation mix, fuzzy algm. 4598
optimum generation schedule, transm. loss formula 10796
petroleum pipeline service, peak shaving generator appl. 5408
planning, fuzzy multi-attribute decision-making 19216
power indust. develop. prospects, Lithuania 27046
power indust. restructuring overview, Slovak Republic 10682
power syst., dispersed generation/time of pricing effects *(Japanese)* 26937
power syst. act. power reserve scheduling 27088
power syst. control, min. generation reserve/transm. constraint 26978
power syst. expansion LCP, Eastern Europe 10698
power syst. expansion planning, optimal generation mix algm. 27099
power syst. fuel scheduling, optim. techs. comparison 4600
power syst. generation control automation, fuzzy controller design 35545
power syst. generation expansion planning, fuzzy no.-based 19205
power syst. generation expansion planning, parallel genetic algm.-based 19206
power syst. marginal outage costs eval. 10671
power syst. reliab., generating unit operating reserve assess. 26856
power syst. reliab. assess., concepts/hist. review 26917
power syst. reliab. worth eval. tech. 27058
power syst. short-term scheduling, price-based resources integrat. 10705
prod. simul. methods, comparison, MONA tech. 27113
prospective energy scenarios for France *(French)* 4758
pumped-hydro-thermal systs., unit commitment 19016
rem. power generation sources for harsh environ. 35711
renewable energy resource develop. prospects, former USSR 27309
renewable energy resources develop. perspectives 27308
reshaping of elec. power indust. 27304
residential PV systs., real energy prod. 27630
Russia's nuc. power safety, proposal 27363
solar space power, RTG, parametric cost model 26654
Swiss elec. prod., ecological and social aspects *(German)* 10795
Swiss of renewable energy resources *(German)* 43820
terrestrial energy conversion, aerospace technol. appls. 35710
Thailand, generation/transm. develop. strategies 27096
thermal units, power generation commitment, genetic algorithms anal. 35523
thermophotovoltaic electricity generation, conf., USA (1994) 20206
Three Gorges power project, China, peak load regulation study *(Chinese)* 27040
transm. network expansion planning, computer software appl. 10712
transm./generation syst. planning, reliab. criteria *(Japanese)* 10706
unit commitment problem, genetic algm. 19163
utility environ. policies, planning/operations effects 35530
voltage limited transm. interface constraints, lin. model 35591
world energy syst. concept 26935
CO_2 emissions abatement, energy strategies, Brazil 27300
CO_2 emissions from elec. generation *(German)* 43818
CO_2 generation emission abatement challenges, Thailand 27303
CO_2 generation emissions reduction cost curves, Denmark 27302
CO_2 mitigation technol. options assess., China 27322
NO_x prod., chem. kinetics, stirred reactor 35972
SO_2, NO_x, CO_2 emissions bal., German utilities *(German, English)* 35712
SO_2 emission effects on aerosols 35973

electric properties
see also dielectric properties; electrical conductivity; flexoelectricity; photoelectricity; thermoelectricity
conf., interface control of elec., chem. and mech. props., USA (1993) 36832
electron device science/technol., conf., South Africa (1992) 28214
material props. discrim., mono-structural thin plate touch sens. 42767
B, borides and related compounds, conf., Tsukuba, Japan (1993) 11553
MnZn ferrite, low loss, role of microstruct. 7021
Si, porous, conf., Strasbourg, France (1994) 20222
SiC and related materials, conf., USA (1993) 28218

electric propulsion
see also electric drives; electric vehicles; traction
3-level/IGBT inverter rly. propulsion control syst. 5332
4 wheel drive elec. vehicle, integral batt. charger 5359
5 kW marine propulsion SRM/propeller drive 5340
120 kW coaxial winding transformer, elec. vehicle appls. 20103
$^{241/243}Am$, ion-engine propellant 26694
AMPhibian hybrid elec. vehicle, regenerative braking effects 28147
amphibious landing ship, diesel-elec. propulsion 11416
anti-directional-twin-rotary motor drive, elec. vehicle 5360
batt. elec. vehicles, future technol. modelling 28142
batt. requirements for elec.-vehicle commuter car 44565
coal mine transportation arcing, detection/suppression method 20107
Dolphin drive systs. for elec. vehicle appls. 44484
drivetrain, tank propulsion/railgun power supply 20064
elec. scooter, axial flux PM motor drive, wheel coupled 11401
elec. vehicle drives, series reson. DC link inverter 5358
elec. vehicle propulsion batts., pos. phys. disconnect 36767
elec. vehicles, high current power modules, SiCAl packaging 20116
elec. vehicles, induction motor drives, posn. sensorless 20097
electric vehicle secondary batteries/charger technologies 20106
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
formula lightning elec. race car, develop. 20094
French Navy on-board nuc. reactors, in-service safety feedback *(French)* 36733

electric propulsion continued
fuel cell elec. vehicles, alternative fuels comparison 36716
fuel cell elec. vehicles, H_2 storage infrastructure 36718
Hall thrusters, PV power systs., space vehicles 35268
hybrid elec. cars, ultracapacitors, energy storage 20098
hybrid elec. vehicle, IGBT based syst., packaging/perform. 20095
hybrid elec. vehicle drive, capacitor storage, converter 20096
hybrid elec. vehicles, AMTEC auxiliary power unit 28145
hybrid vehicles, energy flows mgt., fuzzy logic controller 20111
hybrid vehicles, energy storage alternatives 28140
induction-drive MHD propulsion, comment 44558
light duty fuel cell vehicles, fuel/emissions reductions 28146
lin. PM motor traction drives, basic considerations 11419
lin. variable-reluctance machine, mag. flux decoupled windings 19666
Maglev carrying syst., LIM, driving characts. *(Japanese)* 44562
Maglev LIM-driven undercarriage develop. 28148
Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
Maglev power feed ccts., impedance freq. characts. 11406
magnetised coaxial plasma gun, electric propulsion appls. 31773
marine propulsion cycloconvertors, harmonic voltages elimination 5346
Mars transfer vehicle, dual-mode nuclear rocket power requirements 18750
MHD power generation, develop. hist., research efforts, appls. *(French)* 36615
MHD ship thrusters, supercond. windings, screening techs. *(French)* 36617
MLI inverters, sync. motor elec. vehicle appls. *(French)* 11194
nonpolluting automobiles, energy storage, propulsion 5326
nuc. gas turbine transportation engine, throttle valve control 28143
Nuclear Elec. Propulsion Space Test Program satellite, TOPAZ-II 26693
PEM fuel cell, terrestrial/marine vehicle appls. 36741
PEM fuel cells, transportation elec. drives 36720
power electronics for elec. vehicle propulsion inverter 44485
power electronics in transportation, conf., Dearborn, USA (1994) 5451
railways in united Europe, IEE conf., Amsterdam (1995) 36833
road vehicles, induction motor design criteria 11415
sea water MHD ship thruster *(French)* 36616
secondary batts., cost reduction efforts 44513
secondary batts., mix/demand study, USA 44512
secondary batts., recycling infrastructure, USA 44511
ship propulsion, supercond. DC drives, torque react. windings 11402
ship propulsion motor noise generation, computer modelling 5347
ships, axial flux PM machines, counter-rot. rotors 11400
ships, cycloconverter drives 36755
ships/submarines, nuc. propulsion, state-of-the-art, future *(French)* 36731
single sided LIM, urban transit appl., nonlin. optimisation *(Japanese)* 44560
small satellite elec. propulsion options 35265
solar elec. vehicle, PM brushless DC motor drive 5355
space craft plasma MHD thrusters, solar elec. propulsion system 26590
space nuclear electric propulsion, NASA research programme 18771
spacecraft elec. propulsion, NASA R&D programme 35264
spacecraft elec. propulsion missions, power syst. technol. anal. 35266
spacecraft rocket engine effects on solar cells 43455
spacecraft solar elec. propulsion, energy storage mass impact 26608
submarine air independent propulsion, MESMA heat engine-based 20105
submarine propulsion nuc. reactors, digital control *(French)* 36732
submarines, underwater perform. enhancement, fuel cells 11424
supercond. materials, power systs./transportation appl. possibilities 43612
thermophotovoltaic nuc. energy conversion, space appls. 35240
transit bus, Pb-acid batt. power conditioning develops. 36730
unmanned underwater vehicles characts. 11410
urban elec. transportation systs., mag. power transfer 44576
variable reluctance PM motor drive, elec. vehicle appl. *(French)* 11413
vehicle drives, time-varying adaptive μP control 36739
vehicle speed control, PID neurocontroller 36723
vehicle ultracapacitors, load levelling batt. appls. 36738
Westinghouse elec. vehicle, programs, induction motor 44567
Al-air batts. develop., propulsion appls. 19947
Ni-H_2 batt.-powered bicycles, propulsion motor options 28144
Pb-acid automobile starter batt., computer model 36541
Pb-acid batt. elec. buses, design/develop progress 36726
Pb-acid tubular pos. plate secondary cells, submarine appls. 44517
Zn-Br_2 elec. vehicle secondary batts. 44516
Zn-MnO_2 rechargeable Leclanche cells, elec. vehicle appl. 36514

electric reactance
see also capacitance; inductance
3-phase ring winding leakage reactance, circ. coil 43991
AC/DC converters, line current harmonics, predeterm. 44124
anisotropic laminated brush, reactance freq. characts. *(Polish)* 44009
cct. steady state eqns. formulation, main vars. methods *(Russian)* 37582
class E power amps./freq. multipliers, RF choke reactance 21130
crossed-slot antenna, paint-coated bar load, impedance 40477
GIS, VFTO studies, transformer model 5163
Gunn diodes, generating mode, hysteresis, nonlin. reactance sign reversal 12769
impedance antenna synthesis 2317
induction machines, effect of skewing on cogging torque 19641
induction motor, dyn. behaviour/param. calc. optimisation 4942
lin. induction flat motor, reactance, hodograph shape *(Polish)* 44079
multi-time scale modelling of elec. machine 36122
multiport act. RC-networks, computer aided synthesis/sensitivity anal. tool 721
PM brushless DC motors design, mag. ccts. 36191
PM motor params. determ., digital torque angle meas. 11002
power cct. variable act.-pass. reactance studies *(Japanese)* 12311
PWM inverter act.-pass. reactance power cct. 5030
sync. machine modelling, time consts., transients, reactance, steady-state operation *(French)* 27700
sync. motors, CSI-fed, rotor losses estim. 44013
three-phase arc furnaces, operational reactance calcs. *(German)* 11480
transformer/solenoid, rot. mag. field, inductive reactance calc. 11098

electric reactance measurement
see also capacitance measurement; inductance measurement
multicell batt. strings, single sens. wire monitoring 44264

electric reactors *see reactors (electric)*

electric relays *see relays*

electric resistance
see also contact resistance; electrical resistivity; negative resistance
60 GHz band resistive-sheet type wave absorber, design and manufacture 40298

electric resistance continued
AC machine, alternating to direct voltage conversion, transducer *(Polish)* 43977
alloyed ohmic contact model, IC metallization sheet resist. 38985
alloyed ohmic contacts, sheet resist. determ., TLM model 38415
bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
bridge jn. in supercond. film, ballistic resist. 7239
ceramic insulators, uncoated surface, SEM, 150-500°C 4706
CFGFRP-reinforced concrete, fracture self-diagnosis, material design 28897
charge pump cct. for high output current EEPROM appls. 29046
CMOS cct. timing, device resist. estim. tech. 30457
CMOS twin-well inverter with load capacitance, AC and transient latchup 30463
cross-strip anode Schottky diode, series resist. calc. 38811
DC sources, large loads, effective use 5105
elec. network flicker compensation, arc furnace model 5383
electroconductive plastic composite, C fiber filler, resist. 5906
electromigration mechanisms, nondestructive elec. anal. techs. 38667
HEMT, source, drain and channel resist. determ. 22489
HF transformer edge effect anal., 2D FEM-based 6376
induction machines, broken bar detect., current spectrum/param. estim. 4966
induction motor, dyn. behaviour/param. calc. optimisation 4942
induction motor deadbeat flux level control *(Japanese)* 27717
induction motor drive, CSI-fed, microcomputer-DSP control 20072
induction motor drives, saturated, field oriented control 20079
induction motor drives, speed sensorless control, flux saturation effects 11328
induction motors, indirect field oriented control perform., rotor speed error 4976
induction motors, param. estim., output-error ident. method 11023
induction motors, rotor resist., dyn. adaptation 11037
induction motors, sensorless vector speed control scheme 19632
interconnect resist., reliab. tool in electronic packaging leaded connections 11790
Josephson jn., fluct.-dyn. stabil./resistive state 14304
LDMOS RESURF devices for HVIC switching, on-resist. modelling/improvement 30313
LF noise in bipolar transistors, impact of series resist. 1350
LSI packages for ultra high-speed opt. fiber transm. systs. *(Japanese)* 42470
MHD generator, segmented Faraday channel, Q1D electrodyn. part 20012
microbridge superconducting thin films, variable thickness, mag. field sensitivity 1603
MOSFET device perform., distrib. gate resist. impact 1402
MOSFETs, AC freq.-resolved meas. for parasitic resist. extraction 22439
multi-strand supercond. cable stabil., partial current distrib. *(Japanese)* 27215
noniterative PC-based coil design method 29617
on-chip interconnect reliab., electromigration resist. prediction 38674
pass. multilayer component CAD, EM field computation 6364
PCB flux residue influence, electronic assembly quality 937
polypropylene, graphite filled, strain sensitivity 28894
polysilicon resistors, pulse current trimming, LSI resistor tuning after fab. 38977
power cct. variable act.-pass. reactance studies *(Japanese)* 12311
power convertor transformer windings, current harmonics calcs. 27791
printed spiral antennas, resistively loaded, anal. 8072
pulsed gas laser discharge, inductance and resist. effects 23101
PV arrays, mismatch power loss anal./control 44405
railguns, current pulse forming, capacitive energy storage 19778
rect. waveguide, striplike resistive struct., EM waves scatt. 12689
selective plasma etch proc. monitoring, polysilicon test struct. 22206
short fiber composite strain sens., elec. resist. change 28896
single-phase self-excited induction generator, anal. 36177
source resist. of FET, determ. from meas. S-params. 30380
space station solar panel terminal characts. model 26676
static control footwear, perform.-oriented design and test procedures 31715
stepped flexural mode quartz cryst. resonator, reson. freq. 39090
stress-voiding/electromigration in multilevel interconnect metallizations 38986
superconductive circ. two-wire transm. line, AC resist. and internal inductance 40391
sync. turbogenerator, salient-pole, saturated rotor, toothless stator 36111
telecom. cable mfg., resist. var./imbalance improvement 42134
telecomm. cable metallic sheath, shielding factor 25194
thick film resistors on Al_2O_3 and dielec. substrs. 6347
three-phase arc furnaces, operational reactance calcs. *(German)* 11480
VLSI layout verification package, BEM for 3D capacitance and substr. resist. calcs. in inhomog. media 21023
$Bi_2Ru_2O_7$ thick resistive films, temp.-induced phys. failure mechanisms 949
Cu metallization mfg. issues for future ICs 38643
Cu_5Si passiv. layer, growth kinetics and materials props. 38577
In/n-$Hg_{1-x}Cd_xTe$ contacts, modified sheet resist. 38416
InP:B(O)(Fe), p^+ epilayers, elec. isolation by MeV ion implantation 13289
Li-MnO_2 primary batt., dissolved Mn species *(Japanese)* 27892
Li_2SnO_3 thick film humidity sensitive material, elec. cond. 3782
NiFe/oxide/Co jns., magnetoresist., mag. props. 6592
Pb-acid batt. deterioration estim., pulse discharge/charge charact. 19937
Pb-acid sealed batts., deterioration estim. 44296
Si bipolar transistors, optimized base design for low temp. operation *(Chinese)* 22378
Si shallow-jn. form., RTA doped SOG films 21964
Si:B, anodized/cryst. sample, elec. props. alteration by water vap. 38239
a-Si:H MIS struct., response time/capture cross sect., gap states *(Chinese)* 22060
SiC dispersion varnish nonlin. resist. and capacitance *(French)* 10936
TiH_2 diffusion barrier stabil., SiO_2 substrs. 38649
TiN diffusion barriers for sub-0.5 μm planarized Al IC technol. 38653
TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270
TiN-Si CVD for sub-0.5 μm technol. 13415

electric resistance furnaces *see resistance furnaces*

electric resistance measurement
see also ohmmeters
AC meas. of quantized Hall resist. 34318
AC resistors, AC-DC difference meas. method *(Japanese)* 25943
accelerated ageing test for resistors 6351
archeological sounding, Earth exam. *(Japanese)* 34660
arcing contacts, concurrent testing syst. develop. 9811
automatic working resist. stds. 3717
cage induction machines, online winding param. meas. 4940

electric resistance measurement continued
cct. board torsion anal., elec. resist. meas. 29657
contact materials and sticking charact. study, telecomm. relay 9132
contact resist. meas. techs., ohmic contact assess. 29625
dB down terminology for cryst. resonators 39083
dielec.-loaded high T_c supercond. thin film, surface resist., microwave transm. 18052
differential resistance measurement circuit, 3-wire 25944
digital 3-lead ohmmeter 34619
digital line differential protection, auxiliary cores *(German)* 35682
DVM for quantized Hall resist. std. 3721
elec. machine failure anal., insulation testing 4882
elec. resist. meas. apparatus for high temp. 25947
electrochem. cells, electrode and bulk impedance meas., high DC bias 34661
electronic systs. earthing, parts, perform., cabling, impact *(French)* 15521
emitter resist. extraction from floating collector meas. 13649
flux reliab. assess., electromigration and SIR 177
fuzz button interconnects, reliab. study 21656
ground resist. meas., metal box 37541
high-T_c supercond. meas., interf. reduction 34653
HTSC thin films, microwave surface resist., calorimetric/perturb. methods 39232
induction motor, rotor time const. meas. magnetizing flux 4965
insulation resist. meas. 20410
Josephson and Von Klitzing constants evaluation 25709
Josephson microstrip resonators, dielec. const./surface resist. meas. 18047
low-level meas. techs. for noisy environ. 17651
LV power syst., earth ground resist. testing 19355
microwave cavity tech. for n-n$^+$ semicond. struct. 3968
moulded case cct. breakers, hot gas ejection studies 19892
multi-diode thermionic converter, feasibility expts. 28028
multichannel apparatus for biologically act. spots study 26266
μP based instrum. for resist. and diode testing 3755
no-clean flux eval., SIR testing 927
organic conductors meas., uniaxial stress method 34662
PWB dielec. systs., SIR profile, elec. perform. 901
quartz crysts., test oscillator for drive level study 30617
railgun meas., high accuracy 15374
SCC, AE/elec. resist. meas. 21006
self-checking resistive ratios automation 25705
semicond. thin films, electrode and bulk impedance meas., high DC bias 34661
solder joint fatigue testing, elec. resist. spectrosc. 28477
squirrel cage motors, perform. prediction, power supply vars. 11051
surface insulation resist. and electromigration test methods 113
surface resist. meas. method, dielec. resonator struct., supercond. appls. 39237
surface resist. microwave meas. by parallel-plate dielec. resonator method 34674
thick/thin film resistors, built-in reliab., ageing kinetics 5706
thin-film charactn., surface resist. anal. 13268
XLPE power cable insulation diagnosis, DC superimposition method *(Japanese)* 27194
Al/W multilayered interconnections, electromigration resist. meas. 38687
a-B:H CVD film characterisation and x-ray imaging appls. 5900
GaAs, high-resist. plates, resist. inhomog. 34659
Pb-acid valve-regulated batts., reliab. testing 19968
PdO form. caused by mechanochemical react. 6392
Pt elec. resist. up, 1 GPa 18134
Si point-contact, force microscopy-supported resist. meas. 42887
Si single cryst. solar cell, series resist. meas. methods 36601
SnPb lap shear solder joints, fatigue investig., resist. spectrosc. 12246
YBaCuO thin films, complex cond., surf. resist. *(French)* 30767

electric resistors *see resistors*

electric sensing devices
see also biosensors; gas sensors; intelligent sensors; ion sensitive field effect transistors; micromechanical devices; microsensors; pyroelectric detectors
3D posn./direction determ. syst., Hall sens.-based *(Korean)* 34696
110-275 kV composite long rod insulator monitoring experiences, Australia 43788
AC servomotor integrated single-output sig. rotary encoder 10934
acoustic bubble capacitor, gas bubbles in liqs. sizing 25780
actuator/sens. interface instrumentation 25727
aircraft roll attitude meas. using solid state devices 26541
aircraft surface movement guidance and control syst. 43459
analog sens. sig. quantisation, effective no. of bits *(German)* 17703
arc welding robot coord. motion control, sens.-based *(Japanese)* 11505
artificial electret material, EEPROM technol. 3797
AT-cut quartz crysts., high-temp. acoustic loss 34476
ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
automobile chassis control G-sens., develop., commercialization 5374
automobile security syst., microwave based sens. 44583
automobile suspen., piezoelec. actuator/sens.-based 5372
automobiles, elec. power steering, present/future 5370
automotive electronic sens., market demand overview 5362
automotive ICs, dedicated protective fns. 36765
$BaTiO_3$ ceramic multifunctional cryogenic sens. 34444
broadband, isotropic, electric-field probe with tapered resistive dipoles 25798
broadband mag. field sens., CAE modeling 3775
cantilever beam state meas., distributed PVDF film sens. 42775
capacitive electro-chem. etch-stop tech. 30103
capacitive humidity sens., cross-linked PMMA 9887
capacitive US air transducer, uniformly V-grooved backplate 10579
central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
ceramic material systs., boundary conditions for shape memory 28888
circ. shaft, dyn. response, piezoelec. sens. 9890
CMOS analogue VLSI current-mode mesh-type posn. sensitive cct. 34495
CMOS charge sampling IC for capacit. detector/sens. interfaces 25774
CMOS integrated thermal press. gauge and read-out cct. 25786
CMOS membrane IR sens., fab. and improved etchant 25846
CMOS-type temp.-sens. cct. *(Japanese)* 34489
coaxial aperture electromagnetic sensor, material characterisation 25784
constant voltage anemometer circuit anal. 34447
customization, specialised needs 25811
data acquisition tutor and prog. interface 65
DC mag. field components meas. by single magnetoresistor 39211
diamond, polycryst. double layers, high temp. sens. 34441
diamond film semiconductors, conf., Los Angeles, CA, USA (Jan. 1994) 4

electric sensing devices continued
digital anemometer for air flow meas. 25907
digital positional shaft encoders, patents review 34699
distrib. network automatic fault location/isolation syst. *(Japanese)* 10736
distrib. network three/zero phase current sens., Hall IC-based 35639
domestic appliances, μP fuzzy logic control technol. *(Japanese)* 44616
dual-collector magnetotransistors in SOI technol. 25790
eddy current sens., mag. cct. losses 42771
elec. motor speed estim., shaft encoder meas.-based 44001
elec. utility sens. technol. improvement efforts, USA 43652
electrolarynx with pitch freq. control fn., eval. *(Japanese)* 35166
electrostatic servo syst. for multi-axis accelerometers 34479
ellipt. polarized elec. field, elec. field meter 18020
EM launcher hypervelocity projectile passage sens. design 15335
EM vel. probe wall effect on sensitivity prediction 42989
environ. sens. 9898
fast electro-optic HV sens. 25781
fast transient overvoltage meas. device *(Korean)* 36383
femtojoule calorimeter, micromechanical sens. 9891
flux-gate sens. based on planar technol. 9846
food monitoring, nonmetal foreign body detection 25804
fullerenes, sens. material appls. 17980
gas sens. for environ. monitoring 9965
gas turbine engines, SRM fuel-lube pump drive 20053
GIS PD detect. automation method 36468
GIS very fast transient overvoltage meas., capacitive voltage sens. 36469
GMR 1-μm wide, end-on, ganged, read head sens., high sensitivity 7073
GPS, ATC radar calib., flight expts. *(Japanese)* 9680
granular particle, lin. flow vel. meas., image sens. 3993
HF oscill. param. current sens., feedback loop 34463
high-T_c superconds., NO sens. materials 34613
hot circulating fluidized beds, electrostatic flow meas. 15221
hot disk sens., thermal cond./diffusivity/sp. ht. meas. 9895
hot-wire anemometers, micromachined, characts. 25788
humans detecting sensor for robot cell 25796
HV subnanosecond pulses meas., probes/attenuators 3817
hybrid GasFETs for work-fn. meas. 9957
hydroelectric generator online condition monitoring methods 10875
I/V converter, thermally regulated, using Peltier heat pumps 18023
IGBT, monolithic over-current protection cct. 30422
IGBTs, current sens. for short-cct. protection 34474
III-V semiconds. for high temp. electronics appls. 22528
impedance spectrosc. on dielec. gas sens. 3918
inclination sens., mag. fluid 17743
induction machine low speed region control method 44051
induction motor drives, microcomputer control components *(Slovenian)* 44471
inductive displacement pickups, ratiometric correction of sampled data 17736
inductive sens. modelling by damping, metal *(German)* 34486
integrated CMOS polysilicon coil-based micro-Pirani gauge 25787
integrated IR sens. design, computer-aided trade-off study 3838
integrated magnetoresistive sens. for automotive appls. 17711
intell. differential press. transmitter develop. 3786
intrinsic thermocouple monitor for laser wirebonding 29710
jn. field effect-press. Halltron, sensitivity anal. 25815
leakage-tolerant zirconia pump-gauge O_2 sens. 9951
line conductors, elec. field meas., oscill. transients, static probe 4693
long. vehicle dist. control, meas. error effects *(Japanese)* 10028
LV switchgear, fault arcs protection 5138
Mach-Zehnder interferometer for elec. field sens. 25816
Mach-Zehnder interferometer for elec. field sens. 25817
machine wear debris monitoring, transducer design 25779
mag. anisotropy sens., output voltage-excitation freq. charact. 9879
mag. fields from appliances meas., coil probe dimens./uncertainties 3813
mag. flows/MMF/currents, meas. device *(Russian)* 42899
mag. vector probe, 3D num. anal. 25831
magnetoresistor lin. posn. sens., automotive appls. 11434
magnetotransistors, mag. field sensit. modelling, HSPICE 38825
mass determ. of perturbing obj., reson.-cavity appl. 3997
mechatronic appls. of eddy-current sens. 17750
mechatronics fund., meas. sci. and technol. 9850
membrane probe technol. for MCM Known-Good-Die 6455
micro-torque sens., differential force meas. based 34478
microdynamic gyroscope develops. and appls. 9859
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
microengineering and microelectronics, technol. combination of future 6876
microsensor with auto-zero offset compensation 25800
microsensors and interfaces 9899
microstrip pickup coil for thin-film permeance meters 17718
microwave moisture sens., green tea prod. appl. 3963
microwave sens. appls. 42912
moisture content meas. in seeds/kernals. impedance sensing 25942
motor/generator stator windings, in-service PD tests 36101
moving magnet lin. DC motors, capacitive type posn. sens. *(Japanese)* 44076
multicell batt. strings, single sens. wire monitoring 44264
multipurpose sens., thermosensitive quartz resonator 25814
multisensor fill flash syst. develop. *(Japanese)* 17755
n-channel IGBT integrated current sens. 34473
natural gas powered automobiles, fuel level sens. develop. 5363
neural network-based nonlin. estim. of press. sens. 17731
NMOS integrated temp. sens., freq. output 9876
nose, electronic, sig. proc. ASIC, BiCMOS technol. 9839
NPP monitoring, sens. failure detect. ES 19400
ocean high perform. micro-power CTD sens. 10495
open-ended coaxial probe 18031
opt. disk mech. characts., meas. syst. 10018
outdoor intrusion sens. testing 42772
p-n junction temperature sensor with switched current excitation 25802
paper sheet no. meas., microwave counter 3983
photopyroelectric thermal-wave imaging instrum., probe-tip optimisation 42790
piezoelec. bimorphs, forces meas. in colloidal systs. 18114
piezoelec. composite microcantilever for accelerometer appls. 30605
piezoresistive strain gauges, integrated instrumentation amp. 17732
planar dist. and vel. sens. 3992
polymer films, ion implanted, piezoresistivity, sens. appls. 28878
posn. detect. of multiple light beams 17781
potentiometric sens., LB films prep./immobilisation 3897
power cable current sens., mag. field meas.-based *(Japanese)* 35648

electric sensing devices continued
power convertor current meas., HF shunt designs 19718
power electronics current sens., Rogowski coil-based 21107
power syst. HV sens., integrated optics Pockels cell-based 27280
power syst. relay protection DC current sens., meas. modelling *(Russian)* 35672
pre-regulator IC, lateral IGBT and current mode sens. 29037
proc. gas analyzing syst., locally mounted 9964
profile imagery, flat eddy-current proximity sens. 10027
PTC thermistors, sens. appls. 34469
PVDF piezoelectric sensors, structural engineering appls. 25799
PVDF stress gauge, fast press./shock effects meas. 42764
PWM VSI, AC machine control appls., perform. improvement 5043
quartz cryst. growth, temp. sens. appl. 34475
quartz reson. sens., develop., FEM 9848
Quick Alert technol., linking sens., alphanumeric pagers 3372
RadioGuard, RF cable sens. for security appls 42175
railgun plasma armatures, dyn./struct. studies 15333
refl. type electrooptic elec. field sens., $LiNbO_3$ opt. waveguide 25863
residential heat pump air conditioning technols. 44608
Rogowski sens., geom. props. 34483
rotated Y-cut quartz plate resonator, c-mode oscill. 30611
ruby on sapphire, integrated thin film stress sens., epitaxial regrowth 17749
sampled waveform meas. in IC, electrostatic force microscopy 9871
semicond. gas sens., catalytic gate 3921
semicond. press. sens., PWM output 17759
semicond. press. sens. based on FET struct. 3785
separated drift field magnetotransistor, design, fab. *(Korean)* 25778
shear piezoelec. vibr. pickups 3811
shielding effectiveness meas., opt. coupled elec. field sens. 2249
short fiber composite strain sens., elec. resist. change 28896
simultaneous thermal cond./diffusivity meas. studies 25993
split film sens. calib., pitch angle determ. 34454
steel beam mill monitoring syst., PC-based 42949
struct., foreign obj. impact ident., distributed sens. 10038
superconds. transport crit. current dens. meas. probe 17746
surface cracks in metals detect., microwave method 37552
surface elec. pot. sens., vibr. shutter 34439
Swiss microsensor and mobile commun. research programme *(German)* 3778
T780 series intell. EM flowmeters *(Japanese)* 3824
tactile sens. syst., piezoresistive for robots 17735
temperature-compensated bridge circuit for resistive sensors 34448
thermal anemometer sens. based on whiskers 3799
thermal response of CMOS-micromachined thermistor sens. 9872
thermal thin-film microsensor, ambient temp. influence 9883
thermo-resistive solar radiation sensors identification 25805
thick film ceramic capacitive sensor, embedded in polymer 25797
thick film strain gauges on insulated metal substrs. 3788
thin-film CdSe and CdS oxygen sens., surface spectrosc. 34611
torque on drill detect., magnetostrictive effect 17716
transm. line transient current meas., Rogowski coil *(Korean)* 27286
turbine flowmeters for liqs. and gases 18157
turbogenerators, stator insulation, PD monitoring sens. 4888
two wire automatic rem. sens./eval. syst. 17686
two-link collision free robot positioning, microcontroller-based 11226
urea biosensor, NH_3 sensitive Pt/GaAs Schottky diode 3896
vector magnetometer, Permalloy sens., dual mag. feedback 9845
vibr. gyroscopes, automotive sens., appls. 5367
vibr. gyroscopes, solid state rot. sens. 9861
wafer-level calib. of stress sens. test chips 17748
water pumping windmills, continuously variable transm. simul. 20179
waveguide thermistor sens. for microwave multimeter 9869
wideband low noise accelerometer, inductive displacement sens. 42766
XCTD perform. eval., design improvements 10498
zero-flux type current sens., Hall element 9878
AlGaAs/GaAs micromachining, monolithic integrat. of micromechanical struct. 23065
$Bi_2Sr_2CaCu_2O_{8-x}$ porous films gas sens. response anal. 34615
$Bi_2Sr_2CaCu_2O_{8+x}$-based sens. for CO and NO 34614
CO detector, catalytic combustion type 9966
FeNi-SiO_2-Si thin-film magnetoresistive sens., param. optim. 17724
GaAs micromachined mass-flow sens. 9880
NiFe/$(Ni/Fe/Cu)_n$/NiFe thin films, giant magnetoresist. 7039
NiFeCo-Cu GMR multilayer sens. at high current densities, micromagnetics 7074
PZT sens.-actuator, truss struct. integrity ident. 34467
PZT thin ferroelec. films, dyn. deform. sens. 25794
Pd thick-film H_2 sens., Wheatstone bridge config. 25902
Pt elec. resist. up, 1 GPa 18134
Si anemometer, chest diseases diagnosis portable flowmeter 26268
Si diaphragm press. sens., differential press. transmitter design 3784
Si diode temp. sens. for proc. systs. 34485
Si electrostatic servo-type three-axis accelerometer 17744
Si flow sens., air flow detect. *(Korean)* 17722
Si membranes control by refl. interferometry *(German)* 18102
Si microelectronic sens. 34440
Si miniature capacitive absol. press. sens. 9858
Si, modular mass flow sens. 25826
Si piezoelec. sens. for robots, analogue proc. 3787
Si piezoresistive stress sens., thermally induced errors 34472
Si rect. diaphragm press. sens. 17753
Si substrs., sens. 25825
Si wafer stress test chip, piezoresistive sens. rosettes 18111
Si:B reson. sens., fine freq. tuning 30517
Si/Al thermopile humidity sens., fab. and characts. *(Korean)* 17721
SiC thin film thermistors, gas cooking hob appls. *(Japanese)* 42968
SnO_2 gas sens., effect of electrode material 9959
SnO_2 gas sens., microstruct. influence on functional props. 3919
SnO_2 thin film gas sens., carrier conc. change anal. 17972
SnO_2 thin-film gas sens. for CO and CO_2 9958
SnO_x film gas sens., Cu doping level influence 42864
SnO_2:Pd thin-film micro-gas sens., CH_3SH detect. 17983
SnO_2:Pt sens., liquified petroleum gas detect. 42861
SnO_2:ZrO_2,PdO thin films, PH_3 detect. 3913
TiO_2-V_2O_5-Nb_2O_5 humidity sens., fine-struct., fab./charact. 17752
WO_3 based H_2S sens., nanocrystalline struct. 3922

electric sensing devices continued
YIG:Ga, Faraday effect current sens., sensitivity-bandwidth product 9853
ZnO thin film based heterojunction, H_2 gas-sens. 9956
ZrO_2 double cell O_2 sens., polaris. curves, humidity effect 42769
ZrO_2 lambda gas sens., pseudo-ref. 17974
ZrO_2 oxygen sens., embedded heaters, leak current 9844
ZrO_2 solid electrolyte O_2 sens., Y_2O_3 stabilised 17981

electric shocks
see also electrical faults; protection; safety
132 kV indoor substation earthing, pot. gradients control 36481
body resist. to elec. shock, review 20388
body shock-current pathways, elec. safety 18624
elec./thermal injuries, eval./treatment advances 93
human body ESD, charge/pot. control 7907
hybrid fibre/coaxial syst., power/backup power supply 44133
inform. highway power distrib. archits. 42137
MV power syst. earthing, phase-to-ground fault current selection 19327
protective multiple earth, overhead distributors 10781
rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658

electric spark machining *see spark machining*

electric sparks *see sparks*

electric strain gauges *see strain gauges*

electric strength
see also electric breakdown
3-layer insulation syst., discharge, dielec. characts. 22668
15 kV power cable FEM modelling, computer-based 4686
AC breakdown voltage testing of insulation liqs., test practices 22671
AC motor failure, steep fronted switching surges 19590
air gaps, impulse strength, nonstand. lightning surges 4722
BiMOS MCT/IGBT VHV devices, gate oxide integrity improvement, external gettering 30275
cellulose insulation intrinsic elec. strength *(German)* 30591
distribution syst. multiple dielec. lightning impulse strengths 35633
electrostatic powder painting, particle trajectories, math. model 7903
GIS epoxy insulating spacers, AC/impulse voltage deterioration characts. *(Japanese)* 27240
HV cables, synthetic elastomers, nonlin. I-V characts. 43767
HV damper diodes, 1800 V, FMR-G5HS/FMP-G5HS series *(Japanese)* 30222
HV metal-film capacitors, liq. impregnation 36498
HV power capacitor technol. in Japan, develop. 27876
HV transm. line operation, simul. lunar environ. 35641
induction motors, stator insulation testing/eval. 19645
insulating materials, mech. stress effect on elec. perform. 39063
miniature power relay IF for 250 V/16 A load switching 891
paper insulation, HV testing, μP based 30590
PEEK, poly(ether ether ketone), crystallinity and dielec. props. 14015
polyamideimide glass composite films, dielec. breakdown/thermal degrad. *(Japanese)* 28875
polyethylene, oxidized, elec. breakdown, DC current pre-stress effect 22641
polyethylene insulators, dendrites, fractal charact., time var. 1543
polyethylene/ionomer blends, space charge, TSC meas., dielec. strength 30547
polyethyleneterephthalate films, radiation treatment *(Russian)* 6893
polymer insulation dielec. strength under PD stress 22675
polypropylene film insulation, aging-model consts., HF HV fields 14019
polypropylene films, ultra thin, elec. props. 13955
polyurea films, vap. deposition polymerization, photoresist characts. 13444
power transformer aramid paper insulation, elec. strength tests *(Japanese)* 11106
power transformer composite paper-oil insulation monitoring 19686
power transformer life extension, insulation preservation expts. 19698
power transformer oil flow, static electrification and PD 36227
pulsed power spark gap switches, voltage recovery expts. 36456
PVDF/polyetherimide laminates, breakdown strength 13962
RTV silicone rubber insulator coatings, hydrophobicity transfer *(Chinese)* 35665
SHF EM fields generation, pulsed power-based 31701
short-pulse water breakdown power technol., electrode phenom. 36259
silicone rubber outdoor HV insulators, breakdown strength 19318
solid dielec., elec. strength, kinetic theory *(Russian)* 6889
solid dielec. strength calc., kinetic theory-based 22655
solid polymeric insulators, elec. treeing studies 35657
sync. generator asphalt-mica stator insulation, service life tests 11003
thin-oxide dielec. strength improvement by adding phosphonic acid chelating agent 1280
transformer oil, AC breakdown, thermal/flow effects 14040
vac. interrupters, elec. strength, contact material arc conditioning 5144
vac./SF_6 insulation, electro-insulating props. comparison *(Polish)* 22676
XLPE 250 kV DC cable, insulation develop./testing 27209
XLPE power cable insulation characts., defects/moisture effects 4679
Al-SiO_2-Si MOS struct., charge build-up/oxide wear-out, Fowler-Nordheim stress 13234
Ar gas electron avalanches, pulsed Townsend meas. 30552
PLZT thin-film decoupling capacitors for MCMs 29737
PZT films by MOD technol. for nonvolatile memory and DRAM appls. 13999
SF_6 puffer cct. breaker, elec. strength restoration *(Russian)* 44238
SiO_2 films, plasma CVD, breakdown characts. 13960

electric susceptance *see electric admittance*

electric susceptibility *see optical susceptibility*

electric switchgear *see switchgear*

electric transformers *see transformers*

electric utilities *see electricity supply industry*

electric variables control
see also electric current control; frequency control; gain control; load dispatching; machine control; phase control; power control; voltage control
dexterous motions, nonlin. cct. theory for robot control problems 21090
fast batts. charger, voltage inflection points detect. 27908
HV cables, synthetic elastomers, nonlin. I-V characts. 43767
hysteresis motor drive, over-induction control 11319
induction motor, terminal-impedance control, energy-saving 4981

electric variables measurement
see also attenuation measurement; capacitance measurement; charge measurement; dielectric measurement; electric admittance measurement; electric current measurement; electric distortion measurement; electric field measurement; electric immittance measurement; electric impedance measurement; electric noise measurement; electric reactance measurement; electric resistance measurement; electrical conductivity measurement; energy measurement; frequency measurement; gain measurement; high-frequency transmission line measurement; inductance measurement; loss-angle measurement; phase measurement; power factor measurement; power measurement; Q-factor measurement; voltage measurement
1/f noise in SAW resonators 30653
1890 MHz delay spread meas. in Melbourne 3407
ADC jitter meas., substraction method 9838
CDMA sigs., charactn., spectrum analyzer 18019
CISPR conducted emissions meas. on telecom. leads 15494
civ. EMC stds. by mil. organizations 15527
DC meas. and test systs., config. for min. errors 3946
dielec. WB TEM cell manipulator, radiated emissions testing 3736
discrete discontinuities along coupled PCB traces, meas./simulation 21506
elec. units hist., 1964 34307
EMC, conference, Dallas, TX, USA (1993) 36844
EMC simul. safety enhancement *(German)* 15457
fast batts. charger, voltage inflection points detect. 27908
harmonic distortions detect./meas., computer controlled excitations 10011
implanted MOS structs., I(t) tech. for generation rate determ. 1169
interconnected mesh power syst. MCM topol., elec. charactn. 12972
Japanese elec. and mass stds. 34325
L-band low noise DRO 29576
microwave oscillators, high-Q temp. stabilized sapphire resonators 30623
MOSFET params. charactn., low longit. field 13749
nonintrusive probing techs. for EM meas. 2248
PCB ESD protection material selection, shielding effectiveness meter 28456
photodiode freq. response meas. to 40 GHz, comparison, NPE/NIST 31075
plane surface elec. params. meas., radio-thermal radiation 10010
quartz resonator param. meas., IEC 444-5 direct transm. method 39077
quartz resonators/oscillators, 1/f freq. flucts./nonlin. 30627
radar phase noise meas., fiber-optic delay lines 34155
radiated emission testing by ground currents meas. 2247
semicond., generation param., lin. voltage sweep determ. *(Chinese)* 42920
sigs. with exponential amplit. freq. depend., time-domain meas. *(Japanese)* 41039
SIMOX BOX, O implant. effects on radiation-induced hole traps 13251
specialised measuring instrum. charact. monitoring 42684
spurious resons. meas. of cryst. units 30616
units develop., 1960s, 1990s 34308
variable speed induction motor drives, expt. perform. anal. 5247
virtual instrums., RF transm. line testing addit. 35397
ESD meas. techs. for IC design/manufacture 18057
GaAs-GaAlAs heterojunction, magneto resist./Hall effect meas. 21945
Si, injection depend. of cond. mobility, meas. method 34683

electric vehicles
see also electric drives; electric locomotives; electric propulsion; motorcoaches
4 wheel drive elec. vehicle, integral batt. charger 5359
4-phase variable SRM drive, elec. vehicles 28110
10 kHz inductively coupled power transfer, elec. vehicle appls. 5344
40 kHz, 1.5 kW DC/DC converter 20117
120 kW coaxial winding transformer, elec. vehicle appls. 20103
airport elec. vehicle appl. projects, USA 28102
AMPhibian hybrid elec. vehicle, regenerative braking effects 28147
anti-directional twin rotary motor drive, elec. vehicle *(Japanese)* 28111
anti-directional-twin-rotary motor drive, elec. vehicle 5360
axial flux interior PM sync. elec. vehicle motor drives 36756
batt. elec. vehicles, future technol. modelling 28142
batt. life extension, charge equaliser 19964
batt. powered vehicles, batt. exchange concept 44514
batt. safety eval., SERV Project 36740
battery appls. and advances, conf., Long Beach, USA (1995) 28262
batts., solid polymer electrolyte batts. 19949
batts. develop. 27917
car batt. charger, unity PF 5342
chopper fed PMDC motor elec. vehicles drive, adaptive ANN rule-based controller 36721
drive chain power consumption model 11412
drives, series reson. DC link inverter 5358
drives, time-varying adaptive μP control 36739
dual induction motor vehicle drives, control methodology 11418
elec./hybrid vehicles, electrochem. capacitors charactn. 36715
EM noise emitted from elec. vehicle 28116
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
energy sources, current technol. review 44524
fleet monitoring, batt./charger mgt. syst. 36728
flywheel, torque controlled, peak power transfer 5357
FMC high power dens. elec. drive technol. 44566
formula lightning elec. race car, develop. 20094
fuel cell elec. vehicles, alternative fuels comparison 36716
fuel cell elec. vehicles, H_2 storage infrastructure 36718
Fuji Electric power IGBT modules, elec. vehicle invertor appls. 28133
high current power modules, SiCAl packaging 20116
HV terrestrial AMTEC, design, appls. 28020
hybrid elec. cars, ultracapacitors, energy storage 20098
hybrid elec. vehicle, IGBT based syst., packaging/perform. 20095
hybrid elec. vehicle drive, capacitor storage, converter 20096
hybrid elec. vehicles, AMTEC auxiliary power unit 28145
hybrid elec. vehicles, Pb-acid batt./PEM fuel cell syst. 36725
hybrid vehicles, energy flows mgt., fuzzy logic controller 20111
hybrid vehicles, energy storage alternatives 28140
hybrid/elec. vehicles, batt. chargers 20099
hybrid/elec. vehicles, DC/DC power converters 20100
induction motor drives, posn. sensorless 20097
induction motor neuro-fuzzy control 36722
induction motor vehicle drives, static characts. modelling *(Russian)* 44570
light duty fuel cell vehicles, fuel/emissions reductions 28146
lightweight LIM, characts., mail transport syst. appl. 11405
lin. PM motor traction drives, basic considerations 11419
MLI inverters, sync. motor elec. vehicle appls. *(French)* 11194
motor drive syst. design, test results 5345
Ni-Cd cells, elec. vehicle appls. 5350

electric vehicles continued
nonpolluting automobiles, energy storage, propulsion 5326
PID speed neurocontroller 44575
PM brushless DC motors, field weakening, control 11360
PM commutator motor drives, const. power speed range 36724
PM sync. elec. vehicle motor drive, design, testing 11417
polymer electrolyte fuel cells, develops. and appls. 5209
power electronics and variable speed drives, IEE conf., London, (1994) 37
power electronics for elec. vehicle propulsion inverter 44485
power electronics in transportation, conf., Dearborn, USA (1994) 5451
propulsion batts., pos. phys. disconnect 36767
renewable energy develops., ecological aspects, Switzerland *(Spanish)* 4760
road vehicle drive syst. thermal behaviour *(German)* 36745
road vehicle speed control, PID neurocontroller 36723
road vehicles, induction motor design criteria 11415
scooter, axial flux PM motor drive, wheel coupled 11401
secondary batteries/charger technologies 20106
secondary batts., cost reduction efforts 44513
secondary batts., mix/demand study, USA 44512
secondary batts., recycling infrastructure, USA 44511
series-209 elec. commuter train, develop. 5352
solar elec. vehicle, PM brushless DC motor drive 5355
traction batt. syst. defns. and appl. *(German)* 28132
transit bus, Pb-acid batt. power conditioning develops. 36730
ultracapacitors, load levelling batt. appls. 36738
urban elec. transportation systs., mag. power transfer 44576
urban elec. vehicle, fuzzy logic based efficiency improvement 44510
variable reluctance PM motor drive, elec. vehicle appl. *(French)* 11413
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
Westinghouse elec. vehicle, programs, induction motor 44567
wheelchair, motor, sens. aids for partially-sighted 10281
wheelchair motors, fuzzy posn. controllers *(French)* 10283
wheelchairs for disabled persons, IEE Colloquium, London (1995) 28274
H_2-O_2 fuel cell vehicle liq. storage *(German)* 36746
LiAl-FeS batts., operation, elec. vehicle appls. 5203
Na-$NiCl_2$ zebra batts., β-alumina electrolyte 5202
Na_xMNO_2 batts., solid polymer electrolyte batts. 19949
Ni-H_2 batt.-powered bicycles, propulsion motor options 28144
Ni-MH sealed batts. for elec. vehicles, characts. *(Japanese)* 5327
Ni-Mh_2 bipolar elec. vehicle batt., cell design/eval. 36714
Ni-Zn batts., operation, devlop., problems/soln. 5351
O_2 proton exchange membrane fuel cell electrodes, transportation appls. 44309
Pb battery conf., Geneva, Switzerland (1994) 28213
Pb-acid automobile starter batt., computer model 36541
Pb-acid batt. elec. buses, design/develop progress 36726
Pb-acid elec. vehicle batts., monitoring/control model 36539
Pb-acid elec. vehicle onboard batt. mgt. syst. 36727
Pb-acid sealed batts. for elec. vehicles, characts. *(Japanese)* 5327
Pb-acid valve-regulated secondary batt., elec. vehicle appl. 36538
Si based PV systs., life cycle anal. 43949
Zn-Br_2 elec. vehicle secondary batts. 44516
Zn-MnO_2 rechargeable Leclanche cells, elec. vehicle appl. 36514
Zn-air elec. vehicle batt. 44515

electric welding
see also arc welding; electron beam welding; welding electrodes
contact welding equipt., biperiodic rectifier anal. 11506
HF reson. inverter-based 36802
inductive tube welding reson. invertor syst. 20166
series reson. power converter, pulsed welding load appls. 5121
SVC, GTO-switched, elec. welding appls. 4531

electric wiring *see wiring*

electrical conductivity
for specific types of conductivity, see narrow terms as appropriate, e.g. hopping conduction, mixed conductivity, surface conductivity
2D elec. cond., two-step lin. inversion 40280
alkali metal thermoelec. converter, B-alumina electrolytes 20026
antidot lattice, quantum transport, periodic-orbit theory, chaotic syst. 21981
artificial acid rain, surface impulse breakdown tests 1505
bundles of conductors, macroscopic elec. charactn. 38042
C black-filled semicond. materials, props., HV power cable appls. 13974
closed cycle plasma MHD generator ducts, friction/heat loss 27970
closed cycle plasma MHD generator ducts design 20018
composite aromatic polyamide insulation, conduction currents 14030
conducting isopolymers, prep., props. and appls. 37539
cubic cryst. quantum wells, cond., weak localization 1102
CVD diamond, metallization and die attach 38662
δ-doping superlattices, plateau behavior and metal-insulator transit. 13196
diamond:B,N, elec./opt. charactn. 21891
diamond:B films, hot filament CVD, plasma etching, elec. props. 5862
diamond, natural IIA, elec. props., detector appl. 43088
diamond CVD films, elec. props., detector appl. 38233
diamond/(C-C) composite, semicond. base 12193
dibenzotetrazaannulenes films, elec. cond. in strong elec. fields 1061
dielec., charged particle irrad., current reversal 39036
dielectric liquids, cond., breakdown, conf., Switzerland (1993) 5444
DOP-ACT-water cluster liq. dielec., cond. props. 13938
electronic systs. earthing, parts, perform., cabling, impact *(French)* 15521
electrothermal launcher solid armatures, design optim. 15352
EM launcher, accelerated plasmas, resistive Rayleigh-Taylor instabil. 15316
EM screens efficiency improvement by appl. of anisotropic materials 23715
EPR, filler conc. effects on elec. cond. and ultralow-freq. dielec. props. 30587
ethylene-propylene rubber cable insulation, γ-irrad., elec. cond. 14070
fine line thick film conductors by gravure offset printing 12946
gapped double electron waveguide, noninteger conductance steps 22018
gradient coils with mag. shielding/eddy shapes, coil shape optim. *(Japanese)* 21598
high cond. copper 6344
HTPB/Al particle composites, elec. cond., low fields 30589
human model, AC field exposure, induced current densities 26485
HVDC converter transformers/smoothing reactors, service stresses *(French, English)* 36228
inductive storage, high repetition rate opening switch 36629
inhomogeneous lossy medium nonlin. diff. eqn. and inverse scatt. solns. 23603
insulating oil, conduction, water dimer effects 14024
internal resist. distrib. meas., elec. impedance tomography 9992
land mobile satellite commun. systs., field strength prediction *(English)* 42222
metallic coatings, eddy current thickness inspection optim. 28919

electrical conductivity continued
- mineral oils EHD, DC cond. expts. 2165
- nonpolar liqs., EHD motion and cond., effects of ionic impurities 14017
- nuc. driven MHD device, nuc. induced elec. cond. 27968
- pelvic EIT images and assumed init. cond. distrib. 43311
- petroleum storage tank recirculatory flow, electrostatic charge estim. 15215
- photoresists, charge effect, indust. plasma proc. 13469
- plasma armature railguns, projectile vel., conductivity 23522
- poly(p-phenylenevinylene) LED, polaron/hole charge transport 14636
- polyethylene, cond., preapplied voltage effect 14027
- polyethylene, semi-empirical high-field cond. model 30535
- polypropylene films, ultra thin, elec. props. 13955
- polypyrrole synthesis, Cu metallization 1294
- polysilicon films, elec. params., low temp. modelling *(Chinese)* 13025
- propag. of EM pulses in conducting medium, comments/reply 23586
- railgun projectile accel., plasma armature 15344
- semiconds., nonlin. transport, nonlocal mechanism 21969
- semiconds., polycryst., elec. cond., generalized model 1014
- shielding effectiveness calc. by sheet resist. 23691
- SOFC, high temp., metals/alloys appl. 44382
- SOFC perform. improvement, electrolyte doping expts. 44319
- solid armature railguns, contact transit. anal. 15355
- space power thermionic electrodes, CVD diamond film appls. 18745
- sub-5-nm oxynitride dielecs. prepared in NO ambient using RTP, props. 6590
- sub-surface polarizable metal sheet, quasi-static response 15239
- telecomm. power/earthing syst. connectors, QA 43787
- TGS, relax. currents and elec. cond. 30559
- thermionic converter, interelectrode gap neg. resist. 28025
- water-absorbent polymer ground-resist. reducing material, characts. 37541
- XLPE 250 kV DC cable, insulation develop./testing 27209
- 60AgI-20Ag_2O-2B_2O_3-18V_2O_5 batts., internal resist./cathode content 11241
- Ag/Si(111), film elec. cond. mechanisms 38400
- Ag-As-Se glasses, thermal, elec. and opt. props. *(French)* 1055
- Ag_2As-As_2S_3 glasses, opt., elec. props. 38264
- $AgInSe_2$, solid and liq. state, elec. cond., thermoelec. power 21935
- $AgSbTe_2$, solid and liq. states, elec. props. 38266
- AlGaAs:N,C, thermally stable C-N deep level 28742
- AlGaAs/GaAs HBT, thermal effects/instabilities 6731
- Au-SiO_x-Au sandwich structure, AC elec. cond. 22083
- B-rich semiconds., high-efficiency high-temp. thermoelec. energy conversion 28012
- $(Ba,Ca)TiO_3$, humidity-sensitive characts. *(Korean)* 20989
- Bi_2Te_3:In,Pb, intrinsic defects, elec. method studies 1068
- a-C:H films, sputtering/struct./opt./elec. props. 20917
- 3C-SiC epilayers fab., elec. props. *(Japanese)* 372
- CdS, film, chem. bath deposition, props. 28799
- CdS low-resist. thin films, chem. vapour transport method 12180
- CdS thin films, chem. bath deposition, impurity phase 12135
- $(CdS)_x$-$(PbS)_{1-x}$ thin-film composites, prep., props. 20913
- CdTe, elec. cond., thermo-EMF, high press. effects 13059
- CdTe:Cl, elec./opt. props., detector appl. 43085
- CdTe:N MBE films, photolum. and p-type cond. 1038
- CdTeSe:Cl, elec./opt. props., detector appl. 43085
- $Ce_3Cu_3Sb_4$, structural/mag./transport props. 13083
- Co-phthalocyanine thin films, elec. cond., O doping, IV charact. 21939
- $CoMoO_4$ based thick-film resistors for HV voltage dividers 38049
- $CoSi_2$ microstruct., focused ion beam synthesis 13298
- Cu CVD thin films, direct liq. coinjection, ULSI device metallisation appls. 30133
- Cu film, ion beam assisted deposition, lower resist., higher interface adhesion 37512
- Cu-Ag alloy conductors develop., high field magnet *(Japanese)* 14258
- Cu-Au conductors for IC interconnects, AlGaAs laser-assisted deposition 12184
- $CuGaS_2$, travelling heater growth, CuI solvent 5810
- $CuGaSe_2$ thin films, elec. cond. and near-IR absorpt. 13090
- EuF_3 thin films, dielec., cond. and breakdown studies 1544
- GaAS sputtered films, amorphous and microcryst., elec. props. 22994
- $Ga_{0.9}Al_{0.1}Sb$, undoped/Ge doped, epitaxial films, elec. props. 13058
- $Ga_{0.66}Al_{0.34}SbAs$, undoped/Ge doped, epitaxial films, elec. props. 13058
- GaAs, CBE growth from tertiarybutylarsine, triethylgallium precursors 12105
- GaAs, CBE, tris-dimethylaminoarsenic 28738
- GaAs buffer layers, MBE grown, electronic props. 13056
- GaAs, electron scatt. at low dens., dens. depend. 1053
- GaAs epilayers, MBE, annealing thermal stabil., As precip. 308
- GaAs permeable jn. base transistor, homoepitaxial gate 6727
- GaAs, warped band model, hole drift vel. 13069
- GaAs:Be, polycryst., heavily doped, diffusion props. 1043
- GaAs:C, polycryst., heavily doped, diffusion props. 1043
- GaAs:Fe(Ni), ion implant./annealing, precip. 6610
- GaAs:N,C, thermally stable C-N deep level 28742
- GaAs:O, MOVPE, elec. charactn., O incorporation control 20775
- GaAs:Si, heavily doped, MBE, elec. props. 1040
- GaAs:Si, multiple δ-layer-doped MQW, hot electrons 38365
- n-GaAs:Yb, electron irrad., defect form., cond. compensation 21911
- GaAs/AlGaAs, ultra-low dens. dual quantum dot, transport props. 29932
- GaN, two-step-growth on AlN buffer layer 20743
- GaN:Si metal-organic VPE, shallow/deep levels charactn. 13052
- GaSb:Mn, elec. props. 13065
- GaSe single cryst. props. 5807
- $Gd_3Cu_3Sb_4$, structural/mag./transport props. 13083
- a-Ge:H,S, optoelectronic props, effects of S incorporation 39556
- Ge:Sb,Ga, nuc. transmutation doping, impurity elec. activity 13295
- a-Ge/Bi annealed bilayer, crystalliz. effect on conduct. 21926
- $Ge_{20}As_{30}Se_{50-x}Te_x$ film, elec. cond. 13079
- (HgCd)Te semicond., bulk/2D conductivities 13067
- HgCdTe:B,In, multi-step RTA 6606
- HgSe:Fe crysts., inelastic electron scatt. 1047
- In-ZnTe Schottky diodes, RF sputtered, elec. props. 30215
- InAs, MOVPE, high mobility on GaAs 29853
- InAsP-InP quantum wells/PIN diodes, growth/charactn. 12058
- $InAs_{0.3}Sb_{0.7}$, MOCVD on GaAs, carrier transport 6529
- InGaAs-InAlAs quantum wells, electron scatt., photoreflectance obs. 13141
- InGaAsP, $Si^+(Be^+)$ ion beam proc. 30036
- InN thin films, hydride vap. phase epitaxy growth 379
- In_2O_3 films, ALE growth 324
- In_2O_3 very thin films, struct., conductance evol. 417
- In_2O_3:Sn films, phys. props., doping-induced changes 30034

electrical conductivity continued
- In_2O_3-ZnSe-$(Zn_{1-x}Cd_xTe)_{1-y}(In_2Te_3)_y$ heterostruct., current transport 21963
- In_2O_3-ZnSe-CdTe-In, injection-contact phenom. in sub-micron layers 38313
- In_2O_3-ZnSe-In, injection-contact phenom. in sub-micron layers 38313
- n-InP, He^+ bombard., elec. resist. 13041
- InP, MOCVD/LEC grown, electron radiation resist. 21904
- InP:Sn, ion implant, RTA, anal. meas. 38465
- InP:Ti,Be growth by GSMBE, high resist. material 5821
- InP-InGaAs JFET, δ-doped channel 6796
- InP-oxide-metal tunnel diodes, elec. charact./nature of interfacial oxides 38918
- InSb thin films, vacuum evap., elec. props. 21913
- $InSe_x$ films, amorph., AC cond. 21927
- K-$\beta''Al_2O_3$-K-Mo AMTEC, accelerated life testing 28018
- K_xC_{60}, thin films, photocond., absorpt. spectra 39550
- $La_3Cu_3Sb_4$, structural/mag./transport props. 13083
- $La(Sr)CrO_3$, sintered bar electrodes, MHD generator appl. 5232
- $La_{0.7}Sr_{0.3}MnO_3$ porous cathode substrs., SOFC 11274
- $La_xSr_yMnO_3$ based SOFC cathode materials 44374
- $La_{0.9}Sr_{0.1}MnO_3$-YSZ cathodes, microstruct./resist., SOFC 44384
- $Mg_xZn_{1-x}Se$ mixed crysts., high press. Bridgman growth method, luminesc. 31072
- Ni-Cd batt. perform. model 27920
- Ni-YSZ porous cermets, microstruct./elec. cond., SOFC 44377
- PZT films, reactive co-sputtering/elec. props. 39059
- Pb-Sn secondary batt. alloy pass. layers, XPS studies 11260
- $Pb_{1-x-y}Sn_yMn_xTe$, transport and mag. props. 38271
- $Pr_3Cu_3Sb_4$, structural/mag./transport props. 13083
- RuO_2/B_2O_3-SiO_2-PbO glass composite thick resistive films, metal-insulator transit. 21657
- Si, SIPOS films, cond. mechanism 21885
- Si films, microcryst./amorph., RF plasma spray/ion beam deposition 5856
- Si, low-temp. polycryst. films, PECVD prep., gas flow rate effect on props. 5829
- Si, porous, dyn. effective cond. 29846
- Si, porous etched layer, transport, humidity infl. 21898
- Si,porous, laser induced form. 29840
- Si porous layers, I-V charact. 21896
- Si, porous, nanocrystal size, preanodization ion implant. effects 1225
- Si, porous, post-treatment effects on elec. cond. 21888
- Si solar cells, high efficiency, pilot prod. 44402
- Si solar cells, thickness/resist. optimisation 44409
- Si solar cells, waste material-mfg., testing 19981
- p-Si wires, focused ion beam implant., carrier transport 21871
- Si:B solar cell, low temp. PECVD/laser annealing fab. 19996
- Si:B(001)2×1, gas-source MBE, B-incorporation, elec. props. 38506
- Si:Bi, theoretical electronic props. 1020
- a-Si:H and poly-Si thin films, P ion shower doping study *(Korean)* 13284
- a-Si:H, homog. CVD, props., prep. conditions effect 20949
- a-Si:H pn-doping superlattices, cross-sectional STS 29928
- a-Si:H, pseudodoped, vidicon target material 1057
- μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
- n-Si:Li,Au, defect complexes, DLTS/SIMS/C-V profiling 38601
- Si:P(As)(B), heavily doped, temp. effects 1021
- Si:P,B CVD film struct./morph. 29841
- Si:Ru, ion implant., Ru-related defects, elec./opt. props. 38228
- Si-Dy_2O_3 MIS structs., UV irrad., charge accum. 22056
- Si-$NiSi_2$ microcrystalline composite thin films, struct./elec. transport 38402
- 6H-SiC MOS struct., thermal oxid./computer simul. 38562
- β-SiC films, CVD epitaxy, struct./electronic charact. 20903
- SiC:Al(B), ion implant., SIMS/RBS/photolumin./Hall/C-V obs. 38484
- n-SiC:V, 6H, elec./opt. props. 6539
- a-Si(Ge) thermopower behaviour modelling 27990
- $Si_{1-x}Ge_x$ films, dopant effects on resist., subsequent annealing 13089
- SiGe-GaP alloys, thermal cond., elec. cond., Seebeck effect 38246
- Si_3N_4, ultrathin, charge transport 28868
- SiO_2, NO-nitrided, elec. props., chem. comp. effects 30076
- SiO_2, oxide thickness, oxid. params. 1257
- SnO_2 thin film gas sens., carrier conc. change anal. 17972
- $SnSO_4$ in H_2SO_4 electrolyte, electrochem., Pb-acid batt. 11264
- SrF_2/InP(100) epitaxial diodes, elec. cond. 22065
- Ta_2O_5 thin high-dielec. films, leakage current, elec. props. 13915
- TiC refractory material, laser ablation, cluster form. and deposition 28827
- TiN films, pulsed laser deposition, epitaxial growth 322
- TiN rapid thermal CVD for diffusion barrier appl. 20970
- $TiSi_2$ buried layers in Si by direct wafer bonding 30154
- $TlBr_xI_{1-x}$ photodetectors for scintillation spectrosc., eval., prep. 10128
- WO_3 gas-sens. films, microstructural effects 25896
- WSi_2 buried layers in Si by direct wafer bonding 30154
- $YBa_2Cu_3O_{7-x}$ films, vortex-glass crit. regime, correl. length 30801
- Y_2O_3 MIM capacitors, elec./dielec./opt. props. 22082
- Y_2O_3-ZrO_2-Al_2O_3 composite planar SOFC electrolytes 27923
- $Zn_{1-x}Cd_xSe$ polycryst. thin films, electron beam evap. growth, elec. props. 1030
- $ZnIn_2S_4$:$Zn_2In_2S_5$, layered semicond., cond. anisotropy 6540
- ZnO, film, pulsed laser deposition, charactn. 12146
- ZnO films, thermal evap. 28856
- ZnO varistors, polariz. currents 6812
- ZnO:Al transparent films, sol-gel prep., elec./opt. props. 5855
- $Zn_{41}Sb_{59}$, amorph. semicond., elec. props. 1056
- ZnSe MOVPE growth, O and Te impurities effect 20890
- ZnSe, p-type doping, Li_3N diffusion 1229
- ZnSe thin films, chem.-bath deposition, material charactn. 28793
- ZnSe:Cu, kinetic coeffs., high-temp. anoms. 1050
- ZnSe:N, metalorganic VPE grown, p-type cond., annealing 38473
- ZnSe/Ge/GaAs, lattice matched HBT, DC/AC charact. 13631
- ZnSe/InGaAs/GaAs, lattice matched HBT, DC/AC charact. 13631
- ZnTe, elec. cond., thermo-EMF, high press. effects 13059
- ZnTe:N grown by MBE, N incorporation, Ar dilution in N plasma source 1212
- ZrN films, pulsed laser deposition, epitaxial growth 322

electrical conductivity measurement
- contactless method for measuring bulk resist. 9993
- Dome Water Monitoring Instrumentation System, submarine sonar dome corrosivity meas. 17676
- electroconductive plastic composite, C fiber filler, resist. 5906
- high-resist. semiconds. inhomogeneities visualisation, glow intens. obs. 42888
- highly insulating liqs., cond. meas. 14016

electrical conductivity measurement continued
II-VI semicond. MBE layers, cond. meas., contactless microwave method 42908
layered metals with continuous cond. profiles, eddy current testing 37553
lipid bilayers, elec. field induced breakdown dyns. 6896
mag. film resist./permeab., simultaneous measuring 3957
metal coating, cond./thickness monitoring, electrothermal method 18028
metal coating elec. cond./thickness, eddy current data rapid inversion 42890
micro EHD pumps, fabr./expts. *(Korean)* 30527
ocean CTD profiling, autonomous profiling vehicle 10535
ocean high perform. micro-power CTD sens. 10495
polyacryl amide-$AgNO_3$ electrolyte batt., prep./charactn. 19928
power overhead lines, lightning-induced voltage expts. *(Japanese)* 4696
primary std. KCl solns., cond. meas. 3722
reducing electrometer time const., high-resist. samples meas. 3768
resist. charactn. by improved eddy-current decay method 18026
semicond. struct. photomodulated diagnostics, microwave resonator transducer synthesis *(Russian)* 13098
sheet resist. meas., microwave freqs. 42889
soil, elec. cond./water content, TDR 4387
soil elec. props. meas., RF treatment appls. 10562
substation safety, soil resist. meas. method 44245
XCTD perform. eval., design improvements 10498
CuCrZr EM railgun worn rails, metall. anal. 15375
$Gd_2(Ti_{1-}Ru_x)_2O_{7-\delta}$, mixed cond., SOFC 44376
$La_{1-x}Ca_xCrO_3$ separators, elec. cond., planar SOFC 44378
$LaCr_{1-x}Mg_xO_3$ separators, elec. cond., planar SOFC 44378
$La_{1-x}Sr_xCrO_3$ separators, elec. cond., planar SOFC 44378
$La_{1-x}Sr_xMnO_3$ pos. electrode, elec. cond. 44386
Na alkali borosilicate glasses, heat treated 7264
Si, thick wafers, bulk carrier lifetime, contactless meas. 13036
Si wafer mapping, lifetime/resist./oxygen precip. meas. 25945
V redox batt., polyolefin cation exchange membrane 11243
YBaCuO thin films, complex cond., surf. resist. *(French)* 30767
ZnO varistors, dielec. charactn./equiv. cct. studies 867
ZrO_2:Y_2O_3 SOFC electrolytes, high temp. ageing expts. 44321

electrical conductivity of one-dimensional systems *see one-dimensional conductivity*

electrical conductivity of plasmas *see plasma transport processes*

electrical conductivity transitions
see also metal-insulator transition
$BaTiO_3$ ceramic multifunctional cryogenic sens. 34444
HTPB/Al particle composites, elec. cond., low fields 30589
poly(3-methylthiophene) conducting polymer films, photoelectrochemical response 13094
polyaniline conducting polymer films, photoelectrochemical response 13094
polypyrrole conducting polymer films, photoelectrochemical response 13094
As-Te-Se glasses, neg.-resist. and memory switching 13076
$Cu_{0.10}As_{0.40}Se_{0.50}$, elec. switching, bulk props. 38265
GaAs, non-activated cond. of hot electrons in localization regime 29864
GaSb, semicond.-metal transit., crystallisation under press. 13078
GaSb-Ge, semicond.-metal transit., crystallisation under press. 13078
$Ge_{27}Te_{62}Se_{11}$ chalcogenide glass, I-V characts., switching behaviour 29870
In_2O_3 very thin films, struct., conductance evol. 417
PbTe:Ga, electron irrad., elec. and photoelec. props. 1788
Si:Bi, theoretical electronic props. 1020
$Ti/Cd_xPb_{1-x}S/Ag$, polarity depend. memory switching 29988
VO_2 94 GHz flying spot mirror, theory and expt. 23956

electrical contacts
see also contact potential; contact resistance; ohmic contacts; point contacts
adhesive-based IC interconnects, materials/reliab. considerations 13432
arc column meas., spatial distrib. of spectrosc. intens. 6387
arcing contacts, concurrent testing syst. develop. 9811
armature arcing voltage drop 15346
attenuated phase shift masks, contact prod. 13552
avionic switchgear contact material durability *(German)* 35259
bimetallic riveted contacts, thermal modelling studies *(Russian)* 6382
bonding state obs. in clad contact, US microscope 6386
coal mine transportation arcing, detection/suppression method 20107
Compact NS moulded-case cct. breaker series *(Italian)* 5143
constriction resist. of two conducting spots 6384
contact erosion modelling, obj.-oriented technol. 6395
contact resist., contaminant films thickness, humidity effects 6385
DC load contact switching eval., derating curves and life testing 29631
develop. hist. overview *(French)* 6393
elec. contacts, hard/reactive intermetallic cpds. 20424
electromechanical switches, contact elements wear 38066
electrothermal launcher solid armatures, design optim. 15352
EM launchers, solid armatures, current wave/saw effect phenom. 15318
EM relays/elec. contacts, develop. and test methods 29640
failsafe contactors, electronic coil power economizers 29639
GIS incomplete contact detect., mag. sens.-based 27841
high reliab. cct. board repair, PCB/SMT manufacture 38145
HV mil. relay contact rating extension, CO_2 backfill gas 29638
hybrid output relays, semicond. switch-based, DC/AC power control 29635
multi-reed switch, contact erosion/spatial mag. field var. 29636
multiplated elec. contacts, impact wear 37556
nonohmic piezoelec. resonator contacts obs./anal. 6920
opt. surface profile meas. of elec. contact 892
PCB connector reliab., no fault found category 5704
PEC multiple nano contacts, solar energy storage appls. 27887
Pegasus II pulsed power capacitor bank explosive closing switch 36454
power contactor armature posn. sens., rem. auxiliary contacts 29645
press., sensitive strips/mats/bumpers, safety appls. *(Italian)* 3798
pressure contact, nm-scale, surface layer effects 38060
railgun armature contact load dyn. 15359
railgun armature plasma brush electrode materials 15334
railgun elemental wire conductors, wear behaviour studies 15339
railgun metal armature contact press. studies 15358
railgun multi-tiered Cu wire solid armature studies 15354
railgun pulsed power superspeed contacts, inverse problem calcs. 36311
railgun solid armatures, nonarcing contact studies 15362
railgun test range develop. results, Russia 15367
railguns, armature-rail interface, contact arcing transit. 15342
railguns, launch-induced static/dyn. deflection calcs. 15363
railguns, multi-point/packed wire/monolithic solid armatures 15361
railguns, muzzle voltage origs. 15312
railguns, nonarcing contact material deposition expts. 15349

electrical contacts continued
railguns, solid armature develop. programme, USA 15351
relay contact surface, arc discharge damage, scanning laser microscopy 29633
relay operate time/contact bounce, microcontroller in-proc. test cct. 29643
relays, conf., Newport Beach, CA, USA (1993) 5446
Reprocon LV sealed switchgear relays 36381
RF component testing, wireless equipt. appls. 117
RF reed relay for antenna-transmitter power amp. matching 29642
rly. signalling systs., failure anal. 44549
role of contacts in mesoscopic devices 1144
rot.-slide contacts, power line noise 25966
self-lubricating composite materials, contact characts. 6391
sliding contact characts. of composite materials 38062
SOFC perform. eval., lab. techs. 11276
solid armature EM railgun launchers, plated Al-Cu contacts 15324
solid armature railguns, contact transit. anal. 15355
spring contact, structural optim., area connector array CAD, C program 896
sticking charact./contact resist., telecomm. relay appl. 9132
switchgear contact systs., electrodynamic forces compensation 19885
switching arc-contact material mutual interact. *(Polish)* 11197
twin relay develop. for automotive appl. 29637
vac. cct. breakers, transient overvoltages, stat. model 27847
vac. interrupter contacts, switching endurance improvement *(Russian)* 44239
vac. interrupters, arc conditioning effect *(Chinese)* 5136
vac. interrupters, elec. strength, contact material arc conditioning 5144
vac. switch arc voltage, charact. values 36394
Ag and Ag-Pd contacts, material transfer and arc erosion characts. 6390
Ag break arc, two wavelength spectra simultaneous meas. 6388
Ag contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
Ag contacts, break arc discharge study 38061
Ag rivet contact perform., SiO_2, Al_2O_3 deburring media effects 29624
Ag-CdO(SnO_2) power print relay contact materials perform. 29632
Al contacts, plasma sputtered Cu coating, contact resist. 29626
(AlGa)As/GaAs 2DHG struct., contacts and mobilities 21967
Au-Te-Au-GaAs Schottky contact interface states capacitance, thermal effects 29950
$Bi_{2-x}Pb_xSr_2Ca_2Cu_3O_x$, current leads, power device appl. 14316
$Bi_2Sr_2CaCu_2O_x$, current leads, power device appl. 14316
$Cu/TiN/TiSi_2/n^+$-Si contact syst., RTN and characts. 38700
Cu-Cr contacts, vac. interrupters, microparticles generation 27846
Cu-Sn/WS_2 composite material contacts, contact resist. 29627
$FeSi_2/MnSi_x$, single couple thermoelec. generators, fab., meas. 20024
GaAs ohmic/nonohmic contact form., interfacial react. effects 38392
GaInAs thermophotovoltaic cells, metallisation contacts studies 28005
HgI_2, elec. contact material stabil. 43079
HgI_2:Ag crysts., defects, rel. to X-ray/γ-ray detector perform. 43075
InGaAs/Au(Ni) thin p-clad SQW laser, contact reflectivity effects 14859
Pd contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
PdO form. caused by mechanochemical react. 6392
Rh-plated reed switch contact, surface deactivation-induced phenom. 29634
Si contacts on $Si_{1-x}Ge_x$/Si quantum well, gas source MBE, electrolumin. diode appl. 28722
Si cryst. thin film solar cells, develop. prospects 27950
Si diodes, porous, immersed conducting polymer contacts, electrolumin. 39579
$YBa_2Cu_3O_7$, current leads, power device appl. 14316
p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413

electrical contracting
700 MW Rye House combined cycle power plant project, UK 10864
Croydon Tramlink light rail transit project, UK 44526
customer power consumption contract agreements, PC-based *(Russian)* 5241
elec. utility generating plant AFC services 43702
elec. utility generating units, freq. response capability develops., UK 43704
indust. elec. contract prices anal., UK 35536
power grid reliab./perform. assurance, former USSR 19075
power syst. mgt. agreement, former USSR 19073
suburban elec. rly. link project, UK 44552
Suomenoja combined cycle CHP plant control upgrade, Finland 43936

electrical double layers *see electrochemistry*

electrical engineering
see also electrical engineering computing; electrical engineering education; electronic engineering; high-voltage engineering; power engineering
computer-aided stat. planning for optimal cable screening braids 16989
EM refls., PCs appl. 37938
FEA, elec. engng. appls. 12014
FEM, massively parallel computers, domain-decomp. methods 40203
finite element program for magnetostatic anal. 31723
inform.-based approach, telecomm. networks engng. 42256
large-scale anechoic chamber, EM fields, computational simul. 15505
MSC/EMAS, CAE software for EMC anal. 23720
multi output systs., online fault diagnosis, Kalman filter/neural net appl. 11830
optimized prod. technol. in capacity constrained flow shop 11700
Professional Activities Council for Engineers 28368
std. EMI modeling problems 15526
Technical Policy Council for US policy interpret. 28369
triple-TEM cell, FEM, optimal engng. design 20416

electrical engineering applications of computers *see electrical engineering computing*

electrical engineering computing
see also automatic test software; computerised control; computerised instrumentation; electric machine analysis computing; electric machine CAD; electronic engineering computing; power engineering computing; power system analysis computing; power system CAD; radar computing
2D eddy current problem, domain decomp., serial/parallel 40250
3-layer insulation syst., discharge, dielec. characts. 22668
3D axisymm. conductor, eddy current anal., vectorial BEM *(Korean)* 23512
3D mag. field computation, FEM-based anal. *(Chinese)* 40201
AC LV EM device CAD, PC-based *(Russian)* 7913
actuators, EM forces calc., num. methods assess. 5169
adaptive IIR filtering algm., sig. proc. appls. 24194
artificial lighting, computerised control, daylight use 28158
automated emission meas., data reduction algm. 15487
cable harness design ES, CHD 21607
capacitor discharge induction launcher model, validation 15314

electrical engineering computing continued
CBT products for elec. and electronic engng. 20307
coax step discontinuities, method of moments num. anal. 29525
coaxial cable harnesses, EMC problems and perform. 889
computer-aided stat. planning for optimal cable screening braids 16989
constriction resist. of two conducting spots 6384
continuing education in Malaysia, multimedia instruction 20298
core selection optimisation in transformer designs, Basic program 27787
course, computer tools introduction 20278
discharge lamp, num. simul. study 11455
dish antenna design alternatives, test beds for student investigs., DishPat and FeedPat programs 31915
DSP, modular courses design 36929
DSP, practical approach 36922
dual field modelling, tubes and slices 28331
DYNASIM, dyn. systs. simul. package 28342
education, appl. of simul. modeling concepts 20299
education, interactive CBT syst. 20344
education, learning technology appls. 28357
educational course, EM field visualisation software 20312
elec. drive digital control methodology *(Italian)* 28059
elec.-structural engng. finite element modelling education rels. 5535
electrostatic particulate materials bulk transport valve 7917
EM anal., guided wave systs., domain decomp. methods 40421
EM CAD in undergraduate courses 2171
EM education, multimedia computing appl. 20313
EM field computation, conf., Grenoble, France (July 1994) 36820
EM fields transm., corrugated slots 31855
EM phenom., computer animation, graphics package 40195
EM refls., PCs appl. 37938
EMC appls., skeletal biconical antenna charact. 7996
EMC compliance, software tools 23660
ESPM, electrostatic precipitator model 7924
FEA appls. 12014
FEM, massively parallel computers, domain-decomp. methods 40203
finite element program for magnetostatic anal. 31723
foil winding design, eddy current anal. approach 6375
force-bal. supercond. coil studies, SMES appls. *(Japanese)* 11311
fuzzy ARTMAP neural networks for gratings/FSSs design 40449
geometric nonlin. in design of force transducers 34458
hard rock fragmentation, pulsed power plasma blasting tech. 36811
HDD spindle motor mech. testing, ANN 36210
Helmholtz eqn. and electromagnetism, FEA and integral eqn. methods 23492
interactive visualization, EM fields in waveguides and cavities 29521
ISOMOM method for moment-method solns. in EM 31710
lab. expts., software tools incorporation 20311
large-scale anechoic chamber, EM fields, computational simul. 15505
loaded 3D multimode cavity, model, 2D FEM/modal anal. 40416
mag. core hysteresis losses modelling, computer-based 14254
MathCAD, expt. simul. lab for teaching sig. proc. 20294
Mathcad for elec. engng. 36911
Matlab for teaching DSP 20295
microstrip antennas, design, simul., testing 40457
microwave EM field simul., TLM method, computer graphic visualisation 10006
microwave expts., multimedia in teaching 28338
mining plasma blasting appls., 1 MJ pulsed power studies 36812
MRI antenna, RF mag. field penetration in body *(Japanese)* 4261
multi output systs., online fault diagnosis, Kalman filter/neural net appl. 11830
muzzle-fed railgun expts., 3-D EM simul. 15279
noniterative PC-based coil design method 29617
nonlin. 2D/3D magnetostatic vol. integral formulation, GFUNET package 40225
nonlin. polarised ferromag. systs., computer anal. *(Russian)* 6941
PD pulse distrib. pattern anal. 22646
Peltier thermoelement, thermoelec. anal., nonequilibrium thermodyn. model *(French)* 28014
phasor tracking, estimator based on fuzzy IF-THEN rules 4502
planning of ELECTRABEL activities, long term methodologies 27000
plural defects in conductive plates, location via neural networks 37563
polymeric materials, water treeing, computer simulation 14062
power freq. EM devices, shape optim. 15254
railguns, design, coupled EM-hydro FEM 15311
railguns, thermally/mech. coupled diffusion, Lagrangian formulation 15315
relay, nonlin. ferromag. materials, mag. field calc. 38067
relay test automation/data acquisition, PC-based 29644
RF cavities, HV, conditioning, fuzzy logic/rule based prog. 18273
RF cavity design, genetic algms. 37960
road lighting CAD programs, visibility level/index 20126
self-organizing finite-element tessellation for EM field problems, mesh generator 40199
SESES, micro electro mech. systs. CAD modelling syst. 30498
SPC toolbox for teaching sig. proc. concepts 20293
SPEAR coilgun, design, tests 15294
std. EMI modeling problems 15526
teaching real-time DSP, Univ. of Leicester 36921
teaching sig. proc. on Information Superhighway 20296
telecomm. cables lightning currents interf., computer model 15539
TLINE software package for sinusoidal steady-state anal. of transm. lines 31867
training programmes, overview 36935
transformer fault detect., oil gas discrim. method 29620
transformer testing teaching lab., graphic user interface software 20309
transformer winding shape design, global optim. strategies 887
transient 2D eddy current problem, domain decomp. 23511
transputer supernode syst. for study of EM wave scatt. 40319
travelling wave panel electrode design, computer user interface 15248
triple-TEM cell, FEM, optimal engng. design 20416
undergraduate lab. sessions, interactive multimedia syst. 20305
underground metal pipes detect., EM induction sens. 18044
university education, electronic textbook appls. 28277
water trees, network model 13975
Si solar cells, mech. textures, light coupling, ray tracing 27939

electrical engineering education
see also electronic engineering education; power engineering education; telecommunication engineering education
3D vector field magnitude and direction visualisation 28288
antenna modelling and testing, combined facility 28289
asynchronous machine eqns. syst., theory education appls. *(Russian)* 36931
bal. lin. diff. ccts. anal. education 20280
BNC-to-microstrip transit., EM undergraduate lab. appls. 20281
CBT products for elec. and electronic engng. 20307
commun. training for elec. engineers 28349
continuing education in Malaysia, multimedia instruction 20298
course, computer tools introduction 20278
dish antenna design alternatives, test beds for student investigs., DishPat and FeedPat programs 31915
DSP, practical approach 36922
DSP teaching aid, algorithmic engng. 36926
DYNASIM, dyn. systs. simul. package 28342
EDUCATE project, end-user courses in inform. access, commun. technol. 20339
elec. equipt., general course, Moscow Power Inst. 77
elec.-structural engng. finite element modelling education rels. 5535
electronic design, multiple media 20317
EM CAD in undergraduate courses 2171
EM education, multimedia computing appl. 20313
EM field visualisation software 20312
EM power flow, Poynting and Nukiyama vectors *(Japanese)* 7889
EM wave propag., Brewster's angle teaching approach 20347
engineering communication, new frontiers, evol. of communic. vehicles 28309
engng. education, Prof. James R. Melcher contribs. 36932
European stds. assess. project, Netherlands 20322
experience-based learning approach 28353
formula lightning elec. race car, develop. 20094
interactive CBT syst. 20344
lab. expts., software tools incorporation 20311
learning technology appls. 28357
lecturer self-eval. 20338
low cost audio analog vector voltmeter/wattmeter 18022
MathCAD, expt. simul. lab for teaching sig. proc. 20294
Mathcad for elec. engng. 36911
Matlab for teaching DSP 20295
MELECON '94, conf., Antalya, Turkey (1994) 5470
microwave expts., multimedia in teaching 28338
multimedia computer-based teaching, case study 20315
multimedia lessons 28286
portable power-quality demo. board 10733
power syst. anal. and design education, computer appl. 20314
RCS graduate level course 28287
simul. modeling concepts in elec. engng. education 20299
Smith chart CAL method 28290
SPC toolbox for teaching sig. proc. concepts 20293
student communication improvement 28328
switched DC-DC converters, control, educational workbench *(Spanish)* 19876
teaching sig. proc. on Information Superhighway 20296
thermostatics/electrostatics analogy, engng. education appls. 36938
TLINE software package for sinusoidal steady-state anal. of transm. lines 31867
training programmes, overview 36935
transformer eqns. syst., theory education appls. *(Russian)* 36931
transformer testing teaching lab., graphic user interface software 20309
undergraduate elec. engng. curricula accreditation, USA 11617
undergraduate EM education, CAEME software experiences 28285
undergraduate lab. data acquisition, digital oscilloscope appls. 20285
undergraduate lab. sessions, interactive multimedia syst. 20305
undergraduate sig. proc., Royal Naval Engineering College 36924
university education, electronic textbook appls. 28277
variational cct. anal. techs., introduction 28924

electrical fault location *see fault location*

electrical faults
see also accidents; discharges (electric); electric distortion; fault currents; fault location; flashover; insulation; losses; overvoltage; protection; testing; transients
3-phase power syst. symm. components calc., state observer 19061
3-phase unbalanced nonradial power distrib. systs., fault anal. 43758
6/12 kV MV power syst. cables, arc fault tests 19363
10-110 kV power overhead lines, current dens. estim. *(Russian)* 27230
13 kV distrib. network solid-state cct. breakers 4672
110-500 kV metal-oxide surge arrester reliab. study, China *(Chinese)* 43801
230 kV level load behaviour params., stat. anal. 35690
500 kV transm. syst., adaptive autoreclosure, ANN 4677
AC machine perform. under faulted operation 19618
AC traction load, 3-phase equiv. cct. model *(Chinese)* 44499
AC transm. line disturbances, adaptive feedforward control 10711
AC/DC load flow, normal/post-fault condition calcs. 26866
airport lighting power lines, light failure reporting syst. 25197
asymmetrical power syst. load flow/fault studies *(Chinese)* 35422
asynchronous generators, asymmetric failure conditions studies 27729
AUSTRAL, distrib. syst. power restoration ES 19246
auto-reclosers/sectionalisers operation 43796
bipolar transistor microcircuits, hot-carrier and radiation induced increases in base current 13874
bulk power syst. security anal. model, computer-based 26969
cct. breaker operation seq. recording, fault *(Chinese)* 36382
CMOS IC, effect of layout modif. on latchup triggering 13888
composite PSS, auxiliary self-tuning/fixed param. controller design 35507
DC elec. rly., pulsed power switch-based protection 36712
DC motor drives, chopper-fed, fault conditions anal. 5276
DC/DC convertor plants, distrib. fuse fault clearing study 44144
delta-delta connected distrib. syst., single-line faults 4658
dispersed storage/generation pole slipping protection algm. 27250
distortion in elec. power systs. ident. and meas. 19361
distrib. network, post-fault service restoration, network reconfig. 4645
distrib. network, real time service restoration 4647
distrib. network asset replacement programmes, reliab. worth calcs. 43754
distrib. network disturbances prediction, Kalman filter-based 10724
distrib. network expansion planning, multi-stage branch exchange method 27151
distrib. network load restoration planning algm., ES-based 19245

electrical faults continued
distrib. network protection, overhead auto-recloser automation 4664
distrib. network radio/TV interf. detect. experiences, USA 27186
distrib. network restoration, ES-based heuristic methods 19244
distrib. networks, interconnected, relay protection coord. 4639
distrib. substations, switchgear internal arc fault protection design 4661
distrib. syst. post-outage restoration, infrastructure enhancement 10726
distribution network capacitor bank failures, harmonics effects 19262
distribution substation transformer cold load pickup modelling 19265
EHV/HV networks, reliab. data collection 26857
elec. generator protection, digital integrated relay-based 4891
elec. generator reliab. anal., retrospective data-based *(Russian)* 10917
elec. supply service quality assess. overview, Argentina *(Spanish)* 4590
embedded generators, pole slipping protection studies 4895
FACTS, bilinear predictive control, thyristor controlled capacitor 4582
FACTS, line fault protection, variable reactor, phase shifter *(Japanese)* 10783
FITL, commercial AC power quality issues 19227
FITL powering, batt. reserve sizing calcs. 42066
generator brake, thick film resistor 4906
generator power transformers, tapchanger diverter monitor 5019
generator-transformer unit, ground-fault protection, 3rd harmonic voltage 19584
GIS, coaxial pulse generator, VFT generation 36487
HV overhead line earth fault compensation coeff. modelling 19328
HV switchboard busbars, travelling disturbance arc tests 19888
induction machines, broken bar detect., current spectrum/param. estim. 4966
induction machines, multiple coupled cct. modelling 36160
indust. feeder load interruptions, fast breaker tripping impact 20158
indust. resistive load control, disturbance minimisation 4541
long-dist. power syst. adaptive generation control *(Japanese)* 10689
LV power syst., earth ground resist. testing 19355
LV switchgear arcing fault protection 19891
LV switchgear arcing fault protection concept 19893
metal induction heating, MF parallel power converter appls. 20163
MLC capacitors, miniaturized, normal service conditions, failure mechanisms 875
moulded case cct. breakers, hot gas ejection studies 19892
multi-area power syst. reliab. eval., PC-based 26855
multiarea power syst. simultaneous transfer capability anal. 26997
multimachine interconnected power syst., transient perform. model 19149
multimachine power syst. transient stabil., probab. approach 4460
multiterminal AC-DC power syst. outage contingency ranking 10669
MV distrib. switchgear, internal fault withstand tests 19887
MV power network arcing faults, computer modelling 19032
MV/HV elec. equipt., enclosure internal arcing tests 4879
n-channel IGBTs, 500 V, cell optim. 30330
neural nets for power systs. diagnosis 35699
OXR overhead distrib. line pole-mounted auto-recloser 27156
petroleum indust. squirrel cage motor fault survey 5404
phase differential currents, faults, relay protection *(Chinese)* 43794
portable integrated power quality measurement system 27282
power cable faults, capacitor discharge effects calcs. *(Russian)* 10740
power CT, thermal short-cct. strength determ. 19690
power distrib. syst. fault detect./ident., neural net 4657
power line load flow violations security assess., ES-based 19285
power network mgt. training simulator, software develop. 19125
power syst., phase selection, fault generated HF noise, ANN 19141
power syst. adaptive underfreq. emergency control schemes 43676
power syst. contingency screening method, genetic algm.-based *(Japanese)* 26994
power syst. digital impedance relay, improved perform. *(Chinese)* 27263
power syst. disturbance stabilisation, phasor meas.-based 35488
power syst. dyn. security improvement, generation rescheduling 35478
power syst. fast transient control, energy-based sensitivity method 10672
power syst. fault impedance, fast estim. 19063
power syst. fault level estim., computer-based 19058
power syst. fault quantities on-line meas. 19372
power syst. instabilities modelling, catastrophe theory appl. *(Japanese)* 26853
power syst. marginal outage costs eval. 10671
power syst. multiple fault computation algm. 19060
power syst. num. protection relays, fault diagnosis appls. 35673
power syst. operational planning, reliab. eval. method 27090
power syst. post fault operation anal., computer-based *(Russian)* 10600
power syst. post-disturbance anal., records reduction/compression 26900
power syst. real-time/offline fault anals., neural net appls. 19093
power syst. relay protection, low ratio CTs, high fault currents 35675
power syst. relay protection setting/coord., ES-based 27256
power syst. relay testing simul., user interface software develop. 27246
power syst. reliab. planning, customer outage costs-based 27078
power syst. reliab. worth assess., Monte Carlo simul.-based 26945
power syst. security assess., multicontingency preprocessing ES 35505
power syst. stabil. anal., multi-step partitioned approach 26859
power syst. state control optim. algm. 19078
power syst. transient stabil., faults calc., mutually coupled lines *(Japanese)* 35452
power syst. transient stabil., turbogenerator torsional vibr., fast valving *(Chinese)* 35456
power syst. transient stabil. anal., energy fn., Taylor series *(Chinese)* 43608
power syst. underfreq. load shedding optim. algm. eval. 26964
power syst. value based planning, probab. tech. 4617
power syst. voltage surge eval. 35454
power system dynamic response anal., nonlinear terms significance 19020
power system outage case study, USA 19329
power system post-contingency load flow feasibility algm. 19118
power transformer protection, iron core nonlin. *(Chinese)* 36219
power transformers, oil-filled, paper degrad. by-products anal. 44097
power transm. equipt. reliab. IS, Canada 43722
power transm. line relay protection CAD, ES-based 35571
PSS design, self-tuning regulator 19194
regional substations control centre, ES appls. 27018
ring main substation protection, HV HRC fuse appls. 4663
rural distrib. network auto-reclose protection telecontrol 4665
Schottky contacts, photovoltage, transient charact. modelling 6579
solid state motor protective/control devices 4892
space power syst. automation knowledge develop. 26562
spacecraft, fault-tolerant power distrib. module 26563
SRM faults/unbalance forces studies 36132

electrical faults continued
static power converter hybrid control modelling, reliab./safety appls. *(French)* 27799
stretched power transformer windings, short-cct. perform. calcs. 19688
substation fault recovery operation support syst., knowledge reuse methods 11216
substation flexible overhead busbars, mech. calc. algm. 19916
substation house emergency supply modelling, computer-based 27859
substation reliab. eval., act. min. cut set selection 36482
substations, transient EMI meas. 5158
subtransmission network reliability, customer interruption costs eval. 27119
supply imperfections, bad service, sensitive equipt. *(French)* 35600
sync. machine stator fault anal., transform. method *(Chinese)* 10971
teed transm. systs., fault generated HF noise meas. 4746
telecom. power equipt., preventive maint. overview 44157
telecomm. rectifiers, AC power line disturbance effects 44150
three-phase CT protection, computer simul. 19691
three-phase power syst. earth fault factor determ. 19066
three-phase sync. motors, single-phase supply starting transients 44017
traction power supply maint. project mgt., UK 44525
transformer winding deform. probab., external fault *(Russian)* 36229
transm. network reliab. anal syst., primary substations 26904
transm. network transient fault simul., EMTP-based 27129
turbogenerator shaft torques/fatigue life, freq./time domain anal. 4887
unbalanced power systs., transient stabil. simul. 26912
underground power transm. lines, monitoring syst. *(Japanese)* 25196
urban distrib. systs. operational structuring, reliab. aspects 43753
variable freq. induction motor drive, pulsating torque compensation 5290

electrical forming *see electroforming*

electrical insulation *see insulation*

electrical noise *see noise*

electrical overstress *see electrostatic discharge*

electrical power systems *see power systems*

electrical resistance measurement *see electric resistance measurement*

electrical resistivity
see also electrical conductivity; magnetoresistance; piezoresistance
diamond:B,N, elec./opt. charactn. 21891
diamond:B films, homoepitaxial and polycryst., elec. props. 21890
ferromag. sheets, mag. field effect, skin effect 30680
furnace black-polyethylene composite, resist./dielec. props. 14073
n-GaAs-InN contact resist. investig. 38393
GaAs/AlGaAs proton-implanted top-SEL, series resistence anal. 23207
ITO layer, sputtered films, specific resist., XRD 28801
metal-filled polymer conductive adhesives, elec. props. 438
metal/III-V-semicond. contacts, fab./props. 1162
mixed ferrites, elec. resist., Curie point 21924
oligophenylene thin films, vac.-deposited, elec. props. 13923
redox batts., graphite-felt electrode, overcharge expts. 11262
Schottky diodes, high series resist., forward I-V method limitation 13603
sheet resist. meas., microwave freqs. 42889
substation safety, soil resist. meas. method 44245
ULSI multilevel interconnects, proc. integrat./manufacturability 38641
VLSI metallization by coherent magnetron sputtering 38668
z-axis anisotropic polymer-matrix composite conducting film, SMT/PWC connectors 12196
Al, CVD on oxidised Si, direct growth, high-speed growth 20933
Al-Cu, simultaneous doping/CVD, interconnection form. 6831
Al-Si/TiN/Ti bamboo lines, electromigration, activation energy 30147
AlGaAs:N,C, thermally stable C-N deep level 28742
$Al_{0.35}Ga_{0.65}As$:C, thermally stable O/N implant isolation 30041
AlN PGA type packages, reliable cofiring technols. 28444
Au-Zn-Au ohmic contacts to p-InP, elec./metall. charact. 38388
$Bi_2Sr_2Ca_2Cu_3O_x$ tape, thermoelec./thermomagnetic effects 39219
$Cd_xCu_{1-x}Fe_{2-y}Gd_yO_4$ ferrites, struct., dc elec. resist. 7020
CdO/CdTe thin film solar cells, prep./props. 5229
CdSe thin films, elec. props., CO_2 gas sens. appls. 3898
CdTe:Ti(V), charactn., time depend. charge meas., PICTS 30020
CdTe:V,Z,Cl, Bridgman/traveling heater grown, detector appl. 43101
$Ce_3Cu_3Sb_4$, structural/mag./transport props. 13083
$CeFe_4Sb_{12}$, filled skutterudite, low temp. props. 38277
CoAl:O sputtered granular thin films, elec. resist., permeab. 14131
CoFeB:O sputtered granular thin films, elec. resist., permeab. 14131
$CoSi_2$-Si heterostruct., solid state epitaxial growth from Co-Ti-Si multilayer 37419
Cu IC interconnections, materials issues 30137
Cu MOCVD thin films from pyrazolylborato-Cu(I) complexes, charactn. 38679
Cu films, rem. PECVD 12161
Cu metallization technol. for deep submicron ULSIs 30140
Cu planarized copper multilevel ULSI interconnections, damascene proc. 30139
Cu thin film CVD from Cu(II) metalorganic precursors, growth/microstruct. 38678
Cu-Au interdiffusion during plating 20986
Cu-matrix Mo particle composite low thermal expansion conductor 12198
$Cu_x(Dy_2S_3)_{1-x}$, thermoelec. props., elec. resist. 13093
$CuInSe_2$:Sb thin films, growth and props. 38275
$Cu_2S(Se)$ transparent and electroconductive chalcogenide films, deposition and props. 37467
Fe:InP/InGaAs MESFET, metalorganic CVD growth 38926
Fe-B-M-Cu (M=Hf,Zr,Nb), nanocrystalline/amorph. hybrid struct., soft mag. props. 14146
Fe-BN films, deposition conditions and mag. props. 5889
FeNbCuSiB ribbons, fast dc Joule heating, nanostructured materials prep. 14137
FeZrB(Cu) amorph. and nanocrystalline alloys, mag. and transport props. 14130
GaAs, CZ grown, ion implant., struct./mech. props. 13305
GaAs, MBE grown, elec. breakdown props. 21908
GaAs, MBE layers, low temp. grown, elec. props. 13066
GaAs, SI, degrad. during heat treatment 29854
GaAs epitaxial layers, charactn., annealing effects 13277
GaAs p^+-SI-n^+ SI struct., I-V charact. 38300
GaAs:C films, MOCVD grown, heavily doped, elec. props. 38253
GaAs:N,C, thermally stable C-N deep level 28742
GaAs/Al_xGa_{1-x}As quantum wires, Hall effect 22020
GaAs/Al_xGa_{1-x}As quantum-well IR photodetectors, design, perform. 9905
GaSb single crysts. doping, various elements 22140
$Gd_3Cu_3Sb_4$, structural/mag./transport props. 13083

electrical resistivity continued
  Ge-GaAs consecutive LPE growth, GaAs static induction thyrister appl. *(Japanese)* 37407
  (Hg,Cd)Te films, isothermal VPE growth, morph. orient. depend. 326
  ITO thin film, elec. and opt. props. rel. to annealing 21925
  $In_{0.52}Al_{0.48}As$:Fe,Ti, compensation implants 13287
  InAlAs/InGaAs/InP HEMT, trapping mechanisms, sinusoidal/transient response 13772
  InGaAs crystals, LEC growth, props. 12023
  In_xO_y:Er RF sputtered films, photolum. and elec. props. 13096
  InP, CZ grown, ion implant., struct./mech. props. 13305
  InP crysts., vapour press. controlled Czochralski growth 12024
  InP:Fe, Fe doping nonuniformity, mapping method charactn. 13300
  n-InP:Fe, Fe implant., SI layer form. 1210
  InP:Fe, LEC growth, wafer annealing controlled doping 28712
  InP:Fe, Mg, Mg/P, Mg/Ar implants, elec./opt. charactn. 29856
  InP:Fe epitaxial layers, CVD growth 12053
  InP:Fe, gas source MBE, optimal growth conditions 12057
  InP:Fe, photolum., Fe concentration depend. 13045
  InP:Fe wafers, SI, prep., annealing 13279
  InP:Fe,Ti, semi-insulating, codoping process, growth 13319
  InP:Ti, compensation implants 13287
  InSnO thin films, RF magnetron sputtered, fab./charact. 14317
  $(InSn)_2O_3$ films, activated electron beam evap., water partial press. depend. 37487
  $La_3Cu_3Sb_4$, structural/mag./transport props. 13083
  $Li_{0.3}Zn_{0.4}Fe_{2.3}O_4$, additives, material property changes 39167
  MnZn ferrites for high freq. power supplies, mag. props. 30684
  $MoSi_2$, metal vapour vac. arc ion source synthesis 30142
  $NbSi_2$, metal vapour vac. arc ion source synthesis 30142
  Nd-Fe-B, hydrogenation/disproportionation/desorpt./recomb. study 6970
  $Nd_{14}Fe_{79}B_7$ magnets, recomb. and desorpt., HDDR proc. 6983
  Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
  Ni, nanocrystalline, elec., mag., mech. props. 39127
  PZT/ZnO piezoelec. actuator, mech. response, gases reduction 34608
  $Pb_{1-x}Sm_x(Zr_{0.65}Ti_{0.35})O_3$ ceramics, pyroelec. studies 22664
  $Pb_{0.5}Sn_{0.5}Te$ films, cond. activation energy, resist. thickness effects 38274
  Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
  Pd-Ni thin film solid-state hydrogen sens., sens. response 17977
  $Pr_3Cu_3Sb_4$, structural/mag./transport props. 13083
  RuO_2-based thermometer design for millikelvin temp. range 25821
  Sb_2S_3, films, microcrystalline, soln. growth from thioacetamide bath 20912
  Si disloc.-free crysts., electrophysical/microdefects correl. 21870
  Si, doped crysts. and devices, hydrostatic press. effects 21882
  Si, porous, resist., surface effect 21897
  N-Si, proton irrad., defects 13032
  Si, subsurface diffused layers, resist. curves 13037
  Si wafers, direct bonding, interfacial props. 30001
  Si:B, CZ grown, O/C effects on thermal donor form. 29827
  Si:B, ion implant., defect prod. 6622
  Si:B, ion implant., spreading resist. profilometry/SIMS obs. 22117
  Si:B(P), ion-implanted, sheet resist. and noise props. 38232
  Si:BF_2, high-dose BF_2 ion implanted, elec. dopant activation 1194
  Si:BF_2^+ amorphous ion-implanted layers, recrystn. kinetics 38464
  Si:B,O, heavily doped, interstitial O conc., neutron irrad./FTIR anal. *(English)* 6612
  Si:Fe,Al(B), lifetime effects of Fe/Fe complexes 29826
  a-Si:H p/i/n struct., annealing, resist. effect 1198
  Si:O, H-enhanced thermal donor form., depth profiles, spreading resist. probe meas. 38493
  Si:O films, low temp. CVD grown, struct. 20974
  n-Si:P amorph. CVD films, crystn., elec. props. 405
  n-Si:P,Al, photonuclear transmutation doping, resist. uniformity 6613
  Si/Co syst., RTA, CoSi and $CoSi_2$ form., activation energy 22028
  Si/Ti syst., $TiSi_x$ form. and resist., deposition temp. depend. 29951
  Si-on-sapphire films, SPE, recrystn. by annealing, props. 22076
  SiC cubic films, struct./opt./elec. props. 21938
  β-SiC on Si, CVD epitaxial growth and elec. charact. 37434
  SiFe sheet insulation, elec. and phys. charact. 14002
  $Si_{1-x}Ge_x$:B(P) polycryst. films, resist. 21932
  $Si_{1-x}Ge_x$/Co(Ti), solid state interfacial react. 38371
  SnO_2 film gas sens., sensitivity thickness depend. 42860
  SnO_2 thin film gas sens., N group element oxides addit. effect *(Japanese)* 34607
  SnO_2 thin films deposited by spray pyrolysis, prep. and charact. 392
  SnS_2:In, elec. props./photolumin. study 30054
  $Sr_{14-x}Ca_xCu_{24}O_{41}$ layers, carrier doping, elec. resist./mag. suscept. 22153
  Ta sputtered film, compressive stress rel., thermal cycling 22266
  Ta_2O_5 sputtered films, elec. and optical props. 13958
  $TaSi_2$, metal vapour vac. arc ion source synthesis 30142
  Ti/Si:B(P)(As) syst., $TiSi_2$ form. in situ resist. meas. 13217
  Ti-Pt-Au-InN nonalloyed ohmic contacts, thermal stabil./contact resist. 38393
  TiN, ECR chem. vap. deposition, 20 C 12173
  TiN MOCVD films, IC diffusion barriers/adhesion layers, TEM study 37420
  TiO conductive films, reactive ion-beam sputtered, VLSI metallisation 37494
  $TiO_2/BaTiO_3$ epitaxial film form. on Si substr. 37426
  $TiSi_2$ silicide form. on polycryst. Si, surface morph. study 1299
  TiW, sputtered Schottky barrier, AES, SEM 29957
  TiW thin films, sputter deposition 28829
  W nucleation layer CVD using various SiH_4/WF_6 flows, characterisation 37497
  WN_x thin films on GaAs, reactively sputtered, stabil. 38659
  WSi_2, metal vapour vac. arc ion source synthesis 30142
  $YBa_2Cu_3O_7$, Josephson jn. fab., bi-epitaxial grain boundary 30790
  $YBa_2Cu_3O_{7-\delta}$ film structs., transport props., elec. field effects 39231
  $YBa_2Cu_3O_{7-\delta}$ grain boundary jn. SQUID, modulation voltage/thermal noise 39271
  $YBa_2Cu_3O_{6.9}$/Nb, unconventional supercond., SQUID obs. 30765
  $YBa_2Cu_3O_7$-$PrBa_2Cu_3O_7$ Josephson edge type jns. 22754
  $Zn_{1-x}Cd_xSe$ polycryst. thin films, electron beam evap. growth, elec. props. 1030
  ZnO, ECR sputtered thin films, opt. atten., resist. 28800
  ZnO thin film, spray pyrolysis, deposition variables effect 12142
  ZnO thin films, pulsed laser deposition, laser wavelength and fluence effects 28834
  ZnO:Al(Ga), doping epitaxial layers, chem. transport growth 38512
  ZnSe, press.-induced semicond.-metal transit. 21912

electrical resistivity continued
  ZnSe:N,H, metalorganic chem. vap. deposition, nitrogen source materials 20944
  p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
  p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413
electrical transport processes *see electrical conductivity*
electrical treeing *see trees (electrical)*
electricity
  see also atmospheric electricity; electric charge; electric current; electric properties; electromagnetism; terrestrial electricity
  power indust. develop., global issue 27535
electricity consumption *see power consumption*
electricity demand forecasting *see load forecasting*
electricity supply industry
  2D colour pattern load anal., DSS tool supporting DSM 27053
  10 kV rural distrib. ABC installations, Eire 43776
  12/36/145 kV distrib. cct. breakers, utility experiences 4668
  13.2 kV underground feeder project, USA 27185
  20 MW batt. storage syst., distrib. network stabil. appls. 35637
  170 kV rated containerized substations, perform. and appls. 11213
  500 kV power interchange transm. line project, USA 27065
  acid rain precursor control model 44646
  agricultural elec. demand, pricing effects model, USA 36809
  Australian elec. indust. reform, national grid develops. 19184
  Australian ESI, commun. develops. 26975
  autonomous decentralized power systs. growth modelling 26998
  batt. energy storage, trends and status 35539
  batt. storage appls. 36072
  cct. breakers, condition-based monitoring develops. 5154
  CEGB crisis mgt./action, 1984-5 miners' strike 26929
  challenges, Germany *(German, English)* 35500
  chem. plant central power supply company following privatisation *(German)* 5403
  Chinese power network, commercialization operation *(Chinese)* 35516
  CHP, indust. auto-producers, remuneration models *(German, English)* 35976
  CO_2 power plant emissions, UK energy policy 4829
  coal/elec. delivery syst., China, planning, DSS 43669
  cogen. develop./modernisation, former USSR, natural gas-based 19487
  cogen. planning optim., time-of-use rates-based 10846
  cogenerator-customer wheeling syst., buy-back syst. 10667
  combined cycle power plants, freq. regulating duty dyn. response characts. 43932
  commercial building envelope loads, elec. use simul., Hong Kong 36794
  company tariff calc. and contract data acquisition *(German)* 43689
  competition in supply of elec., metering equipt. 35700
  consumer demand cycle optimis., cost savings *(Italian)* 4591
  Croatian power syst., war consequences overview *(Croatian)* 10624
  customer energy needs assess. project, Australia 4503
  customer power consumption contract agreements, PC-based *(Russian)* 5241
  customer service improvement, distrib. automation-based, UK 43684
  customer service improvement/cost reduction 35517
  customer value deployment 43687
  decision making, cooperative & intell. systs. 27063
  deregulated power markets, planning/operation anal. *(Japanese)* 43679
  develop. prospects, Lithuania 27046
  dispersed power generation systs., develop. and appls. *(Japanese)* 35715
  dispersed PV power systs., islanding phenom. 43947
  distrib. automation syst. project, India 27170
  distrib. indust. mgt. IS, data anal. integrat. 19253
  distrib. mgt. strategy, elec. utility benefits 27152
  distrib. network line protection practices, indust. survey 27162
  distrib. network radio/TV interf. detect. experiences, USA 27186
  distrib. network real-time control tools 10731
  distrib. network SCADA syst. installation project, USA 10732
  distributed resources planning, optimum location 10692
  DSM, air pollution impact 19492
  DSM, customer commun. appls. 10659
  DSM, eval., T&D level 4570
  DSM, net benefits estim. approaches 26990
  DSM in power syst. develop. 10697
  DSM opportunities case study, India 35535
  DSM overview, UK 10657
  DSM planning, elec. cooking implications, Nepal 35475
  DSM programmes, concepts and eval. 43697
  DSM programmes assess. methods 26991
  DSM programs, competition effects 4566
  DSM strategy economics, math. anal. 35533
  Eastern Europe sustainable develop., energy policy 26930
  elec. and mag. fields, utility customer advice aspect *(German)* 35599
  elec. power commun. network monitoring/mgt. *(Chinese)* 33428
  elec. power markets, optional forward contracts 4572
  elec. pricing, Sweden 4513
  elec. utility-cogenerator elec. market, game model 4577
  EMF health risks for elec. utility workers 43386
  EMS fns., user experiences survey 19185
  EMS projects, South-East Asia/Western Pacific survey 19183
  end-use efficiency, worldwide experience 19084
  energy conservation programmes, EPA protocols, USA 26923
  energy consumption change forecasting, Slovenia 26932
  energy economy internat. *(French, German)* 4523
  energy efficiency programmes, EPRI research 26920
  energy policy for sustainable develop. 26931
  energy policy overview, Europe 43694
  energy services/DSM, objectives overview 10660
  environ. policies, planning/operations effects 35530
  European energy economy prospects w.r.t. fixed carriers *(German)* 4527
  European energy efficiency policies overview 43695
  European energy security problem overview 43696
  FITL powering, batt. reserve sizing calcs. 42066
  flame-resistant clothing develop., elec. indust. 36984
  generating plant AFC services 43702
  generating units, freq. response capability develops., UK 43704
  generation, real cost eval. method 35558
  generator VAr capability assess. experience, USA 35487
  German cost-reflective power supply pricing investig. *(German)* 19177
  GIS elec. utility experience, USA 27866
  harmonics reduction efforts, tariff-based 26993

electricity supply industry continued
hazardous location class., North America/IEC stds. 4554
high T_c superconds., power indust. appl. prospects 27068
Hungarian power suppliers, service eval., QA computerisation *(French)* 35562
HV transm. line reliab./maint. practices, Australasia 43764
imprecise probab., expert forecasting, elec. utility 4544
independent power generation protection, tie bus cct. breaker 10771
independent wind power generation projects, Canada 4874
indust. elec. consumers, competition-led CHP markets 43640
indust. elec. contract prices anal., UK 35536
indust. feeder load interruptions, fast breaker tripping impact 20158
indust. power syst. voltage sag compatibility, utility perspective 20156
infrastructure develop. projects, Estonia 43639
integrated power/opt. overhead cabling, utility experiences, UK 35651
integrated resources planning projects, Scotland 10658
integrated water electrolysis, utility benefits 27335
interchange pricing, probabilistic prod. simul. *(Chinese)* 27039
intercontinental elec. connections, rational use/efficiency anal. 26934
internat. standardization *(French)* 35561
involvement in inform. superhighway develop. 43658
Japanese elec. utilities, problems, solns. 10628
JWOTS, fibre optic commun. network, power utility 25494
legislation revisions, Germany *(German)* 4588
load mgt., tariff-based, UK experiences 4506
local transm./distrib. planning, load research appls. 27079
long-term energy modeling, current techs. 26924
long-term planning methods/models 4585
maint. scheduling, Hopfield neural net appls. *(Japanese)* 43893
Malaysia-Thailand power interconnection, upgrading project options 19181
marginal distrib. capacity costs, area/time specific 4656
mgt. execs. selection, in-house recruitment 11665
mobile substations, elec. utility requirements survey, USA 11217
multi-area fuel cell CHP power systs., elec. wheeling anal. 10644
multi-level/period elec. tariff, unit cost calc. *(Italian)* 4565
MV XLPE covered overhead lines, utility experiences, Norway/UK 43777
Nat. Fuel Cell Research Center develop., USA 27652
Nat. Grid power syst. anal./data mgt. rationalisation 19126
national power syst. develop. policy, Romania 27116
network IS, introduction and constr. *(German)* 4587
network IS, requirements and uses *(German)* 4586
nuc. generation option, elec. utility requirements 27337
nuc. power, worldwide develop. projects overview 35729
nuc. power privatisation options, UK 43846
Nuremberg regional power supply undertaking restructuring *(German)* 10649
open access power transm., anal. software 19129
operation/maintainance, business strategies adoption 10637
opt. fibre commun. technol./trends 26976
personnel education/training overview 26971
petroleum pipeline service, peak shaving generator appl. 5408
petroleum refinery/elec. utility collaboration, overview 5414
planning of ELECTRABEL activities, long term methodologies 27000
policy issues for 1990s 35497
power grid reliab./perform. assurance, former USSR 19075
power indust. develop. prospects, far East Russia 19074
power indust. fibre optic network project, Poland 10683
power lines EM field health risks, elec. utility strategies 4507
power market overview *(Chinese)* 43700
power overhead line telecom. cables integrat., UK 35649
power overhead line upgrade/refurbishment options 43781
power supply quality improvement efforts 43709
power supply quality mgt., South Africa 43708
power syst. assoc. control services, generator level experience, France 43705
power syst. cct. capability assess., rating sheets prepn. 43657
power syst. EMS/SCADA systs., mgt. IS-integrated 26954
power syst. expansion LCP, Eastern Europe 10698
power syst. extended optimal power flow algm. anal. 27023
power syst. LF EM fields, living organism health effects 4329
power syst. monitoring, fibre optic sens. appls. 4734
power syst. planning, reliab. eval. 35569
power syst. reliab. optim., elec. utility efforts 4555
power syst. short-term scheduling, price-based resources integrat. 10705
power syst. supply quality distortion, consumer/utility responsibility *(Russian)* 10621
power syst. technol., current status/prospects, China *(Chinese)* 43644
power syst. telecontrol commun., develop. trends 19189
power transformer condition assess., elec. utility techs. 44098
power transformer condition monitoring, elec. utility experiences, UK 44102
power/telecomm. sector competition comparison, Germany *(German, English)* 35501
preventive maint., IR thermography *(German)* 36983
prices/profits survey *(English)* 35502
pricing, discounting methods discussion 35531
private mobile radio systs., power utility appl. suitability 25285
privatisation, British experience 19195
PV power systs., EPRI R&D efforts, USA 27619
quality mgt. case study, Cyprus 19148
R&D programme, Netherlands *(German)* 43707
R&D technol. transfer demons. projects, USA 43710
regional power supply undertaking, monitoring/costing syst. *(German)* 43688
reliab. assess./maint./life cycle costing, UK 43686
reliab. concepts integrat., New Zealand 27062
reliab. improvement experiences, Australia 43685
renewable energy resource develop. prospects, former USSR 27309
renewable energy resources develop. perspectives 27308
reshaping of elec. power indust. 27304
residential energy demand sector restructuring, South Bohemia 26933
residential energy use patterns survey, Philippines 35474
residential fuel cell systs., elec. utility R&D projects, USA 44340
resource planning, multicriteria method 4612
restructuring overview, Slovak Republic 10682
rural distrib. network auto-reclose protection telecontrol 4665
sales/revenues link, DSM, stat. recoupling 4514
sens. technol. improvement efforts, USA 43652
service quality assess. overview, Argentina *(Spanish)* 4590
service reliab., customer cost eval. 35494
short-term demand forecasting, neural network approach 4605
SOFC/combined cycle power generation proc. studies 27653

electricity supply industry continued
South African energy sector, issues/strategies *(English)* 4552
space power generation, develops., economic incentives overview 43417
steam power plant repowering projects design, Italy 10870
steam power plant water treatment optim., economic benefits 43901
Stockholm lighting energy efficiency programme, Sweden 35534
substation reliab. eval., simul. approach 27868
subtransmission network reliability, customer interruption costs eval. 27119
Swiss elec. economy approach, legislation *(French, German)* 4522
Swiss energy economy prospects in federalist Europe *(German)* 4524
switchgear risk assess., methodology/results/implications 5150
target mktg., GIS 27045
tariff syst. principles, Croatia *(Croatian)* 10625
tariff-fixing, cost orient. basis *(German)* 27051
tech. documentation DP *(German)* 35553
telecomm. network mgt. 26974
thermal cogen. with wheeling, model anal. *(Japanese)* 10850
thermal power plant controls upgrade projects, USA 43651
thermal power plant emissions control, cost-effective techs. 43887
three-phase voltage-source utility interface power convertor 19737
transm. network use charging, marginal cost methods 27121
transm. pricing, spot price calcs. 26959
two-way customer commun. systs. for utilities 41586
Tyrolean provincial energy economy develop. *(German)* 4528
UHV power transm. develop. overview, China *(Chinese)* 43726
UK elec. power syst. regulation by Offer *(German)* 19175
undertaking load forecasting, ANN *(German)* 43721
undertakings, tech. and cost anal. integrat. *(German)* 19176
Union of Swiss Elec. Power Stations, 4th annual report *(French, German)* 4525
USA, fiber otpics deployment via non-traditional rights-of-way 3572
video response syst. based multimedia on demand *(Japanese)* 42008
Virginia Power's nuc. operation strategy restruct. 35518
world energy syst. concept 26935
Ztek advanced planar SOFC, utility power generation appls. 27928
H_2 energy storage medium, elec. utility appls. overview 28051
Na-S modular batt. energy storage unit, utility appls. 19572
Pb-acid batt. energy storage systs., utility appls. 36080
SF_6 MV distrib. substation switchgear develop. 5148
SO_2, NO_x, CO_2 emissions bal., German utilities *(German, English)* 35712

electrification, static *see static electrification*

electro-oculography *see bioelectric potentials; eye*

electro-optical deflectors
optoelectronic deflectors operation 39480
thin-film electro-optic beam deflectors, num. simul. 39485

electro-optical devices
see also electro-optical deflectors; electro-optical filters; electro-optical modulation; electro-optical switches; electrochromic devices; liquid crystal devices; optical modulation; SEEDs
1.55 μm semicond. laser source, gigabit/second integrated electroabsorptive modulator 1741
3-D holographic DP and wavelength readout for range-doppler-angle radar, SAR 9640
adaptive wideband opt. nulling for antenna syst. 7399
AUTOTESCON 93, (Sept. 1993) 36845
broadband EMI shielding for electro-opt. systs. 15507
conf., lin./nonlin. integrated optics, Lindau, Germany (1994) 36839
DAST, electro-optic crysts., opt. rectification, THz radiation scaling 22925
diazo dye attached electro-optic polymer waveguide modulator 1737
distrib. network, opt. current sens. *(Japanese)* 27180
double supertwisted nematic screens, color contrast enhancement 39498
downsized multi-functional EO test collimators 35385
E field sens., SAR distribs. prediction, hyperthermia appl. 43354
fast electro-optic HV sens. 25781
ferroelec. SLC host materials, optoelectronic appls. 7404
FLC, electro-opt. device appls., review 22957
four-port fiber freq. shifter, null taper coupler 15046
heteroaromatic chromophores in high temp. polymers interferometric films 1736
HF behavior of electrooptic Kerr modulators, voltage meas. appl. 19365
high-perform. quantum well electron transfer modulators, self-consistent modeling 1733
high-speed opt. sampling/STM, elec. waveform meas. 9830
hybrid opt. syst. for freq.-domain texture class. of imagery 16271
III-V electronic device step response meas. on ps time scale by electro optic sampling 42963
III-V interferometric electroabsorption QW modulators 1738
integrated opt. symm. no. syst. ADC, 8 bit 21392
inter satellite cross links, non-mech. laser beam steering/spoiling methods 17308
laser binary FSK communication, integrated heterodyne receiver/spatial tracker 17296
laser commun., Fabry-Perot interferometer for freq./spatial tracking 17312
LCDs, surface mol. alignment, electrooptical perform. 7407
LSI testing, electro-optic probing syst. 6836
matrix-addressed smectic-A LCD 22953
memory-type polymer-dispersed CLC, elec. write/erase operations 31003
microwave-opt. transducers, S-matrix defn. 17815
mission effectiveness enchancement through electro-optical systems 43570
mission effectiveness enhancement, advanced boresight equipment 43575
monolithic slot antenna, charactn., electro-optic sampling 8064
multichannel liq.-cryst. opt. switch DCS 17204
opt. space commun., second generation opt. terminals 34045
optoelectronic device simul., conf., Los Angeles, CA, USA, Jan., 1994 36838
photorefr. MQW materials, appls., sig. proc. 29915
point source algms. for optimum acquisition range of electro-opt. sens. 15866
polyimide electro-optic integrated modulator syst. 22929
polymer electro-opt. device technol. 39484
polymer-dispersed CLC films, opt. memory 39308
power syst. voltage meas., optic cryst. based sens., Pockels effect 4745
probing, ultra-high-speed IC 13839
push-pull integrated-optics Mach-Zehnder interferometer, domain inversion 22922
real time electro-optic probing for long logic pattern anal. 34649
refl. type electrooptic elec. field sens., $LiNbO_3$ opt. waveguide 25863
Skyball, electro-optic sens. for unmanned flight 3884
stereoscopic viewing systems using active and passive glasses, performance limits 18018
surface emitting opt. devices, 2D integrat. 7482

electro-optical devices continued
tracking syst. struct. for moving obj. kinematic soln. *(Croatian)* 3626
ultrahigh-speed IC diagnosis, electro-optic probing 6835
variable focus electrooptical lens, A/D opt. converting 14519
vector components of elec. field meas., electrooptic sampling 34650
voltage meas., robust sens. head 34482
WDM LB deposited film in-line fiber-optic components 17187
$Bi_{12}GeO_{20}$ opt. voltage sens., opt. rotary power 17756
CdS, opt. bistability, opt. oscills., internal switching delay 23425
GaAs ICs, voltage meas., electro-optic sampling 13850
GaAs:Cr/AlGaAs SI MQW photorefr. device 22942
GaAs-AlAs vert. coupled-cavity microinterferometer, deformable-membrane top mirror 39991
GaInAsP/InP MQW QCSE tuning element for surface emitting laser 15014
GaInAsP-InP continuously tunable LD, mode hopping *(French)* 1924
ITO windows, polypyrrole-latex coatings, electrochem./spectroelectrochemical studies 39482
InGaAs-AlAs strained p-i-n modulator, ultrafast recovery time 22939
InGaAs-InAlAs quantum-well lasers, TE-TM mode switching *(Japanese)* 31329
$In_{0.53}Ga_{0.47}As$-InP reson. plasma waveguide modulator for mid IR 1734
$In_{1-x}Ga_xAs$-$In_{0.53}Ga_{0.47}As$ strained superlattice, gas source MBE 12056
KDP electrooptic pulse picker, multi-pass amp. 31286
$LiNbO_3$, electro-optic crysts., opt. rectification, THz radiation scaling 22925
$LiNbO_3$ integrated optics Pockels cell, cryst. cut and waveguide orient. 14515
$LiNbO_3$ opt. beam splitter, tapered vel. coupler 7401
$LiNbO_3$ thin film hybrid integrated opt. devices 39608
$LiTaO_3$, electro-optic crysts., opt. rectification, THz radiation scaling 22925
$LiTaO_3$ electro-optic probes, guided polariton generation 39478
$LiTaO_3$:H proton exchanged waveguides, opt./electrooptical props. 14422
$LiTaO_3$:Ni opt. waveguides, fab., Ni diffusion 22885
PLZT-based scanning grating lobe opt. array generators, design and simul. 14523

electro-optical effects
see also electroabsorption; electrochromism; electroluminescence; electroreflectance; Kerr electro-optical effect; photorefractive effect; Pockels effect; Stark effect
bipolar photoconductors with arbitrary level struct., nonsteady-state photoelectromotive force 39553
chiral liq. cryst. polymers, synthesis and electrooptical appl. 22950
cholesteric liq. cryst., lin. electro-optic effect, flexoelectricity 14538
conference, liquid crystals, San Jose, CA, USA (Feb. 1994) 51
cross-linked and side-chain polymer films, nonlin. optics appls. 15090
cubic cryst. planar waveguides, photorefr. effect 39431
diarylacetylenes, quadratic hyperpolarizabilities, conform. depend. 15141
2,6-dibromo-N-methyl-4-nitroaniline, hyperpolarisabilities, nonlin. opt. props. 40095
donor-acceptor conjug. polyenes, polarisabilities, SHG 31580
electro-optic polymer, nonlin. optics, single-mode waveguide fab. 15063
electro-optical polymers, poling 13930
field-effect-induced superlattices, spectrosc. 1111
guest-host photorefr. polymers 22781
liq. crysts., electro/nonlin. optics appls. 7413
liq.-cryst. projection screens, opt./electro-opt. charact. 39494
metal-oxide based gels, organically doped, nonlin. opt. props. 15091
metallophthalocyanine, aggregation and nonlin. optics 31581
mol. crysts. for nonlin. opt. appls. 31583
NLC, self-starting phase conjug. 40053
phase-matched freq. doubling polymers, opt. prep. 23344
photoconductive cryst. under spatially asymmetric illum., rectification property 22996
photodelineated electro-optic polymers, GRIN profiles and loss mechanisms 14456
photopolymer-liq. cryst. composite, dyn. holograms appl. 40137
photorefr. medium, opt. beam propag. 23435
photorefr. planar waveguides, phase-locked detect. mechanism 14453
planar photorefr. waveguides, hologram form., lock-in detect. 39379
PMMA films with dye mols., 2D opt. nonlin. 15093
poled polymer films, freq. conversion and relax. phenom. 2091
polyimide-based guest-host systs., nonlin. optics, photonic devices 31585
polymer dispersed LCD, mol. motions and ordering 31006
polymer waveguides, electro-opt. appls. 14457
polymeric materials for SHG and electro-optic appls. 23386
polymeric nonlin. opt. materials, conf., Los Angeles, CA, USA, Jan 94 53
polymers, nonlin. photorefr. props. 30815
polymers for second-order nonlin. optics, elec.-field induced orient. and relax. 2095
PV photorefr. materials, dark and bright spatial solitons 7804
pyridyl analogues, hyperpolarizabilities, elec.-field induced SHG 15131
reflective twisted nematic LCD birefr. wavelength dispersion effect *(Japanese)* 18010
RF sputtered glass films, elec. induced second-order opt. nonlin. 23389
side-chain polymer films, electro-optic effect, freq. response 14325
SSFLC cell, electro-opt. bistability study *(Chinese)* 40044
stilbenes, quadratic hyperpolarizabilities, conform. depend. 15141
thiapyrylium dye sensitized photorefr. polymeric composite 22782
thick photorefr. hologram, angle-depend. diffr. efficiency 31656
thieno[3,2-b]thiophenes, donor-acceptor substituted, SHG 40093
α-thiophene oligomers, third-harmonic generation 15128
tolanes, hyperpolarizabilities, elec.-field induced SHG 15131
turbine blades, reson. vibr., strain meas., electro-optic holography 31669
Ultradel 9000 D crosslinked electrooptic polyimides, electro-optic props. 1652
variable-strain quantum well heterostruct., design and investig. 30820
waveguide struct., 3D finite difference beam propag. method *(Chinese)* 39394
Ag fractal nanospheres in PMMA film, cubic opt. nonlin. local field enhancement 15130
AlGaAs composites, As cluster dispersion, optoelectronic appls. 7456
AlGaAs/GaAs superlattices, THz Bloch oscills. 1112
$BaTiO_3$, photocond., high light intens. 14582
$Bi_{12}SiO_{20}$ photorefr. response, AC field freq. effects 30813
$Bi_4Ti_3O_{12}$, film, struct., electro-optic props. 6910
CO supersonic electron beam sustained laser, CW 200 kW operation 31150
CdS films, electro-opt. charactn. 1039
CdS, optoelectronic charactn. by photothermal deflection 38229
GaAs HV photocond. switches, electro-optic imagery 14598
GaAs avalanche photoconductors, dyn. opt. probing meas. 31078

electro-optical effects continued
GaAs composites, As cluster dispersion, optoelectronic appls. 7456
GaAs/AlGaAs superlattices, electro-optic detect. of Bloch oscills. 21988
GaAs-AlGaAs superlattice Bloch oscill. higher harmonics 21989
GeO_2-SiO_2 opt. fibres, lin. electro-optic effect meas. 7278
HgCdTe IRFPA perform. anal., syst. adaptability 17951
InAs MQW photorefr. material 30814
InGaAs MSM photodetector charactn. by electrooptic LD sampling 23009
InGaAs/GaAs-on-GaAs superlattice photodetectors, ultrafast response 3835
$In_{0.53}Ga_{0.47}As/In_{0.40}Ga_{0.60}As$ superlattices, Wannier-Stark effect 1138
InGaAs-InAlAs asymmetric coupled QWs, elec.-field-induced refr. index changes 21980
$KNbO_3$ crysts., electro- and acousto-optic props. 30555
$KNbO_3$, photocond., high light intens. 14582
$KTa_{1-x}Nb_xO_3$ crysts., photorefr. diffr. dyn. 31618
$KTaO_3$:Li, pure and doped, polar config., SHG obs. 22660
$LiNbO_3$ electro-opt. devices, proton radiation effects 1728
$LiNbO_3$ electrooptic modulator, conducted suscept. 7390
$LiNbO_3$ plates, electronic image reconstruction by electrooptic tech. 2134
$LiNbO_3$ waveguides, electro-optic/thermo-optic meas. of birefr. 22886
$LiNbO_3$-$LiTaO_3$, direct heterobonding 30932
$LiTaO_3$ antiparallel domains ident. by interferometric method 10041
$LiTaO_3$ proton-exchanged opt. waveguides, electrooptic consts. 14471
$PbMg_{1/3}Nb_{2/3}O_3$, quadratic electrooptical effect, opt. inform. proc. 7826
Si, optoelectronic charactn. by photothermal deflection 38229
$SrBaNb_2O_6$ photorefr. holographic grating writing and readout by applied elec. fields 40154
$Sr_{1-x}Ba_xNb_2O_6$:Cr, broadband photorefractivity 30825

electro-optical filters
acousto-optic tunable filters, electro-optic tuning and sidelobe control 22966
asymmetrical grating assisted coupler calc. by eigenmode expansion/coupled mode theory 39419
phthalocyanines, wavelength selective shutters, smart windows 14514
projection screens, opt./electro-opt. charact. 39494
Stark anom. dispersion opt. filter for doubled Nd:YLF lasers 14575
InGaAsP-InP directional coupler based tunable opt. filter 22910
InGaAsP-InP pol.-independ. four-channel tunable opt. filter 25477
Rb 532 nm Stark anom. dispersion opt. filter 39540

electro-optical modulation
1.55 μm DFB-LD/modulator integrated light sources, MOVPE grown 9478
1.55 μm semicond. laser source, gigabit/second integrated electroabsorptive modulator 1741
1 GHz sum/difference opt. modulator, E/H field meas. 18053
2.5 Gbit/s 407 km repeaterless opt. fiber transmitters 34011
10 Gb/s lightwave syst. dispersion compensation based on semicond. Mach-Zehnder modulator 25518
10 Gbit/s opt. transmitter module, integrated electroabsorption modulator/DFB LD 9477
adaptive multifrequency modulation method for laser range finder 17436
analog distorted helix FLC-on-silicon SLM 31013
antiferroelec. liq. crysts., displays, SLM 22951
chiral nematic, polymer dispersed, lin. light modulation 14543
chiral SLC-on-Si SLM, HV circuitry 22961
cross-linked polymers, thermal stabil., electro-optic appls. 14517
DBR LD wavelength conversion device 23196
decoding archit., iterated fn. syst. code algm. 33079
depolarized source, rem. waveguide modulator high-power operation 14512
DFB laser-electroabsorption modulator integrated light source 39472
DFB laser-electroabsorption modulator monolithic integrat. 1831
DPSK receiver, opt. preamplified/demodulated, act. delay-line stabilization 17208
electroabsorption modulator integrated laser transmitters 17225
external electro-opt. modulation technols., develops. 39481
Fabry-Perot modulators, correctable partial antirefl. coatings 30992
Fabry-Perot through-plane-modulator based on LB film 30998
FLC nonlin. opt. waveguides 7403
Franz-Keldysh electroabsorption waveguide modulator perform. anal. 30989
glass-Ag-polymer struct., light switching, ATR study 22945
guided-wave optoelectronic device model, FDTD/Fourier expansion method 14412
gyrotropic medium, light freq. translation, electro-optic modulation 30994
HF behavior of electrooptic Kerr modulators, voltage meas. appl. 19365
II-VI quantum well struct., exciton linewidth 6564
III-V semicond. opt. waveguide modulator modeling 22924
injection laser-modulator combinations, time-depend. simul. 14952
integrated DBR laser/modulator transmitter, 5.0 Gbit/s transm., 192 km 14878
integrated laser/modulator, long-dist. transm., 2.5 Gbit/s 14880
intersubband quantum well opt. modulators 30996
LEOS, Lake Tahoe, NV, USA (July 1994) 39
linewidth-insensitive coherent analog opt. AM link receiver/transmitter 9442
liq. cryst. light valve real-time image differentiation *(Chinese)* 8663
liq. crysts., opt. nonlin., opt. logic appls. 15120
Mach Zehnder electro optic modulator for sideband suppressed carrier modulation of opt. fields 42394
Mach-Zehnder modulator output, soliton pulse compression, 40-GHz pulse train generation 14533
MM-wave Gaussian beam, electro-optic power control 39474
MQW DBR laser with electro-opt. tuning sects., high FM bandwidth 7678
MQW DFB lasers, electroabsorption modulators, monolithic integrat. 7384
MQW electroabsorp. modulators under digital modul., chirp control 7388
MQW electroabsorption modulator, efficient harmonic generation 34007
MQW electroabsorption modulator, transm. performs. and chirp param. 1740
MQW electroabsorption opt. modulators integrated, low-loss waveguides 22938
MQW modulators in smart pixels, wavelength optimis. 22934
MQW photorefr. asymmetric Fabry-Perot struct. 22941
NLC layer electrooptic modulators, dyn. modelling 1744
nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
normal incidence MQW light modulator, contrast ratio 7386
open uniaxial anisotropic waveguide used as electrooptic modulator, anal. 40408
photoconductor jelly SLM manufacture 7393
photonic LSI interconnections/appls. 1833
PMMA polymeric film electro-optic phase modulator 14534
poly(2,5-dimethoxy-p-phenylenevinylene) electro-opt. intens. modulator 14524
polyimide electro-optic integrated modulator syst. 22929

electro-optical modulation continued
polymer, electro-optic, for stable organic act. components *(French)* 1650
polymer dispersed chiral liq. crysts., lin. light modulation 7410
polymer electro-opt. device technol. 39484
polymer electro-optic waveguide modulators for data commun. 31000
polymer film electro-optic modulators/waveguides 39489
polymer light modulator, surface plasmon reson. 22943
polymer waveguide based, packaging design and charactn. 39491
polymer waveguides, electro-opt. appls. 14457
polymer-based travelling-wave electro-optic modulator, props. 14525
polymer-dispersed FLC light modulators 39496
polymeric optochips, splitters, switches and modulators 14502
quadratic nonlin. opt. materials *(French)* 1649
quantum well electron transfer waveguide, fiber coupling efficiency 22882
QW polariz.-independent waveguide modulator, mass-depend. width 14508
refl. type electrooptic elec. field sens., LiNbO$_3$ opt. waveguide 25863
S-SEED switching charact. 14520
shaped quantum well opt. modulation, enhanced electrorefractive effects 39492
smart pixels, high-resoln. liq.-cryst. gratings, PWM drive tech. 31012
solid state laser modulator loss anal. 15006
squaraine dyes in PMMA, third-order opt. procs. 23399
suboctave-bandpass opt. analog links, lin. modulator 17335
superlattice, -1 Stark ladder transit., electro-opt. modulator appls. 14521
switchable-logic photonic switch array monolithically integrat. MSMs, FETs, and MQW modulators 14531
telecomm. syst. waveguide component polymer materials 7379
three-branch widely tunable semicond. laser design for WDM links 14915
transform-limited opt. pulse generation, 10 GHz 39493
ultra-compact quantum well waveguide electro-optic modulators 7387
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
vert. cavity surface emitting DBR lasers, voltage controlled 7622
WORFNET link for fibre-microwave networks 9481
(Al,Ga)InP-oxide epitaxial DBR in vis.-wavelength opt. devices 39800
AlGaAs/GaAs, QW, modulator, nonlin. optics 7739
AlInAs/(Al)GaInAs MSM photodetectors/modulators, solid source MBE 42809
AlInAs/GaInAs coupled QW 1.3 μm opt. modulator, elec. field depend. 22927
GaAs symmetric/asymmetric QW struct., lin./quadratic electrooptic effects 21999
GaAs thin film, Franz-Keldysh effect, opt. modulation 39486
GaAs/AlGaAs waveguides with quantum well claddings, opt. modulation, beam steering 22892
GaAs-AlGaAs FET-SEED technol. based ring oscillators 23057
GaAs-AlGaAs MQW modulators integrated, Si CMOS IC 39597
GaAs-AlGaAs coupled QW polariz.-independent waveguide opt. modulator 7394
GaAs-AlGaAs electroabsorpt. modulators integrated, pass. waveguides 22918
GaAs-AlGaAs p-i-n MQW modulators, opt. bandwidth 39476
GaAs-GaAlAs MQW electro optic modulator opt. data self-routing 13153
GaAs-InAlAs tensile-strained quantum wells, polariz.-independent opt. modulation *(Japanese)* 22944
Ge long sample, excess carrier exclusion, current dens. depend. 38290
(In,Ga)As/GaAs strained MQW modulator, electro-absorpt. 39487
InGaAs/GaAs (InGaP) MQW optical modulators, MBE growth 14509
InGaAs/GaAs heterostruct. field effect opt. modulator 14516
InGaAs/GaAs strained QW modulator perform., well/barrier ratio effect 7389
InGaAs/InP MQW modulators in expt. and theory 14658
InGaAs/InP SEED, opt. switch/power discriminator 15112
InGaAs/InP planar photoelastic low loss waveguides/electroabsorption modulators 30975
InGaAs/InP, short period superlattices for Wannier-Stark modulators, growth 12120
InGaAs/InP short-period superlattice, wavefunction coherence length 1739
InGaAs/InP superlattice, electro-refractive effect, modulator appl. 14510
InGaAs/InP superlattice, low volt. electroabsorption light modulator 14511
InGaAs-InAlAs QW electroabsorption waveguide modulators 39488
InGaAs-InGaAlAs-InAlAs coupled QW chirp-free electroabsorption modulator 22937
InGaAs-InGaP MQW opt. modulators, saturation intens. 22935
InGaAs-InP MQW tensile-strained directional coupler, polariz.-independent switching operation 14529
InGaAs-InP P-I (MQW)-N surface-normal electroabsorpt. modulator for 1.55 μm 14507
InGaAsP MQW modulator/DFB laser integrated light source 30965
InGaAsP electro-absorpt. modulators, optim. 22936
InGaAsP electroabsorp. modulator, low pol. depend. 22926
InGaAsP electroabsorption waveguide modulator, shipboard analog links 9535
InGaAsP monolithic semicond. soliton transmitter 25530
InGaAsP/InP MQW integrated DFB-DBR laser modulator, MOVPE growth 23247
InGaAsP-InP MQW 2×2 opt. space switch struct. for 10-GHz appls. 9148
InGaP-InAlGaP MQW electro optic modulator, MOVPE grown 39483
InP QW electro-optic waveguide circuits 14486
InP based MQW phase modulators *(Chinese)* 7480
InP monolithically integrated Wannier Stark modulator/strained MQW DFB 1.55-μm laser 22940
InP semicond. digital opt. switches and arrays 7395
InP-InGaAs MQW modulator waveguide devices, metallization/wet etch/passiv. 39461
InP-based opt. multiplexer integrated, MQW modulators 34074
KTa$_{(1-x)}$Nb$_x$O$_3$ thin films, ferroelec. hysteresis, electro-optic response 13996
LiNbO$_3$ EO modulator, intens. modulation by free space radiation coupling 7397
LiNbO$_3$ act. stabilised electro-optic phase modulator, holographic recording 14526
LiNbO$_3$ asymmetric Mach-Zehnder opt. modulator 31002
LiNbO$_3$ elec. field sens., sensitivity improvement 14522
LiNbO$_3$ electro-opt. digital intens. modulation, chromatic dispersion tolerance 17234
LiNbO$_3$, electro-optic modulator for diode-pumped Nd:YAG slab laser 31268
LiNbO$_3$ electro-optic modulators, cryogenic temp. characterisation 14506
LiNbO$_3$ electrooptic modulator, conducted suscept. 7390
LiNbO$_3$, electrooptic waveguide modulators, total internal refl. 14518

electro-optical modulation continued
LiNbO$_3$ high-speed electro-optic modulator, travelling wave electrode optimisation 1735
LiNbO$_3$ high-speed opt. modulators, Mach-Zehnder config. 30986
LiNbO$_3$ modulator, binary and multilevel polariz. modulation 14513
LiNbO$_3$ opt. waveguide modulator for bidirectional transm. 42442
LiNbO$_3$ opt. waveguide modulator in fin line, optimum design 39443
LiNbO$_3$ reson. enhanced modulators for analog fiber-optic links 14527
LiNbO$_3$:Ti 75-GHz opt. CPW modulator 7359
LiNbO$_3$:Ti electro-opt. modulator, CPW, optimum design 30997
LiNbO$_3$:Ti guided-wave light modulators, filter-type electrodes 30987
LiNbO$_3$:Ti opt. modulator, CPW characts., cross sectional deform. 7402
LiNbO$_3$:Ti travelling-wave channel waveguide modulator modelling 39397
LiTaO$_3$ electrooptic modulator sideband generation by domain inversion 14505
LiTaO$_3$ phase modulator, opt. heterodyne impulse-response meas. 30995
Nd:YLF laser, antiresonant Fabry-Perot quantum well modulator 31243
Nd:YVO$_4$ slab laser, diode-pumped, high-repetition-rate 1919
α-Si liq. cryst. light valve projection display, phosphor develop. 1750
Si thermooptical micromodulator, 700-kHz -3-dB bandwidth 39490
SiO$_2$, poled, amorph., SHG lin. electro-optic coeff. meas. 2128
SiO$_2$-GeO$_2$ fibre, electro-optic modulation, UV-excited poling 30898
SiON integrated optic intens. modulator based on mode coupling 1731
Ti,Er:LiNbO$_3$ harmonically mode-locked waveguide laser 39736
polymers, electro-optic props./appls. 22923

electro-optical switches
ATM opt. switching, high-speed module for wavelength encoding switching 16982
ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
DBR laser ultra-fast opt. switching by electro-opt. tuning sect. 34005
dense WDM packet switching networks, review 3538
electrocapillarity micromirror opt. switch for subscriber loops 9569
FLC, electro-opt. device appls., review 22957
free-space digital opt. SEED switching systs. 3301
glass-Ag-polymer struct., light switching, ATR study 22945
high-repetition-rate electrooptic cavity dumping 30999
NLC cells, opt. nonlin., voltage sensitivity 7730
opt. TDM switching fabrics 16979
photonic LSI interconnections/appls. 1833
planar liq. cryst. opt. switch for opt. commun. 34014
planar-opt. mesh-connected tree computer chip interconnects 39602
polyimide-based guest-host systs., nonlin. optics, photonic devices 31585
polymer electro-opt. device technol. 39484
polymer waveguide based, packaging design and charactn. 39491
Register Insertion Bus network, optoelectronic technol. 41824
semicond. integrated opt. routing array components, carrier diffusion effects 14479
switchable-logic photonic switch array monolithically integrat. MSMs, FETs, and MQW modulators 14531
three channel autocorrelator, electro optic switches 8476
vert. $\Delta\kappa$ directional coupler switch, liq. crysts. 14465
WDM cross connector electro-opt. controlled multiwavelength switch 34008
Y-jn. waveguide switch cross talk 22871
AlGaAs all opt. switching waveguides, three-photon absorpt. 22912
Ba, single trapped ion, nonlin. electro-optic switch 7392
GaAs high-power high-speed photoconductive switching devices, temp.-depend. delay time 14532
GaAs symmetric/asymmetric QW struct., lin./quadratic electrooptic effects 21999
GaAs, ultrafast electro-opt. switch, cross-correlating capabilities 39477
GaAs:O, MOVPE, ultrafast photodetector materials appl. 23064
GaAs/AlGaAs FET-SEED, smart pixels and saturation charact. 14657
GaAs/AlGaAs, MBE, optoelectronics appl. 5850
GaAs/AlGaAs, mesoscopic electro-opt. switching element 39475
GaAs-Si, MBE, optoelectronics appl. 5850
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 1729
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 14498
InGaAs/InGaAlAs electron transfer waveguide weighted-coupling digital Y-branch opt. switches 9448
InGaAs/InP SEED, opt. switch/power discriminator 15112
InGaAs-InP MQW tensile-strained directional coupler, polariz.-independent switching operation 14529
InGaAs-InP double HBT, high speed/voltage driver circuit appl. 13876
InGaAsP/InP multi-quantum-well directional coupler, low-switching-voltage operation 30925
InGaAsP-InP QW electron transfer struct. for ultrafast opt. switches 38351
InP QW electro-optic waveguide circuits 14486
InP semicond. digital opt. switches and arrays 7395
InP/InGaAsP 1.3 μm digital opt. switches, extinction ratios exceeding 20 dB 7396
KTiOPO$_4$ electro-optic laser Q switch, dispersion effects 22933
LiNbO$_3$, electro-optic modulator for diode-pumped Nd:YAG slab laser 31268
Nd:YAG act. mode-locked pulsed laser, long ultrashort pulse train generation 14826
Nd:YAG flashlamp-pumped pulsed lasers, SHG 31272
Nd:YVO$_4$ coupled-cavity electro-opt. Q-switched microchip lasers 39743
Si/Ge heterostruct., MBE, optoelectronics appl. 5850

electroabsorption
1.55 μm semicond. laser source, gigabit/second integrated electroabsorptive modulator 1741
2.5 Gbit/s 407 km repeaterless opt. fiber transmitters 34011
10 Gbit/s opt. transmitter module, integrated electroabsorption modulator/DFB LD 9477
DFB laser-electroabsorption modulator integrated light source 39472
DFB laser-electroabsorption modulator monolithic integrat. 1831
electroabsorption modulator integrated laser transmitters 17225
fiber commun., electroabsorption modulator module *(Japanese)* 42463
Franz-Keldysh electroabsorption waveguide modulator perform. anal. 30989
III-V interferometric electroabsorption QW modulators 1738
injection laser-modulator combinations, time-depend. simul. 14952
integrated laser/modulator, long-dist. transm., 2.5 Gbit/s 14880
metallophthalocyanines in PMMA films, nonlin. suscept., electroabsorption 31582
MQW DFB lasers, electroabsorption modulators, monolithic integrat. 7384
MQW electroabsorp. modulators under digital modul., chirp control 7388
MQW electroabsorption modulator, efficient harmonic generation 34007

electroabsorption continued
MQW electroabsorption modulator, transm. performs. and chirp param. 1740
MQW electroabsorption opt. modulators integrated, low-loss waveguides 22938
MQW modulators in smart pixels, wavelength optimis. 22934
nonbiased bistable SEED in asymmetric Fabry-Perot struct. 1730
polariz.-insensitive telecomm. optoelectronic device design 14578
squaraine dyes in PMMA, third-order opt. procs. 23399
transform-limited opt. pulse generation, 10 GHz 39493
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
Ag fractal nanospheres in PMMA film, cubic opt. nonlin. local field enhancement 15130
AlInAs/InP type-II superlattice, elec.-field induced excitons, opt. studies 6555
GaAs avalanche photoconductors, dyn. opt. probing meas. 31078
GaAs high-power high-speed photoconductive switching devices, temp.-depend. delay time 14532
GaAs p-n jn., Franz-Keldysh electro-absorpt. effect 1082
GaAs-AlGaAs electroabsorpt. modulators integrated, pass. waveguides 22918
Ge_xSi_{1-x} PIN photodiode, RT electroabsorption 7466
(In,Ga)As/GaAs strained MQW modulator, electro-absorpt. 39487
InGaAlAs/InP type II MQW struct., elec. and opt. props. 1132
InGaAs/GaAs strained QW modulator perform., well/barrier ratio effect 7389
InGaAs/InP planar photoelastic low loss waveguides/electroabsorption modulators 30975
InGaAs/InP superlattice, electro-refractive effect, modulator appl. 14510
InGaAs/InP superlattice, low volt. electroabsorption light modulator 14511
InGaAs-InAlAs QW electroabsorption waveguide modulators 39488
InGaAs-InGaAlAs-InAlAs coupled QW chirp-free electroabsorption modulator 22937
InGaAs-InP P-I (MQW)-N surface-normal electroabsorpt. modulator for 1.55 μm 14507
InGaAsP MQW modulator/DFB laser integrated light source 30965
InGaAsP electro-absorpt. modulators, optim. 22936
InGaAsP electroabsorp. modulator, low pol. depend. 22926
InGaAsP electroabsorption waveguide modulator, shipboard analog links 9535
InGaAsP monolithic semicond. soliton transmitter 25530
InGaAsP/InP MQW integrated DFB-DBR laser modulator, MOVPE growth 23247
InGaAsP-InP electroabsorption modulators for LDs, nonlin. effects model 14846
InP monolithically integrated Wannier Stark modulator/strained MQW DFB 1.55-μm laser 22940
InP-based opt. multiplexer integrated, MQW modulators 34074
electroacoustic effects *see acoustoelectric effects*
electroacoustic generators *see acoustic generators*
electrocaloric effects *see pyroelectricity*
electrocardiogram *see electrocardiography*
electrocardiography
see also bioelectric potentials; biomagnetism; cardiology
1/f spectrum slope, heart rate variability 26444
2D electrogram array, activation wavefronts ident./anal. 26371
50 Hz interf./noise in ECG recordings, review 43278
action pots., variable convergence adaptive filter 10229
activation patterns from scatt. electrodes, image-based display 18542
Alzheimer's disease, phys. activity monitoring 10171
ambulatory ECG, adaptive data compression *(Japanese)* 4285
ambulatory ECG, adaptive data compression, multi-templates 26432
ambulatory ECG, amplif. electrode, noise immunity 26397
ambulatory ECG mapping syst., integrated software environ. 26431
amp./detector for dry-electrode heart rate monitoring 10230
Antarctic predators, heart rate/body temp., implantable logger 43191
AR spectral estim. uncertainty, heart rate 26424
arrhythmia detect., adaptive recurrent filter 43304
arrhythmia detect., ECG digital spectral anal. 10238
arrhythmias, pattern recogn., 2 intracardiac channels 18578
arrhythmias, principal component/neural network anal. 26388
arrhythmias detect./ident., adaptive lin.-predictive filter 18577
arrhythmias interp., ABACUS KBS 35103
arrhythmic events, low incidence, detect. algm. 18573
atrial elec. activity interpolation 43306
atrial fibrillation, intracardiac sig. anal., std. ambulatory monitoring equipt. 26438
atrial fibrillation diagnosis, ANN 10225
atrial fibrillation electrograms, local activation times, computer algm. 35084
atrial fibrillation misdiagnosis by implantable defibrillator algms. 35083
atrial late pots. anal., paroxysmal fibrillation risk assess. 18554
beats, selective sig. averaging, intervals spectral anal. 18559
biomedical sig. proc., pattern recogn. *(German)* 18429
body surface pot. mapping, percutaneous transluminal coronary angioplasty 26376
body surface pot. maps, epicardial breakthrough phenom. detectability 26384
cardiac disease class. neural network 18575
CardioA software package for online/off-line anal. of exercise ECG 26392
cardioverter-defibrillator implants, waveform anal. viability 35156
chagasic myocarditis, arrhythmia risk assess., high resoln. ECG 18560
chaoticity, cardiac rhythm testing 26412
complex dyn. assess. in heart rate variability sigs. 26411
compression, Fourier series, FFT, adaptive coeff. estim. 43291
computers in cardiology, conf., London, UK (1993) 11543
coronary angiography beamline upgrade, NSLS 43269
coronary angioplasty of infarct-related artery suppresses ST-segment elevation on exercise 26440
data compression, adaptive Hermite models, perform. eval. 26408
data compression, μP 10235
data compression, VQ, k-dimens. tree for fast search 26437
defibrillation/ECG pots., acquisition/display, 528 channel syst. 18584
diagnostic ES, learning syst. 35097
diagnostic ES, real-time 10245
dictionary based coding for ECG data compression 26410
digital filtering anal. in high-resoln. ECG 18555
digital filters, freq. synthesis, ECG appl. 6222
digital Holter monitoring syst., noise cancelling filter 35130
digitised dyn. recordings anal., ventricular arrhythmias appl. 35088

electrocardiography continued
dyn. anal., waveform class. 43303
dyn. visualization of human heart from US echograms *(Japanese)* 35009
ECG sigs., computer aided interp. 10244
elec. fan driven, heartbeat rhythm *(Japanese)* 18543
endocardial pots. mapping, time-space anal., antitachycardia surgery 18562
epicardial activation map form., interpolation methods comparison 18561
epicardial ECG, telemetry, inductive link-powered implanted device *(French)* 43310
ES appl., ECG sig. and echocardiographic image proc. 35135
ES for complex anal. of conventional 12-lead ECG 26436
exact coding, extensive Markov syst. 18571
excitation/body surface, computer heart models simul. 35125
exercise ECG proc. syst., obj. oriented formal specs. 35107
fetal ECG recording, removal of maternal ECG 43305
fetal QRS complex, detect. and classif. techs. 35091
filtering, simple FIR filters, post-filter reconstruction 35086
foetal ECG, antepartum, extraction/anal., PC instrum. 35087
foetal ECG, optimal enhancement, labour 35113
foetal ECG, pattern anal. and interp. of changes, fuzzy logic concepts 35136
foetal ECG, time-varying Wiener filtering, wavelet transform 35116
foetal ECG anal., real-time, Windows appl. 26377
foetal ECG data collection, 4-channel syst. 26399
foetal ECG monitor, abdominal, real-time multichannel, using digital sig. coprocessor 43299
foetal ECG sigs., matched filter template, iter. method 43290
foetal ECG/MCG, abdominal, seq. recording 35093
foetal/maternal heart rate recorder for ambulatory 18564
fragmented cardiac myopots., class. for fragmentation mapping syst. 35112
freq. anal. of ventricular fibrillation 35111
heart rate variability, 24 h ECG 10249
high resoln., heart rate variability, nonlin. dyn. 26374
high-gain, real-time, beat-by-beat, freq.-band adaptive filtering, optimisation 26416
His-bundle sig., timing meas. improvement, bioelec. model 10242
Holter monitoring, ventricular repolarisation duration 26426
human ECG proc. and anal., digital filters 18548
human heart, med. diagnosis, hybrid MCG/ECG approach 18449
IIR notch filter, transient suppression 35129
implantable cardioverter-defibrillator, arrhythmia recogn. strategies 26473
intracardiac electrogram, low power, class. using analogue VLSI 35123
intracardiac electrograms, data collection syst., pacemakers appl. 4286
intracavitary pot. data, visualisation on reconstructed surface 26370
intraventricular electrogram filtering, effect on sig. detect. 35082
inverse problem, inversion techs. perform. and patient anatomy 43293
ischaemic episodes determ. in real-time syst. 35104
ischemic disease detect., neural nets 18545
ischemic episodes detect., neural nets 18546
isoelectric intervals, noise props. comparison 35081
late pot. anal. in freq. domain 43292
lin./nonlin. adaptive sig. enhancement, comparative study 35114
line interf. subtraction filter for sig. av. ECG 35079
lossy sig. compression archit., single-chip implement., ECG data 29275
min. sampling rate in electrocardiology 26400
MIT-BIH database recordings, correl. dimens. differences 26443
monopolar voltages, phase response props. mapping 26369
morph. similar complexes, neural network compression 35115
MR exams., ECG acquisition, patient monitoring/seq. triggering 26395
multifactorial receiver operator, predictive accuracy characts. 35095
multiple lead recordings, HMM anal. 35106
multiresolution wavelet anal., ischaemia/reperfusion 35105
MULTIWAVE, multiresolution wavelet-based ECG data compression algm. 26409
myocardial infarction, heart rate variability anal. 26375
myocardial infarction, heart rate variability indices 26430
myocardial infarction, inferior, neural network ECG diagnosis 26389
myocardial infarction, previous, detect. by HF ECG 18557
myocardial infarctions, optimum detect., intracavitary probe 18553
myocardium, frog, elec-fluoresc. recording with opt. fibres 10243
noise reduction, real time software filters 35122
nonlin. deterministic syst. underlying elec. sig. of human heart 26414
nonstationary anal., Wigner-Ville transform and wavelets 26433
P wave delineation, parametric tech. 35131
P waves detect./class., Gabor wavelets 26441
parametric image display of ECGs 35110
paroxysmal atrial fibrillation episodes, self-monitoring in ambulatory patients, PAFHPI program 26434
pattern anal., chaos theory 10248
Q wave initiation ident. var., QT meas. contrib. 35092
QRS complex, fragmented ventricular depolarisations quantification 18556
QRS complex, high resoln. ECG, abnormal sigs. modelling 26420
QRS detect., robust and computationally efficient 26435
QT meas. techs., automatic, accuracy 35085
R-R interval., high resoln. meas. 35100
R-R interval of ECG, impedance cardiography noise filtering 35076
R-R intervals, point correl. dimens., sudden cardiac death 26373
rate variability, extrasystoles exclusion from anal. 26428
rate variability, unevenly-spaced, spectral anal. 10247
rhythm class., autoassociator struct. neural network 26390
RR-interval databases anal., obj.-oriented workstation 26427
RR-intervals, heart rate variability, quantitat. descriptions 35128
semi-quantitat. MBR syst. for ECG diagnosis 10239
sig. anal., review 35109
sig. averaging enhancement by jitter deconvolution, ECG appl. 35080
sig. compression, adaptive lin. prediction 43301
sig. detect. in time seq., HF low-amplit. sigs. 26415
sig. integral, time delay estimator, ECG sigs., perform./testing 4280
sig.-av., filter effects on anal. 18558
sig.-overlapping noise reduction method 35078
signal processing in cardiography, colloquium, London, UK (1995) 28228
sinoatrial node dysfunction patients, heart rate variability anal. 26425
sleep vegetative background, heart rate variability spectral anal. 26385
software package , automatic ECG anal. 43300
spectral anal., heart rate variability, quality improvement 35077
spectral anal., heart rate variability indices 26429
spectral anal., heart rate variability oscills. 26423
spectral anal. of heart rate without resampling 35099
spectral params. extraction, heart rate variability 35073
spectral turbulence anal., sig.-av. ECG, reproducibility 26422
spectral turbulence anal. reproducibility 26419

electrocardiography continued
spectrum estim., FFT/max. entropy methods 35101
surface pot. generator, digitally stored EKGs, PC syst. 26442
SVT/VT class. syst., neural-network based 26386
tachycardia differentiation, wide-QRS, neural network techs. 26387
thorax, computer model, ECG lead field calc. 26372
tracing storage, clinical database integrat. 35096
ventricular arrhythmia localisation, fragmented cardiac myopots., computer proc. 18563
ventricular cond. defects class. by cluster anal. 35102
ventricular electrograms, tachycardia/fibrillation discrim. 35155
ventricular evoked response, rate adaptive pacemakers appl. *(German)* 43360
ventricular fibrillation detect., time-freq. distrib. 43283
ventricular late pot. detect., bispectral anal. 26418
ventricular late pot. detect., fractal dimens. anal. 26413
ventricular late pots., freq.-domain anal., autoregressive models 26421
ventricular tachycardia patients, phase/group-delay characts. 18540
ventricular/sinus tachycardias discrim., median filtering value 4284
ventricular/supraventricular tachycardias discrim. 18576
wavelet transforms comparison for cardiac patterns recognition 43285
wavelet-based detect. of transients in biological sigs. 35071

electrocataphoresis *see electrophoresis*

electrochemical analysis
see also electrochemistry; voltammetry (chemical analysis)
bi-electrodes based electrochem. sens., voltage relax. meas. 9947
electrochem. sens. calib., genetic algms. *(German)* 17760
flip COB process charactn., no-clean flux, ionic residue 38108
pH sens., solid-state, Nafion-coated IrO_2 electrode 3821
pollution meas. and control, portable analyser *(Czech)* 26768
polypyrrole-based sens., selective electrochem. cation in aza crown ethers 17747
Ag-Zn batts., electrode metal carbonate coulometric determ. 44271
CO sens., polymer-electrolyte lamination, life-elongation 3916
InP p^+n and n^+p structs., electrochem. anal. solar cells appl. 13107
Li high energy batts., cathode material *(Japanese)* 19939
Ni-Cd batts., electrode metal carbonate coulometric determ. 44271
Si:Al,P, diffusion profiles under RTP conditions 21875
ZrO_2-Y_2O_3 electrochem. cell, energy conversion, gas sens. 42863

electrochemical batteries *see cells (electric)*

electrochemical electrodes
see also electrochemistry
acetylene black, pretreatment, electrochem., fuel cells 11284
alkali metal thermoelec. convertor, ceramic electrode characts. 20027
alkali metal thermoelec. convertor components, emissivities/thermal charactn. 20028
alkali metal thermoelec. convertors, Na recirculation wick design 20030
alkali metal thermoelec. convertors, WPt_3 electrode kinetics, mass transport 20029
alkaline secondary batts., cellulose separator props. 36551
automatic cathodic protection syst. control cct. 29425
batts., solid polymer electrolyte batts. 19949
bi-electrodes based electrochem. sens., voltage relax. meas. 9947
cement Cu direct electrorefining, anode support syst. 36799
copper dicyanoanthraquinone diimine thin film electrodes, H sens. 17976
direct methanol fuel cell, H_2 ref. electrode test method 11282
EHD pump, channels, nonstationary procs., modeling 44428
elec./hybrid vehicles, electrochem. capacitors charactn. 36715
electrochem. DC generator, fuel cells, Buran space syst. 10399
electrorefining proc., anode passiv. expts. 28192
environ. appls. 20502
gas turbine power plants, monolithic SOFC appl. studies 36019
gas-diffusion electrodes for PAFC, limiting current 5206
MCFC cathodes, porous, current interruption anal. 36583
MCFC power plant, gas recycling, perform. 10909
microfabricated heavy metal ion sens. 42779
Ni-Fe batt., operating conditions, perform. 5198
Ni-MH secondary batts., develop./commercialisation 5199
nonwoven batt. separator materials 36506
PAFC, methanol/ammonia/siloxane contamination 11272
Pb-acid automotive batts., thin pos. plate expts. 27898
Pb-acid valve regulated batt., standby telecom. appls. overview 19960
PEO-PC-$LiClO_4$ electrolyte batt., storage study 27895
pH sens., solid-state, Nafion-coated IrO_2 electrode 3821
phosphoric acid fuel cell, proton deficiency 19974
planar SOFC, thick film prod. methods 44312
planar SOFC field distribs., 3D math. model 44365
planar SOFC stacks, bipolar plate/manifold design tool 44368
planar SOFCs, stacking perform. expts., Denmark 44323
polyaniline-sulphur cpds., batt. electrode appls. 36575
polymer electrolyte PEM fuel cell expts. 27929
polymer-ceramic composite batt. electrolyte develops. 27884
radio-nuclide initiated chemilum. fueled secondary batt. 36513
sea water MHD ship thruster *(French)* 36616
small cell batt. separators, technol. develops. 36507
SOFC, air electrode degrad., microscopical charactn. *(Japanese)* 44341
SOFC, high temp., metals/alloys appl. 44382
SOFC, reduced temp., tape calendering 44313
SOFC, Stateil's program, stack testing, reforming 44327
SOFC, substr. planar type, develop., Fuji Elec. 44330
SOFC anode layers, vac. plasma spraying prod. method 44317
SOFC catalytic domains, proc. conditions perform. effects 44322
SOFC ceramic component mfg. optim. expts. 44318
SOFC ceramic materials, state-of-the-art 44372
SOFC cogen. plants, gas proc. study 43963
SOFC components, perovskite oxides combustion synthesis 44311
SOFC components prod., vac. plasma spraying appls. 44316
SOFC element fab., vac. plasma spraying proc. 44315
SOFC perform. eval., lab. techs. 11276
SOFC perform. improvement, electrolyte doping expts. 44319
SOFC power generation facility research project, Russia 44336
SOFC R&D programmes overview, USA 44349
SOFC syst. perform. anal. 44371
SOFC thin tape-cast YSZ, thermal expansion coeff. studies 44393
SOFC tubular cogen. syst. design 43964
SOFCs, methane-fuelled, fuel quality/coking suppression 44360
solid oxide fuel cell composite electrodes, cond. and polariz. resist. 44343
solid polymer electrolyte composite fuel cells, ion-exchange proc. 36584
surface-oxidised stainless steel electrodes, enzyme-based biosensors 9945

electrochemical electrodes continued
TiO_2:Bi PEC electrodes, props. expts. 27880
tubular SOFC, air electrode, multilayer slurry casting fab. 11273
60AgI-20Ag_2O-2B_2O_3-18V_2O_5 batts., internal resist./cathode content 11241
Ag-Zn batts., electrode metal carbonate coulometric determ. 44271
Al-O_2 secondary planar electrode batt. study 44268
Al-S secondary batt., technol. overview 44275
Al-air batts. develop., propulsion appls. 19947
$BC_{10}N$ neg. electrode matrices, Li secondary cells, electrochem. 11245
$BC_{10}N$-$Li_{0.44}$ neg. electrode matrices, Li secondary cells, electrochem. 11245
$BaPbO_3$ pos. plate additive effects, PB-acid batt. 11252
C electrode/polyacrylonitrile-based polymer electrolyte Li cells 5188
C fibres, vap.-grown, anode perform. in secondary Li-ion batts. 44280
C/MnO_2 composite primary cell electrode synthesis 11236
C/noble metal electrodes, cathodic O_2 reduction 11230
C-H_2SO_4 secondary cell electrodes, large discharge capacity 11263
CH_4/steam reforming kinetics, SOFC 27925
Cd/HgO primary cells, open-cct. voltage expts. 5177
Co-Pt alloys, ordered/disordered, PAFC, corros. test 5207
Cr5Fe1Y_2O^3 SOFC interconnectors, Cr vaporisation expts. 44324
n-$CuInSe_2$/polysulphide photoelectrochem. solar cells, spray-pyrolysis 27933
D/Pd cold fusion syst., excess heat prod. expts. 27886
Fe anodes, SOFC, direct methane oxid. 44359
$Fe(CN)_6$ based redox rechargeable thermocells *(Japanese)* 19945
$[Fe(CN)_6]^{4-/3-}$ redox couple thermochargeable galvanic cell *(Japanese)* 27916
GaP-Co-KOH-O_2 photorechargeable air batts. *(Japanese)* 19944
$Gd_2(Ti_{1-}Ru_x)_2O_{7-\delta}$, mixed cond., SOFC 44376
H storage alloys, electrochem. capacity, for Ni-MH batt. 36543
H_2/O_2 fuel cell, impregnated KOH matrix, H_2O mgt. 26556
H_2-O_2 SOFC, variable regime operation modelling 44363
H_2-O_2 SOFC-solid oxide reformer combined syst. 44335
InSnO electrodes for CdS/CdTe sintered solar cells 11295
K-C continuosly refuelable primary batt. 27893
K-$\beta''Al_2O_3$-K-Mo AMTEC, accelerated life testing 28018
$La_{0.7}Ca_{0.3}Cr\ O_3$/YSZ anodes, CH_4 oxid., SOFC 44358
$La_{0.8}Ca_{0.23}CrO_{3-\delta}$ anodes, SOFC, direct methane oxid. 44359
$La_{1-x}(Sr/Ca)_xCrO_{3-\delta}$ powder planar SOFC interconnectors 44314
$La_{0.85}Sr(0.15)MnO_3$-ZrO_2-Y_2O_3 syst., SOFC cathode material microstruct. 44379
$La_{1-x}Sr_xCoO_{3+\delta}$ SOFC electrodes, methanol oxid. expts. 36582
$La_{0.6}Sr_{0.4}Fe_{0.8}M_{0.2}O_{3-\delta}$ cathode cones, impedance spectrosc. 44387
$La_{0.7}Sr_{0.3}MnO_3$ porous cathode substrs., SOFC 11274
$La_{1-x}Sr_xMnO_3$ SOFC electrodes, react. mechanism expts. 44320
$La_{1-x}Sr_xMnO_3$ pos. electrode, elec. cond. 44386
$La_xSr_yMnO_3$ based SOFC cathode materials 44374
$La_{0.8}Sr_{0.2}MnO_3$/YSZ interface, O_2 reduction, SOFC air electrode 44385
$La_{0.9}Sr_{0.1}MnO_3$-YSZ cathodes, microstruct./resist., SOFC 44384
$La_{1-x}Sr_xMnO_{3\pm\delta}$-powders prod. by drip pyrolysis 37536
Li batt. develops. conf., Boston, MA, USA (May 1994) 36894
Li batt. electrode surfaces, Ar+CO_2 gas prepared 27881
Li, electrochem. intercalation, mineral clay materials, rechargeable batts. 19934
Li high energy batts., cathode material *(Japanese)* 19939
Li ion batts., high perform. neg. electrode materials *(Japanese)* 44305
Li ion rechargeable cells, solid polymer electrolytes 36553
Li polymer electrolyte secondary cell expts. 11247
Li rechargeable batts., electrolytes/anodes *(Japanese)* 19940
Li rechargeable batts., intercalation material for appl. of cathodic electrode 19935
Li rechargeable batts., polymer gel electrolyte/electrodes *(Japanese)* 5183
Li secondary batt. dimercaptan-polyaniline composite electrodes 27906
Li secondary batts. anode, electrochem. characts., graphitic struct. effect 36518
Li secondary cell C electrodes, electrochem. expts. 11261
Li solid polymer electrolyte thin film batt., current distrib. 44283
Li/CoO_2 secondary batt., electrochem. perform. 36555
Li/TiS_2 secondary cells, conductive glass solid electrolyte expts. 36516
Li/a-V_2O_5(-P_2O_5) secondary cells, cathode characts. 5193
Li-Al secondary cell electrode behaviour expts. 36554
Li-$Li_xMn_2O_4$ secondary batts., electrochem. anal. techs. 27899
Li-$LiMn_2O_4$ thin-film secondary batts. 36556
Li-MnO_2 batts., Li electrode surface charactn. 44266
Li-MnO_2 primary batt., dissolved Mn species *(Japanese)* 27892
Li-$SOCl_2$ batt. develop. 26674
Li-$SOCl_2$ primary batts., delay effect expts. 11231
Li-$SOCl_2$ prismatic primary cell charactn. expts. 27888
Li-$SOCl_2$ thin parallel plate batteries, space power appls. 27891
Li-Sn secondary cell electrode behaviour expts. 36554
Li-ion rechargeable batt., high energy dens. *(Japanese)* 5182
Li-ion rechargeable batts., devlop. 5201
Li-polymer rechargeable batt., PolyPlus 44276
LiAl foil compressed secondary anodes, cycling perform. 11253
LiAl-CuO primary batts., cathode material expts. 11237
LiAl-FeS batts., operation, elec. vehicle appls. 5203
$LiCoO_2$ MCFC porous cathode studies 11280
$LiCoO_2$ cathodes synthesis/perform., MCFC 5208
$LiFeO_2$ MCFC porous cathode studies 11280
$Li_2Mn_4O_9$ spinel anodes for lithium-ion batts. 5190
$Li_4Mn_5O_{12}$ spinel anodes for lithium-ion batts. 5190
$Li_{1-x}Ni_yCo_{1-y}O_2$ acid-delithiated insertion electrodes for batts. 5178
Li_2SO_4-Al_2O_3 electrolytes, intermediate temp. fuel cells 27926
$Li_{4/3}Ti_{5/3}O_4$ anode, rechargeable Li cell 11244
$Li_4Ti_5O_{12}$ spinel anodes for lithium-ion batts. 5190
Mg-AgCl batts., Mg alloy corros. rate studies 27890
MnO_2, chem. activated, batt. cathode 11233
B-MnO_2, discharge characts., H_2SO_4 electrolyte 11235
MnO_2, discharge characts., alkaline solns. 11246
β-MnO_2 electrodes, $ZnCl_2$ electrolyte, Leclanche cell 11234
MnO_2 primary batt. electrodes, chem./phase comp. 11239
MnO_2-Zn secondary cells, operation, develop. 5200
Mo electrodes, sputter deposition, sodium modulated, AMTEC 28015
Mo thin film AMTEC electrodes, lifetimes 28016
Na-$NiCl_2$ zebra batts., β-alumina electrolyte 5202
Na-$SeCl_4$ molten salt batt., math. modelling 19950
Na_xMNO_2 batts., solid polymer electrolyte batts. 19949
Na_xMnO_2 orthorhombic cathode material for secondary Na and Li polymer batts. 5189
$NaVO_3$:La_2O_3 electrodes, solid-state batts. 27889

electrochemical electrodes continued
$Nb_2O_5/LiCoO_2$ secondary cell electrodes, charge-discharge characts. *(Japanese)* 44278
Ni anodes, SOFC, direct methane oxid. 44359
Ni batt. electrodes, Mn substitution expts. 27885
Ni layered double hydroxides, electrosynthesis, Ni-Cd batts. 11266
Ni-Cd batt. perform. model 27920
Ni-Cd battery perform. modelling, neural net-based 27914
Ni-Cd batts., electrode metal carbonate coulometric determ. 44271
Ni-Cd pasted fibre plate batteries, LEO cycling perform. 26580
Ni-Cd rechargeable batt., high capacity/reliab. *(Japanese)* 5184
Ni-Cd sealed cells, fibre substrs., oxygen recomb. 5194
Ni-Cd space power sealed secondary cells, separator tests 43448
Ni-H_2 3.5 inch rabbit-ear terminal batt. 27909
Ni-H_2 aerospace cells, capacity fading 26577
Ni-H_2 batt. electrodes, KOH conc. interplay 27912
Ni-H_2 secondary batts., H_2 storage microencapsulation expts. 27897
Ni-H_2 secondary batts., reversal react. expts. 27904
Ni-H_2 secondary batts., terrestrial power syst. appls. 36071
Ni-H_2 secondary cells, LEO destructive life testing 11256
Ni-H_2 secondary cells, $MmNi_5$ Ni-Pd coated neg. electrodes 27907
Ni-H_2 secondary cells, Ni electrode discharge FEM model 27918
Ni-H_2 secondary cells, Zircar ZYK-15H separator fabric 27913
Ni-H_2 space power battery, gas diffusion electrodes 26582
Ni-H_2 spacecraft secondary batteries, electrolyte expts. 26578
Ni-H_2 spacecraft secondary batts., advanced separator expts. 26668
Ni-MH batt., high capacity *(Japanese)* 5185
Ni-MH sealed batts. for elec. vehicles, characts. *(Japanese)* 5327
Ni-MH_2 bipolar batt., design, perform. 19948
Ni-MH_x space power secondary batt. develops. 43447
Ni-Mh_2 bipolar elec. vehicle batt., cell design/eval. 36714
Ni-YSZ anode, $LaSrMnO_3$ cathode, SOFC 44380
Ni-YSZ cermet SOFC electrodes, kinetics expts. 44356
Ni-YSZ cermet anode, SOFC, methane reacts. *(Japanese)* 44342
Ni-YSZ cermet internal reforming SOFC electrodes, catalytic study 44357
Ni-YSZ porous cermets, microstruct./elec. cond., SOFC 44377
Ni-Zn alkaline batt., charge-discharge proc., additives effect *(Japanese)* 11242
NiO cathode loss reduction, MCFC, electrochem. treatment 11271
NiO spacecraft secondary batt. electrodes, fab. overview 26665
α-$Ni(OH)_2$ electrode material, stabilised, Ni secondary cells 5195
$Ni(OH)_2$ rechargeable batt. electrode characts. 36521
NiO(Li) MCFC porous cathode studies 11280
NiOOH secondary electrodes, act. material/additive distribs. 11255
$Ni_{64}Zr_{36}$, fiber anodes for Ni/hydride rechargeable batts. 11250
O_2 proton exchange membrane fuel cell electrodes, transportation appls. 44309
Pb-Ca automobile batts., reliab. studies 36540
Pb-PbCaSn secondary batts., pulsed current charging expts. 36524
Pb-PbSb secondary batts., pulsed current charging expts. 36524
Pb-Sn secondary batt. alloy pass. layers, XPS studies 11260
Pb-acid automotive batt., pos. plate energetics expts. 36533
Pb-acid batt. PbSb electrodes, PbO_2 form. kinetics 27900
Pb-acid batt. electrodes, citric acid effects 11259
Pb-acid batt. glass fibre separators, tech. compatibility/safety 36550
Pb-acid batt., high rate, fast charge, sealed constr. 44300
Pb-acid batt. pastes, mixing proc. study 36530
Pb-acid batts., Pb-Sb alloy electrochem. props. 11258
Pb-acid batts., operation, develop., commercial impact 5197
Pb-acid batts., substituted benzaldehydes, H_2 inhibitors 36542
Pb-acid high-rate fast-charge batt. design 36522
Pb-acid recombinant batts., neg. plate failure anal. 27901
Pb-acid sealed batts. for elec. vehicles, characts. *(Japanese)* 5327
Pb-acid secondary batt. electrode mfg., Bi refining/alloying 36563
Pb-acid secondary batt. plates, paste mfg. proc. 36529
Pb-acid secondary batt. plates, phase comp. expts. 11254
Pb-acid secondary batt. rubber separators, perform., selection 36532
Pb-acid secondary batt. separator technol. 36531
Pb-acid secondary batts., PbCaSn electrode passiv./corros. 36561
Pb-acid secondary batts., PbO_2 paste electrode behaviour 36574
Pb-acid secondary batts., PbSb grid corros. study 36564
Pb-acid secondary batts., PbSb:Bi grid age-hardening/corros. 36562
Pb-acid secondary batts., PbSbSn grid precip. hardening 36560
Pb-acid secondary batts., PbSn electrode pass. layers 36573
Pb-acid secondary batts., distributed/bulk power design concepts 44284
Pb-acid secondary batts., electrode reduction expts. 44282
Pb-acid secondary batts., failure modes experiences 36572
Pb-acid secondary batts., life extension designs 11251
Pb-acid secondary batts., pos. post chloride corros. 36565
Pb-acid secondary batts., state-of-charge prediction 11268
Pb-acid secondary cells, Pb alloy grid R&D overview 36558
Pb-acid secondary cells, grid/pos. act. mass interface studies 36557
Pb-acid standby power batts., life testing methods 19962
Pb-acid stationary telecom. batts., pos. grid studies 41621
Pb-acid submarine batts., gas evol./perform. assess. 36566
Pb-acid telecom. reserve batt. plant float voltage uniformity 43969
Pb-acid tubular pos. plate secondary cells, submarine appls. 44517
Pb-acid valve regulated batts., ageing effects tests 19963
Pb-acid valve regulated batts., standby telecom. power supply appls. 19959
Pb-acid valve regulated batts., telecom. appls. 19958
Pb-acid valve regulated secondary cells, PbCaSn grid expts. 36559
Pb-acid valve-regulated automotive batts., operating experiences 36570
Pb-acid valve-regulated batts., deep cycle appl. charging 44269
Pb-acid valve-regulated batts., glass fibre separator design 36569
Pb-acid valve-regulated batts., microfiber glass separator expts. 44285
Pb-acid valve-regulated batts., operational experience 36567
Pb-acid valve-regulated secondary cells, life testing 44292
Pb-acid valve-regulated test batt., float operation perform. 36568
Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
PbCaSn wrought tubular Pb-acid batt. grids 36523
PbO tubular electrodes, discharge behaviour, Pb-acid batt. 44281
PbO_2 electrodes, compressed Pb-acid cell, cycle life test 11267
Pt anodes, SOFC, direct methane oxid. 44359
Pt electrodes, ethanol oxid., $NaOH/Na_2CO_3$ media 11283
Pt/C electrodes, internally humidified PEM fuel cell 27931
Pt/GaAs electrode/particulate syst., electrophysical phenom. *(Korean)* 13264
PtW thin film AMTEC electrodes, lifetimes 28016
$RbNO_3$-Al_2O_3 electrolytes, intermediate temp. fuel cells 27926
$RuO_2 \cdot xH_2O$ electrochem. capacitors, charge storage mechanism 19927

electrochemical electrodes continued
Si photoelectrode, efficient reductive/oxidative current flow 38453
n-Si/LB layer photoelectrochemical solar cells 5220
n-Si/Pt colloidal particle electrode for photoelectrochemical solar cells 5221
$SnSO_4$ in H_2SO_4 electrolyte, electrochem., Pb-acid batt. 11264
Ti-KOH-O_2 photorechargeable air batts. *(Japanese)* 19944
TiN electrodes, sputter deposition, sodium modulated, AMTEC 28015
TiO_2, microporous electrode, PV study 28803
V redox batts., C-polypropylene composite electrode expts. 27894
V redox batts., graphite-felt electrode, overcharge expts. 11262
VC anodes, SOFC, direct methane oxid. 44359
Zn electrode discharge products, Ni-Zn batt. 5351
Zn secondary batts., organic corros. inhibitor studies 27903
Zn-AgO batt., Zn content determ., EDTA titration 44265
Zn-MnO_2 rechargeable Leclanche cells, elec. vehicle appl. 36514
Zn-air elec. vehicle batt. 44515

electrochemical machining *see electrolytic machining*

electrochemical polishing *see electrolytic polishing*

electrochemical sensors *see chemical sensors; electrochemical analysis*

electrochemistry
see also electrochemical analysis; electrochemical electrodes; electrolysis; electrolytic devices; electrophoresis; photoelectrochemistry
acetylene black, pretreatment, electrochem., fuel cells 11284
alkali metal thermoelec. convertors, WPt_3 electrode kinetics, mass transport 20029
alkaline secondary batts., cellulose separator props. 36551
batt. module heat generation, temp. rise modelling 44263
capacitive electro-chem. etch-stop tech. 30103
cement Cu direct electrorefining, anode support syst. 36799
chem. amplified resist, self-solubility accel. effect 1309
direct methanol fuel cell, H_2 ref. electrode test method 11282
elec. vehicle ultracapacitors, load levelling batt. appls. 36738
electrorefining proc., anode passiv. expts. 28192
environ. appls. 20502
hybrid elec. vehicles, AMTEC auxiliary power unit 28145
hybrid elec. vehicles, Pb-acid batt./PEM fuel cell syst. 36725
insulating liq. flow electrification, physicochem. explanation 15219
MCFC, indirect internal reforming, math. modelling 11281
MCFC power generation systs., dyn. perform. modelling 27644
metal adlayers on diamond:B thin-film electrodes, electrodeposition 30145
MHD ship thrusters, supercond. windings, screening techs. *(French)* 36617
Ni-Fe batt., operating conditions, perform. 5198
nonwoven batt. separator materials 36506
onium salt based liq. electrolytes, electrochem. props. 883
organic electroluminescent diode stabil. 23030
Pb-acid automotive batts., thin pos. plate expts. 27898
Pb-acid valve regulated batt., standby telecom. appls. overview 19960
PEC multiple nano contacts, solar energy storage appls. 27887
planar SOFC, 2D distributed param. perform. model 44362
planar SOFC, thick film prod. methods 44312
planar SOFC field distribs., 3D math. model 44365
planar SOFC stacks, bipolar plate/manifold design tool 44368
planar SOFCs, param. design optimisation 44364
planar SOFCs, stacking perform. expts., Denmark 44323
poly(3,4-dialkyl-1,6-phenyleneethynylene), opt. props., LED appls. 14320
poly(N-methyl-10,10-dimethylphenazasiline), electrochromic windows 22948
polyaniline film, magneto-opt. materials/devices 39503
polyaniline/anionic quinone multicolor expressible electrochromic display materials 28884
polymer electrolyte PEM fuel cell expts. 27929
polymer electrolytes reinforced by Celgard membranes, Li batt. appls. 36517
polymer-ceramic composite batt. electrolyte develops. 27884
principia mathematica for electronics/chem. analogies 21095
PVDF films, gas emissions, poling conditions influence 14039
quantum wells, Schottky contacts, selective electrochem. proc. 38398
quartz cryst. electrochem. microbalance, LF mode spatial localization 34710
small cell batt. separators, technol. develops. 36507
SOFC, electrocatalytic cathode domain impedance spectrosc. 5204
SOFC, worldwide R&D efforts 44346
SOFC anode layers, vac. plasma spraying prod. method 44317
SOFC catalytic domains, proc. conditions perform. effects 44322
SOFC ceramic component mfg. optim. expts. 44318
SOFC cogen. plants, gas proc. study 43963
SOFC component mfg., testing methods, mech. props. 44392
SOFC components, perovskite oxides combustion synthesis 44311
SOFC components prod., vac. plasma spraying appls. 44316
SOFC element fab., vac. plasma spraying proc. 44315
SOFC geometries 3D num. simul., computer-based 44367
SOFC monolith, reversed flow operation modelling/simul. 44366
SOFC perform. eval., lab. techs. 11276
SOFC perform. improvement, electrolyte doping expts. 44319
SOFC power generation facility research project, Russia 44336
SOFC R&D initiatives, Australia/New Zealand 44351
SOFC R&D programmes overview, USA 44349
SOFC stack modelling, num. simul. methods 44361
SOFC thin tape-cast YSZ, thermal expansion coeff. studies 44393
SOFC thin tape-cast YSZ materials, Young's modulus expts. 44391
SOFC tubular cogen. syst. design 43964
SOFCs, methane-fuelled, fuel quality/coking suppression 44360
solid polymer electrolyte composite fuel cells, ion-exchange proc. 36584
solid polymer electrolyte composite fuel cells, precip. proc. 36585
stationary batts., diagnostics/perform. prediction approaches 19956
thermoelec. effects, nonconventional thermogalvanic cells 27882
water soluble fluxes, SIR/electrochem. migration testing 28438
Ag-Zn batts., electrode metal carbonate coulometric determ. 44271
Al scrap electrorefining, chloride melts-based 28193
Al-O_2 secondary planar electrode batt. study 44268
Al-S secondary batt., technol. overview 44275
$BC_{10}N$ neg. electrode matrices, Li secondary cells, electrochem. 11245
$BC_{10}N$-$Li_{0.44}$ neg. electrode matrices, Li secondary cells, electrochem. 11245
C/noble metal electrodes, cathodic O_2 reduction 11230
C-H_2SO_4 secondary cell electrodes, large discharge capacity 11263
Cd/HgO primary cells, open-cct. voltage expts. 5177
Cr5Fe1Y_2O^3 SOFC interconnectors, Cr vaporisation expts. 44324
Cu electroless deposition on metals/metal silicides, ULSI interconnects 28790
H storage alloys, electrochem. capacity, for Ni-MH batt. 36543
H_2-O_2 SOFC, variable regime operation modelling 44363

electrochemistry continued
H_2-O_2 SOFC-solid oxide reformer combined syst. 44335
HgCdTe, surface passiv. by electrochem. proc. *(Korean)* 30110
ITO windows, polypyrrole-latex coatings, electrochem./spectroelectrochemical studies 39482
n-InP, Schottky contacts, in situ electrochem. proc. 38399
p-InP(100), anodic passiv. in $(NH_4)_2S_x$ soln. 13387
$La_{1-x}(Sr/Ca)_xCrO_{3-\delta}$ powder planar SOFC interconnectors 44314
$La_{1-x}Sr_xCoO_{3+\delta}$ SOFC electrodes, methanol oxid. expts. 36582
$La_{1-x}Sr_xMnO_3$ SOFC electrodes, react. mechanism expts. 44320
Li batt. electrode surfaces, Ar+CO_2 gas prepared 27881
Li polymer electrolyte secondary cell expts. 11247
Li secondary batt. dimercaptan-polyaniline composite electrodes 27906
Li secondary batts., cycling capacity determ. studies 27902
Li secondary cell C electrodes, electrochem. expts. 11261
Li/CoO_2 secondary batt., electrochem. perform. 36555
Li/TiS_2 secondary cells, conductive glass solid electrolyte expts. 36516
Li/a-V_2O_5(-P_2O_5) secondary cells, cathode characts. 5193
Li-Al secondary cell electrode behaviour expts. 36554
Li-$Li_xMn_2O_4$ secondary batts., electrochem. anal. techs. 27899
Li-$LiMn_2O_4$ thin-film secondary batts. 36556
Li-$SOCl_2$ primary batts., delay effect expts. 11231
Li-$SOCl_2$ prismatic primary cell charactn. expts. 27888
Li-$SOCl_2$ thin parallel plate batteries, space power appls. 27891
Li-Sn secondary cell electrode behaviour expts. 36554
LiAl foil compressed secondary anodes, cycling perform. 11253
LiAl-CuO primary batts., cathode material expts. 11237
$LiCoO_2$ MCFC porous cathode studies 11280
$LiFeO_2$ MCFC porous cathode studies 11280
$Li_2Mn_4O_9$ spinel anodes for lithium-ion batts. 5190
$Li_4Mn_5O_{12}$ spinel anodes for lithium-ion batts. 5190
$Li_{1-x}Ni_yCo_{1-y}O_2$ acid-delithiated insertion electrodes for batts. 5178
$Li_4Ti_5O_{12}$ spinel anodes for lithium-ion batts. 5190
$MmNi_5$ hydrogen storage alloys, surface treatment, metal hydride batts. 11249
B-MnO_2, discharge characts., H_2SO_4 electrolyte 11235
β-MnO_2 electrodes, $ZnCl_2$ electrolyte, Leclanche cell 11234
MnO_2 primary batt. electrodes, chem./phase comp. 11239
MoO_3 film-cathodes in Li microbatteries, electrochem. features, growth conditions 5180
$Nb_2O_5/LiCoO_2$ secondary cell electrodes, charge-discharge characts. *(Japanese)* 44278
$(NdDy)_{15}Fe_{78.3}Al_{0.7}B_6$, sintered, electrochem. hydrogenation 6972
$(NdDy)_{15}Fe_{67}Co_5V_4Al_2B_7$, sintered, electrochem. hydrogenation 6972
Ni batt. electrodes, Mn substitution expts. 27885
Ni-Cd batt. satellite power systs., orb. mgt. strategy 26609
Ni-Cd battery perform. modelling, neural net-based 27914
Ni-Cd batts., electrode metal carbonate coulometric determ. 44271
Ni-Cd common vessel monoblock secondary batt., perform. testing 44277
Ni-Cd pasted fibre plate batteries, LEO cycling perform. 26580
Ni-Cd space power sealed secondary cells, separator tests 43448
Ni-H_2 GEO spacecraft batts., 26% KOH electrolyte tests 26664
Ni-H_2 LEO spacecraft batt. pulse life testing 26662
Ni-H_2 aerospace cells, capacity fading 26577
Ni-H_2 batt. designs, spacecraft power systs. 26572
Ni-H_2 cells, storage-induced capacity loss 27911
Ni-H_2 secondary batts., H_2 storage microencapsulation expts. 27897
Ni-H_2 secondary batts., reversal react. expts. 27904
Ni-H_2 secondary batts., terrestrial power syst. appls. 36071
Ni-H_2 secondary cells, LEO destructive life testing 11256
Ni-H_2 secondary cells, $MmNi_5$ Ni-Pd coated neg. electrodes 27907
Ni-H_2 secondary cells, Ni electrode discharge FEM model 27918
Ni-H_2 secondary cells, Zircar ZYK-15H separator fabric 27913
Ni-H_2 space power battery, gas diffusion electrodes 26582
Ni-H_2 spacecraft secondary batteries, electrolyte expts. 26578
Ni-H_2 spacecraft secondary batts., advanced separator expts. 26668
Ni-MH_x space power secondary batt. develops. 43447
Ni-YSZ cermet SOFC electrodes, kinetics expts. 44356
Ni-YSZ cermet internal reforming SOFC electrodes, catalytic study 44357
NiO cathode loss reduction, MCFC, electrochem. treatment 11271
NiO spacecraft secondary batt. electrodes, fab. overview 26665
$Ni(OH)_2$ rechargeable batt. electrode characts. 36521
NiO(Li) MCFC porous cathode studies 11280
NiOOH secondary electrodes, act. material/additive distribs. 11255
O_2 proton exchange membrane fuel cell electrodes, transportation appls. 44309
Pb-Ca automobile batts., reliab. studies 36540
Pb-PbCaSn secondary batts., pulsed current charging expts. 36524
Pb-PbSb secondary batts., pulsed current charging expts. 36524
Pb-Sn secondary batt. alloy pass. layers, XPS studies 11260
Pb-acid automobile starter batt., computer model 36541
Pb-acid automotive batt., pos. plate energetics expts. 36533
Pb-acid batt. PbSb electrodes, PbO_2 form. kinetics 27900
Pb-acid batt. electrodes, citric acid effects 11259
Pb-acid batt. glass fibre separators, tech. compatibility/safety 36550
Pb-acid batt. manufacture, scrap Pb recycling 36535
Pb-acid batt. pastes, mixing proc. study 36530
Pb-acid batts., Pb-Sb alloy electrochem. props. 11258
Pb-acid high-rate fast-charge batt. design 36522
Pb-acid recombinant batts., neg. plate failure anal. 27901
Pb-acid sealed maint.-free batt., Boeing 777 appl. 43444
Pb-acid secondary batt. electrode mfg., Bi refining/alloying 36563
Pb-acid secondary batt. plates, paste mfg. proc. 36529
Pb-acid secondary batt. plates, phase comp. expts. 11254
Pb-acid secondary batt. rubber separators, perform., selection 36532
Pb-acid secondary batt. separator technol. 36531
Pb-acid secondary batt. state-of-charge, float current monitoring 44303
Pb-acid secondary batts., PbCaSn electrode passiv./corros. 36561
Pb-acid secondary batts., PbO_2 paste electrode behaviour 36574
Pb-acid secondary batts., PbSb grid corros. study 36564
Pb-acid secondary batts., PbSb:Bi grid age-hardening/corros. 36562
Pb-acid secondary batts., PbSbSn grid precip. hardening 36560
Pb-acid secondary batts., PbSn electrode pass. layers 36573
Pb-acid secondary batts., distributed/bulk power design concepts 44284
Pb-acid secondary batts., electrode reduction expts. 44282
Pb-acid secondary batts., failure modes experiences 36572
Pb-acid secondary batts., life extension designs 11251
Pb-acid secondary batts., pos. post chloride corros. 36565
Pb-acid secondary batts., state-of-charge prediction 11268
Pb-acid secondary cells, Pb alloy grid R&D overview 36558

electrochemistry continued
Pb-acid secondary cells, grid/pos. act. mass interface studies 36557
Pb-acid standby power batts., life testing methods 19962
Pb-acid stationary telecom. batts., pos. grid studies 41621
Pb-acid submarine batts., gas evol./perform. assess. 36566
Pb-acid telecom. reserve batt. plant float voltage uniformity 43969
Pb-acid tubular pos. plate secondary cells, submarine appls. 44517
Pb-acid valve regulated batts., ageing effects tests 19963
Pb-acid valve regulated batts., standby telecom. power supply appls. 19959
Pb-acid valve regulated gel batts., standby power appls. 19961
Pb-acid valve regulated secondary cells, PbCaSn grid expts. 36559
Pb-acid valve-regulated automotive batts., operating experiences 36570
Pb-acid valve-regulated batts., PV telecom. power supply perform. 41629
Pb-acid valve-regulated batts., deep cycle appl. charging 44269
Pb-acid valve-regulated batts., glass fibre separator design 36569
Pb-acid valve-regulated batts., microfiber glass separator expts. 44285
Pb-acid valve-regulated batts., operational experience 36567
Pb-acid valve-regulated batts., telecom. UPS appls. 41628
Pb-acid valve-regulated secondary batt., elec. vehicle appl. 36538
Pb-acid valve-regulated secondary cells, life testing 44292
Pb-acid valve-regulated telecom. batts., maint. costs reduction 36571
Pb-acid valve-regulated telecom. batts., ratiometric reliab. meas. 41631
Pb-acid valve-regulated test batt., float operation perform. 36568
Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
PbCaSn wrought tubular Pb-acid batt. grids 36523
α-PbO film, electrochem. anodic oxid. 1273
Si, etching mechanism and band model in aq. KOH 13388
Si, flow pattern defects, nonagitated Secco etching 1023
Si porous layers, electron powder ribbon polycryst. plates 20662
Si, porous layers, microstruct., spectrosc. ellipsometry obs. 22214
Si porous layers, passiv., FT IR monitoring 22251
Si, porous/electrochem. etched, enhanced Raman scatt. 22162
Si, porous/light emitting, opt. response, photoacoustic spectrosc. 1238
n-Si(111), electrolytic hydrogenation, FT IR spectrosc. 38558
Si(111)/soln. interfaces, electrochem. STM/AFM imaging 38588
$SnSO_4$ in H_2SO_4 electrolyte, electrochem., Pb-acid batt. 11264
TiO_2 films, thermally form., semicond. props. 29866
V redox batts., C-polypropylene composite electrode expts. 27894
V redox batts., graphite-felt electrode, overcharge expts. 11262
$YBa_2Cu_3O_{7-\delta}$/polypyrrole sandwich struct., reversible supercond. modulation 1616
Y_2O_3-ZrO_2-Al_2O_3 composite planar SOFC electrolytes 27923
Zn secondary batts., organic corros. inhibitor studies 27903
Zn-AgO batt., Zn content determ., EDTA titration 44265
Zn-Br_2 elec. vehicle secondary batts. 44516
ZrO_2:Y_2O_3 SOFC electrolytes, high temp. ageing expts. 44321

electrochromic devices
see also electrochromic displays
conference, optical materials for energy efficiency, Freiburg, Germany (April 1994) 28209
phthalocyanines, wavelength selective shutters, smart windows 14514
poly(N-methyl-10,10-dimethylphenazasiline), electrochromic windows 22948
poly(N-methyl-10,10-dimethylphenazasiline)/ITO electrode electrochromic window syst. 22932
polymer solid electrolyte electrochromic device 22947
WO_3/lithium-polymer electrolyte/V_2O_5 struct., electrochromic devices 1742

electrochromic displays
polyaniline/anionic quinone multicolor expressible electrochromic display materials 28884
see-through head mounted display, electrochromic mirror *(Japanese)* 34646

electrochromic windows *see electrochromic devices; optical windows; solar control films*

electrochromism
multimode reson. cavity LED, organic semicond., colour var. 1824
poly(3-buthyl-co-3,4-dibutylthiophene) copolymers, synthesis and electrochromism 37538
poly(N-methyl-10,10-dimethylphenazasiline), electrochromic windows 22948
polyaniline/anionic quinone multicolor expressible electrochromic display materials 28884
ITO windows, polypyrrole-latex coatings, electrochem./spectroelectrochemical studies 39482
NiO electrochromic films, sputtering atm. H_2 content effects *(Japanese)* 37489
SnO_2 thin films, nanocrystalline, casting 13073
WO_3 thin films, nanocrystalline, casting 13073
ZnO thin films, nanocrystalline, casting 13073

electrodeposited coatings *see electrodeposits*

electrodeposited films *see electrodeposits*

electrodeposited layers *see electrodeposits*

electrodeposition
see also electrodeposits; electroplating
composite layers containing radioact. components 34846
LIGA products, appl. specific materials 30505
metal adlayers on diamond:B thin-film electrodes, electrodeposition 30145
microfabricated heavy metal ion sens. 42779
polypyrrole lines, lateral deposition, scanning electrochem. microscopy 28879
polypyrrole synthesis, Cu metallization 1294
quartz cryst. electrochem. microbalance, LF mode spatial localization 34710
Au electrodeposited thin films, X-ray masks, stress/structural change 6701
Au electrodeposition/electroless deposition, porous Si 20916
$CaWO_4$ film, room-temp. electrochem. prep., photoluminesc. props. 28794
CdS thin films, chem. bath deposition, impurity phase 12135
CoP films, simultaneous electroless plating/electrolysis, mag. props. 6939
Cr-Cu-Ni-Au film syst., electrolytic deposition, temp.-time stabil. 6659
Cu electrodeposition/electroless deposition, porous Si 20916
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
$CuGa_xIn_{1-x}Se_2$ electrodeposited thin films, prep. and charact. 389
GaAs, electronic passiv., electrodeposition of organic mols. containing reactive S 30070
InP films, prep. by PH_3 treatment of electrodeposited In layers 37463
Ni electrodeposition/electroless deposition, porous Si 20916
Ni, nanocrystalline, elec., mag., mech. props. 39127
Si, electrocatalysis, opt./elec. props., solar cell appls. *(German)* 38243
Si electrostatic wobble motor, miniature gear reduction unit 36205
$Zn_{1-x}Hg_xSe$, electrochem. deposition, EPMA, XRD 28802
ZnSe thin films, chem.-bath deposition, material charactn. 28793

electrodeposits
see also electroplated coatings
microfabricated heavy metal ion sens. 42779
CdTe electrodeposited films, SCLC 29862
CdTe electrodeposited films, grain boundaries, opt. meas. 28805
Co film, mag. force microscope appl. 9875
Cu TAB conductors, lead frame materials, wrought and electrodeposited foils 29701
Cu, metallization of polypyrrole 1294
FeCo films, mag. force microscope appl. 9875
FeNi film, mag. force microscope appl. 9875
ZnSe thin films, chem.-bath deposition, material charactn. 28793

electrodes
see also anodes; cathodes; earth electrodes; electrochemical electrodes; microelectrodes; welding electrodes
2-D soln. methods, axisymmetric systs. perturb. 31706
3D point-plane elec. field anal., Fredholm integral eqns. 40181
16.5 MW med. LINAC pulsed power supply ceramic D thyratron 34983
50 kA coaxial orient. independent ignitron, pulsed power appls. 36413
acousto-optic tunable filters, electro-optic tuning and sidelobe control 22966
AFIT multiplexed multi-electrode array and implant. package for neural recording and stimulation 35089
ambulatory ECG, amplif. electrode, noise immunity 26397
arc furnace graphite electrodes, electron detachment studies *(German)* 11481
barbed plate ESP, particle motion meas. 7922
barbed plate-to-plate precipitator, elec. field/space charge, 3-D model 15249
bioimpedance act. electrode in vivo meas. 10231
bright DC-type plasma display panel, four electrodes *(Japanese)* 34643
cable insulation, void discharge deterioration, semicond. layer effect *(Japanese)* 43771
charged dielec./metal thin films, peeling ESD 7901
chem. indust. arc furnaces, phase voltage const. component studies 28196
closed cycle plasma MHD generator ducts, friction/heat loss 27970
closed cycle plasma MHD generator ducts design 20018
closed spaced thermionic converter, isothermic electrodes 27989
compact discharge electrodes design for pumped lasers 7534
crit. corona/avalanche threshold, nonuniform air-gaps 13976
current amplifying image sens., buried electrodes *(Japanese)* 3880
cylindrical electron beams of arbitrary cross sect., shaping 23517
DBR LD wavelength conversion device 23196
DC arc furnace control, simul. *(German)* 44590
direct corona imaging, dielec. transparency 6898
distributed electrodes applicator for hyperthermia, theoretical approach 43353
DNA, electrostatic stretch-and-positioning appls. 40217
domestic heating syst. thermionic converter design 28176
dry electrodes, wrist pulse/respiratory sigs. detect. appl. 10233
EHD augmented condensation heat transfer expts. 20021
EHD heat transfer/fluid flow enhancement mechanism 44425
electret motors, EM force calc. methods 44085
electrostatic assisted atomiser, nonwetting, catalytic melt spraying 7921
electrostatic particulate materials bulk transport valve 7917
electrostatics, phys. and geom. basis 31718
EM flowmeter, multiple poles and electrodes 4013
EM launcher electrode/insulator degrad. studies 15332
ESP, particle charging, unipolar ionic bombard., AC elec. field 7925
excimer laser discharge electrode design techs. 31182
explosive-driven MHD generators, perform. enhancement 11304
fixed wand electronic flame-off, ball bond form., wire bonding proc. 6445
flat mirror energy analyser, end electrodes 43029
gas lasers with RF excitation, electrode dielec. coating effects 14714
GIS charged conducting particles, motion meas. 11205
graphite electrode DC arc furnace, solid waste treatment 28165
hard rock fragmentation, pulsed power plasma blasting tech. 36811
high current/energy closing switches. railgun appls. 31746
high-power elec. double layer capacitors, develop. *(Japanese)* 5170
HV apparatus electrode elec. field calc., charge simul. method 19577
HV switchboard busbars, travelling disturbance arc tests 19888
indust. two-phase flow conc., capacitance transducer meas. *(Chinese)* 34734
InSnO electrodes for opt. polaris. and phase modulator 30869
insulation demo. life-test duration determ. 28428
interdigitated high speed MSM photodetector/receiver design 34517
LDPE insulation diagnosis, pattern recogn. ES-based 6895
low energy electron dust particle removing syst. 7915
Marx generator-based EMP simulator pulsed power supply 36264
metal halide lamps, electrode temp. 28162
metal-electrolyte interface, nonlin. opt. response, DEFT 15139
metallized electrode capacitors, nuc. fusion, capacitor banks 36631
microorganisms, pulsed HV discharge, chem. species form. 6891
microwave tubes, develop. hist. and elec. props. *(German)* 6505
mineral oils EHD, DC cond. expts. 2165
MLC prod., advanced dielec. powders 5912
multi-diode thermionic converter, feasibility expts. 28028
multielectrode DFB laser self-pulsation charactn. 31327
multielectrode DFB lasers, transfer matrix method based large-sig. dyn. model 1995
multielectrode semicond. laser broadband freq. generation 7668
neuromuscular stimulation electrodes, elec. transients/corros. responses 18603
NKK DC arc furnaces, technol. *(Japanese)* 20131
NLC phase device modelling 39497
nonaxisymmetrical X-ray image intensifiers design 18411
opp. charged electrode pair, Rayleigh wave excitation 13989
opt. surface profile meas. of elec. contact 892
paediatric/infant apnoea monitoring, electrodes comparison 10237
PD pattern recogn., neural network 22650
PD pattern recogn. for model electrodes 3972
permitt. meas. using unguarded disc electrodes, capacitance correction 1504
planar electron beams, optics, shaping electrodes calc. 2184
planar-geom. long. electrostatic undulators, calc. 14979
power syst. lightning protection, laser-generated plasma-based 27261
pulsed corona discharge ion cloud, motion modelling 7898
pulsed gas laser discharge, inductance and resist. effects 23101
pulsed plasma generator, discharge chamber operating conditions 19765
pulsed power capacitor dielec. eval., ringing conditions 36499
quartz cryst. resonator stabil., electrode metallization barrier layer 39075
RADAN SEF-303 pulsed power source, compact accelerator appls. 36320
railgun accelerator, structural response num. simul. 15322

electrodes continued
railgun armature plasma brush electrode materials 15334
railguns, composite electrodes, crit. current dens. 15364
repetitive pulsed power spark gaps, breakdown recovery expts. 36457
shaping electrodes in axisymmetrical electron-beam optics, calc. 15242
short-pulse water breakdown power technol., electrode phenom. 36259
SLM, wavefront curvature control 30991
small body launching, plasma armature railgun 15268
space power thermionic convertors, close-spaced, demonstration tests 18748
space power thermionic electrodes, CVD diamond film appls. 18745
spark gap pulsed power switch, electrode perform. tests 36411
spark ignition engines, flame initiation/stretch, heat transfer 19532
submicron fab. technol. GHz unidirectional SAW transducers 30636
thermionic CHP convertors, optimal perform. tests 28029
thermionic converter, interelectrode gap neg. resist. 28025
thermionic converters, 1D universal TOR model 28032
three-electrode excimer laser, middle control electrode 39672
three-phase arc furnaces, operational reactance calcs. *(German)* 11480
trapped energy resonators, transversely varying thickness modes anal. 30607
travelling wave panel electrode design, computer user interface 15248
XLPE cable insulation, water tree DC component generation *(Japanese)* 19296
Ag-Ni laminated electrodes for quartz piezoelec. resonators 39076
Ag-electrode based gas sens. 9959
Al, electron conc. determ., Fabri-Perot cavity 3759
Au-electrode based gas sens. 9959
$BaTiO_3$ thin film capacitor dielec. props., Pt bottom electrode 38050
$BaTiO_3$ thin film capacitor dielec. props., W_2N-W bottom electrode 38050
CO_2 large-vol. sub-atmos. pulsed laser, segmented ballasted electrodes 31168
Cu electrolytic refining, energy consumption expts. 11495
GaAs wide-bandwidth MSM photodiode, extrinsic freq. response 39570
GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
Hg liq. jet pulsed power supply opening switch tests 36261
InP-InGaAs high-speed heterojunction phototransistors, electrode 14611
$La(Sr)CrO_3$, sintered bar electrodes, MHD generator appl. 5232
$LiNbO_3$ EO modulator, intens. modulation by free space radiation coupling 7397
$LiNbO_3$ high-speed electro-optic modulator, travelling wave electrode optimisation 1735
$LiNbO_3$, periodically poled, 1.064-μm-pumped opt. parametric oscillator 23382
LiNbO3 low-loss SAW dispersive filters, low sidelobe level in compressed sig. 39542
Mo electrodes for vac. breakdown phenom. in TWTs, optim. of surface roughness *(Japanese)* 6513
PZT piezoelec. torsional actuator, high dielec. const. ceramics 39112
Pt/Ti electrode, PZT devices, annealing 39116
Pt-RuO_2 hybrid electrodes for PZT thin film capacitors 30594
RuO_2 reactively sputtered films, ferroelec. capacitor electrodes 20920
SF_6 GIS, breakdown mechanism of gap, small arc current 19897
Si hemispherical-grained storage electrodes for high-dens. DRAMs 12544
$SrTiO_3$ film DRAM stacked capacitor technol., MOCVD fab. 21592
Ta_2O_5 thin film capacitors for 1 Gbit DRAM 21593
$Tl_2Ba_2Ca_1Cu_2O_x$ electrode based $Ba_{1-x}Sr_xTiO_3$ tunable capacitors 6356
WO_x thermionic energy converter collector electrode expts. 28027
Zr/O/W Schottky emitter eval. for STM microcolumn appls. 12987
ZrO_2 miniature gas sens., air-fuel mixture ratio meas. appls. 34610

electrodynamics
see also electron beams; electron optics; electron tubes; ion beams; ion optics
airborne dust elec. mobility meas. and eqpt. 40261
charged particle motion, precise integrator, Runge-Kutta method 40260
charged-particle beam in EM field, oscill. 40264
cyclotron autoresonance accelerator, electron beam quality 4032
dielectric oil, high stress aggregation, electron transport 13935
electron beam crossing inhomog. EM wave, stimulated radiation emission 40267
electrons, finite trajectory, Cerenkov radiation 10093
ellipsoidal charged particles bunch, dyn. 2183
EM fields and screens, diffusion interact. procs. anal. 31698
EMP simulators, HV pulsed power generators design, Ukraine 36268
ERM spring drive, no-load dyn. modelling 5242
evanescent EM waves, ang. momentum 2162
flexible overhead power conductors, reclosure mech. effects 19312
free-piston Stirling engine/lin. alternator, electrodyn. anal. 28039
gyrotron TWA, stabilization of absol. instabilities 21855
Hamiltonian theory of gyrotron and CARM 40257
Harwell thermomech. generator, electrodyn. anal. 28040
high-power Cherenkov device, superdimens. slow wave struct., simul. 29812
hybrid plasma-cavity slow-wave struct. wideband power amp. 1008
impedance antenna synthesis 2317
induction machines, rotor-air gap boundary layer, equiv. ccts. design 44037
induction machines, rotor/air-gap boundary layer, equiv. ccts. *(Russian)* 44033
inhomog. media, local plane-layered approx. conditions 2199
insulated wire at interface of two dielec. media, acting force determ. 15245
ion flow in 3D elec. field, charge dens. distrib. 31737
Josephson contacts, nonlin. vortices dyn. 30797
levitation, slowly moving bodies, vector field pot. 28118
Maglev multilayer ferromag. track, levitation characts. 20090
maglev supercond. magnets, power dissipation, vibr.-induced disturbances 1636
MHD generator, segmented Faraday channel, Q1D electrodyn. part 20012
moving charges, elec. field penetration into hollow conducting sphere 31729
moving elec. charge interact. law *(Russian)* 31716
moving electrodynamic tethers, mag. antennas, fields, currents 23894
multiconductor bundle power lines, short-cct. mech. loads 19313
neg.-mass instabil., nonsymmetrical perturb. 7911
nonperiodic struct. with symm. C_{∞}, energy charact. 15589
open periodic structs., weak-relativistic electron beam diffr. radiation 40258
phased antenna array charact., effect of atmos. precip. 31985
primary measuring transducers based on retardation systs. 42762
propag. surface waves sustained microwave discharge, electron energy distrib. fn. 966
pulse electrodynamic drive, transient proc., theory 7934
rectifier converters, opposed stars connection, anal. 11124
S-band lin. accelerator, electron bunch generation 4046
separators, LIM based, metallic waste proc. 7937
single shot charge analyzer for laser-prod. plasma 25747

electrodynamics continued
stochastic extension of synchronism time 7910
substation flexible overhead busbars, mech. calc. algm. 19916
switchgear contact systs., electrodynamic forces compensation 19885
thin-strip capacitive nets, review 458
travelling wave panel electrode design, computer user interface 15248
twin particle syst., trajectories estim., superpotentials 7912
vibrators, computational aspects 19925
Vlasov kinetic eqn., SCF 31727
wake fields, boundary element anal., Kirchhoff's integral eqn. 23515
Si photocontrolled microwave modulator, atten. drop kinetics 589
electrodynamometers *see dynamometers*
electroencephalograms *see electroencephalography*
electroencephalography
see also bioelectric potentials; biomagnetism; brain
AFIT multiplexed multi-electrode array and implant. package for neural recording and stimulation 35089
alpha, theta, alpha-theta coma, clinical outcome, serial recordings 18549
Alzheimer's disease, EEG-based, neural-net predictive class. 18551
anaesthesia trials, patient awareness state monitoring via neural net interp. of EEG sigs. 43318
autoregressive spectral array for graphical display 18572
background, principal-component localisation of sources 18541
biomedical sig. proc., pattern recogn. *(German)* 18429
brain activity, spatial/temporal imaging, visual selective attention 10234
brain maturation estim., neural classifier 35127
brainmapping/evoked pot. studies, calib. assess. 43280
change points, max., posteriori estim. 26382
chaos and fractal props. exam. *(Japanese)* 26402
Cocolyzer brain fns. analyzing syst. 10246
corpus callosum surgery, intraoperative EEG recording 4275
corrupted sigs., minimization of EOG artefacts, neural net 43298
diagnostic use of endogenous and exogenous EM fields 26407
dipole localization bounds for head models 43312
electrocortical generators posn. estim. via subspace techs. 43320
electrophysiological sig. parametrisation/feature extraction, trends 26394
epicortical electrocorticogram, restoration from spatially sampled EEG 43295
epilepsy, time-freq. anal. of electrophysiology sigs. 43282
epileptic EEG, low-dimens. chaos 18552
evoked pot. estim., multilayer perceptron appl. 18547
extraction syst., neural nets and stat. anal. 35138
fast algms. for running wavelet anals. 32519
feature selection, VQ/genetic algms. 43313
head spherical model, pot. distrib. due to dipole sources, num. calc. 26378
K-complex detect., multilayer perceptrons and recurrent networks 18544
knowledge-directed EEG sig. anal., recurrent context-learning neural networks 8246
Motorola's DSP56001, med. sig. proc. appl. 4258
multichannel biomedical data acquisition, analog opt. link in SMT 17690
neonatal av. evoked pot., sig. enhancement by neural network 35134
neural network based artefact detect. syst. 35133
neurophysiology lab., QA study, EMG/EEG 4281
predictability, adequacy of nonlin. forecasting methods 26405
quantitat. anal. in intracarotid amobarbital procedure 4278
recordings, dissimilarity measure, nonlin. dyn. syst. approach 26381
respiratory-related evoked pots. ident. 43286
rested/sleep-deprived EEG discrim. by ANN 43317
sig. anal., parametric methods eval. 10251
signal analysis, ill-defined processing target 26383
single event related evoked pots., segmented matched filtering 35074
sleep EEG sig. proc., ANN appl. 35090
spikes, automated neural net detect., wavelet preprocessing 43284
spikes source localisation, elec. dipole model 10250
time-freq. anal. of EEG series 43296
topographic slow wave activity, demented patients/normals 18550
video/EEG long-term monitoring and behaviour 26393
waking/sleep, auditory evoked mag. fields 18450
wavelet de-noising and evoked response pot. ident. 35070
electroendosmosis *see electrophoresis; osmosis*
electroerosive machining *see spark machining*
electrofluidynamics *see electrohydrodynamics*
electrofluorescence *see electroluminescence*
electroforming
deep etch lithog., LURE-D.C.I. storage ring 13477
deep etch X-ray lithog., electroforming/molding templates 13538
diffractive optics, radiation resist., electroforming *(German)* 31058
fine/ultrafine pitch printing, electroformed/laser cut/etched stencils 37152
LIGA products, appl. specific materials 30505
microcomponents/microsystems fabr. techs. 6887
MIM thin-film devices, NDR characts. rel., film resist. 29989
miniature fluid control devices, fab., lithog. and electroforming 6875
Au-SiO$_x$-Au sandwich structure, AC elec. cond. 22083
electrogasdynamics *see electrohydrodynamics*
electrogyration *see electro-optical effects; optical rotation*
electrohydraulic control equipment
automobile chassis control G-sens., develop., commercialization 5374
automobile two-state adaptive suspen., rule-based condition monitoring 5365
EHD pumps, travelling-wave driven, microfabrication 6880
micromechanical actuator syst., mag. fluid-based *(Japanese)* 44087
prosthesis, above-knee, gait control 43361
robot adaptive electrohydraulic servoactuator control synthesis 36497
sheet metal bending, lin. hydraulic DC servomotor valve appls. *(Japanese)* 36493
SRM actuators, axially laminated anisotropic rotor design 27701
testing units for vibr. expts. on instrums. 118
electrohydrodynamics
augmented condensation heat transfer expts. 20021
dielec. liq. with unipolar injection, EHD convection 40206
dielectric liquids, cond., breakdown, conf., Switzerland (1993) 5444
dielectric oil, high stress aggregation, electron transport 13935
EHD pump, channels, nonstationary procs. modelling 44428
electrostatic particulate materials bulk transport valve 7917
engng. education, Prof. James R. Melcher contribs. 36932
ESP gas flow modif. by charged particles 7923
gas cleaning equipt., electrostatics appl. 43535
heat transfer/fluid flow enhancement mechanism 44425
IEEE industry applications, conf., Denver, USA (1994) 10
electrohydrodynamics continued
liqs., electrostatic dispersion modes classif. 40211
micro EHD pumps, fabr./expts. *(Korean)* 30527
mineral oils EHD, DC cond. expts. 2165
non-polar liqs., electrokinetic study, LDA 42985
nonpolar liqs., EHD motion and cond., effects of ionic impurities 14017
pumps, travelling wave-driven, microfabrication 6880
slender axisymmetric liq. column EHD, 1D models 15208
submicron particles scavenging by coarse particles 40210
unsteady elec. conducting dusty viscous liq. channel flow 36625
electroless deposited coatings
EMI shielding, electroless coatings 2258
FR-4 boards, flip-chip interconnections 21653
AlN/electroless plated Ni/Cu, indirect bonding, hot pressing 5857
p-HgCdTe, Au ohmic contacts, low specific contact resist. *(English)* 38381
Ni/Cu electroless plating, bump metallization 22280
Ni-YSZ anode, LaSrMnO$_3$ cathode, SOFC 44380
Sn immersion coatings, PWB surface finishes 12934
electroless deposition
ABS plastics, EMI shielding, electroless plating 8002
channel-constrained deposition of electroless metallization on ligating self-assembled films 13429
fine line cct. mfg. technol., electroless Cu plating 12929
fine line cct. mfg. technol., electroless Cu plating 29680
UV laser irrad./electroless deposition method, IC metallisation 12144
Au electrodeposition/electroless deposition, porous Si 20916
Au/ZnCdTe, electroless Au film deposition 37465
CoP films, simultaneous electroless plating/electrolysis, mag. props. 6939
Cu electrodeposition/electroless deposition, porous Si 20916
Cu electroless deposition on metals/metal silicides, ULSI interconnects 28790
Cu electroless deposition troubleshooting, PCB manufacture 38100
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
Cu-AlN, electroless-plated substr., hybrid IC metallisation tech. 951
Cu-Au conductors for IC interconnects, AlGaAs laser-assisted deposition 12184
Cu-clad polyimide sheets for thin film multilayer substr. fab. 138
Cu$_2$S(Se) transparent and electroconductive chalcogenide films, deposition and props. 37467
Ni electrodeposition/electroless deposition, porous Si 20916
Ni/Cu electroless plating, bump metallization 22280
Si surface, patterned Au deposition, STM tip-induced anodization 28804
a-Si:H/Ni-P, electroless plated contacts 6575
electroluminescence
see also phosphors
AlGaAs-GaAs HBT struct., electron distrib., electrolumin. obs. 1355
color-changeable organic electroluminescent diode, squarylium dyes 14629
conjug. polymers and oligomers, electrolum. 23038
conjugated polymers/fullerenes, optical probes, conf., USA (1994) 20195
diamond, free-standing thin films, blue-green electrolum. 7468
electrolum. coupled opt. fibre chem. sens. 17889
II-VI blue-green emitters, failure mechanism 14630
insulating materials, electron beam excited luminescence 14074
ladder-type oligo(para-phenylene), electrolumin. devices, electrolumin./photolumin. obs. 14620
MIM light-emitting tunneling jns., surface topography anal. *(Chinese)* 38451
MIM thin-film devices, NDR characts. rel., film resist. 29989
multimode reson. cavity LED, organic semicond., colour var. 1824
n$^+$-diodes, fab. by LOCOS/trench isolation, reverse breakdown characts. 6720
nanostructures, optical props., conf., Japan (1994) 28236
oligothiophene-based LED, charge carrier injection/lumin. 14635
organic electroluminescent devices, mixed single layer 14619
organic electroluminescent materials/devices 23022
oxides activated by rare-earth ions, act. layers of electroluminescent screens 7457
poly(3-hexylthiophene)-poly(N-vinylcarbazole), blend films, electrolum. 31073
poly(3-octylthiophene):poly(N-vinylcarbazole), electrolum. obs. 39559
poly(p-phenylene vinylene)-based LEDs, chlorine precursor route 31108
poly(p-phenylene vinylene)/tris(8-hydroxy) quinoline aluminum heterostruct. LED 31103
poly(p-phenylenevinylene) LED, polaron/hole charge transport 14636
poly(p-phenylenevinylene) LED, transient electrolumin. 14634
poly(phenylene vinylene) films, electroluminescent edge emission, brightness 23004
polyethylene, treeing under AC voltage, space charge buildup, power cables 30584
polymer LED, carrier tunnelling/device characts. 14626
polyolefins, homog. ac aging field, electrolum., surface roughness 30548
polythiophene, LED, polarized electrolum. 31109
PPV, carrier deep-trapping mobility-lifetime products 1813
resin insulators, PD, light emission detect. 1528
Schottky LEDs using polymer act. film, fab. and characts. *(French)* 1822
semicond. laser reliab. and failure anal. 39816
sexithiophene monolayer/bilayer diodes, transient electrolumin. 14637
variable colour polymer blend LED 7475
XLPE, light and tree inception characts., elevated temps. 14058
AlAs/GaAs, p-i-n double-barrier reson. tunnelling structs., electrolum. 6722
AlAs/GaAs, triple-barrier reson. tunneling LED, fast opt. induced switching 31107
AlGaAs/(In)GaAs HEMT, electrolum. 30368
AlGaAs/GaAs HBTs, ballistic electrons, electrolum. 38841
AlGaAs/GaAs, high-power injection heterostruct. lasers 14911
AlGaAsSb/GaInAsSb, LED, electrolum. quantum yield 1827
AlInAs-GaInAs quantum cascade unipolar intersubband LED 14632
Al$_2$O$_3$ insulator, DC/pulsed electro-opt. props., vac. 30550
Au/native oxide/p-Si, electrolumin. study 31100
Au/porous Si diodes, electrolumin. study 31100
Ba$_{1-x}$Ga$_2$S$_4$:Ce$_x$, electrolum., photolum., TFEL devices 1811
Ca$_{1-x}$Ga$_2$S$_4$:Ce$_x$, electrolum., photolum., TFEL devices 1811
CuInSe$_2$, jn. electrolum., microscopic diode struct. 31110
Eu complex-based red light-emitting electroluminescent devices 1814
GaAs/Al$_x$Ga$_{1-x}$As p-i-n diodes, ballistic-electron energy distrib. 29896
GaAs/AlAs RTD, QW electroluminesc. 38945
GaAs/AlAs, sub-micron p-i-n RTD, discrete electrolum. lines 14640
GaAs/AlGaAs heterostruct., ballistic electron transport, magneto-opt. studies 13115

electroluminescence continued
GaInAsSb/GaSb, LED, electrolum. quantum yield 1827
GaN:Mg on GaN substr., metalorganic VPE growth, opt. props. 20754
N-nGaSb/GaInAsSb staggered lineup heterojunction, recomb. obs. 38287
HgCdTe diode, room temp. electrolum. 1825
ITO/porous SiC blue LED, charactn. 14624
InAlAs/InGaAs HFETs, impact ionization and light emission 38912
InAsSbP/InAsSb/InAsSbP heterostruct., radiative recomb. 23266
InGaAlAs/InP type II MQW struct., elec. and opt. props. 1132
$In_{0.53}Ga_{0.47}As$ transistor channel, hot electron lumin. meas. 30377
InGaAs/GaAs quantum wells, carrier screening effect 1125
InGaAs/InP QW wires, electron beam lithography fabrication 13200
InGaAsP epitaxial layers on GaAsP substrs., orange LED appl. 12128
InGaAsP quantum-well lasers, near-field scanning opt. microscopy imaging 14919
InGaAsP/InP(GaAs), high-power injection heterostruct. lasers 14911
InGaN/AlGaN DH blue LEDs, high-power devices 23046
InGaN/AlGaN DH blue-green LED 14641
InGaN/AlGaN, Zn doped, DH blue LED MOCVD 23042
$Mg_xZn_{1-x}Se$ mixed crysts., high press. Bridgman growth method, luminesc. 31072
Si contacts on $Si_{1-x}Ge_x/Si$ quantum well, gas source MBE, electrolumin. diode appl. 28722
Si diodes, porous, immersed conducting polymer contacts, electrolumin. 39579
Si diodes, stain-etched porous films, vis. electroluminesc. 7477
Si, porous, anodic oxid., high efficiency electrolumin. 38527
Si, porous, conf., Strasbourg, France (1994) 20222
Si porous lateral injection device struct. for LED 23054
Si, porous, novel p-n jn. device electrolum. 14615
Si, porous, photolum., voltage-tunable electrolum. 14589
Si, porous, plasma-oxidised, luminesc. charactn. 13028
Si:Er implant., Si-based optoelectronics appls. 30042
a-Si:H diodes, recomb. regime under double injection, electrolum. obs. 31079
n-Si:In(Al), porous, metal deposition into pores, electrolumin. obs. 22157
SiGe/Si quantum dots, island growth, photolum., electrolum. 28830
$Sr_{1-x}Ga_2S_4:Ce_x$, electrolum., photolum., TFEL devices 1811
$SrGa_2S_4$:Ce , blue electroluminescent thin films, MBE 37402
Ta_2O_5 film, electron beam deposited, electroluminescent device appl. 5894
TiO_2 film electrode electrolum. sens., H_2O_2 meas. 9924
ZnMgSSe blue LED, current injection, defects 31098
ZnSe:N p/n jn. diodes, metalorganic vap.-phase epitaxy 20787
ZnSe-based LED, low-press. MOVPE 23043
ZnSe-based MOVPE and MBE grown LEDs 23050
ZnSe-based QW LEDs, MBE growth 37444
$ZnTe-Cd_{1-x}Mn_xTe_{1-y}Se_y$ heterojunction, prep./electroluminesc. 37398

electroluminescent devices
see also electroluminescent displays
conjug. polymer LED on Si substrs. 1826
conjug. polymer LEDs 14643
diamine doped MgF_2 thin film, EL devices 31093
diamond, free-standing thin films, blue-green electrolum. 7468
diode with photoresponsive organic pigment film, light amplif. 31104
high contrast TFEL devices on textured glass 14617
II-VI semicond. TFEL devices, energy transfer 7469
ladder-type oligo(para-phenylene), electrolumin. devices, electrolumin./photolumin. obs. 14620
lamp, power supply, SC AC-AC converter *(Japanese)* 20124
MQW solar cells, electrolum. coupling 36590
multilayer-dye electrolum. diodes, charge injection, transport, neutral excitations 23036
organic electroluminescent devices, mixed single layer 14619
organic electroluminescent diode stabil. 23030
organic electroluminescent materials/devices 23022
organic semiconds., cryst., OEICs, photonic devices 39616
poly(phenylene acetylene) elec. symmetric diodes 23039
poly(phenylene vinylene) films, electroluminescent edge emission, brightness 23004
PPV conjug. polymer based electroluminescent devices, quantum efficiency 23024
starburst mols., thermally stable multilayered organic EL devices 7471
thin film photocond.-electroluminescent ccts., opt. sig. delays 39603
tris(8-hydroxyquinoline)aluminum photo- and electro-luminesc. devices, double mirrors 39576
Al electrode/organic electrolum. devices, degrad. procs. 1810
$Ba_{1-x}Ga_2S_4:Ce_x$, electrolum., photolum., TFEL devices 1811
$Ca_{1-x}Ga_2S_4:Ce_x$, electrolum., photolum., TFEL devices 1811
$CaS_{1-x}Se_x$:Eu thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
$CuInSe_2$, jn. electrolum., microscopic diode struct. 31110
$Ga_{1-x}Al_xAs/GaAs$, p-n jn. incorporating quantum well, light emitting 14621
InGaN-AlGaN double heterostruct. violet LED, CVD growth 5895
$Mg_xZn_{1-x}Se$ mixed crysts., high press. Bridgman growth method, luminesc. 31072
Si contacts on $Si_{1-x}Ge_x/Si$ quantum well, gas source MBE, electrolumin. diode appl. 28722
Si, porous, novel p-n jn. device electrolum. 14615
Si:Li, fast Li electromigration, low temp. device creation 30047
$a-Si_{1-x}C_x$:H p-i-n struct., electrolum. characts. 31091
SiGe/Si heterostruct., segregant-assisted growth, opt. props. 37449
$Sr_{1-x}Ga_2S_4:Ce_x$, electrolum., photolum., TFEL devices 1811
$SrGa_2S_4$:Ce , blue electroluminescent thin films, MBE 37402
SrS phosphor thin-film electrolum. devices, rare-earth-ion-activated, transient emission 31090
$SrS_{1-x}Se_x$:Ce thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
Ta_2O_5 film, electron beam deposited, electroluminescent device appl. 5894
TiO_2 film electrode electrolum. sens., H_2O_2 meas. 9924
ZnMgSeTe:N,Cl, MBE, doping, diode electrolum. 22151
ZnS:Cu electroluminescent lamp, fab. and characts. *(Korean)* 14616
ZnS:Mn/$BaTiO_3$ LV driven electroluminescent device, fab./characts. *(Korean)* 31094
ZnS:Mn/Cu_xS, electrolum. cells, Cu-Mn energy transfer 23023
ZnS:Mn/Si_3N_4/$BaTiO_3$ AC TFEL device, insulating thin film props. and fab. *(Korean)* 31095

electroluminescent displays
see also LED displays
autostereoscopic back-projection and flat screens *(German)* 9983
colour displays develop. 9977

electroluminescent displays continued
complex thin film struct. for electroluminescent appls., ALE growth 20711
device technol. *(Japanese)* 34642
integral contrast enhancement, additional luminance and contrast 42878
NEC thin EL TA type, develop. *(Japanese)* 1809
organic electroluminescent diodes, opt. microcavity struct. 1823
organic luminesc. display devices, opt. microcavity *(Japanese)* 9979
poly(3-octylthiophene):poly(N-vinylcarbazole), electrolum. obs. 39559
sunlight viewable electroluminescent displays for mil. appl. 10372
thin-film electroluminescent indicators, composite liq. dielec. 1812
$a-BaTiO_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
Eu complex-based red light-emitting electroluminescent devices 1814
SiO_2/ZnS:Mn, AC electrolum. devices, prep. 20948
SrS:Pr white light emitting electrolum. devices, ALE 31092
ZnS:Mn, evaporated ACTFEL devices, band-to-band impact ionization 39577
ZnS:Pr white light emitting electrolum. devices, ALE 31092

electrolysis
see also anodisation; electrodeposition; electroforming; electrolytic machining; electrolytic polishing
automobiles, PEM SPE fuel cell/water electrolyser 36713
integrated water electrolysis, utility benefits 27335
PEC multiple nano contacts, solar energy storage appls. 27887
PV-hydrogen energy conversion syst. studies 27624
sea water MHD ship thruster *(French)* 36616
solar hydrogen energy systs. simul. 4868
C/MnO_2 composite primary cell electrode synthesis 11236
CoP films, simultaneous electroless plating/electrolysis, mag. props. 6939
Cu electrolytic refining, energy consumption expts. 11495
Cu electrolytic refining, polariz. occurrence/reduction 11494
D/Pd cold fusion syst., excess heat prod. expts. 27886
KBr electrolytically colored crysts., nonlin. amplit. recording of holographic gratings 23469
NiO cathode loss reduction, MCFC, electrochem. treatment 11271

electrolytes
see also electrolysis; solid electrolytes
automobiles, PEM SPE fuel cell/water electrolyser 36713
cement Cu direct electrorefining, anode support syst. 36799
direct methanol fuel cell, H_2 ref. electrode test method 11282
elec. vehicle ultracapacitors, load levelling batt. appls. 36738
electrocapillarity micromirror opt. switch for subscriber loops 9569
HVDC thyristor valves, water cooling 5032
internally humidified PEM fuel cell 27931
metallic substr. tubular SOFC, flame coated 44328
onium salt based liq. electrolytes, electrochem. props. 883
planar SOFC stacks, bipolar plate/manifold design tool 44368
SHF EM fields generation, pulsed power-based 31701
SOFC, air electrode degrad., microscopical charactn. *(Japanese)* 44341
SOFC anode layers, vac. plasma spraying prod. method 44317
SOFC ceramic component mfg. optim. expts. 44318
SOFC components, perovskite oxides combustion synthesis 44311
SOFC components prod., vac. plasma spraying appls. 44316
SOFC perform. improvement, electrolyte doping expts. 44319
SOFC thin tape-cast YSZ, thermal expansion coeff. studies 44393
SOFC thin tape-cast YSZ materials, Young's modulus expts. 44391
solid polymer electrolytes, design concepts, materials 36508
stationary batts., diagnostics/perform. prediction approaches 19956
thermoelec. convertors, space power appl. studies 20037
XLPE cable insulation, water tree DC component generation *(Japanese)* 19296
Al scrap electrorefining, chloride melts-based 28193
$Al-O_2$ secondary planar electrode batt. study 44268
Al-air batts. develop., propulsion appls. 19947
$C-H_2SO_4$ secondary cell electrodes, large discharge capacity 11263
H_2SO_4 electrolyte, $\beta-MnO_2$ discharge characts. 11235
KOH conc. interplay, $Ni-H_2$ batt. electrodes 27912
KOH flowing electrolyte, Zn-air elec. vehicle batt. 44515
Li batt. develops. conf., Boston, MA, USA (May 1994) 36894
Li batt. electrode surfaces, $Ar+CO_2$ gas prepared 27881
Li ion rechargeable cells, solid polymer electrolytes 36553
Li rechargeable batts., electrolytes/anodes *(Japanese)* 19940
Li rechargeable batts., polymer gel electrolyte/electrodes *(Japanese)* 5183
Li secondary batts., cycling capacity determ. studies 27902
Li secondary batts., develop. trends 36515
Li secondary cell C electrodes, electrochem. expts. 11261
Li/CoO_2 secondary batt., electrochem. perform. 36555
Li-Al secondary cell electrode behaviour expts. 36554
$Li-MnO_2$ primary batt., dissolved Mn species *(Japanese)* 27892
$Li-SOCl_2$ primary batts., delay effect expts. 11231
$Li-SOCl_2$ prismatic primary cell charactn. expts. 27888
Li-Sn secondary cell electrode behaviour expts. 36554
Li-ion rechargeable batt., high energy dens. *(Japanese)* 5182
Li-ion rechargeable batts., devlop. 5201
Li-polymer rechargeable batt., PolyPlus 44276
LiAl-CuO primary batts., cathode material expts. 11237
LiCl-LiBr-KBr molten salt electrolyte, LiAl-FeS batt. 5203
MnO_2, discharge characts., alkaline solns. 11246
NH_4NO_3 in DNF electrolyte, K-C primary batt. 27893
Ni batt. electrodes, Mn substitution expts. 27885
Ni-Cd sealed cells, fibre substrs., oxygen recomb. 5194
$Ni-H_2$ GEO spacecraft batts., 26% KOH electrolyte tests 26664
$Ni-H_2$ LEO spacecraft batt. pulse life testing 26662
$Ni-H_2$ aerospace batts., life testing 26574
$Ni-H_2$ cells, storage-induced capacity loss 27911
$Ni-H_2$ secondary batts., develop. trends 36515
$Ni-H_2$ secondary cells, LEO destructive life testing 11256
$Ni-H_2$ space power battery, gas diffusion electrodes 26582
$Ni-H_2$ spacecraft secondary batteries, electrolyte expts. 26578
$Ni-H_2$ spacecraft secondary batts., advanced separator expts. 26668
Ni-MH secondary batts., develop. trends 36515
Ni-YSZ porous cermets, microstruct./elec. cond., SOFC 44377
$Ni_{1-y}Mn_yO_2O_{2-z}$, ageing interstratification, Ni-Cd cells 27905
Pb-acid batt. electrodes, citric acid effects 11259
Pb-acid batt., single-point-watering syst. 36534
Pb-acid immobilised electrolyte batt., valve design 44286
Pb-acid sealed valve regulated batt., impedance testing 19952
Pb-acid secondary batts., pos. post chloride corros. 36565
Pb-acid valve regulated batts., ageing effects tests 19963
Pb-acid valve-regulated batts., operational experience 36567

electrolytes continued
Pb-acid valve-regulated telecom. batts., ratiometric reliab. meas. 41631
Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
Si wafers, photocurrent imaging, electrolyte contacts 31069
$SnSO_4$ in H_2SO_4 electrolyte, electrochem., Pb-acid batt. 11264
V_2O_5-$LiNb_2O_5$ rechargeable coin type batt. characts. *(Japanese)* 5181
n-WSe_2/aq. polyiodide photoelectrochem., cation electrolytic modif. 31071
Zn-MnO_2 rechargeable Leclanche cells, elec. vehicle appl. 36514
$ZnCL_2$ electrolyte, Leclanche cell, β-MnO_2 electrode 11234
electrolytic capacitors
Hercules capacitor bank pulsed power switch life test project 36459
high-power elec. double layer capacitors, develop. *(Japanese)* 5170
HV-proof aluminum solid electrolytic capacitor, develop. *(Japanese)* 38051
polyaniline electrolytic capacitor 29615
static power convertor filter capacitor fault detect. methods 19827
Al electrolytic capacitor failure, impact of halogenated fluids 6367
Al/Ta/Hf multi-layered anodized capacitor, oxid. *(Japanese)* 6357
Au cluster/SiO_2-Al_2O_3-Li_2O gel, nanocomposite capacitor 6358
$RuO_2 \cdot xH_2O$ electrochem. capacitors, charge storage mechanism 19927
Ta SpeedPower SMD capacitors, B45197 series 873
Ta capacitor miniaturization *(Japanese)* 877
Ta capacitor reliab., low impedance/high surge current ccts. 5705
Ta capacitor resist., high humidity 884
Ta capacitors, HF impedance reduction *(Japanese)* 880
Ta chip capacitor reliab. in high surge/ripple current appls. 12841
Ta chip capacitors, proven reliab., high capacitance, low vol., rugged design, SMDs 29610
Ta coated chip capacitor, SMT reduced board height requirements 6360
Ta electrolytic capacitors, life prediction 6368
Ta polar electrolytic capacitors, alternating load tests 885
Ta_2N anodized thin film capacitors, heat-proof props. *(Japanese)* 29614
electrolytic conductivity of liquids *see electrical conductivity*
electrolytic deposition *see electrodeposition*
electrolytic devices
chem. indust. safety practices, IEEE 463 Standard, 1994 changes 89
electrolytic dissociation *see electrolysis*
electrolytic ion mobility *see electrolysis; ion mobility*
electrolytic ions *see electrolytes*
electrolytic machining
see also electrolytic polishing
capacitive electro-chem. etch-stop tech. 30103
microengineered fluid devices 6633
Si miniature capacitive absol. press. sens. 9858
electrolytic polishing
see also electrolytic machining
Nd:glass laser amps. using electro-polished Al reflectors, gain enhancement 1894
electrolytic rectifiers
detector designs for radio reception 9187
electromagnetic absorption *see electromagnetic wave absorption*
electromagnetic compatibility
see also electromagnetic pulse; frequency allocation
1 GHz sum/difference opt. modulator, E/H field meas. 18053
3D environ., cross-talk determ., simul. methods 15530
155.52 Mb/s data transm. on category 5 cable plant 42044
500 kV transm. lines/railroad crossings, EMI protection *(Chinese)* 27229
adaptive array for mobile radiocommunication, EMC props. 25326
AM high power broadcast stations, EM environ. 25642
amat. radio service and EM-radiation hazard 25215
anechoic/semi-anechoic chambers, deficiency 15484
anisotropic laminated composite cylindrical shells, plane-wave shielding 31854
antenna phased arrays in dispersed groupings, spatial selectivity 40505
automated emission meas., data reduction algm. 15487
automated syst. for EMI/C meas. 23737
automotive EMC, cables coupling, practical approach 23687
automotive EMC legislation 44582
automotive ICs, dedicated protective fns. 36765
avionics syst. components testing, EMC equipt. 4354
biconical antenna for EMC meas. 23716
biconical antennas, antenna factor eval. for EMC meas. 40484
biological EM field/health effects review 4332
bipolar transistor ccts., LF phase and amplit. noise 40381
bonding config. in telecomm. centers, EFT field tests 23707
broadband compact absorber for EMC chamber appls. 15515
broadband EM disturbances, electronic systs. protection 15520
building EMC directives, Europe, overview 27181
cable coupling, arbitrary environ., meas./computation 15462
CDMA for automotive area network, power-lines 3310
certification of products in Gost certification syst. in Russia 23672
chiral shields, transient anal. 23709
chirality and EM 40326
CIS countries, spectrum mgt. 23699
civ. EMC stds. by mil. organizations 15527
CMOS IC, coupling characterisation, meas. techs. 15491
coaxial cable harnesses, EMC problems and perform. 889
code-sens. commun. system,develop. 24889
common-mode current radiation anal. by moment method 23703
commun. satellites, EMC *(French)* 18693
compact diagnostic chamber, testing, EMC stds. 2246
complex systs. containing thin wires, behaviour modelling 2267
computer aided EMC testing 23719
conference, Chicago, USA (1994) 5471
conference, Dallas, TX, USA (1993) 36844
conference, Sendai, Japan (1994) 11561
consumer electronics, conf., Hong Kong (1994) 5460
contact resist., base metals 2259
copper shielded cabling systs., advantages 16996
corrugations for transm. reduction, slots 2268
coupled microstrip lines, EMC-disturbances, LF SPICE model 12695
cycloconverter EMC problems, stochastic anal. appls. 5076
dielec. WB TEM cell manipulator, radiated emissions testing 3736
digital ccts., parametrization of EMC-macromodels 21174
digital ccts. EMC, waveforms spectral dens. 2509
distrib. transformer EMC planning *(German)* 11104
eccentric coaxial line, inner conductor, dielec. support effect 33733
elec. ccts., EM fields coupling for EMC 15535
elec. multiconductor line systs., internal/external interfs. 23685
electromagnetic compatibility continued
elec./electronic syst. and mobile phone equipt., EM environ. 25290
electric railways in united Europe, IEE conf., Amsterdam (1995) 36833
electrified rly., EMC 44545
electronic equipt. interact., computer modeling 8000
electrosmog, EM fields in environ. 15542
electrosurgery, EM interf. problems 10259
electrotherapy interf. effects 10271
ELF EM radiation base limits determ. *(Slovenian)* 15455
EM screens efficiency improvement by appl. of anisotropic materials 23715
EMI in hospitals, IEE Colloquium, London (1994) 17
EMI meas. methodology 40369
environ. meas., catalogue, 30-300 Hz 31850
equiv. transm. line model for EM penetration, reinforced concrete 40377
ESD-immunity tests eval., fault probab. fn. 23508
European Directive on EMC 2261
European EMC stds., recent develop. 2263
European Union EMC rules for IT equipt. 40366
European Union product sales, mutual recogn. agreements 15528
ferrite anechoic chamber site atten. calc. 15513
ferrite tiles, temp. behaviour of reflectivity 14198
ferromag. shields, EM transients anal. procedure 15486
field distrib. estim. for buildings, wire-grid approx. *(Japanese)* 40386
field emitted by telecomms. line, estim. 40373
generating sets, electronics, high altitude NEMP hardening 19587
Germany EMC regulations, update 23681
GPS commercial receiver suscept. eval. 17498
ground refl. wave suppressed test sites 23670
GTEM 1750, meas. field struct., anal. 15483
GTEM cell, appl. example 23721
GTEM cell, elec./mag. fields calc. 8011
GTEM for EM emission meas., test result correl. 15524
harsh automotive elec. environ., IC design considerations 36764
Hi-PAS, EMC design for high-dens. packaging syst. *(Japanese)* 31862
HP 8590EM spectrum analyzer for EMC testing 42748
HV impulse generator, radiated interf. 2254
HV substations, EMI anal., switch arc restrikes 5159
IC components radiation suscept. meas. 1466
idealized exciting current sources modelling in FEM, EMC, Eddy currents 40365
IEC555, harmonics and legislation 31865
IEC801-3 std., radiation immunity systs. 23732
IEC801/1000-4 series and immunity testing 23730
IEC 1000-4-3, radiated immunity test 40367
IEC 801.3 automated testing 15469
IEC EMC terminology, standardization 23680
inhomog. waveguide components, field matching/noise filtering 23800
INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
intell. EMC anal. and design techs. 15525
intell. modules, power convertor appl. 21120
intermediate line power filters, impedance/EMI compatible designs 29008
internally protected universal ground adapter, cable EM protection 15502
internat. LF EMC stds. *(German)* 23735
inverse-forward anal. 23738
isotropic broadband suscept. test method (appl., ARC-182 radio) 15468
Japan indust., scientific and med. RF apparatus, stds. 23683
JARA Committee activities on robot EMC test methods/perform. eval. *(Japanese)* 8007
land mobile service, EM environ. evol. 25287
large-scale anechoic chamber, EM fields, computational simul. 15505
leakage modeling, finite apertures, TLM 15471
LF model for wedge, pyramid absorber arrays 7994
LF model for wedge or pyramid absorber arrays, meas. results 7995
line impedance stabilization network in noise meas. 40370
Loran-C waves near huge bridge, phase disturbances *(Japanese)* 42550
low cost EMC testing 2251
LV installation divertor coord. principle *(German)* 35689
Mach-Zehnder interferometer for elec. field sens. 25816
Mach-Zehnder interferometer for elec. field sens. 25817
mains network surge transients, EM immunity testing 19050
Manchester Metrolink, EMC and road traffic control 5330
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
matrix power converter, switching freq. harmonics studies 5051
meas., near-field probes appl. 2245
Medical Devices Directive and EMC directive overlap 18426
metal cabinet enclosing PCB, radiation anal. 23695
metallic enclosure model source, EM emission estim. by inverse-forward anal. 40374
MIC package EM modelling 21577
microelectronic rly. traffic control systs., principles 28117
microstrip discontinuity radiation effects, full-wave anal. 23837
missile EMC testing, direct/indirect current injection 4431
mobile commun. and broadcasting systs., EMC, microwave/laser scatt. 23646
mobile telecomm. network radio lines EMC estim. methods 25289
mode stirred EMC facility, develop. 2266
mode-stirred chamber meas. repeatability 15537
MPR2 test methods for VDUs 40368
MSC/EMAS, CAE software for EMC anal. 23720
multi-chip carrier power hybrid, EMI study 21662
multiconductor transm. lines, field coupling, exact SPICE model 25201
multilayer PCBs, decoupling effects of Vcc/Vgg struct. 21635
multilayer PWBs, segmented ground planes, common mode currents 15477
near-/far-field charact. of perforated screens, shielding perform. 15503
noise injection clamps charact. 23747
nonintrusive probing techs. for EM meas. 2248
nuc. reactors, digital syst. immunisation 35930
off-line reson. power supplies, design, anal. 37629
open area test site effects in finite modelling techs. 2265
PCB design, implement. of EMC criteria 29658
PCB design, meet EMC stds. 38085
PCB design for radiated emission reduction 12895
PCB design under EMC constraints, rules devel. 21633
PCB inductance ident./quantification 12873
PCB layout tips for EMC 910
PCB radiated emissions, finite-element CAE anal. 38084
PCB radiation aspects calc., EMC workbench 21634
PCB refl. and crosstalk effects simul. 908
PCB sig. line, peak freq. prediction 38073
PCB simul. for EMC compliance 38086

electromagnetic compatibility continued
PCBs, refls. anal., ROSAR rule oriented syst. 21632
PCBs design, refl. and crosstalk effects simul. 907
PCBs EM radiation emission, moment method appl. 899
PEEC cct. models, stable time domain solns. 15511
periodic wedge absorber using transm. mode approx., permitt. anal. *(Japanese)* 23536
physiological sigs. monitoring, interf. 10173
plane wave scatt. by infinite conducting ellipt. cylinder near conducting plane 23645
plug-in PC board testing, EMC Directive 21643
polymers, intrinsically conductive, for EM screening 2260
power converter, SCR, EMI conducted noise emission, EMC study 36240
power converters, energetic characts., load current modulation, EMC *(Russian)* 44111
power electronics EMC components 23723
power electronics in transportation, conf., Dearborn, USA (1994) 5451
power syst. grounding syst. anal., EMTP based model 4721
power systs., time integrated EMI safety margins 15465
power transm. systs. 44129
powerline EMC filter testing, approx. worst case method 15460
pulse wave, EM scatt. by buried obj., FDTD method 23618
quick EMI emissions tests, precompliance test set 2276
radar sig. proc., spectral smoothing filter and EMC 25573
radar syst. EMC fig. of merit estim. *(Croatian)* 3595
radiated emission testing by ground currents meas. 2247
radiated interf. of electronic equipt., randomly assigned phase terms 31857
radiated-suscept. tests, absorber-lined chambers, field homog. 15482
radiating planar ccts., broadband anal., moment methods anal. 15506
radiation from finite-length printed-pattern, cct.-concept 21626
radio commun. eqpt., external pulse EM field effects 25218
radio equipt., EMC conditions optim. 25219
radio equipt. emissions meas., radio holography 25227
radio networks connectivity, EMC effects 17009
radio transmitter network, freq. assignment problem 3659
railguns, 3D current distrib./EM fields soln. 15319
reactive power control systs. 23664
reinforced concrete building, elec. field atten. 23736
resin material, metallic layers 21606
RF absorptive cables, characts. calc. and meas. 890
RF cable assemblies, screening atten. meas. 23690
RF radiation hazards in indust./airfield environ. 2271
Rohde & Schwarz Radiomonitoring System TS9965 9183
Rohde & Schwarz TV test transmitter SFM 9703
Russia, GSM transmitter interf., airborne radio-navig. equipt. 33859
satellite commun., adaptive antenna arrays and broadband sigs., EMC anal. 25449
SCR, radiated emissions meas. 15504
screened antenna-enclosure combinations, RFI emissions 2269
shielded enclosures radiation, FDTD method 15472
shielding, electroless coatings 2258
shielding effectiveness, gap size and angle of cut effects 40375
shielding effectiveness calc., wave impedance concept 2257
shielding enclosures, hybrid finite element-anal. solns. 7999
ship EMC requirements 2262
short gap discharges, meas. of fast transient fields 42882
silent discharge, gas discharge noise charact. 23679
simul. safety enhancement *(German)* 15457
sing. expansion method, transient coupling anal. 7998
site atten. in radiated emission meas., anal. 8006
skeletal biconical antenna charact. 7996
SMPS, gate controlled, conducted emissions reduction 5050
soft switching, power converter design, EMC Directive 21097
software tools for EMC compliance 23660
spatially distributed radionets, freq. assignment algms. 25643
spherical dipole antenna 23900
SS commun., inform. theory aspects 24007
SS low-power equipt., peak power meas. 25226
SS systs., conducted suscept., testing techs. 3354
SS tech. for automotive multiplexing systs. 25199
stirred mode reverberation chambers for EMC emission meas. 2270
subminiature/SIPAC-S connectors of EMC design, shielded housings 895
suppression components/shielding materials, EMC perform. 2264
surveillance devices, security tags 23663
suscept. testing in time/freq. domains 15470
Swiss microsensor and mobile commun. research programme *(German)* 3778
switching syst. EMI prevention/protection experiences, France 16968
tapered rect. transm. line, anal. 40396
TDR 23727
telecomm. equipt., CW immunity testing 16952
telecomm. equipt. EMI bonding topol. studies 15523
telecomm. systs. DC distrib. network grounding, EMC aspects 19269
telecomms. equipt., design *(Japanese)* 31861
telecomms. equipt., maint./support *(Japanese)* 31864
telecomms. equipt. earthing/bonding, prETS 300253 European draft std. 15522
telecomms. systs., R&D *(Japanese)* 31860
TEM cell and OATS emission meas. 31849
TEM cell with inner terminator, improvement and design concept 23745
TEM/GTEM cells for radiation emission tests *(Polish)* 2272
test site, 3 m site atten. above earth ground 23704
testing, in-house vs. independ. 31858
testing mgt. of large systs. 2250
thin ultra-wide band absorber CP-2 for anechoic chamber 23724
three-phase AC motor drives, freq. converters, interf. suppression 5042
time domain EMC testing syst. 23671
transient plane wave coupling, bare/insulated cables in lossy half-space 31869
transm., corrugated slots 31855
transm. line method, validity 2256
transm. line struct. on PCBs and dielec. substrs. 21622
Triple-TEM cell, simple device for immunity testing 23748
triple-TEM cell design, FEM 40380
TV sets, fly back transformer-AC power cable coupling 25647
two-wire cables, radiated emissions reduction, pair twisting effects 15536
UK legal appl. of EMC directive 2252
urban cellular mobile radio systs. 33858
US EMC regulatory requirements, recent/pot. changes 15463
US regulations for EMC control, update 23682
VDU emissions, stds. 3934

electromagnetic compatibility continued
vehicle security systems, IEE Colloquium, London (1995) 28276
video transm./reception syst., simul. 3664
wireless telephones induced EM fields effects 17035
$LiNbO_3$ elec. field sens., sensitivity improvement 14522

electromagnetic devices
see also electromagnetic launchers; electromagnets
2-axis EM translation mechanism for FPA 17311
3D modelling of EM actuators, iter. procedure 40273
AC LV EM device CAD, PC-based *(Russian)* 7913
aircraft surface movement guidance and control syst. 43459
automotive EM particle clutch, design anal. 11435
automotive rotary actuator homopolar PM motor studies 11436
axial-field actuators for controllable bidirectional rot. 15255
axisymmetric EM devices, mag. cond. formulae calcs. *(Russian)* 7933
barrel finishing machine, induction motor-based 28194
bearings, bias current lin., fault tolerance 40271
cct. breakers, fast-acting, EM/inductor drive design *(Russian)* 11195
coaxial aperture electromagnetic sensor, material characterisation 25784
coil explosion mag. generator, inductance meas. 15377
cycloid motor, EM lin. actuator *(Japanese)* 44086
design aspects of EM actuators 36495
elec. apparatus EM field calcs., equiv. cct.-based *(Russian)* 31734
electrodynamic separators, LIM based, metallic waste proc. 7937
electrorheological catch/clutch, inertial simul. 445
EM rot. sens., cpd. mag. wire 17717
EM spiral lin. step motor, thrust anal. 11073
flat EM relays, develop. status overview *(Russian)* 7932
flowmeter, multiple poles and multiple electrodes 4013
fuzzy ARTMAP neural networks for gratings/FSSs design 40449
gas valve, fast acting 31741
HGMS, high T_c superconds. appls. 23527
high energy EM transducer acoustic shock field, Schlieren meas. 4029
LV elec. power device, switching noise meas. 27858
machine bearings, develop. update 7936
mica-alumina insulation, dielec. props., EM pump appl. *(Japanese)* 39067
miniature relay matrix, multi-actuator systs., electromechanical interf. 30524
optimal design, genetic algms., elec. motor appl. 19580
optimisation and synthesis, IEE Colloquium, London (1994) 64
pulse electrodynamic drive, transient proc., theory 7934
separators, magnetising coils, thermal state 2192
sig. extraction from mag. flowmeters for dens. meas. 3763
small particle limit for EM separation 15253
transverse flux EM vibrator, test equipt. appl. anal. 7935
underground metal pipes detect., EM induction sens. 18044
vel. probe, nearby wall effect 42989

electromagnetic energy *see electromagnetic waves*

electromagnetic field theory
see also electromagnetic waves; electromagnetism
1D TEM wave time domain soln., Maxwell eqns.-based *(German)* 31806
2D EM field calcs., FEM-piecewise polynomial method *(Chinese)* 40202
2D Laplace problems, regular boundary integral soln., variational formulations 31709
3-phase multiconductor busbar systs., model validation 19904
3D EM problems, mesh generator, self-organising finite element tessellation 2170
accelerating cavity, EM field, wire effect 26079
antennas, Poynting's theorem, reactive energy, and radiated power 15617
ARES EMP simulator, EM fields radiation 7997
Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
axial symmetric shield penetrating EM field time const. calcs. *(Polish)* 31699
Beltrami-Maxwell postulates for time-varying EM fields in materials 15207
book, EM response of material media 30
buildings, 3D wire-grid model, anal. 23513
bulk dielectrics, partial discharge related stresses 13966
buried line conductors, EM modelling, integral eqn. 40256
calcs., edge elements-based *(Chinese)* 7888
cavity, lin. condition, Q-factor/input reson. resist. 31903
cavity fed by tangential elec. field in wall aperture, EM field 31900
chiral slabs, shielding props. anal. 40378
circ. impedance cylinder, chiral sheath coated, scatt. 15410
circ. polarized wave scatt. by conducting cylinder, graphical representation 2211
computer equipt., wave fields modeling 2164
concentrically layered region, source EM response 40204
conference, Grenoble, France (July 1994) 36820
constitutive/Maxwell's EM field theories, comparison 2166
corrugations for transm. reduction, slots 2268
cylindrical concave conducting boundary, whispering-gallery mode radiation from aperture *(Japanese)* 15397
description/anal., diff. forms appl. *(Chinese)* 7887
dielec. substr. backed by nonperfect conductor, surface boundary condition 40287
dielectric body anal., conjug. gradient method, test fns. 15379
discontinuous expansion and testing fns. in method of moments 23817
earthing syst. transient behaviour, computer models 19352
eddy current anal. by BEM, imped. boundary condition 40253
elec. ccts., EM fields coupling for EMC 15535
elec. engng. course, EM field visualisation software 20312
elec. rly. traction syst., EMI assess. modelling 44548
electrodynamic levitation, slowly moving bodies, vector field pot. 28118
electrodynamics, inhomog. media, local plane-layered approx. conditions 2199
electromagnetostatics in uniaxial bianisotropic media 15203
ellipt. hole in finite thickness wall, EM field penetration 15204
ellipt.-core fibre, lin. polarised mode anal. 1686
EM field/matter interact., general theory 7890
EM pulse, param. estim. of currents induced in cylindrical conducting shell 8003
EM vel. probe wall effect on sensitivity prediction 42989
EM wave excitation/diffr. by metal cylinder inside flat waveguide 40407
EMC problems, inverse-forward anal. 23738
equiv. transm. line model for EM penetration, reinforced concrete 40377
evanescent EM waves, ang. momentum 2162
FDTD waveforms, spectral estim. by AR methods 2169
FEL interact. optim. via electron bunch trapping 39983
FEM computation of field quantities/forces 40188

electromagnetic field theory continued
ferrimag. tridisk-coupled resonator, modal characts. 12715
fictitious sources in GMT, improvements 23606
generation of predominantly elec., mag. fields in free space 40385
grating-assisted coupler design, rigorous anal. of power transfer 39413
H field vectorial Galerkin method 39358
half-space regions separated by perforated screens, EM coupling 31853
HF EM modelling techniques, IEE Colloquium, London (1995) 36883
HF fields, smoothly inhomog. media, dyn. states 2241
horiz. El above lossy ground, radiation field 23499
HTSC lin. resonator, EM field determ. *(French)* 30807
hybrid FEM, EM field distribs. in large cavities 2306
hybrid FEM/BEM mag. field anal. 31702
image theory for soft/hard surface 23496
incremental theory of diffr., EM formulation 23584
infinite line, EM fields, steady-state/transient DC *(French)* 31711
integral operators curl^{-1}, div^{-1}, grad^{-1}, appls. *(Russian)* 23501
integral operators rot^{-1}, div^{-1}, grad^{-1}, math. defn. *(Russian)* 23500
irrotational mag. eigenfunctions belonging, complex cavities 15564
ISOMOM method for moment-method solns. in EM 31710
isotropic chiral media, effective charge densities and current densities 23491
Laplace domain FEM, diffusion/propag. problems in elec. engng. 278
lightning stroke, EM environ., current distrib. 23761
lin. homog. constitutive rels. constraints 15240
lin. materials in bounded domains, EM field anal. 40232
Lorenz condition and pot. theory 15209
lossless bianisotropic media, conditions for param. dyadics 40297
mag. hysteresis modelling, transm. line theory-based 7892
magnetostatic field inverse problem, sampled pattern matching *(Japanese)* 31722
measured eqn. of invariance, computational savings 23605
MELECON '94, conf., Antalya, Turkey (1994) 5470
metallic enclosure model source, EM emission estim. by inverse-forward anal. 40374
method of moments, react., variational aspects 23490
micropipette cylindrical waveguide surface polaritons propag., near field opt. device appl. 40443
MMP modeling techs. curved line multipoles 15415
MMP-CG-PET, param. estim., MMP code, conjug. gradients 15211
multi-reed switch, contact erosion/spatial mag. field var. 29636
multibranching point of transm. line, EM wave radiation 2284
multilayered earth excited by overhead wire, EM field components 2179
multimedia computing appl. in EM field education 20313
multiple grid transm.-line modeling, EM field problems soln. 23749
multiple multipole program/MoM combination 15210
nonlin. planar opt. waveguide MOL and FDBPM simul. 40432
num. anal., BEM/FEM appls. *(Japanese)* 15205
open resonators, geom. imperfections, perform. effects 818
opt. theorem for scatterer located above two media boundary 2198
optim. and synthesis 15206
pass. multilayer component CAD, EM field computation 6364
plane ang. sector diffr. 2213
Poisson's eqn., wedge geom., image soln. 31696
polarimetric vector diffr. tomography 40274
power flow dens., Poynting and Nukiyama vectors *(Japanese)* 7889
power transm. line, radiated transient EM field calc. 4678
profiled corrugated horns, full-wave modal-S-matrix CAD 23936
quasiperiodic struct., coupling, asymmetric output arm 15568
radiated interf. field estim. for electronic equipt. 31866
radiation of elementary slot in ideally conducting polygon 31700
rect. cavities, field distrib., GMT-based approaches 15540
reverberation chambers, electronic mode stirring 7993
S-params., calc. by orthogonal expansion and finite integrat. 2168
scatt. EM fields, FDTD results, algms. 31800
scatt. in conducting circ. cylinder, source radiation field anal. *(Japanese)* 23534
Schelkunoff's shielding effectiveness formula, errors and correction factors *(Japanese)* 23658
screening, polarized casings calcs. *(Russian)* 7881
self PM with finite response time, quantum theory 31898
shaped dual-reflector antenna, impedance flanges, radiated fields *(Chinese)* 40444
sing. expansion method, transient coupling anal. 7998
small reinforced concrete building, EM field atten. 40376
small-hole coupling, formalism for FDTD simul. 7894
soft and hard surface anal., hybrid FEM/Floquet mode tech. 23827
space mapping tech. for EM cct. optim. 12286
spherical anechoic chamber, EM field multipole anal. 31708
spherical anechoic chamber EM field, multipole anal. 31703
SPICE model for multiconductor transm. lines, EM field excited 8010
sq. patch antenna, radiation characts., permitt. effects 40471
surface charge dens. on a conductor, behavior 40215
surface cracks in metals detect., microwave method 37552
tape carrier package for high-speed LSIs, lead inductance 5643
Tellegen medium study 2167
thin film transformer, EM field anal. 38055
thin-strip capacitive nets, review 458
time-domain modeling 2174
transient 3D eddy currents in nonlin. media, calc. 40236
TW current filaments, homog. space 15408
twin particle syst., trajectories estim., superpotentials 7912
two-wire transm. line, nonuniform media, pulsed EM field 2285
ultra-short pulse propag. on complex planar structs., anal. 37961
unbounded microwave problems, FEM soln. 40190
unbounded skin-effect problems in presence of material inhomogeneities 38043
VLF wave from dipole antenna in atmos., full-wave anal. method 31814
wake fields, boundary element anal., Kirchhoff's integral eqn. 23515
wedge with anisotropic face impedances, diffr. study 15404
wideband fields/coherence fns., spectral transforms. 40774

electromagnetic fields
see also electromagnetic field theory
2D dielec. objs., EM imaging, expt. study 23577
2D EM field propag. problem, TLM model, fourth-order in space and second-order in time 23588
2D scatt. by inhomog. anisotropic material cylinders, hybrid FEM-MFCM 40312
3D integral eqn. method for eddy current EM field anal. in anisotropic materials 39145

electromagnetic fields continued
4BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 15070
6-phase induction motor, split coil, EM proc. simul. 11021
15 mm sq.-bore railgun, EM field meas. 15330
60 Hz EMF effects reduction 18628
AC power line corona loss, charge simul. calc. method 19289
adaptive computation of EM field problems, reliab. assess. of error estim. 40200
air insulated substations, EM field calcs., computer-based 5161
anal. methods/appls. *(Japanese)* 23493
anisotropic laminated composite cylindrical shells, plane-wave shielding 31854
Anritsu Corporation EMI pers. measuring systs. 23726
asymmetric TEM cell, characteristic impedance, septum thickness effect 20417
asynchronous machine, two stator windings, EM torque 36144
augmented PM railgun, plasma armature behaviour 15356
augmented railgun-based fusion reactor solid H_2 pellet accel. 15283
automated syst. for EMI/C meas. 23737
axisymmetric EM devices, mag. cond. formulae calcs. *(Russian)* 7933
bianisotropic media, duality transforms., Green dyadics, plane-wave solns. 40322
book, EM response of material media 30
buildings with shielding screens, EM field anal. 15509
busbars, EM proc. calcs., FEM-based 18998
cage induction motor, slanted stator/rotor teeth effect on torque 36170
cellular hand-held phone, reduced EM field in human head 35184
charged-particle beam in EM field, oscill. 40264
chirality and EM 40326
circ. dielec. waveguide anal., variational-difference method 801
computational methods and considerations 40178
computer animation of 2D/3D EM fields, graphics package 40195
conference, Grenoble, France (July 1994) 36820
DC electromagnet pole dimens. selection method *(Russian)* 7928
DC motor armature reaction EM field, FEM-based anal. 19660
dielec. resonators, stress induced freq. shift 30658
diffusion interact. procs. anal. for EM fields and screens 31698
dipole antennas on ground plane, antenna factors meas. 23899
domestic power freq. EM field meas., South Africa 35707
dual-shaped reflector compact ranges, subreflector/feed scatt. 23905
dyadic Green's fns., radially multilayered chiral media 40291
eddy current calc. in terms of field variables, BEM formulations 40239
eddy current problems, discrete seq., mixed finite elements, gauge condition, vector pot. 40242
edge-element method for simul. and anal. of EM fields *(Chinese)* 31707
EHV transmission/distrib. power lines, EM fields studies 19286
elec. apparatus EM field calcs., equiv. cct.-based *(Russian)* 31734
elec. machine, malfunction diagnostics 10953
elec. machine conjug. EM field calcs., Newton-Raphson method-based *(Polish)* 36093
elec. machine EM speed reduction, phys. proc. modelling *(Russian)* 36106
elec. machine slot-bound conductors, eddy current effects 36097
elec. motor EM speed reduction, math. anal. method 43990
electrosmog, EM fields in environ. 15542
ELF EM radiation base limits determ. *(Slovenian)* 15455
Ellipticus antenna, HF anal. 8037
EM anechoic chamber, field strength uniformity eval. 23674
EM beam diffr. by planar periodic metal-strip grating 40295
EM field distrib. estim. for buildings, wire-grid approx. *(Japanese)* 40386
EM scatt. for oblique incidence on impedance bodies of rev. 23574
EMC conference, Chicago, USA (1994) 5471
environ. meas., catalogue, 30-300 Hz 31850
FDTD method, absorbing boundary conditions synthesis 31935
field-stabilized two-phase fluidized flow, proc. concepts 40205
flowmeter, multiple poles and multiple electrodes 4013
foil winding design, eddy current anal. approach 6375
GTEM 1750, meas. field struct., anal. 15483
half-space, perturbed, EM energy decay 15407
HF transformer edge effect anal., 2D FEM-based 6376
high-power controlled reactors, EM proc. 11099
homog. mag. fields, Ampier force calcs. *(Russian)* 7883
human head, MRI, imperilled areas anal. 18474
HV overhead power EM field calcs., FEM-based 4692
hybrid stepping motor drives, flux linkage meas. 5318
IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
impulsive ESD noise from office chair 30541
indirect furniture ESD and implications 31713
induction machine reactive power, math. anal. *(Russian)* 44056
induction machines, eccentric rotor mag. pull modelling 36168
induction machines, invertor-fed, EM procs. anal. method *(Russian)* 44041
induction motor, two-layer rotor, equiv. cct. params., speed control *(Russian)* 44435
induction motor EM procs. calcs., tensor methodology *(Russian)* 44055
induction motor invertor synchronisation, magnetisation/vel. determ. *(German)* 36159
induction motor saturation modelling, computer-based 4937
induction motor vehicle drives, static characts. modelling *(Russian)* 44570
induction motors, nonsinusoidal supply-fed, additional loss calcs. 27737
inductively coupled discharges, analytic models 21789
interact., pulsed EM field and horn antenna 8033
interactive visualization, EM fields in waveguides and cavities 29521
interior PM servomotors, EM props. calcs. 44080
isotropic chiral media, effective charge densities and current densities 23491
Josephson jns., I-V charact., EM field flucts., single electron tunnelling 30784
large-scale anechoic chamber, EM fields, computational simul. 15505
law and EM fields 11652
LF EM fields, health problems overview 10287
LF EM fields, possible biological effects 26479
LF power syst. EM field mgt. project experience, USA 26906
LIM, moving conductors eddy current anal. method 27724
LIM, single-sided, theoretical perform. anal. *(Japanese)* 44045
LIM end-pole pitch AC EM field calcs. 36197
LIM field control perform. improvement 11035
limits rel., antiemission legislation *(German)* 26488
lin. axisymmetric EM field soln., series method *(Chinese)* 7886
magnetised spheroid supercond. levitation, equilib. calcs. 2172
mesh termination in finite-difference techs., simulating boundary conditions 31717

electromagnetic fields continued
- MHD induction pumps, 3D EM field/force anal. 36610
- MHD reactor flue turbulent flow anal. *(Russian)* 11303
- MHD ship thrusters, supercond. windings, screening techs. *(French)* 36617
- microwave EM field simul., TLM method, computer graphic visualisation 10006
- microwave heating cavity, FDTD simul. 11475
- microwave oven, high loss dielec., EM fields, FD-TD anal. *(Japanese)* 28186
- microwave ovens, rect. waveguide trough model 11476
- microwave woodworms destruction, lethal temp. studies 10288
- min. cost power transm., EM field considerations 35650
- mobile pulsed power supply, homopolar generator, inductive storage 36255
- multiconductor lossy transm. lines, causal time domain anal. 23765
- multiconductor transm. lines, field coupling, exact SPICE model 25201
- multilayered earth excited by overhead wire, EM field components 2179
- muzzle-fed railguns, EM/thermal anal. 15345
- near field of antenna surrounded by dielec., two teeth 31925
- nonintrusive probing techs. for EM meas. 2248
- nonlin. magnetostatic problems, complementary formulations and adaptive mesh refinements 40220
- nonlin. SRM drive modelling, neural net-based 5256
- nonlin. time-domain formulation of method of moments, EM field distribs. 40186
- nonlinear ccts., EM phenomena, conf., Poznan, Poland (1994) 28257
- num. terrain model, propag. loss, uniform theory of diffr. 15435
- optimisation and synthesis, IEE Colloquium, London (1994) 64
- overhead line lightning-induced underground telecom. cable overvoltages 19305
- overhead power lines, pulsed plane wave EM field induction calcs. 19304
- overhead power transm. lines, EM anal. 27233
- parallel two-wire line covered with three-layer media, anal. 15570
- PCB radiated emissions, finite-element CAE anal. 38084
- PM brushless DC motors, laminated rotor, FEM modelling 11064
- PM brushless DC motors anal., FEM 27743
- PM brushless drives, integrated CAD syst. 11344
- PM brushless motor drives, state-of-the-art 36677
- PM brushless motors, EM/thermal design 36104
- PM machines, air-gap flux dens. calcs., computer-based *(Chinese)* 10927
- PM machines, irreversible demagnetization loss calcs. 36098
- PM motor EM field anal., 3D equiv. mag. cct. method *(Korean)* 27667
- PM rectifier motor, EM field/torque calcs. *(Russian)* 10920
- PM rectifier-type motor, mag. field anal. 27682
- PM sync. motor ASD, EM params. determ. *(French)* 11334
- PM sync. motor drives, nonsinusoidal field distrib. 5263
- pole changing induction motors, pole AM studies *(Japanese)* 11020
- power converters, EM quantities, harmonic anal. *(Polish)* 11123
- power freq. EM devices, shape optim. 15254
- power freq. EM fields, pers. exposure regulations, Italy *(Italian)* 4336
- power line EM field prediction, educational design project 11610
- power lines EM field health risks, elec. utility strategies 4507
- power overhead line tower impulse characts., simul. theory *(Chinese)* 35656
- power syst. dyn. anal., time varying phasors 26849
- power syst. elements, EM anal. using finite difference method, software tool 40182
- power syst. grounding syst. anal., EMTP based model 4721
- power syst. LF EM fields, living organism health effects 4329
- power system harmonics, EM field prod. studies 19024
- pulse electrodynamic drive, transient proc., theory 7934
- pulsed EM field meas., strip transm. line 3948
- railgun EM fields, static/quasi-static models 15329
- railguns, 3D current distrib./EM fields soln. 15319
- rect. waveguide, elec. dyadic Green's fns. 31905
- rectangular waveguide, inserted nonlin. dielec. slab, wave propag. 23807
- reverberation chamber fields, spatial correl. fn. 31697
- revolving PM magnet wheels, actuators, lin. drive *(Japanese)* 44254
- rot. symmetric coaxial waveguides, efficient FEM formulation 23793
- salient-pole sync. generator, time-stepping FEM anal. 19605
- screened antenna-enclosure combinations, RFI emissions 2269
- sea water MHD ship thruster *(French)* 36616
- self-organizing finite-element tessellation for EM field problems, mesh generator 40199
- SGEMP and source-region EMP problems, equivalence principle 31851
- shaded-pole induction motors, 2D EM field anal. *(Japanese)* 11019
- SHF EM fields generation, pulsed power-based 31701
- shielding effectiveness data for wire cage, meas./calc. 31856
- shielding effectiveness of plane shield, incident angle 23698
- six-phase split winding induction motor drives, EM proc. modelling *(Russian)* 28095
- slow-way systs. as heaters for thermal treatment of dielec., optim. 44587
- spatial microstrip dyadic Green's fn., asymptotic closed-form 31991
- spatial microstrip dyadic Green's fn., radial and asymptotic closed form representation 40450
- streak camera subfemtosecond laser pulse meas. 31471
- supercond. generator brushless excitation, mag. flux pump-based *(Japanese)* 10963
- sync. impact generators, stator EM field calcs. *(Russian)* 27699
- sync. machine air gap EM field calcs., boundary elements method *(Russian)* 36130
- system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
- tapered slot antennas, FDTD anal. of transient EM fields 2333
- telecomm. cables lightning currents interf., computer model 15539
- telecomms. buildings, EM protection/estim. *(Japanese)* 31863
- thin metallic shell EM fields, power syst.-induced 2173
- time depend. Maxwell's curl eqns., hybrid finite element solns. 40184
- time-domain EM plane waves in static and dyn. conducting media 31784
- transformer substations, EM transients anal. 36480
- transm., corrugated slots 31855
- turbogenerator stator end core zone, EM procs. anal. *(Russian)* 36107
- two-wire cables, radiated emissions reduction, pair twisting effects 15536
- underground power cables, mag. field shielding studies 10747
- uniaxial bianisotropic-ferrite medium, field representations, cylindrical vector wave fns. 40320
- vac. interrupter contacts, switching endurance improvement *(Russian)* 44239
- variable rad. of concave-conducting boundary, EM fields HF anal. 7885
- variable reluctance machine magnetisation characts. modelling 19604
- vector FEA of waveguide discontinuities involving anisotropic media 40413
- vectorial beam propag. method based on EM field directional decomp. 40429
- VLF wave from dipole antenna in atmos., full-wave anal. method 31814
- wideband RCS and impulse response of targets, transient EM field 17424

electromagnetic fields continued
- wireless telephones induced EM fields effects 17035
- GaAs thin semicond. samples, EM simul., 2D TLM method, device models 30207
- $YBa_2Cu_3O_{7-x}$, microwave EM field-induced dielec. reson. 30809
- ZnO surge arrester leakage current, external field effects 4728

electromagnetic forces
- actuators, EM forces calc., num. methods assess. 5169
- augmented PM railgun, plasma armature behaviour 15356
- bearingless PM sync. motor characts. 4932
- busbars, EM proc. calcs., FEM-based 18998
- conformly bound regions, mech. effect *(Russian)* 40179
- current power converter transformers, short-cct. inductance calcs. 19771
- DC electromagnet pole dimens. selection method *(Russian)* 7928
- electret motors, EM force calc. methods 44085
- EM chem. propulsion concept 15264
- EM field num. anal., BEM/FEM appls. *(Japanese)* 15205
- force-bal. supercond. coil studies, SMES appls. *(Japanese)* 11311
- homog. mag. fields, Ampier force calcs. *(Russian)* 7883
- HV substation flexible busbars, plastic impact simul. 19915
- induction machines, eccentric rotor mag. pull modelling 36168
- Maglev multilayer ferromag. track, levitation characts. 20090
- Maglev supercond. lin. sync. drives, stator irreg. calcs. 36761
- Maglev syst., levitation/guidance, static characts. *(Korean)* 28119
- magnetless voice coil motor, driving characts. *(Japanese)* 44088
- MHD induction pumps, 3D EM field/force anal. 36610
- moving conductors, eddy current comps. by hybrid FE-BE method 40247
- muzzle-fed railgun expts., 3-D EM simul. 15279
- muzzle-fed railgun expts., plasma armature 31752
- PM machine, acoustic model, modal shapes, mag. forces 19594
- PM rectifier-type motor, mag. field anal. 27682
- pulse electrodynamic drive, transient proc., theory 7934
- railgun metal armature contact press. studies 15358
- railgun plasma armatures, serrated bore surface effects 15360
- railguns, design, coupled EM-hydro FEM 15311
- railguns, EM forces calc., 3D FEM 31753
- railguns, launch-induced static/dyn. deflection calcs. 15363
- rot. machines, radial EM force, superposed mag. field *(Japanese)* 27662
- self-supported SMES systs. assess. 5238
- sheet glass mfg., LIM-based elevation control studies *(Japanese)* 44636
- ship propulsion motor noise generation, computer modelling 5347
- single-phase iron-core compulsator, computer modelling 36290
- solid dielec. strength calc., kinetic theory-based 22655
- solid ring armature transaugmented railgun studies 15350
- steelmaking, sintering cake magnetic suspen., electromagnets *(Japanese)* 44626
- supercond. floating flywheel *(Japanese)* 36634
- supercond. generators, short-cct. rotor damper EM force calcs. 27676
- switchgear contact systs., electrodynamic forces compensation 19885
- SF_6 cct. breakers, EM and fluid mech., arc modelling 44235

electromagnetic induction
- *see also inductance*
- 60 Hz mag. fields exposure, human model, current dens. 26491
- 500 kV power line-induced overhead telecom. line voltages study *(Chinese)* 35654
- aircraft surface movement guidance and control syst. 43459
- ambulatory ECG, amplif. electrode, noise immunity 26397
- amorph. wires, magneto-inductive effect, mag. sens. appl. 17714
- automotive EMC, cables coupling, practical approach 23687
- axial symmetric shield penetrating EM field time const. calcs. *(Polish)* 31699
- buildings, 3D wire-grid model, anal. 23513
- buried line conductors, EM modelling, integral eqn. 40256
- cable EM induction shielding methods, theoretical anal. *(Japanese)* 2277
- circ. loop antenna, radiated emissions, finite ground plane effect 8046
- concentrically layered region, source EM response 40204
- conducting enclosures, direct lightning strike, internal voltages 40189
- cordless telephone operators, head induced EM fields 35192
- deformable ccts., EM induction, teaching paper 23510
- eddy current field, induced elec. charges, boundary integral eqns. 40237
- eddy current sens., mag. cct. losses 42771
- ELF-microwave radiation dosimetry num. methods 35186
- EM launcher hypervelocity projectile passage sens. design 15335
- EM scatt. for oblique incidence on impedance bodies of rev. 23574
- equiv. transm. line model for EM penetration, reinforced concrete 40377
- ground pot. var., frame wiring, induced noise 23696
- HF EM waves coupling to aircraft wiring, test methodology 26526
- high speed async. motor, solid rotor, mag. vector pot. 36166
- homogenous transm. line, heterogenous telegraphic eqns. *(Russian)* 43733
- human ankles, induced currents, VHF EM fields 35183
- human forearm, neural stimulation in mag. field, tissue models 35190
- human model, AC field exposure, induced current densities 26485
- human model in power freq. elec. field, induced current densities 26492
- idealized exciting current sources modelling in FEM, EMC, Eddy currents 40365
- indoor telecomm. line noise voltage due to AC supply lines, estim. 16988
- induced elec. field intens. *(Russian)* 40233
- induction coil launcher armature perform., computer simuls. 15302
- induction-drive MHD propulsion, comment 44558
- inductive coupling on cables, freq. charact. 23706
- inductive particle charging, jumpwise motion in elec. field 15241
- LIM field control perform. improvement 11035
- lin., first order finite element pot. solns. 40196
- lin. homog. constitutive rels. constraints 15240
- LV elec. power device, switching noise meas. 27858
- Maglev, instantaneous current detect., PWM converter *(Japanese)* 44563
- MAGLEV train coil syst., transient induced voltages study 11428
- magnetoacoustic emission, mag. induction/specimen thickness depend. 12218
- microstrip transm. lines, crosstalk prediction 6277
- mountaintop stations installations, lightning protection 23688
- multiconductor telecomm. cables, lightning overvoltages 25202
- multiconductor transm. lines, field coupling, exact SPICE model 25201
- multilayer PWBs, segmented ground planes, common mode currents 15477
- mutual impedance, overhead/buried line, earth return 2253
- mutually coupled line propag. charact., digital anal. method 40394
- nozzle flow, EM induction modif. 15237
- overhead line lightning-induced underground telecom. cable overvoltages 19305

electromagnetic induction continued
overhead power lines, pulsed plane wave EM field induction calcs. 19304
overhead power transm. lines, EM anal. 27233
Permalloy elements, domain struct., TEM coherent mag. imaging 14120
power overhead lines, lightning-induced voltage expts. *(Japanese)* 4696
RF exposure, human body induced current meas. 26487
semicond. devices, ESD models anal. 13576
SPICE model for multiconductor transm. lines, EM field excited 8010
stripline PCB with center traces, crosstalk reduction 21627
sub-surface polarizable metal sheet, quasi-static response 15239
subscriber telecomm. equipt., lightning-surge test method 25146
telecomm. cable metallic sheath, shielding factor 25194
telecomm. cables lightning currents interf., computer model 15539
telecomm. syst. lightning response charactn. 16566
time-varying mag. field, conductive plate, induced eddy currents, Tokamak fusion reactor 31725
transducers for charged particle beams meas. 18265
transient plane wave coupling, bare/insulated cables in lossy half-space 31869
transm. line, crosstalk coupling, digital noise propag. 25200
underground metal pipes detect., EM induction sens. 18044
urban elec. transportation systs., mag. power transfer 44576
vac. interrupter contacts, switching endurance improvement *(Russian)* 44239

electromagnetic interference
see also electromagnetic pulse; radiofrequency interference; telephone interference; television interference
50 to 300 kVA UPS installation guide 19875
155.52 Mb/s data transm. on category 5 cable plant 42044
500 kV transm. lines/railroad crossings, EMI protection *(Chinese)* 27229
ABS plastics, EMI shielding, electroless plating 8002
AC line point of utilization power quality study, USA 19288
AC locomotives, line-side switching harmonics compensator 20101
AC power lines/radio commun. sites, min. separation dist. 15508
AC/DC SCR bridge rectifier, common mode currents studies 19845
ambulatory ECG, amplif. electrode, noise immunity 26397
anechoic/semi-anechoic chambers, deficiency 15484
asymmetric TEM cell, characteristic impedance, septum thickness effect 20417
automated emission meas., data reduction algm. 15487
automated spectrum mgt. tools 26818
automated tools for EM spectrum mgt./use 15464
automobiles, EMI reduction, high speed modem 31859
automotive EMC, cables coupling, practical approach 23687
avionics interf., airborne pers. electronic devices 10347
bal. multiple-pair telecomm. sig. ports disturbances meas. 23744
BiCMOS integrated op amp, EMI failures reduction 22618
biconical antenna for EMC meas. 23716
board-based syst. power distrib., onboard regulators 38088
broadband EM disturbances, electronic systs. protection 15520
building EMC directives, Europe, overview 27181
buildings with shielding screens, EM field anal. 15509
cable EM induction shielding methods, theoretical anal. *(Japanese)* 2277
CCIR business/residential noise levels, update 18056
CDMA for automotive area network, power-lines 3310
chiral slabs, shielding props. anal. 40378
circ. rim in elec. field, sing. 23498
coaxial cable harnesses, EMC problems and perform. 889
common-mode current radiation anal. by moment method 23703
compact semi- and fully anechoic chambers, composite absorber 15529
computer equipt., wave fields modeling 2164
copper shielded cabling systs., advantages 16996
D-type flip-flop, fast-transient suscept. 29098
DC/DC PWM ZVS reson. power convertor develop. 5078
digital data transm., unshielded copper wire emission 15478
dimmers, EMI and effects on lamp life and power quality 11445
dipole antenna 40372
dipole antenna factor meas. on ground plane by 3-antenna method 40483
dipole antennas on ground plane, antenna factors meas. 23899
discontinuous PWM preregulators, conducted EMI reduction 11161
elec. ccts., EM fields coupling for EMC 15535
elec. multiconductor line systs., internal/external interfs. 23685
elec. rly. traction syst., EMI assess. modelling 44548
electronic equipt. interact., computer modeling 8000
electronic systs. earthing, parts, perform., cabling, impact *(French)* 15521
electrostatic charge control, wafer prod. damage prevention 7896
electrosurgical units, elec. field strength creation 18686
EM environ. meas., catalogue, 30-300 Hz 31850
EM transients anal. 35603
EMC, conference, Sendai, Japan (1994) 11561
EMC, power transm. systs. 44129
EMC conference, Chicago, USA (1994) 5471
EMC perform. of suppression components/shielding materials 2264
EMI in hospitals, IEE Colloquium, London (1994) 17
emission meas., ferrite absorber lined anechoic chamber 23676
environ. meas. syst. employing freq. level selective proc. *(Japanese)* 8001
ESD anals. for spacecraft in geosynchronous orbit 35213
extrapolation of emanations from large systs. 23662
ferrites, wide freq. impedance modeling 15488
field distrib. estim. for buildings, wire-grid approx. *(Japanese)* 40386
field emitted by telecomms. line, estim. 40373
filters, bal./unbalanced charact. meas., S-params. 23718
France Telecom power syst. lightning protection 19332
generation of predominantly elec., mag. fields in free space 40385
GIS RFI/transient field meas. 27867
GTEM, OATS radiated emissions correl. from 1-5 GHz 15512
GTEM cell, appl. example 23721
GTEM cell, elec./mag. fields calc. 8011
GTEM data submission, FCC approval 23722
GTEM for EM emission meas., test result correl. 15524
Health Technical Memorandum 2014, elec. interf. abatement 10258
hearing aid T-coil appls., EM interf. 4299
heatsink radiation, fn. of geom. 15475
HF AC power distrib., telecom. power supply appls. 44143
HF EM waves coupling to aircraft wiring, test methodology 26526
high efficiency forward converter topologies 6001
high speed rail train set, testing 15493
hospital EM interf., European Union Directive 18685
hospitals, human body response 18684

electromagnetic interference continued
HP 8590EM spectrum analyzer for EMC testing 42748
HV impulse generator, radiated interf. 2254
HV substations, EMI anal., switch arc restrikes 5159
IC components radiation suscept. meas. 1466
IEC801-3 std., radiation immunity systs. 23732
IEC801/1000-4 series and immunity testing 23730
IFF appl., transient control by software 23677
ILS, false runway axis, interfs. 26544
impulsive ESD noise from office chair 30541
inhomog. waveguide components, field matching/noise filtering 23800
inline EMI checker for small elec. appliances 23673
inline EMI checker for small elec. appliances 23733
intell. building, electro-mag. interf. 8004
intell. building, lightning induced voltages 8005
intell. EMC anal. and design techs. 15525
interferometric opt. fiber HV/current sens., field test 17821
intermediate line power filters, impedance/EMI compatible designs 29008
internally protected universal ground adapter, cable EM protection 15502
intrinsically conducting polymers, EM radiation shielding 2275
Japan Voluntary Control Council for Interference, activity summary 23725
KNM-S243/S603 radio interf. apparatus/measuring systs. 23734
LEAR storage ring, stochastic cooling systs., upgrading 34789
LEMP effects on subtransmission line, MOM 15480
LF model for wedge, pyramid absorber arrays 7994
LF model for wedge or pyramid absorber arrays, meas. results 7995
lossy PWB, radiated emission reduction 23667
low cost EMC testing 2251
mains network surge transients, EM immunity testing 19050
Manchester Metrolink, EMC and road traffic control 5330
MCT converter, snubber efffect, switching loss, EMI reduction 6017
meas., near-field probes appl. 2245
meas., std. antennas calib. 7991
meas. methodology 40369
metal cabinet enclosing PCB, radiation anal. 23695
microwave commun. towers, lightning stroke-generated EMI expts. *(Chinese)* 42174
miniature relay matrix, multi-actuator systs., electromechanical interf. 30524
multi-chip carrier power hybrid, EMI study 21662
multi-output SMPS EMI filter anal./design 44156
multiconductor transm. lines, field coupling, exact SPICE model 25201
multidimensional syst., topol. attributes, modal estim. 15473
multilayer PCB, power bus decoupling, modeling 15534
multilayer PWBs, segmented ground planes, common mode currents 15477
mutual impedance, overhead/buried line, earth return 2253
near-/far-field antenna factor, meas./modeling 15492
noise emission anal., cepstrum 23678
noise injection clamps charact. 23747
noise reduction transformer, perform. and noise atten. mechanism 19681
nuc. reactors, digital syst. immunisation 35930
open area test site effects in finite modelling techs. 2265
overhead power transm. lines, EM anal. 27233
PCB, high speed pulse propag., radiation prediction, 3D FDTD 900
PCB, radiated emission prediction/reduction 23666
PCB, sig. line EM emission, spectral profile simul. 23669
PCB common-mode radiation reduction 21640
PCB design, implement. of EMC criteria 29658
PCB design for radiated emission reduction 12895
PCB groundplanes, radiated emission reduction 23668
PCB layout, concurrent design approach 21630
PCB radiation, lossy finite width image planes influence 21636
PCB radiation aspects calc., EMC workbench 21634
PCB refl. and crosstalk effects simul. 908
PCB sig. line, peak freq. prediction 38073
PCBs design, refl. and crosstalk effects simul. 907
PCBs with attached cables, common-mode radiation 15476
PF preregulator power convertors, EMI emission studies 10653
physiological sigs. monitoring, interf. 10173
power converter, SCR, EMI conducted noise emission, EMC study 36240
power electronic cct. design/layout, EMI reduction, perform. improvement 12312
power electronics capacitors, inductance/EMI reduction 541
power electronics EMC components 23723
power electronics in transportation, conf., Dearborn, USA (1994) 5451
power feeder EMI/RFI filters, nonlin. load effects 19279
power line switching transients immunity control spec. 19041
power MOSFET/IGBT optimal driver ccts. 29040
power syst. geomag. induced currents, directional sensitivity 4449
power systs., time integrated EMI safety margins 15465
pre-regulator IC, lateral IGBT and current mode sens. 29037
product radiated EM emission, VCCI members meas. facilities 23728
pulse noise generating source, direction finder develop. 23743
pulse wave, EM scatt. by buried obj., FDTD method 23618
quick EMI emissions tests, precompliance test set 2276
racks and cabinets, screening 15517
radiated EM suscept., test requirements/procedures 15467
radiated emissions from automotive multiplex bus wiring 15474
radiated emissions reduction, SS clock generation 15490
radiated interf. field estim. for electronic equipt. 31866
radiated interf. of electronic equipt., randomly assigned phase terms 31857
radiated interference field estim. for elec. equipt. 23739
radiation from finite-length printed-pattern, cct.-concept 21626
radiation from packaged ICs 21621
radiation from PCB with a cable, anal. 23665
RADOBS, intrusion detect. sens., environ. effects reduction 42520
rect. top horn offset coaxial transm. line, sphere-TEM mode 9154
reduction technol. by placing metal plate close, PCB 23713
reverberation chambers, aircraft test appls. 15538
reverberation chambers, electronic mode stirring 7993
RLC miniature elec. filters for single electron devices 37829
rly. signalling systs., failure anal. 44549
SCR, radiated emissions meas. 15504
semi-anechoic chamber, ambient meas. 15479
shield degrad. in presence of external conductors 15497
shielded enclosures radiation, FDTD method 15472
shielded room reson. effects reduction, constr. tech. 15485
shielding, electroless coatings 2258
ships, EM coupling, multiple antennas on ogival ground plane 23717
short gap discharges, fast transient elec. fields meas. 23507

electromagnetic interference continued
- silent discharge, gas discharge noise charact. 23679
- single-ended forward-feed converter, vert. radiated field strength of interf. 27817
- site atten. anoms., effect on antenna factors meas. 23937
- small aperture modeling, EMI appls., FDTD tech. 40384
- solid chip common mode chokes, develop. 21600
- spherical dipole antenna 23900
- SS systs., conducted suscept., testing techs. 3354
- SS tech. for automotive multiplexing systs. 25199
- std. EMI modeling problems 15526
- stretched pulse PPM opt. channels, perform. improvement *(Chinese)* 9533
- stripline PCB with center traces, crosstalk reduction 21627
- substations, transient EMI meas. 5158
- suppression, ferrites 2244
- surveillance devices, security tags 23663
- switching syst. EMI prevention/protection experiences, France 16968
- telecom. network EM disturbances charactn. meas. 16574
- telecomm. cable long-term influences of three-phase power cables *(German)* 16999
- telecomm. cables lightning currents interf., computer model 15539
- telecomm. equipt. EMI bonding topol. studies 15523
- telecomm. syst. lightning response charactn. 16566
- telecomm. systs. DC distrib. network grounding, EMC aspects 19269
- telecomms. equipt. earthing/bonding, prETS 300253 European draft std. 15522
- TEM cell, sound/TV receivers radiated suscept. meas. 25646
- thin ultra-wide band absorber CP-2 for anechoic chamber 23724
- three-phase AC motor drives, freq. converters, interf. suppression 5042
- three-phase AC/DC universal traction drive syst. design 44542
- time domain EMC testing syst. 23671
- TLM method, plane-wave illum., partial Huygen's surface 2282
- transm. line, current transient proc. meas. 23686
- Triple-TEM cell, simple device for immunity testing 23748
- underground conductors, conductive coupling, earth effect 23759
- VCCI EMI activity in Japan 23684
- VDT, radiated elec./mag. fields meas. 23702
- VDU emissions, stds. 3934
- wave/particle meas., lightning-induced precip. 23705
- wideband EM wave absorber, thin mag. layers 15518
- wind energy develop., UK, planning/environ. aspects 10896
- GaAs power diodes, PF correction boost converter appls. 36284
- $LiNbO_3$ electrooptic modulator, conducted suscept. 7390

electromagnetic launchers
- *see also railguns*
- 3D structural/EM anal. calcs. 15366
- 50 mm diam. induction coilgun launcher, design, eval. 15296
- 50 mm solid armature pulsed power EM launcher develop., USA 31749
- 500 m/s lin. induction launcher perform. studies 15376
- accelerated plasmas, resistive Rayleigh-Taylor instabil. 15316
- asynchronous generators, EM launcher pulsed power supplies 31742
- capacitor discharge induction launcher model, validation 15314
- coilgun launchers, power conditioning, thyristor appls. 31765
- coilgun perform., timing errors effect 31755
- coilguns, design optimisation 15295
- combat vehicle EM weapon syst. integrat. design 18961
- conference, San Diego, USA (1994) 5490
- D2 hypervelocity projectile program, air defence elec. launchers 18962
- design optimisation 15260
- elec. gun capacitive pulse forming networks 19776
- elec. launcher technol. component erosion expts. 15326
- electrode/insulator degrad. studies 15332
- electromechanical energy convertors, develop. overview *(Russian)* 43993
- EM chem. propulsion concept 15264
- EM launch technology, conference, San Diego, USA (1994) 5490
- EMALS EM aircraft launch syst., aircraft carrier appls. 15304
- exploding wires, elec./radiative props. 31777
- fusion pellet EM launching, high vel. 2193
- Green Farm elec. gun facility, expts. 15275
- gun technol., Cu/Al component protection coatings 15331
- guns, launch package integrat. design 18963
- hypervelocity EM armament, main battle tank, anti-armor mission 15308
- hypervelocity projectile passage sens. design 15335
- IEEE pulsed power conf., Albuquerque, USA (1993) 20246
- induction coil launcher armature perform., computer simuls. 15302
- induction launchers, projectile transverse motion/stabil. 15301
- inductive coilguns, driving field/projectile motion synchronisation 15300
- Kirkcudbright EM launch facility, pulsed power syst. 31743
- lin. induction launcher, in-bore projectile dyn. 15297
- lin. induction launcher, multi-sect. transit. simul. 15299
- lin. induction launcher, projectile balloting/spinning/nutation 15298
- lin. motor EM accelerator, turbulent hydrodyn. mix studies 15278
- mag. flux compression/expansion, EM launchers/power supplies 31761
- Maglev transit technol. develop., worldwide 28141
- multi-fibre brush armature perform. simul. 15321
- multi-stage coilgun, design, energy distrib. *(Korean)* 23519
- optimisation and synthesis, IEE Colloquium, London (1994) 64
- plasma armatures, 2D MHD simul., secondary arcs 15309
- plasma armatures, 3D MHD modelling, equiv. network 15313
- plasma dyn. accelerator, 2D MHD simul. code 15323
- plasma gun launcher pulsed power supply, solid liner implosion-based 36271
- plasma pulse-based metal surface treatment 15337
- plasma-surface interact., computer simul. 15372
- pulsed coilguns, two-step design procedure 15303
- pulsed power, IEEE Colloquium, London (1995) 28231
- pulsed power capacitor dielec. eval., ringing conditions 36499
- solid armatures, current wave/saw effect phenom. 15318
- SPEAR coilgun, design, tests 15294
- tactical appls. 15307
- Cu 9 MJ EM launcher rails, post-test mech. charactn. 15338

electromagnetic lenses *see magnetic lenses*

electromagnetic oscillations
- *see also cavity resonators; lasers; masers; ring lasers*
- coaxial triodes with virtual cathode, axially unsymm. EM wave emission 38220
- dielec. disk resonator, azimuthal waves interfer. and interact. 12705
- diffr. radiation generator, open resonator, intermode oscills. 37949
- gyrotron efficiency, sideband oscills. influence 6493
- high power klystron develop. 29781

electromagnetic oscillations continued
- MM-wave solid-state oscillator, quasioptical metal-dielec. resonator 37977
- pulse electrodynamic drive, transient proc., theory 7934
- S-band klystrons, 150-MW, design and perform. 21845
- shock wave in transm. line, HF generation 40392
- submillimeter range EM oscills. in p-n jn., laser gen. mechanism 39793
- variable reluctance stepping motor rotor oscill. control 11376
- vircator with long. mag. field, EM waves amplif. 38218

electromagnetic pulse
- 1960's radiation effects research on semicond. devices/materials 11558
- absorbing dispersive dielec., energy-vel. description of pulse propag. 31779
- aircraft shielding, swept freq. single point excitation tech. 18704
- aircraft window, fast risetime EMP coupling 18705
- ARES EMP simulator, EM fields radiation 7997
- chiral shields, transient anal. 23709
- chiral slabs, shielding props. anal. 40378
- dielec. coated wire scatterers/antennas, time domain anal. 15654
- digital generator for elec. prospecting equipt., adjustment/testing 4388
- effective E field derivation for short EM pulses 7891
- EMC, conference, Sendai, Japan (1994) 11561
- equiv. transm. line model for EM penetration, reinforced concrete 40377
- ferromag. shields, EM transients anal. procedure 15486
- field-excited transm. line systs., time domain anal. 15495
- generating sets, electronics, high altitude NEMP hardening 19587
- high-altitude nuc. explosion, underground EMP environ. study 23689
- human body/pulsed EM wave interact., induced currents 18627
- impedance wedge, surface currents eval. 23657
- impulse radar extracted signature features, aspect depend. in time-freq. domain 17389
- interact., pulsed EM field and horn antenna 8033
- LEMP, protection measures dimensioning *(German)* 35679
- LEMP effects on subtransmission line, MOM 15480
- lightning protection, 22nd Internat. Conf., Budapest (1994) *(German)* 35680
- Mach-Zehnder interferometer for elec. field sens. 25817
- Marx generator-based EMP simulator pulsed power supply 36264
- measuring syst. deformed, reconstruction 23700
- nuc. EM pulse fields inside metallic container 31852
- param. estim. of induced currents in cylindrical conducting shell 8003
- planar wire-mesh EM shields loaded by general stratified struct. 40379
- planar wire-mesh shields loaded by chiral slabs, transient anal. 23710
- power syst. lightning-induced overvoltage calcs., coupling models 27252
- propag. of EM pulses in conducting medium, comments/reply 23586
- quadratic-cubic nonlin. dispersive media, unique solitary-wave polaritons 7803
- R^2SPG tech., systs. upset thresholds meas. 15496
- radio commun. eqpt., external pulse EM field effects 25218
- semicond. device reliab., EOS tutorial 30191
- SGEMP and source-region EMP problems, equivalence principle 31851
- SHF EM fields generation, pulsed power-based 31701
- simulators, HV pulsed power generators design, Ukraine 36268
- switching syst. EMI prevention/protection experiences, France 16968
- time-of-arrival prediction model for transionospheric EMP 25458
- ultrafast high press. pulsed power gas switch expts. 36416
- $LiNbO_3$ elec. field sens., sensitivity improvement 14522

electromagnetic radiation *see electromagnetic waves*

electromagnetic shielding
- *see also magnetic shielding*
- AC electrified rly., AT power supply syst., earth pot. 28114
- air insulated substations, EM field calcs., computer-based 5161
- aircraft shielding, swept freq. single point excitation tech. 18704
- anisotropic laminated composite cylindrical shells, plane-wave shielding 31854
- anisotropic laminated composites, near-field shielding props. 23693
- biomedical fiber-optic micro press. sens. devel. *(Japanese)* 26357
- board-to-board connector shielding, transfer impedance meas. 15533
- broadband EM disturbances, electronic systs. protection 15520
- broadband EMI shielding for electro-opt. systs. 15507
- building scatter of sigs., microwave freqs. 15425
- buildings with shielding screens, EM field anal. 15509
- cable EM induction shielding methods, theoretical anal. *(Japanese)* 2277
- chiral shields, transient anal. 23709
- chiral slabs, shielding props. anal. 40378
- CISPR conducted emissions meas. on telecom. leads 15494
- coaxial drop cable, shielding, ageing simul. by flexure 33734
- coil shielding by short ferromag. tube 23692
- commercial grade EMI gaskets, devel. 23729
- computer-aided stat. planning for optimal cable screening braids 16989
- contact resist., base metals 2259
- coplanar transm. line types 31868
- copper shielded cabling systs., advantages 16996
- diffusion interact. procs. anal. for EM fields and screens 31698
- dual patch shielded antenna array element for mobile satellite commun. 23947
- dual TEM cell, elec./mag. field shielding effectiveness 15501
- earth-station antennas, site shielding 40491
- electronic equipt. interact., computer modeling 8000
- EM pulse, param. estim. of currents induced in cylindrical conducting shell 8003
- EM radiation from packaged ICs, anal. 21621
- EMC, conference, Dallas, TX, USA (1993) 36844
- EMC, conference, Sendai, Japan (1994) 11561
- EMC conference, Chicago, USA (1994) 5471
- EMC perform. of suppression components/shielding materials 2264
- enclosure-antenna combinations, radiated emission meas. 2269
- equiv. transm. line model for EM penetration, reinforced concrete 40377
- ESD shielding, inflatable-bag technol. 15516
- ferromag. shields, EM transients anal. procedure 15486
- fibre-optic cables installed on overhead power transm. lines 17334
- field distrib. estim. for buildings, wire-grid approx. *(Japanese)* 40386
- gasket shielding perform. meas., test techs. 15499
- grounding principles, cct. design 12255
- half-space regions separated by perforated screens, EM coupling 31853
- HF EM waves coupling to aircraft wiring, test methodology 26526
- Hi-PAS, EMC design for high-dens. packaging syst. *(Japanese)* 31862
- ICs, noise immunity, heatsink, influences 20436
- indoor radio propag., multipath charact. for shielded building *(Japanese)* 23626
- layered nonlin. sheets, shielding props., prediction 15466
- leakage modeling, finite apertures, TLM 15471

electromagnetic shielding continued
  locally nonuniform mesh FDTD anal. 15541
  low-level meas. techs. for noisy environ. 17651
  meas. techs. review 17696
  metal cabinet enclosing PCB, radiation anal. 23695
  microshield transm. line millimetre-wave/submillimetre wave pass. components 29544
  mode-stirred chamber meas. repeatability 15537
  MRI, shielded loop resonators theory 43209
  MRI slotted tube resonator, dielec. body loaded, num. anal. 26318
  multi-layer materials, appls. of impedance boundary conditions 23711
  multiconductor telecomm. cables, lightning overvoltages 25202
  multilayer shell shield, matric anal. 23659
  multilayered transm. lines, gyrotropic lossy media 2279
  near-/far-field charact. of perforated screens, shielding perform. 15503
  nuc. EM pulse fields inside metallic container 31852
  overhead line lightning-induced underground telecom. cable overvoltages 19305
  perp. mag. field for shielding materials meas. 15489
  planar wire-mesh EM shields loaded by general stratified struct. 40379
  planar wire-mesh shields loaded by chiral slabs, transient anal. 23710
  polymeric HV cable, PD testing 4687
  polymers, intrinsically conductive, for EM screening 2260
  power system harmonics, EM field prod. studies 19024
  racks and cabinets, screening 15517
  railgun, operating current limit increase, EM shields 15266
  rect. cavities, field distrib., GMT-based approaches 15540
  rect. tunnels, radio propag. loss, mesh effects 31809
  reinforced concrete building, elec. field atten. 23736
  reson. effects reduction in shielded room, constr. tech. 15485
  RF reed relay for antenna-transmitter power amp. matching 29642
  SAR reduction in human body by perfect conducting shield *(Japanese)* 43412
  Schelkunoff's shielding effectiveness formula, errors and correction factors *(Japanese)* 23658
  screening, polarized casings calcs. *(Russian)* 7881
  screens efficiency, anisotropic materials appl. 23715
  sheet resist. calc. shielding effectiveness 23691
  shield degrad. in presence of external conductors 15497
  shielded enclosure, EM leakage, slots 15498
  shielded enclosures radiation, FDTD method 15472
  shielded rooms and shielding materials effectiveness 23712
  shielded waveguide spectrum, complex waves mechanism 12688
  shielding, electroless coatings 2258
  shielding effectiveness, angle of cut/gap size effects 23697
  shielding effectiveness, gap size and angle of cut effects 40375
  shielding effectiveness, intrinsic param. 23708
  shielding effectiveness data for wire cage, meas./calc. 31856
  shielding effectiveness of plane shield, incident angle 23698
  shielding enclosures, hybrid finite element-anal. solns. 7999
  single-phase iron-core compulsator, computer modelling 36290
  small reinforced concrete building, EM field atten. 40376
  spherical dipole antenna, shielding effectiveness meas. 15461
  spring finger EM shielding gaskets in indust., perform. optim. 23714
  subminiature/SIPAC-S connectors of EMC design, shielded housings 895
  suspen. striplines, proper values/vectors calc. 37933
  suspen. substr. strip transm. line anal. *(Korean)* 15546
  telecomm. systs. DC distrib. network grounding, EMC aspects 19269
  telecomms. buildings, EM protection/estim. *(Japanese)* 31863
  telecomms. equipt., design *(Japanese)* 31861
  trans-horizon radio link, site shielding variability, expt. 17026
  tunnel systs. in automated electronics mfg. 1186
  two-conductor multilayer microstrip line coupling 31873
  two-wire cables, radiated emissions reduction, pair twisting effects 15536
  Ni-Zn ferrite/rubber composite microwave absorber, additives effect *(Korean)* 20991

electromagnetic stirrers *see electromagnetic devices*

electromagnetic surface waves *see surface electromagnetic waves*

electromagnetic traps *see particle traps*

electromagnetic wave absorption
  see also light absorption; spectra; X-ray absorption
  3-D pattern of EM power absorbed by human body *(Japanese)* 10289
  20 GHz Earth-Olympus satellite path, propag. research 42333
  60 GHz band resistive-sheet type wave absorber, design and manufacture 40298
  anechoic chamber, multi-layer ferrite EM wave absorbers 15514
  anechoic chamber with ferrite grid absorbers, perform. 23731
  attenuating cover panels/shielding gaskets, leakage power meas. 15500
  bidirectional symm. radar absorbing struct. 34144
  broadband compact absorber for EMC chamber appls. 15515
  broadband microwave absorber Pareto-optimal design using genetic algms. 31791
  buried pipe location, zero-crossed synthetic aperture 3599
  cellular pers. commun., handset antenna/human EM interact. 9343
  centimeter/decimeter radio waves absorpt., eclipse expts. 40359
  dispersive dielec., EMP, energy-vel. description 31779
  Earth space path over Shillong, rain atten. 15442
  Earth-space propag. paths, differential rain atten. 15441
  Earth-space syst., site diversity, rain atten., interf. anal. 15440
  earth-station antennas, site shielding 40491
  EHF waves cross-polaris./atten. in sand and dust storms 15445
  EM anechoic chamber, field strength uniformity eval. 23674
  EMI/EMS testing, ferrite absorber lined anechoic chamber 23676
  end-coupled Josephson jns., microwave absorpt., wideband detect. 42773
  excitation plane FDTD wideband absorbing boundary conditions 15423
  FDTD method, absorbing boundary conditions synthesis 31935
  ferrite anechoic chamber site atten. calc. 15513
  ferrite EM wave absorbers, bandwidth widening by attaching rubber ferrite 2210
  ferrite tiles, temp. behaviour of reflectivity 14198
  fin ferrite EM wave absorber, wide-band charact. 1579
  finite difference TLM method, first-order absorbing and dispersive boundary conditions 23764
  grid ferrite EM wave absorber, charact. 14216
  ground refl. wave suppressed test sites 23670
  ground station-geostationary satellite link, radio wave atten. 40357
  hollow circ. waveguides, atten. const., curvature effect 15601
  ideally conductive irregular edge, EM wave atten. 31786
  infinite periodic arrays, radiation/scatt., 3D hybrid FEM/BEM 31780

electromagnetic wave absorption continued
  inhomog. current-carrying plasmas, electron-cyclotron absorpt. 23656
  intrinsically conducting polymers, EM radiation shielding 2275
  Jauman absorbers design 25579
  large-scale anechoic chamber, EM fields, computational simul. 15505
  LF model for wedge, pyramid absorber arrays 7994
  LF model for wedge or pyramid absorber arrays, meas. results 7995
  mag. EM wave absorber at 9.45 GHz, design chart 39214
  magnetized combination ferrite, matching freq. charact. 22690
  Malaysia, rain atten. for satellite commun. in tropical regions 3524
  Maxwell eqns., absorbing boundary conditions, FDTD method 7956
  microwave T/R switches, elec. field enhance./power absorpt. 21529
  multi-layer wave-absorber for oblique incidence, point freq. matching method 23579
  multilayer absorber on perfectly conducting plate, worst-case design 23547
  num. absorbing boundary condition for edge-based FEA 7946
  outer radiating boundary condition convergence rates 15424
  periodic wedge absorber using transm. mode approx., permitt. anal. *(Japanese)* 23536
  pyramid EM wave absorber approx. model, TE wave appl. *(Japanese)* 40334
  radio waves atten./phase rot./cross-polaris., rain 23629
  rect. tunnels, radio propag. loss, mesh effects 31809
  reflectionless absorpt., perfectly matched layer concept 23600
  RF exposure, human body induced current meas. 26487
  RF-absorbing dielec. structs., resistive-capacitive layers 23593
  SAR reduction in human body by perfect conducting shield *(Japanese)* 43412
  satellite commun., effect of atmos. phenom. 42305
  satellite-Earth links, atten. prediction, low fade margins syst. 2231
  semi-anechoic chambers, characts. and reson. phenom. 23675
  semicond. film anisotropy in field of slow wave 13006
  site atten. in radiated emission meas., anal. 8006
  small cells/microcells, radio wave penetration, urban buildings 9260
  space fed planar array, vehicle roof refl. charact. 23941
  space-Earth absorpt., radiometric inversion coeffs. for Italy 15430
  specific rain atten. models, MM wavelengths 15436
  sticky particles, pair distrib. fns./atten. rates 15409
  super wide-band EM wave absorber, design and charact. *(Japanese)* 15398
  test site, 3 m site atten. above earth ground 23704
  thin ultra-wide band absorber CP-2 for anechoic chamber 23724
  time-domain TLM anal., wideband absorbing boundary conditions 15613
  Turkey, rainfall atten. climatic map, develop. 15437
  two-layer wave absorbers for metallic cylinders, design 15385
  vegetation elements, extinction cross-sect. meas., open resonator 34671
  Virginia Tech propag. expt. using Olympus satellite 12, 20 and 30 GHz beacons 23631
  wet snow, dielec. mixtures, effective permitt., scatt. losses 15389
  whistler-mode sigs. from LF Decca transmitter, propag. charact. *(Japanese)* 40346
  wideband EM wave absorber, thin mag. layers 15518
  window materials for 110 GHz and 280 GHz gyrotron 38216
  C fiber-reinforced composite surfaces, microwaves refl./absorpt. 12243
  Ni-Zn ferrite, sintered, microwave absorbing props. 14179
  Ni-Zn ferrite/rubber composite microwave absorber, additives effect *(Korean)* 20991

electromagnetic wave attenuation *see electromagnetic wave absorption; electromagnetic wave scattering*

electromagnetic wave diffraction
  see also geometrical theory of diffraction; light diffraction; physical theory of diffraction; X-ray diffraction
  1.8 GHz ray optics modelling for indoor propag. 7977
  1D zonal reflectors, anal. 40470
  2D nonuniform plasma cylinder with neg. core, E-wave diffr. 23655
  900 and 1800 MHz microcell radiowave propag. comparison 31826
  905 MHz radio propag. in an office, metal low-partitions effect 31830
  absorber tip diffr. coeff. 7942
  anisotropic plasma, impedance wedge diffr. 15452
  beam diffr. by planar periodic metal-strip grating 40295
  CATR reflectors, triangular serrations width/height 15633
  complex geom. indoor radio propag. ray-splitting model 31825
  conducting strip, line source EM wave diffr./scatt. 23575
  cylindrical concave conducting boundary, whispering-gallery mode radiation from aperture *(Japanese)* 15397
  cylindrical vibrator surface 40299
  cylindrical wave diffr. by ideally conducting wedge 23594
  dual-shaped reflector compact ranges, subreflector/feed scatt. 23905
  earth-station antennas, site shielding 40491
  electrodynamics, inhomog. media, local plane-layered approx. conditions 2199
  EMP illum. impedance wedge, current eval. 23657
  excitation/diffr. by metal cylinder in flat waveguide 40407
  FFT multiple half-screen diffr. model for cellular commun. 3417
  fictitious sources method applied, diffractive gratings 15416
  folded Fresnel zone plate antenna, design and anal. 2323
  freq.-scanning narrow beam antenna, 60 GHz 40467
  Fresnel double integral, calc. method 31802
  Fresnel knife-edge diffr. correction factors based on UTD results 2230
  fuzzy ARTMAP neural networks for gratings/FSSs design 40449
  Gaussian beam at MM wavelengths, kinoform for spatial distrib. 15181
  H-wave scatt. from circ. curved impedance strip 15403
  HF ionos. pulse propag., electron dens. fluct. effects 23622
  ideally conductive irregular edge, EM wave atten. 31786
  incomplete Lipschitz-Hankel integrals in EM 23835
  incremental theory of diffr., EM formulation 23584
  indoor radio propag. prediction, ray splitting model 9258
  ionos. inhomogeneities, radiowave diffr. 2224
  IR detect., spatial sig. proc. 16101
  land mobile satellite commun. systs., field strength prediction *(English)* 42222
  lossy dielec. ellipt. cylinders, plane wave scatt. cross sects. 7958
  metallic Fourier grating, EM wave diffr., extended boundary condition *(Japanese)* 40336
  microcellular commun. in corridor complex, model/path loss meas. 2232
  microwave diffr. tomography, adaptive imaging algm. 16349
  mirror antenna, far sidelobe level reduction 31945
  MM-wave imaging optics, offset paraboloidal reflector 23904
  MM-wave planar dielec. beam antennas, low side lobe level 40466
  MM/PO hybrid method, rounded wedge diffr. 15378
  monochromatic EM field differaction by microstrip antenna 2319

electromagnetic wave diffraction continued
near field diffracted by cylinder from dipole sources, comp. 40317
nonlin. diffr. tomography, inverse scatt. for imaging 8554
nonuniform ionos., point source field calc. 2227
open planar waveguide screens, EM waves scatt. 15593
parallel-plate waveguide cavity with thick planar termination 25565
perfectly conducting corrugated surfaces, wave scatt. 40290
personal commun. syst. design, site-specific propag. modelling 33822
planar slot arrays, mag. currents/MMF, anal. 23964
plane ang. sector diffr. 2213
plane wave scatt. by circ. cylinder 7955
plane wave scatt. by wedge-shaped absorbing periodic struct. 40331
polyhedron-approx. reflector antenna, radiation characts. anal. 23888
quasi-opt. diffr. elements, advantages, appls. 40521
quasioptical systs., diffr. at gratings, resonator design 37952
radially stratified cylinder probing, inverse problem, iter. scheme 31788
radio waves, multibeam diffractive propag. 2226
radio waves propagated dist., multiple-diffr. components meas. *(Japanese)* 31838
radiowave, PO and terrain diffr. 7963
rect. waveguide elements, mutual coupling calcs. 8065
reflector antennas, uniform PO diffr. coeffs. and pol. anal. 23862
reradiation antenna anal., integrodifferential-eqn. method 2316
screens, integral eqns. soln. 2194
target sensing by induced surface current 25567
UHF diffr. propag., telecomm. appl. *(Chinese)* 33767
UHF DOA inside/outside buildings 9312
variable rad. of concave-conducting boundary 7885
wave propag., wavelet kernels 33043
wedge with anisotropic face impedances, diffr. study 15404
X-band slow wave structures, EM props. study 13010
electromagnetic wave diffusion *see electromagnetic wave scattering*
electromagnetic wave interference
see also atmospherics; electromagnetic wave interferometers; electromagnetic wave interferometry; light interference; moire fringes
dielec. disk resonator, azimuthal waves interfer. and interact. 12705
interf. pattern, wavefront disloc., refr. index 40358
Loran-C waves near huge bridge, phase disturbances *(Japanese)* 42550
tomographic photopyroelectric imaging, thermal wave multi-probes appl. 3757
twin relay develop. for automotive appl. 29637
variable rad. of concave-conducting boundary, EM fields HF anal. 7885
electromagnetic wave interferometers
see also electromagnetic wave interferometry; light interferometers; radiowave interferometers
digital interface for quadrature demodulation of interferometer sigs. 25773
JET divertor, mm-wave two-color interferometer appl. 34676
phase-contrast X-ray computed tomography using X-ray interferometer 26355
scanning LLL X-ray interferometers, Takagi eqns. appl. 18424
electromagnetic wave interferometry
see also light interferometry; moire fringes; radiowave interferometry
JET divertor, mm-wave two-color interferometer appl. 34676
MM-wave coherent point source by spatial interferometry, range/azimuth meas. 6297
MM-wave spatial interferometry for coherent point sources 6296
multidetector photon intens. interferometry 10113
plasma hybrid armature railguns, current/fuse thickness props. 23525
X-ray laser appls. 23482
electromagnetic wave polarisation
see also light polarisation
1.8 GHz personal commun. radio channel polaris. dyn. charactn. 33788
2 to 26 GHz slant polarised omni azimuthal antenna and radome 23884
2D hybrid element image reconstruction for TM illum. 43222
60 GHz indoor wireless commun. systs., multipath meas. 8932
act. array module for spatial power combiners/act. antennas 31990
anisotropic cylindrical dielec. shell, EM scatt. 2202
anisotropic cylindrical dielec. shell, scatt. 2203
anisotropic laminated composite cylindrical shells, plane-wave shielding 31854
Antarctic/Arctic sea ice, radar backscatt. comparison 42527
base station polaris. diversity, antenna config. 3478
Bragg transm. phase plates, circ. polarized X-rays prod. 43173
broadband act. microstrip antenna design, real freq. tech. 23851
C-band dual-polariz. radar, computer error anal. of rainfall rates 10571
C-band V-polarized radar sea-echo model (from ERS-1) 43531
chiral composites, enhanced polariz. effects 15395
chirality and EM 40326
circ. impedance cylinder, chiral sheath coated, scatt. 15410
circ. polarised microstrip antennas, mutual coupling anal. 23938
circ. polarised rect. dielec. resonator antenna 31948
circ. polarized N-element circ. array, characts. 40510
circ. polarized wave scatt. by conducting cylinder, graphical representation 2211
circ.-polarized annular microstrip antenna, tuning stub anal. *(Japanese)* 40522
composite struct. of complex materials, EM refl./transm. 31778
concentrically layered region, source EM response 40204
conducting cylinders partially buried in a ground plane, TM polariz. plane wave scatt. 2205
corrugations for transm. reduction, slots 2268
CP-PASS, FDTD anal. of unit-radiator 23943
CPW, radiation from ang. and circ. bends 21509
crosspolarised bistatic clutter meas. of forested hills 34154
DBS-satellites, mobile reception, adaptive antenna array 15664
dielec. coated infinite cylinder, anal. 15400
dielec. surface asperities, near-field opt. detect. 31792
digital TV sig. broadcast 34204
diversely polarized array, MUSIC/Pencil-MUSIC algm., perform. anal. 2486
dual-band circ. polarized microstrip patch antenna, anal./design 31930
dual-polaris. gridded microstrip radiating element 31989
dual-polaris. printed antennas, decoupled input ports 23896
EHF waves cross-polaris./atten. in sand and dust storms 15445
EM scatt. from dielec.-coated objs., GPMT 23583
EMC appls., skeletal biconical antenna charact. 7996
finite metallic cone scatt. component estim., PO correction 40333
forest backscatt. models, cylinder-ground double bounce scatt. 26780
GO in dissipative media, uniform plane wave approx. *(Japanese)* 23535
electromagnetic wave polarisation continued
H-wave scatt. from circ. curved impedance strip 15403
handheld transceiver planar inverted-F diversity antenna FDTD anal 25353
Helios undulator in ESFR, polaris. prod. 18394
HF direction finding systs., polariz. diversity contrib. 34187
hybrid reflector antennas, adaptive nulling 23856
hydrol. radar DP systs. design 35353
ionos. Faraday effect, polaris. meas. syst. develop. 18829
isotropic chiral composite modeling 15619
isotropic chiral media, effective charge densities and current densities 23491
Ka-band circ. polarized high-gain microstrip array antenna 23960
Ka-band satellite links, ice depolarisation 2229
Ka-band satellite-ground path ice depolaris characts. 33949
layered nonlin. sheets, shielding props., prediction 15466
layered nonuniform dielec., radiowave monitoring, inverse problem soln. 28907
leucosapphire disk dielec. resonator, temp. coeff./freq. depend. 30654
lightning radar echoes, investig. 3603
lin. polarized aperture array antenna *(Japanese)* 40516
lossless bianisotropic media, conditions for param. dyadics 40297
meas. of pol. refl. matrix in submm-wave range 42906
metal strip grating dihedral for polarimetric SAR calib. 42519
meteor-based radio systs., ellipt. polariz. antennas appl. 42341
microcellular modelling for base station antenna below roof tops 3418
microstrip constrained lens, design and perform. 15653
microwave backscatt. over Antarctica, radar altimetry 43494
microwave filter response of nonuniformly corrugated circ. waveguide 37965
MM-wave elec. and opt. controlled screens 37972
mobile radio, base station polariz.-sensitive adaptive antenna 33879
monofilar Archimedean spiral slot antennas 8074
monolithic phased array cross-polaris. from substr.-supported metal strip antennas 23967
Mueller matrix struct., polaris. state changes 23571
multistacked dielec. omnidirectional antenna, cavity-restrained type 8045
narrow-/broadband polarimetric radars, signatures/sig. proc. 42499
ocean surface, EM scatt., salinity/temp. effects 10526
ocean waves polarized microwave radiometry 10490
omnidirectional dual reflector antenna struct. and characts. 23875
omnidirectional slot array antenna, moment method anal. 31959
open chirowaveguides, guided modes 15575
open planar waveguide screens, EM waves scatt. 15593
param. estim. 40329
partially polarized EM waves, param. estim. 2483
periodic two media interface, plane EM wave scatt. 40332
phase converters, translucent surfaces, constr. 23585
plane wave scatt. lossy dielec. prolate spheroids 40296
point-to-point microwave radios/PCS spectrum sharing, propag. meas. 25378
polarimetric calib., single dihedral corner reflector 34142
polarimetric coherent-on-receive radar systs., calib. 42507
polarimetric microstrip antenna, spectral domain anal. *(Japanese)* 40481
polaris. vector posn., medium depolarisation effects 10462
polarised shells, magnetostatic/electrostatic fields anal., screening 23509
printed antenna cross-polaris. suppression by strip grating 23859
quadruple-ridged waveguides, anal. and design 15561
radar data, single and full-polariz. 2-D Prony techs. 17396
radar meas. of precip., differential polariz. 18826
radar targets, polariz.-space-time domain detect. 34136
radiated-suscept. tests, absorber-lined chambers, field homog. 15482
radio waves atten./phase rot./cross-polaris., rain 23629
RCS/polarimetric signatures, target scatt. centers discrim. 3600
rect. grooved metallic surface light scatt. 2195
rect. waveguide, mode conversion 40423
refl. symmetric targets, polarimetry 7952
reflector antenna crosspolarization, fringe-current effects 23903
reflector antenna rect. hat feed for lin. polaris. and low sidelobes 23988
reflector antennas, uniform PO diffr. coeffs. and pol. anal. 23862
satellites, terrestrial mag. field, ionos.-induced cross-polariz. 23624
scalar EM propag., parab. eqns., split-step Pade approx. 40353
sea surface, radar polarimetric backscatt., Euler vector 43528
short helical antenna backed by cavity, radiation field 40487
short range radio link, propag. charact. 9224
site atten. in radiated emission meas., anal. 8006
snow bright-band detect. by dual polaris. radar 35333
spectral theory, EM wave scatt. by periodic strips 23786
spiral antennas, polariz. props., tutorial 8039
sq. Archimedean spiral antennas, conductor-backed, anal./design 8070
sub-surface polarizable metal sheet, quasi-static response 15239
switchable lin./circ. pol. ferrite disk resonator antenna 23861
test site, 3 m site atten. above earth ground 23704
transm., corrugated slots 31855
trihedral corner reflector depolaris. 23870
Triple-TEM cell, simple device for immunity testing 23748
Turkey, rainfall atten. climatic map, develop. 15437
USA DirecTv DBS shaped reflector breadboard verification 23921
vert. polarized bistatic RCS for random rough surfaces 34111
VLF radio waves, ground-based direction finding 23637
VLF wave from dipole antenna in atmos., full-wave anal. method 31814
waveguide polariz. controller, anal. and implement. 807
weather radar polarimetry, path integrated differential phase shift 43517
whistler-mode sigs. from LF Decca transmitter, propag. charact. *(Japanese)* 40346
wideband polarizing phasing sects., charact. 12726
electromagnetic wave propagation
see also atmospheric electromagnetic wave propagation; atmospheric light propagation; backscatter; electromagnetic wave absorption; electromagnetic wave diffraction; electromagnetic wave interference; electromagnetic wave reflection; electromagnetic wave refraction; electromagnetic wave scattering; light propagation; plasma electromagnetic wave propagation; radiowave propagation
1D TEM wave time domain soln., Maxwell eqns.-based *(German)* 31806
1D wave eqn. canonical variables, integrating factor 23550
2D axisymm. inhomog. medium inversion, distorted Born iterative method 23567
2D EM field propag. problem, TLM model, fourth-order in space and second-order in time 23588
2D eqns. for guided EM waves, anisotropic plates 31907
3D objs. embedded in multilayered media, scatt. 40303
3D rendering, sci./engng. tool 15434

electromagnetic wave propagation continued
900 MHz propag. modelling, scaled road tunnel microwave meas. 33789
absorbing dispersive dielec., energy-vel. description of pulse propag. 31779
anisotropic laminated composite cylindrical shells, plane-wave shielding 31854
anisotropic lossy materials, transient propag. 7943
bianisotropic and inhomog. multilayer and waveguide anal. 23774
bianisotropic media, duality transforms., Green dyadics, plane-wave solns. 40322
biological body internal field matrix perturb. computation 26367
Brewster's angle teaching approach 20347
buried pipe location, zero-crossed synthetic aperture 3599
channel waveguide coupling, finite-difference freq.-domain anal. 31897
chiral and nonreciprocal chiral-ferrite media, fund. props. 23551
chiral-material-filled rect. waveguide, EM wave propag. 31906
chirality and EM 40326
circ. waveguide photon, nonzero mass in centrifuge 40425
complex anisotropic media, auxiliary vector fn. method 23562
composite propag. expts. on pulsed microwaves 42913
corrugated periodic struct. noisefree static field calc. 31892
crank-tunnel with reflectors, propag. characts. 2218
cylindrical concave conducting boundary, whispering-gallery mode radiation from aperture *(Japanese)* 15397
cylindrical objs. buried in slab, radiation patterns 23834
dielec.-loaded Raman-type FEL, efficiency enhancement 2017
dyadic Green's fn. for unbounded anisotropic medium 23597
electron beam crossing inhomog. EM wave, stimulated radiation emission 40267
EM simul. of antenna propag. 15614
FDTD formulation for dispersive media, state-space approach 40316
FDTD method in general curvilinear coord. 5801
ferrite-loaded multilayer planar line 2D-FDTD dispersion anal. 23811
finite difference TLM method, first-order absorbing and dispersive boundary conditions 23764
finite thickness transm. lines above periodically perforated ground plane, packaging 23757
generalized inverses in sig. proc./rem. sens. 8344
GO in dissipative media, uniform plane wave approx. *(Japanese)* 23535
guided wave scatt. in slightly rough boundary waveguide, stochastic functional approach 14441
gyrotropic chirowaveguides, guided EM waves 2293
Hertzian dipole radiation from centre of anisotropic sphere 23829
homog. filled waveguides, transient field expressions 2294
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
infinite line, EM fields, steady-state/transient DC *(French)* 31711
inhomog. waveguides containing below-cutoff sects. *(Russian)* 15612
interact., pulsed EM field/horn antenna 15618
ionos., current source sheets, EM waves excitation 23639
Laplace domain FEM, diffusion/propag. problems in elec. engng. 278
lin. dispersive media, EM wave propag., FDTD methodologies 40281
matter/radiation, EM wave approach 15391
Maxwell's eqns. soln., unstructured grid algm. 2200
Maxwell eqn. soln. using characts. theory 23559
micropipette cylindrical waveguide surface polaritons propag., near field opt. device appl. 40443
microstrip passive filter anal., FDTD algm. improvement 29536
multilayered bianisotropic waveguides, proper/improper modes 15578
multilayered transm. lines, gyrotropic lossy media 2279
multilevel moment method multiplication correction algm. 23612
nondispersive waveguide cyclotron reson. maser expt. 39623
nondispersive waves, interp. and causality 23531
nondistorting transm. line 23760
nonHermitian bianisotropic media, FEA 23563
nonlayered substrs., striplines, slotlines, Green's impedance fn. 15567
nonlin. planar opt. waveguide MOL and FDBPM simul. 40432
nonlin. random waves in particle fluxes, turbulence 2206
NRD-guide/H-guide higher-order modes, phys. and nonphysical ranges 15607
PCB, high speed pulse propag., radiation prediction, 3D FDTD 900
periodic waveguide wave propag., num. simul. method 40436
periodically stratified media light, Bloch eigenvalue eqn. 2196
propag. of EM pulses in conducting medium, comments/reply 23586
pulse wave, EM scatt. by buried obj., FDTD method 23618
quasiperiodic disk-loaded waveguide, EM, space charge waves, propag. 29802
radiated interf. field estim. for electronic equipt. 31866
random media with large-scale inhomogeneities, wave localization 31787
randomly inhomog. medium, effective index of refr. 15420
rapid pulsed microwave propag., time domain detect. 42915
Rayleigh-Sommerfield integral eqns. in wave propag. 14398
rect. tunnels, radio propag. loss, mesh effects 31809
reverberation chamber fields, spatial correl. fn. 31697
seismogenic EM emission, radiation/transm., stat. anal. 23578
sig. solns., Maxwell's eqns. 7944
Smith chart CAL method 28290
solitary waves on nonlin. transm. lines, modelling 23754
space-periodic phase screens, ray propag. dyn. 15419
spectral theory, EM wave scatt. by periodic strips 23786
SS ranging syst. over short dist., anal. 17386
subsurface survey radar distorted pulse rectification 35280
TE EM waves in nonlin. film, closed dispersion curves 40302
three-layer media, generalized Rayleigh solns. 23591
time-domain EM plane waves in static and dyn. conducting media 31784
time-harmonic 2D/3D Green's dyadics for general uniaxial bianisotropic media 40283
TLM num. dispersion removal using Glimm's random choice 15554
transm. line, current transient proc. meas. 23686
transport MFP meas., ref. random medium 23576
TW current filaments, homog. space 15408
ultra-short pulse propag. on complex planar structs., anal. 37961
variable rad. of concave-conducting boundary 7885
vector FEA of waveguide discontinuities involving anisotropic media 40413
vectorial beam propag. method based on EM field directional decomp. 40429
wave permitt., engng. and phys. concepts 40304
wave propag., wavelet kernels 33043
waveguide dispersion anal., compact FDTD tech. 23778
window Josephson tunnel jns., dyn. props., idle region influence 30775

electromagnetic wave propagation in plasma *see plasma electromagnetic wave propagation*

electromagnetic wave reflection
see also light reflection; X-ray reflection
1.8 GHz ray optics modelling for indoor propag. 7977
1.9 and 4 GHz exterior wall refl. coeff. meas. 31820
1D TEM wave time domain soln., Maxwell eqns.-based *(German)* 31806
2.4/2.6 GHz transm. and refl. props. of interior walls 31828
60 GHz indoor wireless commun. systs., multipath meas. 8932
60 GHz intervehicle channel model 33797
900 MHz complex impulse responses and topographical map data 9323
Brewster's angle teaching approach 20347
building walls, UHF refl./scatt. meas. 15426
buried dielec./mag. gratings of fibers, refl. 15411
buried pipe location, zero-crossed synthetic aperture 3599
compact semi- and fully anechoic chambers, composite absorber 15529
composite struct. of complex materials, EM refl./transm. 31778
controllable planar layered medium, refl. coeff., freq. characts. 23592
CPW optoelectronic gratings, light-induced microwave refl. coeff. 14483
dielec. film periodically nonstationary nonuniformities, EM interact. 40330
ferrite EM wave absorbers, bandwidth widening by attaching rubber ferrite 2210
ferrite tiles, temp. behaviour of reflectivity 14198
folded Fresnel zone plate antenna, design and anal. 2323
generation of predominantly elec., mag. fields in free space 40385
glass, high perform. heat-reflective, TV wave reflecting characts. 23742
ground refl. wave suppressed test sites 23670
guidance between parallel artificially hard surfaces 23779
Hertzian dipole radiation from centre of anisotropic sphere 23829
HF ionos. refl. channel, Fresnel filtering 31840
indoor radio propag., multipath charact. for shielded building *(Japanese)* 23626
inhomog. dielec. half-space, EM wave refl. coeff. 7939
inhomogeneous lossy medium nonlin. diff. eqn. and inverse scatt. solns. 23603
intrinsically conducting polymers, EM radiation shielding 2275
ionos. with inhomogeneities, vert. radio sounding 43502
Josephson tunnel jns., microwave standing wave patterns 822
LF model for wedge, pyramid absorber arrays 7994
LF model for wedge or pyramid absorber arrays, meas. results 7995
meteorological radar rain meas., rain rate distrib. inversion 4397
microcellular commun. in corridor complex, model/path loss meas. 2232
microwave test ccts. design, reflection coefficient formulations evaluation 23783
MMP codes, modified reflective symms. 15609
model-based multifrequency array sig. proc. 34116
multi-layer wave-absorber for oblique incidence, point freq. matching method 23579
multiple radio wave refls. in corridor 9340
patch antenna tuning stubs 23931
PCBs, refls. anal., ROSAR rule oriented syst. 21632
phased array interf. self-canceller perform. rel., underlying surface and phasing *(Russian)* 15675
planar lines and antennas, 3D full-wave anal. 2280
plane EM waves scatt. by weakly roughened boundary 15380
plane wave refl. and transm. at isotropic pseudochiral interfaces 23564
polarimetric calib., single dihedral corner reflector 34142
polarimetric scatt. and emission props. of refl. symm. targets 7952
PTH of PCBs, suitable conditions for connections 29692
pulse MM band sigs., ground cover effects 7961
quasi-opt. refl. circulator, theory/MM-wave expts. 37950
radar sig. spatial proc. algm., priori interfering refl. inform. *(Russian)* 17407
radio waves propagated dist., multiple-diffr. components meas. *(Japanese)* 31838
radiocommunications medium, novel study 17117
rect. microstrip patch array-based travelling wave antenna, anal. *(Korean)* 40504
rect. tunnels, radio propag. loss, mesh effects 31809
rect. waveguide, EM scatt. by inductive discontinuities 8029
refl. coeff., material characterisation 7978
resistive strip gratings on dielec. slab 23541
RF-absorbing dielec. structs., resistive-capacitive layers 23593
scattering from gaps between reflecting panels, corrugated soft edge anal. 23561
shielding effectiveness of screened rooms, methods comparison 2255
short range radio link, propag. charact. 9224
site atten. in radiated emission meas., anal. 8006
slowly evolutive waveguide reft. and transm. computation 23812
space fed planar array, vehicle roof refl. charact. 23941
tapered resistive strip grating, E-polarized refl. coeff. *(Korean)* 15394
test zone field compensation 40452
thin lossy slab EM wave refl./transm., time-domain calcs. *(German)* 31801
three-layer media, generalized Rayleigh solns. 23591
two-layer wave absorbers for metallic cylinders, design 15385
UHF DOA inside/outside buildings 9312
uniaxial chiro-omega slab, EM plane wave refl. and transm. 2204
urban microcells, ray tracing based prediction of impulse response 3420
urban radiowave propag., IEE Colloquium, London (1994) 5480
wide-band refl. radar sig., complex envelope intell. props. 9620
X-band rect. waveguide, Maxwell's eqns., FDTD soln. 23814
X-band slow wave structures, EM props. study 13010
$La_3Ga_5SiO_{14}$ acoustic wave atten. meas., HBAR tech. 35362

electromagnetic wave refraction
see also light refraction
anom. atmos. refr., radio source displacement 15433
Brewster's angle teaching approach 20347
GO in dissipative media, uniform plane wave approx. *(Japanese)* 23535
multistatic refr.-error compensation in radar and satellite navig. systs. 17512
quasi-opt. refl. circulator, theory/MM-wave expts. 37950
radar ionos. refr. angle meas. allowing for incidence flucts. *(Russian)* 17406
spherical layered atmos., EM wave path params. 15381
VLBI obs. correction for ionos. refr. 9686

electromagnetic wave scattering
see also backscatter; gamma-ray scattering; light scattering; X-ray scattering
1.9 and 4 GHz exterior wall refl. coeff. meas. 31820
1D medium, approx. profile inversion, appl . 40294
1D problems in inverse scatt., iter. algm. 23617
1D random rough surfaces:enhanced backscatt., stationary-phase approxs., full-wave solns. 23572

electromagnetic wave scattering continued
2D and 3D conducting wedge problems, transient image theory 7953
2D axisymm. inhomog. medium inversion, distorted Born iterative method 23567
2D dielec. objs., EM imaging, expt. study 23577
2D elec. cond., two-step lin. inversion 40280
2D EM inverse scatt. solns., sine-basis moment method 15402
2D EM scatt., MoM-CGM-FFT appl. *(Chinese)* 31804
2D ferrite-loaded cavity-backed slot antenna 31920
2D hybrid element image reconstruction for TM illum. 43222
2D inhomog. dielec. objs., permitt. profiles reconstruction *(Korean)* 16136
2D method-of-moments problems involving large scatterers, soln. 23533
2D nonuniform plasma cylinder with neg. core, E-wave diffr. 23655
2D scatt. by inhomog. anisotropic material cylinders, hybrid FEM-MFCM 40312
2D struct. anal., first-order hybrid FEM/MoM approach 31785
2D TW current strips, closed-form field expressions 23529
3-D arbitrary coated cavities, connection scheme 15390
3D Cartesian-mesh FDTD codes 23599
3D conducting bodies, EM scatt. problem 7947
3D EM scatt., parallel computation, finite elements 2216
3D EM scatt. problems, fast multipole soln. 23537
3D perfectly conducting bodies, PO-MM hybrid method 23598
3D rendering, sci./engng. tool 15434
3D scatt. FEA absorbing boundary condition code parallelisation 23556
3D scatt. problems, absorbing boundary conditions for FEM soln. 40309
38 GHz building scatter and vegetation atten. meas. 15427
60 GHz intervehicle channel model 33797
absorber tip diffr. coeff. 7942
absorbing boundary condition for EM scatt. 40307
acoustic Helmholtz resonator, EM analogue, wave scatt., poles *(Russian)* 15418
amplitude tensor characts. from Lippmann-Schwinger integro-diff. eqn. 23615
anal., dipoles model 23528
anisotropic cylinder, EM scatt. anal. 40306
anisotropic cylindrical dielec. shell, EM scatt. 2202
anisotropic cylindrical dielec. shell, scatt. 2203
anisotropic lossy mapping of space 23601
Antarctic/Arctic sea ice, radar backscatt. comparison 42527
aperture radiation problems, PTD problems extension 7951
arbitrary antenna scatt. matrix 8032
Arctic sea ice thickness determ., polarimetric SAR appl. 43529
ATF Torsatron, microwave scatt. diagnostic 34677
atmos., radar interferometric techs. and vol. scatter 35306
augmented moment matrix LU-spatial decomp. 23610
axisymmetric cases, integral eqns., parallel computing 2197
bistatic specular scatt. from rough dielec. surfaces, comments/reply 31783
bistatic specular scatt. from rough dielec. surfaces, comments 31782
boundary conditions for FE anal. combined, GTD 40310
broadband microwave absorber Pareto-optimal design using genetic algms. 31791
building scatter of sigs., microwave freqs. 15425
building walls, UHF refl./scatt. meas. 15426
circ. impedance cylinder, chiral sheath coated, scatt. 15410
circ. polarized wave scatt. by conducting cylinder, graphical representation 2211
circ. symmetric objs., inverse EM scatt. 7960
clear air radar reflective layers, rain effects 43513
clear-air MM-wave scatt. 23602
coated wire antennas/scatterers, anal. 31933
COBRA, computer code for backscatt. anal. of complex objs. 3596
compact range imaging, main-beam reduction 2320
complex bodies, FEA mesh truncation boundary condition 23553
complex multipole beam approach 23609
composite chiral material, wide freq. band, calc./meas. 23596
composite medium composed of lossy dielec. spheres, dielec. const. 23590
conducting bodies of rev., scatt. anal., fictitious currents/point-matching 40282
conducting circ. cylinder, source radiation field anal. *(Japanese)* 23534
conducting cylinder, microwave imaging, Newton algm. *(Korean)* 25965
conducting cylinders partially buried in a ground plane, TM polariz. plane wave scatt. 2205
conducting objs., hybrid wavelet expansion and BEM 31781
conducting strip, line source EM wave diffr./scatt. 23575
conductive sphere, scatt. centre estim. 23636
contactless velocimetry of vehicles, microwave speckles appl. 18105
coupled quasicharacteristic oscills. in waveguide bifurcations 23802
creeping wave on num. specified surface, ray tracing 23581
current distrib. on convex-concave cylinder with impedance boundary, Toeplitz matrix/SOR anal. 25560
cutoff wavenumbers and boundary integral eqns. of waveguides 15606
cylinder backscatt. minimisation by central loading 23530
cylinders and cylindrical shells, periodically deformed, EM wave scatt. 31799
cylinders with transverse corrugations, plane wave scatt. 31803
cylindrical objs. buried in slab, radiation patterns 23834
cylindrical objs. dielec. meas. in rect. waveguide 18030
dielec. circ. cylinder, crit. scatt. angle, HF anal. *(Japanese)* 40335
dielec. circ. cylinder partially clad by PEC 2209
dielec. coated infinite cylinder, anal. 15400
dielec. coated wire scatterers/antennas, time domain anal. 15654
dielec. coating on aircraft fuselage, scatt. signature optim. 40314
dielec. interface, transient scatt. responses *(Japanese)* 40325
dielec. scatt. problems, FFT-based methods comparison 40285
dielec. substr. backed by nonperfect conductor, surface boundary condition 40287
dielec.-coated objs., GPMT 23583
dielectric body anal., conjug. gradient method, test fns. 15379
dielectric body permitt. reconstr., current modelling and Tikhonov regularisation 23565
dielectric coated circ. cyl. loading semicirc. channel in ground plane 23545
dielectric wedge, hypersing. integral num. eval. 23614
diffr. problems soln., scatt. fields 15417
dihedral strip grating 23544
discontinuity in curvature, backscatt. 40318
discrete sources method 15413
distributed discrete scatterers, effective propag. consts., T-matrix approach 23548
Doppler tomography approach for microwave imaging 24412
dual-shaped reflector compact ranges, subreflector/feed scatt. 23905

electromagnetic wave scattering continued
dyadic Green's fn., spherically multilayered media 15382
dyadic Green's fns., radially multilayered chiral media 40291
E-polarised plane wave scatt. from coated cylindrical cavity-backed aperture 25566
Earth space path over Shillong, rain atten. 15442
Earth-space propag. paths, differential rain atten. 15441
Earth-space syst., site diversity, rain atten., interf. anal. 15440
edge-type scatterer in rect. waveguide, Yasuura method 8022
edges of perfectly conducting wedges, PO current dens. correct. 7940
EHF waves cross-polaris./atten. in sand and dust storms 15445
electrified raindrops, multiple EM scatt. by lin. array 7985
electron beam crossing inhomog. EM wave, stimulated radiation emission 40267
EM beam diffr. by planar periodic metal-strip grating 40295
EM inverse problem solns., Hopfield neural networks 15214
EM pulse, param. estim. of currents induced in cylindrical conducting shell 8003
EMP illum. impedance wedge, current eval. 23657
exterior Helmholtz problem on IBM SP-1, FEM 23580
fading dispersive WSSUS channel, analytic discrete-time model 3414
fast MM-wave imaging algm., act. guidance appl. 41156
FDTD results for scatt. EM fields 31800
FDTD scatt. simul., sawtooth anechoic chamber absorbing boundary condition 40311
FDTD solns. of Maxwell's eqns., dispersion suppression 2176
ferrite bodies of rev., scatt., hybrid FEM 31807
fictitious sources in GMT, improvements 23606
finite cylindrical dielec. targets with gently varying cross-sections 23560
finite difference method, EM scatt. from impedance ellipt. cylinders 40301
finite ground plane with perforated apertures, RCS charactn. 9628
finite metallic cone scatt. component estim., PO correction 40333
finned cylinder, hybrid soln. for EM scatt. 15406
flat surface radiation and scatt., measured eqn. of invariance 23604
forest backscatt. models, cylinder-ground double bounce scatt. 26780
free space nonlin., moment method/Wolfe's procedure 15399
freq.-scanning narrow beam antenna, 60 GHz 40467
freq.-selective screens, complementary elements, num. simul. 2313
FSS FDTD anal. with Floquet boundary condition 15625
full-vector EM scatt. by 3D nonlin. bounded dielec. 23587
fully-polarimetric GLRTs for detecting scatt. centers in terrain clutter 17390
gaps between reflecting panels, corrugated soft edge anal. 23561
Gaussian beam scatt. by coated conducting cylinder 40327
generalized inverses in sig. proc./rem. sens. 8344
generalized multipole tech./FEM, coupling 15414
guided wave scatt. in slightly rough boundary waveguide, stochastic functional approach 14441
gyroelectric chiral media, field representation by cylindrical vector wavefunctions 31887
H_z wave inverse scatt. soln. using subscatterer T-matrices 20599
H-plane jns. in rect. waveguides, scatt. props., anal. solns. 40422
H-T pair coupled by narrow slot *(Chinese)* 37959
H-wave scatt. from circ. curved impedance strip 15403
half-space, perturbed, EM energy decay 15407
hemispherical bosses on infinite plane surface 23539
hemispherical shell Neumann scatt., modal series accel. 31798
Hertzian dipole radiation from centre of anisotropic sphere 23829
HF sigs. scatt. by artificial ionos. turbulence, Doppler shift 40342
high wave no. EM scatt., soln. method 40308
high-order basis fns. for Galerkin method of moments 31790
higher order impedance boundary conditions, chiral coatings appl. 2214
hollow circ. cylinder Kirchhoff field scatt. 31797
hollow circ. waveguides, atten. const., curvature effect 15601
homogeneous dielec. cylinder inverse scatt. 23568
horn antenna radiation pattern anal. by moment method 23935
hybrid FEM for EM, review 2314
hybrid finite-vol. FDTD modelling of curved surfaces 23595
hybrid multipole-beam approach 15412
hybrid reflector antennas, adaptive nulling 23856
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
impedance coated body scatt. field computation 23546
impenetrable sheet with different face impedances 23543
impulse radar extracted signature features, aspect depend. in time-freq. domain 17389
incremental theory of diffr., EM formulation 23584
Indian land & sea surfaces, radar clutter characts. 43468
indoor radio propag. prediction, ray splitting model 9258
infinite periodic arrays, radiation/scatt., 3D hybrid FEM/BEM 31780
infinite-ground-plane aperture scatt., FDTD calc. 23608
inhomog. dielec. modeling, integral eqn. soln. 15393
inhomogeneous lossy medium nonlin. diff. eqn. and inverse scatt. solns. 23603
internal resons., method soln., suppl. conditions 40292
ionos. electron beam injection, assoc. radiowave absorpt. 7970
ionos. irregularities study, HF channel 35308
ionos. turbulence, scatt. radio sig. characts. 7982
ionos. with inhomogeneities, vert. radio sounding 43502
ISAR image and RCS proc. for target support contamination removal 25547
knot backscatt. signatures 23589
large and complex targets, EM scatt. calc. tech. 7941
large-target scatt. cross-sections, fast multipole computation 25564
layered nonuniform dielec., radiowave monitoring, inverse problem soln. 28907
leukemia detect./monitoring, EM wave imaging 10215
lin. dispersive media, EM wave propag., FDTD methodologies 40281
long. slot in sectorial waveguide wall, reson. cond. 15605
lossless composite chiral materials, params., full-wave computation 40279
lossy coated periodic gratings under oblique incidence 23542
lossy dielec. ellipt. cylinders, plane wave scatt. cross sects. 7958
lossy medium nonlin. diff. eqn. and inverse scatt. solns. 23603
M-wave scatt. bt dielec. cylinders, weighted point-matching improvement 23611
magnetoactive plasma, inhomog., radiation-transport eqn. 40361
magnetodielectric bodies, wave scatt., discrete source method 15428
Maxwell's eqns. soln., unstructured grid algm. 2200
Maxwell eqns., num. soln., EM scatt. appl. 23582
meas. eqn. of invariance method, randomly rough surfaces anal. 42481
meas. eqn. of invariance study 20633
measured eqn. of invariance, computational savings 23605

electromagnetic wave scattering continued
measured eqn. of invariance, modif. for FEM 23552
MELECON '94, conf., Antalya, Turkey (1994) 5470
MESFET oscillator loaded slot-coupled patch antenna, anal. 40501
microcell/indoor environ., propag. mechanisms 3344
microcellular commun. in corridor complex, model/path loss meas. 2232
microwave backscatt. over Antarctica, radar altimetry 43494
microwave cavity resonators, modeling of testing params. 37561
microwave EM imaging, convergent iter. algm. 42917
microwave front end for automotive true ground speed meas. 28152
microwave image proc., distorted Born ierative method 26291
microwave imaging, num. inverse-scatt. solns. 32989
microwave imaging, Tikhonov regularisation param. 3967
microwave imaging in spatial domain for canonical dielec. objs. 40313
microwave imaging of infinite dielec. cylinders, modified Born approx. 2208
microwave propag., backscatter 23651
microwave scatt., snow covered first-yr. sea ice 7973
microwave T/R switches, elec. field enhance./power absorpt. 21529
MM-wave planar dielec. beam antennas, low side lobe level 40466
MM-wave propag., raindrop size distrib. near Paris 31808
MM-wave radar backscatt. from smoke clouds, inversion 42477
MM-wave turbulent tropos. radio channel freq. response 31819
MM/PO hybrid method, rounded wedge diffr. 15378
MMP modeling techs. curved line multipoles 15415
mobile commun. and broadcasting systs., EMC, microwave/laser scatt. 23646
mobile radio channel, measuring/simulating devices 25286
mobile sig. reception, stat. model 31833
modal expansion and Bayliss-Turkel absorbing boundary conditions 23555
model-based multifrequency array sig. proc. 34116
modified-geometry problems, full-wave EM scatt. fast algm. 23538
moment matrix spatial interpolation 23845
moment method solns., parametric geom. 40321
moving boundary, body fitted grid generation 7957
Mueller matrix struct., polaris. state changes 23571
multilayered spherical chiral media, Dyadic Green's fns. 40323
multilevel algm. for EM fields, scatt. problems soln. 15387
multiple diffr. modeling, high freq. methods 2212
multiple radio wave refls. in corridor 9340
multiple scatt. by dielec. spheres random distrib. 31795
multiple scatt. of EM waves by half-space of randomly distributed dielec. spheres *(Chinese)* 31805
narrow gap in grounded dielec. layer 23613
noninvasive diagnostics, Gibbs act. EM method 35029
nonlin. bounded dielec., FDTD approach 15386
nonstationary turbulent atm. EM wave scatt. spectra *(Russian)* 15421
num. absorbing boundary condition for edge-based FEA 7946
oblique incidence on impedance bodies of rev. 23574
ocean rem. sens., RADARSAT, expt. airborne SAR obs. 26739
ocean surface, EM scatt., salinity/temp. effects 10526
ocean surface, microwave radar polarimetric backscatt. 26740
ocean waves polarized microwave radiometry 10490
ocean-like surfaces, low grazing angle scatt. 7949
open circ.-cylindrical cavities, recursive aperture formulation 15392
open periodic struct., finite difference/finite element EM scatt. anal. 15383
open planar waveguide screens, EM waves scatt. 15593
open resonators, geom. imperfections, perform. effects 818
open-ended waveguide cavities, iter. PO 40278
opt. theorem for scatterer located above two media boundary 2198
outer radiating boundary condition convergence rates 15424
parallel uniformly lossy dielec. prolate spheroids, EM scatt. 42496
penetrable cylinder, stratified medium embedded, anal. 15401
penetrable object inverse scatt., conjugate gradient appl. 23566
perfectly conducting cavities, apertures, scatt. elec. fields 40293
perfectly conducting corrugated surfaces, wave scatt. 40290
perfectly conducting sphere reson. in eccentric spherical dielec. shell 25568
periodic dielec. struct., EM wave interacts., finite element modeling 15565
periodic inhomog. medium, rough interface 31793
periodic two media interface, plane EM wave scatt. 40332
periodic wedge absorber, full wave anal. 2215
planar slot arrays, mag. currents/MMF, anal. 23964
plane ang. sector diffr. 2213
plane EM waves scatt. by weakly roughened boundary 15380
plane wave or dipole excited finite grounded dielec. substrate 23849
plane wave scatt., loaded trough on ground plane 15388
plane wave scatt. by circ. cylinder 7955
plane wave scatt. by coated dielec. ellipt. cylinder 7950
plane wave scatt. by infinite conducting ellipt. cylinder near conducting plane 23645
plane wave scatt. by wedge-shaped absorbing periodic struct. 40331
plane wave scatt. lossy dielec. prolate spheroids 40296
plane-wave scatt. by anisotropic circ. cylinder, wave-fn. soln. 40286
plasma dens. flucts. diagnostics, freq.-tunable MM-wave sources 31846
Pocklington's eqn., CG-FFT method with nonuniform sampling 23818
polarimetric radar, discrete scatter model of vegetation 17402
polarimetric scatt. and emission props. of refl. symm. targets 7952
polarimetric vector diffr. tomography 40274
pulse MM band sigs., ground cover effects 7961
radar data, single and full-polariz. 2-D Prony techs. 17396
radar rem. sens., microwave radar polarimetric backscatt. 26740
radar rem. sens. of surface, scatt. rel., wind speed 10481
radar scatt., multipath, spatial temporal dyn. model 43524
radar signature for complex objs. 42498
radar target modeling, GTD-based approach 17394
radar target scatt. characts. meas. 17420
radiation currents, low contrast scatterers, surface integral eqn. 40288
radio waves, nonlin. scatt. by metallic objs. 40356
radio waves, nonlin. scatt. by metallic objs. 15429
radio waves atten./phase rot./cross-polaris., rain 23629
radiocommunications medium, novel study 17117
rain, atten. and phase shift calc., dielec. mixture model 23632
rain drops, electrified, EM scatt. study 7945
random media with large-scale inhomogeneities, wave localization 31787
random nonspherical scatterer layer, S matrix theory 18784
ray mode coupling anal. of EM wave scatt. 15592
RCS of large objs., fast far-field approx. 42489
RCS surface model accuracy importance 34123
RCS/polarimetric signatures, target scatt. centers discrim. 3600
receiving antennas, scatt. minimization 40463
rect. antenna cavity, dominant mode waveguide loaded slots array 2348

electromagnetic wave scattering continued
rect. aperture in waveguide jns., scatt. 2302
rect. grooved metallic surface light scatt. 2195
rect. microstrip patch array-based travelling wave antenna, anal. *(Korean)* 40504
rect. tunnels, radio propag. loss, mesh effects 31809
rect. waveguide, EM scatt. by inductive discontinuities 8029
rect. waveguide, mode conversion 40423
rect. waveguide, striplike resistive struct., EM waves scatt. 12689
rect. waveguides, refl./transm. phase characts., inductive discontinuities 23808
rectangular trough on perfectly conducting ground 23540
reflector antenna radiation integral eval. by predictor-corrector algm. 23820
reson.-sized reflectors, approx. num. modeling techs. 23902
RF immunity test facilities, conductive sphere 23741
right-angle H-plane waveguide double bend 23772
rough surface, inverse scatt., Gaussian beam illum. 7959
rough surface scatt., low grazing angles 7948
rough surfaces, EM backscatt. models 23532
SAR imagery, edge features, clutter stats. 42500
satellite reception, DSPN signalling in mobile dense scatterer ray tracing model 33944
satellite-Earth links, atten. prediction, low fade margins syst. 2231
scalar and vector wave eqns., absorbing boundary conditions 23554
scalar Helmholtz eqn., local radiation boundary conditions 23573
scatt. field data, target location estim. 17399
semi-anechoic chambers, characts. and reson. phenom. 23675
semicond. cryst. lattice defects, nonlin. microwave scatt. 38293
semicond. film anisotropy in field of slow wave 13006
semiglobal radiation boundary condition for FDTD method 31924
sigs. with exponential amplit. freq. depend., time-domain meas. *(Japanese)* 41039
small and nearby large cylinder scattered field, perturb. expansion 31796
small aperture modeling, EMI appls., FDTD tech. 40384
soft and hard surface anal., hybrid FEM/Floquet mode tech. 23827
Space Station Freedom wireless commun. propag. theory and expt. 31816
sparse-matrix canonical-grid method for scatt. by many scatterers 31794
spectral leakage effects on multiscatterer target model validation 26828
spectral theory, EM wave scatt. by periodic strips 23786
sphere of small rad. embedded into dielec. one, EM scatt. 15384
spherical particles syst., modelling of EM wave scatt. 40315
spherical pass. reflector plane-wave scatt. modal anal. 23916
step-freq. radar imaging for NDE/GPR appls. 42904
sticky particles, pair distrib. fns./atten. rates 15409
stratified media, inverse scatt. soln. by massively parallel computers 23570
submillimeter wave gyrotron for plasma scatt. meas., transm. line 2239
surveillance devices, security tags 23663
tapered resistive strip grating, E-polarized refl. coeff. *(Korean)* 15394
target sensing by induced surface current 25567
test site, 3 m site atten. above earth ground 23704
test zone field compensation 40452
thin conducting plate problem, biconjugate gradient FFT method appl. 40289
thin-wire reson. response to transient waves 23848
time-domain EM plane waves in static and dyn. conducting media 31784
time-domain inverse scatt., local shape fn. method 23569
time-domain scatt. by pass. freq. depend. wedge 15405
time-domain scatt. from metal or dielec. (coated) bodies of revolution 23558
TLM method, plane-wave illum., partial Huygen's surface 2282
topol. inversion, conducting bodies imaging appl. 40305
transient EM modeling, generalized k-space method 15396
transmitting antenna arrays with feedback, spectrum reuse 42266
transport MFP meas., ref. random medium 23576
transputer supernode syst. for study of EM wave scatt. 40319
Turkey, rainfall atten. climatic map, develop. 15437
two parallel dielec. ellipt. cylinders, EM scatt. 7954
two-layer nonconfocal ellipt. dielec. cylinder 23616
two-layer wave absorbers for metallic cylinders, design 15385
UHF DOA inside/outside buildings 9312
ultra-wideband or short-pulse radar, time-domain imaging 42487
ultrawideband polarimetric radar for study of sea scatter 10555
unbounded wave propag. problems, modelling 40418
uniaxial bianisotropic-ferrite medium, field representations, cylindrical vector wave fns. 40320
urban microcells, ray tracing based prediction of impulse response 3420
urban radiowave propag., IEE Colloquium, London (1994) 5480
vector addit. theorem computation 23549
vegetation, microwave emission modelling 26778
vegetation, wave approach and stochastic Lindenmayer syst. 40284
vegetation elements, extinction cross-sect. meas., open resonator 34671
vegetation elements placed in open resonator, extinction cross-sect. calc. 34670
vehicular scatt. effect on mobile commun. 9308
vert. polarized bistatic RCS for random rough surfaces 34111
VHF radar sea scatter and propag., grazing angles less than 1° 42518
VHF scatterers in tropos./stratos., aspect sensitivity 31813
Virginia Tech propag. expt. using Olympus satellite 12, 20 and 30 GHz beacons 23631
wave guidance between parallel artificially hard surfaces 23779
wave propag., hilly terrain, theoretical investig./wideband meas. 9321
waveguide-fed struct., scatt. and radiation, hybrid FEA 15580
wedge scatt. theory, iter. method 42488
wedges, radio scatt. theory, method of iter. 42488
wet snow, dielec. mixtures, effective permitt., scatt. losses 15389
wide-band refl. radar sig., complex envelope intell. props. 9620
wideband imaging of rot. sphere, wavelet transform approach 8345
wind speed meas., ERS-1 vs. SSM/I, Atlantic 10471
wire antenna, currents due to incident EM wave, meas. using mag. field 15649
X/Ka band emission from leafy vegetation, modeling 43493
Cu-30 at.%Zn brass aerosol particle IR extinction, FDTD calc. and obs. 23650
$NaNO_3$ cycloidal diffr. gratings, propag. eqn. and boundary conditions 23607
YIG film, EM wave crit. scatt. under acoustic pump 7034

electromagnetic wave transmission
see also light transmission
0.5 MW, 140 GHz gyrotron, conditioning optics, astigmatic Gaussian beams 975

electromagnetic wave transmission continued
1.8 GHz ray optics modelling for indoor propag. 7977
1D TEM wave time domain soln., Maxwell eqns.-based *(German)* 31806
2.4/2.6 GHz transm. and refl. props. of interior walls 31828
110 kV oil-filled cable, HF EM wave transm. 10745
500 kV split conductor transm. lines, EM wave transm. mode calcs. *(Chinese)* 43765
cascaded gratings design, fuzzy ARTMAP neural net appl. 40445
composite struct. of complex materials, EM refl./transm. 31778
corrugations for transm. reduction, slots 2268
dielec. film periodically nonstationary nonuniformities, EM interact. 40330
FCC photonic cryst. for microwave/MM-wave appls. 12737
finite dipole FSS, transm. perform., curvature effects 15662
high-altitude nuc. explosion, underground EMP environ. study 23689
hollow circ. waveguides, atten. const., curvature effect 15601
incidence, boundary, nonstationary conductive medium *(Russian)* 15422
indoor wireless transm. prediction by ray tracing 31823
isotropic chiral composite modeling 15619
multilayer radome wall synthesis criteria *(Russian)* 15676
planar lines and antennas, 3D full-wave anal. 2280
plane wave refl. and transm. at isotropic pseudochiral interfaces 23564
rect. microstrip patch array-based travelling wave antenna, anal. *(Korean)* 40504
resistive strip gratings on dielec. slab 23541
seismogenic EM emission, radiation/transm., stat. anal. 23578
slowly evolutive waveguide reft. and transm. computation 23812
small aperture modeling, EMI appls., FDTD tech. 40384
solar control sheet glass conductive coatings, radio wave transm. 7450
thin lossy slab EM wave refl./transm., time-domain calcs. *(German)* 31801
transm., corrugated slots 31855
uniaxial chiro-omega slab, EM plane wave refl. and transm. 2204

electromagnetic waves
see also bremsstrahlung; channelling radiation; Cherenkov radiation; electromagnetic field theory; electromagnetism; gamma-rays; heat radiation; light; microwaves; radiowaves; solar radiofrequency radiation; surface electromagnetic waves; synchrotron radiation; transition radiation; whistlers; X-rays
Cherenkov FEL, Kerr-like medium loaded, efficiency enhancement 23319
ELF EM radiation base limits determ. *(Slovenian)* 15455
FEL interact. optim. via electron bunch trapping 39983
HF EM modelling techniques, IEE Colloquium, London (1995) 36883
lossless bianisotropic media, conditions for param. dyadics 40297
microwave oven design, EM wave anal. methods *(Japanese)* 44619
mixed methods for modeling of EM expts. 40277
modelling in arbitrary geom., PIC methods, parallel proc. 31726
multibranching point of transm. line, EM wave radiation 2284
parallel lin. eqn. solvers for computational electromagnetics problems 23557
PCBs, radiation/crosstalk, edge-elements charactn. 12872
quasi-Cherenkov X-ray DFB FEL under multi-wave diffr. 39978
relativistic BWO with end reflectors, EM wave excitation 13009
shielding effectiveness of plane shield, incident angle 23698
stimulated radiation from electron beam traversing, inhomog. EM wave 40268
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
waveguide apertures radiating into lossy media, num. anal. 2307

electromagnetism
see also electric fields; electrodynamics; electromagnetic field theory; electromagnetic forces; electromagnetic induction; electromagnetic oscillations; electromagnetic waves; magnetism; Maxwell equations
5BDSR nanocrystalline amorph. mag. alloy, EM characts. determ. 30659
chiral materials in microwaves 6290
DC current distribs. in solid conductors and mag. fields 40229
dielec. surface asperities, near-field opt. detect. 31792
distributed plasma armature, electromagnetism, lumped element description 23523
dual field modelling, tubes and slices 28331
EM CAD in undergraduate courses 2171
EM inverse problem solns., Hopfield neural networks 15214
EM pumped FEL, space charge and axial-guide mag. fields effects on gain 14984
engng. education, Prof. James R. Melcher contribs. 36932
evanescent EM waves, ang. momentum 2162
FEM, massively parallel computers, domain-decomp. methods 40203
Helmholtz eqn. and electromagnetism, FEA and integral eqn. methods 23492
IEEE conf. on instrumentation/meas., USA (1993) 20198
impulse response, deconvolution, total least sq. 40389
inductively coupled discharges, analytic models 21789
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
Mathcad for elec. engng. 36911
mixed methods for modeling of EM expts. 40277
model for transient surface impedance boundary condition 40192
modelling in arbitrary geom., PIC methods, parallel proc. 31726
ODE, B-spline solns. 37340
planar EM anals. validation, ultra-high precision benchmark 824
response of thin layered conductor/insulator composites 7880
supercond. toric storage, mag. values calc. 39291
tanh transform., sing./infinite integrals eval. 2163
transient EM modeling, generalized k-space method 15396
ungauged 3D edge finite element anal., mixed soln. tech. 37370

electromagnets
see also coils; superconducting magnets
3D modelling of EM actuators, iter. procedure 40273
AC screened pole electromagnets, params. estim. *(Russian)* 7929
DC electromagnet pole dimens. selection method *(Russian)* 7928
EM levitation syst. for rapid transit and high speed transportation 20092
EM levitation with permanent and electro magnets, optimal design 20091
HL-1 Tokamak TF magnets, stress anal. 40270
IR FEL based on gyrotron-powered EM wigglers 2020
lin. pulse motor actuators, principles and characts. 44256
lin. spring for PM levitation syst., EM control 44509
microrelay driving element, integrated electromagnet 21610
milling, cutting vibr. control, impact damper *(Japanese)* 42952
miniature relay matrix, multi-actuator systs., electromechanical interf. 30524
nonlin. EM problems, hybrid finite element-BEM 40221
power freq. EM devices, shape optim. 15254
round massive core electromagnet, dyn. characts. calc. *(Russian)* 7930
spin flipping in stored polarized proton beam 4081

electromagnets continued
strong-field electromagnets, efficiency, mag. conductor permeab. influence 31738
toroidal magnets for eta decay mag. spectrometers 31739
TRISTAN MR status 34769
Si micromachined particle manipulator/separator 31748

electromechanical effects
contact elements wear in electromechanical switches 38066
ferroelec. ceramics, twinning-induced stress, elec. field conc. 37537
piezoceramic polymer composite, 2-2 connectivity, dyn. modelling 6900
PSG waveguide opt. routing switch for radar phase control 14663
$Pb(Mg_{1/3}Nb_{2/3})O_3$ multilayer capacitors, electromechanical resons. 21587

electromechanical filters
Si micromachining, resonator fab. 30508

electrometers
see also charge measurement
3D interface elements for modelling complex pot. drops 40193
multibeam dichroism, modulated detect., photodiodes 43027
Newton's gravit. const. meas. 17650
reducing electrometer time const., high-resist. samples meas. 3768

electrometry *see electrometers*

electromigration
airborne dust elec. mobility meas. and eqpt. 40261
CMOS gate arrays, EOS induced polysilicon migration 30466
CMOS logic gate delay computation, slope considerations in probabilistic simul. 29115
CMOS proc. appl., wafer level reliab. SPC program 20493
CMOS ULSI IC design, high perform. metallization issues 38642
n-diamond:N,P,Li,Na,S,O, doping, review 6614
finite conductor with single blocking boundary, electromigration failure 6666
flux reliab. assess., electromigration and SIR 177
IC electromigration tests, thermal effects 30134
IC interconnections, electromigration reliab. indicators 6660
III-V HBTs, reliab. issues 22386
III-V semiconds., liq. phase electroepitaxy 20870
logic IC interconnection technol., syst. engng., manufacturability 37723
metal lines, defective, current induced failure 30153
meterials reliab. in microelectronics, conf., San Francisco (1994) 28229
MLC capacitors, failure caused by high temp./humidity environ. 12840
near-bamboo interconnects, grain struct., analytic model 6667
on-chip interconnect reliab., electromigration resist. prediction 38674
PCB flux residue influence, electronic assembly quality 937
petroleum storage tank recirculatory flow, electrostatic charge estim. 15215
PWBs, glass fibre reinforced epoxy laminate, interfacial debonding 11819
reliab./quality diagnostic tool for electronic devices 1315
stress-voiding/electromigration in multilevel interconnect metallizations 38986
surface insulation resist. and electromigration test methods 113
ULSI, electromigration-induced integrat. limits, model 38976
VLSI interconnect reliab. studies, computer simul. 22553
Ag multilayer ccts., environ. durability 21659
Al IC interconnection failure, stress migration-induced voiding 38666
Al conductors, thermionic deposition, electromigration stabil. 22257
Al interconnections, DC electromigration, resist. oscills. 38692
Al, multilayer conductors, submicron width, electromigration failure, current dens. depend. 38630
Al thin films, electromigration, hillock form. 30143
Al thin-film interconnects, thermal stresses, cryst. plasticity simul. 22264
Al/TiN/CVD-W deep submicron interconnects, sheet resist. 38683
Al/W multilayered interconnections, electromigration resist. meas. 38687
Al-Cu (4 wt.%) thin-film interconnects, precip. phase 13425
Al-Cu, simultaneous doping/CVD, interconnection form. 6831
Al-Ge-Cu alloy reflow sputtering, electromigration charact. 22269
Al-Ge-Cu multilevel damascene metallisation proc. 22259
Al-Si resistors, electromigration noise depend. on characts. 865
Al-Si/Al_2O_3/SiO_2 metallization, thermal and electromigration effects 38703
Al-Si/TiN/Ti bamboo lines, electromigration, activation energy 30147
Al-Si-Cu VLSI interconnect void-related early failure, subpopulation model 22271
Al-Si-Mg fine-grained alloys, electromigration resist., Mg content depend. 1293
Al-Si-V-Pd microstruct., IC interconnect reliab., Al-Si-Cu comparison 38652
Al-TiN high coverage barrier film form., ICB deposition 20955
Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
AlCu interconnects, electromigration stressing, Al_2Cu precip. distrib. 38455
AlCu-TiN VLSI interconnect systs., design and building-in reliab. 38645
AlGaAs layers, liq. phase electroepitaxial growth, GaAs substrs. 20871
AlSi/TiN/Ti bamboo metal lines, ASTM electromigration test struct. 30135
AlSi/TiN/Ti bamboo metal lines, NIST electromigration test-struct. 6664
AlSiCu lines, electromigration lifetime, min. time to failure testing 38637
Cu CVD precursor chem./mol. struct., IC metallization 28812
Cu diffusion, Cu/Al-Cu based thin film IC metallizations, comparison 38648
Cu interconnects, high-reliab., dry etching 38688
Cu metallization mfg. issues for future ICs 38643
Cu metallization technol. for deep submicron ULSIs 30140
Cu planarized copper multilevel ULSI interconnections, damascene proc. 30139
Cu thin films, electromigration, hillock form. 30143
Cu/TiN/$TiSi_2$/n^+-Si contact syst., RTN and characts. 38700
Cu-Cr bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
Cu-Ti bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
Cu-Ti(Cr) self-encapsulated metallization, TiN(CrN) diffusion barriers 38651
Cu-based metallization, ULSI struct., IC interconnects 30136
GaAs digital foundry, process, perform., reliab. charactn. 38958
GaAs, liq. phase electroepitaxial growth, 2-D diffusion model 300
HgI_2, extrinsic defects incorporation, detector fab. 43076
Si:Li, fast Li electromigration, low temp. device creation 30047
Si/Al, VLSI metallisation layers, charactn., Joule heating model 13430
Si-$TaSi_2$-TiN-AlSi multilayer thin film contacts, electromigration testing 38654
SiN-based antifuses, stress-induced leakage current, dielec. breakdown 38448
Sn-Ag solder, Pb-free, appl. in no-clean thick film electronic modules 6451
TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270
$YBa_2Cu_3O_{7-\delta}$, thin-film microbridges, normal state, 1/f noise 22737
nondestructive elec. anal. techs., electromigration mechanisms 38667

electromotive force *see electric potential*
electromyography
3D mapping of muscle activity, surface electrode array sig. proc. 26391
biomimetric powered prosthetic hand, myoelectrogram controlled *(Japanese)* 26471
cardiac myopots., fragmented, class. for fragmentation mapping syst. 35112
EGG, contractions ident. by backprop. neural nets 43297
fuzzy rule based adaptive nonlin. filter for myoelectric sigs. 35132
hands, myoelec., design modif., quality fn. 4307
Hermite expansions of compact support waveforms, EMG appl. 10241
hybrid neural net for class. 43205
isolation amp. for biomech. investigs., needle electrodes *(German)* 4277
lower trapezius electromyographic activity anal. 43289
microcontroller implement. of adaptive myoelec. filter 26474
motor control sig. proc. by neural network 18565
multiple site, amplit. estim., waveforms whitening/combination 18569
myoelectric sig. recogn., fuzzy clustering and ANNs 35108
neural network sig. anal., arm prosthesis appl. 18614
neurophysiology lab., QA study, EMG/EEG 4281
prosthesis control syst., 2-channel enhancement 18605
respiratory muscles, cyclic activity, automated meas., microcomputer syst. 4282
surface EMG, muscular cond. vel. meas. syst. 10232
uterine EMG anal., instantaneous burst freq. tracking 43281
uterus elec. activity recording, noninvasive method 26396
ventricular arrhythmia localisation, fragmented cardiac myopots., computer proc. 18563
electron absorption
see also beta-ray absorption
Cu surface two-color photoemission on fs laser pulse irrad. 38208
electron accelerators
see also betatrons; microtrons
38 MeV L-band LINAC multibunch electron beam FEL expts. 39936
200 MW klystron pulsed power modulator, electron LINAC appls. 34744
Aarhus dual purpose storage ring for pos./neg. ions/electrons 18419
accelerating cavity, EM field, wire effect 26079
ALS, obj.-oriented software constr. 18227
ALS accelerator control syst. status 18187
AmPS magnet control syst. 18276
APS, control displays, rule-based ES 18219
APS, hardware supported by control syst. 18203
APS accelerator and control syst. 18173
APS SR beam lines, shielding 10290
ATF, gun trigger syst., fiber optic cables 18204
beam accelerator, long power pulse operation retrofit 34751
beam dyn., complex accelerating elements 26039
beam-beam interacts., large crossing angle 34815
BEPC accelerator control syst. design 18195
CEBAF accelerator control syst. upgrade 18189
CEBAF UV/IR FEL materials proc. subsystem testing 39920
CELSIUS electron cooling syst., collector efficiency 34793
CLIC, develop., progress 34761
coherent bremsstrahlung, SLAC PEP-II and KEK Tristan-B B factories 40262
conference, e^+e^- colliders, Benalmadena, Spain (Oct./Nov. 1992) 5505
conference, e^+e^- linac collider physics, HI, USA (April 1993) 28238
conference, γ-γ colliders, Berkeley, USA (March 1994) 20216
conference, laser-plasma interactions, Monterey, USA (Oct. 1993) 22
cooling in storage rings 34771
Cornell high lumin. upgrade, CLEO II detector, CLEO III 4177
Cs_2Te film photocathode electron source for Los Alamos advanced FEL 39943
DAΦNE, bunch length control, higher harmonic cavity 26061
DAΦNE, DANTE control syst., Macintosh/LabVIEW based 18236
DAΦNE, RF cavities, broadband waveguide, coaxial transit., HOM damping 18287
DAΦNE accelerator, status 34747
DELPHI distributed IS, LEP appl. 18210
DISKTRON electrostatic accelerator and laser-induced photoelectrons facility 31464
electron beams, size and position diagnostics, time resolved and photographic techs. 26055
electron positron storage rings, spin dyn. 18243
electron-beam accel. by cyclotron-autoresonance interact. 18282
electron-positron collider, lumin. meas./calcs. 4062
electron-positron lin. colliders, problems, status 26030
electron-proton colliders, linac-ring type and γp colliders 10078
electrostatic accelerator based FEL, material sci. in far-IR 39987
ELETTRA, high energy resoln. photoemission beam line 10096
ELFE recirculating linac, design, cost 34748
Eloisatron, beam-beam/SR considerations 4097
epithermal photoneutron source, accel.-based, boron neutron capture therapy 4146
ESR storage ring, GSI, fragment beam stochastic precooling 34779
ESRF, kicker magnet pulsed power supplies 34820
ESRF, SR source, pot. 18290
ESRF accelerator, VME image acquisition/proc., TV CCD cameras 18272
ESRF beam line, scanning X-ray microprobe test 26261
ESRF distrib. control syst., access control/security 18213
ESRF linac, obj.-oriented control syst. 18185
ESRF source, target specs., SR source 18245
ESRF wiggler beamline, water-cooled monochromator 10088
explosive whisker emission cathode materials study 29754
FEL, compact CW operation, supercond. RF accelerator technol. 39893
FEL, SW, SLAC linac 31434
FEL oscill., multibunch electron beam from L-band LINAC 39935
ferroelec. cathodes, pulsed power supplied 29751
FODO syst., sync. radiation props. 4033
free-running IR FEL, submegahertz spectral resoln. 31433
gamma-gamma collider, crab crossing 26067
gamma-gamma colliders, accelerator params. 26031
gamma-gamma colliders, FEL, summary 23315
gamma-ray source, tunable, monochromatic, design 34852
gas bremsstrahlung evals. for Φ-Factory, adsorbed dose 35198
hazardous pollution control, pulsed power accelerator appls. 36815
HERA, collimators, diagnostic tools 10085
HERA, HERMES, long. electron polariz., spin rotators 43039
HERA, large electron spin polariz. 34816
HERA, long. spin polariz. 26043
electron accelerators continued
HERA status, first results 18244
high current electron flux, energy meas. Cherenkov detect. 34819
high lumin. TeV electron accelerators, laser interact. 4075
high voltage high brightness electron accelerators 10082
high-power microwave tubes, lab. and online appls. 6479
HV DC power supplies for HERA accelerator transmitters 27828
I-3000 accelerator, electron spectrometer, TF 34960
inductive storage, plasma injectors 36452
isochronous storage ring FEL 23318
JLC, Z-pole option 34763
JLC detector, design, perform. 34953
KEK e^-/e^+ linac control syst., VME and workstations 18191
Ku band second harmonic gyroklystron expt. 6487
L10M lin. induction accelerator 36362
L-band electron linac, Osaka Univ., IR FEL oscill. 23309
LEP2 at CERN, cryoplants 4037
LEP2 cryogenics, large indust. control syst. appl. 18239
LEP2 cryogenics control syst. archit. 4036
LEP, large electron spin polariz. 34816
LEP accelerator beam dump control syst. 18198
LEP accelerator pretzel separators, control syst. 18261
LEP beam bumping kicker syst. high power pulse generator 34821
LEP high level control syst., ORACLE online database 18234
LEP machine/expts., data exchange 18212
LEP operation, high level appl. software 18223
LEP/SPS control syst. computers, installation, mgt. 18225
LIA-30 lin. induction accelerator, 6 MJ capacitor bank 36633
lin. induction accelerators, relativistic microwave electronics 34752
lin. reson. electron linac, control syst. 18178
LINAC, klystron modulator, energy efficient deQing cct. 36360
linac, reson. freq., temp. stabilization 34766
linac with integrated power source, RF energy compression 43002
LISA, supercond. linac, control syst. commissioning/operation 18179
LISA supercond. linac, operation and perspectives 43023
low-emittance electron beams in electrostat. accel., FEL appl. 26062
microwave inverse FEL accelerator 39913
next generation synchrotron sources, undulators and wigglers 18247
NLC/GLC collider prototype, uses 26034
NSLS accelerator control syst. upgrade 18188
NSLS rings, transverse orbit stabilization, digital feedback syst. 18274
parametric X-radiation, beam divergence meas. appl. 4056
Photon Factory e^+ storage ring, longit. bunch struct., photon counting 26060
photon lin. collider, VLEPP, 100×100 GeV, ultimate lumin. 26032
photon lin. collider at SLC, 2×5 GeV, FEL-based 26033
Photon Linear Collider, ultimate lumin., interact. region layout 26066
photon-photon collider, detectors 26139
plasma accelerator, azimuthal electron drift, num. simul. 26085
plasma beat wave accelerator (GeV), prospects 18170
positron Doppler broadening meas., LINAC-based slow positron beam 26083
positron high intens. beam gen. by SR 43050
prototype high-current CW lin. electron accelerator 34746
pulsed power, develop./hist., AWRE 36378
pulsed power systems, environmental, industrial appls. 11520
quasi-Cherenkov surface emitting FEL, linac 39982
radiation damping, electron accelerators 4073
radiation therapy, lin./circ. electron accelerators 4297
recirculating accelerator FEL syst., energy-current loss instabilities 39985
relativistic BWO, efficiency increase 29796
relativistic electron beam propag. in neutral gas. Nordsieck length meas. 26054
relativistic electron beam propag. through gas, time-resolved partition meas. 26056
relativistic electron plasma waves, electron accel., laser opt. mixing 10081
relativistic klystron two-beam accelerator, RF power extraction 10090
relativistic klystron two-beam accelerator for beam-break-up suppress. 34828
repetitively pulsed relativistic BWO, slow wave struct. 29797
reson. laser-plasma electron accel. 4039
RF accelerators, intense electron beam quadrupole focusing 26053
RUSLAN e-beam accelerator, Marx generator supply 34738
S-band lin. accelerator, electron bunch generation 4046
short bunch RF-linac FEL, output power fluct. 3D simul. 39973
SIBERIA SR source control syst. 18262
SLAC, BABAR detector, PEP-II, CP-violating asymmetries 4178
SLAC lin. collider develop. 34760
slalom mag. deflection syst., med. electron linac *(Chinese)* 26076
SLC, polarized electron source 34888
SLC/SLD, lin. collider expt. experience 34842
SOLEIL project, 2.15 GeV positron storage ring, tech. aspects 18281
Sortec Corp. SR ring, stored current upgrade *(Japanese)* 4060
SPring-8 storage ring, equilib. bunch length, RF noises 34831
SPS/LEP commun. control network evol. 18197
SR complex ISI-800 18418
SR facility constr. 10092
SR rings, figs. of merit 18248
SR sources, electron/proton rings 4072
SR sources in Japan, overview, appls. 18295
SRRC accelerator control syst. design schemes 18218
SRRC storage ring, computer control and instrumentation syst. 18174
standing wave FEL two-beam accelerator, beam-break-up 34823
storage ring, double RF syst., transverse mode coupling instabil. 18288
storage ring, long. coupled-bunch instabil. suppression 4088
storage ring FEL, radiation power stabilisation 7687
storage rings, gas bremsstrahlung dose, photon-neutron shielding 26506
STRAUS-2 electron pulsed accelerator, pulsed power supply 36363
supercond. compact storage ring, injection syst. 26059
synchrotron, 400 MeV, bending magnets power supply syst. *(Dutch)* 44117
synchrotron rad. source, low emittance, betatron oscills. coupling 18268
synchrotron-based X-ray lithog. syst. integrat. 38765
TBA-driver, autobunching, phase stabil. 43037
TESLA, transient state in standing wave accel. cavities 18270
thermal neutron target for RPI linac 26103
three-cavity syst., coupled-bunch instabil. 18286
triode gun, standing wave electron linac beam dyn. 26040
TRISTAN accelerator control syst., rejuvenation status 18190
TRISTAN accelerator tune, workstations, digitalised sigs. 18275
TRISTAN MR status 34769
TRIUMF accelerator central control syst. upgrade 18186

electron accelerators continued
  TUE cyclotron building, particle accelerators *(Dutch)* 43003
  ultra-short pulse FEL oscillators 39970
  Univ. of Sao Paulo linac, beam optics, transport, target areas 26058
  UV/X-ray FELs, single-pass, milestone expts. 39901
  UVSOR SR source, gracefully-degraded operationable control syst. 18196
  vac. syst. design, electron/proton storage rings 961
  VEPP-3, storage cell for polarized gas internal targ. 4132
  VLEPP based photon lin. collider, charged particle background 26028
  wake fields, boundary element anal., Kirchhoff's integral eqn. 23515
  X-band accelerator, detuned, wake-field suppress. meas. 34756
  X-ray FEL, electron beam source, klystron undulator simul. 39905
  X-ray irrad. syst., sterilization appl. 18215
  ZJ-10 med. linac. waveguide corros. mechanism *(Chinese)* 34754
  e^+e^- S-band/supercond. colliders develop. 34845
  e^+e^- future colliders 34758
  e^+e^- lin. colliders, TeV-scale, submicron beam focusing 34837
  e^+e^- lin. colliders overview 34757
  e^+e^- lin. collider, requirements on detectors/machine 10079
  eγ and γγ colliders, plasma lens form. 26068
  eγ colliders, plasma lens appl. 26069
  eγ colliders, plasma lens appl. 43024
  γ-γ collider, TW energy high power FEL 23314
  γγ, high energy, electron-positron collider, QCD 26027
  CsK_2Sb photocathodes in RF linacs 43055
  Cs_2Te Los Alamos FEL photocathode electron source 39942
  Cs_2Te photocathode electron source for Los Alamos advanced FEL 39944
electron affinity
  diamond, single-cryst. chem.-vap.-deposited, electron affinity 1018
  $C_{60/70}$-Schottky diodes, characterisation 13613
  InGaAsP, strained layers, LPE, spin-polarized electron sources 21798
electron avalanches
  corona discharge elec. wind meas. by opt. fiber interferometer 42830
  crit. corona/avalanche threshold, nonuniform air-gaps 13976
  Ar gas electron avalanches, pulsed Townsend meas. 30552
  SF_6, negative corona discharges 13981
electron backscattering
  ESD anals. for spacecraft in geosynchronous orbit 35213
  LV electron-beam lithog., surface imaging, silylation 13459
  PMMA-Ge-AZ trilayer electron resist, deep submicron patterning *(Korean)* 38747
  X-ray prod. from relativistic electron beams 10160
  AlCu interconnects, electromigration stressing, Al_2Cu precip. distrib. 38455
  $Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
electron beam absorption *see electron absorption*
electron beam annealing
  a-Ge particles form., nm dimens. and their behaviour, annealing 1058
electron beam applications
  see also electron beam annealing; electron beam deposition; electron beam lithography; electron beam machining; electron beam pumping; electron beam testing; electron beam welding; radiation therapy
  coherent Compton X-ray sources 10159
  conference on beam cooling, Montreux, Switzerland (Oct. 1993) 20271
  corona discharge-electron beam combustion FGD 19495
  dielec. surfaces, pot. meas., pulse method 25950
  electron, ion, and photon beams, symp., New Orleans (1994) 5484
  group-III nitrides, light emitting devices, LEEBI treatment 39578
  hazardous gas treatment, pulsed corona reactor 36814
  hazardous pollution control, pulsed power accelerator appls. 36815
  high av. power e-beam appls. 36294
  high power e-beam induced switching in diamond 36447
  indust. curing procs., electrotechnology appls. 28188
  mag. fields meas. by electron-beam tomography, Fourier extrapolation 18045
  multilayer microstruct. fab. for electron beam microcolumn microlenses 13909
  opt. phase-shifting masks, inspection, automated electron-beam syst. 13488
  pinching electron beam vircator, high efficiency 29768
  polyimides, electron beam irrad., channel waveguide fab. 22891
  power plant flue gas scrubbing, pulsed corona/electron beam technols. 35997
  pulsed power microwave generation, long-pulse expts. 36312
  quartz cryst. pulsed power switches, electron-beam controlled 36450
  radiotherapy electron beams, simple mag. spectrometer 10270
  repetitive e-beam diode develop. 36285
  thermomagnetic recording in multilayer mag. struct. 39312
  US Nat. X-Ray Lithography Program, materials issues 6678
  water, hydrocarbon contaminants destruction, e-beam technol. *(German)* 44639
  X-ray prod. from relativistic electron beams 10160
  GaAs switches, e-beam activated, optimisation 36429
  InGaAsP-InP MQW-DFB lasers, multiple phase-shifts, spectral charact. 39764
  $LiNbO_3$, periodic domain inverted struct., nonlin. optics 23394
  $LiNbO_3$ waveguide quasi-matching SHG devices 22880
  $LiTaO_3$, periodic domain inverted struct., nonlin. optics 23394
  SiO_2 layers, beam assisted STM 39039
  W ultrasharp cold field emitters, emission charact. 13018
  $(XeCs)^+Ga$, ionic excimer emission, gain dyn., Ar/Xe/Cs mixtures 1859
  ZnSe pulsed power switches, electron-beam controlled 36450
electron beam deposition
  additive lithog. 20922
  allylcyclopentadienyl palladium, electron-beam-induced pattern deposition 6676
  fluorocarbon films for MEMS appls., materials anal. 28852
  locally focused electron-beam deposition 12175
  multilayer coated reflective optics, EUV lithog. 38721
  Si:B submicron jns., doping by B layer electron beam evap. 13294
  Al vac. deposited thin film characterisation, SiO_2-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
  Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
  BN, cubic thin films, growth, charactn. 5875
  Ba-Y-Yb-F:Tm^{3+} glass thin film upconverting waveguides for vis. and UV light sources 30936
  Co/Si(111), Co silicide nucleation, H passiv. effects 13204
  $Co_{1-x}Cr_x$ perp. mag. recording media, epitaxial growth 7103
  Cu_3Ge thin films on $Si(SiO_2)$, stabil. 1301
  Fe island growth on CaF_2/Si(111), selective nucleation, SEM obs. 12177
  Fe/Pd multilayers grown by electron-beam, mag. props. 39176
  In_2O_3 film, electron beam deposited, charactn. 28857
electron beam deposition continued
  $(InSn)_2O_3$ films, activated electron beam evap., water partial press. depend. 37487
  Li-$LiMn_2O_4$ thin-film secondary batts. 36556
  Mo/Al_2O_3 (0001) interfaces, high-resoln. electron microscopic studies 28823
  Ta_2O_5 film, electron beam deposited, electroluminescent device appl. 5894
  TiZrO antirefl. coatings, source comp. evol. effects 14570
  Y_2O_3 MIM capacitors, elec./dielec./opt. props. 22082
  Y_2O_3-ZrO_2 thin film electrolyte, SOFC, tensile test 27927
  $Zn_{1-x}Cd_xSe$ polycryst. thin films, electron beam evap. growth, elec. props. 1030
electron beam effects
  see also beta-ray effects; cathodoluminescence; electron beam annealing; plasma-beam interactions
  CELSIUS, electron cooling/heating meas. 34786
  charged spot field effect 40263
  dielec., charged particle irrad., current reversal 39036
  dielectrics, space charge relaxation induced breakdown, energy release 13951
  GTO failure mode during DC voltage blocking, cosmic-ray effects 30276
  helical Cherenkov effect, observability 40259
  high sensitivity opt. detectors, perform. meas., radiation effects 1796
  insulator charging simulation 14005
  ionos., electron beam-driven VLF waves, CHARGE-2B rocket expt. 40339
  ionos. electron beam injection, assoc. radiowave absorpt. 7970
  micro-submicrometer P-MOSFETs, electron beam doping *(Chinese)* 6755
  PMMA opt. waveguides, dye doped, electron irrad., ageing 1703
  poly(di-methyl silane) film, highly oriented, electron beam irrad. 38708
  polyethyleneterephthalate films, radiation treatment *(Russian)* 6893
  pulsed power systems, environmental, industrial appls. 11520
  quartz cryst., solid switches, electron-beam controlled 21609
  SDC barrel/endcap calorimeters, decay time, light yield, rad. damage 26226
  Shashlik calorimeter, radiation hardness 26228
  solar cells, radiation effects/external factors 11289
  tile/fiber scintillator calorimeter, electron irrad. damage *(Chinese)* 10129
  TMP swimming pool calorimeter, electron/gamma irrad. tests 26225
  VENUS vertex chamber, heat input from TRISTAN beams *(Japanese)* 34951
  X-ray prod., optimal target-filter system 34978
  XLPE films, electron irradiated, high field AC cond. 14029
  ZnSe polycryst., solid switches, electron-beam controlled 21609
  AlGaAs/GaAs heterostruct., electron beam irrad. damage, annealing 21944
  Al_2O_3:Cr^{3+}laser, low dose electron and gamma-ray irrad. effects 23159
  a-As_2S_3-Zn bilayers, electron/photon irrad. effects 38405
  a-As_xS_y-Ag bilayers, electron/photon irrad. effects 38405
  Fe island growth on CaF_2/Si(111), selective nucleation, SEM obs. 12177
  GaAs solar cells, gamma ray/electron displacement damage 13062
  n-GaAs:Yb, electron irrad., defect form., cond. compensation 21911
  InGaAs diodes, radiation effects, long wavelength sensitivity 1806
  InP solar cells, electron radiation damage, irrad. temp. depend. 44415
  InP solar cells, gamma ray/electron displacement damage 13062
  InP solar cells, radiation resistant, space appls. 26640
  InP/$Ga_{0.47}In_{0.53}As$ tandem solar cells, electron irrad. effects 36588
  InSb(100) surface, Ar ion bombard. and electron stimulated oxid. 30101
  $LiNbO_3$ electro-opt. devices, proton radiation effects 1728
  Nd-Fe-B PM, electron beam/γ-ray irrad. effects 7203
  a-P_2Se_3-Ag bilayers, electron/photon irrad. effects 38405
  Pb scintillating fibre calorimeter, radiation resist. 26222
  Pb-scintillating fiber calorimeters, electron irrad. damage 26221
  PbS films, irrad., elec. props. 13091
  PbTe:Ga, electron irrad., elec. and photoelec. props. 1788
  Si power devices, combined electron and ion irrad., local lifetime tailoring 30204
  Si power diodes, electron/He ion irrad. for local lifetime tailoring 30197
  Si, radiation-induced defect introduction rates 13116
  Si solar cell degrad., e-beam direction influence 36602
  Si surface, quantum-well p-n jn., electron-beam diagnostics 13161
  a-Si:C,H p-i-n diode struct. for electron flux conversion 30229
  Si-$Si_{1-x}Ge_x$ epitaxial devices, Ge content depend. of radiation damage 13638
  SiO_2 micromechanical struct., electron/ion-beam irrad. 13913
  SiO_2 thin films, plasma nitridation, electron beam irrad. 22253
  Sm-Co PM, electron beam/γ-ray irrad. effects 7203
  YAG:Nd^{3+} laser, low dose electron and gamma-ray irrad. effects 23159
electron beam focusing
  automatic beam optimiser reverse-swing diode electron gun *(Japanese)* 12989
  CEBAF FEL injector, space charge dominated perform. modelling 39974
  Cerenkov amplifiers, sheet electron beam confinement 6508
  FEL betatron oscills., undulator acceptance, beam conditioning 39967
  FEL with focusing PM wiggler, 3D gain anal. 31429
  folded-waveguide high-power MM-wave TWTs 21858
  free electron maser, prebunched electron beams 39908
  gun, intens. profile meas., modulation techs. 29760
  KIAE-4 two-sect. undulator, mag. field test 43030
  locally focused electron-beam deposition 12175
  microcolumns, electron-electron scatt. 15244
  millimetre wave FEL, wiggler focused sheet electron beams 39627
  multicascade electrostatic analyser, focusing props. 43038
  quasi-isochronous ring, mag. lattice, e^+e^- colliders 18284
  RF accelerators, intense electron beam quadrupole focusing 26053
  undulator with anharmonic mag. fields, focusing props. 43033
  e^+e^- lin. colliders, TeV-scale, submicron beam focusing 34837
  eγ colliders, plasma lens appl. 43024
  eγ colliders, plasma lens appl. 26069
electron beam induced conductivity *see EBIC*
electron beam induced currents *see EBIC*
electron beam lithography
  see also electron resists; proximity effect (lithography)
  0.3 μm LSI fab. by high-throughput electron-beam syst. 13453
  additive lithog., electron-beam-induced deposition 20922
  allylcyclopentadienyl palladium, electron-beam-induced pattern deposition 6676
  ASIC, direct e-beam writing, proximity correction 30188
  binary/multilevel diffractive lenses, submicrometer, sizes 7373
  block exposure syst., deflector/correction coil calib. 13450
  block exposure syst., repetitive pattern fab. 22287
  cell projection, proximity effect correction 22286
  cell projection lithog., accuracy and throughput 13449
  cell projection lithog., scatt. contrast 22284

electron beam lithography continued
channel-constrained deposition of electroless metallization on ligating self-assembled films 13429
character projection data conversion syst. 22283
chem. amplified resist, self-solubility accel. effect 1309
chem. amplified resist films, acid generation proc. by radiation-induced react. 13516
CMOS random logic, electron beam/DUV mix-and-match lithog. 39002
CMOSFETs with reduced jn. capacitance, $TiSi_2$ salicide, e-beam lithog., SPICE 30358
combined lithographies, stitching errors 13483
curved struct. electron-beam lithog., enhanced vector-scan pattern generator 13457
DFB laser, laterally coupled, fab., electron-beam lithog./CAIBE 14941
diffractive coupling lenses, 3D profiling, e-beam lithog./RIE 14568
diffractive opt. elements, electron-beam fab., FIB inspection 14497
diffractive opt. elements, variable shaped electron beam lithog. 14492
edge type thin-film warm carrier detectors, fab. 34488
electron, ion, and photon beams, symp., New Orleans (1994) 5484
electrostatic lenses, miniaturized electron column, microfabrication 40269
EX-8D electron beam direct-writing syst., patterning accuracy 22288
heating, simul. 38712
hybrid lithog., e-beam direct writing and opt. stepper 38769
kinoforms, direct-write electron-beam lithog., proximity effect 23472
laterally-coupled DFB laser, EBL/CAIBE fab. 31410
low energy e-beam lithog., energy control and variable energy exposure 30181
LV electron-beam lithog., surface imaging, silylation 13459
mark detect. using the vibr. method, electron beam exposure syst. appl. 30166
MEBES 4500 raster scan lithog. syst., dyn. corrections 13448
MEBES 4500 raster scan techs., calib. and control 30184
membrane masks, stress-induced pattern-placement errors 13464
microcolumns, electron detector, MSM struct. 30187
MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
miniaturized e-beam writer, component testing 30186
nanolithography, image reversal, ECR plasma oxid. 30180
nanolithography, stitching and overlay errors 22289
near field holographic grating mask technol. 15187
optoelectronic device fab. by electron lithog. 30170
overlay enhancement in electron-beam lithog. 13452
particle beam interacts., Monte Carlo simul. 13461
phase gratings, fab., FIB milling/e-beam lithog. 14496
phase-shifting masks, LSI technol. 13503
photonic IC, fab., phase grating masks 39456
photoresists, charge effect, indust. plasma proc. 13469
planar-optic-disk pickup, diffractive micro-optics 7368
PMMA, grating and dot pattern nanofabrication, electron holographic lithog. 38706
polydimethylsilane film, surface-imaging proc. for electron beam lithog. 38711
polysilicon-emitter transistors, fab., e-beam lithog. 30263
PREVAIL, e-beam stepper, variable axis immersion lenses 30183
projection systs., stochastic interacts., anal. model 13462
proximity effect correction, neural network 38713
proximity effect correction, pattern-area dens. 22285
PYRAMID interior area removal method in electron beam lithog. 13455
quantum mag. disk, nanoscale struct., electron-beam lithog. 14245
quantum wires, fab., etching damage, electron beam lithog. 13397
raster scan mask generation, graybeam writing 13458
relief type surface topographies, semitransparent mask 38723
rib waveguides, grating fab., electron-beam/X-ray lithog. 14461
Schottky collector RTDs, fab., electron beam lithog. 13604
Schottky field emission source, electron beam lithog. 13451
SEL, circ. gratings, lithographic fab. 14940
SEM arrays, microfabrication, direct write lithog., wafer inspection 13478
semicond. ring lasers for integrated optoelectronic ccts. 14842
single-domain mag. pillar array for ultrahigh dens. quantum mag. storage 7189
spatial-phase-locked e-beam lithog., high-coherence QWS gratings 7385
submicron struct., high aspect ratio, electron beam lithog. 30182
ultra-high resoln. single-domain mag. force microscope tip, nanolithography prep. 14121
unshielded dual-element horiz. MR heads, design and fab. 7086
WePrint 200, electron-beam printer, throughput 30185
X-ray mask fab., proximity effect correction 22291
X-ray mask fab., proximity effect correction 22290
X-ray mask technol., defect control 13563
X-ray refl. masks, electron scatt. 13436
yaw compensation 13473
Al single-cryst. nanostructures, fab. 30159
Al/AlO_x/Al single-electron transistors and traps, fab. 13826
AlGaAs/InGaAs pseudomorphic SQW-MODFETs, double sided modulation doping 6786
AlGaAs-GaAs Schottky quantum point contacts, airbridge post 1091
AlGaAs-GaAs-AlGaAs HEMT/quantum well laser monolithic integrat., MBE/technol. 1945
AlGaSb/InAs nanostructures, CAIBE and electron-beam lithog. 13178
CdTe/$Cd_{1-x}Mg_xTe$ quantum wires, wet chem. etched, photolum. efficiency study 38331
CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
Co films, submicron patterning, mag. storage 14241
GaAs oxide mask layers, in situ electron beam lithog., patterning mechanism 38770
GaAs photo-oxides, EB lithog., Cl adsorpt. mechanism 22177
GaAs short period corrugations, e-beam direct exposure, chem. amplified neg.-tone resist *(Japanese)* 22311
GaAs/(InGa)As/(AlGa)As quantum wire, 1DEG opt. emission 1142
GaAs/$CaSrF_2$ quantum semicond. struct., high energy electron beam lithog. 13149
GaAs-InP MESFETs and ccts. fro OEICs 39598
GaInAs/InP quantum-wire lasers, fab. procs. 39811
GaInAs-GaAs micro-arc-ring lasers, design/lasing operation 1935
InAs cluster nucleation/epitaxial growth via electron beam lithog. 30173
InAs/(AlGa)Sb quantum wells, supercond. transistors fab. 22727
InGaAs/AlGaAs lasers, integrated optoelectronics, grating fab. 39596
InGaAs/AlGaAs/GaAs MODFETs, high breakdown, fab. 22477
InGaAs/GaAs, buried wires, MBE overgrowth prep., opt. props. 38369
InGaAs/GaAs quantum wire fab., LV electron beam lithog. 13179
InGaAs/InAlAs MODFETs, InP substrs., proc. technol. 13798

electron beam lithography continued
InGaAs/InP QW wires, electron beam lithography fabrication 13200
InGaAs/InP buried wires, selective thermal intermixing 13180
Ni single domain nanoscale bars, switching field, size effects 6997
Ni, single-domain mag. pillar array, fab. 14244
Si field emitters, electron beam lithog./plasma etching 29755
Si isolated nanometer-size dot arrays, prep. studies 13148
Si point contacts, nanofabrication, MBE growth, transport meas. 13128
Si quantum wire surrounded by SiO_2, fab./transport props. 6669
Si ultra-fine wire fabricated by SIMOX technol., quantized conductance 38354
a-Si:H, nanometer lithog., low-energy electrons 30177
Si/SiGe double barrier reson. tunneling struct., fab. 29942
Si/SiGe heterostruct., Aharonov-Bohm rings, fab. 29894
Si/SiGe nanometer struct., fab. 29941
SiC device proc./substr. fab., high power/temp. microwave 37990
SiO_2 anisotropic mask, EB lithog./SF_6 RIE/Al lift-off 22312
SiO_2, catalyzed HF vap. etching for micro-/nanolithographic masks 38556
SiO_2 layers, beam assisted STM 39039
SiO_xN_y, sidewall proc. and pattern transfer 13490
$SrTiO_3$ film DRAM stacked capacitor technol., MOCVD fab. 21592
W X-ray masks, GHOST electron beam proximity correction 13460
W ultrasharp cold field emitters, emission charact. 13018
YBaCuO, sub-micron structs., SEG 22755
$YBa_2Cu_3O_7$ Josephson jn.-based digital ccts., nanoscale patterning 14298
ZnSe-based nanostructures, waveguide DFB laser appls. 23296
diamond membrane-based X-ray lithog. masks 6687

electron beam machining
high av. power e-beam appls. 36294
high power electron guns; welding, heat treating, and micromachining appls. 11735
MCM-C package 3D interconnections by electron beam machining 958
microcomponents/microsystems fabr. techs. 6887
model nanoelectronic elements fab., electron beam induced struct. form. 30005

electron beam pumping
electron-beam-pumped laser emitters, microrelief mirrors 1929
FEL, IREB pumping 23317
pulsed power vac. switch foil support struct., laser pumping appls. 36442
semicond. lasers, electron-beam pumped, operating and threshold charact. 23227
CO high-power lasers, materials proc. appls. 31154
CO supersonic electron beam sustained laser, CW 200 kW operation 31150
CdZnSe/ZnSe blue/blue-green lasers, microgun pumping 31386
Cu vapour laser, in situ prod. Cu atoms, electron beam pumped 31197
Cu vapour laser, relativistic electron beam pumping 14700
F_2* mol. pulsed laser, electron beam pumping 23082
KrF NIKE laser, e-beam pumped amp. 31190
KrF excimer laser electron beam pumped, energy meas. 2042
$Kr^+Li(Cs)(Rb)$ excimers, VUV transits., e-beam pumping 31175
Ne laser, radially convergent electron-beam-pumped 14706
Xe laser, radially convergent electron-beam-pumped 14706
XeF excimer laser kinetic model 31178
XeF(C-A) long-pulse e-beam excited excited laser, single-freq. operation 14708
XeF(C→A) 170 J excimer laser, electron beam pumped 23098
$Xe^+Li(Rb)(Cs)$ excimers, VUV transits., e-beam pumping 31175

electron beam resists *see electron resists*

electron beam testing
used for testing by electron beam. For diagnostics of electron beams see particle beam diagnostics
ASICs defect isolation, scan-path testing/electron beam probing 21171
CMOS ASICs, advanced inspection program 37167
combined FIB/electron-beam probe techs. for ICs 102
DRAM/memory LSI failure anal., EB tester voltage contrast image 21317
floating-field-limiting rings in power MOSFET, pot. meas. by electron beam probe 30304
local strain meas., electron beam moire 28911
LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
LSI voltage waveform meas., EB tester, electron-beam-assisted etching appl. 13856
mag./electrostatic lens collimation, aberrations 37038
multilevel high dens. ASIC defect isolation, electron beam probing RIE 21169

electron beam welding
high av. power e-beam appls. 36294
high power electron guns; welding, heat treating, and micromachining appls. 11735
propagation, welding and materials processing appls. 11508

electron beams
see also electron optics
95 GHz gyroklystron, beamstick, advanced centerpost gun 21811
300 keV X-ray source develop., pulsed electron beam diode-based 36270
accel. by cyclotron-autoresonance interact. 18282
accelerator, long power pulse operation retrofit 34751
beam-beam interacts., large crossing angle 34815
bunched beams in mag. field, emittance growth in bends 34764
CELSIUS electron cooling syst., collector efficiency 34793
charged particle beam tomographic monitors, distrib. fns. meas. 34824
Cherenkov grating amplifier with sheet electron beam 21853
coaxial electron beam, cyclotron harmonic wave growth 37934
cold electron beam for cooling, collision expts., mag. field adiabatic expans. 34787
cooling, mol. dyn. simul. 34792
cooling in storage rings 34771
cyclotron autoresonance accel., beam energy limit 43016
cyclotron autoresonance accelerator, electron beam quality 4032
cyclotron reson. maser, electron and field dyn., Landau-Ginzburg eqn. 7500
cylindrical electron beams of arbitrary cross sect., shaping 23517
dense electron beams shaping, exterior problem soln. 40265
dielec. Cherenkov masers, powerful amps., superwide bandwidth 1843
e-beam gyrotron-BWO, interact. tubes effects 29798
ECRM, props., electron beam geom. deform. *(Chinese)* 31137
electron, ion, and photon beams, symp., New Orleans (1994) 5484
electron cooling devices, secondary electron current loss 10087
ELETTRA insertion devices, init. operation 43011
FEL, compact RF linac, advanced technol. 39891
FEL, high-power self-similar radiation pulse generation 23316
FEL, SW range, electron beam accel. and compression 39898

electron beams continued
- FEL amp., high-gain Compton regime, strong coupling operation 39912
- FEL betatron oscills., undulator acceptance, beam conditioning 39967
- FEL hole-coupled reson. cavity, gain maximization 39947
- FEL operation incl. space-charge effects, beam transport simul. 31440
- FEL oscill., multibunch electron beam from L-band LINAC 39935
- FEL oscillator, radiation build-up simul., electron beam micropulse shape effect 40008
- FEL radiation generated by short electron bunches, coherence effects 40006
- FEL relativistic electron beams, phase space tomography 39940
- FEL simul., beam quality and space charge effects 14987
- FEL spectral dyn., modulation of electron beam energy 31428
- FEL static and dyn. plasma wigglers 39969
- FEL with 2D DFB, time domain anal. 39926
- FELIX laser, coherent spontaneous emission 40005
- ferroelec. cathode, high brightness electron beam 29746
- free electron maser, prebunched electron beams 39908
- free electron micro-lasers, microscopic gated field emitter arrays 39892
- generation, plasma pulsed power closing/opening switch-based 34859
- generation pulsed power supplies, back-lighted thyratron-based 36359
- gyrotron oscillator, large-sig. mode locking, nonlin. theory 38214
- gyrotron-type systs., helical electron beams, collective procs. 38219
- helical electron beams in gyrotron type, space charge oscillns. 12996
- helical wiggler, equilib. electron orbits nonlin. evol., magnetoresonance 43035
- helical wiggler with uniform axial guide, electron trajectories 43032
- HERMES III electron beam pulsed power supply, radiation pulse studies 36305
- high current electron flux, energy meas. Cherenkov detect. 34819
- high electron current dens., plasma edge cathode 29752
- high power klystron develop. 29781
- high-current relativistic klystron research, Physics International 29774
- high-harmonic gyrofreq. multiplier, 150 kW, 17.4 GHz 29783
- hole-coupled FEL, light pulses slippage/scatt. 7692
- hybrid plasma-cavity slow-wave struct. wideband power amp. 1008
- injection in inhomog. EM wave, stimulated radiation emission 40267
- intense e-beam gyrotron BWOs, long-pulse microwave emission, tapered tubes 1006
- intense electron beams of contracted arc discharge 4144
- intense helical electron beams, num. simul. 31733
- intense slow positron source at INEL 26110
- intense-beam klystron amps., beam-cavity interact. phys. 6481
- ion accel. by relativistic electron beam, neutral gas ioniz. 26024
- ion-beam undulator, high-current electron beam propag., nonlin. wave procs. 43036
- IR FEL, compact design, perform. study 39895
- IREB, MM wave source, monochromatic current modulation 38212
- JAERI FEL project, hybrid undulator perform. 39964
- KEK slow-positron source 43052
- large orbit magnetron-type gyrotron, num. modeling 21814
- LEAR electron cooler, servo-syst., neutralisation 34785
- LF cavity oscill. driven by detuned current modulation 29787
- long pulse electron beams from cathode 21795
- long pulse gyrotron with collector pot. depression, high power 21808
- low-emittance electron beams in electrostat. accel., FEL appl. 26062
- M2 form. of ellipt. sheet electron beams 6504
- magnetron injection guns, electron beams, vel. spread 29764
- MAMI microtron, beam intens. profile monitor 34832
- Mark III FEL, hole coupling expts. 39946
- megawatt 110 GHz gyrotron, internal mode converter 21809
- microwave devices, magnetized electron beam, nonlin. Faraday effect 976
- microwave oscillators, electron beam modulation, obtain stochastic output sigs. 21841
- microwave tubes, develop. hist. and elec. props. *(German)* 6505
- nanosecond electron beam in open discharge 4147
- NIJI-IV FEL storage ring, opt. klystron effect on electron beam 39959
- nonperiodic O-type TWT, second-harmonic excitation 996
- open periodic structs., weak-relativistic electron beam diffr. radiation 40258
- opt. stochastic cooling, transit-time method 4047
- oscills. in EM field 40264
- parametric X-radiation, beam divergence meas. appl. 4056
- PBGUNS, digital simulation computer program 26108
- photocathode opt. resonator, coherent photoelectron bunch generation 970
- planar electron beams, optics, shaping electrodes calc. 2184
- plasma science, conf., Vancouver, BC, Canada (June 1993) 6301
- positron Doppler broadening meas., LINAC-based slow positron beam 26083
- producing cathode, pulsed power-supplied 34858
- propagation, welding and materials processing appls. 11508
- pseudospark operation, hollow cathode phase studies 29819
- quasi-opt. mode converters for high order mode gyrotrons 21812
- quasioptical gyroklystron expt., multimode simulation 6511
- radiative laser cooling syst. 43022
- refl. of electron beams by virtual cathode 29792
- relativistic BWO, efficiency increase 29796
- relativistic charged beams, particle simul., using integral kernel method 31427
- relativistic e-beam, rad. meas. time-resolved images 31732
- relativistic electron beam propag. in neutral gas. Nordsieck length meas. 26054
- relativistic electron beam propag. through gas, time-resolved partition meas. 26056
- relativistic electrons laser accel., inverse Cherenkov effect 26042
- relativistic klystron amps., intense electron beam modulation 13013
- relativistic klystron amps., intense space-charge beam phys. 992
- repetitive electron beam source for high power microwave expts. 26088
- resistive-wall klystron, nonlin. theory 29784
- RF accelerators, intense electron beam quadrupole focusing 26053
- S-band lin. accelerator, electron bunch generation 4046
- shaping electrodes in axisymmetrical electron-beam optics, calc. 15242
- sheet beam crossed-field amp., nonlin. gain compensation 988
- short bunch RF-linac FEL, output power fluct. 3D simul. 39973
- single bunched beam generation without subharmonic prebuncher 26081
- size and position diagnostics, time resolved and photographic techs. 26055
- slow wave cyclotron interact. in folded rect. waveguide, theory 13014
- slow-positron beam facility, KEK photon factory 26104
- soft X-ray compact bright tunable CW source 43153
- spacecraft, environmental charging 10309
- SR lithog. beamline, electron beam orbit distortion 13564

electron beams continued
- stimulated radiation from electron beam traversing, inhomog. EM wave 40268
- storage ring FEL, electron beam long. dyn. 39951
- sub-mm long electron bunches, longit. asymm., synchrotron/transit. radiation 18254
- Super-Reltron microwave tube progress, high power and efficiency 989
- temp., opt. anal., transverse Larmor rad. 34782
- transversal/long. velocities meas. 34783
- travelling wave tubes, collective effects, theoretical anal. 6515
- TW interact. re-exam. 1000
- two beam klystron amplifier, theoretical model 21839
- two-stage tapered gyro-TWTA, Ka-band, TE_{10} rect. waveguide 21846
- two-stream relativistic klystron amps., crit. design issues 29778
- twystrode expts., tapered/untapered helices 21844
- undulators, distorted orbits, electron trajectory, Fourier anal. 43034
- UV/X-ray FELs, single-pass, milestone expts. 39901
- VIRA-2P pulsed power X-ray generator, electron beam size meas. 34973
- virtual cathode oscillator, high-power microwave generation 29776
- waveguide Cherenkov laser, conducting inner surface 7592
- X-ray FEL, electron beam source, klystron undulator simul. 39905
- X-ray FEL, high-brightness RF photocathode guns 39897
- X-ray multisection FEL, dispersion and undulator sects. 39904
- $e\gamma$ colliders, plasma lens appl. 43024
- PLZT ferroelec. ceramic cathode technol., electron emission from bulk material 21791

electron capture in solids *see electron traps*

electron correlations
- *see also configuration interactions*
- few-electron quantum dots, transport excitation spectrosc. 22002
- squaraines, neg. third-order opt. responses 15134
- Fe, BCC, ferromagnetism, temp. depend. electronic struct. 7000
- GaAs/AlGaAs heterostruct., 2D electron gas, electron correls. 38312
- GaAs/AlGaAs quantum wires, electron interf., correl. field anal. 38356

electron cyclotron masers *see cyclotron masers*

electron density
- *see also carrier density; current density*
- 2D electron gases in strong mag. field, tunneling 6570
- air blast quenching chambers, air flow interruption capability *(Japanese)* 11211
- AlGaAs-GaAs HBT struct., electron distrib., electrolumin. obs. 1355
- compact ECR plasma syst., fab. and charactn. *(Korean)* 13332
- cross-field amplifier end-hat effects, 3D electron density meas. 6510
- E-region irregularities, radio scintillation studies 40328
- high-lat. bottomside F region, high freq. ducting 40355
- ion thruster plume modelling, spacecraft contamination 35270
- ionos., HF pulse propag., electron dens. effects 23622
- ionos. CT, geometries comparison and image reconstruction 35307
- ionos. electron distrib., tomographic imaging 10465
- ionos. model assisted tomography algm. 10464
- ionos. plasma line studies, coded long pulse tech. appl. 43505
- ionos. radio tomography, max. entropy 43479
- ionos. tomographic reconstruction rel., radar meas. 35305
- JET divertor, mm-wave two-color interferometer appl. 34676
- Mid-America computerized ionos. tomography expt. (MACE '93) 33957
- nonequilibrium MHD generator, plasma electron dens. calc. *(Japanese)* 36611
- nonparabolic semicond. superlattices, Einstein rel., mag. quantization 29936
- nonuniform ionos., point source field calc. 2227
- plasma etching, helicon/ECR sources, Langmuir probe diagnostics 22194
- proton beam transport through gas, electron density 26090
- relativistic electron beam, space-charge limiting current, self-consistent calcs. 10100
- RF discharge, electron conc. determ., Fabri-Perot cavity 3759
- Schottky barrier diodes, recomb. currents 22032
- SEMDEM bipolar power diode/thyristor modelling program 30199
- SOI ultrathin struct., self-consistent calcs. 6587
- submillimeter laser interferometer-polarimeter for plasma diagnostics 40173
- SW FEL, periodic plasma struct. 14986
- two-freq. undulator FEL, space-charge effects 14985
- $Al_xGa_{1-x}As$, MBE from Ga_2Se_3 and Ga_2S_3 donor doping sources 37410
- AlGaAs/GaAs heterostruct., ohmic contacts, phys./elec. study 13169
- AlGaAs/InGaAs/GaAs heterostruct., 2DEG mobility anoms. 21949
- n-AlGaAs/u-GaAs heterointerface, electron gas, periodic bending, device appl. 6557
- $Al_{0.43}Ga_{0.57}As/In_{0.2}GaAs$:Te modulation doped heterostruct., carrier confine. 29881
- AlGaAs-GaAs-AlGaAs, reson. tunnelling diode, time depend. behaviour 38800
- $Al_xGa_{1-x}As$-$In_yGa_{1-y}As$-GaAs, modulation doped HEMT, photolumin. linewidth 13145
- AlGaInP:Si, metalorganic CVD, elec. and opt. props. 28778
- $Al_xGa_{1-x}Sb$, MBE from Ga_2Se_3 and Ga_2S_3 donor doping sources 37410
- $Al_{0.48}In_{0.52}As/Ga_{0.47}In_{0.53}As$ heterostruct., δ-doped, second subband pop. 29890
- CO_2 laser, injection locking, freq. stabilisation, line narrowing 1865
- Cd^+ photo-ionization laser, blackbody source pumped, charactn. 31196
- CdTe/InSb/Au Schottky diodes, bias depend. barrier heights 38797
- ErN(P)(As), electronic struct., metallization appls. 38670
- Ga(Al)As:H,S(Se)(Te), hydrogen-group VI donor interacts., passiv. 38258
- a-GaAs:As, SI, elec. charact. by I-V meas. 13050
- GaAs:Be, electron thermalization, picosecond time-scale 1033
- GaAs/AlAs RTD, QW electroluminesc. 38945
- GaAs/AlGaAs edge overgrown lateral superlattice, high field transport 13175
- GaAs/AlGaAs modulation-doped heterostruct., DX centers 29938
- GaAs/InGaAs/AlGaAs heterostruct., selective high-temp.-stable O implant. 1218
- GaAs-AlGaAs diode lasers, threshold current, carrier charge imbalance effect 14888
- GaInAs/InP high channel conductivity, HEMT appl. 13160
- GaSb, electron mobility 13040
- GaSb:S, Hall/photo-Hall effect meas. 38252
- GdN(P)(As), electronic struct., metallization appls. 38670
- (Hg,Cd)Te:In, diffusion and elec. activity 6621
- $Hg_{1-x}Cd_xTe$, MOVPE, elec. props. 13053
- $Hg_{1-x}Cd_xTe$:I, MBE grown, n-type doping 6611
- InAlAs/InGaAs, HEMT, high cut-off, current drive capability 13785
- InAs/GaSb struct., 1D transport and gating 1101

electron density continued
InAs-GaSb QWs, magnetotransport meas., hydrostatic press. appl. 38334
$InAs_{0.3}Sb_{0.7}$, MOCVD on GaAs, carrier transport 6529
InGaAs heterostruct., nanostructure fab., FIB technol. 13312
$In_xGa_{1-x}As$ strain-relax. heterostruct., 2DEG, galvanomag. props. 13119
InGaAs/InAlAs, MBE on InP, high electron mobility 13156
InGaAs/InP quantum wells, electrons in-plane effective mass 38329
InGaAsP epitaxial layers on GaAsP substrs., orange LED appl. 12128
InGaN/AlGaN DH blue-green LED 14641
InN, film, RF sputtered, Hall mobility 6528
InP, MeV ion implantation, device appls. 13288
InP, undoped, low temp. ALMBE growth 20746
InSb, metallically doped, extrinsic magnetoresist. 21920
a-Si:H films, microwave plasma CVD, control of radical species *(Japanese)* 37526
β-SiC on Si, CVD epitaxial growth and elec. charact. 37434
SnO_2 thin film gas sens., carrier conc. change anal. 17972
$Zn_{0.3}Cd_{0.7}Se$, metal-insulator transit., persistent photocond. meas. 29851
ZnMgSe, mol. beam epitaxial doping, $ZnCl_2$ 38479
ZnO films, thermal evap. 28856
$ZrSe_2$ single crysts., selenium atmos. annealing, elec. props. 38276
electron density of states *see electronic density of states*
electron detection
absorbed dose, ionizing radiation, water unit realisation 34312
BES, particle separation, discriminant anal. method *(Chinese)* 34967
CDF End Plug Upgrade Project 26187
collider detectors, high energy particles, calorimetric tracking 26212
cylindrical drift chamber, 3D data output 34907
Eberline RO-2 ion chambers used beta radiation skin-dose monitors 4342
EM calorimeter, liq. Ar, Kr, accordion electrodes 26173
EM calorimeter, $PbWO_4$-based, electron beam tests 26194
EM calorimeter for multimuon UNK spectrometer 4217
fast X-ray imaging, secondary electron emission gaseous detectors 18348
gas ionization calorimeters, steel and Pb absorbers 26172
hadron calorimeter, high-press. gas-ionization tubes, beam tests 10108
hadron calorimeter, ident. of pions/electrons 4215
I-3000 accelerator, electron spectrometer, TF 34960
KEDR tagging syst. for two-photon phys., VEPP-4M 34924
L3 TEC track resoln. improvement, vertex *(Chinese)* 4223
LHC calorimeter second-level trigger, neural net, extract., e/jet discrimin. 26193
liq. ionization chamber, rejection delta electrons, dE/dx 26130
microcolumns, electron detector, MSM struct. 30187
multiparameter meas., PC-CAMAC based data acquisition 26236
optimum event rate for CCD detector 43061
positron ident., transit. radiation detector, neural net 4173
quartz fiber calorimeter for collider expts., design 26208
RD3 liq. argon hadron calorimeter, beam tests results 26154
Reconfigurable-Stack Calorimeter, compensation, low-Z cladding layers 26184
scintillating fiber sampling calorimeter, high resol. for CHORUS expt. 26201
scintillating fibre calorimetry, energy resol., response uniformity 26200
scintillating fibre calorimetry, H1 backward EM calorimeter, HERA 26183
scintillating-fiber hodoscope, multi-anode photomultiplier readout 43120
Shashlik scintillator/lead sandwich calorimeter for CMS 26181
Zero Degree Calorimeter for CERN SPS NA50 expt. 26207
ZEUS calorimeter, first level trigger 34955
γ/e^- dose intercomparison, mailing dosimetry, free-radical dosimeters 35203
Ar, liq., scintillation photon, creation energy 4201
Pb/scintillating fiber calorimeters, projective, electron-pion discrimin. 26188
Xe, liq., scintillation photon, creation energy 4201
electron device manufacture
see also electron tube manufacture; integrated circuit manufacture; semiconductor device manufacture
3D functional modules, SMD miniaturisation for portable telephones 5621
ceramic multicomponent modules, miniaturisation approach 5622
diamond, polycryst. CVD, cost factors 5899
DuPont OOXO INVAROX resistor series for chip/network appls. 6348
end termination ink materials for smart card MLC fab. 6363
Interleaf technol. mfg. syst. for SMT/leaded film capacitors 6361
ISO 9000 stds., rels., CECC and IECQ systs. 5685
MLC series-connected C-R chip, data bus impedance matching 6194
multilayer SMT varistors, transient surge protection, automotive indust. 11437
round quartz blank sorting by Ω-scan, cryst. oscillator manufacture 39078
waste minimization in electronic component proc., systs. approach 5715
X-ray inspection, technol. trends 28517
$BaTiO_3$ Y5V 0603 ceramic chip capacitor 12839
Ta coated chip capacitor, SMT reduced board height requirements 6360
electron device noise
see also semiconductor device noise; superconducting device noise
computed tomography, Dutch hospitals, patient dose, image quality 18645
computed tomography, QC, Portugal, Denmark 18511
dual plate computed radiography, image quality 26341
elec. connectors, surge/noise suppression 6400
EM noise emission anal., cepstrum 23678
gyrotron collective Thomson scatt. diagnostic, antenna decoupling requirements 29793
instrumentation syst., interf./noise 31847
interfacing act. devices, noise spectra analyser 9834
MM-wave autodyne diffr. radiation oscillator, noise characts. 981
multiscan/fast ring CT systs., image quality, dose 18646
noise filtering capability inductor 12847
overlay enhancement in electron-beam lithog. 13452
photodetectors, sig. detect. limits 3827
RLC miniature elec. filters for single electron devices 37829
travelling wave solid-state ring laser, noise spectrum 7580
Wiener spectra meas., digital systs. 26299
Al-Si resistors, electromigration noise depend. on characts. 865
electron device testing
see also electron tube testing; integrated circuit testing; semiconductor device testing; superconducting device testing
AC immittance spectrosc. of smart components and devices 18027
AC resistors, AC-DC difference meas. method *(Japanese)* 25943
accelerated ageing test for resistors 6351
act.-R oscillator based meas. tech. of capacit./loss factors 42891
capacitors, internal inductance meas., ramp pulse method 12846
capacitors for avionics hardware, failure anal. 6366
electron device testing continued
dB down terminology for cryst. resonators 39083
DuPont OOXO INVAROX resistor series for chip/network appls. 6348
ESD testing 40212
heat testing automation, PC-based *(Russian)* 5584
HF impedance analyzer up, 1.8 GHz 9828
Interleaf technol. mfg. syst. for SMT/leaded film capacitors 6361
mammography, QC instrum., in-field testing 18496
MLC capacitors, failure caused by high temp./humidity environ. 12840
MLC capacitors, nondestructive defect detect. tech. 6371
MOV arresters, I-V characts. inspection tests *(Russian)* 43802
multilayer SMT varistors, transient surge protection, automotive indust. 11437
pass. components for aerospace appls., screening methods/data anal. 5684
power capacitors, PD detect., acoustical method 5172
RF component testing, wireless equipt. appls. 117
SMT solder joints, fatigue life, mech. fatigue test 28501
super circ. MLC networks, design, develop., and qualification 6365
surface mount ceramic capacitor failure test, board bending 29653
thick/thin film resistors, built-in reliab., ageing kinetics 5706
X ray image intensifier systs., contrast-detail testing techs. 26294
Al electrolytic capacitor failure, impact of halogenated fluids 6367
PZT/Pt ferroelec. capacitors, passiv., SOG 39100
Ta capacitor reliab., low impedance/high surge current ccts. 5705
Ta chip capacitor reliab. in high surge/ripple current appls. 12841
Ta polar electrolytic capacitors, alternating load tests 885
ZnO varistors, dielec. charactn./equiv. cct. studies 867
ZnO varistors, mixed multi-impulse/AC 50 Hz tests 868
electron diffraction
for electron crystallography techniques and apparatus, use "electron diffraction crystallography"
see also high energy electron diffraction; low energy electron diffraction
MM-wave autodyne diffr. radiation oscillator, noise characts. 981
round quartz blank sorting by Ω-scan, cryst. oscillator manufacture 39078
AlN, ion plated films, opt. applicability 28850
a-As_2S_3-Zn bilayers, electron/photon irrad. effects 38405
a-As_xS_y-Ag bilayers, electron/photon irrad. effects 38405
BN, deposition proc., HRTEM, nanocrystalline struct. 28849
GaAs heterojunction, 2D electron Wigner cryst., electron diffr., photolum. 21968
GaAs:Fe(Ni), ion implant./annealing, precip. 6610
$GaAs/CaSrF_2$ quantum semicond. struct., high energy electron beam lithog. 13149
$Ga_yIn_{(1-y)}P$/GaAs, ordering probab., compositional depend. 38299
Ge heteroepitaxy on Si(001), init. stage, Auger electron diffr. 20709
Ge(100)-(1×1), S-passiv. 30092
InP:Fe, hydride-vap. phase epitaxial growth, FeP precip., anal. 20810
InP:Zn, LEC grown, heavily doped, struct. charactn. 13301
a-P_2Se_3-Ag bilayers, electron/photon irrad. effects 38405
PZT/Ti/Pt interface layers, elec. and microstructural props. 39053
β-SiC layers on Si(100), ion implant., cryst./elec. props. 6623
SiC thin films, LPCVD from hexamethyldisilane 433
$(SiC)_x(AlN)_{1-x}$, MOCVD on 6H-SiC, cryst. struct. 5884
Sm-Co/Cr thin films, nanostructures 6962
$ZnGeP_2$/GaP multiple heterostruct. on GaP substrs. 21959
ZnSe thin films, chem.-bath deposition, material charactn. 28793
electron emission
see also cathodes; electron field emission; exoelectron emission; photoemission; secondary electron emission; thermionic electron emission; work function
beam generation, plasma pulsed power closing/opening switch-based 34859
beam producing cathode, pulsed power-supplied 34858
computation algm. for low-press. gas-discharge systs., 2D electrode geom. 12990
ferroelec. cathodes, electron emission, meas. 29753
low energy electron dust particle removing syst. 7915
material explosion, pulsed currents/elec. fields, simul. 30551
MILO configs. oscills., electron emission 13012
pseudospark switch, metal vap. densities/excitation temps. 36407
SABRE pos. polarity inductive adder MITL, refl. waves 34741
sharp field emitter diodes, emission expressions 38209
thermionic converter, diamond covered Mo emitter 20045
thermionic converters, 1D universal TOR model 28032
$(Pb,La)(Zr,Ti)O_3$ ferroelec. cathodes, repeatable electron emission, DC reset 971
electron energy bands *see band structure*
electron energy loss spectra
diamond, nucleation and growth on Si(100), electron spectra obs. 430
diamond surface, O-H adsorpt., EELS/Auger study 1268
diamond thin-film growth, filament-assisted excimer laser ablation syst. 12178
high-sensitivity CCD syst., parallel EELS 9930
Cu/polyphenylquinoxaline interface form., HREELS obs. 22278
Cu-ZnO(0001) epitaxy, CO photoinduced desorpt. 20715
a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
InSb(100) surface, Ar ion bombard. and electron stimulated oxid. 30101
p-Si(100)/Hf interfaces, elec. charact., H-termination 38397
electron energy states (condensed matter) *see electronic structure*
electron energy states of amorphous solids *see electronic structure*
electron energy states of liquid metals *see electronic structure*
electron energy states of liquid semiconductors *see electronic structure*
electron field emission
see also field emission electron microscopy; vacuum microelectronics
beam focusing for field-emission flat-panel displays 18009
cold cathode microdiodes with sharp vert. edge struct., fab. 12995
cold-cathode field emitters, act. current limitation 21799
comb-shaped field emitter array for vac. microdevices *(Japanese)* 21803
compact amplifier using time gated beam sources 6512
diamond, CVD films, seeding patterning, field emission props. 12988
distributed field emitter array MM-wave power amp. 38213
explosive whisker emission cathode materials study 29754
ferroelec. cathode, high brightness electron beam 29746
ferroelec. cathode pulsed electron emission characts. 29750
ferroelec. cathodes, pulsed power supplied 29751
ferroelectric cathodes investig. 21794
field-emission cathode arrays, elec. field gradients 29749
field-emitter array, glow discharge proc. 21805

electron field emission continued
flat panel displays, AMLCDs and field emission displays 9986
high gradient supercond. cavities, SEM study 4055
high power pulsed RF supercond. accelerator cavities 4054
low-power displays, act.-matrix LCD and field emission technols. 25925
microcolumns, electron-electron scatt. 15244
MIM thin-film devices, NDR characts. rel., film resist. 29989
miniaturized e-beam writer, component testing 30186
polymers, semicond., carrier injection, Fowler-Nordheim field-emission tunneling 14644
RF field-emission, microwave cavity studies 12986
RF field-emission studies, microwave cavity design 12985
Schottky field emission source, electron beam lithog. 13451
semicond. field emitter, LF noise 12994
sharp field emitter diodes, emission expressions 38209
Spindt-type emitter, elec. field and current anal. 38210
STM field-emission microcolumn 13019
vac. diodes, breakdown 29762
XLPE insulation, morphology, field emission STEM obs. 14067
BN, cubic, carbonaceous surface layer by diamond CVD, electron emission *(Japanese)* 37460
C:P(B) polycryst. diamond films, electron emission, vac. microelectronics 12993
CsI coated cathode for field-emission appls. 38206
CsI, photoelec. and secondary electron emission, field enhancement 29744
$GaAs-Al_{0.25}Ga_{0.75}As/Cs-Au$ struct., elec. gated field-assisted photoemission 38379
InP sidewalls, reactive ion beam etched, 3D electron probe roughness anal 13371
PLZT ferroelec. ceramic cathode technol., electron emission from bulk material 21791
Si MOSFET, interband tunneling, 2D num. model 22407
Si column-based field emitter arrays, enhanced perform. 29742
Si, conical field emitters, fab., elec. characts. 38211
Si field emitter arrays with LV operation, fab. 21802
Si field emitters, electron beam lithog./plasma etching 29755
n-Si porous field emitter arrays, enhanced electron emission 29748
Si tip avalanche cathode for vac. microelectronic devices 12991
Si:H surfaces, nanometer scale patterning/oxid., UHV STM 13496
SnO_2:Sb thin film photoemission under elec. field amplif. 29743
TiO_2 thin film photoemission under elec. field amplif. 29743
W, field emitter tips, electron point-source beams 969

electron guns
1 MW 130-260 GHz free electron maser for fusion 39919
95 GHz gyroklystron, beamstick, advanced centerpost gun 21811
automatic beam optimiser reverse-swing diode electron gun *(Japanese)* 12989
beam temp., opt. anal. 34782
beam transversal/long. velocities meas., LEAR-gun 34783
CEBAF FEL injector, space charge dominated perform. modelling 39974
CELSIUS electron cooler, design, constr. 34791
Cherenkov FEL, high peak power 39909
design, DAPHNE 2D axisymmetric simul. code 29761
distributed field emitter array MM-wave power amp. 38213
electron beam cooling, collision expts., mag. field adiabatic expans. 34787
electron-gun design for high-perform. CRT display 18001
electrostatic-accelerator FELs for power beaming 39925
FEL, compact CW operation, supercond. RF accelerator technol. 39893
ferroelec. cathodes, pulsed power supplied 29751
ferroelectric cathodes investig. 21794
fourth harmonic gyro oscillator expt., 95 GHz 38215
fourth harmonic oscillator, design and construction 21829
gyrotron, magnetron injection gun, electron opt. design 21800
gyrotron TWA, stabilization of absol. instabilities 21855
HDTV display, 6.9-in. high-resoln. projection CRT 17567
high power DC SMPS, electron gun appl. 19755
high power electron guns; welding, heat treating, and micromachining appls. 11735
high power klystron develop. 29781
intens. profile meas., modulation techs. 29760
intense helical electron beams, num. simul. 31733
LEAR, electron cooling, variable current electron gun 34784
low-cost pulser for table-top maser expts. 39628
low-emittance electron beams in electrostat. accel., FEL appl. 26062
M2 form. of ellipt. sheet electron beams 6504
magnetron injection guns, electron beams, vel. spread 29764
microcolumns, electron-electron scatt. 15244
nanosecond electron beam in open discharge 4147
PASOTRON amplifier experiments 21822
PBGUNS, digital simulation computer program 26108
photocathode RF gun, laser driven, FEL operation appls. *(Japanese)* 29757
picosecond electron gun for surface anal. 29759
plasma anode-based gun, low-energy high-current electron beams 968
plasma-anode electron gun, beam current 6474
relativistic klystron amp. from MIT, 3.3 GHz, compact input cavity 29777
RF photocathode guns for γ-γ colliders 26031
S-band klystrons, 150-MW, design and perform. 21845
secondary emission electron gun, electrical characts. 21796
simul., adaptive finite element mesh generation 29756
single bunched beam generation without subharmonic prebuncher 26081
TE_{01} gyro-TWTA, stable, high power 1007
triode gun, standing wave electron linac beam dyn. 26040
unmagnetized BWO high-power microwave source 1003
variable current gun, electron cooling at LEAR 34884
X-ray FEL, high-brightness RF photocathode guns 39897
GaAs photoemitter, response time, expt. study 29741
GaAs switches, e-beam activated, optimisation 36429
LaB_6, RF electron gun photocathode for FEL lasers *(Japanese)* 29758
W, RF electron gun photocathode for FEL lasers *(Japanese)* 29758

electron-hole drops
GaAs/AlGaAs modulation doped heterojunctions, neg. photocond. 29919
InAs/AlGaSb undoped quantum wells, neg. photocond. 29919

electron-hole liquid *see electron-hole drops*

electron-hole plasma *see solid-state plasma*

electron-hole recombination
see also carrier mobility; surface recombination
0.25-μm fully-depleted CMOS/SOI invertor, SEUs, radiation hardening 13727
2D heterostruct. device simulator, steady state/transient anal. 30193

electron-hole recombination continued
amorph. semiconds., TSC 29868
bipolar transistor p-n heterojunction carrier generation-recomb. current modelling 6726
generation-recomb. current, saturation for small recomb. times 6551
HBT, passiv. procs. 1361
IGBT, n' buffer layer, static characts. simul. 1410
IGBT used in ZCS mode, turn-off anal. 30332
III-V cpd. semiconds., minority carrier lifetime 1041
insulators/semiconds., asymmetric double charge injection 29824
LAOS, light amplif. opt. switch, phys. model 7465
MOS capacitors, surface pot. determ. 1170
MOSFET, recomb., radiation-induced defects 6747
multielectrode lasers, microwave small-sig. equiv. cct. model 14849
nonlin. coupling of reciprocal mobilities, charge carrier distrib., pin power devices 13610
optocouplers, ageing 14607
organic semiconds., disordered, geminate recomb. 1015
passivated HBTs, currents and current gain anal. 6737
polysilicon, dyn. grain-growth and static clustering effects on dopant diffusion 1221
polysilicon emitter bipolar transistors, reduction of 1/f noise 13657
polysilicon emitter BJTs,ionizing-radiation and hot-carrier stress response, visualization 22361
polysilicon TFTs, off-current, thermally generated component 38900
poly[3(4-octylphenyl)-2,2′-bithiophene]-based LED, white light 7478
power device simul., temp. depend. phys. models 30227
Schottky barrier diodes, recomb. currents 22032
Schottky contacts, photovoltage, transient charact. modelling 6579
Si mesoscopic struct., α particle ionisation, Monte Carlo study 1457
solar cell IV-curve, two diode model 5228
solar cell perform., high injection effects 44414
thin oxide MOS capacitor, current spike obs. 6583
AlGaAs/(In)GaAs HEMT, electrolum. 30368
AlGaAs/GaAs, photopumped vert. cavity QW, hot carrier recomb. 23264
AlGaAs/GaAs/InGaAs QW lasers, threshold current dens., disloc. effects 14895
AlGaAsSb/GaInAsSb, LED, electrolum. quantum yield 1827
$Al_xGa_{0.52-x}In_{0.48}P/GaAs$, HBT, MOVPE, charactn. 13652
AlGas/GaAs HBTs, polyimide deposition, recomb. current 1358
CdS, optoelectronic charactn. by photothermal deflection 38229
CdS_xSe_{1-x} crysts., free carriers polariz. dyn. 21903
CdTe:Cl, X-ray detector material, deep levels, PICTS study 43156
CdTe:Ga, diffusive doping, photolumin. obs. 22147
$Cu(In, Ga)(S, Se)_2$ solar cells, charactn./modeling 44403
Cu_2O ultrafine particles in organosols, diffusion and carrier recomb. 40028
Fe silicide contacts to n- and p-type Si, props. 1104
$Ga_{1-x}Al_xAs/GaAs$, p-n jn. incorporating quantum well, light emitting 14621
GaAs CPW opt. illum. 3D full-wave anal. 23810
GaAs, carrier transport phase ident., 10 fs resoln. 21893
GaAs devices, plasma-assisted passivating proc., LF noise meas. 13410
p-GaAs, electron-hole scatt. 1031
GaAs photoconductors, compensated/partially compensated opt. gain 39547
GaAs quantum wires, dense electron-hole plasma phase 1118
GaAs:C, HBT base-layers, electron lifetimes, annealing effects 1200
GaAs:C/AlGaAs power HBTs, bias-stressed, failure mode 22359
GaAs:Cr, X-ray detector material, deep levels, PICTS study 43156
GaAs:Cu,Si bistable opt. controlled switch, perform. 36385
GaAs/AlAs, sub-micron p-i-n RTD, discrete electrolum. lines 14640
GaAs/AlGaAs DH laser, electron-hole pair recomb. 23218
GaAs/AlGaAs heterostruct., ballistic electron transport, magneto-opt. studies 13115
GaAs/AlGaAs modulation doped heterojunctions, neg. photocond. 29919
$GaAs_{1-x}P_x/Al_yGa_{1-y}As$ DH, minority carrier lifetime 1081
GaInAsSb/GaSb, LED, electrolum. quantum yield 1827
$GaInP_2$ DH, ultralow interface recomb. vel. 29889
GaInP/AlGaInP SQW, bias and temp.-depend. photocurrent spectrosc. 38338
N-nGaSb/GaInAsSb staggered lineup heterojunction, recomb. obs. 38287
$Hg_xCd_{1-x}Te$, IR detectors, temp. limits 42810
HgI_2, extrinsic defects incorporation, detector fab. 43076
InAs/AlGaSb undoped quantum wells, neg. photocond. 29919
InAs/InGaSb, superlattice IR detectors, temp. limits 42810
InGaAlP strained multiquantum-well LD, photolum. meas. 14920
InGaAs/AlGaAs SQW, recomb. procs., photolum. intens. effects 38349
InGaAs/GaAlAs VCSEL, native oxide confine. struct. 31408
InGaAs/GaAs mesa-etched VCSEL, MOCVD, low threshold 39871
InGaAs/GaAs strained-layer QW, grown on (311)A GaAs, charactn. 14910
InGaAs/InGaAsP/InP MQW laser, thermionic emission, tunneling 1931
$In_{1-x}Ga_xAs$/InP-quantum well struct., recomb. dyn. 13163
$In_xGa_{1-x}As$/InP thermophotovoltaic cells, recomb. lifetime meas. 28006
InGaAsP, MQW lasers, high temp. perform., barrier recomb. effects 14909
InGaN/AlGaN DH blue-green LED 14641
InGaP HBTs, high-temp./microwave power appls. 38838
InP Schottky barriers, minority carrier diffusion length 13210
InP, low-temp.-grown, femtosecond carrier dyn., photolum. obs. 38248
InP/Al_2O_3 MIS capacitor, opt. control 13243
n-InSb films, neg. photocond. 13057
a-Se-As:Cl, stabilized, Langevin recomb. of drifting electrons and holes 21928
Si HI tracks, nonequilibrium carrier recomb. 29832
a-Si TFT devices, anal., HFIELDS general-purpose simulator appl. 1416
Si bilateral solar cells, minority carrier diffusion length 36595
Si, carrier transport phase ident., 10 fs resoln. 21893
Si disloc.-free crysts., electrophysical/microdefects correl. 21870
Si, neutron-irrad. single cryst., elec. params. *(Chinese)* 1016
Si, optoelectronic charactn. by photothermal deflection 38229
Si polycryst. ribbon solar cells 36592
Si polycryst. solar cells, hydrogen passivated 44407
Si porous layers, I-V charact. 21896
Si porous, quantum dots, recomb. dyn. 22022
Si, radiation-induced defect introduction rates 13116
Si, recomb. lifetime meas. 29829
Si solar cell perform., trap location/trap-assisted Auger recomb. effect 44395
Si solar cells, 23% efficient, limiting loss mechanisms 44401
Si solar cells, high efficiency, pilot prod. 44402
Si solar cells, modulated free-carrier absorpt., high-resoln. lifetime mapping 44400
Si, solar cells, optoelectronic charactn. by photothermal deflection 44398
a-Si:C,H p-i-n diode struct. for electron flux conversion 30229

electron-hole recombination continued
Si:Fe, LEC grown, Fe contamination influence on LSI-yield related cryst. quality 29828
Si:Fe, recomb. centers, microwave refl. photoconductive decay 38237
a-Si:H, Staebler-Wronski effect, trapping and recomb. procs. 39555
a-Si:H diodes, recomb. regime under double injection, electrolum. obs. 31079
a-Si:H, low-temp. recomb., elec. field depend. 29872
a-Si:H p-i-n detectors, charge collection procs. 43107
a-Si:H, pulsed-light soaking 1060
Si:Mo p/p^+ epitaxial wafers, Mo contamination 38236
Si:P, enhanced P diffusion, grain boundaries 19983
Si-GaAs, X-ray detector material, deep levels, PICTS study 43156
Si-SiGe-Si DHBTs, parasitic pot. barrier effect on base current *(Korean)* 13618
SiC JFETs, LF noise anal. 38279
SiC/Si heterojunctions, elec. props. 1096
SiGe/Si quantum dots, island growth, photolum., electrolum. 28830
a-SiN_x:H thin film diodes, current induced drift mechanism 13588
SiO_2/SiN coatings on Si, defect passiv. by PECVD 1270
SnS_2:In, elec. props./photolumin. study 30054
ZnCdSe QW LD, gain/Coulomb-correl. electron-hole pairs 31336
$Zn_{1-x}Cd_xSe$/ZnSe quantum wells, excitons, picosecond dyn. and stimulated emission 13182
ZnCdSe-ZnSe superlattices, stimulated blue light emission mechanisms *(Japanese)* 38340
ZnSe:N, metalorganic VPE grown, p-type cond., annealing 38473
ZnSe/ZnMgSSe DH blue LD, operation and dyn., room temp. 31378
ZnSe-ZnMgSSe-ZnMgSSe blue diode lasers 1966
ZnSe-based laser struct., opt. pumped, exciton dyn. and gain mechanisms 23298

electron holography *see electron optics; holography*

electron interferometry *see particle interferometry*

electron lenses
see also aberrations; electron microscopes; electron optics; electrostatic lenses; magnetic lenses
electrostatic lenses, miniaturized electron column, microfabrication 40269
LSI tester, mag./electrostatic lens collimation 37038
microcolumns, electron-electron scatt. 15244
multilayer microstruct. fab. for electron beam microcolumn microlenses 13909
opt. benches, aberrations/LEEM appls. 1011
phase circ. Bragg-Fresnel lenses, undulator source imaging 18250
PREVAIL, e-beam stepper, variable axis immersion lenses 30183
retarding field lenses, Coulomb effects 15243
eγ colliders, plasma lens appl. 43024

electron lifetime (metals) *see electron relaxation time*

electron lifetime (semiconductors) *see carrier lifetime*

electron lithography *see electron beam lithography*

electron mean free path
AlGaAs-GaAs HBT struct., electron distrib., electrolumin. obs. 1355
Al single-cryst. nanostructures, fab. 30159
AlGaAs/GaAs HBTs, ballistic electrons, electrolum. 38841
In_2S_3 crysts., thermoelec. power, electron/hole mobilities 1062
Pd, metal-semicond. interfaces, hot electron transport, BEEM 13206
W-Ti thin film resistors, elec. props., nitridation effects 866

electron mean free path (semiconductors) *see carrier mean free path*

electron micrographs *see electron microscopy*

electron microprobe analysers *see electron probe analysis*

electron microprobes *see electron probes*

electron microscope applications *see electron microscopy*

electron microscopes
see also electron microscopy; field emission electron microscopes; scanning electron microscopes; scanning-transmission electron microscopes; transmission electron microscopes
positron reemission microscope, refl. geom. 21867
surface electron microscope for mag. imaging 13016
UHV electron microscope, Cockcroft-Walton generator, ripple compensation 1012
Windows-based control syst. for electron microscope 9817
work fn. meas., thermionic projection microscope 9818

electron microscopy
see also atomic force microscopy; electron microscopes; field emission electron microscopy; magnetic force microscopy; metallography; scanning electron microscopy; scanning-transmission electron microscopy; scanning tunnelling microscopy; specimen preparation; transmission electron microscopy
anal. instrums. trends, Hitachi's technol. overview 10059
cpd. films condensation, airlock unit of electron microscope 20957
icosahedral viruses, 3D reconstruction, parallel computer 10170
long. thin film with irregular lattice, Lorentz microscopy, model 14098
low energy electron image converters, slow scan CCD 25883
metal pattern deposition, laser-induced forward transfer 28859
opt. benches, aberrations/LEEM appls. 1011
PMMA filled porous silica glass opt. composites 7262
semicond. multilayer struct., opt./X-ray/electron microscopy meas. 1122
surface electron microscope for mag. imaging 13016
Windows-based control syst. for electron microscope 9817
Ag fractal nanospheres in PMMA film, cubic opt. nonlin. local field enhancement 15130
Al IC interconnection failure, stress migration-induced voiding 38666
$Bi_2Sr_2CaCu_2O_x$, melt proc., DTA, XRD, texture 30773
$(Co/Ni_{81}Fe_{19}/Co)/Cu$ multilayers, giant magnetoresist., mag. struct. 7060
CoPt binary thin films, perp. recording, microstruct. and mag. props. 6960
$Cu_{80}Co_{20}$, melt-spun ribbons, mag. props. 6949
$Cu_{80}Co_{15}Fe_5$, melt-spun ribbons, mag. props. 6949
Fe/Ag granular alloy films, Fe cluster dispersed, GMR 30705
InP, (001) homoepitaxial growth, twin generation, tip struct. 5828
MnZn ferrites, polycryst., microstruct., mag. props., heat treatment effect 14182
Ni-Zn-Cu ferrite, inner stress, grain boundary Cu precip. 14195
Si, KOH etched, etching defects, packaging technol. implement. 13369
Si films, ion beam epitaxy, UHV, sputtering-type metal ion source 37405
Si wafers, direct bonding, interfacial props. 30001
a-Si:Kr, sputtered layers, Kr-incorporation obs. 38268
TbFe magneto-opt. films, nanostructure and chem. inhomog. 14113

electron mirrors *see electron optics; mirrors*

electron mobility
inversion layer carriers, saturation vel. and overshoot 22445
ion-conducting amorph. semiconds., photo-electro ionic phenom. 1645
LDD NMOSFETs, hot carrier induced degrad. 6770
low press. discharge tube, V-I charact. simul. model *(English)* 29815
MOS struct., defective dielec., microcracks 29983
MOSFET electron mobility in both weak and strong inversion regimes 22440
MOSFETs, electron mobility, bulk-impurity/interface-charge 22424
MOSFETs, universality of electron mobility curves 13744
MQW, coupled, electron escape rate, coherence length, hopping effects 38364
nonparabolic semicond. superlattices, Einstein rel., mag. quantization 29936
reson. tunneling light emitting transistor, base transport 39582
waveguides based on electron drift/diffusion 23806
AlGaAs/GaAs, artificial 2D-structs., charge carrier transport 29939
AlGaAs/GaAs heterostruct., electronic states, mobility 1100
AlGaAs/InGaAs/GaAs heterostruct., 2DEG mobility anoms. 21949
$Al_{0.3}Ga_{0.7}As/In_xGa_{1-x}As$, MBE, growth mechanism 340
$Al_{0.43}Ga_{0.57}As/In_{0.2}GaAs$:Te modulation doped heterostruct., carrier confine. 29881
AlGaInAs-InP 1.3 μm laser design 23282
p-$Cd_xHg_{1-x}Te$ epitaxial layers, electron mobility 13070
Ga(Al)As:H,S(Se)(Te), hydrogen-group VI donor interacts., passiv. 38258
GaAs, CBE, tris-dimethylaminoarsenic 28738
GaAs MESFET sidegating effects modeling by trapping simul. 22495
GaAs MISFETs, photo-CVD P_3N_5 insulators, sulfide passiv. 38882
GaAs, MOMBE using triethylgallium, trisdimethylaminoarsenic 28726
GaAs superlattices, miniband transport, quantized mag. field 21984
GaAs/AlGaAs modulation-doped heterostruct., DX centers 29938
GaAs/AlGaAs quasi-1D struct., holographic lithog., wet etching 21975
GaAs/InGaAs, δ-doped heterostruct., hot carriers, NDR transistor 30374
GaAs/InGaAs/AlGaAs heterostruct., selective high-temp.-stable O implant. 1218
GaAs-AlGaAs modulation-doped heterostruct., interface roughness scatt. 13109
GaInAs/AlInAs superlattices, nonlin. cond., space charge wave generation 1120
GaInAs/InP high channel conductivity, HEMT appl. 13160
GaInAsP/GaAs, MOCVD, lattice match, photoluminesc. Hall mobility 7610
GaN:Si, Si doping, disilane 38478
GaSb, electron mobility 13040
$Hg_{1-x}Cd_xTe$:I, MBE grown, n-type doping 6611
InAlAs/InGaAs, HEMT, high cut-off, current drive capability 13785
InAlAs/InGaAs HEMT, self aligned dual 50 nm gate device 13786
InAlAs/InGaAs HJFETs, high In comp. channels, low noise/high gain 6797
InAlAs-InGaAs MODFET, channel struct. design 13816
n-InAs:Si, carrier mobility across surface depletion zones 13055
InAs/AlSb quantum wells, structural/transport props. 1128
$InAs_{0.3}Sb_{0.7}$, MOCVD on GaAs, carrier transport 6529
$In_xGa_{1-x}As$ strain-relax. heterostruct., 2DEG, galvanomag. props. 13119
InGaAs/AlInAs heterostruct., electron transport, transistor perform. 6563
InGaAs/InAlAs, MBE on InP, high electron mobility 13156
InGaAs/InAlAs/InP, heterostruct., thermal stability 13157
$In_{0.3}Ga_{0.7}As/In_{0.29}Al_{0.71}As$ heterostruct., charactn. 6544
$In_{0.75}Ga_{0.25}As$/InAlAs pseudomorphic modulation-doped heterostruct., high electron mobility 21971
n-InGaP/InGaAs/GaAs pseudomorphic HEMTs, mobility, device perform. 22485
InP e-mode MISFETs, sulphide passiv., P_3N_5 gate insulators 30295
p-InP/n-InP/InGaAs, S-doped DH-HEMT, props. 13787
In_2S_3 crysts., thermoelec. power, electron/hole mobilities 1062
InSb, high-speed MISFET, uncooled 30319
Si MOSFET, quasi-1D and Coulomb blockade devices 1401
Si MOSFETs, inversion layer mobility, surface orient. 6761
a-Si:H, transport props., deposition condition effects 29869
$Si/Si_{0.7}Ge_{0.3}$ heterostruct., 1D electron transport 30074
Si/SiGe modulation-doped heterostruct., extremely high electron mobility 29920
Si-SiGe HFETs, mobility simul. 22494
Si-SiGe n-MOSFETs, strain depend. of perform. enhance. 22435
SiC, 6H, CVD layers, electron effective mass/mobility 13086
4H-SiC epitaxial layers, CVD growth 28758
β-SiC on Si, CVD epitaxial growth and elec. charact. 37434
a-SiC:H, transport props., deposition condition effects 29869
ZnO films, thermal evap. 28856

electron mobility (semiconductors and insulators) *see carrier mobility*

electron multiplier detectors
2D posn. sensitive detector for coincidence expts. 10120
discrete electrode detector array, resolving power 4051
pos. ions detect., situ absol. calib. 26142
thermal neutron imaging detector, composite foil convertor/electron multipliers 4170
XPS spectrometer, 2D charged-particle sens. ASICs, high resoln. 10155

electron optics
see also beta-ray spectrometers; electron beam focusing; electron beams; electrostatic lenses; ion optics; magnetic lenses; particle optics
astron. imager with PM focusing, demagnetification *(Chinese)* 17923
beam collimating grid opt. inspection/QC 157
benches, aberrations/LEEM appls. 1011
cylindrical electron beams of arbitrary cross sect., shaping 23517
distributed field emitter array MM-wave power amp. 38213
electron, ion, and photon beams, symp., New Orleans (1994) 5484
electron-gun design for high-perform. CRT display 18001
folded-waveguide high-power MM-wave TWTs 21858
free electron micro-lasers, microscopic gated field emitter arrays 39892
gyrotron, magnetron injection gun, electron opt. design 21800
hemispherical electron spectrometer, electrostatic transfer lens 13020
in-line Fresnel electron holography, max. entropy method 2182
M2 form. of ellipt. sheet electron beams 6504
M-type devices, electron optics, translational symm. 977
multicascade electrostatic analyser, focusing props. 43038
phase circ. Bragg-Fresnel lenses, undulator source imaging 18250
phase-shifting electron holography, principle and appl. 7859
PMMA, grating and dot pattern nanofabrication, electron holographic lithog. 38706
positron electron scanning microscope, coupling optics 21866
positron microbeam prod., retarding-mode opt. syst. 43051

electron optics continued
quasi-opt. mode converters for high order mode gyrotrons 21812
shaping electrodes in axisymmetrical electron-beam optics, calc. 15242
submillimeter wavelength CARM electron opt. syst. 39915
Univ. of Sao Paulo linac, beam optics, transport, target areas 26058
video-rate electron-holographic interf. microscopy, liq.-cryst. panel 31680
WePrint 200, electron-beam printer, throughput 30185
$e\gamma$ and $\gamma\gamma$ colliders, plasma lens form. 26068
$e\gamma$ colliders, plasma lens appl. 43024
Co thin films, STEM magnetometry studies 14205
Co/Cu multilayer struct., STEM magnetometry studies 14205
Si/Si p-n jns., pot. distrib., off-axis electron holography 1093

electron paramagnetic resonance *see paramagnetic resonance*

electron probe analysers *see electron probe analysis*

electron probe analysis
field emission TEM, nanometer resoln. elemental anal. 6704
high-temp. elec. heating elements, oxygen getters *(German)* 11472
SOFC, air electrode degrad., microscopical charactn. *(Japanese)* 44341
Al/n-InP contacts, inhomogeneous reaction and Schottky-barrier change 13228
BN, deposition proc., HRTEM, nanocrystalline struct. 28849
$Co_{20}Ni_{80}$ particles, prep. and microwave charactn. 6977
Cu-Al-S syst. sensitized with rare-earth elements, blue-to-green phosphor 23007
a-GaAs high-temp. RF sputtering 37525
$Ge_{20}Te_{80-x}Bi_x$ amorph. thin films, opt. and electronic props. 13081
$Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
InP, reactive ion beam etched, sidewall roughness 13355
InP sidewalls, reactive ion beam etched, 3D electron probe roughness anal 13371
$Nd_{15}Fe_{77}B_8$ sintered magnets, microstruct., mag. props., $Dy_{40}Al_{30}Cu_{30}$ powder addit. *(Japanese)* 30751
Pb-Sn flip-chip solder bonds on Cr-Cu-Au metallisation, SnCuAu ternary phase 11816
Pb-acid secondary batts., PbSb:Bi grid age-hardening/corros. 36562
a-SiC:H, RIE in CF_4/O_2 plasma 22243
Sm_2Fe_{17} powder, Nb-modified, nitriding 6947
$Zn_{1-x}Hg_xSe$, electrochem. deposition, EPMA, XRD 28802

electron probe microanalysis *see electron probe analysis*

electron probe microscopy *see electron probe analysis*

electron probes
see also electron probe analysis
floating-field-limiting rings in power MOSFET, pot. meas. by electron beam probe 30304
magnetically insulated transmission line, electron flow diagnostic 26022
microcolumns, electron-electron scatt. 15244
SEM electron probe diam. determ. 3987

electron relaxation time
GaAs, intrinsic and p-doped, highly photoexcited carriers, femtosecond relax. 1036
GaAs/AlGaAs quasi-1D struct., holographic lithog., wet etching 21975

electron relaxation time (semiconductors) *see carrier relaxation time*

electron resists
alkylthiol/alkylsiloxane monolayers, electron beam nanofabrication 30176
alkylthiol/alkylsiloxane monolayers, electron beam lithog. 13491
bilayer resist, wet silylation, CARL proc. 38734
chem. amplified AZPN114 electron beam resist for advanced photomask fab. 38773
chem. amplified neg. resist, electron beam nanolithography 22293
chem. amplified pos. resists, micromachining 38738
chem. amplified resists for electron-beam top surface imaging, CMOS technol. 13524
chlorinated α-methylstyrene, plasma-polymerized, high perform. neg. electron resist 30165
Hatzakis chem.-amplified resists, lithographic response 38740
IC mask multiple-pass printing, spatial freq. filtering 13456
LV electron-beam lithog., surface imaging, silylation 13459
nanofabrication, STM 13849
neg. tone resists, sub-qtr. micron lithog. 38736
noble-metal nanoconstrictions and obs. of conductance flucts. 13428
novolak resin, chem. amplif. neg. resist systs., nanometer-scale imaging charact. 13518
optoelectronic device fab. by electron lithog. 30170
organosilane self-assembled monolayer resists, proximal probe study 13495
overexposure, high aspect ratio struct. 38743
overlay enhancement in electron-beam lithog. 13452
PASTBSS terpolymer resist, lithographic technols. 38730
plasma etch resistant modified I-line/deep UV/e-beam resists 30174
plasma etching, I-line, deep UV and E-beam resists 13447
plasma polymerized films as electron resist, prep./etching *(Korean)* 22303
PMMA, grating and dot pattern nanofabrication, electron holographic lithog. 38706
PMMA polymerisation for electron beam resist preparation 30171
PMMA-Ge-AZ trilayer electron resist, deep submicron patterning *(Korean)* 38747
poly-butene-sulfone resist, electron beam lithog., CD 22292
polydimethylsilane film, surface-imaging proc. for electron beam lithog. 38711
polythiophene, conducting derivatives, charge dissipation, electron-beam lithog. 6677
PRIME proc., PLASMASK 302U, SPC 13446
SCALPEL electron resist tool optimisation 13454
silicon-containing polymers, pos./neg. resists 38732
single layer pos. resist proc. for electron beam direct writing technol. *(Japanese)* 30168
single-layer-resist proc., energy-depend. aspect ratios, 0.2-μm e-beam lithog. 13515
surface imaging, e-beam/photolithography resist proc. 38731
UHF FETs, T-shaped gate fab., double-layer resist 13492
a-As_2S_3-Zn bilayers, electron/photon irrad. effects 38405
a-As_xS_y-Ag bilayers, electron/photon irrad. effects 38405
Au X-ray mask fab., e-beam proc. 38742
GaAs, situ pattern etching, electron-beam-induced resist 13408
GaAs/AlGaAs patterning, epitaxial InGaAs layer, Cl_2 etching mask 13181
GaAs/$CaSrF_2$ quantum semicond. struct., high energy electron beam lithog. 13149
H resist, electron beam lithog., selective Al patterning 13484
LiF(AlF_3) inorganic resist, proximity effect and exposure dose 38715

electron resists continued
a-P_2Se_3-Ag bilayers, electron/photon irrad. effects 38405
Si(110), nanometer-scale struct. fab. 30178

electron sources
beam generation, plasma pulsed power closing/opening switch-based 34859
beam producing cathode, pulsed power-supplied 34858
Cs_2Te film photocathode electron source for Los Alamos advanced FEL 39943
FEL, SW range, electron beam accel. and compression 39898
FELINA VUV FEL, perform. study 39954
ferroelec. cathode pulsed electron emission characts. 29750
ferroelec. cathodes, pulsed power supplied 29751
ferroelectric cathodes investig. 21794
free electron micro-lasers, microscopic gated field emitter arrays 39892
gamma-gamma colliders, accelerator params. 26031
high-current electron source, plasma emitter 18294
high-power microwave generators, principles and capabilities 38217
ICP etching, electron source and ion flux uniformity 13402
intense electron beams of contracted arc discharge 4144
microstruct. liq. metal ion/electron sources (MILMIS/MILMES) 43042
microtron-recuperator, FEL 4148
nanosecond electron beam in open discharge 4147
PBGUNS, digital simulation computer program 26108
picosecond electron gun for surface anal. 29759
plasma-anode electron gun, beam current 6474
polarized electron source at SLC, GaAs photocathode 34888
repetitive electron beam source for high power microwave expts. 26088
RF photocathode guns for γ-γ colliders 26031
Schottky field emission source, electron beam lithog. 13451
slow-positron beam facility, KEK photon factory 26104
variable current gun, electron cooling at LEAR 34884
X-ray FEL, electron beam source, klystron undulator simul. 39905
X-ray FEL, high-brightness RF photocathode guns 39897
CsI coated cathode for field-emission appls. 38206
CsK_2Sb photocathodes in RF linacs 43055
Cs_2Te Los Alamos FEL photocathode electron source 39942
Cs_2Te photocathode electron source for Los Alamos advanced FEL 39944
GaAs photosource for electron cooling devices 34849
He afterglow in Orsay polarized electron source 26099

electron spectra
see also Auger effect; conversion electron spectra; electron energy loss spectra; electron spectroscopy; inverse photoemission spectra; photoelectron spectra
FELIX FEL, electron energy spectral meas. in large-slippage regime 40013

electron spectrometers
see also beta-ray spectrometers
Beijing FEL time resolved electron spectrometer, control/scanning syst. *(Chinese)* 34965
HADES, proposed dilepton spectrometer, design, perform. 34959
hemispherical electron spectrometer, electrostatic transfer lens 13020
high resoln. positron annihilation induced AES 43140
I-3000 accelerator, electron spectrometer, TF 34960
time-dispersive electron spectrometer, voltage contrast maps 38224

electron spectroscopy
see also electron spectra; photoelectron spectroscopy
high-sensitivity CCD syst., parallel EELS 9930
multicascade electrostatic analyser, focusing props. 43038
PLCC ink mark reliab. enhancement, flame treatment, tests 142
polypyrrole synthesis, Cu metallization 1294
preencapsulation cleaning methods and control for microelectronics packaging 5627
radiotherapy electron beams, simple mag. spectrometer 10270
thin film photon-/ion-beam-assisted deposition/characterisation 28846
Au/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
Cu-Au interdiffusion during plating 20986
Pd/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
Si surface, hydrofluoric acid cleaning effects prior, wafer bonding 38561
SiO_yN_z plasma CVD, MIS devices appl./elec. eval. 20973
Ta fibrous-struct. low-stress films for X-ray masks, sputtering 13536

electron spin resonance *see paramagnetic resonance*

electron states, impurity *see impurity states*

electron states, interface *see interface states*

electron states, localised *see localised states*

electron states, surface *see surface states*

electron stimulated desorption
polymer film ESD in vac., light emission and outgases *(Japanese)* 30538

electron streams *see electron beams*

electron traps
see also colour centres; hole traps
1/f noise in n- and p-MOSFETs, gate voltage dependencies 1381
autophase TWT, azimuthally asymmetric field, nonlin. theory 997
barrier height determ. from Schottky jn. C-V meas. 38813
bipolar transistor p-n heterojunction carrier generation-recomb. current modelling 6726
border traps, MOS radiation response/long-term reliab. 20494
bulk wave propag. and energy trapping 30578
CMOS ccts., HF AC hot-carrier degrad. 22573
CMOS transistors, high-field electron injection, threshold voltage 38881
CMOSFETs, hot-carrier degrad., unified model, gate-to-drain capacitance meas. 6764
dielectric oil, high stress aggregation, electron transport 13935
directly bonded wafer, point defects, bonded SOI wafer 38431
EPR, filler conc. effects on elec. cond. and ultralow-freq. dielec. props. 30587
IGFET, threshold voltage shift, oxide field depend. 30303
III-V quantum-well IR photodetectors, noise perform. 42788
insulator damages related to charge detrapping 13970
irrad. power MOSFETs, surface generation hump 13730
JFETs, random telegraph sig. currents and LF noise 1432
LDD MOSFETs, interface state generation effects, simul. models 1417
LDD MOSFETs, virgin and stressed, charge-pumping charact. 38903
LDD-MOSFETs, high temp. hot carrier degrad. 1409
LV flash memories, read-disturb degrad. mechanism 12549
MOS capacitor plasma-charging damage meas. 1181
MOS capacitors, N_2O-oxynitridation in resist. furnace, effects on thermal oxide breakdown 30126
MOS capacitors with N_2O oxides, elec. and reliab. props. *(Korean)* 30299
MOS capacitors/FETs stress-induced current in nitride/oxidized nitride thin films 6589

electron traps continued
MOS device reliab. studies under LabVIEW environ. 22320
MOS devices, 1/f noise and radiation effects 1382
MOS struct., reliab., X-ray irrad.-induced damage 13241
MOS transistor degrad., charge pumping method 22404
p-MOSFET, bi-directional operation, hot-carrier degrad. model 38875
MOSFET, STM lithog. damage 13740
MOSFET 1/f noise, plasma etching induced gate oxide degrad. effect 22419
MOSFET 1/f noise, plasma-etch-induced gate oxide degrad. effects 22441
MOSFET interface states/trapped carriers, charge pumping/gate capacitance meas. 30301
MOSFETs, interface defect form. by at. H exposure 13715
p-MOSFETs, lifetime prediction methods, std. and charge-pumping lifetime criteria 13675
MOSFETs in off-state, interface trap induced emission current 22408
n-MOSTs, substr./channel hot electron injection 13688
n-channel power MOSFETs, irrad., possible sources of 1/f noise 13717
n-MOSFETs, hot-hole-induced neg. oxide charges 22414
NMOSFETs at 77 K, double channel hot-carrier injection effects meas. 22403
NMOSFETs with nitrided-oxide, high-field mobility enhancement 1390
off-state n-MOSFETs, interface trap-induced drain leakage current 38859
optoelectronic neural dendritic tree proc., electron-trapping materials 39520
PMOSFET degraded due to hot electrons, modelling *(Korean)* 30306
poly(3-butyl)thiophene, acceptor substituted, photocond. 39549
polysilicon, dyn. grain-growth and static clustering effects on dopant diffusion 1221
polysilicon charge injectors, carrier trapping 13788
polysilicon inversion-type TFT DC/AC model, kink effect 22491
power VDMOSFETs, irrad. induced gate oxide charge and interface traps effects 1424
PPV, carrier deep-trapping mobility-lifetime products 1813
pseudomorphic HEMT, LF gate current noise anal. 30366
quantum well, electron capture, inelastic/elastic mechanisms 29914
quantum wire, transm. charact., trapped electron effect 13155
SOI bonded wafer, eval. and PIN photodiode characts. 14609
SOI transistors, alternating hot carrier injection anal. 22415
submicron NMOSFETs, GIDL, interface trap effect 6766
Al/AlO_x/Al single-electron transistors and traps, fab. 13826
Al/SiO_2/3C-SiC:Na(K) MOS capacitors, ionic contamination 13254
Al-SiO_2-Si MOS struct., charge build-up/oxide wear-out, Fowler-Nordheim stress 13234
AlGaAs:(Si), MBE grown, positron annihilation studies 21915
AlGaAs/GaAs power HBTs, self-aligned, LF noise characts. 13648
AlGaAs/$In_xGa_{1-x}As$ doped-channel struct., thermal stabil. 1133
AlGaAs-GaAs MODFETs, neg. photoresponse study 31088
(Al)GaInP/AlInP DH, minority carrier lifetimes 13125
AlGaN/GaN HIGFETs, I/V charact. collapse, high drain bias 6745
AlInAs:Si, MBE, doping characts., deep levels 1219
Al_2O_3-Si, ML-ALE grown, elec. props. 22054
$As_2S_3(Se_3)$ MChDS structs., photocharging characts., opt. memory appl. 22053
Au/n-GaAs:Ar Schottky barrier study, ion implant. damage 22035
$BaTiO_3$:Co, light-induced dark decay and sublinear intens. depend. 31483
CdTe electrodeposited films, SCLC 29862
CdTe electrodeposited films, grain boundaries, opt. meas. 28805
CdTe thin films, trapping params., SCL cond. 29847
CdTe:Cl, I-V characts., detector appl. 43087
$Cd_{1-x}Zn_xTe$:In, pure and doped, doping induced defects, photolum. obs. 22142
Co-phthalocyanine thin films, elec. cond., O doping, IV charact. 21939
Fe:InP/InGaAs MESFET, metalorganic CVD growth 38926
GaAs MBE layers, dominant deep level 13054
GaAs MESFET sidegating effects modeling by trapping simul. 22495
GaAs MESFETs, selectively dry-etch gate-recessed devices, LF noise 22490
GaAs MESFETs, substr.-related kink phenom., 2D anal. 6802
GaAs MIS diodes, at. layer passiv. 13598
GaAs p^+-SI-n^+ SI struct., I-V charact. 38300
GaAs:C/AlGaAs power HBTs, bias-stressed, failure mode 22359
GaAs:Sb grown by LPE, electron traps, DLTS 21918
GaAs:Te, highly doped, EL2 trap, jn. spectrosc. 13124
GaAs/$Al_{0.4}Ga_{0.6}As$ RTDs, LF flucts. charactn. 1333
GaAs/AlAs/AlGaAs double-barrier QW, interband/intersubband absorpt. 29907
GaAs/AlGaAs edge overgrown lateral superlattice, high field transport 13175
GaAs-SiN, passiv. film form. by laser CVD 13370
GaInP layers, P-vacancy-related deep levels 29878
$Ge_{0.3}Si_{0.7}$/Si heterostruct., minority/majority-carrier trapping 21950
$Hg_{1-x}Cd_xTe$, p^+n jn. photodiodes, deep defect levels *(Chinese)* 14605
HgI_2, extrinsic defects incorporation, detector fab. 43076
InAlAs/InGaAs SQW struct., electron traps, admittance spectrosc. 21991
InAlAs/InGaAs/InP HEMT, trapping mechanisms, sinusoidal/transient response 13772
InAlAs/n^+-InGaAs MISFET, deep levels 13696
InGaAlP, H passiv. effects 6650
InGaAs/GaAs-on-GaAs superlattices, metal-semicond.-metal photodetectors, carrier trapping 22014
InGaP, H passiv. effects 6650
InGaP HBTs, high-temp./microwave power appls. 38838
InP, low-temp.-grown, femtosecond carrier dyn., photolum. obs. 38248
InP:Fe, semi-insulating, charge transfer 13047
n-InP/metal systs., hydrogen plasma treatment, elec. props. 38598
InSb/SiO_2 MIS structs., low interface trap dens. 29981
Si MOS structs., oxide trap relax. spectrosc., difference method 38426
Si, RTO in N_2O, MOS capacitor testing 22220
Si diodes, heavily doped, anal. of non-exponential TSCs 38808
Si, mesoporous, photocarrier grating tech. 22999
Si power devices, combined electron and ion irrad., local lifetime tailoring 30204
Si solar cell perform., trap location/trap-assisted Auger recomb. effect 44395
Si varactor struct., DLTS study of deep traps 38052
Si:B(BF_2) p^+ poly-Si gate surface-channel PMOSFETs, boron penetration, hot carriers 30356
Si:F/SiO_2 TFT, F^+ implant. effects 38883
a-Si:H MIS struct., conductance mechanisms *(Chinese)* 38439
a-Si:H PIN solar cells, electron/hole trapping *(Chinese)* 5211
Si:H, ion implanted defects, thermal evol., slow positron study 38492
a-Si:H solar cells, insulating interfacial layer effect 36600

electron traps continued
Si:O, H-enhanced thermal donor form., depth profiles, spreading resist. probe meas. 38493
Si:O wafers, deep levels under posthydrogen-plasma thermal anneal 38467
Si:Ru, ion implant., Ru-related defects, elec./opt. props. 38228
Si/SiO_2 MOSFET, fixed and interface trap charges 38863
Si/SiO_2 MOSFET interface trap generation, gate current simul. tech. 38901
Si/SiO_2 interface states and neutral oxide traps induced by surface microroughness 29968
Si/SiO_2/Al, H-related instabilities, removal by F implant. 13314
Si/SiO_2/Al MOS capacitors, charge induced by Fowler-Nordheim tunnel injection 29974
Si/SiO_2/Si MOS oxides, border traps 13249
Si/SiO_xN_y/Al MOS capacitors, charge trapping and interface states 29975
Si-SiO_2 MOS interface, tunnelling emission, const. voltage DLTS 6585
Si-SiO_2 MOSFET interface, indiv. interface traps 13758
Si-SiO_2 interface, thermal carrier delocalization, reservoir effect 13247
Si-SiO_2-polySi MOSFET, oxide degrad., charge traps generation 6746
p^+-Si-SiO_2-polysilicon STDS struct., charge carrier capture 13240
6H-SiC MOS struct., thermal oxid./computer simul. 38562
n-SiC:V, 6H, elec./opt. props. 6539
SiC/Si heterojunctions, elec. props. 1096
SiC/SiO_2 MOS struct., radiation-tolerance *(Japanese)* 1179
a-SiN_x:H thin film diodes, current induced drift mechanism 13588
SiO_2 RTO 10 nm films grown at different temps., MOS capacitor breakdown 1180
SiO_2 on Si, E′ center charge traps, obs./electronic charact. 1176
SiO_2, stress-generated traps, voltage/fluence depend. 30540
SiO_2 thin films, RTN in NH_3, N_2O for EEPROM appls. 13329
SiO_2 thin films, wearout and breakdown studies 39040
SiO_2 thin oxide wearout and breakdown, high field 38776
SiO_2/Si MOS interfaces, interface-trap generation, neg.-bias temp. aging 38424
SiO_2/Si, thermal layers, wafer bonding induced degrad. 38422
SiO_2N_x ultrathin N_2O-oxynitrided films, charge trapping, Fowler-Nordheim stress effects 22073
SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
SrF_2/InP(100) epitaxial diodes, elec. cond. 22065
(SrPb)(CaMg)TiO_3-$Bi_2O_3\cdot 3TiO_2$ ceramic charged particles, elec. props. *(Korean)* 22665
$TiSi_2$-SiO_2-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775
ZnO:Al_2O_3(AgO) varistors, DLTS 6813
ZnO-Bi_2O_3-based varistors, multiple trapping, appls. 12829
ZnSe Schottky diode, seeded phys. vap. transport, DLTS study 13594
electron tube diodes *see diodes*
electron tube manufacture
MCPs, high aspect ratio dry etching 13015
electron tube testing
automated RF/microwave testing, status and develop. 34406
gyrotron amps. for collider appls. 21810
MM-wave BWO, flicker noise eval. 999
S-band klystrons, 150-MW, design and perform. 21845
slotted third-harmonic gyro-TWT amp., 95 GHz, tests 29811
TWTs, space-use, reliab. *(Japanese)* 13007
X-band slow wave structures, EM props. study 13010
X-ray tube filtration, simple test 26253
Mo electrodes for vac. breakdown phenom. in TWTs, optim. of surface roughness *(Japanese)* 6513
electron tubes
see also cold-cathode tubes; diodes; electron emission; electron wave tubes; gas-discharge tubes; microwave tubes; millimetre wave tubes; relativistic electron beam tubes; submillimetre wave tubes; tetrodes; thermionic tubes; triodes; UHF tubes; vacuum tubes; X-ray tubes
repetitive e-beam diode develop. 36285
triode gun, standing wave electron linac beam dyn. 26040
KrF laser amp., Titania, pulsed power syst. 31189
electron tunnelling *see tunnelling*
electron valves *see electron tubes*
electron wave interference devices *see electron waveguides*
electron wave tubes
see also travelling wave tubes
linear beam tubes, high power, depressed collector designs 6507
magnicon output cavity, anal. and simulation 21815
electron waveguides
anisotropic supercond. planar waveguides 1640
branch line quantum directional coupler 1454
δ-type pot. struct., electron wave propag., equiv. ccts. *(Japanese)* 22503
discontinuities, arbitrary pot., effective mass distrib., FEA *(Japanese)* 31891
electron wave directional couplers, coupled mode theory 13828
finite-pot. and gate-induced electron waveguides, discontinuities 1126
gapped double electron waveguide, noninteger conductance steps 22018
infinite nonuniform 2D waveguides, bound states 8026
nanoelectronic computing technols., Japanese research 6809
optoelectronic mesoscopic neural devices, electron waveguiding, nonlin. connection 14660
quantum electron flux switching modes in right angle and T-struct. 1453
quantum electron waveguide ccts., vol. integral eqn. for anal. 38941
quantum railroads, transport props., Anderson localization directionality 22006
quantum waveguide struct. and devices 6810
quantum waveguide transport in serial stub and loop struct. 1458
quantum waveguides, 2D/3D, curvature-induced bound states 22016
quasipotential barriers in electron waveguides 1455
three-layered electron waveguides, equiv. network approach for multistep discontinuities 21979
AlGaAs/GaAs, quantum point contact-electron waveguide struct., 1D states 13818
GaAs/AlGaAs buried quantum wires, situ FIB implant. 21978
GaInAs/InP OMVPE regrowth, ultrafine BH 20820
electronic books *see electronic publishing*
electronic component manufacture *see electron device manufacture*
electronic copyboards *see photocopying*
electronic counter-countermeasures *see electronic countermeasures*
electronic countermeasures
A/D convertors, transient and overvoltage recovery testing 12596
baseband freq. models with IF nonlinearity describing fns. 34138
beam-steering/jammer-nulling photorefr. phased-array radar proc. 7437

electronic countermeasures continued
CESM, radar ECCM 26829
DRFMs, digital RF memories, phase perform., radar and ECM equipt. 4436
IR imaging, ΔT metric eval., mil. target and background under various stats. 4439
multipath/terrain bounce model, real-time mil. appl. 35391
orthogonal code SS syst. in antijamming *(Chinese)* 10595
phased array antennas, real phase-only nulling algm., phase quantization 2344

electronic data interchange
see also EFTS
bulletin-board subsystems for exchanging obj. inform., operation protocols, formal description 33288
CALS develop., military appls. 43596
casting proc. product inform. model, STEP-based 11740
commercial uses/legal aspects 3155
dial-up X.400, APS alliance 25018
direct global mktg., amat. radio packet switched network 9163
distrib. of office supplies via EDI, Brun Passot 16642
document distrib. 15723
dyn. vehicle network, inter-vehicle commun. 33757
e-mail gateway translation 8866
EDAC focuses on stds. collaboration, develop. proc. 12893
EDIF's emerging PCB and MCM std. 11779
electronics indust., EDI standardization, global joint activities 28270
ExtNet, extension electronic inform. delivery in North Dakota 8869
FCIM environment for electronic manufacturing/testing 37002
GIS data transfer interfaces 41644
health care, secure multimedia appls. and teleservices 16855
Hong Kong and Asia, EDI for paperless trading 3063
inter departmental data exchange in open syst. context 33537
inter-firm rels. and EDI, coord. proc. standardization 33482
interactive EDI, IT and commerce in 21st century 41642
LACE multimedia programme, ATM technol. 9050
legislation and electronic mail 16629
LEP machine/expts., data exchange 18212
mail transport agents, integrat. products 8862
MHEG multi- and hypermedia obj. interchange std. 41975
MPPS, multiparty presentation service 8958
multimedia electronic performance support systems 42729
networking in India, needs, demand and regulation 25017
nonoriented network models, loops 24844
PCB CAD, integrat. with product design, concurrent engng. approach 37035
service mgt. ref. platform in shared business environ. 16596
standardisation, eval. and certification, X.400, PEDI, X.435 and security services *(French)* 25025
telecomms. indust., competitive intell. gathering 3054
transport enterprises, mobile data comms./EDI 42238
unpackaged die for MCMs, die info. exchange format 21776
USA, stds. develop. proc. and national inform. infrastructure 8802
X.400 for text interchange in your own lang. 41778
X.500 directory services support for EDI 41896

electronic density of states
disordered quantum wires, DOS/conductance 38342
MESFET, localized interface states, transconductance 38913
metal-semicond. interfaces, hot electron transport probed by BEEM 13206
MOS struct., defective dielec., microcracks 29983
surface-channel CCD, charge transfer inefficiency *(French)* 30369
transistor struct., localized vol. state spectrosc. 13097
$AgSbTe_2$, solid and liq. states, elec. props. 38266
Al-nSi Schottky barrier diode, interface states, charging behavior 22354
Al-porous Si jn., elec. behaviour 22049
AlGaAs/GaAs heterostruct., electronic states, mobility 1100
Bi/ZnO, interface form., model varistor grain boundary 6578
CaF_2-based MIS struct., DOS, PES and BEEM studies 22072
$Cr/NH_3/GaAs(100)$, interface form., photoemission study 38377
$CuInSe_2$, heteroepitaxy on Si, charactn. 13087
$CuIn_3Se_5$, heteroepitaxy on Si, charactn. 13087
Fe, BCC, ferromagnetism, temp. depend. electronic struct. 7000
GaAs, δ-doping superlattices, pot. flucts., quantum effects 13167
GaAs, impact-ionization model consistent, band struct. 29849
n-GaAs, surface passiv., As_2S_3 film 30089
GaAs:III-VI gallium chalcogenides(100), passiv. 30077
n-GaAs/metal Schottky contacts, interface state dens. anal. 1157
$Hg_{0.85}Zn_{0.15}Te$, surface comp., chem. treatment effects 13360
InAs, impact-ionization model consistent, band struct. 29849
$In_{0.53}Ga_{0.47}As$, impact-ionization model consistent, band struct. 29849
InGaAs/GaAs quantum wires, opt. props. 1094
$In_{0.4}Ga_{0.6}As$-GaAs quantum well IR photodetector 9906
InGaAsP/InP, strained-layer QW lasers, intrasubband scatt. rates 7661
InGaP strained quantum-well lasers, gain, threshold currents 23265
Pt-deposited p-InP photoelectrochem. cells, band gap, surface states 6572
Si, Boltzmann transport eqn., band-struct. effects incorporation 1025
Si, anisotropic band struct., isotropic band models 22325
Si, impact-ionization model consistent, band struct. 29849
Si, mesoporous, photocarrier grating tech. 22999
a-Si:H MIS struct., conductance mechanisms *(Chinese)* 38439
a-Si:H, p-i-n diodes, forward current transients 1343
a-Si:H pn-doping superlattices, cross-sectional STS 29928
a-Si:H, pseudodoped, vidicon target material 1057
$Si/SiO_2/Pt$ MOS diodes, surface state energy distrib., XPS meas. 29973
$Si-SiO_2$ MOS transistor, leakage current and interface state 38891
SiC/Si heterojunctions, elec. props. 1096
$SiC-SiO_2$ MOS capacitor, elec. props., annealing effects 22077
SiO_2/InP, direct photo-CVD using D_2 lamp, MOSFET appls. 28807
$SrF_2/InP(100)$ epitaxial diodes, elec. cond. 22065
$V_2O_5-SnO-TeO_2$ glasses, low-temp. DC cond. 38269

electronic document handling *see document handling*

electronic engineering
see also electronic engineering computing; electronic engineering education
EM wave and electronic equipt. interact., computer modeling 8000
India, electronics develop., a vision for the yr. 2000 5
KoREMA, conf., Zagreb, Croatia (APR. 1994) 20202
principia mathematica for electronics/chem. analogies 21095
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239

electronic engineering computing
see also circuit analysis computing; circuit CAD; circuit layout CAD; computerised instrumentation; logic CAD; SPICE
0.3 μm LSI fab. by high-throughput electron-beam syst. 13453
2D MOSFET simulator, mixed particle Monte Carlo method *(Korean)* 13684
3D FDTD slotline anal. on limited memory PC 23789
3D objs. embedded in multilayered media, scatt. 40303
3D semicond. device simul., adaptive mesh generation 1329
act. power filters, compensation, 3D space current co-ordinate *(Korean)* 29356
adaptive grid generation for semicond. device simul. 13584
ATPG for heat dissipation minimization, test appl. 6856
automobile traction assist real-time vehicle simulator 11439
CBT products for elec. and electronic engng. 20307
chip shooter, image proc. algm. for IC alignment *(Japanese)* 29694
CircleX program for transistor S-param. data anal. 38774
CMOS/BiCMOS technols., parametric test *(French)* 1491
coaxial-to-waveguide adaptor with probe/tuning post, anal. 21521
computational fluid dyn. thermal modelling for workstation design 11702
computational nanoelectronics, parallel algms, QMD 6830
computer-aided PIN-PD model *(Chinese)* 14597
concurrent packaging archit. design 20437
conference on electronics mfg. technol., Baltimore (1992) 11580
contact erosion modelling, obj.-oriented technol. 6395
cryst. oscillator compensation in DDS/PLL appl. 21135
curved struct. electron-beam lithog., enhanced vector-scan pattern generator 13457
cylindrical resonators reson. freqs. anal. 29551
data based testability analysis system 37000
device simulators, derivatives, automatic num. eval. 20613
diamond packaging, CVD, tech. cost modelling, scale-up factors 37527
dielec. HF characterisation, open resonators 42894
direct injection readout cct. model 34561
direct-contact type lin.-image sens., readout characts. anal. 25878
DSP education spreadsheet package and TMS320C25 simul. 36918
DSP real-time implement. on multiprocessors, CAD environ. 12584
elec. cct. anal. teaching, intell. computer tutor 5527
electron beam lithog., proximity effect correction, neural network 38713
electron gun design, DAPHNE 2D axisymmetric simul. code 29761
electron gun simul., adaptive finite element mesh generation program 29756
EM field distrib. estim. for buildings, wire-grid approx. *(Japanese)* 40386
EM wave and electronic equipt. interact., computer modeling 8000
EMC simul. safety enhancement *(German)* 15457
explicit method for resoln. of semicond. device eqns. 38779
field limiting ring struct., analytic model *(Korean)* 22341
FLIR subsystem perform. anal., PC based scientific spreadsheet 34593
FPGA, CAD tools 6055
frame-oriented intell. tutoring syst. 5526
FUSEDATE, software package for multitarget multisensor tracking and fusion 15874
GCOS, interactive device struct., proc./device simul. 22541
gyrotron-type of interact., chaotic behaviour anal. 6490
HDD electronics testing, HDA simul. 1578
HF quartz resonators charact. anal. 30610
HF switching mode power transformers, optimisation of winding conductors *(Slovenian)* 21595
HF transformers, core geom. selection, experto-fuzzy approach 36226
high power 140 GHz gyrotron, expts./num. simul. 6492
IC mfg. productivity improv., DVI-based perform. support syst. 30404
IC test, intell. software-integrated environ. 9802
ICs, defect tracking and yield enhancement, SEMATECH software 13864
IGBT, n′ buffer layer, static characts. simul. 1410
IGBT, punch/nonpunch through, thermal behaviour studies 1411
instantaneous freq., bootstrapping confidence bands 32461
integrated IR sens. design, computer-aided trade-off study 3838
integrated product development/concurrent engineering 37026
introductory-level ccts. learning, develop. of interactive tutorials 20301
IR photodetectors, MQW/superlattice, Monte Carlo simul. 13581
IVS, integrated vol. visualization syst. for electronic package cooling 37092
laser radar signatures, enhanced backscatt. 17445
leaded SM devices and solder joints in thermal cycling environ., 3D FEA 37132
lects., computer-based presentations, graphical simul. 20308
leucosapphire disk dielec. resonator, temp. coeff./freq. depend. 30654
linear beam tubes, high power, depressed collector designs 6507
liq. scintill. counter, beta det. effic., PMT dynode output, DYEFIC code 43114
LSI packages for ultra high-speed opt. fiber transm. systs. *(Japanese)* 42470
magneto-opt. recording marks anal. 9773
massively parallel semicond. device simul., irregular grids 1326
MCM automated 3D model constr., adaptive finite element global /local anal. 29723
metal-dielec.-ferrite-dielec.-metal layered magnetostatic-wave delay lines 22708
mfg. execution systs. software selection guidelines 38967
microelectronic packages, automated design 11757
microwave cavity resonators, modeling of testing params. 37561
middle gull-wing joint, thermal fatigue life, FEM 28502
multiple batch surface mount PCB placement seq. problem, soln. 12915
nonlin. transistor model params. extraction program 13805
parallel 3D finite difference beam propag. methods, opt. waveguide structs. 30956
parallel pattern fast fault simul., three-state ccts. 6088
pass. multilayer component CAD, EM field computation 6364
PCB assembly, CAPP 29666
PCB component assembly, lin. assignment algm. 29688
PCB manufacture, defects, fault coverage, yield and cost 6413
PD recogn., neural networks appl. 1535
pers. DSP, teaching/learning role 36927
phys. lects., multimedia interact. 20310
piezoelec. tube scanners in STM/AFM, nonlin. behaviour correction 39070
plasma etch systs., automated preventive maint., SECS protocol 30088
poly-emitter complementary bipolar technol., yield enhance. 30445
power diode, Simulation Generator code simul. 22346
power electronics design, educational strategies 29013
power electronics modelling, ES develop. 534
power IGBT SPICE macromodel develop. 21108
power semicond. diode modelling, SABER package-based 525
power semicond. switches, 3D thermal modelling software 543

electronic engineering computing continued
power semicond. switches PSpice models, parametric sensitivity anal. 533
power semicond. syst. simul., educational tool 30200
power SOI lateral p^+-n jn. diode breakdown voltage *(Korean)* 28999
procedural interface, test 9801
quantum-mech. tunneling, FEM 6548
scanning electron microscope images, automated interp. 5686
SEMDEM bipolar power diode/thyristor modelling program 30199
semicond. complex device structs., 2D mesh generation 1328
semicond. device, thermal simul., 3D RC network concept 38777
semicond. device matrices, irregular grid, parallel iter. lin. solver 6710
semicond. device simul., phys.-model description lang. 1327
semicond. mfg. material handling systs. design 11721
semiconductor manufacturing, fault isolation using automated discovery from wafer tracking databases 6605
SEUs in ICs due to terrestrial cosmic rays, modelling 13867
sig. proc. algms., software environ. for develop./testing 40796
simul. IT, electronic equipt. design appl. 11707
single-phase switch-mode rectifier, voltage-reversal cct. 29020
SMARTMOS quad low side automotive electronics switch, Saber modelling 36775
SMT PCB placement seq., multiple batch, soln. methodology 29689
software digital filters, real-time, design 6223
solder joint shape prediction by computer modeling 11738
solid-state device electronics demons., multimedia textbook paradigm 20300
spaceborne UV/vis. imager simul. 42850
spring contact, structural optim., area connector array CAD, C program 896
SRAM in flight and ground based radiation testing 12531
static fault detect. syst., digital IC 22523
step-shape charact. calc. in rect. waveguide 8024
technol. CAD cost/yield estim., virtual IC factory 22546
Technology CAD, fields representation 22539
test proc. optim. and cost modeling tool 5588
thick-film resistor values estim., ANNs 21585
TQM, role of test 28505
TRASIM, 2D transient simulator for planar semicond. devices 38778
triple-TEM cell design, FEM 40380
unified transport model, 3D implement. 38786
uniform-field magnicon archit. for high-perveance beams 6484
VDMOS power transistor thermal modelling, PC-based 12335
VLSI interconnect reliab. studies, computer simul. 22553
VLSI workcell controller and resource rels. design 5595
X-band high power magnicon amp., design 6485
AlGaAs-GaAs HBT small-sig. equiv. cct. param., algm. 38827
CAD benchmark, EM simulators 12722
GaAs, Schottky structs., elec. characts. simul. 6707
GaAs photocond. pulsed power switches, filaments 36446
GaInAs thermophotovoltaic cells, metallisation contacts studies 28005
$In_xGa_{1-x}As$ thermophotovoltaic cells, quantum efficiency model 28003
Si MOSFETs, simul. by cellular automaton method 22431
Si piezoresistive press. sens., electro-elastic simul. 42778
SiO_2 PECVD, neural network based modelling 37415

electronic engineering education
ASIC VLSI design courses, EUROCHIP initiative 20288
ASIC VLSI design projects, microelectronic CAD lab 22516
boundary scan test blocks, integrat. in ASIC by students *(French)* 20330
CBT products for elec. and electronic engng. 20307
cct. simul., computer assisted learning, Windows Help files 5536
CMOS fab. intuition and reasoning in problem solving 36916
computer sci. education, modern microelectronics appls. 28330
computer-aided lab. expt. 20319
concurrent engng. design, student lab. project 36940
Danish VLSI teaching programs, bal. engng. education 20286
design automation, classroom experience and student altitudes 28345
DFT courses at Universite Montpellier, indust. testing and simul. tools *(French)* 20328
digital ccts., arith. units simul. 5968
digital electronics, state machines, direct cct. implement. 5969
DSP education spreadsheet package and TMS320C25 simul. 36918
Dutch microelectronics, university research/indust. needs, overview 30398
EDA in digital design education 5531
EDUCATE project, end-user courses in inform. access, commun. technol. 20339
elec. cct. anal. teaching, intell. computer tutor 5527
elec. ccts., energy, computer assisted learning/teaching 37589
elec. network anal. course, content/results/instruction 20276
elec. network anal. course, problem types/sequencing 20277
engng. education, integrated experimentation/computerization 20304
ENSERG, IC design training for electronic engineers *(French)* 20332
Eurochip and chip designing, Polytechnic Enschede 22515
EUROCHIP initiative, VLSI design training, Univ. College London 22514
experience-based learning approach 28353
extended design tools for integrated opt./electronic ccts. 23059
fast prototyping, FPGAs and logic emulators 21220
FPGAs in the Australian undergraduate curriculum, practical appls. 29118
frame-oriented intell. tutoring syst. 5526
IC factory, student run, proc. capability improvement 37055
indust. needs for electronic systs. designers, degree course, VLSI theme 20292
indust. relevance of VLSI undergraduate training 20287
integrated power electronics education, undergraduate courses, USA 11611
introductory elec. engng. course, cct. simul. software 5530
introductory-level ccts. learning, develop. of interactive tutorials 20301
lab. work, learning hours 75
lects., computer-based presentations, graphical simul. 20308
lecturer self-eval. 20338
mfg. engng. curriculum, USA 11613
microelectronic devices realized by DESS students, clean rooms, elec. characts. *(French)* 20333
microelectronics mfg. education 36914
MOSIS designed CMOS/BiCMOS arrays, teaching VLSI courses 5529
network anal., student lab. course, knowledge validation 20279
PC program in teaching ccts./systs. 5528
PCB assembly/soldering, Penn State initiatives 29671
pers. DSP, teaching/learning role 36927
phys. lects., multimedia interact. 20310
postgraduate training on MMIC technol. *(French)* 20337
power electronics education, tutorial syst., filters *(Spanish)* 12339
power semicond. syst. simul., educational tool 30200

electronic engineering education continued
PSpice for Laplace transform eqn. solving, undergraduate course 28351
Reading Univ. electronic engng. course, DSP 36917
semicustom design of ASICs, Si chips vs. FPGAs for engng. education 6834
semicustom IC design, analogue arrays, design/perform., education 21459
SGMOS, student-oriented program, microcomputer simul. of submicron-geom. MOSFETs 6753
solid-state device electronics demons., multimedia textbook paradigm 20300
teaching DSP at degree level, experiences 36928
Tokyo Engineering Univ., electronics packaging education 28348
Univ. of Arkansas, electronics mfg. curriculum 28332
VLSI design, Technical Univ. of Madrid, teaching 20289
VLSI design courses, indust. participation 5518
VLSI design training, Univ. of Twente, student design teams 20290
VLSI state-of-the-art technol. education 36915
GaAs MMIC design and charactn., training software package *(French)* 21570
GaAs MMIC design and test, high level training, ENSEA *(French)* 20336
GaAs MMIC design by engng. students of ENSERG/INPG *(French)* 20335

electronic equipment manufacture
see also printed circuit manufacture
act. matrix LCD, mil./avionic appl. 10373
AT&T Switching Systems Business Unit, customer-focused mfg. 16538
Australian electronics indust., global posn., overview 28410
automated electronic manufacturing/testing, FCIM environment 37002
automatic electronics inspection, built-in quality 166
board interconnect technols., strategic implications, KBS 12889
ccts., postfabrication tuning, neural network learning 12278
CFC alternatives, materials compatibility study 5719
coating syst. design, SIMAN 5602
COG photosensitive adhesive resin interconnection technol., LCD driver LSIs *(Japanese)* 953
conference, Baltimore (1992) 11580
consumer electronics mfg. in Hong Kong 5476
contract mfg., continuing trend, outsourcing 28384
defense mfg. environ., flexible develop. and prod. 28421
design for assembly strategy in global companies 37033
discrete event simul., computer based learning, hypertext 20407
electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
electronics mfg. facility, environ. mgt. syst., logical data model 109
EMC simul. safety enhancement *(German)* 15457
European satellite syst. antennas, R&D 15631
flat-panel display mfg., markets, competitors, etc 3941
green strategies for electronic products' energy and end of life 11887
Hong Kong, consumer electronics indust. 5571
inserted film resistors, future prospects 21582
J-deck VTR chassis for global prod. facilities, develop. *(Japanese)* 25681
JIT, electronics instrumentation manufacturer 11723
lead time anal., simul./design of expts. 37060
life cycle cost and reliab. in electronic product, dyn. study 11862
life cycle cost and reliab. in electronic products, dyn. study *(Chinese)* 11843
lin. pulse motor, mag. suspen., contactless direct drive *(Japanese)* 44077
MCM manufacture, assembly and testing guidelines 12964
ME2632A/B/C digital mobile radio test syst. for PDC/PHS phone prod. *(Japanese)* 33769
mfg. service provider selection, OEM considerations 36978
MLC prod., advanced dielec. powders 5912
network OAM technol. and standardisation trends *(Japanese)* 16609
next generation mfg. enterprise, perform. capabilities 28420
nonohmic piezoelec. resonator contacts obs./anal. 6920
on-site nitrogen supply for electronics assembly market 28412
PCB CAD, integrat. with product design, concurrent engng. approach 37035
power subsystem prod., design/test for quality 37626
product and proc. design eval. 28403
product test data anal., product costs improvement 37175
Rensselaer Polytechnic Inst., electronics mfg. research 28418
SAW delay line packaging, manufacture and perform. anal. 39117
SC-cut quartz resonator, fab. imperfections effects 30606
scrap, recycling, OEM reclamation programmes 11886
Soft Face thermal interface material, component coating 5585
soldering, wetting bal. meas. of components, dissimilar surfaces 37063
syst./subsystem/component burn-in modelling/maximisation 28427
TFT act. matrix color LCDs, tech. trends and product line-up *(Japanese)* 3935
thermal mgt./engng. 5586
thick film paste dispersion procs., pass. electronic component manufacture 6439
TV amps. tuning, robot fingers, fuzzy logic 37654
Univ. of Kentucky, electronic mfg. 28417
US Display Consortium, flat panel display mfg. initiative 17996
US electronics indust., domestic infrastructure for advanced proc. 11674
VCCI EMI activity in Japan 23684
water-based precision cleaning procs., implement. 11733
O_3 depleting substs. in electronic cleaning 30102
Pb-Sn eutectic solder spheres, compressive melting 37064

electronic equipment testing
see also circuit testing; computer equipment testing; telecommunication equipment testing
A/D convertors, transient and overvoltage recovery testing 12596
ABBET component std., test inform. mismanagement reduction 34346
Air Force ATE enabling technols. 34363
air ionizer perform., periodic verification, EOS/ESD Ionization Standard 34421
analog syst.-level fault diagnosis, symbolic method 12269
archive digital data storage device based on home video recorder 39182
Asian Test Symposium, Japan, Nov. (1994) 5504
ATE enabling technologies, Air Force appl. 42706
ATE software design methodologies develops 42703
ATE station controller replacement, commercial products 34362
ATM cross-connect syst., archit., develop. and field trial 3294
automated electronic manufacturing/testing, FCIM environment 37002
automated emission meas., data reduction algm. 15487
automated RF/microwave testing, status and develop. 34406
automated syst. for EMI/C meas. 23737
automated ventilator testing, intermittent/unconfirmed faults 4303
automotive alternator/generator regulator testing, DSP-based syst. 20119
automotive components packaging/handling, ESD sensitivity 20118

electronic equipment testing continued
- avionics ATE, develops. towards independence 35223
- avionics syst. components testing, EMC equipt. 4354
- bench-top tester requirements, mil. shop environ. 35382
- bonding state obs. in clad contact, US microscope 6386
- boundary scan testing, syst. level 6401
- broadband sampling oscilloscope, nose-to-nose calibration 25913
- C-17 ATE support, successful appl. of existing equipt. 34369
- C-17 intermediate level ATE syst. for avionics maint. 35224
- CCD TV camera test set *(Croatian)* 3665
- compact diagnostic chamber, testing, EMC stds. 2246
- complex digital devices testing on 100 MHz tester 9796
- conference on electronics mfg. technol., Baltimore (1992) 11580
- costs reduction, Special Purpose ATE (SPATE) 34361
- DC load contact switching eval., derating curves and life testing 29631
- DFT approach in electronics testing 5575
- digital generator for elec. prospecting equipt., adjustment/testing 4388
- digital-wireless commun., test equipt. selection 116
- digitizer error extraction in nonlin. test 9837
- dynamic performance of ultrahigh speed ADCs testing 25761
- electromechanical switches degradation obs. due to mechanical vibration 21608
- electrostatic US transducer, bandwidth control 10581
- EM relays/elec. contacts, develop. and test methods 29640
- EM suscept. testing in time/freq. domains 15470
- EMC European Directive implement. 2261
- EMC testing, in-house vs. independ. 31858
- EMI receiver syst. design 15481
- energy meter testing based on Walsh transform algms. 3949
- environ. stress screening, 3-level syst. 20411
- ESD contact discharge simulator for equipt. testing 17695
- ESD-immunity tests eval., fault probab. fn. 23508
- European Union product sales, mutual recogn. agreements 15528
- EW testing at flightline 43587
- extrapolation of emanations from large systs. 23662
- flyable fiber-optic radar target generator 43428
- FPA testing, low-background opt. simulator 34590
- HF electronic component measuring syst. 9821
- high-speed opt. sampling/STM, elec. waveform meas. 9830
- HIST hierarchical self test for chips/boards/systs. 25725
- home lab. advantages 25710
- hospital elec. mains supplies, ups and downs 4346
- HV power supplies, electronic modules develop. 36327
- HV subnanosecond pulses meas., probes/attenuators 3817
- IEC 801.3 automated testing 15469
- IEEE 1149.1 Standard backplane test bus extension 9797
- IEEE conf. on instrumentation/meas., USA (1993) 20198
- IEEE P1149.5 bus standard VHDL synthesis approach 42701
- image processing An EDDM based toolset 41305
- impingement cooling fins, improved heat-transfer rates for electronic devices 37099
- inline EMI checker for small elec. appliances 23733
- integrated depot environ. for avionics support (IDEAS) 35228
- intermittent faults detect. in electronic devices 35379
- IR imaging systs., conf., Orlando, FL, USA (Apr. 1994) 20261
- IR sens. testing, automated MRT 34508
- linear error models for analog devices 25760
- low cost EMC testing 2251
- mains network surge transients, EM immunity testing 19050
- MCM low-temp. cofired ceramic technol., mil. appls. 21768
- MCM manufacture, assembly and testing guidelines 12964
- MCT, active cooling, Venturi flow 13668
- mil. autotest cost growth, commercial std. equipt. archits. 34364
- mil. readiness increase, dual, design/test technol. 34365
- mil. tracker perform., eval. 18984
- miniaturized e-beam writer, component testing 30186
- mission relevant testing 43592
- MLC capacitors, miniaturized, normal service conditions, failure mechanisms 875
- mode-stirred chamber meas. repeatability 15537
- modular imaging spectrometer instrum. modeling/testing 34591
- MRTD GO-NO GO tester develop. and appls. 34594
- multi-reed switch, contact erosion/spatial mag. field var. 29636
- multilevel test philosophy design and implementation 42693
- multitone AF testing of telecomms equipt. 3758
- navigating test access in electronic systs. 9806
- Navy sensors, consolidated automated support system 43571
- nonhermetic coatings for MCM eval. 21737
- op amp IMD determ. for PCB design 557
- open area test site effects in finite modelling techs. 2265
- PC, power quality vars. effect 5601
- PCMCIA specs. for PC card connectors selection 897
- power-temp. cycle accelerated testing 28520
- product test data anal., product costs improvement 37175
- program requirements conversion into test program sets 42692
- quartz resonator param. meas., IEC 444-5 direct transm. method 39077
- quick EMI emissions tests, precompliance test set 2276
- radar phase noise meas., digital DP 34156
- radar target enhancer for navig. buoys, develop. and testing 25577
- radiated interf. field estim. for electronic equipt. 31866
- radiated interference field estim. for elec. equipt. 23739
- radiated-suscept. tests, absorber-lined chambers, field homog. 15482
- radiometer receiver linearity characterization by intermodulation distortion 25795
- relay contact surface, arc discharge damage, scanning laser microscopy 29633
- relay operate time/contact bounce, microcontroller in-proc. test cct. 29643
- relay test automation/data acquisition, PC-based 29644
- scan testing accel. in IEEE 1149.1 archits. 6077
- screened antenna-enclosure combinations, RFI emissions 2269
- second generation FLIR testing, MRTD 34595
- single meas. testing, pros and cons 34381
- skewed-port device meas., vector accuracy enhancement techs. 18054
- Space Station Freedom PMAD syst., thermal anal. 18763
- specialised measuring instrum. charact. monitoring 42684
- synchronous sampling clock generator, meas. accuracy anal. 25763
- syst.-level testability of hardware/software systs. 9794
- system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
- technician centered test concepts 34367
- telecomm. syst. user-friendliness eval., ITG test method *(German)* 25137
- TEM cell, sound/TV receivers radiated suscept. meas. 25646
- TEM/GTEM cells for radiation emission tests *(Polish)* 2272
- TPS appls. matching, existing ATE 34397
- TPS life cycle improvements using artificial intelligence 42700
- TRSL std., ProgramGuide implement. 34343
- TV studio digital video equipt., meas. *(Japanese)* 34241
- VCCI EMI activity in Japan 23684
- virtual instruments develop., ATE future 42707
- virtual instrums., RF transm. line testing addit. 35397
- waveform anal. of LSI for music synthesizers 3698
- waveform recorders digitizing, IEEE std. 25912
- wire bond test tech. 29699
- Ag rivet contact perform., SiO_2, Al_2O_3 deburring media effects 29624
- Ag-CdO(SnO_2) power print relay contact materials perform. 29632
- InSb FPA-based IR camera for astron. telescope, electronic testing 17937

electronic funds transfer systems *see EFTS*

electronic journals *see electronic mail; electronic publishing*

electronic mail
- ACES project, providing Internet connectivity for rem. Alabama offices 8981
- Adobe's Acrobat for electronic document exchange on Internet 24938
- agric. and extension, modem-accessible inform. services 8868
- BERKOM multimedia mail teleservice 33658
- BERKOM multimedia teleservices 16856
- bulletin-board subsystems for exchanging obj. inform., operation protocols, formal description 33288
- certified electronic mail 16631
- Chameleon 4.0, TCP/IP for windows 16657
- CIO RACE-2060 initiative, multimedia mail services 25103
- Coast Guard differential GPS Network and GIS 33973
- commun. patterns in research community 41734
- corporate ESD program, strategy and philosophy 30543
- cross-site writing, shared responsibilities 33410
- cryptographic algms., conventional 24062
- delayed conferencing, act. multimedia syst. 16802
- dial-up X.400, APS alliance 25018
- disabled children's/adolescents' e-mail syst. 8863
- dist. teaching of informatics, motivations, means, and alternatives 24934
- document delivery using X.400 protocol, British Library DSC 41736
- E-talk, computer-assisted classroom discussion, attitudes/motivation 33411
- EDI, commercial uses/legal aspects 3155
- electrical engineering student communication improvement 28328
- ELM, privacy enhanced mail modules problem 16632
- empty pathways, computer mediated comm., faculty use 33409
- ExtNet, extension electronic inform. delivery in North Dakota 8869
- File Transfer Protocol, Internet services 24976
- FTP MAIL,e-mail automatic file transfer syst. *(Spanish)* 3152
- gateway translation 8866
- GeNeRIC inform. centre in multi-protocol environ. 41523
- global store server, multimedia teleservice component 16869
- Hawaii, e-mail/LAN pilot project 3154
- infrastructure develop., LAN/Internet solns. 41732
- intangible benefits appraisal from IT investment 41737
- interconnecting computers, archit./technol./economics 16702
- Internet, gopherspace navig. via electronic mail 8864
- Internet access, MS-DOS/WINDOWS client software 3182
- Internet and electronic classroom 20343
- Internet e-mail, pers. dislikes of long time user 24936
- Internet e-mail, technol. develop. 24933
- Internet for IS education 16764
- Internet/LAN based electronic mail, appl. 33415
- interneted library syst., Hahnemann Univ. 16766
- IS mgt. view 8861
- Japan, virtual communities 3195
- LAN-based e-mail appls. 8865
- LAN-based office, enterprise archit. 33519
- LandcareNET, lateral inform. transfer for sustainable agric. in Australia 8980
- legislation and electronic mail 16629
- libraries, e-journal, acquisition and access 3149
- library, multi-fn. LANs and workstations for present and future 16768
- library-oriented lists and electronic serials 3183
- M-based clients and servers in TCP/IP environ. 16644
- mail-based teleservice archit. for retrieving multimedia documents 16868
- market primer 8860
- media richness theory-based anal. of e-mail, voice mail 24941
- medical libraries and Internet conf., San Antonio, USA (1994) 36834
- MEGUMI groupware platform, multimedia E-mail 16839
- message prioritisation, intell. agent 41740
- MHEG in std. messaging systs., complete multimedia mail 16867
- mobile electronic mail, replication strategies 33413
- multimedia, networked 33661
- multimedia fax-MIME gateway for Internet 8943
- multimodal consumer inform. server, IVR menu 3131
- multipurpose Internet mail extension protocol 33646
- Netfind, white pages tool for Internet, inform. gathering archit. appl. 3153
- network security problems and solns *(Japanese)* 16610
- networking in India, needs, demand and regulation 25017
- NewsAlert prototype, competitive intell., software robots and Internet 17561
- newspaper, electronic publishing on Internet, network tools 16769
- NTT voice message summary for voice services 3151
- open systems security standards, Africa 33584
- OPENet, collaborative learning environ. for education and training 3244
- PEM public key certificates, X.500 directory service 16633
- phys. disabled pers. access to computer commun., NewLink project 41735
- plaintext signatures for E-mail, legal aspects 3148
- POP3 mail client, WinSock 41731
- privacy and electronic mail in corporate environ. 16630
- privacy protection principles 33412
- public E-mail, interoperability 33414
- public service providers, future service provision 41739
- reading-impaired pers., electronic text inform. accessibility 35178
- RFC 1327 mapping rules and INFNet gateway syst., distrib. via Internet DNS 41837
- RFC 1327 mapping rules distrib. via Internet DNS 16747
- Safe-Tcl lang. for enabled mail 8867
- sci. teaching improved, electronic mail 36912
- secure Email gateway, RCAS external interface 8936
- security of distributed systems conf., San Diego, USA (1994) 5452

electronic mail continued
- security of electronic mail data *(Slovenian)* 41738
- survey via E-mail for studying computer mediated commun. systs. 33416
- The world of Internet, conf., Paris, 1994 20229
- transport agents, integrat. products 8862
- USA, stds. develop. proc. and national inform. infrastructure 8802
- user interfaces, learning by exploration 41733
- virtual electronic secretary syst. *(Japanese)* 24940
- White House inform., public access via Internet e-mail 3210
- wired warp and woof, ethnographic study of networking class 9032
- World-Wide Web, servers work 41853

electronic messaging
- agent based messaging and inform. services 33344
- causally ordering group commun. protocol 8997
- commun. framework for appls. 33333
- Croatian national MHS, config. model 33336
- dial-up X.400, APS alliance 25018
- direct global mktg., amat. radio packet switched network 9163
- distributed PCN server-independ. service acquisition syst. 42195
- e-mail messages, prioritisation, intell. agent 41740
- EDI, commercial uses/legal aspects 3155
- equipt. access software, distrib. UNIX-based accelerator control 18208
- global mobile satellite complement, terrestrial cellular commun. 42307
- global store server, multimedia teleservice component 16869
- IRIS, going commercial, high-tech European LEO microsatellites 42323
- message router, formal spec. and design 41578
- MHEG in std. messaging systs., complete multimedia mail 16867
- mobile systs., causally ordered message delivery 33917
- Multicard, open hypermedia syst. 16662
- Network Software Associates, server on Internet 16693
- NTT voice message summary for voice services 3151
- ORBCOMM data commun. and messaging in Pacific Rim 3514
- primary schools, Chilean network, multimedia messaging 41982
- QuickFlash network messaging program, review 24937
- US multinational corporations, telecomm. technol. use/investment patterns 3051
- workflow automation and electronic commerce via distributed messaging 41634
- X.500 directory services support for EDI 41896

electronic music
- *see also musical acoustics; musical instruments*
- Byzantine music, electronic musical instrum. design 42651
- composition by genetic algm. and thematic bridging 34301
- computer and music *(Japanese)* 34299
- digital sound processing architectures, sound synthesis, complexity optimisation 34298
- double FM synthesis, real-time implement. 9775
- earcons in auditory human computer interfaces 42652
- FM TOWNS, multimedia tools *(Japanese)* 42011
- formant-based audio synthesis, nonlin. distortion 34297
- gesture translation, musical instrums. 34302
- loose-harmonic matching fund. freq. estim. 34300
- MIDI and ZIPI, comparison 25696
- network karaoke syst., develop. *(Japanese)* 42648
- real-time issues in computer music 42653
- tonality recogn. from sound input 17619
- waveform anal. of LSI for music synthesizers 3698
- ZIPI appls. 25695
- ZIPI music description lang., origs. and motivations 25693
- ZIPI Music Parameter Description Language 25694
- ZIPI musical interface, frequently asked questions 25697
- ZIPI network for musical instrums. 24977

electronic news gathering
- CATV technol. studies *(Japanese)* 34265
- digital broadcasting facilities/operations *(Japanese)* 34215
- digital satellite news gathering, develop. *(Japanese)* 34213
- digital TV broadcast sig. error correction techs. *(Japanese)* 17546
- digital TV broadcasting syst. requirements *(Japanese)* 17540
- NewsAlert prototype, competitive intell., software robots and Internet 17561

electronic office *see office automation*

electronic publishing
- *used for publishing on electronic media*
- *see also optical publishing*
- Adobe's Acrobat for electronic document exchange on Internet 24938
- document access/ref. environ., PC based interactive syst. 35413
- elec. engng. university education, electronic textbook appls. 28277
- fax usage and online services 16637
- image IS *(Japanese)* 25683
- inform. exchange, Signal Processing Information Baseappl. 24247
- Internet for commerce appls. 8944
- libraries, e-journal, acquisition and access 3149
- multimedia, networked 33661
- Multimedia Forum, integrated digital inform. service 9060
- Netherlands blind listeners' electronic newspaper eval. 4319
- newspaper, electronic publishing on Internet, network tools 16769
- physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
- service mgt. ref. platform in shared business environ. 16596
- US Army IETM develop. 35417
- World-Wide Web for intell. publishing environ. 41860

electronic speckle pattern interferometry
- addit. fringe ESPI, phase extraction 7809
- additive stroboscopic fibre optic TV holography, vibr. anal. 15153
- conference, interferometry, photomechanics, Poland (1994) 28210
- deform. anal., phase eval. 40161
- digital holography- laser metrology *(German)* 7814
- digital speckle correl. interferometry, fringe contrast, spatial resoln. 2135
- fatigue damage study by computed speckle decorrelation 40129
- image quantisation error diffusion and min. av. error algms. 16306
- lens aperturing 42945
- liq. cryst. TV and posn. sensitive device methodolgy 39499
- MLC capacitors, nondestructive defect detect. tech. 6371
- nondestructive inspection using shearography, indust. appls. 18108
- sound field tomographic reconstruction, TV holography 41231
- spatial variables meas. appls. 31681
- speckle contrast ratio fiber vibr. sens. 34536
- speckle photography, systematic/random errors 7810
- speckle size, optimum determ. 15185
- strain direct meas., electronic shearography 18107
- TV-holography in artwork nondestructive diagnostics 31679

electronic speckle pattern interferometry continued
- two source phase shifting speckle interferometer, obj. surface meas. 31671
- vibr. anal., double-pulse electronic-speckle-interferometry 15161
- vibr. phase meas., whole field, using ESPI 15154
- Si RTP temp. meas., ESPI/subfeature speckle interferometry 25999

electronic structure
- *for general aspects of electronic structure in condensed matter only; for specific aspects use appropriate terms, e.g. "band structure", "surface states"*
- *see also atomic structure; band structure; Fermi level; interface states; localised states; molecular electronic states; surface states; triplet state*
- MEH-PPV sandwich devices, photosensitivity and implication, polymer electronic struct. 23013
- polymers, nonlin. optics, fund. and appls. 7775
- Ag_2As-As_2S_3 glasses, opt., elec. props. 38264
- Fe, BCC, ferromagnetism, temp. depend. electronic struct. 7000
- $Fe_{80-x}M_xB_{20}$, (M=Ni,Co,Mn,Cr,V,Ti), amorph., mag. props. 14110
- p-GaAs/AlGaAs quantum wells, reson. absorpt. and photoresponse 38318
- InGaAs-GaAs 111 strained layer piezoelec. QWs, electronic struct. and field screening effects 13192
- K_xC_{60}, thin films, photocond., absorpt. spectra 39550
- a-Si:H MIS struct., response time/capture cross sect., gap states *(Chinese)* 22060
- a-Si:H, pseudodoped, vidicon target material 1057
- ZnS/ZnSe superlattices, opt. props., elec. struct., exciton binding 38347
- ZnS-ZnSe superlattices, electronic states and binding energies 13194

electronic structure, atomic *see atomic structure*

electronic structure, molecular *see molecular electronic states*

electronic switching systems
- AIN switch testing without service logic execution environ. 41956
- Alcatel 1000 E10 digital switching syst. 42106
- Alcatel 1000 S12 exchange, ALAMOS generic alarm correl. syst. 3288
- ALCATEL 1000 S12 switching syst. decentralized DC power supply 19869
- Alcatel 1000E10 switch and IN principles 42107
- AT&T's 4ESS switch, evol. 16956
- AT&T Switching Systems Business Unit, TQM 11626
- ATM and frame relay switching technol. 41424
- ATM Canton switch, expt. infrastucture 42120
- ATM cross-connect archit., expandability and non-blocking 3295
- ATM cross-connect syst., archit., develop. and field trial 3294
- ATM fast packet switch archits., reliab. models 2888
- ATM fast packet switches, simul. environ. 25172
- ATM high-speed switching systs., MCM technols. 25182
- ATM LAN switch 3289
- ATM networks, nonblocking multi-channel switching 8713
- ATM shared-buffer direct-access switch archit. 8709
- ATM shuffleout switch, channel grouping techs. 33199
- ATM switch, DQDB interconnections, cell-based flow control 8966
- ATM switch, integrated control/mgt. model 8844
- ATM switch and crossconnect archits. 33718
- ATM switch archit. for high-speed switching, barrel switch 16975
- ATM switch CMOS LSIs, self-timed queue archit. 16961
- ATM switches, frame-oriented queueing control policy for real/non-real-time traffic 33592
- ATM switches, queue mgt. VLSI implement. 8726
- ATM switches, stress test results 42116
- ATM switches with single hot spot traffic, buffer occupancy 16450
- ATM switching MCMs, heat-pipe cooling technol. 25183
- ATM switching syst., bandwidth control fn. 16958
- ATM switching syst. hardware based on Cu-polyimide MCM, 320 Gb/s 16973
- ATM-oriented multimedia LAN archit. 41806
- ATMXC01, 155 Mbit/s asynchronous cross-connect 25184
- AXE 10 switching syst., software design support 42110
- AXE syst. for CIS market *(Croatian)* 3286
- AXE-10 switch in Iskra-2 network 33392
- B-ISDN, ATM tech./switches 25069
- B-ISDN, hyperdistributed switching syst. archit. 33588
- B-ISDN ATM network congestion control framework 3239
- B-ISDN ATM switching module, MCM-C technol. 25181
- B-ISDN high-speed-retry banyan switch archit. for gigabit rates 3293
- backbone ATM switch, cost and complexity issues 42111
- board mounted power supply module for switching systs. *(Japanese)* 37630
- broadband ATM switches, optim. design for VLSI implement. 9136
- CAM-based single-chip shared buffer ATM switch 9142
- cct.-switched networks, real time traffic estim. 41680
- cell buffer implement. realizing CLP and appl. 16966
- CMC ATM switch I/O proc., design/validation, HDL Verilog 33719
- CMOS 2.4 Gbps 16×16 ATM switch chip set 16960
- CMOS ATM switch LSIs, self-timed queue archit. 33721
- CMOS VLSI 32×32 ATM switch, design, simple logic control 9137
- computer networks, game-theoretic anal. of switch service disciplines 3206
- contact erosion modelling, obj.-oriented technol. 6395
- contact materials and sticking charact. study, telecomm. relay 9132
- Croatian ISDN, init. experience 41918
- Croatian telecomm. network, modernization 33357
- cut-off priority delay-loss syst., 3 types of traffic and overload control 33228
- Digital ILT, digital switching syst. 25187
- digital telephone switch alarm proc. ES 33717
- Distributed multicast contention resoln., content addressable FIFOs 16964
- distributed switching software, scheduling mechanism of general service order seq. and limited service discipline 9133
- distributed telecomms. systs., sojourn time distrib. modeling 33237
- duplicated telecommunication system, CTRON based operating system 33713
- embedded proc.-shared multiprocessor syst., bus arbitration 3290
- EMI prevention/protection experiences, France 16968
- EOCC project, approach, internat. telecomms. develop. projects 41583
- Ericsson's broadband concept 41613
- ERIPAX syst. switches and frame relay *(Croatian)* 3287
- Ethernet switches extending 10BaseT lifetime 3163
- Ethernet switches for virtual LANs 42117
- EWSD based systs. for rural commun. 9135
- EWSD digital switching syst., recovery from software faults 16965
- fabric control appl. connection mgt. interface 42104
- frame relay service and switching syst. constr. technols. 41808
- France Telecom switching syst. component intrinsic failure rates 11870
- fully shared networks, anal. and design 41571
- GlobeView-2000, AT&T's ATM products 9138

electronic switching systems continued
high-capacity broadband packet switch archit., multilink approach 41912
high-dens. pin-board-matrix switch, crosstalk charact. *(Japanese)* 9125
high-speed MCM ATM switching syst. hardware technols. 25191
high-speed packet switch, input access, perform. anal. 16794
IN-based approach for PCS service provision, PSTN infrastructures *(Italian, English)* 41963
Indian telecom network, impact of digital switches 16962
ISDN fn. introduction in real telecomm. network 33596
LAN evol., ATM 8888
LAN switch traffic overflow 16722
LAN switches, traffic monitoring problems 42118
large scale ATM switch archit. *(Japanese)* 42121
logical communication designer interfaces, implementation and evaluation 33714
mobile service control point for intell. and multimedia mobile commun. 9042
multi single-stage-shuffling for fast packet switching 9134
multi-single-stage shuffling switch, design/perform. 16430
multicast ATM switching, design requirements and archits. 25190
multichannel combined R2MFC/DTMF/CCT receiver, single-chip DSP *(Korean)* 42112
multipath self-routing switch fabric, perform. anal. of resequencing unit 33608
multistage ATM switch fabrics, approx. model 41443
multistage ATM switching network, delay perform. 33197
multistage nonblocking ATM switches, connection-level design 16967
NEC's digital cellular center, syst. archit. *(Japanese)* 17080
nonblocking space-division packet switch, 2 correl. input call types 41459
packet switch, output buffering/imbalanced correl. traffic, anal. 8716
pipeline banyan, fast packet switch design/anal. 25188
pipelined common buffer archit. for memory based switching systs. 33716
PRIZMA, flexible shared-buffer switch for ATM, Gb/s rates 33712
protocol tools, formal specification to implementation 3291
rem. switching unit, MAX-L exchange 25189
shared memory ATM switch, simul. study of space priorities 33720
single-stage output buffer packet switches, independent batch arrivals 41456
small planar packaging syst. for ATM switching systs. 33722
software OO design 42103
software quality improvement by root cause anal. 42105
SPC systs. with high peak traffic, call-proc. and overload control 33604
SS 7 time response estim. in mobile cellular commun. syst. 33856
switching center, cellular and PCS digital-mobile services 17042
switching syst. MD110, appl. develop. functionality expansion 42109
syst. testing archit. for distributed switching syst. 16957
telecomm. network distributed proc. technol. *(Japanese)* 16754
telecomm. systs., neural networks appls. 41454
telecomms., correl. arrival procs. in switching systs. 33192
telecomms. operation and maint. workstation model, ES module 33369
telecomms. overload control, impact of services and control archits. 33605
telephone central office cable tray support failures 43786
telephone exchange air flow meas., France 20142
telephone switching support syst., software operation syst. inform. model 42113
TMN appl., highly reliable distributed switching node 41667
token ring switches for LAN backbone upgrading 42115
VPN's and business commun. solns. 41953

electronic trading
interactive EDI, IT and commerce in 21st century 41642
Internet, electronic payments 24965
open distributed environ. perform. considerations 41957
open distributed proc. trader federation, X.500 directory approach 41761

electronic warfare
see also electronic countermeasures; jamming
acousto-optics in electronic combat systs. 18971
channelized receiver appl. guide 43586
digital microwave receiver, lin. amp./ADC anal./design 29311
mil. commun., acousto-optic ESM receiver upgrade 18972
monopulse proc., AM-AM and AM-PM errors compensation 17423
PENETRATOR, dyn. high fidelity EW encounter simul. 26830
phased array antennas, EW appls. 40511
radar sig. clustering microwave neural-network paradigms 17403
RF Mission Planner, warfare commun. simul. 26816
technician centered test concepts 34367
testing at flightline 43587
virtual instruments develop., ATE future 42707
virtual instrums., RF transm. line testing addit. 35397
GaAs MMIC multifunction EW receiver convertor chip 38018

electronics applications of computers *see electronic engineering computing*

electronics industry
see also consumer electronics; domestic appliances; DP industry; electron device manufacture; electronic equipment manufacture; telecommunication
ATE, large-syst., market trends 17655
ATE develops. and quest for direction, 1980s-1990s 9792
Australian electronics indust., global posn., overview 28410
CAQ, real-time proc. control-based 11839
change mgt., Philips Electronics overview 11631
chip technol., economics and support *(Dutch)* 80
co-developed knowhow assets in technology partnerships 36949
competitive microelectronics mfg., concepts 20404
contract mfg., continuing trend, outsourcing 28384
cycle time reduction strategies implement. for new package introd. 36950
defense mfg. environ., flexible develop. and prod. 28421
design automation indust., strategies for competing 5440
design for manufacturability within Motorola, Bandit and MicroTAC programs 11704
designing, green policy 37210
Dutch microelectronics, university research/indust. needs, overview 30398
EDAC focuses on stds. collaboration, develop. proc. 12893
EDI standardization in electronics indust., global joint activities 28270
environ. design considerations 28547
European microwave indust., market trends 12685
FMEA, failure modes and effective anal. design tool 28401
foreign R&D in United States 5562
HDTV and East Asian newly indust. economies 3673
hot jobs proc. and effect on normal orders 37018
human factor in competitiveness *(German)* 11576
IBM Austin Indust. Bus. Center total prod. maint. 36985
IBM Microelectronics, MLC packaging plant 11762

electronics industry continued
lean prod. in semicond., new process introduction 36951
low-power electronics, research program 6600
manufacturing technol., conf., Santa Clara, USA (1993) 36847
MES, Manufacturing Execution Systems, real-time control of factory floor resources 37036
mfg. engng. curriculum, USA 11613
mfg. facility, environ. mgt. syst., logical data model 109
microelectronics, impact on telecom. and IT 33321
Motorola training programme improved by virtual reality 36913
NASA spin-off technol., conf., San Diego (Jul. 1994) 36866
next generation mfg. enterprise, perform. capabilities 28420
packaging, future develop. 28478
packaging technol., present situation/trend *(Japanese)* 37141
PCB/electronics indust. trends 21642
product and proc. design eval. 28403
PWB laminate indust., future trends 29664
scrap, recycling, OEM reclamation programmes 11886
semicond. indust., national competitiveness 29821
Silicon Glen, Scottish electronics indust. 37215
SPC, nonnormal distribs., capability indices, spec. limits, dpmo and DPU 156
technol. acquisition proc. 11647
technols., recent progress *(Chinese)* 5723
Texas Instruments DSEG, product develop. cycle time 36997
Texas Instruments SC business proc., product develop. proc. 37015
TFT act. matrix color LCDs, tech. trends and product line-up *(Japanese)* 3935
TQM in electronics indust., Hong Kong experience 5698
O_3 depleting substs. in electronic cleaning 30102

electrooptics *see electro-optical effects*

electroosmosis *see electrophoresis; osmosis*

electrophoresis
see also electrophoretic coating techniques
DNA, electrostatic stretch-and-positioning appls. 40217
flip COB process charactn., no-clean flux, ionic residue 38108
high-sensitivity DNA anal., laser-excited confocal fluoresc. scanning 26292
miniaturized elec. field traps, cells/microparticles manipulation 40266
quartz capillary tubes for chem. anal., fab. 34461
spherical dielec. particles, dielectrophoretic interact. 7905
GaAs, dispersed semicond. particles, doping effects *(Korean)* 13263
Si, dispersed semicond. particles, doping effects *(Korean)* 13263

electrophoretic coating techniques
$Bi_2Sr_2CaCu_2O_y$/Ag tapes, electrophoretic deposition, high J_c 14278

electrophotography
direct corona imaging, dielec. transparency 6898
electrostatic field calc. in electrophotographic develop. zone *(Japanese)* 31735
electrostatic images, single-component develop. 2187
liq. electrophotographic develop., excess ions 2188
MFP-510 multifunction plain paper facsimile *(Japanese)* 41744
phthalocyanine, organic photoreceptor, spectral sensitization 2189
PVDF film, pyroelec. imaging 1567
xerographic laser printer, vibr.-induced halftone banding 41196
xerographic toner triboelectrification mechanism 7916
CdS electrophotographic discharge, surface-depletion discharge model 22997
TiO_2 photoreceptor, direct digital color proofing 2190

electrophotoluminescence *see electroluminescence; photoluminescence*

electrophysiology *see bioelectric phenomena*

electroplated coatings
ceramic packages, die attach polymer bleedout 153
Cu/polyimide multilevel thin film struct., reliab. 11860
dry-released Ni micromotors, low-friction bearing struct. 27771
FR-4 boards, flip-chip interconnections 21653
solderability and impact of surface coatings 6421
Ag-Ni laminated electrodes for quartz piezoelec. resonators 39076
Au electroplated absorber, diamond membrane-based X-ray lithog. masks 6687
Au-SiN mask technol. for x-ray nanolithography 6683
CdSe films, pulsed plating, photoelectrochem. behaviour 37468
Cu, electrodeposited/rolled annealed, flexible cable, fatigue 29623
Cu electroplating of PCB PTH, current dens. effects 6409
Pd thin electroplated coatings, solderability, semicond. packaging 37143
Pd-Fe alloy electrolytic deposition 391
SnPb thickness meas., X-ray fluoresc. systs., PCB manufacture 38094

electroplating
3D micro integrated fluid systs. and microactuator 30494
3D multidirectional inclined structs., microfabrication, UV lithog., electroplating 30504
ABS plastics, EMI shielding, electroless plating 8002
dry-released Ni micromotors, low-friction bearing struct. 27771
film redistribution layer technol., fine grid SM components 917
flip chip proc. based on electroplated solder bumps 5620
flip-chip, solder bump fab. by electroplating 38173
large area MCM proc., cost implications 21682
LSI, HDI, bare chip technol. 30151
MCM-D, low cost, large format fab., photosensitive polyimides 21718
microstruct. technol., advances 39035
MMICs and ICs, interconnect lines, metal-dielec. adhesion 13426
polymers, excimer laser micromachining, replication 28439
PTFE substrs., cct. fab. methods 6436
pulse reversal plated Cu for PCBs 21652
single-domain mag. pillar array for ultrahigh dens. quantum mag. storage 7189
solid armature EM railgun launchers, plated Al-Cu contacts 15324
surface micromachining, galvanoplating and sacrificial layers 39030
CdSe films, pulsed plating, photoelectrochem. behaviour 37468
Cu electroplating of PCB PTH, current dens. effects 6409
Cu-Au interdiffusion during plating 20986
Fe_3O_4 films, ferrite plating, AC current 12134
GaAs/AlGaAs quantum dots, ion implant. based nanofabrication, masks 13493
Ni, single-domain mag. pillar array, fab. 14244
Pd-Fe alloy electrolytic deposition 391
Pt-GaAs Schottky contact, defect free, electrochem. form. technol., low-dimens. structs. 22039

electroplating continued
Si micromachining/microfabrication techs. for integrated sens. and actuator systs. 13911
n-Si:In(Al), porous, metal deposition into pores, electrolumin. obs. 22157
SiO$_2$-on-Si NIR channel waveguides form. by electron-beam irrad. 14450
Sn/Pb eutectic solder-bumped flip chip test die and organic PCB substrs. 37136

electropneumatic control equipment
electrostatically-driven gas valve, high-press. conditions 30516

electropolishing *see electrolytic polishing*

electroreflectance
electro-optic Fabry-Perot through-plane-modulator based on LB film 30998
modulation spectrosc. for semicond. device anal. 22319
semicond. device struct., charactn., modulation spectrosc. 1435
variable-strain quantum well heterostruct., design and investig. 30820
GaAs/Ag Schottky barrier, electroreflectance 13216
GaAs/Al$_{0.35}$Ga$_{0.65}$As MQW, refr. index, Fabry-Perot etalon meas. 34717
Ge SQW, interface sharpness, MBE growth conditions 13190
Ge/Si epilayers, MBE, charactn. 320
InGaP-InAlGaP MQW electro optic modulator, MOVPE grown 39483

electroretinography
flash, local, spatial distrib., multi-input stimulation 35120
pattern-evoked ERGs, laser ophthalmoscope, mech. mirror 35121
retinitis pigmentosa, low-noise ERG recording techs. 35118
suprathreshold photopic oscill. pots., anal. method/clinical appl. 35117
wavelet-based detect. of transients in biological sigs. 35071

electrorheology
actuator appl. possibilities *(German)* 11221
catch/clutch, inertial simul. 445
dielectric liquids, cond., breakdown, conf., Switzerland (1993) 5444
electro-struct. fluid, inertial drive clutch, control indications 28893
oscillatory response of electrorheological fluid 5915
PBZT particle/suspension in mineral oil, electrorheological responses 13933
semi act. suspens., electrorheological fluid dampers, HV supply unit 44131
semiactive control for vibr. atten. 5916
silicone oil/polymer particles suspen., electrorheological effect 39066
valves, elec. response, press. coupling 444

electrospark machining *see spark machining*

electrostatic accelerators
300 kJ ion beam accelerator, Marx generator power supply 34749
DISKTRON electrostatic accelerator and laser-induced photoelectrons facility 31464
FEL config. for power beaming 39925
FELs, materials sci. in far-IR 39987
LEADS, graphically displayed computer program *(Chinese)* 26078
LEADS program, lin. and electrostatic accelerator beam dynamics 34833
low-emittance electron beams in electrostat. accel., FEL appl. 26062
RUSLAN e-beam accelerator, Marx generator supply 34738

electrostatic coating techniques *see spray coating techniques*

electrostatic coatings *see spray coatings*

electrostatic devices
see also capacitors; dielectric devices; electrostatic accelerators; electrostatic lenses; electrostatic precipitators
3D micro integrated fluid systs. and microactuator 30494
3D micro-electro-mech. struct., self-consistent electromechanical anal. 1502
actuator, electret 23518
artificial muscle, lin. actuators, multiple-layer struct., robot appls. 31736
atomiser, nonwetting, catalytic melt spraying 7921
barbed plate ESP, particle motion meas. 7922
boundary biased-probe method, I$_p$/I$_{po}$-V$_b$ nonlin. 7918
capacitance transducer, std. US source in solids 35372
capacitive US air transducer, uniformly V-grooved backplate 10579
chucks, semicond. prod. equipt. 2186
diaphragms, electrostatically deformed, self-consistent simul. and modelling 30499
doubly salient electrostatic motor, vac. gauge appl. 5000
dry-released Ni micromotors, low-friction bearing struct. 27771
ECR CVD, electrostatic chuck, improved temp. uniformity 28847
ESP gas flow modif. by charged particles 7923
fields computation, IEE Colloquium, London, UK (1995) 11600
finite elements for electrostatics 36212
HV solar cell array for electrostatic MEMS 36606
impact-actuated lin. microvibromotor for micro-opt. syst. on Si 27773
induction motor, synthesis and modelling 44083
integrated optic switches, electrostatic actuation of metallic membranes 7382
micro EHD pumps, fabr./expts. *(Korean)* 30527
micro electrostatic wobble motor, fabr. *(Japanese)* 11079
microactuator, electrostatically actuated gas valve 6878
micromechanical actuator syst., mag. fluid-based *(Japanese)* 44087
micromotors, torque computation, 3D mesh generation 36213
microrobot syst., distributed, electrostatic actuator 19675
motor, microcomponents/microsystems fabr. techs. 6887
nano-indenters, high-accuracy, using electrostatic force 12244
nested microvalve for integrated microflow controller 30495
particulate materials bulk transport valve 7917
plastics separation, tribo-electrification syst. 7919
polysilicon electrostatic microrelays, MOSFET integrat. 30506
polysilicon micromechanical resonators for freq. refs. and sig. proc. 22623
portable electrostatic sprayer 7920
power transformers, freq. response, electrostatic screen effect 5023
servo syst. for multi-axis accelerometers 34479
short-pulse water breakdown power technol., electrode phenom. 36259
side-drive motors, design and fab. 36217
single shot charge analyzer for laser-prod. plasma 25747
travelling wave panel electrode design, computer user interface 15248
US transducer, bandwidth control 10581
US transducers, V-grooved backplates, electroacoustic model 18929
valve, high-press. conditions 30516
wobble motors, concentric build-up fab. proc. 36204
Si (110) micro-opto-mech. devices, anisotropic etching 30977
Si electrostatic servo-type three-axis accelerometer 17744
Si electrostatic wobble motor, miniature gear reduction unit 36205
Si micromechanical resonator, struct. and perform. 13912
Si micropump, design/proc. techs., fabr. *(Korean)* 30526

electrostatic discharge
0.25 μm gate length CMOS technol., design/proc. depend. 13894
0.6μm nMOS ESD I/O protection struct., EOS suscept. study 29978

electrostatic discharge continued
3D thermal model for ESD thermal runaway in semicond. devices 38788
air ionizer perform., periodic verification, EOS/ESD Ionization Standard 34421
anals. for spacecraft in geosynchronous orbit 35213
anti-ESD polymer, internal space charge distrib. meas. 30586
automobile electronic fuel injectors, power IC-based control 36776
automotive components packaging/handling, ESD sensitivity 20118
BiCMOS IC ESD protection, harsh automotive, indust. environ. 30487
cart grounding chain effectiveness, unexpected insulating wheels behaviour 31714
charge control, wafer prod. damage prevention 7896
charged dielec./metal thin films, peeling ESD 7901
charged human body, pot. atten. proc., anal. 23506
CMOS ASIC, power-pin ESD stressing failure mechanisms 28527
CMOS ASIC ESD failure, substr.-power bus contact effect 30468
CMOS ESD protection ccts., scaling, optim., design 6849
CMOS ESD protection ccts., scaling/optim./design considerations 30471
CMOS gate arrays, EOS induced polysilicon migration 30466
CMOS input gate, latent ESD damage ident. and anal. 30464
CMOS input gates, latent ESD damage ident. 6847
CMOS SRAM technol., ESD design methodology 29224
coaxial probe for ESD voltage waveform meas., 1 ns risetime 34651
commun. satellites, EMC *(French)* 18693
contact discharge simulator, ESD immunity design 17695
control program support, auditing/awareness training aspects 30544
control/safety, surface testing, simulated MOSFET damage 15223
corporate ESD program, strategy and philosophy 30543
D-type flip-flop, fast-transient suscept. 29098
deep submicron nMOSFETs under high current snapback conditions 22438
diagnostics, HV calib. 30542
EMC, conference, Dallas, TX, USA (1993) 36844
EMC, conference, Sendai, Japan (1994) 11561
EMC problems, PEEC cct. models, stable time domain solns. 15511
ESD hazard minimization, IC test handlers and automatic trim/form machines 30412
failure anal., CMOS IC mfg. proc., extent/cost 30545
FDTD, ESD source modeling 15217
ferromag. shields, EM transients anal. procedure 15486
finite element time domain simul. 15218
fixed wand electronic flame-off, ball bond form., wire bonding proc. 6445
harsh automotive elec. environ., IC design considerations 36764
HBM ESD testers/specs. anal., 4th order lumped element model 34422
high-leverage SOI technol., appls., CMOS and BiCMOS designs, material/device problems 30003
human body ESD, charge/pot. control 7907
HV power MOSFETs, SCR device integrat. for ESD robustness 22436
immunity tests eval., fault probab. fn. 23508
impulsive ESD noise from office chair 30541
indirect furniture ESD and implications 31713
indust. electrostatic hazards investigs., UK 7906
LDD nMOS transistors, latent ESD damage recovery, hot electron treatment 6744
LTCC shrinkage matched cofireable thick film resistors 11767
mature CMOS proc., unusual HBM ESD failure mechanisms 30469
meas. techs. for IC design/manufacture 18057
MOS I/O device degrad., ESD-induced disloc. 22605
multilayer varistors, ESD suppression 12830
nMOS ESD I/O protection structs., EOS suscept. 6749
on-chip power supply coupling diodes, ESD protection, noise immunity 5986
opt. solar reflectors, low absorptivity, environ. stabil., spacecraft charging 18690
packaging, environ. perspective 28455
PCB ESD protection material selection, shielding effectiveness meter 28456
polymer film ESD in vac., light emission and outgases *(Japanese)* 30538
power MOSFET, integrated protection ccts. 38861
principles and testing procedures 40212
protection cct., 2D electrothermal simul. and design 30467
RISC μPs in isolation CMOS technols., ESD protection 21348
semicond. device reliab., EOS tutorial 30191
semicond. devices, ESD models anal. 13576
semicond. laser reliab. and failure anal. 39816
shielding, inflatable-bag technol. 15516
short gap discharges, fast transient elec. fields meas. 23507
short gap discharges, meas. of fast transient fields 42882
Siemens power DIMOS device, ESD gate oxide breakdown, stat. model 30307
SOI snapback nMOSFET, ESD protection/failure modes 22464
SOI snapback nMOSFETs, ESD protection capability, mechanisms/failure modes 30308
SOI/bulk hybrid technol. on SIMOX wafers for ESD immune ccts. 13881
spacecraft solar cell assemblies, Teflon coverglass bonding 26684
static control footwear, perform.-oriented design and test procedures 31715
static protective shrink wrap film for JEDEC tray packaging 28454
submicron CMOS, soft ESD failure suppression 30465
submicron CMOS proc., soft ESD failure suppression 6848
telecomms. satellites, ESD studies *(French)* 18694
VLSI ESD sensitivity, thermal breakdown and dielec. breakdown 6844
VLSI power supply coupling diode design, ESD protection/noise immunity 30470
GaAs PDB microwave diodes, ESD failure 29556
InGaAsP LD, sensitivity, ESD 14926
InGaAsP/InP DFB laser, wavelength shifts, ESD 23276
Si VLSI ESD sensitivity, thermal/dielec. breakdown 30462

electrostatic fields *see electric fields*

electrostatic lenses
see also aberrations; focusing; particle beams
co-planar multiple-ring electrostatic particle-beam lenses 15250
deflector-type analyzers, circ. multipoles, cylindrical coord. anal. 23504
electron opt. benches, aberrations/LEEM appls. 1011
electron-beam tester, mag./electrostatic lens collimation 37038
hemispherical electron spectrometer, electrostatic transfer lens 13020
ion projection lithog., electrostatic column 13463
LEADS program, lin. and electrostatic accelerator beam dynamics 34833
microfabrication, miniaturized electron column 40269
quadrupole lens, fringing field, fifth-order particle motion 7914
re-emitted positron energy spectrometer 43142
retarding field lenses, Coulomb effects 15243

electrostatic microphones *see microphones*
electrostatic motors *see electrostatic devices; micromotors*
electrostatic precipitation *see electrostatic precipitators*
electrostatic precipitators
additive enhanced electrostatic precip. in liqs. 7927
barbed plate ESP, particle motion meas. 7922
barbed plate-to-plate precipitator, elec. field/space charge, 3-D model 15249
diesel engine particle emissions, ESP capture/agglomeration 7926
ESPM, electrostatic precipitator model 7924
gas cleaning equipt., electrostatics appl. 43535
gas flow modif. by charged particles 7923
IEEE industry applications, conf., Denver, USA (1994) 10
imported coal combustion, Germany *(German)* 43914
ion flow in 3D elec. field, charge dens. distrib. 31737
low energy electron dust particle removing syst. 7915
particle charging, unipolar ionic bombard., AC elec. field 7925
pulsed corona precipitator, charged aerosols modelling 15247
pulsed power technol., power plant pollution control appls. 35967
steam power plant equipt. repowering study project, Romania 27541
thermal power plant FGD ESP, corros. wear testing *(German)* 4822
wire-plate electrostatic precipitator, prebreakdown VI charact. 15251
electrostatic waves (plasma) *see plasma electrostatic waves*
electrostatics
see also electrets; electric charge; electric fields; electrostatic devices; electrostatic discharge; static electrification; triboelectricity
2D Laplace problems, regular boundary integral soln., variational formulations 31709
3D LCD on VLSI die, electrostatic anal. 42875
adaptive refinement for boundary integral methods in electrostatics 15222
boundary element anal., computation model 40208
comb actuators, micromechanical, electrophysics 30492
deflector-type analyzers, circ. multipoles, cylindrical coord. anal. 23504
dielectric oil, high stress aggregation, electron transport 13935
DNA, electrostatic stretch-and-positioning appls. 40217
elec. augmented filter, conducting/dielec. fibres comp. 4410
EM environ. in aircraft, single event rel. 26525
EM field description/anal., diff. forms appl. *(Chinese)* 7887
FDTD, ESD source modeling 15217
ferroelec. ceramics, twinning-induced stress, elec. field conc. 37537
fields computation, IEE Colloquium, London, UK (1995) 11600
finite elements for electrostatics 36212
fuel oils combustion atomisation, charge injection nozzle 7904
gas cleaning equipt., electrostatics appl. 43535
hot circulating fluidized beds, electrostatic flow meas. 15221
HV low jitter trigatron, repetitive operation, design/model 29820
IEEE industry applications, conf., Denver, USA (1994) 10
insulators, secondary electron emission, Monte Carlo study 14006
LF image theory for current dipole in front of permeable sphere 31712
liqs., electrostatic dispersion modes classif. 40211
lossless dielec. mixtures, effective permitt. calc., boundary integral method 13922
low cond. liqs., electrostatic safety modelling *(Russian)* 7897
med. appls. of electrostatics, hist. 18586
mesh termination in finite-difference techs., simulating boundary conditions 31717
microassembly, focused laser beam 30520
multicascade electrostatic analyser, focusing props. 43038
multilayered media electrostatic pot., complex image calc. 23502
nonuniform ramified microstrip line, anal. 15586
oil tanker filling, electrostatic field estim. 40214
parachute opening, electrostatic effects 43601
parallel plate capacitor for electrostatic studies 5515
permitt. meas. using unguarded disc electrodes, capacitance correction 1504
petroleum storage tank electrostatics, stream fn. distrib. 15220
petroleum storage tank recirculatory flow, electrostatic charge estim. 15215
phys. and geom. basis 31718
planar p-n jn. termination, theoretical investig. 29888
planar-geom. long. electrostatic undulators, calc. 14979
plural defects in conductive plates, location via neural networks 37563
point charges, electrostatic min. energy, constrained global optim. 23505
pot. discharge from human body, num. inverse Laplace transform 40213
powder coating, microstruct. surface props. 7902
powder flow syst., pulse charge injection modelling 28887
powder painting, particle trajectories, math. model 7903
power transformers, freq. response, electrostatic screen effect 5023
shell problems, ill-posedness elimination 40209
space-charge problems, boundary charge method 31719
submicron particles scavenging by coarse particles 40210
sulphide-quartz mixtures, electrostatic separation 40207
surface charge dens. on a conductor, behavior 40215
symm. electrostatic pot., modified slice-method 31721
thermostatics/electrostatics analogy, engng. education appls. 36938
transient contact of small particles, charge transfer 15225
travelling wave particle transport modes, appls. 40218
two-sphere syst., interactive dipole model 2180
GaAs-AlAs vert. coupled-cavity microinterferometer, deformable-membrane top mirror 39991
InGaAsP-InP 1.55-μm quantum-well lasers, temp. sensitivity of differential gain 31320
electrostriction
see also piezoelectric materials; piezoelectricity
actuator appl. possibilities *(German)* 11221
ceramic material systs., boundary conditions for shape memory 28888
diffusion-driven semiconds., SBS gain profile 2059
ferroelec. ceramics piezoelec. responses, interferometric meas. 22667
intell. ceramic materials, brittle fracture 28892
sonar future transducers, transduction materials modeling 9662
sub-microvolt LF fiber optic voltage sens. 17826
three-channel FDM fiber-optic LF voltage sens. 9921
US beam scanning in ferroelec. ceramics by nonuniform elec. field 26784
vinylidene fluoride-trifluoroethylene copolymer films, electrostriction 39060
PMN-PSN based solid soln. ceramics, electrostrictive actuators 39095
PMN-$PbTiO_3$ ceramic relaxors, high-field electromechanical props. 30560
PZT piezoceramics, ferroelec. actuator/sens. materials, driving field/temp. effects 30570
PZT piezoelec. ceramics, capacitance, dyn. meas. 39050
PZT/ZnO piezoelec. actuator, mech. response, gases reduction 34608
$PbMg_{0.3}Nb_{0.6}O_{0.3}$, ferroelec. actuator/sens. materials, driving field/temp. effects 30570

electrostriction continued
$Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$-$SrTiO_3$ ferroelec. relaxor, dyn. strain response 39051
$PbMgNbO_3$-$PbTiO_3$ ceramics, domain walls, piezoelec. and electrostrictive props. 22663
$Pb(MgNbTi)O_3$, relaxor ferroelec. for large strain sonar appl. 9670
electrosynchronisation *see synchronisation*
electrothermal launchers
1 MJ transportable pulsed power source, electrothermal gun appls. 36314
2.4 MJ multi-module capacitor bank, electrothermal launcher 20049
2 MJ 2N Megajoule Pulser electrothermal chem. gun pulsed power supply 36315
4.5 MJ modular pulse power supply, electrothermal gun 31764
500 kJ capacitor bank, electrothermal gun appl. 31760
500 kJ multi-module capacitor bank, electrothermal launcher 20048
ablation plasma, scaling laws, energy conservation anal. 31767
capillary optimisation 15287
composite and refractory-coated materials. launchers and fusion appls. 31769
D2 hypervelocity projectile program, air defence elec. launchers 18962
E7-25 capacitor storage unit, ET/railgun launcher 31756
elec. gun capacitive pulse forming networks 19776
elec. launcher technol. component erosion expts. 15326
electrothermal guns, capacitor charging, voltage/current control 19777
electrothermal-chem. gun, digital/optoelectronic ccts. 31750
electrothermal-chem. gun, meas. techs. 31751
electrothermal-chem. gun, ship defence appl. demons. 15285
electrothermal-chem. gun pulse shape requirements 19780
electrothermal-chem. guns, plasma augmented propellants 15288
electrothermal-chem. guns, pulsed disk alternator storage 19610
electrothermal-chem. launchers, plasma-propellant interface expts. 15368
electrothermal-chem. plasma injectors, num. anal. 15284
EM chem. propulsion concept 15264
EM launch technology, conference, San Diego, USA (1994) 5490
FEUERSTELLUNG 2000, 30 MJ capacitive power supply 31744
Green Farm elec. gun facility, expts. 15275
gun, plasma-water interaction, mixing visualisation 31774
guns, low mol. wt. working media, num. study 18967
hypervelocity solid propellant electrothermal launcher 15286
interior ballistics, elec. generated plasma 15292
metal oxidiser research, chem. energy release 31776
Navy pulsed power guns, power syst. simul. 35408
operation, mass supply, distrib. heat sources 15293
pancake coil for pulsed power amplif. of electrothermal load, freq. effects 36239
phys. proc., param. studies 15291
plasma=propellant interaction expt. construction and operational characts. 31771
plasma armature railgun, secondary arc form. 23520
plasma armature railguns, foil breakdown, num. simulations 23521
plasma pulse-based metal surface treatment 15337
plasma-surface interact., computer simul. 15372
plasma-surface interfaces, energy transport, boundary layer model 31772
powder materials accel. studies 15340
press. pulses generation, arcs, capacitor store 31754
pulsed power, IEEE Colloquium, London (1995) 28231
scaling laws, 0D time-depend. model 15370
SIRENS electrothermal launcher, plasma flow simul./expt. 15317
SIRENS electrothermal launcher, plasma-material interaction 31766
SIRENS electrothermal launcher plasma, mol./at. meas. 15369
SIRENS launcher, drag forces, in-bore diagnostics 31770
small caliber electrothermal accelerator, design optimisation 15289
solid armatures, design optim. 15352
solid propellant electrothermal chem. launchers, pulsed power 31763
Tokamak pellet injection, electrothermal accelerator 15290
electroviscous effect *see electrorheology*
elemental semiconductors
0.25 μm CMOS prod., equipt./materials demands 39007
amorph.-cryst. Si heterojunct. switching devices, bidirectional switching charact. 13110
BESOI stress/strain investig., opt. SHG method 29963
BiCMOS, 2D transient enhanced diffusion and impact on bipolar transistors 22620
black silicon nanowires, sub-10-nm, natural masking, RIE 30117
book, Si and Si alloy based materials/devices 11540
buried metallic layers in Si, wafer fusion bonding 13270
CVD diamond, metallization and die attach 38662
diamond:B,N, elec./opt. charactn. 21891
diamond:B film/metal high temp. contacts, reliab. issues 22045
diamond:B films, homoepitaxial and polycryst., elec. props. 21890
diamond:B films, hot filament CVD, plasma etching, elec. props. 5862
diamond:B films, ion implant., surface interacts./electronic struct. 30030
diamond:B heteroepitaxial films, plasma CVD, p-n jn. diodes 20740
diamond:B thin-film electrodes, metal adlayers, electrodeposition 30145
diamond:H films, CVD, surface topography, AFM study 28821
diamond:He^+ film detector, Raman/photoluminesc. charactn. 43089
diamond:N,P, cvd epitaxy, enhanced dopant incorporation 30046
n-diamond:N,P,Li,Na,S,O, doping, review 6614
diamond:Na (Rb) (P), low energy implant., detector appl. 38497
diamond:P films, hot filament CVD, P addit. effects 28819
diamond, CVD films, seeding patterning, field emission props. 12988
diamond, CVD from capacitively coupled RF plasma source 20982
diamond, CVD grown, photoconductive spectrosc. 38244
diamond, device quality polycryst., microwave PECVD 5866
diamond, electroless plating, laser-assisted selective metallisation 30157
diamond, electronic/sens. props., review 6520
diamond, heteroepitaxial deposition on sharpened Si tips 37424
diamond, highly oriented films on Si, growth, charact. and devices 5820
diamond, ion beam and laser-assisted micromachining 13907
diamond, natural IIA, elec. props., detector appl. 43088
diamond, natural monocrystals/polycryst. films, direct laser writing 38545
diamond, natural type IIa, HI sub-ns detect. 43090
diamond, nucleation and growth on Si(100), electron spectra obs. 430
diamond, opt. switch, photocond. props. in high elec. field 31083
diamond, oriented growth, combustion flame lin. vel. effect 37378
diamond, polycryst. double layers, high temp. sens. 34441
diamond, self-supporting hollow helix and sieve, jet-flow HFCVD 20928
diamond, single-cryst. chem.-vap.-deposited, electron affinity 1018
diamond, synthesis and proc., appls. 6519

elemental semiconductors continued
- diamond, synthesis by hot-filament CVD, O-addit. effects 28844
- diamond, synthetic, radiophotoluminesc., dosimetry 43403
- diamond, synthetic, X-ray study, dosimeter appl. 43404
- diamond, synthetic type IIa, carrier mobility/lifetime 38234
- diamond, thin film, electron beam induced switching, pulse power 36447
- diamond, type IIa detector, photoconductive props. 43157
- diamond, vap.-grown films, morph. develop., role of penetration twins 5864
- diamond (001) B-doped homoepitaxially grown films, Hall mobility, carrier conc. 21883
- diamond crysts./superlattices, isotopically engineered 38502
- diamond CVD, Cl-activated 409
- diamond CVD film temp. sens., fab. technol. 9842
- diamond CVD films, elec. props., detector appl. 38233
- diamond CVD growth, surface free energies 37484
- diamond deposition domain from various C-H-O(-Ar)-containing gaseous mixtures, press. influence 37477
- diamond doped film thermal cond. meas. method 10050
- diamond epitaxial Schottky diode on p^+-substr., rectifying charact. 6713
- diamond fast photodetectors response 42799
- diamond film, oriented, plasma CVD, carburized Si substr. 12152
- diamond film, plasma CVD, surface wave discharges 28820
- diamond film deposition in hydrogen-oxyacetylene combustion frame 28822
- diamond film growth, low press. premixed ethylene-O_2 flames 5859
- diamond film semiconductors, conf., Los Angeles, CA, USA (Jan. 1994) 4
- diamond film supersonic flow sens., freq. response 9843
- diamond film thermistors, fab. and charactn. 9892
- diamond films, biased hot filament CVD, nucleation, selected area deposition 20958
- diamond films, compositional and spectrosc. study 5868
- diamond films, CVD from H-hydrocarbon gas mixtures, substr. temp. 5893
- diamond films, DC plasma arc tech. 20931
- diamond films, dual-freq. plasma growth, a-C:H layer effect 5869
- diamond films, enhanced oxid. etching, annealing, Mo effect 22192
- diamond films, heteroepitaxy on Si via SiC buffer layers 20849
- diamond films, hot filament CVD on sapphire 20929
- diamond films, metal/intrinsic semicond./semicond. FET 13753
- diamond films, microwave plasma CVD, charactn. 6521
- diamond films, plasma CVD, localized epitaxy, Si substrs. 5841
- diamond films, plasma CVD, opt. emission spectra 20930
- diamond films, plasma-assisted CVD, porous Si substr. 12137
- diamond films, pulse modulated ECR plasma CVD 37470
- diamond films (111), H exposure, XPS/UV PES 13365
- diamond films adhesion on Mo/W/carburized W substrs. 37478
- diamond films on stainless steel substrs., hot cathode DC discharge plasma CVD 5877
- diamond films rough surfaces modelling, self-limiting laser ablation, polishing 37476
- diamond flame-deposited films, growth-etch cycling 420
- diamond high mobility CVD films, electron-hole mobility 6517
- Diamond low press./temps. liq.-phase seed epitaxy hydrothermal synthesis 37379
- diamond metal-semicond. and MIS structs., elec. charact. 6582
- diamond MIS integrated radiation imagers 9904
- diamond MOSFETs on epitaxial thin films, fab., cct. appls. 22437
- diamond MPCVD films on porous silicon, scanning microscopy obs. 6518
- diamond MSM device, detector appl., photoresponse 38447
- diamond nucleation and growth, SR studies 404
- diamond nucleation on a-SiO_2, AC bias microwave plasma CVD 12157
- diamond nuclei on the Si mirror surface, DC glow discharge CVD 5834
- diamond particles nucleation, hot-filament CVD, a-C:H films effect 20654
- diamond plasma CVD on heteroepitaxial BN on Si(100) 28818
- diamond polycryst. films, hot filament chem. vap. deposition 429
- diamond power transistor perform. 13796
- diamond smooth films, hot filament chem. vap. deposition 12174
- diamond surface, O-H adsorpt., EELS/Auger study 1268
- diamond thin films, indentation response 20932
- diamond thin films, microwave PECVD 1019
- diamond thin-film growth, filament-assisted excimer laser ablation syst. 12178
- diamond ultra-fine particles, laser-induced forward transfer deposition 28861
- diamond/Si(001), heteroepitaxial films, interface study 21940
- diamond/Ti-Au(-Ag)/Al CVD diodes, high temp. stabil. 22046
- diamonds, annealed synthetic, photoinduced absorpt. lines related to Ni impurity 38230
- diamonds film form. from graphite dust 12138
- directly bonded wafer, point defects, bonded SOI wafer 38431
- double polysilicon layer structs., plasma etching effects 13325
- elastic force motors, speed control of integrated piezoelec. sens. 36206
- epitaxial diamond Schottky barrier diode, fab., characts. 22350
- field-emission triodes, fab., emitter-gate separation of 0.18 μm 21804
- floating gate polysilicon grain size, flash memory over-erase 21331
- glass-Si substr. for hybrid optoelectronic packaging 31118
- high temp. SOI devices, W metallization technol. 22279
- high temperature electronics, conf., Strasbourg, France (1994) 20219
- IGBT, n′ buffer layer, static characts. simul. 1410
- LASS based ultrawideband radar syst. 34149
- mechatronics fund., meas. sci. and technol. 9850
- metal/SiH_x/Si diode struct., steady-state I-V charact. 38437
- metallic contamination in ULSI, opt. monitoring techs. 29991
- microcrystalline diamond deposition, inert-gas curtain combustion-flame method 388
- miniature act. matrix LCD, projection/head-mounted systs. 9989
- multijunction thermal converters by commerical CMOS fabrication 25801
- N_A role in SI, at. path, kilogram 17644
- native oxides on Si surfaces of deep-submicron contact-hole bottoms 38617
- planar hybrid optoelectronics, colloquium, London, UK (1994) 20255
- poly-Si:B/Si:N multilayer gate surface channel PMOSFETs 6762
- poly-Si TFT, neg.-bias temp. instabil. 13755
- polycryst. diamond press. sens., fab., props. 34456
- polysilicon:As microwave bipolar power transistors *(Chinese)* 21545
- polysilicon:Ge films, ion implant. amorphized, recrystn. 13280
- polysilicon, dyn. grain-growth and static clustering effects on dopant diffusion 1221
- polysilicon, LPCVD, particle contaminations 20934
- polysilicon biased field plates for HVIC interconnections 30155
- polysilicon bottom gate TFTs, excimer laser crystn. 38880
- polysilicon charge injectors, carrier trapping 13788
- polysilicon CMOS TFT LCD driving ccts. *(Korean)* 17999
- polysilicon DRAM cell capacitors, Si_3N_4 dielec. films, RTP 22069

elemental semiconductors continued
- polysilicon dual-gate CMOS, N implant. 38498
- polysilicon emitter bipolar transistors, LF 1/f noise 38820
- polysilicon emitters in BiCMOS IC, interfacial oxide thickness 1499
- polysilicon etching profiles, side wall passiv. and ion saturation effects 1265
- polysilicon films, CMOS TFTs, low temp. proc. 38879
- polysilicon films, elec. params., low temp. modelling *(Chinese)* 13025
- polysilicon films, N implanted, effect on TFT elec. characts. 22447
- polysilicon gate depletion effect on deep-submicron cct. perform. 1485
- polysilicon gate reentrant of submicron LDD MOSFETs 1394
- P^+-polysilicon gated FET devices, bias temp. reliab. 13750
- p^+-polysilicon gated p-MOSFET, reverse short-channel effect 1400
- polysilicon grain boundary struct. characterisation by opt. SHG 29825
- polysilicon inversion-type TFT DC/AC model, kink effect 22491
- polysilicon LPCVD tubes, NF_3 in situ cleaning 13339
- polysilicon micromechanical resonators for freq. refs. and sig. proc. 22623
- polysilicon outer-rotor wobble micromotors, fab./characts. 30518
- polysilicon resistors, heavily doped, const. voltage trimming 21586
- polysilicon resistors, pulse current trimming, LSI resistor tuning after fab. 38977
- polysilicon resistors for large current detect. on power transistor chips *(Japanese)* 29024
- polysilicon side-drive micromotors, fab. 11093
- polysilicon SOI struct., ZMR, electrophysical props. 39011
- polysilicon SOI struct. obtained by laser zone melting, props. 38442
- polysilicon TFT, double-act.-layer struct., elec. characts. 30286
- polysilicon TFT, plasma hydrogenation effects *(Korean)* 30348
- polysilicon TFT, short-channel, output characts. 30296
- polysilicon TFT, trap-state dens. model *(Korean)* 30347
- polysilicon TFT, ultralarge grain film, excimer laser recrystn., elec. props. 30285
- polysilicon TFT and driver integrat. technol. for LCDs 25919
- polysilicon TFT LCD, storage-capacitance arrangement 9984
- polysilicon TFT proc. for CMOS, HDTV LCDs appl. *(Japanese)* 1492
- polysilicon TFTs, ECR plasma oxid. effects on perform./stabil. 22450
- polysilicon TFTs, fab., pulsed laser annealing and plasma CVD 13743
- polysilicon TFTs, hydrogen passiv. 38866
- polysilicon TFTs, off-current, thermally generated component 38900
- polysilicon TFTs, self-induced LDD devices, SiO_2 gate-insulator, passiv. layer 13748
- polysilicon TFTs for act. matrix LCDs, reliab. 22449
- polysilicon thin film doping, atmos. furnace 22138
- polysilicon-emitter transistors, fab., e-beam lithog. 30263
- porous Si, thermal cond. 37544
- pulse-doped diamond p-channel MESFET, fab. and characts. 13778
- relax. spectrosc. tech. for solid interfaces 25711
- Si:B submicron jns., doping by B layer electron beam evap. 13294
- Si, cryst. growth simul. program, automatic parallelization 12034
- Si, high dens., plasma etching syst., dipole ring magnet 38606
- Si film growth, temp. control, pyrometric interferometry 42974
- Si integrated optics for sens. 7378
- Si MIS transistors, random telegraph sig. params., substr. bias effect 13756
- Si ref. materials certified for isotope abund. ratios 3709
- Si-SiO_2-polySi:P, $TiSi_2$ superlayer, thin film oxide injection degrad. 22059
- SIMOX, stacking fault growth/shrinkage 22074
- SIMOX, ultrathin low energy, high dens. appls. 30062
- SIMOX MOSFET, high temp. operation 22468
- SOI, polysilicon films, zone melting, laser radiation interf. 37469
- SOI lateral IGBT, breakdown voltage rel., implant. dose 22460
- SOI power device blocking voltage, HVIC interconnection influence 29979
- SOI snapback nMOSFETs, ESD protection capability, mechanisms/failure modes 30308
- SOI technol. for high-temp. smart-power appls. 22614
- SOI ultrathin struct., self-consistent calcs. 6587
- solar energy prod. methods, overview 19549
- space power thermionic electrodes, CVD diamond film appls. 18745
- Spec2Si, EDA develops. 5583
- TIGRE, Tracking/Imaging Gamma Ray Experiment (1, 100 MeV) 18412
- ultra fast power diodes, GaAs/Si characts. comparison 29016
- wafer-level burn-in technol., cost-effective technol. 21731
- Al vac. deposited thin film characterisation, SiO_2-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
- Al-SiN-Si syst., laser CVD, TFD charact. by DLTS 13597
- Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
- Al-nSi Schottky barrier diode, interface states, charging behavior 22354
- Al-polysilicon-SiO_2-Si struct., HF plasma proc. effects 13239
- Al-porous Si jn., elec. behaviour 22049
- $Al_xGa_{1-x}As$/Si, tandem solar cells, MOCVD, charactn. 19995
- Al_2O_3-Si, ML-ALE grown, elec. props. 22054
- Al_3Zr/Zr/Si contact systs., solid-phase reacts., AES *(Japanese)* 29962
- Au/$BaTiO_3$/p-Si metal-ferroelec.-semicond. struct., charge polarity 22052
- Au/PtSi/(100)Si diodes, lateral var. in Schottky barrier height 22352
- Au/native oxide/p-Si, electrolumin. study 31100
- Au/porous Si diodes, electrolumin. study 31100
- Au-CeO_2-Si, elec. charact. 29965
- Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
- Au-PtSi-Si diodes, lateral Schottky barrier height var./crit. length 38383
- Au-Si eutectic bonding, 3D microstruct. 12951
- C, diamond, polished CVD films, macro/micro-tribological props., trial proc. 22626
- C:B CVD film, piezoresistive effect 29845
- C:H films, ion-assisted deposition, BCA computer simul. 20924
- a-C:H films, plasma CVD, ion impact energy distribs. 402
- a-C:H films, sputtering/struct./opt./elec. props. 20917
- a-C:H,N films, ion implanted, in-depth modifs. 6537
- C:P(B) polycryst. diamond films, electron emission, vac. microelectronics 12993
- a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
- 3C-SiC CVD grown epilayer, carrier lifetime, deep levels *(Japanese)* 1066
- 3C-SiC epilayers fab., elec. props. *(Japanese)* 372
- 3C-SiC undoped CVD epilayer, carriers orig. *(Japanese)* 1067
- C_{60}-Si(111) multilayer growth, UHV-STM study 12156
- CaF_2/Si(111) MBE growth kinetics, X-ray photoelectron diffr. 28784
- CaF_2/Si(111), epitaxial growth mechanisms and struct. 5836
- CeO_2/Si(111), epitaxial oxide film, elec. props. 13229
- CeO_2/Si(111), laser ablation deposition, growth mode 38445
- Co/Si(111), Co silicide nucleation, H passiv. effects 13204
- Co/Si(SiO_2), ion-beam mixing, Monte Carlo simul. and expts. 22023

elemental semiconductors continued
Co/Ti/Si(100), thermal proc., interdiffusion, phase form. 1203
$CoSi_2$-Si interface, interfacial and surface energetics 1155
$CrSi_2$/Si(111), monotype domains, SPE on vicinal surface 5832
Cu/TiN/Si(100) heterostruct., pulsed laser deposition and charactn. 421
Cu/TiN/$TiSi_2$/n^+-Si contact syst., RTN and characts. 38700
Fe-Si multilayers, antiferromag. coupling/magnetoresist. 14214
GaAlAs/GaAs/Ge thin-emitter solar cells, photolumin. study 20002
GaAs on Si PLL freq. synthesizer IC, chip on chip technol. 29338
GaAs:Si epitaxial layer, MBE grown, LSI appl. *(Korean)* 20904
GaAs/Ge Clementine spacecraft solar cell array studies 26603
GaAs/Ge MOVPE heterostruct., lattice strain relax., X-ray diffr. obs. 38308
GaAs/Ge solar cells, Deep Space Probe Science Expt., elec. power syst. 26646
GaAs/Si heteroepitaxially thin film growth *(Japanese)* 6525
GaAs/Si heteroepitaxy, disloc./antiphase domain boundary interacts. 309
GaAs/Si, heterostruct., IV charact., CV charact. 29893
GaAs/Si/SiN_x syst. diffusion barriers, MBE 1289
p-GaAs/n-Ge struct., photoelec. props. in lin. polarized light 1097
GaAs-Si, MBE, optoelectronics appl. 5850
GaInP/Si/Al structs., Schottky barrier height modif. 13218
GaP/Si strained heterostruct., spectrosc. ellipsometry 29877
GaSb-Ge, semicond.-metal transit., crystallisation under press. 13078
Ge (001) GSMBE, growth kinetics/surface roughening 20864
Ge (001), oxid., surface roughening 13364
Ge ALE control in flash-heating CVD 20704
Ge, ALE, ideal growth rate 20708
Ge SPE on Si(111), preferential growth 28772
Ge SQW, interface sharpness, MBE growth conditions 13190
Ge crysts./superlattices, isotopically engineered 38502
p-Ge, current-generated spatially periodic pot. 38227
Ge δ-layers on Si(111), interface roughening 38522
n-Ge, extremely strained crysts., nontrivial transport phenom. 38231
p-Ge far IR laser, dyn. model 31411
Ge, film thermistor, clinical tympanic thermometers 35037
Ge films, sputter deposition on Si(111), substr. amorph. 37510
Ge heteroepitaxy on Si(001), init. stage, Auger electron diffr. 20709
Ge heteroepitaxy on Si(111), surfactant effects 317
Ge, hole-doped, hot carriers, thermoelec. power 21894
p-Ge, intervalenceband pulse FIR laser, mode fine struct. 14891
Ge islands on Si(111), three-stage lattice relax., STM 28749
Ge long sample, excess carrier exclusion, current dens. depend. 38290
Ge p-type cyclotron reson. laser emission lines 14955
a-Ge particles form., nm dimens. and their behaviour, annealing 1058
p-Ge, phase transform., IR irrad., impact ionisation breakdown 29843
Ge, phonon-difference FIR lasers, neg.-effective-mass generators 14890
p-Ge, stimulated emission, tunable lasers 14893
Ge, surfactant-mediated epitaxial growth, 2D islands 28785
Ge, surfactant-mediated growth on Si(001), strain relief by microroughness 386
Ge thin films, opt. props., thickness depend. *(Japanese)* 39303
Ge ultrathin δ-layers in Si matrices, SIMS profiling 38241
Ge vert. multi-jn. cells, thermophotovoltaic conversion 27975
Ge:Ga, hole lifetime, uniaxial stress depend. 38240
Ge:Ga photoconductor arrays, design considerations 9901
Ge:Ga, readout electronics for far-IR arrays 34579
Ge:Ga(As), 1/f hopping noise 29837
a-Ge:H, electron transport through Si:H barriers 21961
Ge:H, isotopically engineered, neutral-impurity scatt. 21887
a-Ge:H,In(Ga) films, cosputtering deposition, sputtering yield ratios 5876
a-Ge:H,S, optoelectronic props, effects of S incorporation 39556
Ge:Hg, Poole-Frenkel effect, centre ionis. deep impurity 21889
Ge:O crysts./superlattices, isotopically engineered 38502
Ge:Sb,Ga, nuc. transmutation doping, impurity elec. activity 13295
Ge:Zn, impurity photoresistor, pulsed-opt.-heterodyning mode 31080
a-Ge/Ag layered systs., metal-mediated crystn. 38404
a-Ge/Bi annealed bilayer, crystalliz. effect on conduct. 21926
Ge/GaAs, heteroepitaxy, As segreg., passiv. 37396
Ge/GaAs, heteroepitaxy, role of As 362
Ge/Si epilayers, MBE, charactn. 320
Ge/Si(100), gas source MBE, RHEED oscills. 12074
Ge/Si(111) SPE, STM obs. 20707
Ge/Si(111), SPE, interface struct., medium-energy ion scatt. 37404
Ge-GaAs consecutive LPE growth, GaAs static induction thyrister appl. *(Japanese)* 37407
Ge-GaAs(001), heterojunctions, band-offset transitivity lack 1107
Ge-Si monolayer-scale heterostruct. by rapid thermal CVD 20911
Ge-Si-Ge(100) heterostruct., low press. CVD, LEED/photoemission obs. 12153
Ge(001) multilayer epitaxial growth, surface morph. 20840
Ge(100)-(1×1), S-passiv. 30092
GeSi/Si bistable tunnel diode based SRAM cell 21311
$Ge_{0.3}Si_{0.7}$/Si heterostruct., minority/majority-carrier trapping 21950
Ge_xSi_{1-x}/Si heterostruct., IR focal arrays 42785
InP/Si, bonding using InSb, Au-based eutectic alloys 13269
InP/Si heteroepitaxial layer, substr. effect on transport props. 21970
InP/Si/InP, interlayer effects in device appl. 13106
Ir/p-Si jns., Schottky barrier heights 38380
Mo-diamond:C CVD film, solid state react. 37491
Ni filaments in porous Si matrix, mag. props. 6996
Ni/TiO_2/p-Si heterostruct., neg. capacitance effect 1161
$NiSi_2$/Si interfaces, dyn. transm. and impact ionization, hot-electron transport 22040
Pd/Si interface, interface react., silicide form., XPS obs. 29960
Pd/Si, transport props., hot electron phenom. 38407
Pt/PZT/Pt/SiO_2/p-Si MFMIS FET, ferroelec. thin films in NDRO nonvolatile memories 37780
Pt/Si(100), pulsed laser deposition, TiN buffer layer 425
Pt/Si(111) interface and props. of thin Pt layers on Si 1166
Pt/SiC/Si vert. Schottky barrier diodes 22349
Pt-Si Schottky diode CO gas sens., sensitivity 34606
PtSi/Si, chem. clean, morph. smooth interfaces, form. 37520
PtSi/p-Si IR Schottky barrier detector, fab. and anal. *(Chinese)* 42813
PtSi-Si-SiGe-Si Schottky diode IR detectors, tunable cutoff 17790
SOI wafer, counter-oxid. of superficial Si 13320
a-Se Amplified MOS Imager, high speed TV camera 42851
a-Se, PECVD, struct., opt. props. 28828
a-Se, stabilized, Langevin recomb. of drifting electrons and holes 21928
Si 10 Gbit/s bipolar LD driver IC for direct modulation 29047
Si 1D/2D nanostruct., lithographic/RIE prep., photolumin. obs. 30091

elemental semiconductors continued
Si 1N4007 diode, forward charact., temp. depend. 1339
Si, 2D surface dopant profiling, scanning Kelvin probe microscopy 30018
Si, 3D microfabrication, plasma etching 22244
Si 3D struct., FIB lithog., AFM probe charactn. 13471
Si (100) wafers, anisotropic etching, vert. sidewall fab., micromachining appl. 1256
Si (110) and (111), oxid. rates, crossover phenom. 30080
Si (110) micro-opto-mech. devices, anisotropic etching 30977
Si ALE control in flash-heating CVD 20704
Si ALE using chlorine/hydrogen exchange, fund. and films 20702
Si APD, elec. breakdown, thermo-optic investig. 1801
Si, B implants through SiO_2 films, implant. damage/anom. diffusion 13283
Si, BF_3 plasma immersion ion implant., dose-time rel. 37488
Si BJT IC chip perform. simulator, BCHIPSIM 594
Si BJTs, UHF const. output power contour predict. 38000
Si, Boltzmann transport eqn., band-struct. effects incorporation 1025
Si CMOS addressing matrices, light-valve projection displays 25928
Si, CZ grown, equiv. element Ge doping, effects on O_2 donors *(Chinese)* 38519
Si, ECR CVD, electrostatic chuck, improved temp. uniformity 28847
Si, ECR Cl_2 plasma etching, mass spectra, OES and AFM 22169
Si, EFG growth in CO ambient, gettering 20647
n(p)-Si, Einstein rel., high temps. 13026
Si, Er implant., solid phase epitaxial recrystn. 30015
Si FTIR temp. depend. emissivity, pyrometer develop. 25987
Si GTO thyristors, var. of carrier lifetime with temp., device operation 30279
Si,.H passiv. caused by soft sputter etch cleaning in Ar plasma 38585
Si, H-assisted ALE growth 20698
Si, HI tracks, nonequilibrium carrier recomb. 29832
Si HV solar cells, GaAs cell, hybrid syst. component 44410
Si HV solar cells, bilateral sensitivity 44412
Si IC, failure anal. methods, develop. and mfg. appls. 22519
Si IC technol., assess. of future dominance 38955
Si IC technols. for RF/microwave appls. 847
Si JFET, press.-magneto-elec. effect 25815
Si, KOH etched, etching defects, packaging technol. implement. 13369
Si, LPE growth, oxide form. prevention 28733
Si LPE on SiO_2/Si, vert. stresses, X-ray double cryst. topography 37457
Si LSI single-chip integrat. of LED, waveguide and micromirrors 39615
Si MBE on GaAs(001), submonolayer coverages 28746
Si MBE on Si(111), RHEED/Monte Carlo anal. 20736
Si, MCM-C, four-ASIC, KISS principle based 21764
Si, MCM-L product develop. proc. for low-cost MCMs 21749
Si MEMS piezoelec. microactuators, nanoindentation charactn. 13914
Si MMIC broadband amps., Siemens devices for mobile radio 852
Si MOS devices, ionizing radiation response 20494
Si MOS devices, transient impact ionization in bulk semicond. 1173
Si MOS diodes, interface-state passiv., surface pot. depend. 1182
Si, MOS gate fab., ECR ion stream etching 13377
Si MOS struct., lateral n-i-p-i superlattices 29985
Si MOS structs., oxide trap relax. spectrosc., difference method 38426
Si MOS transistors, surface roughness mobility model 13707
Si MOSFET, 2DEG, cyclotron phonon emission, quantum oscill. 38887
Si MOSFET, diffusive transport, resist. flucts. 1430
Si MOSFET, dopant atom stat. inhomog. distrib. 38886
Si MOSFET, quasi-1D and Coulomb blockade devices 1401
Si MOSFET, submicron, carrier transport, electron-electron scatt. 22458
Si MOSFET with internal matching cct., 1.5 GHz, 35 W 29562
Si MOSFETs, LDD struct., low temp. operation 13762
Si MOSFETs, drain leakage current calc., tunneling formulation 38315
Si MOSFETs, simul. by cellular automaton method 22431
Si MOSFETs, ultra-short, heat flux effects on accuracy of hydrodynamic models 1418
Si OEIC with built-in PIN-photodiode, fab., perform. 14648
Si PBT struct., proc. optimisation and charact. 1370
Si, PECVD, surface reacts., FT-IR-ATR monitoring 37502
a-Si PV cells in large scale utilization, energy pay-back time *(Japanese)* 27629
Si PV cells, solar radiation resource assess. 42792
a-Si PV power systs., spectral output eval. method 27623
a-Si PV technol. transfer, OASIS project, Europe 11292
Si RF MMICs, LNAs and downconvertor for 1 V pager appls. 851
Si RT oxid. catalyzed by Cu_3Si 38578
Si, RTO in N_2O, MOS capacitor testing 22220
Si RTP, optimum gas flow engng. 22230
Si RTP temp. meas., ESPI/subfeature speckle interferometry 25999
Si RTP temp. uniformity, crit. wafer/syst. param. anal. 22228
Si SEG, indust. integrated cluster tool 20847
Si, SEM electron probe diam. determ. 3987
Si, SIPOS films, cond. mechanism 21885
Si SOI struct. using oxidized porous material, CMOS LSI logic appls. 39012
a-Si, SPE on Si, STM obs. 20706
Si, SR MBE growth, perfect selectivity 28727
Si SR excited ALE/CVD, Si_2H_6 gas *(Japanese)* 12044
Si, SR induced photoepitaxy *(Japanese)* 12043
Si, SR-excited ALE growth, TOFMS 37447
Si, SR-excited ALE, temp. effects 20710
Si, SR-stimulated etching *(Japanese)* 13333
a-Si TFT, 2D current transient, trap-state filling 6748
Si TFT, H ion shower doping effect 13711
a-Si TFT devices, anal., HFIELDS general-purpose simulator appl. 1416
a-Si TFT/LCD, state-of-the-art 18011
Si TFTs fab., min. glass substr. deform., RTA control 30007
Si ULSI device fab., wafer specs./design rules trends 38982
Si, UV excited Cl-radical etching, SEM obs. 1247
Si VLSI ESD sensitivity, thermal/dielec. breakdown 30462
Si absorpt. edge from solar cell spectral response 20007
Si accelerometers for inertial navig. 10318
a-Si act. gate for polysilicon TFT 13713
Si, act. inductors for microwave freqs. 21597
a-Si alloy tandem solar cell suboptimal design 20010
Si amorph. film, grain growth/defects obs. *(Korean)* 21930
Si amorph. foil, thermal diffusivity meas. 25994
Si amorph. photodiode array, noncontact vel. meter 3990
Si, amorph./cryst., exoelectron emission point defect anal. 21884
Si anemometer, chest diseases diagnosis portable flowmeter 26268
Si, anisotropic band struct., isotropic band models 22325
Si anisotropic etching, hillock defects 30106
Si, anisotropic sub-half-micron RIE, fluorine containing gases 38549

elemental semiconductors continued
a-Si antifuse cct. elements, ASICs, resist strip proc. damage 21170
a-Si based PV solar cells 5212
Si based PV systs., life cycle anal. 43949
Si bilateral solar cells, minority carrier diffusion length 36595
Si bipolar 156 Mb/s clock/data recovery PLL cct., S/H tech. 6052
Si bipolar 4:1-multiplexer IC, 12 Gb/s, SDH syst. appl. 25177
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046
Si bipolar devices, impact ionisation 22384
Si bipolar transistors, optimized base design for low temp. operation *(Chinese)* 22378
Si bipolar wideband amp., 15 Gbit/s, opt. commun. appl. 21122
Si, bolometers readout, FIR/mm-wave, astrophys. appls. 34504
Si bulk micromachining, electronically controlled etch-mask, micromechanical structs. fab. 6652
n-Si, bulk/surface transport, injection dose effect 1029
Si, buried silicide layers, ion beam synthesis 30025
Si, capacitive electro-chem. etch-stop tech. 30103
Si, carrier transport phase ident., 10 fs resoln. 21893
Si, carrier-diffusion, Fourier-transient-grating method 21886
Si, charge carrier transport, electron-hole scatt. 13027
Si chip cooling, dielec. binary mixtures 37109
Si chip digital end-user mobile commun. syst. 42193
Si, coherent refr. microlens arrays, dry etching 7440
Si column-based field emitter arrays, enhanced perform. 29742
Si component develop., telecom. equipt. protection 19844
Si condenser microphone, bond and etch-back technol. 10580
Si, conical field emitters, fab., elec. characts. 38211
Si contacts on $Si_{1-x}Ge_x$/Si quantum well, gas source MBE, electrolumin. diode appl. 28722
Si cryogenic accumulation mode MOST, LF noise meas. 38904
Si cryogenic detectors, ion-implanted charge collection contacts 38487
Si cryst. dens. meas., Avogadro const. determ. 17647
Si cryst. thin film solar cells, develop. prospects 27950
Si crysts., anisotropic KOH soln. etching 13395
Si deep sub-μm MOSFETs under cryogenic conditions, quantum interf. flucts. 1389
Si, deep trench etching, selectivity and load 38551
Si, deep trenches, RIE, Black Silicon Method 38553
Si δ-doping superlattices, plateau behavior and metal-insulator transit. 13196
Si depth profiling, marker layers, ion beam sputtering anal., depth resoln. 21876
a-Si, depth-depend. disordering 22143
Si, detector grade, bulk defects, radiation damage 43105
Si detectors, deep level compensated, X-ray appl. 43160
Si, device drift-diffusion simul., reliab. model 1330
Si devices and materials,, glow discharge opt. emission spectrosc. 29836
Si devices, proc./manufacture, 0.25 μm technol., trends 6814
Si devices, transit. metal impurities, book, phys. props. 20197
Si diaphragm press. sens., differential press. transmitter design 3784
Si diaphragm thickness, wet etching, opt. monitoring 30124
Si diode, MeV particle irrad. 13601
Si diode, discrete indicator for N_2 level 25914
Si diode temp. sens. for proc. systs. 34485
Si diodes, heavily doped, anal. of non-exponential TSCs 38808
Si diodes, porous, immersed conducting polymer contacts, electrolumin. 39579
Si diodes, stain-etched porous films, vis. electroluminesc. 7477
Si, direct laser etching, 3D nanostructures 30098
Si disloc.-free crysts., electrophysical/microdefects correl. 21870
Si, dispersed semicond. particles, doping effects *(Korean)* 13263
Si, dopant diffusion modeling, automatic grid refinement 22115
Si, dopant profile, scanning surface harmonic microscopy 1223
Si, doped crysts. and devices, hydrostatic press. effects 21882
Si double-barrier struct., fab. 38343
Si double-sided polished parallel wafers for direct bonding 13347
Si drift detector with on-chip electronics, design 26155
Si, dry etch-induced damage, surface anal. 13390
Si, dry etching, VUV light and XeF_2/buffer gas 22184
Si, dual-use microelectronics mfg. spec., single/multichip packaging 20453
Si, dust particles, cleaning, laser-generated nonlin. SAW 1239
Si, elastic props. of LPCVD SiN_x/LPCVD polysilicon 39033
Si, electrocatalysis, opt./elec. props., solar cell appls. *(German)* 38243
Si, electron impact ionization coefficient, temp. dependence 29835
Si electrostatic servo-type three-axis accelerometer 17744
Si electrostatic wobble motor, miniature gear reduction unit 36205
Si enhanced optoelectronic packaging for LD 31121
Si, epilayers on Si, deposited after DC H_2 cleaning, X-ray curve charactn. 38618
Si epitaxial film, carrier profile, ion bombard. effect 37425
Si, epitaxial growth, 300°C by confined PECVD 5835
Si epitaxial growth, gas-phase/surface kinetics model 12100
Si epitaxial layers, ECR plasma CVD, ellipsometry obs. 28721
Si epitaxial multilayers, auto-doping phenom. *(Chinese)* 22141
Si epitaxial p^+-n struct., tunneling-oxide-metal contact, photoelec. effect 29884
Si epitaxial solar cells, internal quantum efficiency 36591
Si, epitaxial surface for GaAs heteroepitaxy 307
Si, etching mechanism and band model in aq. KOH 13388
Si, etching study in compact ECR plasma syst. *(Korean)* 13332
Si, excimer laser-assisted etching in chlorine, adsorpt./desorpt. 30096
Si, excimer-laser-induced etching 30097
n-Si, extremely strained crysts., nontrivial transport phenom. 38231
Si fast APD detectors for SSC 43106
Si field emitter arrays with LV operation, fab. 21802
Si field emitters, electron beam lithog./plasma etching 29755
Si, film, on SiO_2, CVD growth, defects, TEM obs. 21878
Si films, Ge-incorp., lateral SPE 20861
Si films, anom. PV effect/neg. photocond. 39554
a-Si films, crystn., SiO_2 surface treatment effects 13393
Si films, ion beam epitaxy, UHV, sputtering-type metal ion source 37405
Si films, microcryst./amorph., RF plasma spray/ion beam deposition 5856
Si flash EPROM device reliab., erase source bias effects 12500
Si, float-zone grown/NTD, positron annihilation obs. 38470
Si floating zone 4-in. cryst., RF field/heat transfer/thermal stress num. anal. 28711
Si, flow pattern defects, nonagitated Secco etching 1023
Si flow sens., air flow detect. *(Korean)* 17722
Si, fluidic self-assembly of GaAs-Si microstruct. 30002

elemental semiconductors continued
Si, free standing single-cryst. microstruct. 30529
Si, glow-discharge polycryst. films, grain boundary defects 20936
Si, grain size and deposition rate, VHF glow discharge 423
Si, gray-tone lithog., arbitrarily shaped surfaces fab. 30172
Si grooved-gate MOSFETs with W gate, short-channel-effect-suppressed devices 13674
Si growth, highly pure crysts. 12035
Si growth kinetics on Ge(100), gas-source MBE/low press. CVD 28730
Si, hard X-ray lenses, $SF_6/C_2Cl_3F_3$ plasma RIE 38552
Si, heavily doped, majority/minority mobilities, device simul. 21873
Si hemispherical-grained storage electrodes for high-dens. DRAMs 12544
Si heterostruct. switch, elec. and opt. speed 6718
Si high efficiency solar cells, 2D num. simul. 44418
Si high efficiency solar cells, plasma CVD 5216
Si high-efficiency solar cells, RTP 5226
n-Si, high-power far-IR radiation, third-harmonic-generation efficiency 31599
Si homoepitaxy on Si(111), surface defect mediated 12087
Si hybrid integrated fibre optic transmitter 17280
Si, hybrid motherboard, low loss opt. interfaces 31117
Si, hydrogen plasma etching, substr. temp. and bias pot. 22196
Si, impact ionization, ensemble Monte Carlo simul. 21879
Si, impact-ionization model consistent, band struct. 29849
Si, implanted impurity diffusion, simul. 22120
Si, injection depend. of cond. mobility, meas. method 34683
Si integrated beam strain gauges 9868
Si interface control layer effect in compound semicond. interfaces 13105
Si ion implant., VLSI mfg. for commercial appl. 30035
Si, ion implant. proc. problems, surface photovoltage detect. 30017
Si, ion implanted, defect prod., structural transforms. 30060
Si, ion-assisted etching, F, low temp. 6651
Si, ion-induced amorphization, model 1231
Si, irrad. effects, reverse annealing, simplistic model 22093
Si isolated nanometer-size dot arrays, prep. studies 13148
Si, laser-assisted etching-like damage 30093
Si lattice param. meas., survey 17638
Si layer-by-layer growth, photoelectron intens. oscills. 20699
Si layers, nanosecond laser radiation, surface morph., struct. modif. 28761
Si, low energy ion beam deposition procs., mol. dyn. methods 20923
Si, low temp. MBE, review 37455
Si low temp. epitaxy in single-wafer RTP reactor, microwave heating 384
Si, low temp. etching, high dens. SF_6/O_2 plasma 38550
Si low temp. sacrificial wafer bonding for planarization, deep etching 30502
Si, low temp. wafer bonding, kinetics study 1188
Si, low-temp. growth, ion-assisted deposition on Si(100) 28783
Si, low-temp. polycryst. films, PECVD prep., gas flow rate effect on props. 5829
Si, macroporous form., self-organised props. 22213
Si mag. field detector, CMOS oscillator config. 34449
Si membrane resonators realized with bipolar IC technol., US transducer appls. 35369
Si membranes control by refl. interferometry *(German)* 18102
Si, mesoporous, photocarrier grating tech. 22999
Si, metal contamination defects, Cr-free etch anal. 1282
Si, metal-semicond. interfaces, hot electron transport probed by BEEM 13206
Si micro-mech., solid state sens. 34460
Si, micro-torque sens., differential force meas. based 34478
Si micromachined 2D galvano opt. scanner 17719
Si micromachined air-coupled capacitance US transducers, design and charactn. 18930
Si micromachined module platform for multiple opt. fibre I/O 23066
Si micromachined particle manipulator/separator 31748
Si micromachining, directional deep dry etching 30530
Si micromachining, resonator fab. 30508
Si micromachining/microfabrication techs. for integrated sens. and actuator systs. 13911
Si micromechanical resonator, struct. and perform. 13912
Si, micromirror arrays, $KOH:H_2O$ micromachining, lens templates 7442
Si microphone fab. for 3D acoustic holography 10575
Si microphone for turbulent gas flows meas. 10068
Si micropump, design/proc. techs., fabr. *(Korean)* 30526
Si microtechnol., develops. and proc. tech. depend. 38950
Si microvolume CID sens. arrays, Monte Carlo/analytic treatments of displacement damage 17961
Si microwave varactor diodes, irrad., capacit. transients meas. 12770
Si miniature capacitive absol. press. sens. 9858
Si mismatched microwave power transistors 21533
a-Si, mobility-lifetime products, dispersive transport effects 13029
Si, molten, surface tension var. meas. by ring method 28709
Si monocrystalline solar cells, portable power supply appls. 19980
Si monolithic structs., telephone exchange protection 19843
Si motherboard technol. for active array opt. interconnection and packaging 23985
Si, moving and flexible microstruct. 6874
Si multicrystalline solar cells, gettering, passiv. 27955
Si multicrystalline solar cells improvements, key technol. 27953
Si multiplexers for lin. IR photodiode arrays 25875
Si n^+/p diodes, charge collection and multiple-bit upset, 3D simul., CMOS SRAMs 12516
Si, n^+-p surface avalanche diodes, doping instabil. 13609
Si nanocrystalline films, laser-induced CVD 28839
Si nanoparticles, photolum., surface passiv. role 38627
Si nanostruct. single-electron transistor, NTT prototype device 38944
Si nanostructures by anodic oxid., ECR etching 38537
Si, native oxide, in-situ removal using HF 38626
Si, near-surface layer defects, RIE in SF_6-CCl_4-O_2 plasma 13337
Si, neutron-irrad. single cryst., elec. params. *(Chinese)* 1016
Si, nonlin. transport, model hyperfrequency differential-mobility 21880
Si on insulator, high dose O implant./microstruct./form. mechanism 38494
Si, optoelectronic charactn. by photothermal deflection 38229
Si, oxid., VLSI gate dielec. appls. 30086
Si oxid. proc., fractal aspects 30125
Si, oxide precip. morph. change, two-step annealing 6607
Si, p-channel MOSFET, random telegraph sigs., capture kinetics 22457
Si p-n jn., secondary breakdown, pinch effect 13102
Si p-n jn. solar cells, superposition principle 20000
Si p-n jns., transient component of leakage current 1092
Si parallel multijunction solar cell 19977

elemental semiconductors continued
Si, patterned surfaces, Schottky barriers, photoablation 22185
Si, phonon-difference FIR lasers, neg.-effective-mass generators 14890
Si photocond. semicond. switches, pulsed power appls. 36386
Si photoconductive pulsed power switches, dark current characts. 36438
Si photoconductive pulsed power switches, vac. surface flashover tests 36433
Si photodetector, transm. mode near-field opt. microscope 25845
Si photodetectors, dielec. thin films thickness meas. 18079
Si photodiode, X/γ-ray detector 43163
p-Si, photoelectrochemical diffusion length, PV appls. 29834
Si photoelectrode, efficient reductive/oxidative current flow 38453
Si piezoelec. sens. for robots, analogue proc. 3787
Si piezoresistive circ. diaphragm sens., low-press. meas. 34491
Si piezoresistive press. sens., electro-elastic simul. 42778
Si, piezoresistive press. sens., high-press. meas. 34490
Si, piezoresistive strain gauges, integrated instrumentation amp. 17732
Si piezoresistive stress sens., thermally induced errors 34472
Si, piezoresistor fabricated by high energy ion implant. 25823
Si, pin diodes, emitter props., heat generation effects 1345
Si, plasma CVD, atmos. press. ionization mass spectrometer syst. 20976
Si, plasma etching edge-type exposures effects 1258
Si plasma-treated surfaces, luminesc. props. 23006
Si pn diodes, temp. depend. elec. detected mag. reson. 38793
Si point contacts, nanofabrication, MBE growth, transport meas. 13128
Si point contacts, nanofabrication, gas-source MBE 29895
Si point-contact, force microscopy-supported resist. meas. 42887
Si, polycryst., ECR plasma etching syst. 6636
Si, polycryst., SI, deep-levels, transient current spectra 38226
Si polycryst. films, (100) oriented, UHV-CVD growth 406
Si, polycryst. films, ECR CVD, hydrogen dilution 37503
Si, polycryst. films, furnace/laser annealing 28855
Si polycryst. films, hot wire CVD 5883
Si, polycryst., grain-boundary defects, plasma treatment effects 13321
Si, polycryst., growth from $SiF_4/SiH_4/H_2$ plasma 20937
Si, polycryst., pulse-time modulated ECR plasma etching 13403
Si polycryst. ribbon solar cells 36592
Si polycryst. solar cells, hydrogen passivated 44407
Si polycryst. solar cells, ionising radiation protection 44411
Si, polycryst. thin-film solar cells, solid phase crystn. 5214
Si polysrystalline PV array, optimal operation ident., ANN *(Japanese)* 5231
Si, porous, AC cond., hopping transport 21895
Si, porous, LED appl., blue, beyond 1.5 μm 14625
Si, porous, anodic oxid., high efficiency electrolumin. 38527
Si, porous, anodised, form. under uniform current dens., props. 1024
Si, porous, bond-and-etch-back SOI, selective etching 38591
Si, porous, conf., Strasbourg, France (1994) 20222
Si, porous, diode struct., elec./PV props. 38325
Si, porous, dyn. effective cond. 29846
Si, porous etched layer, transport, humidity infl. 21898
n-Si porous field emitter arrays, enhanced electron emission 29748
Si porous film, two-step chem. immersion form. 6644
Si porous films, chem. etching, porosity/thickness meas. 38603
Si porous films, laser ablation fab. 20964
Si,porous, laser induced form. 29840
Si porous lateral injection device struct. for LED 23054
Si, porous, layered struct., opt. props. 1022
Si porous layers, I-V charact. 21896
Si porous layers, electron powder ribbon polycryst. plates 20662
Si, porous layers, microstruct., spectrosc. ellipsometry obs. 22214
Si porous layers, passiv., FT IR monitoring 22251
Si, porous layers, thickness control, microelectronic appls. 21874
Si porous membranes, gas sens. appls. 25900
Si, porous, micromachining appls. 22627
Si, porous, nanocrystal size, preanodization ion implant. effects 1225
Si porous nanostructures, electronic excitation, relax. mechanisms 14588
Si, porous, novel p-n jn. device electrolum. 14615
Si, porous, opt. bistability, photoinduced absorpt. 2114
Si, porous, passiv. by RTO 22217
Si, porous, photocarrier electronic states, photomodulated IR spectrosc. 6653
Si, porous, photocond. 1790
Si, porous, photoconduction effects and luminesc. props. 39552
Si, porous, photolum., voltage-tunable electrolum. 14589
Si, porous, photolumin. excitation mechanism, sensitisers 22250
Si, porous, plasma-oxidised, luminesc. charactn. 13028
Si, porous, post-treatment effects on elec. cond. 21888
Si, porous, quantum dot/wire struct., nonlin. optics 7738
Si porous, quantum dots, recomb. dyn. 22022
Si, porous, radical-beam-induced surface react. 22170
Si, porous, resist., surface effect 21897
Si, porous, semicond.-metal struct., current flow mechanism 13205
Si, porous, single gas sens., species ident. *(Japanese)* 42866
Si, porous, stain etch thin films, surface struct., sonication effects 6638
Si, porous, struct., EXAFS/photolumin. study 22248
Si, porous struct. from lithographically patterned substrs., photolumin. obs. 20983
Si porous struct., investig. by Raman spectrosc./SHG techs. 14587
Si porous struct., photocurrent collection, photodetector appl. 22051
Si, porous superlattices, etching 22246
Si porous superlattices, type of heterostruct. 22015
Si, porous surface, backbond oxid. by O radical irrad. 30075
Si, porous, surface struct., EPR/XPS study 22247
Si, porous, vis. photolum., homog. broadened spectra 13030
Si porous wells for power devices 22508
Si, porous/HF treated, photolumin., oxid. effects 22249
Si, porous/electrochem. etched, enhanced Raman scatt. 22162
Si, porous/light emitting, opt. response, photoacoustic spectrosc. 1238
Si post backgrind wafer shape, thin film stresses 38605
Si power IC transient voltage suppressors 29019
Si power MOSFET, UHF-band RF power amp. appl. 837
Si power diodes, electron/He ion irrad. for local lifetime tailoring 30197
N-Si, proton irrad., defects 13032
Si pulsed power semicond. switches, p^+-n^--n^+/n^+-n^--n^+ struct. 36436
Si quantum dot, single electrons, thermally enhanced co-tunneling 38355
Si quantum wire surrounded by SiO_2, fab./transport props. 6669
Si quantum wires, SIMOX fab. 13147
Si, radiation-induced defect introduction rates 13116
Si radio front-ends, PCN 25328
Si range finder, realtime range finding VLSI sens. 34568
Si, rapid isothermal diffusion, photoeffects, semicond. devices 1084
Si, rapid thermal CVD, O/C low thermal budget removal 28735

elemental semiconductors continued
Si rapid thermal CVD on $Si_{0.68}Ge_{0.32}$ substrs., AFM 12139
Si, recomb. lifetime meas. 29829
a-Si recrystn. by RTA/laser annealing/furnace annealing 22098
Si rect. diaphragm press. sens. 17753
Si rect. plate, quasi-TW, US motors, single phase drive 19674
Si retina analog image proc. 776
Si, reverse long-range effect 13310
Si scaled submicron ultra-low power CMOS technol. 39008
Si, selective epitaxy on SiO_2, UHV rapid thermal CVD 325
Si, self-limited at.-layer etching, Cl adsorpt., low-energy Ar^+ irrad. 22178
Si, self-supporting porous layer, photocond. 23000
Si, sens. and IC's for instrumentation 9899
Si shallow-jn. form., RTA doped SOG films 21964
Si, shaped multicrystalline crysts., graphite mold, SiON coating 295
Si, sigma delta modulators design from specs. 699
Si single cryst. solar cell, series resist. meas. methods 36601
Si, single crysts., metal impurities, opt. detect. techs. 38242
a-Si single-barrier device, neg. resist. charact. 6811
Si single-cryst. spheres, fab./sphericity meas. 18100
Si, single-cryst. surfaces, diamond turned, cross-sect. TEM 1274
Si single-electron transistor, room temp. operation, fab. 13827
Si single-electron transistor, transport props. 22500
Si small geom. MOSFETs, tunneling gate oxide approach, ultra-high current drive 22451
Si, smart substr. MCM, feasibility study 6457
p-Si, soft sputter etch cleaning, H passiv. 38619
Si solar array, X-ray Timing Explorer Power syst. 26650
Si solar cell array based transportable power supply 36598
Si solar cell degrad., e-beam direction influence 36602
Si solar cell, efficiency limits, light trapping technol. *(Chinese)* 44417
Si solar cell perform., trap location/trap-assisted Auger recomb. effect 44395
Si solar cells, 23% efficient, limiting loss mechanisms 44401
Si solar cells, OCV, bandgap narrowing 19986
Si solar cells, PV power generation prospects 36060
Si solar cells, SiO_2 AR coating tests 19979
Si solar cells, charged defect conc. profile, C-V meas. 27947
Si solar cells, efficiency improvement, conc. radiation 11286
Si solar cells fab., low cost/high efficiency *(Korean)* 27959
Si solar cells, high efficiency, pilot prod. 44402
a-Si solar cells, long-term degrad. tests and charact. 19999
Si solar cells, mech. textures, light coupling, ray tracing 27939
Si solar cells, modulated free-carrier absorpt., high-resoln. lifetime mapping 44400
Si solar cells, num. modelling of non-ideal I-V characts. 5225
Si, solar cells, optoelectronic charactn. by photothermal deflection 44398
Si solar cells, radiation stimulated diffusion, impurities distrib. 11290
a-Si solar cells, recent advances 27951
Si solar cells, short-cct. currents defn. method 19978
Si solar cells, thickness/resist. optimisation 44409
Si solar cells, waste material-mfg., testing 19981
Si solid-state microdosimeter for radiation monitoring in spacecraft/avionics 18636
Si spiking oscillator networks, on-focal-plane image preprocessing 29413
Si, sub-ALE, Si_2H_6 20700
Si substr. MCM technol., sens. sig. proc./control 21769
Si substr. MOVPE grown, novel pseudomorphic struct. 20824
Si substr., micromachining, focused ion beams 5610
Si substrs., 2D pseudomorphic $Si_{1-x}Ge_x$ layer growth 305
Si substrs., nonplanar, low temp. homoepitaxial growth 323
Si substrs., sens. 25825
Si, subsurface diffused layers, resist. curves 13037
Si surface, HF treatment, F adsorpt., FT IR refl. absorpt. spectra 29838
Si surface, RIE, Nd:YAG laser image transfer 22172
Si, surface SHG, lin. polarisability effects 2131
Si, surface cleaning for VPE by photoexcited F_2 gas 38625
Si, surface cleaning in buffered HF, microroughness prevention 1251
Si surface deform., time-resolved X-ray diffr. meas. 38476
Si surface, effects of controlled texturization on SiO_2/Si barrier height 6649
Si surface, hydrofluoric acid cleaning effects prior, wafer bonding 38561
Si surface layer elastic deform., photoelectron emission meas. 21005
Si, surface mech./pulsed photon proc., DLTS 13351
Si, surface microroughness, oxide breakdown, SC1 proc. effects 38546
Si surface oxide removal by RTP, SiH_2Cl_2 and H_2 22223
Si surface, patterned Au deposition, STM tip-induced anodization 28804
Si surface, quantum-well p-n jn., electron-beam diagnostics 13161
n-Si, surface recomb. vel., Schockley-Read Hall model 21892
Si surface roughening, gate oxide integrity, H_2O_2 decomp. 38589
Si, surface temp./pot. meas., photoreflectance spectrosc. 42972
Si surface trace impurity anal., X-ray fluoresc. spectrosc. 42977
Si surfaces, chem. vap. cleaning 38624
Si surfaces, monolayer nitridation, dry chem. proc. 38525
Si, surfaces, patterned, selectively metallized, SIMS anal. 6647
Si surfaces, self-limiting adsorpt. of thermally cracked $SiCl_2H_2$ 20703
Si technol., future trends 13272
Si, thermal effects in integrable power semicond. devices 21121
Si, thermal nitridation mechanisms 38557
Si, thermal oxid., N_2O ambient, num. simul. 38621
Si thermal oxid., advanced field isolation model, calibrated viscoelastic stress anal. 22560
Si, thermal oxid. mech., form. and diffusion of volatile SiO mols. 6642
Si, thermal oxid., ultrathin oxide film growth mechanism 38609
Si, thermal response of CMOS-micromachined thermistor sens. 9872
Si, thick wafers, bulk carrier lifetime, contactless meas. 13036
a-Si thin film optoelectronic cellular neural networks 22980
Si thin film solar cells, zone melting recryst. 44404
Si thin films 18106
a-Si thin films, glass substrs., excimer crystallisation simul. 13075
Si, thin layers, growth on Nb surface 37500
Si thin polycryst. films, BF_2^+ implant., shallow p^+n jn. form., Co silicidation 30032
Si tip avalanche cathode for vac. microelectronic devices 12991
Si, trench etch rates/aspect ratio/feature width/ substr. temp. 30067
Si ultra-fine wire fabricated by SIMOX technol., quantized conductance 38354
Si, vac.-encapsulated thermistor bolometer for clinical appl. 35037
Si, vacancy-mediated dopant diffusion at high doping levels, models 1026
Si varactor struct., DLTS study of deep traps 38052
Si vert. multi-jn. cells, thermophotovoltaic conversion 27975
Si, vibr. microactuators, energy dissipation mechanisms 30514

elemental semiconductors continued
- Si visibly photoluminescent microstruct., ion implant./wet etching prep. 1271
- Si wafer, P doping, P_xO_y conc. profile model 1215
- Si, wafer bonding, IR absorpt. spectra 1189
- Si wafer cleaning, surface charge effects, surfactant solns. 30068
- Si wafer contacts, bonding, $CoSi_2$ 1191
- Si wafer, defect level, classical and holographic interferometry 31665
- Si wafer less crit. cleaning procedure, dil. HF dip/isopropyl alcohol boiling 30081
- Si wafer mapping, lifetime/resist./oxygen precip. meas. 25945
- Si wafer, microchannel heat sink, aircraft avionics cooling 26542
- Si wafer, microflight mechanism, microscale machine 30510
- Si wafer oblique angle inspection, contaminant/cryst. particle differentiation 11825
- Si wafer stress test chip, piezoresistive sens. rosettes 18111
- Si wafer substr. clean-up, chem. contamination, Auger anal. and ellipsometric studies 30119
- Si wafer surface cleaning/epitaxial growth in UHV ECR CVD reactor *(Korean)* 13331
- Si, wafer surface, metal contamination, deposition mech. from HF soln. 38623
- Si wafer surface, metal-induced pitting, wet chem. proc. 1283
- Si wafer surface minority carrier lifetime meas. tech. 30388
- Si wafer surface, ultrafine Au metallic particles effect 30082
- Si wafer temp. var. during RTA, 3D asymmetrical model 22103
- Si wafers, 4X reticles, eval. for 250 nm DUV lithog. 38768
- Si wafers, SC-1 cleaning, total refl. X-ray fluoresc. anal. 38559
- Si wafers, direct bonding, interfacial props. 30001
- Si wafers, doped, modulated photothermal reflectance charactn. 13031
- Si wafers, heat treated, microdefect depth distrib. due to nonequilib. self-interstitials 38474
- Si wafers, light scatt. tomography detecting defect, annealing 38468
- Si wafers, micromechanical components, V-notches, failure assess. 30528
- Si wafers, multilevel diffractive lenses, CAD methods 7373
- Si wafers, p-n jns., leakage current, diffusion component 38297
- Si wafers, particle contamination minimization, wet proc. 30083
- Si wafers, photocurrent imaging, electrolyte contacts 31069
- Si wafers, thermal proc., quartzglass materials influence 22208
- Si wet chem. etching mechanism 30105
- Si, wet oxid. film growth, flow effects 28833
- p-Si wires, focused ion beam implant., carrier transport 21871
- Si_{60} nanoclusters, luminesc., chem. synthesis 31074
- Si:Al solar cells, minority carrier diffusion length, Al gettering 44416
- Si:Al,P, diffusion profiles under RTP conditions 21875
- Si:Ar(100), ion implant. transient reflecting grating study 1205
- Si:As MOSFET *(Japanese)* 13681
- Si:As RTA/furnace annealing, heating rate effects on defect distrib. 22100
- Si:As, deeply-channeled implanted profiles, Monte Carlo simul. 1220
- Si:As, enhanced diffusion caused by elec. deactivation 22158
- Si:As films, low press. CVD 5861
- a-Si:As, ion implant., generalised transport eqn. 13292
- Si:As, multiplexed readouts for FPA 34560
- Si:As scanning hybrid IR detector array, radiometric charactn. 17940
- Si:As single-cryst., deeply-channeled implanted profiles simul. 30023
- $Si:As^+$, 25 keV implant., large tilt angle, damage anal. *(Chinese)* 13035
- Si:Au, Au diffusion, carrier conc. profile, preannealing effects 29831
- Si:Au, Ne implant. gettering 22119
- Si:Au, mega-electron volt implant., backscatt. and electron microscopy study 6626
- Si:B (100) single cryst., computationally-efficient 2-D model 30021
- Si:B CZ cryst., O-incorporation, precip. 20655
- Si:B, CZ grown, O/C effects on thermal donor form. 29827
- Si:B, MBE growth, elec. props., reciprocal lattice mapping 304
- Si:B MOS ULSI, MOSFET B diffusion model incorporating disloc. loop growth 22610
- Si:B, MeV implant., masking effects 30040
- Si:B, ULSI high conc. diffusion modelling, dyn. clustering, init. conditions 38520
- Si:B, anodized/cryst. sample, elec. props. alteration by water vap. 38239
- Si:B, channelling implants., electronic stopping/damage accumulation model 38515
- Si:B, δ-doping, APCVD 22112
- Si:B, δ-doping, ultra-shallow/abrupt profiles 38499
- Si:B depth profile, proton scatt. anal., alpha spectra simul. 21877
- Si:B, diffusion during post-implant annealing, damaged/amorphizing conditions, model 22107
- Si:B doped by plasma source ion implant., struct. anal. 30056
- Si:B doping, proximity rapid thermal diffusion from spin-on-dopants 22144
- Si:B, enhanced diffusion due to ion implant. in thin-base npn BJTs, model 38997
- Si:B epitaxial layer, heavily doped, strain relax., RTA effects 38471
- Si:B, epitaxy, B incorporation 12101
- Si:B, form./control of B buried layers, excimer laser 13291
- Si:B, implant. and transient B diffusion, interstitials 1228
- Si:B, implanted impurities, misfit elastic stress, simul. 13307
- Si:B, ion implant., defect prod. 6622
- Si:B, ion implant., spreading resist. profilometry/SIMS obs. 22117
- Si:B, ion implanted, defects, seq. annealing 13306
- Si:B lightly doped epitaxial layers, direct growth 357
- Si:B, low energy implant., RTA/furnace annealing, XRD optimisation 22102
- Si:B micromachined cantilevers, ageing, doping effects 22624
- Si:B p-n-p lateral transistors, minority carrier diffusion length, band gap 13653
- Si:B porous film, photolum., Auger spectr., annealing, solvent effects 38238
- Si:B reson. sens., fine freq. tuning 30517
- Si:B retrograde well barrier effect against ion-induced-charge carriers 30220
- Si:B, simultaneous B^+ implant./photoexcitation 22109
- Si:B solar cell, low temp. PECVD/laser annealing fab. 19996
- Si:B, weakly compensated, impurity band evol. 1028
- p-Si:B/Er Schottky-barrier diodes, H effects 38807
- $Si:B^+,N^+$, dual implant. depth distrib., radiation defects 22136
- Si:B(001)2×1, gas-source MBE, B-incorporation, elec. props. 38506
- Si:B(Al)(Ga)(As)(Sb) polycryst. films, sublimation method growth and doping 20972
- $Si:B(BF_2)$ p^+ poly-Si gate surface-channel PMOSFETs, boron penetration, hot carriers 30356
- Si:B(P), doping by solid-phase diffusion 22139
- Si:B(P), heavily doped, HF-treated surface behaviour 13353

elemental semiconductors continued
- Si:B(P), ion-implanted, sheet resist. and noise props. 38232
- Si:B,Al, doping/epitaxial regrowth 6609
- Si:B,C, boron elec. activation during RTA, heating rate effects 22101
- $Si:BF_2$, high-dose BF_2 ion implanted, elec. dopant activation 1194
- $Si:BF_2^+$ amorphous ion-implanted layers, recrystn. kinetics 38464
- Si:B,F(Ne), boron diffusion, ion implant. effects, proc. modeling params. 38505
- Si:B,O, heavily doped, interstitial O conc., neutron irrad./FTIR anal. *(English)* 6612
- Si:Bi, theoretical electronic props. 1020
- Si:C, phase form. by high-dose C implant., IR spectra 38503
- a-Si:C,H p-i-n diode struct. for electron flux conversion 30229
- Si:C,O plates with nonuniform stress distrib., mechanisms for O gettering 29833
- Si:Co, ion implant., defect/impurity profile 30028
- Si:Cr, carrier/thermal wave photothermal sigs. 1017
- p-Si:Cu, RTA, OISF, deep states, Cu diffusion 13034
- Si:Er, coimplantation, photolumin. study 38489
- Si:Er cryst., Er opt. activation, excitation, conc. limits 38483
- Si:Er implant., Si-based optoelectronics appls. 30042
- Si:Er light emitters in integrated opt. interconnects 23060
- Si:Er, opt. act. centres, local struct., photolumin. obs. 30045
- Si:Er, surface segreg./trapping, MBE 30051
- Si:F layers, chem./phys. sputtering 38530
- Si:F, recrystn., at. redistribution, F 1s NEXAFS 38521
- $Si:F/SiO_2$ TFT, F^+ implant. effects 38883
- Si:Fe, LEC grown, Fe contamination influence on LSI-yield related cryst. quality 29828
- Si:Fe based MOS structs., deep levels, thermal behavior 29971
- Si:Fe, recomb. centers, microwave refl. photoconductive decay 38237
- Si:Fe,Al(B), lifetime effects of Fe/Fe complexes 29826
- Si:Ge epitaxial film, embedded nanocrystals, synthesis 12126
- a-Si:H, H bonding config., metastability 29871
- Si:H, H passiv., multiple internal refl. IR spectrosc. 1253
- a-Si:H MIS struct., conductance mechanisms *(Chinese)* 38439
- a-Si:H MIS struct., response time/capture cross sect., gap states *(Chinese)* 22060
- a-Si:H, PECVD, defect annealing kinetics 13275
- μc-Si:H, PECVD, surface morph., crystallite size 28806
- a-Si:H PIN solar cells, electron/hole trapping *(Chinese)* 5211
- a-Si:H, Staebler-Wronski effect, trapping and recomb. procs. 39555
- a-Si:H TFT, Chebyshev approx. of field-effect mobility *(Korean)* 13683
- a-Si:H, TFT LCD, photolithographic pattern transform., backside exposure 34635
- a-Si:H TFT, drain current reduction by source electrode overlap 13754
- a-Si:H TFT, fab., props. 6774
- a-Si:H TFT, hysteresis characts.. modelling *(Korean)* 22483
- a-Si:H TFT, multiple stress accelerated degrad. *(Korean)* 22442
- a-Si:H TFTs, UV irrad. effects on characts. *(Korean)* 22417
- a-Si:H and poly-Si thin films, P ion shower doping study *(Korean)* 13284
- Si:H, defect passiv./light-induced metastability 13359
- a-Si:H diodes for act. matrix addressing 1798
- a-Si:H diodes, recomb. regime under double injection, electrolum. obs. 31079
- a-Si:H, field-enhanced photoemitter 38205
- a-Si:H, film, light induced defects, spatial distrib. 29839
- a-Si:H, film, light soaking effect on DC cond. 38235
- Si:H, film, nanocryst., sputtered growth mechanism 12140
- a-Si:H films, ECR plasma deposition 20975
- a-Si:H films, VUV laser CVD, gas phase chem./modelling 28840
- Si:H films, amorph./microcrystalline, selective deposition/etching 12179
- a-Si:H films, annealing, Ne(C) bombard., Si-Si double bonds 1201
- a-Si:H films, conc. dense radiation effects, solar cells 36597
- a-Si:H films, microwave plasma CVD, control of radical species *(Japanese)* 37526
- a-Si:H films, nonlin. opt. suscept., laser-induced transient grating tech. 31546
- a- Si:H films, optical consts. and thickness determ., opt. transmittance 25986
- a-Si:H films, plasma chem. vap. deposition, piezoelec. vibr. effects 37481
- a-Si:H films, pulsed plasma CVD, deposition rate 12158
- a-Si:H films, recrystn. by XeCl excimer laser irrad. 28797
- a-Si:H, glow discharge deposition, chem. annealing, at. H role 30008
- a-Si:H high elec.-field p-i-n diodes, p-layer thickness effects 6721
- a-Si:H, homog. CVD, props., prep. conditions effect 20949
- a-Si:H inverted-staggered tri-layer TFTs, fab. proc. 38860
- Si:H, ion implanted defects, thermal evol., slow positron study 38492
- a-Si:H, laser annealing, light-emitting Si prep. 23005
- Si:H, low-temp. MBE, H-induced breakdown 28745
- a-Si:H, low-temp. recomb., elec. field depend. 29872
- Si:H, microcrystalline, elec. props., degrad. kinetics 21881
- Si:H, microcrystalline layer, at. H etching, spectroellipsometry 12136
- a-Si:H, multijunction solar cell, microwave glow discharge deposition 20971
- a-Si:H, nanometer lithog., low-energy electrons 30177
- Si:H, neutron irrad., defect anneal., H infl. 38469
- a-Si:H nip and pin diodes, 1/f noise anal. 38798
- a-Si:H p/i/n struct., annealing, resist. effect 1198
- a-Si:H p-i-n detectors, charge collection procs. 43107
- a-Si:H, p-i-n diodes, forward current transients 1343
- a-Si:H p-i-n solar cell structs., computer model 20006
- a-Si:H plasma CVD films, H profile, DC bias/substr. table area effects *(Japanese)* 20966
- a-Si:H, plasma deposition, enhanced neg. ion form. 422
- a-Si:H pn-doping superlattices, cross-sectional STS 29928
- a-Si:H polycryst. thin-film solar cells 27938
- Si:H, porous, lumin., surface modif. effect 1246
- a-Si:H, pseudodoped, vidicon target material 1057
- a-Si:H, pulsed-light soaking 1060
- a-Si:H, selective laser ablation 1027
- a-Si:H solar cell, Hg-sensitized photochem. vap. deposition, H_2 dilution tech. 5217
- Si:H solar cell array, electrostatic MEMS 36606
- a-Si:H solar cells, insulating interfacial layer effect 36600
- a-Si:H solar cells, novel technols. 27957
- a-Si:H solar cells, reverse biased annealing studies 11291
- Si:H surfaces, nanometer scale patterning/oxid., UHV STM 13496
- Si:H surfaces, oxid., X-ray PES 22235
- a-Si:H thin film growth, mol. dyn. simul. *(Japanese)* 410
- a-Si:H thin film posn. sensitive detector 9912
- a-Si:H thin films, PECVD obs., ellipsometry 5880
- a-Si:H thin films prepared by layer-by-layer deposition 427

elemental semiconductors continued
a-Si:H, transport props., deposition condition effects 29869
a-Si:H/CsI(Tl) X-ray detectors for radiation monitoring 43161
a-Si:H/Ni-P, electroless plated contacts 6575
a-Si:H/a-$Si_{1-x}C_x$:H barrier struct., I-V charact. 1105
a-Si:H/a-SiC:H three colour detector 34502
Si:H^+, ion implant. deep levels, elec. field perturb. 38480
Si:H(111), low temp. nitridation *(French)* 13336
μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
a-Si:H,B n-i-n layers, current induced degrad. 38281
a-Si:H,B(P), PECVD film, opt. props., photo/dark cond. 29830
Si:H,Cu, Cu gettering, hydrogen-induced cavities 30009
a-Si:H,O solar cells, intrinsic layer, O impurity effects 5227
a-Si:H,P films, elec. act. nanoscale struct., STM prep. 21929
Si:He, 4.8MeV α-particle implanted, Bragg-case diffr. patterns 22135
Si:He, bubbles, struct./opt. props. 30050
Si:In, LED, porous Si device, enhanced blue light emission 1818
Si:In, MBE doping kinetics, rate eqn. model 1211
n-Si:In(Al), porous, metal deposition into pores, electrolumin. obs. 22157
Si:Ir(111), ion implant., $IrSi_3$ synthesis 30027
a-Si:Kr, sputtered layers, Kr-incorporation obs. 38268
Si:Li, fast Li electromigration, low temp. device creation 30047
n-Si:Li,Au, defect complexes, DLTS/SIMS/C-V profiling 38601
Si:Mn,Ni dyn. strain gage 3800
Si:Mo p/p^+ epitaxial wafers, Mo contamination 38236
Si:N, ion implanted buried SiN_x films, EXAFS and NEXAFS obs. 38440
Si:N, ion implanted etch-stop layers 38555
Si:N, isotropic etch-stop props. 13334
Si:N, plasma ion implant., depth profiles 6615
Si:O, CZ-grown, lattice strain and oxygen precip. 20648
Si:O, H-enhanced thermal donor form., depth profiles, spreading resist. probe meas. 38493
Si:O films, low temp. CVD grown, struct. 20974
Si:O, intrinsic gettering, low temp. annealing *(Chinese)* 1193
Si:O, ion implant., precip. 30026
Si:O near-surface/subsurface defects, opt. prod. profiling 29992
Si:O syst., ion implanted, oxide growth, refr. index, and comp. depth profiles 22123
Si:O wafers, deep levels under posthydrogen-plasma thermal anneal 38467
Si:O-on-insulator, implant.-induced stresses, defect pair 30044
Si:O,C,Si,P, P-diffusion, ion implant. damage effects 6523
Si:P, 2D dopant profile meas., scanning capacitance microscopy 13309
n-Si:P amorph. CVD films, crystn., elec. props. 405
Si:P, cond. near metal-insulator transit. 6526
Si:P crysts./superlattices, isotopically engineered 38502
Si:P, elec. act. P profile, thermal oxid. 6624
Si:P, enhanced P diffusion, grain boundaries 19983
Si:P, epitaxial films grown by rem. PECVD 38509
Si:P gate form. of MOSFETs, mech. stress simul. 38894
Si:P, ion-implanted, flash-lamp annealing, Raman image study 38472
Si:P, low energy implant., RTA/furnace annealing, XRD optimisation 22102
a-Si:P/Si, shallow jn. form., diffusion from spike-doped CVD amorph. layer 38514
Si:P(As)(B), heavily doped, temp. effects 1021
Si:P(B) thin film, solidif., dopant effect *(Korean)* 22156
Si:P(B)(As) VLSI submicron jns., proximity rapid thermal diffusion 6625
n-Si:P,Al, photonuclear transmutation doping, resist. uniformity 6613
Si:P,B CVD film struct./morph. 29841
Si:P,B(As), phosphorus diffusion 29844
Si:Ru, ion implant., Ru-related defects, elec./opt. props. 38228
Si:Sb, heavily doped, elec. act. impurity diff. 13033
Si:Sb low compensation impurity band photoconductors 39551
Si:Sb^+, implant. induced disordering, Raman scatt. 21872
Si:Sb,B, heavily doped wafers, annealing, fluoresc. EXAFS anal. 38475
Si:Sb,B substrs., sub-PPB B contamination determ. 6522
Si:Sn(001), strain determ. and microstructural charact. 22150
Si:transition-metal silicides, CZ grown, precip. 5803
a-Si/Ag layered systs., metal-mediated crystn., TEM obs. 38403
Si/Al, VLSI metallisation layers, charactn., Joule heating model 13430
Si/Al thermopile humidity sens., fab. and characts. *(Korean)* 17721
Si/Al_2O_3 heteroepitaxial double SOI struct., press. sens. 38433
Si/Au interface, electronic props. and Schottky barrier 22050
Si/Co syst., RTA, CoSi and $CoSi_2$ form., activation energy 22028
Si/Co/GaAs, $CoSi_2$ thin film form. 38632
Si/Co/Ti bilayer syst., epitaxial $CoSi_2$ reactive form. 12094
Si/$CoSi_2$ vert. MSM photodetectors, buried contacts 34500
Si/$CoSi_2$($FeSi_2$) epitaxial silicide systs., ion channeling studies 6577
Si/FLC light modulator, stochastic reson. 22928
Si/Ge abrupt interface form., at. H in Si MBE 12039
Si/Ge epitaxy from gaseous hydrides, growth dyn. studied by RHEED 5853
Si/Ge heterostruct., MBE, optoelectronics appl. 5850
Si/$Ge_{0.12}Si_{0.88}$:P, metastable films, RTA vs. furnace annealing 22104
Si/$In_xSn_yO_z$, Si oxid. by interfacial react. 38614
n-Si/LB layer photoelectrochemical solar cells 5220
Si/Ni, solid state react., point defect creation 13224
Si/Ni_xSi/Ni thin-film reacts., calorimetric anal. 1156
n-Si/Pt colloidal particle electrode for photoelectrochemical solar cells 5221
Si/Si p-n jns., pot. distrib., off-axis electron holography 1093
Si/Si, polysilicon small geom. contacts, P implant. induced energy transfer 38296
Si/$Si_{0.7}Ge_{0.3}$ heterostruct., 1D electron transport 30074
Si/$Si_{1-x-y}Ge_xC_y$/Si HBTs, fab. and bandgap study 21553
Si/$Si_{1-x}Ge_x$ heterostruct. charge injection transistors and logic elements 22482
Si/$Si_{1-x}Ge_x$ modulation-doped heterostruct., hole transport props. 29885
Si/$Si_{1-x}Ge_x$ strained heterostruct., thermal stabil. 37406
Si/$Si_{1-x}Ge_x$/Si heterostruct., 2D hole gases, magnetotransport and photolumin. 21993
Si/$Si_{1-x}Ge_x$/Si p-MOSFET, charge distrib. modelling 22471
Si/$Si_{1-x}Ge_x$($Si_{1-y}C_y$) heterostruct., situ X-ray investig. 38306
a-Si/Si_3N_4 TFT, PECVD nitride gate dielec. studies 13791
Si/Si_xGe_{1-x}/Si HBT with δ-doped base, multistep charact. 38845
Si/SiGe I^2L ccts., gate delay 12414
Si/SiGe asymmetric quantum wells, SHG 15021
Si/SiGe double barrier reson. tunneling struct., fab. 29942
Si/SiGe epitaxial-base HBTs, materials, phys., and ccts. 30243
Si/SiGe epitaxial-base HBTs, proc. integrat. and BiCMOS analog appls. 30244
Si/SiGe heterostruct., Aharonov-Bohm rings, fab. 29894

elemental semiconductors continued
Si/SiGe heterostruct., UHVCVD growth and appl. 312
Si/SiGe heterostruct., ballistic cond., Aharonov-Bohm oscills. 13819
Si/SiGe modulation-doped heterostruct., extremely high electron mobility 29920
Si/SiGe nanometer struct., fab. 29941
Si/SiGe:H epilayers, misfit disloc., elec./opt. props. 6628
Si/SiN_x, automated nondestructive meas., IR reflectance/transm. 21002
Si/SiO_2 MOS capacitors, SiO_2 hole traps, small cross sect. 38427
Si/SiO_2, MOS devices, prep. interface props. control 38611
Si/SiO_2, MOS structs., photoenhanced CVD, comp., elec. props. 38429
Si/SiO_2 MOSFET, dispersive transport, seminumerical simul. 38892
Si/SiO_2 MOSFET, fixed and interface trap charges 38863
Si/SiO_2, SIMOX substrs., Si ion implant. for secondary defect reduction 30043
Si/SiO_2 interface states and neutral oxide traps induced by surface microroughness 29968
Si/SiO_2, low-field charge-buildup instabil., diffusion-react. model 29972
Si/SiO_2 patterned surfaces, situ rem. H-plasma cleaning 1254
Si/SiO_2 syst., Si nucleation, rapid thermal CVD, in situ real time meas. 28831
Si/SiO_2, very thin oxide quality, wafer surface orient. depend. 38529
Si/SiO_2:N, plasma action under PECVD conditions 5882
Si/SiO_2/Al, H-related instabilities, removal by F implant. 13314
Si/SiO_2/Al MOS capacitors, charge induced by Fowler-Nordheim tunnel injection 29974
Si/SiO_2/Al MOS structs., nitrided, reoxidised, elec. charactn. 13257
Si/SiO_2/Al MOS, tunnel jns., light-emission mechanism 22078
Si/SiO_2/Au MOS, tunnel jns., light-emission mechanism 22078
Si/SiO_2/Cs(In), metal overlayer-induced charge transfer effects 6591
Si/SiO_2/Pt MOS diodes, surface state energy distrib., XPS meas. 29973
Si/SiO_2/Si MOS oxides, border traps 13249
Si/SiO_2/Si heavily doped capacitors, C-V charact. 29990
Si/SiO_2/Si, high temp. annealed, near interface oxide degrad. 38477
Si/SiO_x, improved SIMOX material, Si overlayer, strain reduction 22075
Si/SiO_x porous interface, paramag. centres 13349
Si/SiO_xN_y, interfacial stress and struct., thermal nitridation and reoxidation effects 22055
Si/SiO_xN_y/Al MOS capacitors, charge trapping and interface states 29975
a-Si/Ti bilayer struct., lateral silicide growth 22034
Si/Ti syst., $TiSi_x$ form. and resist., deposition temp. depend. 29951
Si/Ti syst., silicide form., STM crystallography on Si(100) substrs. 22027
Si/XeF_2 syst., etching react., SHG 22165
a-Si/c-Si(a-SiC) based opt. controlled switching devices 38790
Si/electrolyte interface, impedance, deconvolution 6594
a-Si/poly-Si tandem solar cell, high efficiency 11294
p-Si/potassium ferri-ferrocyanide electrolyte interface, FTIR-ATR 6595
Si-Dy_2O_3 MIS structs., UV irrad., charge accum. 22056
Si-FET, side gated, nanometer scale fab. in at. force microscope 30321
Si-GaAs, X-ray detector material, deep levels, PICTS study 43156
Si-GaAs, grazing incidence diffractometer, thin-film struct. anal. 38463
Si-Ge whiskers, thermal anemometer sens. appl. 3799
Si-$NiSi_2$ microcrystalline composite thin films, struct./elec. transport 38402
Si-$Si_{1-x}Ge_x$ epitaxial devices, Ge content depend. of radiation damage 13638
Si-$Si_{1\times x}Ge_x$ heterostruct., difference freq. mixing, intersubband nonlin. 23365
Si-Si_xGe_{1-x} superlattices, energy band structs. 6554
Si-SiGe HFETs, mobility simul. 22494
Si-SiGe layers, elec. charactn. techs. 6538
Si-SiGe n-MOSFETs, strain depend. of perform. enhance. 22435
Si-SiGe p-MOSFETs, optimised Ge channel profiles 22434
Si-SiGe self-aligned HBT, 1/f noise charactn. 22364
Si-SiGe-Si DHBTs, parasitic pot. barrier effect on base current *(Korean)* 13618
Si-SiGe-Si strained quantum wells, rapid thermal CVD, photolum. 22004
Si-SiO_2 MOS devices, quasi-breakdown of ultrathin gate oxide under high field stress 22067
Si-SiO_2 MOS interface, tunnelling emission, const. voltage DLTS 6585
Si-SiO_2 MOS struct. quality, N_2O ambient, furnace nitridation time 13237
Si-SiO_2 MOS surface layer defects, ECR etching in Cl_2/O_2 plasma 6631
Si-SiO_2 MOS transistor, ionizing radiation dosimetry 43405
Si-SiO_2 MOS transistor, leakage current and interface state 38891
Si-SiO_2 MOSFET interface, indiv. interface traps 13758
Si-SiO_2 SOI film thicknesses, reflectance meas. 13260
Si-SiO_2 accumulated MOS thin dielec. struct., quantum effects 13235
Si-SiO_2 interface, electron 2D behaviour modelling by Monte Carlo simulator 29986
Si-SiO_2, interface states, trapped holes 29970
Si-SiO_2 interface, thermal carrier delocalization, reservoir effect 13247
Si-SiO_2 interfaces, low-temp. plasma-assisted oxid., MOSFET appls. 6643
Si-SiO_2 porous DQW, tunneling, photoluminesc. 21995
n-Si-SiO_2 semicond.-dielec. MOS interfaces, minority carrier generation 6588
Si-SiO_2 stacked-gate structs., plasma-assisted/RTP 22058
Si-SiO_2-Al structs., RF plasma treatment, radiation-thermal hydrogenation 22090
a-Si-SiO_2-Si Fabry-Perot opt. intens. modulator by merged ELO 14647
Si-SiO_2-polySi MOSFET, oxide degrad., charge traps generation 6746
p^+-Si-SiO_2-polysilicon STDS struct., charge carrier capture 13240
Si-SiO_2(SiGe) epitaxial growth, ex-situ/in-situ probing by opt. SHG 28724
Si-$TaSi_2$-TiN-AlSi multilayer thin film contacts, electromigration testing 38654
Si-based device proc., radiation damage 22160
Si-based porous materials, anodization, etching 30085
Si-based thin film monolithic uncooled IR detector arrays/resist. bolometers 17958
Si-bipolar front-end IC for 900 MHz homodyne wireless receivers, 3 V, 28 mW 21567
Si-on-sapphire films, SPE, recrystn. by annealing, props. 22076
Si-sapphire, porous, photolumin., microstruct. effects 6618
Si^+-self implant induced damage, characts., annealing behavior *(Korean)* 29842
Si(001), O_2 adsorpt./oxid., dimer reconstruction 6654
Si(001), O_2 mol. adsorpt., subsequent oxid. 38612
Si(001), ULSI microfabrication materials testing by STM *(Japanese)* 6832
Si(001), electrochem. etching in NH_4F soln. 30090
Si(001), epitaxial growth, Monte Carlo simul. 20896
Si(001), low temp. MBE, low-energy Si atoms 12075
Si(001) wafer, cubic centrosymmetric media, anisotropic SHG 31572
Si(100), As adsorpt. and passiv. for ZnS film MBE 37451

elemental semiconductors continued
Si(100), Sb-terminated, HBO_2(Sb) adsorpt. suppression 20701
Si(100), XeF_2 spontaneous etching 6634
Si(100), carbonization, solid source MBE 20902
Si(100), ion beam-induced oxid., ion emission 6655
Si(100), passiv. and microroughness in aq. hydrogen halide 38531
Si(100), self-sharpening {338} tips, etching 30123
Si(100) surface, STM field induced nanomodification 30116
Si(100) surface, nanoscale STM-patterning, chem. modif. 30175
Si(100) surface, thermal nitridation, Si 2p core-level shifts 13366
Si(100), wet cleaned, thin oxides, Auger spectra, angle-resolved XPS 38613
p-Si(100)/Hf interfaces, elec. charact., H-termination 38397
Si(100)-2×1 surface, H-terminated, oxid. 38587
Si(100)-(2×1), at. scale etching by Cl 30087
Si(110), STM nanolithography 30179
Si(110), nanometer-scale struct. fab. 30178
Si(110), thermal nitridization in ammonia atmos. 38615
Si(111), H adsorpt./dissolved O in hot water 38604
Si(111), H terminated, surface electronic props. 6524
Si(111) and (100), at. hydrogen etching, STM obs. 38542
Si(111), anodic etching, surface morph., NH_4F vs. HF etching 13375
n-Si(111), electrolytic hydrogenation, FT IR spectrosc. 38558
Si(111) for APS, bending magnet/insertion device, FEA 43149
Si(111), ordered Al films growth 20716
Si(111) substr., Bi_2Te_3 thin films, cryst. growth, sticking coeff. 28716
Si(111) substrs., amorph., Ge film sputter deposition-induced 37510
Si(111), surface SHG, wavelength depend., laser induced props. 15037
Si(111), surface oxide layer, dissolving in hot water, vert. dihydrides 38541
Si(111), surface reson., RHEED intens. oscill. 37448
Si(111) wafers, surface anal., opt. SHG 2078
Si(111)/soln. interfaces, electrochem. STM/AFM imaging 38588
Si(111)-C surface, H ion bombard., LEED, AES 30118
Si(111)-H, oxid., ultrathin oxides, struct. imperfections 38608
Si(111)7×7 surfaces, regular artificial nm scale struct. fabricated, STM 38538
SiC/Si hetero- and homo-jn. photodiodes, fab. and props. *(Japanese)* 1805
SiC/Si heterojunctions, elec. props. 1096
SiC/Si wafer bonding, CVD and etching 13392
a-SiC/Si:P structs., P diffusion and interface segreg., HBT appls. 13118
a-Si(Ge) thermopower behaviour modelling 27990
$Si_{1-x}Ge_x$ and Ge/Si heterostruct., thermal nitridation 22236
SiGe/Si QW, local Ga implant., ambipolar lateral carrier transport 1230
SiGe/Si QW, luminesc. spectral modulation 13144
SiGe/Si heterojunction waveguides, Ge conc. effect on propag. charact. 39383
SiGe/Si heterostruct., segregant-assisted growth, opt. props. 37449
SiGe/Si modulated quantum well/wires, luminesc. 1114
SiGe/Si quantum dots, island growth, photolum., electrolum. 28830
SiGe/Si quantum wires/dots, growth on patterned Si substrs. 28810
$Si_{1-x}Ge_x$/Si HBT model 22382
$Si_{1-x}Ge_x$/Si heterostruct., adaptive temp. program ALE from Si_2H_6/Ge_2H_6 20705
$Si_{1-x}Ge_x$/Si heterostruct., surface passiv., photolum. meas. 13146
Si_mGe_n/Si(001) strained-layer superlattices, magnetron sputter epitaxy 361
$Si_{1-x}Ge_x$-Si heterostruct., chem. etching in $HF-H_2O_2-CH_3COOH$ 38560
a-SiH, film, US assisted PECVD, in situ opt. diagnostics 28832
Si_3N_4 thin films on n-Si, relax. polariz./charge injection 13916
SiN-Si X-ray mask wafer stress, contactless laser/microwave eval. 6686
Si_3N_4-Si IR detector, p-n jn.-based, SIMOX technol. fab. 34499
SiO_2 on Si, E' center charge traps, obs./electronic charact. 1176
SiO_2 plasma-grown on Si, extremely low interface state densities 13233
SiO_2/Ge nanocrystal syst., SiGe low temp. UV oxid. 22252
SiO_2/Si MOS interfaces, interface-trap generation, neg.-bias temp. aging 38424
SiO_2/Si, etching in inductively coupled high-dens. plasma 6637
SiO_2/Si interface struct., reliab. charact. 13253
SiO_2/Si, low-temp. grown oxide film, X-ray reflectivity 38610
SiO_2/Si, thermal oxide, natural intrinsic EX center, ESR 29984
SiO_2-Si, EX centres, ESR study 6641
SiO_2-Si FTIR temp. depend. emissivity, pyrometer develop. 25987
SiO_2-Si MOS struct., oxide layer cond., X-ray irrad. effects 13238
SiO_2-Si interface struct. modif. by Fe^+/H^+ ion implant. *(Chinese)* 22061
SiO_2-Si, stacked RTO/RTCVD oxide gate dielec., elec. props. 22637
SiO_2-Si wet oxid. by RTP, homog. 22222
SiO_2-polysilicon MOSFET degrad., substr. hot electron stress 13680
SiON/SiO_2/Si single-mode waveguides, plasma CVD prep. 39896
SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
Si(SiO_2) sputtering and RIE, particle form. mechanism 22199
Ta/Si multilayers, annealing, silicide form. 6574
Te whiskers, thermal anemometer sens. appl. 3799
Ti/Si, RTA, C54/C94 $TiSi_2$ form. 1158
Ti/Si:B(P)(As) syst., $TiSi_2$ form. in situ resist. meas. 13217
$TiSi_2$ buried layers in Si by direct wafer bonding 30154
$TiSi_2$/Si BiCMOS technol., nonohmic contact resist., NFETs/PFETs/diffused resistors/NPNs 38631
$TiSi_2$-SiO_2-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775
$TiSi_2$(NiSi)-polysilicon salicided films, resist. behavior, CMOS ULSI 6665
($Ti_{1-x}Zr_x$)/Si thin film syst., silicide form., local structural studies 38414
W/WN/Si, nitride barriers for thermally stable metallization, TEM studies 38704
W/WNx/poly-Si gate technol. for deep submicron CMOS LSI 22587
WSi_2 buried layers in Si by direct wafer bonding 30154
ZnO/n-Si jn. solar cells, spray-pyrolysis method 44397
ZnSe/Ge/GaAs, lattice matched HBT, DC/AC charact. 13631
polysilicon membrane, BAW composite resonator *(Chinese)* 14083

elevators *see lifts*

ELF radio propagation *see radiowave propagation*

ellipsometers
see also ellipsometry
automated null ellipsometer, rot. analyzer 10047
ferromag. mech. stressed thin films, magneto-opt. meas. 30682
plasma etch reactors, develop. pilot line, sens. integrat. 22205
polyaniline, ellipsometric sens., spectral response 3819
reflectometer/ellipsometer perform. capabilities for comp. anal., $Al_xGa_{1-x}As$ epitaxy 42959
retroreflecting ellipsometer, opt. disk substrs. birefr. meas. 14342

ellipsometry
see also ellipsometers; polarimetry
conference, optical interf. coatings, Grenoble, France (1994) 11556
contact resist., contaminant films thickness, humidity effects 6385
IgG Langmuir films oriented by protein A sublayer 42857
III-V semicond. growth params. in MBE, in-situ meas. and control 20737
magneto-optic Kerr effect sens., field meas. 10002
mass stds., stainless steel wts. cleaning, ellipsometry appl. 9779
polymer amphiphiles LB films, fab., nonlin. optics props. 15089
polymer waveguides, electro-opt. appls. 14457
polymeric LB and spin-coated films, light atten. 14318
retroreflecting ellipsometer, opt. disk substrs. birefr. meas. 14342
RTO proc., opt./elec./mech. charactn. 22227
scanning microellipsometry for topography meas. 25976
semicond. multilayers, NDT charactn. 20998
SIMOX radiation response prediction, spectrosc. ellipsometry 13299
SIMOX/ZMR/direct bond SOI struct., opt. charactn. *(Japanese)* 38430
simultaneous spectrosc. ellipsometry/reflectance, thin-film prep. monitoring 5880
slider/disk carbon, water adsorpt. 7153
spectral ellipsometry for semicond. proc. in situ diagnostics and control 22200
submicrometer feature etched IC fab. proc. control, UV-vis. ellipsometry 30078
submillimeter wavelength high-precision ellipsometric reflectometer, refr. index meas. 34711
through-plane thermal props. meas. of dielec. films 21738
C films, plasma deposited, ellipsometric params., sample temp. 34715
C overcoated sliders, flying height meas. 7162
Co films/$CoSi_2$ films, opt. props., G-line/I-line lithog. 38748
GaAs, low press. MOCVD on Si, defect reduction 20768
GaAs surfaces, wet/dry etched, ellipsometric model 21914
$GaAs_{1-x}P_x$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
GaP/Si strained heterostruct., spectrosc. ellipsometry 29877
Ge thin films, opt. props., thickness depend. *(Japanese)* 39303
HgCdTe films, growth by MBE, ellipsometry 5819
HgI_2, variable angle spectrosc. ellipsometry 43094
$In_xGa_{1-x}As$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
InP, low press. MOCVD on Si, defect reduction 20768
$InP-In_2S_3$, ellipsometric investig. of transit. layer heterostruct. 22774
Si IC, failure anal. methods, develop. and mfg. appls. 22519
Si epitaxial layers, ECR plasma CVD, ellipsometry obs. 28721
Si nitroxides, rapid thermal, growth, struct. 1245
Si oxides, rapid thermal, growth, struct. 1245
Si, porous layers, microstruct., spectrosc. ellipsometry obs. 22214
Si, porous, passiv. by RTO 22217
Si wafer substr. clean-up, chem. contamination, Auger anal. and ellipsometric studies 30119
$Si:As^+$, 25 keV implant., large tilt angle, damage anal. *(Chinese)* 13035
$Si:BF_2^+$ amorphous ion-implanted layers, recrystn. kinetics 38464
μc-Si:H, PECVD, surface morph., crystallite size 28806
Si:H, microcrystalline layer, at. H etching, spectroellipsometry 12136
Si/SiO_2 syst., Si nucleation, rapid thermal CVD, in situ real time meas. 28831
β-SiC layer growth by Si surface carbonisation, RTP 20981
SiC on Si(100), gas source MBE growth 382
SiGe-Si UHV-CVD MQWs, in-situ spectrosc. ellipsometry growth control 20845
Ti films/$TiSi_2$ films, opt. props., G-line/I-line lithog. 38748
W CVD films, opt. props., G-line/I-line lithog. 38748

elliptic equations
additive Schwarz domain decomp. methods for ellipt. problems 12003
cardinality of ellipt. curve over finite field, Schoof's algm. and isogeny cycles 20550
complex multiplication field algms. 20549
cryptographic reduction attacks, ellipt. curves, controllable lower boundary, design strategy 32156
digital signature scheme alternatives 24106
discrete logarithms, rational subgroup of Jacobians of large genus hyperelliptic curves, finite fields 20548
domain decomp., spectral expansions of Steklov-Poincare operators 28688
finite-element soln., ellipt. sing. perturbed problem, error estim. 37293
modular parametrization degree computing 20629
multidomain spectral approx. of ellipt. problems 37360
nonconforming finite elements, shape fn. space 37371
nonlin. BVP, appl., semicond. device eqns. 1322
nonlin. ellipt. problem, BDM mixed methods 12006
num. soln. of coupled syst. of ellipt. eqns., age fractional scheme 267
optimal coarse grid size in domain decomp. 272
p-version FEM, high accuracy *(Chinese)* 5794
Poisson eqn. on irregular domains, fast parallel soln. 12004
preconditioning nonsymmetric indefinite capacitance matrix problems 28672
Schwarz methods, local refinement 20638
sing. perturbed high-order ellipt. two-point BVP 37357
spectral-Galerkin method, direct solvers of 2nd- and 4th-order eqns., Chebyshev polynomials 20607

elliptic filters
2D IIR digital filters with lin. phase, design 24346
bal. MOS transconductor, filter design appl. 6213
bandpass filters, triple-mode dielec. rod resonators *(Japanese)* 21403
DSP-based integrated software environ. for filter design 5952
IIR Powell and Chau lin. phase filters design 29390
multiple loop feedback OTA-C filters, perform. anal. 37848
nonequiripple approx. for filter charact. 12622
recursive filters design, Chebyshev norm, Remez algm. 24186
regularity extraction approach to scheduling and allocation 21051
table-based lin. transform. filters, OTA-C techs. 732
uncertain continuous-time systs., freq. response envelopes, ellipt. filters 37837

elliptical polarisation *see polarisation*

ELNES *see electron energy loss spectra*

elongation
see also deformation; thermal expansion
BPDA/PDA/6FDAm photosensitive polyimide copolymer, low stress/high sensitivity 12205
polyethylene, lin. low-dens./low-dens. blends, shear, elongation 20994
polyimides/copolyimides for IC interlayer dielec., props. 39037

- **elongation** continued
  - SQUID-magnetostrictor syst., small length change detect. 17734
  - In-Sn based VLSI interconnections, solder joint reliab. 30146
- **EM surface waves** *see surface electromagnetic waves*
- **EM traps** *see particle traps*
- **EM waves** *see electromagnetic waves*
- **embedded systems** *see real-time systems*
- **EMC** *see electromagnetic compatibility*
- **emergency power generators** *see standby generators*
- **emergency power supply**
  - *see also uninterruptible power supplies*
  - AC standby generators, grounding/ground fault protection 43992
  - AT&T round cells, short cct. current test 19966
  - back-up power syst. reliab. improvement, batt. monitoring 19055
  - broadband networks, power supply reliab. 24894
  - distrib. network mobile power plants, maint./emergency appls. 10730
  - FITL, commercial AC power quality issues 19227
  - FITL syst. rem. power source, alarm commun. 19867
  - FTTH back-up batt. power supply monitoring 19868
  - generators, reliab. improvement anal. 27679
  - Krsko PWR AC/DC power supply syst. fault tree anal. 35731
  - Pb-acid valve regulated batt., standby telecom. appls. overview 19960
  - substation house emergency supply modelling, computer-based 27859
  - telecom. terminal auxiliary permanent on-site generator sets 43939
  - telecommunication systs., turbo-alternator back-up power supply 19611
  - telephone network power supply fault-tolerance, reliab. improvements 19821
  - Pb-acid batt. deterioration estim., pulse discharge/charge charact. 19937
  - Pb-acid standby power batts., life testing methods 19962
  - Pb-acid telecom. reserve batt. plant float voltage uniformity 43969
  - Pb-acid valve regulated batts., H_2 evol., cellular installations 44289
  - Pb-acid valve regulated batts., standby telecom. power supply appls. 19959
  - Pb-acid valve regulated batts., thermal runaway prevention 44287
  - Pb-acid valve regulated gel batts., standby power appls. 19961
  - Pb-acid valve regulated/flooded batts., reliab./maint. 44295
- **emergency services**
  - engng./mgt., ES-based DSS approaches 43875
  - fuel/energy supply reliab., Russia 27319
  - gas company, mobile mapping syst., CD-ROM *(Japanese)* 42213
  - Inmarsat emergency satellite commun. 3522
  - USA emergency telecomms. requirements, Nat. Communications System 3041
- **EMF** *see electric potential*
- **EMG** *see electromyography*
- **EMI** *see electromagnetic interference*
- **emission**
  - *see also acoustic emission; electron emission; field emission; ion emission; light emitting devices; luminescence; secondary emission; spontaneous emission; stimulated emission; superradiance; thermionic emission*
  - carrier freeze-out effect, low temp. semicond. device props. *(Chinese)* 22340
  - planar opt. waveguides, highly directional surface emission from concentric-circle gratings 23766
- **emission spectra** *see spectra*
- **emission tomography**
  - *see also positron emission tomography; single photon emission computed tomography*
  - coded aperture emission CT, optimum filter, algm. *(Japanese)* 4270
  - planar γ-camera imaging, rot. slat collimator eval. 35058
- **emissivity**
  - *see also brightness*
  - alkali metal thermoelec. convertor components, emissivities/thermal charactn. 20028
  - back lighted thyratron pulsed power switch, anti-missile radar appls. 36408
  - mid-IR temp. meas., effective emissivity determ. 34723
  - MQW solar cells, electrolum. coupling 36590
  - non-grey body obj., temp. meas., variable temp. radiator *(Japanese)* 4008
  - organic LEDs, Si compatible monolithic integrat. 14664
  - piezoelec. chopper for modulation-type pyroelec. IR detector 42802
  - pseudospark operation, hollow cathode phase studies 29819
  - spectral emissivity of natural surfaces, FTIR spectrometer appl. 18131
  - thermophotovoltaic cell, thin film selective emitter efficiency 36618
  - X-ray mask, heating, SR exposure, He press. effects 22315
  - HgCdTe FTIR temp. depend. emissivity, pyrometer develop. 25987
  - NiCr-$LiTaO_3$-NiCr pyroelec. multispectral IR detectors, pyrometer appl. 14095
  - PtSi IR CCD-based multi-wavelength imaging pyrometer 17956
  - Si FTIR temp. depend. emissivity, pyrometer develop. 25987
  - SiC emitter/burner, GaSb thermophotovoltaic converter 27998
  - SiO_2-Si FTIR temp. depend. emissivity, pyrometer develop. 25987
  - YAG:Er,Ho thin film selective emitters, thermophotovoltaic cells 36620
- **emitrons** *see television camera tubes*
- **emitter-coupled logic**
  - *see also current-mode logic*
  - base width, optim. for min. ECL propag. delay/max. oscill. freq. 12494
  - BiCMOS, fast VLSI cct. design, complementary ECL elements 6870
  - BiCMOS, sub-30 ps, proc. integrat. technol. 22616
  - BiCMOS gate array, optimized bipolar arrays 12503
  - BiCMOS gate array for B-ISDN 622 Mb/s UNI 33680
  - BiCMOS laser control chip combining power control and 622 Mbit/s modulator 31426
  - bipolar transistor, high-speed, low parasitic archit. 30237
  - CMOS clock-frame regeneration chip, ECL-compatible I/O 21446
  - complementary noise immune logic in high speed ECL technol. 6069
  - current sharing in emitter-coupled BJTs, calc. 6068
  - digital test system extension to Gbps range 25720
  - dyn. bias current tech., bipolar exponential-law/CMOS sq.-law elements 12667
  - emitter-follower cct. for high-speed and low-power ECL 37743
  - high-speed p-n-p technol. for low-power complementary bipolar ULSIs 39000
  - high-speed syst. power/ground plane with ECL, switching noise 38081
  - LSI design and test experience in supercomputer develop. 21221
  - MCM-D with embedded thin film resistors, ECL gate array packaging 21706
  - MCMs with ASICs global optim., concurrent engng. approach 21743
  - SEU at gigahertz freqs., digital ECL 12480
  - submicron BiCMOS memories, high-speed technols. 29208
  - super self-aligned BiCMOS technol. for low-power mixed-sig. appls. 30483
- **emitter-coupled logic** continued
  - TFSOI complementary BiCMOS technol. for low power appls. 30482
  - GaAs ASIC set for deep space receiver 42336
  - GaAs buffered DCFL gate array, differential push-pull I/O 37720
  - SiGe base bipolar transistor ECL ccts., super self-aligned selective growth 30443
  - SiGe-base HBT 2D device-level simul., transient/DC behavior, ECL buffer 13658
  - SiGe-base bipolar technol., epitaxial emitter-cap, liq.-nitrogen temps., ECL 633
- **EMP** *see electromagnetic pulse*
- **employees** *see personnel*
- **employment**
  - *see also personnel; salaries*
  - career develop. 5563
  - career develop., job searching, in-house adverts 28363
  - corporate hiring 5722
  - engineer promotion, projects, problem solving 5564
  - engng. curricula, indust. perception, India 5554
  - engng. entrepreneurship develop., academia role, India 5557
  - engng. graduate work/employment profile survey, India 5552
  - IEEE United States Activities Board, overview 28367
  - laid-off engineers, pers. experiences 5561
  - manager selection/training/employment in Russian market economy 82
  - mgt. struture changes, UK 11630
  - model contract forms, overview 11629
  - personnel reward systs., current trends 11627
  - professional engineer career develop., education effectiveness study 20326
  - women engineers education/employment, India 5553
  - women in technical/scientific fields, national survey results 28366
- **emulsions**
  - *see also nuclear track emulsions; photographic emulsions*
  - microemulsions, dielec. behaviour 6905
  - water-in-oil emulsion separation, microwave heating-based 44595
- **emulsions (nuclear track)** *see nuclear track emulsions*
- **emulsoids** *see emulsions*
- **encapsulation**
  - *see also packaging*
  - ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
  - automotive engine controllers, potted, PQFP solder joint reliab. 28155
  - bending bilayer, polymer film viscoelasticity effects, packaging 147
  - Betacell microencapsulated nuc. batt., design and appls. 27961
  - ceramic QFP, epoxy encapsulation, SM appls. 11765
  - ceramic QFP, epoxy encapsulation, SMT appls. 5629
  - COB encapsulation technol., stress anal., reliab., FEM 37077
  - controlled collapse chip connection, flip-chip attach on FR-4 IC packaging 130
  - die grid array packaging, known good die IC prod. testing 37147
  - DIP solder joint failure under tensile-compressive stress 37130
  - electronic components and technol., conf., Washington DC, 1994 5473
  - epoxy based liq. encapsulant 20431
  - epoxy resin, printing encapsulation syst., MCMs, PLCC, BGA, PGA, TAB, COB, flip-chips 20433
  - exposed silicon plastic package, thermal enhancement 5658
  - flip chip bonding, chip replacement method, FCA technol. 133
  - flip chip struct., encapsulation 28453
  - flip COB assemblies, material selection 12930
  - flip-chip packages, low thermal expansion encapsulants, props. 132
  - FR-4 boards, flip-chip interconnections 21653
  - IC package assembly, organic contamination detect. 20429
  - III-V semiconds., quantum well disordering, encapsulant source 29917
  - indust. thick film press. sens./transducers, develop. *(Slovenian)* 34446
  - integrated chem.-sens. arrays, batch fab. 3818
  - laser cryst. growth techs. 12132
  - LSI packages for ultra high-speed opt. fiber transm. systs. *(Japanese)* 42470
  - MCM assembly, encapsulation and underfilling, proc. notes 37119
  - MCM packaging, high reliab., low stress epoxy resin 6469
  - MCM technol., plastic encapsulated, high vol./low cost 21725
  - MCMs, satellite commun. appls. 29726
  - microelectronics packaging, preencapsulation cleaning 5666
  - microsystems, packaging and interconnection techs. 22628
  - oligophenylene thin films, vac.-deposited, elec. props. 13923
  - open cell technol. for single chip MOSFETs, IGBTs, and MCTs, very high power appls. 6777
  - organic light emitting devices, reliab. and degrad. 14614
  - Parylene conformal coatings compatibility with no-clean flux residue 38109
  - Permalloy films, stable encapsulation structs., annealing effects 7101
  - plastic assembly procs., eval. for high reliab. IC appls. 6452
  - plastic encapsulated IC reliab., missile appls. 35386
  - plastic encapsulated multichip technol. for high vol. MCM prod. 12974
  - plastic encapsulated multichip technol. for high vol. prod. 21721
  - plastic IC package, structural integrity eval., soldering proc. 28485
  - plastic IC package params., effect on temp. cycling failures 5674
  - plastic-encapsulated IC, reliab. testing 30427
  - polyimide film, water immersion effects on mech. behavior 12202
  - power MCM technol. for high vol., low cost commercial electronics, plastic encapsulated 21777
  - PQFP warpage prediction, finite element techs. 5663
  - preencapsulation cleaning methods and control for microelectronics packaging 5627
  - satellite equipt. packaging technols. 25452
  - semicond. encapsulating material, flow anal. 5667
  - semicond. wafer, wet cleaning, contamination, chem. anal. 1237
  - silicone-rubber encapsulants, power transformers, thermal cond. meas. 36233
  - SRAM, bond pads, lead on chip TSOP assembly 29218
  - TAB inner lead fatigue anal. in thermal cycle environ. 28474
  - TAB inner lead fatigue in thermal cycle environ. 11791
  - thermally-pulsed plastic IC package, thermo-structural behavior, delamination 28483
  - TSOP encapsulation reliab. modeling 37135
  - TSOP solder joint reliab. enhancement, encapsulation 131
  - underfill encapsulants for flip chip assembly, characterisation and eval. 37137
  - UV curable urethane encapsulant for ceramic chip carriers 5628
  - UV curable urethane encapsulant for ceramic chip carriers 5669
  - -- 30038
  - Ag multilayer ccts., environ. durability 21659
  - AlGaAs, MBE-grown, As capping 1286

encapsulation continued
Cu-SiO$_2$ IC metallisation, refractory metal encapsulation/barrier layer 38650
GaAs double-Read IMPATT diodes, 140 GHz 29564
GaAs passiv., integrated plasma clean/CVD/RTA, Si$_3$N$_4$ encapsulation 22224
InP:Be annealing, e-beam evaporated borosilicate glass thin film encapsulant 13313
InP/InGaAs, rapid thermal annealing, MISFET appls. 13274
Ni-H$_2$ secondary batts., H$_2$ storage microencapsulation expts. 27897
SF$_6$ insulated tripolar encapsulated HV switchgear props. and advantages *(German)* 27856
Si solar cells, high efficiency, pilot prod. 44402
Ta coated chip capacitor, SMT reduced board height requirements 6360
encapsulation of data *see data encapsulation*
enclosures *see packaging*
encoding
see also audio coding; channel coding; codecs; codes; coding errors; decoding; image coding; linear predictive coding; modulation coding; source coding; speech coding; transform coding; vector quantisation
2.5-Gbit/s CPFSK transm. expt., AMI-encoded data 9578
2.5-Gbit/s return-to-zero integrated DBR laser/modulator transmitter 9459
A-level bandwidth-efficient CPM 8101
AC servomotor integrated single-output sig. rotary encoder 10934
AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
algm.-based fault tolerance (ABFT) 32493
ambulatory ECG, adaptive data compression *(Japanese)* 4285
analog sig. neural proc. chip 29479
angle and displacement meas., seq./cyclic-seq. coding *(German)* 18101
AR proc., non-Gaussian source, Gaussian mixture dens. modeling 40835
archive digital data storage device based on home video recorder 39182
ASN.1, efficient packed encoding rules *(Japanese)* 40695
ATM networks, ABR service replace VBR service 33176
ATM opt. switching, high-speed module for wavelength encoding switching 16982
ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
authentication codes, detection probability 8163
automobile control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
B-ISDN parallel opt. transm., line-coding proc. based on multiplexing 9520
bandlimited sources coding, sampling/dithered quantization, perform. 24092
bent mappings for fast implement. 8133
binary lin. block error control (34, 15, 9) codes 40581
bit vector encoding for partially ordered sets 32102
block demodulation, overview 24019
Booth encoding in parallel multipliers, compressors 6127
broadcast multipath environ., multicarrier modulation perform. 34224
case-based preliminary design systs., Hopfield network approach 2393
catastrophic convolutional encoders, determ. 32133
CDMA cellular networks, antenna arrays, downlink perform. 17093
CDMA codes, coding theory 2893
CDMA opt. archits., bipolar capacity, unipolar codes 9582
CDMA opt. systs. based on spectral encoding of noncoherent sources 41470
CDMA overlays for FDMA satellite commun. systs. 25465
CDMA syst., coherent light pulse, encoding/decoding 42420
CDMA/FDMA satellite commun. systs. overlay, perform. anal. 25466
cellular mobile radio systs., outage probab. computation 33909
cellular neural networks for random-dot stereograms proc. 2788
cellular systs., uplink capacity, bounds/estim. 17064
CGH, opt. computing/neural net channel addressing 31632
character encoding for OCR appls. 32186
Chinese character encoding *(Chinese)* 24112
Chinese characters, user-defined 24076
circuits systs., symp., Chicago, USA (May 1993) 31
CMOS ADC, 10 bit, 20 MS/s, 3 V supply, VLSI appl. 6191
CMOS IC state assignment for low-power FSM synthesis, genetic local search 21079
CMOS multipliers for digital filtering appls. 6134
COFDM for TV broadcasting, overview 42560
communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
complex opt. matrix-vector multiplication, neg. binary inner products 1756
computer graphics, Fourier descriptors 40684
cryptographic syst., continued fraction based 40700
CSD-code carry determ., look-ahead cct. 29158
data compression, hypothesis testing, error bound 40868
DCT with regular struct., recursive algm. 5798
decoding metric, channel capacity 24084
delay-and-multiply opt. FSK receivers, line-coding, anal. 42345
depalletizing robot vision, genetic labeling 8640
DFT, arbitrary blocklength in finite fields 2558
DFT of arbitrary blocklength in finite fields *(Chinese)* 32044
DFT/BIST hardware, chip-based, control strategies 9805
digital opt. burst-mode receiver BER perform. in TDMA, opt. multiaccess network 25485
digital opt. computing, symbolic substitution implement. 39525
digital PM, carrier tracking and sym. detect., nonlin. filtering 8107
digital positional shaft encoders, patents review 34699
digital tachometer, precision, vel. meas. 42948
direct-carrier-modulation, low data-rates, sync. perform. 40613
dist.-based coding for binary trees 40678
distributed control appls., home power ccts. 9039
DS-CDMA FH-CDMA/narrow band cellular radio systs. 3452
DS/CDMA diversity combining, convolutional encoding/Viterbi decoding 9380
DVCR, channel code, embedded pilot tracking tones 42636
ECG, exact coding, extensive Markov syst. 18571
expander codes 8179
feedforward convolutional encoders, expansion property 32134
Fermat no. transform, algm.-based fault tolerant array archit. 32498
fiber optic module interconnection, parallel data bus 42474
filter bank optim. for subband coding *(Japanese)* 24338
finitely generated semi-groups appls. 20555
FIR high-precision time varying multiplier-free filters 37881
FIR stat. optimum filter bank design 24261
fixed-rate entropy-coded VQ algms. 8151
Fresnel lenses written onto SLM, fractional pixel translations 22981
fully phase transparent multidimensional trellis-coded MPSK 15700
G3 facsimile, arith. coding, develop. *(Japanese)* 3157
general defective channel, informed encoder, constrained memories 24037

encoding continued
grey-scale math. morph. operations computing, opt. implement. 16143
guided scrambling line codes, polynomials 40579
high speed testing, optoelectronic techs. 6825
hit-or-miss transform binary/gray-tone image proc. archit. 2717
hybrid CCMA/SSMA coding scheme 8733
hybrid sparse-wavelength angle-multiplexed opt. data storage syst. 22794
IEEE MILCOM conf., Boston, USA (1993) 36897
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
IIR wavelets, lin. phase, perfect reconstruction subband coding 32089
image coding for telecomms. 16161
index transform. algms. in lin. alg. framework 2397
input-constrained channels, encoders, decoding delay 40648
input-constrained channels, encoders, small decoding look-ahead 24086
integrated opt. symm. no. syst. ADC, 8 bit 21392
ISDN and ISO/MPEG layer III audio coding, broadcast audio prod. 3238
Jensen's coding theorem, simpler proof 2380
joint transform correlator, posn. encoding appl. 32968
lateral-alignment-free opt. neural network, pattern assoc. 16141
Lee sparse valued reconstruction computer generated holographic storage 31661
lightwave transm., low-rate parallel scrambling techs. 42380
linecoded opt. heterodyne FSK systs., nonuniform laser FM response 42457
locally invertible rate-1/n convolutional encoders 32132
lossy sig. compression archit., single-chip implement., ECG data 29275
mag. recording, commun. channel model 30743
mapping approach, rate-distortion computation/anal. 24044
memoryless multiaccess channel, multirate achievability 40528
MHEG coded representation for hypermedia IRS 16847
micro-encoder chip, integrated opt. component fab. 30979
Midwest Symp. on ccts. and systs., Detroit (1993) 33
Mini-MAP reduced OSI stack, perform. eval. 3168
mismatched decoders, inform. rates 24045
mobile radio syst. digital modulation scheme selection 33778
model-based tactile obj. recogn. 2684
modified DFT polyphase SBC filter banks, almost perfect reconstruction 32714
MPEG variable bit-rate video on LANs, rate control 16646
MPEG-1 audio std., guide 15963
multi-address encoding for multicast commun. 24858
multi-user inform. theory, std. convexity argument 40529
multimedia conference system on broadcast networks, design and implement. 33614
multiple-access adder channel with/without idle users, coding 32190
multiple-access arbitrarily varying channel, capacity region nonconvexity 41469
multiple-polynomial LFSR, BIT 21266
multiplexed holographic image storage, ang. and phase-encoding 31651
multipoint control units for videoconferencing 33617
multiresolution approx. of fractal transforms 32624
multiscale difference eqn. sig. modeling/anal. techs. 32784
narrowband PSK data transm. via opt. fiber, encoding/decoding ccts. 9527
negabinary encoding for opt. complex matrix operation 16142
noiseless digital channel, optimal coding 32068
noiseless photon commun. channel model and coding anal. *(Croatian)* 2353
nonlin. filtered seqs., lin. complexity, FT approach 32178
nonuniform sampling DM tech. 8155
one- and two-level filter-bank convolvers 24300
opt. CDMA, spectral encoding by acoust. tunable opt. filters 33983
opt. CDMA commun. syst. M-ary signalling 34058
opt. disks, opt. correl. 30835
optimum subband filter bank design/compensation 8279
parallel genetic algms. for earliness-tardiness job scheduling problem 28642
parallel modified signed-digit computing for large-scale 2D data array 31032
perfect reconstruction subband coding stable IIR filter banks 15938
phase-matched filters in pattern recogn., symm. measure 7448
photonic CDMA coherent matched filter time-addressed coded opt. ladder networks 9445
piecewise-lin. transcoders, automatic TV tuner alignment, electronic tuning 21086
piecewise-lin. transcoders, weighted min. approx. and decomp., TV tuner 21085
polariz. encoded opt. multiwavelength full adder 22972
polariz.-encoded logic alg. opt. logic gate design 31039
polynomial time algm. for exact encoding of space containing polygonal obstacles 2366
power syst., intertripping relay, design/appl. 4726
PR-QMF banks/ wavelets, stat. optim. 32707
priority encoding transm. 9080
quantum key distrib. channel based on opt. fibre 15794
quantum limited OOK, opt. amplif., perform./cutoff rates 40546
radio LANs and MANs, IEE Colloquium, London (1995) 36864
randomness-rounds tradeoff in private computation 32183
rational convolutional encoding matrices, predictable degree property 32130
real-time traffic switching element, imprecise-computation for congestion control 16779
Renyi's inform. measures/generalized cutoff rates 24083
reversible logic, encoded arith. 8699
RFI, noninterleaved Viterbi decoder, importance sampling anal. 15966
rot. invariant nonlin. trellis codes for 2D modulation 24031
secret sharing schemes, lin. alg. approach 8138
sectorized mobile microcellular radio syst., perform. anal. 3451
secure commun. systs., chaotic chips/Chua's ccts. 8690
self-checking combinat. logic synthesis techs. 21226
self-clocked self-routing photonic bit switching archit. 42127
self-prog. opt. parallel logic 39510
shadow-casting multi-input opt. parallel logic proc. 22969
short encodings of planar graphs and maps 40679
signal proc. in mag. recording, conf., San Diego (Aug. 1994) 20241
single-rail translation-invariant opt. associative memory for neural networks 22796
Slepian-Wolf data compression syst., universal coding 24041
sonar obj. location, directional PE wavefield 43560
space data compression stds. 2457
spectral-null codes, high-order, constr./bounds 24034
SS commun., inform. theory aspects 24007
subband coding and noise reduction in multiresolution anal. frames 32509
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
sync. DS-SSMA systs., pseudo-noise seqs. 3326

encoding continued
- synchronized chaotic laser digital commun. 25488
- t-error correcting and unidirectional error detecting (t-EC/AUED) codes 24077
- T-Model neural net for PCM encoding, nonlin. ADC appl. 6193
- T-user q-ary multiple access permutation channel, transm. 40526
- TDM/SS packet radio, modulation/coding 33753
- text compression, adaptive algo., subdictionaries class. 2371
- Thinternet, low bandwidth Internet connections 16739
- time-freq. plane, sigs. filtering, FM/peak detect. 32745
- time-varying filter banks/wavelets, factorization 32706
- tree-struct. vector quantizer for image compression on MasPar MP-1 parallel machine 16189
- TV systs. develop. w.r.t. LSI technol. 17532
- two-stage modified signed-digit opt. computing by spatial data encoding/polariz. multiplexing 22977
- two-stage VQ-lattice VQ 24093
- two-state two-particle quantum systs., inform. transfer 15693
- ultra wideband radar, waveform generation and sig. proc. 17364
- universal personal communications, conf., San Diego, USA (1994) 20233
- V.34 modem std. 9115
- variable length code decomp., coding efficiency maint. *(Chinese)* 8157
- wavelets and waveform coding 32510
- WDM quasi-all-opt. broadband networks, packet headers encoding 16448
- weighted finite transducers in image proc. 41282
- Weil exponential sums over Galois rings, upper bound 32057
- wide-area digital mobile wireless syst. *(Japanese)* 33899
- wireless LAN, high perform., implement. 25058
- $BaTiO_3$ refreshed photorefr. holographic buffer memory for permanent readout 31650
- InP-based opt. multiplexer integrated, MQW modulators 34074

encryption *see cryptography*

end effectors *see industrial manipulators; manipulators*

end-fire antennas *see antenna arrays*

energy bands *see band structure*

energy conservation
- 3 DOF Maglev, actuators, PM *(Japanese)* 39216
- AC motor drives, state-of-the-art, overview 44453
- AC motor variable speed drives, design specs. 20062
- AC rly. syst. energy conservation, optim. train running curves 44530
- Best Practice programme, Department of Environment Energy Efficiency Office, ETSU 20051
- Botswana, alternative energy resources 35723
- cache designs for energy efficiency 12514
- cement kiln optimisation experience, LINKman graphic 5425
- cement plant design, efficiency/environ. issues 5428
- cement plant design, power/emissions reduction 44637
- cement plant design for stringent environ. stds 5427
- China's energy consumption situation, characts. 28057
- choices modelling, investment theory 27318
- CHP, fuel cell based, future develop. 43898
- CHP, gas turbines, dryers, hot water boilers 36018
- climate change, economics 27314
- closed-cycle gas turbines, combined pinch/exergy anal. 36009
- CMOS μP design, energy-efficient 12565
- CO_2 power plant emissions, UK energy policy 4829
- commercial building envelope loads, elec. use simul., Hong Kong 36794
- DC converted power systs., energy conservation benefits 35615
- decentralised PV syst., value, society 27634
- desktop computer power mgt., cost-effective archit. 6012
- disk drive power consumption reduction by spin-down 11332
- disk drive power mgt. in portable computers, quantitat. anal. 11331
- domestic appliance uprating trends *(German)* 11490
- domestic hot water supply, elec. heating energy savings 5381
- DynEAF dyn. modeling tool, integrated elec. steelmaking 44629
- eastern Europe, energy conservation, economic aspects 27310
- Eastern Europe sustainable develop., energy policy 26930
- efficiency, bottom-up economic meas. approach 28054
- efficiency markets, perform. assess. 28053
- efficient building design research programmes, Europe 11314
- elec., efficiency improvement by targeted meas. *(German)* 27290
- elec. consumer demand cycle optimis., cost savings *(Italian)* 4591
- elec. drives energy conservation, energy efficient options 28098
- elec. end-use efficiency, worldwide experience 19084
- elec. heat pump, future prospects, domestic use 11482
- elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
- elec. supply indust. challenges, Germany *(German, English)* 35500
- elec. utility DSM opportunities case study, India 35535
- elec. utility DSM overview, UK 10657
- elec. utility DSM planning, elec. cooking implications, Nepal 35475
- elec. utility DSM programmes, concepts and eval. 43697
- elec. utility DSM programmes assess. methods 26991
- elec. utility energy conservation programmes, EPA protocols, USA 26923
- elec. utility energy efficiency programmes, EPRI research 26920
- elec. utility energy services/DSM, objectives overview 10660
- elec. utility integrated resources planning projects, Scotland 10658
- electronics indust., environ. design considerations 28547
- energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
- energy-efficiency gap, market barriers/failures 27315
- failsafe contactors, electronic coil power economizers 29639
- former Soviet republics, energy efficiency, western opportunities 27312
- former-USSR energy syst., energy efficiency improvement 27311
- fresh-produce refrigerated store, wt. loss/power consumption model 44638
- fuel cell elec. vehicles, H_2 storage infrastructure 36718
- gas turbine CHP plant, multi-objective operation optim. 36010
- gas turbine CHP plants, steam-injected, operation optim. 36011
- gas turbine CHP/heat pump facility perform. optim. 36006
- global environ. protection, energy conservation methods 28052
- greenhouse gas abatement, Senegal, least-cost options 27325
- HFC 134a refrigerator rotary compressor 44609
- high speed drives, energy/material savings 36672
- household appliances, energy conservation pot., former USSR 28185
- hybrid PV-wind power syst., optimal unit sizing 10894
- ICE elec. locomotives, energy consumption/pollution study, Germany *(German)* 44502
- induction motor, terminal-impedance control, energy-saving 4981
- induction motor drives, DC link soft-switching inverters 11374
- induction motors, transient torque anal. *(Japanese)* 11031

energy conservation continued
- indust. energy/exergy anals., Turkey 20153
- indust. PC based energy mgt. 36797
- indust. waste heat recovery, energy conservation *(Japanese)* 35725
- intercontinental elec. connections, rational use/efficiency anal. 26934
- KoREMA, conf., Zagreb, Croatia (APR. 1994) 20202
- large-scale cold storage, energy saving syst. 28183
- lighting plans, Japanese Energy Conservation Law *(Japanese)* 11470
- Lithuania, energy consumption/efficiency prospects 27313
- markets, market failures, economics anal. 27316
- Mitsubishi Electric ice storage air conditioning syst. 44604
- Mitsubishi Electric twin-mechanism rotary refrigerator compressor 44610
- Mitsubishi Electric ventilation syst., airtight dwellings appls. 44607
- motor-driven external-injection fans, noise/power reduction tests 28178
- multi-area fuel cell CHP power systs., elec. wheeling anal. 10644
- multizone HVAC syst. optimal control, aggregation/disaggregation method 28180
- offshore watersource heat pump appls. 28197
- PAFC CHP feasibility, multiobjective optimal unit sizing 36074
- Panorama Eye room air conditioner body posn. sens. 44606
- parallel inverter for energy saving, power factor regulation 19872
- petroleum pipeline service, peak shaving generator appl. 5408
- petroleum refinery/elec. utility collaboration, overview 5414
- pollution control, elec. technols. appl. *(French)* 5717
- power syst. with PV syst., reliab./economics anal. 35504
- prod. and energy mgt., optimal rule based syst. 36795
- pump/ventilation elec. drives, energy consumption reduction 28077
- R22/R142b refrigerant mixture heat pumps, capacity control expts. 20147
- rational energy conservation policy, economics 27317
- reprographic devices, energy consumption meas. techs. 9991
- residential energy demand sector restructuring, South Bohemia 26933
- residential heat pumps, improper refrigerant charging expts. 28187
- residential lighting, energy efficiency opportunities, Mexico 28157
- residential pass. energy technol., simul./eval. 44600
- steam power plant distributed control, commissioning perform. audit, USA 27561
- steam power plant repowering projects design, Italy 10870
- Stockholm lighting energy efficiency programme, Sweden 35534
- substation waste heat recovery syst., heat pump-based 36473
- subway elec. supply, energy saving, batt. storage plant 44539
- swimming pool, open absorpt. heat-pump, energy saving 11517
- switches, free-standing air conditioning units *(French)* 20138
- task-ambient lighting *(Japanese)* 11466
- telecomms. switch room cooling, natural convection-based 20140
- telephone exchange energy efficiency, EE2000 study project 19820
- terrestrial energy conversion, aerospace technol. appls. 35710
- thermal cogen. with wheeling, model anal. *(Japanese)* 10850
- thermal generation capacity improvement proposals, Russia 27532
- two-way customer commun. systs. for utilities 41586
- uncoded overlapping PPM perform. under commun. constraints 40556
- urban household water pumping, energy alternatives eval. 44433
- US housing indust., energy efficiency barriers 28203
- variable speed induction motor drive retrofits, centrifugal load appls. 36690
- washing machine energy efficient brushless motor drive 5396
- Al scrap electrorefining, chloride melts-based 28193
- CO_2 abatement costing, Egypt, top-down/bottom-up approaches 27324
- CO_2 abatement costs, comparable assess. 27323
- CO_2 emissions abatement, energy strategies, Brazil 27300
- CO_2 mitigation technol. options assess., China 27322

energy control *see power control*

energy conversion, direct *see direct energy conversion*

energy dispersive X-ray analysis *see X-ray chemical analysis*

energy efficiency *see energy conservation*

energy gap
- *see also superconducting energy gap*
- CMOS bandgap ref. cct. for LV appls. 29045
- high-low emitter bipolar power transistor, characts. 22379
- IGBT, n' buffer layer, static characts. simul. 1410
- II-VI semicond. microstruct., optoelectronic appls. 14577
- InP and related devices, resonant acousto-optic effects 14555
- IR photodetectors, 2-12 μm, high perform. near RT 17787
- long wavelength IR nonlin. semicond. superlattice appls. 29945
- metal-semicond. ohmic contacts, impurity bands 13208
- metal/n-InAs/interlayer/n-GaAs struct., nonalloyed ohmic contact resist. 1154
- photonic IC fab., quantum well intermixing 14666
- poly(3,4-dialkyl-1,6-phenyleneethynylene), opt. props., LED appls. 14320
- poly(p-phenylene vinylene), color changes in photolum., doping/conversion time effects 1794
- polydiacetylene DCHD highly oriented film, fs. nonlin. opt. response 23396
- polysilicon TFT, short-channel, output characts. 30296
- quantum well intermixing, repeated ion implant. 1213
- RT semicond. detectors, phys.-chem. props. effects 43095
- semicond. intrinsic props., nonparabolic three-band model 22337
- semicond. photonic IC, selective MOVPE growth 30976
- semicond. QW struct., bandgap tuning, ion implant. 13166
- short channel MOSFETs, threshold voltage, quantum correction 1428
- thermophotovoltaic cells, composite emitters develop. 27982
- thermophotovoltaic conversion, vert. multi-jn. cells 27975
- thermophotovoltaics, appls., cost, GRI research 27995
- TiO_2:Bi PEC electrodes, props. expts. 27880
- Ag-As-Se glasses, thermal, elec. and opt. props. *(French)* 1055
- $AgInSe_2$, elec. cond., thermoelec. power, solid and liq. state 21935
- $AgSbTe_2$, solid and liq. states, elec. props. 38266
- AlGaAs/GaAs, photopumped vert. cavity QW, hot carrier recomb. 23264
- n-$Al_xGa_{1-x}As$/u-GaAs, corrugated heterojunctions, 1D quantum electron states 13099
- AlGaAs-GaAs, SHBT, Gummel rel. 38821
- AlGaAs-GaAs-AlGaAs, DHBT, Gummel rel. 38821
- $Al_xGa_{1-x}N$, self-nucleated layers, MOCVD 414
- Au/$In_yAl_{1-y}As$, intimate Schottky diodes, characts., mismatch depend. 13221
- a-B:H CVD film characterisation and x-ray imaging appls. 5900
- a-$BaTiO_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
- Bi/ZnO, interface form., model varistor grain boundary 6578
- CdS, film, chem. deposition, struct., props., solar cell appl. 28798
- CdSbTe RF sputtered films, struct./opt./elec. props. 38260
- CdTe electrodeposited films, grain boundaries, opt. meas. 28805
- CdTe:Cl, I-V characts., detector appl. 43087

energy gap continued
- CoSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
- $CrTiO_3$, elec. cond., thermoelec. power and dielec. const. 13074
- Cu(In, Ga)$(S, Se)_2$ solar cells, charactn./modeling 44403
- $CuIn_xGa_{1-x}Se_2$ thin-film polycryst. solar cells, 1.3-1.5 eV band gap 19994
- Er^{3+}:GeO_2-Al_2O_3-SiO_2 opt. fibres, two photon reson. SHG 2070
- GaAS sputtered films, amorphous and microcryst., elec. props. 22994
- GaAs MIS diodes, at. layer passiv. 13598
- GaAs and related devices, resonant acousto-optic effects 14555
- GaAs, dimethylaluminum methoxide-doped , shallow donors compensation 6617
- GaAs high-power high-speed photoconductive switching devices, temp.-depend. delay time 14532
- GaAs quantum wires, dense electron-hole plasma phase 1118
- GaAs solar cells, OCV, bandgap narrowing 19986
- GaAs:III-VI gallium chalcogenides(100), passiv. 30077
- GaAs/AlAs coupled QW struct., long-lived excitonic ground states 1113
- p-GaAs/AlGaAs HFET, output characts., high press. effects 38919
- GaAs/AlGaAs modulation doped heterojunctions, neg. photocond. 29919
- GaAs-AlGaAs p-i-n MQW modulators, opt. bandwidth 39476
- Ga_2AsSb/InP thermophotovoltaic cell modelling 28004
- GaInAs thermophotovoltaic cells, growth/fabr. 27978
- GaInAs/GaInAsP MQW tuned lasers fabricated by photoabsorption induced disordering 1957
- GaInAs/GaInAsP/GaInP LD, barrier comp., props. 31345
- GaInAsP/GaAs, MOCVD, lattice match, photoluminesc. Hall mobility 7610
- $Ga_{0.52}In_{0.48}P$ layers, CBE grown, opt. charactn. 12104
- $GaInP_2$ ordered epilayers, elec. cond. 1065
- GaInP/(AlGa)InP buried quantum wires, local order-disorder transition 13203
- GaInP/AlGaInP DH laser, 570-590 nm 200K operation 31341
- GaInP/AlGaInP, ECR plasma-assisted bandgap engng. 38332
- GaInP/GaAs DH interface, MOVPE growth 20805
- GaInP/InP:S QW, strained barriers, optical/struct. props. 13159
- GaInP/Si/Al structs., Schottky barrier height modif. 13218
- $Ga_yIn_{(1-y)}P$/GaAs, ordering probab., compositional depend. 38299
- GaN films, low-press. metalorganic CVD 419
- Ga_2O_3 films, electronic/optoelectronic appls. 22640
- GaP:N, metalorganic VPE, photolumin. obs. 20728
- GaP/Si strained heterostruct., spectrosc. ellipsometry 29877
- $GaP_{1-x}N_x$, metalorganic VPE, photolumin. obs. 20728
- a-Ge:H,S, optoelectronic props, effects of S incorporation 39556
- a-$(GeS_2)_{100-x}Ga_x$ films, irreversible photoinduced changes 22189
- $Ge_{20}Te_{80-x}Bi_x$ amorph. thin films, opt. and electronic props. 13081
- $HgBr_xI_{2-x}$ radiation detectors, Processing and charactn. 43096
- HgCdTe heterojunction photodiodes, built-in elec. field 14612
- HgI_2, electronic and opt. props. 43077
- ITO thin film, elec. and opt. props. rel. to annealing 21925
- InAlAs/GaInP/InGaAs, HFET, GaInP barrier growth, MOVPE 350
- InAlAs/InP, selective MOCVD growth 20943
- InAs/AlGaSb undoped quantum wells, neg. photocond. 29919
- InAsP 1.3 μm compressively strained MQW lasers for high-temp. operation 39883
- $InAs_{0.91}Sb_{0.09}$, MOVPE, electronic props., photocond. 28779
- InGaAlN, competitor of ZnSe for light emitting devices 23053
- InGaAs low-bandgap solar cell modelling, thermoPV appls. 27936
- $In_xGa_{1-x}As$ thermophotovoltaic cell perform. vs. bandgap 27976
- InGaAs/AlGaAs strained-layer quantum-well lasers, band-gap renormalization effects 7662
- InGaAs/GaAs quantum wells, MBE, selective area bandgap modif. 12118
- InGaAs/InGaAsP MQW, MOCVD grown, in-plane bandgap distrib. 20942
- InGaAs/InP buried wires, selective thermal intermixing 13180
- InGaAs/InP thermophotovoltaic device develop. 27979
- InGaAsP, strained layers, LPE, spin-polarized electron sources 21798
- InGaAsP/GaAs, selective LPE growth 12112
- InGaAsP/InP structures, MOVPE, optical device appls. 12047
- InGaN-AlGaN double heterostruct. violet LED, CVD growth 5895
- $In_{0.5}Ga_{0.5}P$, highly strained, wide-gap material for heterojunction FET 20769
- InGaP/GaAs heterostruct., MOCVD growth, charactn. 20825
- InP double HBT, quaternary collector, breakdown behaviour 13633
- InP solar cells, OCV, bandgap narrowing 19986
- InP/AlInAs/AuGe/Au HEMT struct., thermally stable ohmic contacts 30363
- InP/GaInAs HBTs, ultra high base doping, high emitter effic. 30248
- In_2S_3, ALE film growth, charactn. 20678
- IrSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
- $Mg_xZn_{1-x}Se$ mixed crysts., high press. Bridgman growth method, luminesc. 31072
- MgZnSeTe alloy, blue/green diode laser 23258
- PbMgSrTe, films, hot-wall epitaxy, charactn. 12080
- PbSrTeSe, films, hot-wall epitaxy, charactn. 12080
- Pt-deposited p-InP photoelectrochem. cells, band gap, surface states 6572
- RhSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
- Sb_2S_3, films, microcrystalline, soln. growth from thioacetamide bath 20912
- Si high efficiency solar cells, plasma CVD 5216
- Si interface control layer effect in compound semicond. interfaces 13105
- Si solar cells, OCV, bandgap narrowing 19986
- Si, substr. surface treatment 38535
- Si surface layer elastic deform., photoelectron emission meas. 21005
- Si:B p-n-p lateral transistors, minority carrier diffusion length, band gap 13653
- a-Si:H MIS struct., response time/capture cross sect., gap states *(Chinese)* 22060
- a-Si:H, film, light soaking effect on DC cond. 38235
- a-Si:H films, ECR plasma deposition 20975
- a-Si:H, glow discharge deposition, chem. annealing, at. H role 30008
- a-Si:H,B(P), PECVD film, opt. props., photo/dark cond. 29830
- n-Si:Li,Au, defect complexes, DLTS/SIMS/C-V profiling 38601
- Si/$Si_{1-x-y}Ge_xC_y$/Si HBTs, fab. and bandgap study 21553
- Si/SiO_2/Pt MOS diodes, surface state energy distrib., XPS meas. 29973
- Si/SiO_2/Si heavily doped capacitors, C-V charact. 29990
- Si-Si_xGe_{1-x} superlattices, energy band structs. 6554
- Si-SiGe-Si strained quantum wells, rapid thermal CVD, photolum. 22004
- Si(100) surface, thermal nitridation, Si 2p core-level shifts 13366
- Si(111), surface SHG, wavelength depend., laser induced props. 15037
- a-SiC:H, RIE in CF_4/O_2 plasma 22243
- a-SiC:H films, plasma CVD, opt. props. 20980
- a-SiC:H,F films, plasma deposition, props. 5878
- a-SiC/Si:P structs., P diffusion and interface segreg., HBT appls. 13118

energy gap continued
- a-Si(Ge) thermopower behaviour modelling 27990
- $Si_{1-x}Ge_x$ epitaxial films, opt. SHG 40041
- p-$Si_{1-x}Ge_x$ quantum well detectors, 8-14 μm wave band absorpt. 42784
- $Si_{1-x}Ge_x$ strained alloys, bandgap narrowing, simul. 21936
- $Si_{1-x}Ge_x$-on-insulator synthesis by $^{74}Ge^+$ ion implant. in SIMOX substr. 30055
- $Si_{1-x-y}Ge_xC_y$, heteroepitaxial films, CVD on Si(100) 369
- SiN_x films, X-ray lithog. mask membrane, plasma chem. vap. deposition 13568
- SiO_2 layers, beam assisted STM 39039
- YBaCuO high-T_c supercond. films, four-photon ps spectrosc. of phase transits. 7230
- ZnCdSe/ZnMgSSe strained layer quantum well blue-green lasers, opt. gain 39755
- ZnO films, thermal evap. 28856
- ZnO layers, anodically grown, surface photocond. 1785
- ZnO thin film, spray pyrolysis, deposition variables effect 12142
- ZnS/ZnSe superlattices, opt. props., elec. struct., exciton binding 38347
- $ZnS_{0.07}Se_{0.93}$:Cl/Yb(Al)(Cr)(Cu)(Au)(Pd), Schottky contacts, elec. props. 38401
- n-ZnSe:Cl, doping characts. 21921
- p-ZnSe:N, doping characts. 21921

energy gap, superconducting *see superconducting energy gap*

energy level transitions, atomic *see spectra*

energy level transitions, molecular *see spectra*

energy levels *see energy states*

energy levels, atomic *see atomic structure*

energy levels, molecular *see molecular electronic states*

energy levels, nuclear *see nuclear energy levels*

energy management systems *see load management*

energy measurement
- *see also power measurement*
- dielectrics, space charge relaxation induced breakdown, energy release 13951
- high current electron flux, energy meas. Cherenkov detect. 34819
- ion sources energy spread/ion current meas. 17693
- pulsed microwaves detect., microwave optics 42903
- Walsh transform algms. based energy meter testing 3949
- KrF excimer laser electron beam pumped, energy meas. 2042
- NaI(Tl) scintillator, proton beam energy meas. 4163

energy meters *see power meters*

energy resources
- *see also bioenergy conversion; energy conservation; fuel; geothermal power; hydroelectric power; hydrogen economy; nuclear power; solar energy concentrators; solar power; wind power*
- 21st century energy sources, nuc. power role 10804
- Central/Eastern Europe, energy, environ. impact, internat. finance 27294
- climate change, economics 27314
- developing countries, elec. options/sustainable develop. 35720
- Eastern Europe sustainable develop., energy policy 26930
- ecology recovery, eastern Europe, subsidy strategy 27307
- elec. power indust. develop., global issue 27535
- elec. power indust. reshaping 27304
- elec. utility distributed resources planning, optimum location 10692
- elec. utility DSM strategy economics, math. anal. 35533
- elec. utility environ. policies, planning/operations effects 35530
- elec. utility integrated resources planning projects, Scotland 10658
- emergency fuel/energy supply reliab., Russia 27319
- energy emission model, fuzzy sets based 35981
- energy-efficiency gap, market barriers/failures 27315
- energy-supplying structs., fuel mixes, EU *(German, English)* 35722
- European energy efficiency policies overview 43695
- European energy security problem overview 43696
- exergy use, energy/material resources conversion, Italy 4759
- former Soviet republics, energy efficiency, western opportunities 27312
- former-USSR energy syst., energy efficiency improvement 27311
- global energy problem solving, computer models 43821
- global environ. protection, energy conservation methods 28052
- greenhouse gas abatement, Senegal, least-cost options 27325
- greenhouse gas abatement costing, Zimbabwe 27301
- household lighting, energy resource alternatives 20120
- induction generators, renewable energy generation appl. prospects 36178
- integrated water electrolysis, utility benefits 27335
- intercontinental elec. connections, rational use/efficiency anal. 26934
- long-term energy modeling, current techs. 26924
- non-conventional power systs., scheduling and resource allocation 10656
- OC-OTEC syst., sea water temp./press. effects anal. *(Japanese)* 10893
- policy for sustainable develop. 26931
- power indust. develop. prospects, Lithuania 27046
- power relay satellite, wireless power transm. 36052
- power syst. interconnection develop., SE Asia 26981
- power syst. short-term scheduling, price-based resources integrat. 10705
- prospective energy scenarios for France *(French)* 4758
- renewable energy resources develop. perspectives 27308
- residential energy demand sector restructuring, South Bohemia 26933
- sustainable renewable energy technol. devlop. Africa 19395
- Swiss of renewable energy resources *(German)* 43820
- thermal generation capacity improvement proposals, Russia 27532
- UK renewable energy strategy, longer-term support 27326
- urban household water pumping, energy alternatives eval. 44433
- world energy supply problems and imponderables *(German)* 4757
- world energy syst., space power role/influence 26512
- world energy syst. concept 26935
- World Energy Syst./Lunar Energy Syst., efficiency 27320
- world future energy demand, overview 35724
- CO_2 abatement costing, Egypt, top-down/bottom-up approaches 27324
- CO_2 power generation emissions reduction anal., Japan *(Japanese)* 10797

energy states
- *general aspects only, for specific aspects see narrow terms as appropriate, e.g. "band structure", "excited states", "plasmons"*
- bulk wave propag. and energy trapping 30578
- multilayer planar opt. waveguiding struct., eigenvalue eqns. 14449
- rare earth doped $CaYAlO_4$ for eyesafe laser appls., spectrosc. eval. 1913
- SOI n-MOSFET radiation hardness improvement by Ge-implant. 13726
- $Ca_2Al_2SiO_7$:Nd cryst. lasers, opt. props. 1914
- InGaAs-GaAs 111 strained layer piezoelec. QWs, electronic struct. and field screening effects 13192

energy storage
see also capacitor storage; compressed air energy storage; direct energy conversion; inductive energy storage; superconducting magnet energy storage; thermal energy storage
20 MW batt. storage syst., distrib. network stabil. appls. 35637
AC/DC/AC PWM power converters, DC link energy storage reduction 36343
autonomous underwater vehicles, variable length, parametric perform. anal. 28138
Cuk PWM DC/DC soft-switching power convertor 19795
DC/DC capacitive idling converters, input current shaping 19789
doubly salient doubly excited variable reluctance motor 19616
elec. utility batt. energy storage, trends and status 35539
elec. vehicle energy sources, current technol. review 44524
EM launch technology, conference, San Diego, USA (1994) 5490
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
energy conversion engng. conf., Atlanta, GA, USA (Aug. 1993) 20225
energy recirculation/storage converters, PF correction 11160
fuel cell elec. vehicles, H_2 storage infrastructure 36718
heat generation, shadow prices, time depend./dyn. energy systs. 4835
hybrid PV/wind/diesel power systs., computer modelling 19571
hydrogen energy network start-up scenario 27336
linac with integrated power source, RF energy compression 43002
modular power generation/storage, targeted DSM 43672
multi-MW batt. storage plant, power conditioning reliab. 36081
MV power syst. planning, energy storage, ES 27176
nonperiodic struct. with symm. C_{∞}, energy charact. 15589
oil refinery hydrocarbon storage risk assess. methodology 20172
PEC multiple nano contacts, solar energy storage appls. 27887
power syst. harmonics/reactive power/unsymm. load compensation 4474
pulsed voltage/current/power, stepped line conversion 36364
pumped-hydro-thermal systs., unit commitment 19016
PV energy conversion/storage semicond. solar cells struct. 36607
PV systs. sizing, load matching, short-term energy storage 4870
RAMO telecomms. environ. equipt. mgt. network 19870
spacecraft, battery mgt./scheduling integration 26565
spacecraft solar elec. propulsion, energy storage mass impact 26608
TENOR, telecom./computer power supply, distrib. energy storage 12334
wave power stations, energy conversion problems 4866
wind-diesel syst., probabilistic/time series model 10915
H_2 energy storage medium, elec. utility appls. overview 28051
Ho:YAG quasi-three-level laser Q-switched operation 14819
Yb:$Sr_5(PO_4)_3F$ 1.047-μm energy storage opt. amp. 39730
Zn/Br secondary batts., solar Stirling power generation appls. 36055

energy, surface *see surface energy*

engineering
see also biomedical engineering; biotechnology; civil engineering; concurrent engineering; control engineering; design engineering; electrical engineering; engineering education; environmental engineering; maintenance engineering; mechanical engineering; naval engineering; nuclear engineering; project engineering; systems engineering; value engineering
careers mentoring, case study, Canada 11664
change mgt., activity-based costing model 11672
corporate mgt., inform. age consequences 11628
economic worth of an investment, dyn. measures, engng. projects 11701
hazard engineering and the management of risk 5711
indust. productivity paradox, theoretical anal. 11660
intell. materials, materials education appl. 28889
key industries selection, Saaty's AHP-based 11659
management, conf., Dayton North, OH, USA (1994) 5503
math. ontology 11892
mgt. exec. mentoring, psychological case study 11668
mgt. execs. selection, in-house recruitment 11665
mgt. status, working level viewpoint 11671
multicriteria decision making, unintentional judgemental bias estim. 11658
project mgt. quality syst., ISO model-based 11710
quality fn. deployment, engng. manager implement. considerations 11634
quality fn. deployment, experiences and appls., USA 11641
reliab. engng. modelling, field inform.-based 5699
reliab./safety engng., biased direct Monte Carlo simul. method 37180
safety anal./synthesis, fuzzy sets/evidential reasoning-based 36980
tech. personnel mgt., requirements, guidelines 11669
technol. transfer, cross-cultural commun. barriers 11560
telecomms. power supplies, technol. evol. impact forecast 19785

engineering applications of computers *see engineering computing*

engineering computing
see also aerospace computing; chemical engineering computing; civil engineering computing; computer aided facilities layout; control engineering computing; electrical engineering computing; electronic engineering computing; engineering graphics; engineering information systems; mechanical engineering computing; naval engineering computing; nuclear engineering computing; production engineering computing; telecommunication computing; traffic engineering computing; virtual machines
automotive electronics qualification tests, knowledge-based 11432
British Army in-service reliab. meas., BERR syst. 26831
building services projects CAD, STEP technol. 11315
CAD, AI prog. approach 37021
complex models reliab. anal., SURE bounds-based 28536
computer alg.-based instruction 36910
consecutive-weighted-k-out-of-n:F syst. reliab. algms. 20485
continuing engng. education, computer appl. prospects 69
degree lab., TMS320C25 DSP chip-based course 20345
design brief expansion syst., proc. validation issues 37007
design spec. component selection, genetic algm.-based 37024
diagnosing continuous systs., qualitat. dyn. models 34411
education, obj. recogn. algm., graph matching-based 20346
elec. train fault-tree generation automation, ES-based 44551
fault tree anal., knowledge engng. approach 28535
four-level accelerated life-test plans optim., computer-based 20480
fresh-produce refrigerated store, wt. loss/power consumption model 44638
human-machine syst. transient-state effectiveness simul. 20479
in-bin grain drying energy systs., computer simul. 28200
inertial propulsion, concept and expt. 28149
intelligent computer manual syst. creation, software tool *(Japanese)* 95
k-out-of-n:G systs. spares cost optim. method, computer-based 20484
maint. mgt., computer-aided syst. appls. 28388
MECHANICA/Applied Struct. FEM package, engng. design 37011
memorized testing/measuring technol. 3735

engineering computing continued
Miller/Otto cycle alternative fuel automobile engines, computer model 36768
model-based diagnosis, preliminary spec. methodology 11845
model-based vision, aspect angle target estim. in forward-looking IR images 2714
MOLTKE, integrated workbench for fault diagnosis in engng. systs. 3743
num. solns., computational verification *(Spanish)* 28653
PDM product data mgt. syst. software package *(German)* 101
PERT/CPM network params. eval. 20394
problem explanation/understanding, intell. tutoring syst. 20275
product design proc. improvement, CAD tool-based 11697
product develop., knowledge-based engng. design appls. 37008
react. time expts., CAI support syst. develop. *(Japanese)* 36930
reliab. engng. data anal., neural network appl. 37197
reliab. life testing, best compromise test plans 5700
repairable systs. interval reliab., integral eqn. approach 37178
rly. level crossing obj. detect. algm. 33145
single-screw compressor perform., computer-based anal. tools 44611
solar thermosyphon/elec. backup domestic hot water systs. simul. 36782
surfaces digital models, opt. images 2823
telephone exchange air conditioning units, air flow studies 20141
thermal power plant combustion proc. investigs. 35969
undergraduates, expt. skills develop. 5538
university central CADD service experiences, UK 11706
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
Si rect. diaphragm press. sens. 17753

engineering education
see also control engineering education; electrical engineering education
AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
audience anal., engineering education appl. 28292
class communication skills develop. 28329
computer alg.-based instruction 36910
computer-aided lab. expt. interfaces 36939
computer-based pump testing expt. 5523
consultancy opportunity/challenges, India 5556
continuing engng. education, 3rd Erlang formula 73
continuing engng. education, computer appl. prospects 69
continuing engng. education, workplace-based, India 5547
continuing engng. education projects, India 5548
courses, foreign lang. learning incorporation 28283
curricula, indust. perception, India 5554
degree education, quality achievement, UK 20323
degree lab., TMS320C25 DSP chip-based course 20345
design engng. education, project mgt. teaching principles 37022
developing country engng. education policies, Africa 28356
developments, courses conf., Washington, DC, USA (Nov. 1993) 36901
distributed systs., teaching, Ada reusable software components 5560
education in indust. engng., computers 11602
educational technol. overview, India 5549
empty pathways, computer mediated comm., faculty use 33409
engineers and engng. societies, India 5540
entrepreneurship develop., academia role, India 5557
female perspective, qualitat. assess. 5521
freshman course, engng. with sig. proc., introduction 20297
government programmes, Malaysia 5539
graduate work/employment profile survey, India 5552
higher engng. education, quality improvement syst. 20320
higher engng. education QA, EPC model 20321
higher engng. education quality improvement legislation, Russia 20325
higher engng. education quality programme develop., Netherlands 20324
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
India, bilateral co-operation role 5558
indust. quality engng. course develop. framework 11606
indust.-university collaboration, India 5555
indust.-university cooperation, India 5546
indust.-university R&D cooperation, Turkey 11615
institution placement services, India 5551
institutions accreditation, organisational framework 5543
internat. educational exchanges, pitfalls and possibilities 28282
local government mgt. education unit 20318
manpower education and economic develop., India 5550
mfg. engng. education, computing technol. teaching experiences 36937
mfg. engng. technol., accredited education programmes, USA 36936
mfg. systs. engineers/managers, training 5522
mgt., organizational learning proc. 11625
mgt. develop. requirements 11624
mgt. masters course develop., South Africa 11623
obj. recogn. algm., graph matching-based 20346
personnel mentoring, career guidance benefits 28341
probabilistic methods, continuing engng. education 71
problem explanation/understanding, intell. tutoring syst. 20275
professional engineer career develop., education effectiveness study 20326
professional engng. careers develop., education-based 11666
programme student success prediction 11608
programs enhancement, QA review proc. 11607
Quality Improvement Programme 5544
R&D management education overview, South Africa 28354
R&D work group research, strategies/opportunities 28361
react. time expts., CAI support syst. develop. *(Japanese)* 36930
reciprocal compressors, teaching, computer animation 5524
sci./technol. related global problems ranking 11605
stochastic modelling, continuing engng. education approaches 68
stochastic procs. teaching, comments 70
student perform. eval/follow-up, graphical software tool 11616
technical professional continuing engng. education overview 28352
technical writing course evol. 28291
technician education, India, World Bank assistance 5545
technol. mgt., 40 yr. hist., future prospects 20366
technol. mgt., educational trends survey 20367
technology education, Bahaá'í approach, Africa 28355
The Year In Industry engng. training scheme, UK 36933
time series education, graduate engng. student courses 72
undergraduate engng. curricula, environ. topics 11614
undergraduates, expt. skills develop. 5538
UNESCO-Supported Internat. Centre for Engng. Education 5520
universities, entrepreneurial approach adoption principles 28343
university engng. course, professional skills education, UK 28281

engineering education continued
university engng. degree courses overview, UK 28280
university engng. degree education overview, Germany 28284
university minority engineering programs 28327
women engineers education/employment, India 5553
engineering facilities
see also test facilities
NNC's Engineering Development Centre, Risley 11694
quality mgt., engng. firm 11638
research facilities collocation, administrator's point of view 20373
engineering graphics
3-phase induction motor simul. for teaching purposes 66
3D rendering, sci./engng. tool 15434
binocular imaging geom. 32809
CASS Automated Technical Information display, ASCII data files 34404
cement kiln optimisation experience, LINKman graphic 5425
CHP plant power syst. short cct. calc., simul. package 19505
CircleX program for transistor S-param. data anal. 38774
COMNET III, obj.-oriented network perform. prediction simulator 24900
DC convertor stations, generator shaft torsion simul. 4635
DC machine online spark detect. syst. develop. 4991
dish antenna design alternatives, test beds for student investigs., DishPat and FeedPat programs 31915
distrib. indust. mgt. IS, data anal. integrat. 19253
distrib. network real-time SCADA systs., AM/FM appls. 19273
distrib. syst. drawings, graphic representation, computer programme 19280
dual field modelling, tubes and slices 28331
Ecdis marine chart display IS navig. syst. 9681
elec. utility network IS, requirements and uses *(German)* 4586
electron gun design, DAPHNE 2D axisymmetric simul. code 29761
electronic apparatus design/anal. software, PC-based *(Russian)* 5948
EM phenom., computer animation, graphics package 40195
HF power transformer CAD optim., scant modelling 19685
maint. of plants/equipt., learning environ., virtual reality *(Japanese)* 36486
motor drive digital control, graphic software designer appls. 36692
Motorola training programme improved by virtual reality 36913
network data anal., complementary graphical methods 41675
PCB assembly/soldering defects, inspection/SPC work stations 5696
PCB CAD/CAM, parallel raster image proc. 38077
PCB prod., computer-aided manual workstation, graphics generation 38112
power syst., static security assess., graphic representation 4578
power syst. control, data visualisation techs. 26921
power syst. control centres, full-graphics interface appls. 26952
power syst. interactive graphic anal. software appls. 19128
power syst. load flow feasibility region ident., computer-based 26863
power syst. restoration, trouble call anal., OO prog. 43661
power syst. security margins, spatial aspects visualisation methods 26970
power transformer enclosure CAD, parametric prog.-based 5024
SIGMA AM/FM/GIS project, Colombia 43623
small power plants, optimal operational planning syst. 35717
Smith chart CAL method 28290
Smith Chart program for impedance matching on Macintosh 21020
spacecraft engng. subsyst. operations, Engng. Anal. Subsyst. Environ. 26519
sync. machines, power convertor-fed, PC-based simul. 4921
systolic algms., space-time modeller 21024
transm. network reliab. anal syst., primary substations 26904
university central CADD service experiences, UK 11706
engineering information systems
distrib. network planning inform. syst. *(German)* 10723
inform.-based approach, telecomm. networks engng. 42256
logic diags., automatic input, loop syms. recogn. 5971
power station lab. data inform./mgt syst. *(German)* 4752
engineering societies *see societies*
engineering workstations
see also interactive terminals
advanced μP ATE 663
AXE 10 switching syst., software design support 42110
Bulgaria, nuc. plant analyzer program 35839
complex models reliab. anal., SURE bounds-based 28536
EMS real-time distributed archit. project, Australia 19187
EPRI Distrib. Engn. Workstation, appl. programmer interface 35627
FM subcarrier data syst., develop. *(Japanese)* 3649
fossil fuel power plant compact simulators 35982
IBM RISC System 6000 workstation ceramic ball grid array package conversion 37149
ident. card mgt. syst. for Tokyo International Airport *(Japanese)* 10411
impulsive ESD noise from office chair 30541
Intel i486 μP PGA package, RAPHAEL program L and C modelling *(Korean)* 38984
mixed-sig. A/D simulators, expanding array of choices 12659
nonlin. AV workstation characts. *(Japanese)* 25775
packaging archit., concurrent design methodology 5659
PCB assembly/soldering defects, inspection/SPC work stations 5696
PCB prod., computer-aided manual workstation, graphics generation 38112
power syst. dispatcher training simulator, GUI-based 19157
power syst. fault diagnosis, parallel proc. ES-based 19029
radio studios and workstations 17605
scalable array proc. in SUN SPARCstation 1, perform. meas. 29252
SIMSEN, power network/ASD simul. package 10608
Solid State Logic and workstations for professional audio 17616
studio appls., IEE Colloquium, London (1994) 5479
telecomms. operation and maint. workstation model, ES module 33369
TV news prod. workstations, ITN 17559
engines
see also aerospace engines; heat engines; internal combustion engines; ion engines; propulsion
gearbox acoustic condition monitoring by neural net 34390
memorized testing/measuring technol. 3735
optimal sens. location, multiple hypotheses testing 41020
two wire thermocouple, freq. response in const. flow 3793
Enhanced Small Device Interface *see peripheral interfaces*
enterprise networking *see business communication*
entertainment
see also reservation computer systems
audio inform. services, electronic media environ. 33399
cinema audio quality improvement *(German)* 25689
distributed virtual simul., networking 18995
high bandwidth internat. video via fiber optic cable 3057
entertainment continued
Informedia project, digital video access 16254
model-based image synthesis *(Japanese)* 25128
MPEG player for network karaoke *(Japanese)* 3681
pers. video-on-demand, multimedia inform. caching 42586
tertiary storage appl. in video-on-demand servers 34247
video delivery options 9718
video-on-demand, trends 42589
entropy
see also entropy codes; maximum entropy methods; minimum entropy methods
averaging entropy, probab. n-tuples distrib. 24004
bandlimited sources coding, sampling/dithered quantization, perform. 24092
block-matching motion estim., quad-tree decomp. 2812
channel equalization with perceptrons, inform.-theoretic approach 32027
circ. self-test path, fault coverage estim. 29175
convex constraints, entropy optim. models 20564
DC3T, residual correl., transform gain, entropy, energy compression *(Chinese)* 28703
diagnostic entropy, syst. diagnosis sig. incompleteness 171
digital convex polygons 41206
discriminative HMMs, non-lin. input transforms. 32265
expander graphs, Chernoff bound for random walks 5756
fixed-rate entropy-coded VQ algms. 8151
grey-level images, entropy estim. algm. 8584
grid generation, curvature flow and entropy conditions 5791
heart rate variability, 24 h ECG 10249
high entropy signature, optimal coding 41267
inform. divergence, dens. estim. 32022
inform. theory, typical seqs. 33029
inter-regional telephone call flows anal. *(Japanese)* 3106
kernel hidden unit anal., network size reduction by entropy minimization 37578
Lempel-Ziv algm., improved redundancy 32122
Lempel-Ziv fixed-database algm., redundancy/distrib. 32021
lossless data compressors, fixed dictionary, adaptive update algms. 32127
math. morph., multiresolution image decomp./compression 8545
MCP error images, wavelet transform coding, quadtree decomp./ECVQ 41091
multi-press. condenser optim. *(Chinese)* 10851
multifractal entropy and dimens. spectrum 15691
noise cancellation/sig. separation, unsupervised competitive learning rule 8449
pattern class., probab. measures, learning decision rules 41208
Phys Comp '94 conference, Dallas, USA 47
prime nos., provable, fast generation using searching in arith. progressions 28619
pyramid data structs. for online image progressive transm. 2837
quantum oblivious transfer, secure against, indiv. meas. 8147
quantum sig. source, inform. extraction, quantum entropy reduction 15692
radar imaging, automatic estim. and compensation of target kinematics 17392
random branching procs., entropies, convergence results 40539
Renyi's inform. measures/generalized cutoff rates 24083
secret sharing schemes and graph decomp. 40627
Shannon lower bound, asymptotic tightness 23998
shape modeling, front propag. 24415
spaceborne MOMS-02 sens., spectral/panchromatic band design 43440
spectrograms, time-freq. dens. fns. approx. 8396
speech recogn. non-uniform unit HMMs 2445
speech segment class., rate allocation, spectral entropy 32259
stationary random fields, entropy/recurrence rates 40536
stochastic complexity and universal modeling 32120
syntactic pattern recogn., graphs, inform. similarity 16359
talker clustering/ident., model dist. measure 32282
tape noise charact., chaos appl. 14252
time-freq. complexity and inform. 32741
time-space segmentation/motion estim. based on higher order stats. 32819
two-level atoms, micromaser fields, mean-photon-no. and Shannon entropy decay 39631
universal data compression algms. 32124
universal redundancy rates for class of B-procs. 32006
visual commun. channels, inform. lossless transm. 32936
VQ-based motion field segmentation under entropy criterion 16384
entropy codes
B-procs., universal redundancy rates nonexistence 40674
CMOS high-speed VLSI pipelined proc. design for lossless image data compression 29274
ECG compression, adaptive lin. prediction 43301
entropy-constrained CELP quantization 40646
fast Huffman decoder, high speed pattern matching 41078
generic coder for binary sources, M-coder 32192
hierarchy embedded differential image, progressive transm., lossless compression 24580
hyperspectral image compression, 3-D DCT and entropy-constrained trellis quantization 16266
image coding, arith. and adaptive-Huffman entropy coders, prob. estim. 32871
inform. detect., entropy 32019
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
JAGUAR, pipelined VLSI archit. for JPEG image compression 21341
JPEG image coding algm. Huffman codec *(Japanese)* 16943
Korean speech recogn., synthesis, and cryptography 32017
lossless image compression techs., comparison 8628
low rate audio coder, hierarchical filterbanks/lattice VQ 32106
NEC, digital video transm. technol. develop. *(Japanese)* 42617
perceptually motivated three-component image model, compression appl. 33128
permutation coding in 1D transform domain 8176
prog. image coding syst., arith. codec, LSI-CAD 33700
speech LPC params., interblock noiseless coding 32330
variable-rate predictive residual vector quantizer 41059
video coding, entropy-constrained trellis coded quantization 24507
VLSI implement. of Huffman codec for digital video 33704
envelope inserters *see mailing systems*
environmental degradation
see also corrosion; stress corrosion cracking
adhesive bond, acousto-US eval., pattern recogn. anal. 5921
avionic switchgear contact material durability *(German)* 35259

environmental degradation continued
electronic packages, thermal and sorptive effects, dyn. investig. 28500
high-altitude CPU reliab. anal. 18724
intell. ceramic materials, brittle fracture 28892
load-haul-dump mach. power supply cable life rel., operating environ. 20190
mag. thin-film disk packaging, desiccant humidity barrier 30744
Norcross project, degraded clean room, wafer contamination and ergonomics 38456
Norcross Project, manual/robotic wafer handling, degraded cleanroom 22086
opt. attenuator, liq. cryst. film 7412
opt. fibres, UV cured coatings, reliab. 1660
PCB laminate materials, moisture absorpt. 29690
polyimide film, fracture, hygrothermal effects 28882
PWB dielec. systs., SIR profile, elec. perform. 901
Space Station Alpha power syst., environ. control/protection 26610
spring finger EM shielding gaskets in indust., perform. optim. 23714
thin SOP delamination, moulding cpd./polyimide interface chem. 37078
Ag multilayer ccts., environ. durability 21659
C fibre reinforced epoxy, degrad., acousto-US class. 5922

environmental engineering
see also air conditioning; cooling; ergonomics; lighting; safety; space heating; temperature control; ventilation
aq. US cleaning in electronics 931
clean room changing room design, semicond. manufacture 37057
conformal coating, robotic appl. 935
daylighting systs. *(Japanese)* 11468
distributed control appls., home power ccts. 9039
electronic assemblies, non-Pb bearing solder alloys 936
microcontamination 93, conf., San Jose, USA (Sep. 1993) 42
NNC's Engineering Development Centre, Risley 11694
Norcross project, degraded clean room, wafer contamination and ergonomics 38456
Parylene conformal coating economies 933
PCB, conformal coating proc. optim. 934
PCB cleaning and treatment technol., syst. approach 929
proc. network models of energy/environ. systs. 18915
semi-aq. cleaning agent selection 932
SMT, solder alternatives eval. 145
telecommunications, environmental engng. concerns 33329
test chambers, safety guidelines 94
turbomolecular pumps, high vac. semicond. appls. 13266
Pb-based solder alternatives develop. 127

environmental factors
see also environmental degradation; environmental engineering; environmental testing; pollution; waste disposal
500 MW Boxberg brown-coal power station rehabilitation *(German)* 4842
air-to-vac.-to-air technol., environ. benign vac. deposition 28824
aq.-saponifier post-solder defluxing, waste water effluent testing 38143
batt. design, environ. factors 19926
CCGT plants, repowering from steam turbine plants 43935
cement indust., innovation advancement, public rels. role 181
cement plant design, efficiency/environ. issues 5428
cement plant design, environ. issues 180
cement plant design for stringent environ. stds 5427
Central/Eastern Europe, energy, environ. impact, internat. finance 27294
centrifugal chiller refrigerants, Montreal Protocol compliance 20149
CFC alternatives, materials compatibility study 5719
CFC elimination of no-clean fluxes, Northern Telecom RTP 5718
CFC removal from troposphere 26767
CFC-free solder fluxes for electronic assembly, selection guidelines 38127
COB encapsulation technol., stress anal., reliab., FEM 37077
composite insulator mech. perform., environ. factors 43792
computer hard disks, phosphazene lubricated, environ. effects 7155
conductive adhesive eval. as solder replacement 38107
conductive adhesives and solders for SMT, environ. comparison 38110
crown ether-enhanced nonpolar solvent-based PCB defluxing 38141
cryst. oscillator design and spec., tutorial 39086
eco-balancing in quality mgt. *(German)* 160
ecology recovery, eastern Europe, subsidy strategy 27307
elec. generation, environ. economics 10794
elec. utility policy issues for 1990s 35497
electronics indust., designing, green policy 37210
electronics indust., environ. design considerations 28547
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
electronics mfg. facility, environ. mgt. syst., logical data model 109
electronics scrap recycling, OEM reclamation programmes 11886
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
energy use/conservation, climate change, economics 27314
environ. sens. 9898
ESD packaging, environ. perspective 28455
European power syst. interconnection status and prospects *(German)* 19180
federal policies for mfg. technols. 20364
flip COB process charactn., no-clean flux, ionic residue 38108
flux selection, PCB component and wire tinning appls. 38140
food packaging waste, thermal proc., microwave heating 11477
gas sens. for environ. monitoring 9965
global energy problem solving, computer models 43821
graphite electrode DC arc furnace, solid waste treatment 28165
green design, introduction, issues and challenges 5714
green IC fab., recycling/environ. contamination control 37208
green strategies for electronic products' energy and end of life 11887
HV mil. relay contact rating extension, CO_2 backfill gas 29638
HV pulse technol., appls. 11192
hybrid packages, cleaning, CFC-free technol. 28548
ideal combined cycle power station, design considerations 27581
IGCC, gasifiers, fuels, environ. impact, economics 4853
integrated membrane purification, water reuse in electronics mfg. 11888
ISO 9000 series stds., CFC-free bench top cleaning implications 37214
low power electronics, batt. technol. 44307
low-solids flux conc. analyser, automated 42976
mag. recording in severe environ., error stats. 14253
Mead-Phoenix transm. line project 43782
metal contamination monitoring, surface photovoltage, SPC 38458
metal recovery/water recycling, electronics mfg., integrated solns. 11885
mil. electronics, environ. safe soldering/cleaning 6427
Mitte district heating power plant, Berlin 27597
no-clean wave soldering, technol. issues and N_2-based inert proc. 38136
nonhazardous alternative chem. for semicond./PCB proc. 37213

environmental factors continued
nonrosin solder flux residue corrosivity testing, PCB manufacture 12941
PAFC cogen., natural gas fired, building appls. 36580
PC board materials, flammability 12919
PCB assembly, cleaning technols. 29682
PCB conformal coating methods, review 12909
perfluorinated cpds. as dry etchants, environ. impact 37207
polyurethane cable sheath cold casting syst. props. *(German)* 27213
Portland cement indust., max. achievable emissions control 182
post-solder proc. PCB cleaning in post-CFC world 38091
product design for recyclability and its appl., cost-benefit anal. model 5713
PV R&D projects, New Eng. Electric 43950
PVC cable insulation and sheathing suitability *(German)* 27210
PWB technol. trends, multifunctions and size reduction *(Japanese)* 923
quality eval., reliab. anal. 11889
radiation-stable TV transm. device for wide-angle static survey 42640
RADOBS, intrusion detect. sens., environ. effects reduction 42520
reduced oxide soldering activation solderability enhancement technol. 6428
rly. syst. technols. develop., Hitachi 44504
semi-aq. flux cleaning, equipt. considerations and rels. 6425
solder masks, PCB manufacture, cost reduction/quality improvement 38099
Space Station Freedom, solar array elec. perform. environ. effects 26642
sustainable develop., role of technol. 5469
telecomm. services role, environ. preservation 2996
telecommunications, environmental engng. concerns 33329
terpene cleaning agents, defluxing appls., review 38160
thermal power generation, environ. damage, economics 4836
thin SOP delamination, moulding cpd./polyimide interface chem. 37078
TQM appl., pollution prevention in PCB manufacture 37212
UK renewable energy strategy, longer-term support 27326
undergraduate engng. curricula, environ. topics 11614
US cleaning for PCB manufacture, induced damage/fatigue reduction 38092
US Navy batt. requirements, develop. efforts 43565
vapour phase reflow soldering, viability for SMT ball grid array assembly 38090
waste water recycling systs. for electronics defluxing procs. 6429
water soluble fluxes, SIR/electrochem. migration testing 28438
water soluble organic acid solder flux, ozone depleting subst. elimination 6423
water soluble/no-clean selection guidelines, PCB/SMT/fine pitch soldering 38151
Ag-CdO(SnO_2) power print relay contact materials perform. 29632
Cu/Sn(SnBi)(SnPb) solder systs., wetting tips, morph. and instabil. 28865
O_3 depleting substs. in electronic cleaning 30102
Pb-acid batt. indust., environ. legislation impact 36537
Pb-acid batt. manufacture, scrap Pb recycling 36535
Si based PV systs., life cycle anal. 43949
Sn-Ag(Cu) binary eutectic comp. for lead-free soldering 12928

environmental noise *see noise pollution*

environmental science *see pollution*

environmental science computing
acoustic environ. impulsive sounds, phys. descriptor computation algm. 42998
estuarine/coastal water harmful substs. monitoring 26775
monitored atmos. releases, radiological assess. codes benchmarking 4344
on-line water contamination monitoring syst. 18912

environmental stress cracking *see environmental degradation; stress corrosion cracking*

environmental stress screening
consumer electronics, reliabil. and environ. stress testing 5709
electronic packaging, mech. anal. 28493
MCM-D metal/polymer interface durability, chem./water uptake 11817
medium power RCCB design for severe environ. conditions 36393
packaging interconnect reliab., accel. environ. testing 20475
pass. components for aerospace appls., screening methods/data anal. 5684
product defects, stress testing 28422
product QA, boundary scan testing 5591
rolling-stock electronic equipt. burn-in optimisation 11869
semicond. param. var. influence of climatic factors 13574
stress testing optimisation formulation, net benefit concept 11726
Taguchi method 11727
Taguchi method of environ. stress testing for PWB prod. proc. 29678
Tandem Computers test strategies, HALT/ESS 9800
three level mixed distrib. model 20411
tunnel systs. in automated electronics mfg. 1186

environmental testing
see also corrosion testing; environmental stress screening
0.35-mm-pitch QFP lead and assembly technol. 5654
accelerated ageing test for resistors 6351
adhesives, cohesive mech. props., tensile testing 28912
advanced composite materials, mil. electronics, environ. testing 5646
cart grounding chain effectiveness, unexpected insulating wheels behaviour 31714
chip capacitor attach, CFC solvent elimination, qualif. by comparison 38172
COB sealed memory ccts., environ. perform. 21328
electrohydraulic testing units for vibr. expts. on instrums. 118
environ. stress screening, Taguchi method 11727
fibre-optic connectors in outside plant environ., perform./reliab. 14381
flexible RF cable stress response, perform. tests 38058
HV outdoor insulation, silicone rubber insulators, surface recovery 19317
isotropic conductive adhesives, solder replacements 21654
LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
MCM testing strategy 6468
MCMs, LTCC, silver conductives, reliab. 29727
metal particle tape, archivability, corros.-accelerating environ. tests 7131
MLC capacitors, failure caused by high temp./humidity environ. 12840
nonhermetic coatings for MCM eval. 21737
Norcross Project, manual/robotic wafer handling, degraded cleanroom 22086
npn BJTs, radiation stress and hot-carrier stress effects on current gain 13636
opt. fibre coating design 39331
oxides reliab., low temps. 28406
Parylene conformal coatings compatibility with no-clean flux residue 38109
plastic thermally enhanced QFP packages, moisture sensit./reliab. 11803
PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
PQFP-based MCM, low cost, reliab. develop. and qualification 28468

environmental testing continued
SEU environ. for avionics at high lat., SRAM tests 18715
shock machines standardisation, SRS anal. 10033
SMDs, solder life predict. under thermal cycling and vibr. 37115
solder joints accidentally exposed to nitric acid, reliab. eval. 37188
SRAM reliab., comparison of HAST, THB testing 12540
stabil. test profiles, environ. databases 111
static control footwear, perform.-oriented design and test procedures 31715
std. freq. generators, environ. sensitivities 42663
stress testing optimisation formulation, net benefit concept 11726
surface insulation resist. and electromigration test methods 113
TAB inner lead fatigue anal. in thermal cycle environ. 28474
Taguchi method of environ. stress testing for PWB prod. proc. 29678
Tandem Computers test strategies, HALT/ESS 9800
telecomms. equipt. environ. conditions conformance testing 16540
test chambers, safety guidelines 94
waste water monitoring, automatic BOD test 25715
Ag multilayer ccts., environ. durability 21659
Au-to-Au TAB inner lead bonding, laser 6449
Fe passivated particles in humid atmos., degrad., mag. tapes appl. 7132
Li-$SOCl_2$ long life reserve batt., wide area mine 43566
Pb-based solder alternatives develop. 127
Sn immersion coatings, PWB surface finishes 12934
Ta capacitor resist., high humidity 884

enzymes *see proteins*

EOS *see electrostatic discharge*

epitaxial growth
see also liquid phase epitaxial growth; solid phase epitaxial growth; vapour phase epitaxial growth
HTSC eptiaxial films/multilayers, growth *(French)* 28728
interfacial energy calc., interconnect-metal/barrier-metal interfaces 38633
LSIs, self-aligned complementary bipolar technol. 30442
multifrequency waveguide grating MQW laser fab. by selective area epitaxy 7627
physics and chem. of semicon. interfaces, conf., New York (1994) 20208
real-time monitoring of epitaxial procs. by p-pol. reflectance spectrosc. 28776
ruby on sapphire, integrated thin film stress sens., epitaxial regrowth 17749
semiconds., lattice-mismatched heteroepitaxial growth, roughening/facetting 12114
telecomm. optoelectronics, OMCVD epitaxial growth 37416
ternary III-V semiconds., epitaxial growth, dyn. model 37446
triple dens. DRAM cell, Si SEG channel and NAND-struct. 21321
(Al,Ga)InP-oxide epitaxial DBR in vis.-wavelength opt. devices 39800
AlGaAs diode lasers fabricated, pulsed anodic oxides 31362
$Al_xGa_{1-x}As$ epitaxy, reflectometer/ellipsometer perform. capabilities for comp. anal. 42959
AlGaAs/GaAs epitaxial lift-off MSM photodetectors,field assisted etching 34516
$Ba_2NaNb_5O_{15}$, pulsed laser deposition epitaxial growth, waveguide props. 20905
Fe:InP/InGaAs MESFET, metalorganic CVD growth 38926
GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
GaAs/Si heteroepitaxy, disloc./antiphase domain boundary interacts. 309
$GaPO_4$ crysts. and resonators study, X-ray topography 30577
HgCdTe bulk wafer-based two-colour IRFPAs, design/fab. 17943
InGaAs-GaAs-AlGaAs laterally-coupled DFB ridge LD, CW perform. 31318
InGaAs-GaAs-AlGaAs strained layer BH laser fab. by MOCVD 31359
InP, and related materials, conf., Paris, France (April 1993) 11521
$KNbO_3$ thin film act. opt. waveguide devices, fab. 39464
Sb/GaSb struct., epitaxial growth 20742
Si microtechnol., develops. and proc. tech. depend. 38950
a-Si-SiO_2-Si Fabry-Perot opt. intens. modulator by merged ELO 14647
Si(001), epitaxial growth, Monte Carlo simul. 20896
$YBa_2Cu_3O_7$ high Tc epitaxial thin films, opt. SHG detect. 7745

epitaxial layers
see also magnetic epitaxial layers; metallic epitaxial layers; semiconductor epitaxial layers; superconducting epitaxial layers
ALE, conf., Sendai, Japan (May 1994) 5491
diamond, homoepitaxial thin film, plasma CVD grown *(Chinese)* 5849
diamond/Si(001), heteroepitaxial films, interface study 21940
epitaxial ferroelec./conductive perovskite heterostruct., leakage current/memory effect 13991
metal-semicond. interface struct., Schottky barrier height rel. 38406
strained layer epitaxy, capping and intermediate layers 20852
Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
γ-Al_2O_3, form. from pulsed-laser irrad. sapphire 12037
Al_2O_3-Si, ML-ALE grown, elec. props. 22054
Au/p-InP epitaxial Schottky diode, I-V/T, C-V/T data, simultaneous anal. 38816
$Ba_2NaNb_5O_{15}$, waveguiding epitaxial films, pulsed laser deposition 20806
$Ba_2NaNb_5O_{15}/KTiOPO_4$ film waveguides, noncritical phase-matching 39384
$Ba_{0.5}Sr_{0.5}TiO_3$, epitaxial pulsed laser growth on YBCO 1554
C_{60}, thin film growth, MBE growth, film struct. 37395
C_{70}, thin film growth, MBE growth, film struct. 37395
CaF_2-based MIS struct., DOS, PES and BEEM studies 22072
CeO_2/Si(111), epitaxial oxide film, elec. props. 13229
$CoSi_2$ doping source for RTA of shallow p^+-n jns. 22099
Er-doped PbF_2-SrF_2 epitaxial layers on GaAs(111)B for upconversion waveguide lasers 14832
$KTa_{(1-x)}Nb_xO_3$ thin films, ferroelec. hysteresis, electro-optic response 13996
$LiNbO_3$ thin-film waveguides on GaAs 14478
SnO_2-Si, conducting oxides synthesis by ML-ALE 20717
SrF_2/InP(100) epitaxial diodes, elec. cond. 22065
TiO_2 epitaxial thin film MOCVD growth, neural network modelling 22548
YBaCuO SNS Josephson jns. with epitaxial barriers, interface/proximity effects 39275

epitaxy *see epitaxial growth*

EPLD *see programmable logic devices*

EPMA *see electron probe analysis*

epoxy insulation
see also epoxy insulators
6.6 kV solid insulated switchboard *(Japanese)* 27839
cast, partial discharge induced aging, surface resist. 14043
electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848

epoxy insulation continued
HV insulation, crack resist. epoxy resin, testing *(Japanese)* 14012
HV mineral particulate-filled epoxy composite insulation tests *(Korean)* 27657
HV solid dielec., gaseous cavity, surface charge *(Russian)* 6917
mechanical properties/electrical treeing behaviour correlation 13971
neutron induced changes, dielec. response 14046
PD, dielec. ageing 22645
PD ageing, void gas press. meas. 22672
power CT, thermal short-cct. strength determ. 19690
resin insulation, PD resist. improvement 22673
surfaces, PD stressing 1542

epoxy insulators
GIS epoxy insulating spacers, AC/impulse voltage deterioration characts. *(Japanese)* 27240
HV vac. diode insulators, elec. breakdown 35659

EPR *see paramagnetic resonance*

EPR (insulation) *see ethylene-propylene rubber*

EPR spectra *see paramagnetic resonance*

EPR spectrometers
see also EPR spectroscopy
ESR spectrometer, mm-wave freq. range, gyrotron, radiation power source 34672
loop-gap cavities for pulsed X-ray ESR spectrometers 37946

EPR spectroscopy
see also EPR spectrometers
alanine dosimeter for γ-ray meas., props., ESR spectrosc. 26504
biomedical RF EPR spectrosc./imaging, resonator/surface coil 18475
SIMOX BOX, O implant. effects on radiation-induced hole traps 13251
Si solar cells, SiO_2 AR coating tests 19979

EPROM
1 Mbit CMOS SRAMs, radiation hardness testing 12538
3D capacitance charactn., floating-gate devices, coupling coeffs. meas., EEPROMs 6157
algm. updates for prog. ICs 12491
Arabic alphanumeric dot matrix decoder, PLD based design 29099
artificial electret material, EEPROM technol. 3797
block-erasing methods for flash memory 654
charge pump cct. for high output current EEPROM appls. 29046
CMOS EPROM technol. for high speed/high dens. PLDs and memory appls. 29219
CMOS low-power transponder IC for identif. systs. 29397
controller, fuzzy, pipeline custom design 650
digital divider cct. for laser-beam-pointing stabilization syst. 40003
digital multilayer perceptron, FPGA implement. 6262
DINOR flash memory, erase scheme 12551
dual-bit split-gate EEPROM cell for high dens. flash memories 12552
EEPROM CAD model for low power cct. design/simul. 21304
EEPROM ultrathin thermal oxide, elec. and reliab. props., surface prep. 1278
EEPROMs, 1M devices from SEEQ and Hybrid Memory, SEP charactn. 29238
ESA BIOPAN flight expt., cosmic ray irrad. EEPROMs 12530
flash EEPROM erase, tunneling induced converg. mechanism 12548
flash EEPROM prog. simul., hot-electron/hot-hole injection 12501
flash EPROM endurance simul., phys.-based models 21306
flash EPROM struct., ultra-short pulse erasing, characterisation 12502
flash memories, write/erase method 12550
flash memory cell, failure mechanisms in program/erase cycling 21305
flash-based prog. nonlin. capacitor for SC neural nets 21473
floating gate polysilicon grain size, flash memory over-erase 21331
Flotox EEPROM, charge bal. condition model 21300
FLOTOX EEPROM, program operations, simul. 656
FLOTOX EEPROM cells, intrinsic retention characts., model 37751
GMSK modulation, expt. investig. 15715
LV flash memories, read-disturb degrad. mechanism 12549
MATRA DEFENSE develops., DSP fn., MCM technol. 21741
MOS EPROM writing charact., hot electron injection model, transient simul. 12546
nonvolatile memory devices, plasma-induced in-line charging and damage, CMOS 21313
nonvolatile prog. devices and in-cct. test 6095
SEEQ 28C256 EEPROM, effect of test method on failure dose 12539
self-aligned memory cell technol. for 256-Mbit flash memories 21334
self-aligned shallow trench isolation cell for 256 Mbit NAND EEPROMs 12553
self-learning neuron-MOS neural networks, wt.-updating-lin. EEPROM cell 12676
SEU and SEL response of commercial digital ICs 29092
SIPPOS (single poly pure CMOS) EEPROM embedded FPGA 21326
stacked-gate flash memory cell, operation mode 29209
three-stage Dickson voltage multiplier, dyn. anal. for optimized design 12333
VACM data recording package and memory syst. 10496
a-Si antifuse cct. elements, ASICs, resist strip proc. damage 21170
Si flash EPROM device reliab., erase source bias effects 12500
SiO_2 thin films, RTN in NH_3, N_2O for EEPROM appls. 13329
SiO_xN_y oxynitrided tunnel oxide films, flash EEPROMs 38593

E^{2}PROM *see EPROM*

equalisers
see also adaptive equalisers; decision feedback equalisers
10-Gbit/s 280-km nonrepeatered transm., suppression of modulation instabil. 9509
adaptive beamformers based on cyclostationary sig. props. 8353
adaptive complex radial basis fn. networks, channel equalization 15889
adjustable dispersion equaliser for 10/20 Gbit/s 160 km fibre transm. 9436
ADSL high speed equalizer, sig. proc. design 9086
all pole/finite pole filter and delay equalizer design, monolithic dual resonators 39082
American digital cellular syst. spectral efficiency 9275
ARMA syst. ident. based on second-order cyclostationarity 8424
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
ATM node, syst./perform. design 16701
bandlimited PSK channels, transmitting power effective 9159
bilinear filtering, adaptive algms. 32469
blind equalization, deterministic approach 8086
blind equalization, higher order cumulants/neural networks 2862
blind equalization, recursive Bayesian techs. 15943

equalisers continued
blind equalization based on Nakagami fading index, cost fn. 3430
blind fractionally-spaced equalization, filter banks/lin. prediction 41024
blind fractionally-spaced equalization based on cyclostationarity 8387
blind ident./equalization of MA channels for QAM 8367
blind MA-syst. ident. based on higher order cumulants 32491
blind spatio-temporal equalizer for radio-mobile channel 33937
CDMA mobile radio systs., multi-user detect. equalisers 17041
CDMA multirate radio interface implement. 42192
cell size vs. receiver complexity assess. in urban areas 9325
channels with spectral nulls, flexible precoding 24117
CMOS FIR/IIR filter power minimization, architectural/computational transforms. 29373
combined lin.-Viterbi equalizers, comparison and design 9175
commun. sig. proc. by RBF nets 41027
data storage channels, nonlin. equalization 7141
DECT-type systs., non-coherent equaliser receiver struct. 8855
digital commun. receivers, time-reversed IIR filtering 33877
digital FIR filter for satellite appls., 240 Msample/second 37893
digital mag. recording, equalisation, nonlin. filtering and error confine. 7178
digital tape recording, optim. of azimuth angle/geom. params. 14238
digital terrestrial TV broadcasting, transm. techs. 34221
diversity gain of transmit diversity in Rayleigh fading systs. 9193
DS-CDMA mobile syst., receiver archits. for down-link 33864
fast blind equalization, block-updated algm. 24349
fast blind equalization of wireless commun. channels 15944
FIR channel fractionally-spaced blind equalisation and estim. 41384
FIR channels blind ident. via antenna arrays 8366
FIR channels fractionally spaced blind equalization 8368
fractional sample type max. likelihood seq. estimator *(Japanese)* 15975
fractionally-spaced blind equalization algms., results 15946
globally convergent adaptive blind filters and blind equalisers 2863
guard interval in orthogonal FDM, multipath channels 2885
HDTV systs., channel equalization techs. 17566
high track dens. mag. recording, multichannel equalization 7194
high-dens. opt. recording, variable length RLL codes 15758
HOS for blind channel estim. and deconvolution in colored noise 32457
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
lin.-phase equalizer in digital audio sig. proc., design and implement. 34292
long-haul opt. fiber commun. syst. dispersion, distributed in-line group-delay equalizers 17250
long-span 2.5-Gbit/s CPFSK coherent opt. transm., power EDFA boosters 34000
low-power analog sampled-data VLSI archit. for mag. recording channel 29411
mag. disk PRML read channels, A/D interface 7144
mag. recording channel, neural net equalization 7106
mag. recording channel equalization for max. likelihood detectors 30724
MLSE receiver for GSM digital cellular syst. 3424
modified ISI canceller for digital microwave radio 9168
multi-carrier CDMA in indoor Rician fading channel 9226
multi-carrier CDMA in indoor Rician fading channel, controlled equalization 9219
multipath channel Viterbi algm. multitrellis decomp. 40558
multipath compensation for underwater acoustic commun. 9614
neural network equalizers, perform. improvement 8308
nonlin. cepstral equalisation method for noisy speech recogn. 2434
nonminimum phase channel deconvolution 2475
OFDM, guard interval and sub-channel equalization for digital TV broadcasting 9699
orthogonal FDM for mobile radio 9214
panda fiber delay line dispersion equalisation scheme 9510
perfect reconstruction filter banks design 32722
planar lightwave cct. dispersion equaliser module 17233
recurrent radial basis fn. networks 2555
RG algm., blind equalization algm. *(Chinese)* 8403
robust speech recogn., telephone line equalization 8231
room acoustics, digital equalization 9761
Schneider write equalizers for (1,k) peak detect. channel 7137
SI filter syst., first/second generation SI cells, comparison of sensitivity 37856
signal proc. in mag. recording, conf., San Diego (Aug. 1994) 20241
silica-based planar lightwave ccts., opt. filters develop. *(Japanese)* 17182
SUPERCOMM/ICC ‘94 conf., New Orleans, USA (1994) 5448
tapered waveguide-type delay equalizer, quadratic/cubic delay distortions 815
TCM for equalized multipath fading ISI channels, perform. 25340
two-port coherent lattice-form opt. delay-line cct. synthesis 14669
underwater high data rate transm. equalizer 9611
unmanned underwater vehicles characts. 11410
wavelength-reusable/topol.-reconfigurable WDM opt. LAN networks, monolithic opt. equalizer array 42426
wireless commun., filter struct. for equalization and diversity combining 33875
wireless commun. channels, blind equalization algm. 41025
Er-doped fibre amp. gain equalization by tunable coherent opt. transversal filter 39709

equations
for equations used in specific subjects, see the specific indexing heading
Data Encryption Standard, expt. cryptanalysis 32151
lin. eqns., iter. soln. 247
structural eqn. models, non-recursive, equivalence 28630
superspheroids, family of radome shapes 31998

equations of state
electrothermal guns, low mol. wt. working media, num. study 18967

equilibrium, chemical *see chemical equilibrium*

equilibrium constants *see chemical equilibrium*

equilibrium diagrams *see phase diagrams*

equipment evaluation
advanced IN services, computer platforms 9036
ATM switches, stress test results 42116
biometric identity verification by electronic equipt. *(German)* 20387
instrument performance 9788
ISDN routers and LAN traffic 8899
Multi-Talk II voice output commun. aid eval. 4314
Netherlands blind listeners' electronic newspaper eval. 4319
NexGen's NX586 challenges Pentium *(Chinese)* 662
Spanish text-to-speech syst. blind user acceptance tests 4321

equipment evaluation continued
telecomm. syst. user-friendliness eval., ITG test method *(German)* 25137

equipment selection
integrated data acquisition syst. for satellite struct. testing 18707
periodic instrumental variable ident. method 34303
plug connector selection criteria and reliab. *(German)* 21615
reflow soldering syst., equipt. selection 12902
telecomm. syst. user-friendliness eval., ITG test method *(German)* 25137

equivalence classes
see also automata theory
coloured Petri nets, conflict sets 37272
discrete majority games, symmetric solns. 11914
Fork-Join Queuing Networks, Blocking 37226
speech recogn., vocab.-independent, phoneme-level HMM modelling 32339

equivalent circuits
see also network analysis; network parameters; network synthesis
3-phase tetrapolar alternator model, bond-graph method 27695
3D EM simulator, IE3-D, HF and high-speed cct. appls. 21071
3dB 180° hybrid, asymmetrically terminated impedances *(Korean)* 21398
5 to 100 MHz low power commun., SIT appl. 22481
30 W HF foil-type air-core power convertor transformer 6381
330 kV substation busbar short-ccts., turbogenerator saturation modelling 19064
AC elec. charactn. of solder paste 9994
AC immittance spectrosc. of smart components and devices 18027
AC meas. of quantized Hall resist. 34318
AC supercond. current limiters, design and modelling 4731
act. integrated antennas, opt. control, microwave-opt. interact. *(Japanese)* 8062
act. voltage attenuator using two cascaded MOSFETs, perform. 736
all pole/finite pole filter and delay equalizer design, monolithic dual resonators 39082
anti-directional twin rotary motor drive, elec. vehicle *(Japanese)* 28111
anti-directional-twin-rotary motor drive, elec. vehicle 5360
asynchronous machine, two stator windings, EM torque 36144
asynchronous machines, standstill freq. response studies *(French)* 11044
autonomous power syst. higher harmonics reduction methods 43677
backplane power source capability 6435
bal. lin. diff. ccts. anal. education 20280
bearingless squirrel cage motor, no-load characts. studies 19644
bipolar transistors, max. oscill. freq., base-collector time consts. 13661
BJTs, 1/f noise coeffs. extraction 1351
BJTs, DC and AC current crowding effects model *(Korean)* 30251
breaking arc, equiv. cct. *(Japanese)* 11209
broadband matching to capacitive devices, limits, SIS mixer design 12792
buck ZVC-ZCS HF PWM power converter studies 19716
capacitor storage, programmed discharge 36630
capacitor-run induction motors, single-phase, lumped param. model 4972
cavity enclosed broadband circ. patch antenna for L-band MSAT 15661
class E freq. multipliers with RF choke, anal./design 37905
class E half-wave low dv/dt rectifier, anal. 37621
CML cct. delay components and current dependency 12423
CMOS cryst. oscillators, neg. resist./equiv. capacitance 6925
CMOS micromechanical resonator oscillators, design/perform. 30509
CMOS OTA-C act. filter simul., OTA macromodel 21404
CMOS SRAM soft-error simul. syst. 657
combined Maglev levitation, propulsion, guidance syst., anal. 28134
contactless method for measuring bulk resist. 9993
contiguous band multiplexer design for satellite appls. 25457
coreless supercond. transformers, high coupling factor 39290
coupled strip lines, short-duration pulses caused by unequal phase velocities 31877
cpd. quasi-opt. power combiner, cct. anal. 812
current feedback mag.-multivibrator, oscill. freq. compensation 6046
current power converter transformers, short-cct. inductance calcs. 19771
current-source reson. DC-DC MOSFET power converter anal. 44222
cylindrical-circ. microstrip antennas, generalized transm. line model 31938
cylindrical-rect. microstrip antennas theory 8049
DC current amp., noise anal. simul., PSpice-based *(Japanese)* 6029
DC power supply, two-phase induction generator-based 5110
DC rly. vehicles, narrow-band LF act. filters 20102
DC switch converters, transfer fn. determ. 5103
deep-bar induction machine dyn. params. determ. 4964
δ-type pot. struct., electron wave propag., equiv. ccts. *(Japanese)* 22503
dielec. resonator equiv. cct. 14096
digital cct. board, near-field EM emission, reson. charact. 21625
direct injection readout cct. model 34561
discharge lamp, num. simul. study 11455
double loop SQUID, nonlin. phenom. anal. 1614
dual gate MODFETs, submicrometer, 2D hydrodynamic simul. 38006
EEPROM CAD model for low power cct. design/simul. 21304
elec. apparatus EM field calcs., equiv. cct.-based *(Russian)* 31734
elec. drives, multiple defects diagnosis algm. *(Russian)* 11317
elec. locomotive DC traction motor drives, electromech. proc. modelling *(Russian)* 36719
electromechanics/electrobiology, analogies 6882
electronic cct. time domain anal., unsteady modes of operation 512
electronic component model minimization based on log simulated annealing 12280
electronics packaging interacts., equiv. cct. models 11764
electrostatic micromotors, torque computation, 3D mesh generation 36213
electrostatic US transducers with V-grooved backplates, electroacoustic model 18929
EM coupled microstrip-patch antennas/antenna arrays, design 40512
EM launcher, plasma armatures, 3D MHD modelling, equiv. network 15313
EMC problems, PEEC cct. models, stable time domain solns. 15511
EMC-disturbances on coupled microstrip lines, LF SPICE model 12695
emitter resist. extraction from floating collector meas. 13649
ESD, finite element time domain simul. 15218
exercise bicycle eddy-current brake computer model 36651
fast bias depend. device models for CAD of MMICs 38014
flextensional transducers, piece-part equiv. cct., modes, antires. freq. 14080
folded waveguide gyrotron TWTA 29803
FPGA-based design, high-level synthesis techs. appl. 6109
functional models for space power electronic ccts. 35244
gain-distributed DFB opt. filters 22899
GaInP/GaAs microwave HBTs, small-sig./noise model extraction tech. 21540
GIS fast transient overvoltage effects anal. 19917

equivalent circuits continued
HBT equiv. cct., param. extraction from S-params. 30258
HBT SPICE model for large-sig. appls. 13615
HBTs, high-power, modeling, scaling approach 30246
helical-scan recording, lumped modeling of rotary transformers and heads 34272
HEMT, source, drain and channel resist. determ. 22489
HEMT equiv. cct. determ. tech. 30379
HEMT large sig. model for mixer anal./design 6320
heterojunction microwave FETs, small-sig./large-sig. extraction techs. 12754
HF analogue perform. of MOSFETs from CMOS procs. 22411
HF inductors modelling 6380
HF switching reson. power convertor, reson. rectifier appl. 44135
HFET, microwave, temp. noise model 21542
high speed digital sig. transm. line, crosstalk *(Korean)* 31871
high-perform. pulse transformer design in easy stages 38057
hot-electron damaged LDD NMOSFETs, modelling 13751
impedance-loss profile of interconnection struct. 22559
induction machine equiv. cct. models, comparison 27742
induction machine param. estim., standstill time-domain data 19642
induction machines, effect of skewing on cogging torque 19641
induction machines, rotor-air gap boundary layer, equiv. ccts. design 44037
induction machines, rotor/air-gap boundary layer, equiv. ccts. *(Russian)* 44033
induction machines, saturated, deep bar effect, transient models, simul. 19634
induction motor, dyn. behaviour/param. calc. optimisation 4942
induction motors, nonsinusoidal supply-fed, additional loss calcs. 27737
induction motors, param. slip depend. determ. methods 27734
induction motors, parameter estim., dyn. anal. 19649
inductively coupled discharges, analytic models 21789
indust. distrib. networks, harmonic reson. studies 20155
inhomogeneous lossy medium nonlin. diff. eqn. and inverse scatt. solns. 23603
Kerwin-Huelsman-Newcomb biquad cct., current conveyors 731
Ku band 12 channel contiguous band multiplexers, optimal design 3282
latchup-free design in merged BiPMOS 6869
lateral IGBT on SOI wafer, latch-up characts. improvement 13752
LCC parallel reson. power converter, small sig. anal. 11129
leader current, equiv. elec. network modelling 30531
LED modulation bandwidth extension by pole cancel. 23032
LF cavity oscill. driven by detuned current modulation 29787
lightning current meas. in building columns and girders, Rogowski coil 20123
LIM, control obj., math. model *(Russian)* 27759
LIM, single-sided, theoretical perform. anal. *(Japanese)* 44045
lin. induction accelerator, high current, operation with relativistic magnetron 34745
lin. multiplexer designs for rem. sens. appl. 34581
lin. pulse motors, vibr. suppression design 4996
linear active dipole array loading by neg. resist. devices 23980
lossy coupled transm. lines in lossy medium, transient anal 31876
lossy planar microwave struct., discontinuities modeling 12701
LR terminated LC filter, synthesis/RC-act. simul. 21415
lumped param. power transformer model, computer-based 5021
mag. core loss charactn., practical approach 30746
MAGLEV train coil syst., transient induced voltages study 11428
magnetotransistors, mag. field sensit. modelling, HSPICE 38825
master slice-type transimped. amp. photosensors, PIN-bipolar proc. 25835
MCM-D interconnects, perform., process var. effect 38184
MCM-L layout approach for high-speed problems 38187
MESFET, intrinsic small-sig. equiv. cct., Monte Carlo determ. 38910
metal grating polarizers, quasi-opt. power combining 29531
micropower batt.-operated CMOS cryst. oscillator, anal. 6045
microstrip fed slot antennas, approx. model 2325
microstrip gap discontinuity in spectral domain 2308
microstrip-to-waveguide transits., anal./design 15597
microwave bipolar transistor, power-gain and f_{max} eqns. based on T equiv. cct. 6306
microwave FET equiv. cct. params., simulated annealing method 839
microwave HBTs, nonlin. SPICE model param. extraction 6309
microwave HBTs, param. extraction method 6310
microwave HBTs, transient thermal simul., TLM method appl. 37980
microwave packages, time domain meas./modeling 28460
MIMIC amp., modelling and charactn. 29605
mixed photonic/electronic cct. simul. 37603
MLC dielec. stripline planar filter for portable telephones 805
MLC package, time-domain charactn. 28462
modelling, local extended state eqns. 482
modulated-freq. boost AC-DC preregulator, model 19804
monopolar voltages, phase response props. mapping 26369
monostable-bistable transit. logic elements, switching time 37736
monotone element network theory, inequality in iter. methods 37611
MOS controlled thyristor, latch-up mechanism, subthreshold currents, switch-back *(French)* 22399
MOSFET device perform., distrib. gate resist. impact 1402
MRI, shielded loop resonators theory 43209
multi-stage coilgun, design, energy distrib. *(Korean)* 23519
multielectrode lasers, microwave small-sig. equiv. cct. model 14849
multilayer microstrip struct., freq.-depend. permitt., quasistatic model 40439
multilayer piezoelec. ceramic transformer for power supply 12854
multimode equiv. network of inductive/capacitive multiple posts 31881
multiport finline couplers, propag. characts. 12709
multiterminal AC-DC power syst. outage contingency ranking 10669
multiterminal power systs. anal., reduced ccts. methods 26899
neg. resist. oscillatory cct., async. simultaneous oscills. 21140
non-punch-through IGBT, crit. switching condition 30327
nonlin. lossless transm. lines and equiv. ccts. anal. 31879
nonlin. mag. device modelling, IDAS simul. syst. 12305
nonlin. transistor model params. extraction program 13805
nonohmic piezoelec. resonator contacts obs./anal. 6920
oscillators for low phase noise/power consumpt., anal./optim. 37659
p-n-p-n-struct. equiv. for integrated radio-electronic devices 33756
parallel-module power converter, current bal. controlled, dyn. anal. 44140
pass. multilayer component CAD, EM field computation 6364
PGA package, high speed elec. charactn./simul. 20442
piecewise-lin. diode model for transient behaviour 22347
piezoelec. plate resonator, transm.-line analogs 30612
planar busbar low inductive connections, power electronics 12868
planar lines and antennas, 3D full-wave anal. 2280
planar wire-mesh EM shields loaded by general stratified struct. 40379

equivalent circuits continued
planar wire-mesh shields loaded by chiral slabs, transient anal. 23710
PLL syst. equiv. diag. 37677
PM motor EM field anal., 3D equiv. mag. cct. method *(Korean)* 27667
PM sync. machines, stabil., cage bar effects 36125
pot core transformers, coupling coeffs., num. study 38053
pot. discharge from human body, num. inverse Laplace transform 40213
power cct. variable act.-pass. reactance studies *(Japanese)* 12311
power converter, commutation cell bond graph model 21115
power IGBT SPICE model, power converter design appls. 12316
power MOSFET transistors, design methodology, simul. *(French)* 6751
power semicond. switches PSpice models, parametric sensitivity anal. 533
power syst. dyn., induction motor loads aggregation 4491
power syst. dyn. equivalence calc., model reduction algm. 26903
power syst. dyn. load models, state variable description 35430
power syst. economic distrib. planning, computer-based *(Russian)* 10691
power syst. protective CT, transient perform. calcs. 19340
power syst. steady-state/transient conditions, equiv. cct. math. model 43622
power syst. switching transients simul., multiport equivalencing 26872
power syst. voltage stabil. limit determ. method 35468
power system load flow modelling, phasor dynamics-based 19035
power transformer excitation under geomag. induced currents 11101
power transformers, insulating syst., internal defects detect. 5025
power voltage transformers, external compensation 5018
printed dipole antenna, opt. control *(Japanese)* 31957
printed transverse dipole arrays, design *(French)* 2343
PTH of PCBs, suitable conditions for connections 29692
pulsed power energy capacitance integrator studies 19706
PWM converters av. simul., behavioural rels. implement. 6023
PWM VSI, motor appls., HF leakage currents modelling *(Japanese)* 27814
Q-factor meas. of high-T_c supercond. resonators 1641
quartz resonator param. meas., IEC 444-5 direct transm. method 39077
radiation from finite-length printed-pattern, cct.-concept 21626
rect. spiral inductor, S-param. calcs. *(Chinese)* 38056
rect. waveguide discontinuities anal. by method of lines 23794
reluctance motor drives, axially laminated rotor, vector control 5258
reluctance motor drives, sensorless posn. meas. 11318
reluctance motors, modelling/param. meas. methods *(Japanese)* 10973
replica-amp gain enhanced op amp, settling time anal. 37648
resistive strip gratings on dielec. slab 23541
RF absorptive cables, characts. calc. and meas. 890
RF MOSFET power amp., CAD 556
ring hybrid, miniaturized 3-dB design 12710
Rogowski transducers for high bandwidth high current meas. 34484
round massive core electromagnet, dyn. characts. calc. *(Russian)* 7930
RTD-bootstrapped MESFET I-V refs., mirror-based 531
sample holder filled method, dielectric meas. 25949
saturated deep bar induction machines, simul. model 4971
SAW contiguous filter bank, m-derived ladder *(Japanese)* 717
SAW resonator filters for digital radio systs., review 37832
SC networks, nodal anal., linked-capacit. cct. model 5982
SCFL inverters, anal. delay expression 37696
Schmitt trigger, CMOS mixed-mode implement., equiv. cct. 21159
Schottky LEDs using polymer act. film, fab. and characts. *(French)* 1822
self-protected microwave detector for microwave receivers 37999
semicond. diode laser nonlin. study by equiv. cct. modelling 1976
semicond. laser arrays, modeling of thermal crosstalk 23302
semicond. lasers, HF characts., nonlin. gain cct. model 31333
semicond. lasers with weak coherent opt. feedback, equiv. cct. 23272
semicond. LDs, elec. and opt. photocurrent noises correl. 1922
sensitivity anal. of one port/two port BAW/SAW resonator 30639
series integrated RTDs, subharmonic excitation simul. 6323
series reson. converter, parallel reson. cct. under parallel reson. freq. 21099
series reson. convertor with third-order commutation network 36306
series-connected MOS struct., internal parasitic capacit. effect 30435
series-parallel reson. converter, magamp postregulators 6020
series-parallel variable resistor networks, geometric charactn. 479
series-reson. DC-AC power converter, switching control *(Japanese)* 11190
shaded-pole motor model and equiv. cct. *(German)* 11025
shielded CPW resonator anal. *(Korean)* 21525
single phase cycloconverter, steady-state proc. 44187
single-electron logic ccts., quasi-CMOS inverter simul. 37731
single-phase AC/DC low-harmonic power convertor 44168
single-phase self-excited induction generator, anal. 36177
single-phase switch-mode rectifier, voltage-reversal cct. 29020
slot-coupled cylindrical-rect. microstrip antenna anal. 40479
soft-switching converters, IGBT computer simul. and design optim. 29030
solar cell, mag. moment, probab. estim. 44408
solid insulation, PD damaging energy 1532
solid rotor turbogenerator, equiv. ccts. anal. 27660
solitary waves on nonlin. transm. lines, modelling 23754
source resist. of FET, determ. from meas. S-params. 30380
spatial power combining oscillators on microstrip structs. 12789
spherical-annular microstrip antenna generalised transm. line model 23928
spurious resons. meas. of cryst. units 30616
squirrel cage motor harmonic equiv. cct. param. determ. 36161
squirrel cage motor perform. characts. calc., nameplate data-derived *(Russian)* 11011
squirrel cage motors, perform. prediction, power supply vars. 11051
SRM drives, generalised simul. approach *(Chinese)* 44472
stepped flexural mode quartz cryst. resonator, reson. freq. 39090
stray capacitances of two coupled inductors 21596
subband adaptive digital filter with crit. sampling, perform. 745
supercond. air-core power transformers, characts. anal. 27785
switch-mode DC-DC power converter dyn. response, CAI 5533
switching regulators, general algm. for anal. *(Japanese)* 12279
symbolic anal. of networks with nullors, cct. level decomp. 460
sync. machine equiv. cct. time domain anal. approach 11005
sync. machine modelling, time consts., transients, reactance, steady-state operation *(French)* 27700
sync. machines, model struct. ident., SVD *(Chinese)* 4911
sync. machines, salient pole, rotor complexity, transient responses 10995
sync. motors, cycloconverter-fed, computer simul. 10999
sync. PM motor vector control, stator iron loss considerations *(Japanese)* 10968
tandem induction motor, series-delta connected, equiv. cct. model 36179
three-layered electron waveguides, equiv. network approach for multistep discontinuities 21979
three-phase AC-AC power convertor, cct./control anal. *(Japanese)* 11191
three-phase induction machines, dynamic starting perform. models 19626

equivalent circuits continued
three-phase power syst. earth fault factor determ. 19066
three-phase salient pole sync. machines, param. estim. algm. 44016
three-phase systs. distortion source ident. 43803
thyristors/diodes, transient thermal impedance modelling/verification 13666
time domain network synthesis tech. 12257
time-varying mag. field, conductive plate, induced eddy currents, Tokamak fusion reactor 31725
TLM algm., alg. anal. method, charact. eqns. 12258
transformer coupled bridge, capacitance meas. errors 25940
transformer matrix of transm. lines topologies 21084
transient plane wave coupling, bare/insulated cables in lossy half-space 31869
transient surface impedance boundary condition, model 40192
transimpedance amps. with cascode struct., anal., MMIC amp. appl. 12807
transm. line transient current meas., Rogowski coil *(Korean)* 27286
transm. network transient fault simul., EMTP-based 27129
TW microwave power divider, waveguide type, design 12711
TW type US motor, design 36199
two winding ferrite core transformer 27782
two-winding transformers, stray capacitance studies 12849
unbalanced radial distrib. system, power flow algm. 19263
unfolded Chua's cct. generated by cellular neural net cells 37615
unity-PF PWM rectifier, DC ripple compensation *(Japanese)* 21098
VLSI RC parasitics modeling based on network reduction algm. 22536
waveguide discontinuities, wideband matching, FDTD methods 2288
waveguide divider, anal./design *(Polish)* 810
Webster's horns, discrete component equiv. cct. 35368
X-band MMIC power amp., two-stage, 2.5 W output 29600
ZVS PWM half-bridge power converter studies 44197
Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
AlGaAs/GaAs HBT, RF-charact. down, 20 K 6733
AlGaAs/GaAs pnp HBT, Al graded base, 37 GHz cutoff freq. 21534
AlGaAs/GaAs power HBTs, self-aligned, LF noise characts. 13648
AlGaAs/InGaAs PHEMT ultra LNA MMIC, 50 GHz band 29592
AlGaAs-GaAs HBT, elevated temp. microwave charact. 37992
AlGaAs-GaAs HBT, large sig. equiv. cct. model, MMIC oscill. 38828
AlGaAs-GaAs HBT small-sig. equiv. cct. param., algm. 38827
$Al_{0.60}In_{0.40}As$/GaInAs/InP single pulse doped HEMTs for Q-band power appls. 29566
AlInAs-GaInAs HBTs, ultrafast photocarrier transport 23014
CO_2 laser, microwave-excited discharges, modeling 29740
Fe powder core inductors, HF modelling 12850
GaAs ACT transversal filters, yield model 39118
GaAs E-mode MESFET technol. for low power/noise appls. 12780
GaAs FET power amp. for digital cellular portable telephones, phase charact. 3358
GaAs MESFET, AC small-sig. equiv. cct. model 1448
GaAs based HEMTs, recess depend. breakdown behavior 13777
GaAs/AlAs low temp. MISFET struct. for power appl. 6752
GaAs/AlGaAs SQW laser struct., carrier lifetime, absorpt. recovery time 14918
GaAs-AlGaAs quantum wells, periodic pot., cct.-theoretical anal. 13191
GaAs-based MESFET/HFET, device and cct. modeling 6781
GaAs-based integrated reson. tunneling devices, MM-wave detector appls. 10005
InAs-GaSb quantum wells, periodic pot., cct.-theoretical anal. 13191
InGaAs switch transistors for microwave control applications 12768
InP MOS tunnel diodes, elec. charactn. 38814
InP-InGaAs high-speed heterojunction phototransistors, electrode 14611
$LiNbO_3$ elec. field sens., sensitivity improvement 14522
$LiNbO_3$ piezoelec. transducer, width-shear mode *(Japanese)* 9849
Si condenser microphone, bond and etch-back technol. 10580
$SrTiO_3$:Nb semicond. ceramics, electrode effects 13227
Ta capacitor reliab., low impedance/high surge current ccts. 5705
YIG, magnetostatic forward-vol. wave resonator, tunable oscillator *(Japanese)* 12761
ZnO varistors, dielec. charactn./equiv. cct. studies 867
electronic excitable membrane model, phase transit. curve anal. *(Japanese)* 37619
erasable programmable read-only memory *see EPROM*
erection
integrated power/opt. overhead cabling, utility experiences, UK 35651
ERG *see electroretinography*
ergonomics
see also human factors; man-machine systems; office environment
ALWR plants, integrated digital instrumentation and control *(Japanese)* 4771
CBC's Toronto Broadcast Centre master control room 42595
CCTV, operator perform., syst. design 42632
head-mounted displays avoiding visual deficit 3929
home electronic product buyers and users, usability issues 36996
large-picture technol. for workstations and monitoring *(German)* 42697
Norcross project, degraded clean room, wafer contamination and ergonomics 38456
syst. design, project mgt., ergonomics *(French)* 5582
VDU bibliography and information pack 3943
erosion
steam turbine moving blades, laser clad *(Chinese)* 2155
error analysis
see also error correction; error detection
3D diffusion eqns., compact finite vol. soln. 28684
3D inhomog. media local earthquakes, mechanisms determ. 43498
a posteriori error estimator for lin., ellipt., 1D problems 37366
adaptive DCT image coding in combination with M-transform, channel coding perform. 16133
adaptive filtering, sign algm., convergence anal. 32531
adaptive filtering in data commun., self improved error ref. 33160
adaptive lattice notch filter, tracking anal. 40853
adaptive LMS filter algm., nonlin. behaviour 24345
adaptive sig. proc. in subbands, sigma-DM tech. 32719
ADC, harmonics error due to nonlinearity 25759
airborne DGPS, DME navig. aid coord. and calib. error detect. 25605
algm.-based fault tolerance, canonical computational model 32497
aliasing props. of circ. MISRs, comments/reply 21276
ambulatory ECG, adaptive data compression *(Japanese)* 4285
archive digital data storage device based on home video recorder 39182
ARMA syst. ident. based on second-order cyclostationarity 8424
array proc. perform., finite samples/model errors 2479
error analysis continued
asymptotic error expansions and extrapolations, nonlin. integral eqns. *(Chinese)* 5789
ATM transport networks, virtual path test fn. 16576
ballistic missile defense, discrim. perform. requirements 4435
band-limited sig. recovery, lin. fn. approx. 24298
band-limited sigs., nonuniformly sampled, spectral estim. method 15863
Bayesian approach, direction finding, parametric array uncertainty 40923
BER, influence of multipath propag. *(German)* 23635
best approx. by incomplete polynomials, error curve, extreme points distrib. 5768
blind equalization, ML/MMSE estim. 41021
blind equalization based on Nakagami fading index, cost fn. 3430
block adaptive algm., conjug.-gradient method, perform. 41041
block adaptive filter, interf. robust, correl. sig. input 32701
block-float FFT, roundoff errors 25750
burst error activity anal., network perform. determ. 9397
C-band dual-polariz. radar, computer error anal. of rainfall rates 10571
Capon beamformer, sensitivity anal. 16032
CELP model, computationally efficient adaptive codebook search 40714
circ. 16-DAPSK in fading channels, diversity recept., error anal. 2363
classic four-stage fourth order Runge-Kutta formula, error estim. 28654
coherent opt. POLSK receivers, LO intens. noise and unmatched quantum efficiencies 25491
coherent/incoherent localization methods, sensitivity 17461
coilgun perform., timing errors effect 31755
color image proc., luminance quantization error effects 2734
color images in RGB domain, lossless compression 24505
comparative analysis of digital sinewave generation methods 25904
complex FIR filter design, Remez multiple exchange algm. 32787
compression window algms. design for elimination of errors 3704
computable error estim. for lin. and num. soln. of obstacle problems 37368
covariance anal. of strapdown INS, gyrocompass charact. 26695
Cramer-Rao lower bound approxs. of freq. estim. 24224
data acquisition systems improvement 34415
data compression, hypothesis testing, error bound 40868
Decca Navigator radionavigation receiver design and DSP 42543
deconvolution filter design considering channel sensitivity 2526
differential parallel combinatory SS commun. systs. *(Japanese)* 25207
diffr. tomography, multistage parallel algm. 32970
diffused channel waveguides, Δn/index profile determ. 39417
digital Doppler companding, canonical decomp. algm. 40883
digitizer error extraction in nonlin. test 9837
discrete convolution backprojection algm. in computerized tomography 26354
discrete-time/continuous-time const. modulus algm. anal. 29383
dither signal effects on the resolution of nonlinear quantizers 24181
DOA estim., wavelength, gain, and phase errors 24211
DQPSK in fading channels, unified error anal. 8090
DS-CDMA, integrated CCI cancellation and decoding, fading multipath channel *(Japanese)* 25276
DS-SS commun. syst., path-diversity based on multiple path selection *(Japanese)* 25275
dual wavelength beat wave interferometry for large diams. meas. *(Chinese)* 42928
effective condition no. applied, error anal. of certain boundary collocation methods 20572
EKF sensitivity, soln. accuracy for single space based observer 29343
electromechanical transducers, sig. params. estim. 17704
element quality anal., accuracy of ephemeris prediction from satellite orb. elements 18985
EM scatt., high-order basis fns. for Galerkin method of moments 31790
error diffused images, estimating error diffusion kernel 8611
estim. in quadratic formulas 11988
FAEST, fast transversal algms., error generation and propag. 32699
FEM, spatial discretization/num. precision errors 8019
finite precision arith., matrix powers 37333
finite-element soln., ellipt. sing. perturbed problem, error estim. 37293
FIR filter design, complex Chebyshev approx. algm. 32786
Fourier pseudospectral-finite difference method, incompressible flow 274
freq. deviation of pulsed sig. meas., errors anal. 42885
global array calib. method 40922
Gregory formulae, modified, based on mixed interpolation 11958
hardware-in-the-loop simul., point targets, error anal. 26837
HDD, off-track perform., soft error rate model 14236
hierarchy embedded differential image, progressive transm., lossless compression 24580
high speed μP test, meas. error calc. 9804
HMM, on-line ident., recursive prediction error 8432
hp-extension of Nedelec's curl-conforming elements, error estim. 15233
human error causes and compatibility influence 11692
IC electromigration tests, thermal effects 30134
IDCT finite word-length calc., error estim. 12018
image reconstruction, iter. deconvolution, variable convergence speed 41235
impedance computation, FDTD method, num. errors 5802
implicit matrix multiplication on various transputer networks 5777
impulsive differential-functional eqns., difference methods 37346
induction motor drives, field oriented, digital implement. 36702
integrat. for BEM, variable transform. *(Japanese)* 37338
intens. modulation/direct detect. opt. commun. syst., optimum sig. detect. 34076
internat. digital route outer codec for satellite links 3268
inverse halftoning/kernel estim. for error diffusion 33133
isolated word recogn., model topol. selection 32360
joint blind equalization/phase recovery scheme for data commun. 3431
laser cutting machine, accuracy/error compensation *(Japanese)* 5608
least sq. sig. reconstruction, normalized autocorrelation constraints 32735
lin. 1D PDE init.-value hyperb. problems 20626
lin. antenna stat. synthesis, random error param. effects *(Russian)* 15623
lin. phase freq. sampling FIR filters, error spectrum shaping 41044
lin. time-variant digital filters synthesis 2527
linear error models for analog devices 25760
logarithmic error measure, pole-zero approxs. design 2494
Loran-C waves near huge bridge, phase disturbances *(Japanese)* 42550
lossless image compression, block scans codebook 15886
lossless image compression, context-depend. distrib. shaping and parameterization 24502
LTI digital filters design, error criteria 32790
M-ary opt. polariz. modulation detect. in commun. channel 17318
mag. core loss charactn., practical approach 30746

error analysis continued
mains insulation monitoring, computerised monitoring 39062
Maxwell's eqns., time-domain num. soln. errors 2178
metallic enclosure model source, EM emission estim. by inverse-forward anal. 40374
microwave heating, refl. meas., pulsed/CW sigs., 2.45 GHz 11478
MMSE design of generalized interpolators polyphase components 32729
mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
modified RESTART-method using LRE-algm., rare event simul. 33247
modular cable-mesh deployable antenna for satellite commun. antennas 15637
MPEG codecs in the presence of errors, perform. 16386
MSE, periodic sigs. oversampled quantization, lower bound 40878
MSK transm. over dispersive radio channel, error mechanisms 17120
multidimensional coding schemes in combined satellite and terrestrial channels 3531
multidimensional M-band filter bank, quantization compensation 33150
multidomain spectral approx. of ellipt. problems 37360
multiple target tracking, importance of resoln. 17367
multiple-error/block LMS adaptive algms., mean-sq. anal. 32761
narrow band satellite commun. systs., automatic freq. correction 37680
narrow track recording, write pole geometries, edge effects 14219
narrowband adaptive arrays proc., quantisation error modelling 32609
near-far resistant CDMA detectors, param. estim. errors effects 16460
neural network based on stochastic computation *(Korean)* 21477
nonhomogeneous NS eqns., error estim. for spectral semi-Galerkin approxs. 11956
nonlin. ellipt. problem, BDM mixed methods 12006
nonlinear disturbance errors in lin. syst. identification 25701
nonrandom interf., freq. estim. 24250
nonstationary Erlang loss model, modified-offered-load approx. 33405
num. solns., computational verification *(Spanish)* 28653
oblique projections in discrete sig. subspaces of l_2 and wavelet transform 32503
ODE, B-spline solns. 37340
one-step fixed-lag IMM smoothing for alignment of asynchronous sens. 15875
opt. DPSK/heterodyne detect. scheme, two polariz. planes *(Japanese)* 17265
opt. image detect. in spatial noise and background radiation 2833
opt. PLL, amplit. modulated commun. link 42347
Optical Communications Demonstrator, control proc. syst. archit. 17314
orthogonal coherent digital MFSK systs. in Gaussian noise and Rayleigh fading 40795
orthogonal multi-carrier FH-CDMA schemes for freq. selective fading *(Japanese)* 25280
orthogonal regression models, nonlin. param. estim., algms. and appls. 28662
OTDR waveforms, pattern matching, opt. lines fault location 9454
output error method IIR ADF, stabil./globally convergence 32704
overlapping multipulse PPM in opt. direct-detect. channel, error perform. 8259
parab. systs., integrated space-time adaptive hp-refinement methods 37344
parallel distributed detect. under Neyman-Pearson criterion 32535
param. estim., improved Bellini-Tartara lower bound 40870
param. estim. based thermal diffusivity/cond. determ. 42969
pass. acoustic param. estim., PWVD optimal window length 40968
Petrov-Galerkin methods applied, nonlin. problems 20639
phase field model, error estim., finite-element scheme 20571
phase shifting interferometry, ref. phase shift determ. 33072
planar EM anals. validation, ultra-high precision benchmark 824
polynomial phase param. estim.-phase unwrapping algm. 40931
power syst. harmonics, external syst. model, bilinear theorem 35463
power syst. state estim., param. error ident./estim. 35485
power syst. transient stabil., quasi stationary phasor dyns., error anal. 26886
precision/low-cost temp. transducer, develop. 17762
proc./device simul., optimal moving meshes 22538
PWM generalised block pulse fns. 32638
QRD-RLS/STAR-RLS adaptive filters, fixed/floating point error anal. 32700
quadrature component generation anal., narrow-band oscills., delay method 40766
quadrature formulas, symmetric interpolatory, efficiency measures 20615
quadrature param. estim., max. likelihood tech. 41019
radar adaptive antenna proc., array errors influence *(French)* 17404
radio direction finding results, simul. modeling 34191
radiometer receiver linearity characterization by intermodulation distortion 25795
randomized num. method 37292
rational approx. of nonuniformly smooth fns. 11967
RCS surface model accuracy importance 34123
refr. index of liqs. mes., posn.-sensitive detector 18125
Richardson-Lucy blind deconvolution algm. 24361
ripple fields comp. on moving finite element meshes 43982
RLS algms., error propag. anal. 8429
RLS weighted algm. for speech proc. 32447
RLSL algms., comparative anal. regarding num. behavior 32480
RLSL prediction filter, a posteriori, error accumulation effects 24302
robust data fusion, error criteria anal. 40913
Runge-Kutta implicit 2-stage methods *(Japanese)* 37361
S-SEED operation with noise, BER anal. 22946
satellite reception, DSPN signalling in mobile dense scatterer ray tracing model 33944
satellite TV receiving antenna, optimal axis of rot. 2340
scanned halftone images reconstruction, filters appl. 33129
Schelkunoff's shielding effectiveness formula, errors and correction factors *(Japanese)* 23658
SDH slave clock chain RMS time interval error accumulation 41391
self-testing PLM design, lin. seq. machines 12413
semicoercive variational inequalities, approx., error estim. 11955
ship trajectory tracking by acoustics, small displacement meas. precision 25595
short-block digital transm., adaptive MLSE for mobile radio 3427
Simpson's quadrature, probabilistic anal. 5788
single tone max. likelihood freq. estim., threshold effect 40828
sinusoidal param. estim., real time cascade adaptive notch filter 2524
slave clock internal noise impact on Allan variance 8700
source bearing estim., propagator method, perform. anal. 40959
spatial anal. methods, model errors influence *(French)* 16038
speech compression, hierarchical stochastic modelling 40919
SS commun. constrained spreading code *(Japanese)* 25205

error analysis continued
SS commun. noise, chip interleaving/hard limiter 25232
SS commun. syst. without ref. sig. for freq.-selective fading channel *(Japanese)* 25206
starting procedure, variable-stepsize variable-order PECE codes 12007
stiff IVP, error of stopping Newton iter. 20625
stirred mode reverberation chambers for EMC emission meas. 2270
stochastic particle method for Kolmogorov eqn. with variable coeffs., rate of convergence 275
Sturm-Liouville eigenvalues, finite-element estim. 12013
subband adaptive digital filter with crit. sampling, perform. 745
subband DFT, accuracy/complexity/appls. 40778
symmetric quadrature formulas, Peano kernel behaviour/error bounds 11997
sync. machines, reduced model error anal. 10975
synchronous sampling clock generator, meas. accuracy anal. 25763
TCM sig. design for class-A impulsive noise channel 40569
TDMA-TDD syst. fast-setting freq. synthesiser 33204
telecomm. systs., BER estim. for transverse lightning surge *(Japanese)* 15690
telecomm. traffic, modified adaptive seq. projection algm. 41679
TEM defocus series, exit wave reconstruction 24430
thin film mag. recording heads, narrow read width, error rate model 14218
tracks stabilization, multiple model filters 32694
transducer errors estim., operation 3808
trellis-coded DS-SS commun. 17015
two-pattern class./feature extraction, neural networks 41209
underwater acoustics, hybrid/polarity-coincidence correl. proc. 16062
viewpoint-controlled displays for teleoperated robots, perform. eval. 34629
wavelets and waveform coding 32510
weighted multilevel median filter algms. *(Polish)* 37868
wide-angle propag. beam opt. waveguide anal., generalized Douglas scheme 22876
wide-area traffic, inadequacy of Poisson modeling 3207
xerographic laser printer, vibr.-induced halftone banding 41196
Zincenko's iter., improved, posteriori error bounds 243
HgCdTe IRFPA nonuniformity correction algm., real-time hardware prototype 17948

error compensation
see also error correction
AC motor drive, adaptive predictive control algm. for compensation of params. 27875
act. RC filter, compensation tech. for HF respons, functional trimming 6211
ADC compensation, phase-plane/state-space error table coverage 703
arrayed-waveguide grating multiplexer, phase error compen. 22919
coherent detect. tracking syst. in laser commun., ang. bias correction 17309
constant voltage anemometer circuit anal. 34447
correction method for single chip power meter 4740
DC motor drive fuzzy speed controller 36654
Doppler sonar navig., matrix algm. 34170
electron-beam lithog. syst., yaw compensation 13473
flux-gate magnetometers on spinning spacecraft, calib. 35220
high-dens. mag. recording channels, nonlin. compensation 7102
indust. robot mech. positioning errors, meas. and correction *(Japanese)* 3985
laser beam cross-sect. conical converters, mutual error compensation 31459
laser cutting machine, accuracy/error compensation *(Japanese)* 5608
lin. power amp. for cellular telephone, envelope feedback method 12342
LV bandgap regulators using only n-p-n transistors, perform. 37622
mag. core loss charactn., practical approach 30746
mag. permeab. meas., errors, correl. factors 18042
MEBES 4500 raster scan lithog. syst., dyn. corrections 13448
microcalorimeter, mm-band power converters 18050
microwave heating syst. permitt. meas. correction procedures 44593
monolithic pipelined ADCs, digital correction archit./algm. 37817
multipath compensation for underwater acoustic commun. 9614
multisensor tracking, track assoc., correction for bias and missing data 15876
multistatic refr.-error compensation in radar and satellite navig. systs. 17512
nonlinear disturbance errors in lin. syst. identification 25701
orbital debris radar antenna pointing Kalman filter 25581
OTH radar receiving array terrain compensation 25562
power voltage transformers, external compensation 5018
QPSK adaptive DFE with MLSE 41385
reciprocal-compensated fibre optic elec. current sens. 17885
robust speech recogn. using direct cepstral comparison, environ. normalization 32380
satellite commun., multicast hybrid ARQ scheme, stored error recovery 17147
spurious resons. meas. of cryst. units 30616
switched-current ccts., tunable feedthrough cancellation 774
Si wafer stress test chip, piezoresistive sens. rosettes 18111

error control codes *see error correction codes*

error correction
see also forward error correction
3D coord. meas. machine, self-calib./error correction 18086
A/D convertor on-line error detect. and correction 12610
adaptive whole-field opt. profilometry 18089
algm.-based fault tolerance (ABFT) 32493
analog cellular facsimile commun. time reduction *(Japanese)* 41741
asynchronous low-power error corrector for DCC player 9769
ATM self-routing bridged shuffle-exchange network 41414
binary lin. block codes in Rayleigh fading channels, decoding algms. 40681
campus-wide network, packet voice distrib. 33520
CDMA multiple-cell radio syst., perform. eval. 3386
charge division posn.-sensitive detectors, error reduction 18345
class D output stages lin. for high-perform. audio power amps. 3697
CMOS low-power chipset for portable multimedia I/O terminal 9114
CMOS pipeline current mode ADC, redundant signed digit algm. 29329
consumer product in-proc. inspection/correction facilities 11838
decoder implemented, digital neural net 8152
digital equipt., error correcting tech. 24024
digital indoor radio channels, diversity, block error probab. *(Japanese)* 42173
digital recording techs. in acoustics 9771
ESD diagnostics, HV calib. 30542
facsimile, neural network error-correcting 8872
facsimile commun. time in analog/digital cellular systs. 8871
fault-tolerant sig. proc., redundant finite rings 29244
homodyne step freq. radar range profiles, I/Q errors correction 34129
HP8410 ANA syst. response calib. 34385
hybrid Go-Back-N ARQ scheme, repeated transms. 8689

error correction continued
hybrid-ARQ scheme, convolutional code and Viterbi decoding 32099
inductive displacement pickups, ratiometric correction of sampled data 17736
lag correction in meas. systs., nonrecursive filtration 17625
lossless data compression for data transm. and storage 24881
monolithic pipelined ADCs, digital correction archit./algm. 37817
MR images, vol. segmentation 26271
multiple design error correction for combinat. ccts. and finite state machines 21177
nodal-based deformable block matching, motion-compensated prediction 41175
opt. commun. codec, high data rate error correction coding 17316
parallel error-correction archit. for digital avionics 10364
partitioned/parallel CRC, VLSI implement. 645
phased array error correction by sig. reconstr. 23949
planar standing acoustic waves, intens. meas., error correction procedures 26019
portable digital satellite news gathering (SNG) RF terminal, flat antenna 25168
Rohde & Schwarz HF Data Modem GM 857 C4 9119
sequential ccts., automatic design error correction 21184
service specific connection oriented protocol, preliminary perform. study 41935
sliding-window protocol, design/test in protocol testing syst. 8755
slot array design and anal., interpolation methods 31965
speech recogn., misrecognitions and out-of-vocab. words, detect. 32370
switched current cct., tunable feedthrough cancellation, modified dummy switch 29423
TDMA struct. DECT syst., data services 16621
telecom. network mgt. using inform. and proc. models, spec. description 41669
test errors detect./correction, concurrent engng. 6823
time domain network analyzer, calibration/normalisation 25745
traceback algm. for perform. improve. in Viterbi decoder *(Korean)* 32096
TV camera lenses, latest develop. *(German)* 25653
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
GaAs-InP pin photodiode lightwave meas., error correction 42797
HgCdTe IRFPA nonuniformity correction algm., real-time hardware prototype 17948

error correction codes
2D burst ECC 8140
2D modulation codes 15754
3-error-correcting primitive binary BCH-codes 24101
5.6 kb/s speech codec, pulse codebook/improved Viterbi decoding 32274
60 GHz mobile-to-mobile radio channel, meas. 9262
abelian groups, perfect t-shift codes 40692
adaptive DCT image coding in combination with M-transform, channel coding perform. 16133
adaptive rate error control for land-mobile satellite channel 9370
arbitrarily varying channel theory, localized random/arbitrary errors 24082
archive digital data storage device based on home video recorder 39182
asymptotic bounds on size of error-correcting recording codes 2384
asynchronous low-power error corrector for DCC player 9769
ATM framing, CRC byte 8712
ATM video, performs. and error control 8612
automatic retransmission rather than ARQ 3364
AVLSI decoder archit. for TCM 9731
bal. ECCs, max.-likelihood trellis decoding 32112
BCH codes, duals, bound, MacWilliams-Sloane conjecture 24040
Berlekamp-Massey algm. modif. for two-sided shift-register synthesis 40680
best convolutional codes search on basis of wt. distrib. 8114
binary BCH codes, fast decoding algm. 8166
binary const.-wt. codes correcting localized errors and defects 15730
binary ECCs over Gaussian QAM channels, perform. eval. 2377
binary lin. block error control (34, 15, 9) codes 40581
binary primitive BCH codes, automorphism groups 40596
binary symmetric channel, zero-temp. error-correcting code 15737
block runlength-limited error control codes, trellis decoding 2373
block-coded image recovery from channel errors 41094
burst error correcting 2^k-ary cyclic AN codes *(Japanese)* 15742
byte-organized memory systs., error-locating codes 24036
CA-based byte error-correcting code 29169
CDMA coded packet cellular networks, code rate optim. 25384
CDMA packet combining error control 25368
CDMA syst., macro-/micro-cellular environ., perform. 3471
CDMA systs., error-correcting coding 24782
CDMA wireless LAN, hybrid-ARQ error control scheme 8748
Cedervall-Johannesson algm. for computing dist. spectrum of convolutional codes *(Japanese)* 40623
cell, error correction *(Japanese)* 15740
CELP coders employing LSF vector quantizers, error protection 8194
channel noise immunity rel., code and sig. constr. mutual effects *(Russian)* 15696
CMOS 16 Mbit DRAMs for mass memory appls., space radiation eval. 12527
CMOS LSI archit., ultra-high speed error correction, majority decoding 29200
coherent opt. DPSK systs., phase noise corrupted, BER perform. 17327
computer memory, systematic SEC-DED codes, error detect./correction 32066
concatenated block coded modulation in Rayleigh fading channel 9171
concatenated coding syst., modified erasure declaration Viterbi decoder 8173
constrained codes for synchronisation/additive errors correction 8165
convolutional codes/time-varying errors/Kalman error correction 40664
convolutionally encoded seq. decoding, pairwise error probab. 32115
correl. fading channels, FEC perform. 32140
cryptology, error control, speech compression conf., Moscow (1993) 43
cyclic block codes definable, multiple finite fields 24116
cyclic q-ary images of codes, burst correction 40594
d=1 channel codes, sig. proc. tech. 32070
(d,k) seqs. codes of const. Hamming wt. 24096
(d,k)-constrained seqs., synchronising methods 15755
DCT based image coding, error concealment tech. 33151
defect-tolerant WSI file memory syst. 29211
DFT, arbitrary blocklength in finite fields 2558
digital cellular syst., channel/speech coding combination 8192
digital inform. protection 40683
digital land mobile radio, commun. channel simulator *(Japanese)* 17137

error correction codes continued
digital signature schemes, suscept., universal forgery 8154
digital TV broadcast sig. error correction techs. *(Japanese)* 17546
digital VTRs, ECC, pipelined decoder *(Japanese)* 9747
double error correcting RS decoding without Chien search 2400
DS-SSMA commun. in Nakagami fading channels, path diversity 9345
DS-SSMA diversity commun. in fading channels, error perform. 3357
DS-SSMA unslotted PRN 25257
DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
DS/CDMA digital cellular systs., error control algms. 9361
DS/CDMA diversity combining, convolutional encoding/Viterbi decoding 9380
DS/CDMA prototype syst. for voice/ISDN sigs. 3320
DS/FH-CDMA syst., fading channels, near-far problem *(Japanese)* 25210
dual-rate alg. CELP-based speech transceiver 9221
ECPS2/ECPS3 public key encryption methods, security problem *(Chinese)* 32045
error-tolerating codes for A/D converting devices for dependable real-time systems 32118
EVENODD, efficient scheme for tolerating double disk failures in RAID archits. 22703
expander codes 8179
fast FH/CDMA systs. in mobile radio environ., efficiency 17086
FEC 2381
FH packet commun. syst. capability in fast Rayleigh fading environ. 41461
Fire code, modified decoding algm., fast burst error correction 24073
generalized product codes and their perform. 32194
Gilbert channel, perform. eval. 15749
go-back-N ARQ scheme for variable-error-rate channels 16500
Golay-coded M-PSK, Rayleigh fading channel, decoding 32090
Griesmer bound, generalizations 8139
GSM data services, overview 42248
Hamming space, superimposed codes 24039
HDTV, all digital sigs., terrestrial transm. 9735
helical-scan digital video recorder, playback, channel investigs. 17593
Hermitian code for burst errors, decoding 40661
high data rate satellite commun. systs., R&D *(Japanese)* 17158
higher order moments, channel adaptive coding techs. 32141
hybrid Go-Back-N ARQ scheme, repeated transms. 8689
hybrid SCM AM/QAM lightwave transm., laser clipping distortion effects 42411
ident. schemes, short-size keys, design 32167
inhomog. block codes, constr./decoding 40638
insertion/deletion correcting runlength-limited codes 24035
insertions/deletions bursts correcting codes 40600
joint source/channel coder design 40589
land mobile radio, RS coding for CELP error detect. and control 33832
land mobile radio multicarrier coded 16QAm syst. 33780
lin. codes, correcting errors, neural network 32108
lin. codes, error patterns correction 24095
linear block codes, channels with memory, undetected error probability 8167
low-delay vector excitation speech coding with adaptive interframe pitch tracking 40722
M-Choose-T commun., multiple-access adder channel 32098
matched filter derived and code-assisted bit sync. 41392
matrix-vector opt. proc., multiple-error-correcting codes 39521
metacyclic error-correcting codes 40689
mobile commun., variable rate speech/channel coding 9222
mobile radio channel, still image transm., unequal error protection coding *(Japanese)* 42293
mobile speech, video and data transceiver 3266
modular arith./dist. criteria, tiling, polyominoes 40644
multicarrier modulation impulse noise mitigation strategies 40561
multicopy ARQ strategies, Stutter XOR strategies 2927
multimedia transport protocol, high-level error control 9079
multiple insertion/deletion correcting codes 40604
n-track (d, k) codes with redundancy, new constr. 40650
Nakagami fading channel block error probabs. 33800
noise robust vector quantisers, neighbourhood fns. effect 33068
noisy (1,7) constrained channel, concatenated coding, perform. 40652
non-binary sync. ECC, bounds/constr. 40598
nonbinary codes, correcting single localized error correction 15733
nonredundant error correction DQPSK for aeronautical-satellite channel 33945
OFDM, guard interval and sub-channel equalization for digital TV broadcasting 9699
on-the-fly error correction in hard disk data storage channels 30734
opt. commun. codec, high data rate error correction coding 17316
opt. heterodyne PPM, convolutional coding 9474
opt. orthogonal codes, unequal auto-/cross-correl. constraints 24089
optimum Kalman detector/corrector for fault-tolerant linear processing 32649
orthogonal arrays/expts. design 40641
orthogonal convolutional codes, CCI cancellation 25242
overcomplete pyramid image representation 32827
P^2 codes, pragmatic trellis codes utilizing punctured convolutional codes 32114
parallel concatenated recursive systematic (turbo) codes 32105
partitioned Markov model, non-binary error correcting codes eval. 8168
periodically disturbed data channels, error correcting codes 32142
phase modulated FCMA syst. convolutional coding 25462
polynomial GCD computation, finite field division, VLSI array synthesis 12570
power line SSMA, error correction, IFMV9 coded overlapped PN seq. 25198
printer models and error diffusion 16313
probabilistic burst-error-correcting scheme, interleaving method based *(Japanese)* 24103
probabilistic neural net for code design 40711
QPSK block-modulation codes for unequal error protection 32064
quaternary quadratic residue codes/unimodular lattices 32048
radiation-induced errors, SIL memory module 6822
radio channel transm. with multichannel modulation 32034
RAPID transport protocol, design and implement. 16486
rate-compatible punctured convolutional codes for Viterbi decoding 15765
RLL (d,k) coding, struct. VQ 40653
RS codes, self-checking decoding algm. 8141
RS codes, soft decision trellis decoding 2374
RS decoder, systolic-array struct. 25159
rural meteor burst communication protocols anal. 33974

error correction codes continued
satellite commun., multicast hybrid ARQ scheme, stored error recovery 17147
SDH fibre-optic transm. systs., forward ECC 42455
selective repeat ARQ for data commun. 17053
semicond. memory testing, MTA code *(Korean)* 29226
separating systs. theory 15679
shallow water hydroacoustical commun. channel, data protection codes perform. 32015
short binary cyclic codes, decoding via covering polynomials 15726
skew codes constr. 40606
spectral-null codes, high-order, constr./bounds 24034
spread spectrum techniques, IEEE conf., Oulu, Finland (1994) 20200
symmetric, unidirectional, and asymmetric error control codes 24050
sync. DS-SSMA systs., pseudo-noise seqs. 3326
sync./error control coding 40599
t-error correcting and unidirectional error detecting (t-EC/AUED) codes 24077
tailbiting convolutional code decoding, circ. Viterbi algm. 32085
TDMA indoor wireless cellular systs., punctured convolutional codes, optimal coding 33872
train-to-wayside commun., multicarrier modulation 9282
trans-oceanic opt. systs., forward error control 42449
trellis assisted block synchronisation 40602
trellis decoding tech. for block RLL/ECC codes 40651
trellis path uniqueness codes, digital data commun. appl. 15797
turbo codes, interleaver design 8110
two-level coding based on TCM and RS codes 15766
uncoded M-DPSK non-redundant error correction 8460
unidirectional byte error locating codes, single symmetric bit error correction capability 12513
unidirectional error control codes 32117
variable-redundancy hybrid ARQ, invertible convolutional codes 17055
vending machine data collection syst. *(Japanese)* 42178
VHF channels, digital fading mobile, Markov charactn. 3337
VLSI byte-wise CRC generator chip, hardware design 37697
wireless access systs., low bit-rate video transm. 17088
Z-channel, max. likelihood decoding algm. for lin. codes *(Japanese)* 15739

error detection
see also error analysis
A/D convertor on-line error detect. and correction 12610
algm.-based fault tolerance (ABFT) 32493
ANNs, algorithmic approach, concurrent error detect. 29449
ARQ policy in data transm. *(Japanese)* 15682
concurrent checking sorting networks design 32119
concurrent error detect. in fast Fermat no. transform networks 41049
concurrent error detect. in serial-parallel multipliers 37704
concurrent-error detect. in high-speed carry-free dividers 597
continuous-time MOSFET-C filters, on-line error detect. 29361
convolutional coded ARQ scheme for moderately time-varying channels 40583
cyclic protocols, generalized fair reachability anal. 2931
d=1 channel codes, sig. proc. tech. 32070
data compression, network link congestion control appls. 40793
digital neural network error detect., algm.-based inner product protection 32499
digital orthogonal transform. instrumental control *(Russian)* 16052
digital recorder data detecting cct. *(Japanese)* 3762
fault-tolerant adaptive FIR filters, variable detect. threshold 29364
fault-tolerant sig. proc., redundant finite rings 29244
Fermat no. transform, algm.-based fault tolerant array archit. 32498
high speed satellite commun., go-back-N protocol 9416
images, block encoded, channel noise detect., mask 8688
intersatellite commun., heterodyne opt. detect./spatial tracking syst. 34077
lin. output space compression schemes, bounding error masking 12438
non-computationally intensive appls., algm.-based fault tolerance 32495
nonlin. signature anal. of data converters, automatic 3767
overcomplete pyramid image representation, error correction 32827
parallel error-correction archit. for digital avionics 10364
partitioned/parallel CRC, VLSI implement. 645
PLA self-testing checkers for 1-out-of-n codes 21181
point 3D posn. measuring syst. for detecting fixation point on screen *(Japanese)* 3930
power syst. dyn. anal., num. efficient algos. 4499
protocol half-converters derivation, formal approach 16477
self-checking ccts. for unsystematic codes, design 646
self-checking combinat. logic synthesis techs. 21226
self-checking mixed-sig. ICs, analogue sect. design, safety appls. 29408
sliding-window protocol, design/test in protocol testing syst. 8755
SOLiT, reliable seq. ccts. automated synthesis, multilevel logic implement. 21229
speech recogn., misrecognitions and out-of-vocab. words, detect. 32370
superimposed grating for magneto-opt. disk heads 7377
switching syst. software quality improvement by root cause anal. 42105
sync. seq. ccts., fault coverage anal. 12439
TDMA-TDD personal commun. syst. ADPCM voice transm. improvement 33830
telecom. network mgt. using inform. and proc. models, spec. description 41669
telephoto lens, focus error detect., astigmatic method 31055
test errors detect./correction, concurrent engng. 6823
transparent memory BIST tech. for RAMs 37769

error detection codes
5.6 kb/s speech codec, pulse codebook/improved Viterbi decoding 32274
ARQ schemes, perform. eval. 17184
bal. codes, parallel encoding/decoding 40640
Berger code self-testing checkers 595
byte-organized memory systs., error-locating codes 24036
car safety crit. fns., commun. protocols design 8934
CDMA packet combining error control 25368
computer memory, systematic SEC-DED codes, error detect./correction 32066
constrained codes for synchronisation/additive errors correction 8165
DS-CDMA digital mobile radio systs., unequal error protection 9373
generalized product codes and their perform. 32194
higher order moments, channel adaptive coding techs. 32141
interacting finite state machine design with self-checking capability 29188
land mobile radio, RS coding for CELP error detect. and control 33832
lin. codes, correcting errors, neural network 32108

error detection codes continued
linear block codes, channels with memory, undetected error probability 8167
min. av. cost testing for partially ordered components 24098
multiple file copies comparison, min. commun. 41520
optimum Kalman detector/corrector for fault-tolerant linear processing 32649
periodically disturbed data channels, error correcting codes 32142
PLA self-testing checkers for 1-out-of-n codes 21181
quaternary quadratic residue codes/unimodular lattices 32048
rate compatible turbo codes, two error protection levels 32191
repeaters, analog/digital error detector 3303
self-checking ccts. design, byte error detecting codes 12391
skew codes constr. 40606
symmetric, unidirectional, and asymmetric error control codes 24050
sync./error control coding 40599
t-error correcting and unidirectional error detecting (t-EC/AUED) codes 24077
unate cct. fns., input encoding 12420
undetected error, worst case probab. bounds 24100
unidirectional error control codes 32117
VLSI byte-wise CRC generator chip, hardware design 37697
wireless access systs., low bit-rate video transm. 17088

error handling
BERKOM MultiMedia Transport System 16888
car safety crit. fns., commun. protocols design 8934
IEEE P1149.5 MTM-Bus, backplane test/init. interface 9807
MPEG compressed video, picture-header loss, error concealment strategy 16073

error recovery (computers) *see system recovery*

error statistics
2.5 Gbit/s transm. expt., 1000 km of std. single-mode fibre, 1550 nm *(English, Italian)* 33993
2D rank-conditioned median filter 24704
4 GHz 88 km overwater digital radio link perform, characts. 42184
8-PSK multilevel block modulation, uniform dist. property 2361
8PSK-TCM modem, develop. and transm. perform. 25156
16 QAM modulation, OFDM in Rayleigh-fading channel 9218
16-DAPSK, differential detect., Viterbi-algm. *(Japanese)* 24175
60 GHz mobile-to-mobile radio channel, meas. 9262
60 GHz vehicle-to-vehicle commun., time/freq. selectivity 9316
64 kbps switched internat. ISDN, transm. perform. 16795
250-Gb/s self-clocked opt. TDM, polariz.-multiplexed clock 42376
absol. moment block truncation coding, props. 24114
adaptive channel equaliser, functional-link models 32737
adaptive equalization for multipath fading environ. 3429
adaptive multistage interf. cancel. for CDMA, perform. limits 7990
adaptive nonlin. equalisation of digital commun. channels 15985
adaptive reduced-state channel equalizer, T-algm. 9302
adjustable dispersion equaliser for 10/20 Gbit/s 160 km fibre transm. 9436
American digital cellular syst. spectral efficiency 9275
asynchronous DS/CDMA syst., multistage detector perform. 25240
ATM network perform. for 64 kbit/s-based services 41941
ATM systs., tech. for measuring rare cell losses 41434
AWGN, block and decoded error probabilities of DPSK 15763
bandlimited channel 8D 4-pulse 2-carrier signalling scheme 40547
bandlimited DS/SS and narrowband M-ary PSK timing jitter sensitivities 40550
bandlimited PSK-sig., envelope control 15702
bandlimited quaternary phase FSK, error perform. 9276
BER estim. of opt. transm., monitoring 25481
BH light-emission/detect. diode module for subscriber TCM transm. systs. 25472
binary CPM-DPD, diversity in Rician fading channels 32042
binary transm. in slow four params. fading channels, errors *(Polish)* 33742
BPSK modulated co-channel sigs. reception, dual sig. receiver 33886
BPSK with open-loop tanlock carrier recovery, perform. 24015
catastrophic convolutional encoders, determ. 32133
cct.-mode data on wireless links, retransmission scheme 17090
CDMA cellular mobile radio syst., power control/coding 17102
CDMA fiber-optic LAN, opt. orthogonal codes, perform. 8969
CDMA joint detect. mobile radio systs., interfer. suppression 33887
CDMA mobile radio systs., joint detect., diversity 25343
CDMA multiple-cell radio syst., perform. eval. 3386
CDMA overlay systs., adaptive interf. suppression 17037
CDMA overlays for FDMA satellite commun. systs. 25465
CDMA syst., field tests 3381
CDMA syst. meas.-based perform. anal. in multipath fading 33791
CDMA with DS-SS GMSK, perform. study 33846
cellular multipath and shadow fading channels, real-time power meas. 33796
cellular radio handoff algms. anal., BER/sig. strength 33834
channel errors, VQ adaptation 24056
channel noise immunity rel., code and sig. constr. mutual effects *(Russian)* 15696
circ. 16-DAPSK in fading channels, diversity recept., error anal. 2363
code diversity FH-SSMA commun. systs., optimal receivers 9179
coded modulation, error probab., upper bounds calc. 15748
coded modulation, Rayleigh fading channels, error probab. 24017
coded partial response digitally phase modulated sigs., perform. 15714
coding syst. perform. assess., simul. tech. 2378
coherent opt. CDMA, laser phase drift effects 42348
coherent opt. DPSK systs., phase noise corrupted, BER perform. 17327
composite noise generator, noise immunity tests for dig. systs. and TV pictures 40371
concatenated block coded modulation in Rayleigh fading channel 9171
concatenated coding and ARQ, TCM for Rayleigh fading 8102
concatenated coding syst., modified erasure declaration Viterbi decoder 8173
constrained joint source/channel coder design 15719
convolutional coded ARQ scheme for moderately time-varying channels 40583
CPFSK differential detect., LO phase noise effects 42283
CPFSK opt. crossconnect systs. with noncoherent detect., interf. 9434
CPM coded quaternary scheme for satellite-vehicle/pers. commun. 42265
CPM perform., mobile radio diversity operations 17119
CPM sigs., backtracking seq. detect. 15956
CPM sigs., channel coding/multiple-sym. diff. demod. 24078
(d,k)-constrained seqs., synchronising methods 15755
decision feedback multiple-sym. differential detect., diversity 9200
decision-directed SS-RAKE receiver for fast fading mobile channels 9233

error statistics continued
- decision-feedback blind equalization based on strictly convex cost fn. *(Chinese)* 32005
- DECT channel error profiles 3123
- DECT solid state radio front end, perform. eval. 3468
- DFE mean recovery time tight bounds 41382
- differential GMSK perform. eval. using Kth order detectors 32032
- differentially detected π/4-DQPSK syst. perform., AWGN/Rayleigh fading 40568
- digital demodulators using fixed point FIR interpolators, BER perform. 32037
- digital land mobile radio, commun. channel simulator *(Japanese)* 17137
- digital mag. recording systs., adaptive nonlin. DFE 40854
- digital mobile commun., blind seq. detect. 17039
- digital opt. transm. syst., min. BER degrad. 25473
- digital recorder data detecting cct. *(Japanese)* 3762
- digital transm. over degraded channels, coded modulation 8103
- direct detect. opt. commun. syst. that operates in sunlight 17319
- direct-seq. systs. in lineal microcells, perform. eval. 25365
- dispersive fading channel, high-speed data transm., SR-chirp PSK 9356
- distributed power SS cellular syst., perform. 25363
- diversity combining, correl. slowly flat-fading Rayleigh channels 8374
- DPSK differential detect. scheme, phase seq. estim. 32684
- DPSK opt. heterodyne receiver, combat laser phase noise 42372
- DPSK/FSK, differential phase detect., bit/sym. error probabilities 40614
- DQPSK in fading channels, unified error anal. 8090
- DS-CDMA, shadowed Rician fading land-mobile satellite channel 9268
- DS-CDMA 4-phase mobile radio receiver in non-Gaussian environ. 25442
- DS-CDMA cellular syst. perform. anal. 33910
- DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
- DS-CDMA radio commun., low rate coding methods 25249
- DS-CDMA receivers, min. MSE, complexity reduction 3328
- DS-CDMA seq. inversion keying opt. correl. receivers 34029
- DS-CDMA syst., adaptive multiuser interf. rejection algm. 42163
- DS-CDMA syst., perform. of space diversity 33840
- DS-CDMA syst. in multipath fading mobile channel, Rake reception 9234
- DS-SS CDMA mobile satellite commun. syst. 25441
- DS-SS communications, doubly selective fading channel, spreading seqs. 17016
- DS-SS sigs. time division duplex transm. 9203
- DS-SS SS CDMA, MMSE interf. suppression 17017
- DS-SS syst., RAKE reception, multipath fading, perform. 25446
- DS-SSMA commun. in Nakagami fading channels, path diversity 9345
- DS-SSMA diversity commun. in fading channels, error perform. 3357
- DS-SSMA error probabilities calc., Gaussian approx. 33215
- DS-SSMA indoor cellular radio perform. 25370
- DS-SSMA systs., aperiodic cross-correl. model 16461
- DS-SSMA systs. perform., filtering effects, transmitter 33207
- DS-SSMA unslotted PRN 25257
- DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
- DS/CDMA, M-ary orthogonal modulation in multipath fading channels 8736
- DS/CDMA digital cellular systs., error control algms. 9361
- DS/SS systs., coherent chip-asynchronous, signature delay estim. 17014
- error rate for differential demodulation of 2-h CPM *(Korean)* 24018
- error-correcting codes, Gilbert channel, perform. eval. 15749
- evol. algms., selection methods, empirical comparison 11953
- extended sources, resoln./detect. 2539
- fast ATM rerouting algm. for networks, unreliable links 8708
- fast FH/CDMA systs. in mobile radio environ., efficiency 17086
- fast min. error probab. blind equalization algm. 16028
- FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
- FH/CPFSK syst. with partial-band jamming, perform. anal. *(Korean)* 17005
- fiber optic module interconnection, parallel data bus 42474
- fiber-loop opt. buffer, crosstalk 9600
- FQPSK modem/radio for PCS/ mobile satellite commun. 25312
- freq.-selective fading channel, differential detect. 2217
- freq.-selective Rayleigh fading channels seq. estim. 8373
- frequency-selective fading channel orthogonalising simulator 40343
- go-back-N ARQ scheme for variable-error-rate channels 16500
- Golay-coded M-PSK, Rayleigh fading channel, decoding 32090
- GSM mobile networks, subjective speech quality 3446
- GSM-syst., interf. anal. 3492
- handwriting proc. in indoor/outdoor environ. for multimedia 9063
- hardware-in-the-loop simul., point targets, error anal. 26837
- heterodyne/homodyne opt. receiver design 42369
- high speed adaptive equalizers, complexity reduction 33768
- high speed satellite commun., go-back-N protocol 9416
- hybrid DS/FH SS syst. for mobile radio channel 3483
- hybrid DS/FH-SSMA mobile radio syst. perform. and capacity anal. 33831
- hybrid SC/MRC 2DPSK RAKE receiver BER perform. 9232
- hybrid-ARQ scheme, convolutional code and Viterbi decoding 32099
- image block truncation coding, reduced-rate, error diffusion 41058
- incoherent freq. hopping multiple access systs., diversity combining 25311
- indoor mobile commun., CCI and multipath delay 17098
- indoor wireless IR commun., hybrid PPM-CDMA systs. 42355
- intens. modulated lightwave syst., error-rate floor prediction 14877
- ISI nonlin. equalization, further decision prediction *(Polish)* 40794
- joint source/channel coder design 40589
- Ka band satellite terminals, phase noise charact. 3534
- labeled/unlabeled samples, unknown mixture param., class. 40867
- lightwave systs. with opt. preamplifier, perform. eval. 17186
- lin. block codes, optimal inform. bit decoding 24091
- lin. code, threshold probab. 32058
- M-ary (d,k) codes for high dens. disk recording, improved dist. 30735
- M-ary DPSK, MLSE differential phase detect. 2563
- M-ary DPSK on freq.-selective Ricean channels 9274
- M-ary PSK suboptimal coherent detect., error rate bound 15961
- M-DPSK in fading channels with diversity reception, error bound anal. 3355
- M-PSK/ M-DPSK/fading diversity channels 2360
- mag. recording in severe environ., error stats. 14253
- mapping matrices, permutation decoding, props./appls. 40637
- MFSK signalling for RS coded freq.-hopped multiple-access commun. 2891
- microcellular personal commun. service F-QPSK perform. 33781
- microcellular Ricean channels, switched diversity 3336
- MIMO transm. systs., transmitter/receiver optim. 16413
- MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
- mobile commun., slow freq. hopping, time offset effect 42272

error statistics continued
- mobile radio digital modulation error perform. improvement by quaternary phase transition FSK 33782
- mobile radio postdetection diversity/concatenated channel coding 3341
- mobile radio RAKE receivers, synchronisation, BER perform. 25445
- mobile satellite channels, partial response coded MPSK anal. 42205
- modified ISI canceller for digital microwave radio 9168
- MPSK (un)coded transm. on multipath fading channels 9169
- MSK from matched-filter, joint max.-likelihood timing/data estim. 15711
- multi-beam mobile satellite commun., Viterbi decoding 25307
- multi-carrier CDMA in indoor Rician fading channel 9226
- multi-cell direct-seq. microcellular systs., perform. eval. 33907
- multi-D trellis decoder for 155 Mb/s concatenated codec 33684
- multicarrier coded 16QAm syst. 33780
- multidimensional BCM on fading channel, BER improvement *(Japanese)* 2368
- multidimensional block coded modulation perform. with time-correl. fading estim. 40549
- multigigabit opt. transm. expt., free-space simulator 17286
- multihypothesis testing, seq. procedure 24169
- multilevel block codes for Rayleigh-fading channels 15768
- Nakagami faded sigs., Gaussian noise perturbed, phase diff. distrib. 32024
- Nakagami fading channel block error probabs. 33800
- narrowband digital FM sigs., seq. estim. 24280
- near-far resistant CDMA detectors, param. estim. errors effects 16460
- near-far resistant DS-CDMA receivers, sensitivity anal. 9236
- noiseless photon commun. channel model and coding anal. *(Croatian)* 2353
- noisy phase OOK sigs., noncoherent detect. 40784
- non-Gaussian environ., sig. class., universal methodology 24243
- noncoherent freq.-PM, BER/PSD 24014
- nonlin. DFEs based on functional-link neural network 9153
- nonlin. phase precoding for pers. commun. 2385
- nonlin. satellite channel, optimum receiver for QPSK sigs. 3507
- NPP fault-diagnostic advisor, neural nets 19438
- NPP Human Error & Behaviour Prediction Syst. develop. 19413
- ocean altimetric data mapping, stat. multiscale approach 10014
- opt. CDMA, lossy photon channels, no.-state/coherent-state, perform. 42349
- opt. CDMA commun. syst. M-ary signalling 34058
- opt. commun., alg. constr. of codes, high reliab. fns. *(Japanese)* 15738
- opt. commun. codec, high data rate error correction coding 17316
- opt. commun. syst., characts. anal. 9455
- opt. direct-detect. channel, coded multi-pulse PPM perform. 8170
- opt. fibre PPM perform., jitter implications 17245
- opt. receivers using APD with dead space, BER 17264
- optimal reception, error probab. in channel, variable param. under ISI 32018
- optimal trellis-coded 8-PSK and 4-AM modulations for Rayleigh channel 8104
- optimum combining in wireless systs., BER upper bounds 9170
- OQPSK in indoor environ., perform. 9301
- outage probab./BER estim., dual protection margins 17056
- overlay CDMA syst., multiple BPSK interferers, perform. anal. 33747
- parallel combinatory SSMA systs., Rayleigh fading channel, perform. eval. 25244
- partial response CPM decoder optim. by state-space partition 40588
- partial response syst. in perp. mag. recording, perform. 22700
- partially coherent CPM receiver, cochannel interf. 8105
- phase tracking Viterbi demodulator *(Japanese)* 24176
- π/4-DQPSK on microcellular radio channels, diversity/interf. 17101
- pilot sym.-aided tech., digital sigs. in multipath environ. 9366
- pilot sym.-aided transm. for satellite/terrestrial mobile systs. 25403
- portable video-on-demand syst. in wireless commun. 42593
- power line SSMA, error correction, IFMV9 coded overlapped PN seq. 25198
- Prabhu upper error bound for digital commun. syst. 15688
- PRML channel, medium noise, syst. error rate 7120
- PSK optimum receiver, class A interf./relative freq. wt. 25217
- QAM signaling, Rician-fading diversity channels, error probab. 32040
- QPSK adaptive DFE with MLSE 41385
- QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
- QPSK TDMA digital radio link, analog FM interf. 33841
- quantisation error model, effective resolution estimation 24234
- quantum limited OOK, opt. amplif., perform. bounds/cutoff rates 40564
- quantum limited OOK, opt. amplif., perform./cutoff rates 40546
- quasi-MM waves, rain atten. charact. *(Japanese)* 40347
- quasi-sync. CDMA, PN signature seqs. based 25265
- radio channel transm. with multichannel modulation 32034
- radio LANs, FEC, ARQ, and throughput of 16678
- Rayleigh fading channel, adaptive diversity receiver, error probab. 25263
- repeaterless transm., 2.4 Gbit/s, 306 km fibre, DFB LD 17231
- Rice-lognormal terrestrial/satellite channel model 31834
- Rician-type error probabilities, tight bounds and appls. 15712
- RLS adaptive equaliser digital commun., importance sampling 16409
- RS/trellis concatenated coded-modulation syst., bit error probab. *(Korean)* 32196
- runlength-limited block codes, small error propag. 40649
- satellite mobile channel, FSK-DPD/CPM-DPD, pulse shaping 25304
- scarce state transit. Viterbi decoder, nonsystematic convolutional codes *(Japanese)* 32072
- SDH compatible digital radio syst. error perform. requirements 42153
- SEU and SEL response of commercial digital ICs 29092
- SEUs in monolithic ADCs, device perform. and syst. impact 12602
- sig. reception, error probab., deviation from Gaussian law 32576
- slanted contact MR head, 500 Mb/in^2, elec. characts. 7081
- sliding multiple sym. differential detect. of trellis-coded MDPSK *(Korean)* 15725
- soft-decision seq. decoders perform., estim. 8175
- soliton transm., 10 Gbit/s up, 27 Mm, sig. freq. sliding 17232
- space laser commun., effect of turbulence on M-ary coherent PSK systs. 17317
- space opt. commun., pulse-coded multiple access 42350
- spectrally efficient modem for land-mobile radio, perform. 9272
- speech line spectrum pair params., optimal transform coding based on spectral-weighted error criterion 2405
- speech recogn., misrecognitions and out-of-vocab. words, detect. 32370
- sq.-QAM adaptive modulation/TDMA/TDD syst., modulation level estim. 25272
- SRAMs, 1 Mbit, single hard errors from single ion, charactn. 12526
- SS constrained spreading code syst. characts. 24742
- SS receivers, diversity reception improvements 25444
- SS transm. quality improvement, diversity transm. 17013
- sync. CDMA commun. syst., adaptive interf. cancelation 25241

error statistics continued
sync. DS-SS multiple access, acquisition based capacity 42168
sync. multiuser CDMA detector, multidimensional adaptive canceler 15898
systematic TCM in coded modulation 8093
TCM, probab. dens. of ISI 15713
TDMA binary PSK sig. demodulation without explicit carrier sync. 40553
TDMA digital cellular radio unified MLSE detect. 33823
TDMA selection diversity, DFE 9271
time-series anal., rank determ. 40910
tracker correl. gate size optim. for maneuvering targets 18977
train-to-wayside commun., multicarrier modulation 9282
transit. counting, aliasing error probab. final value 122
trellis coded 16 QAM/TDMA, space diversity combining, multipath fading *(Japanese)* 42172
trellis coded multi-amplit./-PM, noncoherent detect. 24281
trellis coded overlapping multi-pulse PPM, opt. channel 15705
trellis codes, error probab., dist. spectra/upper bounds 32063
trellis shaping schemes bandlimited PSK-sig. envelope control 8095
uncoded overlapping PPM perform. under commun. constraints 40556
underwater high data rate acoustic commun. systs. perform. 17360
VHF channels, digital fading mobile, Markov charactn. 3337
Viterbi decoding burst error statistics HMM 40592
VLSI semicond. mfg. proc. noise/learning 37037
CoPtCr thin film recording media, soft error rate 7124
Er:SiO_2 planar waveguide amp. based modelocked ring laser 23132
Er-doped bridge-type bidirectional fiber amp., 622 Mbit/s operation *(Japanese)* 25486
Er-doped fibre laser, mode-locked, stabilisation 23126
$LiNbO_3$ opt. waveguide modulator for bidirectional transm. 42442
errors
see also coding errors; measurement errors; roundoff errors
2D digital filters, error spectrum shaping *(Japanese)* 15933
AM-VSB/64-QAM hybrid opt. transm. systs., impulse-induced bit-error impairment 9557
av. run lengths of control chart based on sum of sq. errors 5745
cct. simulators, Fourier anal. approach 21076
CMOS autozeroed chopper-type comparators, offset errors *(Japanese)* 6260
CMOS current S/H ccts., differential clock feedthrough atten. 12666
CMOS SRAM soft-error simul. syst. 657
CMOS SRAMs, 64 kbit, soft-error hardness, total dose depend. 12520
computational-morph. filters, mean-absol.-error representation and optim. 32915
DRAMs, radiation hardening, dummy cell concept 37772
elec. drive μP control systs., regulation error meas. 44464
fully depleted SOI CMOS SRAM cell, SEU sensit., SPICE anal. 12522
heterodyne ASK lightwave systs., IF flucts. 17253
hybrid analogue/digital opt. transm. systs., clipping induced errors 34096
IC mask multiple-pass printing, spatial freq. filtering 13456
IIR adaptive filters, optimum order assign. on numerator/denominator 744
interpolation, type I DCT transform 11971
large polarized target, high precision polariz. meas. 34871
Lee sparse valued reconstruction computer generated holographic storage 31661
line extraction from image, variable Hough transform *(Japanese)* 16300
Lockheed phase diversity test facility, expt. results 16215
mech.-induced readback errors in contact recording 7157
membrane masks, stress-induced pattern-placement errors 13464
memory devices, SEU rate prediction, two param. model 12521
microstrip discontinuities, FDTD anal., error minimisation 8027
min.-MSE filters for spatially nonoverlapping target and input-scene noise 22982
multilayer perceptrons, sig. detect. and class. perform. eval. 24341
nonautonomous Riccati-type matrix diff. eqns., existence interval 37356
Nyquist data converters, verif., behavioral simul. 37816
optoelectronic matrix-vector multiplier, computational accuracy anal. 31027
overlay enhancement in electron-beam lithog. 13452
pulse arith. based neural network implement. 21470
radiotelescope, tracking error effects of vibrs. 42558
recursive differentiators, design, quadratic prog. 763
reliab. design error effect anal. 11713
RF ASIC designs, CAD syst., error-checking 37590
S-SEED operation with noise, BER anal. 22946
scaled DRAMs, α-particle-induced soft errors 21320
SEU and SEL response of commercial digital ICs 29092
SEU in SRAMs meas. with pulsed laser, spatial depend. 12524
SEU testing of modern ccts., incidence angle implications 11724
SEU tolerant DRAM cell technol. 12518
SEUs in ICs due to terrestrial cosmic rays, modelling 13867
single event hard errors in DRAMs 12519
split gate trackers, tapped delay errors 26827
SR source undulator design, simulated annealing 31731
state-space digital filters, noise reduction, error feedback *(Japanese)* 739
storage rings, spin tune shifts 43026
threshold and timing error rate vs. off-track posn. 14223
vision-based vehicle tracking, camera movement errors anal. 16293
Er-doped fiber grating laser transmitter at 5/2.5 Gb/s, long-term BER transm. 34038
erythema *see biological effects of ultraviolet radiation*
erythrocytes *see blood*
Esaki diodes *see tunnel diodes*
Esaki effect *see tunnelling*
ESCA *see electron spectroscopy; spectrochemical analysis; X-ray photoelectron spectra*
ESD *see electrostatic discharge*
ESDI *see peripheral interfaces*
ESPI *see electronic speckle pattern interferometry*
ESPRIT *see research initiatives*
ESR *see paramagnetic resonance*
Estelle *see specification languages*
estimation theory
see also adaptive estimation; amplitude estimation; frequency estimation; information theory; maximum likelihood estimation; parameter estimation; phase estimation; recursive estimation; sequential estimation; state estimation
2D image data modelin, robust M-estim. 16341
3D digitized curves optimal length estim. 41182
3D image recogn., optimum estim. and compensation *(Japanese)* 16370
admissible nonparametric estim. of probab. dens. 15901
estimation theory continued
age and periodic replacement policies, nonparametric estim. 28546
AR sig. modelling for short seqs., efficient Bayes soln. 40973
bandlimited quaternary phase FSK, error perform. 9276
biased estim. of variance components 28587
blind equalization, ML/MMSE estim. 41021
blind sym. estim., deterministic approach 8398
chaotic attractors charact., fourth-order off-diagonal cumulant slices 8339
complex exponential sigs. param. estim. 2569
connected-word recogn. in noise, extraction 32385
CPM coded quaternary scheme for satellite-vehicle/pers. commun. 42265
data fusion, random-set approach 15960
denominator separable 2D IIR filters, design 40899
digital compact cassette, seq. estim. algms. appl. 17582
digital demodulators using fixed point FIR interpolators, BER perform. 32037
digital mag. recording systs., adaptive nonlin. DFE 40854
digital seq. reduced-state seq. estim. 40535
diversity gain of transmit diversity in Rayleigh fading systs. 9193
diversity reception, vel. estim. 3454
DS-SSMA, unknown seq. estimator, near-far problem 25361
EEG change points, max., posteriori estim. 26382
entropy-based approxs. for moment problems, convergence 242
error diffused images, estimating error diffusion kernel 8611
fading channels, blind MLSE 40542
FH-SSMA, band-efficient modulations, cellular radio channels 25367
flight image seqs., integrated 3D anal. 24458
freq. non-selective channels seq. estim. 8384
freq.-selective Rayleigh fading channels seq. estim. 8373
G/G/I queueing syst., bursty traffic 194
gray-level images, multiresolution estim., probabilistic models 33121
image recog./restoration, genetic algms. 2801
IR detect., spatial sig. proc. 16101
mixed time a[illegible] , asymptotic theory, cyclic-moment/cumulant stats. 24286
MLP based nonlin. spectral estimators for noise reduction 32378
MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
MLSE receiver for GSM digital cellular syst. 3424
MLSE receivers, trellis codes for multipath fading ISI channels 8447
mobile radio commun., interf. canceling equalizer 9383
mobile robot navig., sonar range data segmentation 43561
MPSK (un)coded transm. on multipath fading channels 9169
MSK from matched-filter, joint max.-likelihood timing/data estim. 15711
multiband sig. reconstruction from finite samples 41046
multicollinearity, nonoptimal estim. 28586
multicriteria decision making, unintentional judgemental bias estim. 11658
multilevel digital sigs. estim., impulsive interf. presence 24208
multipath channel Viterbi algm. multitrellis decomp. 40558
multiresolution anal., wavelets, probab. dens. estim. 28706
neural computation, phys. models and analogue VLSI implement. 6269
noisy image nonparametric regularization 8538
non-lin. wave-wave interacts. detect., tricoherent anal. 41047
non-parametric waveform estim. based on filter banks 32730
nonlin. syst. ident., nonparametric deconvolution 40874
nonparametric estim. of reliab. fn., kernel dens. estim. 11857
nonselective Rayleigh fading channels, sym.-aided channel estim. 24016
nonselective Rayleigh fading channels, sym.-aided channel estim. 7975
ocean altimetric data mapping, stat. multiscale approach 10014
opt. flow constraints, anal. 33130
optimal mean-sq.-error batch sizes 37238
outlier-resistant methods for estim. and model fitting 14364
parallax field, intens.-based estim., smoothness constraint 33124
pass. Doppler-bearing tracking, pseudo-lin. estimator 40887
peak-holding navig. syst., obj. coord. correction 25604
phase-only multidimensional spatio-temporal anal. for moving sources 40995
power syst. digital protection criterion values estim. 27257
power syst. protection, probabilistic decision approach 10768
PPM, seq. detect. and equalization 15710
QPSK adaptive DFE with MLSE 41385
quaternary partial response CPM digital transm. syst. 40557
radiometric image proc. based on Parzen-Rosenblatt estim. *(Russian)* 17513
reciprocal procs. on tree, modeling and estim. issues 24192
reciprocal seqs., Kalman like filtering/smoothing 40873
reduced-state soft decision feedback Viterbi equaliser 3425
regularization by multiscale models 24190
relative flexibility estim. of equipt. and systs. 11842
renewal models for maneuvering targets 34114
reversing lattice filter, no. of sources of interf. estim. 2574
robust $\mathcal{H}_\infty$ filtering for continuous time varying uncertain syst. 40813
short-block digital transm., adaptive MLSE for mobile radio 3427
SNR estim. algm., fourth-order moments 40871
speech recogn., Markov random field based parallel proc. 32352
speech recogn., SCHMM params., Bayesian learning 32264
stationary time series, innovation variance, multitaper estim. 24206
syst. reliab. estim. uncertainty eval. methods 11882
tapered SVD, multipulse input time series estim. from noisy output 40915
TCM for equalized multipath fading ISI channels, perform. 25340
TCM perform. for equalised ISI channel 32084
TDMA digital cellular commun., adaptive channel equalization 42267
TDMA digital cellular radio unified MLSE detect. 33823
terrestrial digital radio links, reduced state seq. estim. 9190
track, track fusion algms. 15911
transfer fns. bias estim., stochastic excitation 40916
translation-invariant binary filters, morph.-representation 16160
tunable fractional delay filter, finegrain delay estim. 12647
vap.-emitting sources, detect./localization 25892
vehicle localisation in poorly known environ. 24356
vision-based vehicle tracking, camera movement errors anal. 16293
VLSI semicond. mfg. proc. noise/learning 37037
etalons *see interferometers*
etchants *see etching*
etching
see also crystal defects; dislocation etching; laser beam etching; sputter etching
0.5 μm CMOS logic IC, SOG planarization/AlSiCu multilayer interconnect 38646
2D dopant profiling in VLSI devices, AFM study 30391
4X reticles, eval. for 250 nm DUV lithog. 38768
attenuated phase shift masks, etched quartz/embedded materials 38724

etching continued
beam steerable semicond. lasers, large steering range and resolvable spots 1985
BESOI stress/strain investig., opt. SHG method 29963
BH SEL diodes, integrated vac. proc. 39810
borophosphosilicate-based glass, selective etching, low press. vap. HF 12214
capacitive electro-chem. etch-stop tech. 30103
cavity-backed printed dipole arrays with substr. mode control 23966
CGH, polaris. selective, design/fab. 23461
chem.-mech. polishing for planarization, forecast of future trends 13323
CMOS integrated thermal press. gauge and read-out cct. 25786
CMOS membrane IR sens., fab. and improved etchant 25846
CR-39, electrochem. etched, crit. angle of incidence 10135
CR-39 detector, etch-pit rad. growth curve 10137
CR-39 detectors, sensitivity enhancement, etching effects 43132
CR-39 dosemeter, wide-range neutron dose determ. 43395
CR-39 SSNTD, particle ident., pit etching method 10136
deep etch X-ray lithog., electroforming/molding templates 13538
diamond:B heteroepitaxial films, plasma CVD, p-n jn. diodes 20740
diamond:H films, CVD, surface topography, AFM study 28821
diamond films, enhanced oxid. etching, annealing, Mo effect 22192
diamond flame-deposited films, growth-etch cycling 420
dry etching, atmos.-press. pulsed-corona plasma 38616
dry turbo vac. pump appl., semicond. mfg. procs. 22204
embedded Fabry-Perot interferometric strain sens. 17894
European SOI technol. develop., review 38428
fine line cct. mfg. technol., electroless Cu plating 29680
fine pitch surface mount IC package solder joints, exam./testing 37117
fine/ultrafine pitch printing, electroformed/laser cut/etched stencils 37152
fluidic self-assembly, GaAs microstruct. on Si substrs. 1468
gas-assisted etching, FIB milling enhancement, IC design modif. 38681
grounded body SOI nMOSFET, fab. by wafer bonding 13702
IGBT and MCT struct., 2D dopant profiles 30280
in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
integrated taper opt. switch array, self-aligned packing 42390
Killer defects, particle map, probe map correl. 37199
ladder silicone SOG, FIB lithog. 22301
logic IC interconnection technol., syst. engng., manufacturability 37723
LSI voltage waveform meas., EB tester, electron-beam-assisted etching appl. 13856
Makrofol, electrochem. etched, crit. angle of incidence 10135
microelectronics mfg., technol., conf., Orlando, USA (Nov. 1993) 20209
microengineered fluid devices 6633
microlens fab. tolerances, multilevel etching, mass-transport smoothing 7369
micromechanical components, V-notches failure assess., cohesive zone model 30528
MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
microwave FETs, effects of electrochem.-induced etching non-uniformities 12766
multilayer bond and etch SOI buried insulators, radiation response 13252
multilevel metallization beyond 0.35 μm technol. 22258
native oxides on Si surfaces of deep-submicron contact-hole bottoms 38617
PCB mfg. proc. control, SPC 12907
photoimageable liq. dielec. for seq. PWB fab. 38124
photonic ICs, low loss mirrors, etching 14503
piezoelec. langasite and quartz crysts. polishing/etching 30581
polydimethylsilane film, surface-imaging proc. for electron beam lithog. 38711
polyimide charring on thin film line deletes 12962
polyimide opt. waveguides fab., thin-film MCM proc. technol. 14490
polyimide substr. for Gb/s-class MCM-D/C 21784
polysilicon LPCVD tubes, NF_3 in situ cleaning 13339
polysilicon micromechanical resonators for freq. refs. and sig. proc. 22623
polysilicon sacrificial layer etching technol. for micromachined sens. 25785
porous glasses, effective opt. consts. and light scatt. 7263
porous Si, thermal cond. 37544
pos.-tone silylated, dry-developed, deep UV resist with 0.2 μm resoln. 13523
PTFE substrs., cct. fab. methods 6436
pyroelec. single-element/lin.-array sens., P(VDF/TrFE) films 17772
quantum wires, fab., etching damage, electron beam lithog. 13397
quartz capillary tubes for chem. anal., fab. 34461
quartz-etch attenuate phase shifting mask, i-line stepper 38751
ribbons, amorph. mag., asymmetric magnetis. reversal, chem. etching 14135
scanning probe microscopy, principles and appls. 13017
second-order grating waveguide-to-fiber coupling 39404
semicond. devices, proc. flows, automatic synthesis 1266
semicond. integrated opt. routing array components, carrier diffusion effects 14479
semicond. lasers, mirror imperfections/reflectivity, time-depend. approach 14937
semicond. mfg., cluster tools 30436
semicond. short run mfg., Kalman filtering proc. control 37166
SIMOX, stacking fault growth/shrinkage 22074
SIMOX radiation response prediction, spectrosc. ellipsometry 13299
SIMOX/ZMR/direct bond SOI struct., opt. charactn. *(Japanese)* 38430
SOI, H annealed, surface atom migration 1175
stacked capacitor half-micron ferroelec. NVDRAM memory cell 21330
sub-qtr. μm CMOS, self-aligned W technol. 22586
submicron fab. technol. GHz unidirectional SAW transducers 30636
tapered strain-gradient chirped fibre Bragg gratings, fab. 22847
V-shaped gate HEMT *(English)* 22480
VCSEL diode under DC excitation, chaotic dyn. of mode competition 1999
vert. cavity LD, tunable, fibre coupling, threshold currents 39782
vert.-cavity SEL array for short dist. opt. fiber networks 14929
Ag/BiSrCaCuO supercond. tapes, joining technol. 30771
AlGaAs BH photonic devices, melt etching, LPE regrowth 12119
AlGaAs lasers with grown opt. facets, metalorganic CVD deposition 20961
AlGaAs substrs., MOCVD growth 20826
$Al_xGa_{1-x}As$ BH LD, MOVPE 23243
$Al_xGa_{1-x}As$, in-situ etching and selective epitaxy, metalorganic vap. phase growth 20762
$Al_xGa_{1-x}As$, wet thermal oxid. studies 1248
AlGaAs/GaAs HBTs, Pt/Ti/Pt/Au base electrodes, passiv. 38837
AlGaAs/GaAs epitaxial lift-off MSM photodetectors,field assisted etching 34516
AlGaAs/GaAs micromachining, monolithic integrat. of micromechanical struct. 23065
AlGaAs/GaAs npn HBTs, MBE fab. and charactn. *(Korean)* 30264
AlGaAs/GaAs solar cell struct., LPE etchback-regrowth 27948

etching continued
AlGaAs/InGaAs/GaAs recessed-gate PHEMT, Si planar-doped etch stop layer 30382
$Al_{0.5}Ga_{0.5}As$/GaAs multilayer, NaClO stain-etched, AFM 30072
AlGaInP dry-etched 650 nm vis.-light LD 1986
$Al_{0.5}Ga_{0.5}Sb$, citric acid etching for heterostruct. device fab. 6640
AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
$Al_{0.60}In_{0.40}As$/GaInAs/InP single pulse doped HEMTs for Q-band power appls. 29566
Al_2O_3, chemically etched, surface flashover performance 13956
As-S layers, pos./neg. etching, submicron photoresists 22173
B doped etch stop layers, TEM obs. 13401
C, diamond, polished CVD films, macro/micro-tribological props., trial proc. 22626
3C-SiC epilayers fab., elec. props. *(Japanese)* 372
CdSe films, pulsed plating, photoelectrochem. behaviour 37468
CdTe nanostructures, opt. studies 1793
CdTe/$Cd_{1-x}Mg_xTe$ quantum wires, wet chem. etched, photolum. efficiency study 38331
Co/Cu multilayers on grooved substrs., perp. giant magnetoresist. 39172
CoCr(CoCrTa) mag. recording media, compositional separation rel., film thickness 6956
Cr-SiO_2 cermet-polyimide interfacial reacts., thin film resistor appls. 38045
Cu electroless deposition troubleshooting, PCB manufacture 38100
Cu foil for high perform. PCBs, high strength, low profile 38126
Cu planarized copper multilevel ULSI interconnections, damascene proc. 30139
Cu thin film dissolution in dil. $CuCl_2$, microstruct. effects 13433
Cu-clad polyimide sheets for thin film multilayer substr. fab. 138
$CuInSe_2$ films, surface morphology, grain boundary, parameters, etching 22215
n-$CuInSe_2$/polysulphide photoelectrochem. solar cells, spray-pyrolysis 27933
GaAlAs/GaInP/GaAs passivated HBT, high bit rate opt. commun. appl. 6730
$Ga_{1-x}Al_xAs$-GaAs HBT, fab. for rapid material anal. 22387
GaAs, CZ grown, ion implant., struct./mech. props. 13305
GaAs LSI chips, back-grinding, mech. reliab. 1498
GaAs MESFETs, selectively dry-etch gate-recessed devices, LF noise 22490
GaAs, MOMBE using triethylgallium, trisdimethylaminoarsenic 28726
GaAs TUNNETT diode oscillators above 100 GHz, diamond heat sinking and power combining 12778
GaAs TUNNETT diodes above 100 GHz, efficiency, RF power levels, free running oscillator appl. 37976
GaAs analogue MMIC, high yield, spray etch recess proc. 38029
GaAs digital FET multilevel metal interconnects, isotropic etch planarization 13322
GaAs epitaxial layers, charactn., annealing effects 13277
GaAs etching, fast atom beam proc. with separated masks, micromech. devices 22245
GaAs micromachined mass-flow sens. 9880
GaAs monocrystalline substrs., gas etching in VPE 1233
GaAs oxide mask layers, in situ electron beam lithog., patterning mechanism 38770
GaAs, patterned substrs., LP MOCVD InGaP 20830
GaAs photo-oxides, EB lithog., Cl adsorpt. mechanism 22177
GaAs, situ pattern etching, electron-beam-induced resist 13408
GaAs surfaces, wet/dry etched, ellipsometric model 21914
GaAs:Be, surface cleaning in situ chem. beam etching 13350
GaAs:C(S), CBE and in situ etching, opt. monitoring 359
GaAs/$Al_{0.5}Ga_{0.5}As$ quantum wire struct., in-situ gas etching/selective-area MOVPE 20798
GaAs/AlAs, sub-micron p-i-n RTD, discrete electrolum. lines 14640
GaAs/AlGaAs, MOCVD, regrown, interface contamination, gas etching 22242
GaAs/AlGaAs quantum well struct., etching, photoreflectance phase shift 38532
GaAs/AlGaAs quasi-1D struct., holographic lithog., wet etching 21975
GaAs/$CaSrF_2$ quantum semicond. struct., high energy electron beam lithog. 13149
n-GaAs/n-$Al_{0.4}Ga_{0.6}As$ heterostruct., laser-enhanced selectivity 1250
GaAs-AlGaAs FET, citric buffer etch-stop process 38865
GaAs-Au(In) Schottky diodes, chem. etched surfaces 13612
GaAs-based struct., electrochem. C-V profiling, electrolyte 13122
GaAs(100), cleaning, XPS/AFM study 30066
GaAs(100), etching in HCl, XPS/AFM obs. 22176
GaAs(100) surface, $(NH_4)_2S_x$-treatment, STM study 38595
$GaAs_{1-x}Sb_x$, citric acid etching for heterostruct. device fab. 6640
GaInAs/InP quantum-wire lasers, fab. procs. 39811
GaInAs-InP tensile strained quantum wire laser fab. 39797
GaInP-GaAs HBT, microwave appl. 12784
GaSb, chem. etching in Br_2-methanol solns. 1259
GaSb, diffusion limited chem. etching 13341
a-$(GeS_2)_{100-x}Ga_x$ films, irreversible photoinduced changes 22189
α-HgI_2, cryst. struct., topol., X-ray anal. 43081
HgI_2, detector etching effects 43080
HgI_2, variable angle spectrosc. ellipsometry 43094
$Hg_{0.85}Zn_{0.15}Te$, surface comp., chem. treatment effects 13360
InAs, citric acid etching for heterostruct. device fab. 6640
InAs/(AlGa)Sb quantum wells, supercond. transistors fab. 22727
InGaAs/GaAs, buried wires, MBE overgrowth prep., opt. props. 38369
InGaAs/GaAs mesa-etched VCSEL, MOCVD, low threshold 39871
InGaAs/InAlAs MODFETs, InP substrs., proc. technol. 13798
InGaAs/InGaAsP QWs, interdiffusion 13138
InGaAs/InP QW wires, electron beam lithography fabrication 13200
InGaAs/InP buried wires, selective thermal intermixing 13180
$In_{0.2}Ga_{0.8}As$-$Al_{0.52}In_{0.48}P$ HEMT, gas source MBE growth 13817
InGaAsP, $Si^+(Be^+)$ ion beam proc. 30036
InGaAsP/InP PBH-DFB-LD for 2.5 Gbps opt. fiber commun., fab./characts., 1.55 μm *(Korean)* 39769
InGaAsP-InP ultrasmall waveguide bend corner mirrors 30970
n-InGaP/InGaAs/GaAs pseudomorphic HEMTs, mobility, device perform. 22485
InP 4×4 polarisation insensitive switch matrices, fabrication 17192
InP, CZ grown, ion implant., struct./mech. props. 13305
InP, and related materials, conf., Paris, France (April 1993) 11521
n-InP, photoelectrochemical etching, surface texture form. 38564
InP, planarizing regrowth using low press. hydride VPE system 12050
InP wafers, LEC grown, residual strains, photoelastic charact. 13042
InP, wet electrochemical etching, via hole form. 13413
InP/GaInAs QW dot struct., fabrication 13202

- **etching** continued
  - InP-InGaAs MQW modulator waveguide devices, metallization/wet etch/passiv. 39461
  - InP-based struct., electrochem. C-V profiling, electrolyte 13122
  - InP(100),(111), HBr-$K_2Cr_2O_7$-H_2O etching 13399
  - $Li_2B_4O_7$, Bridgman grown, defects and SAW appl. 30634
  - $LiNbO_3$ ridge proton-exchanged waveguides fabricated by wet etching 22913
  - Ni thin-film bolometer 25843
  - $PbTiO_3$ thin film pyroelec. IR detector 42818
  - Pt-GaAs Schottky contact, defect free, electrochem. form. technol., low-dimens. structs. 22039
  - Si 3D struct., FIB lithog., AFM probe charactn. 13471
  - Si (100) wafers, anisotropic etching, vert. sidewall fab., micromachining appl. 1256
  - Si (110) micro-opto-mech. devices, anisotropic etching 30977
  - Si, KOH etched, etching defects, packaging technol. implement. 13369
  - Si RTP, optimum gas flow engng. 22230
  - Si, SR-stimulated etching *(Japanese)* 13333
  - Si, UV excited Cl-radical etching, SEM obs. 1247
  - Si anisotropic etching, hillock defects 30106
  - Si, anisotropically etched mirrors for opt. sens. appls. 37409
  - Si bulk micromachining, electronically controlled etch-mask, micromechanical structs. fab. 6652
  - Si column-based field emitter arrays, enhanced perform. 29742
  - Si condenser microphone, bond and etch-back technol. 10580
  - Si, conical field emitters, fab., elec. characts. 38211
  - Si crysts., anisotropic KOH soln. etching 13395
  - Si diaphragm thickness opt. monitoring, wet etching 30104
  - Si diaphragm thickness, wet etching, opt. monitoring 30124
  - Si diodes, stain-etched porous films, vis. electroluminesc. 7477
  - Si double-barrier struct., fab. 38343
  - Si, etching mechanism and band model in aq. KOH 13388
  - Si, flow pattern defects, nonagitated Secco etching 1023
  - Si flow sens., air flow detect. *(Korean)* 17722
  - Si, grain size and deposition rate, VHF glow discharge 423
  - Si layers, nanosecond laser radiation, surface morph., struct. modif. 28761
  - Si low temp. sacrificial wafer bonding for planarization, deep etching 30502
  - Si, macroporous form., self-organised props. 22213
  - Si membrane resonators realized with bipolar IC technol., US transducer appls. 35369
  - Si membranes control by refl. interferometry *(German)* 18102
  - Si, metal contamination defects, Cr-free etch anal. 1282
  - Si micromachined actuator, fiber-optic roller bearings 30491
  - Si micromechanical resonator, struct. and perform. 13912
  - Si, micromirror arrays, KOH:H_2O micromachining, lens templates 7442
  - Si miniature capacitive absol. press. sens. 9858
  - Si point contacts, nanofabrication, MBE growth, transport meas. 13128
  - Si, porous, bond-and-etch-back SOI, selective etching 38591
  - Si, porous etched layer, transport, humidity infl. 21898
  - Si porous film, two-step chem. immersion form. 6644
  - Si porous films, chem. etching, porosity/thickness meas. 38603
  - Si, porous layers, microstruct., spectrosc. ellipsometry obs. 22214
  - Si, porous, micromachining appls. 22627
  - Si, porous, photocarrier electronic states, photomodulated IR spectrosc. 6653
  - Si, porous, photolumin. excitation mechanism, sensitisers 22250
  - Si, porous, resist., surface effect 21897
  - Si, porous, stain etch thin films, surface struct., sonication effects 6638
  - Si, porous, struct., EXAFS/photolumin. study 22248
  - Si, porous superlattices, etching 22246
  - Si porous superlattices, type of heterostruct. 22015
  - Si, porous/electrochem. etched, enhanced Raman scatt. 22162
  - Si, self-limited at.-layer etching, Cl adsorpt., low-energy Ar^+ irrad. 22178
  - Si, thermal nitridation mechanisms 38557
  - Si ultra-fine wire fabricated by SIMOX technol., quantized conductance 38354
  - Si visibly photoluminescent microstruct., ion implant./wet etching prep. 1271
  - Si wafer substr. clean-up, chem. contamination, Auger anal. and ellipsometric studies 30119
  - Si wafer surface, metal-induced pitting, wet chem. proc. 1283
  - Si wet chem. etching mechanism 30105
  - Si:B micromachined cantilevers, ageing, doping effects 22624
  - Si:B(P), heavily doped, HF-treated surface behaviour 13353
  - Si:H films, amorph./microcrystalline, selective deposition/etching 12179
  - n-Si:Li,Au, defect complexes, DLTS/SIMS/C-V profiling 38601
  - Si:N, ion implanted etch-stop layers 38555
  - Si:N, isotropic etch-stop props. 13334
  - Si/Al_2O_3 heteroepitaxial double SOI struct., press. sens. 38433
  - Si-based porous materials, anodization, etching 30085
  - Si(001), electrochem. etching in NH_4F soln. 30090
  - Si(100), passiv. and microroughness in aq. hydrogen halide 38531
  - Si(100), self-sharpening {338} tips, etching 30123
  - Si(100)-(2×1), at. scale etching by Cl 30087
  - Si(110), nanometer-scale struct. fab. 30178
  - Si(111) and (100), at. hydrogen etching, STM obs. 38542
  - n-Si(111), electrolytic hydrogenation, FT IR spectrosc. 38558
  - SiC LPCVD films, X-ray mask membranes 6695
  - SiC/Si wafer bonding, CVD and etching 13392
  - SiC-SiN_x multilayer x-ray lithog. membranes by ECR CVD 6698
  - $Si_{1-x}Ge_x$-Si heterostruct., chem. etching in HF-H_2O_2-CH_3COOH 38560
  - SiN films, plasma-enhanced reactive sputtering, self-multilayered struct. 12176
  - Si_3N_4 LPCVD tubes, NF_3 in situ cleaning 13339
  - SiO_2, SR-stimulated etching *(Japanese)* 13333
  - SiO_2, catalyzed HF vap. etching for micro-/nanolithographic masks 38556
  - SiO_2, etching mechanisms in hydrofluoric acid 1249
  - SiO_2 film, low temp. CVD, helicon plasma source 37501
  - SiO_2 films, plasma CVD, breakdown characts. 13960
  - SiO_x, submicron oxide etch, deposition, ion scatt. effects 1284
  - Ti silicidation, effect on type II end-of-range disloc. loops 38581
  - TlBaCaCuO microstrip ring resonator, double reson. behavior 12727
  - $YBa_2Cu_3O_7$ Josephson jn.-based digital ccts., nanoscale patterning 14298
  - $YBa_2Cu_3O_7$-$PrBa_2Cu_3O_7$ Josephson edge type jns. 22754
  - ZnO thin film US transducer array, 100-MHz, fab., integrated devices, NDT appls. 35367
  - ZnSSe/ZnSe/CdZnSe LED films, substr. transfer proc. 31105
  - ZnSe epitaxial layers, material quality assess. 13362
  - ZnSe-based nanostructures, waveguide DFB laser appls. 23296
  - flexible etched cct.-based IC interconnection, high speed/dens. 13431
- **Ethernet** *see local area networks*
- **ethical aspects** *see professional aspects*
- **ethylene-propylene rubber**
  - 15/35 kV EPR insulated cables, field aging assess. 27201
  - bow-tie water trees in EPR/XLPE cable insulation 14055
  - cable insulation, damaged, breakdown volt. 14071
  - cable insulation, γ-irrad., elec. cond. 14070
  - dielectric relaxation, clay filler effect, TSDC meas. 14057
  - elec. cond., ultralow-freq. dielec. props., filler conc. 30587
  - EPR-insulated cables, thermal life testing/charactn. 14011
  - flashover voltage, wetting conditions effect 19322
  - insulators, AC clean fog test, porcelain comparison 4700
  - power cable insulation, basic aspects 4683
  - treeing in cryogenic temp. region 14060
- **Ettingshausen effect** *see thermomagnetic effects*
- **eutectic transformations** *see phase diagrams*
- **evaporated layer production** *see vapour deposition*
- **event-oriented simulation** *see discrete event simulation*
- **event trees** *see fault trees*
- **Evershed effect** *see sunspots*
- **evidential reasoning** *see case-based reasoning*
- **evoked potentials** *see bioelectric potentials*
- **evoked potentials, auditory** *see auditory evoked potentials*
- **evoked potentials, visual** *see visual evoked potentials*
- **evolutionary prototyping** *see software prototyping*
- **EW** *see electronic warfare*
- **EXAFS**
  - diamond nucleation and growth, SR studies 404
  - energy dispersive EXAFS, data acquisition, obj. oriented methods 42746
  - solid polymer electrolyte composite fuel cells, ion-exchange proc. 36584
  - stopped-flow time-resolved EXAFS, soln. react. dyn. 26263
  - subsecond energy dispersive EXAFS, high perform. VME-based detector syst. 43155
  - XSPRESS detector syst. for EXAFS studies 43165
  - $Co_{78}Cr_{22}$ films,sputter-deposited, chem./structural anisotropy, EXAFS studies 6958
  - Cr-SiO_2 cermet-polyimide interfacial reacts., thin film resistor appls. 38045
  - $Pb(ZnNb)O_3$, local at. struct., EXAFS obs. 30557
  - Si, porous, struct., EXAFS/photolumin. study 22248
  - Si_{60} nanoclusters, luminesc., chem. synthesis 31074
  - Si:F, recrystn., at. redistribution, F 1s NEXAFS 38521
  - Si:N, ion implanted buried SiN_x films, EXAFS and NEXAFS obs. 38440
  - Si:Sb,B, heavily doped wafers, annealing, fluoresc. EXAFS anal. 38475
- **example-based learning** *see learning by example*
- **excavators**
  - DragCAD dragline excavator drive design optim. software 44557
- **exchanges (telephone)** *see telephone exchanges*
- **excimer lasers**
  - angioplasty appls., current status/future prospects 43339
  - angioplasty use, technol. challenges 43338
  - cardiovascular interventions, diagnostic/therapeutic, conf., Los Angeles, CA, USA (1994) 5463
  - deep UV lithog., KrF(ArF) excimer laser 38719
  - discharge electrodes design techs. 31182
  - discharge-pumped excimer lasers, 1D computation 14707
  - electronics mfg., excimer laser proc. syst. appls. *(Japanese)* 107
  - energy, gas flow vel. depend. *(Japanese)* 1855
  - GARPUN excimer laser energy distrib., transverse pumping 7525
  - glaucoma filtering surgery, laser appls. 43336
  - high-power gas/solid state lasers, conf., Vienna, Austria (1994) 20263
  - indust.-scale excimer lasers, automated control syst. 31155
  - KrF excimer laser pulsed power amps., electron beam-pumped 36304
  - micro optics, excimer laser material proc. *(German)* 7867
  - micromanufacturing appls. of excimer-lasers 15190
  - myopia treatment, excimer laser 43349
  - power syst. lightning control, UV laser triggering expts. 27262
  - pulsed capillary gas lasers with waveguide resonators, opt. charact. 31201
  - pulsed excimer lasers, dense gases pumped, self-sustained discharge 14716
  - pulsed ion diodes, temp. controlled, beam-target interact. expts. 34854
  - pulsed power supply, mag. pulse compression cct.-based 36317
  - quartz glass radiation resist. and nonlin. absorpt. at 353, 248, and 193 nm 15019
  - sealed-off metal-ceramic pseudospark switches 29628
  - soft X-ray source for discharge-pumped excimer laser 23327
  - spark-gap design, efficient and simple, for gas lasers 15009
  - surface contaminants, excimer laser-based cleaning tool 6648
  - thick-film resistors, excimer laser trimming *(German)* 6438
  - three-electrode excimer laser, middle control electrode 39672
  - time-resolved plasma absorpt. spectra monitoring facility 40001
  - unstable cavity excimer laser, radiation field form. 31446
  - UV laser cavity optics under ionizing radiation, radiation resist. 7709
  - UV silica fiber, XeCl excimer laser induced damage props. *(Chinese)* 7327
  - VUV/XUV lasing and wavelength tuning techs. 31172
  - XeCl laser, controllable pulse duration 7533
  - XUV-radiation generation by high-order freq. mixing 31512
  - ArF avalanche discharge laser, gas life time expts. 31181
  - ArF excimer laser discharge simul., plasma charact. 39652
  - ArF excimer laser keratoplastic surgery on animal eyes *(Chinese)* 18462
  - ArF*, universal pulsed Foton series lasers 31192
  - F_2 discharge-pumped laser, form. kinetics 39669
  - F_2* mol. pulsed laser, electron beam pumping 23082
  - He-Kr-F_2 excimer laser for microtechnology 39649
  - KrCl*, universal pulsed Foton series lasers 31192
  - KrF NIKE laser, e-beam pumped amp. 31190
  - KrF Nike laser, overview 1863
  - KrF avalanche discharge laser, gas life time expts. 31181
  - KrF excimer laser bone ablation mechanism *(Japanese)* 7720
  - KrF excimer laser electron beam pumped, energy meas. 2042
  - KrF excimer laser fs VUV pulse meas. by field-ionization dyn. 23103
  - KrF excimer laser, gas comp. and purity effect on perform. 31184
  - KrF excimer laser, sealed-off perform., NovaTube 31149
  - KrF excimer lasers, HV pulsed power supplies 31171
  - KrF, excimer-Raman radiation source, lidar meas. 34160
  - KrF high power microwave freq. modulated laser 31151
  - KrF laser ablation of tooth tissues, precision machining 18590
  - KrF laser amp., Titania, pulsed power syst. 31189
  - KrF laser, mag.-spiker excitation 1845

excimer lasers continued
KrF laser radiation, SRS in D_2 31550
KrF laser radiation variable attenuator, NO_2 based 39679
KrF, multipass excimer amp., saturable absorber, pulse compression 1854
KrF*, universal pulsed Foton series lasers 31192
$Kr^+Li(Cs)(Rb)$ excimers, VUV transits., e-beam pumping 31175
N UV laser, internal scanning of radiation 14682
N_2 TE UV lasers, additives, ionizing elements 7507
N_2 excimer laser, elec. discharge excited, model 7519
PZT thin films prod. by pulsed excimer laser deposition *(Chinese)* 5839
Xe_2* self-sustained discharge-pumped laser at 172 nm, kinetics 14704
XeCl, 200 W spiker-sustainer laser 31144
XeCl, 500 W indust. excimer laser, high repetition rate 31143
XeCl CHIRP II excimer laser, high power operation 31139
XeCl Los Alamos short-pulse/high-intens. lasers 1898
XeCl compact three electrodes excimer IANUS laser 31153
XeCl discharge laser, mag.-spiker elec. ccts. 31152
XeCl discharge pumped laser, microarc form., vol. stabil. 31183
XeCl discharge-pumped lasers, preionisation and discharge stabil. study 31180
XeCl excimer laser, 1 kW, specific appls. 31141
XeCl excimer laser, X-ray pre-ionization, spiker-sustainer excitation 31142
XeCl excimer laser act. medium, UV phase-conjug. mirror 14722
XeCl excimer laser, ang. multiplexed syst., X-ray generation 1862
XeCl excimer laser, discharge pumped, fab., operation charact. *(Korean)* 31166
XeCl excimer laser, gas comp. and purity effect on perform. 31184
XeCl excimer laser, long-life 2 kHz X-ray preioniser 31140
XeCl excimer laser, phase-unifying unstable resonator perform. 39668
XeCl excimer laser, phototriggering discharge pumping, uniformity anal. 31179
XeCl excimer lasers, HV pulsed power supplies 31171
XeCl integral excimer laser device, self-amplif. *(Chinese)* 39662
XeCl laser amplifier, SBS phase-conjug. cavity 1853
XeCl laser, long-pulse, auto-pre-pulse/pre-ionization 23092
XeCl laser pre-preionization, mag.-spiker sustainer 7532
XeCl laser, reverse-bias auto-prepulse PFN 31160
XeCl, long pulse excimer laser 31163
XeCl long-pulse laser, ultrashort pulse generation, smoothly tunable wavelength 14719
XeCl phototriggered lasers, modelling studies 31162
XeCl pulse-periodic excimer laser, output energy and service life enhancement 23096
XeCl pulsed excimer laser, appl., B buried layer fab. in Si 13291
XeCl tunable laser syst., Pb vap. SRS cell 14721
XeCl*, universal pulsed Foton series lasers 31192
$(XeCs)^+Ga$, ionic excimer emission, gain dyn., Ar/Xe/Cs mixtures 1859
XeF 10^5 J (C-A) transit. inversion wave by Nd-laser second harmonic amplif. 14718
XeF excimer laser kinetic model 31178
XeF excimer laser, temporal vars. in spectral output 39657
XeF gas-discharge (B→X) laser, high specific output energy 1846
XeF*, universal pulsed Foton series lasers 31192
XeF(C-A) long-pulse e-beam excited excited laser, single-freq. operation 14708
XeF(C→A) 170 J excimer laser, electron beam pumped 23098
$Xe^+Li(Rb)(Cs)$ excimers, VUV transits., e-beam pumping 31175

exciplex lasers *see excimer lasers*

excited states
see also ground states; metastable states; resonant states; Rydberg states; triplet state
act. mode-locked LD array in the external cavity, pulse buildup dyn. 23284
aq. solns., temp. lens and grating study 15057
bacteriorhodopsin/protein-based two-photon 3D memories, nonlin. opt. props. 2099
cross-conjug. macrocyclic systs., second-order nonlin. opt. responses 2097
cyanine dyes, ultrafast procs., time-resolved DFWM tech. 15140
diamond, CVD grown, photoconductive spectrosc. 38244
dyes, intracavity saturable absorbers, absorpt. recovery lifetimes 23352
indanthrone/indanthrone derivatives, excited-state reversable saturable absorpt. 2098
laser materials charactn., spectral anal. of relax. oscills. by intracavity method 34716
metallo-organics, saturated excited state absorptive limiters 31589
metallophthalocyanine doped polymers, opt. limiting study 31588
micromaser, at. cluster pumping, thresholds fine struct. 23074
organically-modified sol-gels, opt. limiting study 31588
polyphenyl, didecyloxy substituted, third- and fifth-order opt. nonlin. 2111
thiophene, bisbenzethiozole-substituted, third- and fifth-order opt. nonlin. 2111
vis. and near IR chem. lasers 7504
Ba, single trapped ion, nonlin. electro-optic switch 7392
$CsCdBr_3:Er^{3+}$, excited state dyn., vis. to UV conversion 15068
Er^{3+} doped ZBLA laser, upconversion lasing 39717
Er^{3+} doped fluoride fibre, photon avalanche up-conversion 22817
$Er^{3+}:Y_2SiO_5$, excited state, diagnostics, tunable colour centre lasers 15200
Er-doped 1.5-μm borophosphate/fluoroborate glass lasers 7599
Er^{3+}-doped fiber laser ASE green light 1878
Er^{3+}-doped silica-glass fiber parasitic upconversion mechanism anal. by 980 nm fluoresc. 39324
GaSb QW struct., highly excited, opt. absorpt. and refr. spectra 13185
HSSD, $^rQ_3$ branch at 656 GHz, freq.-tripled BWO 21847
$In_{0.85}Ga_{0.15}As$/GaAs relax. superlattice struct., ultrafast meas. of nonequilibrium carrier lifetime 38348
$Mg_2SiO_4:Cr^{4+}$, absorpt. saturation, pass. laser switch appls. 31547
Pb-phthalocyanine copolymer, excited state absorpt. and dyn. 31587
Sr^+ discharge-excited ion recomb. laser, repetition-rate scaling 14685
$Y_2SiO_5:Cr^{4+}$, absorpt. saturation, pass. laser switch appls. 31547
$Y_2SiO_5:Cr^{4+}$ broad-band solid-state saturable absorber for Cr:LiCAF laser 31295
ZnSe single crysts., photolum. meas. *(Japanese)* 39560

exciters
5 kW wind turbine induction generator, expt. design 10902
250 kVA, 40 MVA brushless sync. machines *(German)* 10987
600 MW cross cpd. generator, static excitation 19601
AC generator nonlin. excitation control *(Chinese)* 36088
aircraft AC generators, forced power transfer, dyn. modelling 26657
DC convertor stations, generator shaft torsion simul. 4635
DC power supply, two-phase induction generator-based 5110

exciters continued
dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
generator excitation syst., gain scheduling control *(Chinese)* 4881
HVDC transmission links control stability, L_∞ robustness anal. 19235
hybrid stepping motor drives, flux linkage meas. 5318
induction generator, squirrel cage, CSI exciter, voltage regulator 19635
induction generator dyn. anal., bifurcation theory-based 4961
induction machines, invertor-fed, EM procs. anal. method *(Russian)* 44041
LIM end-pole pitch AC EM field calcs. 36197
lin. PM motors, finite element modelling 11076
lin. switched reluctance machines, high force dens. designs 36135
PM sync. elec. vehicle motor drive, design, testing 11417
PM sync. motor drives, sliding mode current control 5264
power syst. dyn. stabil., optimal control modelling 4515
power syst. fuzzy adaptive excitation control method *(Chinese)* 43631
power syst. stabil. robustness, control perform. anal. 4576
power syst. sync. generator damping, SMES-based 10680
power syst. transient nonlin. generator excitation control 26992
PSS fuzzy excitation control syst. develop. 4509
saturated induction motor drives, state-space modelling 28062
self-excited brushless multifield induction generators 11049
self-excited induction generators, capacitor selection studies 44036
SRM drives, vibr./acoustic noise anal./control 20083
stand alone induction generator, wind driven, induction motor load 27741
supercond. generator brushless excitation, mag. flux pump-based *(Japanese)* 10963
supercond. machine cryoresistive winding short cct. interacts. *(Russian)* 10919
sync. generators, static exciter, LCI 36142
sync. machine excitation neural control 36117
three-phase bridge rectifier, self-excited generator appls. 11179
three-phase turboalternator adaptive control, transputer-implemented 36119
turbo-alternator excitation predictive control 44006
turbo-alternator predictive excitation control 36131
turboalternator-exciter rotor syst., unbalance response *(Chinese)* 36129

excitons
conjug. polymer LEDs 14643
conjug. polymers with large opt. nonlin., ultrafast relax. 2092
copperphthalocyanye/$SiO_2(TiO_x)$ hetero-nanostructs., mol. excitons, size effect 38423
high-perform. quantum well electron transfer modulators, self-consistent modeling 1733
II-VI quantum well struct., exciton linewidth 6564
III-V interferometric electroabsorption QW modulators 1738
III-V semiconds., mag. field effects on opt. nutation 2089
J-aggregates nonlin. opt. props., oriented films prep. 15062
laser window materials, intens.-depend. transm. props., 193-nm irrad. 22775
monolayer flat islands in cathodolum. images of quantum wells, apparent sizes 38337
MQW modulators in smart pixels, wavelength optimis. 22934
organic electroluminescent materials/devices 23022
organic PV cells, excitonic light collection, high carrier mobilities 27937
photorefr. MQW materials, appls., sig. proc. 29915
phthalocyanine films, MBE growth/photoelectrochemical procs. 20811
poly(p-phenylene vinylene)/tris(8-hydroxy) quinoline aluminum heterostruct. LED 31103
poly(p-phenylenevinylene) LED, polaron/hole charge transport 14636
poly-yne, Pt containing, PV effect 14606
polydiacetylene, third-order nonlin. opt. susceptibilities 7781
polydiacetylene DCHD highly oriented film, fs. nonlin. opt. response 23396
polydiacetylene films, synthesis and third order nonlin. opt. props. 40117
PPV conjug. polymer based electroluminescent devices, quantum efficiency 23024
pseudoisocyanine J aggregates, third-order opt. nonlin. 15096
semiconds., nonlin. optics, many body effects 15022
ultrafast carrier capture in quantum well struct. 1117
AgBr nanocrystal indirect bandgap semicond., lumin. props. 20653
(AlGa)As, low press. metalorganic vap. phase epitaxy, N_2 carrier 311
AlGaAs/GaAs MQW, opt.-modulator struct., hydrogenation 1803
AlGaAs/GaAs superlattices, THz Bloch oscills. 1112
AlInAs/InP type-II superlattice, elec.-field induced excitons, opt. studies 6555
AlP/GaP short period superlattice, organometallic VPE growth, photolumin. obs. 20753
C_{60}-conducting polymer jns., mol. D-A type photocells, spectral characts. 23018
$Cd_{1-x}Mn_xSe$ quantum dots, magneto-opt. studies 39502
CdS crysts. for IR imaging/detect., RT IR quenching 17794
CdSe quantum dots, electron-phonon coupling/phonon confine. 29903
CdSe, ultrafast exciton dyn. in direct gap semicond. 1032
$CdSe_xS_{1-x}$, ultrafast exciton dyn. in direct gap semicond. 1032
CdTe nanostructures, opt. studies 1793
CdTe:Ga, diffusive doping, photolumin. obs. 22147
CdTe/$Cd_{1-x}Mg_xTe$ quantum wires, wet chem. etched, photolum. efficiency study 38331
CdTe/CdMnTe QW, mag. polaron states 38363
CdTe/CdZnTe MQW SEED, RT photorefr. effect 30990
CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
$(CdTe)_1(ZnTe)_2$/ZnTe short-period-superlattice MQW, above-barrier excitons 1086
CuCl quantum dots, electron-phonon coupling/phonon confine. 29903
GaAs, MOMBE using triethylgallium, trisdimethylaminoarsenic 28726
GaAs MQW struct., semiempirical line shape model 1145
GaAs QW, femtosec. pulse distortion, pump-probe/four-wave-mixing expts. 13195
GaAs low-dimens. struct., cleaved edge overgrowth, lasing props. 1925
GaAs microcavity, dressed exciton oscillating emission obs. 29921
GaAs microcavity, reson. excited exciton, coherent light emission 31375
GaAs quantum wire, directional-coupler switch 22887
GaAs quantum wires, dense electron-hole plasma phase 1118
GaAs:Ge, radiation damage, elec. and opt. meas. *(Japanese)* 1048
GaAs/$Al_{0.35}Ga_{0.65}As$ MQW, refr. index, Fabry-Perot etalon meas. 34717
GaAs/AlAs QW, exciton diffusion/energy relax. in strong mag. field 29904
GaAs/AlAs RTD, QW electroluminesc. 38945
GaAs/AlAs coupled QW struct., long-lived excitonic ground states 1113
GaAs/AlAs superlattice, photolum. pol. depend. 38336
GaAs/AlGaAs MQW, ultrafast nonlin. optics 2120
GaAs/AlGaAs MQWs, nonlin. index saturation in bandtail absorpt. region 13172

excitons continued
  GaAs/AlGaAs QW, exciton relax., recomb. dyn. 1116
  GaAs/AlGaAs, in-plane strained, polariz. depend. excitonic opt. nonlin. 23424
  GaAs/AlGaAs multiquantum well vert. cavity tunable photodetector 17800
  GaAs/AlGaAs quantum dots, photolum. charactn. 29926
  GaAs/AlGaAs quantum wells, ultrafast exciton dyn. in direct gap semicond. 1032
  GaAs/AlGaAs tunnelling MQW struct., picosecond opt. sig. recovery 31519
  GaAs/InGaAs coupled semicond. microcavities 2030
  GaAs/InGaP quantum well p-i-n diodes, blue shift obs. 14603
  GaAs-AlGaAs near-perfect QW on vicinal surface, MBE, photolum. obs. 22011
  GaAs-AlGaAs p-i-n MQW modulators, opt. bandwidth 39476
  GaAs-AlGaAs proton-implanted MQW modulators for low-photocurrent SEEDs 14528
  (GaIn)As/Ga(AsP) MQW, excitonic binding energies 15080
  $Ga_{0.52}In_{0.48}P$, partially ordered, excitons homog./inhomog. linewidths 1045
  GaInP/AlGaInP SQW, bias and temp.-depend. photocurrent spectrosc. 38338
  GaInP/GaAs ordered heterointerface, type-II band alignment 38282
  GaInP/InP:S QW, strained barriers, optical/struct. props. 13159
  GaP:N, metalorganic VPE, photolumin. obs. 20728
  $GaP_{1-x}N_x$, metalorganic VPE, photolumin. obs. 20728
  GaSe, layered cpd., time-resolved DFWM 15098
  $Hg_{1-x}Cd_xTe$, narrow-gap, laser emission 14894
  HgI_2, electronic and opt. props. 43077
  (In,Ga)As/(In,Al)As, superlattice-equiv. MQW, Stark shifts 38330
  In/p-$CuGaS_2$ surface-barrier struct., photoelec. props. 13214
  InGaAs superlattices, optical props., device appls. 13143
  $In_{0.5}Ga_{0.5}As$ self-form. quantum dots on GaAs substrs. emitting, 1.3 μm 14896
  InGaAs:Dy on InP, LPE growth, photolum., double-cryst. X-ray study 37400
  InGaAs/AlAs MQW p-i-n diodes, room-temp. charactn. 13592
  InGaAs/AlGaAs SQW, recomb. procs., photolum. intens. effects 38349
  InGaAs/GaAs strained [111]-oriented MQW, carrier and screening dyn. 29905
  InGaAs/InGaAlAs, MQW, absorpt., photolum., excitonic transitions 13158
  $In_{0.53}Ga_{0.47}As/In_{0.40}Ga_{0.60}As$ superlattices, Wannier-Stark effect 1138
  $In_{1-x}Ga_xAs$/InP-quantum well struct., recomb. dyn. 13163
  InGaAs-AlAs strained p-i-n modulator, ultrafast recovery time 22939
  InGaAs-GaAs quantum wells, surface segreg., photolumin. study 13171
  InGaAs-InAlAs asymmetric coupled QWs, elec.-field-induced refr. index changes 21980
  InGaAs-InGaAlAs-InAlAs coupled QW chirp-free electroabsorption modulator 22937
  InP, ALE growth, charactn. 20770
  InP, photolum. excitation spectra, acceptors/donors 13048
  InP/InAs SQW/superlattices, ALE growth, charactn. 20770
  $KTiOPO_4$ nonlin. devices, temp. dispersion 15121
  Si/SiGe nanometer struct., fab. 29941
  Si-SiO_2 porous DQW, tunneling, photoluminesc. 21995
  4H-SiC epitaxial layers, CVD growth 28758
  SiC, props./growth, rel. to HF device appls. 1072
  SiGe/Si quantum dots, island growth, photolum., electrolum. 28830
  (Zn,Cd)(Se,S) quantum well laser heterostruct., opt. waveguide confine. 14900
  ZnCdSe QW LD, gain/Coulomb-correl. electron-hole pairs 31336
  ZnCdSe/ZnMgSSe strained layer quantum well blue-green lasers, opt. gain 39755
  ZnCdSe/ZnSe, QW, exciton recomb. dyn. 38321
  $Zn_{1-x}Cd_xSe$/ZnSe quantum wells in p-i-n heterostruct., photocurrent study 1127
  $Zn_{1-x}Cd_xSe$/ZnSe quantum wells, excitons, picosecond dyn. and stimulated emission 13182
  ZnCdSe-ZnSe superlattices, stimulated blue light emission mechanisms *(Japanese)* 38340
  ZnS, MBE on GaAs(001), struct., opt. props. 20807
  ZnS/ZnSe superlattices, opt. props., elec. struct., exciton binding 38347
  ZnS-ZnSe superlattices, electronic states and binding energies 13194
  ZnSe single crysts., photolum. meas. *(Japanese)* 39560
  n-ZnSe:Cl, doping characts. 21921
  p-ZnSe:N, doping characts. 21921
  ZnSe:N, metalorganic VPE grown, p-type cond., annealing 38473
  ZnSe:N,C,H, plasma-stimulated low-press. metalorganic vapour phase epitaxy syst. 20791
  ZnSe/ZnCdSe quantum wells, coherent exciton lasing 31381
  ZnSe/ZnMnSe, QW, exciton recomb. dyn. 38321
  ZnSe/ZnS strained layer superlattices, MOVPE growth and opt. charact. 12124
  ZnSe/ZnSSe symmetric superlattices, radiative mechanisms 29911
  ZnSe-CdZnSe MQWs, excitonic opt. nonlin., opt. bistability 40029
  ZnSe-ZnMgSSe-ZnMgSSe blue diode lasers 1966
  ZnSe-ZnS superlattices opt. waveguide, opt. bistability 39380
  ZnTe:Al,Cl, photo-assisted metalorganic vap. phase epitaxy, photolum. props. 20790
  ZnTe:N grown by MBE, N incorporation, Ar dilution in N plasma source 1212
executive information systems *see management information systems*
executive workstations
  see also interactive terminals; microcomputers
  business environ. cell-based switching node archit. and lab. model 41757
  enterprise network LAN-ISDN integrat. *(German)* 9008
  Personal Telepresence, interactive multimedia workstation 16931
EXELFS *see electron energy loss spectra*
exhibitions
  Edo Tokyo Museum exhibition lighting syst. *(Japanese)* 11471
exoelectron emission
  Si, amorph./cryst., exoelectron emission point defect anal. 21884
expanding Universe *see cosmology*
expandor-compressors *see compandors*
expansion boards *see add-on boards*
expansion, thermal *see thermal expansion*
experimental design *see design of experiments*
expert system shells
  AISMAN, subtransm. network switching operations planning tool 27089
  current-limiting devices, AI action 544
expert system shells continued
  Leonardo, power line ampacity assess. ES develop. appl. 19308
  power plant automation, knowledge-based support shell 27298
  power syst. control ES, rule modif. ease expts. 19097
  power syst. dyn. security assess., ELISA ES-based 26861
  power syst. education, computer based learning 19048
  power syst. fault diagnosis, diagnostic ES shell-based 35431
  SMPS, transformer design ES 44122
  water distrib. systs., model based fault diagnosis 3159
expert systems
  see also aerospace expert systems; artificial intelligence; decision support systems; diagnostic expert systems; expert system shells; intelligent design assistants; medical expert systems
  advanced plant maint., surveillance syst., AI techs. 35921
  ageing power plant equipt. operation, hazard eval. 27297
  airborne multisensor surveillance, data fusion IKBS 35395
  APS, control displays, rule-based ES 18219
  AUSTRAL, distrib. syst. power restoration ES 19246
  automated syst. for EMI/C meas. 23737
  bulk power network restoration, ES support syst. 19140
  bulk power syst. restoration procedures, knowledge-based approach 26953
  BWR ATWS seqs., diagnosis, ES, neural network 35858
  BWR plants, accident mgt., ES 35861
  cable, conduit, tray schedules, computer generation 19319
  CASPER, TPS cost management 42711
  CASTOR, computer aided syst. testability optimizer 34386
  cellular CDMA, ES approach 25347
  cellular network mgt., intell. integrated systs. 17127
  cement plant elec. network design, ADELIA expert syst. 5417
  coaxial cable harnesses, EMC problems and perform. 889
  contact erosion modelling, obj.-oriented technol. 6395
  continuous speech recogn., expert-TDNNs/HMMs hybrid syst. 32398
  digital telephone switch alarm proc. 33717
  dist. relaying coord., OO expert syst. *(Korean)* 27247
  distrib. line overcurrent protection settings determ., DSS-based 19259
  distrib. network, load forecasting, decision making, hybrid ES 19270
  distrib. network control automation, recent develops. 27149
  distrib. network load restoration planning algm., ES-based 19245
  distrib. network loss reduction, syst. reconfig. 10728
  distrib. network protection, overhead auto-recloser automation 4664
  distrib. network restoration, ES-based heuristic methods 19244
  distrib. syst. online mgt./control, ES-based 19271
  EHV power syst. restoration voltage control, ES-based 35555
  elec. load flow problem, ES appl. 4627
  elec. machine predesign ES, knowledge model *(French)* 10947
  elec. train fault-tree generation automation, ES-based 44551
  electric generator adaptive fuzzy speed control, rule-based 19582
  emergency engng./mgt., ES-based DSS approaches 43875
  engng. CAD, AI prog. approach 37021
  fault tree anal., knowledge engng. approach 28535
  Formentor risk prevention DSS project 11690
  fossil power plant, drum-type boiler syst., fuzzy ES for fault diagnosis *(Korean)* 43907
  frame-oriented intell. tutoring syst. 5526
  fuzzy ES for hydrostatic level meas. *(German)* 18160
  fuzzy intelligent hybrid system, telecom network routing appl. 8789
  GOLDSMITH, DSM cost/benefit options 19132
  HF power transformer core geom. CAD, fuzzy ES-based 44110
  HF transformers, core geom. selection, experto-fuzzy approach 36226
  hot strip mill load bal. control ES 44627
  HV equipt. insulation eval., intell. instrum. 19578
  HV transm. syst. planning, SELF expert syst. 19202
  IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
  image class. in marine sci., neural nets 10492
  imprecise probab., expert forecasting, elec. utility 4544
  induction motor, integrated on-line protection syst. 4969
  indust. gauges, ES, β/γ/X-ray transm. 18369
  injection mould design, intell. support syst. 37023
  intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
  island power syst. restoration, ES-based 4543
  KBTAC, knowledge-based technol. centre 35853
  land cover class., rem. sens. imagery anal. 26776
  load balancing in distributed environ., ES approach 8926
  load forecasting, rule-based ANN approach 19203
  marine vessels pass. class., integrated approach 34176
  MOTOR ES, motor/cables/control gear selection appls. 10959
  multimedia commun. services, knowledge-based selector 16902
  multiple batch surface mount PCB placement seq. problem, soln. 12915
  MV power syst. planning, energy storage, ES 27176
  network control technol., user appls. *(German)* 43692
  network mgt. systs., advanced inform. proc. techs. 3096
  network monitoring via adaptive ES 3097
  Northern States Power Company Welding Manual Advisor 35854
  NPP, OASYS rule-based ES 10831
  NPP monitoring, sens. failure detect. ES 19400
  NPP operation, intell. human-machine syst. 43823
  NPP safety, knowledge-aided decision-making appls. 43873
  nuc. accident mgt., SAMEX, ES 35862
  nuc. power stations, DECA, design change assistant 35857
  ocean coastal environ., ES description 26834
  packet switching network routing mgt. 41649
  PCB design under EMC constraints, rules devel. 21633
  power convertor fault diagnosis, ES-based 5053
  power electronics modelling, ES develop. 534
  power equipt. control syst. design, ES-based interpolation methods 19494
  power line load flow violations security assess., ES-based 19285
  power network mgt., KBS and distributed problem solving 10650
  power overhead line short-term loading capacity assess., ES-based 19308
  power station condition-based maint. mgt., neural net-based 43815
  power station intell. control, life extension mgt. 19387
  power supply ES appl. experience *(German)* 27132
  power supply quality class., neural net/ES-based 4741
  power syst. alarm proc., OO symbolic connectionist syst. 19158
  power syst. alarm proc. syst., symbolic-ANN syst. 26867
  power syst. anal. ES, evidence theory-based 26919
  power syst. appl. ES 19005
  power syst. control, AI-based DSS 10648

expert systems continued
  power syst. control, intell. data, expert systs. 19166
  power syst. control ES software design, OOP techs. 27070
  power syst. control room DSS, user interface 4563
  power syst. dispatch switch operation planning, ES-based 4510
  power syst. dyn. stabil., fast anal., patt. recogn. appl. 10638
  power syst. emergency control, real time ES model 27041
  power syst. expansion planning, long-term, computer-based 4607
  power syst. fault diagnosis, AI methods perform. eval. 19030
  power syst. intell. control, appl. develops. 19135
  power syst. intell. guidance syst. 19169
  power syst. interactive DSS, obj.-oriented framework 19095
  power syst. load dispatching tech. IS 19096
  power syst. monitoring, expert syst. 19162
  power syst. online dyn. security assess., EMS ES-based 19099
  power syst. operation control, ES appl. overview 27071
  power syst. operations control, ES implement. tutorial 27072
  power syst. optimal VAr control, fuzzy neural net-based 35480
  power syst. pricing update, MBR 27067
  power syst. reactive power mgt., SEGRE expert syst. 19104
  power syst. relay protection setting/coord., ES-based 27256
  power syst. restoration, planning, local control centre, ES *(Korean)* 35541
  power syst. restoration, tie line utilization 35484
  power syst. restoration, training, ES appl. 19165
  power syst. security assess., AI appls. 27011
  power syst. security assess., multicontingency preprocessing ES 35505
  power syst. security assess., pattern recogn./fuzzy estim. ES-based 35506
  power syst. security enhancement, ES-based 26967
  power syst. short cct. currents calc., IEC 909, ES appl. 4477
  power syst. short-cct. power control, ES-based 19136
  power syst. transient stabil. assess./control, status and develop. *(Chinese)* 43632
  power syst. unit commitment problem, ES approach 35532
  power syst. VAr compensation control planning, ES appls. 26961
  power syst. voltage stabil./security assess. methods 4516
  power systems computation, conf., Avignon, France (1993) 20204
  power systs., obj.-oriented approach appls. 26944
  power systs., operational intell. syst. appl. 43617
  power systs. anal./design/operation/planning, knowledge engng. tools 4487
  power systs. transient stabil. estim., PC ES-based *(Russian)* 27048
  power transformer relay protection CAD, ES-based *(Chinese)* 44094
  power transm. line overloading alleviation, intell. control 4518
  power transm. line protection, ES-based relay setting 19291
  power transm. line relay protection CAD, ES-based 35571
  predictive sensitivity based fault detection 38119
  primary substn. operation support, multiple inference engines *(Japanese)* 19913
  PSS intell. supervisory fuzzy control design 19103
  PWR load maneuvers 35850
  QC, robotics and vision syst. technols. 37169
  regional substations control centre, ES appls. 27018
  SAMSON, Severe Accident Management System Online Network 35860
  sea ice class., SAR data, heuristic geophys. knowledge 26730
  short-term load forecasting model, ANN, fuzzy ES *(Korean)* 35587
  SMT IR reflow soldering, knowledge based decision support 29677
  SMT PCB assembly, placement machine, multi-criteria DSS 28424
  SMT PCB placement seq., multiple batch, soln. methodology 29689
  SPARSE ES for alarm proc. and operator assistance 26999
  stationary batts., diagnostics/perform. prediction approaches 19956
  substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
  substation fault recovery operation support syst., knowledge reuse methods 11216
  substation protection/control coord., μP ES-based 44246
  SWIM, knowledge-based digital cct. simulator 21173
  system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
  telecom network rule-based control, blackboard model 16614
  telecomm. network mgt. syst. based on ES 3098
  telecomm. networks, perform., ES 3194
  telecomm. traffic anal./modeling, ES 3053
  telecomms., ES/interactive multimedia technols. 3262
  telecomms. services config., blackboard-based DSS 8834
  telephony network real-time control, ES 24927
  temp. rise anal., harmonic voltage propag./penetration 5020
  thermal power plant generation scheduling, SHAPES ES-based 43890
  TIES, testability increase ES for VLSI design 37598
  TOPASE ES, substation reliab. anal. appls. 27869
  TPS engineering and quality assurance 42710
  TRANSEPT ES, point-to-point transm. network CAD appls. 27128
  transm. network back-up protection, expert syst. 19351
  transm. network substation control centers, SPARSE ES appls. 19230
  transmission planning ES design 35577
  trunked mobile commun. syst. mgt., ES environ. appl. 9396
  VLSI mfg. line mgt. and troubleshooting, ES 28415
  voltage stabil., automatic control, ES pattern recogn. 10661
  Pb-acid valve-regulated telecom. batts., expert mgt. syst. 41632

explanation
  NPP, transient diagnostics by neural net 35741

explosions
  see also accidents; coolant-fuel interactions; detonation; fuel element failure; nuclear explosions; safety; shock waves
  booby traps internat. terroristic actions 36992
  compacted plasma armature railgun expts. 15267
  distrib. substations, switchgear internal arc fault protection design 4661
  indust. electrostatic hazards investigs., UK 7906
  material explosion, pulsed currents/elec. fields, simul. 30551
  motor explosion protection switches *(German)* 11203
  oil refinery hydrocarbon storage risk assess. methodology 20172
  plasma thermal implosion 19769
  rock fractioning, pulsed power exploding wire expts. 36813
  rot. machine explosion protection, European Stds. *(German)* 10943
  sea bed topography meas., reverberation data anal. methods 26757
  seismic data homomorphic deconvolution effectiveness 35291
  semicond. jn. igniter in 2.75 folding fin aircraft rocket, RF charact. 35398
  small body launching, plasma armature railgun 15268
  SRS reactor, unseated septifoil, steam explosion pot. 35831
  thermonuclear magnetized plasma generation, mag. implosion syst. 36267

explosive driven pulse generators *see power supplies to apparatus; pulse generators; pulsed power technology*

exponential distribution
  array excitation currents, far-field synthesis 31973
  discriminant anal. based on exponential possibility distribs. 8579
  environ. stress screening, 3-level syst. 20411
  exponential growth nonlin. diff. eqns., bifurcation phenom. 28563
  expt. data approx., exponential fn. 40775
  fast algms. for exponential data modeling, NMR data appl. 43256
  $G/M^{a,b}/1$ queues, server vacations 37228
  GI/G/1 queueing syst. with repairable service station, reliab. 20516
  HV vac. relay reliab., Weibull/exponential failure distribs. 28523
  inhomog. dielec. half-space, EM wave refl. coeff. 7939
  IR imaging, ΔT metric eval., mil. target and background under various stats. 4439
  likelihood distributions for radio wave tomography 10456
  LV AC power syst. clearances flashover, overvoltage wave-based 35457
  machine service model, queuing syst. 20497
  mobile sig. reception, stat. model 31833
  multicomponent exponential transients, time-domain method anal. 25749
  multiple transients, param. estim., SDMP method 40949
  noisy phase lightwave systs., power moment derivation 25478
  non-Gaussian environ., sig. class., universal methodology 24243
  outlying obs. in exponential sample, detect. method *(Chinese)* 28589
  stationary single server queues, approx. for perform. eval. 16469
  storage syst. with high reliab., optimal inspection policy 37190
  telephone cct. holding time distribs. 33404

exposure meters *see photometers*

extended definition television *see high definition television*

Extended Industry Standard Architecture *see system buses*

extended X-ray absorption fine structure *see EXAFS*

extensometers
  coord. meas. machines, accuracy assess. 42933
  micro-extension meas. unit for Instron 1185 25969

extraordinary ray *see birefringence*

extrapolation
  4 GHz 88 km overwater digital radio link perform, characts. 42184
  adaptive weighted norm extrapolation algms., convergence anal. 8304
  altitude prediction by natural spline tracking filter *(Japanese)* 8410
  asymptotic error expansions and extrapolations, nonlin. integral eqns. *(Chinese)* 5789
  ATM call admission neural control 41450
  bathymetry data postprocessing/corrections, sidescan sonar syst. 10560
  block-based image coding, inform. loss recovery, fuzzy logic approach 32873
  charge mobility modelling in high elec. fields 7899
  computational opt. sectioning microscopy, EM algm. 16220
  Croatian telecomm. network, traffic forecasting 33630
  DECUHR, integrat. of sing. fns., hyperrectangular region 11995
  diebond thermal fatigue model, damage integral based anal. 11746
  E-algm., general extrapolation procedure 5766
  extrapolative prediction-discrete sine transform coding, adaptive prediction *(Japanese)* 16299
  image restoration, boundary distortion reduction 32823
  image superresolution perform., empirical eval. of lower bound 16208
  long-term load forecasting, recurrent neural network 27112
  multi-laser displacement sens. used in accurate digitizing tech. 9897
  non-uniform sampling theory, efficient num. methods 32689
  noniterative/fast iter. methods for interpolation/extrapolation 2503
  Papoulis-Gerchberg algm., sig. extrapolation in wavelet subspaces 24318
  power models fitting, two-way contingency tables 28664
  radiated emissions meas. of large systs. 23662
  reflector antennas, surface error meas. by phase retrieval holography *(Japanese)* 15647
  reluctance motor drives, sensorless posn. meas. 11318
  robust sig. extrapolation, wavelets 32732
  sig. extrapolation with wavelets, regularization approach 32487
  sig. proc., extrapolation in multiresolutions 32507
  sonar anal., adaptive data extrapolations in time-freq. representations 9672
  spectral estim. problem with gaps, max. entropy algm. 40996
  step-shape charact. calc. in rect. waveguide 8024
  super-resoln. range-Doppler imaging 25556
  underwater acoustic field extrapolation, vert. ref. arrays 9656
  vector extrapolation methods for solving systs. of lin. eqns. 37303

extraterrestrial radiofrequency radiation *see radiofrequency cosmic radiation*

extremum control *see optimal control*

extrusion
  500 kV XLPE power cables, extrusion-moulded joint tests 4682
  extruded polymer power cable insulation, mech. stress meas. 43769
  proc. DC motor drive, cascaded control design *(Russian)* 11497
  wire extrusion lines, diam. gauges, control systs. 5399
  Nd-Fe-B magnets, extruded, sintered, mag. props. 39199

eye
  see also electroretinography; vision; visual evoked potentials
  2.45 GHz microwave irrad. to monkey's eyes, expt. 26494
  acoustic sens., human eye/nose recording appl. 43211
  apposition cpd. eye opt. sens., design and anal. 34466
  artificial cpd. eye opt. sens. array 9852
  bio-mech. movements obs., magnetometer sens. appl. 34986
  biological/computer vision, spatial freq. inform., self-organising feature map 33117
  EEG corrupted sigs., minimization of EOG artefacts, neural net 43298
  electro-oculogram responses in extensive extramacular drusen patients 35119
  exudates in retinal images, automated detect. and quantification 24559
  eyesafe IR aerosol lidar, stimulated Raman backscatt. appl. 9651
  fiber optics for FEL med. appls. 35152
  glaucoma, open angle, Er:YAG lasers in surgical treatment 43337
  glaucoma filtering surgery, laser appls. 43336
  glaucoma induced change modeling/diagnosis, neural net 18456
  human eye location for quantifying eye muscle palsy 41130
  iridectomy using diode, Ar and Nd:YAG lasers 4295
  laser injury in China 43387
  laser safety, ocular hazards, stds. 28392
  motility disorders, video loop MRI 43220
  movements meas., limbus refl. tech. 26363
  ophthalmic technols., conf., Los Angeles, CA, USA (1994) 20215
  opt. neuro-devices, develop. *(Japanese)* 1753
  peripheral artificial vision, lateral inhibitory networks, IC implement. 23067
  pot. hazards from extended light sources 35193

eye continued
pupillary light response model w.r.t. smooth muscle morph. *(Japanese)* 18524
refr. eye microsurgery, laser tracking 17452
SAR mapping within human eye, portable transceivers effect 18625
stereoscopic 3D display eval. in terms of human visual fn. *(Japanese)* 17998
UV radiation hazards, conf., Los Angeles, CA, USA (1994) 11572
visual load estim. spontaneous blink opening duration *(Japanese)* 18574
ArF excimer laser keratoplastic surgery on animal eyes *(Chinese)* 18462
Er:YAG laser clinical niches 35150
^{226}Ra treatment, skin hemangiomas, children, organs absorbed dose 10292

F-centre lasers *see colour centre lasers*

F_2-centres *see M-centres*

F_A-centres *see A-centres*

f-values *see oscillator strengths*

Fabry-Perot interferometers
antiresonant waveguide add/drop filter, Fabry-Perot interf. filtering 17266
astron. Fabry-Perot imaging camera 9942
coherent detect. tracking syst. in laser commun., ang. bias correction 17309
distributed sens., grating Fabry-Perot interferometers 17740
embedded Fabry-Perot interferometric strain sens. 17894
Faraday-effect magnetometry, Verdet const. compensation 10001
fiber optic sens. for smart materials and struct. 17841
fibre Fabry-Perot interferometer, temp. sens. 34554
fibre Fabry-Perot sens., absol. strain meas. 17904
fibre optic displacement sens., intell. proc. monitoring 17898
fibre optic interferometric sens., parasitic cavities limitations 34539
four-channel freq. locking, fibre-fed Fabry-Perot filter 17328
fusion-spliced birefr. fibre Fabry-Perot interferometric temp. sens. 34556
laser commun., Fabry-Perot interferometer for freq./spatial tracking 17312
miniature Fabry-Perot interferometric sens., pass. sig. proc. 17851
MLC actuators, intell. proc. monitoring, fiber sens. 10030
modulators, correctable partial antirefl. coatings 30992
MQW photorefr. asymmetric Fabry-Perot struct. 22941
opt. spectrum meas. syst., high resoln. 4003
polariz.-maintaining fiber Fabry-Perot interferometers 9922
reinforced concrete strain meas., opt. fiber sens. 34547
sapphire fiber strain gage for static/fatigue meas. 17860
shallow QW SEED in asymmetric FP etalon struct. 14530
solid surface US pulse opt. detect., confocal Fabry-Perot interferometer *(Chinese)* 10075
US opt. sens. for monitoring indust. surfaces 18944
β-BaB_2O_4 injection-seeded opt. parametric oscillator, bandwidth studies 31500
GaAs/$Al_{0.35}Ga_{0.65}As$ MQW, refr. index, Fabry-Perot etalon meas. 34717
GaAs/AlGaAs tunnelling MQW struct., picosecond opt. sig. recovery 31519
GaAs-AlAs vert. coupled-cavity microinterferometer, deformable-membrane top mirror 39991
H_2 gas sens., Extrinsic Fabry-Perot Interferometer 25901
He-Cd^+ pos. column type UV 325 nm lasers *(Japanese)* 14683
$LiNbO_3$ Fabry-Perot planar etalon filters 1781
$LiNbO_3$:Ti strip waveguide thermooptic coeff. determ. for phase compensated appls. 39467
Tm,Cr,Ho:YAG eye-safe pulsed laser and study of radiation absorpt. by mol. gases and air 14790

Fabry-Perot resonators
asymmetric gain-levered quantum-well lasers, enhanced wavelength tunability 39877
chirped resonator fibre grating transm. filters 39339
cryogenic all-sapphire Fabry-Perot opt. freq. ref. 31462
DBR laser based step-like opt. freq. sweep generator 23254
DFB laser, mode nonorthogonality study 23342
ferroelec. smectic C* liq. cryst. high-speed tunable filter 39539
fiber waveguides, group effective index 10044
fiber wide-band Fabry-Perot-like filters 14405
fibre optic interferometric sens., parasitic cavities limitations 34539
gain-switched Fabry-Perot LD, spectral behaviour 14932
in-fibre wideband Fabry-Perot filter/resonator fab. 31066
laser commun., Fabry-Perot interferometer for freq./spatial tracking 17312
laser/fibre grating, pulse compression/mode selection 23225
metal-mirrored Fabry-Perot resonator bistability 2102
microlaser lin. arrays, thermal modeling for mode-size estim. 1910
microwave devices, magnetized electron beam, nonlin. Faraday effect 976
MQW modulators in smart pixels, wavelength optimis. 22934
nonlin. confocal Fabry-Perot resonator, Na filled, pattern form. 7749
nonlin. crossed Fabry-Perot resonator, transm. fn. 15110
nonlin. Fabry-Perot resonator, magnetoresonance multilayer struct. 39174
nonlin. Fabry-Perot resonators, anal. of dyn. pattern form. 7728
nonlin. Kerr medium, Maxwell eqns. 7755
opt. bistability, squeezed vac. effects 40096
opt. carry chain fast adder 31025
opt. fibre FDM FSK syst., channel spacing, crosstalk *(Chinese)* 42354
opt. fibre monolithic wavelength demultiplexing switch arrays 42374
organic electroluminescent devices, reson. cavity 23045
PTS-polydiacetylene, time-resolved nonlin. opt. studies in Fabry-Perot cavity 23411
pulsed capillary gas lasers with waveguide resonators, opt. charact. 31201
quasioptical resonators, mode degeneracy 39530
QW bistable semicond. lasers, modeling and meas. 2000
semicond. laser, freq. stabilisation/linewidth reduction, opt. feedback method *(Korean)* 14861
semicond. lasers, cavity mirror imperfections and reflectivity 31458
shallow QW SEED in asymmetric FP etalon struct. 14530
single-cavity Fabry-Perot demultiplexers, OFDM networks, finite laser linewidth 25529
single-mode Fabry-Perot semicond. laser 31321
singlemode 1.3 μm Fabry-Perot lasers by mode suppression 39872
solid surface US pulse opt. detect., confocal Fabry-Perot interferometer *(Chinese)* 10075
spectrum analyzer selection, sensitivity, dyn. range, resoln. and accuracy 42747
transverse opt. bistability, incoupling conditions 7748
tunable polariz.-maintaining fiber filters 22803
vert. cavity waveguide spectrometer, WDM commun. 34063
vert.-cavity semicond. laser amps., perform. predictions 1998
(Al,Ga)InP-oxide epitaxial DBR in vis.-wavelength opt. devices 39800
AlGaAs-GaAs ARROW waveguides, atten. meas. 30931
AlN-GaN qtr.-wave reflector stack, gas-source MBE 14565

Fabry-Perot resonators continued
Er,Yb:phosphosilicate fiber Fabry-Perot lasers, continuous/discrete wavelength tuning 31220
GaAs bistable Fabry-Perot device, array format operation 23378
GaAs micromachined widely tunable Fabry-Perot filters 22984
GaAs/AlAs thin film opt. filters in Fabry-Perot cavity 31063
GaAs-AlAs MBE grown vert. Fabry-Perot laser cavities, periodic mode shift 31443
GaAs-AlAs vert. coupled-cavity microinterferometer, deformable-membrane top mirror 39991
Si thermooptical micromodulator, 700-kHz -3-dB bandwidth 39490
a-Si-SiO_2-Si Fabry-Perot opt. intens. modulator by merged ELO 14647

face recognition
age change, facial image anal. and synthesis *(Korean)* 33118
angled facial data obtained by bright-spots matrix projection 3854
automatic face recogn. syst., adaptive clustering network 2697
computer input by face posn./gesture 35172
conformal mapping-based image proc., theory/appls. 41176
deformed patterns recog. 16150
expansion matching, optimal edge detect. and generic recogn. 8625
expression, emotion dyn. recogn. 8563
expression recogn./reasoning, fuzzy logic 8562
front face ident., alg., extraction 33075
gray valued still images, face regions extraction *(Japanese)* 16153
head boundary location, fast algm. 16321
human body surface, colour 3D electronic imaging 34566
human face images, quantization level, neural net 41373
human image recogn. proc., math. model *(Japanese)* 2702
identification/inspection of humans conf., San Diego, USA (1994) 20264
illum. direction change compensation, face recogn. 24466
inform. proc., Kansei commun. engng. *(Japanese)* 24657
knowledge-based feature extraction, BP algm. *(Korean)* 24683
laser range data, multidimensional shape and texture visualization 32975
matching pursuit filters applied, face ident. 32839
model-based image coding, deformable 3-D model for face-to-face commun. 24556
multiple-template expansion matching, faces/occlusions images 2769
multiscale rule-based algm. for human face recogn. 2787
neural network recogn. of human face images stored in database 16163
pattern class. by learning from example and extension matrix 24553
pers. ident., human face images proc. 41116
pose estim. and detect. of human face via multiple model images 16332
profile/frontal face recogn. syst. comparison 32841
projection-based face recogn. 32840
used in face retrieval 8316
visual inform. proc. syst. *(Japanese)* 2616

facilities layout, computer aided *see computer aided facilities layout*

facility location *see operations research*

facsimile
64 kbps switched internat. ISDN, transm. perform. 16795
AD8600 series multimedia TDM *(Japanese)* 25155
analog cellular facsimile commun. time reduction *(Japanese)* 41741
Asia-Pacific region, integrated voice inform. services 3121
bi-level image high speed codec, architectural design 9124
colour photograph transm. via INMARSAT-A syst. *(Croatian)* 3505
commun. patterns in research community 41734
commun. time in digital/analog cellular systs. 8871
digital cellular syst. radio link protocol throughout perform. 33799
document quality perception/meas. *(French)* 3156
DPCM image coding, correl. sources decoding 8615
full-text inform. delivery, electronic, US infrastructure 16546
G3 facsimile, arith. coding, develop. *(Japanese)* 3157
GMS images, digital transm., ships *(Japanese)* 8870
handover during mobile data commun., error reduction 16635
hierarchical coding scheme based on polar mass distrib. 16342
high dens. fax broadcasting syst., develop. 33417
image quality subjective eval. methods 41742
image recognition, neural net appl. 41172
indoor cordless commun., teletraffic perform. 3488
Japanese std. based digital cellular syst. perform 33807
multimedia fax-MIME gateway for Internet 8943
multimodal consumer inform. server, IVR menu 3131
NEC multimedia VAN services *(Japanese)* 42030
network adapter, archit. 16934
networking in India, needs, demand and regulation 25017
neural network error-correcting 8872
online services and fax usage 16637
portable telephone for pers. digital cellular syst. 3467
power line isolation monitoring syst., paging/fax commun. *(Japanese)* 27287
PSTN, secure speech/data commun. 33397
security in telecomms., subscriber perspective 33351
Sri Lanka's telecomms. infrastructure, private sector contrib. 3032
SwissNet, NTE, integrated a/b interfaces *(German, French)* 33679
TDMA struct. DECT syst., data services 16621
tech. inform. services for PC/fax users *(Japanese)* 33418
telephone cct. holding time distribs. 33404
wireless local telephone service, effective implement. 3118
wireless local telephone service, pricing, planning and regulation issues 42210

facsimile communication *see facsimile*

facsimile document reproduction *see photocopying*

facsimile equipment
color image proc./transm. technols. *(Japanese)* 41745
colour facsimile, thermal rheography recording, direct ink heating 16636
high-speed image codec 16946
libraries, Third World, inform. access improved by utilizing advanced IT 41743
MFP-510 multifunction plain paper facsimile *(Japanese)* 41744
noncontact vel. meter based on spatial filtering method 3990
OCR data entry syst. *(Japanese)* 24942
PCMCIA std. for high-dens. PCB design 6407

facsimile transmission *see facsimile*

factographic databases
CLNS networks, authority and routing registration 41781
ExtNet, extension electronic inform. delivery in North Dakota 8869
hydro power station struct., safety/reliab., inform.-anal. support 10873
KT-STOCK large vocab. speaker independent recogn. syst. 2440
med. digital X-ray archive accessed, Internet 8484
video databases, metadata 8472

factory automation
- *for general papers only*
- *see also computer integrated manufacturing; flexible manufacturing systems; industrial control*
- IEEE IECON '94 conf., Bologna, Italy (1994) 36823
- indust. electronics, trends/develop. 33431
- Maglev carrying syst., LIM, driving characts. *(Japanese)* 44562
- MELSECNET/10 and open networks for factory automation *(Japanese)* 33541
- miniaturized micro-opt. scanner lens arrays 9646
- PCB automatic assembly time optim. 6420
- QMI, Qmimic, dyn. proc. monitoring/fault diagnosis 9815
- real-time MAP, modelling/formal spec. 16771
- SEMATECH future factory design for wafer fabs 103
- submicron fab technol., future prospects 37050
- token bus LAN, mfg. environ., perform. models 24990

FACTS *see flexible AC transmission systems*

faculae *see solar activity*

fading
- *see also multipath channels; radiowave propagation; Rayleigh channels; Rician channels; time-varying channels*
- 1.5 GHz land mobile satellite commun., propag. characts. 9265
- 1.8 GHz mobile radio channels, wideband characterisation 9315
- 3D wireless indoor commun. syst., uplink/downlink anal. 33921
- 4 GHz 88 km overwater digital radio link perform, characts. 42184
- 15 GHz LOS multipath propag. expt. 31815
- 16 QAM modulation, OFDM in Rayleigh-fading channel 9218
- 16-DAPSK, differential detect., Viterbi-algm. *(Japanese)* 24175
- 22 GHz DBS HDTV antenna design and rain fade compensation 31950
- 60 GHz intervehicle channel model 33797
- 60 GHz mobile-to-mobile radio channel, meas. 9262
- 60 GHz vehicle-to-vehicle commun., time/freq. selectivity 9316
- 946 MHz office-complex mobile radio channel meas. and modelling 33790
- adaptive blind diversity combining for antenna arrays 31978
- adaptive diversity reception, prediction, smoothing, interpolation 25447
- adaptive equalization for fading mountainous terrain 3426
- adaptive equalization for multipath fading environ. 3429
- adaptive equalizer for digital FM 3428
- adaptive handoffs, estim. of fading params. 9367
- adaptive HMM filters for sigs. in noisy fading channels 32736
- adaptive MLSE, fading environ., equalization/decoding 15887
- adaptive modulation/TDMA scheme for high capacity pers. multimedia commun. 9043
- adaptive rate error control for land-mobile satellite channel 9370
- adaptive reduced-state channel equalizer, T-algm. 9302
- American digital cellular syst. spectral efficiency 9275
- analog coding/decoding, data transm., fading channels 8169
- antipodal Rayleigh fading sigs. detect. in severe CCI 8386
- asymptotically optimum space-diversity detect. in non-Gaussian noise 15969
- ATM networks, modulation level-controlled radio syst. 3314
- Bayesian techs. for rapidly fading channels equalization 3436
- binary CPM-DPD, diversity in Rician fading channels 32042
- binary lin. block codes in Rayleigh fading channels, decoding algms. 40681
- binary transm. in slow four params. fading channels, errors *(Polish)* 33742
- blind clustering equalizer for digital mobile radio channels 3432
- blind equalization based on Nakagami fading index, cost fn. 3430
- blind MLSE for fading channels 40542
- block demodulation, overview 24019
- BPSK with open-loop tanlock carrier recovery, perform. 24015
- broadband channel modelling and perform. anal. 33849
- burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
- C-band overwater LOS links, meteorol. aspects 9195
- C-band overwater LOS links in mid-Atlantic coast 9194
- cct.-mode data on wireless links, retransmission scheme 17090
- CDMA, CCI, spatial/temporal filtering 25234
- CDMA cellular mobile radio syst., power control/coding 17102
- CDMA cellular systs., concatenated RS/convolutional coding 9358
- CDMA cellular time division duplex syst. capacity 3356
- CDMA coded packet cellular networks, code rate optim. 25384
- CDMA indoor microcellular mobile syst. 9204
- CDMA microcellular systs., channel models 3419
- CDMA mobile radio schemes, modeling/perform. 25373
- CDMA multicarrier syst., CCI cancellation 9215
- CDMA multiple-cell radio syst., perform. eval. 3386
- CDMA networks, decorrelators for multi-sens. systs. 33761
- CDMA overlays of narrowband waveforms, interf. suppression 25355
- CDMA rapid acquisition schemes in multipath delay fading environ. 33208
- CDMA syst., macro-/micro-cellular environ., perform. 3471
- CDMA syst. meas.-based perform. anal. in multipath fading 33791
- CDMA systs., channel estim., interf. reduction 9235
- CDMA systs., multipath delay/fading 3473
- CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
- cellular base station phased array antenna syst 33794
- cellular environ., resource auction multiple access 9291
- cellular environ., resource auction multiple access 3348
- cellular mobile radio systs., outage probab. computation 33909
- cellular mobile radio systs., spectrum efficiency 17124
- cellular mobile systs., blind combiner for space diversity 42280
- cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
- cellular systs., handoffs, adaptive averaging 25341
- cellular TDMA networks, cochannel interf. simul. 17060
- chirp SS techs., multipath interf. suppression 25250
- circ. 16-DAPSK in fading channels, diversity recept., error anal. 2363
- code sync., principles/techs., review 25236
- coded direct-seq. systs., rake reception, multipath fading 33905
- coded modulation, Rayleigh fading channels, error probab. 24017
- coded partial response digitally phase modulated sigs., perform. 15714
- coherent detect. mobile wireless commun., phase ambiguity resolver 33876
- concatenated block coded modulation in Rayleigh fading channel 9171
- concatenated coding and ARQ, TCM for Rayleigh fading 8102
- concatenated coding syst., modified erasure declaration Viterbi decoder 8173
- correl. fading channels, FEC perform. 32140
- coset codes on fading channel matched constellations 32138
- CPM perform., mobile radio diversity operations 17119
- DAB channel and mobile reception, common-wave network meas. in Bavaria *(German)* 9692
- decision feedback multiple-sym. differential detect., diversity 9200
- decision-directed SS-RAKE receiver for fast fading mobile channels 9233

fading continued
- decision-feedback max.-likelihood decoder for finite-state Markov channels 15750
- DECT, antenna diversity, practical considerations 17072
- DECT-type systs., non-coherent equaliser receiver struct. 8855
- differential parallel combinatory SS commun. systs. *(Japanese)* 25207
- differentially detected $\pi/4$-DQPSK syst. perform., AWGN/Rayleigh fading 40568
- digital cellular syst. radio link protocol throughout perform. 33799
- digital demodulators using fixed point FIR interpolators, BER perform. 32037
- digital FM transm., Rayleigh fading, RS codes appl. 25346
- digital indoor radio channels, diversity, block error probab. *(Japanese)* 42173
- digital land mobile radio, commun. channel simulator *(Japanese)* 17137
- digital LOS links, diversity considerations, review 3330
- digital mobile commun., adaptive Rayleigh fading compensation for coherent GMSK sigs. 3433
- digital mobile commun., blind seq. detect. 17039
- digital mobile radio, adaptive arrays, fading correl. effect 3343
- digital mobile radio systs., anti-multipath modulation techs. 17075
- digital transm. over degraded channels, coded modulation 8103
- digital TV for terrestrial broadcasting, modulation 17534
- direct-seq. systs. in lineal microcells, perform. eval. 25365
- dispersive fading channel, high-speed data transm., SR-chirp PSK 9356
- dispersive WSSUS channel, analytic discrete-time model 3414
- distributed antenna syst., freq. selective fading, perform. 17091
- distributed power SS cellular syst., perform. 25363
- diversity combining, correl. slowly flat-fading Rayleigh channels 8374
- diversity gain of transmit diversity in Rayleigh fading systs. 9193
- diversity reception, vel. estim. 3454
- DOQPSK, differential demodulation of filtered offset QPSK 17073
- double side inform. concatenated coding for fading environ. 15751
- DPSK differential detect. scheme, phase seq. estim. 32684
- DQPSK in fading channels, unified error anal. 8090
- DS-CDMA, integrated CCI cancellation and decoding, fading multipath channel *(Japanese)* 25276
- DS-CDMA, shadowed Rician fading land-mobile satellite channel 9268
- DS-CDMA cellular mobile radio network, down-link power control 33871
- DS-CDMA digital mobile radio systs., unequal error protection 9373
- DS-CDMA interf. cancellation schemes 17084
- DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
- DS-CDMA mobile radio, sliding window decorrelation, anal. 25283
- DS-CDMA mobile radio syst., coherent reception, channel estim. 9229
- DS-CDMA mobile syst., fading channel, anal./simul. 3391
- DS-CDMA mobile syst., receiver archits. for down-link 33864
- DS-CDMA outage perform., mobile satellite channel 33906
- DS-CDMA radio commun., low rate coding methods 25249
- DS-CDMA SS systs., permutation modulation 17126
- DS-CDMA syst. in multipath fading mobile channel, Rake reception 9234
- DS-CDMA/DQPSK sig. in indoor radio channel *(Korean)* 17046
- DS-SS CDMA mobile satellite commun. syst. 25441
- DS-SS commun. multipath diversity combination 42196
- DS-SS communications, doubly selective fading channel, spreading seqs. 17016
- DS-SS digital diversity receiver for multipath fading channels 25436
- DS-SS sigs. time division duplex transm. 9203
- DS-SS syst., RAKE reception, multipath fading, perform. 25446
- DS-SSMA commun. in Nakagami fading channels, path diversity 9345
- DS-SSMA diversity commun. in fading channels, error perform. 3357
- DS-SSMA indoor cellular radio perform. 25370
- DS-SSMA multitone syst. in multipath Rician fading channel 16463
- DS-SSMA syst. based on $\pi/4$ DQPSK and convolutional coding 25369
- DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
- DS/CDMA, M-ary orthogonal modulation in multipath fading channels 8736
- DS/CDMA, multilevel coded modulation, integrated receiver struct. 42144
- DS/CDMA adaptive interf. canceller, differential detect. 9240
- DS/CDMA adaptive interf. canceller for fast fading channel *(Japanese)* 25277
- DS/CDMA digital cellular systs., error control algms. 9361
- DS/FH-CDMA syst., fading channels, near-far problem *(Japanese)* 25210
- error probab. on M-PSK/M-DPSK/fading diversity channels 2360
- F-TDMA/CDMA cellular systs. perform. eval. 33838
- fast freq. hopped NCMFSK, Rayleigh fading, diversity combining 33762
- FDMA cellular systs. capacity, ACI effects 3334
- FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
- FH packet commun. syst. capability in fast Rayleigh fading environ. 41461
- FH-SS commun., Bayesian erasure techs. 25248
- FH-SSMA, band-efficient modulations, cellular radio channels 25367
- fibre-optic sens. array, polariz.-induced sig. fading 17900
- finite-state Markov channel, model for radio commun. channels 24006
- FQPSK modem/radio for PCS/ mobile satellite commun. 25312
- fractal video communicator simul. 8851
- fractional sample type max. likelihood seq. estimator *(Japanese)* 15975
- freq. domain filtering for Gaussian seqs. generation 40978
- freq. hopped sigs., radiometric detect., multipath fading effects 25269
- freq. non-selective channels seq. estim. 8384
- freq.-selective fading channel, differential detect. 2217
- freq.-selective fading mobile radio channel, capacity eval. 17066
- freq.-selective Rayleigh fading channels seq. estim. 8373
- frequency-selective fading channel orthogonalising simulator 40343
- fuzzy logic handoff algm. perform. anal. by indoor propag. simulator 33819
- Golay-coded M-PSK, Rayleigh fading channel, decoding 32090
- GSM, M-detector, coherent receiver antenna diversity, perform. 17040
- GSM mobile networks, subjective speech quality 3446
- GSM-syst., interf. anal. 3492
- GSM/DCS1800 syst., base station, diversity reception 3497
- guard interval in orthogonal FDM, multipath channels 2885
- handwriting proc. in indoor/outdoor environ. for multimedia 9063
- HDTV channel equalization, recursive Bayesian techs. 9734
- HF radio sigs., adaptive proc., receiving antennas 40773
- hi-fi mobile DAB scheme 9695
- hospital building, 2.3 GHz radiotelemetry channel, fading characts. 43413
- hybrid DS/FH SS syst. for mobile radio channel 3483
- hybrid DS/SFH SSMA commun., nonselective fading channels 3321
- IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
- incoherent freq. hopping multiple access systs., diversity combining 25311
- indoor mobile commun., CCI and multipath delay 17098

fading continued
indoor radio, trellis-coded CPFSK, adaptive soft-decision feedback equalization 9357
indoor radio channel, neural-based packet equalization 9307
indoor radio propag. channels phase modelling 9177
indoor radio propag. model based on ray tracing and integral eqns. *(Japanese)* 23625
indoor wireless low complexity, low delay speech coding 8193
intell. vehicle/highway syst., packet-switched commun. 3460
ionos. irregularities study, HF channel 35308
ISI pilot symbol asisted modulation perform. and delay spread sensitivity 32031
Japan mobile telephone syst., detect. study 9273
Ku-band direct, home video broadcasting in rainy regions 3653
L-band multipath fading for land mobile satellite 25299
land mobile commun., pilot sym. aided CCI canceller *(Japanese)* 42294
land mobile radio, RS coding for CELP error detect. and control 33832
land mobile radio multicarrier coded 16QAm syst. 33780
LEO/MEO/GEO global mobile satellite systs., interf./fading 25308
lin. freq. modulated waveforms detect. in dispersive channels 16066
LMSS, open-loop power control error 25300
low complexity decoder for turbo-codes 24022
M-ary DPSK on freq.-selective Ricean channels 9274
M-ary DPSK/D^2PSK channel capacity with time-selective Rician fading 32033
M-DPSK in fading channels with diversity reception, error bound anal. 3355
M-QAM digital mobile radio systs., diversity/equalisation 9270
macro-/micro-cellular radio systs., throughput perform. 9295
microcellular personal commun. service F-QPSK perform. 33781
microcellular Ricean channels, switched diversity 3336
MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
MLSE receivers, trellis codes for multipath fading ISI channels 8447
mobile commun., adaptive array methods 17067
mobile commun., adaptive equalization, DSP technol. *(Japanese)* 33903
mobile commun., delay lock loop, delay path cancellation *(Japanese)* 25274
mobile commun., digital beamforming for adaptive antennas 33914
mobile commun., variable rate speech/channel coding 9222
mobile commun. services, digital modulation techs. 17033
mobile fading channel 16-DAPSK perform. calc. and simul. 33798
mobile LEO channel, downlink DS CDMA perform. 25372
mobile multipath channel, bit-rate selection, beam tilting effect 33878
mobile packet radio LAN idle sig. casting multiple access with failure detect. 41821
mobile radio, base station polariz.-sensitive adaptive antenna 33879
mobile radio, freq.-selective Rayleigh fading channels 17134
mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
mobile radio channel, multiple sym. differential detect. 33874
mobile radio channel, still image transm., unequal error protection coding *(Japanese)* 42293
mobile radio channel, wideband propag. meas. 17031
mobile radio channels, stack algm. 9294
mobile radio commun., interf. canceling equalizer 9383
mobile radio commun., speech/channel coding 3346
mobile radio digital modulation error perform. improvement by quaternary phase transition FSK 33782
mobile radio postdetection diversity/concatenated channel coding 3341
mobile radio RAKE receivers, synchronisation, BER perform. 25445
mobile satellite channels, partial response coded MPSK anal. 42205
mobile satellite commun., MFSK/DPSK sigs., cutoff rates 25301
mobile satellite fading channels, M/QPR-TCM perform. 17096
mobile satellite systs., freq. reuse, interf. anal. 9212
mobile user satellite systs., multiple-access capacity 25302
MPSK (un)coded transm. on multipath fading channels 9169
multi-beam mobile satellite commun., Viterbi decoding 25307
multi-carrier CDMA in indoor Rician fading channel, controlled equalization 9219
multi-carrier CDMA in indoor Rician fading channel 9226
multi-cell direct-seq. microcellular systs., perform. eval. 33907
multicarrier modulation impulse noise mitigation strategies 40561
multicarrier transm. tech. in cellular systs. 9216
multidimensional BCM on fading channel, BER improvement *(Japanese)* 2368
multidimensional block coded modulation perform. with time-correl. fading estim. 40549
multihop packet radio network with capture, fading effects 9180
multilevel block codes for Rayleigh-fading channels 15768
multipath compensation for underwater acoustic commun. 9614
multipath fading channels simul., Monte-Carlo method 15683
multipath fading countermeasures, India 7967
multipath fading ISI channel TCM detect. by sequential deq. estim. 40548
multiple multiamplitude MSK trellis codes, AWGN/fading mobile satellite channels 33958
multiple TCM receivers, systolic-array struct. 15862
multiple TCM reduced complexity seq. decoding 8094
multitone sync. for fading channels 8459
multiuser collaborative coding schemes, complex-value receiver 24779
Nakagami faded sigs., Gaussian noise perturbed, phase diff. distrib. 32024
Nakagami fading channel block error probabs. 33800
Nakagami fading channel capacity eval. 33801
Nakagami fading sigs. reception, sq.-law combiner perform. 42155
narrowband digital FM sigs., seq. estim. 24280
narrowband fading channel spectral efficiency with power control 42199
nonlin. phase precoding for pers. commun. 2385
nonredundant error correction DQPSK for aeronautical-satellite channel 33945
nonselective fading, two-stage carrier sync. 25345
nonselective Rayleigh fading channels, sym.-aided channel estim. 24016
nonselective Rayleigh fading channels, sym.-aided channel estim. 7975
nonstationary channels tracking, optimal windowed RLS algm. 17097
Northern American Digital Cellular Syst. adaptive algm. fading channel tracking props. 33825
OFDM, guard interval and sub-channel equalization for digital TV broadcasting 9699
OFDM systs. for freq. selective fading channels, freq. sync. algms. 8091
OLYMPUS satellite 12/20/30 GHz propag. expt. results 31818
open-loop power control error on land mobile satellite link 25402
optimal trellis-coded 8-PSK and 4-AM modulations for Rayleigh channel 8104
optimum combining in wireless systs., BER upper bounds 9170

fading continued
orthogonal CDMA for mobile satellite commun., perform. 25310
orthogonal coherent digital MFSK systs. in Gaussian noise and Rayleigh fading 40795
orthogonal FDM for mobile radio 9214
orthogonal multi-carrier CDMA, nonfading/nonselective fading 24783
orthogonal multi-carrier FH-CDMA schemes for freq. selective fading *(Japanese)* 25280
packetized data commun., sync., DFT appl. 33201
parallel combinatory SSMA systs., Rayleigh fading channel, perform. eval. 25244
PCN, handoff criteria 9378
PCS, advanced digital receiver principles and technols. 17111
PCS, outage probab. in presence of Rice fading 17099
pers. commun. systs., packet transm. 25415
pers. wireless commun., antennas charactn. 17129
photogrammetric mobile satellite service prediction 25271
π/4-DQPSK on microcellular radio channels, diversity/interf. 17101
pico-cellular syst. for indoor radio, assess./propag. study 25348
pilot sym.-aided tech., digital sigs. in multipath environ. 9366
pilot sym.-aided transm. for satellite/terrestrial mobile systs. 25403
PMOS dosimeter, fading, gate bias/oxide thickness depend. 18632
PRMA, Rayleigh fading effects 8739
PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
PSK, complex non-Gaussian fading channels 32041
PSK M-ary modulated sigs., CCI estim. 33884
QAM signaling, Rician-fading diversity channels, error probab. 32040
QPR-TCM, fading mobile satellite channel, perform. anal. 9336
QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
QPSK TDMA digital radio link, analog FM interf. 33841
quasi-MM microwave access systs., transm. power control effects *(Japanese)* 42158
quasi-MM waves, rain atten. charact. *(Japanese)* 40347
radio channel transm. with multichannel modulation 32034
radio LANs, FEC, ARQ, and throughput of 16678
radiocommunications medium, novel study 17117
RAKE receiver, mobile multipath fading channel, channel estim. 42268
RAKE receiver implement. of CDMA power control mechanism 25439
RAKE receiver over multipath fading channel, CDMA perform. anal. *(English)* 17082
random access model for cellular mobile commun. systs. 9327
Rayleigh fading channel, adaptive diversity receiver, error probab. 25263
Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
Rayleigh fading channel model, first-order Markovian assumption 31835
Rayleigh fading environ., mobile PRN anal. 3349
Rayleigh fading mobile channel, direct-seq. code acquisition 17103
reduced-state soft decision feedback Viterbi equaliser 3425
RF syst., diversity combining, sectored antennas 33755
Rice-lognormal terrestrial/satellite channel model 31834
Rice/Rayleigh channels state estim., nonlin. filtering 8456
Rician CDMA channel fading-resistant multiuser detect. 41460
Rician fading channel nonlin. carrier sync. tracking perform. 33803
Rician fading nonco-operative multiple access channel capacity 41465
Rician sig. in L Rician interferers, outage probab. 33920
Rician-fading channels, convolutional codes, finite interleaving depth 33911
RS coding, freq.-hop commun., correl. fading 17024
satellite reception, DSPN signalling in mobile dense scatterer ray tracing model 33944
satellite-Earth links, atten. prediction, low fade margins syst. 2231
satellite-to-land-mobile commun. systs., perform. 9210
sectored antennas, indoor radio, optimum combining diversity 42281
shadow fading dyn. channel assignment and power control capacity 42202
SHF/EHF mobile/indoor wireless commun., SS 3476
short range radio link, propag. charact. 9224
short-block digital transm., adaptive MLSE for mobile radio 3427
simulated fast fading indoor radio channel characts. 33817
slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
slotted ALOHA for high-capacity voice cellular commun. 3340
slow fading channel bandwidth-efficient coded freq. diversity 32086
slow fading channels, iter. max. likelihood decoding/state estim. 32139
slow flat Rician fading, covariance matrix, ML detect. 25306
spatial channel simulator for phased arrays 9318
sq.-QAM adaptive modulation/TDMA/TDD syst., modulation level estim. 25272
SS commun. syst. without ref. sig. for freq.-selective fading channel *(Japanese)* 25206
SS-orthogonal FDM syst. combination, interfer. rejection 33746
switched pattern diversity antenna comparison 33793
systematic TCM in coded modulation 8093
TCM for equalized multipath fading ISI channels, perform. 25340
TCM perform. for equalised ISI channel 32084
TCM-QAM for flat fading and AWGN channels, design 24118
TCM/M-PSK, trellis-coded M-ary PSK for digital land mobile commun. *(Korean)* 17045
TDM/SS packet radio, modulation/coding 33753
TDMA cellular commun. systs., sig.-to-interf. calc. 33854
TDMA digital cellular commun., adaptive channel equalization 42267
TDMA digital mobile radio, adaptive diversity receivers 9306
TDMA portable radio channel uplink power control algm. 42197
TDMA radio syst., autonomous SIR-based power control 17130
TDMA systs., unique-words perform. eval./selection/design 24780
TDMA-TDD personal commun. syst. ADPCM voice transm. improvement 33830
time-domain scrambled speech security with isomorphic emphasis 32209
time-variant multipath channel, simul. 33847
time-varying nonselective fading channels, max. likelihood data-aided symbol sync. algms. 41386
transmit antenna selection diversity, prediction 9304
trellis coded 16 QAM/TDMA, space diversity combining, multipath fading *(Japanese)* 42172
trellis coded CPFSK, coherent detect. on phase jitter channels *(Korean)* 33922
trellis coded diversity receivers, slowly fading Rayleigh channels 33763
tropos. EM wave propag. eqn., soln., box method 40350
turbo-codes/high spectral efficiency modulation 15747
vehicle-to-vehicle commun. for AVCS platooning 5354
VHF channels, digital fading mobile, Markov charactn. 3337
Virginia Tech propag. expt. using Olympus satellite 12, 20 and 30 GHz beacons 23631
VQ sigs. transm., Rayleigh fading channels 8448

fading continued
- wireless commun., filter struct. for equalization and diversity combining 33875
- wireless commun. syst. adaptive array sig. acquisition and tracking 33792
- wireless LAN protocols, radio capture models 25059
- wireless multimedia commun., adaptive rate multiple access 41991
- wireless multiservice CDMA environ., adaptive packet decoding 9360
- wireless PCS radiowave propag. 3379
- wireless pers. commun., TDMA methods 17109
- X-band LOS multipath fading and vert. drift vel. 17027

failure (computers) *see system recovery*

failure analysis
- *see also electrical faults; fault diagnosis; fault trees; wear*
- 0.6μm nMOS ESD I/O protection struct., EOS suscept. study 29978
- 1 μm BiCMOS proc., 200 Å gate oxide charactn./manufacturability 13902
- 110-275 kV composite long rod insulator monitoring experiences, Australia 43788
- 110-500 kV metal-oxide surge arrester reliab. study, China *(Chinese)* 43801
- 345 kV porcelain suspen. insulators, replacement experience 10757
- AC drive systs. reliab. for crit. appls. 36639
- AC motor failure, steep fronted switching surges 19590
- accelerated IC life tests, time reduction by progressive censoring 20491
- accelerated life test data, threshold stress estim. *(Japanese)* 28525
- aircraft secondary maint.-free batts., state-of-health tests 43443
- analog electronic ccts., model-based diagnosis 11846
- ASICs defect isolation, scan-path testing/electron beam probing 21171
- asynchronous generators, asymmetric failure conditions studies 27729
- at-speed testing in IC manufacture 1472
- automated RF/microwave testing, status and develop. 34406
- automobiles, elec. distrib. syst. archits. 20115
- automotive electronics qualification tests, knowledge-based 11432
- bearings, fault recogn., monitoring by neural nets 34391
- benchmarking barometers, product/proc. QC appl. 20473
- BESOI SRAM, 4K, transient and total dose irrad. 29236
- BiCMOS integrated op amp, EMI failures reduction 22618
- BiCMOS logic ccts:, fault anal. and DFT *(Korean)* 39023
- BiNMOS fast resolving synchronizer for parallel proc. interconnect 21395
- British Army in-service reliab. meas., BERR syst. 26831
- brushless DC motors, computer simul. model 36184
- brushless variable speed drive network, diagnostic ES 11370
- bump-pad adhesion, thermocompression bonding effects 21668
- burn-in/test systs. for IC/MCM manufacture, flexibility/modularity 11863
- capacitors for avionics hardware, failure anal. 6366
- capacity assignments of telecomm. network paths, reliab. eval. *(Japanese)* 16519
- centrifugal submersible oil pumps, insulation failures *(Russian)* 43997
- ceramic ball grid array, reliab. comparison of two metallurgies 21647
- ceramic ball grid array, sphere metallurgies reliab. comparison 20500
- ceramic QFP, epoxy encapsulation, SMT appls. 5629
- CMOS ASIC, power-pin ESD stressing failure mechanisms 28527
- CMOS ASIC ESD failure, substr.-power bus contact effect 30468
- CMOS ESD protection ccts., scaling, optim., design 6849
- CMOS ESD protection ccts., scaling/optim./design considerations 30471
- CMOS gate arrays, EOS induced polysilicon migration 30466
- CMOS IC fault modelling beyond stuck-at faults 631
- CMOS input gate, latent ESD damage ident. and anal. 30464
- CMOS input gates, latent ESD damage ident. 6847
- CMOS latches, metastability rel.to loading, power supply and scaling 13887
- CMOS latchup detect., low cost laser scanning tech. 30450
- CMOS LSI, I_{DDQ} testing *(Japanese)* 1493
- CMOS LSI with abnormal IDDQ, failure anal. 22595
- complex MISO lin. systs., fault detect./ident. 11883
- complex models reliab. anal., SURE bounds-based 28536
- complex two-unit syst., random breakdown of repair facility 11855
- composite generation-transm. syst., reliab. indices 35579
- conductive filament form. in PWBs, woven fabric 29669
- conference, failure anal., Johannesburg, South Africa (1994) 20245
- connectors, vibr. testing methodology 12870
- consumer electronics, reliabil. and environ. stress testing 5709
- crit. systs., failure monitoring, lifetime scales 37177
- Cu/polyimide multilevel thin film struct., reliab. 11860
- D-type flip-flop, fast-transient suscept. 29098
- defect classes, paradigm for CMOS IC testing 6858
- defect efficient anal., simul. results 6093
- delay anal. tool, automatic hierarchical 491
- detect./isolation filters, geom. approach 20501
- device-specific neural nets for elec. energy systs. fault diagnosis 10789
- diagnostic inference model error sources 34355
- diebond thermal fatigue model, damage integral based anal. 11746
- digital transm. syst. unavailability, component failure rate calc. 42135
- DIP solder joint failure under tensile-compressive stress 37130
- double counter-rot. ring, reliab. anal. 3193
- DRAM/memory LSI failure anal., EB tester voltage contrast image 21317
- elec. generator reliab. anal., retrospective data-based *(Russian)* 10917
- elec. machine, malfunction diagnostics 10953
- elec. machine failure anal., insulation testing 4882
- electron device reliab., noise, diagnostic tool 20496
- EM launched projectiles, rail straightness effects 15343
- emitter switched thyristors, reversed biased SOA comparison 30273
- engng. syst. safety anal./synthesis, fuzzy sets/evidential reasoning-based 36980
- EOS/ESD failure anal., CMOS IC mfg. proc., extent/cost 30545
- ESD control/safety, surface testing, simulated MOSFET damage 15223
- ESD hazard minimization, IC test handlers and automatic trim/form machines 30412
- EXAR failure rate prediction syst. 11879
- extra-stage shuffle-exchange MINs, reliab. eval. 33576
- fatigue test data, Weibull distrib. anal. 5702
- fibre-optic connectors in outside plant environ., perform./reliab. 14381
- finepitch surface-mount solder joints, fracture surface exam. 21644
- finite range failure model, reliab. anal. 37187
- fire/gas detector test schemes optim., reliab. model 36979
- flash memory cell, failure mechanisms in program/erase cycling 21305
- flip chip interconnect systs., micromechanical and accelerated testing 11822
- flip-chip bonds, phys.-of-failure design 21671
- FMEA, failure modes and effective anal. design tool 28401
- four-level accelerated life-test plans optim., computer-based 20480
- FPGA SEU hardening for space appls. and device charactn. 12478
- FRACAS, failure reporting/corrective action, semicond. mfg. equipt. 28416

failure analysis continued
- France Telecom switching syst. component intrinsic failure rates 11870
- frequently operated vac. cct. breakers, plant insulation failures 4650
- gate oxide defect screen for VLSI CMOS reliab. 22588
- General Electric HDI modules, MCM-D, reliab. 12980
- GI/G/1 queueing syst. with repairable service station, reliab. 20516
- GTO devices, failure mechanism, optim. for min. current crowding during turn-off 22391
- GTO failure mode during DC voltage blocking, cosmic-ray effects 30276
- GTO thyristor failure mechanisms 1378
- GTO thyristors under snubberless operation, turn-off limitations and device failure 13664
- high dens. DRAM, automatic failure anal. 6151
- high resoln. ADCs, 12-/14-bit, total ionizing dose effects 12603
- highly-scaled DRAMs, radiation effects study 12535
- highway cellular radio dyn. channel assignment failure rate 33805
- HV cct. breakers, design for reliab. 44233
- HV semicond. devices breakdown, model, phenomenological lifetime prediction 30282
- HV substation cct. breakers, simul.-aided short cct. risk eval. 44247
- HV substation reliab. centered maint. project, France 44248
- HV vac. relay reliab., Weibull/exponential failure distribs. 28523
- HVDC transm. network insulator problems *(Chinese)* 43737
- IC defects, proc. induced/elec. act., ident. methodology 20469
- IC failure anal., quality and reliab. improvement 20495
- IC failure anal. by AFM 168
- IC interconnections, electromigration reliab. indicators 6660
- IC photomicrographs, cct. extraction 6833
- IC proc. control/failure anal., FIB appl. *(French)* 1490
- IC thin film cracking detect., test chip design 11861
- IGBT power modules, packaging and reliab., failure anal. 30252
- IGBTs, turn-off failure and inhomog. operation 30326
- induction motor, integrated on-line protection syst. 4969
- induction motor bearing damage detect., stator current monitoring 4968
- induction motors, on-line fault detect., stator current monitoring 4967
- Intel 32 bit μP, radiation tolerance for space appls., eval. 29306
- Intel μPs, total dose radiation testing 29305
- interconnect resist., reliab. tool in electronic packaging leaded connections 11790
- interconnected power systs., economic dispatch deviation cost penalty 35491
- k-out-of-m systs., nonparametric inferences on syst. availability 11854
- k-out-of-n:G syst. reliab. anal. 175
- k-out-of-n:G systs. reliab., probab. arguments 28542
- k-out-of-n:G systs. reliab., simple lower bound calc. 20486
- KGD, known good die, levels and effects, MCMs 12969
- Killer defects, particle map, probe map correl. 37199
- label swapping routing, self-termination mechanism 2984
- lead-on-chip package, temp. cycle-induced chip surface damage 20435
- lead-on-chip packages, cracking failures 5672
- lead-on-chip packages, cracking failures induced by chip backside contamination 20439
- Li-$SOCl_2$ batt. submodule, self-discharge failure anal. 36512
- life cycle cost and reliab. in electronic product, dyn. study 11862
- life distribs. categorisation, randomly right censored data-based 20482
- lin. cct. common-mode failure diagnosis, modified bilinear method *(Russian)* 5975
- lin. dyn. syst. fault detect., functional vector method *(Japanese)* 176
- lithography tool, reliab. demons. test. design, Bayesian tech. 37194
- long radial supply syst., SVC, operational aspects 26984
- low-temp. solder alloys in insertion mount assembly, thermal fatigue 37111
- LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
- maglev contact anal. probe tool for automated IC manufacture 20415
- marine elec. machine bearings, operational state prediction 36709
- mature CMOS proc., unusual HBM ESD failure mechanisms 30469
- MCM assembly, encapsulation and underfilling, proc. notes 37119
- MCM reliab. assess., phys.-of-failure approach 28533
- MCM testing strategy 6468
- MCM-D, interlevel shorts, mechanisms and reduction 12963
- MCTs, turn-off failure mechanisms in large devices 30274
- mean residual life/failure rate rels., distribs. charactn. 20483
- memory technol./design/testing, workshop, San Jose (1994) 36826
- metal lines, defective, current induced failure 30153
- metal/ceramic laminates for electronic packaging, thermomechanical failure 12197
- metallized electrode capacitors, nuc. fusion, capacitor banks 36631
- microelectronic reliab., functional rels., temp. 22321
- microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
- microelectronics mfg., yield, and reliab., conf. (1994) 5438
- mil. avionics part failure-rate prediction models 35420
- milling cutter failure, power monitoring method *(Chinese)* 10916
- MLC actuators using antiferroelecs., destruction mechanism 39110
- MLC capacitors, failure caused by high temp./humidity environ. 12840
- MLC capacitors, miniaturized, normal service conditions, failure mechanisms 875
- model based diagnostic systs., pitfalls 34380
- model-based diagnosis, preliminary spec. methodology 11845
- Monte Carlo reliab. simulator, IC manufacturability 22547
- MOS I/O device degrad., ESD-induced disloc. 22605
- motor stator interturn short-cct. detect./location 10962
- motor winding insulation, surge protection 4883
- Motorola IC yield enhancement, integrated approach 22520
- multi-area power syst. reliab. eval., PC-based 26855
- multilevel high dens. ASIC defect isolation, electron beam probing RIE 21169
- multiple failure diagnosis, w.r.t. computational complexity 34354
- multiplex systs., reliab. models eval. 37192
- multisignal flow graphs, syst. testability anal./fault diagnosis 34353
- n-channel MOSFETs at low gate bias, hot-carrier degrad. eval. 13679
- national broadcasting network syst., reliab. anal. 17535
- neg. voltage regulator IC, total dose effects 12326
- neural network based flight control, validation methodology 10362
- nMOS ESD I/O protection structs., EOS suscept. 6749
- no-clean/water-clean PCB solder joints, plastic quad flat, failure anal. 947
- nonhermetic coatings for MCM eval. 21737
- nonindependent main unit and n-unit series subsystem, shut-off rules, availability 11847
- nonlin. observer-based fault detect. 20476
- nonlin. syst. fault detect., parity eqns. estim. 20477
- nonuniform fault coverage and fault probab. 5707
- NPP, aging standby components, time-depend. unavailability 43822

failure analysis continued
- OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
- OMPAC package-to-board attach reliab. 28534
- on-chip interconnect reliab., electromigration resist. prediction 38674
- opt. fiber reliab. modeling for multiple stress-time histories 39328
- overhead distrib. line pole struct., risk-based design 43755
- pass. components for aerospace appls., screening methods/data anal. 5684
- Pb-acid valve regulated batts., conductance testing 19967
- PCB assembly, effective burn-in time determ. 38072
- PCB assembly, QC, fault anal., visual inspection, computer based 943
- PCB assembly reliab., call rate level reduction 5701
- PCB connector reliab., no fault found category 5704
- PCB flux residue influence, electronic assembly quality 937
- PCB thermally loaded solder joints, fatigue life prediction methods, finite element study 38121
- petroleum indust. squirrel cage motor fault survey 5404
- pipe/valve reliab. prediction, Bayesian routines 37196
- plastic assembly procs., eval. for high reliab. IC appls. 6452
- plastic IC package params., effect on temp. cycling failures 5674
- PLCC chip and package design, plastic assembling, simple test chip 5632
- PLCC ink mark reliab. enhancement, flame treatment, tests 142
- PLCC temp. cycling failures, die coatings, mold cpds., and test conditions effects 28469
- PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
- polyimide charring on thin film line deletes 12962
- polyimides, thermomechanical props. and interfacial fracture 12210
- polyimides used in MCM HDI, charactn. 11748
- polymeric insulation radiation effects, reliab. testing tutorial 22639
- polypropylene film type capacitor for HF HV appls. 11229
- populated computer PCBs, IR meas. and anal. predictions 38097
- power contactor armature posn. sens., rem. auxiliary contacts 29645
- power controller, fuzzy chip-based fault classifier 11131
- power convertor fault diagnosis, ES-based 5053
- power MOSFETs, single event failure, test data 30362
- power overhead line survival anal., stat. method-based 43780
- power semicond. device failure caused by cosmic radiation 30190
- power syst. adequacy indices, failure/repair proc. distrib. effects 26887
- power syst. auditing, heuristic method 19054
- power syst. failures, cascade-like propag., simul. 27025
- power syst. operating conditions planning, reliab. considerations *(Russian)* 43720
- power transformer impulse testing, IEEE std. 27780
- power transformer oil, dissolved gas anal., ANN appl. 19683
- predictive sensitivity based fault detection 38119
- priority standby redundant syst., different types of repair facilities, stochastic behaviour 28531
- product defects, stress testing 28422
- product storage reliab. estim. problem 37198
- PV installation operational behaviour anal. by standardised representation *(German)* 43952
- QC, strategic follow-up failure costs *(German)* 158
- QC Taguchi methods, Goh's paradox anal. 5681
- radio-electronic apparatus, probab. of failure-free operation 3318
- reduced oxide soldering activation, prod. compat. eval. 38115
- reliab. complexities modelling, Bayesian simul. role 169
- reliab. dens. fn. determ., failure rate, random variable 20498
- reliab. engng. data anal., neural network appl. 37197
- reliab. life testing, best compromise test plans 5700
- reliab. modelling, Weibull distribs., failure data anal. 37183
- reliab. theory, syst. components importance ranking theorems 28544
- reliab.-centered test methods, overview 20478
- repairable syst. failure data anal., graphical model ident. 11865
- repairable syst. with spares and removable repairman, reliab. 11850
- repairable systs., Weibull proc. failure intens. estim. 87
- repairable systs. reliab., time-varying failure rates 28541
- RISC μPs in isolation CMOS technols., ESD protection 21348
- rly. signalling systs., failure anal. 44549
- robust failure detect., filtered meas. parity check 28521
- robust fault detect./isolation in dyn. systs. 11858
- rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658
- saturated deep bar induction machines, simul. model 4971
- SC59 surface mount package, autoclave reliab., benchmark study 11823
- SDH, route diversity, hitless path switching 3298
- SEEQ 28C256 EEPROM, effect of test method on failure dose 12539
- self-healing FITL archits. 9491
- self-healing metallized polypropylene power capacitor testing 27877
- semicond. device failure anal., SEM 22318
- semicond. device reliab., EOS tutorial 30191
- semicond. laser reliab. and failure anal. 39816
- semicond. wafer, elec. failures, in-line inspections 6603
- semiconds., killer defects, automatic in-line meas. 6602
- series consecutive-k-out-of-n:G systs., optimal design 172
- Siemens power DIMOS device, ESD gate oxide breakdown, stat. model 30307
- single chip ceramic package stress states, reliab. terms 11755
- single-failure criterion, NPP safety, IEEE std. 27415
- SMDs, solder life predict. under thermal cycling and vibr. 37115
- SMT assembly, failure stats. and failure free time 11792
- SMT solder joint reliab., voids and void interacts. 178
- SMT solders, thermal cycling, premature failure *(Korean)* 129
- SnPb-soldered joint reliab., interstitial PGA packages 940
- SOFC component mfg., testing methods, mech. props. 44392
- SOI snapback nMOSFET, ESD protection/failure modes 22464
- SOI snapback nMOSFETs, ESD protection capability, mechanisms/failure modes 30308
- solder joint failure, thermal cycling fatigue, crit. accumulated strain energy 120
- solder joint fatigue testing, elec. resist. spectrosc. 28477
- solder joint reliab. prediction, computer-aided syst. develop. 37206
- solder joint rework, effect on PTHs in multilayer PWBs 38116
- solder joints of 256-pin plastic QFP, failure anal. 37129
- Sony total particle control syst., IC yield enhancement, defect reduction 20467
- space power syst. automation knowledge develop. 26562
- Space Station Freedom PMAD syst., thermal anal. 18763
- spaceborne appls., RF/microwave connector and interconnect reliab. 35232
- squirrel cage motor rotor winding fault detect. ES 44059
- squirrel cage motors, rotor/winding faults anal. 11043

failure analysis continued
- SRAM eval. under X-ray pulses, procedure 12536
- SRAM reliab., comparison of HAST, THB testing 12540
- standby complex syst. having imperfect switch-over device, availability anal. 11853
- storage syst. with high reliab., optimal inspection policy 37190
- stress testing optimisation formulation, net benefit concept 11726
- submicron CMOS, soft ESD failure suppression 30465
- submicron CMOS proc., soft ESD failure suppression 6848
- submicron contacts using selective CVD-W plug, jn. stabil. *(Korean)* 13418
- surface channel P-MOSFETs, gate oxide thickness hot carrier effects 13677
- surface mount ceramic capacitor failure test, board bending 29653
- switching syst. software quality improvement by root cause anal. 42105
- syst. test cost modelling, event rate anal. 5587
- TAB inner lead fatigue anal. in thermal cycle environ. 28474
- TAB outer lead contact reliab., degrad. study 5642
- TAB-outer lead bonding, reliab. of different tape metallizations 6447
- telecom. networks, intell. trouble mgt. based on operation scenario and fault simul. 41668
- telecomms., failure and congestion propag., signaling controls 33389
- telecommunications software reliab. prediction, user-oriented procedure 41610
- telephone central office cable tray support failures 43786
- thick film hybrid ccts., high reliab., for automotive appls. 29697
- three-state device networks, reliab. eval. formulae 20499
- thresholds of faults in fault detect. 11884
- through-hole components, lead-fatigue, design model 29661
- TPS harmonization, vert. and perform. metrics, systs. approach 34401
- transm. lines, fault location/discrim. *(Japanese)* 10786
- transmission syst. model reliab. anal., freq. and duration method 35604
- TSOP solder joint crack initiation and propag. 37110
- TSOP solder joint reliab. enhancement, encapsulation 131
- Turing's instabil., failure mechanism of GTOs 30277
- two-param. Weibull distrib., percentile estim. 37191
- two-unit cold standby syst. with instructions at need, probabilistic anal. 28530
- TWTs, space-use, reliab. *(Japanese)* 13007
- uncertain nonlin. systs., diagnostic observers 28522
- underground distrib. feeder cables, failure prediction 4646
- US acoustic diagnostic tech., elec. machine insulation, comment with reply 14004
- US diagnostic tech. for elec. machine insulation 14003
- vehicle engine misfire detect., torque monitoring 25717
- vert. power MOSFETs, single-event gate rupture 13721
- VLSI interconnect reliab. studies, computer simul. 22553
- wavelength path opt. networks, failure restoration 9513
- weapon systems, design-for-test process improvements 43594
- worldwide IN dyn. routing, models and results for evol. planning 33640
- XLPE/EP insulated power cables, low temp. ageing 27202
- z-axis conductive adhesives, fine pitch appls. in consumer electronics, accelerated life test 135
- Ag multilayer ccts., environ. durability 21659
- Al IC interconnection failure, stress migration-induced voiding 38666
- Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417
- Al conductors, thermionic deposition, electromigration stabil. 22257
- Al electrolytic capacitor failure, impact of halogenated fluids 6367
- Al/Cu thin-film interconnects, electomigration induced failures 21616
- Al/W multilayered interconnections, electromigration resist. meas. 38687
- Al-Ge-Cu multilevel damascene metallisation proc. 22259
- Al-Si-Cu VLSI interconnect void-related early failure, subpopulation model 22271
- Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
- AlGaAs near-IR LEDs, failure anal., expt. techs. 39584
- AlGaAs-GaAs HBT with strain-relaxed base, improved reliab. 38826
- AlGaInP vis. semicond. lasers, catastrophic opt. damage *(Japanese)* 31412
- AlSi/TiN/Ti bamboo metal lines, ASTM electromigration test struct. 30135
- Au ball bond shear strengths, rationalisation 12953
- Au-to-Au TAB inner lead bonding, laser 6449
- $Bi_2Ru_2O_7$ thick resistive films, temp.-induced phys. failure mechanisms 949
- $CoSi_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
- Cu, electrodeposited/electroless for PCBs, mech. props. 12940
- Cu gull-wing leads for thin SOP 150
- Cu interconnects, high-reliab., dry etching 38688
- $Cu/TiN/TiSi_2/n^+$-Si contact syst., RTN and characts. 38700
- ESD meas. techs. for IC design/manufacture 18057
- GaAs ACT transversal filters, yield model 39118
- GaAs PDB microwave diodes, ESD failure 29556
- GaAs based FETs, high temp. operation 13807
- GaAs:C/AlGaAs power HBTs, bias-stressed, failure mode 22359
- $GaAs-Al_2O_3$ flip chip modules, AuPd wire bump thermomechanical integrity 11824
- InGaAsP LD, sensitivity, ESD 14926
- InGaP/GaAs HBTs, self-aligned fab., high reliab. 22360
- $Li-SOCl_2$ cells, failure proc., 200°C 11240
- Ni-Cd aircraft batts., life cycle testing 43442
- $Ni-H_2$ secondary cells, LEO destructive life testing 11256
- Ni-MH space power batteries, preliminary FMECA 26583
- Pb and Pb-free solder joints, thermomech. and fatigue behavior 37557
- Pb-Ca automobile batts., reliab. studies 36540
- Pb-acid recombinant batts., neg. plate failure anal. 27901
- Pb-acid secondary batts., failure modes experiences 36572
- Pb-acid valve-regulated 24 V aircraft batts., conductance testing 43445
- Pb-acid valve-regulated batts., operational experience 36567
- Pb-acid valve-regulated telecom. batts., expert mgt. syst. 41632
- Pb-acid valve-regulated telecom. batts., ratiometric reliab. meas. 41631
- Si IC, failure anal. methods, develop. and mfg. appls. 22519
- Si, n^+-p surface avalanche diodes, doping instabil. 13609
- $Si-SiO_2$ MOS devices, quasi-breakdown of ultrathin gate oxide under high field stress 22067
- SiO_2 inter-poly oxides, MOS capacitors, lifetime/failure probab. 13236
- SiO_2 inter-poly oxides, lifetime prediction method 6593
- Sn-Cu(Pb) solder joints, thermal cyclic shear stress/strain hysteresis 11742
- Sn-Pb-Ag solder joints, reliab. anal. and thermal fatigue disloc. substructure *(Chinese)* 11844
- Sn-Pb-Ag solder joints, thermal fatigue/isothermal mech. fatigue damage 37112
- Ta capacitor reliab., low impedance/high surge current ccts. 5705
- $TiSi_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
- ZrO_2 failure criteria, SOFC, math. model 44388

failure, electrical *see electrical faults*
fallout *see air pollution; radioactive pollution*
far infrared lasers *see submillimetre wave lasers*
Faraday effect
3×3 couplers in fibre optic sens. systs. 17909
current meas., unlinked sens., robust sens. head 34482
current sens., flint glass fibre 17886
current sens., improved sensitivity-bandwidth product 14548
distrib. network, opt. current sens. *(Japanese)* 27180
dye lasers, phase-polarizing wavelength selector, generation characts. 39689
ferrite bodies of rev., scatt., hybrid FEM 31807
fiber Bragg grating high-mag.-field probe 17827
fibre optic current sens. for EHV, design optimisation 3855
flint glass fiber for Faraday sens., polariz. props. 17823
free-space opt. commun. syst., Faraday filter 9486
gyroelectric chiral media, field representation by cylindrical vector wavefunctions 31887
intell. magneto-optic CT, 220 kV, 2500 A *(Chinese)* 39504
ionos. Faraday effect, polaris. meas. syst. develop. 18829
magnetometers, vibr. induced lin. birefr. modulation 17814
magnetometry temp.-depend. Verdet const. compensation 10001
meteor-based radio systs., ellipt. polariz. antennas appl. 42341
microwave devices, magnetized electron beam, nonlin. Faraday effect 976
noise in fibre-optic Michelson interferometer, polariz. induced 17854
nonreciprocal integrated optic couplers, magneto-optic materials, design 14413
oceanographic satellites, radar data, altimetric corrections *(French)* 35352
polariz. insensitive fibre-optic white-light interferometry 34521
polyaniline film, magneto-opt. materials/devices 39503
quantum oscillators, ang. momentum transfer 31133
quasi-opt. ferrite refl. circulator 12719
quasi-opt. refl. circulator, theory/MM-wave expts. 37950
ring laser gyroscope design, spatially resolved eigenstates for traveling/standing waves 14997
Sagnac interferometer, elec./mag. fields simultaneous meas. 17865
Sagnac loop opt. fibre current sens., polariz. depend. 17916
satellites, terrestrial mag. field, ionos.-induced cross-polariz. 23624
semicond. laser freq. stabilization, Faraday effect/saturated absorpt. 14848
single shot charge analyzer for laser-prod. plasma 25747
ultrashort laser pulses, Faraday rot. 31608
wheel-rot. sens., magneto-opt. 17861
Ba-ferrite particulate media, magneto-opt. readout props. 22964
$BaCo_{0.8}Ti_{0.3}Fe_{10.4}O_{19}$ particulates, magneto-opt. props. 7036
Bi-YIG particles prep. for display devices 14173
$Bi_xTb_{3-x}Fe_5O_{12}$ garnet, Faraday rot., spontaneous magnetis. 14171
CdMnTe magnetic field sensor, fibre optic laser deposited 25858
$Cd_{0.6}Mn_{0.4}Te$, time-nonreversible lin./nonlin. opt. phenom. 23404
$(DyBi)_3(FeGa)_5O_{12}$ films, crystn., Faraday effect *(Chinese)* 14166
Fe garnet thick film Faraday effect sens., domain effects 25818
$Ho_3Fe_{5-z}Al_zO_{12}$ garnet single crysts., magnetooptical props. 14172
Pt/Co multilayer, magneto-opt. Faraday effect, STM obs. 14546
Pt/Co multilayers, near-field magneto-opt. imaging in STM 31015
Rb 532 nm Stark anom. dispersion opt. filter 39540
$(TbBi)_3(FeGa)_5O_{12}$ garnet film current/mag. field sens. by Faraday effect 42884
YIG, Ga,Bi substituted bulk garnets, magneto-optic mag. field sens. 14174
YIG:Ce, opt. waveguide isolator, nonreciprocal radiation 14549
YIG:Ga, Faraday effect current sens., sensitivity-bandwidth product 9853
Faraday rotation *see Faraday effect*
farming
see also agriculture; aquaculture; dairying
agricultural elec. demand, pricing effects model, USA 36809
ferroelec. plasma reactor, animal house ammonia/odor control appls. 20175
model farm PV and biogas power supply *(German)* 20176
tropical crops, X-band dielec. consts. 26779
fast Fourier transforms
see also discrete Fourier transforms
2-D FFT algms., parallel, eight-neighbor proc. array implement. *(English)* 285
2-step PWM sinusoidal inverter, modulation switching and freq. spectra *(Japanese)* 37635
2D EM scatt., MoM-CGM-FFT appl. *(Chinese)* 31804
2D FIR digital filters, weighted LMS design 8364
2D interpolation scheme for image zooming, FFT 8573
2D method-of-moments problems involving large scatterers, soln. 23533
3D objs. embedded in multilayered media, scatt. 40303
acoustic nonstationary dyn. sigs., FFT anal. 8269
activated C fibers, pore struct., fractal anal. 5913
adaptive filtering, FFT/displacement struct., subsampled-updating RLS algm. 2552
algm.-based fault tolerance (ABFT) 32493
algms. for nonequispaced data 20641
alkali halide surfaces, opt. sens. 32981
antenna planar near-field measurement, far-field calc. 23892
ARES EMP simulator, EM fields radiation 7997
array antenna excitation laws, synthesis methods 15655
atmos. blurred images, fast restoration 32822
automotive logic chips from high level synthesis, FFT/Viterbi IC design 21291
beam propag. method num. algms. 39470
binary phase fan-out elements, opt. optim. 14558
bipolar transistors 1/f noise parameters meas. and anal. 22371
bit-reversal algm. 37376
block-float FFT, roundoff errors 25750
cage induction machines, online winding param. meas. 4940
carrier coded fringe patterns, automated image proc. *(Chinese)* 2607
cellular commun., FFT diffr. model 3417
CMOS chip set for pipeline and parallel pipeline FFT archits. 21357
CMOS five-stage pipelined FFT proc. chip 12578
CMOS VLSI implement. of 8192 complex point FFT 29248
coarse freq. acquisition 3438
CODSIM, simul. environ. for spreading codes 3325
composite struct., automated US NDT, form-fn. anal. 5931
continuous Doppler ultrasound, parametric/nonparametric spectral estim. 26319
convoluting systs. diagnosis by space-time compression 32107
cooler storage ring, ion beam ordering 10095
cryptographic randomness from air turbulence in disk drives 32162
decimation FFT algm. generalisation 37375

fast Fourier transforms continued
decimation-in-time-freq. FFT algm. 32767
DFT, arbitrary blocklength in finite fields 2558
diamond thin film, adhesive strength, US NDE 28913
dielec. scatt. problems, FFT-based methods comparison 40285
dielectric body anal., conjug. gradient method, test fns. 15379
digital microwave receiver, lin. amp./ADC anal./design 29311
digital sampling oscilloscopes appl. *(Italian)* 25906
distrib. systs., sig.-spectrum anal./diff. eqn. 35635
DSP algms. mapping, multiprocessors by simulated annealing 8355
DSP for image recovery appls. *(English)* 24569
DSP teaching aid, algorithmic engng. 36926
ECG, spectrum estim., FFT/max. entropy methods 35101
ECG compression, Fourier series, FFT, adaptive coeff. estim. 43291
efficient FFT on hierarchical multiprocessor archit. *(Korean)* 20646
electron beam direct-writing syst., patterning accuracy 22288
embedded CMOS SRAM for ASIC implement. of transmultiplexer 9410
encoding of codes on curves 40660
fast single chip implement. of 8192 complex points FFT 21377
fault recogn., monitoring by neural nets 34391
fault tolerant FIR adaptive filter based on FFT 32753
FLIR image aspect angle estim., model-based vision approach 24545
Fresnel region, light propag. simul. methods 40156
generalized and partial FFT 284
geodetic radioaltimetry, filter for unevenly spaced data 10434
harmonics ident. and power meas. in power systs. 4738
hearing aids, bone cond., objective perform. meas. 43356
high NA photolithography simul., scalar planewave model 1310
hollow circ. cylinder Kirchhoff field scatt. 31797
induction motor, VSI, space vector modulation, harmonic anal. 4982
induction motor rotor speed meas., slot harmonics-based 4941
infinite periodic array element behaviour computation 31972
ISDN speech recogn. syst., vowels extraction 41919
joint finite-difference/FFT full vectorial beam propag. scheme anal. 40441
joint space-time max.-likelihood estimator 8250
k-out-of-n:G and k-to-l-out-of-n:G systs. reliab., $O(n\cdot(\log_2(n))^2)$ algm. 28540
laser-induced diffraction signals, digital signal processing 25972
lin. pulse motor mag. reluctance distrib., structural depend. anal. *(Japanese)* 44072
Matlab for teaching DSP 20295
MCM thermal anal., iter. direct soln. method 11768
microstrip antennas, near fields computation 31928
microstrip reflectarrays, modelling studies 31962
microstrip Yagi antenna, iter. MPIE formulation anal. 23942
mixed-sig. ICs, testing, DSP-based techs. 21443
model-based vision, aspect angle target estim. in forward-looking IR images 2714
multi-carrier demodulators, bulk FFT struct., distortion anal. 40572
multichannel space-time sig. proc. providing local interf. suppression 32572
multicomponent sigs. anal., time-freq. distrib., Radon transform. 2487
multiconductor interconnects, VHSICs, capacitance matrix computation 12795
multiexponential sig. anal., data preprocessing techs. eval. 32644
multilayer-multiconductor transm. line network, pulse propag. *(Korean)* 37931
multipass image rot., additional aliasing avoidance 2724
multiple coupled planes, inductance modeling, PCBs, MCMs and packages 20455
multiterminal array mode-forming network systematic design 23975
μP controlled microwave ranging, indust. appls. 3606
nonorthogonal basis fn. image representation, FFT 2595
nonrectangular cavity=backed patch antenna anal. 23850
ocean acoustic scatter from mid-Atlantic ridge corners, CW and time-domain simul. 18882
p-product, matrix product, appls. in sig. proc. 41038
parallel algos. implement. on transputer computational structs. 5799
parallel FFT algms., radix 4 butterfly computation on 8-neighbor proc. array 20643
parametric estim. of ocean surface currents, HF radar 43526
periodic spline wavelets, computation 24161
planar transm. lines, ps pulse propag. 40387
plates, Lamb waves, mode propag., laser-based techs. 10582
Pocklington's eqn., CG-FFT method with nonuniform sampling 23818
portable MaxiCode reader, proc. selection 25751
power quality, real-valued fast convolution algm. perform. 35606
power syst. dyn. security assess., ELISA ES-based 26861
power syst. supply quality improvement, meas. problems 19357
power syst. voltage distortion compensation, meas. aspects 4551
Princen-Bradley filter bank implement. 742
PSK sig. carrier freq. meas., FFT 34658
PWR thermalhydraulic code accuracy, FFT methodology, SBLOCA 27483
quadrature detect., interpolation accuracy *(Japanese)* 15936
radar imaging, automatic estim. and compensation of target kinematics 17392
radiowave propag. problems, horiz. parab. eqn. soln. 23642
radix-12 FFT building block 8300
real-time cyclic spectral anal., computational bal. 40939
real-valued seqs., FFT vs. fast Hartley transform algms. 2495
rocket-borne downconverter, space plasma turbulence meas. 35310
Rohde & Schwarz Digital Direction Finder DDF 9184
rot. cct., VLSI transform proc. appl. 29088
SAR data space-variant proc. 34117
SAR sigs., wave domain proc. 3604
seismic sens., real-time sig. class., neural nets 2743
self-sorting in-place FFT algm. suitable for vector and parallel proc. 286
sidelobe control in SAR imagery, nonlin. apodization 34118
sig. transformer, μP implement. via Walsh fn. *(Korean)* 34430
single and multi microphone noise cancellation, fast algm. 32484
sinoatrial node dysfunction patients, heart rate variability anal. 26425
slab laser prism resonator charact. 31447
space vehicle, solar-dyn. receivers, atten. thermal storage 35242
sparse-matrix canonical-grid method for scatt. by many scatterers 31794
spatial microstrip dyadic Green's fn., radial and asymptotic closed form representation 40450
spectral leakage effects on multiscatterer target model validation 26828
speech sigs., fund. freq. detector based on short-time FT 8190
squirrel cage motor, sensorless speed detect., supply current , FFT 36167
SRAM chip testing, sinusoidal stimuli and Fourier anals. 37767
std. sig. proc. software package 8338

fast Fourier transforms continued
stepped freq. CW ground penetrating radar 42478
STFT anal., frame-adaptive techs. for quality vs. efficiency tradeoffs 32766
sync. generators, stabil./faults, neural net class. 36123
synchronous sampling clock generator, meas. accuracy anal. 25763
thin conducting plate problem, biconjugate gradient FFT method appl. 40289
torque-speed characteristics meas. of electric machines 25718
torsional deflection shape meas. 10034
train-to-wayside commun., multicarrier modulation 9282
transfer fns. bias estim., stochastic excitation 40916
transm. line transient current meas., Rogowski coil *(Korean)* 27286
US eval. of adhesive fillet, neural nets appl. 12245
video speed ADCs, differential gain and phase meas. 12609
VQ, sig. compression 16011
weak narrowband sigs., estim. and HMM tracking 40972
zero-delay convolver, block FFT implement. 40892
$Al_{0.22}Ga_{0.78}As/In_{0.15}Ga_{0.85}As/GaAs$ one-side-modulation-doped QW, electronic subband studies 21996
XeF(C-A) long-pulse e-beam excited excited laser, single-freq. operation 14708

fast frequency hopping *see frequency hop communication*
fast frequency shift keying *see minimum shift keying*
fast ion conductors *see solid electrolytes; superionic conductivity*
fast packet switching *see packet switching*
Fastbus
data acquisition syst., LabVIEW graphical software *(Chinese)* 16647
fastening *see joining processes*
fatigue
for thermal fatigue see "thermal stress cracking"
see also corrosion fatigue; fatigue cracks; fatigue testing
BWR, operating data monitoring, fatigue eval. systs. 27406
ceramic ball grid array, reliab. comparison of two metallurgies 21647
ceramic ball-grid-array packages, reliab./mfg. vars. 20450
ceramic BGA package mfg. vars., effects on solder joint reliab. 11856
ceramic QFP, epoxy encapsulation, SMT appls. 5629
computed speckle decorrelation, fatigue damage 40129
controlled collapse chip connection, flip-chip attach on FR-4 IC packaging 130
elec. connectors, metall. considerations in FEM modeling 12869
ferroelec. thin films, switching and fatigue, depletion and depolarizing effects 39057
ferromag. materials, eddy current NDT sens. 12217
fibre optic connectors/splices, accelerated testing, life-stress 1690
flip-chip packages, low thermal expansion encapsulants, props. 132
interconnect resist., reliab. tool in electronic packaging leaded connections 11790
lap shear solder joints, fatigue study 28477
leaded chip solder joints in handy phone, fatigue life 5710
nonparametric estim. of reliab. fn., kernel dens. estim. 11857
opt. fiber reliab. modeling for multiple stress-time histories 39328
PCB thermally loaded solder joints, fatigue life prediction methods, finite element study 38121
PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
PWB, PTH, reliab., mfg. defects 21655
PWR, fatigue monitoring systs., load-stress rels. 27405
PWR, on-line fatigue monitoring, probabilistic assess. of margins 27408
PWR, transient monitoring systs., fatigue meters 27407
SMDs, solder life predict. under thermal cycling and vibr. 37115
SMT chip resistors/capacitors, insulated metal substrs., solder joint reliab. 12931
SMT solder joints, long-term reliab. 28532
SMT solder joints, stress anal. model for fatigue prediction 37114
solder joint fatigue, finite element study of factors 11756
space syst. reliab. modelling techs. 18709
steel, ferromag., coercivity var. during cyclic stressing 14127
TAB inner lead fatigue anal. in thermal cycle environ. 28474
TAB inner lead fatigue in thermal cycle environ. 11791
thick film multilayer material systs. for thermal cycle appls. 21660
through-hole components, lead-fatigue, design model 29661
turbogenerator shaft torque/fatigue life expenditure prediction 10958
turbogenerator shaft torques/fatigue life, freq./time domain anal. 4887
zirconia alignment sleeve, opt. connectors, charact. and static fatigue reliab. 9473
Cu, electrodeposited/rolled annealed, flexible cable, fatigue 29623
In-Sn based VLSI interconnections, solder joint reliab. 30146
PZT ferroelec. thin film capacitors, fatigue and photoresponse 39102
PZT films by MOD technol. for nonvolatile memory and DRAM appls. 13999
PZT films, reactive co-sputtering/elec. props. 39059
PZT, piezoelec. patch actuators, integrat., design 30599
PZT sputtered films, thickness scaling, memory appl. 14079
PZT thin film memory materials, fatigue mechanisms 30569
PZT-based heterostruct. capacitors, comp.-struct.-prop. rels. 39101
Pb and Pb-free solder joints, thermomech. and fatigue behavior 37557
Pb-Sn, eutectic solders, creep strength, microelectronic appl. *(Korean)* 20428
$Pb(Zr_{0.53}Ti_{0.47})O_3$ thin film capacitors, electrodes, microstruct., elec. props. 881
Si, laser-assisted etching-like damage 30093
SiO_2 opt. fiber, Vicker's indentation modeling 14358
SiO_2 opt. fiber, mech. reliab. assess. 14357
SiO_2 opt. fibres, organically modified silicate coatings 1662
SnPb lap shear solder joints, fatigue investig., resist. spectrosc. 12246
fatigue cracks
area array solder joints, comp. effects on fatigue crack growth rates 37113
coaxial drop cable, shielding, ageing simul. by flexure 33734
complex structural el. fatigue lifetime eval. 11868
extended nuc. plant operation, fatigue issues 35864
ferroelec. ceramics, twinning-induced stress, elec. field conc. 37537
ferromag. materials, eddy current NDT sens. 12217
flip chip solder joints, surface cracks, fatigue life 29708
kovar leads with various surface flaws, fracture mech. anal., IC reliab. 28491
no-clean/water-clean PCB solder joints, plastic quad flat, failure anal. 947
PLR pump shaft-casing cover annulus gap, temp. flucts. 35869
sizing finite cracks on metal surfaces, microwave tech. 42902
SMT solders, thermal cycling, premature failure *(Korean)* 129

fatigue cracks continued
solder joint fatigue testing, elec. resist. spectrosc. 28477
steam power plant boiler life, thermal transients effects 19519
surface cracks in metals detect., microwave method 37552
TSOP solder joint crack initiation and propag. 37110
TSOP solder joint reliab. enhancement, encapsulation 131
Sn-Pb-Ag solder joints, thermal fatigue/isothermal mech. fatigue damage 37112
fatigue failure *see fatigue*
fatigue fracture *see fatigue*
fatigue life *see fatigue*
fatigue testing
for corrosion fatigue testing, see corrosion testing
Airbus aircraft acoustic fatigue certification 26537
ceramic ball-grid-array packages, reliab./mfg. vars. 20450
coaxial drop cable, shielding, ageing simul. by flexure 33734
crit. systs., failure monitoring, lifetime scales 37177
flip chip interconnect systs., micromechanical and accelerated testing 11822
leaded SM devices, creep strain response of solder joints, temp. profile params. 38163
low-temp. solder alloys in insertion mount assembly, thermal fatigue 37111
micromechanical testing of electronic packaging components and materials 11821
mm-wave NDT of glass fiber/epoxy composites 37559
no-clean/water-clean PCB solder joints, plastic quad flat, failure anal. 947
photosensor for transients tracking 34510
power plant life extension, boiler drum monitoring 19506
sapphire fiber strain gage for static/fatigue meas. 17860
Shinkansen develop., Hitachi technols. 44505
smart structural monitoring develops. 12247
SMDs, solder life predict. under thermal cycling and vibr. 37115
SMT solder joints, fatigue life, mech. fatigue test 28501
SnPb-soldered joint reliab., interstitial PGA packages 940
solder joint failure, thermal cycling fatigue, crit. accumulated strain energy 120
solder joint fatigue testing, elec. resist. spectrosc. 28477
solder joint reliab. prediction, computer-aided syst. develop. 37206
steel, ferromag., coercivity var. during cyclic stressing 14127
two-phase metal fatigue life test eval. 12187
Sn-Cu(Pb) solder joints, thermal cyclic shear stress/strain hysteresis 11742
Sn-Pb-Ag solder joints, thermal fatigue/isothermal mech. fatigue damage 37112
SnPb lap shear solder joints, fatigue investig., resist. spectrosc. 12246
fault current limiters *see current limiters; fault currents*
fault currents
see also flashover; leakage currents; short-circuit currents
composite power syst., earth fault currents/pot. distrib. 43619
distrib. network adaptive high/low impedance fault detect. 4644
distrib. network automatic fault location/isolation syst. *(Japanese)* 10736
distrib. network fault current reson. grounding project, Australia 19258
distrib. network ground fault discrim. method, computer-based *(Japanese)* 27174
distrib. substation earthing systs., safety design 4662
distrib. substations, thyristor controlled series capacitor appls. 27163
FACTS, advanced series VAr compensator appls. 27138
generators, neutral grounding *(Chinese)* 27678
high T_c supercond. fault current limiters, mag. shield *(Japanese)* 10782
HTSC, mag.-shield type supercond. fault current limiter *(Japanese)* 7254
HTSC inductive current limiter for power systs. 4719
induction motor fault current simul., rotor leakage flux-caused 19647
interconnected power syst., transient response, single line-to-ground faults 4593
motors, core bal. ground fault protection 4894
MV power syst. earthing, phase-to-ground fault current selection 19327
MV power syst. protection, neutral earthing techs. *(French)* 10772
NEMA/IEC motor starters, protection, IEC Type 2 Coord. 4885
noninductive reactor type supercond. fault current limiter 4718
noninductive supercond. fault current limiter, simul. *(Korean)* 27274
polyphase motor protection principles and ccts. *(Italian)* 10941
power apparatus, state-of-the-art supercond. material appls. 43972
power syst., fault current waveform, freq. phasor/DC components determ. 27268
power syst. dist. protection, microcomputer Kalman filter algm.-based *(Chinese)* 43795
power syst. fault current estim., Kalman filter 19190
power syst. protective CT, transient perform. calcs. 19340
power systems, interconnected, single line-to-ground fault transient response 35564
power transm. line shield wires, unbalanced , modelling/simul. 4676
rot. arc switchgear, low current/reactive switching expts. 11199
shunt inductance coil isolation, voltage surges *(French)* 29619
supercond. fault current limiter develop. 4689
supercond. fault current limiters, spec. *(Japanese)* 4732
vac. interrupter contacts, switching endurance improvement *(Russian)* 44239
Al and Au bond wire fusing current and fusing time estim. 21669
fault diagnosis
see also fault location
3-phase converter, fault diagnosis, Kohonen ANN class. 36376
A, testable design of logic ccts. under highly observable condition 12456
AC machine perform. under faulted operation 19618
Advanced Intelligent Network service maint. and testing strategy 25089
AGOSTO framework, VLSI BIST wt. distrib. generation 30430
Air Force ATE enabling technols. 34363
aircraft intell. rem. power controller 26682
alternators, fault diagnosis, ES 35784
analog electronic ccts., model-based diagnosis 11846
analog IC soft fault diagnosis, ANN-based tech. 30399
analog neural networks, helicopter gearbox fault detect./diagnosis 10311
analog testability anal., fault diagnosis, behavioral modeling 28942
analog/mixed sig. fault diagnosis algms. 29403
analogue fault simul. software 488
architectural-level fault simulation using symbolic data 21207
ASDL links maint. approach and fns. 16916
Asian Test Symposium, Japan, Nov. (1994) 5504
ASIC test cost/strategy trade-offs 6070
ASICs defect isolation, scan-path testing/electron beam probing 21171
asymmetrical power syst. load flow/fault studies *(Chinese)* 35422
at-speed ASIC testing, defect types 12396

fault diagnosis continued
ATE analogue cct. modules 25722
ATE enabling technologies, Air Force appl. 42706
ATE with adaptive fault detection, integrated technology enhanced 42709
ATPG, efficient fault ordering 12448
ATPG for seq. ccts., genetic algms. 6075
ATS 93 test conf., China (Nov. 93) 36857
automatic synthesis and testing cost 21078
automatic verification of asynchronous ccts. 29166
automobile two-state adaptive suspen., rule-based condition monitoring 5365
B-ISDN, IN mgt. syst. 8843
Bayesian approach to confidence in system testing 42654
BDD-based algorithm for computation of exact fault detection probabilities 29178
behavioral logic test generation, mixed integer nonlin. prog. 6099
Benes-Clos networks, randomized routing 28926
BiCMOS logic ccts., fault anal. and DFT *(Korean)* 39023
BIST algms. for dual port memories faults 6152
BIST scheme for ring-address FIFO memories 6149
bitonic sorters, detect. and location for single faults 16431
bitonic sorters, single faults diagnosis 2876
board-level simul., IC design/testing develop. 13869
boundary scan design, fault injection tech. 5594
bounding fault detection probabilities in combinational circuits 37733
brushless variable speed drive network, diagnostic ES 11370
built-in diagnostics for advanced power mgt. 34356
built-in random testing for dual-port RAMs 37753
C-testable design techs. for iter. logic arrays 29138
C-testable multipliers based on modified Booth algm. 12453
cache DRAM testing, 256k word x 16 bit 6144
carrier leakage, carrier freq. error estim. 8097
case-based reasoning for telecom network fault management 8835
circ. self-test path, fault coverage estim. 29175
circ. self-test path tech. for real ccts. 6098
client/server models, commun., spec./validation 2932
CMOS bridging fault diagnosis, inter-gate/intra-gate 13886
CMOS bridging fault diagnosis with stuck-at, IDDQ, and voting model fault dictionaries 30455
CMOS ccts., stuck-open faults, single test patterns 12490
CMOS custom automotive ICs, I_{DDQ} testing, fault coverage 36766
CMOS devices testing, transm. line effects reduction 6091
CMOS IC, I_{DDQ} testing, EDA/ATPG/ATE syst. integrat. 13892
CMOS input gates, latent ESD damage ident. 6847
CMOS iter. ccts., stuck-open faults modelling 12474
CMOS latches, metastability rel.to loading, power supply and scaling 13887
CMOS logic cct. fault anal., IDDQ testing tech. *(Korean)* 29197
CMOS logic gates testing for realistic shorts 6083
CMOS SRAM chip failure anal., external elec. testing, internal contactless laser beam testing 37758
CMOS total self-checking design 22566
CMOS VLSI ccts., techs., improve fault diagnosis 21063
combinat. cct. delay fault testing, cube partitioning 21233
combinat. ccts., fault simul., primary output based *(Korean)* 21274
complex MISO lin. systs., fault detect./ident. 11883
condition monitoring syst., multilevel knowledge base 17679
content-addressable memories, fault modelling, testing 37765
control syst. aspects of digital transducer design 34452
convoluting systs. diagnosis by space-time compression 32107
cumulative bal. testing of logic ccts. 29135
D-type flip-flop, fast-transient suscept. 29098
defect classes, paradigm for CMOS IC testing 6858
delay fault coverage and test set size for combinat. ccts. 12402
delay fault propag. in sync. seq. ccts. 12437
delay fault testability of combinat. ccts. 12469
delay faults detect. starting from functional description of seq. cct. 29151
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
deterministic FSM model, fault detect. and diagnosis capabilities of test seq. selection methods 33274
Diagnostician-on-a-chip, concepts/implement. 34357
differential split-level CMOS cct. testing 624
digital designs, fault simul. on parallel proc., distrib. algm. 37685
discharge pattern recogn. in HV equipt. 22647
discrete event systs., diagnosability, cct. testing appls. 121
distrib. network fault diagnosis, neural net-based 19241
distrib. network substation fault diagnosis, connectionist ES-based 27182
distrib. power lines fault diagnosis, neural net-based 19242
DIVA/DIAPO expert systs., domain models 19585
DRAMs characterisation, 500 MHz interface 6150
dyn. syst. failure detect., nonlin. uncertain models 20471
dynamic system fault identification and diagnosis, neural network 25721
eddy current transducer appl. in fault diagnosis *(Chinese)* 34487
EDRAM test methods, verification 6146
efficient procedure, two-level optim. based 12445
elec. train fault-tree generation automation, ES-based 44551
electro-optic probing of ultra-high-speed IC's 13839
embedded diagnostic system for submarine ship control 42728
embedded RAM, self-diagnostic BIST memory design scheme 37754
error detector systs., analog and digital 3303
failure detect./accommodation, stable neural learning 5712
FAMAP generic fault mgt. package for telecom networks 16604
fault-detect. filter, optimal detect. filter 8252
FIR filters, self test, fault coverage 29374
fixed-biased pseudorandom BIST for random pattern ccts. 6096
flight data acquisition syst., multiprocessor 26547
fossil power plant, drum-type boiler syst., fuzzy ES for fault diagnosis *(Korean)* 43907
functional approach, efficient fault detect. in iter. logic arrays 6122
fuzzy logic for systs.' fault diagnosis 28524
gas sensor 25891
gate-level, realistic faults in digital ICs 6092
gate-level design diagnosis, learning-based search strategy 12462
goal-directed vector generation, sample ICs 6094
hazard anal. of struct. seq. systs. 37726
helicopter transm. health monitoring, neural computing methods 10363
heterog. networks supervisor, intell. fault mgt. *(French)* 16603
hierarchical analog fault diagnosis, neural net approach 42734
hierarchical VLSI logic ccts., crosstalk fault detect. 12454
hierarchy use in logic cct. fault simulation 21206
high dens. DRAM, automatic failure anal. 6151
high dens. DRAMs, elec. failure anal. 37757

fault diagnosis continued
high speed DRAMs testing 6145
high speed logic ccts., crosstalk, printed patterns 21637
high speed sync. DRAMs, testing issues 6147
HMM monitoring, unknown states 16406
Hopfield neural network for fault diagnosis problems *(Japanese)* 34410
HV power syst., overvoltage monitoring syst. *(Chinese)* 35696
hybrid DFT, scan and clock line control 6080
hybrid fault simulator for sync. seq. ccts. 6089
I_{DDQ} built-in concurrent test for interconnects 6463
I_{DDQ} subset selection algms. for bridging faults 6084
I_{DDQ} yield loss problems, economic issues 6860
IC photomicrographs, cct. extraction 6833
IC tester diagnosis, Bayesian network appl. 30428
IEEE conf. on instrumentation/meas., USA (1993) 20198
image processing An EDDM based toolset 41305
induction machines, broken bar detect., current spectrum/param. estim. 4966
induction motor control/fault diagnosis, observer 36153
induction motor incipient fault detect., fuzzy neural net-based 36156
induction motor incipient fault diagnosis, fuzzy neural net-based 36157
infrastructure networks, fault mgt. 3458
init. of seq. ccts. 6082
instrum. fault detect. in nonlin. dyn. systs. 20472
intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
intermittent faults detect. in electronic devices 35379
International Test Conf., Washington, DC (Oct. 1994) 61
iRULE, fast hot-carrier reliab. diagnosis using macro-models, MOS digital logic 29114
ITC test conference, USA (1993) 36853
jitter testing of Synchronous Digital Hierarchy equipt. 8819
k-bounded combinat. ccts., fault detect. method *(Korean)* 12410
Kalman filter based state estim., GPS integrity monitoring 33947
layout depend. fault models, analogue fault simul. 6871
LEP accelerator pretzel separators, control syst. 18261
LFSR test pattern generators, lin. dependencies avoidance 37740
LIM drives, neural net-based fault diagnosis 36703
lin. cct. common-mode failure diagnosis, modified bilinear method *(Russian)* 5975
linear error models for analog devices 25760
logic simulation, design and test generation 42721
LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
mach. fault detect., vibr. anal. techs. 26807
march tests automatic generation for memories 6154
march tests for memories, automatic generation 37766
mask ROM, time saving testing scheme based on struct. oriented failures 37764
MCM defects, algorithmic diagnosis, IEEE 1149.1 std. 21698
MCM defects testing, IEEE 1149.1 boundary scan test 38196
MCMs, defect migration, structural test 21700
memory technol./design/testing, workshop, San Jose (1994) 36826
microelectronic component testing using circuit modeling 38963
microelectronics mfg., yield, and reliab., conf. (1994) 5438
MOLTKE, integrated workbench for fault diagnosis in engng. systs. 3743
monitoring power supply current, neural network 34374
motor fault detect., hybrid fuzzy/neural syst. used extract heuristic knowledge 4984
multi output systs., online fault diagnosis, Kalman filter/neural net appl. 11830
multi-faults diagnosis model, set-covering/certainty factors 3701
multifrequency test vector generation for analog cct. testing 5593
multilevel test philosophy design and implementation 42693
multimedia electronic performance support systems 42729
multiple failure diagnosis, w.r.t. computational complexity 34354
multiple fault diagnosis of combinat. ccts., efficiency improvements 12444
multiple fault test generation, efficient techs. 12441
multiple-line redundant combinat. ccts., anal. 6129
multiple-valued PLAs, fault model and equivalences 607
multiport RAMs, complex couplings testing , fault modelling 29217
multisignal flow graphs, syst. testability anal./fault diagnosis 34353
Navy's integrated diagnostics support system 43595
NCIH, integrated network/service mgt. 8837
neural engng. utility, adaptive algms. 34379
neural network based cct. faults diagnosis, current monitoring 17671
neural recogn. of diagnostic test data transforms 34359
nonlin. state-space systs., fault detect. 11840
NPP fault-diagnostic advisor, neural nets 19438
NPP monitoring, sens. failure detect. ES 19400
nuclear power plant monitoring by neural nets 27341
observability environ., seq. test generation 12449
oil-filled transformers, fault detect., gas sens./neural net 36234
on-board diagnostic support, time stress meas. 43432
package/module interconnect test syst., transient thermal sigs. 28440
parallel pattern fast fault simul., three-state ccts. 6088
parallel-pattern/multiple-fault-propag. concurrent fault simul. 12435
parametric testing of mixed-sig. ccts., ANN tech. 21444
partial scan algm. based on reduced scan shift 12473
PCB diagnosis using artificial neural networks 38118
PD diagnosis and pattern recogn. 22652
PD diagnosis and pattern recogn. 1534
PD pulse distrib. pattern anal. 22646
PD recogn., neural networks appl. 1535
PD study by height-distrib. anal. 22654
permanent fault detect. in sequential ccts. 21269
phased array defective element automatic diagnosis and localisation 23951
phased array radar transmitter, pulsed power monitor syst. 34153
portable integrated power quality measurement system 27282
power controller, fuzzy chip-based fault classifier 11131
power convertor fault diagnosis, ES-based 5053
power grid, fault diagnosis, ES/neural networks 43618
power restoration support syst. for large-scale bulk power networks 10664
power semicond. convertors, emergency state diagnostic calcs. 11138
power station monitoring, fault diagnosis/isolation, TOPMUSS CAE syst. 27296
power syst. fault diagnosis, AI methods perform. eval. 19030
power syst. fault diagnosis, diagnostic ES shell-based 35431
power syst. fault diagnosis, interval based approach 19040
power syst. fault diagnosis, parallel proc. ES-based 19029
power syst. num. protection relays, fault diagnosis appls. 35673

fault diagnosis continued
power systs. diagnosis by neural net 35699
power transformers, oil-filled, paper degrad. by-products anal. 44097
power transm./distrib. equipt. condition monitoring, fibre optic sens.-based 43616
power-supply current monitoring/discrim. anal. 13847
predictive sensitivity based fault detection 38119
probabilistic measured for test pattern generation algorithm acceleration 42722
protocol specs., structural anal. and max. fault coverage conformance test seq. generation 2921
pseudo-exhaustive testing, VLSI ccts., coord. cct. partitioning/test generation 21260
pump fault diagnosis using neural nets 42719
QMI, Qmimic, dyn. proc. monitoring/fault diagnosis 9815
radiation-induced errors, SIL memory module 6822
RAMs, on-chip testing 12511
RAMs, transparent BIST for single V-coupling faults detect. 37771
random pattern testable ccts., automated logic synthesis 6073
random pattern testing, fault coverage and test length estim. 21267
reduced scan shift, testing method for seq. ccts. 6090
redundant fault ident., test generation appl. 12442
redundant faults in combinat. ccts., test generation 12447
Reed-Muller generalised expressions, easily testable logic design 12452
reliab.-centered test methods, overview 20478
RESIST, recursive test pattern generation algm., path delay faults, test classes 613
RF/microwave test simulator 34675
ring-address SRAM-type FIFOs, BIST tech. 37770
robust fault detect./isolation in dyn. systs. 11858
rolling element bearing fault diagnosis by vibrs. and neural networks 26805
rot. mach., fault prognosis, neural net 27683
rot. mach. early failure diagnosis, ROMADIS package 11681
RTSPC, software utility for real-time SPC and tool data anal. 22211
safety index appls. in fault anal. syst. *(Japanese)*. 11677
satellite fault diagnosis, possibility theory 10304
scan chain faults, diagnosis syst. 640
scan designed cct., test time reduction 21208
scan testing accel. in IEEE 1149.1 archits. 6077
scan-designed ccts., test time reduction, sliding compatibility 12472
scan-designed seq. ccts., test clock reduction 6079
self-checking ccts. with combinat. logic, fail-safe eval. 37741
self-checking combinat. logic synthesis techs. 21226
self-timed ccts., self-checking combinat. logic and seq. machines 37739
semicond. memory testing, tutorial 12508
semiconductor manufacturing, fault isolation using automated discovery from wafer tracking databases 6605
sens. placement for diagnosability 17723
sensor performance assessment strategies 25803
seq. cct. testing, reduced scan shift method 12430
seq. ccts., distributed ATPG 12291
seq. ccts., test generation, parallel fault simul. *(Japanese)* 12426
seq. ccts. with embedded RAMs, test generation 12434
short ccts. location, parallel short detector 12871
shortest signature analyzer 12418
Si_3 N_4, PECVD proc., monitor wafer based controller 37519
signature anal. for RAM BIST, aliasing-free 6148
single bridging faults diagnosis in CMOS combinat. ccts. 13883
space vehicle power control syst., automated fault diagnostics 26681
spacecraft qualitat. model-based diagnosis, possibilistic approach 18695
spec. interacts. detect. in telecommun. services 16595
split-level charge recovery logic ccts., stuck faults 21237
spurious sigs. detectability in combinat. ccts. 12455
SRAM chip testing, sinusoidal stimuli and Fourier anals. 37767
SRAM GOS defects, fault modeling/testing possibilities 37763
SRAMs, on-chip test scheme 37756
SRAMs, technol. and layout-related testing 12510
ST9 8-bit Microcontroller testing 29281
state reconstruct. filter for lin. discrete-time stochastic syst. *(Korean)* 24340
static power convertor filter capacitor fault detect. methods 19827
stuck-at fault simul. 12443
subranging ADCs, fault diagnosis tech. 12599
subscriber interface, ARINC 629 current mode bus 35229
substation, filter coil overheat fault diagnosis, 7th harmonic *(Chinese)* 44243
switch-level fault simulator for CMOS ccts. *(Korean)* 12265
symbolic ATPG for large ccts. 6101
symbolic method, freq. domain 12269
sync. generators, stabil./faults, neural net class. 36123
sync. seq. ccts., fault coverage anal. 12439
sync. seq. ccts., fault simul. 21268
sync. seq. ccts. testability 6104
syst. availability enhancement by fault diagnosis, ANN 19526
technol. mapping, testability considerations 12451
telecom. networks, intell. trouble mgt. based on operation scenario and fault simul. 41668
test generation for path delay faults, binary decision diags. 29171
testability measure approx. algms. 12392
testability measures combining probablistic and sampling techniques 21205
through hole solder joints automatic inspection, automated inspection 42705
tight lower bounds on detect. probabilities of single faults, internal sig. lines 6123
TPS harmonization, vert. and perform. metrics, systs. approach 34401
transformer fault detect., oil gas discrim. method 29620
transformer fault/ageing detect., transfer fns. 27777
transient transit. count testing, fault detect. 12436
transparent memory BIST tech. for RAMs 37769
transparent memory testing for pattern sensitive faults 6153
tree circuits testing 29177
TTL combinat. ccts., random test input generation 12450
turboalternator-exciter rotor syst., unbalance response *(Chinese)* 36129
turboalternators, vibr. features of faults, automatic recogn. *(Chinese)* 36139
turbogenerator fault diagnosis, consultative ES-based 19595
turbogenerator online vibr. monitoring, neural net-based 19596
turbogenerators, stator bar water cooling, fault diagnosis, model-based 27671
two-pattern testing, test pattern generation ccts. eval. 12460
uncertain nonlin. systs., diagnostic observers 28522
uninterruptible power systems, fault diagnosis/prediction 27816
untestable faults ident. without search 6076
US NDT, lamb waves induced long./transverse waves 452

fault diagnosis continued
VLSI cct. testability and coverage estim. 22518
VLSI ccts., hierarchical test anal., random BIST 37694
VLSI regular arrays, test strategy 37686
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
VXI-based test system 42725
wavelength path opt. networks, failure restoration 9513
weapon systems, design-for-test process improvements 43594
weapons diagnostic performance: The need for a new metric 43599
weighted random sequence synthesis, sequential cct. testing 21195

fault location
15 kV URD syst., transients, above ground detect./interp. 27159
77 kV substation fault sect. localizer *(Japanese)* 27865
110/20(10) kV transformer substation ripple control filter protection *(Croatian)* 10765
230 kV step-up substation, characts. *(Japanese)* 27861
400 kV transm. line earth fault location algm. 43763
1000 kV power line maint. IS, meas.-based 27126
A, testable design of logic ccts. under highly observable condition 12456
AC machine perform. under faulted operation 19618
AC rly. power syst. protection/fault meas., PC-based 44536
act. matrix LCDs, test and laser-based repair 3927
active phased array built-in perform. monitoring, fault-isolation and correction syst. 23950
airborne systems, neural network technology for BIT applications 42730
aliasing props. of circ. MISRs, comments/reply 21276
alternator field winding interturn fault detect., neural net-based 44014
Ascom TCS P7 series test instrums. for telephone and data network fault finding 33391
ASIC stuck conditions testing 29085
at-speed testing in IC manufacture 1472
ATE with adaptive fault detection, integrated technology enhanced 42709
ATM transport networks, virtual path test fn. 16576
AUTOTESCON 93, (Sept. 1993) 36845
B-algm. behavioral test generation algm. 6100
BiCMOS logic gates, delay fault detect., DFT 29194
BIST algms. for dual port memories faults 6152
BIST and fault location 6820
BIST scheme for ring-address FIFO memories 6149
bitonic sorters, single faults diagnosis 2876
Boeing 777 Airplane, model-based diagnostics 10319
brushless turbo compressor drive, intell. diagnostic syst. 36693
cable fault location, fibre optic distrib. temp. sens. 10746
CCD image sens., defect detect., neural nets 3877
circ. self-test path tech. for real ccts. 6098
CMOS bridging fault diagnosis, inter-gate/intra-gate 13886
CMOS bridging fault diagnosis with stuck-at, IDDQ, and voting model fault dictionaries 30455
CMOS checkers design, bridging/stuck-on faults testability 21239
CMOS IC fault modelling beyond stuck-at faults 631
CMOS latchup detect., low cost laser scanning tech. 30450
CMOS logic ccts., stuck-open fault detect. 12429
CMOS logic gates testing for realistic shorts 6083
CMOS RAM test complexity reduction, I_{DDQ} and voltage testing 37776
CMOS self-checking seq. ccts., bridging faults detect., DFT 617
CMOS VLSI ccts., transient power supply current monitoring 21240
combinat. self-checking devices constr. 12417
combined FIB/electron-beam probe techs. for ICs 102
complex MCMs test strategies 6461
concurrent checking based strongly fail-safe interfaces 12440
constrained state assignment of easily testable FSMs 21275
defect efficient anal., simul. results 6093
design verification, universal test sets 12463
detect. cost reduction, BDD formalism 21015
device-specific neural nets for elec. energy systs. fault diagnosis 10789
dielec. degrad. obs., PD mechanisms in voids 22648
distortion in elec. power systs. ident. and meas. 19361
distrib. network, fault locator design 4651
distrib. network adaptive high/low impedance fault detect. 4644
distrib. network automatic fault location/isolation syst. *(Japanese)* 10736
distrib. network fault diagnosis, neural net-based 19241
distrib. network ground fault discrim. method, computer-based *(Japanese)* 27174
distrib. network rem. monitoring/control syst. develop. 4667
distrib. network substation fault diagnosis, connectionist ES-based 27182
distribution network arcing fault detection/classification, neural net-based 19250
distribution network fault detection/protection, neural net-based 19249
dyn. syst. failure detect., nonlin. uncertain models 20471
dynamic system fault identification and diagnosis, neural network 25721
Egypt Power Network fault diagnosis, ES 19333
EHV lines fault location simul., DS-SS techs. 19356
EHV/UHV transm. line arcing fault protection simul. 27190
elec. drives, multiple defects diagnosis algm. *(Russian)* 11317
elec. machine, malfunction diagnostics 10953
electro-optic probing of ultra-high-speed IC's 13839
embedded diagnostic system for submarine ship control 42728
emission microscopy for IC inspection *(Italian)* 20465
estim., associative memory ANN 19335
EXOP, Extended Operation, logical fault model for digital ccts. 29176
fault-tolerant systolic array multiplier, time redundancy 12412
faulty cable line, capacitive energy discharge, power distrib. 27292
filter design for lin. systs. 11382
functional approach, efficient fault detect. in iter. logic arrays 6122
gate-level design diagnosis, learning-based search strategy 12462
GIS insulation diagnostics, UHF techs. 19910
global internetwork troubleshooting 16612
guided-probe fault location method for seq. ccts. 29105
helicopter transm. health monitoring, neural computing methods 10363
high-impedance fault detect. algms. long-term trials 10770
HV substations/MV networks operation, diagnostic ES 19909
HV transm. line fault location, digital simul. *(Chinese)* 35697
HyHOPE fast fault simulator hypertrophic faults simul. 21253
I_{DDQ} BIT cct. for CMOS ICs 13884
IDDq meas. in CMOS VLSIs, fault detect. 13885
IDDQ testing on CMOS custom automotive IC 30451
induction motor bearing damage detect., stator current monitoring 4968
induction motor drives, online current monitoring-based fault detect. 36704
induction motor incipient fault detect., fuzzy neural net-based 36156

fault location continued
induction motor incipient fault diagnosis, fuzzy neural net-based 36157
induction motors, on-line fault detect., stator current monitoring 4967
instrum. fault detect., designers' decision aid 34331
instrum. fault detect. in nonlin. dyn. systs. 20472
interacting finite state machine design with self-checking capability 29188
intermittent faults detect. in electronic devices 35379
internal combustion engine knock detect. 5353
ITC test conference, USA (1993) 36853
Kalman filter based state estim., GPS integrity monitoring 33947
large combinat. ccts., fault models, zero aliasing compression 37749
lin. output space compression schemes, bounding error masking 12438
logical fault diagnosis for combinat. ccts. 12443
long radial supply syst., SVC, operational aspects 26984
LSI voltage waveform meas., EB tester, electron-beam-assisted etching appl. 13856
LV network, arcing faults detect./anal. 19366
M^b/M/C queueing systs., optimality conditions 11905
machine fault detect., neural network/fuzzy logic technols. 4908
march tests automatic generation for memories 6154
Markovian queueing syst. with finite capacity, removable/nonreliable server control 11849
MCM defects testing, IEEE 1149.1 boundary scan test 38196
microelectronic component testing using circuit modeling 38963
mobile robots, observers-sens. for posture estim. 40791
monitoring power supply current, neural network 34374
motor stator interturn short-cct. detect./location 10962
multi output systs., online fault diagnosis, Kalman filter/neural net appl. 11830
multilevel test philosophy design and implementation 42693
multiple fault diagnosis of combinat. ccts., efficiency improvements 12444
multiple fault test generation, efficient techs. 12441
multiple faults localization in protocols, test seq. generation 16491
multiple signature anal. compaction testing, quasi-optimal scheduling 21243
multiple-output ccts., efficient test response compression 6087
multiterminal power transm. lines fault location algm. 27281
MV distrib. network, compensated, phase-to-ground determ. 4649
MV power syst. protection, neutral earthing techs. *(French)* 10772
neural engng. utility, adaptive algms. 34379
neural network based cct. faults diagnosis, current monitoring 17671
neutral grounding reactor ratings selection 36231
nonlin. observer-based fault detect. 20476
nonlin. state-space systs., fault detect. 11840
nonlin. syst. fault detect., parity eqns. estim. 20477
nonuniform fault coverage and fault probab. 5707
optothermal hybrid microscopy,coatings nondestructive/noncontacting testing 12216
OTDR waveforms, pattern matching, opt. lines fault location 9454
parallel eval. algm. for fast fault simul. *(Korean)* 21271
parallel proc. for test generation, perform. anal. 17662
parametric ident. problems 8335
PCB diagnosis using artificial neural networks 38118
PCB testings, fuzzy pattern recognition 38075
permanent hardware faults of floating point adder 37605
phased array defective element automatic diagnosis and localisation 23951
photonic networks, fault-tolerant switches 16976
PLA self-testing checkers for 1-out-of-n codes 21181
PON, clip-on OTDR for fault location 9565
power cables, PD meas. and location 4688
power distrib. fault diagnosis, obj.-oriented ES 27131
power distrib. line condition monitoring, neural net-based 43750
power distrib. syst. fault detect./ident., neural net 4657
power equipt. shorted turn location, fuzzy neural net-based 19687
power station HV equipt. insulation, online PD anal. 4756
power syst., fault current waveform, freq. phasor/DC components determ. 27268
power syst. digital protection criterion values estim. 27257
power syst. digital relaying fault ident., fuzzy-set approach 27249
power syst. dist. protection, microcomputer Kalman filter algm.-based *(Chinese)* 43795
power syst. distributed online fault sect. estim., neural net-based 26873
power syst. fault detect., back-propag. ANN *(Korean)* 35702
power syst. fault diagnosis, diagnostic ES shell-based 35431
power syst. fault diagnosis, fuzzy ES-based 19031
power syst. fault ident./alarm proc., OO expert syst. 19154
power syst. fault location, neural net-based alarm proc. 19072
power syst. fault sect. estim., discrim. anal.-based 35465
power syst. fault sect. estim., neural net discriminant anal. 27284
power syst. intell. guidance syst. 19169
power syst. restoration, trouble call anal., OO prog. 43661
power syst. short-cct. power control, ES-based 19136
power syst. transient stabil. control, online calcs.-based *(Japanese)* 27042
power syst. transient stabil. eval., ANN *(Japanese)* 43680
power system fault direction identification, neural network approach 19358
power systs. diagnosis by neural net 35699
power transformer differential current anal., neural net classifier 19696
power transformer winding inner short-cct. fault diagnosis 19689
power transm. line fault location algm., computer-based 27192
power transm. lines, combined phase/current comparison protection 27254
predictive sensitivity based fault detection 38119
probabilistic measured for test pattern generation algorithm acceleration 42722
prog. space compactors selection for BIST 12459
RAMs, transparent BIST for single V-coupling faults detect. 37771
redundant faults in combinat. ccts., test generation 12447
Reed-Muller generalised expressions, easily testable logic design 12452
residual charge on faulty floating gate CMOS transistor 6859
RF/microwave test simulator 34675
scan designed logic ccts. under logic value constraints, test pattern generation *(Korean)* 12408
scan-designed ccts., test time reduction by sliding compatibility 21228
self-checking ccts. design, byte error detecting codes 12391
semi-deterministic fault-independ. test gen., ATPG perform. impact 21182
sens., actuators, fault detect. 25809
sens. faults representation in fault detect. filters 9865
seq. ccts., ATPG, fault ordering 12448
short ccts. location, parallel short detector 12871
single bridging faults diagnosis in CMOS combinat. ccts. 13883
single-wire analog testability bus, struct. and metrology 6240
SNMP-based systs. mgt., fault detect./isolation 24903

fault location continued
SOPRANO, ATPG for stuck-open faults in CMOS combin. ccts. 21225
space power systs., fault detect. anal., sensor relationships 26561
space station power mgt./distrib., intell. load controller 26659
spacecraft DC power systs., series arcing detect. 26564
spacecraft electrical power system fault detection and diagnosis, model-based reasoning 10397
spurious sigs. detectability in combinat. ccts. 12455
squirrel cage motor rotor winding fault detect. ES 44059
static fault detect. syst., digital IC 22523
static power convertor filter capacitor fault detect. methods 19827
struct. syst. interconnect test, modeling 9793
stuck faults modelling in CMOS nonthreshold combinat. ccts. 21270
subranging ADCs, fault diagnosis tech. 12599
superimposed power line voltage disturbances detect., analog method 19360
switch-level test generation, sync. and asynchronous ccts. 21242
sync. generators, stabil./faults, neural net class. 36123
syst. testing archit. for distributed switching syst. 16957
telephone DC distrib. networks, arc detect. 19277
three-phase induction motor drives, online fault monitoring 20084
three-phase power transm. line adaptive resist. relay 4715
thresholds of faults in fault detect. 11884
TPS harmonization, vert. and perform. metrics, systs. approach 34401
TQM, role of test 28505
transfer fn. in transformer testing 5012
transformer fault/ageing detect., transfer fns. 27777
transient transit. count testing, fault detect. 12436
transm. line fault location, sync. sampling algm. 43808
transm. lines, fault location/discrim. *(Japanese)* 10786
transm. network maint./fault diagnosis experiences, Hungary *(French)* 35601
transm. network optimal fault location, μP-based 4623
TTL combinat. ccts., random test input generation 12450
turbogenerators, winding shorts localisation, fuzzified ANN 44021
two-pattern testing, test pattern generation ccts. eval. 12460
two-unit syst. with internal/external repairs, inspection and post repair, profit eval. 11851
ultralong-span trunk lines/subscriber lines, 1.65-μm opt. surveillance and test syst. 9574
unate cct. fns., input encoding 12420
underground power cable fault location, fiber optic sens.-based 27277
VLSI component test vectors, automatic generation, student training *(French)* 20329
VLSI/WSI defect tolerant arrays, optimal group diagnosis 13837
ASICs, DFT tools and method selection 37684
EDFA-repeatered syst. in-service fault-location 9430
Er-doped fiber amp. long-haul undersea syst. monitoring 17239

fault tolerant computing
see also software fault tolerance; software reliability
3B21D BIST/Boundary-Scan syst. diagnostic test 5590
adaptive deadlock/livelock free routing algm. 24767
adaptive FIR filters, variable detect. threshold 29364
adaptive sig. proc., fault tolerant QR decomp. 32494
advanced avionics subsystem technol. demons. program 10366
air data inertial ref. syst., flight test 10365
Airbus A320/A330/A340 electrical flight controls, fault tolerant systems family 35234
algm.-based fault tolerance, canonical computational model 32497
algm.-based fault tolerance (ABFT) 32493
aliasing computation, fault simul., fault dropping 21219
analog VLSI, fault-tolerant dyn. multilevel storage 6253
ANNs, algorithmic approach, concurrent error detect. 29449
Asian Test Symposium, Japan, Nov. (1994) 5504
automotive control syst. benchmark based on Time Triggered Protocol 5369
Benes-Clos networks, randomized routing 28926
bidirectional networks, link failures, global computation complexity 41510
built-in diagnostics for advanced power mgt. 34356
bulk substations, seq. of events eval., neural networks 44244
byte-organized memory systs., error-locating codes 24036
byzantine agreement with a minimum number of messages both in the fault-less and worst case 33282
calorimetry at LHC, modular fault-tolerant approach 4237
Cassini spacecraft, command and data subsystem 10367
checkpointing recovery in distributed syst. on CSMA/CD network 41472
cluster-based network, desirable fault-tolerant topol. 8962
computer network, trees/rings, fault-tolerant reconfiguration 3202
computer network expansion CAD, reliab. optim. 33575
concurrent error detect. in fast Fermat no. transform networks 41049
concurrent-error detect. in high-speed carry-free dividers 597
D flip-flops, self checking/code disjoint, sync. cct. design 29120
data network, transputer based for ATC *(Italian)* 8912
defect-tolerant WSI file memory syst. 29211
dependability eval., hybrid fault/error injection 37722
digital avionics systems, conf., (Nov. 1994) 5456
digital neural network error detect., algm.-based inner product protection 32499
discrete interface devices 10358
distributed appls., fault tolerant syst. 41881
distributed commun. syst. technol. 24885
distributed systs. reliab. conf., Princeton, USA (1993) 36876
double-loop networks, routing control *(Chinese)* 24848
DSP-based parallel archit. for neural network simul. 29259
DWP, Digital Wave Processor, dependable space instrum. 26539
elec. flight controls for civ. and mil. aircrafts, family of fault-tolerant systs. 43430
error-tolerating codes for A/D converting devices for dependable real-time systems 32118
exponential bidirectional associative memory capacity 21336
fast VLSI systolic array for large modulus residue addit. 21245
fault-tolerant transputer based digital commun. syst. 43461
feedforward neural nets, fault tolerance training method 12684
Fermat no. transform, algm.-based fault tolerant array archit. 32498
fiber-optic networks, fault-tolerant layered approach 16687
finite state machines, synthesis tool 29186
FIR adaptive filter, conjug. gradient algm. 29365
genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
group commun. protocol, causally ordered, using seq. nos. of messages *(Japanese)* 41533

fault tolerant computing continued
  hierarchical membership protocol for sync. distributed systs. 41544
  high-level synthesis of sig. flow graphs, algm. based fault tolerance 32496
  highly available/reliable commun. protocols for heterog. systs. 41508
  Hyeti defect tolerant μP, cost-effectiveness anal. 6168
  hypercube fault-tolerant multicasting 8691
  k-resilient protocols, computing reliab. intervals 33276
  LAN archit., fault-tolerant convergence routing 3203
  MAGICS meteorological imaging syst. for Nippon Airways *(Japanese)* 10414
  Markov regenerative stochastic models, soln. techs. 37274
  message logging protocols, nonblocking and orphan-free 33278
  message optimal protocols for fault tolerant broadcasts/multicasts 24833
  microprocessor-based systems, data corruption risk 29296
  modular fault tolerant protocol constr. 41536
  monitoring system with tolerance for real-time data problems 10342
  multi-level hierarchical distributed fail-safe architecture for metropolitan area networks 33595
  multiprocessor cache memory, fault tolerant 37761
  non-computationally intensive appls., algm.-based fault tolerance 32495
  optimum Kalman detector/corrector for fault-tolerant linear processing 32649
  protocol for distributed mutual exclusion 2903
  random pattern testing, fault coverage and test length estim. 21267
  rel/REL, reliable multicast protocols for distributed systs. 24798
  reliable min. finding comparator networks 33486
  reliable token dispersal, random faults 25006
  RFC 1327 mapping rules distrib. via Internet DNS 16747
  ring channel reliab. investig., computer networks 25035
  router for fault-tolerant networks 24862
  router speed, implications for faster commun. 24852
  routing among different nodes, servers break down without losing jobs 41829
  SAFENET, fault-tolerance/timeliness, layered approach 33507
  safety-crit. tech. proc. spec. toolkit 11691
  security maint. in presence of transient faults 32185
  self-recovering commun. buffer based on cellular automaton concept 8801
  self-stabilizing wait-free clock sync. 24836
  sens., distributed, fault-tolerant integrat. framework 32588
  SEU error manifestation 37813
  sig. proc., redundant finite rings 29244
  signature anal. problems, inform. theory 38959
  Sizewell B PWR control and instrumentation systs., reliab. assess. 35730
  small diam. spanning tree maint. 25052
  space vehicles, multiprocessor archits., engine and vehicle guidance control 4357
  substation VAr/volt supervision/control units, fault tolerant *(Chinese)* 36472
  systolic array multiplier, time redundancy 12412
  tightly-coupled fault-tolerant networks, guaranteeing idempotence 24822
  token ring network, reliab. improvement 8924
  token-based fault-tolerant distributed mutual exclusion algm. 24812
  Totem protocol develop. environ. 2937
  ToTo, protocol for early delivery totally ordered multicast in asynchronous environments 33281
  transputer based video distrib. syst., fibre based LAN appl. 41850
  tTP - A time-triggered protocol for fault-tolerant real-time systems 33280
  VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
  VLSI/WSI array proc., fault-tolerant 6829

fault trees
  computer network, trees/rings, fault-tolerant reconfiguration 3202
  elec. train fault-tree generation automation, ES-based 44551
  fluid catalytic cracking unit, assess. avail. simul. 37184
  knowledge engng. approach 28535
  Krsko PWR AC/DC power supply syst. fault tree anal. 35731
  LAN archit., fault-tolerant convergence routing 3203
  large-scale syst. reliab., phased mission anal. method 174
  multilevel fault tree representation 470
  NPP advanced emergency operation procedure develop. 4763
  power station thermohydraulic syst. reliab. study, EXPRESS IKBS 19379
  PRA Bayesian predictive approach inevitability 11881
  sliding-window protocol 41530
  uncertainty anal., coeff. of var. appl. 37186
  VLSI/WSI defect tolerant arrays, optimal group diagnosis 13837

faults, electrical *see electrical faults*

fax *see facsimile*

FD-TD analysis *see finite difference time-domain analysis*

FDDI
  18th conf., on local computer networks, Minneapolis, MN, USA, 1993 28220
  ATM and fast Ethernet, eval. 3199
  ATM based LAN/WAN *(Japanese)* 41854
  ATM interconnected FDDI networks, video traffic mgt. perform. 24916
  ATM-FDDI gateway, simulation model 33466
  campus inform. network syst., LAN/FDDI based *(Japanese)* 16696
  campus-wide network, packet voice distrib. 33520
  central servers, high-bandwidth network evol. 41786
  CLAD implement. and expt. results in ATM networks *(Japanese)* 24948
  concentrator tree topology with loopback 33451
  CPN, fiber channel interfaces 33489
  CSMA/CD network to FDDI migration, simul. study 33499
  cyclic polling syst., waiting time distribs. for different service strategies 33242
  desktop CSCW syst. 16691
  distance learning environment and ATM, trial at University of Minnesota 33643
  distributed EMS, FDDI based, simul. 27009
  dual homing networks, reliability anal. 33450
  fDDI-2 packet services and latency adjustment buffers 33454
  FDDI-II for isochronous, synchronous and asynchronous traffic, bandwidth allocation 33456
  FDDI-II MAC protocol, assessment and alternative design 33457
  FDDI-II networks, method for isochronous bandwidth allocation 24955
  FDDI-M, scheme, double FDDI's ability of supporting sync. traffic 16487
  Fibre Channel protocol and 802 MAC services, comparison 33254
  Fibre Channel switch, performance improvement using camp-on 33255
  GIGAswitch control proc. 25044
  high-speed networks, inter-proc. commun. perform. 8967
  high-speed transport protocols, local workstation environ., flow control 33492
  host interface designs for transputer based LANs 41848

FDDI continued
  HSLAN, comparison 33495
  LAN interconnection 33498
  LAN syst. using category 5 cables, wiring syst./installation *(Japanese)* 25047
  local computer networks, conf., Minneapolis, USA (1994) 20231
  LOTOS formal description tech. for FDDI perform. eval. 25490
  mean waiting time approxs. 41845
  multimedia conf. syst. design and perform., FDDI sync. services 16812
  multimedia conf. syst. on FDDI, TCP/UDP 16819
  new contention control mechanisms for FDDI 33453
  non-real-time communication in FDDI networks with real-time traffic 33452
  perform. eval. of FDDI network, guarantee probab. 41905
  plant automation, parallel computers/fiber optic commun. links interface 34026
  power series algm. for anal. timed-token ring protocols 41524
  proc. control environ., fieldbuses connection 33497
  protocol test seqs., automated generation, formal specs. 2929
  real-time data delivery for multimedia networks 33642
  review and comparison, technol. 16698
  RHIC accelerator control syst. design 18172
  supercomputer in computer network, A.I.S.T *(Japanese)* 8885
  switched LAN and full-duplex operation 33512
  synchronous messages with arbitary deadline constraints in a FDDI network 33455
  time crit. commun. in mfg., scheduling 41772
  token passing MAC protocols, quality of service estim. 16499
  token ring protocols, dyn. 3204
  token-cycle time characteristics of FDDI networks with multiple classes of traffic 33474
  transfer-molded packaging for opt. data links 11783
  wavelength-distributed data-interface network 9583
  wideband all-opt. FDDI LAN networks 9521
  workstation cluster, meas. 33496
  workstation-clusters, transfer systs. efficiency *(German)* 24825
  XTP multicast for high quality video distrib. 16484

FDM *see frequency division multiplexing*

FDM/TDM translation *see transmultiplexing*

FDMA *see frequency division multiple access*

FDTD analysis *see finite difference time-domain analysis*

FEA *see finite element analysis*

feature detection *see feature extraction*

feature extraction
  2D, description and struct. anal. *(Japanese)* 16378
  2D convolution algm., single-data multiple kernel approach 41348
  2D digital images, obj. extraction, topol. contour closure requirement 24723
  2D image partioning/recog., computational aspects 32922
  2D partial shape recogn., interrelation vector *(Korean)* 24682
  3-D obj. config. extraction 24551
  3D Hough param. space, clustering, circ. arc extraction 33014
  3D image feature extraction, diff. geom. 2664
  3D med. images, intens.-based obj. extraction incl. correction for partial vol. errors 43234
  3D obj. modeling, symbolic representation 32928
  3D obj. profilometry based on direct fringe displacement anal. 18085
  3D obj. recogn. by hybrid Hopfield neural net 33028
  3D obj. reconstruction, feature-based approach 41262
  3D obj. reconstruction from stereoscopic images 41268
  3D point sets, mark-based approaches for motion estim. 2822
  acoustic proc. for speech recogn., vectors and phoneme models *(Japanese)* 15816
  acousto-optic tunable filter hyperspectral imagery, anal. 18922
  act. contour model, opt.-to-SAR image registration 8608
  adaptive obj. extraction/tracking in complex image seqs. *(Chinese)* 8658
  adaptive subregion variable shape block motion compensated prediction 24500
  age change, facial image anal. and synthesis *(Korean)* 33118
  aircraft recogn. syst. for perspective aerial images 8639
  airport surface movements radar surveillance 43460
  ambiguous vowels recogn., oscillator neural nets 40760
  analog sig. neural proc. chip 29479
  analog VLSI neural net OCR syst., extraction module 29466
  angiography, obj. reconstr. by Hopfield neural net 43276
  AOI, detect. of enclosed shape boundaries 24522
  Arabic opt. text recogn., survey/bibliog. 24402
  assess. in imperfectly supervised environ. 16279
  attributed relational tree approach, sig. classif. 2806
  automated visual indust. QC, data visualization and num. assess. of class separability 41221
  automatic face recogn. syst., adaptive clustering network 2697
  automatic formant tracking, paradigm 32407
  automatic imposter detect. in telephone speech 32251
  automatic knowledge based extraction of objs. of real world from scanned maps 41333
  automatic language recogn., pitch contours discriminating features 8228
  automatic syst. for monitoring fish passage, dams 24534
  biomedical sig. proc., pattern recogn. *(German)* 18429
  block-adaptive scanning for efficient encoding of DCT blocks 24401
  boundary-based corner detect., wavelet transform 32888
  building detect. by range and image data fusion 41256
  buried objs. detect., dual-band IR images fusion 8555
  camera calib. from spheres images 24605
  car outline extraction by neural net 41374
  cellular neural nets, focused obj. extraction from unfocused background 24731
  cellular neural networks for moving point targets detect. 24730
  channel normalization, pole-filtered cepstral mean subtraction 32203
  character recogn. via structural indexing method 41315
  class. by varying, erring sens. 15860
  color image segmentation, fuzzy clustering and supervised learning 16326
  color map images, text extraction 16325
  color texture, extraction by neural nets 41214
  colour image recogn., neural net and genetic algm. *(Japanese)* 33116
  colour texture anal., colour histogram 2807
  computer vision, correspondence problem, Hopfield net approach 33062
  connected-word recogn. in noise, extraction 32385
  consistent attributed graph-based hand-drawn logic cct. diag. reading syst., VLSI CAD 12492
  continuous speech recogn., suprasegmental 32401

feature extraction continued
continuous-time cellular neural network chip, direction-selectable connected component detect. 29474
contour extraction of moving objs. in complex outdoor scenes 24576
contour fig., extraction 8646
coronary artery ident. from time series of angiogram 26324
cursive script recogn., time delay neural networks and HMM 32661
deaf children's PC-based speech training environ. 4328
digital aerial triangulation, extraction 41255
digital elevation models, inform.-preserving surface restoration/feature extraction 43488
digital images, relational descriptions, noise/scale behaviour 41250
digital photogrammetry, automatic relative orient. 41260
discriminative feature extraction, filter bank design 32326
disease focus posn. determ. in gamma knife operation, 3-D image reconstruction 26273
document image blocks, class., MCR stroke index 33142
dyn. gesture recogn., neural networks 32817
dyn. obj. recogn., hit-or-miss approach 24538
dyn. space resection, straight lines 41280
dynamic vowels recogn. using 2D feature space trajectories 8233
edge maps, neural network arbitration 41322
edge-line ambiguities resoln., probabilistic relax. 2781
EEG, feature selection, VQ/genetic algms. 43313
EEG extraction syst., neural nets and stat. anal. 35138
EEG signal analysis, ill-defined processing target 26383
egomotion estim. from affine motion parallax 24457
electrophysiological sig. parametrisation/feature extraction, trends 26394
elevation value in topographic maps, recogn. by multi-angled parallelism 10448
evidential reasoning approach for recognizing shape 32962
exudates in retinal images, automated detect. and quantification 24559
facial inform. proc. and Kansei commun. engng. *(Japanese)* 24657
FIRE operators, fuzzy inference edge detect. 2680
framework for low level, extraction 24632
fringe thinning algms. in photomechanics, perform. eval. 41198
front face ident., alg., extraction 33075
fuzzy approach, multisensor instrumentation. preprocessing techs. 2681
fuzzy neural net for feature/sens. selection 40789
Gabor, stabilities for basic image transforms. 41223
geocoding of satellite images, automation of tie pointing procedure 41278
geographic map, colour image segmentation 41308
glottal source param. anal. method 8183
gray valued still images, face regions extraction *(Japanese)* 16153
gray-tone digital images, multifractal and generalized dimens. 41303
grayscale image preprocessing for viewpoint independent 3-D extraction of objs. 24521
group extraction for recogn. 24463
handwritten Chinese characters, stroke extraction based on modified polygonal approx. 24535
handwritten cursive script recogn. 8515
handwritten numeral recogn. via, extractors 41314
head boundary location, fast algm. 16321
hearing perception, time-freq. neutral network layered model 15997
hierarchical Hough transform, polygonal approx. 41068
hierarchical line extraction 32971
hierarchical stereo matching algm., wavelet representation *(Korean)* 24688
high sampling resolution tactile sensor for object recognition 25807
high spectral resoln. coastal ocean imagery, stat. and empirical anal. 18879
high speed OCR, extraction chip *(Korean)* 24678
human face images, quantization level, neural net 41373
human motion tracking in real scenes, robust approach 2820
hyperspectral data from AO tunable filter, spectral and polarimetric anal. 16267
IC wire bond, automated visual inspection, auto-focusing 37163
ident. and integrity verification of final disposal casks 17652
image, class., robust by neural nets 16186
image class. by classifier combining tech. 8505
image proc., intens. connectedness extraction 33096
image recogn., invariant, high-order neural nets 41379
image segmentation, effect on meas. 32848
image segmentation, representation methods 41086
image seq. anal. and appls. 16122
impulse radar extracted signature features, aspect depend. in time-freq. domain 17389
incoherent radar ship target recogn., wavelet transform approach, extraction 34143
intell. DSP, stock trends determ. *(Japanese)* 24334
isolated Mandarin syllable recogn., segmental 32413
isolated word recogn., hybrid neural network 32429
isolated word recogn., SOFM-HMM/inertia *(Korean)* 24155
iter. total least sq. methods, straight line extraction 41178
jn. class. by multiple orient. detect. 24443
Korean document, picture/character extraction/segmentation 16069
Korean envelope images recogn., address block location *(Korean)* 24693
land cover multi-spectral rem. sens. data classif. 35360
Landsat Thematic Mapper data, multispectral lines of commun. extraction 16259
Landsat TM imagery, lines of commun. extraction syst. 16261
Landsat TM imagery, perceptual grouping, extract extended lin. 16258
lang. ident., phoneme-based, anal. 32275
laser range data, multidimensional shape and texture visualization 32975
lin., extraction by least sq. template matching 41253
line and edge, extraction based on covariance models 16290
line extraction from image, variable Hough transform *(Japanese)* 16300
line figs., local conc. pattern features, appls. *(Japanese)* 2626
Line Patterns Hough Transform for line segment detect. 8565
lofargram lines detect., unsupervised neural networks 34174
logic diag. syms., recogn. 37747
mammography, cumulant slices for 2-D autoregressive sig. modelling 32820
Mandarin continuous speech, tone recogn., prosodic inform. 2423
marine vessels pass. class., integrated approach 34176
massively parallel sig. proc. archit. based on response of retina cells 32824
matching/extraction, sig. detect. problem 32993
mech. instrums. diagnosis, intermittent acoustic data *(Japanese)* 43550
med., left ventricular motion anal. of 4D SPECT imaging 16331
MESSIE, multispecialist 3D scene anal. syst. 32893
metadatabase syst. for semantic image search 8473
metal coating elec. cond./thickness, eddy current data rapid inversion 42890
Midcourse Space Experiment for tracking, image proc. 2696

feature extraction continued
mil. image, ident. methods 32896
MM-wave radar target identif. by high resoln. range profiles 42485
model based 3-D obj. recogn., intens. and range images 16275
model based 3D scene reconstruction from perspective images 41257
model-based image coding, deformable 3-D model for face-to-face commun. 24556
motion clustering, stochastic 24628
motion detect. in security appls., tracking and hierarchy 24539
motion estim. guided by feedback inform. 16170
mountainous terrain mapping by radar, SAR stereo restitution 43475
multi-frame relax. tech. for tracking 41135
multi-purpose interface for still/moving image retrieval 24520
multilayer perceptron design algm. 8450
multiscale contour approx., adaptive smoothings *(Japanese)* 2655
multisensor data fusion, fuzzy methods 24431
near-sens. image proc. 2725
neocognitron, feature-extracting cells, threshold values 8527
neural estimators for multisensors, design 32658
neural nets for extraction and multivariate data projection 24696
nonlin. generalisation of point distrib. models, polynomial regression 41134
nonparametric approach, fuzzy logic extension 8567
obj. counting/feature recog., genetic algm. 2796
obj. detect. in clutter, Gabor filters 24549
obj. extraction, sampled act. contour model *(Japanese)* 16301
obj. rapid recogn., noisy range images/tripod operators 2677
obj. recogn., blob representation/relational voting 8550
obj. space based surface reconstruction, discontinuities 41273
obj. tracking syst., two stage real-time 24359
occluded obj. recog., dominant point approach 16361
occluded shape completion by symm. 2661
OCR, AI 8622
off line signature verification, fuzzy algm. *(Korean)* 24679
on-line handwritten Chinese characters, segmentation of knowledge-radicals 24536
opt. Chinese character recogn., prog. accelerating chip 24543
opt. Chinese handwritten character recogn., feature-based noise reduction 24550
opt. flow, multiple constraints 24439
optical 3D measurement techniques, conf., Switzerland (1993) 20260
optimal discriminative SNR, edge detect. and extraction 16398
OptoNeural target tracking syst. 41306
orthonormal discriminant vector method for pattern recogn. 15897
parallel, distributed memory computer 41101
param. free inform. preserving surface restoration 24621
pattern class. by learning from example and extension matrix 24553
PC-based softcopy photogrammetric syst., experience in low-cost survey of archit. 41337
pers. ident., human face images proc. 41116
photolithographic masks, defect detect. by cellular neural nets 24734
pictorial pattern discrim. limit from image pickup proc. noise *(Japanese)* 8534
planar shape recogn., moment invariants and Fourier descriptors 16390
planar shapes class., multiresolution circ. autoregressive models 8571
polariz.-sensitive thermal imaging 16272
polygonal contour extraction/lin. filtering 2693
polyhedron shape recovery and reflectance estim. *(Japanese)* 32866
power distrib. syst. fault detect./ident., neural net 4657
printed Chinese characters recogn., heuristic algm. 32920
prog. opt. pattern recogn. image proc. 2829
progressive piecewise registration, orthophotos and airborne scanner images 41244
Projection Pursuit, optimal transforms. for multispectral change detect. 16265
projection-based face recogn. 32840
quadratic filter and detect. 2668
quantitat. image assess. based on redundant, meas. and stat. reasoning 24422
radar pulse train deinterleaving via Hough transform 34141
radar target classif., extraction, wavelets *(Chinese)* 34134
radar target discrim., wavelet transforms 16102
radar target recogn. schemes, neural networks 34157
range image temporal feature extraction, neural decomp. 33052
raster-to-vector conversion by line fitting 41357
real time extraction of image outlines 17700
real-time extraction of direction vectors from binary images, VLSI chip 6173
real-time multiline OCR parallel archit. 33027
real-time signature verification, neural network algms. 16282
recovering 3D shape of unfolded book surface from scanner image *(Japanese)* 32868
recursive algm., edge intens. and gray-level thresholds selection *(Japanese)* 2620
regions matching specified chromatic features, detect. 32910
rem. sens., cloud masking, ensemble methods 18822
road boundary detect., parallel local, extraction 24596
road extraction from aerial images, semi-automatic 41258
road segment matching using probabilistic relax., hierarchical approach 8502
rot. mach., stat. monitoring, cumulant spectral anal. 32454
rot. mach. early failure diagnosis, ROMADIS package 11681
SAR imagery, localized Radon transform for ship wake detect. 17391
satellite attitude determ., lin. combination of models 24531
SBP, hybrid neural model for pattern recogn. 24404
scale-space props. of quadratic edge detectors 24445
scaling heuristic for reconstruction from slices 2723
scanned images, keyword detect./location via HMM 40701
scene reconstruct. multiple viewed scatt. data 2779
seafloor imaging, sonar sig. proc., tangent clusters 18810
seismic event class. by fuzzy logic 35290
semi-automatic road extraction by dyn. prog. 41254
shape anal. for image retrieval 8482
sig. class., local discriminant bases 32500
simple obj. ident. in image seqs. 41251
sine-wave crossings tech. for real-time target recogn. 10590
SNI-based 3D obj. recogn., matching strategy *(Korean)* 2825
speaker ident., neural tree networks 32250
speaker independent phoneme recogn., autoassociator-based modular archit. 8239
speech, spectral, extraction, Poisson moments 8234
speech recogn., subband-autocorrelation anal. 32405
speech recognizer stochastic trajectory model/discriminative 32436
stat. snakes, act. region models 41132

feature extraction continued
stereo vision feature correspondence, bipartite matching 24372
stochastic models for handwritten character recogn. 41309
straight line extraction, perception/fuzzy thresholding 2859
straight-line feature enhancement, rot.-kernel min-max algorithms 24488
subband coded video databases, multiresolution video indexing 8486
subthreshold analog, matching ccts., large output voltages 8626
surface feature extraction, 3D image partial derivatives 32907
surface inspection systs., software tool for developing algms. 17653
switchable model Kalman filter for tracking and motion class. 41144
tangency curve reconstr., high-order, from image seqs. 2747
target class., multisensor, using unsupervised neural net 33051
target extraction based on energy of colour *(Japanese)* 8532
target recogn., min. error neural network (MENN) method 24557
tele-microscope for meas. of polished curved surfaces *(Japanese)* 2741
telephone speech, extraction/classif. methods 2446
telephone syst. manhole drawings, graphical interp. 41606
terrain, recogn. for SAR imagery 41263
text depend. speaker verification, data fusion, channel detect. 32200
text depend./independent/prompted speaker recogn. technol. *(Japanese)* 15818
text string extraction from regular periodic overlapping text/background images 2721
texture anal., center-symmetric autocorrelation 24370
texture anal. by multiple space filling curves 16363
texture class., stat. geom. 41188
texture discrim., wavelet decomp. 24650
texture features, math. morph. *(Chinese)* 32806
texture recogn./noise filtering, optoelectronic neural net 39526
texture segmentation, fractal dimens. 16295
texture segmentation using wavelets, fast fractal, extraction 8500
textured image segmentation by context enhanced clustering 2808
thresholding by fuzziness measure minimization 16248
time-domain scatt. sig. extraction, BP neural net *(Chinese)* 8657
topol. preservation index 41184
turbine blade, faults, intell. diagnosis, neural nets/fuzzy logic 35714
two-pattern class./feature extraction, neural networks 41209
upper sideband and lower sideband SSB sigs., ident. algm. 40900
US med. images, classif., fuzzy reasoning *(Japanese)* 10216
vehicle image extraction based on spatio-temporal image anal. *(Japanese)* 2619
vehicle licence plate, extraction, gray level transit. characts. *(Korean)* 2827
video indexing and retrieval, power tools 8485
vision constraint creation, multiple attribute extraction *(Japanese)* 16371
visual inform. proc. syst. *(Japanese)* 2616
visual information processing, conf., Orlando, FL, USA (1994) 20237
visual motion estim., spatiotemporal computation 32952
voice fund. wave filtering method, fine pitch contour extraction 32404
wavelet transform, extraction and recogn. of waveform *(Chinese)* 32988
wavelet transform for modulation class. 32515
word accent patterns modelling by concatenation of mora HMMs 32226

feature maps, self-organising *see self-organising feature maps*

federated databases *see distributed databases*

feedback
see also circuit feedback; control systems; control theory; optical feedback; state feedback
2-phase brushless motor, feedback phase winding current *(Russian)* 43996
2D digital filters implement., matrix decomp. 32674
3 DOF Maglev, actuators, PM *(Japanese)* 39216
3-phase ZVS-PWM rectifier, reson. DC link, digital control 5068
200 MW klystron pulsed power modulator, electron LINAC appls. 34744
777 Autopilot Flight Director System 10336
AC locomotives, slip vel. feedback torque control *(Japanese)* 11407
AC servomotors, digital control, syst. dyns. *(Korean)* 36214
act. acoustic atten., adaptive generalized recursive control syst. 32604
act. mag. suspen. systs., PLL appl. *(Japanese)* 39215
act. power harmonic filters, computer simul. studies *(Korean)* 28998
adaptive conscientious competitive learning, appls. 15743
amp. nonlin. distortion anal., Volterra series *(Croatian)* 549
asynchronous CDMA systs., lin. adaptive transmitter-receiver 42145
ATM LANs, exposed buffering/sub-datagram flow control 33516
ATM networks, ABR service replace VBR service 33176
automated fiber pigtailing technol. 14383
available bit rate ATM service, rate-based flow control framework 41399
axial SQUID gradiometer, direct-feedback 9894
B-ISDN hierarchical control approach 41925
bilinear filtering, adaptive algms. 32469
biofeedback cane syst., instrumentation/subj. appl. results 35180
biomimetric powered prosthetic hand, myoelectrogram controlled *(Japanese)* 26471
boost converter, control, dyn. response *(Chinese)* 11186
boost PWM converter, feedback controlled, averaging theory 19770
boost PWM power convertor anal., averaging theory extension 11151
brushless motor drives, high power, intell. interface 5271
buck rectifier, unity PF, nonlin. ripple feedback 36244
building HVAC nonlin. heater batt., neural net control 5239
CDMA receiver, near-far immunity 25228
chaotic sigs., filtered and synchronized, commun. use 40851
chemical-mechanical planarisation, Run by Run controller 38566
children, preschool, cerebral palsy, improved reaching, regulated feedback 4322
clock-controlled seqs., cryptographic seq. generators 40686
compact disc player, QFT controller design/implement. 17614
congestion avoidance networks, congestion estim. feedback 9016
constant voltage anemometer circuit anal. 34447
continuous-time Gaussian channel with feedback, coding theorems 24048
current meas., mag. sens. 34654
DC servo systs., integral of output error VSC 11090
DC servodrives, dyn. friction compensation 36644
DC-DC convertor optimum control 36308
DC/AC switched-mode PWM inverter, stabil. anal. 11127
DC/DC capacitive idling converters, input current shaping 19789
DC/DC PWM boost power converter, switching capacitor-based 44195
DC/DC PWM step-up power supply, SC cct.-based 27807
decision feedback multiple-sym. differential detect., diversity 9200
delay meas., self-pulsating laser 42946
dexterous motions, nonlin. cct. theory for robot control problems 21090
DFB channel-dropping opt. filters, design and fab. 39538
diesel engines robust emissions control, oxygen sens. 34616

feedback continued
digital halftoning by iter. isotropic error feedback 16377
digital video recording, feedforward vs. feedback video coding 17597
direct AC-AC matrix power convertor, AC motor appls. 19738
discrete channels capacity, additive noise, output feedback effects 32008
displacement sens. with opt. feedback, LD 18097
distributed binary hypothesis testing, feedback 8405
dithered quantizers, and without feedback 16000
doubly-fed induction machines, torque/VAr control 4973
EEG corrupted sigs., minimization of EOG artefacts, neural net 43298
elec. machine act. vibr. control, piezoelec. actuator-based, simul. 36090
elec. machine mag. bearing-based vibr. control simul. 36091
electric machine lab. PC data acquisition syst. 28336
electrocutaneous stimulus for sens. feedback, pitch/loudness independence 10278
endoscopy, telepresence syst. 4291
exponential growth nonlin. diff. eqns., bifurcation phenom. 28563
FACTS, bilinear predictive control, thyristor controlled capacitor 4582
FET, phase and baseband 1/f noise correl. study 833
fiber optic sens. for flexible structs. control 9919
finite wordlength digital filters/controllers, optim. realisations 37883
force feedback system, surface display 18015
forward digital lattice struct. for IIR digital filter synthesis 749
gas turbine PM generator cycloconverter, digital control 10859
gripper force control, piezoelec. actuator-based *(Japanese)* 44253
GTAW, sync. weld pool oscill. monitoring/control 5618
hadron supercolliders, wide-band transverse feedback 4108
hands-free telephone sig. proc. methods *(German)* 8846
HF oscill. param. current sens., feedback loop 34463
hybrid step motors, feedback-lin. control design *(Korean)* 27767
hybrid transducer-type US motor, speed control expts. *(Japanese)* 11082
hydroturbine generator sets, nonlin. governor control 10944
III-V semicond. growth params. in MBE, in-situ meas. and control 20737
image seq. coding algms., parallelising method 2811
induction machines, flux observer design 27710
induction motor, 3-phase inverter, robust current controller, finite state automaton 36158
induction motor, LQ approx. lin. control 19623
induction motor, nonlin. posn. controller 27709
induction motor drive vector control, neural net-based 5291
induction motor drives, adaptive control, param. estim. 28064
induction motor drives, digital control strategy 5268
induction motor drives, feedback lin. control 36696
induction motor drives, field oriented control, parallel proc. 36700
induction motor drives, vector control, feedback sigs. estim., ANN 44488
induction motor drives, vector controlled, rotor time const. ident. 20073
induction motor output feedback stable controller 19633
induction motors, doubly fed, torque/reactive power control 44058
induction motors, stable nonlin. dyn. feedback control 4936
indust. elec. heater, discrete optimal tracking controller 44589
indust. robot/CNC machine tool digital joint motion controller 11509
internal model control loops, asymptotic setpoint tracking 27772
intrinsic thermocouple monitor for laser wirebonding 29710
Jones DC-DC converter, traction drive appls., av. modeling 19812
JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
κ-guidance dyn. eqns., lin./LQ control 18970
KEKB bunch feedback systs., 2-tap digital filters 43015
LABON, learning automata-based opt. network 9608
lin. DC motor posn. syst., tracking perform., neural net *(Japanese)* 44071
load balancing/control, feedback elimination 4596
logic ccts. simul., network of transputers 37734
M/G_2/1 queue, Bernoulli feedback proc. 20518
M/G_2/T queue sojourn times, Bernoulli feedback 5735
mag. actuator, nonlin. struct. dyn. 22712
maglev contact anal. probe tool for automated IC manufacture 20415
Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
micro-moving stage positioning, accel. feedback-based *(Japanese)* 11224
missile, tail-control, LQG/LTR, eigenstruct. reassignment 18997
missiles, modified CLOS guidance law via right inversion 18959
MM-wave radiation source, dual grating resonator 2019
model-based 2-D obj. recogn., neural network archit. 8507
modified CLOS guidance law via right inversion 26825
MOS digital ccts., fast timing simulator, feedback proc. 592
motion control syst. CAD, SOAP software tool 11222
motion estim. guided by feedback inform. 16170
moving magnet lin. DC motors, capacitive type posn. sens. *(Japanese)* 44076
MPEG variable bit-rate video on LANs, rate control 16646
Multi-Talk II voice output commun. aid eval. 4314
multicast video distrib. in the Internet, scalable feedback control 3245
multimodule parallel series-loaded reson. converters 29002
multiobjective controller design, guaranteed H_∞ control perform. 44062
multiple output forward converters, current control, small sig. anal. 11147
multiple target sputter syst., real-time control 20967
multiple-output forward converters, small-sig. model 11146
multiple-polynomial LFSR, BIT 21266
multivariable combustion control design, indiv. channel design framework 27525
narrowband fading channel spectral efficiency with power control 42199
near field opt. microscope, piezoelec. tip-sample dist. control 39088
normal external descriptions and feedback design computing 251
normed LMS algm., error feedback delay, convergence 5769
opt. cellular neural network, contrast enhancement 794
packet switching networks congestion control 16426
parallel feedback-based scheme for BIST 12395
parallel-module power converter, current bal. controlled, dyn. anal. 44140
piezoelec. bimorphs, forces meas. in colloidal systs. 18114
PM brush DC motors, tracking control studies 36190
PM stepper motor, global exponential posn. tracking controller 36201
PM sync. machines, act. vibr. compensation scheme *(French)* 10997
PM sync. motor, adaptive nonlin. control 27688
PM sync. motor feedback lin. decoupling torque control 4933
polysilicon charge injectors, carrier trapping 13788
portable digital satellite news gathering (SNG) RF terminal, flat antenna 25168
power HBTs, stabil., emitter ballasting resist. effects, empirical anal. 6734
power syst., two-area load-frequency control with neural nets 19113
power syst., unknown interconnections, adaptive nonlin. excitation control 10684

feedback continued
power syst. fuzzy adaptive excitation control method *(Chinese)* 43631
power syst. hierarchical optimal control design 4517
power syst. stabil., nonlin. SVC control studies *(Chinese)* 35527
power syst. stabilisation, variable struct. output feedback control 19090
power syst. sync. generator dyn. stabil. control enhancement 43706
power syst. transient nonlin. generator excitation control 26992
PS, beam control feedback loops, instabil. 4087
PSS controller tuning, systematic design method 27056
PV array max. power point tracking, power convertor-based 11296
PWM DC-DC converters, voltage control, feedforward/feedback 11117
PWM invertor batt. charger, UPS appl., fuzzy logic control 44154
PWM invertor drivers, device current utilisation optim. 5067
PWM regenerative sinusoidal converters, H^{∞} control 5131
PWR, efficient and safe large power changes automation 4792
QAM, self-learning adaptive recursive equalizer 32771
quadratic m-seqs. 8132
random seqs. generated by LFSR with nonlin. fn., anal. *(Korean)* 32095
random vibr. control algm. 25979
recurrent neural net archit., pass. nonlin. elements 37912
recursive ident. of gesture inputs, HMM 8212
reducing electrometer time const., high-resist. samples meas. 3768
robot sens. registration from posn., closed form soln. 3792
robotic arm ASIC-based motor controller develop. 11227
rolling mill ASDs, torsional vibr. damping 36800
secure commun. using small time continuous feedback 24740
self-excited pulsed MHD generator, meatgrinder cct. 36609
semi-conductor device manufacture, feedforward and adaptive feedback control 13572
semicond. lasers, opt. feedback with dispersive loss, amplit. noise 1980
series reson. converter, clamped capacitor voltage 11163
servomotor drives, AC-flux-vector control 28074
single machine infinite-bus power syst., nonlin. excitation control 27075
single-phase VSI UPS, multiple feedback loop control 11142
sinusoidal oscillators using current feedback amplifiers 29069
SISO feedback control ident., lin. PWM block pulse fns. 24008
sleeping state determ. from movement, neural net *(Japanese)* 26333
solid-state relay design, aerospace appls. 26546
space station solar panel terminal characts. model 26676
SQUID, voltage swing, additional pos. feedback params. 7236
squirrel cage motor, 3-phase, torque control, secondary current feedback *(Japanese)* 27708
squirrel cage motor, field oriented control strategy 19637
SSC, emittance growth, noise 26036
SSC, transverse feedback systs. 4109
state-space digital filters, noise reduction, error feedback *(Japanese)* 739
std. lamps, improved automated current control 3723
steam turbine robust controller design 35968
stepping motors, closed-loop posn. feedback control 19672
storage ring, 100 TeV, transverse feedback 4104
storage ring FEL, radiation power stabilisation 7687
straight line extraction, perception/fuzzy thresholding 2859
surface-to-air missiles optimal guidance, differential games *(Chinese)* 43583
switched controlled systs., adaptive PWM regulation schemes 40570
sync. generators, automatic voltage regulators design 36116
sync. generators, neural network nonlin. adaptive controller *(Japanese)* 4924
TDMA satellite commun. systs., transm. power control 17145
telecommunication network mgt., MBR appl. 41647
teletraffic theory in ex-USSR, Khinchin's papers 33223
texture recogn./noise filtering, optoelectronic neural net 39526
three-phase AC-AC power convertor, cct./control anal. *(Japanese)* 11191
three-phase AC/DC boost rectifier, feedforward-feedback control 36374
three-phase bidirectional PWM power convertor config. 5126
three-phase current-controlled reversible AC-DC converter 11183
three-phase UPS VSI, feedback control strategy 44173
three-phase voltage-source utility interface power convertor 19737
TK75001/75003 five-pin PWM SMPS IC 29015
transmitting antenna arrays with feedback, spectrum reuse 42266
turbines, intell. adaptive controller 43816
UPS PWM inverter, instantaneous feedback controlled 11177
utility-grid interactive three-phase inverters 5083
vac. manipulators, commercial elec. devices adaptation 44439
variable speed induction motor drives, controller synthesis 11353
vehicle following others, feedback control 4761
vircator, slow wave struct., microwave generation 12999
vircators, ultrashort microwave pulse generation, effect on electronic devices 973
VLSI high level synthesis designs, feedback 29154
voiced-speech anal., residual interfering sig. canceler algm. 32323
wafer fab. line, feedback control syst., implementation 37043
written pole motor/generator, flywheel storage , telecom. sites 44203
X-band TWT amplifier development 21848
zero-admittance switch-mode power converter synthesis 36242
GaAs/AlAs opt. differentiator, Wannier-Stark localization, space charge screening 14504
GaAs/GaInP(AlGaAs)-based HBTs, thermal-elec. feedback coeffs. 12783
GaAs-AlGaAs LD with opt. feedback, line narrowing and modulation bandwidth 1981
ZrO_2 pump-gauge oxygen sens. 9952

feedback amplifiers
see also operational amplifiers
act. feedback amps., multicarrier intermodulation optim. 12350
act. voltage attenuator using two cascaded MOSFETs, perform. 736
act.-R sinusoidal oscillators, current feedback amp. pole 21138
analogue divider, current feedback amps. 21463
analogue signal proc., symp., London, UK (Oct. 1994) 28263
BiCMOS controllable current amp. for hearing instrums. 35169
cartesian feedback RF amp. lin., gain/phase margins 33758
class D output stages lin. for high-perform. audio power amps. 3697
CMOS fully differential difference amps., unity-gain difference feedback 37641
consumer VCR, moving coil actuators, dyn. tracking syst. 17581
cortical amps., hybrid analogue-digital CMOS archit. 29482
current feedback amps., settling, DC, noise, gain errors 12348
current-feedback op-amps, small-sig. macromodel 37651
dual current-feedback amp. techs., operation and advantages 37652
EM coupled isolation op amp without input buffer 6035
floating-inductor simulator, current-feedback amps. 21411
fully differential feedback amp. ccts., return ratio simul. 21131

feedback amplifiers continued
HEMT LNA MMIC, act. regulated self-bias 12821
lin. MOS act. attenuator and amp., charactn. 29062
lin. power amp. for cellular telephone, envelope feedback method 12342
low-power current feedback amp. design, video-speed appls. 12344
LV bandgap regulators using only n-p-n transistors, perform. 37622
milling, cutting vibr. control, impact damper *(Japanese)* 42952
MIMIC amp., modelling and charactn. 29605
multiphase sinusoidal oscillator, CFOA pole 21142
op amps, HF current feedback macro models, enhanced perform. characts. 6033
optoelectronic feedback control for power supplies 37624
RF amp. dyn. biased cartesian feedback lin. 6041
sinusoidal oscillators, current feedback amp. based ccts. 12364
sinusoidal oscillators, single element control, current-feedback amp. 21137
sinusoidal oscillators using current feedback amplifiers 29069
struct. optim. 29059
transimpedance amps. with cascode struct., anal., MMIC amp. appl. 12807
universal filter, current feedback amp. based, Mason graph deduced 21405
universal filter, two current-feedback amps. 37852
voltage-mode notch/lowpass/bandpass filter, current-feedback amps. 733
wideband current-feedback op amps for RF appls. 545
AlGaAs-GaAs HBT-based direct coupled feedback transimpedance amp. 29065
SiGe base bipolar analog ICs for 20 Gb/s opt. receiver 9545

feedback circuits *see circuit feedback*

feedback neural nets *see recurrent neural nets*

feedback oscillators
622 MHz voltage controlled SAW oscillator *(Japanese)* 37670
Colpitts oscillator, resistive nonlin. charact., phase/oscill. freq. *(Slovenian)* 12366
coupled oscillators, modulated sigs. sync. 12367
current feedback mag.-multivibrator, oscill. freq. compensation 6046
current-controlled LC-oscillator cct., mag. materials lattice defects study 25955
double-scroll oscillator, chaos delayed feedback control 573
injection-locked oscillator MMIC, act. combiner/divider 12815
limit-cycle oscillators, switching-mode, fund. struct. 6043
microwave oscillators, high-Q temp. stabilized sapphire resonators 30623
parallel-path biquad act.-RC oscillator, enhanced harmonic rejection 37665
QPO, component params. calc. 21149
speech time-scale modif. based on nonlin. oscillator model 32318
X-band sapphire resonator-oscillator, temp. stabil. 29572

feeder reactors *see current limiting reactors*

feedforward
see also feedforward neural nets
AC transm. line disturbances, adaptive feedforward control 10711
AC/AC converters, vector control, min. energy storage 19758
act. acoustic atten., adaptive generalized recursive control syst. 32604
act. control, IIR filters 32602
act. filter, DC-DC converter ripple cancellation 6024
adaptive antennas array transceivers, lin. requirement 40514
adaptive feedforward lin., convergence behaviour 3324
adaptive nonlin. equalisation of digital commun. channels 15985
airborne laser commun. syst., adaptive jitter rejection tech. 17310
ambiguous vowels recogn., oscillator neural nets 40760
amp. lin., adaptation behavior 25229
asymmetric DSL ideal discrete multitone signalling 42051
bandpass sigma-delta A-D converters, cascading 689
boost converter, control, dyn. response *(Chinese)* 11186
building HVAC nonlin. heater batt., neural net control 5239
CCIIs, current followers, biquadratic current transfer fn. *(Japanese)* 6207
CMM, optimal posn./vibr. control design 3738
CMOS opt. receiver IC, wide dyn. range 34047
CODSIM, simul. environ. for spreading codes 3325
convolutional encoders, expansion property 32134
DC servodrives, dyn. friction compensation 36644
digital demodulators using fixed point FIR interpolators, BER perform. 32037
digital video recording, feedforward vs. feedback video coding 17597
DMSK digital packet sync., preamble design 9362
free space laser commun., demons. of jitter rejection tech. 17313
gamma filter, adaptation of memory depth 37891
gamma filter for echo cancellation in subscriber loop 33674
handportable mobile satellite stations, power amp. design 37656
HF fully integrated OTA-C filters, 7.2 GHz bipolar OTA 6210
high-data-rate MM-wave modulated subcarrier opt. transm., feedforward opt. modulation 9580
induction motor ASD, fuzzy on-line efficiency optimisation control 36659
induction motor speed controller, line voltage feedforward-based 27712
joint torque disturbance observer for robotic PCB assembly 6415
LOS for homing guidance, improved command 35389
LV fully differential class-AB switched-current ccts. 6248
M-ary PSK non-decision-aided feedforward carrier sync. asymptotic cycle slip probab. 40554
min. effort estimators/controllers, perform. surfaces 32561
modulated-freq. boost AC-DC preregulator, model 19804
multiple output forward converters, current control, small sig. anal. 11147
NDA FF carrier synchronizer, Viterbi algm., cycle slip anal. 8455
packet-based mobile radio, digital MSK receiver 3435
parallel output summing, feedforward amps. 12346
power converters, digital current mode control charactn. 5116
predistortor for high power amp. nonlin. correction *(Korean)* 12343
pulse-width modulator for boost DC-DC power converters 29042
PWM DC-DC converters, voltage control, feedforward/feedback 11117
PWM UPS inverter perform., computer simuls. 5077
PWM VSI AC motor drives, sync. quasi-vector control 11351
Rayleigh fading channel, adaptive diversity receiver, error probab. 25263
reluctance motor drives, flux weakened operation, current regulator 5303
satellite tracking, low-orbit, antenna servo design 23857
semi-conductor device manufacture, feedforward and adaptive feedback control 13572
three-phase AC/DC boost rectifier, feedforward-feedback control 36374
unbalanced AC voltage supplies, SVC dyn. anal./design 19124
variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
voiced-speech anal., residual interfering sig. canceler algm. 32323

feedforward neural nets
see also multilayer perceptrons
2D opt. three-layer neural associative memory 39524
3D opt. interconnected neural network 1773
$4\times4\times2$ neural network, modular neural chips, on-chip learning 29441
A/D converter, neural-based, with CMOS inverters 29323
adaptive complex radial basis fn. networks, channel equalization 15889
adaptive multiuser demodulation, neural network techs. 17001
analog IC soft fault diagnosis, ANN-based tech. 30399
analog neural net cct., learning rule 37922
analog neural networks, helicopter gearbox fault detect./diagnosis 10311
analog VLSI neural net archit., on-chip learning 37911
angle of arrival estim., neural network 8407
ATM networks, neural network traffic enforcement 16790
automotive engines, misfire detect., neural networks appl. 36779
binary commun. channel equalisation, feedforward neural net 15680
bioelec./mag. pot., event reconstr., neural nets 43314
bladder cancer cell class., neural net/fuzzy c-means 43258
Boolean neural net, dynamically configurable combinatory logic array 29451
cardiac arrhythmias, principal component/neural network anal. 26388
cascadable neural network VME-module, Intel 80170NX chips 10141
CCD image sens., defect detect., neural nets 3877
cellular mobile commun. channel assignment by neural net 42269
CFAR proc., robust neural net scheme 17387
closely-spaced objs. problem 16104
CMOS modular analog chip for feed-forward neural networks, on-chip learning 797
CMOS neural chip, 70 input, 20 ns pattern classifier 29483
CMOS neural network IC for high-energy phys. 29476
coherent grouping of power systs., neural networks 4498
commun. sig. proc. by RBF nets 41027
cursive script recogn., time delay neural networks and HMM 32661
data storage channels, nonlin. equalization 7141
digital mag. recording, equalisation, nonlin. filtering and error confine. 7178
digital satellite channels, adaptive DFE, multilayer neural networks 25453
distrib. network disturbance waveforms class., neural net-based 27161
dyn. feedforward supervised neural networks, perform. 8310
dyn. PET scans, kinetic rate consts., neural estim. 18458
dyn. supervised neural networks, fixed pole IIR struct., perform. 8309
ECG, ischemic disease detect., neural nets 18545
edge detecting fuzzy neural networks, training, model-based examples 8582
educational environment, DSP based acceleration 21472
Eigenlips for robust speech recogn. 32433
equaliser for IR-wireless LAN using RBF neural networks 33469
equalization, recurrent radial basis fn. networks 2555
evoked pot. estim., multilayer perceptron appl. 18547
fault tolerance training method 12684
feature mapping neural network, VLSI implement. 6270
generalised wt. adaptation algms. for 2-D feedforward neural networks 20567
geographic map, colour image segmentation 41308
geophys. computed tomography by neuro-fuzzy inversion 43500
hand-drawn image class. by neural net 2704
hands-free telephony acoustic echo cancellation 8858
hearing perception, time-freq. neutral network layered model 15997
hierarchical clustering, neural archit. 33042
human face images, quantization level, neural net 41373
human speech detect. in struct. noise 32409
hybrid HMM/MLP speech recognizer, linguistic, incorporation 32434
hybrid NN-HMM systs., model-discriminant training algm. 32435
HyperNet RAM-based neural net archit. implements., anal. 29467
image, class., robust by neural nets 16186
image background detect. by reusable ANN 33018
image compression, neural network approaches 24397
indoor radio, channel equalization, neural network techs. 17140
indoor radio channel, neural-based packet equalization 9307
induction motor ASD, adaptive speed control, ANN 28080
induction motor drive vector control, neural net-based 5291
induction motor drives, vector control, feedback sigs. estim., ANN 44488
induction motor stator current control, neural net-based 19629
induction motor stator current control, trained ANN, syst. ident. 11059
ISAR radar image recog. by neural net 9633
kernel-based classifiers, analog VLSI implement. 29460
learning T-model neural network 21479
load forecasting, data anal., Kohonen feature maps 19207
load forecasting, weather-sensitive short-term, neural net approach 10701
Lyapunov fn. based real-time implement. 29445
MACE prefilter networks for ATR 16283
machining, monitoring/supervising by neural net 34384
mag. recording channel, neural net equalization 7106
Mandarin consonants recogn., large phonemic time-delay neural net 8189
mapping ocean sediments by RBF networks 10557
modular prog. neural archit., VLSI implement. 29506
multilayer adaptive filters, BP trained, stat. approach 2556
multilayered neural networks, testability anal., behavioral approach 37917
multimachine power syst. generator shedding, neural net-based 19098
multiplierless multilayer feedforward neural networks, hardware implement. 6266
narrowband sig. extraction, neural net based scheme 2456
neural net-based load-flow models for elec. power systs. control 26986
neural network equalizers, perform. improvement 8308
neural network mapping, multiuser array beamforming 40907
NOAA images, class., multilayer neural network 4389
non-cooperative ident. of ships, electrooptical data 9650
non-lin. speech anal., recurrent radial basis fn. networks 8240
NPP fault-diagnostic advisor, neural nets 19438
obj. recogn., neural, invariant response learning 41363
open-circuited coaxial probes, neurocomputed model 34666
opt. neural network, Kerr-type nonlin. materials 31030
parametric testing of mixed-sig. ccts., ANN tech. 21444
pattern class., optimal matching-score network 33035
pattern recogn. by multilayer neural nets and math. morph. 32887
PCB assembly yield, design factors, stat. and ANN models 38080
perceptual audio coder, neural network based 8148
pixel detector, primary vertex location, neural network appl. 34941
plasma gate etch, neural network control 38567
power cable insulation PD pulse shape recogn., neural net-based 27207
power syst. daily load forecasting, neural net/regression anal.-based 19200
power syst. security assess. neural nets, perform. eval. 19134
power syst. short-term load forecasting, neural net-based 19201

feedforward neural nets continued
power syst. voltage stabil. assess., neural network 19046
PSS, feedforward neural net, inverse dyns. *(Korean)* 35540
PSS decentralized control, multilayer feedforward neural net-based 19100
pulse arith. based neural network implement. 21470
QR decomp. method of least sq., neural network algms. 33153
radar target recogn. schemes, neural networks 34157
radial basis fn. network, speech spectrum conversion 40726
radial basis fn. networks, bump-resistor networks implement. 29490
radial basis fn. neural networks, CMOS archits. 29498
radial fns. hardware generator for neural comps., VLSI design 29507
rainfall estim., satellite imagery, hybrid neural net 43518
RAN^{2}SOM, reconfigurable neural network archit. 29471
reduced systolic engine for nonlin. dyn. systs. anal. 29243
rem. area power supply systs. load forecasting, neural nets 35570
rem. sens. image class., neural nets 43467
residual VQ, multilayer competitive neural network 15718
RIE, time series modeling, neural networks 22556
rot. mach., fault prognosis, neural net 27683
run-time reconfiguration neural net archit. 29503
seafloor imaging, side scan sonar, neural image class. 18809
security difficulties, chaotic based commun. techs. 2864
seismic sig. discrim. by radial basis fn. network 35289
seismic trace editing, fuzzy functional-link net 26712
semantic phase transit. in classifier based on adaptive fuzzy syst. 8580
sens. array pattern, resoln. improvement, neural net appl. 15916
short-term demand forecasting, neural network approach 4605
short-term load forecasting, radial basis fn. neural net model 19198
shower recogn., feed-forward neural networks appl. 34942
sig. proc., radial basis fn. transforms 8299
single-layer feedforward neural networks, precision requirements 29461
sinusoidal sigs. in non-Gaussian noise, adaptive detect. 15900
speaker ident., neural tree networks 32250
speech recogn., noise immunization, neural net 32437
speech recogn., parallel distributed binary mapping models 32306
speech recognizer stochastic trajectory model/discriminative 32436
spurious pattern rejection by feedforward neural networks 32849
stochastic computation, ones/zeros ratio in pulse stream *(Korean)* 21477
surface reconstruction, robust BP 33058
sym.-by-sym. detector for lin. dispersive AWGN channels 16017
sync. generator stabil. pattern class., neural net-based 11006
target recogn., neural net based, MACE prefiltering 33048
technol. independent neural network approach on device modelling interface 21072
teletraffic syst., neural approach, perform. eval. 16789
texture class., neural networks appl. 32899
two-pattern class./feature selection 33038
voice conversion, formants transform., ANN 40730
vowel class. using neural predictive HMM, discriminative training 32432
SiO$_2$, PECVD modeling via neural nets and genetic algms. 398
SiO$_2$ PECVD, neural network based modelling 37415

feeds, antenna *see antenna feeds*

FEL *see free electron lasers*

FEM *see field emission electron microscopy*

FEM (numerical analysis) *see finite element analysis*

Fermi energy *see Fermi level*

Fermi level
antidot lattice, quantum transport, periodic-orbit theory, chaotic syst. 21981
δ-doping superlattices, plateau behavior and metal-insulator transit. 13196
electronic microrefrigerator based on normal-insulator-supercond. tunnel junct. 14289
lateral surface superlattice, fab., ion irrad. 21976
MESFET, localized interface states, transconductance 38913
metal-semicond. ohmic contacts, impurity bands 13208
multilayer electron systs. in wide parab. wells, magnetocapacitance spectra 29909
passivated HBTs, currents and current gain anal. 6737
semicond. intrinsic props., nonparabolic three-band model 22337
Al/InP:Be,P, Schottky barriers, improvement by Be/P coimplantation 13209
Al-porous Si jn., elec. behaviour 22049
n-AlGaAs, DX levels, carrier conc. saturation effect 29860
AlGaAs/GaAs HBT, surface passiv. layer struct., design considerations 6732
AlGaAs/GaAs HBTs, surface recomb., 2D anal. 22369
AlGaAs/InGaAs/GaAs HEMT, photolum. spectrosc. 6780
Al$_x$Ga$_{1-x}$As/In$_y$Ga$_{1-y}$As/GaAs, pseudomorphic HEMT, photolum. 6807
Au/n-GaAs Schottky contacts, barrie height change, ballistic electron emission obs. 38378
a-B:H CVD film characterisation and x-ray imaging appls. 5900
Bi/ZnO, interface form., model varistor grain boundary 6578
CdSe/metal low cost Schottky barrier solar cells 5219
Cs/InAs(110), giant band bending, interface form. 13222
GaAs MIS diodes, at. layer passiv. 13598
GaAs, SI props. of low-temp.-grown material 13038
GaAs passiv., integrated plasma clean/CVD/RTA, Si$_3$N$_4$ encapsulation 22224
GaAs, sulfidated surface, electron work fn. 13372
n-GaAs, surface passiv., As$_2$S$_3$ film 30089
GaAs:Te, highly doped, EL2 trap, jn. spectrosc. 13124
GaAs:Zn, Zn incorporation, OMVPE growth 30019
GaAs/AlGaAs inverted MODFET, charge control/I-V model 38908
GaAs/AlGaAs modulation doped heterojunctions, neg. photocond. 29919
GaAs/GaAlAs heterojunctions, real space transfer 13126
GaAs(001), water treated, SR PES 1269
Hg$_{1-x}$Cd$_x$Te, hole scatt. mechanisms 13063
HgI$_2$ gamma-ray spectrometers, electronic charactn. 43078
InAs/AlGaSb undoped quantum wells, neg. photocond. 29919
InAs/AlSb quantum wells, QHE 38366
InAs-GaSb QWs, magnetotransport meas., hydrostatic press. appl. 38334
InAs-coupled Josephson jns., crit. current, mesoscopic fluct. 22732
InP, S treated, MSM photodetector, high speed 17780
n-InP, Schottky contacts, in situ electrochem. proc. 38399
Sb$_2$S$_3$/metal low cost Schottky barrier solar cells 5219
Si MOSFET, 2DEG, cyclotron phonon emission, quantum oscill. 38887
Si detector, neutron irrad., Fermi level, TChT tech. 18370
Si, etching mechanism and band model in aq. KOH 13388
Si interface control layer effect in compound semicond. interfaces 13105
a-Si:H, pseudodoped, vidicon target material 1057
a-Si:H thin films prepared by layer-by-layer deposition 427

Fermi level continued
Si/SiO_2/Pt MOS diodes, surface state energy distrib., XPS meas. 29973
Si(100) surface, thermal nitridation, Si 2p core-level shifts 13366
SiC/metal struct., 6H polytype, surface barrier height 22044
V_2O_5-SnO-TeO_2 glasses, low-temp. DC cond. 38269
ZnMgSe, mol. beam epitaxial doping, $ZnCl_2$ 38479
$ZnS_{0.07}Se_{0.93}$:Cl/Yb(Al)(Cr)(Cu)(Au)(Pd), Schottky contacts, elec. props. 38401
Fermi resonance
CO_2 gasdynamic lasers, act. medium diagnostics 39644
CO_2 waveguide laser, act. medium diagnostics 31194
Fermi surface
ErN(P)(As), electronic struct., metallization appls. 38670
GdN(P)(As), electronic struct., metallization appls. 38670
ferrimagnetic materials
see also ferrites; garnets; magnetic semiconductors
Bi-YIG particles prep. for display devices 14173
Co:EuS, macroscopic ferrimag., magneto-opt. props. 14101
Cu/Co/Cu/NiFe multilayers, magnetoresist., thermal stabil. 7053
$LiFe_5O_8$ ferrite powders, prep. by co-precip. *(Korean)* 5901
$(TbBi)_3(FeGa)_5O_{12}$ garnet film current/mag. field sens. by Faraday effect 42884
ferrimagnetic resonance
$BaFe_{12}O_{19}$, hexaferrite films on sapphire, mag., struct. props. 14175
NiZn-ferrite films, ferrite plated, mag./struct. props. 14184
YIG epitaxial films, electron spin echo in 3 cm band 14165
ferrite circulators
drop-in ferrite microstrip circulator, design 29530
drop-on circulator design, X and Ka bands 14262
full period quadrature phase shifters, low losses 12739
microstrip ring vibrator params. on ferrite substructure 37957
quasi-opt. ferrite refl. circulator 12719
quasi-opt. refl. circulator, theory/MM-wave expts. 37950
W-band dual-freq. circulators 37948
Y-jn. high power MM-wave waveguide circulator 37941
ferrite devices
see also ferrite circulators; ferrite filters; ferrite-loaded waveguides; ferrite phase shifters; ferrite waveguides; magnetostatic wave devices
chirostrip dipole antenna, scanning behavior, substr. effects 8052
distributed power modules, decentralized systs., telecom. appl. 19816
electrothermal-chem. gun, meas. techs. 31751
EM wave absorbers, bandwidth widening by attaching rubber ferrite 2210
EMI suppression, ferrite materials 2244
Fermilab Tevatron, high field injection kicker magnet 34826
fin ferrite EM wave absorber, wide-band charact. 1579
grid ferrite EM wave absorber, charact. 14216
low-profile ferrite cores for planar transformers on PCBs 39189
mag. steerable ferrite patch antenna array 15659
magneto-opt. high resoln. meas. of small displacements 18081
magnetoacoustic delay lines, surface wave propag., magnetostrictive ferrites 7221
multiple core mag. assemblies, temp., fn. of freq. 12852
pacemaker power supply convertor, flat transformer-based 10277
pulsed power ferrite line pulse sharpener develop. 36318
RF absorptive cables, characts. calc. and meas. 890
rotary transformers, ferrite, charact., FEA 14256
super wide-band EM wave absorber, design and charact. *(Japanese)* 15398
switchable lin./circ. pol. ferrite disk resonator antenna 23861
tridisk-coupled resonator, modal charact. 12715
Mn-Zn ferrite chokes for interf. suppression *(German)* 15456
Ni-Zn ferrite chokes for interf. suppression *(German)* 15456
NiZn ferrite head wear rate meas., custom high sensitivity elec. elements 7166
ferrite filters
nonuniform valley-shaped magnetizing field, MSSW propag. 1584
tunable filters, power handling capacity, band-pass appls. 29542
ferrite-loaded waveguides
2D ferrite-loaded cavity-backed slot antenna scatt. 31920
dispersion charact., FDTD anal. 23788
long. magnetized ferrite loaded rect. waveguides 12699
multilayer planar line 2D-FDTD dispersion anal. 23811
multilayered bianisotropic waveguides, proper/improper modes 15578
partially magnetized ferrites, FDTD treatment 39210
propag. consts. comp., vector finite elements 40417
transverse operator method for general waveguide problems 40419
tunable filters, power handling capacity, band-pass appls. 29542
ferrite phase shifters
ferrite-semicond. MM-wave dielec. strip waveguides 37929
ferrite-supercond. microwave phase shifters 12718
ferrite waveguides
see also ferrite-loaded waveguides
biased ferrite slab MSW guidance 22707
ferrite-semicond. MM-wave dielec. strip waveguides 37929
ferrite-semicond. waveguide, surface MSW propag. 14263
layered anisotropic media planar transm. lines, characts. anal. 23796
nonreciprocal ferrite substr. microstrip open-end discontinuity, MIC appls. 12810
slot antenna radiation characts. in ground plane under DC magnetised ferrite slab 23826
ferrites
see also ferrite devices
10-30 kV rail-gap pulsed power supply, compact mag. plasma switch 36403
absorptive ferrite tiles, temp. behaviour of reflectivity 14198
anechoic chamber, multi-layer ferrite EM wave absorbers 15514
anechoic chamber, site atten. calc. 15513
anechoic chamber with ferrite grid absorbers, perform. 23731
broadband compact absorber for EMC chamber appls. 15515
chiral and nonreciprocal chiral-ferrite media, fund. props. 23551
compact semi- and fully anechoic chambers, composite absorber 15529
EMI ferrites, wide freq. impedance modeling 15488
EMI/EMS testing, ferrite absorber lined anechoic chamber 23676
ferrite-garnet films, VBL, crit. dens. 14199
hexagonal planar ferrites, polycryst., approach-saturation curve 14187
mag. recording media, switching fields, time depend. 7138
magnetized combination ferrite, matching freq. charact. 22690
magnetized ferrites, FDTD anal. 23788
microstrip line energy fluxes for ferrite substr., mag. biasing 12694
mixed ferrites, elec. resist., Curie point 21924

ferrites continued
mode charact. of ferrite slab 14167
moving vector Preisach hysteresis model and δM curves 14220
nonuniform valley-shaped magnetizing field, MSSW propag. 1584
partially magnetized ferrites, FDTD treatment 39210
planar mag. components, inductance calcs. 886
PM rectifier-type motor, mag. field anal. 27682
polycryst. semicond. ceramics, pot. mapping tech. 1054
powder magnet proc., mag. alignment 7033
pulsed power ferrite line pulse sharpeners, num. anal. 31872
pulsed power supplies, ferrite materials appls. comparison 36296
self-propag. high temp. synthesis 1577
SMPS planar inductors, design/fab. study 44109
SOFC components, perovskite oxides combustion synthesis 44311
uniaxial bianisotropic-ferrite medium, field representations, cylindrical vector wave fns. 40320
Ba ferrite, CoTi-doped, long. thin film media 7129
Ba ferrite, doped thin films, mag. props. 7022
Ba ferrite films, perp. anisotropy *(Japanese)* 14193
Ba ferrite particles, substituted, high dens. mag. recording, remanence 39165
Ba ferrite, sputtered thin films, saturation magnetis. 7023
Ba ferrite, substituted, particle prep., flux method 7030
Ba ferrite/C rigid disk, long. recording 7130
Ba hexaferrite particles, sol-gel prep. 7024
Ba-ferrite interact. mag. hard particles, mag. reversal 39169
Ba-ferrite particulate media, magneto-opt. readout props. 22964
Ba-ferrite/α-Fe composite particles, mag. props. 7029
$BaCo_{0.8}Ti_{0.3}Fe_{10.4}O_{19}$ particulates, magneto-opt. props. 7036
$BaCoTiFe_{10}O_{19}$ films, sputtered, struct., mag. props., heat treatment effects 14194
$BaFe_{12-2x}Co_xTi_xO_{19}$ hexagonal ferrites for mag. recording 30688
$BaFe_{12}O_{19}$ ferrite films, c-axis orient., mag. props. 7031
$BaFe_{12}O_{19}$, fine ferrite powders, synthesis, props. 14191
$BaFe_{12}O_{19}$ hand spread coatings, transverse suscept. and remanence characts. 7027
$BaFe_{12}O_{19}$, hexaferrite films on sapphire, mag., struct. props. 14175
$BaZn_xTi_yFe_{12-x-y}O_z$ particulate recording media, remanence states/transverse suscept. 30685
$Cd_xCu_{1-x}Fe_{2-y}Gd_yO_4$ ferrites, struct., dc elec. resist. 7020
γ-$Co_xFe_{2-x}O_3$ fine particles, spin canting anom., size/anisotropy effects 7026
$CoFe_2O_3$ acicular ferrite particles, Mossbauer effect study 7035
$Cu_{1-x}Co_xFe_2O_4$ spinel ferrites, mag. domain behavior 14188
α″-$Fe_{16}N_2$, synthesis/struct./charactn. 7032
Fe_2O_3, magnetomech. reduction, struct./mag. props. 14181
γ-Fe_2O_3, particulate recording media, remanence states/transverse suscept. 30685
γ-Fe_2O_3 thin films, coercivity, stress effect 39166
Fe_3O_4 coatings on silica microspheres, US contrast agent appl. 14180
γ-Fe_2O_3:Co,Zn particles, prep. and mag. props. 7028
Li-Mg-Zn-Ti-Mn-Fe-O, substituted spinels, mag./dielec. props., microwave appl. 30532
Li-ferrite, Ti-doped, mag. aftereffect meas. 14197
$LiFe_5O_8$ ferrite powders, prep. by co-precip. *(Korean)* 5901
LiZn ferrite laser-deposited films, mag./struct. props. 14190
$Li_{0.3}Zn_{0.4}Fe_{2.3}O_4$, additives, material property changes 39167
$Li_{0.673}Zn_{0.3}Mn_{0.05}Ti_{0.595}Fe_{1.28}$ $2O_4$ ferrite, mag. struct. 14196
$Mn_{0.05}Mg_{1.9-2x}Fe_{4x}O_{4+\gamma}$-$Al_2O_3$ ferrite, microwave loss *(Korean)* 30687
MnZn ferrite, low loss, role of microstruct. 7021
MnZn ferrites for high freq. power supplies, mag. props. 30684
MnZn ferrites, polycryst., microstruct., mag. props., heat treatment effect 14182
Nd-Fe-B, PM variable flux sources 14257
Ni-Cu-Zn powder ferrite for multilayer chip inductors 14186
Ni-Zn ferrite powders, mag. props., microwave absorpt., pH depend. *(Korean)* 22689
Ni-Zn ferrite, sintered, microwave absorbing props. 14179
Ni-Zn ferrite/rubber composite microwave absorber, additives effect *(Korean)* 20991
Ni-Zn ferrites, films, microwave props. annealing effects 14178
Ni-Zn-Cu ferrite, inner stress, grain boundary Cu precip. 14195
NiCuZn ferrite:Bi_2O_3, low temp. fired, for chip inductors 14183
$Ni_{1-x}Mg_xFe_2O_4$, discontinuous magnetis., comp. depend. 1576
NiZn-ferrite films, ferrite plated, mag./struct. props. 14184
$Ni_yZn_xFe_{3-x-y}$, ferrite films, rapid plasma MOCVD 5887
Sr hexaferrite particles, sol-gel prep. 7024
Sr-Ba ferrite magnets, sheet, addits. effect on mag. props. 7220
$SrZn_2$-W type hexagonal ferrite, CaO(SiO_2) additives 7019

ferroelastic domains *see domains; ferroelasticity*

ferroelasticity
PLZT, ferroelec. ceramics, non-lin. behavior, micromechanical theory 37551

ferroelectric capacitors
see also ceramic capacitors
CMOS/ferroelec. integrated test struct. for memory appls. 37781
computer memories using ferroelec. materials, std. semicond. proc. 39069
FeRAM, ferroelec. nonvolatile memory technol. for 1T/1C cell 37777
NEC ceramic capacitors, PMW-PNN-PT syst., dielec. materials *(Japanese)* 879
nonlin. ceramic capacitors, C-V responses 29612
stacked capacitor half-micron ferroelec. NVDRAM memory cell 21330
ULSI thin-film DRAMs, electrode-dielec. interface 29227
Au/$BaTiO_3$/p-Si metal-ferroelec.-semicond. struct., charge polarity 22052
(Ba,Sr)(Zr,Ti)O_3 ceramic based barrier layer capacitors 874
$Ba_{1-x}Sr_xTiO_3$ tunable capacitors with $Tl_2Ba_2Ca_1Cu_2O_x$ electrodes, fab. 6356
$Ba_{(1-x)}Sr_xTiO_3$ ferroelec. capacitors, liq. source CVD 28845
$BaTiO_3$ multilayer capacitors, defective, TSC meas. 22677
$BaTiO_3$/p-Si capacitors, struct., elec. props. 39061
PLZT ferroelec. thin film capacitors, DRAMs, polariz. loss, elec. stress params. 37752
PLZT thin-film decoupling capacitors for MCMs 29737
PZT ferroelec. capacitors, integrat./materials interacts. 39099
PZT ferroelec. thin film capacitors, fatigue and photoresponse 39102
PZT ferroelec. thin films, sol-gel deposition 1559
PZT films, polaris. reversal, adaptive learning metal-ferroelec.-semicond. FET appl. 39098
PZT, pulse meas. on ferroelec. capacitors simulating memory switching 12836
PZT thin film capacitors, domain behavior 39058
PZT thin-film capacitors, nonvolatile memory appls. 30594

ferroelectric capacitors continued
PZT:Er ferroelec. thin film prep. by sol-gel proc., RAM appl. *(Japanese)* 1553
PZT/Pt ferroelec. capacitors, passiv., SOG 39100
PZT/Pt thin film decoupling capacitors, integrat. 21591
PZT/Pt/RuO_2 capacitor heterostruct., elec. props. 21588
PZT/YBaCuO heterostruct. capacitor, photoresponse, fast opt. readout 30595
PZT-based heterostruct. capacitors, comp.-struct.-prop. rels. 39101
$(Pb,La)(Zr,Ti)O_3$ thin-film capacitors, imprint/O deficiency 30619
$PbLaTiO_3$, thin film capacitor, epitaxial growth, sens. appl. 34506
$Pb(Mg_{1/3}Nb_{2/3})O_3$ multilayer capacitors, electromechanical resons. 21587
$PbTiO_3$:La pyroelec. IR sens. array for human body detect. 42805
RuO_2 reactively sputtered films, ferroelec. capacitor electrodes 20920
$SrTiO_3$ ferroelec. capacitors, liq. source CVD 28845
$SrTiO_3$ thin film capacitors, MMIC process technol. 38030
ferroelectric Curie temperature
ferroelec.-opt. memory on ferroelec. thin films 30836
polymers, struct./Curie point, spectrosc. studies 6902
polymers, struct./props. 6901
push-pull integrated-optics Mach-Zehnder interferometer, domain inversion 22922
PVDF copolymers, ferroelec. behaviour/phys. props. 6904
$Li_{0.4}K_{0.6}NbO_3$ cryst., dielec./ferroelec. props. 22659
$LiTaO_3$ single cryst., thermally stimulated charge and light emission 13990
$(SrBa)_0.8Na0.4Nb_2O_6$, tungsten bronze ceramics, relaxor ferroelec. behaviour 30558
ferroelectric devices
see also ferroelectric capacitors; ferroelectric storage
acousto-optic correlator for radar report-track assoc. 7423
cathode, high brightness electron beam 29746
cathode pulsed electron emission characts. 29750
cathodes, electron emission, meas. 29753
cathodes, ferroelectric, investig. 21794
electron source ferroelec. cathodes, pulsed power supplied 29751
HTS ferroelec. phase shifters, high power, config. 12707
integrated ferroelecs., symp., Monterey, CA, USA (Mar. 1994) 20267
materials appls., workshop, Korea (Oct. 1993) 20221
plasma reactor, animal house ammonia/odor control appls. 20175
polymer-dispersed FLC light modulators 39496
rainbow devices, ferroelec. electromechanical actuators, reson. props. 39114
stacked capacitor half-micron ferroelec. NVDRAM memory cell 21330
uncooled thermal imagers, next-generation, quantiser requirements 3890
$Ba_xSr_{1-x}TiO_3$, voltage depend. dielec. losses for ferroelec. MMIC devices 39054
$KNbO_3$ thin film act. opt. waveguide devices, fab. 39464
$LiNbO_3$ thin film hybrid integrated opt. devices 39608
PLZT ferroelec. thin film capacitors, DRAMs, polariz. loss, elec. stress params. 37752
PMN ferroelec. relaxors, inhomog. dyn. strain charact. 30563
PZT ferroelec. film, neurodevice, adaptive-learning 39094
PZT ferroelec. relaxors, inhomog. dyn. strain charact. 30563
PZT piezoceramics, ferroelec. actuator/sens. materials, driving field/temp. effects 30570
PZT thin ferroelec. films, dyn. deform. sens. 25794
$PbMg_{0.3}Nb_{0.6}O_{0.3}$, ferroelec. actuator/sens. materials, driving field/temp. effects 30570
Pt/Ti electrode, PZT devices, annealing 39116
$SrTiO_3$, voltage depend. dielec. losses for ferroelec. MMIC devices 39054
$YBa_2Cu_3O_{7-x}$- $SrTiO_3$ 1 GHz tunable parallel plate dielec. resonator 37967
$YBa_2Cu_3O_7SrTiO_3$ CPW, elec. controlled 803
ferroelectric domains *see electric domains*
ferroelectric-filled waveguides *see dielectric-loaded waveguides*
ferroelectric hysteresis *see dielectric hysteresis*
ferroelectric liquid crystals
analog distorted helix FLC-on-silicon SLM 31013
binary phase only matched filter symm. breaking 31060
chiral liq. cryst. polymers, synthesis and electrooptical appl. 22950
conference, liquid crystals, San Jose, CA, USA (Feb. 1994) 51
double-layer cell FLC polariz.-control devices 22958
electro-optic devices, review 22957
glass-forming FLC material of high second-order nonlin. 7729
LCDs, surface mol. alignment, electrooptical perform. 7407
light valve, pixellated metal reflector *(Chinese)* 1745
liq.-cryst. SLM, CGH 23462
liquid cryst. polymers, conf., Seoul, Korea (1993) 11531
multi-channel non-blocking holographic switch, FLC SLM 40145
neural network, temporally multiplexed grey-scale wts., high perform. liq. cryst. 29452
nonlin. opt. FLC waveguides 7403
nonlin. optic props. *(Chinese)* 40045
polymer-dispersed FLC light modulators 39496
polymers, struct./props. 6901
polysiloxane, ferroelec. chiral smectic, opt. SHG 7731
reflective FLC SLM, real-time binary phase holograms 22954
road sign recogn., opt. joint transform correlator 33003
scale-invariant opt. correlators using FLC SLM, road sign recogn. 41236
smectic C* liq. cryst. high-speed tunable filter 39539
smectic C* liq. cryst. hosts, optoelectronic appls. 7404
SSFLC cell, electro-opt. bistability study *(Chinese)* 40044
surface stabilised, flow coupled switching eqn. 31004
Si/FLC light modulator, stochastic reson. 22928
ferroelectric materials
see also antiferroelectric materials; electric domain walls; ferroelectric liquid crystals; ferroelectric semiconductors; ferroelectric thin films; ferroelectric transitions
cathodes, ferroelectric, investig. 21794
ceramic-polymer composite, piezoelec./pyroelec. 6906
ceramics, elec. field conc., twinning-induced stress 37537
ceramics, piezoelec. responses meas., high-resoln. interferometer 22667
composites, dielec. behaviour 6905
composites, polaris., poling/props. 6907
computer memories using ferroelec. materials, std. semicond. proc. 39069
integrated ferroelecs., symp., Monterey, CA, USA (Mar. 1994) 20267
nonreciprocity in magnetoelec. crysts. 39044
nylons of metaxylylenediamine and aliphatic dicarboxylic acids, ferroelec. behaviour 14001
perovskites, rf dielec. relax., measuring methods 30573
polymer polaris., poling/props. 6907
ferroelectric materials continued
polymer/metal/$BaTiO_3$ multi-component composites, dielec. props. 12195
polymers, dielec. behaviour 6905
polymers, struct./Curie point, spectrosc. studies 6902
polymers struct./props. 6901
PVDF doped ferroelec. polymers, dielec./photoelec. props. 1555
refl. pulse method for material props. determ. 9829
Symetrix Y-1 ferroelec., memory cell, C-V characts. 39056
TGS, relax. currents and elec. cond. 30559
TGS pyroelec. materials for pyroelec. vidicons 22684
US beam scanning in ferroelec. ceramics by nonuniform elec. field 26784
Au/$BaTiO_3$/p-Si metal-ferroelec.-semicond. struct., charge polarity 22052
$(Ba,Pb)(Zr,Ti)O_3$ films, sputtered, dielec. props. 6913
$(Ba,Sr)TiO_3$, diffuse ferroelec. transit., relax. dipolar freezing 30568
$(BaSr)TiO_3$, elec. field biased ferroelec., electromechanical response, polariz. 39045
$BaTiO_3$ ferroelec., opt. bistability study 23449
$BaTiO_3$ films on Pt, epitaxial growth and dielec. props. 12099
$BaTiO_3$ films, sputtered for SOI struct. 6909
$BaTiO_3$ perovskite ceramics, ferroelec. fatigue, compositional control 1556
$BaTiO_3$, photocond., high light intens. 14582
$BaTiO_3$/poly(vinylidene fluoride-trifluoroethylene) thin-film composites, pyroelec. props. 6908
$Bi_4Ti_3O_{12}$, film, struct., electro-optic props. 6910
$Bi_4Ti_3O_{12}$ films, spin-coating pyrolysis, surface morph., O_2 effect 13988
$Bi_4Ti_3O_{12}$ highly oriented thin films, growth on Al_2O_3, pulsed laser deposition 5858
CsD_2PO_4, thermal expansion meas. 1552
CsH_2PO_4, thermal expansion meas. 1552
$KNbO_3$ crysts., electro- and acousto-optic props. 30555
$KNbO_3$, photocond., high light intens. 14582
$KNbO_3$ thin film act. opt. waveguide devices, fab. 39464
$KTa_{(1-x)}Nb_xO_3$ thin films, ferroelec. hysteresis, electro-optic response 13996
$KTaO_3$:Li, pure and doped, polar config., SHG obs. 22660
$KTiOPO_4$ opt. waveguides charact. by second harmonic spectrosc. 1712
$KTiOPO_4$ periodically segmented waveguides, Bragg refl. 7362
$Li_{0.4}K_{0.6}NbO_3$ cryst., dielec./ferroelec. props. 22659
$LiNbO_3$, domain inversion by proton exchange and rapid heat treatment 30567
$LiNbO_3$ opt. waveguides, ferroelec. domain inversion 22666
$LiNbO_3$ waveguide quasi-matching SHG devices 22880
$LiNbO_3$ waveguides, quasi-phasematched SHG conversion efficiency 22878
$LiNbO_3$:Fe, bulk PV effect 22991
$LiNbO_3$:Fe ferroelec. cryst., real-time holographic interferometry 31682
$LiTaO_3$ antiparallel domains ident. by interferometric method 10041
$LiTaO_3$ single cryst., thermally stimulated charge and light emission 13990
$LiTaO_3$ waveguides, proton-exchanged, cryst. struct. and opt. props. 22867
MgO on GaAs(001), integrat. thin film ferroelec., semiconds. 12123
PLZT ferroelec. ceramic cathode technol., electron emission from bulk material 21791
PLZT, ferroelec. ceramics, non-lin. behavior, micromechanical theory 37551
PMN ferroelec. relaxors, inhomog. dyn. strain charact. 30563
PMN-PSN, ferroelec. ceramic, diffuse transit., acoustic props. 30565
PMN-$PbTiO_3$ ceramic relaxors, high-field electromechanical props. 30560
PZN, perovskite local at. struct., ionicity/covalency, XANES obs. 30556
PZT ferroelec. capacitors, integrat./materials interacts. 39099
PZT ferroelec. relaxors, inhomog. dyn. strain charact. 30563
PZT ferroelec. thin film capacitors, fatigue and photoresponse 39102
PZT film, ferroelec. props., thickness effect 6911
PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
PZT films, adaptive-learning neuron ccts. appl. 30571
PZT films by MOD technol. for nonvolatile memory and DRAM appls. 13999
PZT films on Ni alloy/SiO_2-Si, ferroelec. props. 13998
PZT films, polaris. reversal, adaptive learning metal-ferroelec.-semicond. FET appl. 39098
PZT films, reactive co-sputtering/elec. props. 39059
PZT piezoceramics, ferroelec. actuator/sens. materials, driving field/temp. effects 30570
PZT thin film capacitors, domain behavior 39058
PZT thin film capacitors, pulsed-laser ablation-deposited 6369
PZT thin film memory materials, fatigue mechanisms 30569
PZT thin films, ferroelec. fatigue, compositional control 1556
PZT:Er ferroelec. thin film prep. by sol-gel proc., RAM appl. *(Japanese)* 1553
PZT:Nb transducers, sound wave vel. and Tawfik percentage 26786
PZT/Pt ferroelec. capacitors, passiv., SOG 39100
PZT/Ti/Pt interface layers, elec. and microstructural props. 39053
PZT/YBaCuO heterostruct. capacitor, photoresponse, fast opt. readout 30595
$(Pb,La)(Zr,Ti)O_3$ ferroelec. cathodes, repeatable electron emission, DC reset 971
$PbHPO_4$, dielec./acoustic props. near ferroelec. phase transit. 30562
$PbLaTiO_3$, diffuse phase transit., microstruct. charactn. 30561
$PbLaTiO_3$, thin film capacitor, epitaxial growth, sens. appl. 34506
$PbMg_{0.3}Nb_{0.6}O_{0.3}$, ferroelec. actuator/sens. materials, driving field/temp. effects 30570
$Pb(Mg_{1/3}Nb_{2/3})O_3$ multilayer capacitors, electromechanical resons. 21587
$Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$ ferroelec. thin films, pulsed laser deposition 37471
$Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$ solid solns., piezoelec./mech. props. 30564
$Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$-$SrTiO_3$ ferroelec. relaxor, dyn. strain response 39051
$PbMgNbO_3$-$PbTiO_3$ ceramics, domain walls, piezoelec. and electrostrictive props. 22663
$Pb(Mg_{1/3}Nb_{2/3})_xTi_{1-x}O_3$ thin films, deposition, charactn. 400
$Pb(MgNbTi)O_3$, relaxor ferroelec. for large strain sonar appl. 9670
$Pb_{1-x}Sm_x(Zr_{0.65}Ti_{0.35})O_3$ ceramics, pyroelec. studies 22664
$PbTiO_3$ sol-gel derived ferroelec. thin films 13997
$PbTiO_3$:Cu, film, sol-gel prep., charactn. 6912
$Pb(Zn_{1/3}Nb_{2/3})O_3$ single crysts., bulk PV effect 31070
$Pb(ZnNb)O_3$, local at. struct., EXAFS obs. 30557
$Pb(Zr_{0.4}Ti_{0.6})O_3$ thin-film capacitors, depol. orig. 12838
$PbZr_{0.53}Ti_{0.47}O_3$:Ca transducers, acoustic props. 30633
RbD_2PO_4, thermal expansion meas. 1552
$(Sr,Ba)TiO_3$ films, pulsed laser deposition, X-ray charactn. 37388
$(SrBa)_0.8Na0.4Nb_2O_6$, tungsten bronze ceramics, relaxor ferroelec. behaviour 30558
$(SrPb)(CaMg)TiO_3$-$Bi_2O_3 \cdot 3TiO_2$ ceramic charged particles, elec. props. *(Korean)* 22665

ferroelectric materials continued
- polymers, electro-optic props./appls. 22923

ferroelectric memories *see ferroelectric storage*

ferroelectric phenomena *see ferroelectricity*

ferroelectric semiconductor materials *see ferroelectric semiconductors*

ferroelectric semiconductors
- thin films, switching and fatigue, depletion and depolarizing effects 39057
- $(Ba,Sr)(Zr,Ti)O_3$ ceramic based barrier layer capacitors 874
- $BaSrTiO_3$ hybrid uncooled IR detectors, producibility advances 17792
- $LaSrCuO_4$-PLZT ferroelec. FET, memory retention 39087
- $SrTiO_3$ metal-semicond. Schottky diodes, field depend. permitt. 29955

ferroelectric storage
- CMOS/ferroelec. integrated test struct. for memory appls. 37781
- computer memories using ferroelec. materials, std. semicond. proc. 39069
- DRAM develop. and ferroelec. memories prospects 12547
- epitaxial ferroelec./conductive perovskite heterostruct., leakage current/memory effect 13991
- FeRAM, ferroelec. nonvolatile memory technol. for 1T/1C cell 37777
- ferroelec./semicond. struct. capacitance disk memory, noncontact eval. 1565
- Symetrix Y-1 ferroelec., memory cell, C-V characts. 39056
- thin films, ferroelec.-opt. memory 14082
- ULSI thin-film DRAMs, electrode-dielec. interface 29227
- $BaTiO_3$ photorefr. cryst., dyn. phase-encoding image storage 7816
- $Bi_4Ti_3O_{12}$ films, MOCVD, memory device appls. 37514
- $In_2O_3(ZnO)$-PZT(PLZT), TFT on ferroelec., operation phys. 39115
- $LiNbO_3$ ferroelec. gate insulator transistors, polariz. switching 38888
- PLZT-$LaSrCuO_4$ epitaxial ferroelec. FET, memory retention 39087
- PZT ferroelec. capacitors, integrat./materials interacts. 39099
- PZT film-based metal-ferroelec.-semicond. struct., memory effect 39068
- PZT films by MOD technol. for nonvolatile memory and DRAM appls. 13999
- PZT sputtered films, thickness scaling, memory appl. 14079
- PZT thin film memory materials, fatigue mechanisms 30569
- PZT thin-film capacitors, nonvolatile memory appls. 30594
- PZT/YBaCuO heterostruct. capacitor, photoresponse, fast opt. readout 30595
- PZT-based heterostruct. capacitors, comp.-struct.-prop. rels. 39101
- Pt/PZT/Pt/SiO_2/p-Si MFMIS FET, ferroelec. thin films in NDRO nonvolatile memories 37780

ferroelectric switching
- ceramic material systs., boundary conditions for shape memory 28888
- composites, polaris., poling/props. 6907
- FLC cells, surface-stabilised, flow coupled switching eqn. 31004
- nonvolatile ferroelec. thin film technol. for semicond. memory 39047
- polymer polaris., poling/props. 6907
- PVDF copolymers, ferroelec. behaviour/phys. props. 6904
- thin films, switching and fatigue, depletion and depolarizing effects 39057
- $BaTiO_3$ perovskite ceramics, ferroelec. fatigue, compositional control 1556
- $LiNbO_3$ ferroelec. gate insulator transistors, polariz. switching 38888
- $LiNbO_3$ opt. waveguides, ferroelec. domain inversion 22666
- PLZT, ferroelec. ceramics, non-lin. behavior, micromechanical theory 37551
- PLZT-$LaSrCuO_4$ epitaxial ferroelec. FET, memory retention 39087
- PZT ferroelec. film, neurodevice, adaptive-learning 39094
- PZT ferroelec. thin films, sol-gel deposition 1559
- PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
- PZT films on Ni alloy/SiO_2-Si, ferroelec. props. 13998
- PZT films, polaris. reversal, adaptive learning metal-ferroelec.-semicond. FET appl. 39098
- PZT, pulse meas. on ferroelec. capacitors simulating memory switching 12836
- PZT thin film capacitors, pulsed-laser ablation-deposited 6369
- PZT thin film memory materials, fatigue mechanisms 30569
- PZT thin films, ferroelec. fatigue, compositional control 1556
- $(Pb,La)(Zr,Ti)O_3$ ferroelec. films, metalorganic CVD/elec. props. 20758
- $SrBi_2Ta_2O_9$ thin films, prep. and ferroelec. props. 22658

ferroelectric thin films
- conf., thin film physics/appl., Shanghai, China (1994) 28235
- epitaxial ferroelec./conductive perovskite heterostruct., leakage current/memory effect 13991
- ferroelec.-opt. memory 14082
- ferroelec.-opt. memory on ferroelec. thin films 30836
- integrated ferroelecs., symp., Monterey, CA, USA (Mar. 1994) 20267
- Josephson effect in jn., ferroelec. 14299
- materials appls., workshop, Korea (Oct. 1993) 20221
- nonvolatile ferroelec. thin film technol. for semicond. memory 39047
- piezoelec. micromotors, PZT ferroelec. thin film appls. 44091
- switching and fatigue, depletion and depolarizing effects 39057
- Symetrix Y-1 ferroelec., memory cell, C-V characts. 39056
- ULSI thin-film DRAMs, electrode-dielec. interface 29227
- $(Ba,Pb)(Zr,Ti)O_3$ films, sputtered, dielec. props. 6913
- $Ba_{0.5}Sr_{0.5}TiO_3$, epitaxial pulsed laser growth on YBCO 1554
- $Ba_{0.5}Sr_{0.5}TiO_3$ thin films, sputtering, electric props. 20965
- $Ba_{0.5}Sr_{0.5}TiO_3$ thin films, structural and elec. props., thickness depend. 20984
- $Ba_{(1-x)}Sr_xTiO_3$ ferroelec. capacitors, liq. source CVD 28845
- $Ba_xSr_{1-x}TiO_3$, voltage depend. dielec. losses for ferroelec. MMIC devices 39054
- $BaTiO_3$ ferroelec. epitaxial film, cryst. orient., thermal expansion mismatch 20865
- $BaTiO_3$ films on Pt, epitaxial growth and dielec. props. 12099
- $BaTiO_3$ films, sputtered for SOI struct. 6909
- $BaTiO_3$ perovskite ceramics, ferroelec. fatigue, compositional control 1556
- $BaTiO_3$/p-Si capacitors, struct., elec. props. 39061
- $BaTiO_3$/poly(vinylidene fluoride-trifluoroethylene) thin-film composites, pyroelec. props. 6908
- $Bi_4Ti_3O_{12}$, film, struct., electro-optic props. 6910
- $Bi_4Ti_3O_{12}$ films, MOCVD, memory device appls. 37514
- $Bi_4Ti_3O_{12}$ films, spin-coating pyrolysis, surface morph., O_2 effect 13988
- $Bi_4Ti_3O_{12}$ highly oriented thin films, growth on Al_2O_3, pulsed laser deposition 5858
- $In_2O_3(ZnO)$-PZT(PLZT), TFT on ferroelec., operation phys. 39115
- $KTa_{(1-x)}Nb_xO_3$ thin films, ferroelec. hysteresis, electro-optic response 13996
- $LiNbO_3$ acoustic superlattice, growth/transducer props. 13995
- $LiNbO_3$ thin films. MOCVD, lithium alkoxide source 28841
- $LiNbO_3$ thin-film waveguides on GaAs 14478
- MgO on GaAs(001), integrat. thin film ferroelec., semiconds. 12123
- PLZT ferroelec. thin film capacitors, DRAMs, polariz. loss, elec. stress params. 37752
- PLZT thin films, sol-gel proc. 37466
- PLZT thin films, voltage offsets 30572

ferroelectric thin films continued
- PLZT thin-film decoupling capacitors for MCMs and ICs 12842
- PLZT thin-film decoupling capacitors for MCMs 29737
- PLZT-$LaSrCuO_4$ epitaxial ferroelec. FET, memory retention 39087
- PZT ferroelec. film, neurodevice, adaptive-learning 39094
- PZT ferroelec. films, cryst.-oriented, sol-gel deposition 39048
- PZT ferroelec. thin film capacitors, fatigue and photoresponse 39102
- PZT ferroelec. thin films, sol-gel deposition 1559
- PZT film, ferroelec. props., thickness effect 6911
- PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
- PZT, film, photoactivated birefr., struct. transit. 1557
- PZT, film, sputtered, poling effect on dielec. props. 39043
- PZT film-based metal-ferroelec.-semicond. struct., memory effect 39068
- PZT films, adaptive-learning neuron ccts. appl. 30571
- PZT films by MOD technol. for nonvolatile memory and DRAM appls. 13999
- PZT films, laser ablation on Ag coated Si substrs. 13993
- PZT films on Ni alloy/SiO_2-Si, ferroelec. props. 13998
- PZT films, polaris. reversal, adaptive learning metal-ferroelec.-semicond. FET appl. 39098
- PZT films, reactive co-sputtering/elec. props. 39059
- PZT films, sol-gel deposition, Ti buffer layer 20915
- PZT films, sol-gel derived, solid phase epitaxial growth 28731
- PZT, spatially uniform thin films, MOCVD 37517
- PZT sputtered films, thickness scaling, memory appl. 14079
- PZT thin ferroelec. films, dyn. deform. sens. 25794
- PZT thin film capacitors, domain behavior 39058
- PZT thin film capacitors, pulsed-laser ablation-deposited 6369
- PZT thin film memory materials, fatigue mechanisms 30569
- PZT thin films, MOCVD, Pb precursor 37516
- PZT thin films, donor doping, leakage resist. control 13992
- PZT thin films, ferroelec. fatigue, compositional control 1556
- PZT/Pt ferroelec. capacitors, passiv., SOG 39100
- PZT/Pt thin film decoupling capacitors, integrat. 21591
- PZT/Pt/TiN struct., high-temp. ECR plasma etching 39049
- PZT/Ti/Pt interface layers, elec. and microstructural props. 39053
- PZT-based heterostruct. capacitors, comp.-struct.-prop. rels. 39101
- $(Pb,La)(Zr,Ti)O_3$ ferroelec. films, metalorganic CVD/elec. props. 20758
- $Pb_{1-x}La_xTiO_3$ films, CVD 37515
- $PbLaTiO_3$, thin film capacitor, epitaxial growth, sens. appl. 34506
- $Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$ ferroelec. thin films, pulsed laser deposition 37471
- $Pb(Mg_{1/3}Nb_{2/3})_xTi_{1-x}O_3$ thin films, deposition, charactn. 400
- PbO thin films, MOCVD, Pb precursor 37516
- $PbTiO_3$ sol-gel derived ferroelec. thin films 13997
- $PbTiO_3$ thin film pyroelec. IR detector 42818
- $PbTiO_3$ thin films, MOCVD, Pb precursor 37516
- $PbTiO_3$:Cu, film, sol-gel prep., charactn. 6912
- $PbTiO_3$:La pyroelec. IR sens. array for human body detect. 42805
- $Pb(Zr_{0.4}Ti_{0.6})O_3$ thin-film capacitors, depol. orig. 12838
- $Pb(Zr_{0.53}Ti_{0.47})O_3$ thin film capacitors, electrodes, microstruct., elec. props. 881
- Pt/PZT/Pt/SiO_2/p-Si MFMIS FET, ferroelec. thin films in NDRO nonvolatile memories 37780
- $(Sr,Ba)TiO_3$ films, pulsed laser deposition, X-ray charactn. 37388
- $SrBi_2Ta_2O_9$ thin films, prep. and ferroelec. props. 22658
- $SrTiO_3$ ferroelec. capacitors, liq. source CVD 28845
- $SrTiO_3$ thin film capacitors, MMIC process technol. 38030
- $SrTiO_3$, voltage depend. dielec. losses for ferroelec. MMIC devices 39054
- TiNi/PZT, smart thin film heterostruct., materials develop. 37550
- $YBa_2Cu_3O_7SrTiO_3$ CPW, elec. controlled 803

ferroelectric transitions
- *see also ferroelectric Curie temperature*
- antiferroelec. liq. crysts., displays, SLM 22951
- electron source ferroelec. cathodes, pulsed power supplied 29751
- PVDF doped ferroelec. polymers, dielec./photoelec. props. 1555
- $(Ba,Sr)TiO_3$, diffuse ferroelec. transit., relax. dipolar freezing 30568
- $(BaSr)TiO_3$, elec. field biased ferroelec., electromechanical response, polariz. 39045
- PMN-PSN, ferroelec. ceramic, diffuse transit., acoustic props. 30565
- PZT, film, photoactivated birefr., struct. transit. 1557
- $PbHPO_4$, dielec./acoustic props. near ferroelec. phase transit. 30562
- $PbLaTiO_3$, diffuse phase transit., microstruct. charactn. 30561

ferroelectricity
- *see also antiferroelectricity; ferroelectric devices; ferroelectric materials; ferroelectric switching; ferroelectric transitions*
- nonreciprocity in magnetoelec. crysts. 39044
- quasi phase-matched SHG, inverted ferroelec. domains 40094

ferrofluids *see magnetic fluids*

ferromagnetic-antiferromagnetic transitions
- *see also metamagnetism*
- Fe-Si multilayers, antiferromag. coupling/magnetoresist. 14214
- FeGdN, soft mag. thin film material 14151

ferromagnetic Curie temperature *see Curie temperature*

ferromagnetic materials
- *see also ferromagnetic resonance; magnetic semiconductors; magnetic superconductors; soft magnetic materials*
- 3D integral eqn. method for eddy current EM field anal. in anisotropic materials 39145
- amorph. ferromag. ribbons, neutron depolarization facility 10824
- Barkhausen noise anal., DC bias/excitation/detect. freqs. 14126
- coil shielding by short ferromag. tube 23692
- components, natural/artificial surface defects determ. 28903
- DC/AC power CT, operating principle 19701
- design optimisation in theory and practice 11705
- eddy current NDT sens. 12217
- elec. steel sheets, indiv. portions, texture meas. 25954
- ferroimpedance transducer, mag. field meas. 25793
- ferromag. thin film-based high impedance anisotropic composites 14123
- ferromag.-nonmagnetic-ferromag. metal bipolar spin transistor 30760
- films, magnetoresist. meas., flexible test syst. 18040
- HGMS, high T_c superconds. appls. 23527
- III-V semimagnetic semiconds., carrier-induced magnetism, magneto-opt. device 30679
- induction machine squirrel cage disc rotor, starting torque improvement 27733
- induction machines, ferromag. rotor, temp.-mech. characts. tests *(Russian)* 36150
- layered nonlin. sheets, shielding props., prediction 15466

ferromagnetic materials continued
mag. liqs. props. and appls. *(Chinese)* 39153
Maglev multilayer ferromag. track, levitation characts. 20090
mech. stressed thin ferromag. films, magneto-opt. meas. 30682
nanometer-sized granular alloys, PM design 30748
nonlin. impulse cct. dyn. calcs. *(Russian)* 6048
nonlin. polarised ferromag. systs., computer anal. *(Russian)* 6941
oriented electrical ferromag. sheets, mag. field effect, skin effect 30680
parallel ferromag. rods, mag. interact. 25953
Permalloy elements, domain struct., TEM coherent mag. imaging 14120
Permalloy film overlayers, mag. easy axis, water sorption, photoresist underlayers, heads 7094
Permalloy/Fe soft thin film elements, MFM anal. 14119
pipeline steel, 2% Mn, magnetis., cyclic stress effects 39129
PM, materials, review 39155
prestressing steel near saturation, mag./magnetoelastic behavior modelling 39130
rare earth-transit. metal alloy films, microstruct. and domain wall motion 14115
rare-earth/α-Fe based composite magnets, remanence enhancement, 2D/3D calc. 7007
relay, nonlin. ferromag. materials, mag. field calc. 38067
remanence enhanced nanocrystalline materials, magnetis. procs. 7012
ribbons, amorph. mag., asymmetric magnetis. reversal, chem. etching 14135
shields, EM transients nonlin. anal. procedure 15486
steel, Cr-Mo, ferromag., creep damage, mag. study 14128
steel, ferromag., coercivity var. during cyclic stressing 14127
steel, ferromag., surface imaging using Barkhausen effect 14122
steel, unalloyed sheet, surface condition, ferromag. monitoring 12224
steel sheet, oriented, mag. field anal. by FEM 39147
strong-field electromagnets, efficiency, mag. conductor permeab. influence 31738
switchgear contact systs., electrodynamic forces compensation 19885
Terfenol-D, magnetostrictive strain, thermal, mag. annealing 7016
Terfenol-D rods, giant magnetostriction modelling by FEM 39148
thin ferromag. film growth, situ SQUID magnetometry 14290
tunable mm-wave mag. filter, novel design 14261
ultra-high resoln. single-domain mag. force microscope tip, nanolithography prep. 14121
Ag-Co granular epitaxial layers, struct./giant magnetoresist. 14164
Ag-Ni granular epitaxial layers, struct./giant magnetoresist. 14164
AgNiFe, interact. effects/mag. ordering, annealing effect 6982
AlFe, hot rolling, strong (100)[001] texture component 14145
Au/Co/Au multilayer systs., magneto-opt. effects, surface plasmon depend. 7067
$Ce_2Fe_{17}H_x$, press. effects on mag. props. 39160
Co epitaxial layer on W(110), electron microscope mag. imaging 13016
Co films, submicron patterning, mag. storage 14241
Co thin films, STEM magnetometry studies 14205
Co ultrafine clusters, NMR spin echo meas. 6978
Co/(Pt-Bi) multilayers, magnetis., magneto-opt. props. 14204
Co/CoAl mag. superlattices on GaAs 7044
Co/Cr thin films, interdiffusion and grain isolation, thermal annealing 7040
Co/Cu multilayer struct., STEM magnetometry studies 14205
Co/Cu multilayers, interlayer coupling, vibr. sample magnetometry/FMR study 39177
Co/Ni multilayer, sputtered, anisotropy and magneto-opt. props. 14203
Co/Pd multilayers, magnetostriction, layer thicknesses effect 30690
Co-Ag granular films, giant magnetoresist. 6981
(Co-Bi)/Pt multilayers, magnetis., magneto-opt. props. 14204
Co-Cr films, micromagnetic domains, neutron scatt. 6961
Co-Fe-Si-B amorph. soft ferromag. wires, magnetoimpedance, magnetostriction 30668
Co-Ni, ferromag. precip., giant magnetoresist., comp. depend. 39134
Co-Ni-O metal-evaporated tapes, unidirectional exchange anisotropy 7113
Co-Pd alloys, high-field forced magnetoresist. 30670
Co-Zr-R (R=rare earth) amorph. films, field induced mag. anisotropy 14129
Co-based amorph. thin wires, HF permeab. 14124
CoAl:O sputtered granular thin films, elec. resist., permeab. 14131
CoCr films on Ti, perp. recording, low temp. sputter-deposition, high coercivity 6959
$Co_{1-x}Cr_x$ perp. mag. recording media, epitaxial growth 7103
$Co_{78}Cr_{22}$ films,sputter-deposited, chem./structural anisotropy, EXAFS studies 6958
CoCr-$NiP_3(TiSi_2)$(Cr)(C)-soda lime glass recording media, high coercivity and low noise 7115
$(Co_{93}Cr_7)$-P-Pt/Cr thin films, long. mag. recording 7128
CoCr(CoCrTa) mag. recording media, compositional separation rel., film thickness 6956
CoCrPt/CoCrPt/CoCrPt multilayer, ultra-high dens. mag. recording 7051
CoCrPt/CoCrTa multilayer, ultra-high dens. mag. recording 7051
CoCrPt/Cr thin films, CoCrPt thickness effect on props. 6943
CoCrPt/Cr/CoCrPt multilayer, ultra-high dens. mag. recording 7051
CoCrPt-MgO bicrystalline long. recording medium, mag. charact. 6957
CoCrPtTa/Cr mag. recording media on glass substrs., props., noise 6954
CoCrTa thin film, long. recording media, grain boundary, intergranular exchange coupling 6955
CoCrTa/Cr anisotropic medium, track-edge overwrite pattern, MFM obs. 22699
CoCrTa/Cr thin-film media, underlayer effects on mag. and recording props. 6989
CoCrTa/Cr/GaAs, microstruct. and recording props. of bicrystal disks 7116
CoCrTa/NiAl(Cr) mag. thin film media for disk storage, in-plane coercivity 7223
CoCrTaPt/Cr thin film media, mag. recording perform. 7125
CoFeB:O sputtered granular thin films, elec. resist., permeab. 14131
a-$Co_{66}Fe_4Mo_2Si_{16}B_{12}$, magnetostriction, nanocrystn. effects 14141
CoFeSiB amorph. wires and films, giant magneto-impedance 30667
CoFeSiB-SiO_2 multilayers, HF mag. losses *(Japanese)* 30697
CoNbZr-SiO_2 double layer films, HF mag. losses *(Japanese)* 30697
$Co_{20}Ni_{80}$ particles, prep. and microwave charactn. 6977
CoNiPt-CoO media, mag. recording and microstruct. props. 7112
CoPt binary thin films, perp. recording, microstruct. and mag. props. 6960
CoPt thin film media, microstruct., mag. props. and noise perform. 6990
CoPt/Cu/NiFeCo/Cu multilayers, spin-valve effect/magnetoresist. 14213
CoSm/X (X=Ti,V,Cu,Cr) sputtered thin films, mag. props. 6963
CoZr amorph. thin film core head for digital VCR 7110
Cr/CoCrTa/M/CoCrTa/Cr (M=Al,Cu,Ag,Cr) thin films, mag. props., X-ray crystallography 7052

ferromagnetic materials continued
$Cr_{1-x}Ir_xO_2$, ferromag. material, high coercivity 30677
CrO_2/Co multilayers on Cu(100) 30692
Cu-Mn/Co multilayers, magnetoresist., exchange coupling 30707
$Cu_{80}Co_{20}$, melt-spun ribbons, mag. props. 6949
$Cu_{80}Co_{15}Fe_5$, melt-spun ribbons, mag. props. 6949
$CuCr_2Se_4$:As, mag. props., doping effects 14157
Dy/$DyFe_2$ eutectic, magnetisation, stress effects 7006
$Dy_2Fe_{17-x}Ga_xC_2$, arc melting prep., mag. props. 39138
$Dy_{0.7}Tb_{0.3}Fe_{1.95}$, rare earth-iron cpds. for actuators and sens. 34481
Er_2Fe_{17}, single cryst. magnetisation meas. 39161
$Er_2Fe_{14}B$, spin reorientation transits., X-ray circ. mag. dichroism 39158
$ErFe_{8.5}Co_2Mo_{1.5}D_y$, struct./mag. props., deuteration effects 39162
$Er_2Fe_{17-x}Ga_xC_2$, mag./struct. props. 39205
Fe, BCC, ferromagnetism, temp. depend. electronic struct. 7000
(Fe,Co)-B-Al-Nb alloys with ultrafine grain struct., mag. props. 14149
Fe core slab, mag. field diffusion, hysteresis models 39146
Fe film, domain walls, MFM 14118
Fe films on Cu(100), struct./mag. props. 14162
Fe films on Si substrs., epitaxial growth, magnetocrystalline anisotropy 14144
Fe, surface domains, lancet shape 39137
Fe/Gd multilayers, magnetostriction, ferromag. reson. meas. 30691
α-Fe/$Nd_2Fe_{14}BTi_x$ nanocrystalline alloys, coercivity 7011
Fe/Ni bilayers, mag. props. 30701
Fe/Pd multilayers grown by electron-beam, mag. props. 39176
Fe-Ag granular films, giant magnetoresist. 6981
Fe-Al-Ta-C nanocrystalline films, soft mag. props./corros. resist. 6991
Fe-B-M-Cu (M=Hf,Zr,Nb), nanocrystalline/amorph. hybrid struct., soft mag. props. 14146
Fe-BN films, deposition conditions and mag. props. 5889
Fe-Co, ferromag. precip., giant magnetoresist., comp. depend. 39134
Fe-Co-Ni-Si-B based amorph. wires, mag. props. 30683
Fe-Co-Si-B rapidly quenched wire, magnetostrictive/magnetoelastic props. 30666
Fe-Cu-Nb-Si-B, nanocrystalline ribbons, creep induced mag. anisotropy 14138
Fe-FeCoZr sputtered multilayers, soft mag. props. *(Japanese)* 30696
Fe-N sputter-deposited films, stress and microstruct. 6952
Fe-Nb-B nanocrystalline ribbons, soft mag. props./microstruct. 14147
Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
Fe-Si, grain oriented steel, magnetostriction 30665
Fe-Si, magnetodynamic field, rate-depend. Preisach model 14112
Fe-Si steel, forsterite film form. and grain growth 14153
Fe-Si-B ferromag. amorph. alloy, high-field magnetis. meas. 14134
Fe-Zr film, amorph., antiferromag./ferromag. cluster coexistence 14117
Fe-based amorph. thin wires, HF permeab. 14124
a-Fe-based toroidal transducer core, local flux dens. vars. 14255
FeAlN/NiFe pole tips, laminated, high moment, perp. contact recording head 7097
FeAu, domain wall pinning, mag. viscosity/activation vol. 14148
a-$Fe_{78}B_{13}Si_9$, moment canting in applied fields, polarized Mossbauer obs. 14140
FeCoSiB quick response micro mag. head sens. utilizing magneto-impedance 30740
a-$(Fe_{0.06}Co_{0.94})_{72.5}Si_{12.5}B_{15}$, creep-induced mag. anisotropy 1571
FeCr, layer systs., local/nonlocal dens. fn. studies 6999
FeCuNbSiB, nanocrystalline, induced anisotropy 14133
a-$Fe_{73.5}CuNb_3Si_{13.5}B_9$ ribbons, mag. domain struct., crystn. effect 14142
FeGdN, soft mag. thin film material 14151
$Fe_{80-x}M_xB_{20}$, (M=Ni,Co,Mn,Cr,V,Ti), amorph., mag. props. 14110
$Fe_{66}M_2Nd_{20}C_{9.5}B_{0.5}$ (M=Ga,Nb,Cu,Al) ingot magnets by solid-state transform. 6969
FeN foils, magnetron discharge nitridation, saturation magnetis. *(Japanese)* 30676
$Fe_{16}N_2$ epitaxial films, mag./Mossbauer study 6995
α''-$Fe_{16}N_2$, mag. props. 6993
α''-$Fe_{16}N_2$, magnetisation/Mossbauer spectra/electronic struct. calcs. 6994
Fe_4N nanometer-sized particles, mag. props. 6979
FeNbCuSiB ribbons, fast dc Joule heating, nanostructured materials prep. 14137
$Fe_{77}Nd_{15}B_8$, mag.-field orient. and coercivity 7207
FeNdB-based magnets, Ga and Nb addits., mag. and microstructural props. 14163
FeNdBGaNb PM, microstruct., mag. props. 22687
$Fe_{72}Nd_{17}B_{7.5}Ga_{1.5}Nb_2$, permanent mag./microstruct. props., additive effects 39195
γ-Fe_2O_3 particles, coercivity and switching field 6976
Fe_3O_4 films, ferrite plating, AC current 12134
Fe_3O_4, magnetite, domain walls, MFM 14118
γ-Fe_2O_3:Co mag. tapes, waterborne formulation prep., dispersion quality 7133
FeSi sheets, ferromag. hysteresis, stat. domain energetic model 39135
FeSiAl Sendust films, recording head cores 7108
FeSiAl, sendust films, RTA, mag. props. 6953
FeSiB amorph. wires, annealed, engng. magnetostriction meas. 14132
a-FeSiBC films, mag./magnetoelastic props. 14139
FeSiBCuNb amorph. wires, crystn. proc. and mag. props. 14136
FeSiHfC nanocrystalline films, soft mag. props., anisotropy dispersion *(Japanese)* 30674
FeSiN films, narrow track head 7107
FeSmN thin films, long. mag. recording 7127
FeTaN films, DC magnetron sputtered, microstruct. and mag. props. 6951
FeTaN films, microstruct. and mag. props., effects of nitrogen content, heads 6950
FeXN (X=Ta,Hf,Cu,Si,Zr) high moment thin film head materials, electrochem. corros. 6942
FeZrB(Cu) amorph. and nanocrystalline alloys, mag. and transport props. 14130
$Fe_{86}Zr_7B_6Cu$ soft-mag. compacts, nanocryst., high saturation magnetis. 1572
$Gd_{21.2}Co_{78.8}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_2Fe_{17}H_x$ syst., high field magnetis. 14156
$Gd_{19.4}Nd_{6.1}Fe_{74.5}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{19.6}Nd_{10.3}Fe_{70.1}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{13.5}Tb_{6.2}Fe_{80.3}$, film, amorph., exchange stiffness const., gyromag. factor 14116
GdTbFe(Co) magneto-optic media, domain wall mobility meas. 14232
Ho_2Fe_{17}, single cryst. magnetisation meas. 39161

ferromagnetic materials continued
$Ho_2Fe_{14}BH_x$, short-range mag. after-effect 39157
$Ho_2Fe_{17-x}Ga_x$, mag. props., struct. 7217
MnAl thin films, cryst. struct., mag. props. 6992
MnAs film, epitaxial ferromag., MBE on GaAs, struct., mag. props. 6974
MnBiDy alloy films, PM and struct. props. 7002
Nd-Dy-Fe-B sintered PM, coercivity ang. depend. 39196
Nd-Fe-B PM, magnetis. procs., torsion pendulum magnetometry 39133
Nd-Fe-B, anisotropic, microstruct./mag. props. 6967
Nd-Fe-B anisotropic powder, H decrepitated, XRD obs. 6971
Nd-Fe-B based particulate magnets, polymer bonded, fluct. fields 39207
Nd-Fe-B high-dens. bonded magnets, PTFE 5907
Nd-Fe-B, hydrogenation/disproportionation/desorpt./recomb. study 6970
Nd-Fe-B magnets, extruded, sintered, mag. props. 39199
Nd-Fe-B magnets, flux stabil. in direct joule heating 6988
Nd-Fe-B magnets, texture determ. method 7206
Nd-Fe-B sintered magnets, Nd-Fe-O intergranular phase, coercivity effect 39190
Nd-Fe-B-Co(Ga)(Zr) anisotropic powders, HDDR treatment, mag. props. 6984
Nd-Fe-Co-B die-upset magnets from dissimilar ribbon blends 6965
Nd-FeCoNi-B-AlTi melt-spun ribbons, corros./mag. props. 30681
$Nd_{4.5}B_{18.5}Fe_{77}$ ribbons, melt-spun, Mossbauer and mag. study 39159
$(NdDy)_{15}Fe_{78.3}Al_{0.7}B_6$, sintered, electrochem. hydrogenation 6972
$Nd_{2-x}Dy_xFe_{14-y}Co_yB$ sintered magnets, remanence/coercivity 6973
(NdDy)(FeCo)B-W sintered magnets, domain-wall pinning 6985
$(NdDy)_{15}Fe_{67}Co_5V_4Al_2B_7$, sintered, electrochem. hydrogenation 6972
$Nd_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
$Nd_{14}Fe_{79}B_7$ magnets, recomb. and desorpt., HDDR proc. 6983
$Nd_2Fe_{14}B$, interstitially-modified PM 30672
$Nd_2Fe_{14}B$, spin reorientation transits., X-ray circ. mag. dichroism 39158
NdFeB-based magnets, neutron depol. ang. depend. 39200
$Nd_{15.4}Fe_{75.7}B_{6.7}Cu_{1.3}Nb_{0.9}$ sintered magnets, prep./TEM 6968
$Nd_2Fe_{14}BH_x$ powders, synthesis and mag. props. 39128
$Nd_2Fe_{14}BH_x$, short-range mag. after-effect 39157
$Nd_2(Fe_{1-x}Co_x)_{23}B_3$ ($0 \leqslant x \leqslant 1.0$), struct., mag. props. 6980
$Nd_3Fe_{29-x}Ti_x$, mag. and cryst. struct. 6945
$NdFe_{12-x}V_x$, mag. props. 39150
$NdFe_{12-x}V_xN_y$, mag. props. 39150
$NdGa_{1-x}Ge_x$, mag. props. 14158
$Nd_{17-x}Pr_xFe_{75}B_8$ sintered magnets, mag. props. 39198
NdTbDyFeCo/DyFeCo-ultrathin bilayer, thermomagnetic recording behavior 14231
Ni filaments in porous Si matrix, mag. props. 6996
Ni single domain nanoscale bars, switching field, size effects 6997
Ni-Cu, ferromag. precip., giant magnetoresist., comp. depend. 39134
NiCoFe/Cu, giant magnetoresistive thin-film read head devices 7075
NiFe thin film, act. galvanomagnetic device possibility 39213
NiFe thin films, galvanomagnetic EMF effect *(Japanese)* 30675
$Ni_{80}Fe_{20}$, sputtered film on Si, struct., mag. props. correl. 14150
NiFe/Ag, giant magnetoresistive thin-film read head devices 7075
NiFe/Co/Cu/Co/NiFe NiCoO exchange biased spin-valve struct., MR heads 7078
$Ni_{81}Fe_{19}/Co_{67}Cr_{33}$ multilayers, perp. recording media, soft mag. props. 7042
$(Ni_xFe_{1-x})_yAg_{1-y}/Ag$ multilayers, low field giant magnetoresist. 7064
$Ni_{76}Fe_{10}Co_{14}/Cu$ giant magnetoresistive multilayers, permeab., read heads 7076
$Pb_{1-x-y}Sn_yMn_xTe$, transport and mag. props. 38271
Pd/Co multilayers for perp. mag. recording 7041
$Pr_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
$PrFe_{12-x}Mo_x$, mag. props. 39149
$PrFe_{12-x}Mo_xN_y$, mag. props. 39149
PrNdFeB amorph. precursors, mag. hardening by crystn. 6987
Pt/Co multilayers, Ar-sputtered, anisotropy energy and coercivity, magneto-opt. recording 14545
Pt/Co multilayers, interface struct., perp. mag. anisotropy 39175
Pt/Pd/Co multilayers, interface struct., perp. mag. anisotropy 39175
R-Fe-B magnets, magnetis. reversal crit. fields in indiv. grains 39197
R-Fe-M systs., (M=Ti,V), struct., high mag. anisotropy 39163
$RCo_{10}Mo_2$ (R=rare earth) PM, mag. props. 6986
RE-Fe-B PM, thermal remagnetization effect 39209
R_2Fe_{17} (R=rare earth), interstitial insertion, vol. effects, mag. props. 39144
$R_3(Fe,M)_{29}X$ (R=Ce,Pr,Nd,Sm,Gd; M=Ti,V,Cr,Mn; X=H,N,C), permanent mag. props. 6944
$R_3(Fe,Ti)_{29}$, (R=Nd,Sm), Mossbauer studies 39208
$R_2Fe_{14}B/Fe$ nanocomposite exchange coupled magnets, struct./mag. props. 7009
$R_2(Fe_{1-x}Ga_x)_{17}$ (R=Y,Sm,Dy,Ho), mag. props. 39143
$RFe_{10.5}Mo_{1.5}C_x$ series (R=rare earth), synthesis, mag. props. 30669
$RFe_{11.35}Nb_{0.65}N_y$, pure and nitrided, (R=Y,Sm,Gd,Tb,Dy,Ho,Er,Lu), struct. and mag. props. 22688
$R_2(Fe_{1-x}Si_x)_{17}$ (R=Dy,Y), struct. and mag. props. 7017
$RFe_{10}V_2N_x$, (R=Y,Nd,Sm,Gd,Dy,Er), mag. props., mol. field theory anal. 30671
$R_2Fe_{14}ZH_x$ (Z=B,C;R=rare earth), spin reorientation transit., hydrogenation effects 39156
Si steel, magnetostriction meas., LDV 14125
SiFe, rapidly quenched, power losses, dyn. Preisach model 14154
SiFe, soft mag. materials, reversible procs. 14111
Sm-Co based particulate magnets, polymer bonded, fluct. fields 39207
Sm-Co/Cr thin films, Cr underlayer microstruct., mag. props. 39154
Sm-Co/Cr thin films, nanostructures 6962
Sm-Fe-Ga-C, melt-spun alloys, high coercivity 39204
Sm-Fe-Ti, rapidly quenched, struct./mag. props. 39206
Sm-Fe-Ti/nitrides, mag. props. 14160
$Sm_{10}(Fe,V)_{90}N_y$ with $TbCu_7$-type struct., melt-spun, mag. props. 14159
$Sm_{12.5}Fe_{87.5}$ nitride, mech. alloyed, nitrogenation behaviour and thermostability 1574
$Sm_2(Fe,V)_{17}N_y$ coarse powder, struct., mag. props. 7001
Sm_2Fe_{17}, SiH_4 treatment, mag. props. 39142
Sm_2Fe_{17}, high field magnetis. 7198
Sm_2Fe_{17}, magnetocrystalline anisotropy 39139
Sm_2Fe_{17} powder, Nb-modified, nitriding 6947
$Sm_3(Fe,Ti)_{29}N_5$, mag. props. 14155
$Sm_2Fe_{17-x}Al_x$, PM, Mossbauer study 7199
$Sm_2Fe_{17-x}Al_xC$ (x=2-8), arc melted, struct., mag. anisotropy 7215
$Sm_2(FeAl)_{17}C_x$, arc-melted, Al-effect on mag. props. 39201
$Sm_2Fe_{17}C_x$, high field magnetis. 7198
$Sm_2Fe_{17}C_xH_{5-x}$, high field magnetis. 7198

ferromagnetic materials continued
$Sm_2Fe_{17}C_xN_y$, synthesis and mag. props. 1573
$Sm_2Fe_{17-x-y}Co_yAl_x$, uniaxial mag. anisotropy 7216
$Sm_2Fe_{17-x-y}Co_yGa_x$, uniaxial mag. anisotropy 7216
$Sm_2(Fe_{1-x}Co_x)_{14}Ga_3C_2$, arc melted, struct., mag. props. 7219
$Sm_2Fe_{14-x}Co_xSi_2$-based quasiternary syst., mag./struct. props. 6946
$Sm_2(Fe_{1-x}Ga_x)_{17}$ (x=0-0.5) cpds. and nitrides, mag. props. 7218
$SmFe_{12-x}Mo_x$, magnetocrystalline anisotropy 39151
$Sm_2Fe_{17}N_3$, Zn-bonded magnets, AC/differential DC-suscept. 39191
$Sm_2Fe_{17}N_3$ magnet fabricated by shock-compaction tech. 22685
$Sm_2Fe_{17}N_x$, partially oxidized, mag. props. 39202
$Sm_2Fe_{17}N_x$ powders, powder and HDDR method prep., coercivity mechanism 22686
$Sm_2Fe_{17}N_x$ with discontinuous nitrogen profiles, mag. props. 39203
$(Sm_{1-x}Pr_x)_2Fe_{17}$, Curie temp., coupling model 7018
$(Sm_{1-y}Pr_y)_2Fe_{17}N_x$ magnets, remanence enhancement 30678
$Sm_{1-x}Tb_x(Fe_{0.2}Co_{0.8})_2$, hydrogen-induced mag. anisotropy, cryst. lattice distortions 39164
Tb-Dy-Fe, Terfenol-D, mag. props., hydrogenation effects 7015
Tb-Dy-Fe twinned terfenol-D crysts., anisotropy 7013
TbDyFe, microstruct., mag. props. 39136
$(Tb_{0.6}Dy_{0.4})_{0.42}Fe_{0.58}$, magnetization, Young's modulus and magnetostriction 7004
$(Tb_{0.6}Dy_{0.4})_{0.72}Fe_{0.28}$, magnetization, Young's modulus and magnetostriction 7004
$(Tb_{0.6}Dy_{0.4})_{0.9}Fe_{0.1}$, magnetization, Young's modulus and magnetostriction 7004
$Tb_xDy_{1-x}Fe_{1.95}$, device oriented magnetoelastic props. 7014
$(Tb_xDy_{1-x})(Fe_{1-y}Mn_y)_{1.95}$, mag. props., magnetostriction 7005
TbFe magneto-opt. films, nanostructure and chem. inhomog. 14113
TbFeCo, films, amorph., magnetis. reversal, grooves effect 14114
TbFeCo/Ta multilayers, mag. and magneto-opt. props. 14200
TbFe(SmFe) magnetostrictive thin film actuators, fab. 30752
$Y_2Co_{14}B_x$, PM, NMR/mag. meas. 39192
Y_2Fe_{17}, SiH_4 treatment, mag. props. 39142
Y_2Fe_{17}, single cryst. magnetisation meas. 39161
$Y_2Fe_{17-x}Ga_x$, mag. props., struct. 7217
$Y_2Fe_{17-x}Ga_xC_2$, form. and mag. props. 39141
$Y_2Fe_{17-x}M_x$ carbides (M=Al,Si), mag. props. 39140
$Y_2Fe_{17}N_3$, pure and nitrided, magnetocrystalline anisotropy 39139
γ-Fe_2O_3:Co,Zn thin films, fab. and mag. studies, disk media 6964

ferromagnetic-paramagnetic transitions
see also Curie temperature
$Y(Co_{1-x}Al_x)_2$, itinerant electron metamagnetism 6998
$Y(Co_{1-x}Fe_x)_2$, itinerant electron metamagnetism 6998
$Y(Co_{1-x}Ni_x)_2$, itinerant electron metamagnetism 6998

ferromagnetic resonance
fine mag. particles, FMR studies 22695
granular giant magnetoresistive materials, ferromag. resons. 7050
metal audio tapes, FMR 14239
metal particle oriented tapes, FMR spectra 7134
permeab. meas. in GHz range for soft-mag. film 25956
two-layer iron garnet films, FMR doublet 7025
Ba hexaferrite particles, sol-gel prep. 7024
$BaCoTiFe_{10}O_{19}$ films, sputtered, struct., mag. props., heat treatment effects 14194
Co/Al superlattices, mag. props., interlayer coupling 30706
Co/Cu multilayers, interlayer coupling, vibr. sample magnetometry/FMR study 39177
Co/Pd multilayers, FMR and NMR 30714
Co-γ-Fe_2O_3 oriented tapes, FMR spectra 7134
CrO_2 oriented tapes, FMR spectra 7134
$Cu_{80}Co_{20}$, melt-spun ribbons, mag. props. 6949
$Cu_{80}Co_{15}Fe_5$, melt-spun ribbons, mag. props. 6949
Fe/Cu, multilayers, interlayer coupling, FMR meas. 30700
Fe/Cu multilayers, mag. props. 30703
Fe/Gd multilayers, magnetostriction, ferromag. reson. meas. 30691
FeCo/Cu, multilayers, interlayer coupling, FMR meas. 30700
FeCoNi/Cu, multilayers, interlayer coupling, FMR meas. 30700
γ-Fe_2O_3 oriented tapes, FMR spectra 7134
Li-ferrite, Ti-doped, mag. aftereffect meas. 14197
LiZn ferrite laser-deposited films, mag./struct. props. 14190
$Mn_{0.05}Mg_{1.9-2x}Fe_{4x}O_{4+\gamma}$-$Al_2O_3$ ferrite, microwave loss *(Korean)* 30687
Ni-Zn ferrites, films, microwave props. annealing effects 14178
$Ni_{81}Fe_{19}/Co_{67}Cr_{33}$ multilayers, perp. recording media, soft mag. props. 7042
Sr hexaferrite particles, sol-gel prep. 7024
YIG films, low energy ion bombard., surface spin pinning 14177

ferromagnetism
see also ferromagnetic materials; ferromagnetic resonance; Ising model; spin waves
guided nonlin. EM surface waves 39152
hard mag. particles in 2D and 3D, nucleation fields, micromagnetic calcs. 6948
quartz resonator mag. sensitivity, orig. and meas. 30615
Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152

ferrons *see magnetic polarons*

ferroresonance
see also ferroresonant circuits
capacitor voltage transformers, ferroresonant oscills. 27788
power open-phasing, self-generated overvoltage studies 27779
power systs. bifurcations/chaos education, student lab. 20349

ferroresonant circuits
microstrip ring vibrator params. on ferrite substructure 37957

Feshbach resonances *see resonant states*

FET *see field effect transistors*

FFT *see fast Fourier transforms*

FGD *see flue gas desulphurisation*

FHP motors *see fractional-horsepower motors*

FIB etching *see focused ion beam technology; sputter etching*

FIB technology *see focused ion beam technology*

fibre distributed data interface *see FDDI*

fibre-in-the-loop *see optical fibre subscriber loops*

fibre laser amplifiers *see fibre lasers*

fibre lasers
1.3 μm opt. fibre amps., device perform. and systs. impact 34065
1.3 μm Raman fibre-optic amp. 1872
1.55 μm long-span fiber-optic distributed temp. sens. 17835

fibre lasers continued
1.7-Gbit/s opt. amplified terrestrial lightwave syst. deployment in USA 17241
2.5 Gbit/s 407 km repeaterless opt. fiber transmitters 34011
2.5 Gbit/s transm. expt., 1000 km of std. single-mode fibre, 1550 nm *(English, Italian)* 33993
4×4 lossless opt. switch for photonic switching 9144
10 Gb/s transm., 5800 km opt. amplified testbed 42447
10 Gbit/s periodically amplified WDM soliton syst., filtering effects 17267
10-Gbit/s 280-km nonrepeatered transm., suppression of modulation instabil. 9509
10-Gbit/s four-channel dense WDM transm. 9488
16-Gbit/s TDM/polariz.-division-multiplexed syst., compensation tech. 9126
100-Gbit/s TDM opt. transm., two tunable Er-doped fiber lasers 9490
400 nm/3.4 μm fiber components and lasers 7562
622 Mbit/s self amplified Raman repeaterless fiber link 17350
980 nm Bragg fibre grating coupled diode laser wavelength and intens. stabilisation 9431
1550 nm fiber lightwave systs., dispersion compensation 17242
1550 nm opt. AM-SCM systs., self-PM induced second order distortion 34095
ACOFT, optical fibre technol. conf., Australia (1994) 28253
act. SBS fibre amp./filter opt. clock recovery 39363
Alcatel 1610 opt. amp. family 25501
Bellcore Research Network opt. SONET/ATM layer implement. 9512
Bragg grating fibre laser, compressive stress tuning 14742
Brillouin fiber amp., spectral gain hole burning and modulation instabil. 23122
Brillouin fiber laser with ring resonator, two-freq. output 31231
Brillouin fiber ring laser, freq. stabil. 14762
cascaded fiber amp. syst. gain filtering 7575
cascaded hybrid silica and fluoride-fibre-based amps., perform. 31239
cascaded Kerr birefr. fiber PM simul. 7806
CATV return path laser systs. 42620
chirped Bragg gratings for all-fibre fs pulse amplif. cct. 31230
colloquium, optical solitons, London, UK (Nov. 1994) 62
CPFSK coherent opt. transm. for repeaterless submarine syst. *(Japanese)* 16994
cross phase modulated fiber laser modelocking 1880
DBR fibre laser, tunable, sampled fibre Bragg gratings 14764
DFB fibre chirped laser, transm. charact. 39702
direct-detect. transm. systs., opt. amp. posn. depend. 9581
distributed fiber-optic temp. sens. *(Japanese)* 1681
distributed-Brillouin-gain spectrum meas. in opt. fibers by single laser source 7315
double coupler amplified fiber-optic delay line filter 14404
double-clad fiber laser, LD bar array pumping 39323
DPSK receiver, opt. preamplified/demodulated, act. delay-line stabilization 17208
DSSC lin. for wide dyn. range opt. link 9538
EDFA modelling, num. methods efficiency 14768
electro-opt. tunable, fibre optic sens. systs. 14770
electroabsorption modulator integrated laser transmitters 17225
electroabsorption modulator module *(Japanese)* 42463
Er-doped fiber amps., polariz.-independent regenerator 14655
Er-doped fibre amp., polaris. hole burning, time dyn. 14755
external cavity fiber grating laser, coherent opt. freq. domain reflectometry 18122
Fabry-Perot polariz.-maintaining fiber interferometers, fab. and charactn. 9922
femtosecond fiber lasers, third-order dispersion 1873
fiber bandwidth in opt. amp. links 9597
fiber commun. systs., opt. device trends *(Japanese)* 42462
fiber ring Raman laser, lasing threshold near group vel. zero dispersion region 7560
fibre optic sens. technol. evol. and commercialisation 17818
fig. of eight fibre lasers, mode locked by Sagnac interferometer 31455
fig.-of-eight fibre laser for soliton transm. expts. 42453
FITL CATV syst. for broadcast/interactive services 42628
FLAME project, fibre laser acousto-optic modulators 9479
fluoresc. Tm^{3+}-doped fluoride fibre, H_2O detect. 18163
fluoride glass act. opt. waveguides for laser sources 14767
fs harmonically mode-locked fiber laser, time jitter below 1 ps 23130
FSA submarine opt. amp. syst., rem. supervision *(Japanese)* 16993
Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
glass fiber Raman gain spectrum meas., fs pulses 22808
in-line fiber amp. systs., noise evol., nonlin. refr. index 14751
in-line opt. amp. systs., num. simul. *(Japanese)* 14738
in-line opt. amp. systs., SNR degrad. *(Japanese)* 42396
IR commun. fiber amps. 9525
isotropic fibers, rot. vector solitary waves 23437
LEOS, San Jose, CA, USA (1993) 20270
lin. repeatered terrestrial SDH transm. systs., bit-interleaved Hamming code 42440
LINK Optoelectronic Systems Programme, London, UK (June 1994) 20
long span submarine opt. fiber transm. systs., evol. *(Japanese)* 16991
long-dist. soliton transm., 20 Gbit/s, alternating-amplit. solitons and opt. TDM 34018
long-haul opt. fiber commun. syst. dispersion, distributed in-line group-delay equalizers 17250
long-haul transm. systs., fibre amps., double Rayleigh backscatt. 33982
long-span 2.5-Gbit/s CPFSK coherent opt. transm., power EDFA boosters 34000
low coherence reflectometry, tunable narrowband light source, symm. crossing config. 18127
mid-IR fiber ring SBS devices and appls. 30894
mode-locking by pump pulse induced cross-PM 31233
multi-amp. syst. fiber four-wave mixing, nonuniform chromatic dispersion 17333
multiaccess star network archit., WDM/SCM 42437
multiplexed vol. holograms, WDM appls. 7319
multiwavelength fiber-amp. cascades for networks 9502
mutual injection locking of fibre laser and DFB semicond. laser 14758
Nd:glass fibre laser, pass. mode-locked, soliton generation at 1.06 μm 30860
nonlin. coupler laser, subpicosecond soliton form., num. simul. 2045
nonlin. opt. loop mirror demultiplexer, extinction ratio and switching efficiency, error rate perform. 17176
nonlin. optics, high power opt. amplif. 34059
OFC, San Jose, CA, USA (Feb. 1994) 5447
OFDM-LAN transparent all-opt. interconnection 17346

fibre lasers continued
opt. commun. syst., characts. anal. 9455
opt. fiber networks, WDM, amp. custom-coded simul. 25540
opt. preamplified PPM receivers, laser intersatellite commun. 34036
organic dye-doped polymer opt. fiber amp. 23110
OTDR by quaternary FSK modulated probe and coherent detect. 34012
phase-modulated fiber laser, spectral stabil. and smoothness 25991
polarimetric fiber laser sens. 34551
preamplified opt. direct detect. systs., receiver noise effects 17178
pump induced modulation, saturable absorpt. opt. switch 31238
pump modules, InGaAs/AlGaAs strained quantum well lasers 1990
Raman efficiencies in opt. fiber 7573
Raman fiber amp. cross talk bandwidth 14752
Raman soliton laser, femtosecond opt. pulse generation 1874
rare earth doped fiber laser review *(Japanese)* 1876
rare earth doped opt.-fiber preamplifiers for ladar detect., SNR 9653
rare earth-doped fiber laser clusters, rate eqns. 31225
rare earth-doped fluoride fiber amps./lasers, telecomm. appls. 31224
rare-earth-doped lasers appls. 23124
repeaterless opt. commun. syst. 3543
ring laser, opt. mode-locked, cross-PM 23121
ring laser, simul., split-step Fourier method 39694
ring laser config., collective coord. 14996
saturated EDFA/OTDR testing, transient gain compression effects 10045
SBS stationary fibre amps., coherent 3-wave model 14733
scalable lightwave network self-regulating WDM amp. module 9457
self-starting fibre ring laser for distributed sens. 17832
semicond. lasers in opt. broadband commun. *(German)* 7644
side-polished fiber fab., negligible opt. loss 30892
sig. jitter, ASE 14769
single-mode silica fibers, Raman amplif. of coherent Stokes wave on biharmonic laser pumping 15084
smart struct. sens., Bragg grating laser systs. 34538
solid-state tapered opt. fibre devices 30850
soliton data transm. over 200 km, polaris./time-domain multiplexing, 160 Gbit/s 34070
soliton fiber laser, filtering optimiz. 14736
soliton polariz. rot. 23138
soliton pulse trains in fibers, discrete amps. 40037
soliton self-freq. shift recovery by opt. phase conjug. 2067
soliton transm. control, ultra high speed syst. 34017
spectrum-sliced fiber-amp. light source for multichannel WDM appls. 9599
strained layer QW semicond. lasers for pumping Er^{3+}-doped opt. fiber amps. *(Japanese)* 3566
stretched-pulse additive pulse mode-locking 23137
submarine cables, EDFA repeaters, data transm. 33981
submersible opt. repeater unit 25537
survivable interoffice networks, video/inform. transport 9099
tellurite:Pr(Nd)-based glasses, 1.3 μm emission studies 7561
tunable continuous-fibre-optic bandpass filter, sens. appls. 14390
twisted fiber laser polariz. props. 31222
two-branch double-stage phase-diversity coherent receiver, 3×3 fiber coupler 9470
undersea cable systs., design requirements 33995
undersea opt. amplified repeatered technol./products 33996
unrepeatered transm., 2.5 Gbit/s, 410 km of fibre 9428
unrepeatered transm., FEC 33980
unrepeatered transm., rem. pumped post/pre-amps. 34050
1.3/μm opt. fiber amp., LD pumped Nd:YLF laser *(Japanese)* 42465
AlGaAs BH photonic devices, melt etching, LPE regrowth 12119
As-S chalcogenide glass single-mode active fibre waveguide 39706
EDFA-repeatered syst. in-service fault-location 9430
Er,Yb:phosphosilicate fiber Fabry-Perot lasers, continuous/discrete wavelength tuning 31220
Er,Yb-doped fiber amp. source of multigigahertz soliton pulse train 7566
Er,Yb-doped tunable fiber sliding-freq. soliton laser 14765
Er doped fiber amps., high-power 1.48 μm LD 31213
Er doped fiber ring laser, mode stabil. 15002
Er doped fibre amp., grating pump reflectors, gain 14749
Er doped fibre amp., single-mode, kilowatt pulses 14748
Er doped fibre amps., filter based WDM, reliab. 3540
Er doped fibre amps., gain peaking, undersea appls. 14746
Er doped fibre amps., minimised gain tilt for CATV transm. systs. 3554
Er doped fibre amps., pol.-depend. gain meas. 31210
Er fiber loop lasers, ultrashort pulse solitons 31229
Er modelocked fibre laser, 10 nJ ps pulse generation 23112
Er^{3+},Pr^{3+}-codoped CW fluorozirconate fiber laser operating, 2.7 μm 7570
Er^{3+} doped ZBLA laser, upconversion lasing 39717
Er^{3+} doped amp., normally dispersive fibers, single-mode 1696
Er^{3+} doped fiber laser, self pulsing chaos, antiphase dynamics 39715
Er:SiO_2 planar waveguide amp. based modelocked ring laser 23132
Er:ZBLAN fibre, up-conversion cascade laser 31208
Er^{3+}:Al_2O_3-SiO_2 fibre amp., SiO_xN_y pass. selective filter for gain spectrum flattening 14574
Er^{3+}:Yb^{3+}-codoped fiber DFB laser 23116
Er^{3+}:Yb^{3+}-doped low-noise grating-feedback fiber laser 7567
Er^{3+}:ZBLAN fiber laser, 2.7 μm output saturation 39701
Er^{3+}:ZBLAN fluoride fiber lasers in multiple cascade operation 39698
Er^{3+}:ZBLAN singlemode fibre lasers, 2.71 μm output power limits 23113
Er-doped 980-nm single-pump recycled fibre amplifer optim. 31226
Er-doped Kerr-type mode locking fiber laser stabilization 7565
Er-doped act. fibre laser soliton pulse compressor 1877
Er-doped amp. fibers, H-induced-loss increases 14753
Er-doped birefr. fiber amp. polariz. distortion 31216
Er-doped bridge-type bidirectional fiber amp., 622 Mbit/s operation *(Japanese)* 25486
Er-doped coupled-cavity fiber lasers incorporating fiber-grating reflectors 7564
Er-doped distrib. fiber amp., pol. depend. of soliton interacts. 34019
Er-doped femtosecond mode locked all-fiber ring lasers 31241
Er-doped fiber MOPA, act. noise reduction 7563
Er-doped fiber amp. AM CATV syst. RIN noise 9576
Er-doped fiber amp. DCS 17203
Er-doped fiber amp. WDM links 42415
Er-doped fiber amp. cascade, WDM syst. perform. optimisation 42416
Er-doped fiber amp., cascaded, gain-peak wavelength, Al-conc. depend. 14744
Er-doped fiber amp., dyn. gain compensation for multiwavelength transm. systs. 9598
Er-doped fiber amp. long-haul undersea syst. monitoring 17239

fibre lasers continued
Er-doped fiber amp. lossless wide-band reflective star coupler 17177
Er-doped fiber amp. polariz.-scrambled fiber-loop config., gain-peak-wavelength meas. 14359
Er-doped fiber amp. preamplified receiver perform. eval., ISI 25527
Er-doped fiber amp. propag./switching 34061
Er-doped fiber amp. repeated opt. soliton transm. technol. 42418
Er-doped fiber amp. repeater 2.5-Gb/s channel 1420-km transm. 9465
Er-doped fiber amp. test syst. 31211
Er-doped fiber amp., transient anal. 14737
Er-doped fiber amplifer chain link, polariz. scrambling improves SNR perform. 17238
Er-doped fiber amplifer chromatic dispersion eval. 34060
Er-doped fiber amplifer, counterpumped first stage suitable for long-haul soliton systs. 9567
Er-doped fiber amplifer gain peak meas. by spectral loss test 14745
Er-doped fiber amplifer noise meas. 7574
Er-doped fiber amplifer subterabit soliton transm., soliton control 9571
Er-doped fiber amplifer ultralong commun. systs., polariz.-depend. gain and loss 17240
Er-doped fiber amplified low-distortion WDM AM SCM 4×50-channel CATV transm. 9572
Er-doped fiber amplifiers, nonlin. wave mixing and dyn. controlled gratings 7577
Er-doped fiber amps., MQW-LD pumping module *(Japanese)* 42464
Er-doped fiber amps., Rayleigh scatt. effects 23133
Er-doped fiber amps., concatenated, 980-nm-pumped, gain peaking 7569
Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
Er-doped fiber amps., lin. approxs. 14771
Er-doped fiber amps., optimized noise perform. for AM-VSB distrib. systs. 7555
Er-doped fiber amps., undersea lightwave commun. 42414
Er-doped fiber amps./opt. isolator 23134
Er-doped fiber grating laser transmitter at 5/2.5 Gb/s, long-term BER transm. 34038
Er-doped fiber laser additive pulse limiting 31454
Er-doped fiber laser based fiber sens. 9920
Er-doped fiber laser config., wavelength switching 14735
Er-doped fiber laser mode locked by semicond. saturable absorber 31235
Er-doped fiber laser model, two-wavelength operation 39716
Er-doped fiber laser, quasi-periodic route, chaos 23135
Er-doped fiber lasers, Maxwell-Bloch mode-locking instabilities 23120
Er-doped fiber-ring laser, mode instabil. suppression 39697
Er-doped fibre amp., InGaAs-GaAs strained QW 980 nm pump laser 14843
Er-doped fibre amp., LD pumped, gain and bandwidth charact. of 1480 nm *(Chinese)* 14759
Er-doped fibre amp. for LOS opt. link 17291
Er-doped fibre amp. gain equalization by tunable coherent opt. transversal filter 39709
Er-doped fibre amp., low-latency soliton logic gates 7799
Er-doped fibre amp. noise characterizes high-speed photoreceivers 15191
Er-doped fibre amp., rem. all-opt. nanosecond gain switching 39695
Er-doped fibre amp. short pulse sources 9482
Er-doped fibre amplifer high power broadband ASE sources for spectrum-sliced WDM systs. 34066
Er-doped fibre amps., ASE effect on gain 7557
Er-doped fibre amps., polaris. hole burning, computer modelling 14757
Er-doped fibre amps., polaris.-depend. gain 14756
Er-doped fibre amps., sensitivity, H_2 14754
Er-doped fibre amps. spontaneous emission noise modelling 14734
Er-doped fibre laser, femtosecond pulse compression 31209
Er-doped fibre laser, mode-locked, stabilisation 23126
Er-doped fibre ring laser, asynchronous soliton mode locking 14740
Er-doped fig.-8 mode locked fiber laser stabilization 7568
Er-doped germanosilicate fibre laser fab. and opt. charactn. 14774
Er-doped in-line fiber amp. Kerr nonlin./noise 9444
Er-doped mode-locked fiber ring laser freq. stabilisation 23119
Er-doped multiwavelength fiber-amp. cascades for networks 42423
Er-doped opt. fiber amp., commun. appls. *(Japanese)* 3565
Er-doped opt. fiber amplifer coherent AM analog opt. links 17213
Er-doped opt. fiber amplified WDM ring network, channel-dropping filters 9563
Er-doped opt. fiber amps., 1.3/1.55 μm 7556
Er-doped pass. mode-locked fiber laser based on polariz. rot. in MQW waveguide 23123
Er-doped refl. insensitive fiber amp., isolator insertion 31215
Er-doped self starting fiber based soliton laser 14761
Er-doped single-mode fiber lasers, all-fiber subresonator 7571
Er-doped soliton fiber laser based on pulse width control, chirped fiber Bragg gratings 23129
Er-doped superfluorescent fiber sources for fibre optic gyroscopes 17831
Er-doped tunable fibre lasers, all-opt. relax. oscill. damping 31236
Er-doped twin-peak core fiber amp., polariz. 14750
Er-doped two-channel fiber amp., theoretical models 7558
Er-doped upconversion-pumped fiber amp. noise fig., theory 1881
Er-doped waveguide amps., short-length, conc. effects 14747
Er-doped widely tunable polariz.-stable fiber lasers 39700
Er^{3+}-doped fiber amp., low noise, fab., opt. preamplification expt. *(Korean)* 31218
Er^{3+}-doped fiber laser ASE green light 1878
Er^{3+}-doped fiber ring laser gyroscope appls. 3871
Er^{3+}-doped fiber ring laser, rot. sens. appl. 17829
Er^{3+}-doped fibre amp., polaris. hole burning suppression, unpolarised source 39708
Er^{3+}-doped fibre amps. for telecomm. systs. 17274
Er^{3+}-doped fibre dispersion-modified act. modelocked laser, chirped fibre grating 7552
Er^{3+}-doped intracavity LD pumped modulated fiber lasers 1879
Er^{3+}-doped opt. fiber amp., control ccts. *(Japanese)* 39711
Er^{3+}-doped opt. fiber amps. pumped by 1.45 μm and 1.47 μm LD *(Chinese)* 14760
Er^{3+}-doped silica-glass fiber parasitic upconversion mechanism anal. by 980 nm fluoresc. 39324
Er^{3+}-doped unidirectional fiber ring laser without isolator 31214
Er_{3+}-doped fiber amps and lasers for lightwave transm. systs. 39696
GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
Ge,F-codoped fiber fab. and device appls. 7338
Ho:ZBLAN fiber laser, upconversion, charactn., modelling 1903
La-doped fluoride glass fiber lasers, IR pumped 14773
Nd doped fiber laser, long./side-pumped, silicone coating 31228

fibre lasers continued
Nd^{3+} doped silica based fiber laser, Bragg grating 39713
Nd:fibre laser, quenched ion fluoresc., radiative lifetime 39705
Nd:glass fiber laser, cladding-pumping 23128
Nd:phosphate glass fibre-bundle laser, Q-switching 23114
Nd:silicate glass fiber waveguide lasers review 31223
Nd^{3+}:YAG DFB lasers, modulation bandwidth, nonlin. effects influence 23341
Nd^{3+}:ZBLAN fibre, short pulse propag./ampl. 14739
Nd-doped 1.064 μm fibre amp. 7553
Nd-doped double-clad fiber laser pumping, LD bar 7551
Nd-doped fiber laser, CW/self-pulsing regimes, stabilis. 39714
Nd-doped fiber laser, feedback-induced polariz. switching 14741
Nd-doped fibre lasers, polaris. related phenom. 14766
Nd-doped fibre switching by fast relax. of reson. nonlin. 31621
Nd-doped fs fiber laser, controllable dual-wavelength operation 23131
Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
Nd-doped high-power cw fiber laser, high beam quality 39704
Nd^{3+}-activated fibre lasers connected by single-mode couplers 23125
Nd^{3+}-doped fibre laser, coherent coupling, Y-jn. 39707
Nd^{3+}-doped lead-silicate glass fibers, fab., spectrosc. and laser perform. 31212
Pr^{3+},Yb^{3+}:ZBLAN glass, Pr 1.31 μm fluoresc. by opt. pumped Yb ions 23117
Pr^{3+} doped fluoride fibre amp., 1.3 μm 14792
Pr^{3+}:ZBLAN fibre amp. AM-VSB video link 3583
Pr^{3+}:ZBLAN upconversion laser, pump scavenging 39703
Pr^{3+}:chalcogenide glass fibre amps., 1.3 microns 7559
Pr^{3+}:fluoride fibre laser, opt. modelocked, pulse generation 14763
Pr-doped opt. fiber amps. 7576
Pr-doped opt. power fiber amp., saturated output power of +18 dBm 9602
Pr^{3+}-doped $CsGaSCl_2$ glass for 1.3 μm opt. fibre amp. 23118
Pr^{3+}-doped Ge-Ga-S glasses for 1.3 μm opt. fiber amps. 31240
Pr^{3+}-doped GeS_x-based glass fiber amps. at 1.3 μm, photolum. 31234
Pr^{3+}-doped blue upconversion fibre laser, optimised output coupling 31237
Pr^{3+}-doped fiber amps., temp. effects on amplif. charact. 31221
Pr^{3+}-doped fibre amp., short-pulse amplif. study 31227
Pr^{3+}-doped fluoride fiber amp., LD pumped, gain characts. 1875
Pr^{3+}-doped fluoride fiber amps., gain dyn. anal. 31217
Pr^{3+}-doped fluoride fiber amps., pump config. *(English)* 23127
Pr^{3+}-doped fluoride fibre amp., pumped, design optimisation 31219
Pr^{3+}-doped fluoride glass fibre upconversion laser, blue output power 23115
Pr(3+):ZBLAN fiber amplifer, emission cross-sect. spectrum of pump transit. 14772
SiO_2 cascaded fibre Raman amp. operating at 1.3 μm, high gain 31232
SiO_2 fiber nonlin., lightwave systs. 17209
SiO_2-core fibre ring oscillator, Nd laser pumped 14999
Tm:ZBLAN CW upconversion laser 14743
Tm:ZBLAN upconversion-pumped fiber laser, 810 nm telecomms. window 7572
Tm-doped 1.9-μm fluoride fiber laser amp., 1.6-μm pumped 23136
Tm-doped ZBLAN blue upconversion fiber laser theory 39710
Tm-doped fibre source, LD pumped, methane gas detect. by correl. spectrosc. *(Chinese)* 17973
Yb^{3+}:SiO_2 fiber lasers, sources 1, 1.2 μm 39699
ZBLAN fibre laser, rare earth doped, mirror deposition 39712

fibre optic cables *see optical cables*

fibre optic gyroscopes *see fibre optic sensors; gyroscopes*

fibre optic sensors
see also intelligent sensors; magneto-optical sensors; optical fibre telemetry
1.55 μm long-span fiber-optic distributed temp. sens. 17835
1 GHz sum/difference opt. modulator, E/H field meas. 18053
2-mode ellipt. core opt. fiber sens. 34708
3×3 couplers in fibre optic sens. systs. 17909
3D shape direction/posn. meas., opt. fibre sens. *(Japanese)* 10016
3D TDM LDA 18151
absol. and simultaneous strain/temp. measur., fibre sens. 17846
accelerometer, compliant cylinder design, perform. anal. 25862
accelerometer, compliant cylinder design, transducer mechanism 17859
accelerometer, non-contact 34530
ACOFT, optical fibre technol. conf., Australia (1994) 28253
additive stroboscopic fibre optic TV holography, vibr. anal. 15153
amorph. alloy microresonator for mag. field meas., ΔE effect 42898
angled facial data obtained by bright-spots matrix projection 3854
autocalibration of fibre optic strain sensor 25860
autocollimation laser refractometer, highly sensitive fiber-optic output 42961
biomedical fiber optic instrumentation, conf., Los Angeles, CA, USA (1994) 5465
biomedical fiber-optic micro press. sens. devel. *(Japanese)* 26357
biosensors, biotechnology-based recogn. elements 43187
birefr.-fibre sole wavelength filters 14394
Bragg grating fiber optic sens. for C fiber prestressed concrete highway bridge 34545
Bragg grating high-mag.-field probe 17827
Bragg grating sens., struct. monitoring in nuc. plants 25867
Bragg grating sens., temp. and strain meas. 42826
Bragg grating sens. for aerospace smart struct. 42825
Bragg grating temp. and strain sens. 17902
Brillouin fibre optic gyro, stable characts. 17830
Brillouin loss based distributed sens. 17901
Brillouin opt. fiber gyro ring-resonator, state of polariz. anal. 42822
cable fault location, fibre optic distrib. temp. sens. 10746
CDM, SLM 34549
chem. sens. develop., sol-gel procs. 17891
coal mine transportation arcing, detection/suppression method 20107
coated tapered opt. fibre sens. 9925
coherent opt. systs., recent trends 25480
concrete stress meas. fiber optic sens., polarimetric/white-light interferom.-based 25978
conf., biochem. and med. sens., Budapest, Hungary (1993) 5462
conference, Glasgow, Scotland (Oct. 1994) 11524
conference, optical fibre gratings and appls., London, UK (1995) 20234
conference, optical fibre sensing/systems, Mol, Belgium (Oct. 1994) 20240
confocal scanning fibre-optic interferometry 34557
continuous fibre component for opt. sens., multilayer overlay 17911
continuous ground water monitoring, sens. arrays 18911
corona discharge elec. wind meas. by opt. fiber interferometer 42830
current sens., birefr. exam. 9923

fibre optic sensors continued
current sens., Faraday effect of flint glass fibre 17822
current sens. optimisation for EHV environ. 3855
develop. trends, 1985-95 17877
develop. trends and commercialisation 17818
differential fibre-optic sens. of laser-generated ultrasound 34518
dil. mag. semiconds. for opt. sens./nonreciprocal devices 31018
diode laser wavelength shift meas. by fiber modal interferometers, altometer resoln. 25855
diode-pumped solid-state lasers in fiberoptic systs. 31283
distrib. network rem. monitoring/control syst. develop. 4667
distributed chem. meas., fibre optic/hydrogel probe 17834
distributed opt. fibre network strain/temp. meas. by Brillouin OTDR 34544
distributed opt.-fiber sens. by four-photon mixing pulse walk-off 42833
distributed temp. sens., Brillouin gain spectrum anal. based 17836
doped scintillating-fiber bundle particle detectors, cross talk 43108
dye-doped sol-gel coated fibre optic LED based O_2 sens. 9926
dyn. fiber specklegram sens. 25864
dyn. structural response, vibr. wire opt. fiber sens. 9927
eight-element fibre optic magnetometer array, undersea perform. 3865
electrets and electro-acousto-optic transduction 17820
electrolum. coupled opt. fibre chem. sens. 17889
embedded Fabry-Perot interferometric strain sens. 17894
embedded fiber-optic acoustic sens. for NDE 34540
embedded opt. fiber sens. syst. in member 34546
embedded opt. fibre data bus, inpact survivability 3864
embedded smart struct., low profile fibers appls. 17857
endless fiber-optic polariz. controller, low driving voltage and 30-dB extinction ratio 9566
endoscopes, fiber-optic and TV, nuc. plant equipt. inspection 25871
epoxy resin photoelastic fiber-optic strain gage 42834
evanescent field absorpt. sens. 3856
evanescent field fibre-optic Cl sens. 3861
evanescent wave gas sens., surface contamination monitoring 17890
evanescent-field sens.,, cross-sectional transformers 34534
excimer lasers, indust.-scale, automated control 31155
Fabry-Perot opt. fibre temp. sens. employing low coherence interferometry 34554
Fabry-Perot polariz.-maintaining fiber interferometers, fab. and charactn. 9922
Faraday effect current sens., flint glass fibre 17886
Faraday effect magnetometers, vibr. induced birefr. modulation compensation 17814
feeble grasping rubber opt. fiber sens. *(Japanese)* 18438
fiber subsystems/devices testing by high-resoln. reflectometry techs. 7313
fibre optic sens. for radiation dosimetry 18678
fibre-glass matrix sens. based composite, fracture 437
flexible struct. control appl. 9919
flint glass fiber for Faraday sens., polariz. props. 17823
fluoresc. Tm^{3+}-doped fluoride fibre, H_2O detect. 18163
fluoresc.-based fibre optic flow sens. scheme design 3866
fluoresc.-based lifetime meas. thermometer, subroom temps. 42823
four-element fiber grating sens. array, phase-sensitive detect. 17816
Fourier anal. of strain meas., birefr. opt. fibers 3862
FT dispersive opt. fiber spectrometer/interferometer, temp./strain meas. 25857
FT spectrometer, wavelength shifts decoding 17840
fusion-spliced birefr. fibre Fabry-Perot interferometric temp. sens. 34556
gamma irrad. effects on opt. fibre sens. syst. 25870
gas detecting fiber sens. *(Japanese)* 3860
glass reinforced polymer, low cost dyn. opt. strain meas. 10035
gradient hydrophones, Michelson interferometer 18937
graphite fibre reinforced epoxy laminated panels, opt. fiber embedded, low vel. impact 12194
graphite fibre reinforced PEEK thick composites, embedded SiO_2 opt. fibers, moire anal. 25852
grating interferometer, parallel receiver for fibre sens. 17842
gyroscope, North finder appl. 18803
heterodyne fibre-optic vibrometer, pass. instrum. head 17864
heterodyne polarimetric fiber-coil deform. sens. *(Japanese)* 3857
heterodyne sens., LD-pumped Nd:YAG laser appl. 17863
high sensitivity planar US microphone 18938
high temp. capabilities, temp. strain response 17876
high-temp. digital fiber-optic thermometer 17848
highly overcoupled fibre couplers to detect shifts in Bragg wavelength, strain sens. 34532
highly sensitive fiber-optic gyroscopes, fiber-optic polarizers 17871
holographic fibre grating struct. fab. and appls. in systs. 7296
HV elec. power apparatus monitoring by opt. fiber sens. *(Japanese)* 3859
hydrophones, demodulator optim., real world environ. 18941
in-line channel dropping filter, LB films 17910
in-line mode splitter, dual polarimeter in fibre 14374
in-line Sagnac interferometer for mag. field sens. 17884
in-vivo biomedical monitoring by fiber optic systs. 18434
inclination sens., plastic opt. fiber *(Japanese)* 25851
integrat. fiber optic sens., scaling/antenna gain 17895
integrat. sphere atten. meas. 1680
integrated opt. spectrometer, polaris. independent 14552
intell. proc. monitoring, MLC actuators fab. 17898
intens.-based sens., fibre optic Bragg gratings 34519
interferometer, ferroelec. relaxor strain response charactn. 39051
interferometer, guided-acoustic-wave Brillouin scatt. reduction meas. 25853
interferometric, develop. trends 17838
interferometric, FDM/TDM multiplexing topol. 17903
interferometric, photoacoustic spectrosc. in liqs. 17880
interferometric birefr. opt. fiber transducer 17870
interferometric fiber optic gyros and appls. *(Japanese)* 3858
interferometric fiber strain sens., chirped Bragg grating element 17879
interferometric fiber-optic sens. arrays, eigenvalues determ. 17908
interferometric fibre sens., phase nonmutuality LF noise 34529
interferometric hydropressure sens., temp. disturbances immunity 17917
interferometric meas. of strain, grating-coupled LED sources 18113
interferometric opt. fiber HV/current sens., field test 17821
interferometric opt. fibre sens. network, CDMA/WDM multiplexing 17906
interferometric opt. fibre sens. networks, freq. hopping multiplexing 17905
interferometric read-out and WDM 17882
interferometric sens., birefr. polaris. maintaining fibre 17853
interferometric sens., opt. demodulated 17852
interferometric sens., parasitic opt. cavity limitations 34539

fibre optic sensors continued
interferometric sens., source coherence synthesis, dyn. spectral filtering 34520
intraoperation luminesc. probe, biomedical studies 26306
intruder detect. syst. 17896
IR coherence-collapsed multimode LD for fiber-optic gyroscope 40176
IR syst. design, coherent IR fiber bundles 17869
large area av. temp. sens. 17872
laser ablation bubble, fiber optic probe method, time-resolved photography 43215
laser Doppler velocimeter, coherence dependence 26014
laser/light induced fluoresc. spectrosc., biomedical appls. 43214
LED based opt. sens., referencing, wavelength selection strategies 1816
LF fiber-optic phase modulators 14363
lifetime-based opt. sens. of pH 34729
lin. birefr. in opt. fibres, freq. derived meas. anal. 17915
long-dist. fibre-optic displacement sens. syst. 25872
luminesc. lifetime-based sens. for relative air humidity 3870
LV switchgear, fault arcs protection 5138
LV switchgear arcing fault protection 19891
Mach-Zehnder interferometric opt. fiber sens., act. homodyne demodulation 34531
mag. fiber-optic sens., magnetostrictive noise limitation 3852
magnetometer, rem. hybrid heterodyne technol. 34526
magnetostrictive fibre-optic sens., transducer self-noise 17883
mech. deform. meas., digital polarimetric sens. 17856
med. appls. of opt. fibers *(Japanese)* 4269
methane sens., source noise limitation 17975
Michelson interferometer sens., multiplexing in matrix array topol. 34528
microbend fiber optic sens., historical review 17843
microbend sens. perform., finite element/beam propag. methods 17858
microbending fiber optic sens., varying spatial freq. 34535
micromechanical fibre optic press. sens., temp. cross-sensitivity 17862
microwave-opt. transducers, S-matrix defn. 17815
milking systs., automatic, opt. teat inspection 34533
mines appls., Ge-doped fibre Bragg gratings appl. 17839
miniature Fabry-Perot interferometric sens., pass. sig. proc. 17851
miniature fibre-optic interferometric med. press./temp. sens. 18433
MLC actuators, intell. proc. monitoring, fiber sens. 10030
modal noise suppression in white light interferometer 17913
mode locked fiber laser gyroscope, polariz. charact. 17833
multi-analyte sens., microsensor arrays fab. 17893
multimode fiber Bragg gratings based 17878
multimode fiber interferometric syst., up- and down-lead fiber sensitivity 9915
multiple interferometrical config. *(Spanish)* 7289
multiplexed diode-laser sens. syst., gas/temp. meas. 7874
multiplexed low coherence demodulated Fabry-Perot strain sens. 17904
multiplexing of fibre-optic sens., scanning microscopy 17907
multiwavelength fiber drop analyzer for med. diagnostics 10220
NDT probe for mag. data storage materials 3869
near field opt. microscope, piezoelec. tip-sample dist. control 39088
near-field scanning opt. microscope fibre sens. tips fab. 42837
noise in fibre-optic Michelson interferometer, polariz. induced 17854
noncontact profiling of machined surfaces, fibre optic interferometry 18064
nonincremental interferometric fiber-optic simultaneous temp./strain detect. 25856
noninvasive E-field meas., integrated opt. sens. 18431
nonlin. fiber Sagnac opt. TDM switch 17336
nuc. environments, rem. Raman fibre optic spectrosc. systs. 25869
nuc. reactor instrumentation, prototype fiber optic sens. 25868
OFC, San Jose, CA, USA (Feb. 1994) 5447
opto-electronic interferometric sens. ccts., CAA/CAD 17761
optoelectronic science/engineering, conf., China (1994) 28207
organic detect. in soil, fiber optic near IR reflectance sens. 17920
orthogonal polariz. fiber gyroscope, stabil., resoln. 17817
OTDR, photon counting, data correction 22846
OTDR tech. for reflective markers monitoring 17837
pass. demodulated Michelson/polarimetric coupled fiber strain sens. 17866
pass. fiber-optic accelerometer, Si sens. element 9918
pass. fibre optic components/sens. systs., radiation sensitivity 22845
pass. fibre optic gyroscope develop. 17888
PCS opt. fiber for dose level sens. appl. 17892
periodic microbend bare fibre sens., stabilization/sensitivity 17919
PFBC thermal power plant fibre optic temp. sens. 35977
pH sens. based on immobilized dyes 34542
phase stepping in projected-fringe moire interferometry 18071
photoacoustic detect. of trace gases, opt. microphone 17984
photogenerated in-fiber gratings, simultaneous strain and temp. sens. 25873
photon scanning tunneling microscope, nanometric fiber probe 17847
photonanofabrication and opt. nanoprobes 22810
Photonetics develops., R&D activities 17875
photosensitive opt. fibers, devices and appls. in sens. and telecomm. 30854
physiological pH monitoring, fluoresc. indicator fibre optic sens. 43223
piezoelec.-driven inertial slider based STM 6926
planar fiber optic acoustic vel. sens. 34737
Pockels effect opt. fibre elec. field sens. 17868
polarimetric fiber laser sens. 34551
polarimetric fiber-optic sens., sig. meas. 25866
polariz. insensitive fibre-optic white-light interferometry 34521
polariz.-induced sig. fading suppression 17900
polariz.-maintaining distributed fiber-optic sens., software elimination of second-order ghost coupling points 42831
porous-clad fibres, tapered, gas sens. response time anal. 42829
porous-clad tapered fibers for gas detect. 25865
power cable fibre-optic sens. props. for quasi-intrinsic safety *(German)* 10744
power syst. insulation monitoring, fibre optic sens. appls. 19359
power syst. monitoring, fibre optic sens. appls. 4734
power syst. opt. current transducers, review 4735
power transm./distrib. equipt. condition monitoring, fibre optic sens.-based 43616
precision fibre-optic inertial sens., thermal procs. 34550
probing elec. discharges, opt. fibres 17828
proc. industries appls. of fibre optic sens. 17812
projectile high-vel. meas., hot-gas driven 34524
proximity sens., spindle stop posn. control 17897
pulse oximeter for mag. reson. scanners 18470
pyrometer for shock-wave studies 42824
quasidistributed fiber-optic interferometric pickups, seismology appl. 17867

fibre optic sensors continued
- radiation sens., fiber-optic-based, ionizing radiation det. 26503
- Raman OTDR distributed fiber optic temp. sens. 42821
- Raman sens., chem. anal. in nuc. waste tank environ. 18994
- Rayleigh backscatt. in opt. fibres, noise/sens. 17899
- reciprocal-compensated fibre optic elec. current sens. 17885
- referenced intens.-based opt. fibre sens. 34525
- refl. type electrooptic elec. field sens., $LiNbO_3$ opt. waveguide 25863
- reflective displacement sens. for shaft runout inspection 42828
- reflectometer sens., thin film amorph. semicond. interfaces, temp. meas. 34555
- reflectometry wideband beam-splitter mirror 3868
- reinforced concrete strain meas., opt. fiber sens. 34547
- rem. ellipt.-core dual-mode fiber strain sens., coherence-tuned interrogation 17918
- resonator sens., opt. phase amplif. 25861
- review, opt. fiber sens. technol. *(Spanish)* 9917
- ring and loop resonators with 3×3 fibre coupler, phase sensitivities 22829
- ring fibre interferometer, sig. drift by transient polaris. effects 3849
- ring-resonator for gyros 17887
- ripple pyrometry for wafer temp. meas. in RTA 25998
- roundness meas., on-machine mixed method 10025
- Sagnac interferometer, elec./mag. fields simultaneous meas. 17865
- Sagnac interferometer, fund. thermal induced phase flucts. in fiber loop 17921
- Sagnac interferometer, thermal induced phase flucts. 17855
- Sagnac loop opt. fibre current sens., polariz. depend. 17916
- Sagnac/Mach-Zehnder fiber-optic interferometer thermal procs. comparisons 42835
- sapphire fiber strain gage for static/fatigue meas. 17860
- sawtooth fringe counting for demodulated interferometric strain gauge 17881
- self-referenced fiber optic sens. for microdisplacement meas. 34537
- self-starting fibre ring laser for distributed sens. 17832
- shape-birefr. fibre sens. systs. employing photogenerated polaris. couplers 42827
- shipboard monitoring and control fibre-optic syst. *(Croatian)* 3551
- simultaneous meas. of strain/temp., fibre grating sens. 17845
- simultaneous temp./hydrostatic pressure meas. 25859
- single element fiber optic hydrophones 18936
- single-mode opt. fiber polariz. mode dispersion meas. by freq.-domain interferometer 1699
- SiO_2 fused fibre, pulsed UV laser radiation, photodegradation and nonlin. effects 39362
- smart civ. infrastructure, opt. sens. systs. 34548
- smart composites with embedded sens., in situ monitoring, diagnostic systs. 12220
- smart high temp. composites, opt. fibres, thermal spray/adhesive bonding 3853
- smart material syst., embedded opt. fibre sens. 34541
- smart materials and struct. appls. 17841
- smart struct., integrated sens. 3851
- smart struct. sens., Bragg grating laser systs. 34538
- smooth transm. spectrum fibre optic switch 7330
- soap bubble flowmeter, opt. fibre sens. 42836
- soil and groundwater contamination rem. monitoring 18910
- SONET opt. commun. components, cryst. controlled 17171
- speckle contrast ratio fiber vibr. sens. 34536
- spun lin. birefr. fibres, current sens., temp. compensation 3863
- strain sens. based on fibres permanent bends 17844
- sub-microvolt LF fiber optic voltage sens. 17826
- superluminescent diodes and modules, 800 nm 14639
- suppressed polariz.-induced sig. fading 34522
- surface press. meas. of monomolecular films *(German)* 17922
- surface-mounted fibre grating bending gauge, thermally-compensated 3867
- swellable polymeric/fiber optic distributed sens. for water and pH meas. 26001
- tapered monomode fibre, temp. meas. appl. 18130
- temp. and press. sens., min. invasive diagnostics 18432
- temp. sens., polymer ceramic composites 34543
- thermal detect. of enzyme-labelled antigen-antibody complexes 9946
- thermal noise, Mach-Zehnder vs Sagnac interferometers 17912
- thermal phase noise, Michelson vs Sagnac fiber interferometers 17914
- three-axis fiber optic magnetometers for undersea appls. 17824
- three-channel FDM fiber-optic LF voltage sens. 9921
- transcutaneous diagnostics, fibre optic devices 43264
- transformer tap-changer monitoring syst., fibre opt. sens. 44100
- transm. line, PV transformer for power take off 27291
- tunable continuous-fibre-optic bandpass filter, sens. appls. 14390
- turbogenerator thermal monitoring, NPP 17849
- turbomachinery, high bandwidth thermal meas. 17850
- turbulent medium, coherent opt. fiber sens. 34527
- twist-induced effects in opt. fibers, birefr. meas. 1683
- twisting-annealing tech. for opt. fiber 14391
- two metal-coated single-mode opt. fiber interferometric lin. elec. current sens. 9916
- two-mode fiber-optic time-delay scanner for white-light interferometry 25854
- two-mode fibre Michelson interferometer config., low-coherence excitation 3850
- two-mode fibres, intermodal interf., polariz.-mode atten. 30879
- two-photon spectrosc. techs. develops. and appls. 17819
- underground power cable fault location, fiber optic sens.-based 27277
- vibr. immunity for opt.-fibre current meas. 17825
- vibr. wires based, civ. infrastructure systs. appls. 17874
- waste-handling monitoring, fiber-optic chem. sens. 18916
- waveguiding struct. supported fields, transverse modal wts. determ. 30952
- wheel-rot. sens., magneto-opt. 17861
- white light interferometric fibre optic meas. systs. 17813
- white-light scanning fiber Michelson interferometer for absol. posn.-dist. meas. 42832
- X-Y meas. of elec. fields, μP based device 9990
- CdMnTe magnetic field sensor, fibre optic laser deposited 25858
- Co-Pd multilayers, stress, opt. fibre Y branch non-contact displacement detector *(Korean)* 18083
- Er-doped fiber laser based fiber sens. 9920
- Er-doped opt. fibre temp. sens. by green fluoresc. intens. ratio 34552
- Er-doped silica fibre high-temp. point sens. 17873
- Er-doped superfluorescent fiber sources for fibre optic gyroscopes 17831
- Er^{3+}-doped fiber ring laser gyroscope appls. 3871

fibre optic sensors continued
- Er^{3+}-doped fiber ring laser, rot. sens. appl. 17829
- H_2 gas sens., Extrinsic Fabry-Perot Interferometer 25901
- H_2 micromirror opt.-fiber sens. 9960
- Nd^{3+}-doped opt. fibre temp. sens., absorpt. shift, 595 nm 34553
- O_2 intrinsic phase fluorimetric sens. 17985
- O_2 opt. sens., nonlin. anal., phosphoresc. lifetime quenching 10181
- PMN ferroelec. relaxors, inhomog. dyn. strain charact. 30563
- PZT ferroelec. relaxors, inhomog. dyn. strain charact. 30563
- PZT phase modulators in opt. fiber sens., transfer fns. 34523
- Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
- SiO_2 opt. fibers, photoluminesc., Raman scatt. 22813
- TiO_2 film electrode electrolum. sens., H_2O_2 meas. 9924

fibre optical waveguides *see optical fibres*

fibre optics *see fibre lasers; fibre optic sensors; optical fibres*

fibre reinforced composites
- *see also carbon fibre reinforced composites; glass fibre reinforced composites*
- automated US NDT, form-fn. anal. 5931
- imperfectly bonded fibers, leaky guided wave propag. 12240
- opt. fibre-glass matrix sens. based composite, fracture 437
- plastic struct., AE monitoring, acoustic surface waveguides 4424
- plate wave velocities, field decay, acousto-US sigs. 10583
- polyethylene fibre reinforced plastics, frictional props. 12189
- reinforcement fibres, strain rates meas. 37569
- short fiber composite strain sens., elec. resist. change 28896
- US images of fibre reinforced plastics, automatic eval. *(German)* 12248
- Cu-Nb in situ composites, elec. sliding friction 5908
- Nb_3Sn fiber-reinforced superconds., thin film prep. *(Japanese)* 22721
- Ni-Ti fibre reinforced composite beams, lateral buckling control 37545
- SiC composite, erosion, launchers and fusion technology appls. 31769

fibre-to-the-curb *see optical fibre subscriber loops*

fibre-to-the-home *see optical fibre subscriber loops*

fibres
- *see also carbon fibres; composite materials; fibre reinforced composites; glass fibres; optical fibres; polymer fibres*
- buried dielec./mag. gratings of fibers, refl. 15411
- extremely small dia. thread detect., sig. proc. method 25748
- nonwoven batt. separator materials 36506
- reinforcement fibres, strain rates meas. 37569
- $LiNbO_3$ cladded fibers, acoustic wave propag. 35363

fibrinogen *see proteins*

field buses
- commun. controller chips 6169
- controller area network, real-time commun. anal. 3177
- FDDI commun., proc. control, fieldbuses connection 33497
- intell. local operating network for office and home automation 9002
- petrochemical indust. fire protection, intrinsic safety appl. *(German)* 11512
- proc. indust. fieldbus technol., standardisation efforts 41795
- proc. instrumentation, proc./syst. interfaces 9789
- sens. and IC's for instrumentation 9899
- std. field bus networks for indust. appls. 16509
- time critical data communications, conf., London, UK, Dec 1994 5508
- tobacco factory automation, SINEC commun. network 41899
- VXIbus embedded PC-based data acquisition 17688

field effect analogue integrated circuits
- *see also MOS analogue integrated circuits*
- analog IC BiCMOS-JFET radhard SOI technol., proton radiation effects 13904
- lin. power amp. for cellular telephone, envelope feedback method 12342
- MMIC distributed amp. based on design-oriented FET model 21564
- UHF multistage FET amp., harmonic terminating design tech. 12796
- GaAs FET IC, const.-current cct.-biasing technol. 13901
- GaAs MESFET transconductors, DC gain enhancement 730
- GaAs analogue MMIC, high yield, spray etch recess proc. 38029
- intell. parallel opt. link and LSIs 34055

field effect devices
- *see also field effect integrated circuits; field effect transistors; MIS devices; semiconductor-insulator-semiconductor devices*
- GaAs-AlGaAs, field-effect LD, picosecond, saturable absorpt. 2005

field effect digital integrated circuits
- *see also field effect logic circuits; field effect memory circuits; MOS digital integrated circuits*
- HEMT 20 Gb/s 2:1 data selector IC for commun. appl. 29339
- high speed MMICs/digital ICs, fab., T-gate technol. 858
- LV low power digital ccts., monolithic integrat. of RTD/HEMT 37691
- GaAS IC lab. at Motorola, CS-1 facility 37046
- GaAs MMIC generic const. phase digital attenuators 6340
- GaAs self-aligned complementary heterostruct. FET process 39019
- GaAs-AlGaAs FET-SEED technol. based ring oscillators 23057

field effect integrated circuits
- *see also charge-coupled device circuits; field effect analogue integrated circuits; field effect digital integrated circuits; field effect MIMIC; field effect MMIC; HEMT integrated circuits; JFET integrated circuits; MESFET integrated circuits; MOS integrated circuits*
- Australian microelectronics, conf., Gold Coast, Qld (1993) 5449
- FET-based OEIC photoreceiver design, syst.-level considerations 34081
- multichannel fiber-optic optoelectronic correlator 24427
- optoelectronic switch for SCM networks 17211
- pre-regulator IC, lateral IGBT and current mode sens. 29037
- semicond. press. sens. based on FET struct. 3785
- SOI technol. for high-temp. smart-power appls. 22614
- switchable-logic photonic switch array monolithically integrat. MSMs, FETs, and MQW modulators 14531
- ultrahigh-speed IC diagnosis, electro-optic probing 6835
- AlGaAs-InGaAs heterostruct. FET for high temp. IC 22493
- GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891
- GaAs MESFET SC third order ellipt. lowpass ladder filter *(Korean)* 734
- GaAs monolithic C-HFET preamplifier 4234
- GaAs opt. controlled FET, current modulation 7487
- GaAs/AlGaAs FET-SEED, smart pixels and saturation charact. 14657
- InGaAs/GaAs heterostruct. field effect opt. modulator 14516
- InGaAsP channel HFET OEIC photoreceiver 17258

field effect logic circuits
- *see also MOS logic circuits*
- 155 Mb/s FET-SEED free-space switching network 14649
- broadband ATM switches, optim. design for VLSI implement. 9136

field effect logic circuits continued
dual modulus prescaler IC, PHEMT struct. on Si substrs. 21296
E/D-DCFL inverters, sub-1V, propag. delay 12415
monostable-bistable transit. logic elements, RTD/FET integrat. 21234
prescaler IC, dual modulus 29082
redundant divider design, DCFL GaAs and CMOS implement. comparison 29201
SCFL inverters, anal. delay expression 37696
switchable-logic photonic switch array monolithically integrat. MSMs, FETs, and MQW modulators 14531
AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
AlGaAs-InGaAs E/D-HJFET LSI technol., 0.6 V 39022
AlGaAs-InGaAs MODFET based broadband dyn. freq. divider 38016
GaAS DCFL logic gates, timing macromodel 37717
GaAs ASIC set for deep space receiver 42336
GaAs DCFL ccts., timing macromodels 37710
GaAs DCFL logic gate ccts., delay/transit. time macromodels 21261
GaAs DDS, FM-CW, 1.25 GHz 37672
GaAs HMESFET SBFL based F-RISC/I microproc. 37802
GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
GaAs MESFET high speed adder, multiple-output domino logic 29127
GaAs PB-SAG DCFL, cct. design *(Chinese)* 604
GaAs PLL-based clock generator, 3.2 GHz, 50 mW, 1 V supply 12612
GaAs SAG-MESFET for supercomputers, proc., implement. 37721
GaAs buffered DCFL gate array, differential push-pull I/O 37720
GaAs digital IC design, compiler methodology 37716
GaAs dyn. logic, SEU study 12479
GaAs high speed cct. design/perform. estim., normally-off logic 29126
GaAs precharged low-power logic family, adder implement. 21264
GaAs tri-state driver flip flop, HFET LSI 37718
GaAs/WN_x/W-gate MESFET multiplexer IC, 0.5 μm, A 20 GHz 8-bit implement., fibre transm. 9546

field effect memory circuits
see also MOS memory circuits
SOS SRAMs, Harris 64K devices, radiation perform. 29237
AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
GaAs MESFET SRAM, current mirror memory cell 37774
GaAs SRAMs, total dose radiation hardening/testing 37773
GaAs Schmitt trigger memory cell design 37775
GaAs/BiCMOS/CMOS technol. memory archit., solid modelling accelerator 29214

field effect MIMIC
see also field effect MMIC
distributed baseband amp. IC module and MCM, 60 GHz bandwidth 6334
HEMT amp., modelling and characterisation 29605
HEMT MIMIC low noise downconverter, MMIC technol. 29606
multifunctional bal. switching LNA 12824
PHEMT millimetre wave MMICs, technol. 29604
pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
Q-band high-efficiency monolithic HEMT power prematch structs. 29584
V-band high gain monolithic PHEMT LNA design 21555
V-band MIMICs for pers. commun. terminals 38008
V-band pseudomorphic HEMT MMIC phased array components 38009
V-band pseudomorphic HEMT monolithic power amp. 12820
W-band high gain monolithic LNAs based on HEMTs 12818
W-band monolithic HEMT LNAs for microwave scanning radiometer 21558
AlGaAs/InGaAs PHEMT ultra LNA MMIC, 50 GHz band 29592
AlGaAs-InGaAs HFET MMIC power amp., V-band, high gain 38037
AlGaAs-InGaAs-GaAs HEMT monolithic LNA array, W-band 38027
AlGaAs-InGaAs-GaAs Ka-band MMIC power amp., HEMT proc. 38031
GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
GaAs Gilbert cell mixer IC fro coherent opt. transm. 42402
GaAs MIMIC TED-oscillator, 60 GHz, perform. 29590
GaAs pseudomorphic HEMT, MM wave power perform. 37991
GaAs pseudomorphic HEMT, high yield, mfg. technol. 39020
GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. 6338
In-P based microelectronics pilot line for commercial and military applications 12799
InAlAs-InGaAs W-band monolithic dual-gate HEMT mixer 38020
InAlAs-InGaAs-InP V-band monolithic HEMT downconvertor 38019
InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency 6339
InGaAs-GaAs HEMT MIMIC amp., high gain, 75-110 GHz 38025
InGaAs-GaAs MODFET MIMIC amp., 5-80 GHz, CPW 38026
InP HEMT DC, 38-GHz distrib. analog multiplier 6337
InP HEMT MMIC power amp., Q-band, high-efficiency 38036
InP HEMT MMICs, low noise, V-/W-band amplifiers 12802

field effect MMIC
see also field effect MIMIC
act. inductors for GaAs and bipolar technols. 21597
C-band MMIC FET oscillator, design, D05ML foundry proc. 29601
C-band monolithic vector modulator MMIC *(Chinese)* 38040
coplanar MMIC act. bandpass filters, neg. resist. ccts. 12819
design, low IMD 6332
distributed amp., design-oriented FET model 21564
HEMT LNA MMIC, act. regulated self-bias 12821
high speed MMICs/digital ICs, fab., T-gate technol. 858
injection-locked oscillator MMIC, act. combiner/divider 12815
Lange coupler power-distributed amp., high-perform. design 12814
lightwave-microwave mixing tech. using MESFET act. devices, MMIC compatible 29587
low-power technol. for GaAs front-end ICs and hybrid ICs, mobile commun. 38041
MESFET MMIC microwave oscillators, CAD 6329
miniaturised MMIC amps., thin dielec. layers 29586
narrow-band filter, ultrahigh-Q tunable act. inductors 12822
Philips Microwave D07M foundry proc., MMIC switch FET models 6331
planar two-mode channel FET, MMIC, pers. handy phone 38925
pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
pseudomorphic HEMT power amp. MMIC, wide/med. band 38033
triquint 0.5 μ MESFET device microwave transconductance amps. and filter ccts. 6327
two-level power combining using lens amp., patch antenna array, PHEMTs 12811
vector modulator, bal. design, C-band 12371
X-band MMIC power amp., two-stage, 2.5 W output 29600
X-band MMIC varactor-tuned VCOs, modelling and design 6342
AlGaAs/InGaAs MM-wave heterojunction FET MMIC oscillators *(Japanese)* 6336
AlGaAs-GaAs HEMT monolithic downconvertor for X-band DBS 42315

field effect MMIC continued
AlGaAs-GaAs HEMT-based MMIC mixers, indoor commun. 42237
AlGaAs-InGaAs MODFET based broadband dyn. freq. divider 38016
AlGaAs-InGaAs-GaAs Ka-band MMIC power amp., HEMT proc. 38031
GaAS IC lab. at Motorola, CS-1 facility 37046
GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
GaAs Gilbert cell mixer IC fro coherent opt. transm. 42402
GaAs L-band ultralow power LNA for mobile commun. 42234
GaAs MESFET CPW oscillators, supercond. resonator stabilization *(Chinese)* 37968
GaAs MESFET TWA MMIC, 2-12 GHz *(Chinese)* 38039
GaAs MESFET, buried channel self-aligned proc., MMIC appl. 38930
GaAs MESFET, capacitance model, microwave nonlin. cct. design appls. 855
GaAs MESFET, high V_{BD}, planar gate, power MMIC 38922
GaAs MESFET switch IC for handy phone 38024
GaAs MMIC LNA for wireless commun., ultralow noise 42235
GaAs MMIC demodulator, distrib. mixing for CPFSK receiver 12801
GaAs MMIC distributed amps., design 12806
GaAs MMIC double side-band modulators, Gilbert cell based, design 29589
GaAs MMIC downconvertor for portable commun. 42233
GaAs MMIC dual-channel Ku-band DBS downconvertor 42316
GaAs MMIC generic const. phase digital attenuators 6340
GaAs MMIC multifunction EW receiver convertor chip 38018
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
GaAs MMIC process technol., $SrTiO_3$ film capacitors 38030
GaAs analogue MMIC, high yield, spray etch recess proc. 38029
GaAs power MESFET, passiv., ECR CVD Si_3N_4 tech. 13356
GaAs power MMIC for 1.9 GHz digital cordless phones 12823
GaAs power MMICs for X-band radar appls. 6341
GaAs-based HJFET, 6.6 W, 12 GHz, power amp. appls. 21550
GaAs(InP) quasi-opt. slot HFET mixer, integrated, 40 GHz, car radar receiver appl. 12812
In-P based microelectronics pilot line for commercial and military applications 12799
$In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ MODFET MMIC oscillators, opt. tuning 12788
InGaAs-GaAs MODFET MIMIC amp., 5-80 GHz, CPW 38026

field effect transistor circuits
used for general papers and papers where the use of field effect transistors is significant
see also HEMT circuits; JFET circuits; MESFET circuits; MOSFET circuits
dual FET act. patch elements for spatial power combiners 15658
electronic cct. time domain anal., unsteady modes of operation 512
lin. voltage-controlled resist. in floating form 725
low-noise oscillators design/optim., nonlin. CAD 29072
opt. CATV SCM receivers, IMD reduction 9738
Potts neural nets, optimisation, dyn. systs. equivalence 21480
power audio amp., n-channel output FETs 6039
RS coded opt. PPM, PIN-FET receivers 9606
GaAs FET cct. power supply 21096
GaAs FET power amp./high-Q magnetron, coherent transmitter 12997
GaAs JFETs, deep cryogenic readout electronics appl. 30371

field effect transistor switches
see also power semiconductor switches
1-MW power MOSFET switch, SPICE macromodel 6756
70 A telecom. rectifier, high efficiency 12337
100 kA, 5 kV solid state opening switch, railgun appl. 31762
400 V/10 A matrix power converter, induction motor drive appls. 19811
500 W DC-DC converter, power MOSFETs, 200°C operation 12322
1500 V-20 A Photo Power Module DC solid-state relay 6396
1500 W single-phase rectifier, high power dens. 19865
act. clamp forward converter, MOSFET sync. rectification 6002
aircraft intell. rem. power controller 26682
bipolar-MOSFET monolithic cascode switch, VIPower technol. 6014
broadband ATM switches, optim. design for VLSI implement. 9136
buck ZVC-ZCS HF PWM power converter studies 19716
charge pump cct. for high output current EEPROM appls. 29046
class D^2 DC/DC parallel reson. MOSFET power supply 44223
CMOS 2.4 Gbps 16×16 ATM switch chip set 16960
CMOS ATM switch LSIs, self-timed queue archit. 33721
current-source parallel-reson. DC/DC converter 36335
current-source reson. DC-DC MOSFET power converter anal. 44222
DC power lines, SMES, input cct. 10718
DC reson. link-based topol. 27832
DC-DC converters, high power/self-oscill. type 27830
DMOSFETs, HV, HF cell designs 30335
DMOSFETs/IGBTs switch HV, packaging, die sizes 1379
FET-switched induction accelerator cell 36410
full-bridge DC/DC power converter, extreme conditions operation 44137
full-bridge MOSFET inverter, US transducer power supply appls. 44166
high power FET/IGBT gate driver cct. 13701
high-repetition-rate electrooptic cavity dumping 30999
hybrid MOS-bipolar transistor switching, profiled drive sig. 521
hybrid output relays, semicond. switch-based, DC/AC power control 29635
inductive tube welding reson. invertor syst. 20166
integrated power MOSFET switch, design 38889
isolated high power boost topol., transformer models 19745
lin. ion accelerator FET-switched pulsed power supply, PSpice simul. 34742
MCT, gate drive cct., overcurrent protection 12323
Mini-Smart SIPMOS switches in SOT-223 SMD packages 522
MM-wave multifunctional bal. switching LNA 12824
MOSFET, switching oxide traps, time depend. 13714
multiresonant parallel ZVS power converter, anal., design 11171
optoelectronic switch for SCM networks 17211
parallel reson. CSI, cct. design/anal. 44136
Philips Microwave D07M foundry proc., MMIC switch FET models 6331
polysilicon electrostatic microrelays, MOSFET integrat. 30506
quasi-reson. AC/DC forward power converter topol. 44145
soft-switching insulated gate devices, power losses, comparative investig. 30331
solid-state photoconductive microwave generation pulsed power source 36434
spacecraft, electronic switching, reversible energy mgt. 26596
switching simul. models, PSPICE package-based 37636
thermal cells, tester develop. 36511
thin film SOI power MOSFET, switching charact. 38869
vert. power MOSFETs, low on-resist. proc. 13682
VLSI design of 32×32 ATM switch, simple logic control 9137

field effect transistor switches continued
GaAs FET microwave switching/phase shifting 21575
GaAs MESFET switch IC for handy phone 38024
GaAs MESFETs for HF high-temp. switched-mode power converter, MBE 30381
GaAs MMIC multifunction EW receiver convertor chip 38018
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
GaAs SIT-based pulsed power switch develop. 36427
GaAs high current power VFET, fab. proc. 30384
GaAs vert. MESFET, smart power switching 38928
GaAs/AlGaAs FET-SEED, smart pixels and saturation charact. 14657
GaAs/AlGaAs bistable FET, optoelectronic switching 40056
GaAs/TlCaBaCuO, MESFET semicond./thin film supercond. hybrid phase shifter 29559
InGaAs switch transistors for microwave control applications 12768
Si multiplexers for lin. IR photodiode arrays 25875

field effect transistors
see also field effect integrated circuits; field effect transistor switches; high electron mobility transistors; insulated gate field effect transistors; ion sensitive field effect transistors; junction gate field effect transistors; microwave field effect transistors; millimetre wave field effect transistors; power field effect transistors; Schottky gate field effect transistors; static induction transistors; UHF field effect transistors
book, Si and Si alloy based materials/devices 11540
controllable couplers, comparison 6801
diamond films, metal/intrinsic semicond./semicond. FET 13753
dual-gate FET struct., fab. 30383
extrinsic vs. intrinsic models 1445
III-V FETs, pulsed semicond. param. analyser syst. 1431
insulators, rel. to HTSC, photocond. 1784
microwave FET equiv. cct. params., simulated annealing method 839
monostable-bistable transit. logic elements, RTD/FET integrat. 37735
oligothiophenes, conjug., transistors and SLM 22931
output pulse, parasitic bipolar transistor effect 1434
p inverted buried channel heterostruct. FET, complementary electronics, AC characterisation 38915
phase and baseband 1/f noise correl. study 833
poly(3-alkylthiophenes)/O_2, reversible charge transfer complexes 20995
Q-state neuron for Q-state associative memories 29444
source resist. of FET, determ. from meas. S-params. 30380
supercond. RF parametric transducer for gravit. wave antennae 25812
AlGaAs/InGaAs heterojunction FETs, photon irrad.-induced kink effect model 6803
AlGaAs-InGaAs heterostruct. FET for high temp. IC 22493
$(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P/In_{0.15}Ga_{0.85}A$ s/GaAs HFET, characts. 12752
$CeO_2/YBa_2Cu_3O_{7-\delta}$, supercond. FET, prep., charactn. 14301
GaAs FECFET, num. simul. 38929
GaAs HFET, device and cct. modelling 6781
GaAs digital FET multilevel metal interconnects, isotropic etch planarization 13322
GaAs opt. controlled FET, current modulation 7487
GaAs-InGaAs δ-doped real-space transfer transistor 30367
GaN/AlGaN HFET based gated photodetector 34498
InAlAs/InGaAs HFETs, impact ionization and light emission 38912
InAlAs/n^+-InGaAs heterostruct. FET, breakdown phys. 6804
InAlAs/n^+-InP, monolithic tunable high-Q 12800
InGaAs/InAlAs heterostruct. FET 20886
InGaAs-GaAs heterostruct. and HFET appls. *(Chinese)* 22486
InGaAs-InAlAs, selective etching in HBr plasma 13411
InP, and related materials, conf., Paris, France (April 1993) 11521
InP based δ layers, AC excitation 29859
PLZT-$LaSrCuO_4$ epitaxial ferroelec. FET, memory retention 39087
Si-SiGe HFETs, mobility simul. 22494
YBCO high T_c superconds., elec.-field effects, mechanism and device prospects *(Japanese)* 7234

field electron microscopy *see field emission electron microscopy*

field emission
see also electron field emission
displacement/press. sens., field emitter triode modeling 42980
field-emission-press.-gauge, sensitivity quantitat. estim. 42761
MOSFETs in off-state, interface trap induced emission current 22408
Pd-InP Schottky diodes, cryogenic/RT, current transport 38390

field emission cathodes *see cathodes; electron field emission; vacuum microelectronics*

field emission electron microscopes
see also field emission electron microscopy
electron opt. benches, aberrations/LEEM appls. 1011
nanometer resoln. elemental anal. 6704

field emission electron microscopy
see also field emission electron microscopes
FEM/FIM-AP syst. for studying gridded vac. microelectronic devices 38223
gradient coils with mag. shielding/eddy shapes, coil shape optim. *(Japanese)* 21598
IC inspection appl. *(Italian)* 20465
LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
metal-semicond. interfaces, hot electron transport probed by BEEM 13206
STM for BEEM/spectrosc. 21865
Au/PtSi/(100)Si diodes, lateral var. in Schottky barrier height 22352
Au/n-GaAs Schottky contacts, barrie height change, ballistic electron emission obs. 38378
Au/n-ZnSe contacts, BEEM 22048
Au-GaAs diodes, lateral Schottky barrier height var./crit. length 38383
Au-PtSi-Si diodes, lateral Schottky barrier height var./crit. length 38383
CaF_2-based MIS struct., DOS, PES and BEEM studies 22072
$CoSi_2$/Si(111) epitaxial films, situ study by BEEM 22037
GaAs/Au diodes, FIB implant. damage, BEEM study 13605
Li liq. film on W(011) tip, field electron emission patterns 43046
$NiSi_2$/Si interfaces, dyn. transm. and impact ionization, hot-electron transport 22040
Pd/Si, transport props., hot electron phenom. 38407

field emission ion microscopy
see also atom probe field ion microscopy
FEM/FIM-AP syst. for studying gridded vac. microelectronic devices 38223
W ultrasharp cold field emitters, emission charact. 13018

field emitter arrays *see vacuum microelectronics*
field intensity patterns (antenna) *see antenna radiation patterns*
field ion microscopy, atom-probe *see atom probe field ion microscopy*
field ionisation
carrier freeze-out effect, low temp. semicond. device props. *(Chinese)* 22340
field measurement, electric *see electric field measurement*
field measurement, magnetic *see magnetic field measurement*
field plotting
see also field strength measurement
3D vector field magnitude and direction visualisation 28288
GTEM 1750, meas. field struct., anal. 15483

field programmable gate arrays
8-bit μP based fuzzy-proc. archit. 678
(31, 9) RS codecs, fast prototyping complex digital systs., FPGAs 6117
act. periodic noise cancelling syst., FPGAs 8380
algorithmic register transfer lang. for generating designs, formal semantics 37702
ANN fast prototyping, goal seeking neuron digital implement. 29465
ANNs, FPGA implement., med. ES appl. 29509
antifuse based FPGA technol. mapping, matching, Boolean fns. 21248
antifuse prog. in Crosspoint's FPGA 21294
appl.-specific registerfile archits., optimal synthesis 29108
ASIC sig. proc. archits. with min. structural complexity, ILP synthesis 29251
ATM Canton switch, expt. infrastucture 42120
Australian undergraduate curriculum, practical appls. 29118
benchmarking fund. 634
binary neural associative memory, hardware implement. 29464
binary neural network syst., hardware implement. *(Japanese)* 6264
CAD tools 6055
cellular-archit. FPGAs, routing-driven mapping 498
channel archit., automatic synthesis for routability 639
chip technol., economics and support *(Dutch)* 80
class., fuzzy neural nets, FPGA-based implement. 32948
CMOS real time image class. proc., parallel archit. 21375
Compass integrated framework for ASIC and FPGA design 6113
configurable DSP coprocessor appls. 6177
controller, fuzzy, pipeline custom design 650
CPM sigs. neural receiver 33913
DA techs. for PLD and FPGA based systs. 12419
dependability eval., hybrid fault/error injection 37722
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
design for ASIC conversion 29160
design portability, logic develop. systs. 6106
design verification, software tools 12433
develop. tools, design complexity issues 6107
device-independent FPGA design 21231
digital multilayer perceptron, FPGA implement. 6262
digital tachometer, precision, vel. meas. 42948
DSP appls., FPGA-based custom computers anal. 29192
DSP FPGA archit. 29262
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
fast prototyping, FPGAs and logic emulators 21220
FIR filters, automatic implement. on FPGAs 37862
FIR filters using pipelined multipliers, FPGA implement. 21441
full-duplex speaker phone based on adaptive predictor 9109
fuzzy controllers, FPGA implement. 6140
Handel compiler, net-list descriptions, Xilinx FPGAs 6116
hardware compilation of parallel programs 21057
hardware struct. implement., configurable logic 29150
high dens. FPGAs for synthesis and VHDL based design 29164
high-dens. PLDs, CPLDs and FPGAs 37746
high-level synthesis techs., FPGA-based design 6109
HyperNet RAM-based neural net archit. implements., anal. 29467
image manipulation, real-time, FPGAs 24725
interplan. satellites, solar particle event models 18716
JPEG image coding algm. Huffman codec *(Japanese)* 16943
KGPMAP, library-based technol.-mapping tech. for antifuse based FPGAs 598
library-based FPGA, logic synthesis 29130
logic synthesis on PC platforms 29162
long-lines, top-down hierarchical routing algm. *(Japanese)* 29107
lookup table based FPGAs, technol. mapping, genetic algm. 21224
lookup table-based FPGAs, technol. mapping algm. for gate decomp. *(Korean)* 12409
LUT-based FPGA technol. mapping, nominal delay minimization 12422
memory controller, embedded μP link, cache enhanced DRAM 29213
microASIC, mixed digital and analogue chips, design 6246
mil. systs., redesign, VHDL board-level modeling 18960
min-cut replication in partitioned networks 12261
mobile commun., DSP for digital multi-beam forming antenna 17068
modified 2D median filter for impulse noise suppression 37863
multi-point video-conf. bridge, ATM switch 16817
multiple-valued logic in FPGAs, current-mode CMOS implement. 6137
multiplexor-based archit., area/delay tradeoff, fast technol. mapping 21196
nanoprocessors, stored program proc., reconfigurable, flexible archit. 21338
nonvolatile prog. devices and in-cct. test 6095
one-hot-encoding FPGA macros, simplified state machine design 12405
optimisation techs. using genetic algms., logic minimisation 6108
package partitioning technol., FPGA prototypes 6114
Panda-Map, optimal perform.-directed logic mapping algm. for TLU-based FPGA *(Chinese)* 12397
perform./area estim. by VHDL descriptions and functional unit database 28965
PGM crypto-chip, parallel permutation multiplier 29189
PLD, CAD tools overview 21286
postlayout simul., verilog appl. 6110
RAN^2SOM, reconfigurable neural network archit. 29471
range/image sens., FPGA archits. 3881
reconfigurable FPGA-based image coprocessor 12577
routing archits., CAD tools 21293
routing by concurrent maze method *(Korean)* 37714
row-based FPGAs, segmented routing channels, design and anal. 611
RRANN, run-time reconfiguration ANN 21287
run-time reconfiguration neural net archit. 29503
SDH fibre-optic transm. systs., forward ECC 42455
segmented channel routing complexity 12272
segmented channel routing problem, complexity 38953
self-timed floating point coprocessor prototyping, FPGAs 21288
semicustom design of ASICs, Si chips vs. FPGAs for engng. education 6834

field programmable gate arrays continued
SEU hardening for space appls. and device charactn. 12478
a-Si anti-fuse used in high speed FPGA, improved reliab. 29144
single-bit error-correction cct. for ATM interfaces 42080
SIPPOS (single poly pure CMOS) EEPROM embedded FPGA 21326
spacecraft electronics, single event effect proton/HI testing 29093
super high defn./super high resoln. digital image transm. 25116
synthesis, look-up table and multiplexor based archits. 12487
technol. mapping, placement and global routing algm. 12431
technol. mapping, testability considerations 12451
three-phase bidirectional PWM power convertor config. 5126
three-terminal switching device, prog. fusible link 29630
top-down design, Mentor/Altera CAD software 6105
total dose hardness 12481
TRACER-fpga, router for RAM-based FPGAs 21259
TRACER-fpga, router for RAM-based FPGAs 37709
transputer global link adapter, VHDL, FPGA, synthesis 6111
UAHPL lang. for ASIC design 37713
VHDL descriptions of digital systs., mapping, FPGAs 6112
Viterbi decoder implement., prog. act. memories 32088
VXIbus interface hardware, FPGA implementation/testing 42735
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
XC5000 FPGA family, archit. and design 29161
XILINX FPGAs, SYNT syst., high level synthesis issues 29117
Xilinx XC4000 family of FPGA design, syst.-integrat., and develop. tools 605
SiN$_x$ based metal-to-metal antifuse for FPGA appl. 21217
custom computers, FPGA-based, DSP appl. archit. 29123
field reversed configurations *see reversed field pinch*
field strength measurement
see also electric field measurement; magnetic field measurement
1.8 GHz mobile radio propag. meas. in mountainous areas 33784
1.9 GHz band indoor radio propag. meas. and empirical models 33786
880 and 1922 MHz radiowave building penetration obs. 31821
900 and 1800 MHz microcell radiowave propag. comparison 31826
900 MHz propag. modelling, scaled road tunnel microwave meas. 33789
905 MHz radio propag. in an office, metal low-partitions effect 31830
915 and 1900 MHz domestic RF channel charactn. 31822
946 MHz office-complex mobile radio channel meas. and modelling 33790
cellular syst. variable C/I threshold distributed adaptive channel allocation scheme 33806
EM anechoic chamber, field strength uniformity eval. 23674
EM emission from PCB sig. line, peak freq. prediction 38073
EM noise emitted from elec. vehicle 28116
EMC, line impedance stabilization network in noise meas. 40370
EMI meas. methodology 40369
Finland DAB field trials 25639
handoff algms., absol./relative meas., anal. 3395
high-power VHF single freq. network for DAB, field trials 25640
intelligent multi-access spectrum-sharing methodology 41467
land mobile telephone systs. in Cheju, field strength prediction *(Korean)* 25351
LF/MF skywave propag., daytime 40337
low altitude radar appls., irregular terrain modeling 17422
pulsed EM field meas., strip transm. line 3948
refl. coeff., material characterisation 7978
Rohde & Schwarz, RFI field-strength meas. in GTEM cell, EMI software ES-K1 8008
Rohde & Schwarz Radiomonitoring System TS9965 9183
shield degrad. in presence of external conductors 15497
small cells/microcells, radio wave penetration, urban buildings 9260
TEM cell, field strength meters calib./antenna factors 25937
TEM horn based meas. transducers 17738
third-generation mobile radio network planning propag. meas. 33787
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
wave propag., hilly terrain, theoretical investig./wideband meas. 9321
field theory, electromagnetic *see electromagnetic field theory*
fields, electric *see electric fields*
fields, magnetic *see magnetic fields*
filament lamps
6-380 V light-sig. equipt. develops., Russia 44585
dimmers, EMI and effects on lamp life and power quality 11445
light modulation flicker expts. 11449
reflector lamp replacements, EPACT impact 11459
std. lamps, improved automated current control 3723
filament reinforced composites *see fibre reinforced composites*
filamentation instability
broad-area semicond. lasers, filamentation and beam propag. 23191
pulsed power semicond. switches, opt. controlled, filamentation models 36435
ArF excimer laser discharge simul., plasma charact. 39652
file management *see file organisation*
file organisation
see also data handling; data structures; database management systems; naming services; storage management; virtual storage
3D model based obj. recogn. 32995
3D rigid solid obj. recogn. from 2D projective images 41252
continuous speech recogn. via word preselection method *(Japanese)* 32442
curve matching, geometric hashing 2671
distributed shared memory implement. based on DCE 25032
fn. generator, prog., PC-based *(Bulgarian)* 25905
IC test, intell. software-integrated environ. 9802
image compression strategies, comparative anal. 33023
LFSR-based hashing and authentication 32164
Los Alamos Nat. Laboratory gigabit network appls. 8918
MosquitoNet, commun. environ. switching 33557
multiple file copies comparison, min. commun. 41520
network bottlenecks in mobile computing, Coda file syst. 33555
obj. recogn., Bayes, distributed, geom. hashing 2767
parallel lin. eqn. solvers for computational electromagnetics problems 23557
power syst. relay testing simul., user interface software develop. 27246
text compression, adaptive algo., subdictionaries class. 2371
text-image anal., skew angle estim., SLIDE 2614
transputers, input/output technol. 21368
video data placement, scalable, on parallel disk arrays 9745
file servers
ADSTAR Distributed Storage Manager, user experience 24957
assoc. particle imaging, 4D image display 18465
ATM based multimedia servers 41965
file servers continued
central servers, high-bandwidth network evol. 41786
consistency algorithms for optimistic replication 3224
distributed OS, data/control transfer separation 16659
distributed systs., program struct. 16726
FTP traffic on Internet, optimisation 41834
gigabit LAN interfacing to high perform. disk array file servers 33257
Hyper-G for serving inform., World Wide Web 41871
interactive education, CD-ROMs and WWW 8895
kernel of distributed proc. platform for telecom network software *(Japanese)* 33437
LAN, file migration policy, finite storage, limited effects 33518
Los Alamos Nat. Laboratory gigabit network appls. 8918
Misnet, inexpensive network for PC connection 41889
multimedia data streams, disc scheduling 16886
multimedia server for on-demand services 16832
multiple access scheduling for moving picture inform. *(Japanese)* 8734
networked interactive video and multimedia archit. 41978
ParaServe, parallel mass storage server 8907
pong, flexible network services monitoring syst. 41787
quality of service support for networked media players 33530
rightsizing, distributed LANs, UNIX appl. servers 41771
video layout strategy eval. on high-bandwidth file server 16666
video server, cost-effective 9757
video-on-demand file service, OS support 9720
video-on-demand systs., storage hierarchy 9744
Web site, QC issues 8897
World Wide Web, scalable HTTP server prototype 8893
World-Wide Web, servers work 41853
file transfer software *see computer communications software*
filing systems (office) *see records management*
filled polymers
see also polymer dispersed liquid crystals
azo-dye-doped polymer systs., dyn. holographic recording media 40121
C black-filled semicond. materials, props., HV power cable appls. 13974
conductive adhesive eval. as solder replacement 38107
conductive adhesives and solders for SMT, environ. comparison 38110
dye activated polymeric lasers, photophysical props., thermooptical props. 7540
dye impregnated polymer lasers, beam control elements 7541
dye nanocrystals doped in polymer matrices prep. 22783
dye-doped polymer waveguides, opt. losses/photocond. sensitivity 30961
dye-polymer films, photoanisotropic, joint transform correl. 8469
EPR, filler conc. effects on elec. cond. and ultralow-freq. dielec. props. 30587
EPR, treeing in cryogenic temp. region 14060
EPR dielec. relax., clay effect, TSDC meas. 14057
ethylene-propylene copolymer, charge injection/polarisation 14036
ethylene-propylene rubber cable insulation, γ-irrad., elec. cond. 14070
films for second order nonlin. optics *(French)* 2085
fluoropolymer-based dielec. materials for PCBs, fab., proc. considerations 29679
guest-host photorefr. polymers 22781
HTPB/Al particle composites, elec. cond., low fields 30589
HV power cable elastomer materials, nonlin. V-I charact. *(Russian)* 43766
metal-filled polymer conductive adhesives, elec. props. 438
molding cpds. for plastic packaging, thermal anal. 5670
organically modified ceramics hardness and elasticity characts. *(German)* 20993
particulate-loaded polymer molding cpds. for plastic packaging, thermal cond. 5625
PMMA opt. waveguides, dye doped, electron irrad., ageing 1703
poly N-vinylcarbazole, photorefr., absorbing nonlin. opt. chromophores 1653
polyacrylamide gel, dye doped, laser host 7544
polyaniline-p-styrenesulfonic acid composite, synthesis and Schottky diode appls. 28885
polymer composite materials, mag. field sensitive 5914
polymer/metal/BaTiO$_3$ multi-component composites, dielec. props. 12195
polypropylene, graphite filled, strain sensitivity 28894
polyvinyl alcohol film, dye doped, novelty filtering, phase conjug. wave 31553
prog. interconnect arrays, thin film , chip-to-substr. interconnect switching 20434
PVC cable insulation and sheathing suitability *(German)* 27210
pyrromethene-BF$_2$ complex dye, polymer host, lasing perform. 7543
rhodamine 6G, epoxy polymer matrix, holographic DFB laser 7581
rigid-flex MLB package, z-axis intermetallic/thermosetting adhesive method 37140
thiapyrylium dye sensitized photorefr. polymeric composite 22782
z-axis anisotropic polymer-matrix composite conducting film, SMT/PWC connectors 12196
Fe-polymer composite absorber chip for RF EMI filtering 37834
PZT filled polymer piezoelec. transducer, design 6922
film badges *see dosimeters*
films
see also adsorbed layers; coatings; foils; Langmuir-Blodgett films; liquid films; optical films; polymer films; replicas; thick films; thin films
TE EM waves in nonlin. film, closed dispersion curves 40302
filtering theory
see also Kalman filters; nonlinear filters; prediction theory; random processes; smoothing methods
1D nonlin. matched sieves, genetic algm. 2797
1st-order digital allpass filter sects., comparative study *(English)* 6232
2-D FIR filters, freq. sampling, Hermite interpolation 752
2-D lattice filters, image compression 16339
2-level quantised Gaussian signals, digital filtering 40783
2D adaptive filter, Laguerre fn. 32759
2D adaptive lattice struct. for noise cancelling 32680
2D backpropag. cascade adaptive recursive filters 6231
2D block adaptive FIR filtering algm. 33152
2D center weighted median filters, anal. 33125
2D digital filters, design techs. 6230
2D digital filters, error spectrum shaping *(Japanese)* 15933
2D digital filters, Lyapunov approach, stabil. anal. 743
2D FIR digital filters, weighted least sq. design 15858
2D FIR digital filters, weighted LMS design 2488
2D IIR digital filters with lin. phase, design 24346
2D lattice filters, stabil. testing procedure *(Japanese)* 32589
2D max. flat diamond shaped half band FIR filter, design *(Japanese)* 8409
2D PCAS digital filter design based on restrictive coeff. sets 37888
2D rank-conditioned median filter 24704

filtering theory continued
2D transform domain adaptive FIR filtering 2575
2D variable FIR filters, design, 3D prototype filters 746
2dimensional recursive orthogonal wavelet transform. 40927
3-D morph. algm. for obj. recogn., automated training 16269
3D elongated objs., recogn. from 2D intens. images 2757
3D image feature extraction, diff. geom. 2664
3D reconstr. from image seq., Bayesian/Kalman, comparison 2854
198-Mb/s recording channel, sig. proc. 9751
Abelian groups, wavelet anal. 24163
act. acoustic atten., adaptive generalized recursive control syst. 32604
adaptive algms. for small-size obj. detect. on digital images 24385
adaptive algms. for time delay estim./IIR filtering 40830
adaptive α-trimmed mean filter *(Japanese)* 21438
adaptive blind equalization algm. for const. modulus constellations 32739
adaptive filter, multirate proc., convergence speed improvement 8411
adaptive filtering, ident., and control, interact. 41042
adaptive filtering, sign algm., convergence anal. 32531
adaptive IIR filtering, cascade struct. 8283
adaptive IIR filtering, fast convergent genetic search 32705
adaptive IIR filtering algm., sig. proc. appls. 24194
adaptive IIR filters, time-varying perform. surfaces 24200
adaptive lattice notch filter, tracking anal. 40853
adaptive LMS filter algm., nonlin. behaviour 24345
adaptive median filters, algms./results 33134
adaptive morph. subband decomp., image coding 24396
adaptive neural filters, finding, genetic algms. 32527
adaptive nonlin. equalisation of digital commun. channels 15985
adaptive nonlin. filters, switched coeff. types 6199
adaptive nonlin. neural filters, algm. 32702
adaptive nonlin. recursive state-space filters 748
adaptive prefiltering for blind equalization *(Japanese)* 40769
adaptive rational fn. filter for estim./detect. 8416
adaptive RLS filtering, iter. version of QR-decomp. 32479
ADSL, noise environ./syst. perform. 16918
affine deform., extraction from image patches 16174
airborne early warning radar, clutter spectrum filtration *(Chinese)* 34109
aircraft landing tracking, multisensor integrat. 41115
aircraft motion estim., max., posteriori method 16358
aircraft roll attitude meas. using solid state devices 26541
altitude prediction by natural spline tracking filter *(Japanese)* 8410
analog coding/decoding, data transm., fading channels 8169
analytic sig. generation, tips and traps 2493
analytic sig. generation for time-freq. distribs., efficient algm. 32718
ARAKE type receiver struct. for narrow band wireless systs. 15955
arbitrary filter, approx., recursive implement. 15940
ARMA lattice filter, reduced no. of coeffs. 37877
ARMA modelling methods for low bit rate speech coding 32273
array proc., adaptive rational subspace estim. for non-white additive noise 32452
array proc. for block adaptive LS FIR filtering 2529
arrhythmia detect., adaptive recurrent filter 43304
articulatory speech synthesis, fractional delay waveguide filters 32349
ASK and PSK sigs., spectrum conversion in filter-nonlin. amp. syst. 32595
assembly parts hole dist. optimal estim., Kalman filters 8623
asymmetrical filter banks, subband image coding 33132
asynchronous CDMA systs., lin. adaptive transmitter-receiver 42145
asynchronous CDMA systs., lin. adaptive transmitter-receiver 25243
ATM networks, adaptive bandwidth mgt. 24909
audio sig. compression, circ. wavelet packets 32525
audio sigs., perceptual meas. schemes, filter banks constraints 40891
auditory model inversion for sound separation 32383
Bayesian recursive estim. of freq./timing 2553
beamspace noise eigenvectors, multirate proc. 40906
bilinear filtering, adaptive algms. 32469
biological systs., nonlin., adaptive filtering/estim. 34728
biorthogonal m-dimens. two-band filter banks, realizability 40808
biorthogonal raised-cosine wavelets 32636
blind channel estim./equalization, partial-response input sigs. 33162
blind clustering equalizer for digital mobile radio channels 3432
blind deconvolution of colored input sigs., criterion 8369
blind equalization based on Nakagami fading index, cost fn. 3430
blind fractionally-spaced equalization, filter banks/lin. prediction 41024
blind fractionally-spaced equalization based on cyclostationarity 8387
blind spatio-temporal equalizer for radio-mobile channel 33937
blind wideband source separation 40920
bootstrap mean filter for image restoration 8610
boundary filters for finite-length sigs. and time-varying filter banks 24343
broadband act. room noise control, local silencing 15989
camera/obj. translation estim., camera rot. 32935
candidate target detect., likelihood interpolation for peak detect. 15879
CATV pictures, composite triple beats impairment reduction 42612
CDMA, CCI, spatial/temporal filtering 25234
CDMA demodulator, interf. robust, spectral correl. props. 3327
CDMA overlay systs., adaptive interf. suppression 17037
CDMA overlays of narrowband waveforms, interf. suppression 25355
CDMA systs., multipath delay/fading 3473
CDMA systs., robust/lossy discretization 41473
CELP coders, backward adaptive lattice/transversal predictors 2409
channel normalization, pole-filtered cepstral mean subtraction 32203
chaotic sigs., filtered and synchronized, commun. use 40851
chaotic sigs. MLE 24291
chaotic time series filtering 32466
chirp sig. matched filter output for real chirp sig. input 32643
circuits systs., symp., Chicago, USA (May 1993) 31
CMA/Godard adaptive filter bank, blind equalization 15945
CMM, control input shaping against vibr. 17675
co-channel speaker separation, max.-likelihood deconvolution 32215
coded aperture emission CT, optimum filter, algm. *(Japanese)* 4270
coded images, post-proc., unmasked noise, neural net cancellation 41061
colour images, isolated noise detect./reduct., median filter 2851
complex all-pass IIR digital filters, design 15908
complex FIR filter design, Remez multiple exchange algm. 32787
composite compatible component coding 8686
composite harmonic filters, scale-, projection-, and shift-invariant pattern recogn. 24490
const. modulus algm., local min. escape transients 32670
constrained anti-Hebbian learning algo. for total least sq. estim. 2549
constrained beamformer design, optim. result 40763
constrained roundoff noise minimisation in digital filters, algm. 15962

filtering theory continued
continuous-scale morph. filtering, evol. eqns. 8672
controllable multidimensional shaping filter synthesis for discrete-value Markov seqs. 29371
controlled-root formulation for digital PLL 29076
coronary artery disease, diastolic heart sounds, harmonic decomp. 26288
correl. filter, noise adaptive discrim. 39544
cosine-modulated 2D FIR filter banks, perfect reconstruction 32712
cost fn. for syst. ident. utilizing parallel adaptive filter 2515
crit. sampled filter banks/lin. boundary conditions 41174
cross-correl. neural network models 2490
CW transform, integer scales, fast implement. 8428
data depend. nonlin. filters family 24588
data fusion of assoc. hypotheses in distributed sens. network 15873
DC motor drive sensorless operation, Kalman filter-based 36674
DCT realisation, recursive struct. 11897
DCT recursive filter, implement. 8412
decentralized game-theoretic, optimal, filters 16057
deconvolution filter design considering channel sensitivity 2526
delay locked loop, Doppler and data modulation effects 32036
delay-and-multiply opt. FSK receivers, line-coding, anal. 42345
delayed LMS algm. for adaptive FIR filtering 32677
denominator separable 2D IIR filters, design 40899
digital allpass networks design, eigenvalue problem based 8257
digital elevation models, inform.-preserving surface restoration/feature extraction 43488
digital filtering, parallel algm. 2567
digital mobile radio systs., anti-multipath modulation techs. 17075
digital modems, sym. synchronizer perform. 8457
digital power syst. protection, sig. magnitude est. *(Polish)* 35671
digital receivers, sampling rate, analog prefiltering, stats. 15965
digital sigs. with ISI, demodulation 40571
digital transfer fns., freq. response bounding 24184
digitally generated signals, filtering 8444
direct detect. opt. systs., LMS filters, ISI reduction 9607
direct detect. opt. systs., zero-forcing elec. filters 41099
discrete lin.-quadratic filtering 8361
discrete orthogonal fns., systolic archit. 8324
discrete sigs., multichannel spline interpolation 8265
discrete spline transform, computation/effectiveness 16045
discriminative feature extraction, filter bank design 32326
distant sample prediction, speech coders 8205
distrib. network disturbances prediction, Kalman filter-based 10724
dithered quantizers, and without feedback 16000
DMSK digital packet sync., preamble design 9362
DMT/DWMT systs. and digital filter banks 9091
DOA estims., Kalman-based estimator 8434
Doppler optimised compression filters 34125
double loop ΣΔ modulator, unstable filter dyn. 24013
DPCM for diversity systs., packetized speech appl. 8223
DPSK opt. heterodyne receiver, combat laser phase noise 42372
DS-CDMA, integrated CCI cancellation and decoding, fading multipath channel *(Japanese)* 25276
DS-CDMA receivers, min. MSE, complexity reduction 3328
DS-SS, directionally constrained adaptive beam forming 17003
DS-SS receiver, noncoherent matched filter code acquisition 32582
DS-SS systs., adaptive filters, freq. sweeping sig. rejection 17020
DS-SS systs., narrowband interf. rejection 33750
DS-SS systs. impulsive channel, narrowband interf. suppression 33751
DS-SSMA, interf. effect on narrow-band commun. systs. 33748
DS-SSMA systs. perform., filtering effects, transmitter 33207
DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
DS/CDMA adaptive interf. canceller for fast fading channel *(Japanese)* 25277
DSP teaching aid, algorithmic engng. 36926
DSP-based teleconferencing syst., perform. eval. 16815
dual sign algm., contaminated-Gaussian noise, perform. anal. 32669
dual-tone multifrequency (DTMF) detect. improvement 33394
dyn. overload recovery in sigma delta modulators 702
dyn. supervised neural networks, fixed pole IIR struct., perform. 8309
ECG anal. software package 43300
ECG P wave delineation, parametric tech. 35131
echo canceller with adaptive FIR filter, anal. for Gaussian sigs. 32747
echo cancellers, acoustic transfer fns. modelling 32633
edge detect., convolution, FT, maths courses 8600
edge detect., neural networks appl. 8559
edge detect., saddle-node dyn. 8679
EKF freq. tracker, design 32781
elec. motor speed estim., shaft encoder meas.-based 44001
EM algm. for joint HMM/sinusoidal param. estim. 24220
EMI filters, dyn. prediction of insertion loss 23661
eqn.-error adaptive IIR filters, bias removal 24201
equal power spectrum for image ident. and restoration 24552
equi-ripple higher-order differentiators, weighted least-sq. design 32634
error-diffused image compression, decoder/VQ 2735
exact nonlin. filters, theory and appls. 12644
extended inverse QR adaptive filtering algm. 15983
extended obj. coord., image proc. algm. 16157
extended threshold Boolean filters, min. MSE filtering 33148
fading dispersive WSSUS channel, analytic discrete-time model 3414
fast decision feedback LMS algm., multiple step sizes 8462
fast Newton multichannel algm. for decision feedback equalization 24309
fault detect., fault thresholds 11884
fault detect. for nonlin. state-space systs. 11840
fault detect./isolation filters, geom. approach 20501
fault tolerant FIR adaptive filter, conjug. gradient algm. 29365
fault-detect. filter, optimal detect. filter 8252
fault-tolerant adaptive FIR filters, variable detect. threshold 29364
feedforward amp. lin., adaptation behavior 25229
FFT, coarse freq. acquisition 3438
FFT/displacement struct., subsampled-updating RLS algm. 2552
Fibonacci p-codes, stack filtering, decomp. methods 24180
filters, special mutators 16031
finite wordlength digital filters/controllers, optim. realisations 37883
FIR adaptive filter, least mean p-power error criterion 15884
FIR decimators and interpolators, systolic implement. 751
FIR digital filter design, quadratic prog. 37884
FIR digital filter design by interconnected neural net *(Japanese)* 15937
FIR digital filters, iter. reweighted least sq. 32785
FIR digital filters, subband decomp., tuning algm. 8311

filtering theory continued
FIR filter design, complex Chebyshev approx. 40855
FIR filter design, complex Chebyshev approx. algm. 32786
FIR filters, complex Chebyshev error criteria, optimal design 40805
FIR filters, magnitude/group delay, multiple criterion approx. 32549
FIR-to-IIR filter order reduction, methods 32793
FIR/IIR SC decimation filters, parallel cyclic-type cct. 12650
flute music embedded in noise, sig. detect./restoration 16001
formal lin. of nonlin. systs., Chebyshev interpolation, nonlin. filter appl. 11965
forward digital lattice struct. for IIR digital filter synthesis 749
fourth-power law clock recovery with prefiltering 41390
FQPSK modulation for wireless commun. systs. 17076
fractional Fourier domain filtering and chirp transforms 16007
fractional-sample delay filtering, FIR filters appl. 32798
fractionally-spaced blind equalization algms., results 15946
frame integrat. perform. improvement in unknown sens. jitter 16108
frame of wavelets for edge detect. 32825
freq.-selective fading channel, differential detect. 2217
freq.-selective Rayleigh fading channels seq. estim. 8373
freq.-selective techs. based on SVD, TLS and bandpass filtering 32489
FSE/DFE-based HDSL equalizer, adaptive algms. 9087
fuzzy approach, multisensor instrumentation. preprocessing techs. 2681
fuzzy based syst. ident. 32772
fuzzy filtering for mixed noise removal, image proc. 2791
fuzzy filters, IIR and FIR types, design 8323
fuzzy neural fast learning controller/filter 24354
fuzzy rule-based sig. proc., image restoration appl. 16118
gamma bases, parametric LSA 40821
gas turbine engine, aerospace, control/stabil. 4362
Gaussian discrete fields in Gaussian noise, recursive filtering 41029
generalized higher order complementary filters design 8356
generalized magnitude and power complementary filters 29392
generalized URV subspace tracking LMS algm. 32757
genetic algms. for recursive digital filters 16059
GIC, complex digital filters design 12653
GIVE, IIR adaptive echo canceler 15883
globally convergent adaptive blind filters and blind equalisers 2863
gradient-based algms. for echo compensation 15988
gray-level images, high-order moment computation 33135
gray-level images, multiresolution estim., probabilistic models 33121
gray-scale morph. filtering, digit-serial archit. 21277
grayscale morph. filters, optimal under LMS algo. 2838
H_∞ criteria, robust sig. estim. 41012
H^∞ filtering and model matching 40866
Haar wavelet transform with inter-band prediction, image coding appl. *(Japanese)* 16236
half-band filter synthesis, freq. response masking 15939
half-band filters, freq. response masking, complexity reduction 37890
harmonic anal., perfect reconstruction and wavelet matrix windows 24279
HDTV systs., channel equalization techs. 17566
HF direction finding systs., polariz. diversity contrib. 34187
HF FSK radio links, optimal syst. params. choice 17018
high track dens. mag. recording, multichannel equalization 7194
high-speed networks, link capacity allocation/network control 25129
higher order moment matrices invertibility 40812
higher-order stats., allpass systs. ident. algm. 32648
hybrid H_2/H_∞ filtering, PLL filter design 15950
hybrid RNS-binary arith., digital filter implement. 15980
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
IIR adaptive filters, optimum order assign. on numerator/denominator 744
IIR filtering for adaptive phase jitter cancellation 32748
IIR Hilbert transformers, optimal design *(Japanese)* 740
IIR notch filter, transient suppression 35129
IIR sub-band adaptive filter banks 755
image coding, directional ADPCM 24504
image coding, piecewise polynomial wavelet, IIR implement. 2654
image compression, human visual syst. model and wavelet transform coupling 32831
image data, fast median filtering, coarse-to-fine algm. 2650
image enhancement, fuzzy filter 2794
image enhancement, nonlin. diffusion proc. 2662
image filtering, struct. preserving inhomog. diffusion 8607
image filtering by scaled MSE filter, vector proc. algm. 32986
image matching under affine deform. 8551
image noise suppression, filtering vs. neural networks 32897
image proc., inform. theoretic approach, space-freq. localization 32838
image proc., line preserving adaptive median filter 24526
image seqs., temporal filtering, short-kernel filter pairs appl. 41077
IMM-IPDAF for track form. on maneuvering targets in clutter 17372
impulse response estim., subband adaptive digital filter 8390
incoherent filtration of complex sigs. 8267
indirect method of nonlin. filtering, PLL synthesis appls. 32568
induction motor offline param. ident., computer-based 4956
induction motors with flux obs., adaptive nonlin. control 27727
information technologies/systs., conf., Ukraine, 1993 3
inhomog. waveguide components, field matching/noise filtering 23800
insensitive current mode variable gain allpass filter, current conveyors *(English)* 6219
integrated GPS/GLONASS navig., algms. and results 17504
interpolation/decimation filter banks, fast algms. 32769
invariant submersion method, min. filtration problem appls. 32573
inverse halftoning/kernel estim. for error diffusion 33133
invertible binary seqs., search/constr. 40610
IR detect., spatial sig. proc. 16101
IR image dim point target detect., difference method 16115
IR imaging sens., unified perform. model of detect. and tracking 16112
Jauman absorbers design 25579
joint blind equalization/phase recovery scheme for data commun. 3431
jump proc. filter 8358
Kullback dist. based nonlin. phase estimators 41011
lag correction in meas. systs., nonrecursive filtration 17625
Landsat-TM scene lin. LOC segment detect. using morph., model-based approach 16257
LDI lattice digital filters, exact design 762
least sq. lattice filters, nonstationary chirp input, PARCOR 40831
legal Wigner space filtering and interp. 2528
lin. image filtering, analog VLSI neural networks, random param. var. 32955
lin. phase FIR digital filters, max. SNR, design 15982
lin. phase freq. sampling FIR filters, error spectrum shaping 41044

filtering theory continued
lin. phase paraunitary FIR filter banks, complete charactn. 32504
lin. trajectory filters, noise rejection perform. 8439
lin.-constrained adaptive filtering, robust FLS algm. 32750
lin.-phase 2-D FIR digital filters, 2-D seqs. appl. 41045
lin.-phase biorthogonal wavelet fn., arbitrary regularity *(Japanese)* 16234
lin.-phase FIR half-band filters, least-sq. design 37895
lin.-phase recursive digital filters, design 29385
lin.-phased IIR Nyquist filters, design 12646
line detect. filters 2588
line extraction from image, variable Hough transform *(Japanese)* 16300
live speech network assess., digital adaptive filter 40750
LMS adaptive algms., DC offset effects, comparison 40852
LMS adaptive FIR filter dimens., learning rate 32756
LMS algm. error triangle rule/misadjustment 8321
LMS error decision feedback equaliser 8357
LMS-Newton adaptive filtering algm., variable convergence factor 40806
LS based, gradient type adaptive algm. 32758
LS based gradient type adaptive algo., least sq. gradient 2514
M-ary wavelet transform and formulation reconstruction 8426
MACE prefilter networks for ATR 16283
mammography, pattern class., multistage neural net 43257
maneuver-driven tracking filters 25558
maneuvering target, tracking, jump filters 15949
maneuvering target tracking, single Kalman filtering algm. 32724
maneuvering target tracking algm. 9619
maneuvering target tracking by neural net 32622
maneuvering targets tracking, multiple intermittent sens. 8295
manoeuvring target tracking, adaptive interact. multiple model algm. 25554
manoeuvring target tracking, multi-model adaptive Kalman filter 15964
marginal data ordering, multichannel L-filter design 32703
matched median filter for QAM sigs. detect. 15967
matched spatial filtering, correl. diags. for shape invariant pattern recogn. 32980
matched wavelets design issues 16008
math. morph., multiresolution image decomp./compression 8545
measurement system resolution improvement through optimal filtering 25766
median filtering, fuzzy concept 8322
median/weighted median filters, convergence props. 8427
microphone array, optimal positioning of sens. for microphone array 42647
microwave filter response of nonuniformly corrugated circ. waveguide 37965
Midwest Symp. on ccts. and systs., Detroit (1993) 33
min. class. error, time-freq. masking filters optim. 32406
min. effort estimators/controllers, perform. surfaces 32561
minmax FIR filters design, gradient approx. method 16012
missile guidance sig. estim., Kalman filter 26809
mixed Gaussian/non-Gaussian ARMA noises, harmonic retrieval 8433
MMD, 2nd order Volterra filter approx. 32779
MMSE design of generalized interpolators polyphase components 32729
mode filters for sig. and image proc. appls., robust types 8328
model based filter design, median of sq. of residuals 2585
model based tone freq. estimators, prefiltering effects 16010
model-based adaptive histogram equalization 2653
morph. filter optim. by learning, opt. neural net appl. 1765
morph. open-closing/close-opening, block basis matrix 24274
motion extraction by spatiotemporal filtering 8525
moving obj. param. estim. in image seq. 24386
MPSK (un)coded transm. on multipath fading channels 9169
multi band sigma delta ADC 29332
multi-channel FIR systs., blind ident., deterministic approach 41023
multiband least sq. FIR filter design 29369
multichannel environ., direct upconversion, reconstruction filters 25230
multichannel FIR filters, blind ident., subspace methods 41022
multichannel FIR filters, blind ident., subspace methods 32559
multichannel Gaussian sigs., low rank detect., constrained inverse 40952
multichannel Gaussian sigs., low-rank detect., matrix approx. 24212
multichannel IIR filtering, Levinson-type algm. 8413
multichannel systs. optim. for measuring inform. transm. 42751
multicomponent radar interf., adaptive suppression 34120
multicovariance matched filter for target detect. and background recogn. 16107
multidimensional M-band filter bank, quantization compensation 33150
multidimensional sigs., optimum approx., quantized sample values 24347
multilayer adaptive filters, BP trained, stat. approach 2556
multipath mobile channels, simul./modelling 3410
multiple hypothesis filter for track initiation, perform. eval. 17370
multiple model adaptive estimator target tracker, accel. models 32542
multiple model EKF, blurred images restoration 33139
multiple-error and block LMS adaptive algms., anal. 24342
multiple-error/block LMS adaptive algms., mean-sq. anal. 32761
multirate adaptive arrays for broadband mobile commun. 33851
multirate converters, signed-digit-based multiplier-free realizations 40807
multirate filter design, multirate components anal. 32709
multiresolutional data fusion, filter banks 15918
multiresolutional multisensor target ident. 41105
multiscale difference eqn. sig. modeling/anal. techs. 32784
multiscale Wiener filter, fractal sigs. restoration 2470
multisensor decentralized filtering systs., optimality 8379
multisensor multitarget mixture reduction algm. for tracking 24322
multisensor noisy/fuzzy data filtering 32804
multisensor target recogn. syst. (MUSTRS) 8558
multivariable robust filtering/open-loop control, probab. 32529
multivariate autoregressive model, max. likelihood estim. 2478
narrowband digital FM sigs., seq. estim. 24280
NDA FF carrier synchronizer, Viterbi algm., cycle slip anal. 8455
NDT, binary image correction 454
near-sens. image proc. 2725
nearest neighbour type multi-sens. tracking and ident. algo. 2580
neural computation, phys. models and analogue VLSI implement. 6269
neural network equalizers, perform. improvement 8308
NLMS/block RLS adaptive algms., block proc. algms. link 32553
noise stats. estimators, adaptive filters *(Chinese)* 24278
non-lin. noise filtering, piecewise lin. compression 29382
non-lin. speech anal., recurrent radial basis fn. networks 8240
non-lin. systs. modelling, novel archit. 40932
non-parametric waveform estim. based on filter banks 32730
non-separable multidimensional perfect reconstruction filter 8273
nonGaussian data, array modeling and sig. detect. 16065
nonlin. adaptive IIR digital filters 756
nonlin. digital filters, neural network structs. 8451

filtering theory continued
nonlin. echo cancelling, look-up tables/Volterra systs. 2564
nonlin. ISI channels, improved detector 7195
nonlin. predictor, zero-memory nonlin., second order Volterra filter 40985
nonlin. sig. proc., slope transforms, theory/appl. 40832
nonlin. sig. proc. and adaptive filtering, orthonormal fns. 32777
nonlin. syst. ident., Hammerstein model, cumulant-based Steiglitz-McBride algm. 40991
nonlin./non-Gaussian filtering and bootstrap filter 8464
nonminimum-phase syst. ident., adaptive allpass filtering 2565
nonrecursive lin.-phase filters, least-sq. design 761
nonstationary spectral estim., optimal kernels 32556
nonstationary turbulent atm. EM wave scatt. spectra *(Russian)* 15421
nonuniform bandpass sampling generalization 40811
nonuniform division multirate FIR filter banks, design 24344
nonuniform image motion estim., Kalman filter formulation 2849
normalised order stat. LMS adaptive filtering 8329
NTSC or PAL color TV, digital Y/C separation 16231
obj. detect. in clutter, Gabor filters 24549
oblique projections in discrete sig. subspaces of l_2 and wavelet transform 32503
opt. CDMA commun. systs., all-opt. lin. detect. 42364
opt. DPSK/heterodyne detect. scheme, two polariz. planes *(Japanese)* 17265
opt. flow, probabilistic and seq. computation, temporal coherence 2728
optimal edge-preserving hybrid filters 2737
optimal filters for multiresolution seqs. generation 2652
optimal fuzzy filter synthesis, local stats. based *(Japanese)* 21433
optimal stack filters, rank selection/structural constraints 40780
optimal weighted median filtering, structural constraints 40804
optimum subband filter bank design/compensation 8279
order stat. algm. for rank order/stack filters 29380
order stat. LMS algms. for non-Gaussian noise 2467
orthogonal QMF filters for smooth wavelet decomp. 24164
orthonormal discriminant vector method for pattern recogn. 15897
overlay CDMA syst., multiple BPSK interferers, perform. anal. 33747
oversampled bandpass sigs., inphase/quadrature components extraction 24183
oversampled subband acoustic echo cancelers, anal. filters, expt. 24273
packet radio LANs, frame synchronisation codes 16676
parallel SME filter for 3-D tracking of multiple targets 15871
param. estim., higher order stats./inverse filtering 40762
parameterized Gaussian-like filters, synthesis by approx. 32646
parametric model output probab. laws, study and simul. *(French)* 15928
paraunitary matrices factorization, pairwise mirror-image symm. 40845
partially filled rect. waveguides, external params. of offset connection 37955
PDF estim., order stat. filter bank 32799
perfect reconstruction FIR 2-channel filter banks in 3-D with FCO sampling, design 21429
perfect reconstruction subband coding stable IIR filter banks 15938
perfect reconstructional multidimensional filter banks 8274
period estim., min. entropy deconvolution 24136
periodic discrete event procs., param. estim. 40924
periodically time-varying state-space digital filters study 8255
PLLs, sig. injection, sync. systs., anal./optim. 16014
poly-phase struct. for syst. ident./adaptive filtering 32762
polygonal contour extraction/lin. filtering 2693
polynomial interpolation, filter digitization 40820
pose estim., noisy data fusion 24419
power syst., μP based protection, synthesised filtering algm. 27245
power syst. anticipatory fuzzy control, neural net-based 43666
power syst. digital dist. relays, transient perform. study 27255
power syst. digital protection criterion values estim. 27257
power syst. dist. protection, microcomputer Kalman filter algm.-based *(Chinese)* 43795
power syst. dyn. state estim., sq. root filter algm. 19152
power syst. dyn. state estimator, computer-based 4457
power syst. harmonics, dyn. filter, least absol. value algm. 19001
power syst. short-term load forecasting methods, computer-based 27093
PR FIR filter banks and discrete biorthogonal wavelets via block circulant matrices 32505
PR-QMF banks/ wavelets, stat. optim. 32707
precision AM sigs. generation, binary modulation of rect. pulses 17988
precision tracking, segmentation, optimal layering for imaging sens. 24417
proc. control, sig. sampling scheme in real-time 24314
prog. canonical correl. anal. for blind adaptive spatial filtering 9167
projection algm. for adaptive spatial filtering 2538
proportion-sign algo. for adaptive filtering, perform. anal. 2519
pseudolinear regression IIR adaptive algm., filter design 24185
pulse compression radar, terrain-scatt. jamming suppression 25553
pulse radar, range sidelobe suppression by locally weighted filter *(Japanese)* 42490
pushbroom scanners with large lin. arrays, odd/even detector noise removal 16260
PWM invertors, transient regime output params. correction *(Russian)* 44113
pyramid sub-band filtering for image compression 33098
QAM, self-learning adaptive recursive equalizer 32771
QMF banks, design, digital allpass filters 24167
QR-decomp. based adaptive bilinear lattice algms. *(Korean)* 37876
QRD inverse-updates method for fast time-series adaptive filtering 32478
QRD-RLS/STAR-RLS adaptive filters, fixed/floating point error anal. 32700
quasi-optimal nonlin. filtration, non-Gaussian noise effect 8336
radar data fusion, joint detect./estim. filter 34124
radar high resoln. imaging, data extrapolation 9629
randomly time-varying channels tracking algms. 2466
range image temporal feature extraction, neural decomp. 33052
Rayleigh fading channel, adaptive diversity receiver, error probab. 25263
recursive differentiators design, const. group-delay characts. 2521
recursive digital filter design, parallel allpass sects. and delay elements 29372
recursive filters, chaotic sig. driven 16021
recursive filters design, Chebyshev norm, Remez algm. 24186
recursive orthogonal wavelet fn., IIR digital filter config. *(Japanese)* 2459
recursive time-freq. methods for dyn. systs. 24257
regular 2-D nonseparable wavelets/filter banks, transforms. of variables design 32513
regular M-band modulated orthogonal transforms 32710
residual and suppressed carrier systs., bandwidth, unwanted emission 32029
reversing lattice filter, no. of sources of interf. estim. 2574
Rice/Rayleigh channels state estim., nonlin. filtering 8456

filtering theory continued
RLS adaptive bilinear filters, stabil. result 8394
RLS algm., wt. misadjustment, input sig. correl. effect 40843
RLS algm. based on var. characts. of room impulse response 32749
RLS algms., error propag. anal. 8429
RLS weighted algm. for speech proc. 32447
roads, cluttered scenes, real-time visual tracking 32950
robust $\mathcal{H}_\infty$ filtering for continuous time varying uncertain syst. 40813
robust failure detect., filtered meas. parity check 28521
robust speech recogn., probabilistic optimum filtering 32309
room acoustics, digital equalization 9761
room acoustics, reverberant sigs., inverse filtering, diversity proc. *(Japanese)* 15896
SAR image filtering, combined algm. 25546
SAR image quality improvement, ideal filter concept 42526
satellite mobile channel, FSK-DPD, pulse shaping/transmitter filter 42304
SC-filters, p-z transform, minimize charact. deform. 28996
scan conversion methods, subjective assess. 42582
scanned halftone images reconstruction, filters appl. 33129
scanning radars, poor resoln., neighbourhood Kalman filtering 9631
second-/higher order stats., adaptive blind equalization 15890
seismic data homomorphic deconvolution effectiveness 35291
self-tuning deconvolution filter, ARMA sigs. 8337
semicond. short run mfg., Kalman filtering proc. control 37166
sens. array proc., adaptive subspace selection 40962
separable-denominator multidimensional digital lattice filter 2545
separate discrete filtration of freq. and sig. time delay 32575
shallow water channel estim. methods, comparison 17460
ship attitude meas., servo-type accelerometers *(Japanese)* 25970
shock-absorpt., act.-pass., and gravimetric obs. 3991
short-time FT based on nonuniform filter bank 37374
sig. quadrature proc. in bandpass non-Gaussian interf. 32566
simultaneous real-time cryst. filter alignment in freq./time domains 39081
single event related evoked pots., segmented matched filtering 35074
single-shot laser radar sigs., principal-component filtering 17440
sinusoidal param. estim., real time cascade adaptive notch filter 2524
sinusoidal params. estim. in non-Gaussian ARMA noise 24219
sinusoidal sig./params. estim., nonlin. filter *(Japanese)* 2557
slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
small obj. detect. by LMS filtering and multilayer perceptron 32898
small objs. detect., high clutter backgrounds, neural net filter 16139
SmartZone syst., site hand off operation 3400
SNR degrad. due to amplit. ripple, comments 24294
soft morph. filtering, threshold decomp., anal. 32870
soft morph. filters threshold decomp. 2658
source separation with noisy obs., noise cancellation 40862
source/filter model for percussive sounds 16005
spatial-Doppler filter, projection method, calculate weighted coeff. vector 42492
spatially varying 2D filter banks 8276
speaker recogn. in tactical commun. 32287
speech, spectral, extraction, Poisson moments 8234
speech, spectral quantization of cepstral coeffs. 32332
speech coders, low-rate, pitch/LPC params. encoding 3273
speech coding, adaptive dens. pulse excitation 24158
speech coding, adaptive mel-cepstral anal. 32258
speech compression, ARMA model/wavelet transform 32261
speech formant extraction, zero tracking 8185
speech proc., fast infinite response filtering 8197
speech recogn., RASTA-PLP integrat. 32310
speech recogn., subband-autocorrelation anal. 32405
speech sigs., recursive formants tracking 32408
speech/audio proc., warped lin. prediction 32446
sport, ang. veloc./accel. meas., accelerometers *(Japanese)* 26267
sq. root filtering in space-time estim. 16068
sq.-root info. Kalman filter, Jacobi-type systolic array implement. 21358
SS systs., DSP appl. 25238
stabilized fast transversal filter algm., sig. proc. appls. 37871
stack filter design, structural approach 40829
stack filters, rank selection probabilities 8261
state digital filters, design 24187
state reconstruct. filter for lin. discrete-time stochastic syst. *(Korean)* 24340
state vector reconstruction, optimal in 2D systs. 32685
state-space digital filters, noise reduction, error feedback *(Japanese)* 739
Steiglitz-McBride method, convergence/convergence point/convergence rate 32770
step motors, hybrid, posn. determ. from EMF sigs. 11095
stereo vision, ground plane obstacle detect. 8645
stochastic algm. for parametric/non-parametric estim. 40859
stochastic discrete-time systs., optimal filtering 8404
subband adaptive digital filter, perform. anal./appls. 40779
subband adaptive filtering algo., intersubband tap-assign. 2516
subband adaptive syst., equiv. model, perform. anal., Wiener filters *(Japanese)* 29368
subband coding and noise reduction in multiresolution anal. frames 32509
subband DFT, accuracy/complexity/appls. 40778
subband DFT, defn./interp./extensions 40777
subband filter design, approach 8278
subband image coding, lin. phase filter banks design 24583
subband sigs. lin. prediction 15885
submarine, unmanned, obj. tracking, image proc. 24724
submarine navig. data integrat. 24296
SW and matrix dilation eqns. 24299
target discrim., computational vision human perception models 35393
target recogn., neural net based, MACE prefiltering 33048
telephone network, speech recogn. degrad. sources 32236
temporal envelope invariance, time-scale modif. 15998
texture mapping, clustering techs. 16343
texture segmentation by modulated wavelets 32889
time const.-based variable LMS algms. for adaptive filtering 8466
time series, topol. 32468
time sig. filtering, neighborhood graph lin. approx. 8453
time varying filter banks, subband proc., border recovery 32711
time-freq. anal., generalized marginals, adaptive kernel design 32744
time-freq. plane, sigs. filtering, FM/peak detect. 32745
time-freq. projection filters/sig. expansions 8414
time-varying channels, optimal tracking, freq. domain approach 15891
time-varying filter banks, time-reversed inversion 8275
time-varying filter banks and wavelets 2471

filtering theory continued
time-varying filter banks/wavelets, factorization 32706
time-varying modulated lapped transforms 8342
Toeplitz matrices factorization, fast algm. 40860
torque-speed characteristics meas. of electric machines 25718
tracking appls. of parallel transputer network Kalman filters 24191
tracking in clutter with nearest neighbour filters, perform. prediction 15872
tracking syst., hardware neural network implement. 8454
transform adapted, polynomial phase sigs. 16016
transform-domain adaptive filters, anal. method 32551
transform-domain split-path adaptive filter, convergence optimality 32760
transient sigs. separation 24258
translation-invariant binary filters, morph.-representation 16160
transversal filter algm. for recursive LS adaptive filtering 2531
TV images, sig.-to-thermal noise ratio, automatic assess. 42611
two-band QMF banks, anal. 32562
two-channel rejection filters with countable coeffs., optim. 32571
underwater commun./sonar, filtering, transform 8320
underwater robot vehicles, 3D US localisation syst. 26785
valves, motor-operated, noninvasive diagnostics 19624
variable IIR digital filters, complex coeffs., synthesis 6233
variable-dimens. filter, input estim. 24329
vehicle localisation in poorly known environ. 24356
video codec, picture quality improvement tech. *(Japanese)* 25164
video decoding algm. mapping, mixed sig. IC 8553
voice fund. wave filtering method, fine pitch contour extraction 32404
voiced speech coding, forward-backward waveform prediction 8222
Volterra filtering, spectral constraints 40933
Volterra models, stochastic, Kalman-Bucy filtering 20505
VSELP coders LSP vector quantizers in noisy channels 2425
walking recogn. from image seqs., incremental 2745
Walsh transform. for speech echo interf. suppression 24159
wave field, randomly nonuniform medium perturbed, optimal obs. 15865
wavelet extrema/zero-crossings representations, props./reconstruction 32708
wavelet transform adaptive filtering 32524
wavelet transform domain filters, noise filtration tech. 2726
wavelet transforms, filter banks 2455
wavelet-based approaches vs. subband coding techs. for still image coding 32826
wavelet-based subband decomp., multichannel image restoration 2731
weak-sig. image proc., multichannel whitening of non-Gaussian data 16100
weighted median filters anal./design, fast algms. 33013
weighted multilevel median filter algms. *(Polish)* 37868
weighted order stat. filters design, perceptron algm. 2634
wideband audio sigs. coding, transform coded excitation 32257
wideband commun., reciprocity based channel compensation 9665
Wiener-optimum lin. detectors for non-Gaussian channels 24246
windows, rapidly decaying sidelobes and steerable sidelobe dips 32797
Yau filters, finite dimens. recursive type 8442
Yonggwang NPP, alarm proc., on-line ES 10805
zero tracking algms. for stationary/nonstationary environ. 16058
zero-phase FIR filters, freq. domain design 24276

filters
see also acoustic filters; active filters; adaptive filters; all-pass filters; band-pass filters; band-stop filters; Butterworth filters; Chebyshev filters; crystal filters; digital filters; discrete time filters; electromechanical filters; elliptic filters; ferrite filters; FIR filters; high-pass filters; IIR filters; Kalman filters; ladder filters; lattice filters; low-pass filters; matched filters; nonlinear filters; notch filters; optical filters; passive filters; power filters; programmable filters; radiofrequency filters; resonator filters; spatial filters; switched filters; time-varying filters; tracking filters; waveguide filters; Wiener filters
analog cct. for eigenvalue calc. and rank filtering 778
analogue signal proc., symp., London, UK (Oct. 1994) 28263
arc furnace supply plant, flicker/distortion compensation 20129
BiCMOS fourth-order sigma-delta ADC, HF/resoln. 29328
built-in-input filter forward converter 6005
cage mag. filters 14265
CATV pictures, composite triple beats impairment reduction 42612
circuits systs., symp., Chicago, USA (May 1993) 31
computational-morph. filters, mean-absol.-error representation and optim. 32915
custom IC, conf., San Diego, CA, USA (May 1994) 20247
design, window fns. 6197
differential GPS, flight eval. expts. *(Japanese)* 35273
digital/analogue filters, symp., London, UK (Nov. 1994) 28264
directional filters constr. scheme, appl., two-channel image coding *(Japanese)* 32861
echo cancellation, voice commun., sig. proc. methods *(German)* 42048
EMC, conference, Sendai, Japan (1994) 11561
EMI filters, bal./unbalanced charact. meas., S-params. 23718
EMI filters, dyn. prediction of insertion loss 23661
Gabor, stabilities for basic image transforms. 41223
gain-shaping filters, optimal overdesign 6198
gas turbine PM generator cycloconverter, digital control 10859
image filtering, fast implement. 41360
induction motors, on-line fault detect., stator current monitoring 4967
integrated analogue-digital microsystems, challenges for research and education 37826
K-edge filters, efficacy in diagnostic radiology 43236
line extraction from image, variable Hough transform *(Japanese)* 16300
line interf. subtraction filter for sig. av. ECG 35079
low-level meas. techs. for noisy environ. 17651
low-order LTI filters for controlling chaos, num. expt. 37825
matrix converter, low loss, input filter design 5132
Midwest Symp. on ccts. and systs., Detroit (1993) 33
morph. filters design, genetic algms. 2798
motion estim. method, 3D steerable filter 24565
multichannel image restoration, regularized, using cross-validation 32916
multidimensional syst., topol. attributes, modal estim. 15473
multimachine power syst., optimal robust stabiliser 27022
multiscale struct. from multiviews by ∇^2G filtered 3D voting *(Japanese)* 33110
NMR spectra proc. via cellular neural net 24732
nonselective fading, two-stage carrier sync. 25345
opt. flow estim., discontinuity conforming filters 41141
pancreatic CT, enhancement by simple cascading filter 35045
parameterized Gaussian-like filters, synthesis by approx. 32646
portable MaxiCode reader, proc. selection 25751

filters continued
power electronics EMC components 23723
power line switching transients immunity control spec. 19041
power station auxiliaries, var. speed squirrel cage motor drives *(Polish)* 43819
power syst. state estim., bad data detect., ANN appl. 19047
proc. control, sig. sampling scheme in real-time 24314
PWM-rectifier, LCL-type line filter 27829
random analogue data, optim. of digital storage 3773
series connected batt. strings, charge equalization 44306
single-phase VSI UPS, multiple feedback loop control 11142
space station, switching regulators, source-load interact. 26613
spacecraft distributed power systs. design 26595
struct. recovery and motion estim. from stereo motion 16329
substation, filter coil overheat fault diagnosis, 7th harmonic *(Chinese)* 44243
sync. DS-SSMA, decorrelating decision-feedback detect. 42164
tone-free ΣΔ modulators, design aspects 12598
variable reluctance motor, voltage-fed, dyn. model *(French)* 10994
X-ray timing Explorer Power Syst., stabil. anal. 26651

filters, chemical *see filtration*

filtration
bulk chem. distrib. systs., impact on semicond. proc. 11715
cage mag. filters 14265
coal-fired power plant reverse air fabric filter designs 43902
Danfoss DH series filter-dryers *(German)* 11487
DI water filters, microcontamination prevention, IC fab. 38544
elec. augmented filter, conducting/dielec. fibres comp. 4410
integrated membrane purification, water reuse in electronics mfg. 11888
MHR gas filtration, variable speed induction motor drive appls. 10823
NPP radwaste treatment, backwashable fiber filter appl. 43825
robotic soil anal. for phosphorous determ. 25714
solid-state lasers, liq. cooling agents and opt. filters 14825
ultrapure water technol., semicond. indust. 13265

FIM *see field emission ion microscopy*

FIM, atom-probe *see atom probe field ion microscopy*

fin line components
band-pass filter design, TLM method 37945
diode switch, coupled strip conductors *(Japanese)* 6318
mm-wave Schottky diode detectors 12751
multiport finline couplers, propag. characts. 12709
unilateral fin line resonate on biaxial substrates, spectral-domain anal. 21527
$LiNbO_3$ opt. waveguide modulator in fin line, optimum design 39443

fin lines
see also fin line components
ferrite-loaded multilayer planar line 2D-FDTD dispersion anal. 23811
layered anisotropic media planar transm. lines, characts. anal. 23796
multilayered lossy planar line params. calc. method 2289
planar transm. lines, multilayered dielec. substrs., WH/GSMT-based full-wave anal. 15571
semicond. substr., high precision anal. 31885
tunable fin-line-microstrip oscillator 6305

finance
see also accounting; auditing; banking; budgeting; commerce; corporate modelling; costing; financial data processing; investment; stock markets
Eastern Europe, telecomms. network planning 33301
global learning network, educational alternatives for developing economies 3043
KT-STOCK large vocab. speaker independent recogn. syst. 2440
mobile satellite services and Inmarsat in rem. areas of developing countries 42313
operator services automation, speech recogn. appl. 3141
VBI teletext for financial data broadcasting 8876
venture capital, IEE Colloquium, London (1995) 36860

financial administrative data processing *see financial data processing*

financial data processing
see also bank data processing; corporate modelling; EFTS; electronic trading; insurance data processing; spreadsheet programs
ADSTAR Distributed Storage Manager, user experience 24957
Belgium, Philips X.25-based data technol. for Ladbrokes group 41812

financial dealing systems *see electronic trading*

financial planning *see corporate modelling*

fine-pitch technology
3D X-ray inspection of fine pitch PCBs, automatic testing 29673
296-lead fine pitch thin plastic QFP package, TAB interconnect 5655
1024-pin plastic ball grid array for flip chip die, design, SPICE model 5652
AT&T μSurface Mount Assembly, large vol. fab. of flip-chip MCMs 21705
automated fine pitch solder paste dispensing, SMT PCB manufacture 38137
automated pick-place laser soldering for electronics assembly 12933
automotive engine controllers, potted, PQFP solder joint reliab. 28155
ball bonding optim., RSM, 3D/contour charts 38169
ball grid array packages 11776
COB, SMT and TAB packaging technols., design tradeoffs 28449
COG, COG technol. for LCD driver LSIs, resin and flexible metal bumps 134
COG photosensitive adhesive resin interconnection technol., LCD driver LSIs *(Japanese)* 953
component/proc. selection guidelines, SMT/PCB/fine pitch manufacture 38131
condensation inert heating mass reflow soldering systs., challenges 38162
conducting adhesives for HDI 11813
conductive adhesives for assembly of SMT, fine pitch, MCMs and flip-chip bonding 37116
conductive polymer solders for Pb-free SMT/PCB/fine-pitch assembly 38130
conformal coating stresses, SMT/fine pitch technol. 6431
electroless Cu plating for fine cct. pattern mfg. technol. 12929
electroless Cu plating for fine line cct. mfg. technol. 29680
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
fine/ultrafine pitch printing, electroformed/laser cut/etched stencils 37152
flat pack flux-free soldering proc. for PCBs 12937
flip-chip, solder bump fab. by electroplating 38173
flip-chip interconnection, fine pitch bump array 29700
HDI, laser soldering 12936
high pin count QFP packages, carrier and socket technol. 11802
high pin count QFP packages, carrier/socket technol. 28476
high-defn. PCB imaging, high-yield/high-resoln. manufacture 6410
high-speed MCM ATM switching syst. hardware technols. 25191
hot-bar soldering, 0.15 mm OLB pitch TAB components 941

fine-pitch technology continued
hybrid ICs, high-dens. SMTs 6441
interconnections, anisotropic conductive adhesive 22281
laser-cut stencils, no-clean solder cream printing 12898
MCM-D, low cost, large format fab. 21684
MCM-L and SCM-L, high dens. laminate technols. 21693
MLC MCMs and SCMs, surface-mount arrays 29735
μBGA packages, fine pitch wire bonding 21675
N_2-purity selection guideline, controlled atmos. reflow soldering 38104
no-clean solder deposition, reflow technol. for fine pitch 21641
no-clean solder paste reflow, N_2 atmos., O_2 conc. influence 38149
OMPAC assembly, no clean mass reflow 38171
PCB assembly yield, design factors, stat. and ANN models 38080
PCB cooling optim., reflow soldering in N_2-O_2 atmos. 38156
PCB pattern anal./eval. 38138
PCB pattern defect anal., divide and merge image proc. 29672
PCMCIA-style PCBs, depaneling proc. selection considerations 12926
picolitre flux dispensing for PWB assembly 12939
precoat soldering, fine pitch component mounting 38168
PWBs, electronic modules, laser-based noncontact testing 29650
QFP, VLSI chip, assembly, outlead cross-sect. effect on lead skew 11796
QFP, water-clean/no-clean mass reflow procs. 29676
QFP in SMT, solder joint quality, optim. 37075
SMT, fracture surface exam., solder joints 21644
SMT, laser soldering, thermal modelling 28436
SMT assembly, adhesive dispensing 12900
SMT bare board ATE, std. mirror board enhancement 38157
SMT board testing, method selection 38102
SMT PCB assembly, placement machine, multi-criteria DSS 28424
SMT rework, conductive/convective hand tools 38161
SMT/FPT assemblies, reflow soldering 914
solder deposition/dispensing, fine pitch, productivity enhancement 38150
solder joints, microstruct. phenom. 6424
solder joints of surface mount IC package, exam./testing 37117
step-by-step SMT design for manufacture 38132
surface mount and fine pitch technol. advances, overview 37151
TAB, fine pitch, laser syst. 21670
thermal printing head, line type, convex struct. 29704
thin-film MCM, advanced micro-interconnection implement. 21681
transfer laminate cct. proc. for fine pitch wiring technol. 12971
transferred ball bump technol. for tape carrier packages 21673
water soluble/no-clean selection guidelines, PCB/SMT/fine pitch soldering 38151
wedge bonding, high dens. packaging, PGA 20446
wire bonding, fine pad pitch technol. 29703
wire bonding for COB 38096
z-axis conductive adhesives, fine pitch appls. in consumer electronics, accelerated life test 135
GaAs fine-pitch devices, flip-chip attachment, ball-bumping technol. 12954
N_2/convection reflow soldering oven, input gas flow var. influence 38148
Sn-Bi(Ag) soldering alternatives for fine-pitched electronics packaging 29675
SnPb thickness meas., X-ray fluoresc. systs., PCB manufacture 38094

fine structure
see also hyperfine structure
p-Ge, intervalenceband pulse FIR laser, mode fine struct. 14891
Si-$TaSi_2$-TiN-AlSi multilayer thin film contacts, electromigration testing 38654

fingerprint identification
human body surface, colour 3D electronic imaging 34566
image compression, wavelet scalar quantization vs. JPEG 41194
Karhunen-Loeve expansion stabil. in pattern recogn. problems 2692
opt. analog computing appls. 7439

finite automata
see also cellular automata; finite state machines; learning automata
controllable delay devices in two-level-freq. synthesis systs. 29067
cursive Hangul character recogn. via stat. approach 41310
image compression anal., weighted finite automata 15783
induction motor, 3-phase inverter, robust current controller, finite state automaton 36158
multi-machine syst. learning coord. control 36121
multimodal interface, speech and touch screen *(Japanese)* 24137
multiphase AC power converters, modular interface/algm. 19880
one-key cryptosystems 8130
OSI environ., distributed message transfer and store appl. 33264
power plant automation, knowledge-based support shell 27298
power syst. interconnection restoration, intell. tools 19142
public key cryptography, FAPKC, randomized algm. 32104
reversible instruction set archit. and algms. 6120
sentence recogn. syst., finite state automaton, perform. prediction 32304
speech recogn. systs., HMM, finite-state automata 32361
telecomm. network distributed mgt. syst., formal design 33296
tonality recogn. from sound input 17619
weighted finite transducers in image proc. 41282

finite difference methods
see also finite difference time-domain analysis
2D diffusion, finite difference scheme 276
2D of lateral magnetotransistor 9885
3D diffusion eqns., compact finite vol. soln. 28684
3D opt. waveguide struct., vectorial FD-BPM anal. 40428
3D plasma armature railgun simul. 15371
act./pass. semicond. OEIC, BPM simulator 14646
anisotropic cylinder, EM scatt. anal. 40306
anistropic channel waveguide coupling, finite-difference freq.-domain anal. 31897
auxiliary vector fn./adjoint methods in solving anisotropic media EM problems 15230
beam propag. method num. algms. 39470
bent dielec. waveguides, finite difference BPM anal. 23803
bipolar dc corona, PIC simul., HVDC transm. lines 13978
CATEF program, elec. field calc., accelerating tubes *(Chinese)* 26077
chiral-material-filled rect. waveguide, EM wave propag. 31906
concentric cylinders, heat cond., electronic package appl. 149
dielec. liqs., elec. cond. injection-dissoc. model 13921
dielec. multilayered waveguide, directional-coupler mode splitter *(Japanese)* 7353
difference operators in method of lines, higher order approx. 20618
diffusion eqns., alternating segment explicit-implicit method 269
double cct. 500 kV transm. tower, lightning surge anal., EMTP 4703

finite difference methods continued
dye doped film phase-matched grating generated by enhanced forward DFWM 15077
elec. launcher plasma-surface interact., computer simul. 15372
electronic packages, life enhancement, design optim. 28497
electrothermal-chem. gun pulse shape requirements 19780
EM scatt. from impedance ellipt. cylinders 40301
femtosecond temporal and spatial soliton num. simul. in nonlin. optics 40055
field-emission flat panel displays, beam focusing 18009
flat surface radiation and scatt., measured eqn. of invariance 23604
flow sens. params. determ., finite difference method 18155
four-quadrant bipolar power converters, computer simul. 5096
Fourier pseudospectral-finite difference method, incompressible flow 274
full-vector waveguide modeling by iter. finite-difference method, transparent boundary conditions 40401
generalized brightness change model for computing optical flow 24706
heated blocks array in rect. channel, simul. of convective heat transfer 37083
high-order finite difference methods, num. behavior 20628
human forearm, neural stimulation in mag. field, tissue models 35190
hybrid PV/photothermal water heater syst., perform. modelling 27631
integrated opt. cct. simul., num. BPM algms. 22920
interconnect capacits. of ICs, automatic model generation 38980
intersectional opt. switch, finite difference beam propag. anal. *(Japanese)* 9549
joint finite-difference/FFT full vectorial beam propag. scheme anal. 40441
LMFBRs, thermalhydraulics, turbulent shear flow 35779
magneto-optic ridge waveguide struct., nonreciprocal mode propag. 39421
meas. eqn. of invariance study 20633
measured eqn. of invariance, computational savings 23605
mesh termination in finite-difference techs., simulating boundary conditions 31717
metal melting, microscopic hole by laser radiation *(Japanese)* 6657
metallic waveguides, rect. boundaries, finite-difference anal. method 23791
MeXeL simul. of micro-electromechanical systs., nonlin. partial differential eqns. 39032
microwave semicond. device models, num. algms., finite difference schemes 12782
MODFET, extended drift-diffusion model, 2D num. anal. 38924
MQW VSCEL, gain-guided, transverse mode num. anal. 31469
multilayer slab waveguide nonlin. modal fields by finite difference beam propag. method 40433
multiphase composite, impedance spectrosc., simul. model 37566
nonlin. opt. waveguide, iter. finite difference anal. *(Japanese)* 7352
nonlin. tapered opt. waveguide, beam propag. anal. 22873
nonreciprocal integrated optic couplers, magneto-optic materials, design 14413
open periodic struct., finite difference/finite element EM scatt. anal. 15383
opt. planar waveguides, finite difference beam propag., vol. integral formulation 30943
opt. radiation self-action in medium, cubic nonlin. 31612
optimal absorbing boundary conditions 23648
parallel 3D finite difference beam propag. methods, opt. waveguide structs. 30956
parallel beam propag. method for SHG anal. 40048
param. estimator bias, finite-difference regularization operators 43491
PCBs, anisotropic substrs., sig. line models 21628
petroleum storage tank electrostatics, stream fn. distrib. 15220
petroleum storage tank recirculatory flow, electrostatic charge estim. 15215
phase diversity as on-line wavefront sens., expt. results 16217
photoresist post exposure bake effects, simul. 1304
photothermal deflection method, defects in ceramics anal. 12215
polymeric materials, water treeing, computer simulation 14062
power semicond. switches, 3D thermal modelling software 543
power syst. elements, EM anal. using finite difference method, software tool 40182
pulse electrodynamic drive, transient proc., theory 7934
QFP family, thermal perform. limits, finite difference based software 5631
rect. piezoceramic electroacoustic transducer, reson. freq. 10578
RTDs, gated, elastic scatt. and depletion effects 38803
self-aligned integrated mirror intrinsic loss anal., finite-difference beam propag. method 39613
semicond. Fabry-Perot lasers, cavity mirror imperfections and reflectivity 31458
semilinear sing. perturb. problems, uniform convergence result 37345
short bunch RF-linac FEL, output power fluct. 3D simul. 39973
silicone-rubber encapsulants, power transformers, thermal cond. meas. 36233
Space Station Freedom PMAD syst., thermal anal. 18763
steady-state heat eqn., floating random walk algm. 5633
superconducting microstripline atten. and propag. const. calc. 31896
surface-channel CCD, charge transfer inefficiency *(French)* 30369
tall enclosures with flush-mounted heat sources, convective flow and heat transfer 37094
thermohydraulics, optimized locally exact num. scheme 35780
thin rect. plates, eddy current loss calc., cryogenic temps. 7908
thorax, computer model, ECG lead field calc. 26372
thorax models, impedance cardiogram multiple sources 18568
TLM and hybrid symm. condensed nodes, direct derivation 15552
TLM method, first-order absorbing and dispersive boundary conditions 23764
TRASIM, 2D transient simulator for planar semicond. devices 38778
travelling wave panel electrode design, computer user interface 15248
tropos. EM wave propag. eqn., soln., box method 40350
vert. channel, protruding heat sources, 3D convective cooling 37126
VLSI RC parasitics modeling based on network reduction algm. 22536
waveguide, finite-difference beam propag. method, oblique coord. *(Japanese)* 14425
waveguide struct., 3D finite difference beam propag. method *(Chinese)* 39394
wide-angle propag. beam opt. waveguide anal., generalized Douglas scheme 22876
X opt. coupler with nonlin. dielec. region, anal. 31502
Y-jn. waveguide switch cross talk 22871
InGaAsP/InP/InAlAs quantum well electron transfer struct., finite difference methods 13582
InGaAsP-InP QW electron transfer struct. for ultrafast opt. switches 38351
$LiNbO_3$ opt. beam splitter, tapered vel. coupler 7401
LiNbO3:Ti anisotropic graded-index channel waveguide, finite element modelling 39463
a-Si thin films, glass substrs., excimer crystallisation simul. 13075
SiON integrated optic intens. modulator based on mode coupling 1731

finite difference time-domain analysis
- 2D-FDTD method, DFT appl. 15579
- 3D Cartesian-mesh FDTD codes 23599
- 3D FDTD slotline anal. on limited memory PC 23789
- absorbing boundary conditions synthesis 31935
- broadband acoustic propag. and scatt. in waveguide, scatt. 18923
- cellular pers. commun., handset antenna/human EM interact. 9343
- cellular phone EM fields, induced current/SAR, human head 18622
- Cherenkov FEL, Kerr-like medium loaded, efficiency enhancement 23319
- circular waveguide mode cutoff freqs., FDTD model staircasing effects 23809
- coaxial slot antenna dielec. meas. model 23906
- complex planar struct., static study *(French)* 12702
- cordless telephone operators, head induced EM fields 35192
- CP-PASS, FDTD anal. of unit-radiator 23943
- curved-surface microstrip antenna conformal-grid FDTD anal. 23865
- cylindrical monopole coaxial feed FDTD model 23997
- dielec. surface asperities, near-field opt. detect. 31792
- dielec. waveguide discontinuities, freq. charact., FD-TD method *(Japanese)* 30927
- dispersive media, wave propag. anal., FDTD formulation 40316
- ELF-microwave radiation dosimetry num. methods 35186
- EM modeling for GPIR, 3D FDTD modeling codes 42504
- EM scatt. by nonlin. bounded dielec., FDTD approach 15386
- EM scatt. simul., sawtooth anechoic chamber, absorbing boundary condition 40311
- EM wave scatt., moving boundary, grid generation 7957
- EM waves reflectionless absorpt. , perfectly matched layer concept 23600
- ESD source modeling 15217
- excitation plane FDTD wideband absorbing boundary conditions 15423
- ferrite-loaded multilayer planar line 2D-FDTD dispersion anal. 23811
- ferrite-loaded waveguides, dispersion characts., FDTD anal. 23788
- finitely-periodic dielec. waveguide mode reflectivity 23769
- FSS FDTD anal. with Floquet boundary condition 15625
- general curvilinear coord. FDTD method 5801
- GTEM 1750, meas. field struct., anal. 15483
- guided-wave optoelectronic device model, FDTD/Fourier expansion method 14412
- hand-held telephones with low absorpt., integrated antennas 15640
- handheld transceiver planar inverted-F diversity antenna 25353
- heatsink radiation, fn. of geom. 15475
- helicopter 3D automatic FDTD mesh generation 26528
- HF EM modelling techniques, IEE Colloquium, London (1995) 36883
- high-permittivity cube RCS computation 25563
- human ankles, induced currents, VHF EM fields 35183
- human body/pulsed EM wave interact., induced currents 18627
- hybrid finite-vol. FDTD modelling of curved surfaces 23595
- IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
- impedance computation, FDTD method, num. errors 5802
- infinite-ground-plane aperture scatt. 23608
- inverse scatt., local shape fn. method 23569
- lin. dispersive media, EM wave propag., FDTD methodologies 40281
- locally nonuniform mesh FDTD anal. 15541
- magnetized ferrites, FDTD anal. 23788
- Maxwell's eqns., FDTD solns., dispersion suppression 2176
- Maxwell's eqns., time-domain num. soln. errors 2178
- Maxwell eqns., absorbing boundary conditions, FDTD method 7956
- Maxwell eqns., num. soln., EM scatt. appl. 23582
- microstrip antenna, radiated fields, radiation mode expansions 8036
- microstrip discontinuities, FDTD anal., error minimisation 8027
- microstrip passive filter anal., FDTD algm. improvement 29536
- microstrip-microslot applicators, 3D modeling, FDTD method 18601
- microwave exposure in head model, external mag. near-field 43385
- microwave heating cavity, FDTD simul. 11475
- microwave heating of materials having temp. depend. params., num. modeling 20130
- microwave hyperthermia applicators, FDTD modelling 35144
- microwave oven, high loss dielec., EM fields, FD-TD anal. *(Japanese)* 28186
- mixed methods for modeling of EM expts. 40277
- MRI slotted tube resonator, dielec. body loaded, num. anal. 26318
- multielement flexible microstrip patch heater for hyperthermia treatment 43345
- multiport discontinuities in waveguide, pulsed FDTD anal. 15562
- nonlin. FDTD formulations for nonlin. opt. simul. 31558
- nuc. EM pulse fields inside metallic container 31852
- open-ended coaxial probe 18031
- partially magnetized ferrites, FDTD treatment 39210
- PCB, high speed pulse propag., radiation prediction, 3D FDTD 900
- pers. wireless commun., antennas charactn. 17129
- photoconducting switches, 3D FDTD simulation 23012
- planar microstrip ccts., FDTD anal., spectral domain Prony's method 12730
- plasma radiowave propag., FDTD study 7988
- polarimetric vector diffr. tomography 40274
- Poynting's theorem for FDTD method 40447
- pulse wave, EM scatt. by buried obj., FDTD method 23618
- pyramidal horn antennas, composite inner E-plane walls 8057
- pyramidal horns with composite E-plane walls, contour path FDTD anal. 23925
- radiation source near-field, human model exposure, SAR distrib. 26493
- rect. waveguide, nonorthogonal FDTD method 40404
- rect. waveguide multiple-slot narrow-wall couplers, 2D FDTD anal. 817
- resistively loaded bowtie antenna FDTD anal. and optim. for pulse radiation 23926
- SAR mapping within human eye, portable transceivers effect 18625
- scatt. EM fields, FDTD results, algms. 31800
- semiglobal radiation boundary condition for FDTD method 31924
- SGEMP and source-region EMP problems, equivalence principle 31851
- shield degrad. in presence of external conductors 15497
- shielded enclosures radiation, FDTD method 15472
- shielded room reson. effects reduction, constr. tech. 15485
- simul. of indoor propag. 9259
- slot-coupled circ. microstrip antenna with symm. radiation pattern 31940
- small aperture modeling, EMI appls., FDTD tech. 40384
- small-hole coupling, formalism for FDTD simul. 7894
- spectral estim. of FDTD waveforms by AR methods 2169
- sq. coaxial waveguide struct., nonorthogonal FDTD method, sensitivity anal. 23768
- strip dipole with window, stripline fed, anal. *(Japanese)* 31981
- superconductive interconnects, FDTD anal. 14297
- tapered slot antennas, FDTD anal. of transient EM fields 2333

finite difference time-domain analysis continued
- thin lossy slab EM wave refl./transm., time-domain calcs. *(German)* 31801
- thin wire FDTD stabil. anal. 15553
- time-domain diakoptics, implement. in FDTD method 469
- TLM method, plane-wave illum., partial Huygen's surface 2282
- ultra-short pulse propag. on complex planar structs., anal. 37961
- waveguide discontinuities, higher order modes, Prony's method in FD-TD anal. *(Japanese)* 31889
- waveguide discontinuities, wideband matching, FDTD methods 2288
- waveguide dispersion anal., compact FDTD tech. 23778
- Whitney elements time domain methods for solving EM Maxwell eqn. problems 40183
- X-band rect. waveguide, Maxwell's eqns., FDTD soln. 23814
- Yagi-Uda antenna, FDTD anal. 15670
- Cu-30 at.%Zn brass aerosol particle IR extinction, FDTD calc. and obs. 23650

finite dimensional systems *see multidimensional systems*

finite element analysis
- *see also mesh generation*
- 0.35-mm-pitch QFP lead and assembly technol. 5654
- 2-D soln. methods, axisymmetric systs. perturb. 31706
- 2D chirowaveguides, FEA 2298
- 2D EM field calcs., FEM-piecewise polynomial method *(Chinese)* 40202
- 2D hybrid element image reconstruction for TM illum. 43222
- 2D leaky opt. waveguides, vectorial FEM modelling 39406
- 2D nonuniform plasma cylinder with neg. core, E-wave diffr. 23655
- 2D scatt. by inhomog. anisotropic material cylinders, hybrid FEM-MFCM 40312
- 2D struct. anal., first-order hybrid FEM/MoM approach 31785
- 3-phase multiconductor busbar systs., model validation 19904
- 3D dyn. nonlin. mag. field in elec. machine, time-periodic FEM 40246
- 3D eddy currents in conducting and mag. shells, impedance-type boundary conditions 40238
- 3D eddy-current computation, self-adaptive refinement tech. 40234
- 3D EM cavity anal. using high order edge elements, microwave ovens 37964
- 3D EM scatt., parallel computation, finite elements 2216
- 3D EM waveguide-discontinuity problems, vector FEM *(Japanese)* 31890
- 3D environ., cross-talk determ., simul. methods 15530
- 3D force prediction in model lin. brushless DC motor 19652
- 3D gradient recovery by local smoothing of finite-element solns. 28680
- 3D interface elements for modelling complex pot. drops 40193
- 3D mag. field anal. with edge element,magnetizing current dens., continuity 40185
- 3D mag. field computation, FEM-based anal. *(Chinese)* 40201
- 3D mapping of muscle activity, surface electrode array sig. proc. 26391
- 3D Maxwell eqns., absorbing boundary conditions for finite element soln. 40194
- 3D micro-electro-mech. struct., self-consistent electromechanical anal. 1502
- 3D scatt. FEA absorbing boundary condition code parallelisation 23556
- 3D scatt. problems, absorbing boundary conditions for FEM soln. 40309
- 3D transient eddy current calc., hybrid FE-BE method, mag. field intens. 40245
- 15 kV power cable FEM modelling, computer-based 4686
- 100 fibre ribbon slotted core opt. cable, low pol. mode dispersion 3562
- a posteriori error estimator for lin., ellipt., 1D problems 37366
- absorbing boundary condition for EM scatt. 40307
- AC/DC/reluctance motors, torque prod., unified theory 4930
- accelerometer, surface micromachined, integrated electronics 9862
- acoustic radiation impedance calc. by FEA 26787
- actuators, EM forces calc., num. methods assess. 5169
- adaptive computation of EM field problems, reliab. assess. of error estim. 40200
- aerial cable target syst. simul., 6-DOF 26843
- aircraft AC generators, forced power transfer, dyn. modelling 26657
- alternators, buried PM retention, high speed, rotor laminations 4931
- arbitrary heterog. materials with Voronoi cell FEA, elastic-plastic anal. 28697
- artificial heart lin. oscillatory actuator, structural anal. 35167
- asynchronous machine vibroacoustic optim. *(German)* 11028
- asynchronous machines, standstill freq. response studies *(French)* 11044
- augmented railgun-based fusion reactor solid H_2 pellet accel. 15283
- automotive EM particle clutch, design anal. 11435
- automotive engine controllers, potted, PQFP solder joint reliab. 28155
- automotive rotary actuator homopolar PM motor studies 11436
- auxiliary vector fn./adjoint methods in solving anisotropic media EM problems 15230
- avionics PCB SMC, reliable design 10317
- axial flux interior PM sync. elec. vehicle motor drives 36756
- axisymmetric finite element electrostatic anal., finite element electrostatic anal. 15227
- barbed plate-to-plate precipitator, elec. field/space charge, 3-D model 15249
- beam adaptive frame for FEA 14431
- beam propag. method num. algms. 39470
- bipolar dc corona, PIC simul., HVDC transm. lines 13978
- boundary conditions for FE anal. combined, GTD 40310
- BPDA-PDA polyimide in multilayer thin-film packages, dielec. anisotropy meas. 6464
- brushless DC motors, tooth forces, coil winding pattern infl. 19651
- bump-pad adhesion, thermocompression bonding effects 21668
- busbars, EM proc. calcs., FEM-based 18998
- cage induction motor, slanted stator/rotor teeth effect on torque 36170
- cardiac defibrillation optimisation, human thorax finite element modelling 18588
- cavity radiator infinite phased arrays, hybrid finite element/waveguide mode anal. 31971
- charge iter. procedure for unbounded elec. field problems, fictitious boundary 40187
- Cherenkov laser, Kerr-like medium 7699
- chirowaveguides, 3D FEA, hybrid edge/nodal elements *(Japanese)* 8015
- circ. shaft, dyn. response, piezoelec. sens. 9890
- circular cylinder cavity FEM boundary integral formulation 23822
- coaxially driven axisymm. microwave structs., modelling 6298
- COB encapsulation technol., stress anal., reliab., FEM 37077
- COB technol. for low cost MCM 21750
- colour TV tubes, high temp. stress meas., exhaust oven *(Chinese)* 9712
- complex anisotropic media, auxiliary vector fn. method 23562
- computable error estim. for lin. and num. soln. of obstacle problems 37368
- conference, thermal problems, numerical methods, Swansea, UK (July 1993) 36887

finite element analysis continued
contact resist. between plated conductors, current dens. distrib. 6383
continuum damage mech. model, cyclic creep fracture anal. of solder joints 28489
coupled striplines, higher order modes 799
cpd. turbogenerator electrodyn. props., rotor eddy current effect *(German)* 10985
cylinder, 1-3 composite, hydrostatic press. response 14081
cylindrical resonators reson. freqs. anal. 29551
cylindrical thermionic fuel elements modelling, MCTFE code 27986
D-fibre/buried waveguide vert. coupling, vectorial FEA 14415
DC magnet moving over Fe rail, finite element calc. 15238
DC motor armature reaction EM field, FEM-based anal. 19660
DC motors, num. anal., FEM 36194
DC PM motor, electronically commutated 19663
DC power plants, seismic qualification, computer simul. 44142
deep heating hyperthermia, induction applicator 26468
deep X-ray lithog., masks, thermoelastic deform. 38744
defibrillation, transthoracic/transvenous, human thorax model 18587
defibrillator electrodes, implantable, customisation, finite element model 18613
device simulators, derivatives, automatic num. eval. 20613
diaphragms, electrostatically deformed, self-consistent simul. and modelling 30499
die attach proc., mfg. stresses in die, electronic packages 6453
die-attach proc., mfg. stresses in die, package reliab. 29709
dielec. liqs., streamer propag., computer simul. 1533
discretized energy minimization in wave guide, point sources 12017
disk drives, PM spindle motor modelling 19581
domain decomp., spectral expansions of Steklov-Poincare operators 28688
domestic appliances, doubly salient PM motor, commutation, design/anal. 11491
doubly- and non-oriented sheets, anisotropic behaviour model 39126
doubly-salient variable-reluctance motor, starting model *(French)* 10993
eddy current problems, BEM-FEM-coupling method, domain decomp. 40254
eddy current problems, discrete seq., mixed finite elements, gauge condition, vector pot. 40242
eddy current problems, symmetric undifferentiated fully gauged T,Ψ-A-Ψ formulation 40241
elec. connectors, metall. considerations in FEM modeling 12869
elec. engng. appls. of FEA 12014
elec. fields lin., first order triangular finite elements 40196
elec. machine act. vibr. control, piezoelec. actuator-based, simul. 36090
elec. machine conjug. EM field calcs., Newton-Raphson method-based *(Polish)* 36093
elec. machine field problems, modified scalar pot. method 43981
elec. machine power convertors, 2D FEM computer modelling 36099
elec. machine vibrs., 3D FEM-based modelling 27674
elec. machines, FEA, post-proc. methods 19669
elec. motor, optimal design, genetic algms. 19580
elec. rly. traction syst., EMI assess. modelling 44548
elec.-structural engng. finite element modelling education rels. 5535
electron gun design, DAPHNE 2D axisymmetric simul. code 29761
electron waveguide discontinuities with arbitrary pot., effective mass distrib., FEA *(Japanese)* 31891
electronic packages, life enhancement, design optim. 28497
electronic packaging, mech. anal. 28493
electrostatic assisted atomiser, nonwetting, catalytic melt spraying 7921
electrostatic field effects/space charge effects, computation 31705
electrostatic fields computation, IEE Colloquium, London, UK (1995) 11600
electrostatic micromachines anal. 36212
electrostatic particulate materials bulk transport valve 7917
ellipt. core cross-sect. opt. fiber, first higher-order modes 22849
EM, computational methods and considerations 40178
EM CAD in undergraduate courses 2171
EM field anal. in rot. elec. machines, finite element-anal. hybrid method 15235
EM field calcs., edge elements-based *(Chinese)* 7888
EM field quantities/forces comp. by superconverg. in finite elements 40188
EM launchers, multi-fibre brush armature perform. simul. 15321
EM phenom., computer animation, graphics package 40195
EM scatt. from periodic inhomog. medium, rough interface 31793
EM wave and electronic equipt. interact., computer modeling 8000
ESD, finite element time domain simul. 15218
exterior Helmholtz problem on IBM SP-1, FEM 23580
external Q of reson. cavities, finite element num. computation 37963
fast mag. actuator for diesel engine injection syst., FEM modeling 15252
fatigue life of solder joints, FEM study of factors 11756
ferrite bodies of rev., scatt., hybrid FEM 31807
ferrite loaded waveguide, soln., vector finite elements 40417
ferromag. materials, eddy current NDT sens. 12217
fibre optic smart struct., coating props. optimisation, FEA 34541
field-emission flat panel displays, beam focusing 18009
field-to-wire coupling, anal., FE-TD method 40191
finite vol. discretization methods for hyperb. eqns. 37347
finite-element soln., ellipt. sing. perturbed problem, error estim. 37293
flip chip packages, damage and life prediction of solder joints under thermal cycling 11747
flip chip struct., encapsulation 28453
flip-chip interconnection, solder joint reliab. 29702
freq.-independent cct. model of conductor under surge conditions 31878
generalized multipole tech./FEM, coupling 15414
generators, transverse edge-cracked rotor vibr. 19579
geometric nonlin. in design of force transducers 34458
GTEM 1750, meas. field struct., anal. 15483
GTO thyristors, cct. simuls., math. model 5063
Hall effect and magnetoresist., FEA 13023
Hamiltonian syst., finite element discretization 28702
hard mag. particles in 2D and 3D, nucleation fields, micromagnetic calcs. 6948
Haystack antenna, optimal surface adjustment 23897
head-disk interface lubrication using non-Newtonian fluid, num. simul. 7068
header plate with 51-pin elec. feed-thru, electronic package thermal stress anals. 28486
helical-scan recording, lumped modeling of rotary transformers and heads 34272
Helmholtz eqn. and electromagnetism, FEA and integral eqn. methods 23492
HF EM modelling techniques, IEE Colloquium, London (1995) 36883

finite element analysis continued
HF transformer edge effect anal., 2D FEM-based 6376
HF transformer windings, model, FEM tool 6377
HF transformers, centre-tapped, loss eval., unbalanced loads 29618
hierarchical neural network appl. to ident. of defects, elec. pot. *(Japanese)* 21009
high power microwave aperture antennas, TD-FE anal. 40489
high wave no. EM scatt., soln. method 40308
HL-1 Tokamak TF magnets, stress anal. 40270
hp-extension of Nedelec's curl-conforming elements, error estim. 15233
HTSC flywheel levitation force, num. eval. 1583
human head, MRI, imperilled areas anal. 18474
human heart, med. diagnosis, hybrid MCG/ECG approach 18449
human model in power freq. elec. field, induced current densities 26492
HV overhead power EM field calcs., FEM-based 4692
HV substation flexible busbars, plastic impact simul. 19915
HV switchgear seismic withstand capability 36451
HVDC transm. line, bipolar ionised field, FEM 43735
HVDC transm. line, monopolar ionized field, ion diffusion 43736
hybrid FEM, EM field distribs. in large cavities 2306
hybrid FEM, phased array antenna anal. 23939
hydrodynamic formulation of energy bal. eqns., finite-element discretization 30196
IC packages, molding, wirebond deform. 28495
IC plastic packages, thermal enhancement 28470
IC thin film cracking detect., test chip design 11861
idealized exciting current sources modelling in FEM, EMC, Eddy currents 40365
impedance tomography, cylinder/human thorax, finite element models 43288
induced strain-actuated struct., FEA 6915
induction cooker coil CAD, Pascal program-based 36785
inductive heads, thin film, finite pole length reduction 7096
infinite periodic array element behaviour computation using FFT 31972
infinite periodic arrays, radiation/scatt., 3D hybrid FEM/BEM 31780
integrated optics anal., paraxial wave eqn., multilevel finite element soln. 40430
interior PM servomotors, EM props. calcs. 44080
internal resist. distrib. meas., elec. impedance tomography 9992
ion implant., simul., Boltzmann eqn., num. soln. 22121
jet engine inlet scatt., hybrid finite element-modal anal. 42486
joint replacement, orthopaedic biomechanics computational problems 18618
Laplace domain FEM, diffusion/propag. problems in elec. engng. 278
large and complex targets, EM scatt. calc. tech. 7941
laser beam welding and straightening, FEM simul. *(German)* 5605
layered nonlin. sheets, shielding props., prediction 15466
LCC, soldered, survivability, temp. cycling 28464
leaded SM devices, creep strain response of solder joints, temp. profile params. 38163
leadframe designs, molding-induced warpage 11795
LIM, charact. anal., 1 A conductor *(Korean)* 36196
LIM, skewed ladder-type rotor, 3D FEM-based anal. *(Japanese)* 44044
LIM, slitted react. plate, 3D FEM anal. *(Japanese)* 19668
lin. alg. kernels, build efficient finite element solver 20598
lin. PM motors, finite element modelling 11076
lin. pulse motor mag. reluctance distrib., structural depend. anal. *(Japanese)* 44072
lin. reluctance motor can secondaries, suspen./propulsion forces 19671
lin. step motors, FEM for nonlin. mag. fields, nuc. reactor appl. 19673
liq. level sens., thin walled vibr. cylinders 17745
loaded 3D multimode cavity, model, 2D FEM/modal anal. 40416
locking and robustness in FEM for circ. arch problem 28700
loudspeaker mag. core, mag. field optimal shape design *(Polish)* 22706
low drag meas. by vision syst., IC appl. 9814
Lundell alternator, 3D mag. field anal. *(Japanese)* 27686
mag. field anal., FEM, effective anisotropic field 40227
mag. field anal. by hybrid FEM/BEM 31702
mag. hysteresis, finite element modelling 39125
Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
magnetoresistor lin. posn. sens., automotive appls. 11434
magnetostatic anal. via general purpose finite element program 31723
magnetostrictive devices, FEM modelling for mag. cct. design 39212
massively parallel computers, domain-decomp. methods 40203
Maxwell's eqns., time-domain num. soln. errors 2178
Maxwell eqns., soln., FE-TD algm. 37369
MCM, heat cond. anal., global-local procedure 37121
MCM, intell. analyzer, thermal design tool 21785
MCM, thermally conducting adhesives, thermo-mech. study 28496
MCM automated 3D model constr., adaptive finite element global /local anal. 29723
MCM flex lead bending during thermal cycling, finite element stress model 12944
MCM technol. selection for thermal perform., FEA 21761
MCMs, flip chip solder bumps, thermomechanical charactn. 29717
MCMs, thermoelastic anal., global-local procedure 28487
meas. eqn. of invariance study 20633
measured eqn. of invariance, computational savings 23605
measured eqn. of invariance, modif. 23552
MECHANICA/Applied Struct. FEM package, engng. design 37011
mesh decomp. and commun. procedures for FE appls. on Connection Machine CM-5 syst. 12015
metal/polyimide fine line struct., adhesion and fracture anal. 1171
MIC2D software for microwave planar cct. anal., time domain FEM 38038
microbend sens. perform., finite element/beam propag. methods 17858
microelectronic packages, automated design 11757
microlaser lin. arrays, thermal modeling for mode-size estim. 1910
micromotor, 3D electrostatic fields/forces, capacitance/torque calc. 36211
micromotors, coupled electrostatic/mech. FEA 11094
microstrip systs., FEA, approx. capacitance formulas 6283
microwave cavity resonators, modeling of testing params. 37561
microwave heating, multimode applicator, finite element time domain anal. 28171
microwave microstrip dielec.-resonator filters, 3D FEM simul. 37947
microwave oven design, EM wave anal. methods *(Japanese)* 44619
middle gull-wing joint, thermal fatigue life, FEM 28502
modal expansion and Bayliss-Turkel absorbing boundary conditions 23555
modal noise suppression in white light interferometer 17913
modular imaging spectrometer instrum. modeling/testing 34591
molding cpd. materials for IC plastic packaging, fracture props. 5626

finite element analysis continued
molding cpds. for IC plastic packaging, fracture props. 5671
molten solder profiles for rect. pad geometries in SMT, calc. 38123
moving conductors, eddy current comps. by hybrid FE-BE method 40247
MQW nonlin. struct., finite element characterisation 38352
MQW-sandwich nonlin. directional coupler with nonlin. losses, all-opt. switching 31601
MSC/EMAS, CAE software for EMC anal. 23720
multi-chip carrier power hybrid, EMI study 21662
multilevel metallization struct., failure mechanisms, finite-element stress anal. 38694
multimode GRIN fibers, mode-noise anal. 39357
multiple winding transformer, model, mag. leakage 6378
multiwavelets 32511
multiwire shielded cable param. computation 38059
muzzle-fed railgun expts., 3-D EM simul. 15279
muzzle-fed railgun expts., plasma armature 31752
NLC phase device modelling 39497
nonconforming element multigrid method, parab. eqns. *(Chinese)* 5795
nonconforming finite elements, shape fn. space 37371
nonHermitian bianisotropic media 23563
noninvasive blood press. meas., arm soft tissue influence 43185
nonlin. bit shift in thin film heads, rise time/field gradient effect 7091
nonlin. ellipt. problem, BDM mixed methods 12006
nonlin. EM problems, hybrid finite element-BEM 40221
nonlin. mag. field problems soln., Newton-Raphson method 40224
nonlin. opt. channel waveguides, scalar FEA, isoparametric elements *(Japanese)* 22900
nonlin. waveguides, FEA, modal solns. stabil. 39423
nonrectangular cavity=backed patch antenna anal. 23850
nonsalient pole DC motor, stator reconstr., elec. steel use 36183
nonuniform multiconductor transm. lines, pseudo-3D FEA 15549
NPP, seismic anal., vert. pumps/motors 35900
nuc. heating reactor core barrel, reliab. anal. method 35937
nuc. power piping syst., circumferential crack, J-integral 35866
nuc. safety related systs., components, seismic qualification 35902
ocean acoustic scatter from mid-Atlantic ridge corners, CW and time-domain simul. 18882
ocean acoustic tomography barrel stave transducer 10573
OMPAC package-to-board attach reliab. 28534
open periodic struct., finite difference/finite element EM scatt. anal. 15383
open-boundary waveguide modal anal., finite element approach 2305
opt. guiding struct., chromatic dispersion 7305
opt. head lens actuator, high bit rate recording 7105
opt. telescope, direct drive, low cogging torque PM brushless motors 11320
optimal-order nonnested multigrid methods, degenerate meshes 28695
p-version FEM, high accuracy *(Chinese)* 5794
parab. systs., integrated space-time adaptive hp-refinement methods 37344
parallel adaptive strategy for hp finite element computations 28698
parallel lin. eqn. solvers for computational electromagnetics problems 23557
parallelism in finite strip formulation, static anal. 12011
pass. damper for mag. suspen. 14266
pass. multilayer component CAD, EM field computation 6364
PCB radiated emissions, finite-element CAE anal. 38084
PCBs, PTH reliab., direct power/ground plane interconnection 12875
PCBs, radiation/crosstalk, edge-elements charactn. 12872
periodic dielec. struct., EM wave interacts., finite element modeling 15565
periodic waveguides, coupled-mode/FEA *(Japanese)* 14424
permitt. meas. using unguarded disc electrodes, capacitance correction 1504
Petrov-Galerkin methods applied, nonlin. problems 20639
phase field model, error estim., finite-element scheme 20571
photopyroelectric thermal-wave imaging instrum., probe-tip optimisation 42790
piezoceramic resonator anal., inplane fork-mode vibr. *(Japanese)* 14086
piezoelec. ceramic-polymer composites, HF appls. 6921
piezoelec. devices, axisymmetric, numer. simul. 14077
piezoelec. discs with elastic addits., vibr. anal. 26789
piezoelec. motor, long. composite vibrs. 11086
piezoresistive humidity sens., design, simul. and metrological charact. 3795
planar-array calcs., FEM method and waveguide simul. 23780
plastic IC package, structural integrity eval., soldering proc. 28485
plastic SM IC packages, moisture/reflow induced delaminations, IC thermal perform. 11797
plunger type solenoids, dyn. model of deenergizing state 40272
PM, mag. field/irreversible demagnetisation loss calcs. 30750
PM brushless DC motors anal., FEM 27743
PM brushless machine, induced EMF/torque waveforms 10933
PM DC machines, mag. field anal., FEM 44067
PM machine, acoustic model, modal shapes, mag. forces 19594
PM machines, air-gap flux dens. calcs., computer-based *(Chinese)* 10927
PM machines, flux weakening operation, design concept 36103
PM reluctance motor drives, axially-laminated interior rotor design 36664
PM stepping motors, orient. pattern/magnetisation calcs. 27765
PM sync. elec. vehicle motor drive, design, testing 11417
PM sync. machine, vibrs. of mag. orig., feeding currents 44024
PM sync. motor efficiency optim. design method *(Korean)* 27690
PM sync. motors, single-phase, line started, FEM 10978
polyimide thin-film on ceramic struct., MCM appls., thermomechanical stress anal. 20441
pot core transformers, coupling coeffs., num. study 38053
power contactor armature posn. sens., rem. auxiliary contacts 29645
power freq. EM devices, shape optim. 15254
power IC packages, transient thermal impedance tester 137
power semicond. devices, phys. simul., discretisation techs. 38780
power transformer excitation under geomag. induced currents 11101
power transformer secondary winding DC currents, effects eval. 5017
PQFP warpage prediction, finite element techs. 5663
preconditioned iter. methods for large unsymmetric matrices 20606
preform deform. fabricated opt. fibers, birefr. anal. 22851
PWB solder masking proc. warpage, FEA 918
PWBs, crit. vibr. behavior, holography, finite element modeling 921
PWBs, current carrying capacity of Cu conductors 906
QFP, VLSI chip, assembly, outlead cross-sect. effect on lead skew 11796
quadruple-ridged sq. waveguides, charact. impedance 40409
quantum-mech. tunneling, FEM 6548
quartz reson. sens., develop., FEM 9848
radially polarized PM cylinders, 3D field soln. 15232
railgun metal armature contact press. studies 15358
railguns, design, coupled EM-hydro FEM 15311
railguns, EM forces calc., 3D FEM 31753

finite element analysis continued
railguns, thermally/mech. coupled diffusion, Lagrangian formulation 15315
rainbow devices, ferroelec. electromechanical actuators, reson. props. 39114
rare-earth/α-Fe based composite magnets, remanence enhancement, 2D/3D calc. 7007
reactor control rod drives, lin. step motors, CAD 10822
rect. patch microstrip resonator, shear deform., FEA 29548
rect. piezoceramic resonator, AM filter appl. *(Japanese)* 39089
rect. waveguide, coupling and radiating apertures, combined FEM/MOM tech. 40414
reduction of reluctance torque in brushless PM motors 19650
relay, nonlin. ferromag. materials, mag. field calc. 38067
rem. field eddy current defect interacts., external field 5928
resist. furnace stationary temp. fields, digital simul. *(Polish)* 36784
reson. tunneling diode, C-V curve hysteresis, quantum hydrodynamic model 38799
rolling rotor SRM, optimal digital control design 36134
rot. machine mag. field anal., FEM 44070
rot. symmetric coaxial waveguides, efficient FEM formulation 23793
rotary transformers, ferrite, charact., FEA 14256
S-PRIME space power thermionic convertors, emitter design 18743
salient-pole sync. generator, time-stepping FEM anal. 19605
SAW oscillators for low vibr. sensitivity 30646
scalar and vector wave eqns., absorbing boundary conditions 23554
Schwarz methods, local refinement 20638
segmental PM DC commutator motor, design optim. 36193
semicoercive variational inequalities, approx., error estim. 11955
sens. micro-struct., optimal design 34451
sens. systs. optimal operation, transputers 24317
SESES, micro electro mech. systs. CAD modelling syst. 30498
shaded-pole induction motors, 2D EM field anal. *(Japanese)* 11019
shadow mask thermal deform. FEA *(Korean)* 25662
shell element for computing 3D eddy currents, earthing transformer appl. 44099
shell problems, ill-posedness elimination 40209
shielded microstrip lines, arbitrary metal. cross sect., anal. 2290
shielding enclosures, hybrid finite element-anal. solns. 7999
sing. perturbed high-order ellipt. two-point BVP 37357
single lap shear layers, stresses, FEA 29647
single sided LIM, design, ANN, FEM, SUMT *(Korean)* 27758
single-phase doubly salient PM sync. generator 4926
sinuous spiral antenna geom. model 23831
slider, surface texture, flying charact., num. simul. 7148
slowly evolutive waveguide reft. and transm. computation 23812
SM leadless solder connection, comparative compliance of commercial lead designs 5662
SMT assembly, stress anal., influence fn. 28494
SMT chip resistors/capacitors, insulated metal substrs., solder joint reliab. 12931
SMT solder joint reliab., voids and void interacts. 178
SMT solder joints, fatigue life, mech. fatigue test 28501
soft and hard surface anal., hybrid FEM/Floquet mode tech. 23827
solder joint failure, thermal cycling fatigue, crit. accumulated strain energy 120
solder joint reliab. prediction, computer-aided syst. develop. 37206
solder joint rework, effect on PTHs in multilayer PWBs 38116
solid finite elements devel. 280
solid ring armature transaugmented railgun studies 15350
sonar future transducers, transduction materials modeling 9662
spatial discretization/num. precision errors 8019
spindle motor heat generation, thermal anal. studies *(Japanese)* 10924
Spindt-type emitter, elec. field and current anal. 38210
squirrel cage motor/sync. generator, skew, 2D FEM 4929
squirrel cage motors, inverter-fed, 2D FEM, freq. domain 36164
SRM actuators, axially laminated anisotropic rotor design 27701
SRM faults/unbalance forces studies 36132
SRM perform., end core flux effect 4915
stat. distrib. material, eddy current loss calc. 40248
static anal. using measured eqn. of invariance 23751
steam power plant boiler life, thermal transients effects 19519
steam turbogenerator exciter shaft torsional vibrs. anal. 43738
steel calender rolls, induction heating, finite element simul. 11514
steel sheet, oriented, mag. field anal. by FEM 39147
stepping surface motor, approx. 3D anal. *(Japanese)* 27762
structural optim. *(Japanese)* 28699
Sturm-Liouville eigenvalues, finite-element estim. 12013
supercond. generators, short-cct. rotor damper EM force calcs. 27676
superconvergence, finite element solns. 20636
surface mount lead/solder joint, random vibr. response 29686
surface mount PM motors, cogging torque, mag. field anal. 36215
surface reconstruction, adaptive mesh generation 2756
switched/sync. reluctance motor torque prod., unified theory 36133
sync. machines, damper winding/rotor iron currents modelling 11004
systolic array for finite elements 12404
TAB inner lead fatigue anal. in thermal cycle environ. 28474
TAB inner lead fatigue in thermal cycle environ. 11791
tapered nonlin. waveguides, num. simul. of pulse propag. 40431
telecomm. batt. racks, earthquake resist., computer anal. 19955
Terfenol-D rods, giant magnetostriction modelling by FEM 39148
thermal stress anal. of soldered/bonded joints, defects 28457
thermally driven microvalve, buckling type, pneumatic appls. 30496
thermally-pulsed plastic IC package, thermo-structural behavior, delamination 28483
thermo-optic planar waveguide, temp. profile anal. 1710
thin SOP, second level assembly and reliab. aspect 37134
thorax, computer model, ECG lead field calc. 26372
three layer ridge quantum well waveguide anal. by FEA 40400
tomographic photopyroelectric imaging, thermal wave multi-probes appl. 3757
transformer design/anal. 36235
transformer/coils 2D FEM-based eddy current loss calcs. 888
transient 3D eddy currents in nonlin. media, calc. 40236
transparent boundary for finite-element beam-propag. method 15451
transverse surface wave propag. on piezoelec. substr., modelling 30608
travelling wave panel electrode design, computer user interface 15248
tree-cotree gauge for mag. field computation in magnetostatic problems 40219
triangular elements for moving conductor eddy current problems, finite element soln. 15236
triple-TEM cell, FEA 8012

finite element analysis continued
triple-TEM cell, FEM, optimal engng. design 20416
triple-TEM cell design, FEM 40380
triply-ridged circ. waveguides 37935
TSOP encapsulation reliab. modeling 37135
TSOP solder joint crack initiation and propag. 37110
turbogenerator FEM/state-space modelling, no-load case 43983
turbogenerator FEM/state-space modelling, short cct./load case 43984
TW inductors for continuous induction heating of metal strips 20132
unbounded microwave problems, FEM soln. 40190
unbounded skin-effect problems in presence of material inhomogeneities 38043
unbounded wave propag. problems, modelling 40418
ungauged 3D edge finite element anal., mixed soln. tech. 37370
uniaxial planar waveguides, hybrid mode FEA by iter. method 23799
unified approach for variationally consistent finite elements in elastoplasticity 28696
universal motors, commutation characts. anal. 36189
US defect ident. with laser generation, neural network appl. *(Japanese)* 21008
US motor, contact type, perform., rotor/stator interface 27770
variable reluctance transducer, ang. meas., FEM 10024
vector FEA of waveguide discontinuities involving anisotropic media 40413
vector FEM, vector shape fns. *(Japanese)* 5796
VLSI microelectronic packaging, nonlin. finite element model 28443
wafer chem.-mech. polishing, combined asperity contact and fluid flow model 1263
washing machine energy efficient brushless motor drive 5396
waveguide devices, microwave and opt., problems and develop. 15604
waveguide discontinuities, vector FEM, mixed-interpolation-type triangular-prism element 15566
waveguide filters, modal anal., hybrid MM/FE method 6287
waveguide polariz. controller, anal. and implement. 807
waveguide problems, Hamiltonian syst., semi-anal. FEM, appl. *(Chinese)* 8025
waveguide transfer problem, FEA, coaxial line syst. 15608
waveguide-fed struct., scatt. and radiation, hybrid FEA 15580
whispering gallery sapphire resonators, 2D finite element calc. 30625
Whitney's edge/face elements for FETD soln. of Maxwell's eqns. 2175
wirebond geom. and die setting, effect on wire sweep 20445
X-ray mask for SR lithog., temp. rise and thermal distortions 13542
X-ray mask membrane, temp. uniformity, resist baking 13543
X-ray masks, membranes, mech. props., intrinsic stress 13532
zero-flux type current sens., Hall element 9878
Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417
AlGaAs-GaAs MODFETs, neg. photoresponse study 31088
Cu IC interconnections, materials issues 30137
Cu, electrodeposited/rolled annealed, flexible cable, fatigue 29623
Cu/polyimide, adhesion strength, continuous micro-wedge scratch test, metallisation appls. 37570
Fe core slab, mag. field diffusion, hysteresis models 39146
Fe-cored compulsator modelling, num. anal. techs. 19784
GaAs ICs, voltage meas., electro-optic sampling 13850
GaAs LPE process, cavity geometric effect 37414
GaAs/$Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., photolum. intens., sens. appls. 39558
GaAs/$Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., sens. appls. 38303
GaAs-Al_2O_3 flip chip modules, AuPd wire bump thermomechanical integrity 11824
GaAs-AlGaAs quantum-wire arrays on vicinal substrs., FEA of valence band struct. 21998
In-Sn based VLSI interconnections, solder joint reliab. 30146
InP strained wires and dots, localized confine. pot. 6562
$LiNbO_3$:Ti electro-opt. modulator, CPW, optimum design 30997
$LiNbO_3$:Ti opt. modulator, CPW characts., cross sectional deform. 7402
$LiNbO_3$:Ti travelling-wave channel waveguide modulator modelling 39397
LiNbO3:Ti anisotropic graded-index channel waveguide, finite element modelling 39463
NdFeB PM operating conditions in elec. machines 43998
Ni-H_2 secondary cells, Ni electrode discharge FEM model 27918
Ni-Ti fibre reinforced composite beams, lateral buckling control 37545
PbO tubular electrodes, discharge behaviour, Pb-acid batt. 44281
SF_6 24 kV ring main switchgear, thermal behaviour modelling 5147
Si MEMS piezoelec. microactuators, nanoindentation charactn. 13914
Si condenser microphone, bond and etch-back technol. 10580
Si, piezoresistive press. sens., high-press. meas. 34490
Si rect. diaphragm press. sens. 17753
Si thin films mech. props. meas., holographic interferometry 18106
Si:P gate form. of MOSFETs, mech. stress simul. 38894
Si(111) for APS, bending magnet/insertion device, FEA 43149
SiC/Al metal matrix composite baseplate, high current power modules 28466
Sn-Cu(Pb) solder joints, thermal cyclic shear stress/strain hysteresis 11742
Sn-Pb SMT solder joint reliab. prediction, model validation 925
ZrO_2 electrolyte, SOFC, mech. testing, microstruct. 44390

finite impulse response filters *see FIR filters*

finite state automata *see finite automata*

finite state machines
see also finite automata
1D lin. hybrid cellular automata of degree through 500, min. cost 37742
5.0 kb/s finite state VQ CELP coder for vehicles 9122
asynchronous ccts., state assignment problem for event-based specs. 12259
asynchronous finite state machine, extended burst-mode spec. 21211
block cipher design, cryptographic finite state machine approach 8120
CCS network SS7 protocol, software fault impact model 41517
CELP coding, speech class. embedded in adaptive codebook search 8226
clock controlled shift registers, cryptanalysis 8129
CMOS IC state assignment for low-power FSM synthesis, genetic local search 21079
commun. protocol, stabilization, modified distributed snapshots algm. 3208
commun. protocol software, FSM-based program generator 2913
commun. protocol specs., structural anal. and max. fault coverage conformance test seq. generation 2921
commun. protocols, timed communicating state machine 33267
commun. software evol., design method 3071
communicating finite state machines, diagnostic tests 2904
communicating finite state machines, language-based anal. 2978
communication protocols, hierarchy-based incremental anal. 2972
compiler and simulator 29133

finite state machines continued
conformance tests for nondeterministic protocol machines 2951
constrained state assignment of easily testable FSMs 21275
context-free large-vocab. connected speech recogn. 32393
cyclic protocols, generalized fair reachability anal. 2931
deterministic FSM model, fault detect. and diagnosis capabilities of test seq. selection methods 33274
ECFSM model for commun. protocols, verification method *(Japanese)* 41511
Estelle formal spec. described protocol, validation tech. 2902
Estelle specifications verification, numerical Petri nets 2974
fault tolerant finite state machines, synthesis tool 29186
formal specification of communication protocols, perform. eval. 2975
FPGA logic implement., optimisation techs. based on genetic algms. 6108
genetic algms. for state assignment problem 29134
high level DSP code synthesis, dyn. data flow/control flow 32654
high-speed arithmetic codec archits. using interval tree search 42087
IC layouts comparison with HDL models, formal verif. tech. 37588
incremental protocol verification method 16506
indust. and academic protocol testing, comparison 33250
interacting finite state machine design with self-checking capability 29188
LAN protocol, modelling/perform. eval. 16707
large-scale asynchronous finite state machines, synthesis procedure 6131
march tests automatic generation for memories 6154
march tests for memories, automatic generation 37766
microcontroller based state machines, automated synthesis, BSSM code generation 6128
min. state requirement of digital filter 6227
multimedia transfer protocol, service primitives 9055
multiphase commun. protocols, constr. 2936
multiple design error correction for combinat. ccts. and finite state machines 21177
one-hot-encoding FPGA macros, simplified state machine design 12405
Petri-net-based algms. for parallel-controller synthesis 601
probabilistic conformance testing of protocols with unobservable transitions 2976
prog. logic design, multiplexers appl. 596
PROTEAN, software tool for automated protocol anal. 2910
protocol, test path selection, effective domains based 2928
protocol conformance test generation *(Chinese)* 24810
protocol conformance testing, test generation, multi-level approach 33251
protocol conformance testing, test seq. generation methods 2912
protocol half-converters derivation, formal approach 16477
protocol software implement., obj.-based approach 2948
protocol specs., message collisions, automated synthesis 2935
protocol test seqs., automated generation, formal specs. 2929
protocol tools, formal specification to implementation 3291
protocols, error recovery method/tool 25008
protocols, reduced length maximal fault coverage conformance test sequences 2968
QoS negotiation for orchestrated, distributed multimedia presentation 25100
reduced reachability anal., decidability issues 2963
rewriting syst., communicating machines with identical symmetrical/dual processes 2962
self-checking interact. FSMs for multiple faults, design 6126
self-timed ccts., self-checking combinat. logic and seq. machines 37739
sequential ccts., automatic design error correction 21184
single-link and time communicating finite state machines 2934
SNR high-speed transport protocol, spec./anal. 2922
SOLiT, reliable seq. ccts. automated synthesis, multilevel logic implement. 21229
sync. seq. ccts., fault coverage anal. 12439
sync. seq. ccts., state assignment for low power dissipation 29095
telecomm. services interacts. class., detect. and resoln. 3083
testable synthesis, DFT 12468
unique input output test seqs. length, lower bounds 41492
VERTEX program, sync. sequential cct. verification 21033

FIR filters
2-D FIR filters, freq. sampling, Hermite interpolation 752
2D digital filters, error spectrum shaping *(Japanese)* 15933
2D FIR digital filters, VLSI struct. 6224
2D FIR digital filters, weighted least sq. design 15858
2D FIR digital filters, weighted LMS design 2488
2D FIR digital filters, weighted LMS design 8364
2D FIR-median hybrid filters, deterministic and stat. props. 33077
2D FIR-median hybrid interpolation filter design for HDTV *(Korean)* 42601
2D max. flat diamond shaped half band FIR filter, design *(Japanese)* 8409
2D nonseparable modulated filter banks 32713
2D separable FIR Wiener filter design, iter. method 24214
2D transform domain adaptive FIR filtering 2575
2D variable FIR filters, design, 3D prototype filters 746
2D zero-phase FIR filters, closed-form soln., least-sq. design problem 6236
Abelian groups, wavelet anal. 24163
adaptive LMS filter algm., nonlin. behaviour 24345
adaptive sig. proc. in subbands, sigma-DM tech. 32719
ADSL, noise environ./syst. perform. 16918
affine phase complex FIR filters, design/charactn. 8359
all-pass opt. dispersion compensators for high-speed long-haul systs. 42366
analog coding/decoding, data transm., fading channels 8169
analytic sig. generation for time-freq. distribs., efficient algm. 32718
array proc. for block adaptive LS FIR filtering 2529
articulatory speech synthesis, fractional delay waveguide filters 32349
automatic implement. on FPGAs 37862
binaural recording playback through loudspeakers, room impulse response 34296
blind equalization, deterministic approach 8086
blind equalization, higher order cumulants/neural networks 2862
blind fractionally-spaced equalization, filter banks/lin. prediction 41024
blind fractionally-spaced equalization based on cyclostationarity 8387
blind ident., third order cumulants 2525
blind spatio-temporal equalizer for radio-mobile channel 33937
boundary filters for finite-length sigs. and time-varying filter banks 24343
cascade forms perfect-reconstruction two-channel filter banks design 32723
causal FIR matrices, anticausal FIR inverses 32721
cellular commun. noise suppression 3500
CELP coder for mobile commun., design 17038
CMOS digital DSB-to-SSB converter, FIR Hilbert transform filter chip 12655

FIR filters continued
  CMOS FIR/IIR filter power minimization, architectural/computational transforms. 29373
  CMOS high-speed DAC, embedded prog. video FIR filtering fn. 29326
  CMOS prog. digital filter proc. chip, ring topol. 29378
  complex Chebyshev approx. for FIR filter design 40855
  complex Chebyshev error criteria, optimal design 40805
  complex coeff. FIR digital filter design by complex weighted LSA 6237
  complex FIR filter design, Remez multiple exchange algm. 32787
  composite length fast FIR filtering on ADSP-2100 proc. 29389
  constrained anti-Hebbian learning algo. for total least sq. estim. 2549
  constrained FIR filter design for 2-band filter banks and orthonormal wavelets 21425
  continuous time nonrecursive FIR filter,digitally prog., digital control 760
  cosine-modulated 2D FIR filter banks, perfect reconstruction 32712
  CW transform, phase space, arbitrary tilings 32667
  decimators/interpolators, systolic implement., VLSI 6226
  delayed LMS algm. for adaptive FIR filtering 32677
  digital demodulators using fixed point FIR interpolators, BER perform. 32037
  digital filter design, order reduction tech., Chebyshev polynomial 21430
  digital filter design by interconnected neural network *(Japanese)* 15937
  digital filter types, interrelationships 2532
  digital filter with arbitrary piecewise-lin. freq. response, impulse response 24305
  digital filters, data detect., modified window fn. 8264
  digital filters, design, quadratic prog. 37884
  digital filters, iter. reweighted least sq. 32785
  digital filters, subband decomp., tuning algm. 8311
  digital FIR filter for satellite appls., 240 Msample/second 37893
  digital radio data predistortion, neural-net-with-memory model 42149
  digital transfer fns., freq. response bounding 24184
  discrete coeff. digital filter design 32789
  discrete coeff. FIR digital filters, design 24306
  discrete-time periodic sigs., wavelet transforms 40898
  discrete-time wavelet extrema representation, design/reconstruction 40810
  DSP based controller for switching converter 6019
  DSP education spreadsheet package and TMS320C25 simul. 36918
  DSP-based teleconferencing syst., perform. eval. 16815
  ECG, filtering, simple FIR filters, post-filter reconstruction 35086
  ECG QRS detect., robust and computationally efficient 26435
  echo canceller with adaptive FIR filter, anal. for Gaussian sigs. 32747
  envelope-constrained filters with uncertain input, sensitivity 32795
  extended threshold Boolean filters, min. MSE filtering 33148
  fading dispersive WSSUS channel, analytic discrete-time model 3414
  fault tolerant FIR adaptive filter, conjug. gradient algm. 29365
  fault tolerant FIR adaptive filter based on FFT 32753
  fault-tolerant adaptive FIR filters, variable detect. threshold 29364
  filtering time series, topol. 32468
  FIR-to-IIR filter order reduction, methods 32793
  four-wire loop systs., correl. AR subscriber sigs., echo canceler perform. 25144
  FPGA implement. of filters, pipelined multipliers 21441
  freq. sampling filter banks, alias-free charact. *(Japanese)* 12651
  freq.-selective techs. based on SVD, TLS and bandpass filtering 32489
  fuzzy filters, IIR and FIR types, design 8323
  gate array chip, HF DSP appls. 12576
  generalized wavelet decomp., adaptive syst. ident. 41032
  GENRIF, integrated VLSI FIR filter compiler 21420
  globally convergent adaptive blind filters and blind equalisers 2863
  gradient ADF and convergence anal., arbitrary inputs *(Japanese)* 29367
  half-band filters, freq. response masking, complexity reduction 37890
  hidden nearly completely decomposable Markov chains, adaptive estim. 40971
  high-precision multiplier-free FIR filter realizations 37881
  hybrid RNS-binary arith., digital filter implement. 15980
  indoor multipath channel real-time emulation, FIR models and ACT technol. 31824
  iter. reweighted least-sq. design 2465
  least mean p-power error criterion for adaptive FIR filter 15884
  lin. phase digital filter, unit step response, design *(Polish)* 747
  lin. phase FIR digital filters, max. SNR, design 15982
  lin. phase FIR digital filters with const. passband amplit., design *(Japanese)* 37873
  lin. phase freq. sampling FIR filters, error spectrum shaping 41044
  lin. phase paraunitary FIR filter banks, complete charactn. 32504
  lin.-phase 2-D FIR digital filters, 2-D seqs. appl. 41045
  lin.-phase biorthogonal wavelet fn., arbitrary regularity *(Japanese)* 16234
  lin.-phase FIR half-band filters, least-sq. design 37895
  LMS acoustic echo cancelers, slow asymptotic convergence 24313
  LMS adaptive FIR filter dimens., learning rate 32756
  LMS error decision feedback equaliser 8357
  low delay filter banks 24262
  low-delay filter bank, speech coding appl. 24139
  low-power analog sampled-data VLSI archit. for mag. recording channel 29411
  LTI digital filters design, error criteria 32790
  M-channel biorthogonal filter banks 21426
  mag. disk, analog/digital PRML read channel equalizers 30737
  magnitude/group delay, multiple criterion approx. 32549
  median LMS lattice adaptive filters 21421
  minmax FIR filters design, gradient approx. method 16012
  MMD, 2nd order Volterra filter approx. 32779
  MMSE design of generalized interpolators polyphase components 32729
  modified DFT polyphase SBC filter banks, almost perfect reconstruction 32714
  multi band sigma delta ADC 29332
  multi-channel decimator for tri-level delta-sigma modulator 29080
  multi-channel FIR systs., blind ident., deterministic approach 41023
  multi-rate bandpass filter bank, QRNS complex arith. 6229
  multiband least sq. FIR filter design 29369
  multichannel FIR filters, blind ident., subspace methods 32559
  multichannel FIR filters, blind ident., subspace methods 41022
  multidimensional M-band filter bank, quantization compensation 33150
  multirate converters, signed-digit-based multiplier-free realizations 40807
  narrow-band lin. phase FIR filter, conversion, IIR filter 24307
  non-parametric waveform estim. based on filter banks 32730
  non-separable multidimensional perfect reconstruction filter 8273
  nonlin. echo cancelling, look-up tables/Volterra systs. 2564

FIR filters continued
  nonlin. filter struct., act. sound and vibr. control, genetic algm. 32776
  nonuniform division multirate FIR filter banks, design 24344
  one- and two-level filter-bank convolvers 24300
  one-sided/two-sided lin. prediction 24218
  opt. CDMA commun. systs., all-opt. lin. detect. 42364
  optimal filters for multiresolution seqs. generation 2652
  optimal least sq. FIR multiband filter design 24259
  optimal recovery based FIR synthesis filters 21424
  optimum convergence factor for adaptive filters *(Korean)* 21439
  orthogonal QMF filters for smooth wavelet decomp. 24164
  orthogonal sig. projections based on multirate filters 32717
  peak-constrained least-sq. digital filters design 8360
  perfect reconstruction FIR 2-channel filter banks in 3-D with FCO sampling, design 21429
  π/4-shift QPSK baseband modulator for pers. handy phone syst., CMOS mixed-sig. IC 29078
  PR FIR filter banks and discrete biorthogonal wavelets via block circulant matrices 32505
  PRML read channel, high speed low power device 32547
  prog. fractional sample delay FIR filter coeffs. 12649
  pseudolinear regression IIR adaptive algm., filter design 24185
  randomly time-varying channels tracking algms. 2466
  Rayleigh fading channel, adaptive diversity receiver, error probab. 25263
  real coeff. FIR filter design, complex Chebyshev approx. algm. 32786
  real-time narrowband beamforming, efficient archit. 9676
  recursive const. modulus algm. for real-time array proc. 8352
  recursive filters design, Chebyshev norm, Remez algm. 24186
  regular 2-D nonseparable wavelets/filter banks, transforms. of variables design 32513
  resistor array, pulse shaping filter *(Korean)* 29386
  rheopneumographic meas., respiratory artefact removal, adaptive FIR filters 10226
  RLS algm. based on var. characts. of room impulse response 32749
  RNS FIR digital filters, bit-serial VLSI implement. 750
  SC decimation filters, parallel cyclic-type cct. 12650
  SC FIR filters, design 6221
  scanned halftone images reconstruction, filters appl. 33129
  second directional derivative edge detector, sampling/quantization/noise effects 33122
  self-testable functional blocks, fault coverage 29374
  shallow water channel estim. methods, comparison 17460
  sigma-delta bitstream FIR filter, VLSI design 37887
  sonar sig. proc. syst. based on TMS320 series 17488
  space commun. adaptive arrays, 2D wavelets/filterbanks appl. 9408
  sparse-tap adaptive FIR filters, multiple echoes, fast convergence algm. 32693
  spatially varying 2D filter banks 8276
  speech commun., multichannel spatial auditory display 2437
  speech enhancement via adaptive eigenfiltering 24140
  SSB radio channels, received SNR increase, anal. sig. rooting 42147
  stat. optimum FIR filter bank design 24261
  state-space digital filters, noise reduction, error feedback *(Japanese)* 739
  subband adaptive filtering algo., intersubband tap-assign. 2516
  subband image coding, lin. phase filter banks design 24583
  systolic implement. of FIR decimators/interpolators 751
  systolic multipliers/digital filters, sig. flow-graph 12485
  time localization techs. for wavelet transforms 29366
  time varying filter banks, subband proc., border recovery 32711
  time-varying filter banks/wavelets, factorization 32706
  time-varying FIR filter banks, novel struct. 32716
  Toeplitz matrices factorization, fast algm. 40860
  tomograms, US, restoration based on Wiener proc. 43246
  training algms. for FIR filter multilayer perceptrons 8452
  transform-domain split-path adaptive filter, convergence optimality 32760
  two-band QMF banks, anal. 32562
  two-channel biorthogonal filter banks and wavelet bases 37880
  unitary time-varying filter bank trees and wavelets 40809
  variable FIR fractional-sample delay filters eval. 32798
  VEPs, P100 complex, latency meas. improvement, FMH filters 35126
  wavelet extrema/zero-crossings representations, props./reconstruction 32708
  zero-phase FIR filters, freq. domain design 24276
  Si integrated adaptive LMS echo canceller, variable step size 16926

FIR lasers *see submillimetre wave lasers*

fire retardants *see flameproofing*

fireballs (meteoric) *see meteors*

fireproofing *see flameproofing*

fires
  see also accidents; safety
  detector test schemes optim., reliab. model 36979
  DIAL, combustion research 17438
  elec. control room fire protection, sprinkler syst. options 92
  environ. test chambers, safety guidelines 94
  indust. electrostatic hazards investigs., UK 7906
  indust. fire simul. and conseq. eval. empirical models 20171
  mine respirable coal dust meas., fire sens.-based 20187
  oil refinery hydrocarbon storage risk assess. methodology 20172
  power station fire protection systs. upgrade 43813
  shipboard fire alarm syst. stds. *(Croatian)* 84
  switchgear, reduced emission control wires, fire testing 12857
  telecomms. equipt. fire risks, safety alarm syst. 16542
  totally enclosed motors, hazardous locations appl. safety 19592
  underground rly. transformers selection, safety 44538
  Nd:YAG laser radar for wide-area fire detect. 17451

firmware
  AAMP5 μP, formal verification 29298
  DSP design tool requirements for embedded systs., telecom perspective 40801
  medium-throughput sig. proc. on flexible instruction-set archits. 37797
  microcontroller based binary seq. sync. machines 37794
  VCSEL-based logic, optoelectronic look-up table 31042
  virtual instrumentation 34382

fisheries *see aquaculture*

fission counters
  KNK-21A fission ioniz. chamber, thermal neutron flux/temp., pulsed sources 26114

fission reactor accidents
see also coolant-fuel interactions; fuel element failure
^{A}Eu activities, fuel-like hot particles, Chernobyl, A=154,5 26771
advanced BWRs, containment flooding, emergency procedures 35891
advanced natural circ. BWRs, inherent/pass. safety aspects 35845
advanced plant designs, design goals, safety 35907
aircraft crash, react.-time response, safety related struct. 43844
ALWRs, severe accidents, iodine behavior, MAAP-IMPAIR interface 35811
ANS, hypothetical severe accidents, core debris recriticality 35828
ANS, refueling, crit.-induced severe accidents 35829
AP600, SBLOCA, upper plenum, entrainment 19420
AP600 pass. syst. design, integrated approach 35846
Arkansas Nuclear One IPE, IPE back end Level 2 anal. 35892
ATR, flow stabil. limits, vert. rect. channels, LOCA 19429
Beaver Valley transients, FSAR, RETRAN-03, RETRAN-02 MOD5 codes 27420
BETHSY 6.2 TC six-inch cold leg break test, RELAP5/MOD3, CATHARE2 27480
BETHSY integral test facility, 3 inch cold leg break 27475
bottom head dissolution into a melt pool, transient anal. 35834
Bulgaria, nuc. plant analyzer program 35839
BWR, accident mgt., fuzzy probab., influence diag. 35859
BWR accident mgt. guidance, IPEs 35890
BWR ATWS seqs., diagnosis, ES, neural network 35858
BWR instabil., water level meas. uncertainty 4775
BWR plants, accident mgt., ES 35861
BWR power plant, abnormal conditions, operator perf. 27403
BWR-6, short-term station blackout, optimum depressurization 19451
channel reactors, status/prospects 10809
Chernobyl accident, 30-km zone, emergency countermeasures effectiveness 4339
Chernobyl fallout, external γ-dose rates, Belarus 35354
conference, NPP simulators/plant analyzers, Finland (June 1992) 5513
conference on nucl. engineering, San Francisco (Mar. 1993) 28217
containment, vented H deflagrations, H release/combustion 27503
crit. accident dosimetry, CRISIS, KBS 35196
crit. heat flux, curved downward facing thick walls 477
crit. heat flux through curved, downward facing, thick walls 27516
Daya Bay NPP, pot. accidents, Hong Kong risks 35777
DCH separate-effects expts., reactor cavity, liq. film flow 19426
Dodewaard natural circ. BWR, thermal hydraulic safety, TRACG 27489
DSS for emergency response, major nuc. accidents 4790
emergency engng./mgt., ES-based DSS approaches 43875
environ. protection, radioaerosols, volatile radionuclides 27506
French Navy on-board nuc. reactors, in-service safety feedback *(French)* 36733
French NPPs, safety, postaccident consequences 35769
gas-cooled reactors, accident mgt. 35762
Golfech-2 PWR, safety injection syst. vibr. anal. *(French)* 35789
Griefswald NPP, cold leg, LBLOCA 35841
HDR-hydrogen deflagration expts. E12, containment research 27500
HDR-hydrogen mixing expts. E11, code predictions 27499
HTR module prim. cct. press. boundary reliab. under accident conditions 19482
human related incidents, PC aided anal. *(Japanese)* 35820
HWR, severe accident scenarios 27517
intersystem LOCA, risk assess., methodology/results 10820
IPE back-end results, recovery/accident mgt. actions 35895
ISP 33 safety codes, VVER-440 4803
Kola NPP, containment shell leaks determ. 35786
Korean nuc. plants, regulatory activities, severe accident research program 43830
Kori Units 3/4, station blackout transient 27486
Krsko NPP SBLOCA, ISP-27 accident scenario 4796
Krsko plant, SBLOCA, LSTF SB-CL-21 counterpart expt., RELAP5/MOD2 anal. 35764
Krsko PWR, decompression wave in steam generator U tubes, LOCA 27463
Laguna Verde load rejection transient anal., TRAC-BF1 35801
LMFBR cores, role of Na void worth 35791
LOBI-MOD2 test BT-02, ATHLET COVA 27474
LOFT integral expt. LP-FP-2, MELCOR assess. 35833
LWR corium debris coolability, RPV/confine. struct., CORIUM-2D 27514
LWRs, severe accident progression, MELCOR assess. 35832
MAAP4 model and validation status 35835
Maine Yankee level II PRA anal., containment perform. 35893
mgt. strategies, human error probabilities 27513
MHTGR nuc. plants, safety, design 43831
Mihama Unit 2 PWR, steam generator tube rupture simul. 27487
Millstone unit 1 plant vulnerabilities, postulated severe accidents 35894
molten corium-concrete interacts., heat transfer 4778
next generation NPP simulators, two-phase flow 35798
North Anna service water syst. preservation project, IPE model 35888
NPP advanced emergency operation procedure develop. 4763
NPP Krsko, station blackout anal., computer code RELAP5/MOD2 27485
nuc. reactor, thermionic fuel element modelling 26625
pass. containment cooling syst., heat removal capability, LOCA 35778
perform.- and risk-based regulation 10839
Piper-One, BWRs, thermalhydraulic instabil., Relap5/Mod2 27478
PIUS-type reactor, primary pump, feedback control 35804
postulated loss-of-river-water event, CONTAIN/SR computer code 35848
press. tube graphite-moderated BWRs, RELAP5/MOD3 code, RBMK 27491
PWR, heat/mass transfer correl., MELCOR 19432
PWR, LOCA, droplet vel./diam. meas. 4807
PWR, recovery expt., thermalhydraulics, RELAP5/MOD3, TLOFW 27479
PWR, SBLOCA, core exit thermocouples, charact. responses 35793
PWR, SBLOCA, thermalhydraulic code accuracy, methodology 27483
PWR accident, ^{134}Cs/^{85}Sr dissolution/remobilization, rainwater 26769
PWR accident mgt. actions, core damage prevention 27488
PWR containment design, inherent safety 43857
PWR containments, severe core concrete thermal attack 35812
PWR H_2 mitigation, pass. catalytic module qualification 27512
PWR LB-LOCA, containment thermalhydraulics, reactor coolant syst. 27509
PWR LOCA, flow visualisation, heat transfer, and voidage meas. 4814
PWR low press. natural circ., AC power loss 35800
PWR mid-loop operation, loss of RHR, CATHARE 2, RELAP5/MOD3 codes 35803

fission reactor accidents continued
PWR primary cct., leak size, neural network determ. 27492
PWR severe accident, aerosol generation/growth in later phase 27504
PWR severe accidents, primary cct., vapour natural circ. 27510
PWR-LOCA, multi-dimens. thermalhydraulics, REFLA/TRAC code 27467
radionuclide transfer fns., fresh water drainage basins 26770
rapid transients, multidimensional nodal method 35818
RBMK LOCA anals., CATHARE and RELAP 5 27490
reactor vessel lower plenum, heat transport, debris material 4776
REWET-II reflooding expts., RELAP5/MOD3, VVER-440 27481
ROSA-IV LSTF, loss of RHR syst., midloop operation, RELAP5/MOD3 27482
SAMEX, ES, accident mgt., IKBS 35862
SAMSON, Severe Accident Management System Online Network 35860
SBWR, pass. pool mixing 35843
SBWR, severe accident progression, MAAP-SBWR code 35827
SBWR LOCA anal. 35806
SBWR safety anal., TRACG/MAAP-SBWR codes 35797
severe accident mgt., computational aids 35763
severe accident radionuclides transport, thermal-hydraulic modelling 27511
severe accidents, corium dispersion, stepwise integral scaling 4777
severe accidents, thermal hydraulics 27519
simplified Mitsubishi PWR, safety anal., LOCA 35809
Sizewell B, PSA, severe accident source term categorisation 35732
SPES facility, station blackout expt. SP-ST-01, RELAP5/Mod2 35802
SRS reactor, unseated septifoil, steam explosion pot. 35831
steam generator tube failure during station blackout, core melt 19434
steam-water power reactor core, conceptual design 35917
STORM project, severe accident conditions, aerosol generation 27505
submarine nuc. propulsion technol. develop. to PWR2, UK overview 44572
TMI-2 lower head, molten material relocation 35773
TMI-2 lower head, press. vessel samples, metallography 35775
TMI-2 lower head debris, phys./radiochemical exams. 35774
TMI-2 NPP, SB-LOCA, findings, 15 yrs 35772
TMI-2 vessel, margin-to-failure calcs. 35776
Topaz-2, reactivity accident involving deep water entry, consequences 26558
TVO BWR overheated core, small steam line break accident, reflooding effects 27508
two loop PWR, LOCA, ECCS perform., RELAP5/MOD2 27484
VULCANO project, similarity, heating problems 27518
VVER 440/V230 units, ECCS upgrading, thermohydraulic anal., LOCA 27494
VVER plants, LOCA, containment heat transfer 43835
VVER-440/213, RELAP5/MOD2, beyond design basis accident seq. 27477
water-wall type PCCS, heat removal capability, syst. press. 35842
Westinghouse AP600, PSS design tool 35885
Westinghouse AP600 plant accidents, MAAP4 models 35836
WWER-type transients, CATHARE V1.3E, SPE-1/SPE-2 expts., PMK-NVH 27495
Zion Individual Plant Examination, realistic modeling 35882
H-air mixtures, partially confined environ., flame propag. 27502
H-deflagration, containment, num. anal. 27501

fission reactor containment
ABB BWR 90 design and characts. *(French)* 43838
advanced BWRs, containment flooding, emergency procedures 35891
aircraft crash, react.-time response, safety related struct. 43844
ALWRs, severe accidents, iodine behavior, MAAP-IMPAIR interface 35811
ANS, hypothetical severe accidents, core debris recriticality 35828
ANS, refueling, crit.-induced severe accidents 35829
AP600 pass. syst. design, integrated approach 35846
Arkansas Nuclear One IPE, IPE back end Level 2 anal. 35892
environ. protection, radioaerosols, volatile radionuclides 27506
HDR-hydrogen deflagration expts. E12, containment research 27500
HDR-hydrogen mixing expts. E11, code predictions 27499
IPE back-end results, recovery/accident mgt. actions 35895
Kola NPP, containment shell leaks determ. 35786
LWR containment, thermalhydraulics-source term coupling 27507
LWRs, severe accident progression, MELCOR assess. 35832
Maine Yankee level II PRA anal., containment perform. 35893
Millstone unit 1 plant vulnerabilities, postulated severe accidents 35894
NPP Krsko, station blackout anal., computer code RELAP5/MOD2 27485
prototype fiber optic sens. 25868
PWR containment design, inherent safety 43857
PWR containment integrity, SEXTEN monitoring syst. 35790
PWR containments, hydrogen mixing by natural convection *(German)* 4815
PWR containments, severe core concrete thermal attack 35812
PWR H_2 mitigation, pass. catalytic module qualification 27512
PWR LB-LOCA, containment thermalhydraulics, reactor coolant syst. 27509
PWR severe accident, aerosol generation/growth in later phase 27504
SBWR, full-scale pass. containment cooling condenser 35847
SBWR, pass. pool mixing 35843
SBWR, PCCS perform., suppression pool, thermal stratification 35807
SBWR, severe accident progression, MAAP-SBWR code 35827
SBWR safety anal., TRACG/MAAP-SBWR codes 35797
severe accident radionuclides transport, thermal-hydraulic modelling 27511
STORM project, severe accident conditions, aerosol generation 27505
vented H deflagrations, H release/combustion 27503
VVER plants, LOCA, containment heat transfer 43835
water-wall type PCCS, heat removal capability, syst. press. 35842
Zion Individual Plant Examination, realistic modeling 35882
H-air mixtures, partially confined environ., flame propag. 27502
H-deflagration, containment, num. anal. 27501
He conc., gaseous atmos., local/instant meas., SPARTA 27497

fission reactor coolants
see also coolant-fuel interactions
autonomous nuc. power syst., rem. location appls. 35768
Besse-Davis PWR, moisture separator drain demineraliser eval. 27371
BWR condensate filtration tests, Hope Creek 27412
CANDU, steam generator tube relaxing, sludge sampling 10826
Davis-Besse PWR, OTSGs, secondary-side pH control amines 27355
primary cct., chem. decontamination 43869
PWR steam-generator corros., molar ratio control 19468
PWRs, defect fuel, primary coolant anal. 27445
VVER-440/1000, first loop coolant leak diagnostics 35787
VVER-440/1000 reactors, boiler water, radionuclide accumulation 35788

fission reactor cooling
see also fission reactor safety; nuclear reactor steam generators
3D particle image velocimetry, expt. flow visualization tool 27457
3D thermal-hydraulic code THYC, mixing, DNB predictions 4802
5-40 kW S-PRIME space nuclear thermionic power system 18734
ABB BWR 90 design and characts. *(French)* 43838
ABWR reactors, piping syst. design, benchmark anal. 35898
ALWRs, severe accidents, iodine behavior, MAAP-IMPAIR interface 35811
ANS, hypothetical severe accidents, core debris recriticality 35828
ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
ATHLET computer code based on BETHSY test 3.4a 4806
ATR, flow stabil. limits, vert. rect. channels, LOCA 19429
autonomous nuc. power syst., rem. location appls. 35768
Beaver Valley transients, FSAR, RETRAN-03, RETRAN-02 MOD5 codes 27420
Besse-Davis PWR, moisture separator drain demineraliser eval. 27371
BETHSY 6.2 TC six-inch cold leg break test, RELAP5/MOD3, CATHARE2 27480
BETHSY integral test facility, 3 inch cold leg break 27475
boiling water flows, ASTRID 3D Eulerian code, heat transfer 35796
BWR, internal recirculation pumps, reactor stabil., TRACG code 35792
BWR, natural circ., LF dyn. 27465
BWR condensate filtration tests, Hope Creek 27412
BWR fuel assembly, natural circ., thermalhydraulics, SIDAS 27468
BWR heating channel, post-dryout excursion, HECHAN model 27466
BWR instabil., water level meas. uncertainty 4775
BWR instabilities, nonlin. effects, DYNOBOSS computer code 19421
BWR thermal-hydraulics, core neutronics, two phase flow, DYNOBOSS 35799
BWR thermalhydraulics, isolation condenser perform., Relap5/Mod3 35795
BWR/PWR plant feed-pump vibr. reduction, diffuser redesign 43826
BWRs, boiling systs., nonlin. instabilities 27454
BWRs, natural circ., stabil. limits, Galilean law 27464
BWRs, systematic homogenization theory 10835
CANDU, steam generator tube relaxing, sludge sampling 10826
Chexal-Lellouche void correl., low-flow, tight-lattice geom. 4798
Comanche Peak NPP, pump/valve risk-based in-service testing 10840
Comanche Peak station, 50% load rejection transient, plant data comparis. 4797
conference, NPP simulators/plant analyzers, Finland (June 1992) 5513
conference on nucl. engineering, San Francisco (Mar. 1993) 28217
coolant pump syst., max. likelihood factor anal. 10808
coolant syst. lin. regression leak rate calcs. 27398
DCH separate-effects expts., reactor cavity, liq. film flow 19426
deep draught vert. centrifugal pumps, NPP appls. 27379
dens.-wave oscills., liq. enthalpy, two-phase quality 19422
Diablo Canyon PWR, outage risk assess. and mgt. 27368
dispersed flow film water boiling, thermal nonequilibrium 27456
Dodewaard natural circ. BWR, thermal hydraulic safety, TRACG 27489
EFR-type reactor cold collector, thermal-hydraulic transients 4800
European Fast Reactor project status (1994) and prospects *(French)* 43866
FBR, supercritical steam cooled, conceptual designs 35947
Fermi 2, independent safety assess. of refueling outage 19471
FIST expt. data, MELCOR thermal-hydraulic models 19433
flashing phenom. in a tank, mechanistic model 19430
flooding phenom. prediction, CATHARE code 4809
flow boiling, local thermohydrodynamics, noise anal. 27460
fluid stiffness/damping, tube row in crossflow 35939
French PWR NPPs, pump-excited piping syst. vibrs. *(French)* 35941
Golfech-2 PWR, safety injection syst. vibr. anal. *(French)* 35789
Griefswald NPP, cold leg, LBLOCA 35841
HBC Limitorque valve gear operators, repair guidelines 27874
high precision gamma/X-ray densitometry, thermohydraulics 27496
horiz. piping jn., two-phase flow 27459
HTR module prim. cct. press. boundary reliab. under accident conditions 19482
Indian Pt. 2 PWR, full coolant syst. decontamination eval. 27414
intersystem LOCA, risk assess., methodology/results 10820
ISP 33 safety codes, VVER-440 4803
Kori Units 3/4, station blackout transient 27486
Krsko NPP SBLOCA, ISP-27 accident scenario 4796
Krsko plant, SBLOCA, LSTF SB-CL-21 counterpart expt., RELAP5/MOD2 anal. 35764
Krsko PWR, decompression wave in steam generator U tubes, LOCA 27463
Laguna Verde load rejection transient anal., TRAC-BF1 35801
LaSalle BWR, second law exergy anal. 35733
liq. metal PBR for Moon base 35262
liq. Na forced flow, laminar, transit. regions 4812
LMFBR, pile natural convection, thermalhydraulics code 27476
LMFBR coolant filling, human errors ident., intell. CAI syst. 28350
LMFBR cores, role of Na void worth 35791
LMFBRs, thermalhydraulics, turbulent shear flow 35779
LMFR, duplex steam generator tubes 4811
LMR, wire wrap modelling, computer code BACCHUS 4801
LOBI counter part test programme 27473
LOBI-MOD2 test BT-02, ATHLET COVA 27474
LOFT integral expt. LP-FP-2, MELCOR assess. 35833
LWR containment, thermalhydraulics-source term coupling 27507
LWR dyn., MONA, 7-eqn. transient two-phase flow model 27472
Maanshan PWR, reactor trip, possible mechanisms 43872
MAAP4 model and validation status 35835
Mars transfer vehicle, dual-mode nuclear rocket power requirements 18750
MHR gas filtration, variable speed induction motor drive appls. 10823
natural circ. loop, surge tank, transient behaviour 4804
North Anna service water syst. preservation project, IPE model 35888
NPP Krsko, station blackout anal., computer code RELAP5/MOD2 27485
NPP valve hardfacing, Co reduction guidelines 27413
NS Mutsu reactor syst., ship motion effects 27458
nuc. plant components, mech. anal., lifetime eval. 35736
nuc. thermal propulsion systs., heat transfer 4367
NUFREQ-NPW code, multichannel core stabil. margins 4774
open-cycle gas core nuc. rocket, computational model 18769
Palo Verde NGS, alternate safe shutdown anal. 19470
pass. containment cooling syst., heat removal capability, LOCA 35778
PBR, cone-bottom/discharge tube effects *(Chinese)* 43850
Piper-One, BWRs, thermalhydraulic instabil., Relap5/Mod2 27478
PIUS-type reactor, primary pump, feedback control 35804
PLR pump shaft-casing cover annulus gap, temp. flucts. 35869

fission reactor cooling continued
press. tube graphite-moderated BWRs, RELAP5/MOD3 code, RBMK 27491
PWR, 3D space-time kinetics, RELAP5, PANBOX2 27470
PWR, heat/mass transfer correl., MELCOR 19432
PWR, LOCA, droplet vel./diam. meas. 4807
PWR, recovery expt., thermalhydraulics, RELAP5/MOD3, TLOFW 27479
PWR, SBLOCA, core exit thermocouples, charact. responses 35793
PWR, steam supply syst. maint. and structural mech. 27404
PWR, stratified flow visualisation, horiz. pipework, stratification 27410
PWR accident mgt. actions, core damage prevention 27488
PWR coolant syst. maint., chem. decontamination 35747
PWR cores, thermohydraulic parametric anal., computer codes 27469
PWR LB-LOCA, containment thermalhydraulics, reactor coolant syst. 27509
PWR LOCA, flow visualisation, heat transfer, and voidage meas. 4814
PWR low press. natural circ., AC power loss 35800
PWR mid-loop operation, loss of RHR, CATHARE 2, RELAP5/MOD3 codes 35803
PWR plants, flow controlled accumulator, fluidics 19435
PWR reflux cooling during shutdown, ORAM technol. 27430
PWR severe accidents, primary cct., vapour natural circ. 27510
PWR station blackout transient involving pump seal leak 4805
PWR thermalhydraulics, mid-loop operation, loss of RHR 27461
PWR-LOCA, multi-dimens. thermalhydraulics, REFLA/TRAC code 27467
PWRs, safety-related pumps, reliab. params. update *(French)* 43860
RBMK LOCA anals., CATHARE and RELAP 5 27490
reactor vessel lower plenum, heat transport, debris material 4776
RELAP5 appls., external user models, EUMOD interface 27471
REWET-II reflooding expts., RELAP5/MOD3, VVER-440 27481
ROSA-IV LSTF, loss of RHR syst., midloop operation, RELAP5/MOD3 27482
SBWR, full-scale pass. containment cooling condenser 35847
SBWR, PCCS perform., suppression pool, thermal stratification 35807
SBWR LOCA anal. 35806
SBWR reactor building complex, structural design, microcomputers 35901
service water piping syst. materials, corros. eval. 27376
service water syst. corros. and deposition handbook 27429
severe accident radionuclides transport, thermal-hydraulic modelling 27511
severe accidents, corium dispersion, stepwise integral scaling 4777
SGTR transients, plant analyzer model, RELAP5 verification 19424
siphon two-phase flows, CATHARE code 4808
slab geom. thermal-hydraulics, immersion cooler posns. 4810
space hybrid power/propulsion system, particle bed reactors 18754
SPECTRA-L lunar base reactor, nat. circ. anal. 35261
SPES facility, station blackout expt. SP-ST-01, RELAP5/Mod2 35802
steam-water power reactor core, conceptual design 35917
thermal hydraulics, severe accidents 27519
thermal-hydraulics, transient natural convection 27515
thermalhydraulic code accuracy, PWR SBLOCA, methodology 27483
thermalhydraulics, current, future trends 27453
thermogravitational convection heat transfer, heat generating fluids 27455
thermohydraulics, optimized locally exact num. scheme 35780
top-entry loop type LMFBR, natural circ. water tests 4813
Topaz-II, model develop./exptl. data comparis. 18730
TOPAZ-II EM pump, integrated model 18731
transient two-phase flow, bubbles, slugs 19428
turbulence prediction, 2D bundle flows, large-eddy simul. 27401
turbulent flow downstream from elbow, laser-Doppler meas. 19440
TVO BWR overheated core, small steam line break accident, reflooding effects 27508
two loop PWR, LOCA, ECCS perform., RELAP5/MOD2 27484
UCN 3&4 PWR, mid-loop operation, air entrainment 27462
void profile, simulated subchannel, tight lattice core 27418
VVER, bubble condenser test facility, thermohydraulic phenom. 27498
VVER 440 plants, hydraulic charact. determ. 27493
VVER 440/V230 units, ECCS upgrading, thermohydraulic anal., LOCA 27494
VVER-400, main coolant pump, operating reliab. improv. 35838
VVER-440 plants, RELAP5 Posttest Calculation of IAEA-SPE-4 19425
VVER-440/213, RELAP5/MOD2, beyond design basis accident seq. 27477
Westinghouse NPP and advanced PWR design *(French)* 43837
He conc., gaseous atmos., local/instant meas., SPARTA 27497
fast reactors, Pb-Bi cooled, inherently safe designs 10811

fission reactor core control
see also fission reactor instrumentation; fission reactor kinetics; fission reactor safety; reactivity (fission reactors)
BWR NPP, ecological interface for supervisory control 27417
BWR power maneuver, maint., knowledge-based planning support 35852
Comanche Peak station, 50% load rejection transient, plant data comparis. 4797
control rod drives, lin. step motors, CAD 10822
control rod drives, lin. step motors, static charact. 44438
HTGR, ring core, Xe oscills., 3D simul. computer code *(Chinese)* 43848
lin. step motors, FEM for nonlin. mag. fields, nuc. reactor appl. 19673
Maanshan PWR, reactor trip, poss. mechanisms, power level effects 43872
power plants, digital control systs. 35742
PWR, efficient and safe large power changes automation 4792
Reactor Core Management Support System 35851
reloading pattern optim. problem 43877
rodded constraints, reload optim., multireference nodal GPT 10837
single-failure criterion, NPP safety, IEEE std. 27415
Sizewell B PWR control and instrumentation systs., reliab. assess. 35730
SP-100 nuclear space power reactor, testing 18764
Gd burnable poison, computational methods, TPFAP/WIMS-SN2D code *(Chinese)* 43849

fission reactor decommissioning
see also fission reactor safety; radiation protection; radioactive waste
ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
Army Materials Technology Laboratory, decommissioning work control 43871
coolant cct. chem. decontamination 43869
crit. path planning, decontamination 19478
DERAD decommissioning economic and risk adviser 19480
Fort St. Vrain, decommissioning, final survey, site release plan 19445
Fort St. Vrain decommissioning, licensing experience 43868
INEL, decommissioning activities 19479
KNK FBR plant decommissioning 35933
MFZR NPP decommissioning 35934

fission reactor decommissioning continued
Niederaichbach NPP decommissioning 35935
NRC's regulatory program 19442
ORNL Research Reactors, decommissioning, decontamination 19474
out-of-region LLW, off-site disposal 19481
power plant shutdown 19477
public health/safety, pos. environ. impacts 19476
PWR power station, steam generator waste disposal 19446
radiological release, QA/control 19441
reinforced concrete, stripping demolition, NPP appl. 35936
rem. dismantlement, conventional equipt. adaptations 43870
robot usage 27426
Shoreham Nuclear Power Station decommissioning, site release criteria 19443
Trojan PWR, decommissioning strategies, decision anal. prioritisation 27354
VVER-440/213 reactors liquidation variants, time depend. *(Czech)* 27402
Yankee Nuclear Power Station, site cleanup 19444
YNPS decommissioning cost study 19475

fission reactor design
see also fission research reactors; neutron transport theory; nuclear engineering computing
4S plant, environ. issues 35918
4S plant design, current status 35910
3200 MW Torness AGR power PLEX study, UK 19486
ABB BWR 90 design and characts. *(French)* 43838
ABWR, First-Of-A-Kind engng. 43864
ABWR plant, conceptual design, operability, maint. 35914
ABWR reactors, piping syst. design, benchmark anal. 35898
accelerator molten-salt breeding reactor, Pu-burning, ^{233}U-prod. 35956
advanced BWR, design goals *(Japanese)* 43855
advanced LWR technol., commercial appl. 27389
advanced LWR technol. for commercial appl. *(French)* 35825
advanced natural circ. BWRs, inherent/pass. safety aspects 35845
advanced plant design, Cook Nuclear Plant experience 35920
advanced plant designs, design goals, safety 35907
ALMR, in-service inspection, robotics appl. 35873
ALWR NPP, certification overview 27365
ALWRS, enhanced reliab., accountability 35919
ANS, hypothetical severe accidents, core debris recriticality 35828
AP600, First-Of-A-Kind engng. 43864
AP600 design, reliab., availability, maintainability 35922
AP600 NPP develop. 35909
AP600 pass. syst. design, integrated approach 35846
bimodal-pellet bed reactor, space nuc. power/thermal propulsion appl. 4371
boiling water flows, ASTRID 3D Eulerian code, heat transfer 35796
Bulgaria, nuc. plant analyzer program 35839
BWR, next century, short core study, seismic design 35915
BWR, operating data monitoring, fatigue eval. systs. 27406
BWR 90, evol. ABWR plant 35913
BWR 90, sophisticated BWR 27390
Candu PHWR 27391
Candu PHWR *(French)* 35826
CANDU reactor strategy, current design benefits 43865
Cernavoda nuc. plants, project status *(German)* 10812
channel reactors, status/prospects 10809
conference, emerging nucl. energy systems, Makuhari, Japan (Sept. 1993) 28251
config. mgt., operability/reliab. enhancement 35923
DECA, design change assistant, ES 35857
E. North America, NPP design basis ground motion determ. 27352
EPR, European PWR, advanced PWR 27387
European Fast Reactor project status (1994) and prospects *(French)* 43866
European PWR, EPR, safety *(French)* 35824
fast reactors, long-life, small, design 35948
FBR, devlop./funding, France/Japan 43845
FBR, supercritical steam cooled, conceptual designs 35947
French NPPs, safety, postaccident consequences 35769
fusion-fission breeder-transmuter hybrid reactor syst. 35942
Griefswald NPP, cold leg, LBLOCA 35841
HTGR-MHD combination, high efficiency power generation 35746
hybrid reactor perform., reactivity limitations 35945
Ignalina RBMK-1500 NPP, RELAP5/MOD3 anal. 19423
Kori Units 3/4, station blackout transient 27486
Krsko NPP SBLOCA, ISP-27 accident scenario 4796
liq. metal PBR for Moon base 35262
live-loading valve design syst. 35867
LMFBR cores, role of Na void worth 35791
load factors, end Sept. 1994 10827
Lotung Large-Scale Seismic Expts., NPP site geotechnical synthesis 27381
lunar surface fission power supplies, radiation protection 26515
MHR gas filtration, variable speed induction motor drive appls. 10823
MHTGR, current status, prospects 35911
MHTGR nuc. plants, safety, design 43831
MSR inherent safety, (beyond) design accidents 35950
NEPSTP (TOPAZ II) space reactor, safety 35260
nuc. heating reactor, Chinese, develop. 35946
nuc. rocket, closed-cycle gas core, thermal rad. absorp. effects 4369
nuc. thermal propulsion systs., heat transfer 4367
Nuclear Elec. Propulsion Space Test Program satellite, TOPAZ-II 26693
NUFREQ-NPW code, multichannel core stabil. margins 4774
Paks nuc. plant, safety upgrading 35837
PARR-1, fuel design, conversion, upgradation 4780
pass. LWR designs, risk anal. 35810
pebble-bed blanket/core design, ATW 35954
piping seismic design requirements 4817
PIUS, generation NPP 35912
power plants, inherent safety design efforts 43874
power plants, standardization, licensing 35908
PRA techs., IS 35879
Pratt and Whitney nuc. rocket, simul. syst. for advanced control develop. 4368
pulse fission drive and antiproton-initiated ICF systs., space propulsion 4365
PWR, steam supply syst. maint. and structural mech. 27404
PWR alternate systs., core power densities 35916
PWR and fuel element design, coherence *(German)* 43861
PWR containment design, inherent safety 43857
reliab. assurance program, rel., regul. 19459
S-PRIME space power thermionic convertors, emitter design 18743
S-PRIME thermionic space power system, Cs reservoir modelling 18737

fission reactor design continued
SASSYS computer code, helically coiled tube steam generator model 19449
SBWR pass. safety features, PCCS, ECCS, ADS, GDCS 35844
SBWR reactor building complex, structural design, microcomputers 35901
Seabrook Station reactor cavity cleanup syst. shielded filter 35870
ships/submarines, nuc. propulsion, state-of-the-art, future *(French)* 36731
Sizewell B, PSA, severe accident source term categorisation 35732
Sizewell B PSA, reliab./operational data 35765
solid-core heat-exchanger nuc. rocket program 4372
space hybrid power/propulsion system, particle bed reactors 18754
space nuc. thermal propulsion program 4364
space nuclear power sources, UN standards anal. 18733
space nuclear power/propulsion, fuel element design 18751
SPECTRA-L lunar base reactor, nat. circ. anal. 35261
SPWR design review, PSA methodology 35883
steam-water power reactor core, conceptual design 35917
submarine nuc. propulsion technol. develop. to PWR2, UK overview 44572
submarine propulsion nuc. reactors, digital control *(French)* 36732
System 80+, designer reliab. assurance program 19461
System 80+ Standard Plant, design, organizational struct., staffing 4794
System 80+ std. LWR NPP design 35821
T3C-M transportable NPP, improved safety 35840
Temelin nuc. power station project, design modif. for safety *(German)* 10813
thermionic fission reactors, design studies 27985
Topaz-II, model develop./exptl. data comparis. 18730
Toshiba integrated IS 35924
TRIGON 440, design, WWER 440 reactors appl. 10814
US Space Nuclear Thermal Propulsion Program 4373
VVER plants, designs, experience in develop./improvement 10810
Westinghouse AP600, PSS design tool 35885
Westinghouse NPP and advanced PWR design *(French)* 43837
Westinghouse NPP portfolio 27388
WWER reactors, water reactor fuel technol., high burnup 35752
WWER-type transients, CATHARE V1.3E, SPE-1/SPE-2 expts., PMK-NVH 27495
Gd burnable poison, computational methods, TPFAP/WIMS-SN2D code *(Chinese)* 43849
fast reactors, Pb-Bi cooled, inherently safe designs 10811

fission reactor fuel
see also coolant-fuel interactions; fission reactor fuel preparation; fission reactor fuel reprocessing; fuel element failure; isotope separation; radioactive waste
5-40 kW S-PRIME space nuclear thermionic power system 18734
abandoned SCC tunnel site project, USA 27382
ABB fuel design, BWR, PWR 35749
ABWR safety anal., MOX fuel 10842
Belgium's Doel, reshufflings experience 43876
BWR, fuel failures, flux tilting 27442
BWR fuel perform., R&D activities in Japan 27434
BWR nonbarrier failed rods, post-defect deterioration 27440
BWR reactors, Grand Gulf Unit 1, fuel rod growth 27435
CABRI test reactor, high burn-up PWR fuels, RIA test program 43881
Calvert Cliffs-1 PWR, extended burnup fuel exam. 27433
CANDU reactor safety, plutonium-enriched MOX 10843
cylindrical thermionic fuel elements modelling, MCTFE code 27986
European Fast Reactor project status (1994) and prospects *(French)* 43866
extended discharge burnup optim., CASMO-3/SIMULATE-3, PSFMP 27419
failed BWR fuel, ident., mitigation methods 27446
failed fuel mgt. during operation, French policy 27444
GE BWR fuel experience, failure mechanism characterisation 27436
Hatch Nuclear Plant, leaking fuel rods, operational experience 27443
HDTV GEO satellite, nuclear power/propulsion appls. 18753
HTGR, silicon carbide layer fuel particles 19436
hybrid reactors, fissionable fuel cycle 35944
IFR fuels, fuel/cladding compatibility, elevated temps. 10833
incore thermionic space nuc. power, Monte Carlo fuel burnup simul. 26622
KRB BWR fuel, load follow conditions, operators experience 27437
liq. metal PBR for Moon base 35262
LWR fuel rod perform., FGR, extended burnup 35750
LWR power plant spent nuc. fuel disposal strategy, USA 35728
LWRs, large scale MOX fuel assembly insertion, Siemens' experience 27450
Mihama Unit 1 PWR, MOX fuel post irrad. exam. 35751
MOX fuel experience in French power plants 27451
OKG power plants in Sweden, fuel experience 27438
Palisades PWR, fuel inspection-fuel shuffle integrat. 27448
PARR-1, fuel design, conversion, upgradation 4780
post defect fuel behavior, BWR plants 27441
PWR and fuel element design, coherence *(German)* 43861
PWR full-syst. decontamination, fuel assembly reirradiation 27432
PWRs, defect fuel, primary coolant anal. 27445
RBMK-1000 reactor, rhodium direct-charge detector repositioning 27411
reloading pattern optim. problem 43877
S-PRIME space power thermionic convertors, emitter design 18743
S-PRIME thermionic space power system, Cs reservoir modelling 18737
Siemens fuel assemblies, design, perform. experience, PWR, BWR 35748
single-cell thermionic fuel element convertors, fab., testing 27988
space power planar thermionic convertor, UO fuel testing 18741
space power thermionic convertors, Cs circulation system testing 18739
space power thermionic convertors, thermal modelling 18740
space power thermionic fuel elements, fission gas pressure anal. 18736
space power thermionic fuel elements, UO$_2$ swelling simul. 18744
space power thermionic heat pipes, work fn. tests 26623
spacecraft thermionic nuc. power, biphase inversion calcs. 26620
steam-water power reactor core, conceptual design 35917
thermionic fission reactors, design studies 27985
thermionic fuel element temps., nonuniform power dens. effects 27987
thermionic fuel elements, 2D transient anal. 18735
TRIGON 440, design, WWER 440 reactors appl. 10814
VVER fuel develop., Finland Loviisa NPP 27428
VVER-440 fuel rods, pool side inspections, perform. eval. 27439
WWER reactors, water reactor fuel technol., high burnup 35752
zero temp. coeff. core, dil. fuel, graphite moderator 35813
BWR MOX fuel rods, (post)-irrad. testing program 27452
Al, underwater metal ignition, vap. phase phenom. 35830
Fe, cast, storage casks, spent nuc. fuels, detectable flaws 5938
Gd burnable poison, computational methods, TPFAP/WIMS-SN2D code *(Chinese)* 43849
Pu, nuc. fuel, safety issues, elimination 10815

fission reactor fuel continued
U gas, nuc. rocket fuel, opt./thermophysical props. 4370
U-Nb-C, high temp. fuels for nuc. propulsion, perform. 4366
U-Pu-Zr fuel, cladding steels, interdiffusion behavior 10832
U-Zr-C, high temp. fuels for nuc. propulsion, perform. 4366
UC-ZrC/NbC high temp. nuc. fuel tests 35767

fission reactor fuel preparation
see also isotope separation
ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
CABRI test reactor, high burn-up PWR fuels, RIA test program 43881
China nuc. fuel cycle 43884
fab. proc. automation, QA 43882
indust. conversion procs., nuc. fuel cycle 27384
PWR and fuel element design, coherence *(German)* 43861
SP-100 nuclear space power reactor, testing 18764

fission reactor fuel reprocessing
see also isotope separation; radioactive waste
accelerator molten-salt breeding power reactor syst., Pu burning 35958
accelerator molten-salt breeding reactor, Pu-burning, ^{233}U-prod. 35956
ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
Atomic Vapor Laser Isotope Separation 35960
HLW partitioning, Eu^{3+}-Eu^{2+} photoreduction, laser photochem. 35961
ID nos., automatic recogn., high speed imaging, US probes *(Japanese)* 4772
indust. conversion procs., nuc. fuel cycle 27384
Integral Fast Reactor fuel cycle, TRU material recovery 43867
Integral Fast Reactor waste canister, neutronics 19437
LWRs, large scale MOX fuel assembly insertion, Siemens' experience 27450
minor actinides mass bal., transmutation 35953
MOX fuel experience in French power plants 27451
Purex, Np nitrous acid-catalyzed oxid., redox equilib. 35781
RepU, MOX, EDF's views, current policy 43880
Seabrook Station reactor cavity cleanup syst. shielded filter 35870
spent fuel/waste mgt., reprocessing, recycling 10828
THORP, commissioning 43883

fission reactor instrumentation
see also fission reactor monitoring; fission reactor safety; fission research reactors; fusion reactor instrumentation
act. optoelectronic devices, LEDs, LDs, PDs, OCs 23047
ALWR plants, integrated digital instrumentation and control *(Japanese)* 4771
calib. extension/reduction programmes 27431
Calvert Cliffs nuc. plant, digital instrumentation upgrades 19403
core exit thermocouples for PWR, charact. responses, SBLOCA 35793
digital I&C upgrades 19454
digital syst. immunisation against EMI 35930
endoscopes, fiber-optic and TV, nuc. plant equipt. inspection 25871
EPRI instrum. calib./monitoring program for NPPs 27353
EPRI Instrument Calibration and Monitoring Program, failure modes 27366
fuel bundle leak detect., telescope sipping 10807
high precision gamma/X-ray densitometry, thermohydraulics 27496
I&C maint., operational experience 27342
LWR resist. temp. detectors, ageing effects on cross-calib. 42971
non-proc. instrumentation, surveillance and test reduction 27347
NPP operation, intell. human-machine syst. 43823
opt. fiber links, electronics 22843
opt. fibre Bragg grating sens., struct. monitoring in nuc. plants 25867
opt. fibres, radiation hardness 22838
opt. fibres, response, ionizing radiation 22839
plant commun. and computing archit. plan methodology 27367
power plant resist. temp./press. sens., aging effects 35770
power plants, press. sens. systs., blockage detect. 35932
proc. instrumentation channels in NPP, calib. 35931
protection syst. EDM modules, cause-effect alarm failure anal. 19419
prototype fiber optic sens. 25868
PWR containment integrity, SEXTEN monitoring syst. 35790
PWR power plant, seismic PSA, uniform risk spectra 43856
PWRs, incore-excore nuc. instrumentation recalibration 35876
RBMK-1000 reactor, rhodium direct-charge detector repositioning 27411
related systs., components, seismic qualification 35902
self-powered neutron detectors, digital dyn. compensation 10130
single-failure criterion, NPP safety, IEEE std. 27415
Sizewell B PWR control and instrumentation systs., reliab. assess. 35730
submarine propulsion nuc. reactors, digital control *(French)* 36732
V-213 reactors at Dukovany, upgrades, ageing control 10818
Westinghouse NPP and advanced PWR design *(French)* 43837
He conc., gaseous atmos., local/instant meas., SPARTA 27497
SiO$_2$ opt. fibre atten., nuc. environ., prep. 22842

fission reactor kinetics
see also fission reactor core control; neutron transport theory; reactivity (fission reactors)
Accelerator Molten Salt Breeder, energy systs. 35957
accelerator molten-salt breeding power reactor syst., Pu burning 35958
ANS, hypothetical severe accidents, core debris recriticality 35828
ANS, refueling, crit.-induced severe accidents 35829
BWR thermal-hydraulics, core neutronics, two phase flow, DYNOBOSS 35799
BWRs, systematic homogenization theory 10835
effective delayed neutron fraction 35817
Laguna Verde load rejection transient anal., TRAC-BF1 35801
light water research reactors, CRTA, fast reactivity transient anal. 10825
nodal diffusion eqn., hexagonal geom., 2 grid accel. 27424
open-cycle gas core nuc. rocket, computational model 18769
pebble-bed blanket/core design, ATW 35954
pellet-bed reactors, neutronics anal. for bimodal appls. 4359
PWR, 3D space-time kinetics, RELAP5, PANBOX2 27470
PWR, efficient and safe large power changes automation 4792
PWRs, incore-excore nuc. instrumentation recalibration 35876
reactivity oscills., stabil., delayed neutrons 35819
RELAP5 appls., external user models, EUMOD interface 27471
reloading pattern optim. problem 43877
theta-weighted differencing scheme, oscills., DORT code 10834
TRU/FP transmutation, accelerator based incineration syst. 35955
$\bar{\nu}_e e^-$ scatt., detector study 43126

fission reactor materials
see also fission reactor coolants; fission reactor fuel; materials handling; moderators; radioactive waste
bimodal-pellet bed reactor, space nuc. power/thermal propulsion appl. 4371
BWR, operating data monitoring, fatigue eval. systs. 27406

fission reactor materials continued
concrete stress meas. fiber optic sens., polarimetric/white-light interferom.-based 25978
conference, failure anal., Johannesburg, South Africa (1994) 20245
core material post-operation anal. *(German)* 10816
Davis-Besse PWR, OTSGs, secondary-side pH control amines 27355
extended nuc. plant operation, fatigue issues 35864
Grohnde PWR, on-line pipe monitoring syst., stress and temp. meas. 27409
heating reactor core barrel, reliab. anal. method 35937
hollow cylinders, axial cracks, SIF 35940
large diam. pipes, circumferential crack, J-integral 35866
LWR control rod wear data, intell. DP syst. 4819
LWR corium debris coolability, RPV/confine. struct., CORIUM-2D 27514
LWRs, PTS event, WPS effect verification 35865
NPP service water piping, corros., exam. 27377
NPP valve hardfacing, Co reduction guidelines 27413
nuc. plant components, mech. anal., lifetime eval. 35736
Onagawa Unit 1 BWR fuel channel perform./localized corros. 35753
Palisades PWR vessel neutron fluence reduction measures 4820
press. vessel reliab., math. class. 27399
PWR, fatigue monitoring systs., load-stress rels. 27405
PWR, on-line fatigue monitoring, probabilistic assess. of margins 27408
PWR, steam supply syst. maint. and structural mech. 27404
PWR, transient monitoring systs., fatigue meters 27407
PWR reactor internals, irrad. embrittlement 35863
reactor layup ageing, maint. practices, corros. control 35872
reinforced concrete, stripping demolition, NPP appl. 35936
San Onofre 1 PWR lifetime extension, thermal shield support repair 4793
Seabrook Station reactor cavity cleanup syst. shielded filter 35870
service water piping syst. materials, corros. eval. 27376
service water syst. corros. and deposition handbook 27429
sparse spike time series recovery by L$_1$ norm deconvolution 8415
vessel component profiling, US 43854
VULCANO project, similarity, heating problems 27518

fission reactor monitoring
see also fission reactor instrumentation; fission reactor kinetics; fission reactor safety
anom. detect. credibility, neural networks 4785
Bulgaria, nuc. plant analyzer program 35839
BWR, operating data monitoring, fatigue eval. systs. 27406
fuel bundle leak detect., telescope sipping 10807
Grohnde PWR, on-line pipe monitoring syst., stress and temp. meas. 27409
neutron dens. noise, non-min. phase reactor syst. 43858
power plants, press. sens. systs., blockage detect. 35932
proc. instrumentation channels in NPP, calib. 35931
profiling deformed compounds ultrasonic pulse echo ranging 27416
PSAD, intell. monitoring diagnosis syst., nuc. plants 19402
PWR, ex-core neutron noise signature anal., neural networks 43859
PWR, fatigue monitoring systs., load-stress rels. 27405
PWR, on-line fatigue monitoring, probabilistic assess. of margins 27408
PWR, transient monitoring systs., fatigue meters 27407
PWR containment integrity, SEXTEN monitoring syst. 35790
transient diagnostics by neural net 35741

fission reactor operation
see also fission reactor cooling; fission reactor core control; fission reactor monitoring; fission reactor safety
advanced LMR plant control syst. 35927
advanced plant maint., surveillance syst., AI techs. 35921
AGR stations, refueling improvement 43878
alternators, fault diagnosis, ES 35784
autonomous nuc. power syst., rem. location appls. 35768
Belgium's Doel, reshufflings experience 43876
bimodal-pellet bed reactor, space nuc. power/thermal propulsion appl. 4371
Bulgaria, nuc. plant analyzer program 35839
BWR, fuel failures, flux tilting 27442
BWR, operating data monitoring, fatigue eval. systs. 27406
BWR power plant, abnormal conditions, operator perf. 27403
Calvert Cliffs, tech. specs. improvement 19465
conference, NPP simulators/plant analyzers, Finland (June 1992) 5513
control room design experience 35926
control rooms, μP-based annunciator syst. 27369
engng. changes in NPPs, optimisation guidelines 27374
enhanced operator perform., computer visualization 35928
failed fuel mgt. during operation, French policy 27444
GE BWR fuel experience, failure mechanism characterisation 27436
GPU Nuclear, personnel qualification/training 4782
Gundremmingen KRB II BWR , ten yrs. of operating experience *(German)* 27359
Hatch Nuclear Plant, leaking fuel rods, operational experience 27443
Individual Plant Examinations, PSA technol. 35761
Japanese nuc. plants, operation/maint., safety and reliab. 43832
Kansai Electric Power Co. nuc. plants, operation/maint. safety 43833
KBS introduction for managers 27343
KBTAC, knowledge-based technol. centre 35853
KRB BWR fuel, load follow conditions, operators experience 27437
KSG/GfS, nuc. training centre 43863
Laguna Verde 1, operational experience 27392
load factors, 1994 annual review 43836
LWR fuel rod perform., FGR, extended burnup 35750
LWRs, large scale MOX fuel assembly insertion, Siemens' experience 27450
maint./operating cost effectiveness, PRA 35889
MEET/PEAT software tools for maint. effectiveness eval. 27370
MOX fuel experience in French power plants 27451
μP-based reactor protection syst. hardware 35929
naval nuc. submarine propulsion, IKBS surveillance 35782
naval nuc. submarine propulsion, surveillance, IKBS 35855
NDT, severe operating conditions 27385
Northern States Power Company Welding Manual Advisor 35854
NPP advanced emergency operation procedure develop. 4763
NPP license renewal environ. compliance programme 27380
NPP operation, intell. human-machine syst. 43823
NRC maint. team inspection reports, NPP aging 4818
N.S. Mutsu, expt. voyages, NPP perform. 35805
nuc. operating experience, review and resoln. 19472
nuc. plant longevity and world nuc. capacity 10802
Nuclear Electric's AGR safety, operating periods 35766
OKG power plants in Sweden, fuel experience 27438
Olkiluoto outage mgt., disturbance-free operation 43879
operator interfaces, multimedia 35783

fission reactor operation continued
Paks nuc. plant, safety upgrading 35837
Palisades PWR vessel neutron fluence reduction measures 4820
PBR, cone-bottom/discharge tube effects *(Chinese)* 43850
power plant operators, psychological confidence 35785
power plant safety, knowledge-aided decision-making appls. 43873
PRA techs., plant-design/operation, IS 35879
PSA, low PSD operation 35759
PWR, fatigue monitoring systs., load-stress rels. 27405
PWR 900 MW NPP, operation simul. in CASOAR project 35744
PWR load maneuvers, ES 35850
PWR multimodular reactor plants, operation 19463
PWR NPP neural control 35738
reliab./operations enhancement, risk effectiveness 35925
safety, neural nets/fuzzy systs. 35849
San Onofre 2 and 3, Technical Specification Improvement Program implement. 19404
Sizewell B PSA, reliab./operational data 35765
Sizewell B simulators, training programme, human factors 43862
space nuclear power sources, UN standards anal. 18733
T3C-M transportable NPP, improved safety 35840
tech. document characterisation by data anal. *(French)* 43843
US nuc. plants, cutting operation and maint. costs 19418
vibr. anal., neural networks 35856
VVER plants, designs, experience in develop./improvement 10810
VVER-400, main coolant pump, operating reliab. improv. 35838

fission reactor physics
see also neutron transport theory
ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
BUGEY NPP, $\bar{\nu}_e$p interacts. 4781
BWR, natural circ., LF dyn. 27465
Callaway NPP, subcooled nucleate boiling 35877
Maanshan PWR, reactor trip, poss. mechanisms 43872
space nuclear power/propulsion, fuel element design 18751

fission reactor safety
see also fission reactor accidents; fission reactor containment; fission reactor cooling; fission reactor core control; fission reactor instrumentation; fission reactor monitoring; reactivity (fission reactors)
3D thermal-hydraulic code THYC, mixing, DNB predictions 4802
4S plant design, current status 35910
1150 MW Hunterston B AGR power station, cumulative life assess. 19485
3200 MW Torness AGR power PLEX study, UK 19486
abandoned SCC tunnel site project, USA 27382
ABB BWR 90 design and characts. *(French)* 43838
ABWR, SBWR std. plants, seismic design 35897
ABWR plant, conceptual design, operability, maint. 35914
ABWR reactors, piping syst. design, benchmark anal. 35898
ABWR safety anal., MOX fuel 10842
ABWR shutdown risk eval., shutdown PRA, outage planning 35884
accelerator uses in power reactors 35952
advanced BWR, design goals *(Japanese)* 43855
advanced digital reactor control systs., safety policies 19456
advanced LMR plant control syst. 35927
advanced natural circ. BWRs, inherent/pass. safety aspects 35845
advanced plant designs, design goals, safety 35907
advanced reactors, safety features, risk mgt. 35808
AGR core life assess., probabilistic approach 19484
AGR stations, refueling improvement 43878
alarm annunciation improvement, user oriented approach, CANDU plants 4766
ALMR, in-service inspection, robotics appl. 35873
ALWR NPP, certification overview 27365
ALWRS, enhanced reliab., accountability 35919
analog systs. upgrades, safety crit. software 19457
anom. detect. credibility, neural networks 4785
ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
AP600 design, reliab., availability, maintainability 35922
AP600 NPP develop. 35909
AP600 pass. syst. design, integrated approach 35846
Arkansas Nuclear One IPE, IPE back end Level 2 anal. 35892
ATHLET computer code based on BETHSY test 3.4a 4806
autonomous nuc. power syst., rem. location appls. 35768
BN-600 neutron field, azimuthal nonuniformity, control rods, safety 35823
Borssele PWR, backfitting programme, safety aspects 10819
Borssele PWR, radiation protection experience 27364
BWR, internal recirculation pumps, reactor stabil., TRACG code 35792
BWR, next century, short core study, seismic design 35915
BWR, operating data monitoring, fatigue eval. systs. 27406
BWR 90, evol. ABWR plant 35913
BWR 90, sophisticated BWR 27390
BWR condensate filtration tests, Hope Creek 27412
BWR instabilities, nonlin. effects, DYNOBOSS computer code 19421
BWR power plant, abnormal conditions, operator perf. 27403
BWR regional instabilities, harmonic perturb. theory 35814
BWR risk-based regulation progress 4791
BWR stabil. anal., bifurcation theory 35794
BWR stabil. anal., Kalman filter-based state estim. 19473
BWR thermal-hydraulics, core neutronics, two phase flow, DYNOBOSS 35799
BWRs, boiling systs., nonlin. instabilities 27454
BWRs, natural circ., stabil. limits, Galilean law 27464
BWRs, outage risk assess. and mgt. 27351
CABRI test reactor, high burn-up PWR fuels, RIA test program 43881
Callaway NPP, subcooled nucleate boiling 35877
Candu PHWR *(French)* 35826
Candu PHWR 27391
CANDU reactor safety, plutonium-enriched MOX 10843
CANDU reactor strategy, current design benefits 43865
channel reactors, status/prospects 10809
Comanche Peak NPP, pump/valve risk-based in-service testing 10840
commercial grade item appl. in nuc. safety-related areas 27378
conference, failure anal., Johannesburg, South Africa (1994) 20245
conference, NPP simulators/plant analyzers, Finland (June 1992) 5513
conference on nucl. engineering, San Francisco (Mar. 1993) 28217
control relays/timers, maint. guide 43839
control rooms, μP-based annunciator syst. 27369
coolant pump syst., max. likelihood factor anal. 10808
design, Toshiba integrated IS 35924
Diablo Canyon, condensate dissolved O_2 control, corros. transport 35868

fission reactor safety continued
Diablo Canyon PWR, outage risk assess. and mgt. 27368
Diablo Canyon PWR, outage risk assess. and mgt. 27349
digital I&C upgrades 19454
digital syst. immunisation against EMI 35930
discrete radioact. particles, nuc. indust. experience 43842
Dodewaard natural circ. BWR, thermal hydraulic safety, TRACG 27489
E. North America, NPP design basis ground motion determ. 27352
earthquake ground motion, eastern US 35896
earthquakes, NPP safety, ground motion effects 27348
East European countries, safe nuc. power *(French)* 4765
EDF's nuc. facility safety 27383
Edwin I. Hatch nuc. plant, improved tech. specs. 19464
EFR-type reactor cold collector, thermal-hydraulic transients 4800
emergency engng./mgt., ES-based DSS approaches 43875
enhanced operator perform., computer visualization 35928
EPR, European PWR, advanced PWR 27387
European Fast Reactor project status (1994) and prospects *(French)* 43866
European LWRs, occupational radiation exposure 1981-1991 35745
European PWR, EPR, safety *(French)* 35824
extended nuc. plant operation, fatigue issues 35864
Fermi 2, independent safety assess. of refueling outage 19471
flooding phenom. prediction, CATHARE code 4809
French Navy on-board nuc. reactors, in-service safety feedback *(French)* 36733
French NPPs, safety, postaccident consequences 35769
French PWR NPPs, pump-excited piping syst. vibrs. *(French)* 35941
fuel bundle leak detect., telescope sipping 10807
gas-cooled reactors, structural integrity, periodic review 35822
Golfech-2 PWR, safety injection syst. vibr. anal. *(French)* 35789
Griefswald NPP, cold leg, LBLOCA 35841
Hatch Nuclear Plant, leaking fuel rods, operational experience 27443
HF seismic event anal. 27346
hollow cylinders, axial cracks, SIF 35940
HTGR, ring core, Xe oscills., 3D simul. computer code *(Chinese)* 43848
HTGR-MHD combination, high efficiency power generation 35746
HTR module prim. cct. press. boundary reliab. under accident conditions 19482
human reliab., emergency operating procedures 10830
human reliab. anal., HRA contemporary trends 4787
human reliab. anal., syst. design/mgt. 10829
I&C maint., operational experience 27342
IAEA regulations, revised *(German)* 4816
IFR fuels, fuel/cladding compatibility, elevated temps. 10833
Ignalina RBMK-1500 NPP, RELAP5/MOD3 anal. 19423
Indian Pt. 2 PWR, full coolant syst. decontamination eval. 27414
Individual Plant Examinations, PSA technol. 35761
inlined/staggered tube bundles, flow visualization, crossflow 27400
Integral Fast Reactor fuel cycle, TRU material recovery 43867
intersystem LOCA, risk assess., methodology/results 10820
IPE back-end results, recovery/accident mgt. actions 35895
irrad. fuel element time-to-failure distrib., degrad. 19452
ISP 33 safety codes, VVER-440 4803
Japanese nuc. plants, operation/maint., safety and reliab. 43832
Kansai Electric Power Co. nuc. plants, operation/maint. safety 43833
knowledge-aided decision-making appls. 43873
Kola NPP, containment shell leaks determ. 35786
Korean nuc. indust., codes/stds. develop. 43829
Krsko PWR AC/DC power supply syst. fault tree anal. 35731
KSG/GfS, nuc. training centre 43863
Laguna Verde 1, operational experience 27392
Laguna Verde BWR, PSA appls., Mexico 35881
large diam. pipes, circumferential crack, J-integral 35866
light water research reactors, CRTA, fast reactivity transient anal. 10825
live-loading valve design syst. 35867
LMFBR, pile natural convection, thermalhydraulics code 27476
LMFBR coolant filling, human errors ident., intell. CAI syst. 28350
LMR, wire wrap modelling, computer code BACCHUS 4801
LOBI counter part test programme 27473
Lotung Large-Scale Seismic Expts., NPP site geotechnical synthesis 27381
low-temp. overpressurization protection syst., RETRAN-02/MOD5 19450
LWR press. vessel, neutron transport, ENDF/B, JEF, JENDL, Fe 27421
LWRs, PTS event, WPS effect verification 35865
Maanshan PWR, reactor trip, possible mechanisms 43872
MAAP4 model and validation status 35835
Maine Yankee level II PRA anal., containment perform. 35893
material damage/ageing, NDE 27386
MHTGR nuc. plants, safety, design 43831
Millstone unit 1 plant vulnerabilities, postulated severe accidents 35894
MSR inherent safety, (beyond) design accidents 35950
μP-based reactor protection syst. hardware 35929
natural circ. loop, surge tank, transient behaviour 4804
naval nuc. submarine propulsion, IKBS surveillance 35782
NDT, severe operating conditions 27385
NEPSTP (TOPAZ II) space reactor, safety 35260
neural nets/fuzzy systs. 35849
North Anna service water syst. preservation project, IPE model 35888
NPP, proc. variable est., parity space method, ANN *(Korean)* 27356
NPP advanced emergency operation procedure develop. 4763
NPP license renewal environ. compliance programme 27380
NPP operation, intell. human-machine syst. 43823
NPP radiation monitors calib. 27373
NPP surveillance requirements, risk anal. 4762
NPP valve hardfacing, Co reduction guidelines 27413
nuc. heating reactor, Chinese, develop. 35946
nuc. operating experience, review and resoln. 19472
Nuclear Electric's AGRs, operating periods 35766
Nuclear Electric assess. in mid-90s 35758
NUFREQ-NPW code, multichannel core stabil. margins 4774
OASYS rule/fuzzy-based ES 10831
Olkiluoto outage mgt., disturbance-free operation 43879
Oskarshamn 1 plant, safety, Fenix project, upgrade 10817
Paks nuc. plant, safety upgrading 35837
Palo Verde NGS, alternate safe shutdown anal. 19470
Palo Verde NPP, safety param. display syst., ES 10806
pass. coolability, gravity-removable suspen. fuel core 19453
pass. LWR designs, risk anal. 35810
PBR, cone-bottom/discharge tube effects *(Chinese)* 43850
Peach Bottom 2 stabil., Engineering Plant Analyzer methodology 4773
pebble-bed blanket/core design, ATW 35954

fission reactor safety continued
perform.-based regulatory approach in nuc. indust. 10838
periodic safety reviews 35755
piping seismic design requirements 4817
PIUS, generation NPP 35912
plant safety software, guidelines, regulatory guidance 19455
PLR pump shaft-casing cover annulus gap, temp. flucts. 35869
postulated loss-of-river-water event, CONTAIN/SR computer code 35848
power plant cct. breaker retrofitting projects, USA 43827
power plant fault-diagnostic advisor, neural nets 19438
power plant operators, psychological confidence 35785
power plant resist. temp./press. sens., aging effects 35770
power plants, digital control systs. 35742
power plants, inherent safety design efforts 43874
power plants, press. sens. systs., blockage detect. 35932
PRA, maint./operating cost effectiveness 35889
PRA and maint. rule 35886
PRA methodology, computational needs, operational safety 4786
PRA techs., plant-design/operation, IS 35879
press. vessel reliab., math. class. 27399
protection syst. EDM modules, cause-effect alarm failure anal. 19419
protection systs., pulse-coded logic based 19417
PSA, low PSD operation 35759
PSA results, regulatory body assess. 35756
PWR, 3D space-time kinetics, RELAP5, PANBOX2 27470
PWR, automated US inspections, data collection/interp. software 35374
PWR, ex-core neutron noise signature anal., neural networks 43859
PWR, fatigue monitoring systs., load-stress rels. 27405
PWR, LOCA, droplet vel./diam. meas. 4807
PWR, transient monitoring systs., fatigue meters 27407
PWR 900 MW NPP, operation simul. in CASOAR project 35744
PWR containment design, inherent safety 43857
PWR containment integrity, SEXTEN monitoring syst. 35790
PWR cores, thermohydraulic parametric anal., computer codes 27469
PWR full-syst. decontamination, fuel assembly reirradiation 27432
PWR life mgt., EDF approach 19510
PWR LOCA, flow visualisation, heat transfer, and voidage meas. 4814
PWR plants, flow controlled accumulator, fluidics 19435
PWR power plant, seismic PSA, uniform risk spectra 43856
PWR reflux cooling during shutdown, ORAM technol. 27430
PWR station blackout transient involving pump seal leak 4805
PWR steam-generator corros., molar ratio control 19468
PWR thermalhydraulics, mid-loop operation, loss of RHR 27461
PWR vessels, core mapping methods 19439
PWRs, outage risk assess. and mgt. 27350
PWRs, safety-related pumps, reliab. params. update *(French)* 43860
RBMK NPP, safety assistance programmes, Europe 27358
reactor layup ageing, maint. practices, corros. control 35872
RELAP5 appls., external user models, EUMOD interface 27471
reliab./operations enhancement, risk effectiveness 35925
Ringhals 1 BWR, reactor stabil., dual oscills. 35816
risk, unavailability, maint. effectiveness 35878
risk-based aging mgt./regulation 35903
risk-based inspection, organizational factors 10841
risk-based regulation, regulatory perspective 35906
risk-based regulation, support systs. 35905
risk-based regulations, PRA 35904
rodded constraints, reload optim., multireference nodal GPT 10837
Russia's nuc. power safety, proposal 27363
San Onofre plant, U-tube steam generator leaks, ^{16}N det. methods 4795
SASSYS computer code, helically coiled tube steam generator model 19449
SBWR pass. safety features, PCCS, ECCS, ADS, GDCS 35844
SBWR reactor building complex, structural design, microcomputers 35901
Seabrook Station reactor cavity cleanup syst. shielded filter 35870
seismic anal., vert. pumps/motors, computer model verification 35900
seismic IPEEE, Unresolved Safety Issue A-46 35899
seismic qualification, nuc. safety related systs., components 35902
SGTR transients, plant analyzer model, RELAP5 verification 19424
shutdown outage activities, IPE/PRA results 35887
shutdown risk mgt., ORAM tools 35880
simplified Mitsubishi PWR, safety anal., LOCA 35809
simulated subchannel, void profile, tight lattice core 27418
single-failure criterion, NPP safety, IEEE std. 27415
Sizewell B, PSA, severe accident source term categorisation 35732
Sizewell B plant, probabilistic safety anal. 10821
Sizewell B probabilistic safety anal. 35760
Sizewell B PSA, reliab./operational data 35765
Sizewell B simulators, training programme, human factors 43862
slab geom. thermal-hydraulics, immersion cooler posns. 4810
space hybrid power/propulsion system, particle bed reactors 18754
space nuclear power sources, UN standards anal. 18733
space nuclear power/propulsion, fuel element design 18751
sparse spike time series recovery by L_1 norm deconvolution 8415
SPWR design review, PSA methodology 35883
SRS reactor, unseated septifoil, steam explosion pot. 35831
steam-water power reactor core, conceptual design 35917
struct. monitoring, opt. fibre Bragg grating sens. 25867
submarine nuc. propulsion technol. develop. to PWR2, UK overview 44572
Swedish BWR living PSA appl. 19483
System 80+, designer reliab. assurance program 19461
System 80+ std. LWR NPP design 35821
systs. anal., time depend. transit. rates 19448
T3C-M transportable NPP, improved safety 35840
tech. safety specs., probabilistic anal. 35938
Temelin nuc. power station project, design modif. for safety *(German)* 10813
thermal reactor safety anal., code validation 35757
thermal-hydraulics, transient natural convection 27515
through-life integrity assess., safety assessor's views 35754
TRAC plant/safety anal. code, interactive model generator 19431
transient diagnostics by neural net 35741
Turkey Point plant, indiv. plant examin., maint. rule 19460
Ukrainian nuc. plants, emergency early warning syst. *(English)* 10801
Utility/Manufacturers Robot User Group 35874
V-213 reactors at Dukovany, upgrades, ageing control 10818
valves with elec. actuator drives, actuating power reserve *(German)* 27360
vessel component profiling, US 43854
VVER, bubble condenser test facility, thermohydraulic phenom. 27498
VVER 440/V230 units, ECCS upgrading, thermohydraulic anal., LOCA 27494
VVER plants, designs, experience in develop./improvement 10810

fission reactor safety continued
VVER-400, main coolant pump, operating reliab. improv. 35838
VVER-440 plants, RELAP5 Posttest Calculation of IAEA-SPE-4 19425
VVER-440/1000, first loop coolant leak diagnostics 35787
VVER-440/1000 reactors, boiler water, radionuclide accumulation 35788
VVER-440/213 reactors decommissioning, liquidation variants, time depend. *(Czech)* 27402
Westinghouse AP600, PSS design tool 35885
Westinghouse NPP and advanced PWR design *(French)* 43837
Westinghouse NPP portfolio 27388
Yonggwang NPP, alarm proc., on-line ES 10805
zero temp. coeff. core, dil. fuel, graphite moderator 35813
Zion Individual Plant Examination, realistic modeling 35882
Al, underwater metal ignition, vap. phase phenom. 35830
H risk, European research program 35771
^{222}Rn progeny inhalation dose, Japanese NPP 18677
fast reactors, Pb-Bi cooled, inherently safe designs 10811

fission reactor theory
see also fission reactor instrumentation; fission reactor kinetics; fission reactor physics; neutron transport theory; nuclear engineering computing
1150 MW Hunterston B AGR power station, cumulative life assess. 19485
ABWR plant, conceptual design, operability, maint. 35914
AGR core life assess., probabilistic approach 19484
ALMR deployment economics, HLW repositories 4784
conference, NPP simulators/plant analyzers, Finland (June 1992) 5513
conference on nucl. engineering, San Francisco (Mar. 1993) 28217
coolant syst. lin. regression leak rate calcs. 27398
cylindrical thermionic fuel elements modelling, MCTFE code 27986
EBR-II, intranodal neutron flux shapes, variational nodal method 10836
energy renewal, paradigm shift 27422
heating reactor, B-injection vel. *(Chinese)* 43853
incore thermionic space nuc. power, Monte Carlo fuel burnup simul. 26622
LaSalle BWR, second law exergy anal. 35733
lunar surface fission power supplies, radiation protection 26515
molten-salt Pu-fueled power reactor, nuc. charact. 35949
neutron dens. noise, non-min. phase reactor syst. 43858
NUFREQ-NPW code, multichannel core stabil. margins 4774
open-cycle gas core nuc. rocket, computational model 18769
optimal Xe oscill. control, axial offsets, strategy generator 35875
orb. spacecraft, nuc. power propulsion 26691
Peach Bottom 2 stabil., Engineering Plant Analyzer methodology 4773
PWR, steam supply syst. maint. and structural mech. 27404
PWR burnable poison designs, ELCOS code, verification, modelling 27425
rapid transients, multidimensional nodal method 35818
rodded constraints, reload optim., multireference nodal GPT 10837
S-PRIME space power thermionic convertors, emitter design 18743
S-PRIME thermionic space power system, Cs reservoir modelling 18737
Sizewell B plant, probabilistic safety anal. 10821
space nuc. reactor, thermionic fuel element modelling 26625
space nuclear power/thermal propulsion requirements 18760
space power thermionic convertors, thermal modelling 18740
space power thermionic fuel elements, fission gas pressure anal. 18736
space power thermionic fuel elements, UO_2 swelling simul. 18744
spacecraft thermionic nuc. power, biphase inversion calcs. 26620
tech. safety specs., probabilistic anal. 35938
thermionic fission reactors, design studies 27985
thermionic fuel element temps., nonuniform power dens. effects 27987
thermionic fuel elements, 2D transient anal. 18735
TOPAZ-2 space reactor, NEPSTP spacecraft integrat. 26618
TOPAZ-2 thermionic fuel element anal., HXTOPAZ computer code 26624
TOPAZ-II EM pump, integrated model 18731
TOPAZ-II space nuclear thermionic reactor, computer simul. 18742
^{235}U thermal fission, correction method, ^{238}U fission rate *(Chinese)* 43852

fission reactors
see also fission reactor decommissioning; fission reactor design; fission reactor instrumentation; fission reactor materials; fission reactor operation; fission reactor theory; fission research reactors; hybrid reactors; nuclear engineering; nuclear power stations
Grohnde PWR, on-line pipe monitoring syst., stress and temp. meas. 27409
Nuclear Elec. Propulsion Space Test Program satellite, TOPAZ-II 26693
SP-100 thermoelec. cell testing, JPL 26635
space nuc. reactor, thermionic fuel element modelling 26625
TOPAZ-2 space reactor, NEPSTP spacecraft integrat. 26618

fission research reactors
see also fission reactor instrumentation
ANS, refueling, crit.-induced severe accidents 35829
ATR, flow stabil. limits, vert. rect. channels, LOCA 19429
CABRI test reactor, high burn-up PWR fuels, RIA test program 43881
conference, emerging nucl. energy systems, Makuhari, Japan (Sept. 1993) 28251
EBR-II, intranodal neutron flux shapes, variational nodal method 10836
EBR-II, irrad. fuel elements, time-to-failure distrib. 19452
IFR fuels, fuel/cladding compatibility, elevated temps. 10833
IRT-Sofia, neutron depolarization facility 10824
KUR, cold neutron polaris. instrum., 9 Å wavelength 26075
LOFT integral expt. LP-FP-2, MELCOR assess. 35833
LWRs, CRTA computer program, fast reactivity transient anal. 10825
MFZR NPP decommissioning 35934
neutron transmutation Si doping 27423
ORNL Research Reactors, decommissioning, decontamination 19474
PARR-1, fuel design, conversion, upgradation 4780
Piper-One, BWRs, thermalhydraulic instabil., Relap5/Mod2 27478
PIPER-ONE, isolation condenser perform., Relap5/Mod3 35795
ROSA-IV LSTF, loss of RHR syst., midloop operation, RELAP5/MOD3 27482
SPES facility, station blackout expt. SP-ST-01, RELAP5/Mod2 35802
TRIGA, model-based advanced control 19462

fissures *see cracks*

FITL *see optical fibre subscriber loops*

flame sprayed coatings *see spray coatings*

flame spraying *see spray coating techniques*

flameproofing
see also fires
broadband multi-twisted pair cable develop. 21604
fire-resistant and cryogenic opt.-fiber cable 5569
flame-resistant clothing develop., elec. indust. 36984
high temp. XLPE flame retardant cable insulation, bromide free *(Japanese)* 19293

flameproofing continued
  petrochemical indust. fire protection, intrinsic safety appl. *(German)* 11512
  power cable materials, fire safety, improvement 27203
  power distrib. cables, long service life designs 43770
  substation fire protection design/equipt., IEEE Guide 36490
flares, solar *see solar flares*
flash lamp annealing *see incoherent light annealing*
flash lamps
  long pulse dye laser develop., high resoln. spectrosc. appls. *(Japanese)* 7549
  multisensor fill flash syst. develop. *(Japanese)* 17755
  Nat. Ignition Facility, ICF, laser flashlamp power conditioning syst. 5106
  tunable UV-flash Kr lamp array for Si-based dielec. proc. 30012
  Br photodissociation laser, flashlamp-induced opt. losses 1857
  Cr,Nd:GdScGG parallel amp. 8.2 J phase-conjug. solid-state laser 1909
  $Cr:LiSAF_6$ slab laser perform. 31294
  $Cr^{3+}:LiCaAlF_6$ laser, flash-lamp pumped 31295
  $LiF:F_2^+$ laser pumped by a flash lamp, multimode oscill. 7596
  Xe lamp pulse power-pumped Nd:glass laser, crack mechanisms 31457
flash photolysis *see photolysis*
flashover
  110-275 kV composite long rod insulator monitoring experiences, Australia 43788
  300 kJ ion beam accelerator, Marx generator power supply 34749
  aerial insulated wires, support points impulse creeping discharges 14009
  air gap flashover, charged droplets, lightning impulse voltage *(Japanese)* 35685
  Al_2O_3, insulators, HV stress, light emission from surface flashover 13954
  alumina/vac. interface, pre-flashover lumin. 13948
  artificial acid rain, surface impulse breakdown tests 1505
  British Rail elec. insulation experiences, UK 44569
  bundle conductors, phase-to-ground/phase air gaps, flashover voltage 27219
  distrib. lines, lightning outage ratio anal. *(Japanese)* 10737
  electrode surface flashover, space charge 13950
  extraction magnetically insulated diode study on Gamble II accelerator 26094
  GIS, coaxial pulse generator, VFT generation 36487
  GIS lightning overvoltages, computer simul. 19912
  high electron current dens., plasma edge cathode 29752
  HV vac. surface flashover insulator technol. 30583
  HVDC transm. network insulator problems *(Chinese)* 43737
  impulse breakdown of insulators and air gaps of similar electrode configs. 13946
  insulator AC flashover performance under glaze and rime 19321
  intense diagnostic neutral beam prod., pulsed power supply-based 36319
  LEO spacecraft pulsed power systs., dielec. surface flashover expts, 35258
  LV AC power syst. clearances flashover, overvoltage wave-based 35457
  LV equipment insulation characteristics at high freq. 19323
  nonceramic insulators, flashover voltage, wetting conditions effects 19322
  PET films, creepage surface discharge in SF_6 gas *(English)* 30585
  polluted insulator flashover perform., air density effects 35670
  polluted UHV insulator flashover model for ac voltage 35663
  porcelain insulators, CAD under polluted conditions 35662
  pulsed power syst. dielecs., real-time surface flashover detect. 36292
  sapphire, insulator props. rel. to tribology/space charge 13952
  silicone rubber/EPR insulators, AC clean fog test 4700
  spacer model, surface insulation characts., impulse voltage *(Japanese)* 36396
  spacer surface discharges in gaseous insulation, nanosecond streak photography 30553
  transm. line tower lightning surge response calc. 19314
  triggered flash, EM field and step voltage obs. *(German)* 35681
  UHV tower model, lightning surge anal. 27238
  water mist form. in vap.-mist dielec. 1545
  Al_2O_3, chemically etched, surface flashover performance 13956
  Al_2O_3 insulator, DC/pulsed electro-opt. props., vac. 30550
  GaAs photoconductive pulsed power switches, vac. surface flashover tests 36433
  SF_6 gas, surface leader discharges, impulse voltage polarity *(Japanese)* 1546
  SF_6, surface flashover voltage var., press. 19898
  Si photoconductive pulsed power switches, dark current characts. 36438
  Si photoconductive pulsed power switches, vac. surface flashover tests 36433
  SiC films, high field effects 21788
  SiC, insulators, HV stress, light emission from surface flashover 13954
flat panel displays
  3E-L1 liq. cryst. TV, fast recharge *(Japanese)* 3661
  10.4″ TFT-LCD module for 16.7 million color XGA *(Japanese)* 34636
  autostereoscopic back-projection and flat screens *(German)* 9983
  COG photosensitive adhesive resin interconnection technol., LCD driver LSIs *(Japanese)* 953
  COMPACT 90 small-scale control syst. *(Japanese)* 3748
  device technol. *(Japanese)* 34642
  field emission displays and LCDs 9986
  field-emission flat panel displays, beam focusing 18009
  Fujitsu 21-inch color plasma display and electronics *(Japanese)* 25918
  hollow cathode discharge operation 21864
  large panel mfg., displays, PWBs and MCMs 21683
  large precision masks for flat panels 3942
  large-area matrix displays, SMT-TOP-LED 3932
  large-sized matrix displays, picture quality of different pixel arrangements 18012
  lasers in flat-panel display manufacture 2157
  LCD driver, 50-V, integrated in std. 5-V CMOS proc. 29083
  LCD projector with interleaved pixels, opt. syst. and charact. 25931
  LCDs, review 18000
  low-power displays, act.-matrix LCD and field emission technols. 25925
  mfg., markets, competitors, etc. 3941
  microlens arrays for projection LCD, efficiency study 18005
  mil. displays develops. 18969
  multilayer white light-emitting organic electroluminescent device 31111
  NEC 24 cm TFT color LCD module, develop. *(Japanese)* 3937
  NEC graphic FIP modules *(Japanese)* 3940
  parallaxless input integrated flat panel display *(Japanese)* 9978
  pers. communicators, batt.-powered, trends 42296
  plasma, electroluminescent, and field emission displays 42877
  portable computer market, low-power requirements 25924
  TFT act. matrix color LCDs, tech. trends and product line-up *(Japanese)* 3935
  TFT-LCD, viewing angle improvements 34641
  thin-film diode LCDs, high-quality display design 25920
  US Display Consortium, flat panel display mfg. initiative 17996
flat panel displays continued
  videotelephony, blazed half-transparent mirror for eye contact 42098
  a-Si TFT/LCD, state-of-the-art 18011
  Si diodes, stain-etched porous films, vis. electroluminesc. 7477
  SrS:Pr white light emitting electrolum. devices, ALE 31092
  ZnS:Pr white light emitting electrolum. devices, ALE 31092
flat screen oscilloscopes *see oscilloscopes*
flat TV displays *see flat panel displays*
flaw detection
  see also crack detection
  adhesive bond, acousto-US eval., pattern recogn. anal. 5921
  analog VLSI neural network for texture anal. 29477
  automated US inspection, sig. discretization 18950
  CANDU reactors, flaws US NDE, sparse spike time series 8415
  CLEAN algm. for microwave images eval., NDT appl. 42901
  composite materials, defects/damage, 3D US imaging 5924
  composite struct., automated US NDT, form-fn. anal. 5931
  composites/multilayer parts, thermal nondestructive inspection procedures/proc. 12230
  computerized magnetographic flaw detect., defect eval. algms. 28917
  contouring, interferometric digital proc., Hough transform 12238
  defect imaging, multifrequency digital acoustic holograms, superresolution 18951
  defect params. determ., thermal methods, multidimensional approx. 12231
  defects, ultrasound scatt. 28906
  embedded fiber-optic acoustic sens. for NDE 34540
  fabricated parts, US test equipt. 5925
  ferrite-garnet film, mag.-field visualizer 3801
  glass reinforced polymer composites, microwave detect. 37558
  hierarchical neural network appl. to ident. of defects, elec. pot. *(Japanese)* 21009
  HV ceramic capacitors, mech. flaws, nondestructive detect. 29609
  IC yield enhancement, real time mfg. proc. monitoring 20468
  inner surface defects, magnetographic inspection, sensitivity 21001
  insulation, defects/degrad., US NDT 6916
  interact. inclusions, mag. field, general soln. 12233
  mag. powder inspection, indicator patterns detect. 12232
  magnetographic inspection equipt. develop. in prod. 28902
  magnetographic inspection standardization 28918
  metal power-generating equipt., discontinuities orient., acoustic inspection 12235
  metal/alloy products, discontinuities detect., plastic scintillator 12236
  microcontamination 93, conf., San Jose, USA (Sep. 1993) 42
  PCB X-ray inspection, neural network classifiers 37162
  primary sig. sens. optimisation for fabric defect detect. 34507
  quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
  rem. field eddy current defect interacts., external field 5928
  simple modeling of US testing 4423
  single-pass flaw detector for mag. media 6934
  steel, H-charged, defects presence eval., positron annihilation method 28922
  steel, slits, high resoln. mag. Barkhausen noise meas. 449
  stereoscopic radiation image perception upon coloring 21003
  stone block, Rayleigh-wave surface flaw detect. 12229
  thermal-wave image proc. for material flaws charactn. 5934
  thermoplastic photographic plate, holographic opt. image proc. 7854
  unidirectional acoustic waveguide detect. syst. 28916
  US defect ident. with laser generation, neural network appl. *(Japanese)* 21008
  Fe, cast ductile, US detectable flaw size 5938
flaws *see cracks; voids (solid)*
flexible AC transmission systems
  AC/DC real-time simul. *(German)* 27133
  advanced series VAr compensator appls. 27138
  batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966
  bilinear predictive control, thyristor-controlled capacitor 4582
  control simulation, EMTP package-based 35614
  DC link, transient anal., converter model, series expansion 27143
  develop., perform., appls. 27137
  FACTS devices for power syst. stabil. enhancement 10646
  high phase order systs., impedance relaying 35611
  inter-area dynamics, nonlinear modelling 19138
  interphase power controller, voltage injection 4520
  line fault protection, variable reactor, phase shifter *(Japanese)* 10783
  long-dist. transm. syst., harmonic modelling 4628
  NERC reliab. forecast, 2003 43718
  power systs., technols. *(Chinese)* 43650
  power transm. systs., power electronics growth overview 35594
  static phase shifters appl. 4629
  steady state/dyn. perform. eval. 35613
  SVC appl. planning projects, USA 27139
  thyristor-controlled series capacitors tuning by eigenvalue sensit. anal. 4630
  voltage stabiliser, series act. filter-based 19233
flexible manufacturing systems
  assembly lines for PCB, design and scheduling 29663
  defense mfg. environ., flexible develop. and prod. 28421
  design for cell-based mfg. 37009
  diesel engine turbochargers, flexible manufacture 4830
  IEEE IECON '94 conf., Bologna, Italy (1994) 36823
  indust. robot mech. positioning errors, meas. and correction *(Japanese)* 3985
  KoREMA, conf., Zagreb, Croatia (Apr. 1993) 20203
  MCM-D, low cost fab., thin film transfer proc. 21719
  ORCHARD II, ASIC CIM syst., scalable and flexible, precise quick scheduler 28433
  ORCHARD II, flexible ASIC CIM syst., prod. line mgt. 28414
  PCB prod., computer-aided manual workstation, graphics generation 38112
  real-time Petri nets for modeling, controlling, and simul. of LANs in FMSs 16735
  SMT, flexible prod. systs. 12901
  spectral ellipsometry for semicond. proc. in situ diagnostics and control 22200
  stat. metrology for IC mfg. control, DFM implement. 20406
  tobacco factory automation, SINEC commun. network 41899
flexible structures
  see also intelligent structures
  COG, COG technol. for LCD driver LSIs, resin and flexible metal bumps 134
  fiber optic sens. for flexible structs. control 9919
  z-axis conductive adhesives, fine pitch appls. in consumer electronics, accelerated life test 135

flexible structures continued
    IC interconnection, high speed/dens., flexible etched ccts. 13431
flexoelectricity
    cholesteric liq. cryst., lin. electro-optic effect, flexoelectricity 14538
flexural strength *see bending strength*
flexural waves *see elastic waves*
flicker noise
    1/f noise in SAW resonators 30653
    3D laparoscopic syst., single-camera 34998
    CMOS transistors, flicker noise study 1383
    double field rate scanning, interpolation methods for TV picture quality improvement 8651
    elec. network flicker compensation, arc furnace model 5383
    LCDs, field-seq.-color tech. 7408
    microwave oscillators, high-Q temp. stabilized sapphire resonators 30623
    MM-wave BWO, flicker noise eval. 999
    NMOSFETs with nitrided-oxide, high-field mobility enhancement 1390
    quartz resonators/oscillators, 1/f freq. flucts./nonlin. 30627
    reactive elements, flicker noise, thermodyn. constraints 37661
    sapphire disk DRO, combined stabilization 30655
    scan conversion methods, subjective assess. 42582
    semicond. field emitter, LF noise 12994
    stereo imaging effectiveness testing 34632
    InGaAs monolithically integrated pin-FETs, noise characts. 14671
    a-Si:H nip and pin diodes, 1/f noise anal. 38798
flight control *see aerospace control*
flight simulation *see aerospace simulation*
flip-chip devices
    3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
    50 MHz multichip proc. module, flip chip technol. 21765
    1024-pin plastic ball grid array for flip chip die, design, SPICE model 5652
    1995 forecast for solid-state technol. 30389
    area array interconnection, Cu-PI thin films on multi-layer glass-ceramic substr. 139
    area array solder joints, comp. effects on fatigue crack growth rates 37113
    AT&T μSurface Mount Assembly, large vol. fab. of flip-chip MCMs 21705
    ball grid arrays, ceramic thin-film technol. 5651
    bump heat sink technol. for power HBT and MMIC 38829
    bump-pad adhesion, thermocompression bonding effects 21668
    C4, controlled collapse chip connection, enabling technol. 5647
    C4 packages, bumps, package design guideline, package layers 11771
    C4/BGA comparison, MLC single chip package alternatives 5649
    C4/CBGA interconnect technol., hi-dens., CMOS μP appl. 5650
    carrier bump build, molten solder injection 29707
    ceramic QFP, epoxy encapsulation, SM appls. 11765
    ceramic QFP, epoxy encapsulation, SMT appls. 5629
    COB process charactn., no-clean flux, ionic residue 38108
    compliant bumps for adhesive flip chip assembly 5648
    condensation inert heating mass reflow soldering systs., challenges 38162
    conductive adhesives for assembly of SMT, fine pitch, MCMs and flip-chip bonding 37116
    controlled collapse chip connection, flip-chip attach on FR-4 IC packaging 130
    die mount methods for memory chip testing 38166
    digital tomosynthesis for X-ray inspection of flip chip attach 37172
    electronic components and technol., conf., Washington DC, 1994 5473
    electronic packages, life enhancement, design optim. 28497
    electroplated solder bumps for flip chip proc. 5620
    encapsulants, low thermal expansion, props. 132
    encapsulated flip chip bonding, chip replacement method, FCA technol. 133
    encapsulation 28453
    epoxy resin, printing encapsulation syst., MCMs, PLCC, BGA, PGA, TAB, COB, flip-chips 20433
    failure mechanisms, phys.-of-failure design approach 21671
    fine pitch interconnections, anisotropic conductive adhesive 22281
    fluxless soldering proc. technol. 5617
    FR-4 boards, flip-chip interconnections 21653
    high-power flip-chip multi-chip modules, backside cooling soln. 11789
    holographic opt. interconnects, flip-chip bonding, alignment 38177
    hybrid IC drivers, flip chip bonded, SPICE simul. 7485
    hybrid MCM, mixed interconnection considerations, wire bonding, flip chip and TAB 21709
    hybrid WSI MCMs, laser creation of silicon vias for 3D interconnects 29720
    interconnect systs., micromechanical and accelerated testing 11822
    interconnection, fine pitch bump array 29700
    interconnection, solder joint reliab. 29702
    laser bumping for flip chip and TAB appls. 12957
    LSI, HDI, bare chip technol. 30151
    LSI chip mounting/packaging technol. *(Japanese)* 13857
    LSI chips, high dens. modules, bump interconnection 30150
    maskless flip-chip solder bumping tech. 954
    material selection for flip COB assemblies 12930
    MCM, high perform. Si/Si, low cost high vol. appl. 38191
    MCM, peripheral/area array bonding tradeoff, partitioning advisor 38182
    MCM-L and SCM-L, high dens. laminate technols. 21693
    MCM-L flip chip interconnection utilizing Au ball bumping 21782
    MCM-L technols., myths/experiences in multiple product scenarios 21746
    MCMs, flip chip solder bumps, thermomechanical charactn. 29717
    MicroInterconnect Technology for redefining economics of MCM appls. 21710
    mini ball grid array MCM technol. 21780
    molten axisymmetric solder interconnection joints, heuristic force-height eqn. 141
    opt. profilometer, multiple virtual styli, IC packaging/interconnects 34337
    opto-electronic component assembly, soldering technols. 39609
    package, high-power, cooling 28498
    pad designs in flip-chip soldering procs. 11736
    penalty-free 2.5 Gbit/s photonic switching, opt. amp. module 33728
    pick and place in electronic packaging, high precision, alignment techs. 29721
    PWB flip chip rework proc. 38125
    SMT assembly, stress anal., influence fn. 28494
    solder bump fab. by electroplating 38173
    solder bump form. and burn-in test, MCM appls. 21732
    solder bumps, Sn content meas. method 42975
    solder joints, damage/life prediction, thermal cycling 11747
    solder joints, surface cracks, fatigue life 29708
    surface metall., solder flip chip, wirebond and TAB interconnections 21783
flip-chip devices continued
    TAB tape-based known good die method for MCM systs. 21678
    thin-film MCM, advanced micro-interconnection implement. 21681
    tilted semicond. opt. amp. arrays, flip-chip packaging 31125
    underfill encapsulants for flip chip assembly, characterisation and eval. 37137
    wire bonding, present and future trends 38170
    z-axis conductive adhesives, fine pitch appls. in consumer electronics, accelerated life test 135
    AlN stacked MCM using hot pressed, co-fired material, fab. 21739
    Au-Sn flip chip bonding on flexible prints 12955
    GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805
    GaAs fine-pitch devices, flip-chip attachment, ball-bumping technol. 12954
    GaAs power devices, heat transfer, flip chip technol. 30378
    GaAs-Al$_2$O$_3$ flip chip modules, AuPd wire bump thermomechanical integrity 11824
    In-Sn based VLSI interconnections, solder joint reliab. 30146
    InGaAs/AlGaAs multiple wavelength VCSEL array for opt. interconnection 31334
    Ni/Cu electroless plating, bump metallization 22280
    PZT/Pt ferroelec. capacitors, passiv., SOG 39100
    Pb-Sn eutectic solder spheres, compressive melting 37064
    Pb-Sn flip-chip solder bonds on Cr-Cu-Au metallisation, SnCuAu ternary phase 11816
    Si substr. MCM technol., sens. sig. proc./control 21769
    Sn/Pb eutectic solder-bumped flip chip test die and organic PCB substrs. 37136
    YBa$_2$Cu$_3$O$_7$ RF SQUID magnetometer, direct-coupled pickup coils, flip-chip flux transformers 17728
flip-flops
    2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
    arbitrary valued flip-flop cct., design and appl. *(Chinese)* 29156
    asynchronous seq. logic ccts., SR-latches, scan design 6130
    bipolar static freq. dividers, T-type flip-flops 12475
    circ. self-test path tech. for real ccts. 6098
    configuring, BIST registers 6097
    D flip-flops, self checking/code disjoint, sync. cct. design 29120
    D-type flip-flop, fast-transient suscept. 29098
    FPGA SEU hardening for space appls. and device charactn. 12478
    free-space digital opt. SEED switching systs. 3301
    fuzzy flip-flops, logical expressions 12484
    fuzzy logical ccts., fund. 6138
    fuzzy seq. cct., fuzzy flip-flop 621
    heterojunction phototransistor-LD integrated device, flip-flop and multivibrator fns. 31048
    I^{2}L unit library for logic cct. design *(Chinese)* 21236
    inverter ccts., single electron transistors, dyn. charact. 37737
    large-scale asynchronous finite state machines, synthesis procedure 6131
    LFSR pattern generators, unmatched, pseudorandom testing 21194
    max. value determ. cct. for binary nos. 12483
    NEC, 10 GHz Si bipolar static prescaler *(Japanese)* 37682
    one-hot-encoding FPGA macros, simplified state machine design 12405
    parallel ADCs, asymmetric latches and nonideal perform. 12607
    partial scan algm. based on reduced scan shift 12473
    prescaler IC, dual modulus 29082
    reduced scan shift, testing method for seq. ccts. 6090
    redundant fault ident., test generation appl. 12442
    scanned seq. ccts., global strategy for design and test 28976
    seq. cct. testing, reduced scan shift method 12430
    SR-latch cct. using Hopfield neural networks, design 12432
    std.-cell VLSI cct. design, timing and area optim. 21256
    systolic freq. dividers/counters, cct. implement. 620
    three-level m-seq. generation, ternary flip-flop logic 21180
    TOPS, partial scan design package based on simulated annealing 21059
    vert. cavity SELs, pitchfork bifurcation pol. bistabil. 14948
    voltage controlled astable multivibrator, Miller-integrator 21146
    voltage-mode CMOS quaternary threshold logic latch cct. 616
    AlAs/GaAs/AlAs RTDs, digital logic ccts. *(Korean)* 12427
    AlGaAs-InGaAs E/D-HJFET LSI technol., 0.6 V 39022
    GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
    GaAs digital foundry, process, perform., reliab. charactn. 38958
    GaAs tri-state driver flip flop, HFET LSI 37718
    GaAs/WN$_x$/W-gate MESFET multiplexer IC, 0.5 μm, A 20 GHz 8-bit implement., fibre transm. 9546
    InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
    Nb/AlO$_x$/Nb Josephson jn. tech., high-speed single flux quantum cct. 21249
    Si bipolar clock-recovery and data-regenerator IC, 8 GHz, opt. fibre transm. 9544
    SiC NMOS digital IC, logic gates 632
floating point arithmetic
    2D DCT for image coding, implement. on DSP96002 proc. 2836
    adaptive echo canceller, finite wordlength effects, modelling 16626
    algms. for intersecting parametric and alg. curves, multiple intersections 37332
    ASIC macrocell multiplier for complex numbers 21214
    BP without multiplication, hardware implement. 29456
    CMOS 54×54-b multiplier, pass-transistor multiplexer 29094
    CMOS VLSI implement. of 8192 complex point FFT 29248
    direct form block floating digital filters, asymptotic behaviour 32796
    image proc., parallel DSP archits. 29242
    low roundoff noise digital filters, optimal floating point structs. 37867
    max.-redundancy radix-8 SRT division/sq.-root method 12476
    Pentium FDIV flaw and lessons learned 37787
    permanent hardware faults of floating point adder 37605
    POWER2 floating-point unit, archit./implement. 672
    QRD inverse-series method for fast time-series adaptive filtering 32478
    QRD-RLS/STAR-RLS adaptive filters, fixed/floating point error anal. 32700
    quick DFT 32765
    random pattern testable floating point adders 12458
    range arith., precise optim. 11954
    real-valued seqs., FFT vs. fast Hartley transform algms. 2495
    scalable array proc. in SUN SPARCstation 1, perform. meas. 29252
    self-timed floating point coprocessor prototyping, FPGAs 21288
    sonar sig. proc. syst. based on TMS320 series 17488
    sq.-root, reciprocal, sine/cosine, arctangent cell, design 32656
    stabilized fast transversal filter algm., sig. proc. appls. 37871

floating point arithmetic continued
subband adaptive digital filter with crit. sampling, perform. 745
systolic array PE, serial commun./BIST 21356
Texas Instruments and Analog Devices, fixed- and floating point DSP chips *(Polish)* 37791
variable precision IEEE floating point simul. using C++, DSP design 6175
GaAs implement., systolic floating point proc. element 29253

floating zone method (crystal growth) *see zone melting*

floorplanning *see circuit layout*

floppy disc drives *see floppy discs*

floppy discs
accommodation model, param. ident. 14230
MD-DATA drive unit, develop. *(Japanese)* 38968
surface struct. imaging, SFM/MFM 7196

flow acoustics *see aeroacoustics*

flow charts *see flowcharting*

flow control
Calvert Cliffs nuc. plant, digital instrumentation upgrades 19403
cooker rangehood oil-dirt removal, polymer paint/fuzzy air flow control *(Japanese)* 44615
diaphragm valves, normally-closed, elec. activation 6879
differential press. method for fluid flow control 18153
electrostatic particulate materials bulk transport valve 7917
electrostatically-driven gas valve, high-press. conditions 30516
gas turbine CHP, turbine cooling, part load control 36017
mag. thin-film actuators, moving coil, surface micromachining, fluid control 30756
microactuator, electrostatically actuated gas valve 6878
microflow devices and systs. 6877
molten metal flow control by LIM 20161
nested microvalve for integrated microflow controller 30495
pole changing induction motors, pole AM studies *(Japanese)* 11020
powder flow syst., pulse charge injection modelling 28887
pumped storage power plant, surge tanks, reverse-flow throttle 36049
space power thermionic convertors, Cs circulation system testing 18739
Space Station Furnace Facility, sliding mode thermal control syst. 26690
steam turboalternator freq. control governor design 43909
thermomechanical pulping, adaptive refiner control syst. 10042
variable area flowmeters *(Italian)* 4017
variable speed induction motor drive retrofits, centrifugal load appls. 36690
Si RTP, optimum gas flow engng. 22230

flow control, telecommunication *see telecommunication congestion control*

flow diagrams *see flowcharting*

flow graphs
see also data flow graphs; signal flow graphs
gossip schemes, representation 24005

flow instability
ATR, flow stabil. limits, vert. rect. channels, LOCA 19429
coal-fired MHD channels, large-scale, stabil. calcs. *(Japanese)* 27963
combustion instabil. anal., press.-based method 10401
diamond film supersonic flow sens., freq. response 9843
dyn. effects in LMIS 43045
field-stabilized two-phase fluidized flow, proc. concepts 40205
fission reactor natural circ. loop, surge tank 4804
MHD free convection flow, Hall current effects 27964
slender axisymmetric liq. column EHD, 1D models 15208
unstable vortex ring, flow field, holographic particle velocimetry meas. 18147
unsteady elec. conducting dusty viscous liq. channel flow 36625
vortex breakdown location flucts., vel. meas., flow visualisation 18149

flow measurement
see also anemometry; blood flow measurement; flow visualisation; flowmeters; laser velocimetry
air/He mixtures, vel./conc. meas., thermo-anemometry 26011
alkali metal thermoelec. convertors, high efficiency, remote condensing 20033
APS, hardware supported by control syst. 18203
Coriolis mass flow meas., theory and appls. 18158
cylindrical hot-film probes in water flows, calib. 10066
Doppler meas. of relative airflow velocities 4019
drainage and water quality studies, instrumented field-scale research facility 35356
elec. utility sens. technol. improvement efforts, USA 43652
electronic switching telephone exchange air flow meas., France 20142
EM flowmeter, multiple poles and electrodes 4013
EM vel. probe wall effect on sensitivity prediction 42989
ESP gas flow modif. by charged particles 7923
flow velocimetry, opt. flow techs. appl. 18146
fluid flow visualisation, recent trend *(Japanese)* 34733
fluoresc.-based fibre optic flow sens. scheme design 3866
fuel cell stack fluid dyn. studies 27924
gas flow temps. meas., steady-state/slowly changing 42967
gas flowmeter, whistle elements *(Japanese)* 42990
gas-particle flows, Cobra probe, purging 26010
high-accuracy microwave sens. and calib. 3964
hot circulating fluidized beds, electrostatic flow meas. 15221
IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
indust. two-phase flow conc., capacitance transducer meas. *(Chinese)* 34734
Islay Wells bidirectional wave power air turbine project, UK 27615
large scale sewer US flow vel. meas. 42992
laser-induced surface hydrodynamic procs., Doppler backscattered-sig. diagnostics 42981
mass flow meas. by PZT AE sens. 10067
mass flow rate meas., variable press. differential 42984
mass-flow rate digital meas. 10069
multipurpose sens., thermosensitive quartz resonator 25814
natural convection from vert. parallel plates array 20432
neutrally buoyant sens. for direct meas. of particle vel./intens. in water 43527
NPP resist. temp./press. sens., aging effects 35770
ocean current meas., acoustic current profilers 10502
ocean current vert. profiling, lowered acoustic instrum. 10516
ocean currents, acoustic vel. sens., mounting design 10515
ocean currents, towed ADCP, ENDECO CPV-FIN towed body tests 10501
ocean currents by acoustic doppler method, freq. domain 10503
omnidirectional airspeed sens. 10383
online dyn. gas pyrometry, two-thermocouple probe 42970
opt. methods for studying flows in gaseous and condensed media 26012

flow measurement continued
optical instrumentation for process industries, conf., Germany (1994) 5486
particle image velocimetry, image labelling, flow meas. 18154
particle image velocimetry, real time LCD syst. 4011
powder flow syst., pulse charge injection modelling 28887
power transformer insulating oils, pulsating laminar flow studies 44103
process instruments condition changes detection 26015
railgun, seq. fired, thermal loading, heat removal 15271
RF-magnetron sputtering of piezoelec. PZT actuator films 28851
road traffic flow meas., night scene image seq.-based *(Japanese)* 10070
sig. extraction from mag. flowmeters for dens. meas. 3763
soap bubble flowmeter, opt. fibre sens. 42836
split film sens. calib., pitch angle determ. 34454
stratified liqs., opt. detector for internal waves amplit. 4386
stripchart recorder emulation; split screen, smooth scrolling 3924
superposed flow between contrarotating discs, LDA 18145
telephone exchange air conditioning units, air flow studies 20141
thermal anemometer sens. based on whiskers 3799
thermistor anemometer for low flow rate meas. 4012
transit time estim. in multiphase flow, mixed modality scheme 25698
transonic flow interferometric meas., automatic num. proc. 7851
turbine flowmeters for liqs. and gases 18157
turbulent liq. channel flow, LDV 18144
turbulent pipe flow, press. and vel. meas. 42986
two-phase flows, LDA, integral effects 4015
unstable vortex ring, flow field, holographic particle velocimetry meas. 18147
US intell. flowmeter, hydroelec. power appls. 10876
variable area flowmeters *(Italian)* 4017
viscosity meas. syst., falling ball method *(Japanese)* 42991
void fraction meas. in vert. gas-liq. tube flow 10065
vortex meter configuration optimisation 26013
vortex whistle, flow meter 4014
VVER 440 plants, hydraulic charact. determ. 27493
GaAs micromachined mass-flow sens. 9880
Si flow sens., air flow detect. *(Korean)* 17722
Si microphone for turbulent gas flows meas. 10068
Si, modular mass flow sens. 25826

flow process charts *see flowcharting*

flow reattachment *see flow separation*

flow resistance *see viscosity*

flow separation
laser mirror jitter, overview of theoretical/expt. work 39999
nozzle flow, EM induction modif. 15237

flow stress *see plastic flow*

flow visualisation
bubbles, size, vel. and long. posn. opt. meas. 18156
Doppler global velocimetry, vortical flow fields meas. 4023
double pulse holography, digital image proc. 18142
elec. capacitance tomography, pattern assoc., neural network 3952
fission reactor cooling, 3D particle image velocimetry 27457
fluid flow partical image velocimetry data anal. 42987
fluid flow visualisation, recent trend *(Japanese)* 34733
holographic interferometry in high temp. flows, shock tunnel 18143
in-line recording off-axis viewing holographic particle velocimetry 40148
interferogram fringe pattern anal., noise reduction 33005
laser-opt. method, whole field measuring tech. *(German)* 10063
moving objs. embedded within scatt. media, detect. by speckle methods 34604
non-polar liqs., electrokinetic study, LDA 42985
nonBrownian sedimenting spheres, hydrodynamic self-diffusion, particle vel. flucts. 18148
NPP steam generators, crossflow 27400
opt. methods for studying flows in gaseous and condensed media 26012
particle image velocimetry, opt. real time fluid flow mapping 23487
particle image velocimetry, ultra-high-speed camera 3982
PLR pump shaft-casing cover annulus gap, temp. flucts. 35869
PWR, stratified flow visualisation, horiz. pipework, stratification 27410
PWR LOCA, flow visualisation, heat transfer, and voidage meas. 4814
real-time digital single-exposure speckle photography for vel./flow fields study 41299
refr. surface flow visualization, image proc. 42988
stereoscopic syst., particle trajectories meas., underwater model 34732
stratified liqs., opt. detector for internal waves amplit. 4386
supersonic free jet particle dens. distrib. visualization *(German)* 10062
thermal power plant combustion proc. investigs. 35969
transonic flows by quantitat. holographic interferometry 4022
turbulent jet into counterflow, digital image proc., LDA, 41074
vortex breakdown location flucts., vel. meas., flow visualisation 18149
water flow profiles, cylindrical container, microwave heating 28169

flowcharting
see also programming; systems analysis
seq. control ccts. with timing coord., design verification based on theorem-proving tech. *(English)* 29106
GaAs MMIC mfg., SPC use/misuse 38017

flowmeters
see also anemometers; flow measurement; laser velocimeters
chest diseases diagnosis portable flowmeter 26268
diamond film supersonic flow sens., freq. response 9843
differential press. method for fluid flow control 18153
electronic switching telephone exchange air flow meas., France 20142
EM flowmeter, multiple poles and electrodes 4013
EM rot. sens., cpd. mag. wire 17717
fluoresc.-based fibre optic flow sens. scheme design 3866
gas flowmeter, whistle elements *(Japanese)* 42990
irrigation well totalizing flowmeter 9835
multipurpose sens., thermosensitive quartz resonator 25814
sens. design, finite difference method 18155
sig. extraction from mag. flowmeters for dens. meas. 3763
soap bubble flowmeter, opt. fibre sens. 42836
solar water-heating plant, PC-based DA syst. 42744
stripchart recorder emulation; split screen, smooth scrolling 3924
T780 series intell. EM flowmeters *(Japanese)* 3824
turbine flowmeters for liqs. and gases 18157
US intell. flowmeter, hydroelec. power appls. 10876
variable area flowmeters *(Italian)* 4017
vortex meter configuration optimisation 26013
vortex whistle, flow meter 4014

fluctuations
see also Brownian motion; current fluctuations; noise; plasma fluctuations; random processes
1.7-Gbit/s opt. amplified terrestrial lightwave syst. deployment in USA 17241
1/f noise universality in high-technol. appls. 34313
8mm total power radiometer, periodic calib. 3962
act. mode-locked external-cavity semicond. laser, quasi-periodic route, chaos 31423
artificial and natural lighting, fluct. meas. *(Japanese)* 18126
biorhythm diagnostic problems and solns. *(Japanese)* 18437
bispectral speckle near-diffr.-limited imaging, unknown aberrations 24653
charge transport and device params. from noise meas. 3970
CMOS transistors, flicker noise study 1383
complementary-ref. joint transform correlator, opt. pattern recogn. 8468
deep submicron MOSFETs, param. changes caused by mfg. flucts. 1391
diffuse surface roughness, opt. rem. sens., turbulent atmos. 7877
diode lasers, LF light flucts. meas. tech. 1923
extremely small dia. thread detect., sig. proc. method 25748
FEL, electron beam induced energy spread 2023
fibre soliton propag. quantum noise reduction by phase-sensitive amplif. 1668
freq. nondegenerate parametric amps., asymmetric losses, output quantum correl. 40074
fund. quantum 1/f noise in semicond. devices 1313
heterodyne ASK lightwave systs., IF flucts. 17253
heterog. mobile environ. supporting adaptive services 33567
high Fresnel no. dye laser, weak turbulence 23111
II-VI quantum well struct., exciton linewidth 6564
laser-cooled ion beam, anom. Schottky sigs. 18251
MOSFETs, deep submicron/1.5 μm, comparative param. sensitivity anal. 30300
multisegment mode-locked semicond. lasers, timing jitter mechanisms 31419
multistable single-mode emitting solid-state lasers 14807
nonBrownian sedimenting spheres, hydrodynamic self-diffusion, particle vel. flucts. 18148
online dyn. gas pyrometry, two-thermocouple probe 42970
opt. fiber guided acoustic-wave Brillouin scatt., LF line shapes 1684
opt. receivers, aperture averaging of opt. scintillations 34057
photocurrent shot noise suppression in feedback loop 17777
photodetectors, sig. detect. limits 3827
polar mol. dimers, nonlin. opt. props. in intermediate stochastic region 15127
quartz cryst. resonator, extralow excitation, stationary acoustic vibrs. 14085
radar ionos. refr. angle meas. allowing for incidence flucts. *(Russian)* 17406
Real-Time VirtualClock, network traffic control mechanism for real-time commun. 8910
Sagnac interferometer, thermal induced phase flucts. 17855
saturated absorpt. spectrosc., diode-laser phase noise 2084
semicond. materials/devices, hot carrier flucts./noise 1321
side-injection-light-controlled bistable LD as wavelength converter, digital sig. regeneration 17344
spectral filtering lidar light possessing non-Gaussian stats. 3616
SSC, emittance growth, computer simul. 26037
SSC, emittance growth, noise 26036
submicron MOSFETs, channel length depend. of random telegraph sig. 6772
thin film heads, inductance fluct., domain instabil. and popcorn noise 7093
turbulent atmos. laser beams, adaptive direction correction 15020
turbulent pipe flow, press. and vel. meas. 42986
turbulent press. flucts. meas., buoyant vehicle, thin elastomer layer 17458
VCSEL diode under DC excitation, chaotic dyn. of mode competition 1999
vortex breakdown location flucts., vel. meas., flow visualisation 18149
GaAs/AlAs superlattice, interface flucts., magneto-transport 13152
Al-Si resistors, electromigration noise depend. on characts. 865
Er-doped fiber amplifer ultralong commun. systs., polariz.-depend. gain and loss 17240
Er-doped fiber laser additive pulse limiting 31454
GaAs/$Al_{0.4}Ga_{0.6}$As RTDs, LF flucts. charactn. 1333
InGaAsP-InP MQW-DFB lasers, multiple phase-shifts, spectral charact. 39764
Nd laser, pass. Q-switching, fund./second harmonic freqs. 1883
Nd:YAG injection-locked solid-state laser, freq. and intens. noise 31245
Si Li-like recomb. X-ray laser gain determ. 14684
Si/Fe(Fe+Pb) calorimeters, binding energy losses, flucts. 43117
Si-SiGe self-aligned HBT, 1/f noise charactn. 22364
Si_3N_4 thin films on n-Si, relax. polariz./charge injection 13916
Zr/O/W Schottky emitter eval. for STM microcolumn appls. 12987

flue gas desulphurisation
2.45 GHz microwave-based air pollution control, dielec. props. meas. 11474
200-660 MW steam power plant FGD scrubbers design 27545
680 MW Hemweg Unit no. 8 thermal power plant project, Netherlands 19509
biomass/coal co-firing power plant technol. demons., USA 43904
coal-fired power plant FGD scrubber designs 27546
corona discharge-electron beam combustion FGD 19495
environ. constrained economic dispatch method 4837
IGCC power plant hot-gas cleanup technols. 27591
imported coal combustion, Germany *(German)* 43914
Lippendorf lignite fired power station develop. *(German)* 43910
narrow pulsed corona discharge, FGD appl. 19496
power plant FGD, ammonia-based technols. develop. 27529
power plant flue gas scrubbing, pulsed corona/electron beam technols. 35997
silent discharge, gas discharge noise charact. 23679
steam power plant flue gas cleaning syst. corros. protection *(German)* 43912
thermal power plant FGD ESP, corros. wear testing *(German)* 4822
thermal power stations, FGD scrubber myths/realities 43892
wastewater treatment plant availability assess. 19518
NO_x/SO_2 emissions reduction, thermal plant, Kansk-Achinsk coal 36003

fluerics *see fluidics*

fluid composition control *see chemical variables control*

fluid composition measurement *see chemical variables measurement*

fluid instability *see flow instability*

fluid valves *see valves*

fluidic devices
3D micro integrated fluid systs. and microactuator 30494
microengineered fluid devices 6633
miniature fluid control devices, fab., lithog. and electroforming 6875

fluidic logic *see fluidics*

fluidics
MEMS, conf., Oiso, Japan (Jan. 1994) 28222
microstruct. fluidic self-assembly, GaAs-Si 30002
PWR plants, flow controlled accumulator, fluidics 19435

fluidised beds
1 MW PFBC combined cycle plant cyclone separators 27589
10 MW fluidised bed coal combustion plant, exit gas, model 19498
10 MW pressurised CFBC combined cycle pilot power plant 27586
30 MW Lieksa CFBC cogen. project, Finland 19513
70 MW Four Rivers combined cycle PFBC CHP project, USA 27601
75 MW oil shale FBC power plant project, Israel 4831
160 MWe Shawnee AFBC Unit, petroleum coke cofiring 27563
360 MW Karita PFBC combined cycle power project, Japan 36026
927 MW CHP plant AFBC boiler retrofit, Czech Republic 19515
air-blown fluidized bed GCC 10866
biomass gasification, PCFB, particulate/alkali removal 27332
biomass pressurised gasification, catalytic gas treatment 27331
bubbling fluidised bed oil shale retort, operation 27329
coal-fired 27583
combined cycle CHP plants, PFBC gas expander design 27588
combined cycle power generation, conference, Calcutta, India (1994) 5492
combined cycle power plant circulating bed granular dust filter develop. 27590
combustion procs., modelling/simul./control 4833
dry low NO_x combustor/IGCC technols., Tracy power station 43928
field-stabilized two-phase fluidized flow, proc. concepts 40205
fossil plant operation improvement, compact simulator 43908
gas cleaning equipt., electrostatics appl. 43535
hot circulating fluidized beds, electrostatic flow meas. 15221
IGCC, gasifiers, fuels, environ. impact, economics 4853
lignite fired circulating fluidised bed steam generators, operation *(German)* 43913
PFBC boiler operation, Aachen Heating Power Plant *(German)* 43896
PFBC combined cycle power plant experiences, UK 27595
PFBC power plant particulate control, FIBROSIC filter tests 27600
PFBC repowering demons., RAM model 43888
PFBC thermal power plant fibre optic temp. sens. 35977
phased array surface contour mapping, harsh environ. 42514
pressurised CFBC combined cycle power plant simul. 27587
RENUGAS proc., biomass gasification, fluidised bed 28033
steam power plant pressurized CFBC gasification reactor expts. 27565
thermal power plant fluidized bed coal combustion, N_2O emissions *(Chinese)* 4838
utility boiler, computerised control 10856
VESTA std. CFBC steam power plant turnkey projects 19514
CO, SO_2, NO_x, N_2O emissions, CAFBC burning Greek lignite 43891

fluidised powders *see powders*

fluidity *see viscosity*

fluorescence
see also fluorescence spectroscopy; fluorescent lamps; fluorescent screens; nonradiative transitions; X-ray fluorescence analysis
3-D light microscopy, simultaneous image and point spread fn. reconstruction 16219
bladder carcinoma, human, cystoscopic photodetection without sensitizing agents 43213
cardiovascular interventions, diagnostic/therapeutic, conf., Los Angeles, CA, USA (1994) 5463
cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
coated tapered opt. fibre sens. 9925
confocal theta microscope, three objective lenses 10202
conjug. polymer LEDs 14627
cyanine dyes, ultrafast procs., time-resolved DFWM tech. 15140
dye-doped biomol. thermally-activated thin film opt. switch 39535
dye-doped sol-gel coated fibre optic LED based O_2 sens. 9926
dyes, intracavity saturable absorbers, absorpt. recovery lifetimes 23352
EUV aerial images, fluoresc. microimaging 13472
fiber-optic luminesc. probes, biomedical studies 26306
fluoresc.-based fibre optic flow sens. scheme design 3866
HF modulated light source, phase fluorometry/fluoresc. imaging 28159
high-sensitivity DNA anal., laser-excited confocal fluoresc. scanning 26292
ion vel. in RF ion beam, LIF meas. 43021
laser dye DCM, photostability, inorganic-organic host matrices 39692
laser window materials, intens.-depend. transm. props., 193-nm irrad. 22775
laser-cooled ion beam, anom. Schottky sigs. 18251
lifetime meas. thermometer, subroom temps. 42823
lifetime-based opt. sens. of pH 34729
mag. quantum struct., macroscopic consequences 14212
meas. of relative humidity, Tm^{3+}-doped zirconium fluoride 18163
microscopy scanner, 2D CCD, cytometry appl. 43221
myocardium, frog, elec-fluoresc. recording with opt. fibres 10243
oil films at water surface, rem. thickness meas. by excimer laser 7876
oils, crude and refined, rem. charactn. by laser fluorosensor syst. 35357
oligothiophenes, conjug., transistors and SLM 22931
organic electroluminescent materials/devices 23022
organic mols., nonlin. opt. props. study 15143
oxide cryst. lasers, act. ion oxid. states 39749
parametrically down-converted photons, two-photon phase coherence probing 2082
PCB, through-holes, inner wall defect inspection *(Japanese)* 38074
phosphoresc. sigs., highly scatt. media 17971
physiological pH monitoring, fluoresc. indicator fibre optic sens. 43223
polyacrylamide gel, dye doped, laser host 7544
polymer surface transformations luminesc. obs. 12204
polymethine dyes, lasing props., temp. effect 39688
pseudospark switch, metal vap. densities/excitation temps. 36407
pulsed dye laser amplif., nanosecond phase dyn. 7550
PVDF doped ferroelec. polymers, dielec./photoelec. props. 1555
pyranine doped SiO_2 sol-gel matrix, μm-size fluoresc. pH sens. 9877
pyrromethene-BF_2 complex dye solns., laser perform., spectrosc. 7548
pyrromethene-BF_2 doped polymer matrix, laser perform. and material props. 14732
pyrromethene-BF_2 laser dyes, pumping, perform. 7547
rare earth doped fibres, metallic coated, fluoresc. decay-time vars. 39359
rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
rhodamine B-doped glass planar waveguide, light amplif. 30933
rhodamine dye colloid solns., scatt. media, laser action 31203
saturated EDFA/OTDR testing, transient gain compression effects 10045
scintillating, wavelength-shifting, clear fibers, fluores. yield, γ-irrad. 26223

fluorescence continued
simultaneous multispectral fluoresc. imaging, med. diagnostic syst. 18460
SiO_2 fused fibre, pulsed UV laser radiation, photodegradation and nonlin. effects 39362
solid insulators, breakdown precursors 35660
solid-state tapered opt. fibre devices 30850
super-ACO UV FEL, time resolved fluoresc. appls. 14988
terrylene single mol. in hexadecane, emission rate, saturation intens. 23375
tetraphenylbutadienes, substituted, fast scintillator solutes 10110
vegetation, helicopter-based lidar meas. syst. 25589
vis. emitting fluoresc. dye solid state tunable lasers 14804
vol. 3 D display 9974
voxel based spatial display 34631
$Ca_2Al_2SiO_7$:Nd cryst. lasers, opt. props. 1914
CdS, semicond. quantum dots, nonlin. opt. props. study 15143
Cr:YAG, high-temp. digital fiber-optic thermometer appl. 17848
$CsCdBr_3:Er^{3+}$, excited state dyn., vis. to UV conversion 15068
CuCl, semicond. quantum dots, nonlin. opt. props. study 15143
Er^{3+} doped ZBLA laser, upconversion lasing 39717
Er^{3+} doped fluoride fibre, photon avalanche up-conversion 22817
Er^{3+}:ZBLAN fiber laser, 2.7 μm output saturation 39701
Er-doped germanosilicate fibre laser fab. and opt. charactn. 14774
Er-doped opt. fibre temp. sens. by green fluoresc. intens. ratio 34552
Er-doped silica fibre high-temp. point sens. 17873
Er^{3+}-doped phosphate fibers, Nd:YAG laser pulses upconversion 31528
Er^{3+}-doped silica-glass fiber parasitic upconversion mechanism anal. by 980 nm fluoresc. 39324
Ge-Ga-S:Pr^{3+}, radiative props., opt. fiber amps. 31240
H_2 discharge lamp Lyman-α radiation sources, ZrCo, H reservoir 12983
Ho doped laser syst., CW 3 μm laser action 7588
$LiNbO_3$:Yb, thermal diffusion, spectra and energy levels 14835
$LiYF_4:Pr^{3+}$, IR-blue wavelength upconversion 7589
$LuLiF_4:Ce^{3+}$, broadband UV amplif. medium 23444
Nd^{3+} doped fluoride glass, spectrosc. and laser props. 14809
Nd:$LaMgAl_{11}O_{19}$, excited-state-absorpt./upconversion 23154
Nd:$Y_3Al_5O_{12}$, excited-state-absorpt./upconversion 23154
Nd:$YLiF_4$, excited-state-absorpt./upconversion 23154
Nd:fibre laser, quenched ion fluoresc., radiative lifetime 39705
Nd^{3+}-doped lead-silicate glass fibers, fab., spectrosc. and laser perform. 31212
OH LIF temp. meas. using thermally dissociated H_2O, calib. 10048
Pr^{3+},Yb^{3+}:ZBLAN glass, Pr 1.31 μm fluoresc. by opt. pumped Yb ions 23117
Pr^{3+}-doped $CsGaSCl_2$ glass for 1.3 μm opt. fibre amp. 23118
$Sr_5(VO_4)_3F:Mn^{5+}$, spectrosc. and laser props. 14836
$Sr_2Y_8(SiO_4)_6O_2:Tm^{3+}$, RT CW laser efficiency , spectrosc. charact. 14837
$Sr_2Y_8(SiO_4)_6O_2:Yb^{3+}$, RT CW laser efficiency , spectrosc. charact. 14837
YAG:Sm garnet films, soln. deposition, press.-temp. sens. appls. 5854
YIG:Pr^{3+}, IR-blue wavelength upconversion 7589
$Y_2SiO_5:Tm^{3+}$, RT CW laser efficiency , spectrosc. charact. 14837
$Y_2SiO_5:Yb^{3+}$, RT CW laser efficiency , spectrosc. charact. 14837
ZBLAN fibre laser, rare earth doped, mirror deposition 39712

fluorescence spectroscopy
see also X-ray fluorescence analysis
biochemical diagnostic instrumentation, conf., USA (1994) 11573
cancer and other disease diagnosis, conf., USA (1994) 11571
intell. sens. for metal ions, fluoresc. reson. based 25782
laser/light induced fluoresc. spectrosc., biomedical appls. 43214
photofragment fluoresc. hygrometer for NASA ER-2/Perseus aircraft 10468
waste-handling monitoring, fiber-optic chem. sens. 18916

fluorescent lamps
6-380 V light-sig. equipt. develops., Russia 44585
26 W CFL, dimming ballast effect on colour temp. 11458
ATT2161/2 series reson. electronic ballast IC products 36781
current var., electronic ballast tolerances, PSPICE 11460
Everlight, electrodeless fluoresc. lamp *(Japanese)* 11451
flat fluoresc. lamp technol. for LCD's 10393
HF fluoresc. lamps, lighting control, electronic ballast *(Japanese)* 11452
HID light sources, lighting/brightness perception expts. 11448
indust. control room illum., equipt. selection 11447
light modulation flicker expts. 11449
power supply, harmonic distortion, metrological characterisation 527
reflector lamp replacements, EPACT impact 11459
residential lighting, energy efficiency opportunities, Mexico 28157
reson. inverters anal., electronic ballast appls. 11128
RF discharges, low press., for lighting 28164
RF fluoresc. lamps, inductively-coupled, lumen props. meas. 11461
RGBW fluoresc. lamps, color temp. control *(Japanese)* 11454
Stockholm lighting energy efficiency programme, Sweden 35534

fluorescent screens
see also electroluminescence
car graphic CIG fluoresc. indicator panel, high brightness *(Japanese)* 3939
cathodoluminescent screens, partially coherent radiation, recording and inform. proc. 34645
CRT directional and diffuse refl. meas. and eval. *(German)* 18008
device technol. *(Japanese)* 34642
oxides activated by rare-earth ions, act. layers of electroluminescent screens 7457
phosphor thin foil scintillating screen for TEM 7459

fluoride glasses
cascaded hybrid silica and fluoride-fibre-based amps., perform. 31239
fiber optics for FEL med. appls. 35152
opt. waveguides for laser sources 14767
Ba-Y-Yb-F:Tm^{3+} glass thin film upconverting waveguides for vis. and UV light sources 30936
BaF_2-InF_3-ZnF_2-YF_3-ThF_4-GaF_3 glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647
Ho:fluoride glass fiber, superfluorescent mid-IR source 30846
Nd^{3+} doped fluoride glass, spectrosc. and laser props. 14809
Pr^{3+}-doped fibre amp., short-pulse amplif. study 31227
Pr^{3+}-doped fluoride fiber amp., LD pumped, gain characts. 1875
Pr^{3+}-doped fluoride fiber amps., pump config. *(English)* 23127
Pr^{3+}-doped fluoride glass fibre upconversion laser, blue output power 23115
ZBLA:Er^{3+} laser, upconversion lasing 39717
ZBLAN fibre laser, rare earth doped, mirror deposition 39712
ZBLAN:Er^{3+} singlemode fibre lasers, 2.71 μm, output power limits 23113
ZBLAN:Er,Pr CW fiber laser, highly efficient, operating, 2.7 μm 7570
ZBLAN:Nd^{3+} fibre, short pulse propag., amplif. charact. 14739

fluoride glasses continued
ZBLAN:Pr^{3+},Yb^{3+} glass, Pr 1.31 μm fluoresc. by opt. pumped Yb ions 23117
ZrF_4-BaF_2-LaF_3-AlF_3-NaF glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647

fluorimetry *see spectrochemical analysis*

fluoroscopy *see radiography*

flush mounted antennas *see conformal antennas*

flux (magnetic) *see magnetic flux*

flux creep
see also flux pinning
HTSC, conf., Tsukuba, Japan (Dec. 1993) *(Japanese)* 2
BiSrCaCuO 2212 tape, Ag-sheathed, I-V characts. 39218
$Bi_2Sr_2CaCu_2O_{10}$/Ag HTSC ribbons, crit. current dens., field/temp./angle depend. 39234
$HoBa_2Cu_3O_x$ nanobridges, critical-current studies 30791
TlBaCaCuO tape, Ag-sheathed, flux pinning and motion 22723

flux crystal growth *see crystal growth from solution*

flux flow
see also flux pinning
AC biased supercond. flux transformer 30783
autonomous/injection-locked flux-flow oscillators, spectral linewidth 38015
Bean's model, homogenization in three dimens., transverse cond., coil quenching 39293
high T_c superconds., conductance noise, no. and mobility noise 1610
HTSC, conf., Tsukuba, Japan (Dec. 1993) *(Japanese)* 2
inhomog. superconds., mag.-flux dyn., low-field aspects 39278
Josephson contacts, nonlin. vortices dyn. 30797
planar supercond. waveguides in DC mag. field 37937
$Bi_2Sr_2Ca_2Cu_3O_x$ epitaxial thin films, crit. current dens., vortex-glass transit. *(Japanese)* 7225
$Bi_2Sr_2CaCu_2O_y$ single cryst., intrinsic Josephson juncts., flux flow 39268
BiSrCaCuO/Ag tapes, 2223 phase, mag./transport studies 39222
Nb supercond. microstrip resonators, nonlin. microwave props. 39270
Nb underdamped discrete supercond. vortex flow devices, Eck peak 7241
Nb/Al-AlO_x/Nb Josephson tunnel jns., vert. stacked 1606
Y-Ba-Cu-O HTSC film microstrip, elec. instabilities, ultra-fast SN switching 37940
YBaCuO microbridge, 2D array, weak links 22763
$YBa_2Cu_3O_7$ nanobridge based DC SQUIDs 1621
$YBa_2Cu_3O_{7-\delta}$ nanobridges, coherent cortex motion 14303
$YBa_2Cu_3O_{7-\delta}/YBa_2Co_xCu_{3-x}O_y$ Josephson jns., flux flow 39263

flux-line lattice
supercond. microcircuits, mag. vortices, statics 14296

flux line motion *see flux flow*

flux pinning
see also flux creep; flux flow
coupled Josephson transm. lines, local defects, fluxon dyn. 1618
DC integrated SQUID, local vortex gen./detect. 22758
HTSC, conf., Tsukuba, Japan (Dec. 1993) *(Japanese)* 2
HTSC, grain boundary jn., voltage steps 30796
HTSC ceramics, pinning strength inside grains, meas. method 1591
HTSC-based mag. levitated transport syst. in vac. 30808
Josephson tunnel junctn. with trapped Abrikosov vortices, rad. detect. appl. 4154
layered supercond. dc flux transformer with Josephson coupling, modelling 30802
SQUID magnetometers, thin film, mag. hysteresis 9999
supercond. microcircuits, mag. vortices, statics 14296
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+\delta}$Ag tapes, crit. current dens., columnar defects 1596
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+y}$-Ag tapes with 2212 phase, flux pinning 39226
BiPbSrCaCuO mag. shield, trapping props., grains priority orient. effect 39248
BiSrCaCuO 2212 tape, Ag-sheathed, I-V characts. 39218
$Bi_2Sr_2Ca_2Cu_3O_x$ epitaxial thin films, crit. current dens., vortex-glass transit. *(Japanese)* 7225
BiSrCaCuO/Ag tapes, 2223 phase, flux pinning, crit. currents 39225
Nb, supercond. disks, field depend. crit. currents 22716
Nb-Ti multifilamentary wires, artificial Nb pins, high field AC supercond. magnet 30804
PbHgBaCaCuO, I-V characts., Ambegaokar-Halperin model 1589
TlBaCaCuO tape, Ag-sheathed, flux pinning and motion 22723
$Tl_2Sr_2Ca_2Cu_3O_x$, cylindrical shield, thermal cycling effect 39249
YBaCuO, levitation/suspen. forces in microgravity expts. 39246
YBaCuO, proton implanted layers, crit. currents 1590
YBaCuO supercond., melt processed, mag. shielding props. 39243
$YBa_2Cu_3O_7$ HTSC tubes, mag. shielding and harmonic generation 7256

flux vortex flow *see flux flow*

flux vortex lattice *see flux-line lattice*

fluxgate magnetometers
calib. onboard spinning spacecraft 35220
planar technol. based flux-gate sens. 9846
$Co_{66.5}Fe_{3.5}Si_{12}B_{18}$, metallic glasses for fluxgate sens., magnetis. 30664

fluxoid array *see flux-line lattice*

flywheels
8 MWh flywheel-SMES power storage syst., feasibility study 28048
airborne laser syst. pulsed power supply, compulsator-based 36254
cannon caliber EM launcher syst., air core compulsator design 31740
circ. shaft, dyn. response, piezoelec. sens. 9890
complementary energy storage, modern power conversion options 5237
elec. vehicle, flywheel, torque controlled, peak power transfer 5357
elec. vehicle energy sources, current technol. review 44524
electrothermal-chem. guns, pulsed disk alternator storage 19610
energy storage, high T_c supercond. mag. bearing appl. 28050
energy storage program, Lawrence Livermore Nat. Lab. 28049
HTSC flywheel levitation force, num. eval. 1583
hybrid vehicles, energy storage alternatives 28140
nonpolluting automobiles, energy storage, propulsion 5326
pulsed disk alternator, flywheel struct., EM gun 20050
supercond. floating flywheel *(Japanese)* 36634
wind turbine flywheel energy storage 27656
written pole motor/generator, flywheel storage , telecom. sites 44203

FM radar
autonomous intell. cruise control radar syst. 34151
Delft FM-CW radar, Doppler-polarimetric research *(English)* 3612
digital pulse compression radar systs., polyphase spreading codes 25570
dual-beam flat antenna, grating structs. on dielec. waveguide 40465

FM radar continued
FMCW weather radar for PBL study 35304
FMCW-LIDAR, tunable twin-guide LD 17449
LFM-CW lidar for rem. detect. of saturated hydrocarbons 17450
μP controlled microwave ranging, indust. appls. 3606
road rear-end collision avoidance, 60 GHz radar 34152
sens. for automatic AICC 5377
sens. for car appls. 5378
strip-map SAR autofocus, approach 25550
GaAs DDS, FM-CW, 1.25 GHz 37672
GaAs power MMICs for X-band radar appls. 6341

FMCW radar *see CW radar; FM radar*

FMR *see ferromagnetic resonance*

FMS *see flexible manufacturing systems*

foams
polyimide nanofoams, high temp., for interlayer dielec. appls. 12207

focal planes
2-axis EM translation mechanism for FPA 17311
buffered direct injection multiplexer for IR cameras 34562
CMOS VLSI opto-electronic array proc., morph. image proc. 29277
conference, IR technology, San Diego, CA, USA (1994) 11575
CTIA multiplexer for 1024-element InGaAs line sens. 34580
DEFECT focal plane defect model, kill vehicle appls. 25886
direct injection readout cct. model 34561
IR cameras perform. comparison, 3-5 and 8-12 μm 34570
IR FPA, high-resoln. closely spaced obj. location algms. 3885
IR FPA non-uniformity meas., proposed std. 34571
IR FPA opt. interface technol. 34582
IR image restoration through atmos., MTF 34589
IR images, high-resoln. real-time restoration of atmos. distortions 16199
IR imaging sens., unified perform. model of detect. and tracking 16112
IR radiometric lens/staring FPA camera syst., design/operation 17942
IR readout electronics, conf., Orlando, FL, USA (Apr. 1994) 20262
IR seeker imaging simul. real-time model based on fractal theory 18989
IR syst. design, coherent IR fiber bundles 17869
lightsat, high resoln. electro-optic rem. sens. payloads 33970
lin. multiplexer designs for rem. sens. appl. 34581
locally-adaptive wave proc. for predetection of point targets 17924
low-background opt. simulator, FPA testing 34590
MM wave FPA imager 42841
MM-wave imaging optics, offset paraboloidal reflector 23904
modular imaging spectrometer instrum. modeling/testing 34591
MRTD and MTF determ. 34573
multi-beam MM-wave FPA airborne imaging syst. 42842
multiplexed readouts for FPA 34560
multiplexer for Cassini Visible/Infrared Mapping Spectrometer FPA 34563
on-focal-plane A/D conversion 29313
pass. mm-wave camera for low visibility landing 10329
polariz.-sensitive thermal imaging 16272
pushbroom scanners with large lin. arrays, odd/even detector noise removal 16260
readout electronics for far-IR arrays 34579
scene generation systs., IRFPA laser radiation response 17941
Sofradir flat struct. longwave IRFPA, Joule-Thomson cooler 11777
spaceborne IR sens. testing, verification/validation/accreditation issues 35216
sparse telescope array undersampled focal plane image reconstruction 2710
SPEAR (Signal Processing Environment for Analysis and Reduction) 25777
spiking oscillator networks, on-focal-plane image preprocessing 29413
Spirit III radiometer, scanned image constr. via optimal interpolation 24511
thermal images distorted by atmos. restoration 32903
uncooled thermal imagers, next-generation, quantiser requirements 3890
visual information processing, conf., Orlando, FL, USA (1994) 20237
AlGaAs-InGaAs-GaAs HEMT monolithic LNA array, W-band 38027
GaAs/$Al_xGa_{1-x}As$ quantum wells, IR focal arrays 42785
GaAs-AlGaAs 256×256 miniband transport MQW long wavelength IR FPAs 17934
GaAs-AlGaAs quantum well photoconductors, long-wavelength IR appls. 17785
Ge_xSi_{1-x}/Si heterostruct., IR focal arrays 42785
HgCdTe IR CCD-based FPA, thermoelectrically cooled 17952
HgCdTe IRFPA nonuniformity correction algm., real-time hardware prototype 17948
HgCdTe IRFPA perform. anal., syst, adaptability 17951
HgCdTe IRFPAs, IRCCD and IRCMOS detectors 17950
HgCdTe, MBE growth on CdZnTe for IRFPAs 12096
HgCdTe PV lin. FPA for Cassini IR spectrometer 17949
HgCdTe VPE growth, long wavelength IR detector, zero tunnel leakage current 12097
HgCdTe bulk wafer-based two-colour IRFPAs, design/fab. 17943
HgCdTe direct injection readout hybrid FPA, background limited perform. 17945
HgCdTe longwave IR scanning FPAs, CMOS readout IC, surveillance appls. 17947
$Hg_{1-x}Cd_xTe$ photodiodes, IR focal arrays 42785
InGaAs-InAlAs MBE p-type strained-layer quantum well IR photodetector 17786
InGaAs-InAsP three-band near-IR FPA for 1.0-2.5 μm 17935
InSb 2D IRFPAs, uniformity and stabil. 17936
InSb FPA-based IR camera for astron. telescope, electronic testing 17937
InSb FPA-based high sensitivity, high resoln. thermal video syst. 17938
InSb photodiodes, IR focal arrays 42785
InSb-SiO_2-Si p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
$LiNbO_3$ photorefr. FPA concentrator 9928
PtSi 640×480 IRFPA, third generation, MOS readout multiplexer 17953
PtSi FPA-based Inframetrics InfraCAM thermal imaging camera 17955
PtSi IR cameras, IR CCD/IR MOS imaging radiometers 17957
PtSi IR-FPA staring thermal imaging syst., spectral response charact. *(Chinese)* 42844
PtSi hybrid FPA, CMOS multiplexer readout 17946
PtSi middle wavelength 240×320 IR staring FPA 17954
Si multiplexers for lin. IR photodiode arrays 25875
Si:As scanning hybrid IR detector array, radiometric charactn. 17940
Si-based thin film monolithic uncooled IR detector arrays/resist. bolometers 17958

focused collision sequences *see sputtering*

focused ion beam etching *see focused ion beam technology; sputter etching*

focused ion beam technology
3D microstruct. constr. by multi-face FAB/robot 30521
combined FIB/electron-beam probe techs. for ICs 102
diffractive opt. elements, electron-beam fab., FIB inspection 14497
elemental and cpd. semiconds., Ga FIB implant. 30016
Fabry-Perot lasers, 1.3 μm, spectral perturb./mode suppress. 23233
gas etching 22168
gas-assisted etching, FIB milling enhancement, IC design modif. 38681
IC design modifs., effect of FIB technol. 1478
IC proc. control/failure anal., FIB appl. *(French)* 1490
ladder silicone SOG, FIB lithog. 22301
local treatment of solid surfaces, dense ion beams 22174
LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
metallic microstruct., fab., retarding-field focused ion beams 13485
micromachining appls. 13906
microstruct., FIB milling, lathe tech. 22625
Motorola IC yield enhancement, integrated approach 22520
nanotechnology, FIB technol. 38761
opt. receiver chip, stabil. improve., FIB 33984
phase gratings, fab., FIB milling/e-beam lithog. 14496
phase-shifting masks, LSI technol. 13503
post-objective lens retarding/accel. mode 13297
rim and attenuated phase shift masks, FIB defect repair 38762
SEL, circ. gratings, lithographic fab. 14940
semicond. QW struct., bandgap tuning, ion implant. 13166
shifter void defect repair, focused ion beam tool 13497
singlemode 1.3 μm Fabry-Perot lasers by mode suppression 39872
step profiles, focused ion beams, ion beam etching, sputter deposition 30128
submicron ICs, rapid prototyping, FIB techs. 13835
x-ray mask absorber repair by focused ion beams, materials issues 6699
Al-Ge-Cu alloy reflow sputtering, electromigration charact. 22269
n-AlGaAs/InGaAs/GaAs struct., hot electron ballistic transport 38358
Au electrodeposited thin films, X-ray masks, stress/structural change 6701
AuGe/GaAs ohmic contacts, ion-assisted deposition 22265
$CoSi_2$ interconnection lines, writing FIB implant. 38693
$CoSi_2$ microstruct., focused ion beam synthesis 13298
GaAs substr., micromachining, focused ion beams 5610
GaAs/AlGaAs buried quantum wires, situ FIB implant. 21978
GaAs/Au diodes, FIB implant. damage, BEEM study 13605
$Ga_{0.46}In_{0.54}As$ epilayers, micromachining, focused ion beams 5610
GaInAsP DFB lasers, fab., maskless FIB implant. 39825
$Ga_{0.2}In_{0.8}As_{0.4}P_{0.6}$ epilayers, micromachining, focused ion beams 5610
GaInAsP/InP superluminescent diode, FIB modif. 39586
InGaAs heterostruct., nanostructure fab., FIB technol. 13312
InP substr., micromachining, focused ion beams 5610
Si 3D struct., FIB lithog., AFM probe charactn. 13471
Si IC, failure anal. methods, develop. and mfg. appls. 22519
Si substr., micromachining, focused ion beams 5610
Si visibly photoluminescent microstruct., ion implant./wet etching prep. 1271
p-Si wires, focused ion beam implant., carrier transport 21871
YBaCuO HTSC bi-epitaxial DC SQUIDs, FIB etching from single jns. 39276

focusing
see also acoustic focusing; optical focusing; particle beam focusing; self-focusing
3D ground penetrating radar imaging, SAR focusing 42506
diffractive opt. elements, variable shaped electron beam lithog. 14492
ESRF beam line, scanning X-ray microprobe test 26261
ESRF undulator, double-focusing X-ray scatt. camera 34981
field-emission flat panel displays, beam focusing 18009
FIR opt. pumped amps., nonlin. propag. effects 14676
focal length detect. by using Haar wavelet transform, expt. syst. *(Japanese)* 34714
freq.-scanning narrow beam antenna, 60 GHz 40467
fuzzy approach, multisensor instrumentation. preprocessing techs. 2681
high energy EM transducer acoustic shock field, Schlieren meas. 4029
microstrip constrained lens, design and perform. 15653
microwave imaging in inhomog. media 42916
nonvolatile memories, contact mask DOF, planarization 13499
opt. neural devices, thin film waveguides 39522
PET cameras, depth-of-interact. blurring correction method 35011
plane grating focusing for soft X-ray monochromators, review 26262
point 3D posn. measuring syst. for detecting fixation point on screen *(Japanese)* 3930
SR lithog. beamline, electron beam orbit distortion 13564
superimposed grating for magneto-opt. disk heads 7377
telephoto lens focusing/space compression 2665
variable focus electrooptical lens, A/D opt. converting 14519
X-ray focusing syst., XFA study *(Chinese)* 34974
Ti:sapphire laser syst., single long. mode Littman config. *(Chinese)* 14798

fog
42 GHz bistatic Doppler radar for wind/fog/precip. meas. 18835
atmos. visibility meas. device 10461
Earth-space paths, microwave propag., 3-350 GHz, computer simul. 23647
pass. mm-wave camera for low visibility landing 10329

foils
30 W HF foil-type air-core power convertor transformer 6381
diagnostic foil, JINR phasotron, ioniz. loss effects, longit. phase motion 18271
ESA BIOPAN flight expt., cosmic ray irrad. EEPROMs 12530
HF transformer edge effect anal., 2D FEM-based 6376
plasma armature railguns, foil breakdown, num. simulations 23521
polymer ageing kinetics, elec. meas. 1515
pulsed power vac. switch foil support struct., laser pumping appls. 36442
PWB, thermal expansion, copper-invar-copper foil 12876
steel foils, laser bending, buckling mechanism 20985
thin charged insulator foil, delayed radiation induced cond. 1560
thin plastic scintillator foils, prod., thickness determ. 34923
winding design, eddy current anal. approach 6375
Al electrolytic capacitor failure, impact of halogenated fluids 6367
AlN/electroless plated Ni/Cu, indirect bonding, hot pressing 5857
Be foils for devices and phys. expts. 37528
Cu TAB conductors, lead frame materials, wrought and electrodeposited foils 29701
Cu foil for high perform. PCBs, high strength, low profile 38126
Cu foils, low energy γ/X-ray excitation, secondary X-rays *(Chinese)* 18423

foils continued
Fe foils, low energy γ/X-ray excitation, secondary X-rays *(Chinese)* 18423
FeN foils, magnetron discharge nitridation, saturation magnetis. *(Japanese)* 30676
LiAl foil compressed secondary anodes, cycling perform. 11253
Mo-Cu layered foil conductors, power hybrids, ceramic substrs. 21663

Fokker-Planck equation
dye laser models, single-mode, steady-state anal. 31206
dye laser transients, unified colored noise approx. 1869
Fabry-Perot DFB lasers, mode nonorthogonality study 23342
finite conductor with single blocking boundary, electromigration failure 6666
laser, injected at. coherence, nonlin. theory 2040
preheated plasma, short laser pulse energy deposition 23652
storage ring FEL, electron beam long. dyn. 39951
synchrotrons, space charge dominated cooled bunched beam investig. 34810

fonts *see character sets*

food processing industry
3-D x-ray inspection of food products 24519
25 MW gas turbine CHP plant project, Netherlands 27576
CNN image proc. for automatic class. of oranges 24733
energy/exergy anals., Turkey 20153
fluoresc.-based lifetime meas. thermometer, subroom temps. 42823
fruit tester, portable, microcomputer-based 9819
intell. gas odour sens. for QC 18139
membrane appls., electrotechnol. appl. 20177
microorganism inactivation, pulsed elec. fields, voltage waveforms 20178
microwave moisture sens., green tea prod. appl. 3963
moisture content meas. in seeds/kernals. impedance sensing 25942
noncontact IR based temp. sens. 10051
nonmetal foreign body detection 25804
sensing gluten development during bread dough mixing 25806
tea moisture meas. systs. 18168

forbidden gap *see energy gap*

force control
automobile elec. windows, anti-trap safety syst. 5366
automobile suspen., piezoelec. actuator/sens.-based 5372
brain blood vessel catheter, teleoperation 10255
dexterous motions, nonlin. cct. theory for robot control problems 21090
elec. actuator drives, mass neutralisation test equipt. appls. *(Russian)* 36492
elec. machine act. vibr. control, piezoelec. actuator-based, simul. 36090
endoscopy, telepresence syst. 4291
extrusion proc. DC motor drive cascaded control design *(Russian)* 11497
gripper force control, piezoelec. actuator-based *(Japanese)* 44253
induction/PM sync. motors, radial posn. control 10979
maglev contact anal. probe tool for automated IC manufacture 20415
microsurgery, force-reflecting motion-scale telerobot 4290
PM sync./induction mag. levitated rot. motors *(Japanese)* 44026
variable speed AC motor drive testing, dynamometer control 5293

force measurement
see also dynamometers
amorph. materials in sens. appls. 34480
automobile suspen., piezoelec. actuator/sens.-based 5372
biofeedback cane syst., instrumentation/subj. appl. results 35180
cardiac muscle cells, contractile characts., microelectromech. force transducer 34988
Casimir force detect., tunneling electromechanical transducer 42950
dyn. structural response, vibr. wire opt. fiber sens. 9927
F2 force transducer calib., WECC audit 42660
gripper force control, piezoelec. actuator-based *(Japanese)* 44253
IR opt. transducer for force meas., appl. *(Croatian)* 25839
ligament forces determ. by universal force-moment sens. 34993
lin. reluctance motor can secondaries, suspen./propulsion forces 19671
mechatronic appls. of eddy-current sens. 17750
micro-torque sens., differential force meas. based 34478
MIG heads against MP, barium ferrite and ME tapes, running charact. 7167
outdoor HV substations, short-cct. mech. tests 19914
piezoelec. bimorphs, forces meas. in colloidal systs. 18114
prestressing steel near saturation, mag./magnetoelastic behavior modelling 39130
quartz reson. sens., develop., FEM 9848
real-time bearing monitor, microcomputer-based 34339
rot. effects of force transducers 17730
std. machine, hydrostatic bearing, nonrotating loading ram cylinder 18110
struct., foreign obj. impact ident., distributed sens. 10038
transducer, dyn. perform. improvement 3789
walking, load-bearing forces, meas. device 43194
Si MEMS piezoelec. microactuators, nanoindentation charactn. 13914

force meters *see force measurement*

forecasting, technological *see technological forecasting*

forecasting theory
adjustable grey model for power load forecasting 4604
distrib. syst., harmonic current prediction, ANN/GMDH comparison *(Korean)* 27178
EEG predictability, adequacy of nonlin. forecasting methods 26405
imprecise probab., expert forecasting, elec. utility 4544
power syst. elec. load-weather temp. fn. calc. method 35589
O_3 short-term forecasting by bidirectional associative memory, Mexico City 26773

forestry
radar rem. sens., canopy 3D backscatt. model 43540
radar rem. sens., repeat pass SAR interferometry 43470
radar rem. sens., SAR backscatt. & biomass 43538
radar rem. sens., sensitivity, tree geom., model 43539
radar rem. sens. of global biomass, SAR backscatt. 43542
radar rem. sens. of vegetated slopes, geometrics optics 18785
rem. sens. of forest change, automated image anal. 43487
stand comp./dens., TM imagery, fuzzy class. 26777

forging
Nd-Fe-B high-dens. bonded magnets, PTFE 5907

form factors, atomic *see atomic structure*

formal languages
see also context-free languages; context-sensitive languages; programming languages
bit commitment, secure, lang.-depend. 32169
broadcasting, priority 16414
commun. framework for appls. 33333
communicating finite state machines, language-based anal. 2978
formalisation of user view of network and services for interact. detect. 3255

formal languages continued
multiple domain experience in systs. engng. 5577
obj.-oriented network mgt. syst., formal spec. 33375
testing/emulation of EFT systs., functional appraisal *(French)* 33539
trace semantics for Petri nets 28594

formal logic
see also Boolean functions; cellular logic; computability; decidability; fuzzy logic; majority logic; multivalued logic; probabilistic logic; process algebra; recursive functions; temporal logic; threshold logic
bisimulation, games, and logic 20524
bit-slice archit. verification, time-space modal model 12467
concurrent engng., logic-based support syst. implement. 36999
DSN controller software develop., higher order logic expt. 42339
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
hardware struct. implement., configurable logic 29150
Jensen's coding theorem, simpler proof 2380
monadic quantifiers nos. in monadic Σ_1^1 28622
reversible logic, encoded arith. 8699
telecomms., logical approach, interact. detect. 3085
thermal logic ccts. 6119

formal specification
see also algebraic specification; specification languages
abstr. test suites validation, SDL 24828
algms. for deriving protocol specs. from service specs. written in LOTOS 2906
Ariane 5 on-board software, safety aspects 43423
ATC, Ada computer commun. interfacing 41773
ATM subnetwork syst. fns., timer-related perform. issues 24766
audio control protocol verification 34288
authentication protocols verification, methodology/example 2954
automatic protocol implement., generating C++ code from SDL/PR specs. 24830
automatic train protection syst. develop., formal methods appl. 36744
avionic subsystem, architectural spec. 35239
AWK simul. of Petri nets for signalling protocol validation 41509
BAfirewall, Bell Atlantic internal TCP/IP WAN 16673
cct. synthesis from behavioural spec. in interval temporal logic 28960
commun. protocol specs., structural anal. and max. fault coverage conformance test seq. generation 2921
commun. protocols, timed communicating state machine 33267
commun. service specs., stepwise refinement 25085
communicating finite state machines, diagnostic tests 2904
communicating finite state machines, language-based anal. 2978
communication protocols, perform. eval. 2975
concurrent syst. design, MCSE methodology 28958
conformance testing of protocols 24829
conformance tests for nondeterministic protocol machines 2951
Deep Sace Network, microwave controller software, higher order logic 42338
distributed access network perform. eval. by DEVSim++ 25141
distributed real-time protocol, spec. and verification 41543
distributed telecomm. syst. design, ODP approach 24954
DSN controller software develop., higher order logic expt. 42339
embedded hardware-software systs. spec. and design 30417
Estelle, automatic test case generation 2969
Estelle formal spec. described protocol, validation tech. 2902
Estelle interpreter for incremental protocol verification 2973
exercise ECG proc. syst., obj. oriented formal specs. 35107
FDDI perform. eval. based on LOTOS formal description tech. 25490
formalisation of user view of network and services for interact. detect. 3255
FTP MAIL,e-mail automatic file transfer syst. *(Spanish)* 3152
Futurebus+, VHDL spec. modeling 8999
Futurebus+ machine-executable spec., interoperability improvement 9000
GSM signalling protocol LAPD$_m$, perform. anal. 3499
hardware/software co-synthesis, design representation 28962
hazard-free asynchronous cct. synthesis, sig. transit. graph constraints 6141
high level synthesis and proof systs. amalgamation 21069
high-level modeling and design of asynchronous interface logic 29167
indust. and academic protocol testing, comparison 33250
INFOSTEL, IS for telecomms. networks 41658
ISO virtual terminal protocol, semi-automatic implement. 8758
LEP2 cryogenics, large indust. control syst. appl. 18239
lift control board elec. design, ES spec. judging 5961
load modelling for commun. systs., Petri net-based model 25042
LOTOS environ., specifying, and anal. their interacts. 3143
message router, formal spec. and design 41578
message seq. chart specs. for services, variant proc. struct. *(Japanese)* 24883
mobile radio protocols, simul. and formal spec. 3487
mushroom, program for SCM protocol specification verification 2971
net-theory appl., commun. protocol develop. 8760
network mgt. appls. spec., high-level notation 41838
network protocols, interoperability testing 2977
obj.-oriented design for distributed systs., OSI directory example 33433
obj.-oriented network mgt. syst., formal spec. 33375
open distributed proc. trader federation, X.500 directory approach 41761
optimized parallel protocol implement., formalizations/algms. 2938
OSI environ., distributed message transfer and store appl. 33264
OSI session layer protocol, formal spec./verif. 8754
partial-order transport service for multimedia and appls. 2920
probabilistic timed protocol verification for extended state transit. model 8773
proc. group membership protocols 41535
PROTEAN, software tool for automated protocol anal. 2910
protocol conformance testing, test seq. generation methods 2912
protocol half-converters derivation, formal approach 16477
protocol handling syst. spec. and perform. 33488
protocol spec. proc. based on labelled transit. systs., support method 8764
protocol specs. from service specs. *(Japanese)* 33289
protocol synthesis based on LOTOS 8763
protocol test seqs., automated generation, formal specs. 2929
protocol tools, formal specification to implementation 3291
Q.931 call protocol, LOTOS based validation/perform. 16797
QoS and media sync., formal description tech. 16873
real-time MAP, modelling/formal spec. 16771
RISC-pipeline conflicts verification in HOL, implement. issues 41504
safety-crit. tech. proc. spec. toolkit 11691
SDL methodology for specifying radio protocols in CDMA syst. 2979
SDL-based protocol implement. tool, proc. scheduler/compiler 41542
service interact. detect. method *(Japanese)* 33634

formal specification continued
significant event temporal logic, method for protocol spec. and verification 33287
simul. approach, provably correct hardware compilation 28985
SNMP-based systs. mgt., fault detect./isolation 24903
SNR high-speed transport protocol, spec./anal. 2922
state-transit.-based incremental protocol spec. 16493
T9000 virtual channel proc., model checking via CAD 28950
telecom. network mgt. using inform. and proc. models, spec. description 41669
telecomm. feature interacts., building block approach, detect. 3084
telecomm. service protocol synthesis, Petri nets, validation tool 33632
telecomm. software automatic generation technol. *(Japanese)* 16512
telecomms., incremental service spec. and interact. mgt. support, formal model 3100
telecomms., logical approach, interact. detect. 3085
telecomms. networks, graphic presentation and anal. 33340
telecomms. service requirements, cause-effect validation 3079
telecomms. service specs., service interacts. 16595
telephone, set formal spec. 24924
telephone services, temporal logic for modular spec. 3144
test requirements conversion into test program sets 42692
transformational design, formal semantic model, fit SIL 28961
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824

formal verification
see also program verification
AAMP5 μP, formal verification 29298
ATM network component implement., tracking design changes, formal verification 41502
ATM network congestion control algms., validation/perform. anal. by Petri net 41448
audio control protocol verification 34288
authentication protocols verification, methodology/example 2954
automating verification by functional abstraction, syst. level 41503
bulletin-board subsystems for exchanging obj. inform., operation protocols, formal description 33288
CAD conf., San Jose, CA, USA, Nov 1994 41
cct. verification, O(n) algms. 28949
CMC ATM switch I/O proc., design/validation, HDL Verilog 33719
combinat. logic, practical method for high-level synthesis from VHDL 28964
commun. protocol design methodology 2947
commun. protocols, timed communicating state machine 33267
CPU behavioural verification, functional inform. extraction 478
cryptographic protocol verification software 24071
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
distributed cache memory verification by abstractions 24820
distributed real-time protocol, spec. and verification 41543
ECFSM model for commun. protocols, verification method *(Japanese)* 41511
Estelle interpreter for incremental protocol verification 2973
Estelle specifications verification, numerical Petri nets 2974
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
frame synchronized ring bus modeling, predicate/transit. nets 25038
Futurebus+ cache coherence protocol verification 41811
hardware inference syst., completeness 21065
high level synthesis based on formal methods 28959
IC layouts comparison with HDL models, formal verif. tech. 37588
IEEE 802.3 CSMA/CD protocol modeling and verification, symbolic model checking 24819
incremental protocol verification method 16506
inform. obj. security, location-independent 24964
interval-semantic component models and efficient verification of transaction-level cct. behavior 37583
ISO FTAM basic file protocol, LOTOS specified, anal. 41538
message seq. chart specs. for services, variant proc. struct. *(Japanese)* 24883
multimedia transfer protocol, service primitives 9055
μP, formal modeling and verification 21353
mushroom, program for SCM protocol specification verification 2971
network protocols, conf., San Francisco USA (1993) 35
nonideal logical circuitry reasoning and spec. 37701
num. solns., computational verification *(Spanish)* 28653
observer concept for formal online validation of distributed systs. 16690
OSI session layer protocol, formal spec./verif. 8754
Prolog proc. design via VHDL-based methodology 12289
protocol conformance test generation *(Chinese)* 24810
protocol half-converters derivation, formal approach 16477
random walk method for protocol testing 24817
reactive hardware, methodology and syst. for practical formal verification 24818
RISC-pipeline conflicts verification in HOL, implement. issues 41504
SDL methodology for specifying radio protocols in CDMA syst. 2979
seq. ccts., crit. path tracing algm. 21251
seq. control ccts. with timing coord., design verification based on theorem-proving tech. *(English)* 29106
sequential ccts., automatic design error correction 21184
significant event temporal logic, method for protocol spec. and verification 33287
Software Assembly Workbench, hardware-like constr. 41827
spaceborne IR sens. testing, verification/validation/accreditation issues 35216
state-transit.-based incremental protocol spec. 16493
symbolic ATPG for large ccts. 6101
symbolic trajectory eval. and BDDs, theorem prover, VLSI design 37587
symbolic trajectory eval. results comp. 21064
telecomm. feature interacts., building block approach, detect. 3084
telecomms. service requirements, cause-effect validation 3079
timed ccts., automatic verification 21066
transformational design, formal semantic model, fit SIL 28961
VERTEX program, sync. sequential cct. verification 21033

formation, heat of *see heat of formation*

forming processes
see also casting; electroforming
conference, materials processing, Singapore (1994) 20244
surface micromachining, galvanoplating and sacrificial layers 39030

formula manipulation, automated methods *see symbol manipulation*

FORTH
see also FORTH listings
HDTV format convertor, design/test, Forth appl. 3672

FORTH listings
stripchart recorder emulation; split screen, smooth scrolling 3924

FORTRAN
see also FORTRAN listings
automatic differentiation on distributed memory MIMD systs. 11996
EM refls., PCs appl. 37938

FORTRAN listings
PBGUNS, digital simulation computer program 26108
power syst. control ES, rule modif. ease expts. 19097
prime factor DCT, software realization 28707

forward chaining
HF transformers, core geom. selection, experto-fuzzy approach 36226
power syst. control ES software design, OOP techs. 27070

forward error correction
see also error correction codes
10 Gb/s transm., 5800 km opt. amplified testbed 42447
ASDL wideband noise meas. and implications for sig. proc. 16923
ATM networks, AAL and group commun. server for reliable multipoint services 16482
ATM networks, high speed multimedia commun. archit. 25105
B-ISDN, error recovery scheme perform. comparison 41926
CDMA, TU Delft research, overview 25255
CDMA cellular systs., concatenated RS/convolutional coding 9358
CDMA overlays for FDMA satellite commun. systs. 25465
cell, error correction *(Japanese)* 15740
cellular systs., uplink capacity, bounds/estim. 17064
constrained joint source/channel coder design 15719
correl. fading channels, FEC perform. 32140
CT2 syst. for data services, perform. 3495
DECT unequal error protected p×8 kbit/s video transm. 8850
digital cellular syst. radio link protocol throughout perform. 33799
digital land mobile radio, commun. channel simulator *(Japanese)* 17137
double side inform. concatenated coding for fading environ. 15751
DS-CDMA SS systs., permutation modulation 17126
DS/FH-CDMA syst., fading channels, near-far problem *(Japanese)* 25210
feedforward amp. incorporating parallel output summing 12346
fibre optics, unrepeatered transm., FEC 33980
GSM adaptive type-II hybrid ARQ/FEC protocol 3445
HDTV images, noise resistant sync. 16288
hi-fi mobile DAB scheme 9695
image data compressed sigs. recording on mag. media 17596
indoor mobile radio, burst-level ARQ error protection 17054
integrated voice/data network, cellular packet CDMA, perform. 17131
mobile LEO channel, downlink DS CDMA perform. 25372
MPEG codecs in the presence of errors, perform. 16386
MPEG video traffic, network congestion avoidance 42588
multicarrier coded 16QAm syst. 33780
multicarrier modulation impulse noise mitigation strategies 40561
multimedia radio commun., variable-rate FEC perform. anal. 9044
pers. commun. systs., packet transm. 25415
radar interf. canceller, bit interleaving tech. 33743
radio LANs, FEC, ARQ, and throughput of 16678
RAPID transport protocol, design and implement. 16486
Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
SDH fibre-optic transm. systs., forward ECC 42455
sectorized mobile microcellular radio syst., perform. anal. 3451
single-bit error-correction cct. for ATM interfaces 42080
slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
slowly time-varying commun. channels, adaptive hybrid ARQ scheme 15782
SNUFEC ultra-high-speed CMOS VLSI Viterbi decoder 12557
speech coders, channel coding, source criteria 15821
telecomms. syst., forward error control, simul. techs. 42450
trans-oceanic opt. systs., forward error control 42449
type-II hybrid SR ARQ, punctured convolutional coding 15780
undersea cable systs., design requirements 33995
unmanned systs. design appls. 2381
variable bit rate video coding, interleaved FEC 8614
video commun., low latency, over high bandwidth-delay networks, using FEC 25134
wireless LAN MAC protocol selection for indoor environ. 41818

Foucault currents *see eddy currents*

four wave mixing (optical) *see multiwave mixing*

Fourier analysis
see also Fourier series; Fourier transforms; harmonic analysis; waveform analysis
3-D mag. field anal., mag. force STM 18037
ATM network, video frames temporal placement control 24494
band-limited sigs., nonuniformly sampled, spectral estim. method 15863
biomedical multi-oscillator systs., nonlin. filtering tech. 16029
cardiac NMR imaging, k-Space block regional interpolation scheme 35014
cct. simulators, Fourier anal. approach 21076
color separation, moire patterns, spectral anal./minimization 2641
corrugated periodic struct. noisefree static field calc. 31892
differential params. meas. of charged particle beams 4078
discrete-time multichannel sigs., neural net modelling 15976
ECG, ventricular tachycardia patients, phase/group-delay characts. 18540
EM scatt. for oblique incidence on impedance bodies of rev. 23574
epoxy resin, neutron induced changes, dielec. response 14046
finite difference method, unsteady NS eqn. 274
guided-wave optoelectronic device model, FDTD/Fourier expansion method 14412
HBT HF perform. calc., Fourier anal. 1363
Hertzian dipole radiation from centre of anisotropic sphere 23829
human vocal-tract dyn. geom., formant trajectories determ. 32324
MESFET, intrinsic small-sig. equiv. cct., Monte Carlo determ. 38910
MSK timing recovery algms. 9372
myoelectric sig. recogn., fuzzy clustering and ANNs 35108
nonlin. opt. waveguides, light pulse propag., mode-coupling theory 22907
nonstationary M/G/1 queue charactn., Bode plots 11904
pole transformers/induction motors, harmonic losses meas. 5029
priority queueing syst., RPA and harmonic gradient estimators appl. 11903
pulsed damped-sine charactn. sig. anal., PC-based 34423
semen quality assess., neural nets 18457
sq./rect. core dielec. waveguide anal. by modified Fourier decomp. 31914
SRAM chip testing, sinusoidal stimuli and Fourier anals. 37767
strain meas., birefr. two-mode opt. fibers 3862
surface cracks in metals detect., microwave method 37552
turbogenerator FEM/state-space modelling, short cct./load case 43984
turbogenerator shaft torque/fatigue life expenditure prediction 10958

Fourier analysis continued
turbogenerator shaft torques/fatigue life, freq./time domain anal. 4887
ultrashort-pulse reflectometry, 1D num. study 34682
undulators, distorted orbits, electron trajectory, Fourier anal. 43034
wavelet anal., theory/appls. 15927
WC-281 circ. waveguide, mode conversion, echo anal. and correction, digital radio 33760
wideband ambiguity fns./affine Wigner distribs. 40781

Fourier series
2-step PWM sinusoidal inverter, modulation switching and freq. spectra *(Japanese)* 37635
3-phase underground pipe cable, above ground mag. field prediction 27206
AC-DC boost power converter, high PF, cct. anal. *(Japanese)* 11189
AC/DC power converters, harmonic pollution anal. 36377
allpass transfer fns., prescribed group delay 32792
aperture antenna Fresnel zone field estim. 23843
band-limited fn., sig. reconstruction, Fourier spectra determ. 8440
biomedical image data, surface rendering, Fourier descriptors 10205
blazing effects of dielec. grating, periodically modulated two layers 30981
brushless DC motors, modelling, 120° commutation seq. *(French)* 11065
cable bundles, per-unit-length params., MoM 15531
cable harnesses, capacitance calcs., method of moments 33741
Class E reson. rectifier with series capacitor, reson. DC/DC converter 12327
Class E tuned power amp., computer-aided anal. *(Chinese)* 5988
current-source parallel-reson. DC/DC converter 36335
DC link, transient anal., converter model, series expansion 27143
detect. perform. of lin./sq.-law detectors 32539
dielec. waveguides, slanted grating, propag. charact. 8031
digital ccts. EMC, waveforms spectral dens. 2509
double-loop sigma-delta converter with sinusoidal input, quantization noise spectrum 710
ECG compression, Fourier series, FFT, adaptive coeff. estim. 43291
EM wave diffr. on cylindrical vibrator surface 40299
EM wave scatt. by periodic strips, spectral theory 23786
fast digital oscilloscopes, averaging mode, lin. improvement 17699
FIR digital filters, data detect., modified window fn. 8264
full-vector EM scatt. by 3D nonlin. bounded dielec. 23587
graded magnetis. single pole head for perp. recording 39178
head sensitivity fn. calc. from 3-D mag. fields 14226
isolated dielec. disc resonant freq. and far field computation 23828
LIM, charact. anal., 1 A conductor *(Korean)* 36196
lin. variable-reluctance machine, mag. flux decoupled windings 19666
MHD induction pumps, 3D EM field/force anal. 36610
opt. fiber, soliton propag., Fourier-series approach 39326
opt. fiber soliton propag. by Fourier series anal. 22815
parallel reson. CSI, cct. design/anal. 44136
perfectly conducting slotted elliptic cylinder, near-field anal. 23830
periodic dielec. struct., EM wave interacts., finite element modeling 15565
planar shape recogn., moment invariants and Fourier descriptors 16390
power converters, EM quantities, harmonic anal. *(Polish)* 11123
power system load flow modelling, phasor dynamics-based 19035
PSK sigs., low SNR approx., phase PDF 2364
PWM invertors, regularly sampled sinusoidal modulation technique 19772
quantum-well diodes, harmonic and intermodul. generation 29570
random amplit. modulated harmonic retrieval, higher-order stats. 32460
reduction of reluctance torque in brushless PM motors 19650
self coupled harmonics, stationary/cyclostationary approaches 40937
sig. proc., transform. of operators and scale 32488
SMPS, gate controlled, conducted emissions reduction 5050
sq./rect. core fibre scalar anal. by Fourier decomp. method 39325
three-phase power conductor arrangements, short cct. losses 35645
transient sonar sig. class., HMM/neural net 34178
two-periodic solns. for nonlin. dyn. systs., direct determ. 28683
ultra wideband radar, waveform generation and sig. proc. 17364
undulators, distorted orbits, electron trajectory, Fourier anal. 43034
$LiNbO_3$ high-speed electro-optic modulator, travelling wave electrode optimisation 1735

Fourier transform optics
see also Fourier transform spectroscopy
2D Fourier kinoforms by genetic algm., quantized phase optim. 40160
3D obj. composite Fourier hologram optim. 40162
act.-matrix LC SLMs, parallel opt. proc. 7414
adaptive joint transform correlator shape retrieval 33007
alkali halide surfaces, opt. sens. 32981
all-opt. nonlin. joint FT correlator 24409
analog apodizers, binary ang. sectors 22986
angle-/wavelength-multiplexed image plane holograms, cross talk 2136
apposition cpd. eye opt. sens., design and anal. 34466
atmos. turbulence, finite-size obj. double-passage imaging 26725
binary nonlin. joint transform correlator perform., thresholding methods 24656
binary phase fan-out elements, opt. optim. 14558
Bode transform, opt. implement. 24652
CGH, off-axis principle 7850
CGH design for nonplanar focal curves reconstruction 15172
coherent FSK syst. DFB lasers, thermal contrib., FM response 3585
coherent opt. proc. for inverse filter generation 39511
computer-generated Fourier holograms based on pulse-dens. modulation 40127
constrained image enhancement/halftoning, threshold accepting 32934
discrete Fourier preprocessing transforms for binary phase-only filter 32966
double-passage coherent imaging through random-phase screen, complex-valued obj. reconstruction 41233
dye-polymer films, photoanisotropic, joint transform correl. 8469
fractional correl., FT operator 24489
fractional Fourier domains, convolution and filtering 32978
fractional FT, photonic implement. 8471
Fresnel region, light propag. simul. methods 40156
Gabor's expansion coeff. coherent-opt. generation, Zak transform 33081
harmonic filter, limited rot. invariant joint transform correl. 41300
Hartley intens. spectrum reconstruction from sinusoidal crossings 24424
heterodyne opt. interferometry, LD power change effects 42965
holographic focusing lens design, FT systs. 15169
holographic points patterns, image space/spectral anal. 40128
image quantization and rel., network struct. procs. 33088
image reconstruction, iter. deconvolution, variable convergence speed 41235
image reconstruction/synthesis from nonuniform data and zero/threshold crossings 2712
image recovery of missing segments/lines 2711

Fourier transform optics continued
incoherent-only joint-transform correlator 32969
input plane/Fourier plane random encoding, opt. image encryption 41302
joint transform correlator, posn. encoding appl. 32968
lateral-shear holographic interferograms, spatial filtering 7823
Lee sparse valued reconstruction computer generated holographic storage 31661
lin.-contoured image struct. anal., opt./digital 2819
movement charactn., low-light-level image spatiotemporal FT 41232
multilayered planar waveguide anal. by exact and variational FT methods 31899
multiple target detect., fringe-adjusted joint transform correlator 16277
multiple-image FT spectral imaging, fast phenom. meas. appls. 33086
opt. controlled array antenna fed by fiber optic array, beam scanning charact. *(Japanese)* 40515
opt. pattern recogn., random PM techs. 32943
partially absorbent phase objs., phase reconstruction/unwrapping from holographic interferograms 31663
particle image velocimetry FT lens, off-axis holographic tech. 23475
pattern recogn. syst. illum. sensitivity 32942
photon echo based simultaneous opt. image proc. 32933
planar holographic lens doublet, FT 31685
profilometry, obj. shape meas. 8490
prog. Dammann grating, interconnections, FT lens, SLM 39450
real-time nonlin. joint transform LCLV CCD sens. correlator 2713
real-time signature verification, neural network algms. 16282
rot.-invariant filter, opt. wavelet transform, pattern recogn. 33084
SAR image form., opt. proc. 17417
scale-invariant opt. correlators using FLC SLM, road sign recogn. 41236
scatt. material imaging by Fourier synthesis holography 40149
SDF design by multiresolution wavelet anal. 24654
shift multiplexing holographic storage 40164
short pulse tomographic meas., generalized Radon transform 39373
single-mode fibre, polaris. mode dispersion, pulse distortion meas. limitations 30862
slab laser prism resonator charact. 31447
spatial envelop-free nonlin. joint transform correl. 24391
spectrum analyzer selection, sensitivity, dyn. range, resoln. and accuracy 42747
supervised/unsupervised hybrid opt. neural networks, JTC 31033
time-domain computer generated holographic images 40159
TOPS multifilter solid optic correlator 16255
transonic flow interferometric meas., automatic num. proc. 7851
turbine blades, reson. vibr., strain meas., electro-optic holography 31669
two-pulse photon echo opt. DP 41060
VanderLugt folded opt. module correlator design geom. 24651
WDM arrayed-waveguide grating multiplexer, flat spectral response 25497
$Bi_{12}SiO_{20}$ SLM-laser scanner hybrid joint transform correlator 33082
$Bi_{12}SiO_{20}$ real time opt. correlator 33083
GaAs wide-bandwidth MSM photodiode, extrinsic freq. response 39570
InP waveguide mode field determ. from intens. profiles 39468
$KTiOPO_4$, parametric image amplif., spatial freqs. transfer fn. 23353
$LiNbO_3$:Fe cryst., real-time LF spatial filtering 7449

Fourier transform spectrometers
see also Fourier transform spectroscopy
fiber FT spectrometer, Bragg grating sens. decoding 17840

Fourier transform spectroscopy
see also Fourier transform spectrometers
acetylene black, pretreatment, electrochem., fuel cells 11284
arrayed-waveguide grating multiplexer, phase error compen. 22919
brain, MR 3D-FT multiple gradient echo tech. 35015
dispersive opt. fiber FT spectrometer 25857
ethanol oxid., Pt(hkl) basal surfaces, $NaOH/Na_2CO_3$ media 11283
HCl gas distrib. syst., ultra-pure operation 38462
interferometric meas. of strain, grating-coupled LED sources 18113
pos. chem. amplified photoresist for X-ray lithog., modeling and simul. 13519
spectral emissivity of natural surfaces, FTIR spectrometer appl. 18131
thin plastic scintillator foils, prod., thickness determ. 34923
window materials for 110 GHz and 280 GHz gyrotron 38216
Al-SiN-Si syst., laser CVD, TFD charact. by DLTS 13597
Er-doped fiber amplifer chromatic dispersion eval. 34060
GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
$Nb/AlO_x/Nb$ tuned SIS jn. 850 GHz waveguide receiver on Si_3N_4 membranes 29569
Si:B doping, proximity rapid thermal diffusion from spin-on-dopants 22144
SiC x-ray membrane characterisation, laser ablation deposition tech. 6696
SiO_yN_z plasma CVD, MIS devices appl./elec. eval. 20973

Fourier transforms
see also fast Fourier transforms; Fourier analysis; Fourier transform optics
2D shape class., autoregressive/Fourier-based descriptors comparison 24420
2D sig., bispectrum estim., projection method *(Japanese)* 15895
77 kV overhead line-underground cable lightning surge anal. 19306
77 kV overhead line-underground cable lightning surge anal. 10713
adaptive-neighborhood image deblurring 16323
admissible nonparametric estim. of probab. dens. 15901
arith. FT, alternate realizations 8298
bandpass sigs. reconstruction 32645
Battle-Lemarie scaling fn., piecewise smooth fn. 28567
bi-valued fn. with modulated transits., FT freq. synthesis 8258
Boolean fns., real polynomials 20596
CCD camera, 3D inform. extraction, holographic method *(Japanese)* 16129
cct. simulators, Fourier anal. approach 21076
circularity and discrete-time random sigs. *(French)* 41036
collocation methods stabil. for 2D Burgers eqn., Fourier case 20645
complex sig. reconstruction from time-freq. magnitude 24271
CW transform for sig. investig./understanding 15974
cyclostationary time-series, cumulant theory 8417
discrete Fourier-Riccati-Bessel transform, Neumann boundary conditions 28566
dyadic Green's fn. for unbounded anisotropic medium 23597
dyn. RCS using the wavelet transform, time-freq. inform. 26822
dynamic performance of ultrahigh speed ADCs testing 25761
ECG, ventricular fibrillation detect., time-freq. distrib. 43283
edge detect., convolution, FT, maths courses 8600
electrodynamic levitation, slowly moving bodies, vector field pot. 28118
evol. max. entropy spectral anal. 40963
filter banks, wavelet transforms 2455
filter design, window fns. 6197

Fourier transforms continued
- finite thickness transm. lines above periodically perforated ground plane, packaging 23757
- finlines, semicond. substr., high precision anal. 31885
- fractional Fourier domain filtering and chirp transforms 16007
- fractional FT and time-freq. representations 2480
- freq. charact. determ. of measuring transducers 42763
- Gabor's expansion coeff. coherent-opt. generation, Zak transform 33081
- generalized Gabor expansions, biorthogonal-like fns. 40876
- generalized Mobius/arith. FT 2469
- harmonic anal., perfect reconstruction and wavelet matrix windows 24279
- image segmentation, phase coding and wavelet transform 32834
- image-based air target ident. 26823
- inclined high heat monochromator, temp. distrib./X-ray diffr. 10163
- instantaneous freq. and group delay representation 15859
- IR multispectral target/background field meas. 18974
- line extraction from image, variable Hough transform *(Japanese)* 16300
- lossy VLSI interconnect, sig. transients, propag., crosstalk 30426
- low-bit-rate speech coding, 2D transform 32252
- mach. fault detect., vibr. anal. techs. 26807
- mag. fields meas. by electron-beam tomography, Fourier extrapolation 18045
- mag. reson. angiography, FT imaging, voxel sensitivity fn. 35013
- microwave stadium billiard with chaotic dyn., Gaussian stats. 14312
- mixed sig. testing, joint time-freq. anal. 6826
- MM-wave band antennas, electronic beam scanning 15620
- multidimensional sigs., optimum approx., quantized sample values 24347
- musical recordings restoration, short-time spectral atten. techs. 9774
- near field diffracted by cylinder from dipole sources, comp. 40317
- non-binary correl.-immune/resilient fns., charactn. 37220
- nonlin. filtered seqs., lin. complexity, FT approach 32178
- nonlin. sig. proc., slope transforms, theory/appl. 40832
- nonlin. sig. proc. and adaptive filtering, orthonormal fns. 32777
- nonstationary sigs., time-varying spectral anal., combined wavelet/FT 32679
- open resonators, geom. imperfections, perform. effects 818
- opt. pattern recogn., random PM techs. 32943
- opt. pattern recogn. syst. illum. sensitivity 32942
- overhead line-underground coaxial cable syst., lightning surge anal. 10755
- param. estim. based thermal diffusivity/cond. determ. 42969
- pass. rem. IR interferometers, analog detect. scheme 34427
- perfect periodic correl. seqs. 32116
- plasma assisted chem. etching, surface shaping/smoothing 13379
- polarimetric vector diffr. tomography 40274
- pole transformers/induction motors, harmonic losses meas. 5029
- pos. time-freq. distrib. 40966
- power transformer xx *(Korean)* 36220
- pulsed power modulator systs., pulse forming network calcs. 36441
- quaternary quadratic residue codes/unimodular lattices 32048
- radar tomography, 3D images generation 42494
- real no. model in num. anal. 28644
- right-angle H-plane waveguide double bend 23772
- running bispectra computation and implement. 40849
- SAR data reflectivity spectrum direct determ. 25545
- second- and higher-order cyclostationary proc., acousto-optics 32455
- semicond. devices, spatio-temporal spiking, bifurcation scenarios 6709
- short time FT based time-freq. distrib. 24241
- slot antenna radiation characts. in ground plane under DC magnetised ferrite slab 23826
- speech sig., Fourier spectra, adaptive enhancement 8221
- SS ranging syst. over short dist., anal. 17386
- step-freq. radar imaging for NDE/GPR appls. 42904
- substation struct./grounding syst., lightning strike, transient anal. 44251
- Talbot effect, multichannel image texture segmentation 32837
- thermal diffusivities meas., IR images proc. 25995
- transform adapted, polynomial phase sigs. 16016
- transient signals meas. Wigner-Ville distribution appl 24240
- translating objs. image, diff. eqn. 24381
- translation/rot. invariant algm. for pattern recogn. 8632
- transonic flows by quantitat. holographic interferometry 4022
- TW semicond. opt. amps., facet modal reflectivity spectrum 39763
- underwater target, causal impulse response estim. 34180
- Volterra model, generalized describing fns. *(Japanese)* 11896
- waveguide discontinuities, higher order modes, Prony's method in FD-TD anal. *(Japanese)* 31889
- wavelet anal., theory/appls. 15927
- wavelet based detectors 40925
- wideband ambiguity fns./affine Wigner distribs. 40781
- wideband microcellular environ., multipath propag. 3409
- X-ray tomographic reconstructions, direct Fourier method, accurate sinogram simul. 26314
- Pb-acid batt. strings, impedance meas. 19965
- Si, carrier-diffusion, Fourier-transient-grating method 21886

fourth-generation languages *see application generators; database management systems; high level languages; programming environments; query languages; report generators; simulation languages; specification languages; user interfaces*

FPA *see focal planes*

FPGA *see field programmable gate arrays*

fractals
- 2D shape signature based on fractal meas. 2809
- 3-layer insulation syst., discharge, dielec. characts. 22668
- 3D iterated fn. systs., discrete seqs. representation 2499
- activated C fibers, pore struct., fractal anal. 5913
- antenna arrays, fractal radiation patterns 31983
- ATM networks, anal. model for self-similar traffic 16667
- biological cell profiles, self-similar, digital image anal. 4264
- bispectrum anal., 1D regular fractals, additive random noise 32979
- Cantor fractal nonlin. multilayers, EM refl. and transmisson 2061
- chaotic time series, noise reduction 15684
- Chua's cct., time-delayed, fractal set props. 37614
- color image compression, fractal-based method 41193
- condensed dielec., breakdown develop., fractal model 39041
- crustal magnetis. models, mag. interp. 10430
- digital signal processing, conf., Yosemite, CA, USA (1994) 11548
- disordered materials, charge carrier dynamics, elec. field depend. 14034
- EEG DP, chaos and fractal props. *(Japanese)* 26402
- fetal heart rate, fractal dimens. 34991
- fractal image compression, iterated contractive transform. *(Korean)* 24690
- gray-tone digital images, multifractal and generalized dimens. 41303
- image coder, complexity reduction 24405

fractals continued
- image coding, data compression, self-similarity 16252
- image coding, fast decoder convergence 2740
- image compression, comparison of fractal methods, DCT and wavelets 8499
- image compression, fractal methods, crit. review 41295
- image compression, literature review 2688
- image compression, lossless, hybrid fractal-LZW encoding tech. 16346
- image compression strategies, comparative anal. 33023
- image compression technology 41171
- image descriptions, learning, fractals 32957
- image transform coding based on fractal functional set *(Japanese)* 24671
- IR seeker imaging simul. real-time model based on fractal theory 18989
- ISDN networks, chaotic maps, models of packet traffic 33606
- iterated fn. syst. codes calc., ANN appl. 33053
- iterated fn. syst. model based data detect. 8382
- land surface topography, SAR rem. sens., sig. simul. 18782
- lateral surface superlattices, chaotic transport and fractal spectra 1110
- layered dielec., discharge develop. *(Russian)* 6892
- mag. actuator, nonlin. struct. dyn. 22712
- modulation commun. syst., implement./simul. 15708
- multifractal entropy and dimens. spectrum 15691
- multiresolution approx. of fractal transforms 32624
- multiscale relax. labelling of fractal images 2659
- multiscale Wiener filter, fractal sigs. restoration 2470
- natural obj. recog., L-syst. fractals 24373
- natural terrain modelling, fractal surface reconstruction 2783
- nonlin. nondispersive media, complex sigs., self-similar evol. 16047
- obj. ident., stochastic local fractal variables *(Japanese)* 30392
- opt. decoding archit., iterated fn. syst. code algm. 33079
- overdamped Josephson jns., devil staircase dyn. 30785
- parallel fractal image compression algm. for hypercube multiprocessors 32960
- PLLs, analytic struct., complex time plane 12378
- polyethylene insulators, dendrites, fractal charact., time var. 1543
- radioastronomy sig. complexity, fractals, correl. dimens. 17518
- radiographic images assess., region-of-interest fractal graphs 5937
- region segmentation, navig. images, fractal dimens. estim. *(Japanese)* 8510
- regularization by multiscale models 24190
- renewal procs., multiscale synthesis/anal. 20527
- self-similar Ethernet LAN traffic, stat. anal. and stochastic modeling 33586
- self-similar set ident. in time-scale domain 32520
- shape modelling scheme 2782
- sig. proc., evidencing chaos from dimens. 16023
- signal and image processing appls., conf., London, UK, Jan. 1995 16067
- space-periodic phase screens, ray propag. dyn. 15419
- splines intertwining multiresolution anal., wavelets and fractal fns. 32514
- surface-plasmon-reson. biosensor, particle-enhanced sensitivity 34602
- suspens. and aggregates, combined rheometer/image analyser 25876
- synthesized images for pattern recogn. 41191
- tape noise charact., chaos appl. 14252
- telecomms. traffic charactn., fractal procs. 33189
- texture segmentation, fractal dimens. 16295
- texture segmentation using wavelets, fast fractal, extraction 8500
- ventricular late pot. detect., fractal dimens. anal. 26413
- video communicator simul. 8851
- VLSI placement, module clustering, fractal anal. 13842
- water, elec. discharge, near-electrode forms. 22633
- Ag fractal nanospheres in PMMA film, cubic opt. nonlin. local field enhancement 15130
- Si oxid. proc., fractal aspects 30125
- Si, porous, AC cond., hopping transport 21895

fractional-horsepower motors
- PM 2-phase sync. FHPM, self starting 36678
- single-phase induction motors, multi-speed control studies 19621

fractional programming *see nonlinear programming*

fractionation *see distillation*

fractography
- opt. fiber, press. cutting, AE testing 30897

fracture
- *see also brittle fracture; cracks; creep fracture; ductile fracture; fatigue; fracture toughness; stress corrosion cracking*
- CFGFRP-reinforced concrete, fracture self-diagnosis, material design 28897
- crack growth detect., digital image proc. tech. 28899
- diamond thin films, indentation response 20932
- glass and optical materials, conf., Honolulu (Nov. 1993) 5442
- lead-on-chip package, temp. cycle-induced chip surface damage 20435
- MCM HTSC thin film interconnects, fracture strain meas. 12249
- metal/polyimide fine line struct., adhesion and fracture anal. 1171
- nuc. power piping syst., circumferential crack, J-integral 35866
- opt. fibre-glass matrix sens. based composite, fracture 437
- PCB/MLC capacitor bending stress, surface strain measuring method 6412
- plastic IC package params., effect on temp. cycling failures 5674
- plastic moulded LSI package, interface edge/interface crack tip, thermal stresses 28488
- PLCC temp. cycling failures, die coatings, mold cpds., and test conditions effects 28469
- polyamideimide films containing glass, sol-gel prep., dielectric breakdown 14053
- polyimide film, fracture, hygrothermal effects 28882
- RF window, thermal stress fracture 29791
- sapphire, insulator props. rel. to tribology/space charge 13952
- VLSI microelectronic packaging, nonlin. finite element model 28443
- BaTiO$_3$-based PTC thermistors, delamination fracture 28869
- Cu, electrodeposited/electroless for PCBs, mech. props. 12940
- SiC/Si wafer bonding, CVD and etching 13392
- Sn-Pb solder, J-integral (theoretical) values, fracture props. 37531
- Sn-Sb solder, room temp. tensile prop. 434
- Y-based HTSC, relax. US proc., mech. stabil. 39242

fracture strength *see fracture toughness*

fracture strength testing *see fracture toughness testing*

fracture toughness
- *see also notch strength*
- boundary layer fracture of copper/composite solder interfaces in electronic packaging 37131
- half-sintered ceramic machining by Q-switched YAG laser *(Japanese)* 20421
- insulation, elec. treeing, mech. aspects 39064
- intell. ceramic materials, brittle fracture 28892

fracture toughness continued
kovar leads with various surface flaws, fracture mech. anal., IC reliab. 28491
opt. fibre-glass matrix sens. based composite, fracture 437
organic insulators, mechanical properties/electrical treeing behaviour correlation 13971
plastic IC package, structural integrity eval., soldering proc. 28485
polyimides, thermomechanical props. and interfacial fracture 12210
α-quartz, dielec. strength, size effect. Monte Carlo anal. 13980
12H-AlN-polytypoid ceramics, fab. 37534
Cu TAB conductors, lead frame materials, wrought and electrodeposited foils 29701
GaAs low temp. fusion bonding 1196
GaAs micromechanical fracture strength 3796
SiC-SiN_x multilayer x-ray lithog. membranes by ECR CVD 6698
Y_2O_3-ZrO_2 electrolyte, tape cast, fracture toughness, SOFC 44389
fracture toughness testing
3D microstruct. assembling, Au-Si eutectic bonding 12951
finepitch surface-mount solder joints, fracture surface exam. 21644
flip-chip packages, low thermal expansion encapsulants, props. 132
molding cpd. materials for IC plastic packaging, fracture props. 5626
molding cpds. for IC plastic packaging, fracture props. 5671
porcelain insulators, mech. stress test methods 43791
PWR reactor internals, irrad. embrittlement 35863
GaAs LSI chips, back-grinding, mech. reliab. 1498
Y_2O_3-ZrO_2 electrolyte, tape cast, fracture toughness, SOFC 44389
frame based representation
boiler steam-water syst. diagnosis/monitoring, ES 19511
combinat. cct., hierarchical knowledge modelling *(Japanese)* 5970
continuous speech recognizer, context-depend., and models 32338
ECG diagnosis, real-time ES 10245
Los Alamos Nat. Laboratory gigabit network appls. 8918
spontaneous speech task, unanswerable queries 32290
frame relay
AD8600 series multimedia TDM *(Japanese)* 25155
ATM backbone, frame-relay traffic 41439
branch network strategies and protocols 8890
broadband telecomms. networks and ATM, survey 16792
commercial product eval. 41663
Compac's LMX 506 router-concentrator 25175
computer commun. service for high-speed data 41807
congestion avoidance networks, congestion estim. feedback 9016
congestion control in frame relay networks 25040
corporate network mgt. *(Japanese)* 16715
ERIPAX syst. switches and frame relay *(Croatian)* 3287
FASTPAC 16555
frame reservation multiple access perform. anal. 33837
interconnected LANs, desktop video conferencing syst. 33618
internat. service reliab. 41617
mixed X.25/frame relay networks congestion control 16447
packet-switching protocol, frame relay vs. X.25 *(Chinese)* 33600
packetized voice transm. 33396
Philips voice module for voice commun., data networks 41715
protocols and user interface 41809
simul. comparison of broadband networking, MAN config. 16761
switching syst. constr. technols. 41808
switching technol. and services 41424
USA, ATM and frame relay services 8816
VSAT networks, integrat., user network environ. 17159
Francis turbines *see hydraulic turbines*
Fraunhofer lines *see solar spectra*
Fredholm integral equations
2D elec. cond., two-step lin. inversion 40280
3D point-plane elec. field anal., Fredholm integral eqns. 40181
asymptotic error expansions and extrapolations, nonlin. integral eqns. *(Chinese)* 5789
M/G/1 queues with neg. arrival, iter. method appl. 20512
quantum limited OOK, opt. amplif., perform. bounds/cutoff rates 40564
quantum limited OOK, opt. amplif., perform./cutoff rates 40546
free electron lasers
1 MW 130-260 GHz free electron maser for fusion 39919
1D FEL model without slowly-varying approx. 39984
2D DFB, dyn. 2011
3D gain anal. of FEL, focusing PM wiggler 31429
3D simul. anal. of 3 cm wavelength FEL afterburner 2021
38 MeV L-band LINAC multibunch electron beam FEL expts. 39936
amp., freq. chirping and phase 31438
ang. steering 2022
beam quality and space charge effects 14987
Beijing FEL, saturated oscill., various params. *(Chinese)* 2012
Beijing FEL, wiggler, electron traject. improvement *(Chinese)* 31441
Beijing FEL saturation on undulator replacement 39938
Beijing FEL time resolved electron spectrometer, control/scanning syst. *(Chinese)* 34965
betatron oscills., undulator acceptance, beam conditioning 39967
biased double-well heterostruct. 7695
CEBAF FEL injector, space charge dominated perform. modelling 39974
CEBAF UV/IR FEL materials proc. subsystem testing 39920
Cherenkov FEL, high peak power 39909
Cherenkov FEL, Kerr-like medium loaded, efficiency enhancement 23319
Cherenkov laser, Kerr-like medium 7699
Cherenkov laser, nonlin. characts., particle simul. *(Japanese)* 31431
chirped pulse amplif., OHG, deep-UV radiation generation 39907
circ. FEL, expt. mode anal. 39914
CLIO FEL, step-tapered undulator, two-colour operation 39933
CLIO IR FEL, sub-picosecond laser pulse generation 39930
coaxial hybrid iron wiggler FEL theory 39916
collective regime, 3D coupled-mode theory 39928
compact RF linac FEL, advanced technol. 39891
Compton FEL, efficiency/gain enhancement 31435
Compton FEL oscillators, sideband instabilities, electron dyn. 40009
Compton FEL tapered undulator, high-power self-similar radiation pulse 39972
conf., Stanford, CA, USA (1994) 36818
conference, γ-γ colliders, Berkeley, USA (March 1994) 20216
Cs_2Te film photocathode electron source for Los Alamos advanced FEL 39943
CW compact operation, supercond. RF accelerator technol. 39893
DFB laser, time domain anal. 39926
dielec.-loaded Raman-type FEL, efficiency enhancement 2017
free electron lasers continued
DISKTRON electrostatic accelerator and laser-induced photoelectrons facility 31464
Duke storage ring UV FEL, dyn., 3D code 39957
Earth to space laser power beaming, FEL 35595
efficiency enhancement, incoherent pump wave, stochastic undulator, chaotic particle deceleration 39923
electron beam induced energy spread 2023
electron bunch trapping, optim. 39983
electrostatic accelerator based FEL, material sci. in far-IR 39987
electrostatic-accelerator FELs for power beaming 39925
ELSA FEL, 23 μm operation, MONA wiggler 39934
EM pumped FEL, space charge and axial-guide mag. fields effects on gain 14984
EM wiggler FEL, guide mag. field, chaotic electron trajectories 2016
EM wiggler for FEL expt., perform. 39889
external cavity systs., pulse stacking 39948
far-IR grating FEL, tunable, compact, high power 7689
FEL amp. based VUV and X-ray research, scientific opportunities 39988
FELINA VUV FEL, perform. study 39954
FELIX FEL, electron energy spectral meas. in large-slippage regime 40013
FELIX FEL user facility 14982
FELIX hole-coupled resonators, radial mode struct. influence on losses 39945
FELIX laser, coherent spontaneous emission 40005
fiber optics for FEL med. appls. 35152
FIR FEL, emission charact. meas. 39894
first expt. programs, FEL 14989
FOM 1 MW 200 GHz free electron maser mode purity, plasma heating appls. 39924
free-ion lasers, radiative ion cooling 39929
free-ion lasers, radiative ion cooling 7694
free-running IR FEL, submegahertz spectral resoln. 31433
G-band FEL amp. for cyclotron reson. heating in mag. fusion reactors 39921
gain, alternating-gradient focusing, scaling fn. 14991
gain calc., imperfectly matched electron beams 39975
gamma-gamma colliders, FEL, summary 23315
gas-loaded FEL, gain enhancement 7686
graphite mosaic monochromator cryst. for X-ray transport 10161
helical Cerenkov effect, novel radiation source 2185
helical wiggler, equilib. electron orbits nonlin. evol., magnetoresonance 43035
helical wiggler, transverse electron vel., nonlin. evol. 31437
helical wiggler with uniform axial guide, electron trajectories 43032
high power FEL, TW energies, γ-γ collider 23314
high power FEL electron output scheme, time-depend. multi-dimens. simul. 39922
high-gain Compton FEL pulse evol., nonlin. macroscopic eqns. 39976
high-gain Compton regime, strong coupling operation 39912
high-power self-similar radiation pulse generation 23316
hole-coupled FEL, light pulses slippage/scatt. 7692
hole-coupled reson. cavity, gain maximization 39947
intense microwave pulses, conf., Los Angeles (1994) 28206
intra-cavity light pulses, hole-coupling effect on transverse struct. 40017
ion-beam undulator, high-current electron beam propag., nonlin. wave procs. 43036
ion-channel guided X-band FEL, 1.5 MeV 39622
ion-channel laser, amplif. mechanism 2013
ion-channel laser, one-particle theory 7690
ion-ripple laser, effects of long. momentum spread 7696
ion-ripple laser kinetic theory, beam long. momentum spread 2015
IR FEL, compact design, perform. study 39895
IR FEL, down-shifted freq. pumping 39888
IR FEL, sideband generation, transit. to chaos, time-resolved study 40011
IR FEL based on gyrotron-powered EM wigglers 2020
IR FEL oscill., L-band electron linac, Osaka Univ. 23309
IR lasers, conf., Ascona, Switzerland (1994) 5485
IREB pumping 23317
isochronous storage ring FEL 23318
Israeli tandem electrostatic FEL project, resonator design and characterisation 39949
JAERI FEL project, hybrid undulator perform. 39964
KIAE-4 two-sect. undulator, mag. field test 43030
LEOS, San Jose, CA, USA (1993) 20270
linac based FELs for condensed matter vibr. dyn. study 40110
LISA supercond. linac, operation and perspectives 43023
long wavelength operation, slippage and diffr. effects 31430
low-emittance electron beams in electrostat. accel., FEL appl. 26062
LV IR FEL, gyrotron powered RF wigglers 39890
Mark III FEL, freq.-chirped opt. pulses obs. and characterisation 39932
Mark III FEL, hole coupling expts. 39946
maser, long. modes, fusion appls. 39625
maser, prebunched electron beam 39908
maser, spectral dyn. 39624
masers, table-top expts., low-cost electron-gun pulser 39628
masers, undulators electron beam transport 39626
med. FEL Compton X-ray program 10200
micro-lasers, microscopic gated field emitter arrays 39892
micro-macro temporal struct., saturation mechanism 39956
microtron-recuperator, FEL 4148
microwave and MM wave FEL with axisymmetric undulator, higher harmonic generation 39638
microwave FEL, groove guide interact. struct. 39621
microwave FEL, space-charge field meas. 2010
microwave FEL design, waveguide and wiggler tapering 23073
microwave inverse FEL accelerator 39913
microwave syst. based on open quasioptical waveguide 1840
millimetre wave FEL, wiggler focused sheet electron beams 39627
MKIII FEL, short pulse guiding effects 40014
MM wave FEL, reversed guide field operation 39637
MM wave FEL at Duke storage ring, pump for X-ray inverse Compton source 39629
MM-wave isochronous FEL, Duke storage ring 39630
MM-wave radiation source, dual grating resonator 2019
modified wiggler develop. for higher harmonic lasing 39963
NIJI-IV FEL storage ring, opt. klystron effect on electron beam 39959
NIJI-IV storage ring FEL, dielec.-coated cavity mirror degrad. and restoration 39962
NIJI-IV storage-ring FEL, UV lasing study 39953
nondispersive waveguide cyclotron reson. maser expt. 39623

free electron lasers continued
  open-boundary Cerenkov laser, dyn. behavior anal. 14980
  oscill., multibunch electron beam of L-band LINAC 39935
  oscillator, mode-locked, super-radiant radiation study 40007
  oscillator, radiation build-up time, electron beam micropulse shape effect 40008
  oscillators, space charge effects, chaos, self-oscills. 39971
  photocathode RF gun, laser driven, FEL operation appls. *(Japanese)* 29757
  photon lin. collider at SLC, 2×5 GeV, FEL-based 26033
  planar undulator, waveguide appl., large μ_c 39980
  plasma undulator constr. 39968
  plasma-loaded FEL, EM wave wiggler and axial guide field 7698
  power beaming, space 18729
  pulsed FEL amp., temporal/spatial phase vars. meas. 7688
  quasi-Cherenkov surface emitting FEL, linac 39982
  quasi-Cherenkov X-ray DFB FEL under multi-wave diffr. 39978
  radiation generation by short electron bunches, coherence effects 40006
  Raman FEL, bifilar helical small-period wiggler 2018
  Raman FEL, chaotic behaviour anal. 39911
  Raman FEL, freq., phase and saturation characts. 23310
  Raman FEL, Green fn. anal. 39917
  Raman FEL, spectrum spatial evol. 40010
  Raman FELs, bifilar helical small-period wigglers 31432
  Raman MM wave FEL meas. by pyroelec. energy meter *(Chinese)* 2009
  recirculating accelerator FEL syst., energy-current loss instabilities 39985
  relativistic charged beams, particle simul., using integral kernel method 31427
  relativistic electron beams, phase space tomography 39940
  relativistic klystron two-beam accelerator, RF power extraction 10090
  RF electron gun photocathode for FEL lasers *(Japanese)* 29758
  ribbon FEL, 1D DFB 39910
  self-field effects, 3D anal. 23311
  sheet beam planar wiggler FEL amplifier 23312
  short bunch RF-linac FEL, output power fluct. 3D simul. 39973
  short-period hybrid wiggler develop. 43031
  single-mode generation, stabil. loss 39955
  slow-wave FEL with dielec. loaded guide, hybrid mode anal. 7693
  Smith-Purcell FEL, amplif., single-particle classical theory 23313
  Smith-Purcell FEL, efficiency enhancement 23307
  space power beaming, PV cell pulsed laser illum. 43948
  space-charge effects, electron beam transport, 3D codes 31440
  spectra and intens. spatial profile visualisation 40015
  spectral anal., Green fn. anal. 39977
  spectral dyn., electron beam energy modulation 31428
  spontaneous emission, ang. spectrum, wiggler *(Chinese)* 14983
  SR source undulator design, simulated annealing 31731
  standing wave FEL two-beam accelerator, beam-break-up 34823
  Stanford FEL cavity length meas. by external laser reson. 39939
  Stanford FEL wavelength shifting 39937
  Stanford mid-IR FEL micropulse temporal charactn. by "FROG" 39941
  Stanford picosecond FEL, modelocked Ti:sapphire laser, sync. 31280
  static and dyn. plasma wigglers 39969
  status in 1994, review 39986
  step-tapered undulator, self-ASE 40012
  stimulated radiation from electron beam traversing, inhomog. EM wave 40268
  storage ring FEL, electron beam long. dyn. 39951
  storage ring FEL, opt. field chaos 14990
  storage ring FEL, radiation power stabilisation 7687
  storage ring FELs, mirror degrad. and heating 39961
  storage ring UV FEL, giant laser pulse generation 39950
  storage ring UV FEL, opt. cavities 39960
  sub-picosecond FEL micropulse length and electron bunch meas. 39931
  submillimeter wavelength CARM electron opt. syst. 39915
  Super-ACO FEL micropulse, dyn. behaviour 39952
  Super-ACO free electron UV laser, stabil., long. feedback 39958
  super-ACO UV FEL, time resolved fluoresc. appls. 14988
  supercond. FEL, harmonic generation, end fields 39966
  supercond. undulator, harmonic generation, mag. field meas. 39965
  SW coherent light source, SLAC linac 31434
  SW FEL, periodic plasma struct. 14986
  SW FEL amp. undulators 39899
  SW FEL amps., perform. simul. and param. optim. 39900
  SW FELs, electron beam accel. and compression 39898
  TEU-FEL project 14981
  tunable powerful FEL laser technol. 2014
  TW interact. re-exam. 1000
  TW interact. scaling laws 39979
  two-freq. undulator, lin. anal. 7691
  two-freq. undulator FEL, space-charge effects 14985
  ubitron, amp. operation and perform. 39620
  UHF free-electron maser oscillator expt. 39918
  ultra-short high-power pulse prebunched FEL 31439
  ultra-short pulse FEL oscillators 39970
  ultrashort UV FEL 7697
  undulator with anharmonic mag. fields, focusing props. 43033
  undulators, distorted orbits, electron trajectory, Fourier anal. 43034
  user expts., diagnostics and control 40016
  UV/X-ray FEL, high-gain single pass amps. 39896
  UV/X-ray FELs, single-pass, milestone expts. 39901
  VUV/soft X-ray FEL, subfemtosecond pulse generation, modulation techs. 39902
  waveguide FEL, reson. freq. branches 23308
  waveguide FEL amp., low- and HF waves 39981
  wiggler ubitron amp., design and perform. calcs. 39927
  wiggler-pumped FEL, controlling param. 31436
  X-ray FEL, electron beam source, klystron undulator simul. 39905
  X-ray FEL, high-brightness RF photocathode guns 39897
  X-ray FEL, perform. charact., param. sensitivities 39903
  X-ray FEL project, focusing undulator prototype 39906
  X-ray multisection FEL, dispersion and undulator sects. 39904
  X-ray prod. from relativistic electron beams 10160
  Cs_2Te Los Alamos FEL photocathode electron source 39942
  Cs_2Te photocathode electron source for Los Alamos advanced FEL 39944
  LaB_6 FEL photocathode photoemission studies by ns KrF excimer laser 38207

free field rooms *see anechoic chambers*
free induction decay (optical) *see optical coherent transients*
free software *see public domain software*
freezing
  see also refrigeration
  ITS-90 temp. of Ga m.p./Hg freezing point 34322
freight handling *see goods distribution*
Frenkel defects
  ion implant., point-defects, lateral diffusion 22114
  Si HI tracks, nonequilibrium carrier recomb. 29832
Frenkel-Poole effect *see Poole-Frenkel effect*
frequency agility
  see also frequency hop communication; information theory
  coherent mode locked TEA CO_2 LADAR for risk reduction and phenomenology expts. 17443
  dual-band circ. polarized microstrip patch antenna, anal./design 31930
frequency allocation
  2.3 GHz TV broadcasting, mobile live reporting *(German)* 34222
  2-level SCPC syst. carrier freq. assignment, intermodulation product minimization 42334
  3D wireless indoor commun. syst., uplink/downlink anal. 33921
  10 Gbit/s repeaterless WDM fiber transm. 9466
  adaptive antennas in mobile commun. base stations 9394
  aggressive handover algm. for mobile networks 3396
  AM/QPSK hybrid opt. transm. systs., BER depend. on CTB 9559
  ATM networks, worst deterministic pattern allocation strategy 33196
  automated tools for EM spectrum mgt./use 15464
  basestation antenna array syst. for spatially selective transm. 17069
  CDMA, TU Delft research, overview 25255
  CDMA overlays for FDMA satellite commun. systs. 25465
  CDMA PCS syst. perform., simul. results 3384
  CDMA/FDMA satellite commun. systs. overlay, perform. anal. 25466
  cellular commun., cyclic sigs. adaptive beamforming 3371
  cellular environ., self-adaptive channel allocation strategies, PRMA 9248
  cellular handover proc. model, limited queuing time 42208
  cellular mobile commun. channel assignment by neural net 42269
  cellular mobile networks, dyn. modeling 3403
  cellular mobile networks, freq. assignment 25423
  cellular mobile radio networks, freq. planning 33860
  cellular mobile syst., additional channel assignment by graph theoretic model 33932
  cellular mobile syst. nominal channel allocation optim. 42203
  cellular network overlapping channel assignment tech. 42201
  cellular networks, freq. assignment 9254
  cellular networks with dyn. channel allocation, perform. 9344
  cellular radio, correl. co-channel log-normal interferers 17047
  cellular radio, distributed algms. for dyn. channel allocation 25420
  cellular radio, freq. assignment 42278
  cellular radio, wide area coverage, freq. planning 42190
  cellular radio channel assignment, channel borrowing 25323
  cellular radio channel assignment via power level control 9256
  cellular radio syst. generalised reuse partitioning method 33810
  cellular syst. all-channel concentric allocation algm. 42204
  cellular syst. Channel Borrowing Without Locking 33812
  cellular syst. freq. planning matrix anal. 33809
  cellular syst. models, meas. propag. data 9313
  cellular syst. variable C/I threshold distributed adaptive channel allocation scheme 33806
  cellular systs., phantom cell anal. of dyn. channel assignment 9247
  CIS countries, spectrum mgt. 23699
  Croatia, radiocommunications on inland waterways 42537
  Croatian radiocommun. primary freq. reception probab. *(Croatian)* 3311
  D1900 micro cell indoor/outdoor appls. 25435
  DAB freq. block allocation, aid of simulated annealing *(German)* 9691
  DAB in Canada 42574
  DECT handover and channel mgt. schemes for indoor scenarios 8849
  distributed dyn. channnel inform. assisted reuse partitioning 25418
  dual cellular syst. channel asignment methods 33814
  dyn. channel allocation algm., transmitter power control 9252
  EBU studies on DAB freq. planning *(German)* 9690
  embedded ATM networks, distributed pricing 41677
  Ericsson's CME 20 implement., GSM network soln. 33771
  European GEO and freq. resource allocation, economic assess. 33306
  fair distributed queue network priority schemes 41479
  FDMA systs. using multi-beam satellite, optimal carrier freq. assignment *(Japanese)* 25448
  fixed/hybrid dyn. channel allocation schemes perform. 9331
  future public land mobile telecomm. and fixed services, freq. sharing feasibility 42198
  future public land mobile telecomm. systs. 3367
  Future Public Land Mobile Telecommunication Systems 25424
  genetic algm. appls., freq. assignment problems 9199
  global and distributed dyn. channel allocation algms., perform. comparison 9244
  Globalstar PCS, satellite-terrestrial systs. integrat. 33912
  GSM network, adaptive antennas for freq. re-use 9395
  GSM network evol. 3449
  handoff/service area determ., pattern recogn. techs. 3398
  hierarchical cellular syst., dyn. channel allocation/speed estim. 3397
  high dens. SDMA, double freq. reuse 25421
  high-capacity cell config. strategy 33811
  highway cellular radio dyn. channel assignment failure rate 33805
  Hopfield neural networks, dyn. channel allocation tech. 25417
  IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
  indoor 3D cellular syst. fixed channel assignment plan 33804
  indoor mobile radio, burst-level ARQ error protection 17054
  indoor pico-cell radio syst., spectrum requirements 25339
  integrated voice/data network, cellular packet CDMA, perform. 17131
  intell. vehicle/highway syst., packet-switched commun. 3460
  intelligent multi-access spectrum-sharing methodology 41467
  intermediate reuse factors for capacity eval. 17058
  INTERSPUTNIK, internat. global syst. of satellite commun. 33939
  ITU mobile radiocommunications freq. spectrum allocation *(Japanese)* 33904
  ITU-R DAB System A, local broadcasting issues 42578
  layered cellular struct., optimum resource mgt. strategies 25392
  LEO/MEO/GEO global mobile satellite systs., interf./fading 25308
  MARR and VSATs, simplified SACFA procedures 3353

frequency allocation continued
micro-cellular networks, QOS provisioning for real-time traffic 25393
microcell overlaid, umbrella cell syst. 17059
microcellular aggressive dyn. channel assignment 3342
microcellular radio, distributed control channel allocation 9351
microcellular systs., compatibility matrix learning 9253
microcellullar systs., distributed adaptive channel assignment 42297
microwave radio commun. systs., DSP and VLSI technol. 25223
Mitsubishi Electric multi-channel access syst. *(Japanese)* 33897
mobile commun. services, digital modulation techs. 17033
mobile commun. syst. dyn. channel assignment by ANN *(Japanese)* 17135
mobile networks with bursty user mobility, dyn. channel allocation 25338
mobile satellite networks, handover queuing, dyn. channel allocation 25316
mobile satellite systs., freq. reuse, interf. anal. 9212
multiservice VSAT networks, adaptive multiple access, dyn. channel allocation 17160
multiwavelength European opt. transport network 42368
NEC's digital cellular base station syst. *(Japanese)* 17081
non-geostationary satellite technols. for future commun. systs. 9411
office building, propag. charact. meas./freq. reuse 9322
opt. space commun., second generation opt. terminals 34045
optimal freq. distrib. in group of radio links 3315
PCN, client-server-based handover scheme 42247
PCS, non-blocking channel assignment for hand-offs 25422
PCS, spectral efficiency of multitone freq. hopping syst. 9217
PCS hand-off and init. access, queueing channel assignment 25391
PSK M-ary modulated sigs., CCI estim. 33884
quadratic correl. archit. based single loop synthesizer and modulator 9176
radio systs., coexistence etiquettes, continuous dyn. channel selection 9246
radio transmitter network, freq. assignment problem 3659
radiocommunication, technol. and regulations 25627
real-time appls. in CRMA network, perform. anal. 41525
residual and suppressed carrier systs., bandwidth, unwanted emission 32029
satellite commun., optimum freq. assignment, neural networks 33948
sectorized cellular commun., channel borrowing without locking 3345
self-organizing cellular systs., single-channel user-capacity calcs. 17105
shadow fading dyn. channel assignment and power control capacity 42202
slow FH-GSM freq. hopping GSM 9288
SONET-based self-healing mesh network real-time bandwidth allocation and path restorations 41652
spatially distributed radionets, freq. assignment algms. 25643
street microcellular syst., channel allocation, distributed control 25419
TDMA access for third generation cellular commun., resources 25394
TDMA mobile radio systs., CCI suppression 9393
TDMA syst. capacity enhancement by adaptive channel allocation and power control 33203
TDMA syst. perform. in outdoor microcellular environ. 33828
TDMA/FDMA wireless access, dyn. channel assignment/power control 9243
UK independent sector RDS, current regulations/future issues 34206
UMTS revisited 9386
United States PCS policy and rural develop. 3114
VHF 3D cellular systs. for air-land commun. 25409
WARC 77 plan modernisation *(Croatian)* 3645
wide-area cordless telephone and urban cellular radio, CAI 17043
wireless cellular commun., dyn. channel assignment, parallel simul. 25291
wireless cellular network distributed dyn. channel allocation algms. 42229
wireless LAN TDD channel contention-based reservation protocol 41820
wireless networks, resource allocation 9245
wireless pers. commun., overview 17107
wireless pers. commun., TDMA methods 17109

frequency changers *see frequency convertors*

frequency chirp *see chirp modulation*

frequency control
see also automatic frequency control
3-phase induction motor, single phase supply, phase converter 11377
10 kHz inductively coupled power transfer, elec. vehicle appls. 5344
AC drives, freq. control algms. formulation 28079
adaptive load freq. control with dual-rate sampling, design method 35559
adaptive phase control, RLS phase estim. 40799
adjustable freq. quasi-reson. inverter, characts. *(Japanese)* 11135
air-cooling fan, async. motor drive, quasi-freq. control 28177
autonomous voltage inverters, μP control 5100
combined cycle gas turbine power plants, freq. control capability 43933
combined cycle power plants, freq. regulating duty dyn. response characts. 43932
composite vol. acoustic wave resonators, freq. control 39120
coupled oscillators, modulated sigs. sync. 12367
cryst. oscillator compensation in DDS/PLL appl. 21135
current-conveyor-based single-element-controlled oscillator 37668
cycloconverter multiple noninteger harmonics, act. filtering 5125
DC motors, motion controllers, software switch 19662
discontinuous PWM preregulators, conducted EMI reduction 11161
double-mass induction motor drive, vibr. control design *(Russian)* 28096
elec. drives, high inertia, optimal control design 5277
elec. utility generating units, freq. response capability develops., UK 43704
electrolarynx with pitch freq. control fn., eval. *(Japanese)* 35166
EUROSTAG software, power syst. dyn. simul. 19144
FACTS inter-area dynamics, nonlinear modelling 19138
FADOF filter for space borne opt. commun., Doppler shift compensation 17325
flexible AC transm. systs., steady state/dyn. perform. eval. 35613
generating plant freq. control capability, IEE Colloquium, London (1995) 20254
HF reson. inverter freq. control, induction heating appls. 36789
HF series reson. inverter, PFM/PWM control strategies 5388
HF series reson. PWM inverters, induction heating appls. 5123
high-starting-torque load motor drives, AFC appls. 20081
HVDC links, power syst. enhancement 27140
hydraulic turbogenerators, intell. sync. control *(Chinese)* 10877
hysteresis current controlled VSI, switching freq. control 11137
induction motor drive freq. converters, IGBT-based 44456
induction motor drives, control, DC chopper 28081
induction motor drives, duty cycle-based V/f inverter control 20059
induction motor drives, freq. control *(Russian)* 36662
induction motor drives, PWM convertor-fed, choice and spec. 36691
induction motor quasi-freq. control design 27721
induction motor starting, optimal control anal. *(Russian)* 11012
induction motor vehicle drives, static characts. modelling *(Russian)* 44570

frequency control continued
inverter, parallel capacitor compensated, transients, stroboscopic anal. 5391
islanding strategies for regional power producers 27021
ISO9000 quality syst. std. implement. in small company 28518
joint automatic generation control regulation 4580
LIM drive coil winding actuators, control design 44257
multimachine power systs., freq. control requirements 43703
network/generators protection coord., CIGRE survey 27664
plasma-beam oscillator, sig. stochastization mechanism 994
power syst., emergency freq. control, fst underfreq. relay 4533
power syst., two-area load-frequency control with neural nets 19113
power syst. assoc. control services, generator level experience, France 43705
power syst. decomposed fuzzy control 26942
power syst. fuzzy optimal load freq. control design *(Japanese)* 43682
power syst. load freq. control, disturbance accommodating optimal controller *(Korean)* 26988
power syst. load freq. control, neural net-based 4542
power syst. load freq. optimal PID controller design *(Korean)* 26922
power syst. load-freq. control, H_∞ optim. 43675
PWM AC/AC power convertor, freq. control method 29044
PWM inverter-mounted induction motor, design 5306
radar systs. 42522
radar systs. freq. control requirements 42521
reson. power sources, freq./phase regulation, chokes 5092
Russian unified power grid, power flow/freq. control 10639
S-band TT&C up link transmitters, DDS 42740
sapphire resonator-oscillator, cryogenic, exceptional stabil. 30624
series reson. convertor with third-order commutation network 36306
single-resist.-controlled VCO, current conveyors 21144
steam turbine robust controller design 35968
steam turboalternator freq. control governor design 43909
symposium, Boston, MA, USA (Jun. 1994) 28221
symposium, Salt Lake City (Jun. 1993) 34
three-phase induction-motor variable-speed drive regulation *(Italian)* 19619
three-phase PWM inverter voltage control, μP-based *(Russian)* 11108
thyristor inverters, freq./voltage optimal control design 5098
turbines, intell. adaptive controller 43816
Unified Power Syst., power freq. control *(Russian)* 27049
universal motor cycloconverter control, microcontroller-based 44002
variable freq. induction motor drive, pulsating torque compensation 5290
ZCS-QRC, two fully regulated outputs 19806
ZVS forward multi-reson. converter, saturable core 12331
CO_2 slab waveguide lasers , mode and freq. control 39656
H masers Frequency control, high accuracy calibs. 39635

frequency convertors
see also frequency dividers; frequency multipliers; microwave frequency convertors; millimetre wave frequency convertors; mixers (circuits); optical frequency conversion; UHF frequency convertors
130 kV rly. power syst. operation optim., Sweden 44534
1500 W freq. converter, direct bond Cu substr. 37068
AC drives, freq. control algms. formulation 28079
AC motor drives, asynchronous μP control design 36637
AC/AC converters, vector control, min. energy storage 19758
ASCR thyristor-based CSI, induction heating appls. 36790
asynchronized sync. machines, self-contained power systs. 44028
asynchronous machines, integrated rotor studies *(Russian)* 11013
cement plant roller press drives, induction motor/freq. converter 5420
DC converted power systs., energy conservation benefits 35615
gas turbine PM generator cycloconverter, digital control 10859
induction machine reactive power, math. anal. *(Russian)* 44056
induction motor ASD, freq. converter driven, acoustic noise 5251
induction motor drive, control methods, high dyn. perform. 11356
induction motor drive freq. converters, IGBT-based 44456
induction motors, PWM power convertor feed problem calcs. 27730
injection-locked oscillating freq.-converters in dyn. phasor-domain, perturb. 6261
IQTV multipurpose scanning rate converter IC 25664
LINC transmitter, combined analogue locked loop universal modulator 3322
Maglev rly. inverter harmonic suppression method 11423
matrix freq. converter, PWM control techs. 5129
multichannel environ., direct upconversion, reconstruction filters 25230
multichannel transmitters, DSP/direct conversion 3323
PM machines, energy optimising control techs. 44000
PWM AC/AC power convertor, freq. control method 29044
rly. traction syst., public grid interconnected, load flow 28109
rocket-borne downconverter, space plasma turbulence meas. 35310
SEC 51C803/804 three-phase microcontrollers for variable-speed asynchronous motor drives 29263
SEC 51C803/804 three-phase microcontrollers for variable-speed drives 5246
self-excited brushless multifield induction generators 11049
static neg.-phase-seq. current compensator, rly. 44537
steel, induction heating, load/freq. converter influence 44597
sustained oscillator systs., noise characts. and conversion 12354
three-phase AC motor drives, freq. converters, interf. suppression 5042
three-phase induction motor speed control *(German)* 11029
variable speed induction motor drives, peak voltage appl. 11336
variable speed induction motor drives, vibro-acoustics anal. 28092
GaAs IC, conf., San Jose, USA (1993) 36852

frequency convertors, optical *see optical frequency conversion*

frequency dividers
1/2 regenerative freq. divider, input sensit., low-pass filter influ. 783
900 MHz transmitter syst., highly integrated ASIC 9353
bipolar static freq. dividers, T-type flip-flops 12475
broadband freq. synthesizer, increased operating speed 564
CMOS high-speed freq. divider for RF freq. synthesis 21263
current mirror type astable multivibrator *(Japanese)* 29428
digital divider cct. for laser-beam-pointing stabilization syst. 40003
digital PLL, wide locking range, fractional divider *(Japanese)* 37676
high speed MMICs/digital ICs, fab., T-gate technol. 858
high-speed freq. dividers/PLLs in deep submicron CMOS 21394
induction motors, single/3-phase, speed control, AC regulators, freq. division 11034
microwave freq. divider chip 29593
Miller integral-type SC multivibrator based freq. divider 21468
SC voltage controlled sine-wave oscillator 29070
systolic freq. dividers/counters, cct. implement. 620
wideband 1/2 regenerative freq. division, LSB-SSB modulation 29427
AlGaAs-InGaAs MODFET based broadband dyn. freq. divider 38016

frequency dividers continued
GaAs high-speed digital IC, direct electro-optic sampling *(Chinese)* 13858
GaAs tri-state driver flip flop, HFET LSI 37718
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046

frequency division multiple access
CDMA gap-free fit channel access protocol 41494
CDMA overlays for FDMA satellite commun. systs. 25465
cellular base station phased array antenna syst 33794
cellular systs. capacity, ACI effects 3334
DS-SS cordless telephone *(Japanese)* 25149
DS-SS overlay for satellite commun. syst. 33971
Earth satellite commun. systs. with low orbits, Doppler shift effects 17146
FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
fibre gratings, demultiplexing filters for WDMA networks 39345
LEO/MEO/GEO global mobile satellite systs., interf./fading 25308
mobile user satellite systs., multiple-access capacity 25302
opt. transm., LD nonlin. effects 34030
optimal carrier freq. assignment for FDMA systs., multi-beam satellite *(Japanese)* 25448
pan-European GSM signalling for Abis interface 3448
PCN, handoff criteria 9378
S-CDMA fibre optic systs., seq. designs 2892
satellite commun., optimum freq. assignment, neural networks 33948
satellite commun. systs. overlay, perform. anal. 25466
SAW filter matrix for satellite SS/FDMA syst. 14092
SCM CDM opt. LAN, theory and expt. 16716
SS-orthogonal FDM syst. combination, interfer. rejection 33746
static wavelength router all-opt. network crosstalk penalty 42425
two-sect. DBR laser transmitters in opt. FDMA networks 9500
WDMA network, acousto-optic tunable filters and TAXIChip-based control channel 9562
wide-area digital mobile wireless syst. *(Japanese)* 33899
wireless access, dyn. channel assignment 9243
Er-doped fiber amp. lossless wide-band reflective star coupler 17177

frequency division multiplexing
see also wavelength division multiplexing
16 QAM modulation, OFDM in Rayleigh-fading channel 9218
16-channel 622-Mbit/s FDM heterodyne syst., error-rate degrad., fiber four-wave mixing 17218
acousto-optic tunable filters, near-ideal bandpass charact. 7417
analog opt. converter modules *(Japanese)* 25511
ASK opt. transmitter, 790 nm LD for LANs 25507
AT&T/DEC/MIT precompetitive consortium on wideband all-opt. networks 34049
broadcast multipath environ., multicarrier modulation perform. 34224
CATV 151-channel AM-FDM transm., 1.3 μm SL-MQW-DFB laser, high opt. output power 25542
CATV near-future archit., broadcast channels capacity 42616
CATV videocommun. networks, AM-VSB TV sig. opt. transm. 17570
CDMA commun., CW/narrow-band sigs. interf. suppression 33749
CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
channel demodulator IC for DAB, design, silicon compiler 21155
channel residual damping depend. on carrier freq. separation *(Russian)* 15695
channel selection filter, arrayed-waveguide grating multiplexer 9433
COFDM for TV broadcasting, overview 42560
coherent freq.-hopped CDMA, wavelet orthogonal FDM 33210
CPFSK wavelength-switched systs., coherent/noncoherent detect. 9501
cross-connect opt. systs., FDM technol. 9145
DAB in Canada 42574
digital terrestrial TV broadcasting, transm. techs. 34221
digital TV for terrestrial broadcasting, modulation 17534
digital TV sig. broadcast 34204
direct detect. opt. systs., LMS filters, ISI reduction 9607
direct detect. opt. systs., zero-forcing elec. filters 41099
double half-bandwidth OFDM syst. for digital video broadcasting 9698
DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
Fabry-Perot single-cavity demultiplexer OFDM networks, finite laser linewidth 25529
FFT, 8192 complex points, single-chip implement. 21377
fibre-optic interferometric sens., TDM/FDM comparison 17903
FITL syst., opto-electronic IC impact 42052
FM microwave receivers, PCS sig. interfs. 25377
FM multiplex broadcasting syst. DARC devel. by NHK 42264
four-channel freq. locking, fibre-fed Fabry-Perot filter 17328
four-channel high-dens. opt. FDM add-drop multiplexing filter 17200
FRONTIERNET freq.-routing-type time-division interconnection network, FDM output buffers 9150
guard interval in orthogonal FDM, multipath channels 2885
high speed data communications for rural areas 8826
interchannel interf. in FDM coherent opt. networks 17271
Michelson interferometer sens., multiplexing in matrix array topol. 34528
Mitsubishi 16-channel 622 Mbps FDM coherent opt. commun. equipt. 34003
mobile satellite commun., channel-indiv. adaptive beamforming 25321
multicarrier transm. schemes, block coding 8109
multicarrier transm. tech. in cellular systs. 9216
OFDM, guard interval and sub-channel equalization for digital TV broadcasting 9699
OFDM for digital TV broadcasting 3646
OFDM in amplit. limiting channel 8106
OFDM systs. for freq. selective fading channels, freq. sync. algms. 8091
OFDM transparent cross connect, TV channel switching 17223
OFDM-LAN transparent all-opt. interconnection 17346
opt. FDM cross-connect switch, delayed self-duplex light source and opt. time-slot interchanger 17202
opt. fibre FDM FSK syst., channel spacing, crosstalk *(Chinese)* 42354
opt. fibres for ultra-high capacity telecomm. *(Japanese)* 3545
opt. FSK-FDM heterodyne detect. syst., cross-PM 17217
orthogonal FDM based syst. for multiaccess methods testing 9329
orthogonal FDM for mobile radio 9214
orthogonal FDM frame sync. offset, decision-directed MLE 9432
orthogonal freq. division modulation method allowing hierarchy reconstruction *(Japanese)* 41425
orthogonal multi-carrier FH-CDMA schemes for freq. selective fading *(Japanese)* 25280
PCN interoperable licensed/unlicensed wireless access 33842
posn. detect. of multiple light beams 17781

frequency division multiplexing continued
pretransmisson nonlin. channel compression in SCM lightwave systs. 17212
radio LANs and MANs, IEE Colloquium, London (1995) 36864
rearrangeable nonblocking polymer waveguide thermo-optic switching matrix 30962
satellite earth station sig. distrib., opt. phase division multiplexed transm. 17339
shallow water acoustic channel, multicarrier transm. syst. design 17462
spectrum-sliced fiber-amp. light source for multichannel WDM appls. 9599
SS-orthogonal FDM syst. combination, interfer. rejection 33746
three-channel FDM fiber-optic LF voltage sens. 9921
triple-coupler ring-based opt. guided-wave resonator, transmittance charact. 22894
two-sect. DBR laser transmitters in opt. FDMA networks 9500
wide free-spectral-range opt. resonator, FDM transm., novel archit. 17168
wireless LAN, high perform., implement. 25058
Er-doped fiber amp., dyn. gain compensation for multiwavelength transm. systs. 9598
InGaAsP-InP tunable DFB laser freq.-drift suppression 9596
InP monolithically integrated tunable polariz. diversity heterodyne receiver OEIC 25484

frequency-domain analysis
see also frequency-domain synthesis; time-frequency analysis
2D and 3D conducting wedge problems, transient image theory 7953
2D freq. domain, least sq., sig. and syst. modeling, lin. approach 8436
864 to 868 MHz portable telephone indoor propag. loss anal. 33776
RC calibration standards, multifreq. binary testing 25704
AC/DC multi-machine power syst., SSR, shaft torsional vibr. *(Chinese)* 35470
adjacent vias in multilayered digital ICs, coupled noise anal. 12394
analog syst.-level fault diagnosis, symbolic method 12269
analogue nonlinear ect., freq. domain simul. 21088
anistropic channel waveguide coupling, finite-difference freq.-domain anal. 31897
audio sigs., perceptual meas. schemes, filter banks constraints 40891
behavioral simul. for analog syst. design verification 28943
blind channel ident. based on second-order stats. 24003
blurred images, point source localization, eigenvector based method 8557
bone marrow smears, abnormal cell screening, automated image anal., spatial and freq. domains 43261
borehole radar sig. ident., time-freq. distrib. 26706
broadband max. energy array, spatial/freq. constraints 41013
cardiovascular syst. variability anal., multichannel power spectrum dens. 26282
CDMA opt. systs. based on spectral encoding of noncoherent sources 41470
CELP speech coding, almost no codebook search 32387
CFH, complex freq. hopping anal. of interconnect networks 21083
CMOS current mirrors, freq. domain anal. *(Italian)* 37643
coaxially driven axisymm. microwave structs., modelling 6298
Colpitts oscillator, resistive nonlin. charact., phase/oscill. freq. *(Slovenian)* 12366
complex sig. reconstruction from time-freq. magnitude 24271
composite frames, spectral characts./motion-compensated restoration 16315
computational opt. sectioning microscopy, EM algm. 16220
current-source parallel-reson. DC/DC converter 36335
dampled sinusoidal signals anal. freq.-domain 24235
DC/AC switched-mode PWM inverter, stabil. anal. 11127
DC/DC PWM power convertor, small-sig. modelling 11148
deconvolution from wavefront sens., lin. and speckle image reconstruction 16212
dielec. interface, transient scatt. responses *(Japanese)* 40325
digital terrestrial TV broadcasting, transm. techs. 34221
discrete lin.-quadratic filtering 8361
distortion source identification in power system 27283
Doppler portrait, radar target image synthesis by math. simul. 17380
drill strings, sound wave propag. 43562
dual-channel iter. speech enhancement, auditory-based spectrum 8220
ECG late pot. anal. in freq. domain 43292
EHV transm. network oscillatory param. ident. 4625
EM, computational methods and considerations 40178
EM suscept. testing in time/freq. domains 15470
equiv. transm. line model for EM penetration, reinforced concrete 40377
external cavity fiber grating laser, coherent opt. freq. domain reflectometry 18122
FIR channels blind ident. via antenna arrays 8366
FT of translating objs. image, diff. eqn. 24381
fund. freq. contours, quantitat. description/differentiation 2407
generic cct. response interpolation for robust design, freq. domain simul. 37585
H_∞ criteria, robust sig. estim. 41012
hard disk freq. domain nonlin. meas. method 7183
high-speed VLSI interconnects, freq./time domain simul. 12287
higher-order stat. sig. proc., freq.-domain estim. 8314
HV impulse test results, digital anal./proc. 11731
HVDC convertor, waveform distortion, freq. domain anal. 19234
hybrid opt. syst. for freq.-domain texture class. of imagery 16271
identification of processes with output drift, freq.-domain 25700
IEEE conf. on instrumentation/meas., USA (1993) 20198
image restoration in freq. domain, EM algm. 16391
impulse responses ident. by wavelet transform. 8256
induction motor starting transients, simul. algm. 19631
induction motors, inverter fed, 4-pole interconnection, reson. freq. 11361
infinite periodic arrays, radiation/scatt., 3D hybrid FEM/BEM 31780
IR multiposition sensor syst. charactn. 34513
iterative frequency domain deconvolution, microstrip line appl. 24229
Laplace domain FEM, diffusion/propag. problems in elec. engng. 278
lin.-quadratic sys. ident., freq. domain region 24213
line extraction from image, variable Hough transform *(Japanese)* 16300
line segment of polynomials, stabil. 12256
low temp. cofired ceramics, pass. elements, RF-design 28463
low-bit-rate speech coding, 2D transform 32252
macromodelling series-reson. convertor ccts. 21469
Maglev on-board power supply lin. generator, math. model 36759
MIC package EM modelling 21577
microwave ccts., pole-zero computation, multipoint Pade approx. 21528
MMP-CG-PET, param. estim., MMP code, conjug. gradients 15211
mode-space spatial spectral estim. for circ. arrays 2560
multi-conductor transm. lines, pulse responses, partitioning tech. 15547
multiconductor transm. lines, field coupling, exact SPICE model 25201

frequency-domain analysis continued
multifrequency test vector generation for analog cct. testing 5593
multigenerator power systs., damping anal. program 4486
multilayer-multiconductor transm. line network, pulse propag. *(Korean)* 37931
multipath mobile channels, simul./modelling 3410
multiwindow method for array spectrum estim./sinusoid detect. 2473
mutually coupled line propag. charact., digital anal. method 40394
non-Gaussian sigs., noncausal ARMA models, param. estim. 40834
nonlin. microwave ccts., freq.-domain simul., harmonic bal. method *(Chinese)* 28994
nonlin. RCS, higher-order spectra 42497
nonlinear disturbance errors in lin. syst. identification 25701
nonstationary random sigs. detect. in colored noise 41055
Northern American Digital Cellular Syst. adaptive algm. fading channel tracking props. 33825
orthogonal FDM for mobile radio 9214
oscilloscope waveforms and their representation 5945
overhead power lines, pulsed plane wave EM field induction calcs. 19304
param. estim. based thermal diffusivity/cond. determ. 42969
paraunitary matrices factorization, pairwise mirror-image symm. 40845
partially adaptive beamforming for correl. interf. rejection 32558
PCBs design, refl. and crosstalk effects simul. 907
PD sig. generation transm. and acquisition 22643
perfect reconstruction subband coding stable IIR filter banks 15938
phased array packages, interconnects, HF charactn. 28461
photothermal meas., freq./time/hybrid methods 10055
power converter, SCR, EMI conducted noise emission, EMC study 36240
power syst. dyn. security assess., ELISA ES-based 26861
power syst. harmonic penetration studies, load modelling 4478
power syst. harmonics meas./calc. 35691
power syst. model reduction, Hankel-norm approx. 4493
power syst. SSR damping, SMES-based 10681
printed antenna computation, SVD tech. 23846
printed transverse dipole arrays, design *(French)* 2343
PSS, design, μ synthesis 43671
PV array/batt. power switch network, nonlin. SPICE model 27635
quasi-stationary EM waves meas. by peak level detect. in freq. domain 23740
radar data, single and full-polariz. 2-D Prony techs. 17396
reactive power, Mean Generalised Content 4469
recursive time-freq. methods for dyn. systs. 24257
repeated-root (cyclic) codes, freq. domain description 32149
robustised broadband freq. domain LMS adaptive beamformer 8377
Rohde & Schwarz TV Network Analyzer SOKF, integral digital oscilloscope 9832
room impulse responses approx. based on wavelet decomp. 15991
scalar sig. separation, decorrelation 32697
sens. irrelevancy testing, backward elimination/stepwise regression 11409
separable-denominator 2D digital filters, optimal design *(Japanese)* 21432
short time FT based time-freq. distrib. 24241
sidelobe control in SAR imagery, nonlin. apodization 34118
sig. constellations based on hypercubes 40576
single-phase nonsinusoidal ccts., power decomp. *(Chinese)* 43647
small reinforced concrete building, EM field atten. 40376
solar collector dyns. ident., phys. model-based approach 27974
solid rotor turbogenerator, equiv. ccts. anal. 27660
sonar anal., adaptive data extrapolations in time-freq. representations 9672
spaceborne wide swath SAR scansar sig. proc. *(Chinese)* 42515
speech pitch-/time-scale modif., non-parametric techs. 40729
SPICE model for multiconductor transm. lines, EM field excited 8010
squirrel cage motors, inverter-fed, 2D FEM, freq. domain 36164
SS sigs., freq. domain delay/multiply receivers 42154
SS-orthogonal FDM syst. combination, interfer. rejection 33746
STFT anal., frame-adaptive techs. for quality vs. efficiency tradeoffs 32766
substation struct./grounding syst., lightning strike, transient anal. 44251
surface profiling, light interferograms freq.-domain anal. 18066
target HF ultrawideband radar sig. response, PO computation 34127
telecomm. cables lightning currents interf., computer model 15539
three-phase power systs., time/freq. domain decomp. 4467
time delay estim., integrated polyspectrum 32617
time-varying channels, optimal tracking, freq. domain approach 15891
transient plane wave coupling, bare/insulated cables in lossy half-space 31869
transient sigs. separation 24258
transm. line, crosstalk coupling, digital noise propag. 25200
transm. lines, efficient freq.-domain modeling and cct. simul. 5977
tropos. small scale struct. study by radar super-resoln. 35325
turbogenerator shaft torque/fatigue life expenditure prediction 10958
turbogenerator shaft torques/fatigue life, freq./time domain anal. 4887
variable-rate natural-quality parametric speech coder 8204
vector spectrum analyzer freq. domain least-sq. syst. ident. 25743
video speed ADCs, differential gain and phase meas. 12609
Volterra filtering, spectral constraints 40933
wavefront simul. for atmos. turbulence 15448
wavelet representations of time-freq. conc. sigs. 24254
wide-band refl. radar sig., complex envelope intell. props. 9620
wideband audio sigs. coding, transform coded excitation 32257
wideband microcellular environ., multipath propag. 3409
wideband radio propag. for pers. communs., freq.-domain model 7964
Wigner distrib., time-freq. anal. tool 15973
wind-diesel hybrid power plant, robust control 10912
wind-diesel hybrid power plant, robust control and anal. 19574
XLPE high voltage cable diagnostics, dielec. response 19300
Au coplanar transm. lines, eye diag., S-params. 1298
$YBa_2Cu_3O_7$ coplanar transm. lines, eye diag., S-params. 1298

frequency-domain synthesis
see also frequency-domain analysis
act. antenna element design 31980
adaptive power syst. stabiliser, freq. domain design 27043
Gaussian seqs. generation, freq. domain filtering 40978
hybrid time-/freq.-domain speech synthesis, glottal source generation 32348
IIR Hilbert transformers, optimal design *(Japanese)* 740
induction servomotor drives, LQG/LTR digital control design 36641
lin. network synthesis/anal., symbolic anal./optimisation methods *(Polish)* 28988
M-ary wavelet transform and formulation reconstruction 8426
multirate filter design, multirate components anal. 32709
nonsinusoidal power syst. supply quality improvement 19088
nonstationary random procs., second-order time-freq. synthesis 24289

frequency-domain synthesis continued
parallel formant synthesizer control param. coding 4315
power plant control, state space and freq. domain predictive controller design 27524
power syst. VAr control algms., formulation requirements 19085
wind-diesel hybrid power plant, robust control 10912
wind-diesel hybrid power plant, robust control and anal. 19574
zero-phase FIR filters, freq. domain design 24276
zero-phase recursive 2-D variable filters, quadrantal symms., design 29387

frequency doublers *see frequency multipliers*

frequency estimation
2-D harmonic retrieval, subspace algm. 40997
2D freq. estim. algm. 8284
act. scatterers, detect./ident./tracking 34131
adaptive filter, multirate proc., convergence speed improvement 8411
analytic sig. generation, tips and traps 2493
analytic sig. generation for time-freq. distribs., efficient algm. 32718
autoregressive freq. estim., asymptotic stat. anal. 2533
Bayesian predictive densities, multiple cisoids detect./estim. 41006
Bayesian recursive estim. of freq./timing 2553
carrier freq. error estim. of $\pi/4$ DQPSK transmitter sig. 8096
comparison of parametric/non-parametric methods 24239
Cramer-Rao lower bound approxs. of freq. estim. 24224
cyclic sig./mean estim., vibrodiagnostics 40765
damped sinusoidal proc., variance of LS estimators 2474
digital radio open-loop max. likelihood carrier sync. 42152
FFT, coarse freq. acquisition 3438
fourth-order stats., freq.-/time-delay of arrival estim. 8315
harmonics in noise, cumulant-based estimators, perform. anal. 40992
higher-order stat. sig. proc., freq.-domain estim. 8314
higher-order stats., 2-D single record harmonic retrieval 8313
image proc., inform. theoretic approach, space-freq. localization 32838
instantaneous freq., bootstrapping confidence bands 32461
ionos. sig., stochastic props. of phase derivative 32594
LP-MUSIC algm., consistency prop. 32564
LS/SVD based techs. for high-resoln. freq. estim. 24203
max. likelihood estimator, threshold behavior 2507
MLE of multiple freqs. guaranteeing unit circle roots 40825
model based tone freq. estimators, prefiltering effects 16010
MSK timing recovery algms. 9372
multiple 2-D coherent sinusoids, high resoln. estim. 41001
multiple freq. spectral estim., 2π ambiguity problem 32537
multitone signal components estim., low sidelobe time windows appl. 8445
MUSIC estim. of real-valued sine-wave freqs. 40896
musical sigs., loose-harmonic matching fund. freq. estim. 34300
noisy sinusoidal signal freq. estimation optimal algorithm 25764
nonrandom interf., freq. estim. 24250
nonstationary random sigs. detect. in colored noise 41055
OFDM systs. for freq. selective fading channels, freq. sync. algms. 8091
offset estim. via planar EKF 8317
orthogonal multicarrier syst. max. likelihood freq. detectors 41387
parallel arrays, simultaneous centre freq. and DOA estim. 24277
pass. acoustic param. estim., PWVD optimal window length 40968
pass. Doppler-bearing tracking, pseudo-lin. estimator 40887
phase-only multidimensional spatio-temporal anal. for moving sources 40995
power syst. load modelling/freq. estim., microcomputer appl. 10614
recursive waves risk param. estim. from cyclic autocorrelation matrix 40986
sampling period effect on time/freq. stabil. meas. 2873
second- and higher-order cyclostationary proc., acousto-optics 32455
self coupled harmonics, stationary/cyclostationary approaches 40937
sig. time-freq. distrib. dens. fns., spline-approx. 32691
simplified max. likelihood freq. detector perform. anal. 40552
single tone max. likelihood freq. estim., threshold effect 40828
sinusoidal param. estim., real time cascade adaptive notch filter 2524
spatial freqs. estim. in sparse lin. array 32612
speech sigs., fund. freq. detector based on short-time FT 8190
TDOA estim., sig. selective, modified cyclic methods 2508
undersampled sig. freq. and DOA determ. 25617
VLF tones, constrained least sq. estim. 15996
weak narrowband sigs., estim. and HMM tracking 40972
weather radar, av. wind vel. meas., mean Doppler freq. estim. 43515

frequency hop communication
see also spread spectrum communication
blind adaptation, maximin algm. 9166
CDMA, TU Delft research, overview 25255
CDMA systs., optimum PN seqs. 25233
cellular digital packet data on analog systs. 25416
code diversity FH-SSMA commun. systs., optimal receivers 9179
coherent FH-SS commun. syst. capacity 40551
coherent freq.-hopped CDMA, wavelet orthogonal FDM 33210
Costas arrays for channel charactn./commun., decomp. 32610
DDS-based synthesizer for mil. spaceborne appls. 43581
digital cellular syst. radio link protocol throughout perform. 33799
DS-CDMA FH-CDMA/narrow band cellular radio systs. 3452
DS-SS systs., adaptive filters, freq. sweeping sig. rejection 17020
DS/FFH SS commun. syst., multiple access interf. 25245
DS/FH-CDMA syst., fading channels, near-far problem *(Japanese)* 25210
fast FH/CDMA systs. in mobile radio environ., efficiency 17086
fast freq. hopped NCMFSK, Rayleigh fading, diversity combining 33762
fast freq. hopped NCMFSK, time diversity combining 25253
FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
FFH-CDMA packet radio network, capacity 42142
FH-CDMA cellular network eval. rel., handover strategies 9332
FH-SS commun., Bayesian erasure techs. 25248
FH-SS commun., PLL demodulator response 12377
FH-SS PRN, channel access protocol perform. 8756
FH-SS transceiver, 900 MHz, low-power CMOS chip 33745
FH-SSMA, adaptive retransmission control 16434
FH-SSMA, band-efficient modulations, cellular radio channels 25367
FH/CPFSK syst. with partial-band jamming, perform. anal. *(Korean)* 17005
FH/SSMA systs., freq.-hopping seq. constr. 9173
freq. hopped sigs., radiometric detect., multipath fading effects 25269
GSM900/DCS1800 systs., adaptive antenna arrays 3480
GSM network evol. 3449
hybrid DS/FH SS syst. for mobile radio channel 3483
hybrid DS/FH-SSMA mobile radio syst. perform. and capacity anal. 33831
hybrid DS/SFH SSMA commun., nonselective fading channels 3321
hybrid SFH-multitone DS SSMA syst., perform. 9172

frequency hop communication continued
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
incoherent freq. hopping multiple access systs., diversity combining 25311
interferometric opt. fibre sens. networks, freq. hopping multiplexing 17905
M-ary orthogonal signalling, near-max.-likelihood demodulation 32030
MFSK signalling for RS coded freq.-hopped multiple-access commun. 2891
mobile commun., slow freq. hopping, time offset effect 42272
multihop FH-SS PRN, channel access protocol 25246
Multihop Packet Radio Networks, routing algm. 2993
multihop PRN, distributed routing algm. 25247
multimodulation acoustic commun. syst. 9658
orthogonal multi-carrier FH-CDMA schemes for freq. selective fading *(Japanese)* 25280
packet commun. syst. capability in fast Rayleigh fading environ. 41461
partitioned Markov model, non-binary error correcting codes eval. 8168
PCS, spectral efficiency of multitone freq. hopping syst. 9217
PLL synthesizer, fast acquisition, using parallel N-stage cycle swallower 21134
QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
rapidly tuned FDM laser transm. receiver, multichannel heterodyne detect. 9499
RS coded slow freq. hopped TDMA cellular syst. perform. 33827
RS coding, freq.-hop commun., correl. fading 17024
sens. array sig. proc. tech. 32731
seqs., small cross-correl. 32109
simulator for multipath mobile channels *(French)* 3361
slotted freq.-hopped PRN, random/deterministic, anal. 17010
slow FH-GSM freq. hopping GSM 9288
slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
slow freq. hopped cellular syst., radio link/syst. simul. 9286
slow freq. hopped data commun. syst., design 9287
slow freq. hopped systs. for PCS 25360
spread spectrum techniques, IEEE conf., Oulu, Finland (1994) 20200
SS low-power equipt., peak power meas. 25226
SS radios for commercial wireless commun. 17022
SS/FH multiuser radar/sonar, Welch-Costas arrays, props. 25582
TDM/SS packet radio, modulation/coding 33753
TDMA access for third generation cellular commun., resources 25394
TDMA cellular commun. systs., sig.-to-interf. calc. 33854
TDMA cellular syst., down-link capacity 9285
TDMA cellular syst. with coded 16QAM and cyclical slow freq. hopping 33826
TDMA indoor wireless cellular systs., punctured convolutional codes, optimal coding 33872
wireless commun., SS access methods 17110
wireless pers. commun., TDMA methods 17109

frequency hop radar *see spread spectrum radar*

frequency measurement
see also atomic clocks
1/f noise universality in high-technol. appls. 34313
advanced composite materials, mil. electronics, environ. testing 5646
at. beam freq. std., laser cooling 42664
at. clocks, cryogenic lin. trap for $^{199}Hg^+$ ions 42672
at. fountain freq. stds., opt. lattices 42665
at. time scales 34324
color TV subcarrier based freq. calib. device 17634
combined sapphire oscillator-H_2 maser freq. std. 9778
coupling capacitor voltage transformer, perform. anal. 5008
cryogenic H maser, 10 K 39634
Cs at. fountain expt. for at. freq. std. 3713
difluoromethane FIR laser, opt. pumped, freq. std. 7508
digital commun. syst. on-site freq. calibs., freq. counter appl. 25910
EM refls., PCs appl. 37938
fiber optic sens. develops., two-photon spectrosc. 17819
fluoresc. lamps supply 527
frequency control symp., Boston, MA, USA (Jun. 1994) 28221
GLONASS on-board time/freq. std. 42677
GLONASS P-code, L1/L2 freqs., perform. 17505
GTAW, sync. weld pool oscill. monitoring/control 5618
harmonics ident. and power meas. in power systs. 4738
HF charact. of supercond. wire 22772
induction motor bearing damage detect., stator current monitoring 4968
induction motor drive meas. technique, microprocessor-based 20058
inductive coupling on cables, freq. charact. 23706
injection lock techs., bandwidth meas. 566
internat. freq. std., dissemination *(Japanese)* 3712
IR extended cavity LD freq. stabilisation 39829
JPL lin. trapped ion freq. stds., stabil. comparisons 42671
LDA, single-freq. sig., digital meas. 4018
lin. ion trap based freq. std., progress report 42674
load shedding, freq. relay, testing 4535
methanol FIR laser lines, opt. pumped, freq. meas. 31475
microwave dielec. resonator oscillator charact. meas. *(Croatian)* 569
μP-based portable test equipt. for elec. network 4736
Navstar on-orbit clocks, space vehicle temp. effect 42678
NIST-7 freq. std., hybrid digital/analog servo 42667
noisy sinusoidal signal freq. estimation optimal algorithm 25764
opt. SHG accuracy 31539
pass. Doppler-bearing tracking, pseudo-lin. estimator 40887
power syst., emergency freq. control, fst underfreq. relay 4533
power syst. freq. meas., digital method, bandpass/orthogonal tech. 4744
precision freq. meas. tech. in MCXO 42886
PSK sig. carrier freq. meas., FFT 34658
pulsed sig. comparative anal., comparative anal. 42885
quantum 1/f effects in freq. stds. 34328
quartz cryst. electrochem. microbalance, LF mode spatial localization 34710
quartz resonator param. meas., IEC 444-5 direct transm. method 39077
quasi-synchronous sampling algorithm for power system meas. 35693
reson. meas. in capacitors 29613
ring trap for freq. std. appl. *(Japanese)* 42662
semicond.-laser freq. locking, C_2HD, $^{13}C_2H_2$ absorpt. lines 7642
solid-state microwave oscillators, flucts. meas., sync. methods 37985
specialised measuring instrum. charact. monitoring 42684
spurious resons. meas. of cryst. units 30616
std. freq. generators, environ. sensitivities 42663
symposium on freq. control, Salt Lake City (Jun. 1993) 34
time domain, freq. stabil. anal. 34329

frequency measurement continued
transient signals meas. Wigner-Ville distribution appl 24240
vinyl fluoride, far-IR opt. pumped laser lines, freq. determ. 23333
CO_2 laser lines, hot bands in 11 μm region 23091
Cs FIR laser lines around 1.2/1.6 THz, heterodyne freq. meas. 23081
Cs at. freq. stds., second harmonic level monitors 42676
Cs beam freq. std., vel. distribs. determ. 42666
H masers Frequency control, high accuracy calibs. 39635
Hg^+ freq. stds., space flyable 42673
I_2 transits., absol. freq. meas. near 532 nm, Nd:YAG laser stabilis. 25984
Rb freq. stds., Neuchatel Observatory 42669
Rb maser freq. std., double bulb 39636
Yb ion std., JPL develop. 42675
$^{171}Yb^+$ trapped ions, prototype microwave freq. std. 42670

frequency meters
see also wavemeters
digital commun. syst. on-site freq. calibs., freq. counter appl. 25910

frequency modulated radar *see FM radar*

frequency modulation
see also FM radar; frequency shift keying; pulse compression; pulse frequency modulation
200-MHz quadrature digital synthesizer/mixer in 0.8-μm CMOS 21370
900 MHz transmitter syst., highly integrated ASIC 9353
absol. dist./vel. meas., double integrated heterodyne interferometer 18073
act. sonar, lin. FM waveforms detect. 9675
adaptive FM IF syst., improved selectivity, top-down design methodology 34229
adaptive HMM filters for sigs. in noisy fading channels 32736
airborne pulse Doppler radar, pulse compression proc. implement. 10368
audio-IC technols., single vs multimedia solns. 25688
BiCMOS video sig. proc. IC for laser disk player 9756
channel noise immunity rel., code and sig. constr. mutual effects *(Russian)* 15696
CMOS quadrature digital synthesizer/mixer, 200 MHz 29245
coherent opt. controlled phased array antenna syst. 7324
commun. LD FM transfer fn. modelling 1977
continuous transm. FM sonar, synthetic aperture proc. *(French)* 25591
DAB, dyn. range control and music/speech control 25641
DARC, FM multiplex broadcasting syst. devel. by NHK 42264
DBR laser wavelength converter, bit-rate-independent operation, 10 Gbit/s 14903
DDS-based PM and FM gen., modulating sig. sampling effects 37657
differential GPS data format stds. and trends *(Japanese)* 17510
digital FM transm., Rayleigh fading, RS codes appl. 25346
digital video sig. transm. via RAI analogue FM radio links *(Italian)* 9158
discrete polynomial-phase transform, co-channel FM/PM sigs. separation 24182
double FM synthesis, real-time implement. 9775
dual-mode dielec. resonator freq./phase discriminator 12740
EDTV, 2nd generation, policy and digitalisation *(Japanese)* 34249
extended H_∞ filter, robust EKF 40942
externally modulated lasers for fibre transm., optimum prechirping 1971
FDM-FM microwave receivers, PCS sig. interfs. 25377
freq. deviation of pulsed sig. meas., errors anal. 42885
generalized Wigner distrib., instantaneous freq. representation 32563
heterodyne opt. interferometry, LD power change effects 42965
induction motor, dyn. loading syst. 4958
injection laser-modulator combinations, time-depend. simul. 14952
LD direct FM, coherence fn., inform. proc. 32977
LD freq.-modulated interferometer, selective imaging 40177
lin. FM sigs., fast param. estim. algms. 40909
lin. freq. modulated waveforms detect. in dispersive channels 16066
low noise space borne freq. multipliers 29426
low power radio 1 chip IC, develop. 17550
magnetooptical disk drive, mag. field modulat. recording 7415
microchip diode pumped solid state laser arrays, mfg. cost 31282
microwave pass. discriminator, co-channel monotone interf., perform. 825
MM-wave BWO, flicker noise eval. 999
mobile fading channel 16-DAPSK perform. calc. and simul. 33798
modulation for 12 GHz band integrated services digital broadcasting 9689
motorway commun., radio distrib./opt. transm. network 42157
MQW DBR laser with electro-opt. tuning sects., high FM bandwidth 7678
multidiode waveguide oscillator, noise charact. 37984
multielectrode DFB laser self-pulsation charactn. 31327
multiple FM-video sig. transm., opt. fiber in security 9529
multiple window spectrogram/time-freq. distribs. 40964
multispectral image sharpening, spatial freq. models 16264
MUSE decoder, video noise reduction *(Japanese)* 34258
narrowband digital FM sigs., seq. estim. 24280
noisy phase or freq. modulated sigs., demodulation, Kalman filters 40574
noncoherent freq.-PM, BER/PSD 24014
nonlin. FM sigs., spectral-correl. charact. 2573
North American dual-mode cellular syst. traffic advantages 33815
opt. fibre multifrequency SWFM bidirectional data transm. syst. 9610
opt. heterodyne microwave generation, spectral charactn. 6293
phase/FM combined, multilevel block codes 24012
power dual base transistor, voltage/current controlled FM *(Chinese)* 38846
R&S Radio Data Codec DMC 01, RDS transm. and FM transmitter control 9704
radiated emissions reduction, SS clock generation 15490
radio and TV broadcasting antennas, field level reduction 3660
RDS, Independent Local Radio company prospectives, present/future 34209
S-param. cct. anal., appl. of artificial two- and four-ports *(English)* 21531
second-order Δ-Σ modulator/freq.-to-digital converter 12608
semicond. laser; linewidth, linewidth enhancement factor α, FM and AM response meas. 39878
semicond. laser, AM/FM noise from coherent feedback 14864
semicond. laser noise, Volterra functional series expansion 2003
separate discrete filtration of freq. and sig. time delay 32575
SMES, DC power line appls., input/output cct. studies *(Japanese)* 11309
spatial FM, freq. independent beam-pattern generation *(English)* 23813
speech/audio proc., warped lin. prediction 32446
spherical acoustic objs. in motion, ident. 34167
strip-map SAR autofocus, approach 25550
sub-optimum receiver, convolutional codes optim. 42170
subcarrier data syst., develop. *(Japanese)* 3649
SWFM sig. opt. fiber transm. of addressed audio and video sigs. 9528
three-level PWM invertor, optimal design studies 19719
time-freq. distrib., laser radar backscatt., FM demodulation 34166

frequency modulation continued
time-freq. plane, sigs. filtering, FM/peak detect. 32745
time-varying higher-order cumulant spectra, noise, composite FM sigs. anal. 40970
transducers in meas., monitoring and control 3807
UHF FM transmitter, 900 MHz, 80 channels 9181
upper sideband and lower sideband SSB sigs., ident. algm. 40900
VHF/FM sigs. blind adaptive equalization by symm. tuning 17004
video delivery options 9718
CO_2 gas lasers, internal FM 14713
Er,Yb:glass disc laser mode locking 23146
InGaAsP-InP tunable DFB laser freq.-drift suppression 9596
InP NRD-guide FM Gunn oscillator, 60 GHz band *(Japanese)* 6319
KrF high power microwave freq. modulated laser 31151
Nd^{3+}:YAG lasers in commun. and range finding systs. 7875
Ti:sapphire laser, FM operation 31254
$YBa_2Cu_3O_{7-x}$ film parallel-plate microwave reson., freq. modulation 7253

frequency modulation, optical *see frequency modulation; optical modulation*

frequency multipliers
8 mm freq. quadrupler, GaAs varactor *(Chinese)* 37907
Cerenkov-type microwave freq. multiplier, relativistic electron beam 21843
class E freq. multipliers with RF choke, anal./design 37905
class E power amps./freq. multipliers, RF choke reactance 21130
high-harmonic gyrofreq. multiplier, 150 kW, 17.4 GHz 29783
LO for commun. satellite transponder, 2.8 GHz *(Korean)* 12763
low noise space borne freq. multipliers 29426
magnicon output cavity, anal. and simulation 21815
MM-wave modulated opt. sigs., heterodyne reception, HEMT 3544
mm-wave tripler eval. of Schottky diode varactor 21547
PLL clock generation syst. for 500-MHz RISC proc., 1.5% jitter 29337
punch-through varactor diode freq. multipliers, design 782
S-band TT&C up link transmitters, DDS 42740
Schottky octave band LO doubler (output range 16-40 GHz) 37906
Schottky varactors, sidewall-etched, sub-mm-wave sampling cct. 38028
X-band high power magnicon amp., design 6485
GaAs MBE growth monitoring, single photon ionization TOF mass spectrosc. 28723
GaAs single-barrier varactors for MM-wave triplers 12779
GaAs-AlGaAs heterostruct. barrier varactor freq. tripler, simul. 6321
InGaAs-InAlAs single barrier varactor quintupler, 170 GHz 29560
Ti:sapphire tunable laser, $KNbO_3$ in external cavity, freq. doubling 1892

frequency re-use *see frequency allocation*

frequency regulation *see frequency control*

frequency response
1D complex-permitt. profiles, estim., feasibility study 42897
2 to 10GHz multilayer stripline Butler matrix beamforming network 23993
2-D FIR filters, freq. sampling, Hermite interpolation 752
2D FIR digital filters, weighted LMS design 2488
2D FIR digital filters, weighted LMS design 8364
2D zero-phase FIR filters, closed-form soln., least-sq. design problem 6236
3D EM simulator, IE3-D, HF and high-speed cct. appls. 21071
500 kVA distrib. transformers, swept freq. response tests 36237
880 and 1922 MHz radiowave building penetration obs. 31821
act. filters, OTA, anal. *(Croatian)* 21410
act. genetically derived filter ccts., preferred value components 37845
act. RC filter, compensation tech. for HF respons, functional trimming 6211
act. scatterers, detect./ident./tracking 34131
ADPCM, destabilization effects of adaptive quantization 24151
ang. bandpass filters, improved design flexibility 37828
aperture-coupled multiplayer microstrip antenna anal. 31942
apposition cpd. eye opt. sens., design and anal. 34466
asynchronous machines, standstill freq. response studies *(French)* 11044
automatic generation control, tie-line freq. bias settings 35498
Bode transform, opt. implement. 24652
BPSK homodyne detect. expt. with solitary DFB LD, 10 Gbit/s 17329
cascaded gratings design, fuzzy ARTMAP neural net appl. 40445
CATV networks, spectrum analyzer in-service meas. 42623
CCII-K ccts., variable gain, optimal design for HF appls. 21418
circ. shaft, dyn. response, piezoelec. sens. 9890
CMOS cascode current mirror, HF response 12351
compact disc player, QFT controller design/implement. 17614
complex coeff. FIR digital filter design by complex weighted LSA 6237
coupling capacitor voltage transformer, perform. anal. 5008
cpd. turbogenerator electrodyn. props., rotor eddy current effect *(German)* 10985
DBR LD wavelength conversion device 23196
deep pot. well strained quantum well laser freq. response 7637
defn. improvement techs. for color TV receiver 9707
digital filter with arbitrary piecewise-lin. freq. response, impulse response 24305
digital power syst. protection, sig. magnitude est. *(Polish)* 35671
digital recorder data detecting cct. *(Japanese)* 3762
digital transfer fns., freq. response bounding 24184
diode pumped solid-state lasers, freq. tuning, pump-power modulation 1893
diplexers, max. flat response/freq. symm., design 16954
elec. generator modelling, power syst. simulator-based method *(Russian)* 43995
elec. utility generating plant AFC services 43702
elec. utility generating units, freq. response capability develops., UK 43704
em, EM simul. tool for MMIC design 29598
EM wave incidence, boundary, nonstationary conductive medium *(Russian)* 15422
equi-ripple higher-order differentiators, weighted least-sq. design 32634
FDTD waveforms, spectral estim. by AR methods 2169
finite cylindrical dielec. targets with gently varying cross-sections 23560
FIR digital filter types, interrelationships 2532
FIR digital filters, iter. reweighted least sq. 32785
FIR digital filters, subband decomp., tuning algm. 8311
FIR filter design, complex Chebyshev approx. algm. 32786
FIR filters, complex Chebyshev error criteria, optimal design 40805
FIR lin. phase digital filter, unit step response, design *(Polish)* 747
FIR optimal least sq. multiband filter design 24259
fuzzy ARTMAP neural networks for gratings/FSSs design 40449
GENRIF, integrated VLSI FIR filter compiler 21420
GIS, VFTO studies, transformer model 5163
half-band filter synthesis, freq. response masking 15939
half-band filters, freq. response masking, complexity reduction 37890
HF monolithic filter, Darlington ccts. *(Japanese)* 37840
high-speed VLSI interconnects, freq./time domain simul. 12287

frequency response continued
hot-wire anemometers, micromachined, characts. 25788
HP8410 ANA syst. response calib. 34385
HV transm. line, wide bandwidth corona model 27189
hydroelectric generators, ballhead motors, mech. governor perform. 43987
IIR digital filter with real coeffs., design 32791
image proc. neuro chips, analogue, spatial/temporal dyns. 42755
induction machine param. estim., standstill time-domain data 19642
induction watthour meters, harmonic perform. studies 35705
IR wireless indoor channel, freq. response 17247
Ku-band planar array using ring shaped patch antenna 23982
LED modulation bandwidth extension by pole cancel. 23032
LGA, low temp. co-fired ceramic, high speed digital appls. 20443
lin. phase FIR digital filters with const. passband amplit., design *(Japanese)* 37873
LTI digital filters design, error criteria 32790
lumped param. power transformer model, computer-based 5021
LV power distrib. network commun. sig. transm. *(Croatian)* 3309
Mach-Zehnder interferometer for elec. field sens. 25817
mag. thin-film actuators, moving coil, surface micromachining, fluid control 30756
magnetostrictive shaker, broadband perform. 30754
max. flat optimum broadband antenna arrays, constraints 41014
MM-wave turbulent tropos. radio channel 31819
multi-channel decimator for tri-level delta-sigma modulator 29080
multiband least sq. FIR filter design 29369
multirate filter design, multirate components anal. 32709
nonstationary M/G/1 queue charactn., Bode plots 11904
opt. receivers, broadband freq. charactn. via intens. noise 25534
optoelectronic integrated devices, transient behaviour 39591
orthogonal block adaptive line enhancer, LMS adaptation 8354
p-i-n photodiodes, broadband matching approach 31089
paraunitary matrices factorization, pairwise mirror-image symm. 40845
PGA package, high speed elec. charactn./simul. 20442
photodiode freq. response meas. to 40 GHz, comparison, NPE/NIST 31075
piezoelec. discs with elastic addits., vibr. anal. 26789
polarimetric calib., single dihedral corner reflector 34142
polynomial interpolation, filter digitization 40820
power overhead line impedance meas./anal. studies *(Japanese)* 4698
power syst. automatic voltage control, math. modelling 27015
power syst. harmonic penetration studies, load modelling 4478
power syst. model reduction, Hankel-norm approx. 4493
press.-measuring diaphragm approx. model *(Japanese)* 25740
prog. fractional sample delay FIR filter coeffs. 12649
PV cell pulsed laser illum., laser power beaming systs. 43948
PWM power convertors, independent inputs, large-sig. modelling 11152
PZM microphone characts., boundary surface *(Croatian)* 26791
quantizing errors in LTI digital dyn. devices 32629
random vibr. control algm. 25979
rect. waveguide, optimal filters based on finite thickness inductive diaphragms 12724
recursive differentiators, design, quadratic prog. 763
recursive differentiators design, const. group-delay characts. 2521
recursive filters design, Chebyshev norm, Remez algm. 24186
SAW contiguous filter bank, m-derived ladder *(Japanese)* 717
SAW device complex freq. charact., sensitivity anal. 6929
SAW filters, high stopband rejection, cascade connection design 29347
SC networks, charact. 12310
sheet beam crossed-field amp., nonlin. gain compensation 988
side-chain polymer films, electro-optic effect, freq. response 14325
sigma-delta ADC, BIST scheme for SNR/freq. response test 12597
simultaneous real-time cryst. filter alignment in freq./time domains 39081
solar collector dyns. ident., phys. model-based approach 27974
steam turboalternator freq. control governor design 43909
subband image coding, lin. phase filter banks design 24583
subband sigs. lin. prediction 15885
switching regulators, general algm. for anal. *(Japanese)* 12279
sync. generator, damper winding, block diag. transfer fn. 4917
sync. machine modelling, freq. response data-based 36115
sync. machine param. ident., multitime scale tech. 19615
sync. wind power generator, operating conditions 10907
T-jn. microwave ccts., prescribed response characts., design/anal. 862
transformer oil, voltage controlled double layer 14026
transimpedance amps. with cascode struct., anal., MMIC amp. appl. 12807
turboalternator third-order SSR stabil. models 44018
turbulent atmos. radiochannel, underlying terrestrial cover refls., mm/submm waves 40344
two-stage CMOS op amps, optimized compensation strategy 37640
uncertain continuous-time systs., freq. response envelopes, ellipt. filters 37837
US piezoelec. microphone charact. meas. *(Croatian)* 4419
UTP cable categories, stds. and advantages *(Dutch)* 16998
variable IIR digital filters, complex coeffs., synthesis 6233
vector magnetometer, Permalloy sens., dual mag. feedback 9845
violin tonal quality, holographic pattern anal./test 7855
waveguide filters, qtr.-wave coupling, design 12625
WDF for TI's sens. sig. proc. MSP430, CAD 738
wideband low noise accelerometer, inductive displacement sens. 42766
withdrawal weighted fan-shaped SAW transducers 30629
zero phase 2D filters CAD, multiplicative autoregressive models 759
zero-phase recursive 2-D variable filters, quadrantal symms., design 29387
$Bi_{12}SiO_{20}$ photorefr. integrator charactn. 7422
Er-doped fibre amp. noise characterizes high-speed photoreceivers 15191
Fe powder core inductors, HF modelling 12850
GaAs MESFET, AC small-sig. equiv. cct. model 1448
GaAs MESFETs, Monte Carlo simul. 1437
GaAs wide-bandwidth MSM photodiode, extrinsic freq. response 39570
InP MESFETs, Monte Carlo simul. 1437
InSb, high-speed MISFET, uncooled 30319
$LiNbO_3$ electro-optic modulators, cryogenic temp. characterisation 14506
Nb supercond. resonator ccts., freq. response 22762
Pr^{3+}-doped fluoride fiber amps., gain dyn. anal. 31217
Si micromechanical resonator, struct. and perform. 13912
YBaCuO bolometers at 10.6 μm wavelength, implement. 42814

frequency selective surfaces
act. FSS in horn antenna switchable, two beamwidths 15642
ang. bandpass filters, improved design flexibility 37828
cascaded gratings design, fuzzy ARTMAP neural net appl. 40445
Cassini FSS, develop. 15651

frequency selective surfaces continued
EM scatt. by dihedral strip grating 23544
FDTD anal. with Floquet boundary condition 15625
finite dipole FSS, transm. perform., curvature effects 15662
four-band FSS, double-sq.-loop patch elements 23863
fuzzy ARTMAP neural networks for gratings/FSSs design 40449
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
infinite arrays of slots in thin conducting wedge, scatt. anal. 42479
infinite periodic arrays, radiation/scatt., 3D hybrid FEM/BEM 31780
MM-wave elec. and opt. controlled screens 37972
MM-wave FSS waveguide beamsplitter 12728
multiband FSS, multiring patch elements 8058
multiband reflector antenna freq,-selective subreflector design and perform. 23873
planar freq. selective screens, nonrectangular patch geometries *(German)* 23832
planar-array calcs., FEM method and waveguide simul. 23780
screens, complementary elements, num. simul. 2313

frequency shift keying
2.5-Gbit/s CPFSK transm. expt., AMI-encoded data 9578
4-CPSK, carrier recovery scheme 8099
1550 nm dispersion-supported transm. on long spans of conventional single-mode fiber 9508
adaptive equalizer for digital FM 3428
automobiles, EMI reduction, high speed modem 31859
bandlimited quaternary phase FSK, error perform. 9276
binary FSK direct conversion receivers 3463
binary transm. in slow four params. fading channels, errors *(Polish)* 33742
block encoding, CPM 15764
CMOS low-power transponder IC for identif. systs. 29397
coherent FSK syst. DFB lasers, thermal contrib., FM response 3585
coherent opt. CDMA, laser phase drift effects 42348
coherent opt. syst. nonuniform FM response, semicond. laser model 9471
consecutive full-response 4-CPFSK trellis coding 40587
CPFSK coherent opt. transm. for repeaterless submarine syst. *(Japanese)* 16994
CPFSK differential detect., LO phase noise effects 42283
CPFSK opt. crossconnect systs. with noncoherent detect., interf. 9434
CPFSK opt. receivers with Gaussian freq. pulse shape, perform. anal. 42436
CPFSK sigs., nonlin. multi-pulse block coding 8172
CPFSK wavelength-switched systs., coherent/noncoherent detect. 9501
CPM coded quaternary scheme for satellite-vehicle/pers. commun. 42265
data commun., sinewave modulation, DDS/sigma delta techniques 12353
delay-and-multiply opt. FSK receivers, line-coding, anal. 42345
demodulator for CPM 40567
digital cellular syst. radio link protocol throughout perform. 33799
digital video sig. transm. via RAI analogue FM radio links *(Italian)* 9158
digitally FM sigs., modulation class., higher-order correl. 15698
direct conversion receiver, FSK digital phase-shifting demodulator 3359
dispersion-supported transm., opt. nonlin. 17227
distributed feedback lasers, phase tunable, flat FM response 14972
diversity combining, correl. slowly flat-fading Rayleigh channels 8374
DPSK/FSK, differential phase detect., bit/sym. error probabilities 40614
DS-SS commun. syst., path-diversity based on multiple path selection *(Japanese)* 25275
dual-filter heterodyne FSK opt. syst., BER eval. 17251
fast FH/CDMA systs. in mobile radio environ., efficiency 17086
fast freq. hopped NCMFSK, Rayleigh fading, diversity combining 33762
fast freq. hopped NCMFSK, time diversity combining 25253
FDM coherent opt. networks, interchannel interf. 17271
FH-SS commun., PLL demodulator response 12377
FH-SS transceiver, 900 MHz, low-power CMOS chip 33745
FH/CPFSK syst. with partial-band jamming, perform. anal. *(Korean)* 17005
GMSK modulation, expt. investig. 15715
heterodyne/homodyne opt. receiver design 42369
HF FSK radio links, optimal syst. params. choice 17018
high speed indoor wireless systs., directional antennas 3329
incoherent freq. hopping multiple access systs., diversity combining 25311
indoor radio, trellis-coded CPFSK, adaptive soft-decision feedback equalization 9357
IR optoelectronic data transm., interfaces 34042
land mobile satellite commun. channel, M-ary FSK perform. 25401
laser binary FSK communication, integrated heterodyne receiver/spatial tracker 17296
linecoded opt. heterodyne FSK systs., nonuniform laser FM response 42457
long-span 2.5-Gbit/s CPFSK coherent opt. transm., power EDFA boosters 34000
low power transponder IC for identif. systs. 33744
MFSK signalling for RS coded freq.-hopped multiple-access commun. 2891
MFSK sigs., non-coherent detect., phase noise, AWGN channel 15701
microcellular Ricean channels, switched diversity 3336
mobile radio digital modulation error perform. improvement by quaternary phase transition FSK 33782
mobile satellite commun., MFSK/DPSK sigs., cutoff rates 25301
multifrequency binary measurement using frequency shift keyed symbols 25744
multilevel coded FSK/PSK modulation 15746
Nakagami fading channel block error probabs. 33800
noncoherent orthogonal coding improvement by time overlapping 2375
nonlin. multi-h phase codes, full response and partial response CPFSK 8171
opt. commun. codec, high data rate error correction coding 17316
opt. fibre FDM FSK syst., channel spacing, crosstalk *(Chinese)* 42354
opt. FSK-FDM heterodyne detect. syst., cross-PM 17217
orthogonal coherent digital MFSK systs. in Gaussian noise and Rayleigh fading 40795
OTDR by quaternary FSK modulated probe and coherent detect. 34012
satellite mobile channel, FSK-DPD, pulse shaping/transmitter filter 42304
satellite mobile channel, FSK-DPD/CPM-DPD, pulse shaping 25304
single-mode fiber, opt. phase-conjug. waves and compensation for pulse shape distortion 17259
slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
small earth station hardware, IEE Colloquium, London (1995) 28267
speech stat. multiplexing, resource auction multi-access excess capacity 42200
SSMA coded systs. combining FSK and PSK 33206

frequency shift keying continued
STARNET WDM computer commun. network, combined freq. and AM 17174
subcarrier multiple access PON, adjacent channels 42392
T-user q-ary multiple access permutation channel, transm. 40526
trellis coded CPFSK, coherent detect. on phase jitter channels *(Korean)* 33922
VHF channels, digital fading mobile, Markov charactn. 3337
video distrib. coherent lightwave syst. aspects *(Croatian)* 3549
WinAnalysis software, fully automatic sig. detect. and anal. 9816
wireless modem, high data link control protocol 9116
GaAs Gilbert cell mixer IC fro coherent opt. transm. 42402
GaAs MMIC delay line/quadrature demodulator in opt. receiver 17199
GaAs MMIC demodulator, distrib. mixing for CPFSK receiver 12801

frequency stability
see also frequency control; laser frequency stability
at. clocks, cryogenic lin. trap for ^{199}Hg^{+} ions 42672
at. time scales 34324
bipolar transistor sustained oscillators, energy/fluct. charact., computer anal. 570
ceramic DRO aging 29575
CMOS micromechanical resonator oscillators, design/perform. 30509
combined sapphire oscillator-H$_2$ maser freq. std. 9778
cryogenic H maser, 10 K 39634
cryst. oscillator, temp. compen., two-port cryst. resonator 37666
diffr. radiation generator, open resonator, intermode oscills. 37949
DIII-D tokamak, RF wave monitor reflectometer 34678
Doppler shift z 42303
dual-mode cryst. oscillators, B-C modes excited resonators 39104
four-channel freq. locking, fibre-fed Fabry-Perot filter 17328
frequency control symp., Boston, MA, USA (Jun. 1994) 28221
GPS Navstar clocks, freq. stabil., broadcast/precise ephemerides 17503
high isolation distrib. amp., 5 and 10 MHz 42756
JPL lin. trapped ion freq. stds., stabil. comparisons 42671
lin. ion trap based freq. std., progress report 42674
long-term stabil. quartz oscillator, GPS filter 42324
magnetron oscillator, dyn. flucts. of freq. 978
microgravimetry, soln.-phase, using oscillating quartz microbalance 42956
microwave dielec. resonator oscillator charact. meas. *(Croatian)* 569
microwave oscillator with dielec. disk resonator, thermal AFC 37983
Navstar on-orbit clocks, space vehicle temp. effect 42678
neural network controlled cryst. oscillator 39107
NIST-7 freq. std., hybrid digital/analog servo 42667
opt. heterodyne microwave generation, spectral charactn. 6293
ovenized cryst. oscillators, VLF transmitter freq. synchronized 39074
PLL systs., MRAC, Lyapunov fn. appls. 590
precision freq. meas. tech. in MCXO 42886
punch-through varactor diode freq. multipliers, design 782
quantum 1/f effects in freq. stds. 34328
quartz cryst. oscillators, freq. instabilities 30626
quartz cryst. resonator stabil., electrode metallization barrier layer 39075
quartz cryst. units, irreversible freq. vars. 30628
quartz resonators/oscillators, 1/f freq. flucts./nonlin. 30627
radar systs. freq. control devices 42522
resonator selection in quartz oscillators 37663
sampling period effect on time/freq. stabil. meas. 2873
sapphire dielec. resonator transducer, whispering gallery modes 30656
sapphire loaded microwave resonators, enhanced quality factor 29577
sapphire resonator for ultra-stable oscillator capability 29574
sapphire resonator-oscillator, cryogenic, exceptional stabil. 30624
SAW device, thermal freq. behavior obs. and improvement 30641
SC-cut resonators appl., high stabil. oscillators 39108
SDH, independent/synchronized clocks, freq. stabil. measures 8721
single-resist.-controlled VCO, current conveyors 21144
soliton transm./storage rings, stabil., timing maint. 14347
symposium on freq. control, Salt Lake City (Jun. 1993) 34
TCXO with quartz cryst. resonators, cellular telephones appl. 39106
TE$_{01}$ gyro-TWTA, stable, high power 1007
temp. compensation of cryst. oscillators, microcontroller 39105
time domain, freq. stabil. anal. 34329
vircator, slow wave struct., microwave generation 12999
wavelet anal. for sync. and timekeeping 42679
X-band sapphire resonator-oscillator, temp. stabil. 29572
GaAs microstrip Gunn oscillator, highly stable, U-Band 37975
H atom, spin-exchange freq. shift cross sect. 39633
H masers Frequency control, high accuracy calibs. 39635
Rb at. freq. std., opt. pumping scheme, diode lasers 17630
Rb maser freq. std., double bulb 39636
Si micromechanical resonator, struct. and perform. 13912
Yb ion std., JPL develop. 42675
^{171}Yb^{+} trapped ions, prototype microwave freq. std. 42670

frequency synthesizers
see also direct digital synthesis; frequency convertors
1.9 GHz-band RF IC chip-set for pers. commun. 863
900 MHz transmitter syst., highly integrated ASIC 9353
analog and direct digital freq. synthesis, comparison 21132
auditory stimulus prod. in cognitive event-related pot. expts., PC software library 26379
bi-valued fn. with modulated transits., FT freq. synthesis 8258
broadband freq. synthesizer, increased operating speed 564
clock synthesis for SC filters, microcontrollers 12638
CMOS high-speed freq. divider for RF freq. synthesis 21263
CMOS quadrature digital synthesizer/mixer, 200 MHz 29245
CMOS/PLL LV synthesizer, SIMOX technol. *(Japanese)* 21152
controllable delay devices in two-level-freq. synthesis systs. 29067
direct digital synthesizers, error feedback loops for lin. 563
direct digital synthesizers, modulated sigs. generation, perform. 16018
high-speed freq.-switching synthesizer, fractional N PLL 561
LINC transmitter, combined analogue locked loop universal modulator 3322
low noise CMOS freq. synthesizer, dyn. bandwidth control 21133
low-power 900-MHz mobile RF synthesizer, CMOS chip 33861
MM-wave commercial freq. synthesizer, 118-178 GHz range 827
MMIC freq. synthesizers, phase noise reduction tech. 12816
ovenized cryst. oscillators, VLF transmitter freq. synchronized 39074
PLL noise models 21153
PLL synthesizer, fast acquisition, using parallel N-stage cycle swallower 21134
quadratic correl. archit. based single loop synthesizer and modulator 9176
radar systs. freq. control devices 42522

frequency synthesizers continued
spectral props. of direct digital freq. synthesizers, simul. 37658
spurious audio modulation of VCOs, RF coupling 565
std. freq. generators, environ. sensitivities 42663
symposium on freq. control, Salt Lake City (Jun. 1993) 34
synthesised LO for DB1NV spectrum analyser 34425
TDMA-TDD syst. fast-setting freq. synthesiser 33204
Telecom LSI series, Astro Array *(Japanese)* 13854
twin-counter digital-loop preset freq. synthesizer 12615
UHF-SHF marker generator 33764
UMA 1005T PLL IC with speed-up charge pumps, synthesizer appl. 21151
GaAs on Si PLL freq. synthesizer IC, chip on chip technol. 29338
n-InSb, freq. tuning prop. of HF nonlin. acoustoelec. oscills. 30566
frequency triplers *see frequency multipliers*
frequency-voltage convertors *see voltage-frequency convertors*
fretting *see wear*
friction
accurate estim. 19654
augmented railgun, inductance gradient scaling expts. 15273
brushless DC motors, design/selection 19656
closed cycle plasma MHD generator ducts, friction/heat loss 27970
contact elements wear in electromechanical switches 38066
contact recording coatings, nanoindentation, microscratch, friction, wear 39184
DC servodrives, dyn. friction compensation 36644
elec. machine, brush friction coeff., current/temp. influence *(Croatian)* 4890
induction motors, anti-friction bearings, selection guidelines 4945
lin. DC motor actuator, wire-driven syst., robust control *(Japanese)* 19667
lin. step motors nuc. reactor control rod drives, dyn. characts. 20075
mag. disk, lubricant bonding, hydrogen bond network 7154
material frictional props., supercond. magnet appls. 12189
microbending fiber optic sens., varying spatial freq. 34535
micromotor flange bearing monolayer coatings, perform. tests 44084
pavement-rubber interface contact area, skid resist. study, machine vision meas. 8631
α-quartz, dielec. strength, size effect. Monte Carlo anal. 13980
stepping motor drive, real-time mech. params. estim. *(French)* 11324
US motor, contact type, perform., rotor/stator interface 27770
C, diamond, polished CVD films, macro/micro-tribological props., trial proc. 22626
C-coated thin film head sliders, tribological perform. 7149
CrO_2 video tapes, macro-/micro-tribological studies 20990
Si micromachined actuator, fiber-optic roller bearings 30491
frictional electricity *see triboelectricity*
front-end processors *see satellite computers*
front-ends for online searching *see online front-ends*
FSK *see frequency shift keying*
FSS *see frequency selective surfaces*
FTTC *see optical fibre subscriber loops*
FTTH *see optical fibre subscriber loops*
fuel
see also coal; fission reactor fuel; fusion reactor fuel; pulverised fuels
1 kW, 12 V SOFC DC generator develop., liq. gas fuel 44337
30 MW Lieksa CFBC cogen. project, Finland 19513
37.3 MW diesel power plant demons. project, Japan 27603
75 MW oil shale FBC power plant project, Israel 4831
500 W thermoelec. generator power supply, preliminary design 27992
aircraft external fuel tank, simulated lightning tests 18706
aircraft safety aspects of liq. H_2 fuel 18775
alternative transportation fuels, biomass-derived 35718
automobile electronic fuel injection, quad injector driver power IC 36777
automotive fuel economy improvement, near-term technol. 28139
basic chem. recuperated gas turbine, methane-steam reformer 36007
bio-crude oil, wood derived, fast pyrolysis, catalytic upgrade 27334
biomass feedstocks conversion, fast pyrolysis 27333
biomass gasification, PCFB, particulate/alkali removal 27332
biomass-fired steam CHP plants, theoretical study 27542
bubbling fluidised bed oil shale retort, operation 27329
carpet waste, economical alternative fuel 43889
catalytic combustion, low emissions 35974
cell develop. status, 1994 36576
cell elec. vehicles, alternative s comparison 36716
cell elec. vehicles, H_2 storage infrastructure 36718
cement indust., waste fuel burning, economics 5423
CHP plant, fuel consumption/costs distrib. 19488
CO_2 emissions, energy indust. environ. impact 35986
cogen. desalination plant, desalter, fuel cost 35984
cogen. develop./modernisation, former USSR, natural gas-based 19487
cogen. district heating develop. overview, Russia 27533
commercial petrol, microwave props., 900 MHz, 9 GHz 42896
diesel/closed cycle gas turbine power plant thermodyn., LNG-fired 27605
dispersed generation, optimal planning, economics *(Japanese)* 27087
energy scarcity, economic growth effects anal., USA 19394
forestry waste biomass-based energy prod. possibilities 27555
fossil fuel NO_x emissions, form./control studies 35975
gas reciprocating compressors, power generation appls. 35964
gas turbine power plants, exhaust gas recycling, conversion efficiency 36008
gas turbines, nontraditional fuel conversion efficiency calcs. 19522
gas-fired CHP plants, fuel compression study 35994
hydrogen energy economy, fossil fuel role 27327
hydrogen energy network start-up scenario 27336
hydrothermal syst., best fuel mix, seasonal planning, fuzzy mathematics 10700
in-bin grain drying energy systs., computer simul. 28200
internal combustion engine power generation, O_2 enrichment simuls. 35970
kerosene burner configs., thermophotovoltaic appls. 27999
light duty fuel cell vehicles, fuel/emissions reductions 28146
light-duty alternative fuel vehicles, operational experiences, USA 36717
MCFC develop./commercialization efforts, USA 36577
MHD generator, kerosene oil-heavy oil fuelled, optimum perform. design 44420
MHD steam combined cycle, natural gas fuel 27654
Miller/Otto cycle alternative fuel automobile engines, computer model 36768
NTT, explosion-proof liq.-level meter for underground light-oil tanks 42739
OCDOPUS zero emissions plant, exergonomics 4753
oils combustion atomisation, charge injection nozzle 7904
Orimulsion fired power station, NO_x emissions control 10852
fuel continued
power syst. emissions-constrained optimal power flow calcs. 10610
power syst. fuel scheduling, optim. techs. comparison 4600
power syst. stochastic prod. cost simul. method 27061
power syst. with PV syst., reliab./economics anal. 35504
residential energy use patterns survey, Philippines 35474
road vehicles, fuel usage, dimens. anal. 27330
Rye House combined cycle gas turbine power plant 36024
Small External Fueled Heat Pipe Thermionic Reactor fuel element 18756
SOFC, worldwide R&D efforts 44346
SOFC cogen. plants, gas proc. study 43963
SOFC power plants, fuel proc. syst. designs 43962
SOFC power sources, liq. fuelled, transportation appls. 44519
SOFC R&D initiatives, Norway 44348
SOFC R&D programmes overview, USA 44349
SOFCs, methane-fuelled, fuel quality/coking suppression 44360
steam power plant distributed control, commissioning perform. audit, USA 27561
steam power plant NO_x control, staged solid-fuel combustion 27558
Thailand, generation/transm. develop. strategies 27096
thermal CHP generation, oil-free screw compressor appls. 35962
thermal CHP generation, oil-injected screw compressor appls. 35963
thermal power generation, natural gas-fired, future prospects 35965
thermal power plant, automatic optimal fuel mgt. syst. *(Chinese)* 19497
thermal power plants, carbide-acetylene combustion technol. economics 27530
thermal power plants, flexible operation design options 43899
Topaz-II single-cell thermionic fuel element design/testing 5235
unit commitment with fuel storage constraints 19108
waste fuel combustion, slurry atomisation 19397
waste wood-fired power plants projects, USA 35996
CO_2 abatement costing, Egypt, top-down/bottom-up approaches 27324
H_2-O_2 SOFC, variable regime operation modelling 44363
H_2-O_2 SOFC-solid oxide reformer combined syst. 44335
NO_x emissions reduction, solid fuel combustion 35988
SO_2 emissions reduction, fossil fuel combustion 35987
fuel batteries *see fuel cells*
fuel cell power plants
1 kW planar SOFC stack develop., Japan 44333
2 MW MCFC power plant demons. project, USA 36073
100 kW SOFC CHP plant demons. project, Netherlands 43959
200 kW PC25 PAFC packaged power plant 36078
250 kW MCFC demons. power plant project, USA 36075
building CHP appls., perform./cost requirements 36077
Buran flight-model fuel cell, test programme 10398
CHP difficulties and prospects *(German)* 43961
develop. status, 1994 36576
direct carbonate fuel cell power plant, stack engng. efforts 27651
distrib. network fuel cells, optimal deployment genetic algm. 19257
gas turbine bottoming cycle, internal reforming SOFC appl. simul. 36020
gas turbine power plants, monolithic SOFC appl. studies 36019
MCFC develop./commercialization efforts, USA 36577
MCFC power generation systs., dyn. perform. modelling 27644
MCFC power plant, gas recycling, perform. 10909
MCFC technol. develop. status, USA 36578
mobile fuel cell power plants, syst. design 27655
multi-area fuel cell CHP power systs., elec. wheeling anal. 10644
Nat. Fuel Cell Research Center develop., USA 27652
NorCell II planar SOFC research programme, Norway 44334
PAFC CHP feasibility, multiobjective optimal unit sizing 36074
PAFC plant, test operation 10914
planar SOFC, EPRI R&D efforts overview 44347
power syst. conditioners, microcomputer control appls. 43968
power systs., CO_2 capture studies 36076
proton exchange membrane fuel cell power plant develops. 36579
recent develops., future prospects 11275
residential fuel cell systs., elec. utility R&D projects, USA 44340
SOFC cogen. plants, gas proc. study 43963
SOFC power generation facility research project, Russia 44336
SOFC power plants, fuel proc. syst. designs 43962
SOFC R&D programmes, IEA Agreement overview 44353
SOFC tubular cogen. syst. design 43964
SOFC-integrated power plants, natural gas firing 43957
SOFC/combined cycle power generation proc. studies 27653
telecom. equipt. PAFC CHP syst., adsorpt. refrigerator-based cooling 41622
theory, operation, appls. 5210
UBOCELL SOFC design, small-scale power generation appls. 43965
Westinghouse SOFC technol., power plant appls., Japan 43958
Ztek advanced planar SOFC, utility power generation appls. 27928
H_2/O_2 10 kW PEM fuel cells, submersible appls. 20104
fuel cells
1 kW, 12 V SOFC DC generator develop., liq. gas fuel 44337
1 kW planar SOFC stack develop., Japan 44333
2 MW MCFC power plant demons. project, USA 36073
10 kW DC/DC PWM ZVS bipolar SIT-based power converter 19830
10-100 W PEM fuel cells, develop., testing 27930
100 kW SOFC, market pot., Netherlands 44339
100 kW SOFC CHP plant demons. project, Netherlands 43959
200 kW PC25 PAFC packaged power plant 36078
200 kW SOFC CHP syst., operation 44325
250 kW MCFC demons. power plant project, USA 36075
acetylene black, pretreatment, electrochem., fuel cells 11284
automobiles, PEM SPE fuel cell/water electrolyser 36713
autonomous underwater vehicles, power systs. comparison 28106
Ballard mark IV solid polymer electrolyte fuel cell, empirical model develop. 19973
Ballard mark IV solid polymer electrolyte fuel cell, mechanistic model develop. 19972
battery appls. and advances, conf., Long Beach, USA (1995) 28262
building CHP appls., perform./cost requirements 36077
building constr. regulations w.r.t fuel cells, technol. transfer 36581
Buran flight-model fuel cell, test programme 10398
CHP, fuel cell based, future develop. 43898
cogen., commercial/residential appls. 36791
CPn planar SOFC design, concept, verification 44329
DC interconnection converter, input current control 44345
develop. status, 1994 36576
direct carbonate fuel cell power plant, stack engng. efforts 27651
direct internal reforming SOFC CHP syst. 44370

fuel cells continued
direct methanol fuel cell, H_2 ref. electrode test method 11282
distrib. network fuel cells, optimal deployment genetic algm. 19257
elec. transit bus, Pb-acid batt. power conditioning develops. 36730
elec. vehicle energy sources, current technol. review 44524
elec. vehicles, alternative fuels comparison 36716
elec. vehicles, H_2 storage infrastructure 36718
electrochem. DC generator, fuel cells, Buran space syst. 10399
energy conversion engng. conf., Monterey, CA, USA (Aug. 1994) 20201
energy conversion engng. conf., Atlanta, GA, USA (Aug. 1993) 20225
ethanol oxid., Pt(hkl) basal surfaces, $NaOH/Na_2CO_3$ media 11283
ethyl formate fuel cells for consumer electronics 11279
First Mars Outpost power systs. 26516
gas turbine bottoming cycle, internal reforming SOFC appl. simul. 36020
gas turbine power plants, monolithic SOFC appl. studies 36019
gas-diffusion electrodes for PAFC, limiting current 5206
gastight SOFC stacks, soft glass ceramic sealing 44381
hybrid elec. vehicles, Pb-acid batt./PEM fuel cell syst. 36725
INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
internally humidified PEM fuel cell 27931
light duty fuel cell vehicles, fuel/emissions reductions 28146
lunar base power systs., life cycle cost 26517
MCFC, indirect internal reforming, math. modelling 11281
MCFC cathodes, porous, current interruption anal. 36583
MCFC develop./commercialization efforts, USA 36577
MCFC power generation systs., dyn. perform. modelling 27644
MCFC power plant, gas recycling, perform. 10909
MCFC technol. develop. status, USA 36578
metallic substr. tubular SOFC, flame coated 44328
miniature CHP syst., solar heat engine-based 27627
mobile fuel cell power plants, syst. design 27655
Nat. Fuel Cell Research Center develop., USA 27652
nonexponential transient response, const. phase element 11277
NorCell II planar SOFC research programme, Norway 44334
PAFC, MCFC, SOFC, PEM fuel cells, commercialisation status 44394
PAFC, methanol/ammonia/siloxane contamination 11272
PAFC CHP feasibility, multiobjective optimal unit sizing 36074
PAFC cogen., natural gas fired, building appls. 36580
PAFC plant, test operation 10914
PEM fuel cell, terrestrial/marine vehicle appls. 36741
PEM fuel cells, transportation elec. drives 36720
phosphoric acid fuel cell, proton deficiency 19974
planar SOFC, 2D distributed param. perform. model 44362
planar SOFC, EPRI R&D efforts overview 44347
planar SOFC, syst. dyns. simul. 44369
planar SOFC, thick film prod. methods 44312
planar SOFC field distribs., 3D math. model 44365
planar SOFC stacks, bipolar plate/manifold design tool 44368
planar SOFCs, param. design optimisation 44364
planar SOFCs, stacking perform. expts., Denmark 44323
polymer electrolyte fuel cells, develops. and appls. 5209
polymer electrolyte PEM fuel cell expts. 27929
power syst. conditioners, microcomputer control appls. 43968
power systs., CO_2 capture studies 36076
proton exchange membrane fuel cell power plant develops. 36579
PV-hydrogen energy conversion syst. studies 27624
R&D projects overview, Scandinavia 44354
recent develops., future prospects 11275
residential fuel cell systs., elec. utility R&D projects, USA 44340
SOFC, air electrode degrad., microscopical charactn. *(Japanese)* 44341
SOFC, ceramic materials, overview *(Slovenian)* 27922
SOFC, electrocatalytic cathode domain impedance spectrosc. 5204
SOFC, high temp., electrolyte materials 44373
SOFC, high temp., exergy anal. 44344
SOFC, high temp., metals/alloys appl. 44382
SOFC, internal methane reforming 44383
SOFC, reduced temp., tape calendering 44313
SOFC, Statoil's program, stack testing, reforming 44327
SOFC, substr. planar type, develop., Fuji Elec. 44330
SOFC, worldwide R&D efforts 44346
SOFC anode layers, vac. plasma spraying prod. method 44317
SOFC catalytic domains, proc. conditions perform. effects 44322
SOFC ceramic component mfg. optim. expts. 44318
SOFC ceramic materials, state-of-the-art 44372
SOFC cogen. plants, gas proc. study 43963
SOFC component mfg., testing methods, mech. props. 44392
SOFC components, perovskite oxides combustion synthesis 44311
SOFC components prod., vac. plasma spraying appls. 44316
SOFC develop., planar stacks, testing, Daimler-Benz/Dornier 44331
SOFC develop., tech./market/business issues 44338
SOFC element fab., vac. plasma spraying proc. 44315
SOFC exergy anal. methods 44355
SOFC geometries 3D num. simul., computer-based 44367
SOFC mfg., ceramic components proc. 44310
SOFC monolith, reversed flow operation modelling/simul. 44366
SOFC perform. eval., lab. techs. 11276
SOFC perform. improvement, electrolyte doping expts. 44319
SOFC power generation facility research project, Russia 44336
SOFC power plants, fuel proc. syst. designs 43962
SOFC power sources, liq. fuelled, transportation appls. 44519
SOFC R&D activities, Japan 44350
SOFC R&D effort overview, Europe 44352
SOFC R&D initiatives, Australia/New Zealand 44351
SOFC R&D initiatives, Norway 44348
SOFC R&D programmes, IEA Agreement overview 44353
SOFC R&D programmes overview, USA 44349
SOFC stack modelling, num. simul. methods 44361
SOFC syst. perform. anal. 44371
SOFC thin tape-cast YSZ, thermal expansion coeff. studies 44393
SOFC thin tape-cast YSZ materials, Young's modulus expts. 44391
SOFC tubular cogen. syst. design 43964
SOFC-integrated power plants, natural gas firing 43957
SOFC/combined cycle power generation proc. studies 27653
SOFCs, methane-fuelled, fuel quality/coking suppression 44360
solar hydrogen energy systs. simul. 4868
solid oxide fuel cell composite electrodes, cond. and polariz. resist. 44343
solid oxide fuel cells, conf., Switzerland (1994) 28255
solid polymer electrolyte composite fuel cells, ion-exchange proc. 36584
solid polymer electrolyte composite fuel cells, precip. proc. 36585
stack fluid dyn. studies 27924

fuel cells continued
submarines, underwater perform. enhancement, fuel cells 11424
Sulzer HEXIS SOFC stack/syst. develop. status 44332
telecom. equipt. PAFC CHP syst., adsorpt. refrigerator-based cooling 41622
telecomm. equipt., fuel cell energy syst., field test 19975
telecomms. syst. air conditioning, PAFC heat dissipation-based 20137
theory, operation, appls. 5210
tubular SOFC, air electrode, multilayer slurry casting fab. 11273
UBOCELL SOFC design, small-scale power generation appls. 43965
US Army batt. needs 43567
Westinghouse SOFC develop. program 44326
Westinghouse SOFC technol., power plant appls., Japan 43958
Ztek advanced planar SOFC, utility power generation appls. 27928
Al-air fuel cell, cellular network DC supply reliab. 19976
$BaCe_{0.8}Gd_{0.2}O_{3-\alpha}$ perovskite ceramic electolyte, SOFC *(Japanese)* 5205
C/noble metal electrodes, cathodic O_2 reduction 11230
CH_4/steam reforming kinetics, SOFC 27925
Co-Pt alloys, ordered/disordered, PAFC, corros. test 5207
$Cr5Fe1Y_2O^3$ SOFC interconnectors, Cr vaporisation expts. 44324
Fe anodes, SOFC, direct methane oxid. 44359
$Gd_2(Ti_{1-}Ru_x)_2O_{7-\delta}$, mixed cond., SOFC 44376
H_2/O_2 10 kW PEM fuel cells, submersible appls. 20104
H_2/O_2 fuel cell, impregnated KOH matrix, H_2O mgt. 26556
H_2-O_2 SOFC, variable regime operation modelling 44363
H_2-O_2 SOFC-solid oxide reformer combined syst. 44335
H_2-O_2 fuel cell vehicle liq. storage *(German)* 36746
$La_{0.7}Ca_{0.3}Cr\ O_3$/YSZ anodes, CH_4 oxid., SOFC 44358
$La_{0.8}Ca_{0.23}CrO_{3-\delta}$ anodes, SOFC, direct methane oxid. 44359
$La_{1-x}Ca_xCrO_3$ separators, elec. cond., planar SOFC 44378
$LaCr_{1-x}Mg_xO_3$ separators, elec. cond., planar SOFC 44378
$La_{1-x}(Sr/Ca)_xCrO_{3-\delta}$ powder planar SOFC interconnectors 44314
$La_{0.85}Sr(0.15)MnO_3$-ZrO_2-Y_2O_3 syst., SOFC cathode material microstruct. 44379
$La_{1-x}Sr_xCoO_{3+\delta}$ SOFC electrodes, methanol oxid. expts. 36582
$La_{1-x}Sr_xCrO_3$ separators, elec. cond., planar SOFC 44378
$La_{0.6}Sr_{0.4}Fe_{0.8}M_{0.2}O_{3-\delta}$ cathode cones, impedance spectrosc. 44387
$La_{0.7}Sr_{0.3}MnO_3$ porous cathode substrs., SOFC 11274
$La_{1-x}Sr_xMnO_3$ SOFC electrodes, react. mechanism expts. 44320
$La_{1-x}Sr_xMnO_3$ pos. electrode, elec. cond. 44386
$La_xSr_yMnO_3$ based SOFC cathode materials 44374
$La_{0.8}Sr_{0.2}MnO_3$/YSZ interface, O_2 reduction, SOFC air electrode 44385
$La_{0.9}Sr_{0.1}MnO_3$-YSZ cathodes, microstruct./resist., SOFC 44384
$La_{1-x}Sr_xMnO_{3\pm\delta}$-powders prod. by drip pyrolysis 37536
$La_2Zr_2O_7$/YSZ interface, SOFC, react. products morph. 44375
$LiCoO_2$ MCFC porous cathode studies 11280
$LiCoO_2$ cathodes synthesis/perform., MCFC 5208
$LiFeO_2$ MCFC porous cathode studies 11280
Li_2SO_4-Al_2O_3 electrolytes, intermediate temp. fuel cells 27926
Ni anodes, SOFC, direct methane oxid. 44359
Ni-YSZ anode, $LaSrMnO_3$ cathode, SOFC 44380
Ni-YSZ cermet SOFC electrodes, kinetics expts. 44356
Ni-YSZ cermet anode, SOFC, methane reacts. *(Japanese)* 44342
Ni-YSZ cermet internal reforming SOFC electrodes, catalytic study 44357
Ni-YSZ porous cermets, microstruct./elec. cond., SOFC 44377
NiO cathode loss reduction, MCFC, electrochem. treatment 11271
NiO(Li) MCFC porous cathode studies 11280
O_2 proton exchange membrane fuel cell electrodes, transportation appls. 44309
Pt anodes, SOFC, direct methane oxid. 44359
$RbNO_3$-Al_2O_3 electrolytes, intermediate temp. fuel cells 27926
VC anodes, SOFC, direct methane oxid. 44359
Y_2O_3-ZrO_2 electrolyte, tape cast, fracture toughness, SOFC 44389
Y_2O_3-ZrO_2 thin film electrolyte, SOFC, tensile test 27927
Y_2O_3-ZrO_2-Al_2O_3 composite planar SOFC electrolytes 27923
ZrO_2 electrolyte, SOFC, mech. testing, microstruct. 44390
ZrO_2 failure criteria, SOFC, math. model 44388
ZrO_2:Y_2O_3 SOFC electrolytes, high temp. ageing expts. 44321
ZrO_2-Sc_2O_3-Al_2O_3 syst. electrolyte, SOFC, low temp. operation 11278

fuel element failure
see also coolant-fuel interactions
bundle leak detect., telescope sipping 10807
BWR heating channel, post-dryout excursion, HECHAN model 27466
Hamaoka Station Unit 1, failed fuel rod, post irrad. test 27447
irrad. fuel element time-to-failure distrib., degrad. 19452
Mihama Unit 1 PWR, MOX fuel post irrad. exam. 35751
PWR fuel assemblies, transient void fraction meas. 19427
San Onofre Unit 2 and 3 PWRs, fuel failure ident. 4783
Siemens fuel assemblies, design, perform. experience, PWR, BWR 35748
space power thermionic fuel elements, fission gas pressure anal. 18736
space power thermionic fuel elements, UO_2 swelling simul. 18744

fulfilment, subscription *see publishing*

full-text databases
FIND2, multimedia/distributed inform. sharing systs., develop. *(Japanese)* 3264
inform. delivery, electronic full-text, US infrastructure 16546

full wave rectification *see rectification*

full wave rectifiers *see rectifying circuits*

function approximation
see also Chebyshev approximation; interpolation
Backus-Gilbert inversion method/sampled DP 40819
band-limited sig. recovery, lin. fn. approx. 24298
best k-link piecewise-lin. fn. approx., uniform metric 20585
Cauchy principal value integrals approx., quadrature methods 20616
chaotic time series filtering 32466
CMOS analog cct. for fn. approx. 30477
geophys. computed tomography by neuro-fuzzy inversion 43500
horizontal and vert. elec. and mag. dipoles in multilayer media 23753
MLP based nonlin. spectral estimators for noise reduction 32378
multidomain spectral approx. of ellipt. problems 37360
neural estimators for multisensors, design 32658
Newton's method for quadratics, nested intervals 37316
nonlin. param. estimators approx. 25575
nonsmooth quasiconvex fns., quasidifferential anal. 226
power syst. automation 19161
projection decomp. method, well-conditioned bases 37307
qd-algm., multivariate homog., convergence 20592
QPO, component params. calc. 21149
rational approx. of nonuniformly smooth fns. 11967
second-order nonlocal optimisation, pot. theory 11938

function approximation continued
- surface reconstruction, robust BP 33058

function evaluation
- device simulators, derivatives, automatic num. eval. 20613
- feedback amp. nonlin. distortion anal., Volterra series *(Croatian)* 549
- noisy fn. eval. and delta coding algm. 8493

function generators
- *see also pulse generators; signal generators; waveform generators*
- AWG, arbitrary waveform generator, waveform creation problem simplification 17987
- CERN accelerator control, VME std. analogue fn. generator 18193
- DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW 21556
- PC-based prog. fn. generator *(Bulgarian)* 25905

function point analysis *see software cost estimation*

functional analysis
- *see also harmonic analysis*
- ANN MOS-compatible quadratic synapses 787
- bi-valued fn. with modulated transits., FT freq. synthesis 8258
- fused X-band radar/IR target detect. 8617
- image coding, piecewise polynomial wavelet, IIR implement. 2654
- PWM generalised block pulse fns. 32638
- PWM power convertors, independent inputs, large-sig. modelling 11152
- rhythmic sig. stochastic recurrence period 2551
- stochastic model-based image segmentation, functional approx. 2643
- wavelets and image compression 8540

functional equations
- Adomian's polynomials, convergence of decomp. methods 28677
- anisotropic plasma, impedance wedge diffr. 15452
- ANN MOS-compatible quadratic synapses 787
- ARC-network design with op amp, parametric optim. subsystems 28982
- cavity radiator infinite phased arrays, hybrid finite element/waveguide mode anal. 31971
- complex anisotropic media, auxiliary vector fn. method 23562
- cylindrical dipole arrays, two-term theory, variational-principle 40498
- decomp. method, convergence 20612
- dual polynomial bases 5767
- impulsive differential-functional eqns., difference methods 37346
- integrated optics anal., paraxial wave eqn., multilevel finite element soln. 40430
- noisy phase OOK sigs., noncoherent detect. 40784
- non-binary correl.-immune/resilient fns., charactn. 37220
- nonlin. ccts., Volterra-Picard polynomial ident., periodic excitations 28995
- parallel SME filter for 3-D tracking of multiple targets 15871
- periodic spline wavelets, computation 24161
- pos. time-freq. distrib. 40966
- PTD, fn., removable sing. 40300
- radar sig. spatial proc. algm., priori interfering refl. inform. *(Russian)* 17407
- robustness of functional eqns. 11994
- source separation with noisy obs., noise cancellation 40862
- Wiener/Poisson procs. functionals, coherent-state representations 5742

functional programming
- counter with bounded response time and bounded power dissipation, calculational derivation 37681
- expansion solns. of nonlin. reducible functional eqn. systs. *(Chinese)* 28678

functionals *see functional equations*

functions
- *see also Bessel functions; Boolean functions; describing functions; Green's function methods; recursive functions; switching functions; transfer functions; Walsh functions*
- 2D adaptive filter, Laguerre fn. 32759
- adaptive channel equaliser, functional-link models 32737
- collision intractable hash fns. 32078
- compactly supported symmetric/antisymmetric orthonormal wavelets 20640
- convolution products, smooth refinable fns./wavelets 24165
- derivative computation by Chebyshev differentiation matrix, roundoff error 20594
- digital signatures, directed acyclic graphs and one-way fns. 32159
- Gabor transforms for real discrete sigs. 24202
- infinitely differentiable fns., multiresolution anal. 24162
- logarithmic barrier fn. in quadratic prog., line search techs. 20565
- Lucas fn. security, public key systs. 32071
- multiple Mellin-Barnes contour integrals, convergence 12009
- multiple multipole program/MoM combination 15210
- multisecret-sharing scheme based on one-way fn. 15790
- nonstationary random procs., second-order time-freq. synthesis 24289
- one-way fns., finite near-rings 32076
- partial least sq. regression via additive splines 28663
- piecewise-lin. radial basis fns. in sig. proc. 2518
- radiation from finite-length printed-pattern, cct.-concept 21626
- rect. cavities, field distrib., GMT-based approaches 15540
- resilient fns. and orthogonal arrays, bounds 28618
- RTD modelling, transfer matrix/Airy fns. 30212
- scalar fn. formulation for opt. flow, nonrigid motion of blood 24446
- sig. proc., complex gradient and Hessian appl. 2566
- speech/audio proc., warped lin. prediction 32446
- vector-valued fns., commun. complexity 24737
- wideband fields/coherence fns., spectral transforms. 40774

fundamental constants *see constants*

furnaces
- *see also electric furnaces; refractories*
- 800 MW steam power plant boiler gas temp. meas., acoustic pyrometry-based 27554
- cement kiln dust recycling, water leaching, proc. control 17673
- First Material Processing Test microgravity expts., image furnace and egg rack *(Japanese)* 12027
- semicond. wafers, rapid diffusion furnace, temp. distrib. 1187
- solar receiver/reactor laser diagnostics syst. 10058
- Space Station Furnace Facility, sliding mode thermal control syst. 26690
- steam power plant boiler furnace designs NO_x form. prediction 19521
- steel indust. wireless coke oven SCADA syst. 9824
- thermophotovoltaics, appls., cost, GRI research 27995
- XFACT, diffusion furnace anal. and charactn. tool 22557

furniture
- impulsive ESD noise from office chair 30541
- indirect furniture ESD and implications 31713

fuses, electric *see electric fuses*

fusion-fission reactors *see hybrid reactors*

fusion reactor fuel
- augmented railgun-based fusion reactor solid H_2 pellet accel. 15283
- pellet EM launching, high vel. 2193

fusion reactor ignition
- *see also fusion reactor materials; plasma heating; plasma production*
- 1 MW 130-260 GHz free electron maser for fusion 39919
- conference, laser-plasma interactions, Monterey, USA (Oct. 1993) 22
- conference, lasers in optical systems/devices, St. Petersburg, Russia (1993) 11526
- G-band FEL amp. for cyclotron reson. heating in mag. fusion reactors 39921
- HI fusion accelerator research, LBL 43005
- ICF implosions, MEDUSA large scintillator arrays 26168
- laser evaporation ion source for plasma ICF 26105
- LD pumped solid-state laser, driver 31694
- MAGO thermonuclear ignition syst., MHD nozzle chamber calcs. 36614
- metallized electrode capacitors, nuc. fusion, capacitor banks 36631
- Nat. Ignition Facility, ICF, laser flashlamp power conditioning syst. 5106
- Nat. Ignition Facility protect 4429
- PBFA II, intense Li^+ hohlraum expts., target diagnostics 26071
- PBFA II, mag. insulated ion diode, meas. 26045
- thermonuclear magnetized plasma generation, mag. implosion syst. 36267
- Nd:glass Nova laser for inertial fusion expts. 1899
- O_2-I chem. laser constr. for thermonuclear fusion driver 31193
- XeF 10^5 J (C-A) transit. inversion wave by Nd-laser second harmonic amplif. 14718

fusion reactor instrumentation
- *see also fission reactor instrumentation*
- 2 kV 10 kA pulsed GTO bridge fusion power supply 5128
- 14 MeV neutron spectrometer design, fusion expt. reactor *(Japanese)* 26252
- 20 MVA GTO power amp., fusion research appls. 5115
- DIII-D tokamak, inside launch reflectometer systs. 34680
- fiber scintillating imaging detector for ICF neutrons 4198
- free electron maser, spectral dyn. 39624
- free electron masers, long. modes, fusion appls. 39625
- freq.-step-tunable gyrotrons, plasma heating/fusion diagnostics 6478
- ICF implosions, MEDUSA large scintillator arrays 26168
- ICF ρR meas., charged particle spectrometer 26149
- intense diagnostic neutral beam development 26109
- ITER tokamak reactor, α-particle spectrometer, scintillation detector 4228
- microwave reflectometry in tokamaks, dens. meas., turbulent flucts. 34681
- neutron penumbral imaging of ICF targets 34948
- PBFA, pulsed ion and neutral beam power dens., piezoelec. stress gauge meas. 26086
- plasma dens., microwave broadband reflectometry, stat. sig. proc. 40977
- scintillating-fiber neutron detector for fusion plasma diagnostics 26146
- TFTR, DT operation, scintillating-fiber neutron detector diagnostics 26147
- TFTR, He proportional counters, absol. calib. 26145
- TFTR tokamak, 14 MeV neutron meas., Si diode detectors 26148

fusion reactor materials
- *see also fusion reactor fuel; radioactive waste*
- composite and refractory-coated materials. launchers and fusion appls. 31769
- HL-1 Tokamak TF magnets, stress anal. 40270
- insulating ceramics, high-radiation field elec. breakdown 4699

fusion reactor operation
- neg. ion NBI syst., energy recovery 44424
- TFTR, DT operation, scintillating-fiber neutron detector diagnostics 26147

fusion reactors
- *see also fusion reactor ignition; fusion reactor instrumentation; fusion reactor materials; fusion reactor operation; hybrid reactors; nuclear engineering; plasma heating*
- composite and refractory-coated materials. launchers and fusion appls. 31769
- frequency step-tunable gyrotron for fusion plasma appls. 21835
- heavy ion fusion driver beams, longitudinal dynamics 26051
- heavy ion ICF driver beams, charge neutralisation 26052
- intense diagnostic neutral beam development 26109
- MAGO thermonuclear ignition syst., MHD nozzle chamber calcs. 36614
- PBFA II, applied-B ion diode, ion source divergence 26044
- PBFA II, mag. insulated ion diode, meas. 26045
- PBFA II ion diodes, 3D PIC simulations 26047
- PBFA-II ion diode, field profile 26046
- plasma science, conf., Vancouver, BC, Canada (June 1993) 6301
- proton beam transport through gas, electron density 26090
- thermonuclear magnetized plasma generation, mag. implosion syst. 36267

fusion splicing *see optical fibre fabrication*

future developments *see technological forecasting*

Futurebus *see system buses*

fuzzy control
- 8-bit μP based fuzzy-proc. archit. 678
- AC ASD, torque/speed/posn. control, trends 20065
- act. mag. bearings, fuzzy control scheme 22693
- all-weather/terrain intell. vehicle for law enforcement 34586
- analog antecedent and consequent fuzzy inference units, optoelectronic 31122
- analog implement. 773
- Aqua Explorer 1000 for inspection of underwater cables 9156
- ATM networks, fuzzy neural control of voice cells 16418
- automatic modeling of elec. drive syst., fuzzy logic 19664
- brushless DC motors, fuzzy speed control design 4989
- brushless DC servomotor auto-tuning, fuzzy optimal control 4988
- car collision avoidance syst. design 44581
- central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
- CMOS adaptive neuro-fuzzy analog chips 29418
- CMOS continuous-time analog defuzzifier 29417
- CMOS/BiCMOS monolithic mask-prog. analog fuzzy logic controller 30476
- congestion avoidance in computer networks, fuzzy control 16732
- cooker rangehood oil-dirt removal, polymer paint/fuzzy air flow control *(Japanese)* 44615
- current-mode multiple input max. cct. for fuzzy logic controllers 775
- DC drives, fuzzy control 5315
- DC motor, PID/fuzzy posn. controllers comparison 11070
- DC motor drive fuzzy logic control, neural net implement. 11316
- DC motor drive fuzzy speed controller 36654
- DC motor drives, fuzzy speed/voltage control 28099
- DC motor drives, separately excited, tunable fuzzy logic control 20076

fuzzy control continued
- DC servo motor, fuzzy PID control, accelerated reasoning 5167
- DC servomotor, fuzzy precompensated PID controllers 11068
- DC servomotor fuzzy logic VSS control design *(Korean)* 27744
- DC servomotor posn. control, fuzzy-Lyapunov fn.-based *(Korean)* 27745
- DC servomotor posn. control appl., multicriteria fuzzy control 11061
- DC servomotor speed fuzzy control 11069
- DC-DC power converters, fuzzy control based on quasilinear modelling 36369
- DC/DC converter, fuzzy optimal control commutation 44120
- disabled pers. aiding by intell. robotic systs. 35173
- distrib. network optimal switching planning, fuzzy inference appl. 19268
- domestic appliances, μP fuzzy logic control technol. *(Japanese)* 44616
- DSP-based fuzzy control design syst. 687
- elec. power model syst., stabil. anal. of fuzzy decentralized control 19173
- elec. vehicle induction motor neuro-fuzzy control 36722
- elec. wheelchair motors, fuzzy posn. controllers *(French)* 10283
- electric generator adaptive fuzzy speed control, rule-based 19582
- electro-hydraulic above-knee prostheses, gait control 43361
- engine idle-speed controllers, fuzzy logic based 11441
- fast defuzzification by adaptive integrat., hardware implement. 29284
- FPGA implement. fuzzy controllers 6140
- furnace, elec., fuzzy adaptive controller, proc. control appl. *(Korean)* 5389
- heart assistance, fuzzy controlled brushless DC motor 43357
- high-order systs., model ref. adaptive fuzzy control 5245
- HOE image qualities, fuzzy control 7847
- hybrid neuro-fuzzy power syst. stabilizer 10609
- hybrid neuro-fuzzy power syst. stabilizer 27069
- hybrid vehicles, energy flows mgt., fuzzy logic controller 20111
- image data compression, ART network, fuzzy control 2857
- induction machines, nonstd., fuzzy control 44035
- induction motor, trajectory learning method, neuro-fuzzy network *(Korean)* 36172
- induction motor ASD, fuzzy on-line efficiency optimisation control 36659
- induction motor drive, fuzzy 2-DOF speed controller 36660
- induction motor drives, fuzzy logic controller 20085
- induction motor fuzzy controller design 11024
- induction motor speed control, neural fuzzy controller design 44052
- induction motors, posn. control, fuzzy sliding mode control 44048
- induction servo syst., fuzzy logic controller 5002
- intell. alarms in biomedical engng., fuzzy logic approaches 4256
- intell. sens., analog fuzzy controller, CMOS implement. 37902
- intell. sync. servodrive, fuzzy/digital cascaded state controllers comparison 44012
- intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
- internet and inform. super highway, fuzzy interval 16731
- JPEG, fuzzy logic appl. 16232
- lin. servomotor drives, fuzzy logic/PID control comparison *(German)* 5278
- MELECON '94, conf., Antalya, Turkey (1994) 5470
- microcontroller-based batt. charger, neural-fuzzy technol. 6028
- micromachine PSS, real-time fuzzy control 10679
- microwave clothes dryer, fuzzy logic controls 5398
- missile homing guidance, fuzzy logic, perform. eval. 26527
- mixed analogue/digital fuzzy controller design 770
- neural fuzzy fast learning controller/filter 24354
- neuro-fuzzy nets, nonlin. systs. control appl. 44065
- nuc. steam generator level control, fuzzy learning algm. 19447
- optoelectronic fuzzy syst., inference methods, stabil. eval. 31045
- parametric fuzzy control module, 16 bit std. microcontroller SAB 80C166 17677
- pattern recogn., Fuzzy Self-Organizing Map 8578
- PD controller, fuzzy precompensated 19658
- pipeline custom design fuzzy controller 650
- PM DC motor control, fuzzy proportional-derivative tech. 19665
- PM DC motor drives, AI speed control strategies 5285
- power conditioners, fuzzy controller 19172
- power plant generator control, fuzzy modeling 4889
- power syst., secondary voltage control, fuzzy sets 19143
- power syst. anticipatory fuzzy control, neural net-based 43666
- power syst. decomposed fuzzy control 26942
- power syst. fuzzy adaptive excitation control method *(Chinese)* 43631
- power syst. fuzzy optimal load freq. control design *(Japanese)* 43682
- power syst. generation control automation, fuzzy controller design 35545
- power syst. generator operating point, fuzzy control *(Japanese)* 4592
- power syst. hybrid fuzzy/PSS control method 10668
- power syst. intell. control, appl. develops. 19135
- power syst. lin. optimal regulator, fuzzy neural net-based 19094
- power syst. load shedding optimal fuzzy control design *(Korean)* 35542
- power syst. modular secondary voltage fuzzy control design *(Slovenian)* 43690
- power syst. num. protection relays, fault diagnosis appls. 35673
- power syst. stabilisation, SMES, fuzzy control 19171
- power syst. stabiliser, fuzzy logic based 10641
- power syst. stabilizers, real-time, fuzzy controller optim. 4913
- power syst. static security fuzzy optimal control simuls. 35479
- power syst. transient stabil., SVC fuzzy control design 19101
- power systs., technols. *(Chinese)* 43650
- PSS, fuzzy control design studies 4508
- PSS, fuzzy controlled SVC design *(Japanese)* 26939
- PSS, fuzzy controller studies *(Chinese)* 27038
- PSS fuzzy excitation control syst. develop. 4509
- PSS intell. supervisory fuzzy control design 19103
- PSS SVC fuzzy logic switching design 19102
- PV array, max. power point tracking, fuzzy control *(Japanese)* 11293
- PV array max. power extraction, fuzzy logic control 19560
- PV power syst. max. power tracking, fuzzy neural net-based 19552
- PV-utility interfacing 19558
- PWM DC/DC power converter, fuzzy logic optimal control 44121
- PWM invertor batt. charger, UPS appl., fuzzy logic control 44154
- PWM VSI, current regulation techs. review 44178
- reconfigurable analog fuzzy logic controller 779
- reluctance motor drive, DSP-based sliding mode control 44493
- SC-based singleton fuzzy controller 684
- self-tuning fuzzy controller, switching control modes 27748
- semicond. mfg. proc. modeling and control, fuzzy logic model 20414
- sensor fusion for concrete mixing plant quality monitoring 25808
- servomotor, bang-bang fuzzy controller, time optimal/min. chatter 27769
- SLACK/OTD dyn. lot dispatch methodology, IC manufacture scheduling 22521

fuzzy control continued
- std. microcontrollers, fuzzy logic optimisation 21352
- steam turbine prewarming fuzzy control 10854
- stepping driving systs., fuzzy control *(Chinese)* 11384
- stochastic logic based on-chip learning controller 6166
- straight line extraction, perception/fuzzy thresholding 2859
- superheated steam temp. self-tuning fuzzy control 10855
- switched reluctance motor fuzzy adaptive control 10988
- telephone network mgt., learning automata 8777
- test syst. for prod. QC 11720
- traffic sign recogn. syst. 32951
- TV amps. tuning, robot fingers, fuzzy logic 37654
- TW US motor actuated servo drive, fuzzy control 11091
- universal fuzzy posn. controller for motor drives 36653
- urban elec. vehicle, fuzzy logic based efficiency improvement 44510
- US motor actuated valve, direct drive fuzzy motion control 5284
- variable speed DC motor drives, fuzzy self-organising control appl. 36689
- variable speed induction motor drive, adaptive fuzzy control 11392
- videophone, H.261-compatible fuzzy coder 3104
- VLSI analog fuzzy controllers, hardware/software toolkit 37899
- VLSI fuzzy controllers, automatic synthesis 685
- voltage-mode defuzzification ccts., analog implement. 21456
- VSI-fed PWM motor drives, predictive fuzzy control 5273
- wind energy induction generator DC link, fuzzy control 10908
- wind energy utilisation, fuzzy logic controller 36065
- wind power syst., max. power point tracking, fuzzy control *(Japanese)* 10903

fuzzy logic
- 2D images, spatial organization 2793
- 8-bit μP based fuzzy-proc. archit. 678
- 50 MFIPS fuzzy proc. and related 1 μm VLSI CMOS digital ccts. 29152
- act. mag. bearings, fuzzy control scheme 22693
- analog antecedent and consequent fuzzy inference units, optoelectronic 31122
- architectural synthesis, possibilistic prog. 12276
- ATM networks, fuzzy neural control of voice cells 16418
- automatic modeling of elec. drive syst., fuzzy logic 19664
- automatic vehicle location in cellular commun. systs. 3331
- automobile navig. systs., immobilisers, night vision, fuzzy logic 36763
- battle-suitable, electronically provided inform. 10598
- block-based image coding, inform. loss recovery, fuzzy logic approach 32873
- bulk power syst. restoration procedures, knowledge-based approach 26953
- BWR, accident mgt., fuzzy probab., influence diag. 35859
- car collision avoidance syst. design 44581
- ccts., fund. 6138
- CMOS adaptive neuro-fuzzy analog chips 29418
- CMOS continuous-time analog defuzzifier 29417
- CMOS VLSI hardware gates for efficient fuzzy computing 30474
- CMOS/BiCMOS monolithic mask-prog. analog fuzzy logic controller 30476
- color image segmentation, fuzzy clustering and supervised learning 16326
- colour perception, fuzzy sens. 3848
- contrast enhancement of blurred images, fuzzy logic based *(Korean)* 24694
- controller for PV-utility interfacing 19558
- convex fuzzy sets and convex fuzzy cones 28609
- cough detect., clinical syst., fuzzy logic 10169
- current-mode multiple input max. cct. for fuzzy logic controllers 775
- daily load forecasting, hybrid fuzzy-neural approach 4603
- DC motor drive fuzzy speed controller 36654
- DC servo motor, fuzzy PID control, accelerated reasoning 5167
- DC servomotor speed fuzzy control 11069
- decentralised AI controllers, intell. home automation 4536
- depth estim. from image defocus, fuzzy logic 2792
- digital parallel VLSI archit., fuzzy database mining 677
- distributed obj. recogn., fuzzy relational inference logic 16274
- engine idle-speed controllers, fuzzy logic based 11441
- facial expression recogn./reasoning, fuzzy logic 8562
- fault diagnosis in systs., fuzzy logic 28524
- FIRE operators, fuzzy inference edge detect. 2680
- flip-flops, fuzzy, logical expressions 12484
- foetal ECG, pattern anal. and interp. of changes, fuzzy logic concepts 35136
- genetic fuzzy clustering 11947
- handoff algm. perform. anal. by indoor propag. simulator 33819
- hardware reduction, fuzzy multiple signature anal. 29168
- HF power transformer core geom. CAD, fuzzy ES-based 44110
- HF transformers, core geom. selection, experto-fuzzy approach 36226
- HV equipt. insulation eval., intell. instrum. 19578
- hybrid neuro-fuzzy power syst. stabilizer 10609
- hydrostatic level meas., ES *(German)* 18160
- hydrothermal syst., best fuel mix, seasonal planning, fuzzy mathematics 10700
- IC proc. flow mgt., decision-making 29693
- IEEE conf. on instrumentation/meas., USA (1993) 20198
- IEEE industry applications, conf., Denver, USA (1994) 10
- IIR and FIR fuzzy filters, design 8323
- image enhancement, fuzzy filter 2794
- image segmentation via fuzzy additive hybrid networks 16350
- induction motor drives, PWM invertor-fed, instabil. sens. algm. 36681
- induction motor incipient fault detect., fuzzy neural net-based 36156
- inference proc., fuzzy, 64-bit, archit. 686
- intell. alarms in biomedical engng., fuzzy logic approaches 4256
- intell. optim. method for large-scale systs., fuzzy params. 11935
- intell. sens., analog fuzzy controller, CMOS implement. 37902
- internet and inform. super highway, fuzzy interval 16731
- intervals, basis for meas. theory 17626
- JPEG, fuzzy logic appl. 16232
- JPEG image data compression, fuzzy logic algm. 41076
- levels of fuzzy matrices 28610
- lin. servomotor drives, fuzzy logic/PID control comparison *(German)* 5278
- LP problems formulation and anal. by user oriented ranking criteria 11934
- machine fault detect., neural network/fuzzy logic technols. 4908
- machine operator safety, intell. image proc. 24523
- med. tissue stiffness estim., fuzzy reasoning/telerobot 34992
- median filtering, fuzzy concept 8322
- microcontroller-based batt. charger, neural-fuzzy technol. 6028
- microelectronic syst. archit./design, conf., Darmstadt (1992) 11535
- Midwest Symp. on ccts. and systs., Detroit (1993) 33
- multisensor data fusion, autonomous fuzzy archit. 40786
- multisensor instrumentation, totally fuzzy approach, sig. preprocessing 2681
- multisensor multitarget tracking, fuzzy estimator 8326
- neuro-fuzzy hybrid hardware implement., neural chip URAN 29514

fuzzy logic continued
nuc. power safety, neural nets/fuzzy systs. 35849
obj. recogn., model-based, fuzzy 2858
odor discrim., fuzzy reasoning and neural networks 9955
off line signature verification, fuzzy algm. *(Korean)* 24679
optimal mapping of fuzzy rules on std. micro-controllers 21361
pairwise topol. bifuzzy spaces 37249
pattern recogn., Fuzzy Self-Organizing Map 8578
patterned wafer defects, automatic fuzzy logic class. 37168
Petri nets *(Chinese)* 28611
phasor tracking, estimator based on fuzzy IF-THEN rules 4502
phoneme recogn., contin. dens. HMM, unsupervised speaker adapt. 40755
PLAs design realising fuzzy logic fns. 29104
power conditioners, fuzzy controller 19172
power controller, fuzzy chip-based fault classifier 11131
power harmonics pattern recogn., fuzzy eqns. 4464
power supply input protect. cct. for severe transients 44188
power syst., digital relay protection, fuzzy logic 4725
power syst. expansion planning, optimal generation mix algm. 27099
power syst. fault diagnosis, fuzzy ES-based 19031
power syst. reliab., fuzzy logic appl. 26889
power syst. stabiliser, fuzzy logic based 10641
power systs., AI proc. monitoring/optim. 35698
power systs., operational intell. syst. appl. 43617
problem-solving capabilities and limitations *(German)* 29196
proc. monitoring, neural net-based *(Japanese)* 9790
pulse diagnosis, Chinese, computer/fuzzy theory 43203
radar fuzzy tracking of aircraft 9624
reconfigurable analog fuzzy logic controller 779
relax. labeling, analog VLSI cellular fuzzy automata networks 29462
RF cavities, HV, conditioning, fuzzy logic/rule based prog. 18273
SAE 81C99 Fuzzy Inference Processor 29283
seismic event class. 35290
selection and binary decision tree design 8567
self-actuated mobile device for load carrying 35170
semantic phase transit. in classifier based on adaptive fuzzy syst. 8580
semicond. defect recog. fuzzy expert syst. 1192
sens. data fusion, fuzzy logic approach 33154
sensing gluten development during bread dough mixing 25806
sensor fusion for concrete mixing plant quality monitoring 25808
seq. cct., wt.-added fuzzy flip-flop 621
shattered glass, image drop-out, region reconstruction, fuzzy algm. 2834
sig. proc., image restoration appl. 16118
SMDs, inspection/subpixel alignment, fuzzy morph. *(Korean)* 29691
SMT PCB assembly, placement machine, multi-criteria DSS 28424
spacecraft vehicle health mgt. systs., large-size data reduction/fusion algm. 18725
std. cell VLSI placement, fuzzy logic approach 1474
steam turbine prewarming fuzzy control 10854
steam turbines, large, optimal load cycling 4845
straight line extraction, perception/fuzzy thresholding 2859
telecom. networks, fuzzy dyn. prog. for capacity expansion problems *(Japanese)* 41565
terrain, recogn. for SAR imagery 41263
text-independent speaker recogn. from vowel extraction *(Korean)* 40731
tissues segmentation from MR images *(Japanese)* 18537
turbine blade, faults, intell. diagnosis, neural nets/fuzzy logic 35714
TV amps. tuning, robot fingers, fuzzy logic 37654
urban distrib. systs. operational structuring, reliab. aspects 43753
urban elec. vehicle, fuzzy logic based efficiency improvement 44510
US med. images, classif., fuzzy reasoning *(Japanese)* 10216
visual inspection, linguistic fuzzy inputs 38951
VLSI multi-chip design, timing-driven syst. partitioning, fuzzy-neuro approach 792
voice quality conversion, supervised/unsupervised spectral mapping *(Japanese)* 2424
voltage-mode defuzzification ccts., analog implement. 21456
VQ, fuzzy, algms., efficiency 2401
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824

fuzzy neural nets
3D obj. recogn. by hybrid Hopfield neural net 33028
all-weather/terrain intell. vehicle for law enforcement 34586
ART1 neural net memories, fuzzy optoelectronic implement. 31123
ATM networks, fuzzy neural control of voice cells 16418
auditory evoked pot. class., ART 2-A/fuzzy ARTMAP comparison 43316
cascaded gratings design, fuzzy ARTMAP neural net appl. 40445
central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
class., fuzzy neural nets, FPGA-based implement. 32948
class. fuzzy multilayer perceptron/partitioning 32678
color images anal., biol.-like neural net model 41212
controller/filter, fast learning, fuzzy neural 24354
data compression, fuzzy, plane curves; neural nets 24355
edge detecting fuzzy neural networks, training, model-based examples 8582
elec. vehicle induction motor neuro-fuzzy control 36722
feature/sens. selection, appl. 40789
Fuzzy ARTMAP, radar target recog. neural net 25583
geophys. computed tomography by neuro-fuzzy inversion 43500
gratings/FSSs design, fuzzy ARTMAP neural networks appl. 40449
GSM radio meas. data, proc. methods 3447
image data compression, ART network, fuzzy control 2857
induction motor, trajectory learning method, neuro-fuzzy network *(Korean)* 36172
induction motor incipient fault detect., fuzzy neural net-based 36156
induction motor incipient fault diagnosis, fuzzy neural net-based 36157
induction motor speed control, neural fuzzy controller design 44052
load forecasting, models comparison, fuzzy neural nets 19219
load forecasting, short-term, fuzzy neural net 19208
motor fault detect., hybrid fuzzy/neural syst. used extract heuristic knowledge 4984
multidimensional MR image segmentation 26322
musical sigs., loose-harmonic matching fund. freq. estim. 34300
nearest-prototype fuzzy classifiers learning 37919
neuro-fuzzy hybrid hardware implement., neural chip URAN 29514
neuro-fuzzy nets, nonlin. systs. control appl. 44065
neuro/fuzzy systs., analogue, CMOS design, basic building block approach 790
obj. recogn., neural network config. design 33032
odour absorpt. films selection, sens. qty. eval. *(Japanese)* 42783
online pattern clustering, fuzzy neural networks *(Korean)* 24687

fuzzy neural nets continued
pattern class. 41157
power controller, fuzzy chip-based fault classifier 11131
power equipt. shorted turn location, fuzzy neural net-based 19687
power syst. optimal VAr control, fuzzy neural net-based 35480
power syst. peak load forecasting, fuzzy neural net-based 35590
seismic trace editing, fuzzy functional-link net 26712
systolic array/fuzzy clustering neural net mapping 791
turbogenerators, winding shorts localisation, fuzzified ANN 44021

fuzzy set theory
agric., cartographic problem solving, geographical IS 4413
ATM networks, fuzzy neural control of voice cells 16418
autonomous load sharing, mutual priority protocol 8747
bacterial colony counting, dist. transform 26315
bladder cancer cell class., neural net/fuzzy c-means 43258
Boolean neural network for character recogn. 41157
car driver behavior evol. detect., fuzzy diagnosis proc. 34387
colour image segmentation, fuzzy tech. 2790
common fixed point theorem in fuzzy metric spaces 37329
convex fuzzy sets and convex fuzzy cones 28609
DC fuzzy optimal power flow algm. perform. eval. 19211
DC servomotor posn. control appl., multicriteria fuzzy control 11061
delay representation, WAN routing algorithms 8963
dim objs., detect. and tracking, fuzzy evidential filter 41031
discriminant anal. based on exponential possibility distribs. 8579
distrib. network planning, fuzzy math. prog.-based 27155
distrib. network reliab. eval., fuzzy set theory-based 27150
distrib. systs., capacitor placement, fuzzy algm. 10725
dyn. voltage security assess., fuzzy-set approach 43664
energy emission model, fuzzy sets based 35981
engng. syst. safety anal./synthesis, fuzzy sets/evidential reasoning-based 36980
fault tree anal., knowledge engng. approach 28535
forest param. estim., TM imagery, fuzzy class. 26777
gas turbine power plant operations scheduling 43922
generator maint. scheduling, subjective constraints relax. *(Japanese)* 27663
handoff/service area determ., pattern recogn. techs. 3398
HOE image qualities, fuzzy control 7847
holographic grating fab., lin. equiv. fuzzy anal. 40152
human-motion recogn. by fuzzy associative inference 8581
hydro-power sales data fuzzy interpolation 4865
hydroelectric generation scheduling, fuzzy LP 4858
IIR adaptive filter, fuzzy based syst. ident. 32772
IIR and FIR fuzzy filters, design 8323
image enhancement, fuzzy filter 2794
image enhancement, fuzzy set operations, histogram spec. 24661
image proc., intens. connectedness extraction 33096
image proc., nonlin. fuzzy filter for mixed noise removal 2791
image segmentation, fuzzy probabilistic relax. 2789
image thresholding by fuzziness measure minimization 16248
inform. measure utilisation of image thresholding 2722
integrated fuzzy clustering, biomedical images 16368
L-R fuzzy no., median 11924
levels of fuzzy matrices 28610
life test, fixed-time, fixed-time life test, fuzzy theory 123
M/M/1 fuzzy queueing syst. 2898
min. cost power transm., EM field considerations 35650
multisensor multitarget tracking, fuzzy estimator 8326
multisensor noisy/fuzzy data filtering 32804
myoelectric sigs., fuzzy rule based adaptive nonlin. filter 35132
obj. recogn., grouping, fuzzy uncertainty measures 2860
opt. flow estim., fuzzy constraint line clustering *(Korean)* 33119
pairwise topol. bifuzzy spaces 37249
pattern class. via fuzzy syst., tuning 8577
PCB solder joints vision inspection machine *(Italian)* 5687
PCB testings, fuzzy pattern recognition 38075
Petri nets *(Chinese)* 28611
phasor tracking, estimator based on fuzzy IF-THEN rules 4502
possibilistic clustering, fuzzy membership fns. 8583
possibility distrib., LP, fuzzy nos. 28613
power generation planning, fuzzy multi-attribute decision-making 19216
power plant generator control, fuzzy modeling 4889
power syst., VAr planning, interactive fuzzy satisfying method 4602
power syst. digital relaying fault ident., fuzzy-set approach 27249
power syst. expansion planning, long-term, computer-based 4607
power syst. generation expansion planning, fuzzy no.-based 19205
power syst. load shedding optimal fuzzy control design *(Korean)* 35542
power syst. modular secondary voltage fuzzy control design *(Slovenian)* 43690
power syst. optimal generation mix, fuzzy algm. 4598
power syst. reinforcement planning, fuzzy optimal power flow 19213
power syst. reliab., fuzzy logic appl. 26889
power syst. security assess., pattern recogn./fuzzy estim. ES-based 35506
power syst. security assess. appls. 19105
power syst. stabilizers, real-time, fuzzy controller optim. 4913
radar fuzzy tracking of aircraft 9624
random fuzzy sets and fuzzy martingales 28614
rational choice based on vague preferences 28580
reliab. optim. problem soln. 11848
remote sensing image boundary area, fuzzy inference 9413
rotors, rubbing fault, diagnostic methods *(Chinese)* 10926
rubber tyre image, characters, edge detect., fuzzy α-cut set *(Korean)* 24677
SAR, fuzzy block adaptive quantizer 9623
semicond. wafer mfg., prod. control, fuzzy simul. model 20399
sens. data fusion, fuzzy logic approach 33154
speech recogn., HMM param. estim., fuzzy VQ 15819
std. cell placement, fuzzy-clustering-based algm. for cct. partition 22510
std. cell VLSI placement, fuzzy logic approach 1474
std. cells, orient. assignment, fuzzy math. transform. 5944
struct. reliab. estim. models, uncertain data handling 37179
substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
superheated steam temp. self-tuning fuzzy control 10855
texture-based and fuzzy class. for regenerating tropical forest mapping, Landsat TM 43516
turboalternators, vibr. features of faults, automatic recogn. *(Chinese)* 36139
TV amps. tuning, robot fingers, fuzzy logic 37654
uncertain computer-aided meas. systs. 3739
uncertainty and decision-making problems in fuzzy expts. 37233
uncertainty modelling, in signal detection task 8441

fuzzy set theory continued
- VLSI design, orient. assignment of std. cells, fuzzy maths 28975
- VLSI multi-chip design, timing-driven syst. partitioning, fuzzy-neuro approach 792
- VQ based HMM 32362
- wind turbine installation site selection, fuzzy set theory 27647

fuzzy systems
- *see also fuzzy control; fuzzy logic; fuzzy neural nets*
- analog and pulse stream VLSI hardware for neural nets and fuzzy systs. 29458
- analog antecedent and consequent fuzzy inference units, optoelectronic 31122
- car collision avoidance syst. design 44581
- decision tranquillity under choice, empirical study of continuum of tranquillity 11917
- dist. protection gradation, influence of network fuzziness *(German)* 19336
- fossil power plant, drum-type boiler syst., fuzzy ES for fault diagnosis *(Korean)* 43907
- human-motion recogn. by fuzzy associative inference 8581
- IEEE IECON '94 conf., Bologna, Italy (1994) 36823
- intell. sig. proc., present and future *(Japanese)* 24333
- intelligent hybrid system, telecom network routing appl. 8789
- median filter based on fuzzy rules *(Japanese)* 21431
- microelectronics for neural nets and fuzzy systems, conf., Italy (1994) 28223
- Midwest Symp. on ccts. and systs., Detroit (1993) 33
- multisensor data fusion, fuzzy methods 24431
- optimal fuzzy filter synthesis, local stats. based *(Japanese)* 21433
- optoelectronic fuzzy syst., inference methods, stabil. eval. 31045
- pattern class. via fuzzy syst., tuning 8577
- power syst. automation, computational intell. 19161
- real-time navig., global positioning syst. 18991
- semantic phase transit. in classifier based on adaptive fuzzy syst. 8580
- short-term load forecasting model, ANN, fuzzy ES *(Korean)* 35587
- SICE'94 conf., Japan, 1994 5455
- subimage class., adaptive image data compression, fuzzy syst. *(Korean)* 24560
- system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239

g-line lithography *see photolithography*

gain (amplification) *see amplification*

gain control
- *see also automatic gain control*
- 8mm total power radiometer, periodic calib. 3962
- amp. gain control via geom. size/transistor interconnections 29055
- CMOS wireless vol. control receiver for hearing aids 18606
- digitally prog. dual-polarity-gain amp. 29056
- generator excitation syst., gain scheduling control *(Chinese)* 4881
- induction motor drives, discrete-time sliding mode digital control 11390
- laser binary FSK communication, integrated heterodyne receiver/spatial tracker 17296
- LINC transmitters, automatic adjustment of gain/phase imbalances 25204
- pyramidal horns with composite E-plane walls, contour path FDTD anal. 23925
- travelling wave US servo motor, speed tracking control 19676

gain measurement
- 75 to 115 GHz quasi-opt. amp. struct. 23907
- C-band linearly tapered slot antenna on Si substr. 23908
- HF electronic component measuring syst. 9821
- ICs, noise immunity, heatsink, influences 20436
- integrated test system, small/large signal device characterisation 25957
- Italsat-Olympus 20-GHz orb. diversity expt. 25456
- multistage laser facility, small-sig. gain meas. 23332
- power converters, digital current mode control charactn. 5116
- spiral antenna perform. over tightly spaced ground plane 23881
- test zone field compensation 40452
- video speed ADCs, differential gain and phase meas. 12609
- Pr^{3+}-doped fluoride fiber amp., LD pumped, gain characts. 1875

gain regulation *see gain control*

Galactic radiowaves *see radiofrequency cosmic radiation*

galaxies
- H, 21 cm hyperfine line, radioastronomy appls. 5514

Galerkin method
- 3D eddy currents in conducting and mag. shells, impedance-type boundary conditions 40238
- adaptive refinement for boundary integral methods in electrostatics 15222
- broad wall coupler between dissimilar rect. waveguides, S-matrix 12714
- broadband cylindrical-rect. microstrip antennas, gap-coupled parasitic patches 2329
- cable harnesses, capacitance calcs., method of moments 33741
- convergence of Legendre methods for NS eqns. 273
- cylindrical microwave struct., semi-inversion method 15557
- EM beam diffr. by planar periodic metal-strip grating 40295
- EM coupled stacked rect. patch antennas 31927
- EM scatt., high-order basis fns. for Galerkin method of moments 31790
- EM scatt. by dielec. circ. cylinder partially clad by PEC 2209
- EM scatt. from plane wave or dipole excited finite grounded dielec. substrate 23849
- EM wave diffr. on cylindrical vibrator surface 40299
- finite thickness transm. lines above periodically perforated ground plane, packaging 23757
- generalized Galerkin tech., convection-diffusion eqn. 279
- GRIN planar opt. waveguide anal. by impedance boundary method of moments 7347
- ground-plane-backed planar slot antenna expt. and calc. 23911
- H field vectorial Galerkin method 39358
- hemispherical shell Neumann scatt., modal series accel. 31798
- horn antenna radiation pattern anal. by moment method 23935
- hybrid FEM, phased array antenna anal. 23939
- inhomog. dielec. modeling, integral eqn. soln. 15393
- inhomogeneous integrated optic planar waveguide anal. by Galerkins method 1711
- magneto-optic ridge waveguide struct., nonreciprocal mode propag. 39421
- metal clad GRIN opt. planar waveguide anal. 40399
- method of moments, react., variational aspects 23490
- microstrip and slotline planar struct. impedance matrix eqn. 23752
- microstrip antenna surface wave efficiency comparison 23839
- microstrip floating line struct., full wave anal. by wavelet expansion method 15572

Galerkin method continued
- microwave rect. waveguide applicator for dielec. sheet materials proc. 5385
- MQW-sandwich nonlin. directional coupler with nonlin. losses, all-opt. switching 31601
- multiconductor CPW transm. lines, [C] and [L] matrices computation 12791
- nonhomogeneous NS eqns., error estim. for spectral semi-Galerkin approxs. 11956
- nonlin. time-domain formulation of method of moments, EM field distribs. 40186
- offset dual-patch microstrip antenna anal. 2335
- parab. systs., integrated space-time adaptive hp-refinement methods 37344
- parallel coupled inset dielec. guides, hybrid mode anal. 31882
- perfectly conducting slotted elliptic cylinder, near-field anal. 23830
- Petrov-Galerkin methods applied, nonlin. problems 20639
- PLL, bifurcation, Galerkin-based anal. 21158
- quasioptical resonators, mode interact. 8014
- RCS surface model accuracy importance 34123
- rectangular patch antenna feed microstrip line gap discontinuity anal. 32000
- reson. tunneling diode, C-V curve hysteresis, quantum hydrodynamic model 38799
- sectoral waveguide radiating slot, equiv. params. 8081
- spectral-Galerkin method, direct solvers of 2nd- and 4th-order eqns., Chebyshev polynomials 20607
- stepped flexural mode quartz cryst. resonator, reson. freq. 39090
- superquadratic loop antenna circuits 23867
- tapered rect. transm. line, anal. 40396
- time depend. Maxwell's curl eqns., hybrid finite element solns. 40184
- unbounded wave propag. problems, modelling 40418
- waveguide transfer problem, FEA, coaxial line syst. 15608
- Fe core slab, mag. field diffusion, hysteresis models 39146

galloping, overhead lines *see overhead line mechanical characteristics*

Galois fields
- alg. geometric codes from sing. projective curves, GF(2^m) 40659
- BCH codes, duals, min. dist. bounds 32145
- binary wt. spectrum of extended (2^m,5) RS code and dual code 40633
- convolutional codes, min. error-trellises constr. 32129
- cyclic block codes definable, multiple finite fields 24116
- cyclic codes, min. wt. codewords, alg. charactn. 32148
- difference families/optimal opt. orthogonal codes, constr. 32073
- exponential sums over Galois rings, upper bound 40607
- five-dimens. quaternary lin. codes, nonexistence 32065
- freq. hopping seqs., small cross-correl. 32109
- non-binary correl.-immune/resilient fns., charactn. 37220
- nonlin. filtered seqs., lin. complexity, FT approach 32178
- prime no. blocklength RS code, FT algm. 40617
- q-ary interleaved seqs., theory/appls. 32051
- repeated-root (cyclic) codes, freq. domain description 32149
- systolic VLSI implementation of Galois field arith. algm. 22569
- VLSI multiple-valued logic fn. optimisation based on Petri nets 6143
- Weil exponential sums over Galois rings, upper bound 32057

galvanising *see surface treatment*

galvanoluminescence *see luminescence*

galvanomagnetic effects
- *see also Hall effect; magnetoresistance; photoelectromagnetic effects; thermomagnetic effects*
- semicond. thin film in quantizing mag. field, elec. cond., surface scatt. 21868
- GaAs/AlAs superlattice, interface flucts., magneto-transport 13152
- AlGaAs/GaAs quantum wires, elec. cond., electron-phonon interact. 29913
- GaAs/AlGaAs quantum wires, electron interf., correl. field anal. 38356
- (HgCd)Te semicond., bulk/2D conductivities 13067
- $In_{0.53}Ga_{0.47}As$/InP quantum wires, tunable width of conducting channel 13184
- NiFe thin film, act. galvanomagnetic device possibility 39213
- NiFe thin films, galvanomagnetic EMF effect *(Japanese)* 30675

galvanomagnetism *see electromagnetism*

galvanothermomagnetic effects *see thermomagnetic effects*

game programs *see computer games*

game theory
- *see also differential games; information theory*
- 3D life, further on game 37229
- ballistic missile defense, discrim. perform. requirements 4435
- bipolar games, lin. incentives, risk dominance measure 37232
- bisimulation, games, and logic 20524
- broadband network fair-efficient call admission control policies 41426
- C^2 systs., game theory/tree lookahead archit. appl. 26814
- cogenerator-customer wheeling syst., buy-back syst. 10667
- computer networks, game-theoretic anal. of switch service disciplines 3206
- cooperative games, complete inform., equilib. selection 37230
- discrete majority games, symmetric solns. 11914
- discrete search game 37235
- effectivity fn. games, bal./stabil. equivalence 37234
- elec. utility-cogenerator elec. market, game model 4577
- filters, decentralized game-theoretic, optimal 16057
- g-proper equilib. points for multiperson normal games 20525
- gambling, decisions under risk with incomplete knowledge 5738
- gambling for mnemonically impaired 40538
- general framework for min. search in game trees 5737
- gross discrete model 11916
- image labeling, game strategy approach 24364
- mixed searching and proper-path-width 20523
- n-pers. non-zero-sum game, computation of equilibria 11915
- nonzero-sum stochastic games, discounted/av. cost 11919
- optimal strategies for searching in presence of errors 5741
- probabilistic recurrence rels. 28581
- robust $\mathcal{H}_\infty$ filtering for continuous time varying uncertain syst. 40813
- satellite image segmentation, texture/context/map 26781
- selection in presence of noise, design of playoff systs. 5740
- subjective games and equilibria 37231

gamma distribution
- finite range failure model, reliab. anal. 37187
- inverse coeff. of var., asymptotic sampling distribs. 20481
- random proc., DOF, Fisher inform. and freq.-time products 202
- renewal models for maneuvering targets 34114
- SAR imagery, edge features, clutter stats. 42500
- teleconference traffic from VBR video coders, modeling 16818

gamma radiation *see gamma-rays*

gamma-ray apparatus
see also gamma-ray production; gamma-ray spectrometers
Compton scatter pipe wall imaging syst. 18094
gamma camera, high energy, multiple hole collimator/PMT based 18406
med. cameras, likelihood/energy/Bayesian windows for scatt. rejection 35038
med. gamma camera QC ES 10204
multichannel imaging camera, TeV gamma rays, optimal charact. 4230
video/gamma ray imaging syst., nuc. indust. robot appl. 19399
Si detector X-ray/γ-ray probe, backscatt. det., struct. nonuniformity meas. 4210

gamma-ray applications
see also gamma-ray apparatus; radiation therapy
activation anal., neutron focusing optic, submillimeter materials anal. 5933
dual-mode indust. CT 21010
thermoradiotherapy syst., simultaneous microwave hyperthermia/^{60}Co irrad. 18593
Cd$_{1-x}$Zn$_x$Te radiation detectors 43104

gamma-ray astronomy
GILDA mission, gamma-ray telescope, Si strip detectors 26138
imaging atmos. Cherenkov telescope, primary gamma ray spectra 34904
instrumentation, conf., San Diego, CA (July 1994) 5466
TeV gamma rays, multichannel imaging camera det., optimal charact. 4230
TIGRE, Tracking/Imaging Gamma Ray Experiment (1, 100 MeV) 18412
Tracking/Imaging Gamma-Ray expt. (TIGRE) for 300 keV-100 MeV gamma-ray astron. 4204

gamma-ray bursts *see gamma-ray sources (astronomical)*

gamma-ray detection
absorbed dose, ionizing radiation, water unit realisation 34312
alanine dosimeter for γ-ray meas., props., ESR spectrosc. 26504
CDF End Plug Upgrade Project 26187
CdTe detector syst. develop. 18314
collider detectors, high energy particles, calorimetric tracking 26212
combined full energy peaks, NaI(Tl) scintillator 34901
complex coincidence matrices, energies extraction, intens. 18346
Compton spectrometer, scintillator nonlin., energy resoln. 18309
Compton suppression shield in low-level γ-spectrosc., background changes 10152
Compton suppression well counter, gamma-ray activities 18359
conf. on NaI(T1) detectors, calib., NY, USA, Jan. 1995 43064
conference, nuclear physics, Zakopane, Poland (Sept. 1994) 36817
coord. charact. of modular gamma detector, 75-mm cell 4220
diamond fast photodetectors response 42799
directional fast neutron detector, scintillating fibers, CCD camera 18328
dosimetry, Zener diodes 43137
emergency protective devices, gamma ray localisation 26117
fast timing coincidence syst., gamma speed meas. 34958
FERMI neutron and gamma detector for cold fusion expts. 34943
gamma camera, high energy, multiple hole collimator/PMT based 18406
gamma-vision camera, contamin. monitoring of γ-radioact. objs. 26230
GAMMASPHERE, BGO Compton-suppress. shield, Ge detector 18400
Gammasphere detector array, identical bands, nuc. struct. 43109
gaseous detectors, vis./UV photons 18339
high-purity Ge technol. for gamma-ray/X-ray spectrosc. 43067
Hiroshima/Nagasaki, posteriori track recorder neutron dosimetry 10295
HPGe detectors, high energy γ-rays detect. 43110
hydrogenous material for sensitizing pMOS dosimeters, neutrons 26496
ICARUS detector, data reduction techs., phys. param. extraction 10125
imaging atmos. Cherenkov telescope, primary gamma ray spectra 34904
Josephson tunnel junctn. with trapped Abrikosov vortices, rad. detect. appl. 4154
keV-neutron expts., γ-ray detect., NaI(Tl)/Ge detectors 34891
KUR-ISOL, mixed-gas jet syst. characts. 10149
large area Xe drift chambers for high energy gamma-ray astrophys. 4199
LHC detectors and calorimeters 34902
liq. Xe doped with organic mols., ionisation chamber, gamma-ray detector 4200
liq. Xe-TPC, MeV γ-ray calorimetry/imaging 4203
modular EM calorimeter, gamma quanta detect. 4216
Moessbauer spectrometer, SEDM, RSMR 43143
multidetector photon intens. interferometry 10113
neutron-gamma mixed-field dosimetry syst., TLD-based 18635
PET detector modules based on novel detector technols. 18464
photon fluence spectra determ., NPL Mobaltron ^{60}Co unit 26508
plastic scintillating opt. fibers, small animal whole body imaging 4162
plastic scintillator/Cerenkov radiator detector atten. 26115
pMOS dosimeters, energy depend., package geom. effects 26497
posn. sensitive β-γ coincidence, multiplexed gamma spectrometry 18363
resistive plate chamber, photon and neutron irrad. 34932
RT semicond. detectors, phys.-chem. props. effects 43095
scintillating fiber detector, energy resoln. 4161
semicond. detectors fund. for ionizing radiation 43065
TAGS, β^--decay intens. distribs. meas. 10153
TeV gamma rays, multichannel imaging camera det., optimal charact. 4230
TIGRE, Tracking/Imaging Gamma Ray Experiment (1, 100 MeV) 18412
toroidal proportional detector for conversion X-ray/transm. Mossbauer spectrosc. 10124
Tracking/Imaging Gamma-Ray expt. (TIGRE) for 300 keV-100 MeV gamma-ray astron. 4204
Visible Light Photon Counter, weak scintillations 4158
γ/e^- dose intercomparison, mailing dosimetry, free-radical dosimeters 35203
γ/π^0 shower separation, tile-scintillator shower max. detector 26127
γ-ray spectrometers, background spectrum, cosmic muons contrib. 10158
(n,γ), Doppler-broadened γ-ray line shapes, nuc. lifetimes 34893
BGO block detectors, 144-/256-cryst., testing, PET appl. 43225
BaF$_2$ scintillator, spillover quantification, $\alpha/\beta(\gamma)$ discrim. 18307
CF$_4$ scintillation, detector uses 26118
CaSO$_4$:Dy, TLD, pers. dose equiv. assess. 18676
CdTe and Cd$_{0.8}$Zn$_{0.2}$Te γ-detectors, perform., elevated temps. 4213
CdTe detectors, γ-ray spectra, charge trapping, ballistic deficit effects 18319
CdTe detectors, semi-insulat. material prep., internal field distrib. 4212
CdTe γ-ray spectrometer, Monte Carlo simul., time/energy resol. 4246
CdTe γ-rays detector simul. 43084
CdTe hemispherical detector response matrix generation 18317
CdTe, planar detectors, pulse proc. 43086
CdTe:Cl, elec./opt. props., detector appl. 43085
CdTeSe:Cl, elec./opt. props., detector appl. 43085

gamma-ray detection continued
CdZnTe ionization detectors, single polarity charge sens., coplanar electrodes 10105
CdZnTe pixellated gamma detector arrays 18350
Cd$_{1-x}$Zn$_x$Te radiation detectors 43104
Ce-doped scintillating-glass-fiber neutron sens. 18327
^{137}Cs radioactivity, snowfields, glaciers in situ γ-ray detector 18356
CsI photodiode detectors for gamma rays and their clinical appls. 18469
CsI(Tl) pixellated arrays, posn.-sensitive PMT readout 18354
GaAs, growth techs. effect on photon detect. capabilities 43100
GaAs semi-insulating detectors, low energy X-ray detection 34935
GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
Gd$_2$SiO$_5$:Ce, scintillation crysts., γ-ray detect. 4206
Ge semicond. arrays, multiplexer readout for gamma-ray imaging 18351
Ge(HP) detector, efficiency curve shape, 900-1300 keV 18325
HPGe detect. with BGO shield, high energy γ-rays resp. 10114
HgI$_2$, X- and gamma-ray detectors for space appls. 43072
HgI$_2$ gamma-ray spectrometers, electronic charactn. 43078
HgI$_2$ microdetectors, low-energy gamma-ray perform. 4192
HgI$_2$, multielement detector systs. for X-ray/gamma-ray imaging 43068
HgI$_2$ photodetectors combined, scintillators for gamma-ray spectrosc. 18312
HgI$_2$:Ag crysts., defects, rel. to X-ray/γ-ray detector perform. 43075
(^{7}Li,^{7}Be), γ-ray coincidence timing, BGO detector array 18306
^{22}Na radioactivity, absol. meas. *(English)* 4151
NaI(Tl) detector, 0.66 MeV γ-detect., photomultipliers with MCP 38221
NaI(Tl) γ-spectrometer, 9″×9″ well-type, low level perform. 10151
Pb scintillating fiber calorimetry, 20 MeV-1.2 GeV range 26209
PbI$_2$, high energy γ-ray detector appl. 43093
PbWO$_4$ cryst. calorimeter for CMS, LHC 26198
^{222}Rn gas, low-emanating materials, sensitive effluent method 18630
Si detector X-ray/γ-ray probe, backscatt. det., struct. nonuniformity meas. 4210
Si photodiode, X/γ-ray detector 43163
Sn mining, smelting, pollutant characterisation, EDXRF, HpGe 18909
Xe TPC, radiative pion decay detect. 4205
Xe high press. cylindrical ionization chamber 4202

gamma-ray effects
see also biological effects of gamma-rays; radiolysis
1.2 μm CMOS-SOI technol. transistors, noise charactn., gamma ray effets 13728
act. optoelectronic devices, LEDs, LDs, PDs, OCs 23047
bipolar transistors below 10 rad(SiO$_2$)/s, dose-rate response saturation 13639
CR-39 detector, sensitivity study, background track reduct., α detect. 43134
Cr-39 detectors, alpha/fission track radiation effects 26232
diacetylene-substituted polydiacetylenes, synthesis, opt. props. 23345
ethylene-propylene rubber cable insulation, γ-irrad., elec. cond. 14070
fluoropolymer insulator, γ-ray irrad., ageing effect, position annihilation meas. 14048
fused biconical taper WDM, radiation effects 17261
germanosilicate fiber Bragg gratings, γ-ray exposure written, low dose rate 7286
heat/radiation-resistant coaxial cable insulation *(Japanese)* 16990
LHC liq. Ar calorimetry, radiation resist. of front-end electronics 26251
microwave Gunn diodes operation under γ radiation 12781
MOS struct., interface state dens., postoxidation cooling 22057
MOS transistors, 1/f noise, mobility or no. flucts. 1380
MOSFET, ^{60}Co γ-ray, ionizing radiation, analog charact. *(Chinese)* 22459
MOSFETs/SOI, total γ irrad. dose effects, I-V meas. 13705
nuc. facilities, opt. fibres, radiation hardness 22838
opt. fibre radiation resist., fluorine-doped silica cladding 22841
opt. fibre sens. syst., gamma irrad. effects 25870
pass. fibre optic components/sens. systs., radiation sensitivity 22845
plastic scintillator plates, wavelength shifting fibers, low dose rate tests 26219
plastic scintillator/Cerenkov radiator detector atten. 26115
polyethylene insulation, space charge accumulation meas. *(Japanese)* 43793
power semiconds., radiation effects, nuc. power indust. appl. 38890
power VDMOSFETS, gamma-irrad. induced degrad. mechanisms 22465
radiation dosimetry, Zener diodes 43137
radiation hard monomer scintillators 26214
radiation-stable TV transm. device for wide-angle static survey 42640
ruby, gamma-irrad. samples, photon echo spectrosc. investigs. 31602
scintillating, wavelength-shifting, clear fibers, fluores. yield, γ-irrad. 26223
Shashlik calorimeter, radiation hardness 26228
Shashlyk EM calorimeter, gamma-irrad. of cast scintillators 34909
SOI GAA MOSFETs, γ-irrad., noise charact. 13686
SOI MOSFET, LF noise, gamma ray effects 22418
solar cells, phosphate glass based protective coating 36596
thin film superconds., gamma-ray and fast neutron radiation effects 14276
TMP swimming pool calorimeter, electron/gamma irrad. tests 26225
wavelength shifter, scintillator, dose rate 26218
Al-SiO$_2$-Si MOS struct., charge build-up/oxide wear-out, Fowler-Nordheim stress 13234
Al$_2$O$_3$:Cr^{3+}laser, low dose electron and gamma-ray irrad. effects 23159
BaF$_2$ calorimeter, cryst. props., detector possibil. 26195
CsI pure crysts., APD, fast low noise readout 26177
Er-doped fibres, H$_2$ and radiation resist. 14360
GaAs monolithic C-HFET preamplifier 4234
GaAs solar cells, gamma ray/electron displacement damage 13062
GaAs-metal interfaces, interphase reacts. 6571
InGaAs diodes, radiation effects, long wavelength sensitivity 1806
InP solar cells, gamma ray/electron displacement damage 13062
Nd-Fe-B PM, electron beam/γ-ray irrad. effects 7203
Pb scintillating fibre calorimeter, radiation resist. 26222
Si detector charact., indust. X-ray computed tomography 18323
Si detectors, neutron/proton/gamma irrad., electr. props., charge collect. efficiency 26224
Si microwave varactor diodes, irrad., capacit. transients meas. 12770
Si polycryst. solar cells, ionising radiation protection 44411
Si/SiO$_2$/Si, high temp. annealed, near interface oxide degrad. 38477
SiC/SiO$_2$ MOS struct., radiation-tolerance *(Japanese)* 1179
SiO$_2$ opt. fibers, photoluminesc., Raman scatt. 22813
SiO$_2$ pure silica fibres, radiation colour centres 22844
SiO$_x$N$_y$ oxynitrides, N$_2$O grown, radiation effects 13386
Sm-Co PM, electron beam/γ-ray irrad. effects 7203
YAG:Nd^{3+} laser, low dose electron and gamma-ray irrad. effects 23159

gamma-ray lasers
38 MeV L-band LINAC multibunch electron beam FEL expts. 39936
X-ray pumping 31132
gamma-ray production
compact high-brightness radiation sources 43152
gamma-ray source, tunable, monochromatic, design 34852
GRAAL project, polarized gamma-ray beam, ESRF 34856
intense multi-100 MeV γ-ray beams 26080
stratified shielding slabs, Na-24 γ-ray source 43041
gamma-ray radiography *see radiography*
gamma-ray scattering
see also Compton effect
med. cameras, likelihood/energy/Bayesian windows for scatt. rejection 35038
SPECT, γ-camera scatt. response determ., phantom 43227
gamma-ray sources *see gamma-ray production; radioactive sources*
gamma-ray sources (astronomical)
ICARUS detector, data reduction techs., phys. param. extraction 10125
gamma-ray spectra
see also gamma-ray spectroscopy; Mossbauer effect
complex coincidence matrices, energies extraction, intens. 18346
plastic scintillation detector, γ-spectra, unfolding anal. *(Korean)* 18301
CdTe detectors, γ-ray spectra, charge trapping, ballistic deficit effects 18319
HPGe detect. with BGO shield, high energy γ-rays resp. 10114
gamma-ray spectrometers
see also gamma-ray spectra; gamma-ray spectroscopy; Mossbauer spectrometers
ADC requirements in nuc. and X-ray spectrometry 4251
asymmetric Compton suppression spectrometer, Monte Carlo simul. 34975
background spectrum, cosmic muons contrib. 10158
cryogenic charge sensitive amp. for X/γ-ray spectrometer 18382
data acquisition syst. for gamma-ray spectrometer 34969
gamma-ray source, tunable, monochromatic, design 34852
HPGe γ-ray spectrosc. syst., Rocky Flats plant, mobile syst. 4248
imaging X/γ-ray spectrosc., multiplexed readout electronics 18381
on-line capture γ-ray spectrometer, explosive det., airport appl. 34971
TAGS, β^--decay intens. distribs. meas. 10153
CdTe γ-ray spectrometer, Monte Carlo simul., time/energy resol. 4246
CdTe gamma-ray spectrometers perf. 43159
CsI/p-i-n detector based gamma ray spectrometer 43147
Ge detector, gamma-ray spectrometry, instrum. fn. 18403
Ge, spectrometer, in situ gamma ray dosemeter 43397
HgI_2 photodetectors combined, scintillators for gamma-ray spectrosc. 18312
NaI(Tl) γ-spectrometer, 9″×9″ well-type, low level perform. 10151
gamma-ray spectroscopy
see also Mossbauer spectroscopy
activity calc., voluminous samples, coincidence summing effects 34977
Compton suppression shield in low-level γ-spectrosc., background changes 10152
digital pulse height anal., radiation spectrosc. 18401
distortions elimination in nuc. energy spectra, pulse pile-up 10146
gain stabilized syst., gamma-ray peak broadenings, recovery times 18386
GAMMASPHERE, BGO Compton-suppress. shield, Ge detector 18400
imaging X/γ-ray spectrosc., multiplexed readout electronics 18381
multidetector photon intens. interferometry 10113
NAA, γ-ray spectrosc. counting automation 17657
pulsed fast neutron anal., cargo inspection 18413
TAGS, β^--decay intens. distribs. meas. 10153
vivo radiotracer monitoring by portable gamma spectrosc. syst. 18468
well logging, elemental anal., natural gamma-ray spectrosc. 18795
GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
Ge high purity detector, extrapolated efficiency estim. 10132
HgI_2 gamma-ray spectrometers, electronic charactn. 43078
HgI_2 microdetectors, low-energy gamma-ray perform. 4192
gamma-ray transport *see photon transport theory*
gamma-rays
Si/SiO_x porous interface, paramag. centres 13349
gamma transport theory *see photon transport theory*
garbage collection (computers) *see storage management*
garment industry *see textile industry*
garnets
includes ferrimagnetic insulators, $M_3Fe_5O_{12}$; for rock-type garnets, $MM'(SiO_4)_3$, see minerals
attractive/repulsive defects, domain wall interacts. 14168
bubble garnets, VBL, nonreciprocal dyn. 14169
damping effect on dyn. distortion in mag. garnet material 14170
ferrite-garnet film, mag.-field visualizer 3801
ferrite-garnet films, VBL, crit. dens. 14199
oxide laser crysts., CZ growth 14828
thermophotovoltaic cell, thin film selective emitter efficiency 36618
two-layer iron garnet films, FMR doublet 7025
Bi-YIG particles prep. for display devices 14173
$BiDy(FeGa)_5O_{12}$ garnet films, sputter deposition and struct. props. 7037
$BiDy(Gd)FeGaO_12$ garnet thin films, metallo-organic decomp. 12148
$Bi_xTb_{3-x}Fe_5O_{12}$ garnet, Faraday rot., spontaneous magnetis. 14171
$Bi_3YFe_{3.5}GaO_x$ films, pulsed laser ablation, mag. props. 30686
$Ca_3Ga_2Ge_3O_{12}:Cr^{4+}$ single crysts., growth and photolum. 28710
Cr,Nd:GdScGG parallel amp. 8.2 J phase-conjug. solid-state laser 1909
$(DyBi)_3(FeGa)_5O_{12}$ films, crystn., Faraday effect *(Chinese)* 14166
Fe garnet thick film Faraday effect sens., domain effects 25818
$Gd_3Ga_5O_{12}:Ni^{2+}$, pulsed laser operation 23155
$Gd_3Ga_5O_{12}/InP(/GaInSb)$ integrated semicond./magnetooptic devices, direct bonding 31112
$Ho_3Fe_{5-z}Al_zO_{12}$ garnet single crysts., magnetooptical props. 14172
Nd:YAG laser, eye-safe compact Mie scatt. lidar 18908
$SrGdGa_3O_7$:Nd laser, diode-laser pumping 23139
$(TbBi)_3(FeGa)_5O_{12}$ garnet film current/mag. field sens. by Faraday effect 42384
$Tb_3Ga_5O_{12}$ photorefr. phase hologram recording 31645
$Tm,Cr:Y_3Al_5O_{12}$ laser, Ho:$YLiF_4$ saturable absorber Q-switch 15055
Tm^{3+},Fe^{3+}:garnet 2 μm laser, Fe sensitization 31273
YAG thin film selective emitter models, thermophotovoltaic cell appls. 27981
YAG:Cr^{4+} cryst. opt. polariser of short laser beam 1642
YAG:Er,Ho thin film selective emitters, thermophotovoltaic cells 36620
YAG:Nd, excimer laser ablation, thresholds 30120
YAG:Pr, photon echo decay time depend. 31606
YAG:Sm garnet films, soln. deposition, press.-temp. sens. appls. 5854
YAG:Tm^{3+} swept-carrier time-domain opt. memory 22793
garnets continued
$YAl_3(BO_3)_4$:Nd self-doubling lasers, LD pumped *(Chinese)* 1885
$YCa_2SbFe_4O_{12}$ garnet, mag. ordering studies 30689
$Y_3Fe_5O_{12}$-$Bi_3Fe_5O_{12}$ heterostruct., pulsed laser deposition, charactn. 30698
YIG, Ga,Bi substituted bulk garnets, magneto-optic mag. field sens. 14174
YIG cascaded magnetostatic soliton waveguide, short pulses 30753
YIG epitaxial films, electron spin echo in 3 cm band 14165
YIG ferromag. substr., nonlin. MSWs 1585
YIG film, EM wave crit. scatt. under acoustic pump 7034
YIG film, magnetoelastic waves, delay line appl. 14192
YIG films, backward vol. MSW 1575
YIG films, low energy ion bombard., surface spin pinning 14177
YIG films, pulsed laser ablation, mag. props. 14176
YIG, isolated domain wall, local dyn. pot. well 14189
YIG, mag. disaccommodation spectrum, sintering temp. depend. 14185
YIG, magnetostatic forward-vol. wave resonator, tunable oscillator *(Japanese)* 12761
YIG thin films, surface MSW 39168
YIG:Ga, Faraday effect current sens., sensitivity-bandwidth product 9853
YIG:Pr^{3+}, IR-blue wavelength upconversion 7589
YIG:Sc film tunable magnetostatic wave bandpass filters 30757
YScGG:Cr:Er IR laser, long. pumped 7593
YScGG:Er, 2D microlaser array, monolithic 2D LD pumping 1888
YScGG:Er laser, 300 K 7584
$Y_3Sc_2Ga_3O_{12}:Co^{2+}$ saturable absorber Q switch for IR Er lasers 23331
Yb:Er:$Y_3Al_5O_{12}$ waveguide laser, low threshold, RT 1.64 μm operation 7604
gas analysis *see chemical analysis*
gas blast circuit breakers
see also air blast circuit breakers
SF_6 145 kV cct. breakers, develop. efforts 4669
SF_6 145 kV dead tank cct. breaker develop. 5151
SF_6 72 kV cct. breaker, arc models, test cct. 27845
SF_6 cct. breakers, synthetic test ccts., arc voltage 27844
SF_6 puffer cct. breaker, elec. strength restoration *(Russian)* 44238
SF_6-N_2 auto-expansion cct. breaker studies 19890
gas breakdown *see electric breakdown*
gas-discharge displays
AC plasma display panel gas discharges, Boltzmann simul. 1010
bright DC-type plasma display panel, four electrodes *(Japanese)* 34643
colour displays develop. 9977
device technol. *(Japanese)* 34642
Fujitsu 21-inch color plasma display and electronics *(Japanese)* 25918
high-press. AC gas discharge, dielec. coated electrodes near breakdown threshold 38202
hollow cathode discharge operation 21864
microcontroller-driven gray scale plasma receiver 34638
mil. displays develops. 18969
gas discharge lamps *see discharge lamps*
gas-discharge tubes
see also gas-discharge displays; ion sources; mercury arc rectifiers; thyratrons
computation algm. for low-press. gas-discharge systs., 2D electrode geom. 12990
high-power gas switches, ferroelec. electron beam triggering 36406
hollow-cathode discharge, high-power RF generation 29739
HV low jitter trigatron, repetitive operation, design/model 29820
IR-vis. converter, wave pattern 3873
LIA 30 lin. induction accelerator, sync. syst. 36453
lin. induction accelerators, 500 kV Marx generator 36361
low press. discharge tube, V-I charact. simul. model *(English)* 29815
Maglev supercond. magnet protection, discharge tube switch-based 5338
power supply, control syst. 5093
pseudospark switches, forward voltage drop meas. 36400
CO_2 high-power fast axial flow laser, aerothermic characterisation 7531
N_2-filled tube, formative time determ., stat. methods 38201
gas discharges *see discharges (electric)*
gas dynamic lasers *see gasdynamic lasers*
gas insulated substations
22 kV GIS, mold transformer banks *(Japanese)* 27863
77 kV GIS, power receiving/transforming facilities *(Japanese)* 27862
170 kV rated containerized substations, perform. and appls. 11213
coaxial pulse generator, VFT generation 36487
elec. utility experience, USA 27866
fast transient overvoltage *(Chinese)* 5155
fast transient overvoltage effects anal. 19917
GIS epoxy insulating spacers, AC/impulse voltage deterioration characts. *(Japanese)* 27240
insulation diagnostics, UHF techs. 19910
lightning overvoltages, computer simul. 19912
maint. of plants/equipt., learning environ., virtual reality *(Japanese)* 36486
PD detect., UHF tech., calib. 36478
plant insulation monitoring, IEE Colloquium, London (1994) 5458
RFI/transient field meas. 27867
substation cables, induced transients meas./models 5157
technol., design 11218
transient EMI meas. 5158
transm. line tower lightning surge response calc. 19314
VFTO studies, transformer model 5163
SF_6 145 kV distrib. substation metal oxide surge arresters 4674
SF_6 Fluobloc B142 GIS, 362/420 kV transm. network appls. 27871
SF_6, leader discharges, UHF detect. 36479
gas insulated switchgear
66/6 kV distrib. substation develop. project, Japan *(Japanese)* 35630
168 kV hybrid GIS, outdoor air insulated bus substations *(Japanese)* 27838
170 kV rated containerized substations, perform. and appls. 11213
ABB ZV2 SF_6 gas-insulated/vac. switchboards 19881
abnormality detect., self-organizing neural net appls. 27854
arc detect. by optoelectronic systs. *(German)* 27855
charged conducting particles, motion meas. 11205
fast transient overvoltage meas. device *(Korean)* 36383
GIS epoxy insulating spacers, AC/impulse voltage deterioration characts. *(Japanese)* 27240
HV impulse generator, radiated interf. 2254
incomplete contact detect., mag. sens.-based 27841
LV cct., gas insulated switchgear, surge voltage meas. 27870
MV GIS, maint. free vac. cct. breakers 44242
PD detect. automation method 36468
spacer model, surface insulation characts., impulse voltage *(Japanese)* 36396

- **gas insulated switchgear** continued
  - switchroom internal arc-based press. rise studies 19889
  - very fast transient overvoltage meas., capacitive voltage sens. 36469
  - ZX1 VISIO-COMPACT MV gas-insulated switchgear 11200
  - SF_6 145 kV cct. breakers, develop. efforts 4669
  - SF_6 145 kV dead tank cct. breaker develop. 5151
  - SF_6 145 kV distrib. substation metal oxide surge arresters 4674
  - SF_6 145 kV type F75 GIS develop. 5152
  - SF_6 24 kV ring main switchgear, thermal behaviour modelling 5147
  - SF_6 GIS, breakdown mechanism of gap, small arc current 19897
  - SF_6 GIS, urban rly. substation systs. 44508
  - SF_6 HV switchgear reliab. monitoring automation 5153
  - SF_6 MV distrib. substation switchgear develop. 5148
  - SF_6 MV self-generating cutouts, develop./testing 5141
  - SF_6 MV switchgear experiences, France 5149
  - SF_6 distrib. switchgear, personnel safety 11201
  - SF_6 distrib. transformer protection, develop. trends 4671
  - SF_6 elec. equipt. insulation, quality standardisation 5142
  - SF_6 insulated tripolar encapsulated HV switchgear props. and advantages *(German)* 27856
  - SF_6 ring main distrib. switchgear, latest trends 5146
  - SF_6, surface flashover voltage var., press. 19898
  - SF_6-N_2 auto-expansion cct. breaker studies 19890
- **gas insulated transformers**
  - LV cct., gas insulated switchgear, surge voltage meas. 27870
  - SF_6 insulated transformers, decomp. by-products 5006
- **gas ionisation** *see ionisation*
- **gas lasers**
  - *see also chemical lasers; excimer lasers; gasdynamic lasers; ion lasers*
  - 2 kW series resonant converter, CO_2 gas discharge laser appl. *(Spanish)* 19877
  - 5 kW laser power supply, IGBT mag. pulse compressor-based 36297
  - act. laser media, phase conjug. in four-wave mixing, feedback 14717
  - CO_2 laser, electron-beam sustained, perform. optim. 18833
  - CO_2 laser, opt. distortion effects on focusing charact. *(Japanese)* 7515
  - CO_2 sealed-off cw laser, supported gold catalyst 7535
  - coherent mode locked TEA CO_2 LADAR for risk reduction and phenomenology expts. 17443
  - compact discharge electrodes design for pumped lasers 7534
  - conference, laser optics, St. Petersburg, Russia (1993) 55
  - conference, laser physics, St. Petersburg, Russia (1993) 11525
  - conference, lasers in optical systems/devices, St. Petersburg, Russia (1993) 11526
  - Cu vapour laser, unstable resonators, time-resolved beam divergence 23090
  - dielec. laser mirror, phase anisotropy 2032
  - difluoromethane FIR laser, opt. pumped, freq. std. 7508
  - Earth/space obs. spacecraft, pulsed power insulation design 35257
  - electro-discharge machined surfaces modif., CO_2 laser *(Japanese)* 5613
  - excimer lasers, discharge-pumped, 1D computation 14707
  - FIR gas lasers, bi-directional pumping, Lamb-dip line shape 31170
  - FIR lasers, CW opt. pumped, efficiency 14689
  - gas-discharge lasers, publications, future forecasts 14703
  - high-power gas/solid state lasers, conf., Vienna, Austria (1994) 20263
  - HV pulse technol., appls. 11192
  - intracavity opt. delay line lasers 31445
  - IR lasers, conf., Ascona, Switzerland (1994) 5485
  - laser doppler device for air pollution detect. 18917
  - LEOS, San Jose, CA, USA (1993) 20270
  - methanol FIR laser lines, opt. pumped, freq. meas. 31475
  - methanol-d_2, opt. pumped, far IR laser lines and assignment 14711
  - neutral rare gas lasers, atmos. comp., IR spectra 39676
  - non-contact μP-based digital He-Ne laser scanning micrometer 18099
  - planar lasers, cavity config., output radiation, spatial charact. 23335
  - power syst. lightning protection, laser-generated plasma-based 27261
  - pseudospark switch develop., appls. 29818
  - pulsed capillary gas lasers with waveguide resonators, opt. charact. 31201
  - pulsed coherent Doppler lidar with opt. amp., heterodyne detect. 3622
  - pulsed gas laser, external cct. effects on spark-gap arc-discharge 23100
  - pulsed gas laser discharge, inductance and resist. effects 23101
  - rare gas lasers, U fission fragment pumped, energy deposition efficiency 39673
  - repetitive discharge-excited laser, discharge triggered switch 23076
  - RF capacitive discharge, electrodes, dielec. coating 14714
  - ring resonators with Doppler-broadened act. medium, natural oscill. calcs. 31452
  - solid surface high speed cleaning by high-repetition rated TEA CO_2 laser pulses *(Japanese)* 7871
  - spark-gap design, efficient and simple, for gas lasers 15009
  - time-resolved plasma absorpt. spectra monitoring facility 40001
  - two freq. gas laser, phase anisotropic mirror resonator 7700
  - VUV laser radiation, reson. ionization, H-like atom ionization 40170
  - waveguide CO_2 laser, act. medium diagnostics 7513
  - waveguide CO_2 laser, resonator, plane mirrors, signature simul. 7514
  - Ar air-cooled 75 mW laser develop. *(Japanese)* 7511
  - Ar laser radiation, polaris.-independent modulation, acoustooptic interact. 7717
  - Ar modulated laser source for PMT detectors monitoring 4168
  - CO compact high-efficiency laser, 1 kW 14681
  - CO high-power lasers, materials proc. appls. 31154
  - CO lasers, act. medium phase-conjug. 31480
  - CO_2 CW laser, Gauss-core resonator, diffr.-limited output beam 39641
  - CO_2 CW laser diffr. couplers, oscill. charact. of cavities 7523
  - CO_2 IR coherent lidar, enhanced opt. heterodyne detect. 3617
  - CO_2, IR lasers, high power, plasma supported proc. 15193
  - CO_2 TE laser, high repetition rate, long pulse *(Japanese)* 31199
  - CO_2 TEA laser dyn., freq. stabilisation, chaos 23087
  - CO_2 TEA laser, solid state switched pulser sustainer 39654
  - CO_2 TF laser, output power sudden change mechanism *(Chinese)* 14697
  - CO_2 coherent lidars for measuring wind vel. /atmos. turbulence 3628
  - CO_2 compact sealed-tube pulse-periodic TEA lasers 7522
  - CO_2 elec.-discharge lasers, gain restriction 7524
  - CO_2 gas lasers, internal FM 14713
  - CO_2 gas lasers, power supplies comparison 1861
  - CO_2 gas-discharge lasers 1845
  - CO_2 general-purpose waveguide lasers 7529
  - CO_2, high power laser, line-selective unstable resonator 1858
  - CO_2 high-power fast axial flow laser, aerothermic characterisation 7531
  - CO_2 high-power indust. lasers, gas discharge and opt. schemes 31165
  - CO_2, high-power lasers, RF gas discharge scalability 31147
- **gas lasers** continued
  - CO_2 high-power lasers at 12 kW, beam quality 31156
  - CO_2 indust. fast axial flow laser, appls. 31157
  - CO_2 indust. lasers, hazards, accident risks 28393
  - CO_2 injection-seeded supra-atmos. laser operated below emission threshold by ring cavity 39655
  - CO_2 intracavity 16 μm Raman laser 14710
  - CO_2 large-vol. sub-atmos. pulsed laser, segmented ballasted electrodes 31168
  - CO_2 laser, CW, mirror resonator, super-Gaussian output 2031
  - CO_2 laser, beam delivery, hollow core waveguides 23077
  - CO_2 laser beam, focal params. direct visualization 7723
  - CO_2 laser, compact gap, hybrid unstable-waveguide cavity 7509
  - CO_2 laser continuously variable attenuator by ZnSe wedges 2036
  - CO_2 laser, diamond turned optics 31145
  - CO_2 laser discharge, rot. mag. field effects 1866
  - CO_2 laser for rem. sens. meas. 18830
  - CO_2 laser, injection locking, freq. stabilisation, line narrowing 1865
  - CO_2 laser, lin. modulation freq. 39677
  - CO_2 laser lines, hot bands in 11 μm region 23091
  - CO_2 laser, loss perturb. near period-doubling 14688
  - CO_2 laser, low order mode interact. 31200
  - CO_2 laser, microwave excited, cylindrical reson. cavity 1864
  - CO_2 laser, microwave-excited discharges, modeling 29740
  - CO_2 laser, multichannel waveguide, diffusion cooled, AC discharge 31159
  - CO_2 laser phase-conjug. multidither adaptive opt. syst. *(Japanese)* 7517
  - CO_2 laser, relax. time of phase-conjug. refl. via four-wave mixing 1850
  - CO_2 laser, response, loss perturb. near period doubling 15017
  - CO_2 laser, small-amplit. pumping modulation, operation dyn. 39648
  - CO_2 laser, solar pumped, opt. selectivity, efficiency 7530
  - CO_2 laser, spatial charact. correction, VO_2 mirror 31460
  - CO_2 laser, stable-unstable resonators, annular gain media 31442
  - CO_2 laser with saturable absorber, nonlin. dyn. 23078
  - CO_2 lasers, act. medium phase-conjug. 31480
  - CO_2 lasers, closed loop gas ccts. simul./optim. 31158
  - CO_2 lasers for med. uses 26310
  - CO_2 lasers, freq. and power stabilised, review 23089
  - CO_2 lasers, phase conjug. 15059
  - CO_2 lasers, phys. and spectrosc. appls. 14691
  - CO_2 loss modulated laser, amplit.-detuning charact. 31195
  - CO_2 mol., chaotic laser oscill. in seq. band 23097
  - CO_2 multimode laser with a saturable absorber, multistability 7518
  - CO_2 phase-locked waveguide laser array *(Chinese)* 14695
  - CO_2 ps laser for relativistic particle accel. 15195
  - CO_2 pulsed TE laser radar, freq. spectral meas. 3618
  - CO_2, pulsed lasers, sealed-off metal-ceramic pseudospark switches 29628
  - CO_2 sealed-tube TEA lasers, pulse repetition rate up, 5 kHz 14712
  - CO_2 single mode class-B laser phase dyn. 31169
  - CO_2 slab waveguide lasers , mode and freq. control 39656
  - CO_2 slab-geom. lasers, mode and wavelength selectivity 31148
  - CO_2 subnanosecond multi-gigawatt laser 23099
  - CO_2 transverse flow laser cavity 7527
  - CO_2 tunable laser for opt. free induction decay syst. 39661
  - CO_2, universal pulsed Foton series lasers 31192
  - CO_2 unstable laser cavity design, compact output beam 14715
  - CO_2 waveguide laser, act. medium diagnostics 31194
  - CO_2 waveguide laser arrays, side lobe suppression, phase filter design 31188
  - CO_2 waveguide laser, combined excitation by dc/transverse rf capacitance discharges 1848
  - CO_2 waveguide laser, regular and seq. band transits. 14693
  - CO_2-laser generation, intracavity saturable absorber 39666
  - CO_2-lasers, indust. appls. 14690
  - Cs FIR laser lines around 1.2/1.6 THz, heterodyne freq. meas. 23081
  - Cu plasmadynamic laser, self-limited transits., relax. plasma 23079
  - Cu pulsed vapour laser, superior specific params. 1860
  - Cu vap. laser, ASE output form. 39658
  - Cu vap. laser, UV sum freq. generation in DKDP 31516
  - Cu vap. laser window contamination *(Chinese)* 14694
  - Cu vapour laser, current pulse waveform shaping cct. *(Japanese)* 39664
  - Cu vapour laser, long. elec.-discharge pumped, elec. field evol. 39650
  - Cu vapour laser, multistage mag. pulse compression design 14709
  - Cu vapour laser oscillator, adjoint-coupled self-filtering injection 39670
  - Cu vapour laser, output divergence, unstable resonator alignment 14687
  - Cu vapour laser power supply, regenerative snubber topol. 36250
  - Cu vapour laser pumping, scientific and indust. appls. 40171
  - Cu vapour laser, relativistic electron beam pumping 14700
  - Cu vapour lasers, beam quality improvement, SBS phase conjug. 31185
  - D_2O laser, opt. pumped, computer simul., longit. mode 1867
  - D_2O laser, spectral narrowing, oscill.-amp. 23102
  - F, universal pulsed Foton series lasers 31192
  - F_2, universal pulsed Foton series lasers 31192
  - H Raman act. media Stokes pulse duration control in SRS 31560
  - H two-stage Raman conversion tunable laser *(Japanese)* 7516
  - H_2 laser source, second-order Stokes shift, mid-IR generation 39665
  - HCN laser, output radiation depolarisation 7510
  - HCN waveguide laser, duplex radiation output, polaris. and energy charact. 39642
  - He-Ne gas laser with nonadiabatic modulation of cavity, oscill. dyn. 7526
  - He-Ne laser, I_2 stabilized, freq. shift 34320
  - He-Ne laser, axial modes, UHF beat prod. 31198
  - He-Ne laser, modes locking, orthogonal ellipt. polaris. 1849
  - He-Ne microwave discharge excited laser *(Chinese)* 14696
  - He-Ne ring laser, T violation and microhertz resoln. 23326
  - He-Ne two-mode laser with internal sig. injection, radiation intens. 23095
  - HeNe laser, phase-depend. helical pattern form. 23083
  - I high-power pulsed lasers, wavefront profile meas. by Hartmann method 14702
  - $^{127}I_2$ stabilized He-Ne lasers, internat. comparison 34315
  - KrF laser amp., Titania, pulsed power syst. 31189
  - N_2 laser, nanosecond microwave discharge excitation 39653
  - N_2 laser, output power enhancement by self-preionisation 39675
  - N_2, universal pulsed Foton series lasers 31192
  - NH_3 FIR lasers, Lorenz-like chaos 14692
  - NH_3 miniature opt. pumped cavity far-IR laser 31167
  - N_2O, high power laser characts. 31164
  - Nd:YAG/CO_2 laser three-color opt. range finding 7863
  - Ne laser, radially convergent electron-beam-pumped 14706
  - Ne nuc. pumped laser, 3p-3s transits., lasing charact. 39674
  - $O_2(^1\Delta_g)$ dimer, laser oscill. 31173
  - S_2 opt. pumped brightness amp., laser projection microscope 23094
  - Xe, CW near IR laser, RF discharge excitation in slab geom. 31177

gas lasers continued
  Xe laser, radially convergent electron-beam-pumped 14706
gas meters *see flowmeters*
gas permeability *see permeability*
gas pressure cables *see power cables*
gas scintillation detectors
  High Pressure Gas Scintillation Proportional Counter, SAX appl. 26260
  soft X-ray transm. props. of thin polyimide windows 43146
  vis./UV photons, gaseous detectors 18339
  wide-aperture scintillation hodoscope based on FEU-143 photomultipliers 4214
  Xe compact gas proportional scintillation counter for hard X-ray spectrometry 18340
gas sensors
  acoustic sens. for natural gas combustion props. determ. 3911
  anatase-based sens. materials, high-temp. immittance response 34609
  car exhaust trace gas monitoring by laser photoacoustic spectrosc. 18907
  cargo inspection technols., conf., San Diego (Jul. 1994) 36869
  chromatography, silicon-micromachined syst., anal./modelling 9963
  chromatography syst., silicon micromachining, design/fab. 9962
  cobalt tetra-(N,N-dimethylhexadecyl p-aminophenyl) porphyrins LB film ChemFET, vap.-sensitivity *(Chinese)* 9950
  conducting polymer sens. for electronic nose 3903
  copper dicyanoanthraquinone diimine thin film electrodes, H sens. 17976
  diesel engines robust emissions control, oxygen sens. 34616
  environ. monitoring appl. 9965
  evanescent wave gas sens., surface contamination monitoring 17890
  fast potentiometric CO_2 sens., open ref. electrodes 9948
  fault detection of gas sensor 25891
  fiber sens., gas detect. *(Japanese)* 3860
  fibre optic methane sens., source noise limitation 17975
  fibre optic sens., commercially available, 1985-95 develops. 17877
  food indust., intell. gas odour sens. for QC 18139
  fullerenes, sens. material appls. 17980
  high-T_c superconds., NO sens. materials 34613
  hybrid GasFETs for work-fn. meas. 9957
  impedance spectrosc. on dielec. gas sens. 3918
  in-vivo biomedical monitoring by fiber optic systs. 18434
  indicator tubes of gas analyzers optoelectronic detector 25894
  $\lambda=1.57$ μm DFB LD gas sens., overtone and combination band absorpt. 9961
  leakage-tolerant zirconia pump-gauge O_2 sens. 9951
  machine olfaction, intell. odours sens. 25897
  metane, atmos., tunable LD absorpt. spectrosc. 9953
  microsystems design, syst. concepts approach 22629
  mobile autonomous sens. syst. for odor source localization 9954
  multiplexed diode-laser sens. syst., gas/temp. meas. 7874
  multitasking/multiprocessing portable data acquisition and control system 34414
  nonchemical photopyroelectric gas sens., thermal wave based, H detect. 3901
  odor discrim., fuzzy reasoning and neural networks 9955
  odorant sens., SAW oscillator and neural network 17982
  oil-filled transformers, fault detect., gas sens./neural net 36234
  optimal alarm-sig. algms. for gas analyzers 3910
  optimal alarm-sig. generation algms. for gas analyzers 3909
  organic vaps., photopyroelectric detect. 3905
  pass. rem. IR interferometers, analog detect. scheme 34427
  photoacoustic detect. of trace gases, opt. microphone 17984
  phthalocyanine LB films, RT toluene gas sens. 17986
  poly(3-alkylthiophenes)/O_2, reversible charge transfer complexes 20995
  polyimide planar waveguide for alkane vapour conc. monitoring 42865
  polypyrrole-polyamide composite films, gas sens., NH_3, CO_2 25899
  polypyrrole/polypyrrole-polyamide composite films, gas sens. 25890
  porous-clad fibres, tapered, gas sens. response time anal. 42829
  porous-clad tapered fibers for gas detect. 25865
  portable SAW sens. for airborne organic gases meas. 25895
  proc. gas analyzing syst., locally mounted 9964
  pulse oximeter for mag. reson. scanners 18470
  QA of pharmaceutical vials, laser Raman spectrosc. 17928
  SAW monitoring of CCl_4 in steam reforming reactor 3920
  semicond. gas sens., catalytic gate 3921
  semicond. gas sens., neural nets *(Japanese)* 42867
  sensitive SAW sens. 30651
  shipboard toxic gas anal. by photoacoustic detectors *(Croatian)* 3902
  Si_3N_4-Au resonating microcantilevers, Hg vapour detect. 42859
  sig. ratio meter for laser gas analyzer 3908
  smart sens. for styrene vap. detect. in indust. environ. *(French)* 9949
  tetra-tertbutyl copper phthalocyanine LB film NO_x gas sens. 25893
  thick film technol. applied, chem. sens. 25898
  thin film gas sens., response and thickness *(Chinese)* 3899
  thin-film CdSe and CdS oxygen sens., surface spectrosc. 34611
  trace gas sensitive detect., laser opt. lever 3907
  transformer fault detect., oil gas discrim. method 29620
  vap.-emitting sources, detect./localization 25892
  $Bi_2Sr_2CaCu_2O_{8-x}$ porous films gas sens. response anal. 34615
  $Bi_2Sr_2CaCu_2O_{8+x}$-based sens. for CO and NO 34614
  CO detector, catalytic combustion type 9966
  CO sens., polymer-electrolyte lamination, life-elongation 3916
  CdSe, MOVPE, precursor gas monitoring by photolum. 34617
  CdSe thin films, elec. props., CO_2 gas sens. appls. 3898
  GaAs/$Al_{0.3}Ga_{0.7}$As heterostruct., SO_2 chemisorpt., sens. appls. 38303
  GaAs/$Al_{0.3}Ga_{0.7}$As heterostruct., SO_2 chemisorpt., photolum. intens., sens. appls. 39558
  H_2 gas sens., Extrinsic Fabry-Perot Interferometer 25901
  H_2 micromirror opt.-fiber sens. 9960
  H-O mixtures, photopyroelectric detect. 3900
  Hg vap. sensitive MOSFET, Au gate membrane 3906
  InGaAs 3.3 μm LEDs for detecting methane gas, RT 1820
  InGaAs-InAlAs mid-IR LEDs for opt. gas sens. 31106
  InSnO thin film, CO_2 gas sens., alarm syst. 3912
  O in flames, detect. by intracavity laser spectrosc. 4010
  O_2 intrinsic phase fluorimetric sens. 17985
  O_2, microenvironmental studies of $Ru(bpy)_3^{2+}$ luminesc. probe 34612
  O_2 opt. sens., phosphoresc. quenching 3917
  PZT/ZnO piezoelec. actuator, mech. response, gases reduction 34608
  Pd thick-film H_2 sens., Wheatstone bridge config. 25902
  Pd-Ni thin film solid-state hydrogen sens., sens. response 17977
  Pt-Si Schottky diode CO gas sens., sensitivity 34606
  Si porous membranes, gas sens. appls. 25900
gas sensors continued
  Si, porous, single gas sens., species ident. *(Japanese)* 42866
  SnO_2 film gas sens., sensitivity thickness depend. 42860
  SnO_2 films, Schottky surface barrier, gas-sens. effects 42862
  SnO_2 gas sens., effect of electrode material 9959
  SnO_2 gas sens., microstruct. influence on functional props. 3919
  SnO_2 thick film, calcination, CO sens. props. 17979
  SnO_2 thick-film hydrogen gas sens. 3914
  SnO_2 thin film gas sens., N group element oxides addit. effect *(Japanese)* 34607
  SnO_2 thin film gas sens., carrier conc. change anal. 17972
  SnO_2 thin-film gas sens. for CO and CO_2 9958
  SnO_x film gas sens., Cu doping level influence 42864
  SnO_2:Pd thin-film micro-gas sens., CH_3SH detect. 17983
  SnO_2:Pt sens., liquified petroleum gas detect. 42861
  SnO_2:ZnO(ZnO-Sb_2O_3) thick film gas sens. 3904
  SnO_2:ZrO_2,PdO thin films, PH_3 detect. 3913
  SnO_2-based thick-film gas sens. 3915
  TiO_2:Nb(Cr) thin films, RF reactive sputtered, optoelectronic/gas sens. appls. 39546
  Tm-doped fibre source, LD pumped, methane gas detect. by correl. spectrosc. *(Chinese)* 17973
  WO_3 based H_2S sens., nanocrystalline struct. 3922
  WO_3 gas-sens. films, microstructural effects 25896
  ZnO thin film based heterojunction, H_2 gas-sens. 9956
  ZnO:Al thin-film gas sens., dimethylamine/trimethylamine gas detect., neural network pattern recogn. 17978
  ZrO_2 lambda gas sens., pseudo-ref. 17974
  ZrO_2 miniature gas sens., air-fuel mixture ratio meas. appls. 34610
  ZrO_2 pump-gauge oxygen sens. 9952
  ZrO_2 solid electrolyte O_2 sens., Y_2O_3 stabilised 17981
  ZrO_2-Y_2O_3 electrochem. cell, energy conversion, gas sens. 42863
gas source MBE *see chemical beam epitaxial growth*
gas supply industry *see public utilities*
gas-surface interactions *see sorption*
gas technology, natural *see natural gas technology*
gas turbine power stations
  20 MW gas turbine CHP plant, thermoeconomic anal. 27571
  25 MW gas turbine CHP plant project, Netherlands 27576
  28 MW FT4C-3F gas turbine plant, base load/peaking operation 43920
  150 MW 13E2 gas turbine research project, Japan 4848
  500 kW ultra-high-speed gas turbine CHP syst. 10861
  automation, rem. operation 43941
  bottoming cycle, internal reforming SOFC appl. simul. 36020
  CCGT plants, repowering from steam turbine plants 43935
  CHP, turbine cooling, part load control 36017
  CHP plant, multi-objective operation optim. 36010
  CHP plant step swirl combustor perform. optim. 36025
  CHP plants, steam-injected, operation optim. 36011
  CHP/heat pump facility perform. optim. 36006
  closed-cycle gas turbines, combined pinch/exergy anal. 36009
  cogen., rural develop. appls. 27566
  cogen. plants, economic efficiency, appls. 27574
  cogen. practice, options and design stds. *(Italian)* 19504
  diesel engines, gas turbine plant start-up 10862
  diesel/closed cycle gas turbine power plant thermodyn., LNG-fired 27605
  dry low NO_x combustor/IGCC technols., Tracy power station 43928
  dual gas turbine combined cycles, thermodynamics modelling 19525
  emissions compliance upgrade projects, USA 27577
  exhaust gas recycling, conversion efficiency 36008
  flue gas heat recovery, direct-contact economisers 36021
  GE SPEEDTRONIC Mark V turbine control syst. 43923
  hot parts operation scheduling 43922
  low-temp. waste energy utilisation, gas turbine/LNG syst. 27580
  monolithic SOFC appl. studies 36019
  natural gas-fired power plants, develops. 10863
  reliab./availability guarantees 19523
  Rye House combined cycle gas turbine power plant 36024
  Schwabisch Hall (Germany) combined cycle power station and network control technol. *(German)* 19527
  SOAPP software, advanced power plant design 43921
  waste-to-energy recycling plant project, Lebanon 27572
  CO_2-recovering gas turbine power generation scheme 4847
gas turbines
  see also gas turbine power stations; turbogenerators
  25 MW gas turbine CHP plant project, Netherlands 27576
  42.5 MW paper mill combined cycle CHP project, UK 4852
  150 MW 13E2 gas turbine research project, Japan 4848
  165 MW V84.3A Siemens indust. gas turbine 27575
  240 MW Siemens V94.3A gas turbine 43916
  360 MW Karita PFBC combined cycle power project, Japan 36026
  500 kW ultra-high-speed gas turbine CHP syst. 10861
  700 MW Rye House combined cycle power plant project, UK 10864
  750 MW Franken II combined cycle power plant project, Germany *(German)* 43934
  1800 MWe combined cycle CHP district heating project, Russia 27593
  2500 MW Black Point power plant distributed control project 19528
  advanced sens./instrums. used in aero-engines 4355
  aerospace gas turbine engine, control/stabil. 4362
  ageing gas turbines upgrading 43917
  air-blown fluidized bed GCC 10866
  Al Ghubrah combined power/waste heat recovery plant 10860
  ASPEN PLUS shell, combined cycle power plant simul. package 27582
  basic chem. recuperated gas turbine, methane-steam reformer 36007
  Battelle biomass gasification syst., gas turbine generation 28034
  blade vibr. meas. experiences, Switzerland 10929
  bottoming cycle, internal reforming SOFC appl. simul. 36020
  ceramic components, intercooling, recuperation 43918
  CHP, gas turbine gensets 43924
  CHP, gas turbines, dryers, hot water boilers 36018
  CHP plant, gas turbine, HRSG, exergoeconomic optim. 4849
  CHP plant, multi-objective operation optim. 36010
  CHP plants, steam-injected, operation optim. 36011
  CHP/heat pump facility perform. optim. 36006
  closed-cycle gas turbines, combined pinch/exergy anal. 36009
  coal-fired 27583
  coal-fired combined cycle power generation concepts, USA 43927
  cogen., rural develop. appls. 27566
  cogen. installations, output characts. 27573

- **gas turbines** continued
  - cogen. plants, economic efficiency, appls. 27574
  - combined cycle bottoming cycles, Kalina/steam cycle comparison 36022
  - combined cycle CHP plant step swirl combustor perform. optim. 36025
  - combined cycle gas turbine power plants, freq. control capability 43933
  - combined cycle gas turbine systs., math. modelling studies 36023
  - combined cycle plant, district heating, characts. 10865
  - combined cycle power plant CO_2 flue gas clean-up projects, Russia 27592
  - combined cycle power plant Kalina heat engine appls., thermal anal. 27598
  - combined cycle power plants, freq. regulating duty dyn. response characts. 43932
  - combined cycle power plants, standardised modular power equipt. 36030
  - combined cycle power plants, steam cycle develop. prospects overview 10869
  - combined cycle power turbines, clean combustion technol. review 43930
  - combined cycle three-press. steam turbine installations 36027
  - diesel/closed cycle gas turbine power plant thermodyn., LNG-fired 27605
  - digital control syst. develop. 36012
  - dual gas turbine combined cycles, thermodynamics modelling 19525
  - EGT Typhoon indust. gas turbine, design/appls. 36013
  - Ferndale 245 MW combined cycle plant, location, environ. aspects 10867
  - GE SPEEDTRONIC Mark V turbine control syst. 43923
  - ideal combined cycle power station, design considerations 27581
  - intake air cooling, absorpt. chiller-based 27567
  - integrated robust/neural controller 27568
  - lean premixed/prevaporized combustion, KIVA-II 36015
  - low-temp. waste energy utilisation, gas turbine/LNG syst. 27580
  - Mitte district heating power plant, Berlin 27597
  - mobile pulsed power supply, homopolar generator, inductive storage 36255
  - MS 6001B gas turbine, cogen. appl., Metz power plant 27578
  - MS 9001 F gas turbine for 50 Hz power plants 43925
  - natural gas fired combined cycle, perform. anal. 27599
  - natural gas fired combined cycle plant, efficiency improvement 10871
  - natural gas-fired power plants, develops. 10863
  - natural-gas-fired combined cycle CHP plant, NO_x emissions control 10868
  - Navy pulsed power guns, power syst. simul. 35408
  - nontraditional fuel conversion efficiency calcs. 19522
  - nuc. gas turbine transportation engine, throttle valve control 28143
  - packaging proc., installation/startup benefits 27570
  - particle charactn., optoelectronic imaging syst. *(French)* 42849
  - PFBC power plant particulate control, FIBROSIC filter tests 27600
  - photothermoplastic recording of stroboscopic holographic interferograms 15180
  - PM generator cycloconverter, digital control 10859
  - power plant emissions compliance upgrade projects, USA 27577
  - power plants, monolithic SOFC appl. studies 36019
  - power plants hot parts operation scheduling 43922
  - pressurised CFBC combined cycle power plant simul. 27587
  - prospective energy scenarios for France *(French)* 4758
  - regenerative gas turbine cycle, water enhanced, perform. calcs. 19524
  - reliab./availability guarantees 19523
  - RENUGAS proc., biomass gasification, fluidised bed 28033
  - Siemens 3A gas turbine series, high efficiency 43919
  - SOFC/combined cycle power generation proc. studies 27653
  - SRM fuel-lube pump drive 20053
  - Suomenoja combined cycle CHP plant control upgrade, Finland 43936
  - switched reluctance starter/generator, aircraft engine 43457
  - sync. generators, static exciter, LCI 36142
  - syst. availability enhancement by fault diagnosis, ANN 19526
  - TIGER, model-based/rule-based real-time tool for monitoring and diagnosis of dyn. systs. 34393
  - turbogenerator cascade flow, 3D compressible Euler solver 36016
  - turbogenerator dyn. model 27569
  - turbogenerator rotor shorted turns, online monitoring 19598
  - twin-shaft governor/gas turbine model, computer-based 36014
  - ultra-efficient desalination, dual purpose plant 28201
  - CO_2-recovering gas turbine power generation scheme 4847
  - $NaOH-H_2O-NH_3$ syst., gas turbine/generator syst., thermal storage 27579
- **gasdynamic lasers**
  - high-power gas/solid state lasers, conf., Vienna, Austria (1994) 20263
  - CO fast-flow coaxial laser, output power *(Chinese)* 39663
  - CO gas-dyn. laser, generalized model 39667
  - CO laser, supersonic electroionized, ionic/chem. comp. simul. 31146
  - CO supersonic electron beam sustained laser, CW 200 kW operation 31150
  - CO_2 CW amp., transverse pumping, 3D modelling 14699
  - CO_2 gasdynamic laser with unstable resonator, radiation charact. 14698
  - CO_2 gasdynamic lasers, act. medium diagnostics 39644
  - CO_2 high power gasdynamic laser for indust. appls. 31186
  - CO_2 indust. fast axial flow laser, appls. 31157
  - CO_2 indust. fast-flow laser, IR luminesc. diagnostics 23086
  - Cu vapour-flow CW laser constr. 14701
  - HF pulse-periodic laser, gasdynamic perturb. on emission params. 39647
- **gaseous diffusion** *see diffusion*
- **gaseous insulation**
  - *see also air insulation; gas insulated substations; gas insulated switchgear; gas insulated transformers; SF_6 insulation*
  - oil-paper insulation, breakdown characts., impulse voltages 1561
  - PDs, phys. 1549
  - spacer surface discharges in gaseous insulation, nanosecond streak photography 30553
  - substation cables, induced transients meas./models 5157
  - substations, transient EMI meas. 5158
  - water vapour-gas mixtures, partial discharges 13982
  - Ar gas electron avalanches, pulsed Townsend meas. 30552
- **gate arrays** *see logic arrays*
- **gate turn-off devices** *see thyristors*
- **gateways** *see internetworking; network servers*
- **Gaussian channels**
  - asynchronous CDMA systs., lin. adaptive transmitter-receiver 25243
  - asynchronous CDMA systs., lin. adaptive transmitter-receiver 42145
  - AWGN multi-user channels, soft-decision interf. cancellation 42162
  - bandlimited quaternary phase FSK, error perform. 9276
  - bandlimited sources coding, sampling/dithered quantization, perform. 24092
  - binary ECCs over Gaussian QAM channels, perform. eval. 2377
  - BPSK modulated co-channel sigs. reception, dual sig. receiver 33886
  - CATV near-future archit., broadcast channels capacity 42616
  - CDMA codes, coding theory 2893
  - CDMA commun. systs., subspace-based delay estim. 42166
  - CDMA networks, decorrelators for multi-sens. systs. 33761
  - CDMA systs., multistage RAKE receiver 9242
- **Gaussian channels** continued
  - concatenated coding syst., modified erasure declaration Viterbi decoder 8173
  - continuous-time Gaussian channel with feedback, coding theorems 24048
  - coset codes on fading channel matched constellations 32138
  - CPM sigs. neural receiver 33913
  - DECT channel error profiles 3123
  - digital mobile commun., adaptive Rayleigh fading compensation for coherent GMSK sigs. 3433
  - DPSK differential detect. scheme, phase seq. estim. 32684
  - DPSK/FSK, differential phase detect., bit/sym. error probabilities 40614
  - DS-CDMA outage perform., mobile satellite channel 33906
  - DS-CDMA radio commun., low rate coding methods 25249
  - DS-SS communications, doubly selective fading channel, spreading seqs. 17016
  - DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
  - EVAM, eigenvector-based algm., multichannel blind deconvolution 24301
  - fractal modulation commun. syst., implement./simul. 15708
  - Golay-coded M-PSK, Rayleigh fading channel, decoding 32090
  - ideal zero-forcing DFE syst. capacity penalty 41383
  - long dist. opt. soliton commun., optimal design *(Chinese)* 9532
  - low complexity decoder for turbo-codes 24022
  - M-ary DPSK, MLSE differential phase detect. 2563
  - M-ary phase coding for noncoherent AWGN channel 24046
  - M-ary wideband commun. syst., multipath channels appl., perform. 17019
  - M-DPSK in fading channels with diversity reception, error bound anal. 3355
  - MFSK sigs., non-coherent detect., phase noise, AWGN channel 15701
  - MLSE, dyn. threshold detect. 40881
  - mobile radio channel, measuring/simulating devices 25286
  - mobile radio channel modeling by echo estim. *(English)* 9338
  - multi-beam mobile satellite commun., Viterbi decoding 25307
  - multi-D trellis decoder for 155 Mb/s concatenated codec 33684
  - multichannel Gaussian sigs., low-rank detect., matrix approx. 24212
  - multidimensional high-order moments estim., amplit. quantis. 2534
  - multiple access channel, single-user decodable codes 40525
  - multiple multiamplitude MSK trellis codes, AWGN/fading mobile satellite channels 33958
  - multiple TCM reduced complexity seq. decoding 8094
  - multiple-error/block LMS adaptive algms., mean-sq. anal. 32761
  - multiuser collaborative coding schemes, complex-value receiver 24779
  - Nakagami fading channel block error probabs. 33800
  - Nakagami fading channel capacity eval. 33801
  - narrowband digital FM sigs., seq. estim. 24280
  - noncoherent freq.-PM, BER/PSD 24014
  - noncoherent orthogonal coding improvement by time overlapping 2375
  - optimal trellis-coded 8-PSK and 4-AM modulations for Rayleigh channel 8104
  - optimum detect. in dual-channel Gaussian data, localized interf. 15867
  - partially coherent CPM receiver, cochannel interf. 8105
  - PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
  - randomly time-varying channels tracking algms. 2466
  - Rayleigh fading channel, adaptive diversity receiver, error probab. 25263
  - Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
  - Rician fading nonco-operative multiple access channel capacity 41465
  - Rician-type error probabilities, tight bounds and appls. 15712
  - RS codes, soft decision trellis decoding 2374
  - Shannon theory of Gaussian cellular multiple-access channel 25273
  - slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
  - soft output Viterbi algm., turbo-codes decoding 40666
  - stretched pulse PPM opt. channels, perform. improvement *(Chinese)* 9533
  - sym.-by-sym. detector for lin. dispersive AWGN channels 16017
  - sync. DS-SSMA systs., pseudo-noise seqs. 3326
  - TCM for equalized multipath fading ISI channels, perform. 25340
  - TCM sig. detector, time-dispersive channels 15957
  - TCM-QAM for flat fading and AWGN channels, design 24118
  - TDMA systs., unique-words perform. eval./selection/design 24780
  - trellis coded multi-amplit./-PM, noncoherent detect. 24281
  - trellis codes, error probab., dist. spectra/upper bounds 32063
  - trellis-coded quantization for noisy channels 24032
  - turbo-codes/high spectral efficiency modulation 15747
  - twisted-wire pair, capacity calc. 40523
  - Viterbi algm. simultaneous data detect. and channel estim. 8385
  - Wiener-optimum lin. detectors for non-Gaussian channels 24246
- **Gaussian distribution**
  - adaptive detectors, effects of sig. contamination 32543
  - AR proc., non-Gaussian source, Gaussian mixture dens. modeling 40835
  - automatic generation of hidden Markov networks by successive state splitting algm. 32440
  - cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
  - continuous dens. HMM, phoneme recog., unsupervised speaker adapt. 40755
  - continuous speech recogn., suprasegmental 32401
  - deformed patterns recog. 16150
  - DS-SSMA indoor cellular radio perform. 25370
  - echo canceller with adaptive FIR filter, anal. for Gaussian sigs. 32747
  - elec. interchange pricing, probabilistic prod. simul. *(Chinese)* 27039
  - Gaussian sig., analytic generating fn., autocorrelation 32640
  - German, prosodically marked phrase boundaries, automatic class. 32400
  - ion-ripple laser, effects of long. momentum spread 7696
  - IR imaging, ΔT metric eval., mil. target and background under various stats. 4439
  - lattice quantization noise 40882
  - likelihood distributions for radio wave tomography 10456
  - LMS adaptive algms., DC offset effects, comparison 40852
  - local and global multiscale image class. 32835
  - model adaptive image restoration 8609
  - multihypothesis testing, seq. procedure 24169
  - planar devices, minority carrier diffusion length, direct meas. 13659
  - quadrature component generation anal., narrow-band oscills., delay method 40766
  - quantitat. seafloor charactn., bathymetric sidescan sonar 10558
  - random proc., DOF, Fisher inform. and freq.-time products 202
  - robust nonlin. least sq., data modeling 16009
  - segmentation of speech, speaker ident. 32249
  - shaped beam antenna aperture field anal. by Gaussian beam synthesis 23823
  - SOI MOSFETs, thin film fully-depleted, 2D mobility model 13694
  - speech recogn., Gaussian mixture modeling 32356
  - spoken lang. ident. by ergodic HMMs 15806
  - subband decomp. of video, generalized Gaussian distribs. 24584

Gaussian distribution continued
- T1 carrier syst. companding noise statistics 41388
- telephone speech data corpus, speaker independent recogn. 3134
- trellis coded CPFSK, coherent detect. on phase jitter channels *(Korean)* 33922
- vert. polarized bistatic RCS for random rough surfaces 34111

Gaussian filtered minimum shift keying *see minimum shift keying*

Gaussian noise
- 2-D MUSIC/2-D MP estimators, asymptotic props. 15978
- 2D autoregressive noise model, broadband planewave detect. 40840
- 3-D array, plane sine wave sig., azimuth/elevation angles estim. 2501
- 3D motion estim. from noisy opt. flow, superior estimator, max. likelihood estimator 16328
- 6 Mb/s ADSL, constellation TDM 16922
- 8PSK-TCM modem, develop. and transm. perform. 25156
- adaptive detectors, effects of sig. contamination 32543
- adaptive equalization for multipath fading environ. 3429
- adaptive HMM filters for sigs. in noisy fading channels 32736
- adaptive multiuser demodulation, neural network techs. 17001
- adaptive-neighborhood image deblurring 16323
- additive contaminated-Gaussian noise, dual sign algm. 8395
- analog autocompensators, correl. feedback and direct calc. of weighting factor 32593
- AR noise, nonGaussian sig. detect., lattice struct. 40989
- AR param. estim., noisy data, EM algm. appl. 40921
- asymmetric DSL ideal discrete multitone signalling 42051
- asymptotic MLE of chaotic sigs. in noise 40847
- asymptotically optimum space-diversity detect. in non-Gaussian noise 15969
- asynchronous packet transm. optimum frame sync. 41418
- AWGN, block and decoded error probabilities of DPSK 15763
- Bayesian predictive densities, multiple cisoids detect./estim. 41006
- bearings-only tracking in distributed sens. network, reduced sufficient stats. 15877
- binary ECCs over Gaussian QAM channels, perform. eval. 2377
- binary receivers, Gaussian/α-stable impulsive noise, perform. anal. 40941
- binary transm. in slow four params. fading channels, errors *(Polish)* 33742
- blind equalization, higher order cumulants/neural networks 2862
- blind MA-syst. ident. based on higher order cumulants 32491
- blur ident. based on higher order spectral nulls 16207
- capacity evaluation of spread spectrum multiple access 8738
- CDMA mobile radio syst., turbo-codes appl. 9239
- CDMA networks, decorrelators for multi-sens. systs. 33761
- CDMA receiver, near-far immunity 25228
- CDMA systs., error-correcting coding 24782
- cellular TDMA networks, cochannel interf. simul. 17060
- chaotic sigs. MLE 24291
- chirp SS techs., multipath interf. suppression 25250
- coherent FH-SS commun. syst. capacity 40551
- commun., chaotic masking 15687
- complex sig. detect. in white Gaussian noise and narrow-band interf. 32592
- concatenated coding syst., modified erasure declaration Viterbi decoder 8173
- connected-word recogn. in noise, extraction 32385
- covert commun. employing wavelet technol. 9164
- CPM sigs. neural receiver 33913
- Cramer-Rao lower bound approxs. of freq. estim. 24224
- CRLB/HOS of polyphase sigs. in additive/multiplicative noise 24245
- decision feedback multiple-sym. differential detect., diversity 9200
- DECT solid state radio front end, perform. eval. 3468
- demodulation of noisy phase/FM sigs., Kalman filters 40574
- detect. perform. of lin./sq.-law detectors 32539
- deterministic sig./Gaussian noise, additive mixture, exact splitting 8260
- DFT, bivariate orthogonal white noise series synthesis 40817
- differential parallel combinatory SS commun. systs. *(Japanese)* 25207
- differentially detected π/4-DQPSK syst. perform., AWGN/Rayleigh fading 40568
- digital compact cassette, seq. estim. algms. appl. 17582
- digital mobile commun., blind seq. detect. 17039
- digital PM, carrier tracking and sym. detect., nonlin. filtering 8107
- digital satellite channels, adaptive DFE, multilayer neural networks 25453
- digitally FM sigs., modulation class., higher-order correl. 15698
- digitizer error extraction in nonlin. test 9837
- discrete Gaussian fields, recursive filtering 41029
- discrete time chaotic sigs. detect./charactn. 8291
- distributed cell-averaging CFAR detect. in depend. sens. 32532
- diversity combining, correl. slowly flat-fading Rayleigh channels 8374
- DOQPSK, differential demodulation of filtered offset QPSK 17073
- DQPSK in fading channels, unified error anal. 8090
- DS-CDMA radio commun., low rate coding methods 25249
- DS-CDMA receiver complexity reduction 17011
- DS-SS, multi-h CPM, indoor mobile radio, perform. 3474
- DS-SS systs. impulsive channel, narrowband interf. suppression 33751
- dual sign algm., contaminated-Gaussian noise, perform. anal. 32669
- dual-channel iter. speech enhancement, auditory-based spectrum 8220
- error probab. during sig. reception, deviation from Gaussian law 32576
- error rate for differential demodulation of 2-h CPM *(Korean)* 24018
- fast freq. hopped NCMFSK, Rayleigh fading, diversity combining 33762
- FH-SSMA, band-efficient modulations, cellular radio channels 25367
- filtered EM algm. for joint HMM and sinusoidal param. estim. 24220
- FIR syst. ident., third- and fourth-order cumulants 40541
- FIR systs. blind ident., third order cumulants 2525
- first order stat., noise-intens. estim. stabil. 40364
- first-order PLL in noise/interf., cycle slip 2547
- fourth-order stats., freq.-/time-delay of arrival estim. 8315
- fractal modulation commun. syst., implement./simul. 15708
- freq.-stepped CW radar data, optimal sig. proc. 17374
- GOES-I Imager, radiometric accuracy optim. 4382
- Golay-coded M-PSK, Rayleigh fading channel, decoding 32090
- guard interval in orthogonal FDM, multipath channels 2885
- harmonics in noise, cumulant-based estimators, perform. anal. 40992
- hidden nearly completely decomposable Markov chains, adaptive estim. 40971
- higher-order stats., 2-D single record harmonic retrieval 8313
- hybrid DS/SFH SSMA commun., nonselective fading channels 3321
- hybrid SFH-multitone DS SSMA syst., perform. 9172
- images/image features scaling, RG 2751
- incoherent and skewness matched filter detectors, multipath environ. 24174
- indoor radio channel, neural-based packet equalization 9307
- integrated polyspectrum, non-Gaussian sigs. detect. 2485
- ISI nonlin. equalization, further decision prediction *(Polish)* 40794

Gaussian noise continued
- isotropic broadband suscept. test method (appl., ARC-182 radio) 15468
- lattice quantization noise 40882
- lin. FM sigs., fast param. estim. algms. 40909
- LMSS, receiver 3rd order PLLs 42211
- low residual noise speech enhancement utilizing time-freq. filtering 32211
- M-ary (d,k) codes for high dens. disk recording, improved dist. 30735
- M-ary DPSK, MLSE differential phase detect. 2563
- M-ary DPSK/D^{2}PSK channel capacity with time-selective Rician fading 32033
- M-ary phase coding for noncoherent AWGN channel 24046
- M-ary PSK suboptimal coherent detect., error rate bound 15961
- M-ary wideband commun. syst., multipath channels appl., perform. 17019
- mag. recording, commun. channel model 30743
- mag. recording channel, binary/ternary DFE 7191
- manoeuvring target tracking, multi-model adaptive Kalman filter 15964
- matched median filter for QAM sigs. detect. 15967
- mixed Gaussian/non-Gaussian ARMA noises, harmonic retrieval 8433
- mobile fading channel 16-DAPSK perform. calc. and simul. 33798
- mobile radio postdetection diversity/concatenated channel coding 3341
- mobile satellite channels, partial response coded MPSK anal. 42205
- model based tone freq. estimators, prefiltering effects 16010
- multichannel Gaussian sigs., low rank detect., constrained inverse 40952
- multichannel space-time sig. proc. providing local interf. suppression 32572
- multilayer perceptrons, sig. detect. and class. perform. eval. 24341
- multilinear time-freq. representations, multicomponent sigs. anal. 32743
- multiposition incoherent sigs., simple method of invariant reception 40858
- multiresolution edge detect. techs. 24599
- multisensor multitarget mixture reduction algm. for tracking 24322
- multiuser collaborative coding schemes, complex-value receiver 24779
- multiwindow method for array spectrum estim./sinusoid detect. 2473
- Nakagami faded sigs., Gaussian noise perturbed, phase diff. distrib. 32024
- near-far resistant DS-CDMA receivers, sensitivity anal. 9236
- noisy fn. eval. and delta coding algm. 8493
- noisy phase OOK sigs., noncoherent detect. 40784
- noisy quantized random obs. coeff. AR time-series, estim. 40869
- non-Gaussian time-varying AR models, cumulant-based approaches 2523
- non-min. phase syst. estimators, comparison 16013
- noncausal autoregressive systs., cumulant based param. estim. method 40918
- nonlin. commun. channel equalization by wavelet neural nets 41397
- nonlin. noise reduction based on zero-crossing representations of wavelet transform *(Japanese)* 15935
- nonlin. syst. ident., Hammerstein model, cumulant-based Steiglitz-McBride algm. 40991
- OFDM in amplit. limiting channel 8106
- off-line segmentation of sigs., MAP soln. 41007
- opt. commun. syst., characts. anal. 9455
- optimal reception, error probab. in channel, variable param. under ISI 32018
- orbital debris radar antenna pointing Kalman filter 25581
- orthogonal coherent digital MFSK systs. in Gaussian noise and Rayleigh fading 40795
- Osman Nuri Ucan receiver, trellis coded M-QAM schemes, partial response channels 40704
- partially coherent CPM receiver, cochannel interf. 8105
- PCS, outage probab. in presence of Rice fading 17099
- periodically time-varying state-space digital filters study 8255
- π/4-DQPSK on microcellular radio channels, diversity/interf. 17101
- PPM, seq. detect. and equalization 15710
- PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
- PRML channel, medium noise, syst. error rate 7120
- PRML digital mag. recording systs. anal. by write and read equalization 30723
- PSK sigs., low SNR approx., phase PDF 2364
- pulse timing detector, filter optim., opt. fibre commun. *(Japanese)* 34001
- radar sig. detect. via ARMA modeling 34132
- radar target discrim., wavelet transforms 16102
- radar target ident., bispectrum 34112
- radio links, computer generation of sigs., simul. program 17025
- radiometer perform. limitations in spherically invariant noise 32541
- radiometer receiver linearity characterization by intermodulation distortion 25795
- random amplit. modulated harmonic retrieval, higher-order stats. 32460
- random amplit. polynomial phase sigs. estim. 32557
- random wavelet transform. 32521
- reciprocal Gaussian procs., recursive filtering/smoothing 24293
- reciprocal seqs., Kalman like filtering/smoothing 40873
- Rician CDMA channel fading-resistant multiuser detect. 41460
- RLS adaptive equaliser digital commun., importance sampling 16409
- RLS algm., wt. misadjustment, input sig. correl. effect 40843
- robust block adaptive filter for colored sig. input 37865
- robust lin. predictive anal. methods for speaker ident. 24150
- satellite TDMA binary PSK sig. demodulation without explicit carrier sync. 40553
- self-similar set ident. in time-scale domain 32520
- sens. array sigs., multi-scale deconvolution, higher order spectra appl. 40987
- seq./parallel image restoration, neural network appl. 2729
- Shannon theory of Gaussian cellular multiple-access channel 25273
- sig. integral, time delay estimator, ECG sigs., perform./testing 4280
- sig. restoration, correl. accumulation 2522
- sigs. in impulsive noise, detect./classif. 8363
- simple chaotic syst., noise sig. synthesis 15922
- sliding multiple sym. differential detect. of trellis-coded MDPSK *(Korean)* 15725
- slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
- SNR estim. algm., fourth-order moments 40871
- soft-decision seq. decoders perform., estim. 8175
- sparse deconvolution, Gaussian mixtures 24242
- spatial-point proc. model, texture class. 34183
- speech anal., noise, limitations of cepstral features 32377
- speech enhancement, higher order AR modelling, parameterized Wiener filtering 15836
- speech enhancement based on auditory constrained params. 32210
- speech recogn., noise adaptive, HMM representation 40741
- speech recogn., noise independent, variety of noise types 32314
- SS commun. syst. jamming, general model 42185
- SS transm. quality improvement, diversity transm. 17013
- stationary procs., sample cumulants, asymptotic results 40841
- subspace GLRT for vector-sens. array detect. 40954
- SVD, periodic sigs. anal./prediction 15979

Gaussian noise continued
sym.-by-sym. detector for lin. dispersive AWGN channels 16017
TCM decoder perform., 8 PSK, 8 PAM, 16 QAM, additive mixture Gaussian/impulsive noise *(Korean)* 32195
TCM sig. detector, time-dispersive channels 15957
TCM-QAM for flat fading and AWGN channels, design 24118
TCM/M-PSK, trellis-coded M-ary PSK for digital land mobile commun. *(Korean)* 17045
TDMA mobile radio systs., CCI suppression 9393
time delay estim., integrated polyspectrum 32617
time-domain tests for Gaussianity/time-reversibility 8422
time-varying higher-order cumulant spectra, noise, composite FM sigs. anal. 40970
transform adapted, polynomial phase sigs. 16016
trellis-coded MDPSK, sliding multiple sym. detect. *(Korean)* 24120
trellis-coded quantization for noisy channels 24032
tricoherence stats. 8419
TV picture degrad. by EM noise, opinion tests on still and motion pictures 42565
twisted-wire pair, capacity calc. 40523
two-level coding based on TCM and RS codes 15766
uncoded M-DPSK non-redundant error correction 8460
wavefront reconstruction from phase differences, correl. noise propag. 16201
weak radar sig. detect. based on wavelet transform 42491
whiter than white noise 40990
Wiener-optimum lin. detectors for non-Gaussian channels 24246

Gaussian processes
see also Gaussian channels; Gaussian distribution; Gaussian noise
1.9 and 4 GHz exterior wall refl. coeff. meas. 31820
2-D noncausal Gaussian Markov random field model, param. estim. 33078
act. feedback amps., multicarrier intermodulation optim. 12350
adaptive filtering, sign algm., convergence anal. 32531
adaptive image coding based on visual activity level 24499
AR proc., non-Gaussian source, Gaussian mixture dens. modeling 40835
ATM stat. multiplexer multidimens. diffusion model 41431
automatic speech recogn., coding algms. influence 32358
B-ISDN, queues, total recall 33603
beam scatt. by coated conducting cylinder 40327
CDMA, TU Delft research, overview 25255
CDMA mobile radio systs., joint detect., diversity 25343
cellular radio handoff algm. level crossing anal. 42226
clipped DMT ADSL sig., SNR/spectral props. 9097
coil shielding by short ferromag. tube 23692
color images, adaptive Bayesian segmentation 16327
continuous speech recogn., suprasegmental 32401
convexity-based algms. for design centering of ICs 474
covariance estim. for multidimensional data 8285
delta-sigma modulators with zero mean stochastic inputs, anal. 37819
differential GMSK perform. eval. using Kth order detectors 32032
discontinuity detect. in noisy and textured images, weak continuity constraints 2841
DOA estim. in unknown correl. noise, MUSIC and higher-order stats. 32481
DOA estimators, covariance based, robustness property 2505
DS-CDMA, shadowed Rician fading land-mobile satellite channel 9268
FIR adaptive filter, least mean p-power error criterion 15884
fractional Brownian motion, spectral exponent estim. 24287
freq. domain filtering for Gaussian seqs. generation 40978
freq.-selective Rayleigh fading channels seq. estim. 8373
fully-polarimetric GLRTs for detecting scatt. centers in terrain clutter 17390
Gaussian sig., analytic generating fn., autocorrelation 32640
generalized Cramer-Rao bound and location param. case 41005
generalized discrete Gabor expansion, fast algms. 2535
generalized spectral-centroid estimator, variance 24170
higher-order stat. sig. proc., freq.-domain estim. 8314
image compression, modeling of DCT and subband data 24593
image matching under affine deform. 8551
image motion estim. algms., cumulants 24701
indirect method of nonlin. filtering, PLL synthesis appls. 32568
large pop. speaker ident., clean and telephone speech 40715
likelihood distributions for radio wave tomography 10456
LIMSI continuous speech dictation syst., eval. 32342
LMS algm., short-time instabilities 24268
local bandwidth adaptation, spectral dens. estim., wavelets appl. 32652
lognormal random procs., digital simul. 32025
low sig.-to-clutter ratio proc. of radar sigs. 17362
M-ary PSK non-decision-aided feedforward carrier sync. asymptotic cycle slip probab. 40554
mapping approach, rate-distortion computation/anal. 24044
meas. eqn. of invariance method, randomly rough surfaces anal. 42481
model adaptive image restoration 8609
multialternative seq. threshold rule convergence by correl. obs. 32014
multipath mobile channels, simul./modelling 3410
multiple view time-freq. distribs. 8346
multiresolution image compression, Gaussian Markov random fields 2399
multispectral/multilayer image coding, optimal transforms 24697
multivariate autoregressive model, max. likelihood estim. 2478
NDA FF carrier synchronizer, Viterbi algm., cycle slip anal. 8455
non-Markovian proc., conditional probab. dens., kinetic eqns. 20534
nonlin. predictor, zero-memory nonlin., second order Volterra filter 40985
parallax field, intens.-based estim., smoothness constraint 33124
parameterized Gaussian-like filters, synthesis by approx. 32646
parametric image models, Bayesian segmentation methodology 24421
parametric model output probab. laws, study and simul. *(French)* 15928
phase jitter, probab. distrib. changes 16015
power spectrum estim., wavelet thresholding techs. 2484
progressive image transm., pyramid struct., projection 16381
pyramid sub-band filtering for image compression 33098
quantitat. seafloor charactn., bathymetric sidescan sonar 10558
quasioptical resonators, mode degeneracy 39530
radar clutter, spatial correl., simul. 34135
random fields, max. entropy property proof 2356
reciprocal Gaussian random procs., model param. estim. 40824
Rice/Rayleigh channels state estim., nonlin. filtering 8456
robust approx. likelihood ratio tests for nonlin. dyn. systs. 40975
robust speech recogn., probabilistic optimum filtering 32309
SCM CDM opt. LAN, theory and expt. 16716
second directional derivative edge detector, sampling/quantization/noise effects 33122
segmentation of speech, speaker ident. 32249

Gaussian processes continued
seismic sig. discrim. by radial basis fn. network 35289
shift variance of wavelet transform for sig. detect. 24256
sig. restoration, random nos. of counts 32013
small target detect., long term integrat. 18975
speaker ident., text-independent, Gaussian mixture speaker models 8225
speech recogn., stochastic trajectory modeling 32223
stationary single server queues, approx. for perform. eval. 16469
subband image coding, watershed/watercourse lines of wavelet transform 2727
subband sigs. lin. prediction 15885
telephone speech messages automatic lang. ident. 32279
time series, discontinuity location, recursive Bayesian method 41009
time-domain procedures for testing that stationary time-series, Gaussian 32490
time-freq. distrib. series 32668
time-varying arrays, direction finding 40838
two-stage VQ-lattice VQ 24093
vert. polarized bistatic RCS for random rough surfaces 34111
Volterra syst. ident., Gaussian sigs. orthogonalization 24244
wavelet based image proc. algms., quantitat. eval. 35003
Wiener/Poisson procs. functionals, coherent-state representations 5742

Ge(Li) detectors *see germanium radiation detectors*

Geiger counters
time interval distribution measurements in photon counting distrib. 26238

Geiger Muller counters *see Geiger counters*

gelatin
see also gels
DCG, dye-sensitised, holographic gratings recording, spatial freq. doubling 31637
DCG, holographic polariz. sens., magneto-optic heads 7848
DCG, PVA doped, holographic perform. props. *(Chinese)* 40139
DCG, refl. hologram grating, diffr. spectrum asymmetry 31668
PVA films, dichromated, real-time hologram recording, humidity effects 40143
untanned DCG layers, narrow-band holographic mirrors 7821

gels
see also sol-gel processing
3-D pattern of EM power absorbed by human body *(Japanese)* 10289
liq. crysts., conf., Hungary (Oct. 1993) 11577
metal-oxide based gels, organically doped, nonlin. opt. props. 15091
organically-modified sol-gels, opt. limiting study 31588
polyacrylamide gel, dye doped, laser host 7544
projection displays, metallized viscoelastic control layers 25923
swellable polymeric/fiber optic distributed sens. for water and pH meas. 26001
Pb-acid valve regulated gel batts., standby power appls. 19961

GEMFET *see insulated gate bipolar transistors*

gender issues
engng. education, female perspective, qualitat. assess. 5521
telematics, creative 2998
women in technical/scientific fields, national survey results 28366

general purpose computers
for computer applications see under relevant applications e.g. administrative data processing; CAD; natural sciences computing
inform. proc. systs. eval. centre, reliab. improvement *(Japanese)* 16737

General Purpose Interface Bus *see peripheral interfaces*

generalisation (artificial intelligence)
ANN connection topol. optim. by genetic algm. 29505
COSIMA multistrategy learning syst., integrat., interactive floorplanning tool 12290
learning model struct. from images 16333
multispectral image class. using BP neural net classifier, input codings assess. 8590
neuron-MOS neural networks, hardware-learning algm. 37916
NPP fault-diagnostic advisor, neural nets 19438
relay, smart, AI-based 6397
seismic sig. discrim. by radial basis fn. network 35289
variable speed drive inverse nonlin. speed controller design 11349

generalised immittance convertors *see active networks*

generator protection *see machine protection*

generators, acoustic *see acoustic generators*

generators, electric *see electric generators*

genetic algorithms
1D nonlin. matched sieves, genetic algm. 2797
2D Fourier kinoforms by genetic algm., quantized phase optim. 40160
3-D morph. algm. for obj. recogn., automated training 16269
3D machine vision camera calib., genetic algm. 2803
3D shape reconstruct. by genetic algm. *(Japanese)* 16388
act. genetically derived filter ccts., preferred value components 37845
adaptive IIR filtering, fast convergent genetic search 32705
air traffic assignment, genetic algms. 35275
anaesthesia trials, patient awareness state monitoring via neural net interp. of EEG sigs. 43318
Analyser genetic algm. based LAN divider 41769
ANN connection topol. optim. 29505
annealing evol. algm., fn. optimizer 28636
annealing genetic algm., solve global energy minimization problem in mol. binding 215
array thinning optim. 23974
asynchronous parallelism in steady-state genetic algms. 8247
ATC conflict resolution using genetic algorithms 10419
ATPG for seq. ccts., genetic algms. 6075
automatic calib. of laser range cameras, arbitrary planar surfaces 17437
automatic recogn. of partially occluded objs. 16286
Bayesian image restoration, genetic algms. appl. *(Japanese)* 2625
bidirectional associative multilayer neural network, robust capability, hardware appl. *(Korean)* 29518
brain anatomical struct. recog., genetic algm. 2799
brain scan image anal. 35036
broadband microwave absorber Pareto-optimal design 31791
CAM design, modular VLSI scheme 21315
channel routing, extended distributed genetic algm. 37601
CMOS VLSI ccts., design optim., genetic algm. 39015
coal-fired power plant simul., genetic algm.-based 36004
codebook design in VQ, genetic algm. 15789
colour image recogn., neural net and genetic algm. *(Japanese)* 33116

genetic algorithms continued
commun. network, terminal assignment, genetic algms. 16556
competitive, optimised neural vector network 793
computer network expansion CAD, reliab. optim. 33575
computer vision, 2-D chromosomes 8494
convergence, type II two bit problem *(Japanese)* 28633
D-optimal designs, soft selection 37290
data path synthesis for easy testability 12470
depalletizing robot vision, genetic labeling 8640
design spec. component selection, genetic algm.-based 37024
discrete/continuous spectra, separable estim. 8463
distrib. network fuel cells, optimal deployment genetic algm. 19257
distrib. network harmonic filter CAD, genetic algm.-based 4641
distrib. network loss minimization re-config., genetic algm.-based *(Japanese)* 43746
distrib. network sectionalizer allocation, genetic algm.-based 10729
distributed switching software, scheduling mechanism of general service order seq. and limited service discipline 9133
double-based genetic algm. on pop. of computer programs 216
EEG, feature selection, VQ/genetic algms. 43313
elec. motor, optimal design, genetic algms. 19580
electrochem. sens. calib., genetic algms. *(German)* 17760
environ. constrained optimal economic dispatch, genetic algm. 19168
evol. algm. for phys. motion anal. 41228
feature recog./obj. counting, genetic algm. 2796
filters, neural, adaptive, finding, genetic algms. 32527
FPGA, lookup table-based, technol. mapping, genetic algm. 21224
FPGA logic implement., optimisation techs. based on genetic algms. 6108
freq. assignment problems, genetic algm. appls. 9199
fuzzy clustering 11947
gas turbine power plant operations scheduling 43922
GATTO, intell. tool for ATPG for digital ccts. 608
generation expansion planning, parallel GA, parallel proc. *(Japanese)* 27086
image recog./restoration, genetic algms. 2801
image registration, parallel genetic algm. hardware archit. 2802
induction motor param. determ., genetic algms. appl. 4962
integrated scheduling, allocation and module selection for design-space exploration in high-level synthesis 21061
knowledge-based nonuniform crossover for genetic algms. 37286
Landsat images, genetic algms. for terrain categorization 16256
logic ccts. test generation 12446
map topol. clustering by genetic algm. 24378
max. entropy image restoration 8509
MCM, genetic algm. based cct. partitioner 38197
memetic algms., formal, representation-independent 11933
min. source reconstructions 8303
ML-Germinal, heuristic standard cell placement algm. 21038
modified genetic channel router 13844
morph. filters design, genetic algms. 2798
multi-chip module routing, evol. algm. 38200
multi-parent recomb. 37288
multi-stage coilgun, design, energy distrib. *(Korean)* 23519
multi-viewpoint stereo meas., init. value search method, genetic algms. *(Japanese)* 2627
multisensor/knowledge fusion, seismic prospecting 43464
music comp. by genetic algm. and thematic bridging 34301
nature's methods simul., design soln. 28643
near-optimal MST-based shape description, genetic algm. 41190
NMR image obj. recog., genetic algm. 2800
noisy fn. eval. and delta coding algm. 8493
non-binary genetic algms., cardinality 2^v 37285
non-coding segments effect on genetic algm. 217
nonbinary transforms 11952
nonlin. filter struct., act. sound and vibr. control, genetic algm. 32776
operation assignment problem, genetic algm. *(Japanese)* 222
optimal multistage distrib. network planning, genetic algms. 4615
optimisation of genetic algms., Taguchi method 223
parallel genetic algms. for earliness-tardiness job scheduling problem 28642
parallel recombinative simulated annealing 20561
pattern search, genetic algms. and neural network model 41354
power syst. automation, computational intell. 19161
power syst. contingency screening method, genetic algm.-based *(Japanese)* 26994
power syst. economic dispatch optim., genetic algm.-based *(English)* 43698
power syst. economic dispatch optim., refined genetic algm.-based 35482
power syst. fuzzy optimal load freq. control design *(Japanese)* 43682
power syst. generation expansion planning, parallel genetic algm.-based 19206
power syst. intell. control, appl. develops. 19135
power syst. meter allocation, genetic algm. 43712
power syst. optimal clustering, genetic algm.-based 4446
power syst. short-term load forecasting, genetic algm. neural net 27080
power syst. static security assess., genetic neural net-based 19008
power syst. unit commitment optim., EnerPLUS package-based 27107
power systs., operational intell. syst. appl. 43617
prog. space compactors selection for BIST 12459
recursive digital filters, genetic algms. 16059
reliab. improvement for computer networks and distributed systs. 3170
resource mgt., stochastic techs. 20362
RF cavity design, genetic algms. 37960
routing problem, genetic algms. on LAN-message passing archits. 41910
scheduling, genetic algm. appl. 2992
schema theorem for genetic algms. 218
selection methods in evol. algms., empirical comparison 11953
selection schemes, convergence models 37289
separable-denominator 2D digital filters, optimal design *(Japanese)* 21432
shape representation, evol. algms. 2795
sonar, global inversion by genetic algm. 17468
stat. gene eval. 11946
state assignment problem appl. 29134
suboptimum binary phase code search, genetic algm. 40577
superquadrics param. estim. from shading image, genetic algms. 41119
test scheduling, different objectives 1470
thermal units, power generation commitment, genetic algorithms anal. 35523
thinned arrays, element placement, genetic algms. 16060
transformer winding shape design, global optim. strategies 887
transm. network expansion planning, neural net/genetic algm.-based *(Japanese)* 10716
travelling salesman problem, operators, correl. anal. 37273
unit commitment problem, genetic algm. 19163

genetic algorithms continued
virtual lives, speciation proc., computer simul. *(Japanese)* 37280
VLSI syst. partitioning, genetic algms., implement. and eval. 28923
wire routing, automatic, evol., for multiprocessors 37584
SiO_2, PECVD modeling via neural nets and genetic algms. 398

genetics
biotechnology, issues and challenges 43177
BP algm. for class. of genetic seqs. 2630
disease diagnosis, challenges and opportunities 43190
DNA, electrostatic stretch-and-positioning appls. 40217
genotyping by multiplexing PCR *(French)* 24762
grey-level images, entropy estim. algm. 8584

geodesic lenses *see integrated optics; lenses*

geodesy
earthquake prediction, VLBI/satellite laser ranging 43477
forested slopes, radar rem. sens., geometric optics theory 18785
geoid & ocean surface, TOPEX/POSEIDON radar obs. 18796
geopotential scale factor refinement, GEOSAT altimetry 35278
GIS, geodetic positioning 42326
GPS differential method, marine geodesy 4381
GPS height results, tropos. propag. effects 7972
gravity anoms. for Earth struct., satellite altimetry method 35279
gravity field model, TOPEX/POSEIDON ocean radar satellite 18862
long-dist. meas. syst., metrological chain, comment 34323
marine geoid, NRSC radar altimetry product 26705
mountainous terrain mapping by radar, SAR stereo restitution 43475
ocean surface radar altimetry, tides & satellite orbits 18837
photogrammetry, aircraft navig., GPS, parallel flight lines 26708
photogrammetry, GPS controlled triangulation of single flight lines 42549
photogrammetry, GPS supported aerial triangulation 26707
radar for digital elevation models, across-track SAR method 43471
radar obs. of sea surface, altimetry ionos. correction *(French)* 35352
radioaltimetry method, filter for unevenly spaced data 10434
satellite orbit perturb., ocean tides 18837
satellite scene resampling 41277
sea level by satellite radioaltimetry, ionos. correction 18838
sea surface altitude rem. sens., TOPEX/POSEIDON method 43465
Tokyo metropolitan area, crustal deform. obs. *(Japanese)* 18804
TOPEX/POSEIDON ocean radar, precise orbit determ. 18860
TOPEX/POSEIDON ocean radar satellite, CNES orbits 18861
TOPEX/POSEIDON ocean radar satellite, Earth gravity models 18862
TOPEX/POSEIDON ocean radar satellite, GPS for precise orbit 18863
topography, airborne interferometric SAR, motion compensation 43473
topography, ice-covered terrain, shape-from-shading algm. 18787
topography mapping by monopulse SAR radar 18788
topography mapping by satellite radar, TOPSAT mission 10451
topography of Earth surface, multibeam radar altimetry 18783
topography rem. sens. by SAR radar, sig. simul. 18782
vert. motion due to atmos. loading, GPS determ. 10447

geodetics *see geodesy*

geoelectricity *see terrestrial electricity*

geographic information systems
advanced terrain data proc. 10394
agric., cartographic problem solving, geographical IS 4413
airport surface enhanced surveillance radar 10424
AM/FM/GIS implement. 10734
Automated Distrib. Syst. Modeler, OO design 35623
automobile navig. systs. *(Japanese)* 44579
cellular syst. RF prediction tools and terrain database selection 33813
coal/elec. delivery syst., China, planning, DSS 43669
Coast Guard differential GPS Network and GIS 33973
commun. companies implementing GIS 24879
connecting geographical inform. syst., telecom. inform. syst. database 33342
data commun., GIS computing 33487
data transfer communicating interfaces for GISs 41644
distrib. network real-time SCADA systs., AM/FM appls. 19273
distrib. syst. drawings, graphic representation, computer programme 19280
Ecdis marine chart display IS navig. syst. 9681
elec. utility target mktg., GIS 27045
emergency engng./mgt., ES-based DSS approaches 43875
gas company, mobile mapping syst., CD-ROM *(Japanese)* 42213
geodetic positioning and GIS 42326
intell. DBMS for ground proc. systs. in EOS era, telecomm. issues 17687
land cover class., rem. sens. imagery anal. 26776
lin., extraction by least sq. template matching 41253
Marine Geophysics Modeling System 18792
mobile radio channel heavy time dispersion estim. by path tracing 33821
network opportunities eval. on geographic basis 24878
obj. space based surface reconstruction, discontinuities 41273
ocean rem. sens. by radar, French DP & archiving 10553
perspective terrain visualization using rem. sens., GIS and computer graphics 18919
RADARSAT, commercial radar equipped satellite 42524
rem. sens. advances and GIS 43463
rem. sens. market, data variety and availability 41320
road extraction from aerial images, semi-automatic 41258
Russian commercial rem. imaging systs., 1994-2000 41319
ships, electronic navig. chart data 17495
SIGMA AM/FM/GIS project, Colombia 43623
soil erosion anal., rem. sens., DMGIS 43546
spatial data syst. framework, national, GPS ref. stations 42325
telecomms. in Canada, GIS appls. 24877
telecomms. infrastructure, geographical planning support syst. 33292
terrain obj. dyn. and monitoring by GIS and rem. sens. 41271
URD, primary cable routing, intell. syst. 19247
URD cable routing, Automated Primary Router GIS 35624
wireless commun., GIS appls. 24850

geography
imagery, video, and assoc. data, interactive anal. tools 8489
network opportunities eval. on geographic basis 24878
terrain, recogn. for SAR imagery 41263

geology
MOMS-02/D2, first results and future appls. 10426
regularization by multiscale models 24190
technical writing course evol. 28291

geomagnetic storms *see magnetic storms*

geomagnetic variations
Schumann resons., mag. field components 31811

geomagnetism
see also geomagnetic variations; magnetic storms
ELF radiation and Ito 1993 earthquake clusters 23634
EM field, M1, LF propag. under ground surface *(Japanese)* 7986
finite elec. dipole, Hankel transform computations 4384
fractal crustal magnetis. models, mag. interp. 10430
NEC high-dens. color display tube, Earth magneto effects *(Japanese)* 3938
planet Earth, electromech. syst. description 20011
power syst. geomag. induced currents, directional sensitivity 4449
satellites, terrestrial mag. field, ionos.-induced cross-polariz. 23624
total field mag. anom., anal. sig. interp. 10429
transient procs. method, differential transforms. 10428
waste disposal sites, mag. anom. method, site charactn. 10570
geometric codes
see also algebraic geometric codes
Goppa codes, generalized Hamming wts. 24054
Goppa codes, improved 40655
ID-codes and measures separated in L_1 metrics 40630
uniform trellis codes, decoding algm. 15752
geometric Goppa codes *see geometric codes; Goppa codes*
geometric programming
analog neural network for geometric optim. problem 29448
entropy optim. models, convex constraints 20564
geometric reasoning *see spatial reasoning*
geometrical optics
see also geometrical theory of diffraction; ray tracing
apodized pixel lenses in compact shadow-casting correlators 41238
axial stereovision, 3-D reconstruction of natural objs. *(French)* 41350
bubbles, size, vel. and long. posn. opt. meas. 18156
coherent detect. tracking syst. in laser commun., ang. bias correction 17309
dual shaped reflector syst. distortion correcting plate design 23987
dyn. holography with arbitrary waves, multiwave mixing procs. 40167
electrodynamics, inhomog. media, local plane-layered approx. conditions 2199
GRIN fibre syst., third-order aberrations, recursive formulations 30900
handheld cellular phones, antenna design *(Japanese)* 33901
high speed indoor wireless systs., directional antennas 3329
incremental theory of diffr., EM formulation 23584
laser beam, transverse blowing, thermal self-action reduction 7718
multiband reflector antenna freq,-selective subreflector design and perform. 23873
multilayered spherical chiral media, Dyadic Green's fns. 40323
multilobe mirror laser cavity light ray coherence control 31444
opt. disk, readout sig. deterioration , dust induced 39306
partially coherent opt. systs. for num. aperture optim., degree of coherence 13443
photoresist holographic gratings, surface relief struct., GO 15171
porous-clad fibres, tapered, gas sens. response time anal. 42829
quasi-opt. mode converter, Vlasov-type coupler, bifocal mirror 29543
rapid prototyping, laser optics, theoretical anal. *(Japanese)* 7869
rough surfaces, glitter fn. for rem. sens. 16304
slab integrated opt. waveguide path design 40402
small-cell environ., radio channel characts. prediction 3335
spatial intens. distrib. meas. of laser beam 7721
spatially nonuniform opt. beams, nonlin. nonparametric interacts. 40040
thermal self-interact. conditions, perturb. approxs. 40024
uniform plane wave approx. in dissipative media *(Japanese)* 23535
VCSEL, transverse modes, vortices 7639
wave-beam diffr. in smoothly inhomog. media 2238
Ar^+ wide-aperture laser waveguide operation 1847
geometrical theory of diffraction
absorber tip diffr. coeff. 7942
boundary conditions for FE anal. combined, GTD 40310
cellular radio propag. models using ray theory and GTD 31827
converging scalar wave diffr., conducting screen 7938
discontinuity in curvature, backscatt. 40318
earth-station antennas, site shielding 40491
edges of perfectly conducting wedges, PO current dens. correct. 7940
finned cylinder, hybrid soln. for EM scatt. 15406
handheld cellular phones, antenna design *(Japanese)* 33901
impedance matric localisation, CFIE soln. 31919
infinite arrays of slots in thin conducting wedge, scatt. anal. 42479
land mobile radio systs., receiver near range influence 3416
land mobile satellite commun. systs., field strength prediction *(English)* 42222
low altitude radar appls., irregular terrain modeling 17422
low-gain antenna installed perform., diffr. theory 2309
microcellular modelling for base station antenna below roof tops 3418
microstrip antennas coupling, conducting support influence 40454
multiple diffr. modeling, high freq. methods 2212
num. terrain model, propag. loss, uniform theory of diffr. 15435
parallel plate waveguide, HF wave coupling, UTD mode matching anal. *(English)* 40410
radar target modeling, GTD-based approach 17394
radio waves propagated dist., multiple-diffr. components meas. *(Japanese)* 31838
ray mode coupling anal. of EM wave scatt. 15592
reflector antenna patterns, equiv. edge currents in boresight caustic region 40480
reflector antenna radiation pattern determ. by equiv. edge current tech. 23821
satellite reflector antenna diffr. synthesis optim. 23874
ships, EM coupling, multiple antennas on ogival ground plane 23717
small-cell environ., radio channel characts. prediction 3335
synthetic images of proud targets 17485
UHF GTD based propag. prediction model 15447
geometry
see also computational geometry; geometric codes
3D struct. inference from three points in rigid motion 16242
air curtain, anal. design 28174
coronary artery segments, stenosed, 3D densitometric reconstruction and visualization 43240
fault detect./isolation filters, geom. approach 20501
front-end/early vision syst., lin. scale-space 16238
image proc./stochastic geometry, conf., Valencia, Spain (1993) 28241
image recogn., local geom. invariants 32921
inspection, circularity charactn. 5694
key distrib. patterns, Minkowski planes 40693
MRI antenna, RF mag. field penetration in body *(Japanese)* 4261
geometry continued
natural terrain modelling, fractal surface reconstruction 2783
nonrigid motion recovery from stereo images 16176
overlapping particle systs., mean shape/particle no. estim. 37237
perspective views, 3, of 4 points, uniqueness 32927
projective invariants of planar curves, fund. limitations 16296
projective reconstruction from uncalibrated images 16291
PZM microphone characts., boundary surface *(Croatian)* 26791
range/vision sens. data, geometric constraints fusion, alg. framework 41102
rot. Crofton formula 41056
selective attention in multisensor obj. recogn. 24643
turbine blades, detailed design, KBS 19512
X-ray tomographic reconstructions, direct Fourier method, accurate sinogram simul. 26314
geophones *see seismometers*
geophysical equipment
see also atmospheric measuring apparatus; hydrological equipment; oceanographic equipment; seismometers
120° segmented circ. array for multibeam multifrequency bathymetry 17474
autonomous underwater vehicle for gravity meas. 10440
benthic station, NADIA II for geophys. borehole re-entry 18793
digital generator for elec. prospecting equipt., adjustment/testing 4388
EDXRF analyzer, portable, PC based, environ. contaminants meas. 18799
ERS-1, radar rem. sens. satellite, internal clock drift 43472
fiber optic gyroscope North finder 18803
GOES-I Imager, radiometric accuracy optim. 4382
high-T_c SQUID magnetometer for geophys. appls. 10455
marine (underwater) telemetry, acoustic LAN protocol 10446
microwave radiometer Earth obs. phased array antenna design 26711
seafloor imaging sonar, digital sidescan archit. 10436
seafloor instumentation, MABEL modules 18854
seafloor sediment sonar profiler, obj. detect. 10435
seafloor seismic imaging, deep tow sonar/seismic array 10437
seafloor sonar, French deep water multibeam echo sounder 26716
seafloor sonar equipt., Shirshov Oceanology Inst. 10514
seismic deep sea array for subbottom profiling, AUV syst. 18812
seismic sources, marine sparkers, efficiency 10443
seismic sparker marine source, parab. reflector 18794
seismic stations on seafloor, automatic calib. syst. 10438
seismometry & geoelectricity, submarine cables 10441
stratified liqs., opt. detector for internal waves amplit. 4386
topography of Earth surface, multibeam radar altimetry 18783
torque magnetometer for rocks/crysts. meas. 10000
UHF radiometer for Earth surface rem. sens., synthetic aperture 10452
underwater opt. imager, Nd:YLF laser (green) 18904
underwater vehicle instrum. platform, rem. operated 10543
unmanned autonomous underwater vehicles characts. 10529
geophysical prospecting
borehole radar sig. ident., time-freq. distrib. 26706
concentrically layered region, source EM response 40204
digital generator for elec. prospecting equipt., adjustment/testing 4388
finite elec. dipole, Hankel transform computations 4384
ground penetrating radar, subsurface struct. detect. 10453
induced polariz. prospecting, 3 inversion methods 35282
mag. interp., fractal crustal magnetis. models 10430
radar expts. in isotropic/anisotropic geol. 7966
seismic prestack waveform inversion, target-oriented 35284
seismic profiling, marine, F90 & PVM synthetic seismograms 18813
seismic refl. profiling, multiple suppression, nonlin. filter 35283
seismic sparker marine source, parab. reflector 18794
seismic surveying, marine, deconvolution by adaptive algm. 18811
seismic trace editing, fuzzy functional-link net 26712
seismology, migration error in transversely isotropic media 35285
signal segmentation using self-organizing maps 10457
total field mag. anom., anal. sig. interp. 10429
transient procs. method, differential transforms. 10428
well logging, elemental anal., natural gamma-ray spectrosc. 18795
well logging by induction method, oil, inversion algms. 35281
Xe high press. cylindrical ionization chamber 4202
geophysical signal processing
3D data extraction from SAR and opt. imaging combination 10449
3D inhomog. media local earthquakes, mechanisms determ. 43498
3D iterated fn. systs., discrete seqs. representation 2499
acoustic pulse ident., auditory neuron simul. network 26747
airborne laser scanner meas., filtering and calib. 43484
bathymetric simul. based on Kirchhoff scatt. and seafloor modeling 35345
bathymetry & sediments, multibeam sonar, mosaic computation 18807
Bayesian time delay estim. for ocean acoustic tomography 35344
borehole radar sig. ident., time-freq. distrib. 26706
buried obj. detect., radar image reconstruction algm. 18780
cloud and rain, rem. sens., mm wavelengths 10484
cloud fraction/shadow props. retrieval from TIMS/AVIRIS 26718
cloud IR rem. sens., shape segmentation method 18834
coastline change by SAR radar, image texture class. 10512
computed tomography by neuro-fuzzy inversion 43500
cross borehole tomography, improved inversion/iter. scheme *(Korean)* 18790
data homomorphic deconvolution effectiveness 35291
deconvolution of marine survey data, adaptive algm. 18811
digital elevation models, inform.-preserving surface restoration/feature extraction 43488
discrim. by radial basis fn. network 35289
EM geotomography, GUI develop. 18797
fish shoal & plankton, sonar ident., MOVIES-B software 18889
FOPAIR, focused array imaging radar for ocean rem. sens. 26732
forest change, automated rem. sens. image method 43487
fuzzy functional-link net for seismic trace editing 26712
geodetic radioaltimetry, filter for unevenly spaced data 10434
GLORIA images spatial filtering, speckle reduction/contrast enhancement 9674
Hartley transform for detect. of seismic events 43492
higher-order stats., allpass systs. ident. algm. 32648
hyperspectral imagery compression, 3D DCT and hybrid DPCM/DCT 24384
ice sheet radar rem. sens., multilayer lossy dielec. 43521
icebergs, radar detect. 8416
image class., neural nets & expert class. 10492
image texture class., spatial-point proc. model 34183
Indian MST radar DP software 35312
ionograms, interfering HF sigs. ident. 10463

geophysical signal processing continued
ionos. CT, geometries comparison and image reconstruction 35307
ionos. model assisted tomography algm. 10464
IR surveillance, motion estim. methods/noisy phenom. 2612
land surface, opt. imaging from space, radiometric corrections 43482
land surface microwave radiometry, winter landscape signatures 35295
land surface multispectral imaging, texture anal. 10433
land surface rem. sens. by laser, pattern recogn. 10454
land surface topography, SAR rem. sens., sig. simul. 18782
land VSP data, multicomponent near-surface correction 43496
Landsat images spatial resoln. improvement *(Korean)* 26710
large matrix inversions, resoln./covariance 43497
marine seismic profiling, F90 & PVM synthetic seismograms 18813
METEOSAT IR image proc. and MPEG animation 10467
microwave radiometry of Earth surface, SSM/I image improvement 18781
mountainous terrain mapping by radar, SAR stereo restitution 43475
multiple seismic wavefronts, vel. MLE 43462
multisensor/knowledge fusion, seismic prospecting 43464
multispectral images, multivariate contrast enhancement tech. 26703
multispectral images segmentation, classified algm. 41355
neural nets, real-time sig. class. from seismic sens. 2743
NOAA images, class., multilayer neural network 4389
ocean acoustic DP, Thalassa II ocean research vessel 10494
ocean acoustic tomography, close arrival separation 10546
ocean coastal AVHRR imagery, data acquisition & study 10504
ocean currents from TOGA-TAO buoys, data display & software 10505
ocean data assimilation, gridded models 10509
ocean swell waves, opt. imaging, digital image matching 4400
ocean wave directional spectra, HF radar computational geom. 26737
ocean wave radar imagery, SAR distortion correction 43525
oceanographic data, params. extraction 35343
OCEANS 94, conference 60
orthoimages (digital), airborne line scanner imagery 43489
param. estimator bias, finite-difference regularization operators 43491
photogrammetry, Digital Video Plotter, new features 42870
photogrammetry, facets stereo vision method for terrain 41341
photogrammetry, GPS controlled triangulation of single flight lines 42549
photogrammetry, stereo image matching by wavelet decomp. 41344
photogrammetry, stereo image proc., FAST Vision 41340
photogrammetry using video cameras, modelling & calib. 43486
phytoplankton monitoring by cytometry, multivariate stats. 10537
phytoplankton monitoring by cytometry, neural net ident. 10536
pre-stack seismic proc. 43495
rainfall estim., satellite imagery, hybrid neural net 43518
regularization by multiscale models 24190
rem. sens., image texture, grey level cooccurrence matrix 43466
rem. sens., num. image proc. methods *(French)* 26704
rem. sens., opt., principal components transform matrix 18786
rem. sens. spectral image class., Kohonen neural net *(Chinese)* 43478
rem.-sens. data, neural network class. 43544
resist., inverse fn., neural net approx. 35293
SAR satellite imagery of Arctic tundra, terrain effects removal 26702
sea ice motion rem. sens., opt., automated method 10550
sea level by TOPEX, radar perform., wave form tracking 18843
sea surface altitude rem. sens., TOPEX/POSEIDON method 43465
sea surface radar altimetry, multiresolution stochastic proc. 10552
sea surface radar imaging, image texture anal. 26742
sea surface thermal IR images, bi-dimens. struct. detect. 26760
seafloor, sidescan sonar imaging, geometric corrections 26709
seafloor class., wideband sonar method 18814
seafloor imaging, side scan sonar, neural image class. 18809
seafloor imaging, sonar sig. proc., tangent clusters 18810
seafloor imaging by side scan sonar, DELPH-SONAR proc. 18806
seafloor imaging by side scan sonar, shade correction 18808
seafloor imaging sonar, digital sidescan archit. 10436
seafloor seismic determ. of phys. props., GEOSIS project 18816
seafloor seismic profiling, PASISAR high resoln. syst. 18815
seafloor sonar, French deep water multibeam echo sounder 26716
seafloor sonar, multibeam wide swath imaging, coverage 26713
seafloor sonar characterisation, non-uniform ambient noise 18805
seafloor sonar imagery, wide swath, return angle estim. 26715
seafloor sonar imaging, French wide swath systs. 26714
seismic arrivals picking, ANN 26700
seismic events automatic classif. in BUG small array 26699
seismic inversion, energy source and reflectivity estim. 43490
seismic prestack waveform inversion, target-oriented 35284
seismic refl. profiling, multiple suppression, nonlin. filter 35283
seismic traveltime tomography, min. vel. variance 10425
seismology, migration error in transversely isotropic media 35285
seismology, noise removal from surface scatt. wave sig. 4385
sens. array sigs. deconvolution, time-scaling 32615
signal segmentation using self-organizing maps 10457
snowflakes, fall pattern anal. *(Japanese)* 2699
sparse deconvolution, Gaussian mixtures 24242
SPOT stereopairs, orbit attitude params. 10450
time-domain tests for Gaussianity/time-reversibility 8422
topography, ice-covered terrain, shape-from-shading algm. 18787
total field mag. anom., anal. sig. interp. 10429
traveltime tomography, adaptive-grid formalism 43499
underwater acoustic source, pass. localisation method 26821
wind, radar rem. sens., polar orbit satellite DP 43510

geophysical techniques
see also atmospheric techniques; geophysical signal processing; hydrological techniques; oceanographic techniques
backscatt. of HF sound from objs./sea-bottom 42534
bathymetry by multibeam sonar, mosaic computation 18807
benthic station, NADIA II for geophys. borehole re-entry 18793
buried obj. detect., radar image reconstruction algm. 18780
cable laying into seafloor, SHRIMP seismic investig. method 18817
coastline change by SAR radar, image texture class. 10512
conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
crustal deform. obs. from space, earthquake prediction *(Japanese)* 18804
digital elevation models by SAR radar, accuracy 43471
disparity anal., wavelet transform approach 26701
Earth crust seasonal deform., Earth rot. params. determ. 10439
Earth gravit. models for astrodynamics, evol. 18800
earthquake prediction, VLBI/satellite laser ranging 43477
elevation value in topographic maps, recogn. by multi-angled parallelism 10448
EM methods, finite elec. dipole, Hankel transforms 4384
ERS-1 altimeter Fast Delivery data for topographic meas. 10431
fiber-optic sens. for soil/groundwater contamination monitoring 18910
forest change, automated rem. sens. image method 43487
forested slopes, radar rem. sens., geometric optics theory 18785
forests, radar 3D backscatt. model for canopies 43540
forests, radar rem. sens., sensitivity to tree geom., model 43539
forests, SAR backscatt. & biomass rem. sens. 43538
frozen soils, moisture content/temp. monitoring 4380
geocoding of satellite images, automation of tie pointing procedure 41278
geodetic radioaltimetry, filter for unevenly spaced data 10434
geodetic vert. motions due to atmos. loading, GPS method 10447
geoid (sea surface topography), NRCS radar altimetry product 26705
geoid determ., TOPEX/POSEIDON radar altimetry 18796
geolocalization, range difference/range rate difference meas. 35292
GLORIA images spatial filtering, speckle reduction/contrast enhancement 9674
GPS differential method, marine geodesy 4381
gravity anoms. for Earth struct., satellite altimetry method 35279
ground penetrating radar, subsurface struct. detect. 10453
ice shelves of Antarctica, GEOSAT radar altimetry method 4399
image texture class., spatial-point proc. model 34183
Indian land & sea surfaces, radar clutter characts. 43468
induced polariz. prospecting, 3 inversion methods 35282
land surface, opt. imaging from space, radiometric corrections 43482
land surface imaging by ERS-1 SAR satellite, clock drift 43472
land surface IR imaging, thermal background model 35287
land surface mapping, 2D FM-CW polarimetric SAR 43474
land surface microwave radiometry, winter landscape signatures 35295
land surface multispectral imaging, texture anal. 10433
land surface rem. sens. by laser, pattern recogn. 10454
land surface topography, SAR rem. sens., sig. simul. 18782
land topography, ice-covered, shape-from-shading algm. 18787
likelihood distributions for radio wave tomography 10456
M-seq. pulse-compression underground survey radars *(Japanese)* 3610
mag. interp., fractal crustal magnetis. models 10430
mag. suscept. tomography for 3D imaging 10175
marine (underwater) telemetry, acoustic LAN protocol 10446
microwave radiometry of Earth surface, SSM/I image improvement 18781
mountainous terrain mapping by radar, SAR stereo restitution 43475
multielement profiling anal. of geochem./environ. samples 4383
ocean rem. sens. by radar, French DP & archiving 10553
ocean tides, satellite orbits and radar altimetry method 18837
organic detect. in soil, fiber optic near IR reflectance sens. 17920
orthoimages (digital), airborne line scanner imagery 43489
photogrammetry, aircraft navig., GPS, parallel flight lines 26708
photogrammetry, Digital Video Plotter, new features 42870
photogrammetry, facets stereo vision method for terrain 41341
photogrammetry, GPS controlled triangulation of single flight lines 42549
photogrammetry, GPS supported aerial triangulation 26707
photogrammetry, stereo image matching by wavelet decomp. 41344
photogrammetry, stereo image proc., FAST Vision 41340
photogrammetry using video cameras, modelling & calib. 43486
quantitat. seafloor charactn., bathymetric sidescan sonar 10558
quasidistributed fiber-optic interferometric pickups, seismology appl. 17867
radar altimetry method, ionos. sig. delay, IRI model 4378
radar obs. of sea surface, altimetry ionos. correction *(French)* 35352
radar scatt. by random nonspherical scatters, matrix theory 18784
radar terrain imaging, dual-channel radar calib. 43469
radiobrightness temp. of stratified medium, rough boundary 18051
rem. sens., image texture, grey level cooccurrence matrix 43466
rem. sens., opt., principal components transform matrix 18786
rem. sens. image class., neural nets 43467
rem. sens. of moisture, UHF synthetic aperture radiometer 10452
rem. sens. spectral image class., Kohonen neural net *(Chinese)* 43478
rem. sensed images segmentation by MDL-principled polygon map grammar 43548
resist., inverse fn., neural net approx. 35293
sea level by satellite radioaltimetry, ionos. correction 18838
sea surface altitude rem. sens., TOPEX/POSEIDON method 43465
seabed, nodule abundant areas, refl. sound charact. 43476
seafloor, sidescan sonar imaging, geometric corrections 26709
seafloor acoustic backscatt., sediment struct. effects 10445
seafloor imaging, side scan sonar, neural image class. 18809
seafloor imaging, sonar sig. proc., tangent clusters 18810
seafloor imaging at close range, underwater laser syst. 18905
seafloor imaging by side scan sonar, DELPH-SONAR proc. 18806
seafloor imaging by side scan sonar, shade correction 18808
seafloor imaging by sonar, azimuth resoln. increase 18853
seafloor imaging sonar, digital sidescan archit. 10436
seafloor instumentation, MABEL modules 18854
seafloor mapping, ACID synthetic aperture sonar 18852
seafloor obj. detect. by sonar, nonlin. interact. 10442
seafloor props. investig., GEOSIS seismic project 18816
seafloor sediment sonar profiler, obj. detect. 10435
seafloor seismic imaging, deep tow sonar/seismic array 10437
seafloor sonar, French deep water multibeam echo sounder 26716
seafloor sonar, multibeam wide swath imaging, coverage 26713
seafloor sonar characterisation, non-uniform ambient noise 18805
seafloor sonar equipt., Shirshov Oceanology Inst. 10514
seafloor sonar imagery, wide swath, return angle estim. 26715
seafloor sonar imaging, French wide swath systs. 26714
seafloor sonar imaging, sidescan method 10493
seafloor sonar scatt. at 40 kHz, monostatic & bistatic 18802
seismic event class. by ANN 35288
seismic prestack waveform inversion, target-oriented 35284
seismic profiling, marine, F90 & PVM synthetic seismograms 18813
seismic profiling of seafloor, PASISAR high resoln. syst. 18815
seismic refl. profiling, multiple suppression, nonlin. filter 35283
seismic surveying, marine, deconvolution by adaptive algm. 18811
seismic trace editing, fuzzy functional-link net 26712
seismic traveltime tomography, min. vel. variance 10425
seismology, marine sparker sources, efficiency of method 10443
seismology, migration error in transversely isotropic media 35285
seismometry & geoelectricity, submarine cables 10441
soil, elec. cond./water content, TDR 4387
soil moisture content detect. by TDR 10458
spaceborne SAR antenna patterns determ., distributed targets 25571
substation safety, soil resist. meas. method 44245

geophysical techniques continued
topography, airborne interferometric SAR, motion compensation 43473
topography mapping by monopulse SAR radar 18788
topography mapping by satellite radar, TOPSAT mission 10451
topography of Earth surface, multibeam radar altimetry 18783
topography of forested terrain, SAR interferometry method 43470
transient procs. method, differential transforms. 10428
underwater target detect. by lidar, modulated pulse method 10444
vegetation global biomass, SAR backscatt. method 43542
vegetation opt. rem. sens., NDVI modif. 43541
waste disposal sites, mag. anom. method, site charactn. 10570
well logging, elemental anal., natural gamma-ray spectrosc. 18795
Xe high press. cylindrical ionization chamber 4202
geophysics
IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
geophysics computing
see also computerised instrumentation; geophysical signal processing
3 to 300 GHz rain and snow atten. software develop. 31817
air temp./wind speed prediction, electronic syst. 19396
backscatt. of HF sound from objs./sea-bottom 42534
BATFISH, depth controllable towed body 10499
CO_2 power plant emissions, UK energy policy 4829
elevation value in topographic maps, recogn. by multi-angled parallelism 10448
ExtNet, extension electronic inform. delivery in North Dakota 8869
geothermal energy drilling, software-based anal. tool 27611
GFDL ocean circ. model on CEDAR multicluster archit. 18888
Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
hydroelec. power plant rainfall runoff ratio estim. neural net *(Japanese)* 4864
image anal. syst. for sea ice maps from space 18886
mapping ocean sediments by RBF networks 10557
Marine Geophysics Modeling System 18792
nonlin. interact. of intense microwaves with space plasmas, computer simul. *(Japanese)* 40362
ocean coastal environ., ES description 26834
ocean currents from TOGA-TAO buoys, data display & software 10505
ocean high perform. micro-power CTD sens. 10495
oceanographic nowcast/forecast operational syst., US Navy 26844
photogrammetry inverse problem, soln. 41279
pixel size and compression effect on digital aerial image metric quality 41264
radar rem. sens., French DP & archiving 10553
rem. sens. image class., neural nets 43467
rem. sensed images segmentation by MDL-principled polygon map grammar 43548
satellite image anal., terrain neural classifier 18791
satellite scene resampling 41277
sea surface radar altimetry, multiresolution stochastic proc. 10552
seismic event class. by ANN 35288
soil, elec. cond./water content, TDR 4387
soil erosion anal., rem. sens., DMGIS 43546
terrain, recogn. for SAR imagery 41263
texture-based and fuzzy class. for regenerating tropical forest mapping, Landsat TM 43516
tie pointing procedure automation, satellite image geocoding 41278
VACM data recording package and memory syst. 10496
visual data exploration conf., San Jose, USA (1994) 23
O_3 short-term forecasting by bidirectional associative memory, Mexico City 26773
geothermal power
convector design 4855
double stage flash syst. optim., computer-based 36034
drilling, software-based anal. tool 27611
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
energy perspective, constraints and appls. 27612
heat pumps, R&D studies, USA 27608
heat recovery, disposed nuc. fuel rod-enhanced 27610
magma power plant project, USA, air pollution benefits anal. 27606
noncondensible gas removal, turbine-driven compressor 27609
renewable energy resource develop. prospects, former USSR 27309
geothermal power stations
advanced geothermal plant develop./costs, USA 27607
double stage flash syst. optim., computer-based 36034
energy perspective, constraints and appls. 27612
heat recovery, disposed nuc. fuel rod-enhanced 27610
magma power plant project, USA, air pollution benefits anal. 27606
noncondensible gas removal, turbine-driven compressor 27609
germanate glasses
1.3 μm Raman fibre-optic amp. 1872
Er^{3+}:GeO_2-Al_2O_3-SiO_2 opt. fibres, two photon reson. SHG 2070
Ge-doped opt. fiber Bragg gratings, polariz. and temp. depend. of photosensitivity 7336
GeO_2-Na_2O:Pr^{3+} glass, alkali ion role on persistent hole burning 31563
GeO_2-P_2O_5-MF_x(M=Ca,Zn) germanate glass opt. fibre systs., low light scatt. *(Japanese)* 39304
GeO_2-SiO_2 opt. fibre preforms, X-ray photoelectron imaging 30886
GeO_2-SiO_2 opt. fibres, lin. electro-optic effect meas. 7278
H_2-loaded germanosilicate fiber adiabatic mode-field transformer fab. 7309
H_2-sensitized GeO_2 doped opt. fibers, refr.-index changes 7307
Nd^{3+}-doped semicond. glasses, elastic props., lasing transit. 23290
PbO-B_2O_3-SiO_2-GeO_2 glasses, MOS capacitors passiv. 13246
SiO_2-GeO_2 fibres, Bragg grating, UV writing, spectra 15038
SiO_2-GeO_2 glass planar struct., proton implanted, photosensitivity 39382
germanium radiation detectors
ADC requirements in nuc. and X-ray spectrometry 4251
asymmetric Compton suppression spectrometer, Monte Carlo simul. 34975
Compton suppression shield in low-level γ-spectrosc., background changes 10152
Compton suppression well counter, gamma-ray activities 18359
conference, nuclear physics, Zakopane, Poland (Sept. 1994) 36817
gamma-ray imaging by Ge semicond. arrays, multiplexer readout 18351
gamma-ray spectrometry, instrum. fn., energy calib. 18403
GAMMASPHERE, BGO Compton-suppress. shield, Ge detector 18400
Gammasphere detector array, identical bands, nuc. struct. 43109
GEM detector syst., COSY accelerator, Ge wall 43113
high purity detector, extrapolated efficiency estim. 10132
high-purity Ge technol. for gamma-ray/X-ray spectrosc. 43067
HPGe coaxial detectors, solid-state Compton camera, 3D imaging 18349
HpGe detector, liq. waste disposal site 18361
germanium radiation detectors continued
HPGe detectors, high energy γ-rays detect. 43110
HPGe gamma-ray borehole syst., subsurface radionuclide assess., Hanford 4408
HPGe γ-ray spectrosc. syst., Rocky Flats plant, mobile syst. 4248
keV-neutron expts., γ-ray detect., NaI(Tl)/Ge detectors 34891
low background HPGe detector, Holborn Underground lab. 26136
measuring electronics nonlin., pulse height spectra 18385
multielement Ge detector, X-ray fluoresc. microprobe/microspectroscopy 42979
PASS, extended-range Ge spectrometer, radionuclide anal., X/γ-ray 18326
well logging, elemental anal., natural gamma-ray spectrosc. 18795
XSPRESS detector syst. for EXAFS studies 43165
γ-ray spectrometers, background spectrum, cosmic muons contrib. 10158
$^{36}Ar(^{58}Ni,X)$, OSIRIS array, directional correl. 34892
GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
Ge(HP) detector, efficiency calib., 6-25 keV 18324
Ge(HP) detector, efficiency curve shape, 900-1300 keV 18325
HPGe detect. with BGO shield, high energy γ-rays resp. 10114
Sn mining, smelting, pollutant characterisation, EDXRF, HpGe 18909
gettering *see getters*
getters
see also electron tube manufacture; vacuum techniques
BiMOS MCT/IGBT VHV devices, gate oxide integrity improvement, external gettering 30275
high-leverage SOI technol., appls., CMOS and BiCMOS designs, material/device problems 30003
high-temp. elec. heating elements, oxygen getters *(German)* 11472
MOS struct., P ion implant., gettering efficiency 6620
polysilicon gate, PMOS, B penetration, oxide gettering 38867
Sortec Corp. SR ring, stored current upgrade *(Japanese)* 4060
vias, in situ sputter cleaning, getter electrode 22233
Al gettering, multicryst. Si solar cells 27955
$Cd_xHg_{1-x}Te$ epitaxial layers, laser irrad., photoelectrical props. 14585
GaAs, CBE, C gettering mechanism, trisdimethylamino-arsine and trimethylgallium 20818
GaAs/AlGaAs heterojunctions, deep-level defects, review 13123
GaInAs PIN photodiode, LPE growth, Er gettering 39567
GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
$In_{0.53}Ga_{0.47}As$, gettered LPE grown, DLTS study 20745
InGaAs:Dy on InP, LPE growth, photolum., double-cryst. X-ray study 37400
Si, EFG growth in CO ambient, gettering 20647
Si shallow-jn. form., RTA doped SOG films 21964
Si wafers, p-n jns., leakage current, diffusion component 38297
Si wafers, photocurrent imaging, electrolyte contacts 31069
Si:Al solar cells, minority carrier diffusion length, Al gettering 44416
Si:C,O plates with nonuniform stress distrib., mechanisms for O gettering 29833
Si:H,Cu, Cu gettering, hydrogen-induced cavities 30009
Si:Mo p/p^+ epitaxial wafers, Mo contamination 38236
Si:O, intrinsic gettering, low temp. annealing *(Chinese)* 1193
Si:O near-surface/subsurface defects, opt. prod. profiling 29992
Si-wafer hot curing by laser gettering *(Chinese)* 6604
Ta sputtered film, compressive stress rel., thermal cycling 22266
GFRP *see glass fibre reinforced plastics*
ghost images, television *see television interference*
giant magnetoresistance
0.1 to 0.3 micron wide, ultra dense GMR memory elements 14207
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
finite element modelling of magnetostrictive devices 39212
giant magnetoresist. multilayers, mag. field sens. 17708
granular giant magnetoresistive materials, ferromag. resons. 7050
high-tech mag. materials, recent develop. 30660
mag. multilayers, magnetoresist., domain effects 7065
mag. quantum struct., macroscopic consequences 14212
permalloy-Ag multilayers, RTA giant magnetoresist./struct. study 22691
read head sens., 1-μm wide, end-on, ganged, high head sensitivity 7073
spin-valve struct., current distrib., passivated giant magnetoresist. 14206
superlattices with subsidiary ferromag. layers, GMR, saturation mag. field 22692
symmetric spin valve struct., giant magnetoresist. 7038
tiny magnets, giant magnetoresist., inform. storage appl. 30717
trilayer syst., exchange coupling, micromagnetics 7047
Ag/Co, multilayers, mag. states in different fields 7059
Ag-Co granular epitaxial layers, struct./giant magnetoresist. 14164
Ag-Ni granular epitaxial layers, struct./giant magnetoresist. 14164
AgNiFe, interact. effects/mag. ordering, annealing effect 6982
Au-Permalloy multilayers, giant magnetoresist./oscill. interlayer exchange coupling 7063
Co/Cu multilayers, magnetoresist., prep. conditions/annealing depend. 7054
Co/Cu multilayers on grooved substrs., perp. giant magnetoresist. 39172
$(Co/Ni_{81}Fe_{19}/Co)$/Cu multilayers, giant magnetoresist., mag. struct. 7060
Co-Ag granular films, giant magnetoresist. 6981
Co-Cu sandwich film, giant magnetoresist./anisotropic magnetoresist. comparison 7061
Co-Ni, ferromag. precip., giant magnetoresist., comp. depend. 39134
Co_9Fe-Cu-Co_9Fe struct., giant magnetoresist./mag. anisotropy *(Japanese)* 30695
CoFeSiB amorph. wires and films, giant magneto-impedance 30667
Cu/Co, multilayers, mag. states in different fields 7059
Cu/Co/Cu/NiFe multilayers, magnetoresist., thermal stabil. 7053
Cu/NiFe, multilayers, mag. states in different fields 7059
Cu-Mn/Co multilayers, magnetoresist., exchange coupling 30707
$Cu_{80}Co_{20}$, melt-spun ribbons, mag. props. 6949
$Cu_{80}Co_{15}Fe_5$, melt-spun ribbons, mag. props. 6949
Fe/Ag granular alloy films, Fe cluster dispersed, GMR 30705
Fe/Ag multilayers, sputtered, oscillatory GMR 30704
Fe-Ag granular films, giant magnetoresist. 6981
Fe-Co, ferromag. precip., giant magnetoresist., comp. depend. 39134
(Fe-Co)/Ag films, magnetoresist. study 7049
FeCoNi/Cu giant magnetoresist. multilayers, sputtered, growth induced in-plane anisotropy 30702
FeCoSiB quick response micro mag. head sens. utilizing magneto-impedance 30740
GaAs/InGaAs:Si/GaAs(AlGaAs) δ-doped quantum wells, neg. magnetoresist. 29918
Ni-Cu, ferromag. precip., giant magnetoresist., comp. depend. 39134
NiCoFe/Cu, giant magnetoresistive thin-film read head devices 7075

giant magnetoresistance continued
- NiFe/(Ni/Fe/Cu)$_n$/NiFe thin films, giant magnetoresist. .7039
- NiFe/Ag, giant magnetoresistive thin-film read head devices 7075
- NiFe/Co/Cu/Co/NiFe NiCoO exchange biased spin-valve struct., MR heads 7078
- Ni$_{80}$Fe$_{20}$/Cu/Ni$_{80}$Fe$_{20}$/Fe$_{50}$Mn$_{50}$, giant magnetoresistive elements, thin film tape heads 7072
- (Ni$_x$Fe$_{1-x}$)$_y$Ag$_{1-y}$/Ag multilayers, low field giant magnetoresist. 7064
- NiFeCo/Cu multilayers, giant magnetoresist. 7058
- Ni$_{76}$Fe$_{10}$Co$_{14}$/Cu giant magnetoresistive multilayers, permeab., read heads 7076
- NiFeCo-Cu GMR multilayer sens. at high current densities, micromagnetics 7074

giant pulsations (Earth) *see micropulsations*

GIS *see gas insulated substations; gas insulated switchgear*

GIS (information systems) *see geographic information systems*

glaciology
- Ekstromisen ice shelf, Antarctica, satellite radar height obs. 4399
- Greenland ice sheet, satellite altimeter elevations, accuracy 35347
- radar rem. sens., multilayer struct. from impulse response 43521
- topography of Earth surface, multibeam radar altimetry 18783
- ^{137}Cs radioactivity, snowfields, glaciers in situ γ-ray detector 18356

glass
- *for semiconductor glasses see amorphous semiconductors and chalcogenide glasses*
- *see also aluminosilicate glasses; amorphous semiconductors; borate glasses; chalcogenide glasses; germanate glasses; glass fibres; glass industry; glass-metal seals; halide glasses; optical glass; orientational glasses; phosphate glasses; phosphosilicate glasses; semiconductor doped glasses; vitreous state; vitrification*
- 0.5 μm CMOS logic IC, SOG planarization/AlSiCu multilayer interconnect 38646
- capillary-optic material characterisation, x-ray lithog. collimator 6692
- ceramics, comps. and uses, review 20987
- flint glass fiber for Faraday sens., polariz. props. 17823
- flint glass fibre current sens. for power apparatus 17822
- glass:Nd, excimer laser ablation, thresholds 30120
- glass-Ag-polymer struct., light switching, ATR study 22945
- glass-Si substr. for hybrid optoelectronic packaging 31118
- high perform. heat-reflective, TV wave reflecting characts. 23742
- isotropic thin film texture for hard disc substrs. 7147
- liq. cryst. polymer composite films, elec. characterisation 12200
- microstrip patch antenna, laminated glass superstrate, perform. 2326
- optical materials and glass, conf., Honolulu (Nov. 1993) 5442
- PCB resin/resin-glass composite insulation, moisture absorpt. effects 12942
- pH sens., Pyrex glass tube 34464
- polyamideimide films containing glass, sol-gel prep., dielectric breakdown 14053
- polyamideimide glass composite films, dielec. breakdown/thermal degrad. *(Japanese)* 28875
- polymers/composites, prediction of long term perform. 439
- silica glass polishing, diamond abrasive, water incorporation effects 38568
- silicate/phosphate high-ohmic glass films with electronic cond., ion-beam sputter prep. 20927
- SOG film form., Al metal layers for double metal proc. *(Korean)* 30148
- SOG films, doping source for shallow jn. form. in Si 21964
- stress measuring method, polarized laser and photo-elastic modulator 34705
- tellurite:Pr(Nd)-based glasses, 1.3 μm emission studies 7561
- thick film hybrid microelectronics glasses, prep., charact. 5909
- thin-film thermal sens., Ni/NiCr thermopile 9883
- Ag-based fast ionic conducting glassy electrolytes, batts. 11238
- CoCr-NiP$_3$(TiSi$_2$)(Cr)(C)-soda lime glass recording media, high coercivity and low noise 7115
- NaPO$_3$-Na$_2$B$_4$O$_7$-TiO$_2$ glasses, nonlin. opt. props. 40047
- PZT/Pt ferroelec. capacitors, passiv., SOG 39100
- RuO$_2$-Bi$_2$O$_3$(Al$_2$O$_3$)-NiO systs., phase equilibria 38046
- Si TFTs fab., min. glass substr. deform., RTA control 30007
- Si wafers, thermal proc., quartzglass materials influence 22208
- SiO$_2$:F low loss glass fibers from sol- gel derived preforms 7302
- V$_2$O$_5$-SnO-TeO$_2$ glasses, low-temp. DC cond. 38269

glass ceramics *see ceramics; glass*

glass fibre reinforced composites
- *see also glass fibre reinforced plastics*
- defects microwave detect. in glass reinforced polymer composites 37558
- distrib. network overhead line fiberglass poles, case study 27172
- laminate-based supercond. magnet materials, thermal contraction 14308
- mech. deform. meas., fiber-optic sens. 17856
- PWBs, glass fibre reinforced epoxy laminate, interfacial debonding 11819
- steam power plant flue gas cleaning syst. corros. protection *(German)* 43912

glass fibre reinforced plastics
- CFGFRP-reinforced concrete, fracture self-diagnosis, material design 28897
- distribution syst. multiple dielec. lightning impulse strengths 35633
- epoxy resin matrix, interface bond strength, US tech. 28908
- epoxy slender tubes, axial compression stress, appl. *(Polish)* 5904
- fibre optic smart struct., coating props. optimisation, FEA 34541
- local strain meas., electron beam moire 28911
- low cost dyn. opt. strain meas. 10035
- mixed airfoil wind turbine blades, design/testing 36079
- mm-wave NDT of glass fiber/epoxy composites 37559
- persistent current switches, stabil. current perform. *(Japanese)* 7257
- resin laminates, surface anal. 5905
- resin matrix insulator, reactive plasma surface treatment *(Korean)* 28874
- thin walled polymer insulators, mech. characts. 10760

glass fibres
- *see also glass fibre reinforced composites; glass fibre reinforced plastics; optical fibres*
- composite suspen. insulators, rods, long term mech. strength 4701
- doped glass fibers, SHG, directional photoionization model 15042
- high dielec. const., synthesis, PCB appls. 5911
- opt. fibres, doped, self-saturation, self-organized SHG 22862
- Raman gain spectrum, femtosecond pulses 22808
- Ce-doped scintillating-glass-fiber neutron sens. 18327
- Nd^{3+}-doped lead-silicate glass fibers, fab., spectrosc. and laser perform. 31212
- Pb-acid batt. glass fibre separators, tech. compatibility/safety 36550
- Pb-acid valve-regulated batts., glass fibre separator design 36569
- Pb-acid valve-regulated batts., microfiber glass separator expts. 44285

glass formation *see vitrification*

glass industry
- recycling, elec. heating appls. 28199
- sheet glass mfg., LIM-based elevation control studies *(Japanese)* 44636

glass-metal seals
- *see also electron tube manufacture*
- header plate with 51-pin elec. feed-thru, electronic package thermal stress anals. 28486

glasses *see glass*

glassy crystals (molecular crystals) *see orientational glasses*

glassy state *see vitreous state*

Global Positioning System
- advanced terrain data proc. 10394
- airborne DGPS, DME navig. aid coord. and calib. error detect. 25605
- ATC on airport surface, VHF data link 10422
- ATC radar calib., flight expts. *(Japanese)* 9680
- atmos. profiles obtained from GPS occultations 18831
- attitude determ. using GPS, space flight tests 17502
- automatic depend. surveillance of aircraft, spontaneous mode S broadcast messages 4377
- automatic vehicle location syst. in Hong Kong 9683
- automobile navig. systs. *(Japanese)* 44579
- automobiles, EMI reduction, high speed modem 31859
- autonomous event time-tagging syst., EAS array 25455
- AUVs, very-long baseline acoustic positioning syst. 25603
- baseline length estim. algms. *(Japanese)* 34195
- block adjustment, self-calib. params. 42547
- Block IIR solar array power syst., historical overview 26604
- block triangulation, aerial control, reliab. 42546
- C/A-code tracking differential GPS, category IIIB automatic landings 3638
- car navig. syst., appl. *(Japanese)* 25614
- category III precision landing, real-time flight testing, integrity beacons 3639
- Coast Guard differential GPS Network and GIS 33973
- combined block adjustment, GPS data 42548
- combined block adjustment, precise differential GPS data 42317
- commercial GPS receiver suscept. eval. 17498
- conformal cylinder mounted microstrip array radiation pattern meas. and prediction 31977
- DGPS, airport surface guidance system,experiment *(Japanese)* 10403
- DGPS, positioning service for land-based mobile commun. systs. 3530
- differential GPS, flight eval. expts. *(Japanese)* 35273
- differential GPS for marine geodesy 4381
- differential GPS positioning 34196
- digital broadcasting facilities/operations *(Japanese)* 34215
- disabled people, their of GPS 43377
- distributed simul. for live training 35406
- DIY receiver for GPS and GLONASS satellites, quadrifilar backfire helix antenna 34194
- double differenced GPS phase obs., high precision positioning 42545
- drifting buoys fine tracking from microsatellites 26761
- Earth gravit. models for astrodynamics, evol. 18800
- Ecdis marine chart display IS navig. syst. 9681
- European ATC develops., satellites 26697
- expt., moving condition at sea, effects *(Japanese)* 9679
- failure detect., GPS autonomous integrity monitoring appl. 33947
- field meas. appls. *(French)* 34189
- FM multiplex broadcasting syst. DARC devel. by NHK 42264
- geodetic heights, tropos. propag. effects 7972
- geodetic positioning and GIS 42326
- geodetic vert. motions due to atmos. loading, GPS method 10447
- GLONASS DS-SS sigs., radioastronomy impact 25620
- GLONASS on-board time/freq. std. 42677
- GNSS augmentation data link 10377
- GNSS availability model, developing requirements 33946
- GNSS transponder and self organizing TDMA data link 10378
- high-speed bipolar proc. for wireless ICs 22563
- integrity assess. and improvement *(French)* 34188
- kinematic GPS, resolving cycle slips, redundant satellites *(Japanese)* 42538
- kinematic GPS and ground-based pseudolite, approach integrity monitoring 3640
- L-band GPS receiver, digital downconversion test 9682
- lightning elec. field changes, sync. multipoint meas. *(Japanese)* 7895
- long-term stabil. quartz oscillator, GPS filter 42324
- matchbox-sized transputer GPS for vehicles/portables 42551
- microwaves in aviation, commun. and control 18778
- mixed-sig. GPS receiver, MCM-L packaging 25610
- mixed-sig. MCM-L design, GPS receiver appl. 21691
- multi-site ref. station differential GPS 17506
- multi-site ref. station differential GPS syst. *(French)* 34190
- navig. satellite selection, neural networks 42321
- Navstar clocks, freq. stabil., broadcast/precise ephemerides 17503
- Navstar on-orbit clocks, space vehicle temp. effect 42678
- NAVSTAR/GPS adaptive array processor using analogue LMS algm. 25615
- ocean drifter buoy for current/temp. meas. 35336
- on-the-fly carrier phase ambiguity resoln. for aircraft landing 18722
- photogrammetry, aircraft navig., GPS, parallel flight lines 26708
- photogrammetry, GPS controlled triangulation of single flight lines 42549
- photogrammetry, GPS supported aerial triangulation 26707
- precise time comparison, GPS sigs. monitoring 34709
- RDS channel, Navstar GPS correction data transm. 34192
- real-time navig., global positioning syst. 18991
- real-time on-the-fly kinematic GPS syst. results 3533
- single-freq. GPS systs., ionos. time delay *(Korean)* 34197
- software demodulation, satellite/GPS/cellular receiver 42329
- spatial data syst. framework, national, GPS ref. stations 42325
- Squitter expt. results 9419
- surface relay buoys, underwater navig. techs. 25602
- survey vessels, precision attitude meas. 17496
- synchronized power syst. phase angle meas. 19369
- tide gauge height stabil., GPS meas., repeatability 10517
- TOPEX/Poseidon, geographically correl. orbit errors 18688
- TOPEX/POSEIDON, GPS flight expt. 18883
- TOPEX/POSEIDON Demonstration Receiver, orbit determ., GPS meas. 18689
- TOPEX/POSEIDON ocean radar satellite, GPS for precise orbit 18863
- towed underwater body and mother ship navig. 17499
- universal time scale reprod., astro-opt./satellite data 9783
- US Navy unmanned undersea vehicle navig. 35384

- **Global Positioning System** continued
  - vehicle navig., built up areas, GPS syst. 9684
  - Cs at. freq. stds., second harmonic level monitors 42676
- **glossaries**
  - IEC EMC terminology, standardization 23680
  - plug connector selection criteria and reliab. *(German)* 21615
  - sign lang. images, intell. commun., gesture description and dictionary struct. 4311
- **gloves (computer I/O)** *see data gloves*
- **glow curves** *see thermoluminescence*
- **glow discharge deposition** *see plasma deposition*
- **glow discharge lamps** *see discharge lamps*
- **glow discharge microphones** *see microphones*
- **glow discharges**
  - fast two-wavelength CARS thermometry 2050
  - field-emitter array, glow discharge proc. 21805
  - high current pseudospark switch, pinch plasma devices 36397
  - high-resist. semiconds. inhomogeneities visualisation, glow intens. obs. 42888
  - hollow cathode discharge operation 21864
  - hollow-cathode discharge, high-power RF generation 29739
  - IR-vis. converter, wave pattern 3873
  - lin. magnetron sputtering systs., operating and plasma charact. 28808
  - PD and their effects on materials 22642
  - plasma technol. in surface proc., symp., London (Mar. 1995) 36884
  - polymer surface transformations luminesc. obs. 12204
  - probing elec. discharges, opt. fibres 17828
  - unmagnetized BWO high-power microwave source 1003
  - waveguide CO_2 laser, act. medium diagnostics 7513
  - CO_2 high-power fast axial flow laser, aerothermic characterisation 7531
  - CO_2 indust. fast-flow laser, IR luminesc. diagnostics 23086
  - GaAs, high-resist. plates, resist. inhomog. 34659
  - He-Cd^+ CW hollow-cathode discharge multicolour laser module, design and perform. 39659
  - Ne-Ar gas glow discharge pos. column, elec. field-current charact. *(Japanese)* 29738
  - Si devices and materials,, glow discharge opt. emission spectrosc. 29836
  - SiO_2 RIE, modelling using neural networks, ICs and MCMs 6656
  - XeCl discharge-pumped lasers, preionisation and discharge stabil. study 31180
  - XeCl excimer laser, long-life 2 kHz X-ray preioniser 31140
  - ZnSe HV switches, time-resolved impact ionization 27840
- **GMSK** *see minimum shift keying*
- **goal programming** *see mathematical programming*
- **Golay codes**
  - block runlength-limited error control codes, trellis decoding 2373
  - M-PSK, Rayleigh fading channel, decoding 32090
- **goniometers**
  - grazing incidence diffractometer, thin-film struct. anal. 38463
  - low-temp. two-axis goniometer, accurate temp. control 9874
  - mag. light scatt. studies 34669
  - meteor shower detect. by radar, correl. method 25623
  - radiotomographic method, radar meteor vel. meas. 25624
- **goods distribution**
  - coal/elec. delivery syst., China, planning, DSS 43669
  - Japan, freight, post and telecomms. regional interrelationships 8797
  - transport enterprises, mobile data comms./EDI 42238
- **Goppa codes**
  - alg. geometric codes from sing. projective curves, GF(2^m) 40659
  - binary Goppa codes, min. dist. equal, design dist. 32060
  - geometric Goppa codes, designed min. dist., decoding 40657
  - geometric Goppa codes, generalized Hamming wts. 24054
  - geometric Goppa codes, improved 40655
- **government data processing**
  - *see also law administration; police data processing; public administration; town and country planning*
  - ADAMLAB educational agency designs voice output commun. aid 41582
  - Berlin-Bonn inform. link BRAVO project *(German)* 8915
  - Internet e-mail for public access, White House inform. 3210
- **government policies**
  - *see also research initiatives*
  - 1978-1989 nuc. energy policy committee scenarios and reality *(German)* 27114
  - academic networking in Peoples Republic of China 16743
  - Asia, satellite TV deregulation 42567
  - Asia, telecomms. sector reform 3013
  - Asia-Pacific countries, operator privatization vs. alternative restructuring methods 3007
  - Australia, document delivery services, 1980-94 overview 33434
  - Australia, electronic networking, social/policy aspects 16742
  - Byelorussia, networking for sci. and education 41775
  - CEENet, network coord. in central/eastern Europe 41776
  - China's economic develop., fiber optic networks 3044
  - China's satellite policy, historical evol. 42314
  - CO_2 power plant emissions, UK energy policy 4829
  - cryptography, mistaken beliefs 2383
  - data commun. systs., design and anal. 16518
  - developing economies and internat. deregulation 3019
  - developing nations, submarine fiber-optic systs., economic building block 3307
  - disabled people, commun./IT, Canadian Nat. Strategy 43369
  - distrib. of office supplies via EDI, Brun Passot 16642
  - EC's STAR programme, relevance, Pacific Rim countries 3024
  - EDTV, 2nd generation, policy and digitalisation *(Japanese)* 34249
  - emergency fuel/energy supply reliab., Russia 27319
  - energy economy internat. *(French, German)* 4523
  - engng. education, government programmes, Malaysia 5539
  - engng. education, India, bilateral co-operation role 5558
  - engng. education, indust.-university collaboration, India 5555
  - European Commission's mobile green paper 33305
  - European energy economy prospects w.r.t. fixed carriers *(German)* 4527
  - European power syst. interconnection status and prospects *(German)* 19180
  - European Union's telecomms. policy, infrastructure competition 8807
  - Federal organizations and commercialization of technol. 11633
  - foreign ownership in telecomms., policy perspective 33328
  - global marketplace for telecomms. services and networks 3038
  - health care, Quality of Care Development policy, implications for case-based telematic systs. in Europe 35207
- **government policies** continued
  - independent wind power generation projects, Canada 4874
  - inform. marketplace, competition, telecom innovation 8803
  - inform. services and telecomms. in Brazil 41604
  - inform. superhighway and regulatory proc. 8805
  - Internet e-mail for public access, White House inform. 3210
  - Internet project for 100000 users in Thailand 41777
  - Japan, freight, post and telecomms. regional interrelationships 8797
  - Japan's telecomms. indust., competition and regulatory reform 8811
  - LAN, WAN, VAN, inform. related technol. *(Japanese)* 3186
  - Latin America telecomms. privatization, macroeconomic policies/strategies 3008
  - Maitland report, commun. and develop. ten yrs. 3003
  - Maitland Report, telecomms. and develop. 3036
  - mobile satellite services and Inmarsat in rem. areas of developing countries 42313
  - Moscow data network struct. 16548
  - Nat. Information Infrastructure, stds. and interoperability 24978
  - Nat. Information Infrastructure and computer networks in Japan *(Japanese)* 3185
  - networking in India, needs, demand and regulation 25017
  - New Zealand, telecomms. and broadcasting deregulation 3037
  - nuc. power privatisation options, UK 43846
  - Pacific islands develop., telecomms. and IT 3033
  - Pacific Rim's trade in telecomms. equipt., Chinese case study 3018
  - R&D technol. transfer, effectiveness meas., USA 28360
  - R&D/commercialisation, federal government policy, USA 20379
  - RBMK NPP, safety assistance programmes, Europe 27358
  - rem. sens. market, data variety and availability 41320
  - Russian commercial rem. imaging systs., 1994-2000 41319
  - Saudi Arabia, Gulfnet, overview 41789
  - schools and the Internet, survey of networking activities 25011
  - semicond. indust., national competitiveness 29821
  - SHINE, strategic health informatics networks for Europe 3187
  - Spain, telecomm. network facilities in competitive environ. 8809
  - submarine cable network procurement in 2000 and beyond 3034
  - Sweden, strategy for IT infrastructure 8810
  - Swiss elec. economy approach, legislation *(French, German)* 4522
  - Swiss energy economy prospects in federalist Europe *(German)* 4524
  - Taiwan, telecomms. regulation 3031
  - Taiwan academic network (TANet), extension programs 3200
  - Technical Policy Council for US policy interpret. 28369
  - telecomm. networks, compatibility std. and competition economics 33320
  - telecomm. services, universal service and innovation, regulatory policy 33327
  - telecomms. initiative adopters, progressive US corporations 33323
  - telecomms. R&D experiences, Indonesia 16539
  - Tyrolean provincial energy economy develop. *(German)* 4528
  - UK elec. power syst. regulation by Offer *(German)* 19175
  - United States PCS policy and rural develop. 3114
  - university-based R&D mgt. policy, USA 28358
  - US Patent System, characts. and proposed changes 36962
  - US-Japan telecomms. trade, Japanese inform. infrastructure develop. 8799
  - USA, public participation in FCC rulemaking proc. for DBS 34223
  - USA, public telecomms. infrastructure funding 8794
  - USA, telecomms. and socioeconomic trends leading, universal service 8812
  - USA 1992 Federal Radionavig. Plan *(Japanese)* 17509
  - USA and Japan, inform. infrastructure develop. 8887
  - USA local telecomms., competitive self policing 41593
  - USA Nat. Inform. Infrastruct. project and video services *(Japanese)* 17575
  - USA national inform. infrastructure initiative, public vs. private objectives 8793
  - Venezuela, telecomms. develop. 3023
  - Videotex for public health in Belgium 33424
  - Vietnam, telecomms. regulatory struct. and foreign investment 3026
- **GPIB** *see peripheral interfaces*
- **GPS** *see Global Positioning System*
- **graded index optics** *see gradient index optics*
- **gradient index optics**
  - anistropic channel waveguide coupling, finite-difference freq.-domain anal. 31897
  - artificial cpd. eye opt. sens. array 9852
  - channel waveguides, asymmetric directional couplers, spectral charact. 22889
  - corrugated waveguide, SHG, light diffr. 14459
  - dielec. slab waveguide struct., impedance boundary method, method of moments 7347
  - fibre syst., third-order aberrations, recursive formulation 30900
  - graded birefringent media, light refraction, elec. field meas. 14326
  - GRINSCH lasers, carrier/radiation confinement 39771
  - GRINSCH strained MQW LD, 1.5 μm, low threshold current, high output power 23269
  - GRINSCH VCSEL, graded heterointerfaces, modulation characts., cct. modelling 39780
  - large-core silica fibers for data commun. appls. 42406
  - metal clad GRIN opt. planar waveguide anal. 40399
  - micro-encoder chip, integrated opt. component fab. 30979
  - multimode GRIN fibers, mode-noise anal. 39357
  - multimode opt. fibers, chromatic dispersion meas. 7281
  - near-IR large-core high-bandwidth GRIN polymer opt. fiber multimedia network 42389
  - nonlin. opt. channel waveguides, scalar FEA, isoparametric elements *(Japanese)* 22900
  - opt. attenuator, liq. cryst. film 7412
  - opt. fiber, interferometric refr. index profile meas. 14378
  - parab. tapered graded-index waveguides, beam propag. 8017
  - pass. fibre optic components/sens. systs., radiation sensitivity 22845
  - periodic GRIN waveguides with Kerr nonlin., Gaussian beam control 40426
  - photodelineated electro-optic polymers, GRIN profiles and loss mechanisms 14456
  - planar polymer substr., gradient-index profiles, lithographic tech. 14489
  - planar waveguides, universal dispersion curves, WKB method 22895
  - planar waveguides in glass, nonlin. diffusion procs., refr. index profile 1713
  - polymer opt. fiber, long haul commun. 39354
  - polymer opt. fibre/high-speed LD, data transm. 34051
  - porous-clad fibres, tapered, gas sens. response time anal. 42829
  - rod lenses, Nd:YAG laser delivery syst. 1777
  - substr.-mode holographic polariz.-division multi/demultiplexer for opt. commun. 25173
  - thin film waveguides for opt. neural devices 39522

gradient index optics continued
VCEL, GRINSCH struct., CW operation, temp. range 39778
CdZnSe/ZnSe blue/blue-green lasers, microgun pumping 31386
GaAs-AlGaAs GRINSCH LD modelling of MBE growth 39791
GaInAsP/InP tensile strained SQW lasers, 1.3 μm, LP-MOCVD grown 14944
InGaAs/InP superlattice QW lasers, MOVPE grown 39807
InGaAs-GaAs-InGaAsP graded index heterostruct. for 0.98μm lasers 12183
InGaAs-InAlGaAs strained/unstrained lasers, MBE grown 14975
K^+-ion exchanged planar waveguide refr. index meas. 39465
LiNbO3:Ti anisotropic graded-index channel waveguide, finite element modelling 39463
SiO_2 fibres, transm. props., Nd:YAG multimode CW laser 30853
SiO_2 opt. fibre atten., nuc. environ., prep. 22842
SiO2, multimode fibre, SBS phase conjug., distortions compensation 1671

gradiometers (gravimetric) *see gravimeters*

gradiometers (magnetic) *see magnetometers*

graft polymers *see polymer blends*

grain boundaries
see also bicrystals; twin boundaries
anatase-based sens. materials, high-temp. immittance response 34609
diamond:B films, homoepitaxial and polycryst., elec. props. 21890
diamond, highly oriented films on Si, growth, charact. and devices 5820
diamond high mobility CVD films, electron-hole mobility 6517
ferroelec. ceramics, twinning-induced stress, elec. field conc. 37537
HTSC, depend. of J_c on microstruct. and proc. 7227
HTSC, grain boundary jn., voltage steps 30796
Josephson jn. array, resistively shunted, shielding 39269
nonlin. ceramic capacitors, C-V responses 29612
polamide/$BaTiO_3$ ceramic composite grain boundary capacitors, prep. 6370
polycryst. semicond. ceramics, pot. mapping tech. 1054
polysilicon grain boundary struct. characterisation by opt. SHG 29825
polysilicon TFT, short-channel, output characts. 30296
polysilicon TFT, ultralarge grain film, excimer laser recrystn., elec. props. 30285
steel, Cr-Mo, ferromag., creep damage, mag. study 14128
Al IC interconnection failure, stress migration-induced voiding 38666
Al-Ge-Cu alloy reflow sputtering, electromigration charact. 22269
Al-Si-V-Pd microstruct., IC interconnect reliab., Al-Si-Cu comparison 38652
Au/n-ZnSe contacts, BEEM 22048
Bi/ZnO, interface form., model varistor grain boundary 6578
$Bi_2Sr_2CaCu_2O_{8-x}$ porous films gas sens. response anal. 34615
C:B CVD film, piezoresistive effect 29845
CdTe electrodeposited films, grain boundaries, opt. meas. 28805
Cu diffusion, Cu/Al-Cu based thin film IC metallizations, comparison 38648
$CuInSe_2$ films, surface morphology, grain boundary, parameters, etching 22215
Fe, cast, microstruct. changes, US detect. 37554
α-GaN films, OMVPE, microstruct. charactn. 28734
HgCdTe detector, multi-element lin. arrays, SR topography *(Chinese)* 17796
HgCdTe, quench recrystn. growth 5805
$Li_{0.3}Zn_{0.4}Fe_{2.3}O_4$, additives, material property changes 39167
MnZn ferrite, low loss, role of microstruct. 7021
MnZn ferrites for high freq. power supplies, mag. props. 30684
Nd-FeCoNi-B-AlTi melt-spun ribbons, corros./mag. props. 30681
$NdGaO_3$ bicrystalline substr. for YBaCuO Josephson jns. 22764
Ni, nanocrystalline, elec., mag., mech. props. 39127
NiCuZn ferrite:Bi_2O_3, low temp. fired, for chip inductors 14183
$(Ni_xFe_{1-x})_yAg_{1-y}$/Ag multilayers, low field giant magnetoresist. 7064
PZT, surface-acoustic-wave atten., mech./dielec. losses 39052
Pb-acid valve regulated secondary cells, PbCaSn grid expts. 36559
$PbTiO_3$, surface-acoustic-wave atten., mech./dielec. losses 39052
Si RT oxid. catalyzed by Cu_3Si 38578
Si amorph. film, grain growth/defects obs. *(Korean)* 21930
Si, electrocatalysis, opt./elec. props., solar cell appls. *(German)* 38243
Si, glow-discharge polycryst. films, grain boundary defects 20936
Si parallel multijunction solar cell 19977
Si, polycryst., grain-boundary defects, plasma treatment effects 13321
Si polycryst. solar cells, hydrogen passivated 44407
Si:Al solar cells, minority carrier diffusion length, Al gettering 44416
Si:H, defect passiv./light-induced metastability 13359
Si-$NiSi_2$ microcrystalline composite thin films, struct./elec. transport 38402
SiC thermally crystallized films on sapphire, electronic transport 21937
$Si_{0.3}Ge_{0.2}$ thermoelec. space power alloys, large-scale prod. 26586
Sm-Co/Cr thin films, Cr underlayer microstruct., mag. props. 39154
YBCO/CeO_2/YSZ/MgO bi-epitaxial grain boundary jns. 22753
YBCO/MgO bi-epitaxial grain boundary jns. 22753
YBaCuO HTSC bi-epitaxial DC SQUIDs, FIB etching from single jns. 39276
YBaCuO biepitaxial Josephson jns. on SOS substrs. 22761
YBaCuO, step-edge/bicrystal grain-boundary jns., excess noise 1612
YBaCuO supercond., melt processed, mag. shielding props. 39243
YBaCuO thick film RF-SQUID for detect. of weak mag. field sigs. 39277
$YBa_2Cu_3O_7$, Josephson jn. fab., bi-epitaxial grain boundary 30790
$YBa_2Cu_3O_{7-\delta}$ film bicrystal grain boundary jn., field effect device 1615
$YBa_2Cu_3O_{7-\delta}$ grain boundary jn. SQUID, modulation voltage/thermal noise 39271
$YBa_2Cu_3O_{7-\delta}$ nanobridges, coherent cortex motion 14303
$YBa_2Cu_3O_{7-x}$ thin film bridges on bicrystal substrs., detect. props. 39265
$YBa_2Cu_3O_{7-x}$ grain boundary, CPW microwave mixer 6317
$YBa_2Cu_3O_y$ grain boundary jns. on (100)MgO, Josephson effects 30787
YBaCuO/$LaAlO_3$/YBaCuO multilayered films for microwave appls. 1599
ZnO varistors, degradation, dielec. relax. 12834
ZnO varistors manufacture, seed grains/ threshold voltage rel. 29608
ZnO varistors, positron annihil., local electron dens., defect conc. 38257
ZnO-Bi_2O_3-based varistors, multiple trapping, appls. 12829
ZrO_2:Y_2O_3 SOFC electrolytes, high temp. ageing expts. 44321

grammars
see also context-free grammars; context-sensitive grammars; graph grammars; rewriting systems
automatic intonation tone contour labelling/class. algm. 32402
bulletin-board subsystems for exchanging obj. inform., operation protocols, formal description 33288
connectionist parsing of spoken lang., complex output representation 32296
education in lang., implement. of grammar in hypermedia syst. 34281
ergodic HMM and polygrams for lang. modeling 32294
French, metrical patterns/lexical parsing 2420

grammars continued
learning consistent semantics from training data 32374
Lempel-Ziv algm. for unifilar Markov source, exact anal. 32126
Lempel-Ziv parsing algm., av. profile/limiting distrib. 32059
Lempel-Ziv parsing trees, noiseless data compression algms. 32651
letter-to-sound/sound-to-letter generation, phonological parsing 32365
parsing word graphs, linguistic grammar and stat. lang. model 32375
possibility theory, inform. compression view 203
Prolog proc. design via VHDL-based methodology 12289
rem. sensed images segmentation by MDL-principled polygon map grammar 43548
spoken lang., robust real-time interp. 15857
syntactic/semantic/dialog-level constraints integrat., heuristic search 32371
telephone network CAD 41703
text compression, adaptive algo., subdictionaries class. 2371

granular materials
see also powders
lin. flow vel. meas., electronic image sens. 3993
BiSrCaCuO/Ag tapes, 2223 phase, mag./transport studies 39222
CoAl:O sputtered granular thin films, elec. resist., permeab. 14131
CoFeB:O sputtered granular thin films, elec. resist., permeab. 14131
$YBa_2Cu_3O_y$ granular bridges, I-V charact. and Josephson ac effects 30769

granular metallic thin films *see discontinuous metallic thin films*

graph colouring
algms. for coloring random graphs 28608
alternating cycles, fixed vertices in edge-colored graphs 11932
ATM network congestion control algms., validation/perform. anal. by Petri net 41448
cellular radio, freq. assignment 42278
coloured Petri nets, conflict sets 37272
edge coloring series parallel graphs 28621
edge-coloured complete graphs, alternating paths 28601
expected time complexity of graph partitioning problems 37244
flip-flops configuring, BIST registers 6097
genetic algms., multi-parent recomb. 37288
group extraction for recogn. 24463
harmonious colouring for trees complexity 37243
isomorphic factorization of trees of max. degree three 11931
online transaction proc., scalable net modelling 41878
optimal on-line algm. for optimisation 37251
protocol handling syst. spec. and perform. 33488
test scheduling, test subsession partitioning 17661

graph grammars
syntactic pattern recognizer for vehicle ident. nos. 24564

graph theory
see also bond graphs; directed graphs; graph colouring; trees (mathematics)
2D digital images, obj. extraction, topol. contour closure requirement 24723
3-phase tetrapolar alternator model, bond-graph method 27695
3-phase unbalanced nonradial power distrib. systs., fault anal. 43758
acoustic display systs., environ. sounds synthesis *(Japanese)* 34647
adaptive multiresolution struct. for parallel image proc. 8514
algm. for Eulerian trail traversing specified edges in given order 11929
approx. results on graph matching and related problems 37270
autonomous distrib. mutual exclusion protocol for multiple net resources *(Japanese)* 2923
bipolar orient. 28598
bisection algm., subgraph migration 11926
broadcasting, universal lists 16411
broadcasting in n-grid, given neighborhood template 16412
causality commutations in bond graph models 20546
Cayley coset graph, simplicity conditions 28597
cell-based hierarchical pitchmatching compaction 38954
cellular mobile syst., additional channel assignment by graph theoretic model 33932
cellular mobile telephone syst., service areas assignment 9349
chordal graph, domination elimination orderings 37268
circle graph, max. wt. independent set, efficient algm. 5755
clique covering and clique partition in generalizations of line graphs 20536
CMOS functional cells, layout optim., integer LP *(Japanese)* 39005
CMOS layouts, preconstrained compaction method 6867
CMOS leaf cells, compaction for symbolic layout design 13882
color scene matching, graph theoretic method 32961
commun. network constr., online algms. 16517
communicating finite state machines, language-based anal. 2978
communication network design using restricted message routing 41553
computational complexity of weighted integrity 11982
computer networks, automatic network clustering for fast path selection 24843
connected subgraphs in graphs obtained by short-circuiting vertices of complete graph *(Japanese)* 28595
consistent attributed graph-based hand-drawn logic cct. diag. reading syst., VLSI CAD 12492
constrained contouring in polar coord. 2666
converter-machine bond graph models, digital simul. 27821
decoding metric, channel capacity 24084
degree/diam. problem 2980
Delaunay triangulation, constrained 282
delay line waveforms, graphical anal. 21089
delayed conferencing, act. multimedia syst. 16802
dense subgraph, approx. algms. 5757
drift diffusion modelling, alg. microscopic approach 38785
dyn. nonhierarchical routing network design graphic tool *(Croatian)* 2982
edge-disjoint paths in permutation graphs 28605
edge-tenacious networks 28616
electrodynamic vibrators, computational aspects 19925
engng. education, obj. recogn. algm., graph matching-based 20346
expander graphs, Chernoff bound for random walks 5756
Feynman graphs computer eval. from many-body phys. in 2+1 dimens. 20538
forward/inverse DCT computation 15906
fugitive-search games on graphs and related params. 37269
global routing of ICs, crossing distrib. problem 38952
graph param. approx. 28620
Hamilton cycles counting in dense graphs 5775
hamilton path, family of intervals 204
Hamiltonicity in graphs, few P_4's 37255
hierarchical aspect graph generation, multiple range data *(Japanese)* 16303
high-level synthesis, scheduling problem, integer lin. prog. 495

graph theory continued
hyperstar and delta-syst. covering/packing problems 37258
image model bases, struct., inform.-theoretic clustering 2766
image primitive grouping, stochastic, graph-based 41110
image reconstr. from visibility graphs, completeness 2856
interval graph completion from path graph, NP-completeness *(Japanese)* 206
juggling networks, TDM implement. 24758
k-edge-connectivity augmentation problem 28606
k-terminal reliab., consecutive cuts and paths, and bounds 37204
Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
LIMSI continuous speech dictation syst., eval. 32342
m-route flows in network 8786
matroids, common bases 28600
max. sets of triangle-factors in K_{15} 37257
message optimal protocols for fault tolerant broadcasts/multicasts 24833
metrics, generalized bipartite, hypercube embedding 28599
Midwest Symp. on ccts. and systs., Detroit (1993) 33
min. cuts of graph, eval. algm. 37245
min. paths and cuts of graph, enumeration algm. 37253
min. presentations for irreducible sofic shifts 20537
min. range cut problems, algms. 207
min. representation of semiorders, intervals of same length 28604
min-cut replication in partitioned networks 12261
model-based 2-D obj. recogn., neural network archit. 8507
module orient. problem based on Manhattan wire meas., NP-complete 1476
most vital edges determ., spanning trees 20541
multigraphs cut-sets, exact lower bound 5749
multilevel NAND gate ccts., automatic synthesis, CAD algms. 29100
multiport act. RC-networks, computer aided synthesis/sensitivity anal. tool 721
multirate filters design, operational-graph approach 12657
multiset decipherability decision 24099
multitarget tracking, quick data assoc. algm. 16056
n-dimens. binary hypercube, resist. 517
near optimal algms. for graph compression schemes 28607
net graphs, p-ranks 28627
net-theory appl., commun. protocol develop. 8760
network connectivity tracking, topol. based algm. 35489
neural network based parallel algm. *(Chinese)* 8783
non-computationally intensive appls., algm.-based fault tolerance 32495
nondirected graphs, pathsets, enumeration, set theoretic method 11925
NP-hard graph problems, generating hard and diverse test sets 37252
obj. recogn., blob representation/relational voting 8550
obj. recogn., reduced aspect graph 24374
optimal vertex-connectivity augmentation 11930
optimized parallel protocol implement., formalizations/algms. 2938
Pade approximants flow graphs, cct. anal. appls. *(Russian)* 21073
path-oriented algm. for cell selection problem 37705
path-oriented algm. for cell selection problem, logic gate networks 21255
periodically deformed cylinders/cylindrical shells, EM scatt. 31799
photonic networks, graph-theoretic models 31026
π-feasible seqs. of graphical invariants 28615
PLA optim., simulated annealing algo. 21238
planarity eval. and network planarisation *(Croatian)* 2981
polynomial time randomised approx. schemes for Tutte polynomial of dense graphs 11923
power graphs 20542
power syst. directional protection relays coord., computer-based 27258
power syst. directional relays coord., graph theory 35676
proper-path tree decomp. 28602
protocol, test path selection, effective domains based 2928
protocol spec. synthesis, service specs., distributed systs., marked graph 8761
pseudo-exhaustive testing, VLSI ccts., cct. partitioning and test generation method 37573
pseudo-exhaustive testing, VLSI ccts., coord. cct. partitioning/test generation 21260
radio transmitter network, freq. assignment problem 3659
random graphs, optimal and random partitions 208
read/write isolated memory channel capacity 24020
reduced reachability anal., decidability issues 2963
secret sharing schemes and graph decomp. 40627
self-checking combinat. logic synthesis techs. 21226
seq. control ccts. with timing coord., design verification based on theorem-proving tech. *(English)* 29106
speech recogn., graph search techs. 32341
stacked layouts in CMOS analog ccts., automatic generation algm. 13878
std. cells, orient. assignment, fuzzy math. transform. 5944
stochastic CFG, sentence recogn. 32367
structural model bases, large, organisation 41285
surface-based obj. reconstruction, parallel algm. 16241
symms. and struct. 40663
syntactic pattern recogn., graphs, inform. similarity 16359
TEAMS, testability engng./maint. syst. 11708
telecomms. service requirements, cause-effect validation 3079
telecommunication network optimal alternative routing algms. 41552
telephone/ISDN switching syst. availability objective 42123
timing synthesis from VHDL description *(Korean)* 21273
unit disk graphs, heuristics 37247
vertex domination-crit. graphs 37246
via minimization of cct. layer assignment problem 464
viewing graphs implications, geometric objs. 5758
visual inspection operations, obj. registration 41121
VLSI building block layout, floorplanning, topol. constraints 13843
VLSI high level synthesis, optimal graph representations, instruction set tables 29109
VLSI layout compaction, constraint graph generation algms. 12285
VLSI regular arrays, test strategy 37686
W-graph and props. of ccts. 5939
weighted fractional and k-matching cumulating in hypergraphs 37297
wide-area ATM dyn. multipoint routing, geographic spread 41452

graphic equipment, computer *see computer graphic equipment*

graphical languages *see visual languages*

graphical user interfaces
11 kV distrib. network telecontrol/metering syst. 4660
A2A3 air traffic control testbed using embedded AI technology 10418
AC/DC drives, prog. high speed digital control 44498
AmPS magnet control syst. 18276
APS accelerator and control syst. 18173

graphical user interfaces continued
ATC displays, colour 4375
Auburn Univ., power engng. curriculum and GUI software 28337
audio coding demons. package for telecomms. education 33314
avionics multimodal dialogue, cognitive and sens.-motor interact. *(French)* 18712
B-ISDN, simul. testbed, design/implement./appls. 41936
biotechnology research lab. proc. control, GUI-based *(German)* 34984
Boeing 777 onboard maint. syst., Maintenance Terminal Function 10320
boiler steam-water syst. diagnosis/monitoring, ES 19511
building services projects CAD, STEP technol. 11315
cardiotocograph data acquisition/replay, Microsoft Windows based appl. 10172
CMIP-based OpS-WS interface supporting GUI 41673
cockpit display generator for electronic battlefield 10375
common channel signalling network mgt. model 41660
computer aided EMC testing 23719
convective heat transfer from PCBs, num. anal. interface, GUI appls. 12891
CoReview, interactive document and data retrieval tool for Internet 41867
data acquisition/anal. computer syst., real-time, document prep. *(Japanese)* 3754
database interface, pen-based for mobile computers 33566
discrete event simul., computer based learning, hypertext 20407
display-based subscriber service trials and prospects 42078
distrib. mgt. syst., power anal. software integrat. 19252
distrib. network SCADA syst. installation project, USA 10732
DIVE, multi-user virtual reality system 16762
DUALQUEST, real-time bifocal telecomm. network visualization syst. 41672
elec. drives, anal., simul., software package 20077
EM geotomography, GUI develop. 18797
EPRI Distrib. Engn. Workstation, appl. programmer interface 35627
ESIS on World Wide Web 8898
ESRF accelerator, VME image acquisition/proc., TV CCD cameras 18272
foetal ECG anal., real-time, Windows appl. 26377
GANIL ion accelerator, control syst. 18184
Gismo Project, detector simul. 34954
head-mounted display, 100 million pixel display 18016
HF power transformer CAD optim., scant modelling 19685
hierarchical environ. for interactive test engng. 6821
human interact. technol. *(Japanese)* 42036
hydroelectric dam surveillance, ES/mgt. IS-based 19544
induction motors drives, real-time PWM vector control studies 28100
integrated generation/transm. syst. simul. 35476
interactive graphic syst., data network mgt./status visualization 24912
interactive stereoscopic image display syst. for PC 34623
large-scale telecomm. network, multi-fisheye distortion map 41618
MAMI control, graphics operator interface 18224
MeV ion microbeam anal., transputers in data collection syst. 24991
min. invasive surgery, computer animation approach 34999
multilingual appl. develop., Unicode std. 24075
multimedia conferencing audio bridge 16896
navigating the airport surface, electronic vs. paper maps 10381
NEC multimedia VAN services *(Japanese)* 42030
network reconstr. simul. for control room staff *(German)* 19178
NIFTY-Serve, multimedia related services *(Japanese)* 42006
nonlin. AV workstation characts. *(Japanese)* 25775
Novell NetWare multimedia commun. syst., Microsoft Windows 33654
online machine learning, knowledge acquisition appl. 16611
PC based measurement and calibration systems 42732
PCB assembly/soldering defects, inspection/SPC work stations 5696
PCB prod., computer-aided manual workstation, graphics generation 38112
power electronics design, educational strategies 29013
power network mgt. training simulator, software develop. 19125
power syst. control, data visualisation techs. 26921
power syst. control centres, full-graphics interface appls. 26952
power syst. dispatcher training simulator, GUI-based 19157
power syst. EM transients simul. programs, GUI appls. 19026
power syst. engng. anal., GUI database appls. 35436
power syst. interactive graphic anal. software appls. 19128
power syst. maint., ALICE-ES software-based 19056
power syst. simul., hierarchical GUI 19027
QuickFlash network messaging program, review 24937
radar anal. model encapsulation 25569
robot skills development using a laser range finder 25585
SCADA systs. and water utility mgt. 3753
semi-automatic road extraction by dyn. prog. 41254
semicond. devices, proc. flows, automatic synthesis 1266
SIMSEN, power network/ASD simul. package 10608
small power plants, optimal operational planning syst. 35717
SMPS, transformer design ES 44122
SNIF, network inform. flow surveying tool 24967
SPC toolbox for teaching sig. proc. concepts 20293
speech recogn. based telephone service perform. 3139
SPICE integrat., TEK LV511 ASIC design verification syst. 1477
SRRC storage ring, computer control and instrumentation syst. 18174
stereoscopic imaging in window on computer monitor 34624
student perform. eval/follow-up, graphical software tool 11616
substation design, OO knowledge based tool 19906
surround sound prog. computer environ. 17617
TEAMS, testability engng./maint. syst. 11708
telecom network monitoring, task based human machine interface 33365
telecomm. network defn. and presentation 41560
telecomms. operation and maint. workstation model, ES module 33369
telephone company customer service operation simul. 16622
telephone company outside plant engineers' graphics-intensive OO appl. 41704
TiCa, timing capture tool for design/test generation of digital ICs 37683
top/down analogue IC design CAD, behavioural modelling lang. 28986
transformer testing teaching lab., graphic user interface software 20309
UNK Project, accelerator control, MMI 18279
user-guided measuring in digital aerial triangulation 41269
virtual instrumentation 34382
virtual lab., obj.-oriented framework 3744
voice-controlled telecomm. terminal for phys. handicapped 4313
windows based test development 42695
World Wide Web browsers reviewed 41857
X pseudo server mgt. syst. in X Window syst. *(Japanese)* 33436
Pb-acid sealed batt. surveillance syst., POWCOM program 44301

graphics, computer *see computer graphics*

graphics coprocessors *see coprocessors*

graphics scanners *see image scanners*

graphite fibre reinforced composites *see carbon fibre reinforced composites*

graphite fibre reinforced plastics *see carbon fibre reinforced plastics*

graphite fibres *see carbon fibres*

graphs
- *see also Bode diagrams; nomograms*
- circ. polarized wave scatt. by conducting cylinder, graphical representation 2211
- high range resoln. radar returns, model based ATR 17393
- Markovian reliab. problem reduction by component influence graph 11875
- multiple target tracking, importance of resoln. 17367
- multistage interconnection networks, nearest-neighbour interconnections 24753
- num. data sets, text generation techs. for explaining trends *(Japanese)* 28588
- PD diagnosis and pattern recogn. 1534
- PV installation operational behaviour anal. by standardised representation *(German)* 43952
- Raphael paintings, spectral and spatial stats. 24530
- Steiner min. trees in grid graphs, appl., VLSI routing 28925
- symmetric matrix decomp. parallel structs. 28670

gratings (diffraction) *see diffraction gratings*

gratings (optical) *see diffraction gratings*

gratings (spectra) *see diffraction gratings*

gravimeters
- gravit. field detector for large seismic waves, sig. proc. 43480
- precision accelerometers for gravity gradient meas. 18801
- quartz bulk piezoelec. odour sens. array, coating materials 34450

gravimetric instruments *see gravimeters*

gravimetry *see density measurement; weighing*

gravitational constant
- meas., spatial/temporal vars. 3998
- Newton's gravit. const. meas. 17650

gravitational radiation *see gravitational waves*

gravitational wave detectors
- mag. gas spring, vert./horiz. transfer fn. meas. 25813
- solid-state gravit. antennas, sig. detect. 15864
- supercond. RF parametric transducer for gravit. wave antennae 25812
- wideband low noise accelerometer, inductive displacement sens. 42766
- Wiener filters, Weber type detectors 32639
- Nd:YAG ring laser freq. stabil., interferometric gravit. wave detector light source appl. 31301

gravitational waves
- SQUID-magnetostrictor syst., small length change detect. 17734

gravity meters *see gravimeters*

Gray codes
- binary code and binary-refl. Gray code conversion on binary cubes 24066
- cache designs for energy efficiency 12514
- digital positional shaft encoders, patents review 34699
- DPSK/FSK, differential phase detect., bit/sym. error probabilities 40614
- image texture anisotropy, gray-level difference histogram 24649
- index transform. algms. in lin. alg. framework 2397
- power saving in embedded proc. 6159
- randomization procedures, Gray codes 2398
- robotic arm ASIC-based motor controller develop. 11227

grazing incidence optics, X-ray *see X-ray optics*

Green's function methods
- 2D and 3D conducting wedge problems, transient image theory 7953
- 2D axisymm. inhomog. medium inversion, distorted Born iterative method 23567
- 3D objs. embedded in multilayered media, scatt. 40303
- 3D-SCN-TLM diakoptics for waveguide components 12729
- acoustic waveguide jns., low freq. impedance matrix 4415
- acoustoelec. memory for SS commun., Green's fn. 6930
- anechoic/semi-anechoic chambers, deficiency 15484
- aperture-coupled multiplayer microstrip antenna anal. 31942
- asymmetric TEM cell, characteristic impedance, septum thickness effect 20417
- axisymmetric pot. problems, floating random walk method 20531
- bi-isotropic microstrip geom., quasi-static image method 15573
- bianisotropic and inhomog. multilayer and waveguide anal. 23774
- bianisotropic media, duality transforms., Green dyadics, plane-wave solns. 40322
- broad wall coupler between dissimilar rect. waveguides, S-matrix 12714
- buried dielec./mag. gratings of fibers, refl. 15411
- cavity-backed aperture antennas with dielec. overlay, anal. 8042
- cavity-backed printed dipole arrays with substr. mode control 23966
- coaxial probe excited hemispherical dielec. resonator antenna input impedance 31918
- composite struct. of complex materials, EM refl./transm. 31778
- controllable planar layered medium, refl. coeff., freq. characts. 23592
- corrugated periodic struct. noisefree static field calc. 31892
- coupling jns. in waveguide-fed planar slot arrays, charactn. 15657
- cylindrical microstrip line mounted inside ground cylinder, quasistatic soln. 21505
- cylindrical microstrip-line-fed slot antenna anal. 31955
- dielec.-covered microstrip line slot antenna anal. 2331
- disordered quantum wires, DOS/conductance 38342
- dual gate MOSFET, 2D pot. distrib./threshold voltage models *(Chinese)* 38893
- dyadic Green's fn., spectral domain, planar cct. microstrip transm. lines 6291
- dyadic Green's fn. for unbounded anisotropic medium 23597
- dyadic Green's fns., radially multilayered chiral media 40291
- electromagnetostatics in uniaxial bianisotropic media 15203
- EM dyadic Green's fn. in spherically multilayered media 15382
- EM scatt. and radiation, moment matrix spatial interpolation 23845
- EM scatt. by dihedral strip grating 23544
- EM scatt. in conducting circ. cylinder, source radiation field anal. *(Japanese)* 23534
- far-zone elec. fields radiated by coax. cable aperture, perfectly conducting ground plane *(Korean)* 15639
- FEL oscillator spectral anal., Green fn. anal. 39977
- fictitious sources method applied, diffractive gratings 15416
- finite thickness transm. lines above periodically perforated ground plane, packaging 23757
- fission RPV, axial cracks 35940

Green's function methods continued
- guided wave scatt. in slightly rough boundary waveguide, stochastic functional approach 14441
- hemispherical dielec. resonator antenna anal. 40473
- hemispherical dielec. resonator antennas, mutual impedance 23940
- Hertzian dipole radiation from centre of anisotropic sphere 23829
- horiz. El above lossy ground, radiation field 23499
- horizontal and vert. elec. and mag. dipoles in multilayer media 23753
- indoor radio propag. model based on ray tracing and integral eqns. *(Japanese)* 23625
- inhomog. waveguide components, field matching/noise filtering 23800
- LCRG nonuniform transm. line, sig. restoration 2278
- long. multilayered isotropic dielec. filled rect. waveguide 2303
- mag. laminated tapes, deform. 7168
- mesh termination in finite-difference techs., simulating boundary conditions 31717
- micromaser, at. cluster pumping, thresholds fine struct. 23074
- microstrip and slotline planar struct. impedance matrix eqn. 23752
- microstrip antenna on conical surface, TM_{10} mode anal. 40474
- microstrip antenna space-domain Green's fn. series form 23841
- microstrip antenna surface wave efficiency comparison 23839
- microstrip antennas, anom. mutual coupling 8080
- microstrip discontinuity radiation effects, full-wave anal. 23837
- microstrip floating line struct., full wave anal. by wavelet expansion method 15572
- microstrip Green's fns. in magneto-dielec. substr. 40406
- microstrip-slot cct. mixed pot. integral eqn. Green's fn. calc. 23842
- MMICs, transit. props. of vert. conductor connecting two microstrip lines 12790
- multiconductor interconnects, VHSICs, capacitance matrix computation 12795
- multiconductor transm. lines in multilayered dielec. media, anal. 31875
- multilayered spherical chiral media, Dyadic Green's fns. 40323
- non-penetrable wedges, Green's fns. intrinsic mode representation 15602
- nonHermitian bianisotropic media, FEA 23563
- nonlayered substrs., striplines, slotlines, Green's impedance fn. 15567
- normal metal-supercond. barrier contacts, proximity effect 22730
- offset dual-patch microstrip antenna anal. 2335
- open planar waveguide screens, EM waves scatt. 15593
- optically fed patch array configs. and scan performs. 31970
- passive microstrip elements, full-wave space-domain moment matrix 23836
- phased antenna array charact., effect of atmos. precip. 31985
- photorefr. cryst. image correlator spatial fidelity 16369
- planar cct. microstrip line, edge boundary conditions, specific modes, 2D anal. 40420
- planar lines and antennas, 3D full-wave anal. 2280
- planar microstrip config., anal., closed-form Green's fns. 23792
- planar spiral antenna above double-dielec. loaded ground plane 23868
- quasiperiodic disk-loaded waveguide, EM, space charge waves, propag. 29802
- quasiperiodic struct., coupling, asymmetric output arm 15568
- radially polarized PM cylinders, 3D field soln. 15232
- Raman FEL, Green fn. anal. 39917
- random media with large-scale inhomogeneities, wave localization 31787
- rect. cavities and waveguides, EM dyadic Green's fns. 31904
- rect. waveguide, elec. dyadic Green's fns. 31905
- rectangular patch antenna feed microstrip line gap discontinuity anal. 32000
- rectangular waveguide, inserted nonlin. dielec. slab, wave propag. 23807
- resistive strip gratings on dielec. slab 23541
- ridge-waveguide MQW DFB lasers, static and dyn. simul. 23193
- scatt. by coated bodies, higher order impedance boundary conditions 25544
- slot coupled narrow wall coupler, dissimilar rect. waveguides, comments and reply 12717
- spatial microstrip dyadic Green's fn., asymptotic closed-form 31991
- spatial microstrip dyadic Green's fn., radial and asymptotic closed form representation 40450
- steady-state heat eqn., floating random walk algm. 5633
- supercond.-2DEG planar jn., Josephson effect, proximity effect 30794
- thin substr. microstrip problems, Green's fns. closed form solns. 37939
- time-harmonic 2D/3D Green's dyadics for general uniaxial bianisotropic media 40283
- transient EM modeling, generalized k-space method 15396
- transmission line static anal. using measured eqn. of invariance 23751
- transverse ground-plane slot in boxed-stripline, radiation effic. optim. 2345
- unilateral fin line resonate on biaxial substrates, spectral-domain anal. 21527
- vectorial beam propag. method based on EM field directional decomp. 40429
- vertical antenna above dielec. half-space, complex image-induced EMF 31916
- vertical antenna penetrating dielec. half-space, complex image soln. 31921
- VLSI layout verification package, BEM for 3D capacitance and substr. resist. calcs. in inhomog. media 21023
- wideband gap-coupled microstrip antenna arrays, study 40502
- Er-doped fibre amps. spontaneous emission noise modelling 14734
- HF chem. laser twin plane jets, turbulent kinetic theory 1856
- $LiNbO_3(LiTaO_3)$ SAW devices, electrode periodic syst., Green's fn. anal. 30631

GRIN lenses *see gradient index optics; lenses*

GRIN optics *see gradient index optics*

grinding
- cement indust., clinker grinding, roller mills 36806
- cement plant design for stringent environ. stds 5427
- semiconductor manufacturing, fault isolation using automated discovery from wafer tracking databases 6605
- thick film ceramic capacitive sensor, embedded in polymer 25797
- GaAs LSI chips, back-grinding, mech. reliab. 1498
- PZT films, laser ablation on Ag coated Si substrs. 13993
- Si microtechnol., develops. and proc. tech. depend. 38950
- Si post backgrind wafer shape, thin film stresses 38605
- Si single-cryst. spheres, fab./sphericity meas. 18100

grinding mills *see grinding*

groove guides *see waveguides*

ground electrodes *see earth electrodes*

ground services, aerospace *see ground support systems*

ground states
- *see also excited states*
- mag. grating free induction decay and echo 2074
- GaAs/AlAs coupled QW struct., long-lived excitonic ground states 1113
- HSSD, $^rQ_3$ branch at 656 GHz, freq.-tripled BWO 21847

ground support equipment
see also aircraft communication; navigation
aircraft parking posn. display and guidance syst. *(Japanese)* 10410
C-17 ATE support, successful appl. of existing equipt. 34369
covariance anal. of strapdown INS, gyrocompass charact. 26695
fiber-optic WAN, tactical airborne sens./ground station 43569
integrated depot environ. for avionics support (IDEAS) 35228
LIDAR wide-band Doppler detect. tech. 42530
SOHO solar spacecraft, operations & ground systs. 35277
time transfer, spaceborne H maser/laser pulse timing 42668

ground support systems
see also aircraft communication; instrument landing systems; microwave landing systems; navigation
A/D convertors, transient and overvoltage recovery testing 12596
ADM maint. personnel admin. syst. for Nippon Airport *(Japanese)* 10402
air/ground digital commun. for ATC 10420
airport facilities status and future trends *(Japanese)* 10406
airport surface enhanced surveillance radar 10424
ASCOT airport terminal for Nippon Airways *(Japanese)* 10415
ASDE airport surface detect. equipt. *(Japanese)* 10408
automated radar terminal systs., ARTS *(Japanese)* 10407
deep-space navig., overview 17511
dyn. imaging and RCS meas. of aircraft 34146
Earth-space commun., opt. networks 17294
EUTELSAT multi-mission satellite control infrastructure 33964
flight inspection develop. trends 10314
flight instrum. test facility, control and data acquisition 26531
GPS-Squitter expt. results 9419
ident. card mgt. syst. for Tokyo International Airport *(Japanese)* 10411
MAGICS meteorological imaging syst. for Nippon Airways *(Japanese)* 10414
meteorological doppler radar syst. for airports *(Japanese)* 10409
microwaves in aviation, commun. and control 18778
NASA ground operations, hybrid neural network systs. 26696
pilot situational awareness enhancement, airport surface movement area 10423
prog. digital radio common module prototype 10382
satellite ground control operations, intell. C^2 26698
SOHO solar spacecraft, operations & ground systs. 35277
SPEAR (Signal Processing Environment for Analysis and Reduction) 25777
UH-60A airloads data acquisition and proc. syst. 10313

grounding *see earthing*

group decision support systems
ELPIDA, archit. for med. imaging supporting telemedicine appls. 43195
MERMAID groupware platform, multimedia and multi-party desktop conferencing syst. *(Japanese)* 41947
MERMAID multimedia multi-party desktop conf. syst., groupware platform 9029

group method of data handling *see forecasting theory; identification*

group technology (production) *see manufacture; production control*

group theory
see also Clebsch-Gordan coefficients
abelian groups, p-rank two, difference sets 28558
abelian groups, perfect t-shift codes 40692
Abelian groups, wavelet anal. 24163
binary primitive BCH codes, automorphism groups 40596
broken symm. in BEM 37367
covering designs, block size 5/index 5 28561
difference families/optimal opt. orthogonal codes, constr. 32073
Diffie-Hellman protocol breaking equiv., computing discrete logarithms 32174
dyn. word problems 5732
elementary abelian p-group factorizations, cryptographic significance 2394
front-end/early vision syst., lin. scale-space 16238
generalized quadratic residue codes, automorphism groups 32049
hashing, SL_2 matrices 32155
higher categories, strings, cubes and simplex eqns. 37254
image line permutation coding/reconstruction *(Japanese)* 24403
MMP codes, modified reflective symms. 15609
multidimensional DFTs on parallel machines, implement. 24215
multiplicative Zak transform 40850
obj. recogn. via group extraction 24463
permutation coding in 1D transform domain 8176
time-freq. anal., energy densities in one/many dimens. 32746
transversal designs, thwarts 37218
weighing matrices with large wts., struct. 37219
Weyl-Minkowski duality for integral monoids 237
wideband ambiguity fns./affine Wigner distribs. 40781

Groupe Speciale Mobile *see cellular radio; radiotelephony*

groupware
see also group decision support systems
3D human image reproduction in virtual space teleconferencing 16823
audio support for sync. cooperative work 9072
broadband multipoint multimedia telecom. and computer supported collaborative work 42018
causally ordering group commun. protocol 8997
co-operative software develop., distributed support environ. 25072
communication protocol for large groups 33644
computer-mediated commun., literacy, playfulness/gaming 41948
cooperative computing/integrated syst. mgt. 24904
cooperative work, obj.-oriented/hypermedia approach 33649
CoReview, interactive document and data retrieval tool for Internet 41867
CrystalWeb, distributed authoring environ. for World-Wide Web 41868
desktop CSCW syst. 16691
dist. education, multimedia environ., computer-supported collaborative learning 11619
dist. learning and computer-mediated commun., interactivity 11620
distributed virtual simul., networking 25019
DIVE, multi-user virtual reality system 16762
educational electronic brainstorming syst. in Eng. teaching 9031
electronic network conferencing for M.Sc. education 16820
electronically mediated interpersonal commun., attitude effect 24888
empty pathways, computer mediated comm., faculty use 33409
GCommS project, group commun. support for distributed multimedia systs. 16858
group admin. shell, GASH network computing environ. 41788
group commun. protocol, causally ordered, using seq. nos. of messages *(Japanese)* 41533

groupware continued
groupware, spatial workspace collaboration 41987
high-speed ATM networks, TCP perform. improvements 25041
high-speed channel, selective total-ordering group commun. 2939
human interface technol. for handicapped people 18620
ImagineDesk, software platform supporting cooperative appls. 16891
Lakes environ. for teleconferencing, connection mgt. 16803
learning network design, coordinating group interacts. in formal learning environ. 11618
load balancing multicast tree approach for group-based multimedia applications 33645
manipulator based rem. collaboration support syst. *(Japanese)* 33420
media space collaborative work, multiple views 41952
MediaSpaces for cooperation and commun. *(French)* 16807
MEGUMI groupware platform, multimedia E-mail 16839
MERMAID multimedia groupware platform, desktop conf. syst. 16805
mobile computing, group commun. approach 33562
MultiG research programme, distributed multimedia appls. on gigabit networks 42040
Multimedia Chatting System on Ethernet LAN 16835
multimedia commun. technol. groupware appls. and trends *(Japanese)* 16907
multimedia framework experience 9033
multimedia groupware for multimedia office *(Japanese)* 42004
Multimedia Toolbox for Cooperative Applications, groupware product 41993
MultimETH, conferencing and joint editing syst. 9065
neurosurgery, video-as-data, ethnographic studt 43324
OfficeMermaid, multimedia groupwork syst. *(Japanese)* 42033
PAGEIN project, networking issues 16728
Personal Telepresence, interactive multimedia workstation 16931
policy-free distributed general-purpose shared window syst. 25051
rem. seminars, multimedia conferencing, MICE project 25118
security, client/server environ. *(French)* 25026
selectively totally ordered broadcast protocol on single channel network *(Japanese)* 16514
SEPIA, cooperative hypermedia authoring environ. 16806
small group teleconferences, virtual environ., communicative charact. 16816
smart cards, ID-based non-interactive group commun. key sharing 3070
two-way dual-view teleteaching syst., gestures/chalkboard 16890
upper layer products, archits. and appls., conf. Barcelona (1994) 29
user interact. with multimedia, multiuser systs., conferencing tools 41980
video teleconference use among geographically dispersed work groups, usage patterns and user preferences 33624
Video Viewer interface design prototype for sharing video across, network 41997
virtual space teleconferencing, 3D human images reprod. 41949
wired warp and woof, ethnographic study of networking class 9032
World-Wide Web for shared comments, SOAPs, trails, and online communities 41861

GSM *see cellular radio; radiotelephony*

GSMBE *see chemical beam epitaxial growth*

GTD *see geometrical theory of diffraction*

GTO devices *see thyristors*

Gudden-Pohl effect *see electroluminescence*

GUI *see graphical user interfaces*

guided electromagnetic wave propagation *see waveguide theory*

guided light propagation *see optical waveguide theory*

Gulyaev-Bleustein waves *see surface acoustic waves*

Gunn devices
see also Gunn diodes; Gunn oscillators
Ka-band mm-wave radar transceiver assembly, common waveguide cavity design *(Chinese)* 25578
power combiner, dielec. tuned, optim. 29553
radar antenna array, sig. opt. proc. 42509
GaAs Gunn devices at 94 GHz, fund. and harmonic power generation 37998
GaAs MM wave TEDs, CAD, thermal anal. 38791
InGaAsP/InP D-band Gunn devices, heterojunction cathode injectors 13587
InP MM wave TEDs, CAD, thermal anal. 38791

Gunn diodes
EM oscills. generator, act. planar layered medium 12749
generating mode, hysteresis, nonlin. reactance sign reversal 12769
HF two-resonator sustained oscillators, tuning bandwidth 571
JET divertor, mm-wave two-color interferometer appl. 34676
measurement using six-port reflectometer 21543
microwave Gunn diodes operation under γ radiation 12781
opt. tuned microwave DRO, cct. and design method 840
tuned semicond. microwave generator 29561
ultrafast optoelectronic charactn. 6304
InP Gunn diode self-oscillating mixer for 90-GHz MM-wave receiver 21546
millimetre-wave devices, fab., integral heat sink/bonding ribbon 12772

Gunn effect
see also Gunn devices
GaAs MESFET sidegating effects modeling by trapping simul. 22495
InP n^+nn^+ diodes, hot carrier noise, Monte Carlo simul. 1348

Gunn effect devices *see Gunn devices*

Gunn oscillators
generating mode, hysteresis, nonlin. reactance sign reversal 12769
HF two-resonator sustained oscillators, tuning bandwidth 571
injection-locked hybrid discriminator, interf.-immunity 826
JET divertor, mm-wave two-color interferometer appl. 34676
microwave Gunn diodes operation under γ radiation 12781
mm-wave Gunn oscillators, harmonic injection locking 12759
MM-wave meas. receiver, 42.5 GHz, oscillator/mixer config. 37986
MM-wave solid-state oscillator, quasioptical metal-dielec. resonator 37977
opt. tuned microwave DRO, cct. and design method 840
tunable fin-line-microstrip oscillator 6305
X-band resonant cavity antenna-oscillator designs 23879
GaAs MIMIC TED-oscillator, 60 GHz, perform. 29590
GaAs microstrip Gunn oscillator, highly stable, U-Band 37975
InP D-band Gunn devices, second-harmonic power extraction up, 290 GHz 1332
InP Gunn diode self-oscillating mixer for 90-GHz MM-wave receiver 21546
InP NRD-guide FM Gunn oscillator, 60 GHz band *(Japanese)* 6319
$YBa_2Cu_3O_{7-\delta}$, 3 mm waveband Gunn oscillator, phase locking 21537

guns, plasma *see plasma guns*
gyrators
see also network analysis
octave-band qtr.-wave coupled semi-tracking stripline jn. circulators 29546
gyroklystrons *see gyrotrons; klystrons*
gyromagnetic effect
see also gyromagnetic ratio; magnetic resonance
auxiliary vector fn./adjoint methods in solving anisotropic media EM problems 15230
complex anisotropic media, auxiliary vector fn. method 23562
jn. circulators, quality factor, temp. stabil. 29528
pulsed power ferrite line pulse sharpeners, num. anal. 31872
Co-based amorph. thin wires, HF permeab. 14124
Fe-based amorph. thin wires, HF permeab. 14124
gyromagnetic ratio
see also magnetic resonance
$\mathrm{Gd}_{21.2}\mathrm{Co}_{78.8}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$\mathrm{Gd}_{19.4}\mathrm{Nd}_{6.1}\mathrm{Fe}_{74.5}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$\mathrm{Gd}_{19.6}\mathrm{Nd}_{10.3}\mathrm{Fe}_{70.1}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$\mathrm{Gd}_{13.5}\mathrm{Tb}_{6.2}\mathrm{Fe}_{80.3}$, film, amorph., exchange stiffness const., gyromag. factor 14116
gyromagnetrons *see gyrotrons; magnetrons*
gyromonotrons *see gyrotrons*
gyropeniotrons *see gyrotrons*
gyroscopes
see also navigation
Brillouin fiber ring laser, freq. stabil. 14762
Brillouin fibre optic gyro, stable characts. 17830
Brillouin opt. fiber gyro ring-resonator, state of polariz. anal. 42822
coning scan imager, point detect. 2608
covariance anal. of strapdown INS, gyrocompass charact. 26695
fiber laser/amp. based sens. 34551
fiber optic gyroscope North finder 18803
fiber-optic gyroscope polarizer pair extinction coeff. 17871
fibre optic sens. at Photonetics, develop. trends 17875
fibre optic sens. technol. evol. and commercialisation 17818
fibre optic sensors, conf., Glasgow, Scotland (Oct. 1994) 11524
fibre ring-resonator for gyros, expt. 17887
fibre-optic inertial sens., thermal procs. 34550
interferometric fiber optic gyros and appls. *(Japanese)* 3858
IR coherence-collapsed multimode LD for fiber-optic gyroscope 40176
microdynamic gyroscope develops. and appls. 9859
micromechanical vibratory gyroscopes, design, operation 6885
mode locked fiber laser gyroscope, polariz. charact. 17833
orbital debris radar antenna pointing Kalman filter 25581
orthogonal polariz. fiber gyroscope, stabil., resoln. 17817
pass. fibre optic gyroscope develop. 17888
ring laser gyroscope design, spatially resolved eigenstates for traveling/standing waves 14997
Sagnac interferometer, fund. thermal induced phase flucts. in fiber loop 17921
sine/cosine ref. generator, high-perform., design 8350
solid-state gyroscope for robotics appls. 17733
vibr. gyroscopes, automotive sens., appls. 5367
vibr. gyroscopes, solid state rot. sens. 9861
Er-doped superfluorescent fiber sources for fibre optic gyroscopes 17831
Er^{3+}-doped fiber ring laser gyroscope appls. 3871
He-Ne ring laser, T violation and microhertz resoln. 23326
gyrotrons
see also cyclotron masers
0.5 MW, 140 GHz gyrotron, conditioning optics, astigmatic Gaussian beams 975
95 GHz gyroklystron, beamstick, advanced centerpost gun 21811
amps., collider appls., test facility 21810
axially modulated cusp-injected large-orbit gyrotron amp. 6497
beam energy recovery, gyrotron efficiency improvement method 10099
BWO, long-pulse expts. 21852
cavity gyrotron oscillators, mode locking simulation 21832
chaotic behaviour, model 6490
closed cavity gyrotrons, mode locking 21837
cold cathode, PRF tunable gyrotron 12998
collective Thomson scatt. diagnostic, antenna decoupling requirements 29793
CPD gyrotron mm-wave syst., high power/efficiency *(Japanese)* 6506
cylindrical cavity gyrotrons, mode competition and startup 6491
dielec.-loaded wideband gyro-TWTA 29810
drift region, spurious oscillns. self-excitation 6494
e-beam gyrotron-BWO, interact. tubes effects 29798
efficiency, sideband oscills. influence 6493
electron gun design, DAPHNE 2D axisymmetric simul. code 29761
ESR spectrometer, mm-wave freq. range, gyrotron, radiation power source 34672
folded waveguide gyrotron TWTA 29803
fourth harmonic gyro oscillator expt., 95 GHz 38215
freq. up-shifted gyrodevices, cyclotron harmonics vs. CARM's 6486
freq.-step-tunable gyrotrons, plasma heating/fusion diagnostics 6478
frequency step-tunable gyrotron for fusion plasma appls. 21835
gyro peniotron forward wave oscillators 6496
gyro-BWO, tapered interaction tube effect on power/pulse length 21851
gyroklystron, 95 GHz harmonic, beamstick 21828
gyroklystron, harmonic, multi-megawatt, expt. studies 21836
gyroklystron amp., high-harmonic slotted, particle-tracing simul. 6500
gyroklystron amp., high-perform. 70 kV third-harmonic 6501
gyrotwistron, efficiency optimisation, gradient search 21833
gyrotwystrons with mixed transverse geometries, theory 985
Hamiltonian theory of gyrotron and CARM 40257
harmonic peniotron and gyrotron interacts. in rising-sun slotted waveguide, nonlin. theory 6498
helical electron beams, collective procs. 38219
helical electron beams in gyrotron type, space charge oscillns. 12996
HF gallery mode gyrotrons, rot. modes study 6495
high power 140 GHz gyrotron, expts./num. simul. 6492
high power gyrotron oscillator, mode purity modelling 21834
high power microwave sources, pulsed power requirements 29794
high-harmonic gyrofreq. multiplier, 150 kW, 17.4 GHz 29783
high-harmonic gyrofrequency multiplier, theory and design 6499
high-power mm wave source for atm. remote sensing 10488
gyrotrons continued
intense e-beam gyrotron BWOs, long-pulse microwave emission, tapered tubes 1006
intense microwave pulses, conf., Los Angeles (1994) 28206
IR FEL based on gyrotron-powered EM wigglers 2020
Ka-band tapered gyro-TW amp., broadband operation 1002
Ku band second harmonic gyroklystron expt. 6487
large orbit magnetron-type gyrotron, num. modeling 21814
large-orbit gyrotrons, axially-modulated, cusp-injected, analytic model 21813
long pulse gyrotron with collector pot. depression, high power 21808
LV IR FEL, gyrotron powered RF wigglers 39890
magnetron injection gun, electron opt. design 21800
magnetron injection guns, electron beams, vel. spread 29764
megawatt 110 GHz gyrotron, internal mode converter 21809
microwave tubes, develop. hist. and elec. props. *(German)* 6505
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
MM-wave technol. in radar and fusion appls. 42502
mode competition, nonstationary theory 982
multicavity gyrodevices, two-harmonic electron prebunching 29769
neg.-mass instabil., nonsymmetrical perturb. 7911
oscillator, large-sig. mode locking, nonlin. theory 38214
phase-locked gyrotrons operating at cyclotron harmonics, theory 6488
plasma dens. flucts. diagnostics, freq.-tunable MM-wave sources 31846
quasi-opt. mode converters for high order mode gyrotrons 21812
quasioptical gyroklystron expt., multimode simulation 6511
slotted third-harmonic gyro-TWT amp., 95 GHz, tests 29811
slow wave cyclotron interact. in folded rect. waveguide, theory 13014
submillimeter wave gyrotron, mode cooperation 979
submillimeter wave gyrotron for plasma scatt. meas., transm. line 2239
TE_{01} gyro-TWTA, stable, high power 1007
third-harmonic gyro-TWT amp., 1 MW, stable operation 1009
three-cavity gyroklystron amp. perform. study 29763
TWA, absol. instabilities, stabilization 21855
two-cavity second harmonic gyroklystron, stabil. and amplif. studies 6489
two-stage tapered gyro-TWTA, Ka-band, TE_{10} rect. waveguide 21846
two-stage tapered gyrotron TWTA, gain broadening 29809
TWT, launching loss, Weibel instabil. 29800
window materials for 110 GHz and 280 GHz gyrotron 38216
gyrotropy (optical) *see optical rotation*
gyrotwystrons *see gyrotrons*
H^{∞} control
see also H^{∞} optimisation
AC motor, flexible struct. attached, H_{∞} posn. controller design 10967
AC motor drives, CSI-fed, exact lin. H_{∞} control *(Japanese)* 28063
combined cycle power plant multivariable control 43931
Cuk convertor, nonlin. control methods 27801
induction motor, LQ approx. lin. control 19623
lin. DC motor actuator, wire-driven syst., robust control *(Japanese)* 19667
MAGLEV systs., H_{∞} control, exact lin. 40276
missile autopilot, multivariable H_{∞}, robustness eval. 18958
motor syst. act. vibr. control by H_{∞} control 44259
motors, act. vibr., H_{∞} control theory 10942
multiobjective controller design, guaranteed H_{∞} control perform. 44062
power plant control, state space and freq. domain predictive controller design 27524
power syst. H_{∞} oscills. damping controller design 35483
power syst. load-freq. control, H_{∞} optim. 43675
PSS, H_{∞} optimisation-based 43662
PWM regenerative sinusoidal converters, H^{∞} control 5131
robust control, power distrib. approach 43713
SVC H^{∞} controller, anal. and design 10652
traction drive robust H_{∞} control 20066
H^{∞} optimisation
see also H^{∞} control
extended H_{∞} filter, robust EKF 40942
power syst. load-freq. control, H_{∞} optim. 43675
PSS, H_{∞} optimisation-based 43662
sig. estim., PSD 41012
hacking (hobby computing) *see hobby computing*
hacking (illegal computer access) *see computer crime*
Hadamard matrices
3D acoustic holography imaging syst., Walsh fn. modulation *(Japanese)* 17484
binary lin. codes, Hadamard matrices based, wt. distribs. 32146
discrete sine transform with regular struct., recursive algo. 288
M-ary/SS commun. syst., frame sync. method 17008
substitution box design pitfalls 32182
weighing matrices with large wts., struct. 37219
Hadamard transforms
acoustic impulse responses meas., pre-emphasized pseudorandom noise 42997
CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
distributed digital sig. transm. syst., sig. recovery, estim. method *(Japanese)* 15771
multitransform/multidimensional image sig. representation, reconstruction 8627
p-adic stationary proc., max. Ch-entropy estim./fast algm. 32768
subband DFT, accuracy/complexity/appls. 40778
subband DFT, defn./interp./extensions 40777
wavelet transform adaptive filtering 32524
haemoglobin *see proteins*
half adders *see adders*
half-wave plates *see optical elements*
half wave rectification *see rectification*
half wave rectifiers *see rectifying circuits*
halide glasses
see also fluoride glasses
AgI-AgCl-$\mathrm{Ag_2O}$-$\mathrm{B_2O_3}$, Ag^{+} ion conducting glass, solid state batt. appls. 5173
$\mathrm{CsGaSCl_2{:}Pr^{3+}}$ glass for 1.3 μm opt. fibre amp. 23118
Hall constant *see Hall effect*
Hall effect
see also Hall mobility; quantum Hall effect
2D of lateral magnetotransistor 9885
coupled quantum wells, reson. transport, scatt. mechanisms probe 6569
diamond:B films, homoepitaxial and polycryst., elec. props. 21890

Hall effect continued
  diamond, highly oriented films on Si, growth, charact. and devices 5820
  FEA of Hall effect and magnetoresist. 13023
  H shaped wire and ring struct., quantum transport 13183
  III-V semimagnetic semiconds., carrier-induced magnetism, magneto-opt. device 30679
  jn. field effect-press. Halltron, sensitivity anal. 25815
  lateral surface superlattices, chaotic transport and fractal spectra 1110
  magnetotransistors, base region Hall field anal. model *(Korean)* 22342
  meas. of metals/alloys, low mag. fields 3960
  MHD free convection flow, Hall current effects 27964
  polymer composite materials, mag. field sensitive 5914
  quantum well struct., doped n-type, carrier and impurity profiles 13170
  rect. Hall devices, pot. distrib. determ. software 30208
  n-AlGaAs, DX levels, carrier conc. saturation effect 29860
  $Al_xGa_{1-x}As$, bulk hole transport, Monte Carlo simul. 21905
  AlGaAs:Si-GaAs SQW, MOCVD, magnetotransport, subband struct. 22003
  $Al_xGa_{1-x}As$:Si, MBE grown, Hall and photolum. meas. 12129
  AlGaAs/GaAs MODFETs, low-noise X-band transistors, MBE growth 22479
  AlInAs:Si, MBE, doping characts., deep levels 1219
  $Bi_2Sr_2Ca_2Cu_3O_x$:Pb/Ag, monofilamentary tapes, Hall sens. magnetometry 39228
  3C-SiC undoped CVD epilayer, carriers orig. *(Japanese)* 1067
  CdTe:Cl, elec./opt. props., detector appl. 43085
  CdTeSe:Cl, elec./opt. props., detector appl. 43085
  $CeFe_4Sb_{12}$, filled skutterudite, low temp. props. 38277
  Co-Pd alloys, high-field forced magnetoresist. 30670
  $Cu_x(Dy_2S_3)_{1-x}$, thermoelec. props., elec. resist. 13093
  $Ga_{0.9}Al_{0.1}Sb$, undoped/Ge doped, epitaxial films, elec. props. 13058
  $Ga_{0.66}Al_{0.34}SbAs$, undoped/Ge doped, epitaxial films, elec. props. 13058
  GaAs, CBE growth on Si(001), TEG and AsH_3 *(Chinese)* 5814
  GaAs, CBE, tris-dimethylaminoarsenic 28738
  GaAs, LPE on 100mm diam. GaAs substrs. 351
  GaAs, MOVPE, trialkyl-group-V-precursors 314
  n-GaAs, carrier conc. and disloc. dens. nondestructive mapping 1044
  GaAs, dimethylaluminum methoxide-doped , shallow donors compensation 6617
  GaAs epilayers, MBE, annealing thermal stabil., As precip. 308
  p-GaAs epilayers, MBE grown, deep acceptor impurities 1037
  GaAs epilayers, metalorganic CVD growth 37411
  GaAs epitaxial layers, charactn., annealing effects 13277
  GaAs quantum wire superlattices, conduct. anisotropy 1103
  n-GaAs surface, N^+-implanted, post-anneal perform., N role 38384
  GaAs, vert. gradient freeze growth, residual impurities/defects, IR absorpt./Hall effect 12031
  GaAs:Be, polycryst., heavily doped, diffusion props. 1043
  GaAs:C, MOCVD, doping and growth rate reduction by CCl_4 403
  GaAs:C films, MBE, C^+ beams, photolum. 28789
  GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
  GaAs:C, polycryst., heavily doped, diffusion props. 1043
  GaAs:Er, ion implant./MBE, Er-related deep centres 38516
  GaAs:Ge, radiation damage, elec. and opt. meas. *(Japanese)* 1048
  GaAs:In layers, LPE grown, charactn. 5826
  GaAs:Si(Be), low-temp. MBE, dopant effects 21917
  GaAs/$Al_xGa_{1-x}As$ quantum wires, Hall effect 22020
  GaAs/AlGaAs MESFET and pseudomorphic HEMT, selective RIE 38917
  GaAs-GaAlAs heterojunction, magneto resist./Hall effect meas. 21945
  $GaAs_xSb_{1-x}$, bulk hole transport, Monte Carlo simul. 21905
  GaInAsP/GaAs, MOCVD, lattice match, photoluminesc. Hall mobility 7610
  $GaInP_2$ homojunctions, ordered-disordered, 2DEG, anisotropic transport props. 21962
  $GaInP_2$ ordered epilayers, elec. cond. 1065
  GaInP/GaAs/GaInP quantum wells, persistent photocond. 13174
  GaN:Si metal-organic VPE, shallow/deep levels charactn. 13052
  GaSb, thick buffer layers on GaAs, opt., elec. charactn. 12108
  GaSb, undoped, Te-doped, elec./photolum. charactn. 12109
  GaSb:Mn, elec. props. 13065
  GaSb:S, Hall/photo-Hall effect meas. 38252
  Ge:Ga, hole lifetime, uniaxial stress depend. 38240
  (Hg,Cd)Te:In, diffusion and elec. activity 6621
  p-HgCdTe, Au ohmic contacts, low specific contact resist. *(English)* 38381
  $Hg_{1-x}Mn_xTe_{1-y}Se_y$, Hall coeff. sign, field inversion 1063
  $In_{1-x}Al_xAs$, bulk hole transport, Monte Carlo simul. 21905
  InAlAs/InGaAs HJFETs, high In comp. channels, low noise/high gain 6797
  InAs, MOVPE, high mobility on GaAs 29853
  InGaAs epilayers, metalorganic CVD growth 37411
  $In_xGa_{1-x}As$ strain-relax. heterostruct., 2DEG, galvanomag. props. 13119
  InGaAs:Dy on InP, LPE growth, photolum., double-cryst. X-ray study 37400
  $In_{0.53}Ga_{0.47}As$:C, metalorganic MBE, doping profiles, carrier dens. 28777
  InGaAs/AlInAs heterostruct., electron transport, transistor perform. 6563
  InGaAs-GaAs heterostruct. and HFET appls. *(Chinese)* 22486
  InGaP homojunctions, LP MOVPE, 2DEG 21957
  $In_{0.5}Ga_{0.5}P$, highly strained, wide-gap material for heterojunction FET 20769
  InGaP/GaAs heterostruct., MOCVD growth, charactn. 20825
  In_2O_3:Sn films, phys. props., doping-induced changes 30034
  p-InP, defect-assisted ohmic contacts 29948
  InP, electronic props., annealing in P atmosphere 13044
  InP, migration enhanced epitaxy, charactn. 12072
  InP:Zn(Mg), MOVPE precursor Et_2InNMe_2, photolum. and Hall study 12117
  InP/GaInAs HEMT, interface props., device characteristics effect 13779
  InSb, metallically doped, extrinsic magnetoresist. 21920
  InSb thin films, vacuum evap., elec. props. 21913
  Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
  NiFe thin films, galvanomagnetic EMF effect *(Japanese)* 30675
  PbSe film, intrinsic at. defect charge state 13088
  $Pb_{1-x-y}Sn_yMn_xTe$, transport and mag. props. 38271
  PbTe, MBE growth 5847
  PbTe/$Pb_{1-x}Eu_xTe$ multi-quantum wells, MBE growth 5847
  Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
  Si disloc.-free crysts., electrophysical/microdefects correl. 21870
  Si:B(001)2×1, gas-source MBE, B-incorporation, elec. props. 38506
  Si:B(Al)(Ga)(As)(Sb) polycryst. films, sublimation method growth and doping 20972
  μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
  SiC cubic films, struct./opt./elec. props. 21938
  β-SiC layers on Si(100), ion implant., cryst./elec. props. 6623

Hall effect continued
  β-SiC on Si, CVD epitaxial growth and elec. charact. 37434
  SiC:Al(B), ion implant., SIMS/RBS/photolumin./Hall/C-V obs. 38484
  β-SiC:N layers grown on Si substr., ion implant. studies 38482
  $Si_{1-x}Ge_x$/Co(Ti), solid state interfacial react. 38371
  SnS_2:In, elec. props./photolumin. study 30054
  $Zn_{1-x}Cd_xSe$ polycryst. thin films, electron beam evap. growth, elec. props. 1030
  ZnCdSe/ZnSSe/ZnMgSSe blue/green diode lasers, elec. props. 23267
  $Zn_{41}Sb_{59}$, amorph. semicond., elec. props. 1056
  n-ZnSe:Cl, doping characts. 21921
  ZnSe:Cu, kinetic coeffs., high-temp. anoms. 1050
  p-ZnSe:N, doping characts. 21921
  ZnSe-based LED, low-press. MOVPE 23043
  ZnSe-based QW LEDs, MBE growth 37444
Hall effect (plasma) *see plasma magnetohydrodynamics*
Hall effect devices
  see also Hall effect transducers
  direct field sens. counters *(German)* 10787
  LV switchgear, fault arcs protection 5138
  magnetotransistors, base region Hall field anal. model *(Korean)* 22342
  rect. Hall devices, pot. distrib. determ. software 30208
  GaAs/AlGaAs multiple bridge devices in quantizing mag. fields, pot. distrib. 38291
  NiFe thin film, act. galvanomagnetic device possibility 39213
Hall effect transducers
  3D kinematic angle meas. syst. for nonjointed rigid axes 43192
  3D posn./direction determ. syst., Hall sens.-based *(Korean)* 34696
  current meas., mag. sens. 34654
  distrib. network three/zero phase current sens., Hall IC-based 35639
  inclination meas. by mag. method 18082
  integrated Hall sens., contactless posn./speed detect. 34468
  magnetoresistors, precision meas. appls. 34459
  magnetotransistor, separated drift field, emitter P^+ ring 38835
  milling, cutting vibr. control, impact damper *(Japanese)* 42952
  power syst., wide bandwidth fast act. power transducer 19371
  sensing gluten development during bread dough mixing 25806
  sync. motors, self-commutated, low-power, control device *(French)* 10989
  zero-flux type current sens., Hall element 9878
  InAlAs/InGaAs QW struct. quantum Hall device *(Japanese)* 25791
Hall generators *see Hall effect devices*
Hall mobility
  diamond (001) B-doped homoepitaxially grown films, Hall mobility, carrier conc. 21883
  multi-layer conducting samples, low-mag.-field-depend. Hall-tech. 1442
  (AlGa)As, low press. metalorganic vap. phase epitaxy, N_2 carrier 311
  $Al_xGa_{1-x}As$, bulk hole transport, Monte Carlo simul. 21905
  AlGaAs:Si, delta-doped, low-press. MOVPE 13304
  (AlGa)As/GaAs:C, MOVPE, N_2 carrier gas 316
  p-$Cd_xHg_{1-x}Te$ epitaxial layers, electron mobility 13070
  GaAs, MBE layers, low temp. grown, elec. props. 13066
  GaAs based cpds., Si diffusion, doping profile control and 2DEG form. 6627
  GaAs:C films, MOCVD grown, heavily doped, elec. props. 38253
  GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
  GaAs:Li, shallow and deep level passiv. by lithium 1052
  GaAs:Si, delta-doped, low-press. MOVPE 13304
  GaAs/$Al_xGa_{1-x}As$, MOVPE, n-doping, 2D electron gas struct. 22152
  GaAs/InGaAs, δ-doped heterostruct., hot carriers, NDR transistor 30374
  GaAs/InGaAs/AlGaAs heterostruct., selective high-temp.-stable O implant. 1218
  $GaAs_xSb_{1-x}$, bulk hole transport, Monte Carlo simul. 21905
  GaSb, electron mobility 13040
  Ge:H, isotopically engineered, neutral-impurity scatt. 21887
  $Hg_{1-x}Cd_xTe$, MOVPE, elec. props. 13053
  $In_{1-x}Al_xAs$, bulk hole transport, Monte Carlo simul. 21905
  $InAs_{0.3}Sb_{0.7}$, MOCVD on GaAs, carrier transport 6529
  InGaAs/AlInAs heterostruct., electron transport, transistor perform. 6563
  InGaAs/GaAs depletion-MIS-like delta-doped HFETs 13810
  $In_{0.3}Ga_{0.7}As/In_{0.29}Al_{0.71}As$ heterostruct., charactn. 6544
  $In_{0.75}Ga_{0.25}As$/InAlAs pseudomorphic modulation-doped heterostruct., high electron mobility 21971
  InGaP, deep center scatt. pot. 6532
  $In_{0.5}Ga_{0.5}P$, LPE growth, oxygen effects 20748
  InN, film, RF sputtered, Hall mobility 6528
  InN thin films, hydride vap. phase epitaxy growth 379
  In_xO_y:Er RF sputtered films, photolum. and elec. props. 13096
  InP, undoped, low temp. ALMBE growth 20746
  InP:Fe, Mg, Mg/P, Mg/Ar implants, elec./opt. charactn. 29856
  InP:Si,H, gas-source MBE, H incorporation 38507
  InP/$In_{0.53}Ga_{0.47}As$ interface, 2DEG, quantum transport effects 21958
  InSb, high quality, MBE growth 12077
  $(InSn)_2O_3$ films, activated electron beam evap., water partial press. depend. 37487
  In_2SnO_3:In^+, native defects donor generation by In implant. 38485
  Si, electrocatalysis, opt./elec. props., solar cell appls. *(German)* 38243
  Si, grain size and deposition rate, VHF glow discharge 423
  Si, polycryst. thin-film solar cells, solid phase crystn. 5214
  n-Si:P amorph. CVD films, crystn., elec. props. 405
  SiC, Hall mobility anisotropy 13085
  $Si_{1-x}Ge_x$ epilayers, compositionally graded, relax., MBE, charactn. 383
  $Si_{1-x}Ge_x$:B(P) polycryst. films, resist. 21932
  ZnO:Al(Ga), doping epitaxial layers, chem. transport growth 38512
  $(ZnS)_3(ZnSe)_{42}$:I, ALE grown, carrier transport props. 38259
  $ZrSe_2$ single crysts., selenium atmos. annealing, elec. props. 38276
Hall-Petch relationship *see yield stress*
halogen lamp annealing *see incoherent light annealing*
halting problem *see computability*
Hamidashi effect *see ferroelectricity*
Hamming codes
  airborne pulse Doppler radar, pulse compression proc. implement. 10368
  associative memory integrated syst. for character recogn. 660
  block runlength-limited error control codes, trellis decoding 2373
  block-coded image recovery from channel errors 41094
  concatenated block coded modulation in Rayleigh fading channel 9171
  digital commun. education course, senior undergraduate project 20282
  fault-tolerant computing, signature anal., inform. theory 38959
  lin. repeatered terrestrial SDH transm. systs., bit-interleaved Hamming code 42440

Hamming codes continued
  neural net hardware realisation 29515
  nonlin. filtered seqs., lin. complexity, FT approach 32178
  SDH fibre-optic transm. systs., forward ECC 42455
  tiling periodicity in 1D, inform. theory 8084
  virtual lives, speciation proc., computer simul. *(Japanese)* 37280
hand hoists *see hoists*
hand tools
  SMT rework, conductive/convective hand tools 38161
handheld computers *see notebook computers*
handicapped aids
  ADAMLAB educational agency designs voice output commun. aid 41582
  assistive technol., single global market 43383
  autistic patients' facilitated voice output commun. 4324
  biofeedback cane syst., instrumentation/subj. appl. results 35180
  blind, handwriting characters/drawing figs., virtual auditory screen 43384
  blind people globe inform. syst., TV camera/speech synthesis *(Japanese)* 26476
  blind pers. audio-tactile graphics equipt. 43380
  blind pers. speech technol. develop. 4317
  blind pers. tactile-audio user interface 43379
  blind/visually impaired computer users, nonspeech sound synthesis 40785
  BLISSVOX, voice output commun. syst. for teaching disabled children 40724
  Braille writing, opt. recogn., std. equipt. 10286
  children, preschool, cerebral palsy, improved reaching, regulated feedback 4322
  computer input by face posn./gesture 35172
  conversation, computer aided for phys. impaired nonspeaking people 40759
  deaf children, computer aided speech training 35182
  deaf children's PC-based speech training environ. 4328
  deaf pers., intonation teaching, intonation meter effectiveness 43371
  deaf pers. tactile display method of speech sigs. 10282
  disabled children's/adolescents' e-mail syst. 8863
  disabled people, commun./IT, Canadian Nat. Strategy 43369
  document inform., projective display by parametric sound beam 43372
  EEG, feature selection, VQ/genetic algms. 43313
  elec. wheelchair motors, fuzzy posn. controllers *(French)* 10283
  electric vehicles for disabled persons, IEE Colloquium, London (1995) 28274
  electronic text inform. accessibility for reading-impaired pers. 35178
  eye-gaze detect. 2 light sources, image differences 10284
  fingertip tactile vocoder for profoundly hearing impaired, sweeping display, speech spectrum *(Japanese)* 43382
  German portable reading device for blind 4318
  gesture recogn., recurrent neural networks vs. competing techs. 35171
  GPS, disabled people 43377
  Greek reading machine for visually impaired 4320
  haptic display for deaf/blind individuals, speech perception 15852
  hard-of-hearing people, multimedia telephone 35179
  hearing impaired, integrated speech training syst. 10285
  human interface technol. for handicapped people 18620
  image input microphone, nonacoustic speech commun. syst. 17604
  intell. robotic systs., disabled pers. aiding 35173
  IR opt. transducer for force meas., appl. *(Croatian)* 25839
  mentally retarded children's speech rehabilitation programme 4323
  Multi-Talk II voice output commun. aid eval. 4314
  Netherlands blind listeners' electronic newspaper eval. 4319
  New Wireless LinguControl 43370
  paraplegics, elec. stimulated quadriceps ident. 18581
  pers. synthetic voice creation 4325
  phonology-phonetic-coupling in constraint-based gestural model *(German)* 40737
  phys. disabled pers. access to computer commun., NewLink project 41735
  radio computer commun. network for disabled people 41768
  reading and listening perform., computer-controlled speech and printed text presentations 67
  rehabilitation R&D progress reports, (1992-1993) 26477
  rehabilitation robotic feeder design 35181
  rehabilitation robotics, design issues review 35158
  rehabilitation robotics, VA/Stanford research/develop. program 35176
  rehabilitation robotics in Europe 35175
  rehabilitation robotics research/develop., assess./eval. role 35177
  robotic/mechatronic systs. appl., education, therapy, training 35174
  self-actuated mobile device for load carrying 35170
  sign lang. images, intell. commun., gesture description and dictionary struct. 4311
  Spanish text-to-speech syst. blind user acceptance tests 4321
  speech handicapped children's prod-oriented teaching/training syst. 4327
  speech impaired pers., public telephone network access, TINATEL syst. 43373
  speech training aid for aphatic children 4326
  speech-only-input user interface for handicapped 43376
  students' speech recogn. syst. 43381
  stuttering, digital speech aid 4309
  support systs. for handicapped people, IT contribs. 18619
  tactile display, 2D, archit. 43375
  tactile inform., laterally moving, display 43374
  text commun. via multimedia services for people, speaking disabilities 41981
  user interface system based on electro-oculography 26445
  videotelephony, mentally retarded pers. social life aid 43378
  voice-controlled telecomm. terminal for phys. handicapped 4313
  walking rehabilitation robot, computer-aided 4310
  wheelchair, motor, sens. aids for partially-sighted 10281
  wheelchair-bound children's robotic training aid 26478
handling, materials *see materials handling*
handsets (telephone) *see telephone sets*
handwriting recognition
  1D seq. decomp. based AR HMM for signature ident./verif. 2839
  client/server environ., security *(French)* 25026
  connected handwritten digit separation, external boundary curvature 2639
  extractors for handwritten numeral recogn. 41314
  facsimile apparatus, OCR fn. *(Japanese)* 24942
  Hangul cursive handwriting, on-line continuous recogn. syst. *(Korean)* 33120
  HoneycombNET-II for hand-written kanji recogn. *(Japanese)* 2618
  ID-based signatures, attacks, Rabin public key cryptosystem 40699
  off line signature verification, fuzzy algm. *(Korean)* 24679
  on-line handwritten Chinese characters, segmentation of knowledge-radicals 24536
handwriting recognition continued
  opt. recogn. of handwritten Chinese characters 41361
  perturbed correl. method, effect on OCR 41362
  real-time signature verification, neural network algms. 16282
  signature image verification, wavelet transform. 8542
  stat. approach, cursive Hangul character recogn. 41310
  stochastic models for handwritten character recogn. 41309
  word segmentation for cursive script recogn. 41316
Hankel matrices
  EM scatt. by dielec. wedge, hypersing. integral num. eval. 23614
  equi-ripple higher-order differentiators, weighted least-sq. design 32634
  fast algms. for exponential data modeling, NMR data appl. 43256
  finite-sized 2D arrays, partial realization algm. *(Japanese)* 16134
  FIR-to-IIR filter order reduction, methods 32793
  Levinson-type algms. for polynomial fitting, Cholesky and Q factors 20582
  optimal two-block and four-block H^∞ norm, Sarason approach 37217
  sig. proc., extrapolation in multiresolutions 32507
  struct. rank deficient matrices, struct. total LS problem 2482
  VLF tones, constrained least sq. estim. 15996
Hankel transforms
  geoelectric sounding, finite elec. dipole 4384
  InP waveguide mode field determ. from intens. profiles 39468
hard disc drives *see hard discs*
hard discs
  64 Mbits/s PRML HDD channel, BiCMOS analog front-end sig. proc. 7143
  air bearing slider in HDD, design and perform. 7159
  batt.-powered portable computers, technol. trends 37810
  CMOS adaptive equalizer/Viterbi seq. detector, Class IV PRML 21156
  computer hard disks, phosphazene lubricated, environ. effects 7155
  custom IC, conf., San Diego, USA (1993) 36842
  (d, k/I) constrained partial response max. likelihood codes, hard disks 22696
  disk drive power consumption reduction by spin-down 11332
  disk drive power mgt. in portable computers, quantitat. anal. 11331
  drive electronics testing, HDA simul. 1578
  drives, mag. head assemblies, vibro-loading 7160
  freq. domain nonlin. meas. 7183
  glass:Fe, mag. hard disks, plasma-immersed O_2^+ implant. 14243
  HDD spindle motor mech. testing, ANN 36210
  head disk interface shock failure mechanism 7158
  isotropic thin film texture for hard disc substrs. 7147
  long. thin film hard disk media, demagnetization, inverse magnetostriction 30718
  mag. HDD, adaptive RAM-DFE read channel 30730
  magnetoresistive head track following method, rigid disk servo 7173
  min. time seek controller, time optimal controller design 39181
  motor-control servo power IC for hard disc drives 36671
  multi-level decision feedback equalization realization of FDTS/DF for hard disks 30729
  multi-track submicron-width perp. mag. recording, integrated single pole head 7098
  off-track perform., soft error rate model 14236
  on-the-fly error correction in hard disk data storage channels 30734
  plastic hard disks, pre-embossed servo pattern, magnetis. 7174
  PRML read channels for mag. disk drives 7071
  RAID controller appls., nonvolatile SRAM appl. 21309
  slider vibrs., ramp-suspen. interact., ramp loading proc. 7163
  slider-disc clearance meas. in magnetic disc drives 22702
  slider-disk flying height meas., monochromatic/phase demodulated laser interferometry 7164
  slider/disk separation, rest 7150
  thin film disks, vap. lubrication 7156
  thin film rigid disks, dot array texture on C overcoats, tribol. 7146
  TV prod., general purpose platforms 17558
  video/image recording technol. *(Japanese)* 34277
  writing speed to hard disk improvement, alternate buffering 3733
  Ba ferrite/C rigid disk, long. recording 7130
  C, DLC protective PECVD film, thin film mag. disk 7152
  CoCrTa/Cr anisotropic medium, track-edge overwrite pattern, MFM obs. 22699
  Si microgimbals for super-compact rigid disk drives 30490
hard magnetic materials *see permanent magnets*
hard metals *see cermets*
hard soldering *see brazing*
hardening
  see also radiation hardening; softening (metallurgical); solid solution hardening; surface hardening; work hardening
  resist pattern collapse, prevention by heating, rinsing 6673
  resist pattern collapse prevention by flood exposure, rinse proc. 13445
  steel, induction heating, load/freq. converter influence 44597
  Pb-acid secondary batts., PbCaSn electrode passiv./corros. 36561
  Sn-Pb solder, J-integral (theoretical) values, fracture props. 37531
hardness
  see also abrasion; hardness testing
  contact recording coatings, nanoindentation, microscratch, friction, wear 39184
  diamond thin films, indentation response 20932
  half-sintered ceramic machining by Q-switched YAG laser *(Japanese)* 20421
  low-temp. cofired ceramic, struct.-property rels. 28871
  nondestructive materials charactn. fund. 12226
  Novolever cantilever for SFM, polymers 17725
  organically modified ceramics hardness and elasticity characts. *(German)* 20993
  AlN, ion plated films, opt. applicability 28850
  a-B:H CVD film characterisation and x-ray imaging appls. 5900
  BiPbSrCaCuO/Ag tape, microstruct./supercond. props., Ag sheath alloying effect 39239
  a-C:H films, plasma CVD, ion impact energy distribs. 402
  CrO_2 video tapes, macro-/micro-tribological studies 20990
  Cu coating, plasma sputtered, characts., Al contacts 29626
  Cu-matrix Mo particle composite low thermal expansion conductor 12198
  GaAs, CZ grown, ion implant., struct./mech. props. 13305
  InP, CZ grown, ion implant., struct./mech. props. 13305
  NbC_xN_{1-x} supercond. thin films, reactive sputter deposition *(Japanese)* 397
  Ni/Cu electroless plating, bump metallization 22280
  Si, porous, anodised, form. under uniform current dens., props. 1024
  SiC LPCVD films for x-ray masks from diethylsilane/di-t-butylsilane 6697

hardness continued
- TiC containing layers, high wear resist. on steel surfaces by laser melting *(German)* 7868
- α-β-YSiAlON:Sm_2O_3, densified ceramics, react. seq. 37535

hardness testing
- conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
- micromachined materials mech. props. 5926
- nano-indenters, high-accuracy, using electrostatic force 12244
- railgun elemental wire conductors, wear behaviour studies 15339
- subsurface struct., SAW determ. 5936
- Cu 9 MJ EM launcher rails, post-test mech. charactn. 15338
- CuCrZr EM railgun worn rails, metall. anal. 15375
- $Ni_{81}Fe_{19}/Co_{67}Cr_{33}$ multilayers, perp. recording media, soft mag. props. 7042
- Si MEMS piezoelec. microactuators, nanoindentation charactn. 13914
- Si substrs., Cyclotene 3022 coating adhesion, silane coupling agents 11818
- SiO_2 opt. fiber, Vicker's indentation modeling 14358
- Y_2O_3-ZrO_2 electrolyte, tape cast, fracture toughness, SOFC 44389

hardware description languages
- 2D systolic arrays for DCT/DST/DHT hardware implement. *(Korean)* 37796
- adder design modelling and comparison using Verilog 29297
- AMICAL interactive high synthesis environ. 21031
- analog HDLs for ASIC design, standardisation 28938
- analog testability anal., fault diagnosis, behavioral modeling 28942
- analogue behavioural modelling and simul., VHDL and Saber-MAST 484
- ANN fast prototyping, goal seeking neuron digital implement. 29465
- ASIC, Conf., Rochester, USA (1993) 36858
- ASIC design, AHPL 12616
- B-algm. behavioral test generation algm. 6100
- behavioural level mixed A/D syst. exploration 768
- BEST integrated syst. for macromodel develop. *(Korean)* 38978
- boundary scan archit., IEEE Standard 42698
- cct. description lang., appl., symbolic network anal. *(Japanese)* 12288
- cct. modelling, VHDL and Statecharts-based approaches 21056
- CMC ATM switch I/O proc., design/validation, HDL Verilog 33719
- combinat. logic, practical method for high-level synthesis from VHDL 28964
- commercial appls., electronic syst. design automation 22524
- Compass integrated framework for ASIC and FPGA design 6113
- concurrent syst. design, MCSE methodology 28958
- controllers, VLSI, fuzzy, automatic synthesis 685
- data path synthesis phases, formal problem descriptions 12389
- design, HDL-based, productivity, expt. comparison 28973
- digital audio-visual sig. proc., Alis logic synthesis 29301
- dynamic loop scheduling algm. for VHDL synthesis 21043
- EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
- event controlled asynchronous μP, design method eval. 29254
- FPGA design, Mentor and Altera CAD software 6105
- FPGA design verification, software tools 12433
- FPGAs, postlayout simul., verilog 6110
- Futurebus+, VHDL spec. modeling 8999
- Futurebus+ cache coherence protocol verification 41811
- hierarchical test generation for VHDL behavioral models 21190
- high dens. FPGAs for synthesis and VHDL based design 29164
- high level synthesis, scheduling algm. based on data modality 28966
- high level testability anal. using VHDL descriptions 21189
- IC layouts comparison with HDL models, formal verif. tech. 37588
- IEEE P1149.5 bus standard VHDL synthesis approach 42701
- mil. systs., redesign, VHDL board-level modeling 18960
- MIMOLA hardware design syst., tools cooperation 21032
- mixed analog-digital simul. 21448
- mixed analogue digital IC simul., modelling techs. 21445
- mixed-level simul. technol. 629
- model implement. for design proc. automation 28944
- perform./area estim. by VHDL descriptions and functional unit database 28965
- prog. image coding syst., arith. codec, LSI-CAD 33700
- prog. logic design portability improvement, develop. tools 6106
- Prolog proc. design via VHDL-based methodology 12289
- protocol handling syst. spec. and perform. 33488
- pulse coded neural net VLSI design automation 29480
- recursive scaled DCT algm., ASIC implement. 16080
- semicond. device simul., phys.-model description lang. 1327
- syntactic, pictorial and relational paradigms for cct. design 21019
- syst. level partitioning, adaptive method 28972
- test synthesis, data transfer anal. based behavioral description 29198
- timing synthesis from VHDL description *(Korean)* 21273
- top down ASIC design, test design compilers 42723
- transformational design, formal semantic model, fit SIL 28961
- transputer global link adapter, VHDL, FPGA, synthesis 6111
- Verilog, standardizing delay calc. 28974
- Verilog design anal., time dimens., visualisation tools 21218
- Verilog-based computer engng. course and lab. 5517
- VHDL based macrocell libr., develop., modelling 21165
- VHDL descriptions of digital systs., mapping, FPGAs 6112
- VHDL seq. statement synthesis, RTL *(Korean)* 12388
- VHDL testbench, board-level test programs develop. 30421
- VHDL-A for modelling 485
- Viterbi decoder implement., prog. act. memories 32088
- VLSI byte-wise CRC generator chip, hardware design 37697
- VLSI design of custom ASIC using VHDL, converting 12-bit binary, BCD 28967
- VLSI design training, Univ. of Twente, student design teams 20290
- VLSI high level synthesis, optimal graph representations, instruction set tables 29109
- wormhole router, VLSI implement., virtual channels 5966
- XILINX FPGAs, SYNT syst., high level synthesis issues 29117
- GaAs digital IC design, compiler methodology 37716

harmonic analysis
- *see also waveform analysis*
- 2-D harmonic retrieval, subspace algm. 40997
- 3-phase transformer no-load characts. anal. 36221
- AC-AC convertors, first harmonic approach, syst. modelling, cond. mode *(French)* 29011
- act. filter, harmonic detect., neural net appl. 29355
- ADC, harmonics error due to nonlinearity 25759
- binary circ. harmonic fn. for rot. invariant digital pattern recogn. 24554
- coronary artery disease, diastolic heart sounds, harmonic decomp. 26288
- cumulant-based MUSIC method with meas. errors, asymptotic anal. 40826
- damped harmonics and polynomial phase sigs. 32463

harmonic analysis continued
- data commun. monitoring, measuring sig. optimisation 42752
- DBF QW lasers, gain compression factor determ. 23189
- distrib. network harmonics anal., single-phase power electronic load generated 27171
- dynamic performance of ultrahigh speed ADCs testing 25761
- elec. machine control, harmonic anal. methods comparison 5320
- EM scatt. by lossy coated periodic gratings under oblique incidence 23542
- error criteria anal. and robust data fusion 40913
- freq. up-shifted gyrodevices, cyclotron harmonics vs. CARM's 6486
- hyperspectral imagery, appl. of Krawtchouk polynomials 15959
- identification of processes with output drift, freq.-domain 25700
- induction motor, VSI, space vector modulation, harmonic anal. 4982
- indust. power systs., harmonics meas. 19370
- lag correction in meas. systs., nonrecursive filtration 17625
- mixed Gaussian/non-Gaussian ARMA noises, harmonic retrieval 8433
- Model 2531 digital power meter 9971
- multifrequency binary measurement using frequency shift keyed symbols 25744
- noise, cumulant-based estimators, perform. anal. 40992
- nonlin. channel, amplit. estim. for pulse sig. transfer 32026
- nonlin. microwave ccts., freq.-domain simul., harmonic bal. method *(Chinese)* 28994
- nonlinear disturbance errors in lin. syst. identification 25701
- perfect reconstruction and wavelet matrix windows 24279
- pole transformers/induction motors, harmonic losses meas. 5029
- power converters, EM quantities, harmonic anal. *(Polish)* 11123
- power system meas., transputers-based data acquisition 35694
- priority queueing syst., RPA and harmonic gradient estimators appl. 11903
- random amplit. modulated harmonic retrieval, higher-order stats. 32460
- saturating/hysteretic inductor nonlin. cct. anal. by harmonic-bal. tech. 37610
- scale and harmonic type sigs. 32523
- series reson. convertor with third-order commutation network 36306
- sig. proc., harmonics detect., eigenvalue varied rate criteria *(Chinese)* 8401
- single sided LIM, urban transit appl., nonlin. optimisation *(Japanese)* 44560
- slip energy recovery induction motor drives, harmonic anal. 11391
- soft-commutated DC/AC converter for solar energy conversion *(French)* 19766
- speech high-quality harmonic coding, low bit rates 32254
- speech sig. representation, harmonic/noise model 15829
- spline-harmonic anal. and wavelets 32502
- steel plant power syst., harmonic meas./anal., PF correction 11502
- three-phase induction machines, two/three-level PWM invertor-fed *(French)* 11032
- three-phase machine ring winding, end turn leakage inductance calc. *(Russian)* 43973
- tone synthesis, generalized overlap-add sinusoidal modeling 16004
- tricoherence stats. 8419
- turbogenerator FEM/state-space modelling, short cct./load case 43984
- UHF multistage FET amp., harmonic terminating design tech. 12796
- Cs at. freq. stds., second harmonic level monitors 42676
- Si, Boltzmann transport eqn., band-struct. effects incorporation 1025

harmonic distortion
- *see also power system harmonics*
- 3-phase 5-level converter, voltage waveform synthesis 19742
- 3-phase DC clamped switch mode rectifier, IGBT 19747
- 3-phase diode rectifier, input current waveform *(Korean)* 36366
- AC distrib. networks, harmonic distortion reduction 35634
- AC drives, current trajectory tracking control, sync. PWM 5311
- AC/DC power converters, harmonic pollution anal. 36377
- acoustic wave/diode convolver, improved surface *(Chinese)* 14084
- act. filter, harmonic detect., neural net appl. 29355
- act. power filters, compensation, 3D space current co-ordinate *(Korean)* 29356
- act. voltage attenuator using two cascaded MOSFETs, perform. 736
- ADC, harmonics error due to nonlinearity 25759
- arc furnace supply plant, flicker/distortion compensation 20129
- AT&T CBIC lin. bipolar proc., radiation effects 30446
- autonomous power syst. higher harmonics reduction methods 43677
- cement plant, roll crusher, variable speed DC drive 5419
- CMOS analogue adder, self-biased config. 21455
- CMOS current S/H ccts., differential clock feedthrough atten. 12666
- CMOS LV SC filters by switched-opamp tech. 29360
- CMOS sq. and four-quadrant multiplier 37900
- CMOS subthreshold four-quadrant multiplier 29410
- CMOS triode-transistor transconductor for HF continuous-time filters 728
- Cockcroft-Walton rectifier cct., ripple, asymmetry 6026
- cycloconverter multiple noninteger harmonics, act. filtering 5125
- DFT windows in distortion computation 24232
- discontinuous current mode series-parallel reson. converter 37623
- distrib. feeders, nonlin. loads, harmonics effects, economics 27167
- distrib. feeders, nonlin. loads, voltage distortion forecast 27166
- distrib. network harmonic filter CAD, genetic algm.-based 4641
- distrib. network harmonic filters, EMTP-based anal. 4642
- distrib. network harmonics anal., single-phase power electronic load generated 27171
- distrib. syst. power quality monitoring 27165
- double-rectifier multilevel-voltage source diode bridge ccts. 19842
- dynamic performance of ultrahigh speed ADCs testing 25761
- elec. utility power supply quality improvement efforts 43709
- elec. utility power supply quality mgt., South Africa 43708
- emergency generators, rectifier supply, harmonic distortion 19536
- four quadrant analog multiplier-type CMOS OTA, design 21123
- generalised load modelling in presence of harmonics and distortion 35607
- half-bridge PWM power converter, small DC link capacitor *(Japanese)* 36348
- high PF convertor, single-switch single-stage 29041
- identification of processes with output drift, freq.-domain 25700
- IEC555, harmonics and legislation 31865
- induction watthour meters, harmonic perform. studies 35705
- indust. power systs., harmonics meas. 19370
- lin. MOS act. attenuator and amp., charactn. 29062
- LV CMOS four-quadrant multiplier 6249
- meas., computer controlled excitation 10011
- microgravimetry, soln.-phase, using oscillating quartz microbalance 42956
- monolithic variable integrator design, appl., filters 12634
- nonlin. distortion of SCM systs., SBS caused 17172
- nonsinusoidal power syst. supply quality improvement 19088

harmonic distortion continued
- Nyquist data converters, verif., behavioral simul. 37816
- office building power quality survey, Hong Kong 4501
- online UPS, PF correction, low harmonic distortion 36332
- parallel proc. UPS, harmonic suppression/VAr compensation 11175
- petroleum indust., substation, 5th/7th harmonic filters appl. 5407
- PM sync. motor ASD, EM params. determ. *(French)* 11334
- power convertor harmonics, current compensation/act. filtering overview 19774
- power supply quality class., neural net/ES-based 4741
- power syst., LF harmonics, probab. anal. techs. 4451
- power syst. harmonic waveform distortion, computer simul. 4481
- power syst. harmonics, defns. and reduction measures *(Russian)* 35548
- power syst. harmonics, expert syst. anal. 43620
- power syst. harmonics estim., superposition method-based *(Chinese)* 43625
- power syst. harmonics meas. syst., PC-based 4750
- power syst. harmonics meas./calc. 35691
- power syst. supply quality distortion, consumer/utility responsibility *(Russian)* 10621
- power syst. supply quality improvement, meas. problems 19357
- power syst. VAr compensation, power theories anal. 19086
- power syst. voltage distortion compensation, meas. aspects 4551
- power syst. voltage measuring syst., fast sampled data, DSP 10790
- power systs. disturbances ident., digital method 19361
- power transformer time-domain K-factor computation methods 36222
- power transm. line dist. relaying algm., diff. eqn.-based *(Korean)* 27244
- PRML channel, nonlin. mag. recording read-back distortion effect *(Japanese)* 22704
- PWM current-source rectifier, input harmonic filter design 19851
- PWM inverters, harmonic distortion determining factor 19855
- quantisation noise in oversampled ADC 25754
- radial distrib. syst., fixed/SC, optimal choice 19240
- random AM harmonics estim., higher order spectra 8406
- reactive power compensators for distrib. systs., harmonic distortion 19256
- rectifier input current harmonic distortion, stds. 44149
- rolling mill elec. drive harmonics, computerised meas. syst. 36801
- SC filters with weakly nonlin. capacitors, harmonic distort. 729
- semicond. laser second-order/third-order nonlin. harmonic/IMD *(Korean)* 14901
- ships, cycloconverter drives 36755
- shunt act. filter control, compensation strategies 10631
- single-phase 12-step VSI, output voltage harmonics reduction *(Korean)* 36238
- single-phase AC/DC low-harmonic power convertor 44168
- single-phase act. power line conditioners 10673
- single-phase SMPSs, PF correction, overview 6018
- single/three phase invertors, sinusoidal PWM methods 27822
- spectral props. of direct digital freq. synthesizers, simul. 37658
- spectrum analyser for distortion meas. 42919
- steel plant power syst., harmonic meas./anal., PF correction 11502
- SVC, PWM invertor-based, HF/multiple connection studies 19123
- sync. machines, power converter-fed, harmonic conditions anal. 27698
- THD meas., Volterra series, LMS adaptive algm. 34684
- three-phase double diode PWM rectifier syst. *(Japanese)* 36347
- three-phase GTO rectifier, harmonic distortion reduction *(Polish)* 27789
- three-phase IGBT rectifier, low harmonic pollution 19846
- three-phase isolated PWM ZVS buck rectifier 36243
- three-phase multifn. batt. energy storage syst. 43967
- three-phase power systs., harmonic distortion source localisation 19003
- three-phase power systs., sinusoidal currents decomp. 4465
- three-phase PWM inverter UPS, robust μP control 36248
- three-phase single-switch PWM rectifier develop. 5127
- three-phase SVC, voltage controlled CSI-based 10654
- three-phase voltage-source utility interface power convertor 19737
- thyristor controlled ractor compensator 19873
- unity PF ccts., boost/Cuk topologies comparison 5069
- UPS CSI, DSP-based output voltage control 44172
- variable speed elec. heat pumps, harmonic eval. tests 5394
- vert. magnetoresistive/inductive head, perform. characts. 7080
- virtual instrum. for determ. of elec. power quality 4739
- wideband fiber optic systs. by carrier subtraction 25516
- wind induction generators, harmonics prediction/ident. 43960
- wind power converter/inverter syst., 600 A/1200 V intell. IGBT module 19567
- GaAs rectifier PF correction cct. tests 36324
- NiFe-SiO$_2$ multilayer mag. sens., high freq. magneto-impedance effect 17709

harmonic generation
- *see also optical harmonic generation*
- AC complex mag. suscept. meas., RF range 18046
- bi-valued fn. with modulated transits., FT freq. synthesis 8258
- cyclotron autoresonance klystron operating, Doppler-shifted harmonics 29790
- fourth harmonic oscillator, design and construction 21829
- high power microwave pulse propag. in self-generated plasma, freq. up-conversion 23654
- high-harmonic gyrofrequency multiplier, theory and design 6499
- inverted cusptron devices, particle simulation code 21830
- microwave and MM wave FEL with axisymmetric undulator, higher harmonic generation 39638
- MOSFET, VLF charact., high-order derivatives 22426
- peniotron slotted third-harmonic forward-wave oscillator 29808
- peniotron/gyrotron interacts. in rising-sun slotted waveguide 6498
- public power supply network impedance and harmonics calc. *(German)* 35609
- quantum-well diodes, harmonic and intermodul. generation 29570
- squirrel cage induction motor, solid state starter, low harmonic generation 36146
- third harmonic generation, shaped superconds. 22771
- three-phase power syst. reliab. rel., voltage unbalance 19232
- Cs at. freq. stds., second harmonic level monitors 42676
- YBa$_2$Cu$_3$O$_7$ HTSC tubes, mag. shielding and harmonic generation 7256
- polysilanes, opt. nonlin., essential states mechanism 23409

harmonic oscillators
- Colpitts oscillator, resistive nonlin. charact., phase/oscill. freq. *(Slovenian)* 12366
- mm-wave Gunn oscillators, harmonic injection locking 12759
- piezoelec. lens elements, freq. dists., anharmonic oscills. 1564
- CO gas-dyn. laser, generalized model 39667

harmonic oscillators (circuits)
- injection-locked oscillating freq.-converters in dyn. phasor-domain, perturb. 6261
- ladder network resonators 6202
- MM wave harmonic oscillator anal. based on Volterra series method *(Chinese)* 29563

harmonics
- *see also harmonic analysis; power system harmonics*
- 2×3-phase sync. machine, extended Park's transform. 44020
- 3 phase multi-step CSI syst., harmonics reduction *(Korean)* 36365
- 3-phase AC-AC matrix converters, unbalanced supply 36350
- 3-phase asymm. induction motors, anal. 36154
- 3-phase PWM AC/DC converter, voltage unbalance, harmonics *(English)* 27811
- 3-phase ring winding leakage reactance, circ. coil 43991
- 3-phase sync. generators, self-excitation *(Japanese)* 11008
- 6-phase induction motor, split coil, EM proc. simul. 11021
- 6000 hp compressor induction motor drives, harmonic torque 5255
- AC machine perform. under faulted operation 19618
- AC motor external mag. field prediction 27673
- adaptive LMS filter algm., nonlin. behaviour 24345
- aircraft AC generators, forced power transfer, dyn. modelling 26657
- ASD, harmonics mitigation, IEEE 519-1992 stds. 5307
- asynchronized sync. machines, self-contained power systs. 44028
- Boltzmann transport eqn., soln. in two real-space dimens. 22339
- boundary element approxs., elec./mag. fields, iter. soln. 2177
- brushless DC motors, modelling, 120° commutation seq. *(French)* 11065
- cable harnesses, capacitance calcs., method of moments 33741
- cascade compulsator, YAG laser power supply 31456
- cct. simulators, Fourier anal. approach 21076
- comparative analysis of digital sinewave generation methods 25904
- current-invertor-fed polyphase induction motor harmonics *(German)* 11026
- cycloconverter, math. model *(Chinese)* 36338
- dimmers, EMI and effects on lamp life and power quality 11445
- double loop $\Sigma\Delta$ modulator, unstable filter dyn. 24013
- elec. machine EM speed reduction, phys. proc. modelling *(Russian)* 36106
- elec. motor EM speed reduction, math. anal. method 43990
- EM scatt. anal., discrete sources method 15413
- EM scatt. by complex bodies, FEA mesh truncation boundary condition 23553
- generator-transformer unit, ground-fault protection, 3rd harmonic voltage 19584
- HF transformers, centre-tapped, loss eval., unbalanced loads 29618
- high-harmonic gyrofreq. multiplier, 150 kW, 17.4 GHz 29783
- higher-order stats., 2-D single record harmonic retrieval 8313
- hybrid stepping motor, torque harmonics correction *(Japanese)* 27763
- IEC proposal of harmonic currents measuring syst. 25938
- induction machines, effect of skewing on cogging torque 19641
- induction motor ASD, freq. converter driven, acoustic noise 5251
- induction motor drives, speed sensorless field-oriented control 5298
- induction motor drives, stator voltage 3rd harmonic direct field oriented control 5299
- induction motor quasi-freq. control design 27721
- induction motor rotor speed meas., slot harmonics-based 4941
- induction motors, dyn. perform., space harmonic fields, cpd. transform. *(Chinese)* 11015
- induction motors, freq.-depend. model 11048
- induction motors, inverter-fed, computer-based torque simul. 27713
- induction motors, on-line fault detect., stator current monitoring 4967
- induction motors, param. estim., output-error ident. method 11023
- integrated test system, small/large signal device characterisation 25957
- interior PM sync. machines, tangential vibrs. rejection 4918
- inverters, on-line harmonic elimination 5081
- LIM, charact. anal., 1 A conductor *(Korean)* 36196
- lin. pulse motor mag. reluctance distrib., structural depend. anal. *(Japanese)* 44072
- Maglev, instantaneous current detect., PWM converter *(Japanese)* 44563
- Maglev power feed ccts., impedance freq. characts. 11406
- magnetostrictive shaker, broadband perform. 30754
- mass meas. under weightless conditions 10040
- MESFET MMIC microwave oscillators, CAD 6329
- MM-wave act. integrated antennas, harmonics *(Japanese)* 8060
- multichannel sampling theorem, finite version, extension 8438
- musical sigs., loose-harmonic matching fund. freq. estim. 34300
- nonlin. resist. ccts., polyharmonical influence anal. *(Russian)* 37618
- nonperiodic O-type TWT, second-harmonic excitation 996
- phase-locked gyrotrons operating at cyclotron harmonics, theory 6488
- PLL, bifurcation, Galerkin-based anal. 21158
- PM sync. motor, back EMF estim., torque harmonics minimisation 4916
- PM vernier motor, optimum design *(Japanese)* 27685
- portable integrated power quality measurement system 27282
- PWM controlled AC/DC power converter, improved PF 5059
- PWM harmonics optimal control, pulse width reduction 5996
- PWM inverters, optimal PWM control, harmonic levels prediction 5057
- Quasisynchronous sampling algorithm, average values meas. 24230
- R-LED series network, harmonic and intermodulation perform. 31096
- radio waves, nonlin. scatt. by metallic objs. 15429
- radio waves, nonlin. scatt. by metallic objs. 40356
- random AM harmonics estim., higher order spectra 8406
- relativistic klystron amps., intense space-charge beam phys. 992
- reson. DC link inverters, sine PWM control 5999
- rot.-field machine control value fn. computation for single-sided grooving *(German)* 10938
- self coupled harmonics, stationary/cyclostationary approaches 40937
- shaded-pole motor model and equiv. cct. *(German)* 11025
- single phase AC choppers, asymm. PWM control 36246
- single phase squirrel cage motor, variable speed optimal control *(French)* 11040
- single-phase SMPSs, PF correction, overview 6018
- single-phase switch-mode rectifier, voltage-reversal cct. 29020
- slotted third-harmonic gyro-TWT amp., 95 GHz, tests 29811
- speech coding, adaptive postfiltering for quality enhancement 8224
- speech sigs., fund. freq. detector based on short-time FT 8190
- spherical dielec. particles, dielectrophoretic interact. 7905
- squirrel cage motor, sensorless speed detect., supply current , FFT 36167
- squirrel cage motor, sync. parasitic torque calc. *(Polish)* 44060
- squirrel cage motor rotor time const. ident. studies 4953
- squirrel cage motors, rotor, transverse bar-to-bar currents *(Polish)* 27702
- substation, filter coil overheat fault diagnosis, 7th harmonic *(Chinese)* 44243

harmonics continued
- SVC, nonsinusoidal periodic real voltage source, optim. 35499
- sync. generator rotor angle calcs., zero seq. harmonic components-based 4912
- sync. machine harmonic phasor rels. modelling *(Chinese)* 44025
- sync. motors, CSI-fed, rotor losses estim. 44013
- three-phase bridge rectifiers, harmonic filter studies *(Polish)* 5995
- three-phase induction motors, math. modelling eqns. *(Polish)* 27703
- three-phase inverter-fed squirrel cage motors, audible noise study 36163
- travelling wave particle transport modes, appls. 40218
- two-cavity second harmonic gyroklystron, stabil. and amplif. studies 6489
- two-speed elevator async. motor, 3-phase stator 36708
- UHV electron microscope, Cockcroft-Walton generator, ripple compensation 1012
- ultra wideband radar, waveform generation and sig. proc. 17364
- variable freq. induction motor drive, pulsating torque compensation 5290
- voiced speech/perceptual cost fns., mixed-phase AR models 32260
- written pole motor/generator, flywheel storage , telecom. sites 44203
- Er,Yb:glass laser, harmonic modelocking 23177
- GaAs Gunn devices at 94 GHz, fund. and harmonic power generation 37998
- GaAs MESFET-based power module, optimum LV/high-efficiency design 11749
- Nb_3Sn dipole magnet for future particle accelerators 4114

Hartley transforms
- 2D generalised Hartley transforms, fast computation 32631
- 2D systolic arrays for DCT/DST/DHT hardware implement. *(Korean)* 37796
- astron. speckle interferometry, phase problem soln. *(Russian)* 16251
- DHTs, generalised running and real-time analysers 29394
- fast algms. for DCTs and discrete sine transforms 8371
- fast Hartley transform algm., perform. anal. 5800
- fast Hartley transform algm., radix-3/9 20642
- Hartley intens. spectrum reconstruction from sinusoidal crossings 24424
- power quality, real-valued fast convolution algm. perform. 35606
- real-valued seqs., FFT vs. fast Hartley transform algms. 2495
- seismic event detect. 43492
- transform-domain adaptive filters, anal. method 32551
- VLSI array design for DHT, cyclic convolution 29191

hashing functions *see cryptography; file organisation*

Hasiguti relaxation *see anelastic relaxation*

hazards and race conditions
- asynchronous ccts., hazard-free, synthesis tech. 12403
- client/server models, commun., spec./validation 2932
- digital seq. cct. retiming algm. 473
- large-scale asynchronous finite state machines, synthesis procedure 6131

HBT *see heterojunction bipolar transistors*

HCI *see user interfaces*

HCMOS *see CMOS integrated circuits*

HD-MAC *see high definition television; television standards*

HDPE insulation *see polyethylene insulation*

HDSL *see subscriber loops*

HDTV *see high definition television*

HDTV codecs *see high definition television; video codecs*

headphones
- *see also earphones*
- commun. headsets, act. noise reduction 3690
- single-stimulus voice coder perform., listener opinion scores 42074

health care
- *see also patient care*
- ACOSTA accompanying measure A2106, health care 3052
- commun., future needs and present solns. 41875
- education/training design for std. healthcare education group 43180
- GATES, global access tele-health and education syst. 33955
- handicapped people, support systs., IT contribs. 18619
- JPEG-encoded med. video, transm. and storage 18447
- med. radiation exposures, UNSCEAR data collections, trends/consequences 18642
- MIDAS, med. library's database access syst. 41803
- patient dose, rational reduction, WHO activities 18637
- patient-based integrated care syst., networked, as basis for achieving quality 35208
- phys. scientists in health care, training scheme 43179
- Quality of Care Development policy, implications for case-based telematic systs. in Europe 35207
- secure multimedia appls. and teleservices 16855
- SHINE, strategic health informatics networks for Europe 3187
- stress mgt. program, computerized, telephone-based 43326
- Swedish authorities' accident prevention approaches 11685
- telematic syst. for health care quality 33554
- telematic systs., case-based, equity in health care 35206
- Videotex for public health in Belgium 33424
- VISTAnet/MICA, med. appls. leading, NCIH 10301
- wireless LANs appls. 41754
- X ray diagnosis and nuc. med. trends 18477

health effects of radiation *see biological effects of radiation*

health hazards
- *see also biological effects of radiation; natural radioactivity hazards*
- 2.45 GHz microwave irrad. to monkey's eyes, expt. 26494
- 500 kV power line-induced overhead telecom. line voltages study *(Chinese)* 35654
- AM high power broadcast stations, EM environ. 25642
- amat. radio, hand-held transceivers, elec. field distrib. 25288
- amat. radio service and EM-radiation hazard 25215
- biological EM field/health effects review 4332
- cardiac angiography, patient exposures, data anal. 18520
- cellular phone EM fields, induced current/SAR, human head 18622
- cellular transceiver microwave emission effect on human head 35191
- Chernobyl accident, 30-km zone, emergency countermeasures effectiveness 4339
- chest radiography, children, dose distrib. 18673
- computed tomographic exams., children, organ doses 18659
- computed tomography, Dutch hospitals, patient dose, image quality 18645
- computer equipt., wave fields modeling 2164
- computer operators, hazards from monitors 26484
- cordless telephone operators, head induced EM fields 35192
- coronary angiography, radiologists/patients radiation risk 18674
- dental radiological equipt., radiation protection problems 18512

health hazards continued
- diagnostic radiology, QA, IEC projects/achievements 18479
- digital fluoroscopy systs., patients, radiation exposure 18521
- domestic power freq. EM field meas., South Africa 35707
- elec. shock safety, develop. 18624
- elec./thermal injuries, eval./treatment advances 93
- ELF fields, cellular studies and interact. mechanisms 35187
- ELF mag. field effects 26486
- ELF mag. fields exposure meas. and risks 35185
- ELF-microwave radiation dosimetry num. methods 35186
- EM field limits rel., antiemission legislation *(German)* 26488
- EM radiation in environ. from mobile commun. systs. *(Slovenian)* 43407
- embryo, fetus or nursing child, protection from radiation exposure 26509
- EMC, TDR 23727
- EMF health risks for elec. utility workers 43386
- European LWRs, occupational radiation exposure 1981-1991 35745
- eye, pot. hazards from extended light sources 35193
- film-screen mammography, patient doses, radiation risks, Finland 18518
- gastrointestinal tract, radiological exams., skin absorbed dose 18675
- hand-held telephones with low absorpt., integrated antennas 15640
- hazardous location class., North America/IEC stds. 4554
- human ankles, induced currents, VHF EM fields 35183
- human head, MRI, imperilled areas anal. 18474
- human model, AC field exposure, induced current densities 26485
- ICRP recommendations, radiological protection, med. 18641
- III-V wafer fab. procs., hazardous waste minimization 5716
- intensive care unit, radiological activity, patient/worker exposure 18665
- interventional radiology, occupational exposure, pers. dosimetry guidance 10297
- intestinal biopsy, children, coeliac disease, radiation dose/risk 18672
- IRPA regional congress, Portsmouth, UK (1994) 11566
- laser safety, indust. laser use, overview 28390
- laser safety, ocular hazards, stds. 28392
- laser safety, quantitat. risk assess. 28391
- legionella Code of Practice compliance, engng. aspects 5568
- LF EM fields, health problems overview 10287
- LF EM fields, possible biological effects 26479
- low-press. UV source modelling, sterilisation appls. 20504
- lumbar spine exam., lateral lumbosacral projection, patient doses 18666
- mammographic cancer screening, risk-benefit anal., computer model 18495
- mammography, air kerma/glandular tissue dose conversion factors 18660
- mammography, breast doses reduction, recommended actions, Madrid 18667
- mammography, dose meas. protocols comparison 18661
- mammography, mean glandular dose estim. 18662
- mammography, QC, exposure params. automatic acquisition 18649
- mammography, QC project, Greece 18510
- mammography screening programme, pop. radiation dose, New Zealand 18671
- med. radiation exposures, UNSCEAR data collections, trends/consequences 18642
- med. X-ray diagnostic units, QA programme, Belgium 18506
- mfg. indust. health and safety mgt. overview 37003
- mobile X-ray equipt., QA programme 26285
- monitored atmos. releases, radiological assess. codes benchmarking 4344
- natural and radioactivity *(German)* 10294
- nurses, power freq. mag. field exposures 18621
- occupational exposure to opt. radiation, elec. and mag. fields 26489
- oil refinery hydrocarbon storage risk assess. methodology 20172
- overhead power transm. lines, EM anal. 27233
- pacemaker patients, risk, high power transmitters 4302
- patient dose, bone mass/dens., radiation measuring instrums. 35199
- patient dose, rational reduction, WHO activities 18637
- pop. radiation absorbed dose, diagnostic nuc. med., Iran 43399
- power freq. EM fields, pers. exposure regulations, Italy *(Italian)* 4336
- power lines EM field health risks, elec. utility strategies 4507
- power syst. LF EM fields, living organism health effects 4329
- primary dental care, radiology stds. guidelines 10219
- radiation risk and protection, regulator's view 26505
- radiation source near-field, human model exposure, SAR distrib. 26493
- radiographic image quality, scientific work-up, radiologist's approach 18476
- RF radiation hazards in indust./airfield environ. 2271
- SAR mapping within human eye, portable transceivers effect 18625
- shipboard toxic gas anal. by photoacoustic detectors *(Croatian)* 3902
- shortwave transmitter environ., RF exposure 4333
- solar cells, plasma etching, health/safety concerns 44406
- telecom. DC power supply equipt, product safety engng. 41625
- VDU bibliography and information pack 3943
- VDU characts. that, cause visual difficulties 43390
- VDUs, rel., health effects 4331
- VDUs EM environ. meas. 26480
- wireless telephones induced EM fields effects 17035
- X ray units database, Lower Saxony, radiation protection, QC 18500
- X-ray computed tomography, med. exposure source 18664
- X-ray exams., Estonia hospitals, QC, patient dose 18503
- CO_2 indust. lasers, hazards, accident risks 28393
- Pb-acid batt. glass fibre separators, tech. compatibility/safety 36550
- SF_6 power distrib. equipt. enclosures, ventilation requirement calcs. 35628

health physics *see dosimetry; health hazards; radiation monitoring; radiation protection*

hearing
- *see also auditory evoked potentials; bioacoustics; ear; hearing aids; speech*
- audio display and virtual auditory environ. 34284
- audio sigs., perceptual meas. schemes, filter banks constraints 40891
- auditory evoked pot. class., ART 2-A/fuzzy ARTMAP comparison 43316
- auditory model inversion for sound separation 32383
- auditory scenes, computational anal. 2406
- blind, handwriting characters/drawing figs., virtual auditory screen 43384
- brain, waking/sleep, auditory evoked mag. fields 18450
- CELP speech coders, perceptual enhancement 33693
- cognitive psychology, med. equipt. alarm sounds design 4254
- conference on acoustics, Toulouse, France (May 1994) 5443
- dual-channel iter. speech enhancement, auditory-based spectrum 8220
- earcons in auditory human computer interfaces 42652
- elderly people real time speech rate converting syst. 35162
- hard of hearing youth, technol. perspective 4300
- head-related transfer fns., multidimensional scaling anal. 15992
- hearing, hierarchic models, sound separation/reconstruction 16002
- Hindi vowels in consonantal context, acoustic/perceptual study 15851

hearing continued
  interactive virtual auditory environ., real-time generation 15994
  loudspeaker placement effect on listener preference ratings 3691
  Morse code decoding, electronic vs. human perform. 41730
  MPEG-1 audio std., guide 15963
  multiple auditory template matching, expansion 8381
  neural network based measures for hearing loss compensation 18612
  neural network based perceptual audio coder 8148
  otoacoustic emissions, cumulant-based cubic difference tone detectors 32453
  perceptually-based objective quality, phoneme-level segmentation 8243
  psycho-acoustic masking phenom., digital sound storage/transm. 9772
  pulse ident., auditory neuron simul. network 26747
  reading and listening perform., computer-controlled speech and printed text presentations 67
  real time voice speed converting syst., small impairments *(Japanese)* 4304
  reproduced sound, timbre perception, small room, loudspeaker posn. effect 25690
  spatial synthesis, head-related transfer fns. interpolation 15993
  speech lin. predictive coeffs., variable dimens. VQ 32331
  speech training syst., integrated for hearing impaired people 10285
  speech/audio proc., warped lin. prediction 32446
  telegraphy signs recogn., dichotic presentation, Morse code 41729
  time-freq. layered neural network model 15997
  TV watching/listening studies *(Japanese)* 34251
  two-microphone adaptive beamforming speech proc. for cochlear implant patients 43366
hearing aids
  BiCMOS controllable current amp. for hearing instrums. 35169
  bipolar AGC IC for hearing instrums. 35168
  bone-cond. hearing aid perform., objective meas. 43356
  broadband distortion meas., max. length seq. coherence 43364
  CMOS wireless vol. control receiver for hearing aids 18606
  cochlea, driving currents for focused stimulation, implants appl. 35165
  cochlear implant, multichannel high-rate pulsatile stimulation 35160
  cochlear implant, technol. for profoundly deaf 43363
  cochlear-implant research, DSP appls. 4305
  commun. course for new hearing aid users, eval. 43358
  concha, digital hearing aid 18610
  deaf/hearing-impaired people, assistive device technols./engng. 4298
  elderly people real time speech rate converting syst. 35162
  fitting, input/output formula, theoretical approach 35163
  hand-held GSM digital mobile telephones, near E-field magnitude 42284
  hard of hearing youth, technol. perspective 4300
  hearing aid microphone array data, robust adaptive proc. 18608
  IEEE audio/acoustics sig. proc. workshop, New Paltz, USA (1993) 5445
  neural network based measures for hearing loss compensation 18612
  profoundly deaf people hearing aids based on parametric concept 18611
  real time speech rate conversion syst. for elderly listeners 43368
  real time voice speed converting syst., small impairments *(Japanese)* 4304
  rehabilitation R&D progress reports, (1992-1993) 26477
  robust real-time constrained hearing aid arrays 18609
  spectral substraction/HMM-based speech enhancement, hearing aid design 32213
  superdirective microphone arrays for hearing aids 18607
  T-coil appls., EM interf. 4299
  two-microphone adaptive beamforming speech proc. for cochlear implant patients 43366
  Zn-air batts., hearing aid power supplies *(Japanese)* 5176
heart *see cardiology*
heart valves *see cardiology; prosthetics*
heat capacity *see specific heat*
heat conduction
  see also thermal conductivity; thermal resistance
  batt. module heat generation, temp. rise modelling 44263
  cond. rework tool design paradigm, PCB/SMT manufacture 38146
  discrete surface source with substr. heat sink, conjug. heat transfer 37123
  electronics cooling field, heat transfer decoupling 11761
  EM launcher, exploding wires, elec./radiative props. 31777
  GaAs submicron MESFET devices, heat generation and transport 38921
  MCM, heat cond. anal., global-local procedure 37121
  nin diodes, hydrodynamic simul., vel. overshoot 22329
  RF window, thermal stress fracture 29791
  rotating spacecraft, solar radiation, thermal anal. 18692
  RTP furnace, 3D temp. uniformity model 22231
  RTP modeling and simul. incl. thermal stress anal. 22551
  semicond. RTP temp. distrib. modelling 22554
  spindle motor heat generation, thermal anal. studies *(Japanese)* 10924
  thin rect. plates, eddy current loss calc., cryogenic temps. 7908
  TL dosimeters, planchet heating, params. effects on glow curves 18634
  vibrs. of piezoelec. body, thermal dissipation effect 30609
  X-ray mask, heating, SR exposure, He press. effects 22315
  Er-Ba-Cu-O, high-T_c, thin film/substr. thermal boundary resist. 14275
  Ni-H_2 common press. vessel cell, charging schemes 27919
  Si wafer temp. var. during RTA, 3D asymmetrical model 22103
heat convection *see convection*
heat dissipation *see cooling*
heat engines
  see also Stirling engines
  Brayton cycle appl. to space power 26655
  Brayton cycle dyn. solar space power syst. 43449
  Brayton engine, solar receiver, turbo-charger 28035
  combined cycle power plant Kalina heat engine appls., thermal anal. 27598
  ejector expansion heat engine, refrigeration appl. design 28184
  endoreversible Carnot combined power plant, max. power 36029
  endoreversible Carnot refrigerator, specific cooling load 28182
  energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
  First Mars Outpost power systs. 26516
  miniature CHP syst., solar heat engine-based 27627
  power generation, aerospace technol.-based 26520
  Solar Dyn. Ground Test Demons., heat receiver fabr./testing 26616
  solar dyn. space power systs., orbit perform. effects 35243
  solar dyn. test demonstrator space power syst., heat receiver 26656
  space solar dyn. power systs., thermal storage studies 26557
  space solar power syst. studies, USSR 35241
  space stations, solar dyn. demons. 35250
  steam/organic Rankine SMR cycle elec. generation 35980
  submarine air independent propulsion, MESMA heat engine-based 20105
  thermoelec. generator perform., irreversible heat engine model 27971
heat exchange *see heat transfer*
heat exchangers
  see also cooling towers
  0.5 kW domestic CHP Stirling engine, thermodyn./detail design 27531
  7.5 kW solar dish/gas-fired heat pipe receiver Stirling engine syst. 28045
  10.6 kW air-source heat pump, defrost cycle perform. tests 20146
  20 kW Vuilleumier heat pump, test programme results 28175
  ASPEN PLUS shell, combined cycle power plant simul. package 27582
  basic chem. recuperated gas turbine, methane-steam reformer 36007
  dual gas turbine combined cycles, thermodynamics modelling 19525
  dyn. modelling, integral-power Volterra series 19375
  EHD heat transfer/fluid flow enhancement mechanism 44425
  endoreversible Carnot refrigerator, specific cooling load 28182
  geothermal convector design 4855
  geothermal heat pumps, R&D studies, USA 27608
  hermetically sealed Stirling engine batt. charger 27973
  high T_c DC SQUID magnetometers, closed-cycle gas flow cooling syst. 34435
  liq. cooling module, heat transfer design 37124
  MAC-02 Stirling engine, indicated power, heat input trade-off 28041
  natural gas fired combined cycle, perform. anal. 27599
  power plants, irreversible heat transfer, exchange equipt. allocation 19555
  pressurised CFBC combined cycle power plant simul. 27587
  residential size Peltier effect refrigerator 20042
  SOFC cogen. plants, gas proc. study 43963
  Sofradir flat struct. longwave IRFPA, Joule-Thomson cooler 11777
  Space Station Freedom Maint. Workstation, thermal control syst. 18691
  space vehicle radioisotope thermophotovoltaic syst. 26637
  Sulzer HEXIS SOFC stack/syst. develop. status 44332
  telephone exchange, equipt. enclosures, thermal control 16969
  telephone exchange air conditioning units, air flow studies 20141
  thermionic converter, recuperative burner develop. 20041
  TIPACS temp.-initiated pass. cooling syst., perform., appls. 28181
  two-stage endoreversible combined cycle, max. specific power output 36028
  C-C heat pipe testing/eval., space vehicle appl. 35254
heat flow *see heat transfer*
heat insulation *see thermal insulation*
heat losses
  see also thermal insulation
  2-stage Stirling cycle cryogenic cooler, IR detector cooling 28037
  20 MW gas turbine CHP plant, thermoeconomic anal. 27571
  alkali metal thermoelec. convertors, high efficiency, remote condensing 20033
  alkali metal thermoelec. convertors, Na recirculation wick design 20030
  closed cycle plasma MHD generator ducts, friction/heat loss 27970
  closed cycle plasma MHD generator ducts design 20018
  combat vehicle EM weapon syst. integrat. design 18961
  resistive zone propag. in supercond. magnet winding 39295
  SOFC, high temp., exergy anal. 44344
  space vehicle, solar-dyn. receivers, atten. thermal storage 35242
  spark ignition engines, flame initiation/stretch, heat transfer 19532
  TOPAZ-2 thermionic fuel element anal., HXTOPAZ computer code 26624
  NO_x prod., chem. kinetics, stirred reactor 35972
  Si wafer temp. var. during RTA, 3D asymmetrical model 22103
heat measurement
  see also calorimetry
  non-rigid materials, thermal conductivity meas., heat probe 3815
heat meters *see heat measurement*
heat of adsorption
  microcantilever reson., adsorpt.-induced surface stress, sens. appl. 39034
heat of combustion
  thermophotovoltaic emitter develop., refractory oxide ceramics 27997
heat of crystallisation
  a-Si/Ag layered systs., metal-mediated crystn., TEM obs. 38403
heat of formation
  Si/Co syst., RTA, CoSi and $CoSi_2$ form., activation energy 22028
heat of fusion
  XLPE thermally aged cable models, relax. processes 14066
  a-Si thin films, glass substrs., excimer crystallisation simul. 13075
heat of melting *see heat of fusion*
heat of vaporisation
  endotracheal tube laser surgery, heat resist. safety *(German)* 26455
heat of wetting *see wetting*
heat pipes
  5-40 kW S-PRIME space nuclear thermionic power system 18734
  7.5 kW solar dish/gas-fired heat pipe receiver Stirling engine syst. 28045
  ATM switching MCMs, heat-pipe cooling technol. 25183
  closed spaced thermionic converter, isothermic electrodes 27989
  domestic heating syst. thermionic converter design 28176
  double-loop separate-type heat pipe, heat transfer perform. meas. 18132
  flat plate heat pipe effective length calcs. 28479
  heat sink thermal resist., fn. of heat pipe length 37145
  high-power devices, flexible-heat-pipe cooling 11781
  hybrid space nuclear power/propulsion syst., hot hydrogen test facility 18755
  line focus solar Stirling power generation syst. 27625
  lunar remote/mobile free piston Stirling engine power syst. 26518
  miniature CHP syst., solar heat engine-based 27627
  Small External Fueled Heat Pipe Thermionic Reactor fuel element 18756
  space hybrid power/propulsion system, particle bed reactors 18754
  space nuc. power, thermionic heat pipe module testing 26621
  space power thermionic convertors, Cs circulation system testing 18739
  space power thermionic heat pipes, work fn. tests 26623
  Space Shuttle expts., Stirling refrigerator 26521
  space thermionic syst., radiator design 26628
  thermionic fission reactors, design studies 27985
  wick, rectangular groove, rewet perform. 11891
  wrapped screen wick Cu/H_2O heat pipe, capillary limit, long. vibr. 34703
  C-C heat pipe testing/eval., space vehicle appl. 35254
heat pumps
  10.6 kW air-source heat pump, defrost cycle perform. tests 20146
  20 kW Vuilleumier heat pump, test programme results 28175
  Austrian power syst., heat pump technol. success *(German)* 4826
  elec. heat pump, future prospects, domestic use 11482
  energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
  gas turbine CHP/heat pump facility perform. optim. 36006
  geothermal energy perspective, constraints and appls. 27612
  geothermal heat pumps, R&D studies, USA 27608

heat pumps continued
I/V converter, thermally regulated, using Peltier heat pumps 18023
Mitsubishi Electric ice storage air conditioning syst. 44604
offshore watersource heat pump appls. 28197
power plants, thermophysical proc. modelling 19490
R22/R142b refrigerant mixture heat pumps, capacity control expts. 20147
residential ASDs, simplified control scheme 5397
residential heat pump air conditioning technols. 44608
residential heat pumps, improper refrigerant charging expts. 28187
single-energy heat pump eval. *(German)* 20136
solar heating, heat pump assisted building *(Italian)* 11483
solid-state thermoelectric refrigeration develop. progress 20144
substation waste heat recovery syst., heat pump-based 36473
swimming pool, open absorpt. heat-pump, energy saving 11517
thermoelec. heat pump perform., multi-stage cascade expts. 20038
vapour compression heat pumps/refrigerators, perf. calcs. 20145
variable speed elec. heat pumps, harmonic eval. tests 5394
$Mg_2Si_xGe_ySn_{1-x-y}$ materials for direct thermoelec. conversion 20025

heat radiation
see also emissivity
atmospheric radiometric sens., radiation transport/thermal cond. eqns. 35301
elec. launcher plasma-surface interact., computer simul. 15372
EM launcher, exploding wires, elec./radiative props. 31777
EM launchers, plasma armatures, 2D MHD simul., secondary arcs 15309
fine-wire bolometer, nonlin. of transduction of laser pulse 3847
gas flow, thermal radiation flux meas., Cuernavaca instrum. 34725
MCM thermal anal., iter. direct soln. method 11768
mulberries solar drying proc., IR heat treatment effects 20174
nuc. rocket, closed-cycle gas core, thermal rad. absorp. effects 4369
patterned wafer RTA/RTCVD, thermal radiation absorpt. charact. 22229
planar SOFC, syst. dyns. simul. 44369
plane surface elec. params. meas., radio-thermal radiation 10010
rotating spacecraft, solar radiation, thermal anal. 18692
RTCVD/RTO film thickness distrib. modelling 22561
RTP furnace, 3D temp. uniformity model 22231
RTP modeling and simul. incl. thermal stress anal. 22551
RTP syst. radiative heat transfer, Monte Carlo simul. 22555
Solar Dyn. Ground Test Demons., radiator design/testing 26617
space solar dyn. power systs., thermal storage studies 26557
space vehicle, solar-dyn. receivers, atten. thermal storage 35242
thermophotovoltaic cells, efficiency determ. anal. 28007
Si wafer temp. var. during RTA, 3D asymmetrical model 22103

heat sinks
3D stacks of chips/wafers, through-hole interconnections 30425
advanced composite materials, mil. electronics, environ. testing 5646
air jet impingement cooling of simulated MCM 37087
aircraft avionics cooling, microchannel heat sink 26542
AMTEC cell, high efficiency, testing/charactn. 26626
ATPG for heat dissipation minimization, test appl. 6856
brazed integrated low-temp. cofired ceramic packages 21766
bump heat sink technol. for power HBT and MMIC 38829
C4/surface-mount-array interconnect technols., thermal mgt. 28472
diamond/(C-C) composite, semicond. base 12193
discrete surface source with substr. heat sink, conjug. heat transfer 37123
edge-cooled MCM, heat removal, substrs. comparison 21770
extruded heat sinks, natural-convection cooling, convective thermal resist. 37104
finned LSI packages, thermal resist., num. simul. 37106
flat plate heat pipe effective length calcs. 28479
flip-chip package, high-power, cooling 28498
forced convection cooling, electronic components, heat sink effects, num. study 37097
geom., radiation charact. 15475
GTO-thyristor, nonplanar, thermal runaway, 2D simul. 22392
heat pipe heat sink thermal resist., fn. of length 37145
high-power flip-chip multi-chip modules, backside cooling soln. 11789
ICs, noise immunity, heatsink, influences 20436
impingement heat sink, flow and heat transfer, num. prediction 37107
long. fin heat sink perform., flow bypass effect 148
long. fin heat sink perform. in arrays of low-profile electronic packages 37098
LSI packages with long. fins in free air stream, heat transfer 37096
MCM, 3-D, liq. cooling, miniature heat sink 29733
MCM-L in APACHIP, European Cooperative Program 21745
microchannel cooling passages in a chip substr., fluid flow and heat transfer 37088
microwave amplifiers, cooling, supercritical hydrogen 12774
paralleled IGBT reliab., equalized jn. temp. 6750
planar spreaders with finned heat sinks, optimal sizing 37105
power semicond. switches, 3D thermal modelling software 543
PQFP surface mount plastic packages, heat sinks for thermal enhancement 20463
QFP PowerQuad2, 28×28 mm, thermal perform. 11788
semicond. devices, marginal thermal improvements 30000
semicond. packages, bonding, silicone adhesive 28473
semicond. packages, heatsink bonding, silicone adhesive 5675
Soft Face thermal interface material, component coating 5585
soft switching IGBT converters, vol. vs freq. 29629
solid state relay design model, thermal effects 38063
solid-state thermoelectric refrigeration develop. progress 20144
tape carrier package, thermal charactn. 28471
tape carrier package, thermal charactn., PCB enhancements 11798
three-by-three array of protrusions cooled by liq. immersion, substr. thermal cond. 37093
two-phase electronic cooling, mini-channel/micro-channel heat sink geom. 11759
two-phase electronic cooling, mini-channel/micro-channel heat sinks 11758
two-phase electronic cooling using mini-channel/micro-channel heat sinks, design 37089
two-phase electronic cooling using mini-channel/micro-channel heat sinks, flow rate 37090
unshrouded pin fin heat sinks, pin fin dens. effect on thermal perform. 11760
UV curable urethane encapsulant for ceramic chip carriers 5628
AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
AlGaAs-GaAs power HBTs, thermal stabil. tech. *(Japanese)* 38003
C-C composites, thermally conductive/CTE tailorable, MCM/PCB packaging 37146
GaAlAs, monolithic 2D surface emitting LD arrays, CW 39837

heat sinks continued
GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805
GaAs TUNNETT diode oscillators above 100 GHz, diamond heat sinking and power combining 12778
GaAs TUNNETT diodes above 100 GHz, efficiency, RF power levels, free running oscillator appl. 37976
GaAs TUNNETT diodes on diamond heat sinks for 100 GHz and above 12756
InGaAs high power quantum well diode laser, MOVPE fab. *(Korean)* 39803
Pb-acid secondary batts., distributed/bulk power design concepts 44284
SiC-H aerospace power IC device structures 26587
W X-ray mask membranes, uniform-stress, He-backside temp. homogenization 13541

heat storage *see thermal energy storage*

heat transfer
see also convection; cooling; heat conduction; heat radiation; thermal diffusivity
0.5 kW domestic CHP Stirling engine, thermodyn./detail design 27531
7.5 kW solar dish/gas-fired heat pipe receiver Stirling engine syst. 28045
aircraft avionics cooling, microchannel heat sink 26542
alkali metal thermoelec. convertors, Na recirculation wick design 20030
backplane power source capability 6435
basic chem. recuperated gas turbine, methane-steam reformer 36007
bio-mass under microwave hyperthermia, thermal profiles 26467
capacitor, liq. dielec. filled, lateral heating, instabil. excitation 12835
card assembly detailed thermal response, IR reflow soldering 38098
closed piston-cylinder Stirling engine, heat transfer meas. 28042
coal-fired 27583
coil-type steam generators, boundary steam conditions 43894
colour facsimile, thermal rheography recording, direct ink heating 16636
conference, thermal problems, numerical methods, Swansea, UK (July 1993) 36887
diaphragm defined Stirling refrigerator 28021
double squirrel cage motor, heating, short-cct., starting *(Polish)* 27705
double-loop separate-type heat pipe, heat transfer perform. meas. 18132
dual gas turbine combined cycles, thermodynamics modelling 19525
ECR CVD, electrostatic chuck, improved temp. uniformity 28847
EHD augmented condensation heat transfer expts. 20021
EHD heat transfer/fluid flow enhancement mechanism 44425
electronics cooling, adiabatic heat transfer coeff. on cube faces 37122
field-stabilized two-phase fluidized flow, proc. concepts 40205
fine-wire bolometer, nonlin. of transduction of laser pulse 3847
fission reactor containment syst., heat removal capability 35842
fission reactor cooling, flow boiling, local thermo-hydrodynamics 27460
fission reactors, ASTRID 3D Eulerian code, two-phase flows 35796
fission reactors, dispersed flow film water boiling 27456
fission reactors, liq. Na forced flow 4812
fission reactors, molten corium-concrete interacts. 4778
fission reactors, thermogravitational convection heat transfer 27455
fission reactors, thick walls, crit. heat flux 4779
flow sens. params. determ., finite difference method 18155
GTO thyristor turn off, transient thermal effects simul. 30267
heat pump power plants, thermophysical proc. modelling 19490
heat sinks, flat plate heat pipe effective length calcs. 28479
III-V layers, MOCVD SEG, math. model 20761
integrated CMOS polysilicon coil-based micro-Pirani gauge 25787
IR opt. fiber, absorpt./scatt. loss meas. method 14402
karakul skins dryer, combined solar/elec. air heating 44598
kerosene burner configs., thermophotovoltaic appls. 27999
LaSalle BWR, second law exergy anal. 35733
liq. cooling module, heat transfer design 37124
LOBI-MOD2 test BT-02, ATHLET COVA 27474
locally connected CMOS neural cells, steady-state heat flow problem 795
low-bandgap thermophotovoltaic system design 20003
LSI electronic packages, cooling enhancement by modified barriers 37086
LWR corium debris coolability, RPV/confine. struct., CORIUM-2D 27514
manifold cooling, supercritical H_2, flowdown 11782
MCFC power generation systs., dyn. perform. modelling 27644
microwave amplifiers, cooling, supercritical hydrogen 12774
mixed convection from simulated electronic components, posn. effects 11763
mixed dielec./poor absorber, microwave heating, thermal effects 44592
multi-press. condenser optim. *(Chinese)* 10851
multi-tank cryogenic storage syst. anal., space appls. 35253
multielement flexible microstrip patch heater for hyperthermia treatment 43345
next generation NPP simulators, two-phase flow 35798
nuc. thermal propulsion systs., heat transfer 4367
PFBC boiler operation, Aachen Heating Power Plant *(German)* 43896
planar SOFC, 2D distributed param. perform. model 44362
planar SOFC field distribs., 3D math. model 44365
power plants, irreversible heat transfer, exchange equipt. allocation 19555
power VDMOS transistor quasi-saturation, self-heating effects 30312
pressurised CFBC combined cycle power plant simul. 27587
PWR, heat/mass transfer correl., MELCOR 19432
PWR LOCA, flow visualisation, heat transfer, and voidage meas. 4814
PWR mid-loop operation, loss of RHR, CATHARE 2, RELAP5/MOD3 codes 35803
PWR-LOCA, multi-dimens. thermalhydraulics, REFLA/TRAC code 27467
reactor bottom head dissolution, melt pool 35834
reactor vessel lower plenum, heat transport, debris material 4776
rect. block array, heat transfer, wake effect 37074
residential pass. energy technol., simul./eval. 44600
RTP systs., modelling/ident./control 1195
scanning thermal imaging microscopy, composite cantilever probes 34724
shadow mask thermal deform. FEA *(Korean)* 25662
shape memory alloy actuators, thermoelec. cooling, theoretical modeling 37549
SMT, laser soldering, thermal modelling 28436
SOFC, high temp., exergy anal. 44344
SOFC exergy anal. methods 44355
SOFC tubular cogen. syst. design 43964
solid-armature railgun, current/heat transport modelling 15320
space power thermionic convertors, thermal modelling 18740
Space Shuttle expts., Stirling refrigerator 26521
spark ignition engines, flame initiation/stretch, heat transfer 19532
steady-state heat eqn., floating random walk algm. 5633
supercond. coil normal-zone propag. vel. calcs. *(Korean)* 22768
supercond. magnet winding struct., conductor cryostability 7250

heat transfer continued
thermal power plant combustion proc. investigs. 35969
thermionic CHP convertors, optimal perform. tests 28029
two-stage endoreversible combined cycle, max. specific power output 36028
VVER plants, LOCA, containment heat transfer 43835
CdTe/CdZnTe, accelerated crucible rot. growth 5804
GaAs, LEC cryst. growth, analytic model, proc. control 28715
GaAs, liq. phase electroepitaxial growth, 2-D diffusion model 300
$Hg_{1-}Cd_xTe$ cryst. growth, travelling heater method 5806
$Hg_{1-x}Cd_xTe$, accelerated crucible rot. growth 5804
Ni-Cd common vessel monoblock secondary batt., perform. testing 44277
Si floating zone 4-in. cryst., RF field/heat transfer/thermal stress num. anal. 28711

heat treatment
see also annealing; normalising; quenching (thermal); rapid thermal processing; tempering; thermomechanical treatment
500 m/s lin. induction launcher perform. studies 15376
BPDA-PDA polyimide thin films, thermomechanical props., curing effects 12208
CFC alternatives, materials compatibility study 5719
CVD diamond, metallization and die attach 38662
diamond like C film, nucleation enhancement, SEM 28848
EPR-insulated cables, thermal life testing/charactn. 14011
fibre optic electrets and electro-acousto-optic transduction 17820
fine pitch solder joints, microstruct. phenom. 6424
fossil power plant zebra mussels control project, USA 27547
glass ceramics, comps. and uses, review 20987
high power electron guns; welding, heat treating, and micromachining appls. 11735
high-purity electronic specialty gas cylinders, particle/outgassing perform. 29995
indust. curing procs., electrotechnology appls. 28188
micro-domains generation in AT-cut quartz, thermal proc. 30602
microlens opt. coupling of LD array, single-mode fiber array 39355
mulberries solar drying proc., IR heat treatment effects 20174
polyimide-metal interfaces, curing chem. and hydrolytic stabil. 12211
polysilicide CMOS devices, low-level current leakage reduction 22580
polysilicon dual-gate CMOS, N implant. 38498
quantum well disordering, encapsulant source 29917
slow-way systs. as heaters for thermal treatment of dielec., optim. 44587
solar chambers, concrete thermal treatment, temp. calc. 11306
thick film/tape capacitor dielec., capacitance densities up, 3 nF/mm^2 6359
X-ray sensitive chem. amplified resists, design/perform. 6681
Ag-containing metallic nanostructure waveguiding systs., ion exchanged fab., nonlin. opt. charactn. 39416
$AlGaAs/In_xGa_{1-x}As$ doped-channel struct., thermal stabil. 1133
AlN, CVD growth/surface chem. 12155
$Al_3Zr/Zr/Si$ contact systs., solid-phase reacts., AES *(Japanese)* 29962
Au wire bondability for IC device, TEM obs. *(English)* 6444
$Au/Zn_{0.4}Cd_{0.6}Te$:In solar cell, fab./charact. *(Korean)* 19985
Au-plated X-ray masks, brightener conc. rel., thermal distortion 13534
$(Ba,Ca)TiO_3$, humidity-sensitive characts. *(Korean)* 20989
$BaCoTiFe_{10}O_{19}$ films, sputtered, struct., mag. props., heat treatment effects 14194
Bi-Sr-Ca-Cu-O/Ag 2212 supercond. magnet, RT bore of 45 mm diam., 20 K 30803
$Bi_2Sr_2Ca_2Cu_3O_x$:Pb/Ag, monofilamentary tapes, Hall sens. magnetometry 39228
$Bi_4Ti_3O_{12}$ films, spin-coating pyrolysis, surface morph., O_2 effect 13988
p-$Cd_{0.95}Zn_{0.05}Te$/metal contacts, elec. props. and contact metall. 13226
Cu IC interconnections, materials issues 30137
$Cu/Al(Ti)/SiO_2$ interface, ultrathin sacrificial diffusion barrier anal. 38702
Fe, cast, microstruct. changes, US detect. 37554
Fe-N sputter-deposited films, stress and microstruct. 6952
γ-Fe_2O_3 thin films, coercivity, stress effect 39166
FeSiBCuNb amorph. wires, crystn. proc. and mag. props. 14136
GaAs, SI, degrad. during heat treatment 29854
GaAs ohmic/nonohmic contact form., interfacial react. effects 38392
GaAs oxide mask layers, in situ electron beam lithog., patterning mechanism 38770
GaAs:Cr, doped/undoped, elec. props., heat treatment *(Korean)* 13330
GaAs:III-VI gallium chalcogenides(100), passiv. 30077
$Gd_3Ga_5O_{12}$/InP(/GaInSb) integrated semicond./magnetooptic devices, direct bonding 31112
GeO_2-SiO_2 glass, thin films, planar waveguide appls. 7350
$In_{0.5}Ga_{0.5}P$ Schottky contacts, $(NH_4)_2S_x$-treated, interface props. 29949
InP surface degrad. during contact form., FTIR study 30006
Li secondary batts. anode, electrochem. characts., graphitic struct. effect 36518
$LiNbO_3$ single crysts. for opt. waveguides, direct bonding 39376
MnAlC, MnAl, PM prod. by mech. alloying 14260
Na alkali borosilicate glasses, heat treated 7264
$Nb_2O_5/LiCoO_2$ secondary cell electrodes, charge-discharge characts. *(Japanese)* 44278
Nd-Fe-B-Co(Ga)(Zr) anisotropic powders, HDDR treatment, mag. props. 6984
$Nd_{15}Fe_{77}B_8$ sintered magnets, microstruct., mag. props., $Dy_{40}Al_{30}Cu_{30}$ powder addit. *(Japanese)* 30751
NiO cathode loss reduction, MCFC, electrochem. treatment 11271
PrNdFeB amorph. precursors, mag. hardening by crystn. 6987
Rh-plated reed switch contact, surface deactivation-induced phenom. 29634
Si disloc.-free crysts., electrophysical/microdefects correl. 21870
Si epitaxial film, carrier profile, ion bombard. effect 37425
Si porous nanostructures, electronic excitation, relax. mechanisms 14588
Si wafers, thermal proc., quartzglass materials influence 22208
Si:B(P), ion-implanted, sheet resist. and noise props. 38232
a-Si:P/Si, shallow jn. form., diffusion from spike-doped CVD amorph. layer 38514
$SiC/SiO_2/Al$ struct., elevated temps., HF capacitance relax. features 13230
$Si_{0.3}Ge_{0.2}$ thermoelec. space power alloys, large-scale prod. 26586
a-SiGe:H/SnO_2 solar cell struct., interfacial reduction 38294
SiO_2 advanced planarization by SiO_x PECVD/SiH_4-H_2O_2 CVD combination 37479
Sn-Sb solder, adhesion, evaporated multilayer *(Japanese)* 5616
SnO_2 thick film, calcination, CO sens. props. 17979
Ta_2N anodized thin film capacitors, heat-proof props. *(Japanese)* 29614
Ti-Ni sputter-deposited thin films, shape memory effect 28853
TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270
$Tl_2Sr_2Ca_2Cu_3O_x$, cylindrical shield, thermal cycling effect 39249

heat treatment continued
ZnO films, thermal evap. 28856
ZnO/n-Si jn. solar cells, spray-pyrolysis method 44397
p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413
γ-Fe_2O_3:Co,Zn thin films, fab. and mag. studies, disk media 6964

heated cathodes *see thermionic cathodes*

heating
see also electric heating; induction heating; ovens; plasma heating; refractories; solar heating; space heating
closed cycle vap. turbogenerators, microwave repeater appls. 19588
colour facsimile, thermal rheography recording, direct ink heating 16636
condensation inert heating for difficult proc. heating jobs 28437
condensation inert heating mass reflow soldering systs., challenges 38162
distrib. transformer oil drying controller 19705
electron-beam thermomagnetic recording in multilayer mag. struct. 39312
opt. surfaces, laser cleaning 30821
polymer-dispersed CLC films, opt. memory 39308
porous opt. glass struct., fab. 7260
power bipolar transistor elec. props., temp. influence 30254
power syst. overload current interrupter verification studies *(Russian)* 36395
power VDMOS transistor quasi-saturation, self-heating effects 30312
rapid thermal proc., 3D modelling for design optim. 22552
regenerative gas turbine cycle, water enhanced, perform. calcs. 19524
semicond.-metal boundary, HF surface waves propag. 15556
SMT components on PCBs, proc. control of reworking 12903
solder joint failure, thermal cycling fatigue, crit. accumulated strain energy 120
steam turbine prewarming fuzzy control 10854
storage ring FELs, mirror degrad. and heating 39961
thermal laser mirror distortion test facility 40000
TL dosimeters, planchet heating, params. effects on glow curves 18634
H_2-sensitized GeO_2 doped opt. fibers, refr.-index changes 7307

heating, buildings *see space heating*

heating elements
see also electric heating
high-temp. elec. heating elements, oxygen getters *(German)* 11472
pipelines, skin effect/impedance heat tracing, appl./control 5387
thermo-optic planar waveguide, temp. profile anal. 1710

heavily doped semiconductor materials *see heavily doped semiconductors*

heavily doped semiconductors
see also degenerate semiconductors
diamond:B film/metal high temp. contacts, reliab. issues 22045
ECL BiCMOS, sub-30 ps, proc. integrat. technol. 22616
epitaxial diamond Schottky barrier diode, fab., characts. 22350
III-V semiconds., pulsed-jet epitaxy, device procs. 20669
metal-semicond. ohmic contacts, impurity bands 13208
metal/III-V-semicond. contacts, fab./props. 1162
planar devices, minority carrier diffusion length, direct meas. 13659
polysilicon dual-gate CMOS, N implant. 38498
polysilicon resistors, heavily doped, const. voltage trimming 21586
Schottky diodes, drift-diffusion theory of current dens. 6719
$Al_xGa_{1-x}As$:C, MOMBE grown, annealing 28774
AlGaAs-GaAs HBTs, heavily doped, opt. device appl. 39566
AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
$(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P/In_{0.15}Ga_{0.85}A$ s/GaAs HFET, characts. 12752
GaAs films, temp. synchronized MLE 20676
GaAs:Be, polycryst., heavily doped, diffusion props. 1043
GaAs:C, HBT base-layers, electron lifetimes, annealing effects 1200
GaAs:C films, MOCVD grown, heavily doped, elec. props. 38253
GaAs:C, heavily doped, LP-MOVPE, carrier gas effects 22133
GaAs:C, heavily doped, MOMBE using elemental Ga 321
GaAs:C, polycryst., heavily doped, diffusion props. 1043
GaAs:C, solid source MBE, uniform/delta doping, at. C pairing 38488
GaAs:C(S), CBE and in situ etching, opt. monitoring 359
GaAs:C,H, isolated H-donors, deactivation mechanism 22130
GaAs:Si, heavily doped, MBE, elec. props. 1040
GaAs:Si, planar doped, autocompensation 22111
GaAs:Te, highly doped, EL2 trap, jn. spectrosc. 13124
GaAs/AlGaAs MESFET and pseudomorphic HEMT, selective RIE 38917
p-GaAs/AlGaAs superlattices, heavily-doped, IR photodetector appls. 3836
GaInP/InP:S QW, strained barriers, optical/struct. props. 13159
GaSb:Se, heavily doped, extended defects, TEM 13303
InGaP/GaAs HBTs, ultra-high carbon-doped base 38840
InGaP/$In_{0.2}Ga_{0.8}As$:Si HEMTs, heavily Si-doped, MOVPE growth 5830
InP:Zn, LEC grown, heavily doped, struct. charactn. 13301
InP/GaInAs HBTs, ultra high base doping, high emitter effic. 30248
InP/InGaAs HBTs, highly Be-doped base layer, fab./characts. 21541
n-InSb films, semicond.-coupled supercond. weak-links, Andreev-refl. 14281
n(p)-Si, Einstein rel., high temps. 13026
Si, charge carrier transport, electron-hole scatt. 13027
Si diodes, heavily doped, anal. of non-exponential TSCs 38808
Si, heavily doped, majority/minority mobilities, device simul. 21873
Si, porous, micromachining appls. 22627
Si, vacancy-mediated dopant diffusion at high doping levels, models 1026
Si:As RTA/furnace annealing, heating rate effects on defect distrib. 22100
Si:B, δ-doping, ultra-shallow/abrupt profiles 38499
Si:B epitaxial layer, heavily doped, strain relax., RTA effects 38471
Si:B p-n-p lateral transistors, minority carrier diffusion length, band gap 13653
Si:B solar cell, low temp. PECVD/laser annealing fab. 19996
Si:B(P), heavily doped, HF-treated surface behaviour 13353
Si:B,O, heavily doped, interstitial O conc., neutron irrad./FTIR anal. *(English)* 6612
a-Si:H and poly-Si thin films, P ion shower doping study *(Korean)* 13284
Si:Mo p/p^+ epitaxial wafers, Mo contamination 38236
Si:P(As)(B), heavily doped, temp. effects 1021
Si:Sb, heavily doped, elec. act. impurity diff. 13033
Si:Sb low compensation impurity band photoconductors 39551
Si:Sb,B, heavily doped wafers, annealing, fluoresc. EXAFS anal. 38475
$Si/SiO_2/Si$ heavily doped capacitors, C-V charact. 29990
$Si_{1-x}Ge_x$ thin film, form. from heavily Ge-implanted Si, morph. 28795
p-ZnSe:N, doping characts. 21921
ZnSe(Te):N, doping, first principles calcs. 13317
ZnTe:N grown by MBE, N incorporation, Ar dilution in N plasma source 1212

heavy ion excited X-ray emission *see ion microprobe analysis*
Hebbian learning
adaptive VLSI neural network chip 29436
analog CMOS neural nets, capacitive wts. learning 21475
bidirectional associative multilayer neural network, robust capability, hardware appl. *(Korean)* 29518
CMOS analog neural networks, Gilbert multipliers, in-cct. learning 6271
constrained anti-Hebbian learning algo. for total least sq. estim. 2549
cross-correl. neural network models 2490
image associative memory for opt. neurochips 42854
image compression, neural network approaches 24397
neural chip, subthreshold MOS analog cct. 37928
obj. recogn., neural, invariant response learning 41363
opt. adaptive device, competitive learning cct. 39518
VLSI neural learning, robustness against cct. limitations 29489
HEED *see high energy electron diffraction*
height measurement
see also radar altimetry
air bearing slider in HDD, design and perform. 7159
electronically controlled suspen., load sens. 5371
IC wire bond, automated visual inspection, auto-focusing 37163
land surface topography rem. sens., TOPSAT radar mission 10451
laser rangefinding for satellite orb. elements determ. 18687
mag. head, flying height meas., altitude effects 7170
mag. recording, flying height tester calib. std. 7151
ocean, 3-layer quasi-geostrophic models, altimeter data assimilation 26764
ocean altimetric data mapping, stat. multiscale approach 10014
sea surface, GEOSAT altimetry, geopotential scale factor 35278
slider-disk flying height meas., monochromatic/phase demodulated laser interferometry 7164
submicron struct., 3D meas. techs. 42930
tide gauge height stabil., GPS meas., repeatability 10517
C overcoated sliders, flying height meas. 7162
Heisenberg model
Pd/Pd-Fe/Pd multilayers, Heisenberg/XY model comparisons 7066
Heising modulation *see amplitude modulation*
helical antennas
antenna design/optim., generalized multipole tech., perform 15634
axial mode helix with soft corrugated ground plane 23992
DIY receiver for GPS and GLONASS satellites, quadrifilar backfire helix antenna 34194
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
semi-act. radar target, design of antenna subsystem 17430
short helical antenna backed by cavity, radiation field 40487
VHF ground station design/constr. 42335
helical dislocations *see screw dislocations*
helical waveguides
Cerenkov effect, radiation source 2185
NIST cylindrical cavity resonator for permitt. meas. 37958
quasi-opt. mode converter, Vlasov-type coupler, bifocal mirror 29543
twystrode expts., tapered/untapered helices 21844
helicons
see also solid-state plasma
plasma etching, helicon/ECR sources, Langmuir probe diagnostics 22194
plasma etching, helicon/multiple ECR plasma sources 22193
plasma etching, helicon/multiple ECR sources, ion flux 22195
helicopter communication *see aircraft communication; helicopters*
helicopter control *see aircraft control; helicopters*
helicopter electronics *see avionics; helicopters*
helicopter testing *see aircraft testing; helicopters*
helicopters
3D automatic FDTD mesh generation 26528
35 GHz forward looking altimeter, flight test eval. 10386
35 GHz forward looking altimeter for terrain avoidance 25612
aging support equipment, maintenance alternatives 43574
analog neural networks, helicopter gearbox fault detect./diagnosis 10311
Canard rotor/wing aircraft, integrated navig./guidance/control 10340
continuous speech recogn. in noise, spectral subtraction/HMM adaptation 32307
decision aid for enhanced situational awareness, knowledge-based 10361
digital avionics systems, conf., (Nov. 1994) 5456
Doppler spectra of targets with rot. parts, dyn. simul. 17398
gearbox vibr. time series data 2511
health monitoring, real-time neural computing 10363
helicopter antenna pattern prediction, improved NEC code 26529
LAMPS MK III block II simul. 10344
microwave helicopter power supply demons. project 35597
mission effectiveness enhancement, advanced boresight equipment 43575
multichannel PC-based helicopter electrical power monitor 26540
naval helicopter avionics, next generation 10339
obstacle avoidance sens., automatic Nap-of-the-Earth flight 10385
omnidirectional airspeed sens. 10383
pass. ranging, image expansion 26549
rotor blade noise reduction 4348
Rotorcraft Pilot's Associate cognitive decision aiding systs. develop. 10597
single-mode reliable opt. card-edge connector 10321
UH-60A airloads data acquisition and proc. syst. 10313
heliostats *see solar energy concentrators*
heliotrons *see stellarators*
heliports *see airports*
helium-3 counters
DSP for ^{3}He proportional counters 18334
FERMI neutron and gamma detector for cold fusion expts. 34943
Harwell Instruments N93 Slab Monitor for Pu assay, characteriz. 18368
High Level Neutron Coincidence Counter, neutron burst meas., cold fusion 18298
measuring electronics nonlin., pulse height spectra 18385
neutron spectrometry, ^{3}He gas ionization chamber 18331
SANS, posn. sensitive detectors appl. 26156
Helmholtz equations
2.5D scalar Helmholtz eqn., spectral Lanczos decomp. 23773
cavity radiator infinite phased arrays, hybrid finite element/waveguide mode anal. 31971
chiral and nonreciprocal chiral-ferrite media, fund. props. 23551
complex anisotropic media, auxiliary vector fn. method 23562
eddy current problems, regularized formulas for BE anal. 40251
eigenvalue problems, adaptive boundary element 11999
Helmholtz equations continued
exterior Helmholtz problem on IBM SP-1, FEM 23580
FEA and integral eqn. methods for Helmholtz eqn. and electromagnetism 23492
FFT multiple half-screen diffr. model for cellular commun. 3417
high wave no. EM scatt., soln. method 40308
microwave NDT, refl. props. of dominant TE_{10} mode 42914
periodic waveguide wave propag., num. simul. method 40436
reradiation antenna anal., integrodifferential-eqn. method 2316
scalar Helmholtz eqn., local radiation boundary conditions 23573
spectral-Galerkin method, direct solvers of 2nd- and 4th-order eqns., Chebyshev polynomials 20607
step index opt. fibre 3D ray trajectory heuristic computation 30895
help desks *see technical support services*
help services *see technical support services*
help systems
document access/ref. environ., PC based interactive syst. 35413
ECG mapping, ambulatory, integrated software environ. 26431
transformer and induction motor losses cost anal. interactive software package 28333
hemoglobin *see proteins*
HEMT *see high electron mobility transistors*
HEMT circuits
see also HEMT integrated circuits
hybrid gate mixer, 30 GHz, design procedure 12797
large sig. model for HEMT gate mixer anal./design 6320
MM-wave modulated opt. sigs., heterodyne reception, HEMT 3544
radiation detect. front end electronics, HEMT appl. 10144
subharmonic gate mixer based on multichannel HEMT 29573
AlGaAs/InGaAs HEMT monolithic mixers, single/double bal. 29585
HEMT integrated circuits
15-Gbit/s high-speed monolithically integrated pin-HEMT photoreceiver 34082
data selector IC, 20 Gbit/s, commun. appls. 29339
distributed baseband amp. IC module and MCM, 60 GHz bandwidth 6334
dual modulus prescaler IC, PHEMT struct. on Si substrs. 21296
FET-based OEIC photoreceiver design, syst.-level considerations 34081
HF devices/ICs for portable cellular phones 17133
high speed MMICs/digital ICs, fab., T-gate technol. 858
LNA MMIC, act. regulated self-bias 12821
LV low power digital ccts., monolithic integrat. of RTD/HEMT 37691
matrix amp. design, FET-gate-width tapering 29582
millimetre wave MMICs, PHEMT technol. 29604
MIMIC amp., modelling and charactn. 29605
miniaturised MMIC amps., thin dielec. layers 29586
MM-wave low noise downconverter in MMIC technol., 60 GHz 29606
MM-wave multifunctional bal. switching LNA 12824
MMIC design, pass. and act. device considerations 29596
MOVPE optoelectronic device technol. 28747
pHEMT Ka-Band 3-stage amps. for phased-array appls. 38010
PHEMT mfg. technol. for multifunctional Ka-band MMIC appls. 21562
prescaler IC, dual modulus 29082
pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
pseudomorphic HEMT power amp. MMIC, wide/med. band 38033
Q-band high-efficiency monolithic HEMT power prematch structs. 29584
satellite TWTAs, microwave power modules, radiation cooled collectors 26553
V-band high gain monolithic PHEMT LNA design 21555
V-band pseudomorphic HEMT MMIC phased array components 38009
V-band pseudomorphic HEMT monolithic power amp. 12820
W-band high gain monolithic LNAs based on HEMTs 12818
W-band monolithic HEMT LNAs for microwave scanning radiometer 21558
AlGaAs HEMT based 5 bit ADC 37821
AlGaAs/GaAs HEMTs, monolithic integrated optoelectronic receiver 25543
AlGaAs/InGaAs PHEMT ultra LNA MMIC, 50 GHz band 29592
AlGaAs-GaAs HEMT monolithic downconvertor for X-band DBS 42315
AlGaAs-GaAs HEMT-based MMIC mixers, indoor commun. 42237
AlGaAs-InGaAs MODFET based broadband dyn. freq. divider 38016
AlGaAs-InGaAs-GaAs HEMT monolithic LNA array, W-band 38027
AlGaAs-InGaAs-GaAs Ka-band MMIC power amp., HEMT proc. 38031
GaAs pseudomorphic HEMT, MM wave power perform. 37991
GaAs pseudomorphic HEMT, high yield, mfg. technol. 39020
GaAs pseudomorphic HEMT power amp., C-band, high power 38032
GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. 6338
GaInAs PIN/HEMT receiver OEICs for Gb/s opt. systs., fab. 25495
In-P based microelectronics pilot line for commercial and military applications 12799
InAlAs-InGaAs W-band monolithic dual-gate HEMT mixer 38020
InAlAs-InGaAs-InP V-band monolithic HEMT downconvertor 38019
InGaAs MSM photodiode/AlGaAs-GaAs HEMT OEIC receiver, 1.3 μm 17235
InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency 6339
$In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ MODFET MMIC oscillators, opt. tuning 12788
InGaAs-GaAs HEMT MIMIC amp., high gain, 75-110 GHz 38025
InGaAs-GaAs MODFET MIMIC amp., 5-80 GHz, CPW 38026
InP HEMT DC, 38-GHz distrib. analog multiplier 6337
InP HEMT MMIC power amp., Q-band, high-efficiency 38036
InP HEMT MMICs, low noise, V-/W-band amplifiers 12802
InP-based HEMT 140-GHz monolithic LNA 21581
Si/SiGe heterostruct., UHVCVD growth and appl. 312
HEMT switches *see field effect transistor switches*
hereditary systems *see distributed parameter systems*
hermetic motors *see induction motors*
Hermitian matrices
LS/SVD based techs. for high-resoln. freq. estim. 24203
pos.-definite matrix, smallest eigenvalue, lower bounds 28557
RITE algm., pipelined regular array proc. implement. 8370
sig. proc., transform. of operators and scale 32488
symmetric matrix, largest eigenvalue minimisation 188
Hessian matrices
convexity-based algms. for design centering of ICs 474
fast decoupled Newton optimal power flow *(Chinese)* 10633
Newton directions, modified, computation using partial Cholesky factorization 20587
optimal-power-flow soln., Newton's method 19000
pass. filter design by optim. method 6203
translation/rot. invariant algm. for pattern recogn. 8632

HET *see hot electron transistors*
heterodyne detection *see demodulation*
heterodyne wavemeters *see wavemeters*
heterogeneous databases *see distributed databases*
heterojunction bipolar transistors
2D heterostruct. device simulator, steady state/transient anal. 30193
AlGaAs-GaAs HBT struct., electron distrib., electrolumin. obs. 1355
AlInAs/GaInAs/InP microwave HBTS, performances 12764
bias-depend. noise upconversion factor in HBT oscillators 6322
book, Si and Si alloy based materials/devices 11540
bump heat sink technol. for power HBT and MMIC 38829
charactn. of semicond. device struct. by modulation spectrosc. 1435
collector-base jn. capacitance, impact ionization effect 22380
early-voltage degrad., interface states 13621
equiv. cct., param. extraction from S-params. 30258
GaAs:C/AlGaAs HBT wafers, MOVPE, AsH_3/trimethylarsenic for base layer growth, perform. comparison 22376
GaAs/AlGaAs HBTs with ITO emitter contacts, opt. microwave oscillators 6292
GaInP/GaAs microwave HBTs, small-sig./noise model extraction tech. 21540
graded HBTs, current transport, anal. model 38850
HBT technol., CDMA chip set power increase 16928
HEMT-HBT integrat. for MMICs by selective MBE 38011
heterostruct. hydrodynamic transport model *(Chinese)* 1353
HF design, f_{max}-carrier mobility rels. *(Chinese)* 1354
HF perform. calc., Fourier anal. 1363
high-power, modeling, scaling approach 30246
III-V HBTs, reliab. issues 22386
III-V semiconds., pulsed-jet epitaxy, device procs. 20669
InP-based HBTs, high-speed, design and fabrication 13626
LNA, monolithic HBT-regulated HEMT config. by MBE 29591
microwave HBT, base push-out/base-collector capacitance model 13660
microwave HBT perform., impact of thermal distrib./emitter length 38005
microwave HBTs, nonlin. SPICE model param. extraction 6309
microwave HBTs, param. extraction method 6310
microwave HBTs, transient thermal simul., TLM method appl. 37980
MM-wave/fiber-optic subcarrier transm. links, HBT photodetectors *(Japanese)* 9548
MMIC design, pass. and act. device considerations 29596
MMIC HBT distributed amp. design based on atten. compen. techs. 12817
modelling, particle transport eqns. 6725
monolithic photonic/optoelectronic switching technol. 9146
nonequilibrium transport, hierarchical PDE simul. 22331
open-base multi-emitter, logic fns. 38842
optoelectronic device fab. by CBE 37417
parallel 3D simul. of semicond. devices 13586
passiv. procs. 1361
passivated HBTs, currents and current gain anal. 6737
power HBTs, stabil., emitter ballasting resist. effects, empirical anal. 6734
space environ., proton irrad. effects, advanced digital/microwave III-V components 12803
SPICE model, phys.-based for large-sig. appls. 13615
ultrahigh-speed IC diagnosis, electro-optic probing 6835
AlGaAs HBT cct., manufacturable proc. 1360
AlGaAs:N,C, thermally stable C-N deep level 28742
AlGaAs/GaAs HBT I-V charact., graded/setback layers 22368
AlGaAs/GaAs HBT IC technol. for 4:1 TDM multiplexer 1487
AlGaAs/GaAs HBT MMIC power amp. 12825
AlGaAs/GaAs HBT, RF-charact. down, 20 K 6733
AlGaAs/GaAs HBT, fully planar, CBE selective growth 13643
AlGaAs/GaAs HBT, ideality factor 13641
AlGaAs/GaAs HBT operating at large power densities, jn. temp. meas. 18136
AlGaAs/GaAs HBT passiv., sulfide solns. and SiN_x overlayer 30233
AlGaAs/GaAs HBT, surface passiv. layer struct., design considerations 6732
AlGaAs/GaAs HBT, thermal effects/instabilities 6731
AlGaAs/GaAs HBTs, Pt/Ti/Pt/Au base electrodes, passiv. 38837
AlGaAs/GaAs HBTs and assoc. TLM test structs., excess noise 1352
AlGaAs/GaAs HBTs, ballistic electrons, electrolum. 38841
AlGaAs/GaAs HBTs, collector launcher struct., 1 W, 3.5 V 21535
AlGaAs/GaAs HBTs, influence of emitter edge current on NDR 13632
AlGaAs/GaAs HBTs, selective MOCVD growth, base-collector capacitance 38836
AlGaAs/GaAs HBTs, steady-state/transient heat responses 38852
AlGaAs/GaAs HBTs, surface recomb., 2D anal. 22369
AlGaAs/GaAs HBTs, thermal avalanches 1359
AlGaAs/GaAs directly connected HBT UHF MMIC amp., high gain, portable cellular appl. 6326
AlGaAs/GaAs fully-planar HBT technol., selective CBE regrowth 844
AlGaAs/GaAs heterosource bipolar mode SIT 30261
AlGaAs/GaAs microwave HBT, thermal design, geom. considerations 13630
AlGaAs/GaAs multiemitter finger HBT, model, self-heating and thermal coupling effects 841
AlGaAs/GaAs npn HBTs, MBE fab. and charactn. *(Korean)* 30264
AlGaAs/GaAs pnp HBT, Al graded base, 37 GHz cutoff freq. 21534
AlGaAs/GaAs power HBT, current gain collapse and avalanche breakdown 38818
AlGaAs/GaAs power HBTs, self-aligned, LF noise characts. 13648
AlGaAs/GaAs:C HBTs, Au/Pd/Ti-based ohmic contact, elec./struct. props. 38701
(AlGa)As/GaAs:C, MOVPE, N_2 carrier gas 316
AlGaAs/GaAs:C,In HBT 1209
AlGaAs/GaAs:C,In HBTs, lattice strain control, In co-doping 22374
AlGaAs-GaAs HBT, elevated temp. microwave charact. 37992
AlGaAs-GaAs HBT, large sig. equiv. cct. model, MMIC oscill. 38828
AlGaAs-GaAs HBT small-sig. equiv. cct. param., algm. 38827
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
AlGaAs-GaAs HBT with strain-relaxed base, improved reliab. 38826
AlGaAs-GaAs HBT-based direct coupled feedback transimpedance amp. 29065
AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
AlGaAs-GaAs HBTs for high-speed opt. modulator driver cct. 42405
AlGaAs-GaAs HBTs, heavily doped, opt. device appl. 39566
AlGaAs-GaAs HBTs,current gain long-term instabil., model 38847
AlGaAs-GaAs, SHBT, Gummel rel. 38821
heterojunction bipolar transistors continued
AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
AlGaAs-GaAs power HBTs, thermal stabil. tech. *(Japanese)* 38003
AlGaAs-GaAs:C HBT, bias stress tests, current gain deterioration 13642
AlGaAs-GaAs-AlGaAs, DHBT, Gummel rel. 38821
$Al_xGa_{0.52-x}In_{0.48}P$/GaAs, HBT, MOVPE, charactn. 13652
AlGas/GaAs HBTs, polyimide deposition, recomb. current 1358
AlInAs/InGaAs HBT, edge coupled receiver OEIC 14652
AlInAs-GaInAs HBTs, ultrafast photocarrier transport 23014
AlInAs-GaInAs npn/pnp HBTs, monolithic fabrication 13662
AlInP/InP pseudomorphic HBT, struct., fab., characts. 13645
GaAlAs/GaAs HBTs, emitter excess resist. 1357
GaAlAs/GaAs HBTs, power amp. appls. 13655
GaAlAs/GaInP/GaAs passivated HBT, high bit rate opt. commun. appl. 6730
$Ga_{1-x}Al_xAs$-GaAs HBT, fab. for rapid material anal. 22387
GaAs HBT gate array for high perform. ASICs 29147
GaAs HBT multifunctional microwave-analog VGA 38023
GaAs HBT power MMIC, X-Ku band, high power 38034
GaAs, devices, impact ionization/light emission, Monte Carlo study 1441
GaAs power HBT, 44 GHz 37994
GaAs:C, HBT base-layers, electron lifetimes, annealing effects 1200
GaAs:C/AlGaAs HBT, reliab. 13640
GaAs:C/AlGaAs power HBTs, bias-stressed, failure mode 22359
GaAs:N,C, thermally stable C-N deep level 28742
GaAs/AlGaAs HBT, InN ohmic contacts 38817
GaAs/GaInP(AlGaAs)-based HBTs, thermal-elec. feedback coeffs. 12783
GaAs-AlGaAs HBT, high-speed register file, F-RISC/G proc. 37801
GaAs-AlGaAs monolithic optoelectronic switch, modulation response 23055
GaAs-AlGaAs(InGaP) based HBTs, H^+ and He^+ implant isolation comparison 30234
GaInP/GaAs HBT K-band DRO 6307
GaInP/GaAs HBT, MMIC power amps., MOCVD growth 12165
GaInP/GaAs HBT, base dopant out-diffusion prevention, heterostruc. emitter 30250
GaInP/GaAs LP-MOCVD grown HBTs for VCOs and power amp. MMICs 22377
GaInP/GaAs planar HBT technol., CBE selective collector contact regrowth 1362
GaInP-GaAs HBT, microwave appl. 12784
$Ga_{0.51}In_{0.49}P$-GaAs, RIE selectivity, HBT appls. 38832
GaN/SiC high-temp. HBT, high gain 22372
GeSi HBT, liq. He temp. operation 30249
Ge_xSi_{1-x} HBTs, graded and uniform base study 13647
GeSi-Si strained layers, MODFET/HBT/photodetector appls., review 29874
In-P based microelectronics pilot line for commercial and military applications 12799
InAlAs/InGaAs HBT, CBE growth, props. 13628
$In_{0.52}Al_{0.48}As/In_{0.53}(Al_xGa_{1-x})_{0.47}As$, NPN DHBT, DC characteristics 13634
$In_{0.53}Al_{0.22}Ga_{0.25}As$/InP, HBT 13644
InGaAs coupled QW base transistor with graded emitter, RT operation 6735
p- InGaAs:C, appl. to InP/InGaAs HBTs 13072
InGaAs:Zn HBTs, electron diffusion length 38262
p-InGaAs/Pd-Zn(Cd)/Ge implanted shallow ohmic contacts, HBT appls. 38698
InGaAs-InP double HBT, high speed/voltage driver circuit appl. 13876
$In_{0.53}Ga_{0.47}As$-InP, heterostruct. emitter bipolar transistors, LP-MOCVD grown 38848
$In_{0.53}Ga_{0.47}As$-based HBT, electron impact-ionisation coeff. 30256
InGaAs(P)/InP, lasers, HBT, monolithic integration 14651
InGa(As)P-GaAs compositionally graded emitter HBT, fab./characts. 6723
InGaP HBTs, high-temp./microwave power appls. 38838
InGaP/GaAs HBTs, self-aligned fab., high reliab. 22360
InGaP/GaAs HBTs, ultra-high carbon-doped base 38840
$In_{0.5}Ga_{0.5}P$/GaAs HBTs, MOMBE growth, tertiarybutylphosphine 22375
InP, and related materials, conf., Paris, France (April 1993) 11521
InP collector-up HBT, 300-400 GHz, mm and submm phased antenna array appls. 6314
InP double HBT, quaternary collector, breakdown behaviour 13633
InP/GaInAs HBTs, ultra high base doping, high emitter effic. 30248
$InP/In_{0.53}Ga_{0.47}As$ HBTs, MOMBE growth, tertiarybutylphosphine 22375
InP/InGaAs HBT IC technol. for 4:1 TDM multiplexer 1487
InP/InGaAs HBT, MOCVD, Zn diffusion, growth temp. depend. 22385
InP/InGaAs HBT, integrated optical receiver front-ends noise 14662
InP/InGaAs HBTs, abrupt-emitter, compositionally-graded base 38843
InP/InGaAs HBTs, highly Be-doped base layer, fab./characts. 21541
InP/InGaAs HBTs, lateral scaling investig. on DC and RF performs. 22388
InP/InGaAs HBTs, nonstationary 1/f noise 22356
InP/InGaAs HBTs, p^--n^- collector struct., breakdown-speed tradeoff 13627
InP/InGaAs HBTs with n^+-InP contacting layers, MOMBE growth 6724
InP/InGaAs, fully self-aligned HBT with Schottky collector 13629
InP/InGaAs:Be HBTs, highly doped base layer/suppressed diffusion, ALE/CVD growth 6729
InP/InGaAs/InP DHBTs, microwave power performance 12765
InP-GaInAsP-GaInAs composite collector HBT/circuits 13663
InP-InGaAs DHBT/p-i-n PD monolithic photoreceiver, 23 GHz bandwidth 7483
InP-InGaAs high-speed heterojunction phototransistors, electrode 14611
InP-based HBT ICs, design trade-off 13875
InP-based HBTs/heterostruct. bipolar ccts., design platform 28946
$Si/Si_{1-x-y}Ge_xC_y/Si$ HBTs, fab. and bandgap study 21553
$Si/Si_xGe_{1-x}/Si$ HBT with δ-doped base, multistep charact. 38845
Si/SiGe I^2L ccts., gate delay 12414
Si/SiGe epitaxial-base HBTs, materials, phys., and ccts. 30243
Si/SiGe epitaxial-base HBTs, proc. integrat. and BiCMOS analog appls. 30244
Si/SiGe heterostruct., UHVCVD growth and appl. 312
Si/SiGe/Si DHBTs, thermal runaway tolerance 38834
Si-Ge heterojunction bipolar technol. 30444
$Si-Si_{1-x}Ge_x$ epitaxial devices, Ge content depend. of radiation damage 13638
Si-SiGe layers, elec. charactn. techs. 6538
Si-SiGe self-aligned HBT, 1/f noise charactn. 22364
Si-SiGe-Si DHBTs, parasitic pot. barrier effect on base current *(Korean)* 13618
a-SiC/Si:P structs., P diffusion and interface segreg., HBT appls. 13118
SiGe HBT technol. appls. in radio digital commun. 38999
SiGe HBTs, HF noise fig., phys. model 13623

heterojunction bipolar transistors continued
- SiGe HBTs, output conductance anoms., modelling 22389
- SiGe high speed bipolar transistors, cutoff freq., compact model 1367
- SiGe multi emitter finger HBTs, f_{max} up, 120 GHz 21544
- $Si_{1-x}Ge_x$ HBTs, ungraded, cut-off freqs. 22370
- $Si_{1-x}Ge_x$/Si HBT model 22382
- SiGe-base HBT 2D device-level simul., transient/DC behavior, ECL buffer 13658
- Ti-Pt ohmic contacts to InAs emitter layer, AlGaAs-GaAs HBTs 38831
- W-Pt ohmic contacts to InGaAs emitter layer, AlGaAs-GaAs HBTs 38831
- ZnSe/Ge/GaAs, lattice matched HBT, DC/AC charact. 13631
- ZnSe/InGaAs/GaAs, lattice matched HBT, DC/AC charact. 13631

heuristic programming
- *see also artificial intelligence*
- A2A3 air traffic control testbed using embedded AI technology 10418
- bipartite graph crossing reduction, assignment heuristic 21018
- cellular mobile syst. nominal channel allocation optim. 42203
- commun. network, terminal assignment, genetic algms. 16556
- COSIMA multistrategy learning syst., integrat., interactive floorplanning tool 12290
- distrib. network load restoration planning algm., ES-based 19245
- distrib. network optimal config. planning, branch exchange methods 27153
- distrib. network optimal switching planning, fuzzy inference appl. 19268
- distrib. network restoration, ES-based heuristic methods 19244
- DRS telecomm. satellite, heuristic scheduling 42320
- DYANA best-first hierarchical diagnosis, diff. eqn. models 19493
- glottal source param. anal. method 8183
- induction motor incipient fault detect., fuzzy neural net-based 36156
- mesh-restorable network spare capacity placement strategies 41550
- min. cost isolated failure immune networks 8788
- mixed 0-1 integer prog. problem, approx. method, min. conflict *(Japanese)* 28634
- motion clustering, stochastic 24628
- motor fault detect., hybrid fuzzy/neural syst. used extract heuristic knowledge 4984
- multi-carrier demodulators, bulk FFT struct., distortion anal. 40572
- net-present-value cost/time tradeoff 36976
- power syst. crit. contingencies ident., heuristic method 19133
- power syst. optimal VAr control, fuzzy neural net-based 35480
- power syst. state estim., Otten partitioning method 26884
- power syst. unit commitment methodology, computer-based *(Korean)* 27077
- power syst. VAr allocation planning, ADAPOS package-based 27092
- Prolog program, prog. fast colour recogn. hardware by symbolic reasoning 24546
- seismic event class. by fuzzy logic 35290
- single line drawing interp. for obj. reconstruction 41243
- spacecraft electrical power system fault detection and diagnosis, model-based reasoning 10397
- static task allocation heuristic eval. by random acyclic diagraph generation 28617
- step index opt. fibre 3D ray trajectory heuristic computation 30895
- TEAMS, testability engng./maint. syst. 11708
- wire routing, automatic, evol., for multiprocessors 37584
- wireless networks, resource allocation 9245

Hewlett Packard computers
- HP8410 ANA syst. response calib. 34385
- HP data acquisition syst., computer-controlled test station 34416
- OTDR reflectometry meas., automation 22826

Hewlett Packard Interface Bus *see peripheral interfaces*

HEXFET *see insulated gate field effect transistors*

HF amplifiers
- *see also radiofrequency amplifiers; VHF amplifiers*
- devices/ICs for portable cellular phones 17133

HF propagation *see HF radio propagation*

HF radio propagation
- adaptive sig. proc., receiving antennas 40773
- artificial ionos. turbulence, HF sigs. Doppler shift 40342
- auroral ionos. HF channel, oblique sounding 23621
- direction finding systs., polariz. diversity contrib. 34187
- Fresnel filtering, HF ionos. refl. channel 31840
- ionos., HF pulse propag., electron dens. effects 23622
- ionos., oblique pulses, num. rise time calcs. 7983
- ionos., scatt. from artificial turbulence 7982
- ionos. cond. disturbances, modulated HF waves 7980
- ionos. irregularities study, HF channel 35308
- ionos. propag., solar/geomag. activity effect 40338
- LF model for wedge, pyramid absorber arrays 7994
- LF model for wedge or pyramid absorber arrays, meas. results 7995
- LF/MF skywave propag., daytime 40337
- rem. low-power transmitters, single station location 34193

HF range *see HF amplifiers; HF radio propagation*

HF transformers *see high-frequency transformers*

HF transmission lines *see high-frequency transmission lines*

HGMS *see magnetic separation*

Hi-Fi equipment
- *see also digital audio tape*
- adaptive inter-channel prediction, joint stereo audio coding 15776
- archived recordings, impulsive noise removal, two-channel approach 34293
- audio coding technol. and standardisation *(Japanese)* 17545
- BiCMOS stereo audio sigma-delta ADC for audio appls. 9770
- CD player, robust multivariable controller design 17615
- CD player multivariable control, DSPs 17612
- class D output stages lin. for high-perform. audio power amps. 3697
- compact disc player, QFT controller design/implement. 17614
- digital broadcasting facilities/operations *(Japanese)* 34215
- DSP implement./perform. eval. of stereo echo canceller 34287
- high speed A/D conversion, multi tone dither 706
- laser/detector/hologram unit for thin opt. pick-up head of CD player 17613
- Mini Disc auto-changer for in-car *(Japanese)* 25692
- mobile hi-fi DAB scheme 9695
- multicast software develop. 25158
- neural network based syst., speaker testing 9768
- programmed control, state problems 17580
- recordable mini disc mechanism, develop. *(Japanese)* 3696
- transaural stereo, develop. 15995
- verification of audio control protocol 34288

Hi-Vision *see high definition television*

hidden feature removal
- GVIP, scalable high-perform. graphics proc. 21366

hidden line removal *see hidden feature removal*

hidden Markov models
- 1D seq. decomp. based AR HMM for signature ident./verif. 2839
- acoustic proc. for speech recogn., vectors and phoneme models *(Japanese)* 15816
- act. airborne sonar target tracking 34172
- adaptive HMM filters for sigs. in noisy fading channels 32736
- all-phoneme ergodic HMM for unsupervised speaker adaptation 32271
- Alphanet-HMM based continuous speech recogn. syst. 32262
- AT&T 800 speech recogn. service, network call routing 3140
- automatic generation of hidden Markov networks by successive state splitting algm. 32440
- automatic lang. ident., sub-word models 32278
- automatic telephone operator based on client-server syst. archit. 3132
- blind channel charactn. and data detect. 40943
- channel-bank-based phone detect. strategy 32397
- connected digit recogn., GPD segmental discrim., rejection method 32303
- connected digit recogn., telephone network based, VQ HMM appl. 32235
- connected-word recogn. in noise, extraction 32385
- context-free large-vocab. connected speech recogn. 32393
- continuous dens., unsupervised speaker adapt., phoneme recogn. 40755
- continuous speech phoneme recogn., large inhomog. HMM 32219
- continuous speech recogn., expert-TDNNs/HMMs hybrid syst. 32398
- continuous speech recogn., hidden Markov methods *(Japanese)* 15811
- continuous speech recogn., HTK software toolkit 32388
- continuous speech recogn., models and algms. 8209
- continuous speech recogn. algm., telephone directory appl. 15845
- continuous speech recogn. in noise, spectral subtraction/HMM adaptation 32307
- cross-lang. adaptation for rapid HMM devel. in lang. 32268
- cursive Hangul character recogn. via stat. approach 41310
- cursive script recogn., time delay neural networks and HMM 32661
- degraded gray-scale text recogn., pseudo-2D HMMs and N-best hypotheses 40753
- discriminative HMMs, non-lin. input transforms. 32265
- discriminative training of high perform. speech recognizer 32359
- document image recogn./normalization via 2D HMMs 41312
- dyn. speech recogn. tasks, connectionist approach 32428
- ECG, multiple lead recordings, HMM anal. 35106
- ergodic HMM and polygrams for lang. modeling 32294
- filtered EM algm. for joint HMM and sinusoidal param. estim. 24220
- freq. non-selective channels seq. estim. 8384
- genones, large vocab. HMM based speech recognizer 32363
- gesture recogn., recurrent neural networks vs. competing techs. 35171
- GSM radio meas. data, proc. methods 3447
- handwritten character recogn. via stochastic models 41309
- hybrid HMM-MLP speaker verification algm. for telephone speech 32247
- hybrid HMM/MLP speech recognizer, linguistic, incorporation 32434
- hybrid neural nets/HMM, speech recogn. *(Chinese)* 8217
- hybrid NN-HMM systs., model-discriminant training algm. 32435
- IEEE ICASSP conference, Adelaide, Australia (1994) 20269
- IPA, improved phone modelling, recurrent neural networks 32218
- isolated word recogn., interframe depend. HMM 8216
- isolated word recogn., SOFM-HMM/inertia *(Korean)* 24155
- isolated word recogn., Viterbi decoding and HMMs 32354
- iter. speech enhancement, min. cost based phoneme class detect. 32376
- joint moments calc. 41054
- keyword detect./location in scanned images via HMM 40701
- Korean, part-of-speech tagging, HMM *(Korean)* 24154
- KT-STOCK large vocab. speaker independent recogn. syst. 2440
- lang. ident., phone-based acoustic likelihoods 32276
- large vocab. speech recogn., comparative expts. 32343
- large vocab. speech recogn., connectionist model combination 8235
- large-vocab. speaker recogn. technol., recogn. accuracy *(Japanese)* 15813
- LIMSI continuous speech dictation syst., eval. 32342
- lin./nonlin. filtering 24292
- LQV, transform. 8238
- LVQ-codebooksr with HMM, appl. 32305
- Mandarin Chinese, dictation syst., R&D 24144
- marine maneuvering target motion anal., HMM 34177
- matching probab. in HMM, integer algm. *(Korean)* 24157
- min. class. error, time-freq. masking filters optim. 32406
- missing inform. principle in computer vision 24358
- monolithic speech recognizer, fully recurrent neural networks based 8242
- multi-codebook HMM speech recogn. systs., learning 32263
- multimodal interface, speech and touch screen *(Japanese)* 24137
- natural spoken lang. understanding via hierarchical HMMs *(German)* 40735
- nearly completely decomposable Markov chains, adaptive estim. 40971
- noise adaptive speech recogn., HMM representation 40741
- noise-like sigs., HMM, params. estim. 32630
- noisy speech recogn., cepstral-time, and spectral-time filters 32381
- NTT speech proc. technol. and telecommun. appl. 2441
- on-line ident., recursive prediction error 8432
- phoneme recogn., restricting training sect. in concatenated HMM training 32272
- phonetic class./recogn., HMM 32220
- power syst. fault diagnosis, AI methods perform. eval. 19030
- recursive ident. of gesture inputs, HMM 8212
- segmentation of speech, speaker ident. 32249
- semicontinuous HMM speech recogn., multiple VQ 2433
- slowly time-varying commun. channels, adaptive hybrid ARQ scheme 15782
- speaker ident., multi-expert/hybrid connectionist 2429
- speaker recogn., min. error discriminative training 15826
- speaker recogn., min. error discriminative training 32286
- speaker verification, discrim. semi-continuous HMM 32281
- speaker verification, distributed decision approach 32244
- speaker-independent continuous speech dictation 2413
- spectral substraction/HMM-based speech enhancement, hearing aid design 32213
- speech automatic recogn. in noisy environ. 32431
- speech enhancement, constrained iter., HMM-based phoneme class partitioning 8227
- speech independent speaker recogn., HMM/VQ comparison 8229
- speech modelling, cepstral-time, matrices and HMMs 32353
- speech recog., adaptive method for indiv. speaker *(Japanese)* 32417
- speech recogn., acoustic modeling, phonetic units spotting 32217

hidden Markov models continued
speech recogn., acoustic/suprasegmental inform. combination 32225
speech recogn., duration/spectral based stress token generation 32308
speech recogn., frame correl. constrained phoneme HMM 15805
speech recogn., Gaussian mixture modeling 32356
speech recogn., HMM, Bayes adaptive algms. 24141
speech recogn., HMM, model search method *(Japanese)* 32418
speech recogn., HMM, state duration modelling 24134
speech recogn., HMM based on visual/auditory info. fusion 15820
speech recogn., HMM param. estim., fuzzy VQ 15819
speech recogn., HMM with duration modeling, parallel implement. 24133
speech recogn., HMM with duration modelling, parallel implement. 40745
speech recogn., hybrid HMM/neural networks combination 2431
speech recogn., Markov random field based parallel proc. 32352
speech recogn., MLP probab. estimators, parallel training 8237
speech recogn., modified HMM *(Chinese)* 40720
speech recogn., multiple VQ and semicontinuous HMM 32224
speech recogn., parallel distributed binary mapping models 32306
speech recogn., parametric/non-parametric representations 15835
speech recogn., RASTA-PLP integrat. 32310
speech recogn., SCHMM params., Bayesian learning 32264
speech recogn., variable frame anal. method 8215
speech recogn., vocab.-independent, phoneme-level HMM modelling 32339
speech recogn. in noise, root adaptive homomorphic deconvolution schemes 32315
speech recogn. in noisy car environ., OSALPC representation 32382
speech recogn. non-uniform unit HMMs 2445
speech recogn. perform., MAP estim. params. 32266
speech recogn. syst., microphones adaptation, tied-mixture normalization 32313
speech recogn. systs., HMM, finite-state automata 32361
speech recogn. using lin. predictive HMM, parallel proc. 8184
speech recogn. with discrete HMM, contextual VQ 40732
speech recognizer stochastic trajectory model/discriminative 32436
SPHINX-II speech recogn. syst., VQ codebooks and adaptive lang. models 32340
spoken lang. ident. by ergodic HMMs 15806
state-depend. time warping in trended HMM 2410
syllable-final nasals preceded by /ϵ/, automatic recogn. 32416
talker clustering/ident., model dist. measure 32282
telephone based speech recogn., in adverse environ., sig. bias removal 32316
telephone network speaker verification service 3135
telephone speech data corpus, speaker independent recogn. 3134
text understanding via hierarchical HMMs 41311
text-prompted speaker recogn., tied-mixture-based phoneme models 32240
tone recogn. of continuous Mandarin speech based on neural networks 24153
transient sonar sig. class., HMM/neural net 34178
tree-struct. speaker clustering for fast speaker adaptation 32270
unknown states, Markov monitoring 16406
unknown-multiple sig. source clustering problem, ergodic HMM *(Japanese)* 32548
Viterbi decoding burst error statistics 40592
vocab. independent wordspotting, fast lattice-based approach 32299
voice-activated telephone exchange syst. 3292
vowel class. using neural predictive HMM, discriminative training 32432
weak narrowband sigs., estim. and HMM tracking 40972
word accent patterns modelling by concatenation of mora HMMs 32226
word recogn., large vocab., tree-trellis search 32391
word recogn., task independent and depend. training 32357
word recogn. algm., part of speech tagging 2657
wordspotter training, fig.-of-merit back propag. 32302
wordspotting systs., recogn./rejection perform. 32298

hidden surface removal *see hidden feature removal*

hierarchical databases *see database management systems*

hierarchical systems
see also multivariable systems
B-ISDN hierarchical control approach 41925
boundary scan testing, syst. level 6401
complex image proc. syst. hierarchical simul. *(German)* 24673
continuous gravimetric dosing syst. elec. drives, microcomputer control 44623
DC motors, pulsed μP control design 11067
DFT/BIST hardware, chip-based, control strategies 9805
digital broadcasting, adaptively weighted CDM 25628
digital TV broadcasting syst. requirements *(Japanese)* 17540
disparity detect. in stereo vision syst., cepstrum tech. 2853
EM problems, multilevel moment method multiplication correction algm. 23612
hand prosthesis with hierarchical grip control, MARCUS 35159
HIST hierarchical self test for chips/boards/systs. 25725
induction motors drives, real-time PWM vector control studies 28100
interactive test engng., HIT syst. 6821
layout params. estim. 28929
mfg. message spec., protocol design/anal., Petri net-based 8873
MHEG multi- and hypermedia obj. interchange std. 41975
modulation schemes for digital broadcasting, power assignment 25630
MPEG-2 std. flexible digital data transm. *(German)* 17539
multibeam satellite prioritised nonblocking switch perform. under hotspot traffic 41412
multimedia commun. distributed co-operative multiagent IN syst. 41976
National Park service mgt. package 28377
navigating test access in electronic systs. 9806
neural net appl. to hierarchical analog fault diagnosis 42734
pattern recogn. systs., efficient search strategies 24736
PCB prod., computer-aided manual workstation, graphics generation 38112
PCB testings, fuzzy pattern recognition 38075
power engng. education, OOP approach 28334
power syst. hierarchical optimal control design 4517
power syst. simul., hierarchical GUI 19027
power system oscillations, hierarchical control algm. 19121
real-time multiline OCR parallel archit. 33027
residential video broadband switching network archit. 41554
small power plant generators/auxiliaries, protection/monitoring concepts 27306
SS multiplexing, hierarchical TV transm. 25634
steam turboalternator freq. control governor design 43909
stereo matching algm., wavelet representation *(Korean)* 24688
subsystems and noise signals identification 24236
university discless workstation network traffic charactn. 28347

hierarchical systems continued
variable impedance power syst., decentralised stabilisation scheme *(Japanese)* 43681
video coding, hierarchical multiprocessor archit. 33698
video-on-demand syst., distributed hierarchical storage manager 9743
video-on-demand systs., storage hierarchy 9744

high bit rate digital subscriber lines *see subscriber loops*

high coercivity materials *see permanent magnets*

high definition television
2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
2D DCT/IDCT VLSI, fully bit-serial archit. *(Korean)* 21367
2D digital video filters for PALplus-compatible HDTV transm. encoder 42604
2D FIR-median hybrid interpolation filter design for HDTV *(Korean)* 42601
3.3V MUSE decoder sig. proc. LSI *(Japanese)* 34254
3D LCD on VLSI die, electrostatic anal. 42875
3D syst., microsurgery appl. 34996
8PSK-TCM modem, develop. and transm. perform. 25156
22 GHz DBS HDTV antenna design and rain fade compensation 31950
adaptive coding algm., quantizer vector codebook *(Korean)* 42602
advanced broadcast video service (ABVS) 25667
all digital HDTV sigs., terrestrial transm. 9735
analogue TV, digital techs. 3666
ATM network, service provision 16427
ATM video, performs. and error control 8612
ATV transparent recording method, consumer digital VCR 17592
autostereoscopic 3-D TV, eight TV cameras *(Japanese)* 17563
AVLSI decoder archit. for TCM 9731
B-ISDN for video and high-speed sigs., modeling/optim. 9024
bit stream generator for HDTV, SCSI hard disc 9732
broadband satellite digital video transm. technol. *(Japanese)* 17542
broadcast multipath environ., multicarrier modulation perform. 34224
broadcasting service characts. and enhancement needs *(Japanese)* 17543
broadcasting service trends and tech. problems *(Japanese)* 17541
CATV near-future archit., broadcast channels capacity 42616
CATV technol. studies *(Japanese)* 34265
CCD image sens. for HDTV, 1, 2 Mpixel, W photo-shield 17562
CCD imagers, photoelec. conversion charact., knee control operation 9730
channel equalization, recursive Bayesian techs. 9734
CMOS video D/A converter, HDTV, low glitch 10-bit 75-MHz design 12594
codec for high-resoln. digital satellite commun. syst. *(Japanese)* 25637
COFDM for TV broadcasting, overview 42560
computer-controlled digital HDTV chroma-key syst. 42608
decoders testing, boundary scan test impact 9725
deinterlacing, motion-compensation method *(Japanese)* 32997
digital baseband VCR, visual investig. of head-tape interface 9749
digital broadcasting facilities/operations *(Japanese)* 34215
digital camera, CCD image sens. 42598
digital codec, high compression, develop. 42607
digital HDTV introduction, terrestrial networks *(Croatian)* 3669
digital HDTV studio mag-tape-recording hardware codec *(German)* 9727
digital transm. syst. 9736
digital TV broadcast sig. error correction techs. *(Japanese)* 17546
digital TV for terrestrial broadcasting, modulation 17534
digital TV sig. broadcast 34204
digital VCR coding scheme for HDTV recording 9753
displays, device technol. *(Japanese)* 34642
double half-bandwidth OFDM syst. for digital video broadcasting 9698
DRAM based CMOS TV ccts. for advanced services/features 9706
dual wavelength opt. fiber HDTV distrib. networks 17571
East Asian newly indust. economies 3673
EDTV, 2nd generation, policy and digitalisation *(Japanese)* 34249
EDTV-II, vert.-temporal/high helper sig. multiplexing scheme 9724
EDTV-II black bar helper sig. multiplexing scheme *(Japanese)* 17555
EDTV-II helper sig., correl.-based visibility reduction method *(Japanese)* 34259
EDTV-II motion-adaptive vert.-temporal helper sig. *(Japanese)* 17556
EDTV-II telecine image conversion and signalling *(Japanese)* 17569
electronic imaging systs. *(Japanese)* 34252
ETV syst. common stds. *(Croatian)* 3670
European syst. for transm. of digitized TV sigs. via satellite 9694
EUTELSAT digital TV, perspective 33965
field rate conversion in HDTV, interpolation methods 9729
Fujitsu 21-inch color plasma display and electronics *(Japanese)* 25918
full digital HDTV syst., develop. 9728
full-digital HDTV syst., algms. and implement. 9733
GEO satellite, nuclear power/propulsion appls. 18753
global research advances, Chinese research issues 3674
Grand Alliance syst. for US HDTV 25665
GVIP, scalable high-perform. graphics proc. 21366
HDTV, opt. transm. equipt. *(Japanese)* 42600
HDTV Format convertor, design/test, Forth appl. 3672
Hi-8 HD-VCRs, embedded thin film mag. head 9746
Hi-Vision 32C-HD3 MUSE decoder, design *(Japanese)* 3668
hierarchical modulation schemes for digital broadcasting, power assignment 25630
high-capacity photonic space-division switching syst. for broadband networks 25533
high-resoln. projection CRT display, 6.9 inch 17567
holographic TV, LCD, YAG laser and camera appl. *(Japanese)* 2149
image acquisition methods, multiple cameras *(Japanese)* 16124
image and video storage media prospects *(Japanese)* 17584
image coding, noise resistant sync. 16288
image compression, MPEG-2 std./autosophy comparison 42606
image database syst., develop. *(Japanese)* 25671
image seq. coding algms., parallelising method 2811
image seqs. coding by wavelets and subband schemes 16287
integrated services network scheduling and admission control priority token bank 41916
interlaced digital HDTV image coding field/frame mode selection *(Korean)* 25672
IT-CCD image sens. for HDTV, 1/4-inch 560 k pixel, high perform. CCD technol. 34260
Japan/America next-generation TV systs. *(Japanese)* 25669
large-screen HDTV projector, opt. config. 25922
LCD projector with interleaved pixels, opt. syst. and charact. 25931
letterbox EDTV, 3D noise charact. *(Japanese)* 34256
low-rate multi-channel audio coding, standardization 15778

high definition television continued
LSI technol. impact on systs. develops. 17532
MCM fab., planar chip insertion, interferometric micropositioning 21727
Mitsubishi 16-channel 622 Mbps FDM coherent opt. commun. equipt. 34003
multidimensional downsamplers/upsamplers, commutativity 8277
multiresolution modulation/concatenated coding, decoding algms. 8683
MUSE decoder, video noise reduction *(Japanese)* 34258
MUSE decoder chip set for HDTV, low power operation 17565
MUSE sig. decoding, integrated image DP *(Japanese)* 34257
MUSE syst., frame pulse protection *(Japanese)* 34255
MUSE syst., picture quality improvement by resoln. enhancement *(Japanese)* 34253
NTT's opt. fiber transm. syst. 42603
OFDM for digital TV broadcasting 3646
opt./mag. recording, digital compression appl. 25677
parallel divide-and-conquer video decompression 42599
PHIDEO, high-level synthesis for high throughput appls. 41173
photonic ATM switching systs. 33731
physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
picture quality subjective eval., modified EBU method 42605
polygonal scanners for TV/HDTV laser projectors 3662
polysilicon TFT proc. for CMOS, HDTV LCDs appl. *(Japanese)* 1492
progressive and interlace scanning, camera SNR and bit-rate reduction 25668
receivers, efficient 2D inverse DCT algm. 25645
Sarnoff engine, massively parallel computer for high defn. syst. simul. 12587
sens., R and D activities and trends *(Japanese)* 34585
standardisation, systs. *(Japanese)* 34250
stds. converter, develop. 9723
stereoscopic TV program, accomodation responses *(Japanese)* 17564
stuff sync. cct. design for HDTV transm. on SDH network 25666
Super-16 recording for 16:9 TV prod. *(German)* 9726
systs., channel equalization techs. 17566
telecomm. satellites power systs. study, USA 26619
trends/develop. 34202
trends/developments 33430
TV camera lenses, latest develop. *(German)* 25653
USA HDTV standardisation status and specs. *(Japanese)* 17568
video coding for HDTV systs. 3671
video-rate 10-b triple-stage Bi-CMOS A/D converter 12591
video/image recording technol. *(Japanese)* 34277
VLSI, HDTV sub-band coding, GQMFs filterbanks 42597
WARC 77 plan modernisation *(Croatian)* 3645
watching/listening studies *(Japanese)* 34251
wide-screen autostereoscopic display syst., head-posn. tracking 9985
wireless HDTV camera, 42 GHz-band transmitter/receiver develop. 25670
Si CMOS addressing matrices, light-valve projection displays 25928

high electron mobility transistors
see also HEMT circuits; hot electron transistors; power HEMT
0.2 μm gate length HEMT technol., conventional opt. lithog. 1440
2DEG channel, oxide wire, AFM fab. 38932
7.5 Gb/s monolithically integrated PLL/QW-HEMT clock recovery cct. 29341
back-to-back horn antenna quasi-opt. amp 23914
charactn. of semicond. device struct. by modulation spectrosc. 1435
charge based gate capacitance model 38936
dual gate MODFETs, submicrometer, 2D hydrodynamic simul. 38006
dual-channel HEMTs, model 13768
fast bias depend. device models for CAD of MMICs 38014
gate lengths, low field DC-IV data 13769
gate-drain/gate-source capacitance meas. for modelling 30370
heterodyne reception of MM-wave modulated opt. sigs., HEMT 3544
hybrid gate mixer, 30 GHz, design procedure 12797
integrated on-drain capacitor, hybrid mixer appl. 21574
large sig. model for mixer anal./design 6320
lateral hot-electron phototransistor for long-wave length IR radiation, modeling 39563
LNA, monolithic HBT-regulated HEMT config. by MBE 29591
mixed photonic/electronic cct. simul. 37603
model, 1-50 GHz small-sig. params. and DC drain current 12757
MODFET, extended drift-diffusion model, 2D num. anal. 38924
MODFET multi-layers, low-mag.-field-depend. Hall-tech. 1442
MODFETs, noise perform., gate leakage current 38938
MODFETs, pseudomorphic short gate length, $G_{ds}$and f_T anal. 6784
MODFETs, transit time effects, direct meas. 22487
modulation-doped photodetector, low-temp. MBE-grown GaAs 17783
monolithic HEMT-HBT integrat. by selective MBE 38011
monolithic MM wave IC, high speed opt. detectors 9534
nonlin. transistor model params. extraction program 13805
photolum. spectra study 38933
pseudomorphic HEMT, LF gate current noise anal. 30366
pseudomorphic HEMT device wafers, photolum. eval. 13792
pseudomorphic HEMT small sig. equiv. cct. model scaling 6799
pseudomorphic MODFETs, charge control modelling/expt. perform. 6800
radiation detect. front end electronics, HEMT appl. 10144
reliab./quality diagnostic tool for electronic devices 1315
RoundHEMT, HEMT layout, ringshaped gate 29568
small-sig. equiv. cct. determ. tech. 30379
source, drain and channel resist. determ. 22489
threshold voltage, MOSFET model 38939
V-shaped gate HEMT *(English)* 22480
$Al_xGa_{1-x}As$ n^+nn^+ devices, Al content x, effects on hot electron noise 1433
AlGaAs:Si, delta-doped by LP-MOVPE, HEMT appl. 22134
AlGaAs:Si, delta-doped, low-press. MOVPE 13304
$Al_{0.3}Ga_{0.7}As$:Si/GaAs heterostruct., MODFET structs., DX centers 13120
AlGaAs/(In)GaAs HEMT, electrolum. 30368
AlGaAs/GaAs HEMT design, inverse modeling 38909
AlGaAs/GaAs HEMT, ohmic contact, 29958
AlGaAs/GaAs HEMT with Al/Ni gate, thermal stabil. 22492
AlGaAs/GaAs HEMTs for MM wave appls. 37978
AlGaAs/GaAs MODFETs, low-noise X-band transistors, MBE growth 22479
AlGaAs/GaAs wire transistor, in-plane gate, Schottky contacts 38931
(AlGa)As/GaAs:C, MOVPE, N_2 carrier gas 316
AlGaAs/GaAs(InGaAs/GaAs) microwave/millimetre-wave HEMTs, noise model 831
AlGaAs/$In_{0.15}Ga_{0.85}As$ DH-PHEMT, short-channel effects 13808
AlGaAs/InGaAs pseudomorphic HEMT, δ-doped, charge transfer limitations 30373

high electron mobility transistors continued
AlGaAs/InGaAs pseudomorphic SQW-MODFETs, double sided modulation doping 6786
AlGaAs/InGaAs/GaAs HEMT, photolum. spectrosc. 6780
AlGaAs/InGaAs/GaAs heteroepitaxial layers characterisation 21901
AlGaAs/InGaAs/GaAs recessed-gate PHEMT, Si planar-doped etch stop layer 30382
$Al_{0.3}Ga_{0.7}As/In_xGa_{1-x}As$, MBE, growth mechanism 340
$Al_xGa_{1-x}As/In_yGa_{1-y}As$/GaAs, pseudomorphic HEMT, photolum. 6807
AlGaAs-GaAs HEMT, conc.-depend. carrier mobility and lifetime 1447
AlGaAs-GaAs MODFETs, neg. photoresponse study 31088
AlGaAs-GaAs modulation-doped heterostructs., microwave I/V characts. 1075
AlGaAs-GaAs-AlGaAs HEMT/quantum well laser monolithic integrat., MBE/technol. 1945
$Al_xGa_{1-x}As$-$In_yGa_{1-y}As$-GaAs, modulation doped HEMT, photolumin. linewidth 13145
AlGaInP/GaInAs/GaAs:C MODFETs, fab. scheme 6783
AlInAs/GaInAs, pseudomorphic HEMT, design, performance 13784
AlInAs/GaInAs/AlInAs HEMT struct., double modulation-doped strained-channel 6782
AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
AlSb/InAs HEMTs, 5 V gate breakdown voltage 835
GaAlAs/GaAs 150-nm gate-length HEMTs, fab., X-ray lithog. 13800
GaAs MESFETs and PHEMTs, 2DEG effect on noise perform. 37981
GaAs MMIC, CSIRO prototyping facility 29581
GaAs MMIC technol./manufacture, MIC comparisons, status review 29580
GaAs based HEMTs, recess depend. breakdown behavior 13777
GaAs, devices, impact ionization/light emission, Monte Carlo study 1441
GaAs pseudomorphic HEMT, high yield, mfg. technol. 39020
GaAs:As, implanted struct., MOCVD, charactn., appls. 22159
GaAs:Si, delta-doped, low-press. MOVPE 13304
GaAs/(InGa)As/(AlGa)As quantum wire, 1DEG opt. emission 1142
GaAs/AlGaAs MESFET and pseudomorphic HEMT, selective RIE 38917
GaAs/AlGaAs inverted MODFET, charge control/I-V model 38908
GaAs/AlGaAs microwave HEMT device, MBE fab. and charactn. *(Korean)* 29571
GaAs/AlGaAs:Si HEMT/Si, selective dry etching, V_{th} uniformities and f_T 6791
GaAs/$In_{0.15}Ga_{0.85}As/Al_xGa_{1-x}As$ HEMTs, modelling 13795
GaAs/InGaAs, δ-doped heterostruct., hot carriers, NDR transistor 30374
GaAs-AlGaAs-GaAs HEMT struct., elec./lumin. props., CF_4 plasma effect 13352
GaInAs/InP high channel conductivity, HEMT appl. 13160
$Ga_{0.51}In_{0.49}P$/GaAs inverted-struct. HEMT, DC charactn. 6789
$Ga_{0.51}In_{0.49}P/In_{0.2}Ga_{0.8}As$ pseudomorphic HEMTs, WSi_x gates, high temp. 13811
GeSi-Si strained layers, MODFET/HBT/photodetector appls., review 29874
InAlAs/$In_xGa_{1-x}As$ HEMT, off-state/breakdown mechanism 22488
InAlAs/$In_xGa_{1-x}As$/InP HEMT, breakdown behaviour 6788
InAlAs/InGaAs, HEMT, high cut-off, current drive capability 13785
InAlAs/InGaAs HEMT, self aligned dual 50 nm gate device 13786
InAlAs/InGaAs HEMTs, InGaAs buffer layers, MOCVD growth 22476
InAlAs/InGaAs HEMTs lattice-mismatched on GaAs, high-perform. devices, mm-wave appls. 21549
InAlAs/InGaAs MODFET, 0.15 μm gatelength, OMVPE growth 13780
InAlAs/InGaAs multichannel MSM-HEMT receiver OEIC for WDM 14650
InAlAs/InGaAs/InAlAs, HEMT, MBE grown, parasitic effects 13782
InAlAs/InGaAs/InP HEMT impact ionisation characterisation 13771
InAlAs/InGaAs/InP HEMT, trapping mechanisms, sinusoidal/transient response 13772
InAlAs/InGaAs striped-channel MODFETs 13799
InAlAs/n^+-InGaAs FET, breakdown physics 13770
$In_{0.52}Al_{0.48}As/In_{0.53}Ga_{0.47}As$ heterostruct. FET, Schottky-barrier-gate diodes characts. 13765
InAlAs-InGaAs MODFET, channel struct. design 13816
InAlAs-InGaAs strained HEMT, I-V characts., charge control model 38911
InAs quantum-well FETs, electron transport props. 6805
InGaAs graded channel InP HEMT, 305 GHz f_T and 340 GHz f_{max} 843
InGaAs/AlGaAs HEMT hetero-interfaces, misfit disloc., diffuse X-ray scatt. 38305
InGaAs/AlGaAs/GaAs MODFETs, high breakdown, fab. 22477
InGaAs/AlInAs heterostruct., electron transport, transistor perform. 6563
InGaAs/InAlAs, MBE on InP, high electron mobility 13156
InGaAs/InAlAs MODFETs, InP substrs., proc. technol. 13798
InGaAs/InP composite channel HEMT struct., LV mobile comm. appls. 1444
$In_{0.2}Ga_{0.8}As$/GaInP(AlInP)/WSi_x gate HEMT, high temp. perform. 6785
$In_{0.21}Ga_{0.79}As$/(AlGa)As HEMT, misfit disloc. role 30375
$In_{0.75}Ga_{0.25}As$/InAlAs pseudomorphic modulation-doped heterostruct., high electron mobility 21971
InGaAs-AlInAs HEMTs, dopant passiv., dry etching 30364
$In_{0.2}Ga_{0.8}As$-$Al_{0.52}In_{0.48}P$ HEMT, gas source MBE growth 13817
InGaP/$In_{0.2}Ga_{0.8}As$:Si HEMTs, heavily Si-doped, MOVPE growth 5830
InGaP/InGaAs HEMTs for MM wave appls. 37978
n-InGaP/InGaAs/GaAs pseudomorphic HEMTs, mobility, device perform. 22485
InGaP/InP/InGaAs/InP backside-doped split-channel HFETs 30365
InGaP-InGaAs-InAlAs, HEMT struct. with strained Schottky layer 13815
InP HEMTs, ohmic contacts, cap-layer doping 1438
InP, and related materials, conf., Paris, France (April 1993) 11521
InP/AlInAs/AuGe/Au HEMT struct., thermally stable ohmic contacts 30363
InP/GaInAs HEMT, interface props., device characteristics effect 13779
InP/InGaAs/InAlAs HEMT, ohmic contacts 13774
InP/InGaAs/InP heterostruct., highly strained, mobility enhancement 13111
p-InP/n-InP/InGaAs, S-doped DH-HEMT, props. 13787
InP-based HEMT, extremely low-noise, Si_3N_4 passiv. 21552
Si detector, HEMT input charge preamplifier, ns sig. proc. 43136
Si substr. MOVPE grown, novel pseudomorphic struct. 20824
p-SiGe MODFET with high transcond., fab. and perform. 38002

high energy electron diffraction
see also reflection high energy electron diffraction
GaAs:C,H, MOMBE, C-H complexes, orient. rels. 327

high energy physics electronics *see nuclear electronics*
high energy physics instrumentation computing
accelerator distributed control syst., stand-alone Internet nodes appl. 18200
ACNET control syst., smart subsystems, shell software 18231
ALS, obj.-oriented software constr. 18227
AmPS magnet control syst. 18276
APS, control displays, rule-based ES 18219
Big Liquid Argon Spectrometer, data acquis. electronics, Tagged Neutrino Expt. 25738
Blitzen array proc., second level trigger element 43123
calorimeters, sig. proc., functional schemes 4152
calorimetry at LHC, modular fault-tolerant approach 4237
CERN accelerator control, commercial indust. control syst. integrat. 18238
CERN calorimeter, computer archit./electronics 18366
CERN NA48 simul. program, parallelisation 18377
CERN of indust. control components 18237
CERN PS accelerator complex, data driven alarm syst. 18202
CERN PS accelerators, operator interface 18222
charge division posn.-sensitive detectors, error reduction 18345
charged particle beam tomographic monitors, distrib. fns. meas. 34824
CMOS neural network IC for high-energy phys. 29476
conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
Cortex quasi-real-time IS, build HEP control systs. 18241
COSY accelerator facility, steering/timing syst. solns. 18201
COSY control syst., RT/OS environ. 18209
DELPHI distributed IS, LEP appl. 18210
detector models, transfer to CAD 43122
digital pulse height anal., radiation spectrosc. 18401
DΦ detector, control, monitoring 18305
EPICS, obj.-oriented enhancement 18235
EPICS control syst. software develop. 18240
equipt. access software, distrib. UNIX-based accelerator control 18208
ESRF accelerator, VME image acquisition/proc., TV CCD cameras 18272
ESRF distrib. control syst., access control/security 18213
fast front-end computer design 18232
Fermilab accelerator control syst., user actions, program recording 18226
gamma-ray spectrometer, data acquisition syst. 34969
gaseous 2D detectors, PC-based fast readout electronics 18384
generic software tool kit, accelerator distributed control 18233
Gismo Project, detector simul. 34954
hadronic colliders, transverse beam dyn./losses 4103
HIMAC synchrotron control syst. 18175
ICARUS detector, data reduction techs., phys. param. extraction 10125
inclined high heat monochromator, temp. distrib./X-ray diffr. 10163
ISOLDE isotope separator control syst. design 18391
K4-K10 storage ring, bus controller for MIL-1553B/Multibus II 18211
LAMPF data acquisition and control syst., virtual data syst. 18217
LEADS program, lin. and electrostatic accelerator beam dynamics 34833
LEP2 cryogenics, large indust. control syst. appl. 18239
LEP2 cryogenics control syst. archit. 4036
LEP high level control syst., ORACLE online database 18234
LEP machine/expts., data exchange 18212
LEP operation, high level appl. software 18223
LEP/SPS control syst. computers, installation, mgt. 18225
LHC calorimeter second-level trigger, neural net, extract., e/jet discrimin. 26193
LHC expts., level-1 triggers 18387
low-emittance electron beams in electrostat. accel., FEL appl. 26062
MAMI control, graphics operator interface 18224
multiparameter meas., PC-CAMAC based data acquisition 26236
NA35 streamer chamber, image data anal. 26234
NIM ADC, fast VMEbus interface 26237
optimum DSP for radiation spectrosc. 18390
particle accelerator devices, persistent software objs. 18199
pixel detector, primary vertex location, neural network appl. 34941
RD13 project (LHC), software engng., CASE tools 18228
real-time pulse shaping in radiation meas., digital techs. 18383
SARA, control systs., PCs 18242
shower recogn., feed-forward neural networks appl. 34942
single chip neural network photon trigger 29483
SRRC accelerator control syst. design schemes 18218
SRRC storage ring, computer control and instrumentation syst. 18174
SSC, emittance growth, computer simul. 26037
SSC, high level control code, interactive simulator 18220
SSC accelerator proc. control syst. 18177
SSC accelerator systs. string test software archit. 18176
SSC control syst., develop. environ. 18229
SSCL, RF control, obj. oriented design approach 18277
State Notation Language, run-time sequencer, accelerator control 18278
TRISTAN accelerator tune, workstations, digitalised sigs. 18275
TRIUMF, device access, C++ on VAX/OpenVMS 18230
TRIUMF control syst., DEC TURBOchannel, CAMAC exec. crate interface 18205
UNK control syst. protocols 18207
UNK Project, accelerator control, MMI 18279
UNK transfer line beam diagnostics control 18263
Zero Instruction Set Computer, Higgs search 41284
GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
He cryoplants in CERN SPS, control aspects 10080
Si detectors, polariz. voltage control, automated syst. 43058
high fidelity amplifiers *see audio-frequency amplifiers*
high fidelity equipment *see Hi-Fi equipment*
high field effects
see also Gunn effect; hot carriers; impact ionisation; Poole-Frenkel effect; Schottky effect
2D electron gases in strong mag. field, tunneling 6570
ballistic cond. in 1D/2D semicond. nanostructs. 1121
bridge jn. in supercond. film, ballistic resist. 7239
CMOS transistors, high-field electron injection, threshold voltage 38881
dielectric oil, high stress aggregation, electron transport 13935
HBTs, heterostruct. hydrodynamic transport model *(Chinese)* 1353
hot electron noise in semicond. materials for high-speed devices 1314
inversion layer carriers, saturation vel. and overshoot 22445
IR MQW phototransistor, Monte Carlo modeling 1802
lateral HET, HF operation 13616
LDPE, degradation mech. in high elec. field 14056
mesoscopic 2DEG coupled to superconds., quasiparticle interf. 22747
mesoscopic SNS jns., dissipative charge transport 22731
high field effects continued
model nanoelectronic elements fab., electron beam induced struct. form. 30005
MOS oxides, high-field stressing, interface state generation 13261
MQW IR photodetectors, electron injection and transport model 42786
polyethylene, semi-empirical high-field cond. model 30535
polypropylene films, ultra thin, elec. props. 13955
quantum wire, ballistic electron transport 13154
quasipotential barriers in electron waveguides 1455
semicond., impurity band in high elec. field, interband and impurity breakdown 1013
semicond. nanostructures, ballistic cond., electronic interf. 21987
semicond. superlattices, EM waves, uniform RF field effect 29906
semicond. thin films, ballistic currents 13022
solar cell perform., high injection effects 44414
solid dielectrics, high field conductivity implications 13968
STM for BEEM/spectrosc. 21865
superlattice, transm. spectrum, elec.-field-induced changes 29916
XLPE films, electron irradiated, high field AC cond. 14029
Al-SiO_2-Si MOS struct., charge build-up/oxide wear-out, Fowler-Nordheim stress 13234
AlGaAs/GaAs HBTs, ballistic electrons, electrolum. 38841
n-AlGaAs/InGaAs/GaAs struct., hot electron ballistic transport 38358
AlGaN/GaN HIGFETs, I/V charact. collapse, high drain bias 6745
GaAs, bias, high field region imaging 18021
GaAs, carrier transport phase ident., 10 fs resoln. 21893
GaAs/AlGaAs edge overgrown lateral superlattice, high field transport 13175
GaAs/AlGaAs heterostruct., ballistic electron transport, magneto-opt. studies 13115
GaAs/AlGaAs superlattices, high-field domain form. 29922
GaAs-GaAlAs waveguide saturable absorber, carrier heating dyn. 2109
GaAs-based p-i-n nanostructure, high-field electron transport, transient ps Raman studies 21974
$GaInP_2$ homojunctions, ordered-disordered, 2DEG, anisotropic transport props. 21962
n-$Hg_{0.8}Cd_{0.2}Te$, hot electron transport, genetic algms. 38247
InGaAs/InP at high mag. fields and low temps., quantum magnetotransport 38286
In_2O_{3-x} films, spin and quantum interf. effects in hopping cond. 38263
InP:Fe, nonlinear behaviour under high elec. field 13046
Si MOS transistors, surface roughness mobility model 13707
Si MOSFET, 2D electron gas, ballistic transport 38862
Si MOSFETs, simul. by cellular automaton method 22431
Si, carrier transport phase ident., 10 fs resoln. 21893
Si, nonlin. transport, model hyperfrequency differential-mobility 21880
Si/SiO_2/Al MOS capacitors, charge induced by Fowler-Nordheim tunnel injection 29974
Si-SiO_2-polySi MOSFET, oxide degrad., charge traps generation 6746
SiC films, high field effects 21788
ZnS, high field electron transport, Monte Carlo simul. 21909
high-frequency amplifiers *see HF amplifiers*
high-frequency discharges
diamond polycryst. films for x-ray lithog. masks 6703
gas lasers with RF excitation, electrode dielec. coating effects 14714
high-press. AC gas discharge, dielec. coated electrodes near breakdown threshold 38202
hollow-cathode discharge, high-power RF generation 29739
low-press. gas breakdown in combined fields 1506
microwave plasma torch, waveguide-fed, axial gas injection 967
nanosecond electron beam in open discharge 4147
plasma etch procs., discharge impedance meas. 22202
propag. surface waves sustained microwave discharge, electron energy distrib. fn. 966
RF discharge, electron conc. determ., Fabri-Perot cavity 3759
RF discharges, low press., for lighting 28164
spark-gap design, efficient and simple, for gas lasers 15009
CO_2 laser, microwave excited, cylindrical reson. cavity 1864
CO_2 laser, microwave-excited discharges, modeling 29740
CO_2 waveguide laser, combined excitation by dc/transverse rf capacitance discharges 1848
He-Ne microwave discharge excited laser *(Chinese)* 14696
N_2 laser, nanosecond microwave discharge excitation 39653
Xe, CW near IR laser, RF discharge excitation in slab geom. 31177
high-frequency effects
see also helicons; hot carriers; skin effect; solid-state plasma
bandwidth enhanced MSM photodetectors 3841
CMOS ccts., HF AC hot-carrier degrad. 22573
HBTs, HF design, f_{max}-carrier mobility rels. *(Chinese)* 1354
HTPB/Al particle composites, elec. cond., low fields 30589
HTSC thin films, microwave surface resist., calorimetric/perturb. methods 39232
lateral HET, HF operation 13616
quantum well struct., rapidly changing transm. coeff., HF cond. 13162
QW diode laser, high freq. modulation, dual modal gain/pumping current control 7648
AlGaAs-GaAs modulation-doped heterostructs., microwave I/V characts. 1075
$CrTiO_3$, elec. cond., thermoelec. power and dielec. const. 13074
$Er_2Cu_2O_5$, dielec. const., cond. 21923
GaInAs/AlInAs superlattices, nonlin. cond., space charge wave generation 1120
$In_{0.35}Ga_{0.65}As$/GaAs strained-layer MQW LD, DC/high freq. props. 7647
NbTiN supercond., surface resist. meas. method, dielec. resonator struct. 39237
Si surface, HF treatment, F adsorpt., FT IR refl. absorpt. spectra 29838
Si/electrolyte interface, impedance, deconvolution 6594
6H-SiC MOS struct., thermal oxid./computer simul. 38562
SiO_2 films, high field dyn. stress 22063
YBaCuO thin films, complex cond., surf. resist. *(French)* 30767
$YBa_2Cu_3O_7$ HTSC thin films, microwave pass. devices 30766
$YBa_2Cu_3O_7$ shallow step jn., Josephson radiation linewidth 39264
high-frequency electronic transport *see high-frequency effects*
high-frequency heating *see radiofrequency heating*
high-frequency radio propagation *see HF radio propagation*
high-frequency transformers
3-phase DC clamped switch mode rectifier, IGBT 19747
5BDSR nanocrystalline amorph. mag. alloy, EM characts. determ. 30659
30 W HF foil-type air-core power convertor transformer 6381

high-frequency transformers continued
bundles of conductors, macroscopic elec. charactn. 38042
centre-tapped, loss eval., unbalanced loads 29618
core geom. selection, experto-fuzzy approach 36226
CT freqs., than 50 Hz *(German)* 6374
DC/DC quasi-reson. ZCS power convertor topologies 44220
discontinuous current mode series-parallel reson. converter 37623
edge effect anal., 2D FEM-based 6376
electronic welding, HF reson. inverter-based 36802
film shape transformer for push-pull DC-DC converter 19713
full-bridge MOSFET inverter, US transducer power supply appls. 44166
halogen cycle lamps, HF power supply transformer 11446
HF switching mode power transformers, optimisation of winding conductors *(Slovenian)* 21595
loaded-line phase shifter, series transformers *(Japanese)* 6255
miniature planar thick film transformers 36225
motor/generator stator windings, in-service PD tests 36101
multilayer piezoelec. ceramic transformer for power supply 12854
multiturn HF coaxial winding power transformers 19699
naturally cooled, design, noniterative method 12851
power transformer CAD optim., scant modelling 19685
power transformer core geom. CAD, fuzzy ES-based 44110
quasi-reson. DC link power convertor, topol., appls. 5084
quasi-reson. dual power converter UPS 5075
quasi-reson. HF PWM ZVS DC/DC power convertors 5061
reson. switching power convertors, HF mag. design 44207
thin film transformer, EM field anal. 38055
three-phase power convertor, quasi-reson. DC/HF transformer links 5088
three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
three-phase ZVS AC/DC act. power convertor 19840
windings, model, FEM tool 6377

high-frequency transmission line measurement
liq. complex permitt. meas., phase info. of standing waves 34664

high-frequency transmission lines
coplanar meander transm. lines, dielec. substr., slow-wave characts. 12698
microstrip-slot and CPW-slot lines, optoelectronics appls. 12697
MLC substrs. and packages, telecomm. appls. 29652
slot antenna radiation characts. in ground plane under DC magnetised ferrite slab 23826
twisted-pair transm. line anal. by method of moments 23750
Au coplanar transm. lines, eye diag., S-params. 1298
$YBa_2Cu_3O_7$ coplanar transm. lines, eye diag., S-params. 1298

high level languages
see also Ada; APL; authoring languages; BASIC; C language; FORTH; FORTRAN; logic programming languages; Modula; MUMPS; object-oriented languages; Occam; page description languages; parallel languages; PROLOG; simulation languages; Smalltalk; specification languages; visual languages
AWK simul. of Petri nets for signalling protocol validation 41509
digital TV coding/decoding chipset, spec. and develop. 34248
distributed audit trail anal. 24968
DSP real-time implement. on multiprocessors, CAD environ. 12584
FSM compiler and simulator 29133
non-stop software extensible syst., dyn. program modif. 16558
primary/secondary batts., testing, VXIbus 36510
procedural interface, test 9801
struct. TCP in std. ML lang. 2942
user-modifiable airborne software, HLL based 10338
ZIPI music description lang., origs. and motivations 25693
ZIPI Music Parameter Description Language 25694

high level synthesis
allocation problems complexity 12268
AMICAL interactive high synthesis environ. 21031
analog high-level synthesis for mixed-sig. ASICs 29400
application specific syst. partitioning algm. 21198
architectural synthesis, possibilistic prog. 12276
architectural synthesis, precedence anal. and automatic cycle detect. in DFGs 21068
ASIC, Conf., Rochester, USA (1993) 36858
ASIC implementation of image proc. algm., silicon compilation 21343
asynchronous syst. high-level synthesis, scheduling, synchronis. 21183
automotive logic chips from high level synthesis, FFT/Viterbi IC design 21291
behavioral logic test generation, mixed integer nonlin. prog. 6099
behavioural synthesis, scheduling problem, Hopfield network 37604
CMAC neural nets, archit. design, hardware implement. 29468
CMOS cell library for formal high level synthesis, design 12497
combinat. logic, practical method for high-level synthesis from VHDL 28964
Compass integrated framework for ASIC and FPGA design 6113
data path synthesis, scheduling algm., Tabu search tech. 21044
data path synthesis phases, formal problem descriptions 12389
datapath design, mobility reduction based scheduling, allocation emphasis 28957
DCS, digital cct. high-level synthesizer *(Chinese)* 12385
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
digital audio-visual sig. proc., Alis logic synthesis 29301
DSP synthesis, concurrent algm. 37793
DSP synthesis, concurrent transforms., scheduling, resource allocation 21363
dynamic loop scheduling algm. for VHDL synthesis 21043
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
fault-tolerant ASIC design, high-level synthesis 30405
formal cct. synthesis from behavioural spec. in interval temporal logic 28960
formal methods for high-level synthesis 28959
FPGA develop. tools and design complexity issues 6107
FPGA-based design, high-level synthesis techs. appl. 6109
FSM compiler and simulator 29133
GENRIF, integrated VLSI FIR filter compiler 21420
hardware for testability adding in synthesised data paths 21187
hardware/software co-synthesis, design representation 28962
hazard-free asynchronous cct. synthesis, sig. transit. graph constraints 6141
hazard-free asynchronous ccts. with bounded wire delays, synthesis 12403
heuristic tech. for synthesis of complex functional units 21050
heuristic transform. techs. for simultaneous optim. of latency/throughput 29261
hierarchical test generation for VHDL behavioral models 21190
high-throughput DSP appls., ASIC design strategy 29271
HYPER-LP, high-level synthesis syst., appl. specific datapath intensive CMOS ccts. 12401
incompletely specified data-paths, assign. tech. 21041

high level synthesis continued
integrated scheduling, allocation and module selection for design-space exploration in high-level synthesis 21061
International Test Conf., Washington, DC (Oct. 1994) 61
introduction 5947
layout-driven approach, topol./functionality-based delay estim. 609
lin. systs., high throughput/low latency/low cost struct. design 28989
medium-throughput sig. proc. on flexible instruction-set archits. 37797
microcontroller based state machines, automated synthesis, BSSM code generation 6128
MIMOLA hardware design syst., tools cooperation 21032
module selection and scheduling using unrestricted libraries 21049
multiplexed DSP archit., hardware allocation, bit-align. 21342
multiway syst. partitioning under constraints, integer prog. 21042
partial scan designs for DSP appls., behavioral synthesis 29190
PHIDEO, high-level synthesis for high throughput appls. 41173
pick-and-place design methodology for complex VLSI archit. 21167
pipeline struct. synthesis, variable data initiation intervals *(Korean)* 28934
pipelined datapath, high-level synthesis syst. *(Korean)* 12386
power estimation for high level synthesis 21163
prog. logic design portability improvement, develop. tools 6106
proof systs. and high level synthesis systs. amalgamation 21069
quadratic zero-one prog.-based synthesis of appl.-specific data paths 12400
RECALS II list scheduling algm. for high level synthesis 28970
register transfer space exploration strategy, unrestricted library scheduling/binding algm. 28963
regularity extraction approach to scheduling and allocation 21051
RT-level transformations for gate-level testability 21188
scheduling algm. based on data modality for high level synthesis 28966
scheduling problem, integer lin. prog. approach 495
stochastic evol. based register allocation, multiport memories 499
Stride, tool for formal interactive syst. synthesis 466
syst. level partitioning, adaptive method 28972
test synthesis, data transfer anal. based behavioral description 29198
testability anal. using VHDL descriptions 21189
testable designs synthesis, behavioural specs. transform. 6074
transformational design, formal semantic model, fit SIL 28961
transputer global link adapter, VHDL, FPGA, synthesis 6111
tutorial 28980
VHDL based macrocell libr., develop., modelling 21165
VHDL descriptions of digital systs., mapping, FPGAs 6112
VHDL seq. statement synthesis, RTL *(Korean)* 12388
VLSI design spec. validation, algorithmic debugging 12390
VLSI high level synthesis, optimal graph representations, instruction set tables 29109
VLSI high level synthesis designs, feedback 29154
XILINX FPGAs, SYNT syst., high level synthesis issues 29117
GaAs digital IC design, compiler methodology 37716

high-pass filters
4th order switched current low power lowpass/highpass Butterworth filter 29344
act. compensated filters, HF appls., design/optim. 29352
act. RC second-order filter, modes comparison 6208
amorph. wires, magneto-inductive effect, mag. sens. appl. 17714
BAW act. piezoelec. filters 30652
Butterworth diplexer, design, real-freq. approach 6201
combined act. filter, high pass filter/current source converter 37861
current mode biquadratic act. filters, design 12643
current mode biquadratic filters employing operational amps. 12642
diplexers, crossover loss, singly terminated filters design 16953
diplexers, max. flat response/freq. symm., design 16954
fibre-optic delay line filter synthesis, modified Pade method 30875
insensitive second-order filters, high input impedance, current conveyors 12640
LC lowpass/highpass/bandpass ladders, Butterworth/Chebyshev response 720
lin. phase FIR digital filters, max. SNR, design 15982
polynomial interpolation, filter digitization 40820
subsurface survey radar distorted pulse rectification 35280
SW and matrix dilation eqns. 24299
universal current-mode filter, non-inverting CCIIs 37858
universal filter, two current-feedback amps. 37852
universal voltage-mode filter, current conveyors 6206

High Performance Parallel Interface *see local area networks; network interfaces; protocols*

high power amplifiers *see power amplifiers*

high-pressure techniques
bubbles, size, vel. and long. posn. opt. meas. 18156
computer controlled dielec. meas. 17672
discharge lamps, electronic starters *(German)* 28163
electrostatically-driven gas valve, high-press. conditions 30516
free-cylinder press. transducer design, 1 GPa 17742
high-temp. ovens, double-chamber autoclave 6608
interferometric transducer, calib. and sig. proc. 3783
intermetallic complex cpds. prep., high-purity 28714
LOCOS, poly-buffered, furnace oxid. 6646
semiconductor physics, conf., Vancouver (Aug. 1994) 28247
twist-induced effects in opt. fibers, birefr. meas. 1683
Pt elec. resist. up, 1 GPa 18134
Si diaphragm press. sens., differential press. transmitter design 3784
Si, piezoresistive press. sens., high-press. meas. 34490

high-purity Ge detectors *see germanium radiation detectors*

high-speed optical techniques
see also optical pulse compression
2.5-Gbit/s return-to-zero integrated DBR laser/modulator transmitter 9459
act. mode locked LD, soliton-forming pulses in fibre 7789
act. mode locked semicond. lasers, ps pulse compression, model 31420
act. mode-locked laser, neg. feedback, stabil. 31474
act. mode-locked semicond. laser injection locking 23197
act. modelocked external cavity LD, ps gain dyn. 1978
adiabatic ultrashort light pulses propag. near two-photon reson. 31549
all-opt. device nonlin. materials 30823
ATM opt. switching, high-speed module for wavelength encoding switching 16982
ATM transport systs. based on high-speed opt. transm. 34043
ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
bacteriorhodopsin thin films, autocorrelating femtosecond pulse charact. 40070
book, bistabilities and nonlinearities in laser diodes 58

- **high-speed optical techniques** continued
  - burst-mode compatible receivers, high speed digital opt. commun. 42412
  - CCD electronic camera systs. measure high-speed events 9933
  - cct. testing by ps photoconductive elec. pulse injection 1787
  - chirped Bragg gratings for all-fibre fs pulse amplif. cct. 31230
  - CLIO IR FEL, sub-picosecond laser pulse generation 39930
  - colliding-pulse mode-locked QW laser dyn. response simul. 23236
  - Compton FEL, efficiency/gain enhancement 31435
  - Compton FEL tapered undulator, high-power self-similar radiation pulse 39972
  - conjug. polymers with large opt. nonlin., ultrafast relax. 2092
  - dark soliton-like pulses, quasi-continuous train generation 2126
  - DAST, electro-optic crysts., opt. rectification, THz radiation scaling 22925
  - DBR laser ultra-fast opt. switching by electro-opt. tuning sect. 34005
  - DBR semicond. LD, ultrafast pulse train generation *(Japanese)* 7625
  - degenerate parametric oscillators, ultrashort-pulse generation 40089
  - DFB laser chirp pulse pattern dependency, modulation and transm. perform. *(Japanese)* 39801
  - dielec. media ultrashort solitary-wave propag., reson.-dominated chromatic dispersion 40112
  - dye mixture DFB laser, nanosecond excitation, picosecond emission 39681
  - Fabry-Perot laser/fibre grating, pulse compression/mode selection 23225
  - Fabry-Perot wavelength-tunable picosecond LD pulse source 34090
  - fast amplif. opt. switch, opt. pumped VCSEL appl. 14994
  - FEL, chirped pulse amplif., OHG, deep UV pulse generation 39907
  - femtosecond CW mode-locked laser, third-order dispersion calc. *(Chinese)* 7713
  - femtosecond fiber lasers, third-order dispersion 1873
  - femtosecond laser sources, extended tunability 31472
  - femtosecond temporal and spatial soliton num. simul. in nonlin. optics 40055
  - fiber interferometer guided-acoustic-wave Brillouin scatt. meas. 25853
  - fiber photorefr. grating ps pulse refl. 22860
  - fiber Raman soliton laser for fs opt. pulse generation 1874
  - fiber ring lasers, stretched-pulse additive pulse mode-locking 23137
  - fibre chromatic dispersion compensation, chirped fibre Bragg gratings 39330
  - fibre laser mode-locking by pump pulse induced cross-PM 31233
  - fibre ring laser config. studied by collective coord. 14996
  - fibre soliton self-freq. shift compensation, phase-sensitive parametric amps. 23358
  - fibre-coupled pyrometer for shock-wave studies 42824
  - freq.-resolved opt. gating, generalized projections, pulse retrieval 23334
  - freq.-resolved opt. gating, SHG 2055
  - fs harmonically mode-locked fiber laser, time jitter below 1 ps 23130
  - fs opt. solitary wave propag. at the zero dispersion point, nonlin. dyn. 22814
  - functionalized polymers, nonresonant opt. Kerr nonlin. 40098
  - gain-switched Fabry-Perot LD, spectral behaviour 14932
  - gain-switched semicond. lasers, chirp estim. in opt. pulses *(Japanese)* 7626
  - glass fiber Raman gain spectrum meas., fs pulses 22808
  - high-dens. opt. disc and superresoln. head develop. *(Japanese)* 17587
  - high-speed optoelectronics, packaging technol. 11751
  - III-V electronic device step response meas. on ps time scale by electro optic sampling 42963
  - in-fibre grating systs., pulse compression, dispersion charact. 39341
  - in-plane gate transistor integrated with photoconductive switches, ultrafast characts. 29555
  - inert gases, harmonic generation, intense picosecond laser pulses 7744
  - inhomog. media phase conjug., holography, and imaging 31575
  - injection-modulated semicond. lasers, chirped pulse, α-param. depend. 31402
  - interferometric 2D imaging amplit. correlator for ultrashort pulses 34720
  - intersubband quantum well opt. modulators 30996
  - IR semicond. lasers, hybrid mode-locking 31424
  - isotropic liq. cryst. film, IR all-opt. switching 31011
  - J-aggregates nonlin. opt. props., oriented films prep. 15062
  - laser mirror group-delay meas. by spectrally resolved white-light interferometry 39996
  - laser wakefield particle accel. 4035
  - laser window materials, intens.-depend. transm. props., 193-nm irrad. 22775
  - Mark III FEL, freq.-chirped opt. pulses obs. and characterisation 39932
  - master oscillator power semicond. laser amp., mode-locked operation 31422
  - metal pattern deposition, laser-induced forward transfer 28859
  - microcavity semicond. lasers, nonequilibrium carrier dyn. 31338
  - multichannel opt. switching 15061
  - multilayer second order nonlin. media, generated femtosecond pulse phase distortions 31615
  - multiplexing/demultiplexing techs., ultrafast transm. 17226
  - multisegment mode-locked semicond. lasers, timing jitter mechanisms 31419
  - Nd:glass fibre laser, pass. mode-locked, soliton generation at 1.06 μm 30860
  - near-field optics, nanometric spatial and femtosecond time resoln. 39477
  - nonlin. coupler laser, subpicosecond soliton form., num. simul. 2045
  - nonlin. opt. loop mirror extinction ratio improvement 15122
  - nonlin. opt. loop mirrors, saturable absorbers, picosecond solitons 7298
  - nonlin. opt. waveguides, light pulse propag., mode-coupling theory 22907
  - nonlin. waveguides, coupled soliton states dyn. 31611
  - octaethylporphine-doped polystyrene sample, spectral hole burning, accumulated photon echo readout speed 40092
  - oligothiophenes, conjug., transistors and SLM 22931
  - opt. analog computing appls. 7439
  - opt. fiber stimulated Raman gain spectrum meas. by short pulses 22821
  - opt. radiation self-action in medium, cubic nonlin. 31612
  - optoelectronic PLL freq. stabilise quantum well laser 7656
  - organic/polymer system nonlinear props., conf., Pennsylvania Univ., USA, April 1991 28
  - orthogonally polarised fs soliton self-freq. shift 3559
  - OTDR, four-wave mixing sampling gate, mm-resoln. 25985
  - parametric nonlin. mirror, short pulse generation, dispersion limitations 31493
  - particle image velocimetry, ultra-high-speed camera 3982
  - pass. mode-locked diode laser pulse charact. 39834
  - PD models, image converter/computer simul. studies 1513
  - penalty-free 100 Gbit/s opt. transm. of transform-limited pulses 25471
  - photonic ATM switch based on parallel sig. proc. 33727
  - photoreceiver module, packaging technol. 42413
  - picosecond pulses, DFWM, diffracted sig. 2058
  - poly(2,5-thienylene vinylene) film, reson. opt. Kerr effect 15085
  - poly-phenyl-acetone opt. waveguides, nonlin. coupling and propag. 39432
  - polydiacetylene DCHD highly oriented film, fs. nonlin. opt. response 23396
  - polydiacetylenes with chromophoric substituents, second and third order nonlin. optics 23410
  - polymer opt. fibre/high-speed LD, data transm. 34051
  - PPV composite film elastic moduli meas. by ps transient grating study 23392

- **high-speed optical techniques** continued
  - prog. ultrashort opt. pulse delay by acousto-optic deflector 31020
  - PTS-polydiacetylene, time-resolved nonlin. opt. studies in Fabry-Perot cavity 23411
  - pulse transm., soliton source, beat sig. conversion 34052
  - pulsed dye laser amplif., nanosecond phase dyn. 7550
  - pulsed laser temporal coherence meas. by collinear second-harmonic interf. tech. 15016
  - pulsed solid-state lasers, self-focusing, self-mode locking 31291
  - QW bistable semicond. lasers, modeling and meas. 2000
  - QW lasers/opt. amps., ultrafast gain dyn. 31339
  - Raman-act. medium, femtosecond pulse propag., higher harmonics generation 40025
  - rare gases, harmonic generation, multiphoton ionisation effects 2083
  - real time electro-optic probing for long logic pattern anal. 34649
  - regenerative picosecond feedback scheme based CW semicond. lasers 31421
  - Register Insertion Bus network, optoelectronic technol. 41824
  - relativistic e-beam, rad. meas. time-resolved images 31732
  - Rheoxane photorefr. polymer holographic recording material 7858
  - rhodamine 6G laser, parametric nonlin. mirror, refl. coeff. 31205
  - self-seeded Fabry-Perot LD, single-mode form. dyn. 39799
  - semicond. amps., ultrafast pump-probe gain dyn. 23261
  - semicond. doped glasses, opt. storage by laser beam written gratings 22789
  - semicond. laser amps., subpicosecond pulse amplif. 39805
  - semicond. laser pulse generation, soliton effect pulse compression fibre 39772
  - semicond. lasers/amps., intracavity four-wave mixing 1933
  - short pulse tomographic meas., generalized Radon transform 39373
  - short-cavity semicond. laser, opt. pumped, transient response 39835
  - single-mode fiber with two-photon absorpt. and bandwidth-limited opt. gain, solitary waves 31571
  - single-mode opt. fiber, single-pulse degenerate-cross-PM 40078
  - single-mode opt. fiber polariz. mode dispersion meas. by freq.-domain interferometer 1699
  - single-mode opt. fibers, supercompression of opt. radiation 1675
  - SLM, photosensitive polymer layer 31005
  - soliton fiber laser, filtering optimiz. 14736
  - spacer surface discharges in gaseous insulation, nanosecond streak photography 30553
  - Stanford mid-IR FEL micropulse temporal charactn. by "FROG" 39941
  - streak camera subfemtosecond laser pulse meas. 31471
  - sub-micron hole machining, femtosecond laser, 800 nm 23484
  - sub-picosecond FEL micropulse length and electron bunch meas. 39931
  - subfemtosecond pulses 2044
  - supercontinuum generation, pulse-width tunable self-freq. conversion of short opt. pulses 2077
  - sync. driven fiber optic resonator near zero dispersion, chaos 30852
  - telecomms. opt. fibre ps soliton propag. 14388
  - temporal proc. and time lenses implement. 41301
  - thin film optimized nonlin. polymer struct., ultrashort pulse SHG 7783
  - third-order fibre dispersion effects on soliton-effect compression 31623
  - three channel autocorrelator, electro optic switches 8476
  - thresholdless opt. dye microlaser, picosecond pulse generation 1870
  - THz all-electronic planar antennas 6279
  - THz free-space pulse all-electronic terahertz spectrosc. syst. 6333
  - time-domain computer generated holographic images 40159
  - transform-limited opt. pulse generation, 10 GHz 39493
  - transient ultrafast Kerr lens in soln. detected by dual-beam thermal-lens method 23380
  - TW femtosecond parametric lasers 31289
  - two-colour dye laser syst., four-wave rot. Raman mixing 14724
  - two-mode fiber equalizer ultrashort pulse transm., dispersion compensation 9472
  - ultra high bit rate soliton self-freq. shift and third-order dispersion 17268
  - ultra-short pulse FEL oscillators 39970
  - ultrafast all-opt. AND gate, four wave mixing in laser amp. 1758
  - ultrafast nonlin. in semicond. laser amps. 7670
  - ultrafast opt. CDMA all-serial coding archit. 42356
  - ultrafast opt. phenom., visualisation *(Japanese)* 32932
  - ultrahigh-speed photography, conf., San Diego (1993) 36890
  - ultrashort laser pulses, Faraday rot. 31608
  - ultrashort laser pulses, focusing limits, anal. theory 2039
  - ultrashort light pulse amplit./phase, autocorrelator/spectrometer meas. 2821
  - ultrashort pulsed-beam propag. in Kerr medium 31501
  - ultrashort UV FEL 7697
  - UV subps laser pulse meas. based on Kerr shutter ultrafast beam deflection 15045
  - VCSEL, spectrally/temporally resolved emission 31450
  - VCSELs, multiple transverse mode, high speed data commun. 39806
  - VUV/soft X-ray FEL, subfemtosecond pulse generation, modulation techs. 39902
  - VUV/XUV-soft X-ray radiation source and appls. 31613
  - walk-off-limitation-free all-opt. nonlin. fiber-loop-mirror switch 9568
  - waveguides, superluminal solitons, nonlin. Klein-Gordon eqn. 15106
  - wide aperture semicond. lasers and amps., nonlin. dyn. modelling 23209
  - X-ray laser appls. 23482
  - Yb:YAG diode-pumped thin disk laser continuously tunable, 1018/1053 nm 39742
  - zero-dispersion dispersion-flattened nonlin. fibre loop mirror demultiplexing 3561
  - $AgGaS_2$ opt. parametric generated IR Ti:sapphire solid-state laser pulses 15049
  - $AgGaS_2$ sync. pumped ultrafast opt. parametric oscillator 31625
  - AlAs/GaAs, triple-barrier reson. tunneling LED, fast opt. induced switching 31107
  - AlGaAs, act. waveguide LD, femtosecond band-edge index nonlin. 31337
  - AlGaAs nonlin. directional coupler, time-domain all-opt. demultiplexing 39377
  - AlGaAs waveguide design for all-opt. switching 31597
  - AlGaAs/GaAs quantum well DBR laser, femtosecond upconversion, time-resolved study 31374
  - AlGaAs-AlAs DBR QW microcavity, fast coherent emission 31376
  - AlInAs-GaInAs HBTs, ultrafast photocarrier transport 23014
  - Al_2O_3 insulator, DC/pulsed electro-opt. props., vac. 30550
  - As_2S_3-based fibre, laser driven ultrafast all-opt. switch 22822
  - BaB_2O_4, noncollinear parametric generation by freq.-doubled femtosecond laser pulses 23419
  - β-BaB_2O_4 ps opt. parametric amplif. 2117
  - $Bi_{12}GeO_{20}$ single crysts., nonlin. absorpt. of laser light 2081
  - Bi_2TeO_5, ps laser pulse induced effects 31520
  - CO_2 ps laser for relativistic particle accel. 15195

high-speed optical techniques continued
- CO_2 subnanosecond multi-gigawatt laser 23099
- CS_2, third-order nonlin. opt. susceptibilities, picosecond pulses 31534
- $Ce^{3+}:LuLiF_4$ laser, self-injection-seeded UV, sub-ns pulse train generation 39737
- Cr,Nd:YAG monolithic self-Q-switched laser, picosecond pulse generation 31248
- Cr:LiSAF laser, multi-TW femtosecond pulse generation 23165
- $Cr:LiSrAlF_6$ fs diode-pumped all-solid-state regenerative amps., Ar ion-pumped 23170
- $Cr:LiSrAlF_6$ multiterawatt femtosecond laser 31259
- $Cr:LiSrAlF_6$ pass. mode-locked laser, antiresonant Fabry-Perot saturable absorber 23142
- $Cr:LiSrAlF_6$, self-modelocked femtosecond solid-state lasers 14815
- Cr:forsterite 100-fs pulse freq. doubling by reson. enhancement cavity 14781
- $Cr^{4+}:Mg_2SiO_4$ laser cavity, cubic phase distortion minimisation 31288
- Cr^{4+}:YAG laser, sync. pumped self-mode-locked, fs pulse generation 31306
- Cr^{4+}:YAG self-mode-locked laser, fs pulses near 1.5 μm 14786
- Cu surface two-color photoemission on fs laser pulse irrad. 38208
- D_2, harmonic generation, intense picosecond laser pulses 7744
- Er-doped Kerr-type mode locking fiber laser stabilization 7565
- Er-doped act. fibre laser soliton pulse compressor 1877
- Er-doped birefr. fiber amp. polariz. distortion 31216
- Er-doped femtosecond mode locked all-fiber ring lasers 31241
- Er-doped fiber amp. propag./switching 34061
- Er-doped fiber amplifer subterabit soliton transm., soliton control 9571
- Er-doped fiber laser mode locked by semicond. saturable absorber 31235
- Er-doped fibre amp., rem. all-opt. nanosecond gain switching 39695
- Er-doped fig.-8 mode locked fiber laser stabilization 7568
- Er-doped silica opt. fibre switching by ultra-fast nonlin. refr. index dyn. 30915
- GaAs, (001)-cut, CZ grown, disloc. dens.-depend. photorefr. effect 14319
- GaAs biased photoconductors, terahertz radiation generation 14579
- GaAs nanocrystal doped glass, time resolved pump/probe Z-scan study 40067
- GaAs radiation-damaged refl. switch, IR pulse generation 31541
- GaAs thin film, Franz-Keldysh effect, opt. modulation 39486
- GaAs:Cr, free-carrier grating dyn., picosecond meas. 14341
- GaAs:Cr/AlGaAs SI MQW photorefr. device 22942
- GaAs:Cu,Si bistable opt. controlled switch, subnanosecond high-power perform. 2104
- GaAs:O, MOVPE, ultrafast photodetector materials appl. 23064
- GaAs/AlGaAs MQW, perp. over-barrier diffusion, short-period transient grating meas. 38324
- GaAs/AlGaAs MQW, ultrafast nonlin. optics 2120
- GaAs/AlGaAs MQWs, nonlin. index saturation in bandtail absorpt. region 13172
- GaAs/AlGaAs SQW laser struct., carrier lifetime, absorpt. recovery time 14918
- GaAs/AlGaAs smart pixels, picosecond switching 23056
- GaAs/AlGaAs tunnelling MQW struct., picosecond opt. sig. recovery 31519
- GaAs-AlGaAs, field-effect LD, picosecond, saturable absorpt. 2005
- GaSe, layered cpd., time-resolved DFWM 15098
- H Raman act. media Stokes pulse duration control in SRS 31560
- H_2, harmonic generation, intense picosecond laser pulses 7744
- $Ho:YLiF_4$ saturable absorber Q-switch for 2-μm $Tm,Cr:Y_3Al_5O_{12}$ laser 15055
- $In_{0.5}Ga_{0.5}As$ heterostruct., gateable ultrafast field-assisted photoemission 1836
- InGaAs/GaAs heterostruct. field effect opt. modulator 14516
- InGaAs/InAlAs:Be superlattices, ultrafast opt. nonlin., MSM-PD appls. 2105
- InGaAs/InGaAsP quantum well DFB lasers, high speed dyn., intrinsic params. 1932
- $In_{0.65}Ga_{0.35}As$/GaAs laser, ultrafast band-edge carrier dyn. 1959
- $In_{0.85}Ga_{0.15}As$/GaAs relax. superlattice struct., ultrafast meas. of nonequilibrium carrier lifetime 38348
- InGaAs-AlAs strained p-i-n modulator, ultrafast recovery time 22939
- InGaAs-InGaP MQW opt. modulators, saturation intens. 22935
- InGaAsP/InP/InAlAs quantum well electron transfer struct., finite difference methods 13582
- InGaAsP-InP QW electron transfer struct. for ultrafast opt. switches 38351
- InP waveguides, opt. harmonic mixers 23412
- InP/GaInAs heterostruct. MSM photodetectors, sub-ps resoln. 25849
- $KNbO_3$ high-repetition-rate femtosecond opt. parametric oscillator 40086
- $KNbO_3$ tunable narrow-band mid-IR type I opt. parametric oscillator 40113
- $KTiOPO_4$ broadly tunable fs opt. parametric oscillators 40059
- $KTiOPO_4$ crysts., parametric oscill., pulse compression 2072
- $KTiOPO_4$ difference freq. mixing, tunable near-IR generation 40104
- $KTiOPO_4$ nonlin.-opt. waveguides, quadrature squeezing, ultrashort pulses 40084
- $KTiOPO_4$ opt. parametric oscillator in fs time domain 31578
- $KTiOPO_4$, sub-picosecond opt. parametric oscillator, Kerr lens mode-locking 31564
- $KTiOPO_4$ sync. pumped opt. parametric oscillator, design, fab. and perform. 40052
- KrF excimer laser fs VUV pulse meas. by field-ionization dyn. 23103
- LiB_3O_5 all-solid-state ps opt. parametric generator 23418
- LiB_3O_5, picosecond multiwavelength opt. parametric generation 40022
- LiB_3O_5 ps Ti:sapphire-pumped opt. parametric oscillator 23420
- $LiIO_3$, noncollinear parametric generation by freq.-doubled femtosecond laser pulses 23419
- $LiNbO_3$, electro-optic crysts., opt. rectification, THz radiation scaling 22925
- $LiNbO_3$ high-speed electro-optic modulator, travelling wave electrode optimisation 1735
- $LiNbO_3$ high-speed opt. modulators, Mach-Zehnder config. 30986
- $LiNbO_3$:Ti nonlin. directional coupler 39401
- $LiTaO_3$, electro-optic crysts., opt. rectification, THz radiation scaling 22925
- $LiTaO_3$ electro-optic probes, guided polariton generation 39478
- $LiTaO_3$ electrooptic modulator sideband generation by domain inversion 14505
- $LuLiF_4:Ce^{3+}$, broadband UV amplif. medium 23444
- N_2, harmonic generation, intense picosecond laser pulses 7744
- Na reson. radiation sum-freq. generation of Nd:YAG laser beams 23364
- NaCl:OH cryst. color centers stable at RT, ps lasing 14827
- Nd:YAG CW self-starting mode locked laser, cascaded second-order nonlin. 39745
- Nd:YAG act. mode-locked pulsed laser, long ultrashort pulse train generation 14826
- Nd:YAG double-pass laser amp., NLC phase-conjug. mirror 7600

high-speed optical techniques continued
- Nd:YAG, ultrashort pulsed laser, emission dyn. control 1884
- Nd:YLF, additive-pulse mode-locked laser, diode pumped, pulse compression 31298
- Nd:YLF long. end-diode-pumped regenerative amp. 23168
- $Nd:YVO_4$ coupled-cavity electro-opt. Q-switched microchip lasers 39743
- Nd:glass all-solid-state laser syst. pulses, tunable by down conversion 14779
- Nd:glass amps., sub-100-TW femtosecond pulse amplif. 31252
- Nd:glass high power laser reasearch 31261
- Nd:glass high-power laser, composite aperture/phase-conjug. mirrors 7597
- Nd:glass laser pulse duration meas. 31465
- Nd:glass laser pulse shortening by gain reshaping and soliton form. 23153
- Nd^{3+}:YAG lasers in commun. and range finding systs. 7875
- $Nd^{3+}:YAlO_3$ ps laser beam third-order correl. fn. by noncollinear two-beam third-harmonic generation 40105
- Nd^{3+}:ZBLAN fibre, short pulse propag./ampl. 14739
- Nd-doped fs fiber laser, controllable dual-wavelength operation 23131
- Nd-doped lasers, nanosecond polymer pass. switch develop. 39746
- O_2, harmonic generation, intense picosecond laser pulses 7744
- O_2-I laser, short pulse amplif., energy extraction 39643
- Pr^{3+}:fluoride fibre laser, opt. modelocked, pulse generation 14763
- Pr^{3+}-doped fibre amp., short-pulse amplif. study 31227
- $RbTiOAsO_4$ noncritically phase-matched Ti:sapphire pumped fs opt. parametric oscillator 23383
- Si micromachined module platform for multiple opt. fibre I/O 23066
- $Si/CoSi_2$ vert. MSM photodetectors, buried contacts 34500
- SiO_2 opt. fibres, multiwavelength SRS, picosecond pulses 7301
- SiO_2-core fibre ring oscillator, Nd laser pumped 14999
- $Sr_{0.60}Ba_{0.40}Nb_2O_6$, light-induced grating, nonlin. opt. responses 31492
- $Ti,Er:LiNbO_3$ harmonically mode-locked waveguide laser 39736
- Ti doped sapphire laser, femtosecond pulses generation 1911
- $Ti:Al_2O_3$, Kerr-lens mode-locked femtosecond lasers, dispersion-compensation 1889
- $Ti:Al_2O_3$ high av. power chirped pulse amplif. systs. 31284
- $Ti:Al_2O_3$, self-modelocked femtosecond solid-state lasers 14815
- Ti:sapphire Los Alamos short-pulse/high-intens. lasers 1898
- Ti:sapphire chirped pulse amplif. beyond 1 μm 31258
- Ti:sapphire chirped-pulse amplif. beyond 1 μm 23178
- Ti:sapphire compact multiterawatt ultrashort pulse laser oscillator/amplifer syst. 31285
- Ti:sapphire fs laser amp., tuning range extension 14808
- Ti:sapphire fs laser pulse SHG 23173
- Ti:sapphire fs laser pulse parametric conversion, 1 kHz 14782
- Ti:sapphire fs laser pulse space-time focusing 23182
- Ti:sapphire high intens. femtosecond laser syst. *(French)* 1891
- Ti:sapphire laser 20 fs chirped pulse amplif. 31257
- Ti:sapphire laser amplifer/pulse compressor, gain-narrowing limit 23151
- Ti:sapphire laser, femtosecond modelocked, FEL sync. 31280
- Ti:sapphire laser, femtosecond pulse phase and intens. characterisation 31477
- Ti:sapphire laser, high-repetition-rate femtosecond mid-IR pulse generation 31574
- Ti:sapphire laser modulation procs. and radiation charact. 7601
- Ti:sapphire laser, self-mode-locked 1920
- Ti:sapphire laser, self-starting, femtosecond pulse generation 1890
- Ti:sapphire pulse stretcher-compressor in chirped pulse amplif. 31287
- Ti:sapphire regenerative amp. for ultrashort high-power multi-kHz pulses 31251
- Ti:sapphire regenerative amp., tunable 30-fs pulses 39739
- Ti:sapphire regenerative amp., tunable femtosecond opt. parametric amp. 2130
- Ti:sapphire self mode locked laser ultrashort opt. waveform meas. by FROG 39744
- Ti:sapphire sub-10-fs mirror-dispersion-controlled laser 39738
- Ti:sapphire ultrashort laser pulse compression, single shot meas. 23152
- Ti:sapphire ultrashort laser pulse intens./phase meas. 14778
- Ti:sapphire ultrashort pulse lasers, cubic phase compensation 31279
- Ti:sapphire/DDI ps cw pass. mode-locked laser starting dyn. 23171
- Ti:sapphire/Nd mixed glass laser, 250-fs pulse generation 31256
- Ti:sapphire/Nd:YAG laser syst., high power tunable femtosecond light prod. 23149
- $Ti^{3+}:Al_2O_3$ mode-locked lasers, fs pulse phase meas. *(Japanese)* 14776
- $W(CO)_6$ in organic glass, vibr. photon echo, FEL 40110
- Xe IX, femtosecond-pulse-driven XUV laser 23104
- XeCl Los Alamos short-pulse/high-intens. lasers 1898
- XeCl laser amplifier, SBS phase-conjug. cavity 1853
- XeCl long-pulse laser, ultrashort pulse generation, smoothly tunable wavelength 14719
- XeF 10^5 J (C-A) transit. inversion wave by Nd-laser second harmonic amplif. 14718
- XeF(C→A) 170 J excimer laser, electron beam pumped 23098
- $YAG:Cr^{4+}$ cryst. opt. polariser of short laser beam 1642
- YBaCuO films, high-freq. modulated laser radiation, nonequilib./bolometric response 39233
- YLF:Nd laser, Kerr-lens mode-locked 23141
- variable delay, dual wavelength psec. pulse generation 14840

high-temperature superconductors
- 8 MWh flywheel-SMES power storage syst., feasibility study 28048
- 110 kV forcibly cooled and HTS power cable comparison *(German)* 27211
- AC complex mag. suscept. meas., RF range 18046
- air-bridge microbolometers, silicon micromachining 39262
- appl. projects *(Polish)* 39220
- BCS theory, state of art *(Japanese)* 1595
- bearing with alternating-polarity magnets, dyn. 14309
- bicrystal HTSC DC SQUID, operation in portable microcooler 1620
- C-band superconductive input multiplexer for commun. satellites 12776
- circ. waveguides, Meissner boundaries 29523
- composite conductors, fab. and charact. 39240
- cond.-cooled supercond. magnet, Gifford-McMahon refrigerator *(Japanese)* 1634
- conductance noise, no. and mobility noise 1610
- conference, HTSC materials/mechanisms, Grenoble, France (1994) 11559
- conference, San Francisco, CA, USA (Feb.-Mar. 1994) 7
- conference, Tsukuba, Japan (Dec. 1993) *(Japanese)* 2
- conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
- cpd. films condensation, airlock unit of electron microscope 20957
- crit. current dens., microstruct., proc. 7227
- crit. temp./current meas., interf. reduction 34653
- cuprate supercond. jns., crit. current theory 30792

high-temperature superconductors continued
current leads develop., high T_c supercond., Ag addit. *(Japanese)* 19302
DC motors, high T_c supercond. field winding, slotless armature 4986
DC SQUID magnetometers, closed-cycle gas flow cooling syst. 34435
decimeter wave range HTSC surface resist. 14285
develop., thin-film proc., SQUID 30789
dielec.-loaded high T_c supercond. thin film, surface resist., microwave transm. 18052
elec. machine mag. support struct., HTSC PM appls. 43980
elec. small strip antenna, efficiency 8043
epitaxial deposition technol., overview 12041
epitaxial films/multilayers, growth *(French)* 28728
fault current limiters, mag. shield *(Japanese)* 10782
ferroelec. phase shifters, config. 12707
flywheel energy storage, high T_c supercond. mag. bearing appl. 28050
grain boundary jn., voltage steps 30796
HGMS, high T_c superconds. appls. 23527
high-temp. supercond. resonator for high-field imaging 39253
HTS/metal/polymer dielec. interconnect struct. for packaging appls. 11785
HTSC inductive current limiter for power systs. 4719
HTSC supercond. magnets, composite conductors stabil. 1628
insulators, rel. to HTSC, photocond. 1784
ion-beam etching facility for high-T_c struct. 1601
Josephson jn. array, resistively shunted, shielding 39269
Josephson jn. HTSC oscillator array, phase locking 38004
levitation force between oxide supercond./PM, anal. *(Japanese)* 7232
lin. resonator, EM field determ. *(French)* 30807
low-temp. two-axis goniometer, accurate temp. control 9874
LV high T_c supercond. DC transm. network 10719
mag. levitated transport syst. in vaccum 30808
mag. shield 23694
mag.-shield type supercond. fault current limiter *(Japanese)* 7254
MCM HTSC thin film interconnects, fracture strain meas. 12249
mech. vibr. damping by $YBa_2Cu_3O_{7-x}$ in mag. field 22722
meshed supercond. LVdc lines, supercond. current transfer devices 4636
metal oxide films, MOCVD for supercond. electronics 20950
microbridge superconducting thin films, variable thickness, mag. field sensitivity 1603
microstrip travelling-wave resonators, double resons. 37971
microstripline atten. and propag. const. calc. 31896
microwave ccts. appls., future outlook 39254
MISFET, 3-terminal device *(Japanese)* 30354
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
MRI, RF coil/cryogenic preamplifier, thin film device 35069
MRI RF coils, thin film high temp. supercond. 10196
multilayer high-T_c supercond. CPW, anal. 12691
normal/supercond. multiconductor lines for interconnects/MICs 29578
on-board satellite SS correlator 25469
patterned films, opt. sens. 22773
pinning strength inside grains of HTSC ceramics, meas. method 1591
planar transm. lines, propag. params. calc. 40415
PM arrangements for supercond. pass. bearings 14310
PM HTSC flywheel levitation force 1583
power apparatus, state-of-the-art supercond. material appls. 43972
power indust. appl. prospects 27068
power syst. HTSC short-cct. current limiter studies 19341
pulsed power supercond. opening switch, laser pulse triggered 36262
Q-factor meas. of high-T_c supercond. resonators 1641
rectangular microstrip patch radiation and loss anal. 23838
refl. pulse method for material props. determ. 9829
RF SQUIDs made by O-ion irrad., LF noise 39272
satellite broadcast receiver, high T_c supercond. coupling device *(Japanese)* 34228
single-cryst. supercond. crossotron switching element 1623
SQUID, charactn., optim. and modeling 22741
SQUID magnetometers, thin film, mag. hysteresis 9999
SQUIDs, noise props., inductance depend. 14302
steelmaking, sintering cake magnetic suspen., electromagnets *(Japanese)* 44626
strip resonators, Q-factors 12706
supercond. radiation detectors, thermal/nonequilibrium responses 17769
surface impedance, microwave meas., cavity 3965
thick film HTSC paste, microelectronics technol. appl. 22725
thick film HTSC supergain printed dipole arrays 31960
thin film resonators, buffer layers 39279
thin films, microwave surface resist., calorimetric/perturb. methods 39232
thin-film HTSCs, residual stresses for in-situ deposition 14274
trapped field magnet and stable levitation region of HTSC, anal. 39294
tunnel jns., photon detect. 39283
two-hole rf-SQUID for Al NDT 37564
uniaxial stress/hydrostatic press. appl. 14315
VHF HTS thick-film loop antenna/two-element array 40495
weak links syst., Josephson behavior, freq. modulated microwave field anal. 30781
wires, elec. power appls. 27218
workshop, Caen, France (Nov. 1993) 11536
$YBa_2Cu_5O_{7-x}$ high temp. supercond., mag. shielding 2274
Ag/BiSrCaCuO supercond. tapes, joining technol. 30771
$(Bi,Pb)_{2+x}Sr_2Ca_2Cu_3O_{10+d}$/Ag, high temp. supercond. tapes, proc. 1602
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+\delta}$Ag tapes, crit. current dens., columnar defects 1596
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+y}$-Ag tapes with 2212 phase, flux pinning 39226
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_X$-Ag, crit. current dens., rolling 22717
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$ multifilamentary tapes, Ag-sheathed, AC losses 39217
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$ tapes, Ag-sheathed, mag. behaviour 7228
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$-Ag tapes, crit. curr. dens. 39223
(Bi,Pb)-Sr-Ca-Cu-O/Ag supercond. composite wires and tapes 14271
Bi-Pb-Sr-Ca-Cu-O double cylinder, mag. shielding effect 1638
Bi-Pb-Sr-Ca-Cu-O, hot pressing, mag. melt texturation 39238
Bi-Pb-Sr-Ca-Cu-O supercond. thick films, screen printing 14272
Bi-Sr-Ca-Cu-O HTSC 2212 coils, proc. and props. 39296
Bi-Sr-Ca-Cu-O/Ag 2212 supercond. magnet, RT bore of 45 mm diam., 20 K 30803
BiPbSrCaCuO mag. shield, trapping props., grains priority orient. effect 39248
BiPbSrCaCuO microwave HTSC-resonator-stabilized oscillator 14283
$Bi_{2-x}Pb_xSr_2Ca_2Cu_3O_x$, current leads, power device appl. 14316
$(BiPb)_2Sr_2Ca_2Cu_3O_{10+x}$, HTSC form., high-temp. XRD 39250
BiPbSrCaCuO/Ag tape, microstruct./supercond. props., Ag sheath alloying effect 39239
$(BiPb)_2Sr_2Ca_2Cu_2O_{10}$/Ag multifilamentary tapes and solenoids 1633

high-temperature superconductors continued
$Bi_{1.8}Pb_{0.4}Sr_2Ca_{2.2}Cu_3O_x$-Ag tapes/test magnets, prep./charact. 7248
$Bi_{1.8}Pb_{0.4}Sr_2Ca_{2.2}Cu_3O_y$-Ag tapes, crit. current dens. 30772
BiSrCaCuO 2212 tape, Ag-sheathed, I-V characts. 39218
BiSrCaCuO high T_c trilayer tunneling and Josephson jns., ALE growth 373
BiSrCaCuO, multilayers/superlattices develop. 22744
BiSrCaCuO supercond. coils, design, fab. and test 1630
$Bi_2Sr_2Ca_1Cu_2O_{8+x}$ thin films, micropatterning, Nb lift-off 30764
$Bi_2Sr_2Ca_2Cu_3O_x$ ceramics, current leads, high transport currents 14277
$Bi_2Sr_2Ca_2Cu_3O_x$ epitaxial thin films, crit. current dens., vortex-glass transit. *(Japanese)* 7225
$Bi_2Sr_2Ca_2Cu_3O_x$ tape, thermoelec./thermomagnetic effects 39219
$Bi_2Sr_2Ca_2Cu_3O_x$, transport crit. current dens. meas. probe 17746
$Bi_2Sr_2Ca_2Cu_3O_y$ tapes, mech. props., J_c effect 1587
$Bi_2Sr_2CaCu_2O_{8-x}$ porous films gas sens. response anal. 34615
$Bi_2Sr_2CaCu_2O_x$, current leads, power device appl. 14316
$Bi_2Sr_2CaCu_2O_x$, melt proc., DTA, XRD, texture 30773
$Bi_2Sr_2CaCu_2O_x$ superconds., reactive sintering 7226
$Bi_2Sr_2CaCu_2O_y$ single cryst., intrinsic Josephson juncts., flux flow 39268
$Bi_2Sr_2Ca_{n-1}Cu_nO_x$ thin films, MBE growth mechanism and control *(Japanese)* 5817
$(Bi_2Sr_2Ca_{n-1}Cu_nO_y$ dens. determ. by hydrostatic weighing 42957
$BiSr_2Ca_7Cu_8O$ high-T_c superconductive devices, at.-layer-controlled fab. *(Japanese)* 5818
$Bi_2Sr_2Ca_2Cu_3O_x$:Pb/Ag, monofilamentary tapes, Hall sens. magnetometry 39228
BiSrCaCuO/Ag 2212 ribbons, crit. currents 39224
BiSrCaCuO/Ag supercond. coils, develop. and test 1629
BiSrCaCuO/Ag tapes, 2223 phase, flux pinning, crit. currents 39225
BiSrCaCuO/Ag tapes, 2223 phase, mag./transport studies 39222
BiSrCaCuO/Ag tapes carrying transport current, mag. field in vicinity 1588
$Bi_2Sr_2CaCu_2O_{10}$/Ag HTSC ribbons, crit. current dens., field/temp./angle depend. 39234
$Bi_2Sr_2CaCu_2O_y$/Ag tapes, electrophoretic deposition, high J_c 14278
BiSrCaCuO-Ag tapes, 2223 phase, crit. currents 39221
$Bi_2Sr_2CaCu_2O_{8+x}$-based sens. for CO and NO 34614
a-C:Cu cluster superconds., crit. temp. meas., mm-wave interf. method 39235
CeO_2 thick film buffer layers for HTSC films 22724
$CeO_2/YBa_2Cu_3O_{7-\delta}$, supercond. FET, prep., charactn. 14301
DyBaCuO, multilayers/superlattices develop. 22744
Er-Ba-Cu-O, high-T_c, thin film/substr. thermal boundary resist. 14275
$HoBa_2Cu_3O_x$ nanobridges, critical-current studies 30791
NdBFe magnet-$YBa_2Cu_3O_{7-\delta}$, vert. mag. force/stiffness 14270
$PZT/YBa_2Cu_3O_{7-\delta}$ heterostruct., laser ablation deposition 431
PZT/YBaCuO heterostruct. capacitor, photoresponse, fast opt. readout 30595
PbHgBaCaCuO, I-V characts., Ambegaokar-Halperin model 1589
$PrBa_2Cu_3O_y$-$YBa_2Cu_3O_x$ jn., low temp. STS 22757
Si/YBaCuO reactive patterning tech., step-edge jn. fab. 1611
Taguchi-type gas sens. for NO 34613
$(Tl,Pb)(Ba,Sr)_2Ca_2Cu_3O_9/Ag_{0.37}$ thick c-axis textured supercond. tapes 1598
TlBaCaCuO microstrip ring resonator, double reson. behavior 12727
TlBaCaCuO tape, Ag-sheathed, flux pinning and motion 22723
TlBaCaCuO thin film ring resonator, J_c distrib. 37953
$Tl_2Ba_2Ca_1Cu_2O_x$ electrode based $Ba_{1-x}Sr_xTiO_3$ tunable capacitors 6356
$Tl_2Ba_2Ca_2Cu_3O_{10}$, mag. shields 39247
$Tl_2Ba_2Ca_2Cu_3O_{10}$ material for bulk appls. 22718
$TlBa_2Ca_2Cu_3O_x$, microwave cavity resonators 14284
TlCaBaCuO/GaAs, thin film supercond./MESFET semicond. hybrid phase shifter 29559
$(Tl_{0.6}Pb_{0.2}Bi_{0.2})(Sr_{1.8}Ba_{0.2})Ca_2Cu_3O_{9+x}$ powder/Ag-sheathed tape, synthesis/charact. 39251
$Tl_2Sr_2Ca_2Cu_3O_x$, cylindrical shield, thermal cycling effect 39249
Y-Ba-Cu-O 124 phase single crysts., tunnel jns. 30780
Y-Ba-Cu-O HTSC film microstrip, elec. instabilities, ultra-fast SN switching 37940
Y-Ba-Cu-O HTSC thin films, K-band microstrip filters 39299
Y-Ba-Cu-O microstrip resonators on sapphire substrs., microwave losses 37995
Y-Ba-Cu-O thin films near transit. temp., thermal flucts. 1593
Y-based HTSC, relax. US proc., mech. stabil. 39242
YBCO high T_c superconds., elec.-field effects, mechanism and device prospects *(Japanese)* 7234
YBCO high-T_c supercond. film microstrip microwave opening switch 6281
$YBCO/CeO_2/YSZ/MgO$ bi-epitaxial grain boundary jns. 22753
YBCO/MgO bi-epitaxial grain boundary jns. 22753
YBCO/PBCO/YBCO planar sandwich-type jns., Josephson jn. charact. 39229
YBaCuO, 10 GHz bandpass microstrip filter 816
YBaCuO DC SQUID magnetometer, low noise, direct sig. injection 39255
YBaCuO DC-SQUIDs, step edge junctns., anom. voltage modulation 39267
YBaCuO HTSC bi-epitaxial DC SQUIDs, FIB etching from single jns. 39276
YBaCuO HTSC bolometer, submillimeter wavelengths 39300
YBaCuO HTSC, bulk mfg., XRD, SEM 20988
YBaCuO HTSC microwave resonators and filters 37969
YBaCuO HTSC thin films, thermopile effect, laser radiation heating 22714
YBaCuO Josephson jns. on $NdGaO_3$ bicrystalline substrs. 22764
YBaCuO SNS Josephson jns. with epitaxial barriers, interface/proximity effects 39275
YBaCuO antenna microbolometers on sapphire, stabil. and noise 17751
YBaCuO biepitaxial Josephson jns. on SOS substrs. 22761
YBaCuO bolometers at 10.6 μm wavelength, implement. 42814
YBaCuO cylinders, mag. shielding, universal scaling prop. 14311
YBaCuO film dc SQUIDs, film quality effect on props. 39281
YBaCuO films, high-freq. modulated laser radiation, nonequilib./bolometric response 39233
YBaCuO films, subnanosecond switching, supercond./normal states 39301
YBaCuO high T_c supercond. current limiter, props. *(Korean)* 35687
YBaCuO high speed supercond. flywheel syst. for energy storage 44431
YBaCuO high-T_c supercond. films, four-photon ps spectrosc. of phase transits. 7230
YBaCuO, levitation/suspen. forces in microgravity expts. 39246
YBaCuO, mag. bearings 1639
YBaCuO melt-textured materials for trapped field magnets, levitating bearings 39245
YBaCuO microbridge, 2D array, weak links 22763

high-temperature superconductors continued
YBaCuO pellets, mag, textured, permanent mag. config., mag. bearings appl. 39244
YBaCuO, pick-up coil with granular supercond. core, voltage waveform anal. 39292
YBaCuO, proton implanted layers, crit. currents 1590
YBaCuO rods for current lead appls., directional solidif. 290
YBaCuO step-edge devices optim. 22719
YBaCuO, step-edge/bicrystal grain-boundary jns., excess noise 1612
YBaCuO, sub-micron structs., SEG 22755
YBaCuO supercond. magnets in DC motor, constr. 39297
YBaCuO supercond., melt processed, mag. shielding props. 39243
YBaCuO supercond. thin-films with differing axes of orient., elec. noise 1594
YBaCuO thick film RF-SQUID for detect. of weak mag. field sigs. 39277
YBaCuO thin film DC SQUID, mag. microscope 3956
YBaCuO thin film sputter deposition, transport proc. simul. 28864
YBaCuO thin films, complex cond., surf. resist. *(French)* 30767
YBaCuO thin films, planarized patterns 39230
YBaCuO thin-film Josephson jns., MM wave mixing *(Japanese)* 12762
$Y_1Ba_2Cu_3O_{7-x}$ tapes, in-plane aligned on metallic substr. by CVD 399
$YBa_2Cu_3O_7$ DC-SQUID, microwave microscopy appls. 14314
$YBa_2Cu_3O_7$ HTS supercond. thin film fab. by high power ArF excimer laser *(Japanese)* 22713
$YBa_2Cu_3O_7$ HTSC bolometer films, response time 42815
$YBa_2Cu_3O_7$ HTSC delay line, kinetic inductance, elec. tuning 14313
$YBa_2Cu_3O_7$ HTSC film fault current limiter 7255
$YBa_2Cu_3O_7$ HTSC thin films, microwave pass. devices 30766
$YBa_2Cu_3O_7$ HTSC tubes, mag. shielding and harmonic generation 7256
$YBa_2Cu_3O_7$, Josephson jn. fab., bi-epitaxial grain boundary 30790
$YBa_2Cu_3O_7$ Josephson jn.-based digital ccts., nanoscale patterning 14298
$YBa_2Cu_3O_7$ RF SQUID magnetometer, direct-coupled pickup coils, flip-chip flux transformers 17728
$YBa_2Cu_3O_7$ bridges, crit. current, mag. field depend. 30793
$YBa_2Cu_3O_7$ bulk/films, surface resist., 10 GHz cylindrical cavity resonator 14269
$YBa_2Cu_3O_7$ coplanar transm. lines, eye diag., S-params. 1298
$YBa_2Cu_3O_7$, current leads, power device appl. 14316
$YBa_2Cu_3O_7$ film on mica, bolometric/struct. props. 42816
$YBa_2Cu_3O_7$ flux-transformers, input coils 1613
$YBa_2Cu_3O_7$ high Tc epitaxial thin films, opt. SHG detect. 7745
$YBa_2Cu_3O_7$ microbolometers, free-standing, on Si substrs. 3825
$YBa_2Cu_3O_7$ microwave coplanar resonators, power-induced switching 37970
$YBa_2Cu_3O_7$ multilayers for MCMs, surface resist. simul. 38195
$YBa_2Cu_3O_7$ nanobridge based DC SQUIDs 1621
$YBa_2Cu_3O_7$ sens. based magnetometer for weak mag. fields 34442
$YBa_2Cu_3O_7$ shallow step jn., Josephson radiation linewidth 39264
$YBa_2Cu_3O_7$, single flux quantum converter, microwave testing 7237
$YBa_2Cu_3O_7$ step edge jns. on $LaAlO_3$, Fiske resons. 39258
$YBa_2Cu_3O_7$ thick-film flux transformers 1608
$YBa_2Cu_3O_{7-\delta}$, 3 mm waveband Gunn oscillator, phase locking 21537
$YBa_2Cu_3O_{7-\delta}$ Josephson jns., microwave noise 39259
$YBa_2Cu_3O_{7-\delta}$, a-axis oriented, $SrTiO_3$ layer-by-layer growth 20963
$YBa_2Cu_3O_{7-\delta}$ film bicrystal grain boundary jn., field effect device 1615
$YBa_2Cu_3O_{7-\delta}$ film structs., transport props., elec. field effects 39231
$YBa_2Cu_3O_{7-\delta}$ films, laser ablation deposition 431
$YBa_2Cu_3O_{7-\delta}$ films synthesized from amorph. precursors, orient. texture 5824
$YBa_2Cu_3O_{7-\delta}$ grain boundary jn. SQUID, modulation voltage/thermal noise 39271
$YBa_2Cu_3O_{7-\delta}$ high current thick films on flexible Ni substrs. 1597
$YBa_2Cu_3O_{7-\delta}$ nanobridges, coherent cortex motion 14303
$YBa_2Cu_3O_{7-\delta}$ normal state films, fast thermoelec. response, detector appls. 42793
$YBa_2Cu_3O_{7-\delta}$ planar multiline struct., current distrib. 14287
$YBa_2Cu_3O_{7-\delta}$, texturing by microwave heating 39241
$YBa_2Cu_3O_{7-\delta}$ thin films, microwave surface impedance determ. 25946
$YBa_2Cu_3O_{7-x}$ HTSC coplanar microstrip transm. lines 12693
$YBa_2Cu_3O_{7-x}$, Josephson jns., SQUIDs, cryo-refrigeration 1605
$YBa_2Cu_3O_{7-x}$ SQUID, RF props. 30786
$YBa_2Cu_3O_{7-x}$ SQUID, picovoltmeter 22739
$YBa_2Cu_3O_{7-x}$ asymmetric DC SQUID, three terminal device, current gain, 77 K 22756
$YBa_2Cu_3O_{7-x}$ epitaxial ultrathin films, photoresponse 3826
$YBa_2Cu_3O_{7-x}$ film parallel-plate microwave reson., freq. modulation 7253
$YBa_2Cu_3O_{7-x}$ films, vortex-glass crit. regime, correl. length 30801
$YBa_2Cu_3O_{7-x}$ high T_c film dielec. resonator, MM-wave filter develop. 811
$YBa_2Cu_3O_{7-x}$ inhomog. superconds., mag.-flux dyn., low-field aspects 39278
$YBa_2Cu_3O_{7-x}$ integrated high-T_c multiloop magnetometer 30799
$YBa_2Cu_3O_{7-x}$, microwave EM field-induced dielec. reson. 30809
$YBa_2Cu_3O_{7-x}$, microwave penetration depth, contactless meas. 39227
$YBa_2Cu_3O_{7-x}$ parallel connected elements, current distrib. 7229
$YBa_2Cu_3O_{7-x}$ thin film bridges on bicrystal substrs., detect. props. 39265
$YBa_2Cu_3O_{7-x}$ thin film multiturn coil, laser scanning imaging 1632
$YBa_2Cu_3O_{7-x}$ thin film, surface smoothing, MCM fab. 39252
$YBa_2Cu_3O_{7-x}$ thin films, film growth, laser ablation, AFM, HRTEM, XRD *(French)* 30768
$YBa_2Cu_3O_{7-x}$ three-axis dc SQUID magnetometer 10455
$YBa_2Cu_3O_{7-\delta}$ step Josephson jn. thin-film RF SQUID 14282
$YBa_2Cu_3O_{7-x}$ grain boundary, CPW microwave mixer 6317
$YBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795
$YBa_2Cu_3O_{7-x}$ supercond. microstrip resonators, spectral-domain anal. 21516
$YBa_2Cu_3O_{7-y}$ high T_c current limiting element 10776
$YBa_2Cu_3O_x$, $Nd_{1+x}Ba_{2-x}Cu_3O_y$ seeded melt growth, levitation appl. 7249
$YBa_2Cu_3O_x$, high J_c, modified melt techs. 22715
$YBa_2Cu_3O_x$ thin films, at. layer-by-layer MOCVD, opt. reflectance meas. *(Japanese)* 5816
$YBa_2Cu_3O_y$ grain boundary jns. on (100)MgO, Josephson effects 30787
$YBa_2Cu_3O_y$ granular bridges, I-V charact. and Josephson ac effects 30769
$YBa_2Cu_3O_y$ jn., finite gap tunneling obs. 30778
YBaCuO:Ag films on sapphire, microwave surface resist./residual losses 39236
$YBa_2Cu_3O_{7-x}$:Ag HTSC resonator, unbuffered sapphire substr. 30806
YBaCuO/Ag coplanar lines, charactn. and EM modeling 37936
YBaCuO/BaF_2/Sn device, thin film microbridge, zero mag. field dissipation 30776
YBaCuO/$LaAlO_3$/YBaCuO multilayered films for microwave appls. 1599
$YBa_2Cu_3O_{6.9}$/Nb, unconventional supercond., SQUID obs. 30765
$YBa_2Cu_3O_7$/CeO_2/$YBa_2Cu_3O_7$ ramp-type jns., quasipart. tunnell. 30777
$YBa_2Cu_3O_7$/La_2CuO_4 microbridge radiation detectors 39288

high-temperature superconductors continued
$YBa_2Cu_3O_7$/$PrBa_2Cu_3O_7$/Au-Ag/Pb jns., electron transport props. *(Japanese)* 7235
$YBa_2Cu_3O_{7-\delta}$/$PrBa_2O_{7-\delta}$ superlattices, laser ablation deposition 431
$YBa_2Cu_3O_{7-\delta}$/$YBa_2Co_xCu_{3-x}O_y$ Josephson jns., flux flow 39263
$YBa_2Cu_3O_{7-\delta}$/polypyrrole sandwich struct., reversible supercond. modulation 1616
$YBa_2Cu_3O_{7-x}$/Ag composites, melt growth, domain struct. 20992
$YBa_2Cu_3O_{7-x}$/$SrTiO_3$/$YBa_2Cu_3O_{7-x}$, low noise multilayers, supercond. magnetometers 22740
$YBa_2Cu_3O_x$/$SrTiO_3$/$YBa_2Cu_3O_x$ tunnel jn., TEM study 22759
YBaCuO-YPrBaCuO-YBaCuO ramp jns./multilayers, prep., comparator appl. 39274
$YBa_2Cu_3O_7$-Josephson jns., mech. induced growth disorder 39273
$YBa_2Cu_3O_7$-$PrBa_2Cu_3O_7$ Josephson edge type jns. 22754
$YBa_2Cu_3O_{7-x}$- $SrTiO_3$ 1 GHz tunable parallel plate dielec. resonator 37967
$YBa_2Cu_3O_7SrTiO_3$ CPW, elec. controlled 803
$Y_{0.9}Ca_{0.1}Ba_2Cu_4O_8$-$Ag_2O$/Ag interface, contact charact. 14273
$Y_{1-x}Pr_xBa_2Cu_3O_{7-\delta}$ SNS jns., resistively shunted I-V characts. 7233
$YbBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795

high-temperature techniques
see also pyrometers; refractories
26 W CFL, dimming ballast effect on colour temp. 11458
annealing chamber, double-chamber autoclave 6608
AT-cut quartz crysts., high-temp. acoustic loss 34476
colour TV tubes, high temp. stress meas., exhaust oven *(Chinese)* 9712
diamond, polycryst. double layers, high temp. sens. 34441
digital fiber-optic thermometer 17848
elec. resist. meas. apparatus for high temp. 25947
fibre grating sens., high temp. capabilities/limitations 17876
glass pH sens. for temps. of 200-250°C 34464
high resoln. thermometry for 1.5 GHz supercond. cavities 10056
holographic interferometry in high temp. flows, shock tunnel 18143
hybrid IC materials systs. and technol. 38165
IGBT design, num. simul. calib. 30315
III-V semiconds. for high temp. electronics appls. 22528
ITS-90 implement., thermal metrology fund. 3718
LOCOS, poly-buffered, furnace oxid. 6646
opto-mech. Raman strain sens. for C composites 3814
sapphire fiber strain gage for static/fatigue meas. 17860
soot props. meas. by two-colour pyrometry 10054
target surface temp. meas., laser-induced plasma 10053
thermal diffusivity meas. of refractory solid materials 25996
Er-doped silica fibre high-temp. point sens. 17873
InGaP HBTs, high-temp./microwave power appls. 38838
SiC, 6H polytype, high temp. dinistor, sublimation epitaxy 22507
SiC, 6H polytype, high temp. stabilitrons, 4 to 50 V 22506

high vacuum gauges *see vacuum gauges*

high-voltage engineering
see also high-voltage techniques; HVDC power transmission
110 kV forcibly cooled and HTS power cable comparison *(German)* 27211
110/10 kV substation planning and reliab. anal. *(German)* 19220
110/20/10 kV transformer station in historic building *(German)* 5156
AC HV insulators, elec. pot. and field comp. 19316
bipolar nanosecond pulse generator 17991
boundary element approxs., elec./mag. fields, iter. soln. 2177
desk-top subnanosecond pulser, develop. and appls. 29074
discharge pattern recogn. in HV equipt. 22647
gamma-irrad. polyethylene insulation, space charge accumulation meas. *(Japanese)* 43793
HF behavior of electrooptic Kerr modulators, voltage meas. appl. 19365
insulator AC flashover performance under glaze and rime 19321
opt. fiber sens. tech. *(Japanese)* 3859
power switch reliab. and maint. cost survey *(German)* 36467
rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658
VHV power systs., digital protection relay method 4717
SF_6 72 kV cct. breaker, arc models, test cct. 27845
SF_6 insulated tripolar encapsulated HV switchgear props. and advantages *(German)* 27856

high-voltage integrated circuits *see power integrated circuits*

high-voltage techniques
20 kV plastic cable repair by silicone injection *(German)* 27214
220 and 380 kV line dist. protection, adaptive automatic reclosure *(German)* 27267
combined HV, high-energy pulse generator 11134
dielec. degrad. obs., PD mechanisms in voids 22648
dividers, infeed lead dispersion effects, impulse registration 5171
double pulse modulator, variable interpulse delay 5108
elec. shock safety, develop. 18624
electro-optic Kerr relax. meas., pulse generators 1732
electrode insulation demo. life-test duration determ. 28428
ESD diagnostics, HV calib. 30542
fast electro-optic HV sens. 25781
fibre optic current sens. for EHV, design optimisation 3855
impulse test results, digital anal./proc. 11731
indust. 110 kV network intermittent earth fault limitation *(German)* 4708
insulator wetting action, fog test facility 4702
interferometric opt. fiber HV/current sens., field test 17821
LV generators of HV nanosecond pulses 17992
paper insulation, HV testing, μP based 30590
PD anal. syst., HV test lab 1536
PD induced ageing, pulse-seq. anal. 22653
PD monitor, transient earth voltage tech. 1537
PD pattern recogn., HV equipt. 1521
PD pattern recogn., neural network 22650
PD separation from pulse-shaped noise sigs. 22649
PDs, sig. generation, transm. and acquisition 1518
polymeric HV cable, PD testing 4687
pulse technol., appls. 11192
regulator for charged-particle optics 7909
rot. machine stator, PD pulse meas. 4896
rot. machines, PD detect. 4900
solar cell array for electrostatic MEMS 36606
solid polymeric insulators, breakdown, PD meas. 4705
subnanosecond pulses meas., probes and attenuators 3817
transfer fn. in transformer testing 5012
transformer oil, elec. breakdown, dyn. barrier effect *(Russian)* 44105

high-voltage techniques continued
- UHV electron microscope, Cockcroft-Walton generator, ripple compensation 1012
- vac. diode insulators, elec. breakdown 35659
- VIRA-2P generator of pulsed braking radiation 44115
- wire conductor, corona discharge, lumin., CT obs. *(Japanese)* 963
- XeCl laser, long-pulse, auto-pre-pulse/pre-ionization 23092

higher order statistics
- 2-area power syst. prod. cost, cumulant method *(Chinese)* 27034
- 2-D single record harmonic retrieval 8313
- 2D sig., bispectrum estim., projection method *(Japanese)* 15895
- adaptive blind diversity combining for antenna arrays 31978
- adaptive blind equalization, weighted cumulant slices 41026
- allpass systs. ident. algm. 32648
- almost periodic sigs., extraction, cyclostationarity 40934
- AR proc., non-Gaussian source, Gaussian mixture dens. modeling 40835
- ARMA syst. ident. based on second-order cyclostationarity 8424
- array proc., adaptive rational subspace estim. for non-white additive noise 32452
- auto-/cross-trispectra, computation/interp. 40994
- blind channel estim. and deconvolution in colored noise 32457
- blind channel ident. based on second-order stats. 24003
- blind ident., higher order stats. *(French)* 16043
- blind ident./equalization of MA channels for QAM 8367
- blind MA-syst. ident. based on higher order cumulants 32491
- chaotic attractors charact., fourth-order off-diagonal cumulant slices 8339
- circularity and discrete-time random sigs. *(French)* 41036
- CRLB/HOS of polyphase sigs. in additive/multiplicative noise 24245
- cumulants in wavelet anal. 32451
- cyclostationary time-series, cumulant theory 8417
- cyclostationary time-series, cumulant theory devel. 8418
- digital signal processing, conf., Yosemite, CA, USA (1994) 11548
- digital wireless appl., lognormal sum distribs./outages 9374
- DOA estim., modified cumulant matrix 2506
- DOA estim. in unknown correl. noise, MUSIC and higher-order stats. 32481
- exponentially damped sinusoids, param. calc., third-order stat. 40863
- fast blind equalization of wireless commun. channels 15944
- FIR channels blind ident. via antenna arrays 8366
- FIR channels fractionally spaced blind equalization 8368
- FIR syst. ident., third- and fourth-order cumulants 40541
- FIR systs. blind ident., third order cumulants 2525
- fourth-order cumulants, direction-finding algms., perform. anal. 24210
- fourth-order stats., freq.-/time-delay of arrival estim. 8315
- Gaussian AR noise, nonGaussian sig. detect., lattice struct. 40989
- generalized Cramer-Rao bound and location param. case 41005
- harmonics in noise, cumulant-based estimators, perform. anal. 40992
- higher order moment matrices invertibility 40812
- IEEE ICASSP conference, Adelaide, Australia (1994) 20269
- image motion estim. algms., cumulants 24701
- image seqs., noise reduction, motion compensation/sig. decomp. 32874
- independent components ident., cumulants and coherences 16064
- independent sources, adaptive separation, deflation approach 40914
- indoor radio propag., multipath charact. for shielded building *(Japanese)* 23626
- lin. non-Gaussian sigs., multichannel ARMA models, identifiability 40993
- MA-model ident., modulated cumulants 24248
- mammography, cumulant slices for 2-D autoregressive sig. modelling 32820
- mammography, higher order spectral estim., AR modelling 10195
- MIMO lin. time-variant syst., cyclic higher order stat. 40897
- mixed Gaussian/non-Gaussian ARMA noises, harmonic retrieval 8433
- mixed time av., asymptotic theory, cyclic-moment/cumulant stats. 24286
- multidimensional high-order moments estim., amplit. quantis. 2534
- multidimensional nonGaussian ARMA models, param. identifiability, cumulant matching 8340
- multimedia service networks, link capacity allocation by input power spectrum 33664
- multipath channels blind identifiability 24290
- multiplicative white stochastic proc., wavelet transform, stats. 32666
- MUSIC method with meas. errors, asymptotical anal. 40826
- non-Gaussian sigs., noncausal ARMA models, param. estim. 40834
- non-Gaussian time-varying AR models, cumulant-based approaches 2523
- non-lin. wave-wave interacts. detect., tricoherent anal. 41047
- non-min. phase syst. estimators, comparison 16013
- noncausal autoregressive systs., cumulant based param. estim. method 40918
- noncausal nonminimum phase ARMA modeling of non-Gaussian procs. 32458
- nonlin. syst. ident., Hammerstein model, cumulant-based Steiglitz-McBride algm. 40991
- otoacoustic emissions, cumulant-based cubic difference tone detectors 32453
- param. estim., higher order stats./inverse filtering 40762
- parametric lin. models ident., cyclostationary inputs 40988
- parametric model output probab. laws, study and simul. *(French)* 15928
- power syst. load modelling, cumulant-based probabilistic simul. *(Chinese)* 35449
- quadratic stochastic syst., blind identifiability 24288
- random amplit. modulated harmonic retrieval 32460
- random amplit. polynomial phase sigs. estim. 32557
- recursive waves risk param. estim. from cyclic autocorrelation matrix 40986
- rot. mach., stat. monitoring, cumulant spectral anal. 32454
- second-/higher order stats., adaptive blind equalization 15890
- second/higher order stats. change detect., texture segmentation 8560
- seismic surveying, marine, deconvolution by adaptive algm. 18811
- self coupled harmonics, stationary/cyclostationary approaches 40937
- sens. array sigs., multi-scale deconvolution, higher order spectra appl. 40987
- ship radiated sigs. detect. in non-Gaussian noise 8378
- sig. proc., decomp. of quantics in sums of powers 32456
- sig. proc., evidencing chaos from dimens. 16023
- sig. proc., freq.-domain estim. 8314
- small target detect., long term integrat. 18975
- SNR estim. algm., fourth-order moments 40871
- source separation, one stage self-adaptive algm. 32695
- speech coding, spectral envelope, high-order allpole modelling 32337
- speech enhancement, higher order AR modelling, parameterized Wiener filtering 15836
- spherical acoustic objs. in motion, ident. 34167
- spherical acoustic objs. in motion, seq. class. 17490
- stationary procs., sample cumulants, asymptotic results 40841
- texture images, bispectral-based test for spatial reversibility 8561

higher order statistics continued
- time-domain procedures for testing that stationary time-series, Gaussian 32490
- time-domain tests for Gaussianity/time-reversibility 8422
- time-space segmentation/motion estim. based on higher order stats. 32819
- time-varying higher-order cumulant spectra, noise, composite FM sigs. anal. 40970
- tri-array VLSI archit. for higher order moment estim. comp. 29294
- tricoherence stats. 8419
- trispectrum, higher order spectra 24189
- two-channel tests for common non-Gaussian sig. detect. 8292
- ultrasound images, blind deconvolution 35000
- Weibull radar clutter background, order stats. CFAR, perform. anal. *(Chinese)* 34106
- white stochastic proc., fourth-order cumulant, adaptive estim. 40861
- whiter than white noise 40990
- wide-band refl. radar sig., complex envelope intell. props. 9620
- InP/InGaAs HBTs, nonstationary 1/f noise 22356

Hilbert spaces
- alternating projections method 37326
- convex projection method, Browder strong convergence theorem appl. *(Japanese)* 32859
- Euclidean Voronoi labelling on grid 41069
- frame and special types of extended pseudo-biorthgonal bases 32508
- lin. stochastic functional evol. eqns. in Hilbert spaces, estim./control duality 37305
- monotone element network theory, inequality in iter. methods 37611
- sig. representation, hierarchical parallel matching pursuit 15926
- stabil. and regularization of difference schemes 20622

Hilbert transforms
- analytic sig. generation, tips and traps 2493
- analytic sig. generation for time-freq. distribs., efficient algm. 32718
- Butterworth diplexer, design, real-freq. approach 6201
- CMOS digital DSB-to-SSB converter, FIR Hilbert transform filter chip 12655
- FIR digital filter types, interrelationships 2532
- IIR Hilbert transform design, weighted optim. *(Japanese)* 32687
- image coding, directional ADPCM 24504
- motion extraction by spatiotemporal filtering 8525
- multiconductor lossy transm. lines, causal time domain anal. 23765
- oversampled bandpass sigs., inphase/quadrature components extraction 24183
- radiating planar ccts., broadband anal., moment methods anal. 15506
- scale-space props. of quadratic edge detectors 24445
- std. sig. proc. software package 8338
- TW semicond. opt. amps., facet modal reflectivity spectrum 39763

hip joint replacements *see prosthetics*

HIPPI *see local area networks; network interfaces; protocols*

history
- 1320 MW NPP auxiliary power syst. hist., UK 19415
- amount of subst. and mole 34330
- ARPANET, early yrs. 41907
- ATM concepts, archits., and protocols 24769
- Australia's deregulated telecomms. indust. and Telecom 2999
- Battle of the Atlantic, radio systs. role 26812
- change mgt., Philips Electronics overview 11631
- China's satellite policy, historical evol. 42314
- Colossus, WWII German sig. code breaker, restoration 40685
- commercial MHD power plants develop., historical perspective 10904
- const.-luminance colour TV principle and appl. *(German)* 42563
- Croatian telecomms. network, charact. and future trends 33315
- CRT markets 9975
- distrib. switchgear, design overview 4670
- DuPont engng. R&D, hist. 20368
- elec. contacts, develop. hist. overview *(French)* 6393
- elec. power market overview *(Chinese)* 43700
- elec. units hist., 1964 34307
- engng. education institution placement services, India 5551
- engng. entrepreneurship develop., academia role, India 5557
- Fessenden and early hist. of radio sci. 5721
- Fleming and Marconi, wireless transm. develop. 5720
- fractal image compression, literature review 2688
- glottal models far digital speech proc., historical survey 24132
- GPS Block IIR solar array power syst., historical overview 26604
- halftoning technol., United States patent literature 184
- ISO 9000 global quality std., overview 11833
- Japan, elec. insulation technol. evol. 5724
- Marconi's (1901) transatlantic transm. wavelength, transmitting syst. anal. 25267
- med. appls. of electrostatics 18586
- MHD power generation, develop. hist., research efforts, appls. *(French)* 36615
- mil. code breaking computing systs., Bletchley Park scientists 32100
- mole concept, Amedeo Avogadro and others 17643
- operations and mgt. (O&M) technol. for telecomms. 41664
- particle accelerators, review, brief hist. 4038
- Pb-acid valve regulated batt., standby telecom. appls. overview 19960
- power station life extension, data historian software appls. 19386
- power syst. reliab. assess., concepts/hist. review 26917
- pulsed power, develop./hist., AWRE 36378
- qty. calculus and internat. syst. 34305
- quality mgt., historical overview *(Croatian)* 5678
- railguns, multi-point/packed wire/monolithic solid armatures 15361
- rehabilitation robotics in Europe 35175
- SOFC R&D activities, Japan 44350
- SSMA commun., evol. 24781
- technol. institutes, benchmarking exercise overview 20375
- technol. mgt., 40 yr. hist., future prospects 20366
- telecom. DC power supply equipt, product safety engng. 41625
- telecomm. technols. innovation, hist. 33303
- telematics, creative 2998
- transm./distrib. switchgear, historical overview 5139
- X-ray cryst. dens. method, hist./future outlook 18118
- GaAs MESFET develop. at Caswell, 1964-1985 6808
- NiO spacecraft secondary batt. electrodes, fab. overview 26665
- SF_6 HV cct. breakers, historical develop. 27835
- SF_6 MV switchgear experiences, France 5149

HIXE *see ion microprobe analysis; X-ray chemical analysis*
HJBT *see heterojunction bipolar transistors*
HMM *see hidden Markov models*
HMOS integrated circuits *see MOS integrated circuits*
hobby computing
agric. and extension, modem-accessible inform. services 8868
hodoscopes *see cosmic ray apparatus; particle detectors*
HOE *see holographic optical elements*
hoisting equipment *see hoists*
hoisting machinery *see hoists*
hoists
see also materials handling
AC hoists modernisation 11396
automation, radio signalling 11397
mine hoist cycloconvertor sync. motor drives 44643
mine hoist winder drive control upgrade project, South Africa 44644
mine winder motor drives, digital control systs. 44645
underground hoist, digital controlled cycloconverter induction motor drive 11323
hole burning (optical) *see optical hole burning*
hole capture *see hole traps*
hole density
Schottky barrier diodes, recomb. currents 22032
SEMDEM bipolar power diode/thyristor modelling program 30199
semicond. superlattice, hole transport, band mixing effect 6568
submicron SOI MOSFET, self-heating, scaling constraints 30289
p-AlAs:Zn, MOCVD for low-resist. VCSEL 23246
$Al_xGa_{1-x}As$:C, MOMBE grown, annealing 28774
$(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P$:Zn, metalorganic CVD, impurity passiv. 20938
Au/CdTe/Au, impurity level energy effect 1185
$Cd_xHg_{1-x}Te$/CdTe epitaxial struct., carrier recomb., microwave method 21943
CdTe:N MBE films, photolum. and p-type cond. 1038
ErN(P)(As), electronic struct., metallization appls. 38670
GaAs buffer layers, MBE grown, electronic props. 13056
GaAs:C, C activation, amorph. layer regrowth 30037
GaAs:C, MOCVD, doping and growth rate reduction by CCl_4 403
GaAs:C, heavily doped, MOMBE using elemental Ga 321
GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
GaAs:Cr, doped/undoped, elec. props., heat treatment *(Korean)* 13330
GaAs:Si QW, uniform intermixing in p-i-n modulator structs. 39605
GaAs:Si, heavily doped, MBE, elec. props. 1040
GaAs/AlAs RTD, QW electroluminesc. 38945
GaAs-AlGaAs diode lasers, threshold current, carrier charge imbalance effect 14888
GdN(P)(As), electronic struct., metallization appls. 38670
$Hg_{1-x}Cd_xTe$, MOVPE, elec. props. 13053
InAs/GaSb struct., 1D transport and gating 1101
InAs-GaSb QWs, magnetotransport meas., hydrostatic press. appl. 38334
$InAs_{0.3}Sb_{0.7}$, MOCVD on GaAs, carrier transport 6529
InGaAsP epitaxial layers on GaAsP substrs., orange LED appl. 12128
InGaP/GaAs HBTs, ultra-high carbon-doped base 38840
InP:C, C activation, amorph. layer regrowth 30037
InP:Zn, LEC grown, heavily doped, struct. charactn. 13301
Si solar cells, charged defect conc. profile, C-V meas. 27947
$Si/Si_{1-x}Ge_x$ modulation-doped heterostruct., hole transport props. 29885
$Si/Si_{1-x}Ge_x/Si$ heterostruct., 2D hole gases, magnetotransport and photolumin. 21993
SiGe PMOS, hole dens., inversion charge modeling 13760
SiO_2 layers in MIS struct., hole currents, threshold energies 6586
(Zn,Mg)(S,Se):N green/blue LD, ohmic contact/transport props. 39827
Zn(S,Se):N green/blue LD, ohmic contact/transport props. 39827
ZnSe, p-type doping, Li_3N diffusion 1229
ZnSe:N, N-doping effects 38508
ZnSe:N green/blue LD, ohmic contact/transport props. 39827
ZnSe:Te,N, N-doping effects 38508
p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413
ZnSe/GaAs interfaces, band bending, Raman study 38283
ZnTe:N grown by MBE, N incorporation, Ar dilution in N plasma source 1212
hole mobility
diamond, highly oriented films on Si, growth, charact. and devices 5820
diamond, synthetic type IIa, carrier mobility/lifetime 38234
inversion layer carriers, saturation vel. and overshoot 22445
ion-conducting amorph. semiconds., photo-electro ionic phenom. 1645
poly-Si:B/Si:N multilayer gate surface channel PMOSFETs 6762
polysilicon p-channel TFTs, ECR hydrogen plasma passiv. 6771
power MOSFET, single event gate rupture 13725
semicond. superlattice, hole transport, band mixing effect 6568
sexithiophene monolayer/bilayer diodes, transient electrolumin. 14637
starburst mols., thermally stable multilayered organic EL devices 7471
$Al_xGa_{1-x}As$, bulk hole transport, Monte Carlo simul. 21905
(AlGa)As/GaAs 2DHG struct., contacts and mobilities 21967
AlGaAs/GaAs, artificial 2D-structs., charge carrier transport 29939
CdTe/CdMnTe QW, mag. polaron states 38363
GaAs, MOVPE, trialkyl-group-V-precursors 314
GaAs:C, elemental Ga/As sources and CCl_4 gas source, MBE growth 28739
GaAs:Cr, doped/undoped, elec. props., heat treatment *(Korean)* 13330
GaAs:Li, shallow and deep level passiv. by lithium 1052
GaAs:Si QW, uniform intermixing in p-i-n modulator structs. 39605
$GaAs/Al_{0.4}Ga_{0.6}As$ QW npn phototransistor fab. 31084
p-GaAs/AlGaAs HFET, output characts., high press. effects 38919
$GaAs_xSb_{1-x}$, bulk hole transport, Monte Carlo simul. 21905
GaN-related alloys, acceptor binding energy 13068
GaSb, undoped, Te-doped, elec./photolum. charactn. 12109
$Hg_{1-x}Cd_xTe$, hole scatt. mechanisms 13063
$Hg_{1-x}Cd_xTe$, MOVPE, elec. props. 13053
HgI_2 gamma-ray spectrometers, electronic charactn. 43078
$In_{1-x}Al_xAs$, bulk hole transport, Monte Carlo simul. 21905
$InAs_{0.3}Sb_{0.7}$, MOCVD on GaAs, carrier transport 6529
InGaAs/GaAs-on-GaAs superlattices, metal-semicond.-metal photodetectors, carrier trapping 22014
In_2S_3 crysts., thermoelec. power, electron/hole mobilities 1062
InSb-InAs material syst., hole transport 21910
Si, nonlin. transport, model hyperfrequency differential-mobility 21880
Si:B(001)2×1, gas-source MBE, B-incorporation, elec. props. 38506
$Si/Si_{1-x}Ge_x$ modulation-doped heterostruct., hole transport props. 29885
hole mobility continued
$Si/Si_{1-x}Ge_x/Si$ heterostruct., 2D hole gases, magnetotransport and photolumin. 21993
Si-SiGe p-MOSFETs, optimised Ge channel profiles 22434
p-SiGe MODFET with high transcond., fab. and perform. 38002
$Si_{1-x}Ge_x$, strained, hole transport, Monte Carlo simul. 38278
SiO_2 layers in MIS struct., hole currents, threshold energies 6586
ZnSe, p-type doping, Li_3N diffusion 1229
ZnSe:N, N-doping effects 38508
ZnSe:Te,N, N-doping effects 38508
hole traps
see also electron traps
1/f noise in n- and p-MOSFETs, gate voltage dependencies 1381
barrier height determ. from Schottky jn. C-V meas. 38813
bipolar IC gain degrad. at low radiation dose rates, phys. mechanisms, models 13871
border traps, MOS radiation response/long-term reliab. 20494
CMOS radiation-hardened 32-bit μP based commercial proc. 12567
CMOS transistors, high-field electron injection, threshold voltage 38881
irrad. power MOSFETs, surface generation hump 13730
JFETs, random telegraph sig. currents and LF noise 1432
MOS capacitors/FETs stress-induced current in nitride/oxidized nitride thin films 6589
MOS devices, 1/f noise and radiation effects 1382
MOS struct., neg. bias temp. instabil., low temp. *(Chinese)* 6580
MOSFET, switching oxide traps, time depend. 13714
MOSFET 1/f noise, plasma etching induced gate oxide degrad. effect 22419
MOSFET interface states/trapped carriers, charge pumping/gate capacitance meas. 30301
MOSFET prediction in space environ., conversion model 13735
MOSFETs, interface defect form. by at. H exposure 13715
MOSFETs in off-state, interface trap induced emission current 22408
polysilicon inversion-type TFT DC/AC model, kink effect 22491
pseudomorphic HEMT, LF gate current noise anal. 30366
SCH QW lasers, anal. of carrier transport and buildup 14856
Si MIS transistors, random telegraph sig. params., substr. bias effect 13756
SIMOX BOX, O implant. effects on radiation-induced hole traps 13251
SOI bonded wafer, eval. and PIN photodiode characts. 14609
SOI transistors, alternating hot carrier injection anal. 22415
submicron NMOSFETs, GIDL, interface trap effect 6766
VDMOS power transistor, single event gate rupture threshold 13722
$Al-SiO_2-Si$ MOS struct., charge build-up/oxide wear-out, Fowler-Nordheim stress 13234
AlGaAs/GaAs power HBTs, self-aligned, LF noise characts. 13648
AlGaAs/InGaAs heterojunction FETs, photon irrad.-induced kink effect model 6803
AlGaAsSb/GaInAsSb, LED, electrolum. quantum yield 1827
Al_2O_3-Si, ML-ALE grown, elec. props. 22054
Au/CdTe/Au, impurity level energy effect 1185
Co-phthalocyanine thin films, elec. cond., O doping, IV charact. 21939
GaAs MIS diodes, at. layer passiv. 13598
GaAs p^+-SI-n^+ SI struct., I-V charact. 38300
GaAs photoconductors, compensated/partially compensated opt. gain 39547
GaAs:C/AlGaAs power HBTs, bias-stressed, failure mode 22359
GaAs:Er, ion implant./MBE, Er-related deep centres 38516
GaAs/AlAs/AlGaAs double-barrier QW, interband/intersubband absorpt. 29907
GaAs/InGaAs/GaAs SQW, current transport and deep levels 21994
GaInAsSb/GaSb, LED, electrolum. quantum yield 1827
Ge:Ga, hole lifetime, uniaxial stress depend. 38240
$Ge_{0.3}Si_{0.7}/Si$ heterostruct., minority/majority-carrier trapping 21950
HgCdTe photodiodes, MBE-grown, DLTS deep levels study 13060
$Hg_{1-x}Cd_xTe$, p^+n jn. photodiodes, deep defect levels *(Chinese)* 14605
In-ZnTe Schottky diodes, RF sputtered, elec. props. 30215
InAlAs/n^+-InGaAs MISFET, deep levels 13696
InGaAlP, H passiv. effects 6650
p-$In_{0.21}Ga_{0.79}As$:Zn/Au Schottky diodes, interface states, doping effects 38420
InGaP, H passiv. effects 6650
InP/GaAs heterostruct., H-passiv., carrier trapping by disloc. 38304
$InSb/SiO_2$ MIS structs., low interface trap dens. 29981
Si diodes, heavily doped, anal. of non-exponential TSCs 38808
Si, p-channel MOSFET, random telegraph sigs., capture kinetics 22457
Si p-n jns., transient component of leakage current 1092
Si solar cell perform., trap location/trap-assisted Auger recomb. effect 44395
Si solar cells, charged defect conc. profile, C-V meas. 27947
p-Si:Cu, RTA, OISF, deep states, Cu diffusion 13034
a-Si:H PIN solar cells, electron/hole trapping *(Chinese)* 5211
a-Si:H solar cells, insulating interfacial layer effect 36600
Si:Mo p/p^+ epitaxial wafers, Mo contamination 38236
Si:O, H-enhanced thermal donor form., depth profiles, spreading resist. probe meas. 38493
Si:Ru, ion implant., Ru-related defects, elec./opt. props. 38228
Si/SiO_2 MOS capacitors, SiO_2 hole traps, small cross sect. 38427
Si/SiO_2 MOSFET, fixed and interface trap charges 38863
$Si/SiO_2/Al$, H-related instabilities, removal by F implant. 13314
$Si/SiO_2/Si$ MOS oxides, border traps 13249
$Si-SiO_2$, interface states, trapped holes 29970
6H-SiC MOS struct., thermal oxid./computer simul. 38562
SiO_2 on Si, E′ center charge traps, obs./electronic charact. 1176
SiO_2/Si, thermal layers, wafer bonding induced degrad. 38422
SiO_2N_x ultrathin N_2O-oxynitrided films, charge trapping, Fowler-Nordheim stress effects 22073
SiO_xN_y oxynitrides, N_2O grown, radiation effects 13386
SrF_2/InP(100) epitaxial diodes, elec. cond. 22065
$TiSi_2-SiO_2$-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775
holiday industry *see leisure industry*
hollow cathode discharges *see glow discharges*
hollow cathodes *see cathodes*
holograms *see holography*
holographic gratings
acrylamide-based dry photopolymer holographic recording material charactn. 7860
antirefl.-coated diffractive opt. elements, thin-film deposition 7374
azo-benzene doped PMMA polymer film, holographic recording and light amplif. 31686
backplane for broadband switching syst. 25174
beam-steering/jammer-nulling photorefr. phased-array radar proc. 7437

holographic gratings continued
bent gratings, focusing props., cylindrical wavefront generation 15170
bichromic holographic media vol. diffr. grating two-beam amplif. 7813
bifunctional chromophore for photorefr. appls. 14324
binary-phase holographic gratings on sapphire, VLSI fab. tech. 15186
bipolar photoconductors with arbitrary level struct., nonsteady-state photoelectromotive force 39553
Bragg grating in opt. fibres, holographic and mask projection methods 39335
CGH, opt. computing/neural net channel addressing 31632
conference, optical fibre gratings and appls., London, UK (1995) 20234
DCG, dye-sensitised, holographic gratings recording, spatial freq. doubling 31637
DCG, holographic polariz. sens., magneto-optic heads 7848
DCG, PVA doped, holographic perform. props. *(Chinese)* 40139
DFB LD grating fab. by holographic method 15183
diffractive optics, radiation resist., electroforming *(German)* 31058
direct-write electron-beam lithog. kinoforms, proximity effect 23472
dyn. holography with arbitrary waves, multiwave mixing procs. 40167
dyn. white light holography, opt. addressed MQW SLM 31636
ellipsoidal holographic grating, geometric theory 7808
fab., lin. equiv., fuzzy anal. 40152
fiber optic time-delay element for phased-array antennas 7323
fiber wide-band Fabry-Perot-like filters 14405
fibre grating struct. fab. and appls. in systs. 7296
Gaussian laser beam conversion, surface relief holographic grating 15174
gelatin, dichromated, refl. hologram grating, diffr. spectrum asymmetry 31668
high birefr. fibre gratings, holographically written 39350
high-capacity opt. disc storage, vol. holograms 39316
ICVision, VLSI-based diffractive display, holographic stereograms 9987
image dot-matrix printing syst. 7856
imaging spectrometer for proc. indust. appls. 17925
interconnections, holographic, alignment, switching, resoln. 40165
interferometric straightness meas. syst., holographic grating *(Japanese)* 18096
laser-induced holographic surface relief gratings on nonlin. opt. polymer films 31640
lateral shear interf. imagery, holographic grating 2138
lin. regime photorefr. kinetics, light phase-shifts 30811
metallic holographic diffr. gratings for laser appls. 40146
microlens, holographic, shape fn. investig. by image proc. 2153
multiorder binary grating design, anal. init. approx. 2143
near field holographic grating mask technol. 15187
opt. test appls. 7853
pattern projection by conventional, diffractive optics 15173
photonic IC, fab., phase grating masks 39456
photopolymer composite, real time reflective hologram gratings recording 40138
photopolymer-liq. cryst. composite, dyn. holograms appl. 40137
photopolymers, second order holographic grating form. 31684
photopolymers, transm. holographic gratings recording, fringe effects 31666
photorefr. device opt. inform. proc. 32945
photorefr. hologram opt. restoration, self-enhanced diffr. 23476
photorefr. medium, four-wave interact., transm. holographic grating 23468
photorefr. neural-network wt. decay, gain and exposure scheduling 39519
photoresist gratings, holographically exposed 31638
photoresist holographic gratings, surface relief struct., GO 15171
pickup design for mini disc drives 34295
planar holographic lens doublet, FT 31685
planar photorefr. waveguides, hologram form., lock-in detect. 39379
poly(vinyl alcohol), dichromated, refl. hologram grating, diffr. spectrum asymmetry 31668
polyesters, liq. cryst., holographic storage 30838
polymeric composite photorefr. materials for nonlin. opt. appls. 1651
polyvinyl alcohol film, organic dye doped, opt. phase conjug. proc. 31596
PVA films, dichromated, real-time hologram recording, humidity effects 40143
ray tracing facility for soft X-ray/VUV monochromators 10164
red sensitive photopolymer holographic plate grating coupler *(Chinese)* 15164
spatial-phase-locked e-beam lithog., high-coherence QWS gratings 7385
substr. mode holograms design, opt. interconnects 7846
surface-relief holograms, high diffr. efficiency, replication proc. 31643
Talbot effect based holographic interferometer 40155
thiapyrylium dye sensitized photorefr. polymeric composite 22782
true-height contours, tunable dye laser 2144
tunable interconnection network, thick photorefr. cryst. 15182
vol. recording media color holographic gratings, ang. selectivity 23470
waveguide struct., refl. holograms, diffractive surface relief elements 15175
Ag halide holographic phase grating, modulation profile 40141
Ag-halide bleached emulsions, shear angles in holographic gratings 2132
$Bi_{12}Si_{O20}$, polariz. props. of transm. and diffr. 14321
$Bi_{12}SiO_{20}$ cryst., holographic-recording, moving-grating tech. 7811
$Bi_{12}SiO_{20}$ photorefr. integrator charactn. 7422
$Bi_{12}SiO_{20}$, photorefr. response incoherent enhancement, subharmonic interact. 40158
Er,Yb-doped fiber amp. source of multigigahertz soliton pulse train 7566
Er doped fibre amp., grating pump reflectors, gain 14749
GaAs multiple gratings, anisotropic diffr. props. 31653
KBr electrolytically colored crysts., nonlin. amplit. recording of holographic gratings 23469
$LiNbO_3$, cryst., holographic gratings appl. 15184
$LiNbO_3$ photorefr. FPA concentrator 9928
$LiNbO_3$:Fe deeply modulated stabilized photorefr. recording 31647
$LiNbO_3$:Fe, laser-induced transient holographic gratings 31644
$LiNbO_3$:Fe, photogalvanic effect, grating, phase-locked detect. 15168
$LiNbO_3$:Ti,Fe photorefr. waveguides, holographic storage 40168
$Na_2[Fe(CN)_5NO].2H_2O$, metastable electronic states, holographic inform. storage 23454
Nd:YVO_4 diode-pumped microchip amp., efficient DFWM 40080
P_2O_5-SiO_2:Er^{3+},Yb^{3+} opt. fibres, transient gratings 30899
$SrBaNb_2O_6$ photorefr. holographic grating writing and readout by applied elec. fields 40154

holographic interferometry
see also electronic speckle pattern interferometry
2-exposure holographic interferogram recording, residual memory 40125
additive stroboscopic fibre optic TV holography, vibr. anal. 15153
ang. vars. meas. of 3D objs., holographic interferometry 18072

holographic interferometry continued
aspherical mirror testing, zone plate CGH common path interferometry 40122
aspherical surface shape interferometry meas., HOE 31678
attached holographic adaptive base interferometer 40123
autonomous diffuse reflectors, ref. beam 31655
azo-dye-doped polymers opt. storage, holographic interferometry 15155
bacteriorhodopsin thin film real-time reson. holography 40157
CCD camera, 3D inform. extraction, holographic method *(Japanese)* 16129
common-path holographic interferometer, flatness testing appl. 18067
compact holographic apparatus for stomatology 23457
complex cct. board struct., vibr. modes, dyn. anal. 5927
conference, interferometry, photomechanics, Poland (1994) 28210
conoscopic holography, 3D opaque obj. reconstructions 32965
DFB LD grating fab. by holographic method 15183
digital double-pulsed holographic interferometry for vibr. anal. 31633
digital holography- laser metrology *(German)* 7814
distant objs., focused-image holographic recording 31687
double exposure recording, meas. sensitivity enhancement 7824
ESPI for spatial variables meas. 31681
grating, opt. test appls. 7853
in-line recording off-axis viewing holographic particle velocimetry 40148
lateral shear interf. imagery, holographic grating 2138
lateral-shear holographic interferograms, spatial filtering 7823
LCTV image reconstruction of holograms 40151
microscopic displacement pattern, holographic, 3D graphic image representation using cubic spline fn. 15152
multidielectric coatings, thermal stress, holographic interferometry 40140
neural network approach, holographic NDT 31662
panoramic holointerferometry 40169
partially absorbent phase objs., phase reconstruction/unwrapping from holographic interferograms 31663
PCB, thermal deform. anal., holographic tech. 21623
PCB deformation anal. holographic pattern meas. 21619
periodic struct. with macroscopic surface defects, moire and holographic visualisation 34690
phase retrieval methods for opt. diffr. tomography 23456
phase shifting interferometry, ref. phase shift determ. 33072
photothermoplastic recording of stroboscopic holographic interferograms 15180
piezoceramic plate bending motion meas. by homodyne holographic interferometry 40153
plane wave diffr. anal. of complex interferograms 40124
polychromatic dye laser, comb-like lasing spectrum 7542
polyvinyl alcohol film, organic dye doped, opt. phase conjug. proc. 31596
PWB plated holes deform., soldering thermal cycle 29685
quartz cryst. mount design optim. via holographic interferometry 39073
rough surface wave scatt. comparisons by holographic interferometry 2142
shearing interferograms in diffusely scatt. fields 31675
shock tunnel, opt. flow visualisation 18143
sonar transducer arrays, holographic anal. of dyn. and struct. 17478
spherical surface, holographic exam. by in-LOS displacement 15189
strain meas. on plates/discs surface, shearographic method *(German)* 18116
stress pattern slope/curvature determ. by coherent moire tech. 2141
superimposed holographic interferometer, welding control appl. 15156
surface topograms, holographic proc., meas. accuracy study 23463
Talbot effect based holographic interferometer 40155
thermal deform. meas. of PCB, holography 6404
transonic flow interferometric meas., automatic num. proc. 7851
transonic flows by quantitat. holographic interferometry 4022
turbine blades, reson. vibr., strain meas., electro-optic holography 31669
TV-holography in artwork nondestructive diagnostics 31679
two-wavelength holographic interferometry, large deform. meas. 40150
variable sensitivity interferometer, diffr. beam splitter 23464
video-rate electron-holographic interf. microscopy, liq.-cryst. panel 31680
wavefront reconstruction, self-referenced direct-drive adaptive optics 7861
Al target, laser ablation plumes, reson. holographic interferometry 2158
As_2S_3 amorph. film, holographic recording, lin. phase shift response 31667
$Bi_4Ti_3O_{12}$, photorefr., large contrast interf., space-charge field 7266
$KTa_{1-x}Nb_xO_3$:Fe tetragonal crysts., holographic double-exposure interferometry 31652
$LiNbO_3$ act. stabilised electro-optic phase modulator, holographic recording 14526
$LiNbO_3$:Fe ferroelec. cryst., real-time holographic interferometry 31682
Si thin films mech. props. meas., holographic interferometry 18106
Si wafer, defect level, classical and holographic interferometry 31665

holographic lenses *see holographic optical elements; lenses*

holographic optical elements
see also holographic gratings
3-D holographic DP and wavelength readout for range-doppler-angle radar, SAR 9640
3D HOE, holographic recording 2152
3D opt. interconnected neural network 1773
achromatic computer generated HOE for coupling LD, single mode fiber 40144
aspherical mirror testing, zone plate CGH common path interferometry 40122
aspherical surface shape interferometry meas., HOE 31678
bacteriorhodopsin SLM, opt. proc. 31672
cathodoluminescent screens, partially coherent radiation, recording and inform. proc. 34645
CGH design for nonplanar focal curves reconstruction 15172
common-path holographic interferometer, flatness testing appl. 18067
conference, practical holography, San Jose, CA, USA (Feb. 1994) 52
diffractive lens with the substr. shape effects, num. investig. 7818
diffractive opt. element design for opt. sig. proc. 32944
diffractive opt. elements for opt. computing 7434
diffractive optics and CGH, opt. interconnects 31044
diffractive phase elements for beam shaping, design method 31657
diffractive/holographic optics, conf., Los Angeles, CA, USA (Jan. 1994) 36836
digital opt. cellular image proc. parallel archit. 1772
disk scanner, rectilinear laser beam scanning 23453
dual focus opt. head, HOE for disk reading 30837
ESPI for spatial variables meas. 31681
Fabry-Perot filters, refl. and transm. props. 15162
flip-chip bonding of holographic opt. interconnects, alignment 38177
free-space digital opt. SEED switching systs. 3301

holographic optical elements continued
- free-space holographic parallel optoelectronic computer, 300-MHz optoelectronic counter 7429
- free-space matrix multiplier, diffractive/refr. micro-optics 7489
- free-space opt. interconnection prog. opt. logic systs. 39517
- Fresnel lens written magneto opt. SLM 22963
- hybrid lens quality, point spread fn. calc. 15177
- image form. qualities, fuzzy control model 7847
- kinoform calc. by adaptive iter. method 2133
- kinoform lens, phase fn., surface-relief profile 31641
- large holographic opt. element writing by adaptive opt. syst. 7822
- lens, constr.-reconstruction wavelength shift, image aberrations 31683
- lens design, FT systs. 15169
- lens elements, wave aberrations, iter. correction 15179
- microlens, holographic, shape fn. investig. by image proc. 2153
- mole type plated optics, computer design 7849
- multi-channel non-blocking holographic switch, FLC SLM 40145
- multiplexed holographic opt. element, image/spectrum form. 7845
- nonconventional opt. elements design, DEMOS software 15176
- nonlin. devices for opt. neural networks appls. 22974
- nonuniform wt. error diffusion CGH opt. interconnections 1839
- off-axis holographic lens extended obj. imaging 15159
- office environ. opt. wireless transmitter technols. 42358
- organic media holographic pulse shaping 31674
- photopolymers, holographic opt. element imaging 40136
- planar holographic lens doublet, FT 31685
- polariz.-selective birefr. CGH based intell. photonic switch 25538
- projection syst., design, testing 40135
- refl. holographic screen, stereographic displays 31676
- reflective FLC SLM, real-time binary phase holograms 22954
- rem./close objs., holographic 3D imaging 40134
- single-step opt. matrix-matrix multiplier, diffractive opt. elements 31040
- substr.-mode holographic polariz.-division multi/demultiplexer for opt. commun. 25173
- switchable Polaroid holograms appl. 40131
- telephoto dublet syst., achromatization 7819
- thin opt. pickup head of CD player, laser/detector/hologram unit 17613
- untanned DCG layers, narrow-band holographic mirrors 7821
- variable sensitivity interferometer, diffr. beam splitter 23464
- visor-display design, planar holographic optics based 31659
- wave-front aberration minimisation in opto-electronics syst. 31642
- wavefront reconstruction, quantitat. schlieren method 40130
- wavefront reconstruction, self-referenced direct-drive adaptive optics 7861
- wavelength division demultiplexer, multiplexed waveguide holograms 17281
- wavelength multiplexed holographic lens arrays for opt. interconnection 40132
- Wiener spatial filter SDF for opt. correl. 41153
- $LiNbO_3$ plates, electronic image reconstruction by electrooptic tech. 2134

holographic storage
- 2-exposure holographic interferogram recording, residual memory 40125
- 3D HOE, holographic recording 2152
- angle-/wavelength-multiplexed image plane holograms, cross talk 2136
- associative memory, addressing accuracy 7271
- azo-dye-doped polymer systs., dyn. holographic recording media 40121
- azo-dye-doped polymers opt. storage, holographic interferometry 15155
- diffr. interf., stat. charact. 22784
- disk-based opt. correlator, multiplexed transm. holograms 7862
- DuPont photopolymer film hologram recording dyn. 23471
- dye-polymer randomly addressable read/write/erase holographic recording medium 30841
- high-capacity opt. disc storage, vol. holograms 39316
- hybrid sparse-wavelength angle-multiplexed opt. data storage syst. 22794
- ideal photorefr. material quest 31646
- impurity activated solids, hole burning, zero-phonon line appls. 7791
- Korean character recogn., opt. associative memory *(Korean)* 24674
- large-scale image associative memory, optoelectronic implement. 1655
- Lee sparse valued reconstruction computer generated holographic storage 31661
- multiplex holographic data storage, materials props. 7839
- multiplexed holographic image storage, ang. and phase-encoding 31651
- photopolymer films, 3D holographic discs 40133
- photorefr. cryst., opt. parallel-access shared memory syst. 22975
- photorefr. fiber array for holographic memory 30828
- photorefr. material holographic data storage systs. 31673
- PMMA storage media, azo-dye doped, real-time dyn. polariz. holographic recording 40142
- polyesters, liq. cryst., holographic storage 30838
- porous glass, holographic storage medium 7261
- shift multiplexing holographic storage 40164
- single-rail translation-invariant opt. associative memory for neural networks 22796
- switchable Polaroid holograms appl. 40131
- ultrafast photonic ATM switch based on parallel sig. proc. 33727
- vol. holographic memory storage capacity, cross-talk noise 40163
- $BaTiO_3$ photorefr. centers in vol. holographic capacity storage 15167
- $BaTiO_3$ photorefr. cryst., dyn. phase-encoding image storage 7816
- $BaTiO_3$ photorefr. opt. shift- and rot.-invariant associative memory 1657
- $BaTiO_3$ refreshed photorefr. holographic buffer memory for permanent readout 31650
- $KTa_{1-x}Nb_xO_3$:Fe tetragonal crysts., holographic double-exposure interferometry 31652
- $LiNbO_3$, ang. selectivity, multiplexed hologram cross-talk 31648
- $LiNbO_3$, hologram coherent erasure and updating 31649
- $LiNbO_3$:Fe ferroelec. cryst., real-time holographic interferometry 31682
- $LiNbO_3$:Ti,Fe photorefr. waveguides, holographic storage 40168
- $Na_2[Fe(CN)_5NO].2H_2O$, metastable electronic states, holographic inform. storage 23454

holography
- *see also acoustic holography; computer-generated holography; holographic gratings; holographic interferometry; holographic optical elements; holographic storage; microwave holography*
- 3D obj. composite Fourier hologram optim. 40162
- 3D shape meas., computer reconstructed hologram images 10021
- all-opt. nonlin. joint FT correlator 24409
- azo dye- doped photorefr. polymers 15163
- azo-benzene doped PMMA polymer film, holographic recording and light amplif. 31686
- azo-dye-doped polymer systs., dyn. holographic recording media 40121
- bacteriorhodopsin variants, phase conjug. by DFWM 23398

holography continued
- bent gratings, focusing props., cylindrical wavefront generation 15170
- CCD holographic image sens., first-arriving light spatial filtering 34588
- color conical holographic stereogram 7832
- color holography, wavelength selection 7837
- compact holographic solid-state DFB laser 7581
- composite medium, two-beam readout 2137
- conference, practical holography, San Jose, CA, USA (Feb. 1994) 52
- conical stereogram, distortion compensation method 31677
- conoscopic holography, 3D opaque obj. reconstructions 32965
- counterfeit protection 31670
- cuneiform inscription anal., holographic image proc. techs. 23466
- DCG, PVA doped, holographic perform. props. *(Chinese)* 40139
- deconvolution from wavefront sens., lin. and speckle image reconstruction 16212
- diffuse objs., nonlin. recorded holograms, SNR 7812
- direct reconstruction of LLFT X-ray hologram, vis. light 31664
- distant objs., focused-image holographic recording 31687
- double pulse holography, digital image proc. 18142
- double step image holography, self-proc. polymer materials appls. 15188
- dye-polymer films, photoanisotropic, joint transform correl. 8469
- dyn. holography with arbitrary waves, multiwave mixing procs. 40167
- electro-holographic display, image scaling 7827
- electro-holography, develop. *(Japanese)* 2145
- fiber Bragg reflectors with KrF excimer laser pulse, cladding surface struct. 1685
- Fraunhofer in-line holography, Rayleigh/Marechal spherical aberration tolerance 7815
- Fresnel region, light propag. simul. methods 40156
- GMS image data, holographic images generation *(Japanese)* 16123
- Haystack antenna, optimal surface adjustment 23897
- high-contrast periodic corrugations, g-line photoresists, laser holographic exposure 39473
- holo-dyn. linking, interactive electronic media 7842
- holographic 3D image, data compression *(Japanese)* 16130
- ICVision, VLSI-based diffractive display, holographic stereograms 9987
- image hologram, visual light guide 7841
- image quantisation error diffusion and min. av. error algms. 16306
- image reconstruction, time-multiplexing, aberration correction 23473
- image transm. and reconstruction, vol. holography study 8661
- impurity activated solids, hole burning, zero-phonon line appls. 7791
- in-line Fresnel electron holography, max. entropy method 2182
- in-line particle holograms image proc. 33008
- in-line recording off-axis viewing holographic particle velocimetry 40148
- inform. reduction *(Japanese)* 2148
- inhomog. media phase conjug., holography, and imaging 31575
- inverse scatt., tomographic imaging, holographic techs. 7844
- ion-exchange planar glass waveguide holograms for fibre optic communication lines 39321
- IR-sensitive film-struct., opt. diagnostics 14569
- laser appls., conf., St. Petersburg, Russia (1993) 11527
- LCD, holographic switches 31658
- LCTV-SLM for real-time holography *(Japanese)* 2146
- lin. regime photorefr. kinetics, light phase-shifts 30811
- lithog., holographic imaging 38716
- Littrow hologram substr. guided wave WDM demultiplexer 42445
- Lockheed phase diversity test facility, expt. results 16215
- memory diffr. interf., stat. charact. 22784
- movie, picture quality, holographic TV 7831
- multi-color rainbow hologram recording, energy utilization coeff. *(Chinese)* 15165
- multichannel opt. switching, high-speed 15061
- multiplex video display 9988
- multiplexed vol. holograms, WDM appls. 7319
- neural network for modal compensation of atmos. turbulence 16202
- nonconventional opt. imaging elements, archit. 15178
- nonlin. photolithography, spatial excitation patterns, time-domain fields 15160
- off-axis particle holograms image proc. 8536
- office holoprinter develop. 7834
- opt. associative memory design based on coherent four-wave mixing 1658
- optoelectronic science/engineering, conf., China (1994) 28207
- particle image velocimetry FT lens, off-axis holographic tech. 23475
- particle velocimetry, 2D wavelet transform 23460
- phase-shifting electron holography, principle and appl. 7859
- photographically-recorded holographic stereogram images 7833
- photon echo, discrete digital DP 31607
- photopolymers, transm. holographic gratings recording, fringe effects 31666
- photorefr. crysts., hologram writing, external field parallel, interf. fringes 7857
- photorefr. device opt. inform. proc. 32945
- photorefr. hologram opt. restoration, self-enhanced diffr. 23476
- photorefr. hologram recording, phase-modulated light beams in elec. field 7825
- photorefr. nonlin. optics, opt. computing 31049
- photosensitive materials, props. and characterisation *(Spanish)* 7820
- plane hologram type holographic rainbow stereograms, one-step 31654
- PMMA, grating and dot pattern nanofabrication, electron holographic lithog. 38706
- PMMA storage media, azo-dye doped, real-time dyn. polariz. holographic recording 40142
- polariz. vol. hologram, coupled mode anal. 23465
- PVA films, dichromated, real-time hologram recording, humidity effects 40143
- PWBs, crit. vibr. behavior, holography, finite element modeling 921
- rainbow holography, synthesized double slit 40147
- rainbow shadow holograms, single exposure color mixing tech. 7835
- real-time opt. matrix multiplication, high accuracy 1761
- recording static holograms of moving interf. pattern on photorefr. crysts. 40166
- refl. holographic screen, stereographic displays 31676
- refl. holography replication proc., heat proc. 7843
- reflective FLC SLM, real-time binary phase holograms 22954
- Rheoxane photorefr. polymer holographic recording material 7858
- scatt. material imaging by Fourier synthesis holography 40149
- selectogram surface 3D image reconstruction 2140
- spatial freq. filtering, holographic image reconstruction 23459
- spray atomization/deposition, proc. params. monitoring, sens. 28898
- straddling holographic images, one-step enlarging tech. 7817
- submicron holographic lithog., limitations 30163

holography continued
substr. mode holograms design, opt. interconnects 7846
thermoplastic photographic plate, holographic opt. image proc. 7854
thick photorefr. hologram, angle-depend. diffr. efficiency 31656
TV, LCD, YAG laser and camera appl. *(Japanese)* 2149
TV prod. technols. *(Japanese)* 34242
TV syst. develop., eval. *(Japanese)* 2151
unstable vortex ring, flow field, holographic particle velocimetry meas. 18147
vibration meas. by laser techniques, conf., Ancona, Italy (Oct. 1994) 36868
violin tonal quality, holographic pattern anal./test 7855
visor-display design, planar holographic optics based 31659
water recorded holograms, precision in-air replay 7852
wave propag., wavelet kernels 33043
wavefront distortion in holograms recorded in thermoplastic films 31639
wavefront reconstruction, quantitat. schlieren method 40130
Weigert hologram, Jones matrix 31660
wide angle HUD for synthetic vision 10390
Ag halide refl. holograms 7838
Ag halide vol. holograms, noise sources 7840
$BaTiO_3$:Fe, beam fanning, edge enhancement, contrast reversal, logic operation 30822
Co thin films, STEM magnetometry studies 14205
Co/Cu multilayer struct., STEM magnetometry studies 14205
GaAs/AlGaAs quasi-1D struct., holographic lithog., wet etching 21975
$LiNbO_3$, ang. selectivity, multiplexed hologram cross-talk 31648
$LiNbO_3$ plates, electronic image reconstruction by electrooptic tech. 2134
$LiNbO_3$:Fe deeply modulated stabilized photorefr. recording 31647
$LiNbO_3$:Fe(Cu), IR holographic recording 31634
$PbMg_{1/3}Nb_{2/3}O_3$, quadratic electrooptical effect, opt. inform. proc. 7826
Si/Si p-n jns., pot. distrib., off-axis electron holography 1093
$Tb_3Ga_5O_{12}$ photorefr. phase hologram recording 31645

home automation
see also building management systems
data link layer design issues 3095
decentralised AI controllers, intell. home automation 4536
distributed control appls., home power ccts. 9039
electronic product buyers and users, usability issues 36996
Home Net, user interface design 17601
inform. control syst., develop. *(Japanese)* 3683
intell. local operating network for office and home automation 9002
lighting fixtures, rem. control *(Japanese)* 11463
PC rem. control of appliances by telephone lines 41746
pers. digital assistants, device control 17580
PL CEBUS with/without acknowledgment, perform. 16692
rem. security syst. 9760
security syst., pass. IR detectors 9759
smart DTMF telecontroller for home automation systs. 8875
telephone alarm syst., solid state technol. 8859
two-way customer commun. systs. for utilities 41586

home computing
see also hobby computing; home shopping; home working
ATM network, service provision 16427
Internet in the home environ., Homelink and home cyberspace 24988
picture service and software prodn./supply syst. prospects *(Japanese)* 16569

home shopping
hybrid fiber/coaxial technol. for broadband service delivery 33670
inform. control syst., develop. *(Japanese)* 3683
syst. for delivery of interactive TV prog. 34245
USA Nat. Inform. Infrastruct. project and video services *(Japanese)* 17575
visual commun. media trends and prospects *(Japanese)* 16905

home working
developing economy, telecomms. and transportation 3040
teleworking and telelearning, multimedia commun. 3064

homogenising *see heat treatment*

homopolar generators
mobile pulsed power supply, homopolar generator, inductive storage 36255

homopolar machines
see also homopolar generators; homopolar motors
electromechanical energy convertors, develop. overview *(Russian)* 43993

homopolar motors
automotive rotary actuator homopolar PM motor studies 11436
PM DC brushless homopolar motor, math. model 4987

homopolymers *see polymers*

Hopf bifurcation *see bifurcation*

Hopfield neural nets
3D obj. recogn. by hybrid Hopfield neural net 33028
3D shape recovery using context, Hopfield neural net 41366
analogue continuous time micropower CMOS Hopfield associative memory 29484
angiography, obj. reconstr. by Hopfield neural net 43276
ANN for optimal message routing 41546
associative memory, labeling, access by content 21337
behavioural synthesis, scheduling problem, Hopfield network 37604
blurred image restoration, layered and Hopfield neural nets *(Japanese)* 8666
case-based preliminary design systs., Hopfield network approach 2393
character recogn. syst., pattern and symbolic proc. *(Japanese)* 32863
combinat. optim. algms., math. prog. formulation *(Japanese)* 28632
computer vision, correspondence problem, Hopfield net approach 33062
digital commun. sig. MLS estim. by neural net 32621
dyn. channel allocation tech. 25417
edge detect., Hopfield neural network 8598
EM inverse problem solns., Hopfield neural networks 15214
error correcting decoder implemented, digital neural net 8152
fault diagnosis problems on Hopfield neural network *(Japanese)* 34410
high-speed packet switch, input access, perform. anal. 16794
holographic associative memory, addressing accuracy improvement 7271
hysteresis in Hopfield and T-model neural nets. 12681
image boundary detect., Hopfield neural net 41368
image quantization and rel., network struct. procs. 33088
isolated utterance recogn. associative memory scheme 32423
learning T-model neural network 21479
LSI module placement, Hopfield neural net, non-zero diagonal elements *(Japanese)* 37599
M-DPSK multi-sym. diff. detect. by neural net 40575
mean field annealing, VLSI design appl. 38974
model-based 2-D obj. recogn., neural network archit. 8507
motion anal., ANN 2686
motion understanding, image seqs., Hopfield neural net 33045

Hopfield neural nets continued
multi-user demodulation, real time, hybrid digital computer-Hopfield neural network CDMA detector 16459
NEUDEM, neural network based ATPG for digital ccts. 648
obj. recogn., constraint satisfaction, Hopfield neural net 24722
OptoNeural target tracking syst. 41306
oscillatory neural net, optimisation problem, solns. eval. extraction *(Japanese)* 789
pattern recogn. by homomorphic graph matching, Hopfield neural networks 24567
phased antenna arrays, Hopfield network based adaptation algm. 15663
power syst. state estim. by neural net 43711
pulse arith. based neural network implement. 21470
radial syst. struct. determ., chaotic neural net *(Japanese)* 4495
satellite broadcasting schedule optim., Hopfield neural net mean field annealing 25461
satellite commun., optimum freq. assignment, neural networks 33948
self-organizing Hopfield network for attributed relational graph matching 24568
seq./parallel image restoration, neural network appl. 2729
SR-latch cct. using Hopfield neural networks, design 12432
stat. phys. approach, optim. problems 11939
super-resoln. range-Doppler imaging 25556
Tank/Hopfield neural ADC, design 6265
telecomm. systs., neural networks appls. 41454
texture recogn./noise filtering, optoelectronic neural net 39526
thermal power plant maint. scheduling, Hopfield neural net appls. *(Japanese)* 43893
tracking syst., hardware neural network implement. 8454
triangular connection Hopfield neural network, A/D conversion 12595
VLSI design, neural net for scheduling/allocation 30414

hopping conduction
amorph. semiconds., electronic props., hopping transport mechanisms *(French)* 6535
chalcogenide glasses, small-bipolaron hopping cond. 1059
diamond:B films, homoepitaxial and polycryst., elec. props. 21890
impurity-band-cond. semiconds., SCL current injection 13024
MQW, coupled, electron escape rate, coherence length, hopping effects 38364
organic semiconds., disordered, geminate recomb. 1015
PEEK films, DC cond., ionic behavior 30588
poly(p-phenylenevinylene) LED, polaron/hole charge transport 14636
resist. relax. in low-temp. thermometers 9893
TCNQ/polymer amorph. semicond. MISFET, cond. and field-effect mobility 13737
$(As_2S_3)_{1-x}(PbS)_x$, vitreous semicond., electronic cond. 29867
CdSe:In, n-type, hopping cond., two-param. scaling 21922
CoAl:O sputtered granular thin films, elec. resist., permeab. 14131
CoFeB:O sputtered granular thin films, elec. resist., permeab. 14131
$Er_2Cu_2O_5$, dielec. const., cond. 21923
EuF_3 thin films, dielec., cond. and breakdown studies 1544
FeSi, hopping cond. 38273
GaAS sputtered films, amorphous and microcryst., elec. props. 22994
GaAs, MBE grown, elec. breakdown props. 21908
GaAs MISFETs, MBE-grown GaAs insulator, breakdown voltage improve. 30337
a-GaAs:As, SI, elec. charact. by I-V meas. 13050
$GaAs/Al_{0.4}Ga_{0.6}As$ RTDs, LF flucts. charactn. 1333
$GaAs/Al_xGa1_{-x}As$ heterostruct., integral QHE 1108
$GaInP_2$ ordered epilayers, elec. cond. 1065
a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
GaTe semicond. superlattice, Bridgman growth, elec. anisotropy 37384
GaInP layers, P-vacancy-related deep levels 29878
Ge:Ga(As), 1/f hopping noise 29837
a-In_2O_3, variable range hopping region, magnetoresist. 6536
In_2O_{3-x} films, spin and quantum interf. effects in hopping cond. 38263
$InSe_x$ films, amorph., AC cond. 21927
Si deep sub-μm MOSFETs under cryogenic conditions, quantum interf. flucts. 1389
Si point contacts, nanofabrication, MBE growth, transport meas. 13128
Si, porous, AC cond., hopping transport 21895
Si porous, quantum dots, recomb. dyn. 22022
p-Si wires, focused ion beam implant., carrier transport 21871
a-Si:H high elec.-field p-i-n diodes, p-layer thickness effects 6721
a-Si:H/a-$Si_{1-x}C_x$:H barrier struct., I-V charact. 1105
$Si/CoSi_2$ vert. MSM photodetectors, buried contacts 34500
p-SiO_2/polymer, dielec. double-layer structs., elec. cond. 30534
V_2O_5-$P_2O_5(Sb_2O_3)(Bi_2O_3)$, semicond. glasses, transport props. 13080
V_2O_5-SnO-TeO_2 glasses, low-temp. DC cond. 38269
ZnSe epitaxial layers, low-temp. cond. in impurity band regime 1046

horn antennas
2 to 26 GHz slant polarised omni azimuthal antenna and radome 23884
75 to 115 GHz quasi-opt. amp. struct. 23907
94 GHz integrated monopulse receiver 23968
act. FSS in horn antenna switchable, two beamwidths 15642
array-fed reconfigurable reflector for spacecraft appls. 2337
back-to-back horn antenna quasi-opt. amp 23914
broadband low-crosspolarisation horn design 8044
broadband waveguide feed for offset parab. reflectors 15641
conical horn, vector boundary-element anal. 2327
conical TEM horn, ultrawideband, design 31946
double ridged waveguide feed for parab. reflectors, broadband matching 29540
H-plane sectoral dielec. horn antenna anal. and expt. 23934
high speed indoor wireless systs., directional antennas 3329
interact., pulsed EM field and horn antenna 8033
interact., pulsed EM field/horn antenna 15618
L-band dual feedhorn for SETI, design 8038
orthomode transducer and horn EM anal. 23990
planar-array calcs., FEM method and waveguide simul. 23780
profiled corrugated horns, full-wave modal-S-matrix CAD 23936
pyramidal horn antennas, composite inner E-plane walls 8057
pyramidal horns with composite E-plane walls, contour path FDTD anal. 23925
radiation pattern anal. by moment method 23935
sheet beam planar wiggler FEL amplifier 23312
TEM horn antennas, charact. impedance calc. 23887
TEM horn based meas. transducers 17738

horology *see time measurement*
hospital administration *see health care; medical administrative data processing*
hospital engineering *see biomedical engineering*
hospital information systems *see medical information systems*
hot carrier conduction *see hot carriers*
hot carriers
0.25 μm gate length CMOS technol., design/proc. depend. 13894
2D semiconductors, negative differential resist., conf., Lucca, Italy (1992) 11546
above supply voltage hot carrier distrib. in semicond. devices 13583
AlGaAs-GaAs HBT struct., electron distrib., electrolumin. obs. 1355
analog CMOS differential stages, hot-carrier-induced offset voltage 22574
bipolar transistor degrad. under dyn. hot carrier stress 38849
bipolar transistor microcircuits, hot-carrier and radiation induced increases in base current 13874
BJTs, hot-carrier/ionizing-radiation-induced degrad. 30241
CMOS ccts., HF AC hot-carrier degrad. 22573
CMOS FET oxide reliab., plasma-induced gate oxide degrad. 20490
CMOS logic gate delay computation, slope considerations in probabilistic simul. 29115
CMOS proc. appl., wafer level reliab. SPC program 20493
CMOS tapered buffers, unified design methodology 29136
CMOSFETs, hot-carrier degrad., unified model, gate-to-drain capacitance meas. 6764
collector epilayer modelling of BJT in MEXTRAM model 13650
deep submicron CMOS technol., FOND device archit. 22570
deep submicron MOSFETs, 2D energy-depend. substr. current models 1415
deep-submicron PMOSFETs, hot-carrier degrad. mechanisms 13676
DINOR flash memory, erase scheme 12551
DRAM, 256 Mbit, pass transistor designs 21302
edge type thin-film warm carrier detectors, fab. 34488
electrothermal/energy transport models, carrier emission/capture kinetics 38787
flash EEPROM erase, tunneling induced converg. mechanism 12548
flash EEPROM prog. simul., hot-electron/hot-hole injection 12501
flash EPROM endurance simul., phys.-based models 21306
flash EPROM struct., ultra-short pulse erasing, characterisation 12502
HBT HF perform. calc., Fourier anal. 1363
high-speed deep submicron VLSI, technols./interconnect modeling 22558
high-speed devices, hot electron noise in semicond. materials 1314
hole trapping in MOSFET, hot carrier stressing/ionizing irrad. 30284
hydrodynamic formulation of energy bal. eqns., finite-element discretization 30196
IBM 0.1 μm MOSFET anal. by simul., lateral elec. field effects 30194
InP-based HBTs, high-speed, design and fabrication 13626
IR MQW phototransistor, hot electron effects 39573
IR MQW phototransistor, Monte Carlo modeling 1802
iRULE, fast hot-carrier reliab. diagnosis using macro-models, MOS digital logic 29114
lateral hot-electron phototransistor for long-wave length IR radiation, modeling 39563
lattice self-heating/hot-carrier transport, influ. on device perform. 6711
LDD MOSFETs, interface state generation effects, simul. models 1417
LDD nMOS transistors, latent ESD damage recovery, hot electron treatment 6744
LDD NMOSFETs, hot carrier induced degrad. 6770
LDD NMOSFETs, hot-electron damaged, modelling 13751
LDD p-MOSFETs, hot-carrier degrad. 13692
LDD-MOSFETs, high temp. hot carrier degrad. 1409
metal-semicond. interfaces, hot electron transport probed by BEEM 13206
microscopic Monte Carlo simul. of electronic noise in semicond. devices 1319
MIS struct. with charge transport, steady-state reverse I-V characts. 22070
MOS device gate oxide, hot carrier transport-injection model 22433
MOS device reliab. studies under LabVIEW environ. 22320
MOS EPROM writing charact., hot electron injection model, transient simul. 12546
MOS struct., hot carrier injection, C(I)-V charact. *(Chinese)* 1168
MOS transistors, 1/f noise, mobility or no. flucts. 1380
MOS transistors, nonuniform degrad., charge pumping 22405
p-MOSFET, bi-directional operation, hot-carrier degrad. model 38875
nMOSFET, HISREM model, IC reliab. projections 13704
MOSFET 1/f noise, plasma-etch-induced gate oxide degrad. effects 22441
MOSFET hot-carrier aging, modeling, charge pumping methods 22444
MOSFET interface states/trapped carriers, charge pumping/gate capacitance meas. 30301
MOSFET lifetime cals., depth-depend. impact ionization 38895
p-MOSFETs, LDD, hot carrier reliab. 1407
p-MOSFETs, lifetime prediction methods, std. and charge-pumping lifetime criteria 13675
n-MOSFETs, rapid thermal N_2O-reoxidized nitrided gate oxides 38899
MOSFETs in off-state, interface trap induced emission current 22408
MOSFETs with rapid thermally NO-nitrided SiO_2 gate dielec., hot-carrier reliab. 22429
n-MOSTs, substr./channel hot electron injection 13688
MQW IR phototransistor 14599
n-channel MOSFETs, hot carrier degrad. 13736
n-channel MOSFETs at low gate bias, hot-carrier degrad. eval. 13679
n-MOSFETs, bias/temp. depend. of gate/substr. currents 22413
n-MOSFETs, hot-hole-induced neg. oxide charges 22414
NMOSFET(PMOSFET)/SIMOX struct., hot-carrier injection 6759
NMOSFETs, anom. hot carrier degrad., elevated temps. 30353
NMOSFETs at 77 K, double channel hot-carrier injection effects meas. 22403
npn BJTs, radiation stress and hot-carrier stress effects on current gain 13636
numerical modelling of processes and devices, conf., Seattle (1992) 5499
off-state n-MOSFETs, interface trap-induced drain leakage current 38859
oxides reliab., low temps. 28406
PMOSFET degraded due to hot electrons, modelling *(Korean)* 30306
PMOSFET submicrometer devices, hot-carrier-induced off-state current leakage 1425
poly-Si:B/Si:N multilayer gate surface channel PMOSFETs 6762
polysilicon dual-gate CMOS, N implant. 38498
polysilicon emitter BJTs,ionizing-radiation and hot-carrier stress response, visualization 22361
radiation-hardened CMOS for cryogenic analog appls. 30447
semicond., impurity band in high elec. field, interband and impurity breakdown 1013

hot carriers continued
semicond. laser, modulation response, carrier conc./temp. 23217
semicond. materials/devices, hot carrier flucts./noise 1321
semiconds., nonlin. transport, nonlocal mechanism 21969
semiconductor structures, oscill. transport instabilities, current filamentation 22338
$Si-SiO_2$-polySi:P, $TiSi_2$ superlayer, thin film oxide injection degrad. 22059
SIMOX MOSFET, high temp. operation 22468
SOI transistors, alternating hot carrier injection anal. 22415
SOI/bulk hybrid technol. on SIMOX wafers for ESD immune ccts. 13881
stacked nitride-oxide gate n-/p-MISFETs, hot-carrier reliab. 38856
sub-0.1 μm MOSFETs, semiclassical device simul. 22430
submicrometer gate length MOSFET, selectively doped substr., hot electron degrad. 30324
submicron MOS transistors degrad., 1/f noise spectral dens. 22463
submicron NMOSFETs, GIDL, interface trap effect 6766
submicron-channel MOSFETs, simulated x-ray lithog. exposure effects 6776
surface channel P-MOSFETs, gate oxide thickness hot carrier effects 13677
tail electron hydrodynamic model based on Monte Carlo results 13579
unified transport model, 3D implement. 38786
very short channel MOSFETs, hot carrier gen. mechanism 13742
VlSI reliab. challenges, Japanese vs American industries 22527
AlGaAs n^+nn^+ devices, self-heating, noise temp. meas. 38946
$Al_xGa_{1-x}As$ n^+nn^+ devices, Al content x, effects on hot electron noise 1433
AlGaAs/GaAs 2DEG, ballistic electron transport 29944
AlGaAs/GaAs, photopumped vert. cavity QW, hot carrier recomb. 23264
n-AlGaAs/InGaAs/GaAs struct., hot electron ballistic transport 38358
$CoSi_2$/Si(111) epitaxial films, situ study by BEEM 22037
$Ga_{1-x}Al_xAs$/GaAs, p-n jn. incorporating quantum well, light emitting 14621
GaAs, carrier-carrier scatt., carrier distrib. effects 29858
GaAs cw semicond. lasers with Boltzmann kinetics, gain saturation 31354
GaAs, devices, impact ionization/light emission, Monte Carlo study 1441
GaAs, intrinsic and p-doped, highly photoexcited carriers, femtosecond relax. 1036
GaAs, non-activated cond. of hot electrons in localization regime 29864
GaAs quantum wells, intersubband relax., ultrafast dyn. 13164
GaAs quantum wire, hot electrons ultrafast relax. 1119
GaAs:Be, electron thermalization, picosecond time-scale 1033
GaAs:Si, multiple δ-layer-doped MQW, hot electrons 38365
GaAs/$Al_xGa_{1-x}As$ p-i-n diodes, ballistic-electron energy distrib. 29896
GaAs/AlGaAs, hot electron tunnelling photodetector 3837
GaAs/$Ga_{1-x}Al_xAs$ quantum-well IR photodetector, dark current 25832
GaAs/GaAlAs heterojunctions, real space transfer 13126
GaAs/InGaAs, δ-doped heterostruct., hot carriers, NDR transistor 30374
GaAs-AlGaAs, field-effect LD, picosecond, saturable absorpt. 2005
GaAs-GaAlAs waveguide saturable absorber, carrier heating dyn. 2109
GaAs-based quantum wires, hot electron transient transport, Monte Carlo method 1095
GaInAs/InP reson. tunneling diodes, hot electron phase coherent length 13593
GaInAs-GaInP long wavelength lasers, strain compensated barriers, electron leakage reduction 39822
Ge, hole-doped, hot carriers, thermoelec. power 21894
n-$Hg_{0.8}Cd_{0.2}Te$, hot electron transport, genetic algms. 38247
InAlAs/InGaAs HFETs, impact ionization and light emission 38912
InAlAs/n^+-InGaAs heterostruct. FET, breakdown phys. 6804
InAlAs-InGaAsP-InP syst., potential barrier height enhance. 22008
InAs, MOVPE, high mobility on GaAs 29853
n^+nn^+ InP diodes, submicrometer, microwave power generation, model 836
InP n^+nn^+ diodes, hot carrier noise, Monte Carlo simul. 1348
$NiSi_2$/Si interfaces, dyn. transm. and impact ionization, hot-electron transport 22040
Pd/Si, transport props., hot electron phenom. 38407
Si MOS devices, transient impact ionization in bulk semicond. 1173
Si, n^+-p surface avalanche diodes, doping instabil. 13609
Si n-i-n diode, hydrodynamic transport model, scatt. matrix 22327
Si small geom. MOSFETs, tunneling gate oxide approach, ultra-high current drive 22451
Si:B(BF_2) p^+ poly-Si gate surface-channel PMOSFETs, boron penetration, hot carriers 30356
Si/SiGe heterostruct., ballistic cond., Aharonov-Bohm oscills. 13819
Si/SiGe modulation-doped heterostruct., extremely high electron mobility 29920
Si/SiO_2 MOSFET, dispersive transport, seminumerical simul. 38892
Si/SiO_2 MOSFET, fixed and interface trap charges 38863
Si/SiO_2 MOSFET interface trap generation, gate current simul. tech. 38901
Si-SiO_2-polySi MOSFET, oxide degrad., charge traps generation 6746
a-SiN_x:H thin film diodes, current induced drift mechanism 13588
SiO_2, radiation-induced trapped pos. charge 13250
SiO_2-polysilicon MOSFET degrad., substr. hot electron stress 13680
$TiSi_2$-SiO_2-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775

hot cathode tubes *see thermionic tubes*

hot cathodes *see thermionic cathodes*

hot electron transistors
see also resonant tunnelling devices
IR HET, narrow bandpass filter 17784
lateral HET, HF operation 13616
MOSFETs, n-channel, Fowler-Nordheim electron tunneling, substr. hole current 38884
NDR-SPICE cct. simul. of reson. tunneling devices 22336
PBT, transport models/computer simul. 1368
quantum interconnections, ballistic electrons and cellular archit. 13823
THETA transistor, high power THz freq. source 838
AlGaAs/GaAs, charge injection transistors, real space electron transfer 38823
$CoSi_2$/CaF_2 reson. tunneling HET, quantum interf. 13822
GaAs heterostruct. FET, gate currents, warm electron contrib. 13794
GaAs/AlGaAs HET, quasi-ballistic electrons, reson. tunnelling 13654
$In_{0.53}Ga_{0.47}As$ transistor channel, hot electron lumin. meas. 30377
InP heterostruct. FET, gate currents, warm electron contrib. 13794

hot electrons *see hot carriers*

hot pressing
AlN/electroless plated Ni/Cu, indirect bonding, hot pressing 5857
Bi-Pb-Sr-Ca-Cu-O, hot pressing, mag. melt texturation 39238
PZT/ZnO piezoelec. actuator, mech. response, gases reduction 34608
$Pb(Mg_{1/3}Nb_{2/3})O_3-PbTiO_3$ solid solns., piezoelec./mech. props. 30564

hot rolling
metall. indust., thermal proc., optimal control software 44628
mill control/power equipt. modernisation project, USA 44630
AlFe, hot rolling, strong (100)[001] texture component 14145
hot shortness *see brittleness*
hot strength *see tensile strength*
hot wall epitaxial growth *see vapour phase epitaxial growth*
hot working
see also hot rolling
Nd-Fe-Co-B die-upset magnets from dissimilar ribbon blends 6965
Hough transforms
3-D scenes, image seqs., global-motion estim., coding appl. 41088
3D dyn. stereovision, stereo/motion matching without local constraints 16330
3D Hough param. space, clustering, circ. arc extraction 33014
airport surface movements radar surveillance 43460
autoregression param. estim. 40857
binary associative memory neural net appl., document fax images anal. 41127
brain model for local image vel. detect. *(Japanese)* 33000
cellular neural networks for moving point targets detect. 24730
chip-set for generalized Hough transform 29269
contouring, interferometric digital proc., Hough transform 12238
convex polygon, unique determ. by Hough transform 33095
crater detect. by lin. filters representing Hough transform 41266
echocardiogram, left ventricle contour detect., Hough transform 10207
fax image recognition using neural nets 41172
hierarchical Hough transform, polygonal approx. 41068
hierarchical line extraction 32971
high-speed Hough transform lookup table constitution *(Japanese)* 16376
highly parallel obj. recogn. scheme, Hough space based 8572
IR surveillance, motion estim. methods/noisy phenom. 2612
line extraction from image, variable Hough transform *(Japanese)* 16300
line parameterization conditions 41067
Line Patterns Hough Transform for line segment detect. 8565
local region growing by pseudophysical simul. 16394
Mahalanobis Distance and Standard Hough Transform comparison 24442
mixed documents recogn., texts and graphic images *(Korean)* 24681
mode filters for sig. and image proc. appls., robust types 8328
multi-level edge primitive matching, cooperative strategy 32851
opt. Hough-transform filter for plural element shape parallel detect. 33080
plane orient. from skew symm. 2663
probabilistic and non-probabilistic Hough transforms, comparison 24629
radar pulse train deinterleaving via Hough transform 34141
reconfigurable meshes, Hough transform 32911
self-adjusting piecewise toroidal recog. 24414
skewed symm. detect., local skewed symms. 41139
straight line recogn., Hough transform memory compression 32845
video-rate Hough transform, GFLOPS SIMD/MIMD parallel archit. implement. 32884
visual inspection operations, obj. registration 41121
household appliances *see domestic appliances*
housings *see packaging*
HP computers *see Hewlett Packard computers*
HPGe detectors *see germanium radiation detectors*
HPIB *see peripheral interfaces*
Hubble model *see cosmology*
hue *see colour*
Huffman codes
asynchronous design methodologies, overview 6142
bi-level image high speed codec, architectural design 9124
coding, digits of unequal cost 32068
compressed data, efficient Huffman decoding 8159
compression of Huffman code table and appls. *(Japanese)* 15799
concurrent lossless coder for video compression 32939
ECG, ambulatory, adaptive data compression, multi-template matching 26432
facsimile high-speed image codec 16946
fast Huffman decoder, high speed pattern matching 41078
GMS images, digital transm., ships *(Japanese)* 8870
Grand Alliance syst. for US HDTV 25665
image coding, arith. and adaptive-Huffman entropy coders, prob. estim. 32871
image encoding, edge field, Laplacian operator 33002
image seqs. coding by wavelets and subband schemes 16287
JPEG image coding algm. Huffman codec *(Japanese)* 16943
prefix codes, equiprobable words and unequal letter costs 24108
real-time video variable length decoding cct. using adaptive tree search, 162 Mbit/s 25131
software video, extended color cell compression 16851
VLSI implement. of Huffman codec for digital video 33704
Hugoniot diagrams *see equations of state*
human engineering *see ergonomics*
human factors
see also behavioural sciences; biocybernetics; ergonomics; man-machine systems; office environment; speech intelligibility; user interfaces
aircraft flight path displays, perspective, design factors 4351
aircraft inform. display, tactile stimulation of human head 43426
aircraft landing task, simulated, P300 mental workload measure 43424
anesthesia data, HUD, clinical eval. 43202
ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
ATC displays, colour 4375
audio display and virtual auditory environ. 34284
BT's Network Administration Implementation Programme 41694
BWR power plant, abnormal conditions, operator perf. 27403
C-17 cockpit display visual aspects, automated testing 35225
cockpit situation awareness autostereoscopic avionics display 10352
commun. patterns in research community 41734
commun. training for elec. engineers 28349
computer operators, hazards from monitors 26484
concurrent engng., concept and practice 96
conversation, computer aided for phys. impaired nonspeaking people 40759
cooperative working for end-users, MMTCA 41993
crew station design methodology 10348
CRT displays, colours appearance against coloured backgrounds 3928
CrystalWeb, distributed authoring environ. for World-Wide Web 41868
database query generation from spoken sentences 2452
human factors continued
design enhancement, human factored fn. allocation 5570
design projects, preserving knowledge, what designers need to know 37032
diagnostic entropy, syst. diagnosis sig. incompleteness 171
digital avionics systems, conf., (Nov. 1994) 5456
digital images, visual appearance/fidelity eval. 2611
dist. teaching of informatics, motivations, means, and alternatives 24934
domain image fast progressive reconstr. 33021
drivers' dist. keeping, simul. study 5325
E-talk, computer-assisted classroom discussion, attitudes/motivation 33411
earcons in auditory human computer interfaces 42652
education, orienting activities effect on achievement and behavior 42641
educational teleconferencing for writing/research skills in computing 3247
electro-oculography based user interface system 26445
electronically mediated interpersonal commun., attitude effect 24888
electronics indust., human factor in competitiveness *(German)* 11576
endoscopy, telepresence syst. 4291
enhanced vision HUD, image quality issues 10327
error causes and compatibility influence 11692
expert emergency situation perform. assess. 37182
facial expression, emotion dyn. recogn. 8563
Fermilab accelerator control syst., user actions, program recording 18226
fission reactor accident mgt. strategies 27513
fixed format LCD readability in bright ambient environ. 10349
haptic display for deaf/blind individuals, speech perception 15852
head-mounted displays avoiding visual deficit 3929
home electronic product buyers and users, usability issues 36996
human interface technol. for handicapped people 18620
human-machine syst. transient-state effectiveness simul. 20479
Internet for educators, user's guide 24982
Internet in the home environ., Homelink and home cyberspace 24988
Internet resource guides, stories for Net 25012
laid-off engineers, pers. experiences 5561
learner control in multimedia instruction in origami 9752
LMFBR coolant filling, human errors ident., intell. CAI syst. 28350
med. digital X-ray archive accessed, Internet 8484
mgt. decision anal. human error, computer critic appls. 11654
multimedia, multiuser systs., conferencing syst., user interface design 41980
multimedia prod., ethnographic issues 9068
negotiative dialogue design for computer aided telephony 41705
Netware dyn. data exchange 16724
neurosurgery, video-as-data, ethnographic studt 43324
NPP, human related incidents, PC aided anal. *(Japanese)* 35820
NPP, operator interfaces, multimedia 35783
NPP Human Error & Behaviour Prediction Syst. develop. 19413
NPP operation, intell. human-machine syst. 43823
nuc. power, human reliab., emergency operating procedures 10830
nuc. power, human reliab. anal. 10829
nuc. reactor safety, human reliab. anal. 4787
nuc. reactor safety, PRA methodology, computational needs 4786
operator mental model, multilevel flow modelling *(Japanese)* 43828
pilot situational awareness enhancement, airport surface movement area 10423
point 3D posn. measuring syst. for detecting fixation point on screen *(Japanese)* 3930
polygon display, holistic peripheral proc. 42873
power generating unit automation, human contrib. overview 43817
professional engineer career develop., education effectiveness study 20326
reading and listening perform., computer-controlled speech and printed text presentations 67
recursive ident. of gesture inputs, HMM 8212
reliab. assess., violations concept extension 28545
retrieving images by 2D shape, computation methods and human perception 8477
schools and the Internet, survey of networking activities 25011
Sizewell B simulators, training programme, human factors 43862
small group teleconferences, virtual environ., communicative charact. 16816
stereographic displays, visual attention shifting 42872
stereoscopic TV service, human factor requirements 34231
stress mgt. program, computerized, telephone-based 43326
survey via E-mail for studying computer mediated commun. systs. 33416
synthetic vision systs. develop. 10369
telecomms., security, subscribers view 33351
telecomms. mgt. integrat. network 41666
Turkey Point PWR staff, effect of hurricane Andrew 4767
typography, human factors approach 28549
user interfaces, learning by exploration 41733
vehicle navigation and information systems, conf., Japan (1994) 36825
video teleconference use among geographically dispersed work groups, usage patterns and user preferences 33624
viewing model for stereoscopic head-mounted displays 34625
visual sensitivity-weighted progressive image transm. using lapped orthogonal transform 41093
visual syst. motion detect. mechanisms *(Japanese)* 16373
voice activated telephone intermediary syst. 2451
VoiceMap spoken lang. syst. assess. 2450
wireless sig. transm. in consumer electronics, consumer's quality of life 5726
human-machine systems *see man-machine systems*
human relations *see behavioural sciences; social sciences*
human resource management
8 inch wafer pilot line in Taiwan, total prod maint. 37054
advanced semicond. manufacture, conf., Boston, USA (Oct. 1993) 36877
BT customer networks, ensuring quality in design 16534
cement plant elec. network design, ADELIA expert syst. 5417
company downsizing, organisational change, Newtonian metaphor 20371
cooperative R&D venture commun., social comparison problems 28374
elec. utility quality mgt. case study, Cyprus 19148
employment mgt. struture changes, UK 11630
engineering management, conf., Dayton North, OH, USA (1994) 5503
engng. careers mentoring, case study, Canada 11664
engng. education, consultancy opportunity/challenges, India 5556
engng. mgt. status, working level viewpoint 11671
engng. personnel mentoring, career guidance benefits 28341
exec. mentoring, psychological case study 11668
HDL-based design productivity, expt. comparison 28973
IBM Austin Indust. Bus. Center total prod. maint. 36985
IC manufacture, self-directed work team evol. 36953
indust. productivity paradox, theoretical anal. 11660
innovation strategy support 20380

human resource management continued
large-scale work mgt. environ., work allocation 20361
manager selection/training/employment in Russian market economy 82
manual Kanban inventory control syst., JIT 37051
mgt. work teams, perform. experiences 11639
model contract forms, overview 11629
network and distributed systs. mgt. 33385
personnel reward systs., current trends 11627
photolithography procs., work cell design for high perform. 37027
post-takeover R&D fns. integrat., empirical study 36943
prod. mgt., JIT organisation 36956
product develop. cycle time, conceptual model 28375
product introduction, vol. mfg. 28371
professional engng. careers develop., education-based 11666
project-oriented careers, human resource mgt. 36941
quality fn. deployment, engng. manager implement. considerations 11634
quality mgt., human resource aspects *(German)* 5682
R&D employee empowerment, mgt. reengng. project 11667
R&D personnel, career develop. surveys, UK/Japan 36945
R&D personnel, invention incentives overview, Germany 36946
R&D project team climate/perform. study, Korea 36944
radar anal. model encapsulation 25569
reliab. assess., violations concept extension 28545
semicond. fab., syst. dyn. model 36954
small business innovation activity overview 28376
stochastic search techs. 20362
supervisorless semicond. fab. environ., CIM productivity monitors 37052
Taguchi method of environ. stress testing for PWB prod. proc. 29678
tech. personnel mgt., requirements, guidelines 11669
technol.-based firms, skilled workforce mgt. struct. 36947
telecomms. mgt. integrat. network 41666
university research lab. personnel, tech. supervisor role 11670
VLSI pilot line, proc. improvement mgt. 36958
WMS real time algm./AIP predictive schedulers, comparison 20363
human services *see public administration; social sciences*
humanities
see also archaeology; art; history; language translation; linguistics; music
Edo Tokyo Museum exhibition lighting syst. *(Japanese)* 11471
electronic museum syst. by multimedia database *(Japanese)* 42009
flexible network human interface roles and services *(Japanese)* 16755
LACE multimedia programme in Oxford 9070
RAMA, rem. access, museum archives 9069
humidity
see also atmospheric humidity; hygrometers
dairy barn environ. for arctic climates, computer anal. 11515
electronic packages, thermal and sorptive effects, dyn. investig. 28500
flex coating reliab., high-perform. MCM-PCB interconnection 12945
General Electric HDI modules, MCM-D, reliab. 12980
mag. thin-film disk packaging, desiccant humidity barrier 30744
mirror-type laser dew-point hygrometer 26020
MLC capacitors, failure caused by high temp./humidity environ. 12840
nonhermetic enclosures and packages, moisture ingress model 5673
oil-impregnated pressboard, dielec. props., moisture depend. 14044
plastic encapsulated IC reliab., missile appls. 35386
poly-butene-sulfone resist, electron beam lithog., CD 22292
polyimide-metal interfaces, curing chem. and hydrolytic stabil. 12211
polypropylene, corona streamer degrad., humidity effect 1541
PVA films, dichromated, real-time hologram recording, humidity effects 40143
PWBs, glass fibre reinforced epoxy laminate, interfacial debonding 11819
synthetic insulators, leakage current monitoring, coastal site 43784
(Ba,Ca)TiO_3, humidity-sensitive characts. *(Korean)* 20989
Si, porous etched layer, transport, humidity infl. 21898
Si:B, anodized/cryst. sample, elec. props. alteration by water vap. 38239
Sn immersion coatings, PWB surface finishes 12934
ZnO, multilayer-chip varistors, elec. props., moist environ. 12833
ZrO_2 double cell O_2 sens., polaris. curves, humidity effect 42769
humidity measurement
see also humidity sensors; hygrometers
atmos. rem. sens., GOES IR radiometry method 4393
capacitive humidity sens., cross-linked PMMA 9887
chilled mirror dew point sens. optics 17757
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
environ. sens. 9898
fluoresc. Tm^{3+}-doped fluoride fibre, H_2O detect. 18163
fruit tester, portable, microcomputer-based 9819
laser for atmos. rem. sens., alexandrite ring laser 43512
luminesc. lifetime-based sens. for relative air humidity 3870
Li_2SnO_3 thick film humidity sensitive material, elec. cond. 3782
TiO_2-V_2O_5-Nb_2O_5 humidity sens., fine-struct., fab./charact. 17752
humidity sensors
see also hygrometers
environ. sens. 9898
hybrid humidity sens., PTF sens. elements 25829
piezoresistive humidity sens., design, simul. and metrological charact. 3795
poly(dimethyldiallylammonium chloride) polymer film based, comments/reply 34465
response speed increase in trace moisture meas. 4025
Li_2SnO_3 thick film humidity sensitive material, elec. cond. 3782
Si/Al thermopile humidity sens., fab. and characts. *(Korean)* 17721
SnO_2 thick-film planar resistor, humidity effect 870
TiO_2-V_2O_5-Nb_2O_5 humidity sens., fine-struct., fab./charact. 17752
ZnO dense non-ohmic electrode, humidity sensitive elec. props. 34457
HV engineering *see high-voltage engineering*
HVAC
building energy anal. simul. programs 5240
building HVAC nonlin. heater batt., neural net control 5239
building HVAC retrofits, postponement economics overview 44432
dairy barn environ. for arctic climates, computer anal. 11515
Hibernia offshore platform, integrated control syst. 5412
multi-zone cooling systs. with storage, efficient operation 20148
multizone HVAC syst. optimal control, aggregation/disaggregation method 28180
HVDC *see HVDC power convertors; HVDC power transmission*
HVDC convertor stations *see HVDC power convertors; substations*
HVDC power convertors
500 kV Central China power syst. EMS overview 19188
control, microcontroller appl. 19239

HVDC power convertors continued
converter transformers/smoothing reactors, service stresses *(French, English)* 36228
DC converted power systs., energy conservation benefits 35615
DC convertor stations, generator shaft torsion simul. 4635
long dist. HVDC power transm., ABB research *(Italian)* 4631
New Zealand HVDC link upgrade 27141
Queensland-NSW power syst. interconnection, tech. aspects 26977
Russia-Finland HVDC interconnection, third harmonic 4632
state-of-the-art develops./technol. 19237
steam turbogenerator exciter shaft torsional vibrs. anal. 43738
thyristor valves, water cooling 5032
transformer secondary winding DC currents, effects eval. 5017
waveform distortion, freq. domain anal. 19234
HVDC power transmission
see also HVDC power convertors
300 MW submarine power syst. link project, South Korea 19238
500 kV Central China power syst. EMS overview 19188
AC flashover performance under glaze and rime 19321
AC/DC real-time simul. *(German)* 27133
air gaps with artificial floating metals under DC voltage, breakdown characts. 35664
bipolar dc corona, PIC simul., HVDC transm. lines 13978
bipolar ionised field, FEM 43735
cables, paper insulated, breakdown, comment/reply 35647
CIGRE HVDC power line control Benchmark model *(French, English)* 35616
computer simul. methods comparison 35617
converters control, microcontroller appl. 19239
DC converted power systs., energy conservation benefits 35615
DC elec. fields/ions, human perception, exposure chamber 4330
DC elec. rly., pulsed power switch-based protection 36712
DC link, transient anal., converter model, series expansion 27143
DC station post insulators, pollution performance, arc model 19324
dyn. digital simul. studies 19236
harmonic filter design trends 4633
HV AC-DC systs., multivariable adaptive control 4549
HVDC transmission links control stability, L_∞ robustness anal. 19235
hydro HVDC/thermal HVAC power options comparison, Africa 35602
hydroelectric generator, winding I^2R losses, harmonic interf. 43986
improved power syst. perform., conf., Australia (1993) 5472
links, power syst. enhancement 27140
long dist. HVDC power transm., ABB research *(Italian)* 4631
monopolar ionized field, ion diffusion 43736
New Zealand HV power syst., communs./control systs. 26973
New Zealand HVDC link upgrade 27141
nonceramic insulators, flashover voltage, wetting conditions effects 19322
polyethylene insulation, charge trapping, thermodynamic effects 14052
Queensland-NSW power syst. interconnection, tech. aspects 26977
real-time digital/analogue simulator interface 27142
Russia-Finland HVDC interconnection, third harmonic 4632
SMES, DC power line appls., input/output cct. studies *(Japanese)* 11309
state-of-the-art develops./technol. 19237
steam turbogenerator exciter shaft torsional vibrs. anal. 43738
submarine cables, overvoltages, testing 27198
transformer secondary winding DC currents, effects eval. 5017
transm. lines, twin conductors, DC corona anal. 4634
transm. network insulator problems *(Chinese)* 43737
HVEM *see electron microscopy*
HVIC *see power integrated circuits*
hybrid computer methods *see hybrid simulation*
hybrid integrated circuits
see also multichip modules
3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
anisotropic test substr., thermal field simul. 6842
ceramic multicomponent modules, miniaturisation approach 5622
data transm. filter, thick film hybrid implement. 6218
die attach systs. for hybrid/MCM assembly 38175
drivers, flip chip bonded, SPICE simul. 7485
dual-use microelectronics mfg. spec., single/multichip packaging 20453
DuPont OOXO INVAROX resistor series for chip/network appls. 6348
engine control module, hybrid interconnect technols. 28154
HEMT hybrid gate mixer, 30 GHz, design procedure 12797
HEMT with integrated on-drain capacitor, hybrid mixer 21574
HF miniature planar thick film transformers 36225
high-dens. SMTs 6441
interactive terminal sliding algm. for hybrid IC planar layout *(Japanese)* 29696
IR readout electronics, historical perspective 34426
low-power technol. for GaAs front-end ICs and hybrid ICs, mobile commun. 38041
materials systs. and technol. 38165
MCM, COB, single/double sided, Jedec stand., low cost 38189
MCM, thin film transfer process, low cost 38185
MCM-C, diffusion patterned vias, fine line printing 38188
microelectronic mfg. procs., design of expt. techs. 21674
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
microwave IC, quasistatic anal., method of lines 854
microwave MESFET, noise temp. determ. 13766
MMIC and hybrid planar IC discontinuities anal. method 860
motherboard technol. for active array opt. interconnection and packaging 23985
multi-chip carrier power hybrid, EMI study 21662
multichip integrat. of MMICs, monolithic ceramic technol. 848
opt. hybrid IC waveguide facet refl. reduction 14674
packages, cleaning, CFC-free technol. 28548
PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
refl. topol. building blocks for adaptive microwave sig. proc. appls. 29588
ribbon/wire automatic bonding for hybrid and MCM assembly 38176
sampling oscilloscope front-end, HBT MMIC design 42869
satellite TWTAs, microwave power modules, radiation cooled collectors 26553
SAW oscillators for low vibr. sensitivity 30646
surface mount thin-film ceramic package for microwave appls. 11766
thick film hybrid ccts., high reliab., for automotive appls. 29697
thick-film technol., diffusion-patterning vias for MCMs 956
through-wafer interconnecting method for hybrid WSI 950

- **hybrid integrated circuits** continued
  - transport appls., HIC reliab. testing 21661
  - ultra shallow ion implanted base BiCMOS fab. 22619
  - vision probing techs. for testing MCM and bare die 21734
  - Ag multilayer ccts., environ. durability 21659
  - Ag-Au interconnects, transit. via fill material 30152
  - Cu-AlN, electroless-plated substr., hybrid IC metallisation tech. 951
  - GaAs MESFET doubly bal. mixer, X-band, very low IMD 21569
  - GaAs MESFET varactor tunable oscillators, noise calcs. 21565
  - $LiNbO_3$ chip assembly on silica-based waveguide on terraced Si substr. 31128
  - $LiNbO_3$ thin film hybrid integrated opt. devices 39608
  - Mo-Cu layered foil conductors, power hybrids, ceramic substrs. 21663
  - PZT/Pt thin film decoupling capacitors, integrat. 21591
  - Si multitechnology module OEIC packaging for computer/commun. systs. 11815
- **hybrid reactors**
  - conference, emerging nucl. energy systems, Makuhari, Japan (Sept. 1993) 28251
  - fission nuc. pumped laser power plant 35951
  - fissionable fuel cycle 35944
  - perform., reactivity limitations 35945
  - Tokamak FFHR, waste transmutation 35943
- **hybrid simulation**
  - behavioural modelling and simul., VHDL and Saber-MAST 484
  - hybrid IC drivers, flip chip bonded, SPICE simul. 7485
- **hybrid turbine cycle power stations** *see combined cycle power stations*
- **hydraulic control equipment**
  - *see also electrohydraulic control equipment*
  - bulk produce conveyors, drop dists., manual/electronic control 3803
  - lin. DC motors, high response, mag. materials *(Japanese)* 44075
  - miniature fluid control devices, fab., lithog. and electroforming 6875
  - NPP feedwater valves retrofitting, vibr. reduction 27339
  - pumped storage power plant, surge tanks, reverse-flow throttle 36049
  - VXIbus/GPIB-based test syst., Boeing 757 flap/slat electronics unit 4350
- **hydraulic systems**
  - cement prod., hydraulic roll crushers, motor appls./selection 5421
- **hydraulic turbine generators** *see hydroelectric generators*
- **hydraulic turbines**
  - Bhumibol hydro station, pumped storage unit addit. 36050
  - Bieudron (Switzerland) power station 465 MVA turboalternators *(French, German)* 36043
  - Francis turbines design, Cirata hydro station, Indonesia 36038
  - governor model struct./params., power syst. stabil. 4861
  - Gulf Stream-based hydroelec. generation, project overview 19542
  - hydroelectric power plant Francis turbine maint. project, India 10874
  - Islay Wells bidirectional wave power air turbine project, UK 27615
  - model, syst. dyn. studies 4860
  - Sloy hydroelectric power station refurbishment project, UK 19545
  - Tyson portable hydraulic turbine, pumping/power generation appls. 43943
  - vert. shaft Francis turbine replacement, design 36039
  - wave power generation, oscillating water column-type caisson 19547
- **hydroacoustics** *see underwater sound*
- **hydroelasticity** *see elasticity*
- **hydroelectric generators**
  - 1.4 GW Bieudron hydroelec. power plant project, Switzerland 19541
  - adaptive speed control, RLS ident. 43988
  - ballhead motors, mech. governor perform. 43987
  - Bieudron (Switzerland) power station 465 MVA turboalternators *(French, German)* 36043
  - Gulf Stream-based hydroelec. generation, project overview 19542
  - micro-hydroelec. power induction generator stabilisation 4857
  - nonlin. governor control *(Chinese)* 4856
  - online condition monitoring methods 10875
  - optimal robust governor design 43989
  - PD spectra, HF grounding, time and amplit. calib. 4897
  - power stations, press. cushion lubrication automation *(Spanish)* 4859
  - power syst., adaptive multivariable optimal controller 4579
  - pump-generators, dyn. perform., PSS appl. *(Chinese)* 43946
  - Sloy hydroelectric power station refurbishment project, UK 19545
  - stator insulation, PD detect. techs. 43942
  - turbogenerators, intell. sync. control *(Chinese)* 10877
  - Tyson portable hydraulic turbine, pumping/power generation appls. 43943
  - wave power generation, oscillating water column-type caisson 19547
  - wave power stations, energy conversion problems 4866
  - winding I^2R losses, harmonic interf. 43986
- **hydroelectric power**
  - *see also hydroelectric power stations*
  - Bahrain, renewable energy resources 27321
  - Egyptian hydropower/irrigation networks, multicriteria optimisation 36036
  - Egyptian hydropower/irrigation networks, multicriteria optim. 36044
  - generation develop. programme, Laos 36041
  - generation scheduling, fuzzy LP 4858
  - integrated tidal barrage network, power supply reliab./economics 10878
  - LANGAGE, expert system for real-time diagnosis of hydroelectric power system faults 10690
  - large scale generation programmes, China 36042
  - Lower Mekong Basin, hydropower pot./planning 36040
  - ocean-based force-of-gravity power conversion systs. 27616
  - renewable energy resource develop. prospects, former USSR 27309
  - reservoir hydroelectric syst., optimal policies 35726
  - Rhine-Main-Danube Canal, role of hydroelec. power 4863
  - CO_2 emissions abatement, energy strategies, Brazil 27300
- **hydroelectric power stations**
  - *see also dams; hydraulic turbines; hydrothermal power systems; pumped-storage power stations; tidal power stations; water supply; wave power generation*
  - 1.4 GW Bieudron hydroelec. power plant project, Switzerland 19541
  - 50 MW hydro plant, oilless servomotor governor 19540
  - 220-500 kV power grid control/protection planning, China *(Chinese)* 35572
  - Austrian power station component hardening for efficiency *(German)* 4825
  - automation, rem. operation 43941
  - CO_2 emissions mitigation technols., Japan *(Japanese)* 4755
  - daily generation scheduling, decomp. methods 27614
  - dam surveillance, ES/mgt. IS-based 19544
  - decentralised planning of hydroelec. power syst. 35568
  - Egyptian hydropower/irrigation networks, multicriteria optim. 36044
  - financing, Build-Operate Transform model 19546
- **hydroelectric power stations** continued
  - Francis turbine maint. project, India 10874
  - Francis turbines design, Cirata hydro station, Indonesia 36038
  - generation develop. programme, Laos 36041
  - generation scheduling, fuzzy LP 4858
  - generator nonlin. governor control *(Chinese)* 4856
  - generator online condition monitoring methods 10875
  - Gulf Stream-based hydroelec. generation, project overview 19542
  - hydro HVDC/thermal HVAC power options comparison, Africa 35602
  - hydrothermal power syst. energy mgt., long/medium/short term *(Chinese)* 27037
  - hydroturbine generator sets, nonlin. governor control 10944
  - interconnected power syst. static security anal., China *(Chinese)* 43646
  - large scale generation programmes, China 36042
  - Markovian decision procs., modelling and appls, China 196
  - micro-hydroelec. power induction generator stabilisation 4857
  - operator training simulator develops. *(German)* 4862
  - optimal compensation regulation, nonlin. network flow *(Chinese)* 36037
  - power syst. optimal, short-term scheduling 27613
  - power syst. peak load capacity planning studies, China *(Chinese)* 35574
  - power syst. technol., current status/prospects, China *(Chinese)* 43644
  - power syst. unit commitment methodology, computer-based *(Korean)* 27077
  - press. cushion lubrication automation *(Spanish)* 4859
  - rainfall runoff ratio estim. neural net *(Japanese)* 4864
  - Rhine-Main-Danube Canal, role of hydroelec. power 4863
  - run-of-river hydro power station, rem. control syst. 43944
  - sales data fuzzy interpolation 4865
  - Sloy hydroelectric power station refurbishment project, UK 19545
  - struct., safety/reliab., inform.-anal. support 10873
  - supervisory control syst. software environ. *(Chinese)* 19543
  - Three Gorges hydroelec. power station interconnection project, China *(Chinese)* 43699
  - Tyson portable hydraulic turbine, pumping/power generation appls. 43943
  - US intell. flowmeter, hydroelec. power appls. 10876
  - vert. shaft Francis turbine replacement, design 36039
- **hydrogen bonds**
  - mag. disk, lubricant bonding, hydrogen bond network 7154
  - organic-inorganic polar crysts. design for quadratic nonlin. optics 15146
  - a-Si:H, H bonding config., metastability 29871
  - Si:H, low-temp. MBE, H-induced breakdown 28745
  - Si_3N_4:H films, rem. ECR CVD 37472
- **hydrogen distribution** *see hydrogen economy*
- **hydrogen economy**
  - 10-100 kW hybrid diesel/renewable power systs., developing country appls. 36032
  - aircraft safety aspects of liq. H_2 fuel 18775
  - automobiles, PEM SPE fuel cell/water electrolyser 36713
  - catalytic combustion, low emissions 35974
  - CO_2 emissions mitigation technols., Japan *(Japanese)* 4755
  - develop./accomplishments, 1974-94 10799
  - energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
  - energy storage medium, elec. utility appls. overview 28051
  - fossil fuel role 27327
  - fuel cell elec. vehicles, alternative fuels comparison 36716
  - fuel cell elec. vehicles, H_2 storage infrastructure 36718
  - heat pump power plants, thermophysical proc. modelling 19490
  - integrated water electrolysis, utility benefits 27335
  - miniature CHP syst., solar heat engine-based 27627
  - network start-up scenario 27336
  - nonpolluting automobiles, energy storage, propulsion 5326
  - PV-hydrogen energy conversion syst. studies 27624
  - solar hydrogen demons. project *(German)* 44413
  - solar hydrogen energy systs. simul. 4868
  - submarines, underwater perform. enhancement, fuel cells 11424
  - H storage alloys, electrochem. capacity, for Ni-MH batt. 36543
  - H_2 prod., Fresnel lens PEC-based 11302
  - H_2/O_2 10 kW PEM fuel cells, submersible appls. 20104
  - $MmNi_5$ hydrogen storage alloys, surface treatment, metal hydride batts. 11249
  - Ni-H_2 secondary batts., H_2 storage microencapsulation expts. 27897
- **hydrogen energy** *see hydrogen economy*
- **hydrogen ion activity** *see pH*
- **hydrogen ion concentration** *see pH*
- **hydrogen power** *see hydrogen economy*
- **hydrogen production** *see hydrogen economy*
- **hydrogen storage** *see hydrogen economy*
- **hydrogen transmission** *see hydrogen economy*
- **hydrological equipment**
  - LILY station & LILYPAD, automated monitoring stations 10563
  - snowpack wetness & dens., hand held dielec. probe 18836
  - topography of Earth surface, multibeam radar altimetry 18783
  - UHF radiometer for land surface rem. sens., synthetic aperture 10452
- **hydrological techniques**
  - conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
  - frozen soils, moisture content/temp. monitoring 4380
  - Greenland ice sheet, satellite altimeter elevations, accuracy 35347
  - hydroelec. power plant rainfall runoff ratio estim. neural net *(Japanese)* 4864
  - ice sheet radar rem. sens., multilayer lossy dielec. 43521
  - ice shelves of Antarctica, GEOSAT radar altimetry method 4399
  - lake levels, TOPEX/POSEIDON radar altimetry, Great Lakes obs. 18868
  - land surface microwave radiometry, winter landscape signatures 35295
  - land topography, ice-covered, shape-from-shading algm. 18787
  - LILY station & LILYPAD, automated monitoring stations 10563
  - radar DP systs., design 35353
  - snow cover & precip., satellite mm wave radiometry method 43507
  - soil, elec. cond./water content, TDR 4387
  - soil moisture rem. sens., microwave radiometry, soil 35351
  - soil moisture rem. sens., UHF radiometry method 35350
  - topography of Earth surface, multibeam radar altimetry 18783
  - UHF radiometer for land surface rem. sens., synthetic aperture 10452
- **hydromagnetic waves** *see magnetohydrodynamic waves*
- **hydromagnetics** *see magnetohydrodynamics*
- **hydrophones**
  - *see also sonar*
  - 1-bit beamforming proc., clipped data stream insertion 8349
  - (3,1) drive multifilm piezopolymer hydrophone 18934

hydrophones continued
act. multi-static sonar acquisition/proc. syst. 9660
AUV positioning/guidance, acoustic differential delay/Doppler tracking 25601
calibration of electroacoustic transducers, parametric technique 22681
cylinder, 1-3 composite, hydrostatic press. response 14081
fiber optic hydrophones, demodulator optim. 18941
fiber optic non-contact accelerometer 34530
fibre optic gradient hydrophones 18937
fibre optic hydrophones for commercial appls., high responsivity 18936
forward-based portable acoustic meas. syst. 17683
interferometric sens. syst. for security appls. 17896
lin. array, shape reconstruction 42536
lin. underwater acoustic array, random deform., gain degrad. *(French)* 18942
med. sens., human eye/nose recording appl. 43211
neutrally buoyant sens. for direct meas. of particle vel./intens. in water 43527
piezoelec. polymer transducers, indust. appls. 34453
quiet source acoustic meas. syst. 17682
refined (3,1) drive LF piezofilm hydrophones 26793
sonar future transducers, transduction materials modeling 9662
sub-ice deployed, seafloor tethered vert. array 10513
Swallow floats, acoustic intens. meas. 35349
towed array, shape estim., dyn. model *(French)* 16035
underwater moving sig. adaptive detect., hydroacoustic data 34175

hydrophotometers *see photometers*

hydropower *see hydroelectric power*

hydrostatics
double-coated opt. fibers, hydrostatic press.-induced stresses 22827
fiber optic hydrophones, demodulator optim. 18941
fibre-optic interferometric hydropressure sens. 17917
force std. machine, nonrotating loading ram cylinder 18110
porous samples dens. determ. hydrostatic weighing appl. 42957
twist-induced effects in opt. fibers, birefr. meas. 1683
Pt elec. resist. up, 1 GPa 18134

hydrothermal crystal growth *see crystal growth from solution*

hydrothermal power systems
best fuel mix, seasonal planning, fuzzy mathematics 10700
economic operation, equal incremental eqns. *(Chinese)* 10636
energy mgt., long/medium/short term *(Chinese)* 27037
interconnected, adaptive load-freq. control 10627
long-term coord. 19214
optimal short-term scheduling 27111
prod. costing, chron. operation representation 27091
pumped-hydro-thermal systs., unit commitment 19016
real/reactive power economic dispatch *(Chinese)* 10632
reliab. assess., computer-based 26888
reliab. assess., stochastic simul. 36035
scheduling, augmented Lagrangian decomp./coord. 19028
short-term coord., multi-pass dyn. prog. 19043
transm. anal. model, planning appls. 27110
unit commitment *(Japanese)* 26938
unit commitment, knowledge based dyn. prog. 19017
unit commitment/economic dispatch 19111

hygrometers
see also humidity measurement; humidity sensors
environ. sens. 9898
mirror-type laser dew-point hygrometer 26020
photofragment fluoresc. hygrometer for NASA ER-2/Perseus aircraft 10468
H_2 discharge lamp Lyman-α radiation sources, ZrCo, H reservoir 12983
H_2/O_2 fuel cell, impregnated KOH matrix, H_2O mgt. 26556

hyperbolic equations
1D wave eqn. canonical variables, integrating factor 23550
eccentric coaxial line, inner conductor, dielec. support effect 33733
finite vol. discretization methods for hyperb. eqns. 37347
homoclinic bifurcation points, num. approxs., convergence rate 37355
lin. 1D PDE init.-value hyperb. problems 20626
nonstrictly hyperb. conservation laws 28686
partial diff. eqns., boundary layer method asymptotic anal. *(Chinese)* 5785
second order PLL in presence of weak CW interf., Melnikov anal. 12379

hypercube networks
adaptive multiresolution struct. for parallel image proc. 8514
asynchronous shuffleout connectionless network switching archit. 41415
ATM self-routing bridged shuffle-exchange network 41414
ATM shuffle-based switch, perform. anal. 8730
ATM shuffleout switch, channel grouping techs. 33199
butterfly networks, regular layouts 12252
clustered computer switch MINs, routing/resource allocation 3284
CM-5 data router, congestion-free routing 24860
convoluting systs. diagnosis by space-time compression 32107
extra-stage shuffle-exchange MINs, reliab. eval. 33576
fault-tolerant multicasting 8691
FCM and FCHM multiprocessors for computer vision 16334
feature extraction, parallel, distributed memory computer 41101
fractal image compression, parallel algm. for hypercube multiprocessors 32960
free-space interconnect based optoelectronic integrated systs. 1766
heuristic algorithm for embedding hypercube in irregular WDM network 33462
image partitioning 24548
index transform. algms. in lin. alg. framework 2397
interconnected power systs., small-sig. stabil., eigenvalue method, parallel proc. 35493
multi-single-stage shuffling switch, design/perform. 16430
multidimensional DFTs on parallel machines, implement. 24215
multistage networks, multicommodity flows 41402
n-dimens. binary hypercube, resist. 517
opt. mesh networks, hot potato/single buffer deflection routing 16528
optical network interface unit for multichannel ring networks 3227
parallel FFT algms., radix 4 butterfly computation on 8-neighbor proc. array 20643
parallel lin. eqn. solvers for computational electromagnetics problems 23557
real-time power syst. anal. digital simulator 10611
scalable opt. hypercube-based interconnection network for massively parallel computing 7430
sig. constellations based on hypercubes 40576
two-level hierarchical networks for opt. commun. 16524

hypercube networks continued
universal emulations, sublogarithmic slowdown 5960
WDM channel sharing scheme for multihop lightwave networks 8696
wormhole routing on multichannel ring networks, opt. fibre interconnection 3217

hyperfine field interactions (condensed matter) *see hyperfine interactions*

hyperfine interactions
see also electric field gradient; hyperfine structure
cryogenic H maser, 10 K 39634
Fe_3Si films, MBE, conversion electron Mossbauer spectrosc. 380
SiO_2/Si, thermal oxide, natural intrinsic EX center, ESR 29984
$Sm_2Fe_{17-x}Al_x$, PM, Mossbauer study 7199

hyperfine structure
at. clocks, cryogenic lin. trap for $^{199}Hg^+$ ions 42672
H, 21 cm hyperfine line, radioastronomy appls. 5514
ISOLDE, COMPLIS laser spectrosc. 34848
JPL lin. trapped ion freq. stds., stabil. comparisons 42671
mag. grating free induction decay and echo 2074
Na, HFS, three-pulse photon echo, opt. Bloch eqn. 31510
CdTe bulk substrs., intrinsic defects, vacancies, dangling bonds 38255
H atom, spin-exchange freq. shift cross sect. 39633
Na vap., laser beam switching dyn. 40111
Yb ion std., JPL develop. 42675
$^{171}Yb^+$ trapped ions, prototype microwave freq. std. 42670

hypermedia
Adobe's Acrobat for electronic document exchange on Internet 24938
CBT products for elec. and electronic engng. 20307
cct. simul., computer assisted learning, Windows Help files 5536
conference, New Face of Technical Communications, Philadelphia, PA, USA (Oct. 1993) 28216
cooperative work, obj.-oriented/hypermedia approach 33649
discrete event simul., computer based learning, hypertext 20407
education in lang., implement. of grammar in hypermedia syst. 34281
educational uses of World-Wide Web 41869
elec. cct. anal. teaching, intell. computer tutor 5527
electrical engineering student communication improvement 28328
ESIS on World Wide Web 8898
HTML+ document format review 25015
Hubble Space Telescope via World Wide Web 8917
Hyper-G for serving inform., World Wide Web 41871
hypertext mathematics, multimedia interactivity 25112
image commun. systs. *(Japanese)* 33647
JPEG picture retrieval in portable hypermedia documents 8602
learning appls. via extended hypermedia and full motion video 42638
MHEG coded representation for hypermedia IRS 16847
MHEG multi- and hypermedia obj. interchange std. 41975
microelectronic devices, documentation, hypermedia approach 12589
mobile wireless access to the WWW, dyn. documents 33570
Multicard, open hypermedia syst. 16662
multimedia/hypermedia sync. scheme 16883
nontechnical audience, concept study 28304
power syst. education, computer based learning 19048
PRESENT, multimedia inform. broadcasting service 41992
SEPIA, cooperative hypermedia authoring environ. 16806
student career counselling via HTML and MOSAIC on Internet 25014
sync. mechanisms, unified layered framework 16849
teaching preservice teachers, HyperCard based interactive video simul. 34270
WAIS, distributed inform. service for Internet access 16759
World Wide Web, scalable HTTP server prototype 8893
World Wide Web pages for academic department 24943
World Wide Web struct. authoring environ., Grif 41866
World-Wide Web for intell. publishing environ. 41860
World-Wide Web for Internet searching 41986
World-Wide Web proxies 8892

hypersorption *see sorption*

hypersound *see ultrasonics*

hypertext *see hypermedia*

hyperthermia
bio-mass under microwave hyperthermia, thermal profiles 26467
brain hyperthermia, interstitial microwave antenna array techs. 18592
breast cancer, hyperthermia treatment, dual-freq. US applicator 26470
breast carcinoma hyperthermia treatment, monopole phased arrays 26458
cardiac arrhythmia, cond. syst. ablation, ferrite rod 18579
catheter antenna for percutaneous microwave therapy 35141
coaxial-slot antennas for microwave interstitial hyperthermia, SAR 26469
deep heating hyperthermia, induction applicator 26468
dipole-type antennas for interstitial hyperthermia, SAR distribs. 10269
distributed electrodes applicator for hyperthermia, theoretical approach 43353
elec. impedance tomography and hyperthermia, clinical implement. 43350
electro-opt. E field sens., SAR distribs. prediction 43354
EM hyperthermia applicators, capabilities/limitations 35145
interstitial hyperthermia, SAR characts. of mag. ring loaded antenna *(Japanese)* 43344
interstitial laser heating, large vessel cooling 26464
intracavitary US phased array syst. 10265
intraoperative radiation/US hyperthermia, simultaneous delivery syst. 18596
laser-tissue interaction, conf., Lille, France (1994) 20265
microstrip arrays for superficial microwave hyperthermia, 433 MHz 43352
microstrip patch applicator for microwave hyperthermia 26459
microstrip-microslot applicators, 3D modeling, FDTD method 18601
microwave appls. in medicine, colloquium, London, UK (1995) 28227
microwave hyperthermia applicators, FDTD modelling 35144
microwave hyperthermia syst., 430 MHz, cancer therapy 26465
pelvic tumours, regional hyperthermia, Utrecht coaxial TEM syst. 43351
phased array syst. for deep regional hyperthermia 18594
planar microwave applicator, current line fed grounded dielec. layer 10268
prostate treatment, cooled microwave transrectal applicator 18595
RF ring applicator, phantom energy distribs. 10263
spherical slot array applicator for microwave hyperthermia 18591
thermoradiotherapy syst., simultaneous microwave hyperthermia/^{60}Co irrad. 18593
ultrasound phased-array controller for hyperthermia appls. 26316
US hyperthermia, theoretical thermal model 43265
US hyperthermia syst., wide appl. *(Japanese)* 18602
US hyperthermia thermometry, manganin-constantan thermocouples 18597

- **hypochromism** *see light absorption*
- **hypothesis formation** *see heuristic programming*
- **hysteresis**
  - *see also coercive force; control nonlinearities; dielectric hysteresis; elastic hysteresis; magnetic hysteresis; remanence*
  - act. mag. suspen. systs., PLL appl. *(Japanese)* 39215
  - associative memory, hysteresis network *(Japanese)* 12507
  - automotive alternator/generator regulator testing, DSP-based syst. 20119
  - DFB-LD with side-mode light injection, bistability and waveform reshaping 23250
  - double loop SQUID, nonlin. phenom. anal. 1614
  - EM shock wave in transm. line, HF generation 40392
  - four-dimens. plus hysteresis chaos generator 12299
  - Gunn diodes, generating mode, hysteresis, nonlin. reactance sign reversal 12769
  - Hopfield and T-model neural networks, hysteresis study 12681
  - hyperchaos from cellular neural networks 21474
  - Josephson-jn. ladders, random mag. fields, phase roughening transit. 1626
  - LD amps., opt. bistability and X-shaped hysteresis 39818
  - LMIS, emiss. props., temp. effects, thermal hysteresis *(Chinese)* 43054
  - multi-server threshold queues, hysteresis 20509
  - polymer-dispersed CLC films, opt. memory 39308
  - PWL ladder cct., hysteresis 12295
  - reson. tunneling diode, C-V curve hysteresis, quantum hydrodynamic model 38799
  - Schmitt trigger ccts., adjustable hysteresis 29128
  - thick-film strain gauges on stainless steel substrs., co-firing effect 3779
  - three coupled relax. oscillators, chaos, torus and sync. 574
  - wind turbine load matching, least resist. principle errors 10900
  - GaAlAs LD feedback interferometer for displacement meas. 23479
  - GaAs MIS struct., C-V charact., hysteresis 29966
  - GaAs/$Al_xGa_{1-x}As$, MQW, opt. transm. 15033
  - Nb_3Sn supercond. wire/generator R&D, Japan *(Japanese)* 19303
  - Pb and Pb-free solder joints, thermomech. and fatigue behavior 37557
  - a-Si:H TFT, hysteresis characts., modelling *(Korean)* 22483
  - Sn-Cu(Pb) solder joints, thermal cyclic shear stress/strain 11742
- **hysteresis motor drives**
  - over-induction control 11319
  - synchro drives, overinduction control method *(Russian)* 28097
- **hysteresis motors**
  - *see also hysteresis motor drives*
  - high T_c supercond. rotor 10976
  - NdFeB PM hysteresis motors, starting/synchronisation studies 10977
- **I-centres** *see colour centres*
- **I-II-VI_2 semiconductors** *see ternary semiconductors*
- **I-III-VI_2 semiconductors** *see ternary semiconductors*
- **i-line lithography** *see photolithography*
- **I/O programs** *see input-output programs*
- **IBM compatible machines**
  - CSYCOM commun. protocol *(Bulgarian)* 24811
  - EM education multimedia lessons 28286
  - QuickFlash network messaging program, review 24937
  - voice-controlled telecomm. terminal for phys. handicapped 4313
- **IBM computers**
  - AC bridge for impedance meas., anal./design/implement. 12613
  - ADSTAR Distributed Storage Manager, user experience 24957
  - ANN based PCB inspection syst. 29684
  - Bulgaria, nuc. plant analyzer program 35839
  - DMM computer instrumentation for power distrib. monitoring 4737
  - electric machine lab. PC data acquisition syst. 28336
  - exterior Helmholtz problem on IBM SP-1, FEM 23580
  - LAN-based office, enterprise archit. 33519
  - multiparameter meas., PC-CAMAC based data acquisition 26236
  - neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
  - OS/2 2.1 OS, digital video archit. 17576
  - PC programs for power systs. security calc./anal. *(Russian)* 10620
  - power syst. stabilizers, real-time, fuzzy controller optim. 4913
  - PowerPC 601 μP, implement. 675
  - radiation-induced errors, SIL memory module 6822
  - Screencall PC videophone for desktop videoconferencing 24925
  - TEDMOS, CAD syst. for ASIC design on IBM-PC like computers 28948
  - Zero Instruction Set Computer, Higgs search 41284
- **IC** *see integrated circuits*
- **IC cards** *see smart cards*
- **IC engines** *see internal combustion engines*
- **ICAD** *see intelligent design assistants*
- **ICAI** *see intelligent tutoring systems*
- **ICF** *see fusion reactors; plasma inertial confinement*
- **icon-based interfaces** *see graphical user interfaces*
- **iconoscopes** *see television camera tubes*
- **idea processors**
  - behavioural level mixed A/D syst. exploration 768
- **identification**
  - *see also control theory; correlation methods; frequency response; modelling; parameter estimation; simulation; state estimation*
  - 2D adaptive filter, Laguerre fn. 32759
  - 2D backpropag. cascade adaptive recursive filters 6231
  - 2D freq. domain, least sq., sig. and syst. modeling, lin. approach 8436
  - 3-phase induction motor, simul./measurability anal. 19640
  - 3D moving vector Preisach hysteresis model 39186
  - adaptive blind equalization algm. for const. modulus constellations 32739
  - adaptive filtering, ident., and control, interact. 41042
  - adaptive IIR filtering algm., sig. proc. appls. 24194
  - adaptive time optimal control of disk drive actuator, neural network 7179
  - auto-/cross-trispectra, computation/interp. 40994
  - automatic lang. ident., sub-word models 32278
  - Bayes theory, joint discrim., detect., estim. and ident. of sigs. 15902
  - biological systs., nonlin., adaptive filtering/estim. 34728
  - blind channel ident. based on second-order stats. 24003
  - blind equalization, deterministic approach 8086
  - blind fractionally-spaced equalization, filter banks/lin. prediction 41024
  - blind ident., higher order stats. *(French)* 16043
  - blind ident./equalization of MA channels for QAM 8367
  - blind MA-syst. ident. based on higher order cumulants 32491
- **identification** continued
  - blind syst. ident. from output autocorrel. 8085
  - block adaptive filter, interf. robust, correl. sig. input 32701
  - blur ident. based on higher order spectral nulls 16207
  - Canadian patrol frigate multi-sens. data fusion implement., perform. eval. 18981
  - cascade forms perfect-reconstruction two-channel filter banks design 32723
  - chi-sq. stats. for goodness-of-fit tests for stationary time-series 32462
  - Chua's cct. online ident., chaos control 5949
  - circuits systs., symp., Chicago, USA (May 1993) 31
  - CMOS low-power transponder IC for identif. systs. 29397
  - computers in power electronics, conf., Trois-Rivieres, Que, Canada (1994) 36879
  - cost fn. for syst. ident. utilizing parallel adaptive filter 2515
  - cryptographic hash-value length, interactive ident. schemes 32170
  - DC motor, adaptive control, two stage ident. 27752
  - DC motor, model following nonlin. control syst., GMDH algm. *(Korean)* 27746
  - DC motor dyn. ident. 11063
  - delta-delta connected distrib. syst., single-line faults 4658
  - digital multipath wireless channels ident. in interf. 9303
  - distortion in elec. power systs. ident. and meas. 19361
  - distortion source identification in power system 27283
  - dynamic system fault identification and diagnosis, neural network 25721
  - electrodynamic vibrators, computational aspects 19925
  - equal power spectrum for image ident. and restoration 24552
  - FIR syst. ident., third- and fourth-order cumulants 40541
  - flexible joint single-link robot ident. and tracking control ANN 36669
  - frequency-domain identification of processes with output drift 25700
  - fuzzy based syst. ident. 32772
  - generalized wavelet decomp., adaptive syst. ident. 41032
  - hierarchically structured systems subsystems and noise signals identification 24236
  - ident. schemes, short-size keys, design 32167
  - impulse response estim., subband adaptive digital filter 8390
  - induction motor stator current control, trained ANN, syst. ident. 11059
  - lin. stationary syst. ident. and sig. recogn. 32569
  - lin.-quadratic sys. ident., freq. domain region 24213
  - low power transponder IC for identif. systs. 33744
  - measurement problems appl. linear dynamic systems 25699
  - Midwest Symp. on ccts. and systs., Detroit (1993) 33
  - MIMO lin. time-variant syst., cyclic higher order stat. 40897
  - MM-wave radar target identif. by high resoln. range profiles 42485
  - moving av. syst. ident. from bispectrum 2542
  - multi-channel FIR systs., blind ident., deterministic approach 41023
  - multialternative seq. threshold rule convergence by correl. obs. 32014
  - multichannel FIR filters, blind ident., subspace methods 32559
  - multichannel FIR filters, blind ident., subspace methods 41022
  - multifrequency binary measurement using frequency shift keyed symbols 25744
  - multilevel network mgt. of syst. ident. 41670
  - multiple batch surface mount PCB placement seq. problem, soln. 12915
  - naval electronic surveillance measures radar fn. ident., ANN appl. 35392
  - nearest neighbour type multi-sens. tracking and ident. algo. 2580
  - neural network mapping, multiuser array beamforming 40907
  - non-lin. systs. modelling, novel archit. 40932
  - nonlin. adaptive IIR digital filters 756
  - nonlin. syst. ident., nonparametric deconvolution 40874
  - nonlin. systs. ident./compensation, sampling freq. 32778
  - nonlinear disturbance errors in lin. syst. identification 25701
  - nonuniform image motion estim., Kalman filter formulation 2849
  - operator mental model, multilevel flow modelling *(Japanese)* 43828
  - orthogonal ARMA ident. *(Korean)* 24339
  - plane fig., pot. axial symm. ident. *(Japanese)* 2701
  - poly-phase struct. for syst. ident./adaptive filtering 32762
  - power syst. elec. load-weather temp. fn. calc. method 35589
  - power syst. harmonic penetration studies, load modelling 4478
  - Prony based methods for simultaneous ident. of transfer fns. and init. conditions 32587
  - pump fault diagnosis using neural nets 42719
  - radio equipt. ident., Wigner-Ville distrib. appls. *(Japanese)* 17021
  - range estim. from camera blur, regularized adaptive ident. 32991
  - rational spectral dens. matrix ident. 32635
  - reactive ion etcher, nonlin. ident. and control 13368
  - repairable syst. failure data anal., graphical model ident. 11865
  - RFID tags for connecting smart cars, smart highways 28151
  - ribbed cylindrical shells, ident. by acoustic Bragg diffr. patterns 17475
  - RLS algm., wt. misadjustment, input sig. correl. effect 40843
  - robust block adaptive filter for colored sig. input 37865
  - SAW elements in ident. systs. 1566
  - self-similar set ident. in time-scale domain 32520
  - shallow water channel estim. methods, comparison 17460
  - SICE'94 conf., Japan, 1994 5455
  - smart cards, ID-based non-interactive group commun. key sharing 3070
  - source separation with noisy obs., noise cancellation 40862
  - space shuttle main engine data residue ident. and constrained least squares model 35271
  - speech noise whitening filter for syst. ident. 40746
  - speech recogn., nonlin. syst., neural nets 40733
  - spherical array excitation currents, far-field synthesis 31973
  - stochastic optim., identifying policies most likely, produce desirable outcome 11921
  - sync. generator predictive voltage control *(Japanese)* 44010
  - system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
  - telephone speech messages automatic lang. ident. 32279
  - THD meas., Volterra series, LMS adaptive algm. 34684
  - three-phase systs. distortion source ident. 43803
  - Toeplitz matrices factorization, fast algm. 40860
  - topic ident. on switchboard corpus 32301
  - transfer fn. ident. methods, comparison 4595
  - uninterruptible power systems, fault diagnosis/prediction 27816
  - variable speed wind turbine, drive syst. dyn., modelling and ident. 36067
  - Volterra syst. ident., Gaussian sigs. orthogonalization 24244
  - wavelet transform adaptive filtering 32524
  - wireless commun. channels, blind equalization algm. 41025
  - witness hiding protocols, partial knowledge proofs/simplified design 32168
  - GaAs, LEC cryst. growth, analytic model, proc. control 28715
  - Si polysrystalline PV array, optimal operation ident., ANN *(Japanese)* 5231

IDT *see interdigital transducers*

IEEE-488 *see peripheral interfaces*

IEEE-896 *see system buses*

IEEE-960 *see system buses*

IEEE-1596 *see system buses*

IEEE standards
  see also ANSI standards
  3B21D BIST/Boundary-Scan syst. diagnostic test 5590
  100 Mb/s SMC91C100 chip *(Dutch)* 16733
  100VG-AnyLAN, network operation/real-time capabilities 33504
  1149.1 scan control transport levels 9809
  1149.1 Standard, backplane test bus selection 9808
  1149.31 multi-drop backplane test bus, protocol addressable 9782
  ABBET obj.-oriented test develop. 34408
  ABBET test resource stds., obj.-oriented anal. 34348
  AC machines sealed insulation syst. thermal eval., IEEE std. 27670
  AC overhead lines, elec./mag. fields meas., IEEE std. 43810
  adaptive token release mechanism for ring LAN and MAN 41529
  analog HDL 28938
  ASD, harmonics mitigation, IEEE 519-1992 stds. 5307
  ATAG tri-service initiative 42720
  ATE, IEEE Std. 488.2 test suite 34375
  bidirectional parallel peripheral interface, signalling method 24983
  boundary scan optimisation in proprietary environ. 5598
  cement plant, power distrib., IEEE std. 36808
  chem. indust. safety practices, IEEE 463 Standard, 1994 changes 89
  delay test for boundary-scan based archits. *(Korean)* 21272
  Demand Priority MAC protocol for 100 Mb/s LANs 25043
  DFT/BIST hardware, chip-based, control strategies 9805
  diagnostic models standardisation for syst. test and diagnosis 34352
  distrib. syst., SCADA syst. spec./anal., IEEE std. 27175
  DoD Automatic Test Systems appls. 35416
  dry type/general purpose transformers, insulation thermal endurance, IEEE std. 27781
  dual IEEE 1149.1 compliant multi-chip modules 6462
  elec. utility harmonics reduction efforts, tariff-based 26993
  environ. stress testing, boundary-scan 5591
  FDDI workstation cluster, meas. 33496
  FIFO design for high-speed network interface 33491
  Futurebus+ cache coherence protocol verification 41811
  Futurebus+ machine-executable spec., interoperability improvement 9000
  generalises DQDB protocol for improved medium access control 33447
  global participation in IEEE stds. prep. 20207
  GPIB compliance testing, large test/meas. company 34376
  GPIB-controlled VXI systs. perform. improvement 34377
  guaranteed bandwidth protocol, connection-oriented data service in DQDB simul. 2909
  hierarchical testable digital architecture 37687
  HIST hierarchical self test for chips/boards/systs. 25725
  HP2100 computer in US Navy test sets, replacement 35380
  HV fuses/switches, design tests, IEEE Std. 44236
  IEEE 1149.1 Standard backplane test bus extension 9797
  IEEE 1149.x family of stds. 9810
  IEEE 802.12, Demand Priority and multimedia 16664
  IEEE P1149.5 standard module test and maintenance bus 42702
  IEEE Standard, boundary scan archit. 42698
  image processing An EDDM based toolset 41305
  internetworking archit. for integrated voice and data commun. 9007
  ISLAN interface, MAC/PHY layers, IEEE std. 24984
  ITC test conference, USA (1993) 36853
  MC68060 μP testability 6161
  MCM ASEM foundry, testing methodology 29731
  MCM defects, algorithmic diagnosis, IEEE 1149.1 std. 21698
  model implement. for design proc. automation 28944
  Nat. Electrical Safety Code, 1994-5 interps. 27224
  navigating test access in electronic systs. 9806
  no slot wasting bandwidth balancing of TAR bit 8985
  oscilloscope specs. 42868
  P1149.5 MTM-Bus, backplane test/init. interface 9807
  P1394 serial bus std. specs. 41751
  PCB manufacture, defects, fault coverage, yield and cost 6413
  PCN, distributed paths migration 9363
  petroleum terminal ASDs, power quality issues 5413
  piezoelec. material consts. determ., improved resonator method 30580
  power cable installation, guided boring method, IEEE Guide 35669
  power cables, insulated, impulse test procedure, IEEE std. 27208
  power syst. short cct. anal., characts. current method 35446
  power transformer impulse testing, IEEE std. 27780
  sampling oscilloscope calibration IEEE-1057 draft standards 25702
  scan testing accel. in IEEE 1149.1 archits. 6077
  SCI fairness protocol for increased throughput 3225
  SCI-LVDS 500 MHz CMOS differential pad drivers 22583
  secondary network protectors, IEEE std. requirements 27273
  short cct. currents, ANSI/IEEE C37.010-1979, IEC 909, comparison 19326
  simul. comparison of broadband networking, MAN config. 16761
  single-failure criterion, NPP safety, IEEE std. 27415
  single-wire analog testability bus, struct. and metrology 6240
  Software Interface for Communication Media, component std. 34349
  std. freq. generators, environ. sensitivities 42663
  stds. develop. proc. streamlining 185
  struct. syst. interconnect test, modeling 9793
  substation fire protection design/equipt., IEEE Guide 36490
  SVC field testing/commissioning, IEEE std. 27878
  timing extraction/control, scan-based, test-access ports 6081
  TRSL std., ProgramGuide implement. 34343
  VHDL synthesis approach to IEEE P1149.5 bus standard 42701
  VHDL testbench, board-level test programs develop. 30421
  VLSI complex devices, low power mode/IEEE 1149.1 compliance 6824
  waveform recorders digitizing, IEEE std. 25912

IETS *see tunnelling spectra; tunnelling spectroscopy*
IEXE *see ion microprobe analysis; X-ray chemical analysis*
IF amplifiers *see intermediate-frequency amplifiers*
IGBT *see insulated gate bipolar transistors*
IGBT switches *see power semiconductor switches*
IGFET *see insulated gate field effect transistors*
ignition
  see also electric ignition
  opt. detect. of ignition sites, semicond. LD appl. 7623
  sens. irrelevancy testing, backward elimination/stepwise regression 11409
  spacecraft engine, microexplosion ignition by head-on collisions 43456
ignitrons *see mercury arc rectifiers*
IGT *see insulated gate bipolar transistors*
II-III$_2$-VI$_4$ semiconductors *see ternary semiconductors*
II-IV-V$_2$ semiconductors *see ternary semiconductors*
II-VI semiconductors
  blue-green emitters, failure mechanism 14630
  blue-green LEDs, high-brightness on ZnSe substrs. 23052
  bulk II-VI substrs., improved quality for HgCdTe and HgZnTe epitaxy 37421
  CdTe detector syst. develop. 18314
  compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
  conference, semiconductors for room-temp. radiation detectors, USA (1993) 28268
  conference, vapour growth/epitaxy, Freiburg, Germany (1994) 20217
  contactless method for measuring bulk resist. 9993
  Cs$_2$Te film photocathode electron source for Los Alamos advanced FEL 39943
  electron-beam-pumped laser emitters, microrelief mirrors 1929
  electronic materials, conf., Boulder, CO, USA (1994) 36873
  film growth, MOVPE, MBE, MOMBE, photoassistance effects 28762
  MBE, in-situ charactn. 20908
  MBE layers, cond. meas., contactless microwave method 42908
  MOVPE, conf., Yokohama, Japan (1994) 11533
  MOVPE optoelectronic device technol. 28747
  nonparabolic semicond. superlattices, Einstein rel., mag. quantization 29936
  optoelectronics, II-VI semicond. microstruct. 14577
  PbSnSe photodiodes, computer modeling of carrier transport 7461
  quantum well struct., exciton linewidth 6564
  TFEL devices, energy transfer 7469
  thin film PV 22993
  wide-gap, MOVPE, optoelectronic appls., review 20887
  ZnSe polycryst., solid switches, electron-beam controlled 21609
  Ag-CdS-fluorinated polymer jn., elec. props. 13244
  AlGaAs semicond. diode laser for lightweight laser commun. terminal 17297
  Au/CdTe/Au, impurity level energy effect 1185
  Au/Zn$_{0.4}$Cd$_{0.6}$Te:In solar cell, fab./charact. *(Korean)* 19985
  Au/ZnCdTe, electroless Au film deposition 37465
  Au/n-ZnSe contacts, BEEM 22048
  Bi/ZnO, interface form., model varistor grain boundary 6578
  p-Cd$_x$Hg$_{1-x}$Te epitaxial layers, electron mobility 13070
  Cd$_x$Hg$_{1-x}$Te epitaxial layers, laser irrad., photoelectrical props. 14585
  Cd$_x$Hg$_{1-x}$Te/CdTe epitaxial struct., carrier recomb., microwave method 21943
  Cd$_{1-x-y}$Mn$_x$Hg$_y$Te single cryst. opt. isolators for high power LD pumping 3556
  CdMnTe magnetic field sensor, fibre optic laser deposited 25858
  CdO/CdTe thin film solar cells, prep./props. 5229
  CdS, colloidal microcrystallites, CW self-focusing/PM 31531
  CdS crysts. for IR imaging/detect., RT IR quenching 17794
  CdS electrophotographic discharge, surface-depletion discharge model 22997
  CdS epitaxial films, pulsed laser deposition 358
  CdS film CPW, high-refl. 30 GHz grating struct. 29529
  CdS, film, chem. bath deposition, props. 28799
  CdS, film, chem. deposition, struct., props., solar cell appl. 28798
  CdS films, CO dual cond. response 1287
  CdS films, electro-opt. charactn. 1039
  p-CdS films, pulsed laser deposition, p-n jn. PV effect 37483
  CdS films, vap. deposition, flow effects 28833
  CdS low-resist. thin films, chem. vapour transport method 12180
  CdS, nonlin. dyn. of opt. switching fronts 23451
  CdS, opt. bistability, opt. oscills., internal switching delay 23425
  CdS, optoelectronic charactn. by photothermal deflection 38229
  CdS passiv. layers on Hg$_x$Cd$_{1-x}$Te, charactn. 13361
  CdS quantum dot/glass filters, sol-gel method 7445
  CdS quantum dots, femtosecond dephasing determined by nondegenerate four-wave mixing 31535
  CdS, semicond. quantum dots, nonlin. opt. props. study 15143
  CdS sprayed thin films, opt. and elec. props. 21902
  CdS thin film p-type/n-type light emitting/LD 14978
  CdS thin films, chem. bath deposition, impurity phase 12135
  CdS thin films, opt. bistability, luminesc., DP device archit. 40032
  CdS thin-film sens., chemisorbed O$_2$ detect. 34611
  CdS waveguide cavity microlaser, losses, spectrum crevasse appearance 39862
  CdS/CdTe, sintered solar cells, InSnO electrode, PV props. 11295
  CdS/CuInSe$_2$(011) heterointerface, form., electronic props., XPS obs. 21951
  p$^+$-n-CdS/InP solar cells, space appl., projected efficiency 19989
  (CdS)$_x$-(PbS)$_{1-x}$ thin-film composites, prep., props. 20913
  p-CdS(Cu)/n-CdSe heterojunctions, PV charact. 6545
  CdS$_{1-x}$Se$_x$ hexagonal alloy films, epitaxial growth, photolum. 20882
  CdS$_x$Se$_{1-x}$ crysts., free carriers polariz. dyn. 21903
  CdS$_{1-x}$Se$_x$-doped glass waveguide couplers, nonlin. opt. perform. 14466
  CdS$_x$Se$_{1-x}$-doped glass, energy level struct., opt. bistability 31598
  CdS(Te), environ. benign vac. deposition, air-to-vac.-to-air technol. 28824
  CdSbTe RF sputtered films, struct./opt./elec. props. 38260
  CdSe, MOMBE-ALE, growth kinetics, opt. probing method 20909
  CdSe, MOMBE-ALE, surface react., opt. probing method 20697
  CdSe, MOVPE, precursor gas monitoring by photolum. 34617
  CdSe epitaxial films, pulsed laser deposition 358
  CdSe films, pulsed plating, photoelectrochem. behaviour 37468
  CdSe, metalorganic VPE/MBE growth, opt. monitoring 20725
  CdSe nanocryst/ZnSe matrix II-VI quantum dot composites, electrospray OMCVD prep. 20946
  CdSe quantum dots, electron-phonon coupling/phonon confine. 29903
  CdSe quantum dots, electrospray OMCVD 5860
  CdSe quantum wells, single-shot lasing, microscopic studies 23299

II-VI semiconductors continued
CdSe thin film sens., chemisorbed O_2 detect. 34611
CdSe thin films, elec. props., CO_2 gas sens. appls. 3898
CdSe, ultrafast exciton dyn. in direct gap semicond. 1032
CdSe:In, n-type, hopping cond., two-param. scaling 21922
CdSe/metal low cost Schottky barrier solar cells 5219
CdSe-ZnSe quantum well lasers, photopumping, spectral/spatial resoln. 39753
CdSe-doped glass thin films, ion-beam sputtering method 37507
$CdSe_xS_{1-x}$, ultrafast exciton dyn. in direct gap semicond. 1032
CdTe, MBE facility, two synchronized modulated beams 37390
CdTe MBE, two-zone effusion source 20812
CdTe X-ray detector, photodecay 18409
CdTe based MISIM struct., photoelec. phenom. 6581
CdTe bulk substrs., intrinsic defects, vacancies, dangling bonds 38255
CdTe, cryst. growth from melt 20658
CdTe, crystn. in presence of convective flows in melt 294
CdTe, detector grade, crystallograph./metallurg. charact. 43102
CdTe, detector grade, doping, compensation 43103
CdTe detectors, afterglow effects 4211
CdTe detectors array, X-ray security imaging 43158
CdTe detectors, γ-ray spectra, charge trapping, ballistic deficit effects 18319
CdTe detectors responses to pulsed X-rays, growth method effects 43083
CdTe detectors, semi-insulat. material prep., internal field distrib. 4212
CdTe, elec. cond., thermo-EMF, high press. effects 13059
CdTe electrodeposited films, SCLC 29862
CdTe electrodeposited films, grain boundaries, opt. meas. 28805
CdTe epitaxial films, pulsed laser deposition 358
CdTe gamma-ray spectrometers perf. 43159
CdTe γ-rays detector simul. 43084
CdTe hemispherical detector response matrix generation 18317
CdTe, metalorganic VPE, situ laser reflectometry 20726
CdTe microcrystallites in CaF_2 thin film, nonlin. opt. prop. 40027
CdTe, monocrystalline films, ICB epitaxy *(Chinese)* 5813
CdTe nanostructures, opt. studies 1793
CdTe on GaAs and Si substrs., OMVPE 37452
CdTe passiv. for long-wavelength HgCdTe photodiodes, elec. props. 1277
CdTe, planar detectors, pulse proc. 43086
CdTe polycryst. thin film solar cells, micro/nanostructs. 27940
CdTe polycryst. thin-film solar cells 27938
CdTe, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
CdTe, surface reactivity, H 22241
CdTe thin films, trapping params., SCL cond. 29847
CdTe, traveling-solvent method growth, pseudo-steady-state calc., computer simul. 20652
CdTe, travelling heater growth, Te inclusions, thermal field effects 5809
CdTe wafers, thermal annealing, Te precip., Raman scatt., cathodolum. 38466
CdTe:Cl, I-V characts., detector appl. 43087
CdTe:Cl, X-ray detector material, deep levels, PICTS study 43156
CdTe:Cl, elec./opt. props., detector appl. 43085
CdTe:Ga, diffusive doping, photolumin. obs. 22147
CdTe:I, doping, interact. between I in closed tube diffusion 13316
CdTe:In, MBE growth/In doping 30057
CdTe:In opt. switch 1550-nm sig. photonic sampler 42131
CdTe:In photolum., stoichiometry effect 38513
CdTe:N MBE films, photolum. and p-type cond. 1038
CdTe:Ti(V), charactn., time depend. charge meas., PICTS 30020
CdTe:V, spectrosc. and photorefr. investig. 14583
CdTe:V,Z,Cl, Bridgman/traveling heater grown, detector appl. 43101
CdTe/$Cd_{1-x}Mg_xTe$ quantum wires, wet chem. etched, photolum. efficiency study 38331
CdTe/CdMgTe quantum wells, ion implant.-induced interdiffusion 13290
CdTe/CdMnTe MQW, low temp. mobility limiting defects 1087
CdTe/CdMnTe QW, mag. polaron states 38363
CdTe/CdS/Au/Cu heterojunction solar cell/ohmic contacts syst., Cu effects 20001
CdTe/CdZnTe MQW SEED, RT photorefr. effect 30990
CdTe/CdZnTe, accelerated crucible rot. growth 5804
CdTe/CdZnTe superlattices, interdiffusion coeff. meas. 29935
CdTe/GaAs(100) heterojunction growth, Si interface layers 21966
CdTe/InSb heterointerfaces, temp. gradient vap. transport deposition, interfacial layer form. 371
CdTe/InSb/Au Schottky diodes, bias depend. barrier heights 38797
CdTe/Ni-P, stable ohmic contact form., P diffusion from Ni-P 13225
CdTe/ZnTe/GaAs, hot wall epitaxy, elastic strain effects 20841
CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
CdTe-In ohmic contact, elec./struct. props. 38375
CdTeSe:Cl, elec./opt. props., detector appl. 43085
$(CdTe)_1(ZnTe)_2$/ZnTe short-period-superlattice MQW, above-barrier excitons 1086
CdZnSe/ZnSe blue/blue-green lasers, microgun pumping 31386
CdZnSe-ZnSe strained layer superlattice disordering, diffusion/ion implant. *(Japanese)* 38339
CdZnTe on Si, direct MBE growth for large-area HgCdTe IR FPA appl. 375
$Cd_{0.9}Zn_{0.1}Te$ single cryst. radiation detectors 18318
$Cd_{1-x}Zn_xTe$ radiation detectors 43104
CdZnTe:In, thick plasma gratings, local photorefr. effect 22777
$Cd_{1-x}Zn_xTe$:In, pure and doped, doping induced defects, photolum. obs. 22142
p-$Cd_{0.95}Zn_{0.05}Te$/metal contacts, elec. props. and contact metall. 13226
CdZnTe(100)/ZnTe(100), MBE growth on Si(100) 37423
Cs_2Te photocathode electron source for Los Alamos advanced FEL 39944
CuCl semicond. biexciton and exciton systs., fs coherent transients 23367
GaAs substr., struct., interfacial studies 302
GaAs thin semicond. samples, EM simul., 2D TLM method, device models 30207
GaAs/InGa(Al)As(ZnSe) heterostruct., phase stabil. and mech. defects under press. 38289
(Hg,Cd)Te LPE layers, comp. profiles 5823
(Hg,Cd)Te films, isothermal VPE growth, morph. orient. depend. 326
(Hg,Cd)Te, metalorganic VPE, methyl(allyl)telluride Te precursor 20792
(Hg,Cd)Te:In, diffusion and elec. activity 6621
(Hg,Mn)Te films, MOVPE, GaAs substr. 20891
HgCd(Mn)Te gapless semiconds., hole thermal emf, temp. depend. 1049
n-$Hg_{1-x}Cd_xSe$, thermoelec. fig. of merit 21919
p-HgCdTe, Au ohmic contacts, low specific contact resist. *(English)* 38381
HgCdTe FTIR temp. depend. emissivity, pyrometer develop. 25987
HgCdTe IR Earth-imaging array, total dose and proton testing 17960

II-VI semiconductors continued
HgCdTe IRFPA perform. anal., syst. adaptability 17951
HgCdTe IRFPAs, IRCCD and IRCMOS detectors 17950
HgCdTe, LPE-grown, photovoltaic detectors charact. 34505
HgCdTe, MBE growth on CdZnTe for IRFPAs 12096
HgCdTe MBE technol., chem. doping 37422
HgCdTe, MOCVD layers, excess carrier lifetimes 38254
HgCdTe MSM detector, defect mapping by nuc. microprobe 42800
HgCdTe MWIR image sens., thermoelectrically cooled 17944
HgCdTe PV lin. FPA for Cassini IR spectrometer 17949
HgCdTe VPE growth, long wavelength IR detector, zero tunnel leakage current 12097
HgCdTe bulk wafer-based two-colour IRFPAs, design/fab. 17943
HgCdTe detector, multi-element lin. arrays, SR topography *(Chinese)* 17796
HgCdTe diode, room temp. electrolum. 1825
HgCdTe direct injection readout hybrid FPA, background limited perform. 17945
HgCdTe, film, hot wall MOCVD, Hg distrib. coeff. *(Chinese)* 6527
HgCdTe films, growth by MBE, ellipsometry 5819
HgCdTe heterojunction photodiodes, built-in elec. field 14612
HgCdTe layers on GaAs substr., MOVPE, autodoped Ga conc. reduction 20893
HgCdTe long wavelength IR PV detectors 42795
HgCdTe, long-wavelength photodiodes, n^+-p vs. p-n structs. 39571
HgCdTe longwave IR scanning FPAs, CMOS readout IC, surveillance appls. 17947
HgCdTe monolithic CCD IR imagers 17965
HgCdTe photodetector array, variable area diode data 25837
HgCdTe photodiodes, MBE-grown, DLTS deep levels study 13060
HgCdTe photodiodes, long-wavelength IR appls. 17785
HgCdTe, quench recrystn. growth 5805
(HgCd)Te semicond., bulk/2D conductivities 13067
HgCdTe, surface passiv. by electrochem. proc. *(Korean)* 30110
HgCdTe varactor photodetectors for space-borne wind lidar, heterodyne tech. 34162
n-$Hg_{0.8}Cd_{0.2}Te$, hot electron transport, genetic algms. 38247
$Hg_{1.}Cd_xTe$ cryst. growth, travelling heater method 5806
$Hg_{1-x}Cd_xTe$ ($x\sim0.2$) grown by THM in (111) direction, twinning effects 37383
$Hg_{1-x}Cd_xTe$, IR detector appls., comparison, MQW structs. 9911
$Hg_{1-x}Cd_xTe$, IR detectors, temp. limits 42811
$Hg_{1-x}Cd_xTe$, LPE layers, liq. temp., Hg press. effets 28780
$Hg_{1-x}Cd_xTe$, LPE, new graphite substr. holder 12084
$Hg_{1-x}Cd_xTe$ MIS IR detectors, 1/f noise, temp. depend. 17768
$Hg_{1-x}Cd_xTe$ MSM IR detectors, nuc. microprobe defect anal. 29987
$Hg_{1-x}Cd_xTe$, accelerated crucible rot. growth 5804
$Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
$Hg_{1-x}Cd_xTe$ epitaxial layers, (100) CdTe substrs., CVT, normal/reduced gravity expts. 20892
$Hg_{1-x}Cd_xTe$, hole scatt. mechanisms 13063
$Hg_{1-x}Cd_xTe$, narrow-gap, laser emission 14894
$Hg_{1-x}Cd_xTe$ photodiodes, IR focal arrays 42785
$Hg_{1-x}Cd_xTe$, LPE growth, new develop. 12083
$Hg_{1-x}Cd_xTe$, MOVPE, elec. props. 13053
$Hg_{1-x}Cd_xTe$, p^+n jn. photodiodes, deep defect levels *(Chinese)* 14605
$Hg_{1-x}Cd_xTe$, stable-state photoconductive/transient decay response *(Chinese)* 14584
$Hg_xCd_{1-x}Te$, IR detectors, temp. limits 42810
$Hg_xCd_{1-x}Te$, passiv. by anodic sulphidation, CdS layer charactn. 13361
HgCdTe:B,In, multi-step RTA 6606
$Hg_{0.3}Cd_{0.7}Te$:B photodetectors, LPE/ion implant., fibre optic appl. 3830
$Hg_{1-x}Cd_xTe$:I, MBE grown, n-type doping 6611
$Hg_{1-x}Cd_xTe$:B large-area PV IR detector, fab. *(Korean)* 17771
HgCdTe/CdZnTe, tensile and compressive stress, misfit disloc. microstruct./kinetics 21952
$Hg_{1-x}Cd_xTe$/GaAs two-jn. monolithic cascade solar cell 20009
$Hg_{1-x}Mn_xTe$/CdTe film, VPE, component interdiffusion 296
$(Hg_xMn_{1-x})Te$/CdTe(CdZnTe) heterointerfaces, misfit disloc. 21953
HgSe:Fe crysts., inelastic electron scatt. 1047
HgTe, metalorganic VPE, situ laser reflectometry 20726
HgTe/CdTe superlattices, etching, STM study 22161
$Hg_{0.85}Zn_{0.15}Te$, surface comp., chem. treatment effects 13360
In/n-$Hg_{1-x}Cd_xTe$ contacts, modified sheet resist. 38416
In-ZnTe Schottky diodes, RF sputtered, elec. props. 30215
$InAs_{1-x-y}Sb_xBi_y$/InSb strained heterostruct., phys. props. 21965
In_2O_3/CdS/$CuInS_2$ thin-film solar cell, 9.7% efficiency 19997
In_2O_3/ZnSe/In heterostruct., I-V charact. 29883
In_2O_3-ZnSe-$(Zn_{1-x}Cd_xTe)_{1-y}(In_2Te_3)_y$ heterostruct., current transport 21963
In_2O_3-ZnSe-CdTe-In, injection-contact phenom. in sub-micron layers 38313
In_2O_3-ZnSe-In, injection-contact phenom. in sub-micron layers 38313
InP Gunn diode self-oscillating mixer for 90-GHz MM-wave receiver 21546
MgZnSSe/ZnCdSe lasers/LEDs, thermal annealing 23051
$Mg_xZn_{1-x}Se$ mixed crysts., high press. Bridgman growth method, luminesc. 31072
MnTe/CdTe multilayers, interlayer correl., helical spin ordering 7046
α-PbO film, electrochem. anodic oxid. 1273
PbS nanoparticles embedded in polymer film, gas-aerosol reactive electrostatic deposition 20951
PbS/CdS superlattices, pulsed laser evap., opt. props. 13168
PbTe, MBE growth 5847
PbTe/$Pb_{1-x}Eu_xTe$ multi-quantum wells, MBE growth 5847
SiO_2/ZnS:Mn, AC electrolum. devices, prep. 20948
(Zn,Cd)(Se,S) quantum well laser heterostruct., opt. waveguide confine. 14900
(Zn,Mg)(S,Se):N green/blue LD, ohmic contact/transport props. 39827
$Zn_xCd_{1-x}S$, MOVPE, photo-assisted growth and charactn. 28764
$Zn_xCd_{1-x}S$:N, metalorganic vap. phase epitaxy growth, photo-assistance 20789
ZnCdSe QW LD, gain/Coulomb-correl. electron-hole pairs 31336
ZnCdSe based II-VI heterostruct. for blue-green lasers, structural props. 23293
$Zn_{0.3}Cd_{0.7}Se$, metal-insulator transit., persistent photocond. meas. 29851
$Zn_{1-x}Cd_xSe$ polycryst. thin films, electron beam evap. growth, elec. props. 1030
ZnCdSe/Zn(S)Se LEDs, emission efficiency improvement by thermal annealing 39587
ZnCdSe/ZnMgSSe strained layer quantum well blue-green lasers, opt. gain 39755
ZnCdSe/ZnSSe/ZnMgSSe LD struct., cpd.-source MBE 12081

II-VI semiconductors continued
ZnCdSe/ZnSSe/ZnMgSSe blue/green diode lasers, elec. props. 23267
ZnCdSe/ZnSe MQW, photocurrent/absorpt. spectrosc. 29910
ZnCdSe/ZnSe, QW, exciton recomb. dyn. 38321
p-ZnCdSe/ZnSe:N, tilted substrs. effect 22155
$Zn_{0.9}Cd_{0.1}Se/ZnTe_{0.1}Se_{0.9}$ blue/green LEDs 23028
$Zn_{1-x}Cd_xSe/ZnSe$ quantum wells in p-i-n heterostruct., photocurrent study 1127
$Zn_{1-x}Cd_xSe/ZnSe$ quantum wells, excitons, picosecond dyn. and stimulated emission 13182
ZnCdSe-ZnSSe-ZnMgSSe blue-green vert. cavity SCH SELs 14946
ZnCdSe-ZnSe SQW LEDs, MOCVD growth, blue-green emission 23031
ZnCdSe-ZnSe superlattices, stimulated blue light emission mechanisms *(Japanese)* 38340
$Zn_{1-x}Cd_xSe$-ZnSe superlattice, reson. Raman scatt. and photolum. 38319
ZnCdTe, electron-hole plasma, refr. index, opt. nonlin. 15107
$Zn_{1-x}Hg_xSe$, electrochem. deposition, EPMA, XRD 28802
ZnMgSSe MOVPE on GaAs substr. 20785
ZnMgSSe blue LED, current injection, defects 31098
ZnMgSSe blue diode lasers/optoelectronic devices, MBE growth 7664
ZnMgSSe, blue-green LD, MBE, charactn. 12085
ZnMgSSe/ZnSSe/ZnCdSe blue-green diode lasers, degrad. 39884
ZnMgSe, mol. beam epitaxial doping, $ZnCl_2$ 38479
ZnMgSeTe:N,Cl, MBE, doping, diode electrolum. 22151
ZnMgSeTe/ZnMgSe LED 14622
$Zn_{1-x}Mg_xTe$ layers, MOVPE growth 20786
ZnMnTe(111)/(100) on GaAs, epitaxial growth on pulsed laser deposition 28760
ZnO, ECR sputtered thin films, opt. atten., resist. 28800
ZnO dense non-ohmic electrode, humidity sensitive elec. props. 34457
ZnO, film, RF magnetron sputtering on InP, material props. 37464
ZnO, film, pulsed laser deposition, charactn. 12146
ZnO films on InP substrs., SAW device fab. 39121
ZnO films on diamond (111), heteroepitaxial growth, magnetron sputtering 368
ZnO films, spray pyrolysis prep., opt. and elec. props. 12143
ZnO films, thermal evap. 28856
ZnO, multicomponent varistors, Cr_2O_3 effect, pre-breakdown elec. props. 12828
ZnO multilayer chip varistor, LV transient suppression 29607
ZnO, multilayer-chip varistors, elec. props., moist environ. 12833
ZnO thin film, spray pyrolysis, deposition variables effect 12142
ZnO thin films, nanocrystalline, casting 13073
ZnO thin films, pulsed laser deposition, laser wavelength and fluence effects 28834
ZnO varistors, Bi_2O_3 nonstoichiometry, nonlin. property 869
ZnO varistors manufacture, seed grains/ threshold voltage rel. 29608
ZnO varistors, polariz. currents 6812
ZnO varistors, positron annihil., local electron dens., defect conc. 38257
ZnO:Al thin films, ALE growth from organometals 20667
ZnO:Al transparent films, sol-gel prep., elec./opt. props. 5855
ZnO:Al(Ga), doping epitaxial layers, chem. transport growth 38512
ZnO:Ga varistor, grain boundary, Ga donor doping 6345
ZnO/CdS interface, valence band offset, photoemission studies 6547
ZnO/n-Si jn. solar cells, spray-pyrolysis method 44397
ZnO-Bi_2O_3 varistors, proc. variables, grain growth, microstruct. 21584
ZnO-PLZT TFT on ferroelec., operation phys. 39115
ZnO(0001), photoinduced CO desorpt./adsorpt. 20715
ZnS, MBE on GaAs(001), struct., opt. props. 20807
Zn(S,Se):N green/blue LD, ohmic contact/transport props. 39827
ZnS epitaxial films, pulsed laser deposition 358
ZnS, epitaxial layers on (100) GaAs, ALE 28769
ZnS, excimer laser ablation, blast-wave studies 30079
ZnS film MBE on arsenic passivated silicon surfaces 37451
ZnS, high field electron transport, Monte Carlo simul. 21909
ZnS, low temp. MBE on GaAs, hot mol. beams *(Japanese)* 37413
ZnS low temp. epitaxial deposition, (100)Si by RF magnetron sputtering/MBE 303
ZnS thin film opt. waveguides, SHG study 22908
ZnS:Mn RF-magnetron sputtered films, breakdown 1507
ZnS:Mn, evaporated ACTFEL devices, band-to-band impact ionization 39577
ZnS:Mn/$BaTiO_3$ LV driven electroluminescent device, fab./characts. *(Korean)* 31094
ZnS:Mn/Cu_xS, electrolum. cells, Cu-Mn energy transfer 23023
ZnS:Mn/Si_3N_4/$BaTiO_3$ AC TFEL device, insulating thin film props. and fab. *(Korean)* 31095
ZnS:Pr white light emitting electrolum. devices, ALE 31092
ZnS:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
ZnS/GaAs epitaxial layer syst., vapour phase epitaxy, residual and thermal strain 38307
ZnS/GaAs heterostruct., H transport VPE, struct. anal. 37393
$ZnS/ZnS_{0.12}Se_{0.88}$ superlattices, MBE grown, opt. charactn. 38327
ZnS/ZnSe superlattices, opt. props., elec. struct., exciton binding 38347
ZnS/ZnSe/GaAs(100) superlattices, photo-assisted VPE growth 38322
ZnS-ZnSe superlattices, electronic states and binding energies 13194
ZnS-ZnSe-ZnS/GaAs(100) SQW, photo-assisted VPE growth 38322
ZnS-ZnTe/GaAs MQW on refl. at RT, picosecond opt. bistability 38353
ZnSSe:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
$ZnS_{0.07}Se_{0.93}$:Cl/Yb(Al)(Cr)(Cu)(Au)(Pd), Schottky contacts, elec. props. 38401
ZnSSe/ZnSe superlattices, excitonic procs. and lasing 29912
ZnSSe/ZnSe/CdZnSe LED films, substr. transfer proc. 31105
$(ZnS)_3(ZnSe)_{42}$:I, ALE grown, carrier transport props. 38259
ZnSe, ALE, using reflectance difference spectrosc. 20695
ZnSe HV switches, time-resolved impact ionization 27840
ZnSe MBE, nozzle-beam-type microwave radical source 28787
ZnSe, MOMBE-ALE, growth kinetics, opt. probing method 20909
ZnSe, MOMBE-ALE, surface react., opt. probing method 20697
ZnSe MOVPE, ditertiarybutylselenide/methylallylselenide thermal dissoc. effect 20888
ZnSe, MOVPE from allyl selenide and trialkylphosphine selenide precursors 20784
ZnSe MOVPE growth, O and Te impurities effect 20890
ZnSe OMVPE growth, diisopropyl selenide and diethyl zinc 20838
ZnSe Schottky diode, seeded phys. vap. transport, DLTS study 13594
ZnSe alloys, MBE, achieve RT CW LD 20906
ZnSe based LD with ZnMgSSe cladding layers, characts. 23292
ZnSe based struct., epitaxial lift-off tech. 28756
ZnSe blue quantum-well SCH diode laser, 463 nm 7617

II-VI semiconductors continued
ZnSe blue-green LD for optoelectronics 23291
ZnSe crysts., melt growth, twin reduced 291
p-ZnSe elec. contacts, I-V charact. 1150
p-ZnSe, elec. contacts based on HgSe and ZnTe 29891
ZnSe epitaxial films, pulsed laser deposition 358
ZnSe epitaxial layers, low-temp. cond. in impurity band regime 1046
ZnSe epitaxial layers, material quality assess. 13362
ZnSe epitaxial layers, pulsed laser deposition, struct. and opt. props. 28759
ZnSe epitaxy on GaAs (100), ICB *(Chinese)* 37403
ZnSe films, MOVPE on GaAs, in situ opt. monitoring 12045
ZnSe films, nucleation on GaAs(001):Se-(2×1) 20855
ZnSe, low temp. MBE on GaAs, hot mol. beams *(Japanese)* 37413
ZnSe, metalorganic VPE/MBE growth, opt. monitoring 20725
ZnSe, ohmic contacts optim. by parab. grading of $ZnSe_{1-x}Te_x$ comp. 21973
ZnSe, p-type doping, Li_3N diffusion 1229
ZnSe, photoassisted metalorganic vap.-phase epitaxy on GaAs 28763
ZnSe, phys. vap. transport, mass flux 20659
ZnSe, press.-induced semicond.-metal transit. 21912
ZnSe pulsed power photoconductive switches, elec. field studies 36437
ZnSe pulsed power switches, electron-beam controlled 36450
ZnSe semicond. lasers, linewidth enhancement factor and nonlin. gain 23224
ZnSe single crysts., photolum. meas. *(Japanese)* 39560
ZnSe thin film opt. waveguides, SHG study 22908
ZnSe thin films, chem.-bath deposition, material charactn. 28793
ZnSe transparent IR opt. elements, photothermal meas. 2037
n-ZnSe:Cl, doping characts. 21921
ZnSe:Cl epilayers, deep defect conc., after growth treatment effects 29850
ZnSe:Cu, kinetic coeffs., high-temp. anoms. 1050
ZnSe:I, VPE growth, I incorporation 5848
ZnSe:I jn. devices, thermionic behavior studies 28026
p-ZnSe:N, MBE growth/opt. props. 22154
ZnSe:N, MOVPE growth, cathodolum. charactn. 20788
ZnSe:N, N-doping effects 38508
p-ZnSe:N, doping characts. 21921
ZnSe:N green/blue LD, ohmic contact/transport props. 39827
ZnSe:N, metalorganic VPE grown, p-type cond., annealing 38473
ZnSe:N p/n jn. diodes, metalorganic vap.-phase epitaxy 20787
ZnSe:N, photoassisted doping, ethyl azide 1224
ZnSe:N(Cl), film, GSMBE, H-passiv. effects 28754
ZnSe:N,C,H, plasma-stimulated low-press. metalorganic vapour phase epitaxy syst. 20791
ZnSe:N,H, metalorganic chem. vap. deposition, nitrogen source materials 20944
ZnSe:Te,N, N-doping effects 38508
p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413
ZnSe/GaAs heterostruct., MBE growth, high-resoln. XRD 21960
ZnSe/GaAs heterostruct., deep level electronic struct. 38301
ZnSe/GaAs interfaces, band bending, Raman study 38283
ZnSe/Ge/GaAs, lattice matched HBT, DC/AC charact. 13631
ZnSe/InGaAs/GaAs, lattice matched HBT, DC/AC charact. 13631
ZnSe/InP, HJFET, MOCVD fab., characts. 13776
n-ZnSe/Sb Schottky barriers, I-V props./SEM/XPS/SIMS/Auger spectra 30100
ZnSe/ZnCdSe quantum wells, coherent exciton lasing 31381
ZnSe/ZnCdSe/ZnSe MQW device, opt. modulation and switching 25539
ZnSe/ZnMgSSe DH blue LD, operation and dyn., room temp. 31378
ZnSe/ZnMgSSe DH laser, photopumped lasing props., MOCVD-grown, cavity length depend. 14942
ZnSe/ZnMnSe MQW structs., MBE, opt. props. 28744
ZnSe/ZnMnSe, QW, exciton recomb. dyn. 38321
ZnSe/ZnS strained layer superlattices, MOVPE growth and opt. charact. 12124
$ZnSe/ZnS_xSe$ superlattices, interface sharpness, MOVPE growth 20793
ZnSe/ZnSSe symmetric superlattices, radiative mechanisms 29911
p-ZnSe/ZnSe:N, tilted substrs. effect 22155
ZnSe/ZnTe double-barrier struct., time-depend. tunneling anal. 38323
ZnSe/ZnTe vis. light emitting laser, MOVPE growth 31311
ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, SHG generation 22908
ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, phase matched SHG 39442
ZnSe-CdZnSe MQWs, excitonic opt. nonlin., opt. bistability 40029
ZnSe-GaAs growth rate, surface state depend. 37391
ZnSe-GaAs(001), heterojunctions, band-offset transitivity lack 1107
ZnSe-Ge(001), heterojunctions, band-offset transitivity lack 1107
ZnSe-Si(GaAs) solar batts., photosensitivity spectra, ZnSe layer effect 5222
ZnSe-ZnMgSSe-ZnMgSSe blue diode lasers 1966
ZnSe-ZnS QW, nonlin. refr. index, nonlin. absorpt. coeff. 40030
ZnSe-ZnS, strained-layer superlattices, absorpt. spectra, electronic struct 38245
ZnSe-ZnS superlattices opt. waveguide, opt. bistability 39380
ZnSe-based LED, low-press. MOVPE 23043
ZnSe-based MOVPE and MBE grown LEDs 23050
ZnSe-based QW LEDs, MBE growth 37444
ZnSe-based SQW blue-green lasers, gain charact. 1951
ZnSe-based alloys, wide-gap II-VI materials, MBE growth, charactn. 20910
ZnSe-based blue-green lasers, conf., Wurzburg, Germany (1994) 20220
ZnSe-based blue-green ternary/quaternary lasers, pseudomorphic waveguides 23297
ZnSe-based laser struct., opt. pumped, exciton dyn. and gain mechanisms 23298
ZnSe-based lasers, cpd.-source MBE 20907
ZnSe-based layer struct. for blue-green LD 23294
ZnSe-based nanostructures, waveguide DFB laser appls. 23296
ZnSe-based vert.-cavity surf. emitting lasers, blue emission 23295
ZnSe(Te):N, doping, first principles calcs. 13317
p-ZnTe, Au/Pt/Ti/Ni ohmic contacts, props. 1153
ZnTe SR excited growth, metalorganic sources 20889
ZnTe, elec. cond., thermo-EMF, high press. effects 13059
ZnTe, electron-hole plasma, refr. index, opt. nonlin. 15107
ZnTe epitaxial growth mechanism on (001) CdTe 37441
ZnTe low-temp. growth, SR 28771
ZnTe thin film opt. waveguides, SHG study 22908
ZnTe:Al,Cl, photo-assisted metalorganic vap. phase epitaxy, photolum. props. 20790
ZnTe:N grown by MBE, N incorporation, Ar dilution in N plasma source 1212
p-ZnTe/p-ZnSe heterointerface, band offset 21941
ZnTe-$Cd_{1-x}Mn_xTe_{1-y}Se_y$ heterojunction, prep./electroluminesc. 37398

II-VI semiconductors continued
ZnTe-ZnSe, strained-layer superlattices, absorpt. spectra, electronic struct 38245
ZnTe(100), MBE growth on Si(100) 37423

III-V semiconductors
8 mm freq. quadrupler, GaAs varactor *(Chinese)* 37907
AlGaAs-GaAs HBT struct., electron distrib., electrolumin. obs. 1355
AlGaAs-GaAs waveguide gratings, polariz.-insensitive outcoupling 7360
AlInAs/GaInAs/InP microwave HBTS, performances 12764
buried heterostruct. on InP, CBE growth 12061
compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
conference, vapour growth/epitaxy, Freiburg, Germany (1994) 20217
CTIA multiplexer for 1024-element InGaAs line sens. 34580
device struct., charactn., modulation spectrosc. 1435
dual-use microelectronics mfg. spec., single/multichip packaging 20453
epitaxial growth, AsH_3, PH_3 decomp. 313
epitaxial growth, dyn. model 37446
epitaxial growth on dissimilar Si substrs. 330
epitaxial growth optim., opt. charactn. 319
FETs, pulsed semicond. param. analyser syst. 1431
$Ga_{1-x}In_xAs$-$InAs_yP_{1-y}$-InP, strain relax., photodiode appl. 12054
$Ga_{1-x}In_xSb$/InAs superlattice diode laser, demons., 3.5 μm 23230
GaAs:C/AlGaAs HBT wafers, MOVPE, AsH_3/trimethylarsenic for base layer growth, perform. comparison 22376
GaAs:Se(100), passivated, oxid. 13373
GaAs:Si, deltalike impurity confine. 38256
GaAs fast opening photocond. switches for pulsed power system 27852
GaAs foundry and MMIC design 21566
GaAs submicron MESFET devices, heat generation and transport 38921
GaAs-AlGaAs monolithically integrated interferometric opt. sens. 1835
GaAs/AlGaAs HBTs with ITO emitter contacts, opt. microwave oscillators 6292
GaAs/AlGaAs pnpn optoelectronic switches, transient modelling 39545
GaAs/AlGaAs proton-implanted top-SEL, series resistence anal. 23207
GaInAs-InP heterostruct., elec. props./interface defects 13103
GaInP/GaAs microwave HBTs, small-sig./noise model extraction tech. 21540
GaSb thermophotovoltaic converter, SiC emitter/burner 27998
hazardous waste minimization, III-V wafer fab. procs. 5716
HBTs, reliab. issues 22386
heteroepitaxial III-V struct. charactn. 21901
heterostructs., selective area epitaxy, XRD charactn. 38311
high speed monolithic IC appls., analog/digital/mixed-sig. ccts. 6817
high temperature electronics, conf., Strasbourg, France (1994) 20219
InGaAs/InGaAsP MQW lasers long wavelength, thermal annealing effects 14869
InGaAsP-InP four-wavelength DBR laser array, selective MOCVD 14960
InP, ALE growth, XRD/Raman Obs. 12052
InP buried heterostruct. on InP, CBE growth 12061
InP-based HBTs, high-speed, design and fabrication 13626
liq. phase electroepitaxy, growth method, basic principles 20870
MBE growth param. control, spectrosc. ellipsometry, feedback control 20737
metal/III-V-semicond. contacts, fab./props. 1162
metal/n-InAs/interlayer/n-GaAs struct., nonalloyed ohmic contact resist. 1154
microelectromechanical systs., III-V semicond. impact 6888
minority carrier lifetime 1041
MMIC broadband act. quadrature phase shifter for mobile commun. 12805
MMIC design, pass. and act. device considerations 29596
MOCVD SEG, math. model 20761
MOVPE, conf., Yokohama, Japan (1994) 11533
MOVPE optoelectronic device technol. 28747
multilayer struct., dry etch monitoring, reflectance modeling 13404
neg. photocond. 29919
nitrides, light-emitting devices, LEEBI treatment 39578
nitrides, SiC and related materials, conf., USA (1993) 28218
nonparabolic semicond. superlattices, Einstein rel., mag. quantization 29936
opt. nutation, mag. field effects 2089
optoelectronic device fab. by CBE 37417
phosphides, III-V cpds., MBE growth, solid P source 28719
photonic devices, clean/fine dry procs. 39809
pulsed-jet epitaxy, device procs. 20669
PV cells, manufacture 5223
quantum well disordering, encapsulant source 29917
quantum-well IR photodetectors, noise perform. 42788
semimagnetic semiconds., carrier-induced magnetism, magneto-opt. device 30679
six-port module for built-in-test applications 25960
space environ., proton irrad. effects, advanced digital/microwave III-V components 12803
strip-loaded waveguide devices for photonic IC 39594
surface passiv., silicon interface control layer 38596
surfaces and metal contacts, ion beam etching, SIMS obs. 13344
ultra fast power diodes, GaAs/Si characts. comparison 29016
ultrahigh-speed IC diagnosis, electro-optic probing 6835
waveguiding devices, adiabatic tapers 7383
GaAs/AlAs superlattice, interface flucts., magneto-transport 13152
-- 30038
Ag MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
(Al,Ga)InP-oxide epitaxial DBR in vis.-wavelength opt. devices 39800
Al/GaAs, interface annealing studies, variable energy positron beam 22041
Al/InP:Be,P, Schottky barriers, improvement by Be/P coimplantation 13209
Al/n-AlGaAs jns., anom. thermionic-field emission 13220
Al/n-GaAs Schottky contacts, prep., charactn. 37522
Al/n-InP contacts, inhomogeneous reaction and Schottky-barrier change 13228
AlAs ALE growth mechanism 20696
AlAs, ALE, role of metalorganic As source 20683
AlAs, C doping, CCl_4 and CBr_4, metalorganic MBE 1226
AlAs, MBE, dyn. surface procs., time-resolved RHEED 20872
AlAs, MBE grown, wet oxid. 1276
AlAs, MOMBE growth, alane precursors 20843
AlAs based microcavity laser, mode behaviour, lasing charact. 39776
AlAs, device quality ALE growth 20665
AlAs epitaxial layers, hydride/chloride systs., thermodyn. aspects 377
AlAs layers, low C content, ALE growth from ethyldimethylamine alane 20680
AlAs, metalorganic MBE growth, reflectance anisotropy spectra 28720

III-V semiconductors continued
AlAs, metalorganic VPE growth, wide terrace form. 20732
AlAs, opt. second-harmonic susceptibilities, opt. activity 7762
AlAs, refr. index, thermal depend., multilayer opt. cavity meas. 15000
AlAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
p-AlAs:Zn, MOCVD for low-resist. VCSEL 23246
AlAs/GaAs DBR VCSEL diode on Si, MOCVD and struct. 39882
AlAs/GaAs RTD with asymmetric spacer layers, capacitance/hysteresis study 38805
AlAs/GaAs VCSEL, cavity and reflector design 31347
AlAs/GaAs heterojunctions, MISFET-type quantum wires, tunable confining pot. 13136
AlAs/GaAs, p-i-n double-barrier reson. tunnelling structs., electrolum. 6722
AlAs/GaAs superlattice on GaAs(001), X-ray standing wave meas. 38367
AlAs/GaAs, triple-barrier reson. tunneling LED, fast opt. induced switching 31107
AlAs/GaAs vert. cavity epitaxial struct., defects, X-ray obs. 14927
AlAs/GaAs/AlAs RTDs, digital logic ccts. *(Korean)* 12427
AlAs/GaAs/As(001) double barrier reson. tunnelling struct., piezoelec. effects 29924
AlAs/GaAs/InGaAs, VCSEL, transverse lasing mode, temp. depend. 39989
AlAs/InGaAs/AlAs RTD with InAs subwell, interface roughness scatt. 13591
AlAs-GaAs luminesc. p-n-i-n^+ dynistor, behaviour 23025
$AlAs_ySb_{1-y}$ ternaries, comp. depend. on ratio of Sb/As fluxes/substr. temp. 37443
AlAsSb/GaAsSb DBR, highly reflective, MBE 15011
$AlAs_xSb_{1-x}$-InAs, modulated MBE growth 12076
AlGaAs, ALE, C-incorporation mechanism 20694
AlGaAs BH photonic devices, melt etching, LPE regrowth 12119
n-AlGaAs, DX levels, carrier conc. saturation effect 29860
AlGaAs HBT cct., manufacturable proc. 1360
AlGaAs HEMT based 5 bit ADC 37821
AlGaAs LD, MBE prod., review 7663
AlGaAs LD based broad beam transmitter for space commun. 17302
AlGaAs LD testing for SILEX program 17299
AlGaAs, MBE-grown, As capping 1286
AlGaAs, MOCVD/MBE on GaAs, elastic consts., Poisson ratio 28752
AlGaAs, MOMBE growth, alane precursors 20843
AlGaAs, MOVPE from triethylgallium and dimethylethylaminealane 20777
AlGaAs MQW, opt. channel waveguides by FIB induced compositional mixing 14452
AlGaAs, RIE 38563
AlGaAs VCSEL, low-temp. operation 14962
AlGaAs, act. waveguide LD, femtosecond band-edge index nonlin. 31337
AlGaAs all opt. switching waveguides, three-photon absorpt. 22912
AlGaAs anti-reson. reflecting opt. waveguide, second harmonic surface emission 39399
AlGaAs asymmetric QWs, mid-IR difference-freq. generation 15108
AlGaAs cascaded nonlin. directional couplers, all-opt. switching 39411
AlGaAs $\chi^{(3)}$ semicond. waveguides, squeeze-state generation 31505
AlGaAs composites, As cluster dispersion, optoelectronic appls. 7456
AlGaAs, device quality ALE growth 20665
AlGaAs diode laser freq. tunable light generation/freq. conversion 23286
AlGaAs diode lasers fabricated, pulsed anodic oxides 31362
AlGaAs, double quantum dot, stochastic Coulomb blockade 29929
AlGaAs, epilayers, MOCVD grown, HRTEM charactn. 20772
AlGaAs film, epitaxial growth, laser reflectometry 28767
AlGaAs, high purity, methyl-based precursors, in situ alkoxide gettering 299
AlGaAs high-power single-stripe LD, window grown on facets *(Japanese)* 39886
AlGaAs lasers, nonplanar MOVPE, lateral p-n jns. containing p-type (311)A facets 1943
AlGaAs lasers with grown opt. facets, metalorganic CVD deposition 20961
AlGaAs layers, liq. phase electroepitaxial growth, GaAs substrs. 20871
AlGaAs layers on GaAs(100), MOVPE, lattice relax. obs. 20747
(AlGa)As, low press. metalorganic vap. phase epitaxy, N_2 carrier 311
AlGaAs mirrors, multilayer struct., opt./X-ray/electron microscopy meas. 1122
AlGaAs, multiplexed diode-laser sens. syst. 7874
AlGaAs, multiwafer MOVPE reactor growth modelling 20795
AlGaAs n^+nn^+ devices, self-heating, noise temp. meas. 38946
AlGaAs near-IR LEDs, failure anal., expt. techs. 39584
AlGaAs nonlin. directional coupler based opt. multiplexing 14463
AlGaAs nonlin. directional coupler, time-domain all-opt. demultiplexing 39377
AlGaAs on GaAs(001), adatom migration, Monte Carlo simul. 21899
AlGaAs, p-doping, triethylamine adduct of dimethylzinc 1206
AlGaAs p-n jns., GaAs(111)A substrs., MBE growth, Si doping 20879
AlGaAs, patterned photon-driven cryoetching 30065
AlGaAs quantum waveguides, neg. differential cond. 6567
AlGaAs quantum well LD, mirror temp., photothermal deflection method 2033
AlGaAs, selective area MOCVD for hexagonal-facet lasers 20766
AlGaAs self-pulsating LD, stabil. enhancement by pass. external cavity 31403
AlGaAs, single mode LD, long duration life tests 39850
(AlGa)As, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
AlGaAs substrs., MOCVD growth 20826
AlGaAs, tunable injection-locked high-power LD array 1926
AlGaAs waveguide design for all-opt. switching 31597
AlGaAs wires, diffusive mesoscopic conductor, reduced shot noise 29927
$Al_{0.35}Ga_{0.65}As$, metalorganic VPE growth, wide terrace form. 20732
$Al_xGa_{1-x}As$ BH LD, MOVPE 23243
$Al_xGa_{1-x}As$ CBE growth, diethylsulphide doping effect 20881
$Al_xGa_{1-x}As$ DBR, reflectivity spectrum 2034
$Al_xGa_{1-x}As$, MBE from Ga_2Se_3 and Ga_2S_3 donor doping sources 37410
$Al_xGa_{1-x}As$, MOVPE growth, intramolecular and intermolecular alane-adducts 345
$Al_xGa_{1-x}As$, avalanche breakdown 1042
$Al_xGa_{1-x}As$, bulk hole transport, Monte Carlo simul. 21905
$Al_xGa_{1-x}As$, disorder-induced intervalley scatt., pseudopot. calcs. 29857
$Al_xGa_{1-x}As$ epitaxy, reflectometer/ellipsometer perform. capabilities for comp. anal. 42959
$Al_xGa_{1-x}As$, facet growth, HCl gas by metalorganic vap. phase epitaxy 20763
$Al_xGa_{1-x}As$, graded p-n jns., capacitance, frozen dopant levels 29887
$Al_xGa_{1-x}As$, high temp. electronics appls. 22528

III-V semiconductors continued
$Al_xGa_{1-x}As$, in-situ etching and selective epitaxy, metalorganic vap. phase growth 20762
$Al_xGa_{1-x}As$, ion implanted, Raman line asymmetry/phonon freq. 38511
$Al_xGa_{1-x}As$ layers on GaAs(001), MBE, in situ reflectance anisotropy 37442
$Al_xGa_{1-x}As$ n^+nn^+ devices, Al content x, effects on hot electron noise 1433
$Al_xGa_{1-x}As$ surface-emitting devices, power conversion efficiency 23029
$Al_xGa_{1-x}As$, wet thermal oxid. studies 1248
$Al_xGa_{1-x}As$, OMVPE grown, elec. charactn. 13223
$Al_xGa_{1-x}As$ depressed cladding semicond. waveguides and lasers, modal props. 14468
AlGaAs:(Si), MBE grown, positron annihilation studies 21915
AlGaAs:C, C incorporation, MOVPE 22125
AlGaAs:N,C, thermally stable C-N deep level 28742
AlGaAs:Si, delta-doped by LP-MOVPE, HEMT appl. 22134
AlGaAs:Si, delta-doped, low-press. MOVPE 13304
AlGaAs:Si lateral jns., MBE growth on patterned substrs. 21947
AlGaAs:Si-GaAs SQW, MOCVD, magnetotransport, subband struct. 22003
$Al_{0.3}Ga_{0.7}As$:Si/GaAs heterostruct., MODFET structs., DX centers 13120
$Al_{0.35}Ga_{0.65}As$:C, thermally stable O/N implant isolation 30041
$Al_xGa_{1-x}As$:C, MOMBE grown, annealing 28774
$Al_xGa_{1-x}As$:Si, MBE grown, Hall and photolum. meas. 12129
AlGaAs/(In)GaAs HEMT, electrolum. 30368
AlGaAs/AlAs-TiO_2/SiO_2 hybrid DBR VCSEL 31342
AlGaAs/AlGaAs superlattice, comp. ordering, opt. props enhancement 1083
AlGaAs/GaAs 2DEG, ballistic electron transport 29944
(AlGa)As/GaAs 2DHG struct., contacts and mobilities 21967
AlGaAs/GaAs HBT I-V charact., graded/setback layers 22368
AlGaAs/GaAs HBT IC technol. for 4:1 TDM multiplexer 1487
AlGaAs/GaAs HBT MMIC power amp. 12825
AlGaAs/GaAs HBT, RF-charact. down, 20 K 6733
AlGaAs/GaAs HBT, fully planar, CBE selective growth 13643
AlGaAs/GaAs HBT, ideality factor 13641
AlGaAs/GaAs HBT operating at large power densities, jn. temp. meas. 18136
AlGaAs/GaAs HBT passiv., sulfide solns. and SiN_x overlayer 30233
AlGaAs/GaAs HBT, surface passiv. layer struct., design considerations 6732
AlGaAs/GaAs HBT, thermal effects/instabilities 6731
AlGaAs/GaAs HBTs, Pt/Ti/Pt/Au base electrodes, passiv. 38837
AlGaAs/GaAs HBTs and assoc. TLM test structs., excess noise 1352
AlGaAs/GaAs HBTs, ballistic electrons, electrolum. 38841
AlGaAs/GaAs HBTs, collector launcher struct., 1 W, 3.5 V 21535
AlGaAs/GaAs HBTs, influence of emitter edge current on NDR 13632
AlGaAs/GaAs HBTs, selective MOCVD growth, base-collector capacitance 38836
AlGaAs/GaAs HBTs, steady-state/transient heat responses 38852
AlGaAs/GaAs HBTs, surface recomb., 2D anal. 22369
AlGaAs/GaAs HBTs, thermal avalanches 1359
AlGaAs/GaAs HEMT design, inverse modeling 38909
AlGaAs/GaAs HEMT, ohmic contact, 29958
AlGaAs/GaAs HEMT with Al/Ni gate, thermal stabil. 22492
AlGaAs/GaAs HEMTs for MM wave appls. 37978
AlGaAs/GaAs HEMTs, monolithic integrated optoelectronic receiver 25543
AlGaAs/GaAs MODFETs, low-noise X-band transistors, MBE growth 22479
AlGaAs/GaAs MQW modulators in smart pixels, wavelength optimis. 22934
AlGaAs/GaAs MQW, near- and mid-IR two-photon absorpt. 31538
AlGaAs/GaAs MQW, opt.-modulator struct., hydrogenation 1803
AlGaAs/GaAs, QW, modulator, nonlin. optics 7739
AlGaAs/GaAs SQW, plasma cleaning, photolum. studies 1139
AlGaAs/GaAs VCSEL, internal quantum efficiency and loss meas. 39775
AlGaAs/GaAs VCSEL, linewidth/α-factor 14936
AlGaAs/GaAs, artificial 2D-structs., charge carrier transport 29939
AlGaAs/GaAs asymmetric QW struct., quasi-phase-matched, 1.06 μm SHG 15056
AlGaAs/GaAs, charge injection transistors, real space electron transfer 38823
AlGaAs/GaAs, deep-oxide PBH LD 14889
AlGaAs/GaAs directly connected HBT UHF MMIC amp., high gain, portable cellular appl. 6326
AlGaAs/GaAs double-quantum-well devices, quantum state transfer 6561
AlGaAs/GaAs epitaxial lift-off MSM photodetectors,field assisted etching 34516
AlGaAs/GaAs fully-planar HBT technol., selective CBE regrowth 844
AlGaAs/GaAs heterojunctions, high elec. fields, real-space transfer and current filamentation 1076
AlGaAs/GaAs heterosource bipolar mode SIT 30261
AlGaAs/GaAs heterostruct., electron beam irrad. damage, annealing 21944
AlGaAs/GaAs heterostruct., electronic states, mobility 1100
AlGaAs/GaAs heterostruct., gate, ohmic and interconnect metallization 13420
AlGaAs/GaAs heterostruct., high-field magnetoresist., non-ohmic behavior 29879
AlGaAs/GaAs heterostruct., ohmic contacts, phys./elec. study 13169
AlGaAs/GaAs heterostruct., percolation metal-insulator transits. in 2D electron syst. 6549
AlGaAs/GaAs, high-power injection heterostruct. lasers 14911
AlGaAs/GaAs injection laser with a periodic confining layer, modeling 14969
AlGaAs/GaAs injection lasers, electron superlattice barriers 39836
AlGaAs/GaAs integrated lin. injection laser array, emission charact., pumping appls. 39759
AlGaAs/GaAs intracavity laser coupled VCSEL syst., opt. gain control 39774
AlGaAs/GaAs micromachining, monolithic integrat. of micromechanical struct. 23065
AlGaAs/GaAs multiemitter finger HBT, model, self-heating and thermal coupling effects 841
AlGaAs/GaAs nanostructures, surface-gate technol. 21972
AlGaAs/GaAs npn HBTs, MBE fab. and charactn. *(Korean)* 30264
AlGaAs/GaAs optoelectronic device reliab. 28526
AlGaAs/GaAs, photopumped vert. cavity QW, hot carrier recomb. 23264
AlGaAs/GaAs pnp HBT, Al graded base, 37 GHz cutoff freq. 21534
AlGaAs/GaAs power HBT, current gain collapse and avalanche breakdown 38818
AlGaAs/GaAs power HBTs, self-aligned, LF noise characts. 13648
AlGaAs/GaAs quantum nanostructures, STM at.-scale anal. 29940

III-V semiconductors continued
AlGaAs/GaAs, quantum point contact-electron waveguide struct., 1D states 13818
AlGaAs/GaAs quantum well DBR laser, femtosecond upconversion, time-resolved study 31374
AlGaAs/GaAs quantum wells, photolum., in-situ charactn. method 1137
AlGaAs/GaAs quantum wires, elec. cond., electron-phonon interact. 29913
AlGaAs/GaAs quantum wires, flow rate modulation epitaxy on nonplanar substr. 37386
AlGaAs/GaAs reson. tunneling single electron transistor 38943
AlGaAs/GaAs solar cell struct., LPE etchback-regrowth 27948
AlGaAs/GaAs superlattice, MOVPE, selective growth on (110) cleaved plane 37435
AlGaAs/GaAs superlattice avalanche region IMPATT diode 38806
AlGaAs/GaAs superlattice-emitter reson.-tunneling bipolar transistor, double NDR 38851
AlGaAs/GaAs superlattices, THz Bloch oscills. 1112
AlGaAs/GaAs superlattices, epitaxial growth, laser reflectometry 28767
AlGaAs/GaAs, three-coupled-QW, Stark shift, tunable far-IR photodetectors 42803
AlGaAs/GaAs, tunable ballistic electron cavity, weak localisation 30385
AlGaAs/GaAs vis. lasers, degrad. related defects, DLTS study 31396
AlGaAs/GaAs wire transistor, in-plane gate, Schottky contacts 38931
AlGaAs/GaAs:C HBTs, Au/Pd/Ti-based ohmic contact, elec./struct. props. 38701
(AlGa)As/GaAs:C, MOVPE, N_2 carrier gas 316
AlGaAs/GaAs:C,In HBTs, lattice strain control, In co-doping 22374
AlGaAs/GaAs:Si, QW, δ-doped, subband carrier mobilities 29863
AlGaAs/GaAs/InGaAs QW lasers, threshold current dens., disloc. effects 14895
AlGaAs/GaAs/InGaAs reson. coupled asymmetric double QW, intersubband transit. 1135
AlGaAs/GaAs/InGaAs struct. on nonplanar substrs., MOCVD, doping, laser appls. 20960
AlGaAs/GaAs(InGaAs/GaAs) microwave/millimetre-wave HEMTs, noise model 831
AlGaAs/$In_{0.15}Ga_{0.85}As$ DH-PHEMT, short-channel effects 13808
AlGaAs/$In_xGa_{1-x}As$ doped-channel struct., thermal stabil. 1133
AlGaAs/InGaAs HEMT monolithic mixers, single/double bal. 29585
AlGaAs/InGaAs MM-wave heterojunction FET MMIC oscillators *(Japanese)* 6336
AlGaAs/InGaAs heterojunction FETs, photon irrad.-induced kink effect model 6803
AlGaAs/InGaAs pseudomorphic HEMT, δ-doped, charge transfer limitations 30373
AlGaAs/InGaAs pseudomorphic SQW-MODFETs, double sided modulation doping 6786
AlGaAs/InGaAs/GaAs HEMT, photolum. spectrosc. 6780
AlGaAs/InGaAs/GaAs QW lasers, perform., MOVPE growth interruption effect 23248
AlGaAs/InGaAs/GaAs, δ-doped pseudomorphic structs., opt./transport props. 6550
AlGaAs/InGaAs/GaAs high breakdown PHEMT, Te doping 29567
AlGaAs/InGaAs/GaAs recessed-gate PHEMT, Si planar-doped etch stop layer 30382
n-AlGaAs/InGaAs/GaAs struct., hot electron ballistic transport 38358
AlGaAs/InGaAs PHEMT ultra LNA MMIC, 50 GHz band 29592
AlGaAs/InGaAs/GaAs heterostruct., 2DEG mobility anoms. 21949
n-AlGaAs/u-GaAs heterointerface, electron gas, periodic bending, device appl. 6557
$Al_{0.22}Ga_{0.78}As$/$In_{0.15}Ga_{0.85}As$/GaAs one-side-modulation-doped QW, electronic subband studies 21996
$Al_{0.3}Ga_{0.7}As$/$In_{0.2}Ga_{0.8}As$ doped-channel FETs, lin. improvement 12767
$Al_{0.3}Ga_{0.7}As$/$In_xGa_{1-x}As$, MBE, growth mechanism 340
$Al_{0.43}Ga_{0.57}As$/$In_{0.2}GaAs$:Te modulation doped heterostruct., carrier confine. 29881
$Al_{0.5}Ga_{0.5}As$/GaAs multilayer, NaClO stain-etched, AFM 30072
$Al_{0.5}Ga_{0.5}As$/GaAs/$Al_{0.5}Ga_{0.5}As$ SQW DB reson. tunneling diodes *(Korean)* 13590
$Al_xGa_{1-x}As$/AlAs/GaAs quantum wells, reson. electron capture 22019
$Al_xGa_{1-x}As$/GaAs:Be mirrors for VCSEL 15010
n-$Al_xGa_{1-x}As$/u-GaAs, corrugated heterojunctions, 1D quantum electron states 13099
$Al_xGa_{1-x}As$/$In_yGa_{1-y}As$/GaAs, pseudomorphic HEMT, photolum. 6807
$Al_xGa_{1-x}As$/Si, tandem solar cells, MOCVD, charactn. 19995
AlGaAs-AlAs DBR QW microcavity, fast coherent emission 31376
AlGaAs-GaAs ARROW waveguides, atten. meas. 30931
AlGaAs-GaAs DH LEDs, MBE 39588
AlGaAs-GaAs HBT OEIC for high-speed fiber commun. 17196
AlGaAs-GaAs HBT, elevated temp. microwave charact. 37992
AlGaAs-GaAs HBT gate array for 5 GHz ASIC, cell libr. 37719
AlGaAs-GaAs HBT, large sig. equiv. cct. model, MMIC oscill. 38828
AlGaAs-GaAs HBT small-sig. equiv. cct. param., algm. 38827
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
AlGaAs-GaAs HBT with strain-relaxed base, improved reliab. 38826
AlGaAs-GaAs HBT-based direct coupled feedback transimpedance amp. 29065
AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
AlGaAs-GaAs HBTs for high-speed opt. modulator driver cct. 42405
AlGaAs-GaAs HBTs, heavily doped, opt. device appl. 39566
AlGaAs-GaAs HBTs,current gain long-term instabil., model 38847
AlGaAs-GaAs HEMT, conc.-depend. carrier mobility and lifetime 1447
AlGaAs-GaAs HEMT monolithic downconvertor for X-band DBS 42315
AlGaAs-GaAs HEMT-based MMIC mixers, indoor commun. 42237
AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
AlGaAs-GaAs MODFETs, neg. photoresponse study 31088
AlGaAs-GaAs MQW diode, pulse-mode neural ccts. 37914
AlGaAs-GaAs, SHBT, Gummel rel. 38821
AlGaAs-GaAs Schottky quantum point contacts, airbridge post 1091
AlGaAs-GaAs heterojn. solar cells, prod./props. 11285
AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
AlGaAs-GaAs modulation-doped heterostructs., microwave I/V characts. 1075
AlGaAs-GaAs power HBTs, thermal stabil. tech. *(Japanese)* 38003
AlGaAs-GaAs quantum well solar cells 27952
AlGaAs-GaAs quantum wire struct., comp. modulation studied by photolum. 38357
AlGaAs-GaAs thin film p-i-n photonic device integrat., micromachined movable platforms 39600

III-V semiconductors continued
- AlGaAs-GaAs:C HBT, bias stress tests, current gain deterioration 13642
- AlGaAs-GaAs-AlGaAs, DHBT, Gummel rel. 38821
- AlGaAs-GaAs-AlGaAs HEMT/quantum well laser monolithic integrat., MBE/technol. 1945
- AlGaAs-GaAs-AlGaAs, reson. tunnelling diode, time depend. behaviour 38800
- AlGaAs-GaAs-InGaAs DBR elec. pumped VCSEL 31314
- AlGaAs-GaAsP 770-nm tensile-strained QW LD 23221
- AlGaAs-InGaAs E/D-HJFET LSI technol., 0.6 V 39022
- AlGaAs-InGaAs HFET MMIC power amp., V-band, high gain 38037
- AlGaAs-InGaAs HIGFETs, charge-collection mechanisms 13719
- AlGaAs-InGaAs HJFET, freq. depend. drain cond. 6795
- AlGaAs-InGaAs MODFET based broadband dyn. freq. divider 38016
- AlGaAs-InGaAs heterostruct. FET for high temp. IC 22493
- AlGaAs-InGaAs strained-layer quantum well three-terminal switching device 22504
- AlGaAs-InGaAs-GaAs HEMT monolithic LNA array, W-band 38027
- AlGaAs-InGaAs-GaAs Ka-band MMIC power amp., HEMT proc. 38031
- $Al_xGa_{1-x}As$-based systs., LPE by ultrafast cooling 37454
- $Al_xGa_{1-x}As$-$In_yGa_{1-y}As$-GaAs, modulation doped HEMT, photolumin. linewidth 13145
- (Al)GaAsSb/AlAsSb Bragg reflector on InP, high reflectivity 28748
- AlGaAsSb/GaInAsSb, LED, electrolum. quantum yield 1827
- AlGaInAs coaxial laser module, 1.3 μm for local-loop appls. 7681
- AlGaInAs vis. diode laser with phase-conjug. feedback, stable mode locking 39833
- AlGaInAs/GaInAs, tunable lasers by masked implementation enhanced intermixing 14872
- AlGaInAs/InP 1.5 μm MQW DFB LD exceeding 20 GHz bandwidth, MBE/MOCVD 23229
- AlGaInAs/InP strained QW high-perform. 1.3 μm lasers, OMCVD 23241
- AlGaInAs-InP 1.3 μm laser design 23282
- AlGaInAs-InP strained layer QW lasers in FITL 7684
- AlGaInP LD, ageing simul., reliab. 7608
- AlGaInP LD array at 640 nm, high-power CW operation 23219
- AlGaInP LD arrays, high-power CW 690 nm operation 31343
- AlGaInP QW 630-nm LD's, strain-induced polariz. mode 23220
- AlGaInP QW partial top dielec. stack DFB red VCSEL arrays 14850
- AlGaInP, SQW LD, OMVPE, props. 7609
- AlGaInP based wide band gap quantum wells, opt. spectrosc. 13165
- AlGaInP dry-etched 650 nm vis.-light LD 1986
- AlGaInP dual-polariz. SQW LD struct. 14951
- AlGaInP laser, facet/bulk degrad., eval. method *(Japanese)* 23288
- AlGaInP orange LEDs, misoriented p-GaAs substrs. 14642
- AlGaInP red-emitting LD grown by solid source MBE *(Japanese)* 39880
- AlGaInP vis. light LD, 650 nm, dry-etched mesa stripe 39867
- AlGaInP vis. semicond. lasers, catastrophic opt. damage *(Japanese)* 31412
- $(Al_xGa_{1-x})_{0.5}In_{0.5}P$ layers, metalorganic VPE growth, step-bunching 20734
- $(Al_xGa_{1-x})_{0.52}In_{0.48}P$ p-i-n jns., impact ionisation 38302
- AlGaInP:Si, metalorganic CVD, elec. and opt. props. 28778
- AlGaInP:Si(Zn)/GaAs LED, low-press. metallorganic VPE 39583
- AlGaInP:Zn, H-passiv. of acceptors in MOVPE layers 22129
- p-AlGaInP:Zn, metalorganic VPE growth, alternate sources, phosphine 20752
- $(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P$:Zn, metalorganic CVD, impurity passiv. 20938
- AlGaInP/AlGaAs:C red/IR VCSEL diodes, metalorganic VPE 20823
- (Al)GaInP/AlInP DH, minority carrier lifetimes 13125
- AlGaInP/GaInAs/GaAs:C MODFETs, fab. scheme 6783
- AlGaInP/GaInAsP MQW vis. LD, beam charact., reliab. 31351
- AlGaInP/GaInP, multiwafer, MOCVD growth 20959
- AlGaInP/GaInP strained quantum wells, opt. gain 31377
- AlGaInP/GaInP two-beam lasers with low thermal interf., 680 nm band, high power 23306
- $(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P/In_{0.15}Ga_{0.85}As$/GaAs HFET, characts. 12752
- $Al_xGa_{0.52-x}In_{0.48}P$/GaAs, HBT, MOVPE, charactn. 13652
- AlGaInP-GaInP yellow emitting semicond. lasers, MBE grown 1991
- AlGaInP-based 660-680 nm vert.-cavity SELs 23187
- AlGaN epitaxy on sapphire using AlN buffer layers, cryst. struct. 364
- $Al_xGa_{1-x}N$, selective VPE growth on GaN/sapphire substrs. 5846
- $Al_xGa_{1-x}N$, self-nucleated layers, MOCVD 414
- AlGaN/GaN HIGFETs, I/V charact. collapse, high drain bias 6745
- AlGaN/GaN doubleheterojunction, UV/blue LEDs 7476
- AlGaN/GaN/GaInN, stacked heterostruct. LED, MOVPE 23049
- AlGaP:N, MOVPE, doping charactn. using tertiarybutylamine as N source 22132
- $Al_{0.5}Ga_{0.5}Sb$, citric acid etching for heterostruct. device fab. 6640
- $Al_xGa_{1-x}Sb$, MBE from Ga_2Se_3 and Ga_2S_3 donor doping sources 37410
- AlGaSb/GaSb punch-through heterojunction phototransistors for lightwave commun. 7462
- AlGaSb/InAs nanostructures, CAIBE and electron-beam lithog. 13178
- AlGas/GaAs HBTs, polyimide deposition, recomb. current 1358
- $Al_xIn_{1-x}As$, MBE/CVD growth, elec. props. 12060
- AlInAs:Be, MBE growth, Be acceptor diffusion 338
- AlInAs:Si, MBE, doping characts., deep levels 1219
- AlInAs:Si,F/GaInAs/InP heterostruct., thermal stabil. 29882
- AlInAs/(Al)GaInAs MSM photodetectors/modulators, solid source MBE 42809
- AlInAs/GaInAs MSM photodiode, cutoff freq., responsivity 14608
- AlInAs/GaInAs coupled QW 1.3 μm opt. modulator, elec. field depend. 22927
- AlInAs/GaInAs, pseudomorphic HEMT, design, performance 13784
- AlInAs/GaInAs, quantum cascade laser, mid-IR source 14892
- AlInAs/GaInAs/AlInAs HEMT struct., double modulation-doped strained-channel 6782
- AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
- AlInAs/InGaAs HBT, edge coupled receiver OEIC 14652
- AlInAs/InP low gate current HFET 13781
- AlInAs/InP type-II superlattice, elec.-field induced excitons, opt. studies 6555
- $Al_{0.48}In_{0.52}As/Ga_{0.47}In_{0.53}As$ heterostruct., δ-doped, second subband pop. 29890
- $Al_{0.60}In_{0.40}As$/GaInAs/InP single pulse doped HEMTs for Q-band power appls. 29566
- AlInAs-GaInAs HBTs, ultrafast photocarrier transport 23014
- AlInAs-GaInAs npn/pnp HBTs, monolithic fabrication 13662
- AlInAs-GaInAs quantum cascade unipolar intersubband LED 14632
- AlInP/InP pseudomorphic HBT, struct., fab., characts. 13645
- AlN, CVD growth/surface chem. 12155
- AlN, ECR plasma etching, HI, HBr chemistries 1242

III-V semiconductors continued
- AlN film growth on 6H-SiC, plasma assisted GSMBE 12090
- AlN, high press. crystn. 37377
- AlN, high temp. ECR etching 38540
- AlN, ion plated films, opt. applicability 28850
- AlN laser ablated plumes, comp. and gas dyn. 28826
- AlN, thermodyn. and cryst. growth, high N_2 press. 37381
- AlN, thin films, MBE growth 5851
- AlN waveguide, phase-matched freq. doubling, tunable laser source 31543
- AlN:Cu, ion implanted, impurity segreg. *(Chinese)* 13311
- AlN/diamond thin film syst., chem. vap. deposition methods 5865
- AlN-GaN qtr.-wave reflector stack, gas-source MBE 14565
- Al_xO_y/GaAs VCSEL laser with high-contrast mirrors, gain switching 23231
- AlP, opt. second-harmonic susceptibilities, opt. activity 7762
- AlP/GaP monolayer superlattice, organometallic vap. phase epitaxial growth 356
- AlP/GaP short period superlattice, organometallic VPE growth, photolumin. obs. 20753
- AlPSb/GaPSb Bragg reflector 1.55 μm LD 7619
- AlSb, MBE growth, substr. temp., opt. pyrometer meas. 34496
- AlSb, closed-tube vap.-phase growth syst., transport rate, thermodyn. calc. 20651
- AlSb/InAs HEMTs, 5 V gate breakdown voltage 835
- Au MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
- Au island mask-GaAs nanostruct. fab., MBE/MOVPE 385
- Au/GaAs, interface annealing studies, variable energy positron beam 22041
- Au/GaSb, interfacial reacts., ohmic contacts effects 38376
- Au/$In_yAl_{1-y}As$, intimate Schottky diodes, characts., mismatch depend. 13221
- Au/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
- Au/LaB_6/Au/Ni/Ge contacts on n-GaAs, SNMS study 13421
- Au/Ta_2O_5/n-InP, interface state dens. determ. 13255
- Au/n-GaAs Schottky contacts, barrie height change, ballistic electron emission obs. 38378
- Au/n-GaAs:Ar Schottky barrier study, ion implant. damage 22035
- Au/p-InP epitaxial Schottky diode, I-V/T, C-V/T data, simultaneous anal. 38816
- Au-GaAs Schottky diodes, cryogenic/RT, current transport 38390
- Au-GaAs diodes, lateral Schottky barrier height var./crit. length 38383
- Au-Ge alloy/GaAs contacts, phase comp. and microstruct. under high press. 6576
- Au-Te-Au-GaAs Schottky contact interface states capacitance, thermal effects 29950
- Au-Zn-Au ohmic contacts to p-InP, elec./metall. charact. 38388
- Au-Zn-Au-GaAs ohmic contacts, As loss during RTA, Cr-collector study 22097
- AuGe/GaAs ohmic contacts, ion-assisted deposition 22265
- AuPdTi-GaAs ohmic contact prep., Nd:YAG laser appl. 38370
- B, borides and related compounds, conf., Tsukuba, Japan (1993) 11553
- BN, cubic, carbonaceous surface layer by diamond CVD, electron emission *(Japanese)* 37460
- BN, ion-assisted deposition, BCA computer simul. 20924
- BN, thin films, MBE growth 5851
- BN turbostratic and cubic films, ECR plasma-assisted CVD 12181
- c-BN, ultra-hard materials, high press. synthesis 12033
- p^+-n-CdS/InP solar cells, space appl., projected efficiency 19989
- CdTe/InSb heterointerfaces, temp. gradient vap. transport deposition, interfacial layer form. 371
- CdTe/InSb/Au Schottky diodes, bias depend. barrier heights 38797
- CdTe/ZnTe/GaAs, hot wall epitaxy, elastic strain effects 20841
- CdZnTe ionization detectors, single polarity charge sens., coplanar electrodes 10105
- Cl_2 ECR plasma etching of III-V semiconds., laser appls. 22188
- Cr/NH_3/GaAs(100), interface form., photoemission study 38377
- Cs/InAs(110), giant band bending, interface form. 13222
- Cu_3Ge/n-GaAs ohmic contacts, microstruct./elec. charactn. 6573
- Fe:InP/InGaAs MESFET, metalorganic CVD growth 38926
- Ga-In-P-As layers, stimulation of cryst. lattice stabilization, heteroepitaxy 37401
- Ga-In-P-As/InP, liq. phase heteroepitaxy, substr. morph. instabil. 37397
- GaAS DCFL logic gates, timing macromodel 37717
- GaAS IC lab. at Motorola, CS-1 facility 37046
- GaAS IC reliab., next generation 37195
- GaAS sputtered films, amorphous and microcryst., elec. props. 22994
- GaAlAs LD bar, pumping by opt. fibre device 39323
- GaAlAs LD feedback interferometer for displacement meas. 23479
- GaAlAs LD, wavelength locked, bandpass filters, freq. doubling 31593
- Ga(Al)As, MBE growth on (001) surface, dyn., RHEED study 37436
- (GaAl)As SQW SCH superlumines. diodes, perform. 23048
- GaAlAs asymmetric two-step quantum well for cascaded second-order procs. 13189
- GaAlAs diode laser light, freq. doubling in $KTiOPO_4$ waveguide 31487
- GaAlAs heterojunction, LPE growth, solid phase surface segreg. 28736
- GaAlAs injection LD, freq. flucts. 23301
- GaAlAs layers, OMCVD, characts. prediction, neural nets 13051
- GaAlAs, metallorganic CVD, Zn-doping proc. 28843
- GaAlAs, monolithic 2D surface emitting LD arrays, CW 39837
- $Ga_{1-x}Al_xAs$ epitaxial layers, hydride/chloride systs., thermodyn. aspects 377
- Ga(Al)As:H,S(Se)(Te), hydrogen-group VI donor interacts., passiv. 38258
- GaAlAs/GaAs 150-nm gate-length HEMTs, fab., X-ray lithog. 13800
- GaAlAs/GaAs HBTs, emitter excess resist. 1357
- GaAlAs/GaAs HBTs, power amp. appls. 13655
- GaAlAs/GaAs QW, dielec. const., doping and mag. field effects 29908
- GaAlAs/GaAs accum. mode bipolar transistor, 2DHG base *(English)* 22362
- GaAlAs/GaAs, automated nondestructive meas., IR reflectance/transm. 21002
- GaAlAs/GaAs surface emitting lasers, materials, performance and appls. 14868
- GaAlAs/GaAs thin-emitter solar cells, photolumin. study 20002
- GaAlAs/GaAs/Ge thin-emitter solar cells, photolumin. study 20002
- GaAlAs/GaInP/GaAs passivated HBT, high bit rate opt. commun. appl. 6730
- $Ga_{1-x}Al_xAs$/GaAs, p-n jn. incorporating quantum well, light emitting 14621
- GaAlAs-GaAs semicond. superlattice, hole transport, band mixing effect 6568
- GaAlAs-GaAs ultrahigh finesse microcavity, DBR 2029
- $Ga_{1-x}Al_xAs$-GaAs HBT, fab. for rapid material anal. 22387

III-V semiconductors continued
Ga(Al)Sb mesa photodiodes, dark current improvement, $(NH_4)_2S$ treatment 14604
$Ga_{0.9}Al_{0.1}Sb$, undoped/Ge doped, epitaxial films, elec. props. 13058
$Ga_{0.66}Al_{0.34}SbAs$, undoped/Ge doped, epitaxial films, elec. props. 13058
GaAs 2-to-4 level convertor IC for SOA modulators 42403
GaAs (001), MgO ferroelec. thin film growth 12123
GaAs, (001)-cut, CZ grown, disloc. dens.-depend. photorefr. effect 14319
GaAs, (211)B orientated, surface-emitting second-harmonic generator/autocorrelator 23361
GaAs, AC meas. of quantized Hall resist. 34318
GaAs ACT transversal filters, yield model 39118
GaAs ALE, As desorpt., real-time in situ gravimetric monitoring 20868
GaAs, ALE, C-incorporation mechanism 20694
GaAs, ALE, role of metalorganic As source 20683
GaAs, ALE, self-limiting/step-propag. nature, AFM 20684
GaAs, ALE, surface stoichiometry and role of adsorbates 20686
GaAs, ALE using trimethylgallium, kinetics, mechanism 20685
GaAs ASIC set for deep space receiver 42336
GaAs, Ar^+ ion implant. damage, ion-induced annealing 22092
GaAs, CBE, C gettering mechanism, trisdimethylamino-arsine and trimethylgallium 20818
GaAs, CBE growth, free carrier gas tech. 28717
GaAs, CBE growth from tertiarybutylarsine, triethylgallium precursors 12105
GaAs, CBE growth on Si(001), TEG and AsH_3 *(Chinese)* 5814
GaAs, CBE growth, reduced C incorporation, H radical effect 5845
GaAs, CBE, tris-dimethylaminoarsenic 28738
GaAs CHIGFET noninductive impedance transformer design 29351
GaAs CPW opt. illum. 3D full-wave anal. 23810
GaAs, CZ grown, ion implant., struct./mech. props. 13305
GaAs DCFL ccts., timing macromodels 37710
GaAs DCFL logic gate ccts., delay/transit. time macromodels 21261
GaAs DCFL redundant divider design 29201
GaAs DDS, FM-CW, 1.25 GHz 37672
GaAs E-mode MESFET technol. for low power/noise appls. 12780
GaAs, ECR plasma etching, surface damage 13384
GaAs FECFET, num. simul. 38929
GaAs FET IC, const.-current cct.-biasing technol. 13901
GaAs FET and IC for mobile radio *(German)* 21571
GaAs FET cct. power supply 21096
GaAs FET microwave switching/phase shifting 21575
GaAs FET power amp. for digital cellular portable telephones, phase charact. 3358
GaAs FET power amp./high-Q magnetron, coherent transmitter 12997
GaAs FETs, IMD minimisation tech. 22484
GaAs FETs, non-lin. and distributed modelling procedure 845
GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
GaAs Gilbert cell mixer IC fro coherent opt. transm. 42402
GaAs Gunn devices at 94 GHz, fund. and harmonic power generation 37998
GaAs, H passivated, EL2 defect 1262
GaAs HBT, CDMA chip set 16928
GaAs HBT gate array for high perform. ASICs 29147
GaAs HBT multifunctional microwave-analog VGA 38023
GaAs HBT power MMIC, X-Ku band, high power 38034
GaAs HMESFET SBFL based F-RISC/I microproc. 37802
GaAs HV photocond. switches, electro-optic imagery 14598
GaAs IC, conf., San Jose, USA (1993) 36852
GaAs IC for portable commun., needs 42231
GaAs IC mfg., high vol., Anadigics experience 37045
GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
GaAs IC, ultrahigh speed pin-electronics and test station 6861
GaAs ICs, voltage meas., electro-optic sampling 13850
GaAs, In-implanted, RTA, Raman spectra 1197
GaAs JFETs, deep cryogenic readout electronics appl. 30371
GaAs L-band ultralow power LNA for mobile commun. 42234
GaAs, LEC cryst. growth, analytic model, proc. control 28715
GaAs, LEC-grown, slip generation by thermal annealing, residual strains 1199
GaAs LEDs, 3D opt. coupled common memory 39318
GaAs, LPE on 100mm diam. GaAs substrs. 351
GaAs LPE process, cavity geometric effect 37414
GaAs LPOMVPE, crystallographic orient. depend. of growth rate 28740
GaAs LSI chips, back-grinding, mech. reliab. 1498
GaAs, MBE at 250°C, growth, charactn. *(Korean)* 28782
GaAs, MBE, dyn. surface procs., time-resolved RHEED 20872
GaAs, MBE grown, elec. breakdown props. 21908
GaAs MBE growth monitoring, single photon ionization TOF mass spectrosc. 28723
GaAs MBE growth on B, RHEED intens. oscills. 20851
GaAs MBE heteroepitaxial growth on vicinal Si (110) substrs. 5843
GaAs MBE layers, dominant deep level 13054
GaAs, MBE layers, low temp. grown, elec. props. 13066
GaAs, MBE, low temp. limit 366
GaAs MBE on Si, InGaAs/GaAs strained-layer superlattice effects 5842
GaAs MBE, step edge supersaturation, As/Ga flux depend. 20834
GaAs, MBE, struct. charactn. 37459
GaAs, MBE, surface diffusion, adatom stoichiometry, microprobe-RHEED/SEM MBE obs. 20682
GaAs MBE thin films grown on Si, biaxial compression 20837
GaAs MESFET, AC small-sig. equiv. cct. model 1448
GaAs MESFET CPW oscillators, supercond. resonator stabilization *(Chinese)* 37968
GaAs MESFET IC SC band-pass filter, VHF 37843
GaAs MESFET MMIC power amp. modules, 10 W, X-band 12827
GaAs MESFET SC third order ellipt. lowpass ladder filter *(Korean)* 734
GaAs MESFET SRAM, current mirror memory cell 37774
GaAs MESFET TWA MMIC, 2-12 GHz *(Chinese)* 38039
GaAs MESFET, buried channel self-aligned proc., MMIC appl. 38930
GaAs MESFET, capacitance model, microwave nonlin. cct. design appls. 855
GaAs MESFET develop. at Caswell, 1964-1985 6808
GaAs MESFET doubly bal. mixer, X-band, very low IMD 21569
GaAs MESFET, epitaxial lift-off on InP 14654
GaAs MESFET fabricated by internal interconnection tech. 13803
GaAs MESFET, high V_{BD}, planar gate, power MMIC 38922
GaAs MESFET high speed adder, multiple-output domino logic 29127
GaAs MESFET, impact ionisation, drain struct./buffer layer effects 38935
GaAs MESFET, interchanged two-sig. S-param. meas. *(Chinese)* 25963
GaAs MESFET, ion implant., photolithog., SAG 38923

III-V semiconductors continued
GaAs MESFET lin. power amp., digital mobile commun. appls., 1.9 GHz, 2.7 V supply 42298
GaAs MESFET, lin. stat. DC model, factor anal. 13812
GaAs MESFET model for response, high dose rate environ. 13790
GaAs MESFET opt. triggered monolithic S/H cct. design 39590
GaAs MESFET, piezoelec. act. defects, impact modelling 13793
GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805
GaAs MESFET, pulse doped, 2D electron transport, Monte Carlo simul. 6794
GaAs MESFET sidegating effects modeling by trapping simul. 22495
GaAs MESFET switch IC for handy phone 38024
GaAs MESFET transceiver, optoelectronic VLSI cct. fab. 39599
GaAs MESFET transconductors, DC gain enhancement 730
GaAs MESFET varactor tunable oscillators, noise calcs. 21565
GaAs MESFET-based power module, optimum LV/high-efficiency design 11749
GaAs MESFETs, Monte Carlo simul. 1437
GaAs MESFETs and PHEMTs, 2DEG effect on noise perform. 37981
GaAs MESFETs for HF high-temp. switched-mode power converter, MBE 30381
GaAs MESFETs, selectively dry-etch gate-recessed devices, LF noise 22490
GaAs MESFETs, substr.-related kink phenom., 2D anal. 6802
GaAs MIMIC TED-oscillator, 60 GHz, perform. 29590
GaAs MIS diodes, at. layer passiv. 13598
GaAs MIS struct., C-V charact., hysteresis 29966
GaAs MISFETs, MBE-grown GaAs insulator, breakdown voltage improve. 30337
GaAs MISFETs, photo-CVD P_3N_5 insulators, sulfide passiv. 38882
GaAs MLE 20663
GaAs, MLE growth, surface treatment, ideal SIT appl. 20668
GaAs MM wave TEDs, CAD, thermal anal. 38791
GaAs MMIC, CSIRO prototyping facility 29581
GaAs MMIC LNA for wireless commun., ultralow noise 42235
GaAs MMIC act. filters, synthesis incorporating noise effects 6328
GaAs MMIC broadband braided microstrip coupler 857
GaAs MMIC control devices, review 29603
GaAs MMIC demodulator, distrib. mixing for CPFSK receiver 12801
GaAs MMIC design and charactn., training software package *(French)* 21570
GaAs MMIC design and test, high level training, ENSEA *(French)* 20336
GaAs MMIC design by engng. students of ENSERG/INPG *(French)* 20335
GaAs MMIC distributed amps., design 12806
GaAs MMIC double side-band modulators, Gilbert cell based, design 29589
GaAs MMIC downconvertor for portable commun. 42233
GaAs MMIC dual-channel Ku-band DBS downconvertor 42316
GaAs MMIC generic const. phase digital attenuators 6340
GaAs MMIC manufacture, proc.-induced defects 12804
GaAs MMIC mfg., SPC use/misuse 38017
GaAs MMIC mixer, broadband double-bal. design 850
GaAs MMIC multifunction EW receiver convertor chip 38018
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
GaAs MMIC power amp., instabil. prediction 37606
GaAs MMIC power amps. for cellular telephone systs. 849
GaAs MMIC process technol., $SrTiO_3$ film capacitors 38030
GaAs MMIC technol. and foundry services 29595
GaAs MMIC technol./manufacture, MIC comparisons, status review 29580
GaAs MMIC/pin photodiode-based opt. receiver, 2.488 Gbit/s IM-DD systs. 17169
GaAs MMICs for space-borne systs., status and pot. 21554
GaAs, MOCVD on annealed Si in H_2 20771
GaAs, MOMBE, TMGa/TEGa interacts. 20739
GaAs, MOMBE growth, surface chem., mass spectrometric anal. 37431
GaAs, MOMBE selective growth, GaN mask 20666
GaAs, MOMBE using triethylgallium, trisdimethylaminoarsenic 28726
GaAs, MOS struct., double oxide layer, RTA 29982
GaAs, MOS-hydride epitaxial growth, cryogenic purification of arsine 28737
n-GaAs, MOVPE, MBE, electron irrad., schottky diode charact. 28741
GaAs MOVPE, multiatomic step form., GaAs/AlGaAs QW wires 20835
GaAs, MOVPE, trialkyl-group-V-precursors 314
GaAs MQW directional coupler waveguide saturable Kerr effect 15118
GaAs MSM photodetectors, buried layer effect, modeling 38450
GaAs, MSM photodetectors, temporal response, polariz. depend. 17767
GaAs OPFET, ion implanted, PV effect 39575
GaAs PB-SAG DCFL, cct. design *(Chinese)* 604
GaAs PDB diode perform, proton isolation effect 29565
GaAs PDB microwave diodes, ESD failure 29556
GaAs PLL-based clock generator, 3.2 GHz, 50 mW, 1 V supply 12612
n-GaAs, Pd/In/Pd(Pd-In/Pd)(Pd-In) ohmic contacts 13207
GaAs QW, femtosec. pulse distortion, pump-probe/four-wave-mixing expts. 13195
GaAs QW lasers, thermally controlled lateral beam shift and beam steering 14968
GaAs, RIE 38563
GaAs, RIE, hydrogen plasma pretreatment 30064
GaAs SAG-MESFET for supercomputers, proc., implement. 37721
GaAs SEL, transparent ITO ohmic contacts 39815
GaAs, SI, EL2 metastability, temp. depend. 6533
GaAs, SI, degrad. during heat treatment 29854
GaAs, SI props. of low-temp.-grown material 13038
GaAs SIT-based pulsed power switch develop. 36427
GaAs SRAMs, total dose radiation hardening/testing 37773
GaAs Schmitt trigger memory cell design 37775
GaAs Schottky diodes, five port hybrid ring mixer 29554
GaAs, Schottky structs., elec. characts. simul. 6707
GaAs TUNNETT diode oscillators above 100 GHz, diamond heat sinking and power combining 12778
GaAs TUNNETT diodes above 100 GHz, efficiency, RF power levels, free running oscillator appl. 37976
GaAs TUNNETT diodes on diamond heat sinks for 100 GHz and above 12756
GaAs VLSI IC, current status, future prospects 30481
GaAs VPE grown films, DTLS 20869
GaAs, act. inductors for microwave freqs. 21597
GaAs adaptive photodetector, broadband detect. of PM, 10 MHz freq. range 34509
GaAs all-opt. device nonlin. materials 30823
GaAs analogue MMIC, high yield, spray etch recess proc. 38029

III-V semiconductors continued
GaAs asymmetric Schottky-ohmic MSM photodetector 17810
GaAs avalanche photoconductors, dyn. opt. probing meas. 31078
GaAs based FETs, high temp. operation 13807
GaAs based HEMTs, recess depend. breakdown behavior 13777
GaAs based cpds., Si diffusion, doping profile control and 2DEG form. 6627
GaAs, bias, high field region imaging 18021
GaAs biased photoconductors, terahertz radiation generation 14579
GaAs bistable Fabry-Perot device, array format operation 23378
GaAs broadband CPW SPDT PIN diode switch, 50 MHz-30 GHz 21557
GaAs buffer layers, MBE grown, electronic props. 13056
GaAs buffered DCFL gate array, differential push-pull I/O 37720
GaAs, bulk cryst. growth, rare earth effect 20656
n-GaAs, carrier conc. and disloc. dens. nondestructive mapping 1044
GaAs, carrier transport phase ident., 10 fs resoln. 21893
GaAs, carrier-carrier scatt., carrier distrib. effects 29858
GaAs cascaded guided wave gratings, out-of-plane opt. sig. proc. 14481
GaAs composites, As cluster dispersion, optoelectronic appls. 7456
GaAs, cond. of opt. excited electrons in quantizing mag. fields 38249
GaAs coupled quantum wells, far-IR radiation by difference freq. generation 23366
GaAs cpd. semicond. surfaces, stoichiometry changes 20839
GaAs cryst. photorefr. response time meas. by PM in two-wave mixing 2066
GaAs crysts./superlattices, isotopically engineered 38502
GaAs, current oscills., nonlin. dyn., time series anal. 29865
n-GaAs, current oscills., self-generated/externally driven 13039
GaAs cw semicond. lasers with Boltzmann kinetics, gain saturation 31354
GaAs, δ-doped, impact-ionization-breakdown simul. 38261
GaAs δ-doping superlattices, plateau behavior and metal-insulator transit. 13196
GaAs, δ-doping superlattices, pot. flucts., quantum effects 13167
GaAs detector diodes, deep-levels, impedance spectrosc. anal. 43099
GaAs detector-switched monolithic time-delay network for opt. control of phased arrays 31129
GaAs device proc., computer-controlled plasma etching *(Chinese)* 1235
GaAs, devices, impact ionization/light emission, Monte Carlo study 1441
GaAs devices, plasma-assisted passivating proc., LF noise meas. 13410
GaAs devices, reliable thermosonic wire bond, IR-microscopy 12959
GaAs die attach, CVD diamond 38662
GaAs, diffusion bonded stacked, IR parameteric oscill. 7770
GaAs digital FET multilevel metal interconnects, isotropic etch planarization 13322
GaAs digital IC design, compiler methodology 37716
GaAs digital etching, Se mol. beam 1275
GaAs, digital etching, tunable UV laser syst. surface react. control 30095
GaAs digital foundry, process, perform., reliab. charactn. 38958
GaAs, digital test system extension to Gbps range 25720
GaAs, dimethylaluminum methoxide-doped , shallow donors compensation 6617
n-GaAs diodes, Ni-Al based Schottky barrier enhancement, AlGaAs regrowth 38382
GaAs, dispersed semicond. particles, doping effects *(Korean)* 13263
GaAs double-Read IMPATT diodes, 140 GHz 29564
GaAs dyn. logic, SEU study 12479
GaAs, electron scatt. at low dens., dens. depend. 1053
p-GaAs, electron-hole scatt. 1031
GaAs, electronic passiv., electrodeposition of organic mols. containing reactive S 30070
GaAs epilayers, MBE, annealing thermal stabil., As precip. 308
p-GaAs epilayers, MBE grown, deep acceptor impurities 1037
GaAs, epilayers, MOCVD grown, HRTEM charactn. 20772
GaAs epilayers, metalorganic CVD growth 37411
GaAs, epitaxial growth, surface SHG study 37429
GaAs, epitaxial layer, opt. mixer, heterodyne generation 6311
GaAs epitaxial layers, charactn., annealing effects 13277
n-GaAs, epitaxially lifted-off film, Pd/Ge ohmic contacts 29954
GaAs etching, fast atom beam proc. with separated masks, micromech. devices 22245
GaAs, excess carrier transfer, time-resolved photovoltage meas. 22995
GaAs fast photoconductor responses, subnanosec. proton pulses 43098
GaAs fast radiation-hard CHIGFET op. amp. 29061
GaAs film, comprehensive opt. diagnostics 14569
GaAs films, anom. PV effect/neg. photocond. 39554
GaAs films, temp. synchronized MLE 20676
GaAs fine-pitch devices, flip-chip attachment, ball-bumping technol. 12954
GaAs, focusing/defocusing in electron scatt. along at. chains 6534
GaAs gain-guided SEL, CW spectral width 39767
GaAs, growth from trimethyl gallium 28725
GaAs growth mechanism on (110) GaAs, RHEED and AFM 20858
GaAs, growth techs. effect on photon detect. capabilities 43100
GaAs heteroepitaxial MBE growth on GaP, growth mode transit. *(Japanese)* 37408
GaAs heteroepitaxy, spherical epitaxial-Si substr. 307
GaAs heterojunction, 2D electron Wigner cryst., electron diffr., photolum. 21968
GaAs heterojunction p-i-n photodiodes, transient simul., reson. cavity enhanced 39565
GaAs heterostruct. FET, gate currents, warm electron contrib. 13794
GaAs high current power VFET, fab. proc. 30384
GaAs, high freq. photomixing 15109
GaAs high perform. comput. and commun., ARPA research 38957
GaAs high speed IC design, buffered DCFL logic 29202
GaAs high speed ICs, electro-optic sampling syst. for on-wafer tests *(Chinese)* 12786
GaAs high speed cct. design/perform. estim., normally-off logic 29126
GaAs, high temp. electronics appls. 22528
GaAs high-power high-speed photoconductive switching devices, temp.-depend. delay time 14532
GaAs, high-resist. plates, resist. inhomog. 34659
GaAs high-speed digital IC, direct electro-optic sampling *(Chinese)* 13858
a-GaAs high-temp. RF sputtering 37525
GaAs homojunction photodetector, subwavelength spatial resoln. 42819
GaAs, huge crysts., growth, charactn. 293
GaAs image rejecting downconvertor, single chip, 2.44 GHz 42161
GaAs, impact ionisation transients, lucky drift model 13071
GaAs, impact ionization, ensemble Monte Carlo simul. 21879
GaAs, impact-ionization model consistent, band struct. 29849
GaAs implement., systolic floating point proc. element 29253
GaAs in-situ maskless selective epitaxy by low-energy Ga focused ion beam, As$_4$ mol. beam 20875

III-V semiconductors continued
GaAs integrated opt. time-shift network for phased arrays 7381
GaAs, interfacial reacts. of Co and Si-Co films 38386
GaAs, intrinsic and p-doped, highly photoexcited carriers, femtosecond relax. 1036
GaAs, ion beam/RIE mechanisms, parametric investigs. 13398
GaAs, ion implanted, Raman line asymmetry/phonon freq. 38511
GaAs, kinetic study of at. H etching 30071
GaAs lateral superlattice, Weiss oscills., small-angle scatt. effects 38350
GaAs layers on Si(001), MBE/ALE grown, defect struct. 12113
GaAs, light-induced dry etching, desorpt. 30099
GaAs, liq. phase electroepitaxial growth, 2-D diffusion model 300
GaAs, local diffusion noise sources, spatial extent of correl. 29848
GaAs, low press. MOCVD on Si, defect reduction 20768
GaAs low temp. fusion bonding 1196
GaAs low-noise broad-band MESFET monolithic distributed preamplifier 42391
GaAs, low-press. metalorganic vap. phase epitaxy 12078
GaAs, low-temp. MBE growth, defects/As distrib., XPS, positron annihilation meas. 21916
GaAs, low-temp. MBE, nonalloyed ohmic contacts 29961
GaAs, low-temp. MBE, substr. orient. depend. 12093
GaAs, low-temp. dry etching 6630
GaAs, low-temp. grown, delta doping, As precip. 38501
GaAs, low-temp. surface cleaning, trisdimethylaminoarsine 13358
GaAs, metallorganic CVD, Zn-doping proc. 28843
GaAs, metalorganic CVD growth, 2D nuclei, STM study 20733
GaAs, metalorganic CVD, plasma-generated hydrogen radical effects 37480
GaAs, metalorganic VPE growth, gas phase adduct form. 20731
GaAs, metalorganic VPE growth, wide terrace form. 20732
GaAs microcavity, dressed exciton oscillating emission obs. 29921
GaAs microcavity, reson. excited exciton, coherent light emission 31375
GaAs microcryst./AlGaAs interlayers low-press. MOCVD growth 20945
GaAs micromachined mass-flow sens. 9880
GaAs micromachined widely tunable Fabry-Perot filters 22984
GaAs microstrip Gunn oscillator, highly stable, U-Band 37975
GaAs microstruct., fluidic self-assembly on Si substrs. 1468
GaAs microwave FETs, deep level characterisation 38001
GaAs, modulated RF plasma etching, Langmuir probes 13406
GaAs, modulation-doped, plasma, scaled ensemble Monte Carlo method 1035
GaAs monocrystalline substrs., gas etching in VPE 1233
GaAs multiple gratings, anisotropic diffr. props. 31653
GaAs multiple-tunnel jn., single-electron memory/logic ccts. 38942
GaAs, multiwafer MOVPE reactor growth modelling 20795
GaAs, n- and p-type, effect of ion energy on H diffusion 29861
GaAs, n-type, NiGe- and InAs-based ohmic contact metallizations 38655
GaAs nanocrystal doped glass, time resolved pump/probe Z-scan study 40067
GaAs nanometer-scale whiskers, growth/opt. props. 20815
GaAs nanowhiskers, site-controlled growth 12121
GaAs, neutron-transmutation-doped, annealing/hydrogenation effect 13276
GaAs, non-activated cond. of hot electrons in localization regime 29864
GaAs ohmic/nonohmic contact form., interfacial react. effects 38392
GaAs on Si PLL freq. synthesizer IC, chip on chip technol. 29338
GaAs, open-tube impurity doping, spin-on silica films *(Japanese)* 22145
GaAs opt. activated switches, Monte Carlo simul. 3299
GaAs opt. controlled FET, current modulation 7487
GaAs, opt. second-harmonic susceptibilities, opt. activity 7762
GaAs oxide mask layers, in situ electron beam lithog., patterning mechanism 38770
GaAs p$^+$-SI-n$^+$ SI struct., I-V charact. 38300
GaAs, p-doping, triethylamine adduct of dimethylzinc 1206
GaAs p-n jn., Franz-Keldysh electro-absorpt. effect 1082
GaAs p-n jns. and ohmic contact form. by laser solid-phase diffusion 30052
GaAs passiv., integrated plasma clean/CVD/RTA, Si$_3$N$_4$ encapsulation 22224
GaAs, patterned photon-driven cryoetching 30065
GaAs permeable jn. base transistor, homoepitaxial gate 6727
GaAs, photo-excited carriers, momentum reorientation 1034
GaAs photo-oxides, EB lithog., Cl adsorpt. mechanism 22177
GaAs photocond. pulsed power switches, filaments 36446
GaAs photocond. semicond. switches, AuBe, AuGe ohmic contacts 36388
GaAs photocond. semicond. switches, opt. controlled 36387
GaAs photoconductive freq. impulse device 36299
GaAs photoconductive pulsed power opening switch 36425
GaAs photoconductive pulsed power switches, Ti:sapphire laser-triggered 36440
GaAs photoconductive pulsed power switches, vac. surface flashover tests 36433
GaAs photoconductive switches, elec. field structs. 36448
GaAs photoconductive switches, filamentary elec. breakdown 23010
GaAs photoconductive switches, illum. uniformity effects 14610
GaAs photoconductors, compensated/partially compensated opt. gain 39547
GaAs photodetector for near-field optics 17766
GaAs photoemitter, response time, expt. study 29741
GaAs, photoenhanced metalorganic CVD, substr. role 12122
GaAs, photon-assisted MOMBE growth 28765
GaAs, picosecond photocond. switch *(Chinese)* 7460
GaAs planar gate power MESFETs, gate-drain breakdown volt. 13801
GaAs pn-jn. diodes, ECR plasma-induced damage 30209
GaAs power HBT, 44 GHz 37994
GaAs power MESFET, MBE growth, 4.7 V operation, 900 MHz charact. *(Korean)* 38920
GaAs power MESFET, passiv., ECR CVD Si$_3$N$_4$ tech. 13356
GaAs power MMIC for 1.9 GHz digital cordless phones 12823
GaAs power MMICs for X-band radar appls. 6341
GaAs power devices, heat transfer, flip chip technol. 30378
GaAs power diodes, PF correction boost converter appls. 36284
GaAs power multichip IC for cellular radio 42236
GaAs precharged low-power logic family, adder implement. 21264
GaAs pseudomorphic HEMT, MM wave power perform. 37991
GaAs pseudomorphic HEMT, high power, large periphery 37993
GaAs pseudomorphic HEMT, high yield, mfg. technol. 39020
GaAs pseudomorphic HEMT power amp., C-band, high power 38032
GaAs quantum dot with three contacts, oscills. correl. 29925
GaAs quantum well, MBE regrowth, 2DEG struct. 352
GaAs quantum wells, intersubband relax., ultrafast dyn. 13164
GaAs quantum wire, directional-coupler switch 22887
GaAs quantum wire, hot electrons ultrafast relax. 1119

III-V semiconductors continued
GaAs quantum wire superlattices, conduct. anisotropy 1103
GaAs quantum wires, dense electron-hole plasma phase 1118
GaAs quantum-well laser below-threshold near-field profile broadening, photon recycling 31390
GaAs radiation detectors, charge collection studies 43097
GaAs radiation detectors for ionizing elementary particles and X-ray radiation 4250
GaAs, radiation induced order effect, mobility study 13061
GaAs radiation-damaged refl. switch, IR pulse generation 31541
GaAs radio front-ends, PCN 25328
GaAs rectifier PF correction cct. tests 36324
GaAs, refr. index, thermal depend., multilayer opt. cavity meas. 15000
GaAs, resist. inhomogeneities obs., gas-discharge visualizer 42888
GaAs, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
GaAs, reverse long-range effect 13310
GaAs, selective ALE growth, surface procs. 20670
GaAs, selective area CBE 28768
GaAs, selective area MOCVD for hexagonal-facet lasers 20766
GaAs, selective area MOVPE, vert./lateral growth enhancement on (111)B substr. 20765
GaAs selective epitaxy on GaAs (111)B substrs., in-situ obs. 20874
GaAs self-aligned complementary heterostruct. FET process 39019
GaAs semicond. spark gap, pulsed power appls. 36426
GaAs serial dyn./static divider for solid modelling accelerator 29129
GaAs, shallow impurity, far-IR photocond. mechanism 6530
GaAs short gate-length MESFETs, delay time anal. 13814
GaAs short period corrugations, e-beam direct exposure, chem. amplified neg.-tone resist *(Japanese)* 22311
GaAs single-barrier varactors for MM-wave triplers 12779
GaAs, situ pattern etching, electron-beam-induced resist 13408
GaAs solar cell, hybrid component, Si HV cells 44410
GaAs solar cells, OCV, bandgap narrowing 19986
GaAs solar cells, gamma ray/electron displacement damage 13062
GaAs space power solar cells, satellite test data 26641
GaAs subMM Schottky diodes, reliab. and micro-struct. 1340
GaAs, submicron self-aligned fab. technol. *(Chinese)* 1204
GaAs, subpicosecond elec. pulses, Monte Carlo investig. 22992
GaAs substr., GaInAsP, GaInP solar cells 10396
GaAs substr., $ZnSe/Cd_xZn_{1-x}Se/ZnSe$ quantum well pseudomorph, struct., interfacial studies 302
GaAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
GaAs substr., via holes, dry etching *(Chinese)* 1234
GaAs substrs., SiN_x films, surface passiv. 30131
GaAs substrs., coplanar strip lines/waveguides, ultrashort elec. pulse generation 39562
GaAs substrs., thin-film $LiNbO_3$ waveguides fab. 14478
GaAs, substrs., vapour press. controlled CZ growth 12028
GaAs, sulfidated surface, electron work fn. 13372
GaAs, sulfur treatment and hydrogen plasma treatment 38597
GaAs superlattices, miniband transport, quantized mag. field 21984
n-GaAs surface, N^+-implanted, post-anneal perform., N role 38384
GaAs, surface, NH_3-plasma treatment in rem./direct plasma reactor 38628
GaAs surface cleaning by H ECR plasma, opt. refl. spectra 13348
GaAs surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
n-GaAs, surface passiv., As_2S_3 film 30089
n-GaAs, surface photovoltage, photoemission spectrosc. 14586
GaAs, surface reactivity, H 22241
GaAs surfaces, wet/dry etched, ellipsometric model 21914
GaAs switches, e-beam activated, optimisation 36429
GaAs symmetric/asymmetric QW struct., lin./quadratic electrooptic effects 21999
GaAs tapered QW, selectively contactable 2DEG, shadow masked MBE 38346
GaAs thin film, Franz-Keldysh effect, opt. modulation 39486
GaAs thin film, GaAs substr., eutectic bonding-induced in-plane strain 38341
GaAs thin film, Si substr., eutectic bonding-induced in-plane strain 38341
GaAs thin solar cell, light trapped, spacecraft appls. 26600
GaAs transmitter/receiver LSI chips, parallel opt. links 42401
GaAs transmitter/receiver chipset for opt. link 42404
GaAs, trench etch rates/aspect ratio/feature width/ substr. temp. 30067
GaAs tri-state driver flip flop, HFET LSI 37718
GaAs triple-barrier reson. tunneling diode, time-resolved photolum. 1451
GaAs, tunable narrowband FIR detectors 14893
GaAs two-chamber MBE growth on Si(111), cryst. quality 337
GaAs, ultrafast electro-opt. switch, cross-correlating capabilities 39477
GaAs ultrafast power diode characts. 37633
GaAs vac. ALE growth, tertiarybutylarsine 28743
GaAs vert. MESFET, smart power switching 38928
GaAs, vert. gradient freeze growth, residual impurities/defects, IR absorpt./Hall effect 12031
GaAs vert.-stacked quantum wires grown/Si substrs., MOVPE 20797
GaAs wafer breakage, impact on proc. facilities 38459
GaAs, warped band model, hole drift vel. 13069
GaAs wide-bandwidth MSM photodiode, extrinsic freq. response 39570
GaAs wireless LAN opportunities 42160
a-GaAs:As, SI, elec. charact. by I-V meas. 13050
GaAs:As, implanted struct., MOCVD, charactn., appls. 22159
GaAs:Be, electron thermalization, picosecond time-scale 1033
GaAs:Be, polycryst., heavily doped, diffusion props. 1043
GaAs:Be, surface cleaning in situ chem. beam etching 13350
GaAs:C, C activation, amorph. layer regrowth 30037
GaAs:C, C incorporation, MOVPE 22125
GaAs:C, C ion beam doping/MBE 28773
GaAs:C CBE growth, in-situ monitoring 20880
GaAs:C, HBT base-layers, electron lifetimes, annealing effects 1200
GaAs:C MBE layers, ion-beam doping 22122
GaAs:C, MOCVD, doping and growth rate reduction by CCl_4 403
GaAs:C, coimplantation, energy/dose rate obs. 30049
GaAs:C, elemental Ga/As sources and CCl_4 gas source, MBE growth 28739
GaAs:C films, MBE, C^+ beams, photolum. 28789
GaAs:C films, MOCVD grown, heavily doped, elec. props. 38253
GaAs:C, heavily doped, LP-MOVPE, carrier gas effects 22133
GaAs:C, heavily doped, MOMBE using elemental Ga 321
GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
GaAs:C, polycryst., heavily doped, diffusion props. 1043

III-V semiconductors continued
GaAs:C self-aligned n-JFET, carbon buried p-implant 6806
GaAs:C, solid source MBE, uniform/delta doping, at. C pairing 38488
GaAs:C/AlAs periodic struct. CBE growth, in-situ monitoring 20880
GaAs:C/AlGaAs HBT, reliab. 13640
GaAs:C/AlGaAs power HBTs, bias-stressed, failure mode 22359
GaAs:C(S), CBE and in situ etching, opt. monitoring 359
GaAs:C,H, MOMBE, C-H complexes, orient. rels. 327
GaAs:C,H, isolated H-donors, deactivation mechanism 22130
GaAs:Cr, X-ray detector material, deep levels, PICTS study 43156
GaAs:Cr, doped/undoped, elec. props., heat treatment *(Korean)* 13330
GaAs:Cr, free-carrier grating dyn., picosecond meas. 14341
GaAs:Cr, picosecond transient gratings, expts./modelling 31491
GaAs:Cr/AlGaAs SI MQW photorefr. device 22942
GaAs:Cu,Si bistable opt. controlled switch, perform. 36385
GaAs:Cu,Si bistable opt. controlled switch, subnanosecond high-power perform. 2104
GaAs:Cu,Si bulk opt. controlled semicond. switch, inductive energy storage 36392
GaAs:Er, MBE grown, struct. anal. 37440
GaAs:Er, ion implant./MBE, Er-related deep centres 38516
GaAs:Er, metalorganic CVD, $Er(C_4H_9C_5H_4)_3$ 12164
GaAs:Er very high-speed MSM photodiodes, fab., charactn. 31076
GaAs:Fe(Ni), ion implant./annealing, precip. 6610
GaAs:Ge, radiation damage, elec. and opt. meas. *(Japanese)* 1048
GaAs:III-VI gallium chalcogenides(100), passiv. 30077
GaAs:In layers, LPE grown, charactn. 5826
GaAs:Li, shallow and deep level passiv. by lithium 1052
GaAs:N,C, thermally stable C-N deep level 28742
GaAs:O, MOVPE, elec. charactn., O incorporation control 20775
GaAs:O, MOVPE, ultrafast photodetector materials appl. 23064
GaAs:O, waveguide materials, oxygen ion implant. 39402
GaAs:O(S)(110), surface states, ambient/vac. STS 1244
GaAs:P, ion implanted, amorph. 22118
GaAs:Sb grown by LPE, electron traps, DLTS 21918
GaAs:Se^+, discharge-pumped VUV F_2 mol. laser annealing 30011
GaAs:Si, MESFET, ion implant., mass resoln. effects 30039
GaAs:Si QW, uniform intermixing in p-i-n modulator structs. 39605
GaAs:Si, Si diffusion by RTO 38523
GaAs:Si, at. layer MBE, shallow deep levels 347
GaAs:Si, at. layer doped, thermal stabil. 22110
GaAs:Si, decoration phenom. during planar doping, magnetoresist. effects 13285
GaAs:Si, delta-doped, low-press. MOVPE 13304
GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
GaAs:Si, doping in MOVPE from tertiarybutylarsine and tetraethylsilane 22128
GaAs:Si epitaxial layer, MBE grown, LSI appl. *(Korean)* 20904
GaAs:Si, heavily doped, MBE, elec. props. 1040
GaAs:Si, incorporation, MOVPE from tertiarybutylarsine 22126
GaAs:Si lateral jns., MBE growth on patterned substrs. 21947
GaAs:Si, multiple δ-layer-doped MQW, hot electrons 38365
GaAs:Si, planar doped, autocompensation 22111
GaAs:Si, quantitat. anal., quadrupole-based SIMS *(Chinese)* 30053
GaAs:Si/Al/GaAs:Si, δ-doped superlattice, Al barrier interface roughness 38412
GaAs:Si/GaAs(111)A, p-n struct. charactn. 29876
GaAs:Si^+,Se^+, ion implant., struct. anal. 30031
GaAs:Si(Be), low-temp. MBE, dopant effects 21917
GaAs:Si(Cu) , opt. activated pulsed power switch, 2D model 39572
GaAs:Si(Ge)(Al), MBE, re-evap. and sub-oxide transport 335
GaAs:Si,Be, periodically δ-doped, carrier lifetime meas. 21907
GaAs:Si,Cu photoconductive pulsed power switch perform. tests 36428
GaAs:Sn, n-type doping, MBE 1207
GaAs:Sn(Zn), LPE growth, Bi-based melts, solar cells 27949
GaAs:Te, highly doped, EL2 trap, jn. spectrosc. 13124
n-GaAs:Yb, electron irrad., defect form., cond. compensation 21911
GaAs:Zn, Zn incorporation, OMVPE growth 30019
GaAs:Zn-Au tunnel jn., zero-bias anom. 1164
GaAs:Zn(Sn), p/n-type impurity diffusions, doped silica films 38500
GaAs/(AlGa)As DBR, reflectivity, disordering 2035
GaAs/(Al)GaAs/GaAs at. layer growth using $GaCl_3$, $AlCl_3$ and AsH_3 20689
GaAs/Ag Schottky barrier, electroreflectance 13216
GaAs/$Al_{0.28}Ga_{0.72}As$, QW IR photodetectors *(Chinese)* 9900
GaAs/$Al_{0.35}Ga_{0.65}As$ MQW, refr. index, Fabry-Perot etalon meas. 34717
GaAs/$Al_{0.3}Ga_{0.7}As$ MQW waveguides, pulse squeezed light generation 1721
GaAs/$Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., photolum. intens., sens. appls. 39558
GaAs/$Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., sens. appls. 38303
GaAs/$Al_{0.4}Ga_{0.6}As$ QW npn phototransistor fab. 31084
GaAs/$Al_{0.4}Ga_{0.6}As$ RTDs, LF flucts. charactn. 1333
GaAs/$Al_{0.5}Ga_{0.5}As$ quantum wire struct., in-situ gas etching/selective-area MOVPE 20798
GaAs/$Al_xGa_{1-x}As$, LP-MOVPE, DEAIH-NMe_3, Al source 346
GaAs/$Al_xGa_{1-x}As$, MOVPE, n-doping, 2D electron gas struct. 22152
GaAs/$Al_xGa_{1-x}As$, MQW, opt. transm. 15033
GaAs/$Al_xGa_{1-x}As$ MQW solar-cell, barrier pot. design criteria 5218
GaAs/$Al_xGa_{1-x}As$ growth with DEAlH-NMe_3, MEAs and DMAAs sources 20780
GaAs/$Al_xGa_{1-x}As$, mag. electron-focusing effect 1106
GaAs/$Al_xGa_{1-x}As$ multilayers, avalanche breakdown 1042
GaAs/$Al_xGa_{1-x}As$, multiwafer prod. for solar cells on 4″ substrs. 5224
GaAs/$Al_xGa_{1-x}As$ p-i-n diodes, ballistic-electron energy distrib. 29896
GaAs/$Al_xGa_{1-x}As$ quantum wells, IR focal arrays 42785
GaAs/$Al_xGa_{1-x}As$ quantum wires, Hall effect 22020
GaAs/$Al_xGa_{1-x}As$ rings, tunneling, edge states 21985
GaAs/$Al_xGa_{1-x}As$ superlattice, interfacial roughness, controlled impurity incorporation 20821
GaAs/$Al_xGa_{1-x}As$ double-barriers, electron transm. 13113
GaAs/$Al_xGa_{1-x}As$ heterostruct., separately contacted electron-hole double layer 13108
GaAs/$Al_xGa_{1-x}As$ modulation-doped multilayer heterostructures, current oscillations 29886
GaAs/$Al_xGa_{1-x}As$ quantum-well IR photodetectors, design, perform. 9905
GaAs/$Al_xGa_{1-x}As$/GaAs, electron tunneling, DX defect effects 1080
GaAs/$Al_xGa1_{-x}As$ heterostruct., integral QHE 1108
GaAs/Al(Ga)As quantum wells, MOVPE/MBE growth, interface struct. 20878
GaAs/AlAs DBRs for GaSb-based reson. cavity photodetectors 25833

III-V semiconductors continued
GaAs/AlAs MBE heterostruct., (311)A orient. 20860
GaAs/AlAs MQW Fabry-Perot transm. modulator, ON/OFF contrast ratios >7.4 30988
GaAs/AlAs QW, exciton diffusion/energy relax. in strong mag. field 29904
GaAs/AlAs RTD, QW electroluminesc. 38945
GaAs/AlAs RTD pillar arrays, resist. bistability 30213
GaAs/AlAs, RTD with asymmetric spacer layers, microwave impedance 13606
GaAs/AlAs RTDs, photoinduced hole tunneling 38804
GaAs/AlAs coupled QW struct., long-lived excitonic ground states 1113
GaAs/AlAs, disordered superlattices, IV charact. 29937
GaAs/AlAs double barrier struct., X-states, reson. tunneling procs. 38288
GaAs/AlAs double-barrier heterostruct., reson.-tunneling peak fine struct. 38285
GaAs/AlAs double-barrier heterostruct., tunnel current oscills. 1147
GaAs/AlAs, epitaxial growth on corrugated semicond. surfaces, RHEED obs. 318
GaAs/AlAs four-wavelength Bragg mirror 22917
GaAs/AlAs, lateral surface superlattices, pot. modulation 29931
GaAs/AlAs low temp. MISFET struct. for power appl. 6752
GaAs/AlAs opt. differentiator, Wannier-Stark localization, space charge screening 14504
GaAs/AlAs, p-i-n photodiode superlattices, transm. intens. oscills. 14602
GaAs/AlAs quantum heterostruct., local space charge field 30816
GaAs/AlAs quantum wells, MBE growth interruption, nonradiative recomb. 332
GaAs/AlAs quantum wire struct., crystallographic selective growth by ALE 343
GaAs/AlAs quantum wires, MBE growth, GaAs(100) patterned substrs. 21977
GaAs/AlAs, reson. tunneling transistors, tunneling transit time 13646
GaAs/AlAs, short period superlattices, interface struct., STM 28751
GaAs/AlAs, single-wavelength all-opt. phase modulator 2106
GaAs/AlAs, sub-micron p-i-n RTD, discrete electrolum. lines 14640
GaAs/AlAs submicron light-emitting RTDs 14623
GaAs/AlAs superlattice, X valley minibands, neg. differential cond. 1088
GaAs/AlAs superlattice, photolum. pol. depend. 38336
GaAs/AlAs superlattice, random, electronic/opt. props., disorder effect 6558
GaAs/AlAs superlattices, in-plane photocurrent spectrosc. 38317
GaAs/AlAs thin film opt. filters in Fabry-Perot cavity 31063
GaAs/AlAs vert. cavity laser, SW light generation 23281
GaAs/AlAs:C, LV VCSEL, low resist. C-doped mirrors 1946
n-GaAs/AlAs/$Al_{0.3}Ga_{0.7}As$ double barrier QW, tunneling assisted thermionic emission 38326
GaAs/AlAs/AlGaAs double-barrier QW, interband/intersubband absorpt. 29907
GaAs/AlGaAS quantum wells, high mobility, electron cyclotron oscills. 21997
GaAs/AlGaAs, 2DEG in random mag. field, magnetoresist. 6552
GaAs/AlGaAs DH laser, electron-hole pair recomb. 23218
GaAs/AlGaAs FET-SEED, smart pixels and saturation charact. 14657
GaAs/AlGaAs, H impurity near interface, binding energy effect *(Chinese)* 6542
GaAs/AlGaAs HBT, InN ohmic contacts 38817
GaAs/AlGaAs HET, quasi-ballistic electrons, reson. tunnelling 13654
p-GaAs/AlGaAs HFET, output characts., high press. effects 38919
GaAs/AlGaAs LD, surface mode coupling, single laser mode emission 14916
GaAs/AlGaAs, MBE, optoelectronics appl. 5850
GaAs/AlGaAs MESFET and pseudomorphic HEMT, selective RIE 38917
GaAs/AlGaAs, MOCVD, regrown, interface contamination, gas etching 22242
GaAs/AlGaAs, MOVPE, V-grooved GaAs substrs. 20884
GaAs/AlGaAs MOVPE-grown vert.-cavity top-SEL 31388
GaAs/AlGaAs MQW APD, gain props. 39569
GaAs/AlGaAs, MQW IR detector, wideband response *(Chinese)* 17809
GaAs/AlGaAs MQW SLM 30993
GaAs/AlGaAs MQW, perp. over-barrier diffusion, short-period transient grating meas. 38324
GaAs/AlGaAs MQW, refr. index, grating coupling tech. 22012
n-GaAs/AlGaAs MQW struct. with Schottky and ohmic contacts, seq. tunneling 29897
GaAs/AlGaAs MQW, ultrafast nonlin. optics 2120
GaAs/AlGaAs MQW zero-gap directional coupler, disordered branching waveguides 14491
GaAs/AlGaAs MQWs, nonlin. index saturation in bandtail absorpt. region 13172
GaAs/AlGaAs QW, exciton relax., recomb. dyn. 1116
GaAs/AlGaAs, QW microcavity LED, mode-coupling 7472
GaAs/AlGaAs QW, opt. switching effects under hydrostatic press. 38251
GaAs/AlGaAs QW waveguides, all-opt. PM 23370
GaAs/AlGaAs QW wires, form., photolum. charactn. 20819
GaAs/AlGaAs QWs and quantum wires, growth and opt. props. *(Chinese)* 5815
GaAs/AlGaAs SQW laser struct., carrier lifetime, absorpt. recovery time 14918
GaAs/AlGaAs, VCSEL, thermally stable elec. characts. 39768
GaAs/AlGaAs, artificial lateral superlattice, transport props. 29934
GaAs/AlGaAs bistable FET, optoelectronic switching 40056
GaAs/AlGaAs buried quantum wires, situ FIB implant. 21978
GaAs/AlGaAs, column fab., RIE using Au island etching mask 30162
GaAs/AlGaAs devices, appls., opt. neural networks 22974
GaAs/AlGaAs diodes, electron blocking, X-valley superlattice effects 1344
GaAs/AlGaAs, double barrier RTDF, shot-noise suppression 30230
GaAs/AlGaAs double barrier, seq. tunnelling assisted by light 1099
GaAs/AlGaAs, double heterojunction, triangular barrier switch 30387
GaAs/AlGaAs double quantum wells, photoreflectance and photolum. 1124
GaAs/AlGaAs edge overgrown lateral superlattice, high field transport 13175
GaAs/AlGaAs etched arrays of QW opt. bistable microresonators 14659
GaAs/AlGaAs heterojunction barriers, transm. tunneling current 13127
GaAs/AlGaAs heterojunction, magnetothermopower, phonon drag 38298
GaAs/AlGaAs heterojunctions, deep-level defects, review 13123
GaAs/AlGaAs heterostruct., 2D electron gas, electron correls. 38312
GaAs/AlGaAs heterostruct., ballistic electron transport, magneto-opt. studies 13115
GaAs/AlGaAs heterostruct., deep impurity doped, elec. field and refr. index change 30817
GaAs/AlGaAs heterostruct., plasma etching damage 30109

III-V semiconductors continued
GaAs/AlGaAs hexagonal-facet laser with opt. waveguides, selective area metalorganic CVD 23214
GaAs/AlGaAs high barrier gain offset CW VCSELs 7618
GaAs/AlGaAs, hot electron tunnelling photodetector 3837
GaAs/AlGaAs, in-plane strained, polariz. depend. excitonic opt. nonlin. 23424
GaAs/AlGaAs, independently contacted double quantum well, MBE regrowth 28732
GaAs/AlGaAs inverted MODFET, charge control/I-V model 38908
GaAs/AlGaAs, mesoscopic electro-opt. switching element 39475
GaAs/AlGaAs micro-pyramids, selective MOVPE growth 20767
GaAs/AlGaAs microdisk lasers 23259
GaAs/AlGaAs microwave HEMT device, MBE fab. and charactn. *(Korean)* 29571
GaAs/AlGaAs modulation-doped heterostruct., DX centers 29938
GaAs/AlGaAs multilayer p-i-n struct. multilayers, ionization 38335
GaAs/AlGaAs multiple bridge devices in quantizing mag. fields, pot. distrib. 38291
GaAs/AlGaAs multiquantum well vert. cavity tunable photodetector 17800
GaAs/AlGaAs, narrow quantum Hall conductors, anom. magnetotransport 13129
GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
GaAs/AlGaAs opt. phase modulators for microwave/photonic ICs 7495
GaAs/AlGaAs patterning, epitaxial InGaAs layer, Cl_2 etching mask 13181
GaAs/AlGaAs phase-coherent 2D superlattice, quantum interf. obs. 21982
GaAs/AlGaAs photonic ICs, plasma induced QW layer intermixing 30971
GaAs/AlGaAs quantum dots, MOVPE growth, patterned GaAs substrs. 37428
GaAs/AlGaAs, quantum dots, ballistic, conductance flucts. 13198
GaAs/AlGaAs quantum dots, ion implant. based nanofabrication, masks 13493
GaAs/AlGaAs quantum dots, photolum. charactn. 29926
GaAs/AlGaAs quantum well IR photodetector arrays, thermal imaging appl. 3844
GaAs/AlGaAs quantum well struct., etching, photoreflectance phase shift 38532
GaAs/AlGaAs quantum wells, doping dens. and barrier lowering effect, IR detectors 23019
GaAs/AlGaAs quantum wells, four-wave mixing, biexciton effects 7807
p-GaAs/AlGaAs quantum wells, reson. absorpt. and photoresponse 38318
GaAs/AlGaAs quantum wells, ultrafast exciton dyn. in direct gap semicond. 1032
GaAs/AlGaAs quantum wire lasers fabricated by cleaved edge overgrowth 1964
GaAs/AlGaAs quantum wires, electron interf., correl. field anal. 38356
GaAs/AlGaAs quantum wires/dots, X-ray lithog. and Ga^+ intermixing 38344
GaAs/AlGaAs, quantum-well heterolasers, spectral charact. 23228
GaAs/AlGaAs quasi-1D struct., holographic lithog., wet etching 21975
GaAs/AlGaAs rings, quasiballistic interferometer, electron wave interf. 22502
GaAs/AlGaAs, selective dry etching, BCl_3/CHF_3 plasma 13374
GaAs/AlGaAs semicond. superlattice, ballistic electron scatt., undulator props. 38333
GaAs/AlGaAs smart pixels, picosecond switching 23056
GaAs/AlGaAs struct., low-press. MOVPE, growth area 20827
GaAs/AlGaAs superlattices, IR detectors, MOVPE growth 37418
GaAs/AlGaAs superlattices, electro-optic detect. of Bloch oscills. 21988
p-GaAs/AlGaAs superlattices, heavily-doped, IR photodetector appls. 3836
GaAs/AlGaAs superlattices, high-field domain form. 29922
GaAs/AlGaAs tunnelling MQW struct., picosecond opt. sig. recovery 31519
GaAs/AlGaAs, two quantum dots in series, Coulomb blockade 29933
GaAs/AlGaAs, ultra-low dens. dual quantum dot, transport props. 29932
GaAs/AlGaAs waveguides with quantum well claddings, opt. modulation, beam steering 22892
GaAs/AlGaAs, wire, MBE regrowth on patterned substrs. 20808
GaAs/AlGaAs:C(Zn) lasers, bandgap-tuned, C(Zn) doping 1944
GaAs/AlGaAs:Sb MQW, disordering, isoelectronic Sb implant effects 1217
GaAs/AlGaAs:Si HEMT/Si, selective dry etching, V_{th} uniformities and f_T 6791
n-GaAs/AlGaAs:Zn/AlGaAs:Se struct., Zn diffusion mechanism 21955
GaAs/AlGaAs/AlAs quantum nanostructures, mag. confined plasma RIE 13385
GaAs/AlGaAs-heterostruct., low-dimens., direct MBE growth 331
GaAs/Au buried interfaces, opt. SHG 1152
GaAs/Au diodes, FIB implant. damage, BEEM study 13605
GaAs/AuGeNi/Au ohmic contact, WN diffusion barrier *(Chinese)* 22036
GaAs/BiCMOS/CMOS technol. memory archit., solid modelling accelerator 29214
GaAs/$CaSrF_2$ quantum semicond. struct., high energy electron beam lithog. 13149
GaAs/$Ga_{1-x}Al_xAs$ MQW, IR detector appls., comparison, HgCdTe 9911
GaAs/$Ga_{1-x}Al_xAs$ quantum-well IR photodetector, dark current 25832
GaAs/GaAlAs, 2D hole gas, MBE, elec. props. 355
GaAs/GaAlAs, channelled substr. window twin stripe lasers 31332
GaAs/GaAlAs heterojunctions, real space transfer 13126
GaAs/GaAlAs high-power 2D quantum wire laser arrays 14943
GaAs/GaAlAs quantum wells, metalorganic VPE, laser reflectometry 20724
GaAs/GaAlAs waveguide, TE/TM mode splitter fab. 22893
GaAs/GaAlAs waveguide polarizer, high extinction ratio metal-clad, design 30944
GaAs/GaAsP heterostruct., MOVPE grown, interface flatness 20822
GaAs/GaAsP, quantum wire, ALE growth mode switching 20828
GaAs/GaAsP quantum wires, MOVPE, luminesc. props. 20796
GaAs/GaAsP strained-layer quantum well struct., photolum. linewidth 23002
GaAs/GaInP syst. MOVPE grown quantum-well struct., InP/GaInP barriers 20801
GaAs/GaInP(AlGaAs)-based HBTs, thermal-elec. feedback coeffs. 12783
GaAs/GaN/GaAs thin-layer struct., plasma-assisted MOCVD growth 37506
GaAs/GaP(001), MBE growth 37427
GaAs/Ge Clementine spacecraft solar cell array studies 26603
GaAs/Ge MOVPE heterostruct., lattice strain relax., X-ray diffr. obs. 38308
GaAs/Ge solar cells, Deep Space Probe Science Expt., elec. power syst. 26646
GaAs/$In_{0.15}Ga_{0.85}As/Al_xGa_{1-x}As$ HEMTs, modelling 13795
GaAs/$In_xAl_{1-x}As$/GaAs heterojunction barriers, Γ-X transport 13117

III-V semiconductors continued
GaAs/InAs, GaAs capping layer growth, island induced strain driven adatom migration 354
GaAs/InAs/GaAs heterostruct., MBE growth, substr. misorient. effect 20856
GaAs/InGa(Al)As(ZnSe) heterostruct., phase stabil. and mech. defects under press. 38289
GaAs/InGaAs MIS-like pseudomorphic transistor, two-layer struct. 38854
GaAs/InGaAs coupled semicond. microcavities 2030
GaAs/InGaAs, δ-doped heterostruct., hot carriers, NDR transistor 30374
GaAs/InGaAs two step doping channel FET, symmetric normally on/normally off characts. 38937
GaAs/InGaAs:Si/GaAs(AlGaAs) δ-doped quantum wells, neg. magnetoresist. 29918
GaAs/InGaAs/AlGaAs heterostruct., selective high-temp.-stable O implant. 1218
GaAs/InGaAs/AlGaAs strained quantum well lasers, MBE, max. output power 39794
GaAs/InGaAs/GaAs SQW, current transport and deep levels 21994
GaAs/InGaAs/GaAs double delta-doped channel, high carrier dens. and mobility 21990
GaAs/InGaP quantum well p-i-n diodes, blue shift obs. 14603
GaAs/InGaP/AlGaAs QW IR photodetectors 9903
GaAs/InP 1 μm MESFET, buffer layer thickness optimization for OEIC 14661
GaAs/InP MESFET, degrad. investig. 6792
GaAs/InP heterostruct., (111) A, B oriented, MOVPE growth, Raman scatt. 12107
GaAs/Si Schottky diode, urea biosensor appl. 3896
GaAs/Si heteroepitaxy, disloc./antiphase domain boundary interacts. 309
GaAs/Si, heterostruct., IV charact., CV charact. 29893
GaAs/Si/SiN$_x$ syst. diffusion barriers, MBE 1289
GaAs/Ti Schottky contacts, elec. param. stabil., cleaning depend. 29959
GaAs/TlCaBaCuO, MESFET semicond./thin film supercond. hybrid phase shifter 29559
GaAs/WN$_x$/W-gate MESFET multiplexer IC, 0.5 μm, A 20 GHz 8-bit implement., fibre transm. 9546
n-GaAs/metal Schottky contacts, interface state dens. anal. 1157
n-GaAs/n-Al$_{0.4}$Ga$_{0.6}$As heterostruct., laser-enhanced selectivity 1250
p-GaAs/n-Ge struct., photoelec. props. in lin. polarized light 1097
GaAs-Al$_{0.25}$Ga$_{0.75}$As/Cs-Au struct., elec. gated field-assisted photoemission 38379
GaAs-Al$_{0.3}$Ga$_{0.7}$As RTDs, spacer layers, capacitance 13611
GaAs-Al$_x$Ga$_{1-x}$As quantum well lasers, bistable power switching 39863
GaAs-AlAs MBE grown vert. Fabry-Perot laser cavities, periodic mode shift 31443
GaAs-AlAs quantum well struct., large opt. nonlin. 40107
GaAs-AlAs semicond. superlattice deep gratings, nonlin. optics 31631
GaAs-AlAs vert. coupled-cavity microinterferometer, deformable-membrane top mirror 39991
GaAs-AlGaAs 0.85-μm VCSELs, reliab. studies 7677
GaAs-AlGaAs 256×256 miniband transport MQW long wavelength IR FPAs 17934
GaAs-AlGaAs FET, citric buffer etch-stop process 38865
GaAs-AlGaAs FET-SEED technol. based ring oscillators 23057
GaAs-AlGaAs GRINSCH LD modelling of MBE growth 39791
GaAs-AlGaAs HBT, high-speed register file, F-RISC/G proc. 37801
GaAs-AlGaAs LD with opt. feedback, line narrowing and modulation bandwidth 1981
GaAs-AlGaAs MQW, LiTaO$_3$ substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs MQW SLM 29946
GaAs-AlGaAs MQW, Si substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs MQW modulators integrated, Si CMOS IC 39597
GaAs-AlGaAs MQW, nonlin. opt. cross sect. 13187
GaAs-AlGaAs MQW waveguides, coupling props. 14467
GaAs-AlGaAs QW DFB VCSEL, temp. depend. of transverse mode evol. 7669
GaAs-AlGaAs VCSEL, low-temp. charctn. 7653
GaAs-AlGaAs antiguided laser array fabricated by superlattice struct. 1988
GaAs-AlGaAs conc. photoconverter, wide-band GAP substr. 36593
GaAs-AlGaAs coupled QW polariz.-independent waveguide opt. modulator 7394
GaAs-AlGaAs diode lasers, threshold current, carrier charge imbalance effect 14888
GaAs-AlGaAs electroabsorpt. modulators integrated, pass. waveguides 22918
GaAs-AlGaAs, field-effect LD, picosecond, saturable absorpt. 2005
GaAs-AlGaAs heterojn. 3-cascade solar cells, monolithic struct. 11288
GaAs-AlGaAs heterostruct. barrier varactor freq. tripler, simul. 6321
GaAs-AlGaAs heterostruct., fab. tech., mesoscopic device appl. 12159
GaAs-AlGaAs laser, multiple colliding pulse mode-locked operation 1949
GaAs-AlGaAs mesoscopic single loop, persistent currents 13137
GaAs-AlGaAs modulation-doped heterostruct., interface roughness scatt. 13109
GaAs-AlGaAs monolithic optoelectronic switch, modulation response 23055
GaAs-AlGaAs monolithic optoelectronic switching network 42130
GaAs-AlGaAs monolithic semicond. ring lasers, pass. mode locking 31416
GaAs-AlGaAs multilayers, orient. depend. MBE growth on GaAs(111),(001) 339
GaAs-AlGaAs nano-heterostruct., UHV MBE growth 329
GaAs-AlGaAs near-perfect QW on vicinal surface, MBE, photolum. obs. 22011
GaAs-AlGaAs opt. thyristor-based differential pair switch, 50 Mbit/s 31087
GaAs-AlGaAs p-i-n MQW modulators, opt. bandwidth 39476
GaAs-AlGaAs proton-implanted MQW modulators for low-photocurrent SEEDs 14528
GaAs-AlGaAs quantum well photoconductors, long-wavelength IR appls. 17785
GaAs-AlGaAs quantum wells, periodic pot., cct.-theoretical anal. 13191
GaAs-AlGaAs quantum wires and dots, modulation-doped, opt. emission and Raman scatt. 1143
GaAs-AlGaAs quantum-wire arrays on vicinal substrs., FEA of valence band struct. 21998
GaAs-AlGaAs superlattice Bloch oscill. higher harmonics 21989
GaAs-AlGaAs superlattice, high pol./quantum efficiency photocathode 22007
GaAs-AlGaAs-AlAs proton-implanted top-surface-emitting semicond. lasers 23206

III-V semiconductors continued
GaAs-AlGaAs-GaAs HEMT struct., elec./lumin. props., CF$_4$ plasma effect 13352
GaAs-AlGaAs(InGaP) based HBTs, H$^+$ and He$^+$ implant isolation comparison 30234
GaAs-Au(In) Schottky diodes, chem. etched surfaces 13612
GaAs-Ga$_{0.51}$In$_{0.49}$P QW heterostruct., reson. magneto-tunnelling of holes 13201
GaAs-GaAlAs MQW electro optic modulator opt. data self-routing 13153
GaAs-GaAlAs heterojunction, magneto resist./Hall effect meas. 21945
GaAs-GaAlAs multilayers, far-IR radiation nonlin. refl. 7756
GaAs-GaAlAs quantum point contact, dyn. response 6560
GaAs-GaAlAs waveguide saturable absorber, carrier heating dyn. 2109
GaAs-GaAs(111)A:Si, modulated beam epitaxy 20664
GaAs-Ge-NiIn-Ni ohmic contacts, interface charactn./reacts. 38396
GaAs-InAlAs tensile-strained quantum wells, polariz.-independent opt. modulation *(Japanese)* 22944
GaAs-InGaAs δ-doped real-space transfer transistor 30367
GaAs-InGaAs quantum-well reson.-tunneling switch 38328
n-GaAs-InN contact resist. investig. 38393
n- GaAs-InP, CVD layers/MESFET, elec./optical charactn. 13104
GaAs-InP MESFETs and ccts. fro OEICs 39598
GaAs-InP nanostruct. fab., MBE/MOVPE 385
GaAs-InP pin photodiode lightwave meas., error correction 42797
GaAs-P$_3$N$_5$ MISFETs, photo-CVD grown gate insulators, sulfide treated, charact. *(Korean)* 30355
GaAs-Si, MBE, optoelectronics appl. 5850
GaAs-Si films, anom. PV effect/neg. photocond. 39554
GaAs-Si, grazing incidence diffractometer, thin-film struct. anal. 38463
GaAs-Si heteroepitaxial layers, ohmic contacts, RTA 22029
GaAs-Si, microstruct. fluidic self-assembly 30002
GaAs-SiN, passiv. film form. by laser CVD 13370
GaAs-WN Schottky contacts, plasma deposited, thermal stabil. 22033
GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. 6338
GaAs-based HJFET, 6.6 W, 12 GHz, power amp. appls. 21550
GaAs-based MESFET/HFET, device and cct. modeling 6781
GaAs-based integrated reson. tunneling devices, MM-wave detector appls. 10005
GaAs-based p-i-n nanostructure, high-field electron transport, transient ps Raman studies 21974
GaAs-based quantum wires, hot electron transient transport, Monte Carlo method 1095
GaAs-based struct., electrochem. C-V profiling, electrolyte 13122
GaAs-metal interfaces, interphase reacts. 6571
GaAs(001), As/P precursor efficiency, reflectance anisotropy spectrosc. 20721
GaAs(001), Ga adsorpt., TMGa exposure 20692
GaAs(001), Sb-terminated, Ga/As surface reacts. 21900
GaAs(001), epitaxial growth, kinetic models 28775
GaAs(001), etching react. of digital etching control, tunable UV laser irrad. 22175
GaAs(001), metalorganic CVD, surface photoabsorpt. obs. 20720
GaAs(001), metalorganic VPE/MBE growth, surface procs. 20722
GaAs(001), oxide removal by H plasma, surface SHG 38599
GaAs(001) surface, MOVPE, monolayer growth oscills. 20854
GaAs(001), surface arsenic stoichiometric problem, in ALE growth 20690
GaAs(001), water treated, SR PES 1269
GaAs(001)/Al Schottky barriers, heterovalent interface layers 22038
GaAs(100), S-passivated, absol. coverage meas. 30129
GaAs(100), cleaning, XPS/AFM study 30066
GaAs(100), etching in HCl, XPS/AFM obs. 22176
GaAs(100) modified with octadecylthiol monolayers, near-surface electronic struct. 38539
GaAs(100) surface, $(NH_4)_2S_x$-treated, S at. sites 22171
GaAs(100) surface, $(NH_4)_2S_x$-treatment, STM study 38595
GaAs(100) surface, NH$_3$-plasma-nitridation, angle-depend. XPS 38594
n-GaAs(100), surface photo-emf spectra 1051
GaAs(100) surfaces, sulfide passivated, stabil. 38622
GaAs(110), Cs chemisorpt., ab initio study 6668
GaAs(110), K chemisorpt., ab initio study 1290
GaAs(110), ion sputtering, STM study 6629
GaAs(110), thickness-field excited thickness-shear resonators 30592
GaAs(111)B substrs., homoepitaxial growth, at. steps 20859
GaAsA/Al-Ni-Sn metallization scheme, ohmic contacts 1295
GaAs(InP) quasi-opt. slot HFET mixer, integrated, 40 GHz, car radar receiver appl. 12812
GaAsN, low-press. metalorganic CVD growth, plasma-cracked N$_2$ 20730
GaAsP, As-implant. damage effects 30058
GaAsP, at. layer MBE, P$_2$ incorporation efficiency 30059
GaAs$_{1-x}$P$_x$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
GaAsP/AlGaAs strained-layer quantum well, opt. props. 23001
GaAs$_{1-x}$P$_x$/Al$_y$Ga$_{1-y}$As DH, minority carrier lifetime 1081
GaAsP-Si 2 terminal tandem solar cells 20008
GaAsSb, low press. MOCVD, TEGa, tBAs, TMSb as precursors 412
GaAs$_{1-x}$Sb$_x$, citric acid etching for heterostruct. device fab. 6640
GaAs$_x$Sb$_{1-x}$, bulk hole transport, Monte Carlo simul. 21905
GaAs$_x$Sb$_{1-x}$ epitaxial layers, metalorganic CVD, solid-vapour comp. rel. 20727
Ga$_2$AsSb/InP thermophotovoltaic cell modelling 28004
GaInAS/InP, high power HJFET, MOCVD, performance 13775
GaInAs, MOVPE, coherency limits 315
GaInAs PIN photodiode, LPE growth, Er gettering 39567
GaInAs PIN/HEMT receiver OEICs for Gb/s opt. systs., fab. 25495
GaInAs, heterobarrier photodiode MSM struct., subpicosecond temporal resoln. 1795
GaInAs layers, VPE growth, compositional aspects 20741
GaInAs, migration/buried epitaxy, digital epitaxial growth 20672
GaInAs, selective area epitaxy, group III precursors 20759
GaInAs solar cells, radiation response, doping effects 19992
GaInAs thermophotovoltaic cells, growth/fabr. 27978
GaInAs thermophotovoltaic cells, metallisation contacts studies 28005
GaInAs:Be, MBE growth, Be acceptor diffusion 338
GaInAs:Ti, Ti doping, TiCl$_4$ 22131
GaInAs/AlInAs superlattices, nonlin. cond., space charge wave generation 1120
(GaIn)As/Ga(AsP) MQW, excitonic binding energies 15080
GaInAs/GaAs micro-arc ring semicond. laser, design 39866
GaInAs/GaAs quantum wire laser, gain coupling, RIE 31385

III-V semiconductors continued
- GaInAs/GaAs surface emitting lasers, materials, performance and appls. 14868
- GaInAs/GaAs/GaInP laser struct., CBE growth, organometallic precursors 349
- GaInAs/GaAs/GaInP single QW lasers, low threshold current 14874
- GaInAs/GaInAsP MQW tuned lasers fabricated by photoabsorption induced disordering 1957
- GaInAs/GaInAsP/GaInP LD, barrier comp., props. 31345
- GaInAs/InP OMVPE regrowth, ultrafine BH 20820
- GaInAs/InP high channel conductivity, HEMT appl. 13160
- GaInAs/InP quantum-wire lasers, fab. procs. 39811
- GaInAs/InP, regrown ohmic contacts, interface resist., TLM meas. 38417
- GaInAs/InP reson. tunneling diodes, hot electron phase coherent length 13593
- GaInAs/InP syst. MOVPE grown quantum-well struct., InP/GaInP barriers 20801
- $Ga_{0.32}In_{0.68}As/Ga_{0.61}In_{0.39}As$ MQW, strain compensated, growth optimisation 418
- $Ga_xIn_{1-x}As/AlAs$ heterostruct. on InP, flow modulation epitaxy for RTDs 20679
- $Ga_xIn_{1-x}As/AlAs$ reson. tunneling diodes, atmos. press. metalorganic CVD 415
- $Ga_xIn_{1-x}As/GaAs$ syst., In segreg. in MBE 12092
- GaInAs-GaAs micro-arc-ring lasers, design/lasing operation 1935
- GaInAs-GaAs multiwavelength SEL arrays, MOCVD fab. 1937
- GaInAs-GaInP long wavelength lasers, strain compensated barriers, electron leakage reduction 39822
- GaInAs-InP struct., MOVPE 12048
- GaInAs-InP tensile strained quantum wire laser fab. 39797
- GaInAsP BRS laser-GaAs MESFET driver for OEIC transmitter 31120
- GaInAsP MQW 1480-nm pump LD, life tests 9526
- GaInAsP, group III element incorporation in CBE 12070
- GaInAsP heterostruct., MOMBE 12042
- GaInAsP multilayer, gas source MBE, tensile/compressive strain modulation 12062
- GaInAsP, pseudo-buried heterostructure laser, GSMBE, single step epitaxy 14873
- GaInAsP quantum-well lasers, opt. gain, growth tech. comparison 14958
- $Ga_{0.84}In_{0.16}As_{0.68}P_{0.32}$ large area solar cells, space appls. 10396
- GaInAsP/AlGaInP-based near-IR (780 nm) VCSEL 31404
- GaInAsP/GaAs, MOCVD, lattice match, photoluminesc. Hall mobility 7610
- GaInAsP/GaInAsP MQW stacks, wavy layer growth elimination 20802
- GaInAsP/InP MQW QCSE tuning element for surface emitting laser 15014
- GaInAsP/InP SL-QW lasers with narrow and circ. output beam, charact., 1.3 μm 31407
- GaInAsP/InP injection laser with a periodic confining layer, modeling 14969
- GaInAsP/InP inverted-rib LD, interrupted life test 23252
- GaInAsP/InP strained-layer quantum well lasers, temp. depend. reflectivity mirror 40021
- GaInAsP/InP superluminescent diode, FIB modif. 39586
- GaInAsP/InP surface emitting lasers, materials, performance and appls. 14868
- GaInAsP/InP tensile strained SQW lasers, 1.3 μm, LP-MOCVD grown 14944
- $Ga_{1-x}In_xAs_yP_{1-y}/InP$ VCSEL 14923
- GaInAsP-InP 2×2 switch, monolithic integration with optical amplifiers 17191
- GaInAsP-InP continuously tunable LD, mode hopping *(French)* 1924
- GaInAsP-InP inverted-rib LD, degrad. recovery 14847
- GaInAsSb growth, tertiarybutylarsine, arsenic source 20779
- GaInAsSb, saturated cpd., tunable LED study 14633
- GaInAsSb separate-confine. laser heterostruct., threshold current dens. 14912
- GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
- GaInAsSb/GaSb, LED, electrolum. quantum yield 1827
- GaInAsSb-AlGaAsSb 1.9 μm ridge-waveguide QW lasers 31328
- GaInP, MOVPE, coherency limits 315
- GaInP, RIE 38563
- GaInP layers/heterostruct. on GaAs substrs., VPE, surface photo-absorpt. charactn. 20718
- GaInP, selective MOCVD epitaxial growth 20675
- GaInP, selective area CBE 28768
- GaInP, selective epitaxy, low press. MOCVD 360
- GaInP strained quantum-well lasers; gain, refr. index, linewidth enhancement 31393
- $Ga_{0.5}In_{0.5}P$ order/disorder heterostruct., organometallic VPE growth 20750
- $Ga_{0.51}In_{0.49}P$ large area solar cells, space appls. 10396
- $Ga_{0.52}In_{0.48}P$ layers, CBE grown, opt. charactn. 12104
- $Ga_{0.52}In_{0.48}P$, partially ordered, excitons homog./inhomog. linewidths 1045
- $Ga_xIn_{1-x}P$, selective epitaxy, LP MOCVD, comp. nonuniformity 20829
- $Ga_xIn_{1-x}P$ strained quantum wells, MOVPE growth 20799
- GaInP:Se, Se doping by ALE 30033
- GaInP/(AlGa)InP buried quantum wires, local order-disorder transition 13203
- GaInP/AlGaInP DFB QW lasers, fab., room temp. operation 23273
- GaInP/AlGaInP DH laser, 570-590 nm 200K operation 31341
- GaInP/AlGaInP, ECR plasma-assisted bandgap engng. 38332
- GaInP/AlGaInP QW struct., Zn doping, laser appls. 14977
- GaInP/AlGaInP SQW, bias and temp.-depend. photocurrent spectrosc. 38338
- GaInP/AlGaInP quantum wells, MOVPE, anom. photolum. 341
- GaInP/AlGaInP, single stripe MQW SCH LD 39840
- GaInP/AlGaInP vis. diode lasers, sustained oscills. 23253
- GaInP/GaAs DH interface, MOVPE growth 20805
- GaInP/GaAs HBT K-band DRO 6307
- GaInP/GaAs HBT, MMIC power amps., MOCVD growth 12165
- GaInP/GaAs HBT, base dopant out-diffusion prevention, heterostruc. emitter 30250
- GaInP/GaAs LP-MOCVD grown HBTs for VCOs and power amp. MMICs 22377
- GaInP/GaAs, MOVPE grown heterointerfaces, III/V exchange 20886
- GaInP/GaAs Schottky diodes, ALE growth, MESFET appl. 1337
- GaInP/GaAs hole barrier bipolar transistors 6728
- GaInP/GaAs multilayer struct., RIE, $SiCl_4$-Cl_2-Ar plasma 13396
- GaInP/GaAs ordered heterointerface, type-II band alignment 38282
- GaInP/GaAs planar HBT technol., CBE selective collector contact regrowth 1362
- GaInP/GaAs tandem solar cells, high efficiency 27960

III-V semiconductors continued
- GaInP/GaAs tandem solar cells, high-efficiency 19998
- GaInP/GaAs/GaInP quantum wells, persistent photocond. 13174
- GaInP/InP, quantum sized structs., MOVPE, 2D-3D growth mode transit. 12040
- GaInP/InP:S QW, strained barriers, optical/struct. props. 13159
- GaInP/Si/Al structs., Schottky barrier height modif. 13218
- $Ga_{0.5}In_{0.5}P/GaAs$ monolithic 2-terminal tandem conc. solar cell 27941
- $Ga_{0.5}In_{0.5}P/In_{0.15}Ga_{0.85}As$ pseudomorphic p^+-Schottky-enhanced barrier HFET 6790
- $Ga_{0.51}In_{0.49}P/GaAs$ I-HEMT and I^2HEMT, GSMBE growth 13767
- $Ga_{0.51}In_{0.49}P/GaAs$ PV converter, opt. power/data transm. 27943
- $Ga_{0.51}In_{0.49}P/GaAs$ inverted-struct. HEMT, DC charactn. 6789
- $Ga_{0.51}In_{0.49}P/In_{0.2}Ga_{0.8}As$ pseudomorphic HEMTs, WSi_x gates, high temp. 13811
- $Ga_xIn_{1-x}P/AlGaInP$ quantum wells, strained, opt. investig. 1134
- $Ga_yIn_{(1-y)}P/GaAs$, ordering probab., compositional depend. 38299
- GaInP-AlGaInP quantum wire lasers, MBE grown 31317
- GaInP-GaAs HBT, microwave appl. 12784
- $Ga_{0.51}In_{0.49}P$-GaAs, RIE selectivity, HBT appls. 38832
- GaN, ECR plasma etching, HI, HBr chemistries 1242
- GaN, GSMBE 2D growth, RF-radical nitrogen source 37433
- GaN, MBE selective growth, phase struct. vars. 37387
- GaN MESFETs for high-power/-temp. microwave appls. 29557
- GaN, MOCVD growth on 0001 sapphire, X-ray crystallography studies, blue LEDs 7473
- GaN blue-violet light emitting p-n jns. grown by ECR-assisted MBE 14638
- GaN epitaxial film on AlN-buffered Si(111), strain effects 12098
- GaN film, opt. pumped, UV lasing 14907
- GaN films, CBE 20899
- GaN films, ECR MBE, (001)/(111) Si substr., microstruct. 5822
- α-GaN films, OMVPE, microstruct. charactn. 28734
- GaN films, low-press. metalorganic CVD 419
- GaN films, metal-organic CVD growth, struct./elec./opt. props. 20897
- GaN, high press. crystn. 37377
- GaN, high temp. ECR etching 38540
- GaN high-lumin. blue/blue-green LEDs 14631
- GaN layers hydride VPE on cubic GaN/(100)GaAs and hexagonal GaN/(111)GaAs substrs. 12079
- GaN, low temp MOCVD epitaxy, photolum. 365
- GaN, metalorganic VPE growth, surface orient. depend. 20755
- GaN on Si(001), ECR plasma-assisted MBE growth 20898
- GaN p-n homojunction, UV/blue LEDs 7476
- GaN, selective VPE growth on GaN/sapphire substrs. 5846
- GaN surface, annealed, XPS, GaN/GaP heterostruct. CVD growth 20756
- GaN, thermodyn. and cryst. growth, high N_2 press. 37381
- GaN, thin films, MBE growth 5851
- GaN, two-step-growth on AlN buffer layer 20743
- GaN, wide-band-gap semicond. quantum wells, opt. gain 14957
- GaN:Mg, metalorganic CVD growth, doping memory effects 20940
- GaN:Mg on GaN substr., metalorganic VPE growth, opt. props. 20754
- GaN:Si, Si doping, disilane 38478
- GaN:Si metal-organic VPE, shallow/deep levels charactn. 13052
- GaN/AlGaN HFET based gated photodetector 34498
- GaN/AlGaN heterostruct. FET, temp. activated cond., operating at temp. up to 300°C 30376
- GaN/GaP heterostruct., metalorganic CVD on annealed GaN and GaP surfaces 20756
- GaN/SiC high-temp. HBT, high gain 22372
- GaN-AlN-GaN strained piezoelec. struct., I-V charact. 22084
- GaN-based LED, high efficiency, high disloc. densities 31099
- GaN-related alloys, acceptor binding energy 13068
- GaP, MOCVD on Si, etch pit obs. 13354
- GaP, MOMBE growth, phosphorus/antimony sources 28718
- GaP at high temp., photorefr. and photochromic effects 14323
- GaP, cold-wall metalorganic-chloride VPE growth 20729
- GaP, epilayers, MOCVD grown, HRTEM charactn. 20772
- GaP epitaxial layer, MOCVD growth on Si substr. 20671
- GaP, focusing/defocusing in electron scatt. along at. chains 6534
- GaP, growth from trimethyl gallium 28725
- GaP, interrupted cycle CBE on Si, photon assistance effects 28766
- GaP microlenses, enhanced mass-transport smoothing 31054
- GaP, opt. second-harmonic susceptibilities, opt. activity 7762
- GaP substr., GaAs-AlGaAs heterojn. solar cells 11285
- GaP surface, annealed, XPS, GaN/GaP heterostruct. CVD growth 20756
- GaP surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
- GaP surfaces, $(NH_4)_2S_x$ treated, high resoln. XPS *(Japanese)* 38548
- GaP switching props. 36386
- GaP wafers, multilevel diffractive lenses, CAD methods 7373
- GaP:N layers, OMVPE using TBP, N doping 1208
- GaP:N, metalorganic VPE, photolumin. obs. 20728
- GaP:N microcrystals, gas evap. doping, photolumin. study 38481
- GaP/AlP short period superlattices, GSMBE grown, opt. props. 20673
- GaP/GaAsP strained-layer quantum wells grown by MOCVD 20800
- GaP/InGaP strained-layer quantum wells grown by MOCVD 20800
- GaP/Si strained heterostruct., spectrosc. ellipsometry 29877
- $GaP_{1-x}N_x$, MOVPE 342
- $GaP_{1-x}N_x$, metalorganic VPE, photolumin. obs. 20728
- $GaP_{1-x}N_x/GaP$ quantum wells, MOVPE 342
- GaSb MBE, at. layer depositions, time-resolved RHEED 20873
- GaSb, MBE growth, substr. temp., opt. pyrometer meas. 34496
- GaSb QW struct., highly excited, opt. absorpt. and refr. spectra 13185
- GaSb, atmos. press. MOVPE on GaAs substrs. 20773
- GaSb, chem. etching in Br_2-methanol solns. 1259
- GaSb, diffusion limited chem. etching 13341
- GaSb, electron mobility 13040
- GaSb films, MBE, lattice mismatch accommodation, disloc. threading, GaAs (001) substrs. 297
- a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
- GaSb, ion implant. effects 1214
- GaSb quantum well based IR devices 9908
- GaSb, semicond.-metal transit., crystallisation under press. 13078
- GaSb single crysts. doping, various elements 22140
- GaSb, spiral growth on GaAs(001) by MBE 28750
- GaSb surface, oxide removal, photodiodes/Schottky diodes fab. 1240
- GaSb thermophotovoltaic cells, tech./economic anal. 28002
- GaSb, thick buffer layers on GaAs, opt., elec. charactn. 12108
- GaSb, undoped, Te-doped, elec./photolum. charactn. 12109

III-V semiconductors continued
GaSb:Cu single crysts., Cu doping 13302
GaSb:Mn, elec. props. 13065
GaSb:S, Hall/photo-Hall effect meas. 38252
GaSb:Se, heavily doped, extended defects, TEM 13303
N-nGaSb/GaInAsSb staggered lineup heterojunction, recomb. obs. 38287
p-GaSb-Au(Cr/Au)(Ti/Pt/Au), MBE growth, specific contact resistivities, surface prep. 29947
GaSb-Ge, semicond.-metal transit., crystallisation under press. 13078
GaSb-based reson. cavity detectors, GaAs/AlAs DBRs 25833
GaTe semicond. superlattice, Bridgman growth, elec. anisotropy 37384
GaInP layers, P-vacancy-related deep levels 29878
$Gd_3Ga_5O_{12}$/InP(/GaInSb) integrated semicond./magnetooptic devices, direct bonding 31112
Ge/GaAs, heteroepitaxy, As segreg., passiv. 37396
Ge/Pd/n-GaAs ohmic contact interface studied by backside Raman spectrosc. 38385
Ge-GaAs consecutive LPE growth, GaAs static induction thyrister appl. *(Japanese)* 37407
Ge-GaAs(001), heterojunctions, band-offset transitivity lack 1107
$Hg_{1-x}Cd_xTe$/GaAs two-jn. monolithic cascade solar cell 20009
(In,Ga)As/(In,Al)As, superlattice-equiv. MQW, Stark shifts 38330
(In,Ga)As/GaAs strained (311) heterostructs., struct. props. anisotropies 38309
(In,Ga)As/GaAs strained MQW modulator, electro-absorpt. 39487
In-P based microelectronics pilot line for commercial and military applications 12799
InAlAs, surface chem., $(NH_4)_2S_x$ sulphidation 13409
$In_{0.52}Al_{0.48}As$ on InP(100), MBE growth, substr. temp. effects 5844
$In_{1-x}Al_xAs$, bulk hole transport, Monte Carlo simul. 21905
$In_xAl_{1-x}As$ epilayers on GaAs, Al Schottky diode barrier heights 22042
InAlAs:Zn, MOVPE grown, doping, MQW electron transfer struct. appl. 13318
$In_{0.52}Al_{0.48}As$:Fe,Ti, compensation implants 13287
InAlAs/AlAs/n-InAlAs struct. for InAlAs/InGaAs FET appls., low leakage current 6787
InAlAs/GaInP/InGaAs, HFET, GaInP barrier growth, MOVPE 350
InAlAs/$In_xGa_{1-x}As$ HEMT, off-state/breakdown mechanism 22488
InAlAs/$In_xGa_{1-x}As$/InP HEMT, breakdown behaviour 6788
InAlAs/InGaAs HBT, CBE growth, props. 13628
InAlAs/InGaAs, HEMT, high cut-off, current drive capability 13785
InAlAs/InGaAs HEMT, self aligned dual 50 nm gate device 13786
InAlAs/InGaAs HEMTs, InGaAs buffer layers, MOCVD growth 22476
InAlAs/InGaAs HEMTs lattice-mismatched on GaAs, high-perform. devices, mm-wave appls. 21549
InAlAs/InGaAs HFETs, HBr plasma RIE-induced damage 13797
InAlAs/InGaAs HFETs, impact ionization and light emission 38912
InAlAs/InGaAs HJFETs, high In comp. channels, low noise/high gain 6797
InAlAs/InGaAs MODFET, 0.15 μm gatelength, OMVPE growth 13780
InAlAs/InGaAs MODFETs, off-state breakdown study 13764
InAlAs/InGaAs QW struct. quantum Hall device *(Japanese)* 25791
InAlAs/InGaAs SQW struct., electron traps, admittance spectrosc. 21991
InAlAs/InGaAs inverted HEMT, InAs inserted channel 38007
InAlAs/InGaAs modulation doped structs., MOCVD growth, breakdown volt. 411
InAlAs/InGaAs multichannel MSM-HEMT receiver OEIC for WDM 14650
InAlAs/InGaAs/InAlAs, HEMT, MBE grown, parasitic effects 13782
InAlAs/InGaAs/InP HEMT impact ionisation characterisation 13771
InAlAs/InGaAs/InP HEMT, trapping mechanisms, sinusoidal/transient response 13772
InAlAs/InP, Cl_2 radical beam ion-beam etching 13383
InAlAs/InP, selective MOCVD growth 20943
InAlAs/InGaAs striped-channel MODFETs 13799
InAlAs/n^+-InGaAs FET, breakdown physics 13770
InAlAs/n^+-InGaAs MISFET, deep levels 13696
InAlAs/n^+-InGaAs heterostruct. FET, breakdown phys. 6804
InAlAs/n^+-InP, monolithic tunable high-Q 12800
$In_{0.52}Al_{0.48}As/In_{0.53}(Al_xGa_{1-x})_{0.47}As$, NPN DHBT, DC characteristics 13634
$In_{0.52}Al_{0.48}As/In_{0.53}Ga_{0.47}As$ heterostruct. FET, Schottky-barrier-gate diodes characts. 13765
InAlAs-InGaAs 15-Gbit/s high-speed monolithically integrated pin-HEMT photoreceiver 34082
InAlAs-InGaAs HBT X-band double-balanced upconvertor 38021
InAlAs-InGaAs HBT based 4 bit ADC, high-speed 37820
InAlAs-InGaAs MODFET, channel struct. design 13816
InAlAs-InGaAs W-band monolithic dual-gate HEMT mixer 38020
InAlAs-InGaAs strained HEMT, I-V characts., charge control model 38911
InAlAs-InGaAs:Fe MSM photodetectors, inductive bandwidth enhancement 42798
InAlAs-InGaAs-InP V-band monolithic HEMT downconvertor 38019
InAlAs-InGaAsP-InP syst., potential barrier height enhance. 22008
InAlGaAs QW superlattice APD 9496
InAlGaAs/AlGaAs strained quantum well lasers, MBE growth 39887
InAlGaAs/InP MBE grown heterostruct., charactn. 20833
$In_{0.53}Al_{0.22}Ga_{0.25}As$/InP, HBT 13644
InAlP/InGaP quantum wells/superlattice barrier cladding layers, metalorganic CVD growth 20939
InAs, MBE growth on GaAs (110) misoriented substrs. 20894
InAs MOCVD growth from monoethyl arsine 20962
InAs, MOVPE, high mobility on GaAs 29853
InAs MQW photorefr. material 30814
InAs SQW buried in GaAs[001], grazing incidence XRD anal. 38362
InAs, citric acid etching for heterostruct. device fab. 6640
InAs cluster nucleation/epitaxial growth via electron beam lithog. 30173
InAs, impact-ionization model consistent, band struct. 29849
InAs, low temp. epitaxial growth, V/III supply ratio effects 334
InAs nanometer-scale whiskers, growth/opt. props. 20815
InAs nonplanar substrs., MBE, In inter-surface diffusion 20877
InAs on GaAs, threading disloc. in lattice mismatched heteroepitaxy 13112
InAs on GaAs(100), MBE growth/strained island form. 20857
InAs quantum-well FETs, electron transport props. 6805
InAs self-limited growth, 480°C 5840
InAs surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
InAs, surface migration-induced self-aligned islands, MBE growth 37389
n-InAs:Si, carrier mobility across surface depletion zones 13055
InAs/(AlGa)Sb quantum wells, supercond. transistors fab. 22727
InAs/AlSb QW, ALE grown, opt. props. 20677

III-V semiconductors continued
InAs/AlSb quantum wells, QHE 38366
InAs/AlSb quantum wells, structural/transport props. 1128
InAs/AlSb reson.-tunneling diodes, I-V calcs. 30211
InAs/AlSb/GaSb MBE grown heterostruct., unintentional As incorporation 5825
InAs/AlSb/GaSb double barrier diodes, reson. interband/intraband tunneling 6714
InAs/$Ga_{1-x}In_xSb$ superlattices for long-wavelength IR appls. 17799
InAs/$Ga_yIn_{1-y}As$ MQW solar-cell, barrier pot. design criteria 5218
InAs/GaAs mismatched heterostruct. growth, defect control 20876
InAs/GaAs monolayer heterostruct., thin buried layer XRD 38310
InAs/GaAs, quantum wells, MBE, ALE growth, In segreg. 12111
InAs/GaAs short period superlattices, InP substrs., low-press. MOVPE 20803
InAs/GaAs(100), MBE, self-assembled islands, crit. layer thickness 387
InAs/GaAs($Ga_{0.47}In_{0.53}As$) heterostructs., MBE, defect control 12046
InAs/GaSb strained layer superlattices, growth 20885
InAs/GaSb strained layer superlattices growth 20804
InAs/GaSb struct., 1D transport and gating 1101
InAs/GaSb superlattices, struct., STM obs., growth condition effects 13151
InAs/GaSb/AlSb interband tunnel diodes, AlAs hole barriers 6715
InAs/$In_xGa_{1-x}Sb$, superlattice IR detectors, temp. limits 42811
InAs/$In_xGa_{1-x}Sb$ superlattice based IR detectors 3842
InAs/$InAs_xSb_{1-x}$ midinfrared lasers, CW operation 23202
InAs/InGaSb, superlattice IR detectors, temp. limits 42810
InAs/InP quantum wells, 3-D island form., cathodolum. investigs. 22001
InAs/InP(In_xGa_{1-x}) heterostruct., depth profiling, MBE 13121
InAs-AlSb-Nb electrode quantum well, induced supercond. 22733
InAs-GaSb QWs, magnetotransport meas., hydrostatic press. appl. 38334
InAs-GaSb quantum wells, periodic pot., cct.-theoretical anal. 13191
InAs-InP heterostruct., ALE growth, XRD/Raman obs. 12052
InAs-coupled Josephson jns., crit. current, mesoscopic fluct. 22732
InAsP 1.3 μm compressively strained MQW lasers for high-temp. operation 39883
InAsP compressively-strained MQW lasers at high temps., 1.3 μm 31405
InAsP/InGaAsP QW 1.3 μm laser, MOVPE growth 12067
InAsP/InGaAsP strained MQW for 1.3 μm wavelength LD, MOMBE 23249
InAsP/InP MQW, metalorganic VPE, interface study 12102
InAsP/InP MQW structs., strain studies 13142
InAsP/InP/InGaP 1.5 μm strain compensated MQWs, optoelectronic appls. 1140
InAsP-InP quantum wells/PIN diodes, growth/charactn. 12058
$InAs_{0.3}Sb_{0.7}$, MOCVD on GaAs, carrier transport 6529
$InAs_{0.91}Sb_{0.09}$, MOVPE, electronic props., photocond. 28779
$InAs_{1-x}Sb_x$ RT magnetoconcentration IR photodetector 3832
InAsSb/AlAsSb 3.9-μm DH diode lasers, high output power 1955
InAsSb/GaSb DH high-temp. mid-IR lasers 1982
InAsSbP/InAsSb/InAsSbP heterostruct., radiative recomb. 23266
InGaASP/InP travelling wave optical amplifiers integrated with passive waveguides 14485
InGaAlAs/InAlAs FET, breakdown voltages 13783
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 1729
InGaAlAs/InP asymmetrical vert. coupler wavelength filter 14573
InGaAlAs/InP type II MQW struct., elec. and opt. props. 1132
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 14498
InGaAlN, competitor of ZnSe for light emitting devices 23053
InGaAlP, H passiv. effects 6650
InGaAlP epilayers, metalorganic CVD using tertiarybutylphosphine, deep levels 20751
InGaAlP strained multiquantum-well LD, photolum. meas. 14920
InGaAlP/GaAs hybrid-type DBR for InGaAlP LED 1819
InGaAs 3.3 μm LEDs for detecting methane gas, RT 1820
InGaAs GRINSCH QW laser, gain compression, Monte Carlo simul. 1992
InGaAs, MBE on GaAs(001), in-situ X-ray topography 37456
InGaAs, MOCVD, highly selective growth, high speed rot. susceptor 20941
InGaAs MQW laser, 1.75 μm, MOVPE grown on InAsP substr. 23184
InGaAs MSM photodetector charactn. by electrooptic LD sampling 23009
InGaAs MSM photodiode, monolithic integrated optoelectronic receiver 25543
InGaAs MSM photodiode/AlGaAs-GaAs HEMT OEIC receiver, 1.3 μm 17235
InGaAs, O contamination, rel. to MBE growth 12131
InGaAs OMVPE growth/charactn.,thermophotovoltaic cells 27977
InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency 6339
InGaAs Schottky 2DEG diode 13596
InGaAs VCSEL, gain/reflectivity, press./temp.-induced detuning 39796
InGaAs buried layers MOVPE grown on nanoscale InP islands, photolum. 20832
InGaAs coupled QW base transistor with graded emitter, RT operation 6735
InGaAs crystals, LEC growth, props. 12023
InGaAs diodes, radiation effects, long wavelength sensitivity 1806
InGaAs epilayers, metalorganic CVD growth 37411
InGaAs graded channel InP HEMT, 305 GHz f_T and 340 GHz f_{max} 843
InGaAs heterostruct., nanostructure fab., FIB technol. 13312
InGaAs high power quantum well diode laser, MOVPE fab. *(Korean)* 39803
InGaAs highly uniform quantum dots, MOVPE grown on GaAs 20831
n-InGaAs layer, thermal stabil. of ohmic contact 29953
InGaAs lin. graded comp. buffer layers, strain relief 367
InGaAs, low-temp. CBE growth on GaAs(100) 37432
InGaAs monolithically integrated pin-FETs, noise characts. 14671
InGaAs quantum disks self-organizing on GaAs(n11)B, AFM study 6553
InGaAs quantum well LD, modulation response, self-consistent calcs. 1963
InGaAs recessed-gate MESFETs, AlAs etch-stop layer 38934
InGaAs strained layer MQW laser for opt. fibre transm. systs. 31352
InGaAs strained quantum disk laser, nanoscale act. region 23216
InGaAs strained quantum wire/box struct. self-organized on high-index GaAs (n11)A/(n11)B substrs. 22000
InGaAs strained-layer superlattices, opt. nonlin. suscept. 23405
InGaAs superlattices, optical props., device appls. 13143
InGaAs surfaces, MBE growth on InP substrs. 20853
InGaAs switch transistors for microwave control applications 12768
InGaAs temp. difference growth, num. anal. of soln. convection *(Japanese)* 37380
InGaAs thermophotovoltaic cells, charactn. meas. techs. 28009
InGaAs thermophotovoltaic energy conversion 27994

III-V semiconductors continued
- InGaAs thin resistors, pot. distrib. meas., Kelvin probe force microscopy 38373
- InGaAs vert.-cavity quantum well lasers, cavity tuning effects on transverse mode 31316
- $In_{0.47}Ga_{0.53}As$, terminal junct., CBE growth 12066
- $In_{0.5}Ga_{0.5}As$ heterostruct., gateable ultrafast field-assisted photoemission 1836
- $In_{0.5}Ga_{0.5}As$ self-form. quantum dots on GaAs substrs. emitting, 1.3 μm 14896
- $In_{0.53}Ga_{0.47}As$ MSM photodiode, transparent CTO Schottky contacts 1184
- $In_{0.53}Ga_{0.47}As$, gettered LPE grown, DLTS study 20745
- $In_{0.53}Ga_{0.47}As$, impact-ionization model consistent, band struct. 29849
- $In_{0.53}Ga_{0.47}As$ transistor channel, hot electron lumin. meas. 30377
- $In_{0.65}Ga_{0.35}As$ epilayers, MBE growth on InAlAs/InP heterostruct. 12091
- $In_xGa_{1-x}As$ MOVPE strained layer on GaAs, AFM 20850
- $In_xGa_{1-x}As$ cryst., LPE/electroepitaxy growth, internal strain, disloc. 37445
- $In_xGa_{1-x}As$ strain-relax. heterostruct., 2DEG, galvanomag. props. 13119
- $In_xGa_{1-x}As$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
- $In_xGa_{1-x}As$ thermophotovoltaic cell perform. vs. bandgap 27976
- $In_xGa_{1-x}As$ thermophotovoltaic cells, quantum efficiency model 28003
- p- InGaAs:C, appl. to InP/InGaAs HBTs 13072
- InGaAs:Dy on InP, LPE growth, photolum., double-cryst. X-ray study 37400
- InGaAs:Fe/InP:Fe large area MSM photodetectors 17775
- InGaAs:Se, specular surface thermal stabil. in LP-MOVPE 22127
- InGaAs:Si/GaAs strained QW, δ-doped, electronic struct. 29943
- InGaAs:Zn HBTs, electron diffusion length 38262
- p-$In_{0.21}Ga_{0.79}As$:Zn/Au Schottky diodes, interface states, doping effects 38420
- $In_{0.35}Ga_{0.65}As$:Be/GaAs MWQs for high-speed lasers, MBE growth, disloc. glide 333
- $In_{0.53}Ga_{0.47}As$:C, metalorganic MBE, doping profiles, carrier dens. 28777
- InGaAs/AlAs MQW p-i-n diodes, room-temp. charactn. 13592
- InGaAs/AlAs RTD, double barrier, dominant photogenerated valley current 13589
- InGaAs/AlGaAs HEMT hetero-interfaces, misfit disloc., diffuse X-ray scatt. 38305
- InGaAs/AlGaAs QW lasers, MOCVD, rot. disk reactor 23238
- InGaAs/AlGaAs SQW, recomb. procs., photolum. intens. effects 38349
- InGaAs/AlGaAs flared amp. monolithically integrated arrays, DBR laser driven 23262
- InGaAs/AlGaAs high-power strained quantum-well lasers, vert. divergence angle of 18° 39870
- InGaAs/AlGaAs lasers, integrated optoelectronics, grating fab. 39596
- InGaAs/AlGaAs multiple wavelength VCSEL array for opt. interconnection 31334
- InGaAs/AlGaAs pseudomorphic V-groove quantum wires, symm. breaking 6566
- InGaAs/AlGaAs strained quantum well lasers, small-divergence angles, fibre laser pump 1990
- InGaAs/AlGaAs strained-layer quantum-well lasers, band-gap renormalization effects 7662
- InGaAs/AlGaAs/GaAs MODFETs, high breakdown, fab. 22477
- InGaAs/AlGaAs/GaAs grating demultiplexer/detector array integrat. 9422
- InGaAs/AlInAs heterostruct., electron transport, transistor perform. 6563
- InGaAs/AlInAs vert. transit. quantum cascade laser, Bragg confined excited state 23260
- InGaAs/Au(Ni) thin p-clad SQW laser, contact reflectivity effects 14859
- InGaAs/Ga(Al)As dots, MOCVD, area dens. control 5867
- InGaAs/GaAlAs VCSEL, native oxide confine. struct. 31408
- InGaAs/GaAlAs stripe quantum well lasers, differential resist. threshold drop 39761
- InGaAs/GaAs (InGaP) MQW optical modulators, MBE growth 14509
- InGaAs/GaAs LD, degrad., possible sources 14925
- InGaAs/GaAs MQW pin diode stained struct., leakage current mechanisms 1129
- InGaAs/GaAs SQW RW lasers, mode coupling/antiguiding 1973
- InGaAs/GaAs, SQW laser, MOCVD, threshold current 39855
- InGaAs/GaAs SQW laser, spectral hole burning 39758
- InGaAs/GaAs SQW, lattice mismatched, strain relax., opt. quality 1148
- InGaAs/GaAs VCSEL, differential gain, linewidth enhancement 31406
- InGaAs/GaAs, buried wires, MBE overgrowth prep., opt. props. 38369
- InGaAs/GaAs depletion-MIS-like delta-doped HFETs 13810
- InGaAs/GaAs heterostruct. field effect opt. modulator 14516
- InGaAs/GaAs laser-mode-size convertor monolithic integrat., shadow-masked growth 22916
- InGaAs/GaAs mesa-etched VCSEL, MOCVD, low threshold 39871
- InGaAs/GaAs piezoelec. [111] MQW p-i-n photodiodes, cond.-band engng. 1804
- InGaAs/GaAs piezoelec. MQWs, nonlin. opt. response, screening, and strain 15081
- InGaAs/GaAs quantum wells, MBE, selective area bandgap modif. 12118
- InGaAs/GaAs quantum wells, carrier screening effect 1125
- InGaAs/GaAs quantum wells on GaAs(111)A, MBE, photolum. 12125
- InGaAs/GaAs quantum wells, strained, absorpt. coeff. and refr. index 1136
- InGaAs/GaAs quantum wire fab., LV electron beam lithog. 13179
- InGaAs/GaAs quantum wires, nonuniform distrib. of strain 1089
- InGaAs/GaAs quantum wires, opt. props. 1094
- InGaAs/GaAs, quantum-well heterolasers, spectral charact. 23228
- InGaAs/GaAs strained [111]-oriented MQW, carrier and screening dyn. 29905
- InGaAs/GaAs strained MQWs, photogenerated carrier transport 39574
- InGaAs/GaAs strained QW 980 nm pump lasers, thermal behaviour 14843
- InGaAs/GaAs strained QW modulator perform., well/barrier ratio effect 7389
- InGaAs/GaAs strained-layer QW, grown on (311)A GaAs, charactn. 14910
- InGaAs/GaAs tapered MQW lasers, modulation doping and reduced filamentation 39873
- InGaAs/GaAs, two mode channel FET, low noise perform., electron confine. 38927
- InGaAs/GaAs wires, MBE overgrowth, opt. investig. 348
- InGaAs/GaAs-laser waveguide, radiation leakage, gain spectrum and directivity pattern 23199
- InGaAs/GaAs-on-GaAs superlattice photodetectors, ultrafast response 3835
- InGaAs/GaAs-on-GaAs superlattices, metal-semicond.-metal photodetectors, carrier trapping 22014
- InGaAs/GaAs(111)B strained MQW, piezoelec. field 1085
- InGaAs/GaAs[111] MQW P-I-N photodiodes, cond. band engng. 1808

III-V semiconductors continued
- InGaAs/InAlAs, MBE on InP, high electron mobility 13156
- InGaAs/InAlAs MODFETs, InP substrs., proc. technol. 13798
- InGaAs/InAlAs diffusive quantum wires, spin-orbit scatt. 38368
- InGaAs/InAlAs epilayers, MBE on InP patterned substrs., TEM 5838
- InGaAs/InAlAs heterobarrier diodes, delta doping enhancement 30221
- InGaAs/InAlAs, reson. tunneling transistors, tunneling transit time 13646
- InGaAs/InAlAs:Be superlattices, ultrafast opt. nonlin., MSM-PD appls. 2105
- InGaAs/InAlAs/InP, heterostruct., thermal stability 13157
- InGaAs/InAlGaAs QW DFB laser facet influence on wavelength tunability and linewidth-chirp 39860
- InGaAs/InAlGaAs quantum well microdisk lasers 31366
- InGaAs/InGaAlAs, MQW, absorpt., photolum., excitonic transitions 13158
- InGaAs/InGaAlAs electron transfer waveguide weighted-coupling digital Y-branch opt. switches 9448
- InGaAs/InGaAlAs gain coupled DFB lasers, masked implant. enhanced intermixing 14887
- InGaAs/InGaAs strained layer superlattices, struct., optoelectronic device appls. 13150
- InGaAs/InGaAsP MQW, MOCVD grown, in-plane bandgap distrib. 20942
- InGaAs/InGaAsP MQW modelocked LD, high spectral tuning range 7634
- InGaAs/InGaAsP MQW opt. modulator, nonlin. opt. absorpt., spatial band bending 2103
- InGaAs/InGaAsP MQWs, strained, thermal stability 13140
- InGaAs/InGaAsP QWs, interdiffusion 13138
- InGaAs/InGaAsP SQW, group V interdiffusion 13139
- InGaAs/InGaAsP SQW, interdiffusion, annealing effects 22009
- InGaAs/InGaAsP microdisk lasers, fab., resonator modes, losses 7702
- InGaAs/InGaAsP quantum well DFB lasers, high speed dyn., intrinsic params. 1932
- InGaAs/InGaAsP strain-compensated quantum well lasers 23183
- InGaAs/InGaAsP strained quantum-well lasers, threshold current dens., well width depend. 1934
- InGaAs/InGaAsP/InP MQW laser, thermionic emission, tunneling 1931
- InGaAs/InP JFET, step-doped channel doping for OEIC receivers 14653
- InGaAs/InP MQW modulators in expt. and theory 14658
- InGaAs/InP MQW, selective area MOVPE, quantum energy tuning 20760
- InGaAs/InP MQW, step barrier structs., reduced hole localisation 29899
- InGaAs/InP PIN waveguide photodetector, high saturation intens. 7463
- InGaAs/InP QW lasers, AP-MOCVD, liq. group V sources 12069
- InGaAs/InP QW wires, electron beam lithography fabrication 13200
- InGaAs/InP SEED, opt. switch/power discriminator 15112
- InGaAs/InP VCSELs with strained QWs, opt. gain, cryst. orient. depend. 1948
- InGaAs/InP at high mag. fields and low temps., quantum magnetotransport 38286
- InGaAs/InP buried wires, selective thermal intermixing 13180
- InGaAs/InP composite channel HEMT struct., LV mobile comm. appls. 1444
- InGaAs/InP, computer-aided PIN-PD model *(Chinese)* 14597
- InGaAs/InP layers, gas source MBE, atomic H irradiation 12049
- InGaAs/InP p-i-n waveguide photodetector, dyn. range 34069
- InGaAs/InP photodiode-opt. fiber array module using Si v-groove, photonic syst. appls. *(Korean)* 34013
- InGaAs/InP, pin photodiode array, integrated lens *(Chinese)* 14613
- InGaAs/InP planar photoelastic low loss waveguides/electroabsorption modulators 30975
- InGaAs/InP quantum wells, electrons in-plane effective mass 38329
- InGaAs/InP, short period superlattices for Wannier-Stark modulators, growth 12120
- InGaAs/InP short-period superlattice, wavefunction coherence length 1739
- InGaAs/InP, strained QW lasers, operating characts., 100-315 K 39854
- InGaAs/InP superlattice QW lasers, MOVPE grown 39807
- InGaAs/InP superlattice, electro-refractive effect, modulator appl. 14510
- InGaAs/InP superlattice, low volt. electroabsorption light modulator 14511
- InGaAs/InP superlattice waveguide device, opt. multistable operation 1716
- InGaAs/InP superlattices, MOMBE, interface struct., XRD 378
- InGaAs/InP superlattices, MOVPE 20836
- InGaAs/InP superlattices, high-resoln. XRD 38361
- InGaAs/InP surface quantum wells, ion-gun hydrogenation, luminesc. 14592
- InGaAs/InP thermophotovoltaic device develop. 27979
- InGaAs/InP transimpedance opt. receiver OEIC 1834
- InGaAs/InP waveguide photodetector, saturation intens. 34512
- InGaAs/InP:Fe MISFET, opt. controlled characts. 23015
- InGaAs/InP:Fe enhancement layer Schottky contacts 1149
- p-InGaAs/InP/Pd/Zn/Pd/Au graded bandgap heterobarrier/ohmic contacts, resist. 38699
- p-InGaAs/Pd-Zn(Cd)/Ge implanted shallow ohmic contacts, HBT appls. 38698
- InGaAs/InGaAsP strained QW lasers lattice matched to GaAs, high temp. charact. 7632
- InGaAs/InGaP/GaAs QW lasers, 0.98 μm, reliab. pump source 23188
- InGaAs/InP strained quantum wells, stress relax., X-ray topography 21906
- $In_{0.1}Ga_{0.9}As$/GaAs/AlAs RTDs in triple well config., supply and escape mechanisms 6716
- $In_{0.20}Ga_{0.80}As$/GaAs MQW, strain and piezoelec. fields 29901
- $In_{0.2}Ga_{0.8}As$/GaAs MQW struct., strain relax., photodetector appls. 1131
- $In_{0.2}Ga_{0.8}As$/GaAs microcavity lasers, transient pulse response 39756
- $In_{0.2}Ga_{0.8}As$/GaAs quantum wells, metalorganic VPE, multistep form./In comp. var. 20735
- $In_{0.22}Ga_{0.78}As$/AlAs RTDs on GaAs using relax. In_xGa_{1-x} buffers, MBE growth 13600
- $In_{0.30}Ga_{0.70}As/In_{0.29}Al_{0.71}As$ heterojn. grown on GaAs substr., band offsets 6546
- $In_{0.3}Ga_{0.7}As/In_{0.29}Al_{0.71}As$ heterostruct., charactn. 6544
- $In_{0.35}Ga_{0.65}As$/GaAs strained-layer MQW LD, DC/high freq. props. 7647
- p-$In_{0.47}Ga_{0.53}As$/InP, modified sheet resist. of ohmic contacts 38374
- $In_{0.53}Ga_{0.47}As/In_{0.40}Ga_{0.60}As$ superlattices, Wannier-Stark effect 1138
- $In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ superlattice, electron-wave-fn. coherence length 13193
- $In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ MODFET MMIC oscillators, opt. tuning 12788
- $In_{0.53}Ga_{0.47}As$/InP quantum wires, tunable width of conducting channel 13184
- $In_{0.65}Ga_{0.35}As$/GaAs laser, ultrafast band-edge carrier dyn. 1959
- $In_{0.75}Ga_{0.25}As$/InAlAs pseudomorphic modulation-doped heterostruct., high electron mobility 21971
- $In_{0.77}Ga_{0.23}As$/InP quasi-1D rings, Aharonov-Bohm effect 29880

III-V semiconductors continued
$In_{0.85}Ga_{0.15}As$/GaAs relax. superlattice struct., ultrafast meas. of nonequilibrium carrier lifetime 38348
$In_{1-x}Ga_xAs$/InP-quantum well struct., recomb. dyn. 13163
$In_{1-x}Ga_xAs$/InP quantum wells, cond.-band/valence-band struct. 1130
$In_xGa_{1-x}As$/GaAs(001), epitaxial growth, 2D-3D growth mode transit. 28755
$In_xGa_{1-x}As$/InGaAsP/InP SQW laser, modulation bandwidth 39859
$In_xGa_{1-x}As$/InP thermophotovoltaic cells, recomb. lifetime meas. 28006
$In_xGa_{1-x}As/Al_{0.45}Ga_{0.55}As$ MQWs, mid-wavelength IR detect. 17806
InGaAs-AlAs opt. switched reson. tunnelling diodes 31085
InGaAs-AlAs strained p-i-n modulator, ultrafast recovery time 22939
InGaAs-AlGaAs QW laser, lateral mode anal. 23213
InGaAs-AlGaAs SQW lasers, cavity length/mirror refl. study 23271
InGaAs-AlGaAs laser oscillator surface grating output couplers 23255
InGaAs-AlInAs HEMTs, dopant passiv., dry etching 30364
InGaAs-GaAs 111 strained layer piezoelec. QWs, electronic struct. and field screening effects 13192
InGaAs-GaAs HEMT MIMIC amp., high gain, 75-110 GHz 38025
InGaAs-GaAs MODFET MIMIC amp., 5-80 GHz, CPW 38026
InGaAs-GaAs MQW lasers, low growth temp., photolum. 14965
InGaAs-GaAs QW laser modulation by short opt. excitation, energy and spatial depend. effects 14967
InGaAs-GaAs folded/VCSEL 31391
InGaAs-GaAs heterostruct. and HFET appls. *(Chinese)* 22486
InGaAs-GaAs low threshold CW circ.-grating surface-emitting DBR lasers 7628
InGaAs-GaAs narrow quantum wells, carrier capture and relax. 2004
InGaAs-GaAs proton-implanted vert. cavity LD, emission charact. 7650
InGaAs-GaAs quantum well solar cells 27952
InGaAs-GaAs quantum wells, surface segreg., photolumin. study 13171
InGaAs-GaAs quantum-well lasers, impedance charact. 14857
InGaAs-GaAs strained SQWs, photoluminesc. props., cap layer thickness influ. 1123
InGaAs-GaAs strained layer single QW ring laser, reactive ion-etched tetragonal cavity 23192
InGaAs-GaAs strained quantum well SEL 31392
InGaAs-GaAs-AlGaAs laterally-coupled DFB ridge LD, CW perform. 31318
InGaAs-GaAs-AlGaAs single mode lasers, long. modes/nonlin. mode-mode interact. 1969
InGaAs-GaAs-AlGaAs strained layer BH laser fab. by MOCVD 31359
InGaAs-GaAs-AlGaAs strained layer broad spectrum QW LED fab. 7474
InGaAs-GaAs-AlGaAs strained-layer lasers with monolithically integrated photodiodes, MOCVD fab. 31319
InGaAs-GaAs-AlGaAs:Ar(He) strained SQW, disordering by ion implant. 13135
InGaAs-GaAs-InGaAsP graded index heterostruct. for 0.98μm lasers 12183
InGaAs-InAlAs MBE p-type strained layer quantum well IR photodetector, FPAs 17786
InGaAs-InAlAs QW electroabsorption waveguide modulators 39488
InGaAs-InAlAs asymmetric coupled QWs, elec.-field-induced refr. index changes 21980
InGaAs-InAlAs mid-IR LEDs for opt. gas sens. 31106
InGaAs-InAlAs quantum wells, electron scatt., photoreflectance obs. 13141
InGaAs-InAlAs quantum-well lasers, TE-TM mode switching *(Japanese)* 31329
InGaAs-InAlAs, selective etching in HBr plasma 13411
InGaAs-InAlAs single barrier varactor quintupler, 170 GHz 29560
InGaAs-InAlAs:Si quantum well, ion implant./annealing, comp. disordering 1216
InGaAs-InAlGaAs strained/unstrained lasers, MBE grown 14975
InGaAs-InAsP three-band near-IR FPA for 1.0-2.5 μm 17935
InGaAs-InGaAlAs-InAlAs coupled QW chirp-free electroabsorption modulator 22937
InGaAs-InGaAsP MQW DFB LDs, 1.5 μm, MOVPE growth 7616
InGaAs-InGaAsP MQW lasers, 1.55 μm, direct bonding on Si 23270
InGaAs-InGaAsP strain-compensated MQW dielec.-bonded long wavelength vert. cavity laser 14851
InGaAs-InGaAsP-InGaAs strained QW lasers, temp. depend. of light-current charact. 7633
InGaAs-InGaAsP-InP 1.95-μm strained DFB SQW lasers 14855
InGaAs-InGaP MQW opt. modulators, saturation intens. 22935
InGaAs-InGaP strained QW lasers, 0.98 μm, charact. temp. 23185
InGaAs-InP 1.55μm photonic waveguide devices, quantum well struct.-based 14411
InGaAs-InP MQW tensile-strained directional coupler, polariz.-independent switching operation 14529
InGaAs-InP double HBT, high speed/voltage driver circuit appl. 13876
InGaAs-InP, reverse bias laser struct., photodetection 17811
InGaAs-InP short-period superlattice, interface struct., XRD/Raman scatt. 22010
InGaAs-InP strained QW lasers, linewidth enhancement factor depend. on cryst. orient. 14858
$In_{0.2}Ga_{0.8}As-Al_{0.52}In_{0.48}P$ HEMT, gas source MBE growth 13817
$In_{0.4}Ga_{0.6}As$-GaAs quantum well IR photodetector 9906
$In_{0.53}Ga_{0.47}As$-InP, heterostruct. emitter bipolar transistors, LP-MOCVD grown 38848
$In_{0.53}Ga_{0.47}As$-InP reson. plasma waveguide modulator for mid IR 1734
$In_{0.53}Ga_{0.47}As$-based HBT, electron impact-ionisation coeff. 30256
$In_{1-x}Ga_xAs-In_{0.53}Ga_{0.47}As$ strained superlattice, gas source MBE 12056
$In_xGa_{1-x}As-GaAs-Al_yGa_{1-y}As$, BH QW lasers, selective area MOCVD 39853
InGaAsP 1.3 μm DH laser heteroepitaxially grown on Si, stable CW operation 31384
InGaAsP 1.5 μm DFB laser study by Gires-Tournois interferometer 1940
InGaAsP DFB single-mode LD, small sig. cct. model 39821
InGaAsP LD, sensitivity, ESD 14926
InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
InGaAsP MQW LD array design and fab. for opt. parallel links 31353
InGaAsP MQW LD, metalorganic VPE, entirely organic sources 23244
InGaAsP MQW laser, MOCVD growth 12068
InGaAsP, MQW lasers, high temp. perform., barrier recomb. effects 14909
InGaAsP MQW modulator/DFB laser integrated light source 30965
InGaAsP MWQ edge-emitting LED, opt. props. 14628
InGaAsP QW TM mode emitting tensile strained LD 7629
InGaAsP, $Si^+(Be^+)$ ion beam proc. 30036
InGaAsP amps., 4.3 terahertz four-wave mixing spectrosc. 555
InGaAsP buried heterostruct. on InP, CBE growth 12061
InGaAsP channel HFET OEIC photoreceiver 17258

III-V semiconductors continued
InGaAsP diode laser freq. tunable light generation/freq. conversion 23286
InGaAsP double-fused 1.52-μm vert.-cavity lasers 31379
InGaAsP, dual-fluid-layer struct. MOVPE reactor 20794
InGaAsP electro-absorpt. modulators, optim. 22936
InGaAsP electroabsorp. modulator, low pol. depend. 22926
InGaAsP electroabsorption waveguide modulator, shipboard analog links 9535
InGaAsP epitaxial layers on GaAsP substrs., orange LED appl. 12128
InGaAsP gain switched DFB laser, nearly transform limited pulses, pol. dispersion effect 14885
InGaAsP grown by GSMBE, As/P control 5827
InGaAsP lasers, compressive-/tensile-strained, valence band engng. 14917
InGaAsP low threshold multi-quantum well LD, MOVPE 23240
InGaAsP monolithic semicond. soliton transmitter 7790
InGaAsP, multiplexed diode-laser sens. syst. 7874
InGaAsP quantum well laser, 2D model 14976
InGaAsP quantum well lasers, carrier transport, near-field photocond. 1968
InGaAsP quantum-well lasers, near-field scanning opt. microscopy imaging 14919
InGaAsP quantum-well quaternary lasers, gain nonlin. and temp. depend. 39798
InGaAsP, ridge waveguide lasers, strain meas., photoelastic effects 39826
InGaAsP semicond. lasers, directly bonded InP-SiO_2-InP current-blocking struct. 14852
InGaAsP semicond. opt. amp. array 23223
InGaAsP strained MQW heterostruct., lasers, modulators, integrated optics 14922
InGaAsP strained layer MQW laser for opt. fibre transm. systs. 31352
InGaAsP, strained layers, LPE, spin-polarized electron sources 21798
InGaAsP strained quantum well, VPE, laser appl. 12130
InGaAsP strained-layer LD bars, 1.94 μm, 27 W QCW 14945
InGaAs(P) strained-layer MQW laser amps. 14904
InGaAsP strained-layer diode lasers, tapered gain region, $\lambda=1.3$ μm 7630
InGaAsP:Si quantum well, intermixing, spatially resolved/polaris. resolved photolumin. 38495
InGaAsP/AlAs/GaAs double-fused vert.-cavity lasers, transverse-mode/polaris. characts. 39874
InGaAsP/Au Schottky junctions, barrier height enhancement 13211
InGaAsP/GaAs LD, threshold current dens., differential efficiency, 20-105 C 14933
InGaAsP/GaAs, SCH SQW LD, characts. 39852
InGaAsP/GaAs heterostruct., low press. MOCVD, charactn. 12106
InGaAsP/GaAs, high power BH lasers, mode comp. control 39843
InGaAsP/GaAs, selective LPE growth 12112
InGaAs(P)/In(GaAs)P abrupt heterointerfaces, GSMBE growth 20744
InGaAsP/InGaAsP multiquantum well waveguide, nonlin., bias depend. recovery time 1717
InGaAsP/InGaP/GaAs high-power 0.8 μm LD, minority carrier leakages 1956
InGaAsP/InP 1.3 μm compressive-strained-MQW lasers, low threshold 1987
InGaAsP/InP 1.55 μm DH laser, 0.95 μm luminous peak *(Chinese)* 14899
InGaAsP/InP D-band Gunn devices, heterojunction cathode injectors 13587
InGaAsP/InP DFB laser, wavelength shifts, ESD 23276
InGaAsP/InP LD facets, surface defects, modulated reflectance microscopy 1928
InGaAsP/InP MQW integrated DFB-DBR laser modulator, MOVPE growth 23247
InGaAsP/InP MQW laser gain-lever effect 23279
InGaAsP/InP MQW planar buried hetero-struct. lasers, MOVPE 23242
InGaAsP/InP PBH-DFB-LD for 2.5 Gbps opt. fiber commun., fab./characts., 1.55 μm *(Korean)* 39769
InGaAsP/InP diode lasers with ridge struct., HF polariz. switching 42434
InGaAsP/InP false MQW, MOCVD/CBE growth, As,P incorporation 12063
InGaAsP/InP grating-assisted directional coupler, act. filter *(Japanese)* 7365
InGaAsP/InP integrated three-port Mach-Zehnder interferometer, all-opt. wavelength conversion 30973
InGaAsP/InP laser amp. gate switch arrays 31400
InGaAsP/InP laser heterostructs., act. region carrier leakage meas. 14950
InGaAs(P)/InP, lasers, HBT, monolithic integration 14651
InGaAsP/InP lasers, Q-switched pulses 14875
InGaAsP/InP lasers, wafer scale proc. 23226
InGaAsP/InP monolithically integrated multi-wavelength MQW-DBR LD, MOVPE 23239
InGaAsP/InP multi-quantum-well directional coupler, low-switching-voltage operation 30925
InGaAsP/InP quantum well lasers, watt-ampere charact. 39760
InGaAsP/InP ridge waveguide struct. for polariz. insensitive opt. amp. operation 7605
InGaAsP/InP strained quantum-well lasers, threshold current under mag. field 39823
InGaAsP/InP, strained-layer QW lasers, intrasubband scatt. rates 7661
InGaAsP/InP structures, MOVPE, optical device appls. 12047
InGaAsP/InP tapered two-layer waveguides for chip coupling, single-mode fibers 30974
InGaAsP/InP waveguides for guided-wave photonic IC, low-loss fiber-chip coupling 7372
InGaAsP/InP:Zn LD, threshold current, excess Zn effects 1960
InGaAsP/InP/InAlAs quantum well electron transfer struct., finite difference methods 13582
InGaAsP/InP-AlAs/GaAs long-wavelength vert.-cavity lasers, wafer fusion 23303
InGaAsP/InP(GaAs), high-power injection heterostruct. lasers 14911
InGaAsP/InGaAsP MQW waveguide, bias-depend. recovery time of all-opt. reson. nonlin. 22874
InGaAsP/InP optoelectronic device reliab. 28526
InGaAsP/InP quantum well laser, photoexcited carrier transport 1953
$In_xGa_{1-x}As_yP_{1-y}$/InP, strained QW LD, nonhydride MOCVD 39856
InGa(As)P-GaAs compositionally graded emitter HBT, fab./characts. 6723
InGaAsP-InGaAsP tensile-strained quantum well polariz.-insensitive opt. amps. 31414
InGaAsP-InP 10-element monolithic laser array in parallel interconnects 14961
InGaAsP-InP 1.3 μm BH laser modules in fibre link 17254
InGaAsP-InP 1.3-μm folded-cavity SEL grown by gas-source MBE 14853
InGaAsP-InP 1.55-μm quantum-well lasers, temp. sensitivity of differential gain 31320

III-V semiconductors continued
  InGaAsP-InP 1.55-μm strained quaternary QW lasers, approx. opt. gain formulas 23190
  InGaAsP-InP DFB lasers, long. mode hole burning 1997
  InGaAsP-InP IR strained MQW lasers, reverse-mesa ridge-waveguide struct. 14964
  InGaAsP-InP MQW 2×2 opt. space switch struct. for 10-GHz appls. 9148
  InGaAsP-InP MQW-DFB lasers, multiple phase-shifts, spectral charact. 39764
  InGaAsP-InP MQW-LD fabricated by LPE, opt. charact. *(Korean)* 39802
  InGaAsP-InP QW electron transfer struct. for ultrafast opt. switches 38351
  InGaAsP-InP Si substr. integrated optoelectronic devices 7488
  InGaAsP-InP all-MOCVD-grown long-wavelength LD 7673
  InGaAsP-InP directional coupler based tunable opt. filter 22910
  InGaAsP-InP electroabsorption modulators for LDs, nonlin. effects model 14846
  InGaAsP-InP, low-loss pass. polariz. convertor 14500
  InGaAsP-InP modulation doped lasers, linewidth enhancement factor 14974
  InGaAsP-InP multi-λ ridge waveguide gain-coupled DFB laser array 23277
  InGaAsP-InP planar photoelastic waveguide, low propag. loss 7370
  InGaAsP-InP pol.-independ. four-channel tunable opt. filter 25477
  InGaAsP-InP quantum well lasers, strain compensation 14871
  InGaAsP-InP strained quantum well laser struct., excess carrier spillover, photolumin. obs. 31380
  InGaAsP-InP tunable DFB laser freq.-drift suppression 9596
  InGaAsP-InP ultrasmall waveguide bend corner mirrors 30970
  InGaAsP-InP wavelength tunable LD 7646
  InGaAsSb epilayers, GaSb lattice matched, H passiv. effects 1261
  InGaAsSb/AlGaAsSb heterojunctions, band offsets 13132
  InGaAsSb/GaSb thermophotovoltaic cells, LPE grown 27980
  InGaN/AlGaN DH blue LEDs, high-power devices 23046
  InGaN/AlGaN DH blue-green LED 14641
  InGaN/AlGaN, Zn doped, DH blue LED MOCVD 23042
  $(In_xGa_{1-x}N/GaN)^n$ layered struct., metalorganic VPE growth/In droplet reduction 20757
  InGaN-AlGaN double heterostruct. violet LED, CVD growth 5895
  InGaP, H passiv. effects 6650
  InGaP HBTs, high-temp./microwave power appls. 38838
  InGaP, LD current blocking layer, selective MOVPE regrowth 20764
  InGaP, LP-MOCVD, temp. depend. facet develop., GaAs substrs. 20830
  InGaP, MOVPE, microstruct. obs. 37438
  InGaP and InGaAlP, influ. of H plasma treatment on reverse currents 38809
  InGaP, deep center scatt. pot. 6532
  InGaP epitaxial layer growth, yo-yo solute feeding method *(Japanese)* 20895
  InGaP homojunctions, LP MOVPE, 2DEG 21957
  InGaP strained quantum-well lasers, gain, threshold currents 23265
  $In_{0.5}Ga_{0.5}P$, LPE growth, oxygen effects 20748
  $In_{0.5}Ga_{0.5}P$ Schottky contacts, $(NH_4)_2S_x$-treated, interface props. 29949
  $In_{0.5}Ga_{0.5}P$, highly strained, wide-gap material for heterojunction FET 20769
  InGaP/GaAs HBTs, self-aligned fab., high reliab. 22360
  InGaP/GaAs HBTs, ultra-high carbon-doped base 38840
  InGaP/GaAs epilayers grown by low-press. MOVPE, cationic ordering 12116
  InGaP/GaAs epitaxial struct., Schottky barriers 22026
  InGaP/GaAs heterostruct., MOCVD growth, charactn. 20825
  InGaP/GaAs heterostruct. lasers, MOCVD, 0.98 μm 7606
  InGaP/GaAs heterostruct., low press. MOCVD, charactn. 12106
  InGaP/GaAs, misfit accomodation, substr. tilt 29892
  InGaP/GaAs multilayer reflector, MOCVD grown, VCSEL appl. 39865
  InGaP/GaAs/InGaAs strained MQW laser-MESFET, opt. transmitter form. 31124
  $InGaP/In_{0.2}Ga_{0.8}As$:Si HEMTs, heavily Si-doped, MOVPE growth 5830
  InGaP/InGaAs HEMTs for MM wave appls. 37978
  n-InGaP/InGaAs/GaAs pseudomorphic HEMTs, mobility, device perform. 22485
  InGaP/InP/InGaAs/InP backside-doped split-channel HFETs 30365
  $In_{0.5}Ga_{0.5}P/GaAs$ HBTs, MOMBE growth, tertiarybutylphosphine 22375
  InGaP-InAlGaP MQW electro optic modulator, MOVPE grown 39483
  InGaP-InGaAs-InAlAs, HEMT struct. with strained Schottky layer 13815
  InGaP-Si 2 terminal tandem solar cells 20008
  $In_{0.5}Ga_{0.5}P_{0.99}As_{0.01}$ epilayers, doped and undoped, deep level studies 29852
  $In_xGa_{1-x}Sb$, voids in cryst. grown by US-vibr.-introduced CZ method 12019
  InN, ECR plasma etching, HI, HBr chemistries 1242
  InN films on GaAs(111) and GaP(111), microwave-excited metalorganic VPE 28753
  InN, high temp. ECR etching 38540
  InN ohmic contacts for GaAs/AlGaAs HBT 38817
  InN, thermodyn. and cryst. growth, high N_2 press. 37381
  InN thin films, hydride vap. phase epitaxy growth 379
  $InP_{0.69}Sb_{0.31}/InAs$ heterostruct., recon. tunnelling obs. 13133
  InP 1.3 μm strained-quantum well laser telecomm. appls. 31360
  InP 4×4 polarisation insensitive switch matrices, fabrication 17192
  InP, (001) homoepitaxial growth, twin generation, tip struct. 5828
  InP, ALE growth, charactn. 20770
  InP, Ar^+-sputter induced microprotrusions, struct., morph. 38547
  InP BH lasers, full wafer proc. 39808
  InP, CAIBE 13405
  InP, CBE growth, free carrier gas tech. 28717
  InP, CVD growth by phosphine modulation 12059
  InP, CZ grown, ion implant., struct./mech. props. 13305
  InP, CrZnAu multilayer metallization, elec. props. 38660
  InP D-band Gunn devices, second-harmonic power extraction up, 290 GHz 1332
  InP Epi-ready wafers, growth character 12071
  InP HEMT DC, 38-GHz distrib. analog multiplier 6337
  InP HEMT MMIC power amp., Q-band, high-efficiency 38036
  InP HEMT MMICs, low noise, V-/W-band amplifiers 12802
  InP HEMTs, ohmic contacts, cap-layer doping 1438
  n-InP, He^+ bombard., elec. resist. 13041
  InP, LEC growth, thermal stresses, disloc. form. 12030
  InP, LEC-growth, thermal anal. 12029
  InP MESFET, CdO_x interfacial layers, adsorpt./oxidation prep. method 13773
  InP MESFET perform., drain induced barrier lowering effect 1449
  InP MESFETs, Monte Carlo simul. 1437
  InP MIS Schottky diodes, S passiv. and RTA 13599
  InP, MIS tunnel diodes, elec. props., oxid. temp. effects 1335
  InP MISFET, ECR plasma deposited gate dielecs. 13710
  InP MISFET, modeling for power appl. 13709
  InP MISFET, near-surface electron transport 13697

III-V semiconductors continued
  InP MM wave TEDs, CAD, thermal anal. 38791
  InP, MOCVD, transit. from island to continuous layer growth on GaAs 12115
  InP, MOCVD/LEC grown, electron radiation resist. 21904
  InP, MOMBE growth, phosphorus/antimony sources 28718
  InP MOS tunnel diodes, elec. charactn. 38814
  InP, MOVPE from monoalkylphosphine precursors 20778
  InP, MOVPE, surface topography, step orient. 37385
  InP, MeV ion implantation, device appls. 13288
  InP NRD-guide FM Gunn oscillator, 60 GHz band *(Japanese)* 6319
  InP OEIC for photonic networks *(German)* 7490
  InP, P-rich, one step in-situ MLEK angst. growth process 12022
  InP QW electro-optic waveguide circuits 14486
  InP, RIBE, chlorine-hydrogen mixture 13382
  InP, S treated, MSM photodetector, high speed 17780
  InP Schottky barriers, minority carrier diffusion length 13210
  n-InP, Schottky contacts, in situ electrochem. proc. 38399
  InP, VPE growth, reactor design/improvement 12055
  InP and related devices, resonant acousto-optic effects 14555
  InP, and related materials, conf., Paris, France (April 1993) 11521
  InP based MQW phase modulators *(Chinese)* 7480
  InP based δ layers, AC excitation 29859
  InP, bulk cryst. growth, rare earth effect 20656
  InP collector-up HBT, 300-400 GHz, mm and submm phased antenna array appls. 6314
  InP crysts., vapour press. controlled Czochralski growth 12024
  p-InP, defect-assisted ohmic contacts 29948
  InP, dielec. fn. spectra meas. 10047
  InP diodes, impedance field and microwave power generation 1347
  n^+nn^+ InP diodes, submicrometer, microwave power generation, model 836
  InP double HBT, quaternary collector, breakdown behaviour 13633
  InP e-mode MISFETs, sulphide passiv., P_3N_5 gate insulators 30295
  InP, electronic props., annealing in P atmosphere 13044
  InP films, prep. by PH_3 treatment of electrodeposited In layers 37463
  InP, gas phase polysulphide passivation, MISFET appls. 13342
  InP heterostruct. FET, gate currents, warm electron contrib. 13794
  InP high-efficiency n^+p solar cell, simul., improvements 11301
  InP, in-situ dry etching and CBE growth 13343
  InP, ion implanted, Raman line asymmetry/phonon freq. 38511
  InP, laser assisted dry etching ablation 30094
  InP, low press. MOCVD on Si, defect reduction 20768
  InP, low-temp.-grown, femtosecond carrier dyn., photolum. obs. 38248
  InP metallisation by transit. metals 1300
  InP, migration enhanced epitaxy, charactn. 12072
  InP, migration/buried epitaxy, digital epitaxial growth 20672
  InP monolithically integrated Wannier Stark modulator/strained MQW DFB 1.55-μm laser 22940
  InP monolithically integrated tunable polariz. diversity heterodyne receiver OEIC 25484
  InP n^+nn^+ diodes, hot carrier noise, Monte Carlo simul. 1348
  InP nanocrystals in porous glass, nonlin. absorpt. and refr. 31514
  InP p^+n and n^+p structs., electrochem. anal. solar cells appl. 13107
  InP patterned substrs., multi-wavelength laser array, CBE growth 39812
  InP periodically segmented waveguide based spot size transformer 39606
  p-InP, photoelectrochem. solar cells, charge transfer, open-cct. impedance 36599
  n-InP, photoelectrochemical etching, surface texture form. 38564
  InP, photolum. excitation spectra, acceptors/donors 13048
  InP photonic IC based light sources, WDM lightwave communication systems appls. 17190
  InP photonic integrated transceiver chip for WDM transm. 9458
  InP, planarizing regrowth using low press. hydride VPE system 12050
  InP polariz. diversity receiver OEIC heterodyne receiver frontend module 23061
  InP quantum islands/InGaP/GaAs(001) substr., coherently strained self-assembly 20947
  InP, reactive ion beam etched, sidewall roughness 13355
  InP regrowth by GSMBE, rel. to surface treatment 12051
  InP, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
  InP, selective growth, cylindrical/parallelepiped mesas 12110
  InP, selective-area MOVPE, optoelectronic appls. 381
  InP semicond. digital opt. switches and arrays 7395
  InP sidewalls, reactive ion beam etched, 3D electron probe roughness anal 13371
  InP, smooth facets, selective sidewall CBE growth 20674
  InP smooth surfaces/vertical sidewalls, etching 13412
  InP solar cells, OCV, bandgap narrowing 19986
  InP solar cells, electron radiation damage, irrad. temp. depend. 44415
  InP solar cells, gamma ray/electron displacement damage 13062
  InP solar cells, radiation resistant, space appls. 26640
  InP strained wires and dots, localized confine. pot. 6562
  InP substrates, VGF growth process 12021
  InP substrs., Ti masks, dry etching, SFM meas. 30063
  InP, substrs., vapour press. controlled CZ growth 12028
  InP surface degrad. during contact form., FTIR study 30006
  InP surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
  InP technology, role in optical fibre communications 17189
  InP thermally diffused solar cells, photo-injection annealing 19993
  InP tunable phased-array wavelength demultiplexer 17257
  InP, undoped, low temp. ALMBE growth 20746
  InP, vert. facets, RIE, selective CBE regrowth 20817
  InP, vert. gradient freeze growth, charactn. 12032
  InP wafers, LEC grown, residual strains, photoelastic charact. 13042
  InP wafers, LEC growth, flats location/control 12086
  InP waveguide components, WDM opt. commun. syst. 34062
  InP waveguide mode field determ. from intens. profiles 39468
  InP waveguides, opt. harmonic mixers 23412
  InP wavelength converter based on integrated Mach-Zehnder interferometer 7371
  InP, wet electrochemical etching, via hole form. 13413
  InP wires on planar GaAs substrs., maskless selective growth 344
  InP:B(O)(Fe), p^+ epilayers, elec. isolation by MeV ion implantation 13289
  InP:Be, Be distrib. control in gas-source MBE 12064
  InP:Be, MOVPE growth, bismethylcyclopentadienyl-beryllium 37430
  InP:Be annealing, e-beam evaporated borosilicate glass thin film encapsulant 13313
  InP:C, C activation, amorph. layer regrowth 30037
  InP:CdTe, LEC growth and double doping, dislocations 12025

III-V semiconductors continued
InP:Fe, Fe doping nonuniformity, mapping method charactn. 13300
n-InP:Fe, Fe implant., SI layer form. 1210
InP:Fe, LEC growth, wafer annealing controlled doping 28712
InP:Fe, Mg, Mg/P, Mg/Ar implants, elec./opt. charactn. 29856
InP:Fe, SI, Fe distrib., photocurrent study 13064
InP:Fe epilayers, buried layers by Fe implantation 13286
InP:Fe epitaxial layers, CVD growth 12053
InP:Fe, gas source MBE, optimal growth conditions 12057
InP:Fe, hydride-vap. phase epitaxial growth, FeP precip., anal. 20810
InP:Fe, nonlinear behaviour under high elec. field 13046
InP:Fe, photolum., Fe concentration depend. 13045
InP:Fe, semi-insulating, charge transfer 13047
InP:Fe single-cryst. ingot, cryst. growth, large-scale clusters 20657
InP:Fe wafers, SI, prep., annealing 13279
InP:Fe/InGaAs:Fe fully passivated AR coated MSM photodetectors 9907
InP:Fe^{+}, ion implanted, lattice distortions, high-resoln. XRD 6531
InP:Fe,Ti, semi-insulating, codoping process, growth 13319
InP:Fe,Ti, thermally stable layer growth 20774
InP:H,Mg, passivated acceptors, reactivation kinetics during annealing 22106
InP:S (Sn) (Fe) (ND), defects, photolum. obs. 13049
InP:S, charge carrier conc./mobility, vacancy conc., positron annihilation meas. 38250
InP:S, low dislocation density, LEC cryst. growth 12026
InP: S(Sn)(Fe) substrates, scatt. defects, laser scanning tomography 13043
InP:Si,H, gas-source MBE, H incorporation 38507
InP:Sn, ion implant, RTA, anal. meas. 38465
InP:Ti, Ti doping, TiCl$_4$ 22131
InP:Ti, compensation implants 13287
InP:Ti,Be growth by GSMBE, high resist. material 5821
InP:Zn, LEC grown, heavily doped, struct. charactn. 13301
p-InP:Zn/Au, epitaxial Schottky diode, reverse I-V, C-V characts. 38801
InP:Zn(Mg), MOVPE precursor Et$_2$InNMe$_2$, photolum. and Hall study 12117
p-InP:Zn,H, near-surface carrier passiv. by H, SEM study 38565
InP/Al$_2$O$_3$ MIS capacitor, opt. control 13243
InP/AlInAs/AuGe/Au HEMT struct., thermally stable ohmic contacts 30363
n-InP/Au/Ni, ultra-low resist. Ni-based contacts 38409
n-InP/Au(Pd) Schottky contacts, deposition, charactn. 37521
InP/Ga$_{0.47}$In$_{0.53}$As tandem solar cells, electron irrad. effects 36588
InP/Ga$_{0.47}$In$_{0.53}$As two-terminal tandon solar cells 19988
InP/GaAs, anti-phase direct bonding, 1.55 μm laser fab. 29999
InP/GaAs heterostruct., H-passiv., carrier trapping by disloc. 38304
InP/GaAs solar cells, proton irrad., prop. effects 19990
InP/GaAs/GaP/GaAs, short period superlattice, CBE growth 12088
InP/GaInAs HBTs, ultra high base doping, high emitter effic. 30248
InP/GaInAs HEMT, interface props., device characteristics effect 13779
InP/GaInAs QW dot struct., fabrication 13202
InP/GaInAs heterostruct. MSM photodetectors, sub-ps resoln. 25849
InP/In$_{0.53}$Ga$_{0.47}$As HBTs, MOMBE growth, tertiarybutylphosphine 22375
InP/In$_{0.53}$Ga$_{0.47}$As interface, 2DEG, quantum transport effects 21958
InP/In$_{0.53}$Ga$_{0.47}$As/InP, Zn area-selective diffusion for lateral pn photodiodes 29855
InP/InAlAs IG-MODFET, power appl. 13708
InP/InAlAs/InGaAsP MQW fibre-coupling tapered waveguide, spot-size converter 22835
InP/InAs SQW/superlattices, ALE growth, charactn. 20770
InP/InGaAs APDs, SAGCM, breakdown voltage modelling, temp. depend. 23016
InP/InGaAs HBT IC technol. for 4:1 TDM multiplexer 1487
InP/InGaAs HBT, MOCVD, Zn diffusion, growth temp. depend. 22385
InP/InGaAs HBT OEIC photoreceiver 9495
InP/InGaAs HBT, integrated optical receiver front-ends noise 14662
InP/InGaAs HBTs, abrupt-emitter, compositionally-graded base 38843
InP/InGaAs HBTs, highly Be-doped base layer, fab./characts. 21541
InP/InGaAs HBTs, lateral scaling investig. on DC and RF performs. 22388
InP/InGaAs HBTs, nonstationary 1/f noise 22356
InP/InGaAs HBTs, p$^-$-n$^-$ collector struct., breakdown-speed tradeoff 13627
InP/InGaAs HBTs with n$^+$-InP contacting layers, MOMBE growth 6724
InP/InGaAs JFET/pin photodiodes for optoelectronic integrat. 1439
InP/InGaAs, fully self-aligned HBT with Schottky collector 13629
InP/InGaAs punch-through heterojunction phototransistors for lightwave commun. 7462
InP/InGaAs, rapid thermal annealing, MISFET appls. 13274
InP/InGaAs single dots/wires, dry etched, luminesc. spectrosc. 14591
InP/InGaAs:Be HBTs, highly doped base layer/suppressed diffusion, ALE/CVD growth 6729
InP/InGaAs/GaAs solar cells, proton irrad., diffusion length 19991
InP/InGaAs/InAlAs HEMT, ohmic contacts 13774
InP/InGaAs/InP DHBTs, microwave power performance 12765
InP/InGaAs/InP heterostruct., highly strained, mobility enhancement 13111
InP/InGaAs/InP photodetector arrays, RTS noise and excess currents 17773
InP/InGaAs/InP photodetector arrays, noise/current meas. 17774
InP/InGaAs/InP quantum well, MOVPE, surface topography evol. 353
InP/InGaAsP 1.3 μm digital opt. switches, extinction ratios exceeding 20 dB 7396
InP/InGaAsP 1.3 μm digital opt. switches, extinction ratio of 30 dB 42432
InP/InGaAsP 2-terminal monolithic tandem solar cells 27956
InP/InGaAsP, high power BH laser, 1.15 μm 14924
InP/InGaAsP struct. on InP(001), X-ray standing wave meas. 38367
InP/InGaAsP, whispering-gallery-mode microdisk QW lasers 31367
InP/InGaAsP(GaAs), MOCVD growth, interface characterisation 12150
InP/InGaP, nanoscale InP islands by MBE 20738
InP/Si, bonding using InSb, Au-based eutectic alloys 13269
InP/Si heteroepitaxial layer, substr. effect on transport props. 21970
InP/Si/InP, interlayer effects in device appl. 13106
n-InP/Ta$_2$O$_5$/Ta MIS diodes, elec. props. 13595
InP/InGaAs reson. cavity enhanced photodiode on Si, epitaxial liftoff 3839
n-InP/metal systs., hydrogen plasma treatment, elec. props. 38598
p-InP/n-InP/InGaAs, S-doped DH-HEMT, props. 13787
InP-AlInAs type II syst., laser emission 14928
InP-GaInAsP-GaInAs composite collector HBT/circuits 13663
InP-In$_2$S$_3$, ellipsometric investig. of transit. layer heterostruct. 22774
InP-InGaAs DHBT/p-i-n PD monolithic photoreceiver, 23 GHz bandwidth 7483
InP-InGaAs JFET, δ-doped channel 6796

III-V semiconductors continued
InP-InGaAs MQW modulator waveguide devices, metallization/wet etch/passiv. 39461
InP-InGaAs high-speed heterojunction phototransistors, electrode 14611
InP-InGaAs light amplifying optical switch, XOR logic fn. 14675
InP-InGaAsP pol. independ. ridge waveguide digital opt. switches 9460
InP-based 10 Gbit/s photoreceiver OEICs, noise and perform. 9429
InP-based HBT ICs, design trade-off 13875
InP-based HBTs/heterostruct. bipolar ccts., design platform 28946
InP-based HEMT 140-GHz monolithic LNA 21581
InP-based HEMT, extremely low-noise, Si$_3$N$_4$ passiv. 21552
InP-based LD, TEM, strong contrast from doping vars. 13308
InP-based MQW lasers, integrated tapered beam expander waveguide 14854
InP-based broadband optoelectronic receivers 9497
InP-based heterostruct. device/cct. proc. facility design 29996
InP-based monolithic high-speed bal. mixer receiver 25523
InP-based opt. multiplexer integrated, MQW modulators 34074
InP-based struct., electrochem. C-V profiling, electrolyte 13122
InP-oxide-metal tunnel diodes, elec. charact./nature of interfacial oxides 38918
InP(001), As/P precursor efficiency, reflectance anisotropy spectrosc. 20721
InP(100),(111), HBr-K$_2$Cr$_2$O$_7$-H$_2$O etching 13399
p-InP(100), anodic passiv. in (NH$_4$)$_2$S$_x$ soln. 13387
InP(110), nitridation/oxid., core-level/valence-band photoemission obs. 13335
InP(As)(AlAs) self-assembling quantum dot arrays, MBE and MOCVD growth 374
InPAsSb alloys lattice matched InAs, MOVPE 301
InPAsSb long wavelength laser for high resolution spectroscopy 14876
InSb 2D IRFPAs, uniformity and stabil. 17936
InSb FPA imager, MRTD and MTF determ. 34573
InSb FPA-based IR camera for astron. telescope, electronic testing 17937
InSb FPA-based high sensitivity, high resoln. thermal video syst. 17938
p-InSb MOS device, inversion layer subband, nonquantum limit *(Chinese)* 13259
InSb, SiN$_x$ films, surface passiv. quality 30131
n-InSb doped crysts., parametric amplif. and oscill. 40115
n-InSb films, neg. photocond. 13057
n-InSb films, semicond.-coupled supercond. weak-links, Andreev-refl. 14281
n-InSb, freq. tuning prop. of HF nonlin. acoustoelec. oscills. 30566
InSb, high quality, MBE growth 12077
InSb, high-speed MISFET, uncooled 30319
InSb, implant. damage reduction in mag. field, XRD meas. 38517
InSb, low press. CVD, using neopentylstibine, trimethylindium 37485
InSb, metallically doped, extrinsic magnetoresist. 21920
InSb p-n jn., photoresponse, CO$_2$ laser illum. 13114
InSb photodiodes, IR focal arrays 42785
InSb spin-flip Raman laser, pumped, 11~16 μm tunable, sens. appl. 1941
InSb thin films, vacuum evap., elec. props. 21913
InSb, tunable narrowband FIR detectors 14893
In$_{46}$Sb$_{54}$ thin films, growth, microstruct., multiple recording appls. 28811
InSb:Sm-coupled supercond. weak-links, multiple Andreev-refl. 30779
InSb/SiO$_2$ MIS structs., low interface trap dens. 29981
InSb-InAs material syst., hole transport 21910
InSb-SiO$_2$-Si p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
InSb-nanocryst. on Se-terminated GaAs(001), MEE/MBE growth comparison 20681
InSb(100) surface, Ar ion bombard. and electron stimulated oxid. 30101
InTlSb photocond., MOCVD, IR detect. 9902
Mn/GaAs(001), FCC Mn films, stabilization via MBE growth 13414
Nb MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
Ni-Au-Te-Au contacts on n-GaAs, microstruct./elec. props. correl. 38657
Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
Ni-InP syst., interfacial reacts. and phase stabil. 38391
Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
Pd low-temp. bonding of InP structs., GaAs substrs. 30004
Pd/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
Pd-Ge-Ti-Pt ohmic contacts, p$^+$-GaAs:C/Al$_{0.26}$Ga$_{0.74}$As:C 38658
Pd-InP Schottky diodes, cryogenic/RT, current transport 38390
Pd-Zn-Pd-Au ohmic contacts to p-InGaAs-InP, optim. 38387
Pt/GaAs electrode/particulate syst., electrophysical phenom. *(Korean)* 13264
Pt-GaAs Schottky contact, defect free, electrochem. form. technol., low-dimens. structs. 22039
Pt-deposited p-InP photoelectrochem. cells, band gap, surface states 6572
Sb/GaSb struct., epitaxial growth 20742
Si/Co/GaAs, CoSi$_2$ thin film form. 38632
Si-GaAs, X-ray detector material, deep levels, PICTS study 43156
Si-SiGe 40107
(SiC)$_x$(AlN)$_{1-x}$, MOCVD on 6H-SiC, cryst. struct. 5884
SiGe-GaP alloys, thermal cond., elec. cond., Seebeck effect 38246
SiN$_x$ mask, mag. confined dry etching, GaAs device technol. 38586
SiO$_2$ mask, mag. confined dry etching, GaAs device technol. 38586
SiO$_2$ passiv. of InGaAs:Fe MSM photodetectors 22187
SiO$_2$:P/InP interface layers, low-temp. damage-free plasma-CVD, adhesion 37523
SiO$_2$/InP, direct photo-CVD using D$_2$ lamp, MOSFET appls. 28807
SiO$_2$/amorph. As/GaAs passiv. systs., PECVD 5870
SrF$_2$/InP(100) epitaxial diodes, elec. cond. 22065
Ti-Pt ohmic contacts to InAs emitter layer, AlGaAs-GaAs HBTs 38831
Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
Ti-Pt-Au-InN nonalloyed ohmic contacts, thermal stabil./contact resist. 38393
TiN/n-GaAs Schottky contact interface post-anneal perform., N role 38384
W mask, mag. confined dry etching, GaAs device technol. 38586
W-Pt ohmic contacts to InGaAs emitter layer, AlGaAs-GaAs HBTs 38831
WN$_x$ thin films on GaAs, reactively sputtered, stabil. 38659
ZnGeP$_2$/GaP multiple heterostruct. on GaP substrs. 21959
ZnS/GaAs epitaxial layer syst., vapour phase epitaxy, residual and thermal strain 38307
ZnS/GaAs heterostruct., H transport VPE, struct. anal. 37393
ZnS/ZnSe/GaAs(100) superlattices, photo-assisted VPE growth 38322
ZnS-ZnSe-ZnS/GaAs(100) SQW, photo-assisted VPE growth 38322
ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412
ZnSe/GaAs heterostruct., MBE growth, high-resoln. XRD 21960

- **III-V semiconductors** continued
  - ZnSe/GaAs heterostruct., deep level electronic struct. 38301
  - ZnSe/GaAs interfaces, band bending, Raman study 38283
  - ZnSe/Ge/GaAs, lattice matched HBT, DC/AC charact. 13631
  - ZnSe/InGaAs/GaAs, lattice matched HBT, DC/AC charact. 13631
  - ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, SHG generation 22908
  - ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, phase matched SHG 39442
  - ZnSe-GaAs(001), heterojunctions, band-offset transitivity lack 1107
  - substrs., automated nondestructive meas., IR reflectance/transm. 21002
- **III-VI semiconductors**
  - CdS film, luminesc., all-opt. absorptive and dispersive bistabilities 1792
  - GaAs:III-VI gallium chalcogenides(100), passiv. 30077
  - GaAs/Si heteroepitaxially thin film growth *(Japanese)* 6525
  - GaSe, layered cpd., time-resolved DFWM 15098
  - GaSe single cryst. props. 5807
  - GaSe travelling-wave opt. parametric generator, 2.8 μm laser pumped 23354
  - In_2O_3 films, ALE growth 324
  - InSb waveguide Gaussian beam SBS phase conjug., transverse charact. of reflectivity profile 23450
  - InSe, human skin-semicond. heterocontacts, photosensitivity 38454
  - InSe:Cd films, flash evap., XPES/XRD meas. 12154
  - InSe/GaSe heterointerfaces, Van der Waals epitaxy 20883
  - InSe-In_4Se_3 heterojunctions, photosensitivity band 1.0-1.8 μm, IR photodetector appl. 21942
- **IIR filters**
  - 2-D lin. phase IIR filter, symbolic computation routines, design 37885
  - 2D adaptive filter, Laguerre fn. 32759
  - 2D IIR digital filters with lin. phase, design 24346
  - 2dimensional recursive orthogonal wavelet transform. 40927
  - act. control, IIR filters 32602
  - act. scatterers, detect./ident./tracking 34131
  - adaptive algms. for time delay estim./IIR filtering 40830
  - adaptive filters, optimum order assign. on numerator/denominator 744
  - adaptive IIR filtering, cascade struct. 8283
  - adaptive IIR filtering, composite prefiltered regressor method 32775
  - adaptive IIR filtering, fast convergent genetic search 32705
  - adaptive IIR filtering algm., sig. proc. appls. 24194
  - adaptive IIR filters, time-varying perform. surfaces 24200
  - adaptive nonlin. recursive state-space filters 748
  - adaptive phase jitter cancellation, IIR filtering 32748
  - adaptive sinusoid detect., IIR notch filters and multirate techs. 2548
  - ADF, line canceller, pole-control algm. *(Japanese)* 21436
  - binaural recording playback through loudspeakers, room impulse response 34296
  - CMOS FIR/IIR filter power minimization, architectural/computational transforms. 29373
  - complex all-pass IIR digital filters, design 15908
  - constrained anti-Hebbian learning algo. for total least sq. estim. 2549
  - decimation filter for sigma-delta converters, high fidelity 690
  - denominator separable 2D IIR filters, design 40899
  - digital allpass fns., specified phase tolerances *(Japanese)* 37874
  - digital allpass networks design, eigenvalue problem based 8257
  - digital commun. receivers, time-reversed IIR filtering 33877
  - digital filter with real coeffs., design 32791
  - digital transfer fns., freq. response bounding 24184
  - direct digital freq. synthesizer, DSP μP IIR filter appl. 29073
  - discrete orthogonal fns., systolic archit. 8324
  - dispersive channels, modulated sigs., min. Euclidean dist. 15709
  - DSP education spreadsheet package and TMS320C25 simul. 36918
  - dyn. supervised neural networks, fixed pole IIR struct., perform. 8309
  - echo cancellers, acoustic transfer fns. modelling 32633
  - EMP, measuring syst. deformed, reconstruction 23700
  - eqn.-error adaptive IIR filters, bias removal 24201
  - filtering time series, topol. 32468
  - FIR-to-IIR filter order reduction, methods 32793
  - fixed-point digital filters, effects of overflow and quantization 2512
  - forward digital lattice struct. for IIR digital filter synthesis 749
  - fuzzy based syst. ident. 32772
  - fuzzy filters, IIR and FIR types, design 8323
  - Gamma and Laguerre filters equivalence 37892
  - gamma filter, adaptation of memory depth 37891
  - gamma filter for echo cancellation in subscriber loop 33674
  - generator-transformer unit relaying scheme, PC-based 35684
  - GIVE, IIR adaptive echo canceler 15883
  - globally convergent adaptive blind filters and blind equalisers 2863
  - globally convergent IIR adaptive filter, output error formulation *(Japanese)* 21437
  - gradient ADF and convergence anal., arbitrary inputs *(Japanese)* 29367
  - high-level synthesis of sig. flow graphs, algm. based fault tolerance 32496
  - high-speed IIR digital filters, arith. designs 29375
  - Hilbert transformers, optimal design *(Japanese)* 740
  - IIR Powell and Chau lin. phase filters design 29390
  - image coding, piecewise polynomial wavelet, IIR implement. 2654
  - image texture class., QMF bank in combination, co-occurence matrices 24541
  - lin.-phased IIR Nyquist filters, design 12646
  - M-channel biorthogonal filter banks 21426
  - measurement system resolution improvement through optimal filtering 25766
  - multi-level decision feedback equalization realization of FDTS/DF for hard disks 30729
  - multichannel combined R2MFC/DTMF/CCT receiver, single-chip DSP *(Korean)* 42112
  - multichannel IIR filtering, Levinson-type algm. 8413
  - narrow-band lin. phase FIR filter, conversion, IIR filter 24307
  - nonlin. adaptive IIR digital filters 756
  - notch filter, transient suppression 35129
  - optimal filters for multiresolution seqs. generation 2652
  - output error method IIR ADF, stabil./globally convergence 32704
  - parallel adaptive IIR digital filters, Kalman filters *(Japanese)* 12652
  - perfect reconstruction subband coding stable IIR filter banks 15938
  - pipelined IIR digital filters, design/implement. 37879
  - power syst. harmonic sig. estim./retrieval, act. power filter 10604
  - pseudolinear regression IIR adaptive algm., filter design 24185
  - real coeff. digital filters, realization sensitivity 32794
  - recursive filters, chaotic sig. driven 16021
  - recursive filters, time-domain pipelining tech., stabil. anals. 6225
  - recursive orthogonal wavelet fn., IIR digital filter config. *(Japanese)* 2459
  - SC decimation filters, parallel cyclic-type cct. 12650
  - separable 2D recursive digital filters, zero-phase approx. 37866
- **IIR filters** continued
  - separable-denominator multidimensional digital lattice filter 2545
  - SHSER, algm. for adaptive IIR filters 753
  - sigma-delta codec for mobile telephone appls., design 3276
  - stable pipelined digital filter struct. 764
  - stack filters, rank selection probabilities 2496
  - sub-band adaptive filter banks 755
  - two-band QMF banks, anal. 32562
  - two-channel biorthogonal filter banks and wavelet bases 37880
  - variable IIR digital filters, complex coeffs., synthesis 6233
  - wavelets, lin. phase IIR, perfect reconstruction subband coding 32089
- **IKBS** *see knowledge based systems*
- **I^{2}L** *see integrated injection logic*
- **illumination** *see lighting*
- **illumination control** *see lighting control*
- **ILS** *see instrument landing systems*
- **image amplifiers** *see image intensifiers*
- **image classification**
  - 2D shape class., autoregressive/Fourier-based descriptors comparison 24420
  - 2D θ-image encoding by Boltzmann machine 33066
  - 3D adaptive transform coding techs. for moving images 41089
  - adaptive image coding based on visual activity level 24499
  - adaptive image segmentation, smooth surface objs. 16182
  - adhesive bond, acousto-US eval., pattern recogn. anal. 5921
  - agric., cartographic problem solving, geographical IS 4413
  - AI, OCR 8622
  - analog VLSI neural network for texture anal. 29477
  - attributed relational tree approach, sig. classif. 2806
  - automated extraction of lung cancer lesions from multislice chest CT images by 3D image proc. 26326
  - automated visual indust. QC, data visualization and num. assess. of class separability 41221
  - automatic face recogn. syst., adaptive clustering network 2697
  - automatic syst. for monitoring fish passage, dams 24534
  - bladder cancer cell class., neural net/fuzzy c-means 43258
  - bone marrow smears, abnormal cell screening, automated image anal., spatial and freq. domains 43261
  - brain lesions, multispectral mag. reson. images, segmentation and visualization 43238
  - buried objs. detect., dual-band IR images fusion 8555
  - character recogn. via structural indexing method 41315
  - Chinese online characters recogn., knowledge model based approach 16119
  - class., priori evidence, ambiguous 16273
  - classified VQ, block wavelet transform image coding 24587
  - classifier combining tech. 8505
  - closed surfaces, parametrization, 3D shape description 32906
  - CMOS real time image class. proc., parallel archit. 21375
  - CNN image proc. for automatic class. of oranges 24733
  - coastline change by SAR radar, image texture class. 10512
  - complex and coloured obj. inspection 16356
  - computer vision, hierarchical Markov random fields, stable points 8496
  - conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
  - conformal mapping-based image proc., theory/appls. 41176
  - connected handwritten digit separation, external boundary curvature 2639
  - contextual classifiers of multispectral image data in rem. sens. 2642
  - counterpropagation nets, rem. sens. class. appl. 43536
  - decision based neural nets, sig./image class. appl. 15899
  - deterministic/random binary Euclidean images, representation 41179
  - document image blocks, class., MCR stroke index 33142
  - dyn. gesture recogn., neural networks 32817
  - edge-line ambiguities resoln., probabilistic relax. 2781
  - elongated/contracted images recog., regular moments 33067
  - enhanced recogn. syst. perform., adaptive learning concepts 16280
  - European lang. determ. from image representation for European lang. determ. 41313
  - ferritic steel weld images, automatic thresholding/edge linking 16135
  - fish shoal & plankton, sonar ident., MOVIES-B software 18889
  - fuzzy neural nets, FPGA-based implement. 32948
  - GAIA, generalized adaptive image analyzer, inspection appls. 28513
  - game strategy approach for image labeling 24364
  - geographic map, colour image segmentation 41308
  - geometric image class. by stress polytopes, perform. and integrat. *(French)* 41351
  - geometric invariant signatures and flows, class. and appls. in image anal. 32844
  - global optimal discriminant vectors under global Fisher discriminant criterion 24555
  - hand-drawn image class. by neural net 2704
  - handwritten digit recogn., time delay neural network 33040
  - handwritten digit recogn., transform. of optimized prototypes 33039
  - handwritten signature images verification, wavelet anal. 8542
  - hybrid opt. syst. for freq.-domain texture class. of imagery 16271
  - hybrid SAR/ISAR imagery of ships, proc. schemes 17385
  - hyperspectral imagery class., BP neural network 35361
  - identification/inspection of humans conf., San Diego, USA (1994) 20264
  - intrinsic dimens. estimators eval. 16297
  - invariant image recogn., high-order neural nets 41379
  - invariant image recogn., neural net-based *(Chinese)* 8668
  - IR image seqs., stat. anal. 41335
  - IR target simul. environ., pattern recogn. appls. 34578
  - ISAR radar image recog. by neural net 9633
  - jn. class. by multiple orient. detect. 24443
  - joint transform correlators, chirp encoded, image class. 33016
  - K-distributed clutter, order param. estim., noise effect 25557
  - land cover multi-spectral rem. sens. data classif. 35360
  - land surface microwave radiometry, winter landscape signatures 35295
  - Landsat images, genetic algms. for terrain categorization 16256
  - learning from example and extension matrix 24553
  - local and global multiscale image class. 32835
  - mfg. product defect detect., CMOS real time image proc. systs., AOI 32940
  - mil. image, ident. methods 32896
  - moving obj. param. estim. in image seq. 24386
  - multilayer neural network archit., external wt. memory, shape recogn. 6274
  - multiscale stochastic models likelihood calc., appl., texture discrim. 24594
  - multispectral image class. using BP neural net classifier, input codings assess. 8590
  - multispectral imagery, wavelet/KLT data compression 8270
  - multispectral images segmentation, classified algm. 41355
  - natural obj. recog., L-syst. fractals 24373

image classification continued
- neural net image class., marine sci. 10492
- neural nets for robust image, class. 16186
- neural network based image syst. class. algm. 2844
- neural network decision directed edge-adaptive Kalman filter 33060
- NOAA images, class., multilayer neural network 4389
- obj. recogn., neural network config. design 33032
- opt. agricultural rem. sens., spatial pattern class. 24540
- opt. Chinese handwritten character recogn., feature-based noise reduction 24550
- parallel proc. for image segmentation 12574
- PCB X-ray inspection, neural network classifiers 37162
- PD diagnosis and pattern recogn. 22652
- planar shape recogn., moment invariants and Fourier descriptors 16390
- planar shapes class., multiresolution circ. autoregressive models 8571
- QMF bank in combination with co-occurence matrices, image texture class. 24541
- quantitat. image assess. based on redundant, meas. and stat. reasoning 24422
- range data, curvature based segmentation 24416
- range image segmentation, hierarchical struct. of neural networks *(Korean)* 41170
- real time class. proc., conventional and neural techs. 16284
- rem. sens. image class., neural nets 43467
- rem. sens. spectral image class., Kohonen neural net *(Chinese)* 43478
- rem. sensed digital images anal. algms. 32850
- rem.-sens. data, neural network class. 43544
- robot camera calib. 41136
- SAR images adaptative segmentation 17431
- SAR param. estim., adaptive algm., texture recogn. *(Chinese)* 34108
- satellite image anal., terrain neural classifier 18791
- seafloor, sonar bottom class. methods 18814
- seafloor by side scan sonar, DELPH-SONAR image proc. 18806
- seafloor imaging, side scan sonar, neural image class. 18809
- seafloor imaging, sonar sig. proc., tangent clusters 18810
- seafloor imaging by side scan sonar, shade correction 18808
- seal imprint verification, automatic 33012
- sector-scan sonar image seqs., robust class. 17491
- selective color tone adjustment for ATV systs. 16230
- semen quality assess., neural nets 18457
- shapes, noisy, morph. pattern-spectrum class. 16249
- side-scan sonar images classif. via parametric modeling 17487
- sig. class., local discriminant bases 32500
- signature based edge classification using scale space methodology 24712
- spatial-point proc. model, texture class. 34183
- stat. model-based approach, topographic labels assignment 41203
- subimage class., adaptive image data compression, fuzzy syst. *(Korean)* 24560
- surface inspection systs., software tool for developing algms. 17653
- target recogn., neural net based, MACE prefiltering 33048
- textural for rem. sens. appls. 43485
- texture anal., center-symmetric autocorrelation 24370
- texture anal., SVD 24533
- texture anal. by multiple space filling curves 16363
- texture class., neural networks appl. 32899
- texture class., stat. geom. 41188
- texture description, stat. design of expts. 16250
- texture features, math. morph. *(Chinese)* 32806
- texture segmentation, fractal dimens. 16295
- texture segmentation and class., neural network technol. 16190
- texture-based and fuzzy class. for regenerating tropical forest mapping, Landsat TM 43516
- thermal/visual imagery, robust phys.-based anal. 2597
- traffic sign recogn. syst. 32951
- TV image stat. model, color distrib. probab. 8539
- US med. images, classif., fuzzy reasoning *(Japanese)* 10216
- video coding, class.-based motion estim. 16385
- video indexing and retrieval, power tools 8485
- visual sensitivity-weighted progressive image transm. using lapped orthogonal transform 41093
- C fibre reinforced epoxy, degrad., acousto-US class. 5922

image coding
- *see also video coding*
- 2-D DPCM/DCT video/image coding algm., simul. 32905
- 2-D lattice filters, image compression 16339
- 2D DCT for image coding, implement. on DSP96002 proc. 2836
- 2D discrete image representation in threshold basis 2816
- 2D orthogonal image transform coding 24663
- 2D θ-image encoding by Boltzmann machine 33066
- 3-D motion estim., videophone appls., iter. tech. 16627
- 3-D scenes, image seqs., global-motion estim., coding appl. 41088
- 3D digitized curves optimal length estim. 41182
- 3D stereoscopic imaging technol. 34630
- absol. moment block truncation coding, props. 24114
- adaptive 3D DCT image coding, variable length coding scheme *(Korean)* 2826
- adaptive computer facilities 33071
- adaptive DCT image coding in combination with M-transform, channel coding perform. 16133
- adaptive hierarchical VQ 15787
- adaptive hierarchical VQ 15786
- adaptive image coding based on visual activity level 24499
- adaptive KL-transform coding of images based on variable block shapes 16132
- adaptive morph. subband decomp., image coding 24396
- alg. derivations of relative affine struct., 3D reconstruction 41336
- anal./synthesis filter banks, phase lin. 33149
- analog spot position coding retina, active obstacle detect. 21457
- analogue TV, digital techs. 3666
- arith. and adaptive-Huffman entropy coders, prob. estim. 32871
- arm modeling for anal./synthesis image coding 8564
- ASIC, Conf., Rochester, USA (1993) 36858
- astron. images, real-time compression and retrieval 24721
- asymmetrical filter banks, subband image coding 33132
- ATM video, performs. and error control 8612
- automatic syst. for monitoring fish passage, dams 24534
- autostereoscopic 3D image, data compression 32814
- bi-level image high speed codec, architectural design 9124
- binary image shrinking parallel algm. 24597
- binary images, interpolation-based bintrees 41185

image coding continued
- bit rate reduction, computer modelling 8673
- block adaptive subband coding, optimized AMBTC 8117
- block adaptive subband VPIC 8116
- block encoded images, channel noise detect., mask 8688
- block truncation coding, reduced rate, error diffusion 41058
- block-based image coding, inform. loss recovery, fuzzy logic approach 32873
- block-coded image recovery from channel errors 41094
- block-matching motion estim., quad-tree decomp. 2812
- broadcast-quality compressed video, subjective testing 25633
- buffer control strategy for image data compression 16229
- carrier coded fringe patterns, automated image proc. *(Chinese)* 2607
- classified VQ, block wavelet transform image coding 24587
- CMOS 1.2 GIP general purpose digital image proc. 21374
- CMOS array proc. for digital image compression 29247
- CMOS high-speed VLSI pipelined proc. design for lossless image data compression 29274
- CMOS VLSI adaptive high-speed VQ archit. 29273
- CMOS VLSI predictive tree-searched vector quantizers for real-time video compression 29276
- color image coding, morph. pyramid decomp. 24592
- color image compression, fractal-based method 41193
- color image compression, neural nets 16347
- color image proc., luminance quantization error effects 2734
- color images in RGB domain, lossless compression 24505
- color-image quantization, fast binary splitting tech. 2591
- colour digital still camera, video CCD sens. 9715
- colour-mapped image compression by DPCM 41098
- compression, hybrid neural networks 16226
- compression, neural based optimal VQ 33063
- compression, neural network approaches 24397
- compression, PDF estimators 33011
- compression, random network learning 33046
- compression, subband data and DCT modeling 24593
- compression algms., mean field annealing recovery techs. 24398
- compression for applied image proc. *(Japanese)* 33648
- compression schemes for radiology and telemedicine 26321
- compression strategies, comparative anal. 33023
- compression technol., review 24561
- compression technology 41171
- computationally fast wavelet-based video coding scheme 16191
- const.-luminance colour TV principle and appl. *(German)* 42563
- content-based manipulation of image databases, Photobook 8480
- correl. filter, noise adaptive discrim. 39544
- crit. sampled filter banks/lin. boundary conditions 41174
- custom document image decoder generation 41359
- data compression, adaptive image sampling/interpolation 16387
- data compression, ART network, fuzzy control 2857
- data compression, image quality effects 2590
- DCT, 2D, inner product algm. 24646
- DCT based image coding, error concealment tech. 33151
- DCT coeff. distrib., image compression algm. 8566
- DCT IC chip design using RNS 21345
- DCT pyramid, layered image coding 33137
- deblocking scheme for codec loop 16336
- decompressed image enhancement, low bit rates 32829
- DECT unequal error protected p×8 kbit/s video transm. 8850
- depalletizing robot vision, genetic labeling 8640
- differential image bitrate reduction by interleaving DCT coeffs. *(Korean)* 2824
- digital convex polygons 41206
- digital curves, coding scheme 24021
- digital image compression, wavelets and wavelet packets 32830
- digital images, compression, decompression and syst. implement. 41317
- digital images, visual appearance/fidelity eval. 2611
- digital MMDS, wide area service alternative, satellite DBS 3654
- digital movies, optimized, maps 33047
- digital TV, hierarchical channel coding, turbo-codes 8684
- digital TV for terrestrial broadcasting, modulation 17534
- digitally compressed video, perform. eval. 24603
- digitally encoded pictures for broadcast, objective picture quality scales 24400
- directional ADPCM 24504
- directional filters constr. scheme, appl., two-channel image coding *(Japanese)* 32861
- discrete binomial splines 37315
- DPCM image coding, correl. sources decoding 8615
- dyn. scene objs., spatiotemporal representation 2746
- edge field, Laplacian operator 33002
- edge preserving VQ by self-organizing map 41371
- edge-preserving VQ, self-organizing map learning 16140
- embedded image proc. appl., top down struct. parallelisation 2810
- entropy-constrained CELP quantization 40646
- error-diffused image compression, decoder/VQ 2735
- extrapolative prediction-discrete sine transform coding, adaptive prediction *(Japanese)* 16299
- facial inform. proc. and Kansei commun. engng. *(Japanese)* 24657
- facsimile high-speed image codec 16946
- fast approx. Karhunen-Loeve transform for data compression 16379
- fast motion estim. algm. for MPEG video coder 16195
- fast VQ, sorted codebook *(Japanese)* 8531
- fingerprint image compression, wavelet scalar quantization vs. JPEG 41194
- fractal image coding eval. 16252
- fractal image compression, crit. review 41295
- fractal image compression, iterated contractive transform. *(Korean)* 24690
- fractal image compression, literature review 2688
- fractal image compression methods, comparison, DCT and wavelets 8499
- fractal video communicator simul. 8851
- fractal-based image coder, complexity reduction 24405
- fractal-based image coding, fast decoder convergence 2740
- generalized Chen transform, fast transform for image compression 16319
- geocoding of satellite images, automation of tie pointing procedure 41278
- geometric meas. based on photom. inform. 2685
- GMS images, digital transm., ships *(Japanese)* 8870
- gradient-based block truncation coding 24664
- graphics segmentation based coding of multimedia images 33097
- gray-scale image compression/coding 24376
- grey-level images, entropy estim. algm. 8584
- grey-scale math. morph. operations computing, opt. implement. 16143
- GT-1000 image transm. device, develop. *(Japanese)* 33610

image coding continued
Haar wavelet transform with inter-band prediction, image coding appl. *(Japanese)* 16236
halftone, continuous-tone conversion of error-diffusion coded images 24595
halftoning opt. neural learning algm. 16305
handwriting proc. in indoor/outdoor environ. for multimedia 9063
HDCC, software based compression algm. for video conferencing 16813
HDTV image compression, MPEG/autosophy comparison 42606
HDTV images, noise resistant sync. 16288
hierarchical coding scheme based on polar mass distrib. 16342
hierarchical HMMs for text understanding 41311
hierarchical VQ for image compression 2835
hierarchy embedded differential image, progressive transm., lossless compression 24580
high entropy signature, optimal coding 41267
high quality image encoding, important distortion factors 24497
high-resoln. image compression, visually transparent techs. 24503
human face images, quantization level, neural net 41373
human visual syst. model and wavelet transform coupling for image compression 32831
hybrid predictive/VQ lossless image coding 32984
hyperspectral image compression, 3-D DCT and entropy-constrained trellis quantization 16266
hyperspectral imagery compression, 3D DCT and hybrid DPCM/DCT 24384
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
image descriptions, learning, fractals 32957
image quantisation error diffusion and min. av. error algms. 16306
image seqs. coding by wavelets and subband schemes 16287
incoherent opt. syst. depth of field extension by wave-front coding 41234
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
input plane/Fourier plane random encoding, opt. image encryption 41302
intell. control of sig. proc. algms. in commun. 16575
intell. vehicle/highway systs., compressed video commun. 8682
interlaced digital HDTV image coding field/frame mode selection *(Korean)* 25672
interpolative VQ by dominant points 33090
intraframe coding with DCT-VQ, image seq. compression 16389
iterated fn. syst. codes calc., ANN appl. 33053
Jong-Nang variable length code for image data compression 8180
JPEG, fuzzy logic appl. 16232
JPEG image data compression, fuzzy logic algm. 41076
JPEG picture retrieval in portable hypermedia documents 8602
land mobile radio networks, digital video/speech transm. 17048
large image sets partial eigenvalue decomp. 41186
Lempel-Ziv universal data compression algm., overview 16380
lin. phase lapped orthogonal transform, prefilter approach *(Korean)* 24121
line permutation coding/reconstruction *(Japanese)* 24403
lossless image compression, block scans codebook 15886
lossless image compression, context-depend. distrib. shaping and parameterization 24502
lossless image compression, hybrid fractal-LZW encoding tech. 16346
lossless image compression techs., comparison 8628
low bit-rate appls., transform coding 16094
low bit-rate coded video transm., radio links 8633
Mahalanobis Distance and Standard Hough Transform comparison 24442
math. morph., multiresolution image decomp./compression 8545
MC-DCT compressed video, manipulation/compositing 16121
med. digital X-ray archive accessed, Internet 8484
med. image combined coding scheme, transform/neural net approaches 43207
med. image lossless compression, multiresolution multiplicative autoregressive models 2848
medical image capture, formatting and display, conf., USA (1994) 11570
mobile multimedia commun. network prospects *(Japanese)* 16906
mobile radio channel, still image transm., unequal error protection coding *(Japanese)* 42293
model-based image coding, deformable 3-D model for face-to-face commun. 24556
modulated lapped transforms in image coding 16084
motion compensated prediction coding, isodensity areas based *(Japanese)* 16152
motion compensated visual pattern image seq. coding 16945
motion picture coding, hybrid transform *(Japanese)* 24668
moving image, coding/decoding, cellular neural network 24735
moving image compression, motion field segmentation-based *(Japanese)* 41325
moving picture coding syst., MPEG2 based, quantisation control 16227
moving target extraction and image coding based on motion inform. 32938
MPEG, full-motion internat. video compression std. 16365
MPEG 1 video compression std., rem. delivery of broadcast-quality video 42625
multi-camera 3D images, data compression scheme 8649
multi-resoln. multi-rate progressive image transm. 8546
multi-view 3-D image, interpolation/data compression *(Japanese)* 16127
multi-view image set, data compression/interpolation 2647
multimedia appls., high quality image compression 41970
multimedia full motion graphics/TV image storage in PC, compression algms. 41318
multimedia image commun. systs. *(Japanese)* 33647
multimedia image techniques *(Japanese)* 32930
multimedia video proc., parallel archit. DSP chip 21372
multiple access scheduling for moving picture inform. *(Japanese)* 8734
multiresolution image compression, Gaussian Markov random fields 2399
multiresolution image decomp., wavelet transform 24658
multiresolution modulation/concatenated coding, decoding algms. 8683
multiresolution tree search, iterated transform. based coding *(Japanese)* 24119
multiscale struct. from multiviews by ∇^2G filtered 3D voting *(Japanese)* 33110
multispectral image class. using BP neural net classifier, input codings assess. 8590
multispectral image compression designs, syst. considerations 16308
multispectral imagery, practical transform coding 16309
multispectral imagery, transform coding 24501
multispectral imagery, wavelet/KLT data compression 8270
multispectral/multilayer image coding, optimal transforms 24697
multitransform/multidimensional image sig. representation, reconstruction 8627
natural images stats. 2703

image coding continued
NEC video compression technol. *(Japanese)* 41352
netlist automatic extractor, image proc. software for PCB 12874
network karaoke syst., develop. *(Japanese)* 42648
network struct. procs., image quantization, halftoning methods 33088
neural net-based compression 8537
neural networks appl., lossless image compression 2546
nodal-based deformable block matching, motion-compensated prediction 41175
noise robust vector quantisers, neighbourhood fns. effect 33068
obj.-oriented anal.-synthesis coding *(Korean)* 24689
opt. decoding archit., iterated fn. syst. code algm. 33079
opt. parallel rank order hit-miss transform 41296
optimal zone coding, slant transform 24123
orthogonal transforms for image compression 32973
parallel fractal image compression algm. for hypercube multiprocessors 32960
parallel proc. image compression methods 24645
partial cylindrical surface location from struct. light image 2831
partially condensed 1D index space data, compression, tree constr. *(Japanese)* 8533
perceptually motivated three-component image model, compression appl. 33128
permutation coding in 1D transform domain 8176
photographic image coding, methods and appls. *(Italian)* 2804
physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
piecewise polynomial wavelet, IIR implement. 2654
piecewise/piecewise-uniform VQ 24591
pixel size and compression effect on digital aerial image metric quality 41264
post-proc., unmasked noise, neural network cancellation 41061
prog. image coding syst., arith. codec, LSI-CAD 33700
progressive image transm., LOT, two-channel conjug. VQ 16382
progressive image transm., partition priority coding *(Japanese)* 41166
progressive image transm., pyramid struct., projection 16381
progressive image transm. of variable block-size coding 16228
progressive perceptually transparent coder for high quality images 24498
projections onto convex sets, damaged block transform coded images 33131
pyramid encoding by LRAAM neural net 16187
pyramid sub-band filtering for image compression 33098
pyramidal coding, QMF 24433
pyramidal multiresolution source coding for progressive seqs. 16225
Q-coders parallel design for bilevel image compression 16188
radiologic image compression, review 26287
rate buffer control strategy for image coding 8648
real time image compression, visibility criterion 32882
real time video, differential vector quantisation, entropy biased ANN codebooks 32953
region-based segmentation for images/image seqs. compression 32972
residual VQ, multilayer competitive neural network 15718
reversible subband coding of images *(Japanese)* 33112
RNS-based image coder for progressive transm. 32985
robot vision, general learning algm. 8491
run-length coded images, correl. fn., calc. tech. *(Japanese)* 2700
run-length coded images, correl. fn./dist. calc. *(Japanese)* 41293
safe-point thinning algm. 24383
sampling point localization for interpolative VQ of images 8588
Sarnoff engine, massively parallel computer for high defn. syst. simul. 12587
scalable video server elements for multimedia systs. 33662
segmentation, phase coding and wavelet transform 32834
segmentation-based predictive multiresolution image coder 16311
self-similar VBR video traffic, anal., modeling and generation 2883
shrinking, zooming, scaling and compression techs. *(German)* 8513
smart compression, embedded zerotree wavelet algm. 8603
software only video decompression, 4×4 DCTs and moving 4×4 blocks 16192
stat. inverse DCT for image compression 16193
stereo image pairs and streams compression 32816
still colour image compression, delayed decision copy coding *(Japanese)* 32929
still image compression algm. based on JPEG systs. *(Korean)* 24680
still monochromatic images compression, VQ neural network 33069
still-image region-oriented orthogonal transform coding *(Japanese)* 16374
stochastic model-based image segmentation, functional approx. 2643
straight line recogn., Hough transform memory compression 32845
strip-map SAR autofocus, approach 25550
subband image coding, lin. phase filter banks design 24583
subband image coding, watershed/watercourse lines of wavelet transform 2727
subimage class., adaptive image data compression, fuzzy syst. *(Korean)* 24560
teleconference traffic from VBR video coders, modeling 16818
teleconferencing variable resoln. image compression 33615
temporal filtering, short-kernel filter pairs appl. 41077
texture anal., SVD 24533
transform and wavelet coding for monochrome images 16161
transform coding, fractal functional set *(Japanese)* 24671
transform coding, integer cosine transform-based error minim. 41073
transform domain VQ for image and video compression 41095
tree-struct. vector quantizer for image compression on MasPar MP-1 parallel machine 16189
TV on B-ISDN, VBR coder generated traffic, stat. model 9014
UltraSPARC visual instruction set, MPEG video decoding 29289
underwater image compression, wavelet transform 15800
USA HDTV standardisation status and specs. *(Japanese)* 17568
variable-rate predictive residual vector quantizer 41059
vector-based sig. proc./quantization 24399
video compression by coeff. compensation 16194
video multiplexing, pulsed coded fiber optics 8676
visual information processing, conf., Orlando, FL, USA (1994) 20237
visual perception threshold matching algm. 32878
visual sensitivity-weighted progressive image transm. using lapped orthogonal transform 41093
VLSI, HDTV sub-band coding, GQMFs filterbanks 42597
VQ, codebook generation 2694
VQ, competitive learning algm. 33031
VQ, fast competitive learning, classified learning rates 41087
VQ, modified LBG algm., approximated centroids 24379
VQ, tree-struct. self-organizing, maps 16120
VQ for Jacquard looms textile patterns 16337
VQ of wavelet coeffs. 24659

image coding continued
VQ using ordered codebooks, props./appls. 2739
wavelet transform image coding, successive approx. quantization/generalized decoding 8604
wavelet transform image coding, tree struct. 16366
wavelet transform quantised coeff. redundancy removal 41092
wavelet-based approaches vs. subband coding techs. for still image coding 32826
wavelet-based multiresolution image compression 8616
wavelets and image compression 8540
weighted finite automata for image compression anal. 15783

image colour analysis
3D color textures, recogn. invariants 3D 2602
C-Y color space, saturation component histogram equalization for true-color images 24518
Clean PAL concept and hist. 9722
color constancy, generalized diagonal transforms 2600
color image segmentation, tree representation *(English)* 41204
color images, adaptive Bayesian segmentation 16327
color images in RGB domain, lossless compression 24505
color separation, moire patterns, spectral anal./minimization 2641
colored-obj. detect. for mobile robot 24537
colour image, obj. recogn., syntactic method 32879
colour image segmentation, fuzzy tech. 2790
colour image segmentation, perceptual method *(French)* 16185
complex and coloured obj. inspection 16356
complex objs., multi-sens. fusion, model-based recogn. 41104
computer-controlled digital HDTV chroma-key syst. 42608
constrained nonlin. optim. approaches, color-sig. separation 16314
differential operators for color edge detect. based on human vision 16345
digital still camera, visual optim. proc. for color correction 9714
discrim. power bounds, color indexing techs. 8478
efficient segmentation of cancer cell nuclei in different color spaces 26274
extraction of color texture by neural nets 41214
fibre optic faceplate, colour image storage 30872
film-based motion picture digitizing syst. for high defn. images *(English)* 16126
fractal-based method for color image compression 41193
geographic map, colour image segmentation 41308
graph theoretic method, color scene matching 32961
histogram equalization of 24-bit color images in color difference color space 41192
human body surface, colour 3D electronic imaging 34566
illuminant and surface color recovery from images based on CIE daylight 24622
interreflection detect. by moving light *(Japanese)* 32999
luminance quantization error effects 2734
map images, text extraction 16325
Markov random field models, color images segmentation 8606
matching for image retrieval 41065
multi-purpose interface for still/moving image retrieval 24520
multispectral image enhancement, histogram explosion 24508
multispectral images, multivariate contrast enhancement tech. 26703
neural-like network model, color images anal. systs. 41212
non-conventional printing proc., color designing and simul. 24516
obj. recogn., blob representation/relational voting 8550
paintings, inform. anal., color distrib. 2698
physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
preattentive and attentive image proc., chromatic visual model 33049
Prolog program, prog. fast colour recogn. hardware by symbolic reasoning 24546
real time image compression, visibility criterion 32882
recogn. method, neural net and genetic algm. *(Japanese)* 33116
regions matching specified chromatic features, detect. 32910
rem. sens., image segmentation, knowledge based anal. *(German)* 41343
scene params. estimating method, color histograms 2601
SECAM syst., color defn. loss minimization 34234
segmentation, fuzzy clustering and supervised learning 16326
selective color adjustment, neural net color classifier 8629
selective color tone adjustment for ATV systs. 16230
spike defects, imaging props. simul. 37173
still colour image compression, delayed decision copy coding *(Japanese)* 32929
target extraction based on energy of colour *(Japanese)* 8532
texture anal., colour histogram 2807
traffic sign recogn. syst. 32951
TV image stat. model, color distrib. probab. 8539
VGA colourmap optim. methods compared 33022

image compression *see data compression; image coding*

image convertors
see also fluorescent screens; image intensifiers
bistable liq. cryst. opt. syst. with global feedback, spatio-temporal behavior 15034
filtering, fast implement. 41360
gas discharge IR-vis. convertor, wave pattern excitation 3873
IR detectors, dispersed systs. of fine particles 25834
low energy electron image converters, slow scan CCD 25883
PD models, image converter/computer simul. studies 1513
$Bi_{12}SiO_{20}$ SLM, 2D lock-in detector array 31001
a-$Si_{1-x}C_x$:H, plasma CVD, monolithic light-converters 3876

image databases *see visual databases*

image enhancement
2D freq. domain, least sq., sig. and syst. modeling, lin. approach 8436
adaptive digital image screen halftoning, wavelet transform 41370
adaptive image sharpening, multiresolution representations 16263
adaptive neighborhood mean and median image filtering 16322
additive stroboscopic fibre optic TV holography, vibr. anal. 15153
biomedical image enhancement, rot. 2nd order difference filter *(Japanese)* 32996
C-Y color space, saturation component histogram equalization for true-color images 24518
character image restoration based on charact. points 8574
chest digital radiography, adaptive image enhancement *(Korean)* 26364
colour images, isolated noise detect./reduct., median filter 2851
computational-morph. filters, mean-absol.-error representation and optim. 32915
conference, medical image processing, USA (1994) 20236
constrained image enhancement/halftoning, threshold accepting 32934
contrast enhancement, discrete dyadic wavelets 34985

image enhancement continued
contrast enhancement of blurred images, fuzzy logic based *(Korean)* 24694
decompressed image enhancement, low bit rates 32829
digital images, multiresolution anal. of contrast *(French)* 16224
dithering, fast source-based for networked digital video 16070
ellipse param. estim. by image seqs. 41106
extended threshold Boolean filters, min. MSE filtering 33148
filtering by scaled MSE filter, vector proc. algm. 32986
fractional anal. method, image deblurring 2817
fuzzy filter for image enhancement 2794
fuzzy set operations, histogram spec. 24661
global perceptual contours inference from local 16396
GLORIA images spatial filtering, speckle reduction/contrast enhancement 9674
gray image enhancement, iter. histogram method 24669
histogram equalization of 24-bit color images in color difference color space 41192
hybrid SAR/ISAR imagery of ships, proc. schemes 17385
ident. and integrity verification of final disposal casks 17652
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
indust. laser cutting syst., knowledge-based adaptive control 5614
ionos. electron distrib., tomographic imaging 10465
IT-CCD image sens. for HDTV, 1/4-inch 560 k pixel, high perform. CCD technol. 34260
iter. total least sq. methods, straight line extraction 41178
land surface microwave radiometry, SSM/I image improvement 18781
landmine detect., Compton backscatt. imaging, two-collision theory 18425
Lee filter for speckle suppression in SAR images, alternative form 32917
logarithmic image proc., range enhancement/stabilization 33015
logarithmic image proc. model 33136
mammogram tumour pattern recogn., pyramidal neural networking 35046
manoeuvring target tracking, image enhancement algm. 17388
mathematical methods in medical imaging, conf., USA (1994) 20238
mode filters for sig. and image proc. appls., robust types 8328
model-based adaptive histogram equalization 2653
model-based multispectral image sharpening 16262
MRI restoration, multidimensional nonlin. edge-preserving filter 26330
multiframe target detect. anal., pixel stats. 32855
multispectral image data, panchromatic band sharpening 8498
multispectral image enhancement, histogram explosion 24508
multispectral image sharpening, spatial freq. models 16264
multispectral images, multivariate contrast enhancement tech. 26703
multispectral images, radiometrically correct sharpening, panchromatic image 16270
noise suppression, neural networks vs. filtering 32897
nonlin. diffusion proc. 2662
opt. cellular neural network, contrast enhancement 794
optimal fuzzy filter synthesis, local stats. based *(Japanese)* 21433
optoelectronic proc., image detail morph. enhancement, rank-order 24487
perspective terrain visualization using rem. sens., GIS and computer graphics 18919
physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
prog. opt. pattern recogn. image proc. 2829
region-based image edge profile acutance algm. 41197
rem. sens., digital image proc. 35359
rem. sens., opt., principal components transform matrix 18786
rubber tyre image, characters, edge detect., fuzzy α-cut set *(Korean)* 24677
second generation FLIR testing, MRTD 34595
semi-automatic road extraction by dyn. prog. 41254
SPRITE-based syst., image proc. 34575
straight-line feature enhancement, rot.-kernel min-max algorithms 24488
subpixel edge localization/interpolation of still images 32875
textured image segmentation by context enhanced clustering 2808
thermal-wave image proc. for material flaws charactn. 5934
US Vice-President's office, image restoration of orig. painted designs 24529
vision syst. for AOI of ball bonds/bonding wire profile in ICs 1463
wavelet based image proc. algms., quantitat. eval. 35003
wavelet transform domain filters, noise filtration tech. 2726
weighted order stat. filters design, perceptron algm. 2634
$BaTiO_3$, photorefr. crysts., variable edge enhancement 8593
HgCdTe bulk wafer-based two-colour IRFPAs, design/fab. 17943
Si retina analog image proc. 776

image iconoscopes *see television camera tubes*

image intensifiers
see also microchannel plates
2D detector systs., distortions calib. and correction 43151
capillary optics, beam intensifier for Compton X-ray source 10218
digital radiography, image quality criteria 18484
faint stellar obj. astron. imaging, light amplif. 2593
fiber scintillating imaging detector for ICF neutrons 4198
fluoroscopy equipt. write-off, patient dose, image quality 26295
gastrointestinal tract, radiological exams., skin absorbed dose 18675
nonaxisymmetrical X-ray image intensifiers design 18411
spectral line emission measuring syst., calib. 17629
target ident., laser imaging 2160
UV photoelec. sens. and peripheral combinations *(Japanese)* 17804
X ray image intensifier systs., contrast-detail testing techs. 26294
X-ray exams., Estonia hospitals, QC, patient dose 18503

image management systems *see document image processing; visual databases*

image matching
2D fractal sets, inverse/approx. problem 2730
2D shape signature based on fractal meas. 2809
3-D scenes, image seqs., global-motion estim., coding appl. 41088
3D attitude determ., curvature fns. 2660
3D dyn. stereovision, stereo/motion matching without local constraints 16330
3D objs. recogn. from 2D images 2764
act. contour model, opt.-to-SAR image registration 8608
affine deform., 3D struct. 8551
automatic quality diagnosis for digital image matching 41328
binocular motion stereo, MAP estim. 2784
camera, rot., self-calib. from multiple views 24475
Chinese online characters recogn., knowledge model based approach 16119
chip shooter, image proc. algm. for IC alignment *(Japanese)* 29694
color matching for image retrieval 41065
color scene matching, graph theoretic method 32961
comparison of images, multi-resoln. tech. 2672
compression, perception threshold matching 32878

image matching continued
confirmation and modif. of character recognized results *(Japanese)* 2621
coplanar struct. perspective views matching 2773
correl. filter, noise adaptive discrim. 39544
curve matching, geometric hashing 2671
deformed patterns recog. 16150
digital images, relational descriptions, noise/scale behaviour 41250
digital photogrammetric assembly point determ. 41272
digital stereo image matching, wavelet transform appl. 8674
disparity-space images and large occlusion stereo 24618
DTM generation, obj. based by MEOSS 3-line camera data 41245
epipolar geom., robust recovery for uncalibrated stereo rig 24479
evol. fronts for topol.-independent shape modeling and recovery 24434
expansion matching, optimal edge detect. and generic recogn. 8625
feature matching/extraction, sig. detect. problem 32993
feature-based stereo matching algm. 16338
geocoding of satellite images, automation of tie pointing procedure 41278
global image matching and surface reconstruction, aerial images 41261
group extraction for recogn. 24463
high entropy signature, optimal coding 41267
highly parallel obj. recogn. scheme, Hough space based 8572
human face detect. and pose estim., multiple model images 16332
invariant obj. recogn., continuous 3-D dist. transform , neural network representation 33057
knowledge-based 3-D obj. recogn. 2683
knowledge-based image understanding 2785
line segment based axial motion stereo 41189
matching pursuit filters applied, face ident. 32839
mobile robot location, laser-range/predicted image matching 34688
model-based multi-sens. fusion 9649
MOMS-02 sens., combined stereoscopic along-track and multispectral data 41270
motion anal., ANN 2686
motion compensated video coding, block matching algm. 24585
moving obj. param. estim. in image seq. 24386
multi-level edge primitive matching, cooperative strategy 32851
multilevel stereo local/global matching 2777
nodal-based deformable block matching, motion-compensated prediction 41175
obj. recogn., blob representation/relational voting 8550
obj. recogn., dominance tree generated from line segmentation 41118
obj. recogn., higher-order stats. 2673
obj. space based surface reconstruction, discontinuities 41273
occluded obj. recog., dominant point approach 16361
opt. flow and discontinuities, determ., nonlin. diffusion 24625
opt. parallel rank order hit-miss transform 41296
opt. recogn. of handwritten Chinese characters 41361
optical 3D measurement techniques, conf., Switzerland (1993) 20260
optimal discriminative SNR, edge detect. and extraction 16398
parallel stereo matching 8624
partially occluded planar curves matching 24598
PCB pattern defect anal./eval. using CAD data, AOI 37161
photogrammetry, facets stereo vision method for terrain 41341
photogrammetry, stereo image matching by wavelet decomp. 41344
point correspondences matching, simulated annealing 24600
PRISM-3 real time image matching syst. 8549
quadtree-based motion compensation/classified VQ 2813
recogn., faces/occlusions, multiple-template expansion matching 2769
rem.-sens. data, neural network class. 43544
road segment matching using probabilistic relax., hierarchical approach 8502
robot/computer assisted surgery, 3D anatomical surfaces matching 43252
robotic welding syst., knowledge based machine vision 41247
robust stereo ranging syst. 3889
segment based recogn. of 2D partially occluded objs. *(Korean)* 24691
shape anal. for image retrieval 8482
stereo images, nonlin. diffusion; discontinuous disparity/half-occlusions 2749
stereo vision, ground plane obstacle detect. 8645
stereo vision feature correspondence, bipartite matching 24372
stereoscopic images, matching point detect. optim. *(Japanese)* 16128
stereovision, robust segment grouping-and-matching algm. 2636
subband coded video databases, multiresolution video indexing 8486
subthreshold analog, matching ccts., large output voltages 8626
surface matching algm. 16169
surface reconstruction, multi image shape from shading 41259
time-seq. range thermal images 16165
Tomahawk cruise missile scene matching, image proc. 4433
two-stage fast block matching algm., integral projections *(Korean)* 24684
unconstrained-endpoint dyn. space-warping algm., binary Eng. character images 24411
video coding bit rate reduction tech. 16403
vision syst. for AOI of ball bonds/bonding wire profile in ICs 1463

image orthicons *see television camera tubes*

image processing
see also computer vision; computerised tomography; document image processing; Hough transforms; image coding; image enhancement; image recognition; image reconstruction; image registration; image representation; image resolution; image sampling; image segmentation; image sequences; maximum entropy methods; medical image processing; minimum entropy methods; motion compensation; motion estimation; radar imaging; sonar imaging; stereo image processing; video signal processing
2-D noncausal Gaussian Markov random field model, param. estim. 33078
2D and 3D optimal parallel image warping 41075
2D backpropag. cascade adaptive recursive filters 6231
2D block adaptive FIR filtering algm. 33152
2D convolution algm., single-data multiple kernel approach 41348
2D digital filters, design techs. 6230
2D direct radio imaging, spatial FFT interferometer 3644
2D FIR-median hybrid filters, deterministic and stat. props. 33077
2D image data modelin, robust M-estim. 16341
2D images of 3D parts, nonrigid lin. transform. 2771
2D interpolation scheme for image zooming, FFT 8573
2D rank-conditioned median filter 24704
3D binary data, fast neighborhood operations, boundary approach 32914
3D Hough param. space, clustering, circ. arc extraction 33014
3D image meas. of moving objs., laser rangefinding 3627
3D intracellular ion meas., visualisation/quantification 43189
3D location estim. of airborne targets, Radon transform *(Korean)* 24676
3D med. images, intens.-based obj. extraction incl. correction for partial vol. errors 43234

image processing continued
3D models of solder joints, generation, X-ray laminography 29674
3D shape determ. from perspective image view 2775
3D struct. inference from three points in rigid motion 16242
128×128 pn-np variable-sensitivity photodetector array artificial retina chip, edge extraction 24577
acousto-optic pupil-plane filtering, incoherent image proc. 22967
acquisition, tracking and pointing, conf., Orlando (1993) 36889
adaptive algms. for small-size obj. detect. on digital images 24385
adaptive α-trimmed mean filter *(Japanese)* 21438
adaptive ARIES, improved halftone method, dot adaptation *(English)* 33074
adaptive computer facilities 33071
adaptive detect. of subpixel targets, unknown spectral charact. 16103
adaptive exposure image input syst. for obtaining high-quality colour inform. 8529
adaptive Gaussian filter for noise reduction/edge detect. 33030
adaptive median filters, algms./results 33134
adaptive multiresolution struct. for parallel image proc. 8514
adaptive optics imaging through atmos. turbulence, frame selection 16200
adaptive optics telescope image proc. 2708
adaptive raster, halftoning, error diffusion 2640
addressable SLM, image readout 31008
advanced rem. sens. simulator, geometric mapping 26530
aerial photography restoration, MLE algm. 41339
aerotriangulation using digitized images, OEEPE research project 41265
affine transform. of binary images stored in pxy tables by run format *(Japanese)* 2623
AFM/STM images, max. entropy deconvolution, response fn. generation 41062
airport surface movements radar surveillance 43460
algm. for image smoothing, parametric relax. 41347
algorithm mapping onto parallel processors, conf., London, UK (July 1994) 32586
An EDDM based toolset appl. 41305
analog differential SEEDs, lin. image differentiation 1743
analogue image proc., neurobiol. based 12672
analogue image proc. neuro chips, spatial/temporal dyns. 42755
ang. vars. meas. of 3D objs., holographic interferometry 18072
application-specific array processors, conf., Venice (Oct. 1993) 36903
approx. rank-order filters, VLSI implement. 29377
arbitrarily shaped morph. structuring elements, decomp. 16289
arc patterns, shape approx., dyn. neural networks 41304
ASIC implementation of image proc. algm., silicon compilation 21343
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
assembly parts hole dist. optimal estim., Kalman filters 8623
astron. radio images, adaptive deconvolution 34198
atmos. inhomogeneities, vel. meas., image data-handling techs. 43543
atmos. turbulence, finite-size obj. double-passage imaging 26725
audio-visual-audio inform., hierarchical sens. fusion *(Japanese)* 16054
auto-calib., Kruppa's eqns. and intrinsic params. of camera 41149
automated window size determ. for texture defect detect. 41220
automatic multilevel thresholding 24702
bacteriorhodopsin thin film photoanisotropic incoherent-to-coherent image converter 22990
banded Toeplitz lease sq. problem regularization, fast algms. 32486
binary morph. image proc. implement. 8597
binary neural associative memory, hardware implement. 29464
boundary detect., Hopfield neural net 41368
butterfly algm. and VLSI archit. for image decorrelation 16096
CATV pictures, composite triple beats impairment reduction 42612
CCD camera, 3D inform. extraction, holographic method *(Japanese)* 16129
celestial image proc. on symm. multi-proc. 24532
cellular neural network chips, opt. image acquisition 29486
cellular neural networks for random-dot stereograms proc. 2788
circuits systs., symp., Chicago, USA (May 1993) 31
CLEAN algm. for microwave images eval., NDT appl. 42901
closed obj. boundaries ident., stat. approach 24493
CMOS prog. analog cellular neural net for high speed image proc. 29429
color image proc./transm. technols. *(Japanese)* 41745
color recovery, millions of colors from 8-bit graphics device 32963
color separation, moire patterns, spectral anal./minimization 2641
combined block adjustment, GPS data 42548
combined lithographies, stitching errors 13483
communication and signal processing, conf., South Africa (1993) 5502
compact acousto-optic proc. for SAR image form. 2830
comparison of images, multi-resoln. tech. 2672
composites/multilayer parts, thermal nondestructive inspection procedures/proc. 12230
compression, neural based optimal VQ 33063
conf., opt. information processing advances, USA (1994) 36893
conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
coning scan imager, point detect. 2608
constrained contouring in polar coord. 2666
consumer electronics, conf., Hong Kong (1994) 5460
continuous-scale morph. filtering, evol. eqns. 8672
contour fig., extraction 8646
contour interpolation, morph., image space algm. 16351
contouring, interferometric digital proc., Hough transform 12238
cpd. Gauss-Markov model, param. reduction 24703
crack growth detect., digital image proc. tech. 28899
crowd monitoring 33109
curved surface meas. by 3-level checkerboard projection 16247
data depend. nonlin. filters family 24588
deinterlacing, motion-compensation method *(Japanese)* 32997
depth estim. from image defocus, fuzzy logic 2792
depth-from-defocus, camera aperture change, spatial domain 2753
depth-from-focus/defocus, Fibonacci search/curve fitting 2754
derivative SNR, image proc. objective fidelity criterion 16340
differential params. meas. of charged particle beams 4078
digital audio-visual sig. proc., Alis logic synthesis 29301
digital curves, optimal polygonal approx. 41183
digital halftoning, 2-D carriers, noninteger period 41195
digital halftoning by iter. isotropic error feedback 16377
digital image representation and access, bibliog. 24429
digital images, enlargement, reduction, min. loss of inform. 32872
digital multicolor well-composed pictures 41071
digital neural network error detect., algm.-based inner product protection 32499

image processing continued
digital opt. cellular image proc. parallel archit. 1772
digital topol. framework 28596
digital video display, Ethernet TCP-IP 16078
digitally prog. CNN chip, discrete templates 21487
direct-view 3D display for videophones, LCD and lenticular sheet 3931
displacement meas. laser interferometer 25971
double pulse holography, digital image proc. 18142
DSP synthesis, high-level algm./archit. transforms. 37798
ductal carcinoma class., digital mammograms, calcifications image anal. 26339
dyn. image proximity meas., short-term memory control systs. 24387
edge angles meas. of knives, light sectioning tech. 3978
edge detect. by neural net, line proc. 41372
EDTV-II helper sig., correl.-based visibility reduction method *(Japanese)* 34259
Eigenlips for robust speech recogn. 32433
eigenvalue calc. and rank filtering, analog cct. 778
ellipt. shapes location in image, pyramid archit. 2589
elongated/contracted images recog., regular moments 33067
enhanced image capture through fusion 24711
enhanced vision HUD, image quality issues 10327
error diffused images, estimating error diffusion kernel 8611
Euclidean Voronoi labelling on grid 41069
facial images, morph transform. 2695
faint stellar obj. astron. imaging, light amplif. 2593
fast display of radiosity images on DEC MP-1 41211
fast median filtering, coarse-to-fine algm. 2650
filtering, fast implement. 41360
fish-eye lens model, variable resoln. transform 41072
fission reactor simulated subchannel, void profile 27418
Fizeau interferometer, phase-map extraction by moire tech. 17697
flow field visualization and real-time vectorization, laser-opt. method *(German)* 10063
fluid flow partical image velocimetry data anal. 42987
fluid flow visualisation, recent trend *(Japanese)* 34733
focus of attention in image understanding systems 8675
FPGA archits. for range/image sens. 3881
FPGAs for real-time image manipulation 24725
fractals, signal and image processing appls., conf., London, UK, Jan. 1995 16067
frame integrat. perform. improvement in unknown sens. jitter 16108
freq.-phase optoelectronic speed-measuring devices 42947
fringe projection micro-shape meas., high-sensitivity 18070
FT of an image, fast computation 28567
FT of translating objs. image, diff. eqn. 24381
fuzzy filtering for mixed noise removal, image proc. 2791
fuzzy inference, remote sensing image boundary area 9413
game strategy approach for image labeling 24364
generation of image data for Mars mission, verification for WAOSS 43441
GFLOPS, real-time image proc. parallel VLSI archit. 29272
Gibbs priors, image-modeling 41345
GPS-supported block adjustment, self-calib. params. 42547
gray level image co-occurrence matrix computation, parallel archit. 8568
gray level image filtering, Q-state mean field annealing algm. 8508
gray-level images, high-order moment computation 33135
gray-scale morph. filtering, digit-serial archit. 21277
gray-tone digital images, multifractal and generalized dimens. 41303
grayscale fn. proc. systs., matrix representation 8576
grayscale morph. filters, optimal under LMS algo. 2838
grey level point distrib. models fitting, animals in scenes 24563
grey-level morph., lin. structuring fn. 8587
grey-scale image geodesic dist./time 16362
Hamiltonian-Jacobi connection of mathematical morphology 24716
handicapped people, support systs., IT contribs. 18619
HDTV digital baseband VCR, visual investig. of head-tape interface 9749
hierarchic Voronoi skeletons 41181
high-defn. PCB imaging, high-yield/high-resoln. manufacture 6410
high-speed Hough transform lookup table constitution *(Japanese)* 16376
hit-or-miss transform binary/gray-tone image proc. archit. 2717
holographic 3D image, data compression *(Japanese)* 16130
holographic interferometer for flatness testing, common-path design 18067
holographic points patterns, image space/spectral anal. 40128
Hough transform on reconfigurable meshes 32911
Hubble Space Telescope, wide field camera, cosmic ray noise 24705
hypercube machine, image partitioning 24548
ICARUS detector, data reduction techs., phys. param. extraction 10125
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
image sensors/processing, conf., UK, 1994 5481
IMPEL, domain-specific image proc. environ., lang., and compiler 32843
in-line particle holograms image proc. 33008
incoherent opt. syst. depth of field extension by wave-front coding 41234
inexpensive Gabor decomp. 32517
information technologies/systs., conf., Ukraine, 1993 3
intell. control of sig. proc. algms. in commun. 16575
intell. sig. proc., present and future *(Japanese)* 24333
intens. connectedness extraction 33096
interactive anal. tool sets 8489
interactive camera calib. 16138
IR cameras perform. comparison, 3-5 and 8-12 μm 34570
IR clutter effect, fixation point anal. 34503
IR imaging systs., conf., Orlando, FL, USA (Apr. 1994) 20261
irradiance response meas. of image proc. systs. 24579
isointensity surfaces, differential charact. computing 32908
IVHS, multisensor vision systs. 42840
joint wavelet-transform correlator for image, extraction 24492
JPEG image compression hardware implement. 16079
Korean envelope images recogn., address block location *(Korean)* 24693
labeling board based on boundary tracking *(Japanese)* 32998
land cover class., rem. sens. imagery anal. 26776
land surface, opt. imaging from space, radiometric corrections 43482
land VSP data, multicomponent near-surface correction 43496
Landsat images spatial resoln. improvement *(Korean)* 26710
large image sets partial eigenvalue decomp. 41186
LCD kinoform, animated color 3D image 7830
LD freq.-modulated interferometer, selective imaging 40177
likelihood distributions for radio wave tomography 10456
lin. image filtering, analog VLSI neural networks, random param. var. 32955
lin.-contoured image struct. anal., opt./digital 2819
lin.-phase biorthogonal wavelet fn., arbitrary regularity *(Japanese)* 16234

image processing continued
line detect. filters 2588
line extraction from image, variable Hough transform *(Japanese)* 16300
line parameterization conditions 41067
line preserving adaptive median filter 24526
liq. cryst. light valve real-time image differentiation *(Chinese)* 8663
liq. crysts., electro/nonlin. optics appls. 7413
local motion detect. by hierarchical neural network 24570
local region growing by pseudophysical simul.. 16394
locally-adaptive wave proc. for predetection of point targets 17924
lossless digital image browsing, network support 16074
low drag meas. by vision syst., IC appl. 9814
M-lattice, non-lin. dyn. syst. for halftoning 33033
MAGICS meteorological imaging syst. for Nippon Airways *(Japanese)* 10414
Mahalanobis Distance and Standard Hough Transform comparison 24442
massively parallel archit. for IC testing 20401
meas. in images, phys. significance 8634
median filter based on fuzzy rules *(Japanese)* 21431
MELECON '94, conf., Antalya, Turkey (1994) 5470
METEOSAT IR image proc. and MPEG animation 10467
microlens, holographic, shape fn. investig. by image proc. 2153
Midwest Symp. on ccts. and systs., Detroit (1993) 33
mobile robot navig. laser range image acquisition 31692
model-based image synthesis *(Japanese)* 25128
Moiré interferometry anal. of laser weld induced thermal strain 2161
MOMS-02, geoscientific eval. 43483
monocular pose determ. from lines 2774
morph. filtering, model-based, opening spectrum 32913
morph. filters design, genetic algms. 2798
morph. struct., diff. eqns. 8518
moving obj., vel. field estim. algm. *(Chinese)* 8530
multi-valued images, labelling systolic archit. 2762
multidimensional M-band filter bank, quantization compensation 33150
multielement photodetector device for point source coord. meas. 25968
multifreq. synthesis techs., radio interferometric imaging 9685
multilevel threshold selection for gray level images 2720
multipass image rot., additional aliasing avoidance 2724
multiple distorted obj. detect. and image proc., morph. and wavelet transforms 24485
multiple target tracking syst., analog VLSI neuromorphic proc. 32954
multiresolution edge detect. techs. 24599
multiresolution image proc., VLSI 128-proc. chip 6167
multiscale contour approx., adaptive smoothings *(Japanese)* 2655
multiscale error-diffusion digital halftoning, local intens. quality measure 24517
multispectral/hyperspectral imagery algms., conf., Orlando, USA (1994) 5436
multistreaming RISC proc., VLSI, pipeline execution 2846
MUSE sig. decoding, integrated image DP *(Japanese)* 34257
NA35 streamer chamber, image data anal. 26234
natural images stats. 2703
NDT, binary image correction 454
near-sens. image proc. 2725
neural front end image proc. systs. 42953
neural net filter, nonlin. fn. optim. *(Japanese)* 21434
neural network appls. in sig. proc., IEE Colloquium, London (1994) 5512
neurochips, opt., image associative memory 42854
NMR spectra proc. via cellular neural net 24732
noisy fn. eval. and delta coding algm. 8493
noisy image nonparametric regularization 8538
nonBrownian sedimenting spheres, hydrodynamic self-diffusion, particle vel. flucts. 18148
nonlin. SC network anal./synthesis for image proc. 5981
nonmechanical microscanning, opt. space-fed phased arrays 34576
obj. area estim., cellular neural network 21495
obj. beam expander noise monitoring in speckle correl. interferometry 33143
obj. extraction, sampled act. contour model *(Japanese)* 16301
obj. recogn., neural, invariant response learning 41363
obj. recogn. by cost minimization 41330
occluded shape completion by symm. 2661
ocean swell waves, opt. imaging, digital image matching 4400
offset cube, optoelectronic interconnection network 24644
opt. cellular logic two-level networks for morph. image proc. 31038
opt. image detect. in spatial noise and background radiation 2833
opt. neural chips, artificial retina 7435
opt. neuro-devices, develop. *(Japanese)* 1753
opt. polishing monitoring, computerised microscopy 17600
optical flow from 1D correlation, time-to-crash detector appl. 24715
optim., equivalence of dyn. systs. 11948
optimal decomp. of math. morph. structuring element, lower bound anal. *(Chinese)* 32807
optimal edge-preserving hybrid filters 2737
optimal weighted median filtering, structural constraints 40804
orient. filters, design and implement., separable approx. methods 32881
oscillator neural networks for image proc. 12678
overlay enhancement in electron-beam lithog. 13452
parallel image and signal algorithms texture analysis, conf., Genoa, May 1994 11593
parallel image proc. appls. on network of workstations 24410
parallel opt. inform. proc., appl. *(Japanese)* 32853
parallel proc. algm., mapping strategies 24647
parallel thinning, boundary noise tolerance 16149
partially coherent quasioptical radio imaging 10004
particle image velocimetry, opt. real time fluid flow mapping 23487
particle image velocimetry, ultra-high-speed camera 3982
pass. tracking of maneuvering targets 16114
pattern spectrum calc., chess-board dists. 24375
patterned wafer defects, automatic fuzzy logic class. 37168
PC-based softcopy photogrammetric syst., experience in low-cost survey of archit. 41337
PCB CAD/CAM, parallel raster image proc. 38077
PCB deformation anal. holographic pattern meas. 21619
PCB visual inspection-diagnosis expert system, reverse engineering 29651
perfectly parallel thinning algm. 8669
phase stepping in projected-fringe moire interferometry 18071
phase-measuring profilometry digital image-acquisition device, MTF effects 24408
photo BJT array in CMOS technol. for intell. imaging 9935
photogrammetric point determ. via ground control points 41248

image processing continued
photon echo, discrete digital DP 31607
photon echo based simultaneous opt. image proc. 32933
photorefr. polymer four wave mixing opt. correlator/computer 24425
phys. approach, IR image understanding 41222
polariz.-opt. morph. proc., prog. struct. elements 31036
portable MaxiCode reader, proc. selection 25751
pre-stack seismic proc. 43495
printer models and error diffusion 16313
probabilistic fitness measure for deformable template models 41218
projectile vel. meas., flash shadowgraph syst. 3989
projective invariants of planar curves, fund. limitations 16296
Q-coders parallel design for bilevel image compression 16188
Q-state neuron for Q-state associative memories 29444
quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
radiometric image proc. based on Parzen-Rosenblatt estim. *(Russian)* 17513
rainfall estim., satellite imagery, hybrid neural net 43518
range/intens. images, fusion on connection machine CM-2 16246
Raphael paintings, spectral and spatial stats. 24530
rare-earth doped materials, time freq. domain opt. storage 22791
real time extraction of image outlines 17700
real-time digital single-exposure speckle photography for vel./flow fields study 41299
real-time image generation *(Chinese)* 41283
real-time image proc. issues 32880
rect. pixel image, modified moment-based edge operator 8671
recursive erosion/opening/closing dilatation transforms 24700
recursive scaled DCT algm., ASIC implement. 16080
refr. surface flow visualization, image proc. 42988
reinforced concrete column inspection, mobile CT unit 42737
relative orient. of image triples, straight lin. 41338
relax. labeling, analog VLSI cellular fuzzy automata networks 29462
rem. sens., image texture, grey level cooccurrence matrix 43466
rem. sens., num. image proc. methods *(French)* 26704
rem. sens. market, data variety and availability 41320
ridges for image anal. 16239
road boundary detect., parallel local, extraction 24596
robust estim. for motion params. 41146
rot. cct., VLSI transform proc. appl. 29088
rot. Crofton formula 41056
Russian commercial rem. imaging systs., 1994-2000 41319
safe-point thinning algm. 24383
SAR image quality improvement, ideal filter concept 42526
satellite image fusion, multiresolution anal. 32886
scalable, real-time, image proc. pipeline 41162
scaling of images/image features, RG 2751
scan conversion methods, subjective assess. 42582
scan line array proc., image proc. algms. 16292
scanning probe microscopy, sample and probe tilts estimation 25707
scatt. material imaging by Fourier synthesis holography 40149
separable transform 32974
separable-denominator 2D adaptive filters, appl., noise reduction in images 41324
shape detect., parallel simulated annealing 24366
shear beam imaging of laser illum. space targets, heuristic model 16196
SIMD-based cellular neural network, image proc. 24729
simul. software, scientific imaging devices 2682
size fn. computation *(Italian)* 8591
skeletonisation, extended Euclidean dist. transform 41140
small targets signal/data proc., conf., Orlando, USA (1994) 25
soft morph. filtering, threshold decomp., anal. 32870
soil erosion anal., rem. sens., DMGIS 43546
sound field tomographic reconstruction, TV holography 41231
spaceborne MOMS-02 sens., spectral/panchromatic band design 43440
spaceborne UV/vis. imager simul. 42850
spaceborne wide swath SAR scansar sig. proc. *(Chinese)* 42515
spectral line emission measuring syst., calib. 17629
speech-assisted video proc., lip sync. 41702
sq. root filtering in space-time estim. 16068
sq.-root, reciprocal, sine/cosine, arctangent cell, design 32656
stack filter design, structural approach 40829
stochastic algm. for parametric/non-parametric estim. 40859
strain direct meas., electronic shearography 18107
submarine, unmanned, obj. tracking, image proc. 24724
superimposed holographic interferometer, welding control appl. 15156
surface feature extraction, 3D image partial derivatives 32907
surface profiling, light interferograms freq.-domain anal. 18066
suspens. and aggregates, combined rheometer/image analyser 25876
synthesized images for pattern recogn. 41191
systolic algms. for digital image filtering 24380
systolic array design for 1D discrete sine transform 8569
TACOM thermal image model, field test validation 32902
TACOM thermal image model, PC version 35409
target acquisition modeling, atmos. blurring effects 31844
target acquisition probabilities for image motion and vibr. 32904
target vel. meas. from speckled images 16197
temporal proc. and time lenses implement. 41301
terrain surface albedo retrieval method 43481
texture anal., parallel machines, stat., matrix method 24648
texture anisotropy,, gray-level difference histogram 24649
texture generation by self-organizing neural net 33064
texture synthesis, phase transits./ multi-scale Markov random fields 8541
thermal anal. of IC chips, thermographic imaging 13832
thermal diffusivities meas., IR images proc. 25995
thermal imaging perform. eval., min. findable temp. difference 34572
thermoplastic photographic plate, holographic opt. image proc. 7854
thinning criterion for 2D digital pictures 33106
thresholding by fuzziness measure minimization 16248
through hole solder joints automatic inspection, automated inspection 42705
towed ocean bottom instrum. image proc. 26728
translation-invariant binary filters, morph.-representation 16160
trophical and morph. status of water resources, airborne hyperspectral algms. 18878
turbulent jet into counterflow, digital image proc., LDA, 41074
TV images, sig.-to-thermal noise ratio, automatic assess. 42611
two scan algm. implement. on systolic array/multicomputer 12569
two-pulse photon echo opt. DP 41060
UHV-STM syst. combined, MBE 5837
UltraSPARC visual instruction set, MPEG video decoding 29289
US images of fibre reinforced plastics, automatic eval. *(German)* 12248

image processing continued
user-guided measuring in digital aerial triangulation 41269
Van Cittert iter. method of image deconvolution, general relax. factor 2594
versatile video pattern generator for vision test 16162
video indexing and presentation, 2-stage strategy 9742
video-rate Hough transform, GFLOPS SIMD/MIMD parallel archit. implement. 32884
viscosity meas. syst., falling ball method *(Japanese)* 42991
vision-based gauge for online weld profile metrology 3891
visual human hand tracking 24607
visual information processing, conf., Orlando, FL, USA (1994) 20237
visual inspection for LSI wafer patterns, subpixel image alignment 6437
wave propag., wavelet kernels 33043
wavelet transform appls. 16364
wavelet transforms, PVM computing 24406
wavelet transforms theory and appls. 16354
wavelets and digital image proc. 2635
weak-sig. image proc., multichannel whitening of non-Gaussian data 16100
weighted finite transducers in image proc. 41282
weighted median filters anal./design, fast algms. 33013
X ray image intensifier systs., contrast-detail testing techs. 26294
X-ray film, image viewing conditions survey 18505
$BaTiO_3$ cat conjugator, real-time image proc. 24491
$BaTiO_3$ cryst. opt. image-combiner OR gate /AND gate, beam fanning effect 7438
$BaTiO_3$ refreshed photorefr. holographic buffer memory for permanent readout 31650
$Bi_{12}SiO_{20}$ opt. correlator/SLM, multiple distortions 32964
C fibre composites, delamination cracks, SAM image anal. 20999
GaAs HV photocond. switches, electro-optic imagery 14598
GaAs-AlGaAs MQW SLM 29946
HgCdTe IRFPA nonuniformity correction algm., real-time hardware prototype 17948
InAs MQW photorefr. material 30814
$KTiOPO_4$, parametric image amplif., spatial freqs. transfer fn. 23353
Mo-Si multilayer charactn. by high-resoln. TEM *(Chinese)* 1643
Si wafer noncontact temp. meas., real-time image proc. techs. 2718

image processing equipment
see also image scanners; pattern recognition equipment
2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
2D DCT/IDCT VLSI, fully bit-serial archit. *(Korean)* 21367
3.3V MUSE decoder sig. proc. LSI *(Japanese)* 34254
3D archit. for high resoln. imaging 34583
3D human image reproduction in virtual space teleconferencing 16823
3D image hardcopy, holoprinter develop. *(Japanese)* 2150
3D image meas. of moving objs., laser rangefinding 3627
3D intracellular ion meas., visualisation/quantification 43189
3D laparoscopic syst., single-camera 34998
3D X-ray imaging techs. 34335
aircraft parking posn. display and guidance syst. *(Japanese)* 10410
analog VLSI neural net OCR syst., extraction module 29466
analogue image proc. neuro chips, spatial/temporal dyns. 42755
analogue proc., neurobiol. based 12672
ASDE airport surface detect. equipt. *(Japanese)* 10408
camera, ultra-miniature, and proc. syst. 17963
camera calib. from spheres images 24605
CMOS 1.2 GIP general purpose digital image proc. 21374
CMOS array proc. for digital image compression 29247
CMOS cellular neural net-based smart pixel chips, analog design 31130
CMOS intell. lin. image sens. for single chip digital camera 34601
CMOS max. entropy coprocessor for computed tomography 29432
CMOS prog. analog cellular neural net for high speed image proc. 29429
CMOS real time image class. proc., parallel archit. 21375
CMOS real-time obj. extraction proc. chip 29250
CMOS video sig. proc. chip, 1.5 GIPS 21373
CMOS VLSI opto-electronic array proc., morph. image proc. 29277
CMOS VLSI smart visual micro-sens. based on insect vision 34569
color machine vision, true RGB line scan camera 17927
colour digital still camera, video CCD sens. 9715
compact acousto-optic proc. for SAR image form. 2830
complementary CCD DSP chip for digital still cameras 6188
complex image proc. syst. hierarchical simul. *(German)* 24673
contactless lin.-dimens. monitoring, lin. and ang. 3986
coronary angiography beamline upgrade, NSLS 43269
cryogenic rad-hard CMOS readout multiplexer fab. 30448
digital audio-visual sig. proc., Alis logic synthesis 29301
digital image representation and access, bibliog. 24429
digital range imaging VLSI sens. 13852
digital video on PC, hardware accel. 16075
DRAM/memory LSI failure anal., EB tester voltage contrast image 21317
DSP for image recovery appls. *(English)* 24569
DSP-based image proc. syst., real time meas. of knee joint movement 26270
edge detector, Sobel operator, VLSI implement. 30473
electronic-zooming DSP syst. for 1M-pixel-CCD camera 9713
emission microscopy in semicond. failure determ. 6837
Ethernet and SCSI for digital video input/output 25007
facsimile high-speed image codec 16946
Fizeau interferometer, phase-map extraction by moire tech. 17697
FLIR imaging systs. charactn. requirements/algms. 34592
FPGA archits. for range/image sens. 3881
freq.-phase optoelectronic speed-measuring devices 42947
geometric image class. by stress polytopes, perform. and integrat. *(French)* 41351
granular particle, lin. flow vel. meas., image sens. 3993
gray level image filtering, Q-state mean field annealing algm. 8508
GVIP, scalable high-perform. graphics proc. 21366
high resoln. motion sens., ASIC implement. 37808
Hunter Unmanned Aerial Vehicle, near-term targeting tool 4434
ICVision, VLSI-based diffractive display, holographic stereograms 9987
image anal. syst. for sea ice maps from space 18886
image obj. area estim., cellular neural network 21495
integrated memory array proc., image proc. appl. *(Japanese)* 29210
intell. video camera, serial control interface 9754
IR readout electronics, conf., Orlando, FL, USA (Apr. 1994) 20262
IR scene generation systs., IRFPA laser radiation response 17941
irradiance response meas. of image proc. systs. 24579
ISHTAR, real-time time-varying image proc. *(Japanese)* 42754
locally-adaptive wave proc. for predetection of point targets 17924
low-cost colour SLM develop. from liq. cryst. TV 42753

image processing equipment continued
med. workstations for applied imaging and graphics research 18439
mfg. product defect detect., CMOS real time image proc. systs., AOI 32940
mil. tracker perform., eval. 18984
motion estim. VLSI proc., block matching algm. *(Korean)* 37789
multimedia equipt., electronic devices *(Japanese)* 16935
multimedia video proc., parallel archit. DSP chip 21372
multistreaming RISC proc., VLSI, pipeline execution 2846
natural-image proc. syst. *(Japanese)* 25776
NET32K high speed image understanding syst. 34429
neural front end image proc. systs. 42953
neurochip, opt. for image motion detect. 42853
neurochips, opt., image associative memory 42854
nonlin. AV workstation characts. *(Japanese)* 25775
obj. extraction, real-time syst., with seq. growing 8487
on-focal-plane A/D conversion 29313
panoramic line-scan imaging syst. for teleoperator control 34564
parallel DSP archits. 29242
parallel proc. for image segmentation 12574
pass. rem. IR interferometers, analog detect. scheme 34427
patterned wafer inspection, IC yield/cost-of-ownership factors 37157
portable MaxiCode reader, proc. selection 25751
projectile vel. meas., flash shadowgraph syst. 3989
real time class. proc., conventional and neural techs. 16284
real time extraction of image outlines 17700
Sanyo multi-gray-scale proc. LSI for TFT-LCD *(Japanese)* 669
SCARA robot, posn. accuracy meas. method *(Japanese)* 42938
sidelobe control in SAR imagery, nonlin. apodization 34118
smart custom image sens., develops. 17962
spiking oscillator networks, on-focal-plane image preprocessing 29413
stereoptic 3D cueing, complex flight displays decluttering 35218
stereoscopic syst., particle trajectories meas., underwater model 34732
stereoscopic viewing of at. struct. 34336
subthreshold analog, matching ccts., large output voltages 8626
suspens. and aggregates, combined rheometer/image analyser 25876
sync. DRAM, 4-/16-Mbit, for high-speed image proc. 12542
syst. for real-time video image compression appls. 41079
systs. characts. *(Japanese)* 32931
target ident./sens. perform., imagery-based targeting trainer 35233
temporal proc. and time lenses implement. 41301
thermovisual syst. for NDE of objs. 18920
through hole solder joints automatic inspection, automated inspection 42705
toothbrush interproximal penetration meas., image anal. 26272
transputer module array, computer vision embedded appls. 24484
versatile video pattern generator for vision test 16162
video equipt. for multimedia *(Japanese)* 25657
viewpoint-controlled displays for teleoperated robots, perform. eval. 34629
VLSI archit. for motion estim. algms. 12580
VLSI implement. of Huffman codec for digital video 33704
work fn. meas., thermionic projection microscope 9818
X-ray stereoscopy, real time, reverse geom. X-ray imaging 34968
InSb FPA-based high sensitivity, high resoln. thermal video syst. 17938
PtSi FPA-based Inframetrics InfraCAM thermal imaging camera 17955
PtSi IR CCD-based multi-wavelength imaging pyrometer 17956
PtSi middle wavelength 240×320 IR staring FPA 17954
Si substr. MCM technol., sens. sig. proc./control 21769

image quantisation *see data compression; image coding*

image recognition
see also edge detection; face recognition; fingerprint identification; image classification; image colour analysis; image matching; image texture; object detection; object recognition
2D clutter for IR surveillance image recogn., defn. 4440
2D discrete image representation in threshold basis 2816
2D images, spatial organization 2793
2D partial shape recogn., interrelation vector *(Korean)* 24682
2D sparse distributed opt. neural memory 32895
3-D sugarcube neuroprocessor, low power analog neurosynapse chips 29492
3D elongated objs., recogn. from 2D intens. images 2757
3D image recogn., optimum estim. and compensation *(Japanese)* 16370
3D location estim. of airborne targets, Radon transform *(Korean)* 24676
3D motion and shape estim., image struct. conditions 24441
3D obj. pose tracking/recovering 2772
3D objs. recogn. from 2D images 2764
3D rigid solid obj. recogn. from 2D projective images 41252
3D shape determ. from perspective image view 2775
3D vision, model-based invariants 2669
3D-model/2D-image metric for recogn./class. 2770
adaptive joint transform correlator shape retrieval 33007
adaptive pattern recogn. with rot., scale, and shift invariance 41237
amplit. compensated joint transform correlator syst., target recogn. *(Korean)* 41167
amplit.-modulated circ.-harmonic filter for pattern recogn. 24655
analog neural net chip for image recogn. 41164
angled facial data obtained by bright-spots matrix projection 3854
ASDE airport surface detect. equipt. *(Japanese)* 10408
ATR, act./pass. cooperative image segmentation 25588
ATR, sens. motion and vibr. 16276
automated extraction of lung cancer lesions from multislice chest CT images by 3D image proc. 26326
automated opt. mensuration using video camera, calib. method 2613
automatic recogn. of partially occluded objs., genetic algm. 16286
automatic syst. for monitoring fish passage, dams 24534
background detect. by reusable ANN 33018
bacterial colony counting, dist. transform 26315
binary associative memory neural net appl., document fax images anal. 41127
binary circ. harmonic fn. for rot. invariant digital pattern recogn. 24554
binary division algm. for multi-spectral images clustering 8635
binary images, interpolation-based bintrees 41185
binary images, second-order histograms 33073
binary phase extraction joint transform correlator *(Korean)* 24675
binocular stereo vision, cellular neural net state eqns. 32956
bipolar winner-take-all model with a threshold, real-time pattern recogn. syst. 24428
CAD-based vision, conf., Champion, IL, USA (Feb 1994) 36878
camera motion strategy, localize uncertain 3D lines 24641
car, VITA II, collision avoidance in traffic, vision 36769
car driver's LOS, user interface 44580

image recognition continued
cathodoluminescent screens, partially coherent radiation, recording and inform. proc. 34645
cellular neural networks for moving point targets detect. 24730
chaotic scanning/recogn. in neuron-like systs. 8474
closed surfaces, parametrization, 3D shape description 32906
cluster expansions, Bayes estimators/Markov fields 32925
CMOS VLSI opto-electronic array proc., morph. image proc. 29277
color map images, text extraction 16325
colour image, obj. location 2675
colour image segmentation, fuzzy tech. 2790
complementary-ref. joint transform correlator, opt. pattern recogn. 8468
composite harmonic filters, scale-, projection-, and shift-invariant pattern recogn. 24490
computational model of neural contour processing 24709
computer vision, conf., Stockholm, May 1994 11549
computer vision conf., Berlin, Germany, 1993 20268
conference, medical image processing, USA (1994) 20236
config. problem solving, scene reconstruction 2645
content addressable image database, appl.-independent, eval. 8483
content based retrieval in image databases, probabilistic approach 8481
continuous-time cellular neural network chip, direction-selectable connected component detect. 29474
coplanar struct. perspective views matching 2773
cross-sect. proc., SHGC description of range image *(Korean)* 24686
custom document image decoder generation 41359
degraded vehicle no. plate images, hybrid thresholding method *(Korean)* 41169
digital curve, polygon approx. by graduate iter. merging 32987
discrete Fourier preprocessing transforms for binary phase-only filter 32966
disk-based opt. correlator, multiplexed transm. holograms 7862
disparity detect. in stereo vision syst., cepstrum tech. 2853
distortion invariant opt. pattern recogn. 32941
distortion-invariant composite filter for target detect. in nonoverlapping scene noise 32869
distortion-invariant phase-only filters, iter. design 7451
distributed Bayes obj. recogn., geom. hashing 2767
distributed obj. recogn., fuzzy relational inference logic 16274
elevation map recovering, aerial image seq., stereo modeling 10341
EM for multi-channel image ident. and restoration 24524
enhanced recogn. syst. perform., adaptive learning concepts 16280
equal power spectrum for image ident. and restoration 24552
extended BAM neural net approach 33065
eye-gaze detect. 2 light sources, image differences 10284
face retrieval, used 8316
facial expression, emotion dyn. recogn. 8563
facial expression recogn./reasoning, fuzzy logic 8562
finite-sized 2D arrays, partial realization algm. *(Japanese)* 16134
FLIR image aspect angle estim., model-based vision approach 24545
FLIR scenes, jump-diffusion procs. for automated understanding 16285
Fourier domain opt. pattern recogn. syst. illum. sensitivity 32942
fractal image multiscale relax. labelling 2659
fractional correl., FT operator 24489
FT profilometry, obj. shape meas. 8490
genetic algms. for image recog./restoration 2801
grouping of primitives, stochastic, graph-based 41110
Hamming neural net, CMOS analogue IC 37923
handwritten cursive script recogn. 8515
Hangul cursive handwriting, on-line continuous recogn. syst. *(Korean)* 33120
harmonic filter, limited rot. invariant joint transform correl. 41300
hierarchic shape description via sing. and multiscaling 2687
hierarchic Voronoi skeletons 41181
homog. region detect. 2818
Hough transform chip-set, config., CMOS implement. 29269
human search/target acquisition perform. modeling, fixation-point 8599
human-motion recogn. by fuzzy associative inference 8581
Hunter Unmanned Aerial Vehicle, near-term targeting tool 4434
hyperspectral air-to-air seeker 18990
hyperspectral data from AO tunable filter, spectral and polarimetric anal. 16267
IC photomicrographs, cct. extraction 6833
image seqs., dim point target detect. 16109
image-based air target ident. 26823
incoherent-only joint-transform correlator 32969
indust. vision, image understanding syst. design *(Japanese)* 16372
information technologies/systs., conf., Ukraine, 1993 3
integrated fuzzy clustering, biomedical images 16368
invariant image recogn., neural net-based *(Chinese)* 8668
invariant image recogn., triple correl. and neural networks 33056
invariant obj. recogn., continuous 3-D dist. transform , neural network representation 33057
invariant opt. pattern recogn., calculus descriptors 8670
invariant pattern recogn. by moment Fourier descriptor 16243
IR cloud pattern-class., neural-network decision surfaces 2715
IR detect., spatial sig. proc. 16101
IR image dim point target detect., difference method 16115
IR multi-spectral target/background field meas., anal. 16105
IR multispectral target/background signatures, modeled and meas. data comparison 16106
joint transform correlator, incoherent output 8660
Karhunen-Loeve expansion stabil. in pattern recogn. problems 2692
laser beam phase sing. charge and posn. detect., holograms 23458
learning model struct. from images 16333
LEOS, San Jose, CA, USA (1993) 20270
licence plate, extraction, gray level transit. characts. *(Korean)* 2827
liked-BAM neural net-based *(Chinese)* 8667
line segment convex groups, robust efficient detect. 16181
lines recogn. in digital images 41327
local geom. invariants for recogn. 32921
local motion detect., neural net internal representation 41376
logic diag. syms., recogn. 37747
logic diags., automatic input, loop syms. recogn. 5971
MACE prefilter networks for ATR 16283
mammogram tumour pattern recogn., pyramidal neural networking 35046
map aided structural anal. of aerial images 41276
matched spatial filtering, correl. diags. for shape invariant pattern recogn. 32980
missing inform. principle in computer vision 24358
mixed documents recogn., texts and graphic images *(Korean)* 24681

image recognition continued
mobile robot posn. determ., visual landmark-based 9929
model-based vision, aspect angle target estim. in forward-looking IR images 2714
motion clustering, stochastic 24628
moving articulated objs., description and tracking 8528
moving objs. 2D radar imaging 9634
moving target extraction and image coding based on motion inform. 32938
MSX early midcourse algm. testbed 16111
multi-resoln. method for improving image search 41128
multi-scale differential framework, opt. flow computation 24575
multi-sens. rem. sens. imagery, parametric/neural classifier 8506
multichannel joint-transform correlator, multiobject recogn. 24426
multicovariance matched filter for target detect. and background recogn. 16107
multilayer neural network archit., external wt. memory, shape recogn. 6274
multilevel stereo local/global matching 2777
multimedia systs., image proc., Arizona State Univ. 8655
multiple distorted obj. detect. and image proc., morph. and wavelet transforms 24485
multiple image matching in automatic aerotriangulation syst. 2786
multiple target detect., fringe-adjusted joint transform correlator 16277
multiple unknown objs. localisation/tracking 24665
multiple-obj. computer-generated holographic discriminant correl. filter design 32967
multiple-obj. recogn., optoelectronic morph. scheme 8596
multiple-template expansion matching, faces/occlusions images 2769
multisensor data fusion, fuzzy methods 24431
multisensor target recogn. syst. (MUSTRS) 8558
NA35 streamer chamber, image data anal. 26234
netlist automatic extractor, image proc. software for PCB 12874
neural network recogn. of human face images stored in database 16163
neural syst. for high-speed pattern recogn. and image anal. 29473
noise and intens. invariant moments 41066
noisy thermal IR image seqs., automatic small target detect. 16110
nonlin. vision problem based on forward and approximated inverse optics models *(Japanese)* 16235
obj. rapid recogn., noisy range images/tripod operators 2677
obj. recogn., higher-order stats. 2673
obj. recogn., indexing strategies design 2674
opt. learning neural network, Selfoc microlens array for pattern recogn. 31034
opt. space-freq. anal. for real-time pattern recogn. 8592
optoelectronic science/engineering, conf., China (1994) 28207
parallel thinning, boundary noise tolerance 16149
partial cylindrical surface location from struct. light image 2831
partitioning, neck-based/limb-based, computational aspects 2755
pass. rem. IR interferometers, analog detect. scheme 34427
pattern extraction, nonuniform resoln., neural net 41369
PCB automated component placement, shape-based technol. 12887
PCB pattern defect anal., divide and merge image proc. 29672
PCB prod., computer-aided manual workstation, graphics generation 38112
PCB testings, fuzzy pattern recognition 38075
perfectly parallel thinning algm. 8669
periodic activity detect. from gray-level sigs. 2744
phase-matched filters in pattern recogn., symm. measure 7448
photogrammetric tech. integrat., conf., Orlando (1993) 36888
phys. approach, IR image understanding 41222
planar shape recogn. under affine distortion 24574
plane fig., pot. axial symm. ident. *(Japanese)* 2701
polyhedron shape and reflectance from inter-refls. by 2-image photom. stereo 2649
polyhedron shape recovery and reflectance estim. *(Japanese)* 32866
preattentive and attentive image proc., chromatic visual model 33049
problem solving *(Japanese)* 16046
prog. opt. pattern recogn. image proc. 2829
radar target discrim., wavelet transforms 16102
random PM techs., opt. pattern recogn. 32943
real-time extraction of direction vectors from binary images, VLSI chip 6173
real-time nonlin. joint transform LCLV CCD sens. correlator 2713
real-time synthesis of humanlike agent in response, user's moving image 41163
recovering 3D shape of unfolded book surface from scanner image *(Japanese)* 32868
reduced aspect graph for obj. recogn. 24374
rem. sens., cloud masking, ensemble methods 18822
retrieving images by 2D shape, computation methods and human perception 8477
rly. level crossing obj. detect. algm. 33145
road pricing, RF/vision syst. 42187
road sign recogn., opt. joint transform correlator 33003
road traffic and vehicle control, image sens. appl. 41210
rot. symmetric surfaces recogn. 2760
rot.-invariant filter, opt. wavelet transform, pattern recogn. 33084
rotated obj., shape from contours, multiple cues 41249
SAR param. estim., adaptive algm., texture recogn. *(Chinese)* 34108
scale-invariant opt. correlators using FLC SLM, road sign recogn. 41236
seafloor, sonar bottom class. methods 18814
segment based recogn. of 2D partially occluded objs. *(Korean)* 24691
selection and binary decision tree design 8567
self-adjusting piecewise toroidal recog. 24414
semi-local projective and affine invariants 2670
semicond. defect recog. fuzzy expert syst. 1192
shape description method for digital line pictures *(Japanese)* 2742
shape from motion algms., scaled orthography and perspective 24456
shape from shading, convergent algms. and uniqueness results 24624
shape modelling scheme 2782
shape models from image seqs. 24460
shape recogn. via semi-differential invariants 24573
skeletonization algm. by max. tracking 41180
small obj. detect. by LMS filtering and multilayer perceptron 32898
small objs. detect., high clutter backgrounds, neural net filter 16139
SNI-based 3D obj. recogn., matching strategy *(Korean)* 2825
spatial envelop-free nonlin. joint transform correl. 24391
spatially disjoint sig./scene noise opt. pattern recogn. 32946
spike defects, imaging props. simul. 37173
star-field ident. for autonomous attitude determ. 33076
staring IR seekers, target thermal struct. effects modeling 35394
straight line extraction, perception/fuzzy thresholding 2859
straight line recogn., Hough transform memory compression 32845

image recognition continued
struct. detect., parallel algm., wavelet/segmentation anal. 32918
struct. detect. in rem. sens., recurrent neural net 24728
struct. recogn. of various kinds of table-form documents 8526
symm. in 3D shape reconstruction from noisy images 24472
tangency curve reconstr., high-order, from image seqs. 2747
target discrim., computational vision human perception models 35393
target recogn., min. error neural network (MENN) method 24557
target recogn., self partitioning neural networks 16278
tele-microscope for meas. of polished curved surfaces *(Japanese)* 2741
text string extraction from regular periodic overlapping text/background images 2721
texture recogn./noise filtering, optoelectronic neural net 39526
thermal imaging, visibility model for MRTD prediction 32976
thermal imaging syst., perform. model 34574
TOPS multifilter solid optic correlator 16255
TOPs opt. pattern recogn. program 18987
transition of opt. processors into systs., conf., Orlando (1993) 28242
translation/rot. invariant algm. for pattern recogn. 8632
transputer module array, computer vision embedded appls. 24484
tunable photorefr. spatial filters, noise robustness 8654
vehicle image extraction based on spatio-temporal image anal. *(Japanese)* 2619
vehicle registration plate image capture/ident. 41380
vehicles, intelligent, conf., Paris (1994) 28224
vel.-based vestibular-visual act. sens. integrat. 41108
viewpoint-invariant representation of generalized cylinders, symm. set 41138
walking, cyclic motion detect./recogn. 16146
walking recogn. from image seqs., incremental 2745
watthour meter opt. character reading syst. *(Japanese)* 9969
Wiener spatial filter SDF for opt. correl. 41153
word recogn. algm., part of speech tagging 2657
zip code recogn. via localized arc pattern method 40702
$Bi_{12}SiO_{20}$ SLM-laser scanner hybrid joint transform correlator 33082
$Bi_{12}SiO_{20}$ real time opt. correlator 33083

image reconstruction
see also image restoration
2-D lin. phase IIR filter, symbolic computation routines, design 37885
2D dielec. objs., EM imaging, expt. study 23577
2D digital video filters for PALplus-compatible HDTV transm. encoder 42604
2D Fourier kinoforms by genetic algm., quantized phase optim. 40160
2D hybrid element image reconstruction for TM illum. 43222
2D inhomog. dielec. objs., permitt. profiles reconstruction *(Korean)* 16136
2D radar image reconstruction, diffr. tomography 9636
2D separable FIR Wiener filter design, iter. method 24214
2D sigs., data-depend. sampling 33123
3-D brightfield microscope systs., modeling 16218
3-D light microscopy, simultaneous image and point spread fn. reconstruction 16219
3D acoustic holography imaging syst., Walsh fn. modulation *(Japanese)* 17484
3D adaptive transform coding techs. for moving images 41089
3D ground penetrating radar imaging, multifrequency diffr. tomography 42505
3D ground penetrating radar imaging, SAR focusing 42506
3D image reconstr. from photom. stereo/silhouette 41213
3D indust. obj. recogn., vision based profiling method 41117
3D obj. reconstruction, vol. intersection 2778
3D obj. reconstruction from stereoscopic images 41268
3D projective geom. based image reconstruction 41137
3D reconstr. from image seq., Bayesian/Kalman, comparison 2854
3D reconstruction, artificial points removal 41080
3D reconstruction of objs., large depth vars. 17929
3D representation method, indust. CT 33146
3D shape meas., computer reconstructed hologram images 10021
3D shape meas. of specular polyhedrons, light source 3980
3D shape reconstruct. by genetic algm. *(Japanese)* 16388
3D shape reconstruction by act. rangefinder 3888
3D shape reconstruction from 2D silhouettes 24418
3D shape recovery from contour 24413
3D shape recovery from image focus 32924
3D wavebeam field reconstruction from cross sect. intens. meas. 33001
3D-DCT pipe coding, video seq. coding 24506
activated C fibers, pore struct., fractal anal. 5913
adaptive DCT image coding in combination with M-transform, channel coding perform. 16133
adaptive image coding based on visual activity level 24499
adaptive morph. subband decomp., image coding 24396
alg. derivations of relative affine struct., 3D reconstruction 41336
alkali halide surfaces, opt. sens. 32981
angiography, obj. reconstr. by Hopfield neural net 43276
aperture-array dyn. sens. systs., high resoln. imaging 8556
ATM video, performs. and error control 8612
attached holographic adaptive base interferometer 40123
autonomous underwater vehicles, sonar image reconstruction 8618
axial stereovision, 3-D reconstruction of natural objs. *(French)* 41350
Bayesian 3D tomographic reconstruction from radiographs, obj.-oriented methods 2840
binary images, morph. representation invertibility 2733
biomedical image data, surface rendering, Fourier descriptors 10205
bispectral speckle near-diffr.-limited imaging, unknown aberrations 24653
bispectrum, invariant image averaging, practical issues 16159
block adaptive subband coding, optimized AMBTC 8117
blood vessels, 3D imaging, X-ray rot. angiography 43230
brightness meas. of rough surfaces, confocal microscopy/image anal. 18065
CAD-based vision, conf., Champion, IL, USA (Feb 1994) 36878
CGH, multicolor imaging 7836
circle reconstr. from digital image 16148
CMOS max. entropy coprocessor for computed tomography 29432
coded aperture emission CT, optimum filter, algm. *(Japanese)* 4270
color image compression, fractal-based method 41193
common framework for kinetic depth, reconstruction/motion for deformable objs. 24640
complex wave-field reconstruction, phase-space tomography 32890
compression algms., mean field annealing recovery techs. 24398
computer visions, conf., Stockholm, May 1994 11563
concealed obj. surface reconstr. using dist. metric 33026

image reconstruction continued
- conducting objs, buried in dielec. half-space, 2D act. imaging polaris. effects 25548
- conference, medical image processing, USA (1994) 20236
- conference, San Diego, USA (1994) 26
- config. problem solving, scene reconstruction 2645
- coronary arteries, 3D motion/reconstruction from biplane cineangiography 4268
- coronary artery ident. from time series of angiogram 26324
- coronary artery segments, stenosed, 3D densitometric reconstruction and visualization 43240
- crit. sampled filter banks/lin. boundary conditions 41174
- cross borehole tomography, improved inversion/iter. scheme *(Korean)* 18790
- cuneiform inscription anal., holographic image proc. techs. 23466
- cylinders, right generalised geometric protective props. of contours 287
- cylindrical objs., refr. index, image reconstruction, opt. diffr. tomography 41063
- DCT coeffs., adaptive quantization, subjective redundancy removal 8613
- DCT domain image fast progressive reconstr. 33021
- deconvolution from wavefront sens., lin. and speckle image reconstruction 16212
- diffr. limited slit-spectrography 16213
- diffr. tomography, multistage parallel algm. 32970
- digital double-pulsed holographic interferometry for vibr. anal. 31633
- digital phase holograms, reconstructed images, iter. and error diffusion method *(Japanese)* 23474
- digital TV image wavelet transform coding and sync. loss recovery 42584
- discrete-time wavelet extrema representation, design/reconstruction 40810
- disease focus posn. determ. in gamma knife operation, 3-D image reconstruction 26273
- divergent-ray projections, iter. reconstruction methods 8575
- Doppler tomography approach for microwave imaging 24412
- double-passage coherent imaging through random-phase screen, complex-valued obj. reconstruction 41233
- edge preserving VQ by self-organizing map 41371
- elec. capacitance tomography, pattern assoc., neural network 3952
- elec. impedance tomography, image reconstruction, modified back-projection method 43302
- elec. impedance tomography, neural network image reconstruction 10253
- elec. impedance tomography, resistor network model 3951
- electro-holographic display, image scaling 7827
- epipolar curves on surfaces 24566
- epipolar fields on surfaces 24435
- equiv. current reconstruction for EM imaging 8512
- evol. fronts for topol.-independent shape modeling and recovery 24434
- facial trauma visualisation, 3D spiral/conventional tomography comparison 18441
- fan-/cone-beam projection synthetic scanner array tomographic reconstructions 26320
- feature-based approach, 3D obj. reconstruction 41262
- FEL relativistic electron beams, phase space tomography 39940
- fiber bundle imagery of wavelength multiplexing, stat. eval. 16222
- focal length detect. by using Haar wavelet transform, expt. syst. *(Japanese)* 34714
- forward-looking radar reconstruction, long-wavelength holography 17397
- fractals for learning image descriptions 32957
- Fresnel approx., spectral transforms of broadband fields and correl. charact. 41200
- Gismo Project, detector simul. 34954
- global image matching and surface reconstruction, aerial images 41261
- global surface reconstruction, viewpoint adjustment 16164
- GMS image data, holographic images generation *(Japanese)* 16123
- gray-scale image compression/coding 24376
- ground penetrating advanced radar appls. 42503
- halftone, continuous-tone conversion of error-diffusion coded images 24595
- halftoning with Peano scan, edge enhancement algm. *(Japanese)* 33114
- handwritten cursive script recogn. 8515
- heart dyn., human, visualization from US echograms *(Japanese)* 35009
- hierarchy embedded differential image, progressive transm., lossless compression 24580
- High Pressure Gas Scintillation Proportional Counter, SAX appl. 26260
- high resoln. image acquisition methods, multiple cameras *(Japanese)* 16124
- high resoln. image reconstruction, mean field annealing 8681
- holographic image reconstruction, spatial freq. filtering 23459
- holographic image reconstruction, time-multiplexing, aberration correction 23473
- holographic lens, constr.-reconstruction wavelength shift, image aberrations 31683
- holographic memory diffr. interf., stat. charact. 22784
- holographic particle velocimetry, 2D wavelet transform 23460
- holographic stereogram, distortion compensation method 31677
- homogeneous dielec. cylinder inverse scatt. 23568
- Hough-transform filter for plural element shape parallel detect. 33080
- human visual syst. motion detect. mechanisms *(Japanese)* 16373
- IC layout extraction from Si die image, geomet. fig. proc. 30390
- icosahedral viruses, 3D reconstruction, parallel computer 10170
- impedance tomography, cylinder/human thorax, finite element models 43288
- in-line recording off-axis viewing holographic particle velocimetry 40148
- input plane/Fourier plane random encoding, opt. image encryption 41302
- intens. interferometric correl. in image reconstruction 2709
- inverse halftoning/kernel estim. for error diffusion 33133
- inverse scatt., 1D problems, iter. algm. 23617
- inverse scatt., tomographic imaging, holographic techs. 7844
- ion-exchange planar glass waveguide holograms for fibre optic communication lines 39321
- ionos. CT, geometries comparison and image reconstruction 35307
- ionos. electron distrib., tomographic imaging 10465
- IR seeker imaging simul. real-time model based on fractal theory 18989
- ISAR image and RCS proc. for target support contamination removal 25547
- iter. deconvolution, variable convergence speed 41235
- iterated fn. syst. codes calc., ANN appl. 33053
- kinematic resection of scanned imagery 41275
- knowledge-based 3-D obj. recogn. 2683
- large-depth obj. 3D reconstruction, Ronchi grating Fresnel diffr. 32982
- LCTV image reconstruction of holograms 40151
- light photon equalization, appl., X-ray film digitization 43242
- line correspondence in aerial images, stochastic relax. 41240
- line permutation coding/reconstruction *(Japanese)* 24403
- line-drawings from piecewise planar objs., edge detect. 24473

image reconstruction continued
- local reconstruction from projections, exponential radial sampling 16344
- Lockheed phase diversity test facility, expt. results 16215
- lossless image compression techs., comparison 8628
- magnetos. VLF/ELF waves, reconstruction of wave distrib. fn. 2207
- material-selective transm. tomography, constrained dual-energy reconstruction method 18466
- mathematical methods in medical imaging, conf., USA (1994) 20238
- microwave diffr. tomography, adaptive imaging algm. 16349
- microwave imaging, cost minimisation approach, simulated annealing 43277
- microwave imaging, num. inverse-scatt. solns. 32989
- microwave imaging in spatial domain for canonical dielec. objs. 40313
- min. Renyi inform., complex sig. reconstruction 24509
- model based 3D scene reconstruction from perspective images 41257
- model-based multispectral image sharpening 16262
- MOMS-02 sens., combined stereoscopic along-track and multispectral data 41270
- monocular pose determ. from lines 2774
- Moon, spacecraft landing regions, albedo and colour 16158
- moving sources with complex spatial-time struct., rem. acoustic sens. 17479
- MRI reduced motion artifacts, spatio-temporal multiresolution reconstruction 35002
- multi-sens. images and digital map data fusion 43547
- multiaspect acoustic imaging systs. in plane layered medium 43520
- multidimensional MR image segmentation, fuzzy neural network 26322
- multiocular image seqs. for 3D TV, motion/depth estim. 32808
- multiple-image FT spectral imaging, fast phenom. meas. appls. 33086
- multispectral imagery, practical transform coding 16309
- multitransform/multidimensional image sig. representation, reconstruction 8627
- NA35 streamer chamber, image data anal. 26234
- neuromagnetic/morph. reconstruction overlay, coord. syst. matching 35055
- neutron penumbral imaging of ICF targets 34948
- neutron tomographic syst. developed, Rome research reactor 12221
- noisy curve shape restoration 32828
- noisy images, point reconstruction 32937
- noninvasive diagnostics, Gibbs act. EM method 35029
- noniterative complex-valued obj. reconstruction from two intens. meas. 2707
- noniterative image reconstruction from photon-limited data by self-cross-correl. 24360
- obj., 3D, reconstruction, min. vol. intersection no. 2855
- obj. detect. in clutter, Gabor filters 24549
- obj. recogn., multiscale shape simplification 32832
- obj. space based surface reconstruction, discontinuities 41273
- obj. tracking novelty filters, resoln. theory 41298
- occluded shape completion by symm. 2661
- occlusion ambiguities in motion 24453
- occlusion-free monocular computer vision syst. 2719
- opt. flow and discontinuities, determ., nonlin. diffusion 24625
- opt. hologram, real-time parallel-computed holography *(Japanese)* 15157
- optimized elec. impedance imaging reconstruction algm. 43319
- overcomplete pyramid image representation, error correction 32827
- pattern projection by conventional, diffractive optics 15173
- pattern recogn./computer vision, conf., New York, 1993 36
- PCB testings, fuzzy pattern recognition 38075
- pelvic EIT images and assumed init. cond. distrib. 43311
- penetrable object inverse scatt., conjugate gradient appl. 23566
- perceptually motivated three-component image model 33126
- phase diversity imaging, atmos. turbulence 33089
- phase diversity to extract higher order Zernike coeffs., lab. expt. 16216
- phase retrieval methods for opt. diffr. tomography 23456
- phase-diverse speckle reconstruction of solar data 16211
- photogrammetry, facets stereo vision method for terrain 41341
- photon-limited images, low-pass filtering, histogram spec. 33144
- photorefr. fiber array for holographic memory 30828
- planar contours pair linkage, multiresoln. tiling 16352
- planar γ-camera imaging, rot. slat collimator eval. 35058
- polaris. interferometer-based spectral imaging syst., liq. cryst. cells 31010
- polygonal slices, piecewise-lin. interpolation 20584
- progressive image transm., LOT, two-channel conjug. VQ 16382
- progressive image transm., partition priority coding *(Japanese)* 41166
- progressive image transm., pyramid struct., projection 16381
- progressive image transm. of variable block-size coding 16228
- projective reconstruction from uncalibrated images 16291
- pushbroom scanners with large lin. arrays, odd/even detector noise removal 16260
- quadric ref. surface, appls. in registering views of complex 3D objs. 24634
- radar tracking, jump lin. model based aircraft trajectory reconstruction 17373
- radio image reconstruction, strip-integrated projection 17521
- radiographic images assess., region-of-interest fractal graphs 5937
- range/vision sens. data, geometric constraints fusion, alg. framework 41102
- recogn., 2D sparse distributed opt. neural memory 32895
- recovery algms., efficient implement. scheme 24432
- recovery of missing segments/lines 2711
- recursive CR bounds, alg./stat. accel. 41321
- refl. holographic screen, stereographic displays 31676
- reflective tomography 17435
- reflective tomography for space obj. imaging, short-pulse-length laser 17434
- regularization theory extended for multivalued fns. *(Japanese)* 33111
- relative 3D regularized B-spline surface reconstruction, image seqs. 24635
- reverse dist. transform. and skeletons based on Euclidean metric for n-dimens. digital binary pictures 2648
- Richardson-Lucy algm., ghost images and image reconstruction feasibility 16209
- Richardson-Lucy blind deconvolution algm. 24361
- SAR data reflectivity spectrum direct determ. 25545
- SAR image reconstruction, complex no. theoretic transform *(Japanese)* 9618
- SAR interferometry, 3-D target reconstruction 17382
- scanned halftone images reconstruction, filters appl. 33129
- scanning electron microscope images, automated interp. 5686
- scanning tomographic acoustic microscopy 26808
- scene reconstruct. multiple viewed scatt. data 2779
- selectogram surface 3D image reconstruction 2140
- shading flow anal., surface recovery 32892
- shape from motion algms., scaled orthography and perspective 24456
- shape from shading, convergent algms. and uniqueness results 24624
- shape modelling scheme 2782
- shape reconstruction by combining stereo and photom. ratio 24510

image reconstruction continued
shape/pose recovery from shading, contour 2759
sheared beam imaging in space-time distortions 17433
ship detect. in radar images by neural net 42528
single line drawing interp. for obj. reconstruction 41243
single-shot laser radar sigs., principal-component filtering 17440
smoothness meas. for regularization, surface reconstruction appl. *(Japanese)* 2[illegible]09
solar image, segmentation, parallel blind deconvolution methods 33087
sparse telescope array undersampled focal plane image reconstruction 2710
spatial vision, demodulation and predictive coding 41155
specular surface shape from shading, neural net 41367
Spirit III radiometer, scanned image constr. via optimal interpolation 24511
stellar image reconstruction, triple correl. and Knox-Thompson method 24496
stereo head mounted onto robot arm, self calib. 24474
stereo reconstruction tasks, increasing precision and reducing computational complexity 2691
straddling holographic images, one-step enlarging tech. 7817
straight line segments, invariant stable recovery 32992
subband image coding, watershed/watercourse lines of wavelet transform 2727
subband low power video decoder archit. 33666
submicron holographic lithog., limitations 30163
super-wide-angle imaging by synthesizing images *(Japanese)* 16125
surface, discrete, continuous resoln. polygonalization 16353
surface interpolation, fast, using multi-resoln. wavelet transform 28655
surface profile reconstruction, near-field data 41297
surface reconstr., discontinuities, simulated tearing 2748
surface reconstruction, adaptive mesh generation 2756
surface reconstruction, robust BP 33058
surface reconstruction by multiaxial triangulation 2587
surface-based obj. reconstruction, parallel algm. 16241
symm. in 3D shape reconstruction from noisy images 24472
synthesis, Gram-Schmidt orthonormalization procedure 2712
talocrural joint kinematics visualization and quantitat. anal. 18444
tangency curve reconstr., high-order, from image seqs. 2747
TEM defocus series, exit wave reconstruction 24430
temporal filtering, short-kernel filter pairs appl. 41077
thermographic NDT, single thermal image shape reconstruction 34597
TOF positron imaging syst. 4265
topol. reconstruction, smooth manifold solid from occluding contour 24437
truncated 2D parallel projections, image reconstruction 43263
turbulence-induced phase error param. dimens., estim. in phase diversity 16214
ultrashort-pulse reflectometry, 1D num. study 34682
ultrasound images, blind deconvolution 35000
video coding, variable block-size segmentation by motion vectors 16383
video image seqs. anal., point and line correspondences 24602
view-based obj. recogn., pairwise geometric histograms anal. 41124
virtual space teleconferencing, 3D human images reprod. 41949
visibility graphs, completeness 2856
vol. holography for one-way image transm. and reconstruction 8661
vol. recording media color holographic gratings, ang. selectivity 23470
water recorded holograms, precision in-air replay 7852
wavefront reconstruction from phase differences, correl. noise propag. 16201
wavelet-based multiresolution image compression 8616
weighted least-sq. filtered backprojection tomographic reconstruction 41057
X-ray tomographic reconstructions, direct Fourier method, accurate sinogram simul. 26314
zero-crossing-based spectrum anal. and image reconstruction, detect. accuracy 8467
BaTiO$_3$ photorefr. cryst., dyn. phase-encoding image storage 7816
LiNbO$_3$, ang. selectivity, multiplexed hologram cross-talk 31648
LiNbO$_3$, hologram coherent erasure and updating 31649

image registration
3D med. image registration, ANN 33050
3D obj. imaging, light plane calib. 42944
act. contour model, opt.-to-SAR image registration 8608
aircraft motion estim., max., posteriori method 16358
ATR, ATLAS syst. 9648
brain, 3D multimodality images, registration by curve matching 35068
buried objs. detect., dual-band IR images fusion 8555
cloud fraction/shadow props. retrieval from TIMS/AVIRIS 26718
conference, medical image processing, USA (1994) 20236
curve-surface registration, differential props. 24619
frameless registration of MR and CT 3D vol. data sets 10206
high entropy signature, optimal coding 41267
high resoln. image acquisition methods, multiple cameras *(Japanese)* 16124
human body surface, colour 3D electronic imaging 34566
Landsat-TM scene lin. LOC segment detect. using morph., model-based approach 16257
lin., extraction by least sq. template matching 41253
mathematical methods in medical imaging, conf., USA (1994) 20238
model based techs. for image seqs. 8548
model validation for change detect. in machine vision 8638
multi-scale texture moments 41125
multisensor image registration, contour-based approach 24699
orthoimages (digital), airborne line scanner imagery 43489
parallel genetic algm. hardware archit. 2802
photogrammetry, Digital Video Plotter, new features 42870
photogrammetry, GPS controlled triangulation of single flight lines 42549
photogrammetry using video cameras, modelling & calib. 43486
progressive piecewise registration, orthophotos and airborne scanner images 41244
range views integrat., general surface approach 41287
real-time stereo and motion integrat. for autonomous vehicle navig. 41241
rigid objs. registration method without point matching 24615
robot/computer assisted surgery, 3D anatomical surfaces matching 43252
seafloor, sidescan sonar imaging, geometric corrections 26709
seafloor sonar, multibeam wide swath imaging, coverage 26713
seal imprint verification, automatic 33012
visual inspection operations, obj. registration 41121

image representation
2D discrete image representation in threshold basis 2816
2D fractal sets, inverse/approx. problem 2730
2D images, spatial organization 2793
2D shape signature based on fractal meas. 2809
3D obj. modeling, symbolic representation 32928

image representation continued
3D reconstruction of objs., large depth vars. 17929
3D representation method, indust. CT 33146
3D vision, model-based invariants 2669
adaptive image sharpening, multiresolution representations 16263
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
binary images, morph. representation invertibility 2733
block-matching motion estim., quad-tree decomp. 2812
closed surfaces, parametrization, 3D shape description 32906
color image coding, morph. pyramid decomp. 24592
colour texture anal., colour histogram 2807
conformal mapping-based image proc., theory/appls. 41176
data placement for wavelet decomp., 2-D image data 24407
dedicated neural network, automated visual QC, massively parallel VLSI-implement. 32949
deterministic/random binary Euclidean images, representation 41179
differential method for computing local shape-from-texture 8605
digital images, relational descriptions, noise/scale behaviour 41250
digital stereo image matching, wavelet transform appl. 8674
discrete Gabor expansion, general theory 32516
discrete-time wavelet extrema representation, design/reconstruction 40810
face recogn., illum. direction change compensation 24466
filtering, struct. preserving inhomog. diffusion 8607
fuzzy set operations, histogram spec. 24661
handwritten signature images verification, wavelet anal. 8542
hierarchical coding scheme based on polar mass distrib. 16342
hierarchical image representation by subband decomp. 32847
invariant image recogn., triple correl. and neural networks 33056
IR scene generation systs., IRFPA laser radiation response 17941
logarithmic image proc., range enhancement/stabilization 33015
manoeuvring objs., motion estim., rot. representations 33138
microscopic displacement pattern, holographic, 3D graphic image representation using cubic spline fn. 15152
mil. image, ident. methods 32896
motion video annotation and anal., overview 8547
multi-resoln. multi-rate progressive image transm. 8546
multiple view histogram representation for posn. and pose estim. *(Japanese)* 33115
multiscale, multi-orient. fields, local differentiation filters *(Japanese)* 24672
multitransform/multidimensional image sig. representation, reconstruction 8627
NET32K high speed image understanding syst. 34429
noisy images, curve extraction, deformable wavelet descriptor 8543
nonorthogonal basis fn. image representation, FFT 2595
normalized images, phase and magnitude, distortion anal. 2736
obj. recogn., blob representation/relational voting 8550
obj. recogn., multiscale shape simplification 32832
obj. recogn. from appearance, parametric eigenspace method *(Japanese)* 16302
optimal filters for multiresolution seqs. generation 2652
overcomplete pyramid image representation, error correction 32827
parameterized Gaussian-like filters, synthesis by approx. 32646
piecewise-planar representation of images, bit allocation 41177
progressive perceptually transparent coder for high quality images 24498
pyramid data structs. for online image progressive transm. 2837
quadtree representation 33010
range data, curvature based segmentation 24416
reduced aspect graph for obj. recogn. 24374
region-based segmentation for images/image seqs. compression 32972
satellite attitude determ., lin. combination of models 24531
satellite image segmentation, texture/context/map 26781
shape representation, evol. algms. 2795
skeletonization algm. by max. tracking 41180
smooth image segmentation via multiresolution anal. 32833
subband image coding, watershed/watercourse lines of wavelet transform 2727
surface representation, 3D, based on invariant charact. *(Japanese)* 32864
surface sampling for shape representation, self-organising 41365
texture segmentation, pyramidal Gabor fns. and self-organising, maps 24363
thermovisual syst. for NDE of objs. 18920
video annotation, representational frames 8552
video coding, low bit-rate methods 41086

image resolution
2D digital images, obj. extraction, topol. contour closure requirement 24723
2D fractal sets, inverse/approx. problem 2730
2D lin. extension, super resoln. radar imagery 9626
2D microwave imaging, TLS-ESPRIT, matrix enhancement 42480
3-D image reconstructions from partially confocal scanning microscope 16221
acoustic holography, wavelet transform *(French)* 15166
adaptive image sharpening, multiresolution representations 16263
AFM tip rad. needed for accurate imaging of thin film surfaces 13271
aircraft-borne interferometric SAR for 3-D radar imaging 17384
atmos. inhomogeneities, vel. meas., image data-handling techs. 43543
ATR, ATLAS syst. 9648
ATR, sens. motion and vibr. 16276
AVIRIS calib. of Japanese Earth Resources Satellite-1 opt. sens. 17959
bacteriorhodopsin thin film photoanisotropic incoherent-to-coherent image converter 22990
Bayesian closely spaced obj. resoln. tech. 16099
breast tissue phantom, image quality, subjective eval. 26340
CCD images, readout noise compensation 24495
closely-spaced objs. problem, feed-forward neural networks 16104
color image proc., luminance quantization error effects 2734
colour photograph transm. via INMARSAT-A syst. *(Croatian)* 3505
compact acousto-optic proc. for SAR image form. 2830
comparison, multi-resoln. tech. 2672
complex image proc. syst. hierarchical simul. *(German)* 24673
computational opt. sectioning microscopy, EM algm. 16220
cylindrical objs., refr. index, image reconstruction, opt. diffr. tomography 41063
defect imaging, multifrequency digital acoustic holograms, superresolution 18951
digital image compression, wavelets and wavelet packets 32830
digital images, multiresolution anal. of contrast *(French)* 16224
digital speckle correl. interferometry, fringe contrast, spatial resoln. 2135
digital stereo image matching, wavelet transform appl. 8674
dyn. white light holography, opt. addressed MQW SLM 31636

image resolution continued
- elec. capacitance tomography, pattern assoc., neural network 3952
- equiv. current reconstruction for EM imaging 8512
- EUV aerial images, fluoresc. microimaging 13472
- facsimile high-speed image codec 16946
- fast MM-wave imaging algm., act. guidance appl. 41156
- fiber bundle imagery of wavelength multiplexing, stat. eval. 16222
- global syst. model for X-ray lithog., image form. 13525
- gray-level images, multiresolution estim., probabilistic models 33121
- GT-1000 image transm. device, develop. *(Japanese)* 33610
- handwritten signature images verification, wavelet anal. 8542
- head mounted display, eye movement tracking 9981
- hierarchical video coding scheme, mean separated normalized VQ 33100
- high resoln. image acquisition methods, multiple cameras *(Japanese)* 16124
- high spectral resoln. coastal ocean imagery, stat. and empirical anal. 18879
- hybrid strip-map/spotlight SAR 17383
- hypersonic vehicle image resoln. rel. to turbulence random phase var. 33017
- i-line lithog., pupil filtering and dipole illum. 13559
- image transfer microlens array design and anal. 9980
- in-line recording off-axis viewing holographic particle velocimetry 40148
- incoherent-type pupil filter for opt. lithog. 13560
- ionos. electron distrib., tomographic imaging 10465
- IR detector array, point spread fn. from imprecise meas. data 17788
- IR interferometric SAR act. coherent imaging *(Japanese)* 9645
- lidar profiles, deconvolved, pulse-shape uncertainty effect on accuracy 25587
- light-adaptive comparison of binary video sigs. 41199
- Line Patterns Hough Transform for line segment detect. 8565
- low energy electron image converters, slow scan CCD 25883
- mag. reson. angiography, FT imaging, voxel sensitivity fn. 35013
- mammograms, detect. of microcalcifications, wavelets 35001
- MAP image super-resoln. algm. improvements, constraining inform. 16205
- Markov random field/wave-packet transform 2732
- math. morph., multiresolution image decomp./compression 8545
- med. image lossless compression, multiresolution multiplicative autoregressive models 2848
- millimetre wave radar imaging 17412
- min. Renyi inform., complex sig. reconstruction 24509
- model based 3-D obj. recogn., intens. and range images 16275
- model-based multispectral image sharpening 16262
- motion-picture film image resoln. 41202
- multi-resoln. multi-rate progressive image transm. 8546
- multi-view 3-D image, interpolation/data compression *(Japanese)* 16127
- multidimensional microwave imaging 25551
- multimedia full motion graphics/TV image storage in PC, compression algms. 41318
- multimode fibres, partial phase conjug., image restoration fidelity 24423
- multiresolution approach for image morphing 8544
- multiresolution modulation/concatenated coding, decoding algms. 8683
- multiresolution motion estim., wavelet transform 32836
- multiresolution probabilistic neural network 33034
- multiscale image restoration by A Trous algm. *(French)* 16223
- multispectral image sharpening, spatial freq. models 16264
- multispectral images, radiometrically correct sharpening, panchromatic image 16270
- multistep polygonal approx. techs. 2637
- MUSE syst., picture quality improvement by resoln. enhancement *(Japanese)* 34253
- NOLMEX, resoln. enhancement lithog. tech. 13562
- non-lin. image restoration algm., artifact reduction 24514
- nonlin. photolithography, spatial excitation patterns, time-domain fields 15160
- novolak resin, chem. amplif. neg. resist systs., nanometer-scale imaging charact. 13518
- obj. tracking novelty filters, resoln. theory 41298
- optimal filters for multiresolution seqs. generation 2652
- pattern recogn. based on inform. theory principles 24544
- phase-diverse speckle reconstruction of solar data 16211
- π-phaseshifting struct., near/far field phase images resoln. 2631
- polygonal scanners for TV/HDTV laser projectors 3662
- printability of sub-150 nm features in X-ray lithog., theory and expts. 13531
- PVDF film, pyroelec. imaging 1567
- radar high resoln. imaging, data extrapolation 9629
- rem. sens., digital image proc. 35359
- SAR imaging, speckle reduction, iter. homomorphic tech. 42484
- scanned halftone images reconstruction, filters appl. 33129
- SDF design by multiresolution wavelet anal. 24654
- smart pixels, high-resoln. liq.-cryst. gratings, PWM drive tech. 31012
- smooth image segmentation via multiresolution anal. 32833
- stellar image reconstruction, triple correl. and Knox-Thompson method 24496
- stereoscopic viewing through corrugated refr. interface, obj. localization 24513
- subband coded video databases, multiresolution video indexing 8486
- subpixel edge localization/interpolation of still images 32875
- super resoln. tech. for next-generation ULSI 13558
- super-resoln. range-Doppler imaging 25556
- super-resolving image restoration in Karhunen-Loeve basis 16210
- superresolution perform., empirical eval. of lower bound 16208
- supersonic free jet particle dens. distrib. visualization *(German)* 10062
- surface, discrete, continuous resoln. polygonalization 16353
- thermal imaging, detector, diffr. image matching 34600
- thick photorefr. hologram, angle-depend. diffr. efficiency 31656
- ultrasound images, blind deconvolution 35000
- VQ for Jacquard looms textile patterns 16337
- wavelet-based multiresolution image compression 8616
- GaAlAs LD feedback interferometer for displacement meas. 23479
- HgCdTe IRFPA perform. anal., syst. adaptability 17951

image restoration
- 2D freq. domain, least sq., sig. and syst. modeling, lin. approach 8436
- 3-D image reconstructions from partially confocal scanning microscope 16221
- 3-D model-data correspondence and nonrigid deform. 16175
- 3D motion/struct. recursive estim. 2780
- 3D obj. pose tracking/recovering 2772
- 3D shape and motion recovery from image streams 16173
- adaptive image segmentation, smooth surface objs. 16182
- adaptive iter. approach 24512
- adaptive-neighborhood image deblurring 16323
- approx. shift-invariance by warping shift-variant systs. 16206

image restoration continued
- astron. images, theoretical S/N ratio limit 8516
- astron. small bodies imaging, bispectral techs. 33140
- astron. speckle interferometry, phase problem soln. ***(Russian)*** 16251
- atmos. blurred images, fast restoration 32822
- atmos. distorted images, high-resoln. restoration techs. 33004
- ATR, sens. motion and vibr. 16276
- blind deconvolution, iter. method 2638
- block-coded image recovery from channel errors 41094
- blur ident. based on higher order spectral nulls 16207
- blurred image restoration, layered and Hopfield neural nets *(Japanese)* 8666
- blurred images, point source localization, eigenvector based method 8557
- bootstrap mean filter for image restoration 8610
- boundary distortion reduction 32823
- CCD images, readout noise compensation 24495
- character image restoration based on charact. points 8574
- closed obj. boundaries ident., stat. approach 24493
- cluster expansions, Bayes estimators/Markov fields 32925
- coded images, post-proc., unmasked noise, neural net cancellation 41061
- colour images, isolated noise detect./reduct., median filter 2851
- composite frames, spectral characts./motion-compensated restoration 16315
- computational opt. sectioning microscopy, EM algm. 16220
- computational opt.-sectioning microscopy for 3-D quantification of cell motion 18430
- conference, medical image processing, USA (1994) 20236
- conference, San Diego, USA (1994) 26
- conoscopic holography, 3D opaque obj. reconstructions 32965
- convex projection method, Browder strong convergence theorem appl. *(Japanese)* 32859
- cortical amps., hybrid analogue-digital CMOS archit. 29482
- Cramer-Rao lower bounds for biased image restoration 2843
- decompressed image enhancement, low bit rates 32829
- degraded images, blur ident. and restoration, generalized cross-validation criterion 33085
- depth/image recovery, Markov random field model 8520
- digital elevation models, inform.-preserving surface restoration/feature extraction 43488
- digital images, multiresolution anal. of contrast *(French)* 16224
- discontinuity detect. in noisy and textured images, weak continuity constraints 2841
- DSP for image recovery appls. *(English)* 24569
- EM for multi-channel image ident. and restoration 24524
- equal power spectrum for image ident. and restoration 24552
- extended BAM neural net approach 33065
- field rate conversion in HDTV, interpolation methods 9729
- freq. domain, image restoration, EM algm. 16391
- freq.-domain adaptive iter. image restoration 2705
- fuzzy rule-based sig. proc., image restoration appl. 16118
- genetic algms. applied, Bayesian image restoration *(Japanese)* 2625
- genetic algms. for image recog./restoration 2801
- Gibbs priors, image-modeling 41345
- hierarchical Bayesian approach 8521
- high-quality prior knowledge image error reduction 2706
- human face images, quantization level, neural net 41373
- IEEE ICASSP conference, Adelaide, Australia (1994) 20269
- image noise reduction, prior knowledge, constraint 16198
- inverse synthetic-aperture imaging radar, gradient-search phase-retrieval algm. 3629
- IR and pass. millimetre wave images, line pattern removal 24515
- IR image restoration, atmos. MTF 34589
- IR images, high-resoln. real-time restoration of atmos. distortions 16199
- IR imaging for target acquisition, atmos. blurring effects 35396
- iter. reconstruction of moving obj. from image seqs., struct. noise 24525
- lidar profiles, deconvolved, pulse-shape uncertainty effect on accuracy 25587
- mag. reson. image restoration, Markov field model 35035
- MAP image super-resoln. algm. improvements, constraining inform. 16205
- Markov random fields, tree approxs. 41289
- max. entropy image restoration, genetic algm. 8509
- model adaptive image restoration 8609
- modified 2D median filter for impulse noise suppression 37863
- MR image restoration, basis image priors effects 35026
- MRI image restoration, optim. approach, sens. fusion 8504
- MRI restoration, multidimensional nonlin. edge-preserving filter 26330
- multi-resoln. anal. *(Japanese)* 2629
- multichannel image restoration, regularized, using cross-validation 32916
- multimode fibres, partial phase conjug., image restoration fidelity 24423
- multiple model EKF, blurred images restoration 33139
- multiscale image restoration by A Trous algm. *(French)* 16223
- multivalued Boltzmann machines, Markov random fields *(Chinese)* 8656
- natural terrain modelling, fractal surface reconstruction 2783
- neural network for modal compensation of atmos. turbulence 16202
- noisy Gaussian filters, deconvolution, modified Hermite expansion 24589
- non-lin. image restoration algm., artifact reduction 24514
- nonlin. scale space filtering of image *(Japanese)* 2624
- parallel implement. of noise filter for image restoration 8585
- param. free inform. preserving surface restoration 24621
- perceptual eval. of MSE choice of regularization param. 16318
- phase diversity as on-line wavefront sens., expt. results 16217
- pixons and Bayesian image reconstruction 16203
- posterior mean method of image restoring and edge extracting 16355
- projections onto convex sets, damaged block transform coded images 33131
- quasi-static algm. for image restoration preserving discontinuity 8501
- radio image restoration from lunar occultations 17523
- recogn., faces/occlusions, multiple-template expansion matching 2769
- robust nonlin. filter for noise-smoothing and edge-enhancement 2847
- seq./parallel image restoration, neural network appl. 2729
- shape memory from photomotion 16168
- shape-from-texture, diff. method 2776
- shattered glass, image drop-out, region reconstruction, fuzzy algm. 2834
- SNR estim. for Wiener filter 16324
- stat. mech. of image restoration 24388
- stereoscopic viewing through corrugated refr. interface, obj. localization 24513
- Strang's preconditioner generalization, iter. deconvolution appls. 32821
- super-resolving image restoration in Karhunen-Loeve basis 16210
- superresolution perform., empirical eval. of lower bound 16208
- sync. image restoration 24620
- terrain surface albedo retrieval method 43481
- thermal images distorted by atmos. restoration 32903
- tomograms, US, restoration based on Wiener proc. 43246

image restoration continued
US Vice-President's office, image restoration of orig. painted designs 24529
visual commun. channels, inform. lossless transm. 32936
wavefront simul. for atmos. turbulence 15448
wavelet transform and multiresolution support constraint 16204
wavelet transform domain filters, noise filtration tech. 2726
wavelet transforms theory and appls. 16354
wavelet-based subband decomp., multichannel image restoration 2731
Wiener spatial filter SDF for opt. correl. 41153

image sampling
2D sigs., data-depend. sampling 33123
adaptive morph. subband decomp., image coding 24396
colour CCD image sens., moire effect surface shape meas. 10017
crit. sampled filter banks/lin. boundary conditions 41174
data compression, adaptive image sampling/interpolation 16387
data depend. nonlin. filters family 24588
digital images, enlargement, reduction, min. loss of inform. 32872
epipolar images from MOMS-02 lin. scanner images 41342
fiber bundle imagery of wavelength multiplexing, stat. eval. 16222
geophys. satellite scenes, resampling 41277
HDTV, parallel divide-and-conquer video decompression 42599
hierarchy embedded differential image, progressive transm., lossless compression 24580
local reconstruction from projections, exponential radial sampling 16344
multimedia appls., high quality image compression 41970
piecewise-planar representation of images, bit allocation 41177
progressive image transm., pyramid struct., projection 16381
scanned halftone images reconstruction, filters appl. 33129
second directional derivative edge detector, sampling/quantization/noise effects 33122
Spirit III radiometer, scanned image constr. via optimal interpolation 24511
subpixel edge localization/interpolation of still images 32875
time-seq. sampled imagery based motion estim. 16312
zero-crossing-based spectrum anal. and image reconstruction, detect. accuracy 8467

image scanners
2D large scale laser digitizer, with cordless cursor 25769
3D computer-based imaging 16116
3D representation method, indust. CT 33146
color image proc./transm. technols. *(Japanese)* 41745
coning scan imager, point detect. 2608
EDTV-II telecine image conversion and signalling *(Japanese)* 17569
epipolar images from MOMS-02 lin. scanner images 41342
ESRF accelerator, VME image acquisition/proc., TV CCD cameras 18272
facsimile image quality subjective eval. methods 41742
film-based motion picture digitizing syst. for high defn. images *(English)* 16126
German portable reading device for blind 4318
kinematic resection of scanned imagery 41275
labeling board based on boundary tracking *(Japanese)* 32998
laser scanning imaging systs., modulation waveform effects on S/N ratio 40172
linescan camera technol. and image sens. 17932
panoramic line-scan imaging syst. for teleoperator control 34564
photo BJT array in CMOS technol. for intell. imaging 9935
picture region segmentation, neural network appl. *(Japanese)* 2615
PPC scanner motor, power brushless type *(Japanese)* 10931
progressive piecewise registration, orthophotos and airborne scanner images 41244
real-time multiline OCR parallel archit. 33027
recovering 3D shape of unfolded book surface from scanner image *(Japanese)* 32868
SMT lead scanning, control of shape and coplanarity params. 915

image segmentation
2D center weighted median filters, anal. 33125
2D discrete image representation in threshold basis 2816
2D image partioning/recog., computational aspects 32922
2D motion estimation and region segmentation by region fragments 24713
2D partial shape recogn., interrelation vector *(Korean)* 24682
2D partially occluded objs. recogn. *(Korean)* 24691
3-D scenes, image seqs., global-motion estim., coding appl. 41088
3D color textures, recogn. invariants 3D 2602
3D motion and struct. estim., multiresolution model-based segmentation algm. 8589
3D obj. pose tracking/recovering 2772
3D parts decomp. from sparse range data 2765
3D shape and motion recovery from image streams 16173
3D-DCT pipe coding, video seq. coding 24506
act. contours approach, obj. tracking in image seqs. 32846
adaptive image region-growing 2738
adaptive image segmentation, smooth surface objs. 16182
adaptive KL-transform coding of images based on variable block shapes 16132
adaptive obj. extraction/tracking in complex image seqs. *(Chinese)* 8658
angiography, obj. reconstr. by Hopfield neural net 43276
ATR, act./pass. cooperative image segmentation 25588
ATR, sens. motion and vibr. 16276
automatic recogn. of partially occluded objs., genetic algm. 16286
autonomous underwater vehicles, sonar image reconstruction 8618
autostereoscopic 3D image, data compression 32814
bacterial colony counting, dist. transform 26315
binary images, second-order histograms 33073
block-matching motion estim., quad-tree decomp. 2812
bone, CT images, binary segmentation 43245
border detect., obj. segmented by pyramid linking method 8665
boundary contour syst., positional competition anal. 33055
brain, interactive segmentation of photographic and MR images 18445
brain anatomical struct. recog., genetic algm. 2799
brain lesions, multispectral mag. reson. images, segmentation and visualization 43238
brain vol., rapid automatic, on basis of multispectral 3D MRI data on PC 43239
breast cancer detect., neural net spectral anal. 18455
building detect. by range and image data fusion 41256
CAD-based vision, conf., Champion, IL, USA (Feb 1994) 36878
camera/obj. translation estim., camera rot. 32935
Canny-Deriche filter, ANN appl. 33054
character recogn. syst., pattern and symbolic proc. *(Japanese)* 32863
chromosome image segmentation 10221

image segmentation continued
class.-based motion estim. for video coding 16385
cloud IR rem. sens., shape segmentation method 18834
color image segmentation, fuzzy clustering and supervised learning 16326
color image segmentation, tree representation *(English)* 41204
color images, adaptive Bayesian segmentation 16327
color texture, extraction by neural nets 41214
colour image segmentation, fuzzy tech. 2790
colour image segmentation, perceptual method *(French)* 16185
colour images, textured, unsupervised segmentation 16184
complex objs., multi-sens. fusion, model-based recogn. 41104
computer vision, conf., Stockholm, May 1994 11549
computer vision, optimisation approaches, CSP 41217
computer visions, conf., Stockholm, May 1994 11563
conference, medical image processing, USA (1994) 20236
contextual classifiers of multispectral image data in rem. sens. 2642
contour detect./tracking/matching, dyn. prog. 32926
contour extraction of moving objs. in complex outdoor scenes 24576
contrast enhancement of blurred images, fuzzy logic based *(Korean)* 24694
corner detect., model based segmentation 2667
deblocking scheme for codec loop 16336
degraded vehicle no. plate images, hybrid thresholding method *(Korean)* 41169
digital images, relational descriptions, noise/scale behaviour 41250
digital straightness, skeleton prop. 41070
discrete models for energy-minimizing segmentation 24714
discretised objs., geom. charact. determ. 41154
divided K-means algm. for large image segmentation *(Japanese)* 32860
document image blocks, class., MCR stroke index 33142
document image recogn./normalization via 2D HMMs 41312
dyn. contour following, texture approach *(English)* 2656
early vision proc., multistage diffusion 2750
echocardiographic image segmentation, Markov random fields 26334
edge detector, syntactic contextual, rewriting 41122
EEG signal analysis, ill-defined processing target 26383
efficient segmentation of cancer cell nuclei in different color spaces 26274
embryo viability morph. eval. 24660
excitatory/inhibitory oscillator nets 8678
extraction in digital aerial triangulation 41255
feature recog./obj. counting, genetic algm. 2796
ferritic steel weld images, automatic thresholding/edge linking 16135
fig. segreg. model, stochastic relax. method 33099
First Sight, human body outline labeling syst. 41288
fractal image multiscale relax. labelling 2659
fractal-based image coder, complexity reduction 24405
frame of wavelets for edge detect. 32825
framework for low level, extraction 24632
framework for probab. distribs. construction on space of image segmentations 32909
fuzzy additive hybrid networks for image segmentation 16350
fuzzy probabilistic relax. 2789
Gabor wavelets for texture edge extraction 41274
geographic map, colour image segmentation 41308
geometric image class. by stress polytopes, perform. and integrat. *(French)* 41351
geophys. satellite scenes, resampling 41277
glaucoma induced change modeling/diagnosis, neural net 18456
gradient/curvature, photom.-stereo method, local confidence estim. 2603
grey level co-occurrence matrix parallel array algm. 33019
Hangul cursive handwriting, on-line continuous recogn. syst. *(Korean)* 33120
hierarchical clustering, neural archit. 33042
hierarchical Hough transform, polygonal approx. 41068
hierarchical texture anal., Gabor expansion *(Japanese)* 33113
high-resoln. image compression, visually transparent techs. 24503
histogram thresholding, k-means clustering 24371
homog. region detect. in image recogn. 2818
hybrid opt. syst. for freq.-domain texture class. of imagery 16271
ident. and integrity verification of final disposal casks 17652
image-based air target ident. 26823
independent motion segmentation and collision prediction, road vehicles 24451
independent obj. motion, recovery of egomotion/segmentation, EM algm. 41126
indust. vision syst., range/intens. image fusion 41103
inform. measure utilisation of image thresholding 2722
inspecting quality of disks 37160
integrated fuzzy clustering, biomedical images 16368
intell. multisensory vision syst., vision planner 16268
IR image seqs., stat. anal. 41335
IR surveillance, motion estim. methods/noisy phenom. 2612
ISAR radar image recog. by neural net 9633
K-distributed clutter, order param. estim., noise effect 25557
key-points role in finding contours 24631
Korean continuous speech, self-organization, maps and dyn. VQ *(Korean)* 2435
Korean document, picture/character extraction/segmentation 16069
Landsat Thematic Mapper data, multispectral lines of commun. extraction 16259
Landsat-TM scene lin. LOC segment detect. using morph., model-based approach 16257
lin., extraction by least sq. template matching 41253
line and edge, extraction based on covariance models 16290
line correspondence in aerial images, stochastic relax. 41240
Line Patterns Hough Transform for line segment detect. 8565
line segment based axial motion stereo 41189
line segment convex groups, robust efficient detect. 16181
liver, CT images, boundary detect. by neural nets 43259
long image seq., moving objs., motion description/segmentation 33141
low bit-rate image seq. compression method 24726
low-level cortical proc. in machine vision, analog VLSI massively parallel module 32947
mammograms, detect. of microcalcifications, wavelets 35001
mammograms segmentation, multiple linked self-organising neural nets 35032
Markov random field models, color images segmentation 8606
Markov random field models for texture-based segmentation 8495
Markov random field/wave-packet transform 2732
Markov random fields, tree approxs. 41289
math. morph., multiresolution image decomp./compression 8545

image segmentation continued
mathematical methods in medical imaging, conf., USA (1994) 20238
MCP error images, wavelet transform coding, quadtree decomp./ECVQ 41091
meas. effect of image segmentation 32848
med. appls., fast polygon scan conversion 2586
med. workstations for applied imaging and graphics research 18439
mil. image, ident. methods 32896
mobile robot location, laser-range/predicted image matching 34688
model based 3-D obj. recogn., intens. and range images 16275
model-based multi-sens. fusion 9649
monocular param. estim. from intersections, planar surfaces 16117
motion clustering, stochastic 24628
motion compensated prediction coding, isodensity areas based *(Japanese)* 16152
motion segmentation, adaptive Bayesian decision model 16360
motion segmentation and vel. integrat., filter selection model 8659
motion video anal., planar parallax 8488
motion-field segmentation for video coding *(Korean)* 24685
moving articulated objs., description and tracking 8528
moving image compression, motion field segmentation-based *(Japanese)* 41325
moving obj. location from image seq. *(Chinese)* 41085
moving obj. robust extraction, edge grouping, neural 41378
moving obj. segmentation by robust motion param. estim., multiple frames 24627
MR images, vol. segmentation 26271
MRI image segmentation by similarity mapping 10186
multi-level edge primitive matching, cooperative strategy 32851
multi-sens. images and digital map data fusion 43547
multidimensional MR image segmentation, fuzzy neural network 26322
multilevel threshold selection for gray level images 2720
multimedia full motion graphics/TV image storage in PC, compression algms. 41318
multiple sclerosis brain lesion detection in MR images 10203
multiresolution anal. 32833
multiresolution probabilistic neural network 33034
multisensor image registration, contour-based approach 24699
multispectral images segmentation, classified algm. 41355
multistep polygonal approx. techs. 2637
multivalued Boltzmann machines, Markov random fields *(Chinese)* 8656
neural nets, partitioned, optim. dyn. 24390
neural syst. for high-speed pattern recogn. and image anal. 29473
noisy/textured images adaptive segmentation 16151
non-parametric multiscale curve smoothing 32994
obj. detect. in clutter, Gabor filters 24549
obj. recogn., dominance tree generated from line segmentation 41118
objective/quantitat. segmentation, eval./comparison 2651
occlusion ambiguities in motion 24453
ocean wave directional spectra, HF radar computational geom. 26737
off-axis particle holograms image proc. 8536
on-line handwritten Chinese characters, segmentation of knowledge-radicals 24536
opt. Chinese handwritten character recogn., feature-based noise reduction 24550
optimal discriminative SNR, edge detect. and extraction 16398
parallel proc. for image segmentation 12574
parameterized Gaussian-like filters, synthesis by approx. 32646
parametric image models, Bayesian region merging probab. 16392
parametric image models, Bayesian segmentation methodology 24421
partial spatiotemporal trajectories linking 16171
partitioning, neck-based/limb-based, computational aspects 2755
PCB X-ray inspection, neural network classifiers 37162
phase coding and wavelet transform 32834
picture region segmentation, neural network appl. *(Japanese)* 2615
polariz. CCD camera for computer vision, beam splitter 2596
polariz.-sensitive thermal imaging 16272
precision tracking, segmentation, optimal layering for imaging sens. 24417
predictive multiresolution image coder 16311
probabilistic and non-probabilistic Hough transforms, comparison 24629
progressive image transm. of variable block-size coding 16228
pulse coupled neural networks 24727
pulse coupled neural networks appl. 24727
quadratic filter and detect. 2668
quadtree-based motion compensation/classified VQ 2813
quantitat. image assess. based on redundant, meas. and stat. reasoning 24422
radar tracking, jump lin. model based aircraft trajectory reconstruction 17373
range data, agglomerative clustering 16401
range data, curvature based segmentation 24416
range image segmentation, hierarchical struct. of neural networks *(Korean)* 41170
range image segmentation, multilayer self-organizing, map 24389
range image segmentation, SIMD algm. 24601
range images partitioning, curvature and scale 16402
raster adaptive document binarisation tech. 8511
recursive algm., edge intens. and gray-level thresholds selection *(Japanese)* 2620
region segmentation, navig. images, fractal dimens. estim. *(Japanese)* 8510
region-based segmentation for images/image seqs. compression 32972
rem. sens., image segmentation, knowledge based anal. *(German)* 41343
rem. sensed images segmentation by MDL-principled polygon map grammar 43548
roads, cluttered scenes, real-time visual tracking 32950
rotated obj., shape from contours, multiple cues 41249
SAR images adaptative segmentation 17431
SAR param. estim., adaptive algm., texture recogn. *(Chinese)* 34108
satellite image segmentation, texture/context/map 26781
scene interp., multiple visual sens. inform. proc. fusion 41113
scene reconstruct. multiple viewed scatt. data 2779
scene segmentation in rem. sensed image, cost minimization approach 41331
sea surface thermal IR images, bi-dimens. struct. detect. 26760
seafloor imaging by side scan sonar, shade correction 18808
second/higher order stats. change detect., texture segmentation 8560
sens. data fusion, fuzzy logic approach 33154
shape anal. for image retrieval 8482
shape modelling scheme 2782
shape models from image seqs. 24460
shattered glass, image drop-out, region reconstruction, fuzzy algm. 2834
simple obj. ident. in image seqs. 41251

image segmentation continued
simply connected moving objs., static scene, segmentation algm. 8524
sine-wave crossings tech. for real-time target recogn. 10590
skewed symm. detect., local skewed symms. 41139
solar image, segmentation, parallel blind deconvolution methods 33087
spatial vision, demodulation and predictive coding 41155
spatial-point proc. model, texture class. 34183
stat. model based image segmentation, automatic param. estim. *(Japanese)* 32865
stereovision, robust segment grouping-and-matching algm. 2636
stochastic model-based image segmentation, functional approx. 2643
straight line extraction, perception/fuzzy thresholding 2859
struct. detect., parallel algm., wavelet/segmentation anal. 32918
subband coded video databases, multiresolution video indexing 8486
surface geom. and segmentation, covariance techs. 8519
surface inspection systs., software tool for developing algms. 17653
surface orient. invariant matching of spectral signatures 43549
surface segmentation, multilayer, energy minimization 16183
Talbot effect, multichannel image texture segmentation 32837
talocrural joint kinematics visualization and quantitat. anal. 18444
terrain, recogn. for SAR imagery 41263
text string extraction from regular periodic overlapping text/background images 2721
texture discrim., wavelet decomp. 24650
texture segmentation, fractal dimens. 16295
texture segmentation, pyramidal Gabor fns. and self-organising, maps 24363
texture segmentation, space/spatial-freq. and multiscale methods 33006
texture segmentation and class., neural network technol. 16190
texture segmentation by modulated wavelets 32889
texture segmentation using wavelets, fast fractal, extraction 8500
textured image segmentation, autoregressive model, ANN 24642
textured image segmentation by context enhanced clustering 2808
time-seq. range thermal images 16165
time-space segmentation/motion estim. based on higher order stats. 32819
tissues segmentation from MR images *(Japanese)* 18537
traffic sign recogn. syst. 32951
TV image stat. model, color distrib. probab. 8539
unstructured video image seqs., automatic annotation 32883
variational vs. Markov random field methods 8492
video coding, low bit-rate methods 41086
video coding, shape-adaptive DCT 24586
video coding, variable block-size segmentation by motion vectors 16383
video segmentation coding applied, H.261, low/low bitrates *(Italian, English)* 41353
video streams, multiple access method *(Japanese)* 34280
view-based obj. recogn., pairwise geometric histograms anal. 41124
viewer-centred representations for location/inspection 41129
vision syst. for AOI of ball bonds/bonding wire profile in ICs 1463
visual solder inspection, neural network *(Japanese)* 38117
VQ-based motion field segmentation under entropy criterion 16384
word segmentation for cursive script recogn. 41316

image sensors
see also CCD image sensors; focal planes; television camera tubes
3-D sugarcube neuroprocessor, low power analog neurosynapse chips 29492
3D free-form surface noncontact opt. profile sens. *(Japanese)* 42941
3D image meas. of moving objs., laser rangefinding 3627
3D obj. recog., probabilistic techs. 32923
acquisition, tracking and pointing, conf., Orlando (1993) 36889
analog spot position coding retina, active obstacle detect. 21457
analog stereo retina, automobile appls. 29419
angled facial data obtained by bright-spots matrix projection 3854
astron. imager with PM focusing, demagnetification *(Chinese)* 17923
camera, ultra-miniature, and proc. syst. 17963
cellular neural networks, input/output hardware strategies 29491
CMOS camera technol., VLSI Vision Ltd 17964
CMOS intell. lin. image sens. for single chip digital camera 34601
CMOS VLSI smart visual micro-sens. based on insect vision 34569
complex objs., multi-sens. fusion, model-based recogn. 41104
cryogenic rad-hard CMOS readout multiplexer fab. 30448
CTIA multiplexer for 1024-element InGaAs line sens. 34580
current amplifying image sens., buried electrodes *(Japanese)* 3880
digital range imaging VLSI sens. 13852
direct injection readout cct. model 34561
direct-contact type lin.-image sens., readout characts. anal. 25878
dual-piston Stirling cryocoolers for IR imaging systs. 34577
enhanced image capture through fusion 24711
FLIR imaging systs. charactn. requirements/algms. 34592
FLIR subsystem perform. anal., PC based scientific spreadsheet 34593
FPA, MRTD and MTF derivation 34573
FPGA archits. for range/image sens. 3881
frame integrat. perform. improvement in unknown sens. jitter 16108
granular particle, lin. flow vel. meas., image sens. 3993
heterojunction low-illum. image sens., astron. appl. 9940
high resoln. motion sens., ASIC implement. 37808
hot strip mills, real time flatness sens. 42934
Hunter Unmanned Aerial Vehicle, near-term targeting tool 4434
imaging plate 2D detector for SW lasers *(Japanese)* 9931
indust. QC, resoln. aspects of vision systs. 37171
IR FPA non-uniformity meas., proposed std. 34571
IR readout electronics, historical perspective 34426
IR seeker, scan modulation meas./modeling 43582
IR temp. meas. and imaging 3878
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
IVHS, multisensor vision systs. 42840
Kronecker products, opt. generated, multiplexed imaging 34587
large area image plane sens. for radiography 9937
lin. multiplexer designs for rem. sens. appl. 34581
lin. pushbroom cameras 24478
linescan camera technol. and image sens. 17932
missile guidance sig. estim., Kalman filter 26809
modular imaging spectrometer instrum. modeling/testing 34591
motion field determ., multiple image sens. integrat. 41111
MRTD GO-NO GO tester develop. and appls. 34594
multisensor tracking, image-based maneuver detect. 17429
Navy sensors, consolidated automated support system 43571
near-sens. image proc. 2725
neural front end image proc. systs. 42953
neurochip, opt. for image motion detect. 42853
nonmechanical microscanning, opt. space-fed phased arrays 34576

image sensors continued
occlusion-free monocular computer vision syst. 2719
on-focal-plane A/D conversion 29313
opt. image sens., digital CMOS approach 42847
optical 3D measurement techniques, conf., Switzerland (1993) 20260
pass. tracking of maneuvering targets 16114
photo BJT array in CMOS technol. for intell. imaging 9935
photoconductive layered solid-state imaging device, SNR anal. 17930
polaris. interferometer-based spectral imaging syst., liq. cryst. cells 31010
polariz.-sensitive thermal imaging 16272
precision tracking, segmentation, optimal layering for imaging sens. 24417
proc. plant digital image archives, rem. meas. syst. 25732
R and D activities and trends *(Japanese)* 34585
range/vision sens. data, geometric constraints fusion, alg. framework 41102
readout electronics for far-IR arrays 34579
real-time shearography, fractional fringe order by phase shifting 32856
road traffic and vehicle control, image sens. appl. 41210
road vehicles, wide dyn. range vision sens. 42846
second generation FLIR testing, MRTD 34595
Skyball, electro-optic sens. for unmanned flight 3884
smart custom image sens., develops. 17962
soft X-ray imaging syst., amplified MOS imager *(Japanese)* 17931
solid-state image sens. for visual spectrum *(Japanese)* 17967
spaceborne MOMS-02 sens., spectral/panchromatic band design 43440
spaceborne UV/vis. imager simul. 42850
split image vision sens., optimal design 34599
steel struct. beams automatic painting syst. *(Japanese)* 3892
supercond. A/D converter for IR array readout 34428
TACOM thermal image model, field test validation 32902
TACOM thermal image model, PC version 35409
thermal image target acquisition probabilities, vibrs. 34558
thermal imaging perform. eval., min. findable temp. difference 34572
thermal imaging syst., perform. model 34574
video compression by computational image sens. *(Japanese)* 16375
vis. photon imaging using hybrid Si pixel detectors 34515
vision based aircraft navig., landing 10405
vision sensors/processing, conf., UK, 1994 5481
$Bi_{12}SiO_{20}$ SLM, 2D lock-in detector array 31001
GaAs JFETs, deep cryogenic readout electronics appl. 30371
$PbTiO_3$ group pyroelec. IR sens. develop. and perform. *(Japanese)* 17968
PtSi IR detector, 7 μm cutoff for imaging appls. 34567
a-Se Amplified MOS Imager, high speed TV camera 42851
Si range finder, realtime range finding VLSI sens. 34568
Si retina analog image proc. 776

image sequences
2D motion estimation and region segmentation by region fragments 24713
3-D scenes, image seqs., global-motion estim., coding appl. 41088
3-param. affine approx. of focus and zoom vars. *(French)* 41349
3D adaptive transform coding techs. for moving images 41089
3D digital images vol. elements tracking in seqs. 41332
3D edge location in motion based vision 32885
3D location estim. of airborne targets, Radon transform *(Korean)* 24676
3D motion, robust tracking 24454
3D motion and struct. estim., multiresolution model-based segmentation algm. 8589
3D motion estim. from noisy opt. flow, superior estimator, max. likelihood estimator 16328
3D motion estim. from opt. flow, unbiased objective fn. 8535
3D motion perception/struct. param. estim., neural nets 41377
3D obj. pose tracking/recovering 2772
3D reconstr. from image seq., Bayesian/Kalman, comparison 2854
3D shape and motion recovery from image streams 16173
3D shape recovery, deformable model 41133
3D shape recovery from image focus 32924
3D vision, model-based invariants 2669
3D-DCT pipe coding, video seq. coding 24506
64 kbit/s image seq. coding, wavelet vector quantisation scheme 16367
act. contours approach, obj. tracking in image seqs. 32846
adaptive road param. estim. in monocular image seqs. 41227
affine deform., extraction from image patches 16174
affine deform. and image matching 8551
aircraft motion estim., max., posteriori method 16358
alg. derivations of relative affine struct., 3D reconstruction 41336
area based opt. flow, Poisson solvers and semi-direct methods 8523
arm modeling for anal./synthesis image coding 8564
ATM, VBR video transm., predictive dyn. bandwidth allocation 16419
ATM video, performs. and error control 8612
B-ISDN VBR video traffic, modelling and verification 41934
bathymetric mapping from autonomous underwater vehicles 8619
bit rate reduction, computer modelling 8673
block adaptive 3D subband coding 41097
block-adaptive scanning for efficient encoding of DCT blocks 24401
block-matching motion estim., quad-tree decomp. 2812
buffer control strategy for image data compression 16229
CAD-based vision, conf., Champion, IL, USA (Feb 1994) 36878
camera/obj. translation estim., camera rot. 32935
coding by wavelets and subband schemes 16287
composite frames, spectral characts./motion-compensated restoration 16315
computationally fast wavelet-based video coding scheme 16191
computer vision conf., Berlin, Germany, 1993 20268
content-based manipulation of image databases, Photobook 8480
contour detect./tracking/matching, dyn. prog. 32926
coronary arteries, 3D motion/reconstruction from biplane cineangiography 4268
DCT-pyramid VQ video coding scheme 24698
deblocking scheme for codec loop 16336
deinterlacing, motion-compensation method *(Japanese)* 32997
depth extraction by time disparity, real image seqs. *(Japanese)* 2617
depth from motion estim. 2763
digital video quality, computer-based testing 16083
dim point target detect. 16109
discontinuous flow fields, recursive nonlin. estim. 24448
divergent stereo in autonomous navig., bees, robots 41084
dyn. fixation of moving surface, log polar sampling 41142
dyn. scene objs., spatiotemporal representation 2746
echocardiographic image segmentation, Markov random fields 26334
ego-motion reconstruction, Essential Manifold 24608
ellipse param. estim. by image seqs. 41106
evol. algm. for phys. motion anal. 41228

image sequences continued
film-based motion picture digitizing syst. for high defn. images *(English)* 16126
first order optic flow from log-polar sampled images 24447
First Sight, human body outline labeling syst. 41288
flight image seqs., integrated 3D anal. 24458
FLIR scenes, jump-diffusion procs. for automated understanding 16285
flow velocimetry, opt. flow techs. appl. 18146
forest change, automated rem. sens. image method 43487
generalized brightness change model for computing optical flow 24706
geometric invariant signatures and flows, class. and appls. in image anal. 32844
global surface reconstruction, viewpoint adjustment 16164
GMS image data, holographic images generation *(Japanese)* 16123
GMS images, digital transm., ships *(Japanese)* 8870
granular TV camera noise, stat. characts. 9716
HDTV, adaptive coding algm., quantizer vector codebook *(Korean)* 42602
HDTV picture quality eval, modified EBU method 42605
head-mounted high-resolution field-sequential display for virtual reality 18017
heart dyn., human, visualization from US echograms *(Japanese)* 35009
hierarchical variable-block-size motion detect. *(Japanese)* 8595
high entropy signature, optimal coding 41267
hyperspectral imagery compression, 3D DCT and hybrid DPCM/DCT 24384
image vel./opt. flow meas. by augmented generalized gradient scheme 2592
image-based air target ident. 26823
independent motion segmentation and collision prediction, road vehicles 24451
independent obj. motion, recovery of egomotion/segmentation, EM algm. 41126
indust. vision syst., range/intens. image fusion 41103
inform. theoretic approach, space-freq. localization 32838
intraframe coding with DCT-VQ, image seq. compression 16389
IR image dim point target detect., difference method 16115
IR image seqs., stat. anal. 41335
IR surveillance, motion estim. methods/noisy phenom. 2612
ISHTAR, real-time time-varying image proc. *(Japanese)* 42754
iter. reconstruction of moving obj. from image seqs., struct. noise 24525
Kalman filtering-based image motion estim. 24450
Lempel-Ziv universal data compression algm., overview 16380
lin. algms. for multi-frame struct. from constrained motion 41143
long image seq., moving objs., motion description/segmentation 33141
low bit-rate image seq. compression method 24726
low-level proc. verification, interp. stabil. 2678
machine vision, principle and appls. 16122
manoeuvring objs., motion estim., rot. representations 33138
massively parallel sig. proc. archit based on response of retina cells 32824
MCP error images, wavelet transform coding, quadtree decomp./ECVQ 41091
Midcourse Space Experiment for tracking, image proc. 2696
model based techs. for image seqs. 8548
motion boundary detect. in image seqs. by local stochastic tests 24626
motion compensated video coding, block matching algm. 24585
motion compensated visual pattern image seq. coding 16945
motion detect. algm., MRF based, on analog resistive network 24452
motion detect. in security appls., tracking and hierarchy 24539
motion estim., cluster matching 8522
motion estim., image seqs. by integral constraints 16245
motion estim. method, 3D steerable filter 24565
motion extraction by spatiotemporal filtering 8525
motion field determ., multiple image sens. integrat. 41111
motion field determ. under nonuniform illum. 33094
motion field modeling for motion estim. and compensation 2842
motion field of curves, appls. 24440
Motion Picture Parser, video scene decomp. 16081
motion segmentation and vel. integrat., filter selection model 8659
motion understanding, image seqs., Hopfield neural net 33045
motion video anal., planar parallax 8488
motion video annotation and anal., overview 8547
motion-based recogn., survey 32852
moving articulated objs., description and tracking 8528
moving obj. location from image seq. *(Chinese)* 41085
moving obj. param. estim. in image seq. 24386
moving obj. robust extraction, edge grouping, neural 41378
moving obj. segmentation by robust motion param. estim., multiple frames 24627
moving objs. extraction by digital time-varying image proc. *(Japanese)* 24604
moving observer, extracting obj. motion, optic flow and binocular disparity 32901
moving target extraction and image coding based on motion inform. 32938
MPEG encoders bit-rate control 41090
MPEG video, lossless smoothing algm. 2814
MPEG video traffic, network congestion avoidance 42588
MRI image segmentation by similarity mapping 10186
MRI reduced motion artifacts, spatio-temporal multiresolution reconstruction 35002
MRI restoration, multidimensional nonlin. edge-preserving filter 26330
multi-scale differential framework, opt. flow computation 24575
multiocular image seqs. for 3D TV, motion/depth estim. 32808
multiple obj. localization in real scenes, change-detect. method 41120
multiresolution approach for image morphing 8544
multiresolution motion estim., wavelet transform 32836
multiscale struct. from multiviews by ∇^2G filtered 3D voting *(Japanese)* 33110
navig., affine struct. from motion 24609
nodal-based deformable block matching, motion-compensated prediction 41175
noise reduction, motion compensation and sig. decomp. 32874
noisy thermal IR image seqs., automatic small target detect. 16110
nonlin. AV workstation characts. *(Japanese)* 25775
nonrigid motion recovery from stereo images 16176
obj. extraction, real-time syst., with seq. growing 8487
obj. motion params. estim., Kalman filter *(Chinese)* 32805
obj. tracking syst., two stage real-time 24359
obstacle detect. by binary expansion patterns recogn. 33070
occlusion ambiguities in motion 24453
opt. flow, multiple constraints 24439
opt. flow, probabilistic and seq. computation, temporal coherence 2728

image sequences continued
opt. flow, recursive filters 16294
opt. flow and discontinuities, determ., nonlin. diffusion 24625
opt. flow computation, mixture models 16177
opt. flow computations, wavelets, curvature and chaining issues 32842
opt. flow constraints, anal. 33130
opt. flow detect., real time, self-tuning syst. 24719
opt. flow estim., discontinuity conforming filters 41141
opt. flow estim., fuzzy constraint line clustering *(Korean)* 33119
opt. flow estim. via local differential techs. 24438
opt. flow for autonomous navig. of moving vehicles 24449
opt. flow from 1-D correl., appl., simple time-to-crash detector 41082
optical flow from 1D correlation, time-to-crash detector appl. 24715
optimal filters for multiresolution seqs. generation 2652
paraperspective factorization method for shape and motion recovery 24610
partial spatiotemporal trajectories linking 16171
pedestrian detect. based on rhythm of walking *(Japanese)* 41294
pers. ident., human face images proc. 41116
plane motion and struct. estim., necessary and sufficient conditions 41165
precision tracking, segmentation, optimal layering for imaging sens. 24417
projections onto convex sets, damaged block transform coded images 33131
pyramidal multiresolution source coding for progressive seqs. 16225
quadtree-based motion compensation/classified VQ 2813
qualitat. predicting rels., image seq. interp. 16405
range image temporal feature extraction, neural decomp. 33052
real-time opt. flow estim. 24720
recursive affine struct., motion from image seqs. 24459
recursive nonstationary MAP displacement vector field estim. algm. 33127
relative 3D regularized B-spline surface reconstruction, image seqs. 24635
road traffic flow meas., night scene image seq.-based *(Japanese)* 10070
robust computation of optical flow in a multi-scale differential framework 24707
scalar fn. formulation for opt. flow, nonrigid motion of blood 24446
sector-scan sonar image seqs., robust class. 17491
shape from motion algms., scaled orthography and perspective 24456
shape models from image seqs. 24460
simple obj. ident. in image seqs. 41251
spatio-temporal invariances learning 41226
specular lobe surfaces, roughness, shape, photom. sampling method 16179
stereo image seq., unified motion anal. method 16145
stereoscopic video coding for virtual reality appls. 8687
stereoscopic viewing systems using active and passive glasses, performance limits 18018
sub-scenes in video seqs., camera operations extraction 16082
synthesis based on estim. of camera params. from seq. 2646
tangency curve reconstr., high-order, from image seqs. 2747
temporal filtering, short-kernel filter pairs appl. 41077
time-seq. range thermal images 16165
tracking and motion class., switchable model Kalman filter 41144
transparent motions separation, filtering 16167
TV image seq. coding algms., parallelising method 2811
TV on B-ISDN, VBR coder generated traffic, stat. model 9014
TV online database, indexing and inform. retrieval of moving images 8621
two-stage fast block matching algm., integral projections *(Korean)* 24684
unstructured video image seqs., automatic annotation 32883
vehicle image extraction based on spatio-temporal image anal. *(Japanese)* 2619
video annotation, representational frames 8552
video codec, picture quality improvement tech. *(Japanese)* 25164
video coding, motion VQ 32876
video coding bit rate reduction tech. 16403
video image seqs. anal., point and line correspondences 24602
video seqs., DCT/Quadtree motion compensated coding 16085
videophone, H.261-compatible fuzzy coder 3104
vision constraint creation, multiple attribute extraction *(Japanese)* 16371
visual echo anal. of multi-frame optical flow 24717
walking, cyclic motion detect./recogn. 16146
walking recogn. from image seqs., incremental 2745

image texture
3D human image reproduction in virtual space teleconferencing 16823
3D motion and shape estim., image struct. conditions 24441
activated towed array sonar displays image proc. 17486
adaptive morph. subband decomp., image coding 24396
affine deform., extraction from image patches 16174
age change, facial image anal. and synthesis *(Korean)* 33118
analog VLSI neural network for texture anal. 29477
anisotropic texture anal., gray-level difference histogram 24649
bispectral-based test for spatial reversibility 8561
blanket algm., efficient no. of interacts. 33107
block-based image coding, inform. loss recovery, fuzzy logic approach 32873
class., center-symmetric autocorrelation 24370
class., multiple space filling curves 16363
class., neural networks appl. 32899
clustering techs. for texture mapping 16343
CMOS VLSI adaptive high-speed VQ archit. 29273
coastline change by SAR radar, image texture class. 10512
colour images, textured, unsupervised segmentation 16184
colour texture anal., colour histogram 2807
context enhanced clustering, textured image segmentation 2808
deterministic/random binary Euclidean images, representation 41179
differential method for computing local shape-from-texture 8605
discontinuity detect. in noisy and textured images, weak continuity constraints 2841
dyn. contour following, texture approach *(English)* 2656
feature extraction, math. morph. *(Chinese)* 32806
filtering, optoelectronic neural net 39526
flexible montage retrieval for image data 8479
flight image seqs., integrated 3D anal. 24458
force feedback system, surface display 18015
fuzzy probabilistic relax. for image segmentation 2789
Gabor wavelets for texture edge extraction 41274
GLORIA images spatial filtering, speckle reduction/contrast enhancement 9674
gray level image co-occurrence matrix computation, parallel archit. 8568
gray-tone digital images, multifractal and generalized dimens. 41303
grey level co-occurrence matrix parallel array algm. 33019
GVIP, scalable high-perform. graphics proc. 21366
hierarchical texture anal., Gabor expansion *(Japanese)* 33113
hybrid opt. syst. for freq.-domain texture class. of imagery 16271

image texture continued
image registration, multi-scale texture moments 41125
inspecting quality of disks 37160
IR imaging of mil. ground vehicles, clutter metric based on texture 10592
K-distributed clutter, order param. estim., noise effect 25557
laser range data, multidimensional shape and texture visualization 32975
low-level cortical proc. in machine vision, analog VLSI massively parallel module 32947
mammograms segmentation, multiple linked self-organising neural nets 35032
Markov random field models for texture-based segmentation 8495
multi-view image set, data compression/interpolation 2647
multiresolution probabilistic neural network 33034
multiscale stochastic models likelihood calc., appl., texture discrim. 24594
multivalued Boltzmann machines, Markov random fields *(Chinese)* 8656
NOAA images, class., multilayer neural network 4389
noisy/textured images adaptive segmentation 16151
obj. detect. in clutter, Gabor filters 24549
opt. space-freq. anal. for real-time pattern recogn. 8592
parallel image and signal algorithms texture analysis, conf., Genoa, May 1994 11593
parallel texture generation by neural net 33064
parametric image models, Bayesian region merging probab. 16392
parametric image models, Bayesian segmentation methodology 24421
perceptually motivated three-component image model, compression appl. 33128
perceptually motivated three-component image model 33126
photogrammetry, facets stereo vision method for terrain 41341
QMF bank in combination with co-occurence matrices, image texture class. 24541
real-time video proc. and video texture generation 24528
rem. sens., image texture, grey level cooccurrence matrix 43466
rem.-sens. data, neural network class. 43544
roller bearing surfaces, 2D surface texture, machine vision opt. meas. tech. 8630
SAR param. estim., adaptive algm., texture recogn. *(Chinese)* 34108
satellite image segmentation, texture/context/map 26781
sea surface radar imaging, image texture anal. 26742
seafloor imaging, side scan sonar, neural image class. 18809
second/higher order stats. change detect., texture segmentation 8560
segmentation, autoregressive model, ANN 24642
segmentation, fractal dimens. 16295
segmentation, pyramidal Gabor fns., self-organising, maps 24363
segmentation by modulated wavelets 32889
shape adapted smoothing in estim. of 3D depth cues 24471
shape from texture, local spectral moments 41286
shape-from-texture, diff. method 2776
shift and rot. invariant texture recogn., neural nets 33059
side-scan sonar images classif. via parametric modeling 17487
spatial vision, demodulation and predictive coding 41155
spatial-point proc. model, texture class. 34183
stat. feature matrix method, parallel machines 24648
stat. geom. features, texture class. 41188
stochastic model-based image segmentation, functional approx. 2643
structural change detect., stat. 33091
surface curvature and orient. recovery from texture distortion 24468
SVD 24533
Talbot effect, multichannel image texture segmentation 32837
telephoto lens focusing/space compression 2665
terrain, recogn. for SAR imagery 41263
textural for rem. sens. appls. 43485
texture segmentation using wavelets, fast fractal, extraction 8500
texture synthesis, phase transits./ multi-scale Markov random fields 8541
US images of fibre reinforced plastics, automatic eval. *(German)* 12248
video coding, variable block-size segmentation by motion vectors 16383
wavelet decomp., multiresolution texture discrim. 24650

image transmission *see visual communication*

imagers *see image sensors*

images, optical *see optical images*

imaging, acoustic *see acoustic imaging*

imaging, infrared *see infrared imaging*

imaging, NMR *see NMR imaging*

IMMA *see ion microprobe analysis*

immittance, electric *see electric immittance*

immittance, electric, measurement *see electric immittance measurement*

impact avalanche transit-time diodes *see IMPATT diodes*

impact ionisation
see also avalanche breakdown
2D semiconductors, negative differential resist., conf., Lucca, Italy (1992) 11546
back gate cond. effect on 0.25 μm SOI devices 22455
BJT, impact ionization, Boltzmann transport eqn. 22357
FLOTOX EEPROM, program operations, simul. 656
fully depleted thin-film SOI MOSFETs, moderate kink effect 22461
HBT, collector-base jn. capacitance, impact ionization effect 22380
lateral power diamond MESFETs, partial ionisation, charact. 1446
MESFET, p-buffer , impact ionization regime, meas. and simul. 6793
Miller's approx. in advanced bipolar transistors 6740
MOS microstruct., dielec. breakdown and reliab. 22062
MOSFET lifetime cals., depth-depend. impact ionization 38895
n-MOSFETs, substr. current simul., nonlocal impact ionization model 30359
nonfully depleted SOI MOSFETs, phys. charge-based model, floating-body effects 38858
polysilicon inversion-type TFT DC/AC model, kink effect 22491
pulsed power semicond. switches, opt. controlled, filamentation models 36435
semicond., impurity band in high elec. field, interband and impurity breakdown 1013
small geom. MOSFETs, impact ionization simul. 22432
SOI thin film MOSFET with body terminal, photon emission 22475
tunnel MIS emitter Auger transistor, anal. model 38819
AlGaAs/(In)GaAs HEMT, electrolum. 30368
AlGaAs/GaAs HBTs, thermal avalanches 1359
AlGaAs/GaAs heterojunctions, high elec. fields, real-space transfer and current filamentation 1076
AlGaAs-InGaAs strained-layer quantum well three-terminal switching device 22504
$(Al_xGa_{1-x})_{0.52}In_{0.48}P$ p-i-n jns., impact ionisation 38302
AlSb/InAs HEMTs, 5 V gate breakdown voltage 835

- **impact ionisation** continued
  - GaAs MESFET, impact ionisation, drain struct./buffer layer effects 38935
  - GaAs MESFETs, substr.-related kink phenom., 2D anal. 6802
  - n-GaAs, current oscills., self-generated/externally driven 13039
  - GaAs, δ-doped, impact-ionization-breakdown simul. 38261
  - GaAs, devices, impact ionization/light emission, Monte Carlo study 1441
  - GaAs, impact ionisation transients, lucky drift model 13071
  - GaAs, impact ionization, ensemble Monte Carlo simul. 21879
  - GaAs, impact-ionization model consistent, band struct. 29849
  - GaAs, non-activated cond. of hot electrons in localization regime 29864
  - GaAs, shallow impurity, far-IR photocond. mechanism 6530
  - GaAs:Si(Cu) , opt. activated pulsed power switch, 2D model 39572
  - GaAs/AlGaAs MQW APD, gain props. 39569
  - p-Ge, phase transform., IR irrad., impact ionisation breakdown 29843
  - $InAlAs/In_xGa_{1-x}As$ HEMT, off-state/breakdown mechanism 22488
  - InAlAs/InGaAs HFETs, impact ionization and light emission 38912
  - InAlAs/InGaAs MODFETs, off-state breakdown study 13764
  - InAlAs/InGaAs/InP HEMT impact ionisation characterisation 13771
  - $InAlAs/n^+$-InGaAs heterostruct. FET, breakdown phys. 6804
  - InAs, impact-ionization model consistent, band struct. 29849
  - $In_{0.53}Ga_{0.47}As$, impact-ionization model consistent, band struct. 29849
  - InP:Fe, nonlinear behaviour under high elec. field 13046
  - InP/InGaAs APDs, SAGCM, breakdown voltage modelling, temp. depend. 23016
  - $NiSi_2/Si$ interfaces, dyn. transm. and impact ionization, hot-electron transport 22040
  - Pd/Si, transport props., hot electron phenom. 38407
  - -aSe avalanche multiplication photocells 1799
  - Si, Boltzmann transport eqn., band-struct. effects incorporation 1025
  - Si MOS devices, transient impact ionization in bulk semicond. 1173
  - Si MOSFETs, LDD struct., low temp. operation 13762
  - Si MOSFETs, ultra-short, heat flux effects on accuracy of hydrodynamic models 1418
  - Si bipolar devices, impact ionisation 22384
  - Si, electron impact ionization coefficient, temp. dependence 29835
  - Si, impact ionization, ensemble Monte Carlo simul. 21879
  - Si, impact-ionization model consistent, band struct. 29849
  - Si, metal-semicond. interfaces, hot electron transport probed by BEEM 13206
  - a-Si:H high elec.-field p-i-n diodes, p-layer thickness effects 6721
  - Si/SiO_2 MOSFET interface trap generation, gate current simul. tech. 38901
  - $Si_{1-x}Ge_x$, impact ionization coeffs. 21933
  - $TlAsSe_2$ glassy films, photocond./impact ionisation 22343
  - ZnS, high field electron transport, Monte Carlo simul. 21909
  - ZnS:Mn, evaporated ACTFEL devices, band-to-band impact ionization 39577
  - ZnSe HV switches, time-resolved impact ionization 27840
- **impact strength**
  - *see also fracture toughness; notch strength*
  - composite materials, defects/damage, 3D US imaging 5924
  - embedded opt. fibre data bus, inpact survivability 3864
- **impact testing**
  - mm-wave NDT of glass fiber/epoxy composites 37559
  - multiplated elec. contacts, impact wear 37556
- **impact toughness** *see fracture toughness*
- **IMPATT amplifiers**
  - 90° bridge coupler power amp./combiner, nonlin. anal. *(Chinese)* 12750
- **IMPATT diodes**
  - *see also IMPATT amplifiers; IMPATT oscillators*
  - pulsed W-band diodes, jn. temp. calc. model 37987
  - AlGaAs/GaAs superlattice avalanche region IMPATT diode 38806
  - GaAs double-Read IMPATT diodes, 140 GHz 29564
  - millimetre-wave devices, fab., integral heat sink/bonding ribbon 12772
- **IMPATT oscillators**
  - MM band IMPATTs wideband oscillators, modulation characts. 37997
  - quantum-well reson. tunneling oscillator 12755
- **impedance, acoustic** *see acoustic impedance*
- **impedance convertors**
  - *see also negative impedance convertors*
  - filters, special mutators 16031
  - GIC, complex digital filters design 12653
  - octave-band qtr.-wave coupled semi-tracking stripline jn. circulators 29546
  - GaAs CHIGFET noninductive impedance transformer design 29351
- **impedance, electric** *see electric impedance*
- **impedance imaging, electric** *see electric impedance imaging*
- **impedance matching**
  - 2D coupled cavity resonator cluster symm. anal. 31975
  - act. antenna element design 31980
  - anisotropic monopole antenna bandwidth extension concept 2338
  - branch-line eight-port hybrid cct. 21518
  - broadband act. microstrip antenna design, real freq. tech. 23851
  - broadband impedance matching, GRABIM computer program 465
  - broadband matched terminations in planar structs., simul. 12746
  - broadband matching to capacitive devices, limits, SIS mixer design 12792
  - C-band linearly tapered slot antenna on Si substr. 23908
  - capacitively fed microstrip antenna element 23852
  - circ.-polarized annular microstrip antenna, tuning stub anal. *(Japanese)* 40522
  - compensated network param. meas. by star-point current injection *(German)* 19368
  - coreless supercond. transformers, high coupling factor 39290
  - double ridged waveguide feed for parab. reflectors, broadband matching 29540
  - dual-linear microstrip array element design 31967
  - electronic ccts., post-fab. tuning 37575
  - electrothermal-chem. guns, pulsed disk alternator storage 19610
  - Ellipticus antenna, HF anal. 8037
  - impressed elec. field meas., coaxial ECR plasma source 34652
  - intense-beam klystron amps., beam-cavity interact. phys. 6481
  - lattice mixers, noise fig. limitations/input matching 12742
  - LC lowpass/highpass/bandpass ladders, Butterworth/Chebyshev response 720
  - low-sidelobe array degrad. rel. to element VSWR 23979
  - MCM-D interconnects, perform., process var. effect 38184
  - microstrip struct. anal., simulated matched load termination 29539
  - miniature waveguide antennas, aperture matching, air-gap technique 23893
  - miniature waveguide-antenna apertures, matching by air gap tuning 40499
  - MLC series-connected C-R chip, data bus impedance matching 6194
- **impedance matching** continued
  - monolithic MM wave IC, high speed opt. detectors 9534
  - multilayered spherical chiral media, Dyadic Green's fns. 40323
  - nonuniform transm. line impedance matching sects. in passband, design 15555
  - octave-band qtr.-wave coupled semi-tracking stripline jn. circulators 29546
  - omnidirectional dual reflector antenna struct. and characts. 23875
  - orthomode transducer and horn EM anal. 23990
  - probe cards, manufacture and Si LSI/VLSI IC R&D/prod. testing *(Slovenian)* 30393
  - Q-band high-efficiency monolithic HEMT power prematch structs. 29584
  - quasioptical Josephson detectors for MM-wave spectrum anal. 42759
  - RF component testing, wireless equipt. appls. 117
  - RF MOSFET power amp., CAD 556
  - RF-absorbing dielec. structs., resistive-capacitive layers 23593
  - sample holder filled method, dielectric meas. 25949
  - SAW filters for high-power in cellular radio portable phones 718
  - series-fed broadside microstrip array designs 23976
  - SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
  - Smith Chart program for impedance matching on Macintosh 21020
  - steel, induction heating, load/freq. converter influence 44597
  - stepped transm. line matching cct. design by optim. methods 15544
  - subscriber telecomm. equipt., lightning-surge test method 42046
  - terminated microwave transistors, normalizing input/output impedances 37982
  - TLINE software package for sinusoidal steady-state anal. of transm. lines 31867
  - transverse ground-plane slot in boxed-stripline, radiation effic. optim. 2345
  - wideband RF power amp. input matching network param. optim. *(Croatian)* 548
  - X-band MMIC power amp., two-stage, 2.5 W output 29600
  - AlGaAs/GaAs HBT MMIC power amp. 12825
  - GaAs 2-to-4 level convertor IC for SOA modulators 42403
  - GaAs MESFET MMIC power amp. modules, 10 W, X-band 12827
  - GaAs power MMIC for 1.9 GHz digital cordless phones 12823
  - H_2O in hydrocarbon/water solns., microwave acoustic sens. 10009
  - InGaAs/InP transimpedance opt. receiver OEIC 1834
  - InGaAsP/InP MQW laser gain-lever effect 23279
  - $Nb/AlO_x/Nb$ tuned SIS jn. 850 GHz waveguide receiver on Si_3N_4 membranes 29569
  - Si MOSFET with internal matching cct., 1.5 GHz, 35 W 29562
- **impedance, measurement, electric** *see electric impedance measurement*
- **impedance transformers** *see impedance convertors*
- **imperfections, crystal** *see crystal defects*
- **impermeability** *see permeability*
- **implosions** *see explosions*
- **impulse amplifiers** *see pulse amplifiers*
- **impulse generators** *see pulse generators*
- **impulse response** *see transient response*
- **impulse testing**
  - air gaps, impulse strength, nonstand. lightning surges 4722
  - air gaps, nonstandard lightning voltage waves, bibliog. 4878
  - air gaps, nonstandard lightning voltage waves, research 4877
  - artificial acid rain, surface impulse breakdown tests 1505
  - band limited PRBS, PSK syms. 8388
  - broadband act. room noise control, local silencing 15989
  - dielec. degrad. obs., PD mechanisms in voids 22648
  - dielec. surfaces, pot. meas., pulse method 25950
  - distribution syst. multiple dielec. lightning impulse strengths 35633
  - EM suscept. testing in time/freq. domains 15470
  - full-band acoustic echo cancellers, steady-state perform. 33676
  - GIS epoxy insulating spacers, AC/impulse voltage deterioration characts. *(Japanese)* 27240
  - GIS spacer model, surface insulation characts., impulse voltage *(Japanese)* 36396
  - HV dividers, infeed lead dispersion effects, impulse registration 5171
  - HV impulse test results, digital anal./proc. 11731
  - HV pulse technol., appls. 11192
  - induction motors, stator insulation testing/eval. 19645
  - LV cct., gas insulated switchgear, surge voltage meas. 27870
  - mineral oil, leader discharges, time resolved study 30549
  - oil-paper insulation, breakdown characts., impulse voltages 1561
  - PD induced ageing, pulse-seq. anal. 22653
  - PD pattern recogn., neural network 22650
  - PD separation from pulse-shaped noise sigs. 22649
  - power cables, insulated, impulse test procedure, IEEE std. 27208
  - power transformer impulse testing, IEEE std. 27780
  - transformer oil, elec. breakdown, dyn. barrier effect *(Russian)* 44105
  - wind power converter/inverter syst., 600 A/1200 V intell. IGBT module 19567
  - XLPE insulated 230 kV cable syst., pre-qualification testing 27200
  - XLPE/EP insulated power cables, low temp. ageing 27202
  - Ar, gaseous and liq., onset voltage for corona pulses high press. gas breakdown 30554
  - GaAs high speed ICs, electro-optic sampling syst. for on-wafer tests *(Chinese)* 12786
  - $Ni-H_2$ batt LEO life test 26573
  - ZnO varistors, mixed multi-impulse/AC 50 Hz tests 868
- **impulse voltages** *see transients*
- **impurities**
  - *for impurity vibrations see "localised modes" or "phonon-impurity interactions"*
  - *see also chemical analysis; crystal purification; impurity absorption spectra; impurity distribution; impurity states; interstitials; magnetic impurities; semiconductor doping*
  - carrier freeze-out effect, low temp. semicond. device props. *(Chinese)* 22340
  - clean rooms, impurity ions anal. and removal syst. 22089
  - coupled Josephson transm. lines, local defects, fluxon dyn. 1618
  - n-diamond:N,P,Li,Na,S,O, doping, review 6614
  - diamonds, annealed synthetic, photoinduced absorpt. lines related to Ni impurity 38230
  - electrostatic charge control, wafer prod. damage prevention 7896
  - fluoride laser crysts., growth atmos. contamination effects on opt. quality 14327
  - gas filled ΔE-counter, deterioration, impurities 34937
  - gas handling in semicond. manufacture, cost-purity trade-off 6598
  - GTO thyristor failure mechanisms 1378

impurities continued
  ii-vi wide-gap semiconds., MOVPE, optoelectronic appls., review 20887
  intrinsic opt. bistability in light interact., cryst. impurity centres 31590
  ion implant., heavy metal/dopant contamination control 38486
  killer particle detect. on rough wafer surfaces 11826
  nonpolar liqs., EHD motion and cond., effects of ionic impurities 14017
  Norcross project, degraded clean room, wafer contamination and ergonomics 38456
  O-ring degrad., semicond. proc. contamination source 29994
  polyethylene high voltage cable insulation, diagnostic methods 14065
  polysilicon, LPCVD, particle contaminations 20934
  Si residual impurities, spectrosc. meas., lattice distortion determ. 14593
  solar cells, radiation effects/external factors 11289
  Sony total particle control syst., IC yield enhancement, defect reduction 20467
  ultrapure water technol., semicond. indust. 13265
  vert.-overflow-drain CCD image sens., photoresponse anal. 42838
  Al electrolytic capacitor failure, impact of halogenated fluids 6367
  AlAs, MOMBE growth, alane precursors 20843
  AlGaAs, MOMBE growth, alane precursors 20843
  Bi_2Te_3:In,Pb, intrinsic defects, elec. method studies 1068
  CdS thin films, chem. bath deposition, impurity phase 12135
  GaAs, bulk cryst. growth, rare earth effect 20656
  GaAs:C, C ion beam doping/MBE 28773
  GaAs:Si(Ge)(Al), MBE, re-evap. and sub-oxide transport 335
  GaAs/$Al_xGa_{1-x}As$ superlattice, interfacial roughness, controlled impurity incorporation 20821
  GaAs/AlGaAs heterostruct., deep impurity doped, elec. field and refr. index change 30817
  GaN:Si metal-organic VPE, shallow/deep levels charactn. 13052
  n-Ge, extremely strained crysts., nontrivial transport phenom. 38231
  Ge:Sb,Ga, nuc. transmutation doping, impurity elec. activity 13295
  InAs/AlSb/GaSb MBE grown heterostruct., unintentional As incorporation 5825
  InGaAs, O contamination, rel. to MBE growth 12131
  InP, bulk cryst. growth, rare earth effect 20656
  InP:Zn(Mg), MOVPE precursor Et_2InNMe_2, photolum. and Hall study 12117
  NiCr thick film resistors, sheet resist. and TCR 6349
  Pt/Si(111) interface and props. of thin Pt layers on Si 1166
  SF_6 elec. equipt. insulation, quality standardisation 5142
  SIMS and microelectronics 1465
  Si devices, transit. metal impurities, book, phys. props. 20197
  Si epitaxial layers, ECR plasma CVD, ellipsometry obs. 28721
  n-Si, extremely strained crysts., nontrivial transport phenom. 38231
  Si, ion implant. proc. problems, surface photovoltage detect. 30017
  Si, metal contamination defects, Cr-free etch anal. 1282
  Si parallel multijunction solar cell 19977
  Si, plasma CVD, atmos. press. ionization mass spectrometer syst. 20976
  Si solar cell degrad., e-beam direction influence 36602
  Si wafer oblique angle inspection, contaminant/cryst. particle differentiation 11825
  Si:Fe, LEC grown, Fe contamination influence on LSI-yield related cryst. quality 29828
  a-Si:H,O solar cells, intrinsic layer, O impurity effects 5227
  Si:P(B) thin film, solidif., dopant effect *(Korean)* 22156
  Si-SiO_2 MOS surface layer defects, ECR etching in Cl_2/O_2 plasma 6631
  SiO_2 films prod. by PECVD, interface and elec. props. 29969
  TiN films, pulsed laser deposition, epitaxial growth 322
  W film on Si, self-limiting growth by WF_6 reduction, doping atom effect 38636
  ZnSe MOVPE growth, O and Te impurities effect 20890
  ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412
  ZrN films, pulsed laser deposition, epitaxial growth 322

impurity absorption spectra
  see also defect absorption spectra
  cascaded fiber amp. syst. gain filtering 7575
  diamond:He^+ film detector, Raman/photoluminesc. charactn. 43089
  impurity activated solids, hole burning, zero-phonon line appls. 7791
  ion implanted, Raman line asymmetry/phonon freq. 38511
  polyacrylamide gel, dye doped, laser host 7544
  Si residual impurities, spectrosc. meas., lattice distortion determ. 14593
  AlGaAs, ALE, C-incorporation mechanism 20694
  AlN:Cu, ion implanted, impurity segreg. *(Chinese)* 13311
  Cu-Al-S syst. sensitized with rare-earth elements, blue-to-green phosphor 23007
  $CuGaSe_2$ thin films, elec. cond. and near-IR absorpt. 13090
  Er^{3+} doped ZBLA laser, upconversion lasing 39717
  Er-doped PbF_2-SrF_2 epitaxial layers on GaAs(111)B for upconversion waveguide lasers 14832
  Er^{3+}-doped phosphate fibers, Nd:YAG laser pulses upconversion 31528
  GaAs, ALE, C-incorporation mechanism 20694
  GaAs, bulk cryst. growth, rare earth effect 20656
  n-GaAs, carrier conc. and disloc. dens. nondestructive mapping 1044
  GaAs, vert. gradient freeze growth, residual impurities/defects, IR absorpt./Hall effect 12031
  GaAs:C,H, MOMBE, C-H complexes, orient. rels. 327
  InP, bulk cryst. growth, rare earth effect 20656
  InP:Fe, Fe doping nonuniformity, mapping method charactn. 13300
  InP:Fe, semi-insulating, charge transfer 13047
  InSe:Cd films, flash evap., XPES/XRD meas. 12154
  $KNb0_3$, single cryst., growth, SHG, appls. 2113
  LiF:F_2^- colour center laser switches 7708
  Nd^{3+}-doped lead-silicate glass fibers, fab., spectrosc. and laser perform. 31212
  Si:B, CZ grown, O/C effects on thermal donor form. 29827
  Si:H, film, nanocryst., sputtered growth mechanism 12140
  Si:He, bubbles, struct./opt. props. 30050
  n-Si(111), electrolytic hydrogenation, FT IR spectrosc. 38558
  SiO_2 pure silica fibres, radiation colour centres 22844
  SiO_2-GeO_2 glass planar struct., proton implanted, photosensitivity 39382
  YVO_4:Nd(Er)(Ho) single crysts., growth, opt. props. 1905
  ZnCdSe QW LD, gain/Coulomb-correl. electron-hole pairs 31336
  ZnCdSe/ZnSe MQW, photocurrent/absorpt. spectrosc. 29910
  ZnTe:N grown by MBE, N incorporation, Ar dilution in N plasma source 1212
  ZrF_4-BaF_2:Er glass thin film opt. element 22877

impurity and defect absorption spectra of inorganic solids *see defect absorption spectra; impurity absorption spectra*

impurity and defect absorption spectra of solids *see defect absorption spectra; impurity absorption spectra*

impurity clustering *see impurity distribution*

impurity distribution
  see also doping profiles
  2D MOSFET simul., local NMOS mobility model, screened minority impurity scatt. 1412
  3D simul. of impurity diffusion in thin-film diffusion barriers 13424
  bipolar transistor p-n heterojunction carrier generation-recomb. current modelling 6726
  carrier emission/capture kinetics in electrothermal/energy transport models 38787
  carrier freeze-out effect, low temp. semicond. device props. *(Chinese)* 22340
  δ-doping during MBE, impurity atom distrib. 13296
  diamond:B films, homoepitaxial and polycryst., elec. props. 21890
  high-Q piezoelec. materials and BAW/SAW resonator devices, advances 39046
  homojunction internal photoemission far-IR detectors, photoresponse perform. 17801
  ion implant., impurity distrib. modeling 13293
  laminated semicond. struct., dopant profile control by IR spectrophotometry 38518
  MOS struct. with finite field plate, 2D field distrib. calc. 13232
  MOSFET C-V charact. dispersion, random channel dopant ion distrib. 1393
  MOSFET carrier mobility model, phys.-based carrier screening effects 30360
  MOSFET hot-carrier aging, modeling, charge pumping methods 22444
  MOSFETs, universality of electron mobility curves 13744
  non-Fickian microscopic diffusion, interfaces and in SOI thin films 1174
  opt. fibre cores, microheterogeneity detect. 39332
  polysilicon, dyn. grain-growth and static clustering effects on dopant diffusion 1221
  polysilicon thin film doping, atmos. furnace 22138
  quantum well struct., doped n-type, carrier and impurity profiles 13170
  topography/impurity profile simul., BTU algms. 22540
  AlAs, C doping, CCl_4 and CBr_4, metalorganic MBE 1226
  $Al_xGa_{1-x}As$/GaAs:Be mirrors for VCSEL 15010
  AlGaP:N, MOVPE, doping charactn. using tertiarybutylamine as N source 22132
  AlInAs:Be, MBE growth, Be acceptor diffusion 338
  CdTe, cryst. growth from melt 20658
  Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
  Cu, molten, US vel., temp./impurity depend. 5930
  GaAlAs/GaAs QW, dielec. const., doping and mag. field effects 29908
  GaAs, open-tube impurity doping, spin-on silica films *(Japanese)* 22145
  GaAs:Be, polycryst., heavily doped, diffusion props. 1043
  GaAs:C, polycryst., heavily doped, diffusion props. 1043
  GaAs:C,H, isolated H-donors, deactivation mechanism 22130
  GaAs:Er, ion implant./MBE, Er-related deep centres 38516
  GaAs:Er, metalorganic CVD, $Er(C_4H_9C_5H_4)_3$ 12164
  GaAs:Si(Be), low-temp. MBE, dopant effects 21917
  GaAs:Si,Be, periodically δ-doped, carrier lifetime meas. 21907
  GaAs:Zn, Zn incorporation, OMVPE growth 30019
  GaInAs:Be, MBE growth, Be acceptor diffusion 338
  $Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
  HgI_2, crysts./detectors, PIXE/ion backscatt. spectrosc., impurity anal. 43071
  HgI_2, elemental impurity anal. by ICP/MS 43070
  InP:Be, Be distrib. control in gas-source MBE 12064
  InP:Fe, Fe doping nonuniformity, mapping method charactn. 13300
  InP:Fe, LEC growth, wafer annealing controlled doping 28712
  InP:Fe, SI, Fe distrib., photocurrent study 13064
  InP:Fe epitaxial layers, CVD growth 12053
  InP:Fe, gas source MBE, optimal growth conditions 12057
  InP/InGaAs HBT, MOCVD, Zn diffusion, growth temp. depend. 22385
  PbI_2, crysts./detectors, PIXE/ion backscatt. spectrosc., impurity anal. 43071
  Si, B implants through SiO_2 films, implant. damage/anom. diffusion 13283
  Si, EFG growth in CO ambient, gettering 20647
  Si ULSI device fab., wafer specs./design rules trends 38982
  Si, amorph./cryst., exoelectron emission point defect anal. 21884
  Si, detector grade, bulk defects, radiation damage 43105
  Si devices and materials,, glow discharge opt. emission spectrosc. 29836
  Si, near-surface layer defects, RIE in SF_6-CCl_4-O_2 plasma 13337
  Si on insulator, high dose O implant./microstruct./form. mechanism 38494
  Si, oxide precip. morph. change, two-step annealing 6607
  Si, single crysts., metal impurities, opt. detect. techs. 38242
  Si solar cells, radiation stimulated diffusion, impurities distrib. 11290
  Si wafers, heat treated, microdefect depth distrib. due to nonequilib. self-interstitials 38474
  Si:As films, low press. CVD 5861
  Si:B, CZ grown, O/C effects on thermal donor form. 29827
  Si:B, MeV implant., masking effects 30040
  Si:B^+,N^+, dual implant. depth distrib., radiation defects 22136
  Si:B(P), doping by solid-phase diffusion 22139
  Si:B,Al, doping/epitaxial regrowth 6609
  Si:BF_2^+ amorphous ion-implanted layers, recrystn. kinetics 38464
  Si:Co, ion implant., defect/impurity profile 30028
  Si:H, ion implanted defects, thermal evol., slow positron study 38492
  Si:H,Cu, Cu gettering, hydrogen-induced cavities 30009
  Si:He, 4.8MeV α-particle implanted, Bragg-case diffr. patterns 22135
  n-Si:Li,Au, defect complexes, DLTS/SIMS/C-V profiling 38601
  Si:O,C,Si,P, P-diffusion, ion implant. damage effects 6523
  n-Si:P amorph. CVD films, crystn., elec. props. 405
  Si:Sb, heavily doped, elec. act. impurity diff. 13033
  a-Si/Ti bilayer struct., lateral silicide growth 22034
  4H-SiC epitaxial layers, CVD growth 28758
  SiC:Ga^+, defect prod., annealing 22105
  SiO_2, NO-nitrided, elec. props., chem. comp. effects 30076
  SiO_2 PECVD, neural network based modelling 37415
  $Sm_2Fe_{17}N_x$ with discontinuous nitrogen profiles, mag. props. 39203
  W/TiN:F interfacial props., deposition temp. effects 393
  WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
  ZnO varistors, positron annihil., local electron dens., defect conc. 38257
  ZnO:Al transparent films, sol-gel prep., elec./opt. props. 5855
  ZnSe:N, metalorganic VPE grown, p-type cond., annealing 38473
  ZnSe:N p/n jn. diodes, metalorganic vap.-phase epitaxy 20787

impurity distribution continued
ZnSe/GaAs heterostruct., deep level electronic struct. 38301
impurity electron states *see impurity states*
impurity scattering
used for carrier scattering by impurities
2D MOSFET simul., local NMOS mobility model, screened minority impurity scatt. 1412
coupled quantum wells, reson. transport, scatt. mechanisms probe 6569
diamond:B films, homoepitaxial and polycryst., elec. props. 21890
disordered quantum wires, DOS/conductance 38342
double-barrier struct., reson. tunneling, scatt. effects 22017
MOSFET carrier mobility model, phys.-based carrier screening effects 30360
MOSFETs, universality of electron mobility curves 13744
semicond. device drift-diffusion simul. reliab. model 1330
Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
AlGaAs/GaAs double-quantum-well devices, quantum state transfer 6561
p-$Cd_xHg_{1-x}Te$ epitaxial layers, electron mobility 13070
$CuGaSe_2$ thin films, elec. cond. and near-IR absorpt. 13090
GaAs superlattices, miniband transport, quantized mag. field 21984
GaAs/InGaAs:Si/GaAs(AlGaAs) δ-doped quantum wells, neg. magnetoresist. 29918
Ge:H, isotopically engineered, neutral-impurity scatt. 21887
$Hg_{1-x}Cd_xTe$, hole scatt. mechanisms 13063
InGaAs/InP quantum wells, electrons in-plane effective mass 38329
In_2O_3:Sn films, phys. props., doping-induced changes 30034
InP MISFET, near-surface electron transport 13697
InSb-InAs material syst., hole transport 21910
Si MOSFETs, inversion layer mobility, substr. impurity conc. 6760
Si, heavily doped, majority/minority mobilities, device simul. 21873
ZnS, high field electron transport, Monte Carlo simul. 21909
impurity segregation *see impurity distribution*
impurity states
see also deep levels; defect states; electron traps; hole traps; impurities; impurity absorption spectra
AlGaAs-GaAs HBT struct., electron distrib., electrolumin. obs. 1355
diamond:B films, ion implant., surface interacts./electronic struct. 30030
metal-semicond. ohmic contacts, impurity bands 13208
MIM struct., Schottky barriers, interface impurity states 22081
MOS capacitors, surface pot. determ. 1170
physics of semiconductors, conf., Beijing, China (1992) 11542
Schottky contacts, photovoltage, transient charact. modelling 6579
semicond., impurity band in high elec. field, interband and impurity breakdown 1013
AlAs-GaAs luminesc. p-n-i-n^+ dynistor, behaviour 23025
$Al_xGa_{1-x}As$, graded p-n jns., capacitance, frozen dopant levels 29887
AlGaAs/GaAs:Si, QW, δ-doped, subband carrier mobilities 29863
AlGaAs/InGaAs/GaAs heterostruct., 2DEG mobility anoms. 21949
AlGaAsSb/GaInAsSb, LED, electrolum. quantum yield 1827
AlGaInP:Zn, H-passiv. of acceptors in MOVPE layers 22129
p-AlGaInP:Zn, metalorganic VPE growth, alternate sources, phosphine 20752
$(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P$:Zn, metalorganic CVD, impurity passiv. 20938
AlInAs:Be, MBE growth, Be acceptor diffusion 338
Au/CdTe/Au, impurity level energy effect 1185
C:B CVD film, piezoresistive effect 29845
3C-SiC undoped CVD epilayer, carriers orig. *(Japanese)* 1067
$CaS_{1-x}Se_x$:Eu thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
CdS, nonlin. dyn. of opt. switching fronts 23451
CdTe, cryst. growth from melt 20658
CdTe:Ga, diffusive doping, photolumin. obs. 22147
CdTe/CdMnTe MQW, low temp. mobility limiting defects 1087
$Cd_{1-x}Zn_xTe$:In, pure and doped, doping induced defects, photolum. obs. 22142
$CuGaSe_2$ thin films, elec. cond. and near-IR absorpt. 13090
Ga(Al)As:H,S(Se)(Te), hydrogen-group VI donor interacts., passiv. 38258
GaAlAs/GaAs QW, dielec. const., doping and mag. field effects 29908
GaAs, CBE growth from tertiarybutylarsine, triethylgallium precursors 12105
n-GaAs, current oscills., self-generated/externally driven 13039
GaAs, δ-doped, impact-ionization-breakdown simul. 38261
GaAs, dimethylaluminum methoxide-doped , shallow donors compensation 6617
p-GaAs epilayers, MBE grown, deep acceptor impurities 1037
GaAs, excess carrier transfer, time-resolved photovoltage meas. 22995
GaAs, shallow impurity, far-IR photocond. mechanism 6530
GaAs:C, C activation, amorph. layer regrowth 30037
GaAs:C films, MBE, C^+ beams, photolum. 28789
GaAs:C,H, isolated H-donors, deactivation mechanism 22130
GaAs:Cr, doped/undoped, elec. props., heat treatment *(Korean)* 13330
GaAs:Fe(Ni), ion implant./annealing, precip. 6610
GaAs:Ge, radiation damage, elec. and opt. meas. *(Japanese)* 1048
GaAs:Li, shallow and deep level passiv. by lithium 1052
GaAs:Si, at. layer MBE, shallow deep levels 347
GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
GaAs:Si p-n struct., MBE growth interruption effects on GaAs(111)A 336
GaAs/AlGaAs, H impurity near interface, binding energy effect *(Chinese)* 6542
GaAs/AlGaAs:Sb MQW, disordering, isoelectronic Sb implant effects 1217
GaAs-AlGaAs diode lasers, threshold current, carrier charge imbalance effect 14888
n- GaAs-InP, CVD layers/MESFET, elec./optical charactn. 13104
GaInAs:Be, MBE growth, Be acceptor diffusion 338
GaInAsSb/GaSb, LED, electrolum. quantum yield 1827
GaN-related alloys, acceptor binding energy 13068
GaP:N layers, OMVPE using TBP, N doping 1208
GaSb, undoped, Te-doped, elec./photolum. charactn. 12109
GaSb:Mn, elec. props. 13065
GaSb:S, Hall/photo-Hall effect meas. 38252
GaInP layers, P-vacancy-related deep levels 29878
Ge:Ga, hole lifetime, uniaxial stress depend. 38240
Ge:Hg, Poole-Frenkel effect, centre ionis. deep impurity 21889
Ge:Zn, impurity photoresistor, pulsed-opt.-heterodyning mode 31080
(Hg,Cd)Te:In, diffusion and elec. activity 6621
HgCdTe:B,In, multi-step RTA 6606
HgI_2:Cu,Ag X-ray spectrometers, defect traps, photoionization 4247
$In_{0.53}Ga_{0.47}As$, gettered LPE grown, DLTS study 20745
impurity states continued
InGaAs/InP:Fe enhancement layer Schottky contacts 1149
InGaN/AlGaN DH blue-green LED 14641
In_2O_3-ZnSe-$(Zn_{1-x}Cd_xTe)_{1-y}(In_2Te_3)_y$ heterostruct., current transport 21963
InP, electronic props., annealing in P atmosphere 13044
InP, photolum. excitation spectra, acceptors/donors 13048
InP:C, C activation, amorph. layer regrowth 30037
InP:Fe, gas source MBE, optimal growth conditions 12057
InP:H,Mg, passivated acceptors, reactivation kinetics during annealing 22106
InP-InGaAs JFET, δ-doped channel 6796
K_xC_{60}, thin films, photocond., absorpt. spectra 39550
$LiNbO_3$:Yb, thermal diffusion, spectra and energy levels 14835
Ni/TiO_2/p-Si heterostruct., neg. capacitance effect 1161
PbSe:Bi films, amphoteric doping behavior 22146
Si, CZ grown, equiv. element Ge doping, effects on O_2 donors *(Chinese)* 38519
Si MOSFET, dopant atom stat. inhomog. distrib. 38886
Si:As scanning hybrid IR detector array, radiometric charactn. 17940
Si:B, CZ grown, O/C effects on thermal donor form. 29827
Si:B, weakly compensated, impurity band evol. 1028
Si:B(Al)(Ga)(As)(Sb) polycryst. films, sublimation method growth and doping 20972
Si:BF_2, high-dose BF_2 ion implanted, elec. dopant activation 1194
p-Si:Cu, RTA, OISF, deep states, Cu diffusion 13034
Si:Fe, recomb. centers, microwave refl. photoconductive decay 38237
Si:Fe,Al(B), lifetime effects of Fe/Fe complexes 29826
a-Si:H MIS struct., response time/capture cross sect., gap states *(Chinese)* 22060
a-Si:H,O solar cells, intrinsic layer, O impurity effects 5227
Si:Mo p/p^+ epitaxial wafers, Mo contamination 38236
Si:O, H-enhanced thermal donor form., depth profiles, spreading resist. probe meas. 38493
n-Si:P,Al, photonuclear transmutation doping, resist. uniformity 6613
Si:Sb low compensation impurity band photoconductors 39551
SiC:Al(B), ion implant., SIMS/RBS/photolumin./Hall/C-V obs. 38484
α-SiC:N(Al), ion implanted dopant activation, pulsed laser annealing 30048
SiC/metal struct., 6H polytype, surface barrier height 22044
$Sr_{14-x}Ca_xCu_{24}O_{41}$ layers, carrier doping, elec. resist./mag. suscept. 22153
$SrS_{1-x}Se_x$:Ce thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
TiN/n-GaAs Schottky contact interface post-anneal perform., N role 38384
(Zn,Mg)(S,Se):N green/blue LD, ohmic contact/transport props. 39827
ZnO:Al transparent films, sol-gel prep., elec./opt. props. 5855
Zn(S,Se):N green/blue LD, ohmic contact/transport props. 39827
ZnS:Mn/Cu_xS, electrolum. cells, Cu-Mn energy transfer 23023
ZnS:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
ZnSSe:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
ZnSe alloys, MBE, achieve RT CW LD 20906
ZnSe epitaxial layers, low-temp. cond. in impurity band regime 1046
ZnSe:Cu, kinetic coeffs., high-temp. anoms. 1050
p-ZnSe:N, MBE growth/opt. props. 22154
ZnSe:N, MOVPE growth, cathodolum. charactn. 20788
ZnSe:N, N-doping effects 38508
ZnSe:N green/blue LD, ohmic contact/transport props. 39827
ZnSe:N, metalorganic VPE grown, p-type cond., annealing 38473
ZnSe:N,H, metalorganic chem. vap. deposition, nitrogen source materials 20944
ZnSe:Te,N, N-doping effects 38508
ZnTe:Al,Cl, photo-assisted metalorganic vap. phase epitaxy, photolum. props. 20790
IMS-2 interface *see peripheral interfaces*
in-circuit testing *see integrated circuit testing; printed circuit testing*
incandescent lamps *see filament lamps*
incoherent light annealing
see also rapid thermal annealing
a-Si recrystn. by RTA/laser annealing/furnace annealing 22098
Si:P, ion-implanted, flash-lamp annealing, Raman image study 38472
Si/SiO_2 MOSFET, fixed and interface trap charges 38863
Si-based dielec., UV annealing, large area deposition, Kr flashlamp appl. 30012
SiO_2 films, UV excimer lamp annealing 30013
SiO_2 films, ion irrad. damage, UV annealing effects 30014
incremental computers *see digital differential analysers*
incremental encoders *see analogue-digital conversion; angular measurement; encoding*
incremental learning *see learning (artificial intelligence)*
index terms *see vocabulary*
indexing
see also information dissemination; vocabulary
3D rigid solid obj. recogn. from 2D projective images 41252
character recogn. via structural indexing method 41315
color indexing techs., discrim. power bounds 8478
Internet, inform. quality *(Hebrew)* 41792
Internet indexed, librarian perspective 24987
large video databases, user access, indexes 9711
motion video annotation and anal., overview 8547
subband coded video databases, multiresolution video indexing 8486
TV online database, indexing and inform. retrieval of moving images 8621
video indexing and presentation, 2-stage strategy 9742
indicating devices *see indicators*
indicating instruments *see indicators*
indicators
see also alarm systems; standing wave meters
car graphic CIG fluoresc. indicator panel, high brightness *(Japanese)* 3939
color coding, indicator and control coding *(Italian)* 17994
discrete indicator of N_2 level, Si diodes 25914
gas analyzers, optoelectronic detector of indicator tubes 25894
HV DC apparatus, charging condition, LCD indicator *(Japanese)* 36085
INDO calculations
diarylacetylenes, quadratic hyperpolarizabilities, conform. depend. 15141
stilbenes, quadratic hyperpolarizabilities, conform. depend. 15141
indoor radio
1.8 GHz ray optics modelling for indoor propag. 7977
1.9 GHz band indoor radio propag. meas. and empirical models 33786
2.4/2.6 GHz transm. and refl. props. of interior walls 31828
3D cellular syst. fixed channel assignment plan 33804
3D PCN, reception reliab. 17057

indoor radio continued
3D wireless indoor commun. syst., uplink/downlink anal. 33921
10 Mbits/s Ethernet data frames, DPSK 16711
16 QAM modulation, OFDM in Rayleigh-fading channel 9218
18 GHz band wireless LAN, indoor multipath radio propag. 8930
29 GHz indoor wireless commun., radio link design 33835
40 GHz indoor opt. fibre SS PCN/LAN expt. 33818
60 GHz indoor commun. systs. for data/video commun. 40354
60 GHz indoor wireless commun. systs., multipath meas. 8932
60 GHz indoor wireless data systs. channel modelling, ray-tracing 8933
864 to 868 MHz portable telephone indoor propag. loss anal. 33776
880 and 1922 MHz radiowave building penetration obs. 31821
900 MHz-18 GHz penetration loss 9310
915 and 1900 MHz domestic RF channel charactn. 31822
946 MHz office-complex mobile radio channel meas. and modelling 33790
1800 MHz radio propag., time dispersion meas. syst. 9319
adaptive equalization for multipath fading environ. 3429
adaptive soft-decision feedback equalization, trellis-coded CPFSK 9357
blind equalization based on Nakagami fading index, cost fn. 3430
broadband ATM indoor radio, packet diversity 16700
CDMA indoor microcellular mobile syst. 9204
CDMA microcellular systs., channel models 3419
CDMA MM wave indoor radio capacity study 9202
CDMA syst., field tests 3381
CDMA syst., one and two branches DLL comparison 3472
CELARN, cellular local area radio network 3484
cellular network overlapping channel assignment tech. 42201
CELP coder/decoder for indoor wireless systs. 3469
channel, neural-based packet equalization 9307
channel equalization, neural network techs. 17140
channel modelling by ray tracing 33820
coexistence etiquettes, continuous dyn. channel selection 9246
complex geom. indoor radio propag. ray-splitting model 31825
CT2 syst. for data services, perform. 3495
CT2Plus based wireless PABX, traffic capacity perform. 9205
D1900 micro cell indoor/outdoor appls. 25435
DECT, antenna diversity, practical considerations 17072
DECT, multibearer connections syst., ARQ protocols perform. 17051
DECT handover and channel mgt. schemes for indoor scenarios 8849
DECT radio local loop appl., radio access, repeater 25434
digital indoor radio channels, diversity, block error probab. *(Japanese)* 42173
dispersive fading channel, high-speed data transm., SR-chirp PSK 9356
distributed antennas in indoor wireless commun. syst., advantages 17070
DPSK microwave link for indoor wireless LANs, perform. 33759
DS-CDMA commun., indoor mobile, code phase assignment 9206
DS-CDMA/DQPSK sig. in indoor radio channel *(Korean)* 17046
DS-SS, multi-h CPM, indoor mobile radio, perform. 3474
DS-SS ISM band radio LANs, receiver techs. 25261
DS-SS RAKE receiver, ASIC implement. 9191
DS-SSMA indoor cellular radio perform. 25370
DS/SS indoor wireless commun., near-perfect multi-packet capture 33869
FDTD simul. of indoor propag. 9259
filter struct. for equalization and diversity combining 33875
fuzzy logic handoff algm. perform. anal. by indoor propag. simulator 33819
handwriting proc. in indoor/outdoor environ. for multimedia 9063
hierarchical digital broadcasting, adaptively weighted CDM 25628
high speed indoor wireless systs., directional antennas 3329
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
Japanese propag. studies (1990s) 2236
LAN, channel outage, token based MAC protocol 8991
low complexity low delay speech coding 8193
microcell/indoor environ., propag. mechanisms 3344
microcells, 912/1920/5990 MHz radio propag., buildings 31829
microcellular commun. in corridor complex, model/path loss meas. 2232
millimetre wave indoor radio channels, charact. *(English)* 40348
MM-wave indoor high-capacity transm. charact. *(Japanese)* 7987
mobile commun. systs., multipath delay and CCI 17098
mobile radio, burst-level ARQ error protection 17054
mobile radio channel, wideband micro-/macro-diversity meas. 3411
mobile radio syst. planning with channel modelling 33816
multi-carrier CDMA in indoor Rician fading channel, controlled equalization 9219
multi-carrier CDMA in indoor Rician fading channel 9226
multipath channel real-time emulation, FIR models and ACT technol. 31824
multipath charact. for shielded building *(Japanese)* 23626
multiple radio wave refls. in corridor 9340
office building, propag. charact. meas./freq. reuse 9322
omnidirectional/sectored antennas, ray tracing model 33853
OQPSK in indoor environ., perform. 9301
pers. commun. systs., propag. channel model 3415
phase modeling, indoor radio propag. channels 9177
pico-cell radio syst., spectrum requirements 25339
pico-cellular syst. for indoor radio, assess./propag. study 25348
picocellular network, protocol for seamless commun. 9348
Pointel portable phone, indoor environ., power loss models 9261
PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
propag. prediction, ray splitting model 9258
propag. study 9309
PSK M-ary modulated sigs., CCI estim. 33884
QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
radio LANs and MANs, IEE Colloquium, London (1995) 36864
radio propag. model based on ray tracing and integral eqns. *(Japanese)* 23625
real-time in-door radio commun., antenna diversity *(Japanese)* 42180
RF syst., diversity combining, sectored antennas 33755
S-CDMA cellular radio syst., interf. calcs. 17121
sector antenna/DFE modems for indoor radio commun. 3167
sectored antennas, indoor radio, optimum combining diversity 42281
SHF/EHF mobile/indoor wireless commun., SS 3476
SHF/UHF indoor radiowave propag. meas. 7976
simulated fast fading indoor radio channel characts. 33817
small cells/microcells, radio wave penetration, urban buildings 9260
smart antennas, IEE Colloquium, London, (1994) 5509
smart DTMF telecontroller for home automation systs. 8875
space diversity antennas, proximity effects 25374
Space Station Freedom wireless commun. propag. theory and expt. 31816
SS-CDMA PCS in-building systs., distributed antenna 9231
TDM/SS packet radio, modulation/coding 33753

indoor radio continued
TDMA in-building wireless systs., interf. charact. 33873
TDMA indoor wireless cellular systs., punctured convolutional codes, optimal coding 33872
TDMA low-power wireless access syst., coverage/handoff tests 25412
teletraffic perform., indoor cordless commun. 3488
UHF DOA inside/outside buildings 9312
unlicensed PCS band, wireless operation 25428
wide band indoor channel sounder, high delay resoln. 9178
wireless commun. channels, propag. meas. and models 17108
wireless LAN, 12 GHz band wave propag. meas. 8931
wireless LAN, high perform., implement. 25058
wireless LAN, intra-office commun. 41858
wireless LAN MAC protocol selection for indoor environ. 41818
wireless PCS radiowave propag. 3379
wireless transm. prediction by ray tracing 31823
AlGaAs-GaAs HEMT-based MMIC mixers, indoor commun. 42237

indoor radon *see natural radioactivity hazards*

indoor wireless communication *see indoor radio*

induced anisotropy (magnetic)
Co-Fe-Si-B amorph. soft ferromag. wires, magnetoimpedance, magnetostriction 30668
Co-Zr-R (R=rare earth) amorph. films, field induced mag. anisotropy 14129
CoPt/Cu/NiFeCo/Cu multilayers, spin-valve effect/magnetoresist. 14213
Fe-Cu-Nb-Si-B, nanocrystalline ribbons, creep induced mag. anisotropy 14138
FeCoNi/Cu giant magnetoresist. multilayers, sputtered, growth induced in-plane anisotropy 30702
a-$(Fe_{0.06}Co_{0.94})_{72.5}Si_{12.5}B_{15}$, creep-induced mag. anisotropy 1571
FeCuNbSiB, nanocrystalline, induced anisotropy 14133
FeGdN, soft mag. thin film material 14151
Nd-Fe-B-Co(Ga)(Zr) anisotropic powders, HDDR treatment, mag. props. 6984
$Sm_{1-x}Tb_x(Fe_{0.2}Co_{0.8})_2$, hydrogen-induced mag. anisotropy, cryst. lattice distortions 39164
YIG, mag. disaccommodation spectrum, sintering temp. depend. 14185

inductance
1.9 kW ZVS PWM phase switched DC/DC converter 44193
2×3-phase sync. machine, extended Park's transform. 44020
3-phase act. power filter, sliding mode control 19759
50 kJ railgun pulse forming unit, semicond. switched 19782
90 mm maintainable bore railgun barrel 15276
act. resonators, integrat. for UHF wireless appls. 12826
anisotropic laminated brush, reactance freq. characts. *(Polish)* 44009
asynchronous machines, piecewise-const. approx. anal. method *(Polish)* 36148
augmented railgun, inductance gradient scaling expts. 15273
bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
broadband matching to capacitive devices, limits, SIS mixer design 12792
built-in-input filter forward converter 6005
capacitors, Low Inductance Capacitor Arrays 6372
class E half-wave low dv/dt rectifier, anal. 37621
class E power amp., 2nd order effects in collector AM 29057
class E power amps./freq. multipliers, RF choke reactance 21130
CMOS differential voltage-to-current converter 21467
coupled transient simul. of ccts. and 3D packaging, algos. 21070
current power converter transformers, short-cct. inductance calcs. 19771
dyn. analogies in parametric proc. theory 28991
elec. machine, bearings, inductive effects, shaft voltages 10922
elec. machine state eqn. inductance matrices anal. *(Russian)* 44005
elec. machine state eqns., inductance matrices eigenvalues *(Russian)* 43975
elec. machines, FEA, post-proc. methods 19669
elec. vehicle drives, series reson. DC link inverter 5358
EM CAD in undergraduate courses 2171
explosive-driven MHD generators, perform. enhancement 11304
faulted SRM drives modelling, evol. ANN 44448
ferromag. sheets, mag. field effect, skin effect 30680
HF power module using GaAs semiconds., low induct. design 29029
high current IGBT switching modules, dyn. perform. eval. 30316
IC elements, delay time, strips metallization effect 853
IGBT power module gate drive considerations 37632
induction motor, rotor time const. meas. magnetizing flux 4965
induction motor drives, saturated, field oriented control 20079
induction motors, indirect field oriented control perform., rotor speed error 4976
induction motors, param. estim., output-error ident. method 11023
Intel i486 μP PGA package, RAPHAEL program L and C modelling *(Korean)* 38984
interior PM servomotors, EM props. calcs. 44080
isolated half-bridge ZVS-PWM converter 44185
Josephson tunnel jns., externally shunted, inductance 22742
lin. induction accelerators, 500 kV Marx generator 36361
lin. PM motors, design/anal. 11072
low-noise TW front-end for coherent opt. receiver 9577
magnetron, leakage flux transformer, HV power supply *(French)* 29616
MCM-L layout approach for high-speed problems 38187
MRI antenna, inhomog. surface current, model 40448
multiconductor transm. lines in multilayered dielec. media, anal. 31875
multilayer package, simultaneous switching noise 11806
multilayer PCB, power bus decoupling, modeling 15534
multilayer PGA, ground plane induct. and simul. 20444
multimode equiv. network of inductive/capacitive multiple posts 31881
multiple coupled planes, inductance modeling, PCBs, MCMs and packages 20455
noise reduction transformer, perform. and noise atten. mechanism 19681
noninductive supercond. fault current limiter, simul. *(Korean)* 27274
parasitics for IC packages, model, PC program, layout generation 11770
pass. multilayer component CAD, EM field computation 6364
PCB groundplanes, radiated emission reduction 23668
PCB inductance ident./quantification 12873
phase converters, translucent surfaces, constr. 23585
planar busbar low inductive connections, power electronics 12868
planar mag. components, inductance calcs. 886
plastic ball grid array packages, thermal/elec. perform. enhancements 37150
PM sync. machines, stabil., cage bar effects 36125
pole changing induction motors, pole AM studies *(Japanese)* 11020
pot core transformers, coupling coeffs., num. study 38053
power diode, fast reverse recovery perform. characterisation 30219

inductance continued
power electronics capacitors, inductance/EMI reduction 541
power transformer excitation under geomag. induced currents 11101
power transformer overvoltages, no-load switching 27776
pulsed gas laser, external cct. effects on spark-gap arc-discharge 23100
pulsed gas laser discharge, inductance and resist. effects 23101
railguns, 3D current distrib./EM fields soln. 15319
railguns, current pulse forming, capacitive energy storage 19778
railguns, EM forces calc., 3D FEM 31753
railguns, optim., efficiency improvement 15306
reluctance motor, rotor posn. meas., current meas. method 4934
reson. meas. in capacitors 29613
rotary transformers, ferrite, charact., FEA 14256
self-excited cycle mag. flux compressor 36286
self/mutual inductance of package/interconnect struct., inductive parasitics 20461
series connected batt. strings, charge equalization 19932
series connected batt. strings, charge equalization 44306
shunt inductance coil isolation, voltage surges *(French)* 29619
simultaneous switching noise, mutual inductance, simul. 12273
single-feed circ. polarized microstrip antenna, boundary elements anal. *(Japanese)* 40497
solid rotor turbogenerator, equiv. ccts. anal. 27660
SQUIDs, noise props., inductance depend. 14302
SRM, switching angle, high speed operation *(Korean)* 36112
SRM drives, novel C-dump inverter develop. *(Korean)* 28085
static anal. using measured eqn. of invariance 23751
super circ. MLC networks, design, develop., and qualification 6365
superconductive circ. two-wire transm. line, AC resist. and internal inductance 40391
tape carrier package for high-speed LSIs, lead inductance 5643
thin film heads, inductance fluct., domain instabil. and popcorn noise 7093
three-phase machine ring winding, end turn leakage inductance calc. *(Russian)* 43973
turbogenerator FEM/state-space modelling, no-load case 43983
voltage amplif., coaxial mag. insulated switch 36420
Cu/polyimide MCM, embedded microstrip transm. line sig. characts. 6465
InAlAs-InGaAs:Fe MSM photodetectors, inductive bandwidth enhancement 42798
KrF laser amp., Titania, pulsed power syst. 31189
$LiNbO_3$ elec. field sens., sensitivity improvement 14522
$YBa_2Cu_3O_7$ HTSC delay line, kinetic inductance, elec. tuning 14313
$YBa_2Cu_3O_{7-\delta}$ grain boundary jn. SQUID, modulation voltage/thermal noise 39271

inductance measurement
automotive alternator, commutating inductance value determ. 4925
bearingless PM sync. motor characts. 4932
cage induction machines, online winding param. meas. 4940
capacitors, internal inductance meas., ramp pulse method 12846
coil explosion mag. generator, inductance meas. 15377
machine wear debris monitoring, transducer design 25779
material props. discrim., mono-structural thin plate touch sens. 42767
planar inductors charactn., 1 MHz, large excitation 6379
SRM, flux linkage/inductance meas. methods 4935
transformer windings status assess., online stray inductance meas. 5013
$Nb-Al_2O_x-Nb$, 1D parallel Josephson-jn. arrays, cct. diagnostics 1619

induction, electromagnetic *see electromagnetic induction*

induction generators *see asynchronous generators*

induction heating
see also electric furnaces; ovens
12 kW/250 kHz series resonant power convertors, induction heating appls. 36787
200 V KZ-DHC32 IGBT invertor-based induction heating cooker *(Japanese)* 44588
1200 kW HF IGBT invertor, induction heating appls. *(Japanese)* 28166
ASCR thyristor-based CSI, induction heating appls. 36790
channel furnace, build-up form. 44599
conference, thermal problems, numerical methods, Swansea, UK (July 1993) 36887
cooker coil CAD, Pascal program-based 36785
deep heating hyperthermia, induction applicator 26468
domestic induction cooker, halogen lamp-based *(Japanese)* 44613
furnace, dyn. deform., 3D mech. oscills. 44591
HF high power SIT 38916
HF reson. inverter freq. control, induction heating appls. 36789
HF series reson. inverter, PFM/PWM control strategies 5388
HF series reson. PWM inverters, induction heating appls. 5123
inductive tube welding reson. invertor syst. 20166
International Appliance Technical Conf., Madison, WI, USA (1994) 36908
inverter, parallel capacitor compensated, transients, stroboscopic anal. 5391
kitchen range, reson. power converter-based 36788
long workpieces, num. modelling of induction heating 11473
metal induction heating, MF parallel power converter appls. 20163
metall. indust., thermal proc., optimal control software 44628
power electronics evol., Europe 37620
PWM cycloconverter control, induction heating appls. *(Korean)* 36786
quasi-reson. HF ZVS IGBT invertor, induction heating appls. 5087
restaurant induction heating rice cookers, invertor-based *(Japanese)* 44640
steel, induction heating, load/freq. converter influence 44597
steel calender rolls, induction heating, finite element simul. 11514
stove, hybrid reson. converter 5390
tandem induction furnaces, cost-effective smelting *(German)* 11500
TW inductors for continuous induction heating of metal strips 20132
ZCS-HF inverter, bipolar-mode SITs 5384

induction machines *see asynchronous machines*

induction motor drives
3-phase induction motor, single phase supply, phase converter 11377
3-phase squirrel cage motor drive, thyristor controlled 11364
400 V/10 A matrix power converter, induction motor drive appls. 19811
6000 hp compressor induction motor drives, harmonic torque 5255
adaptive control, param. estim. 28064
adaptive tracking control 36152
air-cooling fan, async. motor drive, quasi-freq. control 28177
anti-directional twin rotary motor drive, elec. vehicle *(Japanese)* 28111
ASD, adaptive speed control, ANN 28080
ASD, design/anal., CASED simul. tool 5313
ASD, freq. converter driven, acoustic noise 5251
ASD, fuzzy on-line efficiency optimisation control 36659
ASD, integrated power stage 28072

induction motor drives continued
ASD, inverter/cycloconverter fed, single-phase inputs 44489
ASD, speed/temp./torque meas./control 36697
ASD, VVVF inverter-based control *(Korean)* 28061
ATE for linear electrical drives 28086
av. params. field oriented control 5281
brushless doubly fed machines, pump drives, pole no. combinations 5282
brushless doubly-fed induction motor drives, speed control 20055
capacitor motor drive, single phase, speed control 5272
cascaded doubly-fed machines, state space control 36668
cement plant, roller presses economy, drive impact 5418
cement plant roller press drives, induction motor/freq. converter 5420
cement prod., hydraulic roll crushers, motor appls./selection 5421
closed-loop phase angle control 5260
comparison, brushless PM motor drives 5274
computerized test equipt., PC-based 44467
condition monitoring, IEE Colloquium, London, UK (1995) 11599
control, DC chopper 28081
control, rotor time const. ident. 11369
control methods, high dyn. perform. 11356
CSI fed, adaptive params. compensator 36698
CSI-fed, field oriented control, CASED simul. 44495
CSI-fed, field-oriented predictive control 5259
CSI-fed, microcomputer-DSP control 20072
CSI-fed, torque angle control algm. 28091
CSI-fed, torque control, vector approx. 5310
current controlled PWM inverters, simul. 11363
cylindrical LIM-driven elevator, motion anal. *(Japanese)* 44561
DC link power converter, induction motor drive appls. 44450
DC link soft-switching inverters 11374
DC rly. locomotives, induction motor-driven, computer simul. 5348
decoupled preview control syst. 28083
decoupling control techs. 28082
digital adaptive control, transputer based 11379
digital control strategy 5268
direct self control/field orientation 36688
direct torque control method 11339
discrete-time sliding mode digital control 11390
Dolphin drive systs. for elec. vehicle appls. 44484
double-mass induction motor drive, vibr. control design *(Russian)* 28096
doubly-fed brushless motor, sync. frame model/decoupled control 11378
dual induction motor vehicle drives, control methodology 11418
duty cycle-based V/f inverter control 20059
elec. multiple units, 3-level IGBT traction inverter 5361
elec. road vehicles, induction motor design criteria 11415
elec. rolling stock, induction motor traction drive appls. 36706
elec. vehicle motor drive syst. design, test results 5345
elec. vehicles, induction motor drives, posn. sensorless 20097
elec./shaft torque indirect two-speed meas. method 36661
embedded controller, transputer-based, eval. for high dyn. control appls. 44260
extended Luenberger observer, state/param. estim. 36657
feedback lin. control 36696
field oriented, digital implement. 36702
field oriented control, H_∞ controller synthesis 11343
field oriented control, parallel proc. 36700
field oriented control, spindle appls. 5262
field oriented sliding mode torque/speed control 36699
field weakening voltage control strategy 44482
flux/torque MRAC design 11348
FMC high power dens. elec. drive technol. 44566
freq. control *(Russian)* 36662
freq. control algms. formulation 28079
freq. converters, IGBT-based 44456
freq. inverter induction motor drives, voltage control methods 36656
fuzzy 2-DOF speed controller 36660
fuzzy logic controller 20085
GTO CSI induction motor drives, harmonic reson. elimination 11375
GTO PWM three-level VSI, induction motor drive appls. 19761
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
IEEE power electronics conf., Seattle, USA (June 1993) 36843
indirect field-oriented control slip gain tuning 28093
indirect rotor control, iron core loss 20070
induction motors, nonlin. observer-based tracking control 19622
indust. distrib. networks, harmonic reson. studies 20155
intelligent PWM power convertor develop. 28089
inverter fed, 4-pole interconnection, reson. freq. 11361
inverter-fed, magnetising flux saturation 5261
lightweight LIM, characts., mail transport syst. appl. 11405
LIM drive coil winding actuators, control design 44257
LIM drives, neural net-based fault diagnosis 36703
LIM drives, transvector control syst. computer simul. *(Russian)* 44437
lin. tubular induction drive, DSP posn. controller 11342
marine propulsion cycloconvertors, harmonic voltages elimination 5346
meas. technique, microprocessor-based 20058
MHR gas filtration, variable speed induction motor drive appls. 10823
microcomputer control components *(Slovenian)* 44471
microprocessor based digital control 36687
neural net-based param. estim. 20061
nonlin. control, DSP approach 11057
nonlin. control, high speed DSP 28067
nonlin. state observer in field-oriented drive 28090
nonpolluting automobiles, energy storage, propulsion 5326
online current monitoring-based fault detect. 36704
PAD 1.0 induction motor drive bearings CAD program 44466
parametric oscill. speed sens. 44451
phase model, TLM method 19646
position/speed dyn. control, DSP 20069
PWM convertor-fed, choice and spec. 36691
PWM inverter fed, power losses calc. 28060
PWM inverter-fed, mobile robot appls. 5266
PWM inverter-mounted induction motor, design 5306
PWM inverters, harmonic distortion determining factor 19855
PWM invertor-fed, instabil. sens. algm. 36681
PWM VSI fed, self-commissioning 44496
real-time PWM vector control studies 28100
robots, AC drives, optimised DSP field oriented control 36683
robust adaptive observers 11357
rotor flux/time const., VSS observers 11325
rotor time const., torque anal. 20089

induction motor drives continued
- safe operating/design areas 5309
- SAMCO-i high-perform. general-purpose inverters for induction motor drive *(Japanese)* 36340
- saturated, field oriented control 20079
- saturated induction motor drives, state-space modelling 28062
- SCR based, modulation strategies 20080
- SEC 51C803/804 three-phase microcontrollers for variable-speed asynchronous motor drives 29263
- SEC 51C803/804 three-phase microcontrollers for variable-speed drives 5246
- self-commissioning, param. estim. accuracy 5297
- self-tuning control, current vector control 36645
- sensorless speed control, neural net-based 20063
- sensorless vector control by Intel i860 connected, transputer network 44039
- servo drive, neural model predictive control 28066
- servodrive, control, PI load estimator 20086
- servodrive, robust 2DOF posn. controller 36658
- servodrive, VSS robust control 44483
- servodrives, field-oriented control, fixed-point DSP 11358
- servomotor drive control studies *(French)* 11335
- servomotor drives, LQG/LTR digital control design 36641
- single and three phase, PC based perform. simul. 19648
- six-phase split winding induction motor drives, EM proc. modelling *(Russian)* 28095
- slip energy recovery induction motor drives, harmonic anal. 11391
- space vector PWM control, vector space decomp. 5312
- speed sensorless control, flux saturation effects 11328
- speed sensorless field-oriented control 5298
- speed vector control, rotor speed meas. methods 44478
- split phase induction motor drives, vector control 5295
- squirrel cage ASD, speed/torque/PF control 5270
- squirrel cage drives, adaptive sliding mode speed control 36666
- squirrel cage drives, IGBT inverters, audible noise, losses 5308
- squirrel cage drives, positioning, vector control strategy 20071
- squirrel cage motor, inverter driven, thermal model 5253
- squirrel cage motor drives, self-commissioning scheme 5300
- squirrel cage PWM drives simul., MATLAB package 5275
- squirrel-cage motor drive, inverter-fed, computer modelling 11386
- stator voltage 3rd harmonic direct field oriented control 5299
- stepless PWM speed control of AC motors, neural network approach 4939
- sync. space vector modulation 36701
- tacholess vector control, low speed perform. 5292
- three-phase cage rotor induction motor CAD 11366
- three-phase induction motor drives, online fault monitoring 20084
- three-phase induction motor speed control *(German)* 11029
- three-phase induction-motor variable-speed drive regulation *(Italian)* 19619
- thyristor converter-fed, μP control 44457
- thyristor starters, operating conditions 44458
- thyristor switched, control algm. studies 44461
- torque control, digital meas. accuracy 20056
- TsV centrifugal fan induction motor drive selection program 44603
- two-layer rotor, equiv. cct. params., speed control *(Russian)* 44435
- underground hoist, digital controlled cycloconverter induction motor drive 11323
- universal field oriented control simuls. 36640
- urban transit syst., LIM/LSM combination Maglev *(Japanese)* 11398
- variable freq. drives, vector control, design/testing 44449
- variable freq. induction motor drive, pulsating torque compensation 5290
- variable speed conc. winding induction motor testing 11393
- variable speed drive three-phase induction motor control *(Italian)* 11330
- variable speed induction motor drive, adaptive fuzzy control 11392
- variable speed induction motor drive retrofits, centrifugal load appls. 36690
- variable speed induction motor drives, controller synthesis 11353
- variable speed induction motor drives, expt. perform. anal. 5247
- variable speed induction motor drives, neural net-based vector control 36685
- variable speed induction motor drives, peak voltage appl. 11336
- variable speed induction motor drives, pole no. selection 36663
- variable speed induction motor drives, vibro-acoustics anal. 28092
- variable speed squirrel cage motor drives, indust. appls. 5294
- vector control 44443
- vector control, auto-tuning method 36682
- vector control, feedback sigs. estim., ANN 44488
- vector control, neural net flux estimator 5296
- vector control, neural net-based 5291
- vector control algm. for μP-based drives 36643
- vector controlled, iron loss effects 5280
- vector controlled, rotor time const. ident. 20073
- vehicle, elec., induction motor neuro-fuzzy control 36722
- vehicle drives, static characts. modelling *(Russian)* 44570
- voltage control, field weakening region *(Korean)* 28088
- VSI fed, DSP based variable struct. control 44049
- VSI-fed, generalized predictive control 5248
- VSI-fed, predictive vector current control 44492
- VSI-IGBT, vector control, paper/steel industries 36805
- VSI-PWM inverter drive, stabil., space vector modulation 5252
- Westinghouse elec. vehicle, programs, induction motor 44567
- CoSiB amorph. MI reson. multivibrator current sens. 17713

induction motor protection
- 3-phase induction motor, over/undervoltage/phase seq. reversal protection 36151
- ASD, speed/temp./torque meas./control 36697
- control/protection, Steinmetz model 4938
- fault detect., hybrid fuzzy/neural syst. used extract heuristic knowledge 4984
- integrated on-line protection syst. 4969
- MV induction/sync. motors, design/protection/safety 5409
- SEC 51C803/804 three-phase microcontrollers for variable-speed asynchronous motor drives 29263
- stall protection 4946
- three-phase induction motor speed control *(German)* 11029

induction motors
- *see also capacitor motors; induction motor drives; induction motor protection; linear induction motors; squirrel cage motors*
- 2-speed 3-phase async. lift motor, short cct. rotor 36707
- 3-phase, rotors comparison 36165
- 3-phase asymm. induction motors, anal. 36154
- 3-phase induction motor simul. for teaching purposes 66
- 3-phase inverter, robust current controller, finite state automaton 36158

induction motors continued
- 3-phase LV induction motors, QA 11055
- 6-phase induction motor, split coil, EM proc. simul. 11021
- 3600 r/min 2-pole induction motor, stiff-rotor, design/experience 4949
- actuators, fully digital field oriented control syst. 19678
- adaptive nonlin. control, flux observer 27727
- aggregate model/expt. responses comparison 4959
- air conditioning, controllable induction micromotor 5395
- AIS-series induction motors (CIS), perform. indices 27714
- anti-friction bearings, selection guidelines 4945
- artificial loading condition impedance calcs. *(Russian)* 44034
- asynchronous motor, speed control, variable struct. control 27738
- bearing damage detect., stator current monitoring 4968
- Blue Angel hybrid petrol/elec. road vehicle *(German)* 11440
- cage induction motor, slanted stator/rotor teeth effect on torque 36170
- capacitively compensated, line commutated power converter-fed 27732
- capacitor-run induction motors, single-phase, lumped param. model 4972
- choice method, torque calc. *(Russian)* 27736
- condition monitoring, unsupervised learning ANN 4943
- contactless AC starters, 44040
- core losses meas., static power convertor-based 19620
- core losses prediction, rot. iron loss data 4970
- current-invertor-fed polyphase induction motor harmonics *(German)* 11026
- cut lamination stators, core anal. 11022
- deadbeat flux level control *(Japanese)* 27717
- design, mag. field anal. *(Japanese)* 11018
- design/spec., laws/regulations/stds. impact 4948
- doubly fed, torque/reactive power control 44058
- doubly-fed, IP control transient stabil. anal. 27740
- dyn. behaviour/param. calc. optimisation 4942
- dyn. loading, AM 36149
- dyn. loading syst. 4958
- dyn. P, Q load models 36145
- dyn. perform., space harmonic fields, cpd. transform. *(Chinese)* 11015
- dyn. thermal model develop. 27715
- dyn. torque-speed meas., advanced intell. instrums. 44038
- economics teaching, software package 27725
- elec. road vehicle drive syst. thermal behaviour *(German)* 36745
- electrostatic induction motor, synthesis and modelling 44083
- EM barrel finishing machine, induction motor-based 28194
- EM procs. calcs., tensor methodology *(Russian)* 44055
- fault current simul., rotor leakage flux-caused 19647
- field accel. controlled, energetic efficiency 11036
- field oriented control 44032
- field oriented controller, iron losses influence 44054
- field oriented torque control scheme 11014
- Forward Stall Test, rotor/stator loading verification 4947
- freq.-depend. model 11048
- fuzzy controller design 11024
- fuzzy logic controller for induction servo syst. 5002
- hermetic motor insulation reliab., HFC refrigerants, oils *(Japanese)* 11486
- high speed async. motor, solid rotor, mag. vector pot. 36166
- HV induction motors, overvoltage simul., pole closure 11052
- IEEE industry applications, conf., Denver, USA (1994) 10
- incipient fault detect., fuzzy neural net-based 36156
- incipient fault diagnosis, fuzzy neural net-based 36157
- indirect adaptive control, reduced Kalman filtering 11030
- indirect field oriented control perform., rotor speed error 4976
- indirect vector control, ang. vel. calc. *(Korean)* 36173
- inertia-lowering digital control studies *(Japanese)* 36162
- integral action nonlin. control of induction motors 44046
- inverter-fed, computer-based torque simul. 27713
- invertor output waveforms anal. maximum entropy method 24237
- invertor synchronisation, magnetisation/vel. determ. *(German)* 36159
- invertor-fed, power derating studies 4963
- irrigation pumps, induction motors, energy efficient design 5430
- LAN based indust. meas. syst. for induction motors 25728
- LQ approx. lin. control 19623
- mach. condition monitoring, user's perspective 36181
- mag. bearing syst., multiobjective controller design, guaranteed H_∞ control perform. 44062
- mag. levitated rot. motors *(Japanese)* 44026
- min. energy approach, motor control 27726
- model, dyn. aggregation, power syst. simul. 4960
- modified flux orient. control scheme 11046
- motion control systs. develop., motors, drives, user interface 44440
- nonlin. observer-based tracking control 19622
- nonlin. positioning controller 27709
- nonsinusoidal supply-fed, additional loss calcs. 27737
- observer CAD, control/fault diagnosis 36153
- offline param. ident., computer-based 4956
- on-line fault detect., stator current monitoring 4967
- output feedback globally stable controller 19633
- param. determ., genetic algms. appl. 4962
- param. est. models 4977
- param. estim., output-error ident. method 11023
- param. slip depend. determ. methods 27734
- parameter estim., dyn. anal. 19649
- pole changing induction motors, pole AM studies *(Japanese)* 11020
- posn. control, fuzzy sliding mode control 44048
- power convertor-fed, torque pulsation calcs. 27731
- power electronics, drives and motors, conf., Taormina, Italy (1994) 28252
- power network dyn. transient phenom. simul. program *(German)* 10717
- power station auxiliary power systs., short-cct. current calcs. 19382
- power station auxiliary switchboards, short-cct. current calcs. 19385
- power supply, single/three phase conversion anal. 27722
- power syst., short cct. current, automatic calc., IEC 909 4479
- power syst., voltage sags, motor re-accel. influence 19038
- power syst. dyn., induction motor loads aggregation 4491
- power syst. dyn. voltage instabil., induction motor model *(Korean)* 35461
- power syst. nodes, dyn. loads, transient anal. 19068
- power systems, interconnected, single line-to-ground fault transient response 35564
- PV array max. power extraction, fuzzy logic control 19560
- PWM power convertor feed problem calcs. 27730
- PWM VSI-fed, ASIC/microcontroller control comparison 36180
- quasi-freq. control design 27721
- radial posn. control 10979
- rotor flux estim., Luenberger observers 11038
- rotor flux/speed ident., polar coord. method *(Korean)* 36174

induction motors continued
  rotor resist., dyn. adaptation 11037
  rotor speed meas., slot harmonics-based 4941
  rotor time const., field oriented control, param. sensitivity 4944
  rotor time const. meas. magnetizing flux 4965
  rotor-air gap boundary layer, equiv. ccts. design 44037
  rotor/air-gap boundary layer, equiv. ccts. *(Russian)* 44033
  saturated, deep bar effect, transient models, simul. 19634
  saturation modelling, computer-based 4937
  sensorless field accel. method, stabil. anal. 11047
  sensorless vector speed control scheme 19632
  servo induction motor adaptive speed control 19625
  servomotors, cycloconverter-fed, sliding mode control 4983
  shaded-pole induction motors, 2D EM field anal. *(Japanese)* 11019
  shielded motors prod., enclosed motor basis, former USSR 36143
  simul./measurability anal. of 3-phase induction motor 19640
  single phase, starting transients calc. 11039
  single phase, stator-yoke deform. *(Polish)* 27704
  single phase, torque control, controlled capacitor 27716
  single phase induction motor, lamination, optimal design *(Chinese)* 44043
  single phase induction motors, harmonic losses meas. 5029
  single-phase high efficiency induction motor, perform. studies 19627
  single-phase induction motors, multi-speed control studies 19621
  single-phase induction motors, rotor slot skew effects anal. *(Polish)* 36147
  single/3-phase, speed control, AC regulators, freq. division 11034
  speed control, low-noise compact inverter *(Japanese)* 11016
  speed control, neural fuzzy controller design 44052
  speed control, stator resist. estim. 36155
  speed control, VSS, load torque observer *(English)* 36175
  speed control improvement, load torque var. *(Korean)* 27723
  speed controller, line voltage feedforward-based 27712
  speed sensorless indirect field oriented control 11045
  speed/voltage sensorless field-oriented control 11058
  stable nonlin. dyn. feedback control 4936
  stand alone induction generator, wind driven, induction motor load 27741
  starting, optimal control anal. *(Russian)* 11012
  starting transients, simul. algm. 19631
  stator current control, neural net-based 19629
  stator current control, trained ANN, syst. ident. 11059
  stator insulation testing/eval. 19645
  stator tooth zone, vibroacoustic proc. 4957
  submersible induction motor pumps, soft starting calcs. 4954
  terminal-impedance control, energy-saving 4981
  three-level PWM invertor, optimal design studies 19719
  three-phase induction motor, measurability anal./simul. 27707
  three-phase induction motors, math. modelling eqns. *(Polish)* 27703
  three-phase two-stator brushless sync. induction motor *(Japanese)* 19606
  torque oscills. reduction, supply switching 19636
  torque prod., unified theory 4930
  trajectory learning method, neuro-fuzzy network *(Korean)* 36172
  transformer and induction motor losses cost anal. interactive software package 28333
  transient operation math. anal. methods 44047
  transient torque anal. *(Japanese)* 11031
  transputer based digital controller 44050
  transputter-based measurement apparatus for online meas. 27718
  two rotor ccts., reduced order models 11054
  two-speed elevator async. motor, 3-phase stator 36708
  vac. cct. breaker switching surge anal. *(Korean)* 27706
  vac. cct. breakers, switching surge voltage, travelling wave method *(Korean)* 27834
  valves, motor-operated, noninvasive diagnostics 19624
  vector control, param. ident. software 4950
  vector control schemes 44031
  voltage fed, current regulated, field oriented control 19630
  voltage fed, field orient. control 19639
  VSC robust control of induction motor servodrive 19922
  VSI, space vector modulation, harmonic anal. 4982
  winding end region, mag. field studies 27728

inductive energy storage
  2.5 MJ DECADE pulsed power generator, plasma load appls. 36357
  100 kA, 5 kV solid state opening switch, railgun appl. 31762
  ACE 4 inductive storage technol., 6 MA driver 36390
  ACE 4 plasma opening switch/plasma filled diode charactn. 36391
  electron accelerators, inductive storage, plasma injectors 36452
  electron beam generation, plasma pulsed power closing/opening switch-based 34859
  full-bridge ZVS PWM DC/DC power converter 19852
  GW pulsed power network, magneto-elec. switching-based 5048
  high repetition rate opening switch 36629
  LINAC, klystron modulator, energy efficient deQing cct. 36360
  mobile pulsed power supply, homopolar generator, inductive storage 36255
  pancake coil for pulsed power amplif. of electrothermal load, freq. effects 36239
  plasma opening switch, pos. polarity on Gamble I, flashboard plasma sources 44227
  plasma opening switch expts., long cond. time 36389
  Procyon pulsed power supply plasma flow switches, computer modeling 36423
  pulsed power nanosecond semicond. opening switch develop. 36263
  pulsed power plasma opening switch expts. 36422
  railgun pulsed power networks, mag. enegy storage switch-based 36405
  railgun test range develop. results, Russia 15367
  reson. series counterpulse, high current opening switches 19895
  reson. switching power convertors, HF mag. design 44207
  sphere-in-sphere superconductive inductive mag. energy storage syst. 28047
  thermally fused explosive switch, railgun appl. 31759
  three-phase power systs., sinusoidal currents decomp. 4465
  VIRA-2P generator of pulsed braking radiation 44115
  XRAM pulsed power supply cct., repetitive operation studies 36256
  GaAs photoconductive pulsed power opening switch 36425
  GaAs:Cu,Si bulk opt. controlled semicond. switch, inductive energy storage 36392
  Hg liq. jet pulsed power supply opening switch tests 36261

inductive inference *see inference mechanisms*

inductive learning *see learning by example*

inductive storage *see inductive energy storage*

inductor microphones *see microphones*

inductors
  see also coils; current limiting reactors; power inductors; transformers
  3-gap thyratron, turn-on simul., math. model, kicker magnet 29817
  4.5 MJ modular pulse power supply, electrothermal gun 31764
  5BDSR nanocrystalline amorph. mag. alloy, EM characts. determ. 30659
  150 W multi-reson. DC/DC converter, high efficiency 44138
  500 kJ capacitor bank, electrothermal gun appl. 31760
  act. band pass higher order element filters, cct. anal. *(Russian)* 6204
  act. inductors for GaAs and bipolar technols. 21597
  arc furnace supply plant, flicker/distortion compensation 20129
  boost converter surge suppression, act. filter 11154
  centre-tapped spiral inductors for monolithic bandpass filters 37850
  class E freq. multipliers with RF choke, anal./design 37905
  class E power amps./freq. multipliers, RF choke reactance 21130
  current meas., HF shunt designs 19718
  current-source parallel-reson. DC/DC converter 36335
  DC/DC capacitive idling converters, input current shaping 19789
  EM disturbance, telecomms. equipt., maint./support *(Japanese)* 31864
  EM fields transm., corrugated slots 31855
  floating-inductor simulator, current-feedback amps. 21411
  half-bridge bidirectional DC-DC converters anal. 6006
  harmonic-free 3-phase inverters, synthesis/anal. 11114
  HF inductors, naturally cooled, design, noniterative method 12851
  HF inductors modelling 6380
  inductive coil mag. cct., design method *(Russian)* 6373
  inductively coupled discharges, analytic models 21789
  ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
  microrelay driving element, integrated electromagnet 21610
  microwave LC filters, accurate small air-wound inductor design, program 823
  MMIC narrow-band filter, ultrahigh-Q tunable act. inductors 12822
  multilevel monolithic inductors in Si BiCMOS technol. 21572
  noise filtering capability inductor 12847
  nonlin. mag. ccts. anal., electronic cct. program 12848
  PF correction, techs., converter topologies, control ccts. 35503
  planar inductors charactn., 1 MHz, large excitation 6379
  planar mag. components, inductance calcs. 886
  quasi-reson. DC link series reson. converter 12313
  rect. spiral inductor, S-param. calcs. *(Chinese)* 38056
  reson. power sources, freq./phase regulation, chokes 5092
  saturating/hysteretic inductor nonlin. cct. anal. by harmonic-bal. tech. 37610
  series reson. power converter, integrated L-C-T struct. 19717
  sinusoidal converters, high PF 19725
  SMPS planar inductors, design/fab. study 44109
  solid chip common mode chokes, develop. 21600
  stepping surface motor, approx. 3D anal. *(Japanese)* 27762
  stray capacitances of two coupled inductors 21596
  switch-mode power convertor predictive control, current prog. tech. 44152
  ultra-broadband high perform. RF choke for commun. appls. 37996
  ZCS/ZVS saturable inductor PWM DC-DC power converter 44224
  Fe powder core inductors, HF modelling 12850
  Mn-Zn ferrite chokes for interf. suppression *(German)* 15456
  Ni-Cu-Zn powder ferrite for multilayer chip inductors 14186
  Ni-Zn ferrite chokes for interf. suppression *(German)* 15456
  Ni-Zn-Cu ferrite, inner stress, grain boundary Cu precip. 14195
  NiCuZn ferrite:Bi_2O_3, low temp. fired, for chip inductors 14183

industrial atmospheres *see air pollution*

industrial control
  see also numerical control; process control
  AC tube mill, drive control syst. 20162
  advanced IC mfg., future prospects 37049
  assembly parts hole dist. optimal estim., Kalman filters 8623
  automation systs., thyristor-based logic microcircuits 21223
  CERN accelerator control, commercial indust. control syst. integrat. 18238
  CERN of indust. control components 18237
  continuous gravimetric dosing syst. elec. drives, microcomputer control 44623
  controllers, self-tuning digital control 20154
  design for assembly and assembly automation *(Polish)* 28405
  electronic component insertion/mounting, robotic *(Japanese)* 5603
  electronics, trends/develop. 33431
  EPICS control syst. software develop. 18240
  excimer lasers, indust.-scale, automated control 31155
  FDDI for time crit. commun. in mfg., scheduling 41772
  IEEE IECON '94 conf., Bologna, Italy (1994) 36823
  LEP2 cryogenics, large indust. control syst. appl. 18239
  lightning protection, grounding/shielding studies 20160
  mfg. message spec., protocol design/anal., Petri net-based 8873
  mfg. proc. real-time empirical Bayes model-based monitoring 20425
  municipal wastes ash recycling, integrated monitoring/control syst. *(Japanese)* 183
  planning algm. for complete sens. coverage in inspection 20466
  plant power/control syst., obj.-oriented simul. 20159
  plasma etch systs., automated preventive maint., SECS protocol 30088
  prod. scheduling, knowledge elicitation/IKBS develop. 43971
  radiotelemetry appl. possibilities and prospects *(German)* 8874
  Rohde & Schwarz Industrial Controller PSM, automated prod. testing and control 5604
  room illum., equipt. selection 11447
  submicron fab technol., future prospects 37050
  vision, image understanding syst. design *(Japanese)* 16372
  visual inspection, linguistic fuzzy inputs 38951

industrial economics *see economics*

industrial manipulators
  interbay material handling/storage systs., large wafer fab, simul. tool 20413
  joint torque disturbance observer for robotic PCB assembly 6415
  manual/automated offshore NDE, colloq., London (1994) 20259
  pick and place in electronic packaging, high precision, alignment techs. 29721
  viewpoint-controlled displays for teleoperated robots, perform. eval. 34629

industrial plants
110 kV network intermittent earth fault limitation *(German)* 4708
cement plant, roll crusher, variable speed DC drive 5419
cement plant automation strategy, ESSROC 5424
cement plant design, efficiency/environ. issues 5428
cement plant design, environ. issues 180
cement plant design, power/emissions reduction 44637
cement plant design for stringent environ. stds 5427
cement storage/dispatch terminal automation 3731
chem. plant central power supply company following privatisation *(German)* 5403
fire simul. and conseq. eval. empirical models 20171
French indust. safety approach comparison 11678
IBM Microelectronics, MLC packaging plant 11762
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
maint., equipt. availability, economics 36995
petrochemical plant, chem.-moisture barrier cable 5411
petrochemical plant, elec./proc. control systs. integrat. 5410
power/control syst., obj.-oriented simul. 20159
preventive maint., IR thermography *(German)* 36983
proc. network models of energy/environ. systs. 18915
safety, mgt. factors, model and tools 11679
safety and availability, integrated dyn. decision anal. 11680
steel plant availability anal. 20165
Swedish authorities' accident prevention approaches 11685
technol. risk mgt. develop. and policy 11688

industrial power systems
3-phase indust. transformers, overcurrent protection 5014
arc furnace power systs., voltage flicker study 20157
arc furnace supply plant, flicker/distortion compensation 20129
cable, conduit, tray schedules, computer generation 19319
cement plant automation strategy, ESSROC 5424
cement plant elec. network design, ADELIA expert syst. 5417
cement plant power/control automation project, Germany 36807
chem./plastics plant elec. modernization project 5405
commercial/indust. facilities, harmonics eval. 10602
contactless power delivery syst., mining appls. 20188
control syst. lightning protection, grounding/shielding studies 20160
distrib. network improvement, Clean Air Act effects 11493
distrib. networks, capacitor overcurrent protection 4653
distrib. networks, harmonic reson. studies 20155
DSM, PLC-based scheme 35490
elec. risk/reliab. calcs., PC-based 4553
electrical systems, cards, standards and recommended practices 20169
EMC reactive power control systs. 23664
feeder load interruptions, fast breaker tripping impact 20158
harmonics effects on power quality/transformers, comments, reply 36796
harmonics meas. 19370
Hibernia offshore platform, integrated control syst. 5412
hot strip mill load bal. control ES 44627
IEEE industry applications, conf., Denver, USA (1994) 10
induction motor model, dyn. aggregation, power syst. simul. 4960
induction motor starting transients, simul. algm. 19631
indust. power systs., electromech. response 20186
indust. power systs., reactive power compensation 26940
load balancing/control, feedback elimination 4596
mine elec. network protection reliab. *(Russian)* 44642
mining, longwall face equipt., 4160 V power syst. appl. 20184
multiarea power syst. automatic generation control simul. 10666
MV mine distrib. network, ground fault simul. 20193
neural networks based monitoring of indust. elec. loads 4537
petrochemical plant, elec./proc. control systs. integrat. 5410
petroleum indust., MV/HV systs., protective relaying 5406
petroleum indust., substation, 5th/7th harmonic filters appl. 5407
petroleum refinery/elec. utility collaboration, overview 5414
petroleum terminal ASDs, power quality issues 5413
planning, tech.-economical eval. *(Russian)* 44621
plant power/control syst., obj.-oriented simul. 20159
PSCN 3020 distrib. network integrated protection/control syst. 27157
refinery MV distrib., capacitor switching characts./meas. 20168
reliab., Monte Carlo simul. 28189
resistive load control, disturbance minimisation 4541
steel plant power syst., harmonic meas./anal., PF correction 11502
transm. line outages freq., Canada 19287
voltage sag compatibility, utility perspective 20156
wastewater plant, var. freq. drive. parallel act. harmonic filter 36810
wire mfg., distributed power syst. control concept 11503

industrial property
see also copyright; patents
client server archit. migration, security soln. *(French)* 25027
intellectual property protection, technol. protectionism 36965
intellectual property protection survey, Africa 36967
intellectual property rights, foreign direct investment 36963
intellectual property rights mgt., Australia 36969
internat. property rights, harmonization/differentiation regimes 36964
Nat. Information Infrastructure project *(Japanese)* 3184
Switzerland, technol. flows 20359
telecomms. indust., competitive intell. gathering 3054
university consultancy activities, IEE Colloquium, London (1995) 28275
USA, stds. develop. proc. and national inform. infrastructure 8802
Vietnam, telecomms. regulatory struct. and foreign investment 3026
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
World-Wide Web conf., Darmstadt, Germany (1995) 36872

industrial research management *see research and development management*

industrial robots
see also industrial manipulators; mobile robots
3D microstruct. constr. by multi-face FAB/robot 30521
3D position estimation, robot control model 25880
AC PM servomotor digital controller, appls. 43979
arc welding robot coord. motion control, sens.-based *(Japanese)* 11505
automotive parts cutting, Nd:YAG lasers and robots appl. 15197
calib. by opt. methods 10031
conformal coating, robotic appl. 935
control enhancements in commercial mobile telerobot 4768
digital AC servo motor for welding robots *(Japanese)* 11078
digital joint motion controller 11509
elec. drive testing, mech. simulator control 20060
electronic component insertion/mounting, standardization *(Japanese)* 5603
fibre-optic proximity sens., spindle stop posn. control 17897

industrial robots continued
golf car arc welding modernisation project, USA 5400
humans detecting sensor for robot cell 25796
knowledge based machine vision for robotic welding syst. 41247
KoREMA, conf., Zagreb, Croatia (Apr. 1993) 20203
laminate materials, alignment, sens.-based robot techs. 110
lin. pulse motor, mag. suspen., contactless direct drive *(Japanese)* 44077
machining robot control, inductive power/sig. transm. 20167
mech. positioning errors, meas. and correction *(Japanese)* 3985
model based robot vision 25881
Motorola training programme improved by virtual reality 36913
multiple robot PCB assembly syst. 20396
Optotrac, opt. non-contact 3D motion tracking instrum. 17659
PGA burn-in board loading, machine vision in robotic guidance 29668
plasma arc cutting, laser sens.-based 126
proc. plant digital image archives, rem. meas. syst. 25732
robot environ., change detect. for human safety 24527
SMD soldering/inspection workcell, develop. 6419
Spin-Arc seam tracker, robot cell 11504
steel struct. beams automatic painting syst. *(Japanese)* 3892
two-link collision free robot positioning, microcontroller-based 11226
underwater cleaning robot, power station inlet channel appls. *(Japanese)* 4754
vehicle following others, feedback control 4761

industrial standards *see standards*

industries
this heading is restricted to those industries which are not covered by other specific headings
see also aerospace industry; automobile industry; cement industry; ceramic industry; chemical industry; construction industry; DP industry; electricity supply industry; electronics industry; food processing industry; glass industry; information industry; manufacturing industries; metallurgical industries; mineral processing industry; paper industry; petroleum industry; pharmaceutical industry; plastics industry; textile industry
cogen. plants, NO_x emissions control 27560
curing procs., electrotechnology appls. 28188
elec. contract prices anal., UK 35536
elec. pricing, voluntary TOU tariff 44622
engng. curricula, indust. perception, India 5554
engng. education, indust.-university collaboration, India 5555
indust.-university R&D cooperation, Turkey 11615
multimedia, impact on indust. 33659
pulsed power supply technol., indust./mil. appls. 36251
US telecom. indust., firm level efficiency 33324

inelastic electron tunnelling spectra *see tunnelling spectra*

inelastic electron tunnelling spectroscopy *see tunnelling spectroscopy*

inert anodes *see anodes*

inertial confinement (plasma) *see fusion reactors; plasma inertial confinement*

inertial confinement fusion *see fusion reactors; plasma inertial confinement*

inertial navigation
advanced terrain data proc. 10394
covariance anal. of strapdown INS, gyrocompass charact. 26695
deep-space navig., overview 17511
failure detect., GPS autonomous integrity monitoring appl. 33947
fault tolerant air data inertial ref. syst. testing 10365
intermittent faults detect. in electronic devices 35379
mil. aircraft INS, maint.-free Pb-acid batt. develop. 43564
Satnav programme, flight safety improvement *(French)* 3637
sine/cosine ref. generator, high-perform., design 8350
solid-state gyroscope for robotics appls. 17733
submarine navig. data integrat. 24296
surface relay buoys, underwater navig. techs. 25602
towed underwater body and mother ship navig. 17499
unmanned underwater vehicles characts. 11410
US Navy unmanned undersea vehicle navig. 35384
Si accelerometers for inertial navig. 10318

inertial systems
propulsion, concept and expt. 28149
self tracking of human motion, virtual reality systs. 34685

inference mechanisms
see also case-based reasoning; common-sense reasoning; diagnostic reasoning; model-based reasoning; spatial reasoning; temporal reasoning
50 MFIPS fuzzy proc. and related 1 μm VLSI CMOS digital ccts. 29152
agric., cartographic problem solving, geographical IS 4413
analog antecedent and consequent fuzzy inference units, optoelectronic 31122
binary rel. inference neural net, VLSI implement. 29446
CMOS adaptive neuro-fuzzy analog chips 29418
DC servo motor, fuzzy PID control, accelerated reasoning 5167
DC servomotor speed fuzzy control 11069
distrib. network optimal switching planning, fuzzy inference-based 27179
distributed obj. recogn., fuzzy relational inference logic 16274
domestic appliances, μP fuzzy logic control technol. *(Japanese)* 44616
ECG diagnosis, real-time ES 10245
Egypt Power Network fault diagnosis, ES 19333
error-correcting code design, probabilistic neural net 40711
facial expression recogn./reasoning, fuzzy logic 8562
fast defuzzification by adaptive integrat., hardware implement. 29284
FIRE operators, fuzzy inference edge detect. 2680
fossil power plant, drum-type boiler syst., fuzzy ES for fault diagnosis *(Korean)* 43907
furnace, elec., fuzzy adaptive controller, proc. control appl. *(Korean)* 5389
fuzzy controller, analog implement. 773
fuzzy inference proc., 64-bit, archit. 686
fuzzy logical ccts., fund. 6138
fuzzy precompensated PD controller 19658
gamma camera QC ES 10204
hardware inference syst., completeness 21065
hypothetical reasoning for automatic recogn. of continuous speech 32283
IC tester diagnosis, Bayesian network appl. 30428
image enhancement, fuzzy set operations, histogram spec. 24661
induction motor drives, PWM invertor-fed, instabil. sens. algm. 36681
knowledge representation, verification and reasoning, real time systs. 3737
local SCADA systs., intell. load shedding algm. *(Korean)* 35473
LOTOS environ., specifying, and anal. their interacts. 3143
med. tissue stiffness estim., fuzzy reasoning/telerobot 34992
MESSIE, multispecialist 3D scene anal. syst. 32893
microcontroller, fuzzy, singleton, SC based 684

inference mechanisms continued
MM-wave radar target identif. by high resoln. range profiles 42485
multisensor data fusion, autonomous fuzzy archit. 40786
multisensor multitarget tracking, fuzzy estimator 8326
neuro/fuzzy systs., analogue, CMOS design, basic building block approach 790
non-iter. contextual correspondence matching 24614
nonideal logical circuitry reasoning and spec. 37701
odor discrim., fuzzy reasoning and neural networks 9955
online machine learning, knowledge acquisition appl. 16611
optimal fuzzy filter synthesis, local stats. based *(Japanese)* 21433
optoelectronic fuzzy syst., inference methods, stabil. eval. 31045
power plant generator control, fuzzy modeling 4889
power syst., knowledge acquisition/config., KA7 project 19045
power syst. control ES software design, OOP techs. 27070
power syst. fault sect. estim., discrim. anal.-based 35465
power syst. fuzzy adaptive excitation control method *(Chinese)* 43631
primary substn. operation support, multiple inference engines *(Japanese)* 19913
probabilities of events described by order stats. and appls., queue inference 28573
pulse diagnosis, Chinese, computer/fuzzy theory 43203
reconfigurable analog fuzzy logic controller 779
relay, smart, AI-based 6397
remote sensing image boundary area, fuzzy inference 9413
repair/replacement policies, marginal cost anal. appl. 28386
robotic welding syst., knowledge based machine vision 41247
SAE 81C99 Fuzzy Inference Processor 29283
satellite offices implement., recommendations based on obs. from one site 16821
signal detection task, uncertainty modelling 8441
spacecraft vehicle health mgt. systs., large-size data reduction/fusion algm. 18725
SPARSE ES for alarm proc. and operator assistance 26999
struct. reliab. estim. models, uncertain data handling 37179
symbolic trajectory eval. and BDDs, theorem prover, VLSI design 37587
symbolic trajectory eval. results comp. 21064
telecom network rule-based control, blackboard model 16614
text-independent speaker recogn. from vowel extraction *(Korean)* 40731
tissues segmentation from MR images *(Japanese)* 18537
US med. images, classif., fuzzy reasoning *(Japanese)* 10216
video authoring, user models for intell. multimedia 41989

infiltration, melt *see melt infiltration*

infinite dimensional systems *see multidimensional systems*

infinite impulse response filters *see IIR filters*

infinite series *see series (mathematics)*

information analysis
see also cataloguing; classification; indexing; vocabulary
tech. document characterisation by data anal., NPP app. *(French)* 43843

information analysis centres *see information centres*

information brokers *see information industry*

information capacity *see channel capacity*

information centres
Internet, sharing resources in academic libraries and inform. centres 16721

information dissemination
digital global library and inform. superhighway 3265
electronic inform. exchange, Signal Processing Information Base appl. 24247
image anal. syst. for sea ice maps from space 18886
multimedia, emerging commun. tech. 16836
multimedia resources, networked delivery, academic community 25117
typography, human factors approach 28549

information highways *see information networks; internetworking; wide area networks*

information industry
competition in the inform. marketplace, telecom 8803
develop. project risk mgt., case study 36971
Internet, world inform. bazaar 8971
online multimedia yellow pages appl. *(Japanese)* 42007
rem. sens. market, data variety and availability 41320

information infrastructure *see information networks; internetworking; wide area networks*

information needs
Hawaii, national and internat. network services for dist. education 3197
network training, perceived need for self-help materials 20340
telephone surveys, customer feedback, obstacles 28551

Information Network System *see ISDN*

information networks
see also Internet
ADSL, twisted-pair access, inform. highway 42058
archit. consortium and tech. trends *(Japanese)* 16535
ATM based LAN/WAN *(Japanese)* 41854
business organization, impact of inform. and commun. technol. 8796
campus-wide inform. syst. develop. 25003
CLNS networks, authority and routing registration 41781
commun. network control archit., integrate service control and mgt. 25063
convergence of telephony and cable, vital step for inform. superhighway 16623
corporate network mgt. *(Japanese)* 16715
CU-SeeMe desktop videoconferencing software 41945
digital global library and inform. superhighway 3265
direct global mktg., amat. radio packet switched network 9163
distributed PCN server-independ. service acquisition syst. 42195
EDUCATE project, end-user courses in inform. access, commun. technol. 20339
electronic inform. exchange, Signal Processing Information Base appl. 24247
ExtNet, extension electronic inform. delivery in North Dakota 8869
flexible networks, basic concepts and archit. 25082
full-text inform. delivery, electronic, US infrastructure 16546
GeNeRIC inform. centre in multi-protocol environ. 41523
gigabit class network research in US 41782
GRAMS distributed multimedia service syst. 16833
high data rate satellite commun. systs., R&D *(Japanese)* 17158
high speed inform. network planning, stochastic optim. 25109
IBCN services for multimedia tourism appls. 16900
inform. highway power distrib. archits. 42137
inform. services and telecomms. in Brazil 41604
inter-LAN security, trusted routers 16671

information networks continued
interactive education, CD-ROMs and WWW 8895
Internet, electronic payments 24965
Internet, Superhighways and interactive TV *(French)* 41852
internetworking and computer networks, current status and future *(Japanese)* 8880
Japan Airlines' network IS 41665
Japanese telecomms. indust. in 21st century, indust. struct. 8795
jewellery image IS *(Japanese)* 41940
LandcareNET, lateral inform. transfer for sustainable agric. in Australia 8980
low cost access, inform. highway, ADSL technol. 16914
M-based clients and servers in TCP/IP environ. 16644
media sync. protocols for packet audio-video syst. on multimedia inform. networks 16497
multimedia markets, network evol. and stds. 25113
Nat. Information Infrastructure, stds. and interoperability 24978
Nat. Information Infrastructure and computer networks in Japan *(Japanese)* 3185
NCIH, integrated network/service mgt. 8837
news on demand for business, Nynex/Dow Jones 16828
North Carolina inform. highway 9547
North Carolina Information Highway, ATM switching/CPE 8823
North Carolina Information Highway, evol. 9012
North Carolina Information Highway, NC-REN for research collaboration 5537
North Carolina Information Highway, network mgt. 8836
NTT, customer globalization trends 41590
open archit. for digital commun. systs. 8945
Pacific Bell's ATM/CRS for med. imaging data 41619
PCN, space/terrestrial integrat. in inform. infrastructure 25056
PROMISE pan-European traveller inform. syst. 3462
really IN 41960
regulatory proc. 8805
Romanian Nat. Academic and Res. Network, Cluj-Napoca node 41831
Saudi Arabia, Gulfnet, overview 41789
SINA, Super-highway Information Networking Architecture 25054
Singapore, national inform. infrastructure 24958
superhighway, consumer electronics 5475
Sweden, strategy for IT infrastructure 8810
switching fabric control appl. connection mgt. interface 42104
teaching sig. proc. on Information Superhighway 20296
telecomm. equipt. prod., CAT tool integrat. in factory inform. network 33341
telecomms., inform. infrastructure strategic issues 8806
TINA expt., PLATyPus tools 8831
training, perceived need for self-help materials 20340
training in Hawaii 20341
Tunisian national research and technol. network for technol. transfer 41779
US-Japan telecomms. trade, Japanese inform. infrastructure develop. 8799
USA, stds. develop. proc. and national inform. infrastructure 8802
USA and Japan, inform. infrastructure develop. 8887
USA national inform. infrastructure initiative, public vs. private objectives 8793
virtual cybercampus, med. education appl. 25096
VISTAnet/MICA, med. appls. leading, NCIH 10301
WWW, platform independent virtual reality 25077
WWW name servers, reliab. 41863

information retrieval
see also information storage; query formulation; query processing; relevance feedback
color matching for image retrieval 41065
content-based manipulation of image databases, Photobook 8480
DFR std. for multimedia archiving teleservice 16865
digital parallel VLSI archit., fuzzy database mining 677
EAN directory service, support for transactions and replication 8960
electronic secretary syst. *(Japanese)* 24940
Eurescom IMS1 projects (integrated multimedia services, 1 Mbit/s) 16846
FIND2, inform. sharing syst., develop. *(Japanese)* 3211
flexible montage retrieval for image data 8479
GSM home location register, advantages/challenges 25385
health care, secure multimedia appls. and teleservices 16855
image retrieval, computation methods and human perceptual judgments 8477
inform. explosion, document delivery and electronic networking 16767
Internet, gopherspace navig. via electronic mail 8864
Internet indexed, librarian perspective 24987
KT-STOCK large vocab. speaker independent recogn. syst. 2440
medical libraries and Internet conf., San Antonio, USA (1994) 36834
metadatabase syst. for semantic image search 8473
MHEG coded representation for hypermedia IRS 16847
mobile wireless access to the WWW, dyn. documents 33570
Mobisaic IS for mobile wireless computing environ. 33571
motion video annotation and anal., overview 8547
multimedia storage server design 16831
PCB design, component data access, IT appls. 21629
Philips automatic train timetable IS 3130
power syst. load dispatching tech. IS 19096
random access on real time retrieval of digital continuous media 41999
SP20, computing, compression 40797
TV online database, indexing and inform. retrieval of moving images 8621
video databases, metadata 8472
video indexing and retrieval, power tools 8485
World-Wide Web conf., Darmstadt, Germany (1995) 36872

information retrieval languages *see query languages*

information retrieval systems
see also bibliographic systems; factographic databases; full-text databases; online front-ends
archive digital data storage device based on home video recorder 39182
automatic telephone directory *(Italian)* 24929
DFR std. for multimedia archiving teleservice 16865
FIND2, inform. sharing syst., develop. *(Japanese)* 3211
Informedia project, digital video access 16254
Italian astron. and astrophys., WWW appl. 8916
LEP high level control syst., ORACLE online database 18234
long-term data acquisition/recording/storage and sig. proc. syst. 25734
mail-based teleservice archit. for retrieving multimedia documents 16868
mass IS, case study 33425
multimedia IRS FIND2 for white collar workers *(Japanese)* 41894

information retrieval systems continued
multimedia teleservices and high-speed archits., conf., Heidelberg, Germany (1994) 40
multimedia transport and teleservices, conf., Vienna, Austria (1994) 44
multimodal consumer inform. server, IVR menu 3131
online multimedia yellow pages appl. *(Japanese)* 42007
RAMA, rem. access, museum archives 9069
spoken dialogue syst. for CD-ROM inform. retrieval 15850
video response syst. based multimedia on demand *(Japanese)* 42008

information science
see also document delivery; information analysis; information centres; information dissemination; information industry; information needs; information retrieval; information retrieval systems; information services; information storage; information use; publishing; vocabulary
connecting geographical inform. syst., telecom. inform. syst. database 33342
international technical communication, American-Russian collaboration 28308

information services
see also information networks
agric. and extension, modem-accessible inform. services 8868
air travel inform. service, unanswerable queries in spontaneous speech task 32290
Asia-Pacific region, integrated voice inform. services 3121
audio inform. services, electronic media environ. 33399
BBC radio networks, RDS EON/travel services 34207
bulletin-board subsystems for exchanging obj. inform., operation protocols, formal description 33288
cooperative computing/integrated syst. mgt. 24904
developing countries telecomms. networks, operator and inform. services 3067
digital network access to low demand areas, develop. strategies 3016
document delivery using X.400 protocol, British Library DSC 41736
electronic inform. exchange, Signal Processing Information Base appl. 24247
environ. databases, stabil. test profiles 111
fax usage and online services 16637
Fujitsu CyberSpace inform. service, develop. *(Japanese)* 41635
Fujitsu network infrastructure for Internet services *(Japanese)* 41855
Great Lakes states, advanced telecomms. and inform. services 8792
Hawaii, school library networking 3198
Hawaii Department of Education, online media catalog and booking syst. 3060
IBCN services for multimedia tourism appls. 16900
inquiry based requirements anal. for Internet service 33551
international technical communication, American-Russian collaboration 28308
Internet, world inform. bazaar 8971
Internet inform. tools 16738
ISDN, network based video storage, inform. retrieval 25111
Japan, virtual communities 3195
LandcareNET, lateral inform. transfer for sustainable agric. in Australia 8980
libraries, Third World, inform. access improved by utilizing advanced IT 41743
med. devices QA services 18427
MIDAS, med. library's database access syst. 41803
mobile wireless computing 25297
multimedia, copyright law and inform. services 9059
multimedia and community *(Japanese)* 42021
Multimedia Forum, integrated digital inform. service 9060
multimedia services for municipalities *(Japanese)* 42028
NEC multimedia VAN services *(Japanese)* 42030
NECM multimedia services in mfg. industries *(Japanese)* 42024
network integrat., mgt. technols. *(Japanese)* 33378
networking in India, needs, demand and regulation 25017
NIFTY-Serve, multimedia related services *(Japanese)* 42006
online multimedia yellow pages appl. *(Japanese)* 42007
OPENet, collaborative learning environ. for education and training 3244
Philips automatic train timetable IS 3130
tech. inform. services for PC/fax users *(Japanese)* 33418
telecomms. and inform. services in Brazil 41604
telecomms. in Canada, GIS appls. 24877
telephone voice interfaces on the cheap, Zap & Zoom 41720
TV online database, indexing and inform. retrieval of moving images 8621
virtual library, inform. sources accessible, Internet 8979
Voice Across Japan database, Polyphone project 32231
X ray units database, Lower Saxony, radiation protection, QC 18500

information storage
see also information retrieval
archive digital data storage device based on home video recorder 39182
DFR std. for multimedia archiving teleservice 16865
EAN directory service, support for transactions and replication 8960
multimedia resources, networked delivery, academic community 25117
Reynman revisited, 1959/1983 ideas implement. 30523

information storage systems *see information retrieval systems*

information systems
see also database management systems; engineering information systems; geographic information systems; management information systems; medical information systems; personal information systems; public information systems; scientific information systems; traffic information systems
advanced SCADA concepts, substation appl. 19131
ATM LANs, high-speed telecomms. technol. *(Japanese)* 33544
AXSIA module in PREVISIA, distributed IS *(French)* 16661
campus-wide inform. syst. develop. 25003
data fusion systs., eval. model 8296
develop. project risk mgt., case study 36971
E-mail, IS mgt. view 8861
electronic museum syst. by multimedia database *(Japanese)* 42009
Hawaii, developing virtual learning environ. 3058
Hibernia offshore platform, integrated control syst. 5412
high-speed networks, large multimedia server, storage subsystem design 16834
image IS *(Japanese)* 25683
INFOSTEL, IS for telecomms. networks 41658
interneted library syst., Hahnemann Univ. 16766
Japan Airlines' network IS 41665
NEC multimedia services in central administrative offices *(Japanese)* 42027
pers. video-on-demand, multimedia inform. caching 42586
security issues in inform. age 16551

information systems continued
SPS projects, computer inform./anal. syst. 36053
survivable interoffice networks, video/inform. transport 9099
technologies/systs., conf., Ukraine, 1993 3
Web site, QC issues 8897
wide-area inform. client 33523

information systems, management *see management information systems*

information theory
see also channel capacity; correlation theory; decoding; encoding; entropy; error statistics; estimation theory; filtering theory; modulation; prediction theory; rate distortion theory; signal detection; signal processing; speech intelligibility; switching theory
2D autoregressive noise model, broadband planewave detect. 40840
ARMA syst. ident. based on second-order cyclostationarity 8424
binary const.-wt. codes correcting localized errors and defects 15730
binary procs. of self-assembling, vol. interacts. 40533
Boolean fns., propag. characts. and bal. 32077
channel equalization with perceptrons, inform.-theoretic approach 32027
chaotic element network, inform. cascade, marginal stabil. 2357
chaotic time series, noise reduction 15684
coherent sig./random background, second-order intens. stats. 32012
Cramer-Rao inequality, large deviation, quantum analogues 40534
Cramer-Rao lower bounds for damped sinusoidal proc. 40833
data fusion systs., eval. model 8296
decentralized binary hypothesis testing, fund. struct. 15970
develop. of inform./control theory 32020
discrete spheres vol., upper bound 24000
distributed detect./estim., comment 32599
divergence, dens. fn. estim. 32022
dyn. speech recogn. tasks, connectionist approach 32428
entropy and inform. detect. 32019
fault-tolerant computing, signature anal., inform. theory 38959
fixed L-ary seq. in random data, search duration 40543
gambling for mnemonically impaired 40538
Gaussian random fields, max. entropy property proof 2356
generalised differential coherent detect., equalisation 15459
gossip schemes, representation 24005
grey-level images, entropy estim. algm. 8584
IEEE Symposium, Trondheim, Norway (1994) 28250
image model bases, struct., inform.-theoretic clustering 2766
image proc., inform. theoretic approach, space-freq. localization 32838
intersecting codes and independent families 24038
joint PDF, stat. param. space 40544
K user union channel, multiuser syst. 40527
kernel hidden unit anal., network size reduction by entropy minimization 37578
Korean speech recogn., synthesis, and cryptography 32017
Kullback dist. based nonlin. phase estimators 41011
Lin divergence, generalisation and info. divergence derivation *(Japanese)* 15681
lognormal random procs., digital simul. 32025
lower estim. of probab., distinct subsets of unit cube 40532
Lucas fn. security, public key systs. 32071
min. complexity criteria, asymptotically optimal fn. estim. 32023
moving observer, extracting obj. motion, optic flow and binocular disparity 32901
multi-secret sharing schemes 32166
multi-user channel, capacity constraints 40524
multipath fading channels simul., Monte-Carlo method 15683
nonlin. criteria of Boolean fns. 24122
nonoriented network models, loops 24844
orthogonal wavelets, oversampling property 40879
Papoulis-Gerchberg algm., sig. extrapolation in wavelet subspaces 24318
pattern recogn. based on inform. theory principles 24544
perfect threshold secret sharing scheme, identify cheaters 40690
permutation coding in 1D transform domain 8176
prime nos., provable, fast generation using searching in arith. progressions 28619
PSK sigs., class., optimum method 15689
quantum cryptography, photon pairs 15792
quantum eavesdropping inform. gain limits 15796
quantum oblivious transfer, secure against, indiv. meas. 8147
quantum sig. source, inform. extraction, quantum entropy reduction 15692
quantum states, inform. extraction 15694
random proc., DOF, Fisher inform. and freq.-time products 202
recursive CR bounds, alg./stat. accel. 41321
rels. between inform., inform. value 8087
Rician fading nonco-operative multiple access channel capacity 41465
SASC distrib. comp. protocol, info. leakage meas. 32082
SDH networks, pointer activity simul. 16425
secret sharing schemes and graph decomp. 40627
secure commun. using chaos, security testing 15728
separating systs. theory 15679
Shannon theory of Gaussian cellular multiple-access channel 25273
sig. detect., AIC/MDL, DOF 2504
sig. propag., appl., lower bound on depth of noisy formulas 8089
spacecraft qualitat. model-based diagnosis, possibilistic approach 18695
spread spectrum techniques, IEEE conf., Oulu, Finland (1994) 20200
SS commun., inform. theory aspects 24007
stochastic sig. energy theory, meas. theory 2359
structural model bases, large, organisation 41285
synchronized chaos oscillators for transmitting inform. sigs. 2358
team ROC curve in binary hypothesis testing environ. 32011
TEAMS, testability engng./maint. syst. 11708
tiling periodicity in 1D, inform. theory 8084
two-state two-particle quantum systs., inform. transfer 15693
weak/very weak Bernoulli procs., waiting time results 40537

information use
EDUCATE project, end-user courses in inform. access, commun. technol. 20339
Internet latencies and usage in Europe 41835
microelectronic devices, documentation, hypermedia approach 12589

infrared astronomy
see also infrared sources (astronomical); submillimetre astronomy
array technol. requirements 34497
multiplexer for Cassini Visible/Infrared Mapping Spectrometer FPA 34563
InSb FPA-based IR camera for astron. telescope, electronic testing 17937

infrared communication *see optical communication*

infrared detectors
see also bolometers; photodetectors; pyroelectric detectors; submillimetre wave detectors
2-stage Stirling cycle cryogenic cooler, IR detector cooling 28037
2D bi-periodic grating coupled quantum well IR photodetector, two-colour appl. 25836
active infrared sensors for robotics 25838
astron. user requirements for IR array technol. 34497
automobile elec. windows, anti-trap safety syst. 5366
bolometers readout, FIR/mm-wave, astrophys. appls. 34504
book, Si and Si alloy based materials/devices 11540
buffered direct injection multiplexer for IR cameras 34562
building security, pass. IR presence detectors 42807
bulk produce conveyors, drop dists., manual/electronic control 3803
cameras perform. comparison, 3-5 μm/8-12 μm 34570
CCD detector develop. *(Japanese)* 17969
ceramic flush temp. meas., IR pyrometer, fused opt. coupler *(Japanese)* 42973
charactn. of semicond. device struct. by modulation spectrosc. 1435
clutter effect, fixation point anal. 34503
CMOS IR readout multiplexer radiation hardness improvement 30449
CMOS membrane IR sens., fab. and improved etchant 25846
coherent IR fiber bundles based design 17869
conference, IR technology, San Diego, CA, USA (1994) 11575
cooling requirements, opt. immersion 3833
cryogenic rad-hard CMOS readout multiplexer fab. 30448
CTIA multiplexer for 1024-element InGaAs line sens. 34580
DEFECT focal plane defect model, kill vehicle appls. 25886
dispersed systs. of fine particles, IR detectors 25834
dual-piston Stirling cryocoolers for IR imaging systs. 34577
effects and appls. 17807
external intrusion detectors, harsh environ., installation 36991
eyesafe IR aerosol lidar, stimulated Raman backscatt. appl. 9651
far-IR pyrometer based radiation temp. meas. 17778
FIR tunable lasers/detectors 14893
FLIR subsystem perform. anal., PC based scientific spreadsheet 34593
FPA, MRTD and MTF derivation 34573
FPA nonuniformity meas., std. 34571
Fresnel zone plate lenses for perform. enhancement 17789
hemispherical concentrators/spectral filters, planar sens., diffuse radiation 17776
home security syst., pass. IR detectors 9759
homojunction internal photoemission far-IR detectors, photoresponse perform. 17801
III-V quantum-well IR photodetectors, noise perform. 42788
imaging sens., unified perform. model of detect. and tracking 16112
integrated IR sens. design, computer-aided trade-off study 3838
interferometric low thermal mass IR-absorber for thermal IR detectors 3845
IR HET, narrow bandpass filter 17784
IR imager detector array MOS readout IC 34598
IR lidar sens., turbulence-noise 17432
laser soldering proc./joint qualif., IR detector selection 6417
lin. multiplexer designs for rem. sens. appl. 34581
low-pass elec. filters for cryogenic detectors 37830
matched filters in IR detecting systs., simulated evol. design 29362
miniature IR sens., vac.-encapsulated thermistor clinical bolometer 35037
mission effectiveness enchancement through electro-optical systems 43570
mission effectiveness enhancement, advanced boresight equipment 43575
mission relevant testing 43592
modulation-type pyroelec. IR detector, piezoelec. chopper 42802
motorway toll syst., IR technol., enforcement syst. 42820
MQW IR photodetectors, electron injection and transport model 42786
MQW phototransistor, hot electron effects 39573
MQW phototransistor, Monte Carlo modeling 1802
multi-spectral target/background field meas., anal. 16105
multicolor IR detect., voltage tunable bandpass filter 17765
multiplexed readouts for FPA 34560
multiposition sensor syst. charactn. 34513
Navy sensors, consolidated automated support system 43571
noise equiv. temp. difference model 3887
non-cooperative ident. of ships, electrooptical data 9650
non-Josephson oscill. bolometric detectors 17779
noncontact IR based temp. sens. 10051
nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
nonmechanical microscanning, opt. space-fed phased arrays 34576
on-focal-plane A/D conversion 29313
opt. activated switches, Monte Carlo simul. 3299
opt. transducer for force meas., appl. *(Croatian)* 25839
optoelectronic science/engineering, conf., China (1994) 28207
P(VDF/TrFE) copolymer pyroelec. thin film sens. and arrays 42817
Panorama Eye room air conditioner body posn. sens. 44606
pass. rem. IR interferometers, analog detect. scheme 34427
perform. testing, automated MRT 34508
photodetectors, 2-12 μm, high perform. near RT 17787
photoelec. detectors, expt. spectral sensitivity 42812
point spread fn. from imprecise meas. data 17788
polysilicon sacrificial layer etching technol. for micromachined sens. 25785
product temp. profile meas., IR linescanning 3879
proximity sens. syst. for spatial sens. and colour perception 42776
pulsed IR dist. meas. sens. ccts. for weapon systs., ASIC implement. 10587
PV quantum well intersubband IR detectors by internal elec. fields 3834
pyrgeometer, atmos. far IR, charactn. method 43509
quantum well IR photodetector, opt. output 25840
quantum well IR photodetectors, photocond. gain/generation-recomb. noise 22013
quantum well photodetectors, long wavelength, 2D gratings optim. 3831
radiometric lens/staring FPA camera syst., design/operation 17942
readout electronics, conf., Orlando, FL, USA (Apr. 1994) 20262
readout electronics, historical perspective 34426
readout electronics for far-IR arrays 34579
reliability of an infrared detecting system 9913
rem. temp. meas., calib. 34559
scene generation systs., IRFPA laser radiation response 17941
selection criteria 9914
Sofradir flat struct. longwave IRFPA, Joule-Thomson cooler 11777
soot props. meas. by two-colour pyrometry 10054
spaceborne IR sens. testing, verification/validation/accreditation issues 35216

infrared detectors continued
SPRITE-based syst., image proc. 34575
sq. synchroniser jitter on direct detect. opt. commun., white cct. noise 3577
staring IR seekers, target thermal struct. effects modeling 35394
stratified liqs., opt. detector for internal waves amplit. 4386
submillimeter wavelength high-precision ellipsometric reflectometer, refr. index meas. 34711
supercond. A/D converter for IR array readout 34428
supercond. radiation detectors, thermal/nonequilibrium responses 17769
synthetic vision systs. develop. 10369
TACOM thermal image model, field test validation 32902
target simul. environ., pattern recogn. appls. 34578
TGS pyroelec. materials for pyroelec. vidicons 22684
thermal detectors, theoretically limited temp. sensitivity 17793
three-channel SW IR spectrum distinguishable detector array develop. *(Chinese)* 42806
trends in IR photodetector develop. 42794
two-colour near-IR sens., recycled plastic waste sorting 25844
AlGaAs/GaAs, three-coupled-QW, Stark shift, tunable far-IR photodetectors 42803
$BaSrTiO_3$ hybrid uncooled IR detectors, producibility advances 17792
CdS crysts. for IR imaging/detect., RT IR quenching 17794
CdTe/CdZnTe, accelerated crucible rot. growth 5804
CdZnTe on Si, direct MBE growth for large-area HgCdTe IR FPA appl. 375
GaAs JFETs, deep cryogenic readout electronics appl. 30371
$GaAs/Al_{0.28}Ga_{0.72}As$, QW IR photodetectors *(Chinese)* 9900
$GaAs/Al_xGa_{1-x}As$ quantum wells, IR focal arrays 42785
$GaAs/Al_xGa_{1-x}As$ quantum-well IR photodetectors, design, perform. 9905
GaAs/AlAs DBRs for GaSb-based reson. cavity photodetectors 25833
GaAs/AlGaAs, MQW IR detector, wideband response *(Chinese)* 17809
GaAs/AlGaAs quantum well IR photodetector arrays, thermal imaging appl. 3844
GaAs/AlGaAs quantum wells, doping dens. and barrier lowering effect, IR detectors 23019
GaAs/AlGaAs superlattices, IR detectors, MOVPE growth 37418
p-GaAs/AlGaAs superlattices, heavily-doped, IR photodetector appls. 3836
$GaAs/Ga_{1-x}Al_xAs$ MQW, IR detector appls., comparison, HgCdTe 9911
$GaAs/Ga_{1-x}Al_xAs$ quantum-well IR photodetector, dark current 25832
GaAs/InGaP/AlGaAs QW IR photodetectors 9903
GaAs-AlGaAs 256×256 miniband transport MQW long wavelength IR FPAs 17934
GaAs-AlGaAs quantum well photoconductors, long-wavelength IR appls. 17785
GaSb quantum well based IR devices 9908
Ge APD based photodetector, AGC 42787
Ge:Ga photoconductor arrays, design considerations 9901
Ge_xSi_{1-x}/Si heterostruct., IR focal arrays 42785
HgCdTe IR CCD-based FPA, thermoelectrically cooled 17952
HgCdTe IRFPA nonuniformity correction algm., real-time hardware prototype 17948
HgCdTe IRFPA perform. anal., syst. adaptability 17951
HgCdTe IRFPAs, IRCCD and IRCMOS detectors 17950
HgCdTe, LPE-grown, photovoltaic detectors charact. 34505
HgCdTe, MBE growth on CdZnTe for IRFPAs 12096
HgCdTe MSM detector, defect mapping by nuc. microprobe 42800
HgCdTe MWIR image sens., thermoelectrically cooled 17944
HgCdTe PV lin. FPA for Cassini IR spectrometer 17949
HgCdTe VPE growth, long wavelength IR detector, zero tunnel leakage current 12097
HgCdTe bulk wafer-based two-colour IRFPAs, design/fab. 17943
HgCdTe detector, multi-element lin. arrays, SR topography *(Chinese)* 17796
HgCdTe direct injection readout hybrid FPA, background limited perform. 17945
HgCdTe long wavelength IR PV detectors 42795
HgCdTe longwave IR scanning FPAs, CMOS readout IC, surveillance appls. 17947
HgCdTe monolithic CCD IR imagers 17965
HgCdTe photodiodes, MBE-grown, DLTS deep levels study 13060
HgCdTe photodiodes, long-wavelength IR appls. 17785
HgCdTe, quench recrystn. growth 5805
$Hg_{1-x}Cd_xTe$, IR detector appls., comparison, MQW structs. 9911
$Hg_{1-x}Cd_xTe$, IR detectors, temp. limits 42811
$Hg_{1-x}Cd_xTe$ MIS IR detectors, 1/f noise, temp. depend. 17768
$Hg_{1-x}Cd_xTe$ MSM IR detectors, nuc. microprobe defect anal. 29987
$Hg_{1-x}Cd_xTe$, accelerated crucible rot. growth 5804
$Hg_{1-x}Cd_xTe$ photodiodes, IR focal arrays 42785
$Hg_xCd_{1-x}Te$, IR detectors, temp. limits 42810
$Hg_{1-x}Cd_xTe$:B large-area PV IR detector, fab. *(Korean)* 17771
$InAs/Ga_{1-x}In_xSb$ superlattices for long-wavelength IR appls. 17799
$InAs/In_xGa_{1-x}Sb$, superlattice IR detectors, temp. limits 42811
$InAs/In_xGa_{1-x}Sb$ superlattice based IR detectors 3842
InAs/InGaSb, superlattice IR detectors, temp. limits 42810
$InAs_{1-x}Sb_x$ RT magnetoconcentration IR photodetector 3832
$InAs_{1-x-y}Sb_xBi_y/InSb$ strained heterostruct., phys. props. 21965
InGaAs/AlGaAs/GaAs grating demultiplexer/detector array integrat. 9422
InGaAs/GaAs-on-GaAs superlattice photodetectors, ultrafast response 3835
$In_xGa_{1-x}As/Al_{0.45}Ga_{0.55}As$ MQWs, mid-wavelength IR detect. 17806
InGaAs-InAlAs MBE p-type strained layer quantum well IR photodetector, FPAs 17786
InGaAs-InAsP three-band near-IR FPA for 1.0-2.5 μm 17935
InGaAs-InP, reverse bias laser struct., photodetection 17811
$In_{0.4}Ga_{0.6}As$-GaAs quantum well IR photodetector 9906
InP/InGaAs/InP photodetector arrays, RTS noise and excess currents 17773
InSb 2D IRFPAs, uniformity and stabil. 17936
InSb FPA-based IR camera for astron. telescope, electronic testing 17937
InSb FPA-based high sensitivity, high resoln. thermal video syst. 17938
InSb photodiodes, IR focal arrays 42785
$InSb-SiO_2-Si$ p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
$InSe-In_4Se_3$ heterojunctions, photosensitivity band 1.0-1.8 μm, IR photodetector appl. 21942
InTlP, IR detector material possibilities 3843
InTlSb photocond., MOCVD, IR detect. 9902
MQW/superlattice IR photodetectors, Monte Carlo simul. 13581
NiCoMnO sputtered thin film thermistor IR detectors/bolometers 17791
$NiCr-LiTaO_3-NiCr$ pyroelec. multispectral IR detectors, pyrometer appl. 14095

infrared detectors continued
PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
PbLaTiO$_3$, thin film capacitor, epitaxial growth, sens. appl. 34506
PbTiO$_3$ thin film pyroelec. IR detector 42818
Pt silicide Schottky barrier IR detectors, opt. response 3840
PtSi 640×480 IRFPA, third generation, MOS readout multiplexer 17953
PtSi FPA-based Inframetrics InfraCAM thermal imaging camera 17955
PtSi IR CCD-based multi-wavelength imaging pyrometer 17956
PtSi IR detector, 7 μm cutoff for imaging appls. 34567
PtSi hybrid FPA, CMOS multiplexer readout 17946
PtSi middle wavelength 240×320 IR staring FPA 17954
PtSi/p-Si IR Schottky barrier detector, fab. and anal. *(Chinese)* 42813
PtSi-Si-SiGe-Si Schottky diode IR detectors, tunable cutoff 17790
ReSi$_2$ thin film photoresistor, IR detect. appls. 34501
Si multiplexers for lin. IR photodiode arrays 25875
Si:As scanning hybrid IR detector array, radiometric charactn. 17940
Si:B reson. sens., fine freq. tuning 30517
Si-based thin film monolithic uncooled IR detector arrays/resist. bolometers 17958
Si$_3$N$_4$-Si IR detector, p-n jn.-based, SIMOX technol. fab. 34499
YBaCuO bolometers at 10.6 μm wavelength, implement. 42814
YBa$_2$Cu$_3$O$_{7-\delta}$ normal state films, fast thermoelec. response, detector appls. 42793
polymers, electro-optic props./appls. 22923

infrared imaging
see also focal planes; submillimetre wave imaging
2D clutter for IR surveillance image recogn., defn. 4440
3D location estim. of airborne targets, Radon transform *(Korean)* 24676
adaptive detect. of subpixel targets, unknown spectral charact. 16103
airborne multisensor surveillance, data fusion IKBS 35395
Airborne Visible/Infrared Imaging Spectrometer, inflight calib. validation (1993) 18798
all-weather/terrain intell. vehicle for law enforcement 34586
An EDDM based toolset based on image processing 41305
ATR, act./pass. cooperative image segmentation 25588
automatic object recognition, conf., Orlando, USA (1994). 54
automobile navig. systs., immobilisers, night vision, fuzzy logic 36763
buffered direct injection multiplexer for IR cameras 34562
buried objs. detect., dual-band IR images fusion 8555
cameras perform. comparison, 3-5 μm/8-12 μm 34570
cancer and other disease diagnosis, conf., USA (1994) 11571
CCD detector develop. *(Japanese)* 17969
CCD near — IR temp imaging in steel industry 25879
celestial image proc. on symm. multi-proc. 24532
class. of images, neural nets 43467
closely spaced obj. location, high-resoln. algms. 3885
cloud IR rem. sens., shape segmentation method 18834
clutter effect, fixation point anal. 34503
composite frames, spectral characts./motion-compensated restoration 16315
composites/multilayer parts, thermal nondestructive inspection procedures/proc. 12230
conference, IR technology, San Diego, CA, USA (1994) 11575
continuous syst. transfer fns., sampled pulse response data 9941
cryogenic rad-hard CMOS readout multiplexer fab. 30448
CTIA multiplexer for 1024-element InGaAs line sens. 34580
DEFECT focal plane defect model, kill vehicle appls. 25886
defect params. determ., thermal methods, multidimensional approx. 12231
ΔT metric defn., mil. target/background charactn. 4439
design, modelling, testing, conf., Orlando, FL, USA (Apr. 1994) 20261
detector arrays, CMOS current readout IC 34598
diamond doped film thermal cond. meas. method 10050
diamond tipped thermocouple for high resoln. topographical and thermal imaging 34689
dim point target detect., difference method 16115
dual-piston Stirling cryocoolers for IR imaging systs. 34577
film-struct., comprehensive opt. diagnostics 14569
FLIR image aspect angle estim., model-based vision approach 24545
FLIR scenes, jump-diffusion procs. for automated understanding 16285
FLIR subsystem perform. anal., PC based scientific spreadsheet 34593
FPA, MRTD and MTF derivation 34573
FPA nonuniformity meas., std. 34571
FPA opt. interface, Mach-Zehnder interferometer 34582
FPA testing, low-background opt. simulator 34590
fused X-band radar/IR target detect. 8617
gas discharge IR-vis. convertor, wave pattern excitation 3873
IC ohmic contacts, interfs. of Peltier thermal waves 1151
image restoration, atmos. MTF 34589
IR image seqs., stat. anal. 41335
IR lidar sens., turbulence-noise 17432
IR-bi-color Schottky-barrier IR CCD image sens. 25887
land surface IR imaging, thermal background model 35287
LSI electronic packages, cooling enhancement by modified barriers 37086
MCM thermal anal., iter. direct soln. method 11768
med. obj. detect., transputers 26336
med. thermal vision ES, constr. principles 26303
METEOSAT IR image proc. and MPEG animation 10467
mid-IR temp. meas., effective emissivity determ. 34723
Midcourse Space Experiment for tracking, image proc. 2696
mil. image, ident. methods 32896
mission effectiveness enchancement through electro-optical systems 43570
mission relevant testing 43592
Mitsubishi Thermal Imager *(Japanese)* 25885
model-based multi-sens. fusion 9649
model-based vision, aspect angle target estim. in forward-looking IR images 2714
MRTD GO-NO GO tester develop. and appls. 34594
MSX early midcourse algm. testbed 16111
multi-spectral target/background field meas., anal. 16105
multicovariance matched filter for target detect. and background recogn. 16107
multiplexer for Cassini Visible/Infrared Mapping Spectrometer FPA 34563
multisensor target recogn. syst. (MUSTRS) 8558
multispectral target/background field meas. 18974
multispectral target/background signatures, modeled and meas. data comparison 16106
noise equiv. temp. difference 3886

infrared imaging continued
noise equiv. temp. difference model 3887
noisy thermal IR image seqs., automatic small target detect. 16110
nondestructive phase sensitive modulation thermography *(German)* 446
obj. detect. in clutter, Gabor filters 24549
ocean coastal AVHRR imagery, data acquisition & study 10504
on-focal-plane A/D conversion 29313
optoelectronic science/engineering, conf., China (1994) 28207
package/module interconnect test syst., transient thermal sigs. 28440
pass. millimetre and IR wave images, line pattern removal 24515
pass. rem. IR interferometers, analog detect. scheme 34427
PCB deformation anal. holographic pattern meas. 21619
phys. approach, IR image understanding 41222
plate materials meas. by IR scanning 42927
polymer composites, NDT techs. *(German)* 5918
populated computer PCBs, IR meas. and anal. predictions 38097
preventive maint., IR thermography *(German)* 36983
product temp. profile meas., IR linescanning 3879
pupillary light response model w.r.t. smooth muscle morph. *(Japanese)* 18524
PWBs, current carrying capacity of Cu conductors 906
quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
radiometer, FOV, temp. distrib. meas. *(Japanese)* 4007
readout electronics, conf., Orlando, FL, USA (Apr. 1994) 20262
real time class. proc., conventional and neural techs. 16284
reflective telescope technol. for IR surveillance/rem. sens. 17798
rem. sens., principal components transform matrix 18786
rem. temp. meas., calib. 34559
scanning thermal imaging microscopy, composite cantilever probes 34724
sea surface thermal IR images, bi-dimens. struct. detect. 26760
second generation FLIR testing, MRTD 34595
selection criteria 9914
sens., R and D activities and trends *(Japanese)* 34585
sleeping state determ. from movement, neural net *(Japanese)* 26333
Solar Dyn. Ground Test Demons., radiator design/testing 26617
spaceborne IR sens. testing, verification/validation/accreditation issues 35216
sparse telescope array undersampled focal plane image reconstruction 2710
spatial sig. proc. 16101
spiking oscillator networks, on-focal-plane image preprocessing 29413
spin-scanning IR seeker, scan modulation meas./modeling 43582
spray atomization/deposition, proc. params. monitoring, sens. 28898
SST, satellite rem. sens. time series 10510
staring IR seekers, target thermal struct. effects modeling 35394
steel calender rolls, induction heating, finite element simul. 11514
surveillance syst., motion estim. methods/noisy phenom. 2612
synthetic vision systs. develop. 10369
TACOM thermal image model, field test validation 32902
TACOM thermal image model, PC version 35409
target acquisition modeling, atmos. blurring effects 31844
target acquisition modelling, atmos. blurring effects 35396
target acquisition probabilities for image motion and vibr. 32904
target discrim., computational vision human perception models 35393
target ident./sens. perform., imagery-based targeting trainer 35233
target simul. environ., pattern recogn. appls. 34578
temp. meas. and imaging 3878
terrain surface albedo retrieval method 43481
texture based clutter metrics, mil. ground vehicles 10592
texture of images, gray level cooccurrence matrix 43466
TGS pyroelec. materials for pyroelec. vidicons 22684
thermal anal. of IC chips, thermographic imaging 13832
thermal detectors, theoretically limited temp. sensitivity 17793
thermal diffusivities meas., IR images proc. 25995
thermal image target acquisition probabilities, vibrs. 34558
thermal images distorted by atmos. restoration 32903
thermal imaging, detector, diffr. image matching 34600
thermal imaging, visibility model for MRTD prediction 32976
thermal imaging perform. eval., min. findable temp. difference 34572
thermal imaging syst., perform. model 34574
thermal-wave image proc. for material flaws charactn. 5934
thermal/visual imagery, robust phys.-based anal. 2597
thermographic NDT, single thermal image shape reconstruction 34597
thermovisual syst. for NDE of objs. 18920
time-seq. range thermal images 16165
tracking of objs., Kalman proc. for image seqs. 41334
TV/IR camera tracking syst. control *(Croatian)* 3684
ultralong-span trunk lines/subscriber lines, 1.65-μm opt. surveillance and test syst. 9574
unified perform. model of detect. and tracking 16112
vegetation opt. rem. sens., NDVI modif. 43541
vehicular traffic control, act./pass. IR sens. 11429
vision based aircraft navig., landing 10405
CO$_2$ laser beam, focal params. direct visualization 7723
CdS crysts. for IR imaging/detect., RT IR quenching 17794
GaAs devices, reliable thermosonic wire bond, IR-microscopy 12959
GaAs/AlGaAs quantum well IR photodetector arrays, thermal imaging appl. 3844
GaAs-AlGaAs 256×256 miniband transport MQW long wavelength IR FPAs 17934
GaAs-AlGaAs quantum well photoconductors, long-wavelength IR appls. 17785
HgCdTe IR Earth-imaging array, total dose and proton testing 17960
HgCdTe, LPE-grown, photovoltaic detectors charact. 34505
HgCdTe MWIR image sens., thermoelectrically cooled 17944
HgCdTe monolithic CCD IR imagers 17965
InGaAs-InAlAs MBE p-type strained layer quantum well IR photodetector, FPAs 17786
LiNbO$_3$ photorefr. FPA concentrator 9928
Pb-acid flooded batts., perform. monitoring, telephone office 44198
PbTiO$_3$ group pyroelec. IR sens. develop. and perform. *(Japanese)* 17968
PbTiO$_3$:La pyroelec. IR sens. array for human body detect. 42805
PtSi FPA-based Inframetrics InfraCAM thermal imaging camera 17955
PtSi IR CCD-based multi-wavelength imaging pyrometer 17956
PtSi IR cameras, IR CCD/IR MOS imaging radiometers 17957
PtSi IR detector, 7 μm cutoff for imaging appls. 34567
PtSi-Si-SiGe-Si Schottky diode IR detectors, tunable cutoff 17790

infrared-infrared double resonance *see optical double resonance*

infrared LAN *see wireless LAN*

infrared laser effects *see laser beam effects*

infrared-microwave double resonance *see microwave-optical double resonance*

infrared-radiofrequency double resonance *see magnetic double resonance; optical double resonance*

infrared radiometers *see radiometers*

infrared sources
- 1.5-μm phase-sensitive opt. parametric amp. for ultrahigh-speed commun. 9604
- 2 μm diode pumped miniature lasers 14834
- 1300 nm gain-clamped MQW laser amps., reduced IMD 34006
- 1310-nm DFB lasers, correl. of leakage-induced distortion, I-V charact. 7685
- CEBAF UV/IR FEL materials proc. subsystem testing 39920
- FELIX FEL user facility 14982
- FIR gas lasers, bi-directional pumping, Lamb-dip line shape 31170
- IR coherence-collapsed multimode LD for fiber-optic gyroscope 40176
- leg vein treatment, laser/incoherent light source therapy comparison 43330
- long-wavelength LD interferometer, surface flatness meas. 18068
- methanol FIR laser lines, opt. pumped, freq. meas. 31475
- near-IR dye laser for diode-pumped operation 23106
- self-seeded gain-switched LD, elec. wavelength-tunable singlemode pulses 31326
- semicond. lasers, hybrid mode-locking 31424
- solid-state laser gain media, phys. and perform. 23156
- SQ well submillimeter-wave generation and amplif. by coherent wave-packet oscills. 6559
- $AgGaS_2$ opt. parametric generated IR Ti:sapphire solid-state laser pulses 15049
- $AgGaSe_2$ noncritically phase matched mid-IR generation by opt. parametric oscillator 40060
- AlGaInAs-InP 1.3 μm laser design 23282
- AlGaInAs-InP strained layer QW lasers in FITL 7684
- Cs FIR laser lines around 1.2/1.6 THz, heterodyne freq. meas. 23081
- Cu metallization, Cl_2 plasma etching, IR light irrad. 38579
- Er^{3+}:ZBLAN fluoride fiber lasers in multiple cascade operation 39698
- Er-doped femtosecond mode locked all-fiber ring lasers 31241
- GaAs coupled quantum wells, far-IR radiation by difference freq. generation 23366
- GaAs-AlGaAs 0.85-μm VCSELs, reliab. studies 7677
- GaInAsSb-AlGaAsSb 1.9 μm ridge-waveguide QW lasers 31328
- Ge p-type cyclotron reson. laser emission lines 14955
- Ho:fluoride glass fiber, superfluorescent mid-IR source 30846
- I high-power pulsed lasers, wavefront profile meas. by Hartmann method 14702
- InGaAs-InAlAs mid-IR LEDs for opt. gas sens. 31106
- InGaAsP-InP 10-element monolithic laser array in parallel interconnects 14961
- InGaAsP-InP 1.55-μm quantum-well lasers, temp. sensitivity of differential gain 31320
- InGaAsP-InP 1.55-μm strained quaternary QW lasers, approx. opt. gain formulas 23190
- InGaAsP-InP IR strained MQW lasers, reverse-mesa ridge-waveguide struct. 14964
- InP 1.3 μm strained-quantum well laser telecomm. appls. 31360
- $KNbO_3$ tunable narrow-band mid-IR type I opt. parametric oscillator 40113
- $KTiOAsO_4$ tunable near IR opt. parametric oscillators 15067
- $KTiOPO_4$ difference freq. mixing, tunable near-IR generation 40104
- $KTiOPO_4$, tunable near IR source by difference freq. mixing 31490
- $LiTaO_3$ surface emitting FIR by difference freq. mixing 7802
- NH_3 FIR lasers, Lorenz-like chaos 14692
- Nd:YAG high-power opt. amps. for 1.06, 1.32 μm 9603
- Pb salt tunable IR lasers, spectroscopy appls. 14791
- Pr^{3+}:$LaCl_3$ IR laser emissions on Tm:YAG pumping 14822
- Ti:sapphire chirped pulse amplif. beyond 1 μm 31258
- Tm^{3+},Cr^{4+},Ca^{2+}:YAG 2 μm laser, luminesc. sensitisation 14806
- Tm-doped 1.9-μm fluoride fiber laser amp., 1.6-μm pumped 23136
- Yb:YAG waveguide laser, epitaxially grown, diode pumped, high slope efficiency and low threshold 14833
- Yb^{3+}:SiO_2 fiber lasers, sources 1, 1.2 μm 39699

infrared sources (astronomical)
- transputer-based data acquisition syst. for 256×256 pixel IR camera 42743

infrared spectra
- acetylene, saturated-absorpt. lines, HF-stabil. laser 39829
- BCB layers for MCM-D/L appls., attenuated refl. IR microscopy 12982
- bisazo pigments IR/near-IR, synthesis and xerographic props. 39557
- blood glucose conc. correl., reduced tissue scatt. coeff. in near IR 26286
- cascaded fiber amp. syst. gain filtering 7575
- chlorinated α-methylstyrene, plasma-polymerized, high perform. neg. electron resist 30165
- copper phthalocyanine film, MBE growth 20809
- diamond:B,N, elec./opt. charactn. 21891
- diamond, CVD grown, photoconductive spectrosc. 38244
- ethanol oxid., Pt(hkl) basal surfaces, $NaOH/Na_2CO_3$ media 11283
- FELIX FEL, electron energy spectral meas. in large-slippage regime 40013
- ferroelec. polymers, struct./Curie point, spectrosc. studies 6902
- H-loaded, depressed-cladding UV-written Bragg fibre gratings, cladding-mode coupling 30909
- LDPE, water treeing progress, oxidation role 14061
- metallophthalocyanines in PMMA films, nonlin. suscept., electroabsorption 31582
- methanol-d_2, opt. pumped, far IR laser lines and assignment 14711
- MOS capacitors, glass passiv., C-V characts., OH absorpt. 871
- neutral rare gas lasers, atmos. comp., IR spectra 39676
- opt. detect. of ignition sites, semicond. LD appl. 7623
- PAFC, methanol/ammonia/siloxane contamination 11272
- phthalocyanine cpd. film, opt. recording 30824
- poly(aniline) film, glucose biosensor 3895
- poly(di-methyl silane) film, highly oriented, electron beam irrad. 38708
- poly(peri-naphthalene) thin films, chem. vap. deposition, elec. cond. 12169
- poly(phenylene) photoimageable waveguides, fab. and characterisation 39403
- poly(vinyl alcohol)polyaniline interpenetrating polymer network, nonlin.-opt. props. 40081
- polyaniline-p-styrenesulfonic acid composite, synthesis and Schottky diode appls. 28885
- polydimethylsilane film, surface-imaging proc. for electron beam lithog. 38711

infrared spectra continued
- polymer amphiphiles LB films, fab., nonlin. optics props. 15089
- polyurea films, pyroelec./piezoelec. 6903
- polyurea films, vap. deposition polymerization, photoresist characts. 13444
- PTS, multi-photon absorpt./nonlin. refr., 800 to 1600 nm 23395
- quantum wires, widely tunable confining pot., capacitance/IR absorpt. 13136
- quartz crysts. impurities conc. determ., IR spectrosc. 34730
- random amorph. semicond. multilayers, opt. props. 1115
- rare earth doped $CaYAlO_4$ for eyesafe laser appls., spectrosc. eval. 1913
- Rhodamine 640 dye in strongly scatt. media, spectral/temporal meas. of laser action 14725
- sea surface pollution detect., IR emission and refl. rel., wind ruffling *(Croatian)* 4406
- semicond.-laser freq. locking, C_2HD, $^{13}C_2H_2$ absorpt. lines 7642
- α-sexithiophene MIS diodes, charged excitations, opt. studies 13256
- trace gas rem. sens. in mid-IR/nadir geom. 43533
- SiO_xN_y pass. selective filter, EDFA gain spectrum flattening 14574
- $AgGaS_2$, CW difference freq. generation 7766
- AlGaAs, MOCVD/MBE on GaAs, elastic consts., Poisson ratio 28752
- AlH_3 filters, particle size effect on RTV coatings performance 14050
- AlN, CVD growth/surface chem. 12155
- AlN:Cu, ion implanted, impurity segreg. *(Chinese)* 13311
- Al_2O_3, at. layer controlled deposition, binary react. seq. chem. 20712
- As-S chalcogenide glass single-mode active fibre waveguide 39706
- BN, cubic thin films, growth, charactn. 5875
- BN, deposition proc., HRTEM, nanocrystalline struct. 28849
- BN thin films, plasma-enhanced CVD, structural props. 20953
- $Ba(Y_{1/2}{}^{+3}Ta_{1/2}{}^{+5})O_3$, struct., dielec. props., 10^2-10^{14} Hz, 20-600 K 6890
- a-C:H films, plasma CVD, ion impact energy distribs. 402
- CO sens., polymer-electrolyte lamination, life-elongation 3916
- CS_2, third-order nonlin. opt. susceptibilities, picosecond pulses 31534
- $Ca_2Al_2SiO_7$:Nd cryst. lasers, opt. props. 1914
- $Cd_xCu_{1-x}Fe_{2-y}Gd_yO_4$ ferrites, struct., dc elec. resist. 7020
- CdS films, electro-opt. charactn. 1039
- CdTe, travelling heater growth, Te inclusions, thermal field effects 5809
- Cu-30 at.%Zn brass aerosol particle IR extinction, FDTD calc. and obs. 23650
- $CuGaSe_2$ thin films, elec. cond. and near-IR absorpt. 13090
- $Cu_2S(Se)$ transparent and electroconductive chalcogenide films, deposition and props. 37467
- Er^{3+} doped ZBLA laser, upconversion lasing 39717
- Er-doped fiber amps., concatenated, 980-nm-pumped, gain peaking 7569
- Er^{3+}-doped silica-glass fiber parasitic upconversion mechanism anal. by 980 nm fluoresc. 39324
- GaAs, bulk cryst. growth, rare earth effect 20656
- GaAs, shallow impurity, far-IR photocond. mechanism 6530
- GaAs, vert. gradient freeze growth, residual impurities/defects, IR absorpt./Hall effect 12031
- GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
- GaAs:C,H, MOMBE, C-H complexes, orient. rels. 327
- GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
- a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
- Ge:O crysts./superlattices, isotopically engineered 38502
- Ge-Ga-S:Pr^{3+}, radiative props., opt. fiber amps. 31240
- H_2-doped germanosilicate opt. fibers, thermal and photo-initiated reacts. 7308
- HgCdTe, film, hot wall MOCVD, Hg distrib. coeff. *(Chinese)* 6527
- $Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
- InAs/GaSb strained layer superlattices growth 20804
- InP, MOVPE from monoalkylphosphine precursors 20778
- InP, bulk cryst. growth, rare earth effect 20656
- InP surface degrad. during contact form., FTIR study 30006
- InP:Fe, Fe doping nonuniformity, mapping method charactn. 13300
- InP:Fe, semi-insulating, charge transfer 13047
- InP:Si,H, gas-source MBE, H incorporation 38507
- LiF:F_2^- colour center laser switches 7708
- $LiNbO_3$:Yb, thermal diffusion, spectra and energy levels 14835
- $Li_{1-x}Ni_yCo_{1-y}O_2$ acid-delithiated insertion electrodes for batts. 5178
- MgF_2/organic layer superlattices, struct., opt. props. 29898
- NiO electrochromic films, sputtering atm. H_2 content effects *(Japanese)* 37489
- PLZT thin films, sol-gel proc. 37466
- P_2O_5-SiO_2 core single-mode fiber drawing, low Rayleigh-scatt. loss 7292
- PZT thin film memory materials, fatigue mechanisms 30569
- Pb-acid secondary batt. plates, phase comp. expts. 11254
- Pb-phthalocyanine copolymer, excited state absorpt. and dyn. 31587
- PbO-B_2O_3-SiO_2-GeO_2 glasses passiv. of MOS capacitors 13245
- Si, EFG growth in CO ambient, gettering 20647
- Si MOS struct., lateral n-i-p-i superlattices 29985
- Si, PECVD, surface reacts., FT-IR-ATR monitoring 37502
- Si, carrier-diffusion, Fourier-transient-grating method 21886
- Si porous film, two-step chem. immersion form. 6644
- Si, porous, layered struct., opt. props. 1022
- Si porous layers, electron powder ribbon polycryst. plates 20662
- Si porous layers, passiv., FT IR monitoring 22251
- Si, porous, photocarrier electronic states, photomodulated IR spectrosc. 6653
- Si, porous, post-treatment effects on elec. cond. 21888
- Si, porous surface, backbond oxid. by O radical irrad. 30075
- Si surface, HF treatment, F adsorpt., FT IR refl. absorpt. spectra 29838
- Si, wafer bonding, IR absorpt. spectra 1189
- Si:B CZ cryst., O-incorporation, precip. 20655
- Si:B, CZ grown, O/C effects on thermal donor form. 29827
- Si:B,O, heavily doped, interstitial O conc., neutron irrad./FTIR anal. *(English)* 6612
- Si:C, phase form. by high-dose C implant., IR spectra 38503
- Si:H, H passiv., multiple internal refl. IR spectrosc. 1253
- Si:H, film, nanocryst., sputtered growth mechanism 12140
- a- Si:H films, optical consts. and thickness determ., opt. transmittance 25986
- Si:O syst., ion implanted, oxide growth, refr. index, and comp. depth profiles 22123
- Si:Ru, ion implant., Ru-related defects, elec./opt. props. 38228
- Si/$In_xSn_yO_z$, Si oxid. by interfacial react. 38614
- Si/SiO_2, MOS structs., photoenhanced CVD, comp., elec. props. 38429
- Si/SiO_2 antidot syst. MOS struct., far-IR excitations 29976
- Si/SiO_2/Si, high temp. annealed, near interface oxide degrad. 38477
- p-Si/potassium ferri-ferrocyanide electrolyte interface, FTIR-ATR 6595
- Si(100), carbonization, solid source MBE 20902
- n-Si(111), electrolytic hydrogenation, FT IR spectrosc. 38558

infrared spectra continued
- a-SiC alloy films, hot-filament assisted chem. vap. deposition tech. 37474
- SiC cubic films, struct./opt./elec. props. 21938
- SiC epitaxial growth on Si(001), Si out-diffusion related defects 20900
- β-SiC films, CVD epitaxy, struct./electronic charact. 20903
- SiC x-ray membrane characterisation, laser ablation deposition tech. 6696
- a-SiC:H films, plasma CVD, opt. props. 20980
- a-SiC:H,F films, plasma deposition, props. 5878
- n-SiC:V, 6H, elec./opt. props. 6539
- a-$Si_{1-x}C_x$:H films, PECVD grown, struct. props. 13407
- SiH_4:H films prod., cryogenic temps. by plasma CVD 396
- SiN mask membrane proc. charactn. 6685
- SiO_2, at. layer controlled deposition, binary react. seq. chem. 20712
- SiO_2 films, UV excimer lamp annealing 30013
- SiO_2 films, double-plasma deposition, SiF_4 predecomposition effects 37486
- SiO_2 films, ion irrad. damage, UV annealing effects 30014
- SiO_2 on large-scale glass, high rate deposition by dc arc PECVD 5879
- SiO_2 pure silica fibres, radiation colour centres 22844
- SiO_2, reactive facet sputtering 1255
- SiO_2:H ECR oxides, stress-temp. behavior, hydrogenous species conc. 37513
- SiO_2/InP, direct photo-CVD using D_2 lamp, MOSFET appls. 28807
- SiO_2-Si_3N_4-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- SiO_xN_y-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- $Sr_{1-x}Ba_xNb_2O_6$:Cr, broadband photorefractivity 30825
- $Sr_5(VO_4)_3F$:Mn^{5+}, spectrosc. and laser props. 14836
- $Sr_2Y_8(SiO_4)_6O_2$:Tm^{3+}, RT CW laser efficiency , spectrosc. charact. 14837
- $Sr_2Y_8(SiO_4)_6O_2$:Yb^{3+}, RT CW laser efficiency , spectrosc. charact. 14837
- Tm^{3+},Cr^{4+},Ca^{2+}:YAG 2 μm laser, luminesc. sensitisation 14806
- Y_2SiO_5:Tm^{3+}, RT CW laser efficiency , spectrosc. charact. 14837
- Y_2SiO_5:Yb^{3+}, RT CW laser efficiency , spectrosc. charact. 14837
- ZnO films, spray pyrolysis prep., opt. and elec. props. 12143
- ZnO thin film, spray pyrolysis, deposition variables effect 12142
- ZnO-Al_2O_3-B_2O_3-SiO_2-PbO glasses, crystallizable, opt., polarizable and MOS props. 12213
- ZnO-B_2O_3-Al_2O_3-SiO_2-P_2O_5 glasses, crystallizable, opt., polarizable and MOS props. 12213

infrared spectrometers
- *see also infrared spectroscopy*
- Airborne Visible/Infrared Imaging Spectrometer, inflight calib. validation (1993) 18798
- AVIRIS calib. of Japanese Earth Resources Satellite-1 opt. sens. 17959
- FIR tunable lasers/detectors 14893
- flat-field broadband planar waveguide spectrograph design 39457
- multiplexer for Cassini Visible/Infrared Mapping Spectrometer FPA 34563
- multispectral target/background field meas. 18974
- thermal profiles and temp. differences recording 25992
- two-colour near-IR sens., recycled plastic waste sorting 25844
- HgCdTe PV lin. FPA for Cassini IR spectrometer 17949

infrared spectroscopy
- *see also infrared spectrometers; Raman spectroscopy; submillimetre wave spectroscopy*
- acetylene black, pretreatment, electrochem., fuel cells 11284
- blood glucose conc. correl., reduced tissue scatt. coeff. in near IR 26286
- bolometric detector for low-temp. FIR magnetospectroscopy 25842
- chem. amplified resists, kinetics, real time IR spectrosc. monitoring 13514
- flat-field broadband planar waveguide spectrograph design 39457
- HCl gas distrib. syst., ultra-pure operation 38462
- IR lasers, conf., Ascona, Switzerland (1994) 5485
- laminated semicond. struct., dopant profile control by IR spectrophotometry 38518
- multi-spectral target/background field meas., anal. 16105
- multispectral target/background field meas. 18974
- multispectral target/background signatures, modeled and meas. data comparison 16106
- near-IR spectrosc., calib. fn. transfer 42661
- near-IR spectrosc., human muscle contraction study 43247
- neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
- organic detect. in soil, fiber optic near IR reflectance sens. 17920
- poly(phenylene) photoimageable waveguides, fab. and characterisation 39403
- pos. chem. amplified photoresist for X-ray lithog., modeling and simul. 13519
- quartz crysts. impurities conc. 'determ., IR spectrosc. 34730
- RTV silicone rubber insulator coatings, hydrophobicity transfer *(Chinese)* 35665
- size selected clusters, opt. parametric oscillator IR spectrosc. 15058
- spectral emissivity of natural surfaces, FTIR spectrometer appl. 18131
- thin plastic scintillator foils, prod., thickness determ. 34923
- THz free-space pulse all-electronic terahertz spectrosc. syst. 6333
- transverse-flux induction heater exit temp., real-time meas. by transputers 44625
- X-ray mask, heating, SR exposure, He press. effects 22315
- 60AgI-20Ag_2O-2B_2O_3-18V_2O_5 batts., internal resist./cathode content 11241
- Al-SiN-Si syst., laser CVD, TFD charact. by DLTS 13597
- a-B:H CVD film characterisation and x-ray imaging appls. 5900
- Er-doped fiber amplifer chromatic dispersion eval. 34060
- Er^{3+}-doped silica-glass fiber parasitic upconversion mechanism anal. by 980 nm fluoresc. 39324
- GaAlAs/GaAs, automated nondestructive meas., IR reflectance/transm. 21002
- GaAs substrs., automated nondestructive meas., IR reflectance/transm. 21002
- p-Ge, intervalenceband pulse FIR laser, mode fine struct. 14891
- InPAsSb long wavelength laser for high resolution spectroscopy 14876
- KrF excimer laser bone ablation mechanism *(Japanese)* 7720
- MnO_2 primary batt. electrodes, chem./phase comp. 11239
- Ni batt. electrodes, Mn substitution expts. 27885
- O in flames, detect. by intracavity laser spectrosc. 4010
- Pb salt tunable IR lasers, spectroscopy appls. 14791
- Si diaphragm thickness opt. monitoring, wet etching 30104
- Si diaphragm thickness, wet etching, opt. monitoring 30124
- Si/SiN_x, automated nondestructive meas., IR reflectance/transm. 21002
- SiC nanometer ceramic powder, pulsed CO_2 laser assisted synthesis *(Chinese)* 443
- SiO_yN_z plasma CVD, MIS devices appl./elec. eval. 20973

infrared telescopes *see telescopes*

infrared thermography *see infrared imaging*

infrared tracking *see optical tracking*

infrared transmitters *see infrared sources*

infrasonic waves *see acoustic waves*

inheritance
- *see also object-oriented programming*
- avionics computers, real-time, Ada 9X solns. 10370
- CERN PS accelerator complex, data driven alarm syst. 18202
- obj.-oriented user interface toolkit, adding digital video 34279
- power engng. education, OOP approach 28334

initial value problems
- buried waveguides fabricated by purely thermal ion back diffusion 39466
- classic four-stage fourth order Runge-Kutta formula, error estim. 28654
- computational procedure for solving chem. flow reactor problem, shooting method 37358
- distributed capacitance microstruct. in conductors 6343
- error anal. of randomized num. method 37292
- impulsive differential-functional eqns., difference methods 37346
- lin. 1D PDE init.-value hyperb. problems 20626
- matrix diff. eqns., continuous num. solns. 12001
- modified nonlin., one-step method for num. integrat. of ordinary DEs 12005
- multi-viewpoint stereo meas., init. value search method, genetic algms. *(Japanese)* 2627
- nonautonomous Riccati-type matrix diff. eqns., existence interval 37356
- nonlin. alg. eqns. in implicit R-K methods, existence and uniqueness of solns. 266
- nonperiodic BVP, polynomial time-marching 5784
- num. soln. of $y'=f(x,y)$ by class of nonlin. trapezoidal formulas 271
- ODE, num. integrat. by symmetric comp. methods 20614
- ODE, num. soln., stabilized 4th-order extended methods 11998
- ODE, stabilized extended one-step methods 37294
- ODEs, consistent, zero-stable, optimal, 4-step lin. method 20617
- parallel diagonally implicit Runge-Kutta method for stiff IVP 20632
- preconditioned iter. methods for large unsymmetric matrices 20606
- Prony based methods for simultaneous ident. of transfer fns. and init. conditions 32587
- quantum transport eqns., absorbing boundary conditions 13824
- second-order accurate difference schemes for quasi-lin. parab. eqns. *(Chinese)* 5786
- starting procedure, variable-stepsize variable-order PECE codes 12007
- step-parallel iterated Runge-Kutta methods 12002
- stiff IVP, error of stopping Newton iter. 20625
- Vlasov kinetic eqn., SCF 31727
- VLSI nonuniform freq.-depend. high-speed interconnects, Laplace transform anal. 1291
- weak-link Josephson jns., nonlin. mixer gain calcs. 14286
- Er-doped planar waveguide lasers, theoretical modeling of relax. oscills. 14818

injection lasers *see semiconductor lasers*

injection locked oscillators
- bandwidth meas., injection lock techs. 566
- freq.-converters, dyn. phasor-domain, perturb. tech. 6261
- hybrid discriminator, interf.-immunity 826
- linear active dipole array loading by neg. resist. devices 23980
- mm-wave Gunn oscillators, harmonic injection locking 12759
- MMIC injection-locked oscillator, act. combiner/divider 12815
- quasi-optic act. arrays using subharmonic locking, beamforming 40506
- $In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ MODFET MMIC oscillators, opt. tuning 12788

injury by radiation *see biological effects of radiation*

ink jet printers
- physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230

inorganic insulators *see insulating materials*

inorganic polymers
- polyimide/borosiloxane insulated ceramic wires *(Japanese)* 12855

input-output media (computers) *see computer peripheral equipment*

input-output programs
- CEBAF accelerator control syst. upgrade 18189
- NetBIOS, OpenVMS 41817
- SSC accelerator proc. control syst. 18177
- TNet reliable syst. area network 24973

input-output routines *see input-output programs*

input-output stability
- RF amp. dyn. biased cartesian feedback lin. 6041

INSPEC *see information services*

inspection
- *see also automatic optical inspection; quality control; reliability; testing*
- 3-D x-ray inspection of food products 24519
- 3-phase LV induction motors, QA 11055
- 3D models of solder joints, generation, X-ray laminography 29674
- 3D X-ray inspection of fine pitch PCBs, automatic testing 29673
- 5X reticles, transmissive defect detect. 38767
- adhesive bond, acousto-US eval., pattern recogn. anal. 5921
- ALMR, in-service inspection, robotics appl. 35873
- analogue IC, automated test design method *(Japanese)* 30418
- automated window size determ. for texture defect detect. 41220
- automatic reading device for analog display instrums., appl. constraints 8641
- cargo inspection, pulsed fast neutron anal. 18413
- cargo inspection technols., conf., San Diego (Jul. 1994) 36869
- circularity charactn. 5694
- CMOS ASICs, advanced inspection program 37167
- COG, COG technol. for LCD driver LSIs, resin and flexible metal bumps 134
- composites/multilayer parts, thermal nondestructive inspection procedures/proc. 12230
- conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
- consumer product in-proc. inspection/correction facilities 11838
- controlled act. vision framework, robotic and transportation problems 8642
- cost effective ceramic surface mount packaging 20448
- crane manufacture, horiz.-arm layout coord. meas. machines 5611
- cylindrical testpieces, US inspection, amplit.-dist.-diam. diags. 12228
- defect params. determ., thermal methods, multidimensional approx. 12231
- defects microwave detect. in glass reinforced polymer composites 37558
- diffractive opt. elements, electron-beam fab., FIB inspection 14497
- digital tomosynthesis for X-ray inspection of flip chip attach 37172
- double-shell waste storage tank inspection syst. 162

inspection continued
economic models for various sampling plans 5691
elec. utilities, multiple component ageing 19517
electronic product test data anal., product costs improvement 37175
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
electronics mfg. technol., conf., Baltimore (1992) 11580
emission microscopy for IC inspection *(Italian)* 20465
fatigue damage study by computed speckle decorrelation 40129
ferromag. components, artificial/natural surface defects determ. 28903
ferromag. cross sects. meas., total mag. flux method 37555
fine-pitch SMT, automated soldering inspection 163
finepitch surface-mount solder joints, fracture surface exam. 21644
flight inspection develop. trends 10314
foetal ECG, pattern anal. and interp. of changes, fuzzy logic concepts 35136
Gravelines 4 plant, closure head replacement std. 27395
hydroelectric generator online condition monitoring methods 10875
hydroelectric power plant Francis turbine maint. project, India 10874
IC yield enhancement, real time mfg. proc. monitoring 20468
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
in-service inspection, risk-based approach 5695
indust. image proc., Micro Channel interface 41215
inline EMI checker for small elec. appliances 23673
inner surface defects, magnetographic inspection, sensitivity 21001
IR detector selection for laser soldering proc./joint qualif. 6417
ISO 9000 compliance of test/meas. equip., calib. aspects 3710
killer particle detect. on rough wafer surfaces 11826
LWR control rod wear data, intell. DP syst. 4819
M-seq. pulse-compression underground survey radars *(Japanese)* 3610
mag. powder inspection, indicator patterns detect. 12232
magnetographic inspection equipt. develop. in prod. 28902
magnetographic inspection standardization 28918
med. devices QA services 18427
metal specimens, US toneburst inspections, backscattered microstructural noise 12239
metallic coatings, eddy current thickness inspection optim. 28919
microassembly, focused laser beam 30520
microtomography, microfocus radiography syst. 28519
mixed sig. device, high precision testing 766
mobile CT unit for reinforced concrete column inspection 42737
MOV arresters, I-V characts. inspection tests *(Russian)* 43802
nondestructive inspection using shearography, indust. appls. 18108
NPP service water piping, corros., exam. 27377
NRC maint. team inspection reports, NPP aging 4818
nuc. indust., NDT 27385
nuc. power station in-service inspection methods 19414
nuc. reactor vessel component profiling, US 43854
opt. phase-shifting masks, inspection, automated electron-beam syst. 13488
optical instrumentation for process industries, conf., Germany (1994) 5486
OSEE inspection for flux residue on PCB-based electronics assemblies 38114
pass. components for aerospace appls., screening methods/data anal. 5684
PCB, through-holes, inner wall defect inspection *(Japanese)* 38074
PCB assembly, QC, fault anal., visual inspection, computer based 943
PCB assembly/soldering defects, inspection/SPC work stations 5696
PCB X-ray inspection, neural network classifiers 37162
PHWRs in India, solns., channel problems 27394
pipe/valve reliab. prediction, Bayesian routines 37196
planning algm. for complete sens. coverage in inspection 20466
post metal deposition defects, real-time particle detect. 38697
power station component structural integrity, R5/R6 assess. procedures 19390
power station component testing, surface replication methods 19392
preventive maint., IR thermography *(German)* 36983
proc. plant digital image archives, rem. meas. syst. 25732
product certification, testing stds. overview 5679
PWR, automated US inspections, data collection/interp. software 35374
PWR and fuel element design, coherence *(German)* 43861
PWR vessels, core mapping methods 19439
QA inspection, multicriteria decision procedures 37154
rem. visual inspection equipt. for QC 37170
resists, secondary electron line scans, local elec. fields 13470
risk-based inspection, organizational factors 10841
risk-based inspection develop., USA 11841
rly., third rail conductor inspection, video appl. *(German)* 11422
rly. feeder overhead lines, hard-drawn stranded wire testing 36749
ROC method, material testing syst., perform. 12223
sampling strategy eval. under two criteria 5692
selection of transducer inspection methods 3806
self-tracking US inspection syst. 34395
SEM arrays, microfabrication, direct write lithog., wafer inspection 13478
semicond. defect inspection syst. *(Japanese)* 106
semicond. IC defect anal., yield enhancement software tools 154
semicond. wafer, elec. failures, in-line inspections 6603
SMT reflow-soldered joints, porosity form. rel., mech. props. 12920
soft objs. dimens. inspection, laser/CMM syst. 34332
Sony total particle control syst., IC yield enhancement, defect reduction 20467
SPC program anal., Hughes Aircraft MCM Operations 37039
steam power plant boiler life, thermal transients effects 19519
steam power plant turbine rotor-bore inspection techs. 27562
stereoscopic video, underwater rem. operated vehicle 32815
storage syst. with high reliab., optimal inspection policy 37190
T3C-M transportable NPP, improved safety 35840
texture crack detect., automatic visual inspection 41161
thermographic NDT, single thermal image shape reconstruction 34597
through hole solder joints automatic inspection, automated inspection 42705
transformer substation, HV equipt. maint., experience/feedback *(French)* 36489
turbogenerator rotor bore, automated US inspection syst. 19599
Turkey Point plant, indiv. plant examin., maint. rule 19460
two-unit syst. with internal/external repairs, inspection and post repair, profit eval. 11851
unstructured power plant environ., navig. and manipulation 43814
US Nat. X-Ray Lithography Program, materials issues 6678
US NDT, lamb waves induced long./transverse waves 452
video/gamma ray imaging syst., nuc. indust. robot appl. 19399
viewer-centred representations for location/inspection 41129
vision-based gauge for online weld profile metrology 3891
X-ray inspection, technol. trends 28517
X-ray mask inspection, replicated resist patterns 13569
Au ball bond shear strengths, rationalisation 12953

inspection continued
C fibre composites, delamination cracks, SAM image anal. 20999
C-bearing composite materials, surface cracks determ. 28904
CuCrZr EM railgun worn rails, metall. anal. 15375
Ni-H$_2$ secondary cells, LEO destructive life testing 11256
Ni-MH space power batteries, preliminary FMECA 26583
TiN diffusion barriers for sub-0.5 μm planarized Al IC technol. 38653

instability *see stability*

installation
see also commissioning; computer installation
10 kV rural distrib. ABC installations, Eire 43776
50 to 300 kVA UPS installation guide 19875
110 kV switchyard PYRAMID digital control syst. installation project 36483
110 kV XLPE power cable installation project, China 27196
138 kV power line damper repair, live-line working 10751
access network upgrades, dyn. eval. method 42073
Ascotel bcs 8 digital commun. syst., ISDN for small enterprises *(German, French)* 25154
developing economies, cost effective installation and maint. of subsea links 3308
digital music services delivered via cable syst. 33343
distrib. network SCADA syst. installation project, USA 10732
elec. area class., practical considerations, stds. 90
elec. supply, internat. standardisation *(French)* 35561
France Telecom's fibre optic access networks 25499
gas turbine packaging proc., installation/startup benefits 27570
high-starting-torque load motor drives, AFC appls. 20081
hot rolling mill control/power equipt. modernisation project, USA 44630
integrated power/opt. overhead cabling, utility experiences, UK 35651
Italian PON field trials *(English, Italian)* 33992
LAN syst. using category 5 cables, wiring syst./installation *(Japanese)* 25047
MV enclosed switchgear, size reduction innovations 27849
nontrenching power/telecom. cable conduit installation method *(Japanese)* 20383
NTT's overseas carrier business 41589
offshore wind turbine demons., UK, feasibility study 10897
portal imaging, Philips SRI-100 syst., installation/QA 43328
protective multiple earth, overhead distributors 10781
Rohde & Schwarz Digital Radiocommunication Testers CMD 54/57 9341
secondary distrib. directly buried T-branch power cable joint *(Japanese)* 27183
single core power cables, trefoil form. installation guidelines 19298
stepping motor installation in hostile indust. environs. 36202
switchgear risk assess., methodology/results/implications 5150
telecomm. equipt. EMI bonding topol. studies 15523
telecomms., link syst. constr. 24872
telecomms. equipt. earthing/bonding, prETS 300253 European draft std. 15522
telecomms. power supplies, technol. evol. impact forecast 19785
thermal power plant controls upgrade projects, USA 43651
Pb-acid valve regulated batts., modular installation 44288

installation, computer *see computer installation*

installation management (computers) *see DP management*

instruction sets
see also computer architecture; microprogramming
Alpha 21164 μP, superscalar instruction execution 37785
CMOS μP, energy-efficient instruction set archit. 12566
DSP chip supporting RISC/DSP type instruction sets *(Japanese)* 12561
DSP design tool requirements for embedded systs., telecom perspective 40801
event controlled asynchronous μP, design method eval. 29254
HaL 64 bit SPARC based workstation and servers, architectural overview 33553
Intel i860, backtrack scheduler for dual operation instructions *(Japanese)* 29303
medium-throughput sig. proc. on flexible instruction-set archits. 37797
music comp. by genetic algm. and thematic bridging 34301
POWER2 proc. instruction cache unit 673
power quality, real-valued fast convolution algm. perform. 35606
reversible instruction set archit. and algms. 6120
self-timed ripple-carry adders, compiler changes for efficient operation 29121
UltraSPARC μP, visual instruction set 29288
UltraSPARC visual instruction set, MPEG video decoding 29289
VLSI high level synthesis, optimal graph representations, instruction set tables 29109

instrument landing systems
see also microwave landing systems
C/A-code tracking differential GPS, category IIIB automatic landings 3638
false runway axis, interfs. 26544
lunar landing navig. schemes, precision landings 4356
on-the-fly carrier phase ambiguity resoln. for aircraft landing 18722

instrument transformers
meas. transformer harmonisation, electronic systs. *(German)* 10788
motor/generator stator windings, in-service PD tests 36101
MV transformer diagnostics, RFI meas. 5026
power syst. protection, interactive software, education/training appl. 35683

instrumentation
see also aerospace instrumentation; computerised instrumentation; digital instrumentation; digital readout; display instrumentation; instruments; nuclear instrumentation; physical instrumentation control; signal generators; signal processing equipment; signal sources
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
defn. of instrum. perform., contract and metrological purposes 42659
design for reliability 9786
EMC, conference, Dallas, TX, USA (1993) 36844
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
instrument performance 9788
instrument specifications, colloq., London (1994) 20257
interf./noise 31847
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
mass-prod. instrums., metrological charact. monitoring 119
MELUPS 8400H, NC-U UPS systs., instrum. supplies *(Japanese)* 5039
NAMAS approach, instrum. specs. 42681
NASA spin-off technol., conf., San Diego (Jul. 1994) 36866
network OAM technol. and standardisation trends *(Japanese)* 16609
product specs., rel., meas. stds. 42656

instrumentation continued
railgun weapon solid armatures, instrumentation develop. 15336
specs. interp. 42658
specs.- customer's viewpoint 42682

instrumentation amplifiers
blood pressure measuring instrument with Korotkoff sensor 26269
charge amplifiers for piezoelectric sensors 26790
CMOS differential voltage-to-current converter 21467
dyn. response of nonlin. meas. systs. 3700
high temp. precision op amp, CMOS implement. 21128
integrated ATE amp., switch mode design 29054
interfacing act. devices, noise spectra analyser 9834
lock-in amp. sync. detect., photothermal meas. 10055
meas. syst. amps., protection from overvoltage 547
piezoresistive strain gauges, integrated instrumentation amp. 17732
reducing electrometer time const., high-resist. samples meas. 3768
sampling oscilloscope front-end, HBT MMIC design 42869
Si piezoelec. sens. for robots, analogue proc. 3787

instrumentation buses *see field buses*

instruments
see also individual types of instruments, e.g. astronomical instruments, bridge instruments, optical instruments
acoustic props. meas. instrums. and methods *(Croatian)* 450
EM plant monitoring/mgt. instrumentation 19597
gas flow, thermal radiation flux meas., Cuernavaca instrum. 34725
mech. instrums. diagnosis, intermittent acoustic data *(Japanese)* 43550
microwave EM field simul., TLM method, computer graphic visualisation 10006
μP based instrum. for resist. and diode testing 3755
periodic instrumental variable ident. method 34303
power station monitoring/control instrumentation maint. 43812
ship syst. elec. meas. instrums. *(Croatian)* 3926
specs.- customer's viewpoint 42682

insulated gate bipolar transistors
1 hp ASD IGBT control device tests 28070
3-level IGBT PWM inverters for traction drives 27831
3-level/IGBT inverter rly. propulsion control syst. 5332
3-phase DC clamped switch mode rectifier, IGBT 19747
5 kW laser power supply, IGBT mag. pulse compressor-based 36297
15 kW DC/DC IGBT ZVS reson. power converter 5080
70 A telecom. rectifier, high efficiency 12337
100 kA, 5 kV solid state opening switch, railgun appl. 31762
100 kHz 2 kW boost ZVT-PWM converter, PF correction 19807
100 MVA IGBT reson. AC/AC power converter design 5111
200 V KZ-DHC32 IGBT invertor-based induction heating cooker *(Japanese)* 44588
600V punch-through-epilayer IGBTs for HVIC switching, cell design 30198
1200 kW HF IGBT invertor, induction heating appls. *(Japanese)* 28166
AC drivers, power semicond. devices *(Slovenian)* 20052
AC locomotives, line-side switching harmonics compensator 20101
aircraft power conversion systs., soft switching appls. 43452
asymmetric n-channel, cryogenic operation 22366
BiCMOS 500 V 1A three-phase inverter IC 29036
BiMOS high power devices appl. in intell. snubberless power conditioning ccts. 29031
BiMOS MCT/IGBT VHV devices, gate oxide integrity improvement, external gettering 30275
bond graph modelling techs. 13757
bridge cct. IGBTs, gate drive methods 6013
brushless DC servomotor, optimal DSP control 36195
buffer layer IGBT modelling for cct. simul. 30297
cct.-oriented static model *(Polish)* 1396
complementary IGBT, turnoff transient characts. 6765
Crossatron-based modulator for plasma discharges 12382
current sens. in IGBTs for short-cct. protection 34474
DC rly. vehicles, narrow-band LF act. filters 20102
DC-DC converters, high power/self-oscill. type 27830
DC/DC PWM ZVS reson. power convertor develop. 5078
dispersed generation syst. power conditioning technols. *(Japanese)* 35716
DMOSFETs/IGBTs switch HV, packaging, die sizes 1379
double gate IGBTs, forward blocking capability, high temps. 38907
double trench IGBT, struct. and anal. 38898
EA 3000 rly. IGBT auxiliary power converter series *(German)* 28124
elec. multiple units, 3-level IGBT traction inverter 5361
elec. vehicles, 40 kHz, 1.5 kW DC/DC converter 20117
elec. vehicles, high current power modules, SiCAl packaging 20116
electrothermal charactn. 13699
FBK-SDU series of digitally controlled uninterruptible power systs. *(Japanese)* 36339
flyback PWM power convertor, nondissipative snubber optimal design 19709
flyback ZVS PWM power converter-nondissipative snubber calcs. 5047
Fuji Electric IGBT intell. power module products 21118
Fuji Electric moulded IGBTs, voltage reson. invertor appls. 27824
Fuji Electric power IGBT modules, elec. vehicle invertor appls. 28133
Fuji Electric power integrated modules, invertor appls. 21119
Fuji Electric products and appls. 21117
hard switching power IGBT modules, dyn. perform. tests 21102
hard switching power IGBTs, non-/punch-through technols. 12317
high current IGBT switching modules, dyn. perform. eval. 30316
high power DC SMPS, electron gun appl. 19755
high power DC-to-DC soft-switched converter topologies 19754
high power FET/IGBT gate driver cct. 13701
high temp. IGBT design, num. simul. program calib. 30315
HV appls. of IGBT or MCT in conjunction with diode, limits 30338
HV IGBT, self aligned proc., double implanted n/n^+-emitter 30339
HV soft recovery rectifiers, motor control appls. 27802
hybrid elec. vehicle, IGBT based syst., packaging/perform. 20095
hybrid power modules, thermosensitive params. anal. 13700
IGBT power module gate drive considerations 37632
IGBT switching losses, hard switching, ZVS, ZCS 6757
IGBTs, soft-switching converters, switching dyn. 30242
induction motor drive freq. converters, IGBT-based 44456
induction motor drives, VSI-IGBT, vector control, paper/steel industries 36805
input filter design optimisation for low loss matrix converter 893
intell. IGBT, overcurrent protection cct. 30423
intell. IGBT power modules for driving systs. 36670

insulated gate bipolar transistors continued
intell. power IGBT modules, motor drive appls. 532
intell. power module, develop. trends 29028
inversion layer emitter thyristor, power device 30281
isolated DC-DC converter, ZCS IGBTs, symm. topol. 6008
latch-up effect, theoretical anal. 13614
lateral advanced IGBT, fast turn off 30329
lateral bipolar transist., MOSFET struct., collector current 13620
lateral IGBT and MOS-controlled thyristor structs. in SOI 30345
lateral IGBT on SOI wafer, latch-up characts. improvement 13752
lateral power devices on SOI substrs., thermal behaviour 30334
LDMOS/LIGBT struct. modelling, high temps. 30336
matrix converter, low loss, input filter design 5132
matrix power converter, switching freq. harmonics studies 5051
MCT and IGBT struct., 2D dopant profiles 30280
MELACT-1100 Series power act. filters, IGBT-based *(Japanese)* 519
MELUPS 8400H, NC-U UPS systs., instrum. supplies *(Japanese)* 5039
MELUPS 9200 UPS series, IGBT based *(Japanese)* 5036
micro-stack IGBT, 2.5 kV, 100 A, reliable design 30325
microwave heating, PWM flyback converter, nondissipative snubber 11479
monolithic overcurrent protection cct. for IGBT struct. 30422
MOS-controllable thyristor, inversion layer emitter 1371
n' buffer layer, static characts. simul. 1410
n- and p-channel IGBT structs., wider safe SOA 30340
n-channel IGBT integrated current sens. 34473
n-channel IGBTs, 500 V, cell optim. 30330
neg. charge pumps for IGBT driver ICs, design optimisation 1488
non-punch-through IGBT, crit. switching condition 30327
nonpunch-through-IGBTs, electromechanical crit. load simul. 30314
on-state charact. degrad., self-heating 1422
open cell technol. for single chip MOSFETs, IGBTs, and MCTs, very high power appls. 6777
parallel operation, thermal coupling effect 30317
paralleled IGBT reliab., equalized jn. temp. 6750
people mover, inverter, parallel connected IGBTs 44518
PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
PM-excited sync. motorcar generator, design optim. 5379
power control ccts., IGBT short cct. current behaviour 29025
power convertor semicond. device develops., former USSR 27803
power convertors, turn on/off behaviour studies 44218
power electronics and variable speed drives, IEE conf., London, (1994) 37
power electronics modelling, ES develop. 534
power IBGT develop. prospects, Russia 21105
power IBGT module perform. testing, low inductance cct. 29009
power IGBT, optimal driver ccts. 29040
power IGBT converters, overcurrent fuse studies 6016
power IGBT short-cct. protection, motor drive appls. 29026
power IGBT SPICE macromodel develop. 21108
power IGBT SPICE model, power converter design appls. 12316
power IGBT switches, third generation technol. 29010
power IGBTs, parallel operation guidelines 21103
power module interconnection busbars 37634
power modules, packaging and reliab., failure anal. 30252
power semicond. switches, device characts. comparison 537
power semicond. switches PSpice models, parametric sensitivity anal. 533
power semiconductor devices/ICs, symp., Davos, Switzerland (1994) 28219
pre-regulator IC, lateral IGBT and current mode sens. 29037
punch/nonpunch through, thermal behaviour studies 1411
PWM IGBT bridge invertors, switching strategy implement. 5055
PWM IGBT invertor power supplies, case study 36353
PWM inverters, IGBT gate drive ccts., optimum switching 19809
PWM invertor IGBT gate drive IC, eval. and appls. 5052
PWM invertors, indust. appls. 5066
PWM invertors, telecomm. power supply appls. 19801
quasi-reson. HF PWM ZVS DC/DC power convertors 5061
quasi-reson. HF ZVS IGBT invertor, induction heating appls. 5087
railcar inverter control syst., HV IGBT 44507
reson. DC link IGBT ZVS invertors, optimal design 36342
reson. power converters, HEXFET/IGBT switches comparison 44208
reverse-channel HV lateral IGBT, characts. study 30328
rly. passenger carriage power supply, IGBT batt. chargers *(German)* 28125
sensitivity anal. of IGBT static model *(Polish)* 1397
series reson. DC link power converter, anal. 5058
short cct. behaviour, device protection 6778
short-cct. phenom., simul. 38839
single-phase IGBT switch-mode rectifier *(Japanese)* 11187
single-phase switch-mode rectifier, voltage-reversal cct. 29020
smart power technol. evol., overview 29012
SMPS, gate controlled, conducted emissions reduction 5050
snubberless IGBT PWM-VSI inverterbridge, design/test 19728
soft-switching converters, IGBT computer simul. and design optim. 29030
soft-switching insulated gate devices, power losses, comparative investig. 30331
SOI lateral IGBT, breakdown voltage rel., implant. dose 22460
SOI power devices, forward blocking charact., high temps. 30333
squirrel cage drives, IGBT inverters, audible noise, losses 5308
static charact. tester of IGBT *(Polish)* 1398
switching procs., expt. studies *(Polish)* 1403
switching simul. models, PSPICE package-based 37636
thermal effects in integrable power semicond. devices 21121
thin SOI IGBT leakage current and struct. for high temp. 30344
three-phase IGBT rectifier, low harmonic pollution 19846
three-phase multifn. batt. energy storage syst. 43967
trench IGBT, 600 V, develop. and perform. comparison 30346
trench IGBT and MOS-controlled thyristors comparison *(German)* 22383
trench-gate SOI lateral IGBT , p^+ cathode well 38833
turn-off charact., HF appl. 6779
turn-off failure and inhomog. operation 30326
UPS, IGBT/intell. power module based *(Japanese)* 5040
UPS appls., future prospects *(Japanese)* 5033
VSI, IGBT-based, asynchronous machine appls. *(French)* 11193
VSI IGBTs, on-state short-cct. behaviour expts. 44217
wind power converter/inverter syst., 600 A/1200 V intell. IGBT module 19567
ZCS mode of IGBTs, turn-off anal. 30332
ZVS quasiresonant IGBT power converter, PSPICE modelling 5079
ZVS-QRC, IGBT switch, design, testing 5056

insulated gate field effect transistors
see also insulated gate bipolar transistors; ion sensitive field effect transistors; MISFET; MOSFET
AC drivers, power semicond. devices *(Slovenian)* 20052
capacitively coupled driving method for TFT-LCDs 18003
hybrid GasFETs for work-fn. meas. 9957
low-dimens. organic TFTs, characts. and appls. 22448
microsensor with auto-zero offset compensation 25800
MOS struct., effective contact pot. difference factor 6584
parallel 3D simul. of semicond. devices 13586
press. sens., fab./constr. 3785
reson. power converters, HEXFET/IGBT switches comparison 44208
SOI n-MOSFET, low freq. noise spectral dens. 1421
SONOS multidielectric nonvolatile memory, scaling 1404
threshold voltage shift, oxide field depend. 30303
AlGaAs-InGaAs HIGFETs, charge-collection mechanisms 13719
AlGaN/GaN HIGFETs, I/V charact. collapse, high drain bias 6745
Au gate membrane, Hg vap. sensitive MOSFET 3906
GaAs monolithic C-HFET preamplifier 4234
GaAs-AlGaAs FET, citric buffer etch-stop process 38865
$Ga_{0.51}In_{0.49}P$/GaAs I-HEMT and I^2HEMT, GSMBE growth 13767
InGaAs switch transistors for microwave control applications 12768
InP/InAlAs IG-MODFET, power appl. 13708
$LiNbO_3$ ferroelec. gate insulator transistors, polariz. switching 38888
Si-SiGe layers, elec. charactn. techs. 6538
Si-SiO_2-polySi MOSFET, oxide degrad., charge traps generation 6746
SiO_2 film, low temp. PECVD for TFT gate insulator *(Japanese)* 37524
insulated wires
cable bundles, per-unit-length params., MoM 15531
cable harnesses, capacitance calcs., method of moments 33741
dielec. media interface, infinitely long charged filamentary conductor 15245
plastic tape covered winding wire, transformers, characts. *(Japanese)* 12853
polyimide/borosiloxane insulated ceramic wires *(Japanese)* 12855
switchgear, reduced emission control wires, fire testing 12857
insulating coatings
see also insulating thin films; varnish
flex coating reliab., high-perform. MCM-PCB interconnection 12945
LV equipment insulation characteristics at high freq. 19323
MCM flex lead bending during thermal cycling, finite element stress model 12944
Parylene conformal coatings compatibility with no-clean flux residue 38109
PWB dielec. systs., SIR profile, elec. perform. 901
silicon rubber, room temperature vulcanised, TSDC obs. 14042
SiFe sheet insulation, elec. and phys. charact. 14002
insulating materials
see also ceramic insulation; ceramics; composite insulating materials; dielectric materials; gaseous insulation; glass; insulating coatings; insulating thin films; mica; organic insulating materials; thermal insulating materials
asymmetric double charge injection 29824
charge distrib. within electron irradiated insulator 14005
concentric cylinders, heat cond., electronic package appl. 149
elec. treeing, mech. aspects 39064
HV power syst. synthetic insulators, state-of-the-art *(French)* 10762
HV solid dielec., gas inclusion surface charge deposition 22669
liq.-immersed power transformers, high temp. insulation 5007
luminescence of insulating materials excited by electron beam 14074
mech. stress effect on elec. perform. 39063
PDs, phys. and chem. aspects 1512
plant insulation monitoring, IEE Colloquium, London (1994) 5458
reduced-scale line modelling for hybrid corona 13984
secondary electron emission of insulators, Monte Carlo simulation method 14006
solid insulation, PD damaging energy 1532
stretched power transformer windings, short-cct. perform. calcs. 19688
Al porous anodization proc. anisotropy, VLSI planar metallization 38673
insulating materials, acoustic *see noise abatement*
insulating materials, thermal *see thermal insulating materials*
insulating oils
see also transformer oil
3-phase underground pipe cable, above ground mag. field prediction 27206
69 kV HPFF pipe-type cable ccts., ampacity upgrade 27199
110 kV oil-filled cable, HF EM wave transm. 10745
230 kV HPFF cable, wrinkled/creased paper insulation, eval. 27204
500 kV oil-filled cable installation, Honshu-Shikoku transm. line *(Japanese)* 19295
AC breakdown voltage testing of insulation liqs., test practices 22671
castor oil, elec. permitt. and dielec. loss, high press. transform. 14014
conduction, water dimer effects 14024
dielec. liqs., elec. cond. injection-dissoc. model 13921
dielectric oil, high stress aggregation, electron transport 13935
fluid filled taped cables, dissolved gas anal. 27205
highly insulating liqs., cond. meas. 14016
HV metal-film capacitors, liq. impregnation 36498
HV pulse low-inductive capacitors, high repetition freq. 36505
lab. charactn., microscopy/spectrosc. 13919
metal/oil interface, adsorpt., charge injection 14025
mineral oils EHD, DC cond. expts. 2165
oil-impregnated pressboard, dielec. props., moisture depend. 14044
oil-paper insulation, breakdown characts., impulse voltages 1561
PDs, acoustic sig. directivity 1527
silicone oil/polymer particles suspen., electrorheological effect 39066
insulating thin films
see also dielectric thin films; insulating coatings
augmented railgun-based fusion reactor solid H_2 pellet accel. 15283
C film form., Ag rivet contact perform. degrad. 29624
charged insulator foil, delayed radiation induced cond. 1560
CMOSFET ultra-thin gate oxide thickness meas, quantum effects 22452
LSI via-hole shape optim. by quasi-3D topography simul. 13863
LV equipment insulation characteristics at high freq. 19323
PCB resin/resin-glass composite insulation, moisture absorpt. effects 12942
PEEK films, DC cond., ionic behavior 30588
polyesterimide magnet wire, thermal degradation mechanism 14047
thin oxide MOS capacitor, current spike obs. 6583
BN films, PECVD, RIE, high selectivity 6639
BN thin films, plasma-enhanced CVD, structural props. 20953
BaF_2, epitaxial growth on GaAs(100)/(111) 37394
a-$BaTiO_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
$Bi_{12}SiO_{20}$, surface charge distrib., Pockels effect. meas. 18059
insulating thin films continued
Eu_2O_3, thin film capacitors, elec. props. 38446
$Fe(OH)_3$ thin films form. at soln.-gas interface, dielec. props. 22080
GaAs-SiN, passiv. film form. by laser CVD 13370
MgO films, plasma-enhanced metalorganic CVD, crystallographic orient. 401
PZT films, reactive co-sputtering/elec. props. 39059
Si nitroxides, rapid thermal, growth, struct. 1245
Si oxides, rapid thermal, growth, struct. 1245
Si_{O2} etching, rot. control of anisotropic micro-objs. 30107
Si/SiO_2:N, plasma action under PECVD conditions 5882
Si-SiO_2-SiN_x bistable snapping microactuator, buckling cantilever 30501
SiN films, plasma-enhanced reactive sputtering, self-multilayered struct. 12176
Si_3N_4, ECR plasma deposition, microwave power effect 408
Si_3N_4, ECR-plasma-deposited gate dielectrics for InP MISFETs 13710
Si_3N_4 thin films, MNS capacitors, jet vap. deposition 37504
SiN_x, ECR plasma CVD and etching on GaSb, optoelectronic appls. 12166
SiN_x, PECVD, computational fluid dyn. model 37518
SiN_x, elastic props. of LPCVD SiN_x/LPCVD polysilicon 39033
SiN_x filter effect on LED intens. temp. depend. 7479
a-$Si_{1-x}N_x$:H surface, hydrogen radical treatment 38590
Si_3N_4:H films, rem. ECR CVD 37472
SiO_2, ECR-plasma-deposited gate dielectrics for InP MISFETs 13710
SiO_2 PECVD, neural network based modelling 37415
SiO_2, RF oxygen plasma oxide, Si surface dry cleaning 38620
SiO_2 RTO 10 nm films grown at different temps., MOS capacitor breakdown 1180
SiO_2 buried layers, H-annealing induced pos. charge, ESR/C-V anal. 38425
SiO_2 film, deposition by XeCl laser ablation of fused silica 28836
SiO_2 film in Al-polysilicon-SiO_2-Si struct., HF plasma proc. 13239
SiO_2 film, low temp. CVD, helicon plasma source 37501
SiO_2 film, low temp. PECVD for TFT gate insulator *(Japanese)* 37524
SiO_2 films, HI irrad., densification and plastic flow 1312
SiO_2 films, UV excimer lamp annealing 30013
SiO_2 films, double-plasma deposition, SiF_4 predecomposition effects 37486
SiO_2 films, high field dyn. stress 22063
SiO_2 films, ion irrad. damage, UV annealing effects 30014
SiO_2 films prod. by PECVD, interface and elec. props. 29969
SiO_2 films, thermal CVD, microdefects 407
SiO_2 gate oxide films, ion-assisted oxid. 38592
SiO_2 gate-insulator, passiv. layer, polysilicon TFTs, self-induced LDD devices 13748
SiO_2 layers, beam assisted STM 39039
SiO_2 micromechanical struct., electron/ion-beam irrad. 13913
SiO_2 nanometer cracks prod. by plasma-chem. etching, IC memory elements 30127
SiO_2 on Si, E′ center charge traps, obs./electronic charact. 1176
SiO_2 on large-scale glass, high rate deposition by dc arc PECVD 5879
SiO_2, oxide thickness, oxid. params. 1257
SiO_2, scaled, polarity depend. of dielec. breakdown in MOS ULSI capacitors 22608
SiO_2, stress-generated traps, voltage/fluence depend. 30540
SiO_2 thin film reliab. at direct-tunneling voltages, MOS VLSI technol. 22607
SiO_2 thin films, N_2O RTP/oven nitridation, elec. characterisation 13327
SiO_2 thin films, RTN in NH_3, N_2O for EEPROM appls. 13329
SiO_2 thin films, plasma nitridation, electron beam irrad. 22253
SiO_2 thin films, wearout and breakdown studies 39040
SiO_2 thin oxide wearout and breakdown, high field 38776
SiO_2 ultrathin films, MOS struct., ultra-dry proc. 13248
SiO_2 ultrathin films growth, ultradry oxid. syst. 6645
SiO_2:N films on Si, N_2O-plasma oxid. tech. 1279
SiO_2:N thin films, grown/processed in N_2O, N depth profiles 38524
SiO_2-Si MOS struct., oxide layer cond., X-ray irrad. effects 13238
SiO_xN_y oxynitrided tunnel oxide films, flash EEPROMs 38593
SiO_xN_y oxynitrides, N_2O grown, radiation effects 13386
Ta_2O_5 film, electron beam deposited, electroluminescent device appl. 5894
Ta_2O_5 films, DRAMs, leakage currents and defect states 39038
Ta_2O_5 thin high-dielec. films, leakage current, elec. props. 13915
ZnO-Al_2O_3-B_2O_3-SiO_2-PbO glasses, crystallizable, opt., polarizable and MOS props. 12213
ZnO-B_2O_3-Al_2O_3-SiO_2-P_2O_5 glasses, crystallizable, opt., polarizable and MOS props. 12213
ZnS:Mn/Si_3N_4/$BaTiO_3$ AC TFEL device, insulating thin film props. and fab. *(Korean)* 31095

insulation
see also cable insulation; electric breakdown; gaseous insulation; insulating materials; insulation co-ordination; insulation testing; insulators; machine insulation; substation insulation; switchgear insulation; thermal insulation; transformer insulation; vacuum insulation
charge distrib. within electron irradiated insulator 14005
condensed insulation, PD modelling 1517
current-loop transmitter, 4-20 mA, for telemeasuring 3158
electrical insulation and dielec. phenomene, conf., Pocono Manor, Pa, USA (Oct. 1993) 11586
glass forming polymers and non-polymers, cooperative relax. processes 14038
Japan, elec. insulation technol. evol., hist. 5724
luminescence of insulating materials excited by electron beam 14074
mechanical influence on insulation perform., IEE Colloquium, London (1995) 36861
PD and their effects on materials 22642
primer for investig. and interp. in insulators and dielec. materials 5725
PVDF films, gas emissions, poling conditions influence 14039
secondary electron emission of insulators, Monte Carlo simulation method 14006
SMPS planar inductors, design/fab. study 44109
solid dielec. strength calc., kinetic theory-based 22655
Teflon-Af films, spin-coated, electret props. 13932

insulation co-ordination
63/90 kV power overhead line insulators, overvoltage breakdown characts. 35661
distrib. network, intermittent arcing grounding overvoltage restraint *(Chinese)* 35632
distribution syst. multiple dielec. lightning impulse strengths 35633
EHV substation, lightning voltage surge calc. *(French)* 36484
EHV transformer insulation level for lightning strikes *(French)* 36232
insulator string overvoltages, lightning stroke inclination 35668
power overhead line switching overvoltages, computer simul. 19309

insulation co-ordination continued
power syst. insulation altitude effects, IEC 71 std. *(French)* 35582
power syst. insulation co-ordination, IEC 71 std. *(French)* 35581
UHV transm. lines, arc jet control, slit arc horns 10774

insulation testing
see also insulator testing
3-layer insulation syst., discharge, dielec. characts. 22668
6 MW GTO locomotive power convertor, insulation/corros. tests 36352
15/35 kV EPR insulated cables, field aging assess. 27201
230 kV HPFF cable, wrinkled/creased paper insulation, eval. 27204
270 V DC aircraft components, corona testing 26594
500 kV oil-filled cable installation, Honshu-Shikoku transm. line *(Japanese)* 19295
500 kV XLPE power cables, extrusion-moulded joint tests 4682
500 kV XLPE underground power cables, insulation tests 4681
AC breakdown voltage testing of insulation liqs., test practices 22671
AC machines sealed insulation syst. thermal eval., IEEE std. 27670
AC motor failure, steep fronted switching surges 19590
aging, nonstationary PD 1519
air gaps, impulse strength, nonstand. lightning surges 4722
air gaps, nonstandard lightning voltage waves, bibliog. 4878
air gaps, nonstandard lightning voltage waves, research 4877
anti-ESD polymer, internal space charge distrib. meas. 30586
binary lin. polyethylene blends, water treeing, mech. aspect 14013
cable insulation, void discharge deterioration, semicond. layer effect *(Japanese)* 43771
capacitive voltage indication syst. operational experience *(German)* 19901
cart grounding chain effectiveness, unexpected insulating wheels behaviour 31714
composite suspen. insulators, rods, long term mech. strength 4701
condition monitoring, acoustic/US techs. 18948
defects/degrad., US NDT 6916
diamond tipped thermocouple for high resoln. topographical and thermal imaging 34689
dielec. degrad. obs., PD mechanisms in voids 22648
dielectric materials charactn., colloq., London (Apr. 1994) 21
elec. device insulating params., computerised tester *(Chinese)* 27658
elec. generator stator insulation diagnosis, ES-based *(Russian)* 10918
elec. machine failure anal., insulation testing 4882
electrode insulation demo. life-test duration determ. 28428
epoxy discharge ageing, void gas press. meas. 22672
epoxy resin insulation, PD resist. improvement 22673
extruded polymer power cable insulation, mech. stress meas. 43769
fluid filled taped cables, dissolved gas anal. 27205
fluoropolymer insulator, γ-ray irrad., ageing effect, position annihilation meas. 14048
frequently operated vac. cct. breakers, plant insulation failures 4650
gamma-irrad. polyethylene insulation, space charge accumulation meas. *(Japanese)* 43793
gas/hydrocarbon transformer oil, furfuraldehyde anal. 14045
GIS abnormality detect., self-organizing neural net appls. 27854
GIS insulation diagnostics, UHF techs. 19910
GIS PD detect. automation method 36468
HV equipt. insulation eval., intell. instrum. 19578
HV insulation, crack resist. epoxy resin, testing *(Japanese)* 14012
HV machine stator insulation, discharge monitoring 19600
HV mineral particulate-filled epoxy composite insulation tests *(Korean)* 27657
HV motors insulation, dielectric diagnosis 14008
HV outdoor insulation, silicone rubber insulators, surface recovery 19317
HV power cable thermovisual monitoring studies 35643
HV rot. machines, slot discharges 4901
HV stator winding insulation, on-line discharge monitoring 36108
HV vac. surface flashover insulator technol. 30583
HVDC converter transformers/smoothing reactors, service stresses *(French, English)* 36228
hydroelectric generator stator insulation, PD detect. techs. 43942
hydrogenerators, PD spectra, HF grounding 4897
induction motor incipient fault diagnosis, fuzzy neural net-based 36157
induction motors, stator insulation testing/eval. 19645
lab. charactn., microscopy/spectrosc. 13919
LDPE, elec. treeing, PD pattern recogn. 1531
LDPE insulation diagnosis, pattern recogn. ES-based 6895
LEO spacecraft pulsed power systs., dielec. surface flashover expts. 35258
life extension, insulation preservation expts. 19698
LV equipment insulation characteristics at high freq. 19323
machine stator winding insulation, on-line monitoring 36110
mains insulation monitoring, computerised monitoring 39062
mech. stress effect on elec. perform. 39063
mica-alumina insulation, dielec. props., EM pump appl. *(Japanese)* 39067
mineral oil, leader discharges, time resolved study 30549
motor stator interturn short-cct. detect./location 10962
motor winding insulation, surge protection 4883
motor/generator stator winding maint., PD testing 4893
motor/generator stator windings, in-service PD tests 36101
oil, dissolved gas anal., ANN appl. 19683
oil, PD, acoustic sig. directivity 1527
oil-paper insulation, breakdown characts., impulse voltages 1561
organic insulation, water treeing, mech. aspects 39065
organic insulators, mechanical properties/electrical treeing behaviour correlation 13971
paper insulation, HV testing, μP based 30590
partial discharge diagnosis 13964
PD, dielec. ageing 22645
PD anal. syst., HV test lab 1536
PD induced ageing, pulse-seq. anal. 22653
PD meas., optimal bandpass filter characts. 13917
PD pattern recogn., HV equipt. 1521
PD pattern recogn., neural net-based 13920
PD pulse distrib. pattern anal. 1520
PD pulse distrib. pattern anal. 22646
PD sig. generation transm. and acquisition 22643
PD study by height-distrib. anal. 22654
PDs, pulse shaped noise sigs., neural network anal. 1524
PDs, risk fns. 1530
PDs, sig. generation, transm. and acquisition 1518
PEEK, poly(ether ether ketone), crystallinity and dielec. props. 14015
plant insulation monitoring, IEE Colloquium, London (1994) 5458

insulation testing continued
polyamideimide films containing glass, sol-gel prep., dielectric breakdown 14053
polyethermide films, multistress aging statical anal. 14049
polyethylene, discharges, pulse-seq.-anal. 1525
polyethylene, electrical treeing, in-situ photoelastic monitoring 14068
polyethylene, time-resolved discharge meas. 1523
polyethylene high voltage cable insulation, diagnostic methods 14065
polyethylene insulation, charge trapping, thermodynamic effects 14052
polymer insulation dielec. strength under PD stress 22675
polymer insulation PD stabil., energy characts. *(Russian)* 6894
polymer-insulated MV cable ageing diagnosis from post-discharge meas. *(German)* 10743
polymeric HV cable, PD testing 4687
polymeric insulation, testing equipt./methods 1562
polymeric insulation radiation effects, reliab. testing tutorial 22639
polymeric insulators, thermal anal. techs. 6918
polyolefins, homog. ac aging field, electrolum., surface roughness 30548
polypropylene film insulation, aging-model consts., HF HV fields 14019
power cable insulating materials, lab. charactn. thermal anal. 19292
power cable insulation PD pulse shape recogn., neural net-based 27207
power cables, insulated, impulse test procedure, IEEE std. 27208
power cables, PD meas. and location 4688
power CT, thermal short-cct. strength determ. 19690
power plants, PD monitoring 1526
power station HV equipt. insulation, online PD anal. 4756
power syst. insulation monitoring, fibre optic sens. appls. 19359
power transformer aramid paper insulation, elec. strength tests *(Japanese)* 11106
power transformer composite paper-oil insulation monitoring 19686
power transformer insulating oil test syringes, gas-tightness studies 36224
power transformer life extension, insulation preservation expts. 19698
power transformers, insulating syst., internal defects detect. 5025
power transformers, oil-filled, paper degrad. by-products anal. 44097
power transm. cable lines, online control/meas. proposal 19193
pre-treatment and charactn. of transformer elec. insulating oils 22670
pulsed power syst. dielecs., real-time surface flashover detect. 36292
PVC cable components, reliab. test methods 29621
railgun bore lifetime meas. expts. 15373
reduced-scale two-conductor hybrid lines, corona tests 13985
resin insulators, PD, light emission detect. 1528
resist. meas. 20410
rot. machine HV insulation condition monitoring strategy 19583
rot. machine stator, PD pulse meas. 4896
RTV rubber coating, silicone fluid form, due to heat 14051
rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658
Schering bridge sensitivity and convergence for AC machine anti-discharge varnish ageing tests *(French)* 9973
silicone transformer fluid, UL class. 5010
solid dielectric deterioration, partial discharges, ageing 13972
stator coil insulation, multifactor ageing, test parameter correlation 14007
stator insulation, corona activity studies 19586
stator windings, PD-meas. 4899
submarine cables, dielec. mouldings, microscopy 9155
submerged water-filled elec. motors, insulation 10957
substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
switchgear, reduced emission control wires, fire testing 12857
sync. generator asphalt-mica stator insulation, service life tests 11003
thermogravimetric point slope procedure, thermal endurance 14018
transformer fault detect., oil gas discrim. method 29620
transformer oil, elec. breakdown, dyn. barrier effect *(Russian)* 44105
transformers, insulating oils, characterisation 6919
turbogenerator rotor shorted turns, online monitoring 19598
turbogenerator stator dissipation factor testing 44008
turbogenerators, stator insulation, PD monitoring sens. 4888
US acoustic diagnostic tech., elec. machine insulation, comment with reply 14004
US diagnostic tech. for elec. machine insulation 14003
used power cable quality determ., field tests 4685
vac./SF$_6$ insulation, electro-insulating props. comparison *(Polish)* 22676
water soluble fluxes, SIR/electrochem. migration testing 28438
XLPE 250 kV DC cable, insulation develop./testing 27209
XLPE cable insulation, TSDC meas. 14064
XLPE cable insulation, water tree DC component generation *(Japanese)* 19296
XLPE cable long-term ageing tests *(German)* 27212
XLPE high voltage cable diagnostics, dielec. response 19300
XLPE insulated 230 kV cable syst., pre-qualification testing 27200
XLPE insulation, morphology, field emission STEM obs. 14067
XLPE power cable insulation characts., defects/moisture effects 4679
XLPE power cable insulation diagnosis, DC superimposition method *(Japanese)* 27194
XLPE power cable life, DC testing effects 10741
XLPE/EP insulated power cables, low temp. ageing 27202
SF$_6$ AC corona discharge, decomp. product gases meas. *(Japanese)* 22656
SF$_6$ HV switchgear reliab. monitoring automation 5153
SF$_6$ circuit breaker, gas integrity and adsorbent performance 19902
SF$_6$ insulated transformers, decomp. by-products 5006
SiC dispersion varnish VLF capacitive props. *(French)* 10935
SiFe sheet insulation, elec. and phys. charact. 14002
ZnO surge arrester leakage current, external field effects 4728

insulation, thermal *see thermal insulation*

insulator contamination
110-275 kV composite long rod insulator monitoring experiences, Australia 43788
275-345 kV porcelain surge arresters, contamination withstand characts. *(Japanese)* 43800
500 kV overhead power line insulators, natural contamination expts. *(Chinese)* 43783
HV outdoor insulation, silicone rubber insulators, surface recovery 19317
polluted insulator flashover perform., air density effects 35670
polluted UHV insulator flashover model for ac voltage 35663
porcelain insulators, CAD under polluted conditions 35662
RTV silicone rubber insulator coatings, hydrophobicity transfer *(Chinese)* 35665
silicone rubber outdoor HV insulators, breakdown strength 19318

insulator-metal boundaries *see metal-insulator boundaries*
insulator-semiconductor boundaries *see semiconductor-insulator boundaries*
insulator testing
63/90 kV power overhead line insulators, overvoltage breakdown characts. 35661
110-275 kV composite long rod insulator monitoring experiences, Australia 43788
275-345 kV porcelain surge arresters, contamination withstand characts. *(Japanese)* 43800
345 kV porcelain suspen. insulators, replacement experience 10757
500 kV insulator string overvoltages, lightning stroke inclination expts. 35667
500 kV overhead power line insulators, natural contamination expts. *(Chinese)* 43783
aerial insulated wires, support points impulse creeping discharges 14009
air gaps with artificial floating metals under DC voltage, breakdown characts. 35664
bow-tie water trees in EPR/XLPE cable insulation 14055
composite suspen. insulators, rods, long term mech. strength 4701
condition monitoring, acoustic/US techs. 18948
DC station post insulators, pollution performance, arc model 19324
distribution syst. multiple dielec. lightning impulse strengths 35633
GIS epoxy insulating spacers, AC/impulse voltage deterioration characts. *(Japanese)* 27240
HV outdoor insulation, silicone rubber insulators, surface recovery 19317
HV power syst. synthetic insulators, state-of-the-art *(French)* 10762
HV vac. diode insulators, elec. breakdown 35659
impulse breakdown of insulators and air gaps of similar electrode configs. 13946
nonceramic insulators, flashover voltage, wetting conditions effects 19322
polluted insulator flashover perform., air density effects 35670
polluted UHV insulator flashover model for ac voltage 35663
polyethermide films, multistress aging statical anal. 14049
porcelain insulators, mech. stress test methods 43791
pulsed power insulator degrad., high vac. surface discharges tests 36293
railgun bore lifetime meas. expts. 15373
RTV silicone rubber insulator coatings, hydrophobicity transfer *(Chinese)* 35665
silicone insulators, naturally aged, wettability, TSC spectra 35666
silicone rubber outdoor HV insulators, breakdown strength 19318
silicone rubber/EPR insulators, AC clean fog test 4700
solid insulators, breakdown precursors 35660
solid polymeric insulators, breakdown, PD meas. 4705
solid polymeric insulators, elec. treeing studies 35657
stator coil insulation, multifactor ageing, test parameter correlation 14007
synthetic insulators, leakage current monitoring, coastal site 43784
thin walled polymer insulators, mech. characts. 10760
wetting action, fog test facility 4702
AlH_3 filters, particle size effect on RTV coatings performance 14050
insulators
i.e. insulating devices. For materials see "insulating materials" or NTs as appropriate
see also bushings; ceramic insulators; composite insulators; insulation; insulator contamination; insulator testing; polymer insulators; silicone rubber insulators
90 mm maintainable bore railgun barrel 15276
230 kV FACTS power lines, advanced series VAr compensation *(Italian)* 4695
400 kV distrib. substations, conductor short-cct. effects simul. 19281
500 kV transm. line, 3-ground-wires, impulse response *(Japanese)* 4697
ceramics, sol-gel proc., elec./mag. props. 12190
charge insulator pot. decline, charge mobility *(French)* 10758
compact 230 kV line, corona perform. 27221
composite suspen. insulators, rods, long term mech. strength 4701
distrib. lines, lightning outage ratio anal. *(Japanese)* 10737
EM launcher electrode/insulator degrad. studies 15332
GIS, coaxial pulse generator, VFT generation 36487
HVDC transm. network insulator problems *(Chinese)* 43737
insulation co-ordination, IEC 71 std. *(French)* 35581
LV AC power syst. clearances flashover, overvoltage wave-based 35457
mechanical influence on insulation perform., IEE Colloquium, London (1995) 36861
MV XLPE covered overhead lines, utility experiences, Norway/UK 43777
overhead power lines, pulsed plane wave EM field induction calcs. 19304
overvoltages, lightning stroke inclination 35668
power overhead line live-line insulator washing expts. 27223
power syst. insulation altitude effects, IEC 71 std. *(French)* 35582
primer for investig. and interp. in insulators and dielec. materials 5725
railgun multi-tiered Cu wire solid armature studies 15354
railgun plasma armatures, serrated bore surface effects 15360
rect. waveguide, mode conversion 40423
solid insulators, breakdown precursors 35660
surface charge generation of insulator in SF_6 gas 19320
UHV transm. lines, arc jet control, slit arc horns 10774
insurance data processing
AT&T's InView service for insurance agents 41616
integer programming
approx. algms. for network design problems 5946
ASIC sig. proc. archits. with min. structural complexity, ILP synthesis 29251
behavioral logic test generation, mixed integer nonlin. prog. 6099
Boolean vector fn. synthesis, interior point approach 189
branch and bound algm. for integer quadratic knapsack problems 28638
cell-level analog ccts., integer prog. based topol. selection 37574
CHP power syst. long-term operations planning 27100
circuit delay optim., multiple choice lin. knapsack problem 21045
CMOS functional cells, layout optim., integer LP *(Japanese)* 39005
coal/elec. delivery syst., China, planning, DSS 43669
cogen. planning optim., time-of-use rates-based 10846
data path synthesis, scheduling algm., Tabu search tech. 21044
distrib. network fuel cells, optimal deployment genetic algm. 19257
elec. generator maint. scheduling, simulated evol.-based 19602
fault detect., fault thresholds 11884
FPGA technol., optimal registerfile archit. synthesis 29108
framework for cost-scaling algms. for submodular flow problems 5764
gas turbine CHP/heat pump facility perform. optim. 36006
gas turbine power plant operations scheduling 43922
high-level synthesis, scheduling problem, integer lin. prog. 495
Hopfield neural combinat. optim. algms., math. prog. formulation *(Japanese)* 28632

integer programming continued
many-valued logic and mixed integer prog. 11951
matching probab. in HMM, integer algm. *(Korean)* 24157
min. cost isolated failure immune networks 8788
mixed 0-1 integer prog. problem, approx. method, min. conflict *(Japanese)* 28634
mixed integer prog. problems, preprocessing/probing techs. 240
mobile robots, tri-aural perception, correspondence problem, max. likelihood algm. 43555
motion clustering, stochastic 24628
multiprocessor DSP, task allocation/scheduling 40827
multiway syst. partitioning under constraints, integer prog. 21042
optimal virtual path bandwidth mgt. assuring network reliab. 41650
PCB automatic assembly time optim. 6420
power syst., optimal voltage-ractive power control *(Chinese)* 43628
power syst. discrete voltage control modelling, load flow soln. 26963
protocol spec. synthesis, service specs., distributed systs., marked graph 8761
protocol specs. from service specs. *(Japanese)* 33289
quantitat. methodology for rapid prototyping and high-level synthesis of sig. proc. algms. 2489
SMDS networks, link set capacity augmentation algms. 16435
SMDS support network minimax open shortest path first routing algms. 41765
SONET rings, interoffice telecomms. clustering 25536
temporal unit commitment problem, coupled gradient network soln. 35585
weighted fractional and k-matching cumulating in hypergraphs 37297
Weyl-Minkowski duality for integral monoids 237

integral equations
see also boundary integral equations; Fredholm integral equations; integro-differential equations; method of moments; Volterra equations
2D axisymm. inhomog. medium inversion, distorted Born iterative method 23567
2D FIR digital filters, weighted LMS design 8364
2D TW current strips, closed-form field expressions 23529
3D conducting bodies, EM scatt. problem 7947
3D EM simulator, IE3-D, HF and high-speed cct. appls. 21071
3D integral eqn. method for eddy current EM field anal. in anisotropic materials 39145
3D objs. embedded in multilayered media, scatt. 40303
3D wavebeam field reconstruction from cross sect. intens. meas. 33001
11 GHz folded slot antenna for planar quasi-opt. mixer 23909
anisotropic plasma, impedance wedge diffr. 15452
Archimedean spiral antenna, reflector backed, second-mode operation 8071
Archimedean spiral antenna anal. 23880
axisymmetrical radiating struct., simul./optim. software 15626
Bode's integrals, imaginary part of antenna's admittance calc. 31936
boost PWM power convertor anal., averaging theory extension 11151
broadband matched terminations in planar structs., simul. 12746
broadside coupled strip inset dielec. guide, directional coupler appl. 29526
buried dielec./mag. gratings of fibers, refl. 15411
buried line conductors, EM modelling, integral eqn. 40256
capacitively fed microstrip antenna element 23852
capacitor voltage transformers, ferroresonant oscills. 27788
Cauchy integral eqns., uniform convergence of perturbed collocation method 37362
cavity, lin. condition, Q-factor/input reson. resist. 31903
cavity fed by tangential elec. field in wall aperture, EM field 31900
cavity-backed aperture antennas with dielec. overlay, anal. 8042
center-fed strip dipole, impedance, Poynting vector method 40475
circ. curved integrated opt. channel waveguides, source-type integral eqn. anal. 22881
circ. loop antenna, radiated emissions, finite ground plane effect 8046
coaxial aperture electromagnetic sensor, material characterisation 25784
coaxial-slot antennas for microwave interstitial hyperthermia, SAR 26469
complex cross-sect. stripline calc. by half-inversion method 15587
conductor and dielec. losses of transm. structs., calc. 15574
conformal mapping of interior, exterior and doubly-connected domains 12008
conical horn, vector boundary-element anal. 2327
coupling jns. in waveguide-fed planar slot arrays, charactn. 15657
cylinder backscatt. minimisation by central loading 23530
cylindrical antennas in multilayer medium, model 31923
cylindrical dipole arrays, two-term theory, variational-principle 40498
cylindrical edge-slot antenna, coaxial line feed *(Korean)* 15615
cylindrical shells in mag. fields, eddy losses, power shielding 40249
cylindrical wire kernel, uniform current vector pot. eval. 8034
DC servomotor posn. control appl., multicriteria fuzzy control 11061
deconvolution filter design considering channel sensitivity 2526
diebond thermal fatigue model, damage integral based anal. 11746
dielec. bodies of rev., EFIE 15213
dielectric bodies of revolution near arbitrary surfaces 23816
dielectric body permitt. reconstr., current modelling and Tikhonov regularisation 23565
direct integrat. method *(Croatian)* 277
dispenser cathodes, Ba transport modelling 6473
double or quadruple ridged waveguide anal., MFIE approach 23775
EFIE, num. soln., transient antenna impedance determ. 15622
electrostatic quadrupole lens fringing field, fifth-order particle motion 7914
EM, computational methods and considerations 40178
EM, time-domain modeling 2174
EM coupled stacked rect. patch antennas 31927
EM inverse problem solns., Hopfield neural networks 15214
EM radiation/scatt., moment method solns., parametric geom. 40321
EM scatt., axisymmetric cases, integral eqns., parallel computing 2197
EM scatt., free space nonlin., moment method/Wolfe's procedure 15399
EM scatt. by dielec. circ. cylinder partially clad by PEC 2209
EM scatt. by impenetrable sheet with different face impedances 23543
EM scatt. by large open-ended cavities, iter. PO 40278
EM scatt. by rect. trough on perfectly conducting ground 23540
EM scatt. by z 23613
EM scatt. for oblique incidence on impedance bodies of rev. 23574
EM scatt. from conducting objs., hybrid wavelet expansion and BEM 31781
EM scatt. in conducting circ. cylinder, source radiation field anal. *(Japanese)* 23534
EM wave diffr., screens, integral eqns. soln. 2194
EM wave diffr. on cylindrical vibrator surface 40299
EM wave incidence, boundary, nonstationary conductive medium *(Russian)* 15422
EMC problems, PEEC cct. models, stable time domain solns. 15511

integral equations continued
  enclosed rect. microstrip patch degenerate mode coupling, EFIE soln. 29535
  ferrite bodies of rev., scatt., hybrid FEM 31807
  FFT multiple half-screen diffr. model for cellular commun. 3417
  finite dipole FSS, transm. perform., curvature effects 15662
  finite rect. array anal. with simultaneous integral eqns. 31976
  finite rect. phased arrays, mutual coupling effects 15673
  finite thickness transm. lines above periodically perforated ground plane, packaging 23757
  flip chip interconnect systs., micromechanical and accelerated testing 11822
  Fresnel double integral, calc. method 31802
  full-vector EM scatt. by 3D nonlin. bounded dielec. 23587
  gel permeation chromatography, Tung integral eqn. deconvolution *(Chinese)* 3740
  generalized multiclass Engset model, asymptotic solns. 41931
  ground-plane-backed planar slot antenna expt. and calc. 23911
  heat exchanger dyn. modelling, integral-power Volterra series 19375
  Helmholtz eqn. and electromagnetism, FEA and integral eqn. methods 23492
  HF band handheld radio param. effects of operator's body 33862
  homog. filled waveguides, transient field expressions 2294
  homogeneous dielec. cylinder inverse scatt. 23568
  human model, AC field exposure, induced current densities 26485
  human model in power freq. elec. field, induced current densities 26492
  hybrid FEM, phased array antenna anal. 23939
  impedance coated body scatt. field computation 23546
  impedance matric localisation, CFIE soln. 31919
  incomplete Lipschitz-Hankel integrals in EM 23835
  indoor radio propag. model based on ray tracing and integral eqns. *(Japanese)* 23625
  induction machines, invertor-fed, EM procs. anal. method *(Russian)* 44041
  internal crack in half-plane solid, clamped boundary 28693
  internal resons., method soln., suppl. conditions 40292
  ISOMOM method for moment-method solns. in EM 31710
  LEMP effects on subtransmission line, MOM 15480
  lin. antenna, symbolic approach, inverse problems in moment method 2312
  lin.-antenna theory, transm. line eqns. determ. 23762
  M-wave scatt. bt dielec. cylinders, weighted point-matching improvement 23611
  mag. brush, mag. field modelling/simul. 30762
  mesh termination in finite-difference techs., simulating boundary conditions 31717
  metrology, math. software class. 17621
  microshield transm. line millimetre-wave/submillimetre wave pass. components 29544
  microstrip and slotline planar struct. impedance matrix eqn. 23752
  microstrip antenna anal. moment method *(Croatian)* 2310
  microstrip antenna arrays, reduced time modelling 40509
  microstrip antennas, near fields computation 31928
  microstrip antennas, spatial-domain integral eqn. anal. 40456
  microstrip discontinuity radiation effects, full-wave anal. 23837
  microstrip line syst. spectral domain quasistatic anal. 31874
  microstrip problems, pole extraction 23767
  microstrip struct., surface impedance, conductor losses modelling 29522
  microstrip struct. anal., simulated matched load termination 29539
  microstrip Yagi antenna, iter. MPIE formulation anal. 23942
  microstrip-slot cct. mixed pot. integral eqn. Green's fn. calc. 23842
  mixed methods for modeling of EM expts. 40277
  monopole antenna above finite disk, circ. cross sect. 2332
  multi-tank cryogenic storage syst. anal., space appls. 35253
  multiconductor CPW transm. lines, [C] and [L] matrices computation 12791
  multiconductor transm. lines in multilayered dielec. media, anal. 31875
  multilayer microstrip struct. anal., matched load simul. 12794
  multilayered board, via-hole, excess capacitance, connecting striplines 12882
  multimode equiv. network of inductive/capacitive multiple posts 31881
  multiple Mellin-Barnes contour integrals, convergence 12009
  near field diffracted by cylinder from dipole sources, comp. 40317
  noninvasive diagnostics, Gibbs act. EM method 35029
  nonlayered substrs., striplines, slotlines, Green's impedance fn. 15567
  nonlin. 2D/3D magnetostatic vol. integral formulation, GFUNET package 40225
  nonlin. magnetostatics calc., vol. integral eqn. method 40226
  nonlin. time-domain formulation of method of moments, EM field distribs. 40186
  nonuniform ionos., point source field calc. 2227
  num. inverse-scatt. solns. for microwave imaging 32989
  ocean acoustic diffr. tomography 18887
  offset dual-patch microstrip antenna anal. 2335
  open area test site effects in finite modelling techs. 2265
  open dielec. waveguide anal., quasi-wavelet expansion 31894
  open planar waveguide screens, EM waves scatt. 15593
  open uniaxial anisotropic waveguide used as electrooptic modulator, anal. 40408
  opt. discs, pit models, light-beam scatt. *(Japanese)* 7270
  parallel coupled inset dielec. guides, hybrid mode anal. 31882
  PCB radiation, lossy finite width image planes influence 21636
  PCB radiation aspects calc., EMC workbench 21634
  PCBs EM radiation emission, moment method appl. 899
  perfectly conducting slotted elliptic cylinder, near-field anal. 23830
  periodic waveguide gratings design, asymmetric discrete-time anal. 22897
  periodic wedge absorber, full wave anal. 2215
  planar opt. waveguides, highly directional surface emission from concentric-circle gratings 23766
  planar waveguides, finite difference beam propag., vol. integral formulation 30943
  Pocklington's eqn., CG-FFT method with nonuniform sampling 23818
  polarimetric vector diffr. tomography 40274
  printed 2-arm spiral antenna, 90 GHz-band *(Japanese)* 8059
  printed spiral antennas, resistively loaded, anal. 8072
  PTD, fn., removable sing. 40300
  quadrature coupler, planar ellipt. shaped, theoretical anal. 21514
  quadruple-ridged waveguides, anal. and design 15561
  quantum electron waveguide ccts., vol. integral eqn. for anal. 38941
  radiation currents, low contrast scatterers, surface integral eqn. 40288
  radio waves, multibeam diffractive propag. 2226
  Rayleigh-Sommerfield integral eqns. in wave propag. 14398
  rect. antenna cavity, dominant mode waveguide loaded slots array 2348
  rect. aperture in waveguide jns., scatt. 2302
  rect. magnetised PM, demagnetisation factor 7213

integral equations continued
  rect. pixel image, modified moment-based edge operator 8671
  rectangular waveguide, inserted nonlin. dielec. slab, wave propag. 23807
  reinforced concrete building, elec. field atten. 23736
  repairable systs. interval reliab., integral eqn. approach 37178
  RF/microwave cct. boards, 3D EM simulator 12284
  RLCG transm. line, LQ control synthesis 43730
  rough surfaces, EM backscatt. models 23532
  rural area terrain-based UHF/VHF propag. model 23630
  Schottky diodes, drift-diffusion theory of current dens. 6719
  semi-infinite screen-magnetodielectric coaxial rod struct. 15558
  shaping electrodes in axisymmetrical electron-beam optics, calc. 15242
  shell struct., static mag. field anal. by integral method 40222
  shielding effectiveness calc. by sheet resist. 23691
  short time FT based time-freq. distrib. 24241
  sig. integral, time delay estimator, ECG sigs., perform./testing 4280
  Simpson's quadrature, probabilistic anal. 5788
  small reinforced concrete building, EM field atten. 40376
  spatial microstrip dyadic Green's fn., radial and asymptotic closed form representation 40450
  supercond. toric storage, mag. values calc. 39291
  superquadratic loop antenna circuits for mobile commun. 23867
  symmetric coupled transm. line on suspen. substr., spectrum calc. 37932
  tanh transform., sing./infinite integrals eval. 2163
  tapered fibre nonlin. Kerr self-PM effects anal. 30885
  thin film transformer, EM field anal. 38055
  thin rect. plates, eddy current loss calc., cryogenic temps. 7908
  thin substr. microstrip problems, Green's fns. closed form solns. 37939
  time-domain scatt. by pass. freq. depend. wedge 15405
  time-harmonic 2D/3D Green's dyadics for general uniaxial bianisotropic media 40283
  transient EM modeling, generalized k-space method 15396
  transverse ground-plane slot in boxed-stripline, radiation effic. optim. 2345
  transverse slot in inhomogen. loaded rect. waveguide wall for array appls. 23771
  TW current filaments, homog. space 15408
  two-arm slot spiral antenna 8073
  uniaxial bianisotropic-ferrite medium, field representations, cylindrical vector wave fns. 40320
  VHF radar sea scatter and propag., grazing angles less than 1° 42518
  wake fields, boundary element anal., Kirchhoff's integral eqn. 23515
  wavefront simul. for atmos. turbulence 15448
  CO_2 lasers, phase conjug. 15059
  a-Si:As, ion implant., generalised transport eqn. 13292

integral transforms *see transforms*

integrated circuit design
  see also circuit CAD; circuit layout CAD; integrated circuit layout
  0.25 μm CMOS prod., equipt./materials demands 39007
  0.25 μm gate length CMOS technol., design/proc. depend. 13894
  1.4-mm thin QFP develop. in IC packaging 37072
  1 Hz MOS integrated low-pass filter, high dyn. range/low distortion 29345
  1-GHz highly lin. CMOS downconversion mixer 29594
  1D logic gate assignment, parallel algm. 38975
  2D FIR-median hybrid interpolation filter design for HDTV *(Korean)* 42601
  2μm CMOS gate array design automation 6062
  3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
  4th order switched current low power lowpass/highpass Butterworth filter 29344
  7.5 Gb/s monolithically integrated PLL/QW-HEMT clock recovery cct. 29341
  16 Gbit DRAM, 2D power-line selection, subthreshold current reduction 29231
  17 ns 1 Mbit CMOS SRAM, 100 nA stand-by current 29234
  32 ns 64 Mb DRAM, extended second metal line archit. 29233
  32-bit RISC proc., embedded control systs., CMOS VLSI implement. *(English)* 37795
  80 Msamples/s BiCMOS flash ADC 29325
  100 MHz wide-range BiCMOS four-quadrant multiplier/mixer 29422
  900 MHz GSM integrated power amp. control cct. 33936
  adaptive FM IF syst., improved selectivity, top-down design methodology 34229
  adaptive models, obj.-orientated prog. 30440
  ADC power dissipation reduction based on resoln. and sampling rate 21383
  advanced interconnect modelling, VLSI design tool 22550
  AGOSTO framework, VLSI BIST wt. distrib. generation 30430
  amp. gain control via geom. size/transistor interconnections 29055
  analog HDLs for ASIC design, standardisation 28938
  analog high-level synthesis for mixed-sig. ASICs 29400
  analog IC BiCMOS-JFET radhard SOI technol., proton radiation effects 13904
  analogue IC, automated test design method *(Japanese)* 30418
  analogue IC CAD, spreadsheets 28945
  ANN fast prototyping, goal seeking neuron digital implement. 29465
  ASIC, Conf., Rochester, USA (1993) 36858
  ASIC design, AHPL 12616
  ASIC design cycle-time reduction methods 22581
  ASIC macrocell multiplier for complex numbers 21214
  ASIC products, turn-key design *(Dutch)* 100
  ASIC VLSI design projects, microelectronic CAD lab 22516
  ASICs and design methodologies 21160
  associative memory syst., CMOS device mismatch limitations 659
  ASTRX/OBLX tools for analog cct. synthesis, pipelined ADC appl. 28940
  Australian microelectronics, conf., Gold Coast, Qld (1993) 5449
  automatic design tool for analog cells optim. design 501
  automatic synthesis and testing cost 21078
  automotive logic chips from high level synthesis, FFT/Viterbi IC design 21291
  B^2CMOS, bootstrapped BiCMOS gate for LV appls., HSPICE simul. 12477
  bal. act. microwave freq. doublers, modelling/anal./design 861
  ball grid array packaging, IC design, SPICE-compatible modeling 37139
  BAW act. piezoelec. filters 30652
  behavioral simul. for analog syst. design verification 28943
  behavioral simul. techs. for phase/delay-locked systs. 29402
  benchmark ccts. for mixed-mode SPICE simulators 29401
  BiCMOS, h_{fe} degrad. in bipolar output drivers, reduction, cct. tech. 30485
  BiCMOS 9-32 Mbit/s single-chip read/write channel for disk-drive appls. 29409
  BiCMOS controllable current amp. for hearing instrums. 35169
  BiCMOS IC ESD protection, harsh automotive, indust. environ. 30487

integrated circuit design continued
BiCMOS integrated op amp, EMI failures reduction 22618
BiCMOS laser control chip combining power control and 622 Mbit/s modulator 31426
BiCMOS logic ccts., fault anal. and DFT *(Korean)* 39023
BiCMOS power ICs with high level integrat., advances 29032
BICMOS product develop. by cross-functional team 37028
BiCMOS transconductance-C IF band pass filter 29346
binary rel. inference neural net, VLSI implement. 29446
bipolar AGC IC for hearing instrums. 35168
bipolar static freq. dividers, T-type flip-flops 12475
bipolar technols., stat. cct. simul. 39001
BIST design, partitioning techs. 21058
board-level simul., IC design/testing develop. 13869
boundary scan test blocks, integrat. in ASIC by students *(French)* 20330
bus-invert coding for low-power I/O in VLSI 30460
C_∞-continuous small-sig. model for MOS transistor in normal operation, IC simul. 22401
C-band MMIC FET oscillator, design, D05ML foundry proc. 29601
C-band monolithic vector modulator MMIC *(Chinese)* 38040
cad tools 6843
CAM design, modular VLSI scheme 21315
cct. simulator incl. user-defined devices 21075
cell-level analog ccts., integer prog. based topol. selection 37574
CHAN, CPA algm. for timing anal. 21046
channel demodulator IC for DAB, design, silicon compiler 21155
chip designer role in IC design/develop. 30400
clustering of ccts., stochastic flow injection method 21022
CMAC neural nets, archit. design, hardware implement. 29468
CMC ATM switch I/O proc., design/validation, HDL Verilog 33719
CMEG, pre-RTL IC design methodology 28930
CMOS 10 bit 5 Msamples/s successive approx. ADC cell 29330
CMOS 25 Msamples/s 8 bit full flash ADC for embedded VLSI appl. 29331
CMOS amp., parametric yield optim., l-models 6846
CMOS analog cct. for fn. approx. 30477
CMOS analogue chaotic oscillator for sig. encryption 34433
CMOS analogue front-end for terrestrial/satellite integrated D2MAC decoder 34230
CMOS analogue VLSI current-mode mesh-type posn. sensitive cct. 34495
CMOS burst-mode clock recovery cct., 28.8 Mb/s PON 34104
CMOS ccts., cell library characts. impact on area, speed, power consumpt. 29102
CMOS ccts., power consumption, cell library characts. 12488
CMOS cell library for formal high level synthesis, design 12497
CMOS cellular neural net-based smart pixel chips, analog design 31130
CMOS current-memory sigma-delta modulators, discrete-time simul. 29327
CMOS digital redundant random no. generator 29204
CMOS digital video delay line, embedded ADC/DAC/SRAM 34434
CMOS digital VLSI designs, transistor sizing algms. *(Korean)* 12387
CMOS EPROM technol. for high speed/high dens. PLDs and memory appls. 29219
CMOS ESD protection ccts., scaling, optim., design 6849
CMOS ESD protection ccts., scaling/optim./design considerations 30471
CMOS high-speed DAC, embedded prog. video FIR filtering fn. 29326
CMOS IC, I_{DDQ} testing, EDA/ATPG/ATE syst. integrat. 13892
CMOS intell. lin. image sens. for single chip digital camera 34601
CMOS IR sens. design, computer-aided tradeoff study 3838
CMOS latchup detect., low cost laser scanning tech. 30450
CMOS LNA design *(Chinese)* 13877
CMOS LV SC filters by switched-opamp tech. 29360
CMOS maximal current and deriv. estim., activities waveforms 21200
CMOS memory cells for design of SEU-tolerant VLSI ccts. 12525
CMOS prog. on-chip anticlipping cct. for digital telephones 33706
CMOS prog. switched-current filters 29359
CMOS SRAM technol., ESD design methodology 29224
CMOS std. cells, design and charactn., teaching 21222
CMOS submicron mismatch model for practical IC design 30454
CMOS supply-voltage scaling limitation 30452
CMOS tapered buffers, unified design methodology 29136
CMOS total self-checking design 22566
CMOS transimpedance amp./opt. syst., monolithic integrat. 31131
CMOS transponder microchip, low power biomedical telemetry appls. 34995
CMOS ULSI IC design, high perform. metallization issues 38642
CMOS VLSI 32×32 ATM switch, design, simple logic control 9137
CMOS VLSI array proc. for basic arith. operations, redundant no. syst. 29265
complex mixed-sig. ICs, parametric yield prediction 29399
computer design, VLSI aspects, conf., Cambridge, MA (1993) 36905
consistent attributed graph-based hand-drawn logic cct. diag. reading syst., VLSI CAD 12492
continuous-time MOSFET-C filters, on-line error detect. 29361
control systs., co-design method, combined models 28981
controlled refl. design in high speed digital computers 21175
convexity-based algms. for design centering of ICs 474
coplanar monolithic elements, cct. designs, 67 GHz 12787
custom design of digital filters, save Si area 29384
custom IC, conf., San Diego, CA, USA (May 1994) 20247
custom IC, conf., San Diego, USA (1993) 36842
custom IC design co-operation *(German)* 5572
custom Si IC design, project mgt., coord. struct. 20392
DC unstable operating points ident. using SPICE, IC design 22525
DCT IC chip design using RNS 21345
deep-submicron ASICs, design aspects 38973
deep-submicron ASICs, design requirements 38972
design automation and ASIC design, conf., Paris (1993) 20199
design rule checking and cct. extraction via, fast data struct. 28949
DFT courses at Universite Montpellier, indust. testing and simul. tools *(French)* 20328
differential amps., lin. techs. in IC design 12352
digitally prog. dual-polarity-gain amp. 29056
DMOS analogue HV control IC for small DC motors, PWM scheme 29048
DMOS power transistors, Si-direct-bonded, static/dyn. props. 22467
DORIC CAD tool for robust analog IC design 30395
DRAM, 256 Mbit, pass transistor designs 21302
EEPROM CAD model for low power cct. design/simul. 21304
em, EM simul. tool for MMIC design 29598
ENSERG, IC design training for electronic engineers *(French)* 20332
ESD protection cct., 2D electrothermal simul. and design 30467
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
Eurochip and chip designing, Polytechnic Enschede 22515

integrated circuit design continued
EUROCHIP initiative, VLSI design training, Univ. College London 22514
Eurochip Workshop on VLSI Design Training, conf., Grenoble (Sept./Oct. 1992) 20226
event-driven simul. scheduling cost reduction, clustering 21027
fast bias depend. device models for CAD of MMICs 38014
fault-tolerant ASIC design, high-level synthesis 30405
feature mapping neural network, VLSI implement. 6270
FIB technol., effect on IC design methodology 1478
fine pitch wedge bonding for high dens. packaging 20446
FPGA design for ASIC conversion 29160
FPGA synthesis, look-up table and multiplexor based archits. 12487
gas-assisted etching, FIB milling enhancement, IC design modif. 38681
GSM full-rate vocoder chip design 42086
Hamming neural net, CMOS analogue IC 37923
harsh automotive elec. environ., IC design considerations 36764
high perform. 3.3/5 V 0.5 μm CMOS technols. for ASICs 22598
high speed CMOS ccts., skew and delay minimization, stochastic optim. 29086
high-level DSP synthesis, concurrent algm. 37793
high-level VLSI design spec. validation, algorithmic debugging 12390
high-leverage SOI technol., appls., CMOS and BiCMOS designs, material/device problems 30003
high-speed QAM modem CAD tools 42081
high-throughput DSP appls., ASIC design strategy 29271
HV analog/digital ccts., std. 5 V CMOS technol., design and optim. 29407
I/O-buffer modeling spec simplifies simul. for high-speed systs. 37693
IBM RISC System 6000 workstation ceramic ball grid array package conversion 37149
indust. needs for electronic systs. designers, degree course, VLSI theme 20292
iRULE, fast hot-carrier reliab. diagnosis using macro-models, MOS digital logic 29114
Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
latchup-free design in merged BiPMOS 6869
lean integrat., perform. and cost improvement of logic LSIs 29146
lin. and nonlin. MMICs, design strategies 29597
load-independent cell library macromodeling, waveform simul., CMOS logic 29143
logic cell library improvement for automated logic synthesis tools 21289
low-power CMOS ULSI cct. techs., overview 39009
low-power digital CMOS IC design 1494
low-power IC design, power conscious CAD tools and methodologies 38970
LSI logic, LP based cell selection, timing, area, and power consumption constraints 37700
LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
LSI via-hole shape optim. by quasi-3D topography simul. 13863
LV analog cct. design techs., review 37903
LV MOSFETs, design methodology 13763
LV operation of portable systs., design techs. 29004
MAPEX CAD manufacturability anal. environ., yield design attributes 28408
MCM, conf., Denver, CO, USA (Apr. 1994) 11562
MCM design evol. 21763
MCM design technol., review 6466
MCM product, computer building block, design and test 21697
MCM-D, low-cost, technol. choice impact 38190
mean field annealing, VLSI design appl. 38974
memory technol./design/testing, workshop, San Jose (1994) 36826
microcontroller modular design for flexibility *(German)* 21364
microelectronic devices realized by DESS students, clean rooms, elec. characts. *(French)* 20333
microelectronics mfg., yield, and reliab., conf. (1994) 5438
microwave PIN diode 4-bit phase shifter, design *(Korean)* 21573
MIMIC amp., modelling and charactn. 29605
miniaturized ccts., HF appls., micromachining techs. 29583
mixed-sig. ICs, parametric yield prediction 29396
MM-wave monolithic mixer, 94 GHz, design method 29602
MMIC design, pass. and act. device considerations 29596
MMIC distributed amp. based on design-oriented FET model 21564
model implement. for design proc. automation 28944
modelling enhanced microelectronic component testing 38963
monolithic BCDMOS quad line driver for indust. appls. 29050
MOS analog IC design automation, automated cct. correction, qualitat. reasoning 21454
MOS analog IC design automation, automated cct. generation, concepts and methods 21453
MOS winner-take-all networks for VLSI analogue parallel sig. proc., inhibitory mechanism 37897
MOSFET ccts., relax.-based transient sensitivity computations 22604
MOSIS designed CMOS/BiCMOS arrays, teaching VLSI courses 5529
multi-level interconnect technol. for VLSI/ULSI, materials, thermal alternatives 13423
multilevel NAND gate ccts., automatic synthesis, CAD algms. 29100
multilevel Reed Muller cct. synthesis, computer-based *(Korean)* 21178
multiport SRAM cell, design methodology 655
NDR-SPICE cct. simul. of reson. tunneling devices 22336
neural hardware perform., structural design 29499
Neurodevice, modelling interface for VLSI design 13865
next-generation μP running x86 appls. 12572
node-reduced multiterminal representations of semicond. devices, SPICE 12282
nonlin. transm. line CPW MMIC, design, modelling, fab. 12808
NORCHIP, seminar, Trondheim, Norway (Nov. 1993) 11579
OEIC/device CAD design tools 39595
on-chip power supply coupling diodes, ESD protection, noise immunity 5986
op amp SPICE noise macromodel 37638
oversampling ASIC ADCs, design techs. 29314
parasitics for IC packages, model, PC program, layout generation 11770
perform. modeling of analog ccts. using additive regression splines, SC filter bank 30433
perform. optim. algm. for custom ICs 28937
phased array module MMIC package EM design 23983
PHEMT mfg. technol. for multifunctional Ka-band MMIC appls. 21562
PHEMT millimetre wave MMICs, technol. 29604
pick-and-place design methodology for complex VLSI archit. 21167
precomputation-based seq. logic optim. for low power 637
predictive VLSI memory develop., TCAD strategy 21303
price/perform. mark improvement for ADC and op amp ICs 13831
prog. analogue CMOS transm. cct., electronic telephone sets 33678

integrated circuit design continued
prog. CMOS pulse generator ASIC, US transducer array driver 29075
prog. image coding syst., arith. codec, LSI-CAD 33700
propag.-type A/D converters, CMOS devices 12605
pulse coded neural net VLSI design automation 29480
pulsed TOF laser radar, CMOS ASIC struct. 34165
QFP, VLSI chip, assembly, outlead cross-sect. effect on lead skew 11796
QFP family, thermal perform. limits, finite difference based software 5631
RF ASIC designs, CAD syst., error-checking 37590
Rsim switch-level simulator, piecewise lin., timing anal. 1481
S/H cct. for high freq. appls. 12673
SECSPICE cct. simulator for submicron MOS designs *(Korean)* 39016
self-adjusting threshold-voltage scheme for CMOS ICs 30453
self-checking combinat. logic design, weighted-output based approach 29153
self-checking combinat. logic synthesis techs. 21226
self-checking mixed-sig. ICs, analogue sect. design, safety appls. 29408
semicustom design of ASICs, Si chips vs. FPGAs for engng. education 6834
semicustom IC design, analogue arrays, design/perform., education 21459
semicustom IC design, power anal. syst. 30394
SENSATION framework for optimal IC design and stat. anal. *(Korean)* 13834
SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
SimBoy for capture and re-use of analog simul. knowledge 28939
simultaneous driver/wire sizing for perform./power optim. 494
SPC program anal., Hughes Aircraft MCM Operations 37039
Spec2Si, EDA develops. 5583
SPICE dc operating point anal., identifying unstable operating points, IC design 37586
STC104 packet routing chip for parallel systs. 29290
std. product MCMs for multiple customer usage in diverse appls. 6467
sub-micron ASIC design, register-transfer module selection 29091
SWEC, stepwise equiv. conductance, MOS VLSI simul. 13899
switched current cct., tunable feedthrough cancellation, modified dummy switch 29423
switched-current oversampling A/D converters, mixed sig. ICs 12606
symbolic computation of approximated small-sig. characts. of analog ICs 28932
symbolic trajectory eval. and BDDs, theorem prover, VLSI design 37587
systolic array partitioning problem, scheduling scheme 28952
tapered buffers, local interconnect capacit. 21396
TCAD appls. with semicond. wafer representation, develop. and integrat. 22511
TCAD for semicond. device/IC/proc. design and modelling 13861
thin film cracking detect., test chip design 11861
TIES, testability increase ES for VLSI design 37598
top-down constraint-driven CAD of n-bit DACs 28941
top/down analogue IC design CAD, behavioural modelling lang. 28986
TOPS, partial scan design package based on simulated annealing 21059
two-way partitioning, optim. by iter. improvement, expt. eval. 21021
UAHPL lang. for ASIC design 37713
UHF multistage FET amp., harmonic terminating design tech. 12796
ultra-low power digital CMOS ccts. 29087
VIDS, visual interp. for device simul., proc. models 22544
VLSI byte-wise CRC generator chip, hardware design 37697
VLSI cct. performs., worst-case anal. and optim. 38981
VLSI design, cct. representation, Boolean proc. 12461
VLSI design, neural net for scheduling/allocation 30414
VLSI design courses, indust. participation 5518
VLSI design software, QA aspects 13859
VLSI design training, Univ. of Twente, student design teams 20290
VLSI ESD sensitivity, thermal breakdown and dielec. breakdown 6844
VLSI hardware design, proc. technol. appl. 5974
VLSI high level synthesis, optimal graph representations, instruction set tables 29109
VLSI interconnect systs., mfg. considerations 38640
VLSI interconnects/packaging, integrated design auto. syst. 6845
VLSI nonuniform freq.-depend. high-speed interconnects, Laplace transform anal. 1291
VLSI power supply coupling diode design, ESD protection/noise immunity 30470
VLSI state-of-the-art technol. education 36915
wave-pipelined 8×8 b multiplier in CMOS technol., design and realisation 29139
worst-case IC optim. approach, cct. perform. model scheme 38979
X-band MMIC varactor-tuned VCOs, modelling and design 6342
ASICs, DFT tools and method selection 37684
AlCu-TiN VLSI interconnect systs., design and building-in reliab. 38645
AlGaAs/GaAs HBT IC technol. for 4:1 TDM multiplexer 1487
AlGaAs/GaAs HBT MMIC power amp. 12825
AlGaAs-GaAs HBT-based direct coupled feedback transimpedance amp. 29065
ESD meas. techs. for IC design/manufacture 18057
GaAs DCFL ccts., timing macromodels 37710
GaAs HMESFET SBFL based F-RISC/I microproc. 37802
GaAs IC, conf., San Jose, USA (1993) 36852
GaAs IC for portable commun., needs 42231
GaAs MESFET, capacitance model, microwave nonlin. cct. design appls. 855
GaAs MESFET opt. triggered monolithic S/H cct. design 39590
GaAs MMIC, CSIRO prototyping facility 29581
GaAs MMIC act. filters, synthesis incorporating noise effects 6328
GaAs MMIC design and charactn., training software package *(French)* 21570
GaAs MMIC design and test, high level training, ENSEA *(French)* 20336
GaAs MMIC design by engng. students of ENSERG/INPG *(French)* 20335
GaAs MMIC double side-band modulators, Gilbert cell based, design 29589
GaAs SRAMs, total dose radiation hardening/testing 37773
GaAs buffered DCFL gate array, differential push-pull I/O 37720
GaAs high perform. comput. and commun., ARPA research 38957
GaAs high speed IC design, buffered DCFL logic 29202
GaAs high speed cct. design/perform. estim., normally-off logic 29126
InP HEMT MMICs, low noise, V-/W-band amplifiers 12802
InP/InGaAs HBT IC technol. for 4:1 TDM multiplexer 1487
InP-based HBT ICs, design trade-off 13875
InP-based HBTs/heterostruct. bipolar ccts., design platform 28946
NiCd batt. charger HV IC for rectified mains operation 29049
Si 10 Gbit/s bipolar LD driver IC for direct modulation 29047
Si ULSI device fab., wafer specs./design rules trends 38982

integrated circuit design continued
Si VLSI ESD sensitivity, thermal/dielec. breakdown 30462
SiGe-base bipolar technol., epitaxial emitter-cap, liq.-nitrogen temps., ECL 633

integrated circuit interconnections
see also integrated circuit metallisation; integrated circuit packaging
0.25 μm CMOS prod., equipt./materials demands 39007
0.5 μm CMOS logic IC, SOG planarization/AlSiCu multilayer interconnect 38646
3D archit. for high resoln. imaging 34583
3D LCR extraction and modeling of VLSI packages 5623
3D molded interconnection devices, product DP 28447
3D stacking MCM technol., GE HDI 21708
3D stacks of chips/wafers, through-hole interconnections 30425
50 MHz multichip proc. module, flip chip technol. 21765
296-lead fine pitch thin plastic QFP package, TAB interconnect 5655
accelerated IC life tests, time reduction by progressive censoring 20491
adhesive-based IC interconnects, materials/reliab. considerations 13432
advanced interconnect modelling, VLSI design tool 22550
Al interconnect film etching, stat. optimisation 38696
alloyed ohmic contact model, IC metallization sheet resist. 38985
amp. gain control via geom. size/transistor interconnections 29055
area array interconnection, Cu-PI thin films on multi-layer glass-ceramic substr. 139
array module connector test program, UNISYS 21757
ASEM MCM foundry, test methodology 6460
ASIC sig. proc. archits. with min. structural complexity, ILP synthesis 29251
ASMAT known good die microbump interconnection syst., anal. 37148
automatic model generation for interconnect capacits. 38980
BiCMOS megabit SRAM chip package modelling and perform. anal. 37755
bonded etch-back SOI based interconnect for high speed ICs 22263
bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
buffer distrib. algm. for high-perform. MCM/VLSI clock net optim. 29335
bump-pad adhesion, thermocompression bonding effects 21668
C4, controlled collapse chip connection, enabling technol. 5647
C4/BGA comparison, MLC single chip package alternatives 5649
C4/CBGA interconnect technol., hi-dens., CMOS μP appl. 5650
C4/surface-mount-array interconnect technols. 11786
C4/surface-mount-array interconnect technols., thermal mgt. 28472
capacitively coupled MCM 21755
capacitively coupled MCM, manufacturability 12968
CBGA package design for C4 PowerPC μP chips, substr. routability and perform. 5661
CFH, complex freq. hopping anal. of interconnect networks 21083
channel-constrained deposition of electroless metallization on ligating self-assembled films 13429
chem. mech. polishing abrasive slurries, IC dielec./metallization 38571
chemical-mechanical planarisation, Run by Run controller 38566
chip model library for integrated package/chip simul. 37081
CIMID, electronic systs., high dens. integrat. 28458
CMOS driven, center tap terminated network in shared bus design, optimisation 11769
CMOS IC crosstalk extraction from mask layout 22568
CMOS multilevel metallization dielec., chem.-mech. polishing 38573
CMOS proc. appl., wafer level reliab. SPC program 20493
CMOS twin-well inverter with load capacitance, AC and transient latchup 30463
CMOS ULSI IC design, high perform. metallization issues 38642
COG, COG technol. for LCD driver LSIs, resin and flexible metal bumps 134
COG photosensitive adhesive resin interconnection technol., LCD driver LSIs *(Japanese)* 953
compliant bumps for adhesive flip chip assembly 5648
continuum damage mech. model, cyclic creep fracture anal. of solder joints 28489
coupled noise predictors for lossy interconnects 5639
coupled transient simul. of ccts. and 3D packaging, algos. 21070
custom IC, conf., San Diego, USA (1993) 36842
DCVS logic, std. CMOS cell design for testable self-timed systs. 29203
decoded RAM storage reprogrammable interconnect archit. 22599
demountable TAB package, area array press. contacts reliab. 37079
design, convex optim. 30149
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
dyn. terminations for low-power high-speed chip interconnection 37692
electromigration mechanisms, nondestructive elec. anal. techs. 38667
electromigration reliab. indicators 6660
electromigration tests, thermal effects 30134
Elmore delay model for optimal wiresizing, VLSI interconnect delay 22277
engine control module, hybrid interconnect technols. 28154
fine line thick film conductors by gravure offset printing 12946
fine pitch interconnections, anisotropic conductive adhesive 22281
flip chip interconnect systs., micromechanical and accelerated testing 11822
fluoropolymer metallization for microelectronic appls. 13427
four ASIC MCM-C, design for manufacturability 21712
FPGA technol., optimal registerfile archit. synthesis 29108
free-space parallel opt. interconnects, cascadable thyristors 23063
gas-assisted etching, FIB milling enhancement, IC design modif. 38681
HDI, laser created, quick prototyping of electronic ccts. 5676
HDI based PGA package, compatibility, μP chip package 5653
high speed digital interconnects, hierarchical simul., packaging simulator 5660
high speed interconnects, simul., packaging simulator 20438
high speed VLSI interconnects, stat. anal., moment method 28442
high-dens. laser linking of metal interconnect 6661
high-end proc., CMOS and bipolar, perform. trends 6185
high-speed deep submicron VLSI, technols./interconnect modeling 22558
high-speed interconnections, accurate elec. charactn. 20454
high-speed VLSI interconnects, freq./time domain simul. 12287
HTS/metal/polymer dielec. interconnect struct. for packaging appls. 11785
hybrid MCM, mixed interconnection considerations, wire bonding, flip chip and TAB 21709
hybrid WSI MCMs, laser creation of silicon vias for 3D interconnects 29720
I_{DDQ} built-in concurrent test for interconnects 6463
IGBT power module interconnection busbars 37634
impedance-loss profile of interconnection struct. 22559
IMPS, interconnected mesh power syst. MCM topol. 21760
integrated flex, high perform. carrier technol. for MCMs 21720
interconnection technol., colloquium, London, Nov. 1994 5482
interfacial energy calc., interconnect-metal/barrier-metal interfaces 38633

integrated circuit interconnections continued
K_a-band phased array multilayer MCM design and fab. 23986
known good die, cost-effective design, MCM appl. 21677
laser-created interconnects for rapid prototyping of IC 38639
layout-based extraction of IC elec. behavior models 22542
logic 0.35 μm technol. for 3.3 V/2.5 V operation 21216
logic IC interconnection technol., syst. engng., manufacturability 37723
lossy coupled transm. lines simul., window partitioning, waveform relax. 13422
lossy nonlin. terminated packaging interconnection, S-param. transient simul. 5636
lossy VLSI interconnect, sig. transients, propag., crosstalk 30426
low drag meas. by vision syst., IC appl. 9814
LSI, HDI, bare chip technol. 30151
LSI chips, high dens. modules, bump interconnection 30150
MCM, high perform. Si/Si, low cost high vol. appl. 38191
MCM, peripheral/area array bonding tradeoff, partitioning advisor 38182
MCM, thin film transfer process, low cost 38185
MCM High Density Interconnect overlay struct., reliab. 29730
MCM HTSC thin film interconnects, fracture strain meas. 12249
MCM interchip radiative interconnection syst. 29724
MCM interconnect considerations 38199
MCM testing strategy 6468
MCM-C, diffusion patterned vias, fine line printing 38188
MCM-C develop., twenty-seven chip 20452
MCM-C package 3D interconnections by electron beam machining 958
MCM-D, interlevel shorts, mechanisms and reduction 12963
MCM-D, low cost fab., thin film transfer proc. 21719
MCM-D, low-cost, technol. choice impact 38190
MCM-D boundary scan techs., interconnect/functional testing appls. 21735
MCM-D fab., low cost, thin film transfer proc. 21687
MCM-D interconnects, perform., process var. effect 38184
MCM-L, laminate substr. current state 38192
MCM-L flip chip interconnection utilizing Au ball bumping 21782
MCM-LD, photosensitive-BCB on laminate technol. 12978
MCMs, high-G defense systs., HDI technol. 29725
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
MicroInterconnect Technology for redefining economics of MCM appls. 21710
microsystems, packaging and interconnection techs. 22628
microwave and MM wave packaging and interconnection for modules 37082
microwave IC, quasistatic anal., method of lines 854
mini ball grid array MCM technol. 21780
MMICs and ICs, interconnect lines, metal-dielec. adhesion 13426
molten axisymmetric solder interconnection joints, heuristic force-height eqn. 141
Monte Carlo reliab. simulator, IC manufacturability 22547
mother boards interconnecting MCM's 21758
multi-level interconnect technol. for VLSI/ULSI, materials, thermal alternatives 13423
multiconductor interconnects, VHSICs, capacitance matrix computation 12795
multilayer Boltzmann machines, scalable CMOS analog implement. 29519
multiterminal network channel routing 22522
near-bamboo interconnects, grain struct., analytic model 6667
nonuniform freq.-depend. interconnections, PSPICE simul. 23755
normal/supercond. multiconductor lines for interconnects/MICs 29578
on-chip interconnect reliab., electromigration resist. prediction 38674
opt., alignment tolerance in hybrid source and receiver arrays 20460
opt. profilometer, multiple virtual styli, IC packaging/interconnects 34337
package/module interconnect test syst., transient thermal sigs. 28440
PC materials technol., future IC packaging appls. 12880
phased array packages, interconnects, HF charactn. 28461
polyimide charring on thin film line deletes 12962
polyimide substr. for Gb/s-class MCM-D/C 21784
polyimides used in MCM HDI, charactn. 11748
polysilicon biased field plates for HVIC interconnections 30155
power MCM technol. for high vol., low cost commercial electronics, plastic encapsulated 21777
prog. interconnect arrays, thin film , chip-to-substr. interconnect switching 20434
quickly customised logic, channel routing algm. 21035
RC interconnect of CMOS logic gates, effective capacitance modeling 1495
Rent's rule generalizations 28927
RF/microwave circuitry packaging, design considerations 37067
ribbon/wire automatic bonding for hybrid and MCM assembly 38176
rigid-flex capability in high perform. MCM 21748
SEDAM, salicide proc. for sub-0.25 μm CMOS devices 22601
self-planarizing CVD oxide for interlayer dielec. appls. 22262
self/mutual inductance of package/interconnect struct., inductive parasitics 20461
silica glass polishing, diamond abrasive, water incorporation effects 38568
silicide thin film form. by RTP, ULSI appls., overview 22275
simultaneous driver/wire sizing for perform./power optim. 494
SM leadless solder connection, comparative compliance of commercial lead designs 5662
SOI power device blocking voltage, HVIC interconnection influence 29979
solder joints accidentally exposed to nitric acid, reliab. eval. 37188
solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
stress-voiding/electromigration in multilevel interconnect metallizations 38986
stripline CAD for VLSI chip/module interconnections, design database 28446
strips metallization effect on delay time of IC elements 853
submicron contacts using selective CVD-W plug, jn. stabil. *(Korean)* 13418
surface metall., solder flip chip, wirebond and TAB interconnections 21783
SWEC, stepwise equiv. conductance, MOS VLSI simul. 13899
TAB chip on MCM-D technol., review 38183
TAB inner lead gang bonding on Ni-Au bumps 12960
tapered buffers, local interconnect capacit. 21396
TCC/MCM, μBGA on laminated substr. 21692
thin-film MCM materials for high-speed appls., eval. 29715
through-wafer interconnecting method for hybrid WSI 950
TRACER-fpga, router for RAM-based FPGAs 21259
transferred ball bump technol. for tape carrier packages 21673
ULSI, electromigration-induced integrat. limits, model 38976
ULSI, ILD film planarization, silica slurry/ammonium salt CMP 38962
ULSI multilevel interconnects, proc. integrat./manufacturability 38641
VIDS, visual interp. for device simul., proc. models 22544
vision syst. for AOI of ball bonds/bonding wire profile in ICs 1463

integrated circuit interconnections continued
VLSI, optimal wiresizing under Elmore delay model 37572
VLSI interconnect reliab. studies, computer simul. 22553
VLSI interconnect struct., mixed freq.-time domain anal. 22512
VLSI interconnect systs., mfg. considerations 38640
VLSI interconnections and packaging, modeling and simul. 1471
VLSI interconnects, high-speed, time domain sensitivity 13862
VLSI interconnects/packaging, integrated design auto. syst. 6845
VLSI metallization by coherent magnetron sputtering 38668
VLSI mfg., research, min. capital cost 36955
VLSI nonuniform freq.-depend. high-speed interconnects, Laplace transform anal. 1291
VLSI TAB packaging, elasto-plastic behavior of epoxy rel.to thermal stresses 28484
wire bond test tech. 6446
wirebond geom. and die setting, effect on wire sweep 20445
Ag-Au interconnects, transit. via fill material 30152
Al IC interconnection failure, stress migration-induced voiding 38666
Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417
Al and Au bond wire fusing current and fusing time estim. 21669
Al film planarization for ULSI metallisation, mol. beam deposition/annealing 22267
Al interconnections, DC electromigration, resist. oscills. 38692
Al porous anodization proc. anisotropy, VLSI planar metallization 38673
Al ultrathin films for Cu oxid. prevention *(Korean)* 38638
Al/Cu thin-film interconnects, electomigration induced failures 21616
Al/TiN/CVD-W deep submicron interconnects, sheet resist. 38683
Al/W multilayered interconnections, electromigration resist. meas. 38687
Al-Ge-Cu alloy reflow sputtering, electromigration charact. 22269
Al-Si-Cu VLSI interconnect void-related early failure, subpopulation model 22271
Al-Si-V-Pd microstruct., IC interconnect reliab., Al-Si-Cu comparison 38652
Al-TiN high coverage barrier film form., ICB deposition 20955
Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
AlCu dual damascene interconnect struct., ionized magnetron deposition 30132
AlCu-Si multilevel IC interconnections, manufacturability/reliab. 38644
AlCu-TiN VLSI interconnect systs., design and building-in reliab. 38645
AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
AlGaAs-InGaAs E/D-HJFET LSI technol., 0.6 V 39022
AlN ball/pad grid array MCM-C/D, elec. charactn. 21778
AlN stacked MCM using hot pressed, co-fired material, fab. 21739
Au coplanar transm. lines, eye diag., S-params. 1298
Co films/$CoSi_2$ films, opt. props., G-line/I-line lithog. 38748
$CoSi_2$ doping source for RTA of shallow p^+-n jns. 22099
$CoSi_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
Cr-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
Cu CVD for advanced on-chip interconnects, Motorola 28813
Cu CVD precursor chem./mol. struct., IC metallization 28812
Cu CVD thin films, direct liq. coinjection, ULSI device metallisation appls. 30133
Cu IC interconnections, materials issues 30137
Cu MOCVD thin films from pyrazolylborato-Cu(I) complexes, charactn. 38679
Cu diffusion, Cu/Al-Cu based thin film IC metallizations, comparison 38648
Cu dual damascene interconnect struct., ionized magnetron deposition 30132
Cu electroless deposition on metals/metal silicides, ULSI interconnects 28790
Cu grain growth during Cu-Cr and Cu-Ti thin film nitridation, situ TEM 38583
Cu interconnects, diffusion/drift barriers for Si and SiO_2 30138
Cu interconnects, high-reliab., dry etching 38688
Cu interconnects, subquarter-micron, dry etching 30144
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
Cu metallization, Cl_2 plasma etching, IR light irrad. 38579
Cu metallization mfg. issues for future ICs 38643
Cu metallization technol. for deep submicron ULSIs 30140
Cu planarized copper multilevel ULSI interconnections, damascene proc. 30139
Cu selective CVD on diamond surfaces, self-assembled monolayers 37493
Cu surface/interface modif. for IC appls. 38647
Cu thin film CVD from Cu(II) metalorganic precursors, growth/microstruct. 38678
Cu thin films, chem. mech. polishing, surface layer form. 38572
Cu/polyimide MCMs, microstrip interconnects, digital sigs. 29729
Cu-Au conductors for IC interconnects, AlGaAs laser-assisted deposition 12184
Cu-SiO_2 IC metallisation, refractory metal encapsulation/barrier layer 38650
Cu-based metallization, ULSI struct., IC interconnects 30136
Cu-polyimide-Si multilevel IC interconnections, manufacturability/reliab. 38644
Cu-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
Cu_5Si passiv. layer, growth kinetics and materials props. 38577
GaAs SAG-MESFET for supercomputers, proc., implement. 37721
GaAs buffered DCFL gate array, differential push-pull I/O 37720
GaAs digital foundry, process, perform., reliab. charactn. 38958
GaAs, n-type, NiGe- and InAs-based ohmic contact metallizations 38655
GaAs self-aligned complementary heterostruct. FET process 39019
GaAs-Al_2O_3 flip chip modules, AuPd wire bump thermomechanical integrity 11824
GaAs-InP MESFETs and ccts. fro OEICs 39598
In-Sn based VLSI interconnections, solder joint reliab. 30146
Ni-Au-Te-Au contacts on n-GaAs, microstruct./elec. props. correl. 38657
Pb-Sn, eutectic solders, creep strength, microelectronic appl. *(Korean)* 20428
Si RT oxid. catalyzed by Cu_3Si 38578
Si bipolar wideband amp., 15 Gbit/s, opt. commun. appl. 21122
Si interconnections, materials and procs. 22268
Si:Er light emitters in integrated opt. interconnects 23060
Si-$TaSi_2$-TiN-AlSi multilayer thin film contacts, electromigration testing 38654
SiO_2 films, chem. mech. polishing, planarization ability 38575
SiO_2 surface damage, chem. mech. polishing on IC-60 pads 38576
Ti films/$TiSi_2$ films, opt. props., G-line/I-line lithog. 38748
TiH_2 diffusion barrier stabil., SiO_2 substrs. 38649
TiN diffusion barriers for sub-0.5 μm planarized Al IC technol. 38653
TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270

integrated circuit interconnections continued
TiSi$_2$ form., UHV annealing/RTA, SIMS/XPS study 22276
TiSi$_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
W CVD films, opt. props., G-line/I-line lithog. 38748
W IC metallisation, chem.-mech. polishing, halogen-based slurries 38574
W etchback proc., bipolar electrostatic wafer clamp 6635
W nucleation layer CVD using various SiH$_4$/WF$_6$ flows, characterisation 37497
WSi$_x$ CVD as-deposited/oxidized films, DCS-based, comp./struct. 38664
WSi$_x$ films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
YBa$_2$Cu$_3$O$_7$ coplanar transm. lines, eye diag., S-params. 1298
flexible etched cct.-based IC interconnection, high speed/dens. 13431

integrated circuit layout
0.35 μm I-line photolithography, automatic proximity correction, chip layout 1311
adders, parametric delay and area models 6066
analog ICs, simultaneous placement/module optim. 30406
analogue fault simul., layout depend. fault models 6871
ASIC, Conf., Rochester, USA (1993) 36858
ASIC design, AHPL 12616
ASIC row-based cell placement method utilizing cct. structural props. 37711
BiCMOS integrated process/cct. develop. using SPR 39024
buffer distrib. algm. for high-perform. MCM/VLSI clock net optim. 29335
cell placement method using cct. struct. props. 21039
cell-based hierarchical pitchmatching compaction 38954
CFH, complex freq. hopping anal. of interconnect networks 21083
channel router, 1-variable stochastic simulated annealing 37581
channel routing, extended distributed genetic algm. 37601
chip model library for integrated package/chip simul. 37081
CMOS ccts., public domain high perform. portable ROM generator 28947
CMOS channel-less SOG arrays, HGALOP router 29148
CMOS functional cells, layout optim., integer LP *(Japanese)* 39005
CMOS IC, effect of layout modif. on latchup triggering 13888
CMOS IR readout multiplexer radiation hardness improvement 30449
CMOS layouts, preconstrained compaction method 6867
CMOS leaf cells, compaction for symbolic layout design 13882
CMOS mixed analogue-digital ISDN IC, analogue layout shrinkage CAD 28987
compaction, shape optim. 30408
cross point assignment, global rerouting for general-archit. designs 37707
cross point assignment, global rerouting for general-archit. designs 21257
current-mode multiple-valued PLA, reson. tunnelling transistor model 623
datapath compiler, mixed random logic and optim. blocks 21040
DCVS logic, std. CMOS cell design for testable self-timed systs. 29203
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
diamond routing model for VLSI layout 462
differential split-level CMOS cct. testing 624
DiPaCS concept for parallel cct. simul. 37595
edge-based heuristic for Steiner routing of VLSI and PCBs 456
Elmore delay model for optimal wiresizing, VLSI interconnect delay 22277
fast vectorized maze routing algm. for supercomputer implement. 12270
floorplan optim., slicing pt. placement improvement 21030
floorplan rising and enum., optimal, integrated algm. 21029
FPGA channel archit., automatic synthesis for routability 639
gate sizing algms. for power optim. 13841
gate-arrays, automatic cell placement, anal. procedure 625
gate-level, realistic faults in digital ICs 6092
generic floorplanning methodology 30397
geom. fig. proc. for die image extracted layout 30390
global router for analog LSI based on branch-and-bound algm. 38949
global router for high-speed bipolar LSIs 13870
global routing of ICs, crossing distrib. problem 38952
HDL models comparison with layouts, formal verif. tech. 37588
high speed CMOS output buffer, design aspects 37695
interactive terminal sliding algm. for hybrid IC planar layout *(Japanese)* 29696
interconnect capacits. of ICs, automatic model generation 38980
interconnect design, convex optim. 30149
L-shaped cell placement by neural nets 30416
LAYIN, CAD tool for IC parasitic coupling modeling 30437
layout-based extraction of IC elec. behavior models 22542
LSI power/area optim., transistor sizing/wire length minimization 37745
MCM, peripheral/area array bonding tradeoff, partitioning advisor 38182
MCM design technol., review 6466
MCM-D with embedded thin film resistors, ECL gate array packaging 21706
MCM-L layout approach for high-speed problems 38187
MCM/ball grid array technol., assembly proc. considerations 38178
min. delay placement, influ. of nets/hierarchical clustering 30411
mixed-sig. IC design, noise decoupling techs. 29398
mixed-sig. macro-cell placement in WRIGHT 29405
mixed-sig. macrocell placement in WRIGHT 29395
ML-Germinal, heuristic standard cell placement algm. 21038
MMIC design, graphical layout considerations 29599
modified genetic channel router 13844
module orient. problem based on Manhattan wire meas., NP-complete 1476
module placement method, Kohonen, maps *(Japanese)* 28979
mound defect modeling, yield forecasts 1480
multi-layer VLSI, hybrid hierarchical global router 38948
multi-port RAM generator for CMOS SOG, memory cell config. 29223
multiterminal network channel routing 22522
nonslicing VLSI floorplan, optimum area minimisation 1475
OPTIMOS branch-level digital cct. optimiser 21212
over-the-cell channel router, algm., 2-layer model 21037
over-the-cell routing algm., via-less middle terminal models 21036
over-the-cell three-layer channel routing for std. cells 30409
parallel lookahead line search router, automatic ripup/reroute 21034
parallelism for cct simul., tearing approach 21026
partitioning under size and I/O constraints 28956
path-oriented algm. for cell selection problem 37705
photomicrograph, automatic cct. extractor 6833
PLA optim., simulated annealing algo. 21238
quickly customised logic, channel routing algm. 21035
radiation-hardened CMOS 177K gate array, develop. 29205
RAIL synthesis tool, mixed-sig. noise-decoupling 29406
redundant divider design, DCFL GaAs and CMOS implement. comparison 29201
Rent's rule generalizations 28927

integrated circuit layout continued
rim phase-shifting mask, high-dens. cct. layout 13504
RISC μPs in isolation CMOS technols., ESD protection 21348
row-based cell placement method utilizing cct. structural props., ASIC layout 21262
row-based placement, simulated annealing, hierarchical algm., MCNC benchmark ccts. 37708
row-based placement for very large ccts., simulated annealing, MCNC benchmarks 21258
SEGMA, simulated evol. gate-matrix layout algo. 21227
segmented channel routing problem, complexity 38953
sigma-delta bitstream FIR filter, VLSI design 37887
simultaneous driver/wire sizing for perform./power optim. 494
single phase three-layer channel routing algms. 1469
SOG arrays, min-cut placement, global objective fns. 37712
SRAMs, technol. and layout-related testing 12510
stacked layouts in CMOS analog ccts., automatic generation algm. 13878
STANZA-M multilayer channel router, simulated annealing 13845
std. cell global routing algm. for over-the-cell routing *(Japanese)* 13840
std. cell placement, fuzzy-clustering-based algm. for cct. partition 22510
std. cell VLSI placement, fuzzy logic approach 1474
std.-cell VLSI cct. design, timing/area optim. 37706
sub-micron ASIC design, register-transfer module selection 29091
submicron BiCMOS compatible HV MOS transistors 29034
TRACER-fpga, router for RAM-based FPGAs 37709
TRACER-fpga, router for RAM-based FPGAs 21259
transistor size optim. in layout design rule migration 30407
triple-layer over-the-cell channel router 30410
VLSI, area minimization for floorplans 13830
VLSI, optimal wiresizing under Elmore delay model 37572
VLSI building block layout, floorplanning, topol. constraints 13843
VLSI building-block layout, pin assign., global routing 21028
VLSI designs, yield and mfg. prediction model 30432
VLSI interconnect struct., mixed freq.-time domain anal. 22512
VLSI layout CAD, optimal net assignment, constraints 22509
VLSI layout compaction, constraint graph generation algms. 12285
VLSI manufacturability, component level yield/cost model, mixed technols. 28409
VLSI placement, module clustering, fractal anal. 13842
VLSI placement, optim. and neural network based design techs. 497
VLSI syst. partitioning, genetic algms., implement. and eval. 28923
VLSI timing optim. by gate resizing and crit. path ident. 21176
XC5000 FPGA family, archit. and design 29161
zero-skew clock net constr., simulated annealing, VLSI layout 29336
AlGaAs-GaAs HBT gate array for 5 GHz ASIC, cell libr. 37719

integrated circuit manufacture
used for commercial manufacture only
see also integrated circuit yield; masks; photolithography
0.25 μm CMOS prod., equipt./materials demands 39007
8 inch wafer pilot line in Taiwan, total prod maint. 37054
64 Mbit DRAM mfr. *(German)* 29229
256Mb/1Gb DRAM develop. implications, Japanese semicond. indust. 11717
active array radar MMIC packaging evol. 21578
advanced IC mfg., future prospects 37049
advanced semicond. manufacture, conf., Boston, USA (Oct. 1993) 36877
Al interconnect film etching, stat. optimisation 38696
aq. US cleaning in electronics 931
ASIC line mgt. technol., operator's skill-level, scheduling-factor 28434
ASIC mfg. line mgt., on-line scheduler 28435
assembly level reliab. 28426
AT&T, technol. CAD, IC fab. proc. design 38989
at-speed testing in IC manufacture 1472
ATE, large-syst., market trends 17655
ATPG for heat dissipation minimization, test appl. 6856
Australian electronics indust., global posn., overview 28410
automatic inspection of IC for pattern defects 37158
batch prod. syst., open queueing network anal. 28423
BICMOS product develop. by cross-functional team 37028
bipolar IC, SOI techs., wafer bonding 1489
burn-in/test systs. for IC/MCM manufacture, flexibility/modularity 11863
business-proc. improvement, cross-functional teams 36957
CAESAR, virtual IC factory, integrated TCAD user environ. 38995
chem. mech. polishing abrasive slurries, IC dielec./metallization 38571
chem.-mech. planarization, elasticity theory, defect reduction 38570
chem.-mech. polishing for planarization, forecast of future trends 13323
chem.-sens. arrays, batch fab. 3818
chemical-mechanical planarisation, Run by Run controller 38566
chip shooter, image proc. algm. for IC alignment *(Japanese)* 29694
clean room changing room design, semicond. manufacture 37057
clean rooms, impurity ions anal. and removal syst. 22089
cluster tool perform. in semicond. mfg. 30436
CMOS fab. intuition and reasoning in problem solving 36916
CMOS IC, I$_{DDQ}$ testing, EDA/ATPG/ATE syst. integrat. 13892
CMOS multiply charged ion implants, cost of ownership model 37056
CMOS ULSI IC design, high perform. metallization issues 38642
competitive microelectronics mfg., concepts 20404
conference on electronics mfg. technol., Baltimore (1992) 11580
crit./noncritical stepper mixing, lithog. 13440
deep etch lithog., LURE-D.C.I. storage ring 13477
deep submicron MOSFETs, param. changes caused by mfg. flucts. 1391
design for assembly strategy in global companies 37033
DI water filters, microcontamination prevention, IC fab. 38544
DRAM wafer flatness control, stepper chucks 38966
dual voltage twin well CMOS proc., analog and digital appls. 30456
DuPont OOXO INVAROX resistor series for chip/network appls. 6348
DVI-based perform. support syst. for mfg. productivity improvement 30404
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
electrostatic charge control, wafer prod. damage prevention 7896
electrostatic chucks for semicond. IC prod. equipt. 2186
ENSERG, microelectronics practical training, proc. characterisation vs. simul. *(French)* 20334
EOS/ESD failure anal., CMOS IC mfg. proc., extent/cost 30545
epoxy die attach, dispensing technol. and systs. 12950
ES9000 multi-chip hybrid package, proc. modelling/design techs. 29716
factory, student run, proc. capability improvement 37055
FET based press. sens., fab./constr. 3785
film interface control in integrated IC proc. systs. 20405
fine line thick film conductors by gravure offset printing 12946

integrated circuit manufacture continued
- four ASIC MCM-C, design for manufacturability 21712
- FPGAs in the Australian undergraduate curriculum, practical appls. 29118
- France multi project chip service *(Japanese)* 1486
- gas distrib. systs. contamination, cost optimisation 38988
- gas handling in semicond. manufacture, cost-purity trade-off 6598
- giant far action lateral phenom., ion/laser beam IC fab., reliab. 20488
- gray-tone lithog., arbitrarily shaped surfaces fab. 30172
- green IC fab., recycling/environ. contamination control 37208
- high-leverage SOI technol., appls., CMOS and BiCMOS designs, material/device problems 30003
- high-perform. MCM, low cost design 11775
- high-purity electronic specialty gas cylinders, particle/outgassing perform. 29995
- hybrid lithog., e-beam direct writing and opt. stepper 38769
- industrial appls. of laser materials proc., conf., Vienna (1994) 36867
- interbay material handling/storage systs., large wafer fab, simul. tool 20413
- ion implantation, advanced SPC methods 38496
- ion implanters for CMOS IC fab., cleanliness stds. 13282
- Josephson jn. IC opt. input/output interface syst. 1625
- known good die, universal membrane probe, MCM manufacture 21702
- large area MCM proc., cost implications 21682
- laser induced vert. vias for prog. MCMs 21775
- laser via ablation technol. for MCM thin film packaging 21772
- LDMOS-FET fab. steps in submicron CMOS technol., complementary 40 V power devices 22576
- lithography tool, reliab. demons. test. design, Bayesian tech. 37194
- low temp. cofired ceramics for MCMs, laser machining of cavities 21774
- LSI delivery management, lot-sampling scheduling 37041
- LSI delivery mgt. syst., lot sampling scheduling method for ASIC prod. line 28432
- LSI manufacturing yield, integrated database syst., cond. anal. 37040
- maglev contact anal. probe tool for automated IC manufacture 20415
- manual Kanban inventory control syst., JIT 37051
- MASTER framework, virtual wafer fab, semicond. technol. CAD 38994
- MCM, conf., Denver, CO, USA (Apr. 1994) 11562
- MCM-D, low cost fab., thin film transfer proc. 21719
- MCM-D, low-cost, technol. choice impact 38190
- MCM-D cache SRAM products for workstation/PCs 21327
- MCM-D large format fab., mfg. procs. 21781
- MCM-L, laminate substr. current state 38192
- MCM-L technol., systs. cost anal. for high vol. automotive electronics appl. 21716
- MCM-LD, photosensitive-BCB on laminate technol. 12978
- MCM/ball grid array technol., assembly proc. considerations 38178
- membrane probe, increase digital/RF IC testing 20402
- membrane probe technol. for MCM Known-Good-Die 6455
- metal contamination monitoring, surface photovoltage, SPC 38458
- metal recovery/water recycling, electronics mfg., integrated solns. 11885
- metallic contamination in ULSI, opt. monitoring techs. 29991
- mfg. at IBM 200 mm-wafer facility, tech. support integrat. 36977
- mfg. execution systs. software selection guidelines 38967
- mfg. service provider selection, OEM considerations 36978
- microelectronic devices realized by DESS students, clean rooms, elec. characts. *(French)* 20333
- microelectronic mfg. procs., design of expt. techs. 21674
- microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
- microelectronics mfg., technol., conf., Orlando, USA (Nov. 1993) 20209
- microelectronics mfg., yield, and reliab., conf. (1994) 5438
- microelectronics mfg. education 36914
- microstruct. fab. techs. and procs. 6873
- microwave freq. divider chip 29593
- mil. MCM packaging design and manufacture 29714
- minienvironment fab facility 20398
- mixed prod. of ultra-short TAT LSIs and low-cost LSIs, mfg. line config. 28431
- modelling enhanced microelectronic component testing 38963
- multi project chip service manufacture in countries *(Japanese)* 1462
- multijunction thermal converters by commerical CMOS fabrication 25801
- multiple product/multiple proc. factory cost anal. 36960
- nitride PECVD, plasma clean cycle, cost of ownership model 38607
- nonhazardous alternative chem. for semicond./PCB proc. 37213
- Norcross Project, manual/robotic wafer handling, degraded cleanroom 22086
- OKI, technol. CAD, UNISAS syst. 38993
- open software archit. for semicond. indust. 37053
- opt. profilometer, multiple virtual styli, IC packaging/interconnects 34337
- ORCHARD II, ASIC CIM syst., scalable and flexible, precise quick scheduler 28433
- ORCHARD II, flexible ASIC CIM syst., prod. line mgt. 28414
- param. var. influence of climatic factors 13574
- perfluorinated cpds. as dry etchants, environ. impact 37207
- Philips Microwave D07M foundry proc., MMIC switch FET models 6331
- Philips MPC01 metal-film precision chip resistor 6350
- photolithography procs., work cell design for high perform. 37027
- photonic IC fab., quantum well intermixing 14666
- plasma etching control of Si/SiO_2 in SF_6/Argon 30396
- plasma gate etch, neural network control 38567
- plasma-enhanced photoresist dry stripping, IC manufacture 38543
- plastic encapsulated multichip technol. for high vol. MCM prod. 12974
- polysilicon thin film doping, atmos. furnace 22138
- proc. flow mgt., decision-making 29693
- proc. gas improvements, cost of ownership model 36961
- prod. semicond. mfg., response surface/Taguchi methods 28404
- proximity X-ray lithog. towards sub-100 nm domain 38766
- rapid thermal proc., pole placement adaptive control 30010
- rapid thermal procs., uniformity control, phys. modelling 30434
- reliab. improvement, alkali metal ion contamination reduction 20492
- reliable 256 Mbit/1 Gbit DRAMs, mfg. proc. technol. 21322
- ribbon/wire automatic bonding for hybrid and MCM assembly 38176
- ripple pyrometry for wafer temp. meas. in RTA 25998
- RTP, multivariable temp. controller develop. 13846
- RTP systs., capabilities and limitations 28411
- RTP temp. profile reconstruction, acoustic tomography 9836
- RTP/MOCVD integrated technol., IC manufacture, model-based proc. control 22533
- run by run proc. control combining SPC and feedback control 20412
- scanning electron microscope images, automated interp. 5686
- self-directed work team evol. 36953
- SEMATECH future factory design for wafer fabs 103

integrated circuit manufacture continued
- SEMI equipt. commun. std., automation guidelines 11716
- semicond. fab., syst. dyn. model 36954
- semicond. mfg. material handling systs. design 11721
- semicond. mfg. plants, scheduling 37029
- semicond. wafer mfg., prod. control, fuzzy simul. model 20399
- semicond.-wafer proc. equipt., particle detect., in situ coherent lidar 37047
- Silicon Glen, Scottish electronics indust. 37215
- single point inner lead bonding, narrow pitch 6450
- SLACK/OTD dyn. lot dispatch methodology, IC manufacture scheduling 22521
- smart substr. MCM, feasibility study 6457
- SOI, high-leverage technol., mfg. impact and appls. 6841
- SPC in IC mfg., nested normal/multivariate models 37156
- SPC program anal., Hughes Aircraft MCM Operations 37039
- Stanford Univ., technol. CAD, phys., algms., software and appls. 38990
- stat. metrology for IC mfg. control, DFM implement. 20406
- static protective shrink wrap film for JEDEC tray packaging 28454
- std. product MCMs for multiple customer usage in diverse appls. 6467
- STORM technol. CAD syst., IC fab. procs., 2D simul. 38991
- submicron fab technol., future prospects 37050
- submicron ICs, rapid prototyping, FIB techs. 13835
- supervisorless semicond. fab. environ., CIM productivity monitors 37052
- surface mount PLD, prog. and testing 37699
- TCAD for semicond. device/IC/proc. design and modelling 13861
- Texas Instruments MMST program, all-RTO/RTA/RTCVD 0.35 μm CMOS IC prod. 22594
- tunnel systs. in automated electronics mfg. 1186
- ULSI multilevel interconnects, proc. integrat./manufacturability 38641
- ultra shallow ion implanted base BiCMOS fab. 22619
- ultrapure water technol., semicond. indust. 13265
- US electronics indust., domestic infrastructure for advanced proc. 11674
- US semicond. indust., cost reduction 36959
- variable supply voltage testing, analogue CMOS/bipolar ccts. 5592
- Viennese integrated syst. for technol. CAD appls. 38992
- virtual wafer fab./assembly/test facilities, operational planning 11699
- vision syst. for AOI of ball bonds/bonding wire profile in ICs 1463
- VLSI, future technol./economic prospects 38965
- VLSI, QA methods 11827
- VLSI designs, yield and mfg. prediction model 30432
- VLSI interconnect systs., mfg. considerations 38640
- VLSI metallization by coherent magnetron sputtering 38668
- VLSI mfg., research, min. capital cost 36955
- VLSI mfg. line mgt. and troubleshooting, ES 28415
- VLSI mfg. pilot line, SPC implementation 37164
- VLSI pilot line, proc. improvement mgt. 36958
- VLSI RIE systs., real-time control, plasma generation, phenomenological modeling 1264
- VLSI semicond. mfg. proc. noise/learning 37037
- VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
- VLSI work cell manufacturing syst. 37042
- VLSI workcell controller and resource rels. design 5595
- WESDA, multimedia expert system for wafer polisher maintenance 5566
- X-ray sensitive chem. amplified resists, design/perform. 6681
- XFACT, diffusion furnace anal. and charactn. tool 22557
- Al IC interconnection failure, stress migration-induced voiding 38666
- Al single wafer etcher, total productive maint. 22201
- AlCu-Si multilevel IC interconnections, manufacturability/reliab. 38644
- Cu CVD precursor chem./mol. struct., IC metallization 28812
- Cu metallization mfg. issues for future ICs 38643
- Cu thin films, chem. mech. polishing, surface layer form. 38572
- Cu-polyimide-Si multilevel IC interconnections, manufacturability/reliab. 38644
- GaAS IC lab. at Motorola, CS-1 facility 37046
- GaAs IC, conf., San Jose, USA (1993) 36852
- GaAs IC mfg., high vol., Anadigics experience 37045
- GaAs MMIC design by engng. students of ENSERG/INPG *(French)* 20335
- GaAs MMIC manufacture, proc.-induced defects 12804
- GaAs MMIC mfg., SPC use/misuse 38017
- GaAs digital foundry, process, perform., reliab. charactn. 38958
- In-P based microelectronics pilot line for commercial and military applications 12799
- InP-based heterostruct. device/cct. proc. facility design 29996
- Si IC, failure anal. methods, develop. and mfg. appls. 22519
- Si RTP, optimum gas flow engng. 22230
- Si SEG, indust. integrated cluster tool 20847
- Si ion implant., VLSI mfg. for commercial appl. 30035
- Si, single crysts., metal impurities, opt. detect. techs. 38242
- SiGe HBT technol. for wireless and mixed-sig. appls. 22562
- Si_3N_4 ultrathin capacitors for advanced DRAM cells, in-situ multiprocessing 21589
- SiO_2 advanced planarization by SiO_x PECVD/SiH_4-H_2O_2 CVD combination 37479
- SiO_2 layer planarization by chem.-mech. polishing, IC manufacture 38569
- TiN rapid thermal CVD for diffusion barrier appl. 20970
- $TiSi_2$ selective CVD, indust. integrated cluster tool 20847
- TiW PVD manufacturability, advanced chamber shield design 22272
- chem. mech. polishing, polishing pad material props. effects 38584

integrated circuit measurement
- *see also integrated circuit testing*
- 2D dopant profiling in VLSI devices, AFM study 30391
- 3D capacitance charactn., floating-gate devices, coupling coeffs. meas., EEPROMs 6157
- 5X reticles, transmissive defect detect. 38767
- analog CMOS differential stages, hot-carrier-induced offset voltage 22574
- BEST2, super self-aligned BiCMOS technol., low-power mixed-sig. appls. 21451
- BiCMOS, 2D transient enhanced diffusion and impact on bipolar transistors 22620
- BiCMOS, h_{fe} degrad. in bipolar output drivers, reduction, cct. tech. 30485
- BiCMOS technol., polysilicon source/drain ion implant. effects/prevention 30484
- bipolar IC gain degrad. at low radiation dose rates, phys. mechanisms, models 13871
- CMOS 4007 devices flown on CRRES MEP expt., total dose correl. 12482
- coplanar monolithic elements, cct. designs, 67 GHz 12787
- DMOS, integrated N-Channel, parasitic PNP cond., power IC appls. 30479
- DRAM wafer flatness control, stepper chucks 38966

integrated circuit measurement continued
electro-optic probing of ultra-high-speed IC's 13839
electron, ion, and photon beams, symp., New Orleans (1994) 5484
ENSERG, microelectronics practical training, proc. characterisation vs. simul. *(French)* 20334
high-resoln. sigma-delta converters, nonlin. meas. 708
KITSAT-1/PoSAT-1 micro-satellites, radiation environ. meas., cosmic ray expts. 18714
lead-on-chip packages, cracking failures induced by chip backside contamination 20439
LSI voltage waveform meas., EB tester, electron-beam-assisted etching appl. 13856
microelectronics mfg., yield, and reliab., conf. (1994) 5438
mixed-sig. ICs, digital noise meas. 21449
noble-metal nanoconstrictions and obs. of conductance flucts. 13428
oversampling noise shaping ADC, DNL meas. 709
ripple pyrometry for wafer temp. meas. in RTA 25998
SEM arrays, microfabrication, direct write lithog., wafer inspection 13478
submicron CMOS isolation struct., calib. method for oxid./mech. stress models 22254
VLSI plasma charging induced damage, transient and electrode edge effect meas. 22191
wafer-level calib. of stress sens. test chips 17748
XTEM, specimen prep. tech. 28480
AlSi/TiN/Ti bamboo metal lines, NIST electromigration test-struct. 6664
GaAs ICs, voltage meas., electro-optic sampling 13850
GaAs MMIC design and charactn., training software package *(French)* 21570
$TiSi_2$(NiSi)-polysilicon salicided films, resist. behavior, CMOS ULSI 6665

integrated circuit metallisation
see also integrated circuit interconnections
0.5 μm CMOS logic IC, SOG planarization/AlSiCu multilayer interconnect 38646
accelerated IC life tests, time reduction by progressive censoring 20491
Al interconnect film etching, stat. optimisation 38696
alloyed ohmic contact model, IC metallization sheet resist. 38985
ASICs defect isolation, scan-path testing/electron beam probing 21171
bonded etch-back SOI based interconnect for high speed ICs 22263
channel-constrained deposition of electroless metallization on ligating self-assembled films 13429
chem. mech. polishing abrasive slurries, IC dielec./metallization 38571
CMOS multilevel metallization dielec., chem.-mech. polishing 38573
CMOS twin-well inverter with load capacitance, AC and transient latchup 30463
CMOS ULSI IC design, high perform. metallization issues 38642
diamond/(C-C) composite, semicond. base 12193
doubleface populated MCM in thin film technol. for HF appl. 21707
dual polycide gate and buried contact technols. for CMOS SRAM cell 21333
electromigration mechanisms, nondestructive elec. anal. techs. 38667
electromigration reliab. indicators 6660
fluoropolymer metallization for microelectronic appls. 13427
gas-assisted etching, FIB milling enhancement, IC design modif. 38681
HDI, laser created, quick prototyping of electronic ccts. 5676
high-dens. laser linking of metal interconnect 6661
interfacial energy calc., interconnect-metal/barrier-metal interfaces 38633
lightweight metals bonding adhesion layer, electronic appl. 12185
logic 0.35 μm technol. for 3.3 V/2.5 V operation 21216
logic IC interconnection technol., syst. engng., manufacturability 37723
LSI via-hole shape optim. by quasi-3D topography simul. 13863
MCMs, high-G defense systs., HDI technol. 29725
memory die test/burn-in, temporary carriers 21672
metal melting, microscopic hole by laser radiation *(Japanese)* 6657
metal pattern deposition, laser-induced forward transfer 28859
microelectronics mfg., technol., conf., Orlando, USA (Nov. 1993) 20209
microelectronics mfg., yield, and reliab., conf. (1994) 5438
MMICs, transit. props. of vert. conductor connecting two microstrip lines 12790
Monte Carlo reliab. simulator, IC manufacturability 22547
multi-level interconnect technol. for VLSI/ULSI, materials, thermal alternatives 13423
multiconductor interconnects, VHSICs, capacitance matrix computation 12795
multilevel high dens. ASIC defect isolation, electron beam probing RIE 21169
multilevel metallization beyond 0.35 μm technol. 22258
multilevel monolithic inductors in Si BiCMOS technol. 21572
multiple target sputter syst., real-time control 20967
noble-metal nanoconstrictions and obs. of conductance flucts. 13428
on-chip interconnect reliab., electromigration resist. prediction 38674
PBT struct., proc. optimisation and charact. 1370
plastic assembly procs., eval. for high reliab. IC appls. 6452
post metal deposition defects, real-time particle detect. 38697
PTFE substrs., cct. fab. methods 6436
refractory metal silicides, metal vapour vac. arc ion source synthesis 30142
refractory metals, planarization, multi-step sputter/sputter etch proc. 6658
self-planarizing CVD oxide for interlayer dielec. appls. 22262
soft etch contact proc., 0.1 μm CMOS device appl. 22572
SOG film form., Al metal layers for double metal proc. *(Korean)* 30148
Space Shuttle rem. power controllers, AlN metalization/joining 26688
stress-voiding/electromigration in multilevel interconnect metallizations 38986
strips metallization effect on delay time of IC elements 853
sub-qtr. μm CMOS, self-aligned W technol. 22586
submicron contact-holes/vias, Al reflow, simul. model 22273
submicron contacts using selective CVD-W plug, jn. stabil. *(Korean)* 13418
submicron ICs, rapid prototyping, FIB techs. 13835
ULSI, electromigration-induced integrat. limits, model 38976
ULSI multilevel interconnects, proc. integrat./manufacturability 38641
VLSI interconnect reliab. studies, computer simul. 22553
VLSI interconnect systs., mfg. considerations 38640
VLSI metallization by coherent magnetron sputtering 38668
Ag/Pd thick-film conductors 29695
Al IC interconnection failure, stress migration-induced voiding 38666
Al film planarization for ULSI metallisation, mol. beam deposition/annealing 22267
Al plug technol. for sub-0.5 μm contact/via geometries 22260
Al porous anodization proc. anisotropy, VLSI planar metallization 38673
Al thin films, electromigration, hillock form. 30143
Al thin-film interconnects, thermal stresses, cryst. plasticity simul. 22264

integrated circuit metallisation continued
Al ultrathin films for Cu oxid. prevention *(Korean)* 38638
Al-Ge-Cu multilevel damascene metallisation proc. 22259
Al-Si/Al_2O_3/SiO_2 metallization, thermal and electromigration effects 38703
Al-Si/TiN/Ti bamboo lines, electromigration, activation energy 30147
Al-Si-Mg fine-grained alloys, electromigration resist., Mg content depend. 1293
Al-Si-V-Pd microstruct., IC interconnect reliab., Al-Si-Cu comparison 38652
Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
Al-reflow proc., surface modif. by ECR plasma treatment 22261
AlCu dual damascene interconnect struct., ionized magnetron deposition 30132
AlCu-Si multilevel IC interconnections, manufacturability/reliab. 38644
AlCu-TiN VLSI interconnect systs., design and building-in reliab. 38645
AlGaAs/GaAs HBT IC technol. for 4:1 TDM multiplexer 1487
AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
AlSi/TiN/Ti bamboo metal lines, ASTM electromigration test struct. 30135
AlSi/TiN/Ti bamboo metal lines, NIST electromigration test-struct. 6664
Au-NiCr metallization, CVD diamond substrs., MCM appls. 12981
Au-Ti metallization, CVD diamond substrs., MCM appls. 12981
Au-Zn-Au-GaAs ohmic contacts, As loss during RTA, Cr-collector study 22097
Co films/$CoSi_2$ films, opt. props., G-line/I-line lithog. 38748
$CoSi_2$-Si heterostruct., solid state epitaxial growth from Co-Ti-Si multilayer 37419
$CoSi_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
Cr-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
Cu CVD for advanced on-chip interconnects, Motorola 28813
Cu CVD precursor chem./mol. struct., IC metallization 28812
Cu CVD thin films, direct liq. coinjection, ULSI device metallisation appls. 30133
Cu IC interconnections, materials issues 30137
Cu MOCVD thin films from pyrazolylborato-Cu(I) complexes, charactn. 38679
Cu diffusion, Cu/Al-Cu based thin film IC metallizations, comparison 38648
Cu dual damascene interconnect struct., ionized magnetron deposition 30132
Cu electroless deposition on metals/metal silicides, ULSI interconnects 28790
Cu grain growth during Cu-Cr and Cu-Ti thin film nitridation, situ TEM 38583
Cu inlaid struct., chem.-mech. polishing, pattern geom. effects 1292
Cu interconnects, diffusion/drift barriers for Si and SiO_2 30138
Cu interconnects, subquarter-micron, dry etching 30144
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
Cu metallization, Cl_2 plasma etching, IR light irrad. 38579
Cu metallization mfg. issues for future ICs 38643
Cu metallization technol. for deep submicron ULSIs 30140
Cu planarized copper multilevel ULSI interconnections, damascene proc. 30139
Cu selective CVD on diamond surfaces, self-assembled monolayers 37493
Cu surface/interface modif. for IC appls. 38647
Cu thin film CVD from Cu(II) metalorganic precursors, growth/microstruct. 38678
Cu thin films, chem. mech. polishing, surface layer form. 38572
Cu thin films, electromigration, hillock form. 30143
Cu/Al(Ti)/SiO_2 interface, ultrathin sacrificial diffusion barrier anal. 38702
Cu/polyimide, adhesion strength, continuous micro-wedge scratch test, metallisation appls. 37570
Cu-AlN, electroless-plated substr., hybrid IC metallisation tech. 951
Cu-Cr bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
Cu-Cr bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
Cu-SiO_2 IC metallisation, refractory metal encapsulation/barrier layer 38650
Cu-Ti bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
Cu-Ti bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
Cu-Ti(Cr) self-encapsulated metallization, TiN(CrN) diffusion barriers 38651
Cu-based metallization, ULSI struct., IC interconnects 30136
Cu-polyimide-Si multilevel IC interconnections, manufacturability/reliab. 38644
Cu-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
CuCr alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
CuCr alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
Cu_5Si passiv. layer, growth kinetics and materials props. 38577
CuTi alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
CuTi alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
GaAs MMIC broadband braided microstrip coupler 857
GaAs, n-type, NiGe- and InAs-based ohmic contact metallizations 38655
GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
InP/InGaAs HBT IC technol. for 4:1 TDM multiplexer 1487
Mo conductors, laser-induced CVD, LSI appl. *(Japanese)* 5871
Ni/Cu electroless plating, bump metallization 22280
Ni-Au-Te-Au contacts on n-GaAs, microstruct./elec. props. correl. 38657
Ni-NiIn-Ge-GaAs ohmic contacts, interface microstruct./reacts. 38396
Pb-Sn flip-chip solder bonds on Cr-Cu-Au metallisation, SnCuAu ternary phase 11816
Pd patterned thin films, laser-induced forward transfer deposition 28860
Pd-Ge-Ti-Pt ohmic contacts, p^+-GaAs:C/$Al_{0.26}Ga_{0.74}As$:C 38658
Si RT oxid. catalyzed by Cu_3Si 38578
Si integrated optoelectronic VLSI commun. cct. 34033
Si metallized wafer RTP temp. meas., IR transm. techs. 22216
Si-$TaSi_2$-TiN-AlSi multilayer thin film contacts, electromigration testing 38654
SiO_2 films, chem. mech. polishing, planarization ability 38575
SiO_2 surface damage, chem. mech. polishing on IC-60 pads 38576
Ti films/$TiSi_2$ films, opt. props., G-line/I-line lithog. 38748
TiC films deposited on Si by laser reactive ablation 37498
TiH_2 diffusion barrier stabil., SiO_2 substrs. 38649
TiN MOCVD films, IC diffusion barriers/adhesion layers, TEM study 37420
TiN collimated PVD, EVOLVE simul. 38669
TiN diffusion barriers for sub-0.5 μm planarized Al IC technol. 38653
TiN/$TiSi_2$ bilayer form. by rapid thermal anneal at ULSI submicron contact, elec. props. *(Korean)* 30160
TiN/$TiSi_2$ form., TiN_x layer, ULSI technol. 38684
TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270
TiN-Si CVD for sub-0.5 μm technol. 13415

integrated circuit metallisation continued
TiO conductive films, reactive ion-beam sputtered, VLSI metallisation 37494
TiSi$_2$ SALICIDE, dual gate CMOS struct. 38682
TiSi$_2$ buried layers in Si by direct wafer bonding 30154
TiSi$_2$ selective CVD, integrated cluster tool 20847
TiSi$_2$ silicide form. on polycryst. Si, surface morph. study 1299
TiSi$_2$ submicron CMOS technol., two-step RTA *(Chinese)* 13416
TiSi$_2$/Si BiCMOS technol., nonohmic contact resist., NFETs/PFETs/diffused resistors/NPNs 38631
TiSi$_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
TiSi$_2$(NiSi)-polysilicon salicided films, resist. behavior, CMOS ULSI 6665
TiW PVD manufacturability, advanced chamber shield design 22272
UV laser irrad./electroless deposition method 12144
W CVD films, opt. props., G-line/I-line lithog. 38748
W CVD proc., silane-rich, develop. 37496
W IC metallisation, chem.-mech. polishing, halogen-based slurries 38574
W etchback proc., bipolar electrostatic wafer clamp 6635
W nucleation layer CVD using various SiH$_4$/WF$_6$ flows, characterisation 37497
W/WN/Si, nitride barriers for thermally stable metallization, TEM studies 38704
W/WNx/poly-Si gate technol. for deep submicron CMOS LSI 22587
WSi$_2$ buried layers in Si by direct wafer bonding 30154
WSi$_x$ CVD as-deposited/oxidized films, DCS-based, comp./struct. 38664
WSi$_x$ films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676

integrated circuit modelling
see also semiconductor device models; semiconductor process modelling
adaptive models, obj.-orientated prog. 30440
adders, parametric delay and area models 6066
advanced interconnect modelling, VLSI design tool 22550
alloyed ohmic contact model, IC metallization sheet resist. 38985
analog CMOS differential stages, hot-carrier-induced offset voltage 22574
analog VLSI neural network for texture anal. 29477
ASIC design cycle-time reduction methods 22581
ASMAT known good die microbump interconnection syst., anal. 37148
Australian microelectronics, conf., Gold Coast, Qld (1993) 5449
bal. act. microwave freq. doublers, modelling/anal./design 861
ball grid array packaging, IC design, SPICE-compatible modeling 37139
BEST integrated syst. for macromodel develop. *(Korean)* 38978
Bi-CDMOS technol., lateral DMOSFET, oxide sidewall-spacers 29033
BiCMOS buffer ccts., delay modelling and optim. 647
BiCMOS dyn. logic cct., LV deep submicrometer VLSI, transient model 29097
bipolar IC, ion-induced sustained high current condition 13872
bipolar IC gain degrad. at low radiation dose rates, phys. mechanisms, models 13871
bipolar technols., stat. cct. simul. 39001
bipolar transistor degrad. under dyn. hot carrier stress 38849
board-level simul., IC design/testing develop. 13869
bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
C-band MMIC FET oscillator, design, D05ML foundry proc. 29601
cad tools 6843
CCD imager, leakage current simul. 25877
chip model library for integrated package/chip simul. 37081
CML cct. delay components and current dependency 12423
CMOS amp., parametric yield optim., l-models 6846
CMOS buffer design, split inherent-capacit. load model 29101
CMOS cct. timing, device resist. estim. tech. 30457
CMOS current-memory sigma-delta modulators, discrete-time simul. 29327
CMOS digital combinat. ccts., stat. delay charactn. 13891
CMOS driver loading conditions rel., simultaneous switching noise 6864
CMOS ESD protection ccts., scaling, optim., design 6849
CMOS ESD protection ccts., scaling/optim./design considerations 30471
CMOS IC, I$_{DDQ}$ testing, EDA/ATPG/ATE syst. integrat. 13892
CMOS IC crosstalk extraction from mask layout 22568
CMOS IR sens. design, computer-aided tradeoff study 3838
CMOS micropower OTAs, SOI vs. bulk perform. comparison 553
CMOS μP design, energy-efficient 12565
CMOS OTA-C act. filter simul., OTA macromodel 21404
CMOS power dissipation, cost-effective estim. 22567
CMOS radiation tolerance data, mapping on 4-lane chart 13890
CMOS SRAM soft-error simul. syst. 657
CMOS SRAM technol., ESD design methodology 29224
CMOS submicron mismatch model for practical IC design 30454
CMOS supply-voltage scaling limitation 30452
CMOS ULSI IC design, high perform. metallization issues 38642
CMOS/SOI technol., high-speed/low power and modeling 6851
cryogenic rad-hard CMOS readout multiplexer fab. 30448
current-feedback op-amps, small-sig. macromodel 37651
custom IC, conf., San Diego, CA, USA (May 1994) 20247
custom IC, conf., San Diego, USA (1993) 36842
deep submicron compact phys. model for analog ccts. in mixed analog-digital ICs 21452
delay optim., multiple choice lin. knapsack problem 21045
digital ccts., parametrization of EMC-macromodels 21174
EEPROM CAD model for low power cct. design/simul. 21304
electromigration mechanisms, nondestructive elec. anal. techs. 38667
electronics packaging interacts., equiv. cct. models 11764
em, EM simul. tool for MMIC design 29598
embedded analogue to digital converters, characterisation, model 707
EMC problems, PEEC cct. models, stable time domain solns. 15511
ESD protection cct., 2D electrothermal simul. and design 30467
fast bias depend. device models for CAD of MMICs 38014
flash EEPROM prog. simul., hot-electron/hot-hole injection 12501
flash EPROM endurance simul., phys.-based models 21306
floating gate polysilicon grain size, flash memory over-erase 21331
FLOTOX EEPROM, program operations, simul. 656
FLOTOX EEPROM cells, intrinsic retention characts., model 37751
FPGAs, total dose hardness 12481
fully depleted SOI CMOS SRAM cell, SEU sensit., SPICE anal. 12522
gate oxide defect screen for VLSI CMOS reliab. 22588
gate-level, realistic faults in digital ICs 6092
Getreu comparator macromodel, anal. and design algms. 6257
global router for high-speed bipolar LSIs 13870
ground bounce effect on noise margin modelling 6857
HDL models comparison with layouts, formal verif. tech. 37588
high-end proc., CMOS and bipolar, perform. trends 6185
high-speed deep submicron VLSI, technols./interconnect modeling 22558

integrated circuit modelling continued
hybrid IC, anisotropic test substr., thermal field simul. 6842
I/O-buffer modeling spec simplifies simul. for high-speed systs. 37693
impedance-loss profile of interconnection struct. 22559
Intel i486 μP PGA package, RAPHAEL program L and C modelling *(Korean)* 38984
interconnect capacits. of ICs, automatic model generation 38980
latchup-free design in merged BiPMOS 6869
LAYIN, CAD tool for IC parasitic coupling modeling 30437
layout-based extraction of IC elec. behavior models 22542
lin. and nonlin. MMICs, design strategies 29597
load-independent cell library macromodeling, waveform simul., CMOS logic 29143
LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
LSI via-hole shape optim. by quasi-3D topography simul. 13863
march tests automatic generation for memories 6154
MCM-L layout approach for high-speed problems 38187
memory devices, SEU rate prediction, two param. model 12521
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
MIMIC amp., modelling and charactn. 29605
mismatch simul., stat. modeling techs. 30441
mixed analogue digital IC simul., modelling techs. 21445
mixed photonic/electronic cct. simul. 37603
mixed-sig. IC design, noise decoupling techs. 29398
mixed-sig. macro-cell placement in WRIGHT 29405
MMIC design, pass. and act. device considerations 29596
MMICs, coplanar ccts., T and cross sects., lumped elements 21560
model implement. for design proc. automation 28944
MOS EPROM writing charact., hot electron injection model, transient simul. 12546
MOSFETs, non-quasi-static transient effects, model 22410
mound defect modeling, yield forecasts 1480
multilayer package, simultaneous switching noise 11806
multilayer PBGA, perform. enhancement 20456
multilayered packaged CMOS drivers, simultaneous switching noise 11807
Neurodevice, modelling interface for VLSI design 13865
nonlin. transm. line CPW MMIC, design, modelling, fab. 12808
numerical modelling of processes and devices, conf., Seattle (1992) 5499
Nyquist data converters, verif., behavioral simul. 37816
op amp SPICE noise macromodel 37638
op amps, HF current feedback macro models, enhanced perform. characts. 6033
Pentium proc. package, thermal modelling, reliable operation 12575
perform. modeling of analog ccts. using additive regression splines, SC filter bank 30433
phased array packages, interconnects, HF charactn. 28461
polysilicon gate depletion effect on deep-submicron cct. perform. 1485
power electronics design, educational strategies 29013
proton SEU rates in space compared to rates meas. on CRRES satellite, DRAMs 12532
RC interconnect of CMOS logic gates, effective capacitance modeling 1495
RF ASIC designs, CAD syst., error-checking 37590
Rsim switch-level simulator, piecewise lin., timing anal. 1481
scaled DRAMs, α-particle-induced soft errors 21320
Schmitt trigger ccts., adjustable hysteresis 29128
SECSPICE cct. simulator for submicron MOS designs *(Korean)* 39016
SEE rates for gal. cosmic rays/solar flare protons, SRAM chip effects, satellite shielding 12533
series-connected MOS struct., internal parasitic capacit. effect 30435
SEUs in ICs due to terrestrial cosmic rays, modelling 13867
SG7915 voltage regulator, temp. depend. SPICE macromodel 5997
smart power CMOS IC, 2D charactn./perform. optim. 12315
SMARTMOS quad low side automotive electronics switch, Saber modelling 36775
SOI power device blocking voltage, HVIC interconnection influence 29979
spaceborne electronic/biological systs., cosmic rays/solar particle effects, HI model 13868
SPICE macromodel for OTA 37844
SRAM GOS defects, fault modeling/testing possibilities 37763
Stanford TCAD, next generation, PISCES 2ET and SUPREM 007 22543
static MOSFET model suitable for analog IC anal. 30292
stochastic ANNs, CMOS analog implement., temp. effects modelling 29463
stress-voiding/electromigration in multilevel interconnect metallizations 38986
submicron BiCMOS compatible HV MOS transistors 29034
TAB inner lead gang bonding on Ni-Au bumps 12960
TCAD for semicond. device/IC/proc. design and modelling 13861
top/down analogue IC design CAD, behavioural modelling lang. 28986
ULSI, electromigration-induced integrat. limits, model 38976
VHDL-A for modelling 485
VIDS, visual interp. for device simul., proc. models 22544
VLSI cct. performs., worst-case anal. and optim. 38981
VLSI cct. testability and coverage estim. 22518
VLSI designs, yield and mfg. prediction model 30432
VLSI ESD sensitivity, thermal breakdown and dielec. breakdown 6844
VLSI interconnect reliab. studies, computer simul. 22553
VLSI interconnects, high-speed, time domain sensitivity 13862
VLSI interconnects/packaging, integrated design auto. syst. 6845
VLSI manufacturability, component level yield/cost model, mixed technols. 28409
VLSI power supply coupling diode design, ESD protection/noise immunity 30470
VLSI proc. and device simul., solid models 22537
VLSI RC parasitics modeling based on network reduction algm. 22536
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
worst-case IC optim. approach, cct. perform. model scheme 38979
X-band MMIC varactor-tuned VCOs, modelling and design 6342
ASICs, DFT tools and method selection 37684
Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417
Al-Si-Cu VLSI interconnect void-related early failure, subpopulation model 22271
Al-TiN high coverage barrier film form., ICB deposition 20955
AlGaAs/InGaAs PHEMT ultra LNA MMIC, 50 GHz band 29592
AlGaAs-GaAs HBT, large sig. equiv. cct. model, MMIC oscill. 38828
GaAS DCFL logic gates, timing macromodel 37717
GaAs ACT transversal filters, yield model 39118
GaAs CHIGFET noninductive impedance transformer design 29351
GaAs DCFL ccts., timing macromodels 37710
GaAs DCFL logic gate ccts., delay/transit. time macromodels 21261

integrated circuit modelling continued
$GaAs-Al_2O_3$ flip chip modules, AuPd wire bump thermomechanical integrity 11824
InP-based HBTs/heterostruct. bipolar ccts., design platform 28946
Si OEIC with built-in PIN-photodiode, fab., perform. 14648
Si scaled submicron ultra-low power CMOS technol. 39008
Si:B, enhanced diffusion due to ion implant. in thin-base npn BJTs, model 38997
Si/SiGe I^2L ccts., gate delay 12414
SiO_2, scaled, polarity depend. of dielec. breakdown in MOS ULSI capacitors 22608
SiO_2 thin film reliab. at direct-tunneling voltages, MOS VLSI technol. 22607

integrated circuit noise
1 Hz MOS integrated low-pass filter, high dyn. range/low distortion 29345
3.3 V CMOS devices, elec. packaging requirements for LV ICs 5637
act. voltage attenuator using two cascaded MOSFETs, perform. 736
adjacent vias in multilayered digital ICs, coupled noise anal. 12394
BiCMOS ADC, 500 kHz, 14-bit, multiplexed appls. 694
BiCMOS controllable current amp. for hearing instrums. 35169
BiCMOS transconductance-C IF band pass filter 29346
CMOS ASIC ESD failure, substr.-power bus contact effect 30468
CMOS charge sampling IC for capacit. detector/sens. interfaces 25774
CMOS current-memory sigma-delta modulators, discrete-time simul. 29327
CMOS digital combinat. ccts., stat. delay charactn. 13891
CMOS digital video delay line, embedded ADC/DAC/SRAM 34434
CMOS driven, center tap terminated network in shared bus design, optimisation 11769
CMOS driver loading conditions rel., simultaneous switching noise 6864
CMOS LNA design *(Chinese)* 13877
CMOS preamplifier, 4.2 K operation, human biomag. field meas. 34994
CMOS preamplifier for IC-magneto-resistive read elements, $0.8nV/\sqrt{Hz}$ 7142
CMOS SRAM soft-error simul. syst. 657
complementary noise immune logic in high speed ECL technol. 6069
DC small sig. symbolic anal. of large analog ICs 12281
digital cct. board, near-field EM emission, reson. charact. 21625
dual bitstream continuous calib. CMOS D/A converter, 110 dB dyn. range, 3.4V 692
E/D-DCFL inverters, sub-1V, propag. delay 12415
electronics packaging interacts., equiv. cct. models 11764
FIB technol., effect on IC design methodology 1478
ground bounce effect on noise margin modelling 6857
hierarchical VLSI logic ccts., crosstalk fault detect. 12454
high resoln. ADCs, 12-/14-bit, total ionizing dose effects 12603
high speed MMICs/digital ICs, fab., T-gate technol. 858
high-speed multiplier/VGA, simplified-transistor SPICE macromodel 6251
IBM RISC System 6000 workstation ceramic ball grid array package conversion 37149
indust. automation systs., thyristor-based logic microcircuits 21223
integral decoupling capacitors in IC/MCM packaging, simul. 12843
lightwave-microwave mixing tech. using MESFET act. devices, MMIC compatible 29587
low noise CMOS freq. synthesizer, dyn. bandwidth control 21133
low noise preamplifier design for room temp. detector appls. 43139
MCM interconnect considerations 38199
MCM-C package for a multiprocessor digital syst., elec. design 21723
microASIC, mixed digital and analogue chips, design 6246
mixed photonic/electronic cct. simul. 37603
mixed-sig. commun. LSIs, design, device/crosstalk noise 12660
mixed-sig. IC design, noise decoupling techs. 29398
mixed-sig. ICs, digital noise meas. 21449
mixed-sig. macro-cell placement in WRIGHT 29405
mixed-sig. macrocell placement in WRIGHT 29395
mixed-sig. Si-on-Si MCMs, crosstalk noise 21771
MM-wave low noise downconverter in MMIC technol., 60 GHz 29606
MM-wave multifunctional bal. switching LNA 12824
MMIC freq. synthesizers, phase noise reduction tech. 12816
multilayer package, simultaneous switching noise 11806
multilayered packaged CMOS drivers, simultaneous switching noise 11807
Nyquist data converters, verif., behavioral simul. 37816
on-chip power supply coupling diodes, ESD protection, noise immunity 5986
op amp SPICE noise macromodel 37638
phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
photo BJT array in CMOS technol. for intell. imaging 9935
photoconductive layered solid-state imaging device, SNR anal. 17930
probe cards, manufacture and Si LSI/VLSI IC R&D/prod. testing *(Slovenian)* 30393
RAIL synthesis tool, mixed-sig. noise-decoupling 29406
reliab. phys., noise, diagnostic tool 20496
soft competitive learning, analogue CMOS implement., hardware tolerance 29433
spurious sigs. detectability in combinat. ccts. 12455
transimpedance amps. with cascode struct., anal., MMIC amp. appl. 12807
V-band high gain monolithic PHEMT LNA design 21555
VLSI cct. performs., worst-case anal. and optim. 38981
VLSI power supply coupling diode design, ESD protection/noise immunity 30470
VlSI reliab. challenges, Japanese vs American industries 22527
W-band high gain monolithic LNAs based on HEMTs 12818
W-band monolithic HEMT LNAs for microwave scanning radiometer 21558
wideband amp. IC for three-channel video sigs. 6038
Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
AlGaAs/InGaAs PHEMT ultra LNA MMIC, 50 GHz band 29592
GaAs MESFET TWA MMIC, 2-12 GHz *(Chinese)* 38039
GaAs MESFET varactor tunable oscillators, noise calcs. 21565
GaAs MMIC act. filters, synthesis incorporating noise effects 6328
GaAs SRAMs, total dose radiation hardening/testing 37773
GaAs precharged low-power logic family, adder implement. 21264
InGaAs monolithically integrated μin-FETs, noise characts. 14671
InP HEMT MMICs, low noise, V-/W-band amplifiers 12802
InP/InGaAs HBT, integrated optical receiver front-ends noise 14662
InP-based 10 Gbit/s photoreceiver OEICs, noise and perform. 9429
InP-based HEMT 140-GHz monolithic LNA 21581
PtSi 640×480 IRFPA, third generation, MOS readout multiplexer 17953
PtSi hybrid FPA, CMOS multiplexer readout 17946

integrated circuit packaging
0.35-mm-pitch QFP lead and assembly technol. 5654
1.4-mm thin QFP develop. in IC packaging 37072

integrated circuit packaging continued
3.3 V CMOS devices, elec. packaging requirements for LV ICs 5637
3D LCR extraction and modeling of VLSI packages 5623
3D molded interconnection devices, product DP 28447
3D stacking MCM technol., GE HDI 21708
128 K×8 bit SRAM multichip package, fab. *(Korean)* 12504
296-lead fine pitch thin plastic QFP package, TAB interconnect 5655
1024-pin plastic ball grid array for flip chip die, design, SPICE model 5652
1500 W freq. converter, direct bond Cu substr. 37068
1995 forecast for solid-state technol. 30389
act. ICs assembled in plastic packages, area array wire bonds 12958
active array radar MMIC packaging evol. 21578
adhesive-based IC interconnects, materials/reliab. considerations 13432
air jet impingement cooling of simulated MCM 37087
area array interconnection, Cu-PI thin films on multi-layer glass-ceramic substr. 139
array opt. switching syst.-level VLSI platform for opt. interconnection insertion 42129
ASMAT known good die microbump interconnection syst., anal. 37148
ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
ATM switching MCMs, heat-pipe cooling technol. 25183
automated design of microelectronic packages 11757
B-ISDN ATM switching module, MCM-C technol. 25181
ball grid array ceramic packages 20449
ball grid array package, popcorn cracking 11812
ball grid array packaging, IC design, SPICE-compatible modeling 37139
ball grid array technol., develop. 5644
BCB layers for MCM-D/L appls., attenuated refl. IR microscopy 12982
BiCMOS megabit SRAM chip package modelling and perform. anal. 37755
bimaterial beams, elastic plastic anal., packaging appls. 28482
BPDA/PDA/6FDAm photosensitive polyimide copolymer, low stress/high sensitivity 12205
bump heat sink technol. for power HBT and MMIC 38829
bump-pad adhesion, thermocompression bonding effects 21668
bumped-substr. die-level burn-in carrier for MCMs, mech./elec. eval. 11772
C4, controlled collapse chip connection, enabling technol. 5647
C4 packages, bumps, package design guideline, package layers 11771
C4/BGA comparison, MLC single chip package alternatives 5649
C4/CBGA interconnect technol., hi-dens., CMOS μP appl. 5650
capacitively coupled MCM, manufacturability 12968
CBGA package design for C4 PowerPC μP chips, substr. routability and perform. 5661
ceramic ball-grid-array packages, reliab./mfg. vars. 20450
ceramic QFP, epoxy encapsulation, SM appls. 11765
ceramic QFP, epoxy encapsulation, SMT appls. 5629
chip capacitor attach, CFC solvent elimination, qualif. by comparison 38172
chip model library for integrated package/chip simul. 37081
CIMID, electronic systs., high dens. integrat. 28458
CMOS 64 Mbit DRAM, design, fab., packaging, perform. 37778
CMOS driven, center tap terminated network in shared bus design, optimisation 11769
CMOS driver loading conditions rel., simultaneous switching noise 6864
CMOS ESD protection ccts., scaling/optim./design considerations 30471
CMOS LSIs for pers. inform. and telecom. systs., trends 22565
CMOS VLSI single chip package, TAB technol. 28452
COG, COG technol. for LCD driver LSIs, resin and flexible metal bumps 134
compliant bumps for adhesive flip chip assembly 5648
concurrent MCM package design solns. 11780
continuum damage mech. model, cyclic creep fracture anal. of solder joints 28489
controlled collapse chip connection, flip-chip attach on FR-4 IC packaging 130
cooling, adiabatic heat transfer coeff. on cube faces 37122
coupled noise predictors for lossy interconnects 5639
custom design kits for cost-effective access, MCM foundry 21759
custom IC design co-operation *(German)* 5572
demountable TAB package, area array press. contacts reliab. 37079
demountable TAB path for TAB technol., PCB design, reliab. testing 5640
diamond/(C-C) composite, semicond. base 12193
die attach proc., mfg. stresses in die, electronic packages 6453
die grid array packaging, known good die IC prod. testing 37147
die mount methods for memory chip testing 38166
die-attach proc., mfg. stresses in die, package reliab. 29709
digital ICs, power-reduction schemes 21168
DIP solder joint failure under tensile-compressive stress 37130
distributed baseband amp. IC module and MCM, 60 GHz bandwidth 6334
doubleface populated MCM in thin film technol. for HF appl. 21707
electronics packaging interacts., equiv. cct. models 11764
EM radiation from packaged ICs, anal. 21621
encapsulated flip chip bonding, chip replacement method, FCA technol. 133
engine control module, hybrid interconnect technols. 28154
EOS/ESD failure anal., CMOS IC mfg. proc., extent/cost 30545
epoxy die attach, dispensing technol. and systs. 12950
epoxy resin, printing encapsulation syst., MCMs, PLCC, BGA, PGA, TAB, COB, flip-chips 20433
ESD hazard minimization, IC test handlers and automatic trim/form machines 30412
ESD packaging, environ. perspective 28455
fine line thick film conductors by gravure offset printing 12946
fine pitch surface mount IC package solder joints, exam./testing 37117
fine pitch wedge bonding for high dens. packaging 20446
finite thickness transm. lines above periodically perforated ground plane, packaging 23757
finned LSI packages, thermal resist., num. simul. 37106
flip chip packages, damage and life prediction of solder joints under thermal cycling 11747
flip chip proc. based on electroplated solder bumps 5620
flip-chip bonding proc., multi-stacked μ-Au bumps 12956
flip-chip packages, low thermal expansion encapsulants, props. 132
fluxless oxid.-free bonding technol., microelectronic packaging 12952
FPGA prototypes, package partitioning technol. 6114
free space opt. interconnects, LD array, microlenses, photodetectors 7486
free-space interconnect based optoelectronic integrated systs. 1766
General Electric HDI modules, MCM-D, reliab. 12980
glass plates, stress measuring method, polarized laser and photo-elastic modulator 34705
glass-Si substr. for hybrid optoelectronic packaging 31118
HDI, laser created, quick prototyping of electronic ccts. 5676
HDI based PGA package, compatibility, μP chip package 5653

integrated circuit packaging continued
- heat pipe heat sink thermal resist., fn. of length 37145
- high bit rate opt. transmitter module realised in opto-hybrid technol. 9480
- high dens. multilayer substr. for Si on Si high speed module 29719
- high flux MCM config., liq. immersion cooling systs., substr. thickness 37103
- high pin count QFP packages, carrier and socket technol. 11802
- high pin count QFP packages, carrier/socket technol. 28476
- high speed digital design using Spice controlled sources, accurate I/O models 20451
- high vol. wire bonding automation, pattern recogn./video lead locators 38167
- high-perform. MCM, low cost design 11775
- high-power flip-chip multi-chip modules, backside cooling soln. 11789
- high-speed interconnections, accurate elec. charactn. 20454
- high-speed optoelectronics, packaging technol. 11751
- HTS/metal/polymer dielec. interconnect struct. for packaging appls. 11785
- hybrid ICs for appls. in transport, reliab. 21661
- hybrid MCM, mixed interconnection considerations, wire bonding, flip chip and TAB 21709
- hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
- hybrid packages, cleaning, CFC-free technol. 28548
- hybrid WSI MCMs, laser creation of silicon vias for 3D interconnects 29720
- IBM RISC System 6000 workstation ceramic ball grid array package conversion 37149
- IGBT power module interconnection busbars 37634
- impedance-loss profile of interconnection struct. 22559
- IMPS, interconnected mesh power syst. MCM topol. 21760
- integral decoupling capacitors in IC/MCM packaging, simul. 12843
- Intel i486 μP PGA package, RAPHAEL program L and C modelling *(Korean)* 38984
- intell. modules, power convertor appl. 21120
- intell. power IGBT modules, motor drive appls. 532
- K_a-band phased array multilayer MCM design and fab. 23986
- known good die selection tradeoffs, cost model, MCM burn-in tests 21704
- known-good die and MCM packaging aspects 959
- kovar leads with various surface flaws, fracture mech. anal., IC reliab. 28491
- laser bumping for flip chip and TAB appls. 12957
- layout-based extraction of IC elec. behavior models 22542
- lead on chip plastic package adhesive tapes 11800
- lead on chip struct. memory package, adhesive material 13853
- lead-on-chip package, temp. cycle-induced chip surface damage 20435
- lead-on-chip packages, cracking failures 5672
- lead-on-chip packages, cracking failures induced by chip backside contamination 20439
- leaded SM devices, creep strain response of solder joints, temp. profile params. 38163
- leaded SM devices and solder joints in thermal cycling environ., 3D FEA 37132
- leadframe designs, molding-induced warpage 11795
- LGA, low temp. co-fired ceramic, high speed digital appls. 20443
- liq. immersion cooled Si MCM, substr. thickness optim. 20440
- lossy nonlin. terminated packaging interconnection, S-param. transient simul. 5636
- low drag meas. by vision syst., IC appl. 9814
- low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
- low stress polymer die attach adhesive for plastic packages 11801
- low-power IC design, power conscious CAD tools and methodologies 38970
- LSI chip mounting/packaging technol. *(Japanese)* 13857
- LSI electronic packages, cooling enhancement by modified barriers 37086
- LSI packages for ultra high-speed opt. fiber transm. systs. *(Japanese)* 42470
- LSI packages with long. fins in free air stream, heat transfer 37096
- LTCC internal capacitor, high reliab. , appls. 12967
- LTCC shrinkage matched cofireable thick film resistors 11767
- MAX 9000 PLD family, dens. and package options 29163
- MCM, COB, single/double sided, Jedec stand., low cost 38189
- MCM, high perform. Si/Si, low cost high vol. appl. 38191
- MCM, peripheral/area array bonding tradeoff, partitioning advisor 38182
- MCM, thin film transfer process, low cost 38185
- MCM automated 3D model constr., adaptive finite element global /local anal. 29723
- MCM ceramic substr., high capacitance 21715
- MCM design technol., review 6466
- MCM freq./noise budget limitations/tradeoffs, fn. of CMOS chips integrat. 29718
- MCM technol., steady-state heat eqn., floating random-walk algm. 5633
- MCM technol. selection for thermal perform., FEA 21761
- MCM thermal anal., iter. direct soln. method 11768
- MCM-C, diffusion patterned vias, fine line printing 38188
- MCM-C package for a multiprocessor digital syst., elec. design 21723
- MCM-D, low cost, large format fab., photosensitive polyimides 21718
- MCM-D, low cost fab., thin film transfer proc. 21719
- MCM-D, low-cost, technol. choice impact 38190
- MCM-D fab., low cost, thin film transfer proc. 21687
- MCM-D interconnects, perform., process var. effect 38184
- MCM-D metal/polymer interface durability, chem./water uptake 11817
- MCM-D open repair technols. 21724
- MCM-D with embedded thin film resistors, ECL gate array packaging 21706
- MCM-L, laminate substr. current state 38192
- MCM-L layout approach for high-speed problems 38187
- MCM-L technol., systs. cost anal. for high vol. automotive electronics appl. 21716
- MCM/ball grid array technol., assembly proc. considerations 38178
- MCMs, categorization and appls., laminates and ceramics 955
- MCMs, packaging technols. 29713
- MCMs, thermoelastic anal., global-local procedure 28487
- memory die test/burn-in, temporary carriers 21672
- MIC package EM modelling 21577
- microchannel cooling passages in a chip substr., fluid flow and heat transfer 37088
- microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
- micromechanical testing of electronic packaging components and materials 11821
- microstrip-slot and CPW-slot lines, optoelectronics appls. 12697
- microsystems, packaging and interconnection techs. 22628
- microwave and MM wave packaging and interconnection for modules 37082
- mixed-sig. MCM-L design, GPS receiver appl. 21691
- MM-wave low noise downconverter in MMIC technol., 60 GHz 29606
- MMIC multilayer packaging technols. 21730

integrated circuit packaging continued
- MMICs, transit. props. of vert. conductor connecting two microstrip lines 12790
- mold proc. params. and tooling variables for high quality plastic packaging 28451
- molding, wirebond deform. 28495
- molding cpd. materials for IC plastic packaging, fracture props. 5626
- molding cpds. for IC plastic packaging, fracture props. 5671
- molten axisymmetric solder interconnection joints, heuristic force-height eqn. 141
- motherboard technol. for active array opt. interconnection and packaging 23985
- μBGA packages, fine pitch wire bonding 21675
- multichip packaging in commercial electronic systs., proven design methodology 21787
- multilayer package, simultaneous switching noise 11806
- multilayer PGA, ground plane induct. and simul. 20444
- multilayer thin film package, 3D fracture mech. anal. 28490
- multilayered packaged CMOS drivers, simultaneous switching noise 11807
- multiple coupled planes, inductance modeling, PCBs, MCMs and packages 20455
- μP thermal design, simul. and phys. models 12571
- MUSE decoder chip set for HDTV, low power operation 17565
- natural convection from vert. parallel plates array 20432
- NEC graphic FIP modules *(Japanese)* 3940
- OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
- OMPAC assembly, no clean mass reflow 38171
- opt. interconnections, alignment tolerance in hybrid source and receiver arrays 20460
- opt. profilometer, multiple virtual styli, IC packaging/interconnects 34337
- opto-electronic component assembly, soldering technols. 39609
- optoelectronic packages, spot-welding tech. 5645
- optoelectronic packaging, Si surface-micromachined alignment mirrors 14673
- organic contamination detect. 20429
- package/module interconnect test syst., transient thermal sigs. 28440
- parallel plate stack, free stream cooling 11754
- parasitics for IC packages, model, PC program, layout generation 11770
- partially porous channel, localized heat sources, forced convection 37125
- particulate-loaded polymer molding cpds. for plastic packaging, thermal cond. 5625
- PC materials technol., future IC packaging appls. 12880
- Pentium proc. package, thermal modelling, reliable operation 12575
- PGA package, high speed elec. charactn./simul. 20442
- phased array module MMIC package EM design 23983
- phased array packages, interconnects, HF charactn. 28461
- PHEMT millimetre wave MMICs, technol. 29604
- photodefinable benzocyclobutene thin films for MCM/IC packaging appls. 12206
- pick and place in electronic packaging, high precision, alignment techs. 29721
- planar hybrid optoelectronics, colloquium, London, UK (1994) 20255
- planar packaged free-space opt. interconnections, computing/switching 1767
- planar spreaders with finned heat sinks, optimal sizing 37105
- plastic assembly procs., eval. for high reliab. IC appls. 6452
- plastic encapsulated IC reliab., missile appls. 35386
- plastic IC package, structural integrity eval., soldering proc. 28485
- plastic IC package params., effect on temp. cycling failures 5674
- plastic moulded LSI package, interface edge/interface crack tip, thermal stresses 28488
- plastic package design for HV power ICs 6838
- plastic packages, thermal enhancement 28470
- plastic SM IC packages, moisture/reflow induced delaminations, IC thermal perform. 11797
- plastic thermally enhanced QFP packages, moisture sensit./reliab. 11803
- PLCC chip and package design, plastic assembling, simple test chip 5632
- PLCC ink mark reliab. enhancement, flame treatment, tests 142
- PLCC temp. cycling failures, die coatings, mold cpds., and test conditions effects 28469
- PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
- polyimide film, fracture, hygrothermal effects 28882
- polyimide thin-film on ceramic struct., MCM appls., thermomechanical stress anal. 20441
- polyimide-metal interfaces, curing chem. and hydrolytic stabil. 12211
- polyimides, thermomechanical props. and interfacial fracture 12210
- polyimides used in MCM HDI, charactn. 11748
- polymer films for IC packaging, anisotropic thermal diffusivity meas. 18137
- power IC package low temp. joining tech., thermomechanical stress reduction 28504
- power IC packages, transient thermal impedance tester 137
- power IC packaging, thermal mgt. 37120
- PQFP surface mount plastic packages, heat sinks for thermal enhancement 20463
- PQFP VLSI packages, quality function deployment 37076
- PQFP warpage prediction, finite element techs. 5663
- PQFP-based MCM, low cost, reliab. develop. and qualification 28468
- preencapsulation cleaning and control 5666
- preencapsulation cleaning methods and control for microelectronics packaging 5627
- prog. interconnect arrays, thin film , chip-to-substr. interconnect switching 20434
- QFP, VLSI chip, assembly, outlead cross-sect. effect on lead skew 11796
- QFP family, thermal perform. limits, finite difference based software 5631
- QFP IC, mold void, SPC 5635
- QFP PowerQuad2, 28×28 mm, thermal perform. 11788
- QFPs, surface-mount, non-hermetic, reliab. 11773
- quartz monolithic struct. vibr. beam accelerometer 34492
- screening ICs at bare chip level, temporary packaging 28448
- second-generation SPARC proc. MCM, ROSS hyperSPARC archit. 21711
- self/mutual inductance of package/interconnect struct., inductive parasitics 20461
- single chip ceramic package stress states, reliab. terms 11755
- SM leadless solder connection, comparative compliance of commercial lead designs 5662
- small planar packaging syst., card on board, high-dens. ATM switching systs. 28459
- SMT, laser soldering, thermal modelling 28436
- solder joints of 256-pin plastic QFP, failure anal. 37129
- Space Shuttle rem. power controllers, AlN metalization/joining 26688

integrated circuit packaging continued
SRAM, bond pads, lead on chip TSOP assembly 29218
SRAM reliab., comparison of HAST, THB testing 12540
static protective shrink wrap film for JEDEC tray packaging 28454
std. product MCMs for multiple customer usage in diverse appls. 6467
StratEdge ceramic packaging for microwave and MM-wave appls. 23984
stripline CAD for VLSI chip/module interconnections, design database 28446
surface mount thin-film ceramic package for microwave appls. 11766
TAB chip on MCM-D technol., review 38183
TAB inner lead fatigue anal. in thermal cycle environ. 28474
TAB outer lead contact reliab., degrad. study 5642
TAB tape-based known good die method for MCM systs. 21678
TAB-outer lead bonding, reliab. of different tape metallizations 6447
tape ball grid array package technol. 5641
tape carrier package for high-speed LSIs, lead inductance 5643
TCC/MCM, μBGA on laminated substr. 21692
thermally-pulsed plastic IC package, thermo-structural behavior, delamination 28483
thermoplastic die attach for hermetic packaging 21666
thick film multilayer material systs. for thermal cycle appls. 21660
thin film cracking detect., test chip design 11861
thin SOP, second level assembly and reliab. aspect 37134
thin SOP with Cu gull-wing leads, SMT advantages 37133
through-substr. cooling of high power IC packages for avionics 37091
through-wafer interconnecting method for hybrid WSI 950
tilted semicond. opt. amp. arrays, flip-chip packaging 31125
TQFP package, high perform., Olin MQUAD technol. 5656
transferred ball bump technol. for tape carrier packages 21673
TSOP encapsulation reliab. modeling 37135
TSOP solder joint reliab. enhancement, encapsulation 131
two-phase electronic cooling using mini-channel/micro-channel heat sinks, design 37089
two-phase electronic cooling using mini-channel/micro-channel heat sinks, flow rate 37090
Ultra-Thin Small Outline Package 11793
UV curable urethane encapsulant for ceramic chip carriers 5628
UV curable urethane encapsulant for ceramic chip carriers 5669
UV laser irrad./electroless deposition method, IC metallisation 12144
V-band high gain monolithic PHEMT LNA design 21555
VLSI interconnections and packaging, modeling and simul. 1471
VLSI interconnects/packaging, integrated design auto. syst. 6845
VLSI microelectronic packaging, nonlin. finite element model 28443
VLSI plastic packages, reflow soldering perform. improvement 6840
VLSI TAB packaging, elasto-plastic behavior of epoxy rel.to thermal stresses 28484
wafer-level calib. of stress sens. test chips 17748
wirebond geom. and die setting, effect on wire sweep 20445
XTEM, specimen prep. tech. 28480
z-axis conductive adhesives, fine pitch appls. in consumer electronics, accelerated life test 135
Ag/Pd thick-film conductors 29695
Al and Au bond wire fusing current and fusing time estim. 21669
Al-SiC metal matrix composites, microwave/MM wave IC packages 20464
AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
AlN PGA type packages, reliable cofiring technols. 28444
AlN sintered ceramics for electronic packaging, oxygen-related defect 12191
Au wire weakening in thermosonic bonding of first bond 29711
$BaTiO_3$ high dielec. ceramic thin films proc., stress develop., IC packaging 21590
C-C composites, thermally conductive/CTE tailorable, MCM/PCB packaging 37146
Cu metallization mfg. issues for future ICs 38643
Cu-Au conductors for IC interconnects, AlGaAs laser-assisted deposition 12184
GaAs IC, conf., San Jose, USA (1993) 36852
GaAs MESFET MMIC power amp. modules, 10 W, X-band 12827
GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805
GaAs MMIC LNA for wireless commun., ultralow noise 42235
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
GaAs buffered DCFL gate array, differential push-pull I/O 37720
GaAs on Si PLL freq. synthesizer IC, chip on chip technol. 29338
GaAs power multichip IC for cellular radio 42236
GaAs-Al_2O_3 flip chip modules, AuPd wire bump thermomechanical integrity 11824
PLZT thin-film decoupling capacitors for MCMs 29737
PLZT thin-film decoupling capacitors for MCMs and ICs 12842
PtSi FPA-based Inframetrics InfraCAM thermal imaging camera 17955
Si, KOH etched, etching defects, packaging technol. implement. 13369
a-Si antifuse cct. elements, ASICs, resist strip proc. damage 21170
Si bipolar wideband amp., 15 Gbit/s, opt. commun. appl. 21122
Si chip cooling, dielec. binary mixtures 37109
Si micromachined module platform for multiple opt. fibre I/O 23066
Si wafer stress test chip, piezoresistive sens. rosettes 18111
Si_3N_4 plasma deposited coatings for sealed COB MCM technol. 12961
SiO_2 porous thin films, interlevel dielec. in IC packaging, sol-gel proc. 12141
Sn-Ag solder, Pb-free, appl. in no-clean thick film electronic modules 6451
SnSb solder/evaporated Al-Cr-Ni-Ag multilayer, bonding mechanism 11814
flexible etched cct.-based IC interconnection, high speed/dens. 13431

integrated circuit process simulation *see semiconductor process modelling*

integrated circuit reliability
see also integrated circuit yield
0.15 μm CMOS proc. for high perform./reliab. 13893
0.25 μm gate length CMOS technol., design/proc. depend. 13894
0.35-mm-pitch QFP lead and assembly technol. 5654
0.6μm nMOS ESD I/O protection struct., EOS suscept. study 29978
1.4-mm thin QFP develop. in IC packaging 37072
1 μm BiCMOS proc., 200 Å gate oxide charactn./manufacturability 13902
3D stacks of chips/wafers, through-hole interconnections 30425
296-lead fine pitch thin plastic QFP package, TAB interconnect 5655
accelerated IC life tests, time reduction by progressive censoring 20491
act. ICs assembled in plastic packages, area array wire bonds 12958
adhesive-based IC interconnects, materials/reliab. considerations 13432
AGOSTO framework, VLSI BIST wt. distrib. generation 30430
analog CMOS differential stages, hot-carrier-induced offset voltage 22574
analogue fault simul. software 488
area array interconnection, Cu-PI thin films on multi-layer glass-ceramic substr. 139

integrated circuit reliability continued
ASICs defect isolation, scan-path testing/electron beam probing 21171
ASMAT known good die microbump interconnection syst., anal. 37148
at-speed ASIC testing, defect types 12396
automotive ICs, dedicated protective fns. 36765
BESOI SRAM, 4K, transient and total dose irrad. 29236
BiCMOS, h_{fe} degrad. in bipolar output drivers, reduction, cct. tech. 30485
bipolar transistor degrad. under dyn. hot carrier stress 38849
bipolar transistor microcircuits, hot-carrier and radiation induced increases in base current 13874
brazed integrated low-temp. cofired ceramic packages 21766
bump-pad adhesion, thermocompression bonding effects 21668
bumped-substr. die-level burn-in carrier for MCMs, mech./elec. eval. 11772
burn-in/test systs. for IC/MCM manufacture, flexibility/modularity 11863
C4/BGA comparison, MLC single chip package alternatives 5649
C4/CBGA interconnect technol., hi-dens., CMOS μP appl. 5650
ceramic QFP, epoxy encapsulation, SM appls. 11765
ceramic QFP, epoxy encapsulation, SMT appls. 5629
CMOS ccts., HF AC hot-carrier degrad. 22573
CMOS custom automotive ICs, I_{DDQ} testing, fault coverage 36766
CMOS fab. intuition and reasoning in problem solving 36916
CMOS fusible-link PROM, radiation hardened n-p-n transistor 12537
CMOS gate arrays, EOS induced polysilicon migration 30466
CMOS IC, effect of layout modif. on latchup triggering 13888
CMOS logic cct. fault anal., IDDQ testing tech. *(Korean)* 29197
CMOS logic gate delay computation, slope considerations in probabilistic simul. 29115
CMOS proc. appl., wafer level reliab. SPC program 20493
CMOS radiation tolerance data, mapping on 4-lane chart 13890
CMOS radiation-hardened 32-bit μP based commercial proc. 12567
CMOS scaling for high perform. and low power, next decade 37690
CMOS SRAMs, 64 kbit, soft-error hardness, total dose depend. 12520
CMOS tapered buffers, unified design methodology 29136
CMOS ULSI IC design, high perform. metallization issues 38642
CMOS VLSI cct. logical faults, worst-case test vectors 13889
CMOS VLSI logic ccts., reliab. prediction, estim. of the switching activity 29116
COG, COG technol. for LCD driver LSIs, resin and flexible metal bumps 134
competitive microelectronics mfg., concepts 20404
compliant bumps for adhesive flip chip assembly 5648
controlled collapse chip connection, flip-chip attach on FR-4 IC packaging 130
custom IC, conf., San Diego, CA, USA (May 1994) 20247
custom IC, conf., San Diego, USA (1993) 36842
deep submicron CMOS technol., FOND device archit. 22570
demountable TAB package, area array press. contacts reliab. 37079
demountable TAB path for TAB technol., PCB design, reliab. testing 5640
die grid array packaging, known good die IC prod. testing 37147
die-attach proc., mfg. stresses in die, package reliab. 29709
digital transm. syst. unavailability, component failure rate calc. 42135
DRAM, 256 Mbit, pass transistor designs 21302
DRAMs, 256 Mbit/1 Gbit, mfg. proc. technol. 21322
DRAMs, radiation hardening, dummy cell concept 37772
EEPROM ultrathin thermal oxide, elec. and reliab. props., surface prep. 1278
electromigration tests, thermal effects 30134
emission microscopy for IC inspection *(Italian)* 20465
EOS/ESD failure anal., CMOS IC mfg. proc., extent/cost 30545
epoxy resin, printing encapsulation syst., MCMs, PLCC, BGA, PGA, TAB, COB, flip-chips 20433
fault-tolerant ASIC design, high-level synthesis 30405
FIB technol., effect on IC design methodology 1478
finite conductor with single blocking boundary, electromigration failure 6666
flash EPROM endurance simul., phys.-based models 21306
flash EPROM struct., ultra-short pulse erasing, characterisation 12502
flash memory cell, failure mechanisms in program/erase cycling 21305
flip chip interconnect systs., micromechanical and accelerated testing 11822
flip chip packages, damage and life prediction of solder joints under thermal cycling 11747
flip-chip packages, low thermal expansion encapsulants, props. 132
FLOTOX EEPROM cells, intrinsic retention characts., model 37751
FPGA SEU hardening for space appls. and device charactn. 12478
gate oxide defect screen for VLSI CMOS reliab. 22588
gate oxide proc.-induced damage, low/high temp. anneal effect 1202
General Electric HDI modules, MCM-D 12980
giant far action lateral phenom., ion/laser beam IC fab., reliab. 20488
ground recirculation parasitics in power ICs, protect. tech. *(English)* 30419
high perform. 3.3/5 V 0.5 μm CMOS technols. for ASICs 22598
high resoln. ADCs, 12-/14-bit, total ionizing dose effects 12603
high-altitude CPU reliab. anal. 18724
highly-scaled DRAMs, radiation effects study 12535
hybrid ICs for appls. in transport, reliab. 21661
IBM RISC System 6000 workstation ceramic ball grid array package conversion 37149
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
III-V semiconds. for high temp. electronics appls. 22528
improvement, alkali metal ion contamination reduction 20492
in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
integrated flex, high perform. carrier technol. for MCMs 21720
Intel 32 bit μP, radiation tolerance for space appls., eval. 29306
Intel μPs, total dose radiation testing 29305
intell. half bridge power module, 75A/250V/75KHz, switching power amps. 6027
interconnections, electromigration reliab. indicators 6660
iRULE, fast hot-carrier reliab. diagnosis using macro-models, MOS digital logic 29114
KGD, known good die, levels and effects, MCMs 12969
known good die, cost-effective design, MCM appl. 21677
known good die selection tradeoffs, cost model, MCM burn-in tests 21704
known-good die and MCM packaging aspects 959
kovar leads with various surface flaws, fracture mech. anal., IC reliab. 28491
laser inner lead bonding proc., optim. and reliab. eval. 6448
lead-on-chip package, temp. cycle-induced chip surface damage 20435
lead-on-chip packages, cracking failures 5672
lead-on-chip packages, cracking failures induced by chip backside contamination 20439
lithography tool, reliab. demons. test. design, Bayesian tech. 37194
logic IC interconnection technol., syst. engng., manufacturability 37723

integrated circuit reliability continued
LTCC internal capacitor, high reliab. , appls. 12967
LTCC shrinkage matched cofireable thick film resistors 11767
majority voting based VLSI fault-tolerant ccts., reliab. 641
mature CMOS proc., unusual HBM ESD failure mechanisms 30469
MCM, conf., Denver, CO, USA (Apr. 1994) 11562
MCM burn-in experience 21699
MCM-C, diffusion patterned vias, fine line printing 38188
MCM-D metal/polymer interface durability, chem./water uptake 11817
MCM-L, laminate substr. current state 38192
MCM-L product develop. proc. for low-cost MCMs 21713
mfg. assembly level reliab. 28426
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
microelectronics mfg., yield, and reliab., conf. (1994) 5438
mil. MCM packaging design and manufacture 29714
mini ball grid array MCM technol. 21780
Monte Carlo reliab. simulator, IC manufacturability 22547
MOS I/O device degrad., ESD-induced disloc. 22605
MOS ICs, lateral alkali-ion migration, reliab. implications 170
nMOSFET, HISREM model, IC reliab. projections 13704
MOSFET IC radiation reliab. software simulator 13898
near-bamboo interconnects, grain struct., analytic model 6667
neg. voltage regulator IC, total dose effects 12326
nMOS ESD I/O protection structs., EOS suscept. 6749
noise, diagnostic tool in reliab. phys. 20496
nonvolatile memory devices, plasma-induced in-line charging and damage, CMOS 21313
OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
on-chip interconnect reliab., electromigration resist. prediction 38674
on-chip power supply coupling diodes, ESD protection, noise immunity 5986
opt. receiver chip, stabil. improve., FIB 33984
Pentium proc. package, thermal modelling, reliable operation 12575
plasma-enhanced photoresist dry stripping, IC manufacture 38543
plastic assembly procs., eval. for high reliab. IC appls. 6452
plastic IC package, structural integrity eval., soldering proc. 28485
plastic IC package params., effect on temp. cycling failures 5674
plastic SM IC packages, moisture/reflow induced delaminations, IC thermal perform. 11797
plastic thermally enhanced QFP packages, moisture sensit./reliab. 11803
PLCC temp. cycling failures, die coatings, mold cpds., and test conditions effects 28469
PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
polysilicide CMOS devices, low-level current leakage reduction 22580
P^+-polysilicon gated FET devices, bias temp. reliab. 13750
power IC package low temp. joining tech., thermomechanical stress reduction 28504
PQFP-based MCM, low cost, reliab. develop. and qualification 28468
preencapsulation cleaning methods and control for microelectronics packaging 5627
radiation suscept. meas. 1466
RISC μPs in isolation CMOS technols., ESD protection 21348
SC59 surface mount package, autoclave reliab., benchmark study 11823
scaled CMOS technol. for LV/low power appls. 22597
scaled DRAMs, α-particle-induced soft errors 21320
screening ICs at bare chip level, temporary packaging 28448
scribe line capacitors, thin oxide monitoring, nonvolatile memory devices 20489
SEEQ 28C256 EEPROM, effect of test method on failure dose 12539
self-aligned shallow trench isolation cell for 256 Mbit NAND EEPROMs 12553
semicond. prod., reliab./failure mechanisms, brief hist. 6816
SEU and SEL response of commercial digital ICs 29092
a-Si anti-fuse used in high speed FPGA, improved reliab. 29144
single chip ceramic package stress states, reliab. terms 11755
single point inner lead bonding, narrow pitch 6450
SM leadless solder connection, comparative compliance of commercial lead designs 5662
soft etch contact proc., 0.1 μm CMOS device appl. 22572
SOI materials/devices for VLSI appls. 30458
SOI/bulk hybrid technol. on SIMOX wafers for ESD immune ccts. 13881
Sony total particle control syst., IC yield enhancement, defect reduction 20467
spacecraft electronics, single event effect proton/HI testing 29093
SRAM eval. under X-ray pulses, procedure 12536
SRAM reliab., comparison of HAST, THB testing 12540
submicron CMOS, soft ESD failure suppression 30465
submicron CMOS large-angle-tilt implanted drain technol. 22571
submicron contacts using selective CVD-W plug, jn. stabil. *(Korean)* 13418
TAB inner lead gang bonding on Ni-Au bumps 12960
TAB outer lead contact reliab., degrad. study 5642
TAB-outer lead bonding, reliab. of different tape metallizations 6447
thermal effects in integrable power semicond. devices 21121
thick film hybrid ccts., high reliab., for automotive appls. 29697
thick film multilayer material systs. for thermal cycle appls. 21660
thin film cracking detect., test chip design 11861
through-wafer interconnecting method for hybrid WSI 950
TQFP package, high perform., Olin MQUAD technol. 5656
TSOP solder joint reliab. enhancement, encapsulation 131
ULSI, electromigration-induced integrat. limits, model 38976
ULSI device scaling and reliab. 13900
ULSI multilevel interconnects, proc. integrat./manufacturability 38641
VLSI IC manufacture, QA methods 11827
VLSI interconnect reliab. studies, computer simul. 22553
VLSI interconnect systs., mfg. considerations 38640
VLSI power supply coupling diode design, ESD protection/noise immunity 30470
VlSI reliab. challenges, Japanese vs American industries 22527
wafer burn-in strategies for MCM die, BIST for KGD 21703
wafer charge neutralization, high current ion implants 30022
WSI systs. with redundancy, fig. of merit for yield eval. *(Japanese)* 30429
XTEM, specimen prep. tech. 28480
yield enhancement, real time mfg. proc. monitoring 20468
Ag multilayer ccts., environ. durability 21659
Ag-Au interconnects, transit. via fill material 30152
Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417
Al, multilayer conductors, submicron width, electromigration failure, current dens. depend. 38630
Al plug technol. for sub-0.5 μm contact/via geometries 22260
Al-Ge-Cu multilevel damascene metallisation proc. 22259

integrated circuit reliability continued
Al-Si-Cu VLSI interconnect void-related early failure, subpopulation model 22271
Al-Si-V-Pd microstruct., IC interconnect reliab., Al-Si-Cu comparison 38652
Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
AlCu-Si multilevel IC interconnections, manufacturability/reliab. 38644
AlCu-TiN VLSI interconnect systs., design and building-in reliab. 38645
Au-to-Au TAB inner lead bonding, laser 6449
$CoSi_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
Cu CVD for advanced on-chip interconnects, Motorola 28813
Cu CVD precursor chem./mol. struct., IC metallization 28812
Cu IC interconnections, materials issues 30137
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
Cu metallization technol. for deep submicron ULSIs 30140
Cu-based metallization, ULSI struct., IC interconnects 30136
Cu-polyimide-Si multilevel IC interconnections, manufacturability/reliab. 38644
ESD meas. techs. for IC design/manufacture 18057
GaAS IC reliab., next generation 37195
GaAs IC, conf., San Jose, USA (1993) 36852
GaAs LSI chips, back-grinding, mech. reliab. 1498
GaAs MMIC, CSIRO prototyping facility 29581
GaAs digital foundry, process, perform., reliab. charactn. 38958
In-Sn based VLSI interconnections, solder joint reliab. 30146
Mo-Cu layered foil conductors, power hybrids, ceramic substrs. 21663
Ni-NiIn-Ge-GaAs ohmic contacts, interface microstruct./reacts. 38396
PLZT thin film capacitors, CMOS ULSI DRAM appls., post proc. damage 21310
Si SEG, indust. integrated cluster tool 20847
Si flash EPROM device reliab., erase source bias effects 12500
Si interconnections, materials and procs. 22268
SiGe HBT technol. for wireless and mixed-sig. appls. 22562
Si_3N_4 ultrathin capacitors for advanced DRAM cells, in-situ multiprocessing 21589
SiN_x based metal-to-metal antifuse for FPGA appl. 21217
SiO_2 thin film reliab. at direct-tunneling voltages, MOS VLSI technol. 22607
SiO_2 thin films, RTN in NH_3, N_2O for EEPROM appls. 13329
TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270
$TiSi_2$ selective CVD, indust. integrated cluster tool 20847
$TiSi_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
flexible etched cct.-based IC interconnection, high speed/dens. 13431

integrated circuit technology
see also under specific integrated circuit headings
see also clean rooms; integrated circuit interconnections; integrated circuit measurement; integrated circuit metallisation; integrated circuit packaging; integrated circuit yield; integrated optoelectronics; isolation technology; nanotechnology; rapid thermal processing; resists; semiconductor process modelling; semiconductor technology; SIMOX; wafer bonding
0.05 μm CMOS with ultra shallow source/drain jns., fab. 22584
0.15 μm CMOS proc. for high perform./reliab. 13893
0.1 μm CMOS technol., tilt-implanted punchthrough stopper 13895
0.25 μm gate length CMOS technol., design/proc. depend. 13894
0.35 μm I-line photolithography, automatic proximity correction, chip layout 1311
0.3 μm LSI fab. by high-throughput electron-beam syst. 13453
1 μm BiCMOS proc., 200 Å gate oxide charactn./manufacturability 13902
1D interconnection parallel opt. data links 42431
3.3V PLDs design 635
3D archit. for high resoln. imaging 34583
3D polymer substrs., sputtered thin film metallization 12170
advanced MOS and bipolar devices, symp., London (Feb. 1995) 36885
array probe card, micromachined, fab. proc. 20408
ASIC, direct e-beam writing, proximity correction 30188
ASIC design cycle-time reduction methods 22581
Australian microelectronics, conf., Gold Coast, Qld (1993) 5449
automotive interface design, VLSI compatible BiCMOS technol. 36778
BEST2, super self-aligned BiCMOS technol., low-power mixed-sig. appls. 21451
Bi-CDMOS technol., lateral DMOSFET, oxide sidewall-spacers 29033
BiCMOS collector implants, stat. optim. 1500
BiCMOS power ICs with high level integrat., advances 29032
BiCMOS quadruple well, quadruple polysilicon proc. for fast 16 Mb SRAMs 6156
binary-phase holographic gratings on sapphire, VLSI fab. tech. 15186
bipolar AGC IC for hearing instrums. 35168
bipolar LSI, trench isolation along {111} gliding planes, 3D mech. stress anal. 22564
ceramic multicomponent modules, miniaturisation approach 5622
chem. amplif. resist syst., dissolution inhibitor, mol. design 30164
chem. amplified resist films, acid generation proc. by radiation-induced react. 13516
chem. amplified resists, kinetics, real time IR spectrosc. monitoring 13514
chem. amplified resists for electron-beam top surface imaging, CMOS technol. 13524
chem.-mech. planarization, elasticity theory, defect reduction 38570
chem.-mech. polishing, IC interlayer dielec. planarisation, review 13340
chip designer role in IC design/develop. 30400
chip LED, MID technol. *(Japanese)* 1815
CMOS 64 Mbit DRAM, design, fab., packaging, perform. 37778
CMOS device isolation for ULSI age 22600
CMOS devices, proximity SOR/deep UV PSM lithographies 13527
CMOS EPROM technol. for high speed/high dens. PLDs and memory appls. 29219
CMOS integrated thermal press. gauge and read-out cct. 25786
CMOS IR readout multiplexer radiation hardness improvement 30449
CMOS logic modules, ADEQUAT project 22578
CMOS membrane IR sens., fab. and improved etchant 25846
CMOS micromechanical resonator oscillators, design/perform. 30509
CMOS proc., DUV lithog. 39003
CMOS radiation-hardened 32-bit μP based commercial proc. 12567
CMOS random logic, electron beam/DUV mix-and-match lithog. 39002
CMOS scaling for high perform. and low power, next decade 37690
CMOS technol., 0.15-μm channel length, mixed X-ray/opt. lithog. 22592
CMOS-based technol. for integrated optoelectronics 23062
CMOS/BiCMOS technols., parametric test *(French)* 1491
CMOS/SOI technol., high-speed/low power and modeling 6851

integrated circuit technology continued
  coaxial probe for ESD voltage waveform meas., 1 ns risetime 34651
  complementary BiCMOS technol., 0.5-μm, μP-based smart power appls. 29000
  conference, rapid thermal/integrated processing, San Francisco, CA, USA (1994) 5459
  crit./noncritical stepper mixing, lithog., IC manufacture 13440
  CRT driver stage, IC introduction 42876
  cryogenic rad-hard CMOS readout multiplexer fab. 30448
  custom IC, conf., San Diego, CA, USA (May 1994) 20247
  DC/DC power convertors, SMT MOSFETs, VDMOS technol.-based 36345
  deep etch lithog., LURE-D.C.I. storage ring 13477
  deep submicron CMOS technol., FOND device archit. 22570
  deep UV phase shifted-single layer halftone reticles, 256 Mbit DRAM cell patterns 13556
  diamond membranes for x-ray lithog. masks 6688
  diamond polycryst. films for x-ray lithog. masks 6703
  DMOS power transistors, Si-direct-bonded, static/dyn. props. 22467
  double RESURF device technol. for power ICs 13896
  double-sided rugged poly-Si technol. for high dens. DRAMs 29230
  downstream plasma proc., selective etch and procs. 13338
  DRAM cell photolithography, annular pupil filtering, modified mask 12541
  DRAM fab., SR X-ray lithog. 13528
  DRAM prod., ion projector, crit. design params. 38760
  dry-released Ni micromotors, low-friction bearing struct. 27771
  dual polycide gate and buried contact technols. for CMOS SRAM cell 21333
  dual voltage mixed sig. 0.6 μm CMOS proc. 13880
  dual voltage twin well CMOS proc., analog and digital appls. 30456
  dual-use microelectronics mfg. spec., single/multichip packaging 20453
  Dutch microelectronics, university research/indust. needs, overview 30398
  ECL BiCMOS, sub-30 ps, proc. integrat. technol. 22616
  EEPROM ultrathin thermal oxide, elec. and reliab. props., surface prep. 1278
  electron, ion, and photon beams, symp., New Orleans (1994) 5484
  electron beam lithog., cell projection, proximity effect correction 22286
  electron beam lithog., character projection data conversion syst. 22283
  electron beam lithog., proximity effect correction, pattern-area dens. 22285
  electron beam nanolithography, image reversal by ECR plasma oxid. 30180
  electron-beam cell projection lithog., accuracy and throughput 13449
  electrostatic actuator, electret 23518
  ENSERG, microelectronics practical training, proc. characterisation vs. simul. *(French)* 20334
  FET based press. sens., fab./constr. 3785
  FIB technol., effect on IC design methodology 1478
  fine photoresist pattern form., double exposure, wafer stepper *(Korean)* 22317
  fixed wand electronic flame-off, ball bond form., wire bonding proc. 6445
  fluid devices microengineering 6633
  fluidic self-assembly, GaAs microstruct. on Si substrs. 1468
  focused ion beam micromachining appls. 13906
  focused ion beams for etching and deposition of materials 30128
  France multi project chip service *(Japanese)* 1486
  gate oxide proc.-induced damage, low/high temp. anneal effect 1202
  gate oxide quality improvement by H annealed wafer 22091
  gigabit chips, mfg. technols. 22308
  gray-tone lithog., fab. of arbitrarily shaped surfaces, simul. and proc. design 13554
  green IC fab., recycling/environ. contamination control 37208
  HEMT-HBT integrat. for MMICs by selective MBE 38011
  HEMT-on-Si technol. for dual modulus prescaler IC fab. 21296
  HF monolithic cryst. filters, 30-150 MHz 30622
  high perform. 3.3/5 V 0.5 μm CMOS technols. for ASICs 22598
  high speed MMICs/digital ICs, fab., T-gate technol. 858
  high temp. CMOS devices/ccts., SOI technol. 22596
  high temp. SOI devices, W metallization technol. 22279
  high vol. wire bonding automation, pattern recogn./video lead locators 38167
  high-leverage SOI technol., appls., CMOS and BiCMOS designs, material/device problems 30003
  high-purity electronic specialty gas cylinders, particle/outgassing perform. 29995
  high-speed and low-power n^+-p^+ double-gate SOI CMOS 39010
  high-speed bipolar proc. for wireless ICs 22563
  high-speed p-n-p technol. for low-power complementary bipolar ULSIs 39000
  Hong Kong electron devices meeting (July 1994) 36827
  hybrid IC materials systs. and technol. 38165
  hybrid ICs, high-dens. SMTs 6441
  IC mask multiple-pass printing, spatial freq. filtering 13456
  IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
  III-V semiconds. for high temp. electronics appls. 22528
  III-V technol. analog/digital/mixed-sig. ICs for high speed appls. 6817
  in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
  intell. power ICs, partial SOI struct. 39018
  Interleaf technol. mfg. syst. for SMT/leaded film capacitors 6361
  ion implanters for CMOS IC fab., cleanliness stds. 13282
  IR readout electronics, historical perspective 34426
  ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
  Josephson-CMOS ICs, monolithic fab., RAM appl. 21312
  killer particle detect. on rough wafer surfaces 11826
  laser CVD for microelectronics 28838
  laser via ablation technol. for MCM thin film packaging 21772
  LDMOS-FET fab. steps in submicron CMOS technol., complementary 40 V power devices 22576
  lightwave systs., IC 39459
  LOCOS isolation technol. for 256 Mbit DRAM 22609
  low energy e-beam lithog., energy control and variable energy exposure 30181
  low power devices, trends in IC technols. 22532
  low power microelectronics, develop. and prospects 38971
  low threshold voltage CMOS devices for 1 V appls., fab. 22585
  low-power CMOS ULSI cct. techs., overview 39009
  LSI via-hole shape optim. by quasi-3D topography simul. 13863
  LSIs, self-aligned complementary bipolar technol. 30442
  mask defect inspection, database comparison 22302
  mature CMOS proc., unusual HBM ESD failure mechanisms 30469
  MCM-D fast prototyping of superSPARC chipset 21756
  mechatronics fund., meas. sci. and technol. 9850
  MELECON '94, conf., Antalya, Turkey (1994) 5470
  metal capping of MCM thin film, laser 12977

integrated circuit technology continued
  metal recovery/water recycling, electronics mfg., integrated solns. 11885
  metallized Si wafer RTP temp. meas., IR transm. techs. 22216
  meterials reliab. in microelectronics, conf., San Francisco (1994) 28229
  micro photoforming proc., archit. combination 30515
  micro-submicrometer P-MOSFETs, electron beam doping *(Chinese)* 6755
  microactuators, micromachining technol. 22621
  microcontamination 93, conf., San Jose, USA (Sep. 1993) 42
  microdynamic gyroscope develops. and appls. 9859
  microelectronics for IT, conf., Stuttgart, Germany (1992) 11534
  microelectronics mfg., technol., conf., Orlando, USA (Nov. 1993) 20209
  microelectronics mfg., yield, and reliab., conf. (1994) 5438
  microengineering and microelectronics, technol. combination of future 6876
  micromachined piezoelec. benders, dyn. deflection and capacitance 30603
  micromechanical Mach-Zehnder interferometer, Si IC compatibility 42808
  MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
  microstruct. fab. techs. and procs. 6873
  microstruct. technol., advances 39035
  miniature IR sens., vac.-encapsulated thermistor clinical bolometer 35037
  miniaturized ccts., HF appls., micromachining techs. 29583
  MMIC design and GaAs foundry 21566
  MOS capacitors, N_2O-oxynitridation in resist. furnace, effects on thermal oxide breakdown 30126
  multi project chip service manufacture in countries *(Japanese)* 1462
  multichip integrat. of MMICs, monolithic ceramic technol. 848
  multilayer PBGA, perform. enhancement 20456
  multilayer X-ray mirrors for X-ray lithog. 6689
  multiplexer for Cassini Visible/Infrared Mapping Spectrometer FPA 34563
  nanoelectronic computing technols., Japanese research 6809
  nanoelectronics, technol. of future 38961
  nanostructure patterning in X-ray mask making 13571
  nMOS transistor depletion threshold volt. adjustment *(English)* 22606
  nonlin. transm. line CPW MMIC, design, modelling, fab. 12808
  novolak resin, chem. amplif. neg. resist systs., nanometer-scale imaging charact. 13518
  optoelectronic device fab. by CBE 37417
  optoelectronic smart pixels, monolithic integrat. 7484
  oxides reliab., low temps. 28406
  patterned wafer inspection, IC yield/cost-of-ownership factors 37157
  perfluorinated cpds. as dry etchants, environ. impact 37207
  phase mask, pattern form. 13551
  phase-shifting lithog., duty ratio of line and space, DRAM chips 30161
  phase-shifting masks, design, compactor 13548
  phase-shifting masks, LSI technol. 13503
  PHEMT mfg. technol. for multifunctional Ka-band MMIC appls. 21562
  photocathode materials for x-ray conversion microscope, photoemission 6694
  photoimageable thick films for MCM 21726
  photolithographic mask aligner based on moire interf. tech. 38709
  photolithography, 0.13 μm pattern delineation using KrF excimer laser light, ULSI fab. 13555
  phys. props. of micromachined materials 5926
  piezoresistive humidity sens., design, simul. and metrological charact. 3795
  planar fab. proc. for surface micromachined devices 30511
  plasma etch resistant modified I-line/deep UV/e-beam resists 30174
  plasma etching, I-line, deep UV and E-beam resists 13447
  plasma polymerized all-dry resist proc. for 0.25 μm photolithography 13521
  plasma-assisted etching, surface-sci. aspects, IC appls. 1241
  plasma-enhanced photoresist dry stripping, IC manufacture 38543
  plasmochemical etching, react. vessels, precip. 22179
  PMMA-Ge-AZ trilayer electron resist, deep submicron patterning *(Korean)* 38747
  poly(p-hydroxystyrene) pos. X-ray resist for precise replication of sub-0.25-μm 13520
  poly buffer LOCOS, in situ N-doped, for deep submicron CMOS 22591
  polyimides/copolyimides for IC interlayer dielec., props. 39037
  polysilicon level random logic ccts., phase shift mask 13549
  polysilicon resistors, pulse current trimming, LSI resistor tuning after fab. 38977
  polysilicon sacrificial layer etching technol. for micromachined sens. 25785
  polysilicon SOI struct., ZMR, electrophysical props. 39011
  polysilicon SOI struct. obtained by laser zone melting, props. 38442
  polysilicon TFT proc. for CMOS, HDTV LCDs appl. *(Japanese)* 1492
  portable radio, UHF power transistors, MOSFET IC-technol. 1408
  pos. chem. amplified photoresist for X-ray lithog., modeling and simul. 13519
  pos.-tone silylated, dry-developed, deep UV resist with 0.2 μm resoln. 13523
  postgraduate training on MMIC technol. *(French)* 20337
  price/perform. mark improvement for ADC and op amp ICs 13831
  proc. control/failure anal., FIB appl. *(French)* 1490
  PTFE substrs., cct. fab. methods 6436
  qtr.-micron lithog., wet-silylated and dry-developed commercial photoresist 13522
  quantum effect devices, IC technol., MBE growth 13820
  quantum neurocomputer 788
  radiation-hardened CMOS for cryogenic analog appls. 30447
  random reticle CD var., mask defects 13441
  rapid isothermal proc., photophysical/photochem. effects 22232
  rapid thermal proces partial state MRAC 30402
  reliable 256 Mbit/1 Gbit DRAMs, mfg. proc. technol. 21322
  resist pattern collapse, prevention by heating, rinsing 6673
  rim phase-shifting mask, high-dens. cct. layout 13504
  RT 0.1 μm CMOS technol. on SOI 6866
  RTP, absol. temp. control 30401
  SALOT, self-aligned LOCOS/trench combination isolation, chem. mech. polishing 21329
  scaled BJT in 0.35 μm high-dens. BiCMOS SRAM technol. 30486
  scaled CMOS technol. for LV/low power appls. 22597
  SCI-LVDS 500 MHz CMOS differential pad drivers 22583
  self-aligned memory cell technol. for 256-Mbit flash memories 21334
  SEMI equipt. commun. std., automation guidelines 11716
  semicond. wafers, plasma etching profiles for ion energy flux depend. etch rates 38602
  semicond.-wafer proc. equipt., particle detect., in situ coherent lidar 37047
  shot alignment improvement inside exposure field for IC photolithography 38710
  Si:B submicron jns., doping by B layer electron beam evap. 13294
  Si integrated optics for sens. 7378
  SIMOX material develop. for sub-0.25 μm CMOS technol. 30459
  SIMOX MOSFET, high temp. operation 22468
  single wafer proc. integrat. for submicron struct., RTP and PECVD 22088

integrated circuit technology continued
single-layer-resist proc., energy-depend. aspect ratios, 0.2-μm e-beam lithog. 13515
soft X-ray projection lithog., resist perform., 5 nm 13570
SOI materials/devices for VLSI appls. 30458
SOI snapback nMOSFETs, ESD protection capability, mechanisms/failure modes 30308
SOI technol. trends 22517
SOI/bulk hybrid technol. on SIMOX wafers for ESD immune ccts. 13881
solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
SR lithog., 0.1-μm line-and-space-pattern 1307
SR steppers, compatibility 38754
SRAMs, technol. and layout-related testing 12510
SSB opt. lithog., pupil filter in replicating isolated patterns 13557
std. product MCMs for multiple customer usage in diverse appls. 6467
sub-0.5 μm CMOS, shallow source/drain jn. technol. 1496
submicrometer feature etched IC fab. proc. control, UV-vis. ellipsometry 30078
submicron BiCMOS memories, high-speed technols. 29208
submicron BiCMOS proc., HV NMOS devices, simple structural changes 22615
submicron CMOS isolation struct., calib. method for oxid./mech. stress models 22254
submicron CMOS large-angle-tilt implanted drain technol. 22571
submicron holographic lithog., limitations 30163
submicron ICs, rapid prototyping, FIB techs. 13835
super self-aligned BiCMOS technol. for low-power mixed-sig. appls. 30483
superresolution lithog., partially coherent imaging theory, isolated struct. 38772
superresolution lithog., partially coherent imaging theory, line and space struct. 38771
surface micromachined accelerometer 9860
surface props., tailoring by laser irrad. 31689
Texas Instruments MMST program, all-RTO/RTA/RTCVD 0.35 μm CMOS IC prod. 22594
TFSOI complementary BiCMOS technol. for low power appls. 30482
thick film ceramic capacitive sensor, embedded in polymer 25797
thick film HTSC paste, microelectronics technol. appl. 22725
thick film multilayer material systs. for thermal cycle appls. 21660
thick film technol. applied, chem. sens. 25898
thick-film technol., diffusion-patterning vias for MCMs 956
thin film multi-MMIC MCMs for microwave appls. 21580
triple dens. DRAM cell, Si SEG channel and NAND-struct. 21321
UHV ECR CVD reactor, in-situ Si wafer surface cleaning *(Korean)* 13331
ULSI device scaling and reliab. 13900
ULSI devices, static charge removal, IPA soln. 1236
ULSI technol., radiation hardened, 1M SRAM design 30478
ultra-low power digital CMOS ccts. 29087
US Nat. X-Ray Lithography Program, materials issues 6678
US transducer array, CMOS IC proc. 10577
UVSC photochromic dosimeter film for x-ray lithog. source eval. 6693
VCSEL arrays, mfg. 39784
visual inspection, linguistic fuzzy inputs 38951
visual inspection for LSI wafer patterns, subpixel image alignment 6437
VLSI, future technol./economic prospects 38965
VLSI ESD sensitivity, thermal breakdown and dielec. breakdown 6844
VLSI low-power sig. proc. systs. 29264
VLSI plasma charging induced damage, transient and electrode edge effect meas. 22191
VLSI state-of-the-art technol. education 36915
wafer-level burn-in technol., cost-effective technol. 21731
x-ray lithog., materials and image form. 6679
X-ray lithog., photoelectron effect modelling 6682
x-ray mask absorber repair by focused ion beams, materials issues 6699
X-ray mask fab., proximity effect correction 22291
X-ray mask inspection, replicated resist patterns 13569
Al/Cu thin-film interconnects, electomigration induced failures 21616
AlCu interconnects, electromigration stressing, Al_2Cu precip. distrib. 38455
AlGaAs/GaAs micromachining, monolithic integrat. of micromechanical struct. 23065
AlGaAs-GaAs HBT OEIC for high-speed fiber commun. 17196
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
Au electrodeposited thin films, X-ray masks, stress/structural change 6701
Au wire bondability for IC device, TEM obs. *(English)* 6444
$Bi_2Sr_2Ca_1Cu_2O_{8+x}$ thin films, micropatterning, Nb lift-off 30764
CF polymer film deposition, high-aspect-ratio SiO_2 holes 13357
Cu/photosensitive-BCB thin-film multilayer technol. for MCMs 21714
GaAs FET IC, const.-current cct.-biasing technol. 13901
GaAs LSI chips, back-grinding, mech. reliab. 1498
GaAs MESFET, epitaxial lift-off on InP 14654
GaAs MMIC technol. and foundry services 29595
GaAs MMIC technol./manufacture, MIC comparisons, status review 29580
GaAs VLSI IC, current status, future prospects 30481
GaAs analogue MMIC, high yield, spray etch recess proc. 38029
n-GaAs, epitaxially lifted-off film, Pd/Ge ohmic contacts 29954
GaAs high perform. comput. and commun., ARPA research 38957
GaAs micromachined mass-flow sens. 9880
GaAs:Si epitaxial layer, MBE grown, LSI appl. *(Korean)* 20904
GaAs-AlGaAs FET-SEED technol. based ring oscillators 23057
GaInAs PIN/HEMT receiver OEICs for Gb/s opt. systs., fab. 25495
In-P based microelectronics pilot line for commercial and military applications 12799
InP OEIC for photonic networks *(German)* 7490
Mo-Cu layered foil conductors, power hybrids, ceramic substrs. 21663
N_2O gate poly reoxidation proc. for MOSFETs 22446
Nb/Al-oxide/Nb SIS jns. fab. 12758
PZT/Pt thin film decoupling capacitors, integrat. 21591
Si CMOS addressing matrices, light-valve projection displays 25928
Si CMOS ccts., g-line exposure and deep UV hardening 22577
Si, H passiv. caused by soft sputter etch cleaning in Ar plasma 38585
Si IC technol., assess. of future dominance 38955
Si IC technols. for RF/microwave appls. 847
Si SOI struct. using oxidized porous material, CMOS LSI logic appls. 39012
Si VLSI technol. trends 30461
Si accelerometer design tradeoffs 3781
Si bipolar monolithic opto-electronics, polymer LEDs 14665
Si condenser microphone, bond and etch-back technol. 10580
Si double-sided polished parallel wafers for direct bonding 13347
Si flow sens., air flow detect. *(Korean)* 17722
Si hemispherical-grained storage electrodes for high-dens. DRAMs 12544

integrated circuit technology continued
Si membrane resonators realized with bipolar IC technol., US transducer appls. 35369
Si microelectronic sens. 34440
Si micromachining, resonator fab. 30508
Si microtechnol., develops. and proc. tech. depend. 38950
Si miniature capacitive absol. press. sens. 9858
Si, native oxide, in-situ removal using HF 38626
Si scaled submicron ultra-low power CMOS technol. 39008
Si solar cells fab., low cost/high efficiency *(Korean)* 27959
Si surface trace impurity anal., X-ray fluoresc. spectrosc. 42977
Si technol., future trends 13272
Si wafer oblique angle inspection, contaminant/cryst. particle differentiation 11825
Si, wafer surface, metal contamination, deposition mech. from HF soln. 38623
Si wafer surface minority carrier lifetime meas. tech. 30388
Si wafers, p-n jns., leakage current, diffusion component 38297
Si_{O2} etching, rot. control of anisotropic micro-objs. 30107
Si:As RTA/furnace annealing, heating rate effects on defect distrib. 22100
Si:B, form./control of B buried layers, excimer laser 13291
Si:B,C, boron elec. activation during RTA, heating rate effects 22101
Si:O near-surface/subsurface defects, opt. prod. profiling 29992
Si:P(B)(As) VLSI submicron jns., proximity rapid thermal diffusion 6625
Si/SiGe epitaxial-base HBTs, materials, phys., and ccts. 30243
Si/SiGe epitaxial-base HBTs, proc. integrat. and BiCMOS analog appls. 30244
Si/SiGe heterostruct., UHVCVD growth and appl. 312
SiC LPCVD films, X-ray mask membranes 6695
SiC LPCVD films for x-ray masks from diethylsilane/di-t-butylsilane 6697
SiC-SiN_x multilayer x-ray lithog. membranes by ECR CVD 6698
SiGe HBT technol. for wireless and mixed-sig. appls. 22562
SiGe-base bipolar technol., epitaxial emitter-cap, liq.-nitrogen temps., ECL 633
SiN_x films, X-ray lithog. mask membrane, plasma chem. vap. deposition 13568
SiO_2 RIE, modelling using neural networks, ICs and MCMs 6656
SiO_2 advanced planarization by SiO_x PECVD/SiH_4-H_2O_2 CVD combination 37479
SiO_2 films, double-plasma deposition, SiF_4 predecomposition effects 37486
SiO_2 layer planarization by chem.-mech. polishing, IC manufacture 38569
SiO_2 nanometer cracks prod. by plasma-chem. etching, IC memory elements 30127
SiO_2/Ti/TiN, charactn., XPS 38280
SiO_2-Si, stacked RTO/RTCVD oxide gate dielec., elec. props. 22637
Ta-SiN x-ray masks, materials selection, fab. procs. 6684
Ta_2O_5 MIM-CROWN cell and proc. technols. for 1 Gbit DRAMs 21335
Ti/TiN films, charactn., XPS 38280
W X-ray mask membranes, uniform-stress, He-backside temp. homogenization 13541
W sputter deposition for x-ray mask absorber, in-situ stress control 6702
W sputtered thin films, x-ray masks, intragranular microstruct./stress 6700
$YBa_2Cu_3O_7$ Josephson jn.-based digital ccts., nanoscale patterning 14298
ZnO-Al_2O_3-B_2O_3-SiO_2-PbO glasses, crystallizable, opt., polarizable and MOS props. 12213
ZnO-B_2O_3-Al_2O_3-SiO_2-P_2O_5 glasses, crystallizable, opt., polarizable and MOS props. 12213
chem. mech. polishing, polishing pad material props. effects 38584
diamond membrane-based X-ray lithog. masks 6687

integrated circuit testing
see also integrated circuit measurement
1 Mbit CMOS SRAMs, radiation hardness testing 12538
3D capacitance charactn., floating-gate devices, coupling coeffs. meas., EEPROMs 6157
3D stackable MCM-D on C sig. proc. 21767
16-bit ADCs, servo loop testing 29307
AAMP5 μP, formal verification 29298
accelerated IC life tests, time reduction by progressive censoring 20491
active array radar MMIC packaging evol. 21578
AD8001 op-amp, dielec.-isolated complementary-bipolar IC, total-dose/SEU results 29066
advanced μP ATE 663
AGOSTO framework, VLSI BIST wt. distrib. generation 30430
Alpha AXP 21164 μP, testability strategy 6160
analog IC BiCMOS-JFET radhard SOI technol., proton radiation effects 13904
analog IC soft fault diagnosis, ANN-based tech. 30399
analogue IC, automated test design method *(Japanese)* 30418
array module connector test program, UNISYS 21757
array probe card, micromachined, charactn. 20409
array probe card, micromachined, fab. proc. 20408
ART2800 DC/DC converter family, 7846 post regulator, space radiation charactn. 29051
ASEM MCM foundry, test methodology 6460
ASIC, Conf., Rochester, USA (1993) 36858
ASIC chips, partial scan and seq. ATPG 3741
ASIC stuck conditions testing 29085
ASIC test cost/strategy trade-offs 6070
ASICs defect isolation, scan-path testing/electron beam probing 21171
ASMAT known good die microbump interconnection syst., anal. 37148
AT&T CBIC lin. bipolar proc., radiation effects 30446
at-speed ASIC testing, defect types 12396
at-speed testing in IC manufacture 1472
ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
ATE develops. and quest for direction, 1980s-1990s 9792
ATE environ., ±30 ps accuracy 9803
ATPG, IC testing 3726
ATPG for heat dissipation minimization, test appl. 6856
ATS 93 test conf., China (Nov. 93) 36857
Automatic RF Techniques Group, conf., San Diego (1991) 28249
automatic synthesis and testing cost 21078
automatic test generation, functional verification 12564
ball grid array packaging, IC design, SPICE-compatible modeling 37139
bare-chip probe for high I/O, high speed IC testing 6839
BCB layers for MCM-D/L appls., attenuated refl. IR microscopy 12982
Berger code self-testing checkers 595
BESOI SRAM, 4K, transient and total dose irrad. 29236
BiCMOS logic ccts., fault anal. and DFT *(Korean)* 39023
BiCMOS megabit SRAM chip package modelling and perform. anal. 37755

integrated circuit testing continued
- BiCMOS SRAMs, PLL timing design techs. 29220
- BiNMOS fast resolving synchronizer for parallel proc. interconnect 21395
- bipolar lin. microcircuits total dose response depend. on applied dose rate 13873
- bipolar transistor microcircuits, hot-carrier and radiation induced increases in base current 13874
- BIST and fault location 6820
- BIST design, partitioning techs. 21058
- board-level mixed-sig. test support, IC archit. 12663
- board-level simul., IC design/testing develop. 13869
- boundary scan optimisation in proprietary environ. 5598
- boundary scan test blocks, integrat. in ASIC by students *(French)* 20330
- built-in random testing for dual-port RAMs 37753
- bumped-substr. die-level burn-in carrier for MCMs, mech./elec. eval. 11772
- burn-in effects on radiation hardness of transistors and ICs 11725
- burn-in/test systs. for IC/MCM manufacture, flexibility/modularity 11863
- CACOP, random pattern testability analyzer 37730
- capacitively coupled MCM, manufacturability 12968
- cellular neural net chip-prototyping syst., test Universal Machine chips 22534
- charging dyn. in passiv. layer probe holes 13836
- circ. self-test path, fault coverage estim. 29175
- Clementine RRELAX SRAM particle spectrometer, radiation belts, solar flares 12534
- CMOS 4007 devices flown on CRRES MEP expt., total dose correl. 12482
- CMOS analogue VLSI current-mode mesh-type posn. sensitive cct. 34495
- CMOS ASIC, power-pin ESD stressing failure mechanisms 28527
- CMOS ASICs, advanced inspection program 37167
- CMOS bridging fault diagnosis with stuck-at, IDDQ, and voting model fault dictionaries 30455
- CMOS ccts., stuck-open faults, single test patterns 12490
- CMOS chip set for pipeline and parallel pipeline FFT archits. 21357
- CMOS custom automotive ICs, I_{DDQ} testing, fault coverage 36766
- CMOS DRAM sense amp. designs for improved SEU perform. 12517
- CMOS fusible-link PROM, radiation hardened n-p-n transistor 12537
- CMOS IC, I_{DDQ} testing, EDA/ATPG/ATE syst. integrat. 13892
- CMOS IC fault modelling beyond stuck-at faults 631
- CMOS IC testing using IDDQ, QTAG Action Group 6850
- CMOS input gates, latent ESD damage ident. 6847
- CMOS latchup detect., low cost laser scanning tech. 30450
- CMOS logic ccts., built-in current testing, random patterns 21235
- CMOS logic ccts., stuck-open fault detect. 12429
- CMOS LSI, I_{DDQ} testing *(Japanese)* 1493
- CMOS LSI with abnormal IDDQ, failure anal. 22595
- CMOS memory cells for design of SEU-tolerant VLSI ccts. 12525
- CMOS overcurrent test, BIC-monitor design, cct. partitioning and test patterns 30472
- CMOS proc. appl., wafer level reliab. SPC program 20493
- CMOS RAM test complexity reduction, I_{DDQ} and voltage testing 37776
- CMOS self-checking seq. ccts., bridging faults detect., DFT 617
- CMOS SRAM chip failure anal., external elec. testing, internal contactless laser beam testing 37758
- CMOS SRAM peripheral ccts., scaling effects, SEU immunity 12528
- CMOS SRAM technol., ESD design methodology 29224
- CMOS SRAMs, 64 kbit, soft-error hardness, total dose depend. 12520
- CMOS total self-checking design 22566
- CMOS twin-well inverter with load capacitance, AC and transient latchup 30463
- CMOS VLSI cct. logical faults, worst-case test vectors 13889
- combined FIB/electron-beam probe techs. for ICs 102
- combined folding/testing for PLAs 606
- complex IC, integrat. of design, mfg. and testing 6828
- complex MCMs test strategies 6461
- complex microcircuit simul., behavioral stimulus test software 34407
- computer design, VLSI aspects, conf., Cambridge, MA (1993) 36905
- concurrent engng., DFT in digital syst. 5576
- content-addressable memories, fault modelling, testing 37765
- continuous-time MOSFET-C filters, on-line error detect. 29361
- cost reduction in electronics indust. 5589
- Crystal CS5327 16-bit ADC, single event effects testing, HI bombard. 29334
- cumulative bal. testing of logic ccts. 29135
- current testing in dyn. CMOS ccts. 22582
- custom IC, conf., San Diego, CA, USA (May 1994) 20247
- custom IC, conf., San Diego, USA (1993) 36842
- D/A converters testing, BIST approach 12600
- DCVS logic, std. CMOS cell design for testable self-timed systs. 29203
- defects, proc. induced/elec. act., ident. methodology 20469
- delay test for boundary-scan based archits. *(Korean)* 21272
- destructive meas. eval., gage repeatability/reproducibility 37567
- develop. trends 6818
- DFT, full/boundary scan, economics 11676
- DFT approach in electronics testing 5575
- DFT courses at Universite Montpellier, indust. testing and simul. tools *(French)* 20328
- DFT/BIST hardware, chip-based, control strategies 9805
- diagnosis algm. for const. degree struct., VLSI cct. testing appl. 38947
- Diagnostician-on-a-chip, concepts/implement. 34357
- die grid array packaging, known good die IC prod. testing 37147
- die mount methods for memory chip testing 38166
- DRAM/memory LSI failure anal., EB tester voltage contrast image 21317
- dual IEEE 1149.1 compliant multi-chip modules 6462
- dual segment archit. for VLSI test syst. 6819
- dyn. IC devices, layered photoacoustic imaging 1464
- EEPROMs, 1M devices from SEEQ and Hybrid Memory, SEP charactn. 29238
- electro-optic probing of ultra-high-speed IC's 13839
- electromigration mechanisms, nondestructive elec. anal. techs. 38667
- electromigration tests, thermal effects 30134
- electron-beam tester, mag./electrostatic lens collimation 37038
- embedded analogue to digital converters, characterisation, model 707
- EMC testing, near-field probes appl. 2245
- emission microscopy for IC inspection *(Italian)* 20465
- emission microscopy in semicond. failure determ. 6837
- EOS/ESD failure anal., CMOS IC mfg. proc., extent/cost 30545
- ESD hazard minimization, IC test handlers and automatic trim/form machines 30412
- EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
- external photoconductive excitation source 1787
- failure anal., quality and reliab. improvement 20495

integrated circuit testing continued
- failure anal. by at. force microscope 168
- fault detect. cost reduction, BDD formalism 21015
- fault injection boundary scan design, fault tolerance verification 5594
- fault tolerant finite state machines, synthesis tool 29186
- fault-tolerant computing, signature anal., inform. theory 38959
- feedforward multilayer ANN, testability, behavioral approach 37917
- flip chip interconnect systs., micromechanical and accelerated testing 11822
- flip chip technol., known good die method 21732
- floating-point systolic array PE, serial commun./BIST 21356
- formal modeling and verification of μP 21353
- FPGA SEU hardening for space appls. and device charactn. 12478
- fully-parallel multi-megabit integrated CAM/RAM design 37760
- gate array embedded RAM test, flag-scan register 6057
- gate oxide defect screen for VLSI CMOS reliab. 22588
- GATTO, intell. tool for ATPG for digital ccts. 608
- General Electric HDI modules, MCM-D, reliab. 12980
- genetic algm. for test scheduling, different objectives 1470
- GLFSR test pattern generator for BIST 6085
- global test schedules assembling, unified method 12464
- goal-directed vector generation, sample ICs 6094
- HDD electronics testing, HDA simul. 1578
- HDTV decoders testing, boundary scan test impact 9725
- HI induced transients in lin. ICs, obs. 30431
- hierarchical environ. for interactive test engng. 6821
- hierarchical testable digital architecture 37687
- hierarchical VLSI logic ccts., crosstalk fault detect. 12454
- high dens. DRAMs, elec. failure anal. 37757
- high resoln. ADCs, 12-/14-bit, total ionizing dose effects 12603
- high speed μP test, meas. error calc. 9804
- high speed testing, optoelectronic techs. 6825
- high-resoln. ADCs, test methods 37822
- high-resoln. sigma-delta converters, nonlin. meas. 708
- high-speed measuring syst. for testing mixed-sig.-LSI 767
- highly-scaled DRAMs, radiation effects study 12535
- HiPEC, high perform. elastic connection, reliable mixed sig. MCM device testing 21612
- HIST hierarchical self test for chips/boards/systs. 25725
- hybrid ICs for appls. in transport, reliab. 21661
- hybrid MCM, mixed interconnection considerations, wire bonding, flip chip and TAB 21709
- I_{DDQ} BIT cct. for CMOS ICs 13884
- I_{DDQ}/I_{SSQ} testing, serially addressable flexible current monitor 6855
- IC test, intell. software-integrated environ. 9802
- ICs, noise immunity, heatsink, influences 20436
- IDDq meas. in CMOS VLSIs, fault detect. 13885
- IDDQ testing on CMOS custom automotive IC 30451
- IEEE 1149.x family of stds. 9810
- Intel 32 bit μP, radiation tolerance for space appls., eval. 29306
- Intel μPs, total dose radiation testing 29305
- interconnections, electromigration reliab. indicators 6660
- interlevel dielec. thickness var., stat. metrology 22549
- International Test Conf., Washington, DC (Oct. 1994) 61
- ion-beam induced charge microscopy optim., IC anal. 38969
- ITC test conference, USA (1993) 36853
- Josephson jn. IC opt. input/output interface syst. 1625
- JTAG boundary scan test std. for improved on-board prog. 603
- Killer defects, particle map, probe map correl. 37199
- known good die, universal membrane probe, MCM manufacture 21702
- known good die selection tradeoffs, cost model, MCM burn-in tests 21704
- known-good die testing, semicond. indust. implement. 5619
- known-good-die, burn-in and test proc. 21679
- known-good-die approach develop. 6454
- layout depend. fault models, analogue fault simul. 6871
- layout driven test generation for CMOS combinat. ccts. 6863
- lead-on-chip packages, cracking failures induced by chip backside contamination 20439
- LFSR pattern generators, unmatched, pseudorandom testing 21194
- LFSROM BIST, basics and appl. 21193
- LHC liq. Ar calorimetry, radiation resist. of front-end electronics 26251
- logical fault diagnosis for combinat. ccts. 12443
- LRM probe-tip calib., nonideal stds. 25708
- LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
- LSI manufacturing yield, integrated database syst., cond. anal. 37040
- LSI testing, electro-optic probing syst. 6836
- LSI voltage waveform meas., EB tester, electron-beam-assisted etching appl. 13856
- march tests for memories, automatic generation 37766
- mask ROM, time saving testing scheme based on struct. oriented failures 37764
- massively parallel archit. for IC testing 20401
- MC68060 μP testability 6161
- MCM, conf., Denver, CO, USA (Apr. 1994) 11562
- MCM, high yield, based on min. IC pretest 6456
- MCM, immersion cooling by pool boiling of FC-86 38193
- MCM burn-in experience 21699
- MCM product, computer building block, design and test 21697
- MCM test trade-offs 6459
- MCM testing methodologies 6458
- MCM testing strategy 6468
- MCM-D, interlevel shorts, mechanisms and reduction 12963
- MCM-D fab., low cost, thin film transfer proc. 21687
- MCMs with ASICs global optim., concurrent engng. approach 21743
- membrane probe, increase digital/RF IC testing 20402
- membrane probe technol. for MCM Known-Good-Die 6455
- memory die test/burn-in, temporary carriers 21672
- memory technol./design/testing, workshop, San Jose (1994) 36826
- microcircuit simul. and test develop. BEST TEST software 34407
- MicroSPARC RISC μP, scan based debug, case-study 6162
- microSPARC testing and debugging, use of scan, case-study 6165
- MIMIC amp., modelling and charactn. 29605
- mini ball grid array MCM technol. 21780
- mixed scannable/non-scannable device boards, boundary scan testing 20395
- mixed sig. and RF testing, obj. technol. appl. 34351
- mixed sig. device, high precision testing 766
- mixed sig. devices testing in Sony 765
- mixed sig. testing, joint time-freq. anal. 6826
- mixed-sig. ATE develop. 25730
- mixed-sig. ICs, digital noise meas. 21449
- mixed-sig. ICs, testing, DSP-based techs. 21443

integrated circuit testing continued
modelling enhanced microelectronic component testing 38963
modular mixed sig. testing, high speed/high resoln. 6239
MOS devices/ccts., radiation effects, meas. syst. *(Chinese)* 25729
MOS ICs, lateral alkali-ion migration, reliab. implications 170
MOS LSI chip, electron-acoustic microscopy, nondestructive internal obs. 1497
multilayer package, simultaneous switching noise 11806
multilevel high dens. ASIC defect isolation, electron beam probing RIE 21169
multiple fault diagnosis of combinat. ccts., efficiency improvements 12444
multiport RAMs, complex couplings testing , fault modelling 29217
neural recogn. of diagnostic test data transforms 34359
nonvolatile prog. devices and in-cct. test 6095
nuclear and space radiation effects, conf., Tucson (1994) 5489
off-chip IDDq current meas., telecomm. ASICs appl. 6853
ohmic contacts, Peltier thermal waves, interfs. 1151
OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
operational test release vectors, verification approaches 17668
oversampling noise shaping ADC, DNL meas. 709
package/module interconnect test syst., transient thermal sigs. 28440
parallel feedback-based scheme for BIST 12395
parallel pattern fast fault simul., three-state ccts. 6088
parallel proc. for test generation, perform. anal. 17662
parallel-pattern/multiple-fault-propag. concurrent fault simul. 12435
param. var. influence of climatic factors 13574
parametric testing of mixed-sig. ccts., ANN tech. 21444
partial response binary CPM (h=1/2) anal. algm. 32035
patterned wafer defects, automatic fuzzy logic class. 37168
patterned wafer inspection, IC yield/cost-of-ownership factors 37157
Pentium FDIV flaw and lessons learned 37787
PGA package, high speed elec. charactn./simul. 20442
Philips Microwave D07M foundry proc., MMIC switch FET models 6331
plastic assembly procs., eval. for high reliab. IC appls. 6452
plastic thermally enhanced QFP packages, moisture sensit./reliab. 11803
plastic-encapsulated IC, reliab. testing 30427
PLCC chip and package design, plastic assembling, simple test chip 5632
PLCC temp. cycling failures, die coatings, mold cpds., and test conditions effects 28469
polyimide charring on thin film line deletes 12962
polysilicon SOI struct., ZMR, electrophysical props. 39011
post metal deposition defects, real-time particle detect. 38697
power IC packages, transient thermal impedance tester 137
power-supply current monitoring/discrim. anal. 13847
PowerPC 603 μP, array BIST 6164
PowerPC 603 μP, struct. and ad-hoc design for test 6163
PQFP-based MCM, low-cost, reliab. develop./qualif. 6470
preencapsulation cleaning methods and control for microelectronics packaging 5627
probe cards, manufacture and Si LSI/VLSI IC R&D/prod. testing *(Slovenian)* 30393
production test errors detect./correction, concurrent engng. 6823
prog. analog neural chips, testing/ATE 21476
prog. CMOS pulse generator ASIC, US transducer array driver 29075
programmable space compaction for built-in self testing 29181
pseudo-exhaustive testing, VLSI ccts., cct. partitioning and test generation method 37573
pseudo-exhaustive testing, VLSI ccts., coord. cct. partitioning/test generation 21260
pseudomorphic HEMT small sig. equiv. cct. model scaling 6799
QTAG class 1 monitor for CMOS IC testing 6854
QTAG std. for test fixture I_{DDQ}/I_{SSQ} monitors 6852
radiation effects Data Workshop, Snowbird, UT, USA (1993) 36859
radiation suscept. meas. 1466
RADLYS, noise particle based IC chip yield anal. 37189
RAMs, on-chip testing 12511
RAMs, transparent BIST for single V-coupling faults detect. 37771
random pattern testing, fault coverage and test length estim. 21267
random testing, num. wt. optim. 21161
real time electro-optic probing for long logic pattern anal. 34649
reliab. and failure mechanisms, brief hist. 6816
residual charge on faulty floating gate CMOS transistor 6859
RESIST, recursive test pattern generation algm., path delay faults, test classes 613
rigorous diffr. theory, opt. metrology and AFM topography, nm accuracy 34721
ring-address SRAM-type FIFOs, BIST tech. 37770
ROM BIST, zero aliasing 12512
safe test, DFT/fault coverage 5596
sampled waveform meas. in IC, electrostatic force microscopy 9871
SC59 surface mount package, autoclave reliab., benchmark study 11823
scan chain faults, diagnosis syst. 640
scan designed cct., test time reduction 21208
scan designed logic ccts. under logic value constraints, test pattern generation *(Korean)* 12408
scan testing accel. in IEEE 1149.1 archits. 6077
scanning capacitance microscope, stage driving, design/appls. *(Korean)* 22529
screening ICs at bare chip level, temporary packaging 28448
scribe line capacitors, thin oxide monitoring, nonvolatile memory devices 20489
second harmonic modulated photo-reflectance imaging 155
SEEQ 28C256 EEPROM, effect of test method on failure dose 12539
self-checking mixed-sig. ICs, analogue sect. design, safety appls. 29408
SEMATECH defect detect./reduction methodology, 0.25 micron technol. proc. equipt. 1479
semicond. IC defect anal., yield enhancement software tools 154
semicond. memory testing, MTA code *(Korean)* 29226
semicond. testing operations, dispatching rules 28419
semicond. wafer, elec. failures, in-line inspections 6603
semicond. wafer defects discrim. by laser-based systs. 13833
semicond.-wafer proc. equipt., particle detect., in situ coherent lidar 37047
semiconductor testing facility, reactive scheduling 37044
SEU and charge collection meas. 12393
SEU and SEL response of commercial digital ICs 29092
SEU in SRAMs meas. with pulsed laser, spatial depend. 12524
SEU testing of modern ccts., incidence angle implications 11724
SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
sigma-delta ADC, BIST scheme for SNR/freq. response test 12597

integrated circuit testing continued
single-order addressed memories, testing, march algms. 12509
single-order addressed memory testing, effective march algm. 21301
smart substr. MCM, feasibility study 6457
SOG-based RISC pro. tested for failsafe appl. 21344
SOI 68T020 HI eval. 13851
SOPRANO, ATPG for stuck-open faults in CMOS combin. ccts. 21225
spacecraft electronics, single event effect proton/HI testing 29093
SPICE integrat., TEK LV511 ASIC design verification syst. 1477
spike defects, imaging props. simul. 37173
split-level charge recovery logic ccts., stuck faults 21237
SRAM chip testing, sinusoidal stimuli and Fourier anals. 37767
SRAM eval. under X-ray pulses, procedure 12536
SRAM GOS defects, fault modeling/testing possibilities 37763
SRAM reliab., comparison of HAST, THB testing 12540
SRAMs, 1 Mbit, single hard errors from single ion, charactn. 12526
SRAMs, on-chip test scheme 37756
SRAMs, technol. and layout-related testing 12510
ST9 8-bit Microcontroller testing 29281
static fault detect. syst., digital IC 22523
STM appl. in ULSI fab. *(Japanese)* 6832
submicron CMOS transistors, saturation vel. meas. 39013
surface mount PLD, prog. and testing 37699
switched current cct., tunable feedthrough cancellation, modified dummy switch 29423
TAB inner lead gang bonding on Ni-Au bumps 12960
TAB tape-based known good die method for MCM systs. 21678
tester diagnosis, Bayesian network appl. 30428
thermal anal. of IC chips, thermographic imaging 13832
thin film cracking detect., test chip design 11861
TiCa, timing capture tool for design/test generation of digital ICs 37683
timing extraction/control, scan-based, test-access ports 6081
top down ASIC design, test design compilers 42723
transparent memory BIST tech. for RAMs 37769
TX2, 32-bit μP, efficient testable designs 21350
ultrahigh-speed IC diagnosis, electro-optic probing 6835
variable supply voltage testing, analogue CMOS/bipolar ccts. 5592
VHDL testbench, board-level test programs develop. 30421
video speed ADCs, differential gain and phase meas. 12609
virtual test tools for improved test-develop. productivity 3729
vision probing techs. for testing MCM and bare die 21734
VLSI cct. testability and coverage estim. 22518
VLSI ccts., hierarchical test anal., random BIST 37694
VLSI complex devices, low power mode/IEEE 1149.1 compliance 6824
VLSI component test vectors, automatic generation, student training *(French)* 20329
VLSI regular arrays, test strategy 37686
VlSI reliab. challenges, Japanese vs American industries 22527
VLSI syst. test design methods, problems and experience in μP testing, AFTG 21354
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
VLSI testing, online data collection/anal. syst. 6827
VLSI testing teaching, Univ. of Paris *(French)* 20331
VLSI workcell controller and resource rels. design 5595
VLSI/WSI defect tolerant arrays, optimal group diagnosis 13837
VLSIs, arith. execution units, BIST struct. *(Japanese)* 6815
wafer burn-in strategies for MCM die, BIST for KGD 21703
waveform anal. of LSI for music synthesizers 3698
weighted random sequence synthesis, sequential cct. testing 21195
wire bond, automated visual inspection, auto-focusing 37163
wire bond test tech. 6446
workstation memories, automatic online testing 37768
ASICs, DFT tools and method selection 37684
Ag multilayer ccts., environ. durability 21659
Al IC interconnection failure, stress migration-induced voiding 38666
Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
AlCu-Si multilevel IC interconnections, manufacturability/reliab. 38644
AlSi/TiN/Ti bamboo metal lines, ASTM electromigration test struct. 30135
AlSi/TiN/Ti bamboo metal lines, NIST electromigration test-struct. 6664
Cu-polyimide-Si multilevel IC interconnections, manufacturability/reliab. 38644
GaAs HMESFET SBFL based F-RISC/I microproc. 37802
GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
GaAs IC, ultrahigh speed pin-electronics and test station 6861
GaAs MMIC, CSIRO prototyping facility 29581
GaAs MMIC design and test, high level training, ENSEA *(French)* 20336
GaAs SRAMs, total dose radiation hardening/testing 37773
GaAs digital foundry, process, perform., reliab. charactn. 38958
GaAs dyn. logic, SEU study 12479
GaAs high speed ICs, electro-optic sampling syst. for on-wafer tests *(Chinese)* 12786
GaAs high-speed digital IC, direct electro-optic sampling *(Chinese)* 13858
GaAs-AlGaAs HBT, high-speed register file, F-RISC/G proc. 37801
PtSi hybrid FPA, CMOS multiplexer readout 17946
Si IC, failure anal. methods, develop. and mfg. appls. 22519
Si flash EPROM device reliab., erase source bias effects 12500
Si wafer noncontact temp. meas., real-time image proc. techs. 2718
Si wafer stress test chip, piezoresistive sens. rosettes 18111
Si wafers, thermal proc., quartzglass materials influence 22208
Si-$TaSi_2$-TiN-AlSi multilayer thin film contacts, electromigration testing 38654
$TiSi_2$(NiSi)-polysilicon salicided films, resist. behavior, CMOS ULSI 6665

integrated circuit yield
1 kW X-pinch soft X-ray source, IC lithog. appls. 30169
1 μm BiCMOS proc., 200 Å gate oxide charactn./manufacturability 13902
3D semicond. proc. simul. for 1990s 38996
act. ICs assembled in plastic packages, area array wire bonds 12958
BiCMOS high-vol. mfg. line, optimisation 39025
bipolar technols., stat. cct. simul. 39001
bulk chem. distrib. systs., impact on semicond. proc. 11715
bumped-substr. die-level burn-in carrier for MCMs, mech./elec. eval. 11772
CMOS amp., parametric yield optim., l-models 6846
CMOS ASICs, advanced inspection program 37167
CMOS digital combinat. ccts., stat. delay charactn. 13891
complex mixed-sig. ICs, parametric yield prediction 29399
convexity-based algms. for design centering of ICs 474
custom IC, conf., San Diego, CA, USA (May 1994) 20247
defect tracking and yield enhancement, SEMATECH software 13864
defects, proc. induced/elec. act., ident. methodology 20469

integrated circuit yield continued
die grid array packaging, known good die IC prod. testing 37147
DRAM wafer flatness control, stepper chucks 38966
embedded RAM, self-diagnostic BIST memory design scheme 37754
enhancement, real time mfg. proc. monitoring 20468
ESD hazard minimization, IC test handlers and automatic trim/form machines 30412
fine pitch ball bonding optim., RSM, 3D/contour charts 38169
fine pitch QFP in SMT, solder joint quality, optim. 37075
fine pitch wedge bonding for high dens. packaging 20446
gate oxide defect screen for VLSI CMOS reliab. 22588
HCl gas distrib. syst., ultra-pure operation 38462
Hyeti defect tolerant μP, cost-effectiveness anal. 6168
I_{DDQ} yield loss problems, economic issues 6860
interlevel dielec. thickness var., stat. metrology, IC test 22549
KGD, known good die, levels and effects, MCMs 12969
Killer defects, particle map, probe map correl. 37199
laser-created interconnects for rapid prototyping of IC 38639
logic IC interconnection technol., syst. engng., manufacturability 37723
LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
LSI manufacturing yield, integrated database syst., cond. anal. 37040
MAPEX CAD manufacturability anal. environ., yield design attributes 28408
MCM, high perform. Si/Si, low cost high vol. appl. 38191
MCM, high yield, based on min. IC pretest 6456
MCM, peripheral/area array bonding tradeoff, partitioning advisor 38182
MCM-D, low-cost, technol. choice impact 38190
MCM-D large format fab., mfg. procs. 21781
microelectronics mfg., yield, and reliab., conf. (1994) 5438
MicroInterconnect Technology for redefining economics of MCM appls. 21710
mixed-sig. ICs, parametric yield prediction 29396
model for IC manufacture 13860
Motorola IC yield enhancement, integrated approach 22520
mound defect modeling, yield forecasts 1480
nonvolatile memory devices, plasma-induced in-line charging and damage, CMOS 21313
optim., weighted Monte Carlo method *(Chinese)* 13829
patterned wafer defects, automatic fuzzy logic class. 37168
patterned wafer inspection, IC yield/cost-of-ownership factors 37157
PCB manufacture, defects, fault coverage, yield and cost 6413
poly-emitter complementary bipolar technol., yield enhance. 30445
polysilicide CMOS devices, low-level current leakage reduction 22580
RADLYS, noise particle based IC chip yield anal. 37189
scribe line capacitors, thin oxide monitoring, nonvolatile memory devices 20489
SEMATECH defect detect./reduction methodology, 0.25 micron technol. proc. equipt. 1479
semicond. IC defect anal., yield enhancement software tools 154
semicond. mfg. syst. planning/yield learning 20381
semicustom IC design, analogue arrays, design/perform., education 21459
a-Si anti-fuse used in high speed FPGA, improved reliab. 29144
single wafer proc. integrat. for submicron struct., RTP and PECVD 22088
Sony total particle control syst., IC yield enhancement, defect reduction 20467
stress testing optimisation formulation, net benefit concept 11726
technol. CAD cost/yield estim., virtual IC factory 22546
tunnel systs. in automated electronics mfg. 1186
Unisys MCM experience and value of known good die 21701
virtual IC factory, TCAD for perform./yield predictions 38983
VLSI designs, yield and mfg. prediction model 30432
VLSI manufacturability, component level yield/cost model, mixed technols. 28409
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
VLSI testing, online data collection/anal. syst. 6827
wafer charge neutralization, high current ion implants 30022
wafer dicing process optim. 38956
wafer fab. line, feedback control syst., implementation 37043
WSI systs. with redundancy, fig. of merit for yield eval. *(Japanese)* 30429
yield modelling/anal., sampled data approach 38987
yield verification by testing 13848
Al plug technol. for sub-0.5 μm contact/via geometries 22260
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
AlGaAs-InGaAs-GaAs Ka-band MMIC power amp., HEMT proc. 38031
GaAS IC lab. at Motorola, CS-1 facility 37046
GaAs ACT transversal filters, yield model 39118
GaAs IC mfg., high vol., Anadigics experience 37045
GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805
GaAs MMIC technol./manufacture, MIC comparisons, status review 29580
GaAs analogue MMIC, high yield, spray etch recess proc. 38029
GaAs pseudomorphic HEMT, high yield, mfg. technol. 39020
GaAs self-aligned complementary heterostruct. FET process 39019
GaAs-AlGaAs FET, citric buffer etch-stop process 38865
M^2CMOS twin-well yield enhancement, wet oxide strip proc. modif. 22579
a-Si antifuse cct. elements, ASICs, resist strip proc. damage 21170
Si post backgrind wafer shape, thin film stresses 38605
Si wafers, SC-1 cleaning, total refl. X-ray fluoresc. anal. 38559
Si wafers, thermal proc., quartzglass materials influence 22208
W CVD proc., silane-rich, develop. 37496

integrated circuits
see also analogue integrated circuits; digital integrated circuits; hybrid integrated circuits; integrated optoelectronics; large scale integration; masks; microwave integrated circuits; millimetre wave integrated circuits; monolithic integrated circuits; power integrated circuits; submillimetre wave integrated circuits; substrates; superconducting integrated circuits; thick film circuits; thin film circuits; UHF integrated circuits
act. band pass higher order element filters, cct. anal. *(Russian)* 6204
brushless DC motors, sensorless control 11060
cellular neural nets for defect detect. in photolithographic masks 24734
distrib. network three/zero phase current sens., Hall IC-based 35639
EMC of microelectronic rly. traffic control systs. 28117
high-speed bipolar proc. for wireless ICs 22563
HV impulse generator, radiated interf. 2254
IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
microelectronics in today's indust. rev. 36934
microwave heating, refl. meas., pulsed/CW sigs., 2.45 GHz 11478
modern commun. technol. advancement, problems *(Chinese)* 3234
plastic encapsulated IC reliab., missile appls. 35386

integrated circuits continued
plastic-encapsulated IC, reliab. testing 30427
VIF/SIF/PLL, TV sets/VCRs multistandard sig. detect. 42581
Zero Instruction Set Computer, Higgs search 41284
Li ion batts., charging, IC controller 36544
Ni-Cd batts., charging, IC controller 36544
NiMH batts., charging, IC controller 36544
Pb-acid batts., charging, IC controller 36544
Si integrated beam strain gauges 9868

integrated control systems *see centralised control*

integrated horn antennas *see horn antennas*

integrated injection logic
unit library for logic cct. design *(Chinese)* 21236

integrated logic circuits
see also application specific integrated circuits; BiCMOS logic circuits; bipolar logic circuits; direct coupled FET logic; field effect logic circuits; logic arrays
2D FIR-median hybrid interpolation filter design for HDTV *(Korean)* 42601
100 Mips event controlled ALU for asynchronous μP 29122
adders, parametric delay and area models 6066
array multiplication scheme using (p, 2) counters and pre-addit. 37728
ASIC test cost/strategy trade-offs 6070
asynchronous cct. design, space and timing factor quantification 29119
Australian microelectronics, conf., Gold Coast, Qld (1993) 5449
B-algm. behavioral test generation algm. 6100
BiCMOS, fast VLSI cct. design, complementary ECL elements 6870
Boolean neural net, dynamically configurable combinatory logic array 29451
CAD, planar/3D implement. 37698
CMOS cell embedded SRAM technol. 21297
CMOS IC fault modelling beyond stuck-at faults 631
consistent attributed graph-based hand-drawn logic cct. diag. reading syst., VLSI CAD 12492
counter with bounded response time and bounded power dissipation, calculational derivation 37681
crit./noncritical stepper mixing, lithog., IC manufacture 13440
custom IC, conf., San Diego, USA (1993) 36842
defect classes, paradigm for CMOS IC testing 6858
develop. of multiple-valued logic 37729
event controlled asynchronous μP, design method eval. 29254
fault diagnosis, stuck-at fault simul. 12443
gate-level, realistic faults in digital ICs 6092
GLFSR test pattern generator for BIST 6085
global router, weighted Steiner tree-based, simultaneous length and dens. minimization 610
global test schedules assembling, unified method 12464
hierarchical VLSI logic ccts., crosstalk fault detect. 12454
high speed logic ccts., crosstalk, printed patterns 21637
HyHOPE fast fault simulator hypertrophic faults simul. 21253
indust. automation systs., thyristor-based logic microcircuits 21223
interconnection technol., syst. engng., manufacturability 37723
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
latchup-free design in merged BiPMOS 6869
LSI power/area optim., transistor sizing/wire length minimization 37745
majority voting based VLSI fault-tolerant ccts., reliab. 641
multi-bit parallel adder, symmetric signed-digit nos. 6065
multilevel NAND gate ccts., automatic synthesis, CAD algms. 29100
multilevel Reed Muller cct. synthesis, computer-based *(Korean)* 21178
multiple fault diagnosis of combinat. ccts., efficiency improvements 12444
parallel adder design, algo. implement. for high dens. codes 6063
partitioned/parallel CRC, VLSI implement. 645
path-oriented algm. for cell selection problem 37705
polysilicon level random logic ccts., phase shift mask 13549
prescaled max.-redundant radix-4 SRT divider 615
pseudorandom patterns, low lin. depend./equi-distrib. 12465
reduced scan shift, testing method for seq. ccts. 6090
row-based placement, simulated annealing, hierarchical algm., MCNC benchmark ccts. 37708
scan designed logic ccts. under logic value constraints, test pattern generation *(Korean)* 12408
scan testing accel. in IEEE 1149.1 archits. 6077
scan-designed seq. ccts., test clock reduction 6079
self-checking combinat. logic synthesis techs. 21226
self-timed logic ccts. 12406
split-level charge recovery logic ccts., stuck faults 21237
std. cells, orient. assignment, fuzzy math. transform. 5944
std.-cell VLSI cct. design, timing/area optim. 37706
sync. seq. ccts., multi-bit-paths for testing 21241
VLSI byte-wise CRC generator chip, hardware design 37697
VLSI design, cct. representation, Boolean proc. 12461
VLSI multiple-valued logic fn. optimisation based on Petri nets 6143
weighted random pattern generation syst. design 6086
wormhole router, VLSI implement., virtual channels 5966
AlAs/GaAs/AlAs RTDs, digital logic ccts. *(Korean)* 12427
GaAs digital foundry, process, perform., reliab. charactn. 38958
GaAs high speed IC design, buffered DCFL logic 29202
GaAs serial dyn./static divider for solid modelling accelerator 29129

integrated manufacturing systems *see computer integrated manufacturing*

integrated memory circuits
see also BiCMOS memory circuits; bipolar memory circuits; CMOS memory circuits; DRAM chips; field effect memory circuits; SRAM chips
3D multichip packaging for memory modules 21753
16-Mbit flash memory, high reprogramming speed 12543
artificial electret material, EEPROM technol. 3797
Australian microelectronics, conf., Gold Coast, Qld (1993) 5449
automatic online memory tests in workstations 37768
bidirectional associative memory, optimal radix, searching algms. 21483
BIST scheme for ring-address FIFO memories 6149
block-erasing methods for flash memory 654
built-in random testing for dual-port RAMs 37753
byte-organized memory systs., error-locating codes 24036
CAM design, modular VLSI scheme 21315
CAM-based single-chip shared buffer ATM switch 9142
COB sealed memory ccts., environ. perform. 21328
complex MCMs test strategies 6461
computer memory, systematic SEC-DED codes, error detect./correction 32066
content-addressable memories, fault modelling, testing 37765
custom IC, conf., San Diego, CA, USA (May 1994) 20247
defect-tolerant WSI file memory syst. 29211

integrated memory circuits continued
die mount methods for memory chip testing 38166
dual-bit split-gate EEPROM cell for high dens. flash memories 12552
embedded cache design, nonintrusive BIST 37759
flash EPROM endurance simul., phys.-based models 21306
flash memories, write/erase method 12550
flash memory, indiv. bit erasure *(German)* 12499
flash memory cell, failure mechanisms in program/erase cycling 21305
flash storage standardization in PCMCIA cards 29206
floating gate polysilicon grain size, flash memory over-erase 21331
FLOTOX EEPROM, program operations, simul. 656
FLOTOX EEPROM cells, intrinsic retention characts., model 37751
fully-parallel multi-megabit integrated CAM/RAM design 37760
high-dens. flash memory, syst. design option 37782
Hitachi on-board prog. microcomputer, develop. 21339
IEDM 1994 conf. on IC and electron devices 652
ion-beam induced charge microscopy optim., IC anal. 38969
lead on chip struct. memory package, adhesive material 13853
LV flash memories, read-disturb degrad. mechanism 12549
march tests for memories, automatic generation 37766
mask ROM, time saving testing scheme based on struct. oriented failures 37764
memory technol./design/testing, workshop, San Jose (1994) 36826
metal-to-metal oxide antifuses, reliable for VLSI appls. 22079
multiport RAMs, complex couplings testing , fault modelling 29217
nonvolatile prog. devices and in-cct. test 6095
Power PC memory 37750
predictive VLSI memory develop., TCAD strategy 21303
random shift memory-type RAM, flexible associative data access 29215
RTD large-sig. DC model suitable for PSPICE 22344
scribe line capacitors, thin oxide monitoring, nonvolatile memory devices 20489
semicond. wafer, elec. failures, in-line inspections 6603
seq. ccts. with embedded RAMs, test generation 12434
SEU and charge collection meas. 12393
SEU rate prediction, two param. model 12521
Silicon Audio, audio-data compression/storage syst. 42644
stacked-gate flash memory cell, operation mode 29209
Terasys massively parallel PIM array 37806
testing, MTA code *(Korean)* 29226
top down ASIC design, test design compilers 42723
VLSI designs, yield and mfg. prediction model 30432
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824

integrated optics
see also integrated optoelectronics; optical films; optical modulation; optical planar waveguides; optical waveguides
20 GHz bandwidth photonic microwave mixer/superhet receiver 34094
25 yrs. of integrated optics/OEICs 39612
aberchrome doped polymer photochromic film, nonlin. opt. gratings 39471
absol. dist./vel. meas., double integrated heterodyne interferometer 18073
achromatic diffractive fan-out systs. 39448
achromatic diffractive optics, LD fibre optic coupling 39445
ACOFT, optical fibre technol. conf., Australia (1994) 28253
acousto-opt. tunable filter, polaris. independent spectrometer 14552
ADC, 8-bit, multi-interferometer config. 21392
antenna phased arrays, time delay transmit/receive opt. beamforming syst. 8076
antirefl.-coated diffractive opt. elements, thin-film deposition 7374
apodized acousto-optic WDM switch/filter 7419
arrayed-waveguide grating multiplexer, phase error compen. 22919
ARROW/integrated photodiodes light coupling, IC compatible techs. 30969
asymmetrical grating assisted coupler calc. by eigenmode expansion/coupled mode theory 39419
beam propag. method num. algms. 39470
binary opt. elements, SLM 39479
binary/multilevel diffractive lenses, submicrometer, sizes 7373
book, integrated optics design/modeling 36821
broadband microwave fiber optic links, lin. integrated-optic modulators 9536
calcite plate integrated polariz.-opt. logic proc. 1755
cct. simul., num. BPM algms. 22920
chiral SLC-on-Si SLM, HV circuitry 22961
chirped grating integrated-optic dispersion compensator for fibre links 34016
chromatic dispersion of opt. guiding struct. 7305
circ. grating waveguide devices, integrated optics/optoelectronics 7481
collimating lens syst. for LD package 3547
conf., lin./nonlin. integrated optics, Lindau, Germany (1994) 36839
conference, nonlinear optics appls., Miedzyzdroje, Poland (1994) 20243
continuous-relief micro-opt. elements, laser writing, photoresists 7375
corrugated waveguide, SHG, light diffr. 14459
coupled antiresonant reflecting opt. waveguides based wavelength selective device 14472
coupled waveguides, excitation conditions, math. refinements 39407
coupled waveguides, integrated opt. parametric sum-freq. generator 2048
DBR unstable resonator semicond. laser, 941 nm 23320
depolarized source, rem. waveguide modulator high-power operation 14512
desktop printer, diffractive optic elements fab. 39452
DFB channel-dropping opt. filters, design and fab. 39538
DFB laser-electroabsorption modulator integrated light source 39472
diazo dye attached electro-optic polymer waveguide modulator 1737
diffr. grating, opt. induced, in waveguides/waveguide couplers 22902
diffractive lens with the substr. shape effects, num. investig. 7818
diffractive opt. elements, electron-beam fab., FIB inspection 14497
diffractive opt. elements, variable shaped electron beam lithog. 14492
diffractive opt. interconnect element design for digital switching 39593
diffractive/holographic optics, conf., Los Angeles, CA, USA (Jan. 1994) 36836
digital micromirror device, projection display 18007
evanescent wave sens., atten. losses 39375
external electro-opt. modulation technols., develops. 39481
four-channel integrated photonic wavelength router 16981
grating-frustrated coupler in WDM bandpass filtering appls. 34035
high-contrast periodic corrugations, g-line photoresists, laser holographic exposure 39473
hybrid acoustooptic integrated-optic radio sig. proc. 17702
III-V interferometric electroabsorption QW modulators 1738
III-V semicond. waveguiding devices, adiabatic tapers 7383
impact-actuated lin. microvibromotor for micro-opt. syst. on Si 27773
index-guided laser arrays, supermode discrim. *(Korean)* 14862
injection laser-modulator combinations, time-depend. simul. 14952

integrated optics continued
IR detector perform. enhancement, Fresnel zone plate lenses 17789
laser/electroabsorpt. modulator, long-dist. transm., 2.5 Gbit/s 14880
LEOS, Lake Tahoe, NV, USA (July 1994) 39
LEOS, San Jose, CA, USA (1993) 20270
lightwave systs., IC 39459
liq. photopolymers, radiation curable, diffractive optics replication 39453
magneto-optic ridge waveguide struct., nonreciprocal mode propag. 39421
melted microlens shapes, modelling/meas. 1724
metal, plastic deformed, surface contouring by microlens array 34695
micro optics, excimer laser material proc. *(German)* 7867
micro-encoder chip, integrated opt. component fab. 30979
micro-machined 3D micro-optics for integrated free-space opt. syst. 14484
micro-opt. components, laser forming, phys. fund. 7376
micro-opt. elements, inform. transfer proc. systs. 7259
micro-optic element, opt. disc memory read/write heads 39309
microlens arrays, coherent refr., dry etching 7440
microlens arrays, long focal length, prog. mfg. tech. 39451
microlens fab. tolerances, multilevel etching, mass-transport smoothing 7369
microlens integrated coupling device for LD/opt. fiber 22911
micromechanical Mach-Zehnder interferometer, Si IC compatibility 42808
miniature spectrometer, integrated acousto-optic tunable filter 7425
mode-field-converting fiber for coupling, photonic devices 14403
monolithic array LD module, small sized coupling optics 7671
MQW DFB lasers, electroabsorption modulators, monolithic integrat. 7384
MQW DFB lasers, external modulation, freq. chirp simul. 31348
MQW-sandwich nonlin. directional coupler with nonlin. losses, all-opt. switching 31601
multi-beam, 2D binary optics laser scanner 39444
multi-mode opt. waveguide interf. devices based on self-imaging 40440
multilayer grating assisted directional coupler waveguides, normalized radiation modes 14448
multilevel diffractive opt.-elements, Gaussian beam shaping 39449
multimode interf. ultracompact waveguide devices 30954
multiple-level dry etching, self-aligned etch masks 13324
nonconventional opt. elements design, DEMOS software 15176
noninvasive E-field meas., integrated opt. sens. 18431
nonlin. directional coupler, opt. induced grating 7361
nonlin. grating couplers, anal. by sing. perturb. tech. 14445
nonreciprocal integrated optic couplers, magneto-optic materials, design 14413
opt. material proc., diffractive optics 39446
opt. sens., integrated, review *(Spanish)* 9851
opt. switch array, integrated tapers, self-aligned packing 42390
optoelectronic signal processing for phased array antennas, conf., Los Angeles (1994) 24
packaged integrated DBR laser/modulator transmitter, 5.0 Gbit/s transm., 192 km 14878
parab. tapered graded-index waveguides, beam propag. 8017
PC-based charactn. syst. for opt. waveguides 39385
peano curve modular optics 39447
phase gratings, fab., FIB milling/e-beam lithog. 14496
phase-adaptive basis fns., multilevel finite element soln., paraxial wave eqn. 40430
photochromic switches 15054
photonic devices for opt. networks 42438
photonic IC, fab., phase grating masks 39456
photonic ICs, low loss mirrors, etching 14503
photonic-band-gap materials 30967
planar opt. crossover interconnect config. 39607
PMMA monolithic integrat. of microlens and fiber holder arrays 22858
polariz.-opt. morph. proc., prog. struct. elements 31036
polymer integrated all opt. devices/ccts., fab./appls. 39614
polymer waveguides, electro-opt. appls. 14457
polymeric LB and spin-coated films, light atten. 14318
proton-exchanged waveguide devices, lifetime projections 22884
push-pull integrated-optics Mach-Zehnder interferometer, domain inversion 22922
quartz piezoelectrically-operated opt. chopper, micromachining, sens. appls. 30597
quasi phase matched periodically segmented waveguides, lin./nonlin. effects anal. 40437
QW polariz.-independent waveguide modulator, mass-depend. width 14508
Radiation-field guiding in integrated-optic waveguides 22905
radiationally coupled corrugated waveguides, rem. coupling 39369
rearrangeable nonblocking polymer waveguide thermo-optic switching matrix 30962
rect. core waveguides, integrated optics, fibre coupling, mode matching techs. 39429
rect. dielec. waveguide scalar variational anal. by Hermite-Gaussian modal approxs. 40403
refr. microlens fab., preshaping photoresist 7441
rib waveguides, grating fab., electron-beam/X-ray lithog. 14461
Rowland circle grating photonic integrated device for WDM appls. 9441
S-SEED operation with noise, BER anal. 22946
self-aligned integrated mirror intrinsic loss anal., finite-difference beam propag. method 39613
self-excited chopper, quartz micromachined, opt. sens. appl. 30978
self-holding opt. matrix switch, intersecting grooved waveguides, low Δ/low loss 14440
semicond. integrated opt. routing array components, carrier diffusion effects 14479
semicond. photonic IC, selective MOVPE growth 30976
shaped quantum well opt. modulation, enhanced electrorefractive effects 39492
Si integrated optics for sens. 7378
sig. proc., integrated optic device modules 39460
single leakage-channel grating coupler, wet-chem. fab. 39412
single mode fibre-rect. waveguide coupling losses, integrated optics 22837
SiO_2 integrated opt. directional coupler, sol-gel proc., UV light imprinting 22915
slab integrated opt. waveguide path design 40402
smart-pixel liq. cryst.-on-Si SLM for optoelectronic neural network 22960
SOI opt. rib waveguide, loss, mode characts., bends and y-jns. 1719
spatial-phase-locked e-beam lithog., high-coherence QWS gratings 7385
spherical microlens array fab., laser writing tech. 39454
substr.-mode grating struct. opt. switches 7754
substr.-mode holographic polariz.-division multi/demultiplexer for opt. commun. 25173
superimposed grating for magneto-opt. disk heads 7377

integrated optics continued
- three-wavelength Mach-Zehnder demultiplexer, BPM simul., fab. 17166
- transversally multimodal 1×4 branch coupler, characterisation and BPM modelling 39436
- ultra-compact quantum well waveguide electro-optic modulators 7387
- VCSEL, integrated opt. beam router, opt. interconnection 23305
- vert. cavity SEL arrays/micro-Fresnel lens array integrat. 23304
- vert.-cavity SEL array for short dist. opt. fiber networks 14929
- vert.-cavity SELs, 967 nm, integrated refr. microlenses 14898
- visor-display design, planar holographic optics based 31659
- waveguide charactn., review 39395
- waveguide components, general design curves 39469
- waveguide-type opt.-freq. comb generator 22883
- waveguides, low-loss abrupt bends design and appls. 14469
- wide free-spectral-range opt. resonator, FDM transm., novel archit. 17168
- Y-branch modelling by method of lines/beam propag. method 40435
- Ag-containing metallic nanostructure waveguiding systs., ion exchanged fab., nonlin. opt. charactn. 39416
- AlGaAs/GaAs integrated lin. injection laser array, emission charact., pumping appls. 39759
- AlGaAs/GaAs intracavity laser coupled VCSEL syst., opt. gain control 39774
- AlGaAs/GaAs micromachining, monolithic integrat. of micromechanical struct. 23065
- As-S-Se resists, diffractive opt. elements, asymmetric profile fab. 39455
- Er-doped integrated glass laser, modeling and optim. 22921
- GaAs, (211)B orientated, surface-emitting second-harmonic generator/autocorrelator 23361
- GaAs bistable Fabry-Perot device, array format operation 23378
- GaAs photoconductive switches, illum. uniformity effects 14610
- GaAs quantum wire, directional-coupler switch 22887
- GaAs/AlAs four-wavelength Bragg mirror 22917
- GaAs/GaAlAs waveguide, TE/TM mode splitter fab. 22893
- GaAs-AlGaAs MQW waveguides, coupling props. 14467
- GaAs-AlGaAs electroabsorpt. modulators integrated, pass. waveguides 22918
- GaAs-AlGaAs p-i-n MQW modulators, opt. bandwidth 39476
- GaAs-AlGaAs proton-implanted MQW modulators for low-photocurrent SEEDs 14528
- GaAs-AlGaAs quantum-wire arrays on vicinal substrs., FEA of valence band struct. 21998
- GaInAs/GaAs micro-arc ring semicond. laser, design 39866
- InGaASP/InP travelling wave optical amplifiers integrated with passive waveguides 14485
- InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 1729
- InGaAlAs/InP asymmetrical vert. coupler wavelength filter 14573
- InGaAlAs/lnAlAs MQW directional coupler waveguide switch modules 14498
- InGaAs/GaAs heterostruct. field effect opt. modulator 14516
- InGaAs/GaAs laser-mode-size convertor monolithic integrat., shadow-masked growth 22916
- $In_{0.85}Ga_{0.15}As/GaAs$ relax. superlattice struct., ultrafast meas. of nonequilibrium carrier lifetime 38348
- InGaAs-InP P-I (MQW)-N surface-normal electroabsorpt. modulator for 1.55 μm 14507
- $In_{0.53}Ga_{0.47}As$-InP reson. plasma waveguide modulator for mid IR 1734
- InGaAsP MQW modulator/DFB laser integrated light source 30965
- InGaAsP electroabsorption waveguide modulator, shipboard analog links 9535
- InGaAsP/InP MQW integrated DFB-DBR laser modulator, MOVPE growth 23247
- InGaAsP/InP integrated three-port Mach-Zehnder interferometer, all-opt. wavelength conversion 30973
- InGaAsP/InP laser amp. gate switch arrays 31400
- InGaAsP/InP monolithically integrated multi-wavelength MQW-DBR LD, MOVPE 23239
- InGaAsP/lnP strained MQW laser, integrated mode size converter 31383
- InGaP-InAlGaP MQW electro optic modulator, MOVPE grown 39483
- InP QW electro-optic waveguide circuits 14486
- InP semicond. digital opt. switches and arrays 7395
- InP tunable phased-array wavelength demultiplexer 17257
- InP waveguide components, WDM opt. commun. syst. 34062
- InP waveguide mode field determ. from intens. profiles 39468
- InP wavelength converter based on integrated Mach-Zehnder interferometer 7371
- InP/InAlAs/InGaAsP MQW fibre-coupling tapered waveguide, spot-size converter 22835
- InP/InGaAsP 1.3 μm digital opt. switches, extinction ratios exceeding 20 dB 7396
- InP-InGaAs high-speed heterojunction phototransistors, electrode 14611
- InP-InGaAsP pol. independ. ridge waveguide digital opt. switches 9460
- K^+-Na^+ ion-exchanged channel waveguide profile params. by mode-index meas. 39388
- K^+-ion diffused waveguides, coupler-type wavelength demultiplexer 9554
- $LiNbO_3$ Fabry-Perot planar etalon filters 1781
- $LiNbO_3$ acousto opt. tunable filters 7418
- $LiNbO_3$ asymmetric Mach-Zehnder opt. modulator 31002
- $LiNbO_3$ elec. controlled supergaussian mirrors 14482
- $LiNbO_3$ integrated optics Pockels cell, cryst. cut and waveguide orient. 14515
- $LiNbO_3$ opt. beam splitter, tapered vel. coupler 7401
- $LiNbO_3$ opt. waveguide modulator in fin line, optimum design 39443
- $LiNbO_3$ proton-exchanged periodically segmented channel waveguides 22868
- $LiNbO_3$ thin film hybrid integrated opt. devices 39608
- $LiNbO_3$ waveguide QPM-SHG device, tuning bandwidth *(Japanese)* 7746
- $LiNbO_3:Nd^{3+}$, elec.-field-induced periodic domain inversion, act. device appls. 7586
- $LiNbO_3$:Ti channel waveguides, photothermal opt. losses charactn. 39418
- $LiNbO_3$:Ti guided-wave light modulators, filter-type electrodes 30987
- $LiNbO_3$:Ti struct., index profile/bending loss from near-field meas. 14416
- $LiNbO_3$:Ti travelling-wave channel waveguide modulator modelling 39397
- $LiNbO_3$:Ti,Er integrated opt. DBR waveguide laser, 1531 nm 31304
- $LiNbO_3$:Ti,MgO,Co waveguide, low-loss sharp bends, optim. 14473
- LiNbO3 low-loss SAW dispersive filters, low sidelobe level in compressed sig. 39542
- $LiTaO_3$ electrooptic modulator sideband generation by domain inversion 14505
- $LiTaO_3$ opt. waveguides, controlling birefr., nonisovalent ion exchange 14421

integrated optics continued
- Si (110) micro-opto-mech. devices, anisotropic etching 30977
- Si hybrid integrated fibre optic transmitter 17280
- Si, micromirror arrays, $KOH:H_2O$ micromachining, lens templates 7442
- Si planar hybrid optoelectronics, colloquium, London, UK (1994) 20255
- Si-on-insulator slab waveguide Bragg reflector, two polaris. coupling 39405
- SiO_2, fused, microlens arrays, RIE 14493
- SiO_2:Ge Bragg reflectors, UV laser fab. 14436
- SiO_2/Si arrayed-waveguide grating multiplexer 22909
- SiO-LiF:F_2 evanescent field thin-film opt. amp. 14775
- SiO_2-on-Si Mach-Zehnder 1.3/1.5 μm demultiplexer 34032
- SiO_2-on-Si NIR channel waveguides form. by electron-beam irrad. 14450
- Ti,Er:$LiNbO_3$ harmonically mode-locked waveguide laser 39736

integrated optoelectronic circuits *see integrated optoelectronics*

integrated optoelectronics
- *see also optical interconnections*
- 1.3 μm monolithic integrated optoelectronic receiver, InGaAs MSM photodiode/AlGaAs-GaAs HEMTs 25543
- 1.55 μm DFB-LD/modulator integrated light sources, MOVPE grown 9478
- 1.55 μm semicond. laser source, gigabit/second integrated electroabsorptive modulator 1741
- 2.4 Gbit single/multi fibre electro-optic transmitter 34031
- 2.5-Gbit/s return-to-zero integrated DBR laser/modulator transmitter 9459
- 2D intell. photosensor array, MInOSS project 17797
- 3D LCD on VLSI die, electrostatic anal. 42875
- 3D opt. interconnected neural network 1773
- 7.5 Gb/s monolithically integrated PLL/QW-HEMT clock recovery cct. 29341
- 10 Gbit/s opt. transmitter module, integrated electroabsorption modulator/DFB LD 9477
- 12-Gb/s high-sensitivity monolithic p-i-n/HBT photoreceiver module 25512
- 15-Gbit/s high-speed monolithically integrated pin-HEMT photoreceiver 34082
- 25 yrs. of integrated optics/OEICs 39612
- 128×128 pn-np variable-sensitivity photodetector array artificial retina chip, edge extraction 24577
- 155 Mb/s FET-SEED free-space switching network 14649
- act. mode-locked telecomms. semicond. lasers, soliton generation 31415
- act./pass. semicond. OEIC, BPM simulator 14646
- AlGaAs-GaAs waveguide gratings, polariz.-insensitive outcoupling 7360
- all-opt. formatted photonic packet switches archit. 3302
- analog antecedent and consequent fuzzy inference units, optoelectronic 31122
- antenna array photonic systs. 2352
- ART1 neural net memories, fuzzy optoelectronic implement. 31123
- ASIC, Conf., Rochester, USA (1993) 36858
- ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
- automated fiber pigtailing technol. 14383
- beam propag. method num. algms. 39470
- BiCMOS laser control chip combining power control and 622 Mbit/s modulator 31426
- bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
- broadband wireless commun., MM waves, opt. fiber 9506
- CAD design tools 39595
- cellular multichannel video/data commun. optoelectronic components 34080
- chromatic dispersion of opt. guiding struct. 7305
- CMOS cellular neural net-based smart pixel chips, analog design 31130
- CMOS latchup detect., low cost laser scanning tech. 30450
- CMOS transimpedance amp./opt. syst., monolithic integrat. 31131
- CMOS VLSI opto-electronic array proc., morph. image proc. 29277
- CMOS-based technol. for integrated optoelectronics 23062
- computing technols. 31041
- conference, optoelectronic science/engineering, China (1994) 28207
- correlator for real time correl. fn. generation 31050
- DFB laser-electroabsorption modulator monolithic integrat. 1831
- DFB LD modulator for 2.4 Gbps opt. transm. *(Japanese)* 39618
- digital opt. cellular image proc. parallel archit. 1772
- diode laser logic, smart pixels for opt. sig. proc. 7496
- electroabsorption modulator integrated laser transmitters 17225
- embedded chip MCM technol., nondigital extensions 21752
- EX-OR, phototransistors and VCSELs 39512
- extended design tools for integrated opt./electronic ccts. 23059
- external electro-opt. modulation technols., develops. 39481
- fault-tolerant switches for photonic networks 16976
- FET-based OEIC photoreceiver design, syst.-level considerations 34081
- fiber in board electro-opt. interconnection syst., packaging 42429
- fibre-optic transm. lines, external subcarrier modulation integrated-opt. components *(Russian)* 17353
- FITL syst., opto-electronic IC impact 42052
- flip-chip bonding of holographic opt. interconnects, alignment 38177
- fluidic self-assembly of microstruct., GaAs on Si integrat. 30002
- free space opt. interconnects, LD array, microlenses, photodetectors 7486
- free-space digital opt. SEED switching systs. 3301
- free-space interconnect based optoelectronic integrated systs. 1766
- free-space optoelectronic technol. neural networks 1774
- free-space WDM interconnections based opt. switching nets 33726
- GaAs-AlGaAs monolithically integrated interferometric opt. sens. 1835
- GaAs/AlGaAs HBTs with ITO emitter contacts, opt. microwave oscillators 6292
- generation of image data for Mars mission, verification for WAOSS 43441
- glass on Si, opt. interconnections/hybrid optoelectronic integrat. 31113
- glass-Si substr. for hybrid optoelectronic packaging 31118
- guided-wave optoelectronic device model, FDTD/Fourier expansion method 14412
- heterojunction phototransistor-LD integrated device, flip-flop and multivibrator fns. 31048
- high bit rate opt. transmitter module realised in opto-hybrid technol. 9480
- high-perform. computing optoelectronic buses 1771
- high-power MOPA LD 7657
- high-speed optoelectronics, packaging technol. 11751
- hybrid IC drivers, flip chip bonded, SPICE simul. 7485
- hybrid IC waveguide facet refl. reduction 14674
- hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
- IGBT driver PC928, short cct. protection, OPIC photocoupler *(Japanese)* 529
- III-V strip-loaded waveguide devices for photonic IC 39594
- III-V semicond. waveguiding devices, adiabatic tapers 7383
- injection LD, tunable, monolithic cct. integratable 1930

integrated optoelectronics continued
interconnect chip for phased-array antenna appls. 7494
intersubband optics for symmetric and asymmetric quantum wells, wires and dots 40046
intra-syst. interconnection, opt. fiber fabrics 42428
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
jet vap. deposition of organic guest-inorganic host thin films 5872
Josephson jn. IC opt. input/output interface syst. 1625
large-scale image associative memory, optoelectronic implement. 1655
laser interferometers for lin./ang. displacement control appls. 39592
LD, ridge waveguide amps., 2D scaling 39845
LEOS, Lake Tahoe, NV, USA (July 1994) 39
LEOS, San Jose, CA, USA (1993) 20270
LINK Optoelectronic Systems Programme, London, UK (June 1994) 20
long data stream convolution, opt. implement. 1762
master slice-type transimped. amp. photosensors, PIN-bipolar proc. 25835
mesh-connected opt. multiple-access bus interconnects 1770
mesoscopic neural device, electron waveguiding, nonlin. neural connection 14660
metal-clad waveguide polarizer integrated opt. cct. output coupling 30964
micro-opto-electro-mech. systs. 6881
micron-scale grating form., excimer laser irrad. phase masks 31052
microstrip-slot and CPW-slot lines, optoelectronics appls. 12697
mixed photonic/electronic cct. simul. 37603
MM-wave modulated opt. sigs., heterodyne reception, HEMT 3544
monolithic grating-based components for WDM networks 9131
monolithic integrat. of optoelectronic smart pixels 7484
monolithic photonic/optoelectronic switching technol. 9146
monolithic quantum-well lasers, inhomog. biased, MM freq. reson. modulation 31324
monolithic ring lasers for low-noise opt. sig. distrib. 7498
monolithically integrated master oscillator flared power amp. 39847
motherboard technol. for active array opt. interconnection and packaging 23985
MOVPE optoelectronic device technol. 28747
MQW corner reflector p-doped lasers, microwave charactn., monolithic integrat. 14966
multichannel fiber-optic optoelectronic correlator 24427
multistage interconnection network systs., opt. devices, design 1829
neural network, temporally multiplexed grey-scale wts. 29452
nonlin. glass-based opt. switches, BPM design/simul. 17167
nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
OFC, San Jose, CA, USA (Feb. 1994) 5447
offset cube, optoelectronic interconnection network 24644
opt. fibers, MM wave sig. transm. 9541
opt. fibre monolithic wavelength demultiplexing switch arrays 42374
opt. multi-stable set-reset fns. 23058
opt. neural networks based on opt. nonlin. devices 22974
opt. sens. develop. technol. overview *(Japanese)* 17802
opt. transm. systs. employing VCSEL and monolithically integrated photoreceivers 14656
optoelectronic device fab. by CBE 37417
optoelectronic device reliab. 28526
optoelectronic devices for consumer appls. 7492
optoelectronic packages, spot-welding tech. 5645
optoelectronic switch for SCM networks 17211
optoelectronic TOF all-opt. stored program digital computer design 1769
optoelectronics technol. consortium (OETC)- opt. data link/optoelectronic components 33485
organic LEDs, Si compatible monolithic integrat. 14664
organic semiconds., cryst., OEICs, photonic devices 39616
packaging technol., Si suface-micromachined alignment mirrors 14673
parallel opt. interconnects, opt./optoelectronic switch 31127
parallel optoelectronic computer, opt. interprocessor connections 39509
pattern recogn., neural networks, optoelectronic devices 2805
peripheral artificial vision, lateral inhibitory networks, IC implement. 23067
photonic ccts. written by dark spatial solitons in defocussing nonlin. materials 31617
photonic IC fab., quantum well intermixing 14666
photonic LSI interconnections/appls. 1833
photonic-band-gap materials 30967
phototransistor/LED based optoelectronic differential multiplexer logic 1837
pigtailing and connectorization techs. for optoelectronics 39610
planar liq. cryst. opt. switch for opt. commun. 34014
planar packaged free-space opt. interconnections, computing/switching 1767
planar-opt. mesh-connected tree computer chip interconnects 39602
polariz.-independent regenerator, nonlin. optoelectronic PLL 14655
polyguides for opt. interconnect appls. 7493
polyimide electro-optic integrated modulator syst. 22929
polymer electro-opt. device technol. 39484
polymer electro-optic waveguide modulators for data commun. 31000
polymer integrated all opt. devices/ccts., fab./appls. 39614
polymer LEDs, Si monolithic opto-electronics 31126
polymers, OEIC connections 1830
power syst. HV sens., integrated optics Pockels cell-based 27280
prog. multifn. optoelectronic cellular neural net 14667
PSG waveguide opt. routing switch for radar phase control 14663
quantum well laser, monolithic integrat., reson. tunneling diode 14670
quantum-well struct., elec. field depend. refr. index, meas./appl. 39589
rare-earth-ion-based act. waveguide lasers 39722
self-aligned integrated mirror intrinsic loss anal., finite-difference beam propag. method 39613
semicond. integrated opt. routing array components, carrier diffusion effects 14479
semicond. laser arrays, modeling of thermal crosstalk 23302
semicond. lasers, integrated optoelectronic up/down-converters 23232
semicond. ring lasers for integrated optoelectronic ccts. 14842
Si integrated optics for sens. 7378
Si V-grooved waferboard, strained MQW semicond.-laser array coupling, fiber array 7491
signal processing for phased array antennas, conf., Los Angeles (1994) 24
smart-pixel liq. cryst.-on-Si SLM for optoelectronic neural network 22960
SOI bonded wafer, eval. and PIN photodiode characts. 14609
soldering technols., opto-electronic component assembly 39609
surface emitting opt. devices, 2D integrat. 7482
switchable-logic photonic switch array monolithically integrat. MSMs, FETs, and MQW modulators 14531
sync. opt. chip interconnects, perform. anal. 39604
tapered semicond. opt. amp., preamplifier monolithic integrat. 39611
telecomm. optoelectronics, OMCVD epitaxial growth 37416

integrated optoelectronics continued
texture recogn./noise filtering, optoelectronic neural net 39526
thin film photocond.-electroluminescent ccts., opt. sig. delays 39603
thin opt. pickup head of CD player, laser/detector/hologram unit 17613
tilted semicond. opt. amp. arrays, flip-chip packaging 31125
transient behavior of optoelectronic integrated devices, anal. 39591
transimpedance opt. receivers design, root-locus techs. 3564
transmitter/receiver modules, opto-hybrid technol. fabricated 31119
tunable photodetectors and LEDs for WDM appls. 39617
two-port coherent lattice-form opt. delay-line cct. synthesis 14669
ULSI CMOS/opt. polymer opt. interconnections 1832
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
ultralow threshold laser, zero-biased, ultralow power opt. interconnect 14672
variable-strain quantum well heterostruct., design and investig. 30820
VCSEL, integrated opt. beam router, opt. interconnection 23305
VCSEL arrays, mfg. 39784
vert. cavity SEL arrays/micro-Fresnel lens array integrat. 23304
vert. integrated Mach-Zehnder interferometer/tunable LD 1838
vert.-cavity SEL array for short dist. opt. fiber networks 14929
WDM opt. transceiver module for pass. double star subscriber systs. 42371
WDM receiver, monolithically integrated device 34075
WDM transceiver OEIC modules for local access fibre networks 17331
wide bandwidth opt. transm. syst. integrated opt. receivers/transmitters 9498
WORFNET link for fibre-microwave networks 9481
AlGaAs/GaAs micromachining, monolithic integrat. of micromechanical struct. 23065
AlGaAs-GaAs HBT OEIC for high-speed fiber commun. 17196
AlGaAs-GaAs HBTs for high-speed opt. modulator driver cct. 42405
AlGaAs-GaAs HBTs, heavily doped, opt. device appl. 39566
AlGaAs-GaAs thin film p-i-n photonic device integrat., micromachined movable platforms 39600
AlGaSb/GaSb punch-through heterojunction phototransistors for lightwave commun. 7462
AlInAs/InGaAs HBT, edge coupled receiver OEIC 14652
AlInAs/InP low gate current HFET 13781
CdS, optoelectronic charactn. by photothermal deflection 38229
Er:YScGG, 2D microlaser array, monolithic LD array pumping 1888
GaAlAs/GaInP/GaAs passivated HBT, high bit rate opt. commun. appl. 6730
GaAs 2-to-4 level convertor IC for SOA modulators 42403
GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891
GaAs Gilbert cell mixer IC fro coherent opt. transm. 42402
GaAs IC, conf., San Jose, USA (1993) 36852
GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
GaAs LEDs, 3D opt. coupled common memory 39318
GaAs MESFET, epitaxial lift-off on InP 14654
GaAs MESFET opt. triggered monolithic S/H cct. design 39590
GaAs MESFET transceiver, optoelectronic VLSI cct. fab. 39599
GaAs MMIC delay line/quadrature demodulator in opt. receiver 17199
GaAs MMIC/pin photodiode-based opt. receiver, 2.488 Gbit/s IM-DD systs. 17169
GaAs detector-switched monolithic time-delay network for opt. control of phased arrays 31129
GaAs heterojunction p-i-n photodiode transient simul., computational methods 39564
GaAs low-noise broad-band MESFET monolithic distributed preamplifier 42391
GaAs opt. controlled FET, current modulation 7487
GaAs transmitter/receiver LSI chips, parallel opt. links 42401
GaAs transmitter/receiver chipset for opt. link 42404
GaAs:O, MOVPE, ultrafast photodetector materials appl. 23064
GaAs:Si QW, uniform intermixing in p-i-n modulator structs. 39605
GaAs/AlAs DBRs for GaSb-based reson. cavity photodetectors 25833
GaAs/AlGaAs FET-SEED, smart pixels and saturation charact. 14657
GaAs/AlGaAs, MQW IR detector, wideband response *(Chinese)* 17809
GaAs/AlGaAs etched arrays of QW opt. bistable microresonators 14659
GaAs/AlGaAs opt. phase modulators for microwave/photonic ICs 7495
GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
GaAs/AlGaAs smart pixels, picosecond switching 23056
GaAs/InP 1 μm MESFET, buffer layer thickness optimization for OEIC 14661
GaAs-AlGaAs FET-SEED technol. based ring oscillators 23057
GaAs-AlGaAs MQW modulators integrated, Si CMOS IC 39597
GaAs-AlGaAs monolithic optoelectronic switch, modulation response 23055
GaAs-AlGaAs monolithic optoelectronic switching network 42130
GaAs-AlGaAs monolithic semicond. ring lasers, pass. mode locking 31416
GaAs-InP MESFETs and ccts. fro OEICs 39598
GaInAs PIN/HEMT receiver OEICs for Gb/s opt. systs., fab. 25495
GaInAs-GaAs micro-arc-ring lasers, design/lasing operation 1935
GaInAsP BRS laser-GaAs MESFET driver for OEIC transmitter 31120
GaInAsP-InP 2×2 switch, monolithic integration with optical amplifiers 17191
$Gd_3Ga_5O_{12}$/InP(/GaInSb) integrated semicond./magnetooptic devices, direct bonding 31112
InAlAs/InGaAs multichannel MSM-HEMT receiver OEIC for WDM 14650
InAlAs/InGaAs/InAlAs, HEMT, MBE grown, parasitic effects 13782
InGaAs MSM photodiode/AlGaAs-GaAs HEMT OEIC receiver, 1.3 μm 17235
InGaAs monolithically integrated pin-FETs, noise characts. 14671
$In_{0.5}Ga_{0.5}As$ heterostruct., gateable ultrafast field-assisted photoemission 1836
InGaAs/AlGaAs flared amp. monolithically integrated arrays, DBR laser driven 23262
InGaAs/AlGaAs lasers, integrated optoelectronics, grating fab. 39596
InGaAs/AlGaAs/GaAs grating demultiplexer/detector array integrat. 9422
InGaAs/GaAs heterostruct. field effect opt. modulator 14516
InGaAs/InP JFET, step-doped channel doping for OEIC receivers 14653
InGaAs/InP MQW modulators in expt. and theory 14658
InGaAs/InP p-i-n waveguide photodetector, dyn. range 34069
InGaAs/InP, pin photodiode array, integrated lens *(Chinese)* 14613
InGaAs/InP transimpedance opt. receiver OEIC 1834
InGaAs/InP:Fe MISFET, opt. controlled characts. 23015
InGaAs-GaAs-AlGaAs strained-layer lasers with monolithically integrated photodiodes, MOCVD fab. 31319
InGaAs-GaAs-AlGaAs:Ar(He) strained SQW, disordering by ion implant. 13135
InGaAs-InGaAsP MQW lasers, 1.55 μm, direct bonding on Si 23270

integrated optoelectronics continued
InGaAs-InP 1.55μm photonic waveguide devices, quantum well struct.-based 14411
InGaAs-InP double HBT, high speed/voltage driver circuit appl. 13876
InGaAsP channel HFET OEIC photoreceiver 17258
InGaAsP monolithic semicond. soliton transmitter 25530
InGaAsP monolithic semicond. soliton transmitter 7790
InGaAsP strained MQW heterostruct., lasers, modulators, integrated optics 14922
InGaAs(P)/InP, lasers, HBT, monolithic integration 14651
InGaAsP/InP tapered two-layer waveguides for chip coupling, single-mode fibers 30974
InGaAsP/InP waveguides for guided-wave photonic IC, low-loss fiber-chip coupling 7372
InGaAsP-InP 10-element monolithic laser array in parallel interconnects 14961
InGaAsP-InP electroabsorption modulators for LDs, nonlin. effects model 14846
InGaAsP-InP pol.-independ. four-channel tunable opt. filter 25477
InGaAsP-InP ultrasmall waveguide bend corner mirrors 30970
InGaP/GaAs/InGaAs strained MQW laser-MESFET, opt. transmitter form. 31124
InP 4×4 polarisation insensitive switch matrices, fabrication 17192
InP OEIC for photonic networks *(German)* 7490
InP, and related materials, conf., Paris, France (April 1993) 11521
InP based MQW phase modulators *(Chinese)* 7480
InP monolithically integrated Wannier Stark modulator/strained MQW DFB 1.55-μm laser 22940
InP monolithically integrated tunable polariz. diversity heterodyne receiver OEIC 25484
InP periodically segmented waveguide based spot size transformer 39606
InP photonic IC based light sources, WDM lightwave communication systems appls. 17190
InP photonic integrated transceiver chip for WDM transm. 9458
InP, planarizing regrowth using low press. hydride VPE system 12050
InP polariz. diversity receiver OEIC heterodyne receiver frontend module 23061
InP technology, role in optical fibre communications 17189
InP/InGaAs HBT OEIC photoreceiver 9495
InP/InGaAs HBT, integrated optical receiver front-ends noise 14662
InP/InGaAs JFET/pin photodiodes for optoelectronic integrat. 1439
InP/InGaAs punch-through heterojunction phototransistors for lightwave commun. 7462
InP-GaInAsP-GaInAs composite collector HBT/circuits 13663
InP-InGaAs DHBT/p-i-n PD monolithic photoreceiver, 23 GHz bandwidth 7483
InP-InGaAs high-speed heterojunction phototransistors, electrode 14611
InP-InGaAs light amplifying optical switch, XOR logic fn. 14675
InP-based 10 Gbit/s photoreceiver OEICs, noise and perform. 9429
InP-based HBT ICs, design trade-off 13875
InP-based broadband optoelectronic receivers 9497
InP-based monolithic high-speed bal. mixer receiver 25523
InP-based opt. multiplexer integrated, MQW modulators 34074
LiNbO$_3$ chip assembly on silica-based waveguide on terraced Si substr. 31128
LiNbO$_3$ electro-optic modulators, cryogenic temp. characterisation 14506
LiNbO$_3$ thin film hybrid integrated opt. devices 39608
LiTaO$_3$:H proton-exchanged waveguides, structural and opt. props. 14420
Nd-doped silica planar waveguide lasers fabricated by flame hydrolysis deposition/RIE 31260
Si 10 Gbit/s bipolar LD driver IC for direct modulation 29047
Si LSI single-chip integrat. of LED, waveguide and micromirrors 39615
Si OEIC with built-in PIN-photodiode, fab., perform. 14648
Si bipolar monolithic opto-electronics, polymer LEDs 14665
Si enhanced optoelectronic packaging for LD 31121
Si, hybrid motherboard, low loss opt. interfaces 31117
Si hybrid opto-electronic sens. syst. 31115
Si integrated optoelectronic VLSI commun. cct. 34033
Si micromachined module platform for multiple opt. fibre I/O 23066
Si monolithic photodetector/CMOS preamplifier fiber-optic data link 9518
Si multitechnology module OEIC packaging for computer/commun. systs. 11815
Si, optoelectronic charactn. by photothermal deflection 38229
Si planar hybrid optoelectronics, colloquium, London, UK (1994) 20255
Si, porous, novel p-n jn. device electrolum. 14615
Si receiver module, hybrid integrat. of silica waveguide, photodiode interface 31116
Si substr. integrated optoelectronic devices 7488
a-Si thin film optoelectronic cellular neural networks 22980
Si:Er light emitters in integrated opt. interconnects 23060
Si/CoSi$_2$ vert. MSM photodetectors, buried contacts 34500
a-Si-SiO$_2$-Si Fabry-Perot opt. intens. modulator by merged ELO 14647
a-Si$_{1-x}$C$_x$:H, plasma CVD, monolithic light-converters 3876
SiO$_2$ planar waveguide ccts., telecomm. appls. 30983
SiO$_2$-based waveguide bending loss reduction by lateral offsets 39440
SiON:Er,Yb low-loss waveguides, deep implant codoping 39439
integrated plant control *see centralised control*
integrated project support environments *see project support environments*
integrated services digital network *see ISDN*
integrated software
see also database management systems; software packages; spreadsheet programs; word processing
ATE software integrat. in aerospace/mil. environ. 34400
distrib. network control, obj. oriented environ. appls. 27154
DSP-based integrated software environ. for filter design 5952
ECG mapping, ambulatory, integrated software environ. 26431
embedded flight control syst. design, integrated proc. 10333
genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
IC test, intell. software-integrated environ. 9802
SPICE integrat., TEK LV511 ASIC design verification syst. 1477
integrated vacuum devices *see vacuum microelectronics*
integrating circuits
BiCMOS laser control chip combining power control and 622 Mbit/s modulator 31426
CMOS analogue synapse for Kohonen, maps 29421
current-freq. converter, integrator discharge anal. 37904
digitally prog. differential integrator, enlarged time const. 29349
digitally prog. integrator/differentiator ccts., OTA biasing 37860
integrating circuits continued
dual current-feedback amp. techs., operation and advantages 37652
dual-input current-mode ratio fn. generation, CCIIs 772
gain-compensated SC integrator, four-input opamp based 6250
lightning current meas. in building columns and girders, Rogowski coil 20123
low-noise CCD sig. acquisition 34417
MASH multi-stage noise-shaping with an RC-analog integrator, digital correction tech. 12592
Miller integral-type SC multivibrator based freq. divider 21468
monolithic variable integrator design, appl., filters 12634
multisection proportional chamber for P-viol. meas., design/ccts. 4171
Rogowski transducers for high bandwidth high current meas. 34484
silicon cochlea, switched current 29420
soap bubble flowmeter, opt. fibre sens. 42836
SPICE macromodel for OTA 37844
stacked MOS transistors, cct. techs. 5964
switched-current bilinear integrator cct. 12670
switched-current/continuous-time current-mode cellular neural network, opt. addressable 29517
triquint 0.5 μ MESFET device microwave transconductance amps. and filter ccts. 6327
voltage controlled astable multivibrator, Miller-integrator 21146
voltage integrators using op-amps, current conveyors and transconductance amps 21408
wt.-integrat. A/D converters, high noise rejection 17698
integrating spheres *see photometry*
integration
see also method of moments
1D wave eqn. canonical variables, integrating factor 23550
2D diffusion, finite difference scheme 276
3D objs. embedded in multilayered media, scatt. 40303
arith. FT, alternate realizations 8298
BEM, variable transform. *(Japanese)* 37338
Cauchy principal value integrals approx., quadrature methods 20616
cct. simulators, Fourier anal. approach 21076
charged particle motion, precise integrator, Runge-Kutta method 40260
COBRA, computer code for backscatt. anal. of complex objs. 3596
computer-generated Fourier holograms based on pulse-dens. modulation 40127
cubature formulae, blending methods for two classical integrals 37337
DECUHR, integrat. of sing. fns., hyperrectangular region 11995
detect. perform. of lin./sq.-law detectors 32539
dish antenna design alternatives, test beds for student investigs., DishPat and FeedPat programs 31915
EMC problems, PEEC cct. models, stable time domain solns. 15511
energy scarcity, economic growth effects anal., USA 19394
estim. in quadratic formulas 11988
fast defuzzification by adaptive integrat., hardware implement. 29284
IGBT, on-state characts. degrad., self-heating 1422
lin. antenna, symbolic approach, inverse problems in moment method 2312
magneto-opt. recording marks anal. 9773
massive current coil, mag. field and pot. eval. 40230
medium freq. converter with VSI, control syst. 19879
mm-wave meas. of sub-wavelength thickness 42936
MOS SPICE transient cct. simul., integrat. methods, noncontinuous first derivative devices 6868
moving obj. segmentation by robust motion param. estim., multiple frames 24627
multi-conductor transm. lines, pulse responses, partitioning tech. 15547
multichannel simultaneous digital tracking filters, vibr. control 17993
nonadditive measures, additive representations, and the Choquet integral 28593
nonlin. amps., intermodulation power, data modulation 560
ODE, num. integrat. by symmetric comp. methods 20614
open asymmetrical multiconductor transm. lines, spectral-domain anal. 40390
opt. receivers, aperture averaging of opt. scintillations 34057
plane wave scatt., loaded trough on ground plane 15388
polyhedron-approx. reflector antenna, radiation characts. anal. 23888
power syst., nonlin. asymm. components, short cct. calc. 19069
power syst. long-term dyn. simul., num. integrat. method 35466
power syst. transient stabil. assess./control, status and develop. *(Chinese)* 43632
quadrature formulas, symmetric interpolatory, efficiency measures 20615
random wavelet transform. 32521
rect. waveguide, elec. dyadic Green's fns. 31905
reflector antenna radiation integral eval. by predictor-corrector algm. 23820
Rician-type error probabilities, tight bounds and appls. 15712
S-params., calc. by orthogonal expansion and finite integrat. 2168
semicond. devices, avalanche breakdown voltage simul. *(Japanese)* 30202
small target detect., long term integrat. 18975
space power wireless power transm., microwave beam intens. calcs. 43416
speckle contrast ratio fiber vibr. sens. 34536
symmetric quadrature formulas, Peano kernel behaviour/error bounds 11997
symplectic maps, monomial factorization, particle dyn. 4090
vert. channel, protruding heat sources, 3D convective cooling 37126
LiNbO3:Ti anisotropic graded-index channel waveguide, finite element modelling 39463
integrators *see integrating circuits*
integro-differential equations
see also Boltzmann equation; Fokker-Planck equation; Liouville equation; master equation; Vlasov equation
broad wall coupler between dissimilar rect. waveguides, S-matrix 12714
control laws design strategies 37350
cyclotron reson. masers, bunches, phase mixing, space charge instabil. 31135
dielectric body of revolution/wire radiator spin by method of moments 23815
electronic cct. time domain anal., unsteady modes of operation 512
high-power wideband beam-plasma microwave amps./generators 974
monochromatic EM field diffraction by microstrip antenna 2319
nonlin. opt. waveguides, light pulse propag., mode-coupling theory 22907
reradiation antenna anal., integrodifferential-eqn. method 2316
resistive-wall klystron, nonlin. theory 29784
scattering amplitude tensor characts. from Lippmann-Schwinger integro-diff. eqn. 23615
smoothness meas. for regularization, surface reconstruction appl. *(Japanese)* 2609
sync. DC motors, nonlin. control 27754
Volterra models, stochastic, Kalman-Bucy filtering 20505

intellectual property *see industrial property*

intelligence, artificial *see artificial intelligence*

intelligent actuators
- adaptive beam with embedded devices, dyn. response 37548
- ceramic material systs., boundary conditions for shape memory 28888
- conf., active materials/smart structures, USA (1994) 36870
- electrorheological catch/clutch, inertial simul. 445
- fibre optic displacement sens., intell. proc. monitoring 17898
- integrated microsensors, smart electronic devices, thermodyn. model 25783
- med. 3D microstruct. 26453
- MLC actuators, intell. proc. monitoring, fiber sens. 10030
- piezoceramic lin. motor, flexible space struct. control 4995
- piezoelec. US motors 30596
- polypyrrole free-standing films, electrochem. driven, actuation props. 28880
- PVDF, piezoelec. bimorph actuators, force improvement 39109
- semiactive control for vibr. atten. 5916
- shape memory alloy actuators, thermoelec. cooling, theoretical modeling 37549
- smart material hysteresis, Preisach modeling and compensation 37546
- stepping motor, intell. controller, actuator, design 19677
- Ni-Ti fibre reinforced composite beams, lateral buckling control 37545
- PZT sens.-actuator, truss struct. integrity ident. 34467

intelligent agent interaction *see cooperative systems*

intelligent buildings *see building management systems; factory automation; home automation; office automation*

intelligent control
- *see also neurocontrollers*
- ACNET control syst., smart subsystems, shell software 18231
- aircraft intell. rem. power controller 26682
- all-weather/terrain intell. vehicle for law enforcement 34586
- area power generation control, implement. issues 10645
- automotive engine mgt. syst., electronic ignition 36771
- autonomous intell. cruise control radar syst. 34151
- autonomous spacecraft payload operations, onboard emergent scheduling 18696
- brushless motor drives, high power, intell. interface 5271
- bulk substations, seq. of events eval., neural networks 44244
- BWR NPP, ecological interface for supervisory control 27417
- cars, intell. cruise control, dist./speed class. 36770
- CHP plant intell. control/monitoring, μP-based 35993
- controller, fuzzy, pipeline custom design 650
- CSYCOM commun. protocol *(Bulgarian)* 24811
- DC motor drive adaptive neural speed regulators 36655
- DC rly. power systs., intell. traction power control 28126
- decentralised AI controllers, intell. home automation 4536
- diesel CHP plant, intell. control/monitoring 4854
- disabled pers. aiding by intell. robotic systs. 35173
- distrib. networks mgt., intell. support syst. 19275
- distributed control of telephone networks, reactive software agents 41713
- electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
- fast batts. charger, voltage inflection points detect. 27908
- fuzzy logic based engine idle-speed controllers 11441
- HV RF cavities conditioning, fuzzy rule based prog. 18273
- hydraulic turbogenerators, intell. sync. control *(Chinese)* 10877
- IEEE industry applications, conf., Denver, USA (1994) 10
- induction motor speed controller, line voltage feedforward-based 27712
- local SCADA systs., intell. load shedding algm. *(Korean)* 35473
- mechatronics fund., meas. sci. and technol. 9850
- MELECON '94, conf., Antalya, Turkey (1994) 5470
- microflight mechanism on Si wafer 30510
- microwave clothes dryer, fuzzy logic controls 5398
- mobile robot environ. recogn., US sens., CCD camera 43556
- multi-machine syst. learning coord. control 36121
- neuro-fuzzy nets, nonlin. systs. control appl. 44065
- NPP, intell. monitoring and diagnosis 43834
- nuc. reactors, model-based advanced control 19462
- patient monitoring and therapy mgt., intell. systs., research projects, survey 26447
- plasma gate etch, neural network control 38567
- power station intell. control, life extension mgt. 19387
- power supply ES appl. experience *(German)* 27132
- power syst. control, AI-based DSS 10648
- power syst. intell. control, appl. develops. 19135
- power syst. intell. guidance syst. 19169
- power syst. overdutied cct. breakers, intell. reclosing 27271
- power syst. transient stabil. assess., neural net-based 10626
- power transm. line overloading alleviation, intell. control 4518
- PSS, intell. variable gain control, multitransputer-based *(Chinese)* 43691
- PSS intell. supervisory fuzzy control design 19103
- PV array max. power neural tracking 36058
- PV max. power tracking, neural networks 36589
- PWR NPP neural control 35738
- radar sens. for automatic AICC 5377
- robotic welding syst., knowledge based machine vision 41247
- robots, AC drives, optimised DSP field oriented control 36683
- roving robot, intell., multiple sens. 40792
- satellite ground control operations, intell. C^2 26698
- sensor fusion, conf., Las Vegas, NV, USA (1994) 28256
- sig. proc. algms. in commun. 16575
- smart batt. packs for portable equipt., develop. 21109
- space station power mgt./distrib., intell. load controller 26659
- space vehicle power control syst., automated fault diagnostics 26681
- spacecraft, fault-tolerant power distrib. module 26563
- spacecraft DC power systs., series arcing detect. 26564
- SPARSE ES for alarm proc. and operator assistance 26999
- SRRC accelerator control syst. design schemes 18218
- stepping motor, intell. controller, actuator, design 19677
- substation intell. control, fault diagnosis/proc. *(Chinese)* 36471
- substation protection/control coord., μP ES-based 44246
- supply-side loading minimisation, intelligent SVC control 43656
- sync. machine excitation neural control 36117
- sync. servodrive, intell., fuzzy/digital cascaded state controllers comparison 44012
- telecom network rule-based control, blackboard model 16614
- telecomm. power systs., IN 19147
- telephony network real-time control, ES 24927
- transm. network substation control centers, SPARSE ES appls. 19230
- turbines, intell. adaptive controller 43816
- variable speed drive inverse nonlin. speed controller design 11349

intelligent control continued
- variable speed induction motor drive, adaptive fuzzy control 11392
- vehicles, intell., map generation, quantitat. eval. 34182
- vehicles, intelligent, conf., Paris (1994) 28224
- wafer fab. line, feedback control syst., implementation 37043
- wind energy utilisation, fuzzy logic controller 36065

intelligent databases *see deductive databases*

intelligent design assistants
- cable harness design ES, CHD 21607
- case-based preliminary design systs., Hopfield network approach 2393
- chip model library for integrated package/chip simul. 37081
- competitive/selective learning for vector quantizer design *(Japanese)* 15772
- computer commun. networks, topol. design, simulated annealing 33542
- COSIMA multistrategy learning syst., integrat., interactive floorplanning tool 12290
- elec. plants, config. support syst. shell 27298
- intell. EMC anal. and design techs. 15525
- lift control board elec. design, ES spec. judging 5961
- MCM, intell. analyzer, thermal design tool 21785
- multimedia systs., intell. agents *(English)* 25125
- PCB design under EMC constraints, rules devel. 21633
- PCB SMA, DFM, Integrated Expert System Environment 29670
- SCF ccts., silicon-level design, num. optim. 6214
- simul. code generation, KBS 21080
- SMPS, transformer design ES 44122
- squirrel cage motors, computer-based design assistant 19643
- turbine blades, detailed design, KBS 19512
- VLSI CAD, cooperative problem solving 492
- VLSI design proc. mgt., reconfigurable distributed framework 5580
- VLSI high level synthesis designs, feedback 29154

intelligent knowledge based systems *see knowledge based systems*

intelligent materials
- *see also intelligent structures*
- AC immittance spectrosc. of smart components and devices 18027
- biological struct. smartness 37547
- cantilever beam state meas., distributed PVDF film sens. 42775
- ceramic material systs., boundary conditions for shape memory 28888
- CFGFRP-reinforced concrete, fracture self-diagnosis, material design 28897
- conf., active materials/smart structures, USA (1994) 36870
- electrorheological fluid oscillatory response 5915
- electrostrictive ceramics, brittle fracture behavior 28892
- engng. courses, materials education 28889
- fiber optic sens. for smart materials and struct. 17841
- fibre optic displacement sens., intell. proc. monitoring 17898
- fibre-optic sens. for smart struct. 3851
- MCM, smart substr. 6457
- mol. wires/transducers/devices 28891
- opto-mech. Raman strain sens. for C composites 3814
- polymer composite materials, mag. field sensitive 5914
- polypropylene, graphite filled, strain sensitivity 28894
- PVDF, piezoelec. bimorph actuators, force improvement 39109
- shape memory alloy actuators, thermoelec. cooling, theoretical modeling 37549
- shape memory wires for pass. structural damping 28895
- short fiber composite strain sens., elec. resist. change 28896
- smart high temp. composites, opt. fibres, thermal spray/adhesive bonding 3853
- smart material hysteresis, Preisach modeling and compensation 37546
- smart materials, spatially resolved chem. dimens. 28890
- SMART materials in polymer sci. 12203
- Ni-Ti fibre reinforced composite beams, lateral buckling control 37545
- PLZT, ferroelec. ceramics, non-lin. behavior, micromechanical theory 37551
- PZT piezoceramics, ferroelec. actuator/sens. materials, driving field/temp. effects 30570
- $PbMg_{0.3}Nb_{0.6}O_{0.3}$, ferroelec. actuator/sens. materials, driving field/temp. effects 30570
- TiNi/PZT, smart thin film heterostruct., materials develop. 37550

intelligent networks
- 800 MHz PCS, IN technol. appl. 25433
- advanced IN, OAM&P 25087
- advanced IN services, computer platforms 9036
- Advanced Intelligent Network service maint. and testing strategy 25089
- advanced telecomms. services, distributed control archit. 25084
- AIN, pers. mobility services trial 25092
- AIN, reuse-driven service creation environ. 9038
- AIN archit. expectations *(Japanese)* 16827
- AIN service creation and issues 25094
- AIN switch testing without service logic execution environ. 41956
- Alcatel 1000E10 switch and IN principles 42107
- ANATA, autonomous network administrator, TAMPOPO learning machine appl. *(Japanese)* 16583
- archit., strong user authentication 25090
- AT&T's IN, service proc. systs. 16824
- automated derivation of protocols implementing IN services 24827
- AXE concept for designing software products 33629
- AXE IN service script concept, suppl. subscriber services 33628
- B-ISDN, IN mgt. syst. 8843
- BellSouth Telecommunications, pers. services, AIN 24931
- call proc. and signalling 33627
- CCS networks, congestion control issues 33637
- cct.-switched networks, real time traffic estim. 41680
- CLAD implement. and expt. results in ATM networks *(Japanese)* 24948
- common channel signalling network mgt. model 41660
- commun. network control archit., integrate service control and mgt. 25063
- commun. service specs., stepwise refinement 25085
- cooperative service mgt. 33626
- corporate telecomm. networks, trends and integrat. issues 41937
- Croatian telecomm. network, modernization 33357
- Croatian telecomm. network, traffic forecasting 33630
- customer-centered interfaces, service subscription inform. 24922
- design and implement. of intell. peripheral prototype syst. 3252
- detecting, interacts. 3258
- directory service extension *(Croatian)* 3248
- distributed control appls., home power ccts. 9039
- distributed telecomm. systs., configurable call/service proc. 41955
- distributed telecomms. systs., sojourn time distrib. modeling 33237
- distributive lighting control syst., Local Operating Network appl. 20122
- dyn. network call distrib., periodic updates 33635

intelligent networks continued
EURESCOM project 230, combined pers. and terminal mobility in IN environ. *(Italian, English)* 42291
European telcos maintaining competitive edge 16826
flexible network characts. and develop. prospects *(Japanese)* 16570
flexible networks, basic concepts and archit. 25082
formalisation of user view of network and services for interact. detect. 3255
future telecomm. services, carrier's network strategies 9085
GSM home location register, advantages/challenges 25385
GTE advanced intell. peripheral config. 25091
Hawaii State Dept. of Education future high speed IN 3251
heterog. data networks, addressing/routing 24841
I^2NMA, intell. integrated network mgt. archit. 16580
INDIA project, IN mgt. distributed database 25088
integrated services engng. 41693
intell. trouble mgt. based on operation scenario and fault simul. 41668
interact. benchmark for services 3253
Italian IN, service control point testing/eval. *(Italian, English)* 41962
ITU-T, pers. commun. services and teletraffic standardization 33930
Japanese digital cellular std., IN archit. 42258
leased cct. subnetwork in digital transm. network 33295
local pers. commun., archit. 25382
LON technol., intell. local operating network 9002
mobile multimedia commun., IN archit. 9035
mobile multimedia commun. network prospects *(Japanese)* 16906
mobile service control point for intell. and multimedia mobile commun. 9042
multi-access spectrum-sharing methodology 41467
multicast routing based on predicted traffic stats. 16529
multimedia ATM broadband AIN control station testbed 41990
multimedia commun., fast, NTT strategy 25119
multimedia commun. distributed co-operative multiagent IN syst. 41976
NTT's mass calling service 3250
open distributed environ. perform. considerations 41957
pan-European IN, mobility effects, Eurescom project P230 41959
pan-European services via interconnection of IN-platforms *(Italian, English)* 41961
pan-European telecomm. services, interacts. 3254
parallel opt. link and LSIs 34055
PCN, accounting mgt. and AIN 25431
PCS service provision, PSTN infrastructures *(Italian, English)* 41963
planning, customer expectation 33636
power distrib. installations, intell. systs. *(German)* 35640
private telecomm. networks *(German)* 9037
radio syst., PSTN network syst. interfaces/services 25383
revenue, service creation environ. 25093
robust private networks, call proc. structural concepts 33631
runtime feature interact. resoln., negotiating agents approach 3257
security and IN 33633
security in telecommunication networks, IEE Colloquium, London (1995) 20253
self restoring capability 41960
service creation environ. 33625
service interact. detect. method *(Japanese)* 33634
telecom. network interconnection, impact on network integrity 41695
telecomm. network distributed proc. technol. *(Japanese)* 16754
telecomm. service protocol synthesis, Petri nets, validation tool 33632
telecomm. service software archit. for next-generation networks 25083
telecomms., case driven anal. of interacts. 3256
telecomputations, telecomms. and computing convergence 3249
teletraffic perform. 33638
TINA-C archit., rels., IN and TMN *(Italian, English)* 41964
TMN/IN harmonisation overview and stds. 41958
To-be-IN, obj.-oriented telecomms. services testbed syst. 25086
UMTS, fixed network issues and design options 25331
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
universal personal communications, conf., San Diego, USA (1994) 20233
UPT service in multi-operator environ. 16617
virtual broadband network, customer control of services and bandwidth 41654
virtual private networks characts. 41873
virtual private networks via IN 41954
voice peripherals 16825
VPN's and business commun. solns. 41953
VSAT systs. role in broadband networks and IN 42308
worldwide IN, dyn. routing strategies 33639
worldwide IN dyn. routing, models and results for evol. planning 33640

intelligent sensors
2D intell. photosensor array, MInOSS project 17797
active phased array built-in perform. monitoring, fault-isolation and correction syst. 23950
adaptive beam with embedded devices, dyn. response 37548
analog fuzzy controller, CMOS technol. 37902
analog spot position coding retina, active obstacle detect. 21457
anesthesia supervision, smart sens., data validation 26283
automobile smart sens., self-test and diagnosis 5364
biological struct. smartness 37547
Bragg grating fiber optic sens. for C fiber prestressed concrete highway bridge 34545
cantilever beam state meas., distributed PVDF film sens. 42775
CIMID, electronic systs., high dens. integrat. 28458
CMOS intell. lin. image sens. for single chip digital camera 34601
CMOS VLSI smart visual micro-sens. based on insect vision 34569
differential press. transmitter develop. 3786
embedded fiber-optic acoustic sens. for NDE 34540
embedded smart struct., low profile fibers appls. 17857
fiber optic sens. syst., Bragg grating laser systs. 34538
fibre optic displacement sens., intell. proc. monitoring 17898
flexible ASICs incl. embedded proc. for smart sens. appls. 6244
food indust., intell. gas odour sens. for QC 18139
fuzzy sensor fusion, concrete mixing plant quality monitoring 25808
glass reinforced polymer, low cost dyn. opt. strain meas. 10035
graphite fibre reinforced epoxy laminated panels, opt. fiber embedded, low vel. impact 12194
graphite fibre reinforced PEEK thick composites, embedded SiO$_2$ opt. fibers, moire anal. 25852
image obj. area estim., cellular neural network 21495
image sens., smart, custom, develops. 17962
image sensors/processing, conf., UK, 1994 5481
integrated microsensors, smart electronic devices, thermodyn. model 25783

intelligent sensors continued
interoperability 17706
knowledge based fault diagnosing syst., sens. sig. reliab. *(Chinese)* 32637
machine olfaction, intell. odours sens. 25897
machine vision, digital camera, CMOS intell. sens. 42848
med. 3D microstruct. 26453
metal ions detect., fluoresc. reson. energy transfer 25782
model based robot vision 25881
neural net for perform. improvement 17726
opt. fibre Bragg grating sens. for aerospace smart struct. 42825
opt. interconnection for mil. hostile environ. 43568
opt. sens., multilayer opt. coupled neural network, analog VLSI realization 9938
optoelectronic science/engineering, conf., China (1994) 28207
photoelec. sens., intell. diagnostics 3828
power station fire protection systs. upgrade 43813
proc. gas analyzing syst., locally mounted 9964
proximity sens. syst. for spatial sens. and colour perception 42776
reconfigurable ASIC analogue front end, intell. sens., software drivers 6243
reconfigurable ASIC front end for intell. sens. syst. 6242
reinforced concrete strain meas., opt. fiber sens. 34547
semicond. gas sens., neural nets *(Japanese)* 42867
short fiber composite strain sens., elec. resist. change 28896
sig. conditioning for smart sens./transducers 3780
smart civ. infrastructure, opt. sens. systs. 34548
smart composites with embedded sens., in situ monitoring, diagnostic systs. 12220
smart sens. for styrene vap. detect. in indust. environ. *(French)* 9949
smart sens. interface, data conversion and prog. calib. 34493
smart structural monitoring develops. 12247
smart US sens., meas. principle 25824
spray atomization/deposition, proc. params. monitoring, sens. 28898
star-field ident. for autonomous attitude determ. 33076
STW chem./biological contaminant detector 34605
surface micromachined accelerometer 9860
T700 series intell. press./differential press. transmitters *(Japanese)* 3823
US intell. flowmeter, hydroelec. power appls. 10876
Cr-Ni, excimer laser induced nonplanar metallization of Cr mask material, tactile sens. 30503
Si micro-mech., solid state sens. 34460
Si range finder, realtime range finding VLSI sens. 34568
Si substrs., sens. 25825
Si:N, isotropic etch-stop props. 13334

intelligent structures
see also flexible structures; intelligent materials
AC immittance spectrosc. of smart components and devices 18027
adaptive beam with embedded devices, dyn. response 37548
biological struct. smartness 37547
Bragg grating fiber optic sens. for C fiber prestressed concrete highway bridge 34545
conf., active materials/smart structures, USA (1994) 36870
embedded Fabry-Perot interferometric strain sens. 17894
embedded smart struct., low profile fibers appls. 17857
fiber optic sens. for smart materials and struct. 17841
fiber optic sens. syst., Bragg grating laser systs. 34538
fibre optic smart struct., coating props. optimisation, FEA 34541
magneto-optic CT *(Chinese)* 39504
metastable steel alloys based, develops./appls. 12247
opt. fiber sens. syst. embedded in member 34546
opt. fibre Bragg grating sens. for aerospace smart struct. 42825
opt. interconnection for mil. hostile environ. 43568
opt. sens. systs. for smart civ. infrastructure 34548
piezoceramic lin. motor, flexible space struct. control 4995
piezoelec. transformers and structs., controller design 30621
PVDF, piezoelec. bimorph actuators, force improvement 39109
shape memory wires for pass. structural damping 28895

intelligent tutoring systems
elec. cct. anal. teaching, intell. computer tutor 5527
elec. power engng., intell. tutoring syst. 20302
engng. problem explanation/understanding, intell. tutoring syst. 20275
frame-oriented intell. tutoring syst. 5526
LMFBR coolant filling, human errors ident., intell. CAI syst. 28350

intelligent vehicle highway systems *see automated highways*

intelligibility, speech *see speech intelligibility*

intensification *see amplification*

intensity measurement
see also acoustic intensity measurement
3D wavebeam field reconstruction from cross sect. intens. meas. 33001
electron gun, intens. profile meas., modulation techs. 29760
noniterative complex-valued obj. reconstruction from two intens. meas. 2707
InP waveguide mode field determ. from intens. profiles 39468

inter-computer links
AT&T's PassageWay Solutions family of computer telephone integrat. products 41800
commun. networks with unreliable links, capacity assignment 3209
image database, dial-up rem. access 16829
interconnecting computers, archit./technol./economics 16702

interacting binary stars *see binary stars*

interacting control systems *see multivariable control systems*

interactive devices
see also data gloves; keyboards; light pens; mouse controllers (computers); touch sensitive screens
blind pers. audio-tactile graphics equipt. 43380
brain blood vessel catheter, teleoperation 10255
document inform., projective display by parametric sound beam 43372
EEG, feature selection, VQ/genetic algms. 43313
electro-oculography based user interface system 26445
eye-gaze detect. 2 light sources, image differences 10284
fish tank virtual reality 42881
gesture recogn., recurrent neural networks vs. competing techs. 35171
head mounted display, eye movement tracking 9981
head-mounted display, 100 million pixel display 18016
head-mounted display calibration for augmented reality 17641
head-mounted high-resolution field-sequential display for virtual reality 18017
large-volume position and orientation tracking 18104
Schmidt optical relays for helmet mounted displays 18014
video see-through design for virtual/real environments 17591

interactive devices continued
virtual reality display interfaces 18013

interactive programming
see also interactive systems
Matlab for teaching DSP 20295
multiobjective optim., interactive tradeoff cutting-plane algm. *(Chinese)* 28645
ship struct., multi-objective optimum design, reliab. theory *(Chinese)* 5703

interactive systems
see also interactive programming; interactive television; interactive terminals; interactive video; online operation
access opt. fibre network, CATV/interactive multimedia appls. tv 34091
advanced rem. sens. simulator, geometric mapping 26530
Australian Broadcasting Corporation, technol. convergence implications 3652
broadband networks/services, distributed interactive simul. 9020
cameras, interactive calib. tool 16138
conferencing syst. and shared whiteboard, distributed multimedia appl. testbed 9071
consumer electronics human controlled devices prog. 17580
conversation, computer aided for phys. impaired nonspeaking people 40759
CoReview, interactive document and data retrieval tool for Internet 41867
COSIMA multistrategy learning syst., integrat., interactive floorplanning tool 12290
CrystalWeb, distributed authoring environ. for World-Wide Web 41868
dialogue syst., simultaneous understanding based 15847
discrete event simul., computer based learning, hypertext 20407
dist. learning and computer-mediated commun., interactivity 11620
distrib. networks mgt., intell. support syst. 19275
distributed simul. for live training 35406
DIVE, multi-user virtual reality system 16762
document access/ref. environ., PC based interactive syst. 35413
DSP, teaching, computer based/dedicated hardware projects 36919
earcons in auditory human computer interfaces 42652
earth leakage cct. breakers, mag. nonlin. 36466
EDI, IT and commerce in 21st century 41642
elec. engng. education, interactive CBT syst. 20344
electro-holography, develop. *(Japanese)* 2145
electro-oculography based user interface system 26445
electronic technical manual for US Army 43572
EM fields in waveguides, interactive visualization 29521
EM geotomography, GUI develop. 18797
Eng., spoken, understanding, context 2453
enterprise network (in yr. 2000) 41640
France Telecom's fibre optic access networks 25499
French telecommun. services, CNET speech technol. appl. 3081
gas turbine power plant operations scheduling 43922
GCOS, interactive device struct., proc./device simul. 22541
graphic syst., data network mgt./status visualization 24912
hierarchical environ. for interactive test engng. 6821
high bandwidth internat. video via fiber optic cable 3057
high-speed multi-group commun. syst. *(Japanese)* 3246
holo-dyn. linking, interactive electronic media 7842
hyperb. 1D wave eqn. soln., spreadsheet program 5525
IDaSS, interactive design and simul. syst. for digital ccts. *(English)* 37594
IDUN, broadcast multimedia syst. 25106
image compression strategies, comparative anal. 33023
imagery, video, and assoc. data, interactive anal. tools 8489
induction machine behaviour anal., interactive colour graphics 11050
induction motor/transformer economics teaching, software package 27725
injection mould design, intell. support syst. 37023
Italian telephone network, interactive voice technol. 2442
LANs, distributed planning/problem solving environ. 19222
machine design, virtual reality syst. 11096
Macrophone, American Eng. telephone speech corpus 32229
MCMs, interactive design aid 21773
MERMAID multimedia multi-party desktop conf. syst., groupware platform 9029
microwave EM field simul., TLM method, computer graphic visualisation 10006
mixed pattern class. method 24662
motors, interactive DSP-based acquisition/control syst. 10949
multimedia, interactive 9052
multimedia, multiuser systs., conferencing syst., user interface design 41980
Multimedia Chatting System on Ethernet LAN 16835
multimedia conferencing protocols, ITU-T T.120 series 16881
multimedia environ., interactive, artificial online community 9066
multimedia teletutoring, trans-European ATM network 16861
multimodal consumer inform. server, IVR menu 3131
network training, self-help materials need 11622
NYNEX interactive speech/lang. systs., telecommun. appl 2443
open and dist. education, interactive multimedia uses, emerging trends and develop. 20274
pattern recogn. by multilayer neural nets and math. morph. 32887
PEGASUS, spoken dialogue interface for on-line air travel 15848
Personal Telepresence, interactive multimedia workstation 16931
phys. lects., multimedia interact. 20310
point-to-point telecomms. services for small/medium sized businesses 41615
power electronic circuit design, OO tools, PC based *(Spanish)* 12340
power syst. EM transients simul. programs, GUI appls. 19026
power syst. interactive DSS, obj.-oriented framework 19095
power syst. protection, interactive software, education/training appl. 35683
Projection Pursuit, optimal transforms. for multispectral change detect. 16265
QoS negotiation for orchestrated, distributed multimedia presentation 25100
Quick Alert technol., linking sens., alphanumeric pagers 3372
Safe-Tcl lang. for enabled mail 8867
semi-automatic road extraction by dyn. prog. 41254
SISim, syst.-level interactive simulator for array proc. syst. 28954
spoken dialogue syst., multimodal keyword-based, MultiksDial 32373
spoken dialogue syst. for CD-ROM inform. retrieval 15850
spoken lang. systs., research directions 8219
stereoscopic image display for PC 34623
stress mgt. program, computerized, telephone-based 43326
Stride, tool for formal interactive syst. synthesis 466
student career counselling via HTML and MOSAIC on Internet 25014
substation reliab. eval., TOPASE project 36475
surface reconstruction by multiaxial triangulation 2587
tech. prod. reliab. dialogue syst. 11880

interactive systems continued
telecomms., ES/interactive multimedia technols. 3262
telephone speech-interactive automation syst., dialog design 2449
televirtuality, telecomms./VR merging 8828
TOSBURG II, spontaneous speech dialogue syst., eval. 15849
transformer and induction motor losses cost anal. interactive software package 28333
transient energy and stabil., interactive program 28335
TV, trends/develop. 34202
US Army IETM develop. 35417
virtual auditory environ., real-time generation 15994
virtual reality system, distributed, aural renderer 17609
voice activated telephone intermediary syst. 2451
voice based human interface, speech coding, synthesis and recogn. *(Japanese)* 40754
voice technology for telecommunications, conf., Kyoto, Japan (1994) 11
VoiceMap spoken lang. syst. assess. 2450
word segmentation for cursive script recogn. 41316
InP photonic integrated transceiver chip for WDM transm. 9458

interactive television
10-Gbit/s smart opt. terminal digital-video distrib. syst. 17222
ADSL, enabling network for VOD 9107
ADSL config., perform. simul. 9106
ADSL systs., introduction 9103
Alcatel 1570 BB single mode opt. fibre CATV syst. 42615
ATM LAN syst., multimedia on demand appls. 16838
ATM network, service provision 16427
ATM video commun., implement. issues 41950
ATM/PVC-based video retrieval network, path reservation protocol 41526
B-ISDN appls. trials in Japan *(Japanese)* 41939
British Telecom's video on demand technol. 42580
broadband multimedia services, high speed access 42016
BT's video-on-demand technol. trial 9741
CATV network, high-perform. multimedia transm. 9740
CATV return path laser systs. 42620
CATV settop converter's RF modem 34266
CATV syst., fiber optic transm. cct. for 150 carrier VSB-AM modulation *(Japanese)* 42630
CATV technol. studies *(Japanese)* 34265
commun. network control archit., integrate service control and mgt. 25063
cost-effective video server 9757
DAMA syst. for interactive teleteaching via satellite 33209
design of video on demand servers 9721
digital opt. disc technol. appl. in near video on demand 9758
digital video services, technols. and network archits. *(German)* 42626
distance training syst., design 5559
distributed multimedia, user perception/dyn. quality of service 16887
European image media trends *(Japanese)* 17544
FITL CATV syst. for broadcast/interactive services 42628
FITL powering, batt. reserve sizing calcs. 42066
FITL systs., MPEG encoding/ATM transport, video services delivery 42053
full-motion digital video in Ethernet, perform. eval. 9049
Hawaii, dist. learning technol. 3059
high speed access technology, IEE Colloquium, London (1994) 13
hybrid fiber/coaxial and CATV networks, planning and design 41563
hybrid fiber/coaxial archits., analog services 42384
hybrid fiber/coaxial technol. for broadband service delivery 33670
IEE telecommunications conf., Brighton, UK (1995) 36830
image IS *(Japanese)* 25683
Internet, Superhighways and interactive TV *(French)* 41852
Japan/America next-generation TV systs. *(Japanese)* 25669
LAN environ., audiovisual appls. 8941
large video databases, user access, indexes 9711
large-scale video servers, buffering/caching 34246
LCD projector, multimedia presentation syst. *(Japanese)* 3260
multimedia appls. in interactive CATV networks 16845
multimedia data streams, disc scheduling 16886
multimedia markets, network evol. and stds. 25113
multimedia server for on-demand services 16832
multimedia storage server design 16831
multimedia sync. model, appls. 41969
multimedia-on-demand service *(Japanese)* 42032
Multiplexed Network for Distributive & Interactive Services project *(German)* 42062
NEC, digital video transm. technol. develop. *(Japanese)* 42617
NEC multimedia services, CATV network *(Japanese)* 42029
news on demand for business, Nynex/Dow Jones 16828
pers. video-on-demand, multimedia inform. caching 42586
portable video-on-demand syst. in wireless commun. 42593
QoS, end-to-end mgt. scheme 16585
STM-based high speed digital FTTH syst., design concept 9098
superhighway services, digital cash payment 8829
syst. for delivery of interactive TV prog. 34245
systs. integrat. issues 17572
tertiary storage appl. in video-on-demand servers 34247
trends/develop. 34202
USA Nat. Inform. Infrastruct. project and video services *(Japanese)* 17575
video dial tone, operation, set-top boxes and server 16930
video indexing and presentation, 2-stage strategy 9742
video on demand server, design outline 42629
video on demand systs. *(Japanese)* 33648
video-on-demand, trends 42589
video-on-demand file service, OS support 9720
video-on-demand syst., distributed hierarchical storage manager 9743
video-on-demand syst., probabilistic assignment of movies, storage devices 9719
video-on-demand systs., storage hierarchy 9744
visual commun. media trends and prospects *(Japanese)* 16905
wide area video commun. network *(Japanese)* 42618

interactive terminals
see also interactive systems; remote consoles; workstations
communication transmission tools, use and technology, conf., Bad Nauheim, Germany (Nov. 1994) *(German)* 16718
multimedia commun. terminal and human interface develop. trends *(Japanese)* 16936
packet satellite commun., combined free/DAMA protocol 9418
syst. user-friendliness eval., ITG test method *(German)* 25137
VDT, radiated elec./mag. fields meas. 23702
VDU bibliography and information pack 3943

interactive terminals continued
VDU characts. that, cause visual difficulties 43390

interactive video
6 Mb/s ADSL, constellation TDM 16922
ASDL links maint. approach and fns. 16916
asynchronous video coding for wireless transport 32187
British Telecom's video on demand technol. 42580
broadband CATV video systs., DFB lasers 9555
decision making, visualization effect, AHP 16903
decompressed digital video data, arbitrary shapes 16071
digital opt. disc technol. appl. in near video on demand 9758
digital video, interactive 9750
digital video display, Ethernet TCP-IP 16078
digital video in PC environ. 9061
digital video on PC, hardware accel. 16075
dist. learning, digital video 41968
dithering, fast source-based for networked digital video 16070
education, CD-ROMs and WWW 8895
education in lang., implement. of grammar in hypermedia syst. 34281
EM education multimedia lessons 28286
Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
human service practice, computer games and interactive video 34274
HyperCard based interactive video simul., teaching preservice teachers 34270
IC mfg. productivity improv., DVI-based perform. support syst. 30404
large-scale video servers, buffering/caching 34246
learning appls. via extended hypermedia and full motion video 42638
magneto-opt. disk video server syst. *(Japanese)* 25680
multi-window full-motion video and graphics, memory archits. 17579
multiaccess network, stat. real-time video channels 16072
multimedia materials, digital video for computer sci. education 17577
multimedia sync. model, appls. 41969
multimedia systs., image proc., Arizona State Univ. 8655
multiple access method for video streams *(Japanese)* 34280
Multiplexed Network for Distributive & Interactive Services project *(German)* 42062
networked interactive video and multimedia archit. 41978
neurosurgery, video-as-data, ethnographic studt 43324
news on demand for business, Nynex/Dow Jones 16828
North Carolina Information Highway, NC-REN for research collaboration 5537
origami, learner control in multimedia instruction 9752
orthognathic surgery, video-imaging, computer simul. 10254
OS/2 2.1 OS, digital video archit. 17576
PC, digital video implement. and perform. 16076
pers. shopping assistance, indoor wireless syst. 33558
phys. lects., multimedia interact. 20310
power syst. operator training, Kytken multimedia training syst. 19164
professional interpersonal skills training via interactive video 34273
progressive image transm. software tool 41096
public telecomms. infrastructure, hybrid fiber/coax archit. 42619
residential video broadband switching network archit. 41554
Scientific-Atlanta interactive video services 42590
speech handicapped children's prod-oriented teaching/training syst. 4327
syst. for delivery of interactive TV prog. 34245
TEAMSS Project, multi-level staff training, interactive videodisc use 25676
teletutoring, BETEL network 25115
tertiary storage appl. in video-on-demand servers 34247
TV overview from viewpoint of CATV settop converter's RF modem 34266
two-way dual-view teleteaching syst., gestures/chalkboard 16890
VBR MPEG traffic in interactive appls., resource requirements 16879
video dial tone, operation, set-top boxes and server 16930
video server, cost-effective 9757
video-on-demand syst., probabilistic assignment of movies, storage devices 9719
voice-controlled telecomm. terminal for phys. handicapped 4313
wireless multimedia commun., adaptive rate multiple access 41991

interchannel interference *see adjacent channel interference*

interconnected power systems *see power system interconnection*

interconnected systems
see also cascade systems; power system interconnection
distrib. nets, optimal design, nonserial dyn. prog. 27148
dyn. interconnected systs., decentralized pole-assignment self-tuning controller 35560
free-space interconnect based optoelectronic integrated systs. 1766
hierarchical systs., estims. of layout params. 28929

interconnection networks, multiprocessor *see multiprocessor interconnection networks*

interdiffusion *see chemical interdiffusion*

interdigital transducers
digital opt. microphone and digital transducer 42645
hybrid humidity sens., PTF sens. elements 25829
metallic-finger step discontinuity in SAW devices, scatt., num. expts. 30630
micro-directional couplers for freq. selection 30644
MM-wave elec. field radiopulses, electroacoustic sens. 42758
SAW device complex freq. charact., sensitivity anal. 6929
SAW filters, high stopband rejection, cascade connection design 29347
SAW transducers, scatt. params. calc. 6927
submicron fab. technol. GHz unidirectional SAW transducers 30636
withdrawal weighted fan-shaped SAW transducers 30629
$Li_2B_4O_7$ natural single phase unidirectional SAW transducer, cryst. orient. 6928
$Li_2B_4O_7$ substr. SAW devices 30637
$LiNbO_3$ piezoelec. transducer, width-shear mode *(Japanese)* 9849
$LiNbO_3$ planar waveguides, multifrequency acoustooptic interact., modeling 14551
PZT piezoelec. torsional actuator, high dielec. const. ceramics 39112

interface electron states *see interface states*

interface magnetism
see also magnetic multilayers; surface magnetism
remanence enhanced nanocrystalline materials, magnetis. procs. 7012
Co/Ni multilayer, sputtered, anisotropy and magneto-opt. props. 14203
Co-Cu sandwich film, giant magnetoresist./anisotropic magnetoresist. comparison 7061
MnTe/CdTe multilayers, interlayer correl., helical spin ordering 7046
Sm-Co/Cr thin films, Cr underlayer microstruct., mag. props. 39154
TbFeCo/Ta multilayers, mag. and magneto-opt. props. 14200

interface phenomena
see also accumulation layers; buried layers; chemical interdiffusion; composite material interfaces; diffusion barriers; interface magnetism; interface phonons; interface states; inversion layers; metal-insulator boundaries; metal-semiconductor-metal structures; MIM structures; MIS structures; Schottky barriers; semiconductor-electrolyte boundaries; semiconductor-insulator boundaries; semiconductor-insulator-semiconductor structures; semiconductor junctions; semiconductor-metal boundaries; superconductor-semiconductor boundaries; surface phenomena
anistropic media, Maxwell eqn. soln. using characts. theory 23559
complex anisotropic media, auxiliary vector fn. method 23562
conf., interface control of elec., chem. and mech. props., USA (1993) 36832
conjugated polymer interfaces, conf., Strasbourg, France (1994) 5497
dual-coated opt. fibre, interfacial shearing stress anal. 30896
EM wave incidence, boundary, nonstationary conductive medium *(Russian)* 15422
nonHermitian bianisotropic media, FEA 23563
plane wave refl. and transm. at isotropic pseudochiral interfaces 23564
polymer interfaces, nonlin. opt. study 7777
TAB outer lead contact reliab., degrad. study 5642
Si/Co/GaAs(001) interfacial reacts. 13278

interface phonons
see also surface phonons
diamond crysts./superlattices, isotopically engineered 38502
multisubband quantum well lasers, carrier energy relax./hot phonon effects 1942
AlGaAs-GaAs-AlGaAs, reson. tunnelling diode, time depend. behaviour 38800
AlGaInP based wide band gap quantum wells, opt. spectrosc. 13165
Er-Ba-Cu-O, high-T_c, thin film/substr. thermal boundary resist. 14275
GaAs crysts./superlattices, isotopically engineered 38502
GaAs/InGa(Al)As(ZnSe) heterostruct., phase stabil. and mech. defects under press. 38289
Ge crysts./superlattices, isotopically engineered 38502
Ge:O crysts./superlattices, isotopically engineered 38502
InAs-InP heterostruct., ALE growth, XRD/Raman obs. 12052
Si MOSFET, 2DEG, cyclotron phonon emission, quantum oscill. 38887
Si:P crysts./superlattices, isotopically engineered 38502
Si_mGe_n/Si(001) strained-layer superlattices, magnetron sputter epitaxy 361
YBaCuO films, high-freq. modulated laser radiation, nonequilib./bolometric response 39233

interface states
see also core levels; surface states
AlGaAs-GaAs HBT struct., electron distrib., electrolumin. obs. 1355
CMOS ccts., HF AC hot-carrier degrad. 22573
CMOS FET oxide reliab., plasma-induced gate oxide degrad. 20490
CMOS radiation-hardened 32-bit μP based commercial proc. 12567
CMOS transistors, high-field electron injection, threshold voltage 38881
CMOS transistors in freeze-out regime, quasi-static behavior 13673
CMOSFETs, hot-carrier degrad., unified model, gate-to-drain capacitance meas. 6764
conf., interface control of elec., chem. and mech. props., USA (1993) 36832
deep-submicron PMOSFETs, hot-carrier degrad. mechanisms 13676
δ-doping superlattices, plateau behavior and metal-insulator transit. 13196
dielec. planar superlattices, quantum dimens. phenom. 39437
disordered quantum wires, DOS/conductance 38342
field-coupled quantum dot resistors, dissipation 38940
field-effect-induced superlattices, spectrosc. 1111
flash EPROM endurance simul., phys.-based models 21306
GaInAs-InP heterostruct., elec. props./interface defects 13103
gamma-irrad. induced degrad. mechanisms in VDMOSFET 22465
gate oxide proc.-induced damage, low/high temp. anneal effect 1202
HBTs, early-voltage degrad., interface states 13621
high-perform. quantum well electron transfer modulators, self-consistent modeling 1733
IGFET, threshold voltage shift, oxide field depend. 30303
III-V quantum-well IR photodetectors, noise perform. 42788
III-V semiconds., surface passiv., Si interface control layer 38596
in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
irrad. power MOSFETs, surface generation hump 13730
LDD MOSFETs, interface state generation effects, simul. models 1417
MESFET, localized interface states, transconductance 38913
metal-electrolyte interface, nonlin. opt. response, DEFT 15139
metal-Schottky contacts on semiconds., interface index 38418
metal/III-V-semicond. contacts, fab./props. 1162
MIM struct., Schottky barriers, interface impurity states 22081
MIS capacitors on cleaved GaAs(110), interface props. 13258
MOS capacitors, surface pot. determ. 1170
MOS capacitors with N_2O oxides, elec. and reliab. props. *(Korean)* 30299
MOS oxides, high-field stressing, interface state generation 13261
MOS struct., hot carrier injection, C(I)-V charact. *(Chinese)* 1168
MOS struct., interface state dens., postoxidation cooling 22057
MOS transistors, n-channel, CVD grown, channel mobility 13712
p-MOSFET, bi-directional operation, hot-carrier degrad. model 38875
MOSFET, STM lithog. damage 13740
MOSFET 1/f noise, plasma-etch-induced gate oxide degrad. effects 22441
MOSFET hot-carrier aging, modeling, charge pumping methods 22444
MOSFET interface states/trapped carriers, charge pumping/gate capacitance meas. 30301
n-MOSFET with thin gate oxide, plasma-induced transconductance degrad. 30357
MOSFETs, current flucts., device scaling 1386
MOSFETs, interface defect form. by at. H exposure 13715
MOSFETs and MOS capacitors, oxide reliab., nitrogen effects 38629
MOSFETs in off-state, interface trap induced emission current 22408
n-MOSTs, substr./channel hot electron injection 13688
multi-barrier graded quantum well semicond. heterostruct., reson. tunneling 6556
multisubband quantum well lasers, carrier energy relax./hot phonon effects 1942
n-MOSFETs, hot-hole-induced neg. oxide charges 22414
n-p jn. devices, high-level free carrier injection, num./empirical model 30192
NMOSFETs, anom. hot carrier degrad., elevated temps. 30353
NMOSFETs at 77 K, double channel hot-carrier injection effects meas. 22403
NMOSFETs with nitrided-oxide, high-field mobility enhancement 1390
oligothiophene-based LED, charge carrier injection/lumin. 14635

interface states continued
opt. amps. with strained quantum wells, interwell transport, four-wave mixing 1950
organic electroluminescent materials/devices 23022
PBT, semi-analytic model 1369
physics and chem. of semicon. interfaces, conf., New York (1994) 20208
physics of semiconductors, conf., Beijing, China (1992) 11542
poly-Si:B/Si:N multilayer gate surface channel PMOSFETs 6762
polysilicon emitters in BiCMOS IC, interfacial oxide thickness 1499
P^+-polysilicon gated FET devices, bias temp. reliab. 13750
polysilicon TFTs, fab., pulsed laser annealing and plasma CVD 13743
quantum dots, electronic props. and capacitance, simul. 38345
quantum well, electron capture, inelastic/elastic mechanisms 29914
quantum well laser, monolithic integrat., reson. tunneling diode 14670
quantum wires, widely tunable confining pot., capacitance/IR absorpt. 13136
relax. spectrosc. tech. for solid interfaces 25711
RTO proc., opt./elec./mech. charactn. 22227
Schottky diodes, high series resist., forward I-V method limitation 13603
semicond. lasers, carrier thermalization, ensemble Monte Carlo simul. 7654
semicond. quantum-wire heterostruct., strain and piezoelec. fields 29902
semicond. QW struct., bandgap tuning, ion implant. 13166
semicond. superlattice, hole transport, band mixing effect 6568
semicond. superlattices, EM waves, uniform RF field effect 29906
semiconductor interfaces, conf., Julich, Germany (1993) 11545
Si-SiO$_2$-polySi:P, TiSi$_2$ superlayer, thin film oxide injection degrad. 22059
SOI transistors, alternating hot carrier injection anal. 22415
SOI ultrathin struct., self-consistent calcs. 6587
solar cell IV-curve, two diode model 5228
sub-5-nm oxynitride dielecs. prepared in NO ambient using RTP, props. 6590
submicron NMOSFETs, GIDL, interface trap effect 6766
submicron stripe patterns photoelectron imaging, soft X-rays 42978
transistor struct., localized vol. state spectrosc. 13097
ultrathin dielec., microwave afterglow O$_2$/N$_2$O plasma growth 37505
VLSI ESD sensitivity, thermal breakdown and dielec. breakdown 6844
Al vac. deposited thin film characterisation, SiO$_2$-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
Al/SiO$_2$/3C-SiC:Na(K) MOS capacitors, ionic contamination 13254
Al-SiN-Si syst., laser CVD, TFD charact. by DLTS 13597
Al-ceramic surface activated bonding, electronic/chem. procs. 37530
Al-nSi Schottky barrier diode, interface states, charging behavior 22354
Al-polysilicon-SiO$_2$-Si struct., HF plasma proc. effects 13239
Al-porous Si jn., elec. behaviour 22049
AlAs/GaAs/As(001) double barrier reson. tunnelling struct., piezoelec. effects 29924
AlGaAs/GaAs HBT, thermal effects/instabilities 6731
AlGaAs/GaAs VCSEL, linewidth/α-factor 14936
AlGaAs/GaAs heterostruct., electronic states, mobility 1100
AlGaAs/GaAs heterostruct., ohmic contacts, phys./elec. study 13169
AlGaAs/GaAs, quantum point contact-electron waveguide struct., 1D states 13818
AlGaAs/GaAs quantum wells, photolum., in-situ charactn. method 1137
AlGaAs/GaAs/InGaAs reson. coupled asymmetric double QW, intersubband transit. 1135
AlGaAs/In$_x$Ga$_{1-x}$As doped-channel struct., thermal stabil. 1133
n-AlGaAs/u-GaAs heterointerface, electron gas, periodic bending, device appl. 6557
Al$_{0.22}$Ga$_{0.78}$As/In$_{0.15}$Ga$_{0.85}$As/GaAs one-side-modulation-doped QW, electronic subband studies 21996
n-Al$_x$Ga$_{1-x}$As/u-GaAs, corrugated heterojunctions, 1D quantum electron states 13099
AlGaAs-GaAs-AlGaAs, reson. tunnelling diode, time depend. behaviour 38800
AlGaAs-InGaAs HJFET, freq. depend. drain cond. 6795
Al$_x$Ga$_{1-x}$As-In$_y$Ga$_{1-y}$As-GaAs, modulation doped HEMT, photolumin. linewidth 13145
AlGaInP based wide band gap quantum wells, opt. spectrosc. 13165
AlGaInP:Si(Zn)/GaAs LED, low-press. metallorganic VPE 39583
AlGaInP/GaInP strained quantum wells, opt. gain 31377
Au/BaTiO$_3$/p-Si metal-ferroelec.-semicond. struct., charge polarity 22052
Au/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
Au/Ta$_2$O$_5$/n-InP, interface state dens. determ. 13255
Au/Zn$_{0.4}$Cd$_{0.6}$Te:In solar cell, fab./charact. *(Korean)* 19985
Au/n-GaAs Schottky contacts, barrie height change, ballistic electron emission obs. 38378
Au/p-InP epitaxial Schottky diode, I-V/T, C-V/T data, simultaneous anal. 38816
Au-CeO$_2$-Si, elec. charact. 29965
Au-Te-Au-GaAs Schottky contact interface states capacitance, thermal effects 29950
BaTiO$_3$/p-Si capacitors, struct., elec. props. 39061
Bi/ZnO, interface form., model varistor grain boundary 6578
a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
CaF$_2$-based MIS struct., DOS, PES and BEEM studies 22072
CdO/CdTe thin film solar cells, prep./props. 5229
CdS/CuInSe$_2$(011) heterointerface, form., electronic props., XPS obs. 21951
CdTe/InSb/Au Schottky diodes, bias depend. barrier heights 38797
CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
(CdTe)$_1$(ZnTe)$_2$/ZnTe short-period-superlattice MQW, above-barrier excitons 1086
Co-Cu sandwich film, giant magnetoresist./anisotropic magnetoresist. comparison 7061
Cs/InAs(110), giant band bending, interface form. 13222
GaAs MESFETs, Monte Carlo simul. 1437
GaAs MIS diodes, at. layer passiv. 13598
GaAs MIS struct., C-V charact., hysteresis 29966
GaAs, δ-doping superlattices, pot. flucts., quantum effects 13167
GaAs, devices, impact ionization/light emission, Monte Carlo study 1441
GaAs heterojunction, 2D electron Wigner cryst., electron diffr., photolum. 21968
GaAs low-dimens. struct., cleaved edge overgrowth, lasing props. 1925
GaAs microcavity, dressed exciton oscillating emission obs. 29921
GaAs p^+-SI-n^+ SI struct., I-V charact. 38300
GaAs permeable jn. base transistor, homoepitaxial gate 6727
n-GaAs, surface passiv., As$_2$S$_3$ film 30089
GaAs triple-barrier reson. tunneling diode, time-resolved photolum. 1451
GaAs:Si p-n struct., MBE growth interruption effects on GaAs(111)A 336
GaAs:Te, highly doped, EL2 trap, jn. spectrosc. 13124
GaAs/Al$_x$Ga$_{1-x}$As p-i-n diodes, ballistic-electron energy distrib. 29896

interface states continued
GaAs/Al$_x$Ga$_{1-x}$As rings, tunneling, edge states 21985
GaAs/Al$_x$Ga$_{1-x}$As double-barriers, electron transm. 13113
GaAs/AlAs coupled QW struct., long-lived excitonic ground states 1113
GaAs/AlAs double barrier struct., X-states, reson. tunneling procs. 38288
GaAs/AlAs opt. differentiator, Wannier-Stark localization, space charge screening 14504
GaAs/AlAs superlattice, X valley minibands, neg. differential cond. 1088
GaAs/AlAs superlattice, random, electronic/opt. props., disorder effect 6558
GaAs/AlGaAs, H impurity near interface, binding energy effect *(Chinese)* 6542
GaAs/AlGaAs HBT, InN ohmic contacts 38817
p-GaAs/AlGaAs HFET, output characts., high press. effects 38919
GaAs/AlGaAs double quantum wells, photoreflectance and photolum. 1124
GaAs/AlGaAs heterojunctions, deep-level defects, review 13123
GaAs/AlGaAs heterostruct., ballistic electron transport, magneto-opt. studies 13115
GaAs/AlGaAs modulation doped heterojunctions, neg. photocond. 29919
GaAs/AlGaAs multiple bridge devices in quantizing mag. fields, pot. distrib. 38291
GaAs/AlGaAs multiquantum well vert. cavity tunable photodetector 17800
GaAs/In$_x$Al$_{1-x}$As/GaAs heterojunction barriers, Γ-X transport 13117
GaAs/InGaAs coupled semicond. microcavities 2030
GaAs/Si, heterostruct., IV charact., CV charact. 29893
n-GaAs/metal Schottky contacts, interface state dens. anal. 1157
GaAs-AlGaAs quantum wells, periodic pot., cct.-theoretical anal. 13191
GaAs-AlGaAs quantum wires and dots, modulation-doped, opt. emission and Raman scatt. 1143
GaAs-AlGaAs-GaAs HEMT struct., elec./lumin. props., CF$_4$ plasma effect 13352
GaAs-Ga$_{0.51}$In$_{0.49}$P QW heterostruct., reson. magneto-tunnelling of holes 13201
GaAs-SiN, passiv. film form. by laser CVD 13370
GaInAs/AlInAs superlattices, nonlin. cond., space charge wave generation 1120
GaInAs-GaInP long wavelength lasers, strain compensated barriers, electron leakage reduction 39822
GaInP/(AlGa)InP buried quantum wires, local order-disorder transition 13203
GaInP/GaAs ordered heterointerface, type-II band alignment 38282
GaInP/Si/Al structs., Schottky barrier height modif. 13218
GaP/Si strained heterostruct., spectrosc. ellipsometry 29877
GaSb quantum well based IR devices 9908
N-nGaSb/GaInAsSb staggered lineup heterojunction, recomb. obs. 38287
Ge-GaAs(001), heterojunctions, band-offset transitivity lack 1107
Ge$_{0.3}$Si$_{0.7}$/Si heterostruct., minority/majority-carrier trapping 21950
Hg$_{0.85}$Zn$_{0.15}$Te, surface comp., chem. treatment effects 13360
In-ZnTe Schottky diodes, RF sputtered, elec. props 30215
InAlAs/InGaAs HJFETs, high In comp. channels, low noise/high gain 6797
InAlAs/n^+-InGaAs MISFET, deep levels 13696
InAs/AlGaSb undoped quantum wells, neg. photocond. 29919
InAs-GaSb QWs, magnetotransport meas., hydrostatic press. appl. 38334
InAs-GaSb quantum wells, periodic pot., cct.-theoretical anal. 13191
InAsP/InP MQW, metalorganic VPE, interface study 12102
InAsP/InP MQW structs., strain studies 13142
InAsSbP/InAsSb/InAsSbP heterostruct., radiative recomb. 23266
InGaAlAs/InP type II MQW struct., elec. and opt. props. 1132
InGaAs superlattices, optical props., device appls. 13143
In$_{0.53}$Ga$_{0.47}$As transistor channel, hot electron lumin. meas. 30377
InGaAs:Si/GaAs strained QW, δ-doped, electronic struct. 29943
p-In$_{0.21}$Ga$_{0.79}$As:Zn/Au Schottky diodes, interface states, doping effects 38420
InGaAs/AlGaAs strained-layer quantum-well lasers, band-gap renormalization effects 7662
InGaAs/GaAs piezoelec. [111] MQW p-i-n photodiodes, cond.-band engng. 1804
InGaAs/GaAs piezoelec. MQWs, nonlin. opt. response, screening, and strain 15081
InGaAs/GaAs quantum wells, carrier screening effect 1125
InGaAs/GaAs quantum wires, nonuniform distrib. of strain 1089
InGaAs/GaAs quantum wires, opt. props. 1094
InGaAs/InGaAsP MQW, MOCVD grown, in-plane bandgap distrib. 20942
InGaAs/InGaAsP MQW opt. modulator, nonlin. opt. absorpt., spatial band bending 2103
InGaAs/InGaAsP MQWs, strained, thermal stability 13140
InGaAs/InGaAsP quantum well DFB lasers, high speed dyn., intrinsic params. 1932
InGaAs/InP at high mag. fields and low temps., quantum magnetotransport 38286
InGaAs/InP:Fe enhancement layer Schottky contacts 1149
In$_{0.1}$Ga$_{0.9}$As/GaAs/AlAs RTDs in triple well config., supply and escape mechanisms 6716
In$_{0.53}$Ga$_{0.47}$As/In$_{0.52}$Al$_{0.48}$As superlattice, electron-wave-fn. coherence length 13193
In$_{0.65}$Ga$_{0.35}$As/GaAs laser, ultrafast band-edge carrier dyn. 1959
In$_{1-x}$Ga$_x$As/InP quantum wells, cond.-band/valence-band struct. 1130
InGaAs-GaAs quantum wells, surface segreg., photolumin. study 13171
InGaAs-InAlAs quantum wells, electron scatt., photoreflectance obs. 13141
InGaAs-InP, reverse bias laser struct., photodetection 17811
InGaAsP quantum well laser, 2D model 14976
InGaAsP/InGaAsP multiquantum well waveguide, nonlin., bias depend. recovery time 1717
InGaAsP/InP, strained-layer QW lasers, intrasubband scatt. rates 7661
InGaAsP/InP structures, MOVPE, optical device appls. 12047
InGaAsP-InP electroabsorption modulators for LDs, nonlin. effects model 14846
InGaAsP-InP strained quantum well laser struct., excess carrier spillover, photolumin. obs. 31380
In$_2$O$_3$/ZnSe/In heterostruct., I-V charact. 29883
InP MESFETs, Monte Carlo simul. 1437
InP, MIS tunnel diodes, elec. props., oxid. temp. effects 1335
InP, S treated, MSM photodetector, high speed 17780
InP e-mode MISFETs, sulphide passiv., P$_3$N$_5$ gate insulators 30295
InP, gas phase polysulphide passivation, MISFET appls. 13342
InP strained wires and dots, localized confine. pot. 6562
InP/AlInAs/AuGe/Au HEMT struct., thermally stable ohmic contacts 30363
InP/Si/InP, interlayer effects in device appl. 13106
n-InP/Ta$_2$O$_5$/Ta MIS diodes, elec. props. 13595
n-InP/metal systs., hydrogen plasma treatment, elec. props. 38598

interface states continued
p-InP/n-InP/InGaAs, S-doped DH-HEMT, props. 13787
InP-InGaAs JFET, δ-doped channel 6796
InP-oxide-metal tunnel diodes, elec. charact./nature of interfacial oxides 38918
InSb/SiO_2 MIS structs., low interface trap dens. 29981
Ir/p-Si jns., Schottky barrier heights 38380
Ir/p-$Si_{1-x}Ge_x$ jns., Schottky barrier heights 38380
Ni-NiIn-Ge-GaAs ohmic contacts, interface microstruct./reacts. 38396
PbS/CdS superlattices, pulsed laser evap., opt. props. 13168
Pd/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
Pt/SiO_2/Si MOS devices, interface states, XPS meas. 38436
Si MOS diodes, interface-state passiv., surface pot. depend. 1182
Si, RTO in N_2O, MOS capacitor testing 22220
Si interface control layer effect in compound semicond. interfaces 13105
Si microwave varactor diodes, irrad., capacit. transients meas. 12770
Si, porous, diode struct., elec./PV props. 38325
Si quantum wire surrounded by SiO_2, fab./transport props. 6669
a-Si single-barrier device, neg. resist. charact. 6811
Si, substr. surface treatment 38535
Si wafer surface minority carrier lifetime meas. tech. 30388
Si:F/SiO_2 TFT, F^+ implant. effects 38883
a-Si:H solar cells, insulating interfacial layer effect 36600
a-Si:H solar cells, reverse biased annealing studies 11291
a-Si:H,O solar cells, intrinsic layer, O impurity effects 5227
Si/$CoSi_2$ vert. MSM photodetectors, buried contacts 34500
Si/$Si_{0.7}Ge_{0.3}$ heterostruct., 1D electron transport 30074
Si/SiO_2 MOS capacitors, SiO_2 hole traps, small cross sect. 38427
Si/SiO_2, MOS structs., photoenhanced CVD, comp., elec. props. 38429
Si/SiO_2 MOSFET, dispersive transport, seminumerical simul. 38892
Si/SiO_2 MOSFET, fixed and interface trap charges 38863
Si/SiO_2 MOSFET interface trap generation, gate current simul. tech. 38901
Si/SiO_2 interface state dens., MOSFET, ionizing radiation *(Chinese)* 22459
Si/SiO_2 interface states and neutral oxide traps induced by surface microroughness 29968
Si/SiO_2:N, plasma action under PECVD conditions 5882
Si/SiO_2/Al, H-related instabilities, removal by F implant. 13314
Si/SiO_2/Al MOS capacitors, charge induced by Fowler-Nordheim tunnel injection 29974
Si/SiO_2/Al MOS structs., nitrided, reoxidised, elec. charactn. 13257
Si/SiO_2/Cs(In), metal overlayer-induced charge transfer effects 6591
Si/SiO_2/Pt MOS diodes, surface state energy distrib., XPS meas. 29973
Si/SiO_2/Si MOS oxides, border traps 13249
Si/SiO_xN_y/Al MOS capacitors, charge trapping and interface states 29975
Si-Si_xGe_{1-x} superlattices, energy band structs. 6554
Si-SiO_2 MOS interface, tunnelling emission, const. voltage DLTS 6585
Si-SiO_2 MOS transistor, leakage current and interface state 38891
Si-SiO_2 MOSFET interface, indiv. interface traps 13758
Si-SiO_2 interface, electron 2D behaviour modelling by Monte Carlo simulator 29986
Si-SiO_2, interface states, trapped holes 29970
n-Si-SiO_2 semicond.-dielec. MOS interfaces, minority carrier generation 6588
6H-SiC MOS struct., thermal oxid./computer simul. 38562
SiC single-barrier device, neg. resist. charact. 6811
SiC/Si heterojunctions, elec. props. 1096
SiC/SiO_2 MOS struct., radiation-tolerance *(Japanese)* 1179
SiC-SiO_2 MOS capacitor, elec. props., annealing effects 22077
SiGe oxide prepared by RF plasma anodisation, interface quality 1243
SiGe/Si heterostruct., segregant-assisted growth, opt. props. 37449
SiGe/Si/SiGe SIS struct., valence band discontinuity 6596
SiO_2 film, low temp. PECVD for TFT gate insulator *(Japanese)* 37524
SiO_2 films prod. by PECVD, interface and elec. props. 29969
SiO_2, fluorinated and N_2O plasma-annealed, elec. props. 1508
SiO_2 plasma-grown on Si, extremely low interface state densities 13233
SiO_2, scaled, polarity depend. of dielec. breakdown in MOS ULSI capacitors 22608
SiO_2 thin films, N_2O RTP/oven nitridation, elec. characterisation 13327
SiO_2 thin films, RTN in NH_3, N_2O for EEPROM appls. 13329
SiO_2/Si MOS interfaces, interface-trap generation, neg.-bias temp. aging 38424
SiO_2/Si, thermal layers, wafer bonding induced degrad. 38422
SiO_2-Si interface struct. modif. by Fe^+/H^+ ion implant. *(Chinese)* 22061
SiO_2-Si, stacked RTO/RTCVD oxide gate dielec., elec. props. 22637
SiO_2N_x ultrathin N_2O-oxynitrided films, charge trapping, Fowler-Nordheim stress effects 22073
SiO_xN_y oxynitrides, N_2O grown, radiation effects 13386
SiO_yN_z plasma CVD, MIS devices appl./elec. eval. 20973
SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
n-SnO_2/a-SiC/Al photodetector, voltage-controlled spectral response 25850
SrF_2/InP(100) epitaxial diodes, elec. cond. 22065
n-$SrTiO_3$ photoelectrode in 0.1 M NaOH soln., impedance anal. 6597
TiN/n-GaAs Schottky contact interface post-anneal perform., N role 38384
$TiSi_2$-SiO_2-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775
(Zn,Cd)(Se,S) quantum well laser heterostruct., opt. waveguide confine. 14900
(Zn,Mg)(S,Se):N green/blue LD, ohmic contact/transport props. 39827
$Zn_{1-x}Cd_xSe$/ZnSe quantum wells in p-i-n heterostruct., photocurrent study 1127
ZnO/CdS interface, valence band offset, photoemission studies 6547
Zn(S,Se):N green/blue LD, ohmic contact/transport props. 39827
ZnS/ZnSe superlattices, opt. props., elec. struct., exciton binding 38347
ZnSe Schottky diode, seeded phys. vap. transport, DLTS study 13594
ZnSe:N green/blue LD, ohmic contact/transport props. 39827
p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413
ZnSe/GaAs interfaces, band bending, Raman study 38283
n-ZnSe/Sb Schottky barriers, I-V props./SEM/XPS/SIMS/Auger spectra 30100
ZnSe/ZnCdSe quantum wells, coherent exciton lasing 31381
ZnSe/ZnS strained layer superlattices, MOVPE growth and opt. charact. 12124
ZnSe-GaAs(001), heterojunctions, band-offset transitivity lack 1107
ZnSe-Ge(001), heterojunctions, band-offset transitivity lack 1107
ZnSe-ZnMgSSe-ZnMgSSe blue diode lasers 1966

interface tension *see surface tension*

interface vibrations *see interface phonons*

interfaces, computer *see computer interfaces*

interfacial chemistry *see surface chemistry*

interfacial energy *see surface energy*

interfacial tension *see surface tension*

interference
see also interference (signal)
elec. device insulating params., computerised tester *(Chinese)* 27658
optimal alarm-sig. generation algms. for gas analyzers 3909
reson. DC link inverter, low-noise, high-output power 19861
vibr. immunity for opt.-fibre current meas. 17825

interference (signal)
see also adjacent channel interference; cochannel interference; crosstalk; electromagnetic interference; intersymbol interference
additive contaminated-Gaussian noise, dual sign algm. 8395
biopotential amps., 2-/3-electrode, power-line interf. anal. 26403
cancelling, hyperstability theory 16019
cellular radio, freq. assignment 42278
coherent opt. CDMA, laser phase drift effects 42348
complex sig. detect. in white Gaussian noise and narrow-band interf. 32592
CPFSK opt. crossconnect systs. with noncoherent detect., interf. 9434
cyclostationary sigs., neural network classifier 40940
data commun. monitoring, measuring sig. optimisation 42752
dispersive fading channel, high-speed data transm., SR-chirp PSK 9356
distrib. ident. algm. appl., sig. detect. 8294
DS-CDMA systs., code period effects 33213
DS-SS digital commun., sig. detect., hybrid syst. model 24272
DS-SSMA error probabilities calc., Gaussian approx. 33215
DS-SSMA systs., aperiodic cross-correl. model 16461
dual sign algm., contaminated-Gaussian noise, perform. anal. 32669
ECG recordings, 50 Hz interf./noise, review 43278
FIR adaptive filter, least mean p-power error criterion 15884
fractal modulation commun. syst., implement./simul. 15708
frequency estimation, parametric/non-parametric methods comparison 24239
HDSL equal-power coord. transm. 16924
high-speed digital sigs., effects, radiation problems, interf. 12384
high-speed syst. power/ground plane with ECL, switching noise 38081
indoor telecomm. line noise voltage due to AC supply lines, estim. 16988
instrumentation syst., interf./noise 31847
intell. DBMS for ground proc. systs. in EOS era, telecomm. issues 17687
Iridium and MSS constellations, effect of solar interf. on laser commun. 33941
known sigs. detect. in additive noise 8288
lin. freq. modulated waveforms detect. in dispersive channels 16066
line interf. subtraction filter for sig. av. ECG 35079
matched subspace detectors 8362
median LMS lattice adaptive filters 21421
MFSK signalling for RS coded freq.-hopped multiple-access commun. 2891
multichannel sig. detect. in correl. non-Gaussian random noise 8286
multilevel digital sigs. estim., impulsive interf. presence 24208
multiple cyclostationary sigs., power/timing param. estim. 40864
multiple sigs. dyn. coord. reception in correl. noise 40880
multiple tone removal from short sig. records 8301
musical pitch tracking, principal decomp. anal. 32601
Nakagami faded sigs., Gaussian noise perturbed, phase diff. distrib. 32024
nonrandom interf., freq. estim. 24250
nonredundant error correction DQPSK for aeronautical-satellite channel 33945
opt. CDMA, lossy photon channels, no.-state/coherent-state, perform. 42349
optimum detect. in dual-channel Gaussian data, localized interf. 15867
overlapping multipulse PPM in opt. direct-detect. channel, error perform. 8259
oversampled bandpass sigs., inphase/quadrature components extraction 2517
pitch detect. of speech sigs., segmented autocorrelation 32438
Prabhu upper error bound for digital commun. syst. 15688
projection algm. for adaptive spatial filtering 2538
PSK sigs., low SNR approx., phase PDF 2364
reversing lattice filter, no. of sources of interf. estim. 2574
Rician sig. in L Rician interferers, outage probab. 33920
second order PLL in presence of weak CW interf., Melnikov anal. 12379
sig. anal., power distrib. fns. under multisignal conditions 32591
sigma-delta ADC, BIST scheme for SNR/freq. response test 12597
spatial smoothing for arrays, arbitrary geom. 41008
SS code hopping syst. 25251
subspace-constrained SCORE algms. 8365
TDOA estim., sig. selective, modified cyclic methods 2508
telephone based speech recogn., in adverse environ., sig. bias removal 32316
threshold sources detect., prewhitening of colored noise fields 8293
triangular type phase detector based synchronizer, cycle slip time 8248
underwater acoustic channel simul. for commun. 17358
WDM sig. transm., crosstalk elimination cct. 3552
weak stochastic sigs. detect. in non-Gaussian noise 40976
wireless pers. commun., TDMA methods 17109

interference filters
BOD, LDs coupled, interf. filters 31554
chirped fibre gratings prod. by fibre tilting 22799
conference, optical interf. coatings, Grenoble, France (1994) 11556
direct detect. opt. commun. syst. that operates in sunlight 17319
fibre optic interferometric sens., source coherence synthesis, dyn. spectral filtering 34520
free-space opt. commun. syst., Faraday filter 9486
low-loss compact all-fibre wavelength drop and insert filter 9437
metal-dielec. heat-reflective filters design 39533
sol-gel derived interf. filters, porosity/comp. effects 22987
GaAs micromachined widely tunable Fabry-Perot filters 22984

interference nulling *see interference suppression*

interference spectrometers
see also Fourier transform spectrometers
ferroelec. ceramics piezoelec. responses, interferometric meas. 22667
opt. spectrum meas. syst., high resoln. 4003

interference spectroscopy
see also Fourier transform spectroscopy
Si diaphragm thickness opt. monitoring, wet etching 30104
Si diaphragm thickness, wet etching, opt. monitoring 30124

interference suppression
see also echo suppression
2D adaptive lattice struct. for noise cancelling 32680
2D FIR-median hybrid filters, deterministic and stat. props. 33077
2D rank-conditioned median filter 24704
3D laparoscopic syst., single-camera 34998
AC rly., autotransformer feeding cct., harmonic reson. *(Japanese)* 11408
adaptive antenna for scanning telemetry 33419
adaptive beamformer, recursive modified Gram-Schmidt algm. 2520
adaptive beamformers based on cyclostationary sig. props. 8353
adaptive canceller and pulse compression interacts. 24325
adaptive equalization for multipath fading environ. 3429
adaptive multistage interf. cancel. for CDMA, perform. limits 7990
adaptive nonlin. equalisation of digital commun. channels 15985
adaptive pattern nulling using array element elevations 23971
adaptive reduced-state channel equalizer, T-algm. 9302
adaptive sig. proc. in subbands, sigma-DM tech. 32719
adaptive wideband opt. nulling for antenna syst. 7399
adjacent-channel, cochannel, and ISI suppression 15519
airborne radar clutter suppression, adaptive antenna proc. 25559
ambulatory ECG, amplif. electrode, noise immunity 26397
antenna beam control techniques, IEE Colloquium, London, UK (1995) 11595
antenna syst. for multiple suppression 31992
antipodal Rayleigh fading sigs. detect. in severe CCI 8386
arc furnace supply plant, flicker/distortion compensation 20129
array proc. appl., mobile commun. systs. design 17142
ASDL wideband noise meas. and implications for sig. proc. 16923
asynchronous CDMA systs., interf. minimization 42165
asynchronous CDMA systs., lin. adaptive transmitter-receiver 42145
asynchronous CDMA systs., lin. adaptive transmitter-receiver 25243
ATV, digital transm. technol. *(Japanese)* 34232
autostereoscopic display, high brightness/power efficiency 34621
AWGN multi-user channels, soft-decision interf. cancellation 42162
bandlimited quaternary phase FSK, error perform. 9276
beam space adaptive array antennas, transmitting null beam forming 15665
beamformers output powers var., coherent source model 24217
biased nonlin. 31848
blind adaptive array proc. methodology 9165
blind spatio-temporal equalizer for radio-mobile channel 33937
block adaptive filter, interf. robust, correl. sig. input 32701
blurred image restoration, layered and Hopfield neural nets *(Japanese)* 8666
BPSK modulated co-channel sigs. reception, dual sig. receiver 33886
cancellation syst., pilot sig. for radio channel estim. *(Japanese)* 25278
CATV pictures, composite triple beats impairment reduction 42612
CATV unwanted sig. leakage estim. and shielding enhancement *(English)* 3677
CDMA, CCI, spatial/temporal filtering 25234
CDMA, TU Delft research, overview 25255
CDMA adaptive SS receivers, CCI suppression 33883
CDMA commun., CW/narrow-band sigs. interf. suppression 33749
CDMA decorrelating detector for antenna arrays 15954
CDMA demodulator, interf. robust, spectral correl. props. 3327
CDMA for automotive area network, power-lines 3310
CDMA joint detect. mobile radio systs., interfer. suppression 33887
CDMA lin. fractional spaced equalisation interf. cancellation 8740
CDMA MM wave indoor radio capacity study 9202
CDMA mobile radio systs., joint detect., diversity 25343
CDMA multicarrier syst., CCI cancellation 9215
CDMA multirate radio interface implement. 42192
CDMA opt. sync. systs., CCI cancellation 34028
CDMA overlay systs., adaptive interf. suppression 17037
CDMA overlays of narrowband waveforms, interf. suppression 25355
CDMA PCS, spectrum sharing feasibility 25379
CDMA receiver, near-far immunity 25228
CDMA systs., channel estim., interf. reduction 9235
CDMA systs., multipath delay/fading 3473
CDMA systs., pre-decorrelating single user detect. 9238
cellular commun. noise suppression 3500
cellular DS/CDMA systs., lin. interf. canceller 9241
cellular network, CCI reduction, vert. antenna directivity 17071
cellular radio systs., downlink power control algms. 25344
cellular systs., adaptive array base station, spectral efficiency 17062
channels with spectral nulls, flexible precoding 24117
chirp SS techs., multipath interf. suppression 25250
CMOS ADC, 10 bit, 20 MS/s, 3 V supply, VLSI appl. 6191
colour images, isolated noise detect./reduct., median filter 2851
combined lin.-Viterbi equalizers, comparison and design 9175
commun. sig. proc. by RBF nets 41027
COMPLAB syst., adaptive interf. compensator simul. 28984
contrast enhancement of blurred images, fuzzy logic based *(Korean)* 24694
cyclic sig., adaptive beamforming and fast implement. 40938
data acquisition, ADC, noise filtering 34418
DDS-based synthesizer for mil. spaceborne appls. 43581
decorrelation algm. for blind DFE, lattice structs. 24264
DECT, adaptive antenna demonstrator, develop. 33852
deep water acoustic LAN, adaptive lin. multiuser receiver 34181
digital ccts. EMC, waveforms spectral dens. 2509
digital elevation models, inform.-preserving surface restoration/feature extraction 43488
digital Holter monitoring syst., noise cancelling filter 35130
digital mobile radio, adaptive arrays, fading correl. effect 3343
digital multipath wireless channels ident. in interf. 9303
digital recorder data detecting cct. *(Japanese)* 3762
dimmers, EMI and effects on lamp life and power quality 11445
direct detect. opt. commun. syst. that operates in sunlight 17319
direct detect. opt. systs., LMS filters, ISI reduction 9607
direct detect. opt. systs., zero-forcing elec. filters 41099
discrete discontinuities along coupled PCB traces, meas./simulation 21506
double-talk detect. for adaptive noise canceller 8182
DPSK opt. heterodyne receiver, combat laser phase noise 42372
DS-CDMA, integrated CCI cancellation and decoding, fading multipath channel *(Japanese)* 25276
DS-CDMA interf. cancellation schemes 17084
DS-CDMA low crosscorrel. seq. iterative constr. 41463
DS-CDMA receivers, min. MSE, complexity reduction 3328
DS-CDMA syst., adaptive multiuser interf. rejection algm. 42163
DS-SS, directionally constrained adaptive beam forming 17003
DS-SS digital commun., sig. detect., hybrid syst. model 24272
DS-SS overlay for satellite commun. syst. 33971

interference suppression continued
DS-SS sigs. radiometric detect., wavelet transform 17012
DS-SS SS CDMA, MMSE interf. suppression 17017
DS-SS systs., adaptive filters, freq. sweeping sig. rejection 17020
DS-SS systs., narrowband interf. rejection 33750
DS-SS systs., periodical seqs., Doppler mismatched filters 33752
DS-SS systs. impulsive channel, narrowband interf. suppression 33751
DS-SSMA, interf. effect on narrow-band commun. systs. 33748
DS-SSMA, unknown seq. estimator, near-far problem 25361
DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
DS/CDMA, multilevel coded modulation, integrated receiver struct. 42144
DS/CDMA adaptive interf. canceller, differential detect. 9240
DS/CDMA adaptive interf. canceller for fast fading channel *(Japanese)* 25277
DS/CDMA successive interf. cancellation 25356
dyn. overload recovery in sigma delta modulators 702
elec. connectors, surge/noise suppression 6400
electrified rly. radio interf. 28115
electrosurgery, EM interf. problems 10259
electrosurgical units, elec. field strength creation 18686
EM field anal. of buildings, shielding screens 15509
EM protection/estim. for telecomms. buildings *(Japanese)* 31863
EMC, resin material, metallic layers 21606
EMC device for telecomms. equipt. *(Japanese)* 31861
EMC perform. of suppression components/shielding materials 2264
EMI filters, bal./unbalanced charact. meas., S-params. 23718
EMI filters, dyn. prediction of insertion loss 23661
EMI in hospitals 18684
EMI in hospitals, IEE Colloquium, London (1994) 17
EMI reduction by lossy PWB 23667
EMI reduction technol. by placing metal plate close, PCB 23713
EMI suppression, ferrite materials 2244
extremely small dia. thread detect., sig. proc. method 25748
F-TDMA/CDMA cellular systs. perform. eval. 33838
fast freq. hopped NCMFSK, Rayleigh fading, diversity combining 33762
fast freq. hopped NCMFSK, time diversity combining 25253
FDMA cellular systs. capacity, ACI effects 3334
fibre-optic sens. array, polariz.-induced sig. fading 17900
fighter aircraft target detect., PRF set selection 4437
first order stat., noise-intens. estim. stabil. 40364
flute music embedded in noise, sig. detect./restoration 16001
freq. hopping commun., blind adaptation algm. 9166
fuzzy rule based adaptive nonlin. filter for myoelectric sigs. 35132
GCR sig., appl. 17551
ghost cancellation ref. sig. for TV broadcasting syst. 9696
granular TV camera noise, stat. characts. 9716
grey-level morph., lin. structuring fn. 8587
ground refl. wave suppressed test sites 23670
ground-current control, enhance dyn. range in high speed ccts. 29084
GSM network, adaptive antennas for freq. re-use 9395
GSM syst. MLE receiver space diversity techs. *(German)* 25335
GSM-syst., interf. anal. 3492
HDSL, discrete multitone transceiver soln. 9083
Health Technical Memorandum 2014, elec. interf. abatement 10258
hearing, hierarchic models, sound separation/reconstruction 16002
HF hand-held narrow-aperture direction finder 3641
HF radio sigs., adaptive proc., receiving antennas 40773
Hi-PAS, EMC design for high-dens. packaging syst. *(Japanese)* 31862
high track dens. mag. recording, multichannel equalization 7194
high-resoln. beamforming in coherent interf./correl. noise 24263
high-T_c supercond. meas., interf. reduction 34653
HVDC transm. lines, twin conductors, DC corona anal. 4634
identification of processes with output drift, freq.-domain 25700
IEEE MILCOM conf., Boston, USA (1993) 36897
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
IFF appl., transient control by software 23677
IIR filtering for adaptive phase jitter cancellation 32748
IIR notch filter, transient suppression 35129
image seqs., noise reduction, motion compensation/sig. decomp. 32874
impulsive interf. mitigation, arbitrary IID state noise 8290
impulsive noise removal from measurement data 25772
indust. automation systs., thyristor-based logic microcircuits 21223
injection-locked hybrid discriminator, interf.-immunity 826
intelligent multi-access spectrum-sharing methodology 41467
internally protected universal ground adapter, cable EM protection 15502
ionograms, interfering HF sigs. ident. 10463
Japan Voluntary Control Council for Interference, activity summary 23725
land mobile commun., pilot sym. aided CCI canceller *(Japanese)* 42294
Lee filter for speckle suppression in SAR images, alternative form 32917
LF suppression of baseband coded sequences 8164
lin. trajectory filters, noise rejection perform. 8439
low-level meas. techs. for noisy environ. 17651
low-noise CCD sig. acquisition 34417
macrodiversity cochannel interf. anal. 40383
MCT converter, snubber efffect, switching loss, EMI reduction 6017
median filter based on fuzzy rules *(Japanese)* 21431
meteorological radars, clutter removal method 35332
microstrip constrained lens, design and perform. 15653
microwave pass. discriminator, co-channel monotone interf., perform. 825
min. redundancy array struct. 41048
MMIC freq. synthesizers, phase noise reduction tech. 12816
mobile commun., adaptive array methods 17067
mobile commun., delay lock loop, delay path cancellation *(Japanese)* 25274
mobile communications, IEE Colloquium, London (1994) 16
mobile radio, base station polariz.-sensitive adaptive antenna 33879
mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
mobile radio commun., interf. canceling equalizer 9383
model based tone freq. estimators, prefiltering effects 16010
modified ISI canceller for digital microwave radio 9168
multi-carrier CDMA in indoor Rician fading channel 9226
multi-cell direct-seq. microcellular systs., perform. eval. 33907
multi-rate bandpass filter bank, QRNS complex arith. 6229
multichannel space-time sig. proc. providing local interf. suppression 32572
multichannel transmitters, DSP/direct conversion 3323
multicomponent radar interf., adaptive suppression 34120
multihop FH-SS PRN, channel access protocol 25246
multilayer adaptive filters, BP trained, stat. approach 2556
multilayer package, simultaneous switching noise 11806
multipath interf. suppression cct. 40382

interference suppression continued
multipath/CCI sigs. separation 31979
multirate adaptive arrays for broadband mobile commun. 33851
multistage CMA adaptive beamformer, convergence props. 8351
multistage CMA adaptive beamformer, real-time implement. 9227
MUSE decoder, video noise reduction *(Japanese)* 34258
narrow band SSMA/multi-carrier high speed sigs., staggered superposed transm. *(Japanese)* 25209
narrowband adaptive arrays proc., quantisation error modelling 32609
neural demodulator for ASK sigs. 29512
noise filtering capability inductor 12847
noise suppression, wavelet model 32577
nonlin. channel, amplit. estim. for pulse sig. transfer 32026
nonstationary environ., recursive suppression algm. perform. 40798
nonstationary spectral estim., optimal kernels 32556
opt. CATV SCM receivers, IMD reduction 9738
optimized signaling waveforms, ISI/timing jitter effects reduction 15968
orthogonal convolutional codes, CCI cancellation 25242
overlay CDMA syst., multiple BPSK interferers, perform. anal. 33747
parametric pulse selector design and operation *(Russian)* 12383
partial discharges, adaptive filtering meas., noise suppression 13967
partially adaptive array design, DOA estim. and null steering 23958
partially adaptive beamforming for correl. interf. rejection 32558
partially adaptive lin. constrained arrays, sparse approach 41015
pass. protection apparatus for commun. lines, phantom reson. transformer 25193
Pb-acid valve regulated batts., conductance testing 19967
PCB, radiated emission prediction/reduction 23666
PCB common-mode radiation reduction 21640
PCB crosstalk reduction with additional center traces 21618
PCB groundplanes, radiated emission reduction 23668
phased array interf. self-canceller perform. rel., underlying surface and phasing *(Russian)* 15675
photoconductive layered solid-state imaging device, SNR anal. 17930
physiological sigs. monitoring, interf. 10173
planar antenna arrays, 1-stage/2-stage optimum inform. proc. 8245
power feeder EMI/RFI filters, nonlin. load effects 19279
powerline EMC filter testing, approx. worst case method 15460
PRF radar, analogue noise control syst. 42513
prog. blind adaptive spatial filtering 40917
prog. canonical correl. anal. for blind adaptive spatial filtering 9167
pulsar radio survey sig. proc., noise suppression filter 17516
pulse compression radar, terrain-scatt. jamming suppression 25553
QPSK TDMA digital radio link, analog FM interf. 33841
radar interf. canceller, bit interleaving tech. 33743
radar sig. proc., wavelet transform, sea clutter suppression *(Japanese)* 9616
radiated emissions reduction, SS clock generation 15490
recursive const. modulus algm. for real-time array proc. 8352
RLC miniature elec. filters for single electron devices 37829
RLS bilinear filter for channel equalization 32728
rly. signalling interf. prevention, high integrity monitor 44547
robust real-time constrained hearing aid arrays 18609
satellite commun., adaptive antenna arrays and broadband sigs., EMC anal. 25449
SCM CDM opt. LAN, theory and expt. 16716
sig. restoration, correl. accumulation 2522
single/multi-amplit. sigs. in interf. channels, neural-net based receiver 16408
smart antenna appls. in mobile commun., const. modulus factorization 32465
solid chip common mode chokes, develop. 21600
sonar sig. proc. syst. based on TMS320 series 17488
spaceborne SAR antenna patterns determ., distributed targets 25571
spatial sig. distrib., reliable sig. transm. 24741
spectrally efficient modem for land-mobile radio, perform. 9272
speech automatic recogn. in noisy environ. 32431
speech coding, adaptive postfiltering for quality enhancement 8224
speech recogn., noise adaptive, HMM representation 40741
spread spectrum techniques, IEEE conf., Oulu, Finland (1994) 20200
SS systs., DSP appl. 25238
SS wireless LAN, interf. cancellation 8929
SS-orthogonal FDM syst. combination, interfer. rejection 33746
subsea acoustic rem. commun., adaptive receiving beamformer 9613
super-resoln. direction-finding appls. and implement. 42544
swing-suppression noise shaping tech. for CMOS ADC 6190
sync. CDMA commun. syst., adaptive interf. cancelation 25241
sync. DS-SSMA, decorrelating decision-feedback detect. 42164
sync. multiuser CDMA detector, multidimensional adaptive canceler 15898
TCM sigs., tunable complexity RSSE decoding 40673
TDMA in-building wireless systs., interf. charact. 33873
TDMA mobile radio systs., CCI suppression 9393
TDMA portable radio channel uplink power control algm. 42197
telecomm. equipt., global grounding topolgy, interface specs. 44148
texture recogn./noise filtering, optoelectronic neural net 39526
three-phase AC motor drives, freq. converters, interf. suppression 5042
thyristor converters, zero crossing detect., noise reduction, digital filtering 27805
time domain SS proc. syst., large TBP 25216
tone-free $\Sigma\Delta$ modulators, design aspects 12598
train-to-wayside commun., multicarrier modulation 9282
trans-horizon radio link, site shielding variability, expt. 17026
trellis shaping schemes bandlimited PSK-sig. envelope control 8095
TV ghost cancelling method, multiplicationless adaptive ident., multipath channel *(Korean)* 3657
twisted noise cutout transformer, line noise prevention 21599
underwater acoustic data commun. link adaptive equaliser 9612
underwater high data rate transm. equalizer 9611
underwater moving sig. adaptive detect., hydroacoustic data 34175
US regulations for EMC control, update 23682
vehicle to roadside commun., 5.8 GHz, adaptive array antennas 15666
voiced-speech anal., residual interfering sig. canceler algm. 32323
wavelength switching in opt. networks 17229
WDM sig. transm., crosstalk elimination cct. 3552
wide-band noise filter, mag. cct. 21400
wideband EM wave absorber, thin mag. layers 15518
wideband microwave sigs., opt. nulling 41205
wireless commun. syst. adaptive array sig. acquisition and tracking 33792
X capacitors, Siemens B81131 series, metalized paper/plastic film, safety 872
X-band radar, obs. of K-distributed sea clutter 34119
Fe-polymer composite absorber chip for RF EMI filtering 37834
Mn-Zn ferrite chokes *(German)* 15456

interference suppression continued
Ni-Zn ferrite chokes *(German)* 15456

interferometers
see also electromagnetic wave interferometers; interferometry
interferometric low thermal mass IR-absorber for thermal IR detectors 3845
X-ray laser appls. 23482

interferometry
see also electromagnetic wave interferometry; holographic interferometry; interferometers; particle interferometry
fibre optic sens. for radiation dosimetry 18678
long-dist. meas. syst., metrological chain, comment 34323

intergranular fracture *see brittle fracture*

interleaved codes
8PSK-TCM modem, develop. and transm. perform. 25156
AWGN, block and decoded error probabilities of DPSK 15763
binary partial-response channels, concatenated coding 15753
CDMA coded packet cellular networks, code rate optim. 25384
CDMA multirate radio interface implement. 42192
decision-feedback max.-likelihood decoder for finite-state Markov channels 15750
digital FM transm., Rayleigh fading, RS codes appl. 25346
digital terrestrial TV broadcasting, transm. techs. 34221
DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
DS-CDMA FH-CDMA/narrow band cellular radio systs. 3452
DS/CDMA prototype syst. for voice/ISDN sigs. 3320
error-correcting codes, Gilbert channel, perform. eval. 15749
lightwave transm., low-rate parallel scrambling techs. 42380
multilevel-coded quaternary partial-response sigs., soft-decision multistage decoding 8174
multiresolution modulation/concatenated coding, decoding algms. 8683
parallel concatenated recursive systematic (turbo) codes 32105
parallel scrambling techs. for multibit-interleaved multiplexing environ. *(Korean)* 16422
partitioned Markov model, non-binary error correcting codes eval. 8168
probabilistic burst-error-correcting scheme, interleaving method based *(Japanese)* 24103
q-ary interleaved seqs., theory/appls. 32051
radar interf. canceller, bit interleaving tech. 33743
rate compatible turbo codes, two error protection levels 32191
Rician-fading channels, convolutional codes, finite interleaving depth 33911
soft output Viterbi algm., turbo-codes decoding 40666
TCM perform. for equalised ISI channel 32084
TCM-QAM for flat fading and AWGN channels, design 24118
translational combinat. metrics, plane/codes tilings 40643
trellis coded CPFSK, coherent detect. on phase jitter channels *(Korean)* 33922
turbo-codes, parallel concatenated coding schemes, perform. eval. 24025
variable bit rate video coding, interleaved FEC 8614

interleaved storage
real-time multiline OCR parallel archit. 33027

interlibrary loan
Australia, document delivery services, 1980-94 overview 33434
document delivery using X.400 protocol, British Library DSC 41736

intermediate-frequency amplifiers
EMI receiver syst. design 15481
noise charact., wide AGC range *(Korean)* 37647
AlGaAs-GaAs HEMT monolithic downconvertor for X-band DBS 42315
GaAs MMIC dual-channel Ku-band DBS downconvertor 42316
GaAs image rejecting downconvertor, single chip, 2.44 GHz 42161
InAlAs-InGaAs HBT X-band double-balanced upconvertor 38021
InAlAs-InGaAs-InP V-band monolithic HEMT downconvertor 38019

intermediate valence compounds *see mixed valence compounds*

intermodulation
see also intermodulation distortion
10-Gbit/s smart opt. terminal digital-video distrib. syst. 17222
asynchronous DS-SSMB commun. syst., TWT nonlin. distortion 25252
biased nonlin., interf. suppression 31848
bipolar op amp, demodulation RFI 550
FDMA systs. using multi-beam satellite, optimal carrier freq. assignment *(Japanese)* 25448
HEMT gate mixer, large sig. model for anal./design 6320
IM/DD fiber transm. syst. dispersion-limit formula 9575
lin.-quadratic sys. ident., freq. domain region 24213
military satellite commun., IEE Colloquium, London (1995) 36863
nonlin. transistor model params. extraction program 13805
quantum-well diodes, harmonic and intermodul. generation 29570
R-LED series network, harmonic and intermodulation perform. 31096
rot. mach., stat. monitoring, cumulant spectral anal. 32454
TWT lin. for future commun. satellites and ground stations *(German)* 6295
Volterra model, generalized describing fns. *(Japanese)* 11896
GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
$LiNbO_3$ planar waveguides, multifrequency acoustooptic interact., modeling 14551

intermodulation distortion
2-level SCPC syst. carrier freq. assignment, intermodulation product minimization 42334
1300 nm gain-clamped MQW laser amps., reduced IMD 34006
1310-nm DFB lasers, correl. of leakage-induced distortion, I-V charact. 7685
act. feedback amps., multicarrier intermodulation optim. 12350
act. microwave filters, nonlin. behaviour 21414
AM-SCM lightwave syst., simultaneous scatt./interf. suppression 17175
amplit. IMD meas., bridge method 42918
amplit. limited multitone sigs., perform. 8092
analog DFB laser modules, second-order IMD 7680
arrayed waveguide N×N wavelength multiplexer transm. charact. 42353
broadband CATV distrib. network IMD meas. *(German)* 34269
CATV DFB LD, second-order distortions meas. 34004
CATV DFB source laser lin. limits 25528
CATV pictures, composite triple beats impairment reduction 42612
civ. aircraft, satellite commun., amp., dyn. efficient bias 42330
cordless telephones, sound quality eval., three-way scaling *(Japanese)* 42993
DFB laser IMD anal., dyn. spatial hole burning effect 23222
differential amps., lin. techs. in IC design 12352
digital microwave receiver, lin. amp./ADC anal./design 29311
DS-CDMA nonlin. effects in opt. transm. 34030
Fabry-Perot LD modeling 31321
FET MMIC design, low IMD 6332
MESFET amp., IMD, cct. param. and topol. effects 37649

intermodulation distortion continued
  monolithic quantum-well lasers, inhomog. biased, MM freq. reson. modulation 31324
  MQW-DFB-LD modules for SCM fiber-optic transm. *(Japanese)* 42468
  multicarrier fiber optics, cross-modulation/IMD 30883
  multiple-carrier amps., IMD *(Japanese)* 29063
  multistage microwave two-port networks, IMD anal. *(Korean)* 12738
  nonlin. amps., intermodulation power, data modulation 560
  nonlin. distortion of SCM systs., SBS caused 17172
  opt. CATV SCM receivers, IMD reduction 9738
  partially-corrugated-waveguide LD, low modulation distortion for SCM telecom. appls. 17194
  predistortor for high power amp. nonlin. correction *(Korean)* 12343
  push-pull opt. frontends for SCM CATV appls. 42458
  radiometer receiver linearity characterization by intermodulation distortion 25795
  satellite broadcast receiver, high T_c supercond. coupling device *(Japanese)* 34228
  semicond. laser second-order/third-order nonlin. harmonic/IMD *(Korean)* 14901
  spectral props. of direct digital freq. synthesizers, simul. 37658
  spectrum analyser for distortion meas. 42919
  spurious audio modulation of VCOs, RF coupling 565
  suboctave-bandpass opt. analog links, lin. modulator 17335
  surveillance radar, dyn. A/D converter charactn. 3614
  GaAs FETs, IMD minimisation tech. 22484
  GaAs MESFET doubly bal. mixer, X-band, very low IMD 21569
  InGaAsP DFB single-mode LD, small sig. cct. model 39821
intermodulation measurement
  broadband CATV distrib. network IMD meas. *(German)* 34269
  op amp IMD determ. for PCB design 557
internal combustion engines
  2000-4000 kW Wartsila high-speed diesel generator 36033
  automobile diesel engines, acoustic combustion noise meas./control 34736
  automobile dyn. spark ignition engine control modelling 11438
  automobile engine powertrain nonlin. sliding control design 5373
  automobile hybrid internal combustion engine, computer controlled 28156
  automobile powertrain electronics, engine/transm. controls 36780
  automotive engine controllers, potted, PQFP solder joint reliab. 28155
  automotive engine mgt. syst., electronic ignition 36771
  automotive engines, misfire detect., neural networks appl. 36779
  automotive fuel economy improvement, near-term technol. 28139
  autonomous underwater vehicles, power systs. comparison 28106
  car engine diagnosis, cyclostationary/time-freq. sig. anal. appl. 40936
  combustion press. proc. modelling 4841
  control module, hybrid interconnect technols. 28154
  diesel engine particle emissions, ESP capture/agglomeration 7926
  diesel engine turbochargers, flexible manufacture 4830
  diesel engines, gas turbine plant start-up 10862
  diesel engines robust emissions control, oxygen sens. 34616
  diesel power plants, turbocharger retrofitting overview 19531
  diesel powertrain for heavy trucks, dyn. behaviour 28137
  diesel/closed cycle gas turbine power plant thermodyn., LNG-fired 27605
  double pulse holography, digital image proc. 18142
  engine misfire detect., torque monitoring 25717
  fan, digitally controlled induction motor 27719
  fast mag. actuator for diesel engine injection syst., FEM modeling 15252
  fossil fuel NO_x emissions, form./control studies 35975
  fuel gas reciprocating compressors, power generation appls. 35964
  fuzzy logic based engine idle-speed controllers 11441
  high-speed solenoid valve develop., diesel engine appls. 27873
  homogeneously charged, piston design, flame develop. 19501
  knock detect., time-freq. distribs. 5353
  low heat rejection regenerated diesel engine 19534
  maintainability level, control model, ship engines 28389
  mechatronics fund., meas. sci. and technol. 9850
  Miller/Otto cycle alternative fuel automobile engines, computer model 36768
  nonair-breathing diesel engine research facility 19533
  periodic phenom., spectral anal., uncertainty 40969
  power generation, O_2 enrichment simuls. 35970
  power-optimized endoreversible dual cycle, combustion effect 4834
  sens. irrelevancy testing, backward elimination/stepwise regression 11409
  spark ignition engines, flame initiation/stretch, heat transfer 19532
  thermal CHP generation, oil-free screw compressor appls. 35962
  thermal CHP generation, oil-injected screw compressor appls. 35963
  turbocharger develop., lab. tests 27604
  written pole motor/generator, flywheel storage , telecom. sites 44203
  Si-Ge thermoelec. generators, exhaust gas heat-based 5234
internal conversion in atoms *see Auger effect*
internal conversion in molecules *see nonradiative transitions*
internal friction of liquids *see viscosity*
internal mechanics of atoms *see atomic structure*
internal modes *see vibrational modes*
internal strains *see internal stresses*
internal stresses
  axial strain-induced stresses in double-coated opt. fibers 1697
  BESOI stress/strain investig., opt. SHG method 29963
  bipolar LSI, trench isolation along {111} gliding planes, 3D mech. stress anal. 22564
  buckled membranes for microstruct. 30513
  bulk dielectrics, partial discharge related stresses 13966
  conformal coating stresses, SMT/fine pitch technol. 6431
  diamond films adhesion on Mo/W/carburized W substrs. 37478
  diamond membranes for x-ray lithog. masks 6688
  diamond MPCVD films on porous silicon, scanning microscopy obs. 6518
  diamond polycryst. films for x-ray lithog. masks 6703
  elastic props. of LPCVD SiN_x/LPCVD polysilicon 39033
  extruded polymer power cable insulation, mech. stress meas. 43769
  ferroelec. ceramics, twinning-induced stress, elec. field conc. 37537
  fibre optic smart struct., coating props. optimisation, FEA 34541
  HTSC thin films, residual stresses for in-situ deposition 14274
  IBM high perform. carrier technol. for PCB packaging/interconnects 37153
  IBM MCM-D, polyimide dielec. material appls. 37542
  InGaAs/InGaAsP MQW lasers long wavelength, thermal annealing effects 14869
  intell. ceramic materials, brittle fracture 28892
  ITO layer, sputtered films, specific resist., XRD 28801
internal stresses continued
  mag. anisotropy sens., output voltage-excitation freq. charact. 9879
  mag.-noise struct. anal., inverse problem model constr. 28920
  MCM, ceramic-conductors, stresses 21689
  MCM packaging, high reliab., low stress epoxy resin 6469
  meterials reliab. in microelectronics, conf., San Francisco (1994) 28229
  micro-opt. components, laser forming, phys. fund. 7376
  microcantilever reson., adsorpt.-induced surface stress, sens. appl. 39034
  normal incidence MQW light modulator, contrast ratio 7386
  opt. activity in piezoelec. crysts. 30575
  opt. fibers, residual stress, optimal design 1688
  polyethylene, electrical treeing, in-situ photoelastic monitoring 14068
  polysilicon emitter transistors, phosphorus doped, band deform. 30240
  post-buckling of micromachined beams 30512
  radial collimator, strain meas. by neutron diffr. 21007
  self-biased shielded magnetoresistive heads, magnetostriction meas. 14234
  semicond. diode lasers, strain fields on facet and along cavity 39881
  semicond. quantum-wire heterostruct., strain and piezoelec. fields 29902
  SMT solder joint reliab., voids and void interacts. 178
  steel foils, laser bending, buckling mechanism 20985
  submicron CMOS isolation struct., calib. method for oxid./mech. stress models 22254
  superimposed holographic interferometer, welding control appl. 15156
  tightly jacketed double-coated opt. fibers at low temp., thermal stresses 14377
  VLSI metallization by coherent magnetron sputtering 38668
  X-ray masks, membranes, mech. props., intrinsic stress 13532
  $Al_xGa_{1-x}As$, wet thermal oxid. studies 1248
  BN, cubic thin films, growth, charactn. 5875
  BPSG dielec. film fusion, steam reflow and RTA/furnace annealing 20997
  $BaTiO_3$ films on Pt, epitaxial growth and dielec. props. 12099
  $Cd_xHg_{1-x}Te$ epitaxial layers, laser irrad., photoelectrical props. 14585
  Fe-N sputter-deposited films, stress and microstruct. 6952
  γ-Fe_2O_3 thin films, coercivity, stress effect 39166
  FeSiAl Sendust films, recording head cores 7108
  GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
  GaAs/Ge MOVPE heterostruct., lattice strain relax., X-ray diffr. obs. 38308
  GaAs/InGa(Al)As(ZnSe) heterostruct., phase stabil. and mech. defects under press. 38289
  GaInAs/GaInAsP/GaInP LD, barrier comp., props. 31345
  $Ga_xIn_{1-x}P$/AlGaInP quantum wells, strained, opt. investig. 1134
  $Ga_xIn_xP/(Al_{0.5}Ga_{0.5})_{0.52}In_{0.48}P$, strained QW LD, optimisation 39857
  GaN epitaxial film on AlN-buffered Si(111), strain effects 12098
  HgCdTe detector, multi-element lin. arrays, SR topography *(Chinese)* 17796
  InAlAs-InGaAs strained HEMT, I-V characts., charge control model 38911
  $InAs/GaAs(Ga_{0.47}In_{0.53}As)$ heterostructs., MBE, defect control 12046
  InAsP/InP MQW structs., strain studies 13142
  $In_{0.65}Ga_{0.35}As$ epilayers, MBE growth on InAlAs/InP heterostruct. 12091
  InGaAs/GaAs LD, degrad., possible sources 14925
  InGaAs/GaAs MQW pin diode stained struct., leakage current mechanisms 1129
  InGaAs/GaAs piezoelec. MQWs, nonlin. opt. response, screening, and strain 15081
  InGaAs/GaAs quantum wells, strained, absorpt. coeff. and refr. index 1136
  InGaAs/GaAs quantum wires, nonuniform distrib. of strain 1089
  InGaAs/InP superlattices, MOMBE, interface struct., XRD 378
  $In_{0.20}Ga_{0.80}As$/GaAs MQW, strain and piezoelec. fields 29901
  $In_{0.2}Ga_{0.8}As$/GaAs MQW struct., strain relax., photodetector appls. 1131
  $In_{1-x}Ga_xAs$/InP quantum wells, cond.-band/valence-band struct. 1130
  $In_xGa_{1-x}As$-GaAs-$Al_yGa_{1-y}As$, BH QW lasers, selective area MOCVD 39853
  InGaAsP, strained layers, LPE, spin-polarized electron sources 21798
  $In_xGa_{1-x}As_yP_{1-y}$/InP, strained QW LD, nonhydride MOCVD 39856
  InGaP/GaAs, misfit accomodation, substr. tilt 29892
  InP strained wires and dots, localized confine. pot. 6562
  InP wafers, LEC grown, residual strains, photoelastic charact. 13042
  $(InSn)_2O_3$ films, activated electron beam evap., water partial press. depend. 37487
  MgO films, plasma-enhanced metalorganic CVD, crystallographic orient. 401
  Nd doped phosphate/silicate glass, surface luminesc., ion exchange effects 14419
  Ni-Zn-Cu ferrite, inner stress, grain boundary Cu precip. 14195
  NiTi/Si thin film shape memory alloy syst., stress evol. 37533
  PLZT, ferroelec. ceramics, non-lin. behavior, micromechanical theory 37551
  PMN ferroelec. relaxors, inhomog. dyn. strain charact. 30563
  PZT ferroelec. relaxors, inhomog. dyn. strain charact. 30563
  $PbZr_{0.53}Ti_{0.47}O_3$:Ca transducers, acoustic props. 30633
  Si films, Ge-incorp., lateral SPE 20861
  Si, oxid., VLSI gate dielec. appls. 30086
  Si post backgrind wafer shape, thin film stresses 38605
  Si thermal oxid., advanced field isolation model, calibrated viscoelastic stress anal. 22560
  Si wafer, defect level, classical and holographic interferometry 31665
  Si:B, implanted impurities, misfit elastic stress, simul. 13307
  Si:C,O plates with nonuniform stress distrib., mechanisms for O gettering 29833
  Si:O-on-insulator, implant.-induced stresses, defect pair 30044
  Si:P gate form. of MOSFETs, mech. stress simul. 38894
  Si:Sn(001), strain determ. and microstructural charact. 22150
  $Si/CoSi_2(FeSi_2)$ epitaxial silicide systs., ion channeling studies 6577
  Si/SiO_xN_y, interfacial stress and struct., thermal nitridation and reoxidation effects 22055
  SiC LPCVD films for x-ray masks from diethylsilane/di-t-butylsilane 6697
  a-SiC:H,F films, plasma deposition, props. 5878
  $Si_{1-x}Ge_x$ epitaxial layers, strain relax., silicidation procs. 1073
  $Si_{1-x}Ge_x$, pseudomorphic growth on Si(001), crit. thickness 305
  Si_xGe_{1-x} strained films, MBE growth, cuspidal pit form. 12089
  SiGeB-Si heterostruct., B thermal stabil., stress compensation 13130
  SiN mask membrane proc. charactn. 6685
  SiN-Si X-ray mask wafer stress, contactless laser/microwave eval. 6686
  SiO_2 films, HI irrad., densification and plastic flow 1312
  SiO_2 opt. fiber, Vicker's indentation modeling 14358
  SiO_2:H ECR oxides, stress-temp. behavior, hydrogenous species conc. 37513
  Ta fibrous-struct. low-stress films for X-ray masks, sputtering 13536
  Ta sputtered film, compressive stress rel., thermal cycling 22266
  TiW thin films, sputter deposition 28829
  W X-ray mask membranes, uniform-stress, He-backside temp. homogenization 13541

internal stresses continued
  W/WN/Si, nitride barriers for thermally stable metallization, TEM studies 38704
  Y-based HTSC, relax. US proc., mech. stabil. 39242
  ZnS/GaAs epitaxial layer syst., vapour phase epitaxy, residual and thermal strain 38307
  diamond membrane-based X-ray lithog. masks 6687
international trade
  Central/Eastern Europe, energy, environ. impact, internat. finance 27294
  EU support programs for internat. R&D projects 11645
  intellectual property protection, technol. protectionism 36965
  Internet, public good and trading 16741
  Internet public goods, funding 25023
  LF EMC stds. *(German)* 23735
  NTT Data Communications, internat. business operations 41591
  NTT internat. cooperation activities, present status 41588
  NTT Learning Systems Corporation, multimedia technol. in global market 41592
  proc. mgt. syst. for internat. work flow 24956
  survivable internat. network archit. and dimensioning 41549
  technol. transfer, cross-cultural commun. barriers 11560
  US-Japan telecomms. trade, Japanese inform. infrastructure develop. 8799
Internet
  academic networking in Peoples Republic of China 16743
  accelerator distributed control syst., stand-alone Internet nodes appl. 18200
  access to Internet, WINDOWS/MS-DOS client software 3182
  ACES project, providing Internet connectivity for rem. Alabama offices 8981
  Adobe's Acrobat for electronic document exchange on Internet 24938
  APL-ASCII transliteration 41790
  asymptotic resource consumption in multicast reservation styles 2882
  ATM, link in ST-2 internet 8974
  ATM NAP archit., routing design 24980
  ATM-Internet, class D service archit. 8992
  ATM-NAPs routing in presence of special ANS/NSFNET attachment 24944
  Australia, document delivery services, 1980-94 overview 33434
  B-ISDN/ATM connectionless data service in Internet environ. 41842
  BAfirewall, Bell Atlantic internal TCP/IP WAN 16673
  BERKOM-II FlowSpec, ATM mapping 9018
  BTnet, BT Internet service archit. 41909
  campus scale wireless Internet, ATM 33559
  CEENet, network coord. in central/eastern Europe 41776
  Chameleon 4.0, TCP/IP for windows 16657
  chem. research, LANs and Internet 8919
  CIDR deployment on Internet 41833
  commerce appls. on Internet 8944
  commercial services on Internet 25013
  computer network clocks, improved sync. algms. 2949
  conference, New Face of Technical Communications, Philadelphia, PA, USA (Oct. 1993) 28216
  conference, Prague, Czechoslovakia (June 1994) 24989
  congestion avoidance for video, IP networks 16680
  connecting Caribbean 25016
  CoReview, interactive document and data retrieval tool for Internet 41867
  corporate commun. in cyberspace via Internet, rhetorical dyn. 33577
  Corporate IP services for Internet 24809
  cryptographic algms., conventional 24062
  CrystalWeb, distributed authoring environ. for World-Wide Web 41868
  DCE Web toolkit, enhancing WWW protocols, lower layer services 41862
  DDT, Internet tunneling technol. 16749
  DDT, versatile Internet tunneling technol. 41785
  disabled people, radio computer commun. network 41768
  distributed scalable routing based on link-state vectors 2988
  distributed virtual simul., networking 25019
  distributed virtual simul., networking 18995
  DIVE, multi-user virtual reality system 16762
  DQDB subnetworks, hierarchical commun. syst., perform. 8987
  e-mail messages, prioritisation, intell. agent 41740
  education in IS via Internet 16764
  educational uses of World-Wide Web 41869
  educator use of Internet, user guide 24982
  EINet, secure, open network for electronic commerce on Internet 8938
  elec. utilities, involvement in inform. superhighway develop. 43658
  electronic classroom, computer sci. education 20343
  electronic mail, appl. 33415
  electronic mail, pers. dislikes of long time user 24936
  electronic mail, technol. develop. 24933
  electronic mail infrastructure, develop., LAN/Internet solns. 41732
  electronic payment proc. mechanism 24965
  ELM, privacy enhanced mail modules problem 16632
  ESIS on World Wide Web 8898
  Everywhere Access, rem. control software for Internet 8949
  File Transfer Protocol, Internet services 24976
  FIND2, multimedia/distributed inform. sharing systs., develop. *(Japanese)* 3264
  firewall installations, IpAccess Internet service access syst. 24962
  flexible routing/addressing for next generation Internet protocol 2944
  FODATEC, open document manipulation syst. 8957
  Footsteps for navigating World-Wide Web 41870
  FTP traffic, non-optimality estim. 16655
  FTP traffic on Internet, optimisation 41834
  Fujitsu network infrastructure for Internet services *(Japanese)* 41855
  fuzzy interval approach, computations on internet and inform. super highway 16731
  general-mesh packet flow networks, controlled alternate routing scheme 2989
  geographical and provider-rooted Internet addressing 41780
  geographical/provider-rooted Internet addressing, comparison 16745
  gopherspace navig. via electronic mail 8864
  healthcare commun., future needs and present solns. 41875
  high-speed internet, stream behavior anal. *(Japanese)* 3215
  high-speed networks, inter-proc. commun. perform. 8967
  home environ., Internet use, Homelink project 24988
  HTML+ document format review 25015
  Hubble Space Telescope via World Wide Web 8917
  Hyper-G for serving inform., World Wide Web 41871
  IMHP, Internet Mobile Host Protocol 41506
  IMHP, mobile host protocol for Internet 16748
  indexing the Internet, librarian view 24987
  Indiana Cooperative Extension Service, Internet links, field offices 8982
Internet continued
  indust. R&D in Israel, Internet appl. 41830
  InfoPad project, design of wireless portable systs. 33529
  inform. bazaar, Internet 8971
  inform. obj. security, location-independent 24964
  inform. superhighway, protocols, bearer technol. 33429
  inform. tools 16738
  information superhighway technologies, conf., San Francisco, USA, March 1995 28233
  InfoSleuth, networked exploitation of inform., semantic agents 33526
  inquiry based requirements anal. for Internet service 33551
  INRIA Videoconferencing System software 25073
  inter-administrative domain data commun., policy control 8903
  interactive TV, Superhighways and Internet *(French)* 41852
  International Telecommunications Symposium Internet multicast 16717
  Internet's SNMP and ISO's CMIP protocols for network mgt. 16577
  Internet protocol, connection-oriented networks and distributional paging 16489
  interneted library syst., Hahnemann Univ. 16766
  IP layer perform. diagnostics, windowed ping appl. 16746
  IP multigigabit router design 8901
  IP over ATM, cell traffic efficiency 25067
  IP/Secure for security on datagram delivery for mobile host environ. 41784
  ISDN, Internet access, TCP/IP 41943
  ISO/Internet mgt. integrat. 24905
  Italian astron. and astrophys., WWW appl. 8916
  Japan, develop. of seamless inform. network, ISDN 9004
  journal articles, transm. via Ariel software *(Hebrew)* 41791
  KARRN, Kyushu Area Regional Research Network *(Japanese)* 8884
  Kerberos complete secure transport service 16670
  LAN, network mgt., capacity planning 33373
  latencies and usage in Europe 41835
  LF components of Internet load, dyn. and significance 41874
  library, multi-fn. LANs and workstations for present and future 16768
  library-oriented lists and electronic serials 3183
  local ATM network, Internet protocol, design 8994
  managed networks, network mgt. impact 33370
  MBONE, Internet multicast backbone 25004
  med. digital X-ray archive accessed, Internet 8484
  medical libraries and Internet conf., San Antonio, USA (1994) 36834
  METEOSAT IR image proc. and MPEG animation 10467
  MITRE security perimeter 8937
  mobile IP, secure short-cut routing 24845
  mobile wireless access to the WWW, dyn. documents 33570
  Mobisaic IS for mobile wireless computing environ. 33571
  Mosaic, WWW and networked multimedia, learning tools 20342
  MosquitoNet, commun. environ. switching 33557
  multi-site ref. station differential GPS syst. *(French)* 34190
  multicast video distrib. in the Internet, scalable feedback control 3245
  MultiG research programme, distributed multimedia appls. on gigabit networks 42040
  multimedia appls., advance reservation of network resources 16843
  multimedia fax-MIME gateway for Internet 8943
  multimedia IRS FIND2 for white collar workers *(Japanese)* 41894
  multimedia resources, networked delivery, academic community 25117
  multimedia services, distributed sync. protocols 3263
  multimedia services on Internet *(Japanese)* 42031
  multiple service levels via precedence 33435
  multiport mobile internet-router 16679
  multipurpose Internet mail extension protocol 33646
  Nat. Information Infrastructure project *(Japanese)* 3184
  native ATM-multicast and IP-multicast, comparison/mapping 33272
  Netfind, white pages tool for Internet, inform. gathering archit. appl. 3153
  Network Software Associates, server on Internet 16693
  Network Time Protocol servers, survey tool for discovery 24959
  network training, self-help materials need 11622
  NewsAlert prototype, competitive intell., software robots and Internet 17561
  newspaper, electronic publishing on Internet, network tools 16769
  NIFTY-Serve, multimedia related services *(Japanese)* 42006
  NSFNET backbone traffic, long-term, time series model 8995
  NSFNET routing arbiter archit. 24846
  overview of Internet services 16694
  parallel network computing, commun. latency hiding 16682
  PCB CAD drawings, electronic filing syst., LOCUS *(Japanese)* 475
  PEM public key certificates, X.500 directory service 16633
  physicians, Mosaic and World Wide Web guide 41799
  POP3 mail client, WinSock 41731
  power systs., technols. *(Chinese)* 43650
  present and future of Internet *(Japanese)* 8883
  privacy, voluntary guidelines 16740
  privacy, voluntary guidelines 25024
  protocol perform. in multi-workstation parallel distributed appls. 25039
  public good and trading 16741
  public goods, funding 25023
  public network 16599
  public-access PCs, Mosaic Internet client 41804
  quality of inform. *(Hebrew)* 41792
  reservation protocols for internetworks, comparison of ST-II and RSVP 8767
  resource guides for Internet users, subj.-oriented 25012
  resource sharing in academic libraries and inform. centres via Internet 16721
  RFC 1327 mapping rules and INFNet gateway syst., distrib. via Internet DNS 41837
  RFC 1327 mapping rules distrib. via Internet DNS 16747
  road transport and traffic mobile environ., ISO IP protocol suite 41783
  role-based network security 33573
  RSVP resource reservation protocol 24808
  rural datafication, multiple-network collaboration, extend Internet access, underserved communities 25010
  safety measures 41908
  schools and the Internet, survey of networking activities 25011
  sci. inform. network flexibility needs and trends *(Japanese)* 16800
  security, protocols 16669
  security and legal aspects 16695
  security awareness, Internet Engineering Task Force 24979
  security of distributed systems conf., San Diego, USA (1994) 5452
  security of network and distributed systems conf., San Diego, USA (1995) 11601
  security problems and solns *(Japanese)* 16610
  simple Internet protocol plus (SIPP) *(Japanese)* 2952
  SkyNet, multicasting multimedia appls. of Internet 42041

Internet continued
SNIF, network inform. flow surveying tool 24967
SNMP protocol, merits/demerits, overview 33271
SNMP-based network mgt. appls. 41796
SPLICE/AS authentication syst. in WIDE Internet 24068
Sticky conf. control protocol 41513
student career counselling via HTML and MOSAIC on Internet 25014
TCP Vegas, techs. for congestion detect. and avoidance 2941
TCP/IP behavior in high-speed local ATM network environ. 33268
TCP/IP perform., satellite 25468
teleradiology, image ref. database, WWW 9053
teletranslation, lang. translation in cyberspace 24998
Thailand, Internet project for educational institutions 41777
The world of Internet, conf., Paris, 1994 20229
Thinternet, low bandwidth Internet connections 16739
trends/developments 33430
trusted, untrusted network connectivity 16672
trusted distrib. of software 24963
UKUUG IP Workshop conf., London, UK (1994) 36909
videoconferences on Xunet II fast ATM WAN 25078
virtual circuit/QoS routing architecture 2994
virtual library, inform. sources accessible, Internet 8979
W4, Wireless World Wide Web, PDA based 33569
WAIS, distributed inform. service for Internet access 16759
Web site, QC issues 8897
White House inform., public access via Internet e-mail 3210
wide-area multicast routing archit. 2987
windowed ping, IP layer perform. diagnostic 41836
Windows-based TCP/IP appls. 41515
wireless computing appl. design 33561
World Wide Web, scalable HTTP server prototype 8893
World Wide Web authoring tool improvements for Unix platform 41865
World Wide Web browsers reviewed 41857
World Wide Web caching relay 8894
World Wide Web media distrib. via hopwise reliable multicast 41864
World Wide Web network traffic patterns 33655
World Wide Web pages for academic department 24943
World Wide Web struct. authoring environ., Grif 41866
World-Wide Web, servers work 41853
World-Wide Web conf., Darmstadt, Germany (1995) 36872
World-Wide Web for intell. publishing environ. 41860
World-Wide Web for Internet searching 41986
World-Wide Web for shared comments, SOAPs, trails, and online communities 41861
World-Wide Web proxies 8892
World-Wide Web server, Digital Equipment Corp. 8896
X.400 for text interchange in your own lang. 41778

internetworking
see also information networks; Internet; LAN interconnection
ATM backbone, frame-relay traffic 41439
ATM LANs, high-speed telecomms. technol. *(Japanese)* 33544
ATM network, LAN/MAN interworking, bandwidth allocation 8996
ATM network LAN/MAN interconnection, simul. study 41902
ATM network perform. for 64 kbit/s-based services 41941
ATM network protocol develop. package 41841
ATM-Internet, class D service archit. 8992
ATM-NAPs routing in presence of special ANS/NSFNET attachment 24944
ATM/SDH interworking 16780
B-ISDN, source model for connectionless traffic 25062
B-ISDN internetworking unit, VLSI implement. 16798
B-ISDN interworking, data services and signalling 25064
BAfirewall, Bell Atlantic internal TCP/IP WAN 16673
campus scale wireless Internet, ATM 33559
CCS network integrity experiences and risk reduction strategies 41518
CEENet, network coord. in central/eastern Europe 41776
commerce appls. on Internet 8944
commercial services on Internet 25013
commun. gateways for network interoperability, methodology for synthesis 16511
conference, Prague, Czechoslovakia (June 1994) 24989
connectionless broadband ATM network data service design by simulated annealing 25033
CoReview, interactive document and data retrieval tool for Internet 41867
corporate commun. in cyberspace via Internet, rhetorical dyn. 33577
corporate networks, interworking ATM services 8879
Croatian videotex syst., terminal/external computer min. param. requirements 33421
current status and future of computer networks and internetworking *(Japanese)* 8880
customer network mgt. in SMDS, subscriber's viewpoint 16706
distributed virtual simul., networking 25019
DQDB MAN service integrat. and impact on ATM interworking perform. 41847
DQDB networks perform., gateway location effect 8984
DQDB/B-ISDN gateway, UPC mechanisms comparison 33503
e-mail gateway translation 8866
EINet, secure, open network for electronic commerce on Internet 8938
fibre channel technol., interoperable high speed connections 41793
file transfer protocol mgt. scheme 41839
FODATEC, open document manipulation syst. 8957
geographical and provider-rooted Internet addressing 41780
gigabit class network research in US 41782
gigabit router archits. comparison 24842
Great Lakes states, advanced telecomms. and inform. services 8792
Hawaii, national and internat. network services for dist. education 3197
hierarchical inter-domain routing, on-demand TOS/policy resoln. 2958
high perform. transparent bridge modular archit. 41404
high performance networking, conf., Grenoble, France (1994) 5496
IEEE 802.6 based PCN, distributed paths migration 9363
InfoNet, networking infrastructure of InfoPad 33528
InfoPad project, design of wireless portable systs. 33529
inform. and commun. technol., impact on business organization 8796
inform. highway, low-cost access, ADSL technol. 16914
information superhighway technologies, conf., San Francisco, USA, March 1995 28233
InfoSleuth, networked exploitation of inform., semantic agents 33526
integrated voice/data commun., internetworking archit. 9007
intell. hubs archits. 33483

internetworking continued
interface, reliab. and performability anal., fault models *(Chinese)* 33427
Internet, today and tomorrow *(Japanese)* 8883
Internet, world inform. bazaar 8971
Internet access, MS-DOS/WINDOWS client software 3182
Internet expansion, small-channel satellite network 3526
Internet Mobile Host Protocol, IMHP 41506
IP multigigabit router design 8901
IP over ATM, cell traffic efficiency 25067
LAN-based office, enterprise archit. 33519
LANs, internetworking and multimedia, present and future *(Japanese)* 8881
local computer networks, conf., Minneapolis, USA (1994) 20231
MITRE security perimeter 8937
mobile wireless access to the WWW, dyn. documents 33570
Mobisaic IS for mobile wireless computing environ. 33571
Moscow-Maribor satellite link for internetworking 41832
MosquitoNet, commun. environ. switching 33557
MPPS, multiparty presentation service 8958
multicast-specific security threats, counter-measures 24961
MultiG research programme, distributed multimedia appls. on gigabit networks 42040
multimedia commun. in real-time, workstation support 9062
multimedia fax-MIME gateway for Internet 8943
multimedia internetworking, ATM connection and traffic mgt. 25123
multiprotocol transport networking, internetworking soln. 3219
MultiSIX, multi-vendor network interoperability 24946
Nat. Information Infrastructure and computer networks in Japan *(Japanese)* 3185
Nat. Information Infrastructure project *(Japanese)* 3184
Netfind, white pages tool for Internet, inform. gathering archit. appl. 3153
network control technol., user appls. *(German)* 43692
NewsAlert prototype, competitive intell., software robots and Internet 17561
North American inform. exchange network 3066
North American public broadband network service evol. 41651
NSFNET routing arbiter archit. 24846
open archit. for digital commun. systs. 8945
OPENet, collaborative learning environ. for education and training 3244
pan-European services via interconnection of IN-platforms *(Italian, English)* 41961
power syst. EMS multiserver/multiclient gateway syst. 43637
protocol half-converters derivation, formal approach 16477
public E-mail, interoperability 33414
public network 16599
RACE II project Combine, broadband network interworking 33353
RACE II project PREPARE, mgt. of heterog. broadband testbed 33386
reservation protocols for internetworks, comparison of ST-II and RSVP 8767
RFC 1327 mapping rules and INFNet gateway syst., distrib. via Internet DNS 41837
routing among different nodes, servers break down without losing jobs 41829
rural datafication, multiple-network collaboration, extend Internet access, underserved communities 25010
SDH sig. transfer method based on ATM techs. 2886
secure Email gateway, RCAS external interface 8936
security of network and distributed systems conf., San Diego, USA (1995) 11601
simple Internet protocol plus (SIPP) *(Japanese)* 2952
SNIF, network inform. flow surveying tool 24967
SNMP-based systs. mgt., fault detect./isolation 24903
software technol. *(Japanese)* 3213
SONET interconnection, opt. drop interface 25492
SONNET gateways and payload mgt. 34022
SS7 congestion control options, mass call-in situations 24899
ST-II connection-oriented internetworking protocol for Heidelberg Transport System 2901
student career counselling via HTML and MOSAIC on Internet 25014
TCP end-to-end perform. improvement, mobile internetworks 33285
TCP Vegas, techs. for congestion detect. and avoidance 2941
TCP/IP, open networking 24806
TCP/IP and SNA, interoperability issues 8744
telecom. network interconnection, impact on network integrity 41695
telecomms., managed appl. services 16600
TIP, transport and internetworking package for ATM 16483
transit network trends 41557
trends/developments 33430
trusted, untrusted network connectivity 16672
Tunisian national research and technol. network for technol. transfer 41779
universal personal communications, conf., San Diego, USA (1994) 20233
USA and Japan, inform. infrastructure develop. 8887
USA national inform. infrastructure initiative, public vs. private objectives 8793
W4, Wireless World Wide Web, PDA based 33569
WAIS, distributed inform. service for Internet access 16759
wavelength switching in opt. networks, acousto-opt. switches 17229
wireless data services, archit. alternatives 25135
World Wide Web authoring tool improvements for Unix platform 41865
World Wide Web browsers reviewed 41857
World Wide Web struct. authoring environ., Grif 41866
World-Wide Web server, Digital Equipment Corp. 8896
worldwide IN dyn. routing, models and results for evol. planning 33640
X.500, heterog. implement. 25020
X.500 directory, schema publishing 25021

interoperability *see open systems*

interpenetrating networks *see polymer blends*

interplanetary magnetic fields
Ulysses space mission, helios., 3 dimens. modelling 43420

interpolation
see also function approximation
2-D FIR filters, freq. sampling, Hermite interpolation 752
2D FIR-median hybrid interpolation filter design for HDTV *(Korean)* 42601
2D interpolation scheme for image zooming, FFT 8573
2D radar image reconstruction, diffr. tomography 9636
2D sigs., data-depend. sampling 33123
3D EM cavity anal. using high order edge elements, microwave ovens 37964
3D inhomog. media local earthquakes, mechanisms determ. 43498
3D surface rendering, stereo image disparity map smoothing algm. 33025
adaptive algms. for time delay estim./IIR filtering 40830
adaptive diversity reception, prediction, smoothing, interpolation 25447
adaptive filter, multirate proc., convergence speed improvement 8411

interpolation continued
- ADC, nonlin. and quantisation distortion reduction, direct interpolation 21387
- aircraft altitude profile estim., natural spline fn. 18710
- archived recordings, impulsive noise removal, two-channel approach 34293
- articulatory speech synthesis, fractional delay waveguide filters 32349
- ATM call admission neural control 41450
- atrial elec. activity interpolation 43306
- autostereoscopic 3D image, data compression 32814
- B-spline surface interpolation, parallel implement. 20583
- Backus-Gilbert inversion method/sampled DP 40819
- bandpass sigs. reconstruction 32645
- Bangla speech over telephone channel, on-off charact. anal. 40756
- bathymetry data postprocessing/corrections, sidescan sonar syst. 10560
- binary images, interpolation-based bintrees 41185
- block-based image coding, inform. loss recovery, fuzzy logic approach 32873
- Bode's integrals, imaginary part of antenna's admittance calc. 31936
- bolometric transm.-power interpolator 9909
- C^2 interpolating curve, local min. conditions *(Japanese)* 5770
- candidate target detect., likelihood interpolation for peak detect. 15879
- Caratheodory fns., convergence of rational interpolation approximant 37308
- cardiac NMR imaging, k-Space block regional interpolation scheme 35014
- causal lin. systs., transient anal., microwave freqs. 21082
- cct. simulators, Fourier anal. approach 21076
- CLEAN algm. for microwave images eval., NDT appl. 42901
- CMOS 12 bit 1 MHz ACD, 1 mW power consumption 29320
- CMOS A/D converters, folding and/or interpolating techs. 696
- CMOS digital DSB-to-SSB converter, FIR Hilbert transform filter chip 12655
- COBRA, computer code for backscatt. anal. of complex objs. 3596
- constraint based audio interpolators 16003
- continuous level probab. fn. eval., sig. proc. method *(Japanese)* 2458
- contour interpolation, morph., image space algm. 16351
- conversational speech, on-off patterns generation 2402
- conversational speech, on-off patterns modelling 8211
- curvature anal. and visualization for fns. defined on Euclidean spaces, surfaces 11975
- dampled sinusoidal signals anal. freq.-domain 24235
- data compression, adaptive image sampling/interpolation 16387
- data compression, fuzzy, plane curves; neural nets 24355
- DCT, type I in interpolation 11971
- defn. improvement techs. for color TV receiver 9707
- deinterlacing, motion-compensation method *(Japanese)* 32997
- digital demodulators using fixed point FIR interpolators, BER perform. 32037
- digital Doppler companding, canonical decomp. algm. 40883
- digital images, enlargement, reduction, min. loss of inform. 32872
- digital modems, sym. synchronizer perform. 8457
- digital radio, spectrum phase interpolation, detect. tech. 9381
- digital receivers, sampling rate, analog prefiltering, stats. 15965
- discrete binomial splines 37315
- discrete convolution backprojection algm. in computerized tomography 26354
- discrete sigs., multichannel spline interpolation 8265
- disk and stripe capacitances 23503
- distant sample prediction, speech coders 8205
- DOA estim., MODE, interpolated arrays 24216
- double field rate scanning, interpolation methods for TV picture quality improvement 8651
- EDTV-II telecine image conversion and signalling *(Japanese)* 17569
- electronic-zooming DSP syst. for 1M-pixel-CCD camera 9713
- EM field calcs., edge elements-based *(Chinese)* 7888
- EM modelling in arbitrary geom., PIC methods on MIMD computers 31726
- EM scatt. and radiation, moment matrix spatial interpolation 23845
- epicardial activation map form., interpolation methods comparison 18561
- error bounds for Lagrange interpolation 11977
- faulted SRM drives modelling, evol. ANN 44448
- field rate conversion in HDTV, interpolation methods 9729
- filter banks, fast algms. 32769
- finite elements, nonconforming, shape fn. space 37371
- finite sig. Fourier spectra interpolation, num. simul. 40767
- FIR decimators and interpolators, systolic implement. 6226
- FIR decimators and interpolators, systolic implement. 751
- formal lin. of nonlin. systs., Chebyshev interpolation, nonlin. filter appl. 11965
- fractal fns., splines intertwining multiresolution anal. and wavelets 32514
- fully digital demodulator, combined interpolator filter for timing recovery 15707
- generalized and partial FFT 284
- generalized Galerkin tech., convection-diffusion eqn. 279
- generic cct. response interpolation for robust design, freq. domain simul. 37585
- geophys. satellite scenes, resampling 41277
- Gregory formulae, modified, based on mixed interpolation 11958
- harmonics ident. and power meas. in power systs. 4738
- heart, human, dyn. electrophysiological data visualization, 3D model 26439
- HEMT gate mixer, large sig. model for anal./design 6320
- high-speed cubic convolution, charact. of interpolation fn. *(Japanese)* 8254
- holographic 3D image, data compression *(Japanese)* 16130
- hp-extension of Nedelec's curl-conforming elements, error estim. 15233
- hybrid double-sided lin. pulse motor, static thrust calc. *(Korean)* 27757
- hydro-power sales data fuzzy interpolation 4865
- identification of processes with output drift, freq.-domain 25700
- image coding, interpolative VQ by dominant points 33090
- image recovery of missing segments/lines 2711
- image restoration, SNR estim. for Wiener filter 16324
- IQTV multipurpose scanning rate converter IC 25664
- IR seeker imaging simul. real-time model based on fractal theory 18989
- iterated fn. syst. model based data detect. 8382
- land mobile commun., DFE, interpolation *(Japanese)* 17138
- land surface topography, SAR rem. sens., sig. simul. 18782
- least-sq. lattice interpolation filters 32754
- least-sq. lattice interpolation filters 12654
- lin., first order finite element pot. solns. 40196
- lin. binary codes, interpolation curve, decoding algm. 40639
- low-bit-rate speech coding, 2D transform 32252
- max. searching method, combined global priority strategy *(Japanese)* 37287
- med. image lossless compression, multiresolution multiplicative autoregressive models 2848
- microwave oven design, EM wave anal. methods *(Japanese)* 44619

interpolation continued
- MMSE design of generalized interpolators polyphase components 32729
- mobile radio, freq.-selective Rayleigh fading channels 17134
- morph. wavelet transform 28568
- motion estim. method, 3D steerable filter 24565
- MPEG decoder, high-perform. cross-platform 16089
- multi-view 3-D image, interpolation/data compression *(Japanese)* 16127
- multi-view image set, data compression/interpolation 2647
- multidimensional sigs., optimum approx., quantized sample values 24347
- multimedia appls., high quality image compression 41970
- multiple secrets, secure transm. in broadcasting networks 40697
- multiscale difference eqn. sig. modeling/anal. techs. 32784
- multivariate polynomial factorization, modular interpolation algm. 20551
- MUSE sig. decoding, integrated image DP *(Japanese)* 34257
- NDR-SPICE cct. simul. of reson. tunneling devices 22336
- noisy curve shape restoration 32828
- non-conventional printing proc., color designing and simul. 24516
- non-lin. prototype waveform interpolation for voiced speech encoding 40749
- noniterative/fast iter. methods for interpolation/extrapolation 2503
- nonlin. mag. fields, hp-version adaptive anal., quadrilaterals 40198
- nonlin. param. estimators approx. 25575
- nonmechanical microscanning, opt. space-fed phased arrays 34576
- nonperiodic BVP, polynomial time-marching 5784
- nonuniform bandpass sampling generalization 40811
- nonuniform division multirate FIR filter banks, design 24344
- nonuniform sparse meas., forced structural responses interpolation 18115
- ocean thermal anal. syst., OTIS Version 4.0, FNMOC 26753
- one-sided/two-sided lin. prediction 24218
- opt. receivers, aperture averaging of opt. scintillations 34057
- Optical Communications Demonstrator, control proc. syst. archit. 17314
- passive microstrip elements, full-wave space-domain moment matrix 23836
- phase-only multidimensional spatio-temporal anal. for moving sources 40995
- piecewise smooth plane curves *(Japanese)* 246
- polygonal slices, piecewise-lin. interpolation 20584
- polynomial interpolation, filter digitization 40820
- power equipt. control syst. design, ES-based interpolation methods 19494
- power syst. daily load forecast, multilayer neural net-based *(Japanese)* 10708
- power syst. half-hour data-based load forecasting method 27095
- power syst. load flow feasibility region ident., computer-based 26863
- power syst. voltage stabil./collapse point, load flow soln. *(English)* 26847
- progressive perceptually transparent coder for high quality images 24498
- projections onto convex sets, damaged block transform coded images 33131
- quadratic B-spline interpolators, comparison 20588
- quadrature detect., interpolation accuracy *(Japanese)* 15936
- quadrature formulas, symmetric interpolatory, efficiency measures 20615
- queueing problems modelled by Toeplitz matrices 37225
- radial basis fn. network, speech spectrum conversion 40726
- rational orthogonal sig. approx., complex interpolation 40998
- RCS of large objs., fast far-field approx. 42489
- recursive nonstationary MAP displacement vector field estim. algm. 33127
- reduced complexity ESPRIT method, generalization, antenna array 40911
- reproducing kernel of Sobolev space, interpolation method *(Japanese)* 11959
- reversible subband coding of images *(Japanese)* 33112
- sampling point localization for interpolative VQ of images 8588
- sampling rate conversion, fractional-sample delay 32734
- SAR, nonuniform pulse repetition interval 34133
- scan conversion methods, subjective assess. 42582
- scene params. estimating method, color histograms 2601
- semi-automatic road extraction by dyn. prog. 41254
- shaped reflector surfaces interpolation by cubic pseudosplines 40478
- shielded microstrip lines, arbitrary metal. cross sect., anal. 2290
- short-time FT based on nonuniform filter bank 37374
- SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
- sigma-delta DAC, interpolator archit. 21380
- simultaneous high-speed measuring syst. of multiple points 3883
- single-chip CCD colour video camera vert. false colour sig. reduction *(Japanese)* 17588
- slot array design and anal. 31965
- smart sens. interface, data conversion and prog. calib. 34493
- smooth nonseparable N-dimens. scaling fns. 32506
- solid finite elements devel. 280
- sparse polynomial interpolation in nonstandard bases 37314
- sparse polynomials, randomized interpolation and approx. 37313
- spatial synthesis, head-related transfer fns. interpolation 15993
- spectral interpolation anal., frame energy depend. weighting 32325
- speech high-quality harmonic coding, low bit rates 32254
- speech spectrum transform. by speaker interpolation 32320
- sphere joint PM stepping motor controller, robot appls. *(Chinese)* 11219
- Spirit III radiometer, scanned image constr. via optimal interpolation 24511
- sq.-root, reciprocal, sine/cosine, arctangent cell, design 32656
- SRM drives, dyn. simul., saturation/driver characts. 11362
- stable systs. parametrization from impulse response data 40979
- still-image region-oriented orthogonal transform coding *(Japanese)* 16374
- stripline CAD for VLSI chip/module interconnections, design database 28446
- subpixel edge localization/interpolation of still images 32875
- surface interpolation, fast, using multi-resoln. wavelet transform 28655
- surface segmentation, multilayer, energy minimization 16183
- Talbot effect, multichannel image texture segmentation 32837
- teleconferencing variable resoln. image compression 33615
- thin plate splines, discontinuities and fast algms. for their computation 244
- time envelope vocoder, LP based coding 25162
- time envelope vocoder, natural sounding speech coding algm. 40748
- time-freq. representations, adaptive method 8431
- transient signals meas. Wigner-Ville distribution appl 24240
- two-point BVP soln. of deficient quartic splines 37342
- VC1 interpolant constr., triangles via edge deletion 11976
- VCO, interpolating ring type, V/f lin. compensation 581
- vector ANA, TRL calib. method 42680
- very high resolution network analyser design 25746
- video-rate 10-b triple-stage Bi-CMOS A/D converter 12591
- VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938
- voiced speech synthesis, two-phase unwrapping criteria 32207
- waveguide discontinuities, vector FEM, mixed-interpolation-type triangular-prism element 15566
- worst-case IC optim. approach, cct. perform. model scheme 38979

interpolation continued
X-ray tomographic reconstructions, direct Fourier method, accurate sinogram simul. 26314
XFACT, diffusion furnace anal. and charactn. tool 22557
$LiNbO_3(LiTaO_3)$ SAW devices, electrode periodic syst., Green's fn. anal. 30631
interpreters (program) *see program interpreters*
interpretive programs *see program interpreters*
interrupters
see also vacuum interrupters
inductive energy storage pulsed power plasma opening switch expts. 36422
power syst. overload current interrupter verification studies *(Russian)* 36395
switchgear 44232
interrupters, circuit *see circuit breakers*
interrupts
IEEE P1149.5 MTM-Bus, backplane test/init. interface 9807
ROM based interrupt routines, C and child procs. 651
intersatellite links *see satellite links*
interstitials
see also Cottrell atmospheres
giant far action lateral phenom., ion/laser beam IC fab., reliab. 20488
p-MOSFETs, trench-isolated buried-channel, narrow channel effect 6769
GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
GaAs:Er, MBE grown, struct. anal. 37440
GaAs:Si, planar doped, autocompensation 22111
n-GaAs/AlGaAs:Zn/AlGaAs:Se struct., Zn diffusion mechanism 21955
$Gd_2Fe_{17}H_x$ syst., high field magnetis. 14156
(Hg,Cd)Te:In, diffusion and elec. activity 6621
$Ho_2Fe_{14}BH_x$, short-range mag. after-effect 39157
$In_{0.5}Ga_{0.5}P_{0.99}As_{0.01}$ epilayers, doped and undoped, deep level studies 29852
InP/InGaAs HBT, MOCVD, Zn diffusion, growth temp. depend. 22385
$Nd_2Fe_{14}B$, interstitially-modified PM 30672
$Nd_2Fe_{14}BH_x$, short-range mag. after-effect 39157
PbSe:Bi films, amphoteric doping behavior 22146
R_2Fe_{17} (R=rare earth), interstitial insertion, vol. effects, mag. props. 39144
$RFe_{10.5}Mo_{1.5}C_x$ series (R=rare earth), synthesis, mag. props. 30669
$RFe_{11.35}Nb_{0.65}N_y$, pure and nitrided, (R=Y,Sm,Gd,Tb,Dy,Ho,Er,Lu), struct. and mag. props. 22688
$R_2Fe_{14}ZH_x$ (Z=B,C;R=rare earth), spin reorientation transit., hydrogenation effects 39156
Si disloc.-free crysts., electrophysical/microdefects correl. 21870
Si, oxid., VLSI gate dielec. appls. 30086
Si, thermal oxid. mech., form. and diffusion of volatile SiO mols. 6642
Si wafers, heat treated, microdefect depth distrib. due to nonequilib. self-interstitials 38474
Si:As RTA/furnace annealing, heating rate effects on defect distrib. 22100
Si:B, CZ grown, O/C effects on thermal donor form. 29827
Si:B, channelling implants., electronic stopping/damage accumulation model 38515
Si:B, implant. and transient B diffusion, interstitials 1228
Si:B micromachined cantilevers, ageing, doping effects 22624
Si:B,C, boron elec. activation during RTA, heating rate effects 22101
Si:B,F(Ne), boron diffusion, ion implant. effects, proc. modeling params. 38505
Si:Er, opt. act. centres, local struct., photolumin. obs. 30045
Si:transition-metal silicides, CZ grown, precip. 5803
Si/Ni, solid state react., point defect creation 13224
Si/SiO_2, SIMOX substrs., Si ion implant. for secondary defect reduction 30043
$Si/SiO_2/Si$, high temp. annealed, near interface oxide degrad. 38477
SiC random alloy epitaxy on Si by RTCVD, SiH_4 and C_3H_8 20848
Sm-Fe-Ga-C, melt-spun alloys, high coercivity 39204
Sm_2Fe_{17}, high field magnetis. 7198
$Sm_2Fe_{17}C_x$, high field magnetis. 7198
$Sm_2Fe_{17}C_xH_{5-x}$, high field magnetis. 7198
$Sm_2Fe_{17}C_xN_y$, synthesis and mag. props. 1573
$Sm_2Fe_{17}N_x$ with discontinuous nitrogen profiles, mag. props. 39203
$Sm_{1-x}Tb_x(Fe_{0.2}Co_{0.8})_2$, hydrogen-induced mag. anisotropy, cryst. lattice distortions 39164
W sputtered thin films, x-ray masks, intragranular microstruct./stress 6700
W/WN/Si, nitride barriers for thermally stable metallization, TEM studies 38704
ZnO varistors, degradation, dielec. relax. 12834
$ZnO:Al_2O_3(AgO)$ varistors, DLTS 6813
ZnSe single crysts., photolum. meas. *(Japanese)* 39560
$ZrSe_2$ single crysts., selenium atmos. annealing, elec. props. 38276
intersymbol interference
256-QAM syst. in presence of phase jitter and CCI 24009
adaptive beamformers based on cyclostationary sig. props. 8353
adaptive reduced-state channel equalizer, T-algm. 9302
analog coding/decoding, data transm., fading channels 8169
anchored const. modulus algm. for blind equalization 16410
bandlimited quaternary phase FSK, error perform. 9276
BER, influence of multipath propag. *(German)* 23635
blind channel estim./equalization, partial-response input sigs. 33162
blind equalization, higher order cumulants/neural networks 2862
blind equalization, recursive Bayesian techs. 15943
blind equalization based on Nakagami fading index, cost fn. 3430
blind spatio-temporal equalizer for radio-mobile channel 33937
block demodulation, overview 24019
bloom effect on magneto-optic read channel modeling 14233
broadband underwater acoustic commun. sigs., spatial proc. 8319
carrier freq. error estim. of $\pi/4$ DQPSK transmitter sig. 8096
CDMA joint detect. mobile radio systs., interfer. suppression 33887
CDMA lin. fractional spaced equalisation interf. cancellation 8740
CDMA mobile radio, joint detect./coherent receiver antenna diversity 25364
CDMA mobile radio systs., joint detect., diversity 25343
CDMA mobile radio systs., multi-user detect. equalisers 17041
CDMA mobile radio systs., multi-user detect. equalizers 9237
combined lin.-Viterbi equalizers, comparison and design 9175
DAB single freq. network project 17536
deconvolution, Bayesian decision feedback techs. 15892
decorrelation algm. for blind DFE, lattice structs. 24264
DFE mean recovery time tight bounds 41382
digital mag. recording systs., adaptive nonlin. DFE 40854
digital satellite channels, adaptive DFE, multilayer neural networks 25453
digital seq. reduced-state seq. estim. 40535
digital sigs. with ISI, demodulation 40571
intersymbol interference continued
direct detect. opt. systs., LMS filters, ISI reduction 9607
direct detect. opt. systs., zero-forcing elec. filters 41099
envelope delay test time meas. methods, modem design 42085
error probab. during sig. reception, deviation from Gaussian law 32576
fading channels, blind MLSE 40542
FH/CPFSK syst. with partial-band jamming, perform. anal. *(Korean)* 17005
fractionally-spaced equalization, lattice struct. 781
freq. non-selective channels seq. estim. 8384
generalised differential coherent detect., equalisation 15459
high speed adaptive equalizers, complexity reduction 33768
high-dens. mag. recording channels, nonlin. compensation 7102
hybrid DS/FH SS syst. for mobile radio channel 3483
ideal zero-forcing DFE syst. capacity penalty 41383
indoor radio, trellis-coded CPFSK, adaptive soft-decision feedback equalization 9357
indoor radio channel, neural-based packet equalization 9307
intell. vehicle/highway syst., packet-switched commun. 3460
IQ filter struct. for use in adaptive equalisation, LTE/DFE, digital commun. 3313
joint blind equalization/phase recovery scheme for data commun. 3431
L-PPM modulation, non-directed indoor IR channels, perform. eval. 17244
lattice seq. estimator, perform. 42169
lin.-phased IIR Nyquist filters, design 12646
MLSE, dyn. threshold detect. 40881
MLSE receivers, trellis codes for multipath fading ISI channels 8447
MMSE seqs. for channel estim. 8083
mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
mobile radio commun., interf. canceling equalizer 9383
mobile radio syst. digital modulation scheme selection 33778
modified ISI canceller for digital microwave radio 9168
MSK transm. over dispersive radio channel, error mechanisms 17120
multipath channel Viterbi algm. multitrellis decomp. 40558
multipath compensation for underwater acoustic commun. 9614
multipath fading ISI channel TCM detect. by sequential deq. estim. 40548
multiple-head digital mag. recording, multichannel sig. proc. 8333
nonlin. equalization, further decision prediction *(Polish)* 40794
nonlin. ISI channels, improved detector 7195
nonlin. ISI channels, TCM, decoding 8145
nonlin. phase precoding for pers. commun. 2385
opt. CDMA commun. syst. M-ary signalling 34058
opt. fiber channels, sliding-block line codes, dispersion limitations 40578
opt. receivers using APD with dead space, BER 17264
opt. TDM switching networks, interchannel cross talk, noise degrad. 9147
optimal reception, error probab. in channel, variable param. under ISI 32018
optimized signaling waveforms, ISI/timing jitter effects reduction 15968
PCM voice band channel capacity 40555
pilot symbol asisted modulation perform. and delay spread sensitivity 32031
PPM, seq. detect. and equalization 15710
PPM sigs., airborne/underwater opt. commun., optimum detectors 41100
QPSK TDMA digital radio link, analog FM interf. 33841
quantum limited OOK, opt. amplif., perform. bounds/cutoff rates 40564
quantum limited OOK, opt. amplif., perform./cutoff rates 40546
radio channel transm. with multichannel modulation 32034
ref. sig. generator echo cancellation, ISI receiving schemes 32725
residual and suppressed carrier systs., bandwidth, unwanted emission 32029
RF power amp., digital predistortion lin., reconstruction filters 25231
RLS bilinear filter for channel equalization 32728
rural communication in multi-path channels, spread spectrum appl. 9189
Schneider write equalizers for (1,k) peak detect. channel 7137
second-/higher order stats., adaptive blind equalization 15890
shallow water commun. syst. for autonomous underwater vehicle 9663
sparse systs., complexity-constrained LS estim. 42532
subsea acoustic rem. commun., adaptive receiving beamformer 9613
suppression by equalizers and lin. combiners 15519
sym.-by-sym. detector for lin. dispersive AWGN channels 16017
systematic TCM in coded modulation 8093
TCM, probab. dens. of ISI 15713
TCM for equalized multipath fading ISI channels, perform. 25340
TCM perform. for equalised ISI channel 32084
TCM sigs., tunable complexity RSSE decoding 40673
TDMA digital cellular commun., adaptive channel equalization 42267
TDMA digital mobile radio, adaptive diversity receivers 9306
terrestrial digital radio links, reduced state seq. estim. 9190
trellis coded multi-amplit./-PM, noncoherent detect. 24281
two-track codes for mag. recording channels 39185
underwater acoustic data commun. link adaptive equaliser 9612
underwater high data rate transm. equalizer 9611
wireless commun., filter struct. for equalization and diversity combining 33875
wireless multimedia commun., adaptive rate multiple access 41991
intersystem crossing *see nonradiative transitions*
intramolecular vibrations *see vibrational modes; vibrational states*
intrinsic magnetisation *see spontaneous magnetisation*
intrusion detectors *see safety systems*
intuitionistic logic *see formal logic*
invariance
2D image partioning/recog., computational aspects 32922
3D vision, model-based invariants 2669
adaptive pattern recogn. with rot., scale, and shift invariance 41237
bipolar winner-take-all model with a threshold, real-time pattern recogn. syst. 24428
composite harmonic filters, scale-, projection-, and shift-invariant pattern recogn. 24490
curve matching, geometric hashing 2671
discrete Gabor expansion, general theory 32516
edge-moment-based 3D obj. recogn. 2716
elongated/contracted images recog., regular moments 33067
flat surface radiation and scatt., measured eqn. of invariance 23604
meas. eqn. of invariance study 20633
measured eqn. of invariance, computational savings 23605
measured eqn. of invariance, modif. for FEM 23552
neural network classifier, invariance property and training 32659
pattern recogn., invariant, fast dyn. link matching algm. 8594
π-feasible seqs. of graphical invariants 28615
projective reconstruction from uncalibrated images 16291
ridges for image anal. 16239

invariance continued
  semi-local projective and affine invariants 2670
  shape recogn. via semi-differential invariants 24573
  static anal. using measured eqn. of invariance 23751
  Unitary ESPRIT, rel., relational invariance struct. 40950

inventory control *see stock control*

inverse Nyquist diagrams *see Nyquist diagrams*

inverse photoemission spectra
  max. entropy data anal., Bayesian stats. 24323

inverse problems
  1D medium, approx. profile inversion, appl . 40294
  1D problems in inverse scatt., iter. algm. 23617
  2D axisymm. inhomog. medium inversion, distorted Born iterative method 23567
  2D dielec. objs., EM imaging, expt. study 23577
  2D elec. cond., two-step lin. inversion 40280
  2D EM inverse scatt. solns., sine-basis moment method 15402
  2D fractal sets, inverse/approx. problem 2730
  2D/3D pass. imagings of EM radiation sources 23497
  acoustic holography, wavelet transform *(French)* 15166
  acoustothermography, spatial inverse problem 10584
  array proc., polygons reconstruction from moments 32552
  conducting cylinder, microwave imaging, Newton algm. *(Korean)* 25965
  crit. sampled filter banks/lin. boundary conditions 41174
  cylindrical objs. dielec. meas. in rect. waveguide 18030
  deconvolution of marine survey data, adaptive algm. 18811
  defect params. determ., thermal methods, multidimensional approx. 12231
  dielectric body permitt. reconstr., current modelling and Tikhonov regularisation 23565
  differential params. meas. of charged particle beams 4078
  ECG, inversion techs. perform. and patient anatomy 43293
  elec. impedance tomography, resistor network model 3951
  EM inverse problem solns., Hopfield neural networks 15214
  EMC problems, inverse-forward anal. 23738
  entropy-based approxs. for moment problems, convergence 242
  epicortical electrocorticogram, restoration from spatially sampled EEG 43295
  FFT algms. for nonequispaced data 20641
  generalized inverses in sig. proc./rem. sens. 8344
  genetic algms. for min. source reconstructions 8303
  geophys. induced polariz. prospecting, 3 inversion methods 35282
  geophys. resoln. and covariance estim. for large matrix inversions 43497
  H_z wave inverse scatt. soln. using subscatterer T-matrices 20599
  His-bundle sig., timing meas. improvement, bioelec. model 10242
  homogeneous dielec. cylinder inverse scatt. 23568
  ice sheet radar rem. sens., multilayer lossy dielec. 43521
  IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
  image restoration, boundary distortion reduction 32823
  inhomogeneous lossy medium nonlin. diff. eqn. and inverse scatt. solns. 23603
  ionos. radio tomography, max. entropy 43479
  ISAR image and RCS proc. for target support contamination removal 25547
  kinoform calc. by adaptive iter. method 2133
  layered metals with continuous cond. profiles, eddy current testing 37553
  layered nonuniform dielec., radiowave monitoring, inverse problem soln. 28907
  leukemia detect./monitoring, EM wave imaging 10215
  lin. antenna, symbolic approach, inverse problems in moment method 2312
  low-complexity bit-serial (inverse) DCT archit. 37790
  mag.-noise struct. anal., inverse problem model constr. 28920
  magnetostatic field inverse problem, sampled pattern matching *(Japanese)* 31722
  marine seismic profiling, F90 & PVM synthetic seismograms 18813
  metal coating elec. cond./thickness, eddy current data rapid inversion 42890
  metallic enclosure model source, EM emission estim. by inverse-forward anal. 40374
  microwave EM imaging, convergent iter. algm. 42917
  microwave image proc., distorted Born ierative method 26291
  microwave imaging, num. inverse-scatt. solns. 32989
  microwave imaging, Tikhonov regularisation param. 3967
  microwave imaging in spatial domain for canonical dielec. objs. 40313
  MM-wave radar backscatt. from smoke clouds, inversion 42477
  neuromagnetic source localisation, SQUID syst. and MRI 35061
  noniterative complex-valued obj. reconstruction from two intens. meas. 2707
  nonlin. prog., quadratic fns. 11936
  nonlin. syst. ident., nonparametric deconvolution 40874
  objs. near ocean surface, pulse scatt. and target ident. 17477
  optimum sounding sig. for time-delay measuring syst. 16063
  overlapping generations models, inverse problem soln. 28378
  parallax field, intens.-based estim., smoothness constraint 33124
  param. estimator bias, finite-difference regularization operators 43491
  penetrable object inverse scatt., conjugate gradient appl. 23566
  periodic waveguide gratings design, asymmetric discrete-time anal. 22897
  photogrammetry inverse problem, soln. 41279
  planar opt. waveguide design, inverse scatt. theory 1701
  polarimetric vector diffr. tomography 40274
  power syst. small sig. stabil. anal., computer programs *(Japanese)* 26875
  pulse delay/area, simul. determ., TOF method 10142
  radially stratified cylinder probing, inverse problem, iter. scheme 31788
  railgun pulsed power superspeed contacts, inverse problem calcs. 36311
  random-sig.-acoustic source characts. determ. by field meas. 16048
  resist., inverse fn., neural net approx. 35293
  rough surface, inverse scatt., Gaussian beam illum. 7959
  scatt., holographic measuring techs. 7844
  seismic inversion, energy source and reflectivity estim. 43490
  sens.-motor fusion, hierarchical, neural nets 40790
  shape representation, evol. algms. 2795
  sig. recovery in multiresolution spaces, Backus-Gilbert inversion method 32733
  single-phase inductor alternators, electromech. proc. eqns. *(Russian)* 10970
  sonar matched field proc. benchmark problems 17464
  sound modelling, chaos 16022
  SQUID mag. field sens. for med. appls. *(German)* 18538
  step-freq. radar imaging for NDE/GPR appls. 42904
  stratified media, inverse scatt. soln. by massively parallel computers 23570
  subsurface struct., SAW determ. 5936
  surface profile reconstruction, near-field data 41297
  target sensing by induced surface current 25567
  time-domain inverse scatt., local shape fn. method 23569

inverse problems continued
  time-domain scatt. from metal or dielec. (coated) bodies of revolution 23558
  topol. inversion, conducting bodies imaging appl. 40305
  travelling-wave grating filter design, inverse scatt. 31067
  traveltime tomography, adaptive-grid formalism 43499
  two-phase flows, LDA, integral effects 4015
  ultra-wideband or short-pulse radar, time-domain imaging 42487
  variable speed drive inverse nonlin. speed controller design 11349
  well logging by induction method, oil, inversion algms. 35281

inverse Radon transforms *see Radon transforms*

inverse synthetic aperture radar *see synthetic aperture radar*

inversion layers
  2D MOSFET simul., local NMOS mobility model, screened minority impurity scatt. 1412
  abrupt p-n heterojns. with inversion layers, capacit. 38314
  CMOS transistors in freeze-out regime, quasi-static behavior 13673
  CMOSFETs, channel thermal noise, 1D charge sheet model 1387
  emitter thyristor, power device 30281
  MOS capacitors, Fowler-Nordheim tunnelling current, strong inversion, HF capacitance 38438
  MOS-controllable thyristor, inversion layer emitter 1371
  nMOS/SOI transistors, ultrathin double-gate, inversion model 13691
  MOSFET carrier mobility model, phys.-based carrier screening effects 30360
  MOSFET electron mobility in both weak and strong inversion regimes 22440
  MOSFET inversion layer, carrier mobility model, wide temp. range and different channel doping *(Chinese)* 6743
  MOSFETs, current flucts., device scaling 1386
  MOSFETs, electron mobility, bulk-impurity/interface-charge 22424
  p inverted buried channel heterostruct. FET, complementary electronics, AC characterisation 38915
  poly(3-methyl thiophene)/Al Schottky barriers 13212
  saturation vel. and overshoot of inversion layer carriers 22445
  short-channel MOSFETs, improved quasi 2D model 38902
  SOI MOSFET, extremely thin film, inversion layer to accumulation layer tunneling characts. 22453
  SOI ultrathin struct., self-consistent calcs. 6587
  thin film SOI FET, anal. model and temp. depend. 38906
  thin insulator p-type MOS structs., inversion charge anal. 38444
  $InAs_{0.3}Sb_{0.7}$, MOCVD on GaAs, carrier transport 6529
  InP/Al_2O_3 MIS capacitor, opt. control 13243
  Si MOSFET, quasi-1D and Coulomb blockade devices 1401
  Si MOSFETs, inversion layer mobility, substr. impurity conc.. 6760
  Si MOSFETs, inversion layer mobility, surface orient. 6761
  Si deep sub-μm MOSFETs under cryogenic conditions, quantum interf. flucts. 1389
  Si, p-channel MOSFET, random telegraph sigs., capture kinetics 22457
  Si quantum dot, single electrons, thermally enhanced co-tunneling 38355
  $Si/Si_{1-x}Ge_x/Si$ p-MOSFET, charge distrib. modelling 22471
  $Si-SiO_2$ MOS transistor, leakage current and interface state 38891
  β-SiC(111)/TiC(111) MOS capacitor, charactn. 1177
  SiGe PMOS, hole dens., inversion charge modeling 13760

invertors
  see also PWM invertors
  0.25-μm fully-depleted CMOS/SOI invertor, SEUs, radiation hardening 13727
  1 MW grid connected PV plant, perform. anal. 27636
  1-phase supply, drive appl., DC/AC outputs control, thyristor ccts. 5343
  2.5 kW NASA spacecraft ion thruster/power proc., develop. status 35267
  2 kW series resonant converter, CO_2 gas discharge laser appl. *(Spanish)* 19877
  3 phase multi-step CSI syst., harmonics reduction *(Korean)* 36365
  3-level GTO inverters, overvoltage clamping, cct. design 44183
  3-phase act. power filter, sliding mode control 19759
  5 kW laser power supply, IGBT mag. pulse compressor-based 36297
  12 kW/250 kHz series resonant power convertors, induction heating appls. 36787
  18-step VSI, divided DC voltage sources *(Japanese)* 27796
  200 V KZ-DHC32 IGBT invertor-based induction heating cooker *(Japanese)* 44588
  200 W PV power syst. DC/AC power convertor control 43953
  250 kW AC batt. syst., Pb-acid marine cell-based 36552
  500 W-2 MW DATAPOWER UPS product family 19800
  1200 kW HF IGBT invertor, induction heating appls. *(Japanese)* 28166
  AC drives, freq. control algms. formulation 28079
  AC motor drives, CSI-fed, exact lin. H_∞ control *(Japanese)* 28063
  AC motor motor drive syst., param. ident. 5249
  AC/AC converters, vector control, min. energy storage 19758
  AC/DC 4000 kW dual mode inverter controlled locomotive 44506
  adjustable freq. quasi-reson. inverter, characts. *(Japanese)* 11135
  aircraft power conversion systs., soft switching appls. 43452
  ASCR thyristor-based CSI, induction heating appls. 36790
  av./RMS currents anal. 5135
  axial flux interior PM sync. elec. vehicle motor drives 36756
  batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966
  BiCMOS 500 V 1A three-phase inverter IC 29036
  bridge cct. IGBTs, gate drive methods 6013
  broadband multimedia communs., distrib. power archit. 44132
  brushless DC motor direct voltage vector control implement. 4990
  brushless DC servomotor, optimal DSP control 36195
  brushless PM DC motor drives, torque ripple reduction 44477
  brushless PM sync. motor drive, predictive control 20087
  brushless sync. motor drives, field weakening perform. 5250
  Burgdorf (Switzerland) Engng. School 60 kWp PV test centre *(German)* 10881
  class D^2 DC/DC parallel reson. MOSFET power supply 44223
  CMOS cell embedded SRAM technol. 21297
  color-LCD backlight inverters utilizing piezoelec. transformer *(Japanese)* 7405
  computer/telecom. UPS, static power inverter, high perform. 19860
  control/status sigs., fault resistant opt. fibres 5134
  current-invertor-fed polyphase induction motor harmonics *(German)* 11026
  Darlington transistor inverter, 99.3% efficiency 19743
  DC converted power systs., energy conservation benefits 35615
  DC link power converter, induction motor drive appls. 44450
  DC rly. locomotives, induction motor-driven, computer simul. 5348
  DC rly. vehicles, narrow-band LF act. filters 20102
  DC-DC converters, high power/self-oscill. type 27830
  DC/AC power convertor planar integrated reson. LCT cct. design 12321

invertors continued
drives, meas. problems *(Polish)* 44491
dyn. threshold voltage MOSFET for ultra-LV operation 22473
elec. drives energy conservation, energy efficient options 28098
elec. rly. traction syst., EMI assess. modelling 44548
elec. vehicle motor drive syst. design, test results 5345
elec. vehicle propulsion inverter, power electronics design 44485
electronic welding, HF reson. inverter-based 36802
external rotor PM motor, perform., current waveforms influence 10948
fault diagnosis, ES-based 5053
FBK-SDU series of digitally controlled uninterruptible power systs. *(Japanese)* 36339
fixed-freq. phase-controlled full-bridge reson. converter 19715
floating generalised NIC/NII config., single opamp implement. 29354
fluoresc. lamp current var., electronic ballast tolerances, PSPICE 11460
freq. inverter induction motor drives, voltage control methods 36656
fuel cell power syst. conditioners, microcomputer control appls. 43968
Fuji Electric moulded IGBTs, voltage reson. invertor appls. 27824
Fuji Electric power IGBT modules, elec. vehicle invertor appls. 28133
Fuji Electric power integrated modules, invertor appls. 21119
Fuji Electric products and appls. 21117
full-bridge MOSFET inverter, US transducer power supply appls. 44166
fuzzy logic controller for PV-utility interfacing 19558
gas turbine engines, SRM fuel-lube pump drive 20053
GTO CSI induction motor drives, harmonic reson. elimination 11375
GTO invertors, energy recovery snubber cct. 5085
GTO thyristors, cct. simuls., math. model 5063
halogen cycle lamps, HF power supply transformer 11446
harmonic-free 3-phase inverters, synthesis/anal. 11114
HF discharge lamp ballasts, white noise modulation 11457
HF fluoresc. lamps, lighting control, electronic ballast *(Japanese)* 11452
HF reson. inverter freq. control, induction heating appls. 36789
high power DC SMPS, electron gun appl. 19755
high power FET/IGBT gate driver cct. 13701
hysteresis current controlled VSI, switching freq. control 11137
induction generator, squirrel cage, CSI exciter, voltage regulator 19635
induction heating/melting, ZCS-HF inverter, bipolar-mode SITs 5384
induction machines, field-oriented sliding mode digital control 4952
induction machines, invertor-fed, EM procs. anal. method *(Russian)* 44041
induction motor, 3-phase inverter, robust current controller, finite state automaton 36158
induction motor ASD, design/anal., CASED simul. tool 5313
induction motor ASD, inverter/cycloconverter fed, single-phase inputs 44489
induction motor ASD, VVVF inverter-based control *(Korean)* 28061
induction motor drive, CSI-fed, field oriented control, CASED simul. 44495
induction motor drive, CSI-fed, microcomputer-DSP control 20072
induction motor drive, field oriented sliding mode torque/speed control 36699
induction motor drive, VSI fed, DSP based variable struct. control 44049
induction motor drive vector control, neural net flux estimator 5296
induction motor drives, CSI fed, adaptive params. compensator 36698
induction motor drives, CSI-fed, field-oriented predictive control 5259
induction motor drives, CSI-fed, torque angle control algm. 28091
induction motor drives, DC link soft-switching inverters 11374
induction motor drives, direct torque control method 11339
induction motor drives, duty cycle-based V/f inverter control 20059
induction motor drives, inverter-fed, magnetising flux saturation 5261
induction motor drives, sync. space vector modulation 36701
induction motor drives, vector control 44443
induction motor drives, VSI-fed, predictive vector current control 44492
induction motor drives, VSI-IGBT, vector control, paper/steel industries 36805
induction motor invertor synchronisation, magnetisation/vel. determ. *(German)* 36159
induction motor rotor speed meas., slot harmonics-based 4941
induction motor speed control, stator resist. estim. 36155
induction motors, CSI-fed, torque control, vector approx. 5310
induction motors, inverter fed, 4-pole interconnection, reson. freq. 11361
induction motors, inverter-fed, computer-based torque simul. 27713
induction motors, param. estim., output-error ident. method 11023
induction motors, speed control, low-noise compact inverter *(Japanese)* 11016
induction motors, speed control, VSS, load torque observer *(English)* 36175
inductive tube welding reson. invertor syst. 20166
INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
isolated DC-DC converter, ZCS IGBTs, symm. topol. 6008
LCC reson. inverter, design, HF AC distrib. syst. 21106
limit-cycle oscillators, switching-mode, fund. struct. 6043
LINE BACK, utility connected PV inverter 44204
looped MOS inverters, chaotic behavior and bifurcation 37613
LV high T_c supercond. DC transm. network 10719
Maglev rly. inverter harmonic suppression method 11423
medium freq. converter with VSI, control syst. 19879
MELUPS 8400H, NC-U UPS systs., instrum. supplies *(Japanese)* 5039
MELUPS 9200 UPS series, IGBT based *(Japanese)* 5036
metal induction heating, MF parallel power converter appls. 20163
microsensor with auto-zero offset compensation 25800
Mitsubishi Electric ventilation syst., airtight dwellings appls. 44607
Mitsubishi Electric Y Series multisplit air conditioners 44605
MLI inverters, sync. motor elec. vehicle appls. *(French)* 11194
motor drives, inverter design, optocouplers 28073
multi-MW batt. storage plant, power conditioning reliab. 36081
multilevel inverter-based SVC, computer simul. 19122
multiple current-source GTO CSI, control techs. anal. 19853
nonequilibrium MHD generator/line commutated inverter, power control *(Japanese)* 36613
output waveforms anal. maximum entropy method 24237
ozone-generator power source, current control 5099
parallel capacitor compensated, transients, stroboscopic anal. 5391
parallel inverter for energy saving, power factor regulation 19872
parallel reson. CSI, cct. design/anal. 44136
people mover, inverter, parallel connected IGBTs 44518
phase-shift controlled converter input currents anal. *(Polish)* 36278
PM brushless DC drive, var. struct. speed control 36665
PM sync. motor drives, high-efficiency, PF control 36642
PM sync. servomotor drive, VSI-fed, field oriented control 36675
power electronics, drives and motors, conf., Taormina, Italy (1994) 28252
power electronics and variable speed drives, IEE conf., London, (1994) 37
power electronics conf., Cuernavaca, Mexico (Aug. 1993) 11564
power electronics EMC components 23723

invertors continued
power static converters, bond-graph config. enumeration 21114
PV array max. power neural tracking 36058
PV cladding, Northumberland Building, Northumbria Univ. 11299
PV generating systs./components develop., NEDO 27622
PV power syst. invertors, instantaneous current tracking control *(Korean)* 27620
PV power syst. max. power tracking, fuzzy neural net-based 19552
PV R&D projects, single module inverter, New Eng. Electric 43950
PV water pumping, SRM drive-based, perform. anal. 10890
PWM VSI AC motor drives, sync. quasi-vector control 11351
quantum series reson. inverter, optimal predictive current control 11387
quasi-reson. HF ZVS IGBT invertor, induction heating appls. 5087
railcar inverter control syst., HV IGBT 44507
railgun air core compulsator, power electronics/controls 19783
reactive power compensators, inverter based, high freq. 5091
reluctance motor, rotor posn. meas., current meas. method 4934
rem. telecom. site, engine-generator power supply 19538
residential air conditioner, solar-powered, perform. eval. 28179
residential ASDs, simplified control scheme 5397
residential solar-powered air conditioners 5393
reson. DC link IGBT ZVS invertors, optimal design 36342
reson. DC link inverter, low-noise, high-output power 19861
reson. DC link inverters, MCT soft-switching tests 12320
reson. DC link VSI, soft switched, cct. perform. studies 36282
reson. DC link ZVS VSI topol. studies 36281
reson. DC/DC power converter, Class D inverter, Class E rectifier 37627
reson. inverters anal., electronic ballast appls. 11128
resonant systems, IEE Colloquium, London (1995) 28230
restaurant induction heating rice cookers, invertor-based *(Japanese)* 44640
rly., traction drive, snubber energy recovery cct. 44540
rly. traction drive readhesive control studies *(Korean)* 28121
rolling mill elec. drive harmonics, computerised meas. syst. 36801
salient reluctance generator voltage control, DSP-based *(Korean)* 36113
SAMCO-i high-perform. general-purpose inverters for induction motor drive *(Japanese)* 36340
saturated induction motor drives, state-space modelling 28062
series reson. DC link GTO invertor expts. 44167
series-reson. AC link inverter, output current anal. 11143
servodrives, all-digital current control loops limits 28071
servomotor drives, AC-flux-vector control 28074
single-phase 12-step VSI, output voltage harmonics reduction *(Korean)* 36238
single-phase multilevel power converter, control method 11136
single-phase PWM VSI, residential PV power syst. appls. *(Japanese)* 36346
single-phase VSI UPS, multiple feedback loop control 11142
sinusoidal current tracking inverter control, neural networks *(Korean)* 27826
slip energy recovery induction motor drives, harmonic anal. 11391
slotless PM servomotors, design/control 19679
snubber ccts. for rly. traction inverter drives 11430
soft-switched parallel inverter, topol. anal. 11144
spacecraft thermionic nuc. power, biphase inversion calcs. 26620
squirrel cage drives, IGBT inverters, audible noise, losses 5308
squirrel cage motor, inverter driven, thermal model 5253
squirrel cage motor drives, self-commissioning scheme 5300
squirrel cage motor harmonic equiv. cct. param. determ. 36161
squirrel cage motors, inverter-fed, 2D FEM, freq. domain 36164
squirrel cage motors, LCI fed, starting, low speed operation 36176
squirrel-cage motor drive, inverter-fed, computer modelling 11386
SRM, optimal operation, choppingless excitation *(English)* 27684
SRM design considerations, aircraft engine pump appl. 10982
SRM drives, novel C-dump inverter develop. *(Korean)* 28085
standalone PV syst., concepts, economic anal. 36056
static power converter hybrid control modelling, reliab./safety appls. *(French)* 27799
stepping motor drives, PC-based control syst. 44468
supercond. commutatorless motors, fund. design, elec. characts. 36686
SVC, three-level invertor-based, expt. investig. 43665
switched reluctance starter/generator, aircraft engine 43457
switched-mode AC/AC voltage regulator, anal., design 5113
sync. motor drive, inverter-fed, discrete time simul. 28094
sync. motor drives, design for flux-weakening appls. 11326
sync. motor drives, inverter-fed, self-controlled, perform. characts. 5289
sync. motor drives, self-controlled, steady state perform. 11389
sync. motors, CSI-fed, rotor losses estim. 44013
sync. posn. VSI fed, control laws, POSTMSYNC simul. program 36673
sync. servomotors, LF torque pulsations control *(French)* 11010
TECTEM central heating facility, thermionic conversion 20040
telecomm. equipt. air conditioning, power supply 44602
three-level rectifier/inverter, force-commutated 19733
three-phase inverter-fed squirrel cage motors, audible noise study 36163
three-phase invertor-based act. power harmonic filter 19740
three-phase quasi-reson. soft switched thyristor invertor 19732
three-phase squirrel cage motors, acoustic noise level scatt. 11033
thyristor inverters, freq./voltage optimal control design 5098
traction reson. DC link inverters, soft/hard switching methods 44568
transm. network series power flow control, GTO VSI-based 27125
transverse flux EM vibrator, test equipt. appl. anal. 7935
UPS, half-bridge inverter/converter cct. 44200
utility/PV lines, automatic interconnecting syst. 43954
variable freq. induction motor drive, pulsating torque compensation 5290
variable speed AC motor drive testing, dynamometer control 5293
variable speed induction motor drive retrofits, centrifugal load appls. 36690
variable speed squirrel cage motor drives, indust. appls. 5294
VSI, digital adaptive hysteresis current control 19756
VSI, harmonic current comp. improvement 5094
VSI, IGBT-based, asynchronous machine appls. *(French)* 11193
VSI, shunt act. filter control, CAD 44186
VSI IGBTs, on-state short-cct. behaviour expts. 44217
wind energy utilisation, fuzzy logic controller 36065
wind power converter/inverter syst., 600 A/1200 V intell. IGBT module 19567
ZCS HF inverter/converter, overlapping commutation 19788
CCl_4 greenhouse gas destruction, plasma reactor-based 20181

invertors (logic) *see logic gates*

investment
20 kV plastic cable repair by silicone injection *(German)* 27214
256Mb/1Gb DRAM develop. implications, Japanese semicond. indust. 11717

investment continued
AT&T ATM switching-network products 16950
building HVAC retrofits, postponement economics overview 44432
Central/Eastern Europe, energy, environ. impact, internat. finance 27294
China's economic develop., fiber optic networks 3044
CHOPIN, heuristic model, transm. expansion planning 4614
cogen., investment cost recovery period calc. *(Korean)* 27528
cogen. projects, economic attractiveness study 43895
corporate networks investments, goals and strategies *(German)* 25048
Croatian transm. network evol. towards broadband 33334
cryptography, mistaken beliefs 2383
developing countries, investment in telecomms. infrastructure 3015
developing countries, telecomms. business legal issues 3014
developing nations, submarine fiber-optic systs., economic building block 3307
distrib. feeders, nonlin. loads, harmonics effects, economics 27167
distrib. mgt. strategy, elec. utility benefits 27152
distrib. network sectionalizer allocation, genetic algm.-based 10729
EC's STAR programme, relevance, Pacific Rim countries 3024
elec. supply indust., R&D programme, Netherlands *(German)* 43707
endoreversible power plants, thermoeconomics optim. 27293
energy technol. choices modelling, investment theory 27318
engng. education, consultancy opportunity/challenges, India 5556
engng. projects, dyn. measures for economic worth of investment 11701
fixed radio access for wireless subscriber connection *(German)* 33765
flexible access network, technols. appl. 33978
foreign ownership in telecomms., policy perspective 33328
gas turbine intake air cooling, absorpt. chiller-based 27567
high-speed public transport for enterprise networks 8825
India, telecomms. and space commun. programmes 3002
induction motor/transformer economics teaching, software package 27725
indust. productivity paradox, theoretical anal. 11660
inform. superhighway and regulatory proc. 8805
intangible benefits appraisal from IT investment 41737
intellectual property rights, foreign direct investment 36963
network opportunities eval. on geographic basis 24878
NTT's overseas carrier business 41589
open access transm. services pricing appl. 35598
overlapping generations models, inverse problem soln. 28378
Pacific Rim, financing telecomms. infrastructure develop. 3012
Pacific Rim's trade in telecomms. equipt., Chinese case study 3018
power syst. reliab.-centred maint., economic eval. 19080
power system VAr planning, enhanced quadratic interior point method 19204
prod. develop. procs., simul. techs. *(German)* 28396
PTT Telecom BV, IT investment eval., policy and practice 41595
PV syst. needs/prospects, European perspective 27621
R&D technol. mgt. economics 20354
RACE 2087 TITAN project, opt. access network risk assess. and economics *(English, Italian)* 33987
rational energy conservation policy, economics 27317
Russian far east, internat. telecomm. services 3055
Russian telecomm. modernisation strategies *(German)* 24880
short-term intersectoral factor immobility 28380
solar power satellites, life-cycle energy recovery study 35210
Sri Lanka's telecomms. infrastructure, private sector contrib. 3032
submarine opt. cable systs., future prospects 3035
subtransmission network reliability, customer interruption costs eval. 27119
telecomm. equipt. indust., business/technol. strategies 33326
telecomms. in developing countries, regulatory, investment and personnel issues 3028
Texas Instruments Semiconductor Group product develop. proc. improvement 37014
transformer and induction motor losses cost anal. interactive software package 28333
transm./distrib. services, optimal pricing 19223
urban power networks, develop. prospects, China *(Chinese)* 35575
US electronics indust., domestic infrastructure for advanced proc. 11674
US Patent System, characts. and proposed changes 36962
USA, public telecomms. infrastructure funding 8794
USA, regulatory climate for foreign investment in telecomms. 3030
VAr planning, decomp. techs. 4609
Venezuelan telecomms., network planning 2985
venture capital, IEE Colloquium, London (1995) 36860
Vietnam, telecomms. regulatory struct. and foreign investment 3026
worldwide telecomms. networks, investment in transitional economies 3005

invoicing
automated internat. telecomm. charge card service, "89" service 3120
cellular mobile radio, multiple service provision 3375
operator services automation, speech recogn. appl. 3141
PTT Telecom's, billing syst. *(German, French)* 24873
solid state elec. meters, revenue protection 43807

iodide glasses *see halide glasses*

ion accelerators
300 kJ ion beam accelerator, Marx generator power supply 34749
Aarhus dual purpose storage ring for pos./neg. ions/electrons 18419
accelerated radioact. ion beams, challenge and perspectives 34768
ADRIA HI accelerator, beam cooling syst. 34790
ASTRID storage ring, bunched ^{24}Mg$^+$ beam cooling by laser 34802
ASTRID storage ring, laser cooling of ^{24}Mg$^+$ 34801
beam dyn., complex accelerating elements 26039
BRENDA, GSI RIB-facility 34814
CELSIUS, electron cooling/heating meas. 34786
CELSIUS electron cooler, design, constr. 34791
conference, nuclear physics, Zakopane, Poland (Sept. 1994) 36817
CRYRING ion accelerator, electron cooling 34800
electron cooling, medium/high energy 34774
ESR ion storage ring, electron cooling of highly charged HI 34809
ESR ion storage ring , electron cooling appl. 34797
FET-switched induction accelerator cell 36410
FET-switched pulsed power supply, PSpice simul. 34742
GANIL, radioact. beam facility, SPIRAL project 34850
GANIL ion accelerator, control syst. 18184
heavy ion fusion injector, ion acceleration and focusing 34841
HI fusion accelerator research, LBL 43005
HI fusion ILSE expts., injectors 4041
HIMAC synchrotron control syst. 18175
ILSE expts. 4076
ILSE HI induction accelerator 4042

ion accelerators continued
IUCF Cooler experience of electron cooling, injection aid 34807
Jyvaskyla HI-cyclotron, IGISOL, on-line mass separator 34739
K4-K10 storage ring, bus controller for MIL-1553B/Multibus II 18211
LHC, neutron background, beam pipe geometries, transparency 4191
LHC accelerator, Pb ion accumulation scheme 34811
light ion beam accelerator, commissioning technological appls. 26057
LMF triaxial MITL voltage adder syst. Marx generator 36300
pos. ion driver, induction adder 36301
RHIC, stochastic cooling, intra-beam scatt. 34778
RHIC accelerator control syst. design 18172
RHIC siberian snakes, layout 18289
SARA, control systs., PCs 18242
SIS, beam profile monitor for HI beams 4052
storage ring, cryst. ion beam, computer simul. 34795
storage ring for ion beam crystn. 34805
storage rings, electron cooling 18283
storage rings, intermediate energy electron cooling technol. 34808
stored ion beams, laser cooling 34772
TARN II ion storage ring, electron cooling 34798
Test Storage Ring, intrabeam scatt. studies 34788
TR13 H$^-$ cyclotron control syst. for automatic isotope prod. 18180
TREBLe two ring exotic beam lab. 34813
TSR accelerator, charge depend. of electron cooling force for HI 34812
TSR operation, close, transit. energy, strong cooling 34843
TSR storage ring, ^{7}Li$^+$ beam laser cooling by opt. adiabatic excitation 34804
TSR storage ring, ^{7}Li$^+$ ion cooling, laser bunching 34794
TSR storage ring, laser cooled ^{9}Be$^+$ beam, interbeam scatt. 34803
H$^-$ extraction from mag. multipole plasma source and accelerator 10102

ion beam applications
see also focused ion beam technology; ion beam lithography; sputtering
300 kJ ion beam accelerator, Marx generator power supply 34749
conc.-depth profiling, total-refl. X-ray fluoresc. spectrometry 26007
diamond, ion beam and laser-assisted micromachining 13907
electron, ion, and photon beams, symp., New Orleans (1994) 5484
ESP, particle charging, unipolar ionic bombard., AC elec. field 7925
giant far action lateral phenom., ion/laser beam IC fab., reliab. 20488
IC anal., ion-beam induced charge microscopy optim. 38969
intense ion beam thin film deposition 12151
ion beam surface treatment, ion diode design 13346
ion-assisted deposition, modeling, BCA computer simul. 20924
materials processing, intense ion beam charactn. 26049
materials processing, microsecond plasma opening switch appl. 27851
microsecond plasma opening switch, material surface modif. 36465
plasma etching, ion milling and deposition, 3D topography simul. 22180
pole trimmed inductive thin film head, off-track capability 7095
pulsed, intense ion beams for thermal surface treatment 13345
pulsed ion beam evaporation experiments at the Naval Research Laboratory 18252
pulsed ion diodes, temp. controlled, beam-target interact. expts. 34854
thin film bonding, ion beam tech., review 289
thin film photon-/ion-beam-assisted deposition/characterisation 28846
thin-film narrow-bandpass filters prod. by ion-assisted deposition, temp. stabil. 22988
transputers in data collection syst., MeV ion microbeam anal. 24991
Al-ceramic surface activated bonding, electronic/chem. procs. 37530
AlGaInP dry-etched 650 nm vis.-light LD 1986
Au wire bondability for IC device, TEM obs. *(English)* 6444
BN, cubic thin films, growth, charactn. 5875
BaSrTiO$_3$ hybrid uncooled IR detectors, producibility advances 17792
Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
Cu film, ion beam assisted deposition, lower resist., higher interface adhesion 37512
GaAs/Si heteroepitaxially thin film growth *(Japanese)* 6525
Mo/Al$_2$O$_3$ (0001) interfaces, high-resoln. electron microscopic studies 28823
Si films, microcryst./amorph., RF plasma spray/ion beam deposition 5856
TiO$_2$-MgF$_2$ composite multilayer films prepared by reactive ion-assisted coevaporation 1782
YBa$_2$Cu$_3$O$_{7-\delta}$ high current thick films on flexible Ni substrs. 1597
YBaCuO-YPrBaCuO-YBaCuO ramp jns./multilayers, prep., comparator appl. 39274

ion beam effects
see also ion beam mixing; ion-surface impact; plasma-beam interactions
0.25-μm fully-depleted CMOS/SOI invertor, SEUs, radiation hardening 13727
AD8001 op-amp, dielec.-isolated complementary-bipolar IC, total-dose/SEU results 29066
bipolar IC, ion-induced sustained high current condition 13872
CMOS 16 Mbit DRAMs for mass memory appls., space radiation eval. 12527
CMOS IC, effect of layout modif. on latchup triggering 13888
CMOS SRAM peripheral ccts., scaling effects, SEU immunity 12528
CMOS SRAMs, 64 kbit, soft-error hardness, total dose depend. 12520
CMOSFETs, HI-induced single event transients in epitaxial struct. 13718
Crystal CS5327 16-bit ADC, single event effects testing, HI bombard. 29334
diamond:He$^+$ film detector, Raman/photoluminesc. charactn. 43089
dry etching damage, overview 30108
EEPROMs, 1M devices from SEEQ and Hybrid Memory, SEP charactn. 29238
EM gun technol., Cu/Al component protection coatings 15331
energetic light ion beams in PBFA 26021
Fabry-Perot lasers, 1.3 μm, spectral perturb./mode suppress. 23233
fiber optic data links for satellite data mgt., particle-induced bit errors 17262
fully-depleted MOS transistors fabricated in SIMOX, radiation response 13729
gate oxide reliab. in power MOSFET, ion irrad. 22466
Harris 6504RH SRAM, ion irrad., multiple upsets, bit reversals, 1s resol. meas. 6158
HI induced transients in lin. ICs, obs. 30431
HTSC RF SQUIDs made by O-ion irrad., LF noise 39272
IC anal., ion-beam induced charge microscopy optim. 38969
lateral surface superlattice, fab., ion irrad. 21976
materials synthesis/processing using ion beams, conf., USA (1993) 11594
N-channel power MOSFETs, single event burnout study 13723
power MOSFET, single event gate rupture 13725
power MOSFETs, single event burnout study 13724
radial distrib. of charge in HI track, concentric Schottky barrier rings 13607
RIE induced damage, gas mixtures CHF$_3$/O$_2$/SF$_6$/O$_2$ 30114
RISC proc., single event effects/perform., space appls. 6182

ion beam effects continued
- single event hard errors in DRAMs 12519
- SOI 68T020 HI eval. 13851
- spacecraft electronics, single event effect proton/HI testing 29093
- SRAM in flight and ground based radiation testing 12531
- SRAMs, 1 Mbit, single hard errors from single ion, charactn. 12526
- submicron MOSFETs, single-event-induced charge collection 13720
- VDMOS power transistor, single event gate rupture threshold 13722
- vert. power MOSFETs, single-event gate rupture 13721
- AlGaAs-InGaAs HIGFETs, charge-collection mechanisms 13719
- AlN_3-Si, rectification following ion beam surface modif. 29980
- Au/n-GaAs:Ar Schottky barrier study, ion implant. damage 22035
- $(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+\delta}$Ag tapes, crit. current dens., columnar defects 1596
- GaAs dyn. logic, SEU study 12479
- GaAs, n- and p-type, effect of ion energy on H diffusion 29861
- GaAs radiation-damaged refl. switch, IR pulse generation 31541
- GaAs, reverse long-range effect 13310
- GaAs:C, C ion beam doping/MBE 28773
- GaInP/AlGaInP, ECR plasma-assisted bandgap engng. 38332
- InGaAs/InP surface quantum wells, ion-gun hydrogenation, luminesc. 14592
- InSb, implant. damage reduction in mag. field, XRD meas. 38517
- InSb(100) surface, Ar ion bombard. and electron stimulated oxid. 30101
- $LiNbO_3$, ion beam induced domain-inverted grating, SHG study 31556
- $LiTaO_3$, ion beam induced domain-inverted grating, SHG study 31556
- PbS films, irrad., elec. props. 13091
- Si HI tracks, nonequilibrium carrier recomb. 29832
- Si depth profiling, marker layers, ion beam sputtering anal., depth resoln. 21876
- Si diode, MeV particle irrad. 13601
- Si epitaxial film, carrier profile, ion bombard. effect 37425
- Si n^+/p diodes, charge collection and multiple-bit upset, 3D simul., CMOS SRAMs 12516
- Si, near-surface layer defects, RIE in SF_6-CCl_4-O_2 plasma 13337
- Si polycryst. solar cells, ionising radiation protection 44411
- Si power devices, combined electron and ion irrad., local lifetime tailoring 30204
- Si power diodes, electron/He ion irrad. for local lifetime tailoring 30197
- Si, reverse long-range effect 13310
- Si, self-limited at.-layer etching, Cl adsorpt., low-energy Ar^+ irrad. 22178
- Si:B retrograde well barrier effect against ion-induced-charge carriers 30220
- Si:O-on-insulator, implant.-induced stresses, defect pair 30044
- Si-based device proc., radiation damage 22160
- 6H-SiC:Ge,Si, ion-beam irrad.-induced amorph./recrystn. 38504
- SiO_2 films, HI irrad., densification and plastic flow 1312
- SiO_2 films, ion irrad. damage, UV annealing effects 30014
- SiO_2 gate oxide films, ion-assisted oxid. 38592
- SiO_2 micromechanical struct., electron/ion-beam irrad. 13913
- YIG films, low energy ion bombard., surface spin pinning 14177
- n-ZnSe:Cl, doping characts. 21921
- p-ZnSe:N, doping characts. 21921

ion beam lithography
- DRAM prod., ion projector, crit. design params. 38760
- electron, ion, and photon beams, symp., New Orleans (1994) 5484
- ladder silicone SOG, FIB lithog. 22301
- membrane masks, stress-induced pattern-placement errors 13464
- MOSFET, at. force microscope fab., nanolithography 30320
- multi-level-patterning, ion penetration depths 38763
- particle beam interacts., Monte Carlo simul. 13461
- projection lithog., electrostatic column 13463
- projection lithog., stochastic space charge effects 13465
- projection lithog., wafer topography 13468
- projection systs., stochastic interacts., anal. model 13462
- proximity printing, nonideal masks, contrast 13466
- SEL, circ. gratings, lithographic fab. 14940
- stencil masks, pattern distortions 13467
- Si 3D struct., FIB lithog., AFM probe charactn. 13471

ion beam mixing
- ion-assisted deposition, modeling, BCA computer simul. 20924
- ion-plasma-electron technol. source TAMEK, materials modif. 34889
- materials synthesis/processing using ion beams, conf., USA (1993) 11594
- semicond. QW struct., bandgap tuning, ion implant. 13166
- TAMEK, vac. arc ion sources 4136
- AlGaAs MQW, opt. channel waveguides by FIB induced compositional mixing 14452
- AlGaInAs/GaInAs, tunable lasers by masked implementation enhanced intermixing 14872
- Co/Si(SiO_2), ion-beam mixing, Monte Carlo simul. and expts. 22023
- GaAs/AlGaAs photonic ICs, plasma induced QW layer intermixing 30971
- GaAs/AlGaAs quantum dots, ion implant. based nanofabrication, masks 13493
- GaAs/AlGaAs quantum wires/dots, X-ray lithog. and Ga^+ intermixing 38344
- InGaAs/InGaAlAs gain coupled DFB lasers, masked implant. enhanced intermixing 14887

ion beams
- *see also ion beam effects; ion optics; ion-surface impact; mass spectrometers; particle accelerators*
- 2-stage ion diode, mag. insulated 34853
- accelerated radioact. ion beams, challenge and perspectives 34768
- cooler storage ring, ion beam ordering 10095
- dense cathode plasma form., neg. ions prod. 36624
- electron, ion, and photon beams, symp., New Orleans (1994) 5484
- ellipsoidal charged particles bunch, dyn. 2183
- free-ion lasers, radiative ion cooling 39929
- free-ion lasers, radiative ion cooling 7694
- heavy ion fusion driver beams, longitudinal dynamics 26051
- heavy ion ICF driver beams, charge neutralisation 26052
- HI, opt. stochastic cooling, transit-time method 4047
- HI beams, strongly coupled, emittance growth 10086
- induction accelerators, ion beam vel. control 26092
- intense diagnostic neutral beam prod., pulsed power supply-based 36319
- intense ion beam charactn. 26049
- intense pulsed high-quality ion beam generation 26095
- laser-cooled ion beam, anom. Schottky sigs. 18251
- light ion beam accelerator, commissioning technological appls. 26057
- light ion beam transport efficiency, TOF bunching, voltage ramping effect 26050
- low-press. arc-discharge plasma, ion extraction 4140
- meas. of ion current and energy spread 17693

ion beams continued
- PBGUNS, digital simulation computer program 26108
- plasma science, conf., Vancouver, BC, Canada (June 1993) 6301
- pseudospark discharge, ion beam prod. 26087
- radioact. beam facility at GANIL, SPIRAL project 34850
- second-order focusing of 210° cylindrical energy analyzer 43010
- SIS, beam profile monitor for HI beams 4052
- spacecraft, environmental charging 10309
- storage ring, cryst. ion beam, computer simul. 34795
- transport and focusing expts. in neutralising gas 26091
- transverse laser cooling in storage ring 18266
- undulator, two-beam electron-ion syst., nonlin. wave procs. 43036
- H^-, C^-, F^-, I^-, Pb^- high-power pulsed ion beams 34855
- H^- beams chopping, Penning surface-plasma source 34838
- Li beam characterisation in PBFA II from inner-shell X-ray images 26073

ion chambers *see ionisation chambers*

ion channel lasers *see free electron lasers*

ion channels (biomembranes) *see biomembrane transport*

ion counters *see counters*

ion cyclotron resonance spectra *see mass spectra*

ion cyclotron resonance spectroscopy *see mass spectroscopy*

ion density
- AgI-AgCl-Ag_2O-B_2O_3, Ag^+ ion conducting glass, solid state batt. appls. 5173

ion emission
- *see also secondary ion emission; thermionic ion emission*
- ion current onset delay in liq. metal ion sources 43044

ion engines
- *see also aerospace propulsion; rockets*
- 2.5 kW NASA spacecraft ion thruster/power proc., develop. status 35267
- $^{241/243}Am$, ion-engine propellant 26694
- beam-centroid tracking instrum. for ion thrusters 18768
- Hall thrusters, PV power systs., space vehicles 35268
- space thermionic reactors, thermal-hydraulic/neutronic design 4374
- thruster plume modelling, spacecraft contamination 35270

ion etching *see sputter etching*

ion excited X-ray emission *see ion microprobe analysis*

ion implantation
- *see also semiconductor doping; SIMOX*
- 0.05 μm CMOS with ultra shallow source/drain jns., fab. 22584
- 0.15 μm CMOS proc. for high perform./reliab. 13893
- 0.1 μm CMOS technol., tilt-implanted punchthrough stopper 13895
- 0.25 μm gate length CMOS technol., design/proc. depend. 13894
- advanced SPC methods 38496
- antirefl. coatings, ion implant. effects *(German)* 7446
- BiCMOS, 2D transient enhanced diffusion and impact on bipolar transistors 22620
- BiCMOS collector implants, stat. optim. 1500
- BiCMOS technol., polysilicon source/drain ion implant. effects/prevention 30484
- BiMOS MCT/IGBT VHV devices, gate oxide integrity improvement, external gettering 30275
- BOX layer form. by high-dose O-ion implant., Si wafers 22149
- CMOS IC fab. implanters, cleanliness stds. 13282
- CMOS multiply charged ion implants, cost of ownership model 37056
- CMOSFETs with reduced jn. capacitance, $TiSi_2$ salicide, e-beam lithog., SPICE 30358
- contamination in ion implant., secondary ion mass spectrometry charactn. 22137
- diamond:B films, ion implant., surface interacts./electronic struct. 30030
- diamond:Na (Rb) (P), low energy implant., detector appl. 38497
- diamond metal-semicond. and MIS structs., elec. charact. 6582
- double-sided rugged poly-Si technol. for high dens. DRAMs 29230
- DRAM, 256 Mbit, pass transistor designs 21302
- DRAMs, boron-implanted layer, carrier suppression 22108
- dual-poly CMOS, B diffusion, O_2 and N_2O gate dielecs. 22575
- ECL BiCMOS, sub-30 ps, proc. integrat. technol. 22616
- elemental and cpd. semiconds., Ga FIB implant. 30016
- EM gun technol., Cu/Al component protection coatings 15331
- European SOI technol. develop., review 38428
- FIB syst., post-objective lens retarding/accel. mode 13297
- GaAs/AlGaAs proton-implanted top-SEL, series resistence anal. 23207
- glass:Fe, mag. hard disks, plasma-immersed O_2^+ implant. 14243
- HBT, passiv. procs. 1361
- heavy metal/dopant contamination control 38486
- HV IGBT, self aligned proc., double implanted n/n^+-emitter 30339
- IC, second harmonic modulated photo-reflectance imaging 155
- impurity distrib. modeling 13293
- inclined incidence, lateral effects 22113
- ion-plasma-electron technol. source TAMEK, materials modif. 34889
- ionizing-radiation meas., ion implant. dose/uniformity monitoring 4080
- IR-bi-color Schottky-barrier IR CCD image sens. 25887
- laser cryst. growth techs. 12132
- lattice defects induced by ion implant., photo-acoustic displacement meas. 6616
- low threshold voltage CMOS devices for 1 V appls., fab. 22585
- mag. confined hollow cathode duoplasmatron for PINSTECH ion implanter 10101
- materials synthesis/processing using ion beams, conf., USA (1993) 11594
- mature CMOS proc., unusual HBM ESD failure mechanisms 30469
- metal ion vacuum arc plasma source, ion implantation appls. 26107
- metal/III-V-semicond. contacts, fab./props. 1162
- MEVVA-type source for ion implantation studies 18291
- Monte Carlo simul., adaptive grid 22116
- MOS struct., P ion implant., gettering efficiency 6620
- MOS structs., implanted, I(t) tech. for generation rate determ. 1169
- MOSFET C-V charact. dispersion, random channel dopant ion distrib. 1393
- MOSFET threshold voltage fluct., stat. var. of channel dopant no. 1392
- n-MOSFETs, counter doped, mobility, reverse short channel effect 38873
- multicomponent vac.-arc ion beams 4141
- n^+p jn., reverse-bias current, hydrogen radical sintering 38295
- n-p-n transistors, thin base, lateral ion implant., enhanced diffusion 30245
- neg. ions, tandem high energy accelerators 30024
- nMOS transistor depletion threshold volt. adjustment *(English)* 22606
- nonhazardous alternative chem. for semicond./PCB proc. 37213
- piezoresistor fabricated by high energy ion implant. 25823
- plasma source ion implant., cost estim. 22148
- plasma source ion implant., pulsed power modulator totem pole drive 36804

ion implantation continued
plasma source ion implant. proc., HV pulse shape effect 1227
plasma source ion implanters, pulse power modulator design optim. 36803
plasma-enhanced photoresist dry stripping, IC manufacture 38543
point-defects, lateral diffusion, reverse short-channel effects 22114
polymer films, ion implanted, piezoresistivity, sens. appls. 28878
polysilicon:Ge films, ion implant. amorphized, recrystn. 13280
polysilicon, dyn. grain-growth and static clustering effects on dopant diffusion 1221
polysilicon dual-gate CMOS, N implant. 38498
polysilicon emitter bipolar transistors, reduction of 1/f noise 13657
polysilicon films, N implanted, effect on TFT elec. characts. 22447
polysilicon gate, PMOS, B penetration, oxide gettering 38867
positron lifetime spectrosc., positron sources 43040
power ICs, ion implant., edge struct. 29035
PPV, ion implant. doped, MISFET 38885
pulsed power beam switch tube modulators, plasma ion implant. appls. 36404
quantum well intermixing, repeated ion implant. 1213
Raduga, metal vap. vac. arc ion sources 4135
scaled CMOSFETs, implant. fab., elec. characts. 13879
self-aligned pocket implant. MOSFETs, low supply voltage operation 13672
semicond. laser, hybrid mode-locking, time-bandwidth product 1962
semicond. QW struct., bandgap tuning, ion implant. 13166
Si-SiO_2-polySi:P, $TiSi_2$ superlayer, thin film oxide injection degrad. 22059
SIMOX BOX, O implant. effects on radiation-induced hole traps 13251
SIMOX layer, Ostwald ripening, self-organisation, ion beam synthesis 30029
SIMOX radiation response prediction, spectrosc. ellipsometry 13299
simul., Boltzmann eqn., num. soln. 22121
smart power CMOS IC, 2D charactn./perform. optim. 12315
SOI lateral IGBT, breakdown voltage rel., implant. dose 22460
SOI MOSFETs, threshold voltage sensit. reduction 30294
SOI n-MOSFET radiation hardness improvement by Ge-implant. 13726
SOI struct., buried dielec. films, ion form. 38441
submicrometer gate length MOSFET, selectively doped substr., hot electron degrad. 30324
submicron CMOS, soft ESD failure suppression 30465
submicron CMOS large-angle-tilt implanted drain technol. 22571
submicron CMOS proc., soft ESD failure suppression 6848
TAMEK, vac. arc ion sources 4136
TFT fab., shower implanter, RIPE ion source 13738
thin film bonding, ion beam tech., review 289
ultra shallow ion implanted base BiCMOS fab. 22619
vert. cavity LD, tunable, fibre coupling, threshold currents 39782
vert.-cavity SEL array for short dist. opt. fiber networks 14929
wafer charge neutralization, high current ion implants 30022
-- 30038
Al/InP:Be,P, Schottky barriers, improvement by Be/P coimplantation 13209
$Al_xGa_{1-x}As$, ion implanted, Raman line asymmetry/phonon freq. 38511
AlGaAs:N,C, thermally stable C-N deep level 28742
$Al_{0.35}Ga_{0.65}As$:C, thermally stable O/N implant isolation 30041
n-AlGaAs/InGaAs/GaAs struct., hot electron ballistic transport 38358
AlGaInAs/GaInAs, tunable lasers by masked implementation enhanced intermixing 14872
AlN:Cu, ion implanted, impurity segreg. *(Chinese)* 13311
Au/n-GaAs:Ar Schottky barrier study, ion implant. damage 22035
$BaTiO_3$ photorefr. crysts./waveguides, anom. photorefr. response in two-beam coupling 15088
C adherent film deposition by cathodic arc, implant. 37511
a-C:H,N films, ion implanted, in-depth modifs. 6537
CdTe/CdMgTe quantum wells, ion implant.-induced interdiffusion 13290
CdZnSe-ZnSe strained layer superlattice disordering, diffusion/ion implant. *(Japanese)* 38339
$CoSi_2$ doping source for RTA of shallow p^+-n jns. 22099
$CoSi_2$ interconnection lines, writing FIB implant. 38693
$CoSi_2$ microstruct., focused ion beam synthesis 13298
$CoSi_2$ shallow p^+n jns., reverse I-V charact. 13100
Cu surface/interface modif. for IC appls. 38647
GaAs, Ar^+ ion implant. damage, ion-induced annealing 22092
GaAs, CZ grown, ion implant., struct./mech. props. 13305
GaAs E-mode MESFET technol. for low power/noise appls. 12780
GaAs, In-implanted, RTA, Raman spectra 1197
GaAs MESFET TWA MMIC, 2-12 GHz *(Chinese)* 38039
GaAs MESFET, buried channel self-aligned proc., MMIC appl. 38930
GaAs MESFET fabricated by internal interconnection tech. 13803
GaAs MESFET, ion implant., photolithog., SAG 38923
GaAs MESFETs and PHEMTs, 2DEG effect on noise perform. 37981
GaAs OPFET, ion implanted, PV effect 39575
GaAs PDB diode perform, proton isolation effect 29565
GaAs SAG-MESFET for supercomputers, proc., implement. 37721
GaAs epitaxial layers, charactn., annealing effects 13277
GaAs, ion implanted, Raman line asymmetry/phonon freq. 38511
GaAs planar gate power MESFETs, gate-drain breakdown volt. 13801
GaAs power MMICs for X-band radar appls. 6341
GaAs, reverse long-range effect 13310
GaAs, submicron self-aligned fab. technol. *(Chinese)* 1204
n-GaAs surface, N^+-implanted, post-anneal perform., N role 38384
GaAs:C, C activation, amorph. layer regrowth 30037
GaAs:C, C ion beam doping/MBE 28773
GaAs:C MBE layers, ion-beam doping 22122
GaAs:C, coimplantation, energy/dose rate obs. 30049
GaAs:C films, MBE, C^+ beams, photolum. 28789
GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
GaAs:C self-aligned n-JFET, carbon buried p-implant 6806
GaAs:Er, ion implant./MBE, Er-related deep centres 38516
GaAs:Fe(Ni), ion implant./annealing, precip. 6610
GaAs:N,C, thermally stable C-N deep level 28742
GaAs:O, ion implant., waveguide material fab. 39402
GaAs:P, ion implanted, amorph. 22118
GaAs:Se^+, discharge-pumped VUV F_2 mol. laser annealing 30011
GaAs:Si, MESFET, ion implant., mass resoln. effects 30039
GaAs:Si^+,Se^+, ion implant., struct. anal. 30031
GaAs:Si,Cu photoconductive pulsed power switch perform. tests 36428
GaAs/AlGaAs buried quantum wires, situ FIB implant. 21978
GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
GaAs/AlGaAs quantum dots, ion implant. based nanofabrication, masks 13493
GaAs/AlGaAs quantum wires/dots, X-ray lithog. and Ga^+ intermixing 38344
GaAs/AlGaAs:Sb MQW, disordering, isoelectronic Sb implant effects 1217
GaAs/Au diodes, FIB implant. damage, BEEM study 13605

ion implantation continued
GaAs/InGaAs/AlGaAs heterostruct., selective high-temp.-stable O implant. 1218
GaAs/WN_x/W-gate MESFET multiplexer IC, 0.5 μm, A 20 GHz 8-bit implement., fibre transm. 9546
GaAs-AlGaAs proton-implanted MQW modulators for low-photocurrent SEEDs 14528
GaAs-AlGaAs-AlAs proton-implanted top-surface-emitting semicond. lasers 23206
GaAs-AlGaAs(InGaP) based HBTs, H^+ and He^+ implant isolation comparison 30234
GaAsP, As-implant. damage effects 30058
GaInAsP DFB lasers, fab., maskless FIB implant. 39825
GaInP/(AlGa)InP buried quantum wires, local order-disorder transition 13203
GaSb, ion implant. effects 1214
HgCdTe, MBE growth on CdZnTe for IRFPAs 12096
HgCdTe PV lin. FPA for Cassini IR spectrometer 17949
$Hg_{0.3}Cd_{0.7}Te$:B photodetectors, LPE/ion implant., fibre optic appl. 3830
$Hg_{1-x}Cd_xTe$:B large-area PV IR detector, fab. *(Korean)* 17771
In/n-$Hg_{1-x}Cd_xTe$ contacts, modified sheet resist. 38416
$In_{0.52}Al_{0.48}As$:Fe,Ti, compensation implants 13287
InGaAs heterostruct., nanostructure fab., FIB technol. 13312
InGaAs/InAlAs MODFETs, InP substrs., proc. technol. 13798
InGaAs/InGaAlAs gain coupled DFB lasers, masked implant. enhanced intermixing 14887
InGaAs/InP transimpedance opt. receiver OEIC 1834
p-InGaAs/Pd-Zn(Cd)/Ge implanted shallow ohmic contacts, HBT appls. 38698
InGaAs-GaAs-AlGaAs:Ar(He) strained SQW, disordering by ion implant. 13135
InGaAs-InAlAs:Si quantum well, ion implant./annealing, comp. disordering 1216
InGaAsP:Si quantum well, intermixing, spatially resolved/polaris. resolved photolumin. 38495
InGaAsP/InP lasers, Q-switched pulses 14875
InP, CZ grown, ion implant., struct./mech. props. 13305
n-InP, He^+ bombard., elec. resist. 13041
InP, MeV ion implantation, device appls. 13288
InP, ion implanted, Raman line asymmetry/phonon freq. 38511
InP:B(O)(Fe), p^+ epilayers, elec. isolation by MeV ion implantation 13289
InP:Be annealing, e-beam evaporated borosilicate glass thin film encapsulant 13313
InP:C, C activation, amorph. layer regrowth 30037
n-InP:Fe, Fe implant., SI layer form. 1210
InP:Fe epilayers, buried layers by Fe implantation 13286
InP:Fe^+, ion implanted, lattice distortions, high-resoln. XRD 6531
InP:Sn, ion implant, RTA, anal. meas. 38465
InP:Ti, compensation implants 13287
InP/InGaAs JFET/pin photodiodes for optoelectronic integrat. 1439
InP/InGaAs, fully self-aligned HBT with Schottky collector 13629
InSb, implant. damage reduction in mag. field, XRD meas. 38517
In_2SnO_3:In^+, native defects donor generation by In implant. 38485
$KNbO_3$ ion implanted photorefr. waveguides, two-wave mixing of focused Gaussian beams 23359
$KNbO_3$:Fe,H photorefr. planar waveguides, two-wave mixing 23434
$MoSi_2$, metal vapour vac. arc ion source synthesis 30142
$NbSi_2$, metal vapour vac. arc ion source synthesis 30142
SIMS and microelectronics 1465
Si 3D struct., FIB lithog., AFM probe charactn. 13471
Si, BF_3 plasma immersion ion implant., dose-time rel, 37488
Si, Er implant., solid phase epitaxial recrystn. 30015
Si MOSFET with internal matching cct., 1.5 GHz, 35 W 29562
a-Si, SPE on Si, STM obs. 20706
Si, amorph./cryst., exoelectron emission point defect anal. 21884
Si, buried silicide layers, ion beam synthesis 30025
Si cryogenic detectors, ion-implanted charge collection contacts 38487
a-Si, depth-depend. disordering 22143
Si, implanted impurity diffusion, simul. 22120
Si ion implant., VLSI mfg. for commercial appl. 30035
Si, ion implant. proc. problems, surface photovoltage detect. 30017
Si, ion implanted, defect prod., structural transforms. 30060
Si, ion-induced amorphization, model 1231
Si microtechnol., develops. and proc. tech. depend. 38950
Si on insulator, high dose O implant./microstruct./form. mechanism 38494
Si, porous, nanocrystal size, preanodization ion implant. effects 1225
N-Si, proton irrad., defects 13032
Si, reverse long-range effect 13310
Si thin polycryst. films, $BF_2{}^+$ implant., shallow p^+n jn. form., Co silicidation 30032
Si varactor struct., DLTS study of deep traps 38052
Si visibly photoluminescent microstruct., ion implant./wet etching prep. 1271
p-Si wires, focused ion beam implant., carrier transport 21871
Si:Ar(100), ion implant. transient reflecting grating study 1205
Si:As RTA/furnace annealing, heating rate effects on defect distrib. 22100
Si:As, deeply-channeled implanted profiles, Monte Carlo simul. 1220
Si:As, enhanced diffusion caused by elec. deactivation 22158
a-Si:As, ion implant., generalised transport eqn. 13292
Si:As single-cryst., deeply-channeled implanted profiles simul. 30023
Si:As^+, 25 keV implant., large tilt angle, damage anal. *(Chinese)* 13035
Si:Au, Ne implant. gettering 22119
Si:Au, mega-electron volt implant., backscatt. and electron microscopy study 6626
Si:B (100) single cryst., computationally-efficient 2-D model 30021
Si:B MOS ULSI, MOSFET B diffusion model incorporating disloc. loop growth 22610
Si:B, MeV implant., masking effects 30040
Si:B, channelling implants., electronic stopping/damage accumulation model 38515
Si:B, diffusion during post-implant annealing, damaged/amorphizing conditions, model 22107
Si:B doped by plasma source ion implant., struct. anal. 30056
Si:B, enhanced diffusion due to ion implant. in thin-base npn BJTs, model 38997
Si:B, implant. and transient B diffusion, interstitials 1228
Si:B, implanted impurities, misfit elastic stress, simul. 13307
Si:B, ion implant., defect prod. 6622
Si:B, ion implant., spreading resist. profilometry/SIMS obs. 22117
Si:B, ion implanted, defects, seq. annealing 13306

ion implantation continued
Si:B, simultaneous B^+ implant./photoexcitation 22109
Si:B^+,N^+, dual implant. depth distrib., radiation defects 22136
Si:B(P), ion-implanted, sheet resist. and noise props. 38232
Si:B(P), low-energy implant., RTA/furnace annealing, XRD optimisation 22102
Si:B,C, boron elec. activation during RTA, heating rate effects 22101
Si:BF_2, high-dose BF_2 ion implanted, elec. dopant activation 1194
Si:BF_2^+ amorphous ion-implanted layers, recrystn. kinetics 38464
Si:B,F(Ne), boron diffusion, ion implant. effects, proc. modeling params. 38505
Si:C, phase form. by high-dose C implant., IR spectra 38503
Si:C,O plates with nonuniform stress distrib., mechanisms for O gettering 29833
Si:Co, ion implant., defect/impurity profile 30028
Si:Er, coimplantation, photolumin. study 38489
Si:Er cryst., Er opt. activation, excitation, conc. limits 38483
Si:Er implant., Si-based optoelectronics appls. 30042
Si:Er, opt. act. centres, local struct., photolumin. obs. 30045
Si:F, recrystn., at. redistribution, F 1s NEXAFS 38521
Si:F/SiO_2 TFT, F^+ implant. effects 38883
a-Si:H and poly-Si thin films, P ion shower doping study *(Korean)* 13284
a-Si:H films, annealing, Ne(C) bombard., Si-Si double bonds 1201
Si:H, ion implanted defects, thermal evol., slow positron study 38492
Si:H^+, ion implant. deep levels, elec. field perturb. 38480
Si:H,Cu, Cu gettering, hydrogen-induced cavities 30009
Si:He, 4.8MeV α-particle implanted, Bragg-case diffr. patterns 22135
Si:He, bubbles, struct./opt. props. 30050
Si:Ir(111), ion implant., $IrSi_3$ synthesis 30027
a-Si:Kr, sputtered layers, Kr-incorporation obs. 38268
Si:N for micromachining, cantilever/membrane structs., Monte Carlo simul. 30489
Si:N, ion implanted buried SiN_x films, EXAFS and NEXAFS obs. 38440
Si:N, ion implanted etch-stop layers 38555
Si:N, isotropic etch-stop props. 13334
Si:N, plasma ion implant., depth profiles 6615
Si:O, H-enhanced thermal donor form., depth profiles, spreading resist. probe meas. 38493
Si:O, ion implant., precip. 30026
Si:O syst., ion implanted, oxide growth, refr. index, and comp. depth profiles 22123
Si:O-on-insulator, implant.-induced stresses, defect pair 30044
Si:O,C,Si,P, P-diffusion, ion implant. damage effects 6523
Si:P, ion-implanted, flash-lamp annealing, Raman image study 38472
Si:P(B) thin film, solidif., dopant effect *(Korean)* 22156
Si:Ru, ion implant., Ru-related defects, elec./opt. props. 38228
Si:Sb^+, implant. induced disordering, Raman scatt. 21872
Si:Sn(001), strain determ. and microstructural charact. 22150
Si/$Ge_{0.12}Si_{0.88}$:P, metastable films, RTA vs. furnace annealing 22104
Si/Si, polysilicon small geom. contacts, P implant. induced energy transfer 38296
Si/SiO_2, SIMOX substrs., Si ion implant. for secondary defect reduction 30043
Si/SiO_2/Al, H-related instabilities, removal by F implant. 13314
Si/SiO_x, improved SIMOX material, Si overlayer, strain reduction 22075
Si-based device proc., radiation damage 22160
Si-on-sapphire films, SPE, recrystn. by annealing, props. 22076
Si-sapphire, porous, photolumin., microstruct. effects 6618
Si^+-self implant induced damage, characts., annealing behavior *(Korean)* 29842
β-SiC layers on Si(100), ion implant., cryst./elec. props. 6623
SiC:Al(B), ion implant., SIMS/RBS/photolumin./Hall/C-V obs. 38484
SiC:Ga^+, defect prod., annealing 22105
6H-SiC:Ge,Si, ion-beam irrad.-induced amorph./recrystn. 38504
β-SiC:N layers grown on Si substr., ion implant. studies 38482
β-SiC:N/Re(Pt)(Ta) contacts, contact resist. 22043
α-SiC:N(Al), ion implanted dopant activation, pulsed laser annealing 30048
SiGe, SPE, comp. depend., time-resolved reflectivity meas. 38270
SiGe epilayers, form. by Ge implant., RBS channeling spectrosc. 1232
$Si_{1-x}Ge_x$ thin film, form. from heavily Ge-implanted Si, morph. 28795
$Si_{1-x}Ge_x$ films, dopant effects on resist., subsequent annealing 13089
$Si_{1-x}Ge_x$:B(P) polycryst. films, resist. 21932
SiGe/Si QW, local Ga implant., ambipolar lateral carrier transport 1230
$Si_{1-x}Ge_x$-on-insulator synthesis by $^{74}Ge^+$ ion implant. in SIMOX substr. 30055
SiO_2, BF_3 plasma immersion ion implant., dose-time rel. 37488
SiO_2:Ge, fused silica, waveguide form. by ion implant. 39387
SiO_2-GeO_2 glass planar struct., proton implanted, photosensitivity 39382
SiO_2-Si interface struct. modif. by Fe^+/H^+ ion implant. *(Chinese)* 22061
SiON:Er,Yb low-loss waveguides, deep implant codoping 39439
$TaSi_2$, metal vapour vac. arc ion source synthesis 30142
WSi_2, metal vapour vac. arc ion source synthesis 30142
ZnSe:I jn. devices, thermionic behavior studies 28026

ion lasers
fission fragment pumped lasers, kinetic procs., plasma track struct. 14705
free-ion lasers, radiative ion cooling 39929
soft-X-ray laser prod., plasma waveguides 39678
Ar^+ wide-aperture laser waveguide operation 1847
Ar+ ion multimode lasers, polariz./intens. correl. 1851
Ar+water-cooled low-cost ion laser *(Japanese)* 7512
C VI recomb. VUV laser, 18.2 nm, 20 J 2 ps glass laser driven 23093
Cd^+ photo-ionization laser, blackbody source pumped, charactn. 31196
Ge XXIII plasmas, X-ray laser gain 23075
Ge^+, Ne-like, soft X-ray laser brightness on double pulse pumping 23084
Ge^+ Ne-like soft-X-ray laser 1852
He-Cd^+ CW hollow-cathode discharge multicolour laser module, design and perform. 39659
He-Cd^+ pos. column type UV 325 nm lasers *(Japanese)* 14683
He-Hg laser, transverse HF excitation 7528
He-Kr laser, helical hollow cathode 31187
He-like soft X-ray laser research 31261
Kr^{26+} laser plasmas, 3p-3s transits., X-ray laser gain parametric depend. 39651
Kr^+Li(Cs)(Rb) excimers, VUV transits., e-beam pumping 31175
Si Li-like recomb. X-ray laser gain determ. 14684
Sr^+ discharge-excited ion recomb. laser, repetition-rate scaling 14685
Xe IX, femtosecond-pulse-driven XUV laser 23104
$(XeCs)^+$Ga, ionic excimer emission, gain dyn., Ar/Xe/Cs mixtures 1859
Xe^+Li(Rb)(Cs) excimers, VUV transits., e-beam pumping 31175

ion lenses *see lenses*
ion lithography *see ion beam lithography*
ion microanalysis
see also ion microprobe analysis
transputers in data collection syst., MeV ion microbeam anal. 24991
ion microprobe analysers *see ion microprobe analysis*
ion microprobe analysis
see also ion microanalysis
CMOS SRAMs, 64 kbit, soft-error hardness, total dose depend. 12520
DRAMs, boron-implanted layer, carrier suppression 22108
polyethylene high voltage cable insulation, diagnostic methods 14065
CdS, film, chem. deposition, struct., props., solar cell appl. 28798
a-Ge:H,In(Ga) films, cosputtering deposition, sputtering yield ratios 5876
$Hg_{1-x}Cd_xTe$ MSM IR detectors, nuc. microprobe defect anal. 29987
HgI_2, crysts./detectors, PIXE/ion backscatt. spectrosc., impurity anal. 43071
PbI_2, crysts./detectors, PIXE/ion backscatt. spectrosc., impurity anal. 43071
ion microscopy
see also field emission ion microscopy
focused ion beam micromachining appls. 13906
IC proc. control/failure anal., FIB appl. *(French)* 1490
Au electrodeposited thin films, X-ray masks, stress/structural change 6701
ion mobility
see also ionic conductivity
ESPM, electrostatic precipitator model 7924
meas. tech., mobility of atmos. ions 10478
AgI-AgCl-Ag_2O-B_2O_3, Ag^+ ion conducting glass, solid state batt. appls. 5173
ion optics
see also ion beams; mass spectrometers
cyclotrons, beam dyn., particle trajectory 4124
DRAM prod., ion projector, crit. design params. 38760
electron, ion, and photon beams, symp., New Orleans (1994) 5484
FIB syst., post-objective lens retarding/accel. mode 13297
nanotechnology, FIB technol. 38761
projection lithog., electrostatic column 13463
VASSILISSA kinematic separator 4240
ion plating
ball grid arrays, ceramic thin-film technol. 5651
AlN, ion plated films, opt. applicability 28850
Au bumps on Si substrs., stabil., gold sulfite plating 12160
ion probe analysers *see ion microprobe analysis*
ion probe microanalysis *see ion microprobe analysis*
ion pumps
MBE facility, two synchronized modulated beams 37390
orbitron maser prototype, Ti sputter pump 39619
ion recombination
charge neutralisation by neutral gas release, 3D calcs. 26524
dielec. liqs., elec. cond. injection-dissoc. model 13921
downstream plasma proc., selective etch and procs. 13338
Si Li-like recomb. X-ray laser gain determ. 14684
Sr^+ discharge-excited ion recomb. laser, repetition-rate scaling 14685
ion scattering *see ion mobility; ion-surface impact*
ion scattering spectroscopy *see ion-surface impact*
ion sensitive field effect transistors
cobalt tetra-(N,N-dimethylhexadecyl p-aminophenyl) porphyrins LB film ChemFET, vap.-sensitivity *(Chinese)* 9950
crosslinkable polar siloxane copolymers for ISFET ion detect. devices 28876
human body fluids Na assay, ISFET 34603
integrated pH-ISFET/press. sens., SDB/SOI materials *(Chinese)* 25810
seawater pH meas., ISFET continuous flow method 10542
Si microelectronic sens. 34440
ion sources
see also deuteron sources; duoplasmatrons; ion emission; liquid metal ion sources; mass spectrometer accessories; Penning ion sources
2-stage ion diode, mag. insulated 34853
Aarhus dual purpose storage ring for pos./neg. ions/electrons 18419
cyclotrons, injection, extraction, external ion sources 4125
cylindrical mag. wall struct., microwave ion source calc. 4137
cylindrical microwave ion source, magnet syst. calc. 4138
ECR source, multiple-ionization effect on charge-state distrib. 34851
Eloisatron, injector design 4100
extraction magnetically insulated diode study on Gamble II accelerator 26094
GALLEX detector, ^{51}Cr neutrino source expt., solar neutrinos 26100
heavy ion fusion injector, ion acceleration and focusing 34841
integrated ion source 4139
intense pulsed high-quality ion beam generation 26095
ISOLDE, COMPLIS laser spectrosc. 34848
IUCF polarized ion source, beam transport syst. 18259
lab. facility for ion-beam etching 1601
laser evaporation ion source for plasma ICF 26105
light ion beam accelerator, commissioning technological appls. 26057
local treatment of solid surfaces, dense ion beams 22174
low-charge-state high-current sources, accelerator appl. 4149
low-press. arc-discharge plasma, ion extraction 4140
meas. of ion current and energy spread 17693
metal ion vacuum arc plasma source, ion implantation appls. 26107
metal vapour vac. arc ion source synthesis 30142
MEVVA-type source for ion implantation studies 18291
microsecond plasma opening switch, material surface modif. 36465
multicomponent vac.-arc ion beams 4141
neg. ion NBI syst., energy recovery 44424
PBFA II, applied-B ion diode, ion source divergence 26044
PBGUNS, digital simulation computer program 26108
plasma source ion implant. proc., HV pulse shape effect 1227
plasma sources based on domestic microwave oven 38528
plasma-electron technol. vac. arc TAMEK source 34889
PM ECR plasma source, rem. window 37509
pseudospark discharge, ion beam prod. 26087
pulsed ion diodes, temp. controlled, beam-target interact. expts. 34854
pulsed power systems, environmental, industrial appls. 11520
radioact. beam facility at GANIL, SPIRAL project 34850
Raduga, metal vap. vac. arc ion sources 4135
semicond. mfg., proc. control, quadrupole mass spectrometer 6601
SERSE supercond. ECR ion source, project upgrading 43049
TAMEK, vac. arc ion sources 4136

ion sources continued
  TFT fab., shower implanter, RIPE ion source 13738
  TITAN ion source 4145
  Titan source of gas and metal ions based on contracted discharge and vac. arc 4142
  TrapCAD, tool, design and study ECR ion sources mag. traps 10104
  volatile cpds., ECR ion source, metal ion beams 10103
  wide gas-ion beam source based on arc discharge in nonuniform mag. field 4143
  wire ion plasma source, electrical characts. 21796
  H^-, C^-, F^-, I^-, Pb^- high-power pulsed ion beams 34855
  H^- extraction from mag. multipole plasma source and accelerator 10102
  H^- injector design for SSC RFQ 4091
  H^- ion source, large vol., hybrid multicusp design 43048
  H^- beam prod. by RF-drive multicusp source 26106
  Si, plasma CVD, atmos. press. ionization mass spectrometer syst. 20976
ion-surface impact
  see also particle backscattering; sputtering
  conc.-depth profiling, total-refl. X-ray fluoresc. spectrometry 26007
  diamond surface, O-H adsorpt., EELS/Auger study 1268
  max. entropy data anal., Bayesian stats. 24323
  MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
  plasma-anode electron gun, beam current 6474
  AlN_3-Si, rectification following ion beam surface modif. 29980
  a-C:H films, plasma CVD, ion impact energy distribs. 402
  GaAs(100), S-passivated, absol. coverage meas. 30129
  GaAs(100) surface, $(NH_4)_2S_x$-treated, S at. sites 22171
  Ge/Si(111), SPE, interface struct., medium-energy ion scatt. 37404
  PbSe, layer-by-layer growth, proton glancing angle scatt. 328
  Si, low energy ion beam deposition procs., mol. dyn. methods 20923
  Si, thermal oxid., ultrathin oxide film growth mechanism 38609
  Si(100), ion beam-induced oxid., ion emission 6655
ion thrustors *see ion engines*
ion traps *see particle traps*
ionic conductivity
  see also superionic conductivity
  alkali metal thermoelec. converter, B-alumina electrolytes 20026
  dielec. liqs., elec. cond. injection-dissoc. model 13921
  HTPB/Al particle composites, elec. cond., low fields 30589
  lightning discharge path, ion background effects *(Chinese)* 10766
  MCFC cathodes, porous, current interruption anal. 36583
  onium salt based liq. electrolytes, electrochem. props. 883
  PEEK films, DC cond., ionic behavior 30588
  SOFC, high temp., electrolyte materials 44373
  solid oxide fuel cell composite electrodes, cond. and polariz. resist. 44343
  solid polymer electrolytes, design concepts, materials 36508
  Ag_2As-As_2S_3 glasses, opt., elec. props. 38264
  $BaCe_{0.8}Gd_{0.2}O_{3-\alpha}$ perovskite ceramic electolyte, SOFC *(Japanese)* 5205
  $CaZr_{0.9}In_{0.1}O_{3-\alpha}$ protonic cond. amperometric sens., D_2O conc. meas. 25792
  $La_xSr_yMnO_3$ based SOFC cathode materials 44374
  Li polymer electrolyte secondary cell expts. 11247
  Li/CoO_2 secondary batt., electrochem. perform. 36555
  Li-$SOCl_2$ primary batts., delay effect expts. 11231
  Li_2O-V_2O_5-SiO_2 electrolyte, Li-MoO_3 secondary cell *(Japanese)* 19941
  Li_2SnO_3 thick film humidity sensitive material, elec. cond. 3782
  Ni-YSZ anode, $LaSrMnO_3$ cathode, SOFC 44380
  $(SrPb)(CaMg)TiO_3$-$Bi_2O_3 \cdot 3TiO_2$ ceramic charged particles, elec. props. *(Korean)* 22665
ionic thermocurrents *see thermally stimulated currents*
ionisation
  see also autoionisation; electron avalanches; field ionisation; impact ionisation; ion recombination; ionisation potential; photoionisation; surface ionisation; Townsend discharge
  air ionizer perform., periodic verification, EOS/ESD Ionization Standard 34421
  electrostatic charge control, wafer prod. damage prevention 7896
  EM launcher, plasma armatures, 3D MHD modelling, equiv. network 15313
  HVDC transm. line, bipolar ionised field, FEM 43735
  HVDC transm. line, monopolar ionized field, ion diffusion 43736
  nonequilbrium MHD generator, supersonic flow, plasma temp. *(Japanese)* 36612
  planar p-n jn. termination, theoretical investig. 29888
  proton beam transport through gas, electron density 26090
  pulsed ion diodes, temp. controlled, beam-target interact. expts. 34854
  relativistic klystron amps. for microwave pulse gen. 29775
  RESURF LDMOS struct., breakdown props., analytic approach 30309
  spacecraft, environment critical vel. ionisation 10308
  spacecraft, environmental charging 10309
  ultrashort laser pulses, focusing limits, anal. theory 2039
  vac. diodes, breakdown 29762
  Cs-N_2 space power thermionics convertor, relaxation characts. 18738
  Si X-ray detectors, ionization stats. 26259
  $Si_{1-x}Ge_x$ strained alloys, bandgap narrowing, simul. 21936
  Xe, liq., ionization, scintillation, EM calorimeter 26160
ionisation chambers
  see also liquid ionisation chambers; multiwire ionisation chambers; shower counters
  4π charged-particle detector array operating charact. 18341
  AMY Vertex Detector, design, beam tests, calibr., fate 34897
  D0 expt., B-phys. results 4179
  diagnostic radiology appl., general ion recomb. 26358
  diagnostic radiology appl., spatial/temporal response characts. 18472
  diamond microstrip detector, high energy phys. 4188
  DΦ detector, control, monitoring 18305
  Eberline RO-2 ion chambers used beta radiation skin-dose monitors 4342
  fire fly chamber, design 26174
  gas ionization calorimeters, steel and Pb absorbers 26172
  gas-filled ioniz. fission chamber, thermal neutron TOF spectrum, pulsed sources 26113
  hadron calorimeter, high-press. gas-ionization tubes, beam tests 10108
  HDR microSelectron QA studies, well-type ion chamber 18600
  KNK-21A fission ioniz. chamber, thermal neutron flux/temp., pulsed sources 26114
  liq. ionisation chambers, low-dose-rate brachytherapy appl. 43410
  liq. ionization chamber, rejection delta electrons, dE/dx 26130
  liq. rare gas imaging detectors 4194
  liq. Xe doped with organic mols., ionisation chamber, gamma-ray detector 4200
  long-range alpha detector sample monitoring 18357

ionisation chambers continued
  mammography exposure std., free-air ionization chamber design 43212
  microstrip gas chambers ageing, outgassing effects 4165
  microstrip gas counter for single VUV photons 10118
  parallel-plate chambers, calib. methods comparison 18631
  TMAE-He mixture in avalanche chamber, first Townsend coeff., E-field depend. 10127
  VUV detector stds. establishment *(Japanese)* 17640
  ^3He gas ionization chamber for neutron spectrometry 18331
  Si-hybrid gas detector, cluster breakup appl. 10111
  Xe high press. cylindrical ionization chamber 4202
ionisation gauges
  large-angle ion deflector, press. meas. in extreme high vac. 10060
  GaAs fast radiation-hard CHIGFET op. amp. 29061
ionisation potential
  see also work function
  inert gases, harmonic generation, intense picosecond laser pulses 7744
  D_2, harmonic generation, intense picosecond laser pulses 7744
  H_2, harmonic generation, intense picosecond laser pulses 7744
  N_2, harmonic generation, intense picosecond laser pulses 7744
  O_2, harmonic generation, intense picosecond laser pulses 7744
ionisation time *see ionisation*
ionised cluster beam deposition
  3D-nanostructures for microdevice technol. *(Japanese)* 21803
  copper phthalocyanine single mols. and islands, STM obs. 28809
  Al-TiN high coverage barrier film form. 20955
  CdTe, monocrystalline films, ICB epitaxy *(Chinese)* 5813
  Si, low energy ion beam deposition procs., mol. dyn. methods 20923
  ZnSe epitaxy on GaAs (100), ICB *(Chinese)* 37403
ionogen *see electrolytes*
ionosondes *see ionospheric measuring apparatus*
ionospheric disturbances
  30 June 1992 total solar eclipse effect on ionos. 23620
  artificial turbulence, scatt. radio sig. characts. 7982
  auroral ionos. HF channel, oblique sounding 23621
  E-region, high-lat. heating, stationary irreg. generation 7981
  electron beam injections, assoc. radio wave absorpt. 7970
  HF ionos. propag., solar/geomag. activity effect 40338
  HF sigs. scatt. by artificial ionos. turbulence, Doppler shift 40342
  high-lat. bottomside F region, high freq. ducting 40355
  mag. pulsation generation, modulated HF waves 7980
  meteor showers, long dist. VHF TV sigs. 15432
  nighttime D-region heating by VLF sigs. 15443
  nuc. explosion at low altitude, lower ionos. disturbances 7979
  plasma line studies, coded long pulse tech. appl. 43505
  satellites with tethers, turbulence enhanced current collection 35302
  VLF anom. sigs. assoc., strong earthquakes 7974
ionospheric electromagnetic wave propagation
  see also Earth-ionosphere waveguide
  atmos., tweek type, Earth-ionos. waveguide 2225
  E-region, high-lat. heating, stationary irreg. generation 7981
  E-region irregularities, radio scintillation studies 40328
  electron beam-driven VLF waves, CHARGE-2B rocket expt. 40339
  ELF/VLF emissions from earthquakes, satellite recodings 15444
  Faraday effect, polaris. meas. syst. develop. 18829
  GLONASS P-code, L1/L2 freqs., perform. 17505
  HF ionos. pulse propag., electron dens. fluct. effects 23622
  HF rem. low-power transmitters, single station location 34193
  HF sigs. scatt. by artificial ionos. turbulence, Doppler shift 40342
  IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
  LF long-dist. anom. propag., Sanwa-Calcutta path 7968
  LF propag., rel., solar mag. & microwaves 2221
  lightning radar echoes, investig. 3603
  meteor showers, long dist. VHF TV sigs. 15432
  meteor-based radio systs., ellipt. polariz. antennas appl. 42341
  modulated HF waves, artificial mag. pulsation generation 7980
  multi-mode OTHR data, model based data fusion algm. 9638
  nonlin. interact. of intense EM wave and plasma waves in ionos. *(Japanese)* 40363
  nonuniform ionos., point source field calc. 2227
  nuc. explosion effects, VHF radar scatt. sig. 7979
  obliquely propag. HF pulses, num. rise time calcs. 7983
  oceanographic satellites, radar data, altimetric corrections *(French)* 35352
  Prediction and Retrospective Ionospheric Modelling, Europe 40349
  primary VLF/ELF currents prod. by heating lower ionos. 2201
  radar altimetry method of geophys., sig. delay, IRI model 4378
  radio wave absorpt., electron beam effects 7970
  radiowaves diffr. off inhomogeneities 2224
  satellites, terrestrial mag. field, ionos.-induced cross-polariz. 23624
  scatt. radio sigs. from artificial turbulence 7982
  scintillation params., radio interferometric meas. 23623
  sea level by satellite radioaltimetry, ionos. correction 18838
  sea level radar altimetry by satellite, ionos. correction 18839
  single-freq. GPS systs., ionos. time delay *(Korean)* 34197
  stochastic props. of phase derivative of ionos. sig. 32594
  time-of-arrival prediction model for transionospheric EMP 25458
  transequatorial (conjugate point) HF propag., modelling 40340
  transparent dispersive media, regularities of radio-pulse propag. 15446
  UHF ionos. absorpt., A1 method, planetary flucts. 2222
  vert. radio sounding of plasma layer 43502
  VHF scintillation & spread-F, anom. crest region 2235
  VHF scintillation obs., anom. crest region 7969
  VLBI obs. correction for ionos. refr. 9686
  VLF ionos. propag., 30 June 1992 total solar eclipse 23620
  VLF ionos. propag., solar eclipse effects 31842
  VLF radio waves, ground-based direction finding 23637
  VLF wave from dipole antenna in atmos., full-wave anal. method 31814
  VLF/ELF sferics, ionos. refl. height 31810
  wave/particle meas., lightning-induced precip. 23705
  whistler-mode sigs. from LF Decca transmitter, propag. charact. *(Japanese)* 40346
  whistlers, causative atmos. location, one station 23640
ionospheric measuring apparatus
  Faraday effect, polaris. meas. syst. develop. 18829
  plasma probes, geomag. field effect on -ve voltage spheres 35300
  rocket-borne downconverter, space plasma turbulence meas. 35310
  satellites with tethers, turbulence enhanced current collection 35302

ionospheric propagation *see ionospheric electromagnetic wave propagation*
ionospheric techniques
  CT, geometries comparison and image reconstruction 35307
  electron dens. distrib., tomographic imaging 10465
  HF receiver for Doppler studies, design and fab. 42525
  high-lat. bottomside F region, high freq. ducting 40355
  ionograms, interfering HF sigs. ident. 10463
  irregularities study, HF channel 35308
  model-assisted ionos. tomography algm. 10464
  plasma line studies, coded long pulse tech. appl. 43505
  Prediction and Retrospective Ionospheric Modelling, Europe 40349
  radar ionos. refr. angle meas. allowing for incidence flucts. *(Russian)* 17406
  radio tomography, max. entropy 43479
  tomographic reconstruction 35305
  vert. radio sounding of plasma layer 43502
  VLF radio waves, ground-based direction finding 23637
ionotophoresis *see electrophoresis*
IPSE *see project support environments*
IR astronomy *see infrared astronomy*
IR detectors *see infrared detectors*
IR drop *see electric potential*
IR focal plane arrays *see focal planes; infrared imaging*
IR imaging *see infrared imaging*
IR sources *see infrared sources*
IR spectra *see infrared spectra*
IR spectroscopy *see infrared spectroscopy*
IR thermography *see infrared imaging*
IR tracking *see optical tracking*
irasers *see lasers*
iron phosphate semiconductor glasses *see amorphous semiconductors*
irradiation effects *see radiation effects*
irradiation induced creep
  Onagawa Unit 1 BWR fuel channel perform./localized corros. 35753
ISAR *see synthetic aperture radar*
ISDN
  see also B-ISDN
  6 Mb/s ADSL, constellation TDM 16922
  64 kbps switched internat. ISDN, transm. perform. 16795
  access, optimal, integrated networks partly obs. 16801
  advanced access network archits. and service demand forecasting 42064
  Arcachon fiber optic distrib. network 25500
  Ascotel bcs 8 digital commun. syst., ISDN for small enterprises *(German, French)* 25154
  ASN.1, efficient packed encoding rules *(Japanese)* 40695
  ATM multiplexers, dyn. transm./enqueueing priorities 8703
  ATM networks, multi-rate traffic shaping/perform. 2879
  ATM techs. for high speed networks 33534
  bal. multiple-pair telecomm. sig. ports disturbances meas. 23744
  basic rate UNI, packet-switched data anal. 16793
  BMW network mgt. service 8838
  broadcast audio prod., ISDN and ISO/MPEG layer III audio coding 3238
  CATV technol. studies *(Japanese)* 34265
  cellular-ISDN systs., accessing protocols/network reconfigurations 9377
  chaotic maps, models of packet traffic 33606
  CMOS mixed analogue-digital ISDN IC, analogue layout shrinkage CAD 28987
  corporate telecomm. networks, trends and integrat. issues 41937
  Croatian ISDN, init. experience 41918
  desktop computers, video commun. and presentation 16077
  develop. impact overview, Italy *(Italian)* 3237
  dial up leased lines, ISDN alternative 33602
  dist. tutoring via integrated desks and ISDN 9021
  distributed ISDN test syst., monitoring/modelling 24824
  Distributed multicast contention resoln., content addressable FIFOs 16964
  distributed multimedia syst. for commun. 41971
  DS/CDMA prototype syst. for voice/ISDN sigs. 3320
  echo suppression in digital commun. 16620
  EMI field emitted from telecomms. line, estim. 40373
  enterprise network develop. and mgt. prospects *(Japanese)* 16751
  enterprise network LAN-ISDN integrat. *(German)* 9008
  ETSI V5 interface globalisation 41917
  expt. design, improved quality protocol testing 16786
  FITL syst. implement. 42055
  Fujitsu multimedia teleconferencing syst. (VS-700SV) *(Japanese)* 42079
  full-text inform. delivery, electronic, US infrastructure 16546
  generalized multiclass Engset model, asymptotic solns. 41931
  generalized proc. sharing networks, exponentially bounded burstiness arrivals 33591
  IN-based approach for PCS service provision, PSTN infrastructures *(Italian, English)* 41963
  indoor cordless commun., teletraffic perform. 3488
  intell. peripheral prototype syst., design and implement. 3252
  intell. trouble mgt. based on operation scenario and fault simul. 41668
  intell. vehicle/highway systs., compressed video commun. 8682
  inter-media sync. in distributed and heterog. multimedia systs. 33641
  Internet access, TCP/IP 41943
  internetworking archit. for integrated voice and data commun. 9007
  ISLAN interface, MAC/PHY layers, IEEE std. 24984
  jewellery image IS *(Japanese)* 41940
  LAN traffic and ISDN routers 8899
  leaky bucket network access schemes comparisons 16467
  local loop special services transm. syst. 41924
  med., distributed multimedia patient data, Bermed Project 8942
  MHEG coded representation for hypermedia IRS 16847
  modern commun. technol. advancement, problems *(Chinese)* 3234
  multimedia conferencing audio bridge 16896
  multimedia enhanced transport service, QoS Architecture 9076
  MultimETH, conferencing and joint editing syst. 9065
  multipoint control units for videoconferencing 33617
  network based video storage, inform. retrieval 25111
  network resource mgt., adaptive cct. access control 41700
  networks with partial sharing, optim. 41932
  NTT's INS-Net service, ISDN service commercialization 41923
  overload control mechanisms in ISDN PABXs 33723
  packet-switching protocol, frame relay vs. X.25 *(Chinese)* 33600
  pan-European GSM signalling for Abis interface 3448
  PC card, design *(Japanese)* 16933
ISDN continued
  perform. eval., iter. approach 3236
  perform. of scheduling algms. for channel reservation 3229
  Philips Sopho ISPBX, VPN design/develop. 16972
  present status and future of ISDN services *(Japanese)* 9003
  prog. commun. interface implement. for EuroISDN 16799
  protocol tools, formal specification to implementation 3291
  Q.931 call protocol, LOTOS based validation/perform. 16797
  radio programme broadcast, satellite distrib., ISDN back-up syst. 42564
  real telecomm. network, ISDN fn. introduction 33596
  Sanyo video meeting syst. *(Japanese)* 3243
  scheduling and admission control priority token bank 41916
  SDH compatible digital radio syst. error perform. requirements 42153
  service adaptive access SLIC, CMOS prog. DSP, oversampled ADC/DAC 21378
  service mgt. ref. platform in shared business environ. 16596
  Siemens K3000 for ISDN quality testing 9013
  SPC systs. with high peak traffic, call-proc. and overload control 33604
  speech recogn. syst., vowels extraction 41919
  speech/data integrat., real-time interactive, on LANs, multimedia in commercial indust. environ. 25066
  supercomputer in computer network, A.I.S.T *(Japanese)* 8885
  SwissNet, NTE, integrated a/b interfaces *(German, French)* 33679
  switching syst. availability objective 42123
  switching systs. carrying multi-channel traffic streams, combinat. anal. 41930
  TDMA radio based ISDN, rural radio commun. syst. 3235
  TDX-1B ISDN switching syst., D-channel config. *(Korean)* 25068
  tele-teaching over-dist. education, ISDN-based 20283
  telecomms. in rural areas, human dimens. 42575
  Telemeet 100/50, TV conf. syst., develop. *(Japanese)* 25080
  telephone, set formal spec. 24924
  telephone loop plant, technol./appls. 25138
  teleteaching syst. in university environ., expt. monitoring *(Italian)* 28344
  teletraffic syst., neural approach, perform. eval. 16789
  transceiver adaptive filters, DSP based real time simul. 29260
  transparent ATM LAN interconnection 16668
  trellis codes for primary rate ISDN 16791
  UKUUG IP Workshop conf., London, UK (1994) 36909
  UMTS/FPLMTS, networks, users and terminals 3491
  virtual private networks via IN 41954
  Vobis Microcomputer AG internat. ISDN *(German)* 41922
  wireless ISDN commun. appl. criteria and prospects *(German)* 41921
ISDN exchanges *see ISDN; telecommunication exchanges*
ISDN terminals *see ISDN; telecommunication terminals*
ISFET *see ion sensitive field effect transistors*
Ising lattices *see Ising model*
Ising model
  gray level image filtering, Q-state mean field annealing algm. 8508
  stat. phys. approach, optim. problems 11939
island-like metallic thin films *see discontinuous metallic thin films*
islet-like metallic thin films *see discontinuous metallic thin films*
ISO standards
  9000 series stds., CFC-free bench top cleaning implications 37214
  AT&T Switching Systems Business Unit, TQM 11626
  CLNS networks, authority and routing registration 41781
  Controller Area Network controller class. *(German)* 24832
  copper rod mfg., QC syst. upgrade, USA 5677
  digital signature scheme alternatives 24106
  DIN ISO 9000 quality mgt. std. effectiveness *(German)* 5688
  Document Transfer & Manipulation std. 41499
  EAN directory service, support for transactions and replication 8960
  ESPRIT MIDAS project, secure rem. mgt. 8953
  FTAM basic file protocol, LOTOS-specified, anal. 41538
  heterog. networks supervisor, intell. fault mgt. *(French)* 16603
  Hi-Fi audio coding technol. and standardisation *(Japanese)* 17545
  higher engng. education QA, EPC model 20321
  higher engng. education quality programme develop., Netherlands 20324
  integrated road transport/traffic environ., protocols 3456
  internat. work flow, proc. mgt. syst. support 24956
  ISO 9000, small businesses, problems 28507
  ISO 9000 - the revisions, IEE Colloquium, London (1994) 48
  ISO 9000 and small business, IEE Colloquium, London, UK (1995) 11596
  ISO 9000 global quality std., overview 11833
  ISO 9000 QC Standard revision, small business perspective 11829
  ISO 9000 quality mgt. std., small firm implement. 28509
  ISO 9000 series QA stds. auditing 11828
  ISO 9000 stds., rels., CECC and IECQ systs. 5685
  ISO 9000/BS5750 quality mgt. implement./controversy 28370
  ISO 9001 QC stds., accreditation objectives 28511
  ISO/MPEG Audio MUSICAM family 32625
  ITU and ISO/MPEG4 video coding stds. 16092
  key transport of asymmetric algms. *(French)* 24105
  low-rate multi-channel audio coding, standardization 15778
  mfg. message spec., protocol design/anal., Petri net-based 8873
  Micro A relay, automotive stds., rugged design for reliable switching 29646
  MPEG, digital audio coding, standardization 15777
  MPEG stds., audio/video codecs, LSI chips 16944
  MPEG-1 video, ISO/IEC software implement. 16090
  MPEG-2 for DVB and cable 34219
  MPEG/audio compression algm. 17603
  NetWare protocols, syst. manager's guide 41816
  network control proc. data transm., IEC 870-6 OSI protocols *(German)* 19179
  network OAM technol. and standardisation trends *(Japanese)* 16609
  OSI, standardization and appl. promotion *(Japanese)* 8882
  OSI session layer protocol, formal spec./verif. 8754
  perceptual audio coder, neural network based 8148
  project mgt. quality syst., ISO model-based 11710
  protocol synthesis based on LOTOS 8763
  quality assurance syst. R&D overview, Switzerland 161
  quality mgt., human resource aspects *(German)* 5682
  retro-reflective laser automatic inspection systs. for proc. control 37174
  road transport and traffic mobile environ., ISO IP protocol suite 41783
  small businesses, QA assess., ISO 9002 requirements 28510
  small/medium businesses, quality mgt. syst. requirements 28508
  SMT rework, meet ISO9001 38093
  telephone loop plant, technol./appls. 25138

ISO standards continued
test equipt., ISO 9000 compliance, calib. issues 3710
time-crit. commun. archits. and quality of service 25031
TQM in electronics indust., Hong Kong experience 5698
video coding stds., ref. model methodology 24392
VLSI archits. for video compression, survey 24394
X.400 for text interchange in your own lang. 41778

isolated word recognition *see speech recognition*

isolation technology
0.25 μm CMOS prod., equipt./materials demands 39007
1 Gbit DRAM cell, diagonal bit-line config. 21323
80 Msamples/s BiCMOS flash ADC 29325
AD8001 op-amp, dielec.-isolated complementary-bipolar IC, total-dose/SEU results 29066
BEST2, super self-aligned BiCMOS technol., low-power mixed-sig. appls. 21451
BiCMOS 500 V 1A three-phase inverter IC 29036
BiCMOS quadruple well, quadruple polysilicon proc. for fast 16 Mb SRAMs 6156
bipolar LSI, trench isolation along {111} gliding planes, 3D mech. stress anal. 22564
CMOS device isolation for ULSI age 22600
CMOS EPROM technol. for high speed/high dens. PLDs and memory appls. 29219
CMOS technol., 0.15-μm channel length, mixed X-ray/opt. lithog. 22592
ECL bipolar transistor, high-speed, low parasitic archit. 30237
European SOI technol. develop., review 38428
high-leverage SOI technol., appls., CMOS and BiCMOS designs, material/device problems 30003
high-speed p-n-p technol. for low-power complementary bipolar ULSIs 39000
HV bipolar technol., trench-isolated base 30260
HV power ICs, dielec. isolation bonded wafer characts. 13855
in-plane gate transistor integrated with photoconductive switches, ultrafast characts. 29555
lateral IGBT and MOS-controlled thyristor structs. in SOI 30345
LDMOSFET, dielec. isolated, high temp. perform. 30342
LOCOS, poly-buffered, furnace oxid. 6646
LOCOS isolation, bird's beak inhib. by buffer N_2O oxide 22240
LOCOS isolation technol. for 256 Mbit DRAM 22609
LOCOS parasitic MOSFETs, threshold voltage, reverse short-channel effect 22421
master slice-type transimped. amp. photosensors, PIN-bipolar proc. 25835
mixed analog/digital ICs, substr. material effect on crosstalk 21447
mixed-sig. macrocell placement in WRIGHT 29395
monolithic IC, isolation technol., overview 1459
MOSFETs, radiation-induced leakage current, oxide isolation struct., nonuniform damage 13716
p-MOSFETs, trench-isolated buried-channel, narrow channel effect 6769
multilayer Teflon microwave PWBs, isolation techs. 37974
non-Fickian microscopic diffusion, interfaces and in SOI thin films 1174
nuclear and space radiation effects, conf., Tucson (1994) 5489
poly buffer LOCOS, in situ N-doped, for deep submicron CMOS 22591
power MOSFET switching, transformer-isolated gate drive cct. 535
RISC μPs in isolation CMOS technols., ESD protection 21348
SALOT, self-aligned LOCOS/trench combination isolation, chem. mech. polishing 21329
scaled CMOSFETs, implant. fab., elec. characts. 13879
self-aligned memory cell technol. for 256-Mbit flash memories 21334
self-aligned shallow trench isolation cell for 256 Mbit NAND EEPROMs 12553
SOI, high-leverage technol., mfg. impact and appls. 6841
SOI power devices, forward blocking charact., high temps. 30333
submicron CMOS isolation struct., calib. method for oxid./mech. stress models 22254
super self-aligned BiCMOS technol. for low-power mixed-sig. appls. 30483
symmetric Vss cross-under bitcell technol. for 64 Mb SRAMs 21319
thin SOI IGBT leakage current and struct. for high temp. 30344
trench MOS-gated power devices 6706
VDMOS-type power ICs, void-free bonded SOI substrs. 39017
VLSI mfg., research, min. capital cost 36955
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
AlGaSb/InAs nanostructures, CAIBE and electron-beam lithog. 13178
GaAs MESFET, buried channel self-aligned proc., MMIC appl. 38930
GaAs PDB diode perform, proton isolation effect 29565
GaAs-AlGaAs(InGaP) based HBTs, H^+ and He^+ implant isolation comparison 30234
InGaAs/InAlAs MODFETs, InP substrs., proc. technol. 13798
InP:B(O)(Fe), p^+ epilayers, elec. isolation by MeV ion implantation 13289
M^2CMOS twin-well yield enhancement, wet oxide strip proc. modif. 22579
Si grooved-gate MOSFETs with W gate, short-channel-effect-suppressed devices 13674
Si microtechnol., develops. and proc. tech. depend. 38950
Si thermal oxid., advanced field isolation model, calibrated viscoelastic stress anal. 22560
Ta_2O_5 MIM-CROWN cell and proc. technols. for 1 Gbit DRAMs 21335

isolators, microwave *see microwave isolators*

isomer shift
AgSn intermetallic phase, Mossbauer params., Sn-based Pb-free solder 11745
Cu_9Sn_3Ni intermetallic phase, Mossbauer params., SnPb eutectic solder 11745
Fe_3Si films, MBE, conversion electron Mossbauer spectrosc. 380
$Sm_2Fe_{17-x}Al_x$, PM, Mossbauer study 7199

isotope detection
see also mass spectra
isotopic fingerprinting, rare earth cpds. from Pb isotopes 26005

isotope effects
see also isotope shifts
diamond crysts./superlattices, isotopically engineered 38502
CO_2 laser, injection locking, freq. stabilisation, line narrowing 1865
GaAs crysts./superlattices, isotopically engineered 38502
Ge crysts./superlattices, isotopically engineered 38502
Ge:O crysts./superlattices, isotopically engineered 38502
Si:P crysts./superlattices, isotopically engineered 38502

isotope exchanges
Si_3N_4:H films, rem. ECR CVD 37472

isotope separation
see also isotope exchanges; laser isotope separation; radiochemistry
ISOLDE, COMPLIS laser spectrosc. 34848
Jyvaskyla HI-cyclotron, IGISOL, on-line mass separator 34739
KUR-ISOL, mixed-gas jet syst. characts. 10149
^{28}Si single crysts. growth, centrifugation method 12036

isotope shifts
He-Cd^+ pos. column type UV 325 nm lasers *(Japanese)* 14683

isotopic generators *see radioactive sources*

isotopomers *see isotope effects*

iteration methods *see iterative methods*

iterative methods
see also conjugate gradient methods; Newton method; Newton-Raphson method; predictor-corrector methods
1D semicond. diodes, Poisson-Boltzmann eqn., iter. spectral soln. 13602
2D axisymm. inhomog. medium inversion, distorted Born iterative method 23567
2D dielec. objs., EM imaging, expt. study 23577
2D eddy current problem, domain decomp., serial/parallel 40250
2D elec. cond., two-step lin. inversion 40280
2D FIR digital filters, weighted LMS design 8364
2D FIR digital filters, weighted LMS design 2488
2D fractal sets, inverse/approx. problem 2730
2D image data modelin, robust M-estim. 16341
2D leaky opt. waveguides, vectorial FEM modelling 39406
2D nonlin. eddy currents, iter. BEM convergence 40252
2D separable FIR Wiener filter design, iter. method 24214
2D sigs., data-depend. sampling 33123
3-D light microscopy, simultaneous image and point spread fn. reconstruction 16219
3-D motion estim., videophone appls., iter. tech. 16627
3-D scenes, image seqs., global-motion estim., coding appl. 41088
3-phase underground pipe cable, above ground mag. field prediction 27206
3D iterated fn. systs., discrete seqs. representation 2499
3D LCR extraction and modeling of VLSI packages 5623
3D modelling of EM actuators, iter. procedure 40273
3D motion estim., obj. tracking, B-spline curve modelling 16172
3D wavebeam field reconstruction from cross sect. intens. meas. 33001
16-bit CMOS divider/sq.-root cct. design 6171
above supply voltage hot carrier distrib. in semicond. devices 13583
absorbing boundary condition for EM scatt. 40307
accelerated overrelaxation method for AX-XB=C 11984
achromatic diffractive optics, LD fibre optic coupling 39445
acoustic ARMA sig. modeling, iter. Prony method 24221
adaptive Gauss-Seidel method for lin. systs. 258
adaptive RLS filtering, iter. version of QR-decomp. 32479
aggregation method, lin. systs./Markov operators, local convergence 11963
anal. gradient iter. procedures, beam shaping techs. 31931
analogue IC CAD, spreadsheets 28945
antenna array pattern nulls, phase-only synthesis, fast iter. methods 40508
antiresonant reflecting opt. waveguides, rigorous design method 15583
area based opt. flow, Poisson solvers and semi-direct methods 8523
asynchronous parallel matrix multisplitting relax. iters. model 37309
ATM multiplexer supporting bursty traffic, perform. computation 41427
ATM peak cell rate monitor algm. dimensioning, discrete time anal. 41447
auditory model inversion for sound separation 32383
AWGN multi-user channels, soft-decision interf. cancellation 42162
B-spline surface interpolation, parallel implement. 20583
band-limited sigs., nonuniformly sampled, spectral estim. method 15863
biomedical microwave image proc., distorted Born ierative method 26291
blind deconvolution, image restoration 2638
blind source separation, composite criterion 40960
block-based image coding, inform. loss recovery, fuzzy logic approach 32873
boundary element approxs., elec./mag. fields, iter. soln. 2177
boundary element lin. systs., soln., iter. methods 37302
boundary integral eqns., multigrid soln. 28692
buffered delta networks under nonuniform traffic, perform. anal. 33183
carrier coded fringe patterns, automated image proc. *(Chinese)* 2607
cct. partitioning under size and I/O constraints 28956
CDMA networks, integrated voice/data traffic, code allocation 33908
charge iter. procedure for unbounded elec. field problems, fictitious boundary 40187
circ. symmetric objs., inverse EM scatt. 7960
circle reconstr. from digital image 16148
class., optimum-size learning, neural net training 32583
CMOS digital combinat. ccts., stat. delay charactn. 13891
coherent opt. proc. for inverse filter generation 39511
complex coeff. FIR digital filter design by complex weighted LSA 6237
complex exponential sigs. param. estim. 2569
conformal array pattern synthesis by SVD 31966
connected handwritten digit separation, external boundary curvature 2639
conoscopic holography, 3D opaque obj. reconstructions 32965
constrained roundoff noise minimisation in digital filters, algm. 15962
contrast enhancement of blurred images, fuzzy logic based *(Korean)* 24694
convergence speed *(English)* 248
convex projection method, Browder strong convergence theorem appl. *(Japanese)* 32859
covariance estim. for multidimensional data 8285
cpd. sig. modified recurrent search *(Russian)* 16051
cross borehole tomography, improved inversion/iter. scheme *(Korean)* 18790
cross point assignment, global rerouting for general-archit. designs 37707
current distrib. on convex-concave cylinder with impedance boundary, Toeplitz matrix/SOR anal. 25560
cut-off priority delay-loss syst., 3 types of traffic and overload control 33228
cutset eval. from paths, improved algm., 2-state reliab. syst. 28528
cylindrical thermionic fuel elements modelling, MCTFE code 27986
data detect. based on iterated fn. syst. model 8382
data fusion of assoc. hypotheses in distributed sens. network 15873
DC unstable operating points ident. using SPICE, IC design 22525
deconvolution, bounded uncertainty 24297
decoupled methods for semicond. device modeling, Gummel iter. 1325
delta-sigma modulators with zero mean stochastic inputs, anal. 37819
depth extraction by time disparity, real image seqs. *(Japanese)* 2617
developing countries radio network design, RAP package-based 31843
dielectric oil, high stress aggregation, electron transport 13935
differential cryptoattack, provable security 40626
diffractive opt. elements, CAD 2139
digital allpass networks design, eigenvalue problem based 8257
digital curve, polygon approx. by graduate iter. merging 32987

iterative methods continued
digital images, multiresolution anal. of contrast *(French)* 16224
digital phase holograms, reconstructed images, iter. and error diffusion method *(Japanese)* 23474
DiPaCS concept for parallel cct. simul. 37595
discrete coeff. FIR digital filters, design 24306
distrib. network, load-flow eqns., starting point 27147
distrib. network optimal switching planning, fuzzy inference-based 27179
distrib. network optimal switching planning, fuzzy inference appl. 19268
distributed detect., gradient algm. for quantization levels 24328
distribution networks, periodic steady state anal. methods 19248
Doppler optimised compression filters 34125
DS-CDMA low crosscorrel. seq. iterative constr. 41463
DS-CDMA networks, multi-media integrat. 25235
DS/SS CDMA slotted access channel perform. anal. 9293
dual offset reflector antenna design for optimal perform. 23917
dual-channel iter. speech enhancement, auditory-based spectrum 8220
eddy current, 2D, iter. domain decomp. algms. 2181
eddy current problems, BEM-FEM-coupling method, domain decomp. 40254
edge detect., probabilistic and dictionary-based relax. techs. 8503
EHV traction power networks, harmonic generation calcs. *(Italian)* 5349
elec. generator maint. scheduling, simulated evol.-based 19602
elec. load flow problem, ES appl. 4627
electrostatic powder painting, particle trajectories, math. model 7903
ellipses and circles, least-sq. fitting 20593
EM fields, multilevel eval., scatt. problems soln. 15387
EM for multi-channel image ident. and restoration 24524
EM paper drying, nonlin. problem soln. 28167
EM scatt. by large open-ended cavities, iter. PO 40278
EM scatt. by z 23613
equi-ripple higher-order differentiators, weighted least-sq. design 32634
equiv. current reconstruction for EM imaging 8512
error diffused images, estimating error diffusion kernel 8611
explicit method for resoln. of semicond. device eqns. 38779
extrapolated AOR and SOR iter. methods, convergence 11983
FAEST, fast transversal algms., error generation and propag. 32699
fast blind equalization, block-updated algm. 24349
fast decoupled Newton optimal power flow *(Chinese)* 10633
finite elements, distortion, degeneracy and rezoning survey 281
FIR composite length fast filtering on ADSP-2100 proc. 29389
FIR digital filters, iter. reweighted least sq. 32785
FIR filters, complex Chebyshev error criteria, optimal design 40805
fixed point iters. for strictly hemi-contractive maps in uniformly smooth Banach spaces 11979
flat-field broadband planar waveguide spectrograph design 39457
foetal ECG sigs., approx. matched filter template derivation 43290
fractal image coding eval. 16252
fractal image compression, iterated contractive transform. *(Korean)* 24690
fractal-based image coding, fast decoder convergence 2740
freq. charact. determ. of measuring transducers 42763
freq.-domain adaptive iter. image restoration 2705
freq.-stepped CW radar data, optimal sig. proc. 17374
full-vector waveguide modeling by iter. finite-difference method, transparent boundary conditions 40401
gain-shaping filters, optimal overdesign 6198
Galileo entry probe tracking, Jupiter wind profiles determ. 42337
Gaussian mode forming phase opt. elements, iter. algm. 7447
generalised iterative frequency domain deconvolution, microstrip line appl. 24229
generalized multipole tech./FEM, coupling 15414
geom. convergence of general iter. methods applied, nonunique solvable convex problems 20589
geom. convergence of general iter. methods applied, nonunique solvable convex problems 37301
global optimal discriminant vectors under global Fisher discriminant criterion 24555
GLORIA images spatial filtering, speckle reduction/contrast enhancement 9674
graph bisection algm., subgraph migration 11926
gray image enhancement, iter. histogram method 24669
gyrotron, magnetron injection gun, electron opt. design 21800
H_z wave inverse scatt. soln. using subscatterer T-matrices 20599
halftone, continuous-tone conversion of error-diffusion coded images 24595
head spherical model, pot. distrib. due to dipole sources, num. calc. 26378
high resoln. image acquisition methods, multiple cameras *(Japanese)* 16124
high-level DSP synthesis using concurrent transforms., scheduling, and allocation 21363
higher order iter. methods for lin. alg. systs. 253
holographic lenses, iter. correction 15179
horizontal and vert. elec. and mag. dipoles in multilayer media 23753
HVDC transm. line, monopolar ionized field, ion diffusion 43736
hydrothermal power systs., economic operation, equal incremental eqns. *(Chinese)* 10636
IIR digital allpass fns., specified phase tolerances *(Japanese)* 37874
IIR digital filter with real coeffs., design 32791
ill-posed systs., implicit shift bidiagonalization algm. 20609
image compression, neural network approaches 24397
image compression, VQ, codebook generation 2694
image recogn., homog. region detect. 2818
image reconstruction, iter. deconvolution, variable convergence speed 41235
image reconstruction from divergent-ray projections 8575
image recovery of missing segments/lines 2711
image restoration, adaptive iter. approach 24512
image restoration, wavelet transform and multiresolution support constraint 16204
image segmentation, adaptive, smooth surface objs. 16182
image segmentation, multiresolution probabilistic neural network 33034
image/video compression algms., mean field annealing recovery techs. 24398
impingement heat sink, flow and heat transfer, num. prediction 37107
integrated services networks, perform. eval., iter. approach 3236
interconnected power systs., small-sig. stabil., eigenvalue method, parallel proc. 35493
inverse scatt., 1D problems, iter. algm. 23617
IR seeker imaging simul. real-time model based on fractal theory 18989
Jacobi-type methods, monitoring diagonalization stage 32764
kinoform calc. by adaptive iter. method 2133
Korean envelope images recogn., address block location *(Korean)* 24693
large-target scatt. cross-sections, fast multipole computation 25564
LCTV image reconstruction of holograms 40151

iterative methods continued
leaded SM devices and solder joints in thermal cycling environ., 3D FEA 37132
lifts, PM lin. sync. motor, transient current, thrust 36736
lin. eqn. iter. method, convergence and accel. *(Chinese)* 5778
lin. eqns., iter. soln. 247
lin. multistep methods and concepts of p-stabil. 37341
lin. quantum wires, self-consistent calcs. 21983
lin. step motors, static charact., control rod drives, nuc. reactors 44438
lin. variational inequalities on domains, nonlin. boundaries 37306
Lloyd-Max algm., init. param. estim. *(Korean)* 20595
logarithmic error measure, pole-zero approxs. design 2494
long. invariant waveguide couplers, anal. by iter. method 14446
lossy coupled transm. lines in lossy medium, transient anal 31876
lossy coupled transm. lines simul., window partitioning, waveform relax. 13422
low sidelobe lin. array tolerance optim. design 23978
lumped param. power transformer model, computer-based 5021
$M^{[x]}/C_2/S/N$ queues, iter. soln. 28578
M/G/1 queues with neg. arrival, iter. method appl. 20512
MAP image super-resoln. algm. improvements, constraining inform. 16205
matrix inversion, systolic array 257
MCM thermal anal., iter. direct soln. method 11768
mesh-restorable network spare capacity placement strategies 41550
metallic waveguides, rect. boundaries, finite-difference anal. method 23791
micromotors, coupled electrostatic/mech. FEA 11094
microstrip antennas, near fields computation 31928
microstrip Yagi antenna, iter. MPIE formulation anal. 23942
microwave EM imaging, convergent iter. algm. 42917
microwave heating of materials having temp. depend. params., num. modeling 20130
microwave imaging, cost minimisation approach, simulated annealing 43277
mixed pattern class. method 24662
MMP-CG-PET, param. estim., MMP code, conjug. gradients 15211
model adaptive image restoration 8609
model based 3-D obj. recogn., intens. and range images 16275
modular multiplication algm., cryptography 2386
monotone element network theory, inequality in iter. methods 37611
MOS devices, transient 2D simul., waveform overrelaxation 22332
MOSFET, Monte Carlo simulator, Poisson-transport iter. 22406
MOSFET ccts., relax.-based transient sensitivity computations 22604
MOSFET simul., coupling drift-diffusion and Monte Carlo models 38905
multi-conductor transm. lines, pulse responses, partitioning tech. 15547
multi-service networks, mean-value anal. of call admission control thresholds 41394
multigrid algms., recombining iterants, problems with small islands 20630
multilevel iter. algms., cct. struct. decomp. methods 5951
multiobjective optim., interactive tradeoff cutting-plane algm. *(Chinese)* 28645
multiple-way partitioning, general-purpose iter. improvement algm. 612
multipoint routing, RS Steiner tree heuristic 16523
multirate sig. proc. algms., compact code from dataflow specs. 40770
multiresolution modulation/concatenated coding, decoding algms. 8683
multiscale image restoration by A Trous algm. *(French)* 16223
multisensor tracking, track assoc., correction for bias and missing data 15876
multistep polygonal approx. techs. 2637
multivariate autoregressive model, max. likelihood estim. 2478
Newton's method for quadratics, nested intervals 37316
noise removal from music, local trigonometric bases and wavelet packets 2570
noise suppression, wavelet model 32577
noisy channels, robust VQ 2382
non-lin. image restoration algm., artifact reduction 24514
nonconvex quadratic prog. problem, act. set methods *(Chinese)* 5760
noninvasive diagnostics, Gibbs act. EM method 35029
noniterative/fast iter. methods for interpolation/extrapolation 2503
nonlin. diffr. tomography, inverse scatt. for imaging 8554
nonlin. eqns. soln., interval anal./rational arith. *(Japanese)* 11993
nonlin. magnetostatics calc., vol. integral eqn. method 40226
nonlin. opt. waveguide, iter. finite difference anal. *(Japanese)* 7352
nonlin. param. estimators approx. 25575
nonlin. syst. ident., Hammerstein model, cumulant-based Steiglitz-McBride algm. 40991
nonlin. vision problem based on forward and approximated inverse optics models *(Japanese)* 16235
nonnegative sigs., relax. procedure for phase retrieval 2472
nonstationary procs., matched generalized Gabor expansion 8343
nonsymmetric matrices, real Schur decomp., hardware implement. 28668
obj. motion params. estim., Kalman filter *(Chinese)* 32805
obj. recogn., distributed cooperative vision syst. 41112
obj. recogn. by cost minimization 41330
ODE, num. soln., stabilized 4th-order extended methods 11998
ODE, stabilized extended one-step methods 37294
open asymmetrical multiconductor transm. lines, spectral-domain anal. 40390
opt. archit., parallel arith. operations, iter. techs. 31037
opt. decoding archit., iterated fn. syst. code algm. 33079
optimum adaptive combiner for ciclostationary sigs. 16006
output queueing, priority class in ATM switch 33181
overcomplete pyramid image representation, error correction 32827
parallax field, intens.-based estim., smoothness constraint 33124
parallel concatenated recursive systematic (turbo) codes 32105
partially adaptive lin. constrained arrays, sparse approach 41015
perfectly conducting cavities, apertures, scatt. elec. fields 40293
periodic instrumental variable ident. method 34303
phase diversity imaging, atmos. turbulence 33089
phase retrieval methods for opt. diffr. tomography 23456
phase shift masks, design, SIMPHAD program 13435
phoneme dictionary automatic training based on mutual inform. criterion 32269
photorefr. neural-network wt. decay, gain and exposure scheduling 39519
pixel-feature-controlling edge detect. based on regularisation 33020
planar opt. waveguides, refr. index profile reconstruction 22875
PLL interferometric profilometry 3984
PM, mag. field/irreversible demagnetisation loss calcs. 30750
PM sync. motor drive, posn. observer 44444
polynomial factorization and partial fraction decomp. 20576
power series algm. for anal. timed-token ring protocols 41524
power syst. adaptive digital relaying, LMS algms. 35674
power syst. economic dispatch, decomp.-coord. theory *(Chinese)* 27036

iterative methods continued
- power syst. load flow, Z-matrix algms., triangular factors 26865
- power syst. Newton optimal power flow convergence studies 26848
- power syst. probabilistic constrained load flow, sensitivity anal.-based 4613
- power syst. real-time economic dispatch design 4569
- power syst. security anal., static on-line voltage contingency screening 4485
- power syst. small sig. stabil. anal., computer programs *(Japanese)* 26875
- power syst. transient stabil. anal., shifted-Picard iters. method 19004
- power syst. voltage contingency selection method 4557
- power syst. weekly thermal unit commitment scheduling method 27105
- power system state estimation weighted least square methods 19022
- preconditioned iter. methods for large unsymmetric matrices 20606
- primary VLF/ELF currents prod. by heating lower ionos. 2201
- progressive piecewise registration, orthophotos and airborne scanner images 41244
- projections onto convex sets, damaged block transform coded images 33131
- Prony algm. modified for exponential fn. fitting 20586
- PSS controller tuning, systematic design method 27056
- rate-compatible punctured convolutional codes for Viterbi decoding 15765
- reconstruction of moving obj. from image seqs., struct. noise 24525
- recovering 3D shape of unfolded book surface from scanner image *(Japanese)* 32868
- rect. antenna cavity, dominant mode waveguide loaded slots array 2348
- recursive digital filter design, parallel allpass sects. and delay elements 29372
- reflector antennas, surface error meas. by phase retrieval holography *(Japanese)* 15647
- regular smoothness and Newton's method 11980
- RITE algm., pipelined regular array proc. implement. 8370
- robust lin. predictive anal. methods for speaker ident. 24150
- robust sig. extrapolation, wavelets 32732
- Rotorcraft Pilot's Associate cognitive decision aiding systs. develop. 10597
- RSA cryptography, fast modular multiplication 24081
- safe-point thinning algm. 24383
- satellite broadcasting schedule optim., Hopfield neural net mean field annealing 25461
- satellite reflector antenna diffr. synthesis optim. 23874
- scalar sig. separation, decorrelation 32697
- Schwarz methods, local refinement 20638
- second-order PLLs, separatrix cycle, calc. and stabil. 21157
- semicond. device matrices, irregular grid, parallel iter. lin. solver 6710
- semicond. eqns., stepwise continuous soln. 38789
- semicond. mfg. syst. planning/yield learning 20381
- semicond. testing facility, scheduling algm., Lagrangian relax. based 20403
- sens.-motor fusion, hierarchical, neural nets 40790
- seq./parallel image restoration, neural network appl. 2729
- shallow water channel estim. methods, comparison 17460
- shape from shading, convergent algms. and uniqueness results 24624
- shape representation, evol. algms. 2795
- sig. copy, partially known, unknown array response 40957
- sig. quadratic form, optimum discrete orthogonal transform *(Japanese)* 16044
- sig. reconstruction from unevenly spaced sampled data, iter. methods 24304
- simply connected moving objs., static scene, segmentation algm. 8524
- single-rail translation-invariant opt. associative memory for neural networks 22796
- slow fading channels, iter. max. likelihood decoding/state estim. 32139
- smart antenna appls. in mobile commun., const. modulus factorization 32465
- soft output Viterbi algm., turbo-codes decoding 40666
- solid polymer electrolyte composite fuel cells, precip. proc. 36585
- spectrophotometric data correction, Kalman filter algorithms 25770
- speech enhancement, constrained iter., HMM-based phoneme class partitioning 8227
- speech enhancement, higher order AR modelling, parameterized Wiener filtering 15836
- speech enhancement, min. cost phoneme class detect. 32376
- speech enhancement based on auditory constrained params. 32210
- speech lin. prediction, L_1 norm in orthogonal vector space 32415
- speech recogn., Markov random field based parallel proc. 32352
- speech recogn. algm., Markov random fields 8201
- speech recogn. non-uniform unit HMMs 2445
- spherical particles syst., modelling of EM wave scatt. 40315
- sq. root filtering in space-time estim. 16068
- squirrel cage motors, field oriented control param. estim. 4979
- step-parallel iterated Runge-Kutta methods 12002
- stereovision, robust segment grouping-and-matching algm. 2636
- stiff IVP, error of stopping Newton iter. 20625
- stochastic algm. for parametric/non-parametric estim. 40859
- stochastic event graph, iter. algm. for perform. eval. 5750
- stochastic model-based image segmentation, functional approx. 2643
- Strang's preconditioner generalization, iter. deconvolution appls. 32821
- stratified media, inverse scatt. soln. by massively parallel computers 23570
- struct. rank deficient matrices, struct. total LS problem 2482
- subway trains, AC supply network, load impact eval. 28108
- superimposed exponential sigs. estim. methods 2530
- surface interpolation, fast, using multi-resoln. wavelet transform 28655
- surface sampling for shape representation, self-organising 41365
- SVD tracking, VLSI algm. and systolic archit. 28667
- symmetric lin. complementarity problems, accelerating iter. algms. 245
- telephone channel adaptation, vector field smoothing tech. 2447
- text-prompted speaker recogn., tied-mixture-based phoneme models 32240
- threshold pivoting preconditioners, nonsymmetric Jacobian matrices, optimum scaling 1484
- threshold switching fn. systematic synthesis algm. 29187
- time const.-based variable LMS algms. for adaptive filtering 8466
- time-domain inverse scatt., local shape fn. method 23569
- time-freq. plane, sigs. filtering, FM/peak detect. 32745
- time-varying filter banks and multiwavelets 24260
- TOF positron imaging syst. 4265
- total least sq. methods, param. extraction 41178
- transient 2D eddy current problem, domain decomp. 23511
- transient 3D eddy currents in nonlin. media, calc. 40236
- transm. line struct. on PCBs and dielec. substrs. 21622
- TRASIM, 2D transient simulator for planar semicond. devices 38778
- two-way partitioning, optim. by iter. improvement, expt. eval. 21021
- ULLV decomp. computation 32473
- ultrashort light pulse amplit./phase, autocorrelator/spectrometer meas. 2821
- unbalanced radial distrib. system, power flow algm. 19263
- unbounded skin-effect problems in presence of material inhomogeneities 38043
- ungauged 3D edge finite element anal., mixed soln. tech. 37370

iterative methods continued
- uniaxial planar waveguides, hybrid mode FEA by iter. method 23799
- unified nonlin. microwave cct./num. solid-state device simul. 6300
- universal motors, commutation characts. anal. 36189
- Van Cittert iter. method of image deconvolution, general relax. factor 2594
- video coding, motion VQ 32876
- VLSI bipolar cct. simul. techs. based on waveform relax. 38998
- VLSI layout CAD, optimal net assignment, constraints 22509
- VLSI placement, module clustering, fractal anal. 13842
- voice ident., nearest-neighbor dist. measure 32285
- waveform relax., overlapping splittings 20631
- wavelet extrema/zero-crossings representations, props./reconstruction 32708
- weekly thermal unit commitment scheduling *(Japanese)* 27522
- Weibull probab. distrib., param. estim. 192
- Weierstrass formula and zero-finding methods 20581
- wideband RF power amp. input matching network param. optim. *(Croatian)* 548
- X opt. coupler with nonlin. dielec. region, anal. 31502
- zero-skew clock net constr., simulated annealing, VLSI layout 29336
- Zincenko's iter., improved, posteriori error bounds 243
- GaAs-AlGaAs quantum wells, periodic pot., cct.-theoretical anal. 13191
- InAs-GaSb quantum wells, periodic pot., cct.-theoretical anal. 13191
- a-Si alloy tandem solar cell suboptimal design 20010
- Ti:sapphire self-mode-locking laser description by iter. map 39752
- Ti^{3+}:Al_2O_3 mode-locked lasers, fs pulse phase meas. *(Japanese)* 14776

iterative software design *see software prototyping*

itinerant model of magnetism *see band model of magnetism*

ITS *see intelligent tutoring systems*

IV-VI semiconductors
- nonparabolic semicond. superlattices, Einstein rel., mag. quantization 29936
- $(CdS)_x$-$(PbS)_{1-x}$ thin-film composites, prep., props. 20913
- Pb salt tunable IR lasers, spectroscopy appls. 14791
- PbMgSrTe, films, hot-wall epitaxy, charactn. 12080
- $Pb_{1-x}Mn_xSe$, epilayer microstructures, mesoscopic phenomena 38272
- PbS films, irrad., elec. props. 13091
- PbS photosensitive layers, charge carrier transfer and recomb. 39548
- PbS/CdS superlattices, pulsed laser evap., opt. props. 13168
- PbSe, epilayer microstructures, mesoscopic phenomena 38272
- PbSe film, intrinsic at. defect charge state 13088
- PbSe, layer-by-layer growth, proton glancing angle scatt. 328
- PbSe:Bi films, amphoteric doping behavior 22146
- PbSe/BaF_2, MBE layers, long-term photocond. 21934
- $PbSe_{0.78}Te_{0.22}$-EuSe quantum-well lasers, nonparabolicity effects 31369
- $Pb_{0.5}Sn_{0.5}Te$ films, cond. activation energy, resist. thickness effects 38274
- $Pb_{1-x}Sn_xTe_{1-y}Se_y$:In, epitaxial layers, photocond. 13095
- PbSrTeSe, films, hot-wall epitaxy, charactn. 12080
- PbTe:Cl, excess Te films, photosensitivity 1070
- PbTe:Ga, electron irrad., elec. and photoelec. props. 1788
- PbTe:Ga films, evap., nanosecond pulsed laser 28825
- PbTe:Ga, photocond. kinetics under pulse laser excitation 1064
- PbTe(111), MBE, RHEED intens. oscill. obs. 20749
- SnO_2:Pt sens., liquified petroleum gas detect. 42861
- TiO_2/PbS, nanocrystalline matrix-adsorbed cluster syst., quantum dot, photocond. 13176

IVHS *see automated highways*

izod testing *see dynamic testing*

Jacobian matrices
- diagonalization stage in Jacobi-type methods 32764
- fast convergent Jacobi algms. for VLSI sig. proc. 32597
- four-dimens. plus hysteresis chaos generator 12299
- load flow soln., Jacobian sing., voltage stabil. margin *(Chinese)* 35448
- maneuvering target, tracking, jump filters 15949
- nonlin. microwave ccts., freq.-domain simul., harmonic bal. method *(Chinese)* 28994
- one-sided Jacobi algm. for SVD, parallel implement. 20601
- parallel implement. of Jacobi and Kogbetliantz algms. 255
- power flow, column exchange tech., Newton-Raphson method 4548
- power syst. load flow soln. criteria 26901
- power syst. load-flow anal., ANN, Newton-Raphson algm. 19083
- power syst. state estim., robust Mahalanobis dists. 10607
- power syst. unbalanced load flow anal. program 4444
- power syst. voltage collapse index, reactive power loss sensitivity *(Korean)* 26846
- power syst. voltage stabil., sing. perturb. theory 26850
- power syst. voltage stabil. anal., load modelling, eigenvalue calc. 26869
- power syst. voltage stabil. anal., PV curve tracing 35455
- power system steady-state voltage instability index 19033
- pseudo-inverse-based probab. power flow 35462
- saturating/hysteretic inductor nonlin. cct. anal. by harmonic-bal. tech. 37610
- semicond. device simul., phys.-model description lang. 1327
- sig. proc. unit for time-adaptive SVD 32655
- sq.-root info. Kalman filter, Jacobi-type systolic array implement. 21358
- static voltage stabil limit determ., load flow algm. *(Chinese)* 26907
- sync. generator voltage stabil., voltage depend. reactive power limits 36114
- threshold pivoting preconditioners, nonsymmetric Jacobian matrices, optimum scaling 1484
- voltage collapse margins calc., network partitioning 4547

jamming
- *see also clutter*
- adaptive antenna array pattern synthesis, constraint selection 40513
- adaptive array for mobile radiocommunication, EMC props. 25326
- adaptive beamformer, recursive modified Gram-Schmidt algm. 2520
- blind spatio-temporal equalizer for radio-mobile channel 33937
- dispersive fading channel, high-speed data transm., SR-chirp PSK 9356
- DS-CDMA cellular syst. perform. anal. 33910
- DS-SS receiver, noncoherent matched filter code acquisition 32582
- DS-SS systs., adaptive filters, freq. sweeping sig. rejection 17020
- fast freq. hopped NCMFSK, Rayleigh fading, diversity combining 33762
- fast freq. hopped NCMFSK, time diversity combining 25253
- FH/CPFSK syst. with partial-band jamming, perform. anal. *(Korean)* 17005
- freq. hopping simulator for multipath mobile channels *(French)* 3361
- multipath/terrain bounce model, real-time mil. appl. 35391
- NAVSTAR/GPS adaptive array processor using analogue LMS algm. 25615
- orthogonal code SS syst. in antijamming *(Chinese)* 10595
- PENETRATOR, dyn. high fidelity EW encounter simul. 26830

- **jamming** continued
  - phased array error correction by sig. reconstr. 23949
  - pulse compression radar, terrain-scatt. jamming suppression 25553
  - radar adaptive antenna proc., array errors influence *(French)* 17404
  - radar adaptive polaris.-space-time proc. algm. 25561
  - radar targets, polariz.-space-time domain detect. 34136
  - secure data commun. protocols in bidirectional star network 33286
  - slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
  - SS commun. syst. jamming, general model 42185
  - SS transm. quality improvement, diversity transm. 17013
  - surveillance radar, dyn. A/D converter charactn. 3614
- **JANET** *see information networks*
- **Jaynes-Cummings model** *see quantum optics*
- **jellies** *see gels*
- **jet stream** *see atmospheric movements*
- **jets**
  - *see also plasma jets; sprays*
  - air curtain, anal. design 28174
  - impingement cooling fins, improved heat-transfer rates for electronic devices 17099
  - KUR-ISOL, mixed-gas jet syst. characts. 10149
  - Pegasus II pulsed power capacitor bank explosive closing switch 36454
  - picolitre flux dispensing for PWB assembly 12939
  - Pulse Shooter solid-state conformal coating proc., PCB mask elimination 38139
  - refr. index determ., temp. meas. and proc. control 18129
  - single-phase submerged-jet impingement cooling for electronic components 1511
  - supersonic free jet particle dens. distrib. visualization *(German)* 10062
  - turbulent jet into counterflow, digital image proc., LDA, 41074
  - HF chem. laser twin plane jets, turbulent kinetic theory 1856
  - Hg liq. jet pulsed power supply opening switch tests 36261
  - Si_3N_4 thin films, MNS capacitors, jet vap. deposition 37504
- **JFET** *see junction gate field effect transistors*
- **JFET circuits**
  - *see also JFET integrated circuits*
  - AlGaAs/InGaAs MM-wave heterojunction FET MMIC oscillators *(Japanese)* 6336
- **JFET integrated circuits**
  - analog IC BiCMOS-JFET radhard SOI technol., proton radiation effects 13904
  - V-band MIMICs for pers. commun. terminals 38008
  - AlGaAs-InGaAs E/D-HJFET LSI technol., 0.6 V 39022
  - AlGaAs-InGaAs HFET MMIC power amp., V-band, high gain 38037
  - GaAs tri-state driver flip flop, HFET LSI 37718
  - InGaAs/InP transimpedance opt. receiver OEIC 1834
- **JFET switches** *see field effect transistor switches*
- **JIT** *see production control; stock control*
- **jitter**
  - 2.5 Gb/s SDH/SONET analyzer, jitter option develop. *(Japanese)* 33975
  - 3 by 3 fibre coupler phase jitter, pass. homodyne demodulation 30923
  - 10 Gb/s single-channel high-capacity soliton syst. design 17352
  - 10 Gbit/s periodically amplified WDM soliton syst., filtering effects 17267
  - 100 base-VG demand priority protocol, real-time commun. 16490
  - 256-QAM syst. in presence of phase jitter and CCI 24009
  - adaptive deconvolution method time jitter effect elimination 2354
  - adaptive feedforward lin., convergence behaviour 3324
  - ADC jitter meas., substraction method 9838
  - airborne laser commun. syst., adaptive jitter rejection tech. 17310
  - ATE environ., ±30 ps accuracy 9803
  - ATM bursty user traffic allowed by jitter tolerant leaky bucket 2872
  - ATM multiplexer, jitter/delay anal. 16439
  - ATM network end-stations, perform. charact. 33175
  - ATM network routing, congestion tolerant commun., perform. 8728
  - ATM networks, multi-rate traffic shaping/perform. 2879
  - ATM switch, weighted round-robin cell multiplexing 8720
  - ATM switches, stress test results 42116
  - bandlimited DS/SS and narrowband M-ary PSK timing jitter sensitivities 40550
  - BATS, transport syst. for broadband appls. 33374
  - BiCMOS PLL, 6 GHz, 60 mW 6051
  - bit/packet opt. sync., fiber switching node inputs 25482
  - CCD-based tracker for laser commmunication pointing acquisition and tracking control 17304
  - CD digital audio, high order phase lock loop for jitter reduction 6050
  - CLAD implement. and expt. results in ATM networks *(Japanese)* 24948
  - CMOS burst-mode clock recovery cct., 28.8 Mb/s PON 34104
  - CMOS delay-locked loop for 18 Mbit, 500 Mbyte/s DRAM 6155
  - CMOS PLL-based prog. clock generator for video sig. proc. 12611
  - compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
  - dBm semicond. opt. amplifer booster module for high-bit-rate transm. systs. 17228
  - delay locked loop, Doppler and data modulation effects 32036
  - digital data transm., optimum stuff threshold modulation schemes 40573
  - digital radio systs., freq.-phase detector for carrier recovery 3316
  - digital TV broadcasting, waveform transm. technol. *(Japanese)* 34214
  - digital video sig. transm. via RAI analogue FM radio links *(Italian)* 9158
  - digitised voice over high speed LANs, error control scheme 33445
  - distrib. network disturbances, light flicker voltage requirements 20125
  - Doppler shift z 42303
  - echo-cancelled discrete multitone systs., timing recovery 9090
  - external cavity LD modelocked by optoelec. feedback, stabil. 23275
  - fast pull-in PLL, anti-pseudo-lock fn. *(Japanese)* 29077
  - FEL, SW range, electron beam accel. and compression 39898
  - fibre link, interact. soliton Gordon-Haus distrib. 23443
  - fourth-power law clock recovery with prefiltering 41390
  - frame integrat. perform. improvement in unknown sens. jitter 16108
  - free space laser commun., demons. of jitter rejection tech. 17313
  - free-space opt. commun. systs., pointing jitter, turbulence 9551
  - freq.-guiding filter in opt. soliton transm., peak curvature meas. 9425
  - fs harmonically mode-locked fiber laser, time jitter below 1 ps 23130
  - Gaussian beam, random jitter, optimum truncation 23336
  - Gaussian procs., phase jitter, probab. distrib. changes 16015
  - Gordon-Haus effect reduction on dark solitons of nonlin. gain 30876
  - handover during mobile data commun., error reduction 16635
  - HDTV transm. on SDH network, stuff sync. cct. design 25666
- **jitter** continued
  - high-speed digital systs., jitter anal. 33985
  - HV desk-top subnanosecond pulser, develop. and appls. 29074
  - HV low jitter trigatron, repetitive operation, design/model 29820
  - HV steep power pulses, opt. semicond. switch-generated 36432
  - IIR filtering for adaptive phase jitter cancellation 32748
  - integrated video and data commun., dyn. quality and congestion control 24738
  - IR imaging sens., unified perform. model of detect. and tracking 16112
  - L-band GPS receiver, digital downconversion test 9682
  - large-scale video servers, buffering/caching 34246
  - laser commun., opt. commun. demonstrator 17289
  - laser mirror jitter, overview of theoretical/expt. work 39999
  - LITE (Laser Intersatellite Transmission Experiment) model, functional testing 17288
  - long haul WDM fibre soliton transm., filtering 3587
  - long-dist. soliton transm., 20 Gbit/s, alternating-amplit. solitons and opt. TDM 34018
  - Mach-Zehnder modulator output, soliton pulse compression, 40-GHz pulse train generation 14533
  - mag. recording channel equalization for max. likelihood detectors 30724
  - magnetooptical disk drive, mag. field modulat. recording 7415
  - mech.-induced readback errors in contact recording 7157
  - mixed photonic/electronic cct. simul. 37603
  - mixed sig. device, high precision testing 766
  - mobile commun., delay lock loop, delay path cancellation *(Japanese)* 25274
  - mode locked semicond. lasers; self PM, timing jitter 31418
  - multibit DAC, intersample distortion/sample jitter sensitivity 9762
  - multilevel PAM/QAM syst. jitter-reduced digital timing recovery 40563
  - multimedia conf. syst. on FDDI, TCP/UDP 16819
  - multimedia conference system on broadcast networks, design and implement. 33614
  - multimedia integrated services networks, sync. mechanisms 16874
  - multisegment mode-locked semicond. lasers, timing jitter mechanisms 31419
  - narrowband CPM async. CDMA syst. all-digital receiver design 42150
  - nonlin. fiber Sagnac opt. TDM switch 17336
  - opt. amps., sig. jitter, ASE 14769
  - opt. disks, eye-diag. jitter, source wavelength, aberration and noise effects 30833
  - opt. fibre PPM perform., jitter implications 17245
  - opt. fibres, subpicosecond soliton-like pulse propag. 22861
  - opt. pulse train noise, spectral meas. interp. 2041
  - opt. pulse transm., soliton source, beat sig. conversion 34052
  - optimized signaling waveforms, ISI/timing jitter effects reduction 15968
  - payload jitter simul., SDH network 17354
  - periodic discrete event procs., param. estim. 40924
  - periodic/pseudorandom word modulated LD in fibre soliton transm. 42395
  - phase change opt. disk, mark edge recording waveform optimisation 30844
  - phase deviations on SDH and SDH/PDH interface 8705
  - phase/freq. detectors for opt. transm. systs. clock sync. 3568
  - photocathode RF gun, laser driven, FEL operation appls. *(Japanese)* 29757
  - plasma opening switch, throughput jitter operation 21861
  - plasma pulsed power opening switch, low jitter operation tests 36418
  - PLL clock generation syst. for 500-MHz RISC proc., 1.5% jitter 29337
  - PLLs, sig. injection, sync. systs., anal./optim. 16014
  - pulse sources in opt.-soliton transm., carrier linewidth timing jitter 15052
  - pulsed power high-Coulomb triggered vac. switch tests 36458
  - queue monitoring, delay jitter mgt. policy on audio/video computer based confs. 9034
  - QW bistable semicond. lasers, modeling and meas. 2000
  - reflective opt. mixer, polariz.-independent phase conjug. 25483
  - SDH byte pointer justification vs. VC-12 payload bit justification 33179
  - SDH networks, pointer adjustment jitter cancelation 16453
  - SDH slave clock chain RMS time interval error accumulation 41391
  - self-seeded gain-switched Fabry-Perot laser, low jitter single-mode pulse generation 14884
  - sig. averaging enhancement by jitter deconvolution, ECG appl. 35080
  - single-mode diode lasers, feedback, external light injection, switch-on time, timing jitter 31397
  - slider, take-off/touch-down vel. meas. 7161
  - soliton syst., amplit. noise, timing jitter, suppression/control 7759
  - SONET, digital network sync. 42379
  - sq. synchroniser jitter on direct detect. opt. commun., white cct. noise 3577
  - Super-ACO free electron UV laser, stabil., long. feedback 39958
  - Synchronous Digital Hierarchy equipt., jitter testing 8819
  - synchronous sampling clock generator, meas. accuracy anal. 25763
  - synthesised LO for DB1NV spectrum analyser 34425
  - three-axis bal. driving-type opt. head for high-dens. opt. disc player 17590
  - transit. jitter meas. gauge testing for long. thin film mag. recording 14227
  - trellis coded CPFSK, coherent detect. on phase jitter channels *(Korean)* 33922
  - ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
  - VCO jitter reduction, bandpass filtering 12363
  - VSB/QAM for hybrid fiber/coax, digital transm. 42610
  - waveform estimation with jitter noise, stochastic methods 25752
  - AlGaInAs vis. diode laser with phase-conjug. feedback, stable mode locking 39833
  - Er^{3+},Yb^{3+}-doped fibers, anom. dispersion study 22852
  - GaAs MESFET opt. triggered monolithic S/H cct. design 39590
  - GaAs PLL-based clock generator, 3.2 GHz, 50 mW, 1 V supply 12612
  - SnSbSe/SbBi bilayer phase-change media for high-dens. write-once opt. recording 39314
  - Yb^{3+}-doped fibers, anom. dispersion study 22852
- **Johnsen-Rahbek effect** *see adhesion; electrostatics*
- **Johnson noise** *see thermal noise*
- **joining processes**
  - *see also brazing; cable jointing; soldering; welding*
  - adhered struct., US NDT, reverberation cancellation, z-transform tech. 28901
  - bimetallic riveted contacts, thermal modelling studies *(Russian)* 6382
  - capacitively coupled MCM 21755
  - EM shielding effectiveness, angle of cut/gap size effects 23697
  - epoxy die attach, dispensing technol. and systs. 12950
  - Hermes space vehicle PRA pilot study 18698
  - microengineering devices, packaging 5624
  - power IC package low temp. joining tech., thermomechanical stress reduction 28504
  - thin film bonding, ion beam tech., review 289
  - Ag/BiSrCaCuO supercond. tapes, joining technol. 30771

joining processes continued
Al-ceramic surface activated bonding, electronic/chem. procs. 37530
Si_3N_4, react. bonding, US monitoring sig. proc. 18953
jointing (electric connectors) *see electric connectors*
jointing, cable *see cable jointing*
Josephson effect
2DEG quasiparticle interferometer, phase-depend. resist. 22751
2DEG-supercond. planar junctions, proximity and Josephson effects 30794
AC biased supercond. flux transformer 30783
array, resistively shunted, shielding 39269
arrays, anti-phase coherent states, phase-locking behavior 22760
autonomous/injection-locked flux-flow oscillators, spectral linewidth 38015
constants determ., Josephson and Von Klitzing constants evaluation 25709
dual channel digital SQUID, DC-powered Josephson MUX readout 39256
HTSC, grain boundary jn., voltage steps 30796
I-V charact., EM field flucts., single electron tunnelling 30784
jn. series arrays, av. eqns. 30774
Josephson contacts, nonlin. vortices dyn. 30797
Josephson jn., fluxon chain, deform.-wave excitation 14305
layered supercond. dc flux transformer with Josephson coupling, modelling 30802
macroscopic quantum spectrosc. of Josephson jns. 14288
mesoscopic superconductivity, conf., Karlsruhe, Germany (1994) 11578
microstrip resonator, dielec. const./surface resist. meas. 18047
nanoscopic struct., Josephson effect 7238
nonhysteretic Josephson jns., quasipotential and phase lock stabil. 1617
overdamped Josephson jns., devil staircase dyn. 30785
phase roughening transit. in Josephson-jn. ladders in random mag. fields 1626
PLA of Josephson jns., GHz/THz oscillators 39280
quasioptical Josephson detectors for MM-wave spectrum anal. 42759
s-wave/d(x^2-y^2)-wave supercond., Josephson effect, phase depend. 39266
satellite broadcast receiver, high T_c supercond. coupling device *(Japanese)* 34228
SQUIDs, noise props., inductance depend. 14302
supercond.-ferroelec.-supercond. struct., Josephson effect 14299
supercond./insulator multilayer appls., review 1600
tunnel jn. stripline, microwave distrib. 39257
tunnel jns., externally shunted, inductance 22742
tunnel jns., microwave standing wave patterns 822
weak links syst., Josephson behavior, freq. modulated microwave field anal. 30781
weak-link Josephson jns., nonlin. mixer gain calcs. 14286
X-ray detectors, quasiparticle diffusion 30800
Au-Pb N-I-S jn., temp. depend. of Andreev refl. current 14294
BiSrCaCuO high T_c trilayer tunneling and Josephson jns., ALE growth 373
BiSrCaCuO, multilayers/superlattices develop. 22744
$Bi_2Sr_2CaCu_2O_y$ single cryst., intrinsic Josephson juncts., flux flow 39268
$BiSr_2Ca_7Cu_8O$ high-T_c superconductive devices, at.-layer-controlled fab. *(Japanese)* 5818
DyBaCuO, multilayers/superlattices develop. 22744
Nb tunnel jns., AC Josephson effect above gap freq. 14300
Nb/Al-AlO_x-Al/Ta/Nb Josephson jns. for X-ray detect. 34972
Nb/AlON-Al/Nb, Josephson jns., tunnel barrier growth, reflectivity 22745
Nb-Al_2O_x-Nb, 1D parallel Josephson-jn. arrays, cct. diagnostics 1619
Nb-AlO_x-Nb Josephson-CMOS ICs, monolithic fab., RAM appl. 21312
Si/YBaCuO reactive patterning tech., step-edge jn. fab. 1611
YBCO/PBCO/YBCO planar sandwich-type jns., Josephson jn. charact. 39229
YBaCuO DC-SQUIDs, step edge junctns., anom. voltage modulation 39267
YBaCuO Josephson jns. on $NdGaO_3$ bicrystalline substrs. 22764
YBaCuO SNS Josephson jns. with epitaxial barriers, interface/proximity effects 39275
YBaCuO biepitaxial Josephson jns. on SOS substrs. 22761
YBaCuO film dc SQUIDs, film quality effect on props. 39281
YBaCuO microbridge, 2D array, weak links 22763
$YBa_2Cu_3O_7$, Josephson jn. fab., bi-epitaxial grain boundary 30790
$YBa_2Cu_3O_7$ bridges, crit. current, mag. field depend. 30793
$YBa_2Cu_3O_7$ shallow step jn., Josephson radiation linewidth 39264
$YBa_2Cu_3O_7$ step edge jns. on $LaAlO_3$, Fiske resons. 39258
$YBa_2Cu_3O_{7-\delta}$ Josephson jns., microwave noise 39259
$YBa_2Cu_3O_{7-\delta}$ film bicrystal grain boundary jn., field effect device 1615
$YBa_2Cu_3O_{7-x}$ thin film bridges on bicrystal substrs., detect. props. 39265
$YBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795
$YBa_2Cu_3O_y$ grain boundary jns. on (100)MgO, Josephson effects 30787
$YBa_2Cu_3O_y$ granular bridges, I-V charact. and Josephson ac effects 30769
$YBa_2Cu_3O_7/PrBa_2Cu_3O_7$/Au-Ag/Pb jns., electron transport props. *(Japanese)* 7235
$YBa_2Cu_3O_{7-\delta}/YBa_2Co_xCu_{3-x}O_y$ Josephson jns., flux flow 39263
YBaCuO-YPrBaCuO-YBaCuO ramp jns./multilayers, prep., comparator appl. 39274
$YBa_2Cu_3O_7$-Josephson jns., mech. induced growth disorder 39273
$YBa_2Cu_3O_7$-$PrBa_2Cu_3O_7$ Josephson edge type jns. 22754
$Y_{1-x}Pr_xBa_2Cu_3O_{7-\delta}$ SNS jns., resistively shunted I-V characts. 7233
$YbBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795
Josephson junction devices *see superconducting junction devices*
Josephson logic circuits *see superconducting logic circuits*
Josephson memory circuits *see superconducting memory circuits*
Josephson radiation detectors *see superconducting particle detectors*
Joshi effect *see glow discharges*
joysticks *see interactive devices*
junction gate field effect transistors
see also JFET circuits
diamond power transistor perform. 13796
dual gate MOS-JFET CCD test struct. 34584
gamma-ray radiation dosimetry, Zener diodes 43137
jn. field effect-press. Halltron, sensitivity anal. 25815
LHC liq. Ar calorimetry, radiation resist. of front-end electronics 26251
low noise JFET cooled amp. for DC SQUID 6031
piezoresistor fabricated by high energy ion implant. 25823
power bipolar-mode FET, turn-on transient anal. 13813
pseudomorphic double heterojunction power FET, optim. 12771
random telegraph sig. currents and LF noise 1432
second breakdown, power BJT/bipolar mode JFET comparison 30546
ultra-low noise preamplifier for room temp. X-ray detectors 43138
X-ray detectors 43162
AlGaAs-InGaAs HJFET, freq. depend. drain cond. 6795
AlInAs/InP low gate current HFET 13781
junction gate field effect transistors continued
GaAs JFETs, deep cryogenic readout electronics appl. 30371
GaAs asymmetric Schottky-ohmic MSM photodetector 17810
GaAs:C self-aligned n-JFET, carbon buried p-implant 6806
p-GaAs/AlGaAs HFET, output characts., high press. effects 38919
GaAs-based HJFET, 6.6 W, 12 GHz, power amp. appls. 21550
GaInAS/InP, high power HJFET, MOCVD, performance 13775
GaN/AlGaN heterostruct. FET, temp. activated cond., operating at temp. up to 300°C 30376
InAlAs/InGaAs HFETs, HBr plasma RIE-induced damage 13797
InAlAs/InGaAs HJFETs, high In comp. channels, low noise/high gain 6797
InGaAs monolithically integrated pin-FETs, noise characts. 14671
InGaAs/GaAs depletion-MIS-like delta-doped HFETs 13810
InGaAs/GaAs, two mode channel FET, low noise perform., electron confine. 38927
InGaAs/InP JFET, step-doped channel doping for OEIC receivers 14653
$In_{0.5}Ga_{0.5}P$, highly strained, wide-gap material for heterojunction FET 20769
InP/InGaAs JFET/pin photodiodes for optoelectronic integrat. 1439
InP-InGaAs JFET, δ-doped channel 6796
6H-SiC JFET, 1/f noise phenom. 1436
SiC JFETs, LF noise anal. 38279
SiC high-temp. JFETs, neutron damage anal. 13789
ZnSe/InP, HJFET, MOCVD fab., characts. 13776
junction lasers *see semiconductor lasers*
junctions, waveguide *see waveguide couplers*
Jupiter
buffered telemetry demodulator for Galileo mission 9420
wind profiles determ., Galileo entry probe tracking appl. 42337
just-in-time *see production control; stock control*
k.p calculations
intersubband optics for symmetric and asymmetric quantum wells, wires and dots 40046
quantum well lasers, 2D simul. 39792
semicond. intrinsic props., nonparabolic three-band model 22337
$Al_xGa_{1-x}As/In_yGa_{1-y}As/GaAs$, pseudomorphic HEMT, photolum. 6807
$Al_xGa_{1-x}As$-$In_yGa_{1-y}As$-GaAs, modulation doped HEMT, photolumin. linewidth 13145
AlGaInP/GaInP strained quantum wells, opt. gain 31377
$In_{1-x}Ga_xAs$/InP quantum wells, cond.-band/valence-band struct. 1130
Si MOSFET, interband tunneling, 2D num. model 22407
ZnSe-ZnMgSSe-ZnMgSSe blue diode lasers 1966
Kalman filters
see also adaptive Kalman filters
3D image recogn., optimum estim. and compensation *(Japanese)* 16370
3D motion/struct. recursive estim. 2780
3D reconstr. from image seq., Bayesian/Kalman, comparison 2854
AC ASD, torque/speed/posn. control, trends 20065
adaptive antenna arrays controlled by gradient algms. 2351
aircraft landing tracking, multisensor integrat. 41115
aircraft motion estim., max., posteriori method 16358
aircraft tracking, data proc., EKF 9635
assembly parts hole dist. optimal estim., Kalman filters 8623
ATM networks, optimal estim. framework for adaptive traffic admission 41678
automatic landing LQG/LTR controller design 35276
autonomous underwater vehicle navig., sparse ref. points 34171
autonomous underwater vehicles, acoustic tracking/navig. 17361
autoregressive spectral estimation fro NMR spectroscopy 24233
binary commun. channel equalisation, feedforward neural net 15680
BWR stabil. anal., Kalman filter-based state estim. 19473
camera/obj. translation estim., camera rot. 32935
candidate target detect., likelihood interpolation for peak detect. 15879
convolutional codes/time-varying errors/Kalman error correction 40664
curve matching, geometric hashing 2671
DC motor drive sensorless operation, Kalman filter-based 36674
decorrelation algm. for blind DFE, lattice structs. 24264
deinterleaving pulse trains 2481
differential Riccati eqn. soln., transm. line modelling 21402
digital commun. channel equalizer, Kalman-trained neural network 33156
discontinuous sigs. smoothing, competitive approach 24198
disk-drive PLLs, anal./optim., Kalman filters 37675
distrib. network disturbances prediction, Kalman filter-based 10724
distributed obj. recogn., fuzzy relational inference logic 16274
DOA estims., Kalman-based estimator 8434
dyn. economic dispatch, short-term load prediction algm. 19210
dyn. space resection, straight lines 41280
EKF freq. tracker, design 32781
EKF sensitivity, soln. accuracy for single space based observer 29343
EKF sensitivity, var. in observer no. and obs. type 29342
elec. motor speed estim., shaft encoder meas.-based 44001
element quality anal., accuracy of ephemeris prediction from satellite orb. elements 18985
exact nonlin. filters, theory and appls. 12644
extended H_∞ filter, robust EKF 40942
failure detect., GPS autonomous integrity monitoring appl. 33947
fault detect. for nonlin. state-space systs. 11840
flute music embedded in noise, sig. detect./restoration 16001
forward-backward lin. predictor, DOA estim., Kalman-based 24332
freq. offset estim. via planar EKF 8317
freq.-selective Rayleigh fading channels seq. estim. 8373
fusion of radar and imaging sens. data for target tracking 16113
general decentralized Kalman filters 15953
generator transient/subtransient params. ident. 4907
H_∞ criteria, robust sig. estim. 41012
high-speed train, adaptive channel equalization 3423
human motion tracking in real scenes, robust approach 2820
hybrid H_2/H_∞ filtering, PLL filter design 15950
image motion estim. based on Kalman filtering 24450
induction motor, indirect adaptive control, reduced Kalman filtering 11030
induction motor offline param. ident., computer-based 4956
induction motors with flux obs., adaptive nonlin. control 27727
integrated Kalman-filter-based measurand reconstruction architecture 25765
internal combustion engines, combustion press. proc. modeling 4841
invariant submersion method, min. filtration problem appls. 32573
kinematic GPS, resolving cycle slips, redundant satellites *(Japanese)* 42538
lin. optimal stochastic observers, sensitivity anal. 32578
lin./nonlin. filtering 24292
load forecasting, weather-sensitive short-term, neural net approach 10701
Mahalanobis Distance and Standard Hough Transform comparison 24442

Kalman filters continued
mammography, pattern class., multistage neural net 43257
maneuvering target tracking, adaptive interact. multiple model algm. 15921
maneuvering target tracking, single Kalman filtering algm. 32724
maneuvering target tracking algm. 9619
maneuvering targets tracking, multiple intermittent sens. 8295
manoeuvring objs., motion estim., rot. representations 33138
manoeuvring target tracking, adaptive interact. multiple model algm. 25554
manoeuvring target tracking, image enhancement algm. 17388
manoeuvring targets tracking, accel. modelling, turn-rate distribs. 40788
manoeuvring targets tracking, H_∞ filters 15947
mean-field theory and multitarget tracking 15869
measurement system resolution improvement through optimal filtering 25766
missile guidance sig. estim., Kalman filter 26809
mobile robot environ. recogn., US sens., CCD camera 43556
model based pose estim. of articulated and constrained objs. 24464
multi output systs., online fault diagnosis, Kalman filter/neural net appl. 11830
multiple model EKF, blurred images restoration 33139
multiple unknown objs. localisation/tracking 24665
multisensor noisy/fuzzy data filtering 32804
nearest neighbour type multi-sens. tracking and ident. algo. 2580
noisy phase or freq. modulated sigs., demodulation, Kalman filters 40574
nonuniform image motion estim., Kalman filter formulation 2849
nonuniformly sampled sigs., real-time reconstruction *(French)* 15929
obj. motion params. estim., Kalman filter *(Chinese)* 32805
occlusion reasoning for robust multiple car tracking 24455
oceanographic data, params. extraction 35343
on-orbit calib. of inductosyn error 18720
opt. flow, probabilistic and seq. computation, temporal coherence 2728
optimum Kalman detector/corrector for fault-tolerant linear processing 32649
OptoNeural target tracking syst. 41306
orbital debris radar antenna pointing 25581
parallel space filtering subsystem for target tracking, EKF 16030
parametric ident. problems 8335
perform. robustness anal. of Kalman filter for lin. discrete-time systs. 21397
periodic discrete event procs., param. estim. 40924
phasor tracking, estimator based on fuzzy IF-THEN rules 4502
pipe length online meas. by acoustic sens. *(Japanese)* 17681
pose estim., noisy data fusion 24419
power syst. anticipatory fuzzy control, neural net-based 43666
power syst. digital dist. relays, transient perform. study 27255
power syst. dist. protection, microcomputer Kalman filter algm.-based *(Chinese)* 43795
power syst. dist. relaying, Kalman stat. filter testing 10779
power syst. dyn. state estimator, computer-based 4457
power syst. fault current estim., Kalman filter 19190
power syst. protection, probabilistic decision approach 10768
power syst. short-term load forecasting methods, computer-based 27093
radar scan frame time maximization for tracking maneuvering target 17369
radar tracking, jump lin. model based aircraft trajectory reconstruction 17373
radiolocation data proc., parallel space filtering 25611
real-time navig., global positioning syst. 18991
reciprocal seqs., Kalman like filtering/smoothing 40873
recursive nonstationary MAP displacement vector field estim. algm. 33127
recursive spline-based algorithm for spectrophotometric data correction 25771
rigid and affine registration of smooth surfaces, differential props. 24633
roads, cluttered scenes, real-time visual tracking 32950
robust approx. likelihood ratio tests for nonlin. dyn. systs. 40975
robust Kalman filtering, QQ-plot approach 32681
scanning radars, poor resoln., neighbourhood Kalman filtering 9631
semicond. short run mfg., Kalman filtering proc. control 37166
sens. systs. optimal operation, transputers 24317
ship, attitude meas., servo-type inclinometers *(Japanese)* 9791
ship attitude meas., servo-type accelerometers *(Japanese)* 25970
shock-absorpt., act.-pass., and gravimetric obs. 3991
sinusoidal sig./params. estim., nonlin. filter *(Japanese)* 2557
spectrometric data correction, Kalman-filter-based algm. 15931
spectrophotometric data correction, Kalman filter algorithms 25770
speech coding, recursive/adaptive AR proc. ident. 24138
speech coding, variable bit rate ADPCM via arith. coding 32256
speech sigs., recursive formants tracking 32408
split gate trackers, tapped delay errors 26827
sport, ang. veloc./accel. meas., accelerometers *(Japanese)* 26267
sq. root filtering in space-time estim. 16068
sq.-root Bryson-Frazier smoothing algms. 40764
sq.-root info. Kalman filter, Jacobi-type systolic array implement. 21358
SRIF DSP algo., VLSI systolic array implement. 665
state vector reconstruction, optimal in 2D systs. 32685
step motors, hybrid, posn. determ. from EMF sigs. 11095
submarine navig. data integrat. 24296
survey vessels, precision attitude meas. 17496
target tracking, effect of cross correl. on track-to-track fusion 18979
target tracking, meas. selection validity improvement 17379
target tracking, neural network maneuver modeling 32671
target tracking, probab. data/finite resoln. 41028
telephone revenue prediction 41718
telephones, echo control, Kalman filter algm. 42045
time-varying speech sig. anal., seq. param. estim. 32319
towed underwater body and mother ship navig. 17499
track, track fusion algms. 15911
tracker correl. gate size optim. for maneuvering targets 18977
tracking and motion class., switchable model Kalman filter 41144
tracking appls. of parallel transputer network Kalman filters 24191
tracking of objs., Kalman proc. for image seqs. 41334
turbulent atm. wind profile estim. from laser distortion data 35311
two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638
two-stage approach, multi-sens. temporal data fusion 41230
underwater robot vehicles, 3D US localisation syst. 26785
underwater targets tracking, robust regression-based EKF 24172
vehicle localisation in poorly known environ. 24356
walking recogn. from image seqs., incremental 2745

Kaplan turbines *see hydraulic turbines*
KBMS *see deductive databases*
Kelvin-Helmholtz instability *see flow instability*
keratin *see proteins*
kerma *see dosimetry*
kernels (operating systems) *see operating system kernels*
Kerr effect (optical) *see optical Kerr effect*
Kerr electro-optical effect
see also optical Kerr effect
axisymmetric elec. field distrib., Kerr effect meas. 14535
graded birefringent media, light refraction, elec. field meas. 14326
HF behavior of electrooptic Kerr modulators, voltage meas. appl. 19365
relax. meas., HV sq. pulse generators 1732
Kerr magneto-optical effect
high resoln. meas. of displacements 18081
NDT probe for mag. data storage materials 3869
opt. based mag. field sens. tech. 10002
readout sig. in magneto-optic readout proc. 14550
rewritable media, principles 22788
wide-field Kerr imaging, mag. device appls. 14547
Co:EuS, macroscopic ferrimag., magneto-opt. props. 14101
Co/(Pt-Bi) multilayers, magnetis., magneto-opt. props. 14204
Co/Ni multilayer, sputtered, anisotropy and magneto-opt. props. 14203
(Co-Bi)/Pt multilayers, magnetis., magneto-opt. props. 14204
Co-Nb/Pd multilayer, mag. and magneto-optic props. 30709
Co-based multilayers, layer modulation, magneto-optic Kerr spectrosc. 30712
CoNbZr stripe films, domain structs., magnetis., high-freq. response 6935
CoNi, multilayers, magneto-optics, opt. props. influence 14202
Fe-Si/Cr multilayer, mag. and magneto-optic props. 30709
FeNdB-based magnets, Ga and Nb addits., mag. and microstructural props. 14163
MnSbPt films, giant mag. Kerr rot. 14100
Pt/Co multilayers, Ar-sputtered, anisotropy energy and coercivity, magneto-opt. recording 14545
Pt/Fe(Co)(NiCo) multilayers, magnetooptical spectra 7056
Pt-based alloys, magnetooptical spectra 7056
TbCo, multilayers, magneto-optics, opt. props. influence 14202
TbFeCo/Ta multilayers, mag. and magneto-opt. props. 14200
keyboards
Hitachi IKAP makes PCs smaller and extends batt. life 21340
keypads *see keyboards*
kicksorters *see counting circuits*
kidney
high-resoln. PET imaging, small animal, pharmaceutical biodistributions 10177
nuc. med., conf., Orlando, FL, USA (1994) 20218
nuc. med., urinary nuclides excretion, pharmacokinetics model 18663
overhydration estim., renal failure, mag. reson. relaxometry 43241
renal transplant success prognosis, neural net appls. *(Italian)* 4292
kinematic viscosity *see viscosity*
kinematics
see also acceleration; robot kinematics
3 DOF Maglev, actuators, PM *(Japanese)* 39216
3D kinematic angle meas. syst. for nonjointed rigid axes 43192
arm modeling for anal./synthesis image coding 8564
automobile dyn. spark ignition engine control modelling 11438
combined block adjustment, precise differential GPS data 42317
coronary arteries, 3D motion/reconstruction from biplane cineangiography 4268
double differenced GPS phase obs., high precision positioning 42545
elec. belt drive design, energy models 44462
electro-opt. tracking syst. struct. for moving obj. kinematic soln. *(Croatian)* 3626
ERM spring drive, no-load dyn. modelling 5242
inertial propulsion, concept and expt. 28149
MAC-02 Stirling engine, indicated power, heat input trade-off 28041
mil. high mobility trailers, computer-based perform. anal. 35419
virtual space teleconferencing, human fig. synthesis/animation 33619
kinematography *see cinematography*
kinerecording *see video recording*
kinescope *see television picture tubes*
kinoforms *see computer-generated holography*
Kirchhoff adders *see summing circuits*
Kirkendall effect *see chemical interdiffusion*
kitchen appliances *see domestic appliances*
klystrons
see also optical klystrons
95 GHz gyroklystron, beamstick, advanced centerpost gun 21811
200 MW klystron pulsed power modulator, electron LINAC appls. 34744
accelerator klystron amps. operated, levels below max. output power 43009
antenna array, RKA-driven, feeding syst. 31988
clustered-cavity klystron, lin. theory 991
cond.-cooled supercond. magnet, Gifford-McMahon refrigerator *(Japanese)* 1634
cyclotron autoresonance klystron operating, Doppler-shifted harmonics 29790
gyroklystron, 95 GHz harmonic, beamstick 21828
gyroklystron, harmonic, multi-megawatt, expt. studies 21836
gyroklystron amp., high-harmonic slotted, particle-tracing simul. 6500
gyroklystron amp., high-perform. 70 kV third-harmonic 6501
gyrotron amp., axially modulated, cusp-injected, large-orbit 6497
gyrotron amps. for collider appls. 21810
high current klystron amp., 500 MW, 1 μs pulse length 6482
high power gyrotron oscillator, mode purity modelling 21834
high power klystron develop. 29781
high-current relativistic klystron research, Physics International 29774
high-power microwave amplifier, plasma klystron concept 21838
high-power X-band microwave generators, LLNL expts. 34827
HV DC power supplies for HERA accelerator transmitters 27828
intense microwave pulses, conf., Los Angeles (1994) 28206
intense-beam klystron amps., beam-cavity interact. phys. 6481
J-band relativistic klystron amp., long pulse, develop. 29780
J-band relativistic klystron amplifiers, modelling and design 21826
Japan Linear Collider klystron modulator pulsed power supply 36402
Ku band second harmonic gyroklystron expt. 6487

klystrons continued
- L-band relativistic klystron amp., high current, three cavity 29779
- LF cavity oscill. driven by detuned current modulation 29787
- LINAC, klystron modulator, energy efficient deQing cct. 36360
- linear beam tubes, high power, depressed collector designs 6507
- microwave inverse FEL accelerator 39913
- multistage electron-beam microwave oscillators, stochastization 993
- quasioptical gyroklystron expt., multimode simulation 6511
- relativistic BWO, pre-bunching cavity 29799
- relativistic klystron, high-current L-band, output power 13002
- relativistic klystron amp., beam-gap interacts., simul. 29786
- relativistic klystron amp., develop. and optim. 6480
- relativistic klystron amp. from MIT, 3.3 GHz, compact input cavity 29777
- relativistic klystron amp. programme, Naval Research Laboratory 29772
- relativistic klystron amplifier, 3.3 GHz, studies 21820
- relativistic klystron amplifier at high power 21817
- relativistic klystron amplifiers, two-stream instability 21827
- relativistic klystron amps., intense electron beam modulation 13013
- relativistic klystron amps., intense space-charge beam phys. 992
- relativistic klystron amps., RF extraction issues 29773
- relativistic klystron amps. for microwave pulse gen. 29775
- relativistic klystron oscillators, theoretical anal. 990
- relativistic klystron two-beam accelerator, RF power extraction 10090
- relativistic klystron two-beam accelerator for beam-break-up suppress. 34828
- relativistic klystrons, inductively-loaded wide-gap designs 29785
- repetitively pulsed relativistic klystron amp. 983
- resistive-wall klystron, nonlin. theory 29784
- RF field-emission, microwave cavity studies 12986
- RF window, thermal stress fracture 29791
- S-band klystrons, 150-MW, design and perform. 21845
- supercond. supercollider pulsed power supply thyratron modulators 34750
- three-cavity gyroklystron amp. perform. study 29763
- two beam klystron amplifier, theoretical model 21839
- two-cavity klystron, microwave generation 21821
- two-cavity second harmonic gyroklystron, stabil. and amplif. studies 6489
- two-stream relativistic klystron amplifier, beam modulation 21819
- two-stream relativistic klystron amps., crit. design issues 29778
- X-ray FEL, electron beam source, klystron undulator simul. 39905
- e^+e^- S-band/supercond. colliders develop. 34845

knapsack problems *see operations research*

knowledge acquisition
- alternators, fault diagnosis, ES 35784
- coronary artery stenosis recogn., neural net on DSA syst. *(Japanese)* 4262
- FAMAP generic fault mgt. package for telecom networks 16604
- fuzzy logic based engine idle-speed controllers 11441
- gamma camera QC ES 10204
- gamma camera QC ES, knowledge acquisition/representation 18493
- land cover class., rem. sens. imagery anal. 26776
- MOLTKE, integrated workbench for fault diagnosis in engng. systs. 3743
- motor fault detect., hybrid fuzzy/neural syst. used extract heuristic knowledge 4984
- online machine learning, knowledge acquisition appl. 16611
- PCB visual inspection-diagnosis expert system, reverse engineering 29651
- power syst., knowledge acquisition/config., KA7 project 19045
- prod. scheduling, knowledge elicitation/IKBS develop. 43971
- radar anal. experts modelling for training/aiding 20350
- real time systs., knowledge representation, verification and reasoning 3737
- rot. mach. early failure diagnosis, ROMADIS package 11681
- Rotorcraft Pilot's Associate cognitive decision aiding systs. develop. 10597
- telecomm. databases, knowledge acquisition and proc. 41559
- text understanding via hierarchical HMMs 41311
- turboalternator diagnosis via knowledge base mgt. syst. *(Chinese)* 36127

knowledge base management systems *see deductive databases*

knowledge based systems
- *see also deductive databases; expert systems; intelligent control; intelligent tutoring systems; software agents*
- 3D obj. recogn., geom. matching 2683
- Air Force ATE enabling technols. 34363
- aircraft guidance/decision aid for wind shear avoidance 35219
- analog cct. macromodelling, knowledge based approach 483
- ASTRA knowledge based syst., transformer assess./diagnosis 19695
- ATE enabling technols. for Air Force 18718
- ATM networks, multimedia appls., QoS selector 9075
- automatic intonation tone contour labelling/class. algm. 32402
- automatic knowledge based extraction of objs. of real world from scanned maps 41333
- automotive electronics qualification tests, knowledge-based 11432
- board interconnect technols., strategic implications, KBS 12889
- brain blood vessel catheter, teleoperation 10255
- built-in diagnostics for advanced power mgt. 34356
- BWR power maneuver, maint., knowledge-based planning support 35852
- CAL, network-based, multimedia inform. mgt. syst. 8972
- CAPP, natural lang. part descriptions 28413
- Chinese online characters recogn., knowledge model based approach 16119
- communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
- condition monitoring syst., multilevel knowledge base 17679
- consonant recogn., knowledge based approach 32228
- crit. accident dosimetry, CRISIS, KBS 35196
- decision aid for enhanced situational awareness, knowledge-based 10361
- diagnostic models standardisation for syst. test and diagnosis 34352
- Diagnostician, submarine power distrib. syst. appl. 28113
- Diagnostician on-a-chip 12568
- Diagnostician-on-a-chip, concepts/implement. 34357
- digital storage channels, knowledge-based adaptive channel estim. 7192
- distrib. network restoration operations planner, IKBS-based 19243
- distributed audit trail anal. 24968
- DRS telecomm. satellite, heuristic scheduling 42320
- DRS-Sched, data relay satellite syst. scheduler 33950
- dyn. environ., distributed problem solving systs. 27054
- elec. distrib. mgt., cooperative & intell. systs. 27063
- face recogn., knowledge-based, extraction/BP algm. *(Korean)* 24683
- FIRE operators, fuzzy inference edge detect. 2680
- flexible networks, basic concepts and archit. 25082
- focus of attention in image understanding systems 8675
- fuzzy classifier derived from data, tuning 8577
- fuzzy inference proc., 64-bit, archit. 686
- fuzzy logic power supply protection cct. for severe transients 44188
- GAIA, generalized adaptive image analyzer, inspection appls. 28513

knowledge based systems continued
- genetic algms. operator, knowledge-based nonuniform crossover 37286
- geographic map, colour image segmentation 41308
- human-motion recogn. by fuzzy associative inference 8581
- HV substations reliab. studies, TOPASE knowledge tool 19907
- hydro power station struct., safety/reliab., inform.-anal. support 10873
- hydro-power sales data fuzzy interpolation 4865
- hydrothermal power syst., unit commitment, knowledge based dyn. prog. 19017
- hypothetical reasoning for automatic recogn. of continuous speech 32283
- indust. laser cutting syst., knowledge-based adaptive control 5614
- inert gas wavesoldering, proc. variables, PBA KBS appls. 12935
- intell. DSP, stock trends determ. *(Japanese)* 24334
- intell. maint. aid software 34370
- intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
- KBTAC, knowledge-based technol. centre 35853
- Korean document, picture/character extraction/segmentation 16069
- Korean envelope images recogn., address block location *(Korean)* 24693
- Landsat images, genetic algms. for terrain categorization 16256
- learning model struct. from images 16333
- letter-to-sound/sound-to-letter generation, phonological parsing 32365
- map aided structural anal. of aerial images 41276
- marine traffic mgt., survey of current and possible future measures 25608
- multiscale rule-based algm. for human face recogn. 2787
- μP syst. design environ. based on OO blackboard framework 666
- natural spoken lang. understanding via hierarchical HMMs *(German)* 40735
- naval nuc. submarine propulsion, IKBS surveillance 35782
- naval nuc. submarine propulsion, surveillance, IKBS 35855
- network traffic mgt., neural tech. 41682
- neural engng. utility, adaptive algms. 34379
- nuc. accident mgt., SAMEX, ES 35862
- nuc. utility managers, KBS introduction 27343
- ocean coastal environ., ES description 26834
- OCR, AI 8622
- online machine learning, knowledge acquisition appl. 16611
- PASS, parallel speech understanding system 8202
- pattern matching algm. for AI prod. syst. *(Korean)* 2815
- PCB testings, fuzzy pattern recognition 38075
- PCBs, refls. anal., ROSAR rule oriented syst. 21632
- plasma procs. monitoring and control 12147
- power plant component life assess., technol. transfer in Europe 10696
- power station thermohydraulic syst. reliab. study, EXPRESS IKBS 19379
- power substation reliab. , AI-based simul. 5164
- power syst. fault diagnosis, interval based approach 19040
- power syst. incident anal./maint. mgt., SAS intell. syst. 19007
- power syst. interconnection restoration, intell. tools 19142
- power syst. reactive reserve mgt. 19081
- preforms manufacture for ceramic- and metal-matrix composites 20426
- prod. and energy mgt., optimal rule based syst. 36795
- prod. scheduling, knowledge elicitation/IKBS develop. 43971
- product develop., knowledge-based engng. design appls. 37008
- prog. DSP, scheduling/instruction selection 6184
- protocol spec. proc. based on labelled transit. systs., support method 8764
- PSAD, intell. monitoring diagnosis syst., nuc. plants 19402
- PSS, rule-based, variable-gain 19082
- pulse diagnosis, Chinese, computer/fuzzy theory 43203
- queueing systs., competitive systs. model 28579
- radar syst. CAD, knowledge based support 9639
- re-engng. test develop. proc. 34368
- reconfigurable knowledge database, nonlin. sig. proc. *(Japanese)* 24335
- rem. sens., image segmentation, knowledge based anal. *(German)* 41343
- RF/microwave test simulator 34675
- SAE 81C99 Fuzzy Inference Processor 29283
- short-term elec. load forecasting syst. *(Chinese)* 35580
- simul. code generation, KBS 21080
- SMT PCB placement seq., multiple batch, soln. methodology 29689
- sound sens., intell., audio-visual sens. fusion syst. 40787
- speech synthesis, concatenation of phoneme samples 15831
- Sphinx-II recogn. search, integrat. semantic constraints 32369
- substation design, OO knowledge based tool 19906
- substation reliab. eval., TOPASE project 36475
- technol. assimilation, IKBS R&D organizational visions 28359
- tele-monitoring/computer-supported repair, multimedia syst. 42042
- telecom network fault management, case-based reasoning 8835
- telecom network monitoring, task based human machine interface 33365
- telecomms. systs., network mgt. 9398
- telephone syst. manhole drawings, graphical interp. 41606
- telephony, archit. for defining, and exploring interacts. 3146
- TPS life cycle improvements using artificial intelligence 42700
- validation test generation, automated procedure 10330
- vehicle, intell., warning syst., CAM 36773
- video indexing and retrieval, power tools 8485
- VLSI CAD, cooperative problem solving 492

knowledge engineering
- *see also belief maintenance; explanation; inference mechanisms; knowledge acquisition; knowledge representation*
- diagnostic radiology, QC, knowledge based approach 18492
- engng. mathematics, ontology 11892
- fault tree anal., knowledge engng. approach 28535
- hydrothermal power syst., unit commitment, knowledge based dyn. prog. 19017
- LOTOS environ., specifying, and anal. their interacts. 3143
- Network Integration Consultation Environment *(Japanese)* 33379
- power systs., operational intell. syst. appl. 43617
- power systs. anal./design/operation/planning, knowledge engng. tools 4487
- substation fault recovery operation support syst., knowledge reuse methods 11216
- turbine blades, detailed design, KBS 19512

knowledge extraction *see knowledge acquisition*

knowledge representation
- *see also blackboard architecture; frame based representation; semantic networks*
- Alcatel 1000 S12 exchange, ALAMOS generic alarm correl. syst. 3288
- daily load forecasting, hybrid fuzzy-neural approach 4603
- delayed conferencing, act. multimedia syst. 16802
- elec. machine predesign ES, knowledge model *(French)* 10947
- emergency engng./mgt., ES-based DSS approaches 43875
- gamma camera QC ES 10204

knowledge representation continued
gamma camera QC ES, knowledge acquisition/representation 18493
image seq. interp., qualitat. predicting rels. 16405
image understanding, knowledge-based 2785
intell. control of sig. proc. algms. in commun. 16575
intell. DSP, stock trends determ. *(Japanese)* 24334
internat. work flow, proc. mgt. syst. support 24956
land cover class., rem. sens. imagery anal. 26776
multisensor/knowledge fusion, seismic prospecting 43464
NASA ground operations, hybrid neural network systs. 26696
OCR, AI 8622
power syst. security enhancement, ES-based 26967
radar syst. CAD, knowledge based support 9639
real time systs., knowledge representation, verification and reasoning 3737
rot. mach. early failure diagnosis, ROMADIS package 11681
speech recogn. candidates, chart parsing 32368
turboalternator diagnosis via knowledge base mgt. syst. *(Chinese)* 36127
water distrib. systs., model based fault diagnosis 3159
Kohonen self-organising maps *see self-organising feature maps*
Kramers-Kronig relations
electron bunches, longit. asymm., synchrotron/transit. radiation 18254
impurity activated solids, hole burning, zero-phonon line appls. 7791
mol. adsorbates, steady-state sum-freq. generation 15028
MQW electroabsorp. modulators under digital modul., chirp control 7388
permeab. meas. in GHz range for soft-mag. film 25956
GaAs/AlGaAs quantum well struct., etching, photoreflectance phase shift 38532
Tb$_3$Ga$_5$O$_{12}$ photorefr. phase hologram recording 31645
Kramers systems *see determinants*
Kromayer lamps *see mercury vapour lamps*
Kronig-Penney model
GaInP/InP:S QW, strained barriers, optical/struct. props. 13159
ZnSe-ZnS, strained-layer superlattices, absorpt. spectra, electronic struct 38245
ZnTe-ZnSe, strained-layer superlattices, absorpt. spectra, electronic struct 38245
Kuhn-Thomas sum rule *see molecular electronic states*
kymography *see diagnostic radiography*
Kyropoulous method *see crystal growth from melt*
labelled atoms *see radioactive tracers*
labelled compounds *see radioactive tracers*
labelled molecules *see radioactive tracers*
laboratories
ATM environ., broadband commun., lab. plant 16783
biotechnology research lab. proc. control, GUI-based *(German)* 34984
BNC-to-microstrip transit., EM undergraduate lab. appls. 20281
Catalonia synchrotron lab. 18417
elec. drive certification testing lab. develop., Russia 44463
electrical/electronic engng. education, experience-based learning approach 28353
engineering class communication skills develop. 28329
engng. with sig. proc., introduction 20297
expt. broadband switching syst., field trial 16784
insulation lab. charactn., microscopy/spectrosc. 13919
NIST State wts. and measures labs. directory 20223
opt. spectrum analyzer selection, sensitivity, dyn. range, resoln. and accuracy 42747
PCB assembly/soldering, Penn State initiatives 29671
power cable insulating materials, lab. charactn. thermal anal. 19292
power electronics undergraduate/graduate education survey, USA 5532
research facilities collocation, administrator's point of view 20373
supercomputer in computer network, A.I.S.T *(Japanese)* 8885
switchgear short-cct. tests, PF determ. 19882
undergraduate lab. data acquisition, digital oscilloscope appls. 20285
Univ. of Arkansas, electronics mfg. curriculum 28332
university research lab. personnel, tech. supervisor role 11670
laboratory techniques
see also specific instruments and techniques, e.g. balances, plasma probes, vacuum techniques
see also instrumentation; instruments; measurement; student experiments; test equipment; test facilities; testing
anal. instrums. trends, Hitachi's technol. overview 10059
APS, hardware supported by control syst. 18203
artefact stds., perform. comparison techs. 17633
auditory stimulus prod. in cognitive event-related pot. expts., PC software library 26379
automatic sample prep./anal. syst. 34409
biotechnology research lab. proc. control, GUI-based *(German)* 34984
EEG brainmapping/evoked pot. studies, calib. assess. 43280
elec. engng. lab. expts., software tools incorporation 20311
environ. test chambers, safety guidelines 94
high-power microwave tubes, lab. and online appls. 6479
indust. control systs., lab. 17689
isolation amp. for biomech. investigs., needle electrodes *(German)* 4277
neurophysiology lab., QA study, EMG/EEG 4281
opt. polishing monitoring, computerised microscopy 17600
pharmaceutical ^{99m}Tc-teboroxime dilution/anal., robotic 4272
power syst. grounding expts., lab. two-layer soil model *(Chinese)* 10767
reactor core material post-operation anal. *(German)* 10816
sleep lab., digital recording and anal., implement. and validation 26406
SOFC perform. eval., lab. techs. 11276
software random pulser in lab. 3732
students lab. work, learning hours 75
waste water monitoring, automatic BOD test 25715
Windows-based control syst. for electron microscope 9817
Wolf shifts interp. under lab. conditions, comments/reply 4005
labryrinth speakers *see loudspeakers*
LADAR *see optical radar*
ladder filters
act. genetically derived filter ccts., preferred value components 37845
bilinear transform. design of switched-current ladder filters *(Chinese)* 5983
biorthogonal m-dimens. two-band filter banks, realizability 40808
Butterworth diplexer, design, real-freq. approach 6201
CAD and anal., LADDER program 12617
CMOS prog. switched-current filters 29359
LC lowpass/highpass/bandpass ladders, Butterworth/Chebyshev response 720
ladder filters continued
m-band bi-orthogonal multidimensional filter banks 29388
photonic CDMA coherent matched filter time-addressed coded opt. ladder networks 9445
realisation with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
SAW contiguous filter bank, m-derived ladder *(Japanese)* 717
SAW resonator filters for digital radio systs., review 37832
SPICE macromodel for OTA 37844
two-type-interlaced struct. for low-sensitivity digital filter realizations *(Korean)* 21440
wide bandpass filter, ladder type, compact design *(Japanese)* 12626
ladder networks
see also ladder filters
2D ladder network resonators 6202
analogue T-Model neural net hardware, backpropag. learning 37927
conductor-above-the-ground type line, impedance var. 31922
diplexers, max. flat response/freq. symm., design 16954
long lowpass LC ladders, synthesis 719
nonlin. lossless transm. lines and equiv. ccts. anal. 31879
PWL ladder cct., hysteresis 12295
T-matrix vs. ABCD-matrix, cct. anal. 503
GaAs MESFET SC third order ellipt. lowpass ladder filter *(Korean)* 734
lakes
see also rivers
trophical and morph. status of water resources, airborne hyperspectral algms. 18878
water level determ., TOPEX/POSEIDON radar altimetry 18868
Lamb shift
see also hyperfine structure
FIR gas lasers, bi-directional pumping, Lamb-dip line shape 31170
Lamb waves *see surface acoustic waves*
laminar boundary layers *see boundary layers*
laminates
see also delamination
anisotropic laminated composite cylindrical shells, plane-wave shielding 31854
anisotropic laminated composites, near-field shielding props. 23693
anisotropic lossy materials, transient propag. 7943
composite plates, delaminations, Lamb wave eval. 28915
glass fiber with high dielec. const., synthesis, PCB appls. 5911
glass fibre reinforced composites, surface anal. 5905
graphite fibre reinforced epoxy laminated panels, opt. fiber embedded, low vel. impact 12194
high-speed interconnect, laminate subst., dual C40 MCM 38186
layered nonuniform dielec., radiowave monitoring, inverse problem soln. 28907
mag. laminated tapes, deform. 7168
MCM, thin film transfer process, low cost 38185
MCM large area fine line patterning by scanning projection lithog. 21686
MCM substr. manufacture, cost-competitive appls. 21695
MCM-L, laminate substr. current state 38192
MCM-L and SCM-L, high dens. laminate technols. 21693
MCM-L fab., through-holes, mech. punching 21694
MCM-L flip chip interconnection utilizing Au ball bumping 21782
MCM-L layout approach for high-speed problems 38187
MCM-LD, photosensitive-BCB on laminate technol. 12978
MCMs, categorization and appls., laminates and ceramics 955
mech. deform. meas., fiber-optic sens. 17856
metal/ceramic laminates for electronic packaging, thermomechanical failure 12197
microelectronics, thermal stress, component size effect 29705
microstrip patch antenna, laminated glass superstrate, perform. 2326
multilayer registration control, PCMCIA card materials 38129
PCB laminate materials, moisture absorpt. 29690
PCB resin/resin-glass composite insulation, moisture absorpt. effects 12942
PCBs, rigid flex, cover sheet wrinkling 29687
PE/polymer laminates, charge formation 14035
photoimageable liq. dielec. for seq. PWB fab. 38124
PVDF/polyetherimide laminates, breakdown strength 13962
PWB laminate indust., future trends 29664
PWB solder masking proc. warpage, FEA 918
PWBs, glass fibre reinforced epoxy laminate, interfacial debonding 11819
small via generation using modified TEA CO$_2$ laser based proc., PWB/MCM appl. 20447
supercond. magnet materials, thermal contraction 14308
TCC/MCM, μBGA on laminated substr. 21692
transfer laminate cct. proc. for fine pitch wiring technol. 12971
ultrathin MLB optim., materials and PCB fab. issues 38128
Ag-Ni laminated electrodes for quartz piezoelec. resonators 39076
C fiber-reinforced composite surfaces, microwaves refl./absorpt. 12243
C fibre composites, delamination cracks, SAM image anal. 20999
CO sens., polymer-electrolyte lamination, life-elongation 3916
p-CdS films, pulsed laser deposition, p-n jn. PV effect 37483
Cu-clad polyimide sheets for thin film multilayer substr. fab. 138
Cu-clad polyimide substrs., BCB layers for MCM-D/L appls., attenuated refl. IR microscopy 12982
FeAlN/NiFe pole tips, laminated, high moment, perp. contact recording head 7097
FeHfC/Al$_2$O$_3$ multilayers, mag. props., interlayer effects 14209
FeHfC/AlN multilayers, mag. props., interlayer effects 14209
FeHfC/Si$_3$N$_4$ multilayers, mag. props., interlayer effects 14209
FeHfC/SiO$_2$ multilayers, mag. props., interlayer effects 14209
FeN sputtered laminated narrow gap write heads, perform. 7088
ZnO multilayer chip varistor, LV transient suppression 29607
laminations
30/90 mm laminated high L′ railguns, design/testing 15269
AC machines, smooth rotor, end-region 3D pulsation mag. field 44004
alternators, buried PM retention, high speed, rotor laminations 4931
anisotropic laminated brush, reactance freq. characts. *(Polish)* 44009
elec. vehicle motor drive syst. design, test results 5345
IGBT power module interconnection busbars 37634
induction motor core losses prediction, rot. iron loss data 4970
induction motors, cut lamination stators, core anal. 11022
magnetless voice coil motor, driving characts. *(Japanese)* 44088
PM brushless DC motors, laminated rotor, FEM modelling 11064
PM reluctance machines, theoretical anal. *(Japanese)* 4923
power transformer dyn. hysteresis losses 27778
reluctance generators, sensorless DC output voltage control 4927

laminations continued
  reluctance motor ASD, 2-level bipolar current control 11385
  reluctance motor drives, axially laminated rotor, vector control 5258
  single phase induction motor, lamination, optimal design *(Chinese)* 44043
  single-phase doubly salient PM sync. generator 4926
  SRM actuators, axially laminated anisotropic rotor design 27701
  thin film transformer, EM field anal. 38055
  Fe-Si, magnetodynamic field, rate-depend. Preisach model 14112
  SiFe sheet insulation, elec. and phys. charact. 14002

lamp accessories
  see also lamps
  26 W CFL, dimming ballast effect on colour temp. 11458
  ATT2161/2 series reson. electronic ballast IC products 36781
  electroluminescent lamp, power supply, SC AC-AC converter *(Japanese)* 20124
  electronic lamp starter driver IC *(German)* 28160
  fluoresc. lamp current var., electronic ballast tolerances, PSPICE 11460
  fluoresc. lamps supply 527
  HF discharge lamp ballasts, white noise modulation 11457
  HF fluoresc. lamps, lighting control, electronic ballast *(Japanese)* 11452
  HID lamps, electronic ballast *(Japanese)* 11453
  high-press. discharge lamps, electronic starters *(German)* 28163
  indust. control room illum., equipt. selection 11447
  reson. inverters anal., electronic ballast appls. 11128

lamps
  see also discharge lamps; filament lamps; light sources
  domestic induction cooker, halogen lamp-based *(Japanese)* 44613
  halogen cycle lamps, HF power supply transformer 11446
  household lighting, energy resource alternatives 20120
  rapid isothermal proc., photophysical/photochem. effects 22232
  RTO/nitridation clusterable reactor, MOS gate oxides 22219
  ZnS:Cu electroluminescent lamp, fab. and characts. *(Korean)* 14616

LAN *see local area networks*

LAN interconnection
  777 Maintenance Access Terminal and Side Displays 10335
  AD8600 series multimedia TDM *(Japanese)* 25155
  American Cancer Soc. VSAT enterprise network 8889
  ATM, connectionless multicast service 42124
  ATM, future in deregulated markets 16552
  ATM and frame relay switching technol. 41424
  ATM and multimedia appls. 33515
  ATM broadband networks, multiple push-out congestion mgt. scheme 41681
  ATM for LAN interconnection 3166
  ATM internetwork, cost-effective migration strategy 41883
  ATM LAN/LAN bridging, connectionless methods, perform. anal. 41911
  ATM network LAN/MAN interconnection, simul. study 41902
  ATM networks, resource sharing schemes in connectionless server 41438
  ATM node, syst./perform. design 16701
  ATM traffic mgt., LAN internetworks 3086
  B-ISDN internetworking unit, VLSI implement. 16798
  branch network strategies and protocols 8890
  broadband switching equipt. market needs and vendor offerings 41758
  campus-wide network, packet voice distrib. 33520
  CODE mesh VSAT network, protocols eval. 16515
  CODENET, network for east/west European collaboration 16773
  Compac's LMX 506 router-concentrator 25175
  congestion avoidance 3174
  Corporate IP services for Internet 24809
  COST 226 project, network integrat. by satellite 42306
  CRMA/ATM interworking unit,a loss free access, buffer sizing 8968
  CRMA/ATM network interconnection flow control protocol 41762
  CSMA/CD LAN interconnection by bridge, finite buffer *(Japanese)* 8947
  desktop video conferencing syst., perform. 33618
  distance learning environment and ATM, trial at University of Minnesota 33643
  efficient multimedia satellite networks 41985
  evol., ATM 8888
  fast reservation protocol/stat. multiplexing 16438
  FDDI LANs interconnection 33498
  FDDI networks connected through ATM, video traffic mgt. perform. 24916
  fibre channel, HSLAN interconnect archit. 41813
  file migration policy, finite storage, limited effects 33518
  frame relay networks, congestion control 25040
  frame relay protocols and user interface 41809
  frame relay service and switching syst. constr. technols. 41808
  gigabit LAN interfacing to high perform. disk array file servers 33257
  GRAMS distributed multimedia service syst. 16833
  heterog. data networks, addressing/routing 24841
  HIPPI interconnection syst., camp-on strategy, perform. eval. 33493
  Hybrid-Ethernet, dual-channel hybrid archit. 24999
  IEEE 802.6 DQDB MAN protocol, perform. anal. 3180
  inter-LAN security, trusted routers 16671
  interconnecting computers, archit./technol./economics 16702
  internetworking archit. for integrated voice and data commun. 9007
  ISDN, transparent ATM LAN interconnection 16668
  ISDN routers and LAN traffic 8899
  JANUS, TCP/IP VSAT network, first yr. experience 16775
  KView II, network mgt. platform, appl. 33372
  LAN/B-ISDN interworking unit, congestion control, perform. eval. 25053
  LAN/MAN interworking systs., rate control mechanism 24950
  large-scale LANs, interconnection via two-stage switching hub for multimedia appls. 33513
  message oriented middleware, MOM, appls. 41794
  Metaring gigabit/s network under multipriority traffic 24802
  MIMO LAN interconnection over high-speed gateway 41756
  mobile IP, secure short-cut routing 24845
  network perimeter, secure external access 16674
  new contention control mechanisms for FDDI 33453
  North Carolina Information Highway, network mgt. 8836
  outsourcing of services, high technol. orient. 33582
  planar-opt. mesh-connected tree computer chip interconnects 39602
  plastic LAN fibre optic links 41851
  power syst. control, real-time LAN commun. technol. *(Chinese)* 43668
  share-based congestion control scheme for systs. of interconnected networks 33535
  small terminal satellite networks, IEE Colloquium, London (1994) 5478
  small-terminal satellite networks, protocol enhancer 17162
  SMDS customer network management by 3M and US West 33443
  spanning tree and source routing LAN interconnection schemes 41810

LAN interconnection continued
  TCP/IP LAN interconnection *(Chinese)* 33275
  telecomm. systs., appl. of transputer links and routers 3179
  teletutoring, BETEL network 25115
  time complexity of exchanging messages in LAN, internetwork proc. *(Japanese)* 16719
  university discless workstation network traffic charactn. 28347
  user soln., internetworking 33509
  virtual LAN services, multinetworking *(Japanese)* 33543
  Vobis Microcomputer AG internat. ISDN *(German)* 41922
  VSAT appl., extend company LAN, retail sites 16774
  VSAT general topol. networks, adaptive access protocol 17161
  VSAT networks, integrat., user network environ. 17159
  VSAT systs. appl. 25055
  World Wide Web media distrib. via hopwise reliable multicast 41864

land mobile radio
  see also cellular radio
  1.5 GHz land mobile satellite commun., propag. characts. 9265
  1.8 GHz mobile radio channels, wideband characterisation 9315
  1.8 GHz mobile radio propag. meas. in mountainous areas 33784
  1.9 GHz-band RF IC chip-set for pers. commun. 863
  2.3 GHz TV broadcasting, mobile live reporting *(German)* 34222
  2 GHz radio propag. for local loop appls. 33844
  3D PCN, reception reliab. 17057
  5.0 kb/s coder for vehicular appl., acoustic echo/noise canceller 9123
  5.0 kb/s finite state VQ CELP coder for vehicles 9122
  16 QAM modulation, OFDM in Rayleigh-fading channel 9218
  18 GHz band wireless LAN, indoor multipath radio propag. 8930
  38 GHz building scatter and vegetation atten. meas. 15427
  60 GHz indoor wireless commun. systs., multipath meas. 8932
  60 GHz indoor wireless data systs. channel modelling, ray-tracing 8933
  60 GHz intervehicle channel model 33797
  60 GHz mobile-to-mobile radio channel, meas. 9262
  60 GHz vehicle-to-vehicle commun., time/freq. selectivity 9316
  900 and 1800 MHz microcell radiowave propag. comparison 31826
  900 MHz complex impulse responses and topographical map data 9323
  900 MHz propag. modelling, scaled road tunnel microwave meas. 33789
  900 MHz transmitter syst., highly integrated ASIC 9353
  1890 MHz delay spread meas. in Melbourne 3407
  adaptive antennas in mobile commun. base stations 9394
  adaptive array for mobile radiocommunication, EMC props. 25326
  adaptive array methods 17067
  adaptive diversity reception, prediction, smoothing, interpolation 25447
  adaptive equalization, DSP technol. *(Japanese)* 33903
  adaptive equalization for fading mountainous terrain 3426
  adaptive equalization for multipath fading environ. 3429
  adaptive handoffs, estim. of fading params. 9367
  adaptive interf. canceling equalizer 9383
  adaptive rate error control for land-mobile satellite channel 9370
  adaptive reduced-state channel equalizer, T-algm. 9302
  aggressive handover algm. for mobile networks 3396
  amat. radio, hand-held transceivers, elec. field distrib. 25288
  American digital cellular syst. spectral efficiency 9275
  amplit. limited multitone sigs., perform. 8092
  antenna array, multiple co-channel digital sigs., blind estim. 8306
  array proc. appl., mobile commun. systs. design 17142
  asymptotic capacity of multi-receiver networks 40530
  automatic retransmission rather than ARQ 3364
  automatic vehicle location in cellular commun. systs. 3331
  automatic vehicle location subsystem interfaces 3461
  bandlimited quaternary phase FSK, error perform. 9276
  base station polaris. diversity, antenna config. 3478
  base station polariz.-sensitive adaptive antenna 33879
  basestation antenna array syst. for spatially selective transm. 17069
  Bayesian techs. for rapidly fading channels equalization 3436
  beam space adaptive array antennas, transmitting null beam forming 15665
  binary FSK direct conversion receivers 3463
  blind adaptive beamforming and equalization 9228
  blind clustering equalizer for digital mobile radio channels 3432
  blind equalization based on Nakagami fading index, cost fn. 3430
  blind spatio-temporal equalizer for radio-mobile channel 33937
  broadband ATM indoor radio, packet diversity 16700
  broadband channel modelling and perform. anal. 33849
  burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
  cavity enclosed broadband circ. patch antenna for L-band MSAT 15661
  CDMA, TU Delft research, overview 25255
  CDMA adaptive SS receivers, CCI suppression 33883
  CDMA autonomous multipath diversity receiver 25440
  CDMA cellular network, forward link perform. 25366
  CDMA cellular networks, antenna arrays, downlink perform. 17093
  CDMA cellular radio, freq./time division duplex techs. 25371
  CDMA cellular radio, uplink power control/base station assignment 25376
  CDMA cellular radio network 25357
  CDMA cellular syst. with macrocell diversity, perform. 33865
  CDMA cellular systs., bandwidth efficiency 17085
  CDMA cellular systs., concatenated RS/convolutional coding 9358
  CDMA cellular systs., design/test 3382
  CDMA coherent detect. scheme for uplink channel 9230
  CDMA DA chip synchronizers for bandlimited DS/SS M-PSK sigs. 9371
  CDMA digital cellular, field test results 3383
  CDMA integrated voice/data cellular packet network 17095
  CDMA MM wave indoor radio capacity study 9202
  CDMA mobile radio, joint detect./coherent receiver antenna diversity 25364
  CDMA mobile radio intersystem operations 3477
  CDMA mobile radio schemes, modeling/perform. 25373
  CDMA mobile radio syst., turbo-codes appl. 9239
  CDMA mobile radio systs., joint detect., diversity 25343
  CDMA mobile radio systs., multi-user detect. equalizers 9237
  CDMA mobile radio systs., reverse link anal. 3392
  CDMA mobile radio systs., spectral efficiency 17083
  CDMA multicarrier syst., CCI cancellation 9215
  CDMA multiple band-shared LEOS systs., capacity 9369
  CDMA overlay systs., adaptive interf. suppression 17037
  CDMA overlays of narrowband waveforms, interf. suppression 25355
  CDMA packet combining error control 25368
  CDMA PCS, spectrum sharing feasibility 25379
  CDMA PCS syst. perform., simul. results 3384
  CDMA syst., field tests 3381
  CDMA syst., macro-/micro-cellular environ., perform. 3471

land mobile radio continued
CDMA syst., one and two branches DLL comparison 3472
CDMA systs., channel estim., interf. reduction 9235
CDMA systs., multipath delay/fading 3473
CDMA systs., multistage RAKE receiver 9242
CDMA systs., pre-decorrelating single user detect. 9238
CDMA with DS-SS GMSK, perform. study 33846
CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
cell size vs. receiver complexity assess. in urban areas 9325
cellular base station phased array antenna syst 33794
cellular CDMA, forward-link power control law 3347
cellular CDMA perform., speech bit rate, network control 9375
cellular commun., CBWL schemes, hand-off anal. 25411
cellular digital packet data on analog systs. 25416
cellular DS/CDMA systs., lin. interf. canceller 9241
cellular environ., resource auction multiple access 9291
cellular environ., resource auction multiple access 3348
cellular environ., self-adaptive channel allocation strategies, PRMA 9248
cellular mobile commun., stat. paging area selection scheme 3453
cellular mobile commun. systs. for data transm. 25349
cellular mobile networks, freq. assignment 25423
cellular mobile radio systs., spectrum efficiency 17124
cellular mobile syst. nominal channel allocation optim. 42203
cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
cellular network, CCI reduction, vert. antenna directivity 17071
cellular network overlapping channel assignment tech. 42201
cellular network planning, radio coverage defn. methodology 42227
cellular networks, freq. assignment 9254
cellular radio, adaptive SDMA 9350
cellular radio, correl. co-channel log-normal interferers 17047
cellular radio, distributed algms. for dyn. channel allocation 25420
cellular radio, syst. aspects 17112
cellular radio channel assignment via power level control 9256
cellular radio propag. models using ray theory and GTD 31827
cellular radio systs., downlink power control algms. 25344
cellular syst. all-channel concentric allocation algm. 42204
cellular syst. models, meas. propag. data 9313
cellular syst. RF prediction tools and terrain database selection 33813
cellular systs., adaptive array base station, spectral efficiency 17062
cellular systs., handoffs, adaptive averaging 25341
cellular systs., packet transm., channel quality reliab. 9296
cellular systs., phantom cell anal. of dyn. channel assignment 9247
cellular systs., uplink capacity, bounds/estim. 17064
cellular TDMA networks, cochannel interf. simul. 17060
cellular-ISDN systs., accessing protocols/network reconfigurations 9377
CELP error detect. and control, RS coding 33832
centralized control for fiber-optic microcell radio syst. 3450
channel, mobile radio channel, wideband micro-/macro-diversity meas. 3411
channels, stack algm. 9294
CMOS AMPS IF filter, integrated, low noise, cellular telephone appls. 25354
CODIT, testbed project, DS-CDMA for UMTS/FPLMTS 3385
coexistence etiquettes, continuous dyn. channel selection 9246
coherent detect. mobile wireless commun., phase ambiguity resolver 33876
combined postdetection diversity/concatenated channel coding 3341
commun. networks, handover related perform. 3401
conversational speech, on-off patterns generation 2402
CPM coded quaternary scheme for satellite-vehicle/pers. commun. 42265
CPM perform., mobile radio diversity operations 17119
CPM sigs. neural receiver 33913
CT2 syst. for data services, perform. 3495
D1900 micro cell indoor/outdoor appls. 25435
DAB channel and mobile reception, common-wave network meas. in Bavaria *(German)* 9692
DAB common-wave network in Bavaria, field trail results *(German)* 9693
DCT based codec for mobile video coding, simul. 17125
decision-directed SS-RAKE receiver for fast fading mobile channels 9233
DECT, antenna diversity, practical considerations 17072
DECT, multibearer connections syst., ARQ protocols perform. 17051
DECT handover and channel mgt. schemes for indoor scenarios 8849
DECT in radio local loop appl. 8852
DECT multibearer channels 3494
DECT radio local loop appl., radio access, repeater 25434
DECT solid state radio front end, perform. eval. 3468
DECT technol. for radio in local loop 8853
DECT-PCS implement., archit. and perform. 8854
DECT-type systs., non-coherent equaliser receiver struct. 8855
DFE, interpolation *(Japanese)* 17138
DGPS, positioning service for land-based mobile commun. systs. 3530
differentially detected $\pi/4$-DQPSK syst. perform., AWGN/Rayleigh fading 40568
digital, speech/channel coding 3346
digital commun. systs. degrad., multipath environ. 3412
digital FM transm., Rayleigh fading, RS codes appl. 25346
digital land mobile radio, commun. channel simulator *(Japanese)* 17137
digital mobile commun., blind seq. detect. 17039
digital mobile radio, adaptive arrays, fading correl. effect 3343
digital mobile radio, model based adaptive channel ident. algms. 17100
digital mobile radio syst. design for mountainous terrain 33785
digital mobile radio systs., anti-multipath modulation techs. 17075
digital mobile radio systs., seq. detect. algms. 3437
digital mobile telecomms. indust. *(Japanese)* 33902
digital multipath wireless channels ident. in interf. 9303
digital radio, spectrum phase interpolation, detect. tech. 9381
digital video/speech transm. 17048
direct-seq. systs. in lineal microcells, perform. eval. 25365
discontinuous transm. in Nakagami/Rician-Nakagami channels 17063
distributed antenna syst., freq. selective fading, perform. 17091
distributed dyn. channel inform. assisted reuse partitioning 25418
distributed power balancing, sparse inform. link 9250
distributed radio port controller archit., develop. 25381
DMSK digital packet sync., preamble design 9362
DPCM for diversity systs., packetized speech appl. 8223
DS-CDMA, Hadamard codewords, orthogonal spreading seqs. for mobile radio 33845
DS-CDMA, integrated voice/data wireless networks, grade of service 9364
DS-CDMA, shadowed Rician fading land-mobile satellite channel 9268
DS-CDMA 4-phase mobile radio receiver in non-Gaussian environ. 25442
DS-CDMA cellular syst., intra-cellular toroidal sectorisation 42276

land mobile radio continued
DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
DS-CDMA commun., indoor mobile, code phase assignment 9206
DS-CDMA digital mobile radio systs., unequal error protection 9373
DS-CDMA FH-CDMA/narrow band cellular radio systs. 3452
DS-CDMA field trial syst., down-link design 9391
DS-CDMA for portable multimedia commun. appl. 25443
DS-CDMA microcellular network, soft handoff 3470
DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
DS-CDMA mobile networks, acquisition of synchronism 33867
DS-CDMA mobile radio, sliding window decorrelation, anal. 25283
DS-CDMA mobile radio syst., coherent reception, channel estim. 9229
DS-CDMA mobile radio syst. using RAKE receiver, spreading codes 25437
DS-CDMA mobile syst., fading channel, anal./simul. 3391
DS-CDMA mobile syst., receiver archits. for down-link 33864
DS-CDMA SS systs., noncoherent parallel acquisition 9382
DS-CDMA SS systs., permutation modulation 17126
DS-CDMA syst., macro diversity perform. 3389
DS-CDMA syst., perform. of space diversity 33840
DS-CDMA syst. in multipath fading mobile channel, Rake reception 9234
DS-CDMA/TDMA for digital cellular systs. 3390
DS-SS, multi-h CPM, indoor mobile radio, perform. 3474
DS-SS CDMA cellular voice/data commun. 25342
DS-SS commun. multipath diversity combination 42196
DS-SS commun. syst., path-diversity based on multiple path selection *(Japanese)* 25275
DS-SS digital diversity receiver for multipath fading channels 25436
DS-SS sigs. time division duplex transm. 9203
DS-SS syst., RAKE reception, multipath fading, perform. 25446
DS-SSMA indoor cellular radio perform. 25370
DS-SSMA syst. based on $\pi/4$ DQPSK and convolutional coding 25369
DS-SSMA systs., aperiodic cross-correl. model 16461
DS-SSMA systs. perform., filtering effects, transmitter 33207
DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
DS/CDMA adaptive interf. canceller, differential detect. 9240
DS/CDMA diversity combining, convolutional encoding/Viterbi decoding 9380
DS/CDMA successive interf. cancellation 25356
DS/CDMA systs., coherent detect. syst., suppressed pilot channel *(Japanese)* 25279
DS/SS CDMA slotted access channel perform. anal. 9293
dual-rate alg. CELP-based speech transceiver 9221
dyn. channel allocation algm., transmitter power control 9252
elec./electronic syst. and mobile phone equipt., EM environ. 25290
EM environ. evol. in land mobile networks 25287
EMC estim. methods 25289
EMC problems, microwave and laser scatt. 23646
error probab. on M-PSK/M-DPSK/fading diversity channels 2360
ETS-V mobile commun. for ships/aircraft/land vehicles 42262
European mobile commun., future trends 17123
F-TDMA/CDMA cellular systs. perform. eval. 33838
facsimile commun. time in analog/digital cellular systs. 8871
fading dispersive WSSUS channel, analytic discrete-time model 3414
fast fading indoor radio channel characts. 33817
fast FH/CDMA systs. in mobile radio environ., efficiency 17086
FDM-FM microwave receivers, PCS sig. interfs. 25377
FDMA cellular systs. capacity, ACI effects 3334
FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
FDTD simul. of indoor propag. 9259
FFT multiple half-screen diffr. model for cellular commun. 3417
FH-CDMA cellular network eval. rel., handover strategies 9332
FH-SS PRN, channel access protocol perform. 8756
FH-SSMA, band-efficient modulations, cellular radio channels 25367
field strength prediction, Cheju Western area *(Korean)* 25351
finite-buffered cellular mobile radio syst. 3493
FM multiplex broadcasting syst. DARC devel. by NHK 42264
FQPSK modem/radio for PCS/ mobile satellite commun. 25312
freq. domain filtering for Gaussian seqs. generation 40978
freq. hopped systs. for PCS 25360
freq. hopped TDMA cellular syst., down-link capacity 9285
freq. non-selective channels seq. estim. 8384
freq.-selective fading channel, differential detect. 2217
freq.-selective fading mobile radio channel, capacity eval. 17066
future mobile telecomm. systs., handover, cell archits. 3402
future public land mobile telecomm. and fixed services, freq. sharing feasibility 42198
future public land mobile telecomm. systs. 3367
future public land mobile telecommun. systs., satellite component 25405
Future Public Land Mobile Telecommunication Systems 25424
fuzzy logic handoff algm. perform. anal. by indoor propag. simulator 33819
global and distributed dyn. channel allocation algms., perform. comparison 9244
Globalstar PCS, satellite-terrestrial systs. integrat. 33912
ground refl. wave suppressed test sites 23670
group randomly addressed polling for multicell data networks 8771
GSM900/DCS1800 systs., adaptive antenna arrays 3480
GSM, M-detector, coherent receiver antenna diversity, perform. 17040
GSM adaptive type-II hybrid ARQ/FEC protocol 3445
GSM coverage estim., 900 MHz multipath meas. 9320
GSM home location register, advantages/challenges 25385
GSM network evol. 3449
GSM procedures for integrated cellular/satellite syst. 25319
GSM radio meas. data, proc. methods 3447
GSM signalling protocol LAPD$_m$, perform. anal. 3499
GSM syst. multipoint-to-point link improvement 25270
GSM-syst., interf. anal. 3492
GSM/DCS1800 syst., base station, diversity reception 3497
GSM/DCS air interface enhancement for high speed data appl. 25408
handheld cellular phones, antenna design *(Japanese)* 33901
handoff/service area determ., pattern recogn. techs. 3398
handover algms., propag. depend. params. 3393
handover decision procedure, Bayes criterion minimization 3394
handwriting proc. in indoor/outdoor environ. for multimedia 9063
hierarchical cellular syst., dyn. channel allocation/speed estim. 3397
high dens. SDMA, double freq. reuse 25421
high-speed trains, GSM-based commun. syst. 9284
hilly terrain, theoretical investig./wideband meas. 9321
Hopfield neural networks, dyn. channel allocation tech. 25417
hybrid DS/FH SS syst. for mobile radio channel 3483
hybrid PV/diesel power supply, mobile radio repeater 19563

land mobile radio continued
hybrid SC/MRC 2DPSK RAKE receiver BER perform. 9232
IEEE 802.6 based PCN, distributed paths migration 9363
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
impulse response meas. using sliding correl., dyn. range, self-noise 33155
incoherent freq. hopping multiple access systs., diversity combining 25311
indoor 900 MHz-18 GHz penetration loss 9310
indoor mobile commun., CCI and multipath delay 17098
indoor mobile radio, burst-level ARQ error protection 17054
indoor mobile radio syst. planning with channel modelling 33816
indoor pico-cell radio syst., spectrum requirements 25339
indoor radio, channel equalization, neural network techs. 17140
indoor radio channel, neural-based packet equalization 9307
indoor radio channel modelling by ray tracing 33820
indoor radio propag. prediction, ray splitting model 9258
indoor radio propag. prediction approach 9309
indoor wireless low complexity, low delay speech coding 8193
inform. infrastructure, space/terrestrial PCS integrat. 25056
infrastructure networks, fault mgt. 3458
integrated road transport/traffic environ., protocols 3456
integrated voice/data mobile radio, design/perform. 17106
intell. vehicle/highway syst., packet-switched commun. 3460
intelligent multi-access spectrum-sharing methodology 41467
inter-vehicle commun. network, SS MAC protocol 42241
inter-vehicle packet radio commun., network archit. 42243
inter-zone connection syst. for multi-channel access services *(Japanese)* 33898
intermediate reuse factors for capacity eval. 17058
ITU mobile radiocommunications freq. spectrum allocation *(Japanese)* 33904
IVHS, packet success probabs., meas. headway distribs. 42239
Japan mobile telephone syst., detect. study 9273
Japanese Personal Handy Phone/DECT, IF modulator, DDS 3465
Japanese propag. studies (1990s) 2236
joint blind equalization/phase recovery scheme for data commun. 3431
K user union channel, multiuser syst. 40527
Ka band land mobile satellite channel meas. 9263
L-band multipath fading for land mobile satellite 25299
L-band propag. meas. for land mobile satellite links 17141
L-band steerable antennas for land mobile terminals 3479
LAN environ. mobile computing 8990
layered cellular struct., optimum resource mgt. strategies 25392
LEO channel, downlink DS CDMA perform. 25372
LEO satellite systs., DLR channel meas. programme 25400
LEO satellite systs., perform. eval. 25309
LEO/MEO/GEO global mobile satellite systs., interf./fading 25308
lin. modulation in narrowband private mobile radio 3374
lin. PMR technol., RF param. for standardisation 3466
local loop, radio access appls. 42068
local pers. commun., archit. 25382
location mgt. procedures 25390
low-power wireless mobile commun. syst. 3490
M-ary DPSK on freq.-selective Ricean channels 9274
M-QAM digital mobile radio systs., diversity/equalisation 9270
MAC protocol for inter-vehicle commun. network, SS tech. *(Japanese)* 25282
macro-/micro-cellular radio systs., throughput perform. 9295
macrocellular PCS propag. channels, 1850-1990 MHz band 31836
MEO constellation, global PCS, satellite network archit. 25398
metropolitan freeway monitoring, random access channel 3075
mgt. and digital cash replacement 8845
micro-cellular mobile commun. systs., handoff strategies 17061
micro-cellular networks, QOS provisioning for real-time traffic 25393
microcell base station locations, simulated annealing appl. 9255
microcell overlaid, umbrella cell syst. 17059
microcell size and archit. anal. 3421
microcell/indoor environ., propag. mechanisms 3344
microcells, 912/1920/5990 MHz radio propag., buildings 31829
microcellular aggressive dyn. channel assignment 3342
microcellular meas. and their prediction 17143
microcellular modelling for base station antenna below roof tops 3418
microcellular propag. for PCN networks, review 31837
microcellular radio, distributed control channel allocation 9351
microcellular Ricean channels, switched diversity 3336
microcellular systs., compatibility matrix learning 9253
microcellular urban propag. characts. 9339
mixed urban/suburban propag. meas. for PCS in OFS band 9266
MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
MM waveband, outdoor environ., propag. model 9317
mobile broadband commun., syst. concept/technols. 25296
mobile networks with bursty user mobility, dyn. channel allocation 25338
mobile radio RAKE receivers, synchronisation, BER perform. 25445
mobile satellite networks, handover queuing, dyn. channel allocation 25316
mobile satellite systs., freq. reuse, interf. anal. 9212
Mobile Transit Network Traffic Monitoring System 25406
mobile-satellite propag. channel wide band charactn. 9264
MOBITEX and mobile data systs. 41859
MSK timing recovery algms. 9372
MSK transm. over dispersive radio channel, error mechanisms 17120
multi-beam mobile satellite commun., Viterbi decoding 25307
multi-purpose threshold detector for mobile radio appl. 9305
multi-user channel, capacity constraints 40524
multicarrier coded 16QAm syst. 33780
multimedia mobile speech, video and data transceiver 3266
multipath channel, bit-rate selection, beam tilting 33878
multipath excess delay, probab. dens. 3365
multipath fading channels simul., Monte-Carlo method 15683
multipath mobile channels, simul./modelling 3410
multiple radio wave refls. in corridor 9340
multiple sym. differential detect., perform. 33874
multipurpose DSP ASIC for receiver implement. 683
multistage CMA adaptive beamformer, real-time implement. 9227
narrowband microcellular speech transm. schemes 3332
near-far resistant DS-CDMA receivers, sensitivity anal. 9236
network management for personal and mobile systems, IEE Colloquium, London (1994) 18
next-generation PCN multimedia traffic support 41979
NMT 900 mobile telephony syst. adaptive antenna 3481
nonselective fading, two-stage carrier sync. 25345

land mobile radio continued
office building, propag. charact. meas./freq. reuse 9322
open-loop power control error on land mobile satellite link 25402
OQPSK in indoor environ., perform. 9301
OQPSK-type modulations, mobile radio transm. modeling/perform. eval. 17122
orthogonal CDMA for mobile satellite commun., perform. 25310
orthogonal FDM based syst. for multiaccess methods testing 9329
orthogonal multi-carrier FH-CDMA schemes for freq. selective fading *(Japanese)* 25280
output-based objective speech quality 8195
packet based access mechanism, perform. params. 33863
packet radio LAN idle sig. casting multiple access with failure detect. 41821
packet-based mobile radio, digital MSK receiver 3435
parallel concatenated recursive systematic (turbo) codes 32105
PCN, accounting mgt. and AIN 25431
PCN, client-server-based handover scheme 42247
PCN, handoff criteria 9378
PCN, satellite/terrestrial interoperation 25404
PCN, teletraffic perform. of GSM900/DCS1800 in street microcells 42261
PCN archit. and location registration method 25389
PCN interoperable licensed/unlicensed wireless access 33842
PCN voice transm., PRMA and DAMA comparison 33839
PCS, advanced digital receiver principles and technols. 17111
PCS, LEO satellite network, delivery time anal. 25315
PCS, multiple hierarchical cellular overlays 25317
PCS, non-blocking channel assignment for hand-offs 25422
PCS, outage probab. in presence of Rice fading 17099
PCS, pers. mobility 3366
PCS, spectral efficiency of multitone freq. hopping syst. 9217
PCS hand-off and init. access, queueing channel assignment 25391
PCS network, implicit deregistration 3339
PCS provisioning in cellular environ. 3496
PCS systs., OAM&P std. 3368
PCS traffic perform. stds. 25427
perform., desensitization effects 3350
pers. commun. systs., packet transm. 25415
pers. commun. systs., propag. channel model 3415
personal commun. syst. design, site-specific propag. modelling 33822
$\pi/4$-DQPSK on microcellular radio channels, diversity/interf. 17101
pico-cellular syst. for indoor radio, assess./propag. study 25348
pilot sym. aided CCI canceller *(Japanese)* 42294
pilot sym.-aided tech., digital sigs. in multipath environ. 9366
pilot sym.-aided transm. for satellite/terrestrial mobile systs. 25403
pitch sync. innovation CELP coder for 2-4 kbit/s 33694
plane wave scatt. by infinite conducting ellipt. cylinder near conducting plane 23645
PMR systs. security 33915
point-to-point microwave radios/PCS spectrum sharing, propag. meas. 25378
Pointel portable phone, indoor environ., power loss models 9261
portable radio channel uplink power control algm. 42197
portable telephone for pers. digital cellular syst. 3467
PRMA, channel impairments effects 9298
PRMA integrated voice/data syst., data steal, voice 17089
PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
PRN capacity, distributed media access protocol, perform. anal. 33881
PROMISE pan-European traveller inform. syst. 3462
propag. models *(English)* 42223
protocols, formal spec. and simul. 3487
public land mobile, network mgt. 9400
QAM signaling, Rician-fading diversity channels, error probab. 32040
QPR-TCM, fading mobile satellite channel, perform. anal. 9336
QPSK coherent detect., phase ambiguity removal for diversity combining *(Japanese)* 41040
QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
QPSK TDMA digital radio link, analog FM interf. 33841
quaternary full response CPM sigs., generation/coherent detect. 3434
radiation hazards in indust./airfield environments 2271
radio networks, distributed power control 9376
radio propag. meas./modelling, ray tracing 9314
radio syst., PSTN network syst. interfaces/services 25383
radiocommunication, technol. and regulations 25627
radiocommunications medium, novel study 17117
RAKE receiver, mobile multipath fading channel, channel estim. 42268
RAKE receiver, synchronisation, BER perform. 25445
RAKE receiver implement. of CDMA power control mechanism 25439
Rayleigh fading, diversity reception, vel. estim. 3454
Rayleigh fading environ., mobile PRN anal. 3349
Rayleigh fading mobile channel, direct-seq. code acquisition 17103
receiver near range influence 3416
reduced-state soft decision feedback Viterbi equaliser 3425
RF amp. lin., continuous-time adaptive control 12349
RF prediction tool selection, microcells/PCS modeling 31832
Rice-lognormal terrestrial/satellite channel model 31834
Rician-fading channels, convolutional codes, finite interleaving depth 33911
road transport informatics systs., real-time messages multiplexing 9359
road vehicle radio network technols. 42206
road vehicle-to-vehicle 2-way commun., SS 42242
road vehicle-vehicle commun., 60 GHz by TDMA/CDMA 9333
RS coded slow freq. hopped TDMA cellular syst. perform. 33827
RTI related services, packet based data link protocol 8769
RTI/IVHS data distrib., virtual beacons 3459
RTT infrastructure/vehicle-roadside commun., perform. anal. 3457
S-CDMA cellular radio syst., interf. calcs. 17121
satellite channel, BER, outage probab. 42259
satellite commun. channel, M-ary FSK perform. 25401
satellite syst., open-loop power control error 25300
satellite-to-land-mobile commun. systs., perform. 9210
satellite/cellular integrat., terminal manufacturer's perspective 25396
SDL methodology for specifying radio protocols in CDMA syst. 2979
SDMA for spectrally efficient commun. 17094
sectorized cellular commun., channel borrowing without locking 3345
sectorized mobile microcellular radio syst., perform. anal. 3451
selective repeat ARQ for data commun. 17053
self-organizing cellular systs., single-channel user-capacity calcs. 17105
sens. array sig. proc. tech. 32731
SH7600, RISC microcomputer for pers. commun./multimedia eqpt. 12582
shadow fading dyn. channel assignment and power control capacity 42202
Shannon theory of Gaussian cellular multiple-access channel 25273

land mobile radio continued
SHF/EHF mobile/indoor wireless commun., SS 3476
SHF/UHF indoor radiowave propag. meas. 7976
short range radio link, propag. charact. 9224
short-block digital transm., adaptive MLSE for mobile radio 3427
Siemens DECT-prototype Gigaset 95x perform. indoors 9108
sig. reception, stat. model 31833
slotted Aloha, retransmission control 9379
slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
slotted ALOHA for high-capacity voice cellular commun. 3340
slow FH-GSM freq. hopping GSM 9288
slow flat Rician fading, covariance matrix, ML detect. 25306
slow freq. hopped data commun. syst., design 9287
small cells/microcells, radio wave penetration, urban buildings 9260
small-cell environ., radio channel characts. prediction 3335
SmartZone syst., site hand off operation 3400
SOCRATES in Europe and TANGO field trial in Gothenburg 3076
SOCRATES/RHAPIT pilot evol., commercial syst. 3077
spatial channel simulator for phased arrays 9318
spectral efficiency in future commun. 17116
spectral efficiency of multiple access techs. 17065
spectrally efficient modem for land-mobile radio, perform. 9272
speech coding for pers. commun. 8196
speech stat. multiplexing, resource auction multi-access excess capacity 42200
sq.-QAM adaptive modulation/TDMA/TDD syst., modulation level estim. 25272
SS7 network infrastructure, connection-less packet data transm. 25414
SS receivers, diversity reception improvements 25444
SS wireless LAN, interf. cancellation 8929
SS-CDMA PCS in-building systs., distributed antenna 9231
street microcellular syst., channel allocation, distributed control 25419
subjective protection ratio tests, standardisation 9223
switched pattern diversity antenna comparison 33793
TCM for equalized multipath fading ISI channels, perform. 25340
TCM-QAM for flat fading and AWGN channels, design 24118
TCM/M-PSK, trellis-coded M-ary PSK for digital land mobile commun. *(Korean)* 17045
TCP/IP, mobility impact, simul. study 3201
TDMA access for third generation cellular commun., resources 25394
TDMA digital cellular commun., adaptive channel equalization 42267
TDMA digital cellular networks, voice/data channel access 3338
TDMA digital cellular radio unified MLSE detect. 33823
TDMA digital cellular systs., PDC std. based 3441
TDMA digital mobile radio, adaptive diversity receivers 9306
TDMA frame synch. of mobile stations, radio clock sig. 9337
TDMA low-power wireless access syst., coverage/handoff tests 25412
TDMA selection diversity, DFE 9271
TDMA syst. perform. in outdoor microcellular environ. 33828
TDMA systs., unique-words perform. eval./selection/design 24780
TDMA-TDD microcell systs., common access channels design 9292
TDMA/FDMA wireless access, dyn. channel assignment/power control 9243
telecomm./transportation, synergy of concepts 3455
third generation mobile systs., adaptive radio interface 25395
third generation mobile systs., satellite services integrat. 3443
third generation mobile/fixed commun. integrat. 25258
third generation radio archit., adaptive antennas appl. 3482
third-generation mobile radio network planning propag. meas. 33787
third-generation mobile systs. security 33916
time-variant multipath channel, simul. 33847
time-varying mobile radio channel, measuring/simulating devices 25286
train-to-wayside commun., multicarrier modulation 9282
trains computer and radio control 9283
transactions via short range commun. links 9355
transceiver differential amps., lin. techs. 12352
transmit antenna selection diversity, prediction 9304
transmitting antenna arrays with feedback, spectrum reuse 42266
transport enterprises, mobile data comms./EDI 42238
tunable bandpass sigma-delta A/D conversion for mobile commun. receiver 9354
UHF digital cellular syst., network archit. 25407
UHF DOA inside/outside buildings 9312
UMTS, CDMA-based radio access design 25333
UMTS, distributed database archit., hierarchical struct. 25387
UMTS, fixed network issues and design options 25331
UMTS, targets/syst. concept/standardization in global framework 25295
UMTS, vision for 21st century 42279
UMTS/B-ISDN integrat. 9207
UMTS/FPLMTS, CDMA concepts validation 3388
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
urban microcell environ., av. power prediction 3422
urban microcells, direction biased handoff algms. 3399
urban microcells, ray tracing based prediction of impulse response 3420
urban microcellular environ., time dispersion meas. 3408
USA unlicensed PCS band, coexistence/access etiquette 3370
vehicle to roadside commun., 5.8 GHz, adaptive array antennas 15666
vehicle-to-vehicle commun. for AVCS platooning 5354
vehicle-to-vehicle commun. ranging, SS radar 42244
vehicular scatt. effect on mobile commun. 9308
VHF channels, digital fading mobile, Markov charactn. 3337
Walkstation transceiver design 3464
wideband microcellular environ., multipath propag. 3409
wireless access commun. syst., radio link access procedure 9365
wireless appls., correl. lognormal sum distribs./outages 3413
wireless cellular network distributed dyn. channel allocation algms. 42229
wireless commun., filter struct. for equalization and diversity combining 33875
wireless commun., network issues 17113
wireless commun., standardization 25358
wireless commun. channels, propag. meas. and models 17108
wireless commun. overview, consumer electronics perspective 9403
Wireless Integrated Digital Equipment syst. 42263
wireless LAN, 12 GHz band wave propag. meas. 8931
wireless multimedia commun., adaptive rate multiple access 41991
wireless multiservice CDMA environ., adaptive packet decoding 9360
wireless networks, resource allocation 9245
wireless PCS radiowave propag. 3379
wireless pers. commun., overview 17107
wireless pers. commun., TDMA methods 17109

land mobile radio continued
wireless pers. commun., tree-search resource auction multiple access 9290
WISE CAD software for indoor wireless systs. design 42189
GaAs MESFET lin. power amp., digital mobile commun. appls., 1.9 GHz, 2.7 V supply 42298

Landau levels
FIR tunable lasers/detectors 14893
low-dimensional electronic systems, Mauterndorf, Austria (1992) 11547
semicond. laser, oscill. wavelength shift in mag. field *(Japanese)* 23200
semicond. superlattices, long. magnetoresist. 29900
GaAs superlattices, miniband transport, quantized mag. field 21984
GaAs/$Al_xGa_{1-x}As$ rings, tunneling, edge states 21985
GaAs/AlGaAs HET, quasi-ballistic electrons, reson. tunnelling 13654
GaAs/AlGaAs heterojunction, magnetothermopower, phonon drag 38298
GaAs/AlGaAs heterostruct., 2D electron gas, electron correls. 38312
GaAs/AlGaAs heterostruct., ballistic electron transport, magneto-opt. studies 13115
GaAs/AlGaAs quantum wires, electron interf., correl. field anal. 38356
Ge p-type cyclotron reson. laser emission lines 14955
Si MOSFET, 2DEG, cyclotron phonon emission, quantum oscill. 38887

landing fields *see airports*

Langmuir-Blodgett films
see also molecular electronics
cobalt tetra-(N,N-dimethylhexadecyl p-aminophenyl) porphyrins LB film ChemFET, vap.-sensitivity *(Chinese)* 9950
deposition, technol. and appls. 12947
5-n-docosylbarbituric acid pyroelec. LB film structs. 13918
electro-optic Fabry-Perot through-plane-modulator based on LB film 30998
fibre optic channel dropping filter, LB film 17910
IgG Langmuir films oriented by protein A sublayer 42857
LB-film Si MIS interface, substr. surface treatment 38535
luminesc. lifetime-based sens. for relative air humidity 3870
metallophthalocyanine, aggregation and nonlin. optics 31581
MLSFET, metal/Langmuir-Blodgett/semicond. FET, device phys., elec. anal. *(Chinese)* 13671
mol. orient., SHG 15145
multilayer LB film opt. switching parallel proc. 7427
odorant sens., SAW oscillator and neural network 17982
organic materials for electronic/photonics, conf., Japan (1993) 11532
organic mol. rectification 12948
phenol/pyridinium triflate, synthesis, nonlin. optics 2121
phthalocyanine LB films, RT toluene gas sens. 17986
polyimide LB films, MIM element voltage generation, atmos. effects *(Japanese)* 38452
polymer amphiphiles LB films, fab., nonlin. optics props. 15089
polymeric LB and spin-coated films, light atten. 14318
potentiometric sens., LB films prep./immobilisation 3897
pyroelec. heat sens., dielec. behaviour 14094
supramolecular assemblies for mol. electronics 21664
tetra-tertbutyl copper phthalocyanine LB film NO_x gas sens. 25893
tetrabenzporphyrins in solns., third-order nonlin. opt. interacts. 7782
WDM LB deposited film in-line fiber-optic components 17187
Ag-CdS-fluorinated polymer jn., elec. props. 13244
C_{60} LB films, degenerate multiwave mixing and opt. storage effects 15086
Ir-stilbazole complex LB films, temp.-depend. polariz. 22636
n-Si/LB layer photoelectrochemical solar cells 5220

Langmuir probes
see also plasma diagnostics
beam-centroid tracking instrum. for ion thrusters 18768
Mars'94 expt., Langmuir probe electronics, radiation risk 10306
microwave propag., backscatter 23651
plasma etching, helicon/ECR sources, Langmuir probe diagnostics 22194
CO_2 laser discharge, rot. mag. field effects 1866
GaAs, modulated RF plasma etching, Langmuir probes 13406

language translation
APL-ASCII transliteration 41790
ATR research activities on speech translation 2444
dependability model automatic translation feasibility 11874
direct global mktg., amat. radio packet switched network 9163
Eng.-Japanese bidirectional translational scheme 15839
International English, technical text prep. for translation 28293
JANUS 93, towards spontaneous speech translation 32291
SSS-LR continuous speech recogn., non-uniform unit parsing 32394
std. British/ToBI prosodic transcription systs., conversion 2418
teletranslation, lang. translation in cyberspace 24998

languages
see also formal languages; natural languages; programming languages; specification languages
engng. education courses, foreign lang. learning incorporation 28283

languages, formal *see formal languages*

languages, programming *see programming languages*

Laplace equations
2D Laplace problems, regular boundary integral soln., variational formulations 31709
axisymmetric pot. problems, floating random walk method 20531
corrugated periodic struct. noisefree static field calc. 31892
image encoding, edge field, Laplacian operator 33002
latchup-free design in merged BiPMOS 6869
quasistatic elec. field design problems *(Russian)* 7882
rect. Hall devices, pot. distrib. determ. software 30208
steady-state heat eqn., floating random walk algm. 5633
superconvergence, finite element solns. 20636
transmission line static anal. using measured eqn. of invariance 23751
undulator with anharmonic mag. fields, focusing props. 43033
VLSI RC parasitics modeling based on network reduction algm. 22536
Li solid polymer electrolyte thin film batt., current distrib. 44283
SF_6 cct. breakers, EM and fluid mech., arc modelling 44235

Laplace transforms
broad-band time-domain spectrosc. for biological effects of EM waves 26482
charged human body, pot. atten. proc., anal. 23506
continuous level probab. fn. eval., sig. proc. method *(Japanese)* 2458
controllable M/M/2 syst. reliab. with warm standbys operating under triadic (0, Q, N, M) policy 11900
detect. perform. of lin./sq.-law detectors 32539
dielec. interface, transient scatt. responses *(Japanese)* 40325
distributed telecomms. systs., sojourn time distrib. modeling 33237
dyn. response of nonlin. meas. systs. 3700
edge detector, Laplacian-of-Gaussian, noise removal 24382

Laplace transforms continued
FEM, diffusion/propag. problems in elec. engng. 278
freq. charact. determ. of measuring transducers 42763
GI/GI/1/r queueing syst., stationary queue length distrib. 28574
half-wave voltage converter with backward diode, stabil. estim. 539
IIR dispersive channels, min. Euclidean dist. of modulated sigs. 15709
ionos., current source sheets, EM waves excitation 23639
life distribs., EBELC/EWELC classes 37239
LIM, control obj., math. model *(Russian)* 27759
M/G/1 queues with neg. arrival, iter. method appl. 20512
multiplex systs., reliab. models eval. 37192
num. inversion difficulties 5733
num. inversion of Laplace transforms of probab. distribs. 28704
opt. disk, write compensation, thermal transfer fn. 22795
pot. discharge from human body, num. inverse Laplace transform 40213
power p-i-n diodes, PSpice-based modelling 5987
PSpice for Laplace transform eqn. solving, undergraduate course 28351
pulsed power modulator systs., pulse forming network calcs. 36441
radiowave propag. problems, horiz. parab. eqn. soln. 23642
simul. of networks, ideal switches 6022
solar cell, spatial collection efficiency 27932
solar collector dyns. ident., phys. model-based approach 27974
telecomms., correl. arrival procs. in switching systs. 33192
time-domain EM plane waves in static and dyn. conducting media 31784
transformer substations, EM transients anal. 36480
transm. line EM transients anal. 35603
triple-TEM cell, FEA 8012
VLSI nonuniform freq.-depend. high-speed interconnects, Laplace transform anal. 1291

laptop computers
see also notebook computers
cableless LANs, emerging technol. 41900

large scale integration
see also ULSI; VLSI
0.3 μm LSI fab. by high-throughput electron-beam syst. 13453
3.3V MUSE decoder sig. proc. LSI *(Japanese)* 34254
32W-CZ 6, widescreen TV, built-in MUSE-NTSC converter *(Japanese)* 25649
analog device generation, error-free module layout 22531
ASIC line mgt. technol., operator's skill-level, scheduling-factor 28434
ATM switch CMOS LSIs, self-timed queue archit. 16961
BiCMOS SRAMs, PLL timing design techs. 29220
bipolar LSI, trench isolation along {111} gliding planes, 3D mech. stress anal. 22564
cell buffer implement. realizing CLP and appl. 16966
channel codec LSI for digital cordless telephones 25161
chem. amplified resist films, acid generation proc. by radiation-induced react. 13516
chip mounting/packaging technol. *(Japanese)* 13857
CMOS 2.4 Gbps 16×16 ATM switch chip set 16960
CMOS ATM switch LSIs, self-timed queue archit. 33721
CMOS five-stage pipelined FFT proc. chip 12578
CMOS LSI, I_{DDQ} testing *(Japanese)* 1493
CMOS LSI archit., ultra-high speed error correction, majority decoding 29200
CMOS LSI with abnormal IDDQ, failure anal. 22595
CMOS LSIs for pers. inform. and telecom. systs., trends 22565
CMOS modular analog chip for feed-forward neural networks, on-chip learning 797
CMOS radiation-hardened 32-bit μP based commercial proc. 12567
CMOS real-time obj. extraction proc. chip 29250
CMOS RISC proc., 500 MHz, 32 bit, 0.4 μm design 6180
CMOS SDH termination chip for 622 Mbps STM-4c B-ISDN 16932
COG, COG technol. for LCD driver LSIs, resin and flexible metal bumps 134
COG photosensitive adhesive resin interconnection technol., LCD driver LSIs *(Japanese)* 953
delivery management, lot-sampling scheduling 37041
delivery mgt. syst., lot sampling scheduling method, ASIC prod. line 28432
design prototyping, A/D mixed tester 688
desktop videoconferencing syst. *(Japanese)* 25079
digital LSIs, 1 V power supply on-chip CMOS ADC 6190
digital special broadcasting, evol. and appl. 8244
digital VTRs, ECC, pipelined decoder *(Japanese)* 9747
DRAM/memory LSI failure anal., EB tester voltage contrast image 21317
DSP, multimedia ASSP *(Japanese)* 3261
dyn. terminations for low-power high-speed chip interconnection 37692
E/D-DCFL inverters, sub-1V, propag. delay 12415
ECL LSI design and test experience in supercomputer develop. 21221
electro-optic probing, LD 6836
electron beam lithog., character projection data conversion syst. 22283
electron beam lithog., proximity effect correction, pattern-area dens. 22285
electron-beam tester, mag./electrostatic lens collimation 37038
European GSM and PCN portable phone develop. *(Japanese)* 17078
fab., dust sources 30403
fault-tolerant computing, signature anal., inform. theory 38959
FEAL-32 encryption LSI *(Japanese)* 42093
fine pitch interconnections, anisotropic conductive adhesive 22281
finned LSI packages, thermal resist., num. simul. 37106
FIR/IIR SC decimation filters, parallel cyclic-type cct. 12650
flip-chip solder bumps, Sn content meas. method 42975
FM subcarrier data syst., develop. *(Japanese)* 3649
FR20 series high-perform. microcontroller for multimedia commun. *(Japanese)* 12581
Fujitsu chip sets for ATM LANs, develop. *(Japanese)* 16736
global router for analog LSI based on branch-and-bound algm. 38949
global router for high-speed bipolar LSIs 13870
GT-1000 image transm. device, develop. *(Japanese)* 33610
HDI, bare chip technol. 30151
HEMT-on-Si technol. for dual modulus prescaler IC fab. 21296
high dens. modules, LSI chips, bump interconnection 30150
high dens. multilayer substr. for Si on Si high speed module 29719
high-leverage SOI technol., appls., CMOS and BiCMOS designs, material/device problems 30003
high-speed measuring syst. for testing mixed-sig.-LSI 767
incremental simul. for large scale ccts. *(Japanese)* 37597
JPEG image coding algm. Huffman codec *(Japanese)* 16943
large scale LSI ASIC CAD layout design syst. *(Japanese)* 468
lead on chip struct. memory package, adhesive material 13853

large scale integration continued
lean integrat., perform. and cost improvement of logic LSIs 29146
low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
low-power RAM cct. technol. trends 37779
LP based cell selection, timing, area, power consumption constraints 37700
m-FETs, LV SIPMOS transistors, lower drain-source on resist. 1395
magneto-opt. disk unit, data/disk servo control chips *(Japanese)* 22962
manufacturing yield, integrated database syst., cond. anal. 37040
MD-DATA drive unit, develop. *(Japanese)* 38968
mfg. yield verification by testing 13848
Mitsubishi LSI devices for SDH interfaces 33332
mixed prod. of ultra-short TAT LSIs and low-cost LSIs, mfg. line config. 28431
mixed sig. device, high precision testing 766
mixed sig. devices testing in Sony 765
mixed technology RF ICs for UHF portable commun., projected develop. 21579
mixed-sig. commun. LSIs, design, device/crosstalk noise 12660
MMIC freq. synthesizers, phase noise reduction tech. 12816
module placement, Hopfield neural net, non-zero diagonal elements *(Japanese)* 37599
module placement method, Kohonen, maps *(Japanese)* 28979
MOS capacitors, N_2O-oxynitridation in resist. furnace, effects on thermal oxide breakdown 30126
MPEG2 real-time codec, video DSP appl. *(Japanese)* 25165
MPEG stds., audio/video codecs, LSI chips 16944
MUSE decoder chip set for HDTV, low power operation 17565
neural chip, subthreshold MOS analog cct. 37928
neural chip of pulse-output net, prog. synapse 29431
neural network, kanji character-recogn. appl. *(Japanese)* 786
nonlin. LSI cct. simul., relax. Newton method 22530
obj. ident., stochastic local fractal variables *(Japanese)* 30392
oblique illum. opt. lithog. using a transmittance-adjusted pupil filter, resoln. enhancement 38749
packages, cooling enhancement, modified barriers 37086
packages, long. fins, free air stream, heat transfer 37096
phase mask, pattern form. 13551
phase-shifting masks, design, compactor 13548
phase-shifting masks, LSI technol. 13503
photonic LSI interconnections/appls. 1833
pipelined parallel multiplier implement. 6061
plastic moulded LSI package, interface edge/interface crack tip, thermal stresses 28488
playback-only MD syst. chip set *(Japanese)* 42650
polysilicon resistors, pulse current trimming, LSI resistor tuning after fab. 38977
power/area optim., transistor sizing/wire length minimization 37745
press. transducers, 0.04, 30 MPa 17737
probe cards, manufacture and Si LSI/VLSI IC R&D/prod. testing *(Slovenian)* 30393
prog. image coding syst., arith. codec, LSI-CAD 33700
Sanyo multi-gray-scale proc. LSI for TFT-LCD *(Japanese)* 669
SDH 600 Mbps line termination and multiplexing equipt. 25179
SDH fibre-optic transm. systs., forward ECC 42455
SDH multiplex line terminal, CMOS LSI for SOH proc. 42097
single-layer-resist proc., energy-depend. aspect ratios, 0.2-μm e-beam lithog. 13515
SR steppers, compatibility 38754
SSB opt. lithog., pupil filter in replicating isolated patterns 13557
steplength algms. for tracing soln. curves in bipolar analogue LSI simul. *(Japanese)* 37591
tape carrier package for high-speed LSIs, lead inductance 5643
Telecom LSI series, Astro Array *(Japanese)* 13854
ultra-high-speed, self-aligned complementary bipolar technol. 30442
very-high-speed analog bipolar neural net LSI 37926
via-hole shape optim. by quasi-3D topography simul. 13863
visual inspection for LSI wafer patterns, subpixel image alignment 6437
voltage waveform meas., EB tester, electron-beam-assisted etching 13856
waveform anal. of LSI for music synthesizers 3698
X-ray mask fab., proximity effect correction 22291
Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417
AlSiCu lines, electromigration lifetime, min. time to failure testing 38637
GaAs LSI chips, back-grinding, mech. reliab. 1498
GaAs transmitter/receiver LSI chips, parallel opt. links 42401
GaAs transmitter/receiver chipset for opt. link 42404
GaAs:Si epitaxial layer, MBE grown, LSI appl. *(Korean)* 20904
Mo conductors, laser-induced CVD, LSI appl. *(Japanese)* 5871
Si LSI single-chip integrat. of LED, waveguide and micromirrors 39615
Si SOI struct. using oxidized porous material, CMOS LSI logic appls. 39012
Si devices, proc./manufacture, 0.25 μm technol., trends 6814
W/WNx/poly-Si gate technol. for deep submicron CMOS LSI 22587
intell. parallel opt. link and LSIs 34055

large-scale systems
see also flexible structures; hierarchical systems; interconnected systems
airport large electroacoustic syst. speech intelligibility meas. and optim. *(Croatian)* 2411
complex structural engng. systs. safety, logical-probab. anal. *(Russian)* 5565
fault detect./ident. for complex MISO lin. systs. 11883
intell. optim. method for large-scale systs., fuzzy params. 11935
packet switch interconnection archit. using overflow switches 41416
power restoration support syst. for large-scale bulk power networks 10664
power syst., unknown interconnections, adaptive nonlin. excitation control 10684
prod. develop. procs., simul. techs. *(German)* 28396
PSS decentralized control, multilayer feedforward neural net-based 19100
reliab., phased mission anal. method 174
reliab. design error effect anal. 11713
sync. motor drives, self-controlled, computer modelling 11337
telecomm. network distributed proc. technol. *(Japanese)* 16754
user-centered design, evolutive trends *(Italian)* 37012
a-Si PV cells in large scale utilization, energy pay-back time *(Japanese)* 27629

large screen displays
act. matrix liq.-cryst. panel, polysilicon TFT addressed *(Japanese)* 25659
ARINC D-Size LCD display for aircraft 10391
colour diffr.-based optics, light-valve projection displays 25926
Fujitsu 21-inch color plasma display and electronics *(Japanese)* 25918
HDTV projector, opical config. 25922
large-picture technol. for workstations and monitoring *(German)* 42697

large screen displays continued
LCD projector with interleaved pixels, opt. syst. and charact. 25931
LED large area displays, SMT-TOP-LEDs 3932
light-valve projection displays, overview 25921
liq. cryst. light valves for schlieren opt. projection 25929
matrix displays, pixel arrangements, picture quality 18012
NTT's research activities on image devices for VI&P commun. 41988
nuc. plant group overview displays, operator perform. support 3945
polymer dispersed liq. cryst. cells with memory effects, light scatt./refl. 34637
teleconferencing prototype display 41944
Si CMOS addressing matrices, light-valve projection displays 25928
laser ablation
see also pulsed laser deposition
biotissue, laser ablation under water, channel form. dyn. 10260
ceramics, laser-surface proc. for indust. appls. 28873
excimer laser ablation apparatus opt. syst. *(Japanese)* 23480
laser pulse effect on materials, nondestructive nuc. techs. 455
low-loss nonlin. opt. channel polymer waveguide laser ablation 1723
MCM large area fine line patterning by scanning projection lithog. 21717
MCM-D substr. fab., cost reduction approaches 957
metals, laser-surface proc. for indust. appls. 28873
micro optics, excimer laser material proc. *(German)* 7867
painless tooth prep., Nd:LiYF$_4$ picosecond laser *(German)* 10261
polyimide charring on thin film line deletes 12962
polymers, excimer laser micromachining, replication 28439
solid surface high speed cleaning by high-repetition rated TEA CO$_2$ laser pulses *(Japanese)* 7871
sub-micron hole machining, femtosecond laser, 800 nm 23484
thick-film resistors, excimer laser trimming *(German)* 6438
via ablation technol. for MCM thin film packaging 21772
Al target, laser ablation plumes, reson. holographic interferometry 2158
AlN, excimer laser ablation, fluence depend. 12192
Ba$_2$NaNb$_5$O$_{15}$ opt. waveguiding films, excimer laser ablation prep. 12168
C:H diamond-like films, excimer laser etching, spalling effect 30122
(GeTe)$_{85}$Sn$_{15}$ chalcogenide thin films, laser ablation, atmos. comp. and press. effects, opt. storage appl. 30834
HfO$_2$/SiO$_2$ dielec. layers, excimer laser ablation patterning 30121
InP, laser assisted dry etching ablation 30094
In$_{46}$Sb$_{54}$ thin films, growth, microstruct., multiple recording appls. 28811
KrF excimer laser bone ablation mechanism *(Japanese)* 7720
Si, patterned surfaces, Schottky barriers, photoablation 22185
a-Si:H, selective laser ablation 1027
TiC refractory material, laser ablation, cluster form. and deposition 28827
XeCl excimer laser, 1 kW, specific appls. 31141
YBa$_2$Cu$_3$O$_7$ high Tc epitaxial thin films, opt. SHG detect. 7745
ZnS, excimer laser ablation, blast-wave studies 30079
laser ablation deposition *see pulsed laser deposition*
laser accessories
see also laser mirrors
2 kW series resonant converter, CO$_2$ gas discharge laser appl. *(Spanish)* 19877
3D simul. anal. of 3 cm wavelength FEL afterburner 2021
5 kW laser power supply, IGBT mag. pulse compressor-based 36297
ablation deposition of thin films 12167
airborne laser syst. pulsed power supply, compulsator-based 36254
astigmatic telescope for lasers, annular gain medium cross sect. 31461
binary phase zone plate designs, far-field distrib. calcs. 39531
cascade compulsator, YAG laser power supply 31456
CEBAF FEL injector, space charge dominated perform. modelling 39974
chem. lasers, CW, small-scale periodic inhomogeneities, lateral shearing interferometry 23088
Cherenkov FEL, high peak power 39909
conference, laser damage in optical materials, Boulder, CO, USA (1993) 11528
conference, lasers in optical systems/devices, St. Petersburg, Russia (1993) 11526
conference, optical interf. coatings, Grenoble, France (1994) 11556
conical converters for uncollimated laser beam cross sect. 39995
conical cross-sect. converters, mutual error compensation 31459
CROSSATRON modulator switches, pulsed power supply appls. 36409
cryogenic all-sapphire Fabry-Perot opt. freq. ref. 31462
DBR laser based step-like opt. freq. sweep generator 23254
DC/DC converter, simul./testing, laser supply appl. 36279
diffractive opt. element for laser beam sharpening 23328
diffractive optics, radiation resist., electroforming *(German)* 31058
DISKTRON electrostatic accelerator and laser-induced photoelectrons facility 31464
dye laser cell, plane-convex cylindrical lenses 39683
dye lasers, tunable, acousto-optic deflector spatially modulated grating excitation 39682
electron-gun pulser for table-top maser expts. 39628
excimer laser ablation apparatus opt. syst. *(Japanese)* 23480
excimer laser discharge electrode design techs. 31182
excimer laser pulsed power supply, mag. pulse compression cct.-based 36317
extended thermal lens resonator cavity fund. mode calc. 14995
external cavity LD, freq.-shifted feedback 39828
FEL, compact RF linac, advanced technol. 39891
FEL, far-IR range, emission charact. meas. 39894
FEL, SW range, electron beam accel. and compression 39898
FEL gain, alternating-gradient focusing, scaling fn. 14991
FEL with two-freq. undulator, lin. theory 7691
femtosecond CW mode-locked laser, third-order dispersion calc. *(Chinese)* 7713
graded opt. elements in solid state laser resonators 14998
high-power laser radiation damaged opt. glass elements 7707
high-repetition-rate electrooptic cavity dumping 30999
IR FEL, compact design, perform. study 39895
KrF excimer laser pulsed power amps., electron beam-pumped 36304
LD mirror heating, thermal diffusivity 1958
metal diffr. gratings, laser power, energy dividers 15008
micro-encoder chip, integrated opt. component fab. 30979
MQW LD mode-locking proc., transient gratings *(Chinese)* 39795
multistage laser syst., effective aperture optimisation 31463
Nat. Ignition Facility, ICF, laser flashlamp power conditioning syst. 5106
office environ. opt. wireless transmitter technols. 42358
phase retarders, metallic grating based, laser cutting appls. 125
laser accessories continued
photocathode RF gun, laser driven, FEL operation appls. *(Japanese)* 29757
polarizing rect. prism used in laser techs. 7711
pseudospark switch develop., appls. 29818
pulsed gas laser, external cct. effects on spark-gap arc-discharge 23100
pulsed gas laser discharge, inductance and resist. effects 23101
pulsed power mag. modulator, laser power supply appls. 36401
pulsed power vac. switch foil support struct., laser pumping appls. 36442
quartz glass radiation resist. and nonlin. absorpt. at 353, 248, and 193 nm 15019
repetitive discharge-excited laser, discharge triggered switch 23076
rhodamine 6G regenerative-feedback mode-locked dye laser, acousto-optic mode locker 39686
ribbon FEL, 1D DFB 39910
ring dye laser, intracavity freq. shift, self-pulsing and instabilities 39690
ruby laser, colliding shock lens, intracavity Q-switch element 23329
self-excited chopper, quartz micromachined, opt. sens. appl. 30978
semicond. diode laser, mirror temp., photothermal deflection method 2033
semicond. laser power digital stabilization 39765
semicond. lasers with unstable resonators, simul. 23210
slab laser prism resonator charact. 31447
Smith-Purcell FEL, amplif., single-particle classical theory 23313
soft X-ray source for discharge-pumped excimer laser 23327
solid state laser modulator loss anal. 15006
solid state modular laser, multiplexing method, fibre optic delivery syst. 31292
solid-state lasers, liq. cooling agents and opt. filters 14825
solid-state SCR switches, space laser pulsed power modulator appls. 36417
spark-gap design, efficient and simple, for gas lasers 15009
spiral phaseplate prod. helical-wavefront laser beams 2043
submillimeter wavelength CARM electron opt. syst. 39915
SW FEL amp. undulators 39899
telescopic and dispersive prism devices for laser technol. 39994
UV/X-ray FELs, single-pass, milestone expts. 39901
wedge prism freq.-tuning mechanism in single-mode tunable laser 23330
X-ray FEL, high-brightness RF photocathode guns 39897
X-ray FEL, perform. charact., param. sensitivities 39903
AlAs/GaAs VCSEL, cavity and reflector design 31347
Ar+ ion multimode lasers, polariz./intens. correl. 1851
ArF avalanche discharge laser, gas life time expts. 31181
CO$_2$ TEA laser, solid state switched pulser sustainer 39654
CO$_2$ gas lasers, power supplies comparison 1861
CO$_2$ high-power lasers at 12 kW, beam quality 31156
CO$_2$ laser, beam delivery, hollow core waveguides 23077
CO$_2$ laser continuously variable attenuator by ZnSe wedges 2036
CO$_2$ waveguide laser arrays, side lobe suppression, phase filter design 31188
Cd$_{1-x-y}$Mn$_x$Hg$_y$Te single cryst. opt. isolators for high power LD pumping 3556
Ce-doped gel quartz glass for opt. filters 31061
Cr:LiSAF$_6$ slab laser perform. 31294
Cs$_2$Te Los Alamos FEL photocathode electron source 39942
Cs$_2$Te photocathode electron source for Los Alamos advanced FEL 39944
Cu vap. laser window contamination *(Chinese)* 14694
Cu vapour laser, current pulse waveform shaping cct. *(Japanese)* 39664
Cu vapour laser, multistage mag. pulse compression design 14709
Cu vapour laser power supply, regenerative snubber topol. 36250
GaAlAs LD bar, pumping by opt. fibre device 39323
GaAlAs LD, wavelength locked, bandpass filters, freq. doubling 31593
GaInAsP/InP MQW QCSE tuning element for surface emitting laser 15014
HCN waveguide laser, duplex radiation output, polaris. and energy charact. 39642
I Q-switched photodissociation laser, pass. shutter 39671
I$_2$ photodissociation laser, VUV radiation inversion accumulation 14720
InGaAs/AlInAs vert. transit. quantum cascade laser, Bragg confined excited state 23260
InGaAs-AlGaAs laser oscillator surface grating output couplers 23255
InGaP/GaAs multilayer reflector, MOCVD grown, VCSEL appl. 39865
KH$_2$PO$_4$ high-power freq. doubling laser syst. *(Chinese)* 40043
KTiOPO$_4$ electro-optic laser Q switch, dispersion effects 22933
KTiOPO$_4$ intracavity freq. doubler 14812
KTiOPO$_4$ nonlin. devices, temp. dispersion 15121
KrF NIKE laser, e-beam pumped amp. 31190
KrF avalanche discharge laser, gas life time expts. 31181
KrF excimer laser, sealed-off perform., NovaTube 31149
KrF excimer lasers, HV pulsed power supplies 31171
KrF laser amp., Titania, pulsed power syst. 31189
LaB$_6$ FEL photocathode photoemission studies by ns KrF excimer laser 38207
LaB$_6$, RF electron gun photocathode for FEL lasers *(Japanese)* 29758
LiF, F$_2$ centre, pass. Q-switch for Nd:YAG laser 31309
LiF:F$_2^-$ colour center laser switches 7708
LiF:F$_2^-$ pass. laser switch 14824
LiF:F$_2^-$ cryst. Q-switch for Nd:YAG freq.-doubled laser stabil. *(Chinese)* 14794
Nd:YAG Q-switched diode-pumped laser, freq. conversion 31268
Nd:YAG laser, diode-pumped, Q-switching study 31299
Nd:YAG mode-locked laser antiresonant Fabry-Perot saturable semicond. absorbers 31244
Nd:YAG pulsed kilowatt lasers, fibre optic beam delivery syst. 31263
Nd:YAG unstable multirod lasers, variable reflectivity mirrors 31267
Nd:YAG(YAlO$_3$), efficient high-power laser operation 31264
Nd:glass ring laser single freq. operation, acousto opt. induced 23140
Nd-doped lasers, nanosecond polymer pass. switch develop. 39746
SiO$_2$:WO$_3$ porous glass laser optics fab., CO$_2$-laser radiation effects 7710
TeO$_2$ HF two-color laser radiation splitting 1752
Ti:sapphire CW mode-locked laser, tunable UV light pulse prod. 23148
Ti:sapphire laser 20 fs chirped pulse amplif. 31257
Ti:sapphire regenerative amp., tunable 30-fs pulses 39739
Ti:sapphire ultrashort pulse lasers, cubic phase compensation 31279
W, RF electron gun photocathode for FEL lasers *(Japanese)* 29758
Xe lamp pulse power-pumped Nd:glass laser, crack mechanisms 31457
XeCl compact three electrodes excimer IANUS laser 31153
XeCl discharge laser, mag.-spiker elec. ccts. 31152
XeCl excimer lasers, HV pulsed power supplies 31171
XeCl laser, long-pulse, auto-pre-pulse/pre-ionization 23092
Y$_3$Sc$_2$Ga$_3$O$_{12}$:Co^{2+} saturable absorber Q switch for IR Er lasers 23331
ZnSe transparent IR opt. elements, photothermal meas. 2037

laser annealing *see laser beam annealing*
laser applications *see laser beam applications*
laser applications in medicine
angioplasty advantages, laser source choice 43340
biochemical diagnostic instrumentation, conf., USA (1994) 11573
biotissue, laser ablation under water, channel form. dyn. 10260
bladder carcinoma, human, cystoscopic photodetection without sensitizing agents 43213
blood leakage detect., opt. sens. syst. 10208
blood platelet aggregation, aggregates counting, laser light scatt. 26329
cancer and other disease diagnosis, conf., USA (1994) 11571
capillary optics, beam intensifier for Compton X-ray source 10218
cardiovascular interventions, diagnostic/therapeutic, conf., Los Angeles, CA, USA (1994) 5463
cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
conf., biochem. and med. sens., Budapest, Hungary (1993) 5462
conf., Budapest, Hungary (1993) 20211
conf., modern imaging technol. clinical appls., USA (1994) 20212
conference, St. Petersburg, Russia (1993) 11527
confocal theta microscope, three objective lenses 10202
dentistry, laser 43335
dermal lesions elimination by laser, precision enhancement 43348
dermatology, laser appropriate 43334
endotracheal tube laser surgery, heat resist. safety *(German)* 26455
excimer laser angioplasty, current status/future prospects 43339
excimer laser angioplasty, technol. challenges 43338
fiber guided laser beam appls. in med. *(Japanese)* 4269
fiber optic instrumentation, conf., Los Angeles, CA, USA (1994) 5465
fiber optic probe method, time-resolved photography for laser ablation bubble 43215
fiber optics, delivery of 3 and 10.6 μm energy for laser surgery 35151
fiber optics for FEL med. appls. 35152
free-lasing/Q-switched regimes, wavelength 26309
glaucoma, open angle, Er:YAG lasers in surgical treatment 43337
glaucoma filtering surgery, laser appls. 43336
high-sensitivity DNA anal., laser-excited confocal fluoresc. scanning 26292
image data sets, surface rendering, Fourier descriptors 10205
interstitial laser heating, large vessel cooling 26464
interstitial laser photocoagulation, basic optothermal diffusion theory 10266
iridectomy using diode, Ar and Nd:YAG lasers 4295
laser-tissue interaction, conf., Lille, France (1994) 20265
laser/light induced fluoresc. spectrosc., biomedical appls. 43214
LD-pumped IR solid-state lasers 14789
leg vein treatment, laser/incoherent light source therapy comparison 43330
LEOS, San Jose, CA, USA (1993) 20270
liver, interstitial laser photocoagulation, near real-time MRI 26462
microcirculation, laser Doppler monitoring, emergency radio call syst. *(German)* 10174
micromanufacturing appls. of excimer-lasers 15190
myopia treatment, excimer laser 43349
ophthalmic technols., conf., Los Angeles, CA, USA (1994) 20215
optoelectronic science/engineering, conf., China (1994) 28207
optoelectronic transmitters for med. US transducers 35005
otolaryngology, solid state laser 43333
painless tooth prep., $Nd:LiYF_4$ picosecond laser *(German)* 10261
pattern-evoked ERGs, laser ophthalmoscope, mech. mirror 35121
percutaneous absorptiometry by UV laser photoacoustic method 4263
photodynamic therapy conf., Los Angeles, CA, USA (1994) 5464
photothermal therapy of vascular lesions and cancer 35149
prostate problems appl. 34982
pulsed laser microtomograph 26301
refr. eye microsurgery, laser tracking 17452
scalpels, energy transfer procs. modelling 4293
simultaneous multispectral fluoresc. imaging, med. diagnostic syst. 18460
solid-state dye laser for med. appls. 18598
surgery, conf., Los Angeles, CA, USA (1994) 11574
tissue spectrosc. instrum., freq.-domain photon migration 18452
tooth tissues, KrF excimer laser ablation, precision machining 18590
transcutaneous diagnostics, fibre optic devices 43264
turbid media imaging by CW US modulation of scatt. laser light 43254
urologic appls. of laser technol. 43332
vascular lesions in children, flashlamp pulsed dye laser therapy 43331
welding, selecting necessary/sufficient params. 43329
ArF excimer laser keratoplastic surgery on animal eyes *(Chinese)* 18462
CO_2 lasers for med. uses 26310
Er:YAG laser clinical niches 35150
Ho:YAG coronary laser angioplasty, large clinical experience 43341
Tm,Ho mid-IR lasers, LD pumped, for med. appls. 31308
$Tm:YAlO_3$ 1.94-μm laser, biomedical appls. 39731
laser arrays
see also semiconductor laser arrays
cylindrical Talbot cavity for circ. laser array phase-locked operation 31451
microchip diode pumped solid state laser arrays, mfg. cost 31282
periodically pumped and coupled lasers, phase locking study 31473
CO_2 waveguide laser arrays, side lobe suppression, phase filter design 31188
Er:YScGG, 2D microlaser array, monolithic LD array pumping 1888
Nd^{3+}-activated fibre lasers connected by single-mode couplers 23125
laser arrays, semiconductor *see semiconductor laser arrays*
laser beam annealing
giant far action lateral phenom., ion/laser beam IC fab., reliab. 20488
metal, laser surface proc. *(Japanese)* 7873
metal/III-V-semicond. contacts, fab./props. 1162
photonic IC fab., quantum well intermixing 14666
polysilicon TFTs, fab., pulsed laser annealing and plasma CVD 13743
pulse effect on materials, nondestructive nuc. techs. 455
AuPdTi-GaAs ohmic contact prep., Nd:YAG laser appl. 38370
$GaAs:Se^+$, discharge-pumped VUV F_2 mol. laser annealing 30011
InPt-GaAs ohmic contact prep., Nd:YAG laser appl. 38370
Mo conductors, laser-induced CVD, LSI appl. *(Japanese)* 5871
Si, polycryst. films, furnace/laser annealing 28855
a-Si recrystn. by RTA/laser annealing/furnace annealing 22098
Si surface deform., time-resolved X-ray diffr. meas. 38476
Si:B solar cell, low temp. PECVD/laser annealing fab. 19996
a-Si:H films, recrystn. by XeCl excimer laser irrad. 28797
a-Si:H, laser annealing, light-emitting Si prep. 23005
α-SiC:N(Al), ion implanted dopant activation, pulsed laser annealing 30048
$Si_{1-x}Ge_x$ polycryst. film prep., excimer-laser proc. 28796
$Si_{1-x}Ge_x$ thin film, form. from heavily Ge-implanted Si, morph. 28795
SiO_2 films, ion irrad. damage, UV annealing effects 30014
laser beam annealing continued
SiO_2 opt. fibers, photoluminesc., Raman scatt. 22813
SiO_2-GeO_2 glass planar struct., proton implanted, photosensitivity 39382
XeCl excimer laser, 1 kW, specific appls. 31141
laser beam applications
see also specific laser application headings, e.g. laser beam machining, measurement by laser beam, spectroscopy
2D large scale laser digitizer, with cordless cursor 25769
absol. air refractivity meas. 10473
absol. dist./vel. meas., double integrated heterodyne interferometer 18073
acoustic flucts. reduction, astron. adaptive optics *(English)* 25590
act. matrix LCDs, test and laser-based repair 3927
actuator/servo interact. in opt. recording 30840
animated color 3D image display, LCD kinoforms *(Japanese)* 15158
ASK opt. transmitter, 790 nm LD for LANs 25507
azo dye- doped photorefr. polymers 15163
BH light-emission/detect. diode module for subscriber TCM transm. systs. 25472
Bragg fiber grating fab., prism-based scheme 14350
capillary-optic material characterisation, x-ray lithog. collimator 6692
CD-ROM, quadruple dens. opt. disc technol. *(Japanese)* 3682
CFC removal from troposphere 26767
charged particle laser accel. using plasmoid moving grating 43006
CMOS SRAM chip failure anal., external elec. testing, internal contactless laser beam testing 37758
coaxial LD chip package for fibre in loop appls. 42427
coherent Compton X-ray sources 10159
coherent laser radar, appl., decontamination/decommissioning 42685
conference, γ-γ colliders, Berkeley, USA (March 1994) 20216
conference, St. Petersburg, Russia (1993) 11527
conference on beam cooling, Montreux, Switzerland (Oct. 1993) 20271
corporate product safety overview and laser appl. focus 36982
CPFSK opt. crossconnect systs. with noncoherent detect., interf. 9434
cryo-electronics opt. readout. LD appl. 29132
Cs at. fountain expt. for at. freq. std. 3713
CVD for microelectronics 28838
deep UV lithog., KrF(ArF) excimer laser 38719
deformable mirror adaptive optics and laser beam control appls. *(Japanese)* 7706
diamond, electroless plating, laser-assisted selective metallisation 30157
dielec.-loaded reson. laser accelerator 34755
differential fibre-optic sens. of laser-generated ultrasound 34518
direct writing and instabilities, one-dimens. approach 31690
dispersion-supported transm., 20 Gbit/s, 53 km fibre 34071
DNA, electrostatic stretch-and-positioning appls. 40217
doppler device for air pollution detect. 18917
dual-laser writing scheme for opt. data storage 30839
DuPont photopolymer film hologram recording dyn. 23471
dye laser, pumped, SHG, appl. to tropos. OH detect. 7864
Earth to space laser power beaming, FEL 35595
electro-discharge machined surfaces modif., CO_2 laser *(Japanese)* 5613
electron beams, radiative laser cooling syst. 43022
electronics mfg., excimer laser proc. syst. appls. *(Japanese)* 107
electrostatic-accelerator FELs for power beaming 39925
excimer laser ablation apparatus opt. syst. *(Japanese)* 23480
expts. on laser-plasma triggered lightning 23485
FEL amp. based VUV and X-ray research, scientific opportunities 39988
FEL syst. for energy transm. 18729
four-beam LD opt. heads, dyn. wavelength shifts 39317
free-space WDM interconnections based opt. switching nets 33726
fusion reactor driver, LD pumped solid-state laser 31694
gamma-gamma colliders, high intens. lasers 26064
ground vehicle vision, ladar, obstacle detectability 7878
HDI, laser soldering 12936
heterodyne PPM, convolutional coding 9474
high lumin. TeV electron accelerators, laser interact. 4075
high storage dens. opt. disk, SHG *(Japanese)* 7269
HLW partitioning, Eu^{3+}-Eu^{2+} photoreduction, laser photochem. 35961
injection laser neural network, long. modes, neurons 29453
inner lead bonding proc., optim. and reliab. eval. 6448
installation design, appls., radiation correl. charact. 14680
integrated opt./optoelectronic switch for parallel opt. interconnects 31127
inter-vehicle commun., laser/retro-refl. 42435
IR coherence-collapsed multimode LD for fiber-optic gyroscope 40176
IR detector selection for laser soldering proc./joint qualif. 6417
IR lasers, conf., Ascona, Switzerland (1994) 5485
ISOLDE, COMPLIS laser spectrosc. 34848
LD technol., conf., Los Angeles, CA, USA (Jan. 1994) 36891
lin. freq.-swept light source for FMCW reflectometry 18123
lin. polarized photons from laser Compton backscatt. 18293
low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
low-cost reliable high power CW LD arrays for solid state laser pumping 31399
low-threshold 1.3 μm MQW LDs, high-speed modulation 31335
LSI testing, electro-optic probing syst. 6836
Lunar Energy Park, nuc. power, laser beam transm. to Earth 26511
MCM-D, interlevel shorts, mechanisms and reduction 12963
metal melting, microscopic hole by laser radiation *(Japanese)* 6657
microassembly, focused laser beam 30520
microchip diode pumped solid state laser arrays, mfg. cost 31282
micromanufacturing appls. of excimer-lasers 15190
microRaman spectrosc., polymeric and inorganic syst. appls. 31688
MM-wave source, dual-mode DFB semicond. laser 23486
multi-laser displacement sens. used in accurate digitizing tech. 9897
narrow band opt. fibre transm. Bragg grating filters 31065
NASA planetary missions, laser transmitter/receiver systs. 42408
Navy sensors, consolidated automated support system 43571
noncontacting opt. generation of focused SAWs, customised zoneplate 22682
nonmetals, laser generated Lamb waves, capacitance transducers detect. 10586
opt. detect. of ignition sites, semicond. LD appl. 7623
opt. preamplified PPM receivers, laser intersatellite commun. 34036
opt. surfaces, laser cleaning 30821
optoelectronic science/engineering, conf., China (1994) 28207
penalty-free 2.5 Gbit/s photonic switching, opt. amp. module 33728
photolithographic mask aligner based on moire interf. tech. 38709
photolithography, 0.13 μm pattern delineation using KrF excimer laser light, ULSI fab. 13555

laser beam applications continued
- photothermoplastic recording of stroboscopic holographic interferograms 15180
- picosecond electron gun for surface anal. 29759
- plates, Lamb waves, mode propag., laser-based techs. 10582
- PMMA, low loss channel waveguides 14435
- polygonal scanners for TV/HDTV laser projectors 3662
- polysilicon SOI struct. obtained by laser zone melting, props. 38442
- power beaming, conf., Los Angeles, CA, USA (1994) 11554
- power syst. lightning control, UV laser triggering expts. 27262
- power syst. lightning protection, laser-generated plasma-based 27261
- prog. MCMs, laser induced vert. vias 21775
- pseudospark switch, metal vap. densities/excitation temps. 36407
- pulsed power supercond. opening switch, laser pulse triggered 36262
- PWBs, electronic modules, laser-based noncontact testing 29650
- QA of pharmaceutical vials, laser Raman spectrosc. 17928
- quantum-well semicond. lasers *(German)* 7615
- repeaterless transm., 2.4 Gbit/s, 306 km fibre, DFB LD 17231
- retro-reflective laser automatic inspection systs. for proc. control 37174
- sawtooth fringe counting for demodulated interferometric strain gauge 17881
- scanners, OS *(German)* 40175
- scanning in white light interferometer, tunable laser 17754
- sea surface slope determ., meas. by laser sens. 10554
- semicond. doped glasses, opt. storage by laser beam written gratings 22789
- semicond. lasers, integrated optoelectronic up/down-converters 23232
- shear beam imaging of laser illum. space targets, heuristic model 16196
- silica-based waveguide/opt. fiber coupling 14370
- single-mode injection laser with external resonator, pumping, quantum magnetometry appls. 34462
- slow-scan CCD image sens., real-time plasma spectrosc. 9932
- SMD soldering/inspection workcell, develop. 6419
- SMT, laser soldering, thermal modelling 28436
- soft X-ray lasers, short pulse, development and applications 23080
- solar space power transm., liq. space optics appls. 43415
- solid insulators, breakdown precursors 35660
- solid surface high speed cleaning by high-repetition rated TEA CO_2 laser pulses *(Japanese)* 7871
- sounding, Earth exam. *(Japanese)* 34660
- standing wave FEL two-beam accelerator, beam-break-up 34823
- steam turbine moving blades, laser clad *(Chinese)* 2155
- steel foils, laser bending, buckling mechanism 20985
- STM 16 syst. operation, 1.55 μm DFB laser module 34072
- super-ACO UV FEL, time resolved fluoresc. appls. 14988
- surface treatment appls. of solid-state lasers *(German)* 23478
- TAB-outer lead bonding, reliab. of different tape metallizations 6447
- thermal neutron detector syst. using laser stimulated luminesc. 34939
- thin opt. pickup head of CD player, laser/detector/hologram unit 17613
- three-channel homodyne interferometry, opt. thickness meas. 18074
- time transfer, spaceborne H maser/laser pulse timing 42668
- tunable colour centre lasers for rare-earth laser materials diagnostics 15200
- ultrafast all-opt. AND gate, four wave mixing in laser amp. 1758
- ultrashort-pulse submillimeter-wave lasers and appls. 39660
- unrepeatered transm., 2.5 Gbit/s, 410 km of fibre 9428
- US defect ident. with laser generation, neural network appl. *(Japanese)* 21008
- vehicular traffic control, act./pass. IR sens. 11429
- video distrib. coherent lightwave syst. aspects *(Croatian)* 3549
- vis./UV lasers conf., Los Angeles, CA, USA, (Jan. 1994) 50
- VUV/XUV-soft X-ray radiation source and appls. 31613
- wakefield accelerator, self-modulated, energy increase 4040
- WDM receiver, monolithically integrated device 34075
- weapons, laser pointing, observer-based adaptive control 10588
- world energy syst., space power role/influence 26512
- X-ray laser appls. 23482
- X-ray prod. from relativistic electron beams 10160
- γ-γ collider, laser technol. 26029
- $\gamma\gamma$ collider, multi-bunch gamma conversions, laser reflector 26065
- Au-to-Au TAB inner lead bonding, laser 6449
- CO_2 general-purpose waveguide lasers 7529
- CO_2 high power gasdynamic laser for indust. appls. 31186
- CO_2 high-power lasers at 12 kW, beam quality 31156
- CO_2 indust. fast axial flow laser, appls. 31157
- CO_2 lasers, freq. and power stabilised, review 23089
- CO_2 ps laser for relativistic particle accel. 15195
- CO_2-lasers, indust. appls. 14690
- Cu vapour laser pumping, scientific and indust. appls. 40171
- Cu-Cr contacts, vac. interrupters, microparticles generation 27846
- Er doped fibre amps., minimised gain tilt for CATV transm. systs. 3554
- GaAs MBE growth monitoring, single photon ionization TOF mass spectrosc. 28723
- GaAs high speed ICs, electro-optic sampling syst. for on-wafer tests *(Chinese)* 12786
- GaAs photocond. semicond. switches, opt. controlled 36387
- GaAs photoconductive pulsed power opening switch 36425
- GaAs photoconductive pulsed power switches, Ti:sapphire laser-triggered 36440
- GaAs:Cu,Si bistable opt. controlled switch, perform. 36385
- GaAs:Cu,Si bulk opt. controlled semicond. switch, inductive energy storage 36392
- GaAs:Si,Cu photoconductive pulsed power switch perform. tests 36428
- GaAs-AlGaAs monolithic optoelectronic switch, modulation response 23055
- $Ga_{0.51}In_{0.49}P$/GaAs PV converter, opt. power/data transm. 27943
- H-SiC pulsed power switching devices, fab., charactn. 36449
- InGaAsP MQW modulator/DFB laser integrated light source 30965
- Nd:YAG diode-pumped laser driver for X-ray projection lithog. 31270
- Nd:YAG diode-pumped solid-state lasers, kilowatt av. power 31269
- Nd:YAG pulsed kilowatt lasers, fibre optic beam delivery syst. 31263
- Nd:glass compact X-ray lasers 23143
- Rb at. freq. std., opt. pumping scheme, diode lasers 17630
- Si microstrip detectors, charactn./QC using IR diode laser 26164
- Si, p-n jns., minority carrier diffusion length determ. 38284
- Si_{O2} etching, rot. control of anisotropic micro-objs. 30107
- Si-wafer hot curing by laser gettering *(Chinese)* 6604
- SiC nanometer ceramic powder, pulsed CO_2 laser assisted synthesis *(Chinese)* 443
- TiC containing layers, high wear resist. on steel surfaces by laser melting *(German)* 7868
- $YBa_2Cu_3O_{7-x}$ thin film multiturn coil, laser scanning imaging 1632

laser beam applications in medicine *see laser applications in medicine*

laser beam effects
- *see also biological effects of laser radiation; laser ablation; laser beam annealing; laser hardening; plasma heating by laser; plasma production by laser*
- ASTRID storage ring, bunched $^{24}Mg^+$ beam cooling by laser 34802
- ASTRID storage ring, laser cooling of $^{24}Mg^+$ 34801
- coal-fired MHD facility, laser induced breakdown spectra 20016
- conference, laser damage in optical materials, Boulder, CO, USA (1993) 11528
- conference, laser techniques for surface science, Los Angeles, CA, USA (Jan. 1994) 28208
- conference, optical interf. coatings, Grenoble, France (1994) 11556
- dye doped film phase-matched grating generated by enhanced forward DFWM 15077
- dye-doped biomol. thermally-activated thin film opt. switch 39535
- excimer laser ablation apparatus opt. syst. *(Japanese)* 23480
- fiber optics for FEL med. appls. 35152
- fiber-grating transm. filters in all-fiber demultiplexer 7312
- germanosilicate fiber Bragg gratings, γ-ray exposure written, low dose rate 7286
- germanosilicate glass opt. fiber, photoinduced birefr. rot. 30891
- germanosilicate planar glass waveguide fab., photo-induced by UV light 30985
- glass-ceramic, laser-stimulated opt. props., local change 7259
- high-power laser radiation damaged opt. glass elements 7707
- IR scene generation systs., IRFPA laser radiation response 17941
- materials, situ studies, nondestructive nuc. anal. 455
- metallic holographic diffr. gratings for laser appls. 40146
- NLC film, cross polarised self starting phase conjug. 23415
- nonlin. Thomson scatt., laser SR source 4252
- opt. coatings, repeat-rate-laser induced damage *(Chinese)* 14572
- p-nitroaniline centrosymmetric single cryst., surface opt. SHG 40118
- photoassisted growth of II-VI semicond. films 28762
- polysilicon bottom gate TFTs, excimer laser crystn. 38880
- PPV composite film elastic moduli meas. by ps transient grating study 23392
- quartz glass radiation resist. and nonlin. absorpt. at 353, 248, and 193 nm 15019
- robust multilayer mirrors, X-ray laser cavity optics 7715
- RTV rubber coating, silicone fluid form, due to heat 14051
- SAW device, thermal freq. behavior obs. and improvement 30641
- SiO_2 fused fibre, pulsed UV laser radiation, photodegradation and nonlin. effects 39362
- SOI, polysilicon films, zone melting, laser radiation interf. 37469
- space power beaming, PV cell pulsed laser illum. 43948
- surface hydrodynamic procs., laser-induced, Doppler backscattered-sig. diagnostics 42981
- TCMA, thermally controlled magnetis. actuator, thermosensitive mag. materials 30761
- TSR storage ring, $^7Li^+$ beam laser cooling by opt. adiabatic excitation 34804
- TSR storage ring, laser cooled $^9Be^+$ beam, interbeam scatt. 34803
- UV laser irrad./electroless deposition method, IC metallisation 12144
- UV silica fiber, XeCl excimer laser induced damage props. *(Chinese)* 7327
- water aerosol, transient clearing, opt. beam thermal blooming 40101
- XUV-radiation generation by high-order freq. mixing 31512
- Ag halide midIR opt. fiber Y coupler 1700
- $AgInTe_2$-Sb-Te amorph. phase-change opt. recording films 30826
- AlGaAs/InGaAs heterojunction FETs, photon irrad.-induced kink effect model 6803
- AlGaAs-InGaAs HIGFETs, charge-collection mechanisms 13719
- Bi_2TeO_5, ps laser pulse induced effects 31520
- $Cd_xHg_{1-x}Te$ epitaxial layers, laser irrad., photoelectrical props. 14585
- Cu surface two-color photoemission on fs laser pulse irrad. 38208
- GaAs p-n jns. and ohmic contact form. by laser solid-phase diffusion 30052
- HfO_2-SiO_2 opt. coating defect reduction for increased laser damage thresholds 14571
- n-InSb doped crysts., parametric amplif. and oscill. 40115
- InSb p-n jn., photoresponse, CO_2 laser illum. 13114
- $KTiOPO_4$, SHG of YAG laser, self-heating *(Japanese)* 7792
- KrF excimer laser bone ablation mechanism *(Japanese)* 7720
- LaB_6 FEL photocathode photoemission studies by ns KrF excimer laser 38207
- $LiNbO_3$:Fe, laser-induced transient holographic gratings 31644
- Mg, short pulse UV/VIS laser irrad., photoemission 38204
- Si, laser-assisted etching-like damage 30093
- Si layers, nanosecond laser radiation, surface morph., struct. modif. 28761
- Si surface, RIE, Nd:YAG laser image transfer 22172
- a-Si thin films, glass substrs., excimer crystallisation simul. 13075
- a-Si:H films, plasma chem. vap. deposition, piezoelec. vibr. effects 37481
- SiC ceramic material surface conditions on excimer laser irrad. *(German)* 23477
- $SiO_2:WO_3$ porous glass laser optics fab., CO_2-laser radiation effects 7710
- $SrBaNb_2O_6$:Ce illum. by nominal homog. light, refr.-index change 22776
- W, single-/two-photon photoelec. emission sensitivity, inversion 21792
- YBaCuO films, high-freq. modulated laser radiation, nonequilib./bolometric response 39233
- $YBa_2Cu_3O_7$ HTSC bolometer films, response time 42815
- $YBa_2Cu_3O_{7-x}$ film parallel-plate microwave reson., freq. modulation 7253
- $Zn_xCd_{1-x}S$, MOVPE, photo-assisted growth and charactn. 28764
- ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412
- ZnSe, photoassisted metalorganic vap.-phase epitaxy on GaAs 28763

laser beam etching
- deep etch X-ray lithog., electroforming/molding templates 13538
- diamond, natural monocrystals/polycryst. films, direct laser writing 38545
- diamond films, lift-off synthesis, microcomponent fab. 11732
- glass:Nd, excimer laser ablation, thresholds 30120
- MCMs, 3D laser direct writing 12979
- surface props., tailoring by laser irrad. 31689
- Al target, laser ablation plumes, reson. holographic interferometry 2158
- AlGaAs, patterned photon-driven cryoetching 30065
- B-doped glasses, multiphoton micrometer-scale photoetching in UV laser light 23488
- C:H diamond-like films, excimer laser etching, spalling effect 30122
- a-C:H films, diamond-like lithographic appls. 22310
- GaAs, digital etching, tunable UV laser syst. surface react. control 30095
- GaAs, light-induced dry etching, desorpt. 30099
- GaAs, patterned photon-driven cryoetching 30065
- GaAs(001), etching react. of digital etching control, tunable UV laser irrad. 22175

laser beam etching continued
InP, laser assisted dry etching ablation 30094
InP, wet electrochemical etching, via hole form. 13413
Si, direct laser etching, 3D nanostructures 30098
Si, excimer laser-assisted etching in chlorine, adsorpt./desorpt. 30096
Si, excimer-laser-induced etching 30097
Si, laser-assisted etching-like damage 30093
Si$_{O2}$ etching, rot. control of anisotropic micro-objs. 30107
YAG:Nd, excimer laser ablation, thresholds 30120

laser beam hardening *see laser hardening*

laser beam induced currents *see OBIC*

laser beam machining
act. RC filter, compensation tech. for HF respons, functional trimming 6211
automotive parts cutting, Nd:YAG lasers and robots appl. 15197
conference, laser materials processing/machining, Frankfurt, Germany (1994) 11555
conference, materials processing, Singapore (1994) 20244
cut stencils, no-clean solder cream printing 12898
cutting machine, accuracy/error compensation *(Japanese)* 5608
diamond, ion beam and laser-assisted micromachining 13907
far-field laser beam posn. control *(Japanese)* 37061
fine/ultrafine pitch printing, electroformed/laser cut/etched stencils 37152
giant far action lateral phenom., ion/laser beam IC fab., reliab. 20488
glass:Nd, excimer laser ablation, thresholds 30120
half-sintered ceramic machining by Q-switched YAG laser *(Japanese)* 20421
high power lasers, improved mfg. procs. 15194
hybrid WSI MCMs, laser creation of silicon vias for 3D interconnects 29720
indust. cutting, YAG laser power transm., opt. fiber *(Japanese)* 124
indust. laser cutting syst., knowledge-based adaptive control 5614
indust. thick film press. sens./transducers, develop. *(Slovenian)* 34446
industrial appls. of laser materials proc., conf., Vienna (1994) 36867
interconnects for rapid prototyping of IC 38639
IR laser machining tools 11734
laser-cutting proc., gas entrainment, three-dimens. anal. 23483
LD-pumped IR solid-state lasers 14789
low temp. cofired ceramics for MCMs, laser machining of cavities 21774
MCM fab., planar chip insertion, interferometric micropositioning 21727
micro-optics focusing LD material-proc. syst. design 5609
microcomponents/microsystems fabr. techs. 6887
micromanufacturing appls. of excimer-lasers 15190
phase retarders, metallic grating based, laser cutting appls. 125
polymers, excimer laser micromachining, replication 28439
pulsed laser ablation proc. deposition, optodynamic aspect 28862
rapid prototyping, laser optics, theoretical anal. *(Japanese)* 7869
rocking mirror laser cutting machine, opt. design *(Japanese)* 5612
small via generation using modified TEA CO_2 laser based proc., PWB/MCM appl. 20447
structural materials, laser surface modif. *(Japanese)* 20419
sub-micron hole machining, femtosecond laser, 800 nm 23484
teflon film, laser through-hole drilling and cutting 20423
Teflon film high-speed through-hole drilling, vis. laser *(Japanese)* 20420
C, diamond, polished CVD films, macro/micro-tribological props., trial proc. 22626
CO_2 TE laser, high repetition rate, long pulse *(Japanese)* 31199
CO_2 laser beam, focal params. direct visualization 7723
Cu vapour laser pumping, scientific and indust. appls. 40171
He-Kr-F_2 excimer laser for microtechnology 39649
HfO_2/SiO_2 dielec. layers, excimer laser ablation patterning 30121
Nd:YAG diode-pumped solid-state lasers, kilowatt av. power 31269
Si, direct laser etching, 3D nanostructures 30098
SiC ceramic, excimer laser assisted chem. machining 28866
YAG:Nd, excimer laser ablation, thresholds 30120

laser beam modulation *see optical modulation*

laser beam properties *see laser beams*

laser beam variables measurement *see laser beams; laser variables measurement*

laser beam welding
automated pick-place laser soldering for electronics assembly 12933
conference, laser materials processing/machining, Frankfurt, Germany (1994) 11555
CRT electron gun assembly, pulsed laser welding *(Chinese)* 15196
FEM simul., welding params. *(German)* 5605
industrial appls. of laser materials proc., conf., Vienna (1994) 36867
intrinsic thermocouple monitor for laser wirebonding 29710
MINAS servomotor stator, cell method assembly syst. *(Japanese)* 11081
Moiré interferometry anal. of laser weld induced thermal strain 2161
multichannel fiber ferrule for stable LD array module packaging 37073
solid state modular laser, multiplexing method, fibre optic delivery syst. 31292
steel, mild, CO_2 laser welding 31156
wire-feed laser beam welding of steels and Al alloys *(German)* 5606
YAG laser high power proc. appls. in heavy industries *(Japanese)* 20418
CO_2 laser, diamond turned optics 31145
CO_2 laser welding, laser induced plasma, spectrosc. meas. 15199
Nd:YAG diode-pumped solid-state lasers, kilowatt av. power 31269
Nd:YAG laser welder beam charact. meas. 7722
Nd:YAG pulsed kilowatt lasers, fibre optic beam delivery syst. 31263
O_2-I photocatalytic laser, materials proc. appls. *(German)* 7865
SiC ceramic material surface conditions on excimer laser irrad. *(German)* 23477

laser beams
see also holography; laser frequency stability; laser variables measurement
1.4-kJ solid-state power laser disc oscillator, good beam quality 23145
980-nm power LD beam instabil., expt. and anal. 15013
actuator/servo interact. in opt. recording 30840
alignment meas. syst. based on opt. activity, adaptive noise cancelling 31691
atmos. propag., simultaneous 1.06, 1.315, 10.6 μm beams 15449
bad-cavity laser, quantum-limited linewidth 15018
beam steerable semicond. lasers, large steering range and resolvable spots 1985
binary phase zone plate designs, far-field distrib. calcs. 39531
Brillouin fiber laser with ring resonator, two-freq. output 31231
broadly-tunable single-freq. opt. parametric freq. conversion syst. *(Danish)* 7742
CEMERLL (compensated Earth-Moon-Earth laser link) expt. 17287

laser beams continued
chem. lasers, CW, small-scale periodic inhomogeneities, lateral shearing interferometry 23088
Cherenkov FEL, high peak power 39909
chirped Bragg gratings for all-fibre fs pulse amplif. cct. 31230
circ. FEL, expt. mode anal. 39914
class-C laser, av. freq. shifts 40019
CLIO FEL, step-tapered undulator, two-colour operation 39933
CLIO IR FEL, sub-picosecond laser pulse generation 39930
CO_2 laser, opt. distortion effects on focusing charact. *(Japanese)* 7515
coherent laser radar syst. efficiency, semi-analytic approach 3619
compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
Compton FEL oscillators, sideband instabilities, electron dyn. 40009
Compton FEL tapered undulator, high-power self-similar radiation pulse 39972
conical converters for uncollimated laser beam cross sect. 39995
conical cross-sect. converters, mutual error compensation 31459
Cu vapour laser, unstable resonators, time-resolved beam divergence 23090
dark 3D spatial solitons in a Gaussian laser beam, nonlin. rot. 2127
deformable mirror adaptive optics and laser beam control appls. *(Japanese)* 7706
DFB fibre chirped laser, transm. charact. 39702
DFB lasers, 1.55 μm, grating struct. and mirror posns. rel. to lasing characts. *(Korean)* 31413
diffr.-coupled lasers, collective mode phase profile control 15005
diffractive phase elements for beam shaping, design method 31657
digital divider cct. for laser-beam-pointing stabilization syst. 40003
divergence study of far IR laser 40004
dual-laser writing scheme for opt. data storage 30839
Duke storage ring UV FEL, dyn., 3D code 39957
dye laser, flash lamp pumped, beam quality 7719
dye laser, IR switching/mode-locking *(Chinese)* 14727
dye lasers, threshold long. pump power, spontaneous emission influence 14728
dye lasers, tunable, acousto-optic deflector spatially modulated grating excitation 39682
dye mixture DFB laser, nanosecond excitation, picosecond emission 39681
dye-doped sol-gel lasers, tunable laser action 14730
electrostatic accelerator based FEL, material sci. in far-IR 39987
electrostatic-accelerator FELs for power beaming 39925
ELSA FEL, 23 μm operation, MONA wiggler 39934
Er-doped fibre amp., polaris. hole burning, time dyn. 14755
external SBS mirror, mode size increase study 39997
Fabry-Perot DFB lasers, mode nonorthogonality study 23342
FEL, compact CW operation, supercond. RF accelerator technol. 39893
FEL, far-IR range, emission charact. meas. 39894
FEL, Israeli tandem electrostatic project, resonator design and characterisation 39949
FEL, spectra and intens. spatial profile visualisation 40015
FEL, step-tapered undulator, self-ASE 40012
FEL amp., high-gain Compton regime, strong coupling operation 39912
FEL at UVSOR, micro-macro temporal struct. and saturation mechanism 39956
FEL centre user diagnostics and control 40016
FEL expt., ang. steering 2022
FEL external cavity syst., pulse stacking 39948
FEL gain calc. for imperfectly matched electron beams 39975
FEL hole-coupled reson. cavity, gain maximization 39947
FEL intra-cavity light pulse, hole-coupling effect on transverse struct. 40017
FEL oscill., multibunch electron beam from L-band LINAC 39935
FEL oscillator, mode-locked, super-radiant radiation study 40007
FEL oscillator, radiation build-up simul., electron beam micropulse shape effect 40008
FEL radiation generated by short electron bunches, coherence effects 40006
FEL wiggler ubitron amp., design and perform. 39927
FEL with 2D DFB, time domain anal. 39926
FELINA VUV FEL, perform. study 39954
FELIX FEL, electron energy spectral meas. in large-slippage regime 40013
FELIX laser, coherent spontaneous emission 40005
femtosecond pulse autocorrelation, thin bacteriorhodopsin films 40070
Fermi-Dirac kink propag. in high-order nonlin. media 40031
fibre laser mode-locking by pump pulse induced cross-PM 31233
four-beam LD opt. heads, dyn. wavelength shifts 39317
free-space opt. commun. systs., pointing jitter, turbulence 9551
freq.-doubled laser energy meas. by calorimeter *(Chinese)* 2038
freq.-resolved opt. gating, generalized projections, pulse retrieval 23334
gas lasers, planar, cavity config., output radiation divergence 23335
Gaussian beam, random jitter, optimum truncation 23336
Gaussian mode forming phase opt. elements, iter. algm. 7447
glass fiber Raman gain spectrum meas., fs pulses 22808
GRIN rod lens focusing-collimating optics in Nd:YAG laser delivery syst. 1777
HE_{11} mode beam, nonlin. propag. in opt. fiber, distorted parab. refr. index profile 39348
holographic opt. element for Gaussian laser beam conversion 15174
imaging plate 2D detector for SW lasers *(Japanese)* 9931
inhomog. broadened dense media, laser instabilities and chaos 23337
injected at. coherence, nonlin. theory 2040
injection-modulated semicond. lasers, chirped pulse, α-param. depend. 31402
installation design, appls., radiation correl. charact. 14680
ion-channel guided X-band FEL, 1.5 MeV 39622
IR FEL, compact design, perform. study 39895
IR FEL, sideband generation, transit. to chaos, time-resolved study 40011
ISKRA X-ray laser beam line focusing of radiation 7503
isotropic liq. cryst. film, IR all-opt. switching 31011
Kerr-lens mode-locked ring lasers, cavity design 31453
linac based FELs for condensed matter vibr. dyn. study 40110
Mark III FEL, freq.-chirped opt. pulses obs. and characterisation 39932
Mark III FEL, hole coupling expts. 39946
methanol FIR laser lines, opt. pumped, freq. meas. 31475
microwave and MM wave FEL with axisymmetric undulator, higher harmonic generation 39638
microwave FEL, space-charge field meas. 2010
millimetre wave FEL, wiggler focused sheet electron beams 39627
MKIII FEL, short pulse guiding effects 40014
MM-wave isochronous FEL, Duke storage ring 39630
moment determ. by polynomial transmittance windows 40018
MOPA LD for satellite commun. 17300
MQW DFB lasers, external modulation, freq. chirp simul. 31348

laser beams continued
MQW VSCEL, gain-guided, transverse mode num. anal. 31469
multilobe mirror laser cavity light ray coherence control 31444
multimode fiber-optic bundle emitted speckle-fields *(Chinese)* 1666
multistage laser syst., effective aperture optimisation 31463
NIJI-IV storage-ring FEL, UV lasing study 39953
nonlin. crossed Fabry-Perot resonator, transm. fn. 15110
nuc. pumped lasers, combined wall and vol. pumping, thermal blooming 2110
occlusion-free monocular computer vision syst. 2719
opt. SHG accuracy 31539
organic media holographic pulse shaping 31674
organic solns., CW laser beam fanning 23357
periodic GRIN waveguides with Kerr nonlin., Gaussian beam control 40426
phase retarders, metallic grating based, laser cutting appls. 125
phase sing. posn. and charge detect., holograms 23458
polydiacetylene films, synthesis and third order nonlin. opt. props. 40117
power beaming, conf., Los Angeles, CA, USA (1994) 11554
prog. ultrashort opt. pulse delay by acousto-optic deflector 31020
quantum freq. ref., two-beam cell/multibeam interferometer, self-focusing 23430
quartz piezoelectrically-operated opt. chopper, micromachining, sens. appls. 30597
radially varying gain lasers, geom. threshold zones and Gaussian modes 2027
Raman FEL, chaotic behaviour anal. 39911
Raman FEL, freq., phase and saturation characts. 23310
Raman FEL, spectrum spatial evol. 40010
rapid prototyping, laser optics, theoretical anal. *(Japanese)* 7869
rare gas lasers, U fission fragment pumped, energy deposition efficiency 39673
real-time atmos. compensation, SBS phase conjug. 31576
recirculating accelerator FEL syst., energy-current loss instabilities 39985
reson. high-harmonic generation 2119
resonator, output beam quality 31449
Rheoxane photorefr. polymer holographic recording material 7858
rhodamine 640 doped copolymers, laser action study 31202
rhodamine 6G dye lasers, Cu laser pumped, tunable collinear operation 23107
ring dye laser, intracavity freq. shift, self-pulsing and instabilities 39690
Rome Laboratory, overview of laser commun. technols. 17284
ruby laser, pass. Q-switched, Cr-activated silicate crysts. 31547
ruby laser, thermal gratings, DFWM 23407
SEL for multimode data link appls. 23280
semicond. laser amp. laser beam stabil. 23212
semicond. laser second-order/third-order nonlin. harmonic/IMD *(Korean)* 14901
semicond. laser spatial patterns/solitons 31616
semicond. lasers, high power SW, waveguiding 39770
short bunch RF-linac FEL, output power fluct. 3D simul. 39973
single mode opt. fiber laser light coupling *(Japanese)* 1669
single-cryst. parametric oscillator-amp. of short ns pulses tunable in vis. range 7785
single-element laser-beam uniform cross projector design 7716
single-mode fiber, self-aligning multibeam coupling 14399
single-mode laser, intracavity adaptive mirror output charact. 31448
single-mode semicond. lasers, feedback, current modulation, transient dyn. 31468
SK5 glass, SHG phase meas. 31569
slab solid-state geom. lasers, astigmatic compensation *(Chinese)* 14800
Smith-Purcell FEL, amplif., single-particle classical theory 23313
solid laser, diode pumped, reson. pump cavity, CW theory 39733
solid state modular laser, multiplexing method, fibre optic delivery syst. 31292
solid-state high power laser beam characterisation 31470
solid-state high-power laser, beam characterisation 31265
solid-state single-mode laser, loop SBS mirror 31290
spiral phaseplate prod. helical-wavefront laser beams 2043
storage ring UV FEL, giant laser pulse generation 39950
storage ring UV FEL, opt. cavities 39960
streak camera subfemtosecond laser pulse meas. 31471
sub-picosecond FEL micropulse length and electron bunch meas. 39931
subfemtosecond pulses 2044
Super-ACO FEL micropulse, dyn. behaviour 39952
Super-ACO free electron UV laser, stabil., long. feedback 39958
three channel autocorrelator, electro optic switches 8476
three-electrode excimer laser, middle control electrode 39672
transverse blowing, thermal self-action reduction 7718
transversely moving 2D diffr. laser autosolitons 2075
travelling wave semicond. laser amp. detector noise charact. 31346
tridimensional beam quality params., quartic phase transmittances 31466
turbulent atmos. laser beams, adaptive direction correction 15020
two-beam LD, focusing charact., appls. to opt. head 31479
two-colour dye laser syst., four-wave rot. Raman mixing 14724
two-mirror laser, saturable absorber, bistable operation 23340
ultra-short pulse FEL oscillators 39970
ultrashort laser pulses, focusing limits, anal. theory 2039
universal pulsed Foton series lasers, self-maintained discharge pumped 31192
UV high repetition rate tunable sources by dye laser beam freq. conversion 15035
UV subps laser pulse meas. based on Kerr shutter ultrafast beam deflection 15045
VCSEL, Gaussian-beam-induced vortices 23321
wedge plate interferometric laser beam tester 31476
X-ray FEL, perform. charact., param. sensitivities 39903
XUV lasers, beam quality and driver energy 31467
Yb:YAG diode-pumped thin disk laser continuously tunable, 1018/1053 nm 39742
AgGaSe$_2$ cryst. second harmonic conversion of pulse-periodic CO$_2$ laser radiation 40103
AlAs based microcavity laser, mode behaviour, lasing charact. 39776
AlGaAs LD based broad beam transmitter for space commun. 17302
AlGaAs/GaAs injection lasers, electron superlattice barriers 39836
AlGaAs/GaAs integrated lin. injection laser array, emission charact., pumping appls. 39759
AlGaInP vis. light LD, 650 nm, dry-etched mesa stripe 39867
AlGaInP/GaInAsP MQW vis. LD, beam charact., reliab. 31351
Ar$^+$ wide-aperture laser waveguide operation 1847
ArF avalanche discharge laser, gas life time expts. 31181
β-BaB$_2$O$_4$ cryst. growth by induction heating, nonlin. opt. appls. 23391
β-BaB$_2$O$_4$ injection-seeded opt. parametric oscillator, bandwidth studies 31500

laser beams continued
β-BaB$_2$O$_4$ ps opt. parametric amplif. 2117
BaTiO$_3$ photorefr. cryst. for laser wavefront correction 30818
Bi$_{12}$GeO$_{20}$ single crysts., nonlin. absorpt. of laser light 2081
CO fast-flow coaxial laser, output power *(Chinese)* 39663
CO high-power lasers, materials proc. appls. 31154
CO supersonic electron beam sustained laser, CW 200 kW operation 31150
CO$_2$ CW laser, Gauss-core resonator, diffr.-limited output beam 39641
CO$_2$ TEA laser dyn., freq. stabilisation, chaos 23087
CO$_2$ TF laser, output power sudden change mechanism *(Chinese)* 14697
CO$_2$ gasdynamic laser with unstable resonator, radiation charact. 14698
CO$_2$ gasdynamic lasers, act. medium diagnostics 39644
CO$_2$ high power gasdynamic laser for indust. appls. 31186
CO$_2$ high-power indust. lasers, gas discharge and opt. schemes 31165
CO$_2$ high-power lasers at 12 kW, beam quality 31156
CO$_2$ indust. lasers, hazards, accident risks 28393
CO$_2$ intracavity 16 μm Raman laser 14710
CO$_2$ laser, beam delivery, hollow core waveguides 23077
CO$_2$ laser, diamond turned optics 31145
CO$_2$ laser discharge, rot. mag. field effects 1866
CO$_2$ laser, response, loss perturb. near period doubling 15017
CO$_2$ laser, small-amplit. pumping modulation, operation dyn. 39648
CO$_2$ laser, spatial charact. correction, VO$_2$ mirror 31460
CO$_2$ loss modulated laser, amplit.-detuning charact. 31195
CO$_2$ transverse flow laser cavity 7527
CO$_2$ unstable laser cavity design, compact output beam 14715
CO$_2$ waveguide laser, act. medium diagnostics 31194
Cr:LiSrAlF$_6$ self-mode-locked diode-pumped laser 14785
Cr^{3+}:Al$_2$O$_3$ laser, low dose electron and gamma-ray irrad. effects 23159
Cr^{4+}:YAG laser, sync. pumped self-mode-locked, fs pulse generation 31306
Cr^{4+}:forsterite laser, CW operation, output power, thermal problems 39734
Cs$_2$Te photocathode electron source for Los Alamos advanced FEL 39944
Cu vapour laser oscillator, adjoint-coupled self-filtering injection 39670
Cu vapour laser, output divergence, unstable resonator alignment 14687
Cu vapour lasers, beam quality improvement, SBS phase conjug. 31185
Er,Yb:glass laser, third-order-harmonic mode locking 14784
Er^{3+}:Y$_2$SiO$_5$, excited state, diagnostics, tunable colour centre lasers 15200
Er^{3+}:ZBLAN fiber laser, 2.7 μm output saturation 39701
Er-doped fibre amps., polaris. hole burning, computer modelling 14757
Er-doped fibre amps., polaris.-depend. gain 14756
Eu-chelate-doped microdroplet laser, morph.-depend. resons. 39680
F$_2$ discharge-pumped laser, form. kinetics 39669
GaAs QW lasers, thermally controlled lateral beam shift and beam steering 14968
GaAs microcavity, reson. excited exciton, coherent light emission 31375
GaAs/AlGaAs, quantum-well heterolasers, spectral charact. 23228
GaSe travelling-wave opt. parametric generator, 2.8 μm laser pumped 23354
Ge X-ray lasers, target curvature, refr. compensation 39640
H$_2$ laser source, second-order Stokes shift, mid-IR generation 39665
H$_2$/F$_2$ pulsed chem. laser, temp. reduction effect 31191
HCN waveguide laser, duplex radiation output, polaris. and energy charact. 39642
HF pulse-periodic laser, gasdynamic perturb. on emission params. 39647
HF pulsed chem. laser, discharge pumped, energy charact. 23085
He-Cd$^+$ CW hollow-cathode discharge multicolour laser module, design and perform. 39659
He-Ne laser, axial modes, UHF beat prod. 31198
He-Ne two-mode laser with internal sig. injection, radiation intens. 23095
HeNe laser, phase-depend. helical pattern form. 23083
I$_2$ high-power photodissociation laser, high-quality phase conjug. 7521
InGaAs strained layer MQW laser for opt. fibre transm. systs. 31352
InGaAs/AlInAs vert. transit. quantum cascade laser, Bragg confined excited state 23260
InGaAs/GaAlAs stripe quantum well lasers, differential resist. threshold drop 39761
InGaAs/GaAs, quantum-well heterolasers, spectral charact. 23228
InGaAsP strained layer MQW laser for opt. fibre transm. systs. 31352
InGaAsP/InP quantum well lasers, watt-ampere charact. 39760
InGaAsP-InP multi-λ ridge waveguide gain-coupled DFB laser array 23277
KH$_2$PO$_4$ high-power freq. doubling laser syst. *(Chinese)* 40043
KNaSrBaNb$_2$O$_6$:Cu cryst. bird-wing double phase-conjug. mirror 40116
KNbO$_3$ tunable narrow-band mid-IR type I opt. parametric oscillator 40113
KNbO$_3$:Fe photorefr. reconfigurable hexagonal spot array, self-organization of scatt. 22779
KTiOPO$_4$ difference freq. mixing, tunable near-IR generation 40104
KTiOPO$_4$ nonlin.-opt. waveguides, quadrature squeezing, ultrashort pulses 40084
KTiOPO$_4$ opt. parametric oscillator in fs time domain 31578
KrF avalanche discharge laser, gas life time expts. 31181
KrF excimer laser, gas comp. and purity effect on perform. 31184
KrF excimer laser, sealed-off perform., NovaTube 31149
KrF high power microwave freq. modulated laser 31151
KrF laser radiation, SRS in D$_2$ 31550
LiTaO$_3$ surface emitting FIR by difference freq. mixing 7802
LiTaO$_3$ waveguide SHG of LD radiation 23442
N UV laser, internal scanning of radiation 14682
N$_2$ laser, output power enhancement by self-preionisation 39675
Na reson. radiation sum-freq. generation of Nd:YAG laser beams 23364
Na vap., laser beam switching dyn. 40111
Na vap., nonlin. laser beam propag., phase sing. 31526
Nd:Ca$_5$(PO$_4$)$_3$F laser, quasi-CW LD-pumping, output/input charact. *(Chinese)* 39725
Nd:YAG 1.4kW slab laser, diffusive closed-coupled pump cavity 23181
Nd:YAG 3.5 W output, diode-pumped, Q-switched 532 nm laser 14816
Nd:YAG CW slave laser, phase locking by Nd:YAG master oscillator 31278
Nd:YAG LTN-404-1A laser, radiation beam positional stabil. 39718
Nd:YAG Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
Nd:YAG diode-pumped laser driver for X-ray projection lithog. 31270
Nd:YAG diode-pumped solid-state lasers, kilowatt av. power 31269
Nd:YAG flashlamp-pumped pulsed lasers, SHG 31272
Nd:YAG high-power solid state lasers, improved beam quality 31262
Nd:YAG laser, 3.35 μm intracavity difference freq. generator 40054
Nd:YAG laser beam control, Brillouin and photorefr. nonlin. 31478
Nd:YAG laser beam, self-pumped phase conjug. in NLC, feedback 31548
Nd:YAG laser, diffractive-optic graded-phase resonator, modal props. meas. 39740
Nd:YAG laser, diode-pumped, Q-switching study 31299
Nd:YAG laser, pumped, LiF:F$_2$ pass. opt. Q-switches 31309
Nd:YAG laser, pumped, pulsed RT operation 23167

laser beams continued
Nd:YAG laser, quasi-CW LD array pumped, absorpt. efficiency control method *(Japanese)* 31307
Nd:YAG lasers, transm. props. in fibers, beam and output params. 30853
Nd:YAG monolithic laser, diode pumped, power scaling 31297
Nd:YAG pass. Q switched laser, double pulse operation 31305
Nd:YAG pass. Q-switched quasicontinuously pumped laser 31274
Nd:YAG periodical Q-switch lasers, pulse duration, output power 31271
Nd:YAG pulsed kilowatt lasers, fibre optic beam delivery syst. 31263
Nd:YAG ring laser, chaos, dyn. and spectral charact. 40020
Nd:YAG second harmonic laser beam light sheet shaping on fibre transm. *(Chinese)* 15015
Nd:YAG slab laser, LD array side-pumped, output power *(Chinese)* 39724
Nd:YAG unstable multirod lasers, variable reflectivity mirrors 31267
Nd:YAG(YAlO$_3$), efficient high-power laser operation 31264
Nd:YAlO$_3$ 125 W laser, SBS phase conjugation 31266
Nd:YLF, additive-pulse mode-locked laser, diode pumped, pulse compression 31298
Nd:YVO$_4$ high-efficiency TEM$_{00}$ laser long. pumped by high-power array 23169
Nd:glass high-power laser, composite aperture/phase-conjug. mirrors 7597
Nd:glass laser higher-order harmonic generation, phase matching effects 15102
Nd:glass laser pulse duration meas. 31465
Nd:glass lasers, thermal gratings, DFWM 23407
Nd:glass ultraintense laser pulses, highly efficient SHG 31498
Nd^{3+}:YAG DFB lasers, modulation bandwidth, nonlin. effects influence 23341
Nd^{3+}:YAG laser, intracavity adaptive opt. syst. 31276
Nd^{3+}:YAG laser, low dose electron and gamma-ray irrad. effects 23159
Nd^{3+}:YAG pulsed laser beam materials proc. *(Japanese)* 7870
Nd^{3+}:YAG pulsed laser, design and charact. *(Chinese)* 14802
Nd^{3+}:YAlO$_3$ ps laser beam third-order correl. fn. by noncollinear two-beam third-harmonic generation 40105
Nd-doped high-power cw fiber laser, high beam quality 39704
Ne nuc. pumped laser, 3p-3s transits., lasing charact. 39674
O$_2$-I chem. laser constr. for thermonuclear fusion driver 31193
O$_2$-I laser, short pulse amplif., energy extraction 39643
Pr^{3+}-doped fluoride glass fibre upconversion laser, blue output power 23115
Si-on-insulator slab waveguide Bragg reflector, two polaris. coupling 39405
SrBaNb$_2$O$_6$ four-wave phase conjug. of time-depend. spatial struct. sig. 40102
TeO$_2$ HF two-color laser radiation splitting 1752
Ti:sapphire Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
Ti:sapphire compact multiterawatt ultrashort pulse laser oscillator/amplifer syst. 31285
Ti:sapphire compact tunable laser design 23180
Ti:sapphire fs laser pulse SHG 23173
Ti:sapphire laser amplifer/pulse compressor, gain-narrowing limit 23151
Ti:sapphire laser, femtosecond pulse phase and intens. characterisation 31477
Ti:sapphire laser, high-repetition-rate femtosecond mid-IR pulse generation 31574
Ti:sapphire laser, tunable, laser pumped, time charact. *(Chinese)* 39723
Ti:sapphire self-mode-locked laser *(Chinese)* 14803
Ti:sapphire self-mode-locking laser description by iter. map 39752
Ti:sapphire ultrashort laser pulse intens./phase meas. 14778
XeCl discharge laser, mag.-spiker elec. ccts. 31152
XeCl excimer laser act. medium, UV phase-conjug. mirror 14722
XeCl excimer laser, gas comp. and purity effect on perform. 31184
XeCl excimer laser, phase-unifying unstable resonator perform. 39668
XeCl excimer laser, phototriggering discharge pumping, uniformity anal. 31179
XeCl integral excimer laser device, self-amplif. *(Chinese)* 39662
XeCl laser amplifier, SBS phase-conjug. cavity 1853
XeCl pulse-periodic excimer laser, output energy and service life enhancement 23096
YAG:Cr^{4+} cryst. opt. polariser of short laser beam 1642
Yb:YAG waveguide laser, diode pumped, fab. and characterisation 31296
ZnSe transparent IR opt. elements, photothermal meas. 2037

laser cavity resonators
1.4-kJ solid-state power laser disc oscillator, good beam quality 23145
2D WDM reconfigurable opt. interconnection smart pixels 42099
1550 nm QW lasers, temp. depend. loss and overflow effects 7631
acetylphenyl-1,4-dioxa-8-azaspiro[4.5] decane, LD pumped ring resonator, blue light emission 23429
act. cylindrical waveguides with step-index profiles, transverse modes 30953
act. mode locked LD, soliton-forming pulses in fibre 7789
act. mode locked semicond. lasers, ps pulse compression, model 31420
act. mode-locked external-cavity semicond. laser, quasi-periodic route, chaos 31423
act. mode-locked laser, neg. feedback, stabil. 31474
act. mode-locked LD array, tunable picosecond pulse generation, chirp compensation 7614
act. mode-locked LD array in the external cavity, pulse buildup dyn. 23284
act. mode-locked semicond. laser injection locking 23197
act. mode-locked telecomms. semicond. lasers, soliton generation 31415
act. modelocked external cavity LD, ps gain dyn. 1978
analog DFB laser modules, second-order IMD 7680
astigmatic telescope for lasers, annular gain medium cross sect. 31461
asymmetric external cavity semicond. lasers, LF resons. 31389
asymmetric gain-levered quantum-well lasers, enhanced wavelength tunability 39877
bad-cavity laser, quantum-limited linewidth 15018
Brillouin fiber laser with ring resonator, two-freq. output 31231
broad area lasers, 980 nm, bandgap widened extended slab waveguides, far-field behaviour 30980
cascade third harmonic generation in laser cavity 7736
CATV 151-channel AM-FDM transm., 1.3 μm SL-MQW-DFB laser, high opt. output power 25542
CATV DFB source laser lin. limits 25528
class-A bidirectional ring laser, cavity detuning, spontaneous phase symm. breaking 39992
class-C laser, av. freq. shifts 40019
CLIO IR FEL, sub-picosecond laser pulse generation 39930
Compton FEL oscillators, sideband instabilities, electron dyn. 40009
conference, laser optics, St. Petersburg, Russia (1993) 55

laser cavity resonators continued
conference, lasers in optical systems/devices, St. Petersburg, Russia (1993) 11526
cryogenic all-sapphire Fabry-Perot opt. freq. ref. 31462
Cu vapour laser, unstable resonators, time-resolved beam divergence 23090
cylindrical Talbot cavity for circ. laser array phase-locked operation 31451
DBR laser microcavities, spontaneous emission 23323
DBR LD with fibre external cavity, linewidth narrowing 39762
DBR unstable resonator semicond. laser, 941 nm 23320
deep UV lithog., KrF(ArF) excimer laser 38719
DFB laser gain-switched pulse spectral quality improvement 7621
DFB laser local intens. modulation response, direct meas. 31323
DFB MQW laser, carrier and radiation confine. 14931
diffr.-coupled lasers, collective mode phase profile control 15005
diode laser, opt. injected, reverse bifurcations and dyn. modif. 31340
doppler device for air pollution detect. 18917
dye laser, flashlamp pumped, single-mode operation 23108
dye lasers, phase-polarizing wavelength selector, generation characts. 39689
dye lasers, threshold long. pump power, spontaneous emission influence 14728
dye lasers, tunable, acousto-optic deflector spatially modulated grating excitation 39682
dye-doped polystyrene microsphere laser emission, reson. modes 31207
extended thermal lens resonator cavity fund. mode calc. 14995
external cavity chaotic opt. commun. LD, periodic oscills. 39832
external cavity LD, freq.-shifted feedback 39828
external cavity LD modelocked by optoelec. feedback, stabil. 23275
external-cavity acoustooptically controlled semicond. lasers, tuning fidelity 15003
externally injected sig. laser cavity eqns. 2025
Fabry-Perot DFB lasers, mode nonorthogonality study 23342
Fabry-Perot LD modeling 31321
Fabry-Perot single-cavity demultiplexer OFDM networks, finite laser linewidth 25529
feedback laser resonator, quantum nondemolition tracking 23325
FEL, Israeli tandem electrostatic project, resonator design and characterisation 39949
FEL, long wavelength operation, slippage/diffr. effects 31430
FEL external cavity syst., pulse stacking 39948
FEL hole-coupled reson. cavity, gain maximization 39947
FEL intra-cavity light pulse, hole-coupling effect on transverse struct. 40017
FEL oscill., multibunch electron beam from L-band LINAC 39935
FEL oscillator, mode-locked, super-radiant radiation study 40007
FEL oscillator, radiation build-up simul., electron beam micropulse shape effect 40008
FEL oscillator spectral anal., Green fn. anal. 39977
FEL oscillators, space charge effects, self-oscills. and chaos 39971
FEL with large μ_c planar undulator, waveguide appl. 39980
FELINA VUV FEL, perform. study 39954
FELIX hole-coupled resonators, radial mode struct. influence on losses 39945
fiber Raman soliton laser for fs opt. pulse generation 1874
fiber ring lasers, stretched-pulse additive pulse mode-locking 23137
fibre laser mode-locking by pump pulse induced cross-PM 31233
fig. of eight fibre lasers, mode locked by Sagnac interferometer 31455
FIR lasers, CW opt. pumped, efficiency 14689
free electron maser, spectral dyn. 39624
free space opt. interconnects, LD array, microlenses, photodetectors 7486
gain-switched semicond. laser min. pulsewidth cavity optim. 31325
gas lasers, planar, cavity config., output radiation divergence 23335
graded opt. elements in solid state laser resonators 14998
GRINSCH VCSEL, graded heterointerfaces, modulation characts., cct. modelling 39780
high power FEL electron output scheme, time-depend. multi-dimens. simul. 39922
high-Q opt. cavities and mirrors, laser gain meas. 7705
high-repetition-rate electrooptic cavity dumping 30999
hybrid laser, high-power, narrow-linewidth, stable single-mode 7674
II-VI semicond. microstruct., optoelectronic appls. 14577
injected at. coherence, nonlin. theory 2040
injection laser, acoustic matching, acoustic line 39885
interf. wedge with unequal reflectivity mirrors, laser tuning element 15007
intracavity opt. delay line lasers 31445
IR extended cavity LD freq. stabilisation 39829
IR FEL, sideband generation, transit. to chaos, time-resolved study 40011
Kerr-lens mode-locked ring lasers, cavity design 31453
large-area multiple-transverse-mode VCSELs in multimode-opt.-fiber links, modal and intens. noise 9595
laser materials charactn., spectral anal. of relax. oscills. by intracavity method 34716
LD, MOCVD grown, operation, power 39851
LD-pumped IR solid-state lasers 14789
liq. dye lasers, spherical, wavelength tuning, cavity Q values 14726
long pulse dye laser develop., high resoln. spectrosc. appls. *(Japanese)* 7549
low threshold half-wave vert.-cavity QW lasers 1983
LV IR FEL, gyrotron powered RF wigglers 39890
Mark III FEL, hole coupling expts. 39946
methanol FIR laser lines, opt. pumped, freq. meas. 31475
methanol-d$_2$, opt. pumped, far IR laser lines and assignment 14711
microcavity SEL, spectral linewidth 7703
microcavity semicond. laser modulation bandwidth 7636
microcavity semicond. lasers 23203
microcavity semicond. lasers, nonequilibrium carrier dyn. 31338
microcavity semicond. lasers, nonequilibrium many-body theory and mode confine. effects 23205
microdisk lasers, double-disk struct., output coupling 14886
micromechanical photonics, microresonator displacement meas. by external cavity LD 34691
MM wave FEL at Duke storage ring, pump for X-ray inverse Compton source 39629
MM-wave radiation source, dual grating resonator 2019
MM-wave source, dual-mode DFB semicond. laser 23486
mode-locked solid-state ring laser, second harmonic intracavity generation 1886
modelocked semicond. laser, microwave sig. degrad., LF noise up-conversion 39869
monolithic grating-based components for WDM networks 9131
MQW corner reflector p-doped lasers, microwave charactn., monolithic integrat. 14966
MQW ridge waveguide lasers for tunable external-cavity sources 23234

laser cavity resonators continued
- MQW-semicond. opt. amps., mode-locked ring lasers 31417
- multichannel MM wave subcarrier transm. by reson. modulation of monolithic LD 42393
- multicolour dye laser, resonator constr. 7701
- multijunction single-mode laser cavity, photon-no. amplif. 23324
- multilobe mirror laser cavity light ray coherence control 31444
- multimode VCSEL, noise perform. 1984
- multisegment mode-locked semicond. lasers, timing jitter mechanisms 31419
- narrow band semicond. laser, far-IR, freq. tuning 14938
- NIJI-IV storage ring FEL, dielec.-coated cavity mirror degrad. and restoration 39962
- NIJI-IV storage-ring FEL, UV lasing study 39953
- opt. microresonators, threshold lasing characts. 2026
- optoelectronic device simul., conf., Los Angeles, CA, USA, Jan., 1994 36838
- optoelectronic PLL freq. stabilise quantum well laser 7656
- output beam quality 31449
- parallel opt. data links, VCSELs 42367
- periodic laser resonator thermal stabil. *(Chinese)* 2024
- planar laser microcavity modes, self-consistent calc. 39993
- polarizing rect. prism used in laser techs. 7711
- pseudo external cavity tunable diode laser 39773
- pulsed capillary gas lasers with waveguide resonators, opt. charact. 31201
- pulsed solid-state lasers, self-focusing, self-mode locking 31291
- radially varying gain lasers, geom. threshold zones and Gaussian modes 2027
- Raman laser, intracavity freq. conversion, spectral charact. 7735
- rhodamine 6G dye lasers, Cu laser pumped, tunable collinear operation 23107
- rhodamine 6G laser, parametric nonlin. mirror, refl. coeff. 31205
- rhodamine dye laser, CW, diode pumping 7546
- rhodamine perchlorate dye-doped sol-gel silica laser, XeCl laser-pumped, wideband tuning 31204
- ring dye laser, intracavity freq. shift, self-pulsing and instabilities 39690
- ring resonators with Doppler-broadened act. medium, natural oscill. calcs. 31452
- robust multilayer mirrors, X-ray laser cavity optics 7715
- ruby laser, colliding shock lens, intracavity Q-switch element 23329
- saturable absorber laser, transverse pattern dyn. 7751
- SEL for multimode data link appls. 23280
- SEL mirror effects on dyn. response 31315
- self-limited additive pulse mode-locking laser models 31249
- self-mode-locked lasers, transverse eigenmode set 23322
- semicond. diode lasers, strain fields on facet and along cavity 39881
- semicond. Fabry-Perot lasers, cavity mirror imperfections and reflectivity 31458
- semicond. laser, hybrid mode-locking, time-bandwidth product 1962
- semicond. laser/amp. for 1.3μm-1.5μm wavelength conversion, model 14844
- semicond. lasers, carrier thermalization, ensemble Monte Carlo simul. 7654
- semicond. lasers, electron-beam pumped, operating and threshold charact. 23227
- semicond. lasers, opt. feedback with dispersive loss, amplit. noise 1980
- semicond. lasers with unstable resonators, simul. 23210
- semicond. microcavities, sub-Poissonian photon generation 31372
- semicond. opt. amp., polariz.-insensitive, wavelength conversion, 10 Gbit/s 14882
- short bunch RF-linac FEL, output power fluct. 3D simul. 39973
- single-long.-mode laser, space-time behaviour 7704
- single-mode fiber, self-aligning multibeam coupling 14399
- single-mode injection laser with external resonator, pumping, quantum magnetometry appls. 34462
- single-mode laser, intracavity adaptive mirror output charact. 31448
- single-mode semicond. lasers, feedback, current modulation, transient dyn. 31468
- single-transverse-mode semicond. laser, diffr.-limited super-Gaussian output 39757
- slab laser prism resonator charact. 31447
- solid laser, diode pumped, reson. pump cavity, CW theory 39733
- solid-state chip laser, cavity mode/inversion profile correl. 23161
- solid-state high power laser beam characterisation 31470
- solid-state high-power laser, beam characterisation 31265
- solid-state laser modelocking, birefr. and PM 14811
- Stanford FEL cavity length meas. by external laser reson. 39939
- Stanford FEL wavelength shifting 39937
- storage ring FELs, mirror degrad. and heating 39961
- storage ring UV FEL, opt. cavities 39960
- strained MQW LDs, 1.3 μm, 1 Gbit/s bias-free operation 39868
- strongly coupled external cavity semicond. lasers, opt. feedback 15001
- surface emitting opt. devices, 2D integrat. 7482
- surface-emitting vert.-cavity QW laser, time-depend. num. simul. 1972
- surface-emitting vs. edge-emitting solid-state laser pumps, comparison 31364
- thresholdless opt. dye microlaser, picosecond pulse generation 1870
- two freq. gas laser, phase anisotropic mirror resonator 7700
- two-level unidirectional ring laser, travelling waves, class-B limit 2028
- unstable cavity excimer laser, radiation field form. 31446
- unstable resonator semicond. laser, quantum confine. and strain effects 23211
- UV-written grating planar silica waveguide external-cavity semicond. laser 9570
- VCEL, GRINSCH struct., CW operation, temp. range 39778
- VCSEL, 2D diffusion eqn. 23208
- VCSEL, Bragg mirrors, thermal cond. anal. 39785
- VCSEL, cavities microfabrication 39783
- VCSEL, Gaussian-beam-induced vortices 23321
- VCSEL, lateral injection, high speed modulation, act. region 39781
- VCSEL, off-reson. lasing 14934
- VCSEL, opt. switching and logic gates 15048
- VCSEL, p-type mirrors, wall plug efficiency 39777
- VCSEL, PLA 7611
- VCSEL, transverse modes, vortices 7639
- VCSEL array, SEED logic syst. input 39788
- VCSEL arrays, conf., Los Angeles, CA, USA (Jan. 1994) 36835
- VCSEL arrays, MBE, reliab., systs. appl. 39779
- VCSEL arrays, mfg. 39784
- VCSEL arrays, perform., appls. 39786
- VCSEL diodes, transverse mode competition dyn. 31356
- VCSEL semicond. laser, stable states 2007
- VCSEL wavelength control by nonplanar MOCVD 14963
- VCSELs, 3D microcavities, spontaneous emission factor *(Japanese)* 23289
- vert. cavity LD, tunable, fibre coupling, threshold currents 39782
- vert. cavity SEL array spectra, transverse anisotropy effect 1936

laser cavity resonators continued
- vert. cavity SEL arrays/micro-Fresnel lens array integrat. 23304
- vert. cavity SELs, 50% power conversion efficiency 23215
- vert. cavity SELs, pitchfork bifurcation pol. bistabil. 14948
- vert. cavity surface emitting DBR lasers, voltage controlled 7622
- vert. cavity surface emitting semicond. lasers fab. 31361
- vert.-cavity SEL array for short dist. opt. fiber networks 14929
- vert.-cavity SELs, 967 nm, integrated refr. microlenses 14898
- vert.-cavity SELs, self-pulsations 14992
- vert.-cavity semicond. laser amps., perform. predictions 1998
- vert.-cavity surface-emitting semicond. lasers, elec. pumped, transverse modes 7641
- wedge prism freq.-tuning mechanism in single-mode tunable laser 23330
- Yb:YAG diode-pumped thin disk laser continuously tunable, 1018/1053 nm 39742
- AlAs based microcavity laser, mode behaviour, lasing charact. 39776
- AlAs/GaAs VCSEL, cavity and reflector design 31347
- AlAs/GaAs/InGaAs, VCSEL, transverse lasing mode, temp. depend. 39989
- AlGaAs VCSEL, low-temp. operation 14962
- AlGaAs self-pulsating LD, stabil. enhancement by pass. external cavity 31403
- AlGaAs, tunable injection-locked high-power LD array 1926
- AlGaAs/GaAs VCSEL, internal quantum efficiency and loss meas. 39775
- AlGaAs/GaAs intracavity laser coupled VCSEL syst., opt. gain control 39774
- AlGaAs/GaAs, photopumped vert. cavity QW, hot carrier recomb. 23264
- AlGaAs/GaAs quantum well DBR laser, femtosecond upconversion, time-resolved study 31374
- AlGaAs-AlAs DBR QW microcavity, fast coherent emission 31376
- AlGaAs-GaAs-InGaAs DBR elec. pumped VCSEL 31314
- AlGaAs-GaAsP 770-nm tensile-strained QW LD 23221
- AlGaInAs/GaInAs, tunable lasers by masked implementation enhanced intermixing 14872
- AlGaInP QW partial top dielec. stack DFB red VCSEL arrays 14850
- AlGaInP-based 660-680 nm vert.-cavity SELs 23187
- Ar^+ wide-aperture laser waveguide operation 1847
- Ar+ ion multimode lasers, polariz./intens. correl. 1851
- β-BaB_2O_4 opt. parametric oscillator, spectrosc. light source 31573
- CO compact high-efficiency laser, 1 kW 14681
- CO_2 CW laser, Gauss-core resonator, diffr.-limited output beam 39641
- CO_2 CW laser diffr. couplers, oscill. charact. of cavities 7523
- CO_2 IR coherent lidar, enhanced opt. heterodyne detect. 3617
- CO_2 TEA laser dyn., freq. stabilisation, chaos 23087
- CO_2 gasdynamic laser with unstable resonator, radiation charact. 14698
- CO_2, high power laser, line-selective unstable resonator 1858
- CO_2 high-power lasers at 12 kW, beam quality 31156
- CO_2 indust. fast axial flow laser, appls. 31157
- CO_2 injection-seeded supra-atmos. laser operated below emission threshold by ring cavity 39655
- CO_2 intracavity 16 μm Raman laser 14710
- CO_2 laser, CW, mirror resonator, super-Gaussian output 2031
- CO_2 laser, compact gap, hybrid unstable-waveguide cavity 7509
- CO_2 laser lines, hot bands in 11 μm region 23091
- CO_2 laser, microwave excited, cylindrical reson. cavity 1864
- CO_2 laser, spatial charact. correction, VO_2 mirror 31460
- CO_2 laser, stable-unstable resonators, annular gain media 31442
- CO_2 laser with saturable absorber, nonlin. dyn. 23078
- CO_2 slab waveguide lasers , mode and freq. control 39656
- CO_2 slab-geom. lasers, mode and wavelength selectivity 31148
- CO_2 transverse flow laser cavity 7527
- CO_2 tunable laser for opt. free induction decay syst. 39661
- CO_2 unstable laser cavity design, compact output beam 14715
- CO_2 waveguide laser arrays, side lobe suppression, phase filter design 31188
- CO_2-laser generation, intracavity saturable absorber 39666
- CdS waveguide cavity microlaser, losses, spectrum crevasse appearance 39862
- Ce^{3+}:$LuLiF_4$ laser, self-injection-seeded UV, sub-ns pulse train generation 39737
- Cr:$BeAl_2O_4$, alexandrite laser, intracavity freq. doubling 7737
- Cr:LiSrAlF diode-pumped single-freq. coupled-cavity microchip laser 14814
- Cr:$LiSrAlF_6$ self-mode-locked diode-pumped laser 14785
- Cr:forsterite 100-fs pulse freq. doubling by reson. enhancement cavity 14781
- Cr^{4+}:Mg_2SiO_4 laser cavity, cubic phase distortion minimisation 31288
- Cu vap. laser, ASE output form. 39658
- Cu vapour laser oscillator, adjoint-coupled self-filtering injection 39670
- Cu vapour laser, output divergence, unstable resonator alignment 14687
- D_2O laser, spectral narrowing, oscill.-amp. 23102
- Er,Yb:glass laser, harmonic modelocking 23177
- Er,Yb:phosphosilicate fiber Fabry-Perot lasers, continuous/discrete wavelength tuning 31220
- Er,Yb-doped tunable fiber sliding-freq. soliton laser 14765
- Er doped fiber ring laser, mode stabil. 15002
- Er-doped Kerr-type mode locking fiber laser stabilization 7565
- Er-doped coupled-cavity fiber lasers incorporating fiber-grating reflectors 7564
- Er-doped fiber MOPA, act. noise reduction 7563
- Er-doped fiber laser additive pulse limiting 31454
- Er-doped fiber laser based fiber sens. 9920
- Er-doped fiber laser config., wavelength switching 14735
- Er-doped fiber laser mode locked by semicond. saturable absorber 31235
- Er-doped fiber lasers, Maxwell-Bloch mode-locking instabilities 23120
- Er-doped fibre laser, mode-locked, stabilisation 23126
- Er-doped glass laser, pass. Q switching of cavity, SBS mirror 7595
- Er-doped mode-locked fiber ring laser freq. stabilisation 23119
- Er-doped pass. mode-locked fiber laser based on polariz. rot. in MQW waveguide 23123
- Er-doped single-mode fiber lasers, all-fiber subresonator 7571
- Er-doped soliton fiber laser based on pulse width control, chirped fiber Bragg gratings 23129
- Er^{3+}-doped intracavity LD pumped modulated fiber lasers 1879
- Er^{3+}-doped unidirectional fiber ring laser without isolator 31214
- GaAlAs LD forced TM-mode operation by annealed proton-exchanged waveguides 23257
- GaAlAs-GaAs ultrahigh finesse microcavity, DBR 2029
- GaAs microcavity, reson. excited exciton, coherent light emission 31375
- GaAs/AlAs, VCSEL resonators, refractive index meas. 15000
- GaAs/AlAs vert. cavity laser, SW light generation 23281
- GaAs/AlGaAs hexagonal-facet laser with opt. waveguides, selective area metalorganic CVD 23214
- GaAs/AlGaAs microdisk lasers 23259

laser cavity resonators continued
GaAs/AlGaAs, quantum-well heterolasers, spectral charact. 23228
GaAs/InGaAs coupled semicond. microcavities 2030
GaAs-AlAs MBE grown vert. Fabry-Perot laser cavities, periodic mode shift 31443
GaAs-AlGaAs 0.85-μm VCSELs, reliab. studies 7677
GaAs-AlGaAs LD with opt. feedback, line narrowing and modulation bandwidth 1981
GaAs-AlGaAs QW DFB VCSEL, temp. depend. of transverse mode evol. 7669
GaAs-AlGaAs monolithic optoelectronic switching network 42130
GaAs-AlGaAs monolithic semicond. ring lasers, pass. mode locking 31416
GaInAs/GaAs micro-arc ring semicond. laser, design 39866
GaInAs-GaAs multiwavelength SEL arrays, MOCVD fab. 1937
GaInAsP/InP VCSEL array for 1.3 μm range parallel opt. fiber transms. 23300
GaInAsP-InP continuously tunable LD, mode hopping *(French)* 1924
GaInP/AlGaInP vis. diode lasers, sustained oscills. 23253
HCN laser, output radiation depolarisation 7510
HCN waveguide laser, duplex radiation output, polaris. and energy charact. 39642
HF pulsed chem. laser, discharge pumped, energy charact. 23085
$He-Cd^+$ pos. column type UV 325 nm lasers *(Japanese)* 14683
He-Ne gas laser with nonadiabatic modulation of cavity, oscill. dyn. 7526
He-Ne two-mode laser with internal sig. injection, radiation intens. 23095
HeNe laser, phase-depend. helical pattern form. 23083
I gas laser, solar pumped, concentrator 23105
InGaAs VCSEL, gain/reflectivity, press./temp.-induced detuning 39796
InGaAs vert.-cavity quantum well lasers, cavity tuning effects on transverse mode 31316
InGaAs/GaAs laser-mode-size convertor monolithic integrat., shadow-masked growth 22916
InGaAs/GaAs, quantum-well heterolasers, spectral charact. 23228
InGaAs/GaAs strained QW 980 nm pump lasers, thermal behaviour 14843
InGaAs/InGaAsP MQW modelocked LD, high spectral tuning range 7634
InGaAs/InGaAsP microdisk lasers, fab., resonator modes, losses 7702
$In_{0.2}Ga_{0.8}As$/GaAs microcavity lasers, transient pulse response 39756
InGaAs-AlGaAs SQW lasers, cavity length/mirror refl. study 23271
InGaAs-AlGaAs laser oscillator surface grating output couplers 23255
InGaAs-GaAs folded/VCSEL 31391
InGaAs-GaAs strained layer single QW ring laser, reactive ion-etched tetragonal cavity 23192
InGaAs-GaAs-AlGaAs laterally-coupled DFB ridge LD, CW perform. 31318
InGaAs-InGaAsP strain-compensated MQW dielec.-bonded long wavelength vert. cavity laser 14851
InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
InGaAsP monolithic semicond. soliton transmitter 25530
InGaAsP/InP 1.3 μm compressive-strained-MQW lasers, low threshold 1987
InGaAsP/InP DFB lasers, wavelength and polaris. switching 31349
InGaAsP-InP 1.3-μm folded-cavity SEL grown by gas-source MBE 14853
InP-based MQW lasers, integrated tapered beam expander waveguide 14854
$KTiOPO_4$ electro-optic laser Q switch, dispersion effects 22933
KrF excimer laser, sealed-off perform., NovaTube 31149
LaB_6 FEL photocathode photoemission studies by ns KrF excimer laser 38207
$LiF:F_2^+$ laser pumped by a flash lamp, multimode oscill. 7596
$LiNbO_3$:Ti,Er integrated opt. DBR waveguide laser, 1531 nm 31304
$LiNd(PO_3)_4$ laser, intracavity SHG, homoclinic chaos 31255
$LiNd(PO_3)_4$ multimode laser, antiphase dyn., Shil'nikov chaos 14812
NH_3 miniature opt. pumped cavity far-IR laser 31167
Nd,Ce:YAG laser resonator, SBS methane gas phase conjugating mirror *(Chinese)* 14993
Nd laser, pass. Q-switching, fund./second harmonic freqs. 1883
Nd^{3+} doped silica based fiber laser, Bragg grating 39713
Nd:YAG 1.4kW slab laser, diffusive closed-coupled pump cavity 23181
Nd:YAG 3.5 W output, diode-pumped, Q-switched 532 nm laser 14816
Nd:YAG CW self-starting mode locked laser, cascaded second-order nonlin. 39745
Nd:YAG CW slave laser, phase locking by Nd:YAG master oscillator 31278
Nd:YAG Q-switched CW pumped laser, math. modeling 1895
Nd:YAG Q-switched diode-pumped laser, freq. conversion 31268
Nd:YAG Q-switched laser, Cr^{3+}:YAG saturable absorber 40064
Nd:YAG Q-switched laser Raman conversion, backward SBS 23174
Nd:YAG Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
Nd:YAG cw ring laser, intracavity freq. doubling by KTP cryst. 39726
Nd:YAG diode-pumped laser driver for X-ray projection lithog. 31270
Nd:YAG diode-pumped laser single-mode operation by pump-beam focusing 14820
Nd:YAG flashlamp-pumped pulsed lasers, SHG 31272
Nd:YAG freq.-doubled laser stabil. *(Chinese)* 14794
Nd:YAG high-power solid state lasers, improved beam quality 31262
Nd:YAG laser, 3.35 μm intracavity difference freq. generator 40054
Nd:YAG laser cavity decay rate and relax. oscill. freq. 23166
Nd:YAG laser, diffractive-optic graded-phase resonator, modal props. meas. 39740
Nd:YAG laser, diode-pumped, Q-switching study 31299
Nd:YAG laser, intracavity freq. doubling, KTP cryst. 7598
Nd:YAG laser, pumped, pulsed RT operation 23167
Nd:YAG laser resonator with internal phase gratings, high modal discrim. 14783
Nd:YAG lasers, graded reflectivity mirrors 31275
Nd:YAG pass. Q-switched quasicontinuously pumped laser 31274
Nd:YAG periodical Q-switch lasers, pulse duration, output power 31271
Nd:YAG pulsed kilowatt lasers, fibre optic beam delivery syst. 31263
Nd:YAG ring laser, chaos, dyn. and spectral charact. 40020
Nd:YAG, ultrashort pulsed laser, emission dyn. control 1884
Nd:YAG unstable multirod lasers, variable reflectivity mirrors 31267
Nd:YAG($YAlO_3$), efficient high-power laser operation 31264
Nd:YLF, additive-pulse mode-locked laser, diode pumped, pulse compression 31298
Nd:YLF all-solid-state self-mode locking laser 23141
Nd:YVO_4 all-solid-state intracavity freq. doubled laser *(Chinese)* 7602
Nd:YVO_4 coupled-cavity electro-opt. Q-switched microchip lasers 39743
Nd:glass laser amps. using electro-polished Al reflectors, gain enhancement 1894
Nd:glass laser pulse shortening by gain reshaping and soliton form. 23153
Nd^{3+}:YAG laser, intracavity adaptive opt. syst. 31276

laser cavity resonators continued
Nd^{3+}:YAG lasers in commun. and range finding systs. 7875
Nd^{3+}:YAG pulsed laser, design and charact. *(Chinese)* 14802
Nd-doped fibre lasers, polaris. related phenom. 14766
Nd-doped fibre switching by fast relax. of reson. nonlin. 31621
Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
Nd-doped lasers, nanosecond polymer pass. switch develop. 39746
Nd-doped phosphate glass waveguide laser, pass. Q-switched 1917
SiO_2 cascaded fibre Raman amp. operating at 1.3 μm, high gain 31232
Ti,Er:$LiNbO_3$ harmonically mode-locked waveguide laser 39736
Ti:S cryst. multipass laser amplifer 31286
Ti:sapphire Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
Ti:sapphire compact tunable laser design 23180
Ti:sapphire dual-cavity-type pulsed laser oscillator, self-seeding 39741
Ti:sapphire flashlamp pumped laser, two-wavelength pulsed operation 31242
Ti:sapphire laser, high-repetition-rate femtosecond mid-IR pulse generation 31574
Ti:sapphire laser modulation procs. and radiation charact. 7601
Ti:sapphire mode-locked laser, dye intracavity saturable absorpt. 23352
Ti:sapphire regenerative amp. for ultrashort high-power multi-kHz pulses 31251
Ti:sapphire ring laser with four mirrors, CW freq. stabilisation *(Chinese)* 14801
Ti:sapphire ultrashort pulse lasers, cubic phase compensation 31279
Xe_2^* self-sustained discharge-pumped laser at 172 nm, kinetics 14704
XeCl compact three electrodes excimer IANUS laser 31153
XeCl excimer laser, phase-unifying unstable resonator perform. 39668
XeCl laser amplifier, SBS phase-conjug. cavity 1853
XeF(C→A) 170 J excimer laser, electron beam pumped 23098
ZnCdSe-ZnSSe-ZnMgSSe blue-green vert. cavity SCH SELs 14946
ZnSe semicond. lasers, linewidth enhancement factor and nonlin. gain 23224
ZnSe/ZnMgSSe DH laser, photopumped lasing props., MOCVD-grown, cavity length depend. 14942
ZnSe-based nanostructures, waveguide DFB laser appls. 23296
ZnSe-based vert.-cavity surf. emitting lasers, blue emission 23295
laser chirp *see chirp modulation*
laser CVD *see chemical vapour deposition; laser deposition*
laser damage *see laser beam effects*
laser deposition
see also pulsed laser deposition
flip chip and TAB packaging, laser bumping 12957
MCM-D open repair technols. 21724
MCMs, 3D laser direct writing 12979
surface props., tailoring by laser irrad. 31689
AlGaAs laser-assisted deposition, Cu-Au conductors for IC interconnects 12184
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
Mo conductors, laser-induced CVD, LSI appl. *(Japanese)* 5871
laser diode arrays *see semiconductor laser arrays*
laser diodes *see semiconductor lasers*
laser drilling *see laser beam machining*
laser drivers *see driver circuits*
laser effects *see laser beam effects*
laser feedback
see also distributed feedback lasers
act. laser media, phase conjug. in four-wave mixing, feedback 14717
act. mode-locked laser, neg. feedback, stabil. 31474
asymmetric external cavity semicond. lasers, LF resons. 31389
detuned gain-coupled DFB laser, opt. feedback immunity 31310
DFB fibre chirped laser, transm. charact. 39702
DFB laser-fibre grating dispersion compensator, transm. dist. extension 39344
DFB lasers, dephased index and gain coupling 23194
DFB LD above-threshold stabil. determ. 39875
DFB MQW laser, carrier and radiation confine. 14931
dye mixture DFB laser, nanosecond excitation, picosecond emission 39681
external cavity chaotic opt. commun. LD, periodic oscills. 39832
external cavity LD, freq.-shifted feedback 39828
external cavity LD modelocked by optoelec. feedback, stabil. 23275
Fabry-Perot DFB lasers, mode nonorthogonality study 23342
FEL, single-mode generation, stabil. loss 39955
FEL with 2D DFB, time domain anal. 39926
free electron masers, long. modes, fusion appls. 39625
injection laser neural network, long. modes, neurons 29453
injection laser-modulator combinations, time-depend. simul. 14952
IR coherence-collapsed multimode LD for fiber-optic gyroscope 40176
IR FEL, sideband generation, transit. to chaos, time-resolved study 40011
MQW DFB lasers, external modulation, freq. chirp simul. 31348
multistable single-mode emitting solid-state lasers 14807
NMR laser with delayed feedback, locking and Arnold tongues 7590
nonlin. ring resonator, oscill. mode selection, bifurcation of chaotic mode transits. 15117
pseudo external cavity tunable diode laser 39773
pulsed capillary gas lasers with waveguide resonators, opt. charact. 31201
quantum-well laser, wavelength-tunable amplit.-squeezed light 31371
recirculating accelerator FEL syst., energy-current loss instabilities 39985
regenerative picosecond feedback scheme based CW semicond. lasers 31421
resonators, act. feedback, quantum nondemolition tracking 23325
rhodamine 6G regenerative-feedback mode-locked dye laser, acousto-optic mode locker 39686
ribbon FEL, 1D DFB 39910
ring dye laser, intracavity freq. shift, self-pulsing and instabilities 39690
self-seeded Fabry-Perot LD, single-mode form. dyn. 39799
self-seeded gain-switched LD, elec. wavelength-tunable singlemode pulses 31326
semicond. diode laser arrays, opt. feedback, chaos control 39804
semicond. laser, AM/FM noise from coherent feedback 14864
semicond. laser, freq. stabilisation/linewidth reduction, opt. feedback method *(Korean)* 14861
semicond. lasers using phase conjug. feedback, phase noise reduction by self-phase locking 2002
semicond. lasers with weak coherent opt. feedback, equiv. cct. 23272
single mode semicond. lasers, opt. injection/feedback 39824
single-mode diode lasers, feedback, external light injection, switch-on time, timing jitter 31397
single-mode semicond. lasers, feedback, current modulation, transient dyn. 31468

laser feedback continued
solid-state single-mode laser, loop SBS mirror 31290
strongly coupled external cavity semicond. lasers, opt. feedback 15001
Super-ACO free electron UV laser, stabil., long. feedback 39958
transversely moving 2D diffr. laser autosolitons 2075
AlGaAs lasers with grown opt. facets, metalorganic CVD deposition 20961
AlGaAs self-pulsating LD, stabil. enhancement by pass. external cavity 31403
AlGaInAs vis. diode laser with phase-conjug. feedback, stable mode locking 39833
Er^{3+}:Yb^{3+}-doped low-noise grating-feedback fiber laser 7567
GaAlAs LD feedback interferometer for displacement meas. 23479
GaAlAs LD forced TM-mode operation by annealed proton-exchanged waveguides 23257
InGaAs-AlGaAs laser oscillator surface grating output couplers 23255
InGaAsP strained layer MQW laser for opt. fibre transm. systs. 31352
InGaAsP/InP DFB laser, wavelength shifts, ESD 23276
InGaAsP/InP DFB lasers, wavelength and polaris. switching 31349
InGaAsP/InP MQW integrated DFB-DBR laser modulator, MOVPE growth 23247
KNbO$_3$ ion-implanted waveguides, CW diode laser freq. doubling, blue light generation 2076
LiTaO$_3$ waveguide SHG of LD radiation 23442
Nd:YAG act. mode-locked pulsed laser, long ultrashort pulse train generation 14826
Nd:YAG diode-pumped nonplanar ring laser, intens. noise suppression 15004
Nd:YAG laser, quasi-CW LD array pumped, absorpt. efficiency control method *(Japanese)* 31307
Nd:glass ring laser single freq. operation, acousto opt. induced 23140
Nd^{3+}:YAG DFB lasers, modulation bandwidth, nonlin. effects influence 23341
Nd-doped fiber laser, feedback-induced polariz. switching 14741
Ti:sapphire dual-cavity-type pulsed laser oscillator, self-seeding 39741
ZnSe-based nanostructures, waveguide DFB laser appls. 23296

laser frequency measurement *see frequency measurement; laser variables measurement*

laser frequency stability
980 nm Bragg fibre grating coupled diode laser wavelength and intens. stabilisation 9431
Brillouin fiber laser with ring resonator, two-freq. output 31231
Brillouin fiber ring laser, freq. stabil. 14762
Brillouin fibre optic gyro, stable characts. 17830
Brillouin opt. fiber gyro ring-resonator, state of polariz. anal. 42822
cryogenic all-sapphire Fabry-Perot opt. freq. ref. 31462
DFB 1.5-μm lasers, aging-induced wavelength shifts 7676
DFB free-running laser modules, long-term wavelength drift 7675
digital divider cct. for laser-beam-pointing stabilization syst. 40003
diode laser freq. tunable light generation/freq. conversion 23286
dye laser freq. stabilization by polariz. spectrosc. 23109
FADOF filter for space borne opt. commun., Doppler shift compensation 17325
freq.-locked semicond. lasers, freq. offsets 1939
high Fresnel no. dye laser, weak turbulence 23111
injection laser polariz. dragging 2001
IR extended cavity LD freq. stabilisation by acetylene mol. lines 39829
LD freq. stabilization, 1.5-μm freq. refs., HCN saturated absorpt. 23400
multiaccess star network archit., WDM/SCM 42437
multielectrode semicond. laser broadband freq. generation 7668
opt. fibers, MM wave sig. transm. 9541
optoelectronic devices for consumer appls. 7492
optoelectronic PLL freq. stabilise quantum well laser 7656
rack-mounted opt. ref. unit, 1547.825 nm 9469
ring dye laser, intracavity freq. shift, self-pulsing and instabilities 39690
semicond. laser, freq. stabilisation/linewidth reduction, opt. feedback method *(Korean)* 14861
semicond. laser freq. control, PM, and nonlin. freq. conversion *(Japanese)* 7624
semicond. laser freq. stabilization, Faraday effect/saturated absorpt. 14848
semicond. laser oscillator in 780 nm range 7672
semicond. laser power digital stabilization 39765
semicond.-laser freq. locking, C$_2$HD, ^{13}C$_2$H$_2$ absorpt. lines 7642
single mode dye laser freq. stabilization, forward scatt. 7536
solid-state lasers, gain-induced coupling, freq. locking 1916
AlGaAs self-pulsating LD, stabil. enhancement by pass. external cavity 31403
AlGaInP/GaInP two-beam lasers with low thermal interf., 680 nm band, high power 23306
CO$_2$ TEA laser dyn., freq. stabilisation, chaos 23087
CO$_2$ laser, injection locking, freq. stabilisation, line narrowing 1865
CO$_2$ laser, loss perturb. near period-doubling 14688
CO$_2$ lasers, freq. and power stabilised, review 23089
CO$_2$ slab waveguide lasers , mode and freq. control 39656
Cs FIR laser lines around 1.2/1.6 THz, heterodyne freq. meas. 23081
Er,Yb-doped fiber amp. source of multigigahertz soliton pulse train 7566
Er^{3+}:Yb^{3+}-codoped fiber DFB laser 23116
Er^{3+}:Yb^{3+}-doped low-noise grating-feedback fiber laser 7567
Er-doped fiber MOPA, act. noise reduction 7563
Er-doped fiber laser, quasi-periodic route, chaos 23135
Er-doped fiber-ring laser, mode instabil. suppression 39697
Er-doped fibre ring laser, asynchronous soliton mode locking 14740
Er-doped fig.-8 mode locked fiber laser stabilization 7568
Er-doped mode-locked fiber ring laser freq. stabilisation 23119
Er-doped superfluorescent fiber sources for fibre optic gyroscopes 17831
Er^{3+}-doped intracavity LD pumped modulated fiber lasers 1879
GaAlAs injection LD, freq. flucts. 23301
He-Ne laser, I$_2$ stabilized, freq. shift 34320
He-Ne ring laser, T violation and microhertz resoln. 23326
Hg$^+$ freq. stds., space flyable 42673
InGaAsP/InP DFB laser, wavelength shifts, ESD 23276
Na reson. radiation sum-freq. generation of Nd:YAG laser beams 23364
Nd:YAG cw ring laser, intracavity freq. doubling by KTP cryst. 39726
Nd:YAG diode-pumped laser single-mode operation by pump-beam focusing 14820
Nd:YAG doubled laser stabilisation, I$_2$ transit. absol. freq. meas. 25984
Nd:YAG ring laser freq. stabil., interferometric gravit. wave detector light source appl. 31301
Nd:YVO$_4$ all-solid-state intracavity freq. doubled laser *(Chinese)* 7602
Nd:glass ring laser single freq. operation, acousto opt. induced 23140

laser frequency stability continued
Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
Ti:sapphire ring laser with four mirrors, CW freq. stabilisation *(Chinese)* 14801

laser hardening
XeCl excimer laser, 1 kW, specific appls. 31141

laser induced breakdown *see laser beam effects*

laser-induced CVD *see chemical vapour deposition; laser deposition*

laser induced damage *see laser beam effects*

laser interferometers *see light interferometers*

laser interferometry *see light interferometry*

laser isotope separation
Atomic Vapor Laser Isotope Separation 35960
Cu vapour laser pumping, scientific and indust. appls. 40171
U isotope separating dye laser wavelength control syst. *(Japanese)* 7872

laser materials processing
see also laser ablation; laser beam annealing; laser deposition; laser hardening
beam homogenizer design, material proc. *(Japanese)* 20422
CEBAF UV/IR FEL materials proc. subsystem testing 39920
conference, laser materials processing/machining, Frankfurt, Germany (1994) 11555
conference, St. Petersburg, Russia (1993) 11527
diode laser side-pumped rod lasers, materials proc. appls. *(German)* 7585
HDI, laser created, quick prototyping of electronic ccts. 5676
high-dens. laser linking of metal interconnect 6661
HTS/metal/polymer dielec. interconnect struct. for packaging appls. 11785
industrial appls. of laser materials proc., conf., Vienna (1994) 36867
insulator surfaces, elec. field/pulsed laser heating 15198
metal capping of MCM thin film, laser 12977
micro-opt. components, laser forming, phys. fund. 7376
micro-optics focusing LD material-proc. syst. design 5609
opt. surfaces, laser cleaning 30821
optoelectronic science/engineering, conf., China (1994) 28207
pulsed solid state laser materials proc. *(German)* 7866
sapphire fibers rapid drawing, LHPG 7334
spatial intens. distrib. meas. of laser beam 7721
structural materials, laser surface modif. *(Japanese)* 20419
surface contaminants, excimer laser-based cleaning tool 6648
surface props., tailoring by laser irrad. 31689
TAB, fine pitch, laser syst. 21670
CO high-power lasers, materials proc. appls. 31154
CO$_2$, IR lasers, high power, plasma supported proc. 15193
CO$_2$ TE laser, high repetition rate, long pulse *(Japanese)* 31199
He-Kr-F$_2$ excimer laser for microtechnology 39649
Nd:YAG periodical Q-switch lasers, pulse duration, output power 31271
Nd^{3+}:YAG pulsed laser beam materials proc. *(Japanese)* 7870
Si:B, form./control of B buried layers, excimer laser 13291
ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412

laser mirrors
10 Gbit/s data switched semicond. laser amp. nonlin. loop mirror 17326
act. laser media, phase conjug. in four-wave mixing, feedback 14717
act. mode-locked LD array in the external cavity, pulse buildup dyn. 23284
beam steerable semicond. lasers, large steering range and resolvable spots 1985
CCD-based tracker for laser commmunication pointing acquisition and tracking control 17304
CCD-based tracking loop for precision beam pointing, digital control design 17307
DBR laser microcavities, spontaneous emission 23323
deformable mirror adaptive optics and laser beam control appls. *(Japanese)* 7706
DFB laser gain-switched pulse spectral quality improvement 7621
DFB lasers, 1.55 μm, grating struct. and mirror posns. rel. to lasing characts. *(Korean)* 31413
dielec. laser mirror, phase anisotropy 2032
dielec. laser mirrors, refl. opt. harmonics 7712
expts. on laser-plasma triggered lightning 23485
external SBS mirror, mode size increase study 39997
FEL external cavity syst., pulse stacking 39948
FELIX hole-coupled resonators, radial mode struct. influence on losses 39945
fig. of eight fibre lasers, mode locked by Sagnac interferometer 31455
fig.-of-eight fibre laser for soliton transm. expts. 42453
group-delay meas., spectrally resolved white-light interferometry 39996
high heat load optics, historical overview 39998
high power FEL electron output scheme, time-depend. multi-dimens. simul. 39922
high-Q opt. cavities and mirrors, laser gain meas. 7705
II-VI semicond.-based electron-beam-pumped laser emitters, microrelief mirrors 1929
imaging radar, nonlin. of rot. mirror scanning 17446
interf. wedge with unequal reflectivity mirrors, laser tuning element 15007
IR FEL, compact design, perform. study 39895
ISKRA X-ray laser beam line focusing of radiation 7503
jitter, overview, flow-induced vibr. phenom. 39999
Littman type single mode tunable laser, freq. tuning mechanism *(Korean)* 14678
long pulse dye laser develop., high resoln. spectrosc. appls. *(Japanese)* 7549
mirror temp. meas. of semicond. lasers, photothermal deflection 15012
mode locking with nonlin. mirror, analytic study 39720
monolithic ring lasers for low-noise opt. sig. distrib. 7498
MQW corner reflector p-doped lasers, microwave charactn., monolithic integrat. 14966
multilayer dielec. laser mirrors, etalon effects 7714
multilobe mirror laser cavity light ray coherence control 31444
NIJI-IV storage ring FEL, dielec.-coated cavity mirror degrad. and restoration 39962
NIJI-IV storage-ring FEL, UV lasing study 39953
opt. coatings, repeat-rate-laser induced damage *(Chinese)* 14572
opt. commun. demonstrator 17289
planar laser microcavity modes, self-consistent calc. 39993
printers, polygon mirror scanner motors, fluid bearings *(Japanese)* 10932
pulsed solid-state lasers, self-focusing, self-mode locking 31291
refr. eye microsurgery, laser tracking 17452
rhodamine 6G laser, parametric nonlin. mirror, refl. coeff. 31205
robust multilayer mirrors, X-ray laser cavity optics 7715
rocking mirror laser cutting machine, opt. design *(Japanese)* 5612

laser mirrors continued
- SEL mirror effects on dyn. response 31315
- semicond. Fabry-Perot lasers, cavity mirror imperfections and reflectivity 31458
- semicond. lasers, mirror imperfections/reflectivity, time-depend. approach 14937
- semicond. lasers using phase conjug. feedback, phase noise reduction by self-phase locking 2002
- single mode semicond. lasers, opt. injection/feedback 39824
- single-mode laser, intracavity adaptive mirror output charact. 31448
- single-transverse-mode semicond. laser, diffr.-limited super-Gaussian output 39757
- slab laser prism resonator charact. 31447
- solid-state chip laser, cavity mode/inversion profile correl. 23161
- solid-state single-mode laser, loop SBS mirror 31290
- storage ring FELs, mirror degrad. and heating 39961
- storage ring UV FEL, opt. cavities 39960
- Super-ACO FEL micropulse, dyn. behaviour 39952
- thermal laser mirror distortion test facility 40000
- thin opt. pickup head of CD player, laser/detector/hologram unit 17613
- transversely moving 2D diffr. laser autosolitons 2075
- two freq. gas laser, phase anisotropic mirror resonator 7700
- two-mirror laser, saturable absorber, bistable operation 23340
- unstable cavity excimer laser, radiation field form. 31446
- unstable resonator semicond. laser with DBR mirrors, 941 nm 23320
- UV laser cavity optics under ionizing radiation, radiation resist. 7709
- VCEL, GRINSCH struct., CW operation, temp. range 39778
- VCSEL, Bragg mirrors, thermal cond. anal. 39785
- VCSEL, p-type mirrors, wall plug efficiency 39777
- VCSEL arrays, MBE, reliab., systs. appl. 39779
- vert. cavity SELs, 50% power conversion efficiency 23215
- vert. cavity surface emitting DBR lasers, voltage controlled 7622
- AlAsSb/GaAsSb DBR, highly reflective, MBE 15011
- AlGaAs LD based broad beam transmitter for space commun. 17302
- AlGaAs lasers with grown opt. facets, metalorganic CVD deposition 20961
- $Al_xGa_{1-x}As$ DBR, reflectivity spectrum 2034
- AlGaAs/GaAs VCSEL, internal quantum efficiency and loss meas. 39775
- AlGaAs/GaAs, photopumped vert. cavity QW, hot carrier recomb. 23264
- $Al_xGa_{1-x}As$/GaAs:Be mirrors for VCSEL 15010
- AlGaAs-GaAs-AlGaAs HEMT/quantum well laser monolithic integrat., MBE/technol. 1945
- AlGaInAs vis. diode laser with phase-conjug. feedback, stable mode locking 39833
- Al_xO_y/GaAs VCSEL laser with high-contrast mirrors, gain switching 23231
- AlPSb/GaPSb Bragg reflector 1.55 μm LD 7619
- Ar air-cooled 75 mW laser develop. *(Japanese)* 7511
- Ar+water-cooled low-cost ion laser *(Japanese)* 7512
- CO_2 CW laser diffr. couplers, oscill. charact. of cavities 7523
- CO_2 TE laser, high repetition rate, long pulse *(Japanese)* 31199
- CO_2 laser, CW, mirror resonator, super-Gaussian output 2031
- CO_2 laser, diamond turned optics 31145
- CO_2 laser phase-conjug. multidither adaptive opt. syst. *(Japanese)* 7517
- CO_2 slab waveguide lasers , mode and freq. control 39656
- CO_2 slab-geom. lasers, mode and wavelength selectivity 31148
- Er-doped fig.-8 mode locked fiber laser stabilization 7568
- Er-doped glass laser, pass. Q switching of cavity, SBS mirror 7595
- Er-doped tunable fibre lasers, all-opt. relax. oscill. damping 31236
- Er^{3+}-doped fibre amp., polaris. hole burning suppression, unpolarised source 39708
- GaAs/(AlGa)As DBR, reflectivity, disordering 2035
- GaAs/AlAs:C, LV VCSEL, low resist. C-doped mirrors 1946
- GaInAsP/InP strained-layer quantum well lasers, temp. depend. reflectivity mirror 40021
- $Ga_{1-x}In_xAs_yP_{1-y}$/InP VCSEL 14923
- HCN waveguide laser, duplex radiation output, polaris. and energy charact. 39642
- HfO_2-SiO_2 opt. coating defect reduction for increased laser damage thresholds 14571
- I_2 high-power photodissociation laser, high-quality phase conjug. 7521
- InGaAs/GaAs laser-mode-size convertor monolithic integrat., shadow-masked growth 22916
- InGaAs-AlGaAs SQW lasers, cavity length/mirror refl. study 23271
- InGaAs-GaAs folded/VCSEL 31391
- InGaAsP double-fused 1.52-μm vert.-cavity lasers 31379
- InGaAsP monolithic semicond. soliton transmitter 25530
- InGaAsP/GaAs, SCH SQW LD, characts. 39852
- InGaAsP/InP-AlAs/GaAs long-wavelength vert.-cavity lasers, wafer fusion 23303
- Nd,Ce:YAG laser resonator, SBS methane gas phase conjugating mirror *(Chinese)* 14993
- Nd:YAG Q-switched CW pumped laser, math. modeling 1895
- Nd:YAG Q-switched laser Raman conversion, backward SBS 23174
- Nd:YAG double-pass laser amp., NLC phase-conjug. mirror 7600
- Nd:YAG four-pass laser amp., phase conjug. NLC mirror 23160
- Nd:YAG laser, chromatic coupling by multiple LD pumps 31247
- Nd:YAG laser, diffractive-optic graded-phase resonator, modal props. meas. 39740
- Nd:YAG laser, diode-pumped nonlin. mirror mode-locked 1897
- Nd:YAG laser resonator with internal phase gratings, high modal discrim. 14783
- Nd:YAG lasers, graded reflectivity mirrors 31275
- Nd:YAG pass. Q-switched quasicontinuously pumped laser 31274
- Nd:YAG unstable multirod lasers, variable reflectivity mirrors 31267
- Nd:$YAlO_3$ 125 W laser, SBS phase conjugation 31266
- Nd:YLF laser, chromatic coupling by multiple LD pumps 31247
- Nd:glass diffr.-limited laser amp., SBS wavefront correction 23144
- Nd:glass high-power laser, composite aperture/phase-conjug. mirrors 7597
- Nd:glass laser amps. using electro-polished Al reflectors, gain enhancement 1894
- Nd^{3+}:YAG laser, intracavity adaptive opt. syst. 31276
- Nd^{3+}:YAG pulsed laser, design and charact. *(Chinese)* 14802
- Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
- Ti:Al_2O_3, Kerr-lens mode-locked femtosecond lasers, dispersion-compensation 1889
- Ti:sapphire compact multiterawatt ultrashort pulse laser oscillator/amplifer syst. 31285
- Ti:sapphire dual-cavity-type pulsed laser oscillator, self-seeding 39741
- Ti:sapphire laser, tunable, laser pumped, time charact. *(Chinese)* 39723
- Ti:sapphire ring laser with four mirrors, CW freq. stabilisation *(Chinese)* 14801

laser mirrors continued
- Ti:sapphire self-starting soliton modelocked laser, semicond. saturable absorber 23176
- Ti:sapphire sub-10-fs mirror-dispersion-controlled laser 39738
- Ti:sapphire ultrashort pulse lasers, cubic phase compensation 31279
- Tm,Cr,Ho:YAG eye-safe pulsed laser and study of radiation absorpt. by mol. gases and air 14790
- VO_2 mirror for CO_2 laser radiation spatial charact. correction 31460
- XeCl excimer laser act. medium, UV phase-conjug. mirror 14722
- XeCl excimer laser, phase-unifying unstable resonator perform. 39668
- XeCl laser amplifier, SBS phase-conjug. cavity 1853
- XeF(C→A) 170 J excimer laser, electron beam pumped 23098
- ZBLAN fibre laser, rare earth doped, mirror deposition 39712

laser mode locking
- 1 Gbit/s QPSK opt. microwave transmitter, SOA modulator based 9561
- 100-Gbit/s TDM opt. transm., two tunable Er-doped fiber lasers 9490
- act. mode locked LD, soliton-forming pulses in fibre 7789
- act. mode locked semicond. lasers, ps pulse compression, model 31420
- act. mode-locked external-cavity semicond. laser, quasi-periodic route, chaos 31423
- act. mode-locked laser, neg. feedback, stabil. 31474
- act. mode-locked LD array, tunable picosecond pulse generation, chirp compensation 7614
- act. mode-locked LD array in the external cavity, pulse buildup dyn. 23284
- act. mode-locked semicond. laser injection locking 23197
- act. mode-locked telecomms. semicond. lasers, soliton generation 31415
- act. modelocked external cavity LD, ps gain dyn. 1978
- all-opt. clock recovery syst., ring mode-locked laser 39990
- all-opt. clock-recovery cct. using dual mode-locking, 5-Gbit/s 14879
- book, bistabilities and nonlinearities in laser diodes 58
- chirped Bragg gratings for all-fibre fs pulse amplif. cct. 31230
- coherent mode locked TEA CO_2 LADAR for risk reduction and phenomenology expts. 17443
- colliding-pulse mode-locked QW laser dyn. response simul. 23236
- colliding-pulse-modelocked quantum well laser, 15.8 Gbit/s syst. transm. expt. 25502
- continuously operating solid-state lasers, SHG mode locking 7582
- cross phase modulated fiber laser modelocking 1880
- cylindrical Talbot cavity for circ. laser array phase-locked operation 31451
- DBR semicond. LD, ultrafast pulse train generation *(Japanese)* 7625
- dye laser, IR switching/mode-locking *(Chinese)* 14727
- external cavity LD modelocked by optoelec. feedback, stabil. 23275
- externally injected sig. laser cavity eqns. 2025
- FEL oscillator, mode-locked, super-radiant radiation study 40007
- FELIX FEL user facility 14982
- femtosecond CW mode-locked laser, third-order dispersion calc. *(Chinese)* 7713
- femtosecond laser sources, extended tunability 31472
- fiber laser gyroscope, polariz. charact. 17833
- fiber laser/amp. based sens. 34551
- fiber ring lasers, stretched-pulse additive pulse mode-locking 23137
- fibre laser mode-locking by pump pulse induced cross-PM 31233
- fibre lasers appls., rare-earth-doped 23124
- fibre ring laser, opt. mode-locking, cross-PM 23121
- fig. of eight fibre lasers, mode locked by Sagnac interferometer 31455
- free-running IR FEL, submegahertz spectral resoln. 31433
- fs harmonically mode-locked fiber laser, time jitter below 1 ps 23130
- high-repetition-rate electrooptic cavity dumping 30999
- injection-locked directly modulated lasers in multigigabit-per-second std.-fiber transm. 9516
- injection-locked dispersive bistable LD, fast opt. switching 39817
- injection-locked quantum-well laser, RT amplit.-squeezed light 23256
- injection-locked semicond. laser, stable locking range expression *(Chinese)* 7660
- IR semicond. lasers, hybrid mode-locking 31424
- Kerr-lens mode-locked ring lasers, cavity design 31453
- master oscillator power semicond. laser amp., mode-locked operation 31422
- mode-locked solid-state ring laser, second harmonic intracavity generation 1886
- MQW LD mode-locking proc., transient gratings *(Chinese)* 39795
- MQW-semicond. opt. amps., mode-locked ring lasers 31417
- multisegment mode-locked semicond. lasers, timing jitter mechanisms 31419
- mutual injection locking of fibre laser and DFB semicond. laser 14758
- Nd:glass fibre laser, pass. mode-locked, soliton generation at 1.06 μm 30860
- NMR laser with delayed feedback, locking and Arnold tongues 7590
- nonlin. coupler laser, subpicosecond soliton form., num. simul. 2045
- nonlin. mirror, analytic soln. 39720
- opt. fibers, MM wave sig. transm. 9541
- optoelectronic device simul., conf., Los Angeles, CA, USA, Jan., 1994 36838
- optoelectronic PLL freq. stabilise quantum well laser 7656
- organic media holographic pulse shaping 31674
- pass. mode-locked diode laser pulse charact. 39834
- periodically pumped and coupled lasers, phase locking study 31473
- phase-locked LD antiguide arrays , anal. theory 23237
- pulsed solid-state lasers, self-focusing, self-mode locking 31291
- quantum-well laser, wavelength-tunable amplit.-squeezed light 31371
- regenerative picosecond feedback scheme based CW semicond. lasers 31421
- rhodamine 6G regenerative-feedback mode-locked dye laser, acousto-optic mode locker 39686
- ring laser, mode-locked, short-pulse, transverse pattern dyn. 1915
- self-limited additive pulse mode-locking laser models 31249
- self-mode-locked lasers, transverse eigenmode set 23322
- self-seeded Fabry-Perot LD, single-mode form. dyn. 39799
- self-seeded gain-switched Fabry-Perot laser, low jitter single-mode pulse generation 14884
- self-starting fibre ring laser for distributed sens. 17832
- semicond. doped glasses, opt. storage by laser beam written gratings 22789
- semicond. laser, hybrid mode-locking, time-bandwidth product 1962
- semicond. laser, microwave sig. degrad., LF noise up-conversion 39869
- semicond. laser amps., subpicosecond pulse amplif. 39805
- semicond. laser sources, self PM, timing jitter 31418
- semicond. lasers, integrated optoelectronic up/down-converters 23232
- semicond. lasers, static and dyn. props. of dispersive opt. bistability 14949
- semicond. lasers using phase conjug. feedback, phase noise reduction by self-phase locking 2002
- short-pulse mode-locked laser, holographic contouring 2144
- solid-state laser modelocking, birefr. and PM 14811
- solid-state lasers, gain-induced coupling 1916
- WDM chirp reduction LD by injection locking 3557

laser mode locking continued
AlGaInAs vis. diode laser with phase-conjug. feedback, stable mode locking 39833
CO$_2$ phase-locked waveguide laser array *(Chinese)* 14695
Cr:LiSrAlF$_6$ pass. mode-locked laser, antiresonant Fabry-Perot saturable absorber 23142
Cr:LiSrAlF$_6$ self-mode-locked diode-pumped laser 14785
Cr:LiSrAlF$_6$, self-modelocked femtosecond solid-state lasers 14815
Cr:forsterite 100-fs pulse freq. doubling by reson. enhancement cavity 14781
Cr^{4+}:Mg$_2$SiO$_4$ laser cavity, cubic phase distortion minimisation 31288
Cr^{4+}:YAG laser, sync. pumped self-mode-locked, fs pulse generation 31306
Cr^{4+}:YAG self-mode-locked laser, fs pulses near 1.5 μm 14786
CuInSSe-doped glass saturable absorbers for pass. mode-locking of Nd lasers 7726
Er,Yb:glass disc laser mode locking 23146
Er,Yb:glass laser, harmonic modelocking 23177
Er,Yb:glass laser, third-order-harmonic mode locking 14784
Er modelocked fibre laser, 10 nJ ps pulse generation 23112
Er:SiO$_2$ planar waveguide amp. based modelocked ring laser 23132
Er-doped Kerr-type mode locking fiber laser stabilization 7565
Er-doped birefr. fiber amp. polariz. distortion 31216
Er-doped femtosecond mode locked all-fiber ring lasers 31241
Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
Er-doped fiber laser additive pulse limiting 31454
Er-doped fiber laser config., wavelength switching 14735
Er-doped fiber laser mode locked by semicond. saturable absorber 31235
Er-doped fiber laser model, two-wavelength operation 39716
Er-doped fiber lasers, Maxwell-Bloch mode-locking instabilities 23120
Er-doped fibre laser, femtosecond pulse compression 31209
Er-doped fibre laser, mode-locked, stabilisation 23126
Er-doped fibre ring laser, asynchronous soliton mode locking 14740
Er-doped fig.-8 mode locked fiber laser stabilization 7568
Er-doped mode-locked fiber ring laser freq. stabilisation 23119
Er-doped pass. mode-locked fiber laser based on polariz. rot. in MQW waveguide 23123
Er-doped self starting fiber based soliton laser 14761
Er-doped soliton fiber laser based on pulse width control, chirped fiber Bragg gratings 23129
Er^{3+}-doped fibre dispersion-modified act. modelocked laser, chirped fibre grating 7552
Er^{3+}-doped intracavity LD pumped modulated fiber lasers 1879
GaAlAs LD, wavelength locked, bandpass filters, freq. doubling 31593
GaAs-AlGaAs monolithic semicond. ring lasers, pass. mode locking 31416
GaInP/AlGaInP vis. diode lasers, sustained oscills. 23253
He-Ne laser, modes locking, orthogonal ellipt. polaris. 1849
HeNe laser, phase-depend. helical pattern form. 23083
InGaAs/InGaAsP MQW modelocked LD, high spectral tuning range 7634
InGaAsP monolithic semicond. soliton transmitter 7790
InGaAsP monolithic semicond. soliton transmitter 25530
InP/InGaAsP, whispering-gallery-mode microdisk QW lasers 31367
LiTaO$_3$ waveguide SHG of LD radiation 23442
Nd:KGd(WO$_4$)$_2$ laser diode pumping/FM mode locking 23157
Nd:YAG CW self-starting mode locked laser, cascaded second-order nonlin. 39745
Nd:YAG CW slave laser, phase locking by Nd:YAG master oscillator 31278
Nd:YAG act. mode-locked pulsed laser, long ultrashort pulse train generation 14826
Nd:YAG injection-locked solid-state laser, freq. and intens. noise 31245
Nd:YAG lamp-pumped laser, opt.-Kerr-enhanced mode locking 23179
Nd:YAG laser, diode-pumped nonlin. mirror mode-locked 1897
Nd:YAG mode-locked diode end-pumped laser, spatial hole burning effects 23150
Nd:YAG mode-locked laser antiresonant Fabry-Perot saturable semicond. absorbers 31244
Nd:YAG, ultrashort pulsed laser, emission dyn. control 1884
Nd:YLF, additive-pulse mode-locked laser, diode pumped, pulse compression 31298
Nd:YLF all-solid-state self-mode locking laser 23141
Nd:YLF laser, antiresonant Fabry-Perot quantum well modulator 31243
Nd:YLF long. end-diode-pumped regenerative amp. 23168
Nd:glass all-solid-state laser syst. pulses, tunable by down conversion 14779
Nd:glass laser pulse duration meas. 31465
Nd:glass laser pulse shortening by gain reshaping and soliton form. 23153
Nd^{3+}:La$_3$Ga$_5$SiO$_{14}$, broadband luminesc. material, ps laser pulse generation 14805
Nd-doped fs fiber laser, controllable dual-wavelength operation 23131
Pr^{3+}:fluoride fibre laser, opt. modelocked, pulse generation 14763
SiO$_2$-core fibre ring oscillator, Nd laser pumped 14999
Ti,Er:LiNbO$_3$ harmonically mode-locked waveguide laser 39736
Ti:Al$_2$O$_3$, Kerr-lens mode-locked femtosecond lasers, dispersion-compensation 1889
Ti:Al$_2$O$_3$ high av. power chirped pulse amplif. systs. 31284
Ti:Al$_2$O$_3$ laser, flash-lamp-pumped, hybrid mode locking 1918
Ti:Al$_2$O$_3$, self-modelocked femtosecond solid-state lasers 14815
Ti:sapphire CW mode-locked laser, tunable UV light pulse prod. 23148
Ti:sapphire compact multiterawatt ultrashort pulse laser oscillator/amplifer syst. 31285
Ti:sapphire high intens. femtosecond laser syst. *(French)* 1891
Ti:sapphire laser, femtosecond modelocked, FEL sync. 31280
Ti:sapphire laser, low-threshold, self-modelocked 31253
Ti:sapphire laser, self-mode-locked 1920
Ti:sapphire laser, self-starting, femtosecond pulse generation 1890
Ti:sapphire mode-locked laser, dye intracavity saturable absorpt. 23352
Ti:sapphire regenerative amp., tunable 30-fs pulses 39739
Ti:sapphire regenerative amp., tunable femtosecond opt. parametric amp. 2130
Ti:sapphire self mode locked laser ultrashort opt. waveform meas. by FROG 39744
Ti:sapphire self-mode-locked laser *(Chinese)* 14803
Ti:sapphire self-mode-locking laser description by iter. map 39752
Ti:sapphire self-starting soliton modelocked laser, semicond. saturable absorber 23176
Ti:sapphire sub-10-fs mirror-dispersion-controlled laser 39738
Ti:sapphire/DDI ps cw pass. mode-locked laser starting dyn. 23171
Ti^{3+}:Al$_2$O$_3$ mode-locked lasers, fs pulse phase meas. *(Japanese)* 14776
variable delay, dual wavelength psec. pulse generation 14840

laser modes
see also laser mode locking
1 MW 130-260 GHz free electron maser for fusion 39919
980-nm power LD beam instabil., expt. and anal. 15013
1300 nm gain-clamped MQW laser amps., reduced IMD 34006
act. cylindrical waveguides with step-index profiles, transverse modes 30953
asymmetric three-phase-shift DFB LD, design 14921
BH diode lasers, multimode self-consistent model 23283
BOD, LDs coupled, interf. filters 31554
Brillouin opt. fiber gyro ring-resonator, state of polariz. anal. 42822
broad area semicond. lasers, lateral modes theory, review 7643
broad-area semicond. lasers, filamentation and beam propag. 23191
CATV DFB source laser lin. limits 25528
circ. FEL, expt. mode anal. 39914
CO$_2$ laser, opt. distortion effects on focusing charact. *(Japanese)* 7515
coherent laser radar syst. efficiency, semi-analytic approach 3619
complex-coupled DFB semicond. lasers, mode stabil. 14897
Compton FEL oscillators, sideband instabilities, electron dyn. 40009
cylindrical Talbot cavity for circ. laser array phase-locked operation 31451
DBR unstable resonator semicond. laser, 941 nm 23320
DFB laser-electroabsorption modulator integrated light source 39472
DFB lasers, 1.55 μm, grating struct. and mirror posns. rel. to lasing characts. *(Korean)* 31413
DFB lasers, dephased index and gain coupling 23194
DFB LD with distributed coupling coeff., spectral charact. 23278
DFB MQW laser, carrier and radiation confine. 14931
DFB semicond. laser threshold condition, local normal modes 14914
DFB-LD with side-mode light injection, bistability and waveform reshaping 23250
diffr.-coupled lasers, collective mode phase profile control 15005
diode laser, opt. injected, reverse bifurcations and dyn. modif. 31340
diode laser side-pumped rod lasers, materials proc. appls. *(German)* 7585
dye laser, flashlamp pumped, single-mode operation 23108
dye laser models, single-mode, steady-state anal. 31206
dye-doped polystyrene microsphere laser emission, reson. modes 31207
electrostatic-accelerator FELs for power beaming 39925
external cavity LD, freq.-shifted feedback 39828
external SBS mirror, mode size increase study 39997
Fabry-Perot DFB lasers, mode nonorthogonality study 23342
Fabry-Perot laser/fibre grating, pulse compression/mode selection 23225
Fabry-Perot lasers, 1.3 μm, spectral perturb./mode suppress. 23233
Fabry-Perot lasers, loss-modulated two-mode, antiphase dyn. 1887
Fabry-Perot LD modeling 31321
Fabry-Perot wavelength-tunable picosecond LD pulse source 34090
FEL, collective regime, 3D coupled-mode theory 39928
FEL, Israeli tandem electrostatic project, resonator design and characterisation 39949
FEL, single-mode generation, stabil. loss 39955
FEL amp., high-gain Compton regime, strong coupling operation 39912
FEL at UVSOR, micro-macro temporal struct. and saturation mechanism 39956
FEL expt., ang. steering 2022
FEL external cavity syst., pulse stacking 39948
FEL hole-coupled reson. cavity, gain maximization 39947
FELIX hole-coupled resonators, radial mode struct. influence on losses 39945
FOM 1 MW 200 GHz free electron maser mode purity, plasma heating appls. 39924
free electron masers, long. modes, fusion appls. 39625
gain guided waveguide semicond. laser model 1994
gain-coupled MQW DFB lasers, 1.55 μm, Ti surface Bragg grating 23274
gain-switched Fabry-Perot LD, spectral behaviour 14932
gas lasers, planar, cavity config., output radiation divergence 23335
Gaussian mode forming phase opt. elements, iter. algm. 7447
graded opt. elements in solid state laser resonators 14998
hybrid laser, high-power, narrow-linewidth, stable single-mode 7674
index-guided laser arrays, supermode discrim. *(Korean)* 14862
inhomog. broadened dense media, laser instabilities and chaos 23337
injection laser neural network, long. modes, neurons 29453
injection-locked dispersive bistable LD, fast opt. switching 39817
intracavity opt. delay line lasers 31445
IR coherence-collapsed multimode LD for fiber-optic gyroscope 40176
large-area multiple-transverse-mode VCSELs in multimode-opt.-fiber links, modal and intens. noise 9595
laterally-coupled DFB laser, EBL/CAIBE fab. 31410
LD, reson. opt. waveguide MOPA 39846
LD, single mode single stripe, spatial filtered 39841
LD, vis., CW power, monolithic arrays 7607
Mark III FEL, hole coupling expts. 39946
microcavity SEL, spectral linewidth 7703
microcavity semicond. lasers, nonequilibrium carrier dyn. 31338
microcavity semicond. lasers, nonequilibrium many-body theory and mode confine. effects 23205
microchip solid-state lasers, transverse effects 14883
micrometer/nanometer displacement and refractivity meas. by laser beam 4000
microwave FEL, groove guide interact. struct. 39621
MM-wave source, dual-mode DFB semicond. laser 23486
monolithic ring lasers for low-noise opt. sig. distrib. 7498
MQW gain-coupled DFB lasers, wide temp.-range singlemode operation 1938
MQW struct., free carrier effect on refr. index change 14956
MQW VSCEL, gain-guided, transverse mode num. anal. 31469
multi-stripe and broad-area semicond. lasers, spatio-temporal complexity 7640
multielectrode DFB laser self-pulsation charactn. 31327
multijunction single-mode laser cavity, photon-no. amplif. 23324
multilobe mirror laser cavity light ray coherence control 31444
multimode VCSEL, noise perform. 1984
multistable single-mode emitting solid-state lasers 14807
nondispersive waveguide cyclotron reson. maser expt. 39623
normally dispersive fibers, single-mode laser pulses propag. 1696
opt. microresonators, threshold lasing characts. 2026
packaging relax. semicond. lasers, dil. waveguide struct. 14930
phase-locked LD antiguide arrays , anal. theory 23237
phase-modulated fiber laser, spectral stabil. and smoothness 25991
planar laser microcavity modes, self-consistent calc. 39993
pseudo external cavity tunable diode laser 39773
quantum well lasers, 2D self-consistent simul. 39790
radially varying gain lasers, geom. threshold zones and Gaussian modes 2027

laser modes continued
rapid prototyping, laser optics, theoretical anal. *(Japanese)* 7869
rare earth doped fiber laser review *(Japanese)* 1876
ring resonators with Doppler-broadened act. medium, natural oscill. calcs. 31452
saturable absorber laser, transverse pattern dyn. 7751
self-seeded Fabry-Perot LD, single-mode form. dyn. 39799
self-seeded gain-switched LD, elec. wavelength-tunable singlemode pulses 31326
semicond. laser noise, Volterra functional series expansion 2003
semicond. laser second-order/third-order nonlin. harmonic/IMD *(Korean)* 14901
semicond. lasers, electron-beam pumped, operating and threshold charact. 23227
semicond. lasers, multimode rate eqns. 39820
semiconds., pump depletion, coherent energy transfer 23414
short bunch RF-linac FEL, output power fluct. 3D simul. 39973
single mode dye laser freq. stabilization, forward scatt. 7536
single mode LD, decay time of time-depend. transient stochastic dyn. 31331
single mode semicond. lasers, opt. injection/feedback 39824
single-long.-mode laser, space-time behaviour 7704
single-mode antiresonant reflecting opt. waveguide diode lasers, above-threshold behavior 14908
single-mode diode lasers, feedback, external light injection, switch-on time, timing jitter 31397
single-mode laser, intracavity adaptive mirror output charact. 31448
single-mode semicond. lasers, feedback, current modulation, transient dyn. 31468
single-transverse-mode semicond. laser, diffr.-limited super-Gaussian output 39757
singlemode 1.3 μm Fabry-Perot lasers by mode suppression 39872
soft-X-ray laser prod., plasma waveguides 39678
solid state laser modulator loss anal. 15006
solid-state chip laser, cavity mode/inversion profile correl. 23161
solid-state ring lasers, self-modulation/relax. oscills. 7579
solid-state single-mode laser, loop SBS mirror 31290
spiral phaseplate prod. helical-wavefront laser beams 2043
SQW native-oxide defined vert.-cavity lasers, mode stabil. 1967
three-branch widely tunable semicond. laser design for WDM links 14915
three-electrode excimer laser, middle control electrode 39672
three-sect. DBR lasers, fast wavelength switching 25479
two freq. gas laser, phase anisotropic mirror resonator 7700
two-mode semicond. laser dyn., carrier diffusion effects 31394
two-sect. DBR laser freq. and power control by dual act.-/Bragg-sect. tuning 9503
unstable resonator semicond. laser, quantum confine. and strain effects 23211
VCSEL, 2D diffusion eqn. 23208
VCSEL, Gaussian-beam-induced vortices 23321
VCSEL, opt. switching and logic gates 15048
VCSEL, PLA 7611
VCSEL, spectrally/temporally resolved emission 31450
VCSEL, transverse modes, vortices 7639
VCSEL diode under DC excitation, chaotic dyn. of mode competition 1999
VCSEL diodes, transverse mode competition dyn. 31356
VCSEL semicond. laser, stable states 2007
VCSELs, 3D microcavities, spontaneous emission factor *(Japanese)* 23289
VCSELs, multiple transverse mode, high speed data commun. 39806
vert. cavity SEL array spectra, transverse anisotropy effect 1936
vert. cavity SELs, 50% power conversion efficiency 23215
vert.-cavity surface-emitting semicond. lasers, elec. pumped, transverse modes 7641
vinyl fluoride, far-IR opt. pumped laser lines, freq. determ. 23333
wedge prism freq.-tuning mechanism in single-mode tunable laser 23330
X-ray FEL, electron beam source, klystron undulator simul. 39905
AlAs based microcavity laser, mode behaviour, lasing charact. 39776
AlGaAs VCSEL, low-temp. operation 14962
AlGaAs, single mode LD, long duration life tests 39850
Al$_x$Ga$_{1-x}$As depressed cladding semicond. waveguides and lasers, modal props. 14468
AlGaAs/AlAs-TiO$_2$/SiO$_2$ hybrid DBR VCSEL 31342
AlGaAs/GaAs quantum well DBR laser, femtosecond upconversion, time-resolved study 31374
AlGaInP QW 630-nm LD's, strain-induced polariz. mode 23220
AlGaInP dry-etched 650 nm vis.-light LD 1986
AlGaInP dual-polariz. SQW LD struct. 14951
AlGaInP vis. light LD, 650 nm, dry-etched mesa stripe 39867
AlInAs/GaInAs, quantum cascade laser, mid-IR source 14892
Ar+ ion multimode lasers, polariz./intens. correl. 1851
As-S chalcogenide glass single-mode active fibre waveguide 39706
β-BaB$_2$O$_4$ opt. parametric oscillator, spectrosc. light source 31573
CO high-power lasers, materials proc. appls. 31154
CO$_2$ CW amp., transverse pumping, 3D modelling 14699
CO$_2$ CW laser, Gauss-core resonator, diffr.-limited output beam 39641
CO$_2$ TEA laser dyn., freq. stabilisation, chaos 23087
CO$_2$ high-power lasers at 12 kW, beam quality 31156
CO$_2$ indust. fast-flow laser, IR luminesc. diagnostics 23086
CO$_2$ injection-seeded supra-atmos. laser operated below emission threshold by ring cavity 39655
CO$_2$ laser, CW, mirror resonator, super-Gaussian output 2031
CO$_2$ laser, beam delivery, hollow core waveguides 23077
CO$_2$ laser, compact gap, hybrid unstable-waveguide cavity 7509
CO$_2$ laser, injection locking, freq. stabilisation, line narrowing 1865
CO$_2$ laser, low order mode interact. 31200
CO$_2$ laser, microwave excited, cylindrical reson. cavity 1864
CO$_2$ laser, small-amplit. pumping modulation, operation dyn. 39648
CO$_2$ mol., chaotic laser oscill. in seq. band 23097
CO$_2$ multimode laser with a saturable absorber, multistability 7518
CO$_2$ phase-locked waveguide laser array *(Chinese)* 14695
CO$_2$ single mode class-B laser phase dyn. 31169
CO$_2$ slab waveguide lasers , mode and freq. control 39656
CO$_2$ slab-geom. lasers, mode and wavelength selectivity 31148
CO$_2$ subnanosecond multi-gigawatt laser 23099
CO$_2$ tunable laser for opt. free induction decay syst. 39661
CdS waveguide cavity microlaser, losses, spectrum crevasse appearance 39862
Cr,Nd:YAG laser, self-Q-switched, transverse mode dyn. 23147
Cr,Nd:YAG monolithic self-Q-switched laser, picosecond pulse generation 31248
Cr:LiSrAlF diode-pumped single-freq. coupled-cavity microchip laser 14814

laser modes continued
D$_2$O laser, opt. pumped, computer simul., longit. mode 1867
Er doped fiber ring laser, mode stabil. 15002
Er doped fibre amp., single-mode, kilowatt pulses 14748
Er^{3+} doped fiber laser, self pulsing chaos, antiphase dynamics 39715
Er:YAG oscillator-amp. laser syst. 14813
Er^{3+}:YAlO$_3$ upconversion laser, Q-switched 14821
Er^{3+}:ZBLAN fiber laser, 2.7 μm output saturation 39701
Er^{3+}:ZBLAN singlemode fibre lasers, 2.71 μm output power limits 23113
Er-doped fiber laser model, two-wavelength operation 39716
Er-doped fiber-ring laser, mode instabil. suppression 39697
Er-doped mode-locked fiber ring laser freq. stabilisation 23119
Er-doped single-mode fiber lasers, all-fiber subresonator 7571
Er-doped twin-peak core fiber amp., polariz. 14750
Er^{3+}-doped fiber laser ASE green light 1878
Er^{3+}-doped unidirectional fiber ring laser without isolator 31214
GaAlAs LD forced TM-mode operation by annealed proton-exchanged waveguides 23257
GaAs QW lasers, thermally controlled lateral beam shift and beam steering 14968
GaAs quantum-well laser below-threshold near-field profile broadening, photon recycling 31390
GaAs/AlGaAs LD, surface mode coupling, single laser mode emission 14916
GaAs/AlGaAs, quantum-well heterolasers, spectral charact. 23228
GaAs/InGaAs/AlGaAs strained quantum well lasers, MBE, max. output power 39794
GaAs-Al$_x$Ga$_{1-x}$As quantum well lasers, bistable power switching 39863
GaAs-AlAs MBE grown vert. Fabry-Perot laser cavities, periodic mode shift 31443
GaAs-AlGaAs LD with opt. feedback, line narrowing and modulation bandwidth 1981
GaAs-AlGaAs QW DFB VCSEL, temp. depend. of transverse mode evol. 7669
GaInAs/GaAs micro-arc ring semicond. laser, design 39866
GaInAs/GaAs quantum wire laser, gain coupling, RIE 31385
GaInAs/GaAs/GaInP single QW lasers, low threshold current 14874
GaInAsP/InP SL-QW lasers with narrow and circ. output beam, charact., 1.3 μm 31407
GaInAsP-InP continuously tunable LD, mode hopping *(French)* 1924
GaInP strained quantum-well lasers; gain, refr. index, linewidth enhancement 31393
GaInP/AlGaInP DFB QW lasers, fab., room temp. operation 23273
GaInP/AlGaInP DH laser, 570-590 nm 200K operation 31341
GaInP-AlGaInP quantum wire lasers, MBE grown 31317
p-Ge, intervalenceband pulse FIR laser, mode fine struct. 14891
He-Ne laser, axial modes, UHF beat prod. 31198
He-Ne two-mode laser with internal sig. injection, radiation intens. 23095
InGaAs vert.-cavity quantum well lasers, cavity tuning effects on transverse mode 31316
InGaAs/GaAs SQW RW lasers, mode coupling/antiguiding 1973
InGaAs/GaAs, quantum-well heterolasers, spectral charact. 23228
InGaAs/InGaAlAs gain coupled DFB lasers, masked implant. enhanced intermixing 14887
InGaAs/InGaAsP microdisk lasers, fab., resonator modes, losses 7702
InGaAs-AlGaAs QW laser, lateral mode anal. 23213
InGaAs-GaAs strained layer single QW ring laser, reactive ion-etched tetragonal cavity 23192
InGaAs-GaAs-AlGaAs laterally-coupled DFB ridge LD, CW perform. 31318
InGaAs-InAlAs quantum-well lasers, TE-TM mode switching *(Japanese)* 31329
InGaAs-InGaAsP-InP 1.95-μm strained DFB SQW lasers 14855
InGaAsP DFB single-mode LD, small sig. cct. model 39821
InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
InGaAsP QW TM mode emitting tensile strained LD 7629
InGaAsP/AlAs/GaAs double-fused vert.-cavity lasers, transverse-mode/polaris. characts. 39874
InGaAsP/GaAs, high power BH lasers, mode comp. control 39843
InGaAsP/InP DFB lasers, wavelength and polaris. switching 31349
InGaAsP/InP PBH-DFB-LD for 2.5 Gbps opt. fiber commun., fab./characts., 1.55 μm *(Korean)* 39769
InGaAsP/InP diode lasers with ridge struct., HF polariz. switching 42434
InGaAsP/InP strained MQW laser, integrated mode size converter 31383
InGaAsP-InGaAsP tensile-strained quantum well polariz.-insensitive opt. amps. 31414
InGaAsP-InP DFB lasers, long. mode hole burning 1997
InGaAsP-InP MQW-DFB lasers, multiple phase-shifts, spectral charact. 39764
InGaAsP-InP multi-λ ridge waveguide gain-coupled DFB laser array 23277
InGaP/GaAs heterostruct. lasers, MOCVD, 0.98 μm 7606
InP/InGaAsP, whispering-gallery-mode microdisk QW lasers 31367
InP-based MQW lasers, integrated tapered beam expander waveguide 14854
InPAsSb long wavelength laser for high resolution spectroscopy 14876
LiNd(PO$_3$)$_4$ laser, intracavity SHG, homoclinic chaos 31255
LiNd(PO$_3$)$_4$ multimode laser, antiphase dyn., Shil'nikov chaos 14812
Nd,Ce:YAG laser resonator, SBS methane gas phase conjugating mirror *(Chinese)* 14993
Nd doped fiber laser, long./side-pumped, silicone coating 31228
Nd^{3+} doped silica based fiber laser, Bragg grating 39713
Nd:MgO:LiNbO$_3$ self-freq.-doubled laser, diode pumped 23390
Nd:YAG 1.4kW slab laser, diffusive closed-coupled pump cavity 23181
Nd:YAG TEM$_{00}$ diode-laser-pumped Q-switched laser 31302
Nd:YAG TEM$_{00}$-mode diode-laser-pumped CW miniature-slab laser 31300
Nd:YAG birefr. microchip laser used in heterodyne vibrometry 23481
Nd:YAG cw ring laser, intracavity freq. doubling by KTP cryst. 39726
Nd:YAG diode-pumped laser single-mode operation by pump-beam focusing 14820
Nd:YAG laser cavity decay rate and relax. oscill. freq. 23166
Nd:YAG laser, diffractive-optic graded-phase resonator, modal props. meas. 39740
Nd:YAG laser, diode-pumped, Q-switching study 31299
Nd:YAG laser resonator with internal phase gratings, high modal discrim. 14783
Nd:YAG pass. Q switched laser, double pulse operation 31305
Nd:YAG pass. Q-switched transverse-diode-pumped laser oscillator *(Chinese)* 14797
Nd:YAG tunable laser, diode end-pumped 7578
Nd:YVO$_4$ all-solid-state intracavity freq. doubled laser *(Chinese)* 7602
Nd:YVO$_4$ laser, diode laser end pumped *(Chinese)* 7603

- **laser modes** continued
  - Nd:YVO$_4$ miniature microchip laser modes *(Japanese)* 14823
  - Nd^{3+}:YAG laser, intracavity adaptive opt. syst. 31276
  - Nd^{3+}:YAG lasers in commun. and range finding systs. 7875
  - Nd-doped fiber laser, CW/self-pulsing regimes, stabilis. 39714
  - Nd-doped fibre lasers, polaris. related phenom. 14766
  - Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
  - Nd^{3+}-doped fibre laser, coherent coupling, Y-jn. 39707
  - SiO$_2$-core fibre ring oscillator, Nd laser pumped 14999
  - Ti:sapphire chirped-pulse amplif. beyond 1 μm 23178
  - Ti:sapphire compact tunable laser design 23180
  - Ti:sapphire flashlamp pumped laser, two-wavelength pulsed operation 31242
  - Ti:sapphire laser syst., single long. mode Littman config. *(Chinese)* 14798
  - Tm:ZBLAN upconversion-pumped fiber laser, 810 nm telecomms. window 7572
  - U isotope separating dye laser wavelength control syst. *(Japanese)* 7872
  - XeCl discharge laser, mag.-spiker elec. ccts. 31152
  - XeF(C-A) long-pulse e-beam excited excited laser, single-freq. operation 14708
  - ZnSe-based blue-green ternary/quaternary lasers, pseudomorphic waveguides 23297
- **laser noise**
  - 1.55 μm DFB lasers with strained-layer MQW act. grating, transfer-matrix dyn. model 1993
  - act. mode locked semicond. lasers, ps pulse compression, model 31420
  - act. mode-locked external-cavity semicond. laser, quasi-periodic route, chaos 31423
  - Bragg grating fibre laser, compressive stress tuning 14742
  - cascaded fiber amp. syst. gain filtering 7575
  - cascaded hybrid silica and fluoride-fibre-based amps., perform. 31239
  - DFB QW semicond. laser amplit. squeezing 1965
  - diode laser, opt. and elec. noise spectrum 14970
  - diode laser freq. tunable light generation/freq. conversion 23286
  - diode lasers, LF light flucts. meas. tech. 1923
  - diode lasers, noise mechanisms 1921
  - diode lasers, spontaneous emission, nonlin. opt. coupling and noise 31370
  - DPSK opt. heterodyne receiver, combat laser phase noise 42372
  - dye laser models, single-mode, steady-state anal. 31206
  - dye laser transients, unified colored noise approx. 1869
  - Er-doped fibre amp., polaris. hole burning, time dyn. 14755
  - Fabry-Perot DFB lasers, mode nonorthogonality study 23342
  - feedback laser resonator, quantum nondemolition tracking 23325
  - fibre ring laser, simul., split-step Fourier method 39694
  - free-running IR FEL, submegahertz spectral resoln. 31433
  - gain guided waveguide semicond. laser model 1994
  - heterodyne PPM, convolutional coding 9474
  - hybrid analogue/digital opt. transm. systs., clipping induced errors 34096
  - in-line fiber amp. systs., noise evol., nonlin. refr. index 14751
  - large-area multiple-transverse-mode VCSELs in multimode-opt.-fiber links, modal and intens. noise 9595
  - LD, error-rate floors in intens.-modulated lightwave systs. 14877
  - LD opt. noise meas., reliab. estim. 23287
  - linecoded opt. heterodyne FSK systs., nonuniform laser FM response 42457
  - micromaser intracavity field, random/regular act. atom injection, quantum states 1842
  - modelocked semicond. laser, microwave sig. degrad., LF noise up-conversion 39869
  - monolithic quantum-well lasers, inhomog. biased, MM freq. reson. modulation 31324
  - MQW polarisation insensitive 1300 nm laser amplifiers 14870
  - multifrequency waveguide grating MQW laser fab. by selective area epitaxy 7627
  - multijunction single-mode laser cavity, photon-no. amplif. 23324
  - multimode VCSEL, noise perform. 1984
  - noisy phase lightwave systs., power moment derivation 25478
  - opt. heterodyne binary-DPSK systs., anal./perform. 42346
  - opt. PLL, amplit. modulated commun. link 42347
  - opt. pulse train noise, spectral meas. interp. 2041
  - phase-modulated fiber laser, spectral stabil. and smoothness 25991
  - piezoceramic plate bending motion meas. by homodyne holographic interferometry 40153
  - pulsed coherent Doppler lidar with opt. amp., heterodyne detect. 3622
  - quantum-well laser, wavelength-tunable amplit.-squeezed light 31371
  - rare earth doped opt.-fiber preamplifiers for ladar detect., SNR 9653
  - recirculating accelerator FEL syst., energy-current loss instabilities 39985
  - reliab./quality diagnostic tool for electronic devices 1315
  - saturated absorpt. spectrosc., diode-laser phase noise 2084
  - scanning imaging systs., modulation waveform effects on S/N ratio 40172
  - SEL for multimode data link appls. 23280
  - semicond. laser; linewidth, linewidth enhancement factor α, FM and AM response meas. 39878
  - semicond. laser, AM/FM noise from coherent feedback 14864
  - semicond. laser amp. based switching struct., gain saturation effects on size limitations 23251
  - semicond. laser noise, Volterra functional series expansion 2003
  - semicond. laser oscillator in 780 nm range 7672
  - semicond. lasers, squeezing bandwidth, Coulomb blockade effects 31373
  - semicond. lasers using phase conjug. feedback, phase noise reduction by self-phase locking 2002
  - semicond. LDs, elec. and opt. photocurrent noises correl. 1922
  - semicond. opt. amp. switch gain optim. 39879
  - single-mode diode lasers, feedback, external light injection, switch-on time, timing jitter 31397
  - solid-state ring laser, self-modulated, relax. oscills. 14780
  - travelling wave semicond. laser amp. detector noise charact. 31346
  - tunable four-sect. DBR LD, lasing charact. modelling 14845
  - ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
  - UV/X-ray FELs, single-pass, milestone expts. 39901
  - VCSEL diode under DC excitation, chaotic dyn. of mode competition 1999
  - vert.-cavity semicond. laser amps., perform. predictions 1998
  - X-ray FEL, perform. charact., param. sensitivities 39903
  - CO$_2$ injection-seeded supra-atmos. laser operated below emission threshold by ring cavity 39655
  - Er doped fibre amp., grating pump reflectors, gain 14749
  - Er^{3+}:Yb^{3+}-doped low-noise grating-feedback fiber laser 7567
  - Er-doped 980-nm single-pump recycled fibre amplifer optim. 31226
  - Er-doped fiber MOPA, act. noise reduction 7563
  - Er-doped fiber amp. AM CATV syst. RIN noise 9576
- **laser noise** continued
  - Er-doped fiber amp. cascade, WDM syst. perform. optimisation 42416
  - Er-doped fiber amp., dyn. gain compensation for multiwavelength transm. systs. 9598
  - Er-doped fiber amplifer, counterpumped first stage suitable for long-haul soliton systs. 9567
  - Er-doped fiber amps., Rayleigh scatt. effects 23133
  - Er-doped fiber amps., optimized noise perform. for AM-VSB distrib. systs. 7555
  - Er-doped fiber amps./opt. isolator 23134
  - Er-doped fibre amp. noise characterizes high-speed photoreceivers 15191
  - Er-doped fibre amps., ASE effect on gain 7557
  - Er-doped fibre laser, mode-locked, stabilisation 23126
  - Er-doped opt. fiber amplifer coherent AM analog opt. links 17213
  - Er-doped refl. insensitive fiber amp., isolator insertion 31215
  - Er-doped single-mode fiber lasers, all-fiber subresonator 7571
  - Er-doped twin-peak core fiber amp., polariz. 14750
  - Er-doped upconversion-pumped fiber amp. noise fig., theory 1881
  - Er-doped waveguide amps., short-length, conc. effects 14747
  - GaAlAs injection LD, freq. flucts. 23301
  - GaInAsP/InP surface emitting lasers, materials, performance and appls. 14868
  - GaInP$_2$ ordered VCSELs, polaris. selectivity 31387
  - He-Cd$^+$ pos. column type UV 325 nm lasers *(Japanese)* 14683
  - InGaAs/InAlGaAs QW DFB laser facet influence on wavelength tunability and linewidth-chirp 39860
  - InGaAs-GaAs proton-implanted vert. cavity LD, emission charact. 7650
  - InGaAsP DFB single-mode LD, small sig. cct. model 39821
  - InGaAsP/InP MQW laser gain-lever effect 23279
  - InGaAsP-InP 1.3 μm BH laser modules in fibre link 17254
  - InGaAsP-InP DFB lasers, long. mode hole burning 1997
  - Nd:YAG diode-pumped nonplanar ring laser, intens. noise suppression 15004
  - Nd:YAG injection-locked solid-state laser, freq. and intens. noise 31245
  - Nd:YAG pass. Q switched laser, double pulse operation 31305
  - Pr^{3+}-doped fluoride fiber amp., LD pumped, gain characts. 1875
  - TeO$_2$ long time aperture acousto-optic delay line, design and charactn. 31021
  - XeCl tunable laser syst., Pb vap. SRS cell 14721
- **laser phase locking** *see laser mode locking*
- **laser phototherapy** *see laser applications in medicine; radiation therapy*
- **laser power measurement** *see laser variables measurement; power measurement*
- **laser printers**
  - digital halftoning, printer models and error diffusion 16313
  - Optra Series laser printer, brushless DC/stepper motor-based 44258
  - polygon mirror scanner motors, fluid bearings *(Japanese)* 10932
  - refl. holographic screen, stereographic displays 31676
  - xerographic laser printer, vibr.-induced halftone banding 41196
- **laser pulse variables measurement** *see laser beams; laser variables measurement*
- **laser Q-switching** *see Q-switching*
- **laser radar** *see optical radar*
- **laser ranging**
  - *see also optical radar*
  - 3-D laser radar range image, terrain description and obstacle detect. 17441
  - 3D image meas. of moving objs., laser rangefinding 3627
  - 3D shape reconstruction by act. rangefinder 3888
  - acquisition, tracking and pointing, conf., Orlando (1993) 36889
  - active infrared sensors for robotics 25838
  - adaptive multifrequency modulation method for laser range finder 17436
  - airborne laser scanner meas., filtering and calib. 43484
  - aircraft landing tracking, multisensor integrat. 41115
  - automated self-calib. act.-laser-triangulation 3D surface-measuring syst. 2159
  - automatic calib. of laser range cameras, arbitrary planar surfaces 17437
  - BIRIS range sensor, for mobile robot 25586
  - breadboard laser rangefinder, error sources 2156
  - chirped laser radar, optoelectronic chirp generation and sig. demodulation 17444
  - chirped laser radar, optoelectronic sig. demodulation 17448
  - complex objs., multi-sens. fusion, model-based recogn. 41104
  - contactless obj. posn. and shape meas. *(Japanese)* 18098
  - distant objs., focused-image holographic recording 31687
  - earthquake prediction, VLBI/satellite laser ranging 43477
  - eyesafe laser rangefinders, atmos. extinction estimating 7879
  - FMCW-LIDAR, tunable twin-guide LD 17449
  - high accuracy laser rangefinders for indust. appls. 15202
  - human body surface, colour 3D electronic imaging 34566
  - Hunter Unmanned Aerial Vehicle, near-term targeting tool 4434
  - image reconstruction, reflective tomography 17435
  - industrial appls. of laser radar, conf., San Diego, USA (1994) 5439
  - large-depth obj. 3D reconstruction, Ronchi grating Fresnel diffr. 32982
  - mission effectiveness enchancement through electro-optical systems 43570
  - mobile robot location, laser-range/predicted image matching 34688
  - mobile robot navig. laser range image acquisition 31692
  - mobile robots, neural archits. for environ. rebuilding 34413
  - opt. fibres in pulsed TOF laser rangefinder 22853
  - pass. ranging, image expansion 26549
  - PERCEPTRON LASAR System for 3-D robot guidance 17455
  - pulsed IR dist. meas. sens. ccts. for weapon systs., ASIC implement. 10587
  - pulsed TOF laser radar, CMOS ASIC struct. 34165
  - range images partitioning, curvature and scale 16402
  - reflective tomography for space obj. imaging, short-pulse-length laser 17434
  - robot skills development using a laser range finder 25585
  - satellite laser ranging time transfer 3714
  - satellite orbit determ., ocean surface slant range 18687
  - satellite signatures on multiphoton laser ranging 3630
  - surface inspection by opt. triangulation 18069
  - time interval meas. chip 10039
  - Tokyo metropolitan area, crustal deform. obs. from space *(Japanese)* 18804
  - underwater imaging systs. based on laser range gate 18906
  - underwater robotics, opt./acoustic range sens. 8620
  - vehicle-to-vehicle commun. ranging, SS radar 42244
  - visualization of multidimensional shape and texture 32975
  - Nd:YAG/CO$_2$ laser three-color opt. range finding 7863
  - Nd^{3+}:YAG lasers in commun. and range finding systs. 7875
  - Si range finder, realtime range finding VLSI sens. 34568

laser reliability
semicond. laser reliab. and failure anal. 39816
SW high reliab. LD for opt. data links 42430
VCSEL arrays, MBE, reliab., systs. appl. 39779
VCSEL arrays, mfg. 39784
AlGaInAs coaxial laser module, 1.3 μm for local-loop appls. 7681
AlGaInP LD, ageing simul., reliab. 7608
AlGaInP red-emitting LD grown by solid source MBE *(Japanese)* 39880
AlGaInP vis. semicond. lasers, catastrophic opt. damage *(Japanese)* 31412
AlGaInP/GaInP two-beam lasers with low thermal interf., 680 nm band, high power 23306
GaAs-AlGaAs 0.85-μm VCSELs, reliab. studies 7677
InGaAsP/InP MQW planar buried hetero-struct. lasers, MOVPE 23242
InGaP/GaAs multilayer reflector, MOCVD grown, VCSEL appl. 39865

laser scanners *see optical scanners*

laser stability
see also laser frequency stability
1.4-kJ solid-state power laser disc oscillator, good beam quality 23145
70 terabit.km/sec soliton transm., packaged hybrid soliton pulse source 17351
980-nm power LD beam instabil., expt. and anal. 15013
act. mode-locked laser, neg. feedback, stabil. 31474
analog DFB laser modules, second-order IMD 7680
Brillouin fiber amp., spectral gain hole burning and modulation instabil. 23122
broad act. area diode laser, lateral field instabil. and six-wave mixing 7652
broad-area semicond. lasers, filamentation and beam propag. 23191
complex-coupled DFB semicond. lasers, mode stabil. 14897
Compton FEL, efficiency/gain enhancement 31435
Compton FEL oscillators, sideband instabilities, electron dyn. 40009
Cu vapour laser, unstable resonators, time-resolved beam divergence 23090
DFB lasers, long. spatial hole burning complete elimination 7679
DFB LD above-threshold stabil. determ. 39875
DFB LD with distributed coupling coeff., spectral charact. 23278
double-stream cyclotron masers, 2D nonlin. theory 23069
EM pumped FEL, space charge and axial-guide mag. fields effects on gain 14984
extended thermal lens resonator cavity fund. mode calc. 14995
external cavity LD modelocked by optoelec. feedback, stabil. 23275
feedback laser resonator, quantum nondemolition tracking 23325
FEL, single-mode generation, stabil. loss 39955
FEL centre user diagnostics and control 40016
FEL interact. optim. via electron bunch trapping 39983
fs harmonically mode-locked fiber laser, time jitter below 1 ps 23130
gain-coupled MQW DFB lasers, 1.55 μm, Ti surface Bragg grating 23274
gas lasers, planar, cavity config., output radiation divergence 23335
heptamethine thiapyrylium IR tunable laser dyes of superior photostability tunable 14723
heterodyne opt. interferometry, LD power change effects 42965
high power FEL electron output scheme, time-depend. multi-dimens. simul. 39922
index-guided laser arrays, supermode discrim. *(Korean)* 14862
inhomog. broadened dense media, laser instabilities and chaos 23337
IR FEL, sideband generation, transit. to chaos, time-resolved study 40011
LD, freq. doubling, domain-inverted waveguide 31382
MKIII FEL, short pulse guiding effects 40014
MQW VSCEL, gain-guided, transverse mode num. anal. 31469
multistable single-mode emitting solid-state lasers 14807
optoelectronic device simul., conf., Los Angeles, CA, USA, Jan., 1994 36838
periodic laser resonator thermal stabil. *(Chinese)* 2024
perylene-/pyrromethene-doped xerogel pulsed laser 39684
phase-modulated fiber laser, spectral stabil. and smoothness 25991
phase-shifted DFB laser stabil. against hole burning 1996
radially varying gain lasers, geom. threshold zones and Gaussian modes 2027
Raman FEL, spectrum spatial evol. 40010
recirculating accelerator FEL syst., energy-current loss instabilities 39985
self-limited additive pulse mode-locking laser models 31249
self-mode-locked lasers, transverse eigenmode set 23322
self-seeded Fabry-Perot LD, single-mode form. dyn. 39799
semicond. laser amp. laser beam stabil. 23212
semicond. lasers with unstable resonators, simul. 23210
solid-state high power laser beam characterisation 31470
storage ring FEL, radiation power stabilisation 7687
submillimeter range EM oscills. in p-n jn., laser gen. mechanism 39793
submillimeter wavelength high-precision ellipsometric reflectometer, refr. index meas. 34711
Super-ACO free electron UV laser, stabil., long. feedback 39958
twin-sect. LD instabil., all-opt. sync. 7667
two-level unidirectional ring laser, travelling waves, class-B limit 2028
unstable resonator semicond. laser, quantum confine. and strain effects 23211
vert. cavity SELs, pitchfork bifurcation pol. bistabil. 14948
wide aperture semicond. lasers and amps., nonlin. dyn. modelling 23209
X-ray FEL, high-brightness RF photocathode guns 39897
AlGaInAs vis. diode laser with phase-conjug. feedback, stable mode locking 39833
CO$_2$, high-power lasers, RF gas discharge scalability 31147
CO$_2$ laser, low order mode interact. 31200
CO$_2$ laser with saturable absorber, nonlin. dyn. 23078
CO$_2$ lasers, freq. and power stabilised, review 23089
CO$_2$ single mode class-B laser phase dyn. 31169
CO$_2$ transverse flow laser cavity 7527
CO$_2$ unstable laser cavity design, compact output beam 14715
Cr^{4+}:YAG self-mode-locked laser, fs pulses near 1.5 μm 14786
Cu vapour laser oscillator, adjoint-coupled self-filtering injection 39670
Er doped fiber ring laser, mode stabil. 15002
Er fiber loop lasers, ultrashort pulse solitons 31229
Er^{3+} doped fiber laser, self pulsing chaos, antiphase dynamics 39715
Er:SiO$_2$ planar waveguide amp. based modelocked ring laser 23132
Er-doped fiber amp. propag./switching 34061
Er-doped fiber amps., MQW-LD pumping module *(Japanese)* 42464
Er-doped fiber laser additive pulse limiting 31454
Er-doped fiber laser model, two-wavelength operation 39716
Er-doped fiber lasers, Maxwell-Bloch mode-locking instabilities 23120
Er-doped fibre laser, mode-locked, stabilisation 23126
Er-doped widely tunable polariz.-stable fiber lasers 39700
Er^{3+}-doped opt. fiber amp., control ccts. *(Japanese)* 39711
GaInAsP/InP SL-QW lasers with narrow and circ. output beam, charact., 1.3 μm 31407

laser stability continued
He-Cd$^+$ CW hollow-cathode discharge multicolour laser module, design and perform. 39659
InGaAsP 1.3 μm DH laser heteroepitaxially grown on Si, stable CW operation 31384
InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
InGaAsP-InP MQW-DFB lasers, multiple phase-shifts, spectral charact. 39764
InGaAsP-InP all-MOCVD-grown long-wavelength LD 7673
KrF excimer laser, gas comp. and purity effect on perform. 31184
LiNd(PO$_3$)$_4$ laser, intracavity SHG, homoclinic chaos 31255
NaCl:OH cryst. color centers stable at RT, ps lasing 14827
Nd:YAG LTN-404-1A laser, radiation beam positional stabil. 39718
Nd:YAG freq.-doubled laser stabil. *(Chinese)* 14794
Nd:YAG high-power solid state lasers, improved beam quality 31262
Nd:YAG lamp-pumped laser, opt.-Kerr-enhanced mode locking 23179
Nd:YAG laser cavity decay rate and relax. oscill. freq. 23166
Nd:YAG mode-locked laser antiresonant Fabry-Perot saturable semicond. absorbers 31244
Nd:YAG pass. Q-switched transverse-diode-pumped laser oscillator *(Chinese)* 14797
Nd:YAG unstable multirod lasers, variable reflectivity mirrors 31267
Nd:YLF all-solid-state self-mode locking laser 23141
Nd-doped fiber laser, CW/self-pulsing regimes, stabilis. 39714
Ti:sapphire chirped-pulse amplif. beyond 1 μm 23178
Ti:sapphire compact 24-kHz laser, Cu-laser-pumped 39735
Ti:sapphire self-mode-locking laser description by iter. map 39752
XeCl discharge pumped laser, microarc form., vol. stabil. 31183
XeCl excimer laser, gas comp. and purity effect on perform. 31184
XeCl excimer laser, phase-unifying unstable resonator perform. 39668
XeF(C→A) 170 J excimer laser, electron beam pumped 23098

laser surgery *see laser applications in medicine; surgery*

laser theory
see also laser transitions; population inversion; stimulated emission
1.55 μm DFB lasers with strained-layer MQW act. grating, transfer-matrix dyn. model 1993
1D FEL model without slowly-varying approx. 39984
980-nm power LD beam instabil., expt. and anal. 15013
act. cylindrical waveguides with step-index profiles, transverse modes 30953
act. laser media, phase conjug. in four-wave mixing, feedback 14717
act. mode locked semicond. lasers, ps pulse compression, model 31420
act. mode-locked LD array in the external cavity, pulse buildup dyn. 23284
ASE lasers, collisional-cross-relax. effects 1844
asymmetric external cavity semicond. lasers, LF resons. 31389
asymmetric gain-levered quantum-well lasers, enhanced wavelength tunability 39877
BH diode lasers, multimode self-consistent model 23283
broad act. area diode laser, lateral field instabil. and six-wave mixing 7652
broad area semicond. lasers, lateral modes theory, review 7643
broad-area semicond. lasers, filamentation and beam propag. 23191
Cherenkov FEL, Kerr-like medium loaded, efficiency enhancement 23319
Cherenkov laser, nonlin. characts., particle simul. *(Japanese)* 31431
circ. FEL, expt. mode anal. 39914
class-C laser, av. freq. shifts 40019
CO$_2$ laser, opt. distortion effects on focusing charact. *(Japanese)* 7515
coaxial hybrid iron wiggler FEL theory 39916
coherent laser radar with diffuse/aerosol targets, heterodyne efficiency 3620
colliding-pulse mode-locked QW laser dyn. response simul. 23236
commun. LD FM transfer fn. modelling 1977
complex coupled DFB laser narrowband amp. props. 39861
complex-coupled DFB semicond. lasers, mode stabil. 14897
cross phase modulated fiber laser modelocking 1880
DBF QW lasers, gain compression factor determ. 23189
DBR laser microcavities, spontaneous emission 23323
deep pot. well strained quantum well laser freq. response 7637
detuned gain-coupled DFB laser, opt. feedback immunity 31310
DFB laser IMD anal., dyn. spatial hole burning effect 23222
DFB laser local intens. modulation response, direct meas. 31323
DFB lasers, dephased index and gain coupling 23194
DFB lasers, long. spatial hole burning complete elimination 7679
DFB lasers integrated with external modulators, freq. chirp anal. 14953
DFB LD above-threshold stabil. determ. 39875
DFB LD nonlin. distortions, power-depend. loss and leakage current 31355
DFB LD with distributed coupling coeff., spectral charact. 23278
DFB MQW laser, carrier and radiation confine. 14931
DFB semicond. laser threshold condition, local normal modes 14914
diffr.-coupled lasers, collective mode phase profile control 15005
diode laser, opt. and elec. noise spectrum 14970
diode lasers, spontaneous emission, nonlin. opt. coupling and noise 31370
distributed forward-/backward-coupling semicond. laser, wavelength tuning charact. 31322
double QW heterostruct., DC pumped terahertz lasers, interwell transits. 1947
dye laser models, single-mode, steady-state anal. 31206
dye laser transients, unified colored noise approx. 1869
EM pumped FEL, space charge and axial-guide mag. fields effects on gain 14984
EM wiggler FEL, guide mag. field, chaotic electron trajectories 2016
excimer lasers, discharge-pumped, 1D computation 14707
extended thermal lens resonator cavity fund. mode calc. 14995
externally injected sig. laser cavity eqns. 2025
Fabry-Perot LD modeling 31321
FEL, collective regime, 3D coupled-mode theory 39928
FEL, electron beam induced energy spread 2023
FEL, high-power self-similar radiation pulse generation 23316
FEL, long wavelength operation, slippage/diffr. effects 31430
FEL, self-field effects, 3D anal. 23311
FEL, single-mode generation, stabil. loss 39955
FEL efficiency enhancement with incoherent pump wave or stochastic undulator, chaotic particle deceleration 39923
FEL gain, alternating-gradient focusing, scaling fn. 14991
FEL gain calc. for imperfectly matched electron beams 39975
FEL interact. optim. via electron bunch trapping 39983
FEL oscillator spectral anal., Green fn. anal. 39977
FEL simul., beam quality and space charge effects 14987
FEL spontaneous emission in wiggler, mag. field independent of axial coord. *(Chinese)* 14983
FEL TW interact. scaling laws 39979

laser theory continued
FEL with focusing PM wiggler, 3D gain anal. 31429
FEL with large μ_c planar undulator, waveguide appl. 39980
FEL with two-freq. undulator, lin. theory 7691
femtosecond CW mode-locked laser, third-order dispersion calc. *(Chinese)* 7713
fiber Raman soliton laser for fs opt. pulse generation 1874
fibre ring laser, simul., split-step Fourier method 39694
fibre ring laser config. studied by collective coord. 14996
FIR gas lasers, bi-directional pumping, Lamb-dip line shape 31170
FIR lasers, CW opt. pumped, efficiency 14689
FOM 1 MW 200 GHz free electron maser mode purity, plasma heating appls. 39924
free-ion lasers, radiative ion cooling 39929
free-ion lasers, radiative ion cooling 7694
freq.-locked semicond. lasers, freq. offsets 1939
GaAs/AlGaAs proton-implanted top-SEL, series resistence anal. 23207
gain guided waveguide semicond. laser model 1994
gain-guided semicond. microlasers, noise props. 23204
gain-switched semicond. laser min. pulsewidth cavity optim. 31325
GARPUN excimer laser energy distrib., transverse pumping 7525
graded opt. elements in solid state laser resonators 14998
GRINSCH lasers, carrier/radiation confinement 39771
heterostruct. QW bistable laser oscillators 7655
high power FEL electron output scheme, time-depend. multi-dimens. simul. 39922
high-gain Compton FEL pulse evol., nonlin. macroscopic eqns. 39976
high-power ps pulse gen./meas. from Q-switched QW lasers 14906
index-guided laser arrays, supermode discrim. *(Korean)* 14862
injection laser polariz. dragging 2001
injection laser with a periodic confining layer, modeling 14969
injection laser-modulator combinations, time-depend. simul. 14952
injection lasers, threshold condition defn. 7638
injection-locked semicond. laser, stable locking range expression *(Chinese)* 7660
intracavity opt. delay line lasers 31445
ion-channel laser, one-particle theory 7690
ion-ripple laser, effects of long. momentum spread 7696
ion-ripple laser kinetic theory, beam long. momentum spread 2015
IR FEL, down-shifted freq. pumping 39888
IR semicond. lasers, hybrid mode-locking 31424
Kerr-lens mode-locked ring lasers, cavity design 31453
large aperture single-pass semicond. laser amps., sharply peaked sidelobes 14913
large-aperture semicond. laser amps., sidelobes, injection current profile shape 39831
laser materials charactn., spectral anal. of relax. oscills. by intracavity method 34716
laterally coupled semicond. laser array instabilities/dyn. behaviour 1979
LD, error-rate floors in intens.-modulated lightwave systs. 14877
LD output simul., mock eqns. 31425
LFM-CW lidar for rem. detect. of saturated hydrocarbons 17450
Littman type single mode tunable laser, freq. tuning mechanism *(Korean)* 14678
microcavity semicond. lasers, nonequilibrium carrier dyn. 31338
microcavity semicond. lasers, nonequilibrium many-body theory and mode confine. effects 23205
microlaser lin. arrays, thermal modeling for mode-size estim. 1910
microwave inverse FEL accelerator 39913
mode locking with nonlin. mirror, analytic study 39720
monolithic quantum-well lasers, inhomog. biased, MM freq. reson. modulation 31324
MQW lasers, freq. chirp, quantum carrier/escape time effects 39766
MQW opt. amps., pump probe meas. and carrier overflow effects anal. 14954
multi-stripe and broad-area semicond. lasers, spatio-temporal complexity 7640
multielectrode DFB lasers, transfer matrix method based large-sig. dyn. model 1995
multilobe mirror laser cavity light ray coherence control 31444
multisegment mode-locked semicond. lasers, timing jitter mechanisms 31419
multistable single-mode emitting solid-state lasers 14807
NMR laser with delayed feedback, locking and Arnold tongues 7590
nonlin. coupler laser, subpicosecond soliton form., num. simul. 2045
open-boundary Cerenkov laser, dyn. behavior anal. 14980
optoelectronic device simul., conf., Los Angeles, CA, USA, Jan., 1994 36838
periodic laser resonator thermal stabil. *(Chinese)* 2024
phase-locked LD antiguide arrays , anal. theory 23237
phase-shifted DFB laser stabil. against hole burning 1996
planar laser microcavity modes, self-consistent calc. 39993
pulsed gas laser discharge, inductance and resist. effects 23101
push-pull modulated DFB lasers, enhanced AM bandwidth 7635
quantum oscillators, ang. momentum transfer 31133
quantum well DFB rib waveguide LD design, spectral index method appl. 39876
quantum well lasers, 2D self-consistent simul. 39790
quantum well lasers, 2D simul. 39792
quasi-Cherenkov surface emitting FEL, linac 39982
quasi-Cherenkov X-ray DFB FEL under multi-wave diffr. 39978
QW bistable semicond. lasers, modeling and meas. 2000
QW lasers/opt. amps., ultrafast gain dyn. 31339
QW semicond. lasers, carrier transport effects on wavelength chirp 1974
radially varying gain lasers, geom. threshold zones and Gaussian modes 2027
Raman FEL, Green fn. anal. 39917
random act.-region width coupled semicond. laser arrays, lin. sensitivity anal. 31312
rare earth-doped fiber laser clusters, rate eqns. 31225
ridge-waveguide MQW DFB lasers, static and dyn. simul. 23193
ring resonators with Doppler-broadened act. medium, natural oscill. calcs. 31452
saturable absorber laser, transverse pattern dyn. 7751
SCH QW lasers, anal. of carrier transport and buildup 14856
SEL mirror effects on dyn. response 31315
self-limited additive pulse mode-locking laser models 31249
semicond., diode laser nonlin. study by equiv. cct. modelling 1976
semicond. amps., ultrafast pump-probe gain dyn. 23261
semicond. laser, AM/FM noise from coherent feedback 14864
semicond. laser, dual modulation, large sig. anal. 1975
semicond. laser, freq. stabilisation/linewidth reduction, opt. feedback method *(Korean)* 14861
semicond. laser, modulation response, carrier conc./temp. 23217

laser theory continued
semicond. laser amp., carrier depletion effects on opt. phase conjug. 39830
semicond. laser amp. based switching struct., gain saturation effects on size limitations 23251
semicond. laser amp. laser beam stabil. 23212
semicond. laser light pulse propag. and charge carrier scatt. 39789
semicond. laser noise, Volterra functional series expansion 2003
semicond. lasers, carrier thermalization, ensemble Monte Carlo simul. 7654
semicond. lasers, coherent opt. pumping 23195
semicond. lasers, mirror imperfections/reflectivity, time-depend. approach 14937
semicond. lasers, multimode rate eqns. 39820
semicond. lasers, opt. feedback with dispersive loss, amplit. noise 1980
semicond. lasers, opt. freq. bistability and power bistability 23235
semicond. lasers, static and dyn. props. of dispersive opt. bistability 14949
semicond. lasers using phase conjug. feedback, phase noise reduction by self-phase locking 2002
semicond. lasers with unstable resonators, simul. 23210
semicond. lasers with weak coherent opt. feedback, equiv. cct. 23272
semicond. opt. amp., short opt. pulse wave mixing 39754
semicond. opt. amp. switch gain optim. 39879
single mode LD, decay time of time-depend. transient stochastic dyn. 31331
single mode semicond. lasers, opt. injection/feedback 39824
single-long.-mode laser, space-time behaviour 7704
single-mode antiresonant reflecting opt. waveguide diode lasers, above-threshold behavior 14908
slab solid-state geom. lasers, astigmatic compensation *(Chinese)* 14800
Smith-Purcell FEL, amplif., single-particle classical theory 23313
Smith-Purcell FEL, efficiency enhancement 23307
solid state laser modulator loss anal. 15006
solid-state laser modelocking, birefr. and PM 14811
solid-state ring lasers, self-modulation/relax. oscills. 7579
stimulated radiation from electron beam traversing, inhomog. EM wave 40268
storage ring FEL, opt. field chaos 14990
strongly coupled external cavity semicond. lasers, opt. feedback 15001
submillimeter range EM oscills. in p-n jn., laser gen. mechanism 39793
surface-emitting vert.-cavity QW laser, time-depend. num. simul. 1972
SW FEL amps., perform. simul. and param. optim. 39900
three-branch widely tunable semicond. laser design for WDM links 14915
three-sect. DBR lasers, fast wavelength switching 25479
transversely moving 2D diffr. laser autosolitons 2075
travelling wave semicond. laser amp. detector noise charact. 31346
travelling-wave MQW semicond. laser amp. switches, dyn. perform. 9476
TW semicond. laser amps., four-wave mixing 31395
twin emitter semicond. laser arrays, high-speed modulation 7659
twin-stripe semicond. laser, three-torus bifurcation 2008
twisted fiber laser polariz. props. 31222
two-freq. undulator FEL, space-charge effects 14985
two-level unidirectional ring laser, travelling waves, class-B limit 2028
two-mode semicond. laser dyn., carrier diffusion effects 31394
two-sect. TW semicond. laser amp. opt. transparent TDM channel selector 9552
ultrashort pulse amplif. in semicond. laser amps., theory and expt. 14939
unstable cavity excimer laser, radiation field form. 31446
unstable resonator semicond. laser, quantum confine. and strain effects 23211
VCSEL, 2D diffusion eqn. 23208
VCSEL, Gaussian-beam-induced vortices 23321
VCSEL, off-reson. lasing 14934
VCSEL diodes, transverse mode competition dyn. 31356
VCSEL semicond. laser, stable states 2007
vert.-cavity SELs, self-pulsations 14992
vis. and near IR chem. lasers 7504
waveguide Cherenkov laser, conducting inner surface 7592
waveguide FEL, reson. freq. branches 23308
waveguide FEL amp., low- and HF waves 39981
wide aperture semicond. lasers and amps., nonlin. dyn. modelling 23209
X-ray multisection FEL, dispersion and undulator sects. 39904
Ar$^+$ wide-aperture laser waveguide operation 1847
Ar+ ion multimode lasers, polariz./intens. correl. 1851
CO gas-dyn. laser, generalized model 39667
CO laser, supersonic electroionized, ionic/chem. comp. simul. 31146
CO$_2$ CW amp., transverse pumping, 3D modelling 14699
CO$_2$ gas lasers, internal FM 14713
CO$_2$ gasdynamic laser with unstable resonator, radiation charact. 14698
CO$_2$ intracavity 16 μm Raman laser 14710
CO$_2$ laser, microwave-excited discharges, modeling 29740
CO$_2$ laser with saturable absorber, nonlin. dyn. 23078
CO$_2$ mol., chaotic laser oscill. in seq. band 23097
CO$_2$ single mode class-B laser phase dyn. 31169
CO$_2$ tunable laser for opt. free induction decay syst. 39661
Cu plasmadynamic laser, self-limited transits., relax. plasma 23079
D$_2$O laser, opt. pumped, computer simul., longit. mode 1867
Er^{3+},Yb^{3+}:SiO$_2$ planar waveguide amps., pair induced energy transfer 31246
Er:YAG oscillator-amp. laser syst. 14813
Er-doped birefr. fiber amp. polariz. distortion 31216
Er-doped fiber amp., transient anal. 14737
Er-doped fiber amps., lin. approxs. 14771
Er-doped fiber laser model, two-wavelength operation 39716
Er-doped planar waveguide lasers, theoretical modeling of relax. oscills. 14818
Er-doped self starting fiber based soliton laser 14761
Er-doped two-channel fiber amp., theoretical models 7558
Er-doped upconversion-pumped fiber amp. noise fig., theory 1881
GaAs cw semicond. lasers with Boltzmann kinetics, gain saturation 31354
GaAs quantum-well laser below-threshold near-field profile broadening, photon recycling 31390
GaAs-AlGaAs GRINSCH LD modelling of MBE growth 39791
GaAs-AlGaAs diode lasers, threshold current, carrier charge imbalance effect 14888
GaAs-AlGaAs-AlAs proton-implanted top-surface-emitting semicond. lasers 23206
GaInAsP quantum-well lasers, opt. gain, growth tech. comparison 14958
p-Ge far IR laser, dyn. model 31411
Ge p-type cyclotron reson. laser emission lines 14955
He-Ne gas laser with nonadiabatic modulation of cavity, oscill. dyn. 7526
He-Ne laser, modes locking, orthogonal ellipt. polaris. 1849
Ho:YAG quasi-three-level laser Q-switched operation 14819

laser theory continued
InGaAs GRINSCH QW laser, gain compression, Monte Carlo simul. 1992
InGaAs/InGaAsP strain-compensated quantum well lasers 23183
InGaAs-GaAs narrow quantum wells, carrier capture and relax. 2004
InGaAs-GaAs quantum-well lasers, impedance charact. 14857
InGaAs-InP strained QW lasers, linewidth enhancement factor depend. on cryst. orient. 14858
InGaAsP DFB single-mode LD, small sig. cct. model 39821
InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
InGaAsP quantum well laser, 2D model 14976
InGaAsP/InGaP/GaAs high-power 0.8 μm LD, minority carrier leakages 1956
InGaAsP/InP strained quantum-well lasers, threshold current under mag. field 39823
InGaAsP-InP 1.3 μm BH laser modules in fibre link 17254
InGaAsP-InP 1.55-μm quantum-well lasers, temp. sensitivity of differential gain 31320
InGaAsP-InP 1.55-μm strained quaternary QW lasers, approx. opt. gain formulas 23190
InGaAsP-InP DFB lasers, long. mode hole burning 1997
InGaAsP-InP modulation doped lasers, linewidth enhancement factor 14974
$LiNd(PO_3)_4$ multimode laser, antiphase dyn., Shil'nikov chaos 14812
N_2 excimer laser, elec. discharge excited, model 7519
NH_3 FIR lasers, Lorenz-like chaos 14692
NH_3 miniature opt. pumped cavity far-IR laser 31167
Nd:YAG Q-switched CW pumped laser, math. modeling 1895
Nd:YAG diode-pumped laser single-mode operation by pump-beam focusing 14820
Nd:YAG injection-locked solid-state laser, freq. and intens. noise 31245
Nd:YAG laser cavity decay rate and relax. oscill. freq. 23166
Nd-doped fiber laser, CW/self-pulsing regimes, stabilis. 39714
O_2-I laser singlet-oxygen generators, theoretical modeling 7506
O_2-I subsonic chem. laser, theoretical model and expts. in 30 W range 7520
Pr^{3+}:chalcogenide glass fibre amps., 1.3 microns 7559
Pr^{3+}-doped fiber amps., temp. effects on amplif. charact. 31221
Pr^{3+}-doped fluoride fiber amp., LD pumped, gain characts. 1875
Pr^{3+}-doped fluoride fiber amps., gain dyn. anal. 31217
Pr^{3+}-doped fluoride fiber amps., pump config. *(English)* 23127
Pr(3+):ZBLAN fiber amplifer, emission cross-sect. spectrum of pump transit. 14772
Ti:sapphire self-mode-locking laser description by iter. map 39752
Tm-doped ZBLAN blue upconversion fiber laser theory 39710
Xe_2^* self-sustained discharge-pumped laser at 172 nm, kinetics 14704
XeCl excimer laser act. medium, UV phase-conjug. mirror 14722
XeCl phototriggered lasers, modelling studies 31162
XeF excimer laser kinetic model 31178
ZnSe semicond. lasers, linewidth enhancement factor and nonlin. gain 23224
ZnSe/ZnCdSe quantum wells, coherent exciton lasing 31381

laser tracking *see optical tracking*

laser transitions
see also laser theory
compact holographic solid-state DFB laser 7581
DBR unstable resonator semicond. laser, 941 nm 23320
DFB 1.5-μm lasers, aging-induced wavelength shifts 7676
DFB semicond. laser, 1.55 μm, 185 fs pedestal-free pulse gen. 23186
Fabry-Perot lasers, 1.3 μm, spectral perturb./mode suppress. 23233
FELIX FEL, electron energy spectral meas. in large-slippage regime 40013
FIR gas lasers, bi-directional pumping, Lamb-dip line shape 31170
fission fragment pumped lasers, kinetic procs., plasma track struct. 14705
fluoride glass act. opt. waveguides for laser sources 14767
gain-coupled MQW DFB lasers, 1.55 μm, Ti surface Bragg grating 23274
LD, MOCVD grown, operation, power 39851
LD, vis., CW power, monolithic arrays 7607
low-threshold 1.3 μm MQW LDs, high-speed modulation 31335
methanol-d_2, opt. pumped, far IR laser lines and assignment 14711
MQW laser amp. module, 27 dB gain unidirectional 1300 nm polariz. insensitive 14860
quantum cascade laser, perform. charact., temp. depend. 14839
QW mid IR lasers, above barrier transits. 7612
rare earth-doped fluoride fiber amps./lasers, telecomm. appls. 31224
rhodamine dye colloid solns., scatt. media, laser action 31203
ridge waveguide semicond. pump laser design 39842
ring dye laser, intracavity freq. shift, self-pulsing and instabilities 39690
SEL, 1.55 μm, very low threshold, grating coupled 14905
semicond. lasers, high power SW, waveguiding 39770
strained MQW LDs, 1.3 μm, 1 Gbit/s bias-free operation 39868
vert.-cavity SELs, 967 nm, integrated refr. microlenses 14898
vis. and near IR chem. lasers 7504
AlGaInP LD, ageing simul., reliab. 7608
AlGaInP red-emitting LD grown by solid source MBE *(Japanese)* 39880
AlGaInP-based 660-680 nm vert.-cavity SELs 23187
CO_2 injection-seeded supra-atmos. laser operated below emission threshold by ring cavity 39655
CO_2 laser for rem. sens. meas. 18830
CO_2 laser lines, hot bands in 11 μm region 23091
CO_2 laser, small-amplit. pumping modulation, operation dyn. 39648
CO_2 lasers, freq. and power stabilised, review 23089
CO_2 waveguide laser, act. medium diagnostics 31194
Cd^+ photo-ionization laser, blackbody source pumped, charactn. 31196
Ce:$LiCrAlF_6$, UV laser props. 1901
Ce:$LiSrAlF_6$, UV laser props. 1901
Ce^{3+}:$LuLiF_4$ laser, self-injection-seeded UV, sub-ns pulse train generation 39737
Cr:$BeAl_2O_4$, alexandrite laser syst., lin. scanning THG 7583
Cr^{3+}:forsterite IR tunable laser, energy level struct. 7591
Cs FIR laser lines around 1.2/1.6 THz, heterodyne freq. meas. 23081
Cu plasmadynamic laser, self-limited transits., relax. plasma 23079
Cu vapour-flow CW laser constr. 14701
D_2O laser, opt. pumped, computer simul., longit. mode 1867
Er laser systs., 3 μm emission, pump quantum efficiency 31277
Er^{3+} doped ZBLA laser, upconversion lasing 39717
Er:YAG laser dyn., upconversion characts. 1904
Er:YAG oscillator-amp. laser syst. 14813
Er:YScGG, 2D microlaser array, monolithic LD array pumping 1888
Er:ZBLAN fibre, up-conversion cascade laser 31208
Er^{3+}:Y_2SiO_5, excited state, diagnostics, tunable colour centre lasers 15200
Er^{3+}:$YAlO_3$ laser, photon avalanche upconversion pumping 23164
Er^{3+}:ZBLAN singlemode fibre lasers, 2.71 μm output power limits 23113

laser transitions continued
Er-doped fiber laser model, two-wavelength operation 39716
Er-doped waveguide amps., short-length, conc. effects 14747
Er^{3+}-doped fiber laser ASE green light 1878
Eu-chelate-doped microdroplet laser, morph.-depend. resons. 39680
F_2 discharge-pumped laser, form. kinetics 39669
GaInAsP/InP tensile strained SQW lasers, 1.3 μm, LP-MOCVD grown 14944
$Ga_xIn_xP/(Al_{0.5}Ga_{0.5})_{0.52}In_{0.48}P$, strained QW LD, optimisation 39857
p-Ge far IR laser, dyn. model 31411
Ge p-type cyclotron reson. laser emission lines 14955
He-Cd^+ pos. column type UV 325 nm lasers *(Japanese)* 14683
He-Hg laser, transverse HF excitation 7528
He-Ne laser, modes locking, orthogonal ellipt. polaris. 1849
He-like soft X-ray laser research 31261
$Hg_{1-x}Cd_xTe$, narrow-gap, laser emission 14894
Ho,Tm:YLF laser pumping, $AgGaSe_2$ parametric oscillator 7800
Ho doped laser syst., CW 3 μm laser action 7588
Ho:ZBLAN fiber laser, upconversion, charactn., modelling 1903
InGaAs MQW laser, 1.75 μm, MOVPE grown on InAsP substr. 23184
InGaAs/AlGaAs QW lasers, MOCVD, rot. disk reactor 23238
InGaAs/AlInAs vert. transit. quantum cascade laser, Bragg confined excited state 23260
InGaAs/InGaAsP MQW modelocked LD, high spectral tuning range 7634
InGaAs/InP, strained QW lasers, operating characts., 100-315 K 39854
InGaAs/InGaP/GaAs QW lasers, 0.98 μm, reliab. pump source 23188
InGaAs-InGaAsP MQW DFB LDs, 1.5 μm, MOVPE growth 7616
InGaAs-InGaAsP MQW lasers, 1.55 μm, direct bonding on Si 23270
InGaAs-InGaP strained QW lasers, 0.98 μm, charact. temp. 23185
InGaAsP strained-layer LD bars, 1.94 μm, 27 W QCW 14945
$In_xGa_{1-x}As_yP_{1-y}$/InP, strained QW LD, nonhydride MOCVD 39856
InGaP/GaAs heterostruct. lasers, MOCVD, 0.98 μm 7606
InSb spin-flip Raman laser, pumped, 11~16 μm tunable, sens. appl. 1941
Kr^{26+} laser plasmas, 3p-3s transits., X-ray laser gain parametric depend. 39651
$Kr^+Li(Cs)(Rb)$ excimers, VUV transits., e-beam pumping 31175
La-doped fluoride glass fiber lasers, IR pumped 14773
Li-like Al, autoionising states, X-ray lasing transits., photopumping 14686
Li-like scheme recomb. X-ray lasers 31174
LiF cryst. F_2^- colour centre laser luminesc. quantum efficiency 1912
LiF:F_2 color center laser progress 39727
$LiNbO_3$:Ti,Er integrated opt. DBR waveguide laser, 1531 nm 31304
Mn^{5+}:$Sr_5(VO_4)_3F$, spectrosc. and laser props. 14836
N UV laser, internal scanning of radiation 14682
Nd^{3+} doped fluoride glass, spectrosc. and laser props. 14809
Nd:YAG laser, pumped, pulsed RT operation 23167
Nd^{3+}:$KY(MoO_4)_2$ ribbon and sheet miniature cryst. lasers 23158
Nd^{3+}:ZBLAN fibre, short pulse propag./ampl. 14739
Ne nuc. pumped laser, 3p-3s transits., lasing charact. 39674
Pr^{3+},Yb^{3+}:ZBLAN glass, Pr 1.31 μm fluoresc. by opt. pumped Yb ions 23117
Pr^{3+}-doped $CsGaSCl_2$ glass for 1.3 μm opt. fibre amp. 23118
Pr^{3+}-doped Ge-Ga-S glasses for 1.3 μm opt. fiber amps. 31240
Pr^{3+}-doped blue upconversion fibre laser, optimised output coupling 31237
Pr(3+):ZBLAN fiber amplifer, emission cross-sect. spectrum of pump transit. 14772
S_2 opt. pumped brightness amp., laser projection microscope 23094
Ti:sapphire flashlamp pumped laser, two-wavelength pulsed operation 31242
Tm,Ho mid-IR lasers, LD pumped, for med. appls. 31308
Tm^{3+},Fe^{3+}:garnet 2 μm laser, Fe sensitization 31273
Tm:ZBLAN CW upconversion laser 14743
Tm^{3+}:$Sr_2Y_8(SiO_4)_6O_2$, RT CW laser efficiency , spectrosc. charact. 14837
Tm^{3+}:Y_2SiO_5, RT CW laser efficiency , spectrosc. charact. 14837
Tm-doped 1.9-μm fluoride fiber laser amp., 1.6-μm pumped 23136
Xe IX, femtosecond-pulse-driven XUV laser 23104
$(XeCs)^+Ga$, ionic excimer emission, gain dyn., Ar/Xe/Cs mixtures 1859
XeF 10^5 J (C-A) transit. inversion wave by Nd-laser second harmonic amplif. 14718
XeF excimer laser kinetic model 31178
XeF($C \rightarrow A$) 170 J excimer laser, electron beam pumped 23098
$Xe^+Li(Rb)(Cs)$ excimers, VUV transits., e-beam pumping 31175
Yb^{3+},Er^{3+}:$Sr_2Y_8(SiO_4)_6O_2$, RT CW laser efficiency , spectrosc. charact. 14837
Yb^{3+},Er^{3+}:Y_2SiO_5, RT CW laser efficiency , spectrosc. charact. 14837
Yb:$LiNbO_3$, waveguide laser, energy levels and spectra 14835
Yb^{3+}:SiO_2 fiber lasers, sources 1, 1.2 μm 39699
ZBLAN fibre laser, rare earth doped, mirror deposition 39712
ZnCdSe/ZnMgSSe strained layer quantum well blue-green lasers, opt. gain 39755
ZnSe blue quantum-well SCH diode laser, 463 nm 7617
ZnSe-based blue-green lasers, conf., Wurzburg, Germany (1994) 20220

laser trimming *see laser beam machining*

laser tuning
2.5-Gbit/s return-to-zero integrated DBR laser/modulator transmitter 9459
10 Gbit/s sig. repeated wavelength conversion, wavelength-tunable semicond. lasers 25496
70 terabit.km/sec soliton transm., packaged hybrid soliton pulse source 17351
100-Gbit/s TDM opt. transm., two tunable Er-doped fiber lasers 9490
400 nm/3.4 μm fiber components and lasers 7562
act. mode locked LD, soliton-forming pulses in fibre 7789
act. mode-locked external-cavity semicond. laser, quasi-periodic route, chaos 31423
act. mode-locked LD array, tunable picosecond pulse generation, chirp compensation 7614
asymmetric gain-levered quantum-well lasers, enhanced wavelength tunability 39877
Bragg grating fibre laser, compressive stress tuning 14742
broadly-tunable single-freq. opt. parametric freq. conversion syst. *(Danish)* 7742
car exhaust trace gas monitoring by laser photoacoustic spectrosc. 18907
chem. lasers, CW, small-scale periodic inhomogeneities, lateral shearing interferometry 23088
circ. FEL, expt. mode anal. 39914
class-A bidirectional ring laser, cavity detuning, spontaneous phase symm. breaking 39992
class-C laser, av. freq. shifts 40019
CLIO FEL, step-tapered undulator, two-colour operation 39933
CLIO IR FEL, sub-picosecond laser pulse generation 39930

laser tuning continued
- colour-centre laser, methane mol., saturated absorpt. resons. 7734
- cross-connect opt. systs., FDM technol. 9145
- DBR fibre laser, tunable, sampled fibre Bragg gratings 14764
- DBR laser ultra-fast opt. switching by electro-opt. tuning sect. 34005
- DBR laser wavelength converter, bit-rate-independent operation, 10 Gbit/s 14903
- DBR semicond. LD, ultrafast pulse train generation *(Japanese)* 7625
- DFB laser, output wavelength electronic tuning 1970
- DFB MQW laser, carrier and radiation confine. 14931
- DFB-LD with side-mode light injection, bistability and waveform reshaping 23250
- diffr.-coupled lasers, collective mode phase profile control 15005
- diode laser freq. tunable light generation/freq. conversion 23286
- diode pumped solid-state lasers, freq. tuning, pump-power modulation 1893
- distributed feedback lasers, phase tunable, flat FM response 14972
- distributed forward-/backward-coupling semicond. laser, wavelength tuning charact. 31322
- dye impregnated polymer lasers, beam control elements 7541
- dye lasers, tunable, acousto-optic deflector spatially modulated grating excitation 39682
- dye mixture DFB laser, nanosecond excitation, picosecond emission 39681
- dye-doped sol-gel lasers, tunable laser action 14730
- dye-mixture laser tunable in primary color regions by lin. variable filter 39685
- electrostatic accelerator based FEL, material sci. in far-IR 39987
- external-cavity acoustooptically controlled semicond. lasers, tuning fidelity 15003
- Fabry-Perot wavelength-tunable picosecond LD pulse source 34090
- FADOF filter for space borne opt. commun., Doppler shift compensation 17325
- FEL, high-gain single-pass amps., UV/X-ray radiation generation 39896
- FEL gain calc. for imperfectly matched electron beams 39975
- FEL oscill., multibunch electron beam from L-band LINAC 39935
- FEL oscillator spectral anal., Green fn. anal. 39977
- FEL oscillators, space charge effects, self-oscills. and chaos 39971
- FEL spectral dyn., modulation of electron beam energy 31428
- FEL technol., tunable powerful laser advances 2014
- FEL with large μ_c planar undulator, waveguide appl. 39980
- FELIX FEL user facility 14982
- femtosecond laser sources, extended tunability 31472
- FMCW-LIDAR, tunable twin-guide LD 17449
- free-running IR FEL, submegahertz spectral resoln. 31433
- $Ga_{1-x}In_xSb$/InAs superlattice diode laser, demons., 3,5 μm 23230
- heptamethine thiapyrylium IR tunable laser dyes of superior photostability tunable 14723
- high power FEL electron output scheme, time-depend. multi-dimens. simul. 39922
- hybrid grating-prism stretcher-compressor, cubic phase tunability 2046
- injected at. coherence, nonlin. theory 2040
- injection LD, tunable, monolithic cct. integratable 1930
- installation design, appls., radiation correl. charact. 14680
- interf. wedge with unequal reflectivity mirrors, laser tuning element 15007
- IR FEL, compact design, perform. study 39895
- IR FEL, sideband generation, transit. to chaos, time-resolved study 40011
- IR semicond. lasers, hybrid mode-locking 31424
- LAN, all opt., multiaccess with wavelength/code concurrency 41797
- LD freq.-modulated interferometer, selective imaging 40177
- liq. dye lasers, spherical, wavelength tuning, cavity Q values 14726
- Littman type single mode tunable laser, freq. tuning mechanism *(Korean)* 14678
- low coherence reflectometry, tunable narrowband light source, symm. crossing config. 18127
- low pulse energy optical parametric oscillators, solid laser pumped 15082
- metane, atmos., tunable LD absorpt. spectrosc. 9953
- microchip diode pumped solid state laser arrays, mfg. cost 31282
- MOVPE optoelectronic device technol. 28747
- MQW DBR laser with electro-opt. tuning sects., high FM bandwidth 7678
- MQW DFB laser with 25 GHz modulation bandwidth, packaged, 1.55 μm 3584
- MQW DFB tunable laser, enhanced plasma effect 31350
- MQW ridge waveguide lasers for tunable external-cavity sources 23234
- MQW three-branch Y3-lasers, tunable, WDM opt. networks 31401
- multifrequency waveguide grating MQW laser fab. by selective area epitaxy 7627
- multiple vernier grating monochromator etalon design *(Chinese)* 10046
- narrow band semicond. laser, far-IR, freq. tuning 14938
- NIJI-IV storage-ring FEL, UV lasing study 39953
- nondispersive waveguide cyclotron reson. maser expt. 39623
- packet-switched WDM-networks, wavelength stabilisation scheme 34093
- pass. mode-locked diode laser pulse charact. 39834
- pass. tunable Q-switch 31295
- pass. WDM opt. network, cost-shared components 9463
- periodically pumped and coupled lasers, phase locking study 31473
- perylene-/pyrromethene-doped xerogel pulsed laser 39684
- pseudo external cavity tunable diode laser 39773
- quantum-well laser, wavelength-tunable amplit.-squeezed light 31371
- rapidly tuned FDM laser transm. receiver, multichannel heterodyne detect. 9499
- regenerative picosecond feedback scheme based CW semicond. lasers 31421
- rhodamine 6G dye lasers, Cu laser pumped, tunable collinear operation 23107
- rhodamine 6G laser, parametric nonlin. mirror, refl. coeff. 31205
- rhodamine perchlorate dye-doped sol-gel silica laser, XeCl laser-pumped, wideband tuning 31204
- scanning in white light interferometer, tunable laser 17754
- self-seeded Fabry-Perot LD, single-mode form. dyn. 39799
- self-seeded gain-switched LD, elec. wavelength-tunable singlemode pulses 31326
- single-long.-mode laser, space-time behaviour 7704
- single-mode silica fibers, Raman amplif. of coherent Stokes wave on biharmonic laser pumping 15084
- sol-gel matrix solid state dye lasers 14731
- solid-state laser gain media, phys. and perform. 23156
- soliton fiber laser, filtering optimiz. 14736
- storage ring FEL, electron beam long. dyn. 39951
- submilliamp tunable three-terminal vert.-cavity LD 7649
- Super-ACO FEL micropulse, dyn. behaviour 39952
- Super-ACO free electron UV laser, stabil., long. feedback 39958
- three-branch widely tunable semicond. laser design for WDM links 14915

laser tuning continued
- three-sect. DBR lasers, fast wavelength switching 25479
- tunable dye laser, holographic contouring 2144
- tunable four-sect. DBR LD, lasing charact. modelling 14845
- tunable semicond. lasers, continuously chirped DFB gratings 1954
- TW femtosecond parametric lasers 31289
- two-sect. DBR laser freq. and power control by dual act.-/Bragg-sect. tuning 9503
- UV high repetition rate tunable sources by dye laser beam freq. conversion 15035
- vert. cavity LD, tunable, fibre coupling, threshold currents 39782
- vert. integrated Mach-Zehnder interferometer/tunable LD 1838
- vert.-cavity SEL array for short dist. opt. fiber networks 14929
- vis. emitting fluoresc. dye solid state tunable lasers 14804
- VUV/XUV lasing and wavelength tuning techs. 31172
- VUV/XUV-soft X-ray radiation source and appls. 31613
- WDM opt. network, time-wavelength assignment algms. 42375
- wedge prism freq.-tuning mechanism in single-mode tunable laser 23330
- wide continuous tuning LDs, hybrid reson. opt. reflector 7658
- Yb:YAG diode-pumped thin disk laser continuously tunable, 1018/1053 nm 39742
- AlGaAs, tunable injection-locked high-power LD array 1926
- AlGaInAs/GaInAs, tunable lasers by masked implementation enhanced intermixing 14872
- AlN waveguide, phase-matched freq. doubling, tunable laser source 31543
- β-BaB_2O_4 opt. parametric oscillator, spectrosc. light source 31573
- β-BaB_2O_4 ps opt. parametric amplif. 2117
- CO_2 injection-seeded supra-atmos. laser operated below emission threshold by ring cavity 39655
- CO_2 laser, injection locking, freq. stabilisation, line narrowing 1865
- CO_2 loss modulated laser, amplit.-detuning charact. 31195
- CO_2 tunable laser for opt. free induction decay syst. 39661
- CO_2-laser generation, intracavity saturable absorber 39666
- Cr:LiSrAlF diode-pumped single-freq. coupled-cavity microchip laser 14814
- Cr:$LiSrAlF_6$ Q-switched laser freq. tripling, UV region 39728
- Cr:$LiSrAlF_6$ fs diode-pumped all-solid-state regenerative amps., Ar ion-pumped 23170
- Cr:$LiSrAlF_6$ high power cw diode-pumped laser 14830
- Cr:$LiSrAlF_6$ pass. mode-locked laser, antiresonant Fabry-Perot saturable absorber 23142
- Cr:$LiSrAlF_6$, self-modelocked femtosecond solid-state lasers 14815
- Cr:$ZnWO_4$ cryst. lasing, lasing efficiency improvement by Nd^{3+} codoping *(Chinese)* 14799
- Cr^{3+}:forsterite IR tunable laser, energy level struct. 7591
- Cr^{4+}:Mg_2SiO_4 laser cavity, cubic phase distortion minimisation 31288
- Cr^{4+}:Mg_2SiO_4 solid-state tunable laser 1882
- Cr^{4+}:YAG laser, sync. pumped self-mode-locked, fs pulse generation 31306
- Cr^{4+}:doped laser host lattices, tunable output 39729
- Er,Yb:phosphosilicate fiber Fabry-Perot lasers, continuous/discrete wavelength tuning 31220
- Er,Yb-doped tunable fiber sliding-freq. soliton laser 14765
- Er modelocked fibre laser, 10 nJ ps pulse generation 23112
- Er^{3+},Pr^{3+}-codoped CW fluorozirconate fiber laser operating, 2.7 μm 7570
- Er-doped mode-locked fiber ring laser freq. stabilisation 23119
- Er-doped single-mode fiber lasers, all-fiber subresonator 7571
- Er-doped tunable fibre lasers, all-opt. relax. oscill. damping 31236
- Er-doped widely tunable polariz.-stable fiber lasers 39700
- Er^{3+}-doped intracavity LD pumped modulated fiber lasers 1879
- Er^{3+}-doped unidirectional fiber ring laser without isolator 31214
- GaAlAs LD, wavelength locked, bandpass filters, freq. doubling 31593
- GaAs QW lasers, thermally controlled lateral beam shift and beam steering 14968
- GaAs/AlGaAs:C(Zn) lasers, bandgap-tuned, C(Zn) doping 1944
- GaInAs/GaInAsP MQW tuned lasers fabricated by photoabsorption induced disordering 1957
- GaInAsP/InP MQW QCSE tuning element for surface emitting laser 15014
- $Ga_{1-x}In_xAs_yP_{1-y}$/InP VCSEL 14923
- GaInAsP-InP continuously tunable LD, mode hopping *(French)* 1924
- Ge p-type cyclotron reson. laser emission lines 14955
- H two-stage Raman conversion tunable laser *(Japanese)* 7516
- H_2 laser source, second-order Stokes shift, mid-IR generation 39665
- He-Ne two-mode laser with internal sig. injection, radiation intens. 23095
- Ho,Tm:YLF laser pumping, $AgGaSe_2$ parametric oscillator 7800
- InGaAs VCSEL, gain/reflectivity, press./temp.-induced detuning 39796
- InGaAs vert.-cavity quantum well lasers, cavity tuning effects on transverse mode 31316
- InGaAs/InAlGaAs QW DFB laser facet influence on wavelength tunability and linewidth-chirp 39860
- InGaAs/InGaAsP MQW modelocked LD, high spectral tuning range 7634
- InGaAs/InGaAsP quantum well DFB lasers, high speed dyn., intrinsic params. 1932
- InGaAs/InP, strained QW lasers, operating characts., 100-315 K 39854
- InGaAs-InGaAsP-InP 1.95-μm strained DFB SQW lasers 14855
- InGaAsP/InP monolithically integrated multi-wavelength MQW-DBR LD, MOVPE 23239
- InGaAsP-InP tunable DFB laser freq.-drift suppression 9596
- InGaAsP-InP wavelength tunable LD 7646
- InP monolithically integrated tunable polariz. diversity heterodyne receiver OEIC 25484
- InPAsSb long wavelength laser for high resolution spectroscopy 14876
- InSb spin-flip Raman laser, pumped, 11~16 μm tunable, sens. appl. 1941
- $KTiOPO_4$ electro-optic laser Q switch, dispersion effects 22933
- LiF:F_2 color center laser progress 39727
- N_2O, high power laser characts. 31164
- Na vap., laser beam switching dyn. 40111
- Nd:YAG tunable laser, diode end-pumped 7578
- Nd:glass all-solid-state laser syst. pulses, tunable by down conversion 14779
- Nd-doped fibre lasers, polaris. related phenom. 14766
- Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
- Ni^{2+}:$Gd_3Ga_5O_{12}$ pulsed laser operation 23155
- Pb salt tunable IR lasers, spectroscopy appls. 14791
- Ti doped sapphire laser, femtosecond pulses generation 1911
- Ti:Al_2O_3, self-modelocked femtosecond solid-state lasers 14815
- Ti:sapphire CW laser perform., high fig. of merit 1908
- Ti:sapphire CW mode-locked laser, tunable UV light pulse prod. 23148
- Ti:sapphire amp. syst., midinfrared femtosecond pulses 15049
- Ti:sapphire compact tunable laser design 23180
- Ti:sapphire dual-cavity-type pulsed laser oscillator, self-seeding 39741
- Ti:sapphire flashlamp pumped laser, two-wavelength pulsed operation 31242
- Ti:sapphire fs laser amp., tuning range extension 14808

laser tuning continued
- Ti:sapphire laser, high-repetition-rate femtosecond mid-IR pulse generation 31574
- Ti:sapphire laser, self-starting, femtosecond pulse generation 1890
- Ti:sapphire laser, tunable, laser pumped, time charact. *(Chinese)* 39723
- Ti:sapphire laser wavelengths, nonlin. conversion 40061
- Ti:sapphire pulsed laser, high-efficiency SHG in β-BaB_2O_4 cryst. 40034
- Ti:sapphire regenerative amp., tunable 30-fs pulses 39739
- Ti:sapphire regenerative amp., tunable femtosecond opt. parametric amp. 2130
- Ti:sapphire ring laser with four mirrors, CW freq. stabilisation *(Chinese)* 14801
- Ti:sapphire/Nd:YAG laser syst., high power tunable femtosecond light prod. 23149
- Tm,Cr,Ho:YAG eye-safe pulsed laser and study of radiation absorpt. by mol. gases and air 14790
- Tm,Ho mid-IR lasers, LD pumped, for med. appls. 31308
- U isotope separating dye laser wavelength control syst. *(Japanese)* 7872
- XeCl long-pulse laser, ultrashort pulse generation, smoothly tunable wavelength 14719
- XeCl tunable laser syst., Pb vap. SRS cell 14721
- Yb^{3+}:YAG laser, CW tunable, Ti:sapphire pump 39751

laser variables measurement
- circ. FEL, expt. mode anal. 39914
- CLIO FEL, step-tapered undulator, two-colour operation 39933
- CLIO IR FEL, sub-picosecond laser pulse generation 39930
- diode laser wavelength shift meas. by fiber modal interferometers, altometer resoln. 25855
- diode lasers, internal loss and quantum efficiency meas. *(Korean)* 14863
- diode lasers, LF light flucts. meas. tech. 1923
- dispersed systs. of fine particles, IR detectors 25834
- dye laser, flashlamp pumped, single-mode operation 23108
- ELSA FEL, 23 μm operation, MONA wiggler 39934
- excimer lasers, indust.-scale, automated control 31155
- FEL, far-IR range, emission charact. meas. 39894
- FEL, step-tapered undulator, self-ASE 40012
- FEL centre user diagnostics and control 40016
- FEL oscill., multibunch electron beam from L-band LINAC 39935
- FELIX FEL, electron energy spectral meas. in large-slippage regime 40013
- fine-wire bolometer, nonlin. of transduction of laser pulse 3847
- FIR laser, opt. pumped, beam divergence study 40004
- four-beam LD opt. heads, dyn. wavelength shifts 39317
- freq.-doubled laser energy meas. by calorimeter *(Chinese)* 2038
- freq.-resolved opt. gating, generalized projections, pulse retrieval 23334
- freq.-resolved opt. gating, SHG 2055
- Gbit/s opt. transmitters, accurate opt. extinction ratio meas. 9462
- high-power ps pulse gen./meas. from Q-switched QW lasers 14906
- high-Q opt. cavities and mirrors, laser gain meas. 7705
- high-speed peak detector for pulsed lasers meas. 40002
- imaging plate 2D detector for SW lasers *(Japanese)* 9931
- interferometric 2D imaging amplit. correlator for ultrashort pulses 34720
- interferometric meas. of phys. consts. of laser dye solvents 23339
- IR FEL, sideband generation, transit. to chaos, time-resolved study 40011
- ISKRA X-ray laser beam line focusing of radiation 7503
- ISKRA-5 facility I laser opt. syst. wavefront anal. 7539
- LD opt. noise meas., reliab. estim. 23287
- LD technol., conf., Los Angeles, CA, USA (Jan. 1994) 36891
- Mark III FEL, freq.-chirped opt. pulses obs. and characterisation 39932
- methanol FIR laser lines, opt. pumped, freq. meas. 31475
- mirror temp. meas. of semicond. lasers, photothermal deflection 15012
- mirrors, group-delay meas., spectrally resolved white-light interferometry 39996
- MKIII FEL, short pulse guiding effects 40014
- moment determ. by polynomial transmittance windows 40018
- multielectrode DFB laser self-pulsation charactn. 31327
- multiple vernier grating monochromator etalon design *(Chinese)* 10046
- multistage laser facility, small-sig. gain meas. 23332
- opt. power monitor for two-beam LD 3999
- opt. pulse train noise, spectral meas. interp. 2041
- phase-modulated fiber laser, spectral stabil. and smoothness 25991
- pulsed FEL amp., temporal/spatial phase vars. meas. 7688
- pulsed laser temporal coherence meas. by collinear second-harmonic interf. tech. 15016
- Raman FEL, freq., phase and saturation characts. 23310
- Raman MM wave FEL meas. by pyroelec. energy meter *(Chinese)* 2009
- semicond. laser; linewidth, linewidth enhancement factor α, FM and AM response meas. 39878
- semicond. laser at low carrier densities, carrier-induced refr. index 7682
- semicond. LDs, elec. and opt. photocurrent noises correl. 1922
- solid-state high power laser beam characterisation 31470
- spatial intens. distrib. meas. of laser beam 7721
- spectral anal., relax. oscills. 34716
- SQW LD guided-wave devices, heterodyne nondegenerate pump-probe meas. 25990
- Stanford FEL cavity length meas. by external laser reson. 39939
- Stanford mid-IR FEL micropulse temporal charactn. by "FROG" 39941
- streak camera subfemtosecond laser pulse meas. 31471
- sub-picosecond FEL micropulse length and electron bunch meas. 39931
- three channel autocorrelator, electro optic switches 8476
- time-resolved plasma absorpt. spectra monitoring facility 40001
- travelling wave semicond. laser end facet output spectra 31398
- TW semicond. opt. amps., facet modal reflectivity spectrum 39763
- UV subps laser pulse meas. based on Kerr shutter ultrafast beam deflection 15045
- wedge plate interferometric laser beam tester 31476
- AlGaAs, single mode LD, long duration life tests 39850
- AlGaAs/GaAs VCSEL, internal quantum efficiency and loss meas. 39775
- AlGaAs/GaAs integrated lin. injection laser array, emission charact., pumping appls. 39759
- AlGaAs-AlAs DBR QW microcavity, fast coherent emission 31376
- AlGaInP laser, facet/bulk degrad., eval. method *(Japanese)* 23288
- CO_2 gasdynamic lasers, act. medium diagnostics 39644
- CO_2 high-power fast axial flow laser, aerothermic characterisation 7531
- CO_2 indust. fast-flow laser, IR luminesc. diagnostics 23086
- CO_2 laser beam, focal params. direct visualization 7723
- CO_2 laser lines, hot bands in 11 μm region 23091
- CO_2 laser, low order mode interact. 31200
- Cd^+ photo-ionization laser, blackbody source pumped, charactn. 31196
- Cr^{4+}:YAG self-mode-locked laser, fs pulses near 1.5 μm 14786

laser variables measurement continued
- Cr^{4+}:forsterite laser, CW operation, output power, thermal problems 39734
- Er doped fibre amps., pol.-depend. gain meas. 31210
- GaAlAs injection laser pulse detect., photodetector, AGC 42787
- GaInAsP/InP strained-layer quantum well lasers, temp. depend. reflectivity mirror 40021
- p-Ge, intervalenceband pulse FIR laser, mode fine struct. 14891
- He-Cd^+ pos. column type UV 325 nm lasers *(Japanese)* 14683
- I high-power pulsed lasers, wavefront profile meas. by Hartmann method 14702
- InGaAs-GaAs QW laser modulation by short opt. excitation, energy and spatial depend. effects 14967
- InGaAsP 1.5 μm DFB laser study by Gires-Tournois interferometer 1940
- InGaAsP quantum-well quaternary lasers, gain nonlin. and temp. depend. 39798
- InGaAsP/InP DFB laser, wavelength shifts, ESD 23276
- InGaAsP/InP laser heterostructs., act. region carrier leakage meas. 14950
- KrF excimer laser electron beam pumped, energy meas. 2042
- KrF excimer laser fs VUV pulse meas. by field-ionization dyn. 23103
- N_2 laser, output power enhancement by self-preionisation 39675
- Nd:YAG LTN-404-1A laser, radiation beam positional stabil. 39718
- Nd:YAG laser welder beam charact. meas. 7722
- Nd:YAG pass. Q-switched quasicontinuously pumped laser 31274
- Nd^{3+}:YLF laser, chirp diagnosis, nonlin. Kerr coeff. 23338
- Ne nuc. pumped laser, 3p-3s transits., lasing charact. 39674
- Pr^{3+}-doped fluoride fiber amp., LD pumped, gain characts. 1875
- Si Li-like recomb. X-ray laser gain determ. 14684
- Ti:sapphire laser, femtosecond pulse phase and intens. characterisation 31477
- Ti:sapphire self mode locked laser ultrashort opt. waveform meas. by FROG 39744
- XeCl compact three electrodes excimer IANUS laser 31153

laser velocimeters
- Doppler airflow velocimeter, receiving antenna sig. estim. 4020
- Doppler anemometer for turbulent Reynolds stresses meas. 10032
- Doppler instrums., converted sigs. detect./proc. 4021
- Doppler meas. of relative airflow velocities 4019
- fibre optic laser Doppler velocimeter, coherence dependence 26014
- hard disk slider vibrs., ramp-suspen. interact., ramp loading proc. 7163
- heterodyne transducer for laser velocimeter, metrological charact. 3809
- non-polar liqs., electrokinetic study, LDA 42985
- radar systs. of LDV, detect. devices 3771

laser velocimetry
- 3D TDM LDA 18151
- barbed plate ESP, particle motion meas. 7922
- Doppler global velocimetry, vortical flow fields meas. 4023
- fission reactor cooling, laser-Doppler meas. 19440
- flow field visualization and real-time vectorization, laser-opt. method *(German)* 10063
- fluid flow partical image velocimetry data anal. 42987
- holographic particle velocimetry, 2D wavelet transform 23460
- in-line recording off-axis viewing holographic particle velocimetry 40148
- ion vel. in RF ion beam, LIF meas. 43021
- laser-induced surface hydrodynamic procs., Doppler backscattered-sig. diagnostics 42981
- LDA, single-freq. sig., digital meas. 4018
- MCM thermal anal., iter. direct soln. method 11768
- moving objs. embedded within scatt. media, detect. by speckle methods 34604
- opt. flow techs., flow velocimetry 18146
- particle image velocimetry, image labelling, flow meas. 18154
- particle image velocimetry, opt. real time fluid flow mapping 23487
- particle image velocimetry, real time LCD syst. 4011
- particle image velocimetry FT lens, off-axis holographic tech. 23475
- projectile vel. meas., flash shadowgraph syst. 3989
- telephone exchange air conditioning units, air flow studies 20141
- turbulent jet into counterflow, digital image proc., LDA, 41074
- turbulent liq. channel flow, LDV 18144
- two-phase flows, LDA, integral effects 4015
- two-phase flows, LDA, integral effects 4016
- unstable vortex ring, flow field, holographic particle velocimetry meas. 18147
- vibration meas. by laser techniques, conf., Ancona, Italy (Oct. 1994) 36868
- vortex breakdown location flucts., vel. meas., flow visualisation 18149
- $LiNbO_3$, SAW phase vel. detect., laser probing syst. 10071
- Si steel, magnetostriction meas., LDV 14125

laser wavelength measurement *see laser variables measurement*

laser windows *see laser accessories; optical windows*

lasers
- *see also chemical lasers; distributed Bragg reflector lasers; distributed feedback lasers; dye lasers; excimer lasers; free electron lasers; gas lasers; laser arrays; laser beams; laser cavity resonators; laser frequency stability; laser tuning; liquid lasers; millimetre wave lasers; nuclear pumped lasers; Raman lasers; ring lasers; solid lasers; submillimetre wave lasers; surface emitting lasers; waveguide lasers; X-ray lasers*
- AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
- conference, laser physics, St. Petersburg, Russia (1993) 11525
- conference, lasers in optical systems/devices, St. Petersburg, Russia (1993) 11526
- diffractive and binary optics 31138
- information optics frontiers, conf., Kyoto, Japan (1994) 28211
- installation design, appls., radiation correl. charact. 14680
- IQEC quantum electronics, conf., Anaheim, CA, USA (1994) 11551
- optoelectronic science/engineering, conf., China (1994) 28207

latches *see flip-flops*

latent heat of adsorption *see heat of adsorption*

latent heat of combustion *see heat of combustion*

latent heat of crystallisation *see heat of crystallisation*

latent heat of formation *see heat of formation*

latent heat of fusion *see heat of fusion*

latent heat of vaporisation *see heat of vaporisation*

latitude *see Earth rotation*

lattice constants
- diamond crysts./superlattices, isotopically engineered 38502
- N_A role in SI, at. path, kilogram 17644
- nitroaniline based nonlin. opt. syst., cryst. growth 15066
- scanning LLL X-ray interferometers, Takagi eqns. appl. 18424
- Si residual impurities, spectrosc. meas., lattice distortion determ. 14593
- Ag-Co granular epitaxial layers, struct./giant magnetoresist. 14164

lattice constants continued
Ag-Ni granular epitaxial layers, struct./giant magnetoresist. 14164
$Al_xGa_{1-x}As$:C, MOMBE grown, annealing 28774
AlGaInP:Si, metalorganic CVD, elec. and opt. props. 28778
$BaTiO_3$ ferroelec. epitaxial film, cryst. orient., thermal expansion mismatch 20865
$BaTiO_3$ films on Pt, epitaxial growth and dielec. props. 12099
$(CdS)_x$-$(PbS)_{1-x}$ thin-film composites, prep., props. 20913
CoCrTa/NiAl(Cr) mag. thin film media for disk storage, in-plane coercivity 7223
Cu/TiN/Si(100) heterostruct., pulsed laser deposition and charactn. 421
$CuCr_2Se_4$:As, mag. props., doping effects 14157
$Dy_2Fe_{17-x}Ga_xC_2$, arc melting prep., mag. props. 39138
ErN(P)(As), electronic struct., metallization appls. 38670
$Fe_{16}N_2$ films, reactive sputtering synthesis 5888
Ga-In-P-As layers, stimulation of cryst. lattice stabilization, heteroepitaxy 37401
GaAs crysts./superlattices, isotopically engineered 38502
GdN(P)(As), electronic struct., metallization appls. 38670
Ge crysts./superlattices, isotopically engineered 38502
Ge:O crysts./superlattices, isotopically engineered 38502
$Ho_2Fe_{17-x}Ga_x$, mag. props., struct. 7217
InGaAlN, competitor of ZnSe for light emitting devices 23053
InGaAs-InP short-period superlattice, interface struct., XRD/Raman scatt. 22010
InPAsSb alloys lattice matched InAs, MOVPE 301
$(InSn)_2O_{3-x}$ oriented films on ZnO films, magnetron sputter deposition 37508
$LiTaO_3$, domain-inverted, proton-exchanged waveguides, lattice consts. 14438
$LiTaO_3$:H proton-exchanged waveguides, structural and opt. props. 14420
$Li_{0.3}Zn_{0.4}Fe_{2.3}O_4$, additives, material property changes 39167
c-MnTe, MBE growth, structural charactn. 37399
$Nd_2(Fe_{1-x}Co_x)_{23}B_3$ ($0\leqslant x\leqslant 1.0$), struct., mag. props. 6980
PbMgSrTe, films, hot-wall epitaxy, charactn. 12080
PbSrTeSe, films, hot-wall epitaxy, charactn. 12080
Si lattice param. meas., survey 17638
Si, porous, passiv. by RTO 22217
Si:B epitaxial layer, heavily doped, strain relax., RTA effects 38471
Si:P crysts./superlattices, isotopically engineered 38502
$Si/Si_{1-x}Ge_x$ strained heterostruct., thermal stabil. 37406
$Si/Si_{1-x}Ge_x(Si_{1-y}C_y)$ heterostruct., situ X-ray investig. 38306
SiC thin films, LPCVD from hexamethyldisilane 433
$Sm_2Fe_{17-x}Al_xC$ ($x=2$-8), arc melted, struct., mag. anisotropy 7215
$Sm_2(Fe_{1-x}Co_x)_{14}Ga_3C_2$, arc melted, struct., mag. props. 7219
$Sm_2Fe_{14-x}Co_xSi_2$-based quasiternary syst., mag./struct. props. 6946
$Sm_2(Fe_{1-x}Ga_x)_{17}$ ($x=0$-0.5) cpds. and nitrides, mag. props. 7218
TiW, sputtered Schottky barrier, AES, SEM 29957
W sputtered thin films, x-ray masks, intragranular microstruct./stress 6700
$Y_2Fe_{17-x}Ga_x$, mag. props., struct. 7217
$Zn_{1-x}Hg_xSe$, electrochem. deposition, EPMA, XRD 28802
ZnSe(Te):N, doping, first principles calcs. 13317
lattice defects *see crystal defects*
lattice diffusion *see diffusion*
lattice filters
2-D lattice filters, image compression 16339
2D lattice filters, stabil. testing procedure *(Japanese)* 32589
adaptive algms. for time delay estim./IIR filtering 40830
adaptive lattice filter, convergence props. 15882
adaptive lattice notch filter, tracking anal. 40853
ARMA lattice filter, reduced no. of coeffs. 37877
decorrelation algm. for blind DFE, lattice structs. 24264
digital filters made, sum of two allpass fns. 37864
Gaussian AR noise, nonGaussian sig. detect., lattice struct. 40989
LDI lattice digital filters, exact design 762
least sq. lattice filters, nonstationary chirp input, PARCOR 40831
least-sq. lattice interpolation filters 32754
least-sq. lattice interpolation filters 12654
median LMS lattice adaptive filters 21421
multicrystal lattice filter design, lattice cascade splitting 37831
normalized TDM-LeRoux-Gueguen algm. for multichannel adaptive filters 21428
parallel systolic algm. implement., RLS lattice example 37886
QR-decomp. based adaptive bilinear lattice algms. *(Korean)* 37876
reversing lattice filter, no. of sources of interf. estim. 2574
RLSL prediction filter, a posteriori, error accumulation effects 24302
separable-denominator multidimensional digital lattice filter 2545
variable precision IEEE floating point simul. using C++, DSP design 6175
WDF, three-port adaptors 37889
WDF for TI's sens. sig. proc. MSP430, CAD 738
lattice localised modes *see localised modes*
lattice networks
see also lattice filters
elec. impedance tomography, resistor network model 3951
mixers, noise fig. limitations/input matching 12742
lattice parameters *see lattice constants*
lattice phonons *see phonons*
Laue effect *see X-ray crystallography; X-ray diffraction*
launchers, electromagnetic *see electromagnetic launchers*
launchers, electrothermal *see electrothermal launchers*
law administration
contract mgt. using document imaging 41721
electronic document signing, public-key cryptography 32046
identification/inspection of humans conf., San Diego, USA (1994) 20264
vehicle registration plate image capture/ident. 41380
laying, cable *see cable laying*
LB films *see Langmuir-Blodgett films*
LBIC *see OBIC*
LCD *see liquid crystal displays*
LCD drivers *see driver circuits*
LDPE insulation *see polyethylene insulation*
leaching *see corrosion; dissolving; environmental degradation*
lead bonding
see also tape automated bonding
0.35-mm-pitch QFP lead and assembly technol. 5654
3D microstruct. assembling, Au-Si eutectic bonding 12951
1024-pin plastic ball grid array for flip chip die, design, SPICE model 5652
act. ICs assembled in plastic packages, area array wire bonds 12958
lead bonding continued
bump heat sink technol. for power HBT and MMIC 38829
bump-pad adhesion, thermocompression bonding effects 21668
C4 packages, bumps, package design guideline, package layers 11771
C4/BGA comparison, MLC single chip package alternatives 5649
C4/CBGA interconnect technol., hi-dens., CMOS μP appl. 5650
ceramic packages, die attach polymer bleedout 153
ceramic QFP, epoxy encapsulation, SM appls. 11765
COG photosensitive adhesive resin interconnection technol., LCD driver LSIs *(Japanese)* 953
compliant bumps for adhesive flip chip assembly 5648
demountable TAB path for TAB technol., PCB design, reliab. testing 5640
end termination ink materials for smart card MLC fab. 6363
engine control module, hybrid interconnect technols. 28154
fine pad pitch wire bonding technol. 29703
fine pitch ball bonding optim., RSM, 3D/contour charts 38169
fine pitch wedge bonding for high dens. packaging 20446
fine-pitch wire bonding for COB 38096
fixed wand electronic flame-off, ball bond form., wire bonding proc. 6445
flip-chip, solder bump fab. by electroplating 38173
high vol. wire bonding automation, pattern recogn./video lead locators 38167
hybrid IC drivers, flip chip bonded, SPICE simul. 7485
hybrid MCM, mixed interconnection considerations, wire bonding, flip chip and TAB 21709
IC packages, molding, wirebond deform. 28495
IC wire bond, automated visual inspection, auto-focusing 37163
Interleaf technol. mfg. syst. for SMT/leaded film capacitors 6361
intrinsic thermocouple monitor for laser wirebonding 29710
known good die, cost-effective design, MCM appl. 21677
laser inner lead bonding proc., optim. and reliab. eval. 6448
latent open test in MCM-D/MCM-C substrs. 21733
lead-on-chip package, tapeless technol. 11794
low drag meas. by vision syst., IC appl. 9814
LSI chip mounting/packaging technol. *(Japanese)* 13857
MCM, peripheral/area array bonding tradeoff, partitioning advisor 38182
MCM-D open repair technols. 21724
MCM-L flip chip interconnection utilizing Au ball bumping 21782
memory die test/burn-in, temporary carriers 21672
metal-filled polymer conductive adhesives, elec. props. 438
microelectronic packaging, cross-sectional TEM, specimen prep. tech. 28480
microsystems, packaging and interconnection techs. 22628
precoat soldering, fine pitch component mounting 38168
rework of wire bonded devices on MCMs 21680
ribbon/wire automatic bonding for hybrid and MCM assembly 38176
self/mutual inductance of package/interconnect struct., inductive parasitics 20461
single point inner lead bonding, narrow pitch 6450
SM leadless solder connection, comparative compliance of commercial lead designs 5662
SRAM, bond pads, lead on chip TSOP assembly 29218
surface metall., solder flip chip, wirebond and TAB interconnections 21783
TAB chip on MCM-D technol., review 38183
TAB inner lead fatigue anal. in thermal cycle environ. 28474
TAB inner lead fatigue in thermal cycle environ. 11791
TAB inner lead gang bonding on Ni-Au bumps 12960
TAB outer lead contact reliab., degrad. study 5642
TAB-outer lead bonding, reliab. of different tape metallizations 6447
tape ball grid array package technol. 5641
thermal printing head, line type, convex struct. 29704
thermocompression hot bar soldering tech. 21646
TQFP package, high perform., Olin MQUAD technol. 5656
Ultra-Thin Small Outline Package 11793
vision syst. for AOI of ball bonds/bonding wire profile in ICs 1463
wire bond test tech. 6446
wire bond test tech. 29699
wire bonding, ball form., fixed wand electronic flame off 29706
wire bonding, present and future trends 38170
wirebond geom. and die setting, effect on wire sweep 20445
Al and Au bond wire fusing current and fusing time estim. 21669
Al heavy wire bonding, US techs. 21667
Al microchip bond pads, oxide layer F contamination, wafer storage 30141
AlN stacked MCM using hot pressed, co-fired material, fab. 21739
Au ball bond shear strengths, rationalisation 12953
Au wire bondability for IC device, TEM obs. *(English)* 6444
Au wire weakening in thermosonic bonding of first bond 29711
Au-to-Au TAB inner lead bonding, laser 6449
GaAs devices, reliable thermosonic wire bond, IR-microscopy 12959
GaAs fine-pitch devices, flip-chip attachment, ball-bumping technol. 12954
Si_3N_4 plasma deposited coatings for sealed COB MCM technol. 12961
leak detection
Kola NPP, containment shell leaks determ. 35786
NTT, explosion-proof liq.-level meter for underground light-oil tanks 42739
nuc. reactor coolant syst. lin. regression leak rate calcs. 27398
nuc. reactor fuel bundle leak detect., telescope sipping 10807
power syst. polymer arresters, moisture sealing testing 27272
power transformer insulating oil test syringes, gas-tightness studies 36224
PWR containment integrity, SEXTEN monitoring syst. 35790
San Onofre plant, U-tube steam generator leaks, ^{16}N det. methods 4795
scanning HEPA filters, photometers 11728
semicond. mfg., proc. control, quadrupole mass spectrometer 6601
steam generators, μP based steam leak detect. syst. 35985
O_2 sens., zirconia pump-gauge based 9951
SF_6 insulated HV equipt., gas chromatography diagnostics 11206
leakage currents
0.25 μm gate length CMOS technol., design/proc. depend. 13894
110-275 kV composite long rod insulator monitoring experiences, Australia 43788
275-345 kV porcelain surge arresters, contamination withstand characts. *(Japanese)* 43800
1310-nm DFB lasers, correl. of leakage-induced distortion, I-V charact. 7685
bending magnets power supply syst., 400 MeV electron synchrotron, leakage currents *(Dutch)* 44117
BH diode lasers, multimode self-consistent model 23283
bipolar transistors, SEG and chemo-mech. polishing 6738
burn-in effects on radiation hardness of transistors and ICs 11725
CCD imager, leakage current simul. 25877
CMOS input gates, latent ESD damage ident. 6847
CMOS radiation-hardened 32-bit μP based commercial proc. 12567

leakage currents continued
  CMOS/SIMOX gate array, 1/4-micron-gate ultra-thin, dyn. perform. and leakage current characts. 22590
  current meas., mag. sens. 34654
  DC electrified rly. traction syst., stray currents control 44546
  DFB LD nonlin. distortions, power-depend. loss and leakage current 31355
  diamond metal-semicond. and MIS structs., elec. charact. 6582
  distrib. network three/zero phase current sens., Hall IC-based 35639
  DMOS power transistors, Si-direct-bonded, static/dyn. props. 22467
  DMOS transistors, drain doping anal., hump in leakage current 6758
  double gate IGBTs, forward blocking capability, high temps. 38907
  DRAM, 256 Mbit, pass transistor designs 21302
  epitaxial diamond Schottky barrier diode, fab., characts. 22350
  epitaxial ferroelec./conductive perovskite heterostruct., leakage current/memory effect 13991
  FET, extrinsic vs. intrinsic models 1445
  flash EPROM endurance simul., phys.-based models 21306
  flash memories, write/erase method 12550
  FPGAs, total dose hardness 12481
  HBT, passiv. procs. 1361
  HFET, microwave, temp. noise model 21542
  high temp. precision op amp, CMOS implement. 21128
  IC thin film cracking detect., test chip design 11861
  IC yield enhancement, real time mfg. proc. monitoring 20468
  injection lasers, threshold condition defn. 7638
  MESFETs, noise perform., gate leakage current 38938
  miniaturized MLC capacitors, thermal shock resist. 12844
  MODFETs, noise perform., gate leakage current 38938
  MOS capacitor ultra-thin oxide/oxynitride dielec. films, reliab. characts., surface prep. 22066
  MOS capacitors with N_2O oxides, elec. and reliab. props. *(Korean)* 30299
  MOS controlled thyristors, buffer layer/anode short struct., 4.5 kV 30271
  MOS devices, lateral alkali-ion migration, reliab. 170
  MOS I/O device degrad., ESD-induced disloc. 22605
  MOSFETs, radiation-induced leakage current, oxide isolation struct., nonuniform damage 13716
  MOSFETs in off-state, interface trap induced emission current 22408
  MOSFETs/SOI, total γ irrad. dose effects, I-V meas. 13705
  off-state n-MOSFETs, interface trap-induced drain leakage current 38859
  p-n jn., time-depend. characts. underneath TiN/Ti contact metal 1078
  polysilicide CMOS devices, low-level current leakage reduction 22580
  polysilicon DRAM cell capacitors, Si_3N_4 dielec. films, RTP 22069
  polysilicon TFTs, fab., pulsed laser annealing and plasma CVD 13743
  polysilicon TFTs, leakage current, NH_3 annealing 38874
  polysilicon TFTs, off-current, thermally generated component 38900
  power MOSFETs operated at cryogenic temps., ionizing radiation effects 13732
  power syst. polymer arresters, moisture sealing testing 27272
  power transformer oil flow, static electrification and PD 36227
  PWM VSI, motor appls., HF leakage currents modelling *(Japanese)* 27814
  radiation-hardened CMOS 177K gate array, develop. 29205
  SALOT, self-aligned LOCOS/trench combination isolation, chem. mech. polishing 21329
  Schottky contacts, photovoltage, transient charact. modelling 6579
  self-adjusting threshold-voltage scheme for CMOS ICs 30453
  SIMOX MOSFET, high temp. operation 22468
  soft etch contact proc., 0.1 μm CMOS device appl. 22572
  SOG film form., Al metal layers for double metal proc. *(Korean)* 30148
  SOI dyn. threshold voltage MOSFET for LV operation 6773
  SOI power devices, forward blocking charact., high temps. 30333
  sub-5-nm oxynitride dielecs. prepared in NO ambient using RTP, props. 6590
  submicron CMOS, soft ESD failure suppression 30465
  submicron CMOS proc., soft ESD failure suppression 6848
  submicron contacts using selective CVD-W plug, jn. stabil. *(Korean)* 13418
  submicron NMOSFETs, GIDL, interface trap effect 6766
  superthin ONO stacked dielec. high-dens. memory devices 1503
  switching nano-device based on Rabi oscills. 6565
  synthetic insulators, leakage current monitoring, coastal site 43784
  thin SOI IGBT leakage current and struct. for high temp. 30344
  trench MOS barrier Schottky rectifier, breakdown voltage 38810
  Al electrolytic capacitor failure, impact of halogenated fluids 6367
  AlGaAs/GaAs epitaxial lift-off MSM photodetectors,field assisted etching 34516
  AlGaAs/InGaAs/GaAs recessed-gate PHEMT, Si planar-doped etch stop layer 30382
  AlGaAs-GaAs HBTs,current gain long-term instabil., model 38847
  AlGaAs-InGaAs heterostruct. FET for high temp. IC 22493
  AlInAs/InP low gate current HFET 13781
  AlSb/InAs HEMTs, 5 V gate breakdown voltage 835
  Au/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
  $(Ba,Sr)TiO_2$, chem. vap. deposition, DRAM appls. 12163
  $Ba_{0.5}Sr_{0.5}TiO_3$ thin films, sputtering, electric props. 20965
  $BaTiO_3$ thin film capacitor dielec. props., Pt bottom electrode 38050
  $BaTiO_3$ thin film capacitor dielec. props., W_2N-W bottom electrode 38050
  Co-SiC, interface microstruct., chem. and elec. props. 13213
  $CoSi_2$ doping source for RTA of shallow p^+-n jns. 22099
  $CoSi_2$ patterned layer buried Schottky contacts in Si, wafer bonding 38394
  $Cu/TiN/TiSi_2/n^+$-Si contact syst., RTN and characts. 38700
  GaAs Schmitt trigger memory cell design 37775
  GaAs power MMIC for 1.9 GHz digital cordless phones 12823
  GaAs quantum well, MBE regrowth, 2DEG struct. 352
  GaAs single-barrier varactors for MM-wave triplers 12779
  GaAs-based MESFET/HFET, device and cct. modeling 6781
  GaInAs-GaInP long wavelength lasers, strain compensated barriers, electron leakage reduction 39822
  GaN/SiC high-temp. HBT, high gain 22372
  HgCdTe IR Earth-imaging array, total dose and proton testing 17960
  HgCdTe VPE growth, long wavelength IR detector, zero tunnel leakage current 12097
  HgCdTe direct injection readout hybrid FPA, background limited perform. 17945
  HgI_2:Ag crysts., defects, rel. to X-ray/γ-ray detector perform. 43075
  InAlAs/AlAs/n-InAlAs struct. for InAlAs/InGaAs FET appls., low leakage current 6787
  InAlAs/InGaAs/InP HEMT impact ionisation characterisation 13771
  InGaAs/GaAs MQW pin diode stained struct., leakage current mechanisms 1129
  InGaAsP/InP MQW planar buried hetero-struct. lasers, MOVPE 23242

leakage currents continued
  InGaAsP/InP/InAlAs quantum well electron transfer struct., finite difference methods 13582
  InGaP and InGaAlP, influ. of H plasma treatment on reverse currents 38809
  InP:Fe/InGaAs:Fe fully passivated AR coated MSM photodetectors 9907
  InP/InGaAs/InP photodetector arrays, noise/current meas. 17774
  InSb 2D IRFPAs, uniformity and stabil. 17936
  InSb-SiO_2-Si p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
  NO dielec. film, low press. CVD/nitridation 13942
  Nb/Al-AlO_x-Al/Nb jns., fab. by simple proc. 1609
  Nb/Al-AlO_x-Al/Ta/Nb Josephson jns. for X-ray detect. 34972
  PLZT thin film capacitors, CMOS ULSI DRAM appls., post proc. damage 21310
  PZT, spatially uniform thin films, MOCVD 37517
  PZT thin films, donor doping, leakage resist. control 13992
  PZT thin-film capacitors, nonvolatile memory appls. 30594
  $Pb(Zr_{0.53}Ti_{0.47})O_3$ thin film capacitors, electrodes, microstruct., elec. props. 881
  Pd/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
  PtSi/p-Si IR Schottky barrier detector, fab. and anal. *(Chinese)* 42813
  Si MOSFETs, drain leakage current 22427
  Si MOSFETs, drain leakage current calc., tunneling formulation 38315
  a-Si act. gate for polysilicon TFT 13713
  a-Si in-situ doped gate MOS capacitors/transistors, elec. props. *(Korean)* 30298
  Si p-n jns., transient component of leakage current 1092
  Si wafers, p-n jns., leakage current, diffusion component 38297
  Si:B(P), low-energy implant., RTA/furnace annealing, XRD optimisation 22102
  a-Si:H high elec.-field p-i-n diodes, p-layer thickness effects 6721
  Si-SiO_2 MOS transistor, leakage current and interface state 38891
  Si-based device proc., radiation damage 22160
  p-SiGe MODFET with high transcond., fab. and perform. 38002
  Si_3N_4 ultrathin capacitors for advanced DRAM cells, in-situ multiprocessing 21589
  SiN-based antifuses, stress-induced leakage current, dielec. breakdown 38448
  SiO_2 thin film reliab. at direct-tunneling voltages, MOS VLSI technol. 22607
  SiO_2 thin oxide wearout and breakdown, high field 38776
  SiO_2(ON)-Si device reliab., surface cleaning effects, ultrathin oxides/oxynitrides 22207
  $SrTiO_3$ film DRAM stacked capacitor technol., MOCVD fab. 21592
  Ta_2O_5 films, DRAMs, leakage currents and defect states 39038
  Ta_2O_5 thin film capacitor for giga-bit DRAMs, low-temp. integrated proc. 21594
  Ta_2O_5 thin film capacitors for 1 Gbit DRAM 21593
  Ta_2O_5 thin high-dielec. films, leakage current, elec. props. 13915
  $Ta_2O_5(TiO_2)$ LPCVD DRAM storage dielec. film, leakage current reduction, RTA 22094
  TiN diffusion barriers for sub-0.5 μm planarized Al IC technol. 38653
  TiN/$TiSi_2$ bilayer form. by rapid thermal anneal at ULSI submicron contact, elec. props. *(Korean)* 30160
  $TiSi_2$ n^+-p diode, shallow jn. form., characts. *(Korean)* 30225
  $TiSi_2$-Si surface/interface roughness, RTA heating rate effects 22096
  TiW, sputtered Schottky barrier, AES, SEM 29957
  ZnO multilayer chip varistor, LV transient suppression 29607
  ZnO surge arrester leakage current, external field effects 4728
  ZnSe/InP, HJFET, MOCVD fab., characts. 13776

leakage, electrical *see electrical faults*

leakage, magnetic *see magnetic leakage*

leaky wave antennas
  1D dielec. leaky-wave antennas, radiation anal. 40468
  dual-beam flat antenna, grating structs. on dielec. waveguide 40465
  Ka-band layered ridge dielec. waveguide leaky-wave antenna develop. 23965
  lin. microstrip array, printed leaky-wave implement. 8066
  MCM interchip radiative interconnection syst. 29724
  MCM logic modules, leaky wave antenna radiative interconnects 12970
  mobile DBS reception single-layer leaky-wave slotted waveguide array 23945
  NRD guide, broadside radiation *(Japanese)* 15630
  planar microwave applicator, current line fed grounded dielec. layer 10268
  rect. microstrip patch array-based travelling wave antenna, anal. *(Korean)* 40504
  slitted asymmetric ridge waveguides, lin. phase arrays 31961
  $Ba_xSr_{1-x}TiO_3$ electronically steerable leaky wave antenna, tunable ferroelec. material 8067

learning (artificial intelligence)
  see also backpropagation; Hebbian learning; learning by example; unsupervised learning
  3-D optoelectronic neural syst., hardware efficient learning 29502
  3-phase PWM VSI, ANN current regulator 44119
  3D target recogn. via sonar, neural net model 25593
  500 kV transm. syst., adaptive autoreclosure, ANN 4677
  adaptive complex radial basis fn. networks, channel equalization 15889
  adaptive multiuser detect., survey 24353
  airborne systems, neural network technology for BIT applications 42730
  analog neural net cct., learning rule 37922
  analog neural net develop. syst., online training 37908
  analog sig. neural proc. chip 29479
  analog VLSI neural net archit., on-chip learning 37911
  angle of arrival estim., neural network 8407
  ANN, digital neuron model, custom hardware design 29516
  assess. in imperfectly supervised environ. 16279
  Bayesian belief networks stochastic parsing 24131
  bidirectional associative memory, optimal radix, searching algms. 21483
  binary commun. channel equalisation, feedforward neural net 15680
  binary matroid ports learning 5782
  bladder cancer cell class., neural net/fuzzy c-means 43258
  buck converter, ANN controlled, simul. 37637
  buried objs. detect., dual-band IR images fusion 8555
  car driver behavior evol. detect., fuzzy diagnosis proc. 34387
  CCD image sens., defect detect., neural nets 3877
  channel equalization with perceptrons, inform.-theoretic approach 32027
  chaotic sig. modeling, nonlin. AR model 15917
  chaotic sig. modelling, reconstructed dyn. 32620
  class., optimum-size learning, neural net training 32583
  CMAC, adaptive resoln. and appl., nonlin. sig. proc. *(Japanese)* 24336
  CMOS adaptive neuro-fuzzy analog chips 29418

learning (artificial intelligence) continued
  CMOS analogue synapse for Kohonen, maps 29421
  color image segmentation, fuzzy clustering and supervised learning 16326
  competitive, optimised neural vector network 793
  computer vision conf., Berlin, Germany, 1993 20268
  connectionist parsing of spoken lang., complex output representation 32296
  continuous speech classif., vis. mouth-shape related classes 32321
  continuous speech recogn., expert-TDNNs/HMMs hybrid syst. 32398
  coronary artery stenosis recogn., neural net on DSA syst. *(Japanese)* 4262
  cross-lang. adaptation for rapid HMM devel. in lang. 32268
  cursive handwriting recogn., online connectionist recogniser 33041
  daily load forecasting, hybrid fuzzy-neural approach 4603
  DC motor control, adaptive neural net, online training 44066
  DC motor drive adaptive neural speed regulators 36655
  decision based neural nets, sig./image class. appl. 15899
  digital associative memory neural network, opt. learning capability 14559
  digital commun. channel equalizer, Kalman-trained neural network 33156
  digital multilayer perceptron, FPGA implement. 6262
  disabled pers. aiding by intell. robotic systs. 35173
  discriminative HMMs, non-lin. input transforms. 32265
  distrib. network fault diagnosis, neural net-based 19241
  distrib. power lines fault diagnosis, neural net-based 19242
  distributed neural control of commun. network traffic 24901
  double-based genetic algm. on pop. of computer programs 216
  dyn. gesture recogn., neural networks 32817
  dyn. supervised neural networks, fixed pole IIR struct., perform. 8309
  edge detect., discrete time cellular neural networks 32900
  edge preserving VQ by self-organizing map 41371
  edge-preserving VQ, self-organizing map learning 16140
  EEG, feature selection, VQ/genetic algms. 43313
  efficient segmentation of cancer cell nuclei in different color spaces 26274
  electromachine vibr. data validation/recovery, ANN 19593
  equalization, recurrent radial basis fn. networks 2555
  estim., associative memory ANN 19335
  extraction and multivariate data projection via neural nets 24696
  failure detect./accommodation, stable neural learning 5712
  faulted SRM drives modelling, evol. ANN 44448
  feedforward neural nets, fault tolerance training method 12684
  feedforward neural networks and rejection of spurious patterns 32849
  FIR filter multilayer perceptrons, training algms. 8452
  focused gamma neural network, state space, noise reduction 32657
  free-space optoelectronic technol. neural networks 1774
  fully parallel Kohonen map, mixed analog digital approach 29440
  Fuzzy ARTMAP, radar target recog. neural net 25583
  fuzzy Boolean neural network for character recogn. 41157
  fuzzy intelligent hybrid system, telecom network routing appl. 8789
  fuzzy nearest prototype classifier learning 37919
  fuzzy neural fast learning controller/filter 24354
  fuzzy seq. cct., fuzzy flip-flop 621
  gate-level design diagnosis, learning-based search strategy 12462
  geometric image class. by stress polytopes, perform. and integrat. *(French)* 41351
  halftoning opt. neural learning algm. 16305
  handwritten digit recogn., time delay neural network 33040
  handwritten digit recogn., transform. of optimized prototypes 33039
  hearing loss compensation, neural network based objective measures 18612
  hierarchical LPNN network for noise reduction/speech recogn. 32386
  holographic NDT, neural network approach 31662
  hybrid HMM-MLP speaker verification algm. for telephone speech 32247
  image compression, neural based optimal VQ 33063
  image compression, random network learning 33046
  image descriptions, learning, fractals 32957
  image proc., model struct. learning 16333
  image quantization and rel., network struct. procs. 33088
  image recogn., analog neural net chip 41164
  images chaotic scanning/recogn. in neuron-like systs. 8474
  in-situ learning, analogue VLSP MLPs 29457
  induction motor, trajectory learning method, neuro-fuzzy network *(Korean)* 36172
  induction motor ASD, adaptive speed control, ANN 28080
  induction motor drive vector control, neural net flux estimator 5296
  induction motor drives, vector control, feedback sigs. estim., ANN 44488
  induction motor incipient fault detect., fuzzy neural net-based 36156
  induction motor incipient fault diagnosis, fuzzy neural net-based 36157
  induction motor stator current control, neural net-based 19629
  induction motors, on-line fault detect., stator current monitoring 4967
  injection laser neural network, long. modes, neurons 29453
  instrumentation and measurement applications 25723
  integrated bandwidth and congestion management in ATM networks 33709
  intensive care alarm monitor, neural net-based, comparative perform. studies 35140
  island power syst. spinning reserve, real-time estim. 4473
  Kanji pattern recogn., unification neural network *(Japanese)* 2828
  L-shaped cell placement by neural nets 30416
  lang. ident., phone-based acoustic likelihoods 32276
  large vocab. speech recogn., comparative expts. 32343
  load forecasting, long-term max. demand, modified ANN approach 19209
  load forecasting, models comparison, fuzzy neural nets 19219
  load forecasting, weather-sensitive short-term, neural net approach 10701
  local SCADA systs., intell. load shedding algm. *(Korean)* 35473
  long-term load forecasting, recurrent neural network 27112
  LPC params. for noisy channels, VQ 32329
  median filter based on fuzzy rules *(Japanese)* 21431
  MLP based nonlin. spectral estimators for noise reduction 32378
  modular prog. neural archit., VLSI implement. 29506
  monitoring power supply current, neural network 34374
  multi-sens. rem. sens. imagery, parametric/neural classifier 8506
  multilayer perceptron design algm. 8450
  multilayer perceptrons, dimens. reduction 24055
  multimachine power syst. coord. control, reinforcement learning 4539
  multiple source synthesis for training array neural nets. 23959
  multispectral images segmentation, classified algm. 41355
  neural net synaptic coeffs., simul. annealing and SPICE-PAC 21471
  neural nets, analog, simul./training tech. 29500
  neural nets, conf., Orlando, FL, USA (1994) 20227
  neural network, kanji character-recogn. appl. *(Japanese)* 786
  neural network classifier, invariance property and training 32659
  neural network controlled cryst. oscillator 39107
  neural networks, two-pattern class./feature selection 33038
  noise canceling, autoassociative memory trained by order stats. 32623

learning (artificial intelligence) continued
  nonlin. commun. channel equalization by wavelet neural nets 41397
  nonparametric estim., neural networks 41207
  nonstationary sig. sources separation networks 8389
  obstacle detect. by binary expansion patterns recogn. 33070
  odour absorpt. films selection, sens. qty. eval. *(Japanese)* 42783
  online machine learning, knowledge acquisition appl. 16611
  opt. learning neural network, Selfoc microlens array for pattern recogn. 31034
  opt. neural networks based on opt. nonlin. devices 22974
  optimal trade-off distortion-tolerant constrained-modulation correl. filters 24362
  pattern class., optimal matching-score network 33035
  pattern class., probab. measures, learning decision rules 41208
  PD pattern recogn., neural network 22650
  PD pulse shape discrim., neural network paradigms 13944
  phoneme dictionary automatic training based on mutual inform. criterion 32269
  photorefr. grating opt. resonator, self-organized learning of purely temporal inform. 14329
  picture region segmentation, neural network appl. *(Japanese)* 2615
  pixel detector, primary vertex location, neural network appl. 34941
  power distrib. syst. fault detect./ident., neural net 4657
  power syst. anticipatory fuzzy control, neural net-based 43666
  power syst. daily load forecast, multilayer neural net-based *(Japanese)* 10708
  power syst. dyn., coherency ident., neural net-based 4492
  power syst. dyn. load modeling, neural net-based 4488
  power syst. fault location, neural net-based alarm proc. 19072
  power syst. intell. control, appl. develops. 19135
  power syst. load forecasting, ANN based, EMS 4616
  power syst. mgt., voltage/reactive power neurocontroller *(Japanese)* 4529
  power syst. security eval., ANN appl. 10677
  power syst. short-ccts. calc., ANN appl. 19067
  power syst. short-term load forecasting, genetic algm. neural net 27080
  power syst. smart relay, AI based 19350
  power syst. state estim. pattern anal., neural net-based 35447
  power syst. static security assess., genetic neural net-based 19008
  power syst. transient stabil. assess., neural net-based 19006
  power syst. voltage security, ANN, patt. class., machine learning 19160
  power syst. voltage stabil. assess., neural network 19046
  power syst. voltage/VAr control, recurrent neural net-based 4512
  power systs., operational intell. syst. appl. 43617
  power transformer oil, dissolved gas anal., ANN appl. 19683
  precision limited analog neural networks, training method 29437
  prosodic rules for speech synthesis, automatic generation 32351
  PSS, feedforward neural net, inverse dyns. *(Korean)* 35540
  PSS, SMES-based, neural network-controlled 27030
  PV power syst. max. power tracking, fuzzy neural net-based 19552
  quantizer neuron chip, neuron model/neuroprocessor 12675
  radial basis fn. network, speech spectrum conversion 40726
  Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
  recurrent neural network based speech recogn. 32430
  relay, smart, AI-based 6397
  rem.-sens. data, neural network class. 43544
  residual VQ, multilayer competitive neural network 15718
  robot vision, general learning algm. 8491
  robust lang. model, substring parser and extended n-grams 32295
  seismic event class. by fuzzy logic 35290
  seismic sig. discrim. by radial basis fn. network 35289
  self-organizing multiuser detect. 25239
  semantics, learning from training data 32374
  sens. array pattern, resoln. improvement, neural net appl. 15916
  shift and rot. invariant texture recogn., neural nets 33059
  short-term demand forecasting, neural network approach 4605
  short-term peak load forecasting, ANN appl. 19217
  shower recogn., feed-forward neural networks appl. 34942
  signal proc. neural nets, conf., Linthicum Heights, MD, USA (1993) 40865
  signal segmentation using self-organizing maps 10457
  single sided LIM, design, ANN, FEM, SUMT *(Korean)* 27758
  single-layer feedforward neural networks, precision requirements 29461
  speaker ident., neural tree networks 32250
  speaker ident. bt time delay neural net 32421
  speaker recogn., neural tree network/VQ probab. estimators 8236
  speaker recogn. in tactical commun. 32287
  speech, discriminative training for neural prediction systs. 32267
  speech recogn., MLP probab. estimators, parallel training 8237
  still monochromatic images compression, VQ neural network 33069
  stochastic CFG rules learning from example text 32293
  subimage class., adaptive image data compression, fuzzy syst. *(Korean)* 24560
  target recogn., min. error neural network (MENN) method 24557
  target tracking, neural network maneuver modeling 32671
  telephone channel adaptation, vector field smoothing tech. 2447
  test scheduling, test subsession partitioning 17661
  text depend. speaker verification, data fusion, channel detect. 32200
  texture class., neural networks appl. 32899
  thermal power plant generation scheduling, SHAPES ES-based 43890
  thermal power units, load control syst., adaptive neural model *(Chinese)* 35983
  three-phase rectifier, deadbeat neural net predictive control 11174
  time sig. filtering, neighborhood graph lin. approx. 8453
  TOTEM, digital proc. for neural networks and reactive Tabu search 29454
  transform coding by lateral inhibited neural nets 32087
  translation-invariant second-order opt. neural network for multiple-pattern class. 24486
  turbogenerator online vibr. monitoring, neural net-based 19596
  turbogenerators, winding shorts localisation, fuzzified ANN 44021
  underwater acoustic noise ident. 17492
  variable speed drive inverse nonlin. speed controller design 11349
  variable speed induction motor drives, neural net-based vector control 36685
  VLSI neural learning, robustness against cct. limitations 29489
  VLSI rect. cell placement, force-directed self-organizing maps and delta learning rules 5965
  voiced stop consonant recogn. by block-windowed ANN 32422
  voltage security, machine learning, neural networks, stat. pattern recogn. 10663
  vowel class. using neural predictive HMM, discriminative training 32432
  Wiener spatial filter SDF for opt. correl. 41153
  word recogn., task independent and depend. training 32357

learning (artificial intelligence) continued
Zero Instruction Set Computer, Higgs search 41284
PZT ferroelec. film, neurodevice, adaptive-learning 39094
learning automata
LABON, learning automata-based opt. network 9608
multi-machine syst. learning coord. control 36121
multimachine power syst. coord. control, reinforcement learning 4539
packet switched networks, fault-tolerant routing algms. 24756
power syst. stabil., learning coord. control 27010
telephone network mgt., learning automata 8777
learning by example
3-D morph. algm. for obj. recogn., automated training 16269
closely-spaced objs. problem, feed-forward neural networks 16104
consonant recogn., knowledge based approach 32228
COSIMA multistrategy learning syst., integrat., interactive floorplanning tool 12290
enhanced recogn. syst. perform., adaptive learning concepts 16280
isolated utterance recogn. associative memory scheme 32423
missing inform. principle in computer vision 24358
morph. filter optim. by learning, opt. neural net appl. 1765
pattern class. by learning from example and extension matrix 24553
power syst. control ES software design, OOP techs. 27070
learning systems
see also adaptive systems; backpropagation; cognitive systems; Hebbian learning; learning (artificial intelligence); learning by example; self-adjusting systems; unsupervised learning
aircraft landing tracking, multisensor integrat. 41115
ANATA, autonomous network administrator, TAMPOPO learning machine appl. *(Japanese)* 16583
automata in inform. flow control *(Croatian)* 3267
Boolean neural net, dynamically configurable combinatory logic array 29451
COSIMA multistrategy learning syst., integrat., interactive floorplanning tool 12290
DC drives, nonlin. controller, bi-orthogonal decomp. 5314
dexterous motions, nonlin. cct. theory for robot control problems 21090
discrete event systs., rapid learning techs. and appls., traffic smoothing 41568
ECG diagnostic ES appl. 35097
forced commutated converters, voltage balancing, learning controller *(German)* 36368
fuzzy controller; on-chip learning, stochastic logic 6166
inform. detect., entropy 32019
late pot. diagnosis, self-learning ES 26417
Midwest Symp. on ccts. and systs., Detroit (1993) 33
nuc. steam generator level control, fuzzy learning algm. 19447
opt. disc tracking adaptive learning control *(Japanese)* 14344
power syst. stabil., learning coord. control 27010
probabilistic RAM, hardware-based learning syst. 37915
sens. fusion, auto calib. scheme 32803
variable speed drive inverse nonlin. speed controller design 11349
VC-dimens. anal. for obj. recogn. 24462
visual learning and recogn. of 3D objs. from appearance 24572
word spotting, adaptive noise immunity learning 32317
least mean squares methods
1D input sigs. recovery in discrete time-varying lin. and bilinear systs. 2537
2D adaptive lattice struct. for noise cancelling 32680
2D backpropag. cascade adaptive recursive filters 6231
2D FIR digital filters, weighted LMS design 2488
2D FIR digital filters, weighted LMS design 8364
2D separable FIR Wiener filter design, iter. method 24214
AC bridge for impedance meas., anal./design/implement. 12613
acoustic echo cancelers, asymptotic convergence 24313
act. periodic noise cancelling syst., FPGAs 8380
adaptive Bayesian decision feedback equaliser, CCI compensation 15941
adaptive beamforming, spatial filter designed blocking matrix 8408
adaptive diversity reception,. prediction, smoothing, interpolation 25447
adaptive echo canceler, time varying normalized LMS algm. 24348
adaptive equalizer for digital FM 3428
adaptive equalizers, LMS-based, fast convergence 6258
adaptive filtering, direct-form LMS algm. 8330
adaptive filtering in data commun., self improved error ref. 33160
adaptive FIR filter dimens., learning rate 32756
adaptive IIR filtering, fast convergent genetic search 32705
adaptive LMS filter algm., nonlin. behaviour 24345
antenna array pattern synthesis, imposed near-field nulls 2347
antenna syst. for multiple suppression 31992
beam, bending wave structural intens., adaptive control 2543
beam-steering/jammer-nulling photorefr. phased-array radar proc. 7437
blind wideband source separation 40920
CDMA autonomous multipath diversity receiver 25440
CDMA mobile radio systs., joint detect., diversity 25343
color-sig. separation, constrained nonlin. optim. approach 16314
complex valued spreading seqs., crosscorrelation props. 32091
continuous time nonrecursive FIR filter,digitally prog., digital control 760
contraction mapping, property in adaptive filters 24269
data transm. SVD-based fractionally=spaced equaliser perform. 42043
DC motor dyn. ident. 11063
DC offset effects in LMS adaptive algms., comparison 40852
DECT systs., low time-dispersive channels, adaptive equalization 3498
delayed LMS algm. for adaptive FIR filtering 32677
delayed LMS transversal adaptive filter vectorization 741
differential method for computing local shape-from-texture 8605
digital commun. channel equalizer, Kalman-trained neural network 33156
digital underwater commun., adaptive beamformer perform. 9659
direct detect. opt. systs., LMS filters, ISI reduction 9607
double-talk detect. method, detecting echo path fluct. *(Japanese)* 40719
DS-SS/QPSK systs. for multipath channel, adaptive equalizer *(Japanese)* 25212
echo path modelling, chaotic-driven, coding strategy 33398
error DFE 8357
fading channels, blind MLSE 40542
fast converging low complexity adaptive filtering algm. 15987
fast decision feedback LMS algm., multiple step sizes 8462
fast LMS-based algm., real-time echo cancellation 33408
fault-tolerant adaptive FIR filters, variable detect. threshold 29364
FIR adaptive filter, least mean p-power error criterion 15884
fractionally-spaced equalization, lattice struct. 781
FSE/DFE-based HDSL equalizer, adaptive algms. 9087
full-duplex speaker phone based on adaptive predictor 9109
gamma filter for echo cancellation in subscriber loop 33674
least mean squares methods continued
generalized multidelay adaptive filter, struct./convergence anal. 24199
generalized URV subspace tracking LMS algm. 32757
gradient ADF and convergence anal., arbitrary inputs *(Japanese)* 29367
gradient type adaptive algm., least sq. gradient 2514
grayscale morph. filters, optimal under LMS algo. 2838
HDTV systs., channel equalization techs. 17566
high-speed train, adaptive channel equalization 3423
HMM for blind channel charactn. and data detect. 40943
hybrid DS/FH SS syst. for mobile radio channel 3483
ISDN U-transceiver adaptive filters, DSP based real time simul. 29260
lens design, least-sq. optim. line search 7444
lin.-constrained adaptive filtering, robust FLS algm. 32750
live speech network assess., digital adaptive filter 40750
LMS algm., short-time instabilities 24268
LMS algm. error triangle rule/misadjustment 8321
median LMS adaptive filter, local stabil. props. 2462
median LMS lattice adaptive filters 21421
microwave diffr. tomography, adaptive imaging algm. 16349
min. effort estimators/controllers, perform. surfaces 32561
multichannel IIR filtering, Levinson-type algm. 8413
multipath fading ISI channel TCM detect. by sequential deq. estim. 40548
multiple-error and block LMS adaptive algms., anal. 24342
multiple-error/block LMS adaptive algms., mean-sq. anal. 32761
multispectral images, radiometrically correct sharpening, panchromatic image 16270
multivariable robust filtering/open-loop control, probab. 32529
narrowband adaptive arrays proc., quantisation error modelling 32609
NAVSTAR/GPS adaptive array processor using analogue LMS algm. 25615
Newton adaptive filtering algm., variable convergence factor 40806
NLMS/block RLS algms., block proc. algms. link 32553
non-homog. DNLMS algm., decreasing step size, convergence 32755
nonlin. echo cancelling, look-up tables/Volterra systs. 2564
nonrecursive lin.-phase filters, least-sq. design 761
normalised order stat. LMS adaptive filtering 8329
normed LMS algm., error feedback delay, convergence 5769
Northern American Digital Cellular Syst. adaptive algm. fading channel tracking props. 33825
optimal edge-preserving hybrid filters 2737
order stat. LMS algms. for non-Gaussian noise 2467
orthogonal block adaptive line enhancer, LMS adaptation 8354
oversampled subband acoustic echo cancelers, anal. filters, expt. 24273
oversampled subband acoustic echo cancellers 25136
perceptual eval. of MSE choice of regularization param. 16318
power syst. adaptive digital relaying, LMS algms. 35674
power syst. recursive load ident. method, computer-based 35427
radar data fusion, joint detect./estim. filter 34124
radar sigs., wavelet subband decomp. in adaptive arrays 17395
randomly time-varying channels tracking algms. 2466
real-time adaptive filtering algms., parallel archits., perform. eval. 37894
reciprocal Gaussian procs., recursive filtering/smoothing 24293
RLS algm. based on var. characts. of room impulse response 32749
robust nonlin. least sq., data modeling 16009
robustised broadband freq. domain LMS adaptive beamformer 8377
rot. machine act. noise control studies *(Korean)* 27668
SAR param. estim., adaptive algm., texture recogn. *(Chinese)* 34108
second-/higher order stats., adaptive blind equalization 15890
sens. array proc., adaptive subspace selection 40962
shallow water channel estim. methods, comparison 17460
sine/cosine ref. generator, high-perform., design 8350
small obj. detect. by LMS filtering and multilayer perceptron 32898
solid-state actuators, periodic forces cancellation 30755
space commun. adaptive arrays, 2D wavelets/filterbanks appl. 9408
speech noise whitening filter for syst. ident. 40746
stochastic gradient adaptive filters, partial updating 24267
subband adaptive syst., equiv. model, perform. anal., Wiener filters *(Japanese)* 29368
subband adaptive systs., perform. anal., equiv. model 32696
target tracking, robust adaptive beamforming 40958
THD meas., Volterra series, LMS adaptive algm. 34684
time const.-based variable LMS algms. for adaptive filtering 8466
time varying step size normalized LMS echo canceler algm. 32603
time-varying channels, optimal tracking, freq. domain approach 15891
transform-domain adaptive filters, anal. method 32551
transform-domain split-path adaptive filter, convergence optimality 32760
triangle rule, adaptive sig. proc. appl. *(Chinese)* 8400
underwater acoustic data commun. link adaptive equaliser 9612
voiced speech/perceptual cost fns., mixed-phase AR models 32260
VQ sigs. transm., Rayleigh fading channels 8448
wavelet transform adaptive filtering 32524
wireless commun. syst. adaptive array sig. acquisition and tracking 33792
Si integrated adaptive LMS echo canceller, variable step size 16926
least squares approximations
see also least mean squares methods
1D RLS systolic array, folding design procedure 29278
2-D noncausal Gaussian Markov random field model, param. estim. 33078
2D FIR digital filters, weighted least sq. design 15858
2D freq. domain, least sq., sig. and syst. modeling, lin. approach 8436
2D image data modelin, robust M-estim. 16341
2D lin. extension, super resoln. radar imagery 9626
2D zero-phase FIR filters, closed-form soln., least-sq. design problem 6236
3-D scenes, image seqs., global-motion estim., coding appl. 41088
3-param. affine approx. of focus and zoom vars. *(French)* 41349
3D obj. shape, pose, and deform. estim. 2758
3D shape and motion recovery from image streams 16173
16-DAPSK, differential detect., Viterbi-algm. *(Japanese)* 24175
absol. water dens. meas., 1°C, 40°C 18119
act. scatterers, detect./ident./tracking 34131
adaptive algms. for speech sig. proc., comparative study 2430
adaptive bilinear predictors 32773
adaptive filtering, FFT/displacement struct., subsampled-updating RLS algm. 2552
adaptive param. estim., QR methods of O(N) complexity 40814
adaptive phase control, RLS phase estim. 40799
adaptive RLS filtering, iter. version of QR-decomp. 32479
adaptive small-sample condition estimator for matrices, rank-one modifs. 32474
adaptive time-varying parametric modeling 40908

least squares approximations continued
affine phase complex FIR filters, design/charactn. 8359
alg. derivations of relative affine struct., 3D reconstruction 41336
array proc. for block adaptive LS FIR filtering 2529
astron. small bodies imaging, bispectral techs. 33140
asynchronous machine, params. ident., RLS method 27711
ATM, VBR video transm., predictive dyn. bandwidth allocation 16419
autoregressive spectral estimation fro NMR spectroscopy 24233
banded Toeplitz lease sq. problem regularization, fast algms. 32486
bilinear filtering, adaptive algms. 32469
bipolar transistors 1/f noise parameters meas. and anal. 22371
blind adaptive array simul. for realistic mobile channel 33795
blind ident./equalization of MA channels for QAM 8367
calib. of instruments optimisation 3715
Capon beamformer, sensitivity anal. 16032
cct.-switched networks, real time traffic estim. 41680
chest radiographs, digital, scatt. radiation correction methods 43244
coherent opt. syst. nonuniform FM response, semicond. laser model 9471
combined lin.-Viterbi equalizers, comparison and design 9175
commercial building cooling energy use, ANN modelling 36635
complex all-pass IIR digital filters, design 15908
complex coeff. FIR digital filter design by complex weighted LSA 6237
computational opt.-sectioning microscopy for 3-D quantification of cell motion 18430
constrained anti-Hebbian learning algo. for total least sq. estim. 2549
Cramer-Rao lower bounds for biased image restoration 2843
curvature approx. of 3D manifolds in 4D space 11974
damped sinusoidal proc., variance of LS estimators 2474
data compression, adaptive image sampling/interpolation 16387
decorrelation algm. for blind DFE, lattice structs. 24264
denominator separable 2D IIR filters, design 40899
digital photogrammetry, automatic relative orient. 41260
direction finding, state-space approach 2492
discrete coeff. FIR digital filters, design 24306
DOA estim., wavelength, gain, and phase errors 24211
Doppler optimised compression filters 34125
DSP algms. mapping, multiprocessors by simulated annealing 8355
DSP algms. mapping onto multiprocessors, cost fns. 24225
DSP teaching aid, algorithmic engng. 36926
DTM generation, obj. based by MEOSS 3-line camera data 41245
echo cancellation, voice commun., sig. proc. methods *(German)* 42048
ellipses and circles, least-sq. fitting 20593
EM syst., impulse response, deconvolution/total least sq. 40389
EMP, measuring syst. deformed, reconstruction 23700
enhanced RLS tracking, parallel adaptation 32698
equi-ripple higher-order differentiators, weighted least-sq. design 32634
event-related pot. estim. by random shifts and scalings 26380
exponentially weighted LS ident. of time-varying systs. 2463
expt. data approx., exponential fn. 40775
extended inverse QR adaptive filtering algm. 15983
extrapolative prediction-discrete sine transform coding, adaptive prediction *(Japanese)* 16299
FAEST, fast transversal algms., error generation and propag. 32699
fast least sq. QRD-based algm. for complex data 2500
fast transversal filter for decision feedback equalization 15942
FIR digital filters, iter. reweighted least sq. 32785
FIR filters iter. reweighted least-sq. design 2465
FIR optimal least sq. multiband filter design 24259
FIR systs. blind ident., third order cumulants 2525
first order optic flow from log-polar sampled images 24447
freq.-selective techs. based on SVD, TLS and bandpass filtering 32489
freq.-stepped CW radar data, optimal sig. proc. 17374
furnace, elec., fuzzy adaptive controller, proc. control appl. *(Korean)* 5389
fuzzy classifier derived from data, tuning 8577
gamma bases, parametric LSA 40821
gamma filter for echo cancellation in subscriber loop 33674
geocoding of satellite images, automation of tie pointing procedure 41278
geophys. resoln. and covariance estim. for large matrix inversions 43497
global image matching and surface reconstruction, aerial images 41261
GPS, ATC radar calib., flight expts. *(Japanese)* 9680
gradient type adaptive algm. 32758
gradient-based algms. for echo compensation 15988
heart rate, AR spectral estim. uncertainty 26424
Hermite bicubic collocation, matrix decomp. methods 28661
high wave no. EM scatt., soln. method 40308
high-resoln. freq. estim. 24203
HOS for blind channel estim. and deconvolution in colored noise 32457
hydrogenerators, adaptive speed control, RLS ident. 43988
IIR ADF for line canceller and pole-control algm. *(Japanese)* 21436
ill-posed systs., implicit shift bidiagonalization algm. 20609
image restoration in freq. domain, EM algm. 16391
inconsistent sig. feasibility problems solns. 2468
induction motor drives, digital adaptive control, transputer based 11379
induction motor starting transients, simul. algm. 19631
instantaneous freq., bootstrapping confidence bands 32461
integrated GPS/GLONASS navig., algms. and results 17504
interferometric SAR terrain elevation mapping from multiple obs. 25549
inverter-AC motor motor drive syst., param. ident. 5249
iter. total least sq. methods, straight line extraction 41178
kinematic resection of scanned imagery 41275
L^2 deconvolution, fast seq. algm. *(French)* 41035
land mobile commun., DFE, interpolation *(Japanese)* 17138
lattice filters, nonstationary chirp input, PARCOR 40831
lattice interpolation filters 32754
lattice interpolation filters 12654
lens design, global optim., escape fns. 39528
Levinson-type algms. for polynomial fitting, Cholesky and Q factors 20582
LF equalisation, adaptive digital filters 24295
lin., extraction by least sq. template matching 41253
lin. stochastic functional evol. eqns. in Hilbert spaces, estim./control duality 37305
lin.-phase FIR half-band filters, least-sq. design 37895
low-dimens. sig. subspace computation 32472
LTI digital filters design, error criteria 32790
MA-model ident., modulated cumulants 24248
mag. head/tape spacing, 2D interferometric meas. 7169
mag. recording, adaptive continuous-time equalization and FDTS/DF seq. detect. 30725
metallic enclosure model source, EM emission estim. by inverse-forward anal. 40374

least squares approximations continued
metrology fund., errors estim. 3706
mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
mobile radio commun., interf. canceling equalizer 9383
MRI restoration, multidimensional nonlin. edge-preserving filter 26330
multi-channel decimator for tri-level delta-sigma modulator 29080
multiband least sq. FIR filter design 29369
multipath time-delay estim., least-sq. algm. 2491
multiple image matching in automatic aerotriangulation syst. 2786
multiple TCM receivers, systolic-array struct. 15862
near-IR spectrosc., calib. fn. transfer 42661
NLMS/block RLS algms., block proc. algms. link 32553
noisy images, point reconstruction 32937
nonGaussian noise, arrival angle estim. 40948
nonideal acquisition devices, general sampling theory 2464
nonlin. autoregressive modeling and estim. in noise 2510
nonlin. commun. channel equalization by wavelet neural nets 41397
nonlin. least sq., robust sig. modeling 40999
nonlin. least-sq. problem 11966
nonlin. param. estimators approx. 25575
nonnegative sigs., relax. procedure for phase retrieval 2472
nonstationary channels tracking, optimal windowed RLS algm. 17097
normalized TDM-LeRoux-Gueguen algm. for multichannel adaptive filters 21428
obj. detect. in clutter, Gabor filters 24549
ocean surveillance, array localization, least sq. error minimization 18993
opt. flow, recursive filters 16294
opt. guiding struct., chromatic dispersion 7305
optim. tech. for time domain appls. 12700
optimal fuzzy filter synthesis, local stats. based *(Japanese)* 21433
orthogonal least sq. algm., computational requirement 32782
orthogonal least sq. algm., computational schemes 24226
orthogonal regression models, nonlin. param. estim., algms. and appls. 28662
outlier-resistant methods for estim. and model fitting 14364
parallel systolic algm. implement., RLS lattice example 37886
parallelizable adaptive least sq. algm., tracking abilities 32751
partial cylindrical surface location from struct. light image 2831
partial least sq. regression via additive splines 28663
partially absorbent phase objs., phase reconstruction/unwrapping from holographic interferograms 31663
PDE with delay, difference analogues 20621
peak-constrained least-sq. digital filters design 8360
pel-recursion with integer estim. updates, non-interpolative kernel 2850
periodic discrete event procs., param. estim. 40924
photogrammetric anal. of image invariance, computer vision 41242
phys. approach, IR image understanding 41222
planar microstrip ccts., FDTD anal., spectral domain Prony's method 12730
planar sonar arrays, beam-pattern design method 9654
polynomial phase param. estim.-phase unwrapping algm. 40931
power syst. dyn. security assess., patt. recogn. method *(Chinese)* 35512
power syst. interarea/local generator reson. modes ident. 35486
power syst. load/state estim. software, security assess. appls. 27103
power syst. short-term load forecasting methods, computer-based 27093
power syst. sig. param. estim., neural nets 19170
power syst. state estim., Lagrange multipliers significance 26876
power syst. state estim., param. error ident./estim. 35485
power system state estimation weighted least square methods 19022
projection approx. subspace tracking 24204
Prony algm. modified for exponential fn. fitting 20586
Prony based methods for simultaneous ident. of transfer fns. and init. conditions 32587
pseudo-inverse-based probab. power flow 35462
QR decomp. method of least sq., neural network algms. 33153
QR decomp.-based least sq. tech., improve ATC radar 2579
QR-decomp. based adaptive bilinear lattice algms. *(Korean)* 37876
QR-RLS algm., stabil. anal., finite-precision arith. 8325
QRD inverse-updates method for fast time-series adaptive filtering 32478
QRD-based sq. root free and division free algms./archits. 28656
QRD-RLS/STAR-RLS adaptive filters, fixed/floating point error anal. 32700
quadric surface reconstruction from disparity meas. 24547
radar sidelobe canceling, mapping QR decomp. on parallel computers 17421
RAKE receiver, mobile multipath fading channel, channel estim. 42268
real-time adaptive acoustic beamforming, design study 32598
real-time signature verification, neural network algms. 16282
reconfigurable knowledge database, nonlin. sig. proc. *(Japanese)* 24335
recurrent neural network for total least sq. problems 11970
recursive const. modulus algm. for real-time array proc. 8352
recursive differentiators, design, quadratic prog. 763
recursive differentiators design, const. group-delay characts. 2521
recursive filters, chaotic sig. driven 16021
reduced systolic engine for nonlin. dyn. systs. anal. 29243
RLS adaptive bilinear filters, stabil. result 8394
RLS adaptive equaliser digital commun., importance sampling 16409
RLS algm., wt. misadjustment, input sig. correl. effect 40843
RLS algms., error propag. anal. 8429
RLS based subspace tracking 32470
RLS bilinear filter for channel equalization 32728
RLS estim., systolic array, formal derivation 28659
RLS weighted algm. for speech proc. 32447
RLSL algms., comparative anal. regarding num. behavior 32480
RLSL prediction filter, a posteriori, error accumulation effects 24302
robust lin. predictive anal. methods for speaker ident. 24150
robust nonlin. regression methods, dose response rels. 28569
robust speech recogn., probabilistic optimum filtering 32309
salient-pole saturated alternators, damping/synchronising torque calc. 44015
scalar sig. separation, decorrelation 32697
seal imprint verification, automatic 33012
segmentation-based predictive multiresolution image coder 16311
short-block digital transm., adaptive MLSE for mobile radio 3427
sig. copy, partially known, unknown array response 40957
sig. reconstruction, normalized autocorrelation constraints 32735
single line drawing interp. for obj. reconstruction 41243
space shuttle main engine data residue ident. and constrained least squares model 35271
sparse systs., complexity-constrained LS estim. 42532
speech echo cancellation, adaptive-filtering techs. 32411
stepping motor drive, real-time mech. params. estim. *(French)* 11324
stereo head mounted onto robot arm, self calib. 24474

least squares approximations continued
  Strang's preconditioner generalization, iter. deconvolution appls. 32821
  struct. rank deficient matrices, struct. total LS problem 2482
  submicron MOST model param. extraction in lin. region 1423
  super-resoln. range-Doppler imaging 25556
  surface curvature and orient. recovery from texture distortion 24468
  time difference of arrival meas., closed-form localization soln. 32616
  time-varying filter banks and wavelets 2471
  Toeplitz matrices factorization, fast algm. 40860
  transit time estim. in multiphase flow, mixed modality scheme 25698
  transversal filter algm. for recursive LS adaptive filtering 2531
  TV ghost cancelling method, multiplicationless adaptive ident., multipath channel *(Korean)* 3657
  unbiased least sq. fitting of circ. arcs 252
  unequal-length multichannel δ_b-Levinson/Schur type RLS algm. 24310
  variable precision IEEE floating point simul. using C++, DSP design 6175
  vector spectrum analyzer freq. domain least-sq. syst. ident. 25743
  vectorized systolic array for block constrained RLS 32752
  VLF tones, constrained least sq. estim. 15996
  weighted least-sq. filtered backprojection tomographic reconstruction 41057
  H masers Frequency control, high accuracy calibs. 39635
  Si, deep trench etching, selectivity and load 38551
leather *see materials*
LEC growth *see crystal growth from melt*
Lecher wires *see high-frequency transmission lines*
LED *see light emitting diodes*
LED displays
  large-area matrix displays, SMT-TOP-LED 3932
  large-sized matrix displays, picture quality of different pixel arrangements 18012
  multilayer white light-emitting organic electroluminescent device 31111
  std. colour code for device states *(German)* 34648
  vol. scanning display, reciprocating luminous panel *(Japanese)* 17997
  Si diodes, stain-etched porous films, vis. electroluminesc. 7477
  a-SiC thin film LED, present and future *(Chinese)* 23044
LEED *see low energy electron diffraction*
legal aspects *see legislation*
legal data processing *see law administration*
legal protection of software *see industrial property*
legal research (computing applications) *see law administration*
Legendre polynomials
  array excitation currents, far-field synthesis 31973
  center-fed strip dipole, impedance, Poynting vector method 40475
  convergence of Legendre methods for NS eqns. 273
  discrete orthogonal fns., systolic archit. 8324
  EM wave scatt. by periodic strips, spectral theory 23786
  GRIN planar opt. waveguide anal. by impedance boundary method of moments 7347
  spectral-Galerkin method, direct solvers of 2nd- and 4th-order eqns., Chebyshev polynomials 20607
legged locomotion
  insectoid robot OS, modular 41872
legislation
  see also product liability
  access network evol., market and regulatory issues *(English, Italian)* 33668
  ALWR NPP, certification overview 27365
  Asia, satellite TV deregulation 42567
  Asia, telecomms. sector reform 3013
  Australia's deregulated telecomms. indust. and Telecom 2999
  automotive EMC legislation 44582
  building EMC directives, Europe, overview 27181
  Caller ID and meaning of privacy 3124
  CDMA overlays for FDMA satellite commun. systs. 25465
  cement indust., 1990 Clean Air Act Amendments impact 5426
  Chile, telephone services market 3111
  coal ash, U content., naturally occuring radioact. material class. 35719
  commercial building envelope loads, elec. use simul., Hong Kong 36794
  company quality organisation, legal requirements 11836
  conductive adhesives and solders for SMT, environ. comparison 38110
  conference, failure anal., Johannesburg, South Africa (1994) 20245
  corporate networks, European legal framework *(German)* 8847
  Croatian internat. telecomms. and regulatory environ. 33318
  data commun. systs., design and anal. 16518
  defn. of instrum. perform., contract and metrological purposes 42659
  deregulated free market telecomms. indust. 8800
  developing countries, investment in telecomms. infrastructure 3015
  developing countries, telecomms. business legal issues 3014
  EDI, commercial uses/legal aspects 3155
  elec. accidents, Tort liability for injuries, employees 78
  elec. legislation revisions, Germany *(German)* 4588
  elec. power tariff-fixing, cost orient. basis *(German)* 27051
  elec. utility DSM, air pollution impact 19492
  elec. utility DSM overview, UK 10657
  elec. utility energy conservation programmes, EPA protocols, USA 26923
  elec. utility policy issues for 1990s 35497
  electronic assemblies, non-Pb bearing solder alloys 936
  electronic mail and legislation 16629
  electronic mail and privacy in corporate environ. 16630
  electronic mail systs., privacy protection principles 33412
  EM field limits rel., antiemission legislation *(German)* 26488
  EM fields and law 11652
  EMC, conference, Dallas, TX, USA (1993) 36844
  EMC European Directive implement. 2261
  engng. and the law, pillorying well-stocked scientists 18428
  environ. constrained economic dispatch method 4837
  European Commission's mobile green paper 33305
  European EMC stds., recent develop. 2263
  European GEO and freq. resource allocation, economic assess. 33306
  European power apparatus prequalification rationalisation and database constr. *(German)* 20266
  European Union's telecomms. policy, infrastructure competition 8807
  Federal organizations and commercialization of technol. 11633
  flame-resistant clothing develop., elec. indust. 36984
  Germany EMC regulations, update 23681
  global marketplace for telecomms. services and networks 3038
  global networks, emerging inform. technols. 33309
  global pers. commun. services 3362
  higher engng. education quality improvement legislation, Russia 20325
legislation continued
  hospital EM interf., European Union Directive 18685
  IEC555, harmonics and legislation 31865
  IEC801/1000-4 series and immunity testing 23730
  India, telecomms. liberalisation 3022
  induction motors, design/spec., laws/regulations/stds. impact 4948
  indust. distrib. network improvement, Clean Air Act effects 11493
  inform. infrastruct. develop. in USA 3304
  inform. superhighway and regulatory proc. 8805
  intellectual property protection survey, Africa 36967
  intellectual property rights, foreign direct investment 36963
  intellectual property rights mgt., Australia 36969
  Internet, security/legal aspects 16695
  Internet privacy, voluntary guidelines 16740
  Japan's telecomms. indust., competition and regulatory reform 8811
  JARA Committee activities on robot EMC test methods/perform. eval. *(Japanese)* 8007
  laser safety, quantitat. risk assess. 28391
  Latin America telecomms. privatization, macroeconomic policies/strategies 3008
  legionella Code of Practice compliance, engng. aspects 5568
  Medical Devices Directive and EMC directive overlap 18426
  mfg. indust. health and safety mgt. overview 37003
  MM-wave spectrum mgt., regulatory aspects 42559
  mobile commun. regulation 33928
  mobile satellite services and Inmarsat in rem. areas of developing countries 42313
  mobile telephony, strategical aspects for develop. 16618
  multimedia, copyright law and inform. services 9059
  New Zealand, telecomms. and broadcasting deregulation 3037
  New Zealand telecomms. regulation, Clear Communications vs. Telecom Corporation 33307
  off-line reson. power supplies, design, anal. 37629
  patent infringement, lawsuits, cellular telephones appl. 36840
  plaintext signatures for E-mail, legal aspects 3148
  pollution meas. and control, portable analyser *(Czech)* 26768
  Portland cement indust., max. achievable emissions control 182
  power freq. EM fields, pers. exposure regulations, Italy *(Italian)* 4336
  power line right-of-way dimensioning and protection from vegetation *(German)* 10752
  power syst. transm. open access, internat. experience 35593
  PTT re-regulation, coord. of tech., legal and regulatory issues 3029
  R&D personnel, invention incentives overview, Germany 36946
  radar target enhancer for navig. buoys, develop. and testing 25577
  radiocommunication, technol. and regulations 25627
  radiologic image compression, review 26287
  Singapore Telecom, privatisation/regulation 3009
  submarine cable network procurement in 2000 and beyond 3034
  Swiss elec. economy approach *(French, German)* 4522
  switchgear risk assess., methodology/results/implications 5150
  Taiwan, telecomms. regulation 3031
  Technical Policy Council for US policy interpret. 28369
  telecom. DC power supply equipt, product safety engng. 41625
  telecomm. regulation, tech. aspects 41600
  telecomm. services, mobile users security 25388
  telecomm. services, universal service and innovation, regulatory policy 33327
  telecomms., inform. infrastructure strategic issues 8806
  telecomms. in developing countries, regulatory, investment and personnel issues 3028
  telecomms. services, competition promotion, UK 41605
  thermal power generation, environ. concerns, India 43897
  thermal power plant continuous emissions monitoring, software-based 27537
  third generation mobile systs., satellite services integrat. 3443
  UK independent sector RDS, current regulations/future issues 34206
  UK legal appl. of EMC directive 2252
  underground rly. transformers selection, safety 44538
  US EMC regulatory requirements, recent/pot. changes 15463
  US Patent System, characts. and proposed changes 36962
  US regulations for EMC control, update 23682
  USA, microwave radio market 25224
  USA, public participation in FCC rulemaking proc. for DBS 34223
  USA, regulatory climate for foreign investment in telecomms. 3030
  USA, telecomms. and socioeconomic trends leading, universal service 8812
  USA LEC, productivity meas. and price cap regulation 41594
  Vietnam, telecomms. regulatory struct. and foreign investment 3026
  weights and measures, conf., Kansas City, USA (1993) 28260
  weights and measures, conf., Nashville, TN, USA (1992) 11592
  windfarm develop., noise aspects and legislation 10906
  wireless local telephone service, pricing, planning and regulation issues 42210
  worldwide telecomms. networks, investment in transitional economies 3005
  Pb-acid batt. indust., environ. legislation impact 36537
  Pb-based solder alternatives develop. 127
  SO_2, NO_x, CO_2 emissions bal., German utilities *(German, English)* 35712
leisure industry
  National Park service mgt. package 28377
  swimming pool, open absorpt. heat-pump, energy saving 11517
Lempel-Ziv data compression *see data compression*
length measurement
  see also micrometry
  delay meas., self-pulsating laser 42946
  disease assess., image meas., by digitising 43253
  in-service fiber line ident. based on high-resoln. fiber length meas. 17332
  internat. comparison ofI_2-stabilized He-Ne lasers 34315
  pipe length online meas. by acoustic sens. *(Japanese)* 17681
  SQUID-magnetostrictor syst., small length change detect. 17734
  Stanford FEL cavity length meas. by external laser reson. 39939
  terminal gages, absol. interf. meathod 9784
  transfer and develop. of metrology stds., Japan/Asia 34327
length standards *see measurement standards*
lens antennas
  33/95 GHz dual-polarised radar antenna design 25580
  freq.-scanning narrow beam antenna, 60 GHz 40467
  Luneberg-lens antenna, update 40492
  microstrip constrained lens, design and perform. 15653
  microwave radiometer Earth obs. phased array antenna design 26711
  monolithic 250 GHz Schottky-diode receiver, slot antenna based 12813
  multilayered spherical chiral media, Dyadic Green's fns. 40323
  offset Fresnel lens antenna 2334
  reversible Rotman lens for short lin. array appls. 15674

lens antennas continued
shaped lens antennas for multibeam/scanning appls. 15648

lenses
see also aberrations; electron lenses; electrostatic lenses; focusing; magnetic lenses; photographic lenses
3-param. affine approx. of focus and zoom vars. *(French)* 41349
3D profile meas., cylindrical lens and CCD 3981
3D visual stimulator, liq. cryst. projectors 25933
achromatic diffractive fan-out systs. 39448
apodized pixel lenses in compact shadow-casting correlators 41238
artificial cpd. eye opt. sens. array 9852
autostereoscopic back-projection and flat screens *(German)* 9983
axially asymmetric lenses, focusing props., Moire tech. 31056
binary phase zone plate designs, far-field distrib. calcs. 39531
binary/multilevel diffractive lenses, submicrometer, sizes 7373
bipolar winner-take-all model with a threshold, real-time pattern recogn. syst. 24428
catadioptric opt. syst., unit magnification develop. 31053
CDMA syst., coherent light pulse, encoding/decoding 42420
CGH, polaris. selective, design/fab. 23461
collimating lens syst. for LD package 3547
complex wave-field reconstruction, phase-space tomography 32890
computer-controlled high accuracy opt. meas. 18120
confocal theta microscope, three objective lenses 10202
cryst.-cored fiber second-harmonic wave focusing optics 1778
design, global optim., escape fn. 39528
design, least-sq. optim., line search role 7444
diffractive coupling lenses, 3D profiling, e-beam lithog./RIE 14568
diffractive opt. element design for opt. sig. proc. 32944
diffractive opt. elements, electron-beam fab., FIB inspection 14497
diffractive/holographic optics, conf., Los Angeles, CA, USA (Jan. 1994) 36836
DRAM cell photolithography, annular pupil filtering, modified mask 12541
DRAM prod., ion projector, crit. design params. 38760
dual fibre opt. traps, tapered hemispherically, confine. and trapping 39320
dye laser cell, plane-convex cylindrical lenses 39683
extended thermal lens resonator cavity fund. mode calc. 14995
fibre, single mode, p-i-n diode coupling, field power 1665
fibre device design for laser pumping, LD bar arrays 39323
finite-emittance charged-particle beam, invariant-focusing lens 43028
free space opt. interconnects, LD array, microlenses, photodetectors 7486
Fresnel lens design for high-transmittance condenser 39527
Fresnel lens written magneto opt. SLM 22963
Fresnel lenses written onto SLM, fractional pixel translations 22981
Fresnel waveguide lenses, multiple phase shift 39433
Fresnel zone lenses, antirefl.-coated, thin-film deposition 7374
GRIN rod lens focusing-collimating optics in Nd:YAG laser delivery syst. 1777
high-resoln. immersion viewer 34626
hole diam. opt. meas. instrum. develop. *(Japanese)* 42939
holographic focusing lens design, FT systs. 15169
holographic lens, constr.-reconstruction wavelength shift, image aberrations 31683
holographic lenses, iter. correction 15179
holographic telephoto dublet lens syst., achromatization 7819
hybrid lens quality, point spread fn. calc. 15177
i-line opt. lithog., sub-half-micron contact hole defn. 38752
image transfer microlens array design and anal. 9980
IR detector perform. enhancement, Fresnel zone plate lenses 17789
IR photodetector cooling by opt. immersion lens 3833
IR radiometric lens/staring FPA camera syst., design/operation 17942
kinoform lens, phase fn., surface-relief profile 31641
kinoform lenses, solar cell light concentrator appl. 27972
laser beam homogenizer design for material proc. *(Japanese)* 20422
laser beam quality, quartic phase transmittances 31466
laser beams, moment determ. by polynomial transmittance windows 40018
laser range-finding CMM calib. 2159
LCD projector with interleaved pixels, opt. syst. and charact. 25931
lenslet array opt. neural network, coaxial archit. 22973
LVP 2000×3R high-precision video projector *(Japanese)* 25658
melted microlens shapes, modelling/meas. 1724
metal, plastic deformed, surface contouring by microlens array 34695
micro-Fresnel lens LD collimating light sources 7443
micro-machined 3D micro-optics for integrated free-space opt. syst. 14484
micro-optic element, opt. disc memory read/write heads 39309
microlens, holographic, shape fn. investig. by image proc. 2153
microlens arrays, coherent refr., dry etching 7440
microlens arrays, direct laser writing, photoresist 7375
microlens arrays, long focal length, prog. mfg. tech. 39451
microlens arrays for projection LCD, efficiency study 18005
microlens fab. tolerances, multilevel etching, mass-transport smoothing 7369
microlens integrated coupling device for LD/opt. fiber 22911
microlens opt. coupling of LD array, single-mode fiber array 39355
microlensed ultrahigh-av.-brightness semicond. laser arrays 39839
miniaturized micro-opt. scanner lens arrays 9646
multiplexed holographic opt. element, image/spectrum form. 7845
N-bit parallel opt. adder, fully parallel arith. algm. 31024
NLC phase device modelling 39497
nonuniform wt. error diffusion CGH opt. interconnections 1839
occlusion-free monocular computer vision syst. 2719
off-axis holographic lens extended obj. imaging 15159
opt. attenuator, liq. cryst. film 7412
opt. tape recording syst., rot. head optics 39319
optoelectronic devices for consumer appls. 7492
panoramic holointerferometry 40169
particle image velocimetry FT lens, off-axis holographic tech. 23475
pass. fibre optic components/sens. systs., radiation sensitivity 22845
pass. planar opt. waveguide geodesic lens prod. 1714
perfect shuffle opt. interconnect module 39513
phase retrieval methods for opt. diffr. tomography 23456
phase-shifting masks, lens aberrations 13502
photolithography, 0.13 μm pattern delineation using KrF excimer laser light, ULSI fab. 13555
planar holographic lens doublet, FT 31685
planar opt. crossover interconnect config. 39607
planar polymer substr., gradient-index profiles, lithographic tech. 14489
planar-optic-disk pickup, diffractive micro-optics 7368
PMMA monolithic integrat. of microlens and fiber holder arrays 22858
profilometry by phase-shifted Talbot images 17727

lenses continued
prog. Dammann grating, interconnections, FT lens, SLM 39450
rainbow holography, synthesized double slit 40147
read-only opt. head, posn. sensitive detect. syst. 14345
real-time morph. transforms opt. proc. *(Chinese)* 16335
real-time nonlin. joint transform LCLV CCD sens. correlator 2713
refr. microlens fab., preshaping photoresist 7441
ruby laser, colliding shock lens, intracavity Q-switch element 23329
Selfoc microlens array opt. learning neural network for pattern recogn. 31034
semicond. lasers with unstable resonators, simul. 23210
shot alignment improvement inside exposure field for IC photolithography 38710
single mode opt. fiber laser light coupling *(Japanese)* 1669
spacecraft line-focus refr. concentrator solar arrays 26602
speckle metrology, lens aperturing 42945
spherical microlens array fab., laser writing tech. 39454
stepper-lens syst., pupil-filtering 38717
substr.-mode holographic polariz.-division multi/demultiplexer for opt. commun. 25173
telephoto lens, focus error detect., astigmatic method 31055
telephoto lens focusing/space compression 2665
temporal proc. and time lenses implement. 41301
three-level medium, reson. radiation propag., nontrivial induced lenses 31610
transient ultrafast Kerr lens in soln. detected by dual-beam thermal-lens method 23380
two-phase direct-drive motor for camcorders zoom lens barrel 42635
variable focus electrooptical lens, A/D opt. converting 14519
VCSEL arrays, mfg. 39784
vert. cavity SEL arrays/micro-Fresnel lens array integrat. 23304
vert.-cavity SELs, 967 nm, integrated refr. microlenses 14898
vision device flight test 10387
wave-front sens., closed-loop adaptive optics syst., error propag. 14567
wavelength multiplexed holographic lens arrays for opt. interconnection 40132
YAG laser high power proc. appls. in heavy industries *(Japanese)* 20418
AgGaSe$_2$, thermal lensing modeling, laser beam aberration 7765
AlGaAs LD based broad beam transmitter for space commun. 17302
Bi$_{12}$SiO$_{20}$ real time opt. correlator 33083
GaP microlenses, enhanced mass-transport smoothing 31054
H$_2$ prod., Fresnel lens PEC-based 11302
InGaAs/InP, pin photodiode array, integrated lens *(Chinese)* 14613
InP waveguide mode field determ. from intens. profiles 39468
KTiOPO$_4$, sub-picosecond opt. parametric oscillator, Kerr lens mode-locking 31564
LiNbO$_3$ integrated AO space-division opt. crossbar 7426
LiNbO$_3$:Ti planar waveguides, polariz. coupling 30946
Nd:YAG unstable multirod lasers, variable reflectivity mirrors 31267
Nd:YAlO$_3$ 125 W laser, SBS phase conjugation 31266
Si, hard X-ray lenses, SF$_6$/C$_2$Cl$_3$F$_3$ plasma RIE 38552
Si, micromirror arrays, KOH:H$_2$O micromachining, lens templates 7442
SiO$_2$, fused, microlens arrays, RIE 14493
Ti:sapphire ultrashort pulse lasers, cubic phase compensation 31279
ZnGeP$_2$, thermal lensing modeling, laser beam aberration 7765
Zr/O/W Schottky emitter eval. for STM microcolumn appls. 12987

leucocytes *see blood*

level measurement
double-loop separate-type heat pipe, heat transfer perform. meas. 18132
elec. utility sens. technol. improvement efforts, USA 43652
fibre optic sens., commercially available, 1985-95 develops. 17877
fuzzy ES for hydrostatic level meas. *(German)* 18160
inclination sens., plastic opt. fiber *(Japanese)* 25851
laser appl. 10064
liq. level sens., thin walled vibr. cylinders 17745
natural gas powered automobiles, fuel level sens. develop. 5363
NPP resist. temp./press. sens., aging effects 35770
sea level monitoring, stable datum maint. 10491
Pb-acid wet-cell secondary batt. noninvasive monitoring 44302

level meters
CATV spectrum analyzer level meter 25911
NTT, explosion-proof liq.-level meter for underground light-oil tanks 42739

levels, energy *see energy states*

levitation, magnetic *see magnetic levitation*

LF radio propagation *see radiowave propagation*

librarianship *see information science*

libraries
see also cataloguing; library automation; public libraries; software libraries; special libraries
decal library constr., PCB/SMT design 38079
full-text inform. delivery, electronic, US infrastructure 16546

library automation
see also interlibrary loan
digital global library and inform. superhighway 3265
document delivery using X.400 protocol, British Library DSC 41736
e-journals, acquisition and access, library 3149
East Carolina Univ. library, migration, client/server computing 8978
Everywhere Access, rem. control software for Internet 8949
full-text inform. delivery, electronic, US infrastructure 16546
interneted library syst., Hahnemann Univ. 16766
lists and electronic serials 3183
multi-fn. LANs and workstations for library 16768
public-access PCs, Mosaic Internet client 41804
telecomms. programs, Microphone Pro and Smartcom II 8950
Third World, inform. access improved by utilizing advanced IT 41743
Univ. of California, Santa Cruz, library data wiring replacement 16757
virtual library, inform. sources accessible, Internet 8979
Z39.50/SR protocol integrated into LIBERTAS, library automation 33252

library science *see information science*

LIDAR *see optical radar*

life testing
0.35-mm-pitch QFP lead and assembly technol. 5654
15/35 kV EPR insulated cables, field aging assess. 27201
670 nm low-threshold-current multiquantum-well LD 7620
accelerated ageing test for resistors 6351
accelerated degrad. tests, expt. design 105
accelerated IC life tests, time reduction by progressive censoring 20491
accelerated life test data, threshold stress estim. *(Japanese)* 28525
act. ICs assembled in plastic packages, area array wire bonds 12958

- **life testing** continued
  - aircraft corros. monitoring and control 5935
  - aircraft secondary maint.-free batts., state-of-health tests 43443
  - array module connector test program, UNISYS 21757
  - binary lin. polyethylene blends, water treeing, mech. aspect 14013
  - boiler superheater headers, crack growth/stress prediction 19507
  - boundary layer fracture of copper/composite solder interfaces in electronic packaging 37131
  - boundary-scan in SMT, design, mfg. and syst. test 38113
  - chip capacitor attach, CFC solvent elimination, qualif. by comparison 38172
  - CMOS logic cct. fault anal., IDDQ testing tech. *(Korean)* 29197
  - conductive filament form. in PWBs, woven fabric 29669
  - contact materials and sticking charact. study, telecomm. relay 9132
  - controlled collapse chip connection, flip-chip attach on FR-4 IC packaging 130
  - crit. systs., failure monitoring, lifetime scales 37177
  - DC load contact switching eval., derating curves and life testing 29631
  - diamond:B film/metal high temp. contacts, reliab. issues 22045
  - die attach proc., mfg. stresses in die, electronic packages 6453
  - DIP solder joint failure under tensile-compressive stress 37130
  - electrode insulation demo. life-test duration determ. 28428
  - EM relays/elec. contacts, develop. and test methods 29640
  - environ. databases, stabil. test profiles 111
  - epoxy resin, printing encapsulation syst., MCMs, PLCC, BGA, PGA, TAB, COB, flip-chips 20433
  - EPR-insulated cables, thermal life testing/charactn. 14011
  - fibre optic connectors/splices, accelerated testing, life-stress 1690
  - fibre-optic connectors in outside plant environ., perform./reliab. 14381
  - finepitch surface-mount solder joints, fracture surface exam. 21644
  - finite range failure model, reliab. anal. 37187
  - fixed-time life test, fuzzy theory 123
  - flip chip interconnect systs., micromechanical and accelerated testing 11822
  - flip chip packages, damage and life prediction of solder joints under thermal cycling 11747
  - fluid filled taped cables, dissolved gas anal. 27205
  - fluoropolymer insulator, γ-ray irrad., ageing effect, position annihilation meas. 14048
  - four-level accelerated life-test plans optim., computer-based 20480
  - heatsink bonding, semicond. packages, silicone adhesive 5675
  - Hercules capacitor bank pulsed power switch life test project 36459
  - HV motors insulation, dielectric diagnosis 14008
  - HV outdoor insulation, silicone rubber insulators, surface recovery 19317
  - HV vac. relay reliab., Weibull/exponential failure distribs. 28523
  - hybrid ICs for appls. in transport, reliab. 21661
  - IC electromigration tests, thermal effects 30134
  - IC interconnections, electromigration reliab. indicators 6660
  - impregnated cathode, emission materials, develop., reliab. tests *(Japanese)* 6472
  - known good die, cost-effective design, MCM appl. 21677
  - known good die selection tradeoffs, cost model, MCM burn-in tests 21704
  - leaded SM devices, creep strain response of solder joints, temp. profile params. 38163
  - leaded SM devices and solder joints in thermal cycling environ., 3D FEA 37132
  - MCM burn-in experience 21699
  - MCM testing strategy 6468
  - metal particle tape, archivability, corros.-accelerating environ. tests 7131
  - MLC capacitors, miniaturized, normal service conditions, failure mechanisms 875
  - molding cpd. materials for IC plastic packaging, fracture props. 5626
  - molding cpds. for IC plastic packaging, fracture props. 5671
  - MOS-assisted gate-triggered thyristors, pulsed power switching appls. 36431
  - multichannel pseudospark switches, expts. 36399
  - n-channel MOSFETs at low gate bias, hot-carrier degrad. eval. 13679
  - Navy's factory, fleet maint. concept 35411
  - no-clean/water-clean PCB solder joints, plastic quad flat, failure anal. 947
  - nonparametric estim. of reliab. fn., kernel dens. estim. 11857
  - NPP generating equipt., struct. materials longevity determ. 35743
  - nuc. plants, cable ageing, life prediction/condition monitoring 10803
  - opt. glass carrier reliab. test 179
  - organic insulators, mechanical properties/electrical treeing behaviour correlation 13971
  - packaging interconnect reliab., accel. environ. testing 20475
  - particulate/ME mag. tapes sliding against Mn-Zn ferrite head in lin. mode, friction/wear 7165
  - PEEK, poly(ether ether ketone), crystallinity and dielec. props. 14015
  - plastic assembly procs., eval. for high reliab. IC appls. 6452
  - plastic encapsulated IC reliab., missile appls. 35386
  - plastic SM IC packages, moisture/reflow induced delaminations, IC thermal perform. 11797
  - plastic-encapsulated IC, reliab. testing 30427
  - PLCC temp. cycling failures, die coatings, mold cpds., and test conditions effects 28469
  - polyamideimide films containing glass, sol-gel prep., dielectric breakdown 14053
  - polyethermide films, multistress aging statical anal. 14049
  - polyethylene insulation, charge trapping, thermodynamic effects 14052
  - PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
  - polyolefins, homog. ac aging field, electrolum., surface roughness 30548
  - polypropylene film insulation, aging-model consts., HF HV fields 14019
  - polypropylene film type capacitor for HF HV appls. 11229
  - porcelain insulators, mech. stress test methods 43791
  - power cable life, DC testing effects 10741
  - power plant life extension, boiler drum monitoring 19506
  - power transformer life extension, insulation preservation expts. 19698
  - power-temp. cycle accelerated testing 28520
  - PQFP-based MCM, low cost, reliab. develop. and qualification 28468
  - product design/prototyping, accelerated life testing 20400
  - proof of designed reliability, IEE Colloquium, London (1994) 5511
  - pulsed power high-Coulomb triggered vac. switch tests 36458
  - PWB plated holes deform., soldering thermal cycle 29685
  - railgun bore lifetime meas. expts. 15373
  - reliab. life testing, best compromise test plans 5700
  - rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658
  - S-bend lead design for SM components, clip-leads appl., compliance metric 140
  - SC59 surface mount package, autoclave reliab., benchmark study 11823
  - semicond. param. var. influence of climatic factors 13574
  - SMDs, solder life predict. under thermal cycling and vibr. 37115
  - SMT chip resistors/capacitors, insulated metal substrs., solder joint reliab. 12931
  - SnPb-soldered joint reliab., interstitial PGA packages 940
  - solder joint failure, thermal cycling fatigue, crit. accumulated strain energy 120
  - solder joint reliab. prediction, computer-aided syst. develop. 37206
  - solid dielectric deterioration, partial discharges, ageing 13972
  - SP-100 thermoelec. cell testing, JPL 26635
  - SRAM reliab., comparison of HAST, THB testing 12540
  - stator coil insulation, multifactor ageing, test parameter correlation 14007
  - Stirling engine alternator operating experiences, USA 28044
  - stress testing optimisation formulation, net benefit concept 11726
  - surface insulation resist. and electromigration test methods 113
  - sync. generator asphalt-mica stator insulation, service life tests 11003
  - TAB inner lead gang bonding on Ni-Au bumps 12960
  - TAB tape-based known good die method for MCM systs. 21678
  - TAB-outer lead bonding, reliab. of different tape metallizations 6447
  - Taguchi method of environ. stress testing for PWB prod. proc. 29678
  - Tandem Computers test strategies, HALT/ESS 9800
  - thermoelec. convertors, space power appl. studies 20037
  - thermogravimetric point slope procedure, thermal endurance 14018
  - thick/thin film resistors, built-in reliab., ageing kinetics 5706
  - thin SOP, second level assembly and reliab. aspect 37134
  - thin SOP with Cu gull-wing leads, SMT advantages 37133
  - TSOP encapsulation reliab. modeling 37135
  - turbogenerator rotor bore, automated US inspection syst. 19599
  - two-param. Weibull distrib., percentile estim. 37191
  - two-phase metal fatigue life test eval. 12187
  - TWTs, space-use, reliab. *(Japanese)* 13007
  - underground distrib. cable joints, PD meas. 4704
  - VLSI TAB packaging, elasto-plastic behavior of epoxy rel.to thermal stresses 28484
  - wafer burn-in strategies for MCM die, BIST for KGD 21703
  - Weibull accelerated life testing, unreported early failures 28429
  - wettability of immersion coated PWBs, temp. and humidity effects 29681
  - wire bond test tech. 6446
  - XLPE cable long-term ageing tests *(German)* 27212
  - XLPE insulated 230 kV cable syst., pre-qualification testing 27200
  - XLPE power cable insulation characts., defects/moisture effects 4679
  - XLPE/EP insulated power cables, low temp. ageing 27202
  - z-axis conductive adhesives, fine pitch appls. in consumer electronics, accelerated life test 135
  - zirconia alignment sleeve, opt. connectors, charact. and static fatigue reliab. 9473
  - Ag multilayer ccts., environ. durability 21659
  - Ag rivet contact perform., SiO_2, Al_2O_3 deburring media effects 29624
  - Ag-CdO(SnO_2) power print relay contact materials perform. 29632
  - Ag-MH batt. syst. design/testing 19946
  - Al IC interconnection failure, stress migration-induced voiding 38666
  - Al-Si-Cu VLSI interconnect void-related early failure, subpopulation model 22271
  - Al-Si-V-Pd microstruct., IC interconnect reliab., Al-Si-Cu comparison 38652
  - AlGaAs-GaAs HBT with strain-relaxed base, improved reliab. 38826
  - AlGaInAs/InP strained QW high-perform. 1.3 μm lasers, OMCVD 23241
  - AlGaInP dry-etched 650 nm vis.-light LD 1986
  - AlGaInP vis. light LD, 650 nm, dry-etched mesa stripe 39867
  - $BaTiO_3$ multilayer capacitors, defective, TSC meas. 22677
  - $CoSi_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
  - Cu gull-wing leads for thin SOP 150
  - Cu/photosensitive-BCB thin-film multilayer technol. for high-perform. MCM-D 21688
  - GaAs devices, reliable thermosonic wire bond, IR-microscopy 12959
  - GaInAsP MQW 1480-nm pump LD, life tests 9526
  - GaInAsP/InP inverted-rib LD, interrupted life test 23252
  - GaInAsP-InP inverted-rib LD, degrad. recovery 14847
  - K-$\beta''Al_2O_3$-K-Mo AMTEC, accelerated life testing 28018
  - Ni-Cd aircraft batts., life cycle testing 43442
  - Ni-Cd batts., life testing, ESA 26669
  - Ni-Cd cells, flight/ground testing, TOPEX/Poseidon mission 26670
  - Ni-H_2 GEO spacecraft batts., 26% KOH electrolyte tests 26664
  - Ni-H_2 LEO spacecraft batt. pulse life testing 26662
  - Ni-H_2 aerospace batts., life testing 26574
  - Ni-H_2 batt LEO life test 26573
  - Ni-H_2 batt. testing, Hubble Space Telescope 26575
  - Ni-H_2 secondary cells, LEO destructive life testing 11256
  - Ni-H_2 spacecraft secondary batts., advanced separator expts. 26668
  - Ni-H_2 spacecraft secondary batts., technol. develop. status 26666
  - Ni-MH batt. syst. design/testing 19946
  - Pb-acid standby power batts., life testing methods 19962
  - Pb-acid valve regulated batts., ageing effects tests 19963
  - Pb-acid valve regulated batts., modular installation 44288
  - Pb-acid valve-regulated 24 V aircraft batts., conductance testing 43445
  - Pb-acid valve-regulated secondary cells, life testing 44292
  - PbO_2 electrodes, compressed Pb-acid cell, cycle life test 11267
  - a-Si solar cells, long-term degrad. tests and charact. 19999
  - Si substr. integrated optoelectronic devices 7488
  - Si wafer mapping, lifetime/resist./oxygen precip. meas. 25945
  - a-Si:H TFT, multiple stress accelerated degrad. *(Korean)* 22442
  - a-Si:H, pulsed-light soaking 1060
  - Si-$TaSi_2$-TiN-AlSi multilayer thin film contacts, electromigration testing 38654
  - SiC X-ray mask membrane, accelerated radiation damage studies of antirefl. materials 13535
  - SiO_2 inter-poly oxides, MOS capacitors, lifetime/failure probab. 13236
  - Sn-Cu(Pb) solder joints, thermal cyclic shear stress/strain hysteresis 11742
  - Sn-Pb SMT solder joint reliab. prediction, model validation 925
  - Sn-Pb-CeLa solder props. rel., rare earth components 11741
  - SnPb lap shear solder joints, fatigue investig., resist. spectrosc. 12246
  - $TiSi_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
  - Zn-air elec. vehicle batt. 44515
  - ZnO surge arrester leakage current, external field effects 4728
- **lift-off process** *see integrated circuit technology*
- **lifting machinery** *see hoists*
- **lifts**
  - 2-speed 3-phase async. lift motor, short cct. rotor 36707
  - control board elec. design, ES spec. judging 5961

- **lifts** continued
  - cylindrical LIM-driven elevator, motion anal. *(Japanese)* 44561
  - hoist automation, radio signalling 11397
  - passenger terminal buildings, elevator equipt. *(Japanese)* 11426
  - PM lin. sync. motor, transient current, thrust 36736
  - switched power harmonic filters, anal., appls. 19741
  - two-speed elevator async. motor, 3-phase stator 36708
- **LIGA process** *see electroforming; X-ray lithography*
- **ligand field theory** *see bonds (chemical); molecular electronic states*
- **light**
  - *see also optical...*
  - *see also optics*
  - circ. waveguide photon, nonzero mass in centrifuge 40425
- **light absorption**
  - *see also absorption coefficients; atmospheric optics; densitometry; light transmission; optical constants; optical films; optical filters; optical saturable absorption; pleochroism; spectra*
  - 1D refr. index struct., modal fields calc. by finite difference beam propag. method 14447
  - absorptive media SHG 2129
  - bacteriorhodopsin thin film real-time reson. holography 40157
  - CCD image sens. basic principles and archits. *(German)* 3874
  - chromophore-incorp. polymers for nonlin. optics, two-photon absorpt. and photodegradation 15138
  - dye color/conc. detect. by realtime opt. sens. *(Japanese)* 18138
  - fiber-optic evanescent field absorpt. sens., theoretical eval. 3856
  - high-order opt. soliton splitting under two-photon absorpt. 31629
  - highly inhomog. plasma, obliquely incident short laser pulse energy absorpt. 15454
  - IR MQW phototransistor, Monte Carlo modeling 1802
  - IR opt. fiber, absorpt./scatt. loss meas. method 14402
  - leaky/absorbing opt. waveguide/quantum well struct. modelling 40434
  - 4-nitrophenol sodium salt dihydrate, intracavity SHG, opt. loss 31481
  - nonlin. propag. of light pulses in amorph.-semicond. waveguides 1718
  - nontransparent waveguides, bound and leaky eigenmode techs. 39393
  - opt. detect. of ignition sites, semicond. LD appl. 7623
  - opt. fiber atten. in regeneration sects., stat. normalization 30865
  - optimal absorbing boundary conditions 23648
  - organic solns., CW laser beam fanning 23357
  - parab. deformed planar waveguides, modal power atten. 39408
  - partially absorbent phase objs., phase reconstruction/unwrapping from holographic interferograms 31663
  - polymeric materials for SHG and electro-optic appls. 23386
  - quartz glass radiation resist. and nonlin. absorpt. at 353, 248, and 193 nm 15019
  - semicond. device material single event effects testing by laser beam 13573
  - semicond. lasers, coherent opt. pumping 23195
  - single-mode fiber with two-photon absorpt. and bandwidth-limited opt. gain, solitary waves 31571
  - supersonic free jet particle dens. distrib. visualization *(German)* 10062
  - trace gas sensitive detect., laser opt. lever 3907
  - SiO_xN_y pass. selective filter, EDFA gain spectrum flattening 14574
  - AlGaAs all opt. switching waveguides, three-photon absorpt. 22912
  - AlGaAs/GaAs, three-coupled-QW, Stark shift, tunable far-IR photodetectors 42803
  - AlN, ion plated films, opt. applicability 28850
  - AlN sintered ceramics for electronic packaging, oxygen-related defect 12191
  - $Bi_{12}GeO_{20}$ single crysts., nonlin. absorpt. of laser light 2081
  - $Bi_{12}SiO_{20}$ cryst. opt. limiter, effective nonlin. 30832
  - CdS crysts. for IR imaging/detect., RT IR quenching 17794
  - Er-doped tunable fibre lasers, all-opt. relax. oscill. damping 31236
  - GaAs-InAlAs tensile-strained quantum wells, polariz.-independent opt. modulation *(Japanese)* 22944
  - GaInAs/GaInAsP MQW tuned lasers fabricated by photoabsorption induced disordering 1957
  - GaSb quantum well based IR devices 9908
  - InGaAs/GaAs strained QW 980 nm pump lasers, thermal behaviour 14843
  - InP:Fe, semi-insulating, charge transfer 13047
  - Nd^{3+}-doped opt. fibre temp. sens., absorpt. shift, 595 nm 34553
  - Pb scintillating fibre calorimeter, radiation resist. 26222
  - Pb-scintillating fiber calorimeters, electron irrad. damage 26221
  - PbS/CdS superlattices, pulsed laser evap., opt. props. 13168
  - Si epitaxial p^+-n struct., tunneling-oxide-metal contact, photoelec. effect 29884
  - Si, porous, opt. bistability, photoinduced absorpt. 2114
  - Si, porous, vis. luminesc. props. 14590
  - SiO_2 opt. fibre atten., nuc. environ., prep. 22842
  - $SrBaNb_2O_6$:Rh absorptive photorefractive material, two beam coupling 15078
  - Tm:$YAlO_3$ 1.94-μm laser, biomedical appls. 39731
  - Xe_2^* self-sustained discharge-pumped laser at 172 nm, kinetics 14704
  - ZnO films, thermal evap. 28856
  - ZnSe pulsed power photoconductive switches, elec. field studies 36437
- **light absorption spectra** *see spectra*
- **light amplifiers** *see image intensifiers*
- **light attenuation** *see light absorption; light scattering; light transmission; optical dispersion*
- **light beam induced currents** *see OBIC*
- **light coherence**
  - *see also laser beams; lasers*
  - act. mode-locked semicond. laser injection locking 23197
  - all-opt. sig. proc. via quadratic nonlin., coherent interacts. 32990
  - bacteriorhodopsin thin film photoanisotropic incoherent-to-coherent image converter 22990
  - CDMA, coherent opt., laser phase drift effect 42348
  - CDMA, no.-state/coherent-state, lossy photon channels, perform. 42349
  - CDMA syst., coherent light pulse, encoding/decoding 42420
  - coherent detect. photodiode, optimum opt. LO power levels 25847
  - coherent opt. syst. nonuniform FM response, semicond. laser model 9471
  - coherent opt. systs., recent trends 25480
  - CPFSK coherent opt. transm. for repeaterless submarine syst. *(Japanese)* 16994
  - delay-and-multiply opt. FSK receivers, line-coding, anal. 42345
  - double-passage coherent imaging through random-phase screen, complex-valued obj. reconstruction 41233
  - edge emitting LEDs, high power, low internal refl. 23041
  - Fabry-Perot opt. fibre temp. sens. employing low coherence interferometry 34554
- **light coherence** continued
  - fiber subsystems/devices testing by high-resoln. reflectometry techs. 7313
  - fibre optic laser Doppler velocimeter, coherence dependence 26014
  - Gabor's expansion coeff. coherent-opt. generation, Zak transform 33081
  - guided photon-dens. waves, diffusion theory 23782
  - heterodyne binary-DPSK systs., perform./anal. 42346
  - holographic Fabry-Perot filters, refl. and transm. props. 15162
  - incoherent-only joint-transform correlator 32969
  - inhomog. media phase conjug., holography, and imaging 31575
  - IR coherence-collapsed multimode LD for fiber-optic gyroscope 40176
  - IR interferometric SAR act. coherent imaging *(Japanese)* 9645
  - LD direct FM, coherence fn., inform. proc. 32977
  - linewidth-insensitive coherent AM opt. link, direct/external modulation format comparison 42410
  - long span submarine opt. fiber transm. systs., evol. *(Japanese)* 16991
  - low coherence reflectometry, tunable narrowband light source, symm. crossing config. 18127
  - Mach Zehnder electro optic modulator for sideband suppressed carrier modulation of opt. fields 42394
  - microlens arrays, coherent refr., dry etching 7440
  - Mitsubishi 16-channel 622 Mbps FDM coherent opt. commun. equipt. 34003
  - multielectrode DFB laser self-pulsation charactn. 31327
  - multilobe mirror laser cavity light ray coherence control 31444
  - multimode fiber interferometric syst., up- and down-lead fiber sensitivity 9915
  - multiocular image seqs. for 3D TV, motion/depth estim. 32808
  - nonlin. fiber resonators driven by arbitrary coherence laser sources, opt. bistability 23372
  - OTDR by quaternary FSK modulated probe and coherent detect. 34012
  - phase-modulating opt. coherence domain reflectometry 18128
  - phase-modulating opt. coherence domain reflectometry, synthesis of coherence fn. 34719
  - phase-shifting lithog., duty ratio of line and space, DRAM chips 30161
  - π-phaseshifting struct., near/far field phase images resoln. 2631
  - pulsed laser temporal coherence meas. by collinear second-harmonic interf. tech. 15016
  - pulsed solid-state coherent laser radar aircraft wake vortex detect. 3624
  - rainbow holography, synthesized double slit 40147
  - rem. ellipt.-core dual-mode fiber strain sens., coherence-tuned interrogation 17918
  - repeaterless opt. commun. syst. 3543
  - rough surfaces, glitter fn. for rem. sens. 16304
  - SBS stationary fibre amps., coherent 3-wave model 14733
  - semiconds., pump depletion, coherent energy transfer 23414
  - single-mode fibre, degree of polaris., single Mueller matrix 1687
  - single-mode silica fibers, Raman amplif. of coherent Stokes wave on biharmonic laser pumping 15084
  - six-wave mixing SHG and opt. induced fields 2090
  - spatial-phase-locked e-beam lithog., high-coherence QWS gratings 7385
  - spectral shift expts., radiometry appl. 4004
  - spike defects, imaging props. simul. 37173
  - SQ well submillimeter-wave generation and amplif. by coherent wave-packet oscills. 6559
  - submarine opt. amp. systs., fault location, coherent OTDR *(Japanese)* 16995
  - superresolution lithog., partially coherent imaging theory, isolated struct. 38772
  - superresolution lithog., partially coherent imaging theory, line and space struct. 38771
  - turbulent medium, coherent opt. fiber sens. 34527
  - two-mode fibre Michelson interferometer config., low-coherence excitation 3850
  - video distrib. coherent lightwave syst. aspects *(Croatian)* 3549
  - waveguiding struct. supported fields, transverse modal wts. determ. 30952
  - Wolf shifts interp. under lab. conditions, comments/reply 4005
  - XY integrated opt. coupler for phase-sensitive opt.-power combining 39398
  - [B-]BaB_2O_4 opt. parametric oscillator noncollinear phase matching 15114
  - $BaTiO_3$ beam fanning effect, opt. image combination/logic AND operation 31035
  - Er-doped opt. fiber amplifer coherent AM analog opt. links 17213
  - InP polariz. diversity receiver OEIC heterodyne receiver frontend module 23061
  - $KTiOPO_4$ nonlin.-opt. waveguides, quadrature squeezing, ultrashort pulses 40084
  - Nd^{3+}:YLF laser, chirp diagnosis, nonlin. Kerr coeff. 23338
- **light communication** *see optical communication*
- **light dependent resistors** *see photoresistors*
- **light diffraction**
  - *see also holography*
  - 2D feedback nonlin. opt. syst. with field rot., diffractive patterns 7752
  - 3D LCD on VLSI die, electrostatic anal. 42875
  - 3D wavebeam field reconstruction from cross sect. intens. meas. 33001
  - abruptly-terminated opt. fiber diffr. anal. by method of lines 22850
  - azo-dye-doped polymer systs., dyn. holographic recording media 40121
  - beam steerable semicond. lasers, large steering range and resolvable spots 1985
  - colour diffr.-based optics, light-valve projection displays 25926
  - concave grating planar waveguide device diffr. 30963
  - contactless velocimetry of vehicles, microwave speckles appl. 18105
  - corrugated waveguide, SHG, light diffr. 14459
  - cylindrical objs., refr. index, image reconstruction, opt. diffr. tomography 41063
  - dark opt. bullets in light self-trapping 23416
  - diffr. limited slit-spectrography 16213
  - diffr.-coupled lasers, collective mode phase profile control 15005
  - diffractive lens with the substr. shape effects, num. investig. 7818
  - diffractive phase elements for beam shaping, design method 31657
  - electron beam collimating grid opt. inspection/QC 157
  - FEL, long wavelength operation, slippage/diffr. effects 31430
  - FEL with large μ_c planar undulator, waveguide appl. 39980
  - free space opt. interconnects, LD array, microlenses, photodetectors 7486
  - gelatin, dichromated, refl. hologram grating, diffr. spectrum asymmetry 31668
  - grating coupler SHG, coupled mode formalism 1722
  - gyrotropic planar opt. waveguides, Bragg diffr. of light by ultrasound 1707
  - holographic memory diffr. interf., stat. charact. 22784
  - Huygens-Fresnel principle in near field 23649
  - identical period double surface corrugated planar waveguide grating coupler anal. 30928
  - interconnects, diffractive optics and CGH 31044

light diffraction continued
interferometric straightness meas. syst., holographic grating *(Japanese)* 18096
intersatellite commun., heterodyne opt. detect./spatial tracking syst. 34077
inverse scatt., tomographic imaging, holographic techs. 7844
laser beam sharpening, diffractive opt. element 23328
laser systs., diffractive and binary optics 31138
laser-induced diffraction signals, digital signal processing 25972
lithographic proc. monitoring and control, diffractive techs. 13489
nano-meter technol., testing, diffractive struct. 38746
noniterative complex-valued obj. reconstruction from two intens. meas. 2707
phase retrieval methods for opt. diffr. tomography 23456
phase-matched filters in pattern recogn., symm. measure 7448
photorefr. hologram opt. restoration, self-enhanced diffr. 23476
picosecond pulses, DFWM, diffracted sig. 2058
planar opt. waveguides, travelling modes, generalized theory 22869
planar-optic-disk pickup, diffractive micro-optics 7368
plane wave diffr. anal. of complex interferograms 40124
polariz. vol. hologram, coupled mode anal. 23465
poly(vinyl alcohol), dichromated, refl. hologram grating, diffr. spectrum asymmetry 31668
quasi-Cherenkov X-ray DFB FEL under multi-wave diffr. 39978
rigorous diffr. theory, opt. metrology and AFM topography, nm accuracy 34721
scalar wave diffr. theory, Fresnel/Fraunhofer regions 31845
straddling holographic images, one-step enlarging tech. 7817
submicron holographic lithog., limitations 30163
superlattices, light transm. dyn., bistable behaviour 15031
thick photorefr. hologram, angle-depend. diffr. efficiency 31656
thin layer double phase conjug., coherentization condition 7784
wave-beam diffr. in smoothly inhomog. media 2238
weak phase objs., struct. determ., interferometric near-field meas. 18084
Ag halide refl. holograms 7838
Ar laser radiation, polaris.-independent modulation, acoustooptic interact. 7717
$Bi_{12}Si_{O20}$, polariz. props. of transm. and diffr. 14321
$Bi_{12}SiO_{20}$ photorefr. cubic media far from paraxial limit, wave coupling anal. 40062
Cu vapour laser oscillator, adjoint-coupled self-filtering injection 39670
GaAs, (001)-cut, CZ grown, disloc. dens.-depend. photorefr. effect 14319
$KNbO_3$ crysts., anisotropy of acoustooptic effect 1648
$KTiOPO_4$ nonlin.-opt. waveguides, quadrature squeezing, ultrashort pulses 40084
$LiNbO_3$, cryst., holographic gratings appl. 15184
$LiNbO_3$:Ti waveguide acousto-optic Bragg cells 7380
Nd:YVO_4 high-efficiency TEM_{00} laser long. pumped by high-power array 23169
Nd:YVO_4 slab laser, diode-pumped, high-repetition-rate 1919
Nd-doped high-power cw fiber laser, high beam quality 39704
Tm:YVO_4 microchip laser pumping schemes 39721
light diffusion *see light scattering*
light dispersion *see optical dispersion*
light emitting devices
see also light emitting diodes; light sources; luminescent devices
group-III nitrides, light emitting devices, LEEBI treatment 39578
MIM light-emitting tunneling jns., surface topography anal. *(Chinese)* 38451
MIM tunneling light emission junct. in SAW field 7467
organic light emitting devices, reliab. and degrad. 14614
poly(p-phenylene vinylene), color changes in photolum., doping/conversion time effects 1794
Al-MgF_2-Au(Cu) thin film light emitting devices, residual O_2 effect 7470
AlGaAs-GaAs HBTs, heavily doped, opt. device appl. 39566
Si:Er light emitters in integrated opt. interconnects 23060
ZnSe HV switches, time-resolved impact ionization 27840
light emitting diode displays *see LED displays*
light emitting diodes
see also LED displays; semiconductor lasers; superluminescent diodes
1500 V-20 A Photo Power Module DC solid-state relay 6396
analog antecedent and consequent fuzzy inference units, optoelectronic 31122
ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
carrier fluct., excess noise generation 22348
chip LED, MID technol. *(Japanese)* 1815
CMOS LED driver, 155 Mbit/s, low cost opt. fiber link appl. 9543
color-changeable organic electroluminescent diode, squarylium dyes 14629
conjug. polymer LED on Si substrs. 1826
conjug. polymer LEDs 14627
conjug. polymer LEDs 14643
conjug. polymer LEDs, transient/DC electrolum. 39585
conjug. polymers and oligomers, electrolum. 23038
conjugated polymer interfaces, conf., Strasbourg, France (1994) 5497
conjugated polymers/fullerenes, optical probes, conf., USA (1994) 20195
double-barrier p-i-n heterojunction single-photon turnstile device 1807
dye-doped sol-gel coated fibre optic LED based O_2 sens. 9926
edge emitting LEDs, high power, low internal refl. 23041
electroluminescent diode with photoresponsive organic pigment films, light amplif. 31104
emission intens., photon recycling approach 39581
fluidic self-assembly of microstruct., GaAs on Si integrat. 30002
four-element fiber grating sens. array, phase-sensitive detect. 17816
high power light triggered triac, light sensitive struct. develop. 39568
hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
II-VI blue-green emitters, failure mechanism 14630
II-VI high-brightness blue-green LEDs on ZnSe substrs. 23052
II-VI semiconductors, electronic materials, conf., Boulder, CO, USA (1994) 36873
integrated OEIC/device CAD design tools 39595
interferometric meas. of strain, grating-coupled LED sources 18113
LARnet, local access router network 25515
M. George Craford, yellow LED inventor, biog. 28246
MEH-PPV sandwich devices, photosensitivity and implication, polymer electronic struct. 23013
modulation bandwidth extension by pole cancellation 23032
monolithic integrat. of optoelectronic smart pixels 7484
MOVPE, conf., Yokohama, Japan (1994) 11533
MOVPE optoelectronic device technol. 28747
multilayer white light-emitting organic electroluminescent device 31111
light emitting diodes continued
multilayer-dye electrolum. diodes, charge injection, transport, neutral excitations 23036
multimode reson. cavity LED, organic semicond., colour var. 1824
multiple quantum barrier height meas. by LED 13186
novel ladder poly(p-phenylene)s, high efficiency blue LED 23034
nuc. phys. expts., opt. fiber links 22843
oligothiophene-based LED, charge carrier injection/lumin. 14635
opt. sens., wavelength selection strategies, referencing schemes 1816
optoelectronic integrated devices, transient behaviour 39591
organic electroluminescent devices, reson. cavity 23045
organic electroluminescent diode stabil. 23030
organic electroluminescent diodes, opt. microcavity struct. 1823
organic LEDs, Si compatible monolithic integrat. 14664
packaging, cost effective for fiber optics 31102
photonics materials for IT, conf., USA (1994) 11523
phototransistor/LED based optoelectronic differential multiplexer logic 1837
planar microcavity LED's, design/expt. comparison 31097
poly(1,4-phenylenevinylene) films, CVD, LED appls. 12182
poly(3,4-dialkyl-1,6-phenyleneethynylene), opt. props., LED appls. 14320
poly(3-hexylthiophene)-poly(N-vinylcarbazole), blend films, electrolum. 31073
poly(p-phenylene vinylene)-based LEDs, chlorine precursor route 31108
poly(p-phenylene vinylene)/tris(8-hydroxy) quinoline aluminum heterostruct. LED 31103
poly(p-phenylenevinylene), LED, charactn. 14645
poly(p-phenylenevinylene) LED, polaron/hole charge transport 14636
poly(p-phenylenevinylene) LED, transient electrolumin. 14634
poly(phenylene acetylene) elec. symmetric diodes 23039
poly(phenylene vinylene) films, electroluminescent edge emission, brightness 23004
poly(vinylcarbazole), tris(8-quinolinolato)-aluminum doped, blue-green LED 1821
polyaniline bilayer composite electrode for efficient polymer LEDs 23037
polyaniline network electrode LED, enhanced perform. 23033
polymer, carrier tunnelling/device characts. 14626
polymer blend LED, majority carrier injection from ITO anodes 31101
polymer LED at LV, I-V characts. 23040
polymer LEDs, Si monolithic opto-electronics 31126
polymeric LEDs, μm- and nm-sized 39580
polymers, semicond., carrier injection, Fowler-Nordheim field-emission tunneling 14644
polyphenylene, light-emitting copolymer, synthesis, luminesc. 14594
polythiophene, LED, polarized electrolum. 31109
poly[3(4-octylphenyl)-2,2′-bithiophene]-based LED, white light 7478
R-LED series network, harmonic and intermodulation perform. 31096
radiation effects, LEDs, LDs, PDs, OCs 23047
reson. tunneling light emitting transistor, base transport 39582
Schottky LEDs using polymer act. film, fab. and characts. *(French)* 1822
sexithiophene monolayer/bilayer diodes, transient electrolumin. 14637
sexithiophene/derivative-based two-layer LEDs 23035
SMT-TOP-LEDs for large-area matrix displays 3932
spectral slicing, modelling, interchannel crosstalk 1828
spontaneous emission LEDs, photolum. 1817
Sun photometer, LED-op amp design 35309
tunable photodetectors and LEDs for WDM appls. 39617
two-way opt. fiber wideband FM sig. transm. 3553
ultra bright LEDs, gain monitoring syst. for scintill. detectors 26135
variable colour polymer blend LED 7475
AlAs/GaAs, triple-barrier reson. tunneling LED, fast opt. induced switching 31107
AlGaAs near-IR LEDs, failure anal., expt. techs. 39584
AlGaAs p-n jns., GaAs(111)A substrs., MBE growth, Si doping 20879
$Al_xGa_{1-x}As$ surface-emitting devices, power conversion efficiency 23029
AlGaAs-GaAs DH LEDs, MBE 39588
AlGaAsSb/GaInAsSb, LED, electrolum. quantum yield 1827
AlGaInP orange LEDs, misoriented p-GaAs substrs. 14642
AlGaInP:Si(Zn)/GaAs LED, low-press. metallorganic VPE 39583
AlGaN/GaN doubleheterojunction, UV/blue LEDs 7476
AlGaN/GaN/GaInN, stacked heterostruct. LED, MOVPE 23049
AlInAs-GaInAs quantum cascade unipolar intersubband LED 14632
Au/native oxide/p-Si, electrolumin. study 31100
Au/porous Si diodes, electrolumin. study 31100
CdS thin film p-type/n-type light emitting/LD 14978
GaAs LEDs, 3D opt. coupled common memory 39318
GaAs microstruct., fluidic self-assembly on Si substrs. 1468
GaAs/AlAs, sub-micron p-i-n RTD, discrete electrolum. lines 14640
GaAs/AlAs submicron light-emitting RTDs 14623
GaAs/AlGaAs, QW microcavity LED, mode-coupling 7472
GaAs/InGaP quantum well p-i-n diodes, blue shift obs. 14603
GaAs-AlAs vert. coupled-cavity microinterferometer, deformable-membrane top mirror 39991
GaInAsSb, saturated cpd., tunable LED study 14633
GaInAsSb/GaSb, LED, electrolum. quantum yield 1827
$Ga_{0.51}In_{0.49}P$/GaAs PV converter, opt. power/data transm. 27943
GaN, MOCVD growth on 0001 sapphire, X-ray crystallography studies, blue LEDs 7473
GaN blue-violet light emitting p-n jns. grown by ECR-assisted MBE 14638
GaN high-lumin. blue/blue-green LEDs 14631
GaN p-n homojunction, UV/blue LEDs 7476
GaN:Mg on GaN substr., metalorganic VPE growth, opt. props. 20754
GaN-based LED, high efficiency, high disloc. densities 31099
HgCdTe diode, room temp. electrolum. 1825
ITO/porous SiC blue LED, charactn. 14624
InGaAlN, competitor of ZnSe for light emitting devices 23053
InGaAlP epilayers, metalorganic CVD using tertiarybutylphosphine, deep levels 20751
InGaAlP/GaAs hybrid-type DBR for InGaAlP LED 1819
InGaAs 3.3 μm LEDs for detecting methane gas, RT 1820
InGaAs-GaAs-AlGaAs strained layer broad spectrum QW LED fab. 7474
InGaAs-InAlAs mid-IR LEDs for opt. gas sens. 31106
InGaAsP MWQ edge-emitting LED, opt. props. 14628
InGaAsP epitaxial layers on GaAsP substrs., orange LED appl. 12128
InGaN/AlGaN DH blue LEDs, high-power devices 23046
InGaN/AlGaN DH blue-green LED 14641
InGaN/AlGaN, Zn doped, DH blue LED MOCVD 23042
InGaN-AlGaN double heterostruct. violet LED, CVD growth 5895
MgZnSSe/ZnCdSe lasers/LEDs, thermal annealing 23051
MnZnSSe, material develop. for blue/green light emitters 2006
O_2 intrinsic phase fluorimetric sens. 17985

light emitting diodes continued
Si LSI single-chip integrat. of LED, waveguide and micromirrors 39615
Si bipolar monolithic opto-electronics, polymer LEDs 14665
Si contacts on $Si_{1-x}Ge_x$/Si quantum well, gas source MBE, electrolumin. diode appl. 28722
Si diodes, porous, immersed conducting polymer contacts, electrolumin. 39579
Si diodes, stain-etched porous films, vis. electroluminesc. 7477
Si, porous, blue, beyond 1.5 μm 14625
Si porous lateral injection device struct. for LED 23054
a-Si thin film optoelectronic cellular neural networks 22980
Si:In, LED, porous Si device, enhanced blue light emission 1818
a-SiC thin film LED, present and future *(Chinese)* 23044
SiN_x filter effect on LED intens. temp. depend. 7479
ZnCdSe/Zn(S)Se LEDs, emission efficiency improvement by thermal annealing 39587
$Zn_{0.9}Cd_{0.1}Se/ZnTe_{0.1}Se_{0.9}$ blue/green LEDs 23028
ZnCdSe-ZnSe SQW LEDs, MOCVD growth, blue-green emission 23031
ZnMgSSe blue LED, current injection, defects 31098
ZnMgSeTe:N,Cl, MBE, doping, diode electrolum. 22151
ZnMgSeTe/ZnMgSe LED 14622
ZnSSe/ZnSe/CdZnSe LED films, substr. transfer proc. 31105
ZnSe-based LED, low-press. MOVPE 23043
ZnSe-based MOVPE and MBE grown LEDs 23050
ZnSe-based QW LEDs, MBE growth 37444
ZnSe-based blue-green lasers, conf., Wurzburg, Germany (1994) 20220
$ZnTe-Cd_{1-x}Mn_xTe_{1-y}Se_y$ heterojunction, prep./electroluminesc. 37398

light filters *see optical filters*

light intensifiers *see image intensifiers*

light interference
see also light interferometers; light interferometry; moire fringes
2-D opt. BFN 8077
act. planar lightwave cct. technol. *(Japanese)* 17183
antiresonant reflecting opt. waveguide intens. modulation 23781
autocalibration of fibre optic strain sensor 25860
birefr. meas., local-sampling phase shifting tech. 34718
fibre networks, directly modulated, seq. depend. of phase-induced intens. noise 34015
fibre-optic reflectometer with thin film a-Si interfaces, temp. meas. 34555
fused taper fibre coupler, control beam sig. switching 2054
grating assisted directional coupler, opt. induced 40438
holographic memory diffr. interf., stat. charact. 22784
holographic points patterns, image space/spectral anal. 40128
Huygens-Fresnel principle in near field 23649
interf. wedge with unequal reflectivity mirrors, laser tuning element 15007
length meas. of terminal gages, absol. interf. method 9784
multi-mode opt. waveguide interf. devices based on self-imaging 40440
multimode interf. ultracompact waveguide devices 30954
opt. disk, write compensation, thermal transfer fn. 22795
photoconductive semiconds., transient photocurrents generated by step-PM 23421
photonic ccts. written by dark spatial solitons in defocussing nonlin. materials 31617
simultaneous temp./hydrostatic pressure meas. 25859
single photon in opt. interferometer, time-delayed self-interf. 31609
SOI, polysilicon films, zone melting, laser radiation interf. 37469
target vel. meas. from speckled images 16197
thin photoconductive layers, nonsteady-state photo-EMF 1791
two-mode fibres, intermodal interf., polariz.-mode atten. 30879
$Al_xGa_{1-x}As$ layers on GaAs(001), MBE, in situ reflectance anisotropy 37442
CdSe, MOMBE-ALE, surface react., opt. probing method 20697
GaAs/(Al)GaAs/GaAs at. layer growth using $GaCl_3$, $AlCl_3$ and AsH_3 20689
GaAs/AlGaAs quantum well struct., etching, photoreflectance phase shift 38532
Nd:YAG laser beam control, Brillouin and photorefr. nonlin. 31478
Nd:glass laser higher-order harmonic generation, phase matching effects 15102
Si:O syst., ion implanted, oxide growth, refr. index, and comp. depth profiles 22123
ZnSe, MOMBE-ALE, surface react., opt. probing method 20697

light interferometers
see also Fabry-Perot interferometers; light interferometry; Mach-Zehnder interferometers; Michelson interferometers
1.5-μm phase-sensitive opt. parametric amp. for ultrahigh-speed commun. 9604
10 Gbit/s data switched semicond. laser amp. nonlin. loop mirror 17326
absol. air refractivity meas. 10473
absol. dist./vel. meas., double integrated heterodyne interferometer 18073
all-fiber interferometer, polariz.-mode-dispersion meas. 7340
aspherical mirror testing, zone plate CGH common path interferometry 40122
CMM, interf. probe head 17729
CMOS transimpedance amp./opt. syst., monolithic integrat. 31131
CMOS-based technol. for integrated optoelectronics 23062
compact acousto-optic proc. for SAR image form. 2830
delayed opt. bistable syst., chaos control 31555
displacement meas., nanometer resolution, crack meas. appl. 25971
displacement sens. with opt. feedback, LD 18097
dual-probe interferometers for accurate surface wave meas. 9870
eight-element fibre optic magnetometer array, undersea perform. 3865
electron-beam lithog. syst., yaw compensation 13473
fiber interferometer guided-acoustic-wave Brillouin scatt. meas. 25853
fiber optic gyros *(Japanese)* 3858
fiber optic interferometer, ferroelec. relaxor strain response charactn. 39051
fiber resonator sens., opt. phase amplif. 25861
fiber-optic sens. array without polariz.-induced sig. fading 34522
fibre interferometers, adsorpt. effect on modal propag. const. 22836
fibre optic HV/current sens. for switchgear 17821
fibre optic interferometric sens., source coherence synthesis, dyn. spectral filtering 34520
fibre optic interferometry for photoacoustic spectrosc. in liqs. 17880
fibre optic sens., Mach-Zehnder vs. Sagnac interferometers 17912
fibre sens., phase nonmutuality LF noise 34529
fibre-optic large area av. temp. sens. 17872
fig. of eight fibre lasers, mode locked by Sagnac interferometer 31455
Fizeau interferometer, phase-map extraction by moire tech. 17697
four-element fiber grating sens. array, phase-sensitive detect. 17816
four-grating interferometer for opt. logic gate implement. 31047

light interferometers continued
grating interferometer, parallel receiver for fibre sens. 17842
heteroaromatic chromophores in high temp. polymers interferometric films 1736
heterodyne interferometry-laser microscopy hybrid meas. syst., acousto-opt. deflectors 31023
heterodyne opt. interferometry, LD power change effects 42965
heterodyne polarimetric fiber-coil deform. sens. *(Japanese)* 3857
III-V interferometric electroabsorption QW modulators 1738
imaging amplit. correlator for ultrashort pulses 34720
in-line Sagnac interferometer for mag. field sens. 17884
indust. robot calib. by opt. methods 10031
integrated opt. symm. no. syst. ADC, 8 bit 21392
interferometric birefr. opt. fiber transducer 17870
interferometric sens. syst. for security appls. 17896
IR interferometric SAR act. coherent imaging *(Japanese)* 9645
laser interferometers for lin./ang. displacement control appls. 39592
LD act. interferometer, sinusoidally modulated *(Chinese)* 2154
LD freq.-modulated interferometer, selective imaging 40177
long-wavelength LD interferometer, surface flatness meas. 18068
Mach-Zehnder interferometer for elec. field sens. 25816
machine tool rolling meas. syst., laser interferometer-based *(Japanese)* 42940
mag. disk surface roughness meas. via opto-heterodyne interferometer *(Chinese)* 34698
mag. fiber-optic sens., magnetostrictive noise limitation 3852
magnetooptic channel waveguide devices, geometric phases 31017
miniature fibre-optic interferometric med. press./temp. sens. 18433
modal noise suppression in white light interferometer 17913
multimode fiber interferometric syst., up- and down-lead fiber sensitivity 9915
multiple vernier grating monochromator etalon design *(Chinese)* 10046
multiple-refl. beams for simplified heterodyne interferometers 17705
multistage interconnection network systs., opt. devices, design 1829
non-lin. refr. index meas., fibre Sagnac interferometer *(English, Italian)* 34713
nonlin. fiber Sagnac opt. TDM switch 17336
opto-electronic interferometric sens. ccts., CAA/CAD 17761
orthogonal polariz. fiber gyroscope, stabil., resoln. 17817
pass. demodulated Michelson/polarimetric coupled fiber strain sens. 17866
pass. rem. IR interferometers, analog detect. scheme 34427
phase-modulating opt. coherence domain reflectometry, synthesis of coherence fn. 34719
photoacoustic detect. of trace gases, opt. microphone 17984
photoimprinted Bragg grating all-fiber dense WDM/demultiplexer 42388
polaris. interferometer-based spectral imaging syst., liq. cryst. cells 31010
polariz. insensitive fibre-optic white-light interferometry 34521
quantum freq. ref., two-beam cell/multibeam interferometer, self-focusing 23430
quasidistributed fiber-optic interferometric pickups, seismology appl. 17867
radar sig. proc., space/time integrat. acoustooptic archits. 7424
Rayleigh backscatt. in opt. fibres, noise/sens. 17899
rem. ellipt.-core dual-mode fiber strain sens., coherence-tuned interrogation 17918
ring fibre interferometer, sig. drift by transient polaris. effects 3849
Sagnac interferometer, elec./mag. fields simultaneous meas. 17865
Sagnac interferometer, fund. thermal induced phase flucts. in fiber loop 17921
Sagnac interferometer, thermal induced phase flucts. 17855
Sagnac/Mach-Zehnder fiber-optic interferometer thermal procs. comparisons 42835
SAR image form., opt. proc. 17417
scanning in white light interferometer, tunable laser 17754
simultaneous temp./hydrostatic pressure meas. 25859
submillimeter laser interferometer-polarimeter for plasma diagnostics 40173
Talbot effect based holographic interferometer 40155
thermal phase noise, Michelson vs Sagnac fiber interferometers 17914
three-channel FDM fiber-optic LF voltage sens. 9921
two-mode fiber-optic time-delay scanner for white-light interferometry 25854
variable sensitivity interferometer, diffr. beam splitter 23464
wavelength-tuned Mach-Zehnder fiber filters 7318
XY integrated opt. coupler for phase-sensitive opt.-power combining 39398
Y interferometric laser technology 14971
$BaTiO_3$ self-pumped phase-conjugating mirrors, interferometric systs. appls. 31051
Er^{3+}-doped intracavity LD pumped modulated fiber lasers 1879
GaAs-GaAlAs quantum point contact, dyn. response 6560
InGaAsP-InP MQW 2×2 opt. space switch struct. for 10-GHz appls. 9148
$LiNbO_3$ electro-opt. devices, proton radiation effects 1728
$LiTaO_3$ phase modulator, opt. heterodyne impulse-response meas. 30995

light interferometry
see also electronic speckle pattern interferometry; holographic interferometry; moire fringes
3 by 3 fibre coupler phase jitter, pass. homodyne demodulation 30923
absol. surface shape testing, interferometric sens. 18077
arrayed-waveguide grating multiplexer, phase error compen. 22919
astron. small bodies imaging, bispectral techs. 33140
astron. speckle interferometry, phase problem soln. *(Russian)* 16251
birefr. meas., local-sampling phase shifting tech. 34718
birefr. polariz. maintaining opt. fibre sens. 17853
chem. lasers, CW, small-scale periodic inhomogeneities, lateral shearing interferometry 23088
CLIO IR FEL, sub-picosecond laser pulse generation 39930
colour CCD image sens., moire effect surface shape meas. 10017
concrete stress meas. fiber optic sens., polarimetric/white-light interferom.-based 25978
conference, interferometry, photomechanics, Poland (1994) 28210
confocal scanning fibre-optic interferometry 34557
contouring, interferometric digital proc., Hough transform 12238
deconvolution from wavefront sens., lin. and speckle image reconstruction 16212
demultiplexing, π phase shift recovery in semicond. laser amp. 25508
DFB QW semicond. laser amplit. squeezing 1965
DFWM pattern interferometry, refr. index vars. 31506
die attach proc., mfg. stresses in die, electronic packages 6453
die-attach proc., mfg. stresses in die, package reliab. 29709
dielec. props. meas., organic liqs., 890 GHz 18032
diffr. limited slit-spectrography 16213

light interferometry continued

- diode laser wavelength shift meas. by fiber modal interferometers, altometer resoln. 25855
- dual wavelength beat wave interferometry for large diams. meas. *(Chinese)* 42928
- dual-probe interferometers for accurate surface wave meas. 9870
- electronic packages, thermal strain, size effects 28492
- erythrosin-B-doped polymer films, phase-conjug. wave generation, phase change 23393
- Faraday-effect magnetometry, Verdet const. compensation 10001
- fiber links, polariz. mode dispersion meas. 7342
- fiber optic sens. systs. develop. 17838
- fiber strain sens., chirped Bragg grating sens. element 17879
- fiber subsystems/devices testing by high-resoln. reflectometry techs. 7313
- fibre grating interferometric characterisation 39337
- fibre laser sens. syst., interferometric read-out/WDM 17882
- fibre optic multiple interferometrical config. *(Spanish)* 7289
- fibre optic press./temp. sens., min. invasive diagnostics 18432
- fibre optic probe for thermal meas. in turbomachinery 17850
- fibre optic sens. and Bragg gratings, mining appls. 17839
- fibre optic sens. at Photonetics, develop. trends 17875
- fibre optic sens. network, hybrid CDMA/WDM multiplexing 17906
- fibre optic sens. technol. evol. and commercialisation 17818
- fibre optic sensors, conf., Glasgow, Scotland (Oct. 1994) 11524
- fibre sens. based on multimode fiber Bragg gratings 17878
- fibre-optic interferometric hydropressure sens. 17917
- fibre-optic interferometric sens., TDM/FDM comparison 17903
- fibre-optic sens. array, polariz.-induced sig. fading 17900
- FT dispersive opt. fiber spectrometer/interferometer, temp./strain meas. 25857
- graphite fibre reinforced PEEK thick composites, embedded SiO_2 opt. fibers, moire anal. 25852
- high precision opt. meas. methods 18061
- high-press. meas., white-light interferometric transducer calib. 3783
- image reconstruction/restoration, conf., San Diego, USA (1994) 26
- intens. interferometric correl. in image reconstruction 2709
- interferogram fringe pattern anal., noise reduction 33005
- interferometry-based quantum random-no. generation and key sharing 17343
- IR-sensitive film-struct., opt. diagnostics 14569
- ISKRA-5 facility I laser opt. syst. wavefront anal. 7539
- laser mirror group-delay meas. by spectrally resolved white-light interferometry 39996
- length meas. of terminal gages, absol. interf. method 9784
- lin. displacement transducers based on speckle interferometry, error avoidance tech. 9889
- lin. freq.-swept light source for FMCW reflectometry 18123
- lithographic proc. monitoring and control, diffractive techs. 13489
- long-dist. fibre-optic displacement sens. syst. 25872
- machine tool rolling meas. syst., laser interferometer-based *(Japanese)* 42940
- mag. head/tape spacing, 2D interferometric meas. 7169
- mag. recording, flying height tester calib. std. 7151
- MCM fab., planar chip insertion, interferometric micropositioning 21727
- melted microlens shapes, modelling/meas. 1724
- miniature Fabry-Perot interferometric sens., pass. sig. proc. 17851
- mirrors, concave, rad. meas. by zone plate interferometry 42924
- Moiré interferometry anal. of laser weld induced thermal strain 2161
- MOS-type posn.-sensitive detectors, angle/posn. detect., opt. interf. 34687
- multiple-core fibre, light focusing, ground-based interferometry appls. 30861
- multiple-image FT spectral imaging, fast phenom. meas. appls. 33086
- NLC panels, phase retardation meas. 31009
- noncontact profiling of machined surfaces, fibre optic interferometry 18064
- nonincremental interferometric fiber-optic simultaneous temp./strain detect. 25856
- obj. beam expander noise monitoring in speckle correl. interferometry 33143
- obj. with steps, profile meas. by two gratings projection 34697
- oblique incidence opt.-fiber diam. determ. by scatt. 7274
- opt. fiber, interferometric refr. index profile meas. 14378
- opt. fibers, ellipt., single-filament, interferometric meas. during continuous drawing 39367
- pass. interferometric opt. fibre sens. networks 17905
- phase diversity imaging, atmos. turbulence 33089
- phase shifting interferometry, ref. phase shift determ. 33072
- phase stepping in projected-fringe moire interferometry 18071
- phase-modulated fiber laser, spectral stabil. and smoothness 25991
- phase-modulating opt. coherence domain reflectometry 18128
- phys. consts. meas. of laser dye solvents 23339
- piezocomposite US transducers, transient acoustic fields, opt. imaging 18932
- piezoelec. micromotors, PZT ferroelec. thin film appls. 44091
- piezoelec.-driven inertial slider based STM 6926
- plasma etch endpoint, interferometric imaging 13367
- plasma opening switch expts., plasma source variations 27850
- PLL interferometric profilometry 3984
- preforms/waveguides, refr. index meas. by interf. method 4001
- probing elec. discharges, opt. fibres 17828
- pulsed FEL amp., temporal/spatial phase vars. meas. 7688
- pulsed laser temporal coherence meas. by collinear second-harmonic interf. tech. 15016
- quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
- quantum cryptography, interferometric quantum entanglement 15793
- quartz resonator mag. sensitivity, orig. and meas. 30615
- real-time shearography, fractional fringe order by phase shifting 32856
- refr. microlens fab., preshaping photoresist 7441
- robot motional perform. measuring systs. *(Japanese)* 10026
- Sagnac loop opt. fibre current sens., polariz. depend. 17916
- scanning microellipsometry for topography meas. 25976
- semicond. wafer defects discrim. by laser-based systs. 13833
- semicond.-wafer proc. equipt., particle detect., in situ coherent lidar 37047
- shear beam imaging of laser illum. space targets, heuristic model 16196
- sheared beam imaging in space-time distortions 17433
- shot leveling/focusing , interferometry for opt. lithog. 13561
- Si film growth, temp. control, pyrometric interferometry 42974
- single cryst. core fibers, second-order cascading, third-order effects orig. 22806
- single photon in opt. interferometer, time-delayed self-interf. 31609
- single-mode fibre, polaris. mode dispersion, pulse distortion meas. limitations 30862
- single-mode opt. fiber polariz. mode dispersion meas. by freq.-domain interferometer 1699

light interferometry continued

- skin-core fibre refr. index determ. 4002
- slider-disk flying height meas., monochromatic/phase demodulated laser interferometry 7164
- solar image, segmentation, parallel blind deconvolution methods 33087
- solid surface US pulse opt. detect., confocal Fabry-Perot interferometer *(Chinese)* 10075
- speckle methodology, liq. cryst. TV and posn. sensitive device 39499
- squaraine dyes in PMMA, third-order opt. procs. 23399
- STM with 3D interferometer, surface roughness meas. 42926
- straightness meas. syst., holographic grating *(Japanese)* 18096
- strain meas., dispersive FT spectrosc. 18113
- surface profiling, light interferograms freq.-domain anal. 18066
- tapered monomode fibre, temp. meas. appl. 18130
- target vel. meas. from speckled images 16197
- thermal detect. of enzyme-labelled antigen-antibody complexes 9946
- three-axis fiber optic magnetometers for undersea appls. 17824
- three-channel homodyne interferometry, opt. thickness meas. 18074
- TOXS-1 X-ray stepper, overlay accuracy 13479
- transparent opt. networks scaling limitations, low-level crosstalk 17345
- two-mode fiber-optic time-delay scanner for white-light interferometry 25854
- UV written refl. grating structs. in photosensit. opt. fibres 1679
- vac. epitaxial growth systs., vis. laser interferometry 28788
- VCSEL, Gaussian-beam-induced vortices 23321
- weak phase objs., struct. determ., interferometric near-field meas. 18084
- wedge plate interferometric laser beam tester 31476
- white light interferometric fibre optic meas. systs. 17813
- white-light phase-stepping interferometry for surface profiling 3976
- wideband low noise accelerometer, inductive displacement sens. 42766
- $AgGaSe_2$ noncritically phase matched mid-IR generation by opt. parametric oscillator 40060
- Al vac. deposited thin film characterisation, SiO_2-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
- $BaTiO_3$ cryst. multiple wavelength phase-conjug. shear interferometry 2087
- $Bi_{12}SiO_{20}$ cryst. opt. limiter, effective nonlin. 30832
- C overcoated sliders, flying height meas. 7162
- Cd^+ photo-ionization laser, blackbody source pumped, charactn. 31196
- CdSe, MOMBE-ALE, growth kinetics, opt. probing method 20909
- Cr^{4+}:YAG self-mode-locked laser, fs pulses near 1.5 μm 14786
- F_2 discharge-pumped laser, form. kinetics 39669
- GaAlAs LD feedback interferometer for displacement meas. 23479
- He-Cd^+ pos. column type UV 325 nm lasers *(Japanese)* 14683
- InGaAsP 1.5 μm DFB laser study by Gires-Tournois interferometer 1940
- LiB_3O_5/BaB_2O_4 crysts., opt. parameteric oscills., thermal loading 7771
- $LiNbO_3$ optical channel waveguides, direct meas. of cascaded nonlin. 14429
- $LiNbO_3$:Ti strip waveguide thermooptic coeff. determ. for phase compensated appls. 39467
- $LiTaO_3$ antiparallel domains ident. by interferometric method 10041
- Nd:YAG CW slave laser, phase locking by Nd:YAG master oscillator 31278
- Nd:YAG ring laser freq. stabil., interferometric gravit. wave detector light source appl. 31301
- Si RTP temp. meas., ESPI/subfeature speckle interferometry 25999
- Si diaphragm thickness opt. monitoring, wet etching 30104
- Si lattice param. meas., survey 17638
- Si wafer, defect level, classical and holographic interferometry 31665
- Si wafer temp. monitoring by IR laser interferometry *(Korean)* 13363
- Si:O near-surface/subsurface defects, opt. prod. profiling 29992
- SiO_2, fused, microlens arrays, RIE 14493
- ZnSe, MOMBE-ALE, growth kinetics, opt. probing method 20909

light meters *see photometers*

light microscopes *see optical microscopes*

light microscopy *see optical microscopy*

light modulation *see optical modulation*

light pens

- parallaxless input integrated flat panel display *(Japanese)* 9978

light polarisation

- *see also birefringence; optical fibre polarisation; optical rotation; photoelasticity; polarimetry*
- 2-D opt. BFN 8077
- 3D surface reconstruction, polariz. state anal. 41290
- 10 Gbit/s data switched semicond. laser amp. nonlin. loop mirror 17326
- 1300 nm MQW laser amplifier for opt. commun. 9456
- all-opt. proc., vectorial interacts., second-order cascading 2632
- arrayed waveguide N×N wavelength multiplexer transm. charact. 42353
- automated null ellipsometer, rot. analyzer 10047
- bacteriorhodopsin dyn. recording material, polariz. props. of four-wave interact. 2088
- birefr. meas., local-sampling phase shifting tech. 34718
- broad-area semicond. lasers, filamentation and beam propag. 23191
- calcite plate integrated polariz.-opt. logic proc. 1755
- CCD cameras, computer vision, beam splitter 2596
- CGH, polaris. selective, design/fab. 23461
- channel opt. waveguide charactn. by photon scanning tunnelling microscope 22865
- coherent-OTDR, reduction of stochastic amplit. fluct. 18121
- corrugated waveguide, SHG, light diffr. 14459
- CPFSK opt. crossconnect systs. with noncoherent detect., interf. 9434
- depolarized source, rem. waveguide modulator high-power operation 14512
- dielec. laser mirror, phase anisotropy 2032
- dye laser freq. stabilization by polariz. spectrosc. 23109
- dye-polymer films, photoanisotropic, joint transform correl. 8469
- dye-polymer randomly addressable read/write/erase holographic recording medium 30841
- evanescent-field planar waveguide sens., mode-independent atten. 42768
- FDTD formulations for nonlin. opt. simul., Z transforms 31558
- fiber/planar waveguide coupler thin metal layer polariz. props. 7285
- graded index channel waveguides, asymmetric directional couplers, spectral charact. 22889
- gyrotropic medium, light freq. translation, electro-optic modulation 30994
- high-opt.-isolation low-loss moderate-switching-speed NLC opt. switch 1746
- high-repetition-rate electrooptic cavity dumping 30999
- highly inhomog. plasma, obliquely incident short laser pulse energy absorpt. 15454
- holographic polariz. sens. for magneto-optic heads 7848
- IR-sensitive film-struct., opt. diagnostics 14569
- isotropic liq. cryst. film, IR all-opt. switching 31011
- Kerr-like ordered liq. instabilities, stochastic procs. 7727
- laser interferometers for lin./ang. displacement control appls. 39592

light polarisation continued
LCD video projectors, polarized light source 25930
lin./chirped opt. generated liq. cryst. gratings 1751
M-ary opt. polariz. modulation detect. in commun. channel 17318
magnetooptic channel waveguide devices, geometric phases 31017
microlithography, polarized masks, image contrast 38718
MQW polarisation insensitive 1300 nm laser amplifiers 14870
multi-mode opt. waveguide interf. devices based on self-imaging 40440
multistage opt. switches for 2D images based on polaris.-sensitive elements 42132
multistage opt. switching network interconnections, orthogonally polarised data 39515
normal incidence MQW light modulator, contrast ratio 7386
opt. DPSK/heterodyne detect. scheme, two polariz. planes *(Japanese)* 17265
opt. multiwavelength full adder, polariz. encoding 22972
p-nitroaniline centrosymmetric single cryst., surface opt. SHG 40118
particle image velocimetry, image labelling, flow meas. 18154
pass. planar opt. waveguide geodesic lens prod. 1714
π-phaseshifting struct., near/far field phase images resoln. 2631
photoelastic modulator of light, opt. feedback 14566
photoresist films, elec. field distribs., polariz. depend. 22294
planar coupled magnetooptic waveguide, mode conversion 39415
planar waveguides, guided modes via grating rotation deflection 22863
planar waveguides, spatial solitons polaris. interact. 14475
PMMA storage media, azo-dye doped, real-time dyn. polariz. holographic recording 40142
polaris. independ. nonlin. opt. loop mirror demultiplexers 34079
polariz. splitter, dimens. tapered vel. coupler 14430
polariz.-difference imaging, obs., scatt. media 42852
polariz.-encoded logic alg. opt. logic gate design 31039
polariz.-insensitive telecomm. optoelectronic device design 14578
polariz.-selective birefr. CGH based intell. photonic switch 25538
polariz.-sensitive thermal imaging 16272
poly(1,6-N-carbazolyl-2,4-hexadiyne), third-order opt. props. 15095
poly(2,5-dimethoxy-p-phenylenevinylene) electro-opt. intens. modulator 14524
polythiophene, LED, polarized electrolum. 31109
QW polariz.-independent waveguide modulator, mass-depend. width 14508
reconfigurable nearest-neighbour opt. cellular automata interconnects 1764
rigorous diffr. theory, opt. metrology and AFM topography, nm accuracy 34721
ring laser gyroscope design, spatially resolved eigenstates for traveling/standing waves 14997
semicond. amp., polariz. insensitive, gain-saturation, wavelength conversion 14881
semicond. opt. amp., polariz.-insensitive, wavelength conversion, 10 Gbit/s 14882
semiconds., nonlin. optics, many body effects 15022
shadow-casting multi-input opt. parallel logic proc. 22969
simultaneous temp./hydrostatic pressure meas. 25859
slab waveguide, polariz. coupling and transverse interact. of spatial opt. solitons 14451
solitons in birefr. fibres, polaris. instabil. threshold 14365
Stanford mid-IR FEL micropulse temporal charactn. by "FROG" 39941
strained MQW lasers, photo-detect., polariz. depend. 25841
subfemtosecond pulses 2044
substr.-mode grating struct. opt. switches 7754
substr.-mode holographic polariz.-division multi/demultiplexer for opt. commun. 25173
target surface temp. meas., laser-induced plasma 10053
TE-TM nonlin.-grating MQW polariz. switch 23427
THP/PMMA freq. domain opt. storage, anisotropic spectral hole form. *(Chinese)* 14336
transient ultrafast Kerr lens in soln. detected by dual-beam thermal-lens method 23380
two freq. gas laser, phase anisotropic mirror resonator 7700
two-stage modified signed-digit opt. computing by spatial data encoding/polariz. multiplexing 22977
vector components of elec. field meas., electrooptic sampling 34650
vert. cavity SELs, pitchfork bifurcation pol. bistabil. 14948
vert.-cavity semicond. laser amps., perform. predictions 1998
vol. hologram, coupled mode anal. 23465
vortex soliton dyn. in Kerr nonlin. materials 31509
AlGaInP dual-polariz. SQW LD struct. 14951
Ar laser radiation, polaris.-independent modulation, acoustooptic interact. 7717
Ar+ ion multimode lasers, polariz./intens. correl. 1851
$Bi_{12}Si_{O20}$, polariz. props. of transm. and diffr. 14321
CS_2, third-order nonlin. opt. susceptibilities, picosecond pulses 31534
$Ce:LiCaAlF_6$, UV laser props. 1901
$Ce:LiSrAlF_6$, UV laser props. 1901
Er^{3+} doped fiber laser, self pulsing chaos, antiphase dynamics 39715
Er-doped fiber amp. test syst. 31211
GaAs-AlGaAs coupled QW polariz.-independent waveguide opt. modulator 7394
GaAs-AlGaAs quantum-wire arrays on vicinal substrs., FEA of valence band struct. 21998
$GaInP_2$ ordered VCSELs, polaris. selectivity 31387
HCN laser, output radiation depolarisation 7510
He-Ne laser, modes locking, orthogonal ellipt. polaris. 1849
(In,Ga)As/GaAs strained MQW modulator, electro-absorpt. 39487
InGaAs/GaAs quantum wires, opt. props. 1094
InGaAs-GaAs strained quantum well SEL 31392
InGaAs-InP MQW tensile-strained directional coupler, polariz.-independent switching operation 14529
InGaAs-InP quantum well polariz. control photonic functional devices 14480
InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
InGaAsP electroabsorp. modulator, low pol. depend. 22926
InGaAsP semicond. opt. amp. array 23223
InGaAsP:Si quantum well, intermixing, spatially resolved/polaris. resolved photolumin. 38495
InGaAsP/AlAs/GaAs double-fused vert.-cavity lasers, transverse-mode/polaris. characts. 39874
InGaAsP/InP diode lasers with ridge struct., HF polariz. switching 42434
InGaAsP-InGaAsP tensile-strained quantum well polariz.-insensitive opt. amps. 31414
InGaAsP-InP directional coupler based tunable opt. filter 22910
InP polariz. diversity receiver OEIC heterodyne receiver frontend module 23061

light polarisation continued
InP-InGaAsP pol. independ. ridge waveguide digital opt. switches 9460
$LiNbO_3$ Fabry-Perot planar etalon filters 1781
$LiNbO_3$ acousto opt. tunable filters 7418
$LiNbO_3$ integrated acousto-opt. mode converters/tapered couplers , Tapered acoustical directional couplers 39506
$LiNbO_3$ modulator, binary and multilevel polariz. modulation 14513
$LiNbO_3$ waveguides, electro-optic/thermo-optic meas. of birefr. 22886
$LiNbO_3$:Fe, photogalvanic effect, grating, phase-locked detect. 15168
$LiNbO_3$:Fe[Cu] crysts., light-induced scatt. 30812
$LiNbO_3$:Ti planar waveguides, polariz. coupling 30946
Na vap., laser beam switching dyn. 40111
Nb, ultrathin films, opt. SHG, thickness depend. 31532
Nd-doped fiber laser, CW/self-pulsing regimes, stabilis. 39714
Nd-glass laser, polariz. collapse of radiation 14824
$Pb(Zn_{1/3}Nb_{2/3})O_3$ single crysts., bulk PV effect 31070
Pt silicide Schottky barrier IR detectors, opt. response 3840
Rb at. freq. std., opt. pumping scheme, diode lasers 17630
Si-on-insulator slab waveguide Bragg reflector, two polaris. coupling 39405
Si(001) wafer, cubic centrosymmetric media, anisotropic SHG 31572
SiGe/Si heterojunction waveguides, Ge conc. effect on propag. charact. 39383
SiO_2 planar waveguide ccts., telecomm. appls. 30983
SiO_2 waveguide ccts., low polaris. depend. fabricated on SiO_2 substrs. 1727
$Tb_3Ga_5O_{12}$ photorefr. phase hologram recording 31645
$Tm:YAlO_3$ 1.94-μm laser, biomedical appls. 39731
$Yb:Sr_5(PO_4)_3F$ 1.047-μm energy storage opt. amp. 39730

light propagation
see also atmospheric light propagation; plasma light propagation
3D opt. waveguide struct., vectorial FD-BPM anal. 40428
adiabatic ultrashort light pulses propag. near two-photon reson. 31549
anisotropic waveguides, full-vectorial beam propag. method 7284
bidirectional opt. waveguide propag. modelling, mode expansion/matching 15560
Cantor fractal nonlin. multilayers, EM refl. and transmisson 2061
composite opt. fiber-slab waveguide light coupling and propag. 23804
dielec. cylindrical waveguides with Al cladding, light propag. 7354
dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 23801
Fresnel region, light propag. simul. methods 40156
gap soliton propag., interface effects, effective particle picture 31628
Gaussian beam propag. in nonlin. saturable medium 7760
Gaussian beams and pulses, nonlin. propag. in Kerr media 23445
guided wave scatt. in slightly rough boundary waveguide, stochastic functional approach 14441
Huygens-Fresnel principle in near field 23649
inhomog. media phase conjug., holography, and imaging 31575
microbend sens. perform., finite element/beam propag. methods 17858
multibeam propag. in random medium, phase screens method 2237
nonlin. media interface, guided TM wave propag. 22901
nonlin. tapered opt. waveguide, beam propag. anal. 22873
nonparaxial propag., reflecting opt. waveguide, 3D vectorial eigenmode algm. 14439
opt. fibre propag., quantum noise 14408
opt. waveguides, Richardson extrapolation 15598
optimal absorbing boundary conditions 23648
periodically stratified media light, Bloch eigenvalue eqn. 2196
photorefr. medium, opt. beam propag. 23435
scalar wave diffr. theory, Fresnel/Fraunhofer regions 31845
self PM with finite response time, quantum theory 31898
semicond. laser light pulse propag. and charge carrier scatt. 39789
single-mode fibres, equiv. step-index charactn. 39333
transparent boundary for finite-element beam-propag. method 15451
turbulent medium, coherent opt. fiber sens. 34527
ultrashort pulsed-beam propag. in Kerr medium 31501
wave-beam diffr. in smoothly inhomog. media 2238
wide-angle BPM and power conservation 14464
$Ba_2NaNb_5O_{15}$ opt. waveguide film, epitaxial growth by pulsed laser deposition 1715

light propagation in plasma *see plasma light propagation*

light reflection
see also mirrors; optical films
3D surface reconstruction, polariz. state anal. 41290
antiresonant reflecting opt. waveguide intens. modulation 23781
bidirectional opt. waveguide propag. modelling, mode expansion/matching 15560
Cantor fractal nonlin. multilayers, EM refl. and transmisson 2061
compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
CRT directional and diffuse refl. meas. and eval. *(German)* 18008
DFB semicond. laser threshold condition, local normal modes 14914
dielec. laser mirrors, refl. opt. harmonics 7712
eye movements meas., limbus refl. tech. 26363
fiber-optic mode converter, reflective, nonlin. perform. 22800
fused biconic fibre coupler back-reflexion 30911
hemispherical concentrators/spectral filters, planar sens., diffuse radiation 17776
holographic Fabry-Perot filters, refl. and transm. props. 15162
holographic interferometer, autonomous reflector, ref. beam 31655
interreflection detect. by moving light *(Japanese)* 32999
isotropic liq. cryst. film, IR all-opt. switching 31011
large-screen HDTV projector, opt. config. 25922
laser beams, moment determ. by polynomial transmittance windows 40018
laser radar signatures, enhanced backscatt. 17445
LD amps., opt. bistability and X-shaped hysteresis 39818
materials, dichromatic refl. models 8475
opt. cable testing, OTDR meas. and algms. *(German)* 3589
opt. fiber transm. lines, complex multiple refl. calc. *(Japanese)* 39351
organic media holographic pulse shaping 31674
periodic waveguides, coupled-mode/FEA *(Japanese)* 14424
polymer dispersed liq. cryst. cells with memory effects, light scatt./refl. 34637
range cameras, specular objs., ambiguities reduction 42839
receptacle LD modules, low refl. design *(Japanese)* 7666
refl. holography replication proc., heat proc. 7843
refl. type electrooptic elec. field sens., $LiNbO_3$ opt. waveguide 25863
reflective opt. mixer, polariz.-independent phase conjug. 25483
rem. sens., digital polariz. image treatment 24558
retro-reflective laser automatic inspection systs. for proc. control 37174

light reflection continued
  scene params. estimating method, color histograms 2601
  SILVERIGHT downlight for lighting fixture *(Japanese)* 11462
  SOI, polysilicon films, zone melting, laser radiation interf. 37469
  speckle interferometry based lin. displacement transducers, error avoidance techs. 9889
  submicron holographic lithog., limitations 30163
  surface roughness determ., refl. step edges 3974
  tactile sens., finger-shaped, opt. waveguide 25874
  target surface temp. meas., laser-induced plasma 10053
  tea moisture meas. systs. 18168
  temporal-color space anal. of refl. 2598
  wide continuous tuning LDs, hybrid reson. opt. reflector 7658
  Y-branch modelling by method of lines/beam propag. method 40435
  DyF_3, antirefl. coatings for Si photoelec. devices 1800
  Er doped fibre amp., grating pump reflectors, gain 14749
  Er-doped fibre amps. spontaneous emission noise modelling 14734
  GaAs-GaAlAs multilayers, far-IR radiation nonlin. refl. 7756
  LaF_3, antirefl. coatings for Si photoelec. devices 1800
  $LiNbO_3$, electrooptic waveguide modulators, total internal refl. 14518
  Si diaphragm thickness opt. monitoring, wet etching 30104
  Si solar cells, mech. textures, light coupling, ray tracing 27939
  Si(111), surface SHG, wavelength depend., laser induced props. 15037
  SiON rib anti-reson. reflecting opt. waveguide couplers, design/fab. 14414
  SmF_3, antirefl. coatings for Si photoelec. devices 1800
light reflection spectra *see reflectivity; spectra*
light reflectometers *see reflectometers*
light reflectometry *see reflectometry*
light refraction
  see also birefringence
  fibres with feedback, dyn. SBS 14406
  graded birefringent media, light refraction, elec. field meas. 14326
  polyceram MPEOU-based waveguides, proc., opt. props. 7356
  PTS, multi-photon absorpt./nonlin. refr., 800 to 1600 nm 23395
  semicond. laser amps. biased at transparency, quantum well no. effects on nonlin. refr. 39819
  stereoscopic viewing through corrugated refr. interface, obj. localization 24513
  surface flow visualization, image proc. 42988
light scattering
  see also Brillouin spectra; Raman spectra; Rayleigh scattering; stimulated scattering
  2D image range estim., PM 10029
  3-D brightfield microscope systs., modeling 16218
  3D profiles noncontact meas., opt. sens. *(Japanese)* 42943
  abruptly-terminated opt. fiber diffr. anal. by method of lines 22850
  atmos. visibility meas. device 10461
  blazing effects of dielec. grating, periodically modulated two layers 30981
  blood glucose conc. correl., reduced tissue scatt. coeff. in near IR 26286
  blood platelet aggregation, aggregates counting, laser light scatt. 26329
  brightness meas. of rough surfaces, confocal microscopy/image anal. 18065
  cancer and other disease diagnosis, conf., USA (1994) 11571
  CATV/FITL video-transm. DFB laser components and systs. 17193
  CCD holographic image sens., first-arriving light spatial filtering 34588
  cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
  coherent Compton X-ray sources 10159
  coherent laser radar with diffuse/aerosol targets, heterodyne efficiency 3620
  compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
  disordered media, nonlin. optics, photon localization effects 15101
  Fourier synthesis holography, scatt. material imaging 40149
  Fresnel lens design for high-transmittance condenser 39527
  glucose conc. influence on light scatt. in tissue-simulating phantoms 25888
  goniometer for mag. light scatt. studies 34669
  guided wave scatt. in slightly rough boundary waveguide, stochastic functional approach 14441
  gyrotron collective Thomson scatt. diagnostic, antenna decoupling requirements 29793
  high spectral resoln. coastal ocean imagery, stat. and empirical anal. 18879
  high-Δ fiber core rad. meas. by opt. method 14386
  hole-coupled FEL, light pulses slippage/scatt. 7692
  IR coating bidirectional reflectance distrib. fn. ref. stds. 9777
  IR opt. fiber, absorpt./scatt. loss meas. method 14402
  killer particle detect. on rough wafer surfaces 11826
  knot backscatt. signatures 23589
  laser ablation bubble, fiber optic probe method, time-resolved photography 43215
  laser radar signatures, enhanced backscatt. 17445
  LIDAR inversion methods for atmos. of arbitrary opt. dens. 4411
  lightly shaded opt. syst. port, photom. charact. 7455
  liq. crysts., opt. nonlin., opt. logic appls. 15120
  liq. dye lasers, spherical, wavelength tuning, cavity Q values 14726
  microspheres, morph.-depend. reson. excitation 39364
  mobile commun. and broadcasting systs., EMC, microwave/laser scatt. 23646
  Model TB400G EXA TB surface scatt.-light turbidity meter 10043
  moving objs. embedded within scatt. media, detect. by speckle methods 34604
  multielement photodetector device for point source coord. meas. 25968
  multilayer-coated optics, guided-wave coupling and scatt. by interface random roughness 39391
  multiplex holographic data storage, materials props. 7839
  NLC film, cross polarised self starting phase conjug. 23415
  noniterative complex-valued obj. reconstruction from two intens. meas. 2707
  oblique incidence opt.-fiber diam. determ. by scatt. 7274
  opt. attenuator, liq. cryst. film 7412
  opt. discs, pit models, light-beam scatt. *(Japanese)* 7270
  opt. fiber cladding diam. by meas. of reson. peaks in elastic-scatt. spectra 7314
  opt. fibers for sens. technol., atten. meas. by integrat. sphere 1680
  opt. flow and discontinuities, determ., nonlin. diffusion 24625
  particle image velocimetry, image labelling, flow meas. 18154
  photoresist stripping, semiquantitative method, sensitive light scatt. 13474
  planar opt. waveguides, highly directional surface emission from concentric-circle gratings 23766
  PLL interferometric profilometry 3984
  PMMA-EVA blend, nonlin. scatt. 2064
  polariz.-difference imaging, obs., scatt. media 42852
  polymer dispersed chiral liq. crysts., lin. light modulation 7410

light scattering continued
  polymer dispersed liq. cryst. cells with memory effects, light scatt./refl. 34637
  porous glasses, effective opt. consts. and light scatt. 7263
  radar sea scatt., rough surfaces, opt. backscatt. 23627
  range cameras, specular objs., ambiguities reduction 42839
  rect. grooved metallic surface light scatt. 2195
  Rhodamine 640 dye in strongly scatt. media, spectral/temporal meas. of laser action 14725
  rhodamine dye colloid solns., scatt. media, laser action 31203
  road surface conditions detect., photodetectors based prototype 42791
  rough surface transversal displacement/rot., speckle movement 3977
  rough surface wave scatt. comparisons by holographic interferometry 2142
  scanning HEPA filters, photometers 11728
  semicond. ring lasers for integrated optoelectronic ccts. 14842
  semicond.-wafer proc. equipt., particle detect., in situ coherent lidar 37047
  single mode dye laser freq. stabilization, forward scatt. 7536
  spectral filtering lidar light possessing non-Gaussian stats. 3616
  stereoscopic viewing through corrugated refr. interface, obj. localization 24513
  surface roughness online monitoring by laser scatt. *(Japanese)* 34700
  suspen.-single-droplet dye laser, wavelength shifts, pumping 1871
  travelling-wave grating filter design, inverse scatt. 31067
  two-phase flows, LDA, integral effects 4015
  waveguide high resoln. diagnostics, photon-STM 14474
  Er-doped fiber amps., Rayleigh scatt. effects 23133
  GaAs(100) modified with octadecylthiol monolayers, near-surface electronic struct. 38539
  GaSb, atmos. press. MOVPE on GaAs substrs. 20773
  GeO_2-P_2O_5-MF_x(M=Ca,Zn) germanate glass opt. fibre systs., low light scatt. *(Japanese)* 39304
  InP, MOVPE, surface topography, step orient. 37385
  n-InP, photoelectrochemical etching, surface texture form. 38564
  InP/InGaAs/InP quantum well, MOVPE, surface topography evol. 353
  InP/InGaAsP(GaAs), MOCVD growth, interface characterisation 12150
  $KNbO_3$:Fe photorefr. reconfigurable hexagonal spot array, self-organization of scatt. 22779
  $KTa_{1-x}Nb_xO_3$:Fe tetragonal crysts., holographic double-exposure interferometry 31652
  $KTa_xNb_{1-x}O_3$:Fe, asymmetric opt. transm. device 40076
  $LiNbO_3$:Fe cryst., phase conjugating mirror, scatt. light enhancement 31529
  $LiNbO_3$:Fe[Cu] crysts., light-induced scatt. 30812
  Nd:YAG double-pass laser amp., NLC phase-conjug. mirror 7600
  Nd:YAG laser, eye-safe compact Mie scatt. lidar 18908
  P_2O_5-SiO_2 core single-mode fiber drawing, low Rayleigh-scatt. loss 7292
  Si, porous/light emitting, opt. response, photoacoustic spectrosc. 1238
  Si(SiO_2) sputtering and RIE, particle form. mechanism 22199
  $TiSi_2$-Si surface/interface roughness, RTA heating rate effects 22096

light sensitive materials *see optical materials; photographic material sensitivity; photographic materials*

light sources
  see also infrared sources; light emitting devices; photometric light sources; spectroscopic light sources
  1.55 μm DFB-LD/modulator integrated light sources, MOVPE grown 9478
  3D shape meas. of specular polyhedrons, light source 3980
  6-380 V light-sig. equipt. develops., Russia 44585
  70 terabit.km/sec soliton transm., packaged hybrid soliton pulse source 17351
  absol. dist./vel. meas., double integrated heterodyne interferometer 18073
  acetylphenyl-1,4-dioxa-8-azaspiro[4.5] decane, LD pumped ring resonator, blue light emission 23429
  all-fiber sync. soliton source 7317
  artificial and natural lighting, fluct. meas. *(Japanese)* 18126
  CDMA opt. archits., bipolar capacity, unipolar codes 9582
  complementary-ref. joint transform correlator, opt. pattern recogn. 8468
  DBR laser based step-like opt. freq. sweep generator 23254
  depolarized source, rem. waveguide modulator high-power operation 14512
  digital opt. matrix-vector multiplication realization 22976
  DMNP cryst. cored fiber freq. doubler for blue light generation *(Japanese)* 2060
  dyn. white light holography, opt. addressed MQW SLM 31636
  EUV lithog., low-contamination laser plasma source 38756
  eye, pot. hazards from extended light sources 35193
  FDM cross-connect switch, delayed self-duplex light source and opt. time-slot interchanger 17202
  femtosecond laser sources, extended tunability 31472
  femtosecond near-field opt. light source, cross-correlating capabilities 39477
  fibre optic interferometric sens., source coherence synthesis, dyn. spectral filtering 34520
  fibre-rem. pumped Nd:YAG laser, heterodyne sens. appls. 17863
  Fourier domain opt. pattern recogn. syst. illum. sensitivity 32942
  Fresnel lens design for high-transmittance condenser 39527
  helical Cerenkov effect, microwave/vis. radiation sources 31730
  helical Cerenkov effect, novel radiation source 2185
  HF modulated light source, phase fluorometry/fluoresc. imaging 28159
  hollow cathode discharge operation 21864
  hologram wavefront reconstruction, quantitat. schlieren method 40130
  hybrid sparse-wavelength angle-multiplexed opt. data storage syst. 22794
  II-VI semiconds. low-temp. growth, SR 28771
  image hologram, visual light guide 7841
  interreflection detect. by moving light *(Japanese)* 32999
  IR FPA, high-resoln. closely spaced obj. location algms. 3885
  leg vein treatment, laser/incoherent light source therapy comparison 43330
  lin. freq.-swept light source for FMCW reflectometry 18123
  low coherence reflectometry, tunable narrowband light source, symm. crossing config. 18127
  med. surgical/stomatological luminaires 26300
  micro-Fresnel lens LD collimating light sources 7443
  mode locked semicond. lasers; self PM, timing jitter 31418
  multimode fiber interferometric syst., up- and down-lead fiber sensitivity 9915
  near-field scanning opt. microscope fibre sens. tips fab. 42837
  nonincremental interferometric fiber-optic simultaneous temp./strain detect. 25856
  office environ. opt. wireless transmitter technols. 42358
  opt. disks, eye-diag. jitter, source wavelength, aberration and noise effects 30833
  optoelectronic matrix-vector multiplier, computational accuracy anal. 31027
  photon equalization, appl., X-ray film digitization 43242

light sources continued
photonanofabrication and opt. nanoprobes 22810
photonics materials for IT, conf., USA (1994) 11523
polarized light source for LCD projection 25930
quadratic nonlin. opt. materials *(French)* 1649
read-only opt. head, posn. sensitive detect. syst. 14345
reson. inverters anal., electronic ballast appls. 11128
self-referenced fiber optic sens. for microdisplacement meas. 34537
shape memory from photomotion 16168
soundphotics, light, sound converter 17610
spectrum-sliced fiber-amp. light source for multichannel WDM appls. 9599
SR source, research program 18393
std. lamps, improved automated current control 3723
Super-ACO FEL micropulse, dyn. behaviour 39952
superluminescent diodes and modules, 800 nm 14639
transform-limited opt. pulse dual-wavelength source for WDM soliton transm. 25489
tunable continuous-fibre-optic bandpass filter, sens. appls. 14390
two source phase shifting speckle interferometer, obj. surface meas. 31671
two-beam LD, focusing charact., appls. to opt. head 31479
ultrashort UV FEL 7697
UV high repetition rate tunable sources by dye laser beam freq. conversion 15035
VUV/XUV-soft X-ray radiation source and appls. 31613
white-light phase-stepping interferometry for surface profiling 3976
wide continuous tuning LDs, hybrid reson. opt. reflector 7658
Ar modulated laser source for PMT detectors monitoring 4168
Ba-Y-Yb-F:Tm^{3+} glass thin film upconverting waveguides for vis. and UV light sources 30936
Er-doped superfluorescent fiber sources for fibre optic gyroscopes 17831
GaAs/AlAs vert. cavity laser, SW light generation 23281
H_2 discharge lamp Lyman-α radiation sources, ZrCo, H reservoir 12983
InGaAsP MQW modulator/DFB laser integrated light source 30965
InP photonic IC based light sources, WDM lightwave communication systems appls. 17190
KD_2PO_4, Cu laser sum freq. generation 31516
$KTiOPO_4$ waveguides, diode laser light freq. doubling 31487
$LiNbO_3$, proton exchanged waveguides, deeply inverted periodic domains 22879
$LiNbO_3$ waveguide quasi-matching SHG devices 22880
$LiTaO_3$, proton exchanged waveguides, deeply inverted periodic domains 22879
Nd:YAG ring laser freq. stabil., interferometric gravit. wave detector light source appl. 31301
$PbTiO_3$ epitaxial thin film waveguide, Blue light by SHG 15151
SiO_2 single-mode fiber, near-IR continuum generation, vis. 15044
Ti:sapphire CW mode-locked laser, tunable UV light pulse prod. 23148
Ti:sapphire/Nd:YAG laser syst., high power tunable femtosecond light prod. 23149
Tm-doped ZBLAN blue upconversion fiber laser theory 39710

light transmission
see also light absorption; optical filters
10 Gbit/s systs., opt. transm. tech. *(German)* 42461
attenuated phase shift masks, transm. and side-lobe effect 38726
Cantor fractal nonlin. multilayers, EM refl. and transmisson 2061
diamond polycryst. films for x-ray lithog. masks 6703
fiber-optic mode converter, reflective, nonlin. perform. 22800
fiber-to-fiber connectors for scintillating tile/fiber calorimeters 43118
Fresnel lens design for high-transmittance condenser 39527
holographic Fabry-Perot filters, refl. and transm. props. 15162
ITO layer, sputtered films, specific resist., XRD 28801
laser beams, moment determ. by polynomial transmittance windows 40018
multi-domain homeotropic liq. cryst. cells, 3D simul. 1747
multistage opt. switches for 2D images based on polaris.-sensitive elements 42132
opt. fibres, UV cured coatings, reliab. 1660
opt. transm. systs. employing VCSEL and monolithically integrated photoreceivers 14656
poly(N-methyl-10,10-dimethylphenazasiline), electrochromic windows 22948
poly(N-methyl-10,10-dimethylphenazasiline)/ITO electrode electrochromic window syst. 22932
polyceram MPEOU-based waveguides, proc., opt. props. 7356
PTS-polydiacetylene, time-resolved nonlin. opt. studies in Fabry-Perot cavity 23411
single-mode fibre, opt. phase conjug., chromatic dispersion, self-PM 30856
superlattices, light transm. dyn., bistable behaviour 15031
tea moisture meas. systs. 18168
two-level atoms, bistable, spatial-temporal light struct. 7750
wide free-spectral-range opt. resonator, FDM transm., novel archit. 17168
a-$BaTiO_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
C_{60}, O_2 doped and photopolymerized, nonlin. opt. props. 23397
CdS, nonlin. dyn. of opt. switching fronts 23451
CdTe electrodeposited films, grain boundaries, opt. meas. 28805
$CuGa_xIn_{1-x}Se_2$ electrodeposited thin films, prep. and charact. 389
CuInSSe-doped glass saturable absorbers for pass. mode-locking of Nd lasers 7726
DyF_3, antirefl. coatings for Si photoelec. devices 1800
n-GaAs, carrier conc. and disloc. dens. nondestructive mapping 1044
GaAs p-n jn., Franz-Keldysh electro-absorpt. effect 1082
GaAs/$Al_xGa_{1-x}As$, MQW, opt. transm. 15033
InGaAs/GaAs (InGaP) MQW optical modulators, MBE growth 14509
InSnO thin films, RF magnetron sputtered, fab./charact. 14317
$KTa_xNb_{1-x}O_3$:Fe, asymmetric opt. transm. device 40076
LaF_3, antirefl. coatings for Si photoelec. devices 1800
$LiNbO_3$ elec. controlled supergaussian mirrors 14482
PbF_2 EM calorimetry, Cerenkov detector/cryst. props. 26196
Pt/Co multilayers, near-field magneto-opt. imaging in STM 31015
Si solar cells, mech. textures, light coupling, ray tracing 27939
a- Si:H films, optical consts. and thickness determ., opt. transmittance 25986
Si/SiO_2 antidot syst. MOS struct., far-IR excitations 29976
SiC LPCVD films, X-ray mask membranes 6695
SiC LPCVD films for x-ray masks from diethylsilane/di-t-butylsilane 6697
SiC x-ray membrane characterisation, laser ablation deposition tech. 6696
SiN mask membrane proc. charactn. 6685
SiO_2 fibres, transm. props., Nd:YAG multimode CW laser 30853
SiO_2-GeO_2 fibres, Bragg grating, UV writing, spectra 15038
SmF_3, antirefl. coatings for Si photoelec. devices 1800
SnO_2 thin films deposited by spray pyrolysis, prep. and charact. 392

light transmission continued
Ta-SiN x-ray masks, materials selection, fab. procs. 6684
ZnO films, spray pyrolysis prep., opt. and elec. props. 12143
ZnO thin film, spray pyrolysis, deposition variables effect 12142
ZnO thin films, pulsed laser deposition, laser wavelength and fluence effects 28834
ZnO:Al transparent films, sol-gel prep., elec./opt. props. 5855
ZnO:Al(Ga), doping epitaxial layers, chem. transport growth 38512
ZnSe pulsed power photoconductive switches, elec. field studies 36437

light velocity
fast timing coincidence syst., gamma speed meas. 34958
$LiTaO_3$ electrooptic modulator sideband generation by domain inversion 14505

lighting
see also lighting control; street lighting
6-380 V light-sig. equipt. develops., Russia 44585
airport lighting power lines, light failure reporting syst. 25197
artificial and natural lighting, fluct. meas. *(Japanese)* 18126
Bayerische Rundfunk TV prod. studio refurbishment *(German)* 25655
building lighting plans, Japanese Energy Conservation Law *(Japanese)* 11470
Channel Tunnel rly. and power supply equipt. *(Italian)* 11404
chip shooter, image proc. algm. for IC alignment *(Japanese)* 29694
CIE daylight, illuminant and surface color recovery from images 24622
daylighting systs. *(Japanese)* 11468
distrib. network disturbances, light flicker voltage requirements 20125
face recogn., illum. direction change compensation 24466
fruit tester, portable, microcomputer-based 9819
hairdressing salon, lighting fixtures *(Japanese)* 11465
halogen cycle lamps, HF power supply transformer 11446
HID light sources, lighting/brightness perception expts. 11448
household lighting, energy resource alternatives 20120
IEEE industry applications, conf., Denver, USA (1994) 10
indust. control room illum., equipt. selection 11447
indust. energy/exergy anals., Turkey 20153
Kachitto S, ceiling-mounted lighting fixture *(Japanese)* 11464
lamps, light modulation flicker expts. 11449
med. surgical/stomatological luminaires 26300
Modicon Micro compact automation equipt. and appls. *(German)* 11220
multiple fixture lighting systs., assess. facility *(Japanese)* 11469
NDR's, TV prod. and broadcasting centre *(German)* 25654
photom. ratios for 3D stereo 24623
plasma science, conf., Vancouver, BC, Canada (June 1993) 6301
polypropylene film type capacitor for HF HV appls. 11229
PV R&D projects, DC lighting, New Eng. Electric 43950
regions matching specified chromatic features, detect. 32910
residential energy use patterns survey, Philippines 35474
residential lighting, energy efficiency opportunities, Mexico 28157
RF discharges, low press., for lighting 28164
shape, surface reflectance, illuminant direction and illuminant intens. from images with shading 24571
SILVERIGHT downlight for lighting fixture *(Japanese)* 11462
Stockholm lighting energy efficiency programme, Sweden 35534
task-ambient lighting *(Japanese)* 11466
visual learning and recogn. of 3D objs. from appearance 24572

lighting control
see also building management systems
artificial lighting, computerised control, daylight use 28158
comparison of neural net and conventional techs. for lighting control 20121
dimmers, EMI and effects on lamp life and power quality 11445
distributive lighting control syst., Local Operating Network appl. 20122
Edo Tokyo Museum exhibition lighting syst. *(Japanese)* 11471
HF fluoresc. lamps, lighting control, electronic ballast *(Japanese)* 11452
metal halide lamps, electronic ballast develop. *(Japanese)* 36341
residential lighting fixtures, rem. control *(Japanese)* 11463
RGBW fluoresc. lamps, color temp. control *(Japanese)* 11454

lightning
63/90 kV power overhead line insulators, overvoltage breakdown characts. 35661
77 kV overhead line-underground cable lightning surge anal. 10713
77 kV overhead line-underground cable lightning surge anal. 19306
500 kV insulator string overvoltages, lightning stroke inclination expts. 35667
air gap flashover, charged droplets, lightning impulse voltage *(Japanese)* 35685
air gaps, impulse strength, nonstand. lightning surges 4722
air gaps, nonstandard lightning voltage waves, bibliog. 4878
air gaps, nonstandard lightning voltage waves, research 4877
building columns/girders, equiv. imped. for lightning surges 20385
conducting enclosures, direct lightning strike, internal voltages 40189
discharge path, ion background effects *(Chinese)* 10766
double cct. 500 kV transm. tower, lightning surge anal., EMTP 4703
EHV transformer insulation level for lightning strikes *(French)* 36232
elec. field changes, sync. multipoint meas. *(Japanese)* 7895
elec. field characts. 35297
elec. field derivatives, source location method 10480
electrodynamic characts., power line disturbances 43772
electronic equipt. hardening, lightning surges 864
EM environ., struct., lightning stroke 23761
EMC, conference, Dallas, TX, USA (1993) 36844
EMC, conference, Sendai, Japan (1994) 11561
EMC conference, Chicago, USA (1994) 5471
expts. on laser-plasma triggered lightning 23485
ferromag. shields, EM transients anal. procedure 15486
GIS spacer model, surface insulation characts., impulse voltage *(Japanese)* 36396
home appliances, effect of overvoltages in power distrib. syst. 11492
HV transm. line, wide bandwidth corona model 27189
impulse breakdown of insulators and air gaps of similar electrode configs. 13946
intell. building, electro-mag. interf. 8004
intell. building, lightning induced voltages 8005
laser-induced discharge expts., lightning triggering 35298
LEMP effects on subtransmission line, MOM 15480
LV cct., gas insulated switchgear, surge voltage meas. 27870
microwave commun. towers, lightning stroke-generated EMI expts. *(Chinese)* 42174
mountaintop stations installations, lightning protection 23688
multiconductor telecomm. cables, lightning overvoltages 25202

- **lightning** continued
  - oil-paper insulation, breakdown characts., impulse voltages 1561
  - overhead line lightning-induced underground telecom. cable overvoltages 19305
  - overhead line-underground coaxial cable syst., lightning surge anal. 10755
  - plasma science, conf., Vancouver, BC, Canada (June 1993) 6301
  - power line tower surge response, computer simul. 19315
  - power overhead lines, lightning-induced voltage expts. *(Japanese)* 4696
  - power syst. lightning control, UV laser triggering expts. 27262
  - power transformer impulse testing, IEEE std. 27780
  - radar echoes, investig. 3603
  - radar meas. of lightning/atmos. 18825
  - real-time lightning detect./location, power syst. appls. *(Chinese)* 27288
  - Rogowski coil for lightning current meas. in building columns and girders 20123
  - SAFIR operation/perform. eval. in Japan 4391
  - subscriber telecomm. equipt., lightning-surge test method 25146
  - substation struct./grounding syst., lightning strike, transient anal. 44251
  - surge-protective multi-cell semicond. device 27253
  - telecomm. cables lightning currents interf., computer model 15539
  - telecomm. syst. lightning response charactn. 16566
  - telecomm. systs., BER estim. for transverse lightning surge *(Japanese)* 15690
  - telecomms. building, simulated direct lightning surge current 24876
  - transm. line tower lightning surge response calc. 19314
  - transm. network single/multiple lightning overvoltages simul. 4459
  - transm. tower model, simul. upward lightning current path *(Japanese)* 10764
  - triggered flash, EM field and step voltage obs. *(German)* 35681
  - wave/particle meas., lightning-induced precip. 23705
- **lightning arresters** *see arresters; lightning protection*
- **lightning conductors** *see lightning protection*
- **lightning protection**
  - *see also arresters; surge protection*
  - 22nd Internat. Conf., Budapest (1994) *(German)* 35680
  - 115 kV power line lightning protection, spline ioniser tests 19331
  - 225/42 kV substation lightning protection *(French)* 36485
  - air gap flashover, charged droplets, lightning impulse voltage *(Japanese)* 35685
  - discharge path, ion background effects *(Chinese)* 10766
  - distrib. line, 3-phase, lightning perform. *(Japanese)* 10739
  - distrib. lines, lightning outage ratio anal. *(Japanese)* 10737
  - distrib. lines lightning surge protection, scale model expts. *(Japanese)* 43747
  - distrib. overhead switchgear develops., South Africa 4666
  - distribution syst. multiple dielec. lightning impulse strengths 35633
  - earthing syst. transient behaviour, computer models 19352
  - earthing systs., lightning distrib. 19349
  - EHV substation, lightning voltage surge calc. *(French)* 36484
  - EHV transformer insulation level for lightning strikes *(French)* 36232
  - EM environ., struct., lightning stroke 23761
  - external fuel tank, simulated lightning tests 18706
  - France Telecom power syst. lightning protection 19332
  - GIS lightning overvoltages, computer simul. 19912
  - grounding syst. anal., EMTP based model 4721
  - indust. control syst. lightning protection, grounding/shielding studies 20160
  - insulator string overvoltages, lightning stroke inclination 35668
  - INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
  - LEMP, protection measures dimensioning *(German)* 35679
  - LEMP effects on subtransmission line, MOM 15480
  - lightning-induced overvoltage calcs., coupling models 27252
  - LV installation divertor coord. principle *(German)* 35689
  - LV power distrib. lines, lightning overvoltage effects study 10727
  - medium-wave radio transmitter perform., hybrid modulation *(Japanese)* 17549
  - microwave commun. stations, lightning protection *(Chinese)* 42146
  - mountaintop stations installations, lightning protection 23688
  - power overhead line tower impulse characts., simul. theory *(Chinese)* 35656
  - power syst. grounding syst. anal., EMTP based model 4721
  - power syst. lightning control, UV laser triggering expts. 27262
  - power syst. lightning protection, laser-generated plasma-based 27261
  - PV generating plants, lightning protection methods *(German)* 4869
  - subscriber telecomm. equipt., lightning-surge test method 42046
  - substation lightning/surge protection, comments/reply 19919
  - substation lightning/surge protection, reply, comments 19920
  - substations, lightning/surge protection 19918
  - substations, transient EMI meas. 5158
  - supercond. transm. systs., quenching current level coord. 10777
  - surge-protective multi-cell semicond. device 27253
  - switching syst. EMI prevention/protection experiences, France 16968
  - telecomm. cables lightning currents interf., computer model 15539
  - telecomm. equipt., global grounding topolgy, interface specs. 44148
  - telecomm. systs. DC distrib. network grounding, EMC aspects 19269
  - thin wire FDTD stabil. anal. 15553
  - three-phase AC/DC power converters, harmonics reduction 19798
  - UHV tower model, lightning surge anal. 27238
  - UHV transm. lines, arc jet control, slit arc horns 10774
  - voltage surge eval. 35454
- **lightning rods** *see lightning protection*
- **limit cycles**
  - deadband effect generation in digital ccts. 6053
  - delta-sigma modulators with zero mean stochastic inputs, anal. 37819
  - double loop ΣΔ modulator, unstable filter dyn. 24013
  - exponential growth nonlin. diff. eqns., bifurcation phenom. 28563
  - fixed-point digital filters, effects of overflow and quantization 2512
  - PLL, bifurcation, Galerkin-based anal. 21158
  - power DAC, Σ-Δ modulator, controlled limit cycles 21386
  - second-order PLLs, separatrix cycle, calc. and stabil. 21157
  - switching-mode limit-cycle oscillators, generalized structural 6043
  - van der Pol oscillators, coupled, quasi-periodic responses, bifurcations 12359
  - CO_2 laser with saturable absorber, nonlin. dyn. 23078
- **limiters**
  - *see also current limiters; microwave limiters*
  - 6-10 kV power syst. overvoltage protection 27260
  - 16-Gbit/s TDM/polariz.-division-multiplexed syst., compensation tech. 9126
  - adaptive equalizer for digital FM 3428
  - biased nonlin., interf. suppression 31848
  - bottleneck opt. limiters, excited-state absorbers 2047
  - CDMA commun., CW/narrow-band sigs. interf. suppression 33749
- **limiters** continued
  - FH/CPFSK syst. with partial-band jamming, perform. anal. *(Korean)* 17005
  - liq. cryst. cored fibres, nonlin. propag., opt. limiting, stimulated scatt. 30887
  - long wavelength IR nonlin. semicond. superlattice appls. 29945
  - metallo-organics, saturated excited state absorptive limiters 31589
  - metallophthalocyanine doped polymers, opt. limiting study 31588
  - narrowband digital FM sigs., seq. estim. 24280
  - nonlin. opt. materials for switching/limiting, conf., USA (1994) 36892
  - OFDM in amplit. limiting channel 8106
  - organically-modified sol-gels, opt. limiting study 31588
  - periodic nonlin. multilayers, intens.-induced stopband bending 2116
  - PSK systs., hard limiting transmitting amps. *(Japanese)* 24011
  - SS commun. noise, chip interleaving/hard limiter 25232
  - time-freq. distrib., laser radar backscatt., FM demodulation 34166
  - C_{60}/toluene solns., opt. limiting mechanisms 23433
  - Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
- **limiting circuits** *see limiters*
- **line concentrators**
  - ATM switching network, asymmetric broadcast, concentrators 16971
  - ATMXC01, 155 Mbit/s asynchronous cross-connect 25184
  - Compac's LMX 506 router-concentrator 25175
  - computer network multitype concentrator location 41755
  - double counter-rot. ring, reliab. anal. 3193
  - FDDI concentrator tree topology with loopback 33451
  - rural telecommunication syst., optical fibre based, perform. 9094
  - rural telecommunication using optical fibre 9093
- **line drivers** *see driver circuits*
- **linear accelerators**
  - *see also collective accelerators; electrostatic accelerators; linear colliders*
  - 16.5 MW med. LINAC pulsed power supply ceramic D thyratron 34983
  - 38 MeV L-band LINAC multibunch electron beam FEL expts. 39936
  - 200 MW klystron pulsed power modulator, electron LINAC appls. 34744
  - 500 kV LIA-30 radial line charging Marx generator pulsed power supply 34753
  - 500 kV Marx generator 36361
  - arc therapy, patient support assembly modif., controlled rot. 35147
  - bunched beam, space charge distribs., emittance growth 18267
  - CEBAF UV/IR FEL materials proc. subsystem testing 39920
  - CLIC, develop., progress 34761
  - conference on accelerator physics, Dallas, USA (1992-1993) 36886
  - Cs_2Te film photocathode electron source for Los Alamos advanced FEL 39943
  - DAHRT lin. induction accelerator test facility, pulsed power supply 36265
  - electron bunches, longit. asymm., synchrotron/transit. radiation 18254
  - electron linac, reson. freq., temp. stabilization 34766
  - electrons, finite trajectory, Cerenkov radiation 10093
  - electrons, ions, beam dyn., complex accelerating elements 26039
  - ELFE recirculating linac, design, cost 34748
  - ESRF, kicker magnet pulsed power supplies 34820
  - ESRF linac, obj.-oriented control syst. 18185
  - ETA-II, component modeling, dispersive soft ferrite models 18171
  - FEL, compact CW operation, supercond. RF accelerator technol. 39893
  - FEL, compact RF linac, advanced technol. 39891
  - FEL oscill., multibunch electron beam from L-band LINAC 39935
  - gamma-ray source, tunable, monochromatic, design 34852
  - HI fusion ILSE expts., injectors 4041
  - ILSE expts. 4076
  - ILSE HI induction accelerator 4042
  - induction accelerators, relativistic microwave electronics 34752
  - Japan Linear Collider klystron modulator pulsed power supply 36402
  - klystron modulator, energy efficient deQing cct. 36360
  - L10M lin. induction accelerator 36362
  - L-band electron linac, Osaka Univ., IR FEL oscill. 23309
  - LEADS, graphically displayed computer program *(Chinese)* 26078
  - LEADS program, lin. and electrostatic accelerator beam dynamics 34833
  - LIA 30 lin. induction accelerator, sync. syst. 36453
  - lin. reson. electron linac, control syst. 18178
  - lin. standing wave accelerators, GHz region *(English)* 43004
  - linac with integrated power source, RF energy compression 43002
  - LISA, supercond. linac, control syst. commissioning/operation 18179
  - LISA supercond. linac, operation and perspectives 43023
  - microwave inverse FEL accelerator 39913
  - OMEGA project, nuc. waste transmutation, ETA/BTA accelerators 34762
  - Philips SL20 LINAC, automatic param. logging software syst. 43343
  - photoneutrons from med. LINAC, spectrum/dose meas. 43409
  - positron Doppler broadening meas., LINAC-based slow positron beam 26083
  - prototype high-current CW lin. electron accelerator 34746
  - pulsed power, develop./hist., AWRE 36378
  - quasi-Cherenkov surface emitting FEL, linac 39982
  - radiation therapy, lin./circ. electron accelerators 4297
  - radiotherapy, accelerator with asymmetric jaws, monitor units calc. 26463
  - radiotherapy, LINAC calib. meas., logged/generated reports 43346
  - RF LINAC, basic 4128
  - RF linac, high-current, beams in thermal equilib. 26070
  - S-band lin. accelerator, electron bunch generation 4046
  - SABRE pos. polarity inductive adder MITL, refl. waves 34741
  - short bunch RF-linac FEL, output power fluct. 3D simul. 39973
  - SIBERIA SR source control syst. 18262
  - single bunched beam generation without subharmonic prebuncher 26081
  - SLAC, BABAR detector, PEP-II, CP-violating asymmetries 4178
  - SLAC lin. collider develop. 34760
  - slalom mag. deflection syst., med. electron linac *(Chinese)* 26076
  - SLC, polarized electron source 34888
  - standing wave struct., cavity coupling states, losses 26082
  - stereotactic radiosurgery, linac beams checking, fluoresc. screen imaging 18599
  - TBA-driver, autobunching, phase stabil. 43037
  - TEU-FEL project 14981
  - thermal neutron target for RPI linac 26103
  - triode gun, standing wave electron linac beam dyn. 26040
  - ultra-short high-power pulse prebunched FEL 31439
  - ultra-short pulse FEL oscillators 39970
  - Univ. of Sao Paulo linac, beam optics, transport, target areas 26058
  - Varian 600C LINAC, dosimetric methods comparison 43411
  - Varian LINAC, dyn. wedges, beam data meas. 35148
  - X-ray FEL, electron beam source, klystron undulator simul. 39905
  - ZJ-10 med. linac. waveguide corros. mechanism *(Chinese)* 34754

linear accelerators continued
- γ-γ collider, TW energy high power FEL 23314
- CsK$_2$Sb photocathodes in RF linacs 43055
- Cs$_2$Te Los Alamos FEL photocathode electron source 39942
- Cs$_2$Te photocathode electron source for Los Alamos advanced FEL 39944

linear algebra
- *see also determinants; dispersion relations; eigenvalues and eigenfunctions; matrix algebra; tensors; vectors*
- 3-phase power transm. lines, corona losses 19307
- AC power line corona loss, charge simul. calc. method 19289
- algms. for intersecting parametric and alg. curves, multiple intersections 37332
- alternating direction implicit method accel. by SOR 256
- axial symmetric shield penetrating EM field time const. calcs. *(Polish)* 31699
- catastrophic convolutional encoders, determ. 32133
- concurrent VLSI archits., partitioning and prog. lin. alg. algms. 37792
- EM problems, multilevel moment method multiplication correction algm. 23612
- estim. in quadratic formulas 11988
- finite element solver, lin. alg. kernels 20598
- Gaussian Elimination-based parallel algm. for lin. eqns. 28665
- hemispherical shell Neumann scatt., modal series accel. 31798
- higher order iter. methods for lin. alg. systs. 253
- index 2 differential alg. problems, Runge-Kutta methods 20627
- index transform. algms. in lin. alg. framework 2397
- iter. method, convergence and accel. *(Chinese)* 5778
- matched subspace detectors 8362
- metrology, math. software class. 17621
- MOB forms, multilevel block algms. for dense lin. alg. operations 28666
- normal bases computing in finite fields 20579
- parallel QR decomp. on network of transputers 37325
- photon echo, discrete digital DP 31607
- quadrant interlocking factorization for parallel soln. of tridiagonal lin. systs. 259
- RCS surface model accuracy importance 34123
- regularity of matrices in min-alg. and time-complexity 37318
- second-order accurate difference schemes for quasi-lin. parab. eqns. *(Chinese)* 5786
- secret sharing schemes, lin. alg. approach 8138
- sparse power syst. computations, vectorisation algms. 35439
- splitting methods implement. for solving block tridiagonal lin. systs. on transputers 20602
- tridiagonal lin. syst. and Poisson's eqn. soln., distributed memory systs. 28669
- video decoding algm. mapping, mixed sig. IC 8553
- virtual shared memory computer for lin. alg. calcs. 20611

linear antenna arrays
- 3-D array, plane sine wave sig., azimuth/elevation angles estim. 2501
- active dipole array loading by neg. resist. devices 23980
- active phased array reconfig. by biquadratic prog. 23952
- adaptive pattern nulling using array element elevations 23971
- airborne direction-finding cross interferometer perform. 25618
- antenna design/optim., generalized multipole tech., perform 15634
- ARAKE type receiver struct. for narrow band wireless systs. 15955
- basestation antenna array syst. for spatially selective transm. 17069
- beamspace noise eigenvectors, multirate proc. 40906
- broadband adaptive beamforming by 2D spatial filters 23972
- calib., cooperative source *(French)* 16040
- Capon beamformer, sensitivity anal. 16032
- direction finding, state-space approach 2492
- DOA estims., Kalman-based estimator 8434
- dual-linear microstrip array element design 31967
- element gain in short lin. arrays, role of act. SWR 2349
- EM waves, partially polarized, param. estim. 40329
- finite rect. phased arrays, mutual coupling effects 15673
- finite scanned arrays, standing waves in scan impedance 31997
- fractal antenna arrays radiation patterns 31983
- global array calib. method 40922
- Iridium satellite phased array antenna design 23953
- K/K$_a$-band series-fed dipole and slot arrays transversely coupled to microstrip line 23944
- long. slot in sectorial waveguide wall, reson. cond. 15605
- low sidelobe lin. array tolerance optim. design 23978
- microstrip antenna arrays, reduced time modelling 40509
- microstrip array, printed leaky-wave antenna implement. 8066
- multichannel direction-finding syst. using MUSIC algm. 25616
- multichannel space-time sig. proc. providing local interf. suppression 32572
- multipath/CCI sigs. separation 31979
- multiple co-channel digital sigs., blind estim. 8306
- multiple suppression, antenna syst. 31992
- omnidirectional slot array antenna, moment method anal. 31959
- partially adaptive array design, DOA estim. and null steering 23958
- partially polarized EM waves, param. estim. 2483
- pattern estim., amplit. meas., arbitrary near-field surfaces 40519
- reversible Rotman lens for short lin. array appls. 15674
- slitted asymmetric ridge waveguides, lin. phase arrays 31961
- spatial smoothing, optimal subarray size 24320
- SS receivers, diversity reception improvements 25444
- SS sigs. reception, bearing estim. 32581
- thinned arrays, element placement, genetic algms. 16060
- thinning optim. using genetic algms. 23974
- undersampled sig. freq. and DOA determ. 25617
- W-band microstrip antenna array and feed cct. 40520
- W-band missile syst. closed loop simul. 26836

linear antennas
- *see also linear antenna arrays*
- combined lin. and loop antennas 15617
- inverse problems in method of moments, symbolic approach 2312
- ionos. Faraday effect, polaris. meas. syst. develop. 18829
- radiated-suscept. tests, absorber-lined chambers, field homog. 15482
- stat. synthesis, random error param. effects *(Russian)* 15623
- stat. synthesis, sensitivity and stabil. *(Russian)* 15624
- tapered slot antenna with coplanar waveguide feed 23878
- transm.-line eqns. determ. 23762

linear-beam tubes *see microwave tubes*

linear BiCMOS circuits *see BiCMOS analogue integrated circuits*

linear bipolar circuits *see bipolar analogue integrated circuits*

linear CMOS circuits *see CMOS analogue integrated circuits*

linear codes
- asymptotically good codes, infinite trellis complexity 32061
- binary codes, interpolation curve, decoding algm. 40639
- binary lin. block codes, trellis complexity 32062
- binary lin. block error control (34, 15, 9) codes 40581
- binary lin. codes, Hadamard matrices based, wt. distribs. 32146
- block codes, channels with memory, undetected error probability 8167
- block codes, dimens./length profile, trellis complexity 24029
- block codes, optimal inform. bit decoding 24091
- block codes, soft-decision decoding 32093
- block runlength-limited error control codes, trellis decoding 2373
- byte-organized memory systs., error-locating codes 24036
- combinat. S$_n$-modules as codes, Specht modules 40584
- computer memory, systematic SEC-DED codes, error detect./correction 32066
- convolutional codes, high rate, Viterbi decoding 40669
- CPM sigs., channel coding/multiple-sym. diff. demod. 24078
- digital inform. protection 40683
- digital signature schemes, suscept., universal forgery 8154
- E-seq. synthesis, ACF zero values in even shifts 40634
- error correction, neural network 32108
- error patterns correction 24095
- five-dimens. quaternary lin. codes, nonexistence 32065
- Hamming space, superimposed codes 24039
- intersecting codes and independent families 24038
- lattices, dens./length profiles and trellis complexity 24030
- min. support wts., bounds 32054
- partitioned Markov model, non-binary error correcting codes eval. 8168
- polynomial time randomised approx. schemes for Tutte polynomial of dense graphs 11923
- q-ary lin. codes, trace description 32147
- QPSK block-modulation codes for unequal error protection 32064
- quasi-cyclic codes, computer search 32144
- quaternary quadratic residue codes/unimodular lattices 32048
- ternary lin. codes, NP-complete coding problems 40631
- threshold probab. 32058
- unconditionally secure authentication syst. from lin. codes 15785
- undetected error, worst case probab. bounds 24100
- upper bounds on generalized dists. 24053
- Z-channel, max. likelihood decoding algm. for lin. codes *(Japanese)* 15739

linear colliders
- ATF, gun trigger syst., fiber optic cables 18204
- CEBAF accelerator control syst. upgrade 18189
- conference, e$^+$e$^-$ colliders, Benalmadena, Spain (Oct./Nov. 1992) 5505
- conference, e$^+$e$^-$ linac collider physics, HI, USA (April 1993) 28238
- dyn./accel. in lin. struct. 4065
- electron-positron lin. colliders, problems, status 26030
- electron-proton colliders, linac-ring type and γp colliders 10078
- electron/photon-EM wave interact. 18285
- gamma-gamma colliders, accelerator params. 26031
- gamma-gamma colliders, FEL, summary 23315
- gyrotron amps. for collider appls. 21810
- high-power microwave tubes, lab. and online appls. 6479
- high-power X-band microwave generators, LLNL expts. 34827
- Japan Linear Collider klystron modulator pulsed power supply 36402
- JLC, Z-pole option 34763
- JLC detector, design, perform. 34953
- KEK, lin. collider develop., JLC 34759
- KEK e$^-$/e$^+$ linac control syst., VME and workstations 18191
- NLC, interact. region issues, X-band 0.5-1.0 TeV collider 34844
- NLC/GLC collider prototype, uses 26034
- photon lin. collider, VLEPP, 100×100 GeV, ultimate lumin. 26032
- photon lin. collider at SLC, 2×5 GeV, FEL-based 26033
- Photon Linear Collider, ultimate lumin., interact. region layout 26066
- photon-photon collider, detectors 26139
- positron sources, yield, emittance 4150
- relativistic klystron two-beam accelerator, RF power extraction 10090
- relativistic klystron two-beam accelerator for beam-break-up suppress. 34828
- RF window for high power in S and X bands 29549
- SLC/SLD, lin. collider expt. experience 34842
- standing wave FEL two-beam accelerator, beam-break-up 34823
- supercond. supercollider pulsed power supply thyratron modulators 34750
- TESLA, transient state in standing wave accel. cavities 18270
- Tesla linac test facility controls status and future plans 18258
- VLEPP based photon lin. collider, charged particle background 26028
- e$^+$e$^-$ S-band/supercond. colliders develop. 34845
- e$^+$e$^-$ future colliders 34758
- e$^+$e$^-$ lin. colliders, TeV-scale, submicron beam focusing 34837
- e$^+$e$^-$ lin. colliders overview 34757
- e$^+$e$^-$ lin. collider, requirements on detectors/machine 10079
- eγ and $\gamma\gamma$ colliders, plasma lens form. 26068
- eγ colliders, plasma lens appl. 26069
- γ-γ collider, laser technol. 26029
- $\gamma\gamma$ collider, multi-bunch gamma conversions, laser reflector 26065
- $\gamma\gamma$ collider principles 26026
- $\gamma\gamma$ lin. colliders 26025

linear differential equations
- 3D EM scatt., parallel computation, finite elements 2216
- cct. modelling by local extended state eqns. 482
- DC generator commutation curve anal., eigenvector method *(Japanese)* 11062
- internal combustion engines, combustion press. proc. modeling 4841
- irreducible lin. diff. eqns. of prime order 37339
- Kerr-type nonlin. dielec. slabs, TM mode propag. 40398
- lag correction in meas. systs., nonrecursive filtration 17625
- mag. hysteresis, generalized model, lin. first order diff. eqn. *(Russian)* 30663
- optimal schemes, hyperb. problems 20626

linear induction motors
- 3-phase tubular induction actuator, CAD 19670
- ATE for linear electrical drives 28086
- charact. anal., 1 A conductor *(Korean)* 36196
- control obj., math. model *(Russian)* 27759
- cylindrical LIM-driven elevator, motion anal. *(Japanese)* 44561
- drive coil winding actuators, control design 44257

linear induction motors continued
drives, neural net-based fault diagnosis 36703
electrodynamic separators, LIM based, metallic waste proc. 7937
end-pole pitch AC EM field calcs. 36197
FEA, post-proc. methods 19669
field control perform. improvement 11035
flat motor, reactance, hodograph shape *(Polish)* 44079
init. conditions, dyns. form./anal. 11075
lightweight LIM, characts., mail transport syst. appl. 11405
LIM drives, transvector control syst. computer simul. *(Russian)* 44437
Maglev carrying syst., LIM, driving characts. *(Japanese)* 44562
Maglev LIM-driven undercarriage develop. 28148
molten metal flow control by LIM 20161
moving conductors eddy current anal. method 27724
perform., design params. influence 27756
rolling rotor, pulsed operation modelling 27720
sheet glass mfg., LIM-based elevation control studies *(Japanese)* 44636
single sided LIM, design, ANN, FEM, SUMT *(Korean)* 27758
single sided LIM, urban transit appl., nonlin. optimisation *(Japanese)* 44560
single-sided, theoretical perform. anal. *(Japanese)* 44045
skewed ladder-type rotor, 3D FEM-based anal. *(Japanese)* 44044
slitted react. plate, 3D FEM anal. *(Japanese)* 19668
tubular induction drive, DSP posn. controller 11342
urban transit syst., LIM design 36754
urban transit syst., LIM/LSM combination Maglev *(Japanese)* 11398
vector control algm., perform. modelling 44053
linear integrated circuits *see analogue integrated circuits*
linear machines
see also linear motors
7.5 kW solar dish/gas-fired heat pipe receiver Stirling engine syst. 28045
artificial heart lin. oscillatory actuator, structural anal. 35167
automobile hybrid internal combustion engine, computer controlled 28156
elec. lin. actuators, make-or-buy guidelines 11223
free piston Stirling engine/alternator syst., nonlin. anal. 28038
free-piston Stirling engine/lin. alternator, electrodyn. anal. 28039
generators, railgun pulsed power supply appls. 36309
mag. suspen., PM/lin. actuator reluctance control-based 28127
Maglev on-board power supply lin. generator, math. model 36759
switched reluctance machines, high force dens. designs 36135
linear MOS circuits *see MOS analogue integrated circuits*
linear motors
see also linear induction motors; linear synchronous motors
2-stage Stirling cycle cryogenic cooler, IR detector cooling 28037
3D force prediction in model lin. brushless DC motor 19652
automobile hybrid internal combustion engine, computer controlled 28156
DC actuator, valve control 4352
DC motor actuator, wire-driven syst., robust control *(Japanese)* 19667
DC motor posn. syst., tracking perform., neural net *(Japanese)* 44071
DC motors, high response, mag. materials *(Japanese)* 44075
DC step motors, static charact., control rod drives, nuc. reactors 44438
direct drive lin./torque servomotors, appls. 11341
EM accelerator, turbulent hydrodyn. mix studies 15278
EM spiral lin. step motor, thrust anal. 11073
heart, total artificial, driven by lin. motor 18616
hybrid double-sided lin. pulse motor, static thrust calc. *(Korean)* 27757
impact-actuated lin. microvibromotor for micro-opt. syst. on Si 27773
intra-aortic balloon pump, lin. pulse motor-driven 10256
mag. suspen., contactless direct drive *(Japanese)* 44077
Maglev, PM lin. motor 36737
Maglev PM wheels, basic characts. 5356
Maglev supercond. lin. sync. drives, stator irreg. calcs. 36761
moving magnet lin. DC motor, const. vel. control *(Japanese)* 44073
moving magnet lin. DC motors, capacitive type posn. sens. *(Japanese)* 44076
people mover, inverter, parallel connected IGBTs 44518
piezoceramic lin. motor, flexible space struct. control 4995
PM motor traction drives, basic considerations 11419
PM motors, design/anal. 11072
PM motors, finite element modelling 11076
power electronics, drives and motors, conf., Taormina, Italy (1994) 28252
pulse motor actuators, principles and characts. 44256
pulse motor mag. reluctance distrib., structural depend. anal. *(Japanese)* 44072
pulse motors, vibr. suppression design 4996
pulse servomotor control, 2 DOF controller *(Japanese)* 44074
railgun, lin. DC motor-based, stabilisation study 31768
reactor control rod drives, lin. step motors, CAD 10822
reluctance servomotor drives, control perform. 5319
revolving PM magnet wheels, actuators, lin. drive *(Japanese)* 44254
revolving PM magnet wheels, static characts. anal. *(Japanese)* 44255
servomotor, integrated lin. scale *(German)* 44078
servomotor drives, fuzzy logic/PID control comparison *(German)* 5278
sheet metal bending, lin. hydraulic DC servomotor valve appls. *(Japanese)* 36493
step motors, FEM for nonlin. mag. fields, nuc. reactor appl. 19673
step motors nuc. reactor control rod drives, dyn. characts. 20075
Swissmetro, high speed underground transportation syst. 36735
linear network analysis
see also distributed parameter networks; lumped parameter networks
act. feedback amps., multicarrier intermodulation optim. 12350
adjacent vias in multilayered digital ICs, coupled noise anal. 12394
ARC-ccts. with intrinsic compensation, struct.-topol. 6209
bal. lin. diff. ccts. anal. education 20280
branch-line hybrid-rings, coupled-lines 37943
broadband matching to capacitive devices, limits, SIS mixer design 12792
causal lin. systs., transient anal., microwave freqs. 21082
class E power amp., 2nd order effects in collector AM 29057
COCO program for lin. circuits 493
common-mode failure diagnosis, modified bilinear method *(Russian)* 5975
current-mode biquad based on act. RC biquad 37841
feedforward amp. lin., adaptation behavior 25229
half-wave voltage converter with backward diode, stabil. estim. 539
high speed CMOS current op amp, bandwidth optim. 21126
high-speed VLSI interconnects, freq./time domain simul. 12287
inertial networks, wideband param. flucts. 21148
infinite polygonal capacitor networks, rel., Fibonacci seq. networks 5534
LC ccts., intrinsic Hamiltonian formulation of dyn. 37608
lin. multiplexer designs for rem. sens. appl. 34581
low-order LTI filters for controlling chaos, num. expt. 37825
microwave band lin. ccts., sig. and noise charact. 12798
linear network analysis continued
microwave ccts., pole-zero computation, multipoint Pade approx. 21528
N-port network, stabil., return ratios 37606
nonuniform freq.-depend. interconnections, PSPICE simul. 23755
OTA-C ccts., continuous-time filters 37854
periodically-operated switch ccts., stabil. 5980
PLL syst. equiv. diag. 37677
power syst. dyn. anal., time varying phasors 26849
power syst. post fault operation anal., computer-based *(Russian)* 10600
power systems anal., Walsh fns.-based technique 19036
replica-amp gain enhanced op amp, settling time anal. 37648
SC networks, charact. 12310
series-parallel variable resistor networks, geometric charactn. 479
sinusoidal inputs, time domain soln. 21081
steady-state lin. elec. ccts., computer anal./design *(Russian)* 5976
symbolic anal., self-optimizing alg. approach 12294
symbolic anal./optimisation methods *(Polish)* 28988
T-jn. microwave ccts., prescribed response characts., design/anal. 862
T-matrix vs. ABCD-matrix, cct. anal. 503
time-invariant act. networks, polynomial matrix theory *(Chinese)* 12632
two-port network, noise anal., recursive algm., S-wave approach 829
universal filter, two current-feedback amps. 37852
VLSI interconnects, high-speed, time domain sensitivity 13862
linear network synthesis
see also distributed parameter networks; lumped parameter networks
2-D FIR digital filters, 2-D seqs. appl. 41045
asymmetric cross-coupled filters, synthesis 12628
broadband impedance matching, GRABIM computer program 465
COCO program for lin. circuits 493
current-mode biquad based on act. RC biquad 37841
design of high throughput/low latency/low cost struct. 28989
even-degree lower-sideband polylithic cryst. filters, design 12629
FET MMIC design, low IMD 6332
gain-shaping filters, optimal overdesign 6198
high speed CMOS current op amp, bandwidth optim. 21126
ladder network resonators 6202
LC lowpass/highpass/bandpass ladders, Butterworth/Chebyshev response 720
long lowpass LC ladders, synthesis 719
MIMIC amp., modelling and charactn. 29605
multirate filter design, multirate components anal. 32709
OTA/grounded capacitors, realization 37607
pass. filter design by optim. method 6203
RF power meter, lin. scale 34620
RF transistors, stabil., gain and noise 6040
single sect. lattice cryst. filters, normalized design 39079
steady-state lin. elec. ccts., computer anal./design *(Russian)* 5976
symbolic anal./optimisation methods *(Polish)* 28988
universal filter, current feedback amp. based, Mason graph deduced 21405
VCCS synthesis, lin. input range, act. RC filters *(Japanese)* 12633
weighted order stat. filters design, perceptron algm. 2634
wide bandpass filter, ladder type, compact design *(Japanese)* 12626
linear offset quadrature phase shift keying *see minimum shift keying*
linear predictive coding
4.8 kbit/s wavelet transform CELP coder 33692
5.0 kb/s finite state VQ CELP coder for vehicles 9122
5.6 kb/s speech codec, pulse codebook/improved Viterbi decoding 32274
5.6 kbits/s PSI-CELP of half-rate PDC speech coding std. 8191
8 kbit/s ACELP speech coding, CCITT standardization candidate 33691
8 kbit/s short/medium delay speech codecs based on CELP coding 3274
8-kbit/s conjug. struct. CELP speech coder, perform. 33690
acoustic proc. for speech recogn., vectors and phoneme models *(Japanese)* 15816
APC, transform domain quantization 15774
ARMA modelling methods for low bit rate speech coding 32273
audio description on TV, speech compression 15853
automatic formant tracking, paradigm 32407
automatic speech recogn., coding algms. influence 32358
CELP codecs, multi-band residual coding, 8 kb/s 33695
CELP coder, real-time wideband, for videophone appl. 33696
CELP coder for mobile commun., design 17038
CELP coder/decoder for indoor wireless systs. 3469
CELP coders, backward adaptive lattice/transversal predictors 2409
CELP coders employing LSF vector quantizers, error protection 8194
CELP coding, speech class. embedded in adaptive codebook search 8226
CELP coding of speech, phonetic classif. 2427
CELP model, computationally efficient adaptive codebook search 40714
CELP speech coder, FS-1016, with multistage search, complexity reduction 33686
CELP speech coders, perceptual enhancement 33693
CELP speech coding, almost no codebook search 32387
channel normalization, pole-filtered cepstral mean subtraction 32203
codebook generation for vector quantisation 32189
digital acoustic underwater phone 17357
digital cellular-PSTN interconnection quality assess. 42228
dual-rate alg. CELP-based speech transceiver 9221
ECG compression, adaptive lin. prediction 43301
ECG data compression, μP 10235
entropy-constrained CELP quantization 40646
extrapolative prediction-discrete sine transform coding, adaptive prediction *(Japanese)* 16299
FIR QMF low-delay bank of filters appl., speech coding 24139
frame class. multimode variable rate CELP coder 40721
FS1016 CELP coder, stochastic codebook, dyn. partial search 33702
glottal source modeling for voice conversion 40725
GMS images, digital transm., ships *(Japanese)* 8870
GSM half rate speech channel, codec candidate 33685
hi-fi mobile DAB scheme 9695
indoor wireless low complexity, low delay speech coding 8193
isolated utterance recogn. associative memory scheme 32423
Japanese/Eng. digit recogn., comparative anal. 32234
land mobile radio, RS coding for CELP error detect. and control 33832
line spectrum pairs, scalar quantisation algm. 40740
low bit rate coded speech quality eval., ref. sig. 8218
low bit rate speech coding, split residual VQ 32328
low-bit-rate speech coding, 2D transform 32252
LP-PSOLA synthesis, spectral smoothing/envelope modif. 32346
M-LCELP speech coding, 4 kb/s, multi-mode and multi-codebook 9120
M-LCELP speech coding, 4 kbps 33688

linear predictive coding continued
mobile commun., variable rate speech/channel coding 9222
mobile radio commun., speech/channel coding 3346
mobile-satellite pers. commun. syst., voice transm. quality 25322
multi-band excitation and LPC-based speech coder 9121
multipulse excited LPC vocal tract model for speaker ident. *(Japanese)* 32208
nonlin. cepstral equalisation method for noisy speech recogn. 2434
PDC half-rate speech coding std., real time operating prototype 25163
pitch sync. innovation CELP (PSI-CELP) speech coding, basic algm. 24149
pitch sync. innovation CELP coder for 2-4 kbit/s 33694
PSI-CELP speech coding for digital cellular mobile radio 25324
QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
RCELP speech-coding algm. 2426
robust backward adaptive pitch prediction for speech coder 32439
robust lin. predictive anal. methods for speaker ident. 24150
robust quantization of LPC params., vector and scalar codebook 32206
segmental SNR weighting, degraded word recogn. 32311
speaker ident., lin. predictive anal. techs. 32201
speaker recogn. in tactical commun. 32287
speech, fast LSP VQ algms. 15855
speech, spectral quantization of cepstral coeffs. 32332
speech CELP coding, variable rate 2428
speech coders, low-rate, pitch/LPC params. encoding 3273
speech coding, adaptive dens. pulse excitation 24158
speech compression, ARMA model/wavelet transform 32261
speech compression, lin. predictive, trellis codes 8198
speech high-quality harmonic coding, low bit rates 32254
speech lin. prediction, L_1 norm in orthogonal vector space 32415
speech lin. predictive coeffs., variable dimens. VQ 32331
speech line spectral freq. params. coding 32335
speech LPC coeffs., VQ-lattice VQ 32333
speech LPC params., interblock noiseless coding 32330
speech param. extraction, noisy environ., masking model 32384
speech recogn., noise immunization, neural net 32437
speech recogn., parametric/non-parametric representations 15835
speech recogn. in noisy car environ., OSALPC representation 32382
speech recogn. using lin. predictive HMM, parallel proc. 8184
text-to-speech synthesis, algms. comparison 32344
time envelope vocoder, LP based coding 25162
time envelope vocoder, natural sounding speech coding algm. 40748
unknown-multiple sig. source clustering problem, ergodic HMM *(Japanese)* 32548
very large speech corpora, develop. of file formats 32237
vocoder using time envelope, 1.6 kbit/s 33703
voice sig. proc. *(English, French)* 40713
voiced speech coding, forward-backward waveform prediction 8222
VQ, hyper-columnar clusters 32327
VQ, noisy channels LPC params. 32329
VR-CELP codec implement. for CDMA mobile commun. 33689
VSELP coders LSP vector quantizers in noisy channels 2425
weak-sig. image proc., multichannel whitening of non-Gaussian data 16100
wideband audio sigs. coding, transform coded excitation 32257

linear programming
0-1 knapsack problem, GUB struct., syst. reliab. optim. 37205
130 kV rly. power syst. operation optim., Sweden 44534
approx. algms. for network design problems 5946
ASIC sig. proc. archits. with min. structural complexity, ILP synthesis 29251
augmented neural network for solving lin. and quadratic prog. problems *(Chinese)* 28631
bicriteria bottleneck LP problem 234
cct. breaker status ident., least absol. value state estim.-based 19896
cell-based hierarchical pitchmatching compaction 38954
CHP power syst. long-term operations planning 27100
CMOS functional cells, layout optim., integer LP *(Japanese)* 39005
code size, cross-correl., lower bounds 40609
coding, digits of unequal cost 32068
composite power syst. demand-side reliab. eval. 27029
computer network multitype concentrator location 41755
constrained power economic dispatch, optim. algm. 4574
convergence of primal-dual interior-point methods, wide neighborhoods 28650
convergence proof, lin. semi-infinite prog. 235
data path synthesis, scheduling algm., Tabu search tech. 21044
discrete infinite transportation problems 37276
Egyptian hydropower/irrigation networks, multicriteria optimisation 36036
elec. utility distrib. planning, feeder config. 35526
elec. utility-cogenerator elec. market, game model 4577
energy emission model, fuzzy sets based 35981
enhanced response surface methodology algm., gradient-deflection and second-order search strategies 11941
faster algms. for generalized network flow problem 5763
fault detect., fault thresholds 11884
FIR filters, complex Chebyshev error criteria, optimal design 40805
framework for cost-scaling algms. for submodular flow problems 5764
fuzzy LP problems formulation and anal. by user oriented ranking criteria 11934
gas turbine CHP/heat pump facility perform. optim. 36006
generalised wt. adaptation algms. for 2-D feedforward neural networks 20567
high-level synthesis, scheduling problem, integer lin. prog. 495
hydroelectric generation scheduling, fuzzy LP 4858
interconnected power syst., directional overcurrent relay coord. 4534
interior-point methods, scaling, shifting and weighting 213
linesearch method for quadratically constrained convex prog. 220
LPTT linear programming teaching software tool 11609
LSI logic, LP based cell selection, timing, area, and power consumption constraints 37700
mesh-restorable network spare capacity placement strategies 41550
meshed networks with protected transm. paths, lower bound based design 41574
mixed integer prog. problems, preprocessing/probing techs. 240
MOLP model, telecom. network modernization, sensitivity anal. 41572
Monge property for d-dimens. transportation problem 37282
multiobjective LP, interior search directions generation, approx. gradients and anchoring points 233
multiple objective LP, random problem generation 214
neural network for solving LP problems, bounded variables 20566
null steering of adaptive arrays, min. approx. 31963

linear programming continued
packing rad., covering rad., and dual dist. 24094
possibility distrib., LP, fuzzy nos. 28613
power syst. expansion planning optim., CO_2 emissions constrained *(Japanese)* 43719
power syst. fuel scheduling, optim. techs. comparison 4600
power syst. security control, reactive power rescheduling, V-formulation *(Chinese)* 43636
power syst. voltage/VAr security enhancement control design 27017
predictor-corrector infeasible-interior-point algm. for LP 219
preprocessing in stochastic prog., capacitated networks case 28637
primal-dual logarithmic barrier method 5761
proc. network models of energy/environ. systs. 18915
protocol spec. synthesis, service specs., distributed systs., marked graph 8761
PSS controller tuning, systematic design method 27056
quantitat. methodology for rapid prototyping and high-level synthesis of sig. proc. algms. 2489
randomized on-line algms. 5765
recursive differentiators design, const. group-delay characts. 2521
resilient fns. and orthogonal arrays, bounds 28618
secret sharing schemes and graph decomp. 40627
security constrained dispatch, LP appl. *(Chinese)* 10635
shortest clock period achievement by inserting min. amount of delay 29149
stable barrier-projection and barrier-Newton methods in LP 212
survivable internat. network archit. and dimensioning 41549
thyristor-controlled series capacitors tuning by eigenvalue sensit. anal. 4630
via minimization of cct. layer assignment problem 464
views of math. prog. models and their instances 11945
VLSI layout optimisation, preconditioned conjug. gradient interior point algms. 496
weighted fractional and k-matching cumulating in hypergraphs 37297
wireless networks, resource allocation 9245
CO_2 emissions abatement, energy strategies, Brazil 27300

linear quadratic control
see also linear quadratic Gaussian control
combined cycle power plant multivariable control 43931
induction motor, LQ approx. lin. control 19623
indust. elec. heater, discrete optimal tracking controller 44589
κ-guidance dyn. eqns., lin./LQ control 18970
power syst. lin. optimal regulator, fuzzy neural net-based 19094
power syst. optimal controller design with prescribed eigenvalues 35522
rapid thermal procs., model-based control 13866
RLCG transm. line, LQ control synthesis 43730
robust control, power distrib. approach 43713
wind turbines, speed control in stall region 36066
wind-diesel hybrid power plant, robust control and anal. 19574

linear quadratic Gaussian control
AGC syst. LQG controller design 35520
aircraft automatic landing LQG/LTR controller design 35276
HAWT, const. speed, LQG control 36070
induction servomotor drives, LQG/LTR digital control design 36641
missile, tail-control, LQG/LTR, eigenstruct. reassignment 18997
multirate controller for servo control, DSP based 8332
piezoelec. transformers and structs., controller design 30621
spacecraft pitch attitude and momentum LQG/LTR control 35238
sync. generators, automatic voltage regulators design 36116

linear rectification *see rectification*

linear synchronous motors
DC step motors, static charact., control rod drives, nuc. reactors 44438
double sided PM sync. motor, vert. movement *(Japanese)* 11071
helical rotor lin. reluctance motor 11074
lifts, PM lin. sync. motor, transient current, thrust 36736
Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
PM motor traction drives, basic considerations 11419
reluctance motor can secondaries, suspen./propulsion forces 19671
urban transit syst., LIM/LSM combination Maglev *(Japanese)* 11398
variable-reluctance machine, mag. flux decoupled windings 19666

linear systems
2D freq. domain, least sq., sig. and syst. modeling, lin. approach 8436
act. mag. bearings, unbalancing estim. 30758
adaptive param. estim., QR methods of O(N) complexity 40814
adaptive small-sample condition estimator for matrices, rank-one modifs. 32474
α-profile multimode opt. fiber channel, lin. systs. approach 9438
approx. shift-invariance by warping shift-variant systs. 16206
boundary element approxs., elec./mag. fields, iter. soln. 2177
confluent Vandermonde lin. systs. and generalized Trummer's problem 37335
consecutive-k-out-of-n:F syst., $O(k^3 \cdot \log(n/k))$ algm. 28539
DC motor drive indirect control, state stimulator-based 36646
DC/DC power converter quasi-lin. controller, DSP-based 11149
design of high throughput/low latency/low cost struct. 28989
discrete lin. time- and freq.-variant systs., impulse and cissoid responses *(German)* 12307
dynamic system identification, meas. problems solution 25699
GTO inverters, PWM voltage control improvement 19750
higher-order stats., allpass systs. ident. algm. 32648
identification of processes with output drift, freq.-domain 25700
iter. aggregation method, lin. systs./Markov operators, convergence 11963
lin. stationary syst. ident. and sig. recogn. 32569
logarithmic error measure, pole-zero approxs. design 2494
mag. levitated lin. positioning syst., time-delay control 15341
mag. suspen., PM/lin. actuator reluctance control-based 28127
MIMO lin. time-variant syst., cyclic higher order stat. 40897
nonlinear disturbance errors in lin. syst. identification 25701
perform. robustness anal. of Kalman filter for lin. discrete-time systs. 21397
power quality, real-valued fast convolution algm. perform. 35606
power syst. dyn. anal., num. efficient algos. 4499
power syst. fuzzy adaptive excitation control method *(Chinese)* 43631
power syst. lin. optimal regulator, fuzzy neural net-based 19094
PSS, design, μ synthesis 43671
PSS controller tuning, systematic design method 27056
PWM VSI, current regulation techs. review 44178
quadratic syst. ident., freq. domain region 24213
series reson. DC/DC power converter, IP regulator-based control 44221
spectral anal., ML method based on correl. matrix lin. symm. 32574
SRM drive, asymm. half bridge fed, discrete modelling 44497
symmetric pos. definite lin. eqns. of displacement rank 2, fast algm. 32483

linear systems continued
Tri-Level PWM CSI, lin. controlled boost voltages 27806

linearisation techniques
see also piecewise-linear techniques
2D axisymm. inhomog. medium inversion, distorted Born iterative method 23567
2D detector systs., distortions calib. and correction 43151
A/d convertors linearisation, analog and digital dither techniques 25755
AC motor drives, CSI-fed, exact lin. H_∞ control *(Japanese)* 28063
act. feedback amps., multicarrier intermodulation optim. 12350
adaptive antennas array transceivers, lin. requirement 40514
adaptive nonlin. recursive state-space filters 748
anal./synthesis filter banks, phase lin. 33149
bipolar transistor ccts., lin. method, polynomial representation 21091
cartesian feedback RF amp. lin., gain/phase margins 33758
DC motor, separately excited; control, lin. 19659
DC-to-DC power converters, sliding mode control design 520
differential amps., lin. techs. in IC design 12352
digital anemometer for air flow meas. 25907
digital radio data predistortion, neural-net-with-memory model 42149
drug infusion, nonlin. multirate predictive control 18580
DSSC lin. for wide dyn. range opt. link 9538
extended H_∞ filter, robust EKF 40942
FACTS inter-area dynamics, nonlinear modelling 19138
fast digital oscilloscopes, averaging mode, lin. improvement 17699
fault detect. for nonlin. state-space systs. 11840
feedback amp. struct. optim. 29059
formal lin. of nonlin. systs., Chebyshev interpolation, nonlin. filter appl. 11965
GTO inverters, PWM voltage control improvement 19750
high speed/high resoln. ADC, nonlin. correction 37818
hybrid step motors, feedback-lin. control design *(Korean)* 27767
hydroturbine generator sets, nonlin. governor control 10944
induction machines, field-oriented sliding mode digital control 4952
induction motor, LQ approx. lin. control 19623
induction motor, nonlin. control, DSP 28067
induction motor drives, adaptive control, param. estim. 28064
induction motor nonlin. control, DSP approach 11057
induction motors with flux obs., adaptive nonlin. control 27727
interpolating ring VCO, V-to-f lin. compensation 581
κ-guidance dyn. eqns., lin./LQ control 18970
LINC transmitters, automatic adjustment of gain/phase imbalances 25204
MAGLEV systs., H_∞ control, exact lin. 40276
microwave heating power supply, high PF mode 11185
missiles, modified CLOS guidance law via right inversion 18959
MM band IMPATTs wideband oscillators, modulation characts. 37997
modified CLOS guidance law via right inversion 26825
multiterminal AC-DC power syst. outage contingency ranking 10669
PMR technol., RF param. for standardisation 3466
power DAC, Σ-Δ modulator, controlled limit cycles 21386
power syst., unknown interconnections, adaptive nonlin. excitation control 10684
power syst. dyn. stabil., optimal control modelling 4515
power syst. oscills. damping, control design 27004
power syst. stabil., nonlin. SVC control studies *(Chinese)* 35527
power syst. transient nonlin. generator excitation control 26992
power system inter-area dynamics, linearised modelling approach 19137
predistortor for high power amp. nonlin. correction *(Korean)* 12343
PWM rectifier, state feedback nonlin. control 11153
RF amp. dyn. biased cartesian feedback lin. 6041
RF amp. lin., continuous-time adaptive control 12349
rigid rotor mag. bearing syst., nonlin. control 27681
single machine infinite-bus power syst., nonlin. excitation control 27075
single-phase transformer magnetis. and inrush currents *(German)* 11102
steam turbine robust controller design 35968
TEM defocus series, exit wave reconstruction 24430
TWT lin. for future commun. satellites and ground stations *(German)* 6295
underwater acoustics, hybrid/polarity-coincidence correl. proc. 16062
variable freq. DC-DC converter nonlin. control 21100
variable reluctance motors, torque ripple minimization 11007
variable speed induction motor drives, controller synthesis 11353

lines (telephone) *see telephone lines*

linewidths (spectral) *see spectral line breadth*

linguistics
ATR research activities on speech translation 2444
automatic speech recogn., lang. proc. *(Japanese)* 15817
Chinese characters, modified simplex input method 24074
computer corpora, overlapping speech 8187
continuous speech recogn., prosodic inform., generalised model 32399
conversation as collaboration, syntactic evidence 15841
conversational misunderstandings/non-understandings repair 15840
corpus-based local context anal. for spoken dialogues 15839
dialogue stat. modeling, next utterance speech act type 15838
E-talk, computer-assisted classroom discussion, attitudes/motivation 33411
education in lang., implement. of grammar in hypermedia syst. 34281
educational electronic brainstorming syst. in Eng. teaching 9031
hybrid HMM/MLP speech recognizer, linguistic, incorporation 32434
image representation for European lang. determ. 41313
multilingual appl. develop., Unicode std. 24075
parsing word graphs, linguistic grammar and stat. lang. model 32375
pitch pattern clustering, prosodic phrase segmentation 32403
power generation planning, fuzzy multi-attribute decision-making 19216
prosody, Lund Univ. research 2415
sex and dialect rels., speech reduction 2414
voice transaction proc. appl., Spanish text-speech conversion 2448

linguistics, computational *see computational linguistics*

linguistics, language *see linguistics*

linkages (electric connectors) *see electric connectors*

linkers, program *see program compilers*

linking *see joining processes*

links, telecommunication *see telecommunication links*

Liouville equation
see also Vlasov equation
nonequilibrium time-depend. functional theory, Liouvillean quantum field dyn. 6712

lip microphones *see microphones*

liquid crystal devices
see also liquid crystal displays
1.3 μm single-mode 2×2 liq. cryst. opt. switch 16984
2D feedback nonlin. opt. syst. with field rot., diffractive patterns 7752
acousto-optic correlator for radar report-track assoc. 7423
act.-matrix LC SLMs, parallel opt. proc. 7414
adaptive whole-field opt. profilometry 18089
addressable SLM, image readout 31008
animated color 3D image display, LCD kinoforms *(Japanese)* 15158
binary phase only matched filter symm. breaking 31060
bipolar winner-take-all model with a threshold, real-time pattern recogn. syst. 24428
bistable liq. cryst. opt. syst. with global feedback, spatio-temporal behavior 15034
Bode transform, opt. implement. 24652
chiral nematic, polymer dispersed, lin. light modulation 14543
chiral SLC-on-Si SLM, HV circuitry 22961
command surface controlled liq. cryst. waveguide structs., opt. inform. storage 14343
conf., Hungary (Oct. 1993) 11577
conference, liquid crystals, San Jose, CA, USA (Feb. 1994) 51
double-layer cell FLC polariz.-control devices 22958
elec. addressed FLC SLM, CGH 23462
endless fiber-optic polariz. controller, low driving voltage and 30-dB extinction ratio 9566
ferroelec. SLC host materials, optoelectronic appls. 7404
ferroelec. smectic C* liq. cryst. high-speed tunable filter 39539
FLC, electro-opt. device appls., review 22957
FLC cells, surface-stabilised, flow coupled switching eqn. 31004
FLC light valve, pixellated metal reflector *(Chinese)* 1745
FLC nonlin. opt. waveguides 7403
free-space digital opt. SEED switching systs. 3301
high-opt.-isolation low-loss moderate-switching-speed NLC opt. switch 1746
high-speed SLM, photosensitive polymer layer 31005
isotropic liq. cryst. film, IR all-opt. switching 31011
light control glass, liq. crysts. 22949
light valve, feedback, nonlin. opt. tech. 22956
light valve, two-variable opt. parallel binary logic gates 1754
lin./chirped opt. generated liq. cryst. gratings 1751
low-cost colour SLM develop. from liq. cryst. TV 42753
memory-type polymer-dispersed CLC, elec. write/erase operations 31003
microwave phase shifter 6294
multichannel liq.-cryst. opt. switch DCS 17204
multistage opt. butterfly interconnection and optoelectronic logic operations 1759
multitarget tracking syst. based on opt. BJTC and neural networks *(Korean)* 14561
NLC film, cross polarised self starting phase conjug. 23415
NLC layer electrooptic modulators, dyn. modelling 1744
NLC phase device modelling 39497
nonlin. Fabry-Perot resonators, anal. of dyn. pattern form. 7728
nonlin. optics, electro-optics, appls. 7413
nonmechanical microscanning, opt. space-fed phased arrays 34576
opt. attenuator, liq. cryst. film 7412
opt. controlled alignment, device appls. 14541
opt. nonlin., opt. logic appls. 15120
partial pixel diffractive display archit. 25917
particle image velocimetry, ultra-high-speed camera 3982
planar liq. cryst. opt. switch for opt. commun. 34014
polaris. interferometer-based spectral imaging syst., liq. cryst. cells 31010
polymer dispersed liq. cryst. layer pattern form. 39500
polymer-aligned liq.-cryst. cells, surface layer thickness 14539
polymer-dispersed CLC films, opt. memory 39308
polymer-dispersed FLC light modulators 39496
real-time image differentiation *(Chinese)* 8663
real-time nonlin. joint transform LCLV CCD sens. correlator 2713
reconfigurable nearest-neighbour opt. cellular automata interconnects 1764
reflective FLC SLM, real-time binary phase holograms 22954
reflective STN-LCDs, retardation film *(Japanese)* 22959
road sign recogn., opt. joint transform correlator 33003
scale-invariant opt. correlators using FLC SLM, road sign recogn. 41236
semicond.-liq. cryst. interfaced opt. addressed SLM 14536
single feedback expt., hexagonal patterns form. and charactn. 2122
slab waveguide liq. cryst. modulator 14540
SLM, pyroelec. layer 22952
smart-pixel liq. cryst.-on-Si SLM for optoelectronic neural network 22960
twisted NLC SLM, ternary phase-AM 22955
variable opt. delay line, birefr. planar opt. platform based 42443
vert. $\Delta\kappa$ directional coupler switch, liq. crysts. 14465
video-rate electron-holographic interf. microscopy, liq.-cryst. panel 31680
WDM high-speed wavelength tunable liq. cryst. filter 42387

liquid crystal dispersed polymers *see polymer dispersed liquid crystals*

liquid crystal displays
3D laparoscopic syst., single-camera 34998
3D LCD on VLSI die, electrostatic anal. 42875
3D stereoscopic imaging technol. 34630
3D visual stimulator, liq. cryst. projectors 25933
3E-L1 liq. cryst. TV, fast recharge *(Japanese)* 3661
10.4″ TFT-LCD module for 16.7 million color XGA *(Japanese)* 34636
40 inch liq. cryst. rear projection stereo colour display *(Japanese)* 3663
act. addressing 3944
act. and pass. matrix develop. 9976
act. matrix LCD, mil./avionic appl. 10373
act. matrix LCDs, test and laser-based repair 3927
act. matrix liq.-cryst. panel, polysilicon TFT addressed *(Japanese)* 25659
AMLCD for aircraft 10360
analog distorted helix FLC-on-silicon SLM 31013
antiferroelec. liq. crysts., displays, SLM 22951
ARINC D-Size LCD display for aircraft 10391
automatic birefr. eval. syst. 5697
automobile navig. systs., immobilisers, night vision, fuzzy logic 36763
autostereoscopic 3-D TV, eight TV cameras *(Japanese)* 17563
autostereoscopic display, high brightness/power efficiency 34621
backlight cct., case study in design 37031
batt. charging indicators, product series overview *(Japanese)* 25742
batt.-powered portable computers, technol. trends 37810
binary phase fan-out elements, opt. optim. 14558
book, Si and Si alloy based materials/devices 11540

liquid crystal displays continued
capacitively coupled driving method for TFT-LCDs 18003
CGH, 3D video display develop. *(Japanese)* 2147
cholesteric liq. cryst., lin. electro-optic effect, flexoelectricity 14538
CMOS LCD driver, 50-V, integrated in std. 5-V proc. 29083
cockpit situation awareness autostereoscopic avionics display 10352
COG, COG technol. for LCD driver LSIs, resin and flexible metal bumps 134
COG photosensitive adhesive resin interconnection technol., LCD driver LSIs *(Japanese)* 953
color act.-matrix LCDs in U.S. mil. aircraft 10351
color-LCD backlight inverters utilizing piezoelec. transformer *(Japanese)* 7405
colour digital still camera, video CCD sens. 9715
colour TV projection, fast-switching reflective light valves 25644
conference, liquid crystals, San Jose, CA, USA (Feb. 1994) 51
device technol. *(Japanese)* 34642
diacrylate in polymer networks, NLC displays 1748
digital associative memory neural network, opt. learning capability 14559
direct-view 3D display for videophones, LCD and lenticular sheet 3931
direct-view polymer-dispersed LCD 18002
display technol. *(Japanese)* 42879
double supertwisted nematic screens, color contrast enhancement 39498
driver IC, high slew rate op amp 21464
driving efficiency improvement, overlap scanning method *(Korean)* 25934
electrooptical perform., surface mol. alignment 7407
F-22 cockpit display syst. 10374
field-seq.-color tech. 7408
film-compensated homeotropic liq.-cryst. cell for direct view display 7406
fixed format LCD readability in bright ambient environ. 10349
flat fluoresc. lamp technol. for LCD's 10393
flat panel displays, AMLCDs and field emission displays 9986
flat-panel display mfg., markets, competitors, etc 3941
fluorophosphate glass spacing materials for LCD panels 34640
gray-scale act. matrix LCD for flight decks 10354
head mounted LCD stereo display, brightness 9982
head tracking autostereoscopic display, syst. perform. requirements 34622
head-mounted high-resolution field-sequential display for virtual reality 18017
holo-dyn. linking, interactive electronic media 7842
holographic switches, LCD 31658
holographic TV, LCD, YAG laser and camera appl. *(Japanese)* 2149
HV DC apparatus, charging condition, LCD indicator *(Japanese)* 36085
HV power supplies, engng. overview 36330
hybrid opt. syst. for freq.-domain texture class. of imagery 16271
ICVision, VLSI-based diffractive display, holographic stereograms 9987
intell. Chinese pen-based screen phone 9110
interactive LCD projector, multimedia presentation syst. *(Japanese)* 3260
interactive stereoscopic image display syst. for PC 34623
IR3Y18 video sig. proc. IC for TFT LCD *(Japanese)* 664
kinoform, animated color 3D image 7830
LCTV image reconstruction of holograms 40151
LCTV-SLM for real-time holography *(Japanese)* 2146
light valves for schlieren opt. projection 25929
low-power displays, act.-matrix LCD and field emission technols. 25925
matrix-addressed smectic-A LCD 22953
memory-type polymer-dispersed CLC, elec. write/erase operations 31003
microlens arrays for projection LCD, efficiency study 18005
mil. displays develops. 18969
miniature act. matrix LCD, projection/head-mounted systs. 9989
moving-image quality of act. matrix LCD 18004
multi-channel non-blocking holographic switch, FLC SLM 40145
multi-domain homeotropic liq. cryst. cells, 3D simul. 1747
NEC 24 cm TFT color LCD module, develop. *(Japanese)* 3937
NEC 24 cm TFT full-color LCD module, develop. *(Japanese)* 3936
NEC TFT LCDs, wide-viewing-angle improvements *(Japanese)* 1749
NEC thin EL TA type, develop. *(Japanese)* 1809
nematic (twisted) LCD, Monte Carlo simul. 39501
NLC panels, phase retardation meas. 31009
NTT's research activities on image devices for VI&P commun. 41988
parallaxless input integrated flat panel display *(Japanese)* 9978
particle image velocimetry, real time LCD syst. 4011
pers. communicators, batt.-powered, trends 42296
polarized light source for LCD projection 25930
poly(vinyl alcohol)/liq. cryst. composite films, low driving voltage 14537
polymer dispersed LCD, mol. motions and ordering 31006
polymer dispersed liq. cryst. cells with memory effects, light scatt./refl. 34637
polymer-dispersed cholesteric LCDs 7411
polysilicon CMOS TFT LCD driving ccts. *(Korean)* 17999
polysilicon TFT and driver integrat. technol. for LCDs 25919
polysilicon TFT LCD, storage-capacitance arrangement 9984
polysilicon TFT proc. for CMOS, HDTV LCDs appl. *(Japanese)* 1492
polysilicon TFTs for act. matrix LCDs, reliab. 22449
projection screens, opt./electro-opt. charact. 39494
projector with interleaved pixels, opt. syst. and charact. 25931
read-only opt. head, posn. sensitive detect. syst. 14345
rect. plate, dyn. response to shock load, package appls. 11811
reflective twisted nematic LCD birefr. wavelength dispersion effect *(Japanese)* 18010
review 18000
ridge-shaped polymer liq. cryst., LC cell resoln. 14544
Rockwell display technols. develop. 10356
Sanyo multi-gray-scale proc. LSI for TFT-LCD *(Japanese)* 669
see-through head mounted display, electrochromic mirror *(Japanese)* 34646
selectively erasable LCD, opt. storage appls. 7409
smart act. matrix LCD for Space Shuttle 10355
smart pixels, high-resoln. liq.-cryst. gratings, PWM drive tech. 31012
speckle methodology, liq. cryst. TV and posn. sensitive device 39499
stereo imaging effectiveness testing 34632
stereoscopic LCD, biomedical appl. 34997
stereoscopic LCD, time-parallel 34628
synthetic display, stereoscopic fusion charact. *(Japanese)* 16804
Telsat 28812 high speed modem 42083
TFT act. matrix color LCDs, tech. trends and product line-up *(Japanese)* 3935
TFT-LCD, viewing angle improvements 34641
TFT-LCD module, outer lead bonding 34644
thermo-opt. recording, smectic-isotropic liq. phase transit. 39310
thin-film diode LCDs, high-quality display design 25920

liquid crystal displays continued
translation-invariant second-order opt. neural network for multiple-pattern class. 24486
twisted NLC panel optim. for spatial light PM 31007
twisted NLC panels, PM capability, double-pass config. 39495
twos-complement parallel array multiplication algm. for complex matrix operation 31031
US Display Consortium, flat panel display mfg. initiative 17996
void forms. in aircraft LCD 10350
voxel based spatial display 34631
wide-screen autostereoscopic display syst., head-posn. tracking 9985
wide-viewing-angle display mode, bend-alignment cell 42871
a-Si TFT/LCD, state-of-the-art 18011
α-Si liq. cryst. light valve projection display, phosphor develop. 1750
a-Si:H, TFT LCD, photolithographic pattern transform., backside exposure 34635
polymers, electro-optic props./appls. 22923
liquid crystal doped polymers *see polymer dispersed liquid crystals*
liquid crystal polymer melts *see liquid crystal polymers*
liquid crystal polymer solutions *see liquid crystal polymers*
liquid crystal polymers
chip LED, MID technol. *(Japanese)* 1815
chiral liq. cryst. polymers, synthesis and electrooptical appl. 22950
composite films, elec. charactn. 12200
conference, liquid crystals, San Jose, CA, USA (Feb. 1994) 51
conference, Seoul, Korea (1993) 11531
ferroelec. polymers, struct./props. 6901
high-capability polymers and appls. *(German)* 28883
induced cholesteric liq. cryst. polymers for opt. data storage 14542
polyesters, liq. cryst., holographic storage 30838
polysiloxane, ferroelec. chiral smectic, opt. SHG 7731
ridge-shaped polymer liq. cryst., LC cell resoln. 14544
side chain liq. cryst. polymer, computer controlled dielec. meas. 17672
liquid crystalline polymers *see liquid crystal polymers*
liquid crystals
see also antiferroelectric liquid crystals; cholesteric liquid crystals; ferroelectric liquid crystals; liquid crystal polymers; nematic liquid crystals; polymer dispersed liquid crystals; smectic liquid crystals
alignment on polymer interfaces, SHG probing 7777
anisotropic liqs., automatic meas. of acoustical params. 18162
conf., Hungary (Oct. 1993) 11577
conference, liquid crystals, San Jose, CA, USA (Feb. 1994) 51
cored opt. fibres, nonlin. propag., opt. limiting, stimulated scatt. 30887
diyne-pyridine syst., mesophase and nonlin. opt. props. 7776
drops, temp. meas., liquid cryst. thermometry appl. 42982
liq.-cryst. fibers, nonlin. opt. propag. and self-limiting effect 7276
nonlin. opt. materials for switching/limiting, conf., USA (1994) 36892
nonlin. optics, electro-optics, appls. 7413
opt. controlled alignment, device appls. 14541
opt. nonlin., opt. logic appls. 15120
organic materials for electronic/photonics, conf., Japan (1993) 11532
phenol/pyridinium triflate, synthesis, nonlin. optics 2121
poly(vinyl alcohol)/liq. cryst. composite films, low driving voltage 14537
reversible storage of light-induced gratings in low molar mass liq. crysts. 22785
liquid encapsulated Czochralski method *see crystal growth from melt*
liquid films
see also adsorbed layers; surface tension
command surface controlled liq. cryst. waveguide structs., opt. inform. storage 14343
NLC, opt. bistability study 23448
NLC film, polariz. switching by stimulated orient. scatt. 40036
NLC films, nonlin. waveguide, light-induced Frederiks transit. 22904
liquid flow coaxial cables *see coaxial cables*
liquid ionisation chambers
Big Liquid Argon Spectrometer, data acquis. electronics, Tagged Neutrino Expt. 25738
EM calorimeter, liq. Ar, Kr, accordion electrodes 26173
ICARUS detector, data reduction techs., phys. param. extraction 10125
LAr calorimeters, cable-coupled preamplifier perform. 26247
LAr calorimetry, cold frontend electronics 26248
LAr preshower detector, monolithic GaAs readout 26180
LHC detectors and calorimeters 34902
liq. Ar accordion hadronic calorimeter 34925
CdZnTe ionization detectors, single polarity charge sens., coplanar electrodes 10105
Xe, liq., ionization, scintillation, EM calorimeter 26160
liquid lasers
see also dye lasers
alkali salicylates, lasing activity, luminesc. props. 1868
formic acid opt. pumped FIR lasers, reson. array input couplers 7537
ISKRA-5 facility I laser opt. syst. wavefront anal. 7539
polymethine dyes, lasing props., temp. effect 39688
Eu-chelate-doped microdroplet laser, morph.-depend. resons. 39680
liquid metal ion sources
dyn. effects in LMIS 43045
emission charact., temp. effects *(Chinese)* 43054
ion current onset delay in liq. metal ion sources 43044
microstruct. liq. metal ion/electron sources (MILMIS/MILMES) 43042
theory of LMIS 43043
Ga, emission current/LMIS cusp length modelling 43047
In, emission current/LMIS cusp length modelling 43047
Li liq. film on W(011) tip, field electron emission patterns 43046
liquid permeability *see permeability*
liquid phase epitaxial growth
compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
conference, vapour growth/epitaxy, Freiburg, Germany (1994) 20217
Diamond low press./temps. liq.-phase seed epitaxy hydrothermal synthesis 37379
III-V semiconds., liq. phase electroepitaxy 20870
overview of epitaxial deposition technol. 12041
AlGaAs BH photonic devices, melt etching, LPE regrowth 12119
AlGaAs layers, liq. phase electroepitaxial growth, GaAs substrs. 20871
AlGaAs/GaAs solar cell struct., LPE etchback-regrowth 27948
$Al_xGa_{1-x}As$-based systs., LPE by ultrafast cooling 37454
Ga-In-P-As layers, stimulation of cryst. lattice stabilization, heteroepitaxy 37401
Ga-In-P-As/InP, liq. phase heteroepitaxy, substr. morph. instabil. 37397

liquid phase epitaxial growth continued
GaAlAs heterojunction, LPE growth, solid phase surface segreg. 28736
GaAs, LPE on 100mm diam. GaAs substrs. 351
GaAs LPE process, cavity geometric effect 37414
GaAs, liq. phase electroepitaxial growth, 2-D diffusion model 300
GaAs:In layers, LPE grown, charactn. 5826
GaAs:Sn(Zn), LPE growth, Bi-based melts, solar cells 27949
GaAs/GaAlAs, channelled substr. window twin stripe lasers 31332
GaAs/GaAlAs waveguide, TE/TM mode splitter fab. 22893
GaInAs PIN photodiode, LPE growth, Er gettering 39567
GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
Ge heteroepitaxy on Si(111), surfactant effects 317
Ge-GaAs consecutive LPE growth, GaAs static induction thyrister appl. *(Japanese)* 37407
(Hg,Cd)Te LPE layers, comp. profiles 5823
HgCdTe, LPE-grown, photovoltaic detectors charact. 34505
HgCdTe PV lin. FPA for Cassini IR spectrometer 17949
HgCdTe VPE growth, long wavelength IR detector, zero tunnel leakage current 12097
$Hg_{1-x}Cd_xTe$, LPE layers, liq. temp., Hg press. effets 28780
$Hg_{1-x}Cd_xTe$, LPE, new graphite substr. holder 12084
$Hg_{1-x}Cd_xTe$, LPE growth, new develop. 12083
$Hg_{0.3}Cd_{0.7}Te$:B photodetectors, LPE/ion implant., fibre optic appl. 3830
$Hg_{1-x}Cd_xTe$:B large-area PV IR detector, fab. *(Korean)* 17771
$In_{0.53}Ga_{0.47}As$, gettered LPE grown, DLTS study 20745
$In_xGa_{1-x}As$ cryst., LPE/electroepitaxy growth, internal strain, disloc. 37445
InGaAs:Dy on InP, LPE growth, photolum., double-cryst. X-ray study 37400
InGaAsP epitaxial layers on GaAsP substrs., orange LED appl. 12128
InGaAsP, strained layers, LPE, spin-polarized electron sources 21798
InGaAsP/GaAs, high power BH lasers, mode comp. control 39843
InGaAsP/GaAs, selective LPE growth 12112
InGaAsP/InP PBH-DFB-LD for 2.5 Gbps opt. fiber commun., fab./characts., 1.55 μm *(Korean)* 39769
InGaAsP-InP MQW-LD fabricated by LPE, opt. charact. *(Korean)* 39802
InGaAsSb/GaSb thermophotovoltaic cells, LPE grown 27980
InGaP epitaxial layer growth, yo-yo solute feeding method *(Japanese)* 20895
$In_{0.5}Ga_{0.5}P$, LPE growth, oxygen effects 20748
InP/InGaAsP 2-terminal monolithic tandem solar cells 27956
InP/InGaAsP, high power BH laser, 1.15 μm 14924
Si, LPE growth, oxide form. prevention 28733
Si LPE on SiO_2/Si, vert. stresses, X-ray double cryst. topography 37457
Yb:Er:$Y_3Al_5O_{12}$ waveguide laser, low threshold, RT 1.64 μm operation 7604
Yb:YAG waveguide laser, diode pumped, fab. and characterisation 31296
Yb:YAG waveguide laser, epitaxially grown, diode pumped, high slope efficiency and low threshold 14833

liquid proportional counters
ICARUS liq. Ar TPC, tetra-methyl-Ge doping effects 34944

liquid scintillation detectors
ATLAS expt. at LHC, liq. Ar accordion EM calorimeter 26153
BARS liq. Ar detector-target for tagged neutrino beams 26150
beta det. efficiency, photomultiplier tube dynode output, DYEFIC code 43114
Borexino expt., counting test facility 43131
COCO, Compton coincidence expt. 18310
deuterated scintillator response fn. meas., ^{241}Am-Be source 18332
EM liq.-krypton scintillation calorimeter 18373
EM/hadronic calorimeters, radiation damage 26213
KARMEN, neutrino oscills. search 43124
LAr calorimeters, cable-coupled preamplifier perform. 26247
LAr calorimetry, cold frontend electronics 26248
LAr preshower detector, monolithic GaAs readout 26180
Large Volume Detector, Gran Sasso Laboratory, status 34913
MACRO, upward-going muons 43135
microchannel liq. scintillation detector, glass fiber ring image intesifiers 18378
NA48 liq. krypton calorimeter design 26152
NE213 liq. scintillator neutron detector 26131
paraffin scintillator, solid support 34946
pulse shape discrim. props., intrinsic PSD 26129
radiation hard monomer scintillators 26214
RD3 liq. argon hadron calorimeter, beam tests results 26154
real-time aq. tritium monitor 18358
SLC/SLD, lin. collider expt. experience 34842
solid scintillation paraffin, liq. scintillation counting *(Chinese)* 26159
tetraphenylbutadienes, substituted, fast scintillator solutes 10110
Texas A&M neutron ball 26133
TMP swimming pool calorimeter, electron/gamma irrad. tests 26225
Ar, liq., UV scintillation light detect., CsI photocathode 26178
Ar, liq., scintillation photon, creation energy 4201
GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
Kr, liq., UV scintillation light detect., CsI photocathode 26178
Kr liq. calorimeter, monolithic front-end amps. 26151
Xe detector, dark matter/neutrino detect. 4196
Xe, liq., UV scintillation light detect., CsI photocathode 26178
Xe liq. detector, dark matter search 34916
Xe, liq., ionization, scintillation, EM calorimeter 26160
Xe, liq., scintillation photon, creation energy 4201

liquid semiconductors
$AgInSe_2$, elec. cond., thermoelec. power, solid and liq. state 21935
$AgSbTe_2$, solid and liq. states, elec. props. 38266

Lisa computers *see Apple computers*

LISP
see also list processing
SWIM, knowledge-based digital cct. simulator 21173

list processing
see also LISP
broadcasting, universal lists 16411

list processing languages *see list processing*

listings *see complete computer programs*

literature reviews *see reviews*

lithography
see also electron beam lithography; ion beam lithography; photolithography; proximity effect (lithography)
3D copying, surface-reconstruction from tomography-slices 24562
256Mb/1Gb DRAM develop. implications, Japanese semicond. indust. 11717
accelerated nanoparticle erosion, micromachining 39031

lithography continued
advanced CMOS analogue design, training 21460
AFM lithog., situ obs. 6672
chem.-mech. polishing, IC interlayer dielec. planarisation, review 13340
crit./noncritical stepper mixing, lithog., IC manufacture 13440
DRAM wafer flatness control, stepper chucks 38966
IMPS, interconnected mesh power syst. MCM topol. 21760
MEMS fab., lithog. and RIE 39027
micro-directional couplers for freq. selection 30644
microcomponents/microsystems fabr. techs. 6887
microelectronics mfg., technol., conf., Orlando, USA (Nov. 1993) 20209
MOSFET, STM lithog. damage 13740
nanofabrication and microfabrication, conference, Davos, Switzerland (1994) 28244
nanometer-scale dimens. metrology 13486
planar fab. proc. for surface micromachined devices 30511
planar packaged free-space opt. interconnections, computing/switching 1767
poly(methylmethacrylate), lithographic and dissolution behavior, residual casting solvent effect 38750
reliability demons. test. design, Bayesian tech. 37194
scanning probe microscopy, principles and appls. 13017
simul., loop detect./removal algm. 22306
single electron device develop. and technol. *(Chinese)* 22499
submicron fab. technol. GHz unidirectional SAW transducers 30636
VIDS, visual interp. for device simul., proc. models 22544
VLSI, future technol./economic prospects 38965
VLSI interconnect systs., mfg. considerations 38640
Au island mask-GaAs nanostruct. fab., MBE/MOVPE 385
CrO_x lines, scanning tunneling lithog. 13494
GaAs semicond. spark gap, pulsed power appls. 36426
GaAs-InP nanostruct. fab., MBE/MOVPE 385
InP collector-up HBT, 300-400 GHz, mm and submm phased antenna array appls. 6314
Si 1D/2D nanostruct., lithographic/RIE prep., photolumin. obs. 30091
Si:H surfaces, nanometer scale patterning/oxid., UHV STM 13496
Si(110), STM nanolithography 30179

lithosphere *see Earth crust*

liver
colloid liver scintigrams, neural network anal. 18454
CT images, boundary detect. by neural nets 43259
high-resoln. PET imaging, small animal, pharmaceutical biodistributions 10177
interstitial laser photocoagulation, near real-time MRI 26462
permitt. meas. of biological tissues, microwave range 43249
transcutaneous diagnostics, fibre optic devices 43264
^{13}C chem. shift imaging 26348

livestock *see farming*

living systems
see also biocybernetics; brain models; physiological models
smartness in biological struct. 37547

LMIS *see liquid metal ion sources*

LMS methods *see least mean squares methods*

load (electric)
see also load dispatching; load distribution; load flow; load forecasting; load management; load regulation; load shedding; power station load
2.5 MJ DECADE pulsed power generator, plasma load appls. 36357
3-phase unbalanced loads, PF meas. *(Russian)* 43804
10 kHz inductively coupled power transfer, elec. vehicle appls. 5344
50 W DC/DC PWM soft-switched power converters 19790
66 J magnetron pulsed power supply, flyback convertor-based 36321
100 kV 1 kHz Blumlein pulsed power supply, microwave appls. 36257
230 kV level load behaviour params., stat. anal. 35690
AC traction load, 3-phase equiv. cct. model *(Chinese)* 44499
AC/DC power converters, harmonic pollution anal. 36377
AC/DC PWM power convertor, quasi-optimal control 44165
AC/DC soft-switched PWM power converter struct. 36344
AELAP, Aircraft Load Anal. Program 26559
airborne laser syst. pulsed power supply, compulsator-based 36254
apparent power, phys. meaning, comment/reply 4470
automobile electronic fuel injectors, power IC-based control 36776
autonomous power syst. higher harmonics reduction methods 43677
bipolar double layer capacitors, pulsed power appls. 36501
brushless DC motor posn.-vel. control design 36188
building energy anal. simul. programs 5240
bulk power syst. security anal. model, computer-based 26969
capacitive load driving and stabilisation *(German)* 21127
CENTREL/VEAG interconnected/islanded systs., operation *(Russian)* 35546
Channel Tunnel traction/auxiliary power supplies 44533
CHP power syst. long-term operations planning 27100
commercial building envelope loads, elec. use simul., Hong Kong 36794
contactless power delivery syst., mining appls. 20188
DC power supply, two-phase induction generator-based 5110
DC sources, large loads, effective use 5105
DC/AC PWM power convertor, quasi-optimal control 44165
DC/DC power convertors, democratic load-current sharing cct. 44151
DC/DC power convertors, parallel-connected, current distrib. control 44141
DC/DC PWM reson. power converter topol., pulse load appls. 11172
DC/DC ZVS power convertor, batt./solar cell sources 44169
distortion source identification in power system 27283
distrib. network, post-fault service restoration, network reconfig. 4645
distrib. network AC/DC power convertor harmonics, load modelling 35638
distrib. network disturbances, light flicker voltage requirements 20125
distrib. network harmonic filters, EMTP-based anal. 4642
distrib. network harmonics, motor load effects modelling 19267
distrib. network harmonics anal., single-phase power electronic load generated 27171
distrib. network load restoration planning algm., ES-based 19245
distrib. network overvoltage phenom., motor load disconnection-induced 4640
distrib. network power capacitor placement/replacement/control optim. 35621
distrib. network power capacitor placement/replacement/control, computer simul. 35622
distrib. network protection, pos. temp. coeff. thermistors 4643
distrib. network thyristor-based nonlin. loads, harmonic effects 19266
distrib. syst. design, nonsinusoidal load operation 43757
distribution networks, periodic steady state anal. methods 19248
distribution substation transformer cold load pickup modelling 19265

load (electric) continued
EHV traction power networks, harmonic generation calcs. *(Italian)* 5349
elec. utility power supply quality improvement efforts 43709
electromechanical oscills. damping, controllable capacitors 4521
electron beam accelerator, long power pulse operation retrofit 34751
emergency generators, reliab. improvement anal. 27679
energy capacitance integrator studies 19706
FACTS voltage stabiliser, series act. filter-based 19233
full-bridge MOSFET inverter, US transducer power supply appls. 44166
GTO switching under external cct. influence, 2D simul. 1374
GW pulsed power network, magneto-elec. switching-based 5048
half-bridge ZVS multi-reson. power converters, light load mode anal. *(Chinese)* 36336
hard switching power IGBT modules, dyn. perform. tests 21102
hardFET pulsed power modulators, array-type radar appls. 27820
high-starting-torque load motor drives, AFC appls. 20081
induction generator dyn. anal., bifurcation theory-based 4961
induction motor, dyn. loading syst. 4958
induction motor param. determ., genetic algms. appl. 4962
induction motor winding end region, mag. field studies 27728
induction motors, anti-friction bearings, selection guidelines 4945
induction motors, artificial loading condition impedance calcs. *(Russian)* 44034
induction motors, dyn. P, Q load models 36145
induction motors, invertor-fed, power derating studies 4963
induction motors, power convertor-fed, torque pulsation calcs. 27731
induction motors, speed control, VSS, load torque observer *(English)* 36175
indust. arc furnace power systs., voltage flicker study 20157
indust. distrib. networks, harmonic reson. studies 20155
indust. feeder load interruptions, fast breaker tripping impact 20158
indust. power supply harmonic control, switched filter-based 4456
indust. power syst. reliab., Monte Carlo simul. 28189
INPIStron dense plasma pinch pulsed power switch 36464
K factor power transformers, orig., design, develop. 19693
LV distrib. feeders, neutral conductor current distrib. 19272
mag. parametrons, chaotic oscills. studies *(Polish)* 577
matched four-terminal power network, deviation defn. *(Russian)* 10601
motors, double power supply, LF oscillatory motion 4904
multi-output DC/DC PWM ZVS quasi-reson. power converter 19824
multi-reson. ZVS power convertor, rectifier deadtime controlled 44189
multichannel PC-based helicopter electrical power monitor 26540
multiphase power systs., harmonics/VAr control design 19087
nonlin. power syst. anal., mean generalised content theory 35458
nonsinusoidal power syst. supply quality improvement 19088
North American power symposium, Washington, DC, USA, (1993) 11522
office building power quality survey, Hong Kong 4501
parallel act. power filter, control stabil. study 5112
parallel proc. UPS, harmonic suppression/VAr compensation 11175
plasma opening switch, Hawk pulsed power generator appl. 36419
PM DC motor drives, AI speed control strategies 5285
power converters, energetic characts., load current modulation, EMC *(Russian)* 44111
power convertor current meas., HF shunt designs 19718
power convertor fault diagnosis, ES-based 5053
power generation/transm. syst. planning, reliab. criteria *(Japanese)* 10706
power line loss eval., load unbalance 43729
power line short-cct. mech. effects, IEC 865 calc. studies 19311
power overhead line short-term loading capacity assess., ES-based 19308
power overhead line tornado loading effects study 27222
power station auxiliary power systs., short-cct. current calcs. 19382
power station auxiliary switchboards, short-cct. current calcs. 19385
power syst., shock loads investig., digital-analogue-phys. complex 10605
power syst. cct. capability assess., rating sheets prepn. 43657
power syst. chaotic phenom. model, computer-based 4480
power syst. dyn., induction motor loads aggregation 4491
power syst. dyn. load modeling, neural net-based 4488
power syst. dyn. load models, state variable description 35430
power syst. fault level estim., computer-based 19058
power syst. generation expansion planning, fuzzy no.-based 19205
power syst. generation expansion planning, parallel genetic algm.-based 19206
power syst. harmonic penetration studies, load modelling 4478
power syst. harmonics compensation, pass./act. power filter syst. 4500
power syst. harmonics estim., superposition method-based *(Chinese)* 43625
power syst. harmonics interf. anal., FRESCA package-based 19002
power syst. harmonics meas. syst., PC-based 4750
power syst. harmonics/reactive power/unsymm. load compensation 4474
power syst. load modelling, computer-based *(Chinese)* 35424
power syst. load modelling, cumulant-based probabilistic simul. *(Chinese)* 35449
power syst. load modelling/freq. estim., microcomputer appl. 10614
power syst. load static characts. ident., neural net-based *(Chinese)* 43604
power syst. load voltage dyn., state variable description *(Japanese)* 10615
power syst. loads simul. *(Russian)* 35464
power syst. marginal outage costs eval. 10671
power syst. nodes, dyn. loads, transient anal. 19068
power syst. on-load power transformer tap changing modelling 4540
power syst. oscills. damping, control design 27004
power syst. parametric oscills., chaotic behavior anal. 26905
power syst. phase asymmetry relay control design 27057
power syst. planning, loss of load probab. estim. *(Japanese)* 27085
power syst. post fault operation anal., computer-based *(Russian)* 10600
power syst. recursive load ident. method, computer-based 35427
power syst. security assess., multicontingency preprocessing ES 35505
power syst. shock load-based oscills. simul. *(Russian)* 26914
power syst. short-cct. current calcs., transformer modelling 19065
power syst. stabil., bifurcations, voltage collapse, load modeling 35440
power syst. SVC design, math. modelling 4561
power syst. tapping transformers, dyn. interact. calcs. 27784
power syst. VAr compensation, power theories anal. 19086
power syst. voltage collapse proximity anal., matrix nearness approach 26870
power syst. voltage stabil. anal., dyn. load model *(Japanese)* 26852
power syst. voltage stabil. anal., load modelling, eigenvalue calc. 26869
power systs. education, distrib. feeder power quality calcs. 20348
power transformer cyclic loading evals., computer-based 27774
power transformer cyclic loading thermal response, noniterative soln. 5003
power voltage transformers, external compensation 5018
printed spiral antennas, resistively loaded, anal. 8072
pulsed plasma generator, discharge chamber operating conditions 19765

load (electric) continued
pulsed power adiabatic transformer, semicond. switched, design/perform. 36295
pulsed power capacitor rapid discharge ccts., param. estim. 27825
pulsed power modulator systs., pulse forming network calcs. 36441
PV array max. power extraction, fuzzy logic control 19560
PV power syst. solar arrays, load matching calcs. 27626
PV systs. sizing, load matching, short-term energy storage 4870
PWM inverters, current-source compensated deadbeat control 11166
PWM Sinewave invertor design, outdoor remote area power supply appls. 36371
PWM UPS inverter perform., computer simuls. 5077
quasi-reson. DC link power convertor, topol., appls. 5084
quasi-reson. HF PWM ZVS DC/DC power convertors 5061
railgun armature contact load dyn. 15359
railgun multi-tiered Cu wire solid armature studies 15354
railgun pulsed power superspeed contacts, inverse problem calcs. 36311
residential elec. water heater loads, aggregate model 20127
residential solar-powered air conditioners 5393
rly. traction drive readhesive control studies *(Korean)* 28121
rly. traction transformers, asymmetry/harmonic/fluct. loss calcs. *(Chinese)* 44564
salient-pole sync. generator, time-stepping FEM anal. 19605
series reson. power converter, pulsed welding load appls. 5121
single-phase act. power line conditioners 10673
single-phase high efficiency induction motor, perform. studies 19627
single-phase inductor alternators, electromech. proc. eqns. *(Russian)* 10970
single-phase self-excited induction generator, anal. 36177
single/three phase invertors, sinusoidal PWM methods 27822
small motor thyristor power convertors, RFI generation study 44081
SMARTMOS quad low side automotive electronics switch, Saber modelling 36775
soft-commutated DC/AC converter for solar energy conversion *(French)* 19766
soft-switched PWM rectifiers, perform. improvement 11173
Space Station Freedom power system, small-signal stability 26593
spacecraft power syst., multivariate nonlin. design optim. 26678
spacecraft thermionic nuc. power, biphase inversion calcs. 26620
squirrel cage motor harmonic equiv. cct. param. determ. 36161
steel plant power syst., harmonic meas./anal., PF correction 11502
substation, elec. load, on-line modelling *(Chinese)* 35421
supercond. magnet power supply convertor, current control studies *(Japanese)* 11188
surface elec. motors, translational motion design 4902
SVC control strategy, sliding mode, nonlin. load 10676
switch-mode magnet power supply, modelling and control 29027
switched power harmonic filters, anal., appls. 19741
sync. generators, practical model 44019
sync. impact generators, stator EM field calcs. *(Russian)* 27699
three-phase AC-AC power convertor, cct./control anal. *(Japanese)* 11191
three-phase AC/AC power converters, power quality issues 36276
three-phase distrib. network CAD, multiobjective optim. approach 27146
three-phase distrib. networks, harmonic current reduction 4654
three-phase four wire AC line conditioner, voltage controlled 19710
three-phase four-wire distrib. syst. act. power filter 19278
three-phase invertor-based act. power harmonic filter 19740
three-phase power syst. stabil., apparent power misinterpretations 4447
three-phase power systs., supply quality-oriented theory 4466
three-phase power systs., time/freq. domain decomp. 4467
three-phase PWM AC/AC converters, power conditioning appls. 36277
three-phase series reson. act. power filter 19739
three-phase SVC, voltage controlled CSI-based 10654
three-phase two-stator brushless sync. induction motor *(Japanese)* 19606
three-phase unbalanced power systs., act. power filter 10655
three-phase UPS VSI, feedback control strategy 44173
thyristor inverters, freq./voltage optimal control design 5098
transm. line, thyristor controlled series capacitor compensation 27187
transm. network expansion planning, computer software appl. 10712
turbogenerator FEM/state-space modelling, short cct./load case 43984
two-inertia motor syst., closed-loop PID speed control design *(Japanese)* 27669
unbalanced AC voltage supplies, SVC dyn. anal./design 19124
underground power cables, mag. field shielding studies 10747
urban distrib. systs. operational structuring, reliab. aspects 43753
variable speed elec. heat pumps, harmonic eval. tests 5394
variable speed squirrel cage motor drives, indust. appls. 5294
wave power stations, energy conversion problems 4866
wind turbine load matching, least resist. principle errors 10900
XRAM pulsed power supply cct., repetitive operation studies 36256
Ta polar electrolytic capacitors, alternating load tests 885

load balancing (computers) *see resource allocation*

load control *see load regulation*

load dispatching
400 kV EHV transm. syst. planning/develop., Singapore 27122
air conditioner direct load control, multipass dyn. prog. algm. 27055
area power generation control, implement. issues 10645
Chinese power network, commercialization operation *(Chinese)* 35516
constrained power economic dispatch, optim. algm. 4574
distrib. network SCADA syst. installation project, USA 10732
distributor static and dyn. network anal. *(German)* 43731
dyn. dispatch, neural network appl., multiproc. 4571
dyn. economic dispatch, short-term load prediction algm. 19210
economic dispatch, nonmonotonically increasing incremental cost 19109
economic dispatches, seq. decision dyn. prog. improvement 35521
economics load dispatch, multilayer ANN training 27047
elec. power market overview *(Chinese)* 43700
elec. utility generator VAr capability assess. experience, USA 35487
emission constrained economic dispatch 4583
environ. constrained economic dispatch method 4837
environ. constrained optimal economic dispatch, genetic algm. 19168
human/machine-based demand forecasts combination 27081
hydrothermal power syst., real/reactive power economic dispatch *(Chinese)* 10632
hydrothermal power systs., unit commitment/economic dispatch 19111
integrated generation/transm. syst. simul. 35476
interconnected power systs., economic dispatch deviation cost penalty 35491
island power syst. spinning reserve, real-time estim. 4473
joint automatic generation control regulation 4580
multi-objective dyn. load dispatching, optimal operation *(Japanese)* 26936

load dispatching continued
multiobjective optimal thermal power dispatch 26927
New York power pool simul., dispatcher training appl. 4584
New Zealand HV power syst., communs./control systs. 26973
optimal generation scheduling, ramping costs 35708
optimal reactive dispatch, act.-reactive coupling 4573
power syst. dispatch switch operation planning, ES-based 4510
power syst. dispatcher training simulator, GUI-based 19157
power syst. dispatcher training simulator, problem-oriented teaching tech. 20306
power syst. dyn. stabil., fast anal., patt. recogn. appl. 10638
power syst. economic dispatch, decomp.-coord. theory *(Chinese)* 27036
power syst. economic dispatch, interior point methods 19112
power syst. economic dispatch optim., genetic algm.-based *(English)* 43698
power syst. economic dispatch optim., refined genetic algm.-based 35482
power syst. generalised unit commitment problem, computer-based 35492
power syst. interactive DSS, obj.-oriented framework 19095
power syst. load dispatching real-time computer network *(Chinese)* 35515
power syst. load dispatching tech. IS 19096
power syst. real-time economic dispatch design 4569
power syst. reliab., anal., methods, software 27006
power syst. restoration, tie line utilization 35484
power syst. restoration, trouble call anal., OO prog. 43661
power syst. security, economic dispatch coord. 19153
power syst. transient stabil. assess., ANN approach 26946
power syst. unit commitment methodology, computer-based *(Korean)* 27077
power syst. unit commitment optim., EnerPLUS package-based 27107
power syst. unit commitment problem, ES approach 35532
power syst. weekly thermal unit commitment scheduling method 27105
power systs. transient stabil. estim., PC ES-based *(Russian)* 27048
pumped storage operation, economic assess., spot pricing 27618
security constrained dispatch, LP appl. *(Chinese)* 10635
short-term elec. load forecasting syst. *(Chinese)* 35580
supply company tariff calc. and contract data acquisition *(German)* 43689
temporal unit commitment problem, coupled gradient network soln. 35585
thermal power plant generation scheduling, SHAPES ES-based 43890
thermal unit commitment, Lagrangian relax.-based 27108
thermal/pumped storage units, unit commitment *(Japanese)* 26938
unconventional power systs., scheduling/resource allocation 35496
unit commitment, spinning reserve effects 19107
unit commitment optimisation, ramp-rate limit considerations *(Chinese)* 43716
unit commitment problem, genetic algm. 19163
unit commitment with fuel storage constraints 19108
unit commitment/economic dispatch, equiv. incremental cost 19106
VAr planning, decomp. techs. 4609
weekly thermal unit commitment scheduling *(Japanese)* 27522
west-European interconnected syst., optimal security dispatch 27012
SO_2 emission compliance, optimal planning 4846

load distribution
50 to 300 kVA UPS installation guide 19875
400 kV EHV transm. syst. planning/develop., Singapore 27122
building power syst./alternators, SMPS harmonic currents effect 43756
distributor static and dyn. network anal. *(German)* 43731
DMM computer instrumentation for power distrib. monitoring 4737
elec. consumer demand cycle optimis., cost savings *(Italian)* 4591
elec. utility distrib. planning, feeder config. 35526
hot strip mill load bal. control ES 44627
non-conventional power systs., scheduling and resource allocation 10656
power generation commitment, genetic algorithms anal. 35523
power syst. generalised unit commitment problem, computer-based 35492
power syst. unit commitment methodology, computer-based *(Korean)* 27077
power syst. unit commitment optim., EnerPLUS package-based 27107
power syst. unit commitment problem, ES approach 35532
power syst. voltage collapse, load pattern anal. 4452
power syst. weekly thermal unit commitment scheduling method 27105
rural power network VAr compensation overview, China *(Chinese)* 35511
thermal power plant generation scheduling, SHAPES ES-based 43890
thermal unit commitment, Lagrangian relax.-based 27108
unit commitment optimisation, ramp-rate limit considerations *(Chinese)* 43716

load flow
3-phase unbalanced nonradial power distrib. systs., fault anal. 43758
66/6.6 kV power receiving/transformer facility project, Japan *(Japanese)* 35629
130 kV rly. power syst. operation optim., Sweden 44534
500 kV power interchange transm. line project, USA 27065
AC/DC load flow, normal/post-fault condition calcs. 26866
AC/DC power syst. load flow calc. *(Chinese)* 35557
AC/DC power syst. saddle node bifurcations detect. 35508
ACSR power overhead lines, high-temp. operation tests 27235
AISMAN, subtransm. network switching operations planning tool 27089
asymmetrical power syst. load flow/fault studies *(Chinese)* 35422
Auburn Univ., power engng. curriculum and GUI software 28337
batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966
buck-boost PWM inverter, PV power syst. appls. *(Japanese)* 11122
bulk power system reliability, assess. methods 19019
bulk transmission security assess., nonutility generation representation 19224
calc. convergence improvement *(Chinese)* 35514
calculation, ANN *(English)* 4496
CHOPIN, heuristic model, transm. expansion planning 4614
column exchange tech., Newton-Raphson method 4548
composite generation-transm. syst., reliab. indices 35579
computer UPS, single power convertor/batt. scheme 36272
DC fuzzy optimal power flow algm. perform. eval. 19211
decentralised AI controllers, intell. home automation 4536
designated distrib. area, short range planning, computerized procedure 10699
dist. protection gradation, influence of network fuzziness *(German)* 19336
distrib. feeders, nonlin. loads, voltage distortion forecast 27166
distrib. network, load-flow eqns., starting point 27147
distrib. network fuel cells, optimal deployment genetic algm. 19257
elec. interchange pricing, probabilistic prod. simul. *(Chinese)* 27039
elec. power market overview *(Chinese)* 43700
elec. utility-cogenerator elec. market, game model 4577
emission constrained economic dispatch 4583
ES appl., load flow problem 4627
FACTS, advanced series VAr compensator appls. 27138
FACTS, interphase power controller, voltage injection 4520

load flow continued
FACTS inter-area dynamics, nonlinear modelling 19138
FACTS SVC appl. planning projects, USA 27139
fast decoupled load flow, load tap changing transformer 26948
fast decoupled load flow calc., parallel algm. *(Chinese)* 35608
fast decoupled Newton optimal power flow *(Chinese)* 10633
flexible AC transmission control simulation, EMTP package-based 35614
generalised load modelling in presence of harmonics and distortion 35607
generalised power flow controller, anal. *(Chinese)* 43629
generators, reverse power flow protection, relays 4886
Harmonic Domain, power syst. harmonic anal. 35438
HV transm. syst. planning, SELF expert syst. 19202
hydropower station, optimal compensation regulation, nonlin. network flow *(Chinese)* 36037
hydrothermal power syst. transm. anal. model, planning appls. 27110
integrated generation/transm. syst. simul. 35476
interconnected power systs., power delivery reliab. index calcs. 19077
interconnected power systs., power transfer effects eval. *(English)* 10685
LIM end-pole pitch AC EM field calcs. 36197
LINE BACK, utility connected PV inverter 44204
lossless power syst. load flow feasibility/stabil. anal. *(Russian)* 10618
multi-area fuel cell CHP power systs., elec. wheeling anal. 10644
multi-objective dyn. load dispatching, optimal operation *(Japanese)* 26936
multiarea power syst. automatic generation control simul. 10666
multiarea power syst. simultaneous transfer capability anal. 26997
multimachine power systs., freq. control requirements 43703
multiterminal AC-DC power syst. outage contingency ranking 10669
network control technol., user appls. *(German)* 43692
neural net-based load-flow models for elec. power systs. control 26986
neural networks based monitoring of indust. elec. loads 4537
optimal reactive dispatch, act.-reactive coupling 4573
optimal-power-flow soln., Newton's method 19000
polyphase power syst. VAr compensation, computer simul. 4550
power by wire aircraft, spec./testing 26560
power engng. education, OOP approach 28334
power line load flow violations security assess., ES-based 19285
power network mgt., KBS and distributed problem solving 10650
power network mgt. training simulator, software develop. 19125
power overhead line upgrade/refurbishment options 43781
power station auxiliary power systs., short-cct. current calcs. 19383
power syst., fast contingency anal., AC load flow *(Chinese)* 26909
power syst. assoc. control services, generator level experience, France 43705
power syst. branch flow contingency anal., computer-based 4482
power syst. complete model state estimator, computer-based 27101
power syst. crit. contingencies ident., heuristic method 19133
power syst. discrete voltage control modelling, load flow soln. 26963
power syst. dyn. stabil. improvement, SMES-based design 27003
power syst. dyn. voltage instabil., induction motor model *(Korean)* 35461
power syst. emergency corrective control, ANN classifier 19114
power syst. emissions-constrained optimal power flow calcs. 10610
power syst. extended optimal power flow algm. anal. 27023
power syst. fast decoupled load flow, control adjustments 26925
power syst. freq. relaying algm., Newton-Raphson method 10612
power syst. generalised unit commitment problem, computer-based 35492
power syst. generation control automation, fuzzy controller design 35545
power syst. instabilities modelling, catastrophe theory appl. *(Japanese)* 26853
power syst. load flow, Z-matrix algms., triangular factors 26865
power syst. load flow calc., compensating EMF method *(Russian)* 43627
power syst. load flow calcs., floating point DSP 26890
power syst. load flow calcs., modified incomplete Cholesky method 26864
power syst. load flow feasibility region ident., computer-based 26863
power syst. load flow problems, Grobner basis soln. algm. 43626
power syst. load flow soln. criteria 26901
power syst. load flow solvability, computation method 35435
power syst. load models, power flow/dyn. perform. simul. 35441
power syst. load-flow anal., ANN, Newton-Raphson algm. 19083
power syst. Newton optimal power flow convergence studies 26848
power syst. node-oriented load flow solns., Bergeron's method 26862
power syst. obj.-oriented anal. methods 35428
power syst. optimal load tracking, nonlin. parametric approach 27024
power syst. optimal power flow anal., security constrained 26902
power syst. optimal power flow simul., security constrained 10603
power syst. optimal VAr control, fuzzy neural net-based 35480
power syst. parallel load flow algm. 4445
power syst. peak load capacity planning studies, China *(Chinese)* 35574
power syst. preventive control design, nonlin. optim.-based 26956
power syst. probabilistic constrained load flow, sensitivity anal.-based 4613
power syst. real-time voltage/VAr control, optim. algms. 10630
power syst. reinforcement planning, fuzzy optimal power flow 19213
power syst. restoration, planning, local control centre, ES *(Korean)* 35541
power syst. security anal., static on-line voltage contingency screening 4485
power syst. security assess./real power rescheduling 26968
power syst. security control, reactive power rescheduling, V-formulation *(Chinese)* 43636
power syst. security eval., ANN appl. 10677
power syst. security margins, spatial aspects visualisation methods 26970
power syst. state estim., least absol. value solns. 26879
power syst. static security assess., load flow, ANN 19167
power syst. static security fuzzy optimal control simuls. 35479
power syst. static voltage collapse anal., HARKAL package-based 26895
power syst. transient stabil. simul. package, teaching/research appls. 35426
power syst. unbalanced load flow anal. program 4444
power syst. unsymmetrical load flow, elec. locomotive caused *(Chinese)* 35423
power syst. VAr allocation planning, ADAPOS package-based 27092
power syst. VAr compensation control planning, ES appls. 26961
power syst. voltage collapse index, reactive power loss sensitivity *(Korean)* 26846
power syst. voltage contingency selection method 4557
power syst. voltage instabil., load flow-based preventive control 35554
power syst. voltage stabil., shunt VAr compensator effects *(Japanese)* 10709
power syst. voltage stabil., sing. perturb. theory 26850
power syst. voltage stabil. anal., continuation power flow 19117
power syst. voltage stabil. anal., PV curve tracing 35455
power syst. voltage stabil. limit determ. method 35468
power syst. voltage stabil. region estim. method 35469
power syst. voltage stabil./collapse point, load flow soln. *(English)* 26847
power syst. voltage stabil./security assess. methods 4516
power syst. voltage/VAr security enhancement control design 27017

load flow continued
power syst. vulnerability assess., neural net-based 26966
power system inter-area dynamics, linearised modelling approach 19137
power system load flow anal., computer-based methods 19021
power system load flow modelling, phasor dynamics-based 19035
power system post-contingency load flow feasibility algm. 19118
power system steady-state voltage instability index 19033
power system voltage collapse point estim. algm. 19034
power systems computation, conf., Avignon, France (1993) 11544
power transm., transfer limit calc., integrated approach 19146
power transm. line relay protection CAD, ES-based 35571
pseudo-inverse-based probab. power flow 35462
PSS fuzzy excitation control syst. develop. 4509
PV grid connected buildings, energy flow, economics 43955
reactive power compensators for distrib. systs., harmonic distortion 19256
real-time power syst. operations, loss minimization fn. 10629
reson. DC link ZVS VSI topol. studies 36281
rly. power syst. stabil./power flow limit calcs. 5341
rly. substations, 3-phase power flow studies 20108
rly. traction syst., public grid interconnected, load flow 28109
Russian unified power grid, power flow/freq. control 10639
soln., Jacobian sing., voltage stabil. margin *(Chinese)* 35448
Space Station Freedom power syst. CAD, APSPP package-based 35251
sparse power syst. computations, vectorisation algms. 35439
static distrib. load param. ident., general regression neural networks 10647
static voltage stabil limit determ., load flow algm. *(Chinese)* 26907
sync. generator voltage stabil., voltage depend. reactive power limits 36114
thermal cogen. with wheeling, model anal. *(Japanese)* 10850
three-phase conductively isolated busbar voltages anal. algm. 35481
three-phase load flow algm., decoupling-compensation Newton type *(Chinese)* 43603
three-phase power syst. harmonics anal., computer-based 26881
TRANSEPT ES, point-to-point transm. network CAD appls. 27128
transm. line dist. protection, power flow/voltage phasor oscill. meas. 4743
transm. network contingency load transfer capability modelling 10665
transm. network series power flow control, GTO VSI-based 27125
UCPTE power syst. parallel trial project, Europe *(Croatian, English)* 10623
unbalanced radial distrib. system, power flow algm. 19263
unified power flow control algm., phase shifter *(Chinese)* 27032
unified power flow controller, long. model *(German)* 35544
VAr planning, decomp. techs. 4609
VAR planning, partitioned power syst. networks 4618
Victoria network voltage-reactive power optim. *(German)* 35552
virtual instrum. for determ. of elec. power quality 4739
voltage collapse determ., power syst. transient 4450
voltage collapse margins calc., network partitioning 4547
voltage stabil. syst. crit. area ident. 26957

load forecasting
1-7 day ahead load forecasting, weather uncertainties *(Japanese)* 35576
1978-1989 nuc. energy policy committee scenarios and reality *(German)* 27114
adaptive neural net for short-term forecasting 35584
adjustable grey model for power load forecasting 4604
daily load forecasting, hybrid fuzzy-neural approach 4603
daily load forecasting, multilayer ANN *(Japanese)* 10707
daily load forecasting, nonlin. SETAR model *(Chinese)* 43714
data anal., Kohonen, maps 19207
distrib. feeder elec. heating load prediction, computer-based 35620
distrib. feeders, nonlin. loads, voltage distortion forecast 27166
distrib. network, load forecasting, decision making, hybrid ES 19270
dyn. dispatch, neural network appl., multiproc. 4571
dyn. economic dispatch, short-term load prediction algm. 19210
elec. consumption forecasting, temp. inputs 19174
elec. demand forecasting Rostovenergo power syst. *(Russian)* 35578
elec. rly. power consumption characts. estim. *(German)* 44503
ELECTRABEL, long term planning 27000
energy consumption change forecasting, Slovenia 26932
future final energy consumption forecast, former USSR 27082
human/machine-based demand forecasts combination 27081
hydroelectric generation scheduling, fuzzy LP 4858
intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
interconnected power systs., reliab. calcs., load models 27007
long-term load forecasting, recurrent neural network 27112
long-term max. demand, modified ANN approach 19209
models comparison, fuzzy neural nets 19219
multi-step-ahead hourly prediction, adaptive recurrent neural network syst. 35583
neural net prediction syst. 19218
next day peak load forecasting, ANN, modified BP learning algm. 35586
nonutility generation in customer delivery syst. planning 4611
peak load forecasting, regression based, transform. tech. 4610
power demand modelling considering meteorological factors 4608
power supply undertaking load forecasting, ANN *(German)* 43721
power syst. act. power reserve scheduling 27088
power syst. complete model state estimator, computer-based 27101
power syst. daily load forecast, multilayer neural net-based *(Japanese)* 10708
power syst. daily load forecasting, neural net/regression anal.-based 19200
power syst. elec. load-weather temp. fn. calc. method 35589
power syst. half-hour data-based load forecasting method 27095
power syst. intell. control, appl. develops. 19135
power syst. load forecasting, ANN based, EMS 4616
power syst. load pattern classifier algm., neural net-based 10704
power syst. load relief prediction/control, computer-based 26965
power syst. load/state estim. software, security assess. appls. 27103
power syst. peak load capacity planning studies, China *(Chinese)* 35574
power syst. peak load forecasting, fuzzy neural net-based 35590
power syst. short-term load forecasting, DSS appls. *(Chinese)* 35565
power syst. short-term load forecasting, neural net-based 19201
power syst. short-term load forecasting, neural net-based 19199
power syst. short-term load forecasting, state-space model 27094
power syst. short-term load forecasting, time series methods 10702
power syst. short-term load forecasting methods, computer-based 27093
power syst. short-term load forecasting tech. *(Korean)* 27076
power syst. state estim. algms., computer-based 27102
power systems computation, conf., Avignon, France (1993) 11544
power systs., operational intell. syst. appl. 43617
rem. area power supply systs. load forecasting, neural nets 35570

load forecasting continued
residential load aggregation, max. likelihood duty cycle forecast validation 36793
rule-based ANN approach 19203
short term elec. load forecast, ANN 19212
short-term, fuzzy neural net 19208
short-term, R&D trends *(Japanese)* 10693
short-term demand forecasting, neural network approach 4605
short-term elec. load forecasting syst. *(Chinese)* 35580
short-term load forecasting, adaptive neural net 35566
short-term load forecasting, genetic algm. neural net 27080
short-term load forecasting, radial basis fn. neural net model 19198
short-term load forecasting model, ANN, fuzzy ES *(Korean)* 35587
short-term load forecasting models, artificial neural nets 27118
short-term peak load forecasting, ANN appl. 19217
spatial load forecasting, three stage method 43717
steam turbines, large, optimal load cycling 4845
weather-sensitive short-term forecasting by feedforward neural net 10701

load management
see also demand side management; load distribution; load regulation
500 kV Central China power syst. EMS overview 19188
AISMAN, subtransm. network switching operations planning tool 27089
Army ground-mobile electronic systs., energy mgt. 18968
Cassini power management and distribution 26647
customer power consumption contract agreements, PC-based *(Russian)* 5241
data retrieval, cellular commun. 10793
distrib. network control, obj. oriented environ. appls. 27154
distrib. network control automation, recent develops. 27149
distrib. network planning inform. syst. *(German)* 10723
distrib. syst. online mgt./control, ES-based 19271
distrib. syst. state estim. algm., observability anal. 35619
distributed EMS, FDDI based, simul. 27009
distributed SCADA/EMS syst., Unix based, Johannesburg 4519
DMM computer instrumentation for power distrib. monitoring 4737
DynEAF dyn. modeling tool, integrated elec. steelmaking 44629
elec. melting shop, energy optimisation, control syst. *(German)* 11507
elec. utility batt. energy storage, trends and status 35539
elec. utility DSM, air pollution impact 19492
elec. utility EMS fns., user experiences survey 19185
elec. utility EMS projects, South-East Asia/Western Pacific survey 19183
elec. utility load mgt., tariff-based, UK experiences 4506
elec. vehicle ultracapacitors, load levelling batt. appls. 36738
EMS migration/develop. strategies 10687
EMS project implement./operation overview, Thailand 19186
EMS real-time distributed archit. project, Australia 19187
energy billing syst., Central China Power Network *(Chinese)* 43630
farmhouse power consumption limiters, methods and advantages *(Russian)* 4589
flow calc. convergence improvement *(Chinese)* 35514
German VEW syst. *(Czech)* 26989
heating load mgt., radio teleswitching 5380
high perform. space power technol. options 35247
hybrid vehicles, energy flows mgt., fuzzy logic controller 20111
hydrothermal power syst. energy mgt., long/medium/short term *(Chinese)* 27037
indust. PC based energy mgt. 36797
integrated water electrolysis, utility benefits 27335
interconnected power systs., transient stabil., on-line anal. 27008
KoREMA, conf., Zagreb, Croatia (APR. 1994) 20202
network connectivity tracking, topol. based algm. 35489
New Zealand HV power syst., communs./control systs. 26973
power network mgt., KBS and distributed problem solving 10650
power syst. complete model state estimator, computer-based 27101
power syst. control, AI-based DSS 10648
power syst. control, min. generation reserve/transm. constraint 26978
power syst. elec. load-weather temp. fn. calc. method 35589
power syst. EMS, state estim., meter placement algm. 19151
power syst. EMS environ., AI archits. 26951
power syst. EMS multiserver/multiclient gateway syst. 43637
power syst. EMS/SCADA systs., mgt. IS-integrated 26954
power syst. fault ident./alarm proc., OO expert syst. 19154
power syst. interactive DSS, obj.-oriented framework 19095
power syst. load forecasting, ANN based, EMS 4616
power syst. load-flow anal., ANN, Newton-Raphson algm. 19083
power syst. online dyn. security assess., EMS ES-based 19099
power syst. operator training simulator, workstation based 4581
power syst. pricing update, MBR 27067
power syst. real-time SCADA/EMS, OOP concept 26955
power syst. SCADA/EMS, third party software packages integrat. 43638
power syst. short-term load forecasting, time series methods 10702
power syst. state estim., param. error ident./estim. 35485
power systems computation, conf., Avignon, France (1993) 11544
prod. simul. methods, comparison, MONA tech. 27113
rectifier telecom. power supplies, digital current control 19797
solar space power, RTG, parametric cost model 26654
Space Station Freedom PMAD syst., thermal anal. 18763
spacecraft, electronic switching, reversible energy mgt. 26596
SPIDER MicroSCADA distrib. network control syst. 27184
standardisation, SNMP protocol 44191
three-phase multifn. batt. energy storage syst. 43967
undervoltage load shedding, energy based approach 35556
west-European interconnected syst., optimal security dispatch 27012

load prediction *see load forecasting*

load regulation
1200 W zero output impedance UPS inverter 44170
adaptive load freq. control with dual-rate sampling, design method 35559
air conditioner direct load control, multipass dyn. prog. algm. 27055
automotive high side power switches, intell. diagnostics 20114
buck rectifier, unity PF, nonlin. ripple feedback 36244
Cassini spacecraft solid-state power switch develop. 26660
combined cycle power plants, freq. regulating duty dyn. response characts. 43932
DC-DC power converter cross regulation charactn., SPICE-based 19794
DC/DC capacitive idling converters, input current shaping 19789
decentralised AI controllers, intell. home automation 4536
distributed power systs.-benefits and challenges 10675
Eastern European power network regulation test planning and eval. *(German)* 35550

load regulation continued
elec. utility generating units, freq. response capability develops., UK 43704
FACTS, interphase power controller, voltage injection 4520
FACTS SVC appl. planning projects, USA 27139
farmhouse power consumption limiters, methods and advantages *(Russian)* 4589
hydrothermal power syst., interconnected, adaptive load-freq. control 10627
induction motor ASD, speed/temp./torque meas./control 36697
indust. appliances, load balancing/control, feedback elimination 4596
indust. resistive load control, disturbance minimisation 4541
interconnected power syst. control design, SMES-based 27002
multimachine power systs., freq. control requirements 43703
neural networks based monitoring of indust. elec. loads 4537
petrochemical plant, elec./proc. control systs. integrat. 5410
power flow, column exchange tech., Newton-Raphson method 4548
power syst., emergency freq. control, fst underfreq. relay 4533
power syst., on-line load relief control 4575
power syst., two-area load-frequency control with neural nets 19113
power syst. decomposed fuzzy control 26942
power syst. fuzzy optimal load freq. control design *(Japanese)* 43682
power syst. load freq. control, disturbance accommodating optimal controller *(Korean)* 26988
power syst. load freq. control, neural net-based 4542
power syst. load freq. optimal PID controller design *(Korean)* 26922
power syst. load-freq. control, H_∞ optim. 43675
power syst. optimal VAr control, fuzzy neural net-based 35480
power syst. probabilistic constrained load flow, sensitivity anal.-based 4613
power syst. real-time voltage/VAr control, optim. algms. 10630
power syst. single on-load tap changer, reverse control anal. 27028
power syst. static security fuzzy optimal control simuls. 35479
power transm. line overloading alleviation, intell. control 4518
real-time power syst. operations, loss minimization fn. 10629
rly. substation load levelling, energy storage *(German)* 44523
servo induction motor adaptive speed control 19625
space platforms, power syst. control/protection integrat. 26680
space station power mgt./distrib., intell. load controller 26659
supply-side loading minimisation, intelligent SVC control 43656
SVC, μP based, unbalanced load appls. 10670
thermal power units, load control syst., adaptive neural model *(Chinese)* 35983
Three Gorges power project, China, peak load regulation study *(Chinese)* 27040
transm. network series power flow control, GTO VSI-based 27125
transmission network static voltage stability indices, numerical comparison 19225
unified power flow controller, long. model *(German)* 35544
Union of Swiss Elec. Power Stations, 4th annual report *(French, German)* 4525
VAR planning, partitioned power syst. networks 4618

load shedding
commercial power syst. DSM, PLC-based scheme 35490
composite power syst. demand-side reliab. eval. 27029
diesel generators, economic utilisation, max. demand charges minimisation 10872
distrib. network, real time service restoration 4647
farmhouse power consumption limiters, methods and advantages *(Russian)* 4589
freq. actuated load shedding, electronic relay 10678
freq. relay, testing 4535
integrated generation/transm. syst. simul. 35476
island power syst. spinning reserve, real-time estim. 4473
local SCADA systs., intell. load shedding algm. *(Korean)* 35473
multimachine power syst. generator shedding, neural net-based 19098
power syst., on-line load relief control 4575
power syst. adaptive underfreq. emergency control schemes 43676
power syst. control, min. generation reserve/transm. constraint 26978
power syst. dispatch switch operation planning, ES-based 4510
power syst. fast transient control, energy-based sensitivity method 10672
power syst. load relief prediction/control, computer-based 26965
power syst. load shedding optimal fuzzy control design *(Korean)* 35542
power syst. restoration, planning, local control centre, ES *(Korean)* 35541
power syst. transient stabil. control, online calcs.-based *(Japanese)* 27042
power syst. underfreq. load shedding optim. algm. eval. 26964
power syst. underfrequency load shedding, control design 4556
power syst. underfrequency load shedding proposal 27005
power system undervoltage load shedding, energy-based approach 19120
undervoltage load shedding, energy based approach 35556
VLF switching sigs. over local power lines, fraud countermeasures 43811

lobes (distribution) *see antenna radiation patterns*

local area networks
see also LAN interconnection; optical fibre LAN; token networks; wireless LAN
1-persistent CSMA bus throughput, discrete space-time model 33212
18th conf., on local computer networks, Minneapolis, MN, USA, 1993 28220
100 base-VG demand priority protocol, real-time commun. 16490
100 Mb/s SMC91C100 chip *(Dutch)* 16733
100VG-AnyLAN, Ethernet/token ring frame inform., IEEE 802.12 technol. 41882
100VG-AnyLAN, network operation/real-time capabilities 33504
100VG-AnyLAN fast Ethernet std. 41815
AAL5, ATM Adaptation Layer 5 for gigabit LAN 3191
actuator/sens. interface instrumentation 25727
adaptive token release mechanism for ring LAN and MAN 41529
anal. modelling device for distributed multiaccess protocols 41471
Analyser genetic algm. based LAN divider 41769
APS accelerator and control syst. 18173
assoc. particle imaging, 4D image display 18465
asynchronous distributed planning/problem solving environ. 19222
ATC, Ada computer commun. interfacing 41773
ATE environ., ±30 ps accuracy 9803
ATM appl. in LAN 16685
ATM based embedded real-time systs., admission policies, perform. 33505
ATM based LAN/WAN *(Japanese)* 41854
ATM campus backbone, constr. 41753
ATM flow control, rate and credit schemes integrat. 41401
ATM LAN, full-color real-time video broadcasting 16681
ATM LAN emulation 16758
ATM LAN switch 3289

local area networks continued
ATM LAN syst., multimedia on demand appls. 16838
ATM LANs, exposed buffering/sub-datagram flow control 33516
ATM LANs, high-speed telecomms. technol. *(Japanese)* 33544
ATM LANs, protocol/interface 3192
ATM LANs/WANs, random access protocols 8965
ATM network, Internet protocol, design 8994
ATM network, LAN/MAN interworking, bandwidth allocation 8996
ATM network, medium speed access 41904
ATM networks, anal. model for self-similar traffic 16667
ATM networks, low-latency commun., act. messages 24974
ATM techs. for high speed networks 33534
ATM-based LANs, bandwidth mgt. 33517
ATM-DQDB, integrated services interworking, perform. eval. 33599
ATM-Internet, class D service archit. 8992
ATM-LAN technol. foundations *(German)* 8914
ATM-oriented multimedia LAN archit. 41806
audiovisual appls. 8941
automatic telephone operator based on client-server syst. archit. 3132
automobiles, EMI reduction, high speed modem 31859
AXE 10 syst., operator subsystem fn. testing 33393
B-ISDN/ATM connectionless data service in Internet environ. 41842
BALI, inhouse ATM and LANs/WANs for multimedia teleservices 41983
Berkeley Networks of Workstations Project 33531
broadband multipoint multimedia telecom. and computer supported collaborative work 42018
broadband telecomms. networks and ATM, survey 16792
C166 microcontroller connection, controller area networks 41876
campus inform. network syst., LAN based, switching syst. *(Japanese)* 16697
campus LAN layout, design and implement. 33549
campus network traffic anal. prevention method 8940
campus networks, detection and discrimination of injected network faults 33548
campus scale wireless Internet, ATM 33559
cct. switched LANs, traffic conditions, perform. 33514
cement storage/dispatch terminal automation 3731
central servers, high-bandwidth network evol. 41786
CERN PS accelerator, control syst. overview and status 18182
Chameleon 4.0, TCP/IP for windows 16657
chem. research, LANs and Internet 8919
CLAD implement. and expt. results in ATM networks *(Japanese)* 24948
client-server networks, recovery 3181
cluster-based network, desirable fault-tolerant topol. 8962
CNMA, European initiative for OSI network mgt. 24921
combined token/random access protocol for LAN/MAN ring networks 16708
common LAN technologies for ATM connectivity 33442
computer network clocks, improved sync. algms. 2949
computer networking, satellite 16750
computer networks, rem. monitoring probes and mgt. appls. 17694
conf., Minneapolis, USA (1994) 20231
controller area network, real-time commun. anal. 3177
CPN, fiber channel interfaces 33489
CRMA, access protocol, wireless LAN archit. 33490
CRMA network real-time appls., perform. anal. 41525
CSMA/CD LANs, packet starvation effect and soln. 33510
CSMA/CD network all-sharing load-balancing scheme 33574
CSYCOM commun. protocol *(Bulgarian)* 24811
cyclic polling syst., waiting time distribs. for different service strategies 33242
deep water acoustic LAN, adaptive lin. multiuser receiver 34181
Demand Priority MAC protocol for 100 Mb/s LANs 25043
desktop assets mgt. 41699
developing countries, primary education, multimedia network 25114
digital atmos. opt. link 3588
digital TV control syst., LAN appl. *(Japanese)* 34240
digital video display, Ethernet TCP-IP 16078
digital-wireless commun., test equipt. selection 116
digitised voice over high speed LANs, error control scheme 33445
distributed control syst., rem. station, real-time commun. *(Korean)* 41805
distributed OS, data/control transfer separation 16659
distributed real-time, multi-access protocols schedulability anal. 2911
distributed systs., teaching, Ada reusable software components 5560
distributed virtual simul., networking 25019
DS-SS RAKE receiver, ASIC implement. 9191
dual-ring, wrapback and merging reconfiguration algm. *(English)* 41877
E-mail, IS mgt. view 8861
E-mail systs., market primer 8860
E-talk, computer-assisted classroom discussion, attitudes/motivation 33411
educational practice, local computer networks 11621
elec. power commun. network monitoring/mgt. *(Chinese)* 33428
elec. power engng., intell. tutoring syst. 20302
electronic mail, appl. 33415
electronic mail infrastructure, develop., LAN/Internet solns. 41732
encryption of network traffic 8908
enterprise computing, LAN/WAN aspects 33479
enterprise LAN standards and guidelines case study 33458
enterprise network (in yr. 2000) 41640
enterprise network ATM switching paradigm 41408
enterprise network LAN-ISDN integrat. *(German)* 9008
equaliser for IR-wireless LAN using RBF neural networks 33469
ET10071, LAN coaxial transceivers *(Japanese)* 25169
Ethernet, real-time traffic support 3178
Ethernet, sharing resources, client-server model, ISIS facility 16688
Ethernet and SCSI for digital video input/output 25007
Ethernet capture effect, anal. and soln. 33511
Ethernet LANs, low-speed appls. 8905
Ethernet switches extending 10BaseT lifetime 3163
Ethernet switches for virtual LANs 42117
Everywhere Access, rem. control software for Internet 8949
evol., ATM 8888
expandable ATOM switch archit. for ATM LANs 8970
fast Ethernet 8900
Fast Ethernet for boosting WAN throughput 33580
fast front-end computer design 18232
fast packet technol., corporate network choices 33581
fault tolerant syst. for distributed appls. 41881
fault-tolerant convergence routing 3203
FDDI, mean waiting time approxs. 41845
FDDI for time crit. commun. in mfg., scheduling 41772

local area networks continued
FDDI network perform. eval., guarantee probab. 41905
FDDI technol., review 16698
FDDI workstation cluster, meas. 33496
FDDI-II for isochronous, synchronous and asynchronous traffic, bandwidth allocation 33456
Fibre Channel protocol and 802 MAC services, comparison 33254
Fibre Channel switch, performance improvement using camp-on 33255
FIFO design for high-speed network interface 33491
firewall installations, IpAccess Internet service access syst. 24962
Fujitsu chip sets for ATM LANs, develop. *(Japanese)* 16736
full-motion digital video in Ethernet, perform. eval. 9049
fully distributed proc. strategy for Unix LAN 25037
GANIL ion accelerator, control syst. 18184
Gbit/s range LANs and MANs, media access protocol perform. comparison 24803
Gbit/s-LANs, ATMR/CRMA-II, perform. comparison 16710
genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
GIGAswitch control proc. 25044
global internetwork troubleshooting 16612
group admin. shell, GASH network computing environ. 41788
group randomly addressed polling for multicell data networks 8771
hard real-time commun. in multiple-access networks 33211
Hawaii, e-mail/LAN pilot project 3154
Hawaii State Dept. of Education future high speed IN 3251
HDCC, software based compression algm. for video conferencing 16813
high perform. protocol for local/metropolitan ring networks 33506
high perform. transparent bridge modular archit. 41404
high performance networking, conf., Grenoble, France (1994) 5496
high speed network, multimedia commun. networking archit. model 33650
high-perform. distributed computing, architectural support 2907
high-speed computer commun. network, models and simul. for anal. 8925
high-speed networks, hardware meas. techs. 676
high-speed networks, inter-proc. commun. perform. 8967
high-speed networks for multimedia applications, real-time performance 33475
high-speed public transport for enterprise networks 8825
high-speed self-token ring LAN, perform. eval. 9001
high-speed transport protocols, local workstation environ., flow control 33492
HIPPI-ATM-SONET terminal adapters, archit./perform. 41798
HMR, ATM-based medium access protocol for gigabit ring networks 24800
host interface designs for transputer based LANs 41848
HSLAN, comparison 33495
HSLAN prospects of UTP telephone cable *(Dutch)* 16997
HSLAN syst. with category 5 cables, installation *(Japanese)* 25047
Hybrid-Ethernet, dual-channel hybrid archit. 24999
IEEE 802.12, Demand Priority and multimedia 16664
IEEE 802.3 CSMA/CD protocol modeling and verification, symbolic model checking 24819
IEEE 802.5 token ring LANs for multimedia traffic, priorities effectiveness 33441
implosion-avoidance protocols for reliable group commun. 33270
induction motors, indust. meas. syst., LAN based 25728
indust. electronics, trends/develop. 33431
inform. proc. systs. eval. centre, reliab. improvement *(Japanese)* 16737
integrated train access scheme under light/medium load, perform. anal. 33578
intell. hub, enterprise networks mgt. 3089
intell. local operating network for office and home automation 9002
inter-LAN security, trusted routers 16671
interconnecting computers, archit./technol./economics 16702
internetworking and computer networks, current status and future *(Japanese)* 8880
internetworking and multimedia, LANs, future and present *(Japanese)* 8881
IP networks, congestion avoidance for video 16680
IP over ATM, cell traffic efficiency 25067
IR wireless indoor channel, freq. response 17247
ISLAN interface, MAC/PHY layers, IEEE std. 24984
isochronous LANs and systems, perform. anal. of voice/video services 33440
ISOLDE isotope separator control syst. design 18391
Jetstream Gb/s LAN, user-space protocols for high perform. appls. 2940
KEK e^-/e^+ linac control syst., VME and workstations 18191
key agile cryptographic syst. for OC-12c rate ATM 24058
LAN-based e-mail appls. 8865
LAN/B-ISDN interworking unit, congestion control, perform. eval. 25053
LAN/WAN environ., contingency planning 41901
LARnet, local access router network 25515
latency anal. of TCP on ATM network 8923
library, multi-fn. LANs and workstations for present and future 16768
Linda implement. on LAN 25034
load sharing based on multicasting in LANs 3172
long local computer networks, methodology for partitioning 3171
MAC address test protocol for reconfigurable dual ring LAN *(Japanese)* 24947
MAC-layer hybrid protocol for real-time bus networks 2915
mail transport agents, integrat. products 8862
ManageWORKS, user interface framework 41698
MARC, multimedia appl. for radiologist commun. 16910
media access protocols for Gbit/s networks, perform. comparison 16498
media access schemes, CTMA and CRMA for hidden terminal problem 3173
MELSECNET/10 and open networks for factory automation *(Japanese)* 33541
MetaNet, LAN/MAN architecture, configuration and performance issues 33463
Metaring high speed LAN, fairness anal. 33464
MeV ion microbeam anal., transputers in data collection syst. 24991
MHS parallel proc., implement. and eval. 24953
Misnet, inexpensive network for PC connection 41889
Mitsubishi Cable Industries LAN products *(Japanese)* 25045
MLAN Multimedia Local ATM Network archit. and perform. 16760
mobile computing, network bottlenecks 33555
mobile computing in LAN environ. 8990
modern commun. technol. advancement, problems *(Chinese)* 3234
modern telecomm. networks, archit., elements and network mgt. 33358
MPEG variable bit-rate video on LANs, rate control 16646
MPEG-II video encoding, socket prog. in LAN 16088
MS3000/MS3100 multi-slot hub characts. *(Japanese)* 25001
multi-LAN multi-order protocol, multicasting in distributed systs. 16705

local area networks continued
multicast operations for ATM-based high perform. computing 8909
multicast-specific security threats, counter-measures 24961
multimedia appls., fn.-based commun. protocols 9074
multimedia capable network, ATM/IEEE 802.9a isochronous Ethernet transport technols. 42015
Multimedia Chatting System on Ethernet LAN 16835
multimedia conferencing audio bridge 16896
multimedia integrated services networks, sync. mechanisms 16874
multimedia traffic, priority commun. schemes 33651
multiprocess commun. in LAN, switching server 24945
multiprocessor, clusters of workstations 33532
multiservice struct. Markovian traffic source model 8989
Myrinet gigabit-per-second LAN 24972
Nat. Motorway Communications System Mark 2, traffic mgt. 33552
NetBIOS, OpenVMS 41817
network integrat., mgt. technols. *(Japanese)* 33378
network mgt., capacity planning 33373
network perimeter, secure external access 16674
Network Time Protocol, clock sync. 41545
networked ATM-video products 9026
Newham Community College Library networking 8977
NewsAlert prototype, competitive intell., software robots and Internet 17561
NPP, plant commun. and computing archit. plan methodology 27367
observer concept for formal online validation of distributed systs. 16690
office, enterprise archit. 33519
optimal design of finite-buffer polling network 33426
patient recruitment, improved efficiency, automated telephone screening syst. 43327
PBX systs. for data commun. 3165
PBX-computer connection technol. *(Japanese)* 16970
pipelined common buffer archit. for memory based switching systs. 33716
pong, flexible network services monitoring syst. 41787
portable notebook computers, connected/disconnected operation in distributed systs. 33564
power series algm. for anal. timed-token ring protocols 41524
power syst., distributed SCADA syst., design/archit. *(Chinese)* 43649
power syst. EMS/SCADA systs., mgt. IS-integrated 26954
prioritized distributed queueing random access protocol 33500
private data network design, concentrator positioning optimisation 24986
protocol, modelling/perform. eval. 16707
protocol perform. in multi-workstation parallel distributed appls. 25039
public data network, integrated mgt. syst. 24910
RACE II project PREPARE, mgt. of heterog. broadband testbed 33386
RAIN (redundant array of inexpensive networks), multitraffic perform. 24949
RAMA, rem. access, museum archives 9069
random access LAN, unbalanced random no. generator 16658
random proc. charact. in LAN 16505
real-time Petri nets for modeling, controlling, and simul. of LANs in FMSs 16735
register insertion bus fibre optic LAN, bandwidth balancing 33467
RHIC accelerator control syst. design 18172
rightsizing, distributed LANs, UNIX appl. servers 41771
ring based multicast service, high speed deflection network 33476
routing in ad hoc networks of mobile hosts 33568
ROV 6000 advanced data mgt. 16772
SDMA protocol, collision resoln. algm. 33269
sector antenna/DFE modems for indoor radio commun. 3167
security soln., client server archit. migration *(French)* 25027
security system implementation 33459
self-organizing wireless LAN system 33470
self-similar Ethernet LAN traffic, stat. anal. and stochastic modeling 33586
shallow-water acoustic LAN, store-and-forward protocol 10446
simul. on network of workstations, parallel independent replicated 33547
slotted ring LAN, bandwidth allocation scheme 41906
slotted ring model, Cambridge type protocol 16472
SMDS networks, congestion notification technique 3223
SNIF, network inform. flow surveying tool 24967
SNMP local bridge ET1053C devel. *(Japanese)* 25002
SNMP manager Linenet-View, develop. *(Japanese)* 25046
SNMP-based network mgt. appls. 41796
speech/data integrat., real-time interactive, on LANs, multimedia in commercial indust. environ. 25066
SRRC accelerator control syst. design schemes 18218
stackable hubs for networks 16652
steel mfg. integrated prod. IS, Japan *(Japanese)* 3212
stepping motor, intell. controller, actuator, design 19677
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
switched LAN and full-duplex operation 33512
TCP/IP behavior in high-speed local ATM network environ. 33268
TCP/IP local environ., integrat. of voice and data, perform. eval. 8928
TDMA struct. DECT syst., data services 16621
telecomms., managed appl. services 16600
time critical data communications, conf., London, UK, Dec 1994 5508
TNet reliable syst. area network 24973
token bus LAN, mfg. environ., perform. models 24990
token passing MAC protocols, quality of service estim. 16499
token ring LAN environment supporting priorities, output process characterisation 33472
token ring LANs, multimedia support, multiple priorities, perform. 33653
token ring network mgt., config. mgt. 16581
token ring protocol for single/dual ring LAN systs. 2916
token ring protocols, dyn. 3204
token ring switches for LAN backbone upgrading 42115
token rings evol. 3164
traffic monitoring problems 42118
traffic overflow, LAN switch 16722
transm. line, crosstalk coupling, digital noise propag. 25200
transputer based concepts for decentralized time crit. commun. systs. 41849
TreadMarks, distributed shared memory on std. workstations and OS 8920
Tritron tandem control syst. status report 18181
TV broadcasting equipt., mgt. syst., VME based LAN appl. *(Japanese)* 3655
underwater acoustic network node, design/perform. 16684
Univ. of California, Santa Cruz, library data wiring replacement 16757
unshielded twisted pair cables for HSLAN *(Japanese)* 25203
VAN, WAN, LAN, inform. related technol. *(Japanese)* 3186
Virtual Permanent Connection, network computing, switch-based networks 16683

local area networks continued
VuNet, network architecture for distributed multimedia system 33444
WDM in LAN 33525
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
wireless LANs in indoor environment, perform. eval. 33468
wireless pers. commun., overview 17107
workstation, intell. LAN-PBX interface 33339
workstation clusters, data partitioning for networked parallel proc. 41880
workstation networks, advantages and tech. difficulties 24975
workstation-clusters, transfer systs. efficiency *(German)* 24825
ZIPI network for musical instrums. 24977
local authorities *see public administration*
local networks *see telecommunication networks*
localised electron states *see localised states*
localised modes
GaAs:C,H, MOMBE, C-H complexes, orient. rels. 327
GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
localised states
see also Anderson model; charge transfer states; core levels; deep levels; defect states; electron traps; hole traps; impurity states; Wigner crystal
MESFET, localized interface states, transconductance 38913
MOS struct., defective dielec., microcracks 29983
poly(phenylene acetylene) elec. symmetric diodes 23039
polymer LED at LV, I-V characts. 23040
transistor struct., localized vol. state spectrosc. 13097
$Al_xGa_{1-x}As$-$In_yGa_{1-y}As$-GaAs, modulation doped HEMT, photolumin. linewidth 13145
GaAs films, anom. PV effect/neg. photocond. 39554
GaAs, non-activated cond. of hot electrons in localization regime 29864
GaAs/AlAs superlattice, photolum. pol. depend. 38336
GaAs/AlAs superlattice, random, electronic/opt. props., disorder effect 6558
GaAs-Si films, anom. PV effect/neg. photocond. 39554
InGaAs/InP MQW, step barrier structs., reduced hole localisation 29899
In_2O_3-ZnSe-CdTe-In, injection-contact phenom. in sub-micron layers 38313
In_2O_3-ZnSe-In, injection-contact phenom. in sub-micron layers 38313
$InSe_x$ films, amorph., AC cond. 21927
Si films, anom. PV effect/neg. photocond. 39554
Si, porous, photocarrier electronic states, photomodulated IR spectrosc. 6653
a-Si:H, film, light soaking effect on DC cond. 38235
Si-SiO_2 interface, thermal carrier delocalization, reservoir effect 13247
ZnCdSe/ZnSe, QW, exciton recomb. dyn. 38321
ZnO varistors, positron annihil., local electron dens., defect conc. 38257
ZnS-ZnSe superlattices, electronic states and binding energies 13194
ZnSSe/ZnSe superlattices, excitonic procs. and lasing 29912
ZnSe:N, N-doping effects 38508
ZnSe:Te,N, N-doping effects 38508
ZnSe/ZnMnSe, QW, exciton recomb. dyn. 38321
locomotive diesel electric engines *see diesel-electric locomotives*
log normal distribution
CDMA multiple-cell radio syst., perform. eval. 3386
CDMA syst., macro-/micro-cellular environ., perform. 3471
cellular mobile radio systs., spectrum efficiency 17124
cellular radio, correl. co-channel log-normal interferers 17047
cellular radio, correl. log-normal random variables 3406
digital simul. of lognormal random procs. 32025
digital wireless appl., lognormal sum distribs./outages 9374
Earth-space syst., site diversity, rain atten., interf. anal. 15440
finite range failure model, reliab. anal. 37187
inverse coeff. of var., asymptotic sampling distribs. 20481
IR imaging, ΔT metric eval., mil. target and background under various stats. 4439
mobile satellite commun., MFSK/DPSK sigs., cutoff rates 25301
radar clutter, spatial correl., simul. 34135
wireless appls., correl. lognormal sum distribs./outages 3413
X-band radar, obs. of K-distributed sea clutter 34119
Al/W multilayered interconnections, electromigration resist. meas. 38687
Al-Si-Cu VLSI interconnect void-related early failure, subpopulation model 22271
log periodic antennas
WIREGRID, NEC2 pre-proc. 37365
log spiral antennas *see spiral antennas*
loggers *see data loggers; recorders*
logging (recording) *see recording*
logic analysers
see also logic testing
shortest signature analyzer 12418
VLSI ccts., hierarchical test anal., random BIST 37694
logic analyzers *see logic analysers*
logic arrays
see also application specific integrated circuits; programmable logic arrays; programmable logic devices
1D logic arrays. gate permutation ordering 21254
1D logic gate assignment, parallel algm. 38975
2μm CMOS gate array design automation 6062
application-specific array processors, conf., Venice (Oct. 1993) 36903
ASIC macrocell multiplier for complex numbers 21214
ASIC row-based cell placement method utilizing cct. structural props. 37711
BCHIPSIM, Si BJT IC chip perform. simulator 594
BiCMOS gate array, optimized bipolar arrays 12503
BiCMOS gate array for B-ISDN 622 Mb/s UNI 33680
Boolean neural net, dynamically configurable combinatory logic array 29451
C-testable carry-free array divider, design 638
C-testable design techs. for iter. logic arrays 29138
C-testable multipliers based on modified Booth algm. 12453
cell library improvement for automated logic synthesis tools 21289
cellular logic two-level networks for morph. image proc. 31038
clocked ratioed logic for sync. ccts. implement. in logic arrays 21179
CMOS channel-less SOG arrays, HGALOP router 29148
CMOS gate arrays, EOS induced polysilicon migration 30466
CMOS inverter based chaos generator 649
CMOS/SIMOX gate array, 1/4-micron-gate ultra-thin, dyn. perform. and leakage current characts. 22590
cross point assignment, global rerouting for general-archit. designs 21257
cross point assignment, global rerouting for general-archit. designs 37707
delay optim., multiple choice lin. knapsack problem 21045
digital PLL for power conversion ASIC, implementation 21393
disjoint cube representation of Boolean fns., computer algm. 6132
ENSERG, IC design training for electronic engineers *(French)* 20332
logic arrays continued
FPGA, CAD tools 6055
functional approach, efficient fault detect. in iter. logic arrays 6122
gate array embedded RAM test, flag-scan register 6057
gate array VLSI, optimal placement of components 37592
gate-arrays, automatic cell placement, anal. procedure 625
GMS, CMOS VLSI gate matrix cell generation syst. *(Chinese)* 12398
GT-1000 image transm. device, develop. *(Japanese)* 33610
lean integrat., perform. and cost improvement of logic LSIs 29146
MCM-D with embedded thin film resistors, ECL gate array packaging 21706
opt. ATM components 33729
P-OPALS, pure opt.-parallel array logic syst. 1768
path-oriented algm. for cell selection problem, logic gate networks 21255
pipelined parallel multiplier implement. 6061
quantizer neuron chip, neuron model/neuroprocessor 12675
radiation-hardened CMOS 177K gate array, develop. 29205
row-based cell placement method utilizing cct. structural props., ASIC layout 21262
row-based placement for very large ccts., simulated annealing, MCNC benchmarks 21258
Silicon Audio, audio-data compression/storage syst. 42644
SOG arrays, min-cut placement, global objective fns. 37712
SOG-based RISC pro. tested for failsafe appl. 21344
std. cells, orient. assignment, fuzzy math. transform. 5944
std.-cell VLSI cct. design, timing and area optim. 21256
Verilog, standardizing delay calc. 28974
VHDL based macrocell libr., develop., modelling 21165
VLSI regular arrays, test strategy 37686
VLSI timing optim. by gate resizing and crit. path ident. 21176
wave-pipelined 8×8 b multiplier in CMOS technol., design and realisation 29139
AlGaAs-GaAs HBT gate array for 5 GHz ASIC, cell libr. 37719
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
GaAs ASIC set for deep space receiver 42336
GaAs HBT gate array for high perform. ASICs 29147
GaAs buffered DCFL gate array, differential push-pull I/O 37720
GaAs digital IC design, compiler methodology 37716
GaAs digital foundry, process, perform., reliab. charactn. 38958
Si ULSI device fab., wafer specs./design rules trends 38982
logic CAD
see also high level synthesis
2μm CMOS gate array design automation 6062
(31, 9) RS codecs, fast prototyping complex digital systs., FPGAs 6117
accel. of logic simul. 5955
adder design modelling and comparison using Verilog HDL 29297
ANN fast prototyping, goal seeking neuron digital implement. 29465
antifuse based FPGA technol. mapping, matching, Boolean fns. 21248
architectural-level fault simulation using symbolic data 21207
ASIC macrocell multiplier for complex numbers 21214
ASIC row-based cell placement method utilizing cct. structural props. 37711
asynchronous ccts., state assignment problem for event-based specs. 12259
asynchronous finite state machine, extended burst-mode spec. 21211
B-algm. behavioral test generation algm. 6100
BiCMOS buffer ccts., delay modelling and optim. 647
BIST design, partitioning techs. 21058
Boolean fns., probabilistic manipulation, free Boolean diags. 12260
CAD conf., San Jose, CA, USA, Nov 1994 41
candidate paths method for perform. optim. 21048
cct. DFT, orthonormal expansions *(Japanese)* 12425
ccts. simul., network of transputers 37734
cell library improvement for automated logic synthesis tools 21289
cell placement method using cct. struct. props. 21039
cellular arrays, ternary, design, ternary decision diags. 37732
cellular-archit. FPGAs, routing-driven mapping 498
CHAN, CPA algm. for timing anal. 21046
CMOS ccts., cell library characts. impact on area, speed, power consumpt. 29102
CMOS channel-less SOG arrays, HGALOP router 29148
CMOS logic gate delay computation, slope considerations in probabilistic simul. 29115
CMOS maximal current and deriv. estim., activities waveforms 21200
CMOS power dissipation, cost-effective estim. 22567
CMOS power dissipation at logic level, simul. mapping 21199
CMOS std. cells, design and charactn., teaching 21222
CMOS total self-checking design 22566
CMOS VLSI 32×32 ATM switch, design, simple logic control 9137
combinat. cct., hierarchical knowledge modelling *(Japanese)* 5970
complex logic products, stat. design for perform., practical methodology 29137
config. ratio, model for simulating CMOS intra-gate bridge, variable logic thresholds 39014
consistent attributed graph-based hand-drawn logic cct. diag. reading syst., VLSI CAD 12492
CPU behavioural verification, functional inform. extraction 478
cross point assignment, global rerouting for general-archit. designs 21257
cross point assignment, global rerouting for general-archit. designs 37707
custom IC, conf., San Diego, USA (1993) 36842
DA techs. for PLD and FPGA based systs. 12419
datapath compiler, mixed random logic and optim. blocks 21040
datapath design, mobility reduction based scheduling, allocation emphasis 28957
DCVS logic, std. CMOS cell design for testable self-timed systs. 29203
deep sub-micron modelling tools 628
delay optim., multiple choice lin. knapsack problem 21045
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
design automation and ASIC design, conf., Paris (1993) 20199
design process beyond ASICs 21160
device-independent FPGA design 21231
digital audio-visual sig. proc., Alis logic synthesis 29301
disjoint cube representation of Boolean fns., computer algm. 6132
distributed logic cct. simul. on network of workstations 21053
distributed logic simul., test environ. 12496
DSP appls., FPGA-based custom computers anal. 29192
dyn. repartitioning of parallel logic simulator 481
ECL LSI design and test experience in supercomputer develop. 21221
EDA in digital design education 5531
ENSERG, IC design training for electronic engineers *(French)* 20332

logic CAD continued
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
extended lock graph theory, optim. 21210
fast prototyping, FPGAs and logic emulators 21220
fault trees, problems and state of art 470
FPGA, lookup table-based, technol. mapping, genetic algm. 21224
FPGA channel archit., automatic synthesis for routability 639
FPGA design, Mentor and Altera CAD software 6105
FPGA design verification, software tools 12433
FPGA logic implement., optimisation techs. based on genetic algms. 6108
FPGA prototypes, package partitioning technol. 6114
FPGA synthesis, look-up table and multiplexor based archits. 12487
FPGA technol., optimal registerfile archit. synthesis 29108
FPGAs, logic synthesis on PC platforms 29162
FPGAs, postlayout simul., verilog 6110
functional timing analysis using ATPG 21166
functionally integrated logic elements, planar/3D implement. 37698
gate array VLSI, optimal placement of components 37592
gate-arrays, automatic cell placement, anal. procedure 625
global router, weighted Steiner tree-based, simultaneous length and dens. minimization 610
GMS, CMOS VLSI gate matrix cell generation syst. *(Chinese)* 12398
graph driven binary decision diags., data struct. for Boolean fns. 29199
GSM full-rate vocoder chip design 42086
Handel compiler, net-list descriptions, Xilinx FPGAs 6116
hazard anal. of struct. seq. systs. 37726
HDL-based design productivity, expt. comparison 28973
hierarchy use in logic cct. fault simulation 21206
high dens. FPGAs for synthesis and VHDL based design 29164
I^2L unit library for logic cct. design *(Chinese)* 21236
IC layouts comparison with HDL models, formal verif. tech. 37588
IEEE/ACM conf. on CAD, Santa Clara, CA, USA, 1993 36906
implicit testability constraints 6102
incremental simul. for large scale ccts. *(Japanese)* 37597
internal overload control perform. in large switches, simul. 37724
iRULE, fast hot-carrier reliab. diagnosis using macro-models, MOS digital logic 29114
lean integrat., perform. and cost improvement of logic LSIs 29146
library-based FPGA, logic synthesis 29130
load-independent cell library macromodeling, waveform simul., CMOS logic 29143
logic diags., automatic input, loop syms. recogn. 5971
lookup table-based FPGAs, technol. mapping algm. for gate decomp. *(Korean)* 12409
LRAP optimiser, combined logic resynthesis and placement 21052
LSI logic, LP based cell selection, timing, area, and power consumption constraints 37700
LSI power/area optim., transistor sizing/wire length minimization 37745
massively parallel array proc. for logic, fault, and design error simul. 12292
microelectronic syst. archit./design, conf., Darmstadt (1992) 11535
min-cut replication in partitioned networks 12261
mixed polarity Reed-Muller represent., technol. mapping 21162
mixed-level simul. technol. 629
ML-Germinal, heuristic standard cell placement algm. 21038
MOS digital ccts., fast timing simulator, feedback proc. 592
multilevel logic optim., pseudo max. sets of permissible fns. 21204
multilevel logic optim., redundancy addit. and removal 21202
multilevel logic optim. cct. activity driven, low power oper. 21201
multilevel logic synthesis, Boolean factoring of logic fns. 6133
multilevel NAND gate ccts., automatic synthesis, CAD algms. 29100
multilevel Reed Muller cct. synthesis, computer-based *(Korean)* 21178
multilevel synthesis, coherent optim. strategies 21203
multiple design error correction for combinat. ccts. and finite state machines 21177
multiple-way partitioning, general-purpose iter. improvement algm. 612
multiplexer logic network design, spectral method 6059
multiplexor-based archit., area/delay tradeoff, fast technol. mapping 21196
multiway syst. partitioning under constraints, integer prog. 21042
μP syst. design environ. based on OO blackboard framework 666
NORA dyn. logic cct., technol. ,mapping algm. 21197
one-hot-encoding FPGA macros, simplified state machine design 12405
OPTIMOS branch-level digital cct. optimiser 21212
OR causality, modelling and hardware implement. 21247
over-the-cell channel router, algm., 2-layer model 21037
over-the-cell routing algm., via-less middle terminal models 21036
Panda-Map, optimal perform.-directed logic mapping algm. for TLU-based FPGA *(Chinese)* 12397
parallel logic level simul. of VLSI ccts. 12274
parallel logic simul., benchmark ccts., dyn. scheduling 12428
parallel logic simul. of VLSI systs. 12277
parallel-pattern/multiple-fault-propag. concurrent fault simul. 12435
path-oriented algm. for cell selection problem 37705
path-oriented algm. for cell selection problem, logic gate networks 21255
permanent hardware faults of floating point adder 37605
PLA optim., simulated annealing algo. 21238
PLA self-checking cct., automatic generation algm., parity codes 21185
PLAs in meas. engng. 17660
power constrained logic cct., optimized perform., single independent path anal. 21284
power estimation for high level synthesis 21163
precomputation-based seq. logic optim. for low power 637
prime implicants generation of logic fn., multilevel synthesis 5957
prog. image coding syst., arith. codec, LSI-CAD 33700
Prolog proc. design via VHDL-based methodology 12289
protocol-driven scan test design rule checker 6103
quickly customised logic, channel routing algm. 21035
random pattern testable ccts., automated logic synthesis 6073
recursive DSP algms. mapping, multiprocessor 28953
Reed-Muller variable-entered vectors and maps 21055
relay, smart, AI-based 6397
row-based cell placement method utilizing cct. structural props., ASIC layout 21262
row-based FPGAs, segmented routing channels, design and anal. 611
row-based placement, simulated annealing, hierarchical algm., MCNC benchmark ccts. 37708
row-based placement for very large ccts., simulated annealing, MCNC benchmarks 21258
scanned seq. ccts., global strategy for design and test 28976
SEGMA, simulated evol. gate-matrix layout algo. 21227
segmented channel routing problem, complexity 38953

logic CAD continued
self-checking combinat. logic synthesis techs. 21226
semicustom design of ASICs, Si chips vs. FPGAs for engng. education 6834
seq. cct. simul. by hybrid cellular automata 12493
sequential cct., partial reset DFT method 21186
sequential ccts., automatic design error correction 21184
sequential logic, state space decomp. based optim. 21191
simul. compression by sampling *(Korean)* 12266
simul.-based proc. verification, automatic program generator 17663
skew assumption logic simul. for pot. spike detect. 21164
SOG arrays, min-cut placement, global objective fns. 37712
special purpose array proc. for digital logic simul. 38960
SRIF DSP algo., VLSI systolic array implement. 665
STC104 packet routing chip for parallel systs. 29290
std.-cell VLSI cct. design, timing and area optim. 21256
std.-cell VLSI cct. design, timing/area optim. 37706
sub-micron ASIC design, register-transfer module selection 29091
SWIM, knowledge-based digital cct. simulator 21173
synchronous logic cct. restructuring, cct. decomp. tech. 21192
systolic array partitioning problem, scheduling scheme 28952
technology decomposition using optimal alphabetic trees 21213
ternary-valued compiled logic simul. of complex logic networks 37725
testability, design and test generation 42721
threshold switching fn. systematic synthesis algm. 29187
time optimized technol. mapping syst. for logic CAD *(Korean)* 12411
timing synthesis from VHDL description *(Korean)* 21273
TRACER-fpga, router for RAM-based FPGAs 21259
TRACER-fpga, router for RAM-based FPGAs 37709
UAHPL lang. for ASIC design 37713
undergraduate digital design courses using PLD 28346
UPLD logic simul. for rapid prototyping 6115
Verilog, standardizing delay calc. 28974
Verilog design anal., time dimens., visualisation tools 21218
Verilog-based computer engng. course and lab. 5517
VERTEX program, sync. sequential cct. verification 21033
VHDL, commercial design tool 22524
VHDL seq. statement synthesis, RTL *(Korean)* 12388
Viterbi decoder implement., prog. act. memories 32088
VLSI byte-wise CRC generator chip, hardware design 37697
VLSI high level synthesis designs, feedback 29154
VLSI timing optim. by gate resizing and crit. path ident. 21176
VLSI timing perform. hierarchical approach 21047
VXIbus interface hardware, FPGA implementation/testing 42735
AlGaAs-GaAs HBT gate array for 5 GHz ASIC, cell libr. 37719
GaAs ASIC set for deep space receiver 42336
GaAs DCFL ccts., timing macromodels 37710
GaAs DCFL logic gate ccts., delay/transit. time macromodels 21261
GaAs HMESFET SBFL based F-RISC/I microproc. 37802
GaAs implement., systolic floating point proc. element 29253

logic cell arrays *see logic arrays*

logic circuit elements *see logic devices*

logic circuits
see also asynchronous circuits; asynchronous sequential logic; carry logic; combinational circuits; emitter-coupled logic; flip-flops; formal logic; integrated injection logic; integrated logic circuits; logic devices; majority logic; multivalued logic circuits; NAND circuits; NOR circuits; probabilistic logic; sequential circuits; superconducting logic circuits; threshold logic; transistor-transistor logic
balance testing of logic circuits 29182
cellular arrays, ternary, design, ternary decision diags. 37732
D flip-flops, self checking/code disjoint, sync. cct. design 29120
DSP appls., FPGA-based custom computers anal. 29192
fail safe logic ccts., dyn. voltage divider 6054
fast serial-parallel multiplier, two's-complement method 21252
Fire code, modified decoding algm., fast burst error correction 24073
fixed-polarity AND/XOR canonical networks minimisation 599
FPGA-based custom computers, DSP appl. archit. 29123
high-speed I/O interface ccts. for memory bus appl. 12505
I^2L unit library for logic cct. design *(Chinese)* 21236
max. value determ. cct. for binary nos. 12483
MCM interchip radiative interconnection syst. 29724
MCM logic modules, leaky wave antenna radiative interconnects 12970
Midwest Symp. on ccts. and systs., Detroit (1993) 33
optimal scheme of parallel proc. for test generation in distributed syst. 29172
PCB, sig. line EM emission, spectral profile simul. 23669
PCB design, implement. of EMC criteria 29658
PLD-based cct. CAD, behavioral level synthesis 37727
PWBs, electronic modules, laser-based noncontact testing 29650
recogn. of logic diag. syms. 37747
self-timed ripple-carry adders, compiler changes for efficient operation 29121
simul., network of transputers 37734
testing of ccts., probab. converter synthesis 37688
thermal logic ccts. 6119
thin film photocond.-electroluminescent ccts., opt. sig. delays 39603
voice recogn. digital cipher lock for smart vehicles 643

logic design
see also logic CAD; logic partitioning; roundoff errors
1D logic arrays. gate permutation ordering 21254
2D FIR-median hybrid interpolation filter design for HDTV *(Korean)* 42601
100 Mips event controlled ALU for asynchronous μP 29122
A, testable design of logic ccts. under highly observable condition 12456
algorithmic register transfer lang. for generating designs, formal semantics 37702
algorithmic synthesis of high level tests for data path designs 29183
analog combinatorics and cellular automata 21639
ANN, digital neuron model, custom hardware design 29516
Apicius project, asynchronous logic/proc. archit. research 29125
application-specific array processors, conf., Venice (Oct. 1993) 36903
ASIC design cycle-time reduction methods 22581
asynchronous cct. design, space and timing factor quantification 29119
asynchronous design methodologies, overview 6142
asynchronous seq. logic ccts., SR-latches, scan design 6130
ATM framing, CRC byte 8712
ATPG algms., combinat. gate-level designs, backtracing 12421
automating verification by functional abstraction, syst. level 41503
automotive logic chips from high level synthesis, FFT/Viterbi IC design 21291
behavioural synthesis, scheduling problem, Hopfield network 37604
BiCMOS logic ccts., fault anal. and DFT *(Korean)* 39023

logic design continued
bit-serial systolic array for DSP, reconfigurable arith. operators 29255
bitonic sorting optoelectronic recirculating archit. 22971
C-testable carry-free array divider, design 638
cell library improvement for automated logic synthesis tools 21289
cellular arrays realizing multiple-valued logic fns., design and fault diagnosis 6125
cellular-archit. FPGAs, routing-driven mapping 498
circuits systs., symp., Chicago, USA (May 1993) 31
clocked ratioed logic for sync. ccts. implement. in logic arrays 21179
CMAC neural nets, archit. design, hardware implement. 29468
CMEG, pre-RTL IC design methodology 28930
CMOS 16 bit multiplier, async. logic design techs. 21295
CMOS buffer design, split inherent-capacit. load model 29101
CMOS ccts., power consumption, cell library characts. 12488
CMOS checkers design, bridging/stuck-on faults testability 21239
CMOS logic, power consumption reduction tech. 37744
CMOS self-checking seq. ccts., bridging faults detect., DFT 617
CMOS tapered buffers, unified design methodology 29136
combinat. logic, practical method for high-level synthesis from VHDL 28964
combined folding/testing for PLAs 606
complex PLDs, archit. and design issues 29159
concurrent checking based strongly fail-safe interfaces 12440
concurrent-error detect. in high-speed carry-free dividers 597
constrained state assignment of easily testable FSMs 21275
controlled refl. design in high speed digital computers 21175
counter with bounded response time and bounded power dissipation, calculational derivation 37681
coverage of delay faults, 13% and 99% mean same 37748
current-mode multiple-valued PLA, reson. tunnelling transistor model 623
custom IC, conf., San Diego, CA, USA (May 1994) 20247
custom IC, conf., San Diego, USA (1993) 36842
D flip-flops, self checking/code disjoint, sync. cct. design 29120
data path synthesis for easy testability 12470
delay fault testability of combinat. ccts. 12469
delay-verifiable combinat. ccts. synthesis 21265
digital ccts., data struct., solve satisfiability problem 29131
digital CMOS ccts., power consumption minimization 37689
electronic syst. design automation 21077
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
event controlled asynchronous μP, design method eval. 29254
five-input adder with dual carry-out, appls. *(Chinese)* 12399
flip-flops configuring, BIST registers 6097
FPGA, CAD tools 6055
FPGA design for ASIC conversion 29160
FPGA routing by concurrent maze method *(Korean)* 37714
FPGA-based custom computers, DSP appl. archit. 29123
fuzzy controllers, FPGA implement. 6140
fuzzy PLAs design realizing fuzzy logic fns. 29104
gate-level design diagnosis, learning-based search strategy 12462
high level synthesis based on formal methods 28959
high speed CMOS output buffer, design aspects 37695
high-level DSP synthesis using concurrent transforms., scheduling, and allocation 21363
high-level modeling and design of asynchronous interface logic 29167
high-level synthesis, introduction 5947
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
KGPMAP, library-based technol.-mapping tech. for antifuse based FPGAs 598
large-scale asynchronous finite state machines, synthesis procedure 6131
lin. output space compression schemes, bounding error masking 12438
load-independent cell library macromodeling, waveform simul., CMOS logic 29143
low-power CMOS ULSI cct. techs., overview 39009
low-power digital ccts. based on adiabatic-switching 636
massive parallelism on a chip, dyn. logic 6121
MAX 9000 PLD family, dens. and package options 29163
microelectronic syst. archit./design, conf., Darmstadt (1992) 11535
micropipeline asynchronous digital logic design, systolic arrays, DSP appls. 29124
multi-bit parallel adder, symmetric signed-digit nos. 6065
multiple variable ternary seq. ccts. synthesis *(Chinese)* 29157
multiple-valued logic design of neural nets, CMOS implement. 6275
multiple-valued logic fns., logic synthesis and optim. 6058
multiple-valued logic in FPGAs, current-mode CMOS implement. 6137
multiplexer logic network design, spectral method 6059
neurochip core design, error BP on-chip learning capability *(Korean)* 37910
nonideal logical circuitry reasoning and spec. 37701
paired Haar based transform, algos. and logic design/test appls. 5734
parallel adder design, algo. implement. for high dens. codes 6063
Petri-net-based algms. for parallel-controller synthesis 601
PLA self-testing checkers for 1-out-of-n codes 21181
PLD, resources maximisation 21246
PLDs, developing bus-friendly inputs and I/O 29165
power constrained logic cct., optimized perform., single independent path anal. 21284
PowerPC 603 μP, array BIST 6164
prime implicants generation of logic fn., multilevel synthesis 5957
prog. logic design, multiplexers appl. 596
Prolog proc. design via VHDL-based methodology 12289
pseudorandom patterns, low lin. depend./equi-distrib. 12465
RAN^{2}SOM, reconfigurable neural network archit. 29471
random pattern testable ccts., automated logic synthesis 6073
random pattern testable floating point adders 12458
redundant divider design, DCFL GaAs and CMOS implement. comparison 29201
Reed-Muller generalised expressions, easily testable logic design 12452
reliable Boolean ccts. design that contain partially unreliable gates 12416
reversible instruction set archit. and algms. 6120
row-based placement, simulated annealing, hierarchical algm., MCNC benchmark ccts. 37708
scan-designed ccts., test time reduction, sliding compatibility 12472
Schmitt trigger ccts., adjustable hysteresis 29128
self-checking ccts. design, byte error detecting codes 12391
self-checking ccts. for unsystematic codes, design 646
self-checking combinat. logic design, weighted-output based approach 29153
self-checking interact. FSMs for multiple faults, design 6126
self-testing PLM design, lin. seq. machines 12413
self-timed adder with pipelined output, design, CMOS implement. 6064
self-timed floating point coprocessor prototyping, FPGAs 21288

logic design continued
self-timed logic ccts. 12406
self-timed ripple-carry adders, compiler changes for efficient operation 29121
simulation conf., Phoenix, USA (1995) 36829
SOLiT, reliable seq. ccts. automated synthesis, multilevel logic implement. 21229
SR-latch cct. using Hopfield neural networks, design 12432
sync. seq. cct., state assignment, genetic algms. 29134
sync. seq. ccts., fault coverage anal. 12439
sync. seq. ccts., state assignment for low power dissipation 29095
synchronous sequential ccts. design and synthesis for testability 29185
systolic array for finite elements 12404
ternary cellular arrays fault isolation, decision diags. appl. 12457
testability measures combining probablistic and sampling techniques 21205
thermal power plant start-up/shut-down proc. automation 4823
two-level logic minimization, overview 630
unate cct. fns., input encoding 12420
verification, universal test sets 12463
VLSI design, cct. representation, Boolean proc. 12461
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
VXIbus interface hardware, FPGA implementation/testing 42735
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
XC5000 FPGA family, archit. and design 29161
Xilinx XC4000 family of FPGA design, syst.-integrat., and develop. tools 605
ASICs, DFT tools and method selection 37684
GaAs MESFET high speed adder, multiple-output domino logic 29127
GaAs high speed IC design, buffered DCFL logic 29202
GaAs high speed cct. design/perform. estim., normally-off logic 29126
GaAs serial dyn./static divider for solid modelling accelerator 29129

logic device programming *see PLD programming*

logic devices
see also logic circuits; logic gates; programmable logic devices; threshold elements
100 Mips event controlled ALU for asynchronous μP 29122
all-opt. adder based on soliton interact. props., theoretical model 14557
CMOS IC, coupling characterisation, meas. techs. 15491
relays, digital control interface design 29641
GaAs multiple-tunnel jn., single-electron memory/logic ccts. 38942
$Si/Si_{1-x}Ge_x$ heterostruct. charge injection transistors and logic elements 22482

logic, formal *see formal logic*

logic gates
see also optical logic
1.5 V full-swing BiCMOS dyn. logic gate cct., LV BiCMOS VLSI 12424
A/D converter, neural-based, with CMOS inverters 29323
adders, parametric delay and area models 6066
adiabatic dyn. logic, CMOS logic family 29111
adiabatic dyn. logic family, CMOS implement. 29096
ANN for commun. systs. modeling/simul. 17246
B^{2}CMOS, bootstrapped BiCMOS gate for LV appls., HSPICE simul. 12477
BiCMOS logic gates, delay fault detect., DFT 29194
BiPMOS pull-down device struct., LV dyn. BiCMOS VLSI, device-level anal. 21285
bipolar ring oscillators using inverters, freq. tuning 567
ccts. constructed, mod$_q$ gates, compute "AND" in sublinear size 21283
cell library improvement for automated logic synthesis tools 21289
CMOS ccts., max. no. of switching gates, eval. *(Japanese)* 28978
CMOS IC, coupling characterisation, meas. techs. 15491
CMOS inverter, internal states, chaos generation *(Japanese)* 12407
CMOS inverter based chaos generator 649
CMOS logic, power consumption reduction tech. 37744
CMOS logic gate delay computation, slope considerations in probabilistic simul. 29115
CMOS logic gates, short-cct. power dissipation estim. 619
CMOS tapered buffers, unified design methodology 29136
CMOS twin-well inverter with load capacitance, AC and transient latchup 30463
CMOS VLSI logic ccts., reliab. prediction, estim. of the switching activity 29116
CMOS/SIMOX gate array, 1/4-micron-gate ultra-thin, dyn. perform. and leakage current characts. 22590
complex polynomials and cct. lower bounds for modular counting 21280
config. ratio, model for simulating CMOS intra-gate bridge, variable logic thresholds 39014
depth-two deterministic ccts., class ACC 21282
diamond MOSFETs on epitaxial thin films, fab., cct. appls. 22437
distributed logic simul., test environ. 12496
E/D-DCFL inverters, sub-1V, propag. delay 12415
free-space holographic parallel optoelectronic computer, 300-MHz optoelectronic counter 7429
fuzzy seq. cct., fuzzy flip-flop 621
generator employing CMOS inverter for cellular neural networks 21496
HBTs, open-base multi-emitter, logic fns. 38842
inverter ccts., single electron transistors, dyn. charact. 37737
JAWS supercond. logic gate, voltage-state study 622
latchup-free design in merged BiPMOS 6869
liq.-cryst. light valve, opt. parallel logic gates 1754
LRAP optimiser, combined logic resynthesis and placement 21052
monostable-bistable transit. logic elements, RTD/FET integrat. 21234
monostable-bistable transit. logic elements, RTD/FET integrat. 37735
monostable-bistable transit. logic elements, switching time 37736
multilevel logic optim., pseudo max. sets of permissible fns. 21204
multilevel logic optim. cct. activity driven, low power oper. 21201
multilevel synthesis, coherent optim. strategies 21203
multiple design error correction for combinat. ccts. and finite state machines 21177
nanomechanical helical latch, Boolean logic operations 6872
negation-limited cct. complexity of clique fns. 29173
negations needed to compute parity fns., NOT gates 29174
NEUDEM, neural network based ATPG for digital ccts. 648
NORA dyn. logic cct., technol. ,mapping algm. 21197
optoelectronic TOF all-opt. stored program digital computer design 1769
p inverted buried channel heterostruct. FET, complementary electronics, AC characterisation 38915
path-oriented algm. for cell selection problem 37705
path-oriented algm. for cell selection problem, logic gate networks 21255
perceptrons, PP, and polynomial hierarchy 21281

logic gates continued
power constrained logic cct., optimized perform., single independent path anal. 21284
quantum computers, two-bit gate design 6118
RC interconnect of CMOS logic gates, effective capacitance modeling 1495
Reed-Muller generalised expressions, easily testable logic design 12452
RESIST, recursive test pattern generation algm., path delay faults, test classes 613
RT-level transformations for gate-level testability 21188
scaled BJT in 0.35 μm high-dens. BiCMOS SRAM technol. 30486
SCFL inverters, anal. delay expression 37696
single-electron logic, tunnel-jn. load 37738
single-electron logic ccts., quasi-CMOS inverter simul. 37731
skew assumption logic simul. for pot. spike detect. 21164
soft morph. filtering, threshold decomp., anal. 32870
soft morph. filters threshold decomp. 2658
std.-cell VLSI cct. design, timing and area optim. 21256
technology decomposition using optimal alphabetic trees 21213
ultrafast all-opt. AND gate, four wave mixing in laser amp. 1758
AlAs/GaAs/AlAs RTDs, digital logic ccts. *(Korean)* 12427
$BaTiO_3$:Fe, beam fanning, edge enhancement, contrast reversal, logic operation 30822
GaAS DCFL logic gates, timing macromodel 37717
GaAs DCFL ccts., timing macromodels 37710
GaAs DCFL logic gate ccts., delay/transit. time macromodels 21261
GaAs high speed IC design, buffered DCFL logic 29202
SiC NMOS digital IC, logic gates 632

logic minimisation *see minimisation of switching nets*

logic partitioning
application specific syst. partitioning algm. 21198
ASIC row-based cell placement method utilizing cct. structural props. 37711
BIST design, partitioning techs. 21058
CAD conf., San Jose, CA, USA, Nov 1994 41
combinat. cct. delay fault testing, cube partitioning 21233
combinat. cct. path anal., partitioned struct. description fns. *(Japanese)* 6056
DA techs. for PLD and FPGA based systs. 12419
DCS, digital cct. high-level synthesizer *(Chinese)* 12385
defect efficient anal., simul. results 6093
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
dyn. repartitioning of parallel logic simulator 481
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
event-driven simul. scheduling cost reduction, clustering 21027
fast prototyping, FPGAs and logic emulators 21220
fault simul. of digital designs on parallel proc., distrib. algm. 37685
FPGA design, Mentor and Altera CAD software 6105
FPGA develop. tools and design complexity issues 6107
FPGA prototypes, package partitioning technol. 6114
FPGAs, technol. mapping, placement and global routing algm. 12431
global router, weighted Steiner tree-based, simultaneous length and dens. minimization 610
hardware/software co-synthesis, design representation 28962
high-level appls., layout-driven topol./functionality-based delay estim. 609
high-level synthesis syst. for automatic generation of pipelined datapath *(Korean)* 12386
hybrid DFT, scan and clock line control 6080
init. of seq. ccts. 6082
MCM, genetic algm. based cct. partitioner 38197
MCM, peripheral/area array bonding tradeoff, partitioning advisor 38182
min-cut replication in partitioned networks 12261
ML-Germinal, heuristic standard cell placement algm. 21038
module selection and scheduling using unrestricted libraries 21049
multilevel synthesis, coherent optim. strategies 21203
multiple-way partitioning, general-purpose iter. improvement algm. 612
multiway syst. partitioning under constraints, integer prog. 21042
Panda-Map, optimal perform.-directed logic mapping algm. for TLU-based FPGA *(Chinese)* 12397
parallelism for cct simul., tearing approach 21026
pipelined pseudo-exhaustive testing, simulated annealing, combinat. cct. partitioning 29113
pseudo-exhaustive testing, VLSI ccts., coord. cct. partitioning/test generation 21260
regularity extraction approach to scheduling and allocation 21051
row-based FPGAs, segmented routing channels, design and anal. 611
RT-level transformations for gate-level testability 21188
sequential logic, state space decomp. based optim. 21191
simul. compression by sampling *(Korean)* 12266
SOG arrays, min-cut placement, global objective fns. 37712
std.-cell VLSI cct. design, timing and area optim. 21256
std.-cell VLSI cct. design, timing/area optim. 37706
synchronous logic cct. restructuring, cct. decomp. tech. 21192
syst. level partitioning, adaptive method 28972
systolic array partitioning problem, scheduling scheme 28952
UPLD logic simul. for rapid prototyping 6115
VLSI bipolar cct. simul. techs. based on waveform relax. 38998
VLSI high level synthesis, optimal graph representations, instruction set tables 29109
VLSI placement, module clustering, fractal anal. 13842
wave-domino logic, theory and appls. 21278
GaAs ASIC set for deep space receiver 42336

logic programming
see also constraint handling; logic programming languages
CHIP lang. impl., large computer network optimal mgt. 24985
cryptographic protocol verification software 24071
ECXpert, event correl. in telecomms. 24917
high-level VLSI design spec. validation, algorithmic debugging 12390
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
IUE astron. satellite, coarse-grained scheduling 26522
mixed polarity Reed-Muller represent., technol. mapping 21162
protocol conformance test syst. using Petri nets, correctness of test logic programs 8765
protocol modeling/validation, symbolic simul., theory/appl. 2933
RF cavities, HV, conditioning, fuzzy logic/rule based prog. 18273
self-prog. opt. parallel logic 39510
telephony network real-time control, ES 24927

logic programming languages
see also PROLOG
CHIP lang. impl., large computer network optimal mgt. 24985
combinat. cct., hierarchical knowledge modelling *(Japanese)* 5970
Deep Sace Network, microwave controller software, higher order logic 42338

logic simulation *see circuit analysis computing; logic CAD*

logic testing
see also logic analysers
256Mb/1Gb DRAM develop. implications, Japanese semicond. indust. 11717
A, testable design of logic ccts. under highly observable condition 12456
AGOSTO framework, VLSI BIST wt. distrib. generation 30430
algorithmic synthesis of high level tests for data path designs 29183
aliasing computation, fault simul., fault dropping 21219
aliasing props. of circ. MISRs, comments/reply 21276
Alpha AXP 21164 μP, testability strategy 6160
architectural-level fault simulation using symbolic data 21207
ASIC test cost/strategy trade-offs 6070
ASICs defect isolation, scan-path testing/electron beam probing 21171
asynchronous seq. logic ccts., SR-latches, scan design 6130
at-speed ASIC testing, defect types 12396
at-speed testing in IC manufacture 1472
ATPG, efficient fault ordering 12448
ATPG, IC testing 3726
ATPG algms., combinat. gate-level designs, backtracing 12421
ATPG for heat dissipation minimization, test appl. 6856
ATPG for seq. ccts., genetic algms. 6075
ATS 93 test conf., China (Nov. 93) 36857
automatic verification of asynchronous ccts. 29166
AUTOTESCON 93, (Sept. 1993) 36845
B-algm. behavioral test generation algm. 6100
balance testing of logic circuits 29182
BDD-based algorithm for computation of exact fault detection probabilities 29178
behavioral logic test generation, mixed integer nonlin. prog. 6099
behavioural learning impact on sequential circuit test compilation 29184
Berger code self-testing checkers 595
BiCMOS logic ccts., fault anal. and DFT *(Korean)* 39023
BiCMOS logic gates, delay fault detect., DFT 29194
BIST design, partitioning techs. 21058
bit-slice archit. verification, time-space modal model 12467
boundary scan test blocks, integrat. in ASIC by students *(French)* 20330
bounding fault detection probabilities in combinational circuits 37733
C-testable carry-free array divider, design 638
C-testable design techs. for iter. logic arrays 29138
C-testable multipliers based on modified Booth algm. 12453
CA-based byte error-correcting code 29169
CACOP, random pattern testability analyzer 37730
CAD conf., San Jose, CA, USA, Nov 1994 41
cct. DFT *(Japanese)* 12425
cellular arrays realizing multiple-valued logic fns., design and fault diagnosis 6125
CHAN, CPA algm. for timing anal. 21046
circ. self-test path, fault coverage estim. 29175
circ. self-test path tech. for real ccts. 6098
CMOS 4007 devices flown on CRRES MEP expt., total dose correl. 12482
CMOS bridging fault diagnosis, inter-gate/intra-gate 13886
CMOS ccts., stuck-open faults, single test patterns 12490
CMOS checkers design, bridging/stuck-on faults testability 21239
CMOS chip set for pipeline and parallel pipeline FFT archits. 21357
CMOS devices testing, transm. line effects reduction 6091
CMOS IC fault modelling beyond stuck-at faults 631
CMOS iter. ccts., stuck-open faults modelling 12474
CMOS latches, metastability rel.to loading, power supply and scaling 13887
CMOS logic cct. fault anal., IDDQ testing tech. *(Korean)* 29197
CMOS logic ccts., built-in current testing, random patterns 21235
CMOS logic ccts., stuck-open fault detect. 12429
CMOS logic gates testing for realistic shorts 6083
CMOS self-checking seq. ccts., bridging faults detect., DFT 617
CMOS total self-checking design 22566
CMOS VLSI ccts., transient power supply current monitoring 21240
combinat. cct. delay fault testing, cube partitioning 21233
combinat. cct. path anal., partitioned struct. description fns. *(Japanese)* 6056
combinat. ccts., fault simul., primary output based *(Korean)* 21274
combinat. self-checking devices constr. 12417
combined folding/testing for PLAs 606
complex digital devices testing on 100 MHz tester 9796
concurrent checking based strongly fail-safe interfaces 12440
cumulative bal. testing of logic ccts. 29135
custom IC, conf., San Diego, USA (1993) 36842
D flip-flops, self checking/code disjoint, sync. cct. design 29120
D-type flip-flop, fast-transient suscept. 29098
D/A converters testing, BIST approach 12600
data path synthesis for easy testability 12470
DCVS logic, std. CMOS cell design for testable self-timed systs. 29203
defect classes, paradigm for CMOS IC testing 6858
defect efficient anal., simul. results 6093
delay fault coverage and test set size for combinat. ccts. 12402
delay fault propag. in sync. seq. ccts. 12437
delay fault testability of combinat. ccts. 12469
delay faults detect. starting from functional description of seq. cct. 29151
delay test for boundary-scan based archits. *(Korean)* 21272
delay-verifiable combinat. ccts. synthesis 21265
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
design automation and ASIC design, conf., Paris (1993) 20199
design verification, universal test sets 12463
DFT, full/boundary scan, economics 11676
diagnostic fault simul. for seq. ccts. 12445
differential split-level CMOS cct. testing 624
digital ccts., data struct., solve satisfiability problem 29131
digital schemes testing, pseudorandom codes, transformers synthesis 29193
digital test system extension to Gbps range 25720
distributed logic simul., test environ. 12496
dual IEEE 1149.1 compliant multi-chip modules 6462
ECL LSI design and test experience in supercomputer develop. 21221
efficient procedure, two-level optim. based 12445
embedded RAM, fault simul. algms. 12434
ENSERG, IC design training for electronic engineers *(French)* 20332

logic testing continued
EXOP, Extended Operation, logical fault model for digital ccts. 29176
Fastpath path-delay test generator for scan designs 6071
fault detect. in multiprocessor systs. and array proc. 29170
fault injection boundary scan design, fault tolerance verification 5594
fault tolerant finite state machines, synthesis tool 29186
fault trees, problems and state of art 470
fieldbus commun. controller chips 6169
finite state machines, testable synthesis and testing 12468
fixed-biased pseudorandom BIST for random pattern ccts. 6096
flexible sequencer archit. for serial test card 21232
flip-flops configuring, BIST registers 6097
floating-point systolic array PE, serial commun./BIST 21356
FPGA SEU hardening for space appls. and device charactn. 12478
FPGA-synthesis benchmarking 634
functional approach, efficient fault detect. in iter. logic arrays 6122
functional timing analysis using ATPG 21166
gate array embedded RAM test, flag-scan register 6057
gate-level, realistic faults in digital ICs 6092
gate-level design diagnosis, learning-based search strategy 12462
gate-level transient fault simulation environment 29179
GATTO, intell. tool for ATPG for digital ccts. 608
genetic algm. based test generation for logic ccts. 12446
GLFSR test pattern generator for BIST 6085
global test schedules assembling, unified method 12464
goal-directed vector generation, sample ICs 6094
guided-probe fault location method for seq. ccts. 29105
hardware for testability adding in synthesised data paths 21187
hardware reduction, fuzzy multiple signature anal. 29168
hazard anal. of struct. seq. systs. 37726
hierarchical environ. for interactive test engng. 6821
hierarchical test generation for VHDL behavioral models 21190
hierarchical VLSI logic ccts., crosstalk fault detect. 12454
hierarchy use in logic cct. fault simulation 21206
high level testability anal. using VHDL descriptions 21189
high speed DRAMs testing 6145
high speed logic ccts., crosstalk, printed patterns 21637
hybrid DFT, scan and clock line control 6080
hybrid fault simulator for sync. seq. ccts. 6089
HyHOPE fast fault simulator hypertrophic faults simul. 21253
I_{DDQ} built-in concurrent test for interconnects 6463
I_{DDQ} subset selection algms. for bridging faults 6084
I_{DDQ} yield loss problems, economic issues 6860
IDDQ testing on CMOS custom automotive IC 30451
IEEE P1149.5 bus standard VHDL synthesis approach 42701
IEEE/ACM conf. on CAD, Santa Clara, CA, USA, 1993 36906
init. of seq. ccts. 6082
interacting finite state machine design with self-checking capability 29188
International Test Conf., Washington, DC (Oct. 1994) 61
iRULE, fast hot-carrier reliab. diagnosis using macro-models, MOS digital logic 29114
ITC test conference, USA (1993) 36853
JTAG boundary scan test std. for improved on-board prog. 603
k-bounded combinat. ccts., fault detect. method *(Korean)* 12410
KGPMAP, library-based technol.-mapping tech. for antifuse based FPGAs 598
layout driven test generation for CMOS combinat. ccts. 6863
LFSR pattern generators, unmatched, pseudorandom testing 21194
LFSR test pattern generators, lin. dependencies avoidance 37740
LFSROM BIST, basics and appl. 21193
lin. output space compression schemes, bounding error masking 12438
LSSD scan ring and STUMPS channel test and diagnosis 29140
march tests automatic generation for memories 6154
max. value determ. cct. for binary nos. 12483
MC68060 μP testability 6161
microelectronic syst. archit./design, conf., Darmstadt (1992) 11535
min. test sets for locally exhaustive testing 12466
mixed scannable/non-scannable device boards, boundary scan testing 20395
model based diagnostic systs., pitfalls 34380
multi-freq., multi-phase scan chain 6078
multiple fault diagnosis of combinat. ccts., efficiency improvements 12444
multiple fault test generation, efficient techs. 12441
multiple obs. time single ref. test generation, sync. seq 21209
multiple signature anal. compaction testing, quasi-optimal scheduling 21243
multiple stuck-at fault test generation for combinat. ccts. 644
multiple-line redundant combinat. ccts., anal. 6129
multiple-output ccts., efficient test response compression 6087
multiple-polynomial LFSR, BIT 21266
multiple-valued PLAs, fault model and equivalences 607
NAND trees, board-level pin faults diagnosis 6402
NEUDEM, neural network based ATPG for digital ccts. 648
nonuniform fault coverage and fault probab. 5707
nonvolatile prog. devices and in-cct. test 6095
nuc. reactor digital ccts., automatic testing pattern generation 4770
observability environ., seq. test generation 12449
operational test release vectors, verification approaches 17668
optimal scheme of parallel proc. for test generation in distributed syst. 29172
paired Haar based transform, algos. and logic design/test appls. 5734
parallel eval. algm. for fast fault simul. *(Korean)* 21271
parallel feedback-based scheme for BIST 12395
parallel pattern fast fault simul., three-state ccts. 6088
parallel-pattern/multiple-fault-propag. concurrent fault simul. 12435
partial reset DFT method 21186
partial scan algm. based on reduced scan shift 12473
partial scan designs for DSP appls., behavioral synthesis 29190
path delay testing in std. scan environ. 6072
PCB testing, multi-strategy tester, boundary scan test addition 38120
permanent fault detect. in sequential ccts. 21269
permanent hardware faults of floating point adder 37605
pipelined pseudo-exhaustive testing, simulated annealing, combinat. cct. partitioning 29113
PLA self-checking cct., automatic generation algm., parity codes 21185
PLA self-testing checkers for 1-out-of-n codes 21181
power dissipation minimisation in scan test ccts. 12471
PowerPC 603 μP, array BIST 6164
PowerPC 603 μP, struct. and ad-hoc design for test 6163
probabilistic measured for test pattern generation algorithm acceleration 42722
prog. space compactors selection for BIST 12459
program requirements conversion into test program sets 42692

logic testing continued
programmable space compaction for built-in self testing 29181
protocol-driven scan test design rule checker 6103
pseudo-exhaustive testing, VLSI ccts., coord. cct. partitioning/test generation 21260
pseudorandom patterns, low lin. depend./equi-distrib. 12465
PWBs, electronic modules, laser-based noncontact testing 29650
radiation effects Data Workshop, Snowbird, UT, USA (1993) 36859
random pattern testable ccts., automated logic synthesis 6073
random pattern testing, fault coverage and test length estim. 21267
random testing, num. wt. optim. 21161
real time electro-optic probing for long logic pattern anal. 34649
reduced scan shift, testing method for seq. ccts. 6090
redundant fault ident., test generation appl. 12442
redundant faults in combinat. ccts., test generation 12447
redundant/undetectable faults testing in synchronous sequential ccts. 29180
Reed-Muller generalised expressions, easily testable logic design 12452
residual charge on faulty floating gate CMOS transistor 6859
RESIST, recursive test pattern generation algm., path delay faults, test classes 613
RSFQ pseudo random generator, possible appls. 602
RT-level transformations for gate-level testability 21188
scan chain faults, diagnosis syst. 640
scan designed cct., test time reduction 21208
scan designed logic ccts. under logic value constraints, test pattern generation *(Korean)* 12408
scan testing accel. in IEEE 1149.1 archits. 6077
scan-designed ccts., test time reduction, sliding compatibility 12472
scan-designed ccts., test time reduction by sliding compatibility 21228
scan-designed seq. ccts., test clock reduction 6079
scanned seq. ccts., global strategy for design and test 28976
self-checking ccts. design, byte error detecting codes 12391
self-checking ccts. for unsystematic codes, design 646
self-checking ccts. with combinat. logic, fail-safe eval. 37741
self-checking combinat. logic design, weighted-output based approach 29153
self-testing PLM design, lin. seq. machines 12413
self-timed ccts., self-checking combinat. logic and seq. machines 37739
semi-deterministic fault-independ. test gen., ATPG perform. impact 21182
seq. cct. simul. by hybrid cellular automata 12493
seq. cct. testing, reduced scan shift method 12430
seq. ccts., distributed ATPG 12291
seq. ccts., test generation, parallel fault simul. *(Japanese)* 12426
seq. ccts. with embedded RAMs, test generation 12434
seq. logic ccts., SR-latches, scan design 6130
shortest signature analyzer 12418
signature anal. for RAM BIST, aliasing-free 6148
simul.-based proc. verification, automatic program generator 17663
single bridging faults diagnosis in CMOS combinat. ccts. 13883
single test point insertion, testability anal. 5954
SOG-based RISC pro. tested for failsafe appl. 21344
SOPRANO, ATPG for stuck-open faults in CMOS combin. ccts. 21225
split-level charge recovery logic ccts., stuck faults 21237
spurious sigs. detectability in combinat. ccts. 12455
ST9 8-bit Microcontroller testing 29281
state space decomp. based optim. 21191
stuck faults modelling in CMOS nonthreshold combinat. ccts. 21270
stuck-at fault simul. 12443
surface mount PLD, prog. and testing 37699
switch-level test generation, sync. and asynchronous ccts. 21242
symbolic ATPG for large ccts. 6101
sync. seq. ccts., fault coverage anal. 12439
sync. seq. ccts., fault simul. 21268
sync. seq. ccts., multi-bit-paths for testing 21241
sync. seq. ccts. testability 6104
synchronous sequential ccts. design and synthesis for testability 29185
Tandem Computers test strategies, HALT/ESS 9800
technol. mapping, testability considerations 12451
test generation for path delay faults, binary decision diags. 29171
test synthesis, data transfer anal. based behavioral description 29198
testability measure approx. algms. 12392
testability measures combining probablistic and sampling techniques 21205
testable designs synthesis, behavioural specs. transform. 6074
testset-generation, test vector constraints 3725
tight lower bounds on detect. probabilities of single faults, internal sig. lines 6123
timing extraction/control, scan-based, test-access ports 6081
transient transit. count testing, fault detect. 12436
transparent memory testing for pattern sensitive faults 6153
tree circuits testing 29177
TTL combinat. ccts., random test input generation 12450
two-pattern testing, test pattern generation ccts. eval. 12460
TX2, 32-bit μP, efficient testable designs 21350
undergraduate digital design courses using PLD 28346
untestable faults ident. without search 6076
VERTEX program, sync. sequential cct. verification 21033
VLSI ccts., hierarchical test anal., random BIST 37694
VLSI regular arrays, test strategy 37686
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
VLSI test, current tester archit. and trends 6139
VXIbus interface hardware, FPGA implementation/testing 42735
weighted random pattern generation syst. design 6086
weighted random sequence synthesis, sequential cct. testing 21195
ASICs, DFT tools and method selection 37684
GaAs ASIC set for deep space receiver 42336
GaAs HMESFET SBFL based F-RISC/I microproc. 37802
GaAs digital foundry, process, perform., reliab. charactn. 38958
GaAs dyn. logic, SEU study 12479
GaAs implement., systolic floating point proc. element 29253

logistics data processing
cost effective logistic support for electronic assemblies 43593
prod. logistics, cost reduction appls. *(Italian)* 98
QC methodologies in data item description process 37001
two level maintenance environment/data collection 42742

long tailed pair *see differential amplifiers*

lookup tables *see table lookup*

loop antennas
2D axisymm. inhomog. medium inversion, distorted Born iterative method 23567
aperture-coupled printed wire antenna full-wave anal. 23840

loop antennas continued
- base station antennas, evol. 2321
- circ. loop antenna, radiated emissions, finite ground plane effect 8046
- circ.-polarized annular microstrip antenna, tuning stub anal. *(Japanese)* 40522
- combined lin. and loop antennas 15617
- eccentric annular microstrip antenna, reson. freqs. 8053
- elliptical annular microstrip antenna full Mathieu formulation 23929
- EM emission from PCB sig. line, peak freq. prediction 38073
- EMI meas., std. antennas calib. 7991
- ferrite-based annular ring microstrip antenna, radiation efficiency in plasma 8047
- HF hand-held narrow-aperture direction finder 3641
- HF loop antenna, practical design and constr. 31953
- HF radio sigs., adaptive proc., receiving antennas 40773
- HF rem. low-power transmitters, single station location 34193
- IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
- Ku-band planar array using ring shaped patch antenna 23982
- metallic enclosure model source, EM emission estim. by inverse-forward anal. 40374
- omni-directional sensitivity mag. field sens. 3790
- PCB, sig. line EM emission, spectral profile simul. 23669
- pers. wireless commun., antennas charactn. 17129
- probe-fed cylindrical annular-ring microstrip antenna characts. 23890
- short gap discharges, meas. of fast transient fields 42882
- shorted annular patch antenna 40472
- spherical array excitation currents, far-field synthesis 31973
- spherical-annular microstrip antenna generalised transm. line model 23928
- superquadratic loop antenna circuits for mobile commun. 23867
- TEM cell, field strength meters calib./antenna factors 25937
- two-wire Archimedean spiral antenna with parasitic loop and reflector 23869
- VHF HTS thick-film loop antenna/two-element array 40495

Loran C *see radionavigation*

Lorenz number
- vapour compression heat pumps/refrigerators, perf. calcs. 20145
- HgSe:Fe crysts., inelastic electron scatt. 1047

Loschmidt number *see constants*

loss angle *see dielectric losses*

loss angle, dielectric *see dielectric losses*

loss-angle measurement
- nonradiating metal-dielec. waveguide, dielec. params. meas. 18033
- plates, permitt./tan δ meas., dielec. loaded cavity resonator in UHF band *(Japanese)* 25951

loss measurement
- *see also dielectric loss measurement; optical loss measurement*
- 1.9 GHz band indoor radio propag. meas. and empirical models 33786
- 864 to 868 MHz portable telephone indoor propag. loss anal. 33776
- 880 and 1922 MHz radiowave building penetration obs. 31821
- 900 and 1800 MHz microcell radiowave propag. comparison 31826
- 900 MHz buildings penetration loss 31841
- 905 MHz radio propag. in an office, metal low-partitions effect 31830
- 946 MHz office-complex mobile radio channel meas. and modelling 33790
- act.-R oscillator based meas. tech. of capacit./loss factors 42891
- atten. in plated coaxial transm. line 34316
- C-band linearly tapered slot antenna on Si substr. 23908
- Cassini FSS, develop. 15651
- EMI filters, bal./unbalanced charact. meas., S-params. 23718
- HF iron loss measur., vector spectrum method 3958
- indoor pico-cell radio syst., spectrum requirements 25339
- induction motor core losses meas., static power convertor-based 19620
- microcells, 912/1920/5990 MHz radio propag., buildings 31829
- microcellular propag. for PCN networks, review 31837
- MM-wave indoor LAN syst., min. delay spread 41752
- office building, propag. charact. meas./freq. reuse 9322
- pers. commun., CW meas. in residential environ. 31831
- planar transm. line atten. meas. tech. 18025
- Pointel portable phone, indoor environ., power loss models 9261
- pole transformers/induction motors, harmonic losses meas. 5029
- power IBGT module perform. testing, low inductance cct. 29009
- power transformer/shunt reactor loss meas., direct method 19692
- RF prediction tool selection, microcells/PCS modeling 31832
- soft mag. material wound cores, energetic behavior meas. 14108
- telecomm. systs., transfer charact., test sig. appl. 16562
- virtual instrums., RF transm. line testing addit. 35397

loss tangent, dielectric *see dielectric losses*

losses
- *see also dielectric losses; eddy current losses; heat losses; magnetic leakage; optical losses*
- 1.9 kW ZVS PWM phase switched DC/DC converter 44193
- 2-stage Stirling cycle cryogenic cooler, IR detector cooling 28037
- 2D ferrite-loaded cavity-backed slot antenna scatt. 31920
- 3.3 V DC/DC conversion, optimised sync. rectification 6003
- 3-level GTO inverters, overvoltage clamping, cct. design 44183
- 3-phase power transm. lines, corona losses 19307
- 3-phase unbalanced loads, PF meas. *(Russian)* 43804
- 5BDSR nanocrystalline amorph. mag. alloy, EM characts. determ. 30659
- 15 kW DC/DC IGBT ZVS reson. power converter 5080
- 70 A telecom. rectifier, high efficiency 12337
- 75 A second generation P-MCT, characts. 22393
- 150 W multi-reson. DC/DC converter, high efficiency 44138
- 220 kV power syst. protection misoperation, traction harmonics-based *(Chinese)* 43609
- 500 kJ capacitor bank, electrothermal gun appl. 31760
- 500-1150 kV overhead lines, corona loss calc., probab. method *(Russian)* 27231
- AC power line corona loss, charge simul. calc. method 19289
- AC rly., autotransformer feeding cct., harmonic reson. *(Japanese)* 11408
- AC/DC PWM power convertor, quasi-optimal control 44165
- AC/DC/reluctance motors, torque prod., unified theory 4930
- AT-cut quartz crysts., high-temp. acoustic loss 34476
- ATM cell loss priority tagging leaky-bucket usage param. control perform. 41411
- ATM network policing mechanism with state-depend. control 41430
- ATM network source traffic priority shaping fn. 41551
- ATM node buffer allocation algm. for correl. arrivals 41478
- ATM self-routing bridged shuffle-exchange network 41414
- ATM switch bursty and correl. mean delay and cell loss probab. 41410
- ATM traffic connection admission control, stream correl. effect 41428

losses continued
- automobiles, elec. distrib. syst. archits. 20115
- bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
- boost converter surge suppression, act. filter 11154
- broadband CPW-coplanar strip-fed spiral antenna 15643
- broadband network fair-efficient call admission control policies 41426
- broadband network grade-of-service achievability conservation laws 41476
- buck and boost DC-DC PWM convertor anal. 11184
- cage induction motor, slanted stator/rotor teeth effect on torque 36170
- capacitor storage, programmed discharge 36630
- capacitor-run induction motors, single-phase, lumped param. model 4972
- CDMA no.-/coherent-state opt. systs., perform. 34027
- cellular syst. traffic perform. with mixed platform types and queued handoffs 33808
- central office building power distrib., loop voltage drop optim. 43748
- circ. groove guide for short mm- and submm-waves 21508
- circ. polarised rect. dielec. resonator antenna 31948
- circ. waveguide-to-microstrip transit. 21507
- class D and class E rectifiers, efficiency comparison 5993
- conductor losses calc. in microstrip and coplanar struct. 15574
- core selection optimisation in transformer designs, Basic program 27787
- coupled noise predictors for lossy interconnects 5639
- D1900 micro cell indoor/outdoor appls. 25435
- Darlington transistor inverter, 99.3% efficiency 19743
- DC/AC PWM power convertor, quasi-optimal control 44165
- DC/DC PWM reson. power converter topol., pulse load appls. 11172
- diaphragm defined Stirling refrigerator 28021
- dielec. materials props. determ., coaxial cavity syst. 18029
- digital TV image wavelet transform coding and sync. loss recovery 42584
- discontinuous current mode series-parallel reson. converter 37623
- distrib. network, real time service restoration 4647
- distrib. network loss minimization re-config., genetic algm.-based *(Japanese)* 43746
- distrib. network loss reduction, syst. reconfig. 10728
- double trench IGBT, struct. and anal. 38898
- dual-band rect. microstrip antenna element 31937
- elec. machine, brush friction coeff., current/temp. influence *(Croatian)* 4890
- elec. utility distributed resources planning, optimum location 10692
- elec. vehicle drive chain power consumption model 11412
- elec. vehicle propulsion inverter, power electronics design 44485
- elec. vehicles, high current power modules, SiCAl packaging 20116
- EMI filters, dyn. prediction of insertion loss 23661
- emitter-controlled punch-through, fast switching PIN-diode soft recovery 30218
- even harmonic reson. class E tuned power amp. without RF choke *(Japanese)* 37646
- faulty cable line, capacitive energy discharge, power distrib. 27292
- flyback converters, soft switching, act. clamp cct. 6004
- flyback PWM power convertor, nondissipative snubber optimal design 19709
- flyback ZVS PWM power converter-nondissipative snubber calcs. 5047
- fourth-order DC/DC power converters, limited duty cycle range 19792
- freq.-independent cct. model of conductor under surge conditions 31878
- fuel gas reciprocating compressors, power generation appls. 35964
- full-bridge PWM DC/DC soft-switching power converter 19791
- grid ferrite EM wave absorber, charact. 14216
- GTD based UHF propag. prediction model 15447
- GTO invertors, energy recovery snubber cct. 5085
- GTO thyristor snubberless turn-off, avalanche proc., gate drive influence 30266
- gyrotron TWA, stabilization of absol. instabilities 21855
- half-bridge bidirectional DC-DC converters anal. 6006
- HF power conversion, reson. and PWM soft-switching techs. 11180
- HF reson. DC link PWM inverter 19878
- HF transformers, centre-tapped, loss eval., unbalanced loads 29618
- high current IGBT switching modules, dyn. perform. eval. 30316
- high efficiency forward converter topologies 6001
- high efficiency reson. converter based on MCT 19730
- high-power controlled reactors, EM proc. 11099
- high-Q piezoelec. materials and BAW/SAW resonator devices, advances 39046
- HV appls. of IGBT or MCT in conjunction with diode, limits 30338
- HV IGBT, self aligned proc., double implanted n/n^+-emitter 30339
- hydroelectric generator, winding I^2R losses, harmonic interf. 43986
- hydrothermal power syst., real/reactive power economic dispatch *(Chinese)* 10632
- IGBT power module gate drive considerations 37632
- IGBT switching losses, hard switching, ZVS, ZCS 6757
- IGBT used in ZCS mode, turn-off anal. 30332
- image compression, lossless, hybrid fractal-LZW encoding tech. 16346
- indoor 900 MHz-18 GHz penetration loss 9310
- induction machine harmonic rotor current/loss symm. calcs. 36169
- induction machine vector control, iron core loss considerations 4955
- induction machines, saturated, deep bar effect, transient models, simul. 19634
- induction motor core losses prediction, rot. iron loss data 4970
- induction motor drive, indirect rotor control, iron core loss 20070
- induction motor drive, PWM inverter fed, power losses calc. 28060
- induction motor drives, DC link soft-switching inverters 11374
- induction motor drives, vector controlled, iron loss effects 5280
- induction motor/transformer economics teaching, software package 27725
- induction motors, artificial loading condition impedance calcs. *(Russian)* 44034
- induction motors, cut lamination stators, core anal. 11022
- induction motors, field accel. controlled, energetic efficiency 11036
- induction motors, field oriented controller, iron losses influence 44054
- induction motors, nonsinusoidal supply-fed, additional loss calcs. 27737
- induction motors, two rotor ccts., reduced order models 11054
- induction servomotor drive control studies *(French)* 11335
- induction stove, hybrid reson. converter 5390
- indust. energy/exergy anals., Turkey 20153
- isolated high power boost topol., transformer models 19745
- Ku-band waveguide cross guide directional coupler *(Korean)* 29541
- ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
- large-scale packet switch interconnection archit. using overflow switches 41416
- layered anisotropic media planar transm. lines, characts. anal. 23796
- LIM perform., design params. influence 27756
- lin. microstrip array, printed leaky-wave implement. 8066
- local power syst., VAr benefits optimisation *(Chinese)* 43642

losses continued
  low-loss splitter 3317
  low-profile circ. disk DR antenna, characts. 31947
  low-temp. cofired ceramic, struct.-property rels. 28871
  LV distrib. networks, computer optimised planning 27177
  M-ary PSK single-sample symbol sync. algms. 40562
  mag. core hysteresis losses modelling, computer-based 14254
  magnetless voice coil motor, driving characts. *(Japanese)* 44088
  Markov modulated Poisson stream loaded multiplexer loss probab. estim. 41483
  matrix converter, low loss, input filter design 5132
  MCT converter, snubber efffect, switching loss, EMI reduction 6017
  metropolitan power systs., supercond. cable losses simul. *(Japanese)* 27216
  MF power transformers, amorph. metal core studies 5015
  microstrip fed slot antennas, approx. model 2325
  microstrip step discontinuity, fractional dissipated power 856
  microstrip struct., surface impedance, conductor losses modelling 29522
  microwave heating, PWM flyback converter, nondissipative snubber 11479
  microwave MCMs, low temp. cofired ceramic 29728
  microwave propag. model for (sub)urban macro celluar coverage prediction 33777
  microwave waveguide filter charact., random mfg. errors effects 29534
  miniaturised MMIC amps., thin dielec. layers 29586
  motor-driven external-injection fans, noise/power reduction tests 28178
  MPEG compressed video, picture-header loss, error concealment strategy 16073
  multibeam satellite prioritised nonblocking switch perform. under hotspot traffic 41412
  multicast ATM switch copy network shared-buffer archit. 41417
  multiple-output DC/DC power converters, stacked secondary anal. 19793
  muzzle-fed railguns, EM/thermal anal. 15345
  optimum generation schedule, transm. loss formula 10796
  parallel two-wire line covered with three-layer media, anal. 15570
  Pb-acid batt., cold-start perform. 11257
  PC transm. lines, criterion of leakage, comments 12883
  PM, mag. field/irreversible demagnetisation loss calcs. 30750
  PM brushless drives, integrated CAD syst. 11344
  PM DC motor, power efficiency 44063
  PM machines, irreversible demagnetization loss calcs. 36098
  PM sync. motors, digital controller, Park model 10992
  PM sync. motors, vector control, stator iron loss *(Japanese)* 27687
  polymer-based travelling-wave electro-optic modulator, props. 14525
  power line loss eval., load unbalance 43729
  power MOSFET/IGBT optimal driver ccts. 29040
  power syst., MW/MVAr/MVA margins approx., energy measures 19015
  power syst. economic distrib. planning, computer-based *(Russian)* 10691
  power syst. voltage collapse index, reactive power loss sensitivity *(Korean)* 26846
  power syst. voltage/reactive power control, coupling-transformers *(Chinese)* 27035
  power systs. education, distrib. feeder power quality calcs. 20348
  power thyristor inverse recovery voltage calcs. 30265
  power transm. line, radiated transient EM field calc. 4678
  pulsed power multistage mag. compressors, switch loss minimisation *(Russian)* 44209
  pulsed power switch energy loss studies 36303
  pumped storage operation, economic assess., spot pricing 27618
  PV arrays, mismatch losses effects on max. output power 44399
  PV arrays, mismatch losses model 11300
  PV arrays, mismatch power loss anal./control 44405
  PV power systs., energy losses, batt. voltage regulator 36061
  PV systs., energy losses, batt. voltage regulator 10889
  PV systs. sizing, load matching, short-term energy storage 4870
  PWM CSI DC link notching cct., switching loss reduction 44180
  PWM inverter-mounted induction motor, design 5306
  PWM invertors, additional zero-seq. harmonics techs. 44163
  pyramid EM wave absorber approx. model, TE wave appl. *(Japanese)* 40334
  quasi-opt. ferrite refl. circulator 12719
  quasi-sq. parallel reson. power converter 5046
  quaternary partial response CPM digital transm. syst. 40557
  radar syst. sensitivity, tropos. thermal lens effect 34122
  radial distrib. networks, optimal capacitor selection search method 19264
  radial distrib. syst., fixed/SC, optimal choice 19240
  railguns, channel segmentation, efficiency, MHD aspects 15272
  railguns, optim., efficiency improvement 15306
  real-time power syst. operations, loss minimization fn. 10629
  rectangular microstrip patch radiation and loss anal. 23838
  reson. DC link IGBT ZVS invertors, optimal design 36342
  reson. DC link inverters, sine PWM control 5999
  reson. link inverter topologies, UPS appls. 44206
  rly. traction transformers, asymmetry/harmonic/fluct. loss calcs. *(Chinese)* 44564
  sealed motors, sleeve losses calc. studies 10945
  second generation P-MCT, characts./operation 30269
  self-excited forward DC-DC PWM ZVS power converter 36241
  single phase AC/DC converter, PF correction, reduced losses 44182
  single phase quasi-reson. rectifier, unity PF 44146
  SIT, 2D transient temp. eval. 1443
  SIT elec./thermal behaviour, 2D simul. 30372
  small bore plasma armature rail launcher, high current densities 15263
  SMPS filter inductors, low loss windings design 36326
  snubberless IGBT PWM-VSI inverterbridge, design/test 19728
  soft mag. material wound cores, energetic behavior meas. 14108
  soft-switching insulated gate devices, power losses, comparative investig. 30331
  Space Station Freedom, solar array elec. perform. environ. effects 26642
  Space Station Freedom solar cell dynamics, SPICE modelling 26584
  spacecraft radioisotope AMTEC power syst. 18758
  spacecraft solar array size optim. efforts, UK 26686
  spherical rot. joint, MM-wave freqs. 37942
  squirrel cage drives, IGBT inverters, audible noise, losses 5308
  SRM, optimal operation, choppingless excitation *(English)* 27684
  SRM drive, converter topol., efficiency, control 11372
  super circ. MLC networks, design, develop., and qualification 6365
  superconducting microstripline atten. and propag. const. calc. 31896
  switchable lin./circ. pol. ferrite disk resonator antenna 23861
  switched reluctance motor, phase current, loss, model *(French)* 44029
  switched-mode DC-DC converters for high-power appls. 11181
  sync. machines, power converter-fed, harmonic conditions anal. 27698
  sync. reluctance drive technol., theoretical overview 44473

losses continued
  thermionic converters, 1D universal TOR model 28032
  thick film HTSC paste, microelectronics technol. appl. 22725
  thin-strip capacitive nets, review 458
  three-level PWM motor inverters, harmonic loss calcs. 44175
  three-phase power conductor arrangements, short cct. losses 35645
  three-phase PWM boost rectifiers 11159
  three-phase PWM GTO invertor, design, constr. 5090
  time domain transm. line method, radiation losses 15550
  time-domain EM plane waves in static and dyn. conducting media 31784
  time-domain TLM anal., wideband absorbing boundary conditions 15613
  TLM and hybrid symm. condensed nodes, direct derivation 15552
  traction reson. DC link inverters, soft/hard switching methods 44568
  transformer and induction motor losses cost anal. interactive software package 28333
  transformer temp. rise anal., harmonic voltage propag./penetration 5020
  transient plane wave coupling, bare/insulated cables in lossy half-space 31869
  turbogenerator stator end core zone, EM procs. anal. *(Russian)* 36107
  TW microwave power divider, waveguide type, design 12711
  two-pole arc model for elec. fuses *(German)* 29649
  ubitron, amp. operation and perform. 39620
  UPS, IGBT/intell. power module based *(Japanese)* 5040
  urban distrib. systs. operational structuring, reliab. aspects 43753
  VHF radar sea scatter and propag., grazing angles less than 1° 42518
  video streams, encoded, efficient transm. on high-speed networks, frame-induced packet discarding 16911
  Ward-Leonard drive, digital control, roughing mill appl. 44624
  ZVS-PWM full bridge DC/DC converter, losses, appl. 5089
  AlGaAs/InGaAs HEMT monolithic mixers, single/double bal. 29585
  $(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$ multifilamentary tapes, Ag-sheathed, AC losses 39217
  Cu/polyimide MCM, embedded microstrip transm. line sig. characts. 6465
  Fe-polymer composite absorber chip for RF EMI filtering 37834
  H^- ion source, large vol., hybrid multicusp design 43048
  He-Cs nonequilibrium constant area MHD generator 20017
  $La_3Ga_5SiO_{14}$ acoustic wave atten. meas., HBAR tech. 35362
  Nb_3Sn supercond. wire/generator R&D, Japan *(Japanese)* 19303
  PbO tubular electrodes, discharge behaviour, Pb-acid batt. 44281
  Si solar cells, efficiency improvement, conc. radiation 11286
  Y-Ba-Cu-O microstrip resonators on sapphire substrs., microwave losses 37995
  $YBa_2Cu_3O_7$ HTSC thin films, microwave pass. devices 30766
  YBaCuO:Ag films on sapphire, microwave surface resist./residual losses 39236
  $YBa_2Cu_3O_7SrTiO_3$ CPW, elec. controlled 803
  ZnO films on InP substrs., SAW device fab. 39121

LOTOS *see specification languages*

loudness
  see also acoustic intensity measurement
  ZIPI Music Parameter Description Language 25694

loudspeakers
  acoustic bridge vol. meter *(Japanese)* 18159
  acoustic display systs., environ. sounds synthesis *(Japanese)* 34647
  audio power amps. for loudspeaker loads 558
  audio-mirror speaker syst., corn-shaped, polar response *(Japanese)* 17611
  binaural recording playback through loudspeakers, room impulse response 34296
  diaphragm, acting acoustic radiation impedance calc. 26787
  equalisation of loudspeaker-room interact., DSP 3694
  horn loudspeakers, directivity calc. 25691
  mag. core, mag. field optimal shape design *(Polish)* 22706
  microphone array, talker radiation pattern meas. 34283
  neural network based syst., speaker testing 9768
  placement effect on listener preference ratings 3691
  preference rating variability reduction, digital equalisation 3695
  speech recogn. in a car, microphone posn. importance 32312
  timbre perception, small room, loudspeaker posn. effect 25690
  transaural stereo, develop. 15995
  wooden loudspeakers in artificial reverberation syst., acoustical props. 18925

Love waves
  seafloor geotechnical/geoacoustic props. meas., tools 4404
  a-FeB mulilayer magneto-SAW devices, phase controllability 14264
  $LiNbO_3$ epitaxial films, pulsed laser deposition, SAW props. 20863

low energy electron diffraction
  thin film photon-/ion-beam-assisted deposition/characterisation 28846
  Al/Si(111), ordered Al films growth, LEED, Auger electron spectrosc. 20716
  AlGaAs, MBE-grown, As capping 1286
  CdTe/GaAs(100) heterojunction growth, Si interface layers 21966
  Cu-ZnO(0001) epitaxy, CO photoinduced desorpt. 20715
  Ge δ-layers on Si(111), interface roughening 38522
  Ge-Si-Ge(100) heterostruct., low press. CVD, LEED/photoemission obs. 12153
  InSe/GaSe heterointerfaces, Van der Waals epitaxy 20883
  Si homoepitaxy on Si(111), surface defect mediated 12087
  Si/SiO_2 patterned surfaces, situ rem. H-plasma cleaning 1254
  Si(110), thermal nitridization in ammonia atmos. 38615
  Si(111)-C surface, H ion bombard., LEED, AES 30118
  Ta(110)/Ta(110)-suboxide etch selectivity, Cl_2 mol. beams 30130

low gravity experiments *see zero gravity experiments*

low-pass filters
  1 Hz MOS integrated low-pass filter, high dyn. range/low distortion 29345
  1/2 regenerative freq. divider, input sensit., low-pass filter influ. 783
  2-D lin. phase IIR filter, symbolic computation routines, design 37885
  2D digital filters, design techs. 6230
  2dimensional recursive orthogonal wavelet transform. 40927
  3-phase PWM AC/DC converter, voltage unbalance, harmonics *(English)* 27811
  4th order switched current low power lowpass/highpass Butterworth filter 29344
  act. compensated filters, HF appls., design/optim. 29352
  act. RC filters, HF compensation of FDNR *(Japanese)* 12639
  asymmetrical filter banks, subband image coding 33132
  bal. MOS transconductor, filter design appl. 6213
  bathymetry data postprocessing/corrections, sidescan sonar syst. 10560
  BAW act. piezoelec. filters 30652
  beamspace noise eigenvectors, multirate proc. 40906
  biquad high-order SC filters, multiplexing tech. 6220
  Butterworth diplexer, design, real-freq. approach 6201

- **low-pass filters** continued
  - CDMA systs., robust/lossy discretization 41473
  - cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
  - CMOS LV SC filters by switched-opamp tech. 29360
  - CMOS prog. switched-current filters 29359
  - CMOS triode-transistor transconductor for HF continuous-time filters 728
  - compact low-pass elec. filters for cryogenic detectors 37830
  - constant voltage anemometer circuit anal. 34447
  - current mode biquadratic act. filters, design 12643
  - current mode biquadratic filters employing operational amps. 12642
  - current-mode single-element-controlled bandpass/lowpass filters 37857
  - DC/DC ZVS PWM full-bridge power convertor, MOSFET-based 5044
  - digital mobile radio systs., anti-multipath modulation techs. 17075
  - diplexers, crossover loss, singly terminated filters design 16953
  - diplexers, max. flat response/freq. symm., design 16954
  - direct detect. opt. systs., LMS filters, ISI reduction 9607
  - direct detect. opt. systs., zero-forcing elec. filters 41099
  - discrete coeff. FIR digital filters, design 24306
  - DSP based controller for switching converter 6019
  - elec. machine control, harmonic anal. methods comparison 5320
  - filters, special mutators 16031
  - FIR digital filter types, interrelationships 2532
  - FIR lin. phase digital filter, unit step response, design *(Polish)* 747
  - foetal ECG sigs., matched filter template, iter. method 43290
  - gamma bases, parametric LSA 40821
  - GIC, complex digital filters design 12653
  - HF fully integrated OTA-C filters, 7.2 GHz bipolar OTA 6210
  - hierarchical analog fault diagnosis, neural net approach 42734
  - insensitive second-order filters, high input impedance, current conveyors 12640
  - ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
  - LC lowpass/highpass/bandpass ladders, Butterworth/Chebyshev response 720
  - LDI lattice digital filters, exact design 762
  - lin. image filtering, analog VLSI neural networks, random param. var. 32955
  - lin. phase FIR digital filters, max. SNR, design 15982
  - lin.-phase recursive digital filters, design 29385
  - linewidth-insensitive coherent AM opt. link, direct/external modulation format comparison 42410
  - LMS acoustic echo cancelers, slow asymptotic convergence 24313
  - low-noise CCD sig. acquisition 34417
  - LR terminated LC filter, synthesis/RC-act. simul. 21415
  - M-band pseudo QMF banks, prototype filters design 37882
  - mag. disk PRML read channels, A/D interface 7144
  - modulation-based time-variant filter design, Wigner distrib. 15986
  - monolithic variable integrator design, appl., filters 12634
  - moving image, coding/decoding, cellular neural network 24735
  - moving objs. extraction by digital time-varying image proc. *(Japanese)* 24604
  - multiband least sq. FIR filter design 29369
  - multichannel simultaneous digital tracking filters, vibr. control 17993
  - multilayer Teflon microwave PWBs, isolation techs. 37974
  - multiplex realization of low-pass filters, switchable capacitors 516
  - nonequiripple approx. for filter charact. 12622
  - nonlin. sig. proc., slope transforms, theory/appl. 40832
  - nonstationary M/G/1 queue charactn., Bode plots 11904
  - opt. DPSK/heterodyne detect. scheme, two polariz. planes *(Japanese)* 17265
  - oversampled bandpass sigs., inphase/quadrature components extraction 24183
  - photon-limited images, low-pass filtering, histogram spec. 33144
  - PLL syst. equiv. diag. 37677
  - power feeder EMI/RFI filters, nonlin. load effects 19279
  - reversible subband coding of images *(Japanese)* 33112
  - sampled-data/digital filters, equiripple charact. 12656
  - SC voltage controlled sine-wave oscillator 29070
  - semicond. jn. igniter in 2.75 folding fin aircraft rocket, RF charact. 35398
  - sigma-delta codec for mobile telephone appls., design 3276
  - silicon cochlea, switched current 29420
  - speech, spectral, extraction, Poisson moments 8234
  - subcarrier multiple access PON, adjacent channels 42392
  - SW and matrix dilation eqns. 24299
  - table-based lin. transform. filters, OTA-C techs. 732
  - triquint 0.5 μ MESFET device microwave transconductance amps. and filter ccts. 6327
  - uniform/nonuniform transm. line based filters 21399
  - universal current-mode filter, non-inverting CCIIs 37858
  - universal filter, two current-feedback amps. 37852
  - universal voltage-mode filter, current conveyors 6206
  - variable IIR digital filters, complex coeffs., synthesis 6233
  - video codec, picture quality improvement tech. *(Japanese)* 25164
  - visual motion detect., BP learning, internal neural struct. 41375
  - voltage-mode notch/lowpass/bandpass filter, current-feedback amps. 733
  - WDF for TI's sens. sig. proc. MSP430, CAD 738
  - zero phase 2D filters CAD, multiplicative autoregressive models 759
  - Fe-polymer composite absorber chip for RF EMI filtering 37834
  - GaAs MESFET SC third order ellipt. lowpass ladder filter *(Korean)* 734
- **low-temperature electronics** *see cryogenic electronics*
- **low-temperature physics** *see cryogenics*
- **low-temperature production**
  - *see also magnetic cooling; refrigeration*
  - high T_c DC SQUID magnetometers, closed-cycle gas flow cooling syst. 34435
  - SSC accelerator proc. control syst. 18177
  - Au-GaAs Schottky diodes, cryogenic/RT, current transport 38390
  - Nb/Er_3Ni SQUID magnetometer, Gifford-McMahon cryocooling, biomagnetism appls. 34436
  - Pd-InP Schottky diodes, cryogenic/RT, current transport 38390
- **low-temperature techniques**
  - *see also cryogenic electronics; cryostats; refrigeration*
  - $BaTiO_3$ ceramic multifunctional cryogenic sens. 34444
  - bolometric detector for low-temp. FIR magnetospectroscopy 25842
  - CMOS readout multiplexer, rad-hard, fab. 30448
  - compact cryogenic scanner for scanning probe microscopies 39071
  - cond.-cooled supercond. magnet, Gifford-McMahon refrigerator *(Japanese)* 1634
  - cryogenic optical systs./instruments. conf., Orlando (1994) 36837
- **low-temperature techniques** continued
  - electronic microrefrigerator based on normal-insulator-supercond. tunnel junct. 14289
  - Fabry-Perot opt. freq. ref. 31462
  - FPA testing, low-background opt. simulator 34590
  - hybrid IC materials systs. and technol. 38165
  - IR FPA opt. interface technol. 34582
  - IR readout electronics, conf., Orlando, FL, USA (Apr. 1994) 20262
  - LAr calorimetry, cold frontend electronics 26248
  - low-temp. two-axis goniometer, accurate temp. control 9874
  - miniature split-Stirling cryocooler, noncontact displacer motion meas. 42923
  - multiple-substr. holder for high vac., cryogenically cooled 5898
  - multiplexed readouts for FPA 34560
  - oxides reliab., low temps. 28406
  - quartz cryst. growth, temp. sens. appl. 34475
  - radiation-hardened CMOS for cryogenic analog appls. 30447
  - resist. relax. in low-temp. thermometers 9893
  - sample manipulator, azimuthal/flip rot., 16 to 1100 K 38536
  - STM for BEEM/spectrosc. 21865
  - third harmonic generation, shaped superconds. 22771
  - vac. syst. design, electron/proton storage rings 961
  - AlGaAs, patterned photon-driven cryoetching 30065
  - C, TVO resistors, low-temp. meas. appl. 3802
  - GaAs, patterned photon-driven cryoetching 30065
  - H cryogenic maser 39634
  - $LiNbO_3$ electro-optic modulators, cryogenic temp. characterisation 14506
  - RuO_2-based thermometer design for millikelvin temp. range 25821
  - Si diode temp. sens. for proc. systs. 34485
  - Si, low temp. etching, high dens. SF_6/O_2 plasma 38550
  - Zn resin film hole burning opt. storage *(Chinese)* 7272
- **LPC** *see linear predictive coding*
- **LPCVD** *see chemical vapour deposition*
- **LPCVD epitaxial growth** *see vapour phase epitaxial growth*
- **LPE** *see liquid phase epitaxial growth*
- **LQ control** *see linear quadratic control*
- **LQG control** *see linear quadratic Gaussian control*
- **LSI** *see large scale integration*
- **Ludwig-Soret effect** *see diffusion*
- **luminance** *see brightness*
- **luminescence**
  - *see also cathodoluminescence; chemiluminescence; electroluminescence; fluorescence; fluorescent screens; luminescent devices; phosphorescence; phosphors; photoluminescence; stimulated emission; superradiance; thermoluminescence*
  - Al_2O_3, insulators, HV stress, light emission from surface flashover 13954
  - alumina/vac. interface, pre-flashover lumin. 13948
  - digital radiography, image quality criteria 18484
  - HV wire conductor, corona discharge, lumin., CT obs. *(Japanese)* 963
  - IR-sensitive film-struct., opt. diagnostics 14569
  - LDPE, degradation mech. in high elec. field 14056
  - mannose, lyoluminescence sensitivity, grain size depend. 14595
  - photonanofabrication and opt. nanoprobes 22810
  - relative air humidity sens., luminesc. lifetime-based 3870
  - ruby on sapphire, integrated thin film stress sens., epitaxial regrowth 17749
  - BaF_2 cryst., slow component suppression, SrF_2/MgF_2 crysts. 18308
  - CO_2 indust. fast-flow laser, IR luminesc. diagnostics 23086
  - GaAs, carrier-carrier scatt., carrier distrib. effects 29858
  - GaAs, δ-doping superlattices, pot. flucts., quantum effects 13167
  - GaAs, intrinsic and p-doped, highly photoexcited carriers, femtosecond relax. 1036
  - GaAs/AlGaAs DH laser, electron-hole pair recomb. 23218
  - GaAs-AlGaAs quantum wires and dots, modulation-doped, opt. emission and Raman scatt. 1143
  - H Raman act. media Stokes pulse duration control in SRS 31560
  - $Hg_{1-x}Cd_xTe$, narrow-gap, laser emission 14894
  - InGaAsP/InP 1.55 μm DH laser, 0.95 μm luminous peak *(Chinese)* 14899
  - Nd^{3+} ion doped insulating crysts., laser appls. 23175
  - Si porous layers, electron powder ribbon polycryst. plates 20662
  - SiC, insulators, HV stress, light emission from surface flashover 13954
  - SiGe/Si heterostruct., segregant-assisted growth, opt. props. 37449
  - $Ti:Al_2O_3$ laser cryst. conc. quenching and mechanism of reson. energy transferring *(Chinese)* 15065
  - Tm^{3+},Cr^{4+},Ca^{2+}:YAG 2 μm laser, luminesc. sensitisation 14806
  - $Zn_{1-x}Cd_xSe/ZnSe$ quantum wells, excitons, picosecond dyn. and stimulated emission 13182
  - ZnSSe/ZnSe superlattices, excitonic procs. and lasing 29912
  - ZnSe-based blue-green ternary/quaternary lasers, pseudomorphic waveguides 23297
- **luminescent devices**
  - *see also electroluminescent devices; fluorescent screens; phosphors; scintillation counters*
  - anodically porous Si, X-ray sensitivity 18347
  - conf., biochem. and med. sens., Budapest, Hungary (1993) 5462
  - PPV, carrier deep-trapping mobility-lifetime products 1813
  - quasiconical energy analyser, instrum. fn. 23026
  - tris(8-hydroxyquinoline)aluminum photo- and electro-luminesc. devices, double mirrors 39576
  - AlAs-GaAs luminesc. p-n-i-n$^+$ dynistor, behaviour 23025
  - Eu complex-based red light-emitting electroluminescent devices 1814
  - GaAs, devices, impact ionization/light emission, Monte Carlo study 1441
  - Ho:fluoride glass fiber, superfluorescent mid-IR source 30846
  - $Ru(bpy)_3^{2+}$ luminesc. probe, microenvironmental studies 34612
- **luminophors** *see phosphors*
- **luminors** *see phosphors*
- **luminous flux measurement** *see photometry*
- **lumped parameter networks**
  - 3dB 180° hybrid, asymmetrically terminated impedances *(Korean)* 21398
  - AC elec. charactn. of solder paste 9994
  - broadband impedance matching, GRABIM computer program 465
  - broadband matching to capacitive devices, limits, SIS mixer design 12792
  - capacitor-run induction motors, single-phase, lumped param. model 4972
  - crosstalk modeling for automotive harnesses 15532
  - current-mode biquad based on act. RC biquad 37841
  - EMI ferrites, wide freq. impedance modeling 15488
  - even-degree lower-sideband polylithic cryst. filters, design 12629
  - HBTs, high-power, modeling, scaling approach 30246
  - Heaviside operator based unified theory of lumped ccts./diff. systs. 461

lumped parameter networks continued
helical-scan recording, lumped modeling of rotary transformers and heads 34272
HEMT equiv. cct. determ. tech. 30379
high-speed VLSI interconnects, freq./time domain simul. 12287
inductively coupled discharges, analytic models 21789
Intel i486 μP PGA package, RAPHAEL program L and C modelling *(Korean)* 38984
ladder network resonators 6202
LC ccts., intrinsic Hamiltonian formulation of dyn. 37608
LC lowpass/highpass/bandpass ladders, Butterworth/Chebyshev response 720
LC reson. cct. security tags, design study 12627
lightning current meas. in building columns and girders, Rogowski coil 20123
long lowpass LC ladders, synthesis 719
low-pass filters, nonuniform/uniform transm. lines 21399
MAGLEV train coil syst., transient induced voltages study 11428
microwave ccts., pole-zero computation, multipoint Pade approx. 21528
microwave LC filters, accurate small air-wound inductor design, program 823
MMICs, coplanar ccts., T and cross sects., lumped elements 21560
multilayer PCB, power bus decoupling, modeling 15534
nonlin. nonautonomous syst., symm., periodic solns., bifurcations 504
pass. filter design by optim. method 6203
periodically-operated switch ccts., stabil. 5980
phase-shifting/phase matching networks, microwave freqs., design 12736
power syst. dyn. anal., time varying phasors 26849
power transformer model, computer-based 5021
printed spiral antennas, resistively loaded, anal. 8072
RC op amp and RC current conveyor filters, comparison 6216
RLC reson. cct. tuning, neural network adaptive controller 12631
RLCT pass. network synthesis, neural net approach 500
semicond. jn. igniter in 2.75 folding fin aircraft rocket, RF charact. 35398
single sect. lattice cryst. filters, normalized design 39079
stray capacitances of two coupled inductors 21596
trapped energy resonators, transversely varying thickness modes anal. 30607
universal filter, two current-feedback amps. 37852
VLSI interconnects, high-speed, time domain sensitivity 13862
ZnO-Bi_2O_3-based varistors, multiple trapping, appls. 12829

lunar atmosphere *see Moon*

lung
chest digital radiography, adaptive image enhancement *(Korean)* 26364
chest radiography, effective doses, different techs. 18655
chronic and acute left heart failure, lung dens., PET eval. 43260
conference, IEEE Northeast Bioengng. Conf., Newark, New Jersey, USA (Mar. 1993) 36846
light photon equalization, appl., X-ray film digitization 43242
med. ES for pulmonary diseases 29509
MRI, hyperpolarized ^{3}He gas 35023
neonatal lung imaging, elec. impedance tomography 43294
nuc. med., conf., Orlando, FL, USA (1994) 20218
pathologies diagnosis by two-channel proc. of breathing sounds 43199
pulmonary capillary press. anal., adaptive filtering, mutual wavelet packets 43186
sound anal. toolkit, hardware/software 43224
thorax, mag. suscept. mapping, SQUID biomagnetometer appl. 10179
transcutaneous diagnostics, fibre optic devices 43264
virtual lung exams., time/money saving 34982
^{226}Ra treatment, skin hemangiomas, children, organs absorbed dose 10292

Lyapunov matrix equations
2D digital filters, Lyapunov approach, stabil. anal. 743
accelerated overrelaxation method for AX-XB=C 11984

Lyapunov methods
see also Lyapunov matrix equations
AC generator nonlin. excitation control *(Chinese)* 36088
alg. anal. of first difference of Lyapunov quadratic fn. of nonlin. pulse syst. 2362
brushless doubly-fed induction motor drives, speed control 20055
chaos in nonlin. ccts./dyn. systs., SVD 12301
chaotic time series, noise reduction 15684
closed loop syst., anal., static converter, steady state stabil. *(Russian)* 27823
CMOS inverter, internal states, chaos generation *(Japanese)* 12407
Colpitts oscillator, chaos 576
DC servomotor posn. control, fuzzy-Lyapunov fn.-based *(Korean)* 27745
double loop SQUID, nonlin. phenom. anal. 1614
dyn. routing in computer commun. networks, stabil. *(Chinese)* 8946
dyn. syst. sync. and control 12297
EEG DP, chaos and fractal props. *(Japanese)* 26402
FEL interact. optim. via electron bunch trapping 39983
finite-dimens. continuous-time dyn. systs., nonlin. ccts. appls. 514
four-dimens. plus hysteresis chaos generator 12299
heart rate variability sigs., complex dyn. assess. 26411
Hopfield neural combinat. optim. algms., math. prog. formulation *(Japanese)* 28632
induction motor modified flux orient. control scheme 11046
induction motor servodrive, VSS robust control 44483
induction motors with flux obs., adaptive nonlin. control 27727
neural net, feedforward, Lyapunov fn. 29445
nonconvex variational problem, constraints 28564
nonsymmetric opt. neural networks, memorized pattern retrieval 1776
PLL systs., MRAC, Lyapunov fn. appls. 590
power syst. dyn., diff./alg. systs. 43701
power syst. transient stabil. anal., novel Lyapunov method *(Chinese)* 35450
power syst. transient stabil. assess., neural net-based 19006
power syst. transient stabil. limits estim., ANN *(Chinese)* 4443
power syst. voltage stabil. anal. , energy fn.-based *(Korean)* 26845
power system undervoltage load shedding, energy-based approach 19120
power systs., nonlin. reduced-order observers, design theory 43683
radar detect. of sigs. in chaos, small target in sea clutter 9630
RF amp. lin., continuous-time adaptive control 12349
scalar time series, Lyapunov exponents calc. 16020
self-organizing Hopfield network for attributed relational graph matching 24568
semicond. devices, spatio-temporal spiking, bifurcation scenarios 6709
sigma DM of chaotic time series, nonlin. props. 21385
single machine power syst. stabil., direct Nyquist array 26911
speech sig. invariant geom. measures 15822
spinning spacecraft, coning motion stabil., Lyapunov anal. 10305

Lyapunov methods continued
storage ring FEL, opt. field chaos 14990
tape noise charact., chaos appl. 14252
variable reluctance stepping motor rotor oscill. control 11376
VSC robust control of induction motor servodrive 19922

lymphocytes *see blood*

lysozyme *see proteins*

M-centre lasers *see colour centre lasers*

M-centres
LiF, F_2 centre, pass. Q-switch for Nd:YAG laser 31309
LiF cryst. F_2^- colour centre laser luminesc. quantum efficiency 1912
LiF:F_2 color center laser progress 39727
LiF:F_2^- colour center laser switches 7708
LiF:F_2^- pass. laser switch 14824
LiF:F_2^+ laser pumped by a flash lamp, multimode oscill. 7596
NaCl:OH cryst. color centers stable at RT, ps lasing 14827
$NaCl(OH^-):(F_2^+)_H$ color center laser, improved output 14831

M language *see MUMPS*

M-type tubes *see microwave tubes*

MAC protocols *see access protocols*

MAC system *see television standards*

Mach principle *see cosmology*

Mach-Zehnder interferometers
absol. dist./vel. meas., double integrated heterodyne interferometer 18073
act. homodyne demodulation of Mach-Zehnder interferometric opt. fiber sens. 34531
Bragg fibre grating develop. for WDM appls. 39340
broadband microwave fiber optic links, lin. integrated-optic modulators 9536
corona discharge elec. wind meas. by opt. fiber interferometer 42830
couplers, silica-based planar lightwave ccts. *(Japanese)* 14427
demodulated interferometric fibre sens. 17852
electrooptic polymer waveguides, packaging and charactn. 39491
fiber resonator sens., opt. phase amplif. 25861
fiber-optic sens. arrays, eigenvalues in-situ determ. 17908
fibre optic electrets and electro-acousto-optic transduction 17820
fibre optic sens., Mach-Zehnder vs. Sagnac interferometers 17912
four-element fiber grating sens. array, phase-sensitive detect. 17816
GaAs-AlGaAs monolithically integrated interferometric opt. sens. 1835
III-V strip-loaded waveguide devices for photonic IC 39594
integrated optics evanescent wave sens., atten. losses 39375
interferometric meas. of phys. consts. of laser dye solvents 23339
IR FPA opt. interface technol. 34582
low-loss compact all-fibre wavelength drop and insert filter 9437
mesoscopic neural device, electron waveguiding, nonlin. neural connection 14660
micromechanical Mach-Zehnder interferometer, Si IC compatibility 42808
photoimprinted Bragg grating all-fiber dense WDM/demultiplexer 42388
planar lightwave cct. dispersion equaliser module 17233
PSG waveguide opt. routing switch for radar phase control 14663
push-pull integrated-optics Mach-Zehnder interferometer, domain inversion 22922
Sagnac/Mach-Zehnder fiber-optic interferometer thermal procs. comparisons 42835
silica-based planar lightwave ccts., opt. filters develop. *(Japanese)* 17182
silica-based thermo-optic switches *(Japanese)* 17181
suboctave-bandpass opt. analog links, lin. modulator 17335
temp.-stabilized elec. field sens., develop. 25816
thermal detect. of enzyme-labelled antigen-antibody complexes 9946
three-wavelength Mach-Zehnder demultiplexer, BPM simul., fab. 17166
turbulent medium, coherent opt. fiber sens. 34527
two metal-coated single-mode opt. fiber interferometric lin. elec. current sens. 9916
vert. integrated Mach-Zehnder interferometer/tunable LD 1838
wavelength-tuned Mach-Zehnder fiber filters 7318
wideband elec. field sens., develop. 25817
XY integrated opt. coupler for phase-sensitive opt.-power combining 39398
Cd^+ photo-ionization laser, blackbody source pumped, charactn. 31196
InGaAsP/InP integrated three-port Mach-Zehnder interferometer, all-opt. wavelength conversion 30973
InGaAsP-InP MQW 2×2 opt. space switch struct. for 10-GHz appls. 9148
InP wavelength converter based on integrated Mach-Zehnder interferometer 7371
$LiNbO_3$ electro-opt. digital intens. modulation, chromatic dispersion tolerance 17234
$LiNbO_3$ electrooptic modulator, conducted suscept. 7390
$LiNbO_3$ high-speed electro-optic modulator, travelling wave electrode optimisation 1735
$LiNbO_3$ high-speed opt. modulators, Mach-Zehnder config. 30986
$LiNbO_3$ ridge proton-exchanged waveguides fabricated by wet etching 22913
$LiNbO_3$:Ti strip waveguide thermooptic coeff. determ. for phase compensated appls. 39467
$LiTaO_3$:Ni opt. waveguides, fab., Ni diffusion 22885
PZT phase modulators in opt. fiber sens., transfer fns. 34523

machine bearings
3 DOF Maglev, actuators, PM *(Japanese)* 39216
ball-bearing syst. replacement, discrete-time dyn. prog. 36981
compact mag. suspen., one axis control 20093
control type mag. bearings, appls. *(Japanese)* 22710
elec. machine, bearings, inductive effects, shaft voltages 10922
elec. motor drive mfg., design reliab. methodology 28076
fault recogn., monitoring by neural nets 34391
flywheel energy storage, high T_c supercond. mag. bearing appl. 28050
flywheel energy storage program, Lawrence Livermore Nat. Lab. 28049
high speed drives, energy/material savings 36672
induction motor bearing damage detect., stator current monitoring 4968
induction motor incipient fault diagnosis, fuzzy neural net-based 36157
induction motors, anti-friction bearings, selection guidelines 4945
induction motors, dyn. thermal model develop. 27715
laser printers, polygon mirror scanner motors, fluid bearings *(Japanese)* 10932
lin. pulse motor, mag. suspen., contactless direct drive *(Japanese)* 44077
mag. bearing syst., multiobjective controller design, guaranteed H_∞ control perform. 44062
mag. bearing-based vibr. control simul. 36091
mag. machine bearings, develop. update 7936
MAGLEV, pass. mag. bearings, superconductors, PM *(French)* 7258
marine elec. machine bearings, operational state prediction 36709
MHR gas filtration, variable speed induction motor drive appls. 10823

machine bearings continued
  micromotor flange bearing monolayer coatings, perform. tests 44084
  motor fault detect., hybrid fuzzy/neural syst. used extract heuristic knowledge 4984
  PAD 1.0 induction motor drive bearings CAD program 44466
  PM arrangements for supercond. pass. bearings 14310
  real-time bearing monitor, microcomputer-based 34339
  rigid rotor mag. bearing syst., nonlin. control 27681
  rigid rotors, computer-aided static and dyn. balancing 27661
  space syst. reliab. modelling techs. 18709
  Stirling engine alternator operating experiences, USA 28044
  supercond. mag. bearing, appls. *(Japanese)* 22711
  supercond. materials, power systs./transportation appl. possibilities 43612
  YBaCuO pellets, mag, textured, permanent mag. config., mag. bearings appl. 39244

machine control
  1 hp ASD IGBT control device tests 28070
  1 MW SRM design, traction appls. 36757
  2-phase stepping motor, PWM control, power FETs, multi-chip modules 27764
  3-phase GTO PWM inverter for control, drive 11381
  3-phase squirrel cage motor drive, thyristor controlled 11364
  3-phase stepping motors positon control *(German)* 44089
  4-phase variable SRM drive, elec. vehicles 28110
  5 kW wind turbine induction generator, expt. design 10902
  5-phase SRM drive, phase converter, microcontroller 5317
  60 hp brushless doubly-fed pump drive, water treatment appls. 5431
  600 MW cross cpd. generator, static excitation 19601
  AC ASD, DSP technol. appl. 44486
  AC ASD, torque/speed/posn. control, trends 20065
  AC drive syst. load simulator, local vector control 28069
  AC drives, current trajectory tracking control, sync. PWM 5311
  AC drives, decoupling control techs. 28082
  AC drives, freq. control algms. formulation 28079
  AC generator nonlin. excitation control *(Chinese)* 36088
  AC locomotives, slip vel. feedback torque control *(Japanese)* 11407
  AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
  AC machines, transducerless posn./vel. control 4910
  AC motor, flexible struct. attached, H_∞ posn. controller design 10967
  AC motor drive invertors, circ. space vector modulation control 44481
  AC motor drives, asynchronous μP control design 36637
  AC motor drives, converter-fed, side effects 11373
  AC motor drives, CSI-fed, exact lin. H_∞ control *(Japanese)* 28063
  AC motor drives, direct torque control 36649
  AC motor drives, six-step power convertor-fed, anal. 20082
  AC motor drives, state-of-the-art, overview 44453
  AC motor multirate motion control algms. parallel proc. 10966
  AC motors, four-quadrant digital control scheme 10954
  AC power supply, instantaneous current distortion compensation *(Japanese)* 10964
  AC servomotors, digital control, syst. dyns. *(Korean)* 36214
  AC tube mill, drive control syst. 20162
  AC/DC drives, prog. high speed digital control 44498
  act. vibr. control, piezoelec. actuator-based, simul. 36090
  air conditioning, controllable induction micromotor 5395
  anti-directional twin rotary motor drive, elec. vehicle *(Japanese)* 28111
  anti-directional-twin-rotary motor drive, elec. vehicle 5360
  asynchronous machine, params. ident., RLS method 27711
  asynchronous machine, two stator windings, EM torque 36144
  asynchronous machines, direct self control algm. modelling 11041
  automobile hybrid internal combustion engine, computer controlled 28156
  automobiles, elec. power steering, present/future 5370
  axial flux interior PM sync. elec. vehicle motor drives 36756
  brushless AC motors, digital servo amp. concept 11338
  brushless DC drives, control strategies comparison 44476
  brushless DC drives, math. modelling 44494
  brushless DC machines, multiple equilibria 27747
  brushless DC motor, posn.-vel. tracking control, obs. integrator backstepping approach 27750
  brushless DC motor direct voltage vector control implement. 4990
  brushless DC motor drives, variable speed control design 5243
  brushless DC motor posn.-vel. control design 36188
  brushless DC motor/robotic load, adaptive integrator backstepping tracking controller 19655
  brushless DC motors, fuzzy speed control design 4989
  brushless DC motors, nonlin. tracking controllers develop. 4994
  brushless DC motors, sensorless control 11060
  brushless DC motors, torque control 11368
  brushless DC servomotor, optimal DSP control 36195
  brushless DC servomotor auto-tuning, fuzzy optimal control 4988
  brushless direct drive motor, robust speed control design 5287
  brushless doubly fed machines, pump drives, pole no. combinations 5282
  brushless doubly-fed induction motor drives, speed control 20055
  brushless motor drives, high power, intell. interface 5271
  brushless PM motors, cogging torque minimisation design 10946
  brushless PM sync. motor drive, predictive control 20087
  brushless servo systs., motors/drives/posn. control, trends 28075
  capacitor motor drive, single phase, speed control 5272
  car engine fan, digitally controlled induction motor 27719
  cascaded doubly-fed machines, state space control 36668
  chopper fed PMDC motor elec. vehicles drive, adaptive ANN rule-based controller 36721
  civ. engng. tandem rolling-rotor actuator synchronisation 11519
  commercial airplane auxiliary power unit starting drive 4360
  contactless AC starters, 44040
  continuous gravimetric dosing syst. elec. drives, microcomputer control 44623
  controllable elec. drives, status overview, former USSR 44452
  cylindrical LIM-driven elevator, motion anal. *(Japanese)* 44561
  DC drive, digitally controlled 20088
  DC drive, field-weakening range, dyn. perform. 11345
  DC drive, neural net adaptive control 44446
  DC drives, fuzzy control 5315
  DC drives, nonlin. controller, bi-orthogonal decomp. 5314
  DC drives with flexible shafts, control config. 28068
  DC elec. motors, ASICs for monitoring/controlling 11329
  DC link power converter, induction motor drive appls. 44450
  DC motor, adaptive control, two stage ident. 27752
  DC motor, adaptive speed control, torque estim./compensation 4993

machine control continued
  DC motor, HV input, rectifier-chopper control 27753
  DC motor, model following nonlin. control syst., GMDH algm. *(Korean)* 27746
  DC motor, PID/fuzzy posn. controllers comparison 11070
  DC motor, separately excited; control, lin. 19659
  DC motor, separately excited, vel. control without meas. 19653
  DC motor, speed control, self-tuning fuzzy controller 27748
  DC motor ASD, self-tuning digital controllers appl. 5316
  DC motor control, adaptive neural net, online training 44066
  DC motor drive digital regulator disturbance retuning design 11371
  DC motor drive fuzzy logic control, neural net implement. 11316
  DC motor drive indirect control, state stimulator-based 36646
  DC motor drive sensorless operation, Kalman filter-based 36674
  DC motor drive sensorless operation, neural network-based 36676
  DC motor drives, fuzzy speed/voltage control 28099
  DC motor drives, optimal speed control method *(Polish)* 36647
  DC motor drives, separately excited, tunable fuzzy logic control 20076
  DC motor drives, supervised neural net-based control 11340
  DC motor speed control, binary rate modulation 27749
  DC motors, motion controllers, software switch 19662
  DC motors, pulsed μP control design 11067
  DC servo motor, fuzzy PID control, accelerated reasoning 5167
  DC servo systs., integral of output error VSC 11090
  DC servodrives, dyn. friction compensation 36644
  DC servomotor, fuzzy precompensated PID controllers 11068
  DC servomotor, robust digital optimal model following syst. *(Korean)* 27751
  DC servomotor fuzzy logic VSS control design *(Korean)* 27744
  DC servomotor machining motion control, parallel DSP 36192
  DC servomotor posn. control, fuzzy precompensated PD controller 19658
  DC servomotor posn. control, fuzzy-Lyapunov fn.-based *(Korean)* 27745
  DC servomotor stochastic logic PI control 44064
  design, ES-based interpolation methods 19494
  diesel CHP plant, intell. control/monitoring 4854
  direct AC-AC matrix power convertor, AC motor appls. 19738
  direct drive robot, torque compensation 11359
  DMOS analogue HV control IC for small DC motors, PWM scheme 29048
  double-fed induction generators, PLL controlled, stabil. anal. 44061
  double-mass induction motor drive, vibr. control design *(Russian)* 28096
  doubly-fed brushless motor, sync. frame model/decoupled control 11378
  doubly-fed induction machines, torque/VAr control 4973
  doubly-fed variable speed wind generator adaptive control 4876
  doubly-salient variable-reluctance motor, starting model *(French)* 10993
  drive, regulator/observer, multi-mass elastic obj. *(Russian)* 44436
  drives, computer controlled dynamometer test syst. 36695
  dual induction motor vehicle drives, control methodology 11418
  dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
  elec. actuator drives, mass neutralisation test equipt. appls. *(Russian)* 36492
  elec. drive μP control systs., regulation error meas. 44464
  elec. drives, digital control systs. design 11383
  elec. drives, high inertia, optimal control design 5277
  elec. generator modelling, power syst. simulator-based method *(Russian)* 43995
  elec. generator protection, digital integrated relay-based 4891
  elec. motor drives, control design algms. 44454
  elec. motor drives, single-chip microcontroller appls. 44460
  elec. multiple units, 3-level IGBT traction inverter 5361
  elec. vehicle, flywheel, torque controlled, peak power transfer 5357
  elec. vehicle drives, time-varying adaptive μP control 36739
  elec. wheelchair motors, fuzzy posn. controllers *(French)* 10283
  electric drives design and appls., conf., Lausanne, Switzerland (1994) 12
  electric generator adaptive fuzzy speed control, rule-based 19582
  electric machine lab. PC data acquisition syst. 28336
  EM spiral lin. step motor, thrust anal. 11073
  extrusion proc. DC motor drive cascaded control design *(Russian)* 11497
  field-oriented induction motor drive, nonlin. state observer 28090
  five-phase hybrid stepping motor command seqs. *(French)* 11085
  flexible shaft sync. motor, control techs. 27689
  gas turbine PM generator cycloconverter, digital control 10859
  GE SPEEDTRONIC Mark V turbine control syst. 43923
  generator brake, thick film resistor 4906
  generator excitation syst., gain scheduling control *(Chinese)* 4881
  generator-transformer set protection, microcomputer-based *(Chinese)* 36089
  generic plant control, global optim. method 4985
  harmonic anal. methods comparison 5320
  HDD, motor-control servo power IC 36671
  helical rotor lin. reluctance motor 11074
  high speed drives, energy/material savings 36672
  high-order systs., model ref. adaptive fuzzy control 5245
  high-starting-torque load motor drives, AFC appls. 20081
  HV AC-DC systs., multivariable adaptive control 4549
  HV soft recovery rectifiers, motor control appls. 27802
  hybrid step motor control, reconstructed mag. flux sig. 11327
  hybrid step motor control, torque ripples minimisation *(Korean)* 27761
  hybrid step motors, feedback-lin. control design *(Korean)* 27767
  hybrid transducer-type US motor, speed control expts. *(Japanese)* 11082
  hydraulic turbogenerators, intell. sync. control *(Chinese)* 10877
  hydroelectric generator nonlin. governor control *(Chinese)* 4856
  hydroelectric generators, ballhead motors, mech. governor perform. 43987
  hydrogenerators, adaptive speed control, RLS ident. 43988
  hydrogenerators, optimal robust governor design 43989
  hydroturbine generator sets, nonlin. governor control 10944
  hysteresis motor drive, over-induction control 11319
  hysteresis motor synchro drives, overinduction control method *(Russian)* 28097
  IEEE IECON '94 conf., Bologna, Italy (1994) 36823
  IEEE power electronics conf., Seattle, USA (June 1993) 36843
  induction actuators, fully digital field oriented control syst. 19678
  induction machine ident./control, neural net-based 44057
  induction machine low speed region control method 44051
  induction machine sensorless vector control, HF current injection 4974
  induction machine vector control, iron core loss considerations 4955
  induction machines, core loss/mag. saturation model 4978
  induction machines, field-oriented sliding mode digital control 4952
  induction machines, flux observer design 27710
  induction machines, nonstd., fuzzy control 44035
  induction machines, rotor-air gap boundary layer, equiv. ccts. design 44037
  induction machines, stator flux oriented digital control scheme 4951
  induction motor, 3-phase inverter, robust current controller, finite state automaton 36158

machine control continued
induction motor, field oriented control, H_∞ controller synthesis 11343
induction motor, indirect adaptive control, reduced Kalman filtering 11030
induction motor, LQ approx. lin. control 19623
induction motor, nonlin. control, DSP 28067
induction motor, nonlin. posn. controller 27709
induction motor, rotor time const., field oriented control, param. sensitivity 4944
induction motor, rotor time const. meas. magnetizing flux 4965
induction motor, single phase, torque control, controlled capacitor 27716
induction motor, terminal-impedance control, energy-saving 4981
induction motor, trajectory learning method, neuro-fuzzy network *(Korean)* 36172
induction motor, transputer based digital controller 44050
induction motor, two-layer rotor, equiv. cct. params., speed control *(Russian)* 44435
induction motor adaptive tracking control 36152
induction motor ASD, adaptive speed control, ANN 28080
induction motor ASD, design/anal., CASED simul. tool 5313
induction motor ASD, fuzzy on-line efficiency optimisation control 36659
induction motor ASD, inverter/cycloconverter fed, single-phase inputs 44489
induction motor ASD, speed/temp./torque meas./control 36697
induction motor ASD, VVVF inverter-based control *(Korean)* 28061
induction motor control, min. energy approach 27726
induction motor control/fault diagnosis, observer 36153
induction motor control/protection, Steinmetz model 4938
induction motor deadbeat flux level control *(Japanese)* 27717
induction motor drive, control methods, high dyn. perform. 11356
induction motor drive, CSI-fed, field oriented control, CASED simul. 44495
induction motor drive, CSI-fed, microcomputer-DSP control 20072
induction motor drive, decoupled preview control syst. 28083
induction motor drive, field oriented sliding mode torque/speed control 36699
induction motor drive, fuzzy 2-DOF speed controller 36660
induction motor drive, indirect rotor control, iron core loss 20070
induction motor drive, parametric oscill. speed sens. 44451
induction motor drive, rotor flux/time const., VSS observers 11325
induction motor drive, space vector PWM control, vector space decomp. 5312
induction motor drive, voltage control, field weakening region *(Korean)* 28088
induction motor drive, VSI fed, DSP based variable struct. control 44049
induction motor drive control, rotor time const. ident. 11369
induction motor drive field oriented control, spindle appls. 5262
induction motor drive field weakening voltage control strategy 44482
induction motor drive flux/torque MRAC design 11348
induction motor drive freq. converters, IGBT-based 44456
induction motor drive speed vector control, rotor speed meas. methods 44478
induction motor drive tacholess vector control, low speed perform. 5292
induction motor drive vector control, neural net flux estimator 5296
induction motor drive vector control, neural net-based 5291
induction motor drives, adaptive control, param. estim. 28064
induction motor drives, closed-loop phase angle control 5260
induction motor drives, control, DC chopper 28081
induction motor drives, CSI fed, adaptive params. compensator 36698
induction motor drives, CSI-fed, field-oriented predictive control 5259
induction motor drives, CSI-fed, torque angle control algm. 28091
induction motor drives, current controlled PWM inverters, simul. 11363
induction motor drives, digital adaptive control, transputer based 11379
induction motor drives, digital control strategy 5268
induction motor drives, direct self control/field orientation 36688
induction motor drives, direct torque control method 11339
induction motor drives, discrete-time sliding mode digital control 11390
induction motor drives, duty cycle-based V/f inverter control 20059
induction motor drives, feedback lin. control 36696
induction motor drives, field oriented, digital implement. 36702
induction motor drives, field oriented control, parallel proc. 36700
induction motor drives, freq. control *(Russian)* 36662
induction motor drives, fuzzy logic controller 20085
induction motor drives, indirect field-oriented control slip gain tuning 28093
induction motor drives, inverter-fed, magnetising flux saturation 5261
induction motor drives, microcomputer control components *(Slovenian)* 44471
induction motor drives, microprocessor based digital control 36687
induction motor drives, μP-based, vector control algm. 36643
induction motor drives, neural net-based param. estim. 20061
induction motor drives, position/speed dyn. control, DSP 20069
induction motor drives, PWM convertor-fed, choice and spec. 36691
induction motor drives, PWM inverter-fed, mobile robot appls. 5266
induction motor drives, robust adaptive observers 11357
induction motor drives, safe operating/design areas 5309
induction motor drives, saturated, field oriented control 20079
induction motor drives, sensorless speed control, neural net-based 20063
induction motor drives, sensorless vector control by Intel i860 and transputer network 44039
induction motor drives, speed sensorless control, flux saturation effects 11328
induction motor drives, speed sensorless field-oriented control 5298
induction motor drives, stator voltage 3rd harmonic direct field oriented control 5299
induction motor drives, thyristor converter-fed, μP control 44457
induction motor drives, thyristor switched, control algm. studies 44461
induction motor drives, torque control, digital meas. accuracy 20056
induction motor drives, universal field oriented control simuls. 36640
induction motor drives, vector control 44443
induction motor drives, vector control, auto-tuning method 36682
induction motor drives, vector control, feedback sigs. estim., ANN 44488
induction motor drives, vector controlled, iron loss effects 5280
induction motor drives, vector controlled, rotor time const. ident. 20073
induction motor drives, VSI-fed, generalized predictive control 5248
induction motor drives, VSI-fed, predictive vector current control 44492
induction motor drives, VSI-IGBT, vector control, paper/steel industries 36805
induction motor field oriented torque control scheme 11014
induction motor fuzzy controller design 11024
induction motor modified flux orient. control scheme 11046
induction motor nonlin. control, DSP approach 11057
induction motor output feedback stable controller 19633
induction motor quasi-freq. control design 27721
induction motor servodrive, control, PI load estimator 20086
induction motor servodrive, robust 2DOF posn. controller 36658

machine control continued
induction motor servodrive, VSS robust control 44483
induction motor speed control, neural fuzzy controller design 44052
induction motor speed control, stator resist. estim. 36155
induction motor speed control improvement, load torque var. *(Korean)* 27723
induction motor speed controller, line voltage feedforward-based 27712
induction motor starting, optimal control anal. *(Russian)* 11012
induction motor stator current control, neural net-based 19629
induction motor stator current control, trained ANN, syst. ident. 11059
induction motor vector control, param. ident. software 4950
induction motor vehicle drives, static characts. modelling *(Russian)* 44570
induction motors, AC, vector control schemes 44031
induction motors, CSI-fed, torque control, vector approx. 5310
induction motors, doubly fed, torque/reactive power control 44058
induction motors, doubly-fed, IP control transient stabil. anal. 27740
induction motors, field accel. controlled, energetic efficiency 11036
induction motors, field oriented control 44032
induction motors, field oriented controller, iron losses influence 44054
induction motors, indirect field oriented control perform., rotor speed error 4976
induction motors, indirect vector control, ang. vel. calc. *(Korean)* 36173
induction motors, inertia-lowering digital control studies *(Japanese)* 36162
induction motors, nonlin. observer-based tracking control 19622
induction motors, posn. control, fuzzy sliding mode control 44048
induction motors, PWM VSI fed, self-commissioning 44496
induction motors, PWM VSI-fed, ASIC/microcontroller control comparison 36180
induction motors, rotor flux estim., Luenberger observers 11038
induction motors, rotor resist., dyn. adaptation 11037
induction motors, sensorless field accel. method, stabil. anal. 11047
induction motors, sensorless field-oriented control 11058
induction motors, sensorless vector speed control scheme 19632
induction motors, single/3-phase, speed control, AC regulators, freq. division 11034
induction motors, speed control, low-noise compact inverter *(Japanese)* 11016
induction motors, speed control, VSS, load torque observer *(English)* 36175
induction motors, speed sensorless indirect field oriented control 11045
induction motors, stable nonlin. dyn. feedback control 4936
induction motors, variable freq. drives, vector control, design/testing 44449
induction motors, voltage fed, current regulated, field oriented control 19630
induction motors, voltage fed, field orient. control 19639
induction motors drives, av. params. field oriented control 5281
induction motors drives, real-time PWM vector control studies 28100
induction motors with flux obs., adaptive nonlin. control 27727
induction servo drive, neural model predictive control 28066
induction servodrives, field-oriented control, fixed-point DSP 11358
induction servomotor drive control studies *(French)* 11335
induction servomotor drives, LQG/LTR digital control design 36641
induction servomotors, cycloconverter-fed, sliding mode control 4983
induction/PM sync. motors, radial posn. control 10979
indust. motor controllers, self-tuning digital control 20154
industrial drive control systs., DSP based tool 44441
inertial elec. drives, monotonous ang. vel. control model *(Russian)* 44487
intell. sync. servodrive, fuzzy/digital cascaded state controllers comparison 44012
interior PM sync. machines, tangential vibrs. rejection 4918
internal model control loops, asymptotic setpoint tracking 27772
laser printers, polygon mirror scanner motors, fluid bearings *(Japanese)* 10932
LIM, control obj., math. model *(Russian)* 27759
LIM drive coil winding actuators, control design 44257
LIM drives, transvector control syst. computer simul. *(Russian)* 44437
LIM field control perform. improvement 11035
LIM vector control algm., perform. modelling 44053
lin. DC motor actuator, wire-driven syst., robust control *(Japanese)* 19667
lin. DC motor posn. syst., tracking perform., neural net *(Japanese)* 44071
lin. PM motors, design/anal. 11072
lin. pulse motors, vibr. suppression design 4996
lin. pulse servomotor control, 2 DOF controller *(Japanese)* 44074
lin. reluctance servomotor drives, control perform. 5319
lin. servomotor drives, fuzzy logic/PID control comparison *(German)* 5278
lin. tubular induction drive, DSP posn. controller 11342
locomotive motor wheel set drives, adhesion utilization improvement 36758
mag. bearing syst., multiobjective controller design, guaranteed H_∞ control perform. 44062
mag. bearing-based vibr. control simul. 36091
mag. suspen., PM/lin. actuator reluctance control-based 28127
Maglev LIM-driven undercarriage develop. 28148
Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
marine elec. machine bearings, operational state prediction 36709
micro-hydroelec. power induction generator stabilisation 4857
micro-moving stage positioning, accel. feedback-based *(Japanese)* 11224
microrobot PM step servomotor drive, VSS control 11354
mine elec. locomotive braking, pulsed control syst. modelling 28202
mine hoist winder drive control upgrade project, South Africa 44644
mine winder motor drives, digital control systs. 44645
MLI inverters, sync. motor elec. vehicle appls. *(French)* 11194
motion control optimisation, motor control gear designs 5166
motion control selection, torque determ. 27666
motion control syst. CAD, SOAP software tool 11222
motion control systs. develop., motors, drives, user interface 44440
motor drive control automation R&D, Russia 44465
motor drive digital control, graphic software designer appls. 36692
MOTOR ES, motor/cables/control gear selection appls. 10959
motor syst. act. vibr. control by H_∞ control 44259
motors, act. vibr., H_∞ control theory 10942
motors, interactive DSP-based acquisition/control syst. 10949
moving magnet lin. DC motor, const. vel. control *(Japanese)* 44073
moving magnet lin. DC motors, capacitive type posn. sens. *(Japanese)* 44076
multi-motor uncompensated elec. drive, copper treatment line appls. 36636
multimachine power syst., param. adaptive control 19156
multimachine power syst. resync., optimal variable aim control *(Chinese)* 10634
multimachine power systs., freq. control requirements 43703
neuro-fuzzy nets, nonlin. systs. control appl. 44065
nonlin. control of elec. machine systs. 5001
nonpolluting automobiles, energy storage, propulsion 5326

machine control continued
- piezoelec. motor, long. composite vibrs. 11086
- PM 2-phase sync. FHPM, self starting 36678
- PM AC motors, rotor flux posn. indirect sens. method 4909
- PM brush DC motors, tracking control studies 36190
- PM brushless DC drive, var. struct. speed control 36665
- PM brushless DC motors, field weakening, control 11360
- PM DC motor drives, AI speed control strategies 5285
- PM machines, energy optimising control techs. 44000
- PM stepper motor, global exponential posn. tracking controller 36201
- PM stepping motor robust tracking control 36203
- PM sync. elec. vehicle motor drive, design, testing 11417
- PM sync. machines, act. vibr. compensation scheme *(French)* 10997
- PM sync. motor, adaptive nonlin. control 27688
- PM sync. motor, back EMF estim., torque harmonics minimisation 4916
- PM sync. motor drive, digital current control, state observers 44475
- PM sync. motor drive, flux-weakening control 20078
- PM sync. motor drives, high-efficiency, PF control 36642
- PM sync. motor drives, nonsinusoidal field distrib. 5263
- PM sync. motor drives, sliding mode current control 5264
- PM sync. motor feedback lin. decoupling torque control 4933
- PM sync. motors, digital controller, Park model 10992
- PM sync. motors, digital self-tuning tracking controller 11009
- PM sync. motors, nonlin. reduced order observer 44027
- PM sync. motors, observer-based control syst. 27692
- PM sync. motors, sliding mode control *(French)* 10991
- PM sync. motors, vector control, stator iron loss *(Japanese)* 27687
- PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
- PM sync. servomotor drive, VSI-fed, field oriented control 36675
- PM sync. servomotor drives, optimal/VSS control 5288
- PM sync. servomotor drives, PWM inverter-fed, LF torque ripple 44479
- PM sync./induction mag. levitated rot. motors *(Japanese)* 44026
- pole changing induction motors, pole AM studies *(Japanese)* 11020
- power electronics, drives and motors, conf., Taormina, Italy (1994) 28252
- power electronics and variable speed drives, IEE conf., London, (1994) 37
- power plant generator control, fuzzy modeling 4889
- power station auxiliaries, var. speed squirrel cage motor drives *(Polish)* 43819
- power syst., adaptive multivariable optimal controller 4579
- power syst. assoc. control services, generator level experience, France 43705
- power syst. fuzzy adaptive excitation control method *(Chinese)* 43631
- power syst. generator operating point, fuzzy control *(Japanese)* 4592
- power syst. interarea/local generator reson. modes ident. 35486
- power syst. sync. generator dyn. stabil. control enhancement 43706
- power syst. transient nonlin. generator excitation control 26992
- PPC scanner motor, power brushless type *(Japanese)* 10931
- proc. control, torque disturbance effects 5265
- PSS fuzzy excitation control syst. develop. 4509
- PWM inverter-mounted induction motor, design 5306
- PWM invertor AC motor drives, chaotic current control anal. 44480
- PWM VSI, AC machine control appls., perform. improvement 5043
- PWM VSI, tolerance band control chaotic procs. 5065
- PWM VSI AC motor drives, sync. quasi-vector control 11351
- regenerative DC drive, sinusoidal line current consumption 5321
- reluctance generators, sensorless DC output voltage control 4927
- reluctance motor, rotor posn. meas., current meas. method 4934
- reluctance motor ASD, 2-level bipolar current control 11385
- reluctance motor drive, DSP-based sliding mode control 44493
- reluctance motor drive, optimal current angle control algm. 36684
- reluctance motor drives, flux weakened operation, current regulator 5303
- reluctance motor drives, sensorless posn. meas. 11318
- residential ASDs, simplified control scheme 5397
- rly. traction drive readhesive control studies *(Korean)* 28121
- robot adaptive electrohydraulic servoactuator control synthesis 36497
- robotic arm ASIC-based motor controller develop. 11227
- robotic servoactuators, quasi-optimal control design 36496
- robots, AC drives, optimised DSP field oriented control 36683
- robots, PM sync. motor drive, robust adaptive control 20054
- rolling mill ASDs, torsional vibr. damping 36800
- rolling rotor SRM, optimal digital control design 36134
- rolling shutter, tubular motor ASD, control *(French)* 11333
- rot. machine act. noise control studies *(Korean)* 27668
- rot.-field machine control value fn. computation for single-sided grooving *(German)* 10938
- salient reluctance generator voltage control, DSP-based *(Korean)* 36113
- salient-pole brushless motors, starting method 5286
- saturated sync. motor drives, control modelling 5324
- self commutated sync. motor nonlin., steady state operation 10996
- sensorless brushless DC motor drive control studies 44474
- servo drive posn. control, direct channel nonlin. element 28078
- servo induction motor adaptive speed control 19625
- servodrives, all-digital current control loops limits 28071
- servomotor, bang-bang fuzzy controller, time optimal/min. chatter 27769
- servomotor control syst., inertia moment ident., speed observer *(Japanese)* 36208
- servomotor drives, AC-flux-vector control 28074
- servomotor drives, predictive posn. control design 28087
- servomotor planetary gear precision speed reducers 44090
- sheet glass mfg., LIM-based elevation control studies *(Japanese)* 44636
- single phase squirrel cage motor, variable speed optimal control *(French)* 11040
- single-phase high efficiency induction motor, perform. studies 19627
- single-phase induction motors, multi-speed control studies 19621
- six-phase salient-pole PM motors, optimal control studies 27675
- SmartMotor 32-bit stepping servomotor motion control syst. 5165
- solid state motor protective/control devices 4892
- Space Station Freedom, brushless DC motor, posn. control 43453
- space/aircraft actuators, integrated control *(French)* 10952
- sphere joint PM stepping motor controller, robot appls. *(Chinese)* 11219
- split phase induction motor drives, vector control 5295
- squirrel cage ASD, speed/torque/PF control 5270
- squirrel cage drives, adaptive sliding mode speed control 36666
- squirrel cage drives, positioning, vector control strategy 20071
- squirrel cage motor, 3-phase, torque control, secondary current feedback *(Japanese)* 27708
- squirrel cage motor, field oriented control strategy 19637
- squirrel cage motor, inverter driven, thermal model 5253
- squirrel cage motor drives, self-commissioning scheme 5300
- squirrel cage motor rotor time const. ident. studies 4953
- squirrel cage motor vector controllers, rotor models improvement 4975

machine control continued
- squirrel cage motors, field oriented control param. estim. 4979
- squirrel cage motors, torque vector control studies 4980
- squirrel cage PWM drives simul., MATLAB package 5275
- SRM, speed control, magnetoresistive angle sens. 44030
- SRM, switching angle, high speed operation *(Korean)* 36112
- SRM drive, chopper control, acoustic noise, ride through 11322
- SRM drive control, DSP based syst. archit. 11380
- SRM drive speed/current regulation, microcontroller-based 11350
- SRM drives, brushless DC motor microcontroller appls. 36679
- SRM drives, sensorless rotor posn. meas./control 5257
- SRM drives, sliding mode observer controller 5301
- SRM drives, vibr./acoustic noise anal./control 20083
- starters/relays output control stand *(Russian)* 10923
- static converter/machine set, digital control, emulator 36375
- steam turboalternator freq. control governor design 43909
- steel rolling mill two-inertia syst. control *(Japanese)* 11501
- stepper motor, CAMAC controller 4998
- stepping driving systs., fuzzy control *(Chinese)* 11384
- stepping motor, intell. controller, actuator, design 19677
- stepping motor, nonlin. robust control 36200
- stepping motor drive, real-time mech. params. estim. *(French)* 11324
- stepping motor drives, PC-based control syst. 44468
- stepping motor positioning, closed loop optimal operation 11087
- stepping motor torque-speed characts., computer aided testing *(Chinese)* 44093
- stepping motors, closed-loop posn. feedback control 19672
- stepping motors, microcomputer control 27760
- stepping motors, sensorless rotor posn. control 11084
- switched reluctance motor, torque ripple neural control 44011
- switched reluctance motor fuzzy adaptive control 10988
- switched reluctance motor posn. tracking 19612
- switched reluctance starter/generator, aircraft engine 43457
- sync. DC motors, nonlin. control 27754
- sync. generator predictive voltage control *(Japanese)* 44010
- sync. generators, automatic voltage regulators design 36116
- sync. generators, neural network nonlin. adaptive controller *(Japanese)* 4924
- sync. generators, static exciter, LCI 36142
- sync. machine excitation neural control 36117
- sync. motor, nonlin. digital controls comparison 27697
- sync. motor control, sing. perturbed methods 27696
- sync. motor drives, inverter-fed, self-controlled, perform. characts. 5289
- sync. motor drives, self-controlled, computer modelling 11337
- sync. motor drives, self-controlled, steady state perform. 11389
- sync. motor drives, VSI PWM inverter fed, design, params. 5283
- sync. motors, self-commutated, low-power, control device *(French)* 10989
- sync. PM motor vector control, stator iron loss considerations *(Japanese)* 10968
- sync. posn. VSI fed, control laws, POSTMSYNC simul. program 36673
- sync. reluctance drive technol., theoretical overview 44473
- sync. salient pole/wound rotor motors, control studies 4919
- sync. servomotors, LF torque pulsations control *(French)* 11010
- sync. wind power generator, operating conditions 10907
- synchronous motor, self-controlled, current fed, simul. 19613
- three phase ASD PWM rectifier, neural net-controlled 5120
- three-phase AC machine switching power converters, current control 44179
- three-phase AC/DC universal traction drive syst. design 44542
- three-phase induction machines, two/three-level PWM invertor-fed *(French)* 11032
- three-phase induction motor speed control *(German)* 11029
- three-phase induction-motor variable-speed drive regulation *(Italian)* 19619
- three-phase motor motion control, sinusoidal commutation-based 27665
- three-phase squirrel cage induction motor, adaptive vector control 36171
- three-phase turboalternator adaptive control, transputer-implemented 36119
- travelling wave US servo motor, speed tracking control 19676
- travelling-wave US servomotor, speed tracking control 4999
- turbines, intell. adaptive controller 43816
- turbo-alternator excitation predictive control 44006
- turbo-alternator predictive excitation control 36131
- turbogenerator, decentralized pole-assignment self-tuning controller 35560
- turbogenerator adaptive reclosing, shaft torsional torque effects 4905
- turbogenerator shaft torque/fatigue life expenditure prediction 10958
- turbogenerators, adaptive control, parallel proc. 27672
- TW US motor, adaptive speed control 11089
- TW US motor actuated servo drive, fuzzy control 11091
- two-inertia motor syst., closed-loop PID speed control design *(Japanese)* 27669
- two-input PSS develop., LF oscills. control appls. *(Japanese)* 26995
- two-link collision free robot positioning, microcontroller-based 11226
- two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638
- two-phase disc magnet stepping motor design *(French)* 11355
- underground hoist, digital controlled cycloconverter induction motor drive 11323
- universal fuzzy posn. controller for motor drives 36653
- universal motor cycloconverter control, microcontroller-based 44002
- US motor actuated valve, direct drive fuzzy motion control 5284
- US motors, adaptive speed control by phase control *(Japanese)* 11077
- variable freq. induction motor drive, pulsating torque compensation 5290
- variable reluctance machines, demagnetisation control designs 36138
- variable reluctance motor, voltage-fed, dyn. model *(French)* 10994
- variable reluctance motors, indirect rotor posn. sens. 5302
- variable reluctance motors, torque ripple minimization 11007
- variable reluctance stepping motor rotor oscill. control 11376
- variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
- variable speed cycloconvertor AC drives, vector control simul. 5267
- variable speed DC motor drives, fuzzy self-organising control appl. 36689
- variable speed drive inverse nonlin. speed controller design 11349
- variable speed drive three-phase induction motor control *(Italian)* 11330
- variable speed fan motors, chopper control syst. *(Japanese)* 4884
- variable speed induction motor drive, adaptive fuzzy control 11392
- variable speed induction motor drive retrofits, centrifugal load appls. 36690
- variable speed induction motor drives, controller synthesis 11353
- variable speed induction motor drives, neural net-based vector control 36685
- variable speed squirrel cage motor drives, indust. appls. 5294
- variable speed sync. motor drives, stator flux-oriented control 36667
- VSI-fed PWM motor drives, predictive fuzzy control 5273
- Ward-Leonard drive, digital control, roughing mill appl. 44624
- wind energy induction generator DC link, fuzzy control 10908

machine control continued
  wind powered sync. generator, operating conditions improvement *(Russian)* 27650
  wind turbine, self-excited induction generator 10911
  wind turbine, wound rotor async. generator, static Kramer drive 36083
  CoSiB amorph. MI reson. multivibrator current sens. 17713
machine insulation
  10 W second generation Stirling engine generator set perform. 28043
  250 kVA, 40 MVA brushless sync. machines *(German)* 10987
  AC machines sealed insulation syst. thermal eval., IEEE std. 27670
  AC motor failure, steep fronted switching surges 19590
  British Rail elec. insulation experiences, UK 44569
  centrifugal submersible oil pumps, insulation failures *(Russian)* 43997
  elec. generator stator insulation diagnosis, ES-based *(Russian)* 10918
  elec. machine failure anal., insulation testing 4882
  elec. motor drive mfg., design reliab. methodology 28076
  electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
  hermetic motor insulation reliab., HFC refrigerants, oils *(Japanese)* 11486
  HV insulation condition monitoring strategy 19583
  HV machine stator insulation, discharge monitoring 19600
  HV motors insulation, dielectric diagnosis 14008
  HV rot. machines, slot discharges 4901
  HV stator winding insulation, on-line discharge monitoring 36108
  hydroelectric generator stator insulation, PD detect. techs. 43942
  hydrogenerators, PD spectra, HF grounding 4897
  induction motor, integrated on-line protection syst. 4969
  induction motor incipient fault diagnosis, fuzzy neural net-based 36157
  induction motor vac. cct. breaker switching surge anal. *(Korean)* 27706
  induction motors, stator insulation testing/eval. 19645
  insulation co-ordination, IEC 71 std. *(French)* 35581
  motor stator interturn short-cct. detect./location 10962
  motor/generator stator winding maint., PD testing 4893
  motor/generator stator windings, in-service PD tests 36101
  oil field submerged electrocentrifugal pumps, reliab. 5432
  PD study by height-distrib. anal. 22654
  plant insulation monitoring, IEE Colloquium, London (1994) 5458
  PM reluctance motor drives, axially-laminated interior rotor design 36664
  power station HV equipt. insulation, online PD anal. 4756
  rot. machine stator, PD pulse meas. 4896
  Schering bridge sensitivity and convergence for AC machine anti-discharge varnish ageing tests *(French)* 9973
  Sloy hydroelectric power station refurbishment project, UK 19545
  squirrel cage motors, rotor, transverse bar-to-bar currents *(Polish)* 27702
  stator insulation, corona activity studies 19586
  stator winding insulation, on-line monitoring 36110
  stator winding varnish ageing, TSC anal. *(French)* 10937
  stator windings, PD-meas. 4899
  submerged water-filled elec. motors, insulation 10957
  sync. generator asphalt-mica stator insulation, service life tests 11003
  traction motors, Class 200 armature insulation syst. 11395
  turbogenerator insulation design, mech. stress considerations 44003
  turbogenerator rotor shorted turns, online monitoring 19598
  turbogenerators, stator insulation, PD monitoring sens. 4888
  US acoustic diagnostic tech., elec. machine insulation, comment with reply 14004
  US diagnostic tech. for elec. machine insulation 14003
  vac. cct. breakers, switching surge voltage, travelling wave method *(Korean)* 27834
  SiC dispersion varnish VLF capacitive props. *(French)* 10935
  SiC dispersion varnish nonlin. resist. and capacitance *(French)* 10936
  SiFe sheet insulation, elec. and phys. charact. 14002
machine intelligence *see artificial intelligence*
machine language generation *see program compilers*
machine learning *see learning (artificial intelligence)*
machine protection
  see also motor protection
  AC standby generators, grounding/ground fault protection 43992
  combined cycle power plants, standardised modular power equipt. 36030
  dispersed storage/generation pole slipping protection algm. 27250
  elec. generator protection, digital integrated relay-based 4891
  embedded generators, pole slipping protection studies 4895
  explosion protection, European Stds. *(German)* 10943
  generator protection, ground differential relaying 19589
  generator-transformer set protection, microcomputer-based *(Chinese)* 36089
  generator-transformer unit, ground-fault protection, 3rd harmonic voltage 19584
  generator-transformer unit faults, relay protection algms. 27680
  generator-transformer unit relaying scheme, PC-based 35684
  generators, neutral grounding *(Chinese)* 27678
  generators, reverse power flow protection, relays 4886
  Kvazitron max.-current safety relays 4729
  network/generators protection coord., CIGRE survey 27664
  power syst. differential ground fault protection 19337
  small power plant generators/auxiliaries, protection/monitoring concepts 27306
  SRM faults/unbalance forces studies 36132
  turbogenerator adaptive reclosing, shaft torsional torque effects 4905
machine testing
  1 hp ASD IGBT control device tests 28070
  5 kW wind turbine induction generator, expt. design 10902
  7.5 kW solar dish/gas-fired heat pipe receiver Stirling engine syst. 28045
  10 kW hermetic Stirling engine CHP alternator, operating experiences 27539
  10 W second generation Stirling engine generator set perform. 28043
  600 MW cross cpd. generator, static excitation 19601
  3600 r/min 2-pole induction motor, stiff-rotor, design/experience 4949
  6000 hp compressor induction motor drives, harmonic torque 5255
  AC machines, digital transient torque meas. 10951
  AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
  AC machines sealed insulation syst. thermal eval., IEEE std. 27670
  AC motor drive invertors, circ. space vector modulation control 44481
  AC motor drives, CSI-fed, exact lin. H_∞ control *(Japanese)* 28063
  AC motor failure, steep fronted switching surges 19590
  AIS-series induction motors (CIS), perform. indices 27714
  alternator field winding interturn fault detect., neural net-based 44014
  ASD perform. eval. by PC-based meas. 36652
  asynchronous generators, asymmetric failure conditions studies 27729
  asynchronous machines, elec./mech. params. ident., math. method 11042
machine testing continued
  asynchronous machines, standstill freq. response studies *(French)* 11044
  automotive alternator, commutating inductance value determ. 4925
  bearingless PM sync. motor characts. 4932
  bearingless squirrel cage motor, no-load characts. studies 19644
  brushless DC servomotor auto-tuning, fuzzy optimal control 4988
  brushless doubly-fed induction motor drives, speed control 20055
  brushless PM DC motor drives, torque ripple reduction 44477
  brushless variable speed drive network, diagnostic ES 11370
  cage induction machines, online winding param. meas. 4940
  CHP syst. condition monitoring/predictive maint. 19539
  coal mine transportation arcing, detection/suppression method 20107
  condition diagnosis, monitoring syst. *(Japanese)* 36087
  DC machine online spark detect. syst. develop. 4991
  DC motor drive fuzzy logic control, neural net implement. 11316
  DC motor drive sensorless operation, Kalman filter-based 36674
  DC motors, CAMAC-PC based automatic expt. investig. syst. 36185
  DC power supply, two-phase induction generator-based 5110
  deep-bar induction machine dyn. params. determ. 4964
  Diagnostika motor drive testing automation software 44469
  double sided PM sync. motor, vert. movement *(Japanese)* 11071
  double-fed induction generators, PLL controlled, stabil. anal. 44061
  doubly salient doubly excited variable reluctance motor 19616
  drives, computer controlled dynamometer test syst. 36695
  drives, software based, testing/develop. 36694
  dual induction motor vehicle drives, control methodology 11418
  dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
  elec. drive certification testing lab. develop., Russia 44463
  elec. drive μP control systs., regulation error meas. 44464
  elec. generator real-time condition monitoring 44007
  elec. machine, malfunction diagnostics 10953
  elec. machine failure anal., insulation testing 4882
  elec. motor speed estim., shaft encoder meas.-based 44001
  elec. motor winding interturn switching transient voltage studies 43985
  elec. vehicle motor drive syst. design, test results 5345
  electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
  EM barrel finishing machine, induction motor-based 28194
  EM plant monitoring/mgt. instrumentation 19597
  embedded generators, pole slipping protection studies 4895
  fault isolation filter design for lin. systs. 11382
  fibre optic probe for thermal meas. in turbomachinery 17850
  five-phase hybrid stepping motor command seqs. *(French)* 11085
  flywheel energy storage, high T_c supercond. mag. bearing appl. 28050
  freq. converter asynchronous machines, integrated rotor studies *(Russian)* 11013
  gas turbine engines, SRM fuel-lube pump drive 20053
  HDD spindle motor mech. testing, ANN 36210
  HV insulation condition monitoring strategy 19583
  HV machine stator insulation, discharge monitoring 19600
  HV machines, condition monitoring, ScottishPower 36109
  HV motors insulation, dielectric diagnosis 14008
  HV rot. machines, PD detect. 4900
  HV rot. machines, slot discharges 4901
  HV stator winding insulation, on-line discharge monitoring 36108
  hybrid stepping motor drives, flux linkage meas. 5318
  hybrid transducer-type US motor, speed control expts. *(Japanese)* 11082
  hydroelectric generator online condition monitoring methods 10875
  hydroelectric generator stator insulation, PD detect. techs. 43942
  hydroelectric generators, ballhead motors, mech. governor perform. 43987
  hydrogenerators, PD spectra, HF grounding 4897
  induction machine low speed region control method 44051
  induction machines, ferromag. rotor, temp.-mech. characts. tests *(Russian)* 36150
  induction motor, dyn. loading syst. 4958
  induction motor, VSI, space vector modulation, harmonic anal. 4982
  induction motor bearing damage detect., stator current monitoring 4968
  induction motor core losses meas., static power convertor-based 19620
  induction motor core losses prediction, rot. iron loss data 4970
  induction motor drive elec./shaft torque indirect two-speed meas. method 36661
  induction motor drive field weakening voltage control strategy 44482
  induction motor drive meas. technique, microprocessor-based 20058
  induction motor drive speed vector control, rotor speed meas. methods 44478
  induction motor drives, computerized test equipt., PC-based 44467
  induction motor drives, discrete-time sliding mode digital control 11390
  induction motor drives, fuzzy logic controller 20085
  induction motor drives, online current monitoring-based fault detect. 36704
  induction motor drives, thyristor switched, control algm. studies 44461
  induction motor drives, VSI-fed, predictive vector current control 44492
  induction motor field oriented torque control scheme 11014
  induction motor incipient fault diagnosis, fuzzy neural net-based 36157
  induction motor meas., transputter-based measurement apparatus 27718
  induction motor rotor speed meas., slot harmonics-based 4941
  induction motor speed control, neural fuzzy controller design 44052
  induction motor stator current control, neural net-based 19629
  induction motor winding end region, mag. field studies 27728
  induction motors, dyn. perform., space harmonic fields, cpd. transform. *(Chinese)* 11015
  induction motors, Forward Stall Test, rotor/stator loading verification 4947
  induction motors, inertia-lowering digital control studies *(Japanese)* 36162
  induction motors, invertor-fed, power derating studies 4963
  induction motors, param. slip depend. determ. methods 27734
  induction motors, sensorless vector speed control scheme 19632
  induction motors, stator insulation testing/eval. 19645
  induction motors, variable freq. drives, vector control, design/testing 44449
  induction motors drives, av. params. field oriented control 5281
  induction motors drives, real-time PWM vector control studies 28100
  induction servomotor drive control studies *(French)* 11335
  interior PM sync. machines, tangential vibrs. rejection 4918
  iron rolling mill motor drive, random disturbance studies 11499
  LIM drives, neural net-based fault diagnosis 36703
  LIM field control perform. improvement 11035
  lin. reluctance servomotor drives, control perform. 5319
  linear electrical drives testing 28086
  loaded elec. machines, noise meas., sound intens. method *(Chinese)* 10925
  Maglev PM wheels, basic characts. 5356
  marine elec. machine bearings, operational state prediction 36709
  micromotor flange bearing monolayer coatings, perform. tests 44084
  motor stator interturn short-cct. detect./location 10962

machine testing continued
motor winding insulation, surge protection 4883
motor-driven external-injection fans, noise/power reduction tests 28178
motor/generator stator winding maint., PD testing 4893
motor/generator stator windings, in-service PD tests 36101
neural network/fuzzy logic technols. for fault detect. 4908
offshore gas pipeline compressors, sync. motor ASD 11518
piezoelec. micromotors, PZT ferroelec. thin film appls. 44091
PM brush DC motors, tracking control studies 36190
PM DC motor drives, AI speed control strategies 5285
PM reluctance motor drives, axially-laminated interior rotor design 36664
PM stepping motor drives, reverse rot. studies *(Japanese)* 11394
PM sync. elec. vehicle motor drive, design, testing 11417
PM sync. machine, vibrs. of mag. orig., feeding currents 44024
PM sync. motor drives, nonsinusoidal field distrib. 5263
PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
PM sync./induction mag. levitated rot. motors *(Japanese)* 44026
power station apparatus condition monitoring, acoustic methods *(German)* 4751
power station HV equipt. insulation, online PD anal. 4756
power syst. voltage stabil. indication, rotor heating simuls. 35432
PV water pumping, SRM drive-based, perform. anal. 10890
PWM CSI, PM sync. machine harmonic torque rejection appls. 36354
reluctance motors, modelling/param. meas. methods *(Japanese)* 10973
ring-type piezoelec. ceramic US motor characts. *(Korean)* 27766
robots, elec. drive testing, mech. simulator control 20060
rolling mill elec. drive harmonics, computerised meas. syst. 36801
rot. machine act. noise control studies *(Korean)* 27668
rot. machine stator, PD pulse meas. 4896
salient pole alternators, automated testing, param. determ. 4914
salient reluctance generator voltage control, DSP-based *(Korean)* 36113
salient-pole brushless motors, starting method 5286
self-excited induction generators, capacitor selection studies 44036
sensorless brushless DC motor drive control studies 44474
sheet glass mfg., LIM-based elevation control studies *(Japanese)* 44636
single-phase high efficiency induction motor, perform. studies 19627
single-phase induction motors, harmonic losses meas. 5029
single-phase induction motors, multi-speed control studies 19621
six-phase salient-pole PM motors, optimal control studies 27675
slip energy recovery induction motor drives, harmonic anal. 11391
spindle motor heat generation, thermal anal. studies *(Japanese)* 10924
split phase induction motor drives, vector control 5295
squirrel cage motor impedance loci, slot-type effect studies *(Japanese)* 11056
squirrel cage motor rotor time const. ident. studies 4953
squirrel cage motor rotor winding fault detect. ES 44059
squirrel cage motor vector controllers, rotor models improvement 4975
squirrel cage motors, perform. prediction, power supply vars. 11051
squirrel cage motors, torque vector control studies 4980
SRM, flux linkage/inductance meas. methods 4935
SRM actuators, axially laminated anisotropic rotor design 27701
SRM drives, energy recovery snubbers anal./design 20057
SRM drives, sensorless rotor posn. meas./control 5257
SRM drives, vibr./acoustic noise anal./control 20083
SRM EM characts., meas. methods comparison 10998
SRM faults/unbalance forces studies 36132
stator insulation, corona activity studies 19586
stator winding insulation, on-line monitoring 36110
stator windings, PD calib., transfer fn. 4898
stator windings, PD-meas. 4899
steam power plant turbine rotor-bore inspection techs. 27562
steam turbine rotor shaft stabil. testing 27559
stepping motor torque-speed characts., computer aided testing *(Chinese)* 44093
stepping motors, closed-loop posn. feedback control 19672
stepping motors, sensorless rotor posn. control 11084
Stirling engine alternator operating experiences, USA 28044
submerged water-filled elec. motors, insulation 10957
supercond. generator brushless excitation, mag. flux pump-based *(Japanese)* 10963
sync. generator asphalt-mica stator insulation, service life tests 11003
sync. motor drives, inverter-fed, self-controlled, perform. characts. 5289
sync. salient pole/wound rotor motors, control studies 4919
sync. wind power generator, operating conditions 10907
three-phase bridge rectifier, self-excited generator appls. 11179
three-phase induction motor, measurability anal./simul. 27707
three-phase induction motor drives, online fault monitoring 20084
three-phase inverter-fed squirrel cage motors, audible noise study 36163
three-phase sync. generators, brushless excitation method 4928
three-phase turboalternator adaptive control, transputer-implemented 36119
three-phase two-stator brushless sync. induction motor *(Japanese)* 19606
torque-speed characteristics, DSP-based instrumentation 25718
traction motors, Class 200 armature insulation syst. 11395
turbine blade vibr. meas. experiences, Switzerland 10929
turboalternator winding eccentricity monitoring studies *(German)* 36126
turbogenerator fault diagnosis, consultative ES-based 19595
turbogenerator online vibr. monitoring, neural net-based 19596
turbogenerator rotor shorted turns, online monitoring 19598
turbogenerator shorted turn location, fuzzy neural net-based 19687
turbogenerator stator dissipation factor testing 44008
turbogenerators, stator insulation, PD monitoring sens. 4888
turbogenerators, winding shorts localisation, fuzzified ANN 44021
turbomachinery, condition monitoring 36096
two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638
universal motor cycloconverter control, microcontroller-based 44002
US acoustic diagnostic tech., elec. machine insulation, comment with reply 14004
US diagnostic tech. for elec. machine insulation 14003
variable speed AC motor drive testing, dynamometer control 5293
variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
variable speed conc. winding induction motor testing 11393
variable speed induction motor drives, controller synthesis 11353
variable speed induction motor drives, expt. perform. anal. 5247
variable speed induction motor drives, neural net-based vector control 36685
variable speed induction motor drives, peak voltage appl. 11336
washing machine energy efficient brushless motor drive 5396
wind powered sync. generator, operating conditions improvement *(Russian)* 27650
wind turbine load matching, least resist. principle errors 10900

machine testing continued
wire rope type vibro-actuator, travelling wave expts. 27872
NdFeB PM hysteresis motors, starting/synchronisation studies 10977
SiFe sheet insulation, elec. and phys. charact. 14002

machine theory
2×3-phase sync. machine, extended Park's transform. 44020
2-phase brushless motor, feedback phase winding current *(Russian)* 43996
2-speed 3-phase async. lift motor, short cct. rotor 36707
3.5 MW sync. motor drive, cycloconvertor-fed, modelling 5323
3-phase asymm. induction motors, anal. 36154
3-phase reluctance motor, single phase supply, bal. operation 19614
3-phase ring winding leakage reactance, circ. coil 43991
3-phase sync. generators, self-excitation *(Japanese)* 11008
3-phase sync. motor, single phase supply, operation 19617
3-phase tetrapolar alternator model, bond-graph method 27695
3D dyn. nonlin. mag. field in elec. machine, time-periodic FEM 40246
5 kW wind turbine induction generator, expt. design 10902
6-phase induction motor, split coil, EM proc. simul. 11021
330 kV substation busbar short-ccts., turbogenerator saturation modelling 19064
6000 hp compressor induction motor drives, harmonic torque 5255
AC ASD, DSP technol. appl. 44486
AC drives, on-line unity PF PWM rectifier 5305
AC machine, alternating to direct voltage conversion, transducer *(Polish)* 43977
AC machine perform. under faulted operation 19618
AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
AC machines, smooth rotor, end-region 3D pulsation mag. field 44004
AC motor drive invertors, circ. space vector modulation control 44481
AC motor drives, asynchronous μP control design 36637
AC motor drives, converter-fed, side effects 11373
AC motor drives, CSI-fed, exact lin. H_∞ control *(Japanese)* 28063
AC motor drives, six-step power convertor-fed, anal. 20082
AC motor external mag. field prediction 27673
AC power supply, instantaneous current distortion compensation *(Japanese)* 10964
AC/DC/reluctance motors, torque prod., unified theory 4930
act. vibr. control, piezoelec. actuator-based, simul. 36090
anti-directional-twin-rotary motor drive, elec. vehicle 5360
arc-stator motor taking, elec./mag. asymmetry 4903
artificial heart lin. oscillatory actuator, structural anal. 35167
asynchronized sync. machines, self-contained power systs. 44028
asynchronous generators, asymmetric failure conditions studies 27729
asynchronous machine, two stator windings, EM torque 36144
asynchronous machine eqns. syst., theory education appls. *(Russian)* 36931
asynchronous machines, elec./mech. params. ident., math. method 11042
asynchronous machines, standstill freq. response studies *(French)* 11044
Auburn Univ., power engng. curriculum and GUI software 28337
automotive rotary actuator homopolar PM motor studies 11436
axial flux interior PM sync. elec. vehicle motor drives 36756
bearingless PM sync. motor characts. 4932
bearingless squirrel cage motor, no-load characts. studies 19644
brushless AC motors, digital servo amp. concept 11338
brushless DC drives, control strategies comparison 44476
brushless DC drives, math. modelling 44494
brushless DC motor drives, variable speed control design 5243
brushless DC motor posn.-vel. control design 36188
brushless DC motors, design/selection 19656
brushless DC motors, modelling, 120° commutation seq. *(French)* 11065
brushless DC servomotor auto-tuning, fuzzy optimal control 4988
brushless doubly fed machines, pump drives, pole no. combinations 5282
brushless doubly-fed induction motor drives, speed control 20055
brushless PM DC motor drives, torque ripple reduction 44477
brushless PM motor/induction motor drives comparison 5274
brushless PM motors, cogging torque minimisation design 10946
brushless PM sync. motor drive, predictive control 20087
cage induction motor, slanted stator/rotor teeth effect on torque 36170
capacitor-run induction motors, single-phase, lumped param. model 4972
claw-pole type stepping motors, dyn. behaviour simul. 4997
combined cycle gas turbine systs., math. modelling studies 36023
commutator motors, optimal design algm. 10956
compensation windings, mag. field reduction 36094
complex admittance/power defns. 10606
complex power/admittance notions/defn. *(Russian)* 26915
conjug. EM field calcs., Newton-Raphson method-based *(Polish)* 36093
current-invertor-fed polyphase induction motor harmonics *(German)* 11026
DC drive, field-weakening range, dyn. perform. 11345
DC generator commutation curve anal., eigenvector method *(Japanese)* 11062
DC machine, distributed exciting winding, calc. 36182
DC motor armature reaction EM field, FEM-based anal. 19660
DC motor chopper traction systs., computer simul. *(Chinese)* 28128
DC motor drive fuzzy logic control, neural net implement. 11316
DC motor drive indirect control, state stimulator-based 36646
DC motor drive sensorless operation, Kalman filter-based 36674
DC motor drives, chopper-fed, fault conditions anal. 5276
DC motor drives, optimal speed control method *(Polish)* 36647
DC motor dyn. ident. 11063
DC motor/sync. motor speed ident. 44459
DC motors, num. anal., FEM 36194
DC PM motor, electronically commutated 19663
DC power supply, two-phase induction generator-based 5110
DC rly. locomotives, induction motor-driven, computer simul. 5348
DC servo systs., integral of output error VSC 11090
deep-bar induction machine dyn. params. determ. 4964
direct AC-AC matrix power convertor, AC motor appls. 19738
disc-type eddy current dynamometers, torque design formula 27659
disk drives, PM spindle motor modelling 19581
double induction output generator, commutation angle anal. 19638
double sided PM sync. motor, vert. movement *(Japanese)* 11071
double-fed induction generators, PLL controlled, stabil. anal. 44061
double-mass induction motor drive, vibr. control design *(Russian)* 28096
doubly salient doubly excited variable reluctance motor 19616
doubly-fed brushless motor, sync. frame model/decoupled control 11378
doubly-fed brushless motor drives, pole no. model 5279
doubly-fed reluctance motor ASD, steady state perform. 11321
doubly-salient variable-reluctance motor, starting model *(French)* 10993
drives, software based, testing/develop. 36694
dual induction motor vehicle drives, control methodology 11418

machine theory continued
dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
elec. actuator drives, mass neutralisation test equipt. appls. *(Russian)* 36492
elec. belt drive design, energy models 44462
elec. drive μP control systs., regulation error meas. 44464
elec. drives, anal., simul., software package 20077
elec. drives, multiple defects diagnosis algm. *(Russian)* 11317
elec. generator modelling, power syst. simulator-based method *(Russian)* 43995
elec. generator reliab. anal., retrospective data-based *(Russian)* 10917
elec. locomotive DC traction motor drives, electromech. proc. modelling *(Russian)* 36719
elec. machine, bearings, inductive effects, shaft voltages 10922
elec. machines, FEA, post-proc. methods 19669
elec. machines, permanent state simul., electronic commutation *(French)* 10950
elec. motor EM speed reduction, math. anal. method 43990
elec. motor speed estim., shaft encoder meas.-based 44001
elec. motor winding interturn switching transient voltage studies 43985
elec. vehicle drive chain power consumption model 11412
elec. vehicles, induction motor drives, posn. sensorless 20097
electret motors, EM force calc. methods 44085
EM field anal. in rot. elec. machines, finite element-anal. hybrid method 15235
EM field computation, conf., Grenoble, France (July 1994) 36820
EM speed reduction, phys. proc. modelling *(Russian)* 36106
embedded generators, pole slipping protection studies 4895
emergency generators, reliab. improvement anal. 27679
ERM spring drive, no-load dyn. modelling 5242
faulted SRM drives modelling, evol. ANN 44448
five-phase hybrid stepping motor command seqs. *(French)* 11085
free piston Stirling engine/alternator syst., nonlin. anal. 28038
freq. converter asynchronous machines, integrated rotor studies *(Russian)* 11013
gas turbogenerator cascade flow, 3D compressible Euler solver 36016
generator brake, thick film resistor 4906
generator transient/subtransient params. ident. 4907
helical rotor lin. reluctance motor 11074
high speed async. motor, solid rotor, mag. vector pot. 36166
hybrid double-sided lin. pulse motor, static thrust calc. *(Korean)* 27757
hybrid step motors, feedback-lin. control design *(Korean)* 27767
hydrogenerators, adaptive speed control, RLS ident. 43988
hysteresis machines, high T_c supercond. rotor 10976
induction generator, squirrel cage, CSI exciter, voltage regulator 19635
induction generator dyn. anal., bifurcation theory-based 4961
induction machine harmonic rotor current/loss symm. calcs. 36169
induction machine ident./control, neural net-based 44057
induction machine optim. conflict problems, univariant search method 11053
induction machine param. estim., standstill time-domain data 19642
induction machine reactive power, math. anal. *(Russian)* 44056
induction machine squirrel cage disc rotor, starting torque improvement 27733
induction machine vector control, iron core loss considerations 4955
induction machines, broken bar detect., current spectrum/param. estim. 4966
induction machines, core loss/mag. saturation model 4978
induction machines, eccentric rotor mag. pull modelling 36168
induction machines, effect of skewing on cogging torque 19641
induction machines, invertor-fed, EM procs. anal. method *(Russian)* 44041
induction machines, multiple coupled cct. modelling 36160
induction machines, rotor-air gap boundary layer, equiv. ccts. design 44037
induction machines, rotor/air-gap boundary layer, equiv. ccts. *(Russian)* 44033
induction machines, saturated, deep bar effect, transient models, simul. 19634
induction motor, dyn. behaviour/param. calc. optimisation 4942
induction motor, field oriented control, H_∞ controller synthesis 11343
induction motor, rotor time const., field oriented control, param. sensitivity 4944
induction motor, single phase, stator-yoke deform. *(Polish)* 27704
induction motor, single phase, torque control, controlled capacitor 27716
induction motor, stator tooth zone, vibroacoustic proc. 4957
induction motor, terminal-impedance control, energy-saving 4981
induction motor adaptive tracking control 36152
induction motor aggregate model/expt. responses comparison 4959
induction motor control/protection, Steinmetz model 4938
induction motor drive, decoupled preview control syst. 28083
induction motor drive, indirect rotor control, iron core loss 20070
induction motor drive, PC based perform. simul. 19648
induction motor drive, PWM inverter fed, power losses calc. 28060
induction motor drive, space vector PWM control, vector space decomp. 5312
induction motor drive control, rotor time const. ident. 11369
induction motor drive elec./shaft torque indirect two-speed meas. method 36661
induction motor drive field weakening voltage control strategy 44482
induction motor drive flux/torque MRAC design 11348
induction motor drive self-commissioning, param. estim. accuracy 5297
induction motor drive speed vector control, rotor speed meas. methods 44478
induction motor drives, CSI-fed, field-oriented predictive control 5259
induction motor drives, CSI-fed, torque angle control algm. 28091
induction motor drives, current controlled PWM inverters, simul. 11363
induction motor drives, digital control strategy 5268
induction motor drives, discrete-time sliding mode digital control 11390
induction motor drives, extended Luenberger observer, state/param. estim. 36657
induction motor drives, indirect field-oriented control slip gain tuning 28093
induction motor drives, intelligent PWM power convertor develop. 28089
induction motor drives, microprocessor based digital control 36687
induction motor drives, PWM invertor-fed, instabil. sens. algm. 36681
induction motor drives, robust adaptive observers 11357
induction motor drives, speed sensorless control, flux saturation effects 11328
induction motor drives, thyristor switched, control algm. studies 44461
induction motor drives, universal field oriented control simuls. 36640
induction motor drives, vector control, auto-tuning method 36682
induction motor drives, vector controlled, iron loss effects 5280
induction motor drives, vector controlled, rotor time const. ident. 20073
induction motor drives, VSI-fed, generalized predictive control 5248
induction motor drives, VSI-fed, predictive vector current control 44492
induction motor EM procs. calcs., tensor methodology *(Russian)* 44055

machine theory continued
induction motor fault current simul., rotor leakage flux-caused 19647
induction motor field oriented torque control scheme 11014
induction motor incipient fault detect., fuzzy neural net-based 36156
induction motor invertor synchronisation, magnetisation/vel. determ. *(German)* 36159
induction motor model, dyn. aggregation, power syst. simul. 4960
induction motor modified flux orient. control scheme 11046
induction motor offline param. ident., computer-based 4956
induction motor param. determ., genetic algms. appl. 4962
induction motor param. est. models 4977
induction motor power supply, single/three phase conversion anal. 27722
induction motor quasi-freq. control design 27721
induction motor saturation modelling, computer-based 4937
induction motor speed control, neural fuzzy controller design 44052
induction motor speed control, stator resist. estim. 36155
induction motor starting, optimal control anal. *(Russian)* 11012
induction motor starting transients, simul. algm. 19631
induction motor stator current control, neural net-based 19629
induction motor vector control, param. ident. software 4950
induction motor vehicle drives, static characts. modelling *(Russian)* 44570
induction motor winding end region, mag. field studies 27728
induction motors, artificial loading condition impedance calcs. *(Russian)* 44034
induction motors, capacitively compensated, line commutated power converter-fed 27732
induction motors, choice method, torque calc. *(Russian)* 27736
induction motors, cut lamination stators, core anal. 11022
induction motors, doubly-fed, IP control transient stabil. anal. 27740
induction motors, dyn. P, Q load models 36145
induction motors, dyn. perform., space harmonic fields, cpd. transform. *(Chinese)* 11015
induction motors, dyn. thermal model develop. 27715
induction motors, field accel. controlled, energetic efficiency 11036
induction motors, field oriented controller, iron losses influence 44054
induction motors, freq.-depend. model 11048
induction motors, indirect field oriented control perform., rotor speed error 4976
induction motors, inertia-lowering digital control studies *(Japanese)* 36162
induction motors, inverter-fed, computer-based torque simul. 27713
induction motors, invertor-fed, power derating studies 4963
induction motors, nonsinusoidal supply-fed, additional loss calcs. 27737
induction motors, param. slip depend. determ. methods 27734
induction motors, parameter estim., dyn. anal. 19649
induction motors, power convertor-fed, torque pulsation calcs. 27731
induction motors, PWM power convertor feed problem calcs. 27730
induction motors, single phase, starting transients calc. 11039
induction motors, single/3-phase, speed control, AC regulators, freq. division 11034
induction motors, torque oscills. reduction, supply switching 19636
induction motors, transient operation math. anal. methods 44047
induction motors, transient torque anal. *(Japanese)* 11031
induction motors, two rotor ccts., reduced order models 11054
induction motors, voltage fed, field orient. control 19639
induction motors drives, av. params. field oriented control 5281
induction motors drives, real-time PWM vector control studies 28100
induction servomotor drive control studies *(French)* 11335
induction servomotor drives, LQG/LTR digital control design 36641
indust. power systs., electromech. response 20186
indust. truck power steering, DC motor appls. 11442
inertial elec. drives, monotonous ang. vel. control model *(Russian)* 44487
interconnected power syst., transient response, single line-to-ground faults 4593
interior PM servomotors, EM props. calcs. 44080
interior PM sync. machines, tangential vibrs. rejection 4918
inverter-AC motor motor drive syst., param. ident. 5249
invertor output waveforms anal. maximum entropy method 24237
iron rolling mill motor drive, random disturbance studies 11499
LIM, charact. anal., 1 A conductor *(Korean)* 36196
LIM, control obj., math. model *(Russian)* 27759
LIM, init. conditions, dyns. form./anal. 11075
LIM, moving conductors eddy current anal. method 27724
LIM, rolling rotor, pulsed operation modelling 27720
LIM, single-sided, theoretical perform. anal. *(Japanese)* 44045
LIM, skewed ladder-type rotor, 3D FEM-based anal. *(Japanese)* 44044
LIM, slitted react. plate, 3D FEM anal. *(Japanese)* 19668
LIM drive coil winding actuators, control design 44257
LIM drives, transvector control syst. computer simul. *(Russian)* 44437
LIM end-pole pitch AC EM field calcs. 36197
LIM field control perform. improvement 11035
LIM perform., design params. influence 27756
LIM vector control algm., perform. modelling 44053
lin. generators, railgun pulsed power supply appls. 36309
lin. induction flat motor, reactance, hodograph shape *(Polish)* 44079
lin. PM motors, design/anal. 11072
lin. PM motors, finite element modelling 11076
lin. pulse motor mag. reluctance distrib., structural depend. anal. *(Japanese)* 44072
lin. reluctance motor can secondaries, suspen./propulsion forces 19671
lin. reluctance servomotor drives, control perform. 5319
lin. step motors nuc. reactor control rod drives, dyn. characts. 20075
lin. switched reluctance machines, high force dens. designs 36135
mag. bearing-based vibr. control simul. 36091
mag. field anal., FEM 44070
Maglev on-board power supply lin. generator, math. model 36759
Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
Maglev PM wheels, basic characts. 5356
Maglev supercond. lin. sync. drives, stator irreg. calcs. 36761
magnetostatic field problems, modified scalar pot. method 43981
MHD induction pumps, 3D EM field/force anal. 36610
micro-hydroelec. power induction generator stabilisation 4857
micromotors, coupled electrostatic/mech. FEA 11094
mine elec. locomotive braking, pulsed control syst. modelling 28202
modelling, three-phase AC network simulator-based *(Russian)* 43994
motor drives, thyristor convertor-fed, math. modelling 11367
motor stator interturn short-cct. detect./location 10962
motors, double power supply, LF oscillatory motion 4904
multi-time scale modelling of elec. machine 36122
multimachine interconnected power syst., transient perform. model 19149

machine theory continued
nonlin. EM problems, hybrid finite element-BEM 40221
nonlin. SRM drive modelling, neural net-based 5256
nonsalient pole DC motor, stator reconstr., elec. steel use 36183
parallel turbogenerators, phase shifts, SSR, incipient stabil. 43978
permanent magnet DC motor, computer modelling 19661
piezoelec. rotary US motor, perform. prediction 36198
planet Earth, electromech. syst. description 20011
PM 2-phase sync. FHPM, self starting 36678
PM brush DC motor design principles 36186
PM brush DC motors, tracking control studies 36190
PM brushless DC drive, var. struct. speed control 36665
PM brushless DC motors, laminated rotor, FEM modelling 11064
PM brushless machine, induced EMF/torque waveforms 10933
PM brushless motors, EM/thermal design 36104
PM commutator motor drives, const. power speed range 36724
PM DC brushless homopolar motor, math. model 4987
PM DC machines, mag. field anal., FEM 44067
PM DC motor, power efficiency 44063
PM DC motor drives, AI speed control strategies 5285
PM DC motors, hysteresis loop, num. model 11066
PM machine, acoustic model, modal shapes, mag. forces 19594
PM machines, air-gap flux dens. calcs., computer-based *(Chinese)* 10927
PM machines, flux weakening operation, design concept 36103
PM machines, irreversible demagnetization loss calcs. 36098
PM motor EM field anal., 3D equiv. mag. cct. method *(Korean)* 27667
PM rectifier motor, EM field/torque calcs. *(Russian)* 10920
PM rectifier-type motor, mag. field anal. 27682
PM reluctance machines, dyn. characts. investig. 19609
PM reluctance machines, theoretical anal. *(Japanese)* 4923
PM reluctance motor drives, axially-laminated interior rotor design 36664
PM stepping motor drives, reverse rot. studies *(Japanese)* 11394
PM stepping motors, orient. pattern/magnetisation calcs. 27765
PM sync. elec. vehicle motor drive, design, testing 11417
PM sync. machine, vibrs. of mag. orig., feeding currents 44024
PM sync. machines, stabil., cage bar effects 36125
PM sync. motor, back EMF estim., torque harmonics minimisation 4916
PM sync. motor drive, flux-weakening control 20078
PM sync. motor drives, nonsinusoidal field distrib. 5263
PM sync. motor efficiency optim. design method *(Korean)* 27690
PM sync. motors, digital controller, Park model 10992
PM sync. motors, nonlin. reduced order observer 44027
PM sync. motors, single-phase, line started, FEM 10978
PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
PM sync. servomotor drive, VSI-fed, field oriented control 36675
PM sync. servomotor drives, PWM inverter-fed, LF torque ripple 44479
PM vernier motors, anal. *(Japanese)* 10974
pole changing induction motors, pole AM studies *(Japanese)* 11020
power syst., voltage sags, motor re-accel. influence 19038
power syst. dyn., coherency ident., neural net-based 4492
power syst. dyn., induction motor loads aggregation 4491
power syst. dyn. stabil., optimal control modelling 4515
power syst. dyn. stabil. models develop. 26898
power syst. dyn. voltage instabil., induction motor model *(Korean)* 35461
power syst. interarea/local generator reson. modes ident. 35486
power syst. short-cct. anal., charact. currents method 19057
power syst. static voltage stabil. studies, generator modelling 26892
power syst. sync. generator damping, SMES-based 10680
power syst. sync. generator dyn. stabil. control enhancement 43706
power syst. voltage collapse, load pattern anal. 4452
power syst. voltage stabil. indication, rotor heating simuls. 35432
power systems, interconnected, single line-to-ground fault transient response 35564
PSS design, self-tuning regulator 19194
PV water pumping, SRM drive-based, perform. anal. 10890
PWM CSI, PM sync. machine harmonic torque rejection appls. 36354
PWM invertor AC motor drives, chaotic current control anal. 44480
PWM rectifier/CSI motor drive, optimal design 11352
PWM VSI, motor appls., HF leakage currents modelling *(Japanese)* 27814
PWM VSI, tolerance band control chaotic procs. 5065
reluctance generators, sensorless DC output voltage control 4927
reluctance machines, multiple coupled cct. modelling 10981
reluctance motor drive, optimal current angle control algm. 36684
reluctance motor drives, axially laminated rotor, vector control 5258
reluctance motor drives, flux weakened operation, current regulator 5303
reluctance motors, modelling/param. meas. methods *(Japanese)* 10973
reluctance step motors, dissymmetrical stator theory *(French)* 36136
ring-type piezoelec. ceramic US motor characts. *(Korean)* 27766
ripple fields comp. on moving finite element meshes 43982
rly. traction vehicles, tractive factor calcs. *(German)* 28105
rolling rotor SRM, optimal digital control design 36134
rot. machine act. noise control studies *(Korean)* 27668
rot. machines, radial EM force, superposed mag. field *(Japanese)* 27662
rotor drag torque estim. algm. *(Russian)* 43974
salient pole sync. generator, transient stabil. anal. 4920
salient reluctance generator voltage control, DSP-based *(Korean)* 36113
salient-pole brushless motors, starting method 5286
salient-pole saturated alternators, damping/synchronising torque calc. 44015
salient-pole sync. generator, time-stepping FEM anal. 19605
saturated deep bar induction machines, simul. model 4971
saturated induction motor drives, state-space modelling 28062
saturated sync. motor drives, control modelling 5324
sealed motors, sleeve losses calc. studies 10945
segmental PM DC commutator motor, design optim. 36193
self-excited induction generators, capacitor selection studies 44036
self-excited induction generators, circle diagram approach 19628
sensorless brushless DC motor drive control studies 44474
servomotor, bang-bang fuzzy controller, time optimal/min. chatter 27769
servomotor drives, predictive posn. control design 28087
servomotors, indirectly connected load perform. calcs. 36207
shaded-pole induction motors, 2D EM field anal. *(Japanese)* 11019
shaded-pole motor model and equiv. cct. *(German)* 11025
sheet glass mfg., LIM-based elevation control studies *(Japanese)* 44636
single phase induction motor, lamination, optimal design *(Chinese)* 44043
single-phase doubly salient PM sync. generator 4926
single-phase high efficiency induction motor, perform. studies 19627
single-phase induction motors, rotor slot skew effects anal. *(Polish)* 36147
single-phase inductor alternators, electromech. proc. eqns. *(Russian)* 10970
single-phase iron-core compulsator, computer modelling 36290
single-phase self-excited induction generator, anal. 36177

machine theory continued
six-phase salient-pole PM motors, optimal control studies 27675
six-phase split winding induction motor drives, EM proc. modelling *(Russian)* 28095
slip energy recovery induction motor drives, harmonic anal. 11391
slot-bound conductors, eddy current effects 36097
slotless PM sync. motors, perform. anal. 10984
solid rotor turbogenerator, equiv. ccts. anal. 27660
spacecraft, 3-phase PM step motor simul. 35230
spindle motor heat generation, thermal anal. studies *(Japanese)* 10924
split phase induction motor drives, vector control 5295
squirrel cage drives, adaptive sliding mode speed control 36666
squirrel cage motor, inverter driven, thermal model 5253
squirrel cage motor, sync. parasitic torque calc. *(Polish)* 44060
squirrel cage motor drives, self-commissioning scheme 5300
squirrel cage motor harmonic equiv. cct. param. determ. 36161
squirrel cage motor impedance loci, slot-type effect studies *(Japanese)* 11056
squirrel cage motor perform. characts. calc., nameplate data-derived *(Russian)* 11011
squirrel cage motor rotor time const. ident. studies 4953
squirrel cage motor vector controllers, rotor models improvement 4975
squirrel cage motor/sync. generator, skew, 2D FEM 4929
squirrel cage motors, 3D eddy current field rotor modelling *(Chinese)* 44042
squirrel cage motors, field oriented control param. estim. 4979
squirrel cage motors, inverter-fed, 2D FEM, freq. domain 36164
squirrel cage motors, rotor, transverse bar-to-bar currents *(Polish)* 27702
squirrel cage motors, torque vector control studies 4980
squirrel-cage motor drive, inverter-fed, computer modelling 11386
SRM, lin. unaligned posn. scaling method 19603
SRM, optimal operation, choppingless excitation *(English)* 27684
SRM actuators, axially laminated anisotropic rotor design 27701
SRM drive, asymm. half bridge fed, discrete modelling 44497
SRM drive, nonlin. modelling, ANN 20074
SRM drives, dyn. simul., saturation/driver characts. 11362
SRM drives, energy recovery snubbers anal./design 20057
SRM drives, generalised simul. approach *(Chinese)* 44472
SRM drives, sensorless rotor posn. meas./control 5257
SRM EM characts., meas. methods comparison 10998
SRM faults/unbalance forces studies 36132
SRM params., torque calc., power characts. 44022
SRM perform., end core flux effect 4915
stabil./faults, neural net class. 36123
staggered-rotor async., machine harmonic torques *(German)* 11027
state eqn. inductance matrices anal. *(Russian)* 44005
state eqns., inductance matrices eigenvalues *(Russian)* 43975
steam turbogenerator exciter shaft torsional vibrs. anal. 43738
stepping motors, closed-loop posn. feedback control 19672
stepping motors, sensorless rotor posn. control 11084
stepping servo motor drives, polyphase space-phasor theory 11346
stepping surface motor, approx. 3D anal. *(Japanese)* 27762
submersible induction motor pumps, soft starting calcs. 4954
supercond. commutatorless motors, fund. design, elec. characts. 36686
supercond. generators, short-cct. rotor damper EM force calcs. 27676
supercond. machine cryoresistive winding short cct. interacts. *(Russian)* 10919
surface elec. motors, translational motion design 4902
surface mount PM motors, cogging torque, mag. field anal. 36215
switched reluctance machines, torque optim. design *(French)* 10990
switched reluctance motor, phase current, loss, model *(French)* 44029
switched/sync. reluctance motor torque prod., unified theory 36133
sync. and induction machines, transient state, faults effect 19197
sync. generator, back-swing phenom. anal. 11000
sync. generator, damper winding, block diag. transfer fn. 4917
sync. generator rotor angle calcs., zero seq. harmonic components-based 4912
sync. generator stabil. pattern class., neural net-based 11006
sync. generator voltage stabil., voltage depend. reactive power limits 36114
sync. generators, practical model 44019
sync. impact generators, stator EM field calcs. *(Russian)* 27699
sync. machine, reduced models, charact. params. 10980
sync. machine air gap EM field calcs., boundary elements method *(Russian)* 36130
sync. machine equiv. cct. time domain anal. approach 11005
sync. machine harmonic phasor rels. modelling *(Chinese)* 44025
sync. machine modelling, freq. response data-based 36115
sync. machine modelling, time consts., transients, reactance, steady-state operation *(French)* 27700
sync. machine param. ident., multitime scale tech. 19615
sync. machine stator fault anal., transform. method *(Chinese)* 10971
sync. machines, damper winding/rotor iron currents modelling 11004
sync. machines, model struct. ident., SVD *(Chinese)* 4911
sync. machines, power converter-fed, harmonic conditions anal. 27698
sync. machines, reduced model error anal. 10975
sync. machines, transient stabil. teaching 11001
sync. motor drive, inverter-fed, discrete time simul. 28094
sync. motor drives, design for flux-weakening appls. 11326
sync. motor drives, inverter-fed, self-controlled, perform. characts. 5289
sync. motor drives, self-controlled, computer modelling 11337
sync. motor drives, self-controlled, steady state perform. 11389
sync. motor drives, VSI PWM inverter fed, design, params. 5283
sync. motors, CSI-fed, rotor losses estim. 44013
sync. motors, cycloconverter-fed, computer simul. 10999
sync. PM motor vector control, stator iron loss considerations *(Japanese)* 10968
sync. posn. VSI fed, control laws, POSTMSYNC simul. program 36673
sync. reduction motor design, step/rot. regimes *(Russian)* 36118
sync. reluctance drive technol., theoretical overview 44473
sync. salient pole/wound rotor motors, control studies 4919
sync. turbogenerator, salient-pole, saturated rotor, toothless stator 36111
synchronous motor, self-controlled, current fed, simul. 19613
tandem induction motor, series-delta connected, equiv. cct. model 36179
three-level PWM motor inverters, harmonic loss calcs. 44175
three-phase bridge rectifier, self-excited generator appls. 11179
three-phase induction machines, dynamic starting perform. models 19626
three-phase induction machines, two/three-level PWM invertor-fed *(French)* 11032
three-phase induction motor, measurability anal./simul. 27707
three-phase induction motors, math. modelling eqns. *(Polish)* 27703
three-phase inverter-fed squirrel cage motors, audible noise study 36163

machine theory continued
- three-phase machine ring winding, end turn leakage inductance calc. *(Russian)* 43973
- three-phase reluctance motors, single-phase-fed, transient anal. 36124
- three-phase salient pole sync. machines, param. estim. algm. 44016
- three-phase squirrel cage motors, acoustic noise level scatt. 11033
- three-phase sync. motors, single-phase supply starting transients 44017
- three-phase turboalternator adaptive control, transputer-implemented 36119
- three-phase two-stator brushless sync. induction motor *(Japanese)* 19606
- transm. line energisation, simul., black start studies 19196
- transm. network probabilistic prod. costing simul. 27120
- turboalternator third-order SSR stabil. models 44018
- turboalternator winding eccentricity monitoring studies *(German)* 36126
- turbogenerator FEM/state-space modelling, no-load case 43983
- turbogenerator FEM/state-space modelling, short cct./load case 43984
- turbogenerator modelling, self-organizing neural net-based *(Chinese)* 27677
- turbogenerator shaft torque amplif. prediction 36092
- turbogenerator shaft torque/fatigue life expenditure prediction 10958
- turbogenerator stator end core zone, EM procs. anal. *(Russian)* 36107
- TW US motor, adaptive speed control 11089
- twin-shaft governor/gas turbine model, computer-based 36014
- two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638
- two-speed elevator async. motor, 3-phase stator 36708
- universal motor cycloconverter control, microcontroller-based 44002
- universal motors, commutation characts. anal. 36189
- variable reluctance machine magnetisation characts. modelling 19604
- variable reluctance machines, demagnetisation control designs 36138
- variable reluctance motor, voltage-fed, dyn. model *(French)* 10994
- variable reluctance stepping motor rotor oscill. control 11376
- variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
- variable speed cycloconvertor AC drives, vector control simul. 5267
- variable speed induction motor drives, controller synthesis 11353
- variable speed induction motor drives, neural net-based vector control 36685
- variable speed induction motor drives, peak voltage appl. 11336
- variable speed induction motor drives, pole no. selection 36663
- variable speed induction motor drives, vibro-acoustics anal. 28092
- variable speed sync. motor drives, stator flux-oriented control 36667
- vibrs., 3D FEM-based modelling 27674
- washing machine energy efficient brushless motor drive 5396
- wind induction generators, harmonics prediction/ident. 43960
- wind power self-excited induction generators, rectifying bridge studies 36084
- wind turbine load matching, least resist. principle errors 10900
- Fe-cored compulsator modelling, num. anal. techs. 19784
- NdFeB PM hysteresis motors, starting/synchronisation studies 10977
- NdFeB PM motor torque prod./efficiency, temp. effects 36102
- NdFeB PM operating conditions in elec. machines 43998

machine tools
- *see also numerical control*
- 3D microstruct. constr. by multi-face FAB/robot 30521
- AC PM servomotor digital controller, appls. 43979
- CNC machine tool digital joint motion controller 11509
- cutting proc. monitoring, neural net-based *(Japanese)* 9790
- design for cell-based mfg. 37009
- five-axis EDM machine tool, CAD/CAM syst. develop. *(Japanese)* 11511
- foil/film indust., AC drives appl. 44634
- high-integrity product mfg., SPC appls. 20389
- IR laser machining tools 11734
- KoREMA, conf., Zagreb, Croatia (Apr. 1993) 20203
- light strip image anal. on cutting tools, extract 3-D wear inform. 24542
- milling cutter failure, power monitoring method *(Chinese)* 10916
- operator safety, intell. image proc. 24523
- robot control, inductive power/sig. transm. 20167
- rolling meas. syst., laser interferometer-based *(Japanese)* 42940
- torque on drill detect., magnetostrictive effect 17716
- wear/breakage model-based detect. 25731
- TiC containing layers, high wear resist. on steel surfaces by laser melting *(German)* 7868

machine translation *see language translation*

machine vision *see computer vision*

machine windings
- *see also rotors; stators*
- 3-phase ring winding leakage reactance, circ. coil 43991
- 3D dyn. nonlin. mag. field in elec. machine, time-periodic FEM 40246
- AC machine, alternating to direct voltage conversion, transducer *(Polish)* 43977
- asynchronous generators, EM launcher pulsed power supplies 31742
- brushless PM sync. motor drive, predictive control 20087
- claw-pole type stepping motors, dyn. behaviour simul. 4997
- compensation windings, mag. field reduction 36094
- DC machine, distributed exciting winding, calc. 36182
- DC motors, high T_c supercond. field winding, slotless armature 4986
- DC PM motor, electronically commutated 19663
- doubly salient doubly excited variable reluctance motor 19616
- elec. machine power convertors, 2D FEM computer modelling 36099
- elec. motor drive mfg., design reliab. methodology 28076
- elec. motor winding interturn switching transient voltage studies 43985
- embedded generators, pole slipping protection studies 4895
- hydroelectric generator, winding I^2R losses, harmonic interf. 43986
- induction machines, multiple coupled cct. modelling 36160
- induction motor vac. cct. breaker switching surge anal. *(Korean)* 27706
- induction motor winding end region, mag. field studies 27728
- induction motors, dyn. thermal model develop. 27715
- induction motors, nonsinusoidal supply-fed, additional loss calcs. 27737
- induction motors, param. slip depend. determ. methods 27734
- induction motors, transient operation math. anal. methods 44047
- LIM end-pole pitch AC EM field calcs. 36197
- lin. generators, railgun pulsed power supply appls. 36309
- lin. PM motors, design/anal. 11072
- lin. variable-reluctance machine, mag. flux decoupled windings 19666
- mag. support struct., HTSC PM appls. 43980
- North American elec. motor market, German expert guidelines *(German)* 10940
- PM sync. elec. vehicle motor drive, design, testing 11417
- PM sync. machines, act. vibr. compensation scheme *(French)* 10997
- pole changing induction motors, pole AM studies *(Japanese)* 11020
- single-phase high efficiency induction motor, perform. studies 19627
- single-phase induction motors, multi-speed control studies 19621

machine windings continued
- six-phase split winding induction motor drives, EM proc. modelling *(Russian)* 28095
- slot-bound conductors, eddy current effects 36097
- Sloy hydroelectric power station refurbishment project, UK 19545
- squirrel cage motor impedance loci, slot-type effect studies *(Japanese)* 11056
- SRM, flux linkage/inductance meas. methods 4935
- SRM drives, generalised simul. approach *(Chinese)* 44472
- SRM drives, novel C-dump inverter develop. *(Korean)* 28085
- state-of-the-art supercond. material appls. 43972
- submerged water-filled elec. motors, insulation 10957
- supercond. machine cryoresistive winding short cct. interacts. *(Russian)* 10919
- sync. generator, damper winding, block diag. transfer fn. 4917
- three-phase machine ring winding, end turn leakage inductance calc. *(Russian)* 43973
- three-phase power syst. reliab. rel., voltage unbalance 19232
- three-phase stepping motor, novel struct. *(Japanese)* 36209
- turbogenerator shorted turn location, fuzzy neural net-based 19687
- turbogenerators, winding shorts localisation, fuzzified ANN 44021
- TW inductors for continuous induction heating of metal strips 20132
- two-phase disc magnet stepping motor design *(French)* 11355
- vac. cct. breakers, switching surge voltage, travelling wave method *(Korean)* 27834
- variable speed induction motor drives, pole no. selection 36663
- NdFeB PM motor torque prod./efficiency, temp. effects 36102

machines, electric *see electric machines*

machining
- *see also cutting; electrolytic machining; electrolytic polishing; electron beam machining; grinding; laser beam machining; micromachining; spark machining; ultrasonic machining*
- CNC machine tool digital joint motion controller 11509
- conference, materials processing, Singapore (1994) 20244
- DC servomotor machining motion control, parallel DSP 36192
- electronic cams, mfg. motion control appls. 44632
- EM barrel finishing machine, induction motor-based 28194
- fibre-optic proximity sens., spindle stop posn. control 17897
- gas-assisted etching, FIB milling enhancement, IC design modif. 38681
- inspection, visual, shape recogn./anal. 11832
- milling, cutting vibr. control, impact damper *(Japanese)* 42952
- MLC prod., advanced dielec. powders 5912
- monitoring/supervising by neural net 34384
- noncontact profiling of machined surfaces, fibre optic interferometry 18064
- proc. monitoring, neural net-based *(Japanese)* 9790
- real-time Petri nets for modeling, controlling, and simul. of LANs in FMSs 16735
- robot control, inductive power/sig. transm. 20167
- robotic plasma arc cutting, laser sens.-based 126
- rot. mach., stat. monitoring, cumulant spectral anal. 32454
- thick film paste dispersion procs., pass. electronic component manufacture 6439
- tool rolling meas. syst., laser interferometer-based *(Japanese)* 42940
- x-ray mask absorber repair by focused ion beams, materials issues 6699
- Fe_2O_3, magnetomech. reduction, struct./mag. props. 14181

Macintosh computers *see Apple computers*

macrocells *see cellular arrays; integrated logic circuits; logic arrays*

macroeconomics *see economic cybernetics*

macromolecular energy levels *see molecular electronic states*

macromolecular spectra *see spectra*

magamps *see magnetic amplifiers*

Maggi-Righi-Leduc effect *see thermomagnetic effects*

Maglev *see magnetic levitation*

magnetic aftereffect
- lattice defects study, ultra-compact LC-oscillator appl. 25955
- remanence enhanced nanocrystalline materials, magnetis. procs. 7012
- $Ho_2Fe_{14}BH_x$, short-range mag. after-effect 39157
- Li-ferrite, Ti-doped, mag. aftereffect meas. 14197
- Nd-Fe-B magnets, flux stabil. in direct joule heating 6988
- $Nd_2Fe_{14}BH_x$, short-range mag. after-effect 39157
- YIG, isolated domain wall, local dyn. pot. well 14189
- YIG, mag. disaccommodation spectrum, sintering temp. depend. 14185

magnetic amplifiers
- series-parallel reson. converter, magamp postregulators 6020
- soft-switching full-bridge converter, mag. amps. 44139
- Ward-Leonard drive, digital control, roughing mill appl. 44624

magnetic anisotropy
- *see also induced anisotropy (magnetic); perpendicular magnetic anisotropy*
- 0.1 to 0.3 micron wide, ultra dense GMR memory elements 14207
- 3D integral eqn. method for eddy current EM field anal. in anisotropic materials 39145
- 3D moving vector Preisach hysteresis model 39186
- 10 Gbit/in^2 mag. recording, thermal instabil. 7181
- auxiliary vector fn./adjoint methods in solving anisotropic media EM problems 15230
- digitally based ΔE meas. syst., design 18039
- doubly- and non-oriented sheets, anisotropic behaviour model 39126
- EM screens efficiency improvement by appl. of anisotropic materials 23715
- FEM mag. field anal., effective anisotropic field 40227
- garnet films, attractive/repulsive defects, domain wall interacts. 14168
- GMR 1-μm wide, end-on, ganged, read head sens., high sensitivity 7073
- hexagonal planar ferrites, polycryst., approach-saturation curve 14187
- interact. Stoner-Wohlfarth particles, recording media modeling 14229
- lin. reluctance servomotor drives, control perform. 5319
- low-temp. two-axis goniometer, accurate temp. control 9874
- mag. brush, mag. field modelling/simul. 30762
- metal audio tapes, FMR 14239
- metal particle oriented tapes, FMR spectra 7134
- Permalloy thin-film/micro-fiber magnetoresistive sens. 17712
- planar wire-mesh EM shields loaded by general stratified struct. 40379
- PM, materials, review 39155
- PM, powder proc., mag. alignment 7033
- polycryst. PM, remanence angle hysteresis 14259
- polymer-ferroxide film absorbers, microwave, mag., dielec. props. 14102
- reluctance motor ASD, 2-level bipolar current control 11385
- reluctance motor drives, flux weakened operation, current regulator 5303
- sens., output voltage-excitation freq. charact. 9879

magnetic anisotropy continued
- single-domain mag. pillar array for ultrahigh dens. quantum mag. storage 7189
- SRM actuators, axially laminated anisotropic rotor design 27701
- steel sheet, oriented, mag. field anal. by FEM 39147
- stripe amorph. soft mag. film, locally induced mag. anisotropy *(Japanese)* 30661
- sync. reluctance drive technol., theoretical overview 44473
- Terfenol-D, magnetostrictive strain, thermal, mag. annealing 7016
- torque magnetometer for rocks/crysts. meas. 10000
- trilayer syst., exchange coupling, micromagnetics 7047
- two-layer iron garnet films, FMR doublet 7025
- AlFe, hot rolling, strong (100)[001] texture component 14145
- Ba ferrite, doped thin films, mag. props. 7022
- Ba hexaferrite particles, sol-gel prep. 7024
- $BaFe_{12}O_{19}$ hand spread coatings, transverse suscept. and remanence characts. 7027
- $Ce_2Fe_{17}H_x$, press. effects on mag. props. 39160
- Co ultrafine clusters, NMR spin echo meas. 6978
- Co/CoAl mag. superlattices on GaAs 7044
- Co/Ni multilayer, sputtered, anisotropy and magneto-opt. props. 14203
- Co-Ag granular films, giant magnetoresist. 6981
- Co-Cu sandwich film, giant magnetoresist./anisotropic magnetoresist. comparison 7061
- Co-Fe-Si-B amorph. soft ferromag. wires, magnetoimpedance, magnetostriction 30668
- Co-Ni-O metal-evaporated tapes, unidirectional exchange anisotropy 7113
- Co-Pd alloys, high-field forced magnetoresist. 30670
- Co-Zr-R (R=rare earth) amorph. films, field induced mag. anisotropy 14129
- Co-Zr-Ta-Nb amorph. thin film deposited cores on polyimide sheets *(Japanese)* 30662
- Co-γ-Fe_2O_3 oriented tapes, FMR spectra 7134
- CoCrPt/CoCrPt/CoCrPt multilayer, ultra-high dens. mag. recording 7051
- CoCrPt/CoCrTa multilayer, ultra-high dens. mag. recording 7051
- CoCrPt/Cr/CoCrPt multilayer, ultra-high dens. mag. recording 7051
- CoCrTa/Cr anisotropic medium, track-edge overwrite pattern, MFM obs. 22699
- Co_9Fe-Cu-Co_9Fe struct., giant magnetoresist./mag. anisotropy *(Japanese)* 30695
- γ-$Co_xFe_{2-x}O_3$ fine particles, spin canting anom., size/anisotropy effects 7026
- $CoFe_2O_3$ acicular ferrite particles, Mossbauer effect study 7035
- $Co_{20}Ni_{80}$ particles, prep. and microwave charactn. 6977
- CrO_2 oriented tapes, FMR spectra 7134
- $Cu_{1-x}Co_xFe_2O_4$ spinel ferrites, mag. domain behavior 14188
- Er_2Fe_{17}, single cryst. magnetisation meas. 39161
- $ErFe_{8.5}Co_2Mo_{1.5}D_y$, struct./mag. props., deuteration effects 39162
- $Er_2Fe_{17-x}Ga_xC_2$, mag./struct. props. 39205
- Fe films on Si substrs., epitaxial growth, magnetocrystalline anisotropy 14144
- Fe/Pd multilayers grown by electron-beam, mag. props. 39176
- Fe-Ag granular films, giant magnetoresist. 6981
- a-$(Fe_{0.06}Co_{0.94})_{72.5}Si_{12.5}B_{15}$, creep-induced mag. anisotropy 1571
- FeCuNbSiB, nanocrystalline, induced anisotropy 14133
- a-$Fe_{73.5}CuNb_3Si_{13.5}B_9$ ribbons, mag. domain struct., crystn. effect 14142
- FeGdN, soft mag. thin film material 14151
- $Fe_{77}Nd_{15}B_8$, mag.-field orient. and coercivity 7207
- γ-Fe_2O_3 oriented tapes, FMR spectra 7134
- γ-Fe_2O_3 particles, coercivity and switching field 6976
- FeSiB amorph. wires, annealed, engng. magnetostriction meas. 14132
- a-FeSiBC films, mag./magnetoelastic props. 14139
- FeSiHfC nanocrystalline films, soft mag. props., anisotropy dispersion *(Japanese)* 30674
- FeTaN films, DC magnetron sputtered, microstruct. and mag. props. 6951
- FeTaN nanocrystalline films, mag. anisotropy, mag. heads appl. *(Japanese)* 28815
- $Gd_2Fe_{17}H_x$ syst., high field magnetis. 14156
- Ho/Er, superlattice, mag. struct., interacts. 7043
- Ho/Lu, superlattice, mag. struct., interacts. 7043
- Ho/Y, superlattice, mag. struct., interacts. 7043
- Ho_2Fe_{17}, single cryst. magnetisation meas. 39161
- $La_2Co_{17-x-y}Fe_xTi_y$ intermetallic cpds., mag. props. 1568
- $La_2Co_{17-x-y}Fe_xTi_yN_\delta$ intermetallic cpds., mag. props. 1568
- LiZn ferrite laser-deposited films, mag./struct. props. 14190
- $Mn_{0.05}Mg_{1.9-2x}Fe_{4x}O_{4+\gamma}$-$Al_2O_3$ ferrite, microwave loss *(Korean)* 30687
- Nd-Dy-Fe-B sintered PM, coercivity ang. depend. 39196
- Nd-Fe-B PM, magnetis. procs., torsion pendulum magnetometry 39133
- Nd-Fe-B, anisotropic, microstruct./mag. props. 6967
- Nd-Fe-B anisotropic powder, H decrepitated, XRD obs. 6971
- Nd-Fe-B magnets, texture determ. method 7206
- Nd-Fe(Co)-B magnets fab., rare-earth melt-spun ribbons and hydrogen-decrepitation powders *(Japanese)* 7201
- $Nd_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
- $Nd_2Fe_{14}B$ fine particles, spark erosion prep., struct., mag. props. 6975
- $NdFe_{12-x}V_x$, mag. props. 39150
- $NdFe_{12-x}V_xN_y$, mag. props. 39150
- Ni filaments in porous Si matrix, mag. props. 6996
- Ni, single-domain mag. pillar array, fab. 14244
- Ni-Pt multilayers, magnetoresist., in-plane magnetis. 30713
- Ni(Fe,Co)/Ag granular multilayers, struct./magnetoresist. 7048
- $Ni_{80}Fe_{20}$, sputtered film on Si, struct., mag. props. correl. 14150
- $Ni_{80}Fe_{20}/Cu/Ni_{80}Fe_{20}/Fe_{50}Mn_{50}$, giant magnetoresistive elements, thin film tape heads 7072
- $Ni_{76}Fe_{10}Co_{14}/Cu$ giant magnetoresistive multilayers, permeab., read heads 7076
- $Pr_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
- $PrFe_{12-x}Mo_x$, mag. props. 39149
- $PrFe_{12-x}Mo_xN_y$, mag. props. 39149
- Pt/Co multilayers, Ar-sputtered, anisotropy energy and coercivity, magneto-opt. recording 14545
- R-Fe-M systs., (M=Ti,V), struct., high mag. anisotropy 39163
- $RCo_{10}Mo_2$ (R=rare earth) PM, mag. props. 6986
- $R_2(Fe_{1-x}Ga_x)_{17}$ (R=Y,Sm,Dy,Ho), mag. props. 39143
- $RFe_{10.5}Mo_{1.5}C_x$ series (R=rare earth), synthesis, mag. props. 30669
- $RFe_{11.35}Nb_{0.65}N_y$, pure and nitrided, (R=Y,Sm,Gd,Tb,Dy,Ho,Er,Lu), struct. and mag. props. 22688
- Sm-Fe-Ti/nitrides, mag. props. 14160
- Sm_2Fe_{17}, SiH_4 treatment, mag. props. 39142
- Sm_2Fe_{17}, high field magnetis. 7198

magnetic anisotropy continued
- Sm_2Fe_{17}, magnetocrystalline anisotropy 39139
- $Sm_3(Fe,Ti)_{29}N_5$, mag. props. 14155
- $Sm_2Fe_{17-x}Al_xC$ (x=2-8), arc melted, struct., mag. anisotropy 7215
- $Sm_2(FeAl)_{17}C_x$, arc-melted, Al-effect on mag. props. 39201
- $Sm_2Fe_{17}C_x$, high field magnetis. 7198
- $Sm_2Fe_{17}C_xH_{5-x}$, high field magnetis. 7198
- $Sm_2Fe_{17-x-y}Co_yAl_x$, uniaxial mag. anisotropy 7216
- $Sm_2Fe_{17-x-y}Co_yGa_x$, uniaxial mag. anisotropy 7216
- $Sm_2(Fe_{1-x}Co_x)_{14}Ga_3C_2$, arc melted, struct., mag. props. 7219
- $Sm_2Fe_{14-x}Co_xSi_2$-based quasiternary syst., mag./struct. props. 6946
- $Sm_2(Fe_{1-x}Ga_x)_{17}$ (x=0-0.5) cpds. and nitrides, mag. props. 7218
- $SmFe_{12-x}Mo_x$, magnetocrystalline anisotropy 39151
- $Sm_{1-y}Pr_yCo_{4-x}Fe_xB$, mag. material by substitution/nitridation 7200
- $(Sm_{1-y}Pr_y)_2Fe_{17}N_x$ magnets, remanence enhancement 30678
- Sr hexaferrite particles, sol-gel prep. 7024
- Tb-Dy-Fe twinned terfenol-D crysts., anisotropy 7013
- $(Tb_xDy_{1-x})(Fe_{1-y}Mn_y)_{1.95}$, mag. props., magnetostriction 7005
- Y_2Fe_{17}, SiH_4 treatment, mag. props. 39142
- Y_2Fe_{17}, single cryst. magnetisation meas. 39161
- $Y_2Fe_{17}N_3$, pure and nitrided, magnetocrystalline anisotropy 39139
- YIG, mag. disaccommodation spectrum, sintering temp. depend. 14185
- YIG thin films, surface MSW 39168

magnetic annealing
- *see also induced anisotropy (magnetic)*
- ribbons, amorph. mag., asymmetric magnetis. reversal, chem. etching 14135
- Terfenol-D, magnetostrictive strain, thermal, mag. annealing 7016
- $CoFe_2O_3$ acicular ferrite particles, Mossbauer effect study 7035
- Fe-Si-B ferromag. amorph. alloy, high-field magnetis. meas. 14134
- FeCuNbSiB, nanocrystalline, induced anisotropy 14133

magnetic bays *see geomagnetic variations*

magnetic birefringence *see magneto-optical effects*

magnetic bubbles
- bubble garnets, VBL, nonreciprocal dyn. 14169
- damping effect on dyn. distortion in mag. garnet material 14170
- garnet films, attractive/repulsive defects, domain wall interacts. 14168

magnetic circuits
- *see also transformer magnetic circuits*
- 3-phase tetrapolar alternator model, bond-graph method 27695
- DC machine, electronically assisted commutation, terminal charact. 27755
- earth leakage cct. breakers, mag. nonlin. 36466
- elec. machine conjug. EM field calcs., Newton-Raphson method-based *(Polish)* 36093
- EM phenomena in nonlin. ccts., conf., Poznan, Poland (1994) 28257
- EMC device for telecomms. equipt. *(Japanese)* 31861
- exercise bicycle eddy-current brake computer model 36651
- fast mag. actuator for diesel engine injection syst., FEM modeling 15252
- hybrid double-sided lin. pulse motor, static thrust calc. *(Korean)* 27757
- induction motor winding end region, mag. field studies 27728
- induction motors, cut lamination stators, core anal. 11022
- inductive coil mag. cct., design method *(Russian)* 6373
- LIM, moving conductors eddy current anal. method 27724
- lin. step motors, static charact., control rod drives, nuc. reactors 44438
- lin. switched reluctance machines, high force dens. designs 36135
- mag. suspen., PM/lin. actuator reluctance control-based 28127
- magnetless voice coil motor, driving characts. *(Japanese)* 44088
- magnetoresistor lin. posn. sens., automotive appls. 11434
- magnetostrictive devices, FEM modelling for mag. cct. design 39212
- moving-magnet actuator for disk drives, low-profile design 7180
- nonlin. mag. ccts. anal., electronic cct. program 12848
- nonlin. mag. device modelling, IDAS simul. syst. 12305
- orthogonal core, optimum design based on mag. cct. 7197
- PM brush DC motor design principles 36186
- PM brushless DC motors design, mag. ccts. 36191
- PM DC motors, hysteresis loop, num. model 11066
- PM motor EM field anal., 3D equiv. mag. cct. method *(Korean)* 27667
- power contactor armature posn. sens., rem. auxiliary contacts 29645
- reluctance machines, multiple coupled cct. modelling 10981
- reluctance step motors, dissymmetrical stator theory *(French)* 36136
- SRM, core losses calc., mag. flux 10983
- SRM faults/unbalance forces studies 36132
- SRM perform., end core flux effect 4915
- steady-state lin. elec. ccts., computer anal./design *(Russian)* 5976
- TCMA, thermally controlled magnetis. actuator, thermosensitive mag. materials 30761
- three-phase induction motors, math. modelling eqns. *(Polish)* 27703
- turbogenerator FEM/state-space modelling, no-load case 43983
- twin relay develop. for automotive appl. 29637
- variable speed induction motor drives, pole no. selection 36663
- variational cct. anal. techs., introduction 28924
- wide-band noise filter, mag. cct. 21400
- XeCl discharge laser, mag.-spiker elec. ccts. 31152

magnetic circular dichroism
- mag. quantum struct., macroscopic consequences 14212
- photoelastic modulator of light, opt. feedback 14566
- $Cd_{0.6}Mn_{0.4}Te$, time-nonreversible lin./nonlin. opt. phenom. 23404
- $Er_2Fe_{14}B$, spin reorientation transits., X-ray circ. mag. dichroism 39158
- GaAs, SI props. of low-temp.-grown material 13038
- $Nd_2Fe_{14}B$, spin reorientation transits., X-ray circ. mag. dichroism 39158
- Pt/Co multilayers, interface struct., perp. mag. anisotropy 39175
- Pt/Pd/Co multilayers, interface struct., perp. mag. anisotropy 39175

magnetic clutches *see clutches*

magnetic confinement (plasma) *see plasma confinement*

magnetic cooling
- Nb/Er_3Ni SQUID magnetometer, Gifford-McMahon cryocooling, biomagnetism appls. 34436

magnetic cores
- *see also powder cores; transformer cores*
- 3-phase transformer transients prediction 19694
- 6 MV, 2 TW pos. ion driver, induction adder 36301
- 120 kW coaxial winding transformer, elec. vehicle appls. 20103
- capacitor-run induction motors, single-phase, lumped param. model 4972
- coilgun launchers, power conditioning, thyristor appls. 31765
- condenser motor, inner rotor, 16-part tooth core *(Japanese)* 11017
- converter transformer cores, losses modelling, failure 44108
- CT simul. hysteresis loop reconstr. *(German)* 19700
- DC/AC power convertor planar integrated reson. LCT cct. design 12321
- eddy current sens., mag. cct. losses 42771

magnetic cores continued
EHV transformer insulation, transients, nonlin. core characts. model 5009
elec. generator reliab. anal., retrospective data-based *(Russian)* 10917
EM CAD in undergraduate courses 2171
excimer laser pulsed power supply, mag. pulse compression cct.-based 36317
four stage RHEPP accelerator testing, power supply 36302
generators, neutral grounding *(Chinese)* 27678
Hi-8 HD-VCRs, embedded thin film mag. head 9746
hybrid double-sided lin. pulse motor, static thrust calc. *(Korean)* 27757
hysteresis losses modelling, computer-based 14254
induction machine vector control, iron core loss considerations 4955
induction machines, core loss/mag. saturation model 4978
induction motor core losses meas., static power convertor-based 19620
induction motor core losses prediction, rot. iron loss data 4970
induction motor drive, indirect rotor control, iron core loss 20070
induction motor saturation modelling, computer-based 4937
induction motors, cut lamination stators, core anal. 11022
inductive coil mag. cct., design method *(Russian)* 6373
lin. axisymmetric EM field soln., series method *(Chinese)* 7886
lin. inductive accelerator, pulsed power supply 34817
lin. ion accelerator FET-switched pulsed power supply, PSpice simul. 34742
loss charactn., practical approach 30746
loss power, meas. error control 39188
loudspeaker mag. core, mag. field optimal shape design *(Polish)* 22706
magnetless voice coil motor, driving characts. *(Japanese)* 44088
microrelay driving element, integrated electromagnet 21610
MINAS servomotor stator, cell method assembly syst. *(Japanese)* 11081
multiturn HF coaxial winding power transformers 19699
nonlin. mag. device modelling, IDAS simul. syst. 12305
orthogonal core, optimum design based on mag. cct. 7197
persistent current switches, stabil. current perform. *(Japanese)* 7257
pot core transformers, coupling coeffs., num. study 38053
power syst. elements, EM anal. using finite difference method, software tool 40182
power syst. nonlin. elements simul. techs. 26883
reson. switching power convertors, HF mag. design 44207
round massive core electromagnet, dyn. characts. calc. *(Russian)* 7930
single-phase iron-core compulsator, computer modelling 36290
SMPS multiwinding power transformers, computer-aided optim. 19749
soft mag. material wound cores, energetic behavior meas. 14108
squirrel cage motor, 3-phase, torque control, secondary current feedback *(Japanese)* 27708
squirrel cage motors, 3D eddy current field rotor modelling *(Chinese)* 44042
SRM, core losses calc., mag. flux 10983
steel sheet, oriented, mag. field anal. by FEM 39147
Co-Zr-Ta-Nb amorph. thin film deposited cores on polyimide sheets *(Japanese)* 30662
$Co_{66.5}Fe_{3.5}Si_{12}B_{18}$, metallic glasses for fluxgate sens., magnetis. 30664
CoZr amorph. thin film core head for digital VCR 7110
a-Fe-based toroidal transducer core, local flux dens. vars. 14255
Fe-cored compulsator modelling, num. anal. techs. 19784
FeSiAl Sendust films, recording head cores 7108
$Fe_{86}Zr_7B_6Cu$ soft-mag. compacts, nanocryst., high saturation magnetis. 1572

magnetic data recording *see data recording*

magnetic devices
see also clutches; ferrite devices; magnetic amplifiers; magnetic lenses; magnetic microwave devices; magnetic millimetre wave devices; magnetic storage; magnetic thin film devices; magneto-optical devices; magnetoresistive devices; magnetostrictive devices
3 DOF Maglev, actuators, PM *(Japanese)* 39216
5BDSR nanocrystalline amorph. mag. alloy, EM characts. determ. 30659
act. mag. bearings, fuzzy control scheme 22693
act. mag. bearings, unbalancing estim. 30758
act. mag. suspen. systs., PLL appl. *(Japanese)* 39215
actuator, nonlin. struct. dyn. 22712
brush, mag. field modelling/simul. 30762
cage mag. filters 14265
control type mag. bearings, appls. *(Japanese)* 22710
EM wave absorber, 9.45 GHz, design chart 39214
extended magnet in pass. dI/dt limiter 10778
flywheel energy storage program, Lawrence Livermore Nat. Lab. 28049
gravit. interferometric antenna, mag. gas spring 25813
high speed drives, energy/material savings 36672
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
MAGLEV, pass. mag. bearings, superconductors, PM *(French)* 7258
magnetotransistors, base region Hall field anal. model *(Korean)* 22342
material testing, pulsed mag. syst. 30759
nonlin. mag. device modelling, IDAS simul. syst. 12305
pass. damper for mag. suspen. 14266
relay, nonlin. ferromag. materials, mag. field calc. 38067
rigid rotor mag. bearing syst., nonlin. control 27681
skew gear, PM 14267
supercond. floating flywheel *(Japanese)* 36634
supercond. mag. bearing, appls. *(Japanese)* 22711
three-material pass. dI/dt limiter 7224

magnetic dipoles *see magnetic moments*

magnetic disaccommodation *see magnetic aftereffect*

magnetic disc storage
see also floppy discs; hard discs; magneto-optical recording
2-level disk cache models, non-volatile RAM *(Korean)* 658
(4, 20) runlength limited modulation code for high dens. storage syst. 30745
adaptive time optimal control of disk drive actuator, neural network 7179
allocation strategies of multimedia data on disk arrays 42000
analogue/digital PRML read channel equalizers 30737
BiCMOS 9-32 Mbit/s single-chip read/write channel for disk-drive appls. 29409
CMOS adaptive equalizer for partial-response channels 29246
CMOS VLSI trellis-coded partial response channel codec 29249
contact recording coatings, nanoindentation, microscratch, friction, wear 39184
cryptographic randomness from air turbulence in disk drives 32162
disk-drive PLLs, anal./optim., Kalman filters 37675
edge overwrite charact. in thin film disk media, MFM study 7185
EVENODD, efficient scheme for tolerating double disk failures in RAID archits. 22703
Fujitsu F6401A disk array unit, develop. *(Japanese)* 14246
gigabit LAN interfacing to high perform. disk array file servers 33257
head-disk interface lubrication using non-Newtonian fluid, num. simul. 7068
high track dens. mag. recording, multichannel equalization 7194

magnetic disc storage continued
high-dens. tape and disc track-following control techs. *(Japanese)* 14249
holographic interferometer for flatness testing, common-path design 18067
inspecting quality of disks 37160
long. thin film media, noise characts. of interact. transits. 30721
Los Alamos Nat. Laboratory gigabit network appls. 8918
lubricant depletion on a mag. storage disk, Monte Carlo simul. 1581
M-ary (d,k) codes for high dens. disk recording, improved dist. 30735
magnetoresistive head, recording channel non-lin. 7171
MARS, large scale multimedia storage server, design 16904
mech.-induced readback errors in contact recording 7157
moving-magnet actuator for disk drives, low-profile design 7180
multimedia servers, scheduling and storage struct. 3061
NDT probe for mag. data storage materials 3869
opto-heterodyne interferometer, mag. disk surface roughness meas. *(Chinese)* 34698
overwrite and transit. shift in perp. mag. recording 14224
PRML channel, medium noise, syst. error rate 7120
PRML read channels, A/D interface 7144
quantum mag. disk, nanoscale struct., electron-beam lithog. 14245
RAID5 disk arrays with NVS cache, priority queueing 21314
sig. depend. noise channels, model 30720
single-domain mag. pillar array for ultrahigh dens. quantum mag. storage 7189
single-pass flaw detector for mag. media 6934
slider/disk carbon, water adsorpt. 7153
Sony MD Data rewritable data-storage syst., magneto-opt. recording 22701
thin film disks, lubricant bonding, hydrogen bond network 7154
thin film media, transit. noise spectral meas. 7119
thin-film disk packaging, desiccant humidity barrier 30744
two-track codes for mag. recording channels 39185
video-on-demand systs., storage hierarchy 9744
$CoCr-NiP_3(TiSi_2)(Cr)(C)$-soda lime glass recording media, high coercivity and low noise 7115
CoCrPt/CoCrPt/CoCrPt multilayer, ultra-high dens. mag. recording 7051
CoCrPt/CoCrTa multilayer, ultra-high dens. mag. recording 7051
CoCrPt/Cr/CoCrPt multilayer, ultra-high dens. mag. recording 7051
CoCrPt-MgO bicrystalline long. recording medium, mag. charact. 6957
CoCrPtTa/Cr mag. recording media on glass substrs., props., noise 6954
CoCrTa thin film, long. recording media, grain boundary, intergranular exchange coupling 6955
CoCrTa/Cr thin-film media, underlayer effects on mag. and recording props. 6989
CoCrTa/Cr/GaAs, microstruct. and recording props. of bicrystal disks 7116
CoCrTa/NiAl(Cr) mag. thin film media for disk storage, in-plane coercivity 7223
CoPtCr thin film recording media, soft error rate 7124
Fe-Ta-N mag. film syst., double-sided MIG nano composite slider, 250 Mb/in^2 recording 7099
MnBi quadrilayer magneto-opt. disks, disk noise 14333
NiP/Al discs, sputter-induced random micro texturing 5885
Pd/Co multilayers for perp. mag. recording 7041
γ-Fe_2O_3:Co,Zn thin films, fab. and mag. studies, disk media 6964

magnetic domain walls
amorph. soft mag. ribbons, stress magnetis. props. *(Japanese)* 30673
bubble garnets, VBL, nonreciprocal dyn. 14169
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
damping effect on dyn. distortion in mag. garnet material 14170
domain-wall motion, nonequilibrium dyn., chaos 7188
ferrite-garnet films, VBL, crit. dens. 14199
ferromag. sheets, mag. field effect, skin effect 30680
magneto-opt. exchange-coupled multilayer, overwrite repeatability 22697
permalloy film, dyn. domain-wall motion, electron-holographic interf. microscopy 31680
Permalloy/Fe soft thin film elements, MFM anal. 14119
pipeline steel, 2% Mn, magnetis., cyclic stress effects 39129
PM, materials, review 39155
rare earth-transit. metal alloy films, microstruct. and domain wall motion 14115
stripe amorph. soft mag. film, locally induced mag. anisotropy *(Japanese)* 30661
Co thin films, STEM magnetometry studies 14205
Co/Cu multilayer struct., STEM magnetometry studies 14205
Co-Zr-Nb films, high resoln. single-pole recording head 7187
CoFeSiB amorph. wires and films, giant magneto-impedance 30667
$Co_{66.5}Fe_{3.5}Si_{12}B_{18}$, metallic glasses for fluxgate sens., magnetis. 30664
CoNbZr stripe films, domain structs., magnetis., high-freq. response 6935
Fe film, domain walls, MFM 14118
$Fe_{77}Nd_{15}B_8$, mag.-field orient. and coercivity 7207
Fe_3O_4, magnetite, domain walls, MFM 14118
$Fe_{77.5}Si_{7.5}B_{15}$, amorph. wires, domain wall shape/dyn. 14105
$Gd_{21.2}Co_{78.8}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{19.4}Nd_{6.1}Fe_{74.5}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{19.6}Nd_{10.3}Fe_{70.1}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{13.5}Tb_{6.2}Fe_{80.3}$, film, amorph., exchange stiffness const., gyromag. factor 14116
GdTbFe(Co) magneto-optic media, domain wall mobility meas. 14232
$Ho_2Fe_{14}BH_x$, short-range mag. after-effect 39157
Nd-Fe-B PM, magnetis. procs., torsion pendulum magnetometry 39133
(NdDy)(FeCo)B-W sintered magnets, domain-wall pinning 6985
$Nd_2Fe_{14}BH_x$, short-range mag. after-effect 39157
NdTbDyFeCo/DyFeCo-ultrathin bilayer, thermomagnetic recording behavior 14231
$Ni_{1-x}Mg_xFe_2O_4$, discontinuous magnetis., comp. depend. 1576
$Tb_{23}Fe_{77}$, moving magneto-opt. disc, mag. domain modeling 7104
TbFeCo, films, amorph., magnetis. reversal, grooves effect 14114
YIG, isolated domain wall, local dyn. pot. well 14189

magnetic domains
see also magnetic bubbles; magnetic domain walls
amorph. ferromag. ribbons, neutron depolarization facility 10824
bloom effect on magneto-optic read channel modeling 14233
damping effect on dyn. distortion in mag. garnet material 14170
domain-wall motion, nonequilibrium dyn., chaos 7188
garnet films, attractive/repulsive defects, domain wall interacts. 14168
granular giant magnetoresistive materials, ferromag. resons. 7050
mag. domain struct., Young's modulus meas. 14208
mag. multilayers, magnetoresist., domain effects 7065

magnetic domains continued
off-track charact. of laminated heads in azimuth recording for VCRs 7111
Permalloy elements, domain struct., TEM coherent mag. imaging 14120
Permalloy thin-film/micro-fiber magnetoresistive sens. 17712
Permalloy/Fe soft thin film elements, MFM anal. 14119
quantum mag. disk, nanoscale struct., electron-beam lithog. 14245
rare earth-transit. metal alloy films, microstruct. and domain wall motion 14115
rare-earth/α-Fe based composite magnets, remanence enhancement, 2D/3D calc. 7007
single-domain mag. pillar array for ultrahigh dens. quantum mag. storage 7189
steel, Cr-Mo, ferromag., creep damage, mag. study 14128
steel, ferromag., coercivity var. during cyclic stressing 14127
steel, ferromag., surface imaging using Barkhausen effect 14122
thin film heads, inductance fluct., domain instabil. and popcorn noise 7093
thin film heads, noise-after-write, electron microscopy 7109
two-layer iron garnet films, FMR doublet 7025
yoke magneto-resistive heads, switching noise 14237
Ba-ferrite particulate media, magneto-opt. readout props. 22964
Co thin films, STEM magnetometry studies 14205
Co ultrafine clusters, NMR spin echo meas. 6978
Co/Cu multilayer struct., STEM magnetometry studies 14205
Co-Cr films, micromagnetic domains, neutron scatt. 6961
Co-Ni, ferromag. precip., giant magnetoresist., comp. depend. 39134
Co-based amorph. thin wires, HF permeab. 14124
CoCrPt-MgO bicrystalline long. recording medium, mag. charact. 6957
CoFeSiB amorph. wires and films, giant magneto-impedance 30667
CoNbZr stripe films, domain structs., magnetis., high-freq. response 6935
$Cu_{1-x}Co_xFe_2O_4$ spinel ferrites, mag. domain behavior 14188
Fe film, domain walls, MFM 14118
Fe garnet thick film Faraday effect sens., domain effects 25818
Fe, surface domains, lancet shape 39137
Fe-Co, ferromag. precip., giant magnetoresist., comp. depend. 39134
Fe-Co-Si-B rapidly quenched wire, magnetostrictive/magnetoelastic props. 30666
Fe-Si, grain oriented steel, magnetostriction 30665
Fe-based amorph. thin wires, HF permeab. 14124
FeAlN/NiFe pole tips, laminated, high moment, perp. contact recording head 7097
FeAu, domain wall pinning, mag. viscosity/activation vol. 14148
a-$Fe_{73.5}CuNb_3Si_{13.5}B_9$ ribbons, mag. domain struct., crystn. effect 14142
FeNdB-based magnets, Ga and Nb addits., mag. and microstructural props. 14163
Fe_3O_4, magnetite, domain walls, MFM 14118
FeSi sheets, ferromag. hysteresis, stat. domain energetic model 39135
$Fe_{77.5}Si_{7.5}B_{15}$, amorph. wires, domain wall shape/dyn. 14105
$Gd_{21.2}Co_{78.8}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{19.4}Nd_{6.1}Fe_{74.5}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{19.6}Nd_{10.3}Fe_{70.1}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{13.5}Tb_{6.2}Fe_{80.3}$, film, amorph., exchange stiffness const., gyromag. factor 14116
GdTbFe(Co) magneto-optic media, domain wall mobility meas. 14232
$LiTaO_3$ channel waveguide phase matched SHG 15150
MnBiDy(Sm) PM films, struct. and mag. props. 39132
$Nd_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
NdFeB-based magnets, neutron depol. ang. depend. 39200
NdTbDyFeCo/DyFeCo-ultrathin bilayer, thermomagnetic recording behavior 14231
Ni single domain nanoscale bars, switching field, size effects 6997
Ni, single-domain mag. pillar array, fab. 14244
Ni-Cu, ferromag. precip., giant magnetoresist., comp. depend. 39134
$Pr_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
R-Fe-B magnets, magnetis. reversal crit. fields in indiv. grains 39197
$Sm_2Fe_{17}N_x$ powders, powder and HDDR method prep., coercivity mechanism 22686
Tb-Nd-Fe-Co thin films, Bloch wall energy 14109
TbFeCo, films, amorph., magnetis. reversal, grooves effect 14114
YIG, isolated domain wall, local dyn. pot. well 14189

magnetic double refraction *see magneto-optical effects*

magnetic double resonance
see also dynamic nuclear polarisation; microwave-optical double resonance; nuclear polarisation
SiC, 6H, CVD layers, electron effective mass/mobility 13086

magnetic drum storage *see magnetic storage*

magnetic epitaxial layers
see also magnetic multilayers
magnetoresist. charact., metallic multilayers *(Japanese)* 30694
superlattices with subsidiary ferromag. layers, GMR, saturation mag. field 22692
Ag-Co granular epitaxial layers, struct./giant magnetoresist. 14164
Ag-Ni granular epitaxial layers, struct./giant magnetoresist. 14164
Co epitaxial layer on W(110), electron microscope mag. imaging 13016
Co films, submicron patterning, mag. storage 14241
$Co_{1-x}Cr_x$ perp. mag. recording media, epitaxial growth 7103
$Fe_{16}N_2$ epitaxial films, mag./Mossbauer study 6995
α''-$Fe_{16}N_2$, mag. props. 6993
$Fe_{3(1-\delta)}O_4$, epitaxial thin films, stoichiometry var. 14103
LiZn ferrite laser-deposited films, mag./struct. props. 14190
MnAs film, epitaxial ferromag., MBE on GaAs, struct., mag. props. 6974
YIG epitaxial films, electron spin echo in 3 cm band 14165
YIG film, magnetoelastic waves, delay line appl. 14192

magnetic field effects
see also biomagnetism; galvanomagnetic effects; magnetic levitation; magnetic separation; magneto-optical effects; magnetoacoustic effects; magnetocaloric effects; magnetoelectric effects; magnetohydrodynamics; magnetomechanical effects; particle optics
60 Hz EMF effects reduction 18628
60 Hz mag. fields exposure, human model, current dens. 26491
anisotropic thermoelec. cooler, generalized theory 44422
bacterial cultivation, supercond. magnet syst. 14307
computer operators, hazards from monitors 26484
electron bunched beams in mag. field, emittance growth in bends 34764
ELF mag. fields exposure meas. and risks 35185
EM pumped FEL, space charge and axial-guide mag. fields effects on gain 14984

magnetic field effects continued
fish behavior, mag. fields influence 26490
GARPUN excimer laser energy distrib., transverse pumping 7525
head, human, hair dryer mag. field-induced elec. activity 18626
head, human, mag. field-induced currents, portable appliances 43388
human forearm, neural stimulation in mag. field, tissue models 35190
NEC high-dens. color display tube, Earth magneto effects *(Japanese)* 3938
nonuniform valley-shaped magnetizing field, MSSW propag. 1584
nurses, power freq. mag. field exposures 18621
polymer composite materials, mag. field sensitive 5914
TV sets, fly back transformer-AC power cable coupling 25647
utility customer advice aspect *(German)* 35599
Bi-Pb-Sr-Ca-Cu-O, hot pressing, mag. melt texturation 39238
GaAlAs/GaAs QW, dielec. const., doping and mag. field effects 29908
GaAs heterojunction, 2D electron Wigner cryst., electron diffr., photolum. 21968
InSb, implant. damage reduction in mag. field, XRD meas. 38517
Si-SiO_2 MOS struct., dielec. breakdown, charge stabil. 22064

magnetic field measurement
see also field plotting; magnetic sensors; magnetometers
3-D mag. field anal., mag. force STM 18037
3D mag. fields, refl. electron tomography, reconstruction *(Japanese)* 34667
3D posn./direction determ. syst., Hall sens.-based *(Korean)* 34696
15 mm sq.-bore railgun, EM field meas. 15330
AC overhead lines, elec./mag. fields meas., IEEE std. 43810
ADC, harmonics error due to nonlinearity 25759
aircraft window, fast risetime EMP coupling 18705
amorph. alloy microresonator for mag. field meas., ΔE effect 42898
amorph. wires, magneto-inductive effect, mag. sens. appl. 17714
automatic meas. of low coercive fields 10003
broadband mag. field sens., CAE modeling 3775
CMOS Permalloy magnetoresistive microbridge mag. field sens. syst. 34494
CMOS preamplifier, 4.2 K operation, human biomag. field meas. 34994
computer equipt., wave fields modeling 2164
DC mag. field components meas. by single magnetoresistor 39211
DC squid base mag. microscope 39282
digital hand-held meter for RF field strength testing 17995
dual TEM cell, elec./mag. field shielding effectiveness 15501
electrodeposited tips for mag. force microscope 9875
EM-field anal. of buildings, 3D wire-grid model 23513
EMC problems, inverse-forward anal. 23738
EMC testing, near-field probes appl. 2245
EMI meas., std. antennas calib. 7991
endoscopes, 3D real time imaging, weak mag. fields 43233
Faraday-effect magnetometry, Verdet const. compensation 10001
FEL supercond. undulator, harmonic generation, mag. field meas. 39965
ferrite-garnet film, mag.-field visualizer 3801
ferroimpedance transducer, mag. field meas. 25793
fiber Bragg grating high-mag.-field probe 17827
fiber optic sens. develops., two-photon spectrosc. 17819
field stabilization of supercond. magnet, He press. control 22767
flux-gate sens. based on planar technol. 9846
Fourier extrapolation, mag. fields meas. by electron-beam tomography 18045
GIS incomplete contact detect., mag. sens.-based 27841
in-line Sagnac interferometer for mag. field sens. 17884
induction motor winding end region, mag. field studies 27728
inner surface defects, magnetographic inspection, sensitivity 21001
KIAE-4 two-sect. undulator, mag. field test 43030
large-scale anechoic chamber, EM fields, computational simul. 15505
magneto-optic Kerr effect sens., field meas. 10002
magnetometer, fringing fields meas. near mag. sectors 3816
magnetoresistive mag. field sens. 17758
magnetoresistive sens. technol. for tracking devices 34438
magnetostrictive fibre-optic sens., transducer self-noise 17883
magnetotransistors, mag. field sensit. modelling, HSPICE 38825
metallic enclosure model source, EM emission estim. by inverse-forward anal. 40374
near-/far-field charact. of perforated screens, shielding perform. 15503
noncontacting current meas. in underground pipelines, geom. instabil. 42883
nonlin. mag. problems, improved tech. 15226
omni-directional sensitivity mag. field sens. 3790
optical instrumentation for process industries, conf., Germany (1994) 5486
parallel ferromag. rods, mag. interact. 25953
PCB diagnosis using artificial neural networks 38118
portable mag. field meters 26486
power cable current sens., mag. field meas.-based *(Japanese)* 35648
radio waves propagated dist., multiple-diffr. components meas. *(Japanese)* 31838
railgun meas., high accuracy 15374
RF field imaging, scanning SQUID microscope 34668
Sagnac interferometer, elec./mag. fields simultaneous meas. 17865
seismogenic EM emission, radiation/transm., stat. anal. 23578
separated drift field magnetotransistor, design, fab. *(Korean)* 25778
ship mag. field, meas. point arrangement design *(Chinese)* 7893
ships, vectorial mag. field, mag. protection 18043
short gap discharges, meas. of fast transient fields 42882
short-period hybrid wiggler develop. 43031
SQUID magnetometer syst., 19-channel, med. appl. 4266
squirrel cage motor, 3-phase, torque control, secondary current feedback *(Japanese)* 27708
submillimeter laser interferometer-polarimeter for plasma diagnostics 40173
substations, transient EMI meas. 5158
telecomms. building, simulated direct lightning surge current 24876
thin-film heads, mag. fields and bit patterns, MFM 14217
three-axis coil probe appl., elec. appliances meas. 3813
torque transducer, opp. polarized rings 17715
triggered flash, EM field and step voltage obs. *(German)* 35681
underground metal pipes detect., EM induction sens. 18044
VDT, radiated elec./mag. fields meas. 23702
VDT, VLF meas., user dose assess. protocols 43401
whistlers, causative atmos. location, one station 23640
CdMnTe magnetic field sensor, fibre optic laser deposited 25858
Si mag. field detector, CMOS oscillator config. 34449
$(TbBi)_3(FeGa)_5O_{12}$ garnet film current/mag. field sens. by Faraday effect 42884
YBaCuO thin film DC SQUID, mag. microscope 3956
$YBa_2Cu_3O_7$ sens. based magnetometer for weak mag. fields 34442
YIG, Ga,Bi substituted bulk garnets, magneto-optic mag. field sens. 14174

- **magnetic field sensors** *see magnetic sensors*
- **magnetic field variations, Earth** *see geomagnetic variations*
- **magnetic fields**
  - *see also electromagnetic fields; interplanetary magnetic fields; magnetic field effects; magnetic field measurement; superconducting critical field*
  - 2D/3D pass. imagings of EM radiation sources 23497
  - 3-phase underground pipe cable, above ground mag. field prediction 27206
  - 3D dyn. nonlin. mag. field in elec. machine, time-periodic FEM 40246
  - 3D eddy currents in conducting and mag. shells, impedance-type boundary conditions 40238
  - 3D mag. field anal. with edge element,magnetizing current dens., continuity 40185
  - 3D mag. field computation, FEM-based anal. *(Chinese)* 40201
  - 3D modelling of EM actuators, iter. procedure 40273
  - 3D transient eddy current calc., hybrid FE-BE method, mag. field intens. 40245
  - 3D unbounded eddy current problems soln., asymptotic boundary conditions 40240
  - 500 kV power line elec. and mag. fields 27225
  - AC machines, smooth rotor, end-region 3D pulsation mag. field 44004
  - AC motor external mag. field prediction 27673
  - air conditioning, controllable induction micromotor 5395
  - AM high power broadcast stations, EM environ. 25642
  - annular MHD submarine propulsion syst., field/current calcs. *(French)* 27967
  - arc-stator motor taking, elec./mag. asymmetry 4903
  - autophase TWT, azimuthally asymmetric field, nonlin. theory 997
  - auxiliary vector fn./adjoint methods in solving anisotropic media EM problems 15230
  - bidirectional opt. waveguide propag. modelling, mode expansion/matching 15560
  - boundary element approxs., elec./mag. fields, iter. soln. 2177
  - brush, mag. field modelling/simul. 30762
  - brushless sync. motor drives, field weakening perform. 5250
  - charged particle motion, precise integrator, Runge-Kutta method 40260
  - chiral-material-filled rect. waveguide, EM wave propag. 31906
  - coil shielding by short ferromag. tube 23692
  - color CRT discoloration, correction syst., L-shaped mag. material *(Japanese)* 42592
  - complex planar struct., static study *(French)* 12702
  - computer monitor screens, mag. field corruption 3933
  - conformly bound regions, mech. effect *(Russian)* 40179
  - cylindrical microwave ion source, magnet syst. calc. 4138
  - cylindrical shells in mag. fields, eddy losses, power shielding 40249
  - DC current distribs. in solid conductors and mag. fields 40229
  - DC machine, distributed exciting winding, calc. 36182
  - DC PM motor, electronically commutated 19663
  - deflector-type analyzers, circ. multipoles, cylindrical coord. anal. 23504
  - dielec. substr. backed by nonperfect conductor, surface boundary condition 40287
  - dielec. surface asperities, near-field opt. detect. 31792
  - double or quadruple ridged waveguide anal., MFIE approach 23775
  - eccentric annular microstrip antenna, reson. freqs. 8053
  - eddy current power dissipation, sharp corners 40255
  - edge element anal. of magnetostatic and transient eddy current fields 40223
  - elec. machine field problems, modified scalar pot. method 43981
  - elec. machine rotor drag torque estim. algm. *(Russian)* 43974
  - electrodynamic separators, LIM based, metallic waste proc. 7937
  - electromagnetostatics in uniaxial bianisotropic media 15203
  - EM CAD in undergraduate courses 2171
  - EM field anal. in rot. elec. machines, finite element-anal. hybrid method 15235
  - EM launcher, plasma armatures, 3D MHD modelling, equiv. network 15313
  - EM scatt. by large open-ended cavities, iter. PO 40278
  - EM wave wiggler and axial guide mag. field, orbit dynamics 23516
  - EM waves reflectionless absorpt. , perfectly matched layer concept 23600
  - EMC, power transm. systs. 44129
  - FEL spontaneous emission in wiggler, mag. field independent of axial coord. *(Chinese)* 14983
  - FEM mag. field anal., effective anisotropic field 40227
  - freq.-selective screens, complementary elements, num. simul. 2313
  - generation of predominantly elec., mag. fields in free space 40385
  - geoelectric sounding, finite elec. dipole 4384
  - GTEM cell, elec./mag. fields calc. 8011
  - H field vectorial Galerkin method 39358
  - head sensitivity fn. calc. from 3-D mag. fields 14226
  - helical Cherenkov effect, observability 40259
  - HF oscill. param. current sens., feedback loop 34463
  - high speed async. motor, solid rotor, mag. vector pot. 36166
  - HL-1 Tokamak TF magnets, stress anal. 40270
  - homog. mag. fields, Ampier force calcs. *(Russian)* 7883
  - homogenous transm. line, heterogenous telegraphic eqns. *(Russian)* 43733
  - HV overhead lines, mag./elec. fields calc, BEM *(Polish)* 43773
  - hybrid FEM/BEM mag. field anal. 31702
  - hysteresis, generalized model, lin. first order diff. eqn. *(Russian)* 30663
  - I-3000 accelerator, electron spectrometer, TF 34960
  - impedance surface aperture, equiv. currents 8041
  - induction heating of long workpieces, num. modelling 11473
  - induction machine behaviour anal., interactive colour graphics 11050
  - induction motor, stator tooth zone, vibroacoustic proc. 4957
  - induction motor drives, saturated, field oriented control 20079
  - induction motor drives, stator voltage 3rd harmonic direct field oriented control 5299
  - induction motors, cut lamination stators, core anal. 11022
  - induction motors, dyn. perform., space harmonic fields, cpd. transform. *(Chinese)* 11015
  - integral operators curl^{-1}, div^{-1}, grad^{-1}, appls. *(Russian)* 23501
  - interact. inclusions, mag. field, general soln. 12233
  - internal resons., method soln., suppl. conditions 40292
  - inverse problem, sampled pattern matching method *(Japanese)* 31722
  - isolated read-back pulses from keepered long. thin film media 14225
  - LIA-30 lin. induction accelerator, 6 MJ capacitor bank 36633
  - lin. materials in bounded domains, EM field anal. 40232
  - lin. PM motor traction drives, basic considerations 11419
  - lin. PM motors, design/anal. 11072
  - lin. pulse motor mag. reluctance distrib., structural depend. anal. *(Japanese)* 44072
  - lin. step motors, FEM for nonlin. mag. fields, nuc. reactor appl. 19673
- **magnetic fields** continued
  - living beings protection by mag. shields *(Croatian)* 4335
  - loudspeaker mag. core, mag. field optimal shape design *(Polish)* 22706
  - Lundell alternator, 3D mag. field anal. *(Japanese)* 27686
  - machine compensation windings, mag. field reduction 36094
  - mag. enhanced RIE syst., wafer charge-up effect 22183
  - mag. fields from appliances meas., coil probe dimens./uncertainties 3813
  - mag. shield with mag. shaking, modulation effect 15458
  - MAGO thermonuclear ignition syst., MHD nozzle chamber calcs. 36614
  - massive current coil, mag. field and pot. eval. 40230
  - metal objs. exposed to ELF mag. field, assoc. mag. field 23494
  - microbridge superconducting thin films, variable thickness, mag. field sensitivity 1603
  - microstrip line energy fluxes for ferrite substr., mag. biasing 12694
  - microwave commun. towers, lightning stroke-generated EMI expts. *(Chinese)* 42174
  - microwave exposure in head model, external mag. near-field 43385
  - motor design, mag. field anal. *(Japanese)* 11018
  - MPR2 test methods for VDUs 40368
  - MRI antenna, RF mag. field penetration in body *(Japanese)* 4261
  - multi-reed switch, contact erosion/spatial mag. field var. 29636
  - multiphase transformers, rot. mag. field, inductive impedance calcs. *(Russian)* 21603
  - multiwire shielded cable param. computation 38059
  - muzzle-fed railguns, EM/thermal anal. 15345
  - narrow track thin film write head fields, modelling 7089
  - nondispersive waveguide cyclotron reson. maser expt. 39623
  - nonlin. 2D/3D magnetostatic vol. integral formulation, GFUNET package 40225
  - nonlin. EM problems, hybrid finite element-BEM 40221
  - nonlin. mag. field problems soln., Newton-Raphson method 40224
  - nonlin. mag. fields, hp-version adaptive anal., quadrilaterals 40198
  - nonlin. mag. problems, improved tech. 15226
  - nonlin. polarised ferromag. systs., computer anal. *(Russian)* 6941
  - nonsalient pole DC motor, stator reconstr., elec. steel use 36183
  - O-type microwave oscillators, nonlin. theory 13004
  - pancake coil for pulsed power amplif. of electrothermal load, freq. effects 36239
  - perfectly conducting cavities, apertures, scatt. elec. fields 40293
  - perp. mag. field for shielding materials meas. 15489
  - planar permanent mag. multipoles for accelerator/storage ring appls. 10089
  - plane conducting screen/periodic mag. field interact. 23495
  - plasma opening switch expts., long cond. time 36389
  - PM, mag. field/irreversible demagnetisation loss calcs. 30750
  - PM brushless machine, induced EMF/torque waveforms 10933
  - PM DC machines, mag. field anal., FEM 44067
  - PM high-field struct., spheroidal field sources 7210
  - PM machine, acoustic model, modal shapes, mag. forces 19594
  - PM struct., field uniformity, field orient. effects 7208
  - PM struct., lightweight distortion-free access 7209
  - PM sync. motors, single-phase, line started, FEM 10978
  - PM syst. synthesis, optimal topography calcs. *(Russian)* 30747
  - power cable mag. fields calc., conductors subdivision method 19297
  - power line generated mag. fields, calc. code 40231
  - power syst. elements, EM anal. using finite difference method, software tool 40182
  - pulsed mag. field facility, capacitive storage 44114
  - radially polarized PM cylinders, 3D field soln. 15232
  - railguns, channel segmentation, efficiency, MHD aspects 15272
  - reactor control rod drives, lin. step motors, CAD 10822
  - rect. grooved metallic surface light scatt. 2195
  - relay, nonlin. ferromag. materials, mag. field calc. 38067
  - ripple fields comp. on moving finite element meshes 43982
  - rot. machine mag. field anal., FEM 44070
  - screening, polarized casings calcs. *(Russian)* 7881
  - self-phased TWT, azimuthally asymmetrical field 998
  - self-phased TWT, nonlin. theory 13005
  - semi-continuous magnetic fields optimisation of coils 23514
  - shaping electrodes in axisymmetrical electron-beam optics, calc. 15242
  - shell struct., static mag. field anal. by integral method 40222
  - ship mag. field, meas. point arrangement design *(Chinese)* 7893
  - slow wave cyclotron interact. in folded rect. waveguide, theory 13014
  - small body launching, plasma armature railgun 15268
  - small railgun, bore erosion reduction 31757
  - SR source undulator design, simulated annealing 31731
  - steel sheet, oriented, mag. field anal. by FEM 39147
  - steel wire rope, broken wires, mag. leakage field, math. model *(Chinese)* 31724
  - storage ring, trapped secondary particle motion 43025
  - supercond. accelerator magnets, mag. field distrib. 39289
  - supercond. floating flywheel *(Japanese)* 36634
  - superlattices with subsidiary ferromag. layers, GMR, saturation mag. field 22692
  - surface mount PM motors, cogging torque, mag. field anal. 36215
  - three layer ridge quantum well waveguide anal. by FEA 40400
  - time-varying mag. field, conductive plate, induced eddy currents, Tokamak fusion reactor 31725
  - transformer winding shape design, global optim. strategies 887
  - transformer/solenoid, rot. mag. field, inductive reactance calc. 11098
  - trapped field magnet and stable levitation region of HTSC, anal. 39294
  - tree-cotree gauge for mag. field computation in magnetostatic problems 40219
  - turboalternator third-order SSR stabil. models 44018
  - turbogenerator FEM/state-space modelling, no-load case 43983
  - turbogenerator FEM/state-space modelling, short cct./load case 43984
  - uniformly magnetized ellipsoids/spheroids, external fields 15231
  - variable local relax. tech. in nonlin. mag. problems 40197
  - variable reluctance transducer, ang. meas., FEM 10024
  - VDUs EM environ. meas. 26480
  - Walkie Edgar spark gap, mag. field, arc velocities 19338
  - Whitney's edge/face elements for FETD soln. of Maxwell's eqns. 2175
  - Bi-Pb-Sr-Ca-Cu-O double cylinder, mag. shielding effect 1638
  - Cu pulsed current carrying wires, mag. field distrib. expts. *(English)* 40228
  - Fe core slab, mag. field diffusion, hysteresis models 39146
  - Nd-Fe-B PM, electron beam/γ-ray irrad. effects 7203
  - Nd-Fe-B, PM variable flux sources 14257
  - NdFeB PM operating conditions in elec. machines 43998
  - Sm-Co PM, electron beam/γ-ray irrad. effects 7203

magnetic films *see magnetic thin films*

magnetic fluids
- anisotropic liqs., automatic meas. of acoustical params. 18162
- current to press. transducer, mag. fluid 17720
- ferromag. material based fluids, props. and appls. *(Chinese)* 39153
- inclination sens., mag. fluid 17743
- micromechanical actuator syst., mag. fluid-based *(Japanese)* 44087
- tilt-sens. using mag. fluids, indication stabil. 42777
- Si micromachined particle manipulator/separator 31748

magnetic flux
- *see also flux creep; flux flow; flux-line lattice; flux pinning; skin effect*
- 3-phase squirrel cage motor drive, thyristor controlled 11364
- 3D mag. field anal. with edge element,magnetizing current dens., continuity 40185
- 100 MJ flux compression pulse power systs., design considerations 36298
- 330 kV substation busbar short-ccts., turbogenerator saturation modelling 19064
- AC machines, smooth rotor, end-region 3D pulsation mag. field 44004
- AC motor drives, direct torque control 36649
- AC motors, four-quadrant digital control scheme 10954
- AC/DC/reluctance motors, torque prod., unified theory 4930
- automotive rotary actuator homopolar PM motor studies 11436
- axial flux interior PM sync. elec. vehicle motor drives 36756
- brushless DC motors, computer simul. model 36184
- busgun design, operation/losses 15265
- capacitor-run induction motors, single-phase, lumped param. model 4972
- compressor ouput sharpening, exploding foil, plasma switch 36287
- CT simul. hysteresis loop reconstr. *(German)* 19700
- DC drives, fuzzy control 5315
- DC link power converter, induction motor drive appls. 44450
- disc-type eddy current dynamometers, torque design formula 27659
- elec. machines, FEA, post-proc. methods 19669
- elec. scooter, axial flux PM motor drive, wheel coupled 11401
- elec. vehicles, induction motor drives, posn. sensorless 20097
- EM barrel finishing machine, induction motor-based 28194
- EM field num. anal., BEM/FEM appls. *(Japanese)* 15205
- EM launchers, plasma armatures, 2D MHD simul., secondary arcs 15309
- external rotor PM motor, perform., current waveforms influence 10948
- FEM mag. field anal., effective anisotropic field 40227
- ferromag. cross sects. meas., total mag. flux method 37555
- flux-compression pulsed power generators 44215
- GMR 1-μm wide, end-on, ganged, read head sens., high sensitivity 7073
- helical rotor lin. reluctance motor 11074
- high-power controlled reactors, EM proc. 11099
- hybrid step motor control, reconstructed mag. flux sig. 11327
- hybrid stepping motor, torque harmonics correction *(Japanese)* 27763
- hybrid stepping motor drives, flux linkage meas. 5318
- Hypervelocity High Efficiency railgun design 15262
- induction coil launcher armature perform., computer simuls. 15302
- induction machine vector control, iron core loss considerations 4955
- induction machines, core loss/mag. saturation model 4978
- induction machines, eccentric rotor mag. pull modelling 36168
- induction machines, stator flux oriented digital control scheme 4951
- induction motor, field oriented control, H_{∞} controller synthesis 11343
- induction motor, rotor time const. meas. magnetizing flux 4965
- induction motor ASD, fuzzy on-line efficiency optimisation control 36659
- induction motor ASD, VVVF inverter-based control *(Korean)* 28061
- induction motor bearing damage detect., stator current monitoring 4968
- induction motor core losses prediction, rot. iron loss data 4970
- induction motor deadbeat flux level control *(Japanese)* 27717
- induction motor drive, indirect rotor control, iron core loss 20070
- induction motor drive, rotor flux/time const., VSS observers 11325
- induction motor drive field oriented control, spindle appls. 5262
- induction motor drive flux/torque MRAC design 11348
- induction motor drive tacholess vector control, low speed perform. 5292
- induction motor drive vector control, neural net flux estimator 5296
- induction motor drives, extended Luenberger observer, state/param. estim. 36657
- induction motor drives, field oriented control, parallel proc. 36700
- induction motor drives, inverter-fed, magnetising flux saturation 5261
- induction motor drives, robust adaptive observers 11357
- induction motor drives, saturated, field oriented control 20079
- induction motor drives, speed sensorless control, flux saturation effects 11328
- induction motor drives, stator voltage 3rd harmonic direct field oriented control 5299
- induction motor drives, vector control, auto-tuning method 36682
- induction motor drives, vector controlled, rotor time const. ident. 20073
- induction motor fault current simul., rotor leakage flux-caused 19647
- induction motor modified flux orient. control scheme 11046
- induction motor servodrive, VSS robust control 44483
- induction motor speed control, stator resist. estim. 36155
- induction motors, indirect vector control, ang. vel. calc. *(Korean)* 36173
- induction motors, rotor flux estim., Luenberger observers 11038
- induction motors, rotor flux/speed ident., polar coord. method *(Korean)* 36174
- induction motors, torque oscills. reduction, supply switching 19636
- inverter drives, meas. problems *(Polish)* 44491
- LIM, init. conditions, dyns. form./anal. 11075
- lin. PM motors, design/anal. 11072
- lin. variable-reluctance machine, mag. flux decoupled windings 19666
- Lundell alternator, 3D mag. field anal. *(Japanese)* 27686
- mag. flux compression/expansion, EM launchers/power supplies 31761
- mag. parametrons, chaotic oscills. studies *(Polish)* 577
- Maglev syst., levitation/guidance, static characts. *(Korean)* 28119
- magnetless voice coil motor, driving characts. *(Japanese)* 44088
- magnetocumulative pulsed power generators, 1D calc. studies 36291
- magnetostrictive devices, FEM modelling for mag. cct. design 39212
- magnetron, leakage flux transformer, HV power supply *(French)* 29616
- MF power transformers, amorph. metal core studies 5015
- MINAS servomotor stator, cell method assembly syst. *(Japanese)* 11081
- motor stator interturn short-cct. detect./location 10962
- multiple core mag. assemblies, temp., fn. of freq. 12852
- multiple winding transformer, model, mag. leakage 6378
- nonlin. mag. ccts. anal., electronic cct. program 12848
- nonsalient pole DC motor, stator reconstr., elec. steel use 36183
- PM AC motors, rotor flux posn. indirect sens. method 4909
- PM brushless DC motors, laminated rotor, FEM modelling 11064
- PM brushless drives, integrated CAD syst. 11344
- PM brushless machine, induced EMF/torque waveforms 10933

magnetic flux continued
- PM commutator motor drives, const. power speed range 36724
- PM DC motors, hysteresis loop, num. model 11066
- PM machine, acoustic model, modal shapes, mag. forces 19594
- PM machines, air-gap flux dens. calcs., computer-based *(Chinese)* 10927
- PM machines, flux weakening operation, design concept 36103
- PM motor EM field anal., 3D equiv. mag. cct. method *(Korean)* 27667
- PM sync. motor drive, flux-weakening control 20078
- PM sync./induction mag. levitated rot. motors *(Japanese)* 44026
- PM vernier motor, optimum design *(Japanese)* 27685
- power syst. protective CT, transient perform. calcs. 19340
- power system harmonics, EM field prod. studies 19024
- power transformer dyn. hysteresis losses 27778
- power transformer excitation under geomag. induced currents 11101
- power transformer protection, iron core nonlin. *(Chinese)* 36219
- railguns, high efficiency achievement 15261
- reluctance motor drives, flux weakened operation, current regulator 5303
- reson. switching power convertors, HF mag. design 44207
- revolving PM magnet wheels, static characts. anal. *(Japanese)* 44255
- robots, AC drives, optimised DSP field oriented control 36683
- saturated deep bar induction machines, simul. model 4971
- saturated induction motor drives, state-space modelling 28062
- saturated sync. motor drives, control modelling 5324
- self-excited cycle mag. flux compressor 36286
- servomotor drives, AC-flux-vector control 28074
- ship propulsion, supercond. DC drives, torque react. windings 11402
- ships, axial flux PM machines, counter-rot. rotors 11400
- single sided LIM, design, ANN, FEM, SUMT *(Korean)* 27758
- solar elec. vehicle, PM brushless DC motor drive 5355
- SQUID, weak link, macroscopic quantum effect, flux mode 22765
- SQUID control, transport current, crit. current, mag. flux 39261
- squirrel cage motor, inverter driven, thermal model 5253
- squirrel cage motor drives, self-commissioning scheme 5300
- SRM, core losses calc., mag. flux 10983
- SRM, flux linkage/inductance meas. methods 4935
- SRM drives, dyn. simul., saturation/driver characts. 11362
- SRM EM characts., meas. methods comparison 10998
- SRM perform., end core flux effect 4915
- steel sheet, oriented, mag. field anal. by FEM 39147
- steelmaking, sintering cake magnetic suspen., electromagnets *(Japanese)* 44626
- stochastic SQUID, flux amplif. 14295
- supercond. ccts., macroscopic quantum mech., mag. flux meas. 30798
- supercond. generator brushless excitation, mag. flux pump-based *(Japanese)* 10963
- supercond. loop with Josephson jn., stochastic reson. 39260
- supercond. MISFET, 3-terminal device *(Japanese)* 30354
- sync. generators, practical model 44019
- sync. machine air gap EM field calcs., boundary elements method *(Russian)* 36130
- sync. machine equiv. cct. time domain anal. approach 11005
- sync. motor drives, design for flux-weakening appls. 11326
- three-phase induction-motor variable-speed drive regulation *(Italian)* 19619
- three-phase inverter-fed squirrel cage motors, audible noise study 36163
- transverse flux EM vibrator, test equipt. appl. anal. 7935
- turboalternator third-order SSR stabil. models 44018
- turbogenerator FEM/state-space modelling, no-load case 43983
- turbogenerator FEM/state-space modelling, short cct./load case 43984
- variable reluctance PM motor drive, elec. vehicle appl. *(French)* 11413
- variable speed induction motor drives, neural net-based vector control 36685
- variable speed sync. motor drives, stator flux-oriented control 36667
- zero-flux type current sens., Hall element 9878
- $Bi_2Sr_2CaCu_2O_{8+\delta}$ supercond., flux dens. distrib. *(Japanese)* 7231
- Fe, surface domains, lancet shape 39137
- a-Fe-based toroidal transducer core, local flux dens. vars. 14255
- FeTaN films, microstruct. and mag. props., effects of nitrogen content, heads 6950
- YBaCuO thin film DC SQUID, mag. microscope 3956
- $YBa_2Cu_3O_{7-x}/SrTiO_3/YBa_2Cu_3O_{7-x}$, low noise multilayers, supercond. magnetometers 22740

magnetic flux compression generators *see power supplies to apparatus; pulse generators; pulsed power technology*

magnetic flux jumping *see Meissner effect*

magnetic force microscopy
- 3-D mag. field anal., mag. force STM 18037
- edge overwrite charact. in thin film disk media, MFM study 7185
- electrodeposited tips-sample interact. 9875
- floppy disk surface struct. imaging, SFM/MFM 7196
- multi-track submicron-width perp. mag. recording, integrated single pole head 7098
- Permalloy/Fe soft thin film elements, MFM anal. 14119
- quantum mag. disk, nanoscale struct., electron-beam lithog. 14245
- thin-film heads, mag. fields and bit patterns, MFM 14217
- ultra-high resoln. single-domain mag. force microscope tip, nanolithography prep. 14121
- CoCrTa/Cr anisotropic medium, track-edge overwrite pattern, MFM obs. 22699
- Fe film, domain walls, MFM 14118
- Fe_3O_4, magnetite, domain walls, MFM 14118
- Ni single domain nanoscale bars, switching field, size effects 6997

magnetic heads
- 24-hour real-time VCR *(Japanese)* 42639
- air bearing slider in HDD, design and perform. 7159
- CMOS preamplifier for IC-magneto-resistive read elements, 0.8nV/$\sqrt{\text{Hz}}$ 7142
- data storage, micromechanical struct. 39029
- digital VTR high-dens. recording techs. *(Japanese)* 17586
- disk drive, min. time seek controller 39181
- disk head interface, shock failure mechanism 7158
- displacement meas., absol. mag. scale, nonrepeated codes *(Japanese)* 34693
- dual magnetoresistive read elements, exchange biasing 7114
- edge overwrite charact. in thin film disk media, MFM study 7185
- electrodeposited tips for mag. force microscope 9875
- exchange biasing schemes for MR disk heads 7082
- fields meas. by electron-beam tomography, Fourier extrapolation 18045
- flux-guided MR head for low flying height 7079
- flying height meas., altitude effects 7170
- flying height tester calib. std. 7151
- GMR 1-μm wide, end-on, ganged, read head sens., high sensitivity 7073

magnetic heads continued
graded magnetis. single pole head for perp. recording 39178
HDD, mag. head assemblies, vibro-loading 7160
HDD, off-track perform., soft error rate model 14236
HDD electronics testing, HDA simul. 1578
HDTV digital baseband VCR, visual investig. of head-tape interface 9749
head sensitivity fn. calc. from 3-D mag. fields 14226
head-disk interface lubrication using non-Newtonian fluid, num. simul. 7068
head/tape spacing, 2D interferometric meas. 7169
helical-scan digital video recorder, playback, channel investigs. 17593
helical-scan recording, lumped modeling of rotary transformers and heads 34272
Hi-8 HD-VCRs, embedded thin film mag. head 9746
high-dens. tape and disc track-following control techs. *(Japanese)* 14249
inductive heads, thin film, finite pole length reduction 7096
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
isolated read-back pulses from keepered long. thin film media 14225
magnetooptical disk drive, mag. field modulat. recording 7415
magnetoresistive head, recording channel non-lin. 7171
magnetoresistive head track following method, rigid disk servo 7173
magnetoresistive head track profile, servo perform. 7172
MIG heads against MP, barium ferrite and ME tapes, running charact. 7167
motor-control servo power IC for hard disc drives 36671
multi-level decision feedback equalization, syst. archit., mag. recording 7177
multi-track submicron-width perp. mag. recording, integrated single pole head 7098
narrow track thin film write head fields, modelling 7089
nonlin. bit shift in thin film heads, rise time/field gradient effect 7091
off-track charact. of laminated heads in azimuth recording for VCRs 7111
opt. head lens actuator, high bit rate recording 7105
parametric mag. tape recorder, short-term reprod. *(Japanese)* 22705
particulate/ME mag. tapes sliding against Mn-Zn ferrite head in lin. mode, friction/wear 7165
Permalloy film overlayers, mag. easy axis, water sorption, photoresist underlayers, heads 7094
Permalloy films, stable encapsulation structs., annealing effects 7101
PM biased SAL/MR device, stabil., bias characts. 7083
PM film stabilised MR strips, sensit. distrib. anal. 7084
pole geometries in thin film inductive heads, perform. eval. 7090
pole trimmed inductive thin film head, off-track capability 7095
PRML read channels for mag. disk drives 7071
read/write amp. design considerations for MR heads 29052
recording material requirements and innovations *(Japanese)* 14248
replay proc. in digital mag. recording, output waveforms 39180
SAL-biased MR heads, patterned PM bias 7085
self-biased shielded magnetoresistive heads, magnetostriction meas. 14234
shielded Permalloy strip MR head, response simul. 7087
slanted contact MR head, 500 Mb/in^2, elec. characts. 7081
slider, surface texture, flying charact., num. simul. 7148
slider, take-off/touch-down vel. meas. 7161
slider/disk carbon, water adsorpt. 7153
slider/disk separation, rest 7150
stripe amorph. soft mag. film, locally induced mag. anisotropy *(Japanese)* 30661
thin film heads, inductance fluct., domain instabil. and popcorn noise 7093
thin film heads, noise-after-write, electron microscopy 7109
thin film inductive heads, write induced track misregistration 7092
thin film mag. recording heads, narrow read width, error rate model 14218
thin-film heads, mag. fields and bit patterns, MFM 14217
transit. jitter meas. gauge testing for long. thin film mag. recording 14227
two-track codes for mag. recording channels 39185
unshielded dual-element horiz. MR heads, design and fab. 7086
unshielded magnetoresistive heads, single and dual element, sig. proc. 30732
vert. magnetoresistive/inductive head, perform. characts. 7080
VHS tapes used in digital recording, characts. 17599
video/image recording technol. *(Japanese)* 34277
VTR head lin. scanning design and eval. *(Japanese)* 17589
wide-field Kerr imaging, mag. device appls. 14547
yoke magneto-resistive heads, switching noise 14237
Ba-ferrite particulate media, magneto-opt. readout props. 22964
C overcoated sliders, flying height meas. 7162
C-coated thin film head sliders, tribological perform. 7149
Co-Zr-Nb films, high resoln. single-pole recording head 7187
CoNiPt-CoO media, mag. recording and microstruct. props. 7112
CoZr amorph. thin film core head for digital VCR 7110
Fe-Ta-N mag. film syst., double-sided MIG nano composite slider, 250 Mb/in^2 recording 7099
FeAlN/NiFe pole tips, laminated, high moment, perp. contact recording head 7097
FeCoSiB quick response micro mag. head sens. utilizing magneto-impedance 30740
FeN sputtered laminated narrow gap write heads, perform. 7088
FeSiAl Sendust films, recording head cores 7108
FeSiHfC nanocrystalline films, soft mag. props., anisotropy dispersion *(Japanese)* 30674
FeSiN films, narrow track head 7107
FeTaN films, microstruct. and mag. props., effects of nitrogen content, heads 6950
FeTaN nanocrystalline films, mag. anisotropy, mag. heads appl. *(Japanese)* 28815
FeXN (X=Ta,Hf,Cu,Si,Zr) high moment thin film head materials, electrochem. corros. 6942
MnZn ferrites, polycryst., microstruct., mag. props., heat treatment effect 14182
NiCoFe/Cu, giant magnetoresistive thin-film read head devices 7075
NiFe/(Ni/Fe/Cu)$_n$/NiFe thin films, giant magnetoresist. 7039
NiFe/Ag, giant magnetoresistive thin-film read head devices 7075
NiFe/Co/Cu/Co/NiFe NiCoO exchange biased spin-valve struct., MR heads 7078
NiFe/Cu/Co spin-valve read heads, high dens. recording 7070
$Ni_{80}Fe_{20}/Cu/Ni_{80}Fe_{20}/Fe_{50}Mn_{50}$, giant magnetoresistive elements, thin film tape heads 7072
NiFe-TbCo unshielded spin-valve sens., exchange-biased, MR heads 7077
$Ni_{76}Fe_{10}Co_{14}/Cu$ giant magnetoresistive multilayers, permeab., read heads 7076
NiFeCo-Cu GMR multilayer sens. at high current densities, micromagnetics 7074
NiZn ferrite head wear rate meas., custom high sensitivity elec. elements 7166

magnetic hysteresis
3-phase transformer transients prediction 19694
3D integral eqn. method for eddy current EM field anal. in anisotropic materials 39145
3D moving vector Preisach hysteresis model 39186
accommodation model, param. ident. 14230
ang. depend. of magnetis. in recording media 14221
Barkhausen noise anal., DC bias/excitation/detect. freqs. 14126
complete-moving-hysteresis model, param. ident. 7100
conducting mag. materials, hysteresis curves, freq. depend. 6931
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
converter transformer cores, losses modelling, failure 44108
core hysteresis losses modelling, computer-based 14254
CT simul. hysteresis loop reconstr. *(German)* 19700
DC/AC power CT, operating principle 19701
Δm curves modelling, complete-moving-hysteresis model 39187
ferromag. films, magnetoresist. meas., flexible test syst. 18040
finite element modelling of mag. hysteresis 39125
generalized model, lin. first order diff. eqn. *(Russian)* 30663
III-V semimagnetic semiconds., carrier-induced magnetism, magneto-opt. device 30679
interact. Stoner-Wohlfarth particles, recording media modeling 14229
lin. DC motors, high response, mag. materials *(Japanese)* 44075
mag. domain struct., Young's modulus meas. 14208
magnetostrictive shaker, broadband perform. 30754
modelling, transm. line theory-based 7892
moving vector Preisach hysteresis model and δM curves 14220
MR-SAL struct., hard-magnet biasing strengths 17707
nonsaturated mag. layers, recording behaviour, slope model 22694
particulate mag. media, accommodation models 39124
pipeline steel, 2% Mn, magnetis., cyclic stress effects 39129
PM DC motors, hysteresis loop, num. model 11066
PM machines, irreversible demagnetization loss calcs. 36098
polycryst. PM, remanence angle hysteresis 14259
power syst. protective CT, transient perform. calcs. 19340
power transformer dyn. hysteresis losses 27778
power transformer inrush current calc., hysteresis loops 19702
ribbons, amorph. mag., asymmetric magnetis. reversal, chem. etching 14135
saturating/hysteretic inductor nonlin. cct. anal. by harmonic-bal. tech. 37610
single-phase transformer magnetis. and inrush currents *(German)* 11102
smart material hysteresis, Preisach modeling and compensation 37546
SQUID magnetometers, thin film, mag. hysteresis 9999
SRM, core losses calc., mag. flux 10983
steel, 2% Mn, pipeline, isofield uniaxial cyclic stress, magnetisation behaviour 14107
steel, complete-moving-hysteresis model, param. ident. 14099
steel, Cr-Mo, ferromag., creep damage, mag. study 14128
steel, unalloyed sheet, surface condition, ferromag. monitoring 12224
thick, thin and multilayered media, digital recording props. 14251
thin film mag. recording media noise, cluster size effects 30719
three-phase CT protection, computer simul. 19691
trilayer syst., exchange coupling, micromagnetics 7047
vector isotropic Preisach-type models of hysteresis, num. testing 15228
vector-type Preisach hysteresis models, fast implement. algm. 15229
Ag-Co granular epitaxial layers, struct./giant magnetoresist. 14164
Ag-Ni granular epitaxial layers, struct./giant magnetoresist. 14164
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$ tapes, Ag-sheathed, mag. behaviour 7228
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$-Ag tapes, crit. curr. dens. 39223
BiSrCaCuO/Ag tapes, 2223 phase, flux pinning, crit. currents 39225
Co:EuS, macroscopic ferrimag., magneto-opt. props. 14101
Co-Ni-O metal-evaporated tapes, unidirectional exchange anisotropy 7113
Co-Zr-Ta-Nb amorph. thin film deposited cores on polyimide sheets *(Japanese)* 30662
Cr/CoCrTa/M/CoCrTa/Cr (M=Al,Cu,Ag,Cr) thin films, mag. props., X-ray crystallography 7052
$Cu_{1-x}Co_xFe_2O_4$ spinel ferrites, mag. domain behavior 14188
Fe core slab, mag. field diffusion, hysteresis models 39146
Fe/Pd multilayers grown by electron-beam, mag. props. 39176
Fe-Co-Ni-Si-B based amorph. wires, mag. props. 30683
Fe-Si, magnetodynamic field, rate-depend. Preisach model 14112
Fe-Zr film, amorph., antiferromag./ferromag. cluster coexistence 14117
a-$(Fe_{0.06}Co_{0.94})_{72.5}Si_{12.5}B_{15}$, creep-induced mag. anisotropy 1571
FeNdBGaNb PM, microstruct., mag. props. 22687
Fe_2O_3, magnetomech. reduction, struct./mag. props. 14181
γ-Fe_2O_3:Co mag. tapes, waterborne formulation prep., dispersion quality 7133
FeSi sheets, ferromag. hysteresis, stat. domain energetic model 39135
MnAs film, epitaxial ferromag., MBE on GaAs, struct., mag. props. 6974
MnZn ferrites for high freq. power supplies, mag. props. 30684
Nb, supercond. disks, field depend. crit. currents 22716
$Nd_{4.5}B_{18.5}Fe_{77}$ ribbons, melt-spun, Mossbauer and mag. study 39159
NdFeB-based magnets, neutron depol. ang. depend. 39200
Ni(Fe,Co)/Ag granular multilayers, struct./magnetoresist. 7048
SiFe, rapidly quenched, power losses, dyn. Preisach model 14154
SiFe, soft mag. materials, reversible procs. 14111
Sm-Fe-Ga-C, melt-spun alloys, high coercivity 39204
$Sm_{10}(Fe,V)_{90}N_y$ with $TbCu_7$-type struct., melt-spun, mag. props. 14159

magnetic impurities
polymer-ferroxide film absorbers, microwave, mag., dielec. props. 14102
$ErFe_{8.5}Co_2Mo_{1.5}D_y$, struct./mag. props., deuteration effects 39162
$Er_2Fe_{17-x}Ga_xC_2$, mag./struct. props. 39205
Fe:Cr-Cr multilayers, enhanced magnetoresist. 7062
$Fe_{72}Nd_{17}B_{7.5}Ga_{1.5}Nb_2$, permanent mag./microstruct. props., additive effects 39195
a-$Fe_{90}Sc_{10}$:^{119}Sn, spin correl./relax., Mossbauer obs. 6932
MnZn ferrites for high freq. power supplies, mag. props. 30684
Nd-FeCoNi-B-AlTi melt-spun ribbons, corros./mag. props. 30681
$Nd_{2-x}Dy_xFe_{14-y}Co_yB$ sintered magnets, remanence/coercivity 6973
$Nd_2Fe_{14}B$, interstitially-modified PM 30672
Sm-Fe-Ga-C, melt-spun alloys, high coercivity 39204
Sm_2Fe_{17}, high field magnetis. 7198
$Sm_2Fe_{17}C_x$, high field magnetis. 7198
$Sm_2Fe_{17}C_xH_{5-x}$, high field magnetis. 7198
$Sm_2Fe_{17}N_x$ with discontinuous nitrogen profiles, mag. props. 39203
$Sm_{1-y}Pr_yCo_{4-x}Fe_xB$, mag. material by substitution/nitridation 7200

magnetic induction *see electromagnetic induction*
magnetic inks *see magnetic fluids*
magnetic interface phenomena *see interface magnetism*
magnetic leakage
see also eddy current losses
3-phase act. power filter, sliding mode control 19759
3-phase ring winding leakage reactance, circ. coil 43991
330 kV substation busbar short-ccts., turbogenerator saturation modelling 19064
built-in-input filter forward converter 6005
busgun design, operation/losses 15265
converter transformer cores, losses modelling, failure 44108
core loss charactn., practical approach 30746
core-loss power, direct meas., effective control of error 39188
distrib. transformer EMC planning *(German)* 11104
ferrites, magnetized, FDTD anal. 23788
gradient coils with mag. shielding/eddy shapes, coil shape optim. *(Japanese)* 21598
HF iron loss measur., vector spectrum method 3958
HF transformer edge effect anal., 2D FEM-based 6376
high-power controlled reactors, EM proc. 11099
induction machines, core loss/mag. saturation model 4978
induction machines, saturated, deep bar effect, transient models, simul. 19634
induction motor core losses prediction, rot. iron loss data 4970
induction motor fault current simul., rotor leakage flux-caused 19647
induction motors, parameter estim., dyn. anal. 19649
isolated half-bridge ZVS-PWM converter 44185
magnetostrictive devices, FEM modelling for mag. cct. design 39212
magnetron, leakage flux transformer, HV power supply *(French)* 29616
motor stator interturn short-cct. detect./location 10962
multiple winding transformer, model, mag. leakage 6378
nonlin. polarised ferromag. systs., computer anal. *(Russian)* 6941
PM film stabilised MR strips, sensit. distrib. anal. 7084
PM sync. machines, stabil., cage bar effects 36125
polymer-ferroxide film absorbers, microwave, mag., dielec. props. 14102
pot core transformers, coupling coeffs., num. study 38053
power transformer dyn. hysteresis losses 27778
power transformer inrush current calc., hysteresis loops 19702
railguns, high efficiency achievement 15261
rf cavities, ferrite garnet-tuned, mag. losses/instabil., synchrotron 18269
saturated deep bar induction machines, simul. model 4971
series connected batt. strings, charge equalization 44306
series connected batt. strings, charge equalization 19932
single sided LIM, urban transit appl., nonlin. optimisation *(Japanese)* 44560
steel wire rope, broken wires, mag. leakage field, math. model *(Chinese)* 31724
temp. rise anal., harmonic voltage propag./penetration 5020
three-phase machine ring winding, end turn leakage inductance calc. *(Russian)* 43973
transformer winding shape design, global optim. strategies 887
TV sets, fly back transformer-AC power cable coupling 25647
urban transit syst., LIM/LSM combination Maglev *(Japanese)* 11398
$CoFeSiB-SiO_2$ multilayers, HF mag. losses *(Japanese)* 30697
$CoNbZr-SiO_2$ double layer films, HF mag. losses *(Japanese)* 30697
$a-Fe_{81}B_{13.5}Si_{3.5}C_2$ ribbons, power loss, surface layer effect 14143
MnZn ferrites for high freq. power supplies, mag. props. 30684
Ni-Zn ferrite, sintered, microwave absorbing props. 14179
$Tl_2Ba_2Ca_2Cu_3O_{10}$, mag. shields 39247
magnetic lenses
see also aberrations
deflector-type analyzers, circ. multipoles, cylindrical coord. anal. 23504
electron-beam tester, mag./electrostatic lens collimation 37038
quadrupole form. of ellipt. sheet electron beams 6504
magnetic levitation
3 DOF Maglev, actuators, PM *(Japanese)* 39216
act. mag. suspen. systs., PLL appl. *(Japanese)* 39215
CCD cameras for posn. and attitude sens. 18088
CCD sensor for position and attitude sensing 25882
combined Maglev levitation, propulsion, guidance syst., anal. 28134
compact mag. suspen., one axis control 20093
contact anal. probe tool, automated IC anal. probing stations 20415
DC magnet moving over Fe rail, finite element calc. 15238
electrodynamic levitation, slowly moving bodies, vector field pot. 28118
EM levitation syst. for rapid transit and high speed transportation 20092
EM levitation with permanent and electro magnets, optimal design 20091
flywheel energy storage, high T_c supercond. mag. bearing appl. 28050
H_∞ control, exact lin. 40276
HTSC bearing with alternating-polarity magnets, dyn. 14309
HTSC flywheel levitation force, num. eval. 1583
HTSC-based mag. levitated transport syst. in vac. 30808
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
LIM-driven undercarriage develop. 28148
lin. induction launcher, in-bore projectile dyn. 15297
lin. pulse motor, mag. suspen., contactless direct drive *(Japanese)* 44077
lin. spring for PM levitation syst., EM control 44509
mag. levitated rot. motors *(Japanese)* 44026
Maglev, instantaneous current detect., PWM converter *(Japanese)* 44563
Maglev, PM lin. motor 36737
Maglev carrying syst., LIM, driving characts. *(Japanese)* 44562
Maglev power feed ccts., impedance freq. characts. 11406
Maglev syst., levitation/guidance, static characts. *(Korean)* 28119
Maglev train protection/posn. detect. 5339
magnetised spheroid supercond. levitation, equilib. calcs. 2172
multilayer ferromag. track, levitation characts. 20090
noncontact permanent mag. levitation table, vibr. isolation 17654
on-board power supply lin. generator, math. model 36759
oxide supercond./PM levitation force anal. *(Japanese)* 7232
pass. mag. bearings, superconductors, PM *(French)* 7258
persistent current switches, stabil. current perform. *(Japanese)* 7257
plane conducting screen/periodic mag. field interact. 23495
PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
PM wheels, basic characts. 5356
PM/lin. actuator reluctance control-based 28127
rail transport systs., develop. status, Japan 5335
rly. inverter harmonic suppression method 11423
steelmaking, sintering cake magnetic suspen., electromagnets *(Japanese)* 44626
supercond. lin. sync. drives, stator irreg. calcs. 36761
magnetic levitation continued
supercond. mag. levitated vehicle syst., damping charact. *(Japanese)* 28130
supercond. magnet protection, discharge tube switch-based 5338
supercond. magnets, constr., perform. 5337
supercond. magnets, power dissipation, vibr.-induced disturbances 1636
supercond. materials, power systs./transportation appl. possibilities 43612
Swissmetro, high speed underground transportation syst. 36735
test facility vehicle design, Japan 5336
time-delay control, mag. levitated lin. positioning syst. 15341
train coil syst., transient induced voltages study 11428
transit technol. develop., worldwide 28141
trapped field magnet and stable levitation region of HTSC, anal. 39294
urban transit syst., LIM/LSM combination Maglev *(Japanese)* 11398
NdBFe magnet-$YBa_2Cu_3O_{7-\delta}$, vert. mag. force/stiffness 14270
YBaCuO, levitation/suspen. forces in microgravity expts. 39246
YBaCuO, mag. bearings 1639
YBaCuO melt-textured materials for trapped field magnets, levitating bearings 39245
$YBa_2Cu_3O_x$, $Nd_{1+x}Ba_{2-x}Cu_3O_y$ seeded melt growth, levitation appl. 7249
magnetic lines of force *see magnetic flux*
magnetic liquids *see magnetic fluids*
magnetic losses *see eddy current losses*
magnetic materials
see also amorphous magnetic materials; antiferromagnetic materials; diamagnetic materials; dilute magnetic materials; ferrimagnetic materials; ferromagnetic materials; magnetic epitaxial layers; magnetic fluids; magnetic multilayers; magnetic particles; magnetic semiconductors; magnetic superconductors; magnetic thin films; paramagnetic materials; permanent magnets; soft magnetic materials
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
DC/AC power convertor planar integrated reson. LCT cct. design 12321
Δm curves modelling, complete-moving-hysteresis model 39187
doubly- and non-oriented sheets, anisotropic behaviour model 39126
goniometer for mag. light scatt. studies 34669
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
lin. DC motors, high response, mag. materials *(Japanese)* 44075
lin. magnetoelec. media, investig. of constructive rels. 1569
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
PM syst. synthesis, optimal topography calcs. *(Russian)* 30747
power transformer winding short-cct. withstand capability estim. criteria 36223
rare earth bonded hard magnet material remanance 1582
recording material requirements and innovations *(Japanese)* 14248
sensor/transducer appls., colloq., London (1994) 20256
SRM actuators, axially laminated anisotropic rotor design 27701
variable reluctance machines, demagnetisation control designs 36138
wideband EM wave absorber, thin mag. layers 15518
B, borides and related compounds, conf., Tsukuba, Japan (1993) 11553
Fe-based nanometer cryst. alloy power CT core *(Chinese)* 27786
$La_2Co_{17-x-y}Fe_xTi_y$ intermetallic cpds., mag. props. 1568
$La_2Co_{17-x-y}Fe_xTi_yN_\delta$ intermetallic cpds., mag. props. 1568
magnetic memories *see magnetic storage*
magnetic microwave devices
see also magnetic millimetre wave devices
drop-on circulator design, X and Ka bands 14262
ferrite-supercond. microwave phase shifters 12718
YIG cascaded magnetostatic soliton waveguide, short pulses 30753
YIG, magnetostatic forward-vol. wave resonator, tunable oscillator *(Japanese)* 12761
magnetic millimetre wave devices
see also magnetic microwave devices
tunable mm-wave mag. filter, novel design 14261
magnetic moments
3D posn./direction determ. syst., Hall sens.-based *(Korean)* 34696
garnet films, attractive/repulsive defects, domain wall interacts. 14168
mag. domain struct., Young's modulus meas. 14208
Maxwell's eqns., sig. solns. for charge carriers 7884
misaligned thin film meas. in Mallinson coil set 18041
propagation from vert. dipole in prescence of two or three layers 23628
solar cell, mag. moment, probab. estim. 44408
underwater mag. objs., dipolar/ellipsoidal modelling 18851
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+\delta}Ag$ tapes, crit. current dens., columnar defects 1596
BiSrCaCuO/Ag 2212 ribbons, crit. currents 39224
$\gamma-Co_xFe_{2-x}O_3$ fine particles, spin canting anom., size/anisotropy effects 7026
CoFeSiB amorph. wires and films, giant magneto-impedance 30667
$CuCr_2Se_4:As$, mag. props., doping effects 14157
$Dy_2Fe_{17-x}Ga_xC_2$, arc melting prep., mag. props. 39138
ErN(P)(As), electronic struct., metallization appls. 38670
Fe/Ni bilayers, mag. props. 30701
$a-Fe_{78}B_{13}Si_9$, moment canting in applied fields, polarized Mossbauer obs. 14140
$Fe_{80-x}M_xB_{20}$, (M=Ni,Co,Mn,Cr,V,Ti), amorph., mag. props. 14110
$Fe_{16}N_2$ epitaxial films, mag./Mossbauer study 6995
$\alpha''-Fe_{16}N_2$, mag. props. 6993
$\alpha''-Fe_{16}N_2$, magnetisation/Mossbauer spectra/electronic struct. calcs. 6994
$\alpha''-Fe_{16}N_2$, synthesis/struct./charactn. 7032
Fe_4N nanometer-sized particles, mag. props. 6979
$a-Fe_{90}Sc_{10}:^{119}Sn$, spin correl./relax., Mossbauer obs. 6932
FeXN (X=Ta,Hf,Cu,Si,Zr) high moment thin film head materials, electrochem. corros. 6942
GdN(P)(As), electronic struct., metallization appls. 38670
$Li_{0.673}Zn_{0.3}Mn_{0.05}Ti_{0.595}Fe_{1.28}\,2O_4$ ferrite, mag. struct. 14196
$Nd_3Fe_{29-x}Ti_x$, mag. and cryst. struct. 6945
Ni-Zn ferrites, films, microwave props. annealing effects 14178
$R_2(Fe_{1-x}Ga_x)_{17}$ (R=Y,Sm,Dy,Ho), mag. props. 39143
$RFe_{11.35}Nb_{0.65}N_y$, pure and nitrided, (R=Y,Sm,Gd,Tb,Dy,Ho,Er,Lu), struct. and mag. props. 22688
$R_2(Fe_{1-x}Si_x)_{17}$ (R=Dy,Y), struct. and mag. props. 7017
$Sm_{1-y}Pr_yCo_{4-x}Fe_xB$, mag. material by substitution/nitridation 7200
$YCa_2SbFe_4O_{12}$ garnet, mag. ordering studies 30689
$Y_2Co_{14}B_x$, PM, NMR/mag. meas. 39192
$Y_2Fe_{17-x}Ga_xC_2$, form. and mag. props. 39141
magnetic multilayers
0.1 to 0.3 micron wide, ultra dense GMR memory elements 14207
10 $Gbit/in^2$ mag. recording, thermal instabil. 7181
buried dielec./mag. gratings of fibers, refl. 15411
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
dil. mag. semicond. QW struct., diffusion, opt. methods 39171

magnetic multilayers continued
- domain-wall motion, nonequilibrium dyn., chaos 7188
- electron-beam thermomagnetic recording in multilayer mag. struct. 39312
- ferromag.-nonmagnetic-ferromag. metal bipolar spin transistor 30760
- giant magnetoresist. multilayers, mag. field sens. 17708
- GMR 1-μm wide, end-on, ganged, read head sens., high sensitivity 7073
- granular giant magnetoresistive materials, ferromag. resons. 7050
- Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
- mag. quantum struct., macroscopic consequences 14212
- Maglev multilayer ferromag. track, levitation characts. 20090
- magneto-opt. exchange-coupled multilayer, overwrite repeatability 22697
- magnetoresist., domain effects 7065
- magnetoresist. charact., metallic multilayers *(Japanese)* 30694
- nonlin. Fabry-Perot resonator, magnetoresonance multilayer struct. 39174
- nonsaturated mag. layers, recording behaviour, slope model 22694
- off-track charact. of laminated heads in azimuth recording for VCRs 7111
- permalloy-Ag multilayers, RTA giant magnetoresist./struct. study 22691
- Permalloy/Fe soft thin film elements, MFM anal. 14119
- PM biased SAL/MR device, stabil., bias characts. 7083
- PM film stabilised MR strips, sensit. distrib. anal. 7084
- recording media, track edge noise 7122
- spin-valve struct., current distrib., passivated giant magnetoresist. 14206
- superlattices with subsidiary ferromag. layers, GMR, saturation mag. field 22692
- symmetric spin valve struct., giant magnetoresist. 7038
- tiny magnets, giant magnetoresist., inform. storage appl. 30717
- trilayer syst., exchange coupling, micromagnetics 7047
- two-layer iron garnet films, FMR doublet 7025
- wideband EM wave absorber, thin mag. layers 15518
- Ag/Co, multilayers, mag. states in different fields 7059
- Au/Co/Au multilayer systs., magneto-opt. effects, surface plasmon depend. 7067
- Au-Permalloy multilayers, giant magnetoresist./oscill. interlayer exchange coupling 7063
- Ba ferrite, CoTi-doped, long. thin film media 7129
- Co/(Pt-Bi) multilayers, magnetis., magneto-opt. props. 14204
- Co/Ag multilayers, struct./mag. props., annealing effects 30715
- Co/Al superlattices, mag. props., interlayer coupling 30706
- Co/Au multilayer films, struct./mag. props. 7057
- Co/CoAl mag. superlattices on GaAs 7044
- Co/Cr thin films, interdiffusion and grain isolation, thermal annealing 7040
- Co/Cu multilayer struct., STEM magnetometry studies 14205
- Co/Cu multilayers, interlayer coupling, vibr. sample magnetometry/FMR study 39177
- Co/Cu multilayers, magnetoresist., prep. conditions/annealing depend. 7054
- Co/Cu multilayers on grooved substrs., perp. giant magnetoresist. 39172
- Co/Ni multilayer, sputtered, anisotropy and magneto-opt. props. 14203
- $(Co/Ni_{81}Fe_{19}/Co)/Cu$ multilayers, giant magnetoresist., mag. struct. 7060
- Co/Pd multilayer films, struct./mag. props. 7057
- Co/Pd multilayers, FMR and NMR 30714
- Co/Pd multilayers, magnetostriction, layer thicknesses effect 30690
- Co/Pt multilayer films, struct./mag. props. 7057
- Co/Pt multilayers, magneto-opt. props. 30710
- Co/X multilayer films, (X=Pt,Au,Ag,Ni), temp. depend. of mag. anisotropy 30699
- Co/Zr multilayers, Co-phase transits., mag. props. effect 30708
- (Co-Bi)/Pt multilayers, magnetis., magneto-opt. props. 14204
- Co-Cu sandwich film, giant magnetoresist./anisotropic magnetoresist. comparison 7061
- Co-Nb/Pd multilayer, mag. and magneto-optic props. 30709
- Co-P multilayers, magnetoelastic response, thickness effect 14215
- Co-based multilayers, layer modulation, magneto-optic Kerr spectrosc. 30712
- CoCrPt/CoCrPt/CoCrPt multilayer, ultra-high dens. mag. recording 7051
- CoCrPt/CoCrTa multilayer, ultra-high dens. mag. recording 7051
- CoCrPt/Cr/CoCrPt multilayer, ultra-high dens. mag. recording 7051
- CoCr(Pt)Ta and CoCrPtB multilayer films, mag. recording 7126
- CoCrTa/Cr bi-layered thin-film media, long. recording 7117
- Co_9Fe-Cu-Co_9Fe struct., giant magnetoresist./mag. anisotropy *(Japanese)* 30695
- CoFeSiB-SiO_2 multilayers, HF mag. losses *(Japanese)* 30697
- CoNbZr-SiO_2 double layer films, HF mag. losses *(Japanese)* 30697
- CoNi, multilayers, magneto-optics, opt. props. influence 14202
- $Co_{32}Pd_{68}/Ag$ multilayers, mag. props. 30711
- CoPt/Cu/NiFeCo/Cu multilayers, spin-valve effect/magnetoresist. 14213
- Cr/CoCrTa/M/CoCrTa/Cr (M=Al,Cu,Ag,Cr) thin films, mag. props., X-ray crystallography 7052
- CrO_2/Co multilayers on Cu(100) 30692
- Cu/Co, multilayers, mag. states in different fields 7059
- Cu/Co multilayers, pulsed laser deposition, opt. reflectometry 5897
- Cu/Co/Au multilayers, buried interfaces, opt. SHG 1152
- Cu/Co/Cu/NiFe multilayers, magnetoresist., thermal stabil. 7053
- Cu/NiFe, multilayers, mag. states in different fields 7059
- Cu-Mn/Co multilayers, magnetoresist., exchange coupling 30707
- $CuO/Al_2O_3(MgO)$ multilayers, mag. props. 39170
- Fe:Cr-Cr multilayers, enhanced magnetoresist. 7062
- Fe/Ag granular alloy films, Fe cluster dispersed, GMR 30705
- Fe/Ag multilayers, sputtered, oscillatory GMR 30704
- Fe/Cu, multilayers, interlayer coupling, FMR meas. 30700
- Fe/Cu multilayers, mag. props. 30703
- Fe/Gd multilayers, magnetostriction, ferromag. reson. meas. 30691
- Fe/M-N (M=Fe,Cu), multilayered films, mag. props. 14211
- Fe/Ni bilayers, mag. props. 30701
- Fe/Pd multilayers grown by electron-beam, mag. props. 39176
- (Fe-Co)/Ag films, magnetoresist. study 7049
- Fe-FeCoZr sputtered multilayers, soft mag. props. *(Japanese)* 30696
- Fe-Si multilayers, antiferromag. coupling/magnetoresist. 14214
- Fe-Si/Cr multilayer, mag. and magneto-optic props. 30709
- FeAlSi/FeAlSiO multilayers, nanostruct. controlled, mag. props. 14210
- a-FeB mulilayer magneto-SAW devices, phase controllability 14264
- FeCo/Cu, multilayers, interlayer coupling, FMR meas. 30700
- FeCoNi/Cu giant magnetoresist. multilayers, sputtered, growth induced in-plane anisotropy 30702
- FeCoNi/Cu, multilayers, interlayer coupling, FMR meas. 30700
- FeCr, layer systs., local/nonlocal dens. fn. studies 6999
- $FeHfC/Al_2O_3$ multilayers, mag. props., interlayer effects 14209
- FeHfC/AlN multilayers, mag. props., interlayer effects 14209
- $FeHfC/Si_3N_4$ multilayers, mag. props., interlayer effects 14209
- $FeHfC/SiO_2$ multilayers, mag. props., interlayer effects 14209
- Fe_3O_4/NiO superlattices, cryst. and mag. ordering 7045

magnetic multilayers continued
- FeTaN nanocrystalline films, mag. anisotropy, mag. heads appl. *(Japanese)* 28815
- GdDyFeCo sputtered films, trilayer struct., thermal stabil. 14201
- GdTbFe(Co) magneto-optic media, domain wall mobility meas. 14232
- Ho/Er, superlattice, mag. struct., interacts. 7043
- Ho/Lu, superlattice, mag. struct., interacts. 7043
- Ho/Y, superlattice, mag. struct., interacts. 7043
- MnTe/CdTe multilayers, interlayer correl., helical spin ordering 7046
- NdTbDyFeCo/DyFeCo-ultrathin bilayer, thermomagnetic recording behavior 14231
- Ni-Fe-Co/Cu/Co-Pt trilayers, magnetoresist. effects 39173
- Ni-Pt multilayers, magnetoresist., in-plane magnetis. 30713
- NiCoFe/Cu, giant magnetoresistive thin-film read head devices 7075
- Ni(Fe,Co)/Ag granular multilayers, struct./magnetoresist. 7048
- $NiFe/(Ni/Fe/Cu)_n/NiFe$ thin films, giant magnetoresist. 7039
- NiFe/Ag, giant magnetoresistive thin-film read head devices 7075
- NiFe/Co/Cu/Co/NiFe NiCoO exchange biased spin-valve struct., MR heads 7078
- $Ni_{80}Fe_{20}/Cu$ multilayers, magnetoresist. 7055
- $Ni_{80}Fe_{20}/Cu/Ni_{80}Fe_{20}/Fe_{50}Mn_{50}$, giant magnetoresistive elements, thin film tape heads 7072
- $Ni_{81}Fe_{19}/Co_{67}Cr_{33}$ multilayers, perp. recording media, soft mag. props. 7042
- NiFe-SiO_2 multilayer mag. sens., high freq. magneto-impedance effect 17709
- NiFe-TbCo unshielded spin-valve sens., exchange-biased, MR heads 7077
- $(Ni_xFe_{1-x})_yAg_{1-y}/Ag$ multilayers, low field giant magnetoresist. 7064
- NiFeCo/Cu multilayers, giant magnetoresist. 7058
- $Ni_{76}Fe_{10}Co_{14}/Cu$ giant magnetoresistive multilayers, permeab., read heads 7076
- NiFeCo-Cu GMR multilayer sens. at high current densities, micromagnetics 7074
- Pd/Co multilayers for perp. mag. recording 7041
- Pd/Pd-Fe/Pd multilayers, Heisenberg/XY model comparisons 7066
- Pt/Co multilayer, magneto-opt. Faraday effect, STM obs. 14546
- Pt/Co multilayers, Ar-sputtered, anisotropy energy and coercivity, magneto-opt. recording 14545
- Pt/Co multilayers, high-dens. thermomag. recording method, STM 22698
- Pt/Co multilayers, interface struct., perp. mag. anisotropy 39175
- Pt/Co multilayers, near-field magneto-opt. imaging in STM 31015
- Pt/Fe(Co)(NiCo) multilayers, magnetooptical spectra 7056
- Pt/Pd/Co multilayers, interface struct., perp. mag. anisotropy 39175
- Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
- Pt-Ni multilayers, enhanced magnetis., perp. anisotropy 30716
- Tb/Fe multilayer stacks, exchange coupled double layer films 30742
- TbCo, multilayers, magneto-optics, opt. props. influence 14202
- TbFe magneto-opt. films, nanostructure and chem. inhomog. 14113
- TbFeCo/Ta multilayers, mag. and magneto-opt. props. 14200
- $Y_3Fe_5O_{12}$-$Bi_3Fe_5O_{12}$ heterostruct., pulsed laser deposition, charactn. 30698

magnetic noise
- *see also magnetic recording noise*
- Barkhausen noise anal., DC bias/excitation/detect. freqs. 14126
- MR-SAL struct., hard-magnet biasing strengths 17707
- PM biased SAL/MR device, stabil., bias characts. 7083
- struct. anal., inverse problem, phys. model constr. 28920
- thin film heads, inductance fluct., domain instabil. and popcorn noise 7093
- $YBa_2Cu_3O_{7-x}$ integrated high-T_c multiloop magnetometer 30799

magnetic particles
- *see also superparamagnetism*
- 3D moving vector Preisach hysteresis model 39186
- accommodation model, param. ident. 14230
- accommodation models 39124
- automotive EM particle clutch, design anal. 11435
- conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
- damping const. effect on switching of hexagonal platelet particle 14240
- die-upset magnets, magnetisation reversal by nucleation 6966
- fine mag. particles, FMR studies 22695
- granular giant magnetoresistive materials, ferromag. resons. 7050
- interact. Stoner-Wohlfarth particles, recording media modeling 14229
- Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
- mag. recording media, switching fields, time depend. 7138
- metal audio tapes, FMR 14239
- metal particle oriented tapes, FMR spectra 7134
- metal particle tape, archivability, corros.-accelerating environ. tests 7131
- moving vector Preisach hysteresis model and δM curves 14220
- NANOCON mag. materials, soft mag. props. 13905
- nanometer-sized granular alloys, PM design 30748
- nonsaturated mag. layers, recording behaviour, slope model 22694
- PM, powder proc., mag. alignment 7033
- polycryst. PM, remanence angle hysteresis 14259
- quartz, selective collection by mag. reagent, HGMS 15259
- rare-earth/α-Fe based composite magnets, remanence enhancement, 2D/3D calc. 7007
- tapes, coherent switching, Stoner-Wohlfarth limit 7135
- tapes, magnetis. reversal, seq. field pulses 7136
- tapes, sliding against MnZn ferrite head, friction, wear 7165
- vortex mag. separation 15257
- wideband EM wave absorber, thin mag. layers 15518
- Ag-Co granular epitaxial layers, struct./giant magnetoresist. 14164
- Ag-Ni granular epitaxial layers, struct./giant magnetoresist. 14164
- Ba ferrite particles, substituted, high dens. mag. recording, remanence 39165
- Ba ferrite, substituted, particle prep., flux method 7030
- Ba hexaferrite particles, sol-gel prep. 7024
- Ba-ferrite interact. mag. hard particles, mag. reversal 39169
- Ba-ferrite particulate media, magneto-opt. readout props. 22964
- Ba-ferrite/α-Fe composite particles, mag. props. 7029
- $BaCo_{0.8}Ti_{0.3}Fe_{10.4}O_{19}$ particulates, magneto-opt. props. 7036
- $BaFe_{12-2x}Co_xTi_xO_{19}$ hexagonal ferrites for mag. recording 30688
- $BaFe_{12}O_{19}$, fine ferrite powders, synthesis, props. 14191
- $BaFe_{12}O_{19}$ hand spread coatings, transverse suscept. and remanence characts. 7027
- $BaZn_xTi_yFe_{12-x-y}O_z$ particulate recording media, remanence states/transverse suscept. 30685
- Bi-YIG particles prep. for display devices 14173
- $Bi_3YFe_{3.5}GaO_x$ films, pulsed laser ablation, mag. props. 30686
- $Cd_{1-x}Mn_xS$ dil. mag. semicond. nanoparticles 13082
- Co ultrafine clusters, NMR spin echo meas. 6978
- Co-Ag granular films, giant magnetoresist. 6981

magnetic particles continued
Co-Cr films, micromagnetic domains, neutron scatt. 6961
Co-Cr sputtered mag. films, comp. inhomog., APFIM obs. 39131
Co-Ni, ferromag. precip., giant magnetoresist., comp. depend. 39134
Co-γ-Fe$_2$O$_3$ oriented tapes, FMR spectra 7134
γ-Co$_x$Fe$_{2-x}$O$_3$ fine particles, spin canting anom., size/anisotropy effects 7026
CoFe$_2$O$_3$ acicular ferrite particles, Mossbauer effect study 7035
Co$_{20}$Ni$_{80}$ particles, prep. and microwave charactn. 6977
CrO$_2$ oriented tapes, FMR spectra 7134
Cu$_{1-x}$Co$_x$Fe$_2$O$_4$ spinel ferrites, mag. domain behavior 14188
Fe passivated particles in humid atmos., degrad., mag. tapes appl. 7132
Fe pigments protection with amine-quinone polymers, metal particle tape appls. 7145
Fe/Ag granular alloy films, Fe cluster dispersed, GMR 30705
α-Fe/Nd$_2$Fe$_{14}$BTi$_x$ nanocrystalline alloys, coercivity 7011
Fe-Ag granular films, giant magnetoresist. 6981
Fe-Al-Ta-C nanocrystalline films, soft mag. props./corros. resist. 6991
Fe-B-M-Cu (M=Hf,Zr,Nb), nanocrystalline/amorph. hybrid struct., soft mag. props. 14146
Fe-Co, ferromag. precip., giant magnetoresist., comp. depend. 39134
(Fe-Co)/Ag films, magnetoresist. study 7049
Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
Fe-Zr film, amorph., antiferromag./ferromag. cluster coexistence 14117
Fe-based NANOCON materials, soft mag. props. 39123
a-Fe$_{73.5}$CuNb$_3$Si$_{13.5}$B$_9$ ribbons, mag. domain struct., crystn. effect 14142
Fe$_{66}$M$_2$Nd$_{20}$C$_{9.5}$B$_{0.5}$ (M=Ga,Nb,Cu,Al) ingot magnets by solid-state transform. 6969
α''-Fe$_{16}$N$_2$, mag. props. 6993
Fe$_4$N nanometer-sized particles, mag. props. 6979
γ-Fe$_2$O$_3$ oriented tapes, FMR spectra 7134
γ-Fe$_2$O$_3$ particles, coercivity and switching field 6976
γ-Fe$_2$O$_3$, particulate recording media, remanence states/transverse suscept. 30685
Fe$_3$O$_4$ coatings on silica microspheres, US contrast agent appl. 14180
Fe$_3$O$_4$, magnetite, finely ground, mag. hydrocyclone proc. 15258
γ-Fe$_2$O$_3$:Co mag. tapes, waterborne formulation prep., dispersion quality 7133
γ-Fe$_2$O$_3$:Co,Zn particles, prep. and mag. props. 7028
Nd-Fe-B anisotropic powder, H decrepitated, XRD obs. 6971
Nd-Fe-B based particulate magnets, polymer bonded, fluct. fields 39207
Nd-Fe-B-Co(Ga)(Zr) anisotropic powders, HDDR treatment, mag. props. 6984
Nd-FeCoNi-B-AlTi melt-spun ribbons, corros./mag. props. 30681
Nd$_{2-x}$Dy$_x$Fe$_{14-y}$Co$_y$B sintered magnets, remanence/coercivity 6973
Nd(Fe,Mo)$_{12}$N$_x$, PM props. 6940
Nd$_2$Fe$_{14}$B fine particles, spark erosion prep., struct., mag. props. 6975
Nd$_{15.4}$Fe$_{75.7}$B$_{6.7}$Cu$_{1.3}$Nb$_{0.9}$ sintered magnets, prep./TEM 6968
Nd$_2$Fe$_{14}$BH$_x$ powders, synthesis and mag. props. 39128
Ni filaments in porous Si matrix, mag. props. 6996
Ni-Cu, ferromag. precip., giant magnetoresist., comp. depend. 39134
Ni-Cu-Zn powder ferrite for multilayer chip inductors 14186
Ni-Zn ferrite powders, mag. props., microwave absorpt., pH depend. *(Korean)* 22689
Ni(Fe,Co)/Ag granular multilayers, struct./magnetoresist. 7048
Pr(Fe,Mo)$_{12}$N$_x$, PM props. 6940
Sm-Co based particulate magnets, polymer bonded, fluct. fields 39207
Sm-Fe-N/α-Fe remanence-enhanced mech. alloyed two phase magnets, coercivity 7010
Sm-Fe-Ti/nitrides, mag. props. 14160
Sm$_2$(Fe,V)$_{17}$N$_y$ coarse powder, struct., mag. props. 7001
Sm$_2$Fe$_{17}$, high field magnetis. 7198
Sm$_2$Fe$_{17}$C$_x$, high field magnetis. 7198
Sm$_2$Fe$_{17}$C$_x$H$_{5-x}$, high field magnetis. 7198
Sm$_2$Fe$_{17}$N$_x$ powders, powder and HDDR method prep., coercivity mechanism 22686
Sr hexaferrite particles, sol-gel prep. 7024
TiO$_2$, rutile, selective collection by mag. reagent, HGMS 15259

magnetic permeability
2D nonlin. eddy currents, iter. BEM convergence 40252
Beltrami-Maxwell postulates for time-varying EM fields in materials 15207
bianisotropic media, duality transforms., Green dyadics, plane-wave solns. 40322
bundles of conductors, macroscopic elec. charactn. 38042
dielec. coating on aircraft fuselage, scatt. signature optim. 40314
doubly clad opt. fiber filled with chiral materials, modal cutoff 7290
EM screens efficiency improvement by appl. of anisotropic materials 23715
ferrite loaded waveguide, soln., vector finite elements 40417
graded magnetis. single pole head for perp. recording 39178
helical-scan recording, lumped modeling of rotary transformers and heads 34272
high-tech mag. materials, recent develop. 30660
inductive heads, thin film, finite pole length reduction 7096
LF image theory for current dipole in front of permeable sphere 31712
magnetostrictive devices, FEM modelling for mag. cct. design 39212
multi-layer wave-absorber for oblique incidence, point freq. matching method 23579
polymer-ferroxide film absorbers, microwave, mag., dielec. props. 14102
pot core transformers, coupling coeffs., num. study 38053
single-turn coil impedance, double-layered sphere, varying props. 40235
stripe amorph. soft mag. film, locally induced mag. anisotropy *(Japanese)* 30661
strong-field electromagnets, efficiency, mag. conductor permeab. influence 31738
TV sets, fly back transformer-AC power cable coupling 25647
unilateral fin line resonate on biaxial substrates, spectral-domain anal. 21527
Co-P multilayers, magnetoelastic response, thickness effect 14215
Co-Zr-Ta-Nb amorph. thin film deposited cores on polyimide sheets *(Japanese)* 30662
Co-based amorph. thin wires, HF permeab. 14124
CoAl:O sputtered granular thin films, elec. resist., permeab. 14131
CoFeB:O sputtered granular thin films, elec. resist., permeab. 14131
Co$_{66.5}$Fe$_{3.5}$Si$_{12}$B$_{18}$, metallic glasses for fluxgate sens., magnetis. 30664
CoFeSiB-SiO$_2$ multilayers, HF mag. losses *(Japanese)* 30697
CoNbZr-SiO$_2$ double layer films, HF mag. losses *(Japanese)* 30697
Co$_{20}$Ni$_{80}$ particles, prep. and microwave charactn. 6977
Fe-Al-Ta-C nanocrystalline films, soft mag. props./corros. resist. 6991
Fe-B-M-Cu (M=Hf,Zr,Nb), nanocrystalline/amorph. hybrid struct., soft mag. props. 14146
Fe-FeCoZr sputtered multilayers, soft mag. props. *(Japanese)* 30696

magnetic permeability continued
Fe-Nb-B nanocrystalline ribbons, soft mag. props./microstruct. 14147
Fe-based NANOCON materials, soft mag. props. 39123
Fe-based amorph. thin wires, HF permeab. 14124
a-Fe-based toroidal transducer core, local flux dens. vars. 14255
FeAlSi/FeAlSiO multilayers, nanostruct. controlled, mag. props. 14210
FeAu, domain wall pinning, mag. viscosity/activation vol. 14148
FeGdN, soft mag. thin film material 14151
FeSiHfC nanocrystalline films, soft mag. props., anisotropy dispersion *(Japanese)* 30674
FeTaN films, DC magnetron sputtered, microstruct. and mag. props. 6951
FeTaN films, microstruct. and mag. props., effects of nitrogen content, heads 6950
FeTaN nanocrystalline films, mag. anisotropy, mag. heads appl. *(Japanese)* 28815
Fe$_{86}$Zr$_7$B$_6$Cu soft-mag. compacts, nanocryst., high saturation magnetis. 1572
Li$_{0.3}$Zn$_{0.4}$Fe$_{2.3}$O$_4$, additives, material property changes 39167
Mn$_{0.05}$Mg$_{1.9-2x}$Fe$_{4x}$O$_{4+\gamma}$-Al$_2$O$_3$ ferrite, microwave loss *(Korean)* 30687
MnZn ferrites for high freq. power supplies, mag. props. 30684
Ni-Cu-Zn powder ferrite for multilayer chip inductors 14186
Ni-Fe Alloy 42 leadframe, freq.-depend. complex permeab. determ. 11810
Ni-Zn ferrite, sintered, microwave absorbing props. 14179

magnetic permeability measurement
complex dielec./mag. permeabilities meas., coaxial resonator appl. 42900
EM props. of materials mes., coaxial probe 18049
errors, correl. factors 18042
ferromag. thin film-based high impedance anisotropic composites 14123
microstrip pickup coil for thin-film permeance meters 17718
microwave 4-param. materials, radar absorber design 3615
RF absorptive cables, characts. calc. and meas. 890
simultaneous meas. of resist./permeab. 3957
SMC target, NMR polariz. meas., nonlinearity 34872
soft-mag. film, permeab. meas. in GHz range 25956
techs. review 17696
NH$_3$ irradiated target, ^{14}N pol. meas. using NMR 34869
Ni$_{76}$Fe$_{10}$Co$_{14}$/Cu giant magnetoresistive multilayers, permeab., read heads 7076

magnetic phase diagrams *see magnetic transitions*

magnetic pinch *see pinch effect*

magnetic polarons
see also bipolarons
dil. mag. semicond. QW struct., diffusion, opt. methods 39171
Cd$_{1-x}$Mn$_x$Se quantum dots, magneto-opt. studies 39502
CdTe/CdMnTe QW, mag. polaron states 38363

magnetic properties of amorphous substances *see amorphous magnetic materials*

magnetic properties of dilute systems *see dilute magnetic materials*

magnetic properties of fine particles *see magnetic particles*

magnetic read/write heads *see magnetic heads*

magnetic recording
see also data recording; digital magnetic recording; magnetic recording noise; perpendicular magnetic recording; tape recorders; thermomagnetic recording
2D multichannel partial response class IV recording codes 30736
3-D mag. field anal., mag. force STM 18037
3D moving vector Preisach hysteresis model 39186
10 Gbit/in^2 mag. recording, thermal instabil. 7181
accommodation model, param. ident. 14230
adaptive continuous-time equalization, FDTS/DF seq. detect. 30725
channel, binary/ternary DFE 7191
channel, neural net equalization 7106
complete-moving-hysteresis model, param. ident. 7100
computer hard disks, phosphazene lubricated, environ. effects 7155
contact recording coatings, nanoindentation, microscratch, friction, wear 39184
(d, k) codes with multiple spacing, spectral props., mag./magnetooptic recording 7176
(d, k/I) constrained partial response max. likelihood codes, hard disks 22696
(d,k) seqs. codes of const. Hamming wt. 24096
(d,k)-constrained seqs., synchronising methods 15755
damping const. effect on switching of hexagonal platelet particle 14240
Δm curves modelling, complete-moving-hysteresis model 39187
digital tape recording, optim. of azimuth angle/geom. params. 14238
domain-wall motion, nonequilibrium dyn., chaos 7188
edge overwrite charact. in thin film disk media, MFM study 7185
fields meas. by electron-beam tomography, Fourier extrapolation 18045
fine mag. particles, FMR studies 22695
gramophone recordings, pitch var. defects restoration 17618
HDD, adaptive RAM-DFE read channel 30730
head disk interface shock failure mechanism 7158
high track dens. mag. recording, multichannel equalization 7194
inductive heads, thin film, finite pole length reduction 7096
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
isolated read-back pulses from keepered long. thin film media 14225
isotropic thin film texture for hard disc substrs. 7147
low-power analog sampled-data VLSI archit. for mag. recording channel 29411
mag. disk, lubricant bonding, hydrogen bond network 7154
mag. laminated tapes, deform. 7168
mass data storage recorder 39183
mech.-induced readback errors in contact recording 7157
medium noise, phys. sources, std. head model 14222
metal audio tapes, FMR 14239
modified MLSE 7140
moving vector Preisach hysteresis model and δM curves 14220
musical recordings, pitch var. defects, recursive restoration 34294
narrow track recording, write pole geometries, edge effects 14219
nonlin. 3D magnetostatics, perturbed h-method 14228
nonlin. ISI channels, improved detector 7195
nonlin. mag. transit. shift, algm. for real time meas. 14235
nonsaturated mag. layers, recording behaviour, slope model 22694
parametric mag. tape recorder, short-term reprod. *(Japanese)* 22705
particulate mag. media, accommodation models 39124
perfluorocyclobutane containing aromatic ether polymers, mag. media substrs. 7139
PRML channel, nonlin. mag. recording read-back distortion effect *(Japanese)* 22704
PRML channel perform. eval., window-margin-like procedure 30728

magnetic recording continued
PRML mag. read channels, high speed, CMOS analog front-end archits. 30727
RAM-DFE archit. 30739
ribbons, amorph., magnetostrictive vibr., bias mag. field effect 7190
ship's screw cavitation recording, angle sampling control *(Croatian)* 3685
signal proc. in mag. recording, conf., San Diego (Aug. 1994) 20241
slider/disk separation, rest 7150
switching fields, time depend. 7138
tape noise charact., chaos appl. 14252
thin film media, permeable keeper layer, transit. shifts 7118
threshold and timing error rate vs. off-track posn. 14223
time-correl. method of calculating mag. recording nonlin., pseudorandom seqs. 7184
transit. jitter meas. gauge testing for long. thin film mag. recording 14227
unequalized mag. recording channels, clock recovery 7193
unshielded magnetoresistive heads, single and dual element, sig. proc. 30732
video/image recording technol. *(Japanese)* 34277
wide-field Kerr imaging, mag. device appls. 14547
Ba ferrite, CoTi-doped, long. thin film media 7129
Ba ferrite particles, substituted, high dens. mag. recording, remanence 39165
$BaFe_{12-2x}Co_xTi_xO_{19}$ hexagonal ferrites for mag. recording 30688
$BaZn_xTi_yFe_{12-x-y}O_z$ particulate recording media, remanence states/transverse suscept. 30685
C, DLC protective PECVD film, thin film mag. disk 7152
C-coated thin film head sliders, tribological perform. 7149
Co films, submicron patterning, mag. storage 14241
Co-Cr films, micromagnetic domains, neutron scatt. 6961
Co-Cr sputtered mag. films, comp. inhomog., APFIM obs. 39131
$(Co_{93}Cr_7)$-P-Pt/Cr thin films, long. mag. recording 7128
CoCr(CoCrTa) mag. recording media, compositional separation rel., film thickness 6956
CoCrPt, high coercivity thin film for long. recording 14097
CoCrPt/Cr thin films, CoCrPt thickness effect on props. 6943
CoCrTa/Cr long. recording media, proc., mag. props. 14247
CoCrTa/Cr sputtered thin-film media, mag. and recording props. 14250
CoNiPt-SiO_2 films, mag., structural props. 1570
CoPtCr thin film recording media, soft error rate 7124
Cr/CoCrTa/M/CoCrTa/Cr (M=Al,Cu,Ag,Cr) thin films, mag. props., X-ray crystallography 7052
Fe passivated particles in humid atmos., degrad., mag. tapes appl. 7132
γ-Fe_2O_3, particulate recording media, remanence states/transverse suscept. 30685
γ-Fe_2O_3:Co,Zn particles, prep. and mag. props. 7028
FeSmN thin films, long. mag. recording 7127
NiFe/Cu/Co spin-valve read heads, high dens. recording 7070
NiP/Al discs, sputter-induced random micro texturing 5885
Sm-Co/Cr thin films, Cr underlayer microstruct., mag. props. 39154

magnetic recording noise
channel equalisation for max. likelihood detectors 30724
digital tape recording, optim. of azimuth angle/geom. params. 14238
disk recording channels with sig. depend. noise, model 30720
drive compatibility optimum design for opt. storage media 14328
EEPR4 detect., digital read/write channel 30738
flux-guided MR head for low flying height 7079
HDD, off-track perform., soft error rate model 14236
helical scan tape recorder noise, investig./modelling 25678
long. thin film media, noise characts. of interact. transits. 30721
M-ary (d,k) codes for high dens. disk recording, improved dist. 30735
magneto-opt. exchange-coupled multilayer, overwrite repeatability 22697
magnetooptical disk drive, mag. field modulat. recording 7415
medium noise, phys. sources, std. head model 14222
multi-level decision feedback equalization realization of FDTS/DF for hard disks 30729
multilayer thin film media, track edge noise 7122
multiple-head digital mag. recording, multichannel sig. proc. 8333
narrow track recording, write pole geometries, edge effects 14219
overwrite and transit. shift in perp. mag. recording 14224
partial response polynomials, mag. recording systs. 30726
partial response syst. in perp. mag. recording, perform. 22700
PRML channel, medium noise, syst. error rate 7120
PRML digital mag. recording systs. anal. by write and read equalization 30723
PRML mag. recording syst. anal. by write and read equalization 30722
steel, slits, high resoln. mag. Barkhausen noise meas. 449
thin film heads, noise-after-write, electron microscopy 7109
thin film mag. recording heads, narrow read width, error rate model 14218
thin film mag. recording media noise, cluster size effects 30719
thin film media, transit. noise spectral meas. 7119
threshold and timing error rate vs. off-track posn. 14223
time-correl. method of calculating mag. recording nonlin., pseudorandom seqs. 7184
track edge noise distrib. in narrow track mag. recording 7186
transit. jitter meas. gauge testing for long. thin film mag. recording 14227
yoke magneto-resistive heads, switching noise 14237
Ba ferrite/C rigid disk, long. recording 7130
$BaFe_{12}O_{19}$ hand spread coatings, transverse suscept. and remanence characts. 7027
C-coated thin film head sliders, tribological perform. 7149
CoCr-$NiP_3(TiSi_2)$(Cr)(C)-soda lime glass recording media, high coercivity and low noise 7115
CoCr(Pt)Ta and CoCrPtB multilayer films, mag. recording 7126
CoCrPtTa/Cr mag. recording media on glass substrs., props., noise 6954
CoCrTa thin film, long. recording media, grain boundary, intergranular exchange coupling 6955
CoCrTa/Cr bi-layered thin-film media, long. recording 7117
CoCrTa/Cr sputtered thin-film media, mag. and recording props. 14250
CoCrTa/Cr thin-film media, underlayer effects on mag. and recording props. 6989
CoCrTa/Cr/GaAs, microstruct. and recording props. of bicrystal disks 7116
CoCrTaPt/Cr thin film media, mag. recording perform. 7125
CoNiPt-CoO media, mag. recording and microstruct. props. 7112
CoPt thin film media, microstruct., mag. props. and noise perform. 6990
CoPtCr, mag. recording, texture-induced modulation noise 7121
CoPtCr thin films, interact. fields and media noise 7123
MnBi quadrilayer magneto-opt. disks, disk noise 14333
$Ni_{80}Fe_{20}/Cu/Ni_{80}Fe_{20}/Fe_{50}Mn_{50}$, giant magnetoresistive elements, thin film tape heads 7072
Pd/Co multilayers for perp. mag. recording 7041

magnetic relaxation
see also magnetic resonance; spin-spin relaxation
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
renal failure, overhydration estim., mag. reson. relaxometry 43241
steady Euler flows, magnetostatic equilibria 15234
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+\delta}$Ag tapes, crit. current dens., columnar defects 1596
BiSrCaCuO/Ag tapes, 2223 phase, mag./transport studies 39222
a-$Fe_{90}Sc_{10}$:^{119}Sn, spin correl./relax., Mossbauer obs. 6932

magnetic resonance
see also ferrimagnetic resonance; ferromagnetic resonance; magnetic double resonance; magnetic relaxation; nuclear magnetic resonance; paramagnetic resonance
content addressable image database, appl.-independent, eval. 8483
image restoration, optim. approach, sens. fusion 8504
imaging antenna carrying inhomog. surface current, modelling 40448
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
nonlin. Fabry-Perot resonator, magnetoresonance multilayer struct. 39174

magnetic resonance imaging (medical) *see biomedical NMR*

magnetic resonance spectroscopy
see also EPR spectroscopy; NMR spectroscopy
gradient coils act. acoustic and mag. screening 38054
high-temp. supercond. resonator for high-field imaging 39253
P-31 mag. reson. spectrosc., muscle contraction study 43247
pulse oximeter for mag. reson. scanners 18470

magnetic screening *see magnetic shielding*

magnetic semiconductor materials *see magnetic semiconductors*

magnetic semiconductors
see also semimagnetic semiconductors
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
polycryst. semicond. ceramics, pot. mapping tech. 1054
$Ce_3Cu_3Sb_4$, structural/mag./transport props. 13083
$CuCr_2Se_4$:As, mag. props., doping effects 14157
$Gd_3Cu_3Sb_4$, structural/mag./transport props. 13083
$La_3Cu_3Sb_4$, structural/mag./transport props. 13083
c-MnTe, MBE growth, structural charactn. 37399
MnTe/CdTe multilayers, interlayer correl., helical spin ordering 7046
$Pr_3Cu_3Sb_4$, structural/mag./transport props. 13083

magnetic sensors
see also magneto-optical sensors; magnetometers
2D of lateral magnetotransistor 9885
3D echocardiography, miniature mag. posn./orient. locator 18473
3D num. anal. of mag. vector probe 25831
amorph. alloy microresonator for mag. field meas., ΔE effect 42898
amorph. materials in sens. appls. 34480
amorph. wires, magneto-inductive effect, mag. sens. appl. 17714
bio-mech. movements obs., magnetometer sens. appl. 34986
broadband mag. field sens., CAE modeling 3775
CMOS Permalloy magnetoresistive microbridge mag. field sens. syst. 34494
comb-shaped field emitter array for vac. microdevices *(Japanese)* 21803
current meas., mag. sens. 34654
DC mag. field components meas. by single magnetoresistor 39211
displacement meas., absol. mag. scale, nonrepeated codes *(Japanese)* 34693
dual-collector magnetotransistors in SOI technol. 25790
eight-element fibre optic magnetometer array, undersea perform. 3865
electrodeposited tips for mag. force microscope 9875
EM rot. sens., cpd. mag. wire 17717
ferroimpedance transducer, mag. field meas. 25793
fibre optic sensors, conf., Glasgow, Scotland (Oct. 1994) 11524
giant magnetoresist. multilayers, mag. field sens. 17708
Hall IC sens., contactless posn./speed detect. 34468
in-line Sagnac interferometer for mag. field sens. 17884
inclination meas. by mag. method 18082
induction motor drive, parametric oscill. speed sens. 44451
integrated magnetoresistive sens. for automotive appls. 17711
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
lateral magnetotransistors response, influence of topol. 9884
magnetoresist. charact., metallic multilayers *(Japanese)* 30694
magnetoresistive mag. field sens. 17758
magnetoresistive sens., sig. extraction 17710
magnetoresistive sens. technol. for tracking devices 34438
magnetoresistor lin. posn. sens., automotive appls. 11434
magnetoresistors, precision meas. appls. 34459
magnetostrictive fibre-optic sens., transducer self-noise 17883
magnetotransistor, separated drift field, emitter P^+ ring 38835
magnetotransistors, mag. field sensit. modelling, HSPICE 38825
materials for sensor/transducer appls., colloq., London (1994) 20256
micro-eddy current testing by micro-mag. sens. array 12219
MR-SAL struct., hard-magnet biasing strengths 17707
omni-directional sensitivity mag. field sens. 3790
Permalloy thin-film/micro-fiber magnetoresistive sens. 17712
polymer composite materials, mag. field sensitive 5914
radiotherapy electron beams, simple mag. spectrometer 10270
RF field imaging, scanning SQUID microscope 34668
sig. extraction from mag. flowmeters for dens. meas. 3763
SOI lateral thyristive magnetometer, low power design 25789
SQUID magnetometer syst., 19-channel, med. appl. 4266
squirrel cage motor, 3-phase, torque control, secondary current feedback *(Japanese)* 27708
tilt-sens. using mag. fluids, indication stabil. 42777
torque transducer, opp. polarized rings 17715
underground metal pipes detect., EM induction sens. 18044
underwater transient sig. detect., wavelet transform 16061
virtual space teleconferencing, 3D human images reprod. 41949
virtual space teleconferencing, human fig. synthesis/animation 33619
CdMnTe magnetic field sensor, fibre optic laser deposited 25858
CoSiB amorph. MI reson. multivibrator current sens. 17713
FeCoSiB quick response micro mag. head sens. utilizing magneto-impedance 30740
FeNi-SiO_2-Si thin-film magnetoresistive sens., param. optim. 17724
InAlAs/InGaAs QW struct. quantum Hall device *(Japanese)* 25791
K magnetometer, opt. pumping, saturated absorpt. 34462
NiFe/Cu/Co spin-valve read heads, high dens. recording 7070
NiFe-SiO_2 multilayer mag. sens., high freq. magneto-impedance effect 17709
Si mag. field detector, CMOS oscillator config. 34449
YBaCuO thin film DC SQUID, mag. microscope 3956
$YBa_2Cu_3O_7$ sens. based magnetometer for weak mag. fields 34442

magnetic separation
actinide mag. separation, soil decontamination, TRUclean syst. 40275
HGMS, high T_c superconds. appls. 23527
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
quartz, selective collection by mag. reagent, HGMS 15259
vortex mag. separation 15257
Al/insulator syst., EM separation 15256
Fe_3O_4, magnetite, finely ground, mag. hydrocyclone proc. 15258
Si micromachined particle manipulator/separator 31748
TiO_2, rutile, selective collection by mag. reagent, HGMS 15259
magnetic shielding
500 kV transm. lines/railroad crossings, EMI protection *(Chinese)* 27229
ABS plastics, EMI shielding, electroless plating 8002
attenuating cover panels/shielding gaskets, leakage power meas. 15500
axial symmetric shield penetrating EM field time const. calcs. *(Polish)* 31699
color CRT discoloration, correction syst., L-shaped mag. material *(Japanese)* 42592
cylindrical shells in mag. fields, eddy losses, power shielding 40249
elec./mag. fields, conformly bound regions, mech. effect *(Russian)* 40179
electrothermal-chem. gun, meas. techs. 31751
giant magnetoresist. multilayers, mag. field sens. 17708
gradient coils act. acoustic and mag. screening 38054
gradient coils with mag. shielding/eddy shapes, coil shape optim. *(Japanese)* 21598
high T_c supercond. fault current limiters, mag. shield *(Japanese)* 10782
high T_C supercond. shield 23694
HTSC, mag.-shield type supercond. fault current limiter *(Japanese)* 7254
hybrid FEM/BEM mag. field anal. 31702
inductive coupling on cables, freq. charact. 23706
LF power syst. EM field mgt. project experience, USA 26906
living beings protection by mag. shields *(Croatian)* 4335
MHD ship thrusters, supercond. windings, screening techs. *(French)* 36617
modulation effect in mag. shield, mag. shaking 15458
MR head, shielded Permalloy strip, response simul. 7087
multiwire shielded cable param. computation 38059
polarised shells, magnetostatic/electrostatic fields anal., screening 23509
RF coil design, act. screening, NMR appl. 26347
shell struct., static mag. field anal. by integral method 40222
shielding effectiveness calc., wave impedance concept 2257
shielding effectiveness meas., opt. coupled elec. field sens. 2249
shielding effectiveness of screened rooms, methods comparison 2255
spherical anechoic chamber EM field, multipole anal. 31703
SQUID magnetometer syst., 19-channel, med. appl. 4266
substations, transient EMI meas. 5158
transm. line method, validity 2256
TV sets, fly back transformer-AC power cable coupling 25647
underground power cables, mag. field shielding studies 10747
$YBa_2Cu_5O_{7-x}$ high temp. supercond., mag. shielding 2274
Bi-Pb-Sr-Ca-Cu-O double cylinder, mag. shielding effect 1638
BiPbSrCaCuO mag. shield, trapping props., grains priority orient. effect 39248
$Tl_2Ba_2Ca_2Cu_3O_{10}$, mag. shields 39247
$Tl_2Sr_2Ca_2Cu_3O_x$, cylindrical shield, thermal cycling effect 39249
YBaCuO cylinders, mag. shielding, universal scaling prop. 14311
YBaCuO supercond., melt processed, mag. shielding props. 39243
$YBa_2Cu_3O_7$ HTSC tubes, mag. shielding and harmonic generation 7256
$YBa_2Cu_3O_{7-x}$ inhomog. superconds., mag.-flux dyn., low-field aspects 39278
magnetic storage
see also magnetic disc storage; magnetic heads; magnetic tape storage
0.1 to 0.3 micron wide, ultra dense GMR memory elements 14207
constrained multitrack RLL codes for mag. storage channel 39179
data storage channels, nonlin. equalization 7141
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
nonlin. ISI channels, improved detector 7195
tiny magnets, giant magnetoresist., inform. storage appl. 30717
Co films, submicron patterning, mag. storage 14241
Ni, single-domain mag. pillar array, fab. 14244
magnetic storage devices *see magnetic storage*
magnetic storage systems *see magnetic storage*
magnetic stores *see magnetic storage*
magnetic storms
see also micropulsations
1991 March geomag./interplan. disturbances, solar activity 40324
ESD anals. for spacecraft in geosynchronous orbit 35213
HF ionos. propag., solar/geomag. activity effect 40338
magnetic structure
see also canted spin arrangements
itinerant electrons in noncollinear and incommensurate struct. magnets 7214
rare earth magnets, spiral mag. struct., X-ray reson. mag. scatt. 39193
AgNiFe, interact. effects/mag. ordering, annealing effect 6982
$(Co/Ni_{81}Fe_{19}/Co)/Cu$ multilayers, giant magnetoresist., mag. struct. 7060
CoPt/Cu/NiFeCo/Cu multilayers, spin-valve effect/magnetoresist. 14213
Ho/Er, superlattice, mag. struct., interacts. 7043
Ho/Lu, superlattice, mag. struct., interacts. 7043
Ho/Y, superlattice, mag. struct., interacts. 7043
$Ho_2Fe_{17-x}Ga_x$, mag. props., struct. 7217
$Li_{0.673}Zn_{0.3}Mn_{0.05}Ti_{0.595}Fe_{1.28}\ 2O_4$ ferrite, mag. struct. 14196
MnAs film, epitaxial ferromag., MBE on GaAs, struct., mag. props. 6974
MnTe/CdTe multilayers, interlayer correl., helical spin ordering 7046
$Nd_3Fe_{29-x}Ti_x$, mag. and cryst. struct. 6945
$Y_2Fe_{17-x}Ga_x$, mag. props., struct. 7217
magnetic superconductors
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
$Bi_2Sr_2CaCu_2O_{8+\delta}$ supercond., flux dens. distrib. *(Japanese)* 7231
magnetic superlattices *see magnetic multilayers*
magnetic surface phenomena *see surface magnetism*
magnetic susceptibility
see also photomagnetic effect
3D imaging, mag. suscept. tomography 10175
AC complex mag. suscept. meas., RF range 18046
complex RF suscept. meas., series Q-meter 26097
ellipt. hole in finite thickness wall, EM field penetration 15204
thorax, mag. suscept. mapping, SQUID biomagnetometer appl. 10179
AgNiFe, interact. effects/mag. ordering, annealing effect 6982
$BaFe_{12}O_{19}$ hand spread coatings, transverse suscept. and remanence characts. 7027
magnetic susceptibility continued
$BaZn_xTi_yFe_{12-x-y}O_z$ particulate recording media, remanence states/transverse suscept. 30685
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+y}$-Ag tapes with 2212 phase, flux pinning 39226
$Ce_3Cu_3Sb_4$, structural/mag./transport props. 13083
$CeFe_4Sb_{12}$, filled skutterudite, low temp. props. 38277
Co-Pd alloys, high-field forced magnetoresist. 30670
$Cu_{1-x}Co_xFe_2O_4$ spinel ferrites, mag. domain behavior 14188
CuMn spin glasses, cooling/ageing, field depend. suscept. 6933
$CuO/Al_2O_3(MgO)$ multilayers, mag. props. 39170
$Dy_2Fe_{17-x}Ga_xC_2$, arc melting prep., mag. props. 39138
Fe-Si-B ferromag. amorph. alloy, high-field magnetis. meas. 14134
γ-Fe_2O_3, particulate recording media, remanence states/transverse suscept. 30685
FeSi sheets, ferromag. hysteresis, stat. domain energetic model 39135
$Gd_3Cu_3Sb_4$, structural/mag./transport props. 13083
$Ho_3Fe_{5-z}Al_zO_{12}$ garnet single crysts., magnetooptical props. 14172
$Ho_2Fe_{14}BH_x$, short-range mag. after-effect 39157
$La_3Cu_3Sb_4$, structural/mag./transport props. 13083
NH_3 irradiated target, ^{14}N pol. meas. using NMR 34869
Nd-Fe-B magnets, flux stabil. in direct joule heating 6988
$Nd_2Fe_{14}BH_x$, short-range mag. after-effect 39157
$Pb_{1-x-y}Sn_yMn_xTe$, transport and mag. props. 38271
Pd/Pd-Fe/Pd multilayers, Heisenberg/XY model comparisons 7066
$Pr_3Cu_3Sb_4$, structural/mag./transport props. 13083
$R_2Fe_{14}ZH_x$ (Z=B,C;R=rare earth), spin reorientation transit., hydrogenation effects 39156
$Sm_2Fe_{17}N_3$, Zn-bonded magnets, AC/differential DC-suscept. 39191
$Sm_{1-x}Tb_x(Fe_{0.2}Co_{0.8})_2$, hydrogen-induced mag. anisotropy, cryst. lattice distortions 39164
$Sr_{14-x}Ca_xCu_{24}O_{41}$ layers, carrier doping, elec. resist./mag. suscept. 22153
Tb-Dy-Fe, Terfenol-D, mag. props., hydrogenation effects 7015
Tb-Dy-Fe twinned terfenol-D crysts., anisotropy 7013
$Y(Co_{1-x}Al_x)_2$, itinerant electron metamagnetism 6998
$Y(Co_{1-x}Fe_x)_2$, itinerant electron metamagnetism 6998
$Y(Co_{1-x}Ni_x)_2$, itinerant electron metamagnetism 6998
magnetic suspensions *see magnetic fluids*
magnetic switching
10-30 kV rail-gap pulsed power supply, compact mag. plasma switch 36403
damping const. effect on switching of hexagonal platelet particle 14240
four stage RHEPP accelerator testing, power supply 36302
IEEE pulsed power conf., Albuquerque, USA (1993) 20246
Japan Linear Collider klystron modulator pulsed power supply 36402
magnetoresist. charact., metallic multilayers *(Japanese)* 30694
metal particle oriented tapes, FMR spectra 7134
pulsed power mag. modulator, laser power supply appls. 36401
quantum mag. disk, nanoscale struct., electron-beam lithog. 14245
RHEPP 1 μs mag. pulse compression pulsed power module 36316
tapes, coherent switching, Stoner-Wohlfarth limit 7135
tapes, magnetis. reversal, seq. field pulses 7136
voltage amplif., coaxial mag. insulated switch 36420
yoke magneto-resistive heads, switching noise 14237
Ba-ferrite interact. mag. hard particles, mag. reversal 39169
Co-γ-Fe_2O_3 oriented tapes, FMR spectra 7134
CrO_2 oriented tapes, FMR spectra 7134
γ-Fe_2O_3 oriented tapes, FMR spectra 7134
γ-Fe_2O_3 particles, coercivity and switching field 6976
KrF excimer lasers, HV pulsed power supplies 31171
XeCl excimer lasers, HV pulsed power supplies 31171
magnetic tape equipment
see also magnetic tape storage
fast DDS-2 DAT drive 14242
magnetic tape recorders *see tape recorders*
magnetic tape storage
see also magnetic tape equipment
(4, 20) runlength limited modulation code for high dens. storage syst. 30745
archive digital data storage device based on home video recorder 39182
digital mag. storage syst., 2D coding 7175
fast DDS-2 DAT drive 14242
high-dens. tape and disc track-following control techs. *(Japanese)* 14249
storage and recording systems, conf., Keele, UK (1994) 11550
magnetic tape stores *see magnetic tape storage*
magnetic tapes
see also magnetic tape equipment; magnetic tape storage
ang. depend. of magnetis. in recording media 14221
coherent switching, Stoner-Wohlfarth limit 7135
HDTV digital baseband VCR, visual investig. of head-tape interface 9749
head/tape spacing, 2D interferometric meas. 7169
inner surface defects, magnetographic inspection, sensitivity 21001
interact. Stoner-Wohlfarth particles, recording media modeling 14229
laminated tapes, deform. 7168
magnetis. reversal, seq. field pulses 7136
metal particle oriented tapes, FMR spectra 7134
metal particle tape, archivability, corros.-accelerating environ. tests 7131
MIG heads against MP, barium ferrite and ME tapes, running charact. 7167
particulate/ME mag. tapes sliding against Mn-Zn ferrite head in lin. mode, friction/wear 7165
photothermally modulated playback from mag. tape 1580
storage and recording systems, conf., Keele, UK (1994) 11550
tape noise charact., chaos appl. 14252
VHS tapes used in digital recording, characts. 17599
Co-Ni-O metal-evaporated tapes, unidirectional exchange anisotropy 7113
Co-γ-Fe_2O_3 oriented tapes, FMR spectra 7134
CrO_2 oriented tapes, FMR spectra 7134
CrO_2 video tapes, macro-/micro-tribological studies 20990
Fe passivated particles in humid atmos., degrad., mag. tapes appl. 7132
Fe pigments protection with amine-quinone polymers, metal particle tape appls. 7145
γ-Fe_2O_3 oriented tapes, FMR spectra 7134
γ-Fe_2O_3:Co mag. tapes, waterborne formulation prep., dispersion quality 7133
magnetic thin film devices
actuators, moving coil, surface micromachining, fluid control syst. 30756
DC mag. field components meas. by single magnetoresistor 39211
disk packaging, desiccant humidity barrier 30744
disks, lubricant bonding, hydrogen bond network 7154
edge overwrite charact. in thin film disk media, MFM study 7185
ferrite-garnet film, mag.-field visualizer 3801

magnetic thin film devices continued
film shape transformer for push-pull DC-DC converter 19713
heads, inductance fluct., domain instabil., popcorn noise 7093
heads, mag. fields, bit patterns, MFM 14217
Hi-8 HD-VCRs, embedded thin film mag. head 9746
inductive heads, thin film, finite pole length reduction 7096
inductive heads, write induced track misregistration 7092
long. thin film hard disk media, demagnetization, inverse magnetostriction 30718
magnetoresistive head track following method, rigid disk servo 7173
narrow track thin film write head fields, modelling 7089
nonlin. bit shift in thin film heads, rise time/field gradient effect 7091
off-track charact. of laminated heads in azimuth recording for VCRs 7111
Permalloy film overlayers, mag. easy axis, water sorption, photoresist underlayers, heads 7094
PM biased SAL/MR device, stabil., bias characts. 7083
PM film stabilised MR strips, sensit. distrib. anal. 7084
pole geometries in thin film inductive heads, perform. eval. 7090
pole trimmed inductive thin film head, off-track capability 7095
PRML read channels for mag. disk drives 7071
recording heads, narrow read width, error rate model 14218
recording heads, noise-after-write, electron microscopy 7109
rigid disks, dot array texture on C overcoats, tribological behavior 7146
rigid thin film disks, vap. lubrication 7156
SAL-biased MR heads, patterned PM bias 7085
shielded Permalloy strip MR head, response simul. 7087
slider-disk flying height meas., monochromatic/phase demodulated laser interferometry 7164
slider/disk carbon, water adsorpt. 7153
stripe amorph. soft mag. film, locally induced mag. anisotropy *(Japanese)* 30661
tunable mm-wave mag. filter, novel design 14261
unshielded dual-element horiz. MR heads, design and fab. 7086
C, DLC protective PECVD film, thin film mag. disk 7152
C-coated thin film head sliders, tribological perform. 7149
CoCr films on Ti, perp. recording, low temp. sputter-deposition, high coercivity 6959
$Co_{78}Cr_{22}$ films,sputter-deposited, chem./structural anisotropy, EXAFS studies 6958
CoCrPt/CoCrPt/CoCrPt multilayer, ultra-high dens. mag. recording 7051
CoCrPt/CoCrTa multilayer, ultra-high dens. mag. recording 7051
CoCrPt/Cr/CoCrPt multilayer, ultra-high dens. mag. recording 7051
CoCrPt-MgO bicrystalline long. recording medium, mag. charact. 6957
CoCrPtTa/Cr mag. recording media on glass substrs., props., noise 6954
CoCrTa thin film, long. recording media, grain boundary, intergranular exchange coupling 6955
CoCrTa/Cr thin-film media, underlayer effects on mag. and recording props. 6989
CoCrTa/Cr/GaAs, microstruct. and recording props. of bicrystal disks 7116
CoCrTa/NiAl(Cr) mag. thin film media for disk storage, in-plane coercivity 7223
CoNiPt-CoO media, mag. recording and microstruct. props. 7112
CoZr amorph. thin film core head for digital VCR 7110
Fe-Ta-N mag. film syst., double-sided MIG nano composite slider, 250 Mb/in^2 recording 7099
Fe-Tb(Sm) amorph. thin film magnetostrictive actuators, fab. 6883
a-FeB mulilayer magneto-SAW devices, phase controllability 14264
FeN sputtered laminated narrow gap write heads, perform. 7088
$FeNi-SiO_2-Si$ thin-film magnetoresistive sens., param. optim. 17724
FeSiAl Sendust films, recording head cores 7108
FeSiN films, narrow track head 7107
FeTaN films, microstruct. and mag. props.; effects of nitrogen content, heads 6950
FeXN (X=Ta,Hf,Cu,Si,Zr) high moment thin film head materials, electrochem. corros. 6942
NiFe thin film, act. galvanomagnetic device possibility 39213
NiZn ferrite head wear rate meas., custom high sensitivity elec. elements 7166
$(TbBi)_3(FeGa)_5O_{12}$ garnet film current/mag. field sens. by Faraday effect 42884
TbFe(SmFe) magnetostrictive thin film actuators, fab. 30752
$\gamma-Fe_2O_3$:Co,Zn thin films, fab. and mag. studies, disk media 6964

magnetic thin films
see also magnetic epitaxial layers
3-D mag. field anal., mag. force STM 18037
antiresonant reflecting opt. waveguide polariz. splitter 22898
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
damping effect on dyn. distortion in mag. garnet material 14170
ferrite-garnet films, VBL, crit. dens. 14199
ferromag. films, magnetoresist. meas., flexible test syst. 18040
ferromag. mech. stressed thin films, magneto-opt. meas. 30682
ferromag. thin film-based high impedance anisotropic composites 14123
ferromag.-nonmagnetic-ferromag. metal bipolar spin transistor 30760
fine mag. particles, FMR studies 22695
garnet films, attractive/repulsive defects, domain wall interacts. 14168
granular giant magnetoresistive materials, ferromag. resons. 7050
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
isolated read-back pulses from keepered long. thin film media 14225
long. thin film media, noise characts. of interact. transits. 30721
long. thin film with irregular lattice, Lorentz microscopy, model 14098
magneto-opt. high resoln. meas. of small displacements 18081
magnetostriction, ΔE effect, DC biased capacitance meas. method 18038
microstrip pickup coil for thin-film permeance meters 17718
nonuniform valley-shaped magnetizing field, MSSW propag. 1584
permalloy film, dyn. domain-wall motion, electron-holographic interf. microscopy 31680
Permalloy films, stable encapsulation structs., annealing effects 7101
permeab. meas. in GHz range for soft-mag. film 25956
PRML channel, medium noise, syst. error rate 7120
rare earth-transit. metal alloy films, microstruct. and domain wall motion 14115
recording media, permeable keeper layer, transit. shifts 7118
recording media, transit. noise spectral meas. 7119
recording media noise, cluster size effects 30719
simultaneous meas. of resist./permeab. 3957
single-pass flaw detector for mag. media 6934
stripe amorph. soft mag. film, locally induced mag. anisotropy *(Japanese)* 30661
thin ferromag. film growth, situ SQUID magnetometry 14290

magnetic thin films continued
transit. jitter meas. gauge testing for long. thin film mag. recording 14227
ultra-high resoln. single-domain mag. force microscope tip, nanolithography prep. 14121
AgNiFe, interact. effects/mag. ordering, annealing effect 6982
Ba ferrite, CoTi-doped, long. thin film media 7129
Ba ferrite, doped thin films, mag. props. 7022
Ba ferrite films, perp. anisotropy *(Japanese)* 14193
Ba ferrite, sputtered thin films, saturation magnetis. 7023
Ba ferrite/C rigid disk, long. recording 7130
$BaCoTiFe_{10}O_{19}$ films, sputtered, struct., mag. props., heat treatment effects 14194
$BaFe_{12}O_{19}$ ferrite films, c-axis orient., mag. props. 7031
$BaFe_{12}O_{19}$ hand spread coatings, transverse suscept. and remanence characts. 7027
$BaFe_{12}O_{19}$, hexaferrite films on sapphire, mag., struct. props. 14175
Bi-YIG particles prep. for display devices 14173
$BiDy(FeGa)_5O_{12}$ garnet films, sputter deposition and struct. props. 7037
BiDy(Gd)FeGaO$_1$2 garnet thin films, metallo-organic decomp. 12148
$Bi_3YFe_{3.5}GaO_x$ films, pulsed laser ablation, mag. props. 30686
CdMnTe magnetic field sensor, fibre optic laser deposited 25858
Co films, submicron patterning, mag. storage 14241
Co thin films, STEM magnetometry studies 14205
Co-Ag granular films, giant magnetoresist. 6981
Co-Cr films, micromagnetic domains, neutron scatt. 6961
Co-Cr sputtered mag. films, comp. inhomog., APFIM obs. 39131
Co-Zr-Nb films, high resoln. single-pole recording head 7187
Co-Zr-R (R=rare earth) amorph. films, field induced mag. anisotropy 14129
Co-Zr-Ta-Nb amorph. thin film deposited cores on polyimide sheets *(Japanese)* 30662
CoAl:O sputtered granular thin films, elec. resist., permeab. 14131
CoCr films on Ti, perp. recording, low temp. sputter-deposition, high coercivity 6959
$Co_{78}Cr_{22}$ films,sputter-deposited, chem./structural anisotropy, EXAFS studies 6958
$(Co_{93}Cr_7)$-P-Pt/Cr thin films, long. mag. recording 7128
CoCr(CoCrTa) mag. recording media, compositional separation rel., film thickness 6956
CoCrPt, high coercivity thin film for long. recording 14097
CoCrPt/Cr thin films, CoCrPt thickness effect on props. 6943
CoCrPt-MgO bicrystalline long. recording medium, mag. charact. 6957
CoCrPtTa/Cr mag. recording media on glass substrs., props., noise 6954
CoCrTa thin film, long. recording media, grain boundary, intergranular exchange coupling 6955
CoCrTa/Cr anisotropic medium, track-edge overwrite pattern, MFM obs. 22699
CoCrTa/Cr long. recording media, proc., mag. props. 14247
CoCrTa/Cr sputtered thin-film media, mag. and recording props. 14250
CoCrTa/Cr thin-film media, underlayer effects on mag. and recording props. 6989
CoCrTa/Cr/GaAs, microstruct. and recording props. of bicrystal disks 7116
CoCrTa/NiAl(Cr) mag. thin film media for disk storage, in-plane coercivity 7223
CoCrTaPt/Cr thin film media, mag. recording perform. 7125
$Co_9Fe-Cu-Co_9Fe$ struct., giant magnetoresist./mag. anisotropy *(Japanese)* 30695
CoFeB:O sputtered granular thin films, elec. resist., permeab. 14131
$CoFeSiB-SiO_2$ multilayers, HF mag. losses *(Japanese)* 30697
CoNbZr stripe films, domain structs., magnetis., high-freq. response 6935
$CoNbZr-SiO_2$ double layer films, HF mag. losses *(Japanese)* 30697
CoNiPt-CoO media, mag. recording and microstruct. props. 7112
$CoNiPt-SiO_2$ films, mag., structural props. 1570
CoP films, simultaneous electroless plating/electrolysis, mag. props. 6939
CoPt binary thin films, perp. recording, microstruct. and mag. props. 6960
CoPt multilayers SW magneto-opt. recording films 30741
CoPt thin film media, microstruct., mag. props. and noise perform. 6990
CoPtCr thin film recording media, soft error rate 7124
CoPtCr thin films, interact. fields and media noise 7123
CoSm/X (X=Ti,V,Cu,Cr) sputtered thin films, mag. props. 6963
$(DyBi)_3(FeGa)_5O_{12}$ films, crystn., Faraday effect *(Chinese)* 14166
Fe films, domain walls, MFM 14118
Fe films on Cu(100), struct./mag. props. 14162
Fe films on Si substrs., epitaxial growth, magnetocrystalline anisotropy 14144
Fe-Ag granular films, giant magnetoresist. 6981
Fe-BN films, deposition conditions and mag. props. 5889
Fe-N films, RF sputter deposition, He gas 5886
Fe-N sputter-deposited films, stress and microstruct. 6952
Fe-Zr film, amorph., antiferromag./ferromag. cluster coexistence 14117
FeCr, layer systs., local/nonlocal dens. fn. studies 6999
FeGdN, soft mag. thin film material 14151
$Fe_{16}N_2$ films, reactive sputtering synthesis 5888
$\gamma-Fe_2O_3$ thin films, coercivity, stress effect 39166
Fe_3O_4 coatings on silica microspheres, US contrast agent appl. 14180
Fe_3O_4 films, ferrite plating, AC current 12134
$Fe_{3(1-\delta)}O_4$, epitaxial thin films, stoichiometry var. 14103
FeSiAl, sendust films, RTA, mag. props. 6953
a-FeSiBC films, mag./magnetoelastic props. 14139
FeSiHfC nanocrystalline films, soft mag. props., anisotropy dispersion *(Japanese)* 30674
FeSmN thin films, long. mag. recording 7127
FeTaN films, DC magnetron sputtered, microstruct. and mag. props. 6951
FeTaN films, microstruct. and mag. props., effects of nitrogen content, heads 6950
FeTaN nanocrystalline films, mag. anisotropy, mag. heads appl. *(Japanese)* 28815
$Gd_{21.2}Co_{78.8}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{19.4}Nd_{6.1}Fe_{74.5}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{19.6}Nd_{10.3}Fe_{70.1}$, film, amorph., exchange stiffness const., gyromag. factor 14116
$Gd_{13.5}Tb_{6.2}Fe_{80.3}$, film, amorph., exchange stiffness const., gyromag. factor 14116
MnAl thin films, cryst. struct., mag. props. 6992
MnBi films, low temp. cryst. growth in Mn/Bi layer syst. 12133
MnBiDy alloy films, PM and struct. props. 7002
MnBiDy(Sm) PM films, struct. and mag. props. 39132
MnSbPt films, giant mag. Kerr rot. 14100
Ni-Zn ferrites, films, microwave props. annealing effects 14178

magnetic thin films continued
NiFe thin films, galvanomagnetic EMF effect *(Japanese)* 30675
$Ni_{80}Fe_{20}$, sputtered film on Si, struct., mag. props. correl. 14150
$NiFe/(Ni/Fe/Cu)_n/NiFe$ thin films, giant magnetoresist. 7039
NiZn-ferrite films, ferrite plated, mag./struct. props. 14184
$Ni_yZn_xFe_{3-x-y}$, ferrite films, rapid plasma MOCVD 5887
Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
Sm-Co/Cr thin films, Cr underlayer microstruct., mag. props. 39154
Sm-Co/Cr thin films, nanostructures 6962
Sm-Fe thin films, sputter deposition, magnetostriction 6938
Sm_xFe_{1-x}, amorph. magnetostrictive films, prep. 7003
Tb-Fe sputtered films, large magnetostriction, magnetomechanical device appls. 6937
Tb-Nd-Fe-Co thin films, Bloch wall energy 14109
$(Tb_yDy_{1-y})_xFe_{1-x}$, amorph. magnetostrictive films, prep. 7003
$Tb_{23}Fe_{77}$, moving magneto-opt. disc, mag. domain modeling 7104
TbFeCo, films, amorph., magnetis. reversal, grooves effect 14114
YIG film, EM wave crit. scatt. under acoustic pump 7034
YIG films, backward vol. MSW 1575
YIG films, low energy ion bombard., surface spin pinning 14177
YIG films, pulsed laser ablation, mag. props. 14176
YIG thin films, surface MSW 39168
YIG:Sc film tunable magnetostatic wave bandpass filters 30757
γ-Fe_2O_3:Co,Zn thin films, fab. and mag. studies, disk media 6964

magnetic transition temperature
see also Curie temperature; Neel temperature
$NdGa_{1-x}Ge_x$, mag. props. 14158
$PrFe_{12-x}Mo_x$, mag. props. 39149
$PrFe_{12-x}Mo_xN_y$, mag. props. 39149

magnetic transitions
see also ferromagnetic-antiferromagnetic transitions; ferromagnetic-paramagnetic transitions; magnetic transition temperature
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
nonlin. mag. transit. shift, algm. for real time meas. 14235
$Cd_{1-x}Mn_xS$ dil. mag. semicond. nanoparticles 13082
$Er_2Fe_{14}B$, spin reorientation transits., X-ray circ. mag. dichroism 39158
$Er_2Fe_{17-x}Ga_xC_2$, mag./struct. props. 39205
FeAlSi/FeAlSiO multilayers, nanostruct. controlled, mag. props. 14210
a-$Fe_{90}Sc_{10}$:^{119}Sn, spin correl./relax., Mossbauer obs. 6932
$Nd_2Fe_{14}B$, spin reorientation transits., X-ray circ. mag. dichroism 39158
$Pb_{1-x-y}Sn_yMn_xTe$, transport and mag. props. 38271
$RFe_{11.35}Nb_{0.65}N_y$, pure and nitrided, (R=Y,Sm,Gd,Tb,Dy,Ho,Er,Lu), struct. and mag. props. 22688
$R_2Fe_{14}ZH_x$ (Z=B,C;R=rare earth), spin reorientation transit., hydrogenation effects 39156
$Sm_2Fe_{17}N_x$, partially oxidized, mag. props. 39202
$Y(Co_{1-x}Al_x)_2$, itinerant electron metamagnetism 6998
$Y(Co_{1-x}Fe_x)_2$, itinerant electron metamagnetism 6998
$Y(Co_{1-x}Ni_x)_2$, itinerant electron metamagnetism 6998

magnetic traps
SERSE supercond. ECR ion source, project upgrading 43049
TrapCAD, tool, design and study ECR ion sources mag. traps 10104

magnetic variables control
AC motor drives, direct torque control 36649
AC motors, four-quadrant digital control scheme 10954
DC drives, fuzzy control 5315
field stabilization of supercond. magnet, He press. control 22767
helical rotor lin. reluctance motor 11074
induction machines, core loss/mag. saturation model 4978
induction machines, stator flux oriented digital control scheme 4951
induction motor, field oriented control, H_∞ controller synthesis 11343
induction motor ASD, VVVF inverter-based control *(Korean)* 28061
induction motor deadbeat flux level control *(Japanese)* 27717
induction motor drive, indirect rotor control, iron core loss 20070
induction motor drive field oriented control, spindle appls. 5262
induction motor drive flux/torque MRAC design 11348
induction motor drives, saturated, field oriented control 20079
induction motor drives, stator voltage 3rd harmonic direct field oriented control 5299
induction motor drives, vector controlled, rotor time const. ident. 20073
induction motor modified flux orient. control scheme 11046
induction motor servodrive, VSS robust control 44483
induction motors, field oriented controller, iron losses influence 44054
LIM field control perform. improvement 11035
NDT probe for mag. data storage materials 3869
PM AC motors, rotor flux posn. indirect sens. method 4909
PM sync. motor drive, flux-weakening control 20078
robots, AC drives, optimised DSP field oriented control 36683
saturated sync. motor drives, control modelling 5324
squirrel cage motor, inverter driven, thermal model 5253
three-phase induction-motor variable-speed drive regulation *(Italian)* 19619
variable reluctance machines, demagnetisation control designs 36138
VSC robust control of induction motor servodrive 19922

magnetic variables measurement
see also magnetic field measurement; magnetic permeability measurement; magnetic sensors; magnetometers
AC complex mag. suscept. meas., RF range 18046
AMK-S-03 automated mag. measuring syst. 3959
Barkhausen noise anal., DC bias/excitation/detect. freqs. 14126
civ. EMC stds. by mil. organizations 15527
core loss charactn., practical approach 30746
core-loss power, direct meas., effective control of error 39188
digitally based ΔE meas. syst., design 18039
disk magnetized to saturation in parallel field, demagnetizing field 25952
elec. machine, malfunction diagnostics 10953
elec. steel sheets, indiv. portions, texture meas. 25954
EMC, conference, Dallas, TX, USA (1993) 36844
ferromag. films, magnetoresist. meas., flexible test syst. 18040
floppy disk surface struct. imaging, SFM/MFM 7196
goniometer for mag. light scatt. studies 34669
Hall coeffs. meas. in metals/alloys 3960
HF iron loss measur., vector spectrum method 3958
hybrid stepping motor drives, flux linkage meas. 5318
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
inverter drives, meas. problems *(Polish)* 44491
lattice defects study, ultra-compact LC-oscillator appl. 25955
mag. anisotropy sens., output voltage-excitation freq. charact. 9879
mag. coupling without parasitic force for measuring devices 7212

magnetic variables measurement continued
mag. flows/MMF/currents, meas. device *(Russian)* 42899
magnetocaloric effect meas., noncontact thermoacoustic method 26803
magnetoresistors, precision meas. appls. 34459
misaligned thin film meas. in Mallinson coil set 18041
nonlin. mag. transit. shift, algm. for real time meas. 14235
PM AC motors, rotor flux posn. indirect sens. method 4909
quartz resonator mag. sensitivity, orig. and meas. 30615
refl. pulse method for material props. determ. 9829
self-biased shielded magnetoresistive heads, magnetostriction meas. 14234
SRM, flux linkage/inductance meas. methods 4935
SRM EM characts., meas. methods comparison 10998
surface electron microscope for mag. imaging 13016
thin film magnetostriction, ΔE effect, DC biased capacitance meas. method 18038
torque magnetometer for rocks/crysts. meas. 10000
units, call for consistency 34304
vibr.-sample magnetometer, variable PM flux 9873
wound cores, energetic behavior meas. 14108
Co thin films, STEM magnetometry studies 14205
Co/Cu multilayer struct., STEM magnetometry studies 14205

magnetic wells *see magnetic traps*

magnetisation
see also Barkhausen effect; coercive force; demagnetisation; magnetic aftereffect; magnetic anisotropy; magnetic domains; magnetic hysteresis; magnetisation reversal; magnetostatic waves; remanence; spontaneous magnetisation
3-D mag. field anal., mag. force STM 18037
120/5 A CT model, mag. nonlin. 5011
150 W multi-reson. DC/DC converter, high efficiency 44138
amorph. soft mag. ribbons, stress magnetis. props. *(Japanese)* 30673
ang. depend. of magnetis. in recording media 14221
borehole suscept. logs, mag. interp. 10430
conducting mag. materials, hysteresis curves, freq. depend. 6931
CT freqs., than 50 Hz *(German)* 6374
current power transformer time-impulse diff. protection selection *(Russian)* 44106
DC mag. field components meas. by single magnetoresistor 39211
digitally based ΔE meas. syst., design 18039
disk magnetized to saturation in parallel field, demagnetizing field 25952
elec. steel sheets, indiv. portions, texture meas. 25954
ferrite materials for pulse power appls. 18246
ferrites, magnetized, FDTD anal. 23788
ferromag.-nonmagnetic-ferromag. metal bipolar spin transistor 30760
graded magnetis. single pole head for perp. recording 39178
hard mag. particles in 2D and 3D, nucleation fields, micromagnetic calcs. 6948
head sensitivity fn. calc. from 3-D mag. fields 14226
hysteresis motor drive, over-induction control 11319
III-V semimagnetic semiconds., carrier-induced magnetism, magneto-opt. device 30679
inclusions, magnetizing/demagnetizing interact. 12237
induction motor, rotor time const. meas. magnetizing flux 4965
induction motor drive control, rotor time const. ident. 11369
induction motor drives, saturated, field oriented control 20079
induction motor drives, speed sensorless control, flux saturation effects 11328
induction motor invertor synchronisation, magnetisation/vel. determ. *(German)* 36159
induction motors, cut lamination stators, core anal. 11022
induction motors, indirect field oriented control perform., rotor speed error 4976
interior PM servomotors, EM props. calcs. 44080
jn. circulators, quality factor, temp. stabil. 29528
lin. materials in bounded domains, EM field anal. 40232
long. thin film media, noise characts. of interact. transits. 30721
mag. coupling torque, magnetis. profiles 7211
magnetised spheroid supercond. levitation, equilib. calcs. 2172
metal audio tapes, FMR 14239
metal particle tape, archivability, corros.-accelerating environ. tests 7131
motor drives, thyristor convertor-fed, math. modelling 11367
multiphase feed power source, voltage control characts. *(Russian)* 11107
multiphase transformers, rot. mag. field, inductive impedance calcs. *(Russian)* 21603
nonlin. SRM drive modelling, neural net-based 5256
Permalloy thin-film/micro-fiber magnetoresistive sens. 17712
pipeline steel, 2% Mn, magnetis., cyclic stress effects 39129
plastic hard disks, pre-embossed servo pattern, magnetis. 7174
PM, powder proc., mag. alignment 7033
PM brushless machine, induced EMF/torque waveforms 10933
PM film stabilised MR strips, sensit. distrib. anal. 7084
PM high-field struct., spheroidal field sources 7210
PM magnetisation, thyristor-based, calib. appls. 536
PM rectifier motor, EM field/torque calcs. *(Russian)* 10920
PM rectifier-type motor, mag. field anal. 27682
PM stepping motors, orient. pattern/magnetisation calcs. 27765
PM syst. synthesis, optimal topography calcs. *(Russian)* 30747
polycryst. PM, remanence angle hysteresis 14259
power transformer inrush current calc., hysteresis loops 19702
power transformer secondary winding DC currents, effects eval. 5017
power voltage transformers, external compensation 5018
prestressing steel near saturation, mag./magnetoelastic behavior modelling 39130
remanence enhanced nanocrystalline materials, magnetis. procs. 7012
replay proc. in digital mag. recording, output waveforms 39180
SAL-biased MR heads, patterned PM bias 7085
shell struct., static mag. field anal. by integral method 40222
ships, vectorial mag. field, mag. protection 18043
single-domain mag. pillar array for ultrahigh dens. quantum mag. storage 7189
SQUID-magnetostrictor syst., small length change detect. 17734
squirrel cage motor drives, self-commissioning scheme 5300
steel, 2% Mn, pipeline, isofield uniaxial cyclic stress, magnetisation behaviour 14107
steel, ferromag., surface imaging using Barkhausen effect 14122
surface mount PM motors, cogging torque, mag. field anal. 36215
tapes, coherent switching, Stoner-Wohlfarth limit 7135
TCMA, thermally controlled magnetis. actuator, thermosensitive mag. materials 30761
thin-film heads, mag. fields and bit patterns, MFM 14217

magnetisation continued
transformer/solenoid, rot. mag. field, inductive reactance calc. 11098
trilayer syst., exchange coupling, micromagnetics 7047
variable reluctance machine magnetisation characts. modelling 19604
Ag/Co, multilayers, mag. states in different fields 7059
Ba ferrite, CoTi-doped, long. thin film media 7129
Ba ferrite, doped thin films, mag. props. 7022
Ba ferrite, sputtered thin films, saturation magnetis. 7023
Ba ferrite, substituted, particle prep., flux method 7030
Ba hexaferrite particles, sol-gel prep. 7024
Ba-ferrite/α-Fe composite particles, mag. props. 7029
$BaCoTiFe_{10}O_{19}$ films, sputtered, struct., mag. props., heat treatment effects 14194
$BaFe_{12}O_{19}$, fine ferrite powders, synthesis, props. 14191
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+\delta}Ag$ tapes, crit. current dens., columnar defects 1596
$Bi_2Sr_2Ca_2Cu_3O_x$ epitaxial thin films, crit. current dens., vortex-glass transit. *(Japanese)* 7225
BiSrCaCuO/Ag 2212 ribbons, crit. currents 39224
BiSrCaCuO/Ag tapes, 2223 phase, mag./transport studies 39222
BiSrCaCuO/Ag tapes carrying transport current, mag. field in vicinity 1588
$Bi_2Sr_2CaCu_2O_{10}$/Ag HTSC ribbons, crit. current dens., field/temp./angle depend. 39234
$Ce_2Fe_{17}H_x$, press. effects on mag. props. 39160
Co thin films, STEM magnetometry studies 14205
Co/(Pt-Bi) multilayers, magnetis., magneto-opt. props. 14204
Co/CoAl mag. superlattices on GaAs 7044
Co/Cu multilayer struct., STEM magnetometry studies 14205
Co/Cu multilayers, interlayer coupling, vibr. sample magnetometry/FMR study 39177
Co/Cu multilayers on grooved substrs., perp. giant magnetoresist. 39172
Co/Ni multilayer, sputtered, anisotropy and magneto-opt. props. 14203
Co/Zr multilayers, Co-phase transits., mag. props. effect 30708
(Co-Bi)/Pt multilayers, magnetis., magneto-opt. props. 14204
Co-Cu sandwich film, giant magnetoresist./anisotropic magnetoresist. comparison 7061
Co-Nb/Pd multilayer, mag. and magneto-optic props. 30709
Co-based amorph. thin wires, HF permeab. 14124
$Co_{1-x}Cr_x$ perp. mag. recording media, epitaxial growth 7103
a-$Co_{66}Fe_4Mo_2Si_{16}B_{12}$, magnetostriction, nanocrystn. effects 14141
γ-$Co_xFe_{2-x}O_3$ fine particles, spin canting anom., size/anisotropy effects 7026
$Co_{66.5}Fe_{3.5}Si_{12}B_{18}$, metallic glasses for fluxgate sens., magnetis. 30664
CoP films, simultaneous electroless plating/electrolysis, mag. props. 6939
$Co_{32}Pd_{68}$/Ag multilayers, mag. props. 30711
CoPt/Cu/NiFeCo/Cu multilayers, spin-valve effect/magnetoresist. 14213
CrO_2/Co multilayers on Cu(100) 30692
Cu/Co, multilayers, mag. states in different fields 7059
Cu/NiFe, multilayers, mag. states in different fields 7059
$Cu_{80}Co_{20}$, melt-spun ribbons, mag. props. 6949
$Cu_{80}Co_{15}Fe_5$, melt-spun ribbons, mag. props. 6949
Dy/$DyFe_2$ eutectic, magnetisation, stress effects 7006
Er_2Fe_{17}, single cryst. magnetisation meas. 39161
$ErFe_{8.5}Co_2Mo_{1.5}D_y$, struct./mag. props., deuteration effects 39162
Fe pigments protection with amine-quinone polymers, metal particle tape appls. 7145
Fe/Ag multilayers, sputtered, oscillatory GMR 30704
Fe/Ni bilayers, mag. props. 30701
Fe/Pd multilayers grown by electron-beam, mag. props. 39176
Fe-FeCoZr sputtered multilayers, soft mag. props. *(Japanese)* 30696
Fe-N films, RF sputter deposition, He gas 5886
Fe-Si, grain oriented steel, magnetostriction 30665
Fe-Si/Cr multilayer, mag. and magneto-optic props. 30709
Fe-Si-B ferromag. amorph. alloy, high-field magnetis. meas. 14134
Fe-based amorph. thin wires, HF permeab. 14124
a-$Fe_{81}B_{13.5}Si_{3.5}C_2$ ribbons, power loss, surface layer effect 14143
FeN foils, magnetron discharge nitridation, saturation magnetis. *(Japanese)* 30676
FeN sputtered laminated narrow gap write heads, perform. 7088
$Fe_{16}N_2$ epitaxial films, mag./Mossbauer study 6995
α''-$Fe_{16}N_2$, magnetisation/Mossbauer spectra/electronic struct. calcs. 6994
$Fe_{77}Nd_{15}B_8$, mag.-field orient. and coercivity 7207
FeNdBGaNb PM, microstruct., mag. props. 22687
FeNi-SiO_2-Si thin-film magnetoresistive sens., param. optim. 17724
γ-Fe_2O_3:Co,Zn particles, prep. and mag. props. 7028
FeSi sheets, ferromag. hysteresis, stat. domain energetic model 39135
FeSiB amorph. wires, annealed, engng. magnetostriction meas. 14132
FeSmN thin films, long. mag. recording 7127
$Fe_{86}Zr_7B_6Cu$ soft-mag. compacts, nanocryst., high saturation magnetis. 1572
GaAs-AlGaAs mesoscopic single loop, persistent currents 13137
GdDyFeCo sputtered films, trilayer struct., thermal stabil. 14201
$Gd_2Fe_{17}H_x$ syst., high field magnetis. 14156
Ho_2Fe_{17}, single cryst. magnetisation meas. 39161
$La_2Co_{17-x-y}Fe_xTi_y$ intermetallic cpds., mag. props. 1568
$La_2Co_{17-x-y}Fe_xTi_yN_\delta$ intermetallic cpds., mag. props. 1568
Li-Mg-Zn-Ti-Mn-Fe-O, substituted spinels, mag./dielec. props., microwave appl. 30532
LiZn ferrite laser-deposited films, mag./struct. props. 14190
$Li_{0.3}Zn_{0.4}Fe_{2.3}O_4$, additives, material property changes 39167
$Li_{0.673}Zn_{0.3}Mn_{0.05}Ti_{0.595}Fe_{1.28}\ 2O_4$ ferrite, mag. struct. 14196
MnAl thin films, cryst. struct., mag. props. 6992
MnAs film, epitaxial ferromag., MBE on GaAs, struct., mag. props. 6974
MnBiDy alloy films, PM and struct. props. 7002
MnBiDy(Sm) PM films, struct. and mag. props. 39132
NbTi multifilamentary wires, proximity-induced Cu-Mn matrices, upper crit. fields 30770
Nd-Fe-B PM, magnetis. procs., torsion pendulum magnetometry 39133
Nd-Fe-B, PM variable flux sources 14257
$Nd_{4.5}B_{18.5}Fe_{77}$ ribbons, melt-spun, Mossbauer and mag. study 39159
$Nd_{14}Fe_{79}B_7$ magnets, recomb. and desorpt., HDDR proc. 6983
$Nd_2Fe_{14}B$ fine particles, spark erosion prep., struct., mag. props. 6975
NdFeB-based magnets, neutron depol. ang. depend. 39200
$Nd_2Fe_{14}BH_x$ powders, synthesis and mag. props. 39128
$Nd_2(Fe_{1-x}Co_x)_{23}B_3$ $(0\leqslant x\leqslant 1.0)$, struct., mag. props. 6980
$NdFe_{12-x}V_x$, mag. props. 39150
$NdFe_{12-x}V_xN_y$, mag. props. 39150
Ni, nanocrystalline, elec., mag., mech. props. 39127
Ni, single-domain mag. pillar array, fab. 14244
Ni-Fe-Co/Cu/Co-Pt trilayers, magnetoresist. effects 39173
Ni-Zn ferrite powders, mag. props., microwave absorpt., pH depend. *(Korean)* 22689
$Ni_{80}Fe_{20}$, sputtered film on Si, struct., mag. props. correl. 14150

magnetisation continued
NiFeCo-Cu GMR multilayer sens. at high current densities, micromagnetics 7074
NiZn-ferrite films, ferrite plated, mag./struct. props. 14184
Pd/Pd-Fe/Pd multilayers, Heisenberg/XY model comparisons 7066
$PrFe_{12-x}Mo_x$, mag. props. 39149
$PrFe_{12-x}Mo_xN_y$, mag. props. 39149
Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
Pt-Ni multilayers, enhanced magnetis., perp. anisotropy 30716
$RCo_{10}Mo_2$ (R=rare earth) PM, mag. props. 6986
R_2Fe_{17} (R=rare earth), interstitial insertion, vol. effects, mag. props. 39144
$R_2(Fe_{1-x}Ga_x)_{17}$ (R=Y,Sm,Dy,Ho), mag. props. 39143
$RFe_{11.35}Nb_{0.65}N_y$, pure and nitrided, (R=Y,Sm,Gd,Tb,Dy,Ho,Er,Lu), struct. and mag. props. 22688
$RFe_{10}V_2N_x$, (R=Y,Nd,Sm,Gd,Dy,Er), mag. props., mol. field theory anal. 30671
Sm-Fe-Ti, rapidly quenched, struct./mag. props. 39206
Sm-Fe-Ti/nitrides, mag. props. 14160
Sm_2Fe_{17}, high field magnetis. 7198
Sm_2Fe_{17}, magnetocrystalline anisotropy 39139
$Sm_3(Fe,Ti)_{29}N_5$, mag. props. 14155
$Sm_2Fe_{17-x}Al_xC$ (x=2-8), arc melted, struct., mag. anisotropy 7215
$Sm_2Fe_{17}C_x$, high field magnetis. 7198
$Sm_2Fe_{17}C_xH_{5-x}$, high field magnetis. 7198
$Sm_2Fe_{17}C_xN_y$, synthesis and mag. props. 1573
$Sm_2Fe_{17-x-y}Co_yAl_x$, uniaxial mag. anisotropy 7216
$Sm_2Fe_{17-x-y}Co_yGa_x$, uniaxial mag. anisotropy 7216
$Sm_2(Fe_{1-x}Co_x)_{14}Ga_3C_2$, arc melted, struct., mag. props. 7219
$Sm_2Fe_{14-x}Co_xSi_2$-based quasiternary syst., mag./struct. props. 6946
$Sm_2(Fe_{1-x}Ga_x)_{17}$ (x=0-0.5) cpds. and nitrides, mag. props. 7218
$SmFe_{12-x}Mo_x$, magnetocrystalline anisotropy 39151
$Sm_2Fe_{17}N_3$, Zn-bonded magnets, AC/differential DC-suscept. 39191
$Sm_2Fe_{17}N_x$ powders, powder and HDDR method prep., coercivity mechanism 22686
$Sm_2Fe_{17}N_x$ with discontinuous nitrogen profiles, mag. props. 39203
$Sm_2Fe_{17}N_3/Fe_{65}Co_{35}$ composite aligned two-phase magnets 7008
$Sm_{1-y}Pr_yCo_{4-x}Fe_xB$, mag. material by substitution/nitridation 7200
$Sm_{1-x}Tb_x(Fe_{0.2}Co_{0.8})_2$, hydrogen-induced mag. anisotropy, cryst. lattice distortions 39164
Sr hexaferrite particles, sol-gel prep. 7024
Tb-Dy-Fe, Terfenol-D, mag. props., hydrogenation effects 7015
Tb-Dy-Fe twinned terfenol-D crysts., anisotropy 7013
TbDyFe, microstruct., mag. props. 39136
$(Tb_{0.6}Dy_{0.4})_{0.42}Fe_{0.58}$, magnetization, Young's modulus and magnetostriction 7004
$(Tb_{0.6}Dy_{0.4})_{0.72}Fe_{0.28}$, magnetization, Young's modulus and magnetostriction 7004
$(Tb_{0.6}Dy_{0.4})_{0.9}Fe_{0.1}$, magnetization, Young's modulus and magnetostriction 7004
TbFeCo/Ta multilayers, mag. and magneto-opt. props. 14200
$Tl_2Sr_2Ca_2Cu_3O_x$, cylindrical shield, thermal cycling effect 39249
YBaCuO, levitation/suspen. forces in microgravity expts. 39246
YBaCuO, mag. bearings 1639
YBaCuO melt-textured materials for trapped field magnets, levitating bearings 39245
YBaCuO pellets, mag, textured, permanent mag. config., mag. bearings appl. 39244
$YBa_2Cu_3O_{7-x}$/Ag composites, melt growth, domain struct. 20992
$Y_2Co_{14}B_x$, PM, NMR/mag. meas. 39192
Y_2Fe_{17}, single cryst. magnetisation meas. 39161
$Y_2Fe_{17-x}M_x$ carbides (M=Al,Si), mag. props. 39140
$Y_2Fe_{17}N_3$, pure and nitrided, magnetocrystalline anisotropy 39139
$Y_3Fe_5O_{12}$-$Bi_3Fe_5O_{12}$ heterostruct., pulsed laser deposition, charactn. 30698
YIG, Ga,Bi substituted bulk garnets, magneto-optic mag. field sens. 14174
YIG:Sc film tunable magnetostatic wave bandpass filters 30757

magnetisation reversal
complete-moving-hysteresis model, param. ident. 7100
Δm curves modelling, complete-moving-hysteresis model 39187
mag. recording media, switching fields, time depend. 7138
magneto-opt. high resoln. meas. of small displacements 18081
rapidly quenched mag. wire, conf., Albuquerque, NM, USA (Jun. 1994) 20242
ribbons, amorph. mag., asymmetric magnetis. reversal, chem. etching 14135
steel, complete-moving-hysteresis model, param. ident. 14099
superlattices with subsidiary ferromag. layers, GMR, saturation mag. field 22692
tapes, magnetis. reversal, seq. field pulses 7136
track edge noise distrib. in narrow track mag. recording 7186
Ba-ferrite interact. mag. hard particles, mag. reversal 39169
Co:EuS, macroscopic ferrimag., magneto-opt. props. 14101
MnBiDy(Sm) PM films, struct. and mag. props. 39132
Nd-Fe-B based particulate magnets, polymer bonded, fluct. fields 39207
$Nd_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
$Pr_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
R-Fe-B magnets, magnetis. reversal crit. fields in indiv. grains 39197
SiFe, soft mag. materials, reversible procs. 14111
Sm-Co based particulate magnets, polymer bonded, fluct. fields 39207
TbFe magneto-opt. films, nanostructure and chem. inhomog. 14113
TbFeCo, films, amorph., magnetis. reversal, grooves effect 14114

magnetism
see also antiferromagnetism; band model of magnetism; biomagnetism; demagnetisation; diamagnetism; electromagnetism; ferromagnetism; Heisenberg model; interface magnetism; Ising model; magnetic fields; magnetic flux; magnetic leakage; magnetic materials; magnetic moments; magnetic noise; magnetic permeability; magnetic polarons; magnetic shielding; magnetic structure; magnetic susceptibility; magnetic switching; magnetic transitions; magnetic traps; magnetisation; magnetostatics; magnetostriction; magnets; magnons; metamagnetism; spin waves; superparamagnetism; surface magnetism; X-Y model
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441

magneto-optical devices
see also magneto-optical isolators; magneto-optical modulation; magneto-optical recording; magneto-optical sensors
channel waveguide devices, geometric phases 31017
conf., lin./nonlin. integrated optics, Lindau, Germany (1994) 36839
Cs at. fountain expt. for at. freq. std. 3713

- **magneto-optical devices** continued
  - Faraday mirrors, fiber optic sens. systs. 17909
  - ferromag. mech. stressed thin films, magneto-opt. meas. 30682
  - fibre optic current sens. for EHV, design optimisation 3855
  - free-space opt. commun. syst., Faraday filter 9486
  - Fresnel lens written magneto opt. SLM 22963
  - III-V semimagnetic semiconds., carrier-induced magnetism, magneto-opt. device 30679
  - integrated optic device modules, sig. proc. 39460
  - intell. magneto-optic CT, 220 kV, 2500 A *(Chinese)* 39504
  - NDT probe for mag. data storage materials 3869
  - nonlin. waveguide, TM waves, guided power flow study 22965
  - planar coupled magnetooptic waveguide, mode conversion 39415
  - polyaniline film, magneto-opt. materials/devices 39503
  - ridge waveguide struct., nonreciprocal mode propag. 39421
  - wide-field Kerr imaging, mag. device appls. 14547
  - $Bi_2Sr_2CaCu_2O_{8+\delta}$ supercond., flux dens. distrib. *(Japanese)* 7231
  - $Gd_3Ga_5O_{12}$/InP(/GaInSb) integrated semicond./magnetooptic devices, direct bonding 31112
  - InGaAsP/InP strained quantum-well lasers, threshold current under mag. field 39823
  - Si micromachined 2D galvano opt. scanner 17719
- **magneto-optical discs** *see magneto-optical recording*
- **magneto-optical effects**
  - *see also Faraday effect; Kerr magneto-optical effect; magnetic circular dichroism; magnetoabsorption; optical constants; Zeeman effect*
  - conference, nonlinear optics appls., Miedzyzdroje, Poland (1994) 20243
  - dil. mag. semicond. QW struct., diffusion, opt. methods 39171
  - HTSC composite conductors, fab. and charact. 39240
  - III-V semiconds., mag. field effects on opt. nutation 2089
  - rare earth-transit. metal alloy films, microstruct. and domain wall motion 14115
  - semicond. laser, oscill. wavelength shift in mag. field *(Japanese)* 23200
  - single mode dye laser freq. stabilization, forward scatt. 7536
  - Au/Co/Au multilayer systs., magneto-opt. effects, surface plasmon depend. 7067
  - Bi-YIG particles prep. for display devices 14173
  - BiDy(Gd)FeGa$O_1$2 garnet thin films, metallo-organic decomp. 12148
  - $Bi_xTb_{3-x}Fe_5O_{12}$ garnet, Faraday rot., spontaneous magnetis. 14171
  - $Cd_{1-x}Mn_xSe$ quantum dots, magneto-opt. studies 39502
  - $Cd_{1-x}Mn_xTe$, magnetis. and photomagnetic effects 1071
  - Co/Pt multilayers, magneto-opt. props. 30710
  - Co-Nb/Pd multilayer, mag. and magneto-optic props. 30709
  - CoNi, multilayers, magneto-optics, opt. props. influence 14202
  - Fe-Si/Cr multilayer, mag. and magneto-optic props. 30709
  - GaAs/AlGaAs heterostruct., ballistic electron transport, magneto-opt. studies 13115
  - GaAs-AlGaAs quantum wires and dots, modulation-doped, opt. emission and Raman scatt. 1143
  - GdTbFe(Co) magneto-optic media, domain wall mobility meas. 14232
  - $Ho_3Fe_{5-z}Al_zO_{12}$ garnet single crysts., magnetooptical props. 14172
  - InGaAsP/InP strained quantum-well lasers, threshold current under mag. field 39823
  - Pt/Co multilayers, interface struct., perp. mag. anisotropy 39175
  - Pt/Pd/Co multilayers, interface struct., perp. mag. anisotropy 39175
  - Si/SiO_2 antidot syst. MOS struct., far-IR excitations 29976
  - TbCo, multilayers, magneto-optics, opt. props. influence 14202
  - TbFe magneto-opt. films, nanostructure and chem. inhomog. 14113
  - ZnSSe/ZnSe superlattices, excitonic procs. and lasing 29912
- **magneto-optical isolators**
  - nonreciprocal integrated optic couplers, magneto-optic materials, design 14413
  - ridge waveguide struct., nonreciprocal mode propag. 39421
  - YIG:Ce, opt. waveguide isolator, nonreciprocal radiation 14549
- **magneto-optical modulation**
  - digital opt. computing, magneto-optic SLM 7428
  - ferromag. mech. stressed thin films, magneto-opt. meas. 30682
  - refl. mode magneto optic SLM develop. for miniature correlators 31014
  - semicond. laser freq. stabilization, Faraday effect/saturated absorpt. 14848
- **magneto-optical recording**
  - bloom effect on magneto-optic read channel modeling 14233
  - codes, based on sampled servo format, perform. comparisons 15756
  - (d, k) codes with multiple spacing, spectral props., mag./magnetooptic recording 7176
  - data storage technol. *(Japanese)* 39505
  - disk drive, mag. field modulat. recording, multipulse laser irrad. 7415
  - drive compatibility optimum design for opt. storage media 14328
  - drive unit, data/disk servo control chips *(Japanese)* 22962
  - electron-beam thermomagnetic recording in multilayer mag. struct. 39312
  - exchange-coupled multilayer, overwrite repeatability 22697
  - head lens actuator for high dens. recording 7105
  - high-data-dens. recording for magneto-opt. disk 31016
  - holographic polariz. sens. for magneto-optic heads 7848
  - Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
  - magneto-opt. recording marks anal. 9773
  - n/m code and modified Viterbi decoding 15724
  - opt. tape recording syst., rot. head optics 39319
  - readout sig. in magneto-optic readout proc. 14550
  - rewritable media, principles 22788
  - Sony MD Data rewritable data-storage syst., magneto-opt. recording 22701
  - storage and recording systems, conf., Keele, UK (1994) 11550
  - superimposed grating for magneto-opt. disk heads 7377
  - video server syst., magnetooptical disk based *(Japanese)* 25680
  - video/image recording technol. *(Japanese)* 34277
  - Ba-ferrite particulate media, magneto-opt. readout props. 22964
  - $BiDy(FeGa)_5O_{12}$ garnet films, sputter deposition and struct. props. 7037
  - Co/(Pt-Bi) multilayers, magnetis., magneto-opt. props. 14204
  - (Co-Bi)/Pt multilayers, magnetis., magneto-opt. props. 14204
  - CoPt multilayers SW magneto-opt. recording films 30741
  - GdTbFe(Co) magneto-optic media, domain wall mobility meas. 14232
  - MnBi quadrilayer magneto-opt. disks, disk noise 14333
  - Pt/Co multilayers, Ar-sputtered, anisotropy energy and coercivity, magneto-opt. recording 14545
  - Pt/Co multilayers, near-field magneto-opt. imaging in STM 31015
  - Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
  - Tb/Fe multilayer stacks, exchange coupled double layer films 30742
  - Tb-Nd-Fe-Co thin films, Bloch wall energy 14109
  - $Tb_{23}Fe_{77}$, moving magneto-opt. disc, mag. domain modeling 7104
- **magneto-optical sensors**
  - *see also fibre optic sensors*
  - AC CT, intrinsic temp. compensation 17739
  - dil. mag. semiconds. for opt. sens./nonreciprocal devices 31018
  - distrib. network, opt. current sens. *(Japanese)* 27180
  - Faraday effect based current meas. 34482
  - Faraday effect current sens., flint glass fibre 17886
  - Faraday effect current sens., improved sensitivity-bandwidth product 14548
  - ferrite-garnet film, mag.-field visualizer 3801
  - fiber Bragg grating high-mag.-field probe 17827
  - fibre optic sensors, conf., Glasgow, Scotland (Oct. 1994) 11524
  - flint glass fiber for Faraday sens., polariz. props. 17823
  - GIS incomplete contact detect., mag. sens.-based 27841
  - holographic polariz. sens. for magneto-optic heads 7848
  - mag. fiber-optic sens., magnetostrictive noise limitation 3852
  - magneto-optic Kerr effect sens., field meas. 10002
  - wheel-rot. sens., magneto-opt. 17861
  - Fe garnet thick film Faraday effect sens., domain effects 25818
  - $(TbBi)_3(FeGa)_5O_{12}$ garnet film current/mag. field sens. by Faraday effect 42884
  - YIG, Ga,Bi substituted bulk garnets, magneto-optic mag. field sens. 14174
- **magneto-optical storage** *see magneto-optical recording*
- **magnetoabsorption**
  - $In_{1-x}Ga_xAs$/InP quantum wells, cond.-band/valence-band struct. 1130
- **magnetoacoustic effects**
  - 3D ICs for super-high freqs. and extremely-high freqs. 22526
  - ferrite magnetoacoustic variable delay lines, surface wedge wave propag. 7221
  - magnetoelastic transform., seismoacoustic detectors 10427
  - steel, magnetoacoustic emission, mag. induction/specimen thickness depend. 12218
  - a-FeB mulilayer magneto-SAW devices, phase controllability 14264
- **magnetoacoustics** *see magnetoacoustic effects*
- **magnetocaloric effects**
  - *see also magnetic cooling; thermomagnetic recording*
  - bloom effect on magneto-optic read channel modeling 14233
  - noncontact thermoacoustic meas. method 26803
  - RE-Fe-B PM, thermal remagnetization effect 39209
  - $Sm_{12.5}Fe_{87.5}$ nitride, mech. alloyed, nitrogenation behaviour and thermostability 1574
  - YIG thin films, surface MSW 39168
- **magnetocardiography**
  - DC-SQUID magnetometer syst., 64-channel, biomag. appls. 35041
  - foetal ECG/MCG, abdominal, seq. recording 35093
  - high T_c DC SQUID magnetometers, closed-cycle gas flow cooling syst. 34435
  - human heart, med. diagnosis, hybrid MCG/ECG approach 18449
  - multichannel sigs., transform., std. grid form 18448
  - myocardial water exchange, bolus admin., MR contrast agents 35018
  - spatiotemporal data, sig. source localization, sig. subspace method *(Japanese)* 35057
  - thorax, mag. suscept. mapping, SQUID biomagnetometer appl. 10179
  - Nb/Er_3Ni SQUID magnetometer, Gifford-McMahon cryocooling, biomagnetism appls. 34436
- **magnetocrystalline anisotropy** *see magnetic anisotropy*
- **magnetoelastic effects**
  - amorph. alloy microresonator for mag. field meas., ΔE effect 42898
  - ferromag. mech. stressed thin films, magneto-opt. meas. 30682
  - prestressing steel near saturation, mag./magnetoelastic behavior modelling 39130
  - quartz resonator mag. sensitivity, orig. and meas. 30615
  - self-biased shielded magnetoresistive heads, magnetostriction meas. 14234
  - Terfenol-D rods, giant magnetostriction modelling by FEM 39148
  - Fe films on Si substrs., epitaxial growth, magnetocrystalline anisotropy 14144
  - Fe-Co-Ni-Si-B based amorph. wires, mag. props. 30683
  - Fe-Co-Si-B rapidly quenched wire, magnetostrictive/magnetoelastic props. 30666
  - Fe-Cu-Nb-Si-B, nanocrystalline ribbons, creep induced mag. anisotropy 14138
  - Fe-Si, grain oriented steel, magnetostriction 30665
  - a-FeSiBC films, mag./magnetoelastic props. 14139
  - FeSiBCuNb amorph. wires, crystn. proc. and mag. props. 14136
  - $Tb_xDy_{1-x}Fe_{1.95}$, device oriented magnetoelastic props. 7014
- **magnetoelastic waves**
  - Co-P multilayers, magnetoelastic response, thickness effect 14215
  - YIG film, magnetoelastic waves, delay line appl. 14192
- **magnetoelectric effects**
  - lin. magnetoelec. media, investig. of constructive rels. 1569
  - lossless bianisotropic media, conditions for param. dyadics 40297
  - nonreciprocity in magnetoelec. crysts. 39044
  - unity gain antennas, EM radiation/magnetoelec. symm. 40446
- **magnetoencephalography**
  - coord. syst. matching, neuromag./morph. reconstruction overlay 35055
  - DC-SQUID magnetometer syst., 64-channel, biomag. appls. 35041
  - discrim. task, evoked spatio-temporal cortical patterns 43309
  - EEG/MEG dipole localization bounds for head models 43312
  - genetic algms. for min. source reconstructions 8303
  - head, human, mag. field-induced currents, portable appliances 43388
  - MRI restoration, multidimensional nonlin. edge-preserving filter 26330
  - neuromagnetic source localisation, SQUID syst. and MRI 35061
  - waking/sleep, auditory evoked mag. fields 18450
  - Nb/Er_3Ni SQUID magnetometer, Gifford-McMahon cryocooling, biomagnetism appls. 34436
- **magnetofluiddynamics** *see magnetohydrodynamics*
- **magnetogasdynamics** *see magnetohydrodynamics*
- **magnetohydrodynamic conversion**
  - annular MHD submarine propulsion syst., field/current calcs. *(French)* 27967
  - closed cycle MHD generation, enthalpy extraction expts. *(English)* 5233
  - coal-fired MHD channels, large-scale, stabil. calcs. *(Japanese)* 27963
  - develop. hist., research efforts, appls. *(French)* 36615
  - energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
  - energy conversion engng. conf., Atlanta, GA, USA (Aug. 1993) 20225
  - free convection flow, Hall current effects 27964
  - gas dyn. design optim. 27965
  - Indian MHD retrofit channel, perform. prediction 10905
  - MAGO thermonuclear ignition syst., MHD nozzle chamber calcs. 36614

magnetohydrodynamic conversion continued
nonequilibrium disk plasma MHD generator, conceptual design 27966
plasma temp. meas., spectroradiometer-based 11305
sea water MHD ship thruster *(French)* 36616
ship thrusters, supercond. windings, screening techs. *(French)* 36617
space nuclear electric propulsion, NASA research programme 18771
supercond. materials, power systs./transportation appl. possibilities 43612

magnetohydrodynamic convertors
see also magnetohydrodynamic power plants
$1A_4$ supersonic coal-fired MHD channel, test progress 20015
200 MWe MHD generator channel, supercond. magnet optim. 4871
alkali seed monitoring, laser optogalvanic spectrosc. 27969
channel perform. particle deposition effects 20019
closed cycle MHD generation, enthalpy extraction expts. *(English)* 5233
closed cycle plasma MHD generator ducts, friction/heat loss 27970
closed cycle plasma MHD generator ducts design 20018
coal-fired MHD channels, large-scale, stabil. calcs. *(Japanese)* 27963
coal-fired MHD facility, laser induced breakdown spectra 20016
develop. hist., research efforts, appls. *(French)* 36615
disk-type closed-cycle, enthalpy extraction improvement 44421
electromechanical energy convertors, develop. overview *(Russian)* 43993
explosive-driven MHD generators, perform. enhancement 11304
flux compressor ouput sharpening, exploding foil, plasma switch 36287
gas dyn. design optim. 27965
IEEE pulsed power conf., Albuquerque, USA (1993) 20246
induction pumps, 3D EM field/force anal. 36610
kerosene oil-heavy oil fuelled, optimum perform. design 44420
MAGO thermonuclear ignition syst., MHD nozzle chamber calcs. 36614
nonequilbrium MHD generator, supersonic flow, plasma temp. *(Japanese)* 36612
nonequilibrium disk plasma MHD generator, conceptual design 27966
nonequilibrium MHD generator, plasma electron dens. calc. *(Japanese)* 36611
nonequilibrium MHD generator/line commutated inverter, power control *(Japanese)* 36613
nuc. driven MHD device, nuc. induced elec. cond. 27968
planet Earth, electromech. syst. description 20011
plasma arc driven railguns, MHD generator pulse power supply 20013
plasma temp. meas., spectroradiometer-based 11305
railgun test range develop. results, Russia 15367
reactor flue turbulent flow anal. *(Russian)* 11303
segmented Faraday channel, Q1D electrodyn. part 20012
self-excited pulsed MHD generator, meatgrinder cct. 36609
supersonic flows, purging fluid effects, optical diagnostics 20020
He-Cs nonequilibrium constant area MHD generator 20017
La(Sr)CrO_3, sintered bar electrodes, MHD generator appl. 5232

magnetohydrodynamic generators *see magnetohydrodynamic convertors*

magnetohydrodynamic power plants
200 MWe MHD generator channel, supercond. magnet optim. 4871
600 MW MHD steam combined cycle power plants 20014
alkali seed monitoring, laser optogalvanic spectrosc. 27969
coal-fired MHD channels, large-scale, stabil. calcs. *(Japanese)* 27963
commercial MHD power plants develop., historical perspective 10904
HTGR-MHD combination, high efficiency power generation 35746
Indian MHD retrofit channel, perform. prediction 10905
kerosene oil-heavy oil fuelled, optimum perform. design 44420
repowering projects, environ./economic benefits 19576
steam combined cycle, natural gas fuel 27654

magnetohydrodynamic waves
HF sigs. scatt. by artificial ionos. turbulence, Doppler shift 40342
ionos., current source sheets, EM waves excitation 23639

magnetohydrodynamics
see also magnetohydrodynamic conversion; magnetohydrodynamic convertors; magnetohydrodynamic waves; plasma magnetohydrodynamics
$^{241/243}$Am, ion-engine propellant 26694
blood pump, magnetohydrodynamic for artificial heart 18604
coal-fired MHD channels, large-scale, stabil. calcs. *(Japanese)* 27963
field-stabilized two-phase fluidized flow, proc. concepts 40205
free convection flow, Hall current effects 27964
induction-drive MHD propulsion, comment 44558
reactor flue turbulent flow anal. *(Russian)* 11303
steady Euler flows, magnetostatic equilibria 15234

magnetomechanical effects
see also gyromagnetic effect; magnetoelastic effects; magnetoelastic waves; magnetostriction
pipeline steel, 2% Mn, magnetis., cyclic stress effects 39129
rapidly quenched mag. wire, conf., Albuquerque, NM, USA (Jun. 1994) 20242
steel, 2% Mn, pipeline, isofield uniaxial cyclic stress, magnetisation behaviour 14107
steel, ferromag., coercivity var. during cyclic stressing 14127
a-$(Fe_{0.06}Co_{0.94})_{72.5}Si_{12.5}B_{15}$, creep-induced mag. anisotropy 1571
Fe_2O_3, magnetomech. reduction, struct./mag. props. 14181
YIG thin films, surface MSW 39168

magnetometers
see also fluxgate magnetometers; magnetic field measurement; SQUID magnetometers
bio-mech. movements obs., magnetometer sens. appl. 34986
eight-element fibre optic magnetometer array, undersea perform. 3865
Faraday effect magnetometers, vibr. induced birefr. modulation compensation 17814
Faraday-effect magnetometry, Verdet const. compensation 10001
fiber magnetometer, rem. hybrid heterodyne technol. 34526
flux-gate magnetometers on spinning spacecraft, calib. 35220
fringing fields meas. near mag. sectors 3816
ocean surveillance, array localization, least sq. error minimization 18993
permitt., permeab. and EMI shielding meas. 17696
portable mag. field meters 26486
SOI lateral thyristive magnetometer, low power design 25789
SQUID magnetometry, modulation effect in mag. shield, mag. shaking 15458
three-axis fiber optic magnetometers for undersea appls. 17824
torque magnetometer for rocks/crysts. meas. 10000
vector magnetometer, Permalloy sens., dual mag. feedback 9845
vibr.-sample magnetometer, variable PM flux 9873
K magnetometer, opt. pumping, saturated absorpt. 34462
$YBa_2Cu_3O_7$ sens. based magnetometer for weak mag. fields 34442

magnetooptics *see magneto-optical effects*
magnetophotoconductivity *see photoelectromagnetic effects*
magnetoplasma *see plasma*
magnetoplasmadynamics *see plasma magnetohydrodynamics*
magnetoresistance
see also Corbino effect; giant magnetoresistance; magnetoresistive devices; Shubnikov-de Haas effect
antidot lattice, quantum transport, periodic-orbit theory, chaotic syst. 21981
FEA of Hall effect and magnetoresist. 13023
ferromag. films, magnetoresist. meas., flexible test syst. 18040
intermetallic complex cpds. prep., high-purity 28714
lateral surface superlattice, fab., ion irrad. 21976
lateral surface superlattices, chaotic transport and fractal spectra 1110
metallic multilayers, magnetoresist. charact. *(Japanese)* 30694
multi-layer conducting samples, low-mag.-field-depend. Hall-tech. 1442
multilayer electron systs. in wide parab. wells, magnetocapacitance spectra 29909
polymer composite materials, mag. field sensitive 5914
semicond. superlattices, long. magnetoresist. 29900
Al single-cryst. nanostructures, fab. 30159
AlGaAs/GaAs heterostruct., high-field magnetoresist., non-ohmic behavior 29879
AlGaAs/GaAs heterostruct., ohmic contacts, phys./elec. study 13169
n-AlGaAs/InGaAs/GaAs struct., hot electron ballistic transport 38358
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+y}$-Ag tapes with 2212 phase, flux pinning 39226
$Bi_2Sr_2Ca_2Cu_3O_x$ tape, thermoelec./thermomagnetic effects 39219
Co/Ag multilayers, struct./mag. props., annealing effects 30715
Co/Al superlattices, mag. props., interlayer coupling 30706
Co/CoAl mag. superlattices on GaAs 7044
Co-Fe-Si-B amorph. soft ferromag. wires, magnetoimpedance, magnetostriction 30668
Co-Pd alloys, high-field forced magnetoresist. 30670
CoPt/Cu/NiFeCo/Cu multilayers, spin-valve effect/magnetoresist. 14213
Cu-Mn/Co multilayers, magnetoresist., exchange coupling 30707
Fe:Cr-Cr multilayers, enhanced magnetoresist. 7062
Fe-Al-Ta-C nanocrystalline films, soft mag. props./corros. resist. 6991
Fe-Si multilayers, antiferromag. coupling/magnetoresist. 14214
GaAs, cond. of opt. excited electrons in quantizing mag. fields 38249
GaAs lateral superlattice, Weiss oscills., small-angle scatt. effects 38350
GaAs, non-activated cond. of hot electrons in localization regime 29864
GaAs quantum well, MBE regrowth, 2DEG struct. 352
GaAs superlattices, miniband transport, quantized mag. field 21984
GaAs:Si, decoration phenom. during planar doping, magnetoresist. effects 13285
GaAs/Al_xGa_{1-x}As, mag. electron-focusing effect 1106
GaAs/Al_xGa1_{-x}As heterostruct., integral QHE 1108
GaAs/AlAs QW, exciton diffusion/energy relax. in strong mag. field 29904
GaAs/AlAs, lateral surface superlattices, pot. modulation 29931
GaAs/AlGaAs, 2DEG in random mag. field, magnetoresist. 6552
GaAs/AlGaAs, artificial lateral superlattice, transport props. 29934
GaAs/AlGaAs multiple bridge devices in quantizing mag. fields, pot. distrib. 38291
GaAs/AlGaAs, quantum dots, ballistic, conductance flucts. 13198
GaAs/AlGaAs quasi-1D struct., holographic lithog., wet etching 21975
GaAs-GaAlAs heterojunction, magneto resist./Hall effect meas. 21945
$GaInP_2$ homojunctions, ordered-disordered, 2DEG, anisotropic transport props. 21962
$GaInP_2$ ordered epilayers, elec. cond. 1065
p-Ge, current-generated spatially periodic pot. 38227
InAs/AlSb quantum wells, QHE 38366
InAs/AlSb quantum wells, structural/transport props. 1128
InAs-GaSb QWs, magnetotransport meas., hydrostatic press. appl. 38334
InGaAs/AlInAs heterostruct., electron transport, transistor perform. 6563
$In_{0.53}Ga_{0.47}$As/InP quantum wires, tunable width of conducting channel 13184
a-In_2O_3, variable range hopping region, magnetoresist. 6536
In_2O_{3-x} films, spin and quantum interf. effects in hopping cond. 38263
InP based δ layers, AC excitation 29859
InP/$In_{0.53}Ga_{0.47}$As interface, 2DEG, quantum transport effects 21958
InSb, metallically doped, extrinsic magnetoresist. 21920
Ni-Fe-Co/Cu/Co-Pt trilayers, magnetoresist. effects 39173
Ni-Pt multilayers, magnetoresist., in-plane magnetis. 30713
Ni(Fe,Co)/Ag granular multilayers, struct./magnetoresist. 7048
NiFe thin films, galvanomagnetic EMF effect *(Japanese)* 30675
NiFe/oxide/Co jns., magnetoresist., mag. props. 6592
$Ni_{80}Fe_{20}$/Cu multilayers, magnetoresist. 7055
NiFe-SiO_2 multilayer mag. sens., high freq. magneto-impedance effect 17709
NiFe-TbCo unshielded spin-valve sens., exchange-biased, MR heads 7077
$Pb_{1-x}Mn_x$Se, epilayer microstructures, mesoscopic phenomena 38272
PbSe, epilayer microstructures, mesoscopic phenomena 38272
Pt resist. thermometer, small mag. field correction 9866
Si pn diodes, temp. depend. elec. detected mag. reson. 38793
p-Si wires, focused ion beam implant., carrier transport 21871
Si/$Si_{0.7}Ge_{0.3}$ heterostruct., 1D electron transport 30074
Si/SiGe heterostruct., Aharonov-Bohm rings, fab. 29894
Si/SiGe modulation-doped heterostruct., extremely high electron mobility 29920
YBaCuO microbridge, 2D array, weak links 22763

magnetoresistive devices
air bearing slider in HDD, design and perform. 7159
CMOS Permalloy magnetoresistive microbridge mag. field sens. syst. 34494
CMOS preamplifier for IC-magneto-resistive read elements, 0.8nV/$\sqrt{Hz}$ 7142
DC mag. field components meas. by single magnetoresistor 39211
dual magnetoresistive read elements, exchange biasing 7114
exchange biasing schemes for MR disk heads 7082
flux-guided MR head for low flying height 7079
giant magnetoresist. multilayers, mag. field sens. 17708
GMR 1-μm wide, end-on, ganged, read head sens., high sensitivity 7073
integrated magnetoresistive sens. for automotive appls. 17711
mag. field meas. 17758
magnetoresistor lin. posn. sens., automotive appls. 11434
magnetoresistors, precision meas. appls. 34459
multi-level decision feedback equalization, syst. archit., mag. recording 7177
Permalloy thin-film/micro-fiber magnetoresistive sens. 17712
PM biased SAL/MR device, stabil., bias characts. 7083
PM film stabilised MR strips, sensit. distrib. anal. 7084
read/write amp. design considerations for MR heads 29052

magnetoresistive devices continued
recording head, channel non-lin. 7171
recording head track following method, rigid disk servo 7173
recording head track profile, servo perform. 7172
SAL-biased MR heads, patterned PM bias 7085
sens., sig. extraction 17710
sens., soft adjacent layer, hard-magnet biasing strengths 17707
sens. technol. for tracking devices 34438
shielded Permalloy strip MR head, response simul. 7087
slanted contact MR head, 500 Mb/in^2, elec. characts. 7081
SRM, speed control, magnetoresistive angle sens. 44030
torque on drill detect., magnetostrictive effect 17716
unshielded dual-element horiz. MR heads, design and fab. 7086
unshielded magnetoresistive heads, single and dual element, sig. proc. 30732
vert. magnetoresistive/inductive head, perform. characts. 7080
yoke magneto-resistive heads, switching noise 14237
FeNi-SiO_2-Si thin-film magnetoresistive sens., param. optim. 17724
NiCoFe/Cu, giant magnetoresistive thin-film read head devices 7075
NiFe/Ag, giant magnetoresistive thin-film read head devices 7075
NiFe/Co/Cu/Co/NiFe NiCoO exchange biased spin-valve struct., MR heads 7078
NiFe/Cu/Co spin-valve read heads, high dens. recording 7070
$Ni_{80}Fe_{20}/Cu/Ni_{80}Fe_{20}/Fe_{50}Mn_{50}$, giant magnetoresistive elements, thin film tape heads 7072
NiFe-TbCo unshielded spin-valve sens., exchange-biased, MR heads 7077
$Ni_{76}Fe_{10}Co_{14}/Cu$ giant magnetoresistive multilayers, permeab., read heads 7076
NiFeCo-Cu GMR multilayer sens. at high current densities, micromagnetics 7074

magnetoresistivity *see magnetoresistance*

magnetoresistors *see magnetoresistive devices; resistors*

magnetospheric electromagnetic wave propagation
transequatorial (conjugate point) HF propag., modelling 40340
VLF radio waves, ground-based direction finding 23637
VLF/ELF Logger Experiment (VELOX) in Antarctica 35299
VLF/ELF radio waves, direction finding method 23641
VLF/ELF waves, reconstruction of wave distrib. fn. 2207

magnetostatic fields *see magnetic fields*

magnetostatic surface waves
ferrite slab, mode characts. 14167
ferrite-semicond. waveguide, surface MSW propag. 14263
nonuniform valley-shaped magnetizing field, MSSW propag. 1584
YIG epitaxial films, electron spin echo in 3 cm band 14165
YIG ferromag. substr., nonlin. MSWs 1585
YIG films, low energy ion bombard., surface spin pinning 14177
YIG thin films, surface MSW 39168

magnetostatic wave devices
HF current interact. in microstrip line, reson. modes of magnetostatic wave 22709
metal-dielec.-ferrite-dielec.-metal layered magnetostatic-wave delay lines 22708
nonuniform valley-shaped magnetizing field, MSSW propag. 1584
YIG cascaded magnetostatic soliton waveguide, short pulses 30753
YIG film, magnetoelastic waves, delay line appl. 14192
YIG, magnetostatic forward-vol. wave resonator, tunable oscillator *(Japanese)* 12761

magnetostatic waves
see also magnetostatic surface waves
2D ferrite-loaded cavity-backed slot antenna scatt. 31920
biased ferrite slab MSW guidance 22707
ferrite slab, mode characts. 14167
YIG films, backward vol. MSW 1575
YIG:Sc film tunable magnetostatic wave bandpass filters 30757

magnetostatics
3D modelling of EM actuators, iter. procedure 40273
coil shielding by short ferromag. tube 23692
edge element anal. of magnetostatic and transient eddy current fields 40223
elec. machine field problems, modified scalar pot. method 43981
EM field description/anal., diff. forms appl. *(Chinese)* 7887
finite element program for magnetostatic anal. 31723
hp-extension of Nedelec's curl-conforming elements, error estim. 15233
lin. magnetoelec. media, investig. of constructive rels. 1569
massive current coil, mag. field and pot. eval. 40230
nonlin. 2D/3D magnetostatic vol. integral formulation, GFUNET package 40225
nonlin. 3D magnetostatics, perturbed h-method 14228
nonlin. EM problems, hybrid finite element-BEM 40221
nonlin. mag. field problems soln., Newton-Raphson method 40224
nonlin. magnetostatic problems, complementary formulations and adaptive mesh refinements 40220
nonlin. magnetostatics calc., vol. integral eqn. method 40226
polarised shells, magnetostatic/electrostatic fields anal., screening 23509
power transformers, freq. response, electrostatic screen effect 5023
shell problems, ill-posedness elimination 40209
shell struct., static mag. field anal. by integral method 40222
steady Euler flows, magnetostatic equilibria 15234
steel wire rope, broken wires, mag. leakage field, math. model *(Chinese)* 31724
tree-cotree gauge for mag. field computation in magnetostatic problems 40219

magnetostriction
amorph. soft mag. ribbons, stress magnetis. props. *(Japanese)* 30673
digitally based ΔE meas. syst., design 18039
high-tech mag. materials, recent develop. 30660
long. thin film hard disk media, demagnetization, inverse magnetostriction 30718
mag. domain struct., Young's modulus meas. 14208
mag. fiber-optic sens., magnetostrictive noise limitation 3852
Permalloy film overlayers, mag. easy axis, water sorption, photoresist underlayers, heads 7094
pulsed power semicond. switches, opt. controlled, filamentation models 36435
quartz resonator mag. sensitivity, orig. and meas. 30615
rapidly quenched mag. wire, conf., Albuquerque, NM, USA (Jun. 1994) 20242
ribbons, amorph., magnetostrictive vibr., bias mag. field effect 7190
self-biased shielded magnetoresistive heads, magnetostriction meas. 14234
Terfenol-D, magnetostrictive strain, thermal, mag. annealing 7016

magnetostriction continued
Terfenol-D rods, giant magnetostriction modelling by FEM 39148
thin film magnetostriction, ΔE effect, DC biased capacitance meas. method 18038
AlFe, hot rolling, strong (100)[001] texture component 14145
$Ce_2Fe_{17}H_x$, press. effects on mag. props. 39160
Co/Pd multilayers, magnetostriction, layer thicknesses effect 30690
Co-Fe-Si-B amorph. soft ferromag. wires, magnetoimpedance, magnetostriction 30668
Co-Pd alloys, high-field forced magnetoresist. 30670
Co-based amorph. thin wires, HF permeab. 14124
a-$Co_{66}Fe_4Mo_2Si_{16}B_{12}$, magnetostriction, nanocrystn. effects 14141
$Co_{32}Pd_{68}/Ag$ multilayers, mag. props. 30711
$Dy/DyFe_2$ eutectic, magnetisation, stress effects 7006
(Fe,Co)-B-Al-Nb alloys with ultrafine grain struct., mag. props. 14149
Fe/Cu multilayers, mag. props. 30703
Fe/Gd multilayers, magnetostriction, ferromag. reson. meas. 30691
Fe-Co-Ni-Si-B based amorph. wires, mag. props. 30683
Fe-Co-Si-B rapidly quenched wire, magnetostrictive/magnetoelastic props. 30666
Fe-Cu-Nb-Si-B, nanocrystalline ribbons, creep induced mag. anisotropy 14138
Fe-FeCoZr sputtered multilayers, soft mag. props. *(Japanese)* 30696
Fe-Si, grain oriented steel, magnetostriction 30665
Fe-based amorph. thin wires, HF permeab. 14124
a-Fe-based toroidal transducer core, local flux dens. vars. 14255
γ-Fe_2O_3 thin films, coercivity, stress effect 39166
FeSiB amorph. wires, annealed, engng. magnetostriction meas. 14132
$Fe_{73.5}Si_{16.5}B_6C_1Nb_3$, Young's modulus, mag. bias field depend. 14106
FeSiBCuNb amorph. wires, crystn. proc. and mag. props. 14136
FeSiHfC nanocrystalline films, soft mag. props., anisotropy dispersion *(Japanese)* 30674
Si steel, magnetostriction meas., LDV 14125
Sm-Fe thin films, sputter deposition, magnetostriction 6938
Sm_xFe_{1-x}, amorph. magnetostrictive films, prep. 7003
$Sm_{1-x}Tb_x(Fe_{0.2}Co_{0.8})_2$, hydrogen-induced mag. anisotropy, cryst. lattice distortions 39164
Tb-Dy-Fe twinned terfenol-D crysts., anisotropy 7013
Tb-Fe sputtered films, large magnetostriction, magnetomechanical device appls. 6937
TbDyFe, microstruct., mag. props. 39136
$(Tb_{0.6}Dy_{0.4})_{0.42}Fe_{0.58}$, magnetization, Young's modulus and magnetostriction 7004
$(Tb_{0.6}Dy_{0.4})_{0.72}Fe_{0.28}$, magnetization, Young's modulus and magnetostriction 7004
$(Tb_{0.6}Dy_{0.4})_{0.9}Fe_{0.1}$, magnetization, Young's modulus and magnetostriction 7004
$(Tb_yDy_{1-y})_xFe_{1-x}$, amorph. magnetostrictive films, prep. 7003
$(Tb_xDy_{1-x})(Fe_{1-y}Mn_y)_{1.95}$, mag. props., magnetostriction 7005

magnetostrictive devices
actuator appl. possibilities *(German)* 11221
amorph. wires, magneto-inductive effect, mag. sens. appl. 17714
eight-element fibre optic magnetometer array, undersea perform. 3865
ferrite magnetoacoustic variable delay lines, surface wedge wave propag. 7221
finite element modelling for mag. cct. design 39212
mag. anisotropy sens., output voltage-excitation freq. charact. 9879
magnetostrictive fibre-optic sens., transducer self-noise 17883
ocean tomographic systs. sound transducer source 10574
Permalloy film overlayers, mag. easy axis, water sorption, photoresist underlayers, heads 7094
pulsed power semicond. switches, opt. controlled, filamentation models 36435
rare earth-iron cpds. for actuators and sens. 34481
shaker, broadband perform. 30754
solid-state actuators, periodic forces cancellation 30755
sonar future transducers, transduction materials modeling 9662
SQUID-magnetostrictor syst., small length change detect. 17734
Terfenol-D actuators, control under load 7222
CoSiB amorph. MI reson. multivibrator current sens. 17713
Fe-Tb(Sm) amorph. thin film magnetostrictive actuators, fab. 6883
FeSiN films, narrow track head 7107
TbFe(SmFe) magnetostrictive thin film actuators, fab. 30752

magnetostrictive microphones *see microphones*

magnetostrictive transducers *see magnetostrictive devices; transducers*

magnetothermal effects *see magnetocaloric effects*

magnetovolume effects *see magnetomechanical effects*

magnetron sputter deposition *see sputter deposition*

magnetron sputtered coatings *see sputtered coatings*

magnetron sputtering *see sputtering*

magnetrons
66 J magnetron pulsed power supply, flyback convertor-based 36321
crossed-field devices, small signal gain 6509
cylindrical magnetron Vlasov model distrib. fn. 980
electron gun design, DAPHNE 2D axisymmetric simul. code 29761
fourth harmonic oscillator, design and construction 21829
high power microwave generation, magnetron driven Q switched cavity 29767
high power microwave transmitter perform., long pulse widths 29765
high-current electron source, plasma emitter 18294
injection guns, electron beams, vel. spread 29764
injection-locked magnetron, high av. power, compact design 29782
intense helical electron beams, num. simul. 31733
intense microwave pulses, conf., Los Angeles (1994) 28206
ion sources energy spread/ion current meas. 17693
large orbit magnetron-type gyrotron, num. modeling 21814
leakage flux transformer, HV power supply *(French)* 29616
lin. induction accelerator, high current, operation with relativistic magnetron 34745
lin. magnetron sputtering systs., operating and plasma charact. 28808
M-type devices, electron optics, translational symm. 977
microwave heating power supply, high PF mode 11185
microwave helicopter power supply demons. project 35597
oscillator freq., dyn. corrections 978
phase locking of two long-pulse high-power magnetrons 987
split-anode magnetron interaction anal. 21824
GaAs FET power amp./high-Q magnetron, coherent transmitter 12997

magnets
  see also accelerator magnets; electromagnets; permanent magnets; superconducting magnets
  design optimisation in theory and practice 11705
  Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
  moving magnet opt. scanners, scanning speed and accuracy 31057
  spherical FEA 5790
  two-phase disc magnet stepping motor design *(French)* 11355
  Cu-Ag alloy conductors develop., high field magnet *(Japanese)* 14258
magnitude convertors *see convertors*
magnons
  see also spin waves
  conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
mail *see postal services*
mail (electronic) *see electronic mail*
mailing systems
  Korean envelope images recogn., address block location *(Korean)* 24693
mainframes
  see also Cray computers
  area array interconnection, Cu-PI thin films on multi-layer glass-ceramic substr. 139
  SAG-MESFET for supercomputers, proc., implement. 37721
  SS-1 supercomputer cooling syst., 3D packaging config. 136
  stacked power syst., power conditioning 11118
maintainability *see maintenance engineering; reliability*
maintenance *see maintenance engineering*
maintenance engineering
  see also aircraft maintenance; computer maintenance; nuclear reactor maintenance; software maintenance
  6 GHz digital microwave transmitters, repair 25225
  8 inch wafer pilot line in Taiwan, total prod maint. 37054
  20 kV plastic cable repair by silicone injection *(German)* 27214
  52 MJ railgun power supply perform. 19775
  138 kV power line damper repair, live-line working 10751
  168 kV hybrid GIS, outdoor air insulated bus substations *(Japanese)* 27838
  345 kV porcelain suspen. insulators, replacement experience 10757
  443 MW steam power plant scrubber renewal project, USA 27544
  500 MW Boxberg brown-coal power station rehabilitation *(German)* 4842
  600 MW Muskingham power plant low NO_x burner retrofit, USA 43903
  908 MW thermal power plant control/monitoring integrat., Australia 19508
  927 MW CHP plant AFBC boiler retrofit, Czech Republic 19515
  1000 kV power line maint. IS, meas.-based 27126
  2000-4000 kW Wartsila high-speed diesel generator 36033
  AC hoists modernisation 11396
  activities mgt., optim./priorities/planning integrat. 28387
  actuator/sens. interface instrumentation 25727
  advanced IN, OAM&P 25087
  Advanced Intelligent Network service maint. and testing strategy 25089
  advanced plant maint., surveillance syst., AI techs. 35921
  AEGIS ORTS integrated diagnostic system 42716
  ageing component optimum revision interval determ. 11878
  ageing gas turbines upgrading 43917
  agricultural mach. preventive maint./replacement optim. 11682
  airborne systems, neural network technology for BIT applications 42730
  Alcatel 1000 S12 exchange, ALAMOS generic alarm correl. syst. 3288
  AP600 design, reliab., availability, maintainability 35922
  ASDL links maint. approach and fns. 16916
  AT&T's 5ESS-2000 switch 16949
  ATE evolution, small tester concept implementation 42712
  ATE software design methodologies develops. 42703
  ATE standardisation for army industrial environment 43573
  ATE with adaptive fault detection, integrated technology enhanced 42709
  ATM networks, autonomous provisioning algm. for rem. operation *(Japanese)* 24837
  Austrian power station component hardening for efficiency *(German)* 4825
  automatic distrib. node transfer, electronic cct. *(Spanish)* 19282
  automotive parts cutting, Nd:YAG lasers and robots appl. 15197
  AUTOTESCON 93, (Sept. 1993) 36845
  AXE 10 syst., operator subsystem fn. testing 33393
  ball-bearing syst. replacement, discrete-time dyn. prog. 36981
  batt. preventive maint., computerised eval. 11248
  building HVAC retrofits, postponement economics overview 44432
  buried distrib. cable syst., rem. absol. phase meas. 27158
  BWR power maneuver, maint., knowledge-based planning support 35852
  CASS, design for supportability 35410
  cct. breakers, condition-based monitoring develops. 5154
  Channel Tunnel rail link, engng./tech. aspects 44556
  chem./plastics plant elec. modernization project 5405
  CHP syst. condition monitoring/predictive maint. 19539
  cogen. develop./modernisation, former USSR, natural gas-based 19487
  cogen. practice, options and design stds. *(Italian)* 19504
  colour coded job cards, power plant maint. 19398
  common channel signalling network survivability using DCS 41648
  commun. centres, air conditioning installations overview 20143
  complex two-unit syst., random breakdown of repair facility 11855
  concurrent engineering based test and maintenance 42708
  cond. rework tool design paradigm, PCB/SMT manufacture 38146
  copper rod mfg., QC syst. upgrade, USA 5677
  costs reduction, Special Purpose ATE (SPATE) 34361
  Croatian approach, business commun. services 33337
  DARTS enabling technology for concurrent engineering 42717
  design reliab., stds. develop. 20390
  Deutsche Bahn elec. rly. operation review, 1994 *(German)* 44500
  developing economies, cost effective installation and maint. of subsea links 3308
  diagnostic and repair expert system tools, workflow management 42715
  diesel power plants, turbocharger retrofitting overview 19531
  Digital ILT, digital switching syst. 25187
  distrib. network asset replacement programmes, reliab. worth calcs. 43754
  distrib. network improvement, Clean Air Act effects 11493
  distrib. network mobile power plants, maint./emergency appls. 10730
  distrib. network quality/reliab. improvement options 43760
  distrib. network revitalisation project overview, Bahrain 19283
  distributed power systs.-benefits and challenges 10675
  elec. generator maint. scheduling, simulated evol.-based 19602
  elec. generator reliab. anal., retrospective data-based *(Russian)* 10917
  elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
maintenance engineering continued
  elec. motor drive mfg., design reliab. methodology 28076
  elec. train fault-tree generation automation, ES-based 44551
  elec. utility operation/maintainance, business strategies adoption 10637
  elec. utility reliab. assess./maint./life cycle costing, UK 43686
  electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
  electromachine vibr. data validation/recovery, ANN 19593
  electron beam accelerator, long power pulse operation retrofit 34751
  EM disturbance, telecomms. equipt., maint./support *(Japanese)* 31864
  EM plant monitoring/mgt. instrumentation 19597
  environ. test chambers, safety guidelines 94
  equipt. maint., learning environ., virtual reality *(Japanese)* 36486
  European Safety & Reliab. Conf., Munich (1993) 11584
  facility mgt. syst., multimedia technols. *(Japanese)* 42034
  fault tree anal., knowledge engng. approach 28535
  feeder database, work ordering syst. 43745
  fission reactors, risk, unavailability, maint. effectiveness 35878
  flexible maint. IS for downsized environ. 35407
  gas turbine power plant emissions compliance upgrade projects, USA 27577
  gas turbine/combined cycle units, reliab./availability guarantees 19523
  generating unit preventive maint. scheduling, energy cost method 19378
  generator maint. scheduling, subjective constraints relax. *(Japanese)* 27663
  generators, condition based maint. 36095
  generators/boilers, overhaul scheduling, dyn. prog. *(Chinese)* 43976
  generic test/maint. node for embedded syst. test 9795
  golf car arc welding modernisation project, USA 5400
  helicopter aging support equipment, maintenance alternatives 43574
  high reliab. cct. board repair, PCB/SMT manufacture 38145
  high-speed copper access transm. systs. 16915
  hospital commun. and signalling syst. *(Italian)* 10300
  hot rolling mill control/power equipt. modernisation project, USA 44630
  Hubble Space Telescope, power syst. servicing 35245
  Hubble Space Telescope, solar array change out 35246
  HV cct. breakers, reliab./maint. cost data, CIGRE 13.06 WG 19894
  HV machine stator insulation, discharge monitoring 19600
  HV power switch reliab. and maint. cost survey *(German)* 36467
  HV substation reliab. centered maint. project, France 44248
  HV transm. line reliab./maint. practices, Australasia 43764
  hydroelectric power plant Francis turbine maint. project, India 10874
  IBM Austin Indust. Bus. Center total prod. maint. 36985
  IEEE P1149.5 standard module test and maintenance bus 42702
  induction motors, anti-friction bearings, selection guidelines 4945
  indust. distrib. network improvement, Clean Air Act effects 11493
  indust. plant maint., equipt. availability, economics 36995
  indust. power syst. reliab., Monte Carlo simul. 28189
  intell. differential press. transmitter develop. 3786
  intell. maint. aid software 34370
  intelligent computer manual syst. creation, software tool *(Japanese)* 95
  interactive electronic technical manual for US Army 43572
  k-out-of-m systs., nonparametric inferences on syst. availability 11854
  k-out-of-n:G syst. reliab. anal. 175
  k-out-of-n:G systs. spares cost optim. method, computer-based 20484
  $M^b/M/C$ queueing systs., optimality conditions 11905
  mach. condition monitoring, user's perspective 36181
  machine service model, queuing syst. 20497
  maintainability level, control model, ship engines 28389
  Malaysia-Thailand power interconnection, upgrading project options 19181
  Markovian decision procs., modelling and appls, China 196
  mass transit rly. renovation project, systs. engng. approach, UK 44528
  MCM-D, Cu/polyimid TFML bare substr., MCM 21742
  MCM-D open repair technols. 21724
  mfg. execution systs. software selection guidelines 38967
  mgt., computer-aided syst. appls. 28388
  mgt., OR models 28381
  MHD repowering projects, environ./economic benefits 19576
  microwave radio syst. PV power supply, project overview 19562
  mine hoist winder drive control upgrade project, South Africa 44644
  missile vert. launch syst. maint. ES 43600
  mobile substations, elec. utility requirements survey, USA 11217
  motor purchase/repair/replacement, economics, efficiency factors 19591
  motor stator interturn short-cct. detect./location 10962
  motor/generator stator winding maint., PD testing 4893
  multi-MW batt. storage plant, power conditioning reliab. 36081
  multimedia electronic performance support systems 42729
  multimedia IS for airports *(Japanese)* 10413
  multistate decomposed-struct. elec. device preventive maint. policy 11683
  MV/HV power equipt. mfg. QC, supply quality effects *(French)* 36086
  MW9070A OTDR for opt. fibers maint. *(Japanese)* 33667
  narrow-gauge rly. line catenary systs., R&D results 36750
  national broadcasting network syst., reliab. anal. 17535
  national power syst. develop. policy, Romania 27116
  Navy's factory, fleet maint. concept 35411
  Navy air-launched missile maint. 35415
  Navy sensors, consolidated automated support system 43571
  navy shipboard systs., expert maint. advisor develop. 9812
  network planning, online data provision *(German)* 35588
  non-destructive opt. fiber talk-set *(Japanese)* 42397
  North Sea oil and gas installations, maint. risk-based optim. 20189
  NPP, vibr. anal., neural networks 35856
  NPP feedwater valves retrofitting, vibr. reduction 27339
  NPP Human Error & Behaviour Prediction Syst. develop. 19413
  NPP maint., risk-based optim. 19407
  NPP PRA, maint./operating cost effectiveness 35889
  NPP reliab.-centered maint. project, USA 27340
  NTT's maint. service concept and strategy 24871
  OfficeMermaid, multimedia groupwork syst. *(Japanese)* 42033
  on-board diagnostic support, time stress meas. 43432
  opens defects repair in MCM, diffusion bonding 21729
  operating, supervision and maint. of telecomm. systs. 33368
  opt. cable network database syst., obj.-oriented design 9102
  opt. fibre commun. networks, operation/maint. strategy 25541
  optical/hybrid access networks, conf. (1993) 36850
  PCB assembly reliab., call rate level reduction 5701
  PCS OAM&P stds. 25426
  PCS systs., OAM&P std. 3368
  petroleum indust. squirrel cage motor fault survey 5404
  petroleum refinery/elec. utility collaboration, overview 5414
  PFBC repowering demons., RAM model 43888
  planned lifetime mgt., availability, cost reduction 11651

maintenance engineering continued
plant maint., learning environ., virtual reality *(Japanese)* 36486
plasma etch systs., automated preventive maint., SECS protocol 30088
point-to-multipoint wireless telephone syst. trends *(German)* 33400
power capacitor placement/replacement/control, computer simul. 35622
power capacitor placement/replacement/control optim. 35621
power equipt., preventive maint. overview 44157
power generation costs reduction, valve develops. 19391
power line right-of-way dimensioning and protection from vegetation *(German)* 10752
power overhead line live-line insulator washing expts. 27223
power overhead line survival anal., stat. method-based 43780
power overhead line upgrade/refurbishment options 43781
power plant component life assess., technol. transfer in Europe 10696
power plant life management, conf., Edinburgh, UK (1994) 5454
power station, islands of automation integrat., distrib. control 10853
power station apparatus condition monitoring, acoustic methods *(German)* 4751
power station component structural integrity, R5/R6 assess. procedures 19390
power station component testing, surface replication methods 19392
power station condition-based maint. mgt., neural net-based 43815
power station monitoring/control instrumentation maint. 43812
power station turbogenerator maint., welding experiences, UK 19388
power syst. adequacy indices, failure/repair proc. distrib. effects 26887
power syst. cct. capability assess., rating sheets prepn. 43657
power syst. incident anal./maint. mgt., SAS intell. syst. 19007
power syst. maint., ALICE-ES software-based 19056
power syst. planning/operation, R&D trends, probab. appls. 4597
power syst. reliab.-centred maint., economic eval. 19080
power transformer condition monitoring, elec. utility experiences, UK 44102
power transformer life mgt. strategies 19703
power transm./distrib. equipt. condition monitoring, fibre optic sens.-based 43616
preventive maint., IR thermography *(German)* 36983
preventive maintenance, behaviour model/vibr. anal. 5567
product design criteria 97
PWR NPP, safety overview, Russia 27338
qualitat. probab. modelling appls. 83
RACE 2087/TITAN, access network alternatives *(Italian, English)* 42071
reactor layup ageing, maint. practices, corros. control 35872
relative flexibility estim. of equipt. and systs. 11842
reliab. centred maint., economic considerations 19226
reliab.-centered test methods, overview 20478
rem. centralized DC-3 testing 33387
rem. proc., universal monitoring syst. 16606
repair/replacement policies, marginal cost anal. appl. 28386
repairable systs., Weibull proc. failure intens. estim. 87
repairable systs. interval reliab., integral eqn. approach 37178
repairable systs. reliab., time-varying failure rates 28541
rim and attenuated phase shift masks, FIB defect repair 38762
River Bend Station, PRA and maint. rule 35886
rly. carriage elec. equip. availability coeff. 20110
rly. feeder overhead lines, hard-drawn stranded wire testing 36749
rly. signalling equipt., condition-based maint. 44531
rly. syst. technols. develop., Hitachi 44504
rot. mach. early failure diagnosis, ROMADIS package 11681
security alarm systs., design/maint., risk based method 36994
shifter void defect repair, focused ion beam tool 13497
single-server syst. with limited service policy 33219
Sloy hydroelectric power station refurbishment project, UK 19545
SMT rework, conductive/convective hand tools 38161
SNCF rly. overhead power supply maint., mgt. experience *(French)* 36753
solar hydrogen demons. project *(German)* 44413
SONET maint. and mgt., intell. opt. service unit 33363
Space Station Freedom Maint. Workstation, thermal control syst. 18691
spacecraft vehicle health mgt. systs., large-size data reduction/fusion algm. 18725
squirrel cage motor rotor winding fault detect. ES 44059
static power convertor filter capacitor fault detect. methods 19827
steam power plant equipt. repowering study project, Romania 27541
steam power plant repowering projects design, Italy 10870
steam power plant water treatment optim., economic benefits 43901
steel beam mill monitoring syst., PC-based 42949
storage syst. with high reliab., optimal inspection policy 37190
submarine opt. cable transm. syst., and characts. *(Croatian)* 3550
submarine sonar dome, corrosivity meas., Dome Water Monitoring Instrumentation System 17676
substation control/protection integrat., μP-based *(English)* 36476
Suomenoja combined cycle CHP plant control upgrade, Finland 43936
SVC operating/maint. strategies, rly. supply, transm. support 26985
SVC operational/maint. experience, Tenaga Nasional Berhad 26983
switchgear risk assess., methodology/results/implications 5150
TEAMS, testability engng./maint. syst. 11708
technician centered test concepts 34367
telecom. equipt. air conditioning, building control/mgt. syst. 20135
telecom. power equipt., preventive maint. overview 44157
telecom. power supply systs., μP control appls. 41626
telecomm. energy mgt., Alenia distributed soln. 19835
telecomm. equipt., fuel cell energy syst., field test 19975
telecomm. network distributed mgt. syst., formal design 33296
telecomm. network power syst. develop. projects, Hungary 19049
telecomms., transit network trends 41557
telecomms. digital multiplexers, diagnosis/repair, ES 9128
telecomms. distributed maint. systs., abstr. design method 41655
telecomms. operation and maint. workstation model, ES module 33369
telecommunication network mgt., MBR appl. 41647
thermal CHP plant leak sealing safety experiences, Germany *(German)* 4821
thermal power plant controls upgrade projects, USA 43651
thermal power plant maint. scheduling, Hopfield neural net appls. *(Japanese)* 43893
three-phase induction motor drives, online fault monitoring 20084
TMN appl., highly reliable distributed switching node 41667
TPS for multiple test environments 38076
traction power supply maint. project mgt., UK 44525
transformer substation, HV equipt. maint., experience/feedback *(French)* 36489
transm. network reliab. centred maint. projects, South Africa 43725
turbogenerator fault diagnosis, consultative ES-based 19595

maintenance engineering continued
turbogenerator rotor bore, automated US inspection syst. 19599
turbomachinery, condition monitoring 36096
undersea cable systs., installation/maint. technol. 33998
undersea commun. systs., network planning/operation/maint. 33999
unstructured power plant environ., navig. and manipulation 43814
UPS, maint. and upgrading *(Japanese)* 5041
US Army IETM develop. 35417
USA, microwave radio market 25224
USA, public telecomms. infrastructure funding 8794
USA NPP reliab.-centred maint. status 19408
user interface design methodologies 34373
variable speed induction motor drive retrofits, centrifugal load appls. 36690
weapon systems, design-for-test process improvements 43594
weapon systems, two level maintenance environment/data collection 42742
weighing feeder retrofits/upgrades 3996
WESDA, multimedia expert system for wafer polisher maintenance 5566
XLPE power cable insulation diagnosis, DC superimposition method *(Japanese)* 27194
Al single wafer etcher, total productive maint. 22201
Li secondary batts., develop. trends 36515
Ni-H$_2$ Astra 1A satellite batts., perform. improvement schemes 26661
Ni-H$_2$ secondary batts., develop. trends 36515
Ni-MH secondary batts., develop. trends 36515
Pb-acid batt. impedance meas., maint. tool 44297
Pb-acid batt. systs., theory, develops. 36520
Pb-acid valve regulated/flooded batts., reliab./maint. 44295
Pb-acid valve-regulated telecom. batts., maint. costs reduction 36571
TiW PVD manufacturability, advanced chamber shield design 22272

maintenance, software *see software maintenance*

majority algebra *see algebra*

majority logic
see also logic circuits; redundancy
CMOS LSI archit., ultra-high speed error correction, majority decoding 29200

Malter effect *see secondary electron emission*

mammography *see diagnostic radiography*

MAN *see metropolitan area networks*

man machine interfaces *see user interfaces*

man-machine systems
see also ergonomics; user interfaces
CMIP-based OpS-WS interface supporting GUI 41673
European Safety & Reliab. Conf., Munich (1993) 11584
home electronic product buyers and users, usability issues 36996
human error causes and compatibility influence 11692
human-machine syst. transient-state effectiveness simul. 20479
interact. design for syst. quality improvement 11837
large-scale telecomm. network, multi-fisheye distortion map 41618
NPP operation, intell. human-machine syst. 43823
operator mental model, multilevel flow modelling *(Japanese)* 43828
power generating unit automation, human contrib. overview 43817
power syst. interactive DSS, obj.-oriented framework 19095
telecomms. mgt. integrat. network 41666

management
see also corporate modelling; cost-benefit analysis; DP management; equipment evaluation; equipment selection; human resource management; management education; management of change; management science; outsourcing; project management; research and development management; risk management; time management
AT&T Switching Systems Business Unit, TQM 11626
business mgt. challenges, Russia 36972
business proc. re-engng. concept, overview 36970
business-proc. improvement, cross-functional teams 36957
career development reinventing 36874
CEGB crisis mgt./action, 1984-5 miners' strike 26929
company downsizing, organisational change, Newtonian metaphor 20371
consolidated energy systs. mgt., operational experience 27026
copper rod mfg., QC syst. upgrade, USA 5677
corporate ESD program, strategy and philosophy 30543
corporate mgt., inform. age consequences 11628
decision anal. human error, computer critic appls. 11654
decision making, QC 11636
decision making criteria in technol. adoption 11653
distrib. mgt. strategy, elec. utility benefits 27152
distrib. overhead line assets mgt., technol. 43744
eco-balancing in quality mgt. *(German)* 160
elec. utility DSM strategy economics, math. anal. 35533
elec. utility operation/maintainance, business strategies adoption 10637
elec. utility power supply quality mgt., South Africa 43708
elec. utility reliab. assess./maint./life cycle costing, UK 43686
elec. utility reliab. concepts integrat., New Zealand 27062
elec. utility reliab. improvement experiences, Australia 43685
electronics indust., technol. acquisition proc. 11647
electronics indust. CAQ, real-time proc. control-based 11839
engng. change mgt., activity-based costing model 11672
engng. firm, quality mgt. 11638
engng. mgt. execs. selection, in-house recruitment 11665
engng. personnel mentoring, career guidance benefits 28341
ESD control program support, auditing/awareness training aspects 30544
European-wide power syst. interconnection, tech. limits 19076
high-integrity product mfg., SPC appls. 20389
higher engng. education, quality improvement syst. 20320
higher engng. education QA, EPC model 20321
higher engng. education quality improvement legislation, Russia 20325
higher engng. education quality programme develop., Netherlands 20324
IBM Austin Electronic Card Assembly and Test, quality mgt. 28515
IC factory, student run, proc. capability improvement 37055
IC proc. flow mgt., decision-making 29693
inform. rev., socioeconomic implications 41584
innovation, leadership connections, commun./diversity/creativity 11635
ISO 9000, small businesses, problems 28507
ISO 9000 quality mgt. std., small firm implement. 28509
ISO 9000/BS5750 quality mgt. implement./controversy 28370
judgemental probab. elicitation, analyst/manager interact. 20372
key industries selection, Saaty's AHP-based 11659
local government mgt. education unit 20318
maint. activities mgt., optim./priorities/planning integrat. 28387
maint. mgt., computer-aided syst. appls. 28388

management continued
maint./QC mgt., OR models 28381
make-to-order products, concurrent engng. effects 20391
measures of performance, IEE Colloquium, London (1995) 36881
mfg. at IBM 200 mm-wafer facility, tech. support integrat. 36977
mfg. indust. health and safety mgt. overview 37003
mfg. quality mgt., future trends 28372
multicriteria decision making, unintentional judgemental bias estim. 11658
Navy air-launched missile maint. 35415
nontechnical writer problems/opportunities 28296
NTT's maint. service concept and strategy 24871
NTT Data Communications, internat. business operations 41591
planned lifetime mgt., availability, cost reduction 11651
power grid reliab./perform. assurance, former USSR 19075
power indust. develop. prospects, far East Russia 19074
power indust. restructuring overview, Slovak Republic 10682
power stations, lifetime mgt., integrated approach 19377
power syst. mgt. agreement, former USSR 19073
proc./product design, integrated resources mgt. *(German)* 28397
prod. mgt., JIT organisation 36956
product design for quality mgt. survey, Sweden 37020
product/proc. design, integrat. differentiated approaches 11703
qualification and training, former East Germany 81
quality fn. deployment, improve distrib. 165
quality fn. deployment for product design 164
quality mgt., historical overview *(Croatian)* 5678
quality mgt., leadership, learning organisation, systs. engng. 11637
reengineering, systs. engng. and mgt. 11695
repair/replacement policies, marginal cost anal. appl. 28386
rly. traction power equipt. purchasing, specs. experiences, UK 44535
service organization QC syst. design, goal prog. 20470
small businesses, QA assess., ISO 9002 requirements 28510
small/medium businesses, quality mgt. syst. requirements 28508
SNCF rly. overhead power supply maint., mgt. experience *(French)* 36753
tech. institutions mgt. 5542
tech. personnel mgt., requirements, guidelines 11669
Technical Communications Group study 28364
technol. based firm perform., entrepreneur's experience 20370
technol. mgt., future 20382
technol. mgt., heuristic diffusion model 11646
telecomms. services, competition promotion, UK 41605
TQM, role of test 28505
TQM continuing education, stats. role 74
TQM implementation and planning, model 36952
TQM programme neg. impacts, case study 11642
Virginia Power's nuc. operation strategy restruct. 35518
waste mgt., recycling/conversion technols. 20503
work teams, perform. experiences 11639

management education
continuing engng. education, 3rd Erlang formula 73
design engng. education, project mgt. teaching principles 37022
engineering R&D management education overview, South Africa 28354
engng. education, mgt. develop. requirements 11624
engng. mgt., organizational learning proc. 11625
engng. mgt. masters course develop., South Africa 11623
exec. mentoring, psychological case study 11668
manager selection/training/employment in Russian market economy 82
mgt./skilled worker qualification and training, former East Germany 81
R&D work group research, strategies/opportunities 28361
teleconferencing, mgt. student education 33622
TQM continuing education, stats. role 74
universities, entrepreneurial approach adoption principles 28343

management information systems
see also decision support systems; management science
1000 kV power line maint. IS, meas.-based 27126
ADM maint. personnel admin. syst. for Nippon Airport *(Japanese)* 10402
ASCOT airport terminal for Nippon Airways *(Japanese)* 10415
Boeing 777 Airplane, model-based diagnostics 10319
corporate network mgt. *(Japanese)* 16715
distrib. indust. mgt. IS, data anal. integrat. 19253
distrib. mgt. syst., power anal. software integrat. 19252
elec. utility network IS, introduction and constr. *(German)* 4587
elec. utility network IS, requirements and uses *(German)* 4586
facility mgt. syst., multimedia technols. *(Japanese)* 42034
flexible maint. IS for downsized environ. 35407
hydroelectric dam surveillance, ES/mgt. IS-based 19544
Internet for IS education 16764
MAGICS meteorological imaging syst. for Nippon Airways *(Japanese)* 10414
multimedia IS for airports *(Japanese)* 10413
Nat. Grid power syst. anal./data mgt. rationalisation 19126
NPP Safety Anal. & Inform. Syst. 19411
power station condition-based maint. mgt., neural net-based 43815
power station life extension, data historian software appls. 19386
power syst. EMS/SCADA systs., mgt. IS-integrated 26954
power syst. online anal./data mgt., open syst. approach 19127
prod. logistics, cost reduction appls. *(Italian)* 98
prod. mgt. syst., multimedia environ. 25095
schedule monitoring syst. for Nippon Airways *(Japanese)* 10417
steel mfg. integrated prod. IS, Japan *(Japanese)* 3212
user-modifiable airborne software, HLL based 10338
X.500 distributed services, network mgt. 8840

management of change
advanced mfg. technols., planning/implement. 28383
company downsizing, organisational change, Newtonian metaphor 20371
corporate and organizational commun. 28382
DSEG product develop. proc., systs. engng. approach 36974
engng. change mgt., activity-based costing model 11672
IBM Microelectronics, MLC packaging plant 11762
integrated product develop. proc., founded on TQM principles 36948
lean prod. in semicond., new process introduction 36951
Statoil, experience transfer 28297
tech. develop., systs. approach 20357
telecomms. services, concept formulation techs. 33308
Texas Instruments DSEG, product develop. cycle time 36997

management science
see also critical path analysis; PERT
inspection, economic models for various sampling plans 5691
semicond. fab., syst. dyn. model 36954

management science continued
two-level multiobjective decision making, interactive algm. *(Chinese)* 79

management techniques *see management science*

Mandelstam-Brillouin scattering *see Brillouin spectra*

manipulator dynamics
inertia tensor meas., expt. proposal 42955
joint torque disturbance observer for robotic PCB assembly 6415
SRM actuated rigid-link robot hybrid adaptive tracking control 36650

manipulator kinematics
dexterous motions, nonlin. cct. theory for robot control problems 21090

manipulators
see also industrial manipulators; manipulator dynamics; manipulator kinematics
3D laser-based sens. for robotics 17763
3D shape reconstruction by act. rangefinder 3888
CANDU, steam generator tube relaxing, sludge sampling 10826
colored-obj. detect. for mobile robot 24537
disabled pers. aiding by intell. robotic systs. 35173
electrostatic artificial muscle, lin. actuators with multiple-layer struct., robot appls. 31736
gripper force control, piezoelec. actuator-based *(Japanese)* 44253
induction motors, nonlin. observer-based tracking control 19622
laminate materials, alignment, sens.-based robot techs. 110
med. 3D microstruct. 26453
Norcross Project, manual/robotic wafer handling, degraded cleanroom 22086
range cameras, specular objs., ambiguities reduction 42839
rem. collaboration control syst. employing manipulators *(Japanese)* 33420
robotic wrist, underwater acoustic array tracking 9822
tactile sens., finger-shaped, opt. waveguide 25874
TV amps. tuning, robot fingers, fuzzy logic 37654
unstructured power plant environ., navig. and manipulation 43814
vac. manipulators, commercial elec. devices adaptation 44439

manipulators, industrial *see industrial manipulators*

manometers
see also pressure measurement
fluid dens. meter, press. gradient var. *(Japanese)* 42958

manuals, user *see user manuals*

manufacture
see also electron device manufacture; electronic equipment manufacture; steel manufacture
1 kW planar SOFC stack develop., Japan 44333
advanced mfg. technols., planning/implement. 28383
continuing engng. education, 3rd Erlang formula 73
controllable elec. drives, status overview, former USSR 44452
coord. referencing, uncertainty anal. 34694
distrib. network overhead line fiberglass poles, case study 27172
Ecofactory concept, ecologically conscious mfg. 37062
engng. education, computing technol. teaching experiences 36937
engng. technol., accredited education programmes, USA 36936
fiber optic glass ferrule connector *(Japanese)* 42467
GTO thyristor failure mechanisms 1378
KKF push buttons, prod. overview, Russia 38064
MCFC technol. develop. status, USA 36578
mfg. systs. engineers/managers, training 5522
MV/HV power equipt. mfg. QC, supply quality effects *(French)* 36086
porcelain insulators, mech. stress test methods 43791
product design quality, economic tolerance models 37019
product introduction, vol. mfg. 28371
product liability, introduction, recovery 11632
PVMaT/PV, BONUS, US PV program initiatives 27632
quality mgt., future trends 28372
SOFC component mfg., testing methods, mech. props. 44392
SOFC R&D activities, Japan 44350
space mfg. facilities develop., self-reproducing 26514
space-based self-reproducing mfg. facilities, overview 35209
Pb-acid secondary batts., distributed/bulk power design concepts 44284

manufacturing administrative data processing *see manufacturing data processing*

manufacturing automation protocol *see factory automation; industrial control; local area networks; protocols*

manufacturing data processing
see also computer integrated manufacturing; manufacturing resources planning
education in indust. engng., computers 11602
electronics mfg. technol., conf., Baltimore (1992) 11580
evidential reasoning approach for recognizing shape 32962
FRACAS, failure reporting/corrective action, semicond. mfg. equipt. 28416
head-mounted display calibration for augmented reality 17641
IBM Austin Indust. Bus. Center total prod. maint. 36985
IC mfg. productivity improv., DVI-based perform. support syst. 30404
prod. mgt. syst., multimedia environ. 25095
SEMI equipt. commun. std., automation guidelines 11716
shop floor control inform. flow, PCB assembly 5600
sync. generators, computerised design proc. 27693

manufacturing industries
copper rod mfg., QC syst. upgrade, USA 5677
crane manufacture, horiz.-arm layout coord. meas. machines 5611
Croatia, telecomms. syst. prod. 33316
design-mfg. practice, USA/Sweden 28398
elec. melting shop, energy optimisation, control syst. *(German)* 11507
electronics mfg. engng. curriculum, USA 11613
federal policies for mfg. technols. 20364
foil/film indust., AC drives appl. 44634
health and safety mgt. overview 37003
high-integrity product mfg., SPC appls. 20389
high-precision opt. gauging of metal rings 18062
Hong Kong and Asia, EDI for paperless trading 3063
ISO 9000 quality mgt. std., small firm implement. 28509
NECM multimedia services in mfg. industries *(Japanese)* 42024
nonprobabilistic risk anal. method and results 11730
product develop. mgt. experiences, Sweden 20377
Spin-Arc seam tracker, robot cell 11504
tobacco factory automation, SINEC commun. network 41899
wire extrusion lines, diam. gauges, control systs. 5399
wire mfg., distributed power syst. control concept 11503

- **manufacturing processes**
  - *see also cold working; cutting; drawing (mechanical); extrusion; forging; forming processes; hot pressing; hot working; joining processes; machining; manufacture; metalworking; rolling; sintering*
  - coating syst. design, SIMAN 5602
  - concurrent product design for mfg. syst. perform. 11698
  - consumer product in-proc. inspection/correction facilities 11838
  - Ecofactory concept, ecologically conscious mfg. 37062
  - elec. equipt., interchangeable components assembly methods 5615
  - head-mounted display calibration for augmented reality 17641
  - high-integrity product mfg., SPC appls. 20389
  - opt. fibres in pulsed TOF laser rangefinder 22853
  - planar SOFC, thick film prod. methods 44312
  - preforms manufacture for ceramic- and metal-matrix composites 20426
  - real-time empirical Bayes model-based monitoring 20425
  - sheet glass mfg., LIM-based elevation control studies *(Japanese)* 44636
  - SOFC ceramic component mfg. optim. expts. 44318
  - SOFC mfg., ceramic components proc. 44310
  - tandem servers, k-stage blocking and commun.-type flow 24786
  - telecom. cable mfg., resist. var./imbalance improvement 42134
  - Pb-acid batt. pastes, mixing proc. study 36530
  - Pb-acid secondary batt. electrode mfg., Bi refining/alloying 36563
  - Pb-acid secondary batt. plates, paste mfg. proc. 36529
  - YBaCuO HTSC, bulk mfg., XRD, SEM 20988
- **manufacturing resources planning**
  - 6-sigma fixturing QC program, electronics assembly environ. 37176
  - comparative cost simul. model, conventional/concurrent engng. 37034
  - diamond packaging, CVD, tech. cost modelling, scale-up factors 37527
  - federal policies for mfg. technols. 20364
  - lead time anal., simul./design of expts. 37060
  - manual Kanban inventory control syst., JIT 37051
  - MES, Manufacturing Execution Systems, real-time control of factory floor resources 37036
  - product introduction, vol. mfg. 28371
  - water soluble/no-clean selection guidelines, PCB/SMT/fine pitch soldering 38151
- **many-valley semiconductor materials** *see many-valley semiconductors*
- **many-valley semiconductors**
  - $Al_xGa_{1-x}As$, disorder-induced intervalley scatt., pseudopot. calcs. 29857
  - GaAs, modulation-doped, plasma, scaled ensemble Monte Carlo method 1035
  - $GaAs/In_xAl_{1-x}As/GaAs$ heterojunction barriers, Γ-X transport 13117
  - $Ga_xIn_{1-x}As/AlAs$ reson. tunneling diodes, atmos. press. metalorganic CVD 415
  - GaSb, electron mobility 13040
  - ZnS, high field electron transport, Monte Carlo simul. 21909
- **many-valued logics** *see multivalued logic*
- **MAP** *see factory automation; industrial control; local area networks; protocols*
- **map drawing** *see cartography*
- **marine resources** *see aquaculture*
- **marine systems**
  - *see also ships*
  - 5 kW marine propulsion SRM/propeller drive 5340
  - acoustic sig. proc., Thalassa II ocean research vessel 10494
  - act. phased array radar for Royal Netherlands Navy *(English)* 3611
  - Aqua Explorer 1000 for inspection of underwater cables 9156
  - automated spectrum mgt. tools 26818
  - automated tools for EM spectrum mgt./use 15464
  - autonomous underwater vehicle for geophys. study 10528
  - autonomous underwater vehicle for gravity meas. 10440
  - autonomous underwater vehicles, acoustic tracking/navig. 17361
  - autonomous underwater vehicles, power systs. comparison 28106
  - autonomous underwater vehicles, sonar image reconstruction 8618
  - autonomous underwater vehicles, UK collaborative research programme 10527
  - autonomous underwater vehicles, variable length, parametric perform. anal. 28138
  - autonomous underwater vehicles for bathymetric mapping 8619
  - BATFISH, depth controllable towed body 10499
  - Coast Guard differential GPS Network and GIS 33973
  - coastal traffic control radar network proposal *(Croatian)* 3605
  - Diagnostician, submarine power distrib. syst. appl. 28113
  - drifting buoys fine tracking from microsatellites 26761
  - elec. machine bearings, operational state prediction 36709
  - electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
  - forward-based portable acoustic meas. syst. 17683
  - French Navy on-board nuc. reactors, in-service safety feedback *(French)* 36733
  - GPS drifter buoy for current/temp. meas. 35336
  - INMARSAT-C maritime appls. *(Croatian)* 3502
  - laser range gate underwater imaging systs. 18906
  - maneuvering target motion anal., HMM 34177
  - manual/automated offshore NDE, colloq., London (1994) 20259
  - Marine Geophysics Modeling System 18792
  - MARIUS, flatfish type AUV, hydrodynamic manoeuvrability data 18850
  - mil. unmanned undersea vehicle, thermophotovoltaic power source 36705
  - nonair-breathing diesel engine research facility 19533
  - N.S. Mutsu, expt. voyages, NPP perform. 35805
  - ocean electronics, conf., Cochin, India (1991) 11591
  - ocean electronics, conf., Cochin, India (1993) 11590
  - oceanographic monitoring syst., onboard USA navy submarine 18895
  - oil spill tracking, Argos syst. 26774
  - PEM fuel cell, terrestrial/marine vehicle appls. 36741
  - portable underwater acoustic meas., anal., and tracking systs. 17459
  - quiet source acoustic meas. syst. 17682
  - radar, wave obs./anal., land station expt. *(Japanese)* 10489
  - radar image proc. for ship traffic control 34145
  - RDS channel, Navstar GPS correction data transm. 34192
  - robotic wrist, underwater acoustic array tracking 9822
  - shallow water acoustics, matched-field tracking 15932
  - ship traffic control harmonised, coastal protection *(French)* 35378
  - ships/submarines, nuc. propulsion, state-of-the-art, future *(French)* 36731
  - sonar pass. target class., integrated approach 34176
  - stereoscopic video, underwater rem. operated vehicle 32815
  - submarine, perform. meas., underwater data acquisition syst. design 34419
  - submarine air independent propulsion, MESMA heat engine-based 20105
  - submarine navig. data integrat. 24296
- **marine systems** continued
  - submarine nuc. propulsion technol. develop. to PWR2, UK overview 44572
  - submarine propulsion nuc. reactors, digital control *(French)* 36732
  - submarine sonar dome, corrosivity meas., Dome Water Monitoring Instrumentation System 17676
  - submarines, underwater perform. enhancement, fuel cells 11424
  - submarines detect./location, sonar array studies 4438
  - temp./salinity profile collection syst., vessels underway 10497
  - towed underwater body and mother ship navig. 17499
  - underwater high data rate acoustic commun. systs. perform. 17360
  - underwater neutrally buoyant electrooptic tether cables 19301
  - underwater robot vehicles, 3D US localisation syst. 26785
  - underwater robotics, opt./acoustic range sens. 8620
  - unmanned autonomous underwater vehicles characts. 10529
  - unmanned submarine, obj. tracking, image proc. 24724
  - unmanned underwater surveillance vehicle systs. 9666
  - unmanned underwater vehicles characts. 11410
  - US Navy batt. requirements, develop. efforts 43565
  - US Navy unmanned undersea vehicle navig. 35384
  - USA 1992 Federal Radionavig. Plan *(Japanese)* 17509
  - H_2/O_2 10 kW PEM fuel cells, submersible appls. 20104
  - Pb-acid submarine batts., gas evol./perform. assess. 36566
  - Pb-acid tubular pos. plate secondary cells, submarine appls. 44517
- **mark scanning equipment**
  - *see also bar codes*
  - 670 nm low-threshold-current multiquantum-well LD 7620
  - bar-code scanners, high-speed edge-detect. algm. 16320
  - code-sens. commun. syst., introduction 24895
  - EMC of code-sens. commun. syst. 24889
- **marketing**
  - *see also advertising; marketing data processing; retailing*
  - American Radio Broadcast Data System, outlook 34208
  - automated internat. telecomm. charge card service, "89" service 3120
  - automotive electronic sens., market demand overview 5362
  - batt. elec. vehicles, future technol. modelling 28142
  - BICMOS product develop. by cross-functional team 37028
  - broadband switching equipt. market needs and vendor offerings 41758
  - BT, user-friendliness in products and services 16544
  - Centrex services in AXE 10 42122
  - customer value deployment 43687
  - Denmark, telephone numbering plan 33402
  - design engng. education, project mgt. teaching principles 37022
  - Deutsche Telekom network evol. prospects *(German)* 41636
  - direct global mktg., amat. radio packet switched network 9163
  - document selling strengthening 28550
  - DSO purchase choices 3923
  - Eastern and Western Europe, telecomms. engineers 16545
  - elec. utility DSM, net benefits estim. approaches 26990
  - elec. utility energy services/DSM, objectives overview 10660
  - elec. vehicle secondary batts., mix/demand study, USA 44512
  - energy efficiency markets, perform. assess. 28053
  - European telecomms., towards more dyn. *(German)* 33322
  - global marketplace, product design, develop. and mktg. for different cultures 41602
  - Hong Kong, consumer electronics indust. 5571
  - IBCN services for multimedia tourism appls. 16900
  - Internet for commerce appls. 8944
  - Internet mktg., Israel indust. R&D sector 41830
  - LD array economics, price/vol. market 31363
  - multimedia, marketplace pot. 25110
  - multimedia markets, network evol. and stds. 25113
  - MV/HV power equipt. mfg. QC, supply quality effects *(French)* 36086
  - North American elec. motor market, German expert guidelines *(German)* 10940
  - NTT Data Communications, internat. business operations 41591
  - PCS retailers, network infrastructure wholesale opportunities 25430
  - product diversification strategies, Sweden 20352
  - product marketability meas., holistic approach 11661
  - R&D mgt., strategies, project selection, mktg. interface 11648
  - R&D product matrix, innovation mgt. tool 20351
  - reliab. database for telecomm. project engng. and mktg. 11877
  - rem. sens. market, data variety and availability 41320
  - small/medium size enterprises, technol. transfer, training 11612
  - submarine opt. cable systs., future prospects 3035
  - switching syst, MD110, appl. develop. functionality expansion 42109
  - technical communications in Russia, implic. of market economy 28300
  - telecomms., inform. infrastructure strategic issues 8806
  - telecomms. services, UK market growth 41596
  - telephone surveys, customer feedback, obstacles 28551
  - thermophotovoltaic technol., mktg. challenges 36586
  - time to market problems, R&D mgt. aspects 11663
  - USA, ATM and frame relay services 8816
  - USA, microwave radio market 25224
  - WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
- **marketing data processing**
  - *see also retail data processing*
  - elec. utility target mktg., GIS 27045
  - Internet for commerce appls. 8944
- **Markov chains** *see Markov processes*
- **Markov processes**
  - *see also hidden Markov models*
  - 2-D noncausal Gaussian Markov random field model, param. estim. 33078
  - 3-D scenes, image seqs., global-motion estim., coding appl. 41088
  - 3D obj. recog., probabilistic techs. 32923
  - A-M-S type fluid queue output 33232
  - adaptive deconvolution method time jitter effect elimination 2354
  - adaptive rate error control for land-mobile satellite channel 9370
  - aggregation/disaggregation and direct algm. for computing stationary probabilities of Markov chain 28585
  - Aloha-type protocols for multichannel networks, destination conflicts 16504
  - asymptotic queueing behavior of stat. multiplexers, heterog. traffic 42101
  - ATM multiplexer, correl. real-time and independent non-real-time traffic 24752
  - ATM multiplexer, Markov modulated arrivals, output proc. 16785
  - ATM multiplexer, on-off sources, cell loss probab. 16454
  - ATM multiplexer traffic model for correl. periodic real-time and independ. batch Poisson traffic 41429
  - ATM multiplexers, Markovian arrivals, exponential upper bounds 24785
  - ATM network, priority scheduling 24775

Markov processes continued
- ATM network nonstationary queue models 41477
- ATM networks, cell loss probab., state-space reduction method 16437
- ATM networks, effective bandwidths for admission control 33231
- ATM networks, effective bandwidths formula perform. 33227
- ATM networks, end-to-end perform. 9023
- ATM networks, optimal traffic regulation, Markov decision approach 2877
- ATM prioritized networks, congestion control schemes 8743
- ATM queueing syst. perform., arrival law params. 33229
- ATM stat. multiplexer multidimens. diffusion model 41431
- ATM switch bursty and correl. mean delay and cell loss probab. 41410
- ATM switches with single hot spot traffic, buffer occupancy 16450
- ATM systs., admission and equiv. bandwidth 2874
- ATM traffic, min. ON/OFF source models 33230
- ATM traffic connection admission control, stream correl. effect 41428
- B-procs., universal redundancy rates nonexistence 40674
- batch service syst., perform. anal. 33224
- Bayesian 3D tomographic reconstruction from radiographs, obj.-oriented methods 2840
- blind adaptive equalizers convergence, input data correl. 32738
- broadband network fair-efficient call admission control policies 41426
- broadband networks, resource allocation 9017
- bunsetsu, provisional boundaries, 2nd-order Markov model 8188
- burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
- CDMA mobile radio systs., joint detect., diversity 25343
- CDMA networks, integrated voice/data traffic, code allocation 33908
- CDMA wireless LAN, hybrid-ARQ error control scheme 8748
- closed obj. boundaries ident., stat. approach 24493
- coherent FH-SS commun. syst. capacity 40551
- colour images, textured, unsupervised segmentation 16184
- compression window algms. design for elimination of errors 3704
- computation of quasi-stationary distribs. in Markovian queues 11902
- computer vision, hierarchical Markov random fields, stable points 8496
- computer vision, Markov random field models 24630
- computer vision, pixel labeling, neural approach 33061
- controllable multidimensional shaping filter synthesis for discrete-value Markov seqs. 29371
- controlled Markov chains, empirical measures, rate of convergence 5747
- convolutional code, exact perform. calc. 32055
- cpd. Gauss-Markov model, param. reduction 24703
- decision proc., fuzzy approach 5736
- decision procs., modelling and appls, China 196
- decision-feedback max.-likelihood decoder for finite-state Markov channels 15750
- depth/image recovery, Markov random field model 8520
- deterministic and SPN, steady state solns. 41534
- differential cryptoattack, provable security 40626
- digital PM, carrier tracking and sym. detect., nonlin. filtering 8107
- discontinuity detect. in noisy and textured images, weak continuity constraints 2841
- discrete time queueing model, cell delay var. in ATM network 3277
- discrete type shock semi-Markov decision procs., Borel state space 199
- discrete-time single-server queueing systs., general Markov-modulated arrival procs. 33226
- distributed neural control of commun. network traffic 24901
- distributed switching software, scheduling mechanism of general service order seq. and limited service discipline 9133
- DPCM for diversity systs., packetized speech appl. 8223
- DPCM image coding, correl. sources decoding 8615
- DS-CDMA networks, multi-media integrat. 25235
- dyn. prog., Markov decision proc. 28646
- ECG, exact coding, extensive Markov syst. 18571
- echocardiographic image segmentation, Markov random fields 26334
- eclectic survey of bounding methods for Markov chain models 20529
- edge detect., Markov random field models *(Japanese)* 16237
- edge detect., relax. labelling tech. 41187
- ergodic Markov chains, large, perform. eval. 37241
- extended obj. coord., image proc. algm. 16157
- finite-buffered cellular mobile radio syst. 3493
- finite-state Markov channel, model for radio commun. channels 24006
- fission reactors, risk, unavailability, maint. effectiveness 35878
- frame reservation multiple access perform. anal. 33837
- fusion devices, plasma spatial distrib., broadband reflectometry proc. 40977
- game strategy approach for image labeling 24364
- Gaussian discrete fields in Gaussian noise, recursive filtering 41029
- Gaussian random fields, max. entropy property proof 2356
- general renewal multi-server finite waiting room model, perform. anal. 24792
- generalized periodic Markovian sources multiplexing and VBR video 8717
- generalized SBBP/G/1 queue and appls. 2895
- GNSS availability model, developing requirements 33946
- hazardous load road transport, radio monitoring syst. 9300
- hierarchical queueing networks, lumpability/nearly-lumpability 37266
- high speed data networks, transit. splitting for estim. of rare events 33200
- high speed networks, transport layer protocols, rate control 8993
- high speed satellite commun., go-back-N protocol 9416
- image cluster expansions, Bayes estimators/Markov fields 32925
- image motion estim., appl. of mean field theory 16310
- image primitive grouping, stochastic, graph-based 41110
- image segmentation, adaptive, smooth surface objs. 16182
- image segmentation, functional approx. 2643
- image segmentation, Markov random field/wave-packet transform 2732
- image segmentation, variational vs. Markov random field methods 8492
- image/video compression algms., mean field annealing recovery techs. 24398
- images/image features scaling, RG 2751
- incoherent filtration of complex sigs. 8267
- indirect method of nonlin. filtering, PLL synthesis appls. 32568
- internetwork interface, reliab. and performability anal., fault models *(Chinese)* 33427
- iter. aggregation method, lin. systs./Markov operators, convergence 11963
- Kiruna mine prod. syst. operational reliab. Markov model 20191
- Lempel-Ziv algm. for unifilar Markov source, exact anal. 32126
- lin. phase lapped orthogonal transform, prefilter approach *(Korean)* 24121
- linear block codes, channels with memory, undetected error probability 8167
- LMS acoustic echo cancelers, slow asymptotic convergence 24313
- local and global multiscale image class. 32835
- low bit-rate image seq. compression method 24726
- $M^{[x]}/C_2/S/N$ queues, iter. soln. 28578
- m-MMBP charactn. of departure proc. of m-MMBP/Geo/1/K queue 33222
- $M/G_2/1$ queue, Bernoulli feedback proc. 20518
- M/G/1 type approx. of slot-occupancy pattern in DQDB network 3161

Markov processes continued
- mag. HDD, adaptive RAM-DFE read channel 30730
- mag. reson. image restoration, Markov field model 35035
- magnetooptical recording, n/m code and modified Viterbi decoding 15724
- mammograms, detect. of microcalcifications, wavelets 35001
- manoeuvring targets tracking, accel. modelling, turn-rate distribs. 40788
- Markov queueing network, probabilities of states 11912
- modulated Poisson stream loaded multiplexer loss probab. estim. 41483
- motion detect. algm., MRF based, on analog resistive network 24452
- MR image restoration, basis image priors effects 35026
- MRI image restoration, optim. approach, sens. fusion 8504
- multi-server discrete-time queues, transient anal. 2894
- multi-server model anal., non-preemptive priorities and non-renewal input 33245
- multiarea power syst. simultaneous transfer capability anal. 26997
- multicriteria decision making, unintentional judgemental bias estim. 11658
- multimedia service networks, link capacity allocation by input power spectrum 33664
- multimedia traffic, loss/delay priorities, Markov-modulated fluid model 8694
- multiplex systs., reliab. models eval. 37192
- multiplexed ON-OFF sources, effect of multipath routing on loss perform. 41928
- multiresolution image compression, Gaussian Markov random fields 2399
- multiservice struct. Markovian traffic source model 8989
- multistage ATM switch fabrics, approx. model 41443
- multivalued Boltzmann machines, Markov random fields *(Chinese)* 8656
- network reliab./sampling, Monte Carlo/Markov chain techs. 41396
- noisy speech recogn., Markov model based noise modeling 32379
- noisy/textured images adaptive segmentation 16151
- nonindependent main unit and n-unit series subsystem, shut-off rules, availability 11847
- nonzero-mean noise, Markov estim. method 16025
- nuc. engng., systs. anal., time depend. transit. rates 19448
- occlusion ambiguities in motion 24453
- open Markovian queueing networks with blocking, throughput upper bounds 28576
- opt. agricultural rem. sens., spatial pattern class. 24540
- optimal design of finite-buffer polling network 33426
- optimal stochastic flow control in high speed virtual ccts. 16479
- output queueing, priority class in ATM switch 33181
- parametric image models, Bayesian segmentation methodology 24421
- partitioned Markov model, non-binary error correcting codes eval. 8168
- party line, teletraffic model 16407
- perform. of scheduling algms. for channel reservation 3229
- Petri nets, Markov regenerative stochastic type, sensitivity anal. 37261
- posterior mean method of image restoring and edge extracting 16355
- power syst. production costing, Markovian model 19110
- PRMA integrated voice/data syst., data steal, voice 17089
- PRMA perform. study, Markov anal. 8737
- product estimator, Markov chain sampling 37236
- quality assess. models for init. prod. proc. control 20474
- quasi-independence, simulate-and-reject Monte Carlo exact conditional tests 28583
- quasi-static algm. for image restoration preserving discontinuity 8501
- queueing anal. of partial buffer sharing, Markov modulated Poisson inputs 33220
- queueing networks, unsteady state probabilities 16466
- queueing problems modelled by Toeplitz matrices 37225
- queueing syst., finite capacity, nonreliable server, optimal operating N policy 11849
- random field models, color images segmentation 8606
- random fields, tree approxs. 41289
- random string evol., stabilization laws 41481
- random walk method for protocol testing 24817
- randomly inhomog. medium, effective index of refr. 15420
- Rayleigh fading channel model, first-order Markovian assumption 31835
- reciprocal Gaussian random procs., model param. estim. 40824
- reciprocal seqs., Kalman like filtering/smoothing 40873
- recursive nonstationary MAP displacement vector field estim. algm. 33127
- regenerative SPN, nonoverlapping activity cycles 37267
- regenerative stochastic proc., soln. techs. 37274
- regularization by multiscale models 24190
- reliab. problem reduction by component influence graph 11875
- rem. procedure call protocol, probabilistic validation 24821
- renewal models for maneuvering targets 34114
- repairable systs. interval reliab., integral eqn. approach 37178
- repairable systs. reliab., time-varying failure rates 28541
- RFI, noninterleaved Viterbi decoder, importance sampling anal. 15966
- RLS algm., wt. misadjustment, input sig. correl. effect 40843
- sampling errors elimination of band-limited sig. 2355
- satellite image segmentation, texture/context/map 26781
- self-checking ccts. with combinat. logic, fail-safe eval. 37741
- semicond. field emitter, LF noise 12994
- seq. cct. testing/fault diagnosis 21269
- sig. proc., stochastic reson., ion channel cond. 24228
- sig. propag., appl., lower bound on depth of noisy formulas 8089
- sig. quadrature proc. in bandpass non-Gaussian interf. 32566
- sig. restoration, random nos. of counts 32013
- single server queue, discouraged arrivals 20519
- single-server syst. with limited service policy 33219
- speech recogn. algm., Markov random fields 8201
- SPN, Markov regenerative SPN 20530
- SPN, underlying stochastic proc. 37260
- SSC, long. beam dyn., RF noise 4092
- stationary single server queues, approx. for perform. eval. 16469
- stochastic algm. for parametric/non-parametric estim. 40859
- stochastic Petri nets, automated time scale decomp. and anal. 37262
- switching systs., Markovian, 1-step fixed-lag smoothers 15910
- target tracking, cpd. Markov chain anal. of false track generation 15868
- target tracking, probab. data/finite resoln. 41028
- telecomms. models anal., perform. 2861
- telecomms. networks, extreme values of random times 33194
- teletraffic model anal., num. transform inversion 41489
- texture synthesis, phase transits./ multi-scale Markov random fields 8541
- texture-based segmentation 8495
- token passing MAC protocols, quality of service estim. 16499
- token ring LAN environment supporting priorities, output process characterisation 33472
- transform-domain adaptive filters, anal. method 32551
- transit. counting, aliasing error probab. final value 122

Markov processes continued
trellis-coded quantization for noisy channels 24032
universal noiseless source coding, redundancy rates 40675
universal redundancy rates for class of B-procs. 32006
VHF channels, digital fading mobile, Markov charactn. 3337
video streams, encoded, efficient transm. on high-speed networks, frame-induced packet discarding 16911
watchdog timer in μP syst., reliab. eval. *(Japanese)* 12560
wave field, randomly nonuniform medium perturbed, optimal obs. 15865
wireless integrated multiple access protocols 16501
NO_x reducing combined-cycle power plant availability anal. 19529

Mars
crater detect. by lin. filters representing Hough transform 41266
generation of image data for Mars mission, verification for WAOSS 43441
robotic/human exploration mission power requirements 18761
transfer vehicle, dual-mode nuclear rocket power requirements 18750

Marx generators *see pulse generators; pulsed power technology*

maser clocks *see atomic clocks*

masers
see also cyclotron masers; millimetre wave lasers
1 MW 130-260 GHz free electron maser for fusion 39919
Cherenkov maser, nonaxisymmetric mode, beam-wave interactions 23068
Cherenkov maser, rectangular grating, hybrid modes, dispersion relation 23070
Cherenkov masers, rectangular gratings, and., expts. 7502
combined sapphire oscillator-H_2 maser freq. std. 9778
cryogenic H maser, 10 K 39634
dielec. Cherenkov masers, powerful amps., superwide bandwidth 1843
FEL, axisymmetric undulator, higher harmonic generation 39638
FEL, space-charge fields meas. 2010
FEL conf., Stanford, CA, USA (1994) 36818
FEL wiggler ubitron amp., design and perform. 39927
FOM 1 MW 200 GHz free electron maser mode purity, plasma heating appls. 39924
free electron maser, prebunched electron beams 39908
free electron maser, spectral dyn. 39624
free electron masers, long. modes, fusion appls. 39625
free electron masers, microwave syst. based on open quasioptical waveguide 1840
helical Cerenkov effect, novel radiation source 2185
intense microwave pulses, conf., Los Angeles (1994) 28206
ion-channel guided X-band FEL, 1.5 MeV 39622
long Josephson jn. maser, microwave radiation stimulated emission 39632
micromaser, at. cluster pumping, thresholds fine struct. 23074
micromaser intracavity field, random/regular act. atom injection, quantum states 1842
microwave FEL, groove guide interact. struct. 39621
microwave FEL design, waveguide and wiggler tapering 23073
microwave inverse FEL accelerator 39913
orbitron maser, test radar demonstration 23071
orbitron maser prototype, Ti sputter pump 39619
Raman MM wave FEL meas. by pyroelec. energy meter *(Chinese)* 2009
receiver syst., maser-based, Crimean 22-m radio telescope 17525
squeezed Raman micromaser model 1841
supercond./insulator multilayer appls., review 1600
superluminality/parelectricity, NH_3 maser 23072
time transfer, spaceborne H maser/laser pulse timing 42668
two-level atoms, micromaser fields, mean-photon-no. and Shannon entropy decay 39631
two-level Rydberg atoms, mesomaser, self-pulsing behaviour 31134
ubitron, amp. operation and perform. 39620
waveguide FEL amp., low- and HF waves 39981
H atom, spin-exchange freq. shift cross sect. 39633
H maser for long-term operation in space 43439
H maser storage box, radiation resistant/reproducible coatings 39639
H masers Frequency control, high accuracy calibs. 39635
Rb maser freq. std., double bulb 39636

masking (acoustic) *see hearing; speech intelligibility*

masks
see also phase shifting masks; reticles; semiconductor device manufacture; X-ray masks
3D multidirectional inclined structs., microfabrication, UV lithog., electroplating 30504
analog apodizers, binary ang. sectors 22986
BiCMOS integrated process/cct. develop. using SPR 39024
black silicon nanowires, sub-10-nm, natural masking, RIE 30117
cell projection lithog., scatt. contrast 22284
CGH, opt. computing/neural net channel addressing 31632
defects, coincident CD and edge defects 22305
DRAM cell photolithography, annular pupil filtering, modified mask 12541
electron beam block exposure syst., deflector/correction coil calibs. 13450
electron beam raster scan mask generation, graybeam writing 13458
EUV lithographic masks, programmed substr. defects 13509
excimer laser ablation apparatus opt. syst. *(Japanese)* 23480
gray-tone lithog., arbitrarily shaped surfaces fab. 30172
gray-tone lithog., fab. of arbitrarily shaped surfaces, simul. and proc. design 13554
gray-tone lithog., simul. assisted design 38728
i-line lithog., pupil filtering and dipole illum. 13559
IC mask multiple-pass printing, spatial freq. filtering 13456
incoherent-type pupil filter for opt. lithog. 13560
ion beam proximity printing, nonideal masks, contrast 13466
kinoform lenses, solar cell light concentrator appl. 27972
large precision masks for flat panels 3942
laser via ablation technol. for MCM thin film packaging 21772
MCM large area fine line patterning by scanning projection lithog. 21717
MCM large area fine line patterning by scanning projection lithog. 21686
microelectronic devices realized by DESS students, clean rooms, elec. characts. *(French)* 20333
microengineered fluid devices 6633
micron-scale grating form., excimer laser irrad. phase masks 31052
Monte Carlo reliab. simulator, IC manufacturability 22547
multiple-level dry etching, self-aligned etch masks 13324
nano-meter technol., testing, diffractive struct. 38746
near field holographic grating mask technol. 15187
nonvolatile memories, contact mask DOF, planarization 13499
opt. microlithography, polarized mask, image contrast 38718
optoelectronic device fab. by electron lithog. 30170
photomask scrubbing machine, integrated motion syst. 30084

masks continued
plasma etch resistant modified I-line/deep UV/e-beam resists 30174
plasma etching, I-line, deep UV and E-beam resists 13447
polysilicon outer-rotor wobble micromotors, fab./characts. 30518
PRIME proc., PLASMASK 302U, SPC 13446
PWB solder masking proc. warpage, FEA 918
random reticle CD var., mask defects 13441
relief type surface topographies, semitransparent mask 38723
SCALPEL electron resist tool optimisation 13454
scanned laser mask lithog. tool, mask mfg. 38720
self-aligned pocket implant. MOSFETs, low supply voltage operation 13672
semicond. wafer cleaning procedure, effects on surface charging of substrs. 22210
SOI transistor, bipolar, VHV CMOS compatible 30488
solder ball form. in PCB wave soldering 38135
stencil masks, pattern distortions 13467
super resoln. tech. for next-generation ULSI 13558
vap. phase selective epitaxy, enhanced growth rates 310
$Al_xGa_{1-x}As$, facet growth, HCl gas by metalorganic vap. phase epitaxy 20763
$Al_xGa_{1-x}N$, selective VPE growth on GaN/sapphire substrs. 5846
Au island mask-GaAs nanostruct. fab., MBE/MOVPE 385
Cr-Ni, excimer laser induced nonplanar metallization of Cr mask material, tactile sens. 30503
CrO_x lines, scanning tunneling lithog. 13494
GaAs, MOMBE selective growth, GaN mask 20666
GaAs etching, fast atom beam proc. with separated masks, micromech. devices 22245
GaAs oxide mask layers, in situ electron beam lithog., patterning mechanism 38770
GaAs photo-oxides, EB lithog., Cl adsorpt. mechanism 22177
GaAs, situ pattern etching, electron-beam-induced resist 13408
GaAs tapered QW, selectively contactable 2DEG, shadow masked MBE 38346
GaAs:Be, surface cleaning in situ chem. beam etching 13350
GaAs/AlGaAs, column fab., RIE using Au island etching mask 30162
GaAs/AlGaAs patterning, epitaxial InGaAs layer, Cl_2 etching mask 13181
GaAs/AlGaAs quantum dots, ion implant. based nanofabrication, masks 13493
GaAs/GaAlAs waveguide, TE/TM mode splitter fab. 22893
GaN, selective VPE growth on GaN/sapphire substrs. 5846
HfO_2/SiO_2 dielec. layers, excimer laser ablation patterning 30121
InGaAsP/InP monolithically integrated multi-wavelength MQW-DBR LD, MOVPE 23239
InP, CAIBE 13405
InP substrs., Ti masks, dry etching, SFM meas. 30063
$InP/In_{0.53}Ga_{0.47}As/InP$, Zn area-selective diffusion for lateral pn photodiodes 29855
$Nb/Al\text{-}AlO_x\text{-}Al/Nb$ jns., fab. by simple proc. 1609
Si 1D/2D nanostruct., lithographic/RIE prep., photolumin. obs. 30091
Si, UV excited Cl-radical etching, SEM obs. 1247
Si bulk micromachining, electronically controlled etch-mask, micromechanical structs. fab. 6652
Si, deep trench etching, selectivity and load 38551
Si:B, MeV implant., masking effects 30040
Si/SiGe nanometer struct., fab. 29941
SiN_x mask, mag. confined dry etching, GaAs device technol. 38586
SiO_2 anisotropic mask, EB lithog./SF_6 RIE/Al lift-off 22312
SiO_2, etching using C_2F_6 based ECR-RIBE, side wall roughness reduction 22238
SiO_2 films, HI irrad., densification and plastic flow 1312
SiO_2 mask, mag. confined dry etching, GaAs device technol. 38586
W mask, mag. confined dry etching, GaAs device technol. 38586

masonry dams *see dams*

mass analyzers *see mass spectrometer accessories*

mass filters *see mass spectrometer accessories*

mass measurement
see also weighing
Avogadro const. and silicon mole, workshop, Turin (1994) 11539
Avogadro const. determ., Si crysts. dens. meas. 17647
calibs. by comparison 17632
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
gravit. const. determ., temporal/spatial vars. 3998
IgG Langmuir films oriented by protein A sublayer 42857
inertia tensor meas., expt. proposal 42955
Japanese elec. and mass stds. 34325
kilogram national prototypes, third periodic verification 17628
N_A Avogadro projects, present status/future 17648
N_A role in SI, at. path, kilogram 17644
Newton's gravit. const. meas. 17650
quartz cryst. electrochem. microbalance, LF mode spatial localization 34710
reson.-cavity perturb. meas. 3997
stds., stainless steel wts. cleaning, ellipsometry appl. 9779
transfer and develop. of metrology stds., Japan/Asia 34327
weightless condition mass meas. 10040
XSH alacrite based mass stds. stabil., cleaning influence 34317
Pt-Ir ref. masses stabil., Hg contamination effect 34319

mass spectra
see also mass spectrometers; mass spectroscopic chemical analysis; mass spectroscopy; secondary ion mass spectra; time of flight mass spectra
discrete electrode detector array, resolving power 4051
polyurea films, vap. deposition polymerization, photoresist characts. 13444
GaAs, CBE, C gettering mechanism, trisdimethylamino-arsine and trimethylgallium 20818
GaAs, MLE growth, surface treatment, ideal SIT appl. 20668
GaAs, MOMBE growth, surface chem., mass spectrometric anal. 37431
(Hg,Cd)Te, metalorganic VPE, methyl(allyl)telluride Te precursor 20792
PbTe:Ga films, evap., nanosecond pulsed laser 28825
Si, ECR Cl_2 plasma etching, mass spectra, OES and AFM 22169
Si/Al_2O_3 heteroepitaxial double SOI struct., press. sens. 38433
TiC refractory material, laser ablation, cluster form. and deposition 28827

mass spectrometer accessories
discrete electrode detector array, resolving power 4051
field stabilization of supercond. magnet, He press. control 22767
proc./equipt. monitoring, quadrupole mass analyzer 22087
semicond. mfg., proc. control, quadrupole mass spectrometer 6601

mass spectrometer applications
see also isotope separation; mass spectroscopic chemical analysis
proc./equipt. monitoring, quadrupole mass analyzer 22087
Si ref. materials certified for isotope abund. ratios 3709

mass spectrometers
  see also ion optics; mass spectra; mass spectrometer accessories; mass spectroscopy
  atmos. press. ionization mass spectrometer, semicond. appls. 20976
  discrete electrode detector array, resolving power 4051
  gaseous organic cpds., low temp. discharge plasma proc. 13941

mass spectrometry *see mass spectroscopy*

mass spectroscopic chemical analysis
  see also atom probe field ion microscopy; ion microanalysis; ion microprobe analysis; isotope separation; mass spectra; secondary ion mass spectra
  isotopic fingerprinting, rare earth cpds. from Pb isotopes 26005
  MBE facility, two synchronized modulated beams 37390
  multielement profiling anal. of geochem./environ. samples 4383
  oxide dusts, environ. materials, SNMS anal. 26004
  polymer film ESD in vac., light emission and outgases *(Japanese)* 30538
  polypyrrole-polyamide composite films, gas sens., NH_3, CO_2 25899
  quartz outgassing meas., mass spectrometer 30601
  semicond. mfg., proc. control, quadrupole mass spectrometer 6601
  UHP gas supply consistency of on-site N_2 plants 38461
  GaAs:Si, quantitat. anal., quadrupole-based SIMS *(Chinese)* 30053
  Ge ultrathin δ-layers in Si matrices, SIMS profiling 38241
  $Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
  HgI_2, elemental impurity anal. by ICP/MS 43070
  Si, SR-excited ALE growth, TOFMS 37447
  Si:Sb,B substrs., sub-PPB B contamination determ. 6522
  TiN_x, CVD, organometallic precursors, surface spectrosc. study 37495

mass spectroscopy
  see also atom probe field ion microscopy; mass spectra; mass spectrometers; time of flight mass spectroscopy
  anom. solid form., exhaust systs. of LPCVD/PECVD semicond. procs. 20954
  discrete electrode detector array, resolving power 4051
  gaseous organic cpds., low temp. discharge plasma proc. 13941
  multielement profiling anal. of geochem./environ. samples 4383
  polypyrrole/polypyrrole-polyamide composite films, gas sens. 25890
  quartz outgassing meas., mass spectrometer 30601
  semicond. wafer, wet cleaning, contamination, chem. anal. 1237
  space power thermionic convertors, Cs circulation system testing 18739
  Si:B reson. sens., fine freq. tuning 30517

mass standards *see measurement standards*

master equation
  fiber ring lasers, stretched-pulse additive pulse mode-locking 23137
  Si:In, MBE doping kinetics, rate eqn. model 1211

masterslice *see cellular arrays*

matched filters
  act. sonar, adaptive beamformer delay compensation 34168
  adaptive algms. for flexible equaliser in mobile receiver 42270
  ALOHA syst. using unified SS code, transm. efficiency *(Japanese)* 25211
  amplit. compensated joint transform correlator syst., target recogn. *(Korean)* 41167
  ARAKE type receiver struct. for narrow band wireless systs. 15955
  asynchronous CDMA systs., lin. adaptive transmitter-receiver 42145
  asynchronous CDMA systs., lin. adaptive transmitter-receiver 25243
  binary phase only matched filter symm. breaking 31060
  candidate target detect., likelihood interpolation for peak detect. 15879
  carrier freq. offset-SSMA method 25254
  CDMA rapid acquisition schemes in multipath delay fading environ. 33208
  chirp sig. matched filter output for real chirp sig. input 32643
  coherent laser radar, spectral matched filters 3621
  correl. filter, noise adaptive discrim. 39544
  Costas arrays for channel charactn./commun., decomp. 32610
  CW radar, wt. effects on periodic ambiguity fn. 34115
  demodulator for CPM 40567
  derived and code-assisted bit sync. 41392
  design issues for matched wavelets 16008
  digital receivers, sampling rate, analog prefiltering, stats. 15965
  DS-SS packet radio syst. automatic threshold control 42151
  DS-SS RAKE receiver, ASIC implement. 9191
  DS-SS receiver, digital matched filters, quantization effects 25259
  DS-SS receiver, noncoherent matched filter code acquisition 32582
  DS-SS systs., periodical seqs., Doppler mismatched filters 33752
  DS-SSMA multitone syst. in multipath Rician fading channel 16463
  EEG sigs., wavelet de-noising and ident. of evoked response pot. 35070
  electro-opt. sens., point source algms. for optimum acquisition range 15866
  face ident., matching pursuit filters 32839
  foetal ECG sigs., matched filter template, iter. method 43290
  gamma filter, adaptation of memory depth 37891
  high track dens. mag. recording, multichannel equalization 7194
  incoherent and skewness matched filter detectors, multipath environ. 24174
  IR detect., spatial sig. proc. 16101
  IR detecting systs., matched filter design, simulated evol. method 29362
  legal Wigner space filtering and interp. 2528
  MACE prefilter networks for ATR 16283
  mammograms, detect. of microcalcifications, wavelets 35001
  median filter for QAM sig. detect. 15967
  MPSK (un)coded transm. on multipath fading channels 9169
  MSK from matched-filter, joint max.-likelihood timing/data estim. 15711
  multichannel Gaussian sigs., low rank detect., constrained inverse 40952
  multichannel Gaussian sigs., low-rank detect., matrix approx. 24212
  multicovariance matched filter for target detect. and background recogn. 16107
  multilayer microstrip struct. anal., matched load simul. 12794
  near-far resistant CDMA detectors, param. estim. errors effects 16460
  nonlin. satellite channel, optimum receiver for QPSK sigs. 3507
  packet radio LANs, frame synchronisation codes 16676
  photonic CDMA coherent matched filter time-addressed coded opt. ladder networks 9445
  SAR image quality improvement, ideal filter concept 42526
  scale-invariant opt. correlators using FLC SLM, road sign recogn. 41236
  self-organizing multiuser detect. 25239
  simultaneous MLE based on generalized matched filter 41002
  slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
  spatial filtering, correl. diags. for shape invariant pattern recogn. 32980
  spatially disjoint sig./scene noise opt. pattern recogn. 32946
  spherical acoustic objs. in motion, ident. 34167

matched filters continued
  SS systs., DSP appl. 25238
  subspace detectors 8362
  ultrafast photonic ATM switch based on parallel sig. proc. 33727
  Wiener spatial filter SDF for opt. correl. 41153
  Wiener-optimum lin. detectors for non-Gaussian channels 24246

materials
  see also individual materials, e.g. ceramics
  Beltrami-Maxwell postulates for time-varying EM fields in materials 15207

materials handling
  see also conveyors; crushing; excavators; fission reactor fuel preparation; fission reactor fuel reprocessing; fluidised beds; grinding; transportation; winding (process)
  automotive components packaging/handling, ESD sensitivity 20118
  cement indust., clinker grinding, roller mills 36806
  ESD packaging, environ. perspective 28455
  gas handling in semicond. manufacture, cost-purity trade-off 6598
  HTSC-based mag. levitated transport syst. in vac. 30808
  interbay material handling/storage systs., large wafer fab, simul. tool 20413
  Maglev carrying syst., LIM, driving characts. *(Japanese)* 44562
  Norcross project, degraded clean room, wafer contamination and ergonomics 38456
  Norcross Project, manual/robotic wafer handling, degraded cleanroom 22086
  prod. logistics, cost reduction appls. *(Italian)* 98
  semicond. mfg. material handling systs. design 11721
  small particle limit for EM separation 15253
  steel indust. wireless coke oven SCADA syst. 9824
  weighing feeder retrofits/upgrades 3996
  Si RTP, optimum gas flow engng. 22230

materials preparation
  see also combustion synthesis; crystal growth; hot pressing; laser materials processing; mechanical alloying; melt infiltration; melt spinning; nitridation; powder metallurgy; powder technology; sintering; sol-gel processing
  conducting isopolymers, prep., props. and appls. 37539
  conference, materials processing, Singapore (1994) 20244
  electron beam propagation, welding and materials processing appls. 11508
  fibre optic displacement sens., intell. proc. monitoring 17898
  glass and optical materials, conf., Honolulu (Nov. 1993) 5442
  glass fiber reinforced composite insulator, plasma surface treatment *(Korean)* 28874
  graphite fibre reinforced epoxy laminated panels, opt. fiber embedded, low vel. impact 12194
  hexaferrite particles, sol-gel prep. 7024
  HTSC, workshop, Caen, France (Nov. 1993) 11536
  HTSC, Z 7
  ion plasma sources based on microwave oven 38528
  opt. material proc., diffractive optics 39446
  plasma polymerized films as electron resist, prep./etching *(Korean)* 22303
  poly(3-buthyl-co-3,4-dibutylthiophene) copolymers, synthesis and electrochromism 37538
  polyaniline-p-styrenesulfonic acid composite, synthesis and Schottky diode appls. 28885
  polydiacetylene synthesis, nonlin. optics appls. 7778
  polyphenylene, light-emitting copolymer, synthesis, luminesc. 14594
  polypyrrole synthesis, Cu metallization 1294
  polythiophene, conducting derivatives, charge dissipation, electron-beam lithog. 6677
  preforms manufacture for ceramic- and metal-matrix composites 20426
  SOFC, reduced temp., tape calendering 44313
  Space Station Furnace Facility, sliding mode thermal control syst. 26690
  spray atomization/deposition, proc. params. monitoring, sens. 28898
  vycor silica glass, mesoporous, fab. for nonlin. optics 30810
  $BaFe_{12-2x}Co_xTi_xO_{19}$ hexagonal ferrites for mag. recording 30688
  $(Bi,Pb)_{2+x}Sr_2Ca_2Cu_3O_{10+d}/Ag$, high temp. supercond. tapes, proc. 1602
  $Bi_2Sr_2CaCu_2O_x$, melt proc., DTA, XRD, texture 30773
  $Cd_{1-x}Mn_xS$ dil. mag. semicond. nanoparticles 13082
  $CoMoO_4$ based thick-film resistors for HV voltage dividers 38049
  $CoWN_2$, synthesis, hexagonal struct. 20649
  Cu^+:$CaO-P_2O_5$ glasses for lasers 5910
  $Dy_2Fe_{17-x}Ga_xC_2$, arc melting prep., mag. props. 39138
  Fe_3O_4 coatings on silica microspheres, US contrast agent appl. 14180
  InP:Fe wafers, SI, prep., annealing 13279
  $LiTaO_3$ single crysts. for SAW device appls. 14093
  $MnWN_2$, synthesis, hexagonal struct. 20649
  Ni-Zn ferrite/rubber composite microwave absorber, additives effect *(Korean)* 20991
  $NiWN_2$, synthesis, hexagonal struct. 20649
  $PbNi_{1/3}Nb_{2/3}O_3-PbZrTiO_3-PbTiO_3$, piezoelec. actuator 39093
  Si_3N_4 ceramic, firing, US imaging 28914
  $(Tl,Pb)(Ba,Sr)_2Ca_2Cu_3O_9/Ag_{0.37}$ thick c-axis textured supercond. tapes 1598
  YBaCuO cylinders, mag. shielding, universal scaling prop. 14311
  $YBa_2Cu_3O_x$, $Nd_{1+x}Ba_{2-x}Cu_3O_y$ seeded melt growth, levitation appl. 7249
  $YBa_2Cu_3O_x$, high J_c, modified melt techs. 22715
  $YBa_2Cu_3O_{7-x}/Ag$ composites, melt growth, domain struct. 20992
  YBaCuO-YPrBaCuO-YBaCuO ramp jns./multilayers, prep., comparator appl. 39274

materials properties
  this heading is restricted to those properties which are not covered by other specific headings
  see also dielectric properties; electric properties; magnetic materials; optical properties; thermal properties
  lin. magnetoelec. media, investig. of constructive rels. 1569
  power plant components, long term creep prediction model 19389

materials requirements planning *see manufacturing resources planning*

materials science
  see also laser materials processing; metallurgy
  crack growth detect., digital image proc. tech. 28899
  Dutch microelectronics, university research/indust. needs, overview 30398
  intell. materials, materials education appl. 28889
  multielement profiling anal. of geochem./environ. samples 4383
  thermophotovoltaics, DOE's Advanced Energy Projects 36621
  undulator beamline, advanced light source 43171

materials testing
see also acoustic applications; acoustic emission testing; compressive testing; corrosion testing; creep testing; dynamic testing; electron beam applications; fatigue testing; fracture toughness testing; hardness testing; impact testing; insulation testing; mechanical testing; nondestructive testing; tensile testing; ultrasonic materials testing; wear testing
5BDSR nanocrystalline amorph. mag. alloy, EM characts. determ. 30659
acoustic props. meas. instrums. and methods *(Croatian)* 450
CFC alternatives, materials compatibility study 5719
CFGFRP-reinforced concrete, fracture self-diagnosis, material design 28897
conductive adhesive eval. as solder replacement 38107
destructive meas. eval., gage repeatability/reproducibility 37567
dielectric materials charactn., colloq., London (Apr. 1994) 21
microRaman spectrosc., polymeric and inorganic syst. appls. 31688
Midel 7131 liq. ester substitution for transformer oil *(German)* 19697
neutron focusing optic for submillimeter materials anal. 5933
PCB ESD protection material selection, shielding effectiveness meter 28456
perp. mag. field for shielding materials meas. 15489
piezoceramic plate bending motion meas. by homodyne holographic interferometry 40153
props. discrim., mono-structural thin plate touch sens. 42767
pulsed mag. syst. 30759
reactor core material post-operation anal. *(German)* 10816
refl. coeff., material characterisation 7978
Schering bridge sensitivity and convergence for AC machine anti-discharge varnish ageing tests *(French)* 9973
soft mag. material wound cores, energetic behavior meas. 14108
steam power plant boiler refractories, condition assess. technols. 19520
Au ball bond shear strengths, rationalisation 12953
Au wire weakening in thermosonic bonding of first bond 29711
Cu-Cr bilayer metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
Cu-Ti bilayer metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
CuCr alloy film metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
Cu$_5$Si passiv. layer, growth kinetics and materials props. 38577
CuTi alloy film metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
GaAs wafer breakage, impact on proc. facilities 38459
Ni-Mh$_2$ bipolar elec. vehicle batt., cell design/eval. 36714
Pb and Pb-free solder joints, thermomech. and fatigue behavior 37557
Si surface layer elastic deform., photoelectron emission meas. 21005
SiC dispersion varnish VLF capacitive props. *(French)* 10935
Sn-Pb solder thin layers, testing in pure shear 37568
UC-ZrC/NbC high temp. nuc. fuel tests 35767
W/SiO$_2$, W fine lines, micro-wedge scratching 38705
ZnO varistors, dielec. charactn./equiv. cct. studies 867
ZnO varistors, mixed multi-impulse/AC 50 Hz tests 868
chem. mech. polishing, polishing pad material props. effects 38584

mathematical analysis
see also approximation theory; Bessel functions; calculus; catastrophe theory; differential equations; eigenvalues and eigenfunctions; Fourier analysis; frequency-domain analysis; integral equations; inverse problems; numerical analysis; series (mathematics); spectral-domain analysis; time-domain analysis; transforms
anaesthesia trials, patient awareness state monitoring via neural net interp. of EEG sigs. 43318
Cantor fractal nonlin. multilayers, EM refl. and transmisson 2061
circ. dielec. waveguide, periodic metallic strips, dispersion charact. 2296
induction motors, transient operation math. anal. methods 44047
single-layer feedforward neural networks, precision requirements 29461

mathematical linguistics *see computational linguistics*

mathematical logic *see formal logic*

mathematical morphology
3-D morph. algm. for obj. recogn., automated training 16269
adaptive morph. subband decomp., image coding 24396
arbitrarily shaped morph. structuring elements, decomp. 16289
binary images, morph. representation invertibility 2733
color image coding, morph. pyramid decomp. 24592
computational-morph. filters, mean-absol.-error representation and optim. 32915
continuous-scale morph. filtering, evol. eqns. 8672
contour interpolation, morph., image space algm. 16351
dyn. obj. recogn., hit-or-miss approach 24538
edge detect., morph., real-time, low-cost approach 8586
elevation value in topographic maps, recogn. by multi-angled parallelism 10448
embryo viability morph. eval. 24660
facial images, morph transform. 2695
filtering, model-based morph., opening spectrum 32913
genetic algms., morph. filter design 2798
gray-scale morph. filtering, digit-serial archit. 21277
grey-level morph., lin. structuring fn. 8587
grey-scale image geodesic dist./time 16362
grey-scale math. morph. operations computing, opt. implement. 16143
Hamiltonian-Jacobi connection of mathematical morphology 24716
hierarchical image representation by subband decomp. 32847
image anal., recursive erosion/dilation/opening/closing transforms 24700
image morph. struct., diff. eqns. 8518
image segmentation, representation methods 41086
images, pattern spectrum calc., chess-board dists. 24375
Landsat-TM scene lin. LOC segment detect. using morph., model-based approach 16257
meas. in images, phys. significance 8634
morph. filter optim. by learning, opt. neural net appl. 1765
multiple-obj. recogn., optoelectronic morph. scheme 8596
multiresolution image decomp./compression 8545
near-optimal MST-based shape description, genetic algm. 41190
nonlin. sig. proc., slope transforms, theory/appl. 40832
open-closing/close-opening, block basis matrix 24274
opt. cellular logic two-level networks for morph. image proc. 31038
opt. parallel rank order hit-miss transform 41296
optimal decomp. of math. morph. structuring element, lower bound anal. *(Chinese)* 32807
optoelectronic proc., image detail morph. enhancement, rank-order 24487
pattern recogn. by multilayer neural nets and math. morph. 32887
polariz.-opt. morph. proc., prog. struct. elements 31036

mathematical morphology continued
polyhedron shape and reflectance from inter-refls. by 2-image photom. stereo 2649
quantitat. image assess. based on redundant, meas. and stat. reasoning 24422
shapes, noisy, morph. pattern-spectrum class. 16249
skeletonization algm. by max. tracking 41180
soft morph. filtering, threshold decomp., anal. 32870
soft morph. filters threshold decomp. 2658
surface, discrete, continuous resoln. polygonalization 16353
text string extraction from regular periodic overlapping text/background images 2721
texture features, math. morph. *(Chinese)* 32806
transformer winding shape design, global optim. strategies 887
translation-invariant binary filters, morph.-representation 16160
two scan algm. implement. on systolic array/multicomputer 12569
wavelet transform, morph. 28568

mathematical operators
directly connected image guide 3dB directional couplers, transverse operator anal. 21517
fractional anal. method, image deblurring 2817
gray-scale morph. filtering, digit-serial archit. 21277
Heaviside operator based unified theory of lumped ccts./diff. systs. 461
joint distribs. for arbitrary variables 24275
morph. open-closing/close-opening, block basis matrix 24274
sig. proc., transform. of operators and scale 32488
time-domain inverse scatt., local shape fn. method 23569

mathematical programming
see also concave programming; dynamic programming; geometric programming; linear programming; nonlinear programming; stochastic programming
architectural synthesis, possibilistic prog. 12276
ATM transport networks supporting multimedia traffic, optimal resource mgt. 16853
brachistochrone problem, multistage Monte Carlo method 20563
cct. board prod. lines, crane scheduling, time windows 37058
commun. networks, perform./reliab. design 41442
DC fuzzy optimal power flow algm. perform. eval. 19211
distrib. network planning, fuzzy math. prog.-based 27155
exponential penalty fn., convergence 221
finite element syst., structural optim. *(Japanese)* 28699
fuzzy nearest prototype classifier learning 37919
gas turbine CHP plants, steam-injected, operation optim. 36011
generator maint. scheduling, subjective constraints relax. *(Japanese)* 27663
green engng. framework for concurrent design of products/procs. 5579
household lighting, energy resource alternatives 20120
power syst. VAr compensation planning, computer model-based 26960
resource mgt., optimisation techs. 20562
resource planning, multicriteria method 4612
service organization QC syst. design, goal prog. 20470
SONET rings, optim. problem, balancing loads 9553
urban household water pumping, energy alternatives eval. 44433
views of math. prog. models and their instances 11945

mathematics
see also algebra; arithmetic; category theory; combinatorial mathematics; convergence; duality (mathematics); equations; equivalence classes; estimation theory; formal logic; functions; geometry; mathematical analysis; mathematical morphology; mathematical operators; number theory; probability; set theory; statistics; topology
edge detect., convolution, FT, maths courses 8600
engng. mathematics, ontology 11892
hypertext mathematics, multimedia interactivity 25112
Matlab for teaching DSP 20295
principia mathematica for electronics/chem. analogies 21095

mathematics computing
alternating block Crank-Nicolson method for 3-D heat eqn. 37343
analog neural network for geometric optim. problem 29448
automatic differentiation on distributed memory MIMD systs. 11996
binary rel. inference neural net, VLSI implement. 29446
brachistochrone problem, multistage Monte Carlo method 20563
conjug. gradient sq. preconditioning methods for Newton's method solvers 249
Data Encryption Standard, expt. cryptanalysis 32151
differential-lin. cryptanalysis of 8-round DES 32153
domain decomp. of conjug. gradient method on Parsytec GCel-3/512 37310
dyn. load-balancing for PDE solvers on adaptive unstructured meshes 28682
eigenproblem of banded symmetric Toeplitz matrices soln. on multicomputers 20603
Fast Data Encipherment Algorithm, lin. cryptanalysis 32152
Feynman graphs computer eval. from many-body phys. in 2+1 dimens. 20538
FFT, 8192 complex points, single-chip implement. 21377
FFT algos., implement. on transputer computational structs. 5799
general differential alg. eqns. solvability 28685
hyperb. 1D wave eqn. soln., spreadsheet program 5525
lin. alg. calcs. on virtual shared memory computer 20611
lin. alg. kernels, build efficient finite element solver 20598
LPTT linear programming teaching software tool 11609
Matlab for teaching DSP 20295
matrix diff. eqns., continuous num. solns. 12001
mesh decomp. and commun. procedures for FE appls. on Connection Machine CM-5 syst. 12015
metrology, math. software class. 17621
MOB forms, multilevel block algms. for dense lin. alg. operations 28666
modular exponentiation algms., nonstandard arith. 32097
orthogonal regression models, nonlin. param. estim., algms. and appls. 28662
parallel partitioning of sparse matrices 28675
prime factor DCT, software realization 28707
PSpice for Laplace transform eqn. solving, undergraduate course 28351
self-sorting in-place FFT algm. suitable for vector and parallel proc. 286
space target tracking, path params. vector determ. 17375
SVD tracking, VLSI algm. and systolic archit. 28667
symplectic maps in $\mathbb{R}^4$, Birkhoff normal forms, ARES code 43020
tridiagonal lin. syst. and Poisson's eqn. soln., distributed memory systs. 28669

maths coprocessors *see coprocessors*
matrices *see matrix algebra*
matrix algebra
see also covariance matrices; Hadamard matrices; Hankel matrices; Hermitian matrices; Hessian matrices; Jacobian matrices; Lyapunov matrix equations; matrix decomposition; matrix inversion; matrix multiplication; polynomial matrices; S-matrix theory; singular value decomposition; sparse matrices; Toeplitz matrices; transfer function matrices; transmission line matrix methods
1.55 μm DFB lasers with strained-layer MQW act. grating, transfer-matrix dyn. model 1993
2×3-phase sync. machine, extended Park's transform. 44020
2-D harmonic retrieval, subspace algm. 40997
2-D noncausal Gaussian Markov random field model, param. estim. 33078
2D adaptive lattice struct. for noise cancelling 32680
2D autoregressive noise model, broadband planewave detect. 40840
2D digital filters, error spectrum shaping *(Japanese)* 15933
2D EM inverse scatt. solns., sine-basis moment method 15402
2D method-of-moments problems involving large scatterers, soln. 23533
2D microwave imaging, TLS-ESPRIT, matrix enhancement 42480
2D scaled state space filters, fixed point arith. 12648
2D transform domain adaptive FIR filtering 2575
3-phase multiconductor busbar systs., model validation 19904
3D representation method, indust. CT 33146
3D scatt. problems, absorbing boundary conditions for FEM soln. 40309
AC traction load, 3-phase equiv. cct. model *(Chinese)* 44499
AC/DC multi-machine power syst., SSR, shaft torsional vibr. *(Chinese)* 35470
adaptive DOA tracking, QR updating/exponential sliding windows 32726
adaptive Gauss-Seidel method for lin. systs. 258
adaptive param. estim., QR methods of O(N) complexity 40814
adaptive small-sample condition estimator for matrices, rank-one modifs. 32474
adaptive/iter. blind source separation, composite criterion 40960
aggregation/disaggregation and direct algm. for computing stationary probabilities of Markov chain 28585
alternating projections method 37326
analogue syst., eigenvalue computation and sorting, matrix flow 12669
antenna appls., coord. syst./rot. transforms. 23833
AR proc., non-Gaussian source, Gaussian mixture dens. modeling 40835
asymmetric cross-coupled filters, synthesis 12628
asymmetric representations of GF(q^m) and self-dual codes 24070
asymmetrical power syst. load flow/fault studies *(Chinese)* 35422
bal. 0, ±1 matrices recogn. 5779
band-limited fn., sig. reconstruction, Fourier spectra determ. 8440
band-limited sigs., lost samples recovery, stabil. 15907
Bayesian model order selection for Karhunen-Loeve transform and SVD 40982
beamline optim. and phase space transform. 43012
bidiagonal SVD, divide-and-conquer algm. 37322
binary matroid ports learning 5782
biological body internal field matrix perturb. computation 26367
biomedical meas., computer diagnostics of dyn. systs. 18435
blind ident., higher order stats. *(French)* 16043
blind syst. ident. from output autocorrel. 8085
branch-line hybrid-rings, coupled-lines 37943
broadband max. energy array, spatial/freq. constraints 41013
broken symm. in BEM 37367
canonic representations for geometries of multiple projective views 24481
CDMA commun. systs., subspace-based delay estim. 42166
CDMA fibre optic LAN, opt. orthogonal and codes generation 41897
cellular network planning, radio coverage defn. methodology 42227
chirostrip dipole antenna, scanning behavior, substr. effects 8052
circ. networks, conductors determ. from boundary meas. 12253
class E amp., anal. by alternor tech. 12345
claw-pole type stepping motors, dyn. behaviour simul. 4997
coarse-grain parallelizations of interval algms. 5776
column reduction of polynomial matrices 250
combinat. ccts., min. test sets, locally exhaustive testing 12466
common fixed point theorem in fuzzy metric spaces 37329
complex all-pass IIR digital filters, design 15908
complex exponentials sum, matrix pencil method, param. estim. 40894
complex opt. matrix-vector multiplication, neg. binary inner products 1756
composite struct. of complex materials, EM refl./transm. 31778
computer network traffic requirements, generation algms. 3188
concentrically layered region, source EM response 40204
confluent Vandermonde lin. systs. and generalized Trummer's problem 37335
conjug. gradient sq. preconditioning methods for Newton's method solvers 249
const. L_∞ norm approx. of complex rational fns. 37331
constrained beamformer design, optim. result 40763
constrained roundoff noise minimisation in digital filters, algm. 15962
constrained-sig. sources, unique localization, alternative proofs 8435
consumer power supply reliab. indices calcs. *(Russian)* 43606
continuous num. soln. of matrix diff. eqns. 12001
contragredient transforms. applied, optimal projection eqns. 265
convoluting systs. diagnosis by space-time compression 32107
convolution products, smooth refinable fns./wavelets 24165
convolutional codes, min. error-trellises constr. 32129
cosine-modulated 2D FIR filter banks, perfect reconstruction 32712
coupled waveguides, excitation conditions, math. refinements 39407
Cramer-Rao lower bounds for damped sinusoidal proc. 40833
cyclic codes, decoding, min. dist., matrices generation 40636
DC motor drive digital regulator disturbance retuning design 11371
decentralized detect. systs. design, unified approach 32538
DFB LD with distributed coupling coeff., spectral charact. 23278
digital commun. sig. MLS estim. by neural net 32621
direct AC-AC matrix power convertor, AC motor appls. 19738
discrete Fourier-Riccati-Bessel transform, Neumann boundary conditions 28566
discrete multiwavelet transforms, alg. design 32665
distributed discrete scatterers, effective propag. consts., T-matrix approach 23548
distributed forward-/backward-coupling semicond. laser, wavelength tuning charact. 31322
distribution network capacitor bank failures, harmonics effects 19262
DOA estim., min.-norm method without eigendecomposition 40951
DOA estim., modified cumulant matrix 2506

matrix algebra continued
DOA estim: in unknown correl. noise, MUSIC and higher-order stats. 32481
Doppler sonar navig., matrix algm. 34170
doubly-fed brushless motor drives, pole no. model 5279
DSP algms. mapping, multiprocessors by simulated annealing 8355
ECPS2/ECPS3 public key encryption methods, security problem *(Chinese)* 32045
egomotion estim. from affine motion parallax 24457
eigenproblem of pos. definite matrices, parallel processed scheme 20608
elec. machine state eqn. inductance matrices anal. *(Russian)* 44005
elec. machine state eqns., inductance matrices eigenvalues *(Russian)* 43975
electronic cct. network fns., matrix proper values 28983
EM fields transm., corrugated slots 31855
EM multiple scatt. by dielec. spheres random distrib. 31795
EM plane wave scatt. by lossy dielec. prolate spheroids 40296
EM scatt. from 3-D arbitrary coated cavities, connection scheme 15390
EM scatt. problems, hybrid multipole-beam approach 15412
EMI dipole antennas 40372
epipolar geom., robust recovery for uncalibrated stereo rig 24479
ergodic Markov chains, large, perform. eval. 37241
estim. cyclic correl. matrices, asymptotic moments 24205
explicit conjug. gradient method, preconditioning 254
exponentially damped sinusoids, param. calc., third-order stat. 40863
extrapolated AOR and SOR iter. methods, convergence 11983
fast decision feedback LMS algm., multiple step sizes 8462
fault detect., fault thresholds 11884
fault isolation filter design for lin. systs. 11382
FEM, massively parallel computers, domain-decomp. methods 40203
fiber-optic array alg. opt. computer proc. archits. 22978
fingerprint image compression, wavelet scalar quantization vs. JPEG 41194
finite element multiwavelets 32511
finite precision arith., matrix powers 37333
FIR digital filter design, quadratic prog. 37884
first-order lossless digital two-pair realisation 21423
floating-inductor simulator, current-feedback amps. 21411
fourth-order cumulants, direction-finding algms., perform. anal. 24210
freq.-selective techs. based on SVD, TLS and bandpass filtering 32489
fund. matrix, stabil. anal. 24480
G^2 continuous β-spline curves defined on interval ⟨0,1⟩ 37317
generalized eigenvalue minimisation 11894
generalized URV subspace tracking LMS algm. 32757
GI/GI/1/r queueing syst., stationary queue length distrib. 28574
gigabit opt. CDMA networks, bandwidth efficient matrix codes 42421
graded opt. elements in solid state laser resonators 14998
graphs, most vital edges determ., spanning trees 20541
grayscale fn. proc. systs., matrix representation 8576
grayscale morph. filters, optimal under LMS algo. 2838
grey level co-occurrence matrix parallel array algm. 33019
Groebner basis calc. 37319
H_∞ norm approx. of discrete-time systs. by const. matrices 37330
H_z wave inverse scatt. soln. using subscatterer T-matrices 20599
handwritten numeral recogn. via, extractors 41314
hashing, SL_2 matrices 32155
HDTV receivers, efficient 2D inverse DCT algm. 25645
hierarchically structured systems subsystems and noise signals identification 24236
high speed data networks, transit. splitting for estim. of rare events 33200
higher categories, strings, cubes and simplex eqns. 37254
HMM, joint moments, simple calc. 41054
Hurwitz polynomial, very strict, 2-variable, computationally efficient derivation tech. 28559
HV overhead line earth fault compensation coeff. modelling 19328
HV overhead lines, mag./elec. fields calc, BEM *(Polish)* 43773
HVDC transm. systs., dyn. digital simul. studies 19236
hybrid FEM, EM field distribs. in large cavities 2306
hybrid FEM, phased array antenna anal. 23939
identification of processes with output drift, freq.-domain 25700
ill-posed systs., implicit shift bidiagonalization algm. 20609
image reconstruction from divergent-ray projections 8575
image texture class., QMF bank in combination, co-occurence matrices 24541
indirect method of nonlin. filtering, PLL synthesis appls. 32568
inhomog. dielec. modeling, integral eqn. soln. 15393
interval matrices, eigenvalue bounds 5731
interval matrices, stabil. 37224
isolated dielec. disc resonant freq. and far field computation 23828
iter. aggregation method, lin. systs./Markov operators, convergence 11963
joint PDF, stat. param. space 40544
k-order reduced graph method for finding k-order cofactor *(Chinese)* 12251
La-Salle inequality 28560
Landsat images spatial resoln. improvement *(Korean)* 26710
LC ccts., intrinsic Hamiltonian formulation of dyn. 37608
levels of fuzzy matrices 28610
lin. antenna, symbolic approach, inverse problems in moment method 2312
lin. ccts., OTA/grounded capacitors, realization 37607
lin. induction launcher, in-bore projectile dyn. 15297
lin. networks, symbolic anal., self-optimizing alg. approach 12294
lin. phase lapped orthogonal transform, prefilter approach *(Korean)* 24121
lin. phase paraunitary FIR filter banks, complete charactn. 32504
LMS error decision feedback equaliser 8357
lower triangular moment matrices, generalized eigenvectors 5729
LSI module placement, Hopfield neural net, non-zero diagonal elements *(Japanese)* 37599
machine vision, autonoumous land vehicle laser radar range data 17442
maneuvering target tracking algm. 9619
mapping matrices, permutation decoding, props./appls. 40637
Markovian networks, extreme values of random times 33194
matrix factor norms, max-min props. 28673
matrix-vector opt. proc., multiple-error-correcting codes 39521
matroids, common bases 28600
microcellular systs., compatibility matrix learning 9253
MIMD parallel cct. simul., matrix soln. 28951
min. generator matrices, counting 32131
min. paths and cuts of graph, enumeration algm. 37253
min. sq. spectral factors 37222
mitered E-plane bends in rect. waveguide, mode matching anal. 8028
MMP-CG-PET, param. estim., MMP code, conjug. gradients 15211
mobile radio channel modeling by echo estim. *(English)* 9338
modified alternating group explicit method for sing. perturb. problems 260
modified CLOS guidance law via right inversion 26825

matrix algebra continued
morph. open-closing/close-opening, block basis matrix 24274
most nearly rank-reducing struct. matrix perturb. computing 37323
motion clustering, stochastic 24628
motion-shape anal., multi-object; SVD neural networks 8680
Mueller matrix struct., polaris. state changes 23571
multi-server discrete-time queues, transient anal. 2894
multi-server model anal., non-preemptive priorities and non-renewal input 33245
multichannel rational syst. ident. 8282
multicovariance matched filter for target detect. and background recogn. 16107
multicriteria decision making, unintentional judgemental bias estim. 11658
multidimensional downsamplers/upsamplers, commutativity 8277
multilayer grating assisted directional coupler waveguides, normalized radiation modes 14448
multilayer shell shield, matric anal. 23659
multilayer-coated diffr. gratings, differential method 1702
multiphase systolic algms. for spectral decomp., comments/reply 32565
multiple 2-D coherent sinusoids, high resoln. estim. 41001
multiple cyclostationary sigs., power/timing param. estim. 40864
multiple scatt. of EM waves by half-space of randomly distributed dielec. spheres *(Chinese)* 31805
multiplex systs., reliab. models eval. 37192
multirate filter design, multirate components anal. 32709
multirate systs., aliasing effects and non-stationary quantization noise 32720
multisecret sharing schemes based on transversal matroid, access struct. *(Japanese)* 40624
multisensor tracking, track assoc., correction for bias and missing data 15876
net graphs, p-ranks 28627
node expansion theorem for controlled sources 5943
noisy speech recogn., cepstral-time, and spectral-time filters 32381
non-binary correl.-immune/resilient fns., charactn. 37220
nonautonomous Riccati-type matrix diff. eqns., existence interval 37356
noniterative/fast iter. methods for interpolation/extrapolation 2503
nonstationary sig. sources, blind separation, neural net appl. 24351
normal metal-supercond. barrier contacts, proximity effect 22730
normed LMS algm., error feedback delay, convergence 5769
op amp incorporation, pass. networks *(Polish)* 37833
optimal zone coding, slant transform 24123
optoelectronic matrix-vector multiplier, computational accuracy anal. 31027
parallelism in finite strip formulation, static anal. 12011
paraunitary matrices factorization, pairwise mirror-image symm. 40845
partial least sq. regression via additive splines 28663
partially adaptive array design, DOA estim. and null steering 23958
pass. ranging, image expansion 26549
pattern class. by learning from example and extension matrix 24553
PCB component assembly, lin. assignment algm. 29688
PCBs, radiation/crosstalk, edge-elements charactn. 12872
periodic spline wavelets, computation 24161
periodically stratified media light, Bloch eigenvalue eqn. 2196
periodically switched networks modelling, Cuk converter 11164
Petri net init. marking comparison modified incidence matrix *(Korean)* 209
phase-change opt. disc, optimum opt. multilayer coupling *(Chinese)* 39315
photogrammetric anal. of image invariance, computer vision 41242
plane ang. sector diffr. 2213
plane motion and struct. estim., necessary and sufficient conditions 41165
plane-wave scatt. by anisotropic circ. cylinder, wave-fn. soln. 40286
point/derivative constraints, time-freq. kernel design 40967
polaris. independ. nonlin. opt. loop mirror demultiplexers 34079
pole changing induction motors, pole AM studies *(Japanese)* 11020
power cable mag. fields calc., conductors subdivision method 19297
power syst., fast decoupled load flow calc., parallel algm. *(Chinese)* 35608
power syst., modified Ward-type equiv. model, partitioning techs. *(Korean)* 35460
power syst. anal., parallel proc., block-diag.-band matrix 19071
power syst. dyn. anal., protective syst. modelling 4716
power syst. dyn. stabil., optimal control modelling 4515
power syst. EM transient simul., matrix-based 4484
power syst. harmonics, dyn. filter, least absol. value algm. 19001
power syst. load flow, Z-matrix algms., triangular factors 26865
power syst. load flow calc., compensating EMF method *(Russian)* 43627
power syst. load flow calcs., floating point DSP 26890
power syst. load flow problems, Grobner basis soln. algm. 43626
power syst. parallel load flow algm. 4445
power syst. short-cct. current calcs., transformer modelling 19065
power syst. stabil. robustness, control perform. anal. 4576
power syst. unified power flow control algm., phase shifter *(Chinese)* 27032
power syst. voltage collapse proximity anal., matrix nearness approach 26870
power system inter-area dynamics, linearised modelling approach 19137
PR FIR filter banks and discrete biorthogonal wavelets via block circulant matrices 32505
principal component anal., group action, entropy fn. minimisation 40901
Prony algm. modified for exponential fn. fitting 20586
PWM generalised block pulse fns. 32638
quadratic operator eqns. and periodic operator continued fractions 37328
randomly generated matrices, computation of eigenvalues 37320
rational spectral dens. matrix ident. 32635
rect. aperture in waveguide jns., scatt. 2302
recursive waves risk param. estim. from cyclic autocorrelation matrix 40986
Reed-Muller variable-entered vectors and maps 21055
repairable systs. reliab., time-varying failure rates 28541
representable tree series 205
reversing lattice filter, no. of sources of interf. estim. 2574
ring laser gyroscope design, spatially resolved eigenstates for traveling/standing waves 14997
RLC cct. transient anal., matrix topol. methods *(Russian)* 6205
rot. machine mag. field anal., FEM 44070
Schur method for low-rank matrix approx. 32471
SDH self-healing ring element load under different traffic demands *(Polish)* 41555
sea surface, radar polarimetric backscatt., Euler vector 43528
second order blind separation, asymptotic perform. 40961
SEL mirror effects on dyn. response 31315
semicond. device matrices, irregular grid, parallel iter. lin. solver 6710
separable convex fn., minimisation, greedy algm. 37284
sig. correl. matrix, array receivers phase delays estim. 32611
sig.-subspace selectivity, 2-D wavenumber estim. 24178
single server queue, discouraged arrivals 20519

matrix algebra continued
single-mode fiber, polariz. effect on four-wave mixing efficiency, comment 30878
single-mode fibre, degree of polaris., single Mueller matrix 1687
single-step opt. matrix-matrix multiplier, diffractive opt. elements 31040
SISO feedback control ident., lin. PWM block pulse fns. 24008
slab waveguide, sq.-law-index type, nonlin. TE waves *(Japanese)* 15585
smart antenna appls. in mobile commun., const. modulus factorization 32465
smooth nonseparable N-dimens. scaling fns. 32506
source bearing estim., propagator method 40895
source bearing estim., propagator method, perform. anal. 40959
spectral anal., ML method based on correl. matrix lin. symm. 32574
spectral rad. of sets of matrices 32526
speech modelling, cepstral-time, matrices and HMMs 32353
sq. unsymmetric Lanczos method 20590
SRIF DSP algo., VLSI systolic array implement. 665
SRM, core losses calc., mag. flux 10983
state digital filters, design 24187
state-space digital filters, noise reduction, error feedback *(Japanese)* 739
state-space digital filters free of overflow oscills. 2498
static power converters, voltage control modelling *(French)* 27798
stereoscopic viewing of at. struct. 34336
still video compression, DCT-based 8601
stochastic independence, alg. independence and abstr. connectedness 261
sub-optimal nonlin. predictor, reduced complexity config. 8465
superlattice, transm. spectrum, elec.-field-induced changes 29916
SW and matrix dilation eqns. 24299
symmetric definite pencil eigenvalue optimisation 11895
symmetric matrix, largest eigenvalue minimisation 188
symmetric tridiagonal eigenproblem, divide-and-conquer algm. 37324
symplectic pencil, eigenvalues computing 263
sync. generator, back-swing phenom. anal. 11000
sync. machine stator fault anal., transform. method *(Chinese)* 10971
sync. machines, damper winding/rotor iron currents modelling 11004
tape carrier package for high-speed LSIs, lead inductance 5643
teletraffic model anal., num. transform inversion 41489
thermal power plant computer simul., CAMEL package-based 27521
thin layer double phase conjug., coherentization condition 7784
three-phase power systs., sinusoidal currents decomp. 4465
three-scale detect. systs., synthesis 41030
time series, discontinuity location, recursive Bayesian method 41009
time-domain inverse scatt., local shape fn. method 23569
time-freq. kernel design, lin. constrained minimization approach 8341
time-series anal., rank determ. 40910
time-variant struct. matrices, instrumental variable method appls. 32485
time-varying filter banks and multiwavelets 24260
transform-domain adaptive filters, anal. method 32551
translational combinat. metrics, plane/codes tilings 40643
transm. network switching transient I-V calcs. 4621
transverse operator method for general waveguide problems 40419
tree-cotree gauge for mag. field computation in magnetostatic problems 40219
twisted NLC panel optim. for spatial light PM 31007
two-winding transformers, stray capacitance studies 12849
twos-complement parallel array multiplication algm. for complex matrix operation 31031
UN-MUSIC/UN-CLE, DOA in unknown noise, perform. anal. 32554
unbalanced AC voltage supplies, SVC dyn. anal./design 19124
universal pers. telecomms. syst., interact. restructuring 3145
vector extrapolation methods for solving systs. of lin. eqns. 37303
vectorized systolic array for block constrained RLS 32752
voltage-reson. converter, AC dyn. characts. anal. 21110
wavefront simul. for atmos. turbulence 15448
wavelet domain bearing estim., unknown correl. noise 40926
wavelet-based subband decomp., multichannel image restoration 2731
weather radar polarimetry, path integrated differential phase shift 43517
Weigert hologram, Jones matrix 31660
wideband array proc., two-sided correl. transform. 24303
AlGaAs/GaAs, QW, modulator, nonlin. optics 7739
Er-doped fiber amp. CATV, polariz.-mode dispersion meas. 25509
GaAlAs asymmetric two-step quantum well for cascaded second-order procs. 13189
GaAs-AlGaAs quantum wells, periodic pot., cct.-theoretical anal. 13191
InAs-GaSb quantum wells, periodic pot., cct.-theoretical anal. 13191

matrix decomposition
2.5D scalar Helmholtz eqn., spectral Lanczos decomp. 23773
2D digital filters implement., matrix decomp. 32674
3D EM scatt. problems, fast multipole soln. 23537
adaptive RLS filtering, iter. version of QR-decomp. 32479
adaptive sig. proc., fault tolerant QR decomp. 32494
augmented moment matrix LU-spatial decomp. 23610
computer aided cct. anal., matrix manipulation 12264
deconvolution filter design considering channel sensitivity 2526
discrete sine transform, prime factor decomp. algm. 2497
electrocortical generators posn. estim. via subspace techs. 43320
fast algms. for exponential data modeling, NMR data appl. 43256
fast convergent Jacobi algms. for VLSI sig. proc. 32597
FFT algos., implement. on transputer computational structs. 5799
finite elements, distortion, degeneracy and rezoning survey 281
FIR unitary time-varying filter bank trees and wavelets 40809
graph param. approx. 28620
helicopter antenna pattern prediction, improved NEC code 26529
Hermite bicubic collocation, matrix decomp. methods 28661
hyperb. updating of LDU decomp. 24270
induction motor drive, space vector PWM control, vector space decomp. 5312
large-target scatt. cross-sections, fast multipole computation 25564
low-dimens. sig. subspace computation 32472
M-wave scatt. bt dielec. cylinders, weighted point-matching improvement 23611
model-based image coding, deformable 3-D model for face-to-face commun. 24556
moving av. proc., spectral factorization, cepstrum *(Japanese)* 11922
multiple transients, param. estim., SDMP method 40949
nonsymmetric matrices, real Schur decomp., hardware implement. 28668
orient. filters, design and implement., separable approx. methods 32881
orthogonal spline collocation, matrix decomp. 28671
PARADE, sigs. nos. determ. in unknown noise environ. 24222
parallel lin. eqn. solvers for computational electromagnetics problems 23557

matrix decomposition continued
- phased array sonar, min. norm array proc. algm. 10534
- preconditioning nonsymmetric indefinite capacitance matrix problems 28672
- printed antenna computation, SVD tech. 23846
- QR algm. for computing sing. values 37334
- QRD inverse-updates method for fast time-series adaptive filtering 32478
- rational fn. matrices, factorisation via descriptor representation *(Japanese)* 37223
- reduced complexity ESPRIT method, generalization, antenna array 40911
- reduced systolic engine for nonlin. dyn. systs. anal. 29243
- RITE algm., pipelined regular array proc. implement. 8370
- sig. proc., decomp. of quantics in sums of powers 32456
- symbolic anal. of networks with nullors, cct. level decomp. 460
- symmetric matrix decomp. parallel structs. 28670
- tapered SVD, AR model estimation 41000
- test matrices for regularization methods 28674
- ULLV decomp. computation 32473

matrix inversion
- adaptive blind equalization, weighted cumulant slices 41026
- estim. in quadratic formulas 11988
- finite rect. array anal. with simultaneous integral eqns. 31976
- FIR causal matrices with anticausal inverses, biorthonormal filter banks 32721
- FIR low delay filter banks 24262
- geophys. resoln. and covariance estim. for large matrix inversions 43497
- higher order moment matrices invertibility 40812
- interf. cancellation, min. redundancy array struct. 41048
- Iterative matrix inversion on systolic array 257
- Levinson-type algms. for polynomial fitting, Cholesky and Q factors 20582
- mag. suscept. tomography for 3D imaging 10175
- meas. eqn. of invariance method, randomly rough surfaces anal. 42481
- navig. satellite selection, neural networks 42321
- optimal recovery based FIR synthesis filters 21424
- pattern class., optimal matching-score network 33035
- preconditioned iter. methods for large unsymmetric matrices 20606
- recursive CR bounds, alg./stat. accel. 41321
- spectral-Galerkin method, direct solvers of 2nd- and 4th-order eqns., Chebyshev polynomials 20607
- super-resolving image restoration in Karhunen-Loeve basis 16210
- time-varying filter banks, time-reversed inversion 8275
- trellis codes, error probab., dist. spectra/upper bounds 32063
- wireless commun. syst. adaptive array sig. acquisition and tracking 33792

matrix isolation spectroscopy
- impurity activated solids, hole burning, zero-phonon line appls. 7791

matrix multiplication
- 1st order Reed-Muller code decoding on SIMD machines 8115
- 3D planar quadrantal and diagonal symm. based Winograd FT algm. 33024
- covariance estim. for multidimensional data 8285
- DCT domain image fast progressive reconstr. 33021
- fast algms. for matrix multiplication, no. theoretic transforms 20605
- floating-point systolic array PE, serial commun./BIST 21356
- framework for cost-scaling algms. for submodular flow problems 5764
- high-speed cubic convolution, charact. of interpolation fn. *(Japanese)* 8254
- implicit matrix multiplication on various transputer networks 5777
- Iterative matrix inversion on systolic array 257
- lossy coupled transm. lines in lossy medium, transient anal 31876
- MOB forms, multilevel block algms. for dense lin. alg. operations 28666
- multimedia conferencing audio bridge 16896
- neural syst. for high-speed pattern recogn. and image anal. 29473
- nonsymmetric matrices, real Schur decomp., hardware implement. 28668
- p-product, matrix product, appls. in sig. proc. 41038
- parallel SVD updating, num. stable Jacobi array 32476
- RCS of large objs., fast far-field approx. 42489
- real-time opt. matrix multiplication, high accuracy 1761
- regular arrays for matrix multiplication by two-step regularization 20604
- satellite attitude determ., lin. combination of models 24531
- vector unit design for opt. matrix multiplier 31029
- VLSI ccts. for optoelectronic neural network wt. setting 1501
- waveguide optics, synthesis of matrix converters 14560

matrix printers
- holographic image printing syst. 7856

matroids *see combinatorial mathematics; matrix algebra*

Mattheissen's rule *see electrical conductivity*

maximum entropy methods
- *see also minimum entropy methods*
- AFM/STM images, max. entropy deconvolution, response fn. generation 41062
- ATM traffic distorted by cell delay var., connection admission control 41444
- Bayesian stats. max. entropy data anal. 24323
- CMOS max. entropy coprocessor for computed tomography 29432
- co-channel speaker separation, max.-likelihood deconvolution 32215
- derivative inform., max. entropy reconstruction 24197
- ECG, spectrum estim., FFT/max. entropy methods 35101
- entropy min., spectral estim., inform. theory 40772
- entropy-based approxs. for moment problems, convergence 242
- entropy-min. spectral estim., robustness 40776
- evol. max. entropy spectral anal. 40963
- Gaussian random fields, max. entropy property proof 2356
- image restoration, boundary distortion reduction 32823
- in-line Fresnel electron holography, max. entropy method 2182
- invertor output waveforms anal. maximum entropy method 24237
- ionos. radio tomography, max. entropy 43479
- ionos. tomographic reconstruction rel., radar meas. 35305
- max. entropy image restoration, genetic algm. 8509
- ME-based approxs. for general discrete-time queueing models 3280
- minMax inform. measure 32016
- nonstationary sigs., instantaneous spectral estim. 41053
- p-adic stationary proc., max. Ch-entropy estim./fast algm. 32768
- pixons and Bayesian image reconstruction 16203
- pos. time-freq. distrib. 40966
- PSD estim. simul., max. entropy method 2582
- spectral estim. problem with gaps, max. entropy algm. 40996
- SPHINX-II speech recogn. syst., VQ codebooks and adaptive lang. models 32340
- VLF radio waves, ground-based direction finding 23637

maximum likelihood decoding
- *see also Viterbi decoding*
- adaptive Viterbi decoder, respective-state channel estim. *(Japanese)* 15741
- asymptotically good codes, infinite trellis complexity 32061
- bal. ECCs, max.-likelihood trellis decoding 32112
- best convolutional codes search on basis of wt. distrib. 8114
- binary lin. block codes in Rayleigh fading channels, decoding algms. 40681
- block runlength-limited error control codes, trellis decoding 2373
- Cedervall-Johannesson algm. for computing dist. spectrum of convolutional codes *(Japanese)* 40623
- contagion model commun. channel 23999
- convolutional codes, min. error-trellises constr. 32129
- (d, k/I) constrained partial response max. likelihood codes, hard disks 22696
- decision-feedback max.-likelihood decoder for finite-state Markov channels 15750
- lin. block codes, soft-decision decoding 32093
- M-ary orthogonal signalling, near-max.-likelihood demodulation 32030
- multilevel-coded quaternary partial-response sigs., soft-decision multistage decoding 8174
- nonlin. ISI channels, TCM, decoding 8145
- power line SSMA, error correction, IFMV9 coded overlapped PN seq. 25198
- PRML read channels for mag. disk drives 7071
- recording codes based on sampled servo format, perform. comparisons 15756
- RS codes, soft decision trellis decoding 2374
- slow fading channels, iter. max. likelihood decoding/state estim. 32139
- SNUFEC ultra-high-speed CMOS VLSI Viterbi decoder 12557
- TCM for equalized multipath fading ISI channels, perform. 25340
- trellis assisted block synchronisation 40602
- unit memory codes, bounded min. dist. decoding 32067
- Z-channel, max. likelihood decoding algm. for lin. codes *(Japanese)* 15739

maximum likelihood detection
- *see also Viterbi detection*
- block transm. systs., channel equalization 15888
- CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
- chaotic sigs. MLE 24291
- closed loop carrier phase sync. techs. 8461
- CMOS adaptive equalizer for partial-response channels 29246
- digital mag. recording channels, different detect. techs., comparison 30731
- discrete time chaotic sigs. detect./charactn. 8291
- DOA max. likelihood, estim./detect. 2559
- fading channels, blind MLSE 40542
- geom. uniform trellis codes, decoding algm. 15752
- GSM syst. MLE receiver space diversity techs. *(German)* 25335
- HMM for blind channel charactn. and data detect. 40943
- land mobile radio networks, digital video/speech transm. 17048
- M-ary DPSK, MLSE differential phase detect. 2563
- M-DPSK multi-sym. diff. detect. by neural net 40575
- mag. disk, analog/digital PRML read channel equalizers 30737
- mag. disk PRML read channels, A/D interface 7144
- mag. recording, EEPR4 detect., digital read/write channel 30738
- mag. recording channel equalization for max. likelihood detectors 30724
- mag. recording systs., partial response polynomials 30726
- mag. storage, digital syst., 2D coding 7175
- magneto-opt. disk techs. for high-data-dens. recording 31016
- MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
- MLSE receivers, trellis codes for multipath fading ISI channels 8447
- mobile robots, tri-aural perception, correspondence problem, max. likelihood algm. 43555
- modified MLSE 7140
- multiposition incoherent sigs., simple method of invariant reception 40858
- nonlin. satellite channel, optimum receiver for QPSK sigs. 3507
- opt. multi-pulse PPM, optimal/suboptimal frame synchronizers 40565
- optimal alarm-sig. generation algms. for gas analyzers 3909
- optimal CFAR detect. in Weibull clutter 32540
- optimal reception, error probab. in channel, variable param. under ISI 32018
- orthogonal multicarrier syst. max. likelihood freq. detectors 41387
- packet-based mobile radio, digital MSK receiver 3435
- partial-response systs., codes, quasi-catastrophic error propag. 32069
- PPM, seq. detect. and equalization 15710
- PPM sigs., airborne/underwater opt. commun., optimum detectors 41100
- preamble-less packets surrounded by noise, optimum frame sync. 8715
- PRML channel, nonlin. mag. recording read-back distortion effect *(Japanese)* 22704
- PRML channel perform. eval., window-margin-like procedure 30728
- PRML digital mag. recording systs. anal. by write and read equalization 30723
- PRML mag. read channels, high speed, CMOS analog front-end archits. 30727
- PRML mag. recording syst. anal. by write and read equalization 30722
- PRML read channel, high speed low power device 32547
- SAR images, max. likelihood algm. for target detect. 17365
- simplified max. likelihood freq. detector perform. anal. 40552
- simultaneous MLE based on generalized matched filter 41002
- slow flat Rician fading, covariance matrix, ML detect. 25306
- TDMA digital cellular radio unified MLSE detect. 33823
- threshold sources detect., prewhitening of colored noise fields 8293
- time-varying nonselective fading channels, max. likelihood data-aided symbol sync. algms. 41386

maximum likelihood estimation
- *see also maximum likelihood decoding; maximum likelihood detection*
- 3-D image reconstructions from partially confocal scanning microscope 16221
- 3-D light microscopy, simultaneous image and point spread fn. reconstruction 16219
- 3-D scenes, image seqs., global-motion estim., coding appl. 41088
- 3D motion estim. from noisy opt. flow, superior estimator, max. likelihood estimator 16328
- 16-DAPSK, multiple-sym. differential detect. *(Japanese)* 24010
- accelerated IC life tests, time reduction by progressive censoring 20491
- accelerated life test data, threshold stress estim. *(Japanese)* 28525
- adaptive algms. for small-size obj. detect. on digital images 24385
- adaptive detect. of subpixel targets, unknown spectral charact. 16103
- adaptive filtering in data commun., self improved error ref. 33160
- adaptive MLSE, fading environ., equalization/decoding 15887
- adaptive param. estim., QR methods of O(N) complexity 40814
- adaptive reduced-state channel equalizer, T-algm. 9302
- adaptive Viterbi decoder, respective-state channel estim. *(Japanese)* 15741
- additive unknown colored noise, max. likelihood DOA estim. 40839
- aerial photography restoration, MLE algm. 41339

maximum likelihood estimation continued
AR proc., non-Gaussian source, Gaussian mixture dens. modeling 40835
array calib./self-calib. methods, class. *(French)* 16039
asymptotic MLE of chaotic sigs. in noise 40847
asynchronous packet transm. optimum frame sync. 41418
AWGN multi-user channels, soft-decision interf. cancellation 42162
ballistic missile track initiation from satellite obs. 18982
bandlimited DS/SS and narrowband M-ary PSK timing jitter sensitivities 40550
bandlimited quaternary phase FSK, error perform. 9276
Bayes estim. of reliab. in geometric case 28529
Bayesian 3D tomographic reconstruction from radiographs, obj.-oriented methods 2840
Bayesian approach, direction finding, parametric array uncertainty 40923
Bayesian recursive estim. of freq./timing 2553
Bayesian time delay estim. for ocean acoustic tomography 35344
blind equalization, ML/MMSE estim. 41021
blind fractionally-spaced equalization, filter banks/lin. prediction 41024
cct.-switched networks, real time traffic estim. 41680
CDMA DA chip synchronizers for bandlimited DS/SS M-PSK sigs. 9371
channel equalization with perceptrons, inform.-theoretic approach 32027
chaotic sigs. MLE 24291
closed loop carrier phase sync. techs. 8461
colour images, textured, unsupervised segmentation 16184
computational opt. sectioning microscopy, EM algm. 16220
computational opt.-sectioning microscopy for 3-D quantification of cell motion 18430
covariance estim. for multidimensional data 8285
CPM coded quaternary scheme for satellite-vehicle/pers. commun. 42265
DECT-type systs., non-coherent equaliser receiver struct. 8855
digital commun. sig. MLS estim. by neural net 32621
digital compact cassette, seq. estim. algms. appl. 17582
digital radio open-loop max. likelihood carrier sync. 42152
digital seq. reduced-state seq. estim. 40535
direction finding, large arrays/finite data, perform. anal. 32555
discrete time chaotic sigs. detect./charactn. 8291
discriminative HMMs, non-lin. input transforms. 32265
diversity gain of transmit diversity in Rayleigh fading systs. 9193
DOA estim. via extended phase interferometry 24327
DOA max. likelihood, estim./detect. 2559
DS/CDMA systs., coherent detect. syst., suppressed pilot channel *(Japanese)* 25279
dyn. threshold detect. 40881
edge detect., Markov random field models *(Japanese)* 16237
EM waves, partially polarized, param. estim. 40329
emitter waveform estim., array sig. proc. 41037
entropy min., spectral estim., inform. theory 40772
equalisation, nonlin. adaptive clustering 16024
event-related pot. estim. by random shifts and scalings 26380
fading channels, blind MLSE 40542
filtered EM algm. for joint HMM and sinusoidal param. estim. 24220
forest param. estim., TM imagery, fuzzy class. 26777
fractal renewal procs., multiscale synthesis/anal. 20527
fractional Brownian motion, spectral exponent estim. 24287
fractional sample type max. likelihood seq. estimator *(Japanese)* 15975
freq. estim., threshold behavior 2507
freq. non-selective channels seq. estim. 8384
freq.-selective Rayleigh fading channels seq. estim. 8373
fully-polarimetric GLRTs for detecting scatt. centers in terrain clutter 17390
hidden nearly completely decomposable Markov chains, adaptive estim. 40971
hierarchical cellular syst., dyn. channel allocation/speed estim. 3397
high-speed train, adaptive channel equalization 3423
HMM for blind channel charactn. and data detect. 40943
HMM speech recogn. perform., MAP estim. params. 32266
IIR dispersive channels, min. Euclidean dist. of modulated sigs. 15709
image motion estim. based on Kalman filtering 24450
image restoration, hierarchical Bayesian approach 8521
image segmentation, adaptive, smooth surface objs. 16182
image segmentation, multiresolution probabilistic neural network 33034
induction machine param. estim., standstill time-domain data 19642
intens. modulation/direct detect. opt. commun. syst., optimum sig. detect. 34076
interferometric SAR terrain elevation mapping from multiple obs. 25549
inverse halftoning/kernel estim. for error diffusion 33133
IPA, improved phone modelling, recurrent neural networks 32218
joint space-time max.-likelihood estimator 8250
Kalman filter for telephone revenue prediction 41718
lang. ident., phone-based acoustic likelihoods 32276
least-sq. fitting appl., meas. errors determ. 3706
lin. FM sigs., fast param. estim. algms. 40909
lin. systs. with non-Gaussian state and meas. noises, recursive estim. 40974
lin./nonlin. filtering 24292
line and edge, extraction based on covariance models 16290
M-ary DPSK, MLSE differential phase detect. 2563
matched field proc. in shallow ocean, EM algm. 34179
mean-field theory and multitarget tracking 15869
MLSE receiver for GSM digital cellular syst. 3424
mobile commun., adaptive equalization, DSP technol. *(Japanese)* 33903
mobile radio commun., interf. canceling equalizer 9383
mobile robot outdoor navig., tree detect./dead reckoning 41109
model adaptive image restoration 8609
model-based multifrequency array sig. proc. 34116
moving sources localization, deconvolution approach 32613
MPSK (un)coded transm. on multipath fading channels 9169
MRI restoration, multidimensional nonlin. edge-preserving filter 26330
MSK from matched-filter, joint max.-likelihood timing/data estim. 15711
multicomponent sigs., amplit./phase params. estim. 40837
multipath channel Viterbi algm. multitrellis decomp. 40558
multiple freqs., unit circle roots guarantee 40825
multiple seismic wavefronts, vel. MLE 43462
multiple stress of component, reliab. estim. 11852
multisensor bearings-only tracking, min. description length 8287
multivariate autoregressive model, max. likelihood estim. 2478
narrowband digital FM sigs., seq. estim. 24280
non-min. phase syst. estimators, comparison 16013
non-stationary sigs., amplit./phase estim. 8312
nonGaussian noise, arrival angle estim. 40948
nonlin. amplif. effect on SS sig. and receiver config. 17007
nonlin. least sq., robust sig. modeling 40999

maximum likelihood estimation continued
nonlin. satellite channel, optimum receiver for QPSK sigs. 3507
nonstationary random sigs. detect. in colored noise 41055
Northern American Digital Cellular Syst. adaptive algm. fading channel tracking props. 33825
obj. ident., stochastic local fractal variables *(Japanese)* 30392
ocean acoustic tomography, universal wave approach 18897
off-line segmentation of sigs., MAP soln. 41007
opt. flow computation, mixture models 16177
opt. image detect. in spatial noise and background radiation 2833
opt. multi-pulse PPM, optimal/suboptimal frame synchronizers 40565
orthogonal FDM frame sync. offset, decision-directed MLE 9432
orthogonal multicarrier syst. max. likelihood freq. detectors 41387
parametric array sig. proc., auto-calib. approach 8425
partial response syst. in perp. mag. recording, perform. 22700
partially known sigs. in unknown noise fields, optimal localization 40947
partially polarized EM waves, param. estim. 2483
periodic discrete event procs., param. estim. 40924
phase-diverse speckle reconstruction of solar data 16211
point source field of NB sig., atmos. spatial phase fluct. estim. 31789
power syst. harmonic sig. estim./retrieval, act. power filter 10604
probabilistic multi-hypothesis tracking 15870
product storage reliab. estim. problem 37198
prog. canonical correl. anal. for blind adaptive spatial filtering 9167
PSK sigs., class., optimum method 15689
QPSK adaptive DFE with MLSE 41385
quadrature param. estim., max. likelihood tech. 41019
quasi-static algm. for image restoration preserving discontinuity 8501
radar target modeling, GTD-based approach 17394
radar theory, ang. coord. of complex target 3602
random-sig.-acoustic source characts. determ. by field meas. 16048
reactor, coolant pump syst., max. likelihood factor anal. 10808
recursive nonstationary MAP displacement vector field estim. algm. 33127
reduced-state soft decision feedback Viterbi equaliser 3425
residential load aggregation, max. likelihood duty cycle forecast validation 36793
Richardson-Lucy algm., ghost images and image reconstruction feasibility 16209
robust nonlin. least sq., data modeling 16009
SAR images, max. likelihood algm. for target detect. 17365
satellite digital broadcasting using sync.-CDMA, multipath channels 33952
satellite TDMA binary PSK sig. demodulation without explicit carrier sync. 40553
scarce state transit. Viterbi decoder, nonsystematic convolutional codes *(Japanese)* 32072
scatt. field data, target location estim. 17399
self-calib. DOA estimator, computationally efficient 41050
sens. fusion, Pitman closeness/complete linkage algm. 32801
short-block digital transm., adaptive MLSE for mobile radio 3427
side-scan sonar images classif. via parametric modeling 17487
simple obj. ident. in image seqs. 41251
simultaneous MLE based on generalized matched filter 41002
single tone max. likelihood freq. estim., threshold effect 40828
sinusoidal param. estim., real time cascade adaptive notch filter 2524
solar cells, V-I characts., max. likelihood principle 36594
spaceborne SAR antenna patterns determ., distributed targets 25571
spatial-point proc. model, texture class. 34183
spectral anal., ML method based on correl. matrix lin. symm. 32574
speech recogn., HMM param. estim., fuzzy VQ 15819
speech recogn., local/global constraints, stochastic lang. model 32366
speech recogn., MLP probab. estimators, parallel training 8237
speech recogn. non-uniform unit HMMs 2445
speech waveform restoration by MLE *(Japanese)* 15804
sq.-QAM adaptive modulation/TDMA/TDD syst., modulation level estim. 25272
subspace GLRT for vector-sens. array detect. 40954
super-resoln. range-Doppler imaging 25556
superimposed exponential sigs. estim. methods 2530
systematic TCM in coded modulation 8093
talker localisation in room, microphone array 32410
target tracking/ident., likelihood-based approach 9621
TCM for equalized multipath fading ISI channels, perform. 25340
TCM sigs., tunable complexity RSSE decoding 40673
TDMA digital cellular commun., adaptive channel equalization 42267
TDMA digital cellular radio unified MLSE detect. 33823
telephone based speech recogn., in adverse environ., sig. bias removal 32316
telephone channel adaptation, vector field smoothing tech. 2447
texture segmentation using wavelets, fast fractal, extraction 8500
three-phase salient pole sync. machines, param. estim. algm. 44016
three-scale detect. systs., synthesis 41030
time-varying arrays, direction finding 40838
trellis coded CPFSK, coherent detect. on phase jitter channels *(Korean)* 33922
turbulence-induced phase error param. dimens., estim. in phase diversity 16214
turbulent atm. wind profile estim. from laser distortion data 35311
two source max. likelihood fn. 8397
underwater acoustic multipath propag., parametric separation 32607
Viterbi algm. simultaneous data detect. and channel estim. 8385
Weibull accelerated life testing, unreported early failures 28429
Weibull probab. distrib., param. estim. 192
wideband multiple target tracking 41010
wideband sigs., time delay/Doppler stretch estim. 40836

maximum principle
see also dynamic programming
electrothermal launchers, operation, mass supply, distrib. heat sources 15293

maxmin technique *see minimax techniques*

Maxwell equations
1D TEM wave time domain soln., Maxwell eqns.-based *(German)* 31806
2D eqns. for guided EM waves, anisotropic plates 31907
2D struct. anal., first-order hybrid FEM/MoM approach 31785
3D charact.-based time-domain Maxwell eqns. solver 40180
3D FEM soln. of Maxwell's eqns. for rect. waveguides 23795
3D Maxwell eqns., absorbing boundary conditions for finite element soln. 40194
3D scatt. problems, absorbing boundary conditions for FEM soln. 40309
absorbing boundary conditions, FDTD method 7956
actuators, EM forces calc., num. methods assess. 5169
anisotropic lossy materials, transient propag. 7943

Maxwell equations continued
anistropic media, Maxwell eqn. soln. using characts. theory 23559
Beltrami-Maxwell postulates for time-varying EM fields in materials 15207
birefr. opt. fibers, polariz. mode dispersion 22816
composite struct. of complex materials, EM refl./transm. 31778
constitutive/Maxwell's EM field theories, comparison 2166
coupled waveguides, excitation conditions, math. refinements 39407
curved conductor surface model, cavity resonators anal. by spatial network method 21526
differential form of Maxwell's eqns. in rect. regions, soln. 31704
eddy current problems, BEM-FEM-coupling method, domain decomp. 40254
electret motors, EM force calc. methods 44085
electrosmog, EM fields in environ. 15542
EM field num. anal., BEM/FEM appls. *(Japanese)* 15205
EM multiple scatt. by dielec. spheres random distrib. 31795
EM scatt., perfectly matched absorbing boundary conditions 23601
EM waves reflectionless absorpt. , perfectly matched layer concept 23600
FDTD, ESD source modeling 15217
FDTD solns. of Maxwell's eqns., dispersion suppression 2176
FEM computation of electrostatic fields/space charge effects 31705
femtosecond temporal and spatial soliton num. simul. in nonlin. optics 40055
field-to-wire coupling, anal., FE-TD method 40191
finite element program for magnetostatic anal. 31723
finite element time domain algm. for soln. 37369
gyrotropic effects, dielec. mixtures, anisotropic components 13925
head waves in piezoelec. half space, model 18945
hollow circ. waveguides, atten. const., curvature effect 15601
Indian MHD retrofit channel, perform. prediction 10905
interact., pulsed EM field and horn antenna 8033
isotropic chiral media, effective charge densities and current densities 23491
lin. homog. constitutive rels. constraints 15240
lin. polarized aperture array antenna *(Japanese)* 40516
lin. reluctance motor can secondaries, suspen./propulsion forces 19671
mag. field anal. by hybrid FEM/BEM 31702
magnetodielectric bodies, wave scatt., discrete source method 15428
magnicon output cavity, anal. and simulation 21815
matter/radiation, EM wave approach 15391
Maxwell's eqns. soln., unstructured grid algm. 2200
mesh termination in finite-difference techs., simulating boundary conditions 31717
microstrip systs., FEA, approx. capacitance formulas 6283
microwave heating, multimode applicator, finite element time domain anal. 28171
monochromatic EM field differaction by microstrip antenna 2319
multi-chip carrier power hybrid, EMI study 21662
multilayer shell shield, matric anal. 23659
nonlin. Kerr medium, Maxwell eqns. 7755
nonlin. magnetostatic problems, complementary formulations and adaptive mesh refinements 40220
num. soln. method, EM scatt. appl. 23582
open uniaxial anisotropic waveguide used as electrooptic modulator, anal. 4040[illegible]
PCB, high speed pulse propag., radiation prediction, 3D FDTD 900
photoconducting switches, 3D FDTD simulation 23012
planar laser microcavity modes, self-consistent calc. 39993
planar lines and antennas, 3D full-wave anal. 2280
plane conducting screen/periodic mag. field interact. 23495
polarimetric scatt. and emission props. of refl. symm. targets 7952
printed microstrip device full-wave anal., generalised Yee algm. 29537
S-params., calc. by orthogonal expansion and finite integrat. 2168
scalar EM propag., parab. eqns., split-step Pade approx. 40353
semiconductor structures, oscill. transport instabilities, current filamentation 22338
shaded-pole induction motors, 2D EM field anal. *(Japanese)* 11019
shielding effectiveness of plane shield, incident angle 23698
sig. solns., Maxwell's eqns. 7944
sig. solns. for charge carriers of nonnegligible mass 7884
superconducting microstripline atten. and propag. const. calc. 31896
Tellegen medium study 2167
time depend. Maxwell's curl eqns., hybrid finite element solns. 40184
time-domain EM plane waves in static and dyn. conducting media 31784
time-domain num. soln., error charactn. 2178
TLM and hybrid symm. condensed nodes, direct derivation 15552
uniaxial bianisotropic-ferrite medium, field representations, cylindrical vector wave fns. 40320
vectorial beam propag. method based on EM field directional decomp. 40429
very-short air gaps in plane-parallel electrodes, discharges 13979
wave permitt., engng. and phys. concepts 40304
Whitney's edge/face elements for FETD soln. of Maxwell's eqns. 2175
Whitney elements time domain methods for solving EM Maxwell eqn. problems 40183
X-band rect. waveguide, Maxwell's eqns., FDTD soln. 23814
Ag halide holographic phase grating, modulation profile 40141
GaAs thin semicond. samples, EM simul., 2D TLM method, device models 30207
YBaCuO/Ag coplanar lines, charactn. and EM modeling 37936

MBE *see molecular beam epitaxial growth*

MCA *see system buses*

MCD *see magnetic circular dichroism*

MCG *see magnetocardiography*

MCM *see multichip modules*

M^{2}CMOS *see CMOS integrated circuits*

MCP *see microchannel plates*

Mealy Moore machines *see finite automata*

mean free path, carrier *see carrier mean free path*

measurement
see also specific measurements, e.g. frequency measurement
see also instruments; recording; testing; units (measurement)
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
extraction in digital aerial triangulation 41255
identification approach linear dynamic systems appl. 25699
identification of processes with output drift, freq.-domain 25700
image segmentation, effect on meas. 32848
KoREMA, conf., Zagreb, Croatia (Apr. 1993) 20203
KoREMA, conf., Zagreb, Croatia (APR. 1994) 20202
param. estim., higher order stats./inverse filtering 40762
robotics, conf., Torino, Italy (1993) 11587

measurement continued
telecom. network EM disturbances charactn. meas. 16574
weights and measures, conf., Kansas City, USA (1993) 28260

measurement by laser beam
see also laser ranging; laser velocimeters; laser velocimetry; remote sensing by laser beam
3D laser-based sens. for robotics 17763
3D profiles noncontact meas., opt. sens. *(Japanese)* 42943
3D shape meas., spot ray pointer, calib. 42749
autocollimation laser refractometer, highly sensitive fiber-optic output 42961
automatic birefr. eval. syst. 5697
bihelicoidal laser eigenstate opt.-activity meas. 42960
blood platelet aggregation, aggregates counting, laser light scatt. 26329
car exhaust trace gas monitoring by laser photoacoustic spectrosc. 18907
ceramic flush temp. meas., IR pyrometer, fused opt. coupler *(Japanese)* 42973
CO_2 laser, electron-beam sustained, perform. optim. 18833
compensation detector of birefr. 14339
conference, laser techniques for surface science, Los Angeles, CA, USA (Jan. 1994) 28208
conference, St. Petersburg, Russia (1993) 11527
coord. meas. machines, accuracy assess. 42933
delay meas., self-pulsating laser 42946
digital holography- laser metrology *(German)* 7814
displacement sens. with opt. feedback, LD 18097
dist. meter, fast APD 25975
distance maesurement of laser-induced diffraction signals 25972
distributed-Brillouin-gain spectrum meas. in opt. fibers by single laser source 7315
dual gate MOS-JFET CCD test struct. 34584
dye color/conc. detect. by realtime opt. sens. *(Japanese)* 18138
edge angles meas. of knives, light sectioning tech. 3978
electrostatic accelerator based FEL, material sci. in far-IR 39987
falling raindrop, nonintrusive temp./size meas. 42935
fiber laser/amp. based sens. 34551
fibre laser sens. syst., interferometric read-out/WDM 17882
fibre optic sens. technol. evol. and commercialisation 17818
fibre-rem. pumped Nd:YAG laser, heterodyne sens. appls. 17863
fluid flow visualisation, recent trend *(Japanese)* 34733
fluoresc. Tm^{3+}-doped fluoride fibre, H_2O detect. 18163
General Electric HDI modules, MCM-D, reliab. 12980
glass plates, stress measuring method, polarized laser and photo-elastic modulator 34705
heterodyne opt. interferometry, LD power change effects 42965
high speed testing, optoelectronic techs. 6825
high-Δ fiber core rad. meas. by opt. method 14386
hole diam. opt. meas. instrum. develop. *(Japanese)* 42939
hot strip mills, real time flatness sens. 42934
IC ohmic contacts, interfs. of Peltier thermal waves 1151
III-V electronic device step response meas. on ps time scale by electro optic sampling 42963
indust. Raman scatt. opt. materials charactn. facility 5693
intell. rod gauge, laser scanning based, develop. *(Chinese)* 10022
interferometric meas. of phys. consts. of laser dye solvents 23339
ion vel. in RF ion beam, LIF meas. 43021
laser alignment meas. syst. based on opt. activity, adaptive noise cancelling 31691
lasers in flat-panel display manufacture 2157
LD freq.-modulated interferometer, selective imaging 40177
level/dist. meas. appl. 10064
linac based FELs for condensed matter vibr. dyn. study 40110
long-wavelength LD interferometer, surface flatness meas. 18068
mach. wear particle anal. by fiber-optic confocal laser scanning microscopy 31695
machine tool rolling meas. syst., laser interferometer-based *(Japanese)* 42940
mag. disk surface roughness meas. via opto-heterodyne interferometer *(Chinese)* 34698
metal, plastic deformed, surface contouring by microlens array 34695
metallized Si wafer RTP temp. meas., IR transm. techs. 22216
metane, atmos., tunable LD absorpt. spectrosc. 9953
MHD, alkali seed monitoring, laser optogalvanic spectrosc. 27969
micromachined materials mech. props. 5926
micromechanical photonics, microresonator displacement meas. by external cavity LD 34691
micrometer/nanometer displacement and refractivity meas. by laser beam 4000
microwave heating syst. permitt. meas. correction procedures 44593
mirror-type laser dew-point hygrometer 26020
modal shapes meas. of inhomog. cantilevers, opt. deflection 25974
motion params. meas. by speckle-optics methods 18076
multimode lightguide differential charact. expt. set-up *(Russian)* 14477
multiple-refl. beams for simplified heterodyne interferometers 17705
multiplexed diode-laser sens. syst., gas/temp. meas. 7874
myocardium, frog, elec-fluoresc. recording with opt. fibres 10243
non-contact μP-based digital He-Ne laser scanning micrometer 18099
nonlin. refr. indices determ. by Z-scan/EZ-scan meas. 7780
oblique incidence opt.-fiber diam. determ. by scatt. 7274
oil films at water surface, rem. thickness meas. by excimer laser 7876
oils, crude and refined, rem. charactn. by laser fluorosensor syst. 35357
opt. disk substr. vert. birefr. measuring method 15192
opt. disk tester, 680 nm laser head 7273
opt. methods for studying flows in gaseous and condensed media 26012
Optotrac, opt. non-contact 3D motion tracking instrum. 17659
p-i-n photodiode defect localization by laser scanning microscopy 40174
package, transient strain response, scanning laser vibrometry 34706
photoacoustic Stark cell and power supply 26008
piezoceramic plate bending motion meas. by homodyne holographic interferometry 40153
piezoelec. micromotors, PZT ferroelec. thin film appls. 44091
poly(2,5-thienylene vinylene) film, reson. opt. Kerr effect 15085
post metal deposition defects, real-time particle detect. 38697
pseudospark switch, metal vap. densities/excitation temps. 36407
pulsed power syst. dielecs., real-time surface flashover detect. 36292
quartz, very high freq. resonators, LD-based mode-shape meas. syst. 22679
real time electro-optic probing for long logic pattern anal. 34649
ring laser gyroscope design, spatially resolved eigenstates for traveling/standing waves 14997
road surface conditions detect., photodetectors based prototype 42791

measurement by laser beam continued
- robotic plasma arc cutting, laser sens.-based 126
- scanning imaging systs., S/N ratio, modulation waveform 40172
- scanning laser vibrometers, directing meas. point 31693
- semicond. device material single event effects testing by laser beam 13573
- semicond. wafer defects discrim. by laser-based systs. 13833
- SEU in SRAMs meas. with pulsed laser, spatial depend. 12524
- sig. ratio meter for laser gas analyzer 3908
- six-DOF laser vibrometer, expt. validation 10037
- six-DOF laser vibrometer, theoretical develop. 10036
- soft objs. dimens. inspection, laser/CMM syst. 34332
- solar receiver/reactor laser diagnostics syst. 10058
- solid insulators, breakdown precursors 35660
- Stanford FEL cavity length meas. by external laser reson. 39939
- stereoscopic syst., particle trajectories meas., underwater model 34732
- submillimeter laser interferometer-polarimeter for plasma diagnostics 40173
- submillimeter wavelength high-precision ellipsometric reflectometer, refr. index meas. 34711
- surface roughness online monitoring by laser scatt. *(Japanese)* 34700
- surface texture anal., machine vision syst. 10023
- thermal diffusivity meas. of thin films and foils 25994
- three-channel FDM fiber-optic LF voltage sens. 9921
- time-freq. distrib., laser radar backscatt., FM demodulation 34166
- torsional deflection shape meas. 10034
- trace gas rem. sens. in mid-IR/nadir geom. 43533
- trace gas sensitive detect., laser opt. lever 3907
- transient ultrafast Kerr lens in soln. detected by dual-beam thermal-lens method 23380
- two-color Z-scan tech., enhanced sensitivity 40023
- ultrahigh-speed MSM photodetectors for opt. commun. 42452
- underwater opt. imager, Nd:YLF laser (green) 18904
- unmanned underwater surveillance vehicle systs. 9666
- vibration meas. by laser techniques, conf., Ancona, Italy (Oct. 1994) 36868
- wind meas. by heterodyne coherent laser radar 43504
- Ar gas electron avalanches, pulsed Townsend meas. 30552
- Er-doped fibre amp. noise characterizes high-speed photoreceivers 15191
- GaAlAs LD feedback interferometer for displacement meas. 23479
- He-Ne ring laser, T violation and microhertz resoln. 23326
- Na narrowband wind-temp. lidar syst. sensitivity anal. 43503
- Nd:YAG birefr. microchip laser used in heterodyne vibrometry 23481
- Nd:YAG ring laser freq. stabil., interferometric gravit. wave detector light source appl. 31301
- O in flames, detect. by intracavity laser spectrosc. 4010
- OH LIF temp. meas. using thermally dissociated H_2O, calib. 10048
- Pb salt tunable IR lasers, spectroscopy appls. 14791
- Si wafer mapping, lifetime/resist./oxygen precip. meas. 25945
- Si wafer temp. monitoring by IR laser interferometry *(Korean)* 13363
- SiN-Si X-ray mask wafer stress, contactless laser/microwave eval. 6686

measurement errors
- 3-phase unbalanced loads, PF meas. 43809
- 3D projective geom. based image reconstruction 41137
- A/D conversion, error margin and quantization interval constraint 42750
- absol. dist./vel. meas., double integrated heterodyne interferometer 18073
- AC resistors, AC-DC difference meas. method *(Japanese)* 25943
- accuracy improvement by selection of no. of meas. 3705
- accuracy improvement of time intervals meas., pulse counting 3995
- accurate refr. index meas. 18124
- adaptive whole-field opt. profilometry 18089
- ADC, harmonics error due to nonlinearity 25759
- ASD perform. eval. by PC-based meas. 36652
- astron. radio-interferometry, calib. problems *(French)* 17530
- Avogadro const. determ., Si crysts. dens. meas. 17647
- ballistic missile track initiation from satellite obs. 18982
- broadband bearing estim., array model errors 8262
- broadband permitt. meas., T/R method in coaxial transm. lines 3953
- broadband sampling oscilloscope, nose-to-nose calibration 25913
- calib. of instruments optimisation 3715
- calib. stds. for SEM 3720
- CCD image sens. range cameras, focal error based 3872
- cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
- closed vols. lin. and ang. meas. 18152
- coilgun perform., timing errors effect 31755
- complex sig. detect. in white Gaussian noise and narrow-band interf. 32592
- compression window algms. design for elimination of errors 3704
- concentricity tolerance meas., man, meas. error source *(German)* 10019
- coord. meas. machines, accuracy assess. 42933
- core-loss power, direct meas., effective control of error 39188
- cumulant-based MUSIC method with meas. errors, asymptotic anal. 40826
- DC meas. and test systs., config. for min. errors 3946
- deviation from rectilinearity meas., error eval. 42925
- diffused channel waveguides, Δn/index profile determ. 39417
- digitizer, chopped impulse meas. errors *(Chinese)* 3764
- direction finding array sens., calib. 24195
- discretised objs., geom. charact. determ. 41154
- disk magnetized to saturation in parallel field, demagnetizing field 25952
- displacement-freq. converter for μP dimens. meas./monitoring 3769
- dual wavelength beat wave interferometry for large diams. meas. *(Chinese)* 42928
- DVM for quantized Hall resist. std. 3721
- dyn. charact. ident. of sens., discrete obs. 3708
- ECG, Q wave initiation ident. var., QT meas. contrib. 35092
- ECG, QT meas. techs., automatic, accuracy 35085
- ECG, R-R interval., high resoln. meas. 35100
- electronic speckle photography, systematic/random errors 7810
- ellipt. polarized elec. field, elec. field meter 18020
- end-face bevel angle of an opt. fiber, meas. method 7299
- ESD diagnostics, HV calib. 30542
- fiber four wave mixing, polaris. independ. wavelength conversion 9439
- fiber four-wave mixing opt. wavelength conversion, SBS effects 30847
- FM transducers in measuring, monitoring, and control 3807
- freq. deviation of pulsed sig. meas., errors anal. 42885
- Gb/s intens.-modulated direct-detect. systs., laser turn-on delay and chirp noise effects 42460
- Gbit/s opt. transmitters, accurate opt. extinction ratio meas. 9462
- geostationary satellite positioning syst. develop. *(Japanese)* 17507
- GPS-supported block adjustment, self-calib. params. 42547
- gravit. const. determ., temporal/spatial vars. 3998
- heterodyne opt. interferometry, LD power change effects 42965

measurement errors continued
- high speed μP test, meas. error calc. 9804
- high-power-level microwave multimeter 9972
- hollow glassware stress meas. by photoelasticity 34722
- IC electromigration tests, thermal effects 30134
- in-service fiber line ident. based on high-resoln. fiber length meas. 17332
- indirect meas., error estim., tractability 3703
- induction watthour meters, harmonic perform. studies 35705
- inductive displacement pickups, ratiometric correction of sampled data 17736
- inertia tensor meas., expt. proposal 42955
- integral error charact. eval., distrib.-free methods 17624
- inverse synthetic-aperture imaging radar, gradient-search phase-retrieval algm. 3629
- IR detector array, point spread fn. from imprecise meas. data 17788
- IR FPA, high-resoln. closely spaced obj. location algms. 3885
- IR syst. rem. temp. meas., accuracy depend. on obj.-syst. dist. 34559
- lag correction in meas. systs., nonrecursive filtration 17625
- laser cutting machine, accuracy/error compensation *(Japanese)* 5608
- laser rangefinder, error sources 2156
- LDA, single-freq. sig., digital meas. 4018
- LED based opt. sens., referencing, wavelength selection strategies 1816
- lightwave polaris. analyser 30910
- lin. rising front impulse, peak value meas. errors *(Polish)* 25935
- linearity of fast digital oscilloscopes improvement 25753
- long. vehicle dist. control, meas. error effects *(Japanese)* 10028
- low-level meas. techs. for noisy environ. 17651
- LV power syst., earth ground resist. testing 19355
- mag. core loss charactn., practical approach 30746
- mag. flows/MMF/currents, meas. device *(Russian)* 42899
- mag. permeab. meas., errors, correl. factors 18042
- mains insulation monitoring, computerised monitoring 39062
- maneuver-driven tracking filters 25558
- mass flow rate meas., variable press. differential 42984
- mean-field theory and multitarget tracking 15869
- MEBES 4500 raster scan lithog. syst., dyn. corrections 13448
- microcalorimeter, mm-band power converters 18050
- microsensor with auto-zero offset compensation 25800
- microwave complex permitt. meas. using coaxial line, error correction 18035
- microwave complex permitt. meas. using coaxial probe, error estim. 18036
- microwave multimeter, four-probe microwave transm.-power transducer 10008
- monitoring reliab. estim., stat. anal. 17623
- moving magnet opt. scanners, scanning speed and accuracy 31057
- moving obj. detect., posn. sens.-based, meas. error probab. *(Russian)* 34701
- N_A role in SI, at. path, kilogram 17644
- NAMAS approach, instrum. specs. 42681
- neuro/fuzzy systs., analogue, CMOS design, basic building block approach 790
- NIST cylindrical cavity resonator for permitt. meas. 37958
- noncontacting current meas. in underground pipelines, geom. instabil. 42883
- nonlinear disturbance errors in lin. syst. identification 25701
- on-orbit calib. of inductosyn error 18720
- open-circuited coaxial probes, neurocomputed model 34666
- opt. fiber losses, meas. method 30866
- opt. fibres in pulsed TOF laser rangefinder 22853
- opt. posn. sens., source width insensitive 17782
- opt. SHG accuracy 31539
- OTDR, photon counting, data correction 22846
- phase shifting interferometry, ref. phase shift determ. 33072
- phase-measuring profilometry digital image-acquisition device, MTF effects 24408
- photogrammetry using video cameras, modelling & calib. 43486
- pickp-up opt. head syst. tolerance used in phase-change opt. disk *(Chinese)* 14337
- piezoelec. bimorphs, forces meas. in colloidal systs. 18114
- pipelined charge-balancing A/D converter 25757
- plates, permitt./tan δ meas., dielec. loaded cavity resonator in UHF band *(Japanese)* 25951
- power syst., CT props., short cct. transients 19373
- power syst. impulse voltage/current meas. correction 4749
- power syst. supply quality improvement, meas. problems 19357
- precision AM sigs. generation, binary modulation of rect. pulses 17988
- preforms/waveguides, refr. index meas. by interf. method 4001
- projected fringe surface topography meas. 18063
- PSK sig. carrier freq. meas., FFT 34658
- radar target scatt. characts. meas. 17420
- referenced intens.-based opt. fibre sens. 34525
- refr. index of liqs. mes., posn.-sensitive detector 18125
- reliab. params. in engng.-syst. monitoring, error var. 11859
- rem. time scales comparison by satellite commun. channel 17636
- RF instrum. accuracy, meas. uncertainty effects 42911
- rigorous diffr. theory, opt. metrology and AFM topography, nm accuracy 34721
- robot vision-based calib. syst. 17658
- roundness meas., on-machine mixed method 10025
- scalar meas. error in microwave/RF test configs. 42909
- scanning LLL X-ray interferometers, Takagi eqns. appl. 18424
- scanning microellipsometry for topography meas. 25976
- self-checking resistive ratios automation 25705
- sens. fusion, sens. location estim. errors 41107
- sensitivity anal. of one port/two port BAW/SAW resonator 30639
- sensor calibration design, optimised approach 25706
- short-lived dyn. syst. discrete adaptive filters 32650
- skewed-port device meas., vector accuracy enhancement techs. 18054
- SOI opt. rib waveguide, loss, mode characts., bends and y-jns. 1719
- soot props. meas. by two-colour pyrometry 10054
- speckle interferometry based lin. displacement transducers, error avoidance techs. 9889
- specs. and cct. perform. 42657
- spectral estimation using distorted-timebase digitizer 25735
- spectral reflectance factor scale for calib. and stds. 9776
- spectrophotometric data correction, Kalman filter algorithms 25770
- SSB noise fig. determ., microwave freqs. 18058
- Stanford FEL cavity length meas. by external laser reson. 39939
- std. breast dose estim., perspex block thickness 26502
- submarine navig. data integrat. 24296
- synchronous sampling clock generator, meas. accuracy anal. 25763
- thermal diffusivity meas. of refractory solid materials 25996
- time domain network analyzer, calibration/normalisation 25745

measurement errors continued
TLD dose meas. precision, automatic TLD reader 26499
tracker correl. gate size optim. for maneuvering targets 18977
transformer coupled bridge, capacitance meas. errors 25940
transverse-flux induction heater exit temp., real-time meas. by transputers 44625
true RMS av. power meas. of complex sig. 3950
two-port reflectometer scatt. coeffs. meas. accuracy 459
vocal tract shape meas., MRI *(Japanese)* 10217
voltage-clamp techs., single-electrode, error sources 10224
VUV detector stds. establishment *(Japanese)* 17640
wave-front sens., closed-loop adaptive optics syst., error propag. 14567
wedge prism freq.-tuning mechanism in single-mode tunable laser 23330
white-light scanning fiber Michelson interferometer for absol. posn.-dist. meas. 42832
C films, plasma deposited, ellipsometric params., sample temp. 34715
GaAs-InP pin photodiode lightwave meas., error correction 42797
Na narrowband wind-temp. lidar syst. sensitivity anal. 43503
Pt resist. thermometer, small mag. field correction 9866
Si piezoresistive stress sens., thermally induced errors 34472

measurement standards
see also atomic clocks; temperature scales
1/f noise universality in high-technol. appls. 34313
RC calibration standards, multifreq. binary testing 25704
absol. water dens. meas., 1°C, 40°C 18119
AC meas. of quantized Hall resist. 34318
acetylene, saturated-absorpt. lines, HF-stabil. laser 39829
ang. transducers, autocalibration *(Italian)* 9855
artefact stds., perform. comparison techs. 17633
at. beam freq. std., laser cooling 42664
at. clocks, cryogenic lin. trap for ^{199}Hg^{+} ions 42672
at. fountain freq. stds., opt. lattices 42665
at. time scales 34324
atten. in plated coaxial transm. line 34316
automatic working resist. stds. 3717
AUTOTESTCON, conf., Anaheim, CA, USA (Sept. 1994) 20248
Avogadro const. determ. from elec. meas. 17645
boundary scan testing, syst. level 6401
capacitive voltage indication syst. operational experience *(German)* 19901
centrifuge ball viscometer for polymer melts 10077
coherence-induced spectral shift expts., radiometry appl. 4004
combined sapphire oscillator-H$_2$ maser freq. std. 9778
comparative analysis of digital sinewave generation methods 25904
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
coord. meas. machines, accuracy assess. 42933
cryogenic all-sapphire Fabry-Perot opt. freq. ref. 31462
cryogenic H maser, 10 K 39634
Cs at. fountain expt. for at. freq. std. 3713
defn. of instrum. perform., contract and metrological purposes 42659
difluoromethane FIR laser, opt. pumped, freq. std. 7508
displacement meas., absol. mag. scale, nonrepeated codes *(Japanese)* 34693
dissemination of units in Europe, traceability/assurance 34306
DVM for quantized Hall resist. std. 3721
Edlen updated eqn. for refr. index of air 17639
EMC testing mgt. of large systs. 2250
EMI meas., std. antennas calib. 7991
environ. dosemeters, ninth internat. miniintercomparison 43392
European Union product sales, mutual recogn. agreements 15528
EXAR failure rate prediction syst. 11879
force std. machine, nonrotating loading ram cylinder 18110
freq. stabil. in time domain 34329
frequency control, symp., Salt Lake City (Jun. 1993) 34
frequency control symp., Boston, MA, USA (Jun. 1994) 28221
gasket shielding perform. meas., test techs. 15499
GLONASS on-board time/freq. std. 42677
GPIB compliance testing, large test/meas. company 34376
GTEM, OATS radiated emissions correl. from 1-5 GHz 15512
GTEM data submission, FCC approval 23722
HP8410 ANA syst. response calib. 34385
IEC801-3 std., radiation immunity systs. 23732
IEEE 1149.1 backplane test bus selection criteria 9808
IEEE 1149.31 protocol addressable, multi-drop, backplane test bus 9782
IEEE P1149.5 MTM-Bus, backplane test/init. interface 9807
instrument specifications, colloq., London (1994) 20257
internat. comparison ofI$_2$-stabilized He-Ne lasers 34315
internat. freq. std., dissemination *(Japanese)* 3712
internat. organizations for quantities and units standardization 34309
IR coating bidirectional reflectance distrib. fn. ref. stds. 9777
ISO 9000 compliance of test/meas. equip., calib. aspects 3710
Japanese elec. and mass stds. 34325
Josephson voltage std., internat. comparison 34321
JPL lin. trapped ion freq. stds., stabil. comparisons 42671
kilogram national prototypes, third periodic verification 17628
KNM-S243/S603 radio interf. apparatus/measuring systs. 23734
length meas. of terminal gages, absol. interf. method 9784
lin. ion trap based freq. std., progress report 42674
long-term stabil. quartz oscillator, GPS filter 42324
low cost EMC testing 2251
LRM probe-tip calib., nonideal stds. 25708
mag. fields from appliances meas., coil probe dimens./uncertainties 3813
mag. recording, flying height tester calib. std. 7151
mammography exposure std., free-air ionization chamber design 43212
mammography screening programme, pop. radiation dose, New Zealand 18671
mass stds., stainless steel wts. cleaning, ellipsometry appl. 9779
ME2632A/B/C digital mobile radio test syst. for PDC/PHS phone prod. *(Japanese)* 33769
microcalorimeter, mm-band power converters 18050
monoblock WDM multiplexers for opt. fibre commun. 3571
multiport vector NWA calib. 17635
N$_A$ role in SI, at. path, kilogram 17644
NAMAS approach, instrum. specs. 42681
network voltage quality monitoring *(German)* 27135
neural network controlled cryst. oscillator 39107
NIST State wts. and measures labs. directory 20223
NIST-7 freq. std., hybrid digital/analog servo 42667
nonhysteretic Josephson jns., quasipotential and phase lock stabil. 1617
opt. SHG accuracy 31539
oscilloscope specs. 42868

measurement standards continued
photodiode freq. response meas. to 40 GHz, comparison, NPE/NIST 31075
power std. improvement, microwave multimeter 9785
power syst. impulse voltage/current meas. correction 4749
power syst. opt. current transducers, review 4735
power syst. real-time harmonics/flicker meas., PC-based 19367
precision freq. meas. tech. in MCXO 42886
primary std. KCl solns., cond. meas. 3722
product specs., rel., meas. stds. 42656
QTAG std. for test fixture I$_{DDQ}$/I$_{SSQ}$ monitors 6852
qty. calculus and internat. syst. 34305
quantum 1/f effects in freq. stds. 34328
quasi-spherical solid dens. stds., vol. determ. 17649
rack-mounted opt. ref. unit, 1547.825 nm 9469
radar target scatt. characts. meas. 17420
radiated EM suscept., test requirements/procedures 15467
radioactivity meas., curie, becquerel 34326
radiometric lamp stds., automated current control 3723
ref. auditorium and audio std. strategy *(German)* 9765
rem. time scales comparison by satellite commun. channel 17636
reprographic devices, energy consumption meas. techs. 9991
ring trap for freq. std. appl. *(Japanese)* 42662
roughness meas. instrum. for nanometer range *(German)* 18103
sampling oscilloscope calibration IEEE-1057 draft standards 25702
satellite laser ranging time transfer 3714
self-checking resistive ratios automation 25705
Si ref. materials certified for isotope abund. ratios 3709
SI units accuracy, dissemination and internat. traceability 34310
simultaneous temp./hydrostatic pressure meas. 25859
single mode dye laser freq. stabilization, forward scatt. 7536
single-mode opt. fiber attenuator, intercomparison of atten. 14369
six-port module for built-in-test applications 25960
six-port reflectometer using hybrid stripline/waveguide technology 25962
skewed-port device meas., vector accuracy enhancement techs. 18054
sound levels in ocean, std. defns. 43000
specs. and cct. perform. 42657
specs. for fibre optic instrumentation 39346
specs. interp. 42658
spectral reflectance factor scale for calib. and stds. 9776
specular reflectance, spectrophotometric meas. procedures and stds. 17631
std. freq. generators, environ. sensitivities 42663
submillimeter wavelength high-precision ellipsometric reflectometer, refr. index meas. 34711
time transfer, spaceborne H maser/laser pulse timing 42668
traceability in power/reactive power meas., NPL approach 34655
traceability of ATE systs., w.r.t. internat. stds. 9781
transfer and develop. of metrology stds., Japan/Asia 34327
transfer thermistor transducers in HF AC voltage stds. 42655
tunneling thermometer, std. appl. 9882
UK legal appl. of EMC directive 2252
universal time scale reprod., astro-opt./satellite data 9783
VDU emissions, stds. 3934
VUV detector stds. establishment *(Japanese)* 17640
wavelet anal. for sync. and timekeeping 42679
weights and measures, conf., Kansas City, USA (1993) 28260
weights and measures, conf., Nashville, TN, USA (1992) 11592
Wolf shifts interp. under lab. conditions, comments/reply 4005
X-ray air kerma primary stds., changes (1970, 1993) 26507
X-ray cryst. dens. method, hist./future outlook 18118
XSH alacrite based mass stds. stabil., cleaning influence 34317
Cs at. freq. stds., second harmonic level monitors 42676
Cs beam freq. std., vel. distribs. determ. 42666
H atom, spin-exchange freq. shift cross sect. 39633
H masers Frequency control, high accuracy calibs. 39635
He-Ne laser, I$_2$ stabilized, freq. shift 34320
Hg^{+} freq. stds., space flyable 42673
I$_2$ transits., absol. freq. meas. near 532 nm, Nd:YAG laser stabilis. 25984
Nb tunnel jns., AC Josephson effect above gap freq. 14300
Nd:YAG ring laser freq. stabil., interferometric gravit. wave detector light source appl. 31301
Pt-Ir ref. masses stabil., Hg contamination effect 34319
Rb freq. stds., Neuchatel Observatory 42669
Rb maser freq. std., double bulb 39636
Si detectors, radiation hardness, fast neutron fields 43116
Si lattice param. meas., survey 17638
Si single-cryst. spheres, fab./sphericity meas. 18100
Yb ion std., JPL develop. 42675
^{171}Yb^{+} trapped ions, prototype microwave freq. std. 42670

measurement systems
see also meters
3D shape meas., spot ray pointer, calib. 42749
1800 MHz radio propag., time dispersion meas. syst. 9319
amps., protection from overvoltage 547
ang.-meas. systs., directional vectors estim. 18060
custom power supply cost optim. *(German)* 21116
DC meas. and test systs., config. for min. errors 3946
destructive meas. eval., gage repeatability/reproducibility 37567
digital simulcast trunking syst. fine tuning 3373
EMI environ. meas. syst. employing freq. level selective proc. *(Japanese)* 8001
EMP, measuring syst. deformed, reconstruction 23700
fuzzy uncertain computer-aided meas. systs. 3739
high-speed tracking target simulator for fine tracking mechanisms 17305
IEC801-3 std., radiation immunity systs. 23732
IEC proposal of harmonic currents measuring syst. 25938
induction motors, indust. meas. syst., LAN based 25728
indust. robot calib. by opt. methods 10031
instrum. fault detect., designers' decision aid 34331
multiscale phase measuring syst., param. determ. algm. 3702
opt. fiber transm. bandwidth meas. systs. *(Japanese)* 33976
opt. methods for studying flows in gaseous and condensed media 26012
proc. plant digital image archives, rem. meas. syst. 25732
robot vision-based calib. syst. 17658
soft objs. dimens. inspection, laser/CMM syst. 34332
sport, ang. veloc./accel. meas., accelerometers *(Japanese)* 26267

measurement theory
3D posn./direction determ. syst., Hall sens.-based *(Korean)* 34696
800 MW steam power plant boiler gas temp. meas., acoustic pyrometry-based 27556

measurement theory continued
accuracy improvement by selection of no. of meas. 3705
ang.-meas. systs., directional vectors estim. 18060
ATM systs., tech. for measuring rare cell losses 41434
Bayesian approach to confidence in system testing 42654
calib. of instruments optimisation 3715
calibs. by comparison 17632
compression window algms. design for elimination of errors 3704
dielec. materials props. determ., coaxial cavity syst. 18029
digitally compressed video, perform. eval. 24603
discrete interval orders and semi-orders, representation 20543
dyn. charact. ident. of sens., discrete obs. 3708
dyn. response of nonlin. meas. systs. 3700
elec. drive μP control systs., regulation error meas. 44464
engng. mathematics, ontology 11892
freq. charact. determ. of measuring transducers 42763
fuzzy intervals, basis for meas. theory 17626
identification approach linear dynamic systems appl. 25699
identification of processes with output drift, freq.-domain 25700
induction motor drive elec./shaft torque indirect two-speed meas. method 36661
induction watthour meters, harmonic perform. studies 35705
information technologies/systs., conf., Ukraine, 1993 3
insulation PD meas., optimal bandpass filter characts. 13917
integral error charact. eval., distrib.-free methods 17624
lag correction in meas. systs., nonrecursive filtration 17625
least-sq. fitting appl., meas. errors determ. 3706
LV/MV power systs., apparent power components meas. 4747
measurand reconstruction, unified approach 25768
metrology, math. software class. 17621
microwave heating syst. permitt. meas. correction procedures 44593
monitoring reliab. estim., stat. anal. 17623
moving obj. detect., posn. sens.-based, meas. error probab. *(Russian)* 34701
multi-faults diagnosis model, set-covering/certainty factors 3701
multiscale phase measuring syst., param. determ. algm. 3702
multivariate model fit checking, generalized Wishart-stat. variance 3707
nonlinear disturbance errors in lin. syst. identification 25701
nonsinusoidal power syst. meas., parametric approach 4748
open-circuited coaxial probes, neurocomputed model 34666
power syst. digital multirate meas. algms. 27279
power syst. relay protection DC current sens., meas. modelling *(Russian)* 35672
power syst. short-cct. current meas., transreactor-based, calcs. 19362
power syst. state estim., quantitat. local redundancy eval. 26885
power syst. supply quality improvement, meas. problems 19357
sens. placement for diagnosability 17723
ship mag. field, meas. point arrangement design *(Chinese)* 7893
side data anal. of DLTS spectra for multipoint correl. 42921
simultaneous thermal cond./diffusivity meas. studies 25993
sinusoidal params. estim. in meas. noise by cross-spectral method 16026
software QA 17622
specialised RAM characts. derived from meas. technol. 17627
SRM drives, sensorless rotor posn. meas./control 5257
SRM EM characts., meas. methods comparison 10998
stochastic sig. energy theory, meas. theory 2359
system approach to electrical measurements 25767
TDR for low loss dielec., deconvolution tech. 42895
THD meas., Volterra series, LMS adaptive algm. 34684
three-phase induction motor, measurability anal./simul. 27707
transit time estim. in multiphase flow, mixed modality scheme 25698
turboalternator winding eccentricity monitoring studies *(German)* 36126
uncertainty calc., ANSI/ASME and ISO models comparison 17620

mechanical alloying
polamide/BaTiO$_3$ ceramic composite grain boundary capacitors, prep. 6370
rare earth bonded hard magnet material remanance 1582
AgSn intermetallic phase, Mossbauer params., Sn-based Pb-free solder 11745
Cu$_9$Sn$_3$Ni intermetallic phase, Mossbauer params., SnPb eutectic solder 11745
Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
MnAlC, MnAl, PM prod. by mech. alloying 14260
Nd(Fe,Mo)$_{12}$N$_x$, PM props. 6940
Pr(Fe,Mo)$_{12}$N$_x$, PM props. 6940
Si$_{0.3}$Ge$_{0.2}$ thermoelec. space power alloys, large-scale prod. 26586
Sm-Fe-N/α-Fe remanence-enhanced mech. alloyed two phase magnets, coercivity 7010
Sm$_{12.5}$Fe$_{87.5}$ nitride, mech. alloyed, nitrogenation behaviour and thermostability 1574

mechanical birefringence
see also photoelasticity
fringe thinning algms. in photomechanics, perform. eval. 41198
monomode fibre torsion state-of-polaris. rotator *(German)* 22855

mechanical control equipment
see also hydraulic control equipment; pneumatic control equipment
hydroelectric generators, ballhead motors, mech. governor perform. 43987
servomotor planetary gear precision speed reducers 44090

mechanical engineering
see also mechanical engineering computing; mechatronics; structural engineering
act. mag. bearings, fuzzy control scheme 22693
bearings, fault recogn., monitoring by neural nets 34391
expert diagnostic syst. for turbine engine 34394
gearbox acoustic condition monitoring by neural net 34390
sens. micro-struct., optimal design 34451
thermostatics/electrostatics analogy, engng. education appls. 36938

mechanical engineering computing
see also computerised control; structural engineering computing
400 kV distrib. substations, conductor short-cct. effects simul. 19281
500 m/s lin. induction launcher perform. studies 15376
act. suspen. syst., automotive appl. 11433
automobile traction assist real-time vehicle simulator 11439
bearings, fault recogn., monitoring by neural nets 34391
cable harness design ES, CHD 21607
coil winder simul. for Superconducting Supercollider 22770
computer-based pump testing expt. 5523
EM launchers, multi-fibre brush armature perform. simul. 15321
expert diagnostic syst. for turbine engine 34394
gearbox acoustic condition monitoring by neural net 34390
geometric nonlin. in design of force transducers 34458

mechanical engineering computing continued
induction coil launcher armature perform., computer simuls. 15302
induction launchers, projectile transverse motion/stabil. 15301
inductive coilguns, driving field/projectile motion synchronisation 15300
internal combustion engine, homogeneously charged, piston design, flame develop. 19501
lin. induction launcher, multi-sect. transit. simul. 15299
low heat rejection regenerated diesel engine 19534
mil. high mobility trailers, computer-based perform. anal. 35419
modular armor attachment modeling and anal. 26810
nonlin. FEM anal., progressive mesh refinement 37372
Optical Communications Demonstrator telescope assembly, mech. design 17324
reciprocal compressors, teaching, computer animation 5524
rolling element bearing fault diagnosis by vibrs. and neural networks 26805
rot. mach., fault prognosis, neural net 27683
turbine blades, detailed design, KBS 19512
turboalternator set, shaft torsional vibr. model for elec./mech. syst. interact. *(Chinese)* 36128
two-phase metal fatigue life test eval. 12187

mechanical instability *see mechanical stability*

mechanical organs *see artificial organs*

mechanical permeability *see permeability*

mechanical relaxation *see anelastic relaxation*

mechanical stability
antenna phased arrays, time delay transmit/receive opt. beamforming syst. 8076
digital VTR high-dens. recording techs. *(Japanese)* 17586
induction launchers, projectile transverse motion/stabil. 15301
Iridium satellite phased array antenna design 23953
lead-on-chip packages, cracking failures 5672
Maglev supercond. magnets, constr., perform. 5337
magnetised spheroid supercond. levitation, equilib. calcs. 2172
offshore wind turbogenerators, foundations design optim. 10895
plastic encapsulated multichip technol. for high vol. prod. 21721
radioelectronic apparatus, printed components dyn. charact. computing 38071
spinning spacecraft, coning motion stabil., Lyapunov anal. 10305
steam turbine rotor shaft stabil. testing 27559
thin walled polymer insulators, mech. characts. 10760
Si, porous, passiv. by RTO 22217
Y-based HTSC, relax. US proc., mech. stabil. 39242

mechanical strength
for fatigue strength, see fatigue; for creep strength see creep fracture see also bending strength; compressive strength; fracture toughness; impact strength; notch strength; shear strength; tensile strength; yield strength
BPDA-PDA polyimide thin films, thermomechanical props., curing effects 12208
composite suspen. insulators, rods, long term mech. strength 4701
conductive polymer solders for Pb-free SMT/PCB/fine-pitch assembly 38130
endoscopy, flexible regular fiber elements 26304
fine pitch surface mount IC package solder joints, exam./testing 37117
glass and optical materials, conf., Honolulu (Nov. 1993) 5442
laser bumping for flip chip and TAB appls. 12957
LDPE-based blended polymer materials, mech./dielec. props. *(Japanese)* 22674
LV ABC, XLPE insulated, reliab. 43774
MLC prod., advanced dielec. powders 5912
opt. fibres, UV cured coatings, reliab. 1660
overhead distrib. line pole struct., risk-based design 43755
pipe/valve reliab. prediction, Bayesian routines 37196
power overhead line H-frame towers, design strength improvement 27243
space power thermionic conversion, particle strengthened Mo appls. 18746
transformer winding deform. probab., external fault *(Russian)* 36229
Al railgun material strength, pulsed heating conditions 15327
AlN ceramics for high power RF package 20457
Au wire weakening in thermosonic bonding of first bond 29711
Be foils for devices and phys. expts. 37528
BiPbSrCaCuO/Ag tape, microstruct./supercond. props., Ag sheath alloying effect 39239
Cu alloy rly. trolley wire develop., high-strength *(Japanese)* 28135
Cu-Ag alloy conductors develop., high field magnet *(Japanese)* 14258
Cu-Mg overhead rly. contact wire, high strength *(German)* 28122
Li ion rechargeable cells, solid polymer electrolytes 36553
Mo-La$_2$O$_3$ thermionic electron-emission material, mech. and emission props. 38203
Ni/Cu electroless plating, bump metallization 22280
Si, 3D microfabrication, plasma etching 22244
Si, CZ grown, equiv. element Ge doping, effects on O$_2$ donors *(Chinese)* 38519
Si, porous, anodised, form. under uniform current dens., props. 1024
Ta-46%Ir eutectic brazing filler, thermionic appls. 28023
Y-based HTSC, relax. US proc., mech. stabil. 39242
ZrO$_2$ electrolyte, SOFC, mech. testing, microstruct. 44390

mechanical testing
see also compressive testing; creep testing; dynamic testing; fatigue testing; fracture toughness testing; hardness testing; impact testing; materials testing; mechanical variables measurement; tensile testing; wear testing
electromechanical switches degradation obs. due to mechanical vibration 21608
fine pitch surface mount IC package solder joints, exam./testing 37117
flip chip interconnect systs., micromechanical and accelerated testing 11822
induction machines, ferromag. rotor, temp.-mech. characts. tests *(Russian)* 36150
MCM-D metal/polymer interface durability, chem./water uptake 11817
micro-extension meas. unit for Instron 1185 25969
organic insulation, water treeing, mech. aspects 39065
outdoor HV substations, short-cct. mech. tests 19914
pass. components for aerospace appls., screening methods/data anal. 5684
PCB/MLC capacitor bending stress, surface strain measuring method 6412
SOFC component mfg., testing methods, mech. props. 44392
solder paste/stencil interface, shear stress, SMT manufacture 12943
solid oxide fuel cells, conf., Switzerland (1994) 28255
turbocharger develop., lab. tests 27604
UV laser irrad./electroless deposition method, IC metallisation 12144
Cr thin films on polyimide, adhesion study 11820
Cu thin films on polyimide, adhesion study 11820

mechanical testing continued
- Cu/polyimide, adhesion strength, continuous micro-wedge scratch test, metallisation appls. 37570
- GaAs micromechanical fracture strength 3796
- Si microgimbals for super-compact rigid disk drives 30490
- ZrO$_2$ electrolyte, SOFC, mech. testing, microstruct. 44390

mechanical variables control
- *this heading is restricted to those variables which are not covered by other specific headings. See also, for example, force control; thickness control; velocity control; vibration control*
- act. suspen. syst., automotive appl. 11433
- electronically controlled suspen., load sens. 5371

mechanical variables measurement
- *see also elastic moduli measurement; energy measurement; force measurement; pressure measurement; shock measurement; strain measurement; stress measurement; torque measurement; vibration measurement*
- contact materials and sticking charact. study, telecomm. relay 9132
- fibre-optic sens. for mech. deform. meas. 17856
- low drag meas. by vision syst., IC appl. 9814
- organic insulation, water treeing, mech. aspects 39065
- portable 3-axis 11-bit shock meas. cct. 34702
- two-wavelength holographic interferometry, large deform. meas. 40150
- PZT thin ferroelec. films, dyn. deform. sens. 25794
- Si thin films mech. props. meas., holographic interferometry 18106

mechanical waves *see elastic waves*

mechanoception
- aircraft inform. display, tactile stimulation of human head 43426
- deafness, profound, speech features tactile presentation 35161
- fingertip tactile vocoder for profoundly hearing impaired, sweeping display, speech spectrum *(Japanese)* 43382
- force feedback system, surface display 18015
- model-based tactile obj. recogn. 2684
- tactile inform., laterally moving, display 43374

mechatronics
- 3D profile meas., cylindrical lens and CCD 3981
- all-weather/terrain intell. vehicle for law enforcement 34586
- biomedical robotic/mechatronic systs. appl., education, therapy, training 35174
- electrorheological catch/clutch, inertial simul. 445
- fund., meas. sci. and technol. 9850
- IEEE IECON '94 conf., Bologna, Italy (1994) 36823
- lin. DC motor actuator, wire-driven syst., robust control *(Japanese)* 19667
- mechatronic appls. of eddy-current sens. 17750
- metal/wood working, mechatronic components 44631
- microsystems design, syst. concepts approach 22629

media access control protocols *see access protocols*

median filters
- 2D center weighted median filters, anal. 33125
- 2D FIR-median hybrid filters, deterministic and stat. props. 33077
- 2D FIR-median hybrid interpolation filter design for HDTV *(Korean)* 42601
- 2D rank-conditioned median filter 24704
- activated towed array sonar displays image proc. 17486
- adaptive α-trimmed mean filter *(Japanese)* 21438
- adaptive median filters, algms./results 33134
- adaptive neighborhood mean and median image filtering 16322
- bootstrap mean filter for image restoration 8610
- colour images, isolated noise detect./reduct., median filter 2851
- extended threshold Boolean filters, min. MSE filtering 33148
- fault-tolerant analogue filtering based on triplication 37827
- fuzzy median filtering 8322
- fuzzy rules based, noise reduction *(Japanese)* 21431
- generalized adaptive median filters, appl. in computed tomography 26323
- high sample rate archits. for median filters 29379
- high-speed median filter, shiftable CAM 6234
- image data, fast median filtering, coarse-to-fine algm. 2650
- image noise suppression, filtering vs. neural networks 32897
- image proc., line preserving adaptive median filter 24526
- impulsive noise removal from measurement data 25772
- LMS lattice adaptive filters 21421
- LMS median filter, local stabil. 2462
- matched median filter for QAM sigs. detect. 15967
- modified 2D median filter for impulse noise suppression 37863
- moving obj. location from image seq. *(Chinese)* 41085
- MUSE decoder, video noise reduction *(Japanese)* 34258
- NDT, binary image correction 454
- near-sens. image proc. 2725
- optimal weighted median filtering, structural constraints 40804
- pipelined median filters, architectural implement. 8392
- recursive median/weighted median filters, convergence props. 8427
- scan conversion methods, subjective assess. 42582
- simultaneous MLE based on generalized matched filter 41002
- stack filter design, structural approach 40829
- VEPs, P100 complex, latency meas. improvement, FMH filters 35126
- weighted median filters anal./design, fast algms. 33013
- weighted multilevel median filter algms. *(Polish)* 37868

medical administrative data processing
- *see also medical computing; medical information systems*
- healthcare commun., future needs and present solns. 41875
- intensive care alarm monitor, neural net-based, comparative perform. studies 35140
- internet for medical libraries conf., San Antonio, USA (1994) 36834
- M-based clients and servers in TCP/IP environ. 16644
- patient recruitment, improved efficiency, automated telephone screening syst. 43327
- radiotherapy, LINAC calib. meas., logged/generated reports 43346
- semantically constrained terminologies and clinical record 33290
- telematic syst. for health care quality 33554

medical aids for handicapped *see handicapped aids*

medical care *see health care; patient care*

medical computing
- *see also medical administrative data processing; medical diagnostic computing; medical expert systems; medical signal processing*
- ACOSTA accompanying measure A2106, health care 3052
- Alzheimer's disease, phys. activity monitoring 10171
- anaesthesia documentation, automatic systs. 43201
- anesthesia data, HUD, clinical eval. 43202
- arm prosthesis, modular, simul. for mech. design 35164

medical computing continued
- auditory stimulus prod. in cognitive event-related pot. expts., PC software library 26379
- Automatic Patient Symptom Monitor, clinical research voice mail 43325
- bioelec./mag. pot., event reconstr., neural nets 43314
- biomedical microrobots driven by miniature cybernetic actuator 35139
- brain blood vessel catheter, teleoperation 10255
- coronary angiography, image quality improvement, scatt. X-rays simul. 43273
- deaf children, computer aided speech training 35182
- defibrillator electrodes, implantable, customisation, finite element model 18613
- distributed picture archiving and commun. syst. for hospitals, image prefetching 35205
- dose determ. for producing given amount of change, PC program 26450
- Dosicard, indiv. dosimetry syst., on-site eval. 43394
- ECG data compression, μP 10235
- ELPIDA, archit. for med. imaging supporting telemedicine appls. 43195
- head spherical model, pot. distrib. due to dipole sources, num. calc. 26378
- heart, human, dyn. electrophysiological data visualization, 3D model 26439
- heart beats modelled on supercomputer 34982
- M-based clients and servers in TCP/IP environ. 16644
- MIDAS, med. library's database access syst. 41803
- min. invasive surgery, computer animation approach 34999
- MRI antenna, RF mag. field penetration in body *(Japanese)* 4261
- NEC multimedia services for med. systs. *(Japanese)* 42026
- neural networks, artificial, biomedical technols. appl. 10167
- neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
- neurosurgical navig., computer-assisted syst. *(Japanese)* 18589
- num. simul. and visualization of ultrasounds propag. in carotidean region 4273
- patient monitoring and therapy mgt., intell. systs., research projects, survey 26447
- patient recruitment, improved efficiency, automated telephone screening syst. 43327
- patient treatment effects, growing subjs., PC program, randomized parallel groups design 4287
- Philips SL20 LINAC, automatic param. logging software syst. 43343
- physicians, Mosaic and World Wide Web guide 41799
- physiotherapy, exercise bicycle computer control 26449
- renal transplant success prognosis, neural net appls. *(Italian)* 4292
- stereotactic ^{125}I seed brachytherapy, computer planning, malignant gliomas 26461
- stress mgt. program, computerized, telephone-based 43326
- teleradiology, image ref. database, WWW 9053
- video based tracker in computer aided surgery 42687
- VISTAnet gigabit networking testbed, traffic meas. anal. 24749
- vivo radiotracer monitoring by portable gamma spectrosc. syst. 18468

medical diagnosis *see patient diagnosis*

medical diagnostic computing
- *see also medical image processing; medical signal processing*
- antiscatter grids design optimisation, computer modelling 18651
- atrial fibrillation diagnosis, ANN 10225
- automated extraction of lung cancer lesions from multislice chest CT images by 3D image proc. 26326
- biomedical meas., computer diagnostics of dyn. systs. 18435
- cardiac intracavitary pot. data, visualisation on reconstructed surface 26370
- cardiotocograph data acquisition/replay, Microsoft Windows based appl. 10172
- chromosome class., neural net/Bayes method comparison 43204
- Cocolyzer brain fns. analyzing syst. 10246
- Computer assisted Speech Eval. & Rehabilitation ES 4312
- ECG, excitation/body surface, computer heart models simul. 35125
- ECG, ischemic disease detect., neural nets 18545
- ECG, ischemic episodes detect., neural nets 18546
- ECG anal. software package 43300
- ECG diagnosis, real-time ES 10245
- ECG diagnostic ES, learning syst. 35097
- ECG mapping, ambulatory, integrated software environ. 26431
- ECG tracing storage, clinical database integrat. 35096
- EMG class. by hybrid neural net 43205
- haemodynamics, noninvasive monitoring, impedance cardiography/cardiointervalography 35098
- late pot. diagnosis, self-learning ES 26417
- mammographic cancer screening, risk-benefit anal., computer model 18495
- mammography, pattern class., multistage neural net 43257
- MARC, multimedia appl. for radiologist commun. 16910
- multimedia patient data, cooperative med., Bermed Project 8942
- pulse diagnosis, Chinese, computer/fuzzy theory 43203
- radiation protection, computer appls. 18650
- thyroid scintigrams, knowledge-based interp. 8644
- videokeratoscope, SUN SK-2000 computer-assisted, clinical trial 43262

medical education *see biomedical education*

medical effects of radiation *see biological effects of radiation*

medical electronics *see biomedical electronics*

medical engineering *see biomedical engineering*

medical equipment *see biomedical equipment*

medical expert systems
- bioprocess operations and drug discovery 43178
- Computer assisted Speech Eval. & Rehabilitation 4312
- conference, computers in cardiology, London, UK (1993) 11543
- diagnostic radiology, QC, knowledge based approach 18492
- ECG, 12-lead, ES for complex anal. 26436
- ECG, arrhythmias interp., ABACUS KBS 35103
- ECG diagnosis, real-time ES 10245
- ECG diagnostic ES, learning syst. 35097
- ECG sig. and echocardiographic image proc., ES 35135
- EEG extraction syst., neural nets and stat. anal. 35138
- foetal condition assess. and labour mgt., multicentre comparative study and intell. syst. 35137
- foetal ECG, pattern anal. and interp. of changes, fuzzy logic concepts 35136
- FPGA implement. of ANNs, med. expert syst. appl. 29509
- gamma camera QC ES 10204
- knowledge-directed EEG sig. anal., recurrent context-learning neural networks 8246
- late pot. diagnosis, self-learning ES 26417
- mammogram tumour pattern recogn., pyramidal neural networking 35046

- **medical expert systems** continued
  - med. thermal vision ES, constr. principles 26303
  - radiation protection, computer appls. 18650
  - semi-quantitat. MBR syst. for ECG diagnosis 10239
  - thyroid scintigrams, knowledge-based interp. 8644
- **medical image processing**
  - 2D hybrid element image reconstruction for TM illum. 43222
  - 3D binary data, fast neighborhood operations, boundary approach 32914
  - 3D copying, surface-reconstruction from tomography-slices 24562
  - 3D med. image registration, ANN 33050
  - 3D med. images, intens.-based obj. extraction incl. correction for partial vol. errors 43234
  - 3D obj. reconstruction from stereoscopic images 41268
  - 3D visualization, surface rendering, Fourier descriptors 10205
  - 4D SPECT imaging, left ventricular motion anal. 16331
  - angiography, obj. reconstr. by Hopfield neural net 43276
  - ASIC implementation of image proc. algm., silicon compilation 21343
  - assoc. particle imaging, 4D image display 18465
  - automated extraction of lung cancer lesions from multislice chest CT images by 3D image proc. 26326
  - bimodal speech recogn. expts., recurrent neural networks 32426
  - bladder cancer cell class., neural net/fuzzy c-means 43258
  - blind people globe inform. syst., TV camera/speech synthesis *(Japanese)* 26476
  - blood vessels, 3D imaging, X-ray rot. angiography 43230
  - bone, CT images, binary segmentation 43245
  - bone marrow smears, abnormal cell screening, automated image anal., spatial and freq. domains 43261
  - brain, 3D multimodality images, registration by curve matching 35068
  - brain, interactive segmentation of photographic and MR images 18445
  - brain anatomical struct. recog., genetic algm. 2799
  - brain scan image anal. using genetic algms. 35036
  - brain struct. localisation in SPECT 18440
  - brain vol., rapid automatic, on basis of multispectral 3D MRI data on PC 43239
  - breast cancer detect., neural net spectral anal. 18455
  - chest radiographs, digital, scatt. radiation correction methods 43244
  - chromosome image segmentation 10221
  - cineangiograms, computerised vessel diam. meas., magnification effect *(Japanese)* 4271
  - clinical oncomorphology, automatic image anal. 26302
  - coded aperture emission CT, optimum filter, algm. *(Japanese)* 4270
  - colloid liver scintigrams, neural network anal. 18454
  - combined coding scheme, transform/neural net approaches 43207
  - composite frames, spectral characts./motion-compensated restoration 16315
  - conf., modern imaging technol. clinical appls., USA (1994) 20212
  - conference, computers in cardiology, London, UK (1993) 11543
  - conference, medical image processing, USA (1994) 20236
  - coronary angiography, image quality improvement, scatt. X-rays simul. 43273
  - coronary angiography beamline upgrade, NSLS 43269
  - coronary arteries, 3D motion/reconstruction from biplane cineangiography 4268
  - coronary artery segments, stenosed, 3D densitometric reconstruction and visualization 43240
  - coronary artery stenosis recogn., neural net on DSA syst. *(Japanese)* 4262
  - CT scanning of areas containing metal 18442
  - data transm., std. compressed video teleconference codecs 18461
  - diagnostic US imaging, 2D blocked element compensation 10192
  - diagnostic use of endogenous and exogenous EM fields 26407
  - disease assess., image meas., by digitising 43253
  - disease focus posn. determ. in gamma knife operation, 3-D image reconstruction 26273
  - disparity detect. in stereo vision syst., cepstrum tech. 2853
  - distributed picture archiving and commun. syst. for hospitals, image prefetching 35205
  - DSP-based image proc. syst., real time meas. of knee joint movement 26270
  - dyn. PET scans, kinetic rate consts., neural estim. 18458
  - echocardiogram, left ventricle contour detect., Hough transform 10207
  - echocardiographic image segmentation, Markov random fields 26334
  - echocardiographic tissue charactn., unprocessed RF data, online digitisation 35030
  - EEG signal analysis, ill-defined processing target 26383
  - efficient segmentation of cancer cell nuclei in different color spaces 26274
  - elec. impedance tomography, image reconstruction, modified back-projection method 43302
  - elec. impedance tomography, neural network image reconstruction 10253
  - endoscope, electronic, image distortion correction 35065
  - endoscopes, 3D real time imaging, weak mag. fields 43233
  - enhancement of images, rot. 2nd order difference filter *(Japanese)* 32996
  - ES appl., ECG sig. and echocardiographic image proc. 35135
  - evol. fronts for topol.-independent shape modeling and recovery 24434
  - exudates in retinal images, automated detect. and quantification 24559
  - facial surgery diagnosis via visualization techs. 41246
  - facial trauma visualisation, 3D spiral/conventional tomography comparison 18441
  - fast algms. for exponential data modeling, NMR data appl. 43256
  - fast X-ray CT images, brain vessels extraction 35056
  - frameless registration of MR and CT 3D vol. data sets 10206
  - general paresis, CT, MR, and SPECT findings 18446
  - glaucoma induced change modeling/diagnosis, neural net 18456
  - HDTV appl. *(Japanese)* 34252
  - heart, left ventrical boundary extraction in echocardiography 35010
  - heart dyn., human, visualization from US echograms *(Japanese)* 35009
  - hyperspectral imagery, appl. of Krawtchouk polynomials 15959
  - icosahedral viruses, 3D reconstruction, parallel computer 10170
  - IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
  - image capture, formatting and display, conf., USA (1994) 11570
  - image compression for radiology and telemedicine 26321
  - image contrast enhancement, discrete dyadic wavelets 34985
  - image IS *(Japanese)* 25683
  - impedance tomography, cylinder/human thorax, finite element models 43288
  - integrated fuzzy clustering, biomedical images 16368
  - Internet access, med. digital X-ray archive 8484
  - JPEG-encoded med. video, transm. and storage 18447
  - light photon equalization, appl., X-ray film digitization 43242
  - liver, CT images, boundary detect. by neural nets 43259
- **medical image processing** continued
  - mag. reson. image restoration, Markov field model 35035
  - mammogram anal., design of analogic CNN algms. 26368
  - mammogram tumour pattern recogn., pyramidal neural networking 35046
  - mammograms segmentation, multiple linked self-organising neural nets 35032
  - mammography, higher order spectral estim., AR modelling 10195
  - material-selective transm. tomography, constrained dual-energy reconstruction method 18466
  - mathematical methods in medical imaging, conf., USA (1994) 20238
  - med. image lossless compression, multiresolution multiplicative autoregressive models 2848
  - med. thermal vision ES, constr. principles 26303
  - med. US imaging, elevational spatial compounding 10193
  - microwave image proc., distorted Born ierative method 26291
  - microwave imaging, cost minimisation approach, simulated annealing 43277
  - microwave transm. CT, diffr. effect correction *(Japanese)* 10184
  - motion artifacts in X-ray CT image of revolving point obj. 26325
  - MR image restoration, basis image priors effects 35026
  - MRI reduced motion artifacts, spatio-temporal multiresolution reconstruction 35002
  - MRI restoration, multidimensional nonlin. edge-preserving filter 26330
  - multiple sclerosis brain lesion detection in MR images 10203
  - neuromagnetic/morph. reconstruction overlay, coord. syst. matching 35055
  - neurosurgery, on-line stereoscopic image-guidance 43322
  - neurosurgery, video-as-data, ethnographic studt 43324
  - NMR image obj. recog., genetic algm. 2800
  - noninvasive diagnostics, Gibbs act. EM method 35029
  - nonrigid motion anal. in 3D images, vibr. modes 24461
  - nuc. med. imaging devices, inter-lab. comparison 18478
  - obj. detect., transputers 26336
  - optimized elec. impedance imaging reconstruction algm. 43319
  - orthognathic surgery, video-imaging, computer simul. 10254
  - orthopaedic surgical planning, computer assistance 18443
  - PACS, image storage and presentation 43414
  - PACS, workstation supporting image save & carry std. *(Japanese)* 18536
  - pancreatic CT, enhancement by simple cascading filter 35045
  - patient dose, image quality, United States experience 18644
  - PET cameras, depth-of-interact. blurring correction method 35011
  - phase-contrast X-ray computed tomography using X-ray interferometer 26355
  - physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
  - planar γ-camera imaging, rot. slat collimator eval. 35058
  - polygon scan conversion, fast, med. appls. 2586
  - polygonal slices, piecewise-lin. interpolation 20584
  - portal imaging, Philips SRI-100 syst., installation/QA 43328
  - quantitat. image assess. based on redundant, meas. and stat. reasoning 24422
  - radiologic image compression, review 26287
  - real time US vol. imaging, 2D random arrays 10191
  - real-time functional MRI 35020
  - scalar fn. formulation for opt. flow, nonrigid motion of blood 24446
  - self-similar cell profiles, digital image anal. 4264
  - semen quality assess., neural nets 18457
  - skull, X-ray scanner data, 3D edge detect. 32907
  - sleeping state determ. from movement, neural net *(Japanese)* 26333
  - smooth image segmentation via multiresolution anal. 32833
  - stomach X-ray images, cancer detect., line fig. pattern *(Japanese)* 2626
  - talocrural joint kinematics visualization and quantitat. anal. 18444
  - teeth, shape recording, computer vision 26335
  - thyroid scintigrams, knowledge-based interp. 8644
  - tissues segmentation from MR images *(Japanese)* 18537
  - TOF positron imaging syst. 4265
  - tomograms, US, restoration based on Wiener proc. 43246
  - toothbrush interproximal penetration meas., image anal. 26272
  - truncated 2D parallel projections, image reconstruction 43263
  - ultrasound imaging, vivo pulse estim. 10194
  - US image proc., inversion algo. 4274
  - US med. images, classif., fuzzy reasoning *(Japanese)* 10216
  - visual data exploration conf., San Jose, USA (1994) 23
  - visuo-motor testing, automated image anal., rehabilitation support 35027
  - vocal tract shape meas., MRI *(Japanese)* 10217
  - wavelet transform domain filters, noise filtration tech. 2726
  - weighted least-sq. filtered backprojection tomographic reconstruction 41057
  - workstation for image proc. and computer graphics 18439
  - X-ray angiography, 3D blood vessel reconstruction 10180
  - X-ray tomographic reconstructions, direct Fourier method, accurate sinogram simul. 26314
  - NaI PET detectors, correction of distortions in discontinuous image 18467
- **medical imaging** *see biomedical imaging*
- **medical information processing** *see medical administrative data processing; medical computing*
- **medical information systems**
  - Automatic Patient Symptom Monitor, clinical research voice mail 43325
  - clinical record and integrated guidelines 33290
  - conference, computers in cardiology, London, UK (1993) 11543
  - image storage and presentation 43414
  - interneted library syst., Hahnemann Univ. 16766
  - med. devices QA services 18427
  - physicians, Mosaic and World Wide Web guide 41799
  - SHINE, strategic health informatics networks for Europe 3187
  - telematic systs., case-based, equity in health care 35206
  - Videotex for public health in Belgium 33424
  - VISTAnet/MICA, med. appls. leading, NCIH 10301
- **medical laser applications** *see laser applications in medicine*
- **medical measurement** *see biomedical measurement*
- **medical monitoring** *see patient monitoring*
- **medical NMR** *see biomedical NMR*
- **medical physics** *see medicine*
- **medical radiography** *see diagnostic radiography*
- **medical sciences** *see medicine*
- **medical signal processing**
  - *see also medical image processing*
  - 3D mapping of muscle activity, surface electrode array sig. proc. 26391
  - Alzheimer's disease, EEG-based, neural-net predictive class. 18551
  - ambulatory ECG, adaptive data compression *(Japanese)* 4285
  - anaesthesia trials, patient awareness state monitoring via neural net interp. of EEG sigs. 43318
  - anesthesia supervision, smart sens., data validation 26283

medical signal processing continued
- arrhythmia detect., adaptive recurrent filter 43304
- atrial fibrillation, intracardiac sig. anal., std. ambulatory monitoring equipt. 26438
- atrial fibrillation diagnosis, ANN 10225
- atrial fibrillation electrograms, local activation times, computer algm. 35084
- atrial fibrillation misdiagnosis by implantable defibrillator algms. 35083
- atrial late pots. anal., paroxysmal fibrillation risk assess. 18554
- biomedical sig. proc., pattern recogn. *(German)* 18429
- blind people globe inform. syst., TV camera/speech synthesis *(Japanese)* 26476
- body surface pot. maps, epicardial breakthrough phenom. detectability 26384
- brainstem auditory evoked pot., enhanced approach, adaptive proc. 43279
- cardiac 2D electrogram array, activation wavefronts ident./anal. 26371
- cardiac action pots., variable convergence adaptive filter 10229
- cardiac arrhythmias, pattern recogn., 2 intracardiac channels 18578
- cardiac arrhythmias, principal component/neural network anal. 26388
- cardiac arrhythmias detect./ident., adaptive lin.-predictive filter 18577
- cardiac disease class. neural network 18575
- cardiac myopots., fragmented, class. for fragmentation mapping syst. 35112
- cardiac physiological/US data, simultaneous acquisition/proc. syst. 35031
- cardiac rhythm, testing for chaoticity 26412
- cardiac valve prosthetic, algm. for regurgitant vol. eval. *(Italian)* 26475
- CardioA software package for online/off-line anal. of exercise ECG 26392
- cardiography, signal processing colloquium, London, UK (1995) 28228
- cardiovascular syst. variability anal., multichannel power spectrum dens. 26282
- cardiovascular variabilities assess., multivariate ARMA spectral decomp. 34987
- cardiovascular variability sigs. anal., Akaike Information Criterion 26281
- cardioverter-defibrillator implants, waveform anal. viability 35156
- charact. points detect., wavelet transforms 18539
- cochlear-implant research, DSP appls. 4305
- composite frames, spectral characts./motion-compensated restoration 16315
- concha, digital hearing aid 18610
- conference, computers in cardiology, London, UK (1993) 11543
- conference, IEEE Northeast Bioengng. Conf., Newark, New Jersey, USA (Mar. 1993) 36846
- continuous Doppler ultrasound, parametric/nonparametric spectral estim. 26319
- coronary artery disease, diastolic heart sounds, harmonic decomp. 26288
- cortical steady-state visual evoked pots., adaptive noise canceller 10236
- cough detect., clinical syst., fuzzy logic 10169
- diagnostic use of endogenous and exogenous EM fields 26407
- digital Holter monitoring syst., noise cancelling filter 35130
- Doppler US sigs., predictive ADC 35004
- ECG, 12-lead, ES for complex anal. 26436
- ECG, 1/f spectrum slope, heart rate variability 26444
- ECG, ambulatory, adaptive data compression, multi-template matching 26432
- ECG, arrhythmias interp., ABACUS KBS 35103
- ECG, arrhythmic events, low incidence, detect. algm. 18573
- ECG, beats, selective sig. averaging, intervals spectral anal. 18559
- ECG, digital filtering anal. in high-resoln. ECG 18555
- ECG, digitised dyn. recordings anal., ventricular arrhythmias appl. 35088
- ECG, dyn. anal., waveform class. 43303
- ECG, exact coding, extensive Markov syst. 18571
- ECG, filtering, simple FIR filters, post-filter reconstruction 35086
- ECG, freq. anal. of ventricular fibrillation 35111
- ECG, heart rate variability, unevenly-spaced, spectral anal. 10247
- ECG, heart rate variability spectra quality improvement 35077
- ECG, high resoln., arrhythmia risk assess., chagasic myocarditis 18560
- ECG, high resoln., heart rate variability, nonlin. dyn. 26374
- ECG, isoelectric intervals, noise props. comparison 35081
- ECG, lin./nonlin. adaptive sig. enhancement, comparative study 35114
- ECG, MIT-BIH database recordings, correl. dimens. differences 26443
- ECG, morph. similar complexes, neural network compression 35115
- ECG, multifactorial receiver operator, predictive accuracy characts. 35095
- ECG, multiple lead recordings, HMM anal. 35106
- ECG, multiresolution wavelet anal., ischaemia/reperfusion 35105
- ECG, myocardial infarction, heart rate variability anal. 26375
- ECG, myocardial infarction, heart rate variability indices 26430
- ECG, neural network inferior myocardial infarction diagnosis 26389
- ECG, nonstationary anal., Wigner-Ville transform and wavelets 26433
- ECG, P waves detect./class., Gabor wavelets 26441
- ECG, QRS complex, fragmented ventricular depolarisations quantification 18556
- ECG, QT meas. techs., automatic, accuracy 35085
- ECG, R-R interval., high resoln. meas. 35100
- ECG, R-R intervals, point correl. dimens., sudden cardiac death 26373
- ECG, rate variability, extrasystoles exclusion from anal. 26428
- ECG, rhythm class., autoassociator struct. neural network 26390
- ECG, RR-interval databases anal., obj.-oriented workstation 26427
- ECG, RR-intervals, heart rate variability, quantitat. descriptions 35128
- ECG, sig.-av., filter effects on anal. 18558
- ECG, sig.-av., spectral turbulence anal. reproducibility 26422
- ECG, sig.-overlapping noise reduction method 35078
- ECG, spectral params. extraction, heart rate variability 35073
- ECG, spectral turbulence anal. reproducibility 26419
- ECG, spectrum estim., FFT/max. entropy methods 35101
- ECG, SVT/VT class. syst., neural-network based 26386
- ECG, tachycardia differentiation, wide-QRS, neural network techs. 26387
- ECG, ventricular cond. defects class. by cluster anal. 35102
- ECG, ventricular fibrillation detect., time-freq. distrib. 43283
- ECG, ventricular tachycardia patients, phase/group-delay characts. 18540
- ECG, wavelet transforms comparison for cardiac patterns recognition 43285
- ECG anal. software package 43300
- ECG compression, adaptive lin. prediction 43301
- ECG compression, Fourier series, FFT, adaptive coeff. estim. 43291
- ECG data compression, adaptive Hermite models, perform. eval. 26408
- ECG data compression, dictionary based coding 26410
- ECG data compression, μP 10235
- ECG data compression, VQ, k-dimens. tree for fast search 26437
- ECG diagnosis, real-time ES 10245
- ECG late pot. anal. in freq. domain 43292
- ECG mapping, ambulatory, integrated software environ. 26431
- ECG P wave delineation, parametric tech. 35131
- ECG pattern anal., chaos theory 10248

medical signal processing continued
- ECG proc., high-gain, real-time, beat-by-beat, freq.-band adaptive filtering, optimisation 26416
- ECG QRS detect., robust and computationally efficient 26435
- ECG sig. anal., review 35109
- ECG sigs., computer aided interp. 10244
- ECG sigs., real time software filters 35122
- ECG spectral anal., heart rate variability oscills. 26423
- EEG, autoregressive spectral array for graphical display 18572
- EEG, background, principal-component localisation of sources 18541
- EEG, feature selection, VQ/genetic algms. 43313
- EEG, quantitat. anal. in intracarotid amobarbital procedure 4278
- EEG, respiratory-related evoked pots. ident. 43286
- EEG anal., brain maturation estim., neural classifier 35127
- EEG anal., topographic slow wave activity, demented patients/normals 18550
- EEG change points, max., posteriori estim. 26382
- EEG corrupted sigs., minimization of EOG artefacts, neural net 43298
- EEG DP, chaos and fractal props. *(Japanese)* 26402
- EEG extraction syst., neural nets and stat. anal. 35138
- EEG recordings, dissimilarity measure, nonlin. dyn. syst. approach 26381
- EEG series, time-freq. anal. 43296
- EEG sig. anal., parametric methods eval. 10251
- EEG sig. proc., neural network based artefact detect. syst. 35133
- EEG signal analysis, ill-defined processing target 26383
- EEG sigs., wavelet de-noising and ident. of evoked response pot. 35070
- EEG spikes, automated neural net detect., wavelet preprocessing 43284
- EEG spikes source localisation, elec. dipole model 10250
- EEG/MEG dipole localization bounds for head models 43312
- EGG, contractions ident. by backprop. neural nets 43297
- EKGs, digitally stored, PC based surface pot. generator 26442
- electrocortical generators posn. estim. via subspace techs. 43320
- electrophysiological sig. parametrisation/feature extraction, trends 26394
- EMG, Hermite expansions of compact support waveforms 10241
- EMG, lower trapezius activity anal. 43289
- EMG, multiple site, amplit. estim., waveforms whitening/combination 18569
- EMG class. by hybrid neural net 43205
- EMG motor control sig. proc. by neural net 18565
- endocardial pots. mapping, time-space anal., antitachycardia surgery 18562
- epicortical electrocorticogram, restoration from spatially sampled EEG 43295
- epilepsy, time-freq. anal. of electrophysiology sigs. 43282
- epileptic EEG, low-dimens. chaos 18552
- ERG, suprathreshold photopic oscill. pots., anal. method/clinical appl. 35117
- evoked pot. estim., multilayer perceptron appl. 18547
- exercise ECG proc. syst., obj. oriented formal specs. 35107
- fast algms. for running wavelet anals. 32519
- fetal ECG recording, removal of maternal ECG 43305
- fetal QRS complex, detect. and classif. techs. 35091
- foetal activity, Doppler US sigs., real-time proc. 10183
- foetal ECG, antepartum, extraction/anal., PC instrum. 35087
- foetal ECG, optimal enhancement, labour 35113
- foetal ECG, pattern anal. and interp. of changes, fuzzy logic concepts 35136
- foetal ECG, time-varying Wiener filtering, wavelet transform 35116
- foetal ECG anal., real-time, Windows appl. 26377
- foetal ECG monitor, abdominal, real-time multichannel, using digital sig. coprocessor 43299
- foetal ECG sigs., matched filter template, iter. method 43290
- fractal dimens., normal irreg. of fetal heart rate 34991
- fuzzy rule based adaptive nonlin. filter for myoelectric sigs. 35132
- Gabor decomp. method for biological sigs. anal. 2576
- genetic algms. for min. source reconstructions 8303
- haemodynamics, noninvasive monitoring, impedance cardiography/cardiointervalography 35098
- hearing aid microphone array data, robust adaptive proc. 18608
- hearing loss compensation, neural network based objective measures 18612
- heart arrhythmia detect. by digital spectral anal. of ECGs 10238
- heart rate, AR spectral estim. uncertainty 26424
- heart rate, spectral anal. without resampling 35099
- heart rate variability, 24 h ECG 10249
- heart rate variability indices, short term reproducibility 26429
- heart rate variability sigs., complex dyn. assess. 26411
- heart rate variability spectral anal., methods comparison 34990
- human ECG proc. and anal., digital filters 18548
- IIR notch filter, transient suppression 35129
- impedance cardiography, advanced sig. proc. tech. 18570
- impedance cardiography, noncorrelated noise filtering 35076
- impedance pneumography, sig.-to-motion artifact ratio 35075
- implantable cardioverter-defibrillator, arrhythmia recogn. strategies 26473
- intensive care alarm monitor, neural net-based, comparative perform. studies 35140
- intracardiac electrogram, low power, class. using analogue VLSI 35123
- intraventricular electrogram filtering, effect on sig. detect. 35082
- K-complex detect., multilayer perceptrons and recurrent networks 18544
- knowledge-directed EEG sig. anal., recurrent context-learning neural networks 8246
- line interf. subtraction filter for sig. av. ECG 35079
- lossy sig. compression archit., single-chip implement., ECG data 29275
- lung pathologies diagnosis by two-channel proc. of breathing sounds 43199
- lung sound anal. toolkit, hardware/software 43224
- magnetocardiography, multichannel sigs., transform., std. grid form 18448
- mammography, higher order spectral estim., AR modelling 10195
- med. image lossless compression, multiresolution multiplicative autoregressive models 2848
- microcontroller implement. of adaptive myoelec. filter 26474
- monopolar voltages, phase response props. mapping 26369
- Motorola's DSP56001, med. sig. proc. appl. 4258
- MRI restoration, multidimensional nonlin. edge-preserving filter 26330
- multi-oscillator systs., nonlin. filtering tech. 16029
- MULTIWAVE, multiresolution wavelet-based ECG data compression algm. 26409
- myoelectric neural network sig. anal., arm prosthesis appl. 18614
- myoelectric sig. recogn., fuzzy clustering and ANNs 35108
- neonatal av. evoked pot., sig. enhancement by neural network 35134
- neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
- non-orthogonal Gabor representation 43321
- physiological sigs. monitoring, interf. 10173
- plethysmography elec. field sigs., time-freq. spectral anal. 43307
- profoundly deaf people hearing aids based on parametric concept 18611

- **medical signal processing** continued
  - pulmonary capillary press. anal., adaptive filtering, mutual wavelet packets 43186
  - QRS complex, high resoln. ECG, abnormal sigs. modelling 26420
  - respiratory muscles, cyclic activity, automated meas., microcomputer syst. 4282
  - rheopneumographic meas., respiratory artefact removal, adaptive FIR filters 10226
  - robust real-time constrained hearing aid arrays 18609
  - semi-quantitat. MBR syst. for ECG diagnosis 10239
  - sig. averaging enhancement by jitter deconvolution, ECG appl. 35080
  - sig. integral, time delay estimator, ECG sigs., perform./testing 4280
  - single event related evoked pots., segmented matched filtering 35074
  - sinoatrial node dysfunction patients, heart rate variability anal. 26425
  - sleep EEG sig. proc., ANN appl. 35090
  - sleep lab., digital recording and anal., implement. and validation 26406
  - sleep vegetative background, heart rate variability spectral anal. 26385
  - stochastic sig. dyn. description, momentary power/freq. estim. 10168
  - time series distrib. params., hypotheses testing 2540
  - ultrasound phased-array controller for hyperthermia appls. 26316
  - uterine EMG anal., instantaneous burst freq. tracking 43281
  - ventricular arrhythmia localisation, fragmented cardiac myopots., computer proc. 18563
  - ventricular electrograms, tachycardia/fibrillation discrim. 35155
  - ventricular late pot. detect., bispectral anal. 26418
  - ventricular late pot. detect., fractal dimens. anal. 26413
  - ventricular late pots., freq.-domain anal., autoregressive models 26421
  - ventricular repolarisation duration in Holter monitoring 26426
  - ventricular/sinus tachycardias discrim., median filtering value 4284
  - ventricular/supraventricular tachycardias discrim. 18576
  - VEPs, P100 complex, latency meas. improvement, FMH filters 35126
  - visual evoked pot. sigs., factor anal., wavelet decomp. 35072
  - wavelet transform domain filters, noise filtration tech. 2726
  - wavelet-based detect. of transients in biological sigs. 35071
  - weighted least-sq. filtered backprojection tomographic reconstruction 41057
- **medical treatment** *see patient treatment*
- **medical ultrasonics** *see biomedical ultrasonics*
- **medicine**
  - *see also biomedical engineering; cardiology; health hazards; patient diagnosis; patient monitoring; patient treatment; physiology*
  - colloquium, education for biomedical science/engineering, London, UK (1995) 20235
  - radiation protection, QA, Medical Physics Organisations European Federation 18639
  - surgical luminaires 26300
- **MEG** *see magnetoencephalography*
- **Meissner effect**
  - anisotropic supercond. planar waveguides 1640
  - HTSC circ. waveguides, Meissner boundaries 29523
  - PM arrangements for supercond. pass. bearings 14310
  - pulsed power supercond. opening switch, laser pulse triggered 36262
  - YBaCuO supercond., melt processed, mag. shielding props. 39243
- **Meissner-Ochsenfeld effect** *see Meissner effect*
- **melt infiltration**
  - metal-matrix composite proc., situ AE monitoring 21000
  - AlN particle filled Al, low CTE thermal conductor 12199
- **melt spinning**
  - remanence enhanced nanocrystalline materials, magnetis. procs. 7012
  - α-Fe/$Nd_2Fe_{14}BTi_x$ nanocrystalline alloys, coercivity 7011
  - $Fe_{72}Nd_{17}B_{7.5}Ga_{1.5}Nb_2$, permanent mag./microstruct. props., additive effects 39195
  - Nb-Fe-B-type PM, proc. and props. 30749
  - Nd-Fe(Co)-B magnets fab., rare-earth melt-spun ribbons and hydrogen-decrepitation powders *(Japanese)* 7201
  - $Nd_{4.5}B_{18.5}Fe_{77}$ ribbons, melt-spun, Mossbauer and mag. study 39159
  - PrNdFe, melt spun magnets, mag. viscosity, prep. from amorph. precursors 39194
  - PrNdFeB amorph. precursors, mag. hardening by crystn. 6987
  - Sm-Fe-Ga-C, melt-spun alloys, high coercivity 39204
  - $Y_2Fe_{17-x}Ga_xC_2$, form. and mag. props. 39141
- **melting point**
  - ITS-90 temp. of Ga m.p./Hg freezing point 34322
  - PVDF copolymers, ferroelec. behaviour/phys. props. 6904
  - Al-Ge-Cu alloy reflow sputtering, electromigration charact. 22269
  - B-rich semiconds., high-efficiency high-temp. thermoelec. energy conversion 28012
  - CoSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
  - $Hg_{1-x}Cd_xTe$, LPE layers, liq. temp., Hg press. effets 28780
  - IrSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
  - RhSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
  - Si, molten, surface tension var. meas. by ring method 28709
  - UC-ZrC/NbC high temp. nuc. fuel tests 35767
- **memories, analogue** *see analogue storage*
- **memories, digital** *see digital storage*
- **memory (physiological)** *see brain; brain models; neural nets; neurophysiology*
- **memory addresses** *see storage allocation*
- **memory architecture**
  - 0.25-μm fully-depleted CMOS/SOI invertor, SEUs, radiation hardening 13727
  - 3D computer graphics media chip, single-chip archit. 12556
  - 16 Gbit DRAM, 2D power-line selection, subthreshold current reduction 29231
  - 17 ns 1 Mbit CMOS SRAM, 100 nA stand-by current 29234
  - 32 ns 64 Mb DRAM, extended second metal line archit. 29233
  - act. memory syst. for network appls., design 37762
  - application-specific array processors, conf., Venice (Oct. 1993) 36903
  - BIST algms. for dual port memories faults 6152
  - CAM design, modular VLSI scheme 21315
  - CMOS EPROM technol. for high speed/high dens. PLDs and memory appls. 29219
  - content-addressable memories, fault modelling, testing 37765
  - data-cyclic shared memory (DCSM) in distributed environ. 24951
  - defect-tolerant WSI file memory syst. 29211
  - DRAM archits. in multiprogramming environ., perform. eval. *(Korean)* 21325
  - DRAM cell, LV multi-bit, built-in gain stage 29232
  - dyn. of DRAM technol., design options 21318
  - exponential bidirectional associative memory capacity 21336
- **memory architecture** continued
  - flash storage standardization in PCMCIA cards 29206
  - fully-parallel multi-megabit integrated CAM/RAM design 37760
  - high-dens. flash memory, syst. design option 37782
  - high-throughput data compressor, CAM 21324
  - integrated memory array proc., image proc. appl. *(Japanese)* 29210
  - low-power RAM cct. technol. trends 37779
  - memory technol./design/testing, workshop, San Jose (1994) 36826
  - min. state requirement of digital filter 6227
  - multi-window full-motion video and graphics, memory archits. 17579
  - multiple-registered DRAM for low-cost 2 MB/chip secondary cache, 180 MHz 29221
  - opt. interconnected distributed shared memory syst., memory and network archit. interact. 41491
  - PLD, CAD tools overview 21286
  - Power PC memory 37750
  - random shift memory-type RAM, flexible associative data access 29215
  - SARAM, dual ported memory, random access and seq. access 21308
  - SRAM GOS defects, fault modeling/testing possibilities 37763
  - video data placement, scalable, on parallel disk arrays 9745
  - virtual lines, enhance locality exploitation 29216
  - GaAs/BiCMOS/CMOS technol. memory archit., solid modelling accelerator 29214
- **memory expansion boards** *see add-on boards; semiconductor storage*
- **memory management** *see storage management*
- **memory management chips** *see storage management chips*
- **memory protocols**
  - directory protocols for medium-scale shared-memory multiprocessors 33262
  - fault-tolerant multiprocessor cache memory, CMOS 37761
  - user-level buffer mgt. protocol, network interface support 25029
- **memoryless systems**
  - AWGN, block and decoded error probabilities of DPSK 15763
  - binary block codes, scarce-state-transit. error-trellis decoding 40705
  - CMOS VLSI adaptive high-speed VQ archit. 29273
  - consecutive full-response 4-CPFSK trellis coding 40587
  - decision-feedback max.-likelihood decoder for finite-state Markov channels 15750
  - hybrid DS/FH-SSMA mobile radio syst. perform. and capacity anal. 33831
  - ID-codes and measures separated in L_1 metrics 40630
  - non-lin. systs. modelling, novel archit. 40932
  - nonlin. syst. ident., Hammerstein model, cumulant-based Steiglitz-McBride algm. 40991
  - Rician CDMA channel fading-resistant multiuser detect. 41460
  - universal noiseless source coding, redundancy rates 40675
- **menus** *see user interfaces*
- **mercury arc rectifiers**
  - 50 kA coaxial orient. independent ignitron, pulsed power appls. 36413
  - 500 kJ capacitor bank, electrothermal gun appl. 31760
  - Hercules capacitor bank pulsed power switch life test project 36459
  - New Zealand HVDC link upgrade 27141
  - rep-rate pulser, high-power microwave source develop. 36323
- **mercury lamps** *see mercury vapour lamps*
- **mercury vapour lamps**
  - electronic ballasts for metal halide lamps *(Japanese)* 36341
  - HID light sources, lighting/brightness perception expts. 11448
- **mercury vapour rectifiers** *see mercury arc rectifiers*
- **merged-transistor logic** *see integrated injection logic*
- **merging**
  - edge maps, neural network arbitration 41322
  - hierarchical line extraction 32971
  - LAN, dual-ring, wrapback and merging reconfiguration algm. *(English)* 41877
  - telecomm. software automatic generation technol. *(Japanese)* 16512
- **MESFET** *see Schottky gate field effect transistors*
- **MESFET circuits**
  - *see also MESFET integrated circuits*
  - act. array module for spatial power combiners/act. antennas 31990
  - electronic beam scanning by coupled MESFET oscillators 23970
  - RTD-boostrapped MESFET current/ voltage refs., self-bootstrapped config. 530
  - RTD-bootstrapped MESFET I-V refs., mirror-based 531
  - single gate MESFET mixer, computer-aided anal./design 846
  - spatial power combining oscillators on microstrip structs. 12789
  - terminated microwave transistors, normalizing input/output impedances 37982
  - vector modulator, bal. design, C-band 12371
  - GaAs MESFET doubly bal. mixer, X-band, very low IMD 21569
  - GaAs MESFET varactor tunable oscillators, noise calcs. 21565
  - GaAs high speed IC design, buffered DCFL logic 29202
  - GaAs/TlCaBaCuO, MESFET semicond./thin film supercond. hybrid phase shifter 29559
- **MESFET integrated circuits**
  - 2-18 GHz low-DC power monolithic matrix amp. 859
  - act. inductors for GaAs and bipolar technols. 21597
  - act. resonators, integrat. for UHF wireless appls. 12826
  - amplifier IMD, cct. param. and topol. effects 37649
  - Lange coupler power-distributed amp., high-perform. design 12814
  - lightwave-microwave mixing tech. using MESFET act. devices, MMIC compatible 29587
  - lin. power amp. for cellular telephone, envelope feedback method 12342
  - low-power technol. for GaAs front-end ICs and hybrid ICs, mobile commun. 38041
  - microwave oscillators, CAD 6329
  - MMIC design, pass. and act. device considerations 29596
  - MMIC narrow-band filter, ultrahigh-Q tunable act. inductors 12822
  - opt. transm. systs. employing VCSEL and monolithically integrated photoreceivers 14656
  - peripheral artificial vision, lateral inhibitory networks, IC implement. 23067
  - SCFL inverters, anal. delay expression 37696
  - transimpedance amps. with cascode struct., anal., MMIC amp. appl. 12807
  - transimpedance opt. receivers design, root-locus techs. 3564
  - triquint 0.5 μ MESFET device microwave transconductance amps. and filter ccts. 6327
  - X-band MMIC varactor-tuned VCOs, modelling and design 6342
  - AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
  - GaAS IC reliab., next generation 37195
  - GaAs ACT transversal filters, yield model 39118

MESFET integrated circuits continued
  GaAs DCFL ccts., timing macromodels 37710
  GaAs DCFL logic gate ccts., delay/transit. time macromodels 21261
  GaAs DDS, FM-CW, 1.25 GHz 37672
  GaAs FET and IC for mobile radio *(German)* 21571
  GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
  GaAs Gilbert cell mixer IC fro coherent opt. transm. 42402
  GaAs HMESFET SBFL based F-RISC/I microproc. 37802
  GaAs IC, conf., San Jose, USA (1993) 36852
  GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
  GaAs L-band ultralow power LNA for mobile commun. 42234
  GaAs LSI chips, back-grinding, mech. reliab. 1498
  GaAs MESFET CPW oscillators, supercond. resonator stabilization *(Chinese)* 37968
  GaAs MESFET IC SC band-pass filter, VHF 37843
  GaAs MESFET MMIC power amp. modules, 10 W, X-band 12827
  GaAs MESFET SRAM, current mirror memory cell 37774
  GaAs MESFET TWA MMIC, 2-12 GHz *(Chinese)* 38039
  GaAs MESFET, capacitance model, microwave nonlin. cct. design appls. 855
  GaAs MESFET, epitaxial lift-off on InP 14654
  GaAs MESFET, high V_{BD}, planar gate, power MMIC 38922
  GaAs MESFET high speed adder, multiple-output domino logic 29127
  GaAs MESFET lin. power amp., digital mobile commun. appls., 1.9 GHz, 2.7 V supply 42298
  GaAs MESFET opt. triggered monolithic S/H cct. design 39590
  GaAs MESFET switch IC for handy phone 38024
  GaAs MESFET transceiver, optoelectronic VLSI cct. fab. 39599
  GaAs MESFET transconductors, DC gain enhancement 730
  GaAs MMIC delay line/quadrature demodulator in opt. receiver 17199
  GaAs MMIC distributed amps., design 12806
  GaAs MMIC double side-band modulators, Gilbert cell based, design 29589
  GaAs MMIC downconvertor for portable commun. 42233
  GaAs MMIC dual-channel Ku-band DBS downconvertor 42316
  GaAs MMIC generic const. phase digital attenuators 6340
  GaAs MMIC power amp. and T/R switch, pers. commun. 42232
  GaAs MMIC power amps. for cellular telephone systs. 849
  GaAs PLL-based clock generator, 3.2 GHz, 50 mW, 1 V supply 12612
  GaAs SAG-MESFET for supercomputers, proc., implement. 37721
  GaAs SRAMs, total dose radiation hardening/testing 37773
  GaAs Schmitt trigger memory cell design 37775
  GaAs VLSI IC, current status, future prospects 30481
  GaAs buffered DCFL gate array, differential push-pull I/O 37720
  GaAs dyn. logic, SEU study 12479
  GaAs high speed cct. design/perform. estim., normally-off logic 29126
  GaAs low-noise broad-band MESFET monolithic distributed preamplifier 42391
  GaAs micromachined mass-flow sens. 9880
  GaAs power MMIC for 1.9 GHz digital cordless phones 12823
  GaAs power MMICs for X-band radar appls. 6341
  GaAs power multichip IC for cellular radio 42236
  GaAs transmitter/receiver LSI chips, parallel opt. links 42401
  GaAs transmitter/receiver chipset for opt. link 42404
  GaAs:Si epitaxial layer, MBE grown, LSI appl. *(Korean)* 20904
  GaAs/InP 1 μm MESFET, buffer layer thickness optimization for OEIC 14661
  GaAs/WN_x/W-gate MESFET multiplexer IC, 0.5 μm, A 20 GHz 8-bit implement., fibre transm. 9546
  GaAs-InP MESFETs and ccts. fro OEICs 39598
  GaInAsP BRS laser-GaAs MESFET driver for OEIC transmitter 31120
  InGaP/GaAs/InGaAs strained MQW laser-MESFET, opt. transmitter form. 31124
  $LiNbO_3$ thin film hybrid integrated opt. devices 39608
  intell. parallel opt. link and LSIs 34055
MESFET switches *see field effect transistor switches*
mesh generation
  3D charact.-based time-domain Maxwell eqns. solver 40180
  3D EM problems, mesh generator, self-organising finite element tessellation 2170
  3D FEM soln. of Maxwell's eqns. for rect. waveguides 23795
  3D field support in semicond. wafer representation, archit. and implement. 1483
  3D semicond. device simul., adaptive mesh generation 1329
  adaptive finite elements point generation, domain decomp. 5793
  adaptive grid generation for semicond. device simul. 13584
  additive Schwarz domain decomp. methods for ellipt. problems 12003
  automated mesh refinement scheme, level-control fn. 20634
  curvature flow and entropy conditions applied, grid generation 5791
  curved-surface microstrip antenna conformal-grid FDTD anal. 23865
  degeneracy, rezoning, distortion survey 281
  Delaunay triangulation, constrained 282
  dopant diffusion modelling, mesh adaption, flux discretizations 1222
  edge-element method for simul. and anal. of EM fields *(Chinese)* 31707
  electron gun simul., adaptive finite element mesh generation program 29756
  electrostatic micromotors, torque computation, 3D mesh generation 36213
  EM, time-domain modeling 2174
  EM field num. anal., BEM/FEM appls. *(Japanese)* 15205
  EM scatt. by complex bodies, FEA mesh truncation boundary condition 23553
  EM wave scatt., moving boundary, grid generation 7957
  generalized Galerkin tech., convection-diffusion eqn. 279
  heavily covered points selection 5797
  helicopter 3D automatic FDTD mesh generation 26528
  hybrid FEM for EM, review 2314
  integrated IR sens. design, computer-aided trade-off study 3838
  ion implant., Monte Carlo simul., adaptive grid 22116
  Krsko PWR, decompression wave in steam generator U tubes, LOCA 27463
  large-scale num. simul. 5792
  leaded SM devices and solder joints in thermal cycling environ., 3D FEA 37132
  lin.-size nonobtuse triangulation of polygons 20637
  linear beam tubes, high power, depressed collector designs 6507
  mech. nonlin. FEM anal., progressive mesh refinement 37372
  meshed supercond. LVdc lines, supercond. current transfer devices 4636
  MOS complex device structs. anal., triangular mesh generation 1420
  MOSFET test struct., 2D device simul. 13687
  MQW nonlin. struct., finite element characterisation 38352
  nonlin. mag. fields, hp-version adaptive anal., quadrilaterals 40198
mesh generation continued
  nonlin. magnetostatic problems, complementary formulations and adaptive mesh refinements 40220
  nonmanifold domains, octree-based automatic mesh generation 12016
  num. absorbing boundary condition for edge-based FEA 7946
  oxid., stress depend., 2D num. simul. 22182
  oxid. simul., quadtree based grid generator 1267
  parallelization strategies eval. for incremental Delaunay triangulator in E^3 28694
  PCB thermally loaded solder joints, fatigue life prediction methods, finite element study 38121
  PM brushless DC motors, laminated rotor, FEM modelling 11064
  preform deform. fabricated opt. fibers, birefr. anal. 22851
  printed microstrip device full-wave anal., generalised Yee algm. 29537
  proc./device simul., optimal moving meshes 22538
  ripple fields comp. on moving finite element meshes 43982
  self-organizing finite-element tessellation for EM field problems, mesh generator 40199
  semicond. complex device structs., 2D mesh generation 1328
  semicond. wafer CAD, C++ design and implement. 12293
  semiregular grids in 2D and 3D 37373
  spherical FEA 5790
  surface reconstruction, adaptive mesh generation 2756
  surface reconstruction, multi image shape from shading 41259
  termination in finite-difference techs., simulating boundary conditions 31717
  tetrahedral mesh generation by Delaunay triangulation 20635
  time depend. Maxwell's curl eqns., hybrid finite element solns. 40184
  topography/impurity profile simul., BTU algms. 22540
  user-guided measuring in digital aerial triangulation 41269
  vector FEM, propag. wave num. dispersion 8018
  Whitney elements time domain methods for solving EM Maxwell eqn. problems 40183
  WIREGRID, NEC2 pre-proc. 37365
  Si, dopant diffusion modeling, automatic grid refinement 22115
mesomorphic state *see liquid crystals*
meson detection
  BES, particle separation, discriminant anal. method *(Chinese)* 34967
  CDF End Plug Upgrade Project 26187
  forward collider B expt., LHC 4185
  gas ionization calorimeters, steel and Pb absorbers 26172
  hadron calorimeter, high-press. gas-ionization tubes, beam tests 10108
  hadron calorimeter, ident. of pions/electrons 4215
  LHC calorimeter second-level trigger, neural net, extract., e/jet discrimin. 26193
  liq. Ar accordion hadronic calorimeter 34925
  liq. ionization chamber, rejection delta electrons, dE/dx 26130
  microchannel liq. scintillation detector, glass fiber ring image intesifiers 18378
  quartz fiber calorimeter for collider expts., design 26208
  RD3 liq. argon hadron calorimeter, beam tests results 26154
  Reconfigurable-Stack Calorimeter, compensation, low-Z cladding layers 26184
  scintillating fibre calorimetry, energy resol., response uniformity 26200
  scintillating fibre calorimetry, H1 backward EM calorimeter, HERA 26183
  threshold Cherenkov counter using silica aerogel 34931
  γ/π^0 shower separation, tile-scintillator shower max. detector 26127
  Fe/scintillating tiles hadron calorimeter, preliminary results 26190
  Pb/scintillating fiber calorimeters, projective, electron-pion discrimin. 26188
  PbF_2 EM calorimetry, Cerenkov detector/cryst. props., pion response 26196
mesoscopic systems
  2DEG coupled to superconds., quasiparticle interf. 22747
  conductance flucts., low temps. 1109
  low-dimensional electronic systems, Mauterndorf, Austria (1992) 11547
  nanostructure fab., spontaneous form. mechanisms 22085
  Nordic semicond. meeting, Iceland (Jun. 1994) 27
  Nyquist noise in transit. from mesoscopic, macroscopic transport 22497
  optoelectronic mesoscopic neural devices, electron waveguiding, nonlin. connection 14660
  quantum waveguides, 2D/3D, curvature-induced bound states 22016
  role of contacts in mesoscopic devices 1144
  Si mesoscopic struct., α particle ionisation, Monte Carlo study 1457
  SNS jns., dissipative charge transport 22731
  superconductivity, conf., Karlsruhe, Germany (1994) 11578
  AlGaAs wires, diffusive mesoscopic conductor, reduced shot noise 29927
  AlGaAs/GaAs 2DEG, ballistic electron transport 29944
  GaAs/$Al_xGa_{1-x}As$, mag. electron-focusing effect 1106
  GaAs/AlGaAs, independently contacted double quantum well, MBE regrowth 28732
  GaAs/AlGaAs rings, quasiballistic interferometer, electron wave interf. 22502
  GaAs-AlGaAs heterostruct., fab. tech., mesoscopic device appl. 12159
  GaAs-AlGaAs mesoscopic single loop, persistent currents 13137
  InAs-coupled Josephson jns., crit. current, mesoscopic fluct. 22732
  InGaAs/InAlAs diffusive quantum wires, spin-orbit scatt. 38368
  $Pb_{1-x}Mn_xSe$, epilayer microstructures, mesoscopic phenomena 38272
  PbSe, epilayer microstructures, mesoscopic phenomena 38272
  Pd ultra-narrow metallic wires, cryogenic shadowed evap. tech. 426
  Si MOSFET, quasi-1D and Coulomb blockade devices 1401
message authentication
  AT&T's Smart Card, secure network access for multiple appls. 15722
  authentication code with arbitration, lower bound 32165
  authentication codes, detection probability 8163
  authentication protocols verification, methodology/example 2954
  BAfirewall, Bell Atlantic internal TCP/IP WAN 16673
  byzantine agreement with a minimum number of messages both in the faultless and worst case 33282
  cipher block chaining security 32179
  client/server environ., security *(French)* 25026
  computer networks, star-based/ring-based conf. authentication facilities 8951
  conf. on security technol., Ottawa, Canada, Oct. 1993 36875
  cryptanalysis for cryptosystem, involution *(Japanese)* 40622
  cryptographic algms., conventional 24062
  cryptography, conf., Santa Barbara, CA (Aug. 1994) 32150
  cryptography, mistaken beliefs 2383
  DCE Web toolkit, enhancing WWW protocols, lower layer services 41862
  directory authentication framework 8954
  distributed database security 15769
  dyn. cryptographic key generation and inform. broadcasting scheme 15770

message authentication continued
- electronic document signing, public-key cryptography 32046
- ElGamal type digital signature schemes based on discrete logarithm 2388
- ESPRIT MIDAS project, secure rem. mgt. 8953
- fault-detecting network membership protocols, design/anal. 41522
- identity-based signature scheme, bounded life-span 32160
- IEEE Symposium, Trondheim, Norway (1994) 28250
- IN, strong user authentication 25090
- Internet, Kerberos complete secure transport service 16670
- IP/Secure for security on datagram delivery for mobile host environ. 41784
- IS-54-B portable digital cellular phone *(Japanese)* 42288
- key agile cryptographic syst. for OC-12c rate ATM 24058
- key agreement protocol modif. based on digital signature std. 32113
- KryptoKnight, protocols for authentication/key distrib. 25050
- Kuperee, authentication, public keys 8952
- LFSR-based hashing and authentication 32164
- mobile users, identity privacy, authentication 33572
- multi-access sig. packet network authentication assess *(Russian)* 16464
- multiround authentication protocol cryptanalysis 32163
- network perimeter, secure external access 16674
- network synchronized clocks, predictable timestamp 40605
- Neuman-Stubblebine authentication protocols 24069
- OSI secure commun., implement. and eval. of SCSE 8752
- password ident. scheme, cryptanalysis, quadratic residues 15761
- plaintext signatures for E-mail, legal aspects 3148
- PMR systs. security 33915
- PON, private/authentic commun. 42072
- protocol, design, verification and implement. 2930
- protocols for authentication and key exchange 24067
- public-key cryptography, theories and stds. 32198
- resilient fns. and orthogonal arrays, bounds 28618
- secret sharing, robust, dealer, honest, cheating 32094
- SecuDE security toolkit, towards trustworthy commun. systs. 8955
- secure digital mobile commun., conf. key distrib. 25318
- SPLICE/AS authentication syst. in WIDE Internet 24068
- successful deception probab., max. no. of messages estim. 15731
- third-generation mobile systs. security 33916
- trusted multicasting elements 2926
- Yaksha, Kerberos augmented, public key cryptography 24059
- rem. authentication tech. 15735

message complexity *see communication complexity*

message handling *see electronic messaging*

message passing
- asymptotically optimal election on weighted rings 24743
- ATM networks, low-latency commun., act. messages 24974
- broadcast channel, causal order protocol, eval. *(Japanese)* 16720
- CERN NA48 simul. program, parallelisation 18377
- Cranium, interface for message passing on adaptive packet routing networks 25030
- distributed telecomm. syst. design, ODP approach 24954
- fault-tolerant data network, transputer based, for ATC *(Italian)* 8912
- fiber-optic WAN, tactical airborne sens./ground station 43569
- GENESIS, seamless environ. for telecomms. networks 24884
- genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
- interconnecting computers, archit./technol./economics 16702
- local-area multiprocessor, surpassing clusters 33532
- MOM, message oriented middleware for client/server systs. 41794
- multidestination message passing mechanism conforming, base wormhole routing scheme 24857
- NEURON chip, LONwork low cost control networks component *(Polish)* 41514
- OSI environ., distributed message transfer and store appl. 33264
- parallel implement. of noise filter for image restoration 8585
- parallel machines, software overhead in messaging layers 16660
- parallel proc. for MHS, implement. and eval. 24953
- PC packet switching network flag detect. 8904
- porting telecomm. appls., transputer networks 41614
- power syst. obj.-oriented anal. methods 35428
- protocol handling syst. spec. and perform. 33488
- replicated data maint. in distributed environ., logical scheme improvement 24813
- single-server syst. with limited service policy 33219
- token based mutual exclusion algm. in distributed syst. 33484
- totem single-ring protocol, message delivery, probabilistic bounds 2914
- user-level buffer mgt. protocol, network interface support 25029
- wormhole routing on multichannel ring networks, opt. fibre interconnection 3217
- X.400 for text interchange in your own lang. 41778

message switching
- communication network design using restricted message routing 41553
- hierarchical commun. networks, message routing, polynomial-time algm. 8784
- hypercube fault-tolerant multicasting 8691
- protocol spec. synthesis from service specs., parallelly executable multiple primitives 8762
- protocol specs., message collisions, automated synthesis 2935
- value added message services 3147

messaging, electronic *see electronic messaging*

metal base transistors *see bipolar transistors*

metal corrosion *see corrosion*

metal-glass seals *see glass-metal seals*

metal-insulator boundaries
- *see also MIM structures*
- metal-to-metal oxide antifuses, reliable for VLSI appls. 22079
- metal/oil interface, adsorpt., charge injection 14025
- metal/polyimide fine line struct., adhesion and fracture anal. 1171
- MMICs and ICs, interconnect lines, metal-dielec. adhesion 13426
- polyethyleneterephthalate/Mg interface, X-ray PES 37540
- PVDF metal/polymer interface, dielec. breakdown 13961
- submicron stripe patterns photoelectron imaging, soft X-rays 42978
- Al/SiO_2 interfaces, buried thin reacted layer direct obs. 38695
- Al-Si/Al_2O_3/SiO_2 metallization, thermal and electromigration effects 38703
- Al-ceramic surface activated bonding, electronic/chem. procs. 37530
- Co/Si(SiO_2), ion-beam mixing, Monte Carlo simul. and expts. 22023
- Cr-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680

metal-insulator boundaries continued
- Cu/Al(Ti)/SiO_2 interface, ultrathin sacrificial diffusion barrier anal. 38702
- Cu/polyimide, adhesion strength, continuous micro-wedge scratch test, metallisation appls. 37570
- Cu-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
- $(Pb_{0.72}La_{0.28})TiO_3$/Pt films, elec. props., interface effects 1159
- Pt/SiO, ultrasmall double tunnel jns., two level current flucts. 29875
- SiN_x based metal-to-metal antifuse for FPGA appl. 21217
- SiO_2, PECVD modeling via neural nets and genetic algms. 398
- SiO_2/Ti/TiN, charactn., XPS 38280
- p-SiO_2/polymer, dielec. double-layer structs., elec. cond. 30534
- Ti thin films/AlN substr., interface form. kinetics 20459
- Ti/TiN films, charactn., XPS 38280

metal-insulator-metal devices *see MIM devices*

metal-insulator-metal structures *see MIM structures*

metal-insulator-semiconductor capacitors *see MIS capacitors*

metal-insulator-semiconductor devices *see MIS devices*

metal-insulator-semiconductor field effect transistors *see MISFET*

metal-insulator-semiconductor structures *see MIS structures*

metal-insulator transition
- *see also electrical conductivity transitions; minimum metallic conductivity*
- δ-doping superlattices, plateau behavior and metal-insulator transit. 13196
- disordered semiconds. and devices, mobility edge concept 29823
- homojunction internal photoemission far-IR detectors, photoresponse perform. 17801
- AlGaAs/GaAs heterostruct., percolation metal-insulator transits. in 2D electron syst. 6549
- CdSe:In, n-type, hopping cond., two-param. scaling 21922
- Cr/NH_3/GaAs(100), interface form., photoemission study 38377
- $Fe_{3(1-\delta)}O_4$, epitaxial thin films, stoichiometry var. 14103
- GaSb:Mn, elec. props. 13065
- GaSb:S, Hall/photo-Hall effect meas. 38252
- In_2O_3 very thin films, struct., conductance evol. 417
- PbTe:Ga, electron irrad., elec. and photoelec. props. 1788
- RuO_2/B_2O_3-SiO_2-PbO glass composite thick resistive films, metal-insulator transit. 21657
- Si:Bi, theoretical electronic props. 1020
- Si:P, cond. near metal-insulator transit. 6526
- $Zn_{0.3}Cd_{0.7}Se$, metal-insulator transit., persistent photocond. meas. 29851
- ZnCdSe-ZnSe superlattices, stimulated blue light emission mechanisms *(Japanese)* 38340
- ZnSe epitaxial layers, low-temp. cond. in impurity band regime 1046
- ZnSe, press.-induced semicond.-metal transit. 21912

metal matrix composites, fibre reinforced *see fibre reinforced composites*

metal matrix composites, particle reinforced *see particle reinforced composites*

metal-oxide-semiconductor capacitors *see MOS capacitors*

metal-oxide-semiconductor devices *see MIS devices*

metal-oxide-semiconductor field effect transistors *see MOSFET*

metal-oxide-semiconductor structures *see MIS structures*

metal-semiconductor boundaries *see semiconductor-metal boundaries*

metal semiconductor field effect transistors *see Schottky gate field effect transistors*

metal-semiconductor-metal structures
- bandwidth enhanced MSM photodetectors 3841
- diamond MSM device, detector appl., photoresponse 38447
- FET-based OEIC photoreceiver design, syst.-level considerations 34081
- interdigitated high speed MSM photodetector/receiver design 34517
- microcolumns, electron detector, MSM struct. 30187
- monolithic MM wave IC, high speed opt. detectors 9534
- prog. multifn. optoelectronic cellular neural net 14667
- switchable-logic photonic switch array monolithically integrat. MSMs, FETs, and MQW modulators 14531
- ultrahigh-speed MSM photodetectors for opt. commun. 42452
- AlGaAs/GaAs epitaxial lift-off MSM photodetectors,field assisted etching 34516
- AlInAs/(Al)GaInAs MSM photodetectors/modulators, solid source MBE 42809
- AlInAs/GaInAs MSM photodiode, cutoff freq., responsivity 14608
- Au/CdTe/Au, impurity level energy effect 1185
- Co-phthalocyanine thin films, elec. cond., O doping, IV charact. 21939
- $CuInSe_2$, jn. electrolum., microscopic diode struct. 31110
- GaAs MSM photodetectors, buried layer effect, modeling 38450
- GaAs, MSM photodetectors, temporal response, polariz. depend. 17767
- GaAs asymmetric Schottky-ohmic MSM photodetector 17810
- GaAs wide-bandwidth MSM photodiode, extrinsic freq. response 39570
- GaAs:Er very high-speed MSM photodiodes, fab., charactn. 31076
- GaInAs, heterobarrier photodiode MSM struct., subpicosecond temporal resoln. 1795
- HgCdTe MSM detector, defect mapping by nuc. microprobe 42800
- $Hg_{1-x}Cd_xTe$ MSM IR detectors, nuc. microprobe defect anal. 29987
- InAlAs/InGaAs multichannel MSM-HEMT receiver OEIC for WDM 14650
- InAlAs-InGaAs:Fe MSM photodetectors, inductive bandwidth enhancement 42798
- InGaAs MSM photodetector charactn. by electrooptic LD sampling 23009
- InGaAs MSM photodiode/AlGaAs-GaAs HEMT OEIC receiver, 1.3 μm 17235
- InGaAs absorpt. layer, MSM PDs 7488
- $In_{0.53}Ga_{0.47}As$ MSM photodiode, transparent CTO Schottky contacts 1184
- InGaAs:Fe/InP:Fe large area MSM photodetectors 17775
- InGaAs/AlGaAs/GaAs grating demultiplexer/detector array integrat. 9422
- InGaAs/GaAs-on-GaAs superlattice photodetectors, ultrafast response 3835
- InGaAs/GaAs-on-GaAs superlattices, metal-semicond.-metal photodetectors, carrier trapping 22014
- InP, S treated, MSM photodetector, high speed 17780
- InP:Fe/InGaAs:Fe fully passivated AR coated MSM photodetectors 9907
- InP/GaInAs heterostruct. MSM photodetectors, sub-ps resoln. 25849
- Si porous lateral injection device struct. for LED 23054
- Si/$CoSi_2$ vert. MSM photodetectors, buried contacts 34500
- a-SiN_x:H thin film diodes, current induced drift mechanism 13588
- SiO_2 passiv. of InGaAs:Fe MSM photodetectors 22187
- Ti/$Cd_xPb_{1-x}S$/Ag, polarity depend. memory switching 29988

metal vapour lamps
see also mercury vapour lamps
HF discharge lamp ballasts, white noise modulation 11457
HID light sources, lighting/brightness perception expts. 11448
light modulation flicker expts. 11449
metal halide lamps, electrode temp. 28162
metal working *see metalworking*
metallic epitaxial layers
interfacial energy calc., interconnect-metal/barrier-metal interfaces 38633
overview of epitaxial deposition technol. 12041
Ag-Co granular epitaxial layers, struct./giant magnetoresist. 14164
Ag-Ni granular epitaxial layers, struct./giant magnetoresist. 14164
Al single-cryst. nanostructures, fab. 30159
Al/Si(111), ordered Al films growth, LEED, Auger electron spectrosc. 20716
Al(100), heteroepitaxy on Si(111), thermal evap. growth 12038
Co/Cr(100) multilayers, seeded epitaxy by sputter deposition 12073
Co/Cu(100) multilayers, seeded epitaxy by sputter deposition 12073
Co/Ru(10$\bar{1}$3) multilayers, seeded epitaxy by sputter deposition 12073
CoSi$_2$ thin film proc., thickness scalability and thermal stabil. 22274
CrSi$_2$ thin films on Si(111), heteroepitaxial rels. 37439
Cu-ZnO(0001) epitaxy, CO photoinduced desorpt. 20715
Fe films on Si substrs., epitaxial growth, magnetocrystalline anisotropy 14144
(Ni$_x$Fe$_{1-x}$)$_y$Ag$_{1-y}$/Ag multilayers, low field giant magnetoresist. 7064
Pt/Si(100), pulsed laser deposition, TiN buffer layer 425
metallic superlattices
mag., subsidiary ferromag. layers, GMR, saturation mag. field 22692
Au/Co/Au multilayer systs., magneto-opt. effects, surface plasmon depend. 7067
Au-Permalloy multilayers, giant magnetoresist./oscill. interlayer exchange coupling 7063
Co/Au multilayer films, struct./mag. props. 7057
Co/Cr(100) multilayers, seeded epitaxy by sputter deposition 12073
Co/Cu multilayers, interlayer coupling, vibr. sample magnetometry/FMR study 39177
Co/Cu multilayers on grooved substrs., perp. giant magnetoresist. 39172
Co/Cu(100) multilayers, seeded epitaxy by sputter deposition 12073
Co/Pd multilayer films, struct./mag. props. 7057
Co/Pt multilayer films, struct./mag. props. 7057
Co/Ru(10$\bar{1}$3) multilayers, seeded epitaxy by sputter deposition 12073
Co/X multilayer films, (X=Pt,Au,Ag,Ni), temp. depend. of mag. anisotropy 30699
Co-Cu sandwich film, giant magnetoresist./anisotropic magnetoresist. comparison 7061
Co-Pd multilayers, stress, opt. fibre Y branch non-contact displacement detector *(Korean)* 18083
CoPt/Cu/NiFeCo/Cu multilayers, spin-valve effect/magnetoresist. 14213
Fe:Cr-Cr multilayers, enhanced magnetoresist. 7062
(Fe-Co)/Ag films, magnetoresist. study 7049
Ni-Fe-Co/Cu/Co-Pt trilayers, magnetoresist. effects 39173
Ni(Fe,Co)/Ag granular multilayers, struct./magnetoresist. 7048
(Ni$_x$Fe$_{1-x}$)$_y$Ag$_{1-y}$/Ag multilayers, low field giant magnetoresist. 7064
NiFeCo/Cu multilayers, giant magnetoresist. 7058
metallic thin films
see also discontinuous metallic thin films; metallic epitaxial layers; metallisation
charged dielec./metal thin films, peeling ESD 7901
cond./thickness monitoring, electrothermal method 18028
continuous fibre component for opt. sens., multilayer overlay 17911
deposition from HF solns. on Si wafers 38623
electro-optic polymer light modulator, surface plasmon reson. based 22943
ferromag.-nonmagnetic-ferromag. metal bipolar spin transistor 30760
fiber/planar waveguide coupler thin metal layer polariz. props. 7285
HTS/metal/polymer dielec. interconnect struct. for packaging appls. 11785
metal clad GRIN opt. planar waveguide anal. 40399
metal-clad waveguide polarizer integrated opt. cct. output coupling 30964
micropipette cylindrical waveguide surface polaritons propag., near field opt. device appl. 40443
multilayer planar opt. waveguide with buffer layers, guided modes 7343
multilevel high dens. ASIC defect isolation, electron beam probing RIE 21169
pattern deposition, laser-induced forward transfer 28859
Philips MPC01 metal-film precision chip resistor 6350
PSG waveguide opt. routing switch for radar phase control 14663
rare earth doped fibres, metallic coated, fluoresc. decay-time vars. 39359
sputtering targets, NDT 5881
thermal diffusivity meas. of thin films and foils 25994
thermophotovoltaic cell, thin film selective emitter efficiency 36618
three-layer media, generalized Rayleigh solns. 23591
two metal-coated single-mode opt. fiber interferometric lin. elec. current sens. 9916
UV laser irrad./electroless deposition method, IC metallisation 12144
Ag patterns on Ag-rich Ag-Ge-S films, reversible photowriting, thermal erasing 13419
Ag, phys. vap. deposition, multichannel spectrosc. ellipsometry 5880
Ag, reflecting surface, SHG study 23408
Ag/Si(111), film elec. cond. mechanisms 38400
Ag-As$_x$S$_y$(P$_2$Se$_3$) bilayers, electron/photon irrad. effects 38405
AgNiFe, interact. effects/mag. ordering, annealing effect 6982
Al CVD on SiO$_2$, situ obs by environ. TEM 38634
Al, CVD on oxidised Si, direct growth, high-speed growth 20933
Al, phys. vap. deposition, multichannel spectrosc. ellipsometry 5880
Al thin films, electromigration, hillock form. 30143
Al thin-film interconnects, thermal stresses, cryst. plasticity simul. 22264
Al ultrathin films for Cu oxid. prevention *(Korean)* 38638
Al vac. deposited thin film characterisation, SiO$_2$-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
Al/Si(111), ordered Al films growth, LEED, Auger electron spectrosc. 20716
Al-Cu, simultaneous doping/CVD, interconnection form. 6831
Al-TiN high coverage barrier film form., ICB deposition 20955
Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
AlSi/TiN/Ti bamboo metal lines, ASTM electromigration test struct. 30135
Au electrodeposited thin films, X-ray masks, stress/structural change 6701
Au, reflecting surface, SHG study 23408
Au/ZnCdTe, electroless Au film deposition 37465
Au-Zn-Au-GaAs ohmic contacts, As loss during RTA, Cr-collector study 22097
metallic thin films continued
Co thin films, pulsed laser deposition, opt. reflectometry 5897
Co-Ag granular films, giant magnetoresist. 6981
Co-SiC, interface microstruct., chem. and elec. props. 13213
CoPt multilayers SW magneto-opt. recording films 30741
CoSi$_2$, form., Si/Co/GaAs interface 38632
CoSi$_2$ microstruct., focused ion beam synthesis 13298
Cr thin films on polyimide, adhesion study 11820
Cr-Cu-Ni-Au film syst., electrolytic deposition, temp.-time stabil. 6659
Cu CVD for advanced on-chip interconnects, Motorola 28813
Cu CVD thin films, direct liq. coinjection, ULSI device metallisation appls. 30133
Cu film, ion beam assisted deposition, lower resist., higher interface adhesion 37512
Cu films, rem. PECVD 12161
Cu grain growth during Cu-Cr and Cu-Ti thin film nitridation, situ TEM 38583
Cu, reflecting surface, SHG study 23408
Cu thin film dissolution in dil. CuCl$_2$, microstruct. effects 13433
Cu thin films, electromigration, hillock form. 30143
Cu thin films on polyimide, adhesion study 11820
Cu thin films, pulsed laser deposition, opt. reflectometry 5897
Cu-Au conductors for IC interconnects, AlGaAs laser-assisted deposition 12184
Cu-Sn intermetallic form. at solder-Cu interface, in-situ TEM 12188
Cu$_3$Ge thin films on Si(SiO$_2$), stabil. 1301
Fe films on Cu(100), struct./mag. props. 14162
Fe/Ga, bimetallic thin films, MOCVD, stoichiometry control 28842
Fe-Ag granular films, giant magnetoresist. 6981
Nb, ultrathin films, opt. SHG, thickness depend. 31532
Ni thin-film bolometer 25843
NiTi/Si thin film shape memory alloy syst., stress evol. 37533
Pd, metal-semicond. interfaces, hot electron transport probed by BEEM 13206
Pd, micromirror opt.-fiber gas sens. 9960
Pd patterned thin films, laser-induced forward transfer deposition 28860
Pd thin electroplated coatings, solderability, semicond. packaging 37143
Pd-Ni thin film solid-state hydrogen sens., sens. response 17977
Sb-Ge amorph. films, crystn. kinetics, in situ studies 20914
Si-NiSi$_2$ microcrystalline composite thin films, struct./elec. transport 38402
Ta fibrous-struct. low-stress films for X-ray masks, sputtering 13536
Ta sputtered film, compressive stress rel., thermal cycling 22266
Ti, film deposition in hollow cathode arc discharge, ion energy transfer, substr. 37473
Ti thin films/AlN substr., interface form. kinetics 20459
TiNi shape memory alloy thin film, laser ablation 28854
TiSi$_2$ buried layers in Si by direct wafer bonding 30154
TiSi$_2$ form., UHV annealing/RTA, SIMS/XPS study 22276
TiSi$_2$ self-aligned RTA proc., CMOS IC, response surface 22593
TiSi$_2$-Si surface/interface roughness, RTA heating rate effects 22096
TiW PVD manufacturability, advanced chamber shield design 22272
TiW thin films, sputter deposition 28829
(Ti$_{1-x}$Zr$_x$)/Si thin film syst., silicide form., local structural studies 38414
W nucleation on SiO$_2$, selective CVD 6663
W sputter deposition for x-ray mask absorber, in-situ stress control 6702
W sputtered thin films, x-ray masks, intragranular microstruct./stress 6700
WSi films on GaAs, anisotropic etching 22239
WSi$_2$ buried layers in Si by direct wafer bonding 30154
YAG:Er,Ho thin film selective emitters, thermophotovoltaic cells 36620
Zn-As$_2$S$_3$ bilayers, electron/photon irrad. effects 38405
metallisation
see also electrodeposition; integrated circuit metallisation; semiconductor device metallisation
3D polymer substrs., sputtered thin film metallization 12170
3D simul. of impurity diffusion in thin-film diffusion barriers 13424
capacitors, mag. field/current distrib. 882
conference, rapid thermal/integrated processing, San Francisco, CA, USA (1994) 5459
coplanar strips, anal. considering finite strip metal. thickness 2295
CVD diamond, metallization and die attach 38662
defective metal lines, current induced failure 30153
diamond, electroless plating, laser-assisted selective metallisation 30157
electronic components and technol., conf., Washington DC, 1994 5473
fine line cct. mfg. technol., electroless Cu plating 12929
finlines, semicond. substr., high precision anal. 31885
General Electric HDI modules, MCM-D, reliab. 12980
ground-plane-backed planar slot antenna expt. and calc. 23911
high temp. SOI devices, W metallization technol. 22279
HTS/metal/polymer dielec. interconnect struct. for packaging appls. 11785
integrated force arrays, membrane based actuators 13910
low temp. cofired ceramic tape, silver via metallization 28872
MCM technol., plastic encapsulated, high vol./low cost 21725
MCMs, LTCC, silver conductives, reliab. 29727
metal adlayers on diamond:B thin-film electrodes, electrodeposition 30145
metal/polyimide fine line struct., adhesion and fracture anal. 1171
meterials reliab. in microelectronics, conf., San Francisco (1994) 28229
MID, moulded interconnection device, mfg., adhesion/metallisation proc. 37138
MM-wave CPW, air-bridges, mode spectrum 800
multilevel metallization struct., failure mechanisms, finite-element stress anal. 38694
OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
PCB technol., non-palladium metallization 12921
PM ECR plasma source, rem. window 37509
polyethyleneterephthalate/Mg interface, X-ray PES 37540
polymer surface modif., wet proc., adhesion, metallis., review 442
polypyrrole synthesis, Cu metallization 1294
projection displays, metallized viscoelastic control layers 25923
quartz cryst. resonator stabil., electrode metallization barrier layer 39075
SAW delay line packaging, manufacture and perform. anal. 39117
self-healing metallized polypropylene power capacitor testing 27877
shielded microstrip lines, arbitrary metal. cross sect., anal. 2290
static elec. shielding bags, testing requirements 15212
thick film multilayer material systs. for thermal cycle appls. 21660
thin film multi-MMIC MCMs for microwave appls. 21580
via holes, corrosive outgasses, TDS 38690
vias, in situ sputter cleaning, getter electrode 22233
Ag patterns on Ag-rich Ag-Ge-S films, reversible photowriting, thermal erasing 13419

metallisation continued
Ag/Pd thick-film conductors 29695
Ag-Ni laminated electrodes for quartz piezoelec. resonators 39076
Al CVD on SiO_2, situ obs by environ. TEM 38634
Al, CVD on oxidised Si, direct growth, high-speed growth 20933
Al conductors, thermionic deposition, electromigration stabil. 22257
Al, multilayer conductors, submicron width, electromigration failure, current dens. depend. 38630
Al single-cryst. nanostructures, fab. 30159
Al thin films, selective area deposition, photo-assisted OMCVD 30158
Al/SiO_2 interfaces, buried thin reacted layer direct obs. 38695
Al/W-Ti metallization, electron microscopy 22256
Al-Cu (4 wt.%) thin-film interconnects, precip. phase 13425
Al-reflow, cap-clamp, sub-micron contact holes 38691
AlGaAs/GaAs heterostruct., gate, ohmic and interconnect metallization 13420
AlGaAs/GaAs heterostruct., ohmic contacts, phys./elec. study 13169
AlGaAs-GaAs Schottky quantum point contacts, airbridge post 1091
AlGaAs-InGaAs heterostruct. FET for high temp. IC 22493
AlN, reliable thin film metallization, microelectronics packaging 37118
AlN/electroless plated Ni/Cu, indirect bonding, hot pressing 5857
AlSiCu lines, electromigration lifetime, min. time to failure testing 38637
$Al_3Zr/Zr/Si$ contact systs., solid-phase reacts., AES *(Japanese)* 29962
Au bumps on Si substrs., stabil., gold sulfite plating 12160
Au electrodeposited thin films, X-ray masks, stress/structural change 6701
Au electrodeposition/electroless deposition, porous Si 20916
Au/LaB_6/Au/Ni/Ge contacts on n-GaAs, SNMS study 13421
Au/Zn/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
AuGe/GaAs ohmic contacts, ion-assisted deposition 22265
$BaTiO_3$ thin film capacitor dielec. props., Pt bottom electrode 38050
$BaTiO_3$ thin film capacitor dielec. props., W_2N-W bottom electrode 38050
$CoSi_2$, form., Si/Co/GaAs interface 38632
$CoSi_2$ interconnection lines, writing FIB implant. 38693
$CoSi_2$ patterned layer buried Schottky contacts in Si, wafer bonding 38394
$CoSi_2$, self-aligned contacts for PBT device 22365
Cr-Cu-Ni-Au film syst., electrolytic deposition, temp.-time stabil. 6659
Cu MOCVD, Cu-betadiketonate precursors, surface effects 37492
Cu, electrodeposited/electroless for PCBs, mech. props. 12940
Cu electrodeposition/electroless deposition, porous Si 20916
Cu film, ion beam assisted deposition, lower resist., higher interface adhesion 37512
Cu ions in slurry, effect on Ti chem.-mech. polish rate 6662
Cu metallization, oxid. barrier layers 38689
Cu polymer metallization, adhesion mechanisms, theoretical modelling 12212
Cu/polyphenylquinoxaline interface form., HREELS obs. 22278
Cu_3Ge thin films on $Si(SiO_2)$, stabil. 1301
Fe-silicides, depth-selective conversion electron Mossbauer spectrometry 38677
GaAs digital FET multilevel metal interconnects, isotropic etch planarization 13322
GaAs ohmic/nonohmic contact form., interfacial react. effects 38392
n-GaAs/metal Schottky contacts, interface state dens. anal. 1157
GaAs(110), Cs chemisorpt., ab initio study 6668
GaAs(110), K chemisorpt., ab initio study 1290
GaAsA/Al-Ni-Sn metallization scheme, ohmic contacts 1295
p-$In_{0.47}Ga_{0.53}As$/InP, modified sheet resist. of ohmic contacts 38374
InP metallisation by transit. metals 1300
n-InP/Au/Ni, ultra-low resist. Ni-based contacts 38409
Mn/GaAs(001), FCC Mn films, stabilization via MBE growth 13414
Ni electrodeposition/electroless deposition, porous Si 20916
Ni/Zn/Ni/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
Pd/Mn/Sb/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
Pd/Zn/Pd/Au(Pd/Au), ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
Pd(-Ag) spherical powders prod. for MLC capacitors 37532
Si surface, patterned Au deposition, STM tip-induced anodization 28804
Si, surfaces, patterned, selectively metallized, SIMS anal. 6647
Si wafer surface, metal-induced pitting, wet chem. proc. 1283
Si/Al, VLSI metallisation layers, charactn., Joule heating model 13430
Si-based device proc., radiation damage 22160
SiO_2, electroless metal deposits, enhanced adherence 30156
$SrCaTiO_3$ microwave ceramics, metal conductors, adhesion strength 28870
Ta(110)/Ta(110)-suboxide etch selectivity, Cl_2 mol. beams 30130
Ti silicidation, effect on type II end-of-range disloc. loops 38581
Ti-Pt-Au-InN nonalloyed ohmic contacts, thermal stabil./contact resist. 38393
TiCN, CVD contact barrier metallization for submicron devices 1297
TiN_x, CVD, organometallic precursors, surface spectrosc. study 37495
W film on Si, self-limiting growth by WF_6 reduction, doping atom effect 38636
W nucleation on SiO_2, selective CVD 6663
W, selective LPCVD, pretreatment technol. 20918
W/SiO_2, W fine lines, micro-wedge scratching 38705
W/TiN:F interfacial props., deposition temp. effects 393
Zn/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
Zr-Si syst., in-situ TEM obs. of interfacial reacts. 38663

metallising *see metallisation*

metallography
see also electron microscopy; optical microscopy
ferritic steel weld images, automatic thresholding/edge linking 16135
fine pitch surface mount IC package solder joints, exam./testing 37117
vac. interrupters, arc conditioning effect *(Chinese)* 5136

metallurgical industries
see also forging; rolling mills; steel industry
aluminium cold rolling mill, AC drives, control syst. 44490
cement Cu direct electrorefining, anode support syst. 36799
cold strip rolling, proc. output optim. studies 11496
copper rod mfg., QC syst. upgrade, USA 5677
elec. equipt. rooms ventilation 20164
electrorefining proc., anode passiv. expts. 28192
extrusion proc. DC motor drive cascaded control design *(Russian)* 11497
hot rolling mill control/power equipt. modernisation project, USA 44630
hot strip mill load bal. control ES 44627
induction heating, MF parallel power converter appls. 20163

metallurgical industries continued
iron rolling mill motor drive, random disturbance studies 11499
multi-motor uncompensated elec. drive, copper treatment line appls. 36636
powder manufacturing and industry trends, conf., Canada (1994) 28226
real time galvanizing plant temp. control 28191
surface roughness online monitoring by laser scatt. *(Japanese)* 34700
tandem induction furnaces, cost-effective smelting *(German)* 11500
thermal proc., optimal control software 44628
waste heat recovery, energy conservation *(Japanese)* 35725
Al scrap electrorefining, chloride melts-based 28193
Cu electrolytic refining, energy consumption expts. 11495
Cu electrolytic refining, polariz. occurrence/reduction 11494

metallurgy
see also ageing; deformation; electric properties; hardening; heat treatment; materials testing; metallography; metallurgical industries; metalworking; phase diagrams; powder metallurgy; recrystallisation; surface treatment
elec. connectors, metall. considerations in FEM modeling 12869
microsecond plasma opening switch, material surface modif. 36465
p-$Cd_{0.95}Zn_{0.05}Te$/metal contacts, elec. props. and contact metall. 13226

metalorganic chemical vapour deposition *see chemical vapour deposition*

metalorganic molecular beam epitaxy *see chemical beam epitaxial growth*

metalworking
see also bending; cold working; forging; hot working
mechatronic components 44631

metamagnetism
$Y(Co_{1-x}Al_x)_2$, itinerant electron metamagnetism 6998
$Y(Co_{1-x}Fe_x)_2$, itinerant electron metamagnetism 6998
$Y(Co_{1-x}Ni_x)_2$, itinerant electron metamagnetism 6998

metastable states
see also resonant states
afterglow in Orsay polarized electron source 26099
at. beam freq. std., laser cooling 42664
Cu vapour-flow CW laser constr. 14701
$Na_2[Fe(CN)_5NO].2H_2O$, metastable electronic states, holographic inform. storage 23454
Pr^{3+}-doped fluoride fiber amps., gain dyn. anal. 31217
Si:H, defect passiv./light-induced metastability 13359

meteor burst communication
IEEE MILCOM conf., Boston, USA (1993) 36897
radio systs., ellipt. polariz. antennas appl. 42341
rural meteor burst communication protocols anal. 33974
VHF TV sigs., long dist. ionos. propag. 15432

meteor scatter communications *see meteor burst communication*

meteor trails *see meteors*

meteorological instruments
see also anemometers; hygrometers
15 GHz LOS multipath propag. expt. 31815
data telemetry buoy, autonomous for Antarctic 18858
Giubiasco (Switzerland) mains-connected PV installation *(German)* 43951
humidity of atmos., rem. sens., alexandrite ring laser 43512
Integrated Sounding System, TOGA COARE obs. 4390
IR flux meas., pyrgeometer charactn. method 43509
MAGICS meteorological imaging syst. for Nippon Airways *(Japanese)* 10414
Sun photometer, LED-op amp design 35309
TOGA-TAO buoys deployed in Pacific, sens. eval. 18894

meteorological radar
42 GHz bistatic Doppler radar for wind/fog/precip. meas. 18835
94 GHz spaceborne radar for global monitoring of ice cloud 35331
av. wind vel. meas., mean Doppler freq. estim. 43515
bistatic dual-Doppler radar, 3D vector wind retrieval 10482
C-band scatterometer/SAR for tropical cyclone monitoring 10469
C-band V-polarized radar sea-echo model (from ERS-1) 43531
Chilbolton radar facility for precip. meas. 35328
clutter removal strategies, interferometric imaging 35332
Communications Research Laboratory radio acoustic sounding 10466
doppler radar for Kansai International Airport *(Japanese)* 10409
dual polarized radar, pulse repetition scheme 43506
ELDORA/ASTRAIA airborne X-band Doppler weather radar 10483
ERS-1 scatterometer data, wind retrieval, neural network approach 10470
FMCW weather radar for PBL study 35304
hail recogn. by radar, cloud top temp. data 18824
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
IEE Colloquium, London (1995) 28266
Indian MST radar DP software 35312
polarimetry, path integrated differential phase shift 43517
pulse laser radar, time-depend. sig., single-multiple scatt. tech. 34161
RA-2 satellite-borne radar altimeter for rainfall meas. 35329
rain meas., rain rate distrib. inversion 4397
rain rate rem. sens., microwave radiometry and radar methods 10477
rainfall meas., window probab. matching method 4398
rainfall rate, radar rem. sens. methods, review 26723
rainfall rate meas., multiparameter radar techs. 35326
S-band Doppler radar for tropical precip. charact. meas. 35330
SEMAPHORE expt., satellite wind meas. anal. 26727
single-transmitter bistatic dual-Doppler radar network 18819
small scale struct. study by super-resoln. 35325
snow bright-band detect. by dual polaris. radar 35333
storms, microwave rem. sens., AMPR radiometry and CP-2 radar 35314
storms (precipitating), microwave rem. sens., AMPR 35313
texture-based and fuzzy class. for regenerating tropical forest mapping, Landsat TM 43516
vel. field by Doppler-correl. reconstruction *(Russian)* 35303
vol. scatter, radar interferometric techs. 35306
wind rem. sens., SAR imagery model 35324

meteorology
see also meteorological radar; storms
1-7 day ahead load forecasting, weather uncertainties *(Japanese)* 35576
4950 kW Vindeby offshore windfarm monitoring, Denmark 19569
C-band overwater LOS links, meteorol. aspects 9195
cloud fraction/shadow props. retrieval from TIMS/AVIRIS 26718
ExtNet, extension electronic inform. delivery in North Dakota 8869
GMS image data, holographic images generation *(Japanese)* 16123
load forecasting, weather-sensitive short-term, neural net approach 10701
mesoscale convective systs., microwave and IR emissions 35318
oceanographic nowcast/forecast operational syst., US Navy 26844
W Pacific, Integrated Sounding System obs. 4390

meteorology continued
power demand modelling considering meteorological factors 4608
power syst., reliab. eval., weather events, seq. simul. 4461
power syst. elec. load-weather temp. fn. calc. method 35589

meteors
goniometric radar obs. from single station, meteor vel. distrib. 25624
shower detect. by radar, correl. method 25623

metering
see also meters; standing wave meters; watthour meters; wattmeters
competition in supply of elec., metering equipt. 35700
LF power meas./anal., colloq., London (1994) 20258

meters
see also individual types of meters
ellipt. polarized elec. field, elec. field meter 18020
energy meter testing based on Walsh transform algms. 3949
opt. dist. meter, LD/APD 25975
PM magnetisation, thyristor-based, calib. appls. 536
TEM cell, field strength meters calib./antenna factors 25937
vel. of sound in liqs. meas. 26016

method of moments
1D zonal reflectors, anal. 40470
2D EM inverse scatt. solns., sine-basis moment method 15402
2D EM scatt., MoM-CGM-FFT appl. *(Chinese)* 31804
2D fractal sets, inverse/approx. problem 2730
2D inhomog. dielec. objs., permitt. profiles reconstruction *(Korean)* 16136
2D method-of-moments problems involving large scatterers, soln. 23533
2D struct. anal., first-order hybrid FEM/MoM approach 31785
3D conducting bodies, EM scatt. problem 7947
3D EM scatt. problems, fast multipole soln. 23537
3D EM simulator, IE3-D, HF and high-speed cct. appls. 21071
antenna site atten. anoms., effect on antenna factors meas. 23937
Archimedean spiral antenna, reflector backed, second-mode operation 8071
Archimedean spiral antenna anal. 23880
asymmetric TEM cell, characteristic impedance, septum thickness effect 20417
ATM multiplexer supporting bursty traffic, perform. computation 41427
augmented moment matrix LU-spatial decomp. 23610
axially oriented whisker in waveguide mount, anal. for MM-wave freqs. 40397
biconical antenna for EMC meas. 23716
biconical antennas, antenna factor eval. for EMC meas. 40484
bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
broad wall coupler between dissimilar rect. waveguides, S-matrix 12714
broadband cylindrical-rect. microstrip antennas, gap-coupled parasitic patches 2329
broadband matched terminations in planar structs., simul. 12746
cable bundles, per-unit-length params., MoM 15531
cable harnesses, capacitance calcs., method of moments 33741
capacitively fed microstrip antenna element 23852
cavity-backed aperture antennas with dielec. overlay, anal. 8042
CFH, complex freq. hopping anal. of interconnect networks 21083
circ. curved integrated opt. channel waveguides, source-type integral eqn. anal. 22881
circ. loop antenna, radiated emissions, finite ground plane effect 8046
coated wire antennas/scatterers, anal. 31933
coax step discontinuities, method of moments num. anal. 29525
coaxial probe excited hemispherical dielec. resonator antenna input impedance 31918
coaxial-slot antennas for microwave interstitial hyperthermia, SAR 26469
common-mode current radiation anal. by moment method 23703
composite chiral material, wide freq. band, calc./meas. 23596
conductor and dielec. losses of transm. structs., calc. 15574
corrugated periodic struct. noisefree static field calc. 31892
coupled transient simul. of ccts. and 3D packaging, algos. 21070
coupled transient simul. of ccts. and 3D packaging, algms. 11808
coupling jns. in waveguide-fed planar slot arrays, charactn. 15657
current densities react., variational aspects 23490
cylindrical antennas in multilayer medium, model 31923
cylindrical edge-slot antenna, coaxial line feed *(Korean)* 15615
cylindrical microstrip-line-fed slot antenna anal. 31955
dielec. coated wire scatterers/antennas, time domain anal. 15654
dielec. materials props. determ., coaxial cavity syst. 18029
dielec.-covered microstrip line slot antenna anal. 2331
dielectric body of revolution/wire radiator spin 23815
discontinuous expansion and testing fns. 23817
DS-SSMA indoor cellular radio perform. 25370
edges of perfectly conducting wedges, PO current dens. correct. 7940
electrically thick monopole admittance calc. 23847
ellipt. shapes location in image, pyramid archit. 2589
em, EM simul. tool for MMIC design 29598
EM beam diffr. by planar periodic metal-strip grating 40295
EM field anal. of buildings, shielding screens 15509
EM field distrib. estim. for buildings, wire-grid approx. *(Japanese)* 40386
EM fields, multilevel eval., scatt. problems soln. 15387
EM fields transm., corrugated slots 31855
EM problems, multilevel moment method multiplication correction algm. 23612
EM protection/estim. for telecomms. buildings *(Japanese)* 31863
EM radiation/scatt., moment method solns., parametric geom. 40321
EM scatt., 3D perfectly conducting bodies, PO-MM hybrid method 23598
EM scatt., free space nonlin., moment method/Wolfe's procedure 15399
EM scatt., high-order basis fns. for Galerkin method of moments 31790
EM scatt. and radiation, moment matrix spatial interpolation 23845
EM scatt. from 3-D arbitrary coated cavities, connection scheme 15390
EM scatt. problems, hybrid multipole-beam approach 15412
EM wave diffr. by rounded wedge 15378
EM-field anal. of buildings, 3D wire-grid model 23513
EMC of surveillance devices, rem. deactivation 23663
EMI dipole antennas 40372
enclosed rect. microstrip patch degenerate mode coupling, EFIE soln. 29535
end- and centre-loaded slot antenna configs. 31917
entropy-based approxs. for moment problems, convergence 242
ESD anals. for spacecraft in geosynchronous orbit 35213
finite ground plane with perforated apertures, RCS charactn. 9628
finlines, semicond. substr., high precision anal. 31885
finned cylinder, hybrid soln. for EM scatt. 15406
freq.-selective screens, complementary elements, num. simul. 2313
grid oscillator design, act. quasi-opt. power combining appls. 12777

method of moments continued
GRIN planar opt. waveguide anal. by impedance boundary method of moments 7347
handheld cellular phones, antenna design *(Japanese)* 33901
Hertzian dipole radiation from centre of anisotropic sphere 23829
HF band handheld radio param. effects of operator's body 33862
high speed VLSI interconnects, stat. anal., moment method 28442
high-speed VLSI interconnects, freq./time domain simul. 12287
homogeneous dielec. cylinder inverse scatt. 23568
horn antenna radiation pattern anal. 23935
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
imaging of infinite dielec. cylinders, modified Born approx. 2208
indoor radio propag. model based on ray tracing and integral eqns. *(Japanese)* 23625
infinite arrays of slots in thin conducting wedge, scatt. anal. 42479
infinite periodic array element behaviour computation using FFT 31972
internal resons., method soln., suppl. conditions 40292
interstitial hyperthermia, SAR characts. of mag. ring loaded antenna *(Japanese)* 43344
isolated dielec. disc resonant freq. and far field computation 23828
ISOMOM method for moment-method solns. in EM 31710
joint replacement, orthopaedic biomechanics computational problems 18618
LEMP effects on subtransmission line, MOM 15480
lin. antenna, symbolic approach, inverse problems in moment method 2312
linear active dipole array loading by neg. resist. devices 23980
linearly tapered slot antenna on dielec. substrate anal. 23876
Marconi's (1901) transatlantic transm. wavelength, transmitting syst. anal. 25267
MCM-L layout approach for high-speed problems 38187
metal cabinet enclosing PCB, radiation anal. 23695
microstrip antenna arrays, reduced time modelling 40509
microstrip antennas, moment method, gain enhancement 40459
microstrip discontinuities anal., spectral domain moment method 15595
microstrip discontinuity radiation effects, full-wave anal. 23837
microstrip lines inside rect. cavities, full-wave anal. 31901
microwave diffr. tomography, adaptive imaging algm. 16349
microwave imaging, num. inverse-scatt. solns. 32989
MMICs, transit. props. of vert. conductor connecting two microstrip lines 12790
mobile radio, base station polariz.-sensitive adaptive antenna 33879
monopole antenna above finite disk, circ. cross sect. 2332
MSC/EMAS, CAE software for EMC anal. 23720
multilayer microstrip struct. anal., matched load simul. 12794
multiple multipole program/MoM combination 15210
NEC2 radiation patterns of under-segmented wire grid models 40455
nonlin. time-domain formulation of method of moments, EM field distribs. 40186
nonreciprocal ferrite substr. microstrip open-end discontinuity, MIC appls. 12810
nonuniform ramified microstrip line, anal. 15586
offset dual-patch microstrip antenna anal. 2335
omnidirectional slot array antenna, moment method anal. 31959
open area test site effects in finite modelling techs. 2265
open dielec. waveguide anal., quasi-wavelet expansion 31894
optically fed patch array configs. and scan performs. 31970
orthonormal wavelet expansions anal. of integrated mm-wave/sub-mm-wave waveguides 12809
passive microstrip elements, full-wave space-domain moment matrix 23836
patch resonator soln., combined complex image and contour integral method 29538
PCB radiation, lossy finite width image planes influence 21636
PCB radiation aspects calc., EMC workbench 21634
PCBs EM radiation emission, moment method appl. 899
phase correcting zonal reflector incorporating rings 40469
π-phaseshifting struct., near/far field phase images resoln. 2631
planar freq. selective screens, nonrectangular patch geometries *(German)* 23832
planar microstrip config., anal., closed-form Green's fns. 23792
planar shape recogn., moment invariants and Fourier descriptors 16390
printed 2-arm spiral antenna, 90 GHz-band *(Japanese)* 8059
printed antenna cross-polaris. suppression by strip grating 23859
printed dipole antenna, opt. control *(Japanese)* 31957
printed spiral antennas, resistively loaded, anal. 8072
quantum electron waveguide ccts., vol. integral eqn. for anal. 38941
radial line slot antennas, rot. symm. of inner field 15672
radiating planar ccts., broadband anal., moment methods anal. 15506
radiation currents, low contrast scatterers, surface integral eqn. 40288
radiation from PCB with a cable, anal. 23665
rect. antenna cavity, dominant mode waveguide loaded slots array 2348
rect. microstrip antennas, mutual coupling, superstrate loading 15671
rect. microstrip patch antennas, EM coupled feed struct. *(Korean)* 15638
rect. pixel image, modified moment-based edge operator 8671
rect. waveguide, coupling and radiating apertures, combined FEM/MOM tech. 40414
rectangular waveguide capacitive post and diaphragm anal. 23777
reinforced concrete building, elec. field atten. 23736
reson.-sized reflectors, approx. num. modeling techs. 23902
RF/microwave cct. boards, 3D EM simulator 12284
S-params., calc. by orthogonal expansion and finite integrat. 2168
scatt. by coated bodies, higher order impedance boundary conditions 25544
scattering by finite cylindrical dielec. targets with gently varying cross-sections 23560
sectoral waveguide radiating slot, equiv. params. 8081
short const.-width slot antenna, radiation pattern 15644
sinuous spiral antenna geom. model 23831
sinusoidal params. estim. in meas. noise by cross-spectral method 16026
small reinforced concrete building, EM field atten. 40376
spatial microstrip dyadic Green's fn., asymptotic closed-form 31991
spatial microstrip dyadic Green's fn., radial and asymptotic closed form representation 40450
spherical dielec. particles, dielectrophoretic interact. 7905
spherical-annular microstrip antenna generalised transm. line model 23928
sq. Archimedean spiral antennas, conductor-backed, anal./design 8070
SS ranging syst. over short dist., anal. 17386
superquadratic loop antenna circuits for mobile commun. 23867
supplemental condition use near internal resonances 23824
surface charge dens. on a conductor, behavior 40215
tapered resistive strip grating, E-polarized refl. coeff. *(Korean)* 15394
time-domain scatt. from metal or dielec. (coated) bodies of revolution 23558

method of moments continued
- time-varying higher-order cumulant spectra, noise, composite FM sigs. anal. 40970
- transputer supernode syst. for study of EM wave scatt. 40319
- transverse ground-plane slot in boxed-stripline, radiation effic. optim. 2345
- transverse slot in inhomogen. loaded rect. waveguide wall for array appls. 23771
- twisted-pair transm. line anal. by method of moments 23750
- unshielded twisted-pair transm. line, method-of-moments soln. 33740
- wave guidance between parallel artificially hard surfaces 23779
- waveguide mode computation using wave-like basis fns. 31893
- wideband gap-coupled microstrip antenna arrays, study 40502
- WIREGRID, NEC2 pre-proc. 37365
- $LiNbO_3$ elec. field sens., sensitivity improvement 14522
- YBaCuO/Ag coplanar lines, charactn. and EM modeling 37936

metrology *see measurement*

metropolitan area networks
- *see also LAN interconnection*
- 18th conf., on local computer networks, Minneapolis, MN, USA, 1993 28220
- adaptive DQDB bandwidth balancing, blocking probab. and convergence 3175
- adaptive token release mechanism for ring LAN and MAN 41529
- ATM network, LAN/MAN interworking, bandwidth allocation 8996
- ATM network LAN/MAN interconnection, simul. study 41902
- ATM networks, resource sharing schemes in connectionless server 41438
- ATM switch, DQDB interconnections, cell-based flow control 8966
- ATM techs. for high speed networks 33534
- ATM-DQDB, integrated services interworking, perform. eval. 33599
- B-ISDN, source model for connectionless traffic 25062
- B-ISDN internetworking unit, VLSI implement. 16798
- BanyanNet—bidirectional equiv. of ShuffleNet fiber link 9447
- broadband multipoint multimedia telecom. and computer supported collaborative work 42018
- broadband telecomms. networks and ATM, survey 16792
- Chinese commun. research and related works 3072
- cluster-based network, desirable fault-tolerant topol. 8962
- combined token/random access protocol for LAN/MAN ring networks 16708
- CRMA network real-time appls., perform. anal. 41525
- CRMA protocol, anal. 33502
- DQDB analytical model 33448
- DQDB behavioural simul., data and multimedia traffic 2917
- DQDB MAN, isochronous channels reuse 8983
- DQDB MAN service integrat. and impact on ATM interworking perform. 41847
- DQDB MANs, dyn. 3-tier protocol, unfairness control 33501
- DQDB network, real-time commun. services 3176
- DQDB networks, overload throughput perform. of erasure node protocols 33449
- DQDB networks perform., gateway location effect 8984
- DQDB node, highly parallelized architecture 3220
- DQDB subnetworks, hierarchical commun. syst., perform. 8987
- DQDB/B-ISDN gateway, UPC mechanisms comparison 33503
- FASTPAC for frame relay 16555
- Fibre Channel protocol and 802 MAC services, comparison 33254
- Gbit/s range LANs and MANs, media access protocol perform. comparison 24803
- Gbit/s-LANs, ATMR/CRMA-II, perform. comparison 16710
- generalises DQDB protocol for improved medium access control 33447
- generic flow control protocol, perform. assessment 2961
- guaranteed bandwidth protocol, connection-oriented data service in DQDB simul. 2909
- high performance networking, conf., Grenoble, France (1994) 5496
- high speed MAN, guaranteed bandwidth/balancing mechanism 16709
- high-speed networks for multimedia applications, real-time performance 33475
- HMR, ATM-based medium access protocol for gigabit ring networks 24800
- IEEE 802.6 based PCN, distributed paths migration 9363
- IEEE 802.6 DQDB MAN protocol, perform. anal. 3180
- ISLAN interface, MAC/PHY layers, IEEE std. 24984
- LAN/MAN interworking systs., rate control mechanism 24950
- local/metropolitan ring networks, high perform. protocol 33506
- M/G/1 type approx. of slot-occupancy pattern in DQDB network 3161
- M/K multiple priority policy in DQDB networks, perform. eval. 41843
- MAN/WAN integration, ATM-to-DQDB case 33446
- MetaNet, LAN/MAN architecture, configuration and performance issues 33463
- multi-Gb/s opt. WDM LAN/MAN/WAN networks 42422
- multi-level hierarchical distributed fail-safe architecture for metropolitan area networks 33595
- multimedia appls., fn.-based commun. protocols 9074
- no slot wasting bandwidth balancing of TAR bit 8985
- optimal design of finite-buffer polling network 33426
- PACS design/evaluation, conf., USA (1994) 20213
- patient-based integrated care syst., networked, as basis for achieving quality 35208
- pers. video-on-demand, multimedia inform. caching 42586
- power series algm. for anal. timed-token ring protocols 41524
- prioritized distributed queueing random access protocol 33500
- R-Net, round robin medium access protocol for MANs 24801
- RACE II project Combine, broadband network interworking 33353
- RACE II project PREPARE, mgt. of heterog. broadband testbed 33386
- radio LANs and MANs, IEE Colloquium, London (1995) 36864
- SAFENET lightweight protocol, off-host communication architecture, perform. eval. 33259
- SDH networks, full/partial access solns. 42448
- security system implementation 33459
- share-based congestion control scheme for systs. of interconnected networks 33535
- simul. comparison of broadband networking, MAN config. 16761
- single-node DQDB anal. model, network-wide perform. 41540
- slotted ALOHA, channel access probabilities, maximize throughput 41516
- slotted Aloha protocols for optical fibre LAN using WDM passive star technology 33256
- SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
- survivable ring networks, wideband DCS role 41759
- token passing MAC protocols, quality of service estim. 16499
- topol. design 41844

metropolitan area networks continued
- unidirectional-bus networks, slot occupancy, Bernoulli approx. 8988
- uplink multiple access protocols in meshed VSAT satellite networks 16480
- VSAT interconnection for wide area diversity syst. 16776
- wavelength-reusable/topol.-reconfigurable WDM opt. LAN networks, monolithic opt. equalizer array 42426

metrosils *see varistors*

MF radio propagation *see radiowave propagation*

MFSK *see frequency shift keying*

MHD *see magnetohydrodynamics*

MHD convertors *see magnetohydrodynamic convertors*

MHD power plants *see magnetohydrodynamic power plants*

mica
- HV mineral particulate-filled epoxy composite insulation tests *(Korean)* 27657
- mica-alumina insulation, dielec. props., EM pump appl. *(Japanese)* 39067
- sync. generator asphalt-mica stator insulation, service life tests 11003
- Ag-mica capacitors for avionics hardware, failure anal. 6366

mice *see mouse controllers (computers)*

micelle systems *see colloids*

Michelson interferometers
- 3×3 couplers in fibre optic sens. systs. 17909
- evanescent wave gas sens., surface contamination monitoring 17890
- Faraday-effect magnetometry, Verdet const. compensation 10001
- ferroelec. ceramics piezoelec. responses, interferometric meas. 22667
- fiber subsystems/devices testing by high-resoln. reflectometry techs. 7313
- fibre optic gradient hydrophones 18937
- fibre optic interferometric sens., parasitic cavities limitations 34539
- fibre optic sens., multiplexing in matrix array topol. 34528
- free-running IR FEL, submegahertz spectral resoln. 31433
- high-resoln. opt. spectrum meas., interferometer 9831
- IC ohmic contacts, interfs. of Peltier thermal waves 1151
- MOS-type posn.-sensitive detectors, angle/posn. detect., opt. interf. 34687
- noise in fibre-optic Michelson interferometer, polariz. induced 17854
- noncontact profiling of machined surfaces, fibre optic interferometry 18064
- pass. demodulated Michelson/polarimetric coupled fiber strain sens. 17866
- photoacoustic detect. of trace gases, opt. microphone 17984
- precision reflectometer, HP 8504B, spurious-free enhanced sensitivity, fibre design 22825
- prog. ultrashort opt. pulse delay by acousto-optic deflector 31020
- sawtooth fringe counting for demodulated interferometric strain gauge 17881
- spectral emissivity of natural surfaces, FTIR spectrometer appl. 18131
- thermal phase noise, Michelson vs Sagnac fiber interferometers 17914
- three-axis fiber optic magnetometers for undersea appls. 17824
- two-mode fibre Michelson interferometer config., low-coherence excitation 3850
- white-light scanning fiber Michelson interferometer for absol. posn.-dist. meas. 42832
- Er^{3+}-doped fibre amp., polaris. hole burning suppression, unpolarised source 39708

Micro Channel Architecture *see system buses*

micro-mainframe links *see inter-computer links*

microactuators
- *see also microsensors*
- 3D micro integrated fluid systs. and microactuator 30494
- 3D micro-electro-mech. struct., self-consistent electromechanical anal. 1502
- actuator appl. possibilities *(German)* 11221
- actuator syst., mag. fluid-based *(Japanese)* 44087
- catheter, micro act., with multiple d.o.f. 4289
- comb actuator, microcomponents/microsystems fabr. techs. 6887
- comb actuators, micromechanical, electrophysics 30492
- data storage, micromechanical struct. 39029
- diaphragm valves, normally-closed, elec. activation 6879
- electrostatic actuator, electret 23518
- electrostatic artificial muscle, lin. actuators with multiple-layer struct., robot appls. 31736
- electrostatic induction motor, synthesis and modelling 44083
- electrostatically actuated gas valve 6878
- electrostatically-driven gas valve, high-press. conditions 30516
- flexural plate waves for sens. and micropumps 42782
- impact-actuated lin. microvibromotor for micro-opt. syst. on Si 27773
- in-pipe microrobot, earthworm motion *(Japanese)* 44252
- integrated force arrays, membrane based actuators 13910
- laterally driven microresonators, viscous air damping 34477
- mag. thin-film actuators, moving coil, surface micromachining, fluid control 30756
- manipulation/control theory for microfabricated actuator arrays 30507
- med. 3D microstruct. 26453
- MEMS, conf., Oiso, Japan (Jan. 1994) 28222
- micro mobile robot in water, mechanism and swimming expt. 30519
- micro-mobile mechanisms, thermal expansion 36494
- micro-moving stage positioning, accel. feedback-based *(Japanese)* 11224
- micro-opto-electro-mech. systs. 6881
- microflight mechanism on Si wafer 30510
- microflow devices and systs. 6877
- micromachining technol. 22621
- micromembrane pump manufactured by thermoplastic molding 30497
- microrobot syst., distributed, electrostatic actuator 19675
- miniature relay matrix, multi-actuator systs., electromechanical interf. 30524
- nested microvalve for integrated microflow controller 30495
- quartz piezoelectrically-operated opt. chopper, micromachining, sens. appls. 30597
- rare earth-iron cpds. for actuators and sens. 34481
- RF-magnetron sputtering of piezoelec. PZT actuator films 28851
- TCMA, thermally controlled magnetis. actuator, thermosensitive mag. materials 30761
- thermally driven liq.-vap. phase-change microactuation 34455
- thermally driven microvalve, buckling type, pneumatic appls. 30496
- vibr. microactuators, energy dissipation mechanisms 30514
- Z-cut quartz piezoelec. microactuator, large pseudo-static displacement 13908
- Fe-Tb(Sm) amorph. thin film magnetostrictive actuators, fab. 6883
- NiTi/Si thin film shape memory alloy syst., stress evol. 37533
- Si (110) micro-opto-mech. devices, anisotropic etching 30977
- Si MEMS piezoelec. microactuators, nanoindentation charactn. 13914
- Si micromachined actuator, fiber-optic roller bearings 30491

microactuators continued
  Si micromachining/microfabrication techs. for integrated sens. and actuator systs. 13911
  Si micropump, design/proc. techs., fabr. *(Korean)* 30526
  Si-SiO_2-SiN_x bistable snapping microactuator, buckling cantilever 30501
  TbFe(SmFe) magnetostrictive thin film actuators, fab. 30752
  Ti-Ni sputter-deposited thin films, shape memory effect 28853
  TiNi shape memory alloy thin film, laser ablation 28854
microassembling
  see also lead bonding
  3D microstruct. constr. by multi-face FAB/robot 30521
  3D stacks of chips/wafers, through-hole interconnections 30425
  active array radar MMIC packaging evol. 21578
  AT&T μSurface Mount Assembly, large vol. fab. of flip-chip MCMs 21705
  ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
  automated fiber pigtailing technol. 14383
  ceramic packages, die attach polymer bleedout 153
  CVD diamond, metallization and die attach 38662
  cyanate ester die attach adhesive, plastic packaging 5634
  die attach proc., mfg. stresses in die, electronic packages 6453
  die attach systs. for hybrid/MCM assembly 38175
  die grid array packaging, known good die IC prod. testing 37147
  die-attach proc., mfg. stresses in die, package reliab. 29709
  diebond thermal fatigue model, damage integral based anal. 11746
  epoxy die attach, dispensing technol. and systs. 12950
  epoxy resin, printing encapsulation syst., MCMs, PLCC, BGA, PGA, TAB, COB, flip-chips 20433
  flip COB assemblies, material selection 12930
  flip-chip bonding of holographic opt. interconnects, alignment 38177
  flip-chip bonding proc., multi-stacked μ-Au bumps 12956
  fluidic self-assembly of microstruct., GaAs on Si integrat. 30002
  fluxless oxid.-free bonding technol., microelectronic packaging 12952
  focused laser beam appl. 30520
  four ASIC MCM-C, design for manufacturability 21712
  fuzz button interconnects, reliab. study 21656
  glass on Si, opt. interconnections/hybrid optoelectronic integrat. 31113
  GPS mixed-sig. receiver, MCM-L packaging 25610
  HDI based PGA package, compatibility, μP chip package 5653
  KGD, known good die, levels and effects, MCMs 12969
  known-good die and MCM packaging aspects 959
  laminated elements, thermal stress, component size effect 29705
  laser bumping for flip chip and TAB appls. 12957
  lead on chip plastic package adhesive tapes 11800
  lead on chip struct. memory package, adhesive material 13853
  low stress polymer die attach adhesive for plastic packages 11801
  maskless flip-chip solder bumping tech. 954
  MCM, mechanised assembly, competitive matrices 38181
  MCM packaging, high reliab., low stress epoxy resin 6469
  MCM/ball grid array technol., assembly proc. considerations 38178
  MEMS, conf., Oiso, Japan (Jan. 1994) 28222
  metal capping of MCM thin film, laser 12977
  microelectronic mfg. procs., design of expt. techs. 21674
  mil. MCM packaging design and manufacture 29714
  package cracking, molding cpd. and die attach adhesive 5665
  pigtailing and connectorization techs. for optoelectronics 39610
  plastic assembly procs., eval. for high reliab. IC appls. 6452
  plastic encapsulated multichip technol. for high vol. MCM prod. 12974
  plastic SM IC packages, moisture/reflow induced delaminations, IC thermal perform. 11797
  SC59 surface mount package, autoclave reliab., benchmark study 11823
  surface mount PLD, prog. and testing 37699
  thermoplastic die attach for hermetic packaging 21666
  thin film multi-MMIC MCMs for microwave appls. 21580
  transfer laminate cct. proc. for fine pitch wiring technol. 12971
  VLSI plastic packages, reflow soldering perform. improvement 6840
  Au-Sn flip chip bonding on flexible prints 12955
  InGaAs high power quantum well diode laser, MOVPE fab. *(Korean)* 39803
  Sn-Ag solder, Pb-free, appl. in no-clean thick film electronic modules 6451
microbalances
  microgravimetry, soln.-phase, using oscillating quartz microbalance 42956
  quartz cryst. electrochem. microbalance, LF mode spatial localization 34710
  SMC solderability testing, microwetting bal. 6422
microbridges, superconducting *see superconducting microbridges*
microcalorimeters *see calorimeters*
microcassette recorders *see audio tape recorders*
microcellular radio *see cellular radio*
microchannel plates
  dry etching, high aspect ratio 13015
  emission microscopy in semicond. failure determ. 6837
  high-energy astronomy instrumentation conf., San Diego (July 1994) 5466
  microchannel liq. scintillation detector, glass fiber ring image intesifiers 18378
  photomultipliers with MCP 38221
  spectral line emission measuring syst., calib. 17629
  XPS spectrometer, 2D charged-particle sens. ASICs, high resoln. 10155
microchemical analysis *see chemical analysis*
microcircuits *see integrated circuits*
microcode *see firmware*
microcomputer boards *see microcomputers*
microcomputer chips *see microprocessor chips*
microcomputer development systems *see development systems*
microcomputer-mainframe links *see inter-computer links*
microcomputers
  see also Apple computers; development systems; Hewlett Packard computers; IBM compatible machines; IBM computers; microprocessor chips; portable computers
  advanced μP ATE 663
  batt.-powered portable computers, technol. trends 37810
  cableless LANs, emerging technol. 41900
  communication transmission tools, use and technology, conf., Bad Nauheim, Germany (Nov. 1994) *(German)* 16718
  computer aided EMC testing 23719
  desktop computer power mgt., cost-effective archit. 6012
  digital video in PC environ. 9061
  digital video on PC, implement. and perform. 16076
  distributed computing systs., adaptive protocols, simul. model 41528
  EM noise emission anal., cepstrum 23678
microcomputers continued
  G_{MICRO}/400, 32-bit superscalar μP, embedded systs. 21349
  green PCs, CPUs, chip sets, and BIOS 12563
  high perform. μP, design techs. *(Chinese)* 12554
  high-perform. computer power distrib. syst., modeling and meas. 11178
  microprocessor-based systems, data corruption risk 29296
  μP, develop. progress, MOS ccts. *(Japanese)* 6183
  network bottlenecks in mobile computing, Coda file syst. 33555
  NPP, human related incidents, PC aided anal. *(Japanese)* 35820
  pers. digital assistants, trends/develop. 34202
  power quality vars. effect on PC, testing 5601
  R^2SPG tech., systs. upset thresholds meas. 15496
  SH7600, RISC microcomputer for pers. commun./multimedia eqpt. 12582
  simul. for param. meas. of thermophysical procs. 37800
  software codec for PC based on DCT 16942
  tightly coupled dual 8098 microcomputer syst. *(Chinese)* 661
  video commun. and presentation, desktop computers 16077
  videophone for desktop videoconferencing 24925
  watchdog timer in μP syst., reliab. eval. *(Japanese)* 12560
  wave fields, probab. modeling method 2164
  WOODY AV PC, review *(Japanese)* 25660
  Zero Instruction Set Computer, Higgs search 41284
microcontrollers
  5-phase SRM drive, phase converter, microcontroller 5317
  32-bit RISC proc., embedded control systs., CMOS VLSI implement. *(English)* 37795
  A/D comparator-convertor implement. *(German)* 21388
  automobile electronic fuel injectors, power IC-based control 36776
  automotive engine controllers, potted, PQFP solder joint reliab. 28155
  automotive ICs, dedicated protective fns. 36765
  automotive microcontroller, on-chip voltage regulator 44577
  binary seq. sync. machines, microcontroller based 37794
  C166 microcontroller connection, controller area networks 41876
  capacitor motor drive, single phase, speed control 5272
  clock synthesis for SC filters, microcontrollers 12638
  colour perception, fuzzy sens. 3848
  computer-power converter commun. link, syst./alarm mgt. 41826
  controller area network, real-time commun. anal. 3177
  Controller Area Network controller class. *(German)* 24832
  COSY control syst., RT/OS environ. 18209
  DC rly. vehicles, narrow-band LF act. filters 20102
  DC servo motor, fuzzy PID control, accelerated reasoning 5167
  Diagnostician on-a-chip 12568
  Diagnostician-on-a-chip, concepts/implement. 34357
  digital AC panel meter, design algms. 3734
  digital PWM-VSI inverters, nonlin. compensation 36373
  elec. motor drives, single-chip microcontroller appls. 44460
  elec. vehicle, flywheel, torque controlled, peak power transfer 5357
  FlexCore custom microcontroller concept *(German)* 21365
  FR20 series high-perform. microcontroller for multimedia commun. *(Japanese)* 12581
  fuel cell power syst. conditioners, microcomputer control appls. 43968
  fuzzy controller; on-chip learning, stochastic logic 6166
  gray scale plasma receiver, microcontroller-driven 34638
  Gx-2001 microcontroller, multi-fn. TV technol. appl. 6176
  HS-series storageWorks array controllers, archit. and design 37809
  HVDC converters control, microcontroller appl. 19239
  induction machines, stator flux oriented digital control scheme 4951
  induction motor servodrive, control, PI load estimator 20086
  induction motor servodrive, VSS robust control 44483
  induction motor speed controller, line voltage feedforward-based 27712
  induction motors, PWM VSI-fed, ASIC/microcontroller control comparison 36180
  input filter design optimisation for low loss matrix converter 893
  integrated CAN control 21346
  inverters, on-line harmonic elimination 5081
  matrix converter, low loss, input filter design 5132
  MC68356 integrated DSP/RISC microcontroller, V.34 modem appl. 9118
  MC68HC11 microcontroller based talking thermometer 3749
  modular design for flexibility *(German)* 21364
  MPC105 PCI bridge/memory controller 37786
  myoelectric filter, adaptive, real time microcontroller implement. 26474
  nonvolatile prog. devices and in-cct. test 6095
  optimal mapping of fuzzy rules on std. micro-controllers 21361
  OTA-based multifunction act. filter, prog., microcontroller appl. 12636
  parametric fuzzy control module, 16 bit std. microcontroller SAB 80C166 17677
  piezoceramic resonators, microcontroller timing, LV operation 39085
  precision freq.-independent variable-phase phase shifter 21465
  PWM VSI, AC machine control appls., perform. improvement 5043
  real-time speed meas. for motor drive systs., microcontroller-based 36648
  rectifier telecom. power supplies, digital current control 19797
  relay operate time/contact bounce, microcontroller in-proc. test cct. 29643
  relays, digital control interface design 29641
  robots, AC drives, optimised DSP field oriented control 36683
  SAE 81C99 Fuzzy Inference Processor 29283
  SC-based singleton fuzzy controller 684
  SEC 51C803/804 three-phase microcontrollers for variable-speed asynchronous motor drives 29263
  SEC 51C803/804 three-phase microcontrollers for variable-speed drives 5246
  self-actuated mobile device for load carrying 35170
  SEU and charge collection meas. 12393
  sig. proc. ASIC, digital SS modem for power line commun. 21379
  SMPS PF correction, microcontroller 44116
  squirrel cage drives, positioning, vector control strategy 20071
  SRM drive speed/current regulation, microcontroller-based 11350
  SRM drives, brushless DC motor microcontroller appls. 36679
  ST9 8-bit Microcontroller testing 29281
  state machines, automated synthesis, binary seq. sync. machine code generation 6128
  std. microcontrollers, fuzzy logic optimisation 21352
  stepping motor torque-speed characts., computer aided testing *(Chinese)* 44093
  temp. compensation of cryst. oscillators, microcontroller 39105
  three-phase PWM invertors, real-time harmonics control 19722
  three-phase PWM rectifier, unity PF microcontroller 44177
  TV microcontrollers, on-board teletext decoder 41749
  two-link collision free robot positioning, microcontroller-based 11226

microcontrollers continued
  universal motor cycloconverter control, microcontroller-based 44002
  universal real-time controller, fast calc. 6172
  VLSI fuzzy controllers, automatic synthesis 685
  VSI, digital adaptive hystersis current control 19756
  WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
microdosimetry *see dosimetry*
microelectrodes
  3D microelectrode array for chronic neural recording 10240
  local-electrode atom probes, extraction electrode microfabrication 39026
microelectronics *see integrated circuits*
microfarad meters *see capacitance measurement*
microgravity experiments *see zero gravity experiments*
micromachines *see micromechanical devices; small electric machines*
micromachining
  2D posn. sensitive detector, array type electron multiplier 18337
  3D micro integrated fluid systs. and microactuator 30494
  3D microstruct. assembling, Au-Si eutectic bonding 12951
  3D microstruct. constr. by multi-face FAB/robot 30521
  accelerated nanoparticle erosion, micromachining 39031
  accelerometer, surface micromachined, integrated electronics 9862
  air-coupled US and NDE, micromachined capacitance transducers 18931
  alkali metal thermoelec. convertors, micromachined evaporator component fab. 20031
  array probe card, micromachined, fab. proc. 20408
  BAW composite resonator *(Chinese)* 14083
  capacitive electro-chem. etch-stop tech. 30103
  chem. amplified pos. resists, micromachining 38738
  CMOS micromechanical resonator oscillators, design/perform. 30509
  diamond, ion beam and laser-assisted micromachining 13907
  diamond films, lift-off synthesis, microcomponent fab. 11732
  diaphragm valves, normally-closed, elec. activation 6879
  electrostatic lenses, miniaturized electron column, microfabrication 40269
  electrostatic side-drive motors, design and fab. 36217
  electrostatically-driven gas valve, high-press. conditions 30516
  fluorocarbon films for MEMS appls., materials anal. 28852
  focused ion beam micromachining appls. 13906
  gas chromatography, silicon-micromachined syst., anal./modelling 9963
  gas chromatography syst., silicon micromachining, design/fab. 9962
  grating light valves for high resoln. displays 25927
  heavy metal ion sens. 42779
  high power electron guns; welding, heat treating, and micromachining appls. 11735
  hot-wire anemometers, micromachined, characts. 25788
  HTSC air-bridge microbolometers, silicon micromachining 39262
  IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
  impact-actuated lin. microvibromotor for micro-opt. syst. on Si 27773
  integrated free-space opt. syst., micro-machined 3D micro-optics 14484
  interferometric low thermal mass IR-absorber for thermal IR detectors 3845
  local-electrode atom probes, extraction electrode microfabrication 39026
  mag. thin-film actuators, moving coil, surface micromachining, fluid control 30756
  MCM fab., planar chip insertion, interferometric micropositioning 21727
  metal injection molding, microstruct. proc. 20427
  micro photoforming proc., archit. combination 30515
  microactuators, micromachining technol. 22621
  microcomponents/microsystems fabr. techs. 6887
  microengineering design/manufacture, LIGA proc. 6886
  microflow devices and systs. 6877
  micromachined thin film bulk acoustic resonators 30635
  micromechanical Mach-Zehnder interferometer, Si IC compatibility 42808
  MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
  microrelay driving element, integrated electromagnet 21610
  microstruct., FIB milling, lathe tech. 22625
  microstruct. technol., advances 39035
  miniaturized ccts., HF appls., micromachining techs. 29583
  model car, micromachines, shell-body fab. 36218
  motherboard technol. for active array opt. interconnection and packaging 23985
  MST, microsystems technol., microelectronics and sens./actuators 30493
  multilayer microstruct. fab. for electron beam microcolumn microlenses 13909
  nested microvalve for integrated microflow controller 30495
  opens defects repair in MCM, diffusion bonding 21729
  optoelectronic packaging, Si surface-micromachined alignment mirrors 14673
  piezoelec. benders, dyn. deflection and capacitance 30603
  planar fab. proc. for surface micromachined devices 30511
  plastic components, molding, micro-EDM tools 28877
  polycryst. diamond press. sens., fab., props. 34456
  polymers, excimer laser micromachining, replication 28439
  polysilicon micromechanical resonators for freq. refs. and sig. proc. 22623
  polysilicon sacrificial layer etching technol. for micromachined sens. 25785
  post-buckling of micromachined beams 30512
  quartz capillary tubes for chem. anal., fab. 34461
  quartz piezoelectrically-operated opt. chopper, micromachining, sens. appls. 30597
  SC-cut quartz resonator, fab. imperfections effects 30606
  self-excited chopper, quartz micromachined, opt. sens. appl. 30978
  SOI films prod. by ZMR, strain anal. 29977
  superplastic micro-forming of microstruct. 30525
  surface micromachining, galvanoplating and sacrificial layers 39030
  tele-micro-handling/machining, inform. transform.-based 30522
  tunable photodetectors and LEDs for WDM appls. 39617
  vert. cavity SEL arrays/micro-Fresnel lens array integrat. 23304
  wick return AMTEC cell, micromachined condenser 28017
  AlGaAs-GaAs thin film p-i-n photonic device integrat., micromachined movable platforms 39600
  AlN, excimer laser ablation, fluence depend. 12192
  C, diamond, polished CVD films, macro/micro-tribological props., trial proc. 22626
  GaAs micromachined widely tunable Fabry-Perot filters 22984
  GaAs substr., micromachining, focused ion beams 5610
  $Ga_{0.46}In_{0.54}As$ epilayers, micromachining, focused ion beams 5610
  $Ga_{0.2}In_{0.8}As_{0.4}P_{0.6}$ epilayers, micromachining, focused ion beams 5610
  $He-Kr-F_2$ excimer laser for microtechnology 39649
  InP substr., micromachining, focused ion beams 5610
  NiCoMnO sputtered thin film thermistor IR detectors/bolometers 17791
  $PbTiO_3$:La pyroelec. IR sens. array for human body detect. 42805
micromachining continued
  Si (100) wafers, anisotropic etching, vert. sidewall fab., micromachining appl. 1256
  Si, KOH etched, etching defects, packaging technol. implement. 13369
  Si MEMS piezoelec. microactuators, nanoindentation charactn. 13914
  Si accelerometer design tradeoffs 3781
  Si bulk micromachining, electronically controlled etch-mask, micromechanical structs. fab. 6652
  Si, direct laser etching, 3D nanostructures 30098
  Si flow sens., air flow detect. *(Korean)* 17722
  Si, free standing single-cryst. microstruct. 30529
  Si microgimbals for super-compact rigid disk drives 30490
  Si micromachined 2D galvano opt. scanner 17719
  Si micromachined actuator, fiber-optic roller bearings 30491
  Si micromachined air-coupled capacitance US transducers, design and charactn. 18930
  Si micromachined module platform for multiple opt. fibre I/O 23066
  Si micromachined particle manipulator/separator 31748
  Si micromachining, directional deep dry etching 30530
  Si micromachining, resonator fab. 30508
  Si micromachining/microfabrication techs. for integrated sens. and actuator systs. 13911
  Si micromechanical resonator, struct. and perform. 13912
  Si, micromirror arrays, KOH:H_2O micromachining, lens templates 7442
  Si micropump, design/proc. techs., fabr. *(Korean)* 30526
  Si microtechnol., develops. and proc. tech. depend. 38950
  Si, porous, micromachining appls. 22627
  Si substr., micromachining, focused ion beams 5610
  Si:B micromachined cantilevers, ageing, doping effects 22624
  Si:N for micromachining, cantilever/membrane structs., Monte Carlo simul. 30489
  SnO_2 films growth on micromachined hotplates 28791
micromanometers *see manometers*
micromechanical devices
  see also mechatronics; microactuators; micromachining; micromechanical resonators; micromotors; micropumps; microsensors; small electric machines
  3D microstruct. constr. by multi-face FAB/robot 30521
  3D multidirectional inclined structs., microfabrication, UV lithog., electroplating 30504
  antiresonant reflecting opt. waveguide polariz. splitter 22898
  buckled membranes for microstruct. 30513
  catheter, micro act., with multiple d.o.f. 4289
  commercial difficulties of micromechanics 9856
  diamond films, lift-off synthesis, microcomponent fab. 11732
  diaphragms, electrostatically deformed, self-consistent simul. and modelling 30499
  digital micromirror device, projection display 18007
  electromechanics/electrobiology, analogies 6882
  electrostatically-driven gas valve, high-press. conditions 30516
  femtojoule calorimeter, micromechanical sens. 9891
  finite elements for electrostatics 36212
  flexure-beam micromechanical SLM 7391
  flip chip interconnect systs., micromechanical and accelerated testing 11822
  fluid control devices, fab. techs., lithog., electroforming 6875
  fluorocarbon films for MEMS appls., materials anal. 28852
  Hong Kong electron devices meeting (July 1994) 36827
  HV solar cell array for electrostatic MEMS 36606
  III-V semicond. impact 6888
  LIGA products, appl. specific materials 30505
  Mach-Zehnder interferometer, Si IC compatibility 42808
  MEMS, conf., Oiso, Japan (Jan. 1994) 28222
  MEMS, power supply, solar cell array 22630
  MEMS fab., lithog. and RIE 39027
  MeXeL simul. of micro-electromechanical systs., nonlin. partial differential eqns. 39032
  micro-opto-electro-mech. systs. 6881
  microassembly, focused laser beam 30520
  microchemical systs., micromech. elements 22622
  microdynamic gyroscope develops. and appls. 9859
  microengineering, benefits, opportunities, appls. 6884
  microengineering and microelectronics, technol. combination of future 6876
  microengineering design/manufacture, LIGA proc. 6886
  microengineering devices, packaging 5624
  microflight mechanism on Si wafer 30510
  microflow devices and systs. 6877
  micromachine PSS, real-time fuzzy control 10679
  micromachined piezoelec. benders, dyn. deflection and capacitance 30603
  micromechanisms and their charact. 30500
  microparticle nonlin. microwave optics 22780
  microstruct. fab. techs. and procs. 6873
  microstruct. technol., advances 39035
  microsurgery, force-reflecting motion-scale telerobot 4290
  microsystems design, syst. concepts approach 22629
  modal shapes meas. of inhomog. cantilevers, opt. deflection 25974
  MST, microsystems technol., microelectronics and sens./actuators 30493
  multilayer microstruct. fab. for electron beam microcolumn microlenses 13909
  nanomechanical helical latch, Boolean logic operations 6872
  optoelectronic packaging, Si surface-micromachined alignment mirrors 14673
  packaging and interconnection techs. 22628
  piezoresistor fabricated by high energy ion implant. 25823
  planar fab. proc. for surface micromachined devices 30511
  polysilicon electrostatic microrelays, MOSFET integrat. 30506
  press. transducers, 0.04, 30 MPa 17737
  projection display, Digital Micromirror Device 39028
  quartz cryst. electrochem. microbalance, LF mode spatial localization 34710
  Reynman revisited, 1959/1983 ideas implement. 30523
  scanning force microscope, piezoelec. excitation/detect. 25822
  SESES, micro electro mech. systs. CAD modelling syst. 30498
  Si wafers, micromechanical components, V-notches, failure assess. 30528
  STM field-emission microcolumn 13019
  superplastic micro-forming of microstruct. 30525
  surface props., tailoring by laser irrad. 31689
  vibratory gyroscopes, design, operation 6885
  AlGaAs-GaAs thin film p-i-n photonic device integrat., micromachined movable platforms 39600

micromechanical devices continued
GaAs etching, fast atom beam proc. with separated masks, micromech. devices 22245
Si accelerometer design tradeoffs 3781
Si bulk micromachining, electronically controlled etch-mask, micromechanical structs. fab. 6652
Si electrostatic servo-type three-axis accelerometer 17744
Si low temp. sacrificial wafer bonding for planarization, deep etching 30502
Si microgimbals for super-compact rigid disk drives 30490
Si micromachined particle manipulator/separator 31748
Si micromachining, resonator fab. 30508
Si, moving and flexible microstruct. 6874
Si:B micromachined cantilevers, ageing, doping effects 22624
Si:N for micromachining, cantilever/membrane structs., Monte Carlo simul. 30489
SiO$_2$ micromechanical struct., electron/ion-beam irrad. 13913
Sm$_x$Fe$_{1-x}$, amorph. magnetostrictive films, prep. 7003
(Tb$_y$Dy$_{1-y}$)$_x$Fe$_{1-x}$, amorph. magnetostrictive films, prep. 7003
TiNi shape memory alloy thin film, laser ablation 28854

micromechanical resonators
amorph. alloy microresonator for mag. field meas., ΔE effect 42898
Casimir force detect., tunneling electromechanical transducer 42950
CMOS micromechanical resonator oscillators, design/perform. 30509
laterally driven microresonators, viscous air damping 34477
microcantilever reson., adsorpt.-induced surface stress, sens. appl. 39034
micromachined thin film bulk acoustic resonators 30635
photonics, microresonator displacement meas. by external cavity LD 34691
piezoelec. composite microcantilever for accelerometer appls. 30605
polysilicon micromechanical resonators for freq. refs. and sig. proc. 22623
quartz monolithic struct. vibr. beam accelerometer 34492
SC-cut quartz resonator, fab. imperfections effects 30606
self-excited chopper, quartz micromachined, opt. sens. appl. 30978
Si$_3$N$_4$-Au resonating microcantilevers, Hg vapour detect. 42859
UV radiation dosimeter, polymer coated microcantilevers 43391
AlGaAs/GaAs micromachining, monolithic integrat. of micromechanical struct. 23065
GaAs micromachined widely tunable Fabry-Perot filters 22984
GaAs micromechanical fracture strength 3796
GaAs/AlGaAs etched arrays of QW opt. bistable microresonators 14659
Si micromachining, resonator fab. 30508
Si micromechanical resonator, struct. and perform. 13912
Si:B reson. sens., fine freq. tuning 30517

micromechatronics *see mechatronics; micromechanical devices*

micrometers *see micrometry*

micrometry
see also interferometry; strain gauges
non-contact μP-based digital He-Ne laser scanning micrometer 18099
wideband inside micrometer, digital readout 18091

micromotors
3D electrostatic fields/forces, capacitance/torque calc. 36211
actuator syst., mag. fluid-based *(Japanese)* 44087
air conditioning, controllable induction micromotor 5395
DP 25 DC micromotor, PM excitation, video recorders 4992
dry-released Ni micromotors, low-friction bearing struct. 27771
dyn., lubricating fluids 11092
elastic force motors, speed control of integrated piezoelec. sens. 36206
electrostatic fields computation, IEE Colloquium, London, UK (1995) 11600
electrostatic induction motor, synthesis and modelling 44083
electrostatic micromotors, torque computation, 3D mesh generation 36213
electrostatic motor, microcomponents/microsystems fabr. techs. 6887
electrostatic side-drive motors, design and fab. 36217
flange bearing monolayer coatings, perform. tests 44084
impact-actuated lin. microvibromotor for micro-opt. syst. on Si 27773
micro electrostatic wobble motor, fabr. *(Japanese)* 11079
micro-mobile mechanisms, thermal expansion 36494
microrobot PM step servomotor drive, VSS control 11354
model car, micromachines, shell-body fab. 36218
piezoelec. micromotors, PZT ferroelec. thin film appls. 44091
polysilicon outer-rotor wobble micromotors, fab./characts. 30518
polysilicon side-drive micromotors, fab. 11093
Reynman revisited, 1959/1983 ideas implement. 30523
wobble motors, concentric build-up fab. proc. 36204
electrostatic/mech. coupled FEA 11094
C, diamond, polished CVD films, macro/micro-tribological props., trial proc. 22626
Si electrostatic wobble motor, miniature gear reduction unit 36205
Si rect. plate, quasi-TW, US motors, single phase drive 19674

microphones
acoustic display systs., environ. sounds synthesis *(Japanese)* 34647
array, sens. optimal positioning 42647
array for multimedia appls. 16899
arrays, talker radiation pattern meas. 34283
continuous external train noise meas. 10073
digital opt. microphone and digital transducer 42645
directional microphones in computer simulated/real rooms 17607
echo cancellation, voice commun., sig. proc. methods *(German)* 42049
Falcon half inch microphones, robustness 35370
fiber optic planar US microphone 18938
freq.-independent beamforming 15990
hearing aid microphone array data, robust adaptive proc. 18608
IBM Tangora speech recogn. syst., adaptation techs. 32214
image input microphone, nonacoustic speech commun. syst. 17604
magnetocaloric effect meas., noncontact thermoacoustic method 26803
microphone arrays and neural networks, speaker/speech recogn. 32205
multiple microphone sig. mixing cct., speech quality *(Japanese)* 25685
pass. echo-canceler, single microphone 2536
piezoelec. telephone handset, acoustic param. estim. by Monte Carlo method *(Japanese)* 33675
press. microphones, sound source direction separation 9767
pulse diagnosis, Chinese, computer/fuzzy theory 43203
PZM microphone characts., boundary surface *(Croatian)* 26791
road surfaces, sound absorption coefficient meas., cepstrum techniques 8443
robust real-time constrained hearing aid arrays 18609
single and multi microphone noise cancellation, fast algm. 32484
sound source direction estim., microphone array *(Japanese)* 42999
speech intelligibility in reverberant and/or noisy field, microphone arrays *(Japanese)* 40743
speech recogn., noise reduction, adaptive microphone array appl. 15827

microphones continued
speech recogn. syst., microphones adaptation, tied-mixture normalization 32313
superdirective microphone arrays for hearing aids 18607
teleconference systs., microphone array for sound pickup 3693
US piezoelec. microphone charact. meas. *(Croatian)* 4419
US piezoelec. microphone charact. simul. and exam. *(Croatian)* 4418
Si condenser microphone, bond and etch-back technol. 10580
Si microphone fab. for 3D acoustic holography 10575
Si microphone for turbulent gas flows meas. 10068

microphonics *see microphones*

microphotometers *see densitometry; photometers*

microprobe analysis, electron *see electron probe analysis*

microprobe analysis, ion *see ion microprobe analysis*

microprocessor chips
see also coprocessors; digital signal processing chips; microcontrollers; transputers
2D systolic array proc. design *(Korean)* 681
3D computer graphics media chip, single-chip archit. 12556
8-bit μP based fuzzy-proc. archit. 678
80C31 based single chip coputer *(Chinese)* 29292
100 Mb/s SMC91C100 chip *(Dutch)* 16733
100 Mips event controlled ALU for asynchronous μP 29122
1995 forecast for solid-state technol. 30389
AAMP5 μP, formal verification 29298
adder design modelling and comparison using Verilog HDL 29297
advanced μP ATE 663
Alpha 21164 μP, internal archit. 29285
Alpha 21164 μP, superscalar instruction execution 37785
application-specific array processors, conf., Venice (Oct. 1993) 36903
archit. and technol. of μP *(German)* 21360
archits., directions 668
automatic test generation, functional verification 12564
BCHIPSIM, Si BJT IC chip perform. simulator 594
BiCMOS 150 MHz 0.6 μm superscalar μP 6179
C4/CBGA interconnect technol., hi-dens., CMOS μP appl. 5650
C4/surface-mount-array interconnect technols., thermal mgt. 28472
card standardization in telecomms. sector *(French)* 33345
CBGA package design for C4 PowerPC μP chips, substr. routability and perform. 5661
ceramic ball grid array, sphere metallurgies reliab. comparison 20500
CMC ATM switch I/O proc., design/validation, HDL Verilog 33719
CMOS 2.2 W, 80 MHz superscalar RISC μP 6178
CMOS LSIs for pers. inform. and telecom. systs., trends 22565
CMOS multitask micropower μP, hardware scheduler 29304
CMOS μP, energy-efficient instruction set archit. 12566
CMOS μP design, energy-efficient 12565
CMOS radiation-hardened 32-bit μP based commercial proc. 12567
CMOS RISC proc., 500 MHz, 32 bit, 0.4 μm design 6180
CMOS VLSI ccts., design optim., genetic algm. 39015
computer design, VLSI aspects, conf., Cambridge, MA (1993) 36905
CPU behavioural verification, functional inform. extraction 478
CPU design, 32-bit, VLSI project, C and GDT for computer sci. students 20291
custom IC, conf., San Diego, USA (1993) 36842
digital parallel VLSI archit., fuzzy database mining 677
event controlled asynchronous μP, design method eval. 29254
flexible ASICs incl. embedded proc. for smart sens. appls. 6244
formal modeling and verification of μP 21353
four issue superscaler RISC μP, embedded memory design in CMOS 29280
fuzzy inference proc., 64-bit, archit. 686
G$_{MICRO}$/400, 32-bit superscalar μP, embedded systs. 21349
GMICRO/500 microprocessor application system, graphic primitives evaluation 29257
GMICRO/500 microprocessor performance evaluation for CTRON based kernel 29256
HDI based PGA package, compatibility, μP chip package 5653
high perform. μP, design techs. *(Chinese)* 12554
high-end proc., CMOS and bipolar, perform. trends 6185
high-speed networks, hardware meas. techs. 676
Hitachi on-board prog. microcomputer, develop. 21339
Hyeti defect tolerant μP, cost-effectiveness anal. 6168
IBM PowerPC 601 μP, implement. 675
IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
induction motor drives, microcomputer control components *(Slovenian)* 44471
Intel 32 bit μP, radiation tolerance for space appls., eval. 29306
Intel i486 μP PGA package, RAPHAEL program L and C modelling *(Korean)* 38984
Intel i860, backtrack scheduler for dual operation instructions *(Japanese)* 29303
Intel μPs, total dose radiation testing 29305
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
low power mode, IEEE 1149.1 compliance 6824
MC68060 μP, superscalar archit. 37783
MCM-D fast prototyping of superSPARC chipset 21756
multi-point video-conf. bridge, ATM switch 16817
multiple-valued associative VLSI proc. 6174
multiresolution image proc., VLSI 128-proc. chip 6167
μP based instrum. for resist. and diode testing 3755
nanoprocessors, stored program proc., reconfigurable, flexible archit. 21338
NEC's PBX APEX1000/3000 *(Japanese)* 16963
NexGen's NX586 challenges Pentium *(Chinese)* 662
next-generation μP running x86 appls. 12572
PA-RISC μP for accelerating multimedia 37784
Pentium proc. package, thermal modelling, reliable operation 12575
phase-shifting masks, design, compactor 13548
pick-and-place design methodology for complex VLSI archit. 21167
PLL clock generation syst. for 500-MHz RISC proc., 1.5% jitter 29337
POWER2, fixed-point/data cache/storage units 671
POWER2, IBM RISC System/6000 series 670
POWER2 floating-point unit, archit./implement. 672
POWER2 IBM proc., perform. monitor 674
POWER2 proc. instruction cache unit 673
power saving in embedded proc. 6159
PowerPC 603 μP, array BIST 6164
PowerPC 620 μP, high perform. superscalar RISC μP 29300
PowerPC μP for low power computing systs., CMOS technol. 29299

- **microprocessor chips** continued
  - predictive read caches, alternative, on-chip second-level cache memories 12506
  - real-time control and monitoring single-chip microcomputers *(Croatian)* 667
  - RISC μPs in isolation CMOS technols., ESD protection 21348
  - second-generation SPARC proc. MCM, ROSS hyperSPARC archit. 21711
  - SEU error manifestation 37813
  - shipboard digital intercom and public address syst. *(Croatian)* 3050
  - STC104 packet routing chip for parallel systs. 29290
  - symmetric superpipeline superscalar μP, high out-of-order issue 29282
  - technol. trends 21347
  - Terasys massively parallel PIM array 37806
  - testing/emulation of EFT systs., functional appraisal *(French)* 33539
  - thermal simul., phys. models 12571
  - total surround sound (TSS) proc. 9763
  - TX2, 32-bit μP, efficient testable designs 21350
  - TX2 microprocessor design based on TRON specifications 29258
  - UltraSPARC, next generation superscalar 64-bit SPARC 29286
  - UltraSPARC μP, visual instruction set 29288
  - UltraSPARC μP verification 29287
  - UltraSPARC visual instruction set, MPEG video decoding 29289
  - V810 CMOS 32-bit RISC μP, 0.9 V, 2.5 MHz 37811
  - VLSI syst. test design methods, problems and experience in μP testing, AFTG 21354
  - wear-out simulation environment for VLSI designs 29295
  - GaAs high perform. comput. and commun., ARPA research 38957
  - Si ULSI device fab., wafer specs./design rules trends 38982
  - Si scaled submicron ultra-low power CMOS technol. 39008
- **microprocessor systems** *see microcomputers*
- **microprogramming**
  - *see also instruction sets*
  - 8-bit μP based fuzzy-proc. archit. 678
  - DSP design tool requirements for embedded systs., telecom perspective 40801
  - hardware struct. implement., configurable logic 29150
  - Intel i860, backtrack scheduler for dual operation instructions *(Japanese)* 29303
  - microcontroller based binary seq. sync. machines 37794
- **micropulsations**
  - artificial generation, modulated HF waves 7980
- **micropumps**
  - EHD pumps, fabr./expts. *(Korean)* 30527
  - EHD pumps, travelling-wave driven, microfabrication 6880
  - flexural plate waves for sens. and micropumps 42782
  - MEMS, conf., Oiso, Japan (Jan. 1994) 28222
  - microflow devices and systs. 6877
  - micromembrane pump manufactured by thermoplastic molding 30497
  - Si micropump, design/proc. techs., fabr. *(Korean)* 30526
- **micropyritic synthesis** *see combustion synthesis*
- **microresonators** *see micromechanical resonators*
- **microscopes**
  - *see also acoustic microscopes; electron microscopes; optical microscopes*
  - DC squid base mag. microscope 39282
  - photothermal microscope, sigs. anal. 17795
  - RF field imaging, scanning SQUID microscope 34668
  - scanning SQUID microscope, mag. field imaging 30788
  - YBaCuO thin film DC SQUID, mag. microscope 3956
- **microscopy**
  - *see also acoustic microscopy; electron microscopy; ion microscopy; optical microscopy; scanning probe microscopy; X-ray microscopy*
  - high-temp. supercond. resonator for high-field imaging 39253
  - insulation lab. charactn., microscopy/spectrosc. 13919
  - mag. force microscope imaging, electrodeposited tips 9875
  - NMR microscopy, biplanar gradient coil design, simulated annealing 21601
  - optothermal hybrid microscopy,coatings nondestructive/noncontacting testing 12216
  - pressure contact, nm-scale, surface layer effects 38060
  - submicron stripe patterns photoelectron imaging, soft X-rays 42978
  - X-ray laser appls. 23482
  - CdTe, detector grade, crystallograph./metallurg. charact. 43102
  - Li batt. electrode surfaces, Ar+CO$_2$ gas prepared 27881
- **microsensors**
  - *see also microactuators*
  - 3D micro-electro-mech. struct., self-consistent electromechanical anal. 1502
  - air-coupled US and NDE, micromachined capacitance transducers 18931
  - biomedical fiber-optic micro press. sens. devel. *(Japanese)* 26357
  - capacitive electro-chem. etch-stop tech. 30103
  - CMOS VLSI smart visual micro-sens. based on insect vision 34569
  - elastic props. of LPCVD SiN$_x$/LPCVD polysilicon 39033
  - fab., low temp. direct bonding 25828
  - flexural plate waves for sens. and micropumps 42782
  - gas chromatography, silicon-micromachined syst., anal./modelling 9963
  - gas chromatography syst., silicon micromachining, design/fab. 9962
  - III-V semiconds. for high temp. electronics appls. 22528
  - integrated microsensors, smart electronic devices, thermodyn. model 25783
  - integrated pH-ISFET/press. sens., SDB/SOI materials *(Chinese)* 25810
  - laterally driven microresonators, viscous air damping 34477
  - MEMS, conf., Oiso, Japan (Jan. 1994) 28222
  - micro-opto-electro-mech. systs. 6881
  - micro-torque sens., differential force meas. based 34478
  - microcantilever reson., adsorpt.-induced surface stress, sens. appl. 39034
  - microfabricated heavy metal ion sens. 42779
  - microflow devices and systs. 6877
  - micromechanical biosensor for photothermal spectrosc., femtojoule sensitivity 3894
  - Novolever cantilever for SFM, polymers 17725
  - opt. fibre micromechanical press. sens. 17862
  - polycryst. diamond press. sens., fab., props. 34456
  - polysilicon sacrificial layer etching technol. for micromachined sens. 25785
  - portable 3-axis 11-bit shock meas. cct. 34702
  - pyranine doped SiO$_2$ sol-gel matrix, μm-size fluoresc. pH sens. 9877
  - quartz capillary tubes for chem. anal., fab. 34461
  - reson. device design 34451
  - Si$_3$N$_4$-Au resonating microcantilevers, Hg vapour detect. 42859
  - SOI films prod. by ZMR, strain anal. 29977
  - UV radiation dosimeter, polymer coated microcantilevers 43391
  - vehicle chassis mgt. systs., microsensor appls. 5368
- **microsensors** continued
  - AlGaAs-GaAs thin film p-i-n photonic device integrat., micromachined movable platforms 39600
  - Cr-Ni, excimer laser induced nonplanar metallization of Cr mask material, tactile sens. 30503
  - NiCoMnO sputtered thin film thermistor IR detectors/bolometers 17791
  - Si electrostatic servo-type three-axis accelerometer 17744
  - Si flow sens., air flow detect. *(Korean)* 17722
  - Si micro-mech., solid state sens. 34460
  - Si microelectronic sens. 34440
  - Si micromachined air-coupled capacitance US transducers, design and charactn. 18930
  - Si micromachining/microfabrication techs. for integrated sens. and actuator systs. 13911
  - Si, modular mass flow sens. 25826
  - Si substrs., sens. 25825
- **microstrip antenna arrays**
  - act. array module for spatial power combiners/act. antennas 31990
  - act. MM-wave aperture-coupled microstrip patch antenna array 15667
  - anom. mutual coupling 8080
  - aperture coupled microstrip antenna subarrays, design 2342
  - biomedical arrays for superficial microwave hyperthermia, 433 MHz 43352
  - cavity enclosed broadband circ. patch antenna for L-band MSAT 15661
  - cavity-backed printed dipole arrays with substr. mode control 23966
  - circ. polarised microstrip antennas, mutual coupling anal. 23938
  - conformal cylinder mounted microstrip array radiation pattern meas. and prediction 31977
  - CP-PASS, FDTD anal. of unit-radiator 23943
  - DBS-satellites, mobile reception, adaptive antenna array 15664
  - dual FET act. patch elements for spatial power combiners 15658
  - dual freq. multilayered circ. patch antenna, self-diplexing fn. 40507
  - dual patch shielded antenna array element for mobile satellite commun. 23947
  - dual-linear microstrip array element design 31967
  - dual-polaris. gridded microstrip radiating element 31989
  - electronic beam scanning by coupled MESFET oscillators 23970
  - EM coupled microstrip-patch antennas/antenna arrays, design 40512
  - FD-TD method, strip dipole with window, stripline fed, anal. *(Japanese)* 31981
  - hybrid FEM, phased array antenna anal. 23939
  - infinite printed-dipole array input impedance rel. to random posn. errors 23977
  - integrated act. antennas, review 15628
  - Ka-band circ. polarized high-gain microstrip array antenna 23960
  - Ku-band planar array using ring shaped patch antenna 23982
  - lin. microstrip array, printed leaky-wave implement. 8066
  - MESFET oscillator loaded slot-coupled patch antenna, anal. 40501
  - microsatellites, antenna arrays, solar cells 15669
  - monofilar Archimedean spiral slot antennas 8074
  - multi-arm multi-mode spiral antennas, design 8069
  - multielement flexible microstrip patch heater for hyperthermia treatment 43345
  - optically fed patch array configs. and scan performs. 31970
  - planar antenna arrays, direct broadcast satellite receiver 8068
  - planar freq. selective screens, nonrectangular patch geometries *(German)* 23832
  - portable digital satellite news gathering (SNG) RF terminal, flat antenna 25168
  - printed transverse dipole arrays, design *(French)* 2343
  - quasi-optic act. arrays using subharmonic locking, beamforming 40506
  - rect. microstrip antennas, mutual coupling, superstrate loading 15671
  - rect. microstrip patch array-based travelling wave antenna, anal. *(Korean)* 40504
  - reduced time modeling, equal-current sub-array decomp. 40509
  - reflectarrays, modelling studies 31962
  - resistively loaded printed triangular dipole design for wideband array 23957
  - road vehicle 24 GHz dual channel microwave front-end 11444
  - S-band 4x4 circ. polarised patch array design 31968
  - sectored antennas, indoor radio, optimum combining diversity 42281
  - series-fed broadside microstrip array designs 23976
  - spatial microstrip dyadic Green's fn., asymptotic closed-form 31991
  - spatial quasi-opt. MMIC power-combining array, device failures, DC open cct. 21563
  - stacked circ. microstrip antenna elements, mutual coupling 2346
  - stepped cavity-fed microstrip array antenna 31969
  - thick film HTSC supergain printed dipole arrays 31960
  - two-level power combining using lens amp., patch antenna array, PHEMTs 12811
  - W-band microstrip antenna array and feed cct. 40520
  - wideband gap-coupled microstrip antenna arrays, study 40502
  - wideband high-gain stacked microstrip antenna element 23981
  - X-band SAR subpanel active antenna demons. model 25572
- **microstrip antennas**
  - *see also microstrip antenna arrays*
  - 2.45 GHz radio syst. for automatic passenger gates 9192
  - 2.4 GHz low power data commun. syst., develop. *(Japanese)* 42179
  - 10 GHz strip line antenna 31932
  - 10 GHz Vivaldi antenna microstrip-to-slot-line transition 31941
  - act. antenna, semi-bal. amp. struct. 15627
  - act. antenna-fed paraboloid reflector perform. 8051
  - act. integrated antennas, review 15628
  - act. microstrip antenna, concurrent large sig. simul. 15652
  - anal. moment method *(Croatian)* 2310
  - aperture coupled microstrip antenna band widening bt slotted patch and multislot coupling 23930
  - aperture coupled microstrip antennas, charact. 23855
  - aperture-coupled multiplayer microstrip antenna anal. 31942
  - aperture-coupled NRD-fed patch antenna model expansion anal. 23912
  - aperture-coupled printed wire antenna full-wave anal. 23840
  - approx. model for microstrip fed slot antennas 2325
  - Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
  - broadband act. microstrip antenna design, real freq. tech. 23851
  - broadband cylindrical-rect. microstrip antennas, gap-coupled parasitic patches 2329
  - broadband rect. microstrip antenna element 2328
  - capacitively fed microstrip antenna element 23852
  - Cassini FSS, develop. 15651
  - center-fed strip dipole, impedance, Poynting vector method 40475
  - chirostrip dipole antenna, scanning behavior, substr. effects 8052

microstrip antennas continued
- circ. microstrip antennas, elec. thick, space-wave efficiency 31954
- circ. sector microstrip antenna, electroacoustic radiation charact. 40451
- circ.-polarized annular microstrip antenna, tuning stub anal. *(Japanese)* 40522
- circular patch antenna with sectoral slot anf shunt element 23933
- coaxially-fed rect. patch antenna input impedance rel. to substr. thickness 31939
- concentric microstrip ring resonators, props. 31949
- conical surface, TM_{10} mode anal. 40474
- constrained lens, design and perform. 15653
- coupling, conducting support influence 40454
- curved-surface microstrip antenna conformal-grid FDTD anal. 23865
- cylindrical-circ. microstrip antennas, generalized transm. line model 31938
- cylindrical-rect. microstrip antennas theory 8049
- design, simul., testing 40457
- dielec.-covered microstrip line slot antenna anal. 2331
- DPSK microwave link for indoor wireless LANs, perform. 33759
- dual-band circ. polarized microstrip patch antenna, anal./design 31930
- dual-band rect. microstrip antenna element 31937
- dual-polaris. printed antennas, decoupled input ports 23896
- eccentric annular microstrip antenna, reson. freqs. 8053
- elliptical annular microstrip antenna full Mathieu formulation 23929
- EM coupled stacked rect. patch antennas 31927
- EM scatt. and radiation, moment matrix spatial interpolation 23845
- EM scatt. from plane wave or dipole excited finite grounded dielec. substrate 23849
- equilateral triangular microstrip antenna, input impedance 15621
- ferrite-based annular ring antenna, radiation efficiency in plasma 8047
- four-band FSS, double-sq.-loop patch elements 23863
- gap discontinuity in spectral domain 2308
- hybrid FEM for EM, review 2314
- IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
- infinite line currents on cylindrical bianisotropic substrates 23819
- junctions between bodies of revolution and arbitrary surfaces 23825
- MCM interchip radiative interconnection syst. 29724
- microstrip-slot cct. mixed pot. integral eqn. Green's fn. calc. 23842
- miniature radiator, microstrip-like antenna, theory/practice 15632
- miniature waveguide antennas, aperture matching, air-gap technique 23893
- MM-wave microstrip antenna, MMIC design *(Japanese)* 8061
- mobile radio systs., microstrip networks for multibeam/reconfigurable operation *(English, Italian)* 42292
- moment method, gain enhancement 40459
- monochromatic EM field differaction by microstrip antenna 2319
- near fields computation 31928
- nonrectangular cavity=backed patch antenna anal. 23850
- Norwegian Inst. of Technol./SINTEF DELAB microstrip-antenna work 40461
- oblate spheroidal antenna anal. 23932
- offset dual-patch microstrip antenna anal. 2335
- offset tripatch microstrip antenna 15645
- passive microstrip elements, full-wave space-domain moment matrix 23836
- patch antenna, laminated glass superstrate, perform. 2326
- patch antenna tuning stubs 23931
- patch antennas, tuning stubs 23858
- planar microstrip config., anal., closed-form Green's fns. 23792
- polarimetric microstrip antenna, spectral domain anal. *(Japanese)* 40481
- printed 2-arm spiral antenna, 90 GHz-band *(Japanese)* 8059
- printed antenna computation, SVD tech. 23846
- printed antenna cross-polaris. suppression by strip grating 23859
- printed dipole antenna, opt. control *(Japanese)* 31957
- printed spiral antennas, resistively loaded, anal. 8072
- probe-fed cylindrical annular-ring microstrip antenna characts. 23890
- probe-fed small circ. microstrip patch antenna 40488
- propagation from vert. dipole in prescence of two or three layers 23628
- quasi-opt. microwave cct. techs. for wireless appls. 12747
- radiated fields, radiation mode expansions 8036
- rect. microstrip antennas immersed in plasma, vector Kirchhoff anal. 23885
- rect. microstrip antennas with multi-layer dielec., reson. freq. *(Chinese)* 31951
- rect. microstrip patch antenna, reson. freq. calc., cavity model 2330
- rect. microstrip patch antennas, EM coupled feed struct. *(Korean)* 15638
- rectangular microstrip patch radiation and loss anal. 23838
- rectangular patch antenna feed microstrip line gap discontinuity anal. 32000
- resonant feeding networks 31999
- shorted annular patch antenna 40472
- simulated plasma medium, radiation charact. 23853
- single-feed circ. polarized microstrip antenna, boundary elements anal. *(Japanese)* 40497
- slot-coupled circ. microstrip antenna with symm. radiation pattern 31940
- slot-coupled cylindrical-rect. microstrip antenna anal. 40479
- space-domain Green's fn. series form 23841
- spatial microstrip dyadic Green's fn., radial and asymptotic closed form representation 40450
- spatial-domain integral eqn. anal. 40456
- spherical-annular microstrip antenna generalised transm. line model 23928
- sq. patch antenna, radiation characts., permitt. effects 40471
- stacked EM coupled patch antennas anal. 40453
- surface wave efficiency comparison 23839
- surface-mode suppression by parasitic elements 23889
- symm. patch antenna coupled, director 8050
- wireless LAN, 10 Mbits/s Ethernet data frames, DPSK 16711
- Yagi antenna, iter. MPIE formulation anal. 23942

microstrip circuits
- branch-line hybrid-rings, coupled-lines 37943
- broadband matched terminations in planar structs., simul. 12746
- doubleface populated MCM in thin film technol. for HF appl. 21707
- dyadic Green's fn., spectral domain, planar cct. microstrip transm. lines 6291
- em, EM simul. tool for MMIC design 29598
- FEA, approx. capacitance formulas 6283
- ferrite-supercond. microwave phase shifters 12718
- HTS ferroelec. phase shifters, high power, config. 12707
- Josephson jn. HTSC oscillator array, phase locking 38004
- lin. and nonlin. MMICs, design strategies 29597
- MIC2D software for microwave planar cct. anal., time domain FEM 38038
- microstrip-slot cct. mixed pot. integral eqn. Green's fn. calc. 23842
- MIMIC amp., modelling and charactn. 29605
- multilayer microstrip struct. anal., matched load simul. 12794

microstrip circuits continued
- parallel reson. transistor microwave oscillator cct., computer-aided sensitivity anal. 6308
- permeab. meas. in GHz range for soft-mag. film 25956
- phase-trim device, dielec. overlay 806
- planar cct. microstrip line, edge boundary conditions, specific modes, 2D anal. 40420
- planar microstrip ccts., FDTD anal., spectral domain Prony's method 12730
- planar struct. impedance matrix eqn. 23752
- printed microstrip device full-wave anal., generalised Yee algm. 29537
- propagation from vert. dipole in prescence of two or three layers 23628
- RF/microwave circuitry packaging, design considerations 37067
- space mapping tech. for EM cct. optim. 12286
- spatial power combining oscillators on microstrip structs. 12789
- spatial quasi-opt. MMIC power-combining array, device failures, DC open cct. 21563
- structure anal., simulated matched load termination 29539
- T-jn. microwave ccts., prescribed response characts., design/anal. 862
- vector modulator, bal. design, C-band 12371
- wideband transit. for planar microstrip technol. 12690
- GaAs MESFET doubly bal. mixer, X-band, very low IMD 21569
- GaAs Schottky diodes, five port hybrid ring mixer 29554
- GaAs microstrip Gunn oscillator, highly stable, U-Band 37975
- GaInP/GaAs HBT K-band DRO 6307
- YBCO high-T_c supercond. film microstrip microwave opening switch 6281

microstrip components
- *see also microstrip antennas; microstrip circuits; microstrip couplers; microstrip filters; microstrip resonators*
- attenuators, opt. control, continuously varying atten. levels 37966
- broadband microwave mixer, suspen. line baluns mounted 12743
- cylindrical microstrip-line-fed slot antenna anal. 31955
- digital mammography, SR 43266
- discontinuity meas., resonator techs. *(Croatian)* 809
- drop-in ferrite microstrip circulator, design 29530
- fin line diode switch, coupled strip conductors *(Japanese)* 6318
- Green's fns. in magneto-dielec. substr. 40406
- liq. cryst. microwave phase shifter 6294
- microstrip-microslot applicators, 3D modeling, FDTD method 18601
- miniaturized 180-degree ring hybrid and singly bal. mixer 6284
- mobile commun. systs., evol. 33836
- multiple microstrip wave spectrum 29532
- photoconductor switch ultrashort elec. pulse generator *(Chinese)* 14596
- pickup coil for thin-film permeance meters 17718
- QPSK modulator constr. and characts. *(Croatian)* 808
- stub resonator for planar transm. line atten. meas. 18025
- T-jn. splitter feed, W-band microstrip antenna array appl. 40520
- ultra-short pulse propag. on complex planar structs., anal. 37961
- CAD benchmark, EM simulators 12722
- Cu/polyimide MCMs, microstrip interconnects, digital sigs. 29729

microstrip couplers
- *see also microstrip directional couplers*
- aperture coupling, adjacent layers, stripline geom. 6288
- circ. disc 3-dB coupler anlysis and design, comments and reply 12716
- dual patch shielded antenna array element for mobile satellite commun. 23947
- K/K_a-band series-fed dipole and slot arrays transversely coupled to microstrip line 23944
- Lange coupler power-distributed amp., high-perform. design 12814
- mobile radio systs., microstrip networks for multibeam/reconfigurable operation *(English, Italian)* 42292
- ONYX-CS software modules for microstrip components design 12708
- ring hybrid, miniaturized 3-dB design 12710
- thin substr. microstrip problems, Green's fns. closed form solns. 37939
- GaAs MMIC broadband braided microstrip coupler 857

microstrip directional couplers
- planar coupler in microstrip, enhanced directivity 21519
- quadrature coupler, planar ellipt. shaped, theoretical anal. 21514

microstrip discontinuities
- broadband matched terminations in planar structs., simul. 12746
- discrete discontinuities along coupled PCB traces, meas./simulation 21506
- FDTD anal., ABC-induced error minimisation 8027
- gap discontinuity in spectral domain 2308
- lossy planar microwave struct., discontinuities modeling 12701
- MIMIC amp., modelling and charactn. 29605
- MMIC and hybrid planar IC discontinuities anal. method 860
- multilayer microstrip struct. anal., matched load simul. 12794
- nonreciprocal ferrite substr. microstrip open-end discontinuity, MIC appls. 12810
- planar cct. microstrip line, edge boundary conditions, specific modes, 2D anal. 40420
- planar microstrip config., anal., closed-form Green's fns. 23792
- radiation effects, full-wave anal. 23837
- rectangular patch antenna feed microstrip line gap discontinuity anal. 32000
- spectral domain moment method for anal., comp. efficiency 15595
- step discontinuities, combined mode matching/method-of-lines procedure 31912
- step discontinuity, fractional dissipated power 856
- thin substr. microstrip problems, Green's fns. closed form solns. 37939
- transmission line static anal. using measured eqn. of invariance 23751

microstrip filters
- BNC-to-microstrip transit., EM undergraduate lab. appls. 20281
- enclosed rect. microstrip patch degenerate mode coupling, EFIE soln. 29535
- microwave microstrip dielec.-resonator filters, 3D FEM simul. 37947
- multilayer microstrip struct. anal., matched load simul. 12794
- ONYX-CS software modules for microstrip components design 12708
- passive filter anal., FDTD algm. improvement 29536
- tunable mm-wave mag. filter, novel design 14261
- wideband bandpass filter, three parallel-coupled lines 6282
- Y-Ba-Cu-O HTSC thin films, K-band microstrip filters 39299
- YBaCuO, 10 GHz bandpass microstrip filter 816

microstrip lines
- *see also microstrip discontinuities*
- 2D-FDTD method, DFT appl. 15579
- 10 GHz Vivaldi antenna microstrip-to-slot-line transition 31941
- bi-isotropic microstrip geom., quasi-static image method 15573
- calibration, process variations effects 25703
- circ. waveguide-to-microstrip transit. 21507
- complex planar struct., static study *(French)* 12702
- conductor and dielec. losses of transm. structs., calc. 15574

- **microstrip lines** continued
  - coplanar transm. line types 31868
  - crosstalk prediction 6277
  - curvature variable taper for waveguide-microstrip transit. *(Korean)* 12692
  - cylindrical microstrip line mounted inside ground cylinder, quasistatic soln. 21505
  - dielec. disk radiator, slot excitation 31929
  - dielec. resonator equiv. cct. 14096
  - dielec. resonators, microstrip tuning tech. 12713
  - dispersion anal., compact FDTD tech. 23778
  - dyadic Green's fn., spectral domain, planar cct. microstrip transm. lines 6291
  - edge-coupled microstrip loop resonators, capacitive loading 21576
  - ellipt. cone, stripline, microstrip line and coaxial line *(Chinese)* 31908
  - EMC-disturbances on coupled microstrip lines, LF SPICE model 12695
  - energy fluxes for ferrite substr., mag. biasing 12694
  - finite difference TLM method, first-order absorbing and dispersive boundary conditions 23764
  - floating line struct., full wave anal., wavelet expansion method 15572
  - Green's fns. in magneto-dielec. substr. 40406
  - HF current interact. in microstrip line, reson. modes of magnetostatic wave 22709
  - high speed digital sig. transm. line, crosstalk *(Korean)* 31871
  - high speed logic ccts., crosstalk, printed patterns 21637
  - HTS/metal/polymer dielec. interconnect struct. for packaging appls. 11785
  - HTSC planar transm. lines, propag. params. calc. 40415
  - IC elements, delay time, strips metallization effect 853
  - impedance-loss profile of interconnection struct. 22559
  - integrated rect. dielec. resonator antenna config. 23910
  - iterative frequency domain deconvolution, microstrip line appl. 24229
  - K/K_a-band series-fed dipole and slot arrays transversely coupled to microstrip line 23944
  - LASS based ultrawideband radar syst. 34149
  - linearly tapered slot antenna on dielec. substrate anal. 23876
  - metal cabinet enclosing PCB, radiation anal. 23695
  - microstrip-slot and CPW-slot lines, optoelectronics appls. 12697
  - microwave transm. line., photocond. switches simul. 31082
  - miniaturised MMIC amps., thin dielec. layers 29586
  - MMICs, transit. props. of vert. conductor connecting two microstrip lines 12790
  - multilayer microstrip struct., freq.-depend. permitt., quasistatic model 40439
  - multilayer-multiconductor transm. line network, pulse propag. *(Korean)* 37931
  - nonuniform ramified microstrip line, anal. 15586
  - on-board satellite SS correlator 25469
  - open asymmetrical multiconductor transm. lines, spectral-domain anal. 40390
  - open uniaxial anisotropic waveguide used as electrooptic modulator, anal. 40408
  - passive microstrip elements, full-wave space-domain moment matrix 23836
  - planar transm. line atten. meas. tech. 18025
  - planar transm. lines, multilayered dielec. substrs., WH/GSMT-based full-wave anal. 15571
  - planar transm. lines, ps pulse propag. 40387
  - polarimetric microstrip antenna, spectral domain anal. *(Japanese)* 40481
  - pole extraction in microstrip problems 23767
  - probe-fed rect. cavities, full-wave anal. 31901
  - pulsed power adiabatic transformer, semicond. switched, design/perform. 36295
  - reciprocal cct. model, lossy waveguide struct., orthogonality of eigenmodes 15563
  - sapphire, r-cut, microstrip lines, effective permitt. 12703
  - shielded microstrip lines, arbitrary metal. cross sect., anal. 2290
  - shielded microstrip-to-ridge waveguide, anal./design 15597
  - spectral domain quasistatic anal. 31874
  - superconducting microstripline atten. and propag. const. calc. 31896
  - surface impedance, conductor losses modelling 29522
  - tapered rect. transm. line, anal. 40396
  - thin film microstrip line dielec. thickness var. by TDR 38180
  - time domain network analyzer 25745
  - time-domain TLM anal., wideband absorbing boundary conditions 15613
  - tunable fin-line-microstrip oscillator 6305
  - two-conductor multilayer microstrip line coupling 31873
  - wideband transit. for planar technol., anal., synthesis 12690
  - Cr/Au microstrip lines, HF/high dens. packaging 21511
  - Cu/polyimide MCM, embedded microstrip transm. line sig. characts. 6465
  - Nb supercond. resonator ccts., freq. response 22762
  - TlCaBaCuO/GaAs, thin film supercond./MESFET semicond. hybrid phase shifter 29559
  - Y-Ba-Cu-O HTSC film microstrip, elec. instabilities, ultra-fast SN switching 37940
  - $YBa_2Cu_3O_7$ HTSC delay line, kinetic inductance, elec. tuning 14313
  - $YBa_2Cu_3O_{7-x}$ HTSC coplanar microstrip transm. lines 12693
  - $YBa_2Cu_3O_{7-x}$, microwave EM field-induced dielec. reson. 30809
- **microstrip resonators**
  - act. antenna element design 31980
  - concentric microstrip ring resonators, props. 31949
  - dielec. HF characterisation, open resonators 42894
  - edge-coupled microstrip loop resonators, capacitive loading 21576
  - HTSC microstrip travelling-wave resonators, double resons. 37971
  - Josephson microstrip resonators, dielec. const./surface resist. meas. 18047
  - lossy planar microwave struct., discontinuities modeling 12701
  - microwave commun., dielec. filters *(Japanese)* 37973
  - patch microstrip resonator array on anisotropic substr., anal. 21522
  - patch resonator soln., combined complex image and contour integral method 29538
  - Q-factor calc. of microstrip resonators in EHF band 12725
  - rect. patch microstrip resonator, shear deform., FEA 29548
  - ring vibrator params. on ferrite substructure 37957
  - stub resonator for planar transm. line atten. meas. 18025
  - VCOs for microwave commun. equipt. *(Japanese)* 37671
  - wideband bandpass filter, three parallel-coupled lines 6282
  - GaAs MESFET varactor tunable oscillators, noise calcs. 21565
  - Nb supercond. microstrip resonators, nonlin. microwave props. 39270
  - TlBaCaCuO microstrip ring resonator, double reson. behavior 12727
  - TlBaCaCuO thin film ring resonator, J_c distrib. 37953
  - Y-Ba-Cu-O microstrip resonators on sapphire substrs., microwave losses 37995
  - $YBa_2Cu_3O_7$ HTSC thin films, microwave pass. devices 30766
  - $YBa_2Cu_3O_{7-x}$ HTSC coplanar microstrip transm. lines 12693
- **microstrip resonators** continued
  - $YBa_2Cu_3O_{7-x}$ supercond. microstrip resonators, spectral-domain anal. 21516
  - $YBa_2Cu_3O_{7-x}$:Ag HTSC resonator, unbuffered sapphire substr. 30806
- **microtomes** *see specimen preparation*
- **microtrons**
  - azimuthally varying field racetrack microtron, canonical treatment 4089
  - MAMI control, graphics operator interface 18224
  - MAMI microtron, beam intens. profile monitor 34832
  - operating principles and beam stabil. 4130
  - recuperator with FEL, electron-beam driver 4148
  - reson. freq., temp. stabilization 34766
  - TEU-FEL project 14981
  - TUE cyclotron building, particle accelerators *(Dutch)* 43003
- **microwave acoustic devices** *see acoustic microwave devices*
- **microwave amplifiers**
  - *see also masers; microwave power amplifiers; millimetre wave amplifiers; MMIC amplifiers; UHF amplifiers*
  - 2-18 GHz low-DC power monolithic matrix amp. 859
  - back-to-back horn antenna quasi-opt. amp 23914
  - broadband microwave amp., low noise stable, design 12785
  - CAMAD, Computer Aided Microwave Amplifier Design, undergraduate instruction package 5519
  - Cerenkov amplifiers, sheet electron beam confinement 6508
  - Cherenkov grating amplifier with sheet electron beam 21853
  - cooling, supercritical hydrogen 12774
  - cross-field amplifier end-hat effects, 3D electron density meas. 6510
  - crossed-field devices, small signal gain 6509
  - deflection microwave amp., field-emitter arrays 6302
  - gyrotron amp., axially modulated, cusp-injected, large-orbit 6497
  - gyrotron TWA, stabilization of absol. instabilities 21855
  - harmonic peniotron and gyrotron interacts. in rising-sun slotted waveguide, nonlin. theory 6498
  - HBT MMIC distrib. amp. design based on atten. compen. techs. 12817
  - HEMT LNA MMIC, act. regulated self-bias 12821
  - intense microwave pulses, conf., Los Angeles (1994) 28206
  - J-band relativistic klystron amp., long pulse, develop. 29780
  - J-band relativistic klystron amplifiers, modelling and design 21826
  - klystron amplifier, relativistic, 3.3 GHz, studies 21820
  - klystron amplifier, relativistic, at high power 21817
  - magnicon output cavity, anal. and simulation 21815
  - MESFET, noise temp. determ. 13766
  - monolithic MM wave IC, high speed opt. detectors 9534
  - multigigawatt microwave amplifier, electron beam powered, research 21818
  - multistage microwave two-port networks, IMD anal. *(Korean)* 12738
  - PASOTRON amplifier experiments 21822
  - radial electron flows in diodes, microwave sig. amplif., Pierce instabil. 6477
  - radiometer Earth obs. phased array antenna design 26711
  - relativistic klystron amp. from MIT, 3.3 GHz, compact input cavity 29777
  - relativistic klystron amplifiers, two-stream instability 21827
  - relativistic klystron amps., intense space-charge beam phys. 992
  - relativistic klystron amps., RF extraction issues 29773
  - relativistic klystron amps. for microwave pulse gen. 29775
  - repetitively pulsed relativistic klystron amp. 983
  - S-band variable gain amps, scatt. param. meas. *(Chinese)* 25963
  - sampling oscilloscope front-end, HBT MMIC design 42869
  - sheet beam crossed-field amp., nonlin. gain compensation 988
  - terminated microwave transistors, normalizing input/output impedances 37982
  - three-cavity gyroklystron amp. perform. study 29763
  - triquint 0.5 μ MESFET device microwave transconductance amps. and filter ccts. 6327
  - two beam klystron amplifier, theoretical model 21839
  - two-port network, noise anal., recursive algm., S-wave approach 829
  - two-stage tapered gyrotron TWTA, gain broadening 29809
  - two-stream relativistic klystron amplifier, beam modulation 21819
  - X-band magnicon amplifier, freq. doubling 13001
  - AlGaAs-GaAs HEMT monolithic downconvertor for X-band DBS 42315
  - GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
  - GaAs HBT multifunctional microwave-analog VGA 38023
  - GaAs MMIC distributed amps., design 12806
  - GaAs MMIC dual-channel Ku-band DBS downconvertor 42316
  - GaAs MMIC multifunction EW receiver convertor chip 38018
  - InAlAs-InGaAs HBT X-band double-balanced upconvertor 38021
  - InGaAs-GaAs MODFET MIMIC amp., 5-80 GHz, CPW 38026
  - InP-GaInAsP-GaInAs composite collector HBT/circuits 13663
- **microwave antenna arrays**
  - *see also waveguide antenna arrays*
  - 2 to 10GHz multilayer stripline Butler matrix beamforming network 23993
  - 2-D opt. BFN 8077
  - 2D prog. photonic time-delay device for MM-wave sig. proc. appls. 14576
  - beamformers for space appls. 32002
  - brain hyperthermia, interstitial microwave antenna array techs. 18592
  - circ. polarized N-element circ. array, characts. 40510
  - corrugated waveguide phase shifter, dual-reflector antenna array appl. 12712
  - dipole-type antennas for interstitial hyperthermia, SAR distribs. 10269
  - element gain in short lin. arrays, role of act. SWR 2349
  - EMC of surveillance devices, rem. deactivation 23663
  - FOPAIR, focused array imaging radar for ocean rem. sens. 26732
  - helicopter power supply demons. project 35597
  - Ka-band layered ridge dielec. waveguide leaky-wave antenna develop. 23965
  - L-band steerable antennas for land mobile terminals 3479
  - lin. polarized aperture array antenna *(Japanese)* 40516
  - mag. steerable ferrite patch antenna array 15659
  - MESFET oscillator loaded slot-coupled patch antenna, anal. 40501
  - Mitsubishi Electric base-station antenna systs. *(Japanese)* 33893
  - monolithic antennas, skin sens. organs imitation *(Japanese)* 31982
  - opt. controlled phased array antenna 15668
  - opt. heterodyne microwave generation, spectral charactn. 6293
  - optics for phased array antennas 31993
  - pHEMT Ka-Band 3-stage amps. for phased-array appls. 38010
  - pinching electron beam vircator, high efficiency 29768
  - pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
  - radiometer Earth obs. phased array antenna design 26711
  - reversible Rotman lens for short lin. array appls. 15674
  - self-steered array syst. for microwave commun. 9196
  - spherical slot array applicator for microwave hyperthermia 18591
  - vehicle to roadside commun., 5.8 GHz, adaptive array antennas 15666
  - wideband photonic array antenna, syst. design and perform. 7326

microwave antenna arrays continued
GaAs detector-switched monolithic time-delay network for opt. control of phased arrays 31129
microwave antennas
see also lens antennas; microwave antenna arrays; waveguide antennas
1 GHz sum/difference opt. modulator, E/H field meas. 18053
2D prog. photonic time-delay device for MM-wave sig. proc. appls. 14576
22 GHz DBS HDTV antenna design and rain fade compensation 31950
act. integrated antennas, opt. control, microwave-opt. interact. *(Japanese)* 8062
adaptive wideband opt. nulling for antenna syst. 7399
Alcatel commun. satellite antennas 23895
ATF Torsatron, microwave scatt. diagnostic 34677
automotive true ground speed meas., microwave front end 28152
axial mode helix with soft corrugated ground plane 23992
bandwidth extension by parasitic elements and varactors 23915
base station antennas, evol. 2321
broadband CPW-coplanar strip-fed spiral antenna 15643
Cassini FSS, develop. 15651
catheter antenna for percutaneous microwave therapy 35141
cellular pers. commun., handset antenna/human EM interact. 9343
chirality and EM 40326
coaxial-slot antennas for microwave interstitial hyperthermia, SAR 26469
colloquium, microwave appls. in medicine, London, UK (1995) 28227
Deep Sace Network, microwave controller software, higher order logic 42338
double ridged waveguide feed for parab. reflectors, broadband matching 29540
edge type thin-film warm carrier detectors, fab. 34488
Ellipticus antenna, HF anal. 8037
folded Fresnel zone plate antenna, design and anal. 2323
four-band FSS, double-sq.-loop patch elements 23863
Fresnel region microwave/MM-wave bands antenna-reflector 9197
Galileo syst. design for orb. operations 9407
ground-plane-backed dielec.-resonator antennas, imperfections 40462
hard-surface microwave blockage-reducing struts 23989
helicopter power supply demons. project 35597
hemispherical dielec. resonator antenna anal. 40473
high power microwave aperture antennas, TD-FE anal. 40489
high-T_c supercond. elec. small strip antenna 8043
integrated rect. dielec. resonator antenna config. 23910
K/K_a-band antenna syst. for mobile satellite service 23866
L-band steerable antennas for land mobile terminals 3479
LASS based ultrawideband radar syst. 34149
low-profile circ. disk DR antenna, characts. 31947
multiband FSS, multiring patch elements 8058
multiband reflector antenna freq,-selective subreflector design and perform. 23873
multiple contoured beam reflector antenna, feed networks 32001
multistacked dielec. omnidirectional antenna, cavity-restrained type 8045
μP-based motorised satellite antenna 2324
opt./quasioptical diffr. focusing elements, appls. 39529
planar microwave applicator, current line fed grounded dielec. layer 10268
planar near-field measurement, X-band standard gain horn 23892
point-to-point microwave radios/PCS spectrum sharing, propag. meas. 25378
power relay satellite, wireless power transm. 36052
rectenna, ISY-Microwave Energy Transm. in Space expt. 35596
self-steered array syst. for microwave commun. 9196
short helical antenna backed by cavity, radiation field 40487
sq. patch antenna, radiation characts., permitt. effects 40471
switchable lin./circ. pol. ferrite disk resonator antenna 23861
tapered slot antennas, FDTD anal. of transient EM fields 2333
thermography antennas coupled, layered tissue regions 35047
THz free-space pulse all-electronic terahertz spectrosc. syst. 6333
ultrawideband photonic crysts. for broadband antenna appls. 8082
GaAs detector-switched monolithic time-delay network for opt. control of phased arrays 31129
microwave applicators *see hyperthermia; microwave heating*
microwave bipolar transistors
see also millimetre wave bipolar transistors; UHF bipolar transistors
30 GHz bipolar transistors, laterally scaled, 18 ps ECL-gate delay 21548
AlInAs/GaInAs/InP microwave HBTS, performances 12764
BJTs, DC(AC) current crowding, model anal. 13619
bump heat sink technol. for power HBT and MMIC 38829
DC and AC current crowding effects model for BJTs *(Korean)* 30251
double polysilicon self-aligned bipolar transistors, small-sig./noise model 21539
GaInP/GaAs microwave HBTs, small-sig./noise model extraction tech. 21540
HBT, base push-out/base-collector capacitance model 13660
HBT equiv. cct., param. extraction from S-params. 30258
HBT oscillators, bias-depend. noise up-conversion factor 6322
HBT perform., impact of thermal distrib./emitter length 38005
HBTs, nonlin. SPICE model param. extraction 6309
HBTs, param. extraction method 6310
HBTs, transient thermal simul., TLM method appl. 37980
InP-based HBTs, high-speed, design and fabrication 13626
polysilicon:As microwave bipolar power transistors *(Chinese)* 21545
power-gain and f_{max} eqns. based on T equiv. cct. 6306
AlGaAs/GaAs HBTs, collector launcher struct., 1 W, 3.5 V 21535
AlGaAs/GaAs HBTs, selective MOCVD growth, base-collector capacitance 38836
AlGaAs/GaAs fully-planar HBT technol., selective CBE regrowth 844
AlGaAs/GaAs microwave HBT, thermal design, geom. considerations 13630
AlGaAs/GaAs multiemitter finger HBT, model, self-heating and thermal coupling effects 841
AlGaAs/GaAs pnp HBT, Al graded base, 37 GHz cutoff freq. 21534
AlGaAs/GaAs power HBT, current gain collapse and avalanche breakdown 38818
AlGaAs-GaAs HBT, elevated temp. microwave charact. 37992
AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
AlGaAs-GaAs power HBTs, thermal stabil. tech. *(Japanese)* 38003
GaAlAs/GaAs HBTs, power amp. appls. 13655
GaAs/GaInP(AlGaAs)-based HBTs, thermal-elec. feedback coeffs. 12783
GaInP/GaAs hole barrier bipolar transistors 6728
GaInP-GaAs HBT, microwave appl. 12784
microwave bipolar transistors continued
InGaP HBTs, high-temp./microwave power appls. 38838
InP/InGaAs HBTs, highly Be-doped base layer, fab./characts. 21541
InP/InGaAs/InP DHBTs, microwave power performance 12765
$Si/Si_{1-x-y}Ge_xC_y/Si$ HBTs, fab. and bandgap study 21553
SiGe HBT technol. appls. in radio digital commun. 38999
SiGe multi emitter finger HBTs, f_{max} up, 120 GHz 21544
microwave circuits
see also microwave frequency convertors; microwave integrated circuits; microwave mixers; microwave phase shifters; millimetre wave circuits; UHF circuits
3D EM simulator, IE3-D, HF and high-speed cct. appls. 21071
Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
boards, elec. perform. 12741
broadband matched terminations in planar structs., simul. 12746
causal lin. systs., transient anal., microwave freqs. 21082
circuits systs., symp., Chicago, USA (May 1993) 31
coplanar strips, anal. considering finite strip metal. thickness 2295
dual-mode dielec. resonator freq./phase discriminator 12740
dyadic Green's fn., spectral domain, planar cct. microstrip transm. lines 6291
elec. perform. of microwave boards 21530
electronic packaging, conf, Monterey, USA (Oct 1993) 36898
EM at Kuwait Univ., chiral materials in microwaves 6290
EM field simul., TLM method, computer graphic visualisation 10006
ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
grid oscillator design, act. quasi-opt. power combining appls. 12777
HTSC planar transm. lines, propag. params. calc. 40415
IBM high perform. carrier technol. for PCB packaging/interconnects 37153
large-scale microwave networks, symbolic anal. 828
limiter cct., chaos obs. 6299
lin., pole-zero computation, multipoint Pade approx. 21528
lumped element microwave phase-shifting and matching networks, design 12736
matched-line directional two-way power divider design 821
metal matrix composite packaging 12748
microstrip phase-trim device, dielec. overlay 806
Midwest Symp. on ccts. and systs., Detroit (1993) 33
multilayer Teflon microwave PWBs, isolation techs. 37974
multiport microwave network problems soln., port refl. coeff. method 21520
multistage microwave two-port networks, IMD anal. *(Korean)* 12738
nonlin. microwave ccts., freq.-domain simul., harmonic bal. method *(Chinese)* 28994
nonlin. mixed anal./optim. algm., microwave power amps. 29558
nonuniform transm. line impedance matching sects. in passband, design 15555
parallel reson. transistor microwave oscillator cct., computer-aided sensitivity anal. 6308
PCB materials, microwave cct. design 11799
planar EM anals. validation, ultra-high precision benchmark 824
post-fab. tuning 37575
quasi-opt. microwave cct. techs. for wireless appls. 12747
RF/microwave cct. boards, 3D EM simulator 12284
S-matrix eval. of microwave ccts., general topol. 12735
S-param. cct. anal., appl. of artificial two- and four-ports *(English)* 21531
Schottky diode microwave mixer noise temp. anal. *(Croatian)* 834
Schottky octave band LO doubler (output range 16-40 GHz) 37906
Smith Chart program for impedance matching on Macintosh 21020
space mapping tech. for EM cct. optim. 12286
subharmonically pumped THz mixers employing reson. metal mesh bandpass filters 37979
Teradyne integrated ATE syst. for microwave devices/ccts. 25716
time-domain diakoptics, implement. in FDTD method 469
unified nonlin. microwave cct./num. solid-state device simul. 6300
VIOMAP, S-param. equiv. for weakly nonlin. RF/microwave devices 12745
microwave circulators
see also millimetre wave circulators
drop-in ferrite microstrip circulator, design 29530
drop-on circulator design, X and Ka bands 14262
full period quadrature phase shifters, low losses 12739
jn. circulators, quality factor, temp. stabil. 29528
octave-band qtr.-wave coupled semi-tracking stripline jn. circulators 29546
stripline jn. circulator, fringing field effect, design 21513
microwave conductivity *see high-frequency effects*
microwave detectors
see also millimetre wave detectors; UHF detectors
8mm total power radiometer, periodic calib. 3962
35 GHz forward looking altimeter for terrain avoidance 25612
conference, San Diego, CA, USA (July 1994) 28243
defects microwave detect. in glass reinforced polymer composites 37558
edge type thin-film warm carrier detectors, fab. 34488
end-coupled Josephson jns., microwave absorpt., wideband detect. 42773
high-accuracy microwave sens. and calib. 3964
metallic body covered with insulators, detect. by microwave pass. sens. *(Japanese)* 43585
mm-wave Schottky diode detectors 12751
moisture meas. units, proc. control appls. *(German)* 18169
moisture sens., instantaneous method 43001
μP controlled microwave ranging, indust. appls. 3606
PLA of Josephson jns., GHz/THz oscillators 39280
road vehicle 24 GHz dual channel microwave front-end 11444
self-protected microwave detector for microwave receivers 37999
short-range 2D positioning by microwave cellular telemetry 3975
SMX-1 microwave sens., motion meas. 34470
GaAs PDB microwave diodes, ESD failure 29556
H_2O in hydrocarbon/water solns., microwave acoustic sens. 10009
microwave devices
see also acoustic microwave devices; Gunn devices; magnetic microwave devices; masers; microwave amplifiers; microwave antennas; microwave circuits; microwave detectors; microwave diodes; microwave filters; microwave frequency convertors; microwave isolators; microwave limiters; microwave mixers; microwave oscillators; microwave phase shifters; microwave receivers; microwave transistors; microwave tubes; millimetre wave devices; submillimetre wave devices; superconducting microwave devices; UHF devices; waveguides
2.45 GHz microwave-based air pollution control, dielec. props. meas. 11474
100 kV 1 kHz Blumlein pulsed power supply, microwave appls. 36257
annular thyratron, microwave-triggered 29816
Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
coaxially driven axisymm. microwave structs., modelling 6298

microwave devices continued
cpd. quasi-opt. power combiner, cct. anal. 812
cylindrical mag. wall struct., microwave ion source calc. 4137
dielec. resonators, microstrip tuning tech. 12713
FCC photonic cryst. for microwave/MM-wave appls. 12737
ferrimag. tridisk-coupled resonator, modal characts. 12715
injection-locked hybrid discriminator, interf.-immunity 826
isospectral cavities built from triangles 15603
land surface radiometry, UHF synthetic aperture radiometer 10452
leaky-wave field applicator, microwaves, lin. uniform plasmas 37930
low temp. cofired ceramics, pass. elements, RF-design 28463
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
matrix metal-on-elastomer microwave connector 29552
MELECON '94, conf., Antalya, Turkey (1994) 5470
modulator for 16-posn. amplit.-phase keyed sigs. 12373
opt.-microwave transducers, S-matrix defn. 17815
pass. discriminator, co-channel monotone interf., perform. 825
plasma science, conf., Vancouver, BC, Canada (June 1993) 6301
precision accelerometers for gravity gradient meas. 18801
quasiperiodic struct., coupling, asymmetric output arm 15568
radar exciter, ultra-low phase noise 42523
reson. cavities, design, multilevel methods 15569
RF instrum. accuracy, meas. uncertainty effects 42911
rot. wave resonator tuning 21523
solar microwave radiometer for act. regions, 18-23 GHz 9687
Teradyne integrated ATE syst. for microwave devices/ccts. 25716
TLM anal., AR and ARMA spectral estim. 12731
transmit-receive switches, elec. field enhance./power absorpt. 21529
ultra-broadband high perform. RF choke for commun. appls. 37996
VIOMAP, S-param. equiv. for weakly nonlin. RF/microwave devices 12745
GaAs/AlGaAs opt. phase modulators for microwave/photonic ICs 7495
n^+nn^+ InP diodes, submicrometer, microwave power generation, model 836
Ni-Zn ferrite/rubber composite microwave absorber, additives effect *(Korean)* 20991
Si photocontrolled microwave modulator, atten. drop kinetics 589
$YBa_2Cu_3O_7SrTiO_3$ CPW, elec. controlled 803

microwave diodes
see also millimetre wave diodes
Gunn diodes operation under γ radiation 12781
ultrafast optoelectronic charactn. 6304
AlGaAs/GaAs superlattice avalanche region IMPATT diode 38806
GaAs PDB diode perform, proton isolation effect 29565
GaAs PDB microwave diodes, ESD failure 29556
GaAs-AlGaAs heterostruct. barrier varactor freq. tripler, simul. 6321
InP diodes, impedance field and microwave power generation 1347
Si microwave varactor diodes, irrad., capacit. transients meas. 12770

microwave discharges *see high-frequency discharges*

microwave field effect transistors
see also millimetre wave field effect transistors; UHF field effect transistors
asymmetrical double recessed power MESFETs, breakdown anal. 13802
dual gate MODFETs, submicrometer, 2D hydrodynamic simul. 38006
electrochem.-induced etching nonuniformities effects 12766
HEMT 1-50 GHz S-params. and DC drain current modelling 12757
HEMT equiv. cct. determ. tech. 30379
HEMT large sig. model for mixer anal./design 6320
heterojunction microwave FETs, small-sig./large-sig. extraction techs. 12754
HFET, microwave, temp. noise model 21542
in-plane gate transistor integrated with photoconductive switches, ultrafast characts. 29555
MESFET, intrinsic small-sig. equiv. cct., Monte Carlo determ. 38910
multilayer Teflon microwave PWBs, isolation techs. 37974
passive and act. slot line ring antenna design and meas. 23913
phase and baseband 1/f noise correl. study 833
planar two-mode channel FET, MMIC, pers. handy phone 38925
pseudomorphic double heterojunction power FET, optim. 12771
RoundHEMT, HEMT layout, ringshaped gate 29568
terminated microwave transistors, normalizing input/output impedances 37982
AlGaAs/GaAs HEMT design, inverse modeling 38909
AlGaAs/GaAs MODFETs, low-noise X-band transistors, MBE growth 22479
AlGaAs/GaAs(InGaAs/GaAs) microwave/millimetre-wave HEMTs, noise model 831
AlGaAs/$In_{0.15}Ga_{0.85}As$ DH-PHEMT, short-channel effects 13808
AlGaAs/InGaAs/GaAs high breakdown PHEMT, Te doping 29567
$Al_{0.3}Ga_{0.7}As/In_{0.2}Ga_{0.8}As$ doped-channel FETs, lin. improvement 12767
AlGaAs-GaAs modulation-doped heterostructs., microwave I/V characts. 1075
AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
AlSb/InAs HEMTs, 5 V gate breakdown voltage 835
GaAs E-mode MESFET technol. for low power/noise appls. 12780
GaAs FET and IC for mobile radio *(German)* 21571
GaAs FET power amp./high-Q magnetron, coherent transmitter 12997
GaAs FETs, IMD minimisation tech. 22484
GaAs FETs, non-lin. and distributed modelling procedure 845
GaAs MESFET develop. at Caswell, 1964-1985 6808
GaAs MESFET, interchanged two-sig. S-param. meas. *(Chinese)* 25963
GaAs MESFETs and PHEMTs, 2DEG effect on noise perform. 37981
GaAs microwave FETs, deep level characterisation 38001
GaAs pseudomorphic HEMT, high power, large periphery 37993
GaAs pseudomorphic HEMT power amp., C-band, high power 38032
GaAs short gate-length MESFETs, delay time anal. 13814
GaAs:C self-aligned n-JFET, carbon buried p-implant 6806
GaAs/AlGaAs microwave HEMT device, MBE fab. and charactn. *(Korean)* 29571
GaAs/InP 1 μm MESFET, buffer layer thickness optimization for OEIC 14661
GaAs-based HJFET, 6.6 W, 12 GHz, power amp. appls. 21550
GaInAS/InP, high power HJFET, MOCVD, performance 13775
GaN MESFETs for high-power/-temp. microwave appls. 29557
GaN/AlGaN heterostruct. FET, temp. activated cond., operating at temp. up to 300°C 30376
InAlAs/GaInP/InGaAs, HFET, GaInP barrier growth, MOVPE 350
InAlAs/InGaAs HEMTs, InGaAs buffer layers, MOCVD growth 22476
InAlAs/InGaAs MODFET, 0.15 μm gatelength, OMVPE growth 13780
InAlAs/InGaAs inverted HEMT, InAs inserted channel 38007
InGaAlAs/InAlAs FET, breakdown voltages 13783
InGaAs graded channel InP HEMT, 305 GHz f_T and 340 GHz f_{max} 843

microwave field effect transistors continued
InGaAs switch transistors for microwave control applications 12768
InGaAs/GaAs, two mode channel FET, low noise perform., electron confine. 38927
$In_{0.2}Ga_{0.8}As-Al_{0.52}In_{0.48}P$ HEMT, gas source MBE growth 13817
InGaP/InP/InGaAs/InP backside-doped split-channel HFETs 30365
InP MISFET, modeling for power appl. 13709
InP/InAlAs IG-MODFET, power appl. 13708
InP-based HEMT, extremely low-noise, Si_3N_4 passiv. 21552
InSb, high-speed MISFET, uncooled 30319
Si power MOSFET, UHF-band RF power amp. appl. 837
SiC MESFETs on high resist. substrs., 10 GHz, fab., charactn. 842
SiC device proc./substr. fab., high power/temp. microwave 37990

microwave filters
see also millimetre wave filters; UHF filters; waveguide filters
act. microwave filters, nonlin. behaviour 21414
ang. bandpass filters, improved design flexibility 37828
Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
asymmetric cross-coupled filters, synthesis 12628
bandpass filters, triple-mode dielec. rod resonators *(Japanese)* 21403
BAW act. piezoelec. filters 30652
coplanar meander transm. lines, dielec. substr., slow-wave characts. 12698
coplanar MMIC act. bandpass filters, neg. resist. ccts. 12819
CPW optoelectronic gratings, light-induced microwave refl. coeff. 14483
dielec. ceramic filters, prep. and anal. 12723
dielec. filters *(Japanese)* 37973
ferrite loaded resonator mag. tunable filters, power handling capacity increase 29542
Ku band 12 channel contiguous band multiplexers, optimal design 3282
$\lambda_{g0}/4$ CPW-based bandpass filters, spurious response suppression 12721
LC filters, air-wound small inductors, design program 823
microstrip dielec.-resonator filters, 3D FEM simul. 37947
mixed modes dielec. resonator loaded cavity filters 12733
monolithic dielec. filters based on integrated waveguide technol. 37944
multilayer Teflon microwave PWBs, isolation techs. 37974
nonuniformly corrugated circ. waveguide, microwave filter response 37965
ONYX-CS software modules for microstrip components design 12708
planar-array calcs., FEM method and waveguide simul. 23780
quantum wave bandstop microwave filters 716
rect. waveguide, optimal filters based on finite thickness inductive diaphragms 12724
RF design in mobile radio transceivers, IEE Colloquium, London (1994) 5483
single-block ceramic microwave bandpass filters 820
solid-state bandpass filters, coaxial-to-coaxial type resonators 15590
surface mount RF/microwave filters, high dielec. const. ceramics 21401
travelling-wave grating filter design, inverse scatt. 31067
triple coupled CPW lines, MMIC bandpass filter elements 6325
triquint 0.5 μ MESFET device microwave transconductance amps. and filter ccts. 6327
tuning tech. for dielec. resonators 12713
waveguide filter simul. and design, TLM method 804
WC-281 circ. waveguide, mode conversion, echo anal. and correction, digital radio 33760
wideband bandpass filter, three parallel-coupled lines 6282
X-band bandpass/bandstop filter design in circ. waveguide 37954
CdS film CPW, high-refl. 30 GHz grating struct. 29529
Fe-polymer composite absorber chip for RF EMI filtering 37834
GaAs MMIC act. filters, synthesis incorporating noise effects 6328
$LiNbO_3$:Ti guided-wave light modulators, filter-type electrodes 30987
Y-Ba-Cu-O HTSC thin films, K-band microstrip filters 39299
YBaCuO, 10 GHz bandpass microstrip filter 816
YBaCuO HTSC microwave resonators and filters 37969
$YBa_2Cu_3O_7$ HTSC thin films, microwave pass. devices 30766
$YBa_2Cu_3O_{7-x}$ high T_c film dielec. resonator, MM-wave filter develop. 811
YIG:Sc film tunable magnetostatic wave bandpass filters 30757

microwave frequency convertors
see also millimetre wave frequency convertors; MMIC frequency convertors; UHF frequency convertors
8 mm freq. quadrupler, GaAs varactor *(Chinese)* 37907
parametric receiver design, modelling techs. 12744
punch-through varactor diode freq. multipliers, design 782
Schottky octave band LO doubler (output range 16-40 GHz) 37906
X-band magnicon amplifier, freq. doubling 13001
GaAs-AlGaAs heterostruct. barrier varactor freq. tripler, simul. 6321

microwave generation
see also microwave oscillators; millimetre wave generation; relativistic electron beam tubes; UHF generation; vircators
accelerator klystron amps. operated, levels below max. output power 43009
beam-plasma microwave generators, plasma dens. self-modulation 984
BWO, microwave generation 21849
BWO, two-stage scheme for FEL pumping 23317
coaxial triodes with virtual cathode, axially unsymm. EM wave emission 38220
cusptron amplifier, helix-loaded, broadband microwave source 21831
cylindrically-symm. vircator high power microwave source 29766
e-beam gyrotron-BWO, interact. tubes effects 29798
FEL expt., ang. steering 2022
freq.-step-tunable gyrotrons, plasma heating/fusion diagnostics 6478
gyro-BWO, tapered interaction tube effect on power/pulse length 21851
gyrocons and magnicons microwave generators, circ. beam deflection 6483
gyrotron amps. for collider appls. 21810
gyrotron BWO, long-pulse expts. 21852
gyrotron oscillator, large-sig. mode locking, nonlin. theory 38214
harmonic peniotron and gyrotron interacts. in rising-sun slotted waveguide, nonlin. theory 6498
helical Cerenkov effect, microwave/vis. radiation sources 31730
helical Cerenkov effect, novel radiation source 2185
high brightness cathodes, appls. 21793
high power microwave generation, magnetron driven Q switched cavity 29767
high power microwave sources, pulsed power requirements 29794
high-current relativistic klystron research, Physics International 29774
high-harmonic gyrofrequency multiplier, theory and design 6499
high-power microwave generators, principles and capabilities 38217
high-power microwave tubes, lab. and online appls. 6479
high-power wideband beam-plasma microwave amps./generators 974
high-power X-band microwave generators, LLNL expts. 34827

microwave generation continued
intense e-beam gyrotron BWOs, long-pulse microwave emission, tapered tubes 1006
intense microwave pulses, conf., Los Angeles (1994) 28206
intense-beam klystron amps., beam-cavity interact. phys. 6481
J-band relativistic klystron amp., long pulse, develop. 29780
LASS based ultrawideband radar syst. 34149
leaky-wave field applicator, microwaves, lin. uniform plasmas 37930
lin. induction accelerators, relativistic microwave electronics 34752
M2 form. of ellipt. sheet electron beams 6504
magnetron, leakage flux transformer, HV power supply *(French)* 29616
millimeter wave measurement, VXI implementations 25959
modelocked semicond. laser, microwave sig. degrad., LF noise up-conversion 39869
multiwave Cherenkov generator expts. 29805
nanosecond RF-pulse shaping, switching effect 13003
opt. heterodyne microwave generation, spectral charactn. 6293
overmoded high power microwave generators, expt. 21850
overmoded slow-wave resonators for interact. with relativistic electron beams, EM props. 1005
phase-locked gyrotrons operating at cyclotron harmonics, theory 6488
photocathode opt. resonator, coherent photoelectron bunch generation 970
pinching electron beam vircator, high efficiency 29768
pulsed power microwave generation, long-pulse expts. 36312
quasi-periodic struct. high power microwave sources, output sect. 29804
radial electron flows in diodes, microwave sig. amplif., Pierce instabil. 6477
relativistic BWO, efficiency increase 29796
relativistic BWO, pre-bunching cavity 29799
relativistic klystron amp. from MIT, 3.3 GHz, compact input cavity 29777
relativistic klystron amp. programme, Naval Research Laboratory 29772
relativistic klystron amps., RF extraction issues 29773
relativistic klystron amps. for microwave pulse gen. 29775
relativistic klystron oscillators, theoretical anal. 990
relativistic klystron two-beam accelerator, RF power extraction 10090
relativistic klystron two-beam accelerator for beam-break-up suppress. 34828
Reltron/Super-Reltron high power microwave source develop. 29788
rep-rate pulser, high-power microwave source develop. 36323
repetitively pulsed relativistic BWO, slow wave struct. 29797
sapphire disk DRO, combined stabilization 30655
single-beam plasma wave tube, high-power microwave/MM-wave source 986
solid-state photoconductive microwave generation pulsed power source 36434
standing wave FEL two-beam accelerator, beam-break-up 34823
Super-Reltron microwave tube progress, high power and efficiency 989
tuned semicond. microwave generator 29561
two-cavity klystron, microwave generation 21821
two-stream relativistic klystron amps., crit. design issues 29778
ubitron, amp. operation and perform. 39620
unmagnetized BWO high-power microwave source 1003
vac. BWOs using nonuniform slow wave struct., high power, efficiency enhancement 1004
vircator, electron beam behaviour, high-power microwave generation 6502
vircator, high power microwave source for accelerator 29789
vircator, microwave radiation, plasma effects 21825
vircator, slow wave struct., microwave generation 12999
vircator, triode type, space-charge dyn. 21842
vircators, ultrashort microwave pulse generation, effect on electronic devices 973
virtual cathode microwave devices, theoretical/expt. studies 6503
virtual cathode oscill., microwave generation 29771
virtual cathode oscillator, high-power microwave generation 29776
X-band coaxial extended length cavity 819
YBaCuO microbridge, 2D array, weak links 22763

microwave heating
2.45 GHz microwave heating-based large diam. plasma generation 44596
2.45 GHz microwave-based air pollution control, dielec. props. meas. 11474
3D EM cavity anal. using high order edge elements, microwave ovens 37964
Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
bio-mass under microwave hyperthermia, thermal profiles 26467
biomedical microwave forceps, tissue welding by microwave energy 35146
brain hyperthermia, interstitial microwave antenna array techs. 18592
breast carcinoma hyperthermia treatment, monopole phased arrays 26458
catheter antenna for percutaneous microwave therapy 35141
chem. synthesis, microwave heating synthesis 28168
clinical microwave hyperthermia syst., 430 MHz, cancer therapy 26465
coaxial-slot antennas for microwave interstitial hyperthermia, SAR 26469
colloquium, microwave appls. in medicine, London, UK (1995) 28227
dielec. meas. in microwave range, indust., scientific and med. appls. 34663
electro-technologies for waste processing, IEE Colloquium, London (1994) 5461
food packaging waste, thermal proc., microwave heating 11477
fuzzy logic controls for EPRI microwave clothes dryer 5398
heating cavity, FDTD simul. 11475
International Appliance Technical Conf., Madison, WI, USA (1994) 36908
ion plasma sources based on microwave oven 38528
med. hyperthermia applicators, FDTD modelling 35144
microstrip arrays for superficial microwave hyperthermia, 433 MHz 43352
microstrip patch applicator for microwave hyperthermia 26459
microstrip-microslot applicators, 3D modeling, FDTD method 18601
mixed dielec./poor absorber, microwave heating, thermal effects 44592
multielement flexible microstrip patch heater for hyperthermia treatment 43345
multimode applicator, finite element time domain anal. 28171
organic react. promotion appls. 44594
oven, double turn defrosting syst. *(Japanese)* 44614
oven, high loss dielec., EM fields, FD-TD anal. *(Japanese)* 28186
oven design, EM wave anal. methods *(Japanese)* 44619
ovens, rect. waveguide trough model 11476
paper drying, nonlin. problem soln. 28167
permitt. meas. correction procedures 44593
planar microwave applicator, current line fed grounded dielec. layer 10268
plant material oil constituents extraction, microwave heating 28170
prostate treatment, cooled microwave transrectal applicator 18595
PWM flyback converter, nondissipative snubber 11479
quasiresonant PWM convertor, microwave heating appl. 36333
rect. waveguide applicator for dielec. sheet materials proc. 5385
refl. meas., pulsed/CW sigs., 2.45 GHz 11478
spherical slot array applicator for microwave hyperthermia 18591

microwave heating continued
switched-mode magnetron power supply 11185
temp. depend. params., nonlin. modeling, iter. approach 20130
thermoradiotherapy syst., simultaneous microwave hyperthermia/^{60}Co irrad. 18593
wastes proc., RF/microwave methods/appls. 28172
water flow profiles, cylindrical container, microwave heating 28169
water-in-oil emulsion separation, microwave heating-based 44595
woodworms destruction, lethal temp. studies 10288
Si low temp. epitaxy in single-wafer RTP reactor, microwave heating 384
$YBa_2Cu_3O_{7-\delta}$, texturing by microwave heating 39241

microwave holography
18 GHz band wireless LAN, indoor multipath radio propag. 8930
forward-looking radar reconstruction, long-wavelength holography 17397
radio equipt. emissions meas., radio holography 25227
reflector antennas, surface error meas. by phase retrieval holography *(Japanese)* 15647

microwave imaging
see also microwave holography; millimetre wave imaging
2D hybrid element image reconstruction for TM illum. 43222
2D microwave imaging, TLS-ESPRIT, matrix enhancement 42480
adaptive imaging algm. for diffr. tomography 16349
atmos., mesoscale convective syst. radiometry 35318
atmos., vapour and liq. water, SSM/I radiometry method 35320
atmos., water vap. profiling, SSM/T-2 microwave radiometry 35322
atmos. humidity, SSM/I and TOVS methods 35321
atmos. rem. sens., TOVS mm & microwave radiometry 35323
backscatt. over Antarctica, radar altimetry 43494
bioelectromagnetics in Russia, review 35028
biomedical microwave image proc., distorted Born ierative method 26291
canonical dielec. objs., spatial domain act. microwave imaging 40313
cloud liq. water, microwave radiometry rem. sens. 35319
colloquium, microwave appls. in medicine, London, UK (1995) 28227
compact range imaging, main-beam reduction 2320
conducting cylinder, microwave imaging, Newton algm. *(Korean)* 25965
cost minimization approach, simulated annealing 43277
CT imaging, diffr. effect correction *(Japanese)* 10184
Doppler tomography approach for microwave imaging 24412
Earth obs. from space, microwave rem. sens. *(Japanese)* 35286
EM imaging, iter. algm., convergence rate 42917
equiv. current reconstruction for EM imaging 8512
FOPAIR, focused array imaging radar for ocean rem. sens. 26732
forests, radar 3D backscatt. model for canopies 43540
forward-looking radar reconstruction, long-wavelength holography 17397
high brightness cathodes, appls. 21793
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
imaging of infinite dielec. cylinders, modified Born approx. 2208
inhomog. media, image quality improvement 42916
ISAR image of Boeing 747, meas. F-band meas. 17409
land surface microwave radiometry, winter landscape signatures 35295
microwave/MM-wave detectors, conf., San Diego, CA, USA (July 1994) 28243
MM-wave imaging optics, offset paraboloidal reflector 23904
mm-wave imaging syst., defect charactn. in dielec. slabs 37560
multidimensional microwave imaging 25551
noninvasive diagnostics, Gibbs act. EM method 35029
num. inverse-scatt. solns. for microwave imaging 32989
ocean surface wind speed meas., ERS-1 vs. SSM/I, Atlantic 10471
radar tomography, 3D images generation 42494
radar/microwave imaging, IEE Colloquium, London (1994) 5477
rainfall at sea, SSM/I microwave radiometry method 35296
rainfall over the sea, imaging microwave radiometry 35317
rainfall over the sea, multichannel microwave radiometry 35316
RF field imaging, scanning SQUID microscope 34668
snowcover & precip., satellite radiometry method 43507
soil moisture rem. sens., UHF radiometry method 35350
space-borne scientific missions, microwave scatterometry 18789
step-freq. radar imaging for NDE/GPR appls. 42904
storms, microwave rem. sens., AMPR radiometry and CP-2 radar 35314
storms (precipitating), microwave rem. sens., AMPR 35313
thermography antennas coupled, layered tissue regions 35047
Tikhonov regularisation tech., inverse scatt. problems 3967
tumour detect. appl. 18459
ultra-wideband or short-pulse radar, time-domain imaging 42487
X-band data transmitter, space rem. sens. missions 4379
X/Ka band emission from leafy vegetation, modeling 43493

microwave-infrared double resonance *see microwave-optical double resonance*

microwave integrated circuits
see also hybrid integrated circuits; millimetre wave integrated circuits; MMIC; UHF integrated circuits
10 GHz Vivaldi antenna microstrip-to-slot-line transition 31941
act. array module for spatial power combiners/act. antennas 31990
act. integrated antennas, review 15628
Australian microelectronics, conf., Gold Coast, Qld (1993) 5449
automotive true ground speed meas., microwave front end 28152
branch-line hybrid-rings, coupled-lines 37943
coplanar meander transm. lines, dielec. substr., slow-wave characts. 12698
coplanar waveguide multistep discontinuity anal. 23776
DSP and VLSI technol. in microwave radio commun. systs. 25223
dual FET act. patch elements for spatial power combiners 15658
flip-chip bonding proc., multi-stacked μ-Au bumps 12956
HEMT with integrated on-drain capacitor, hybrid mixer 21574
interconnections, quasistatic anal., method of lines 854
lin. ccts., noise and sig. charact. 12798
MIC2D software for microwave planar cct. anal., time domain FEM 38038
microstrip dielec.-resonator filters, 3D FEM simul. 37947
microstrip step discontinuity, fractional dissipated power 856
microstrip-slot and CPW-slot lines, optoelectronics appls. 12697
miniaturized ccts., HF appls., micromachining techs. 29583
model implement. for design proc. automation 28944
NEC, quasi-microwave band QPSK direct modulator modules *(Japanese)* 37679
nonreciprocal ferrite substr. microstrip open-end discontinuity, MIC appls. 12810
normal/supercond. multiconductor lines for interconnects/MICs 29578
package EM modelling 21577
patch microstrip resonator array on anisotropic substr., anal. 21522
phased array defective element automatic diagnosis and localisation 23951

- **microwave integrated circuits** continued
  - phased array packages, interconnects, HF charactn. 28461
  - planar microstrip ccts., FDTD anal., spectral domain Prony's method 12730
  - PTFE substrs., cct. fab. methods 6436
  - rectangular dielec. resonator antenna config. 23910
  - road vehicle 24 GHz dual channel microwave front-end 11444
  - solder joints accidentally exposed to nitric acid, reliab. eval. 37188
  - spatial power combining oscillators on microstrip structs. 12789
  - StratEdge ceramic packaging for microwave and MM-wave appls. 23984
  - strips metallization effect on delay time of IC elements 853
  - tapered rect. transm. line, anal. 40396
  - THz free-space pulse all-electronic terahertz spectrosc. syst. 6333
  - TWT lin. for future commun. satellites and ground stations *(German)* 6295
  - UHF single ASIC CDMA digital receiver for space appl. 9414
  - uniplanar CPW hybrid-ring couplers and magic-T's 12732
  - VCOs for microwave commun. equipt. *(Japanese)* 37671
  - Al-SiC metal matrix composites, microwave/MM wave IC packages 20464
  - AlGaAs/GaAs HBT IC technol. for 4:1 TDM multiplexer 1487
  - GaAs MESFET doubly bal. mixer, X-band, very low IMD 21569
  - GaAs MESFET varactor tunable oscillators, noise calcs. 21565
  - GaAs MMIC technol./manufacture, MIC comparisons, status review 29580
  - GaAs pseudomorphic HEMT power amp., C-band, high power 38032
  - GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
  - InP/InGaAs HBT IC technol. for 4:1 TDM multiplexer 1487
  - TiO_2 epitaxial thin film MOCVD growth, neural network modelling 22548
  - YBCO high-T_c supercond. film microstrip microwave opening switch 6281
- **microwave isolators**
  - low-loss splitter 3317
- **microwave landing systems**
  - *see also instrument landing systems*
  - Doppler radioelectronic landing syst., aircraft ang. coord. determ. 18711
  - microwaves in aviation, commun. and control 18778
  - pass. mm-wave camera for low visibility landing 10329
- **microwave lasers** *see masers*
- **microwave limiters**
  - chaos obs. in microwave limiter cct. 6299
  - ECM baseband freq. models with IF nonlinearity describing fns. 34138
  - MM-wave solid-state control devices 21532
- **microwave links**
  - 1 Gbit/s QPSK opt. microwave transmitter, SOA modulator based 9561
  - 4 GHz 88 km overwater digital radio link perform, characts. 42184
  - 15 GHz LOS multipath propag. expt. 31815
  - 29 GHz indoor wireless commun., radio link design 33835
  - 34 Mbps digital microwave syst., perform. monitoring 25268
  - 42 GHz anom. propag., marshland/estuaries 17029
  - Alcatel millimetric wave transm. equipt. 25221
  - Alcatel terrestrial/satellite microwave commun. products for mil. networks 26817
  - antenna heights effect on multipath propag. occurrence 31839
  - BOXER network, design and implement. 18973
  - broadband microwave fiber optic links, lin. integrated-optic modulators 9536
  - broadband wireless commun., MM waves, opt. fiber 9506
  - C-band overwater LOS links, meteorol. aspects 9195
  - C-band overwater LOS links in mid-Atlantic coast 9194
  - CDMA PCS, spectrum sharing feasibility 25379
  - COMETS, expt. advanced mobile satellite commun. syst. *(Japanese)* 42215
  - commun. stations, lightning protection *(Chinese)* 42146
  - commun. towers, lightning stroke-generated EMI expts. *(Chinese)* 42174
  - deep-space commun., coherent detect. opt. relay satellite 17298
  - deep-space commun. via relay satellite, RF and opt. archits. 17285
  - digital LOS links, diversity considerations, review 3330
  - digital microwave LOS 42183
  - digital radio systs., freq.-phase detector for carrier recovery 3316
  - DPSK microwave link for indoor wireless LANs, perform. 33759
  - DSP and VLSI technol. in microwave radio commun. systs. 25223
  - Earth-space paths, microwave propag., 3-350 GHz, computer simul. 23647
  - earth-station antennas, site shielding 40491
  - fiber optic microwave systs. 9504
  - fibre optic microwave delay line, meas. method 7300
  - Fresnel region microwave/MM-wave bands antenna-reflector 9197
  - GSM handsets, three-chip struct. 17034
  - Hawaii, dist. learning technol. 3059
  - high speed adaptive equalizers, complexity reduction 33768
  - HIPERLAN, high perform. radio LAN std. 16653
  - Indian 20 MHz atten., rain-rate & drop-size effects 2219
  - intelligent multi-access spectrum-sharing methodology 41467
  - Ka-band satellite links, ice depolarisation 2229
  - Ka-band satellite-ground path ice depolaris characts. 33949
  - Ku-band direct, home video broadcasting in rainy regions 3653
  - Ku-band satellite-based phased-array antenna coherent opt. beam formers 9409
  - L-band GPS receiver, digital downconversion test 9682
  - lattice seq. estimator, perform. 42169
  - lin. microwave fiber-optic links for antenna remoting and sig. proc. 9505
  - LOS microwave link, 11 GHz, rain atten., worst month stats. 7965
  - MM-wave indoor LAN syst., min. delay spread 41752
  - MM-wave/fiber-optic subcarrier transm. links, HBT photodetectors *(Japanese)* 9548
  - motorway commun., radio distrib./opt. transm. network 42157
  - multielectrode lasers, microwave small-sig. equiv. cct. model 14849
  - point-to-point microwave radios/PCS spectrum sharing, propag. meas. 25378
  - power syst. telecontrol commun., develop. trends 19189
  - power syst. transm./microwave towers, mech. design 27234
  - public and private networks via microwave radio 42159
  - quasi-MM microwave access systs., transm. power control effects *(Japanese)* 42158
  - quasi-MM waves, rain atten. charact. *(Japanese)* 40347
  - quasi-opt. microwave cct. techs. for wireless appls. 12747
  - radar interf. canceller, bit interleaving tech. 33743
  - rain atten., 11 GHz LOS link, Guwahati, India 2233
  - rain atten., Indian Earth-space paths 2234
  - road pricing, RF/vision syst. 42187
  - S-band TT&C up link transmitters, DDS 42740
  - sand and dust storms, mm wave propag. losses 2220
  - satellite-Earth links, atten. prediction, low fade margins syst. 2231
  - SDH microwave transm., network appls. and Alcatel products 25222
  - SDH radio, new generation, innovation 42186
  - self-steered array syst. for microwave commun. 9196
- **microwave links** continued
  - shared transmit-receive multichannel PM MM-wave syst. 42140
  - short range radio link, propag. charact. 9224
  - SR 2/8 10000 QPSK digital microwave radio relay syst. 17028
  - suboctave-bandpass opt. analog links, lin. modulator 17335
  - superimposed microwave modulation, Gbps systs. perform. 42441
  - trans-horizon radio link, site shielding variability, expt. 17026
  - TRT's MDL and DRL n×2 Mbit/s access relay systs., appls. 42156
  - UHF diffr. propag., telecomm. appl. *(Chinese)* 33767
  - USA, microwave radio market 25224
  - Virginia Tech propag. expt. using Olympus satellite 12, 20 and 30 GHz beacons 23631
  - wireless LAN, high perform., implement. 25058
  - X-band LOS multipath fading and vert. drift vel. 17027
- **microwave measurement**
  - *see also microwave imaging; microwave reflectometry; millimetre wave measurement; UHF measurement*
  - 1 GHz sum/difference opt. modulator, E/H field meas. 18053
  - 1D complex-permitt. profiles, estim., feasibility study 42897
  - 2.45 GHz microwave irrad. to monkey's eyes, expt. 26494
  - 3D objs. embedded in multilayered media, scatt. 40303
  - 4-param. materials, radar absorber design 3615
  - 900 MHz propag. modelling, scaled road tunnel microwave meas. 33789
  - air blast quenching chambers, air flow interruption capability *(Japanese)* 11211
  - alumina, dielec. loss tangent meas., microwave freqs. 9995
  - anechoic chamber clutter posn. estim. with sidelobe depression 23844
  - antenna planar near-field measurement 23892
  - Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
  - ATE, Modular Measurement System develop. 42688
  - ATF Torsatron, microwave scatt. diagnostic 34677
  - atten. in plated coaxial transm. line 34316
  - attenuating cover panels/shielding gaskets, leakage power meas. 15500
  - Automatic RF Techniques Group, conf., San Diego (1991) 28249
  - automobile security syst., microwave based sens. 44583
  - AUTOTESCON 93, (Sept. 1993) 36845
  - AUTOTESTCON, conf., Anaheim, CA, USA (Sept. 1994) 20248
  - broadband permitt. meas., T/R method in coaxial transm. lines 3953
  - cavity resonators, modeling of testing params. 37561
  - cavity tech. for n-n^+ semicond. struct. 3968
  - CLEAN algm. for microwave images eval., NDT appl. 42901
  - coaxial probes, relative complex dielec. permitt., nondestructive meas. 25964
  - commercial petrol, microwave props., 900 MHz, 9 GHz 42896
  - compact range imaging, main-beam reduction 2320
  - complex dielec. permitt. meas., microwave freqs. 25948
  - complex permitt. meas. of low loss ceramics 34665
  - complex permitt. meas. using coaxial line, error correction 18035
  - complex permitt. meas. using coaxial probe, errors estim. 18036
  - composite propag. expts. on pulsed microwaves 42913
  - conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
  - contactless velocimetry of vehicles, microwave speckles appl. 18105
  - correl. temp. of isothermal lossy material 3966
  - defects microwave detect. in glass reinforced polymer composites 37558
  - dielec. HF characterisation, open resonators 42894
  - dielec. meas. in microwave range, indust., scientific and med. appls. 34663
  - dielec. resonator oscillator charact. meas. *(Croatian)* 569
  - dielec.-loaded high T_c supercond. thin film, surface resist., microwave transm. 18052
  - digital hand-held meter for RF field strength testing 17995
  - doping profiling, scanning surface harmonic microscopy 38491
  - double polysilicon self-aligned bipolar transistors, small-sig./noise model 21539
  - Earth obs. phased array antenna design 26711
  - EM field simul., TLM method, computer graphic visualisation 10006
  - EM props. of materials mes., coaxial probe 18049
  - F/I band radar wake vortex meas. 17411
  - far-field antenna measurement, automated system 23891
  - FCC photonic cryst. for microwave/MM-wave appls. 12737
  - frozen sandy soils, radiation charact., lab. meas. 18779
  - frozen soils, moisture content/temp. monitoring 4380
  - gyrotron collective Thomson scatt. diagnostic, antenna decoupling requirements 29793
  - heating syst. permitt. meas. correction procedures 44593
  - HF impedance analyzer up, 1.8 GHz 9828
  - high-accuracy microwave sens. and calib. 3964
  - high-speed measuring syst. for testing mixed-sig.-LSI 767
  - HTSC surface impedance, microwave meas., cavity 3965
  - HTSC thin films, microwave surface resist., calorimetric/perturb. methods 39232
  - IEEE conf. on instrumentation/meas., USA (1993) 20198
  - II-VI semicond. MBE layers, cond. meas., contactless microwave method 42908
  - impressed elec. field meas., coaxial ECR plasma source 34652
  - in-plane gate transistor integrated with photoconductive switches, ultrafast characts. 29555
  - integrated test system, small/large signal device characterisation 25957
  - intelligent multi-access spectrum-sharing methodology 41467
  - interchanged two-sig. S-param. meas., MESFET/S-band amp. appl. *(Chinese)* 25963
  - ISAR image of Boeing 747, meas. F-band meas. 17409
  - Josephson tunnel jn. striplines, microwave distrib. 39257
  - Ka band land mobile satellite channel meas. 9263
  - land surface microwave radiometry, SSM/I image improvement 18781
  - land surface radiometry, UHF synthetic aperture radiometer 10452
  - leaky NWA calib. algm. 34314
  - liq. complex permitt. meas., phase info. of standing waves 34664
  - liq. dielec., meas. chamber, 37-47 GHz 42893
  - low loss dielec. materials meas., 60 GHz band 3955
  - low temp. co-fireable ceramics, wideband elec. charactn. 34673
  - LRM probe-tip calib., nonideal stds. 25708
  - mass determ. of perturbing obj., reson.-cavity appl. 3997
  - material characterisation using coaxial aperture electromagnetic sensor 25784
  - microcalorimeter, mm-band power converters 18050
  - microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
  - microstrip discontinuity meas., resonator techs. *(Croatian)* 809
  - microwave front end for automotive true ground speed meas. 28152
  - millimeter wave measurement, VXI implementations 25959
  - mm-wave NDT of glass fiber/epoxy composites 37559

microwave measurement continued
mobile ATE for flightline and forward battle areas 34366
moisture meas. units, proc. control appls. *(German)* 18169
moisture meter, green tea prod., drying proc. 3963
moisture sens., instantaneous method 43001
monolithic slot antenna, charactn., electro-optic sampling 8064
multifrequency microwave radiometry, biological objs. temp. profiling 43248
multimeter, computational algms. 10007
multimeter, four-probe microwave transm.-power transducer 10008
μP controlled microwave ranging, indust. appls. 3606
NDT appls. 42912
NIST cylindrical cavity resonator for permitt. meas. 37958
nonradiating metal-dielec. waveguide, dielec. params. meas. 18033
ocean waves polarized microwave radiometry 10490
OLYMPUS satellite 12/20/30 GHz propag. expt. results 31818
open-ended coaxial probe 18031
organic liqs., microwave freq. permitt. meas. 18034
oscillator noise meas. techs. 582
PC based measurement and calibration systems 42732
PCB interconnections, microwave charactn. 38164
permeab. meas. in GHz range for soft-mag. film 25956
permitt. meas. of biological tissues, microwave range 43249
photodiode freq. response meas. to 40 GHz, comparison, NPE/NIST 31075
planar near-field meas. of low-sidelobe antennas 2350
planar transm. line atten. meas. tech. 18025
power std. improvement, microwave multimeter 9785
precip. rem. sens., microwave radiometry, retrieval algm. 35315
process variations effects 25703
pulsed microwaves detect., microwave optics 42903
Q-factor meas. of high-T_c supercond. resonators 1641
radiobrightness temp. of stratified medium, rough boundary 18051
radiometry, rem. sens. and radioastronomy appls. *(Japanese)* 42910
rainfall over the sea, imaging microwave radiometry 35317
rainfall over the sea, multichannel microwave radiometry 35316
rainfall satellite radiometry, improvement, radar data 35327
rapid pulsed microwave propag., time domain detect. 42915
reflection coefficient formulations evaluation, microwave test ccts. design 23783
RF component testing, wireless equipt. appls. 117
RF instrum. accuracy, meas. uncertainty effects 42911
RF vector analyzer based on synchronous sampling 25958
RF/microwave test simulator 34675
road vehicle 24 GHz dual channel microwave front-end 11444
scalar meas. error in microwave/RF test configs. 42909
sea surface brightness temp., aircraft K-band radiometry 26731
semicond. struct. photomodulated diagnostics, microwave resonator transducer synthesis *(Russian)* 13098
sheet resist. meas., microwave freqs. 42889
short-range 2D positioning by microwave cellular telemetry 3975
six-port module for built-in-test applications 25960
skewed-port device meas., vector accuracy enhancement techs. 18054
slotline propag. params., de-embedding tech. 6280
snow covered first-yr. sea ice, microwave scatt. 7973
spectrum analyser for distortion meas. 42919
SSB noise fig. determ., microwave freqs. 18058
surface resist. meas. method, dielec. resonator struct., supercond. appls. 39237
surface resist. microwave meas. by parallel-plate dielec. resonator method 34674
Teradyne integrated ATE syst. for microwave devices/ccts. 25716
thin-film charactn., surface resist. anal. 13268
TOPEX/Poseidon microwave radiometer, antenna pattern/brightness temp. 26734
TOPEX/Poseidon Microwave Radiometer, description and calib. 26733
TOPEX/Poseidon microwave radiometer, wet tropos. range correction algm. 26717
transport MFP meas., ref. random medium 23576
tropical cyclone monitoring, satellite microwave sens. 10469
ultrawideband polarimetric radar for study of sea scatter 10555
vector ANA, TRL calib. method 42680
VIOMAP, S-param. equiv. for weakly nonlin. RF/microwave devices 12745
W-band monolithic HEMT LNAs for microwave scanning radiometer 21558
waveguide thermistor sens. for microwave multimeter 9869
wireless LAN, 12 GHz band wave propag. meas. 8931
wood grain angle meas., microwaves 18080
GaAs-Al_2O_3 flip chip modules, AuPd wire bump thermomechanical integrity 11824
H_2O in hydrocarbon/water solns., microwave acoustic sens. 10009
Si mismatched microwave power transistors 21533
Si wafer mapping, lifetime/resist./oxygen precip. meas. 25945
SiN-Si X-ray mask wafer stress, contactless laser/microwave eval. 6686
YBaCuO thin films, complex cond., surf. resist. *(French)* 30767
$YBa_2Cu_3O_{7-\delta}$ thin films, microwave surface impedance determ. 25946
$YBa_2Cu_3O_{7-x}$, microwave penetration depth, contactless meas. 39227

microwave mixers
see also millimetre wave mixers; MMIC mixers; UHF mixers
11 GHz folded slot antenna for planar quasi-opt. mixer 23909
20 GHz bandwidth photonic microwave mixer/superhet receiver 34094
automotive true ground speed meas., microwave front end 28152
broadband matching to capacitive devices, limits, SIS mixer design 12792
broadband microwave mixer, suspen. line baluns mounted 12743
dual-mode dielec. resonator freq./phase discriminator 12740
HEMT gate mixer, large sig. model for anal./design 6320
integrated on-drain capacitor 21574
miniaturized 180-degree ring hybrid and singly bal. mixer 6284
road vehicle 24 GHz dual channel microwave front-end 11444
single gate MESFET mixer, computer-aided anal./design 846
wideband analog continuum correlator for radio astron. 17514
GaAs MESFET doubly bal. mixer, X-band, very low IMD 21569
GaAs PDB microwave diodes, ESD failure 29556
$YBa_2Cu_3O_{7-x}$ grain boundary, CPW microwave mixer 6317

microwave-optical double resonance
poly-(para-phenylene-vinylene) films and photodiodes, photoinduced current, ESR 14600
CdTe/CdMnTe MQW, low temp. mobility limiting defects 1087
4H-SiC epitaxial layers, CVD growth 28758
Yb ion std., JPL develop. 42675

microwave oscillators
see also Gunn oscillators; microwave parametric oscillators; millimetre wave oscillators; MMIC oscillators; tunnel diode oscillators; UHF oscillators; vircators
94 GHz integrated monopulse receiver 23968
array dyn., broadband N-port coupling networks 832
automotive true ground speed meas., microwave front end 28152
backward-wave cyclotron maser oscillator expt. 29806
BWO, two-stage scheme for FEL pumping 23317
cavity gyrotron oscillators, mode locking simulation 21832
ceramic DRO aging 29575
common-collector bipolar transistor based oscillator design 830
CPFSK differential detect., LO phase noise effects 42283
cryogenic sapphire dielec. resonator microwave oscillators 12760
dielec. disk resonator stabilised oscillator, AFC 37983
dielec. resonator oscillator charact. meas. *(Croatian)* 569
electron beam modulation, stochastic output sigs. 21841
EM oscills. generator, act. planar layered medium 12749
frequency control, symp., Salt Lake City (Jun. 1993) 34
GaAs/AlGaAs HBTs with ITO emitter contacts, opt. microwave oscillators 6292
grid oscillator design, act. quasi-opt. power combining appls. 12777
Gunn diodes, generating mode, hysteresis, nonlin. reactance sign reversal 12769
gyro peniotron forward wave oscillators 6496
gyro-BWO, tapered interaction tube effect on power/pulse length 21851
gyrotron BWO, long-pulse expts. 21852
gyrotron oscillator, large-sig. mode locking, nonlin. theory 38214
gyrotron-type systs., helical electron beams, collective procs. 38219
gyrotrons drift region, spurious oscills. self-excitation 6494
HBT oscillators, bias-depend. noise up-conversion factor 6322
high power gyrotron oscillator, mode purity modelling 21834
high-power wideband beam-plasma microwave amps./generators 974
high-Q temp. stabilized sapphire resonators 30623
injection-locked oscillator MMIC, act. combiner/divider 12815
intense e-beam gyrotron BWOs, long-pulse microwave emission, tapered tubes 1006
Ka band satellite terminals, phase noise charact. 3534
L-band low noise DRO 29576
long Josephson jn. maser, microwave radiation stimulated emission 39632
magnetron oscillator, dyn. flucts. of freq. 978
MESFET MMIC microwave oscillators, CAD 6329
MESFET oscillator loaded slot-coupled patch antenna, anal. 40501
MILO configs. oscills., electron emission 13012
MM band IMPATTs wideband oscillators, modulation characts. 37997
mode-locked arrays of automatic level control oscillators, anal. 12773
multi-stage PASOTRON, phase-locked BWO 21857
multidiode waveguide oscillator, noise charact. 37984
multilayer Teflon microwave PWBs, isolation techs. 37974
multistage electron-beam microwave oscillators, stochastization 993
noise meas. techs. 582
nonlin. oscillator design for max. power 37667
O-type microwave oscillators, nonlin. theory 13004
parallel reson. transistor microwave oscillator cct., computer-aided sensitivity anal. 6308
peniotron slotted third-harmonic forward-wave oscillator 29808
phase-locked gyrotrons operating at cyclotron harmonics, theory 6488
plasma-beam oscillator, sig. stochastization mechanism 994
pulsed power microwave generation, long-pulse expts. 36312
pulsed power research facility, Culham, UK 36379
relativistic klystron oscillators, theoretical anal. 990
repetitive microwave BWO, relativistic e-beam 29795
road vehicle 24 GHz dual channel microwave front-end 11444
S-band TT&C up link transmitters, DDS 42740
sapphire disk DRO, combined stabilization 30655
sapphire loaded microwave resonators, enhanced quality factor 29577
sapphire resonator for ultra-stable oscillator capability 29574
sapphire resonator-oscillator, cryogenic, exceptional stabil. 30624
Schottky octave band LO doubler (output range 16-40 GHz) 37906
solid-state microwave oscillators, flucts. meas., sync. methods 37985
spatial power combining oscillators on microstrip structs. 12789
split cavity oscillator, broad band freq. tuning 21816
stochastic oscills. of two coupled self-excited oscillators 583
STW fixed-freq. oscillators, low g-sensitivity 37989
superlattices, vert. cond., neg. differential mobility, freq. limitations 13134
UHF bipolar-transistor self-excited oscillators, wideband electronic tuning 584
unmagnetized BWO high-power microwave source 1003
video distrib. coherent lightwave syst. aspects *(Croatian)* 3549
vircator, microwave radiation, plasma effects 21825
X-band resonant cavity antenna-oscillator designs 23879
X-band sapphire resonator-oscillator, temp. stabil. 29572
AlGaAs-GaAs HBT, large sig. equiv. cct. model, MMIC oscill. 38828
AlGaAs-GaAs HEMT monolithic downconvertor for X-band DBS 42315
GaAs MESFET varactor tunable oscillators, noise calcs. 21565
GaInP/GaAs HBT K-band DRO 6307
InAlAs/n^+-InP, monolithic tunable high-Q 12800
$In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ MODFET MMIC oscillators, opt. tuning 12788
YIG, magnetostatic forward-vol. wave resonator, tunable oscillator *(Japanese)* 12761

microwave ovens *see microwave heating; ovens*

microwave parametric oscillators
sapphire dielec. resonator transducer, whispering gallery modes 30656

microwave phase shifters
see also millimetre wave phase shifters; MMIC phase shifters; UHF phase shifters
2 to 10GHz multilayer stripline Butler matrix beamforming network 23993
622 MHz voltage controlled SAW oscillator *(Japanese)* 37670
corrugated waveguide phase shifter, dual-reflector antenna array appl. 12712
ferrite-supercond. microwave phase shifters 12718
full period quadrature phase shifters, low losses 12739
HTS ferroelec. phase shifters, high power, config. 12707
liq. cryst. phase shifter 6294
loaded-line phase shifter, series transformers *(Japanese)* 6255
lumped element microwave phase-shifting and matching networks, design 12736
mobile radio systs., microstrip networks for multibeam/reconfigurable operation *(English, Italian)* 42292

microwave phase shifters continued
  - phase correcting zonal reflector incorporating rings 40469
  - phase shifts in CPW, patterned conductive top covers 29524
  - portable digital satellite news gathering (SNG) RF terminal, flat antenna 25168
  - radiometer Earth obs. phased array antenna design 26711
  - refl. topol. building blocks for adaptive microwave sig. proc. appls. 29588
  - InGaAs switch transistors for microwave control applications 12768
  - TlCaBaCuO/GaAs, thin film supercond./MESFET semicond. hybrid phase shifter 29559
  - YBCO high-T_c supercond. film microstrip microwave opening switch 6281

microwave power amplifiers
  - *see also millimetre wave power amplifiers; MMIC power amplifiers; UHF power amplifiers*
  - 90° bridge coupler power amp./combiner, nonlin. anal. *(Chinese)* 12750
  - 900 MHz-band HBT MMIC power amp. module *(Japanese)* 25337
  - accelerator klystron amps. operated, levels below max. output power 43009
  - bump heat sink technol. for power HBT and MMIC 38829
  - compact amplifier using time gated beam sources 6512
  - cusptron amplifier, helix-loaded, broadband microwave source 21831
  - dielec.-loaded wideband gyro-TWTA 29810
  - digital radio data predistortion, neural-net-with-memory model 42149
  - Doherty microwave amp. for digital radio systs. 37644
  - gyrocons and magnicons microwave generators, circ. beam deflection 6483
  - gyrotron amps. for collider appls. 21810
  - high-power microwave amplifier, plasma klystron concept 21838
  - hybrid plasma-cavity slow-wave struct. wideband power amp. 1008
  - intense-beam klystron amps., beam-cavity interact. phys. 6481
  - Lange coupler power-distributed amp., high-perform. design 12814
  - magnicon amp., efficiency optimisation 29770
  - mobile radio systs., microstrip networks for multibeam/reconfigurable operation *(English, Italian)* 42292
  - nonlin. mixed anal./optim. algm., microwave power amps. 29558
  - portable digital satellite news gathering (SNG) RF terminal, flat antenna 25168
  - pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
  - pseudomorphic HEMT power amp. MMIC, wide/med. band 38033
  - relativistic klystron amp. programme, Naval Research Laboratory 29772
  - SHF TWTA for broadcasting satellites, 12 GHz, 110-170 W 13008
  - solid-state power amp. perform. assess. 37988
  - TE_{01} gyro-TWTA, stable, high power 1007
  - two-cavity second harmonic gyroklystron, stabil. and amplif. studies 6489
  - two-stream relativistic klystron amps., crit. design issues 29778
  - TWT lin. for future commun. satellites and ground stations *(German)* 6295
  - twystrode expts., tapered/untapered helices 21844
  - vircator with long. mag. field, EM waves amplif. 38218
  - wideband beam-plasma microwave amps./generators 974
  - X-band high power magnicon amp., design 6485
  - X-band TWT amplifier development 21848
  - AlGaAs/GaAs HBT MMIC power amp. 12825
  - AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
  - AlGaAs-InGaAs-GaAs Ka-band MMIC power amp., HEMT proc. 38031
  - GaAlAs/GaAs HBTs, power amp. appls. 13655
  - GaAs FET power amp./high-Q magnetron, coherent transmitter 12997
  - GaAs HBT power MMIC, X-Ku band, high power 38034
  - GaAs IC, conf., San Jose, USA (1993) 36852
  - GaAs pseudomorphic HEMT power amp., C-band, high power 38032
  - GaAs-based HJFET, 6.6 W, 12 GHz, power amp. appls. 21550

microwave power transistors
  - *see also millimetre wave power transistors*
  - AlInAs/GaInAs/InP microwave HBTS, performances 12764
  - asymmetrical double recessed power MESFETs, breakdown anal. 13802
  - bump heat sink technol. for power HBT and MMIC 38829
  - electrochem.-induced etching nonuniformities effects 12766
  - HBTs, transient thermal simul., TLM method appl. 37980
  - mismatched microwave power transistors, active load-pull setup 21533
  - polysilicon:As microwave bipolar power transistors *(Chinese)* 21545
  - pseudomorphic double heterojunction power FET, optim. 12771
  - AlGaAs/GaAs HBTs, collector launcher struct., 1 W, 3.5 V 21535
  - AlGaAs/GaAs multiemitter finger HBT, model, self-heating and thermal coupling effects 841
  - AlGaAs/GaAs power HBT, current gain collapse and avalanche breakdown 38818
  - AlGaAs/InGaAs/GaAs high breakdown PHEMT, Te doping 29567
  - $Al_{0.3}Ga_{0.7}As/In_{0.2}Ga_{0.8}As$ doped-channel FETs, lin. improvement 12767
  - AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
  - AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
  - AlGaAs-GaAs power HBTs, thermal stabil. tech. *(Japanese)* 38003
  - AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
  - GaAs pseudomorphic HEMT, high power, large periphery 37993
  - GaAs pseudomorphic HEMT power amp., C-band, high power 38032
  - GaAs/GaInP(AlGaAs)-based HBTs, thermal-elec. feedback coeffs. 12783
  - GaAs-based HJFET, 6.6 W, 12 GHz, power amp. appls. 21550
  - GaInAS/InP, high power HJFET, MOCVD, performance 13775
  - GaN MESFETs for high-power/-temp. microwave appls. 29557
  - InAlAs/InGaAs inverted HEMT, InAs inserted channel 38007
  - InGaP HBTs, high-temp./microwave power appls. 38838
  - InP MISFET, modeling for power appl. 13709
  - InP/InAlAs IG-MODFET, power appl. 13708
  - InP/InGaAs/InP DHBTs, microwave power performance 12765
  - Si power MOSFET, UHF-band RF power amp. appl. 837
  - SiC device proc./substr. fab., high power/temp. microwave 37990
  - SiGe multi emitter finger HBTs, f_{max} up, 120 GHz 21544

microwave power transmission
  - 2.45 GHz power transm. rectenna perform. optim. 35610
  - atmos. ozone layer restoration, microwave SPS 36054
  - helicopter power supply demons. project 35597
  - nonlin. interact. of intense microwaves with space plasmas, computer simul. *(Japanese)* 40362
  - power relay satellite, wireless power transm. 36052
  - rectenna, ISY-Microwave Energy Transm. in Space expt. 35596
  - space microwave power transm. *(Japanese)* 19228
  - space power wireless power transm., microwave beam intens. calcs. 43416
  - space solar energy systs., develop. projects overview 43418
  - space solar power syst. studies, USSR 35241
  - space solar power systs., microwave power beaming 10888
  - world energy syst., space power role/influence 26512

microwave propagation
  - 1.8 GHz ray optics modelling for indoor propag. 7977
  - 1.9 and 4 GHz exterior wall refl. coeff. meas. 31820
  - 3 to 300 GHz rain and snow atten. software develop. 31817
  - 4 GHz 88 km overwater digital radio link perform, characts. 42184
  - 15 GHz LOS multipath propag. expt. 31815
  - 18 GHz band wireless LAN, indoor multipath radio propag. 8930
  - 20 GHz Earth-Olympus satellite path, propag. research 42333
  - 22 GHz DBS HDTV antenna design and rain fade compensation 31950
  - antenna heights effect on multipath propag. occurrence 31839
  - atten./phase rot./cross-polariz., rain 23629
  - C-band overwater LOS links, meteorol. aspects 9195
  - C-band overwater LOS links in mid-Atlantic coast 9194
  - CDMA PCS, spectrum sharing feasibility 25379
  - double or quadruple ridged waveguide anal., MFIE approach 23775
  - Earth-space paths, microwave propag., 3-350 GHz, computer simul. 23647
  - Earth-space propag. paths, differential rain atten. 15441
  - Earth-space syst., site diversity, rain atten., interf. anal. 15440
  - ETS-V mobile commun. for ships/aircraft/land vehicles 42262
  - GPS tropos. propag. effects, meteorological obs. 7972
  - high power microwave pulse propag. in self-generated plasma, freq. up-conversion 23654
  - high-power microwave pulse, propag., air breakdown, anal. 23633
  - IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
  - indoor 900 MHz-18 GHz penetration loss 9310
  - indoor wireless transm. prediction by ray tracing 31823
  - intelligent multi-access spectrum-sharing methodology 41467
  - ionos. scintillation, radio interferometric meas. 23623
  - isotropic chiral composite modeling 15619
  - Italsat-Olympus 20-GHz orb. diversity expt. 25456
  - Josephson tunnel jns., microwave standing wave patterns 822
  - Ka band land mobile satellite channel meas. 9263
  - Ka-band satellite links, ice depolarisation 2229
  - Ka-band satellite-ground path ice depolaris characts. 33949
  - LOS microwave link, 11 GHz, rain atten., worst month stats. 7965
  - mag. EM wave absorber at 9.45 GHz, design chart 39214
  - microcell size and archit. anal. 3421
  - microcells, 912/1920/5990 MHz radio propag., buildings 31829
  - mixed urban/suburban propag. meas. for PCS in OFS band 9266
  - mobile commun. and broadcasting systs., EMC, microwave/laser scatt. 23646
  - model for (sub)urban macro celluar coverage prediction 33777
  - multidimensional coding schemes in combined satellite and terrestrial channels 3531
  - nonlin. interact. of intense EM wave and plasma waves in ionos. *(Japanese)* 40363
  - OLYMPUS satellite 12/20/30 GHz propag. expt. results 31818
  - PE soln. of atmos. natural waveguides, ducts/elevated ducts 15438
  - pers. commun., CW meas. in residential environ. 31831
  - plasma, microwave propag., backscatter 23651
  - point-to-point microwave radios/PCS spectrum sharing, propag. meas. 25378
  - polarimetric radar, discrete scatter model of vegetation 17402
  - pulsed microwaves detect., microwave optics 42903
  - pulsed radio waves, obs. precursor 40351
  - quasi-MM microwave access systs., transm. power control effects *(Japanese)* 42158
  - rain, atten. and phase shift calc., dielec. mixture model 23632
  - rain drops & cloud, microwave pulse backscatt., extinction 40345
  - relativistic electron beams, interactions with X-band microwaves 13000
  - SHF/EHF mobile/indoor wireless commun., SS 3476
  - SHF/UHF indoor radiowave propag. meas. 7976
  - slowly evolutive waveguide reft. and transm. computation 23812
  - TDMA satellite commun. systs., transm. power control 17145
  - trans-horizon radio link, site shielding variability, expt. 17026
  - tropical crops, X-band dielec. consts. 26779
  - tropos. correction for ocean radioaltimetry, TOPEX 18841
  - tropos. EM wave propag. eqn., soln., box method 40350
  - Turkey, rainfall atten. climatic map, develop. 15437
  - urban radiowave propag., IEE Colloquium, London (1994) 5480
  - Virginia Tech propag. expt. using Olympus satellite 12, 20 and 30 GHz beacons 23631
  - VLBI obs. correction for ionos. refr. 9686
  - VSAT satellite commun. syst., effects of rainfall and airplanes 25463
  - wireless LAN, 12 GHz band wave propag. meas. 8931

microwave-radiofrequency double resonance *see magnetic double resonance*

microwave range *see microwave devices; microwaves*

microwave receivers
  - *see also millimetre wave receivers; radio receivers*
  - digital microwave receiver, lin. amp./ADC anal./design 29311
  - dual-mode dielec. resonator freq./phase discriminator 12740
  - FDM-FM microwave receivers, PCS sig. interfs. 25377
  - MMIC multilayer packaging technols. 21730
  - OLYMPUS satellite 12/20/30 GHz propag. expt. results 31818
  - parametric receiver design, modelling techs. 12744
  - radiometry, rem. sens. and radioastronomy appls. *(Japanese)* 42910
  - self-protected microwave detector for microwave receivers 37999
  - GaAs MMIC multifunction EW receiver convertor chip 38018

microwave reflectometers *see microwave reflectometry; reflectometers*

microwave reflectometry
  - *see also swept-frequency reflectometry; time-domain reflectometry*
  - cement compressive strength estim., nondestructive microwave reflectometry 37562
  - cylindrical objs. dielec. meas. in rect. waveguide 18030
  - dielectric material NDT by extinction pulse tech. 21014
  - DIII-D tokamak, inside launch reflectometer systs. 34680
  - DIII-D tokamak, RF wave monitor reflectometer 34678
  - fusion devices, plasma spatial distrib., broadband reflectometry proc. 40977
  - Gunn diodes meas. using six-port reflectometer 21543
  - heating, refl. meas., pulsed/CW sigs., 2.45 GHz 11478
  - high-power-level microwave multimeter 9972
  - liq. cryst. polymer composite films, elec. characterisation 12200
  - mm-wave imaging syst., defect charactn. in dielec. slabs 37560
  - MM-wave NWA, single six-port reflectometer 34424
  - NDT, refl. props. of dominant TE_{10} mode 42914
  - noncontact thickness meas. of dielec. coatings 42937
  - open-circuited coaxial probes, neurocomputed model 34666
  - packages, time domain meas./modeling 28460
  - paper sheet no. meas., microwave counter 3983

microwave reflectometry continued
permitt. meas., 3-posn. transm./refl. method 9998
piezoelec. resonators, elec. params. meas. 30593
six-port reflectometer calib., one sliding load and short 3711
six-port reflectometer using hybrid stripline/waveguide technology 25962
surface cracks in metals detect., microwave method 37552
TDR for low loss dielec., deconvolution tech. 42895
tokamak plasmas diagnostics, turbulent flucts. effect 34681
ultrashort-pulse reflectometry, 1D num. study 34682
vector reflectometer, portable, appl. for thickness and permitt. dielec. meas. 18048
C fiber-reinforced composite surfaces, microwaves refl./absorpt. 12243
Si:Fe, recomb. centers, microwave refl. photoconductive decay 38237

microwave region *see microwaves*

microwave sintering *see sintering*

microwave spectra
see also paramagnetic resonance
3C-SiC CVD grown epilayer, carrier lifetime, deep levels *(Japanese)* 1066
HSSD, $^rQ_3$ branch at 656 GHz, freq.-tripled BWO 21847
Ni-Zn ferrite powders, mag. props., microwave absorpt., pH depend. *(Korean)* 22689

microwave spectrometers
see also EPR spectrometers
ESR spectrometer, mm-wave freq. range, gyrotron, radiation power source 34672
loop-gap cavities for pulsed X-ray ESR spectrometers 37946

microwave thermography *see microwave imaging*

microwave transistors
see also microwave bipolar transistors; microwave field effect transistors; microwave power transistors; millimetre wave transistors
2D simul., num. algms., finite difference schemes 12782
mismatched microwave power transistors, active load-pull setup 21533

microwave tubes
see also gyrotrons; relativistic electron beam tubes; UHF tubes; vircators
75 yrs. of microwave tubes (Part II) *(German)* 21840
automated RF/microwave testing, status and develop. 34406
Cerenkov-type microwave freq. multiplier, relativistic electron beam 21843
CPD gyrotron mm-wave syst., high power/efficiency *(Japanese)* 6506
cylindrically-symm. vircator high power microwave source 29766
develop. hist. and elec. props. *(German)* 6505
FEL wiggler ubitron amp., design and perform. 39927
gyro peniotron forward wave oscillators 6496
gyrocons and magnicons microwave generators, circ. beam deflection 6483
gyrotron amps. for collider appls. 21810
harmonic peniotron and gyrotron interacts. in rising-sun slotted waveguide, nonlin. theory 6498
high-power microwave generators, principles and capabilities 38217
high-power microwave tubes, lab. and online appls. 6479
high-power tubes, efficiency optimisation, gradient search 21833
hybrid plasma-cavity slow-wave struct. wideband power amp. 1008
IEEE pulsed power conf., Albuquerque, USA (1993) 20246
impregnated cathode, emission materials, develop., reliab. tests *(Japanese)* 6472
inverted cusptron devices, particle simulation code 21830
large-orbit gyrotrons, axially-modulated, cusp-injected, analytic model 21813
magnetized electron beam, nonlin. Faraday effect 976
magnicon output cavity, anal. and simulation 21815
multigigawatt microwave amplifier, electron beam powered, research 21818
nonperiodic O-type TWT, coupled resonators based 995
nonperiodic O-type TWT, second-harmonic excitation 996
O-type microwave oscillators, nonlin. theory 13004
oscillators, electron beam modulation, stochastic output sigs. 21841
peniotron backward wave oscills., pulsating mode 6514
peniotron slotted third-harmonic forward-wave oscillator 29808
pulsed power, IEEE Colloquium, London (1995) 28231
relativistic klystron amp., develop. and optim. 6480
Reltron/Super-Reltron high power microwave source develop. 29788
sheet beam crossed-field amp., nonlin. gain compensation 988
single-beam plasma wave tube, high-power microwave/MM-wave source 986
split cavity oscillator, broad band freq. tuning 21816
Super-Reltron microwave tube progress, high power and efficiency 989
twystrode expts., tapered/untapered helices 21844
ubitron, amp. operation and perform. 39620
vircator, microwave radiation, plasma effects 21825
X-band high power magnicon amp., design 6485
BeO CFA tube cathodes, secondary electron emission props. 6475
PLZT ferroelec. ceramic cathode technol., electron emission from bulk material 21791

microwave video distribution systems *see microwave links; television broadcasting*

microwaves
see also millimetre waves
crossed-field devices, small signal gain 6509
cylindrical microwave ion source, magnet syst. calc. 4138
equiv. cct. params., simulated annealing method 839
European microwave indust., market trends 12685
microwave exposure in head model, external mag. near-field 43385
semicond. cryst. lattice defects, nonlin. microwave scatt. 38293

Mie theory *see electromagnetic wave scattering*

migration-enhanced epitaxy *see molecular beam epitaxial growth*

MIL-STD-1553B data bus *see military standards; system buses*

military administrative data processing *see military computing*

military ADP *see military computing*

military aircraft
see also military avionics
90 mm railgun-fired air defense projectiles 18966
advanced display technol. for F/A-18E/F Hornet 10353
advanced terrain data proc. 10394
aerial cable target syst. simul., 6-DOF 26843
aircraft corros. monitoring and control 5935
AOS, avionics OS for multi-level secure real-time environ. 8939
aviation boresight support for tri-services, cost effectiveness 35414
D2 hypervelocity projectile program, air defence elec. launchers 18962
dust cloud dens. estim., single wavelength lidar 17439
EMALS EM aircraft launch syst., aircraft carrier appls. 15304

military aircraft continued
end game simul. for air defense missile systs. perform. 26841
fighter aircraft target detect., PRF set selection 4437
fighter pilot support systs., cognitive model 26833
forward air control aircraft, commun. equipt., quick-response assess. 43578
fuel accessories test system 43425
future generation develops 43598
INS, maint.-free Pb-acid batt. develop. 43564
integrated diagnostics for aircraft propulsion systems 43454
integrated target acquisition/fire control systs., conf. (1991) 28259
planar shape recogn., moment invariants and Fourier descriptors 16390
single-mode reliable opt. card-edge connector 10321
SMART project, aircraft survivability models and simul. 26534
void forms. in aircraft LCD 10350
weapons diagnostic performance: The need for a new metric 43599

military avionics
2 μm LIDAR for laser-based rem. sens. 10384
2 μm LIDAR for laser-based rem. sens. 26552
35 GHz forward looking altimeter, flight test eval. 10386
35 GHz forward looking altimeter for terrain avoidance 25612
act. matrix LCD, mil./avionic appl. 10373
advanced composite materials, mil. electronics, environ. testing 5646
advanced display technol. for F/A-18E/F Hornet 10353
advanced terrain data proc. 10394
aging support equipment, maintenance alternatives 43574
airborne antenna testing, Indoor Doppler Antenna Test Range 35217
AMLCD for aircraft 10360
ATE enabling technols. for Air Force 18718
ATE evolution, small tester concept implementation 42712
avionics ATE, develops. towards independence 35223
BIST and fault location 6820
C-17 ATE support, successful appl. of existing equipt. 34369
C-17 avionics, support equipt. data acquisition/control 35226
C-17 cockpit display visual aspects, automated testing 35225
C-17 intermediate level ATE syst. for avionics maint. 35224
cockpit display generator for electronic battlefield 10375
cockpit situation awareness autostereoscopic avionics display 10352
conference, London, UK (Dec. 1992) 11585
DDS-based synthesizer for mil. spaceborne appls. 43581
decision aid for enhanced situational awareness, knowledge-based 10361
F-22 cockpit display syst. 10374
fiber-optic WAN, tactical airborne sens./ground station 43569
flat fluoresc. lamp technol. for LCD's 10393
flexible archits., key, low cost FBL 10388
FPA testing, low-background opt. simulator 34590
future generation develop. 43598
generic aviation boresight support, cost effectiveness 35414
Gray Wolf S-3B demons. of Norden AN/APG-76 radar 10359
helicopter avionics, LAMPS MK III block II simul. 10344
helicopter transm. health monitoring, neural computing methods 10363
integrated avionics develops. civ. and mil. 26545
integrated depot environ. for avionics support (IDEAS) 35228
integrated target acquisition/fire control systs., conf. (1991) 28259
lifecycle software support for C-17 Globemaster III 35227
lin. token passing bus/fiber distributed interface protocols 10323
MATRA DEFENSE develops., DSP fn., MCM technol. 21741
MCM-D, Cu/polyimid TFML bare substr., MCM 21742
microcircuit simul. and test develop. BEST TEST software 34407
mil. autotest cost growth, commercial std. equipt. archits. 34364
Naval avionics testing on CASS 35235
naval helicopter avionics, next generation 10339
part failure-rate prediction models 35420
quality avionic systs., systs. develop. guide 10325
radar class. algm. eval. by simul., combat aircraft 18986
Rotorcraft Pilot's Associate cognitive decision aiding systs. develop. 10597
sine/cosine ref. generator, high-perform., design 8350
single-mode reliable opt. card-edge connector 10321
SMT solder joints, long-term reliab. 28532
STW fixed-freq. oscillators, low g-sensitivity 37989
sunlight viewable electroluminescent displays for mil. appl. 10372
target ident./sens. perform., imagery-based targeting trainer 35233
threat data base appl., radar warning receivers 43584
time stress meas. device, on-board diagnostic support 43432
Tomahawk Cruise Missiles, MVS/RLS register level simul. 26535
two level maintenance environment/data collection 42742

military communication
see also command and control systems
AC power lines/radio commun. sites, min. separation dist. 15508
acousto-optic ESM receiver upgrade 18972
acousto-optics in electronic combat systs. 18971
adaptive antenna array pattern synthesis, constraint selection 40513
airborne antenna testing, Indoor Doppler Antenna Test Range 35217
Alcatel terrestrial/satellite microwave commun. products for mil. networks 26817
automated spectrum mgt. tools 26818
Battle of the Atlantic, radio systs. role 26812
BMDO/IST lasercom advanced technol. demons. status 17290
BOXER network, design and implement. 18973
covert commun. employing wavelet technol. 9164
DDS-based synthesizer for mil. spaceborne appls. 43581
embedded real-time syst., effective software reuse 26813
IEEE MILCOM conf., Boston, USA (1993) 36897
law enforcement/internal security communic. archits., advanced tech. based 43580
nuc. attack C^2 sigs., Bayesian interp. 43576
orthogonal code SS syst. in antijamming *(Chinese)* 10595
phased array antennas, EW appls. 40511
PRN, distributed media access protocol, set-up time, perform. anal. 33882
PRN capacity, distributed media access protocol, perform. anal. 33881
RF Mission Planner, warfare commun. simul. 26816
satellite commun., IEE Colloquium, London (1995) 36863
ship-to-ship teleconferencing, reengineering LAMPS MK III 16808
small-terminal satellite networks, protocol enhancer 17162
speaker recogn. in tactical commun. 32287
SS radios for commercial wireless commun. 17022
strategic (military) commun. networks, HiFiNS simulator 26819
tactical mil. commun., near-term/mid-term strategies 43579
Theater Air Command and Control Simulation Facility 26838

military communication continued
  vehicles, communicating, event-driven simul., diffusive dyn. load balancing by terrain parcel swaps 43577

military computing
  see also command and control systems; logistics data processing
  Ada simul. framework 35418
  advanced avionics subsystem technol. demons. program 10366
  advanced terrain data proc. 10394
  AEGIS ORTS integrated diagnostic system 42716
  aggregate level simul. protocol, evolving syst. 16495
  Air Force ATE enabling technols. 34363
  Air Vehicle Training Systems demons. project, software develop. 18699
  airborne multisensor surveillance, data fusion IKBS 35395
  An EDDM based toolset based on image processing 41305
  armored vehicle vulnerability, simul. methods 35400
  ASAT battle mgt., evol. prog. 10593
  ATE service life extension, military appls. 42731
  ATE software integrat. in aerospace/mil. environ. 34400
  avionics breakthrough in inform. sharing 10332
  ballistic path estim., multisensor fusion 43563
  battle-suitable, electronically provided inform. 10598
  British Army in-service reliab. meas., BERR syst. 26831
  built-in diagnostics for advanced power mgt. 34356
  buried objs. detect., dual-band IR images fusion 8555
  C-17 avionics, support equipt. data acquisition/control 35226
  CALS develop., military appls. 43596
  CALS/CE-ATE Data Base requirements 34402
  Canadian patrol frigate, implement. of AAW sens. fusion 18980
  CASS Automated Technical Information display, ASCII data files 34404
  CASS syst. software config. mgt. 34396
  cockpit display generator for electronic battlefield 10375
  combat battle prediction, BP neural net appl. 18996
  combat syst. effectiveness modeling, anti-air warfare tactics 43589
  communicating vehicles, event-driven simul., diffusive dyn. load balancing by terrain parcel swaps 43577
  concurrent engineering based test and maintenance 42708
  cruise missile tests, perform. anal., ES 35404
  DARTS enabling technology for concurrent engineering 42717
  data based testability analysis system 37000
  DDS-based synthesizer for mil. spaceborne appls. 43581
  decision aid for enhanced situational awareness, knowledge-based 10361
  DEFECT focal plane defect model, kill vehicle appls. 25886
  diagnostic engng. tool set for mil. environ. 35383
  disposable rem. chem. sens. network 9864
  distributed Ada, implement. 26538
  distributed simul. for live training 35406
  distributed virtual simul., networking 18995
  distributed virtual simul., networking 25019
  document access/ref. environ., PC based interactive syst. 35413
  dual use mil. technol., computer systs. design 10596
  dyn. obj. recogn., hit-or-miss approach 24538
  end game simul. for air defense missile systs. perform. 26841
  expert diagnostic syst. for turbine engine 34394
  expert maint. advisor develop., navy shipboard systs. 9812
  flexible maint. IS for downsized environ. 35407
  forward-based portable acoustic meas. syst. 17683
  hardware-in-the-loop simul., point targets, error anal. 26837
  high mobility trailers, computer-based perform. anal. 35419
  hist., mil. code breaking computing, Bletchley Park scientists 32100
  Hunter Unmanned Aerial Vehicle, near-term targeting tool 4434
  hyperspectral air-to-air seeker 18990
  hyperspectral data from AO tunable filter, spectral and polarimetric anal. 16267
  IEEE stds. appls., IFTE 35416
  image, ident. methods 32896
  imagery, video, and assoc. data, interactive anal. tools 8489
  integrated avionics develops. civ. and mil. 26545
  integrated target acquisition/fire control systs., conf. (1991) 28259
  intell. EMC anal. and design techs. 15525
  intell. maint. aid software 34370
  intell. missile black-box 4441
  IR image seqs., stat. anal. 41335
  IR seeker imaging simul. real-time model based on fractal theory 18989
  JSOW quality tracking syst. for sigma improvement 26835
  kinetic impact debris distrib. computer simul. 26839
  life-cycle costs reduction in ATE technol. insertion 34360
  lifecycle software support for C-17 Globemaster III 35227
  low earth orbit satellite commun. appl., distributed simul. 25464
  MATRA DEFENSE develops., DSP fn., MCM technol. 21741
  mil. systs., redesign, VHDL board-level modeling 18960
  Mission Effectiveness Model ballistic missile defense simulator 26842
  modular armor attachment modeling and anal. 26810
  mother boards interconnecting MCM's 21758
  MSX early midcourse algm. testbed 16111
  multilevel test philosophy design and implementation 42693
  multimedia electronic performance support systems 42729
  multipath/terrain bounce model, real-time mil. appl. 35391
  multitarget tracking syst. based on opt. BJTC and neural networks *(Korean)* 14561
  naval electronic surveillance measures radar fn. ident., ANN appl. 35392
  NORAD/USSPACECOM command center, obj.-oriented decomp. 26820
  ocean coastal environ., ES description 26834
  oceanographic nowcast/forecast operational syst., US Navy 26844
  Operational Avionics Smart Instrumentation System (OASIS) 10331
  parametric endo/exoatmospheric lethality simul., ballistic missiles 26840
  PENETRATOR, dyn. high fidelity EW encounter simul. 26830
  quiet source acoustic meas. syst. 17682
  radar algm. simulator, integrated for mil. TMD simul. 26826
  Rotorcraft Pilot's Associate cognitive decision aiding systs. develop. 10597
  scalable archit. syst. for ATR 8647
  SEAROADS, ship air defense computer simul. model 35402
  Semi-Active-STINGER (SCORPION) missile simul. 26811
  ship mag. protection, vectorial mag. field determ. 18043
  ship-to-ship teleconferencing, reengineering LAMPS MK III 16808
  SMART and ABBET common architectural heritage 35237
  sonar pass. target class., integrated approach 34176
  spectral leakage effects on multiscatterer target model validation 26828
  split gate trackers, tapped delay errors 26827
  target discrim., computational vision human perception models 35393

military computing continued
  Tartan Ada develops. for DSP 21355
  test development tools framework 42689
  test program generation using graphical tools, Navy appl. 42691
  threat data base appl., radar warning receivers 43584
  Tomahawk cruise missile scene matching, image proc. 4433
  Tomahawk Land Attack Cruise Missile, force-level anal. 43588
  TPS appls. matching, existing ATE 34397
  TPS command file generator 42696
  TPS cost management, CASPER expert system 42711
  TPS develop., class library technol. appl. 34350
  TPS engineering and quality assurance 42710
  TPS for multiple test environments 38076
  TPS harmonization, vert. and perform. metrics, systs. approach 34401
  tracking of objs., Kalman proc. for image seqs. 41334
  underwater acoustic source, pass. localisation method 26821
  user interface design methodologies 34373
  verification, validation and accreditation planning, Extended Air Defense Test Bed example 26533
  virtual instrums., RF transm. line testing addit. 35397
  VISTA virtual instrum. std. test archit. 34398
  W-band missile syst. closed loop simul. 26836
  Si substr. MCM technol., sens. sig. proc./control 21769

military equipment
  see also aircraft; military avionics; military standards; military systems; ships
  3D stackable MCM-D on C sig. proc. 21767
  30/90 mm laminated high L′ railguns, design/testing 15269
  50 mm solid armature pulsed power EM launcher develop., USA 31749
  90 mm railgun-fired air defense projectiles 18966
  advanced SS radar, acousto-optic range-Doppler proc. 18988
  aerospace equipt., reliab. develop. testing 26832
  Air Force ATE enabling technols. 34363
  aircraft fuel accessories test system 43425
  Alcatel terrestrial/satellite microwave commun. products for mil. networks 26817
  armored vehicle vulnerability, simul. methods 35400
  Army ground-mobile electronic systs., energy mgt. 18968
  ATE software design methodologies develops 42703
  back lighted thyratron pulsed power switch, anti-missile radar appls. 36408
  bench-top tester requirements, mil. shop environ. 35382
  brazed integrated low-temp. cofired ceramic packages 21766
  British Army in-service reliab. meas., BERR syst. 26831
  BTPFL-C2 immersion-cooled electronic clamshell module, aircraft avionics 4432
  cannon calibre EM railgun, discarding armature, design 18965
  COB sealed memory ccts., environ. perform. 21328
  combat vehicle EM weapon syst. integrat. design 18961
  communicating vehicles, event-driven simul., diffusive dyn. load balancing by terrain parcel swaps 43577
  controlled impedance boards testing 21624
  D2 hypervelocity projectile program, air defence elec. launchers 18962
  DARTS enabling technology for concurrent engineering 42717
  defense technol. indust. base, preliminary forecast methodology 11644
  develop. trends 18969
  diagnostic engng. tool set for mil. environ. 35383
  downsized multi-functional EO test collimators 35385
  elec. drivetrain, tank propulsion/railgun power supply 20064
  electronics, environ. safe soldering/cleaning 6427
  electrostatics of parachutes 43601
  electrothermal-chem. gun, ship defence appl. demons. 15285
  EM guns, launch package integrat. design 18963
  EM launch technology, conference, San Diego, USA (1994) 5490
  EMALS EM aircraft launch syst., aircraft carrier appls. 15304
  EMC perform. of suppression components/shielding materials 2264
  fibre optic video/audio link, adverse environ. appls. 3579
  fine-pitch SMT, automated soldering inspection 163
  FLIR imaging systs. charactn. requirements/algms. 34592
  High Energy Power Syst. Facility, Li batt. syst. eval. 28425
  high mobility trailers, computer-based perform. anal. 35419
  high-power microwave generators, principles and capabilities 38217
  high-power microwave tubes, lab. and online appls. 6479
  high-speed bipolar proc. for wireless ICs 22563
  high-T_c supercond. microwave ccts. appls., future outlook 39254
  HV mil. relay contact rating extension, CO_2 backfill gas 29638
  hypervelocity EM armament, main battle tank, anti-armor mission 15308
  interactive electronic technical manual for US Army 43572
  intermittent faults detect. in electronic devices 35379
  internally protected universal ground adapter, cable EM protection 15502
  IR imaging of mil. ground vehicles, clutter metric based on texture 10592
  IR scene generation systs., IRFPA laser radiation response 17941
  IR seeker, scan modulation meas./modeling 43582
  IR sens. testing, automated MRT 34508
  Li-$SOCl_2$ batt. submodule, self-discharge failure anal. 36512
  life-cycle costs reduction in ATE technol. insertion 34360
  MCM, conf., Denver, CO, USA (Apr. 1994) 11562
  MCM low-temp. cofired ceramic technol., mil. appls. 21768
  MCM packaging design and mfg. 29714
  MCMs, high-G defense systs., HDI technol. 29725
  memorized testing/measuring technol. 3735
  microcircuit simul. and test develop. BEST TEST software 34407
  mil. commun., acousto-optic ESM receiver upgrade 18972
  mil. readiness increase, dual, design/test technol. 34365
  mission effectiveness enhancement, advanced boresight equipment 43575
  mobile ATE for flightline and forward battle areas 34366
  Navy sensors, consolidated automated support system 43571
  NEC2 radiation patterns of under-segmented wire grid models 40455
  opt. interconnection for mil. hostile environ. 43568
  part failure-rate prediction models 35420
  PIN diode, neutron spectrum meas., Army Pulse Radiation Facility 18371
  plastic encapsulated IC reliab., missile appls. 35386
  power electronics evol., Europe 37620
  proof of designed reliability, IEE Colloquium, London (1994) 5511
  pulsed IR dist. meas. sens. ccts. for weapon systs., ASIC implement. 10587
  pulsed power supply technol., indust./mil. appls. 36251
  radar T/R module burn-in method 35390
  railgun armour penetrating projectiles, armature designs 18964
  railgun PFN, rep-rated, capacitor thermal mgt. 31745
  relativistic klystron amps. for microwave pulse gen. 29775

military equipment continued
S-band compact point-defence phased array antenna develop. 23955
SEAROADS, ship air defense computer simul. model 35402
ship traffic control harmonised, coastal protection *(French)* 35378
sine/cosine ref. generator, high-perform., design 8350
space fed planar array, vehicle roof refl. charact. 23941
technician centered test concepts 34367
terahertz sources 6303
TPS life cycle improvements using artificial intelligence 42700
trends/develop. 35211
unmanned undersea vehicle, thermophotovoltaic power source 36705
US Army batt. needs 43567
US Navy batt. requirements, develop. efforts 43565
US Navy consolidated automated support syst. and interface devices 42738
VENIS real-time distributed prototype syst. 4442
warship staying power in missile combat, salvo model 35401
water soluble organic acid solder flux, ozone depleting subst. elimination 6423
In-P based microelectronics pilot line for commercial and military applications 12799
Li-$SOCl_2$ long life reserve batt., wide area mine 43566
Nd:YAG. UV laser commun. syst., short range appls. 3582
Si substr. MCM technol., sens. sig. proc./control 21769

military standards
advanced composite materials, mil. electronics, environ. testing 5646
AELAP, Aircraft Load Anal. Program 26559
AUTOTESTCON, conf., Anaheim, CA, USA (Sept. 1994) 20248
BTPFL-C2 immersion-cooled electronic clamshell module, aircraft avionics 4432
CALS develop., military appls. 43596
civ. EMC stds. by mil. organizations 15527
COB sealed memory ccts., environ. perform. 21328
color act.-matrix LCDs in U.S. mil. aircraft 10351
defence systs. safety crit. software std. requirements 43602
document access/ref. environ., PC based interactive syst. 35413
dual-use microelectronics mfg. spec., single/multichip packaging 20453
EMC perform. of suppression components/shielding materials 2264
gasket shielding perform. meas., test techs. 15499
General Electric HDI modules, MCM-D, reliab. 12980
global network mgt. for 90s 8842
HBM ESD testers/specs. anal., 4th order lumped element model 34422
IEEE stds. appls., IFTE 35416
launch platform develops., weapon simulators 35405
MCM, high yield, based on min. IC pretest 6456
MCM testing strategy 6468
mil. autotest cost growth, commercial std. equipt. archits. 34364
MIL-O-55310/MIL-C-49468 stds., quartz cryst. oscillators/resonators 43590
missile joint service testing, Navy/Air Force CASS 35412
PCB conformal coating proc., Nordson Selective Coating System 6430
semicond. jn. igniter in 2.75 folding fin aircraft rocket, RF charact. 35398
SMART and ABBET common architectural heritage 35237
SMART project, aircraft survivability models and simul. 26534
SMART std. based autotesting for commercial and mil. appls. 18719
VXIbus card cage for transportable testers ruggedisation 42724

military systems
see also military aircraft; military communication; military equipment; military standards
acquisition, tracking and pointing, conf., Orlando (1993) 36889
act. phased array radar for Royal Netherlands Navy *(English)* 3611
adaptive obj. extraction/tracking in complex image seqs. *(Chinese)* 8658
AELAP, Aircraft Load Anal. Program 26559
airborne antenna testing, Indoor Doppler Antenna Test Range 35217
Army ground-mobile electronic systs., energy mgt. 18968
ATAG tri-service initiative 42720
ATE, develop. trends 34399
ATE, Modular Measurement System develop. 42688
ATE enabling technologies, Air Force appl. 42706
ATE enabling technols. for Air Force 18718
ATE standardisation for army industrial environment 43573
automated tools for EM spectrum mgt./use 15464
AUTOTESCON 93, (Sept. 1993) 36845
AUTOTESTCON, conf., Anaheim, CA, USA (Sept. 1994) 20248
aviation boresight support for tri-services, cost effectiveness 35414
ballistic missile defense, discrim. perform. requirements 4435
CASS, design for supportability 35410
CASS Automated Technical Information display, ASCII data files 34404
CASS syst. software config. mgt. 34396
combat battle prediction, BP neural net appl. 18996
combat modeling, variable resoln. 35399
combat syst. effectiveness modeling, anti-air warfare tactics 43589
commun. networks, HiFiNS simulator 26819
concurrent engineering based test and maintenance 42708
defence systs. safety crit. software std. requirements 43602
defence technol. develop., commercial sector interact. 4430
design-for-test process improvements 43594
diagnostic models standardisation for syst. test and diagnosis 34352
diagnostic performance: The need for a new metric 43599
distributed simul. for live training 35406
distributed virtual simul., networking 18995
DoD's tri-service ATE R&D program 35381
dual use mil. technol., computer systs. design 10596
dual-piston Stirling cryocoolers for IR imaging systs. 34577
flexible maint. IS for downsized environ. 35407
forward-based portable acoustic meas. syst. 17683
French Navy on-board nuc. reactors, in-service safety feedback *(French)* 36733
HP2100 computer in US Navy test sets, replacement 35380
IEEE stds. appls., IFTE 35416
integrated product development/concurrent engineering 37026
integrated target acquisition/fire control systs., conf. (1991) 28259
intell. EMC anal. and design techs. 15525
intell. maint. aid software 34370
IR FPA non-uniformity meas., proposed std. 34571
IR image restoration, atmos. MTF 34589
IR imaging for target acquisition, atmos. blurring effects 35396
κ-guidance dyn. eqns., lin./LQ control 18970
low energy X-ray radiation source calib., dosimetry 18415

military systems continued
metallic body covered with insulators, detect. by microwave pass. sens. *(Japanese)* 43585
mil. systs., redesign, VHDL board-level modeling 18960
mission effectiveness enchancement through electro-optical systems 43570
mission relevant testing 43592
mobile flight test support 10316
mode stirred EMC facility, develop. 2266
model-based multi-sens. fusion 9649
MRTD GO-NO GO tester develop. and appls. 34594
multifunction radars, sig. proc. 34147
multiple model adaptive estimator target tracker, accel. models 32542
multisensor target recogn. syst. (MUSTRS) 8558
multitarget tracking syst. based on opt. BJTC and neural networks *(Korean)* 14561
Navy's factory, fleet maint. concept 35411
Navy air-launched missile maint. 35415
NDRE-AUV flight control syst. 10599
NNC's Engineering Development Centre, Risley 11694
non-cooperative ident. of ships, electrooptical data 9650
on-platform radar and opt. track fusion 9647
portable underwater acoustic meas., anal., and tracking systs. 17459
quiet source acoustic meas. syst. 17682
R^2SPG tech., systs. upset thresholds meas. 15496
radar for non-cooperative target recogn. *(Dutch)* 3613
RCS graduate level course 28287
reflective telescope technol. for IR surveillance/rem. sens. 17798
semi-act. radar target, design of antenna subsystem 17430
Software Interface for Communication Media, component std. 34349
staring IR seekers, target thermal struct. effects modeling 35394
submarines detect./location, sonar array studies 4438
TACOM thermal image model, field test validation 32902
TACOM thermal image model, PC version 35409
tactical systs. appls. for THz devices 10591
target ident., laser imaging 2160
target ident./sens. perform., imagery-based targeting trainer 35233
thermal imaging perform. eval., min. findable temp. difference 34572
TOPs opt. pattern recogn. program 18987
TPS appls. matching, existing ATE 34397
TPS cost management, CASPER expert system 42711
TPS engineering and quality assurance 42710
two wire automatic rem. sens./eval. syst. 17686
underwater acoustic source, pass. localisation method 26821
unmanned underwater surveillance vehicle systs. 9666
US Army IETM develop. 35417
US Navy unmanned undersea vehicle navig. 35384
VENIS real-time distributed prototype syst. 4442
VHF radar sea scatter and propag., grazing angles less than 1° 42518

milliammeters *see ammeters*

millimetre wave amplifiers
see also microwave amplifiers; millimetre wave power amplifiers
75 to 115 GHz quasi-opt. amp. struct. 23907
CARM amps., effective bandwidth and Kompfner dip 14677
coaxial electron beam, cyclotron harmonic wave growth 37934
distributed baseband amp. IC module and MCM, 60 GHz bandwidth 6334
fourth harmonic oscillator, design and construction 21829
gyroklystron amp., high-harmonic slotted, particle-tracing simul. 6500
MIMIC amp., modelling and charactn. 29605
multifunctional bal. switching LNA 12824
pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
two-stage tapered gyrotron TWTA, gain broadening 29809
V-band high gain monolithic PHEMT LNA design 21555
V-band MIMICs for pers. commun. terminals 38008
V-band pseudomorphic HEMT monolithic power amp. 12820
W-band high gain monolithic LNAs based on HEMTs 12818
AlGaAs/InGaAs PHEMT ultra LNA MMIC, 50 GHz band 29592
AlGaAs-GaAs HBTs for high-speed opt. modulator driver cct. 42405
AlGaAs-InGaAs HFET MMIC power amp., V-band, high gain 38037
AlGaAs-InGaAs-GaAs HEMT monolithic LNA array, W-band 38027
AlGaAs-InGaAs-GaAs Ka-band MMIC power amp., HEMT proc. 38031
GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
GaAs HBT multifunctional microwave-analog VGA 38023
GaAs pseudomorphic HEMT, MM wave power perform. 37991
GaAs pseudomorphic HEMT, high yield, mfg. technol. 39020
GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. 6338
InAlAs-InGaAs-InP V-band monolithic HEMT downconvertor 38019
InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency 6339
InGaAs-GaAs HEMT MIMIC amp., high gain, 75-110 GHz 38025
InGaAs-GaAs MODFET MIMIC amps., 5-80 GHz, CPW 38026
InP HEMT MMIC power amp., Q-band, high-efficiency 38036
InP HEMT MMICs, low noise, V-/W-band amplifiers 12802

millimetre wave antenna arrays
2D prog. photonic time-delay device for MM-wave sig. proc. appls. 14576
94 GHz integrated monopulse receiver 23968
act. array module for spatial power combiners/act. antennas 31990
act. MM-wave aperture-coupled microstrip patch antenna array 15667
K_a-band phased array multilayer MCM design and fab. 23986
Ka-band circ. polarized high-gain microstrip array antenna 23960
Ka-band layered ridge dielec. waveguide leaky-wave antenna develop. 23965
pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
quasi-optic act. arrays using subharmonic locking, beamforming 40506
V-band pseudomorphic HEMT MMIC phased array components 38009
W-band microstrip antenna array and feed cct. 40520
AlGaAs-InGaAs-GaAs HEMT monolithic LNA array, W-band 38027
InP collector-up HBT, 300-400 GHz, mm and submm phased antenna array appls. 6314
VO_2 94 GHz flying spot mirror, theory and expt. 23956

millimetre wave antennas
see also millimetre wave antenna arrays
33/95 GHz dual-polarised radar antenna design 25580
act. integrated antennas, harmonics *(Japanese)* 8060
act. integrated antennas, opt. control, microwave-opt. interact. *(Japanese)* 8062
aperture coupled unidirectional dielec. radiator in NRD struct. 23860
broadband low-crosspolarisation horn design 8044
dielec.-ferrite loaded, electronic beam scanning 15620
dual-beam flat antenna, grating structs. on dielec. waveguide 40465
edge type thin-film warm carrier detectors, fab. 34488
freq.-scanning narrow beam antenna, 60 GHz 40467

millimetre wave antennas continued
imaging optics, offset paraboloidal reflector 23904
microstrip antenna, MMIC design *(Japanese)* 8061
MM wave quasi-opt. Gaussian beam radiation-perturb. expansion method 8035
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
monolithic 250 GHz Schottky-diode receiver, slot antenna based 12813
monolithic antennas, skin sens. organs imitation *(Japanese)* 31982
multiband reflector antenna freq,-selective subreflector design and perform. 23873
multistacked dielec. omnidirectional antenna, cavity-restrained type 8045
planar dielec. beam antennas, low side lobe level 40466
printed 2-arm spiral antenna, 90 GHz-band *(Japanese)* 8059
quasi-opt. diffr. elements, advantages, appls. 40521
quasioptical Josephson detectors for MM-wave spectrum anal. 42759
radiotelescope (mm wave), antenna shape control syst. 17519
refl. echelon and echelette gratings, millimetre wave antennas 8048
RT-2 radio telescope for 3-mm wavelength operation 17526
Ukrainian 16-m mm wave radio telescope, RTM-16 RIAN 17527
V-band pseudomorphic HEMT MMIC phased array components 38009
InP collector-up HBT, 300-400 GHz, mm and submm phased antenna array appls. 6314
YBaCuO antenna microbolometers on sapphire, stabil. and noise 17751
millimetre wave bipolar transistors
see also microwave bipolar transistors
fully radiative current path struct. for sub-0.1 μm emitter transistor 12753
PBT struct., proc. optimisation and charact. 1370
AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
GaAs power HBT, 44 GHz 37994
InP collector-up HBT, 300-400 GHz, mm and submm phased antenna array appls. 6314
InP/InGaAs HBTs, highly Be-doped base layer, fab./characts. 21541
SiGe multi emitter finger HBTs, f_{max} up, 120 GHz 21544
millimetre wave circuits
see also microwave circuits; millimetre wave amplifiers; millimetre wave filters; millimetre wave frequency convertors; millimetre wave integrated circuits; millimetre wave mixers; millimetre wave oscillators; millimetre wave phase shifters
freq. synthesizer, commercial type, 118-178 GHz 827
multilayer MMIC directional coupler, MM-wave ccts. appl. *(Japanese)* 6335
quasi-opt. microwave cct. techs. for wireless appls. 12747
tapered waveguide-type delay equalizer, quadratic/cubic delay distortions 815
unified nonlin. microwave cct./num. solid-state device simul. 6300
GaAs TUNNETT diode oscillators above 100 GHz, diamond heat sinking and power combining 12778
millimetre wave circulators
see also microwave circulators
coplanar elements, design for MM-wave monolithic ccts. 38013
quasi-opt. ferrite refl. circulator 12719
quasi-opt. refl. circulator, theory/MM-wave expts. 37950
W-band dual-freq. circulators 37948
Y-jn. high power MM-wave waveguide circulator 37941
InP NRD-guide FM Gunn oscillator, 60 GHz band *(Japanese)* 6319
millimetre wave couplers
see also millimetre wave directional couplers; submillimetre wave couplers
metal mesh couplers, evanescent waves 29550
quasi-opt. mode converter, Vlasov-type coupler, bifocal mirror 29543
spherical rot. joint, MM-wave freqs. 37942
millimetre wave detectors
see also microwave detectors; submillimetre wave detectors
bolometers readout, FIR/mm-wave, astrophys. appls. 34504
conference, San Diego, CA, USA (July 1994) 28243
edge type thin-film warm carrier detectors, fab. 34488
electroacoustic sens. of elec. field radiopulses 42758
forward looking radar sens. for auto crash avoidance systs. 42510
HTSC tunnel jns., photon detectors 39283
MIMIC power modules for sens. appls. 38012
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
mm-wave NDT of glass fiber/epoxy composites 37559
pass. mm-wave camera for low visibility landing 10329
quasioptical Josephson detectors for MM-wave spectrum anal. 42759
space THz technol., symp., Ann Arbor, USA (May 1994) 36819
GaAs-based integrated reson. tunneling devices, MM-wave detector appls. 10005
YBaCuO antenna microbolometers on sapphire, stabil. and noise 17751
$YBa_2Cu_3O_{7-x}$ thin film bridges on bicrystal substrs., detect. props. 39265
millimetre wave devices
see also magnetic millimetre wave devices; microwave devices; millimetre wave amplifiers; millimetre wave antennas; millimetre wave circuits; millimetre wave circulators; millimetre wave couplers; millimetre wave detectors; millimetre wave diodes; millimetre wave directional couplers; millimetre wave filters; millimetre wave frequency convertors; millimetre wave lasers; millimetre wave mixers; millimetre wave oscillators; millimetre wave phase shifters; millimetre wave receivers; millimetre wave transistors; millimetre wave tubes; submillimetre wave devices
axially oriented whisker in waveguide mount, anal. for MM-wave freqs. 40397
circ. groove guide for short mm- and submm-waves 21508
cpd. quasi-opt. power combiner, cct. anal. 812
CPW, air-bridges, complete mode spectrum 800
dielec. resonators, microstrip tuning tech. 12713
FCC photonic cryst. for microwave/MM-wave appls. 12737
FSS waveguide beamsplitter 12728
FSSs, elec. and opt. controlled screens 37972
grid oscillator design, act. quasi-opt. power combining appls. 12777
Gunn millimetre-wave devices, fab., integral heat sink/bonding ribbon 12772
IMPATT millimetre-wave devices, fab., integral heat sink/bonding ribbon 12772
low loss dielec. materials meas., 60 GHz band 3955
microcalorimeter, mm-band power converters 18050
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
mobile broadband commun., syst. concept/technols. 25296
noncontact thickness meas. of dielec. coatings 42937
obstacle avoidance sens., automatic Nap-of-the-Earth flight 10385
oversized rippled-wall mode converters, undesired resons. 21512
millimetre wave devices continued
polariz. controller, anal. and implement. 807
quasi-opt. diffr. elements, advantages, appls. 40521
quasioptical systs., diffr. at gratings, resonator design 37952
radar and fusion appls. of MM-wave technol. 42502
solid-state control devices 21532
spherical rot. joint, MM-wave freqs. 37942
T-jn. microwave ccts., prescribed response characts., design/anal. 862
two-level power combining using lens amp., patch antenna array, PHEMTs 12811
V-groove guides and components 31884
wideband analog continuum correlator for radio astron. 17514
GaAs Gunn devices at 94 GHz, fund. and harmonic power generation 37998
GaAs MM wave TEDs, CAD, thermal anal. 38791
GaAs TUNNETT diode oscillators above 100 GHz, diamond heat sinking and power combining 12778
InGaAsP/InP D-band Gunn devices, heterojunction cathode injectors 13587
InP MM wave TEDs, CAD, thermal anal. 38791
TlBaCaCuO thin film ring resonator, J_c distrib. 37953
$YBa_2Cu_3O_y$ grain boundary jns. on (100)MgO, Josephson effects 30787
millimetre wave diodes
see also microwave diodes; submillimetre wave diodes
fin line diode switch, coupled strip conductors *(Japanese)* 6318
IMPATT diode, W-band, pulsed, jn. temp. calc. model 37987
quantum-well diodes, harmonic and intermodul. generation 29570
Schottky diode varactor, MM wave tripler appl. 21547
Schottky-barrier diode, high-perform. detectors 12751
series integrated RTDs, subharmonic excitation simul. 6323
solid-state control devices for millimetre waveband 21532
GaAs TUNNETT diodes above 100 GHz, efficiency, RF power levels, free running oscillator appl. 37976
GaAs TUNNETT diodes on diamond heat sinks for 100 GHz and above 12756
GaAs double-Read IMPATT diodes, 140 GHz 29564
GaAs single-barrier varactors for MM-wave triplers 12779
GaAs-AlGaAs heterostruct. barrier varactor freq. tripler, simul. 6321
GaAs-based integrated reson. tunneling devices, MM-wave detector appls. 10005
InGaAs-InAlAs single barrier varactor quintupler, 170 GHz 29560
millimetre wave directional couplers
directly connected image guide 3dB directional couplers, transverse operator anal. 21517
ferrite-semicond. MM-wave dielec. strip waveguides 37929
multilayer MMIC directional coupler, MM-wave ccts. appl. *(Japanese)* 6335
trapped image guide type directional couplers 813
millimetre wave field effect transistors
see also microwave field effect transistors
back-to-back horn antenna quasi-opt. amp 23914
GaAs pseudomorphic HEMT, high yield, mfg. technol. 39020
HEMT 1-50 GHz S-params. and DC drain current modelling 12757
HEMT equiv. cct. determ. tech. 30379
pseudomorphic double heterojunction power FET, optim. 12771
AlGaAs/GaAs HEMTs for MM wave appls. 37978
AlGaAs/GaAs(InGaAs/GaAs) microwave/millimetre-wave HEMTs, noise model 831
AlGaAs/InGaAs MM-wave heterojunction FET MMIC oscillators *(Japanese)* 6336
$(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P/In_{0.15}Ga_{0.85}A$ s/GaAs HFET, characts. 12752
AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
$Al_{0.60}In_{0.40}As$/GaInAs/InP single pulse doped HEMTs for Q-band power appls. 29566
GaAs MESFET, ion implant., photolithog., SAG 38923
GaAs pseudomorphic HEMT, MM wave power perform. 37991
InAlAs/InGaAs, HEMT, high cut-off, current drive capability 13785
InAlAs/InGaAs HEMTs lattice-mismatched on GaAs, high-perform. devices, mm-wave appls. 21549
InGaAs graded channel InP HEMT, 305 GHz f_T and 340 GHz f_{max} 843
InGaP/InGaAs HEMTs for MM wave appls. 37978
InGaP/InP/InGaAs backside-doped split-channel HFETs 30365
InP-based HEMT, extremely low-noise, Si_3N_4 passiv. 21552
InSb, high-speed MISFET, uncooled 30319
millimetre wave filters
see also microwave filters
band-stop filters for 70 and 140 GHz 12720
coplanar elements, design for MM-wave monolithic ccts. 38013
EHF waveguide grating syst., elec. characts. 29527
finline band-pass filter design, TLM method 37945
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
tunable mm-wave mag. filter, novel design 14261
waveguide filter charact., random mfg. error effects 29534
CdS film CPW, high-refl. 30 GHz grating struct. 29529
$YBa_2Cu_3O_{7-x}$ high T_c film dielec. resonator, MM-wave filter develop. 811
millimetre wave frequency convertors
see also microwave frequency convertors
coplanar elements, design for MM-wave monolithic ccts. 38013
HEMT MIMIC low noise downconverter, MMIC technol. 29606
heterodyne reception of MM-wave modulated opt. sigs., HEMT 3544
GaAs single-barrier varactors for MM-wave triplers 12779
GaAs-AlGaAs heterostruct. barrier varactor freq. tripler, simul. 6321
InAlAs-InGaAs W-band monolithic dual-gate HEMT mixer 38020
InAlAs-InGaAs-InP V-band monolithic HEMT downconvertor 38019
InGaAs-InAlAs single barrier varactor quintupler, 170 GHz 29560
millimetre wave generation
see also microwave generation; millimetre wave oscillators
1.5 μm MQW DFB VUG laser opt. harmonic converter for MM wave radio appls. 3558
1 MW 130-260 GHz free electron maser for fusion 39919
dual grating resonator based MM-wave radiation source 2019
ESR spectrometer, mm-wave freq. range, gyrotron, radiation power source 34672
gyrotron efficiency, sideband oscills. influence 6493
gyrotrons, high-power, for atm. remote sensing 10488
gyrotrons, mode competition, nonstationary theory 982
high brightness cathodes, appls. 21793
IREB, MM wave source, monochromatic current modulation 38212
long pulse gyrotron with collector pot. depression, high power 21808
megawatt 110 GHz gyrotron, internal mode converter 21809
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234

- **millimetre wave generation** continued
  - MM-wave coherent point source by spatial interferometry, range/azimuth meas. 6297
  - MM-wave spatial interferometry for coherent point sources 6296
  - multielectrode semicond. laser broadband freq. generation 7668
  - opt. MM-wave source, dual-mode semicond. laser 23486
  - quasioptical gyroklystron expt., multimode simulation 6511
  - radar and fusion appls. of MM-wave technol. 42502
  - single-beam plasma wave tube, high-power microwave/MM-wave source 986
  - slow wave cyclotron interact. in folded rect. waveguide, theory 13014
  - space THz technol., symp., Ann Arbor, USA (May 1994) 36819
  - ultra-short high-power pulse prebunched FEL 31439
- **millimetre wave imaging**
  - *see also microwave imaging; submillimetre wave imaging*
  - aperture antenna feed array design and test results *(Russian)* 17428
  - atmos. rem. sens., TOVS mm & microwave radiometry 35323
  - cloud and rain, rem. sens., mm wavelengths 10484
  - equiv. current reconstruction for EM imaging 8512
  - fast MM-wave imaging algm., act. guidance appl. 41156
  - FPA imager 42841
  - high brightness cathodes, appls. 21793
  - IR and pass. millimetre wave images, line pattern removal 24515
  - land surface topography, multibeam radar altimetry 18783
  - MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
  - multi-beam MM-wave FPA airborne imaging syst. 42842
  - partially coherent quasioptical radio imaging 10004
  - pass. millimetre wave imaging, radiometry 42843
  - quasi-opt. image separation scheme for mm- and submm-waves 3961
  - radar target identif., high resoln. range profiles 42485
  - snow cover & precip., satellite mm wave radiometry method 43507
  - synthetic vision systs. develop. 10369
  - AlGaAs-InGaAs-GaAs HEMT monolithic LNA array, W-band 38027
- **millimetre wave integrated circuits**
  - *see also microwave integrated circuits; MIMIC; submillimetre wave integrated circuits*
  - 75 to 115 GHz quasi-opt. amp. struct. 23907
  - 94 GHz integrated monopulse receiver 23968
  - aperture coupled unidirectional dielec. radiator in NRD struct. 23860
  - autonomous/injection-locked flux-flow oscillators, spectral linewidth 38015
  - broadband matching to capacitive devices, limits, SIS mixer design 12792
  - directly connected image guide 3dB directional couplers, transverse operator anal. 21517
  - HEMT hybrid gate mixer, 30 GHz, design procedure 12797
  - MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
  - monolithic MM wave IC, high speed opt. detectors 9534
  - nonreciprocal ferrite substr. microstrip open-end discontinuity, MIC appls. 12810
  - orthonormal wavelet expansions anal. of integrated mm-wave/sub-mm-wave waveguides 12809
  - planar microstrip ccts., FDTD anal., spectral domain Prony's method 12730
  - StratEdge ceramic packaging for microwave and MM-wave appls. 23984
  - Al-SiC metal matrix composites, microwave/MM wave IC packages 20464
  - Nb/AlO$_x$/Nb Josephson jn. tech., high-speed single flux quantum cct. 21249
- **millimetre wave lasers**
  - *see also masers; submillimetre wave lasers*
  - Cherenkov FEL, high peak power 39909
  - dual grating resonator based MM-wave radiation source 2019
  - FEL, axisymmetric undulator, higher harmonic generation 39638
  - FEL, reversed guide field operation 39637
  - FEL, wiggler-focused sheet electron beam 39627
  - FEL laser at Duke storage ring, pump for hard X-ray inverse Compton source 39629
  - FEL radiation generated by short electron bunches, coherence effects 40006
  - free electron masers, undulator electron beam transport 39626
  - interface techs. for gigahertz/gigabit lasers 39858
  - isochronous FEL, Duke storage ring 39630
  - ribbon FEL, 1D DFB 39910
  - waveguide FEL amp., low- and HF waves 39981
- **millimetre wave measurement**
  - *see also microwave measurement; submillimetre wave measurement*
  - aquametry for water content determ. 42996
  - Automatic RF Techniques Group, conf., San Diego (1991) 28249
  - BWO spectrometry and composite structs. appl. 42907
  - cloud and rain, rem. sens., mm wavelengths 10484
  - defect charactn. in dielec. slabs 37560
  - elec. field radiopulses, electroacoustic sens. 42758
  - ESR spectrometer, mm-wave freq. range, gyrotron, radiation power source 34672
  - Gunn diode oscillator/Schottky diode mixer based meas. receiver 37986
  - JET divertor, mm-wave two-color interferometer appl. 34676
  - Josephson microstrip resonators, dielec. const./surface resist. meas. 18047
  - land surface microwave radiometry, SSM/I image improvement 18781
  - land surface topography, multibeam radar altimetry 18783
  - material properties meas. waveguide sample holder 25961
  - MM-wave coherent point source by spatial interferometry, range/azimuth meas. 6297
  - MM-wave spatial interferometry for coherent point sources 6296
  - NWA, single six-port reflectometer 34424
  - pass. mm-wave camera for low visibility landing 10329
  - photodiode freq. response meas. to 40 GHz, comparison, NPE/NIST 31075
  - plasma dens. flucts. diagnostics, freq.-tunable MM-wave sources 31846
  - quasioptical Josephson detectors for MM-wave spectrum anal. 42759
  - sand-powders permitt. meas. and sandstorm anal., W band 42892
  - slotline propag. params., de-embedding tech. 6280
  - snow cover & precip., satellite mm wave radiometry method 43507
  - sub-wavelength thickness meas., surface waves 42936
  - vegetation elements, extinction cross-sect. meas., open resonator 34671
  - vegetation elements placed in open resonator, extinction cross-sect. calc. 34670
  - W-band monolithic HEMT LNAs for microwave scanning radiometer 21558
  - a-C:Cu cluster superconds., crit. temp. meas., mm-wave interf. method 39235
- **millimetre wave mixers**
  - *see also microwave mixers; submillimetre wave mixers*
  - 94 GHz integrated monopulse receiver 23968
  - broadband matching to capacitive devices, limits, SIS mixer design 12792
  - HEMT hybrid gate mixer, 30 GHz, design procedure 12797
  - heterodyne reception of MM-wave modulated opt. sigs., HEMT 3544
- **millimetre wave mixers** continued
  - JET divertor, mm-wave two-color interferometer appl. 34676
  - Ka-band mm-wave radar transceiver assembly, common waveguide cavity design *(Chinese)* 25578
  - lattice mixers, noise fig. limitations/input matching 12742
  - MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
  - monolithic 250 GHz Schottky-diode receiver, slot antenna based 12813
  - monolithic mixer, 94 GHz, design method 29602
  - quasi-opt. image separation scheme for mm- and submm-waves 3961
  - Schottky diode mixer/Gunn diode oscillator based meas. receiver 37986
  - single gate MESFET mixer, computer-aided anal./design 846
  - subharmonic gate mixer based on multichannel HEMT 29573
  - AlGaAs-GaAs HEMT-based MMIC mixers, indoor commun. 42237
  - GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
  - GaAs Gilbert cell mixer IC fro coherent opt. transm. 42402
  - GaAs Schottky diodes, five port hybrid ring mixer 29554
  - GaAs(InP) quasi-opt. slot HFET mixer, integrated, 40 GHz, car radar receiver appl. 12812
  - InAlAs-InGaAs W-band monolithic dual-gate HEMT mixer 38020
  - InAlAs-InGaAs-InP V-band monolithic HEMT downconvertor 38019
  - InP Gunn diode self-oscillating mixer for 90-GHz MM-wave receiver 21546
  - Nb supercond. resonator ccts., freq. response 22762
  - YBaCuO thin-film Josephson jns., MM wave mixing *(Japanese)* 12762
  - $YBa_2Cu_3O_{7-\delta}$, 3 mm waveband Gunn oscillator, phase locking 21537
- **millimetre wave monolithic integrated circuits** *see MIMIC*
- **millimetre wave oscillators**
  - *see also Gunn oscillators; microwave oscillators; submillimetre wave oscillators; tunnel diode oscillators*
  - array dyn., broadband N-port coupling networks 832
  - autodyne diffr. radiation oscillator, noise charact. 981
  - autonomous/injection-locked flux-flow oscillators, spectral linewidth 38015
  - BWO, flicker noise 999
  - diffr. radiation generator, open resonator, intermode oscills. 37949
  - fourth harmonic gyro oscillator expt., 95 GHz 38215
  - fourth harmonic oscillator, design and construction 21829
  - grid oscillator design, act. quasi-opt. power combining appls. 12777
  - Gunn diode oscillator/Schottky diode mixer based meas. receiver 37986
  - gyrotron efficiency, sideband oscills. influence 6493
  - gyrotrons drift region, spurious oscillns. self-excitation 6494
  - harmonic Gunn oscillators, harmonic injection locking 12759
  - harmonic oscillator anal., Volterra series method *(Chinese)* 29563
  - HF gallery mode gyrotrons, rot. modes study 6495
  - IMPATT diode integrated quantum-well reson. tunneling oscillator 12755
  - Josephson jn. HTSC oscillator array, phase locking 38004
  - low-noise oscillators design/optim., nonlin. CAD 29072
  - repetitive microwave BWO, relativistic e-beam 29795
  - series integrated RTDs, subharmonic excitation simul. 6323
  - solid-state oscillator, open quasioptical metal-dielec. resonator 37977
  - space THz technol., symp., Ann Arbor, USA (May 1994) 36819
  - superlattices, vert. cond., neg. differential mobility, freq. limitations 13134
  - tunable fin-line-microstrip oscillator 6305
  - V-band MIMICs for pers. commun. terminals 38008
  - AlGaAs/InGaAs MM-wave heterojunction FET MMIC oscillators *(Japanese)* 6336
  - GaAs MIMIC TED-oscillator, 60 GHz, perform. 29590
  - GaAs TUNNETT diode oscillators above 100 GHz, diamond heat sinking and power combining 12778
  - GaAs TUNNETT diodes above 100 GHz, efficiency, RF power levels, free running oscillator appl. 37976
  - GaAs microstrip Gunn oscillator, highly stable, U-Band 37975
  - InP D-band Gunn devices, second-harmonic power extraction up, 290 GHz 1332
  - InP NRD-guide FM Gunn oscillator, 60 GHz band *(Japanese)* 6319
  - $YBa_2Cu_3O_{7-\delta}$, 3 mm waveband Gunn oscillator, phase locking 21537
- **millimetre wave phase shifters**
  - *see also microwave phase shifters*
  - ferrite-semicond. MM-wave dielec. strip waveguides 37929
  - multifunctional bal. switching LNA 12824
- **millimetre wave power amplifiers**
  - *see also microwave power amplifiers*
  - 40 GHz band 30 W space TWT, RF power amp. *(Japanese)* 6030
  - 95 GHz gyroklystron, beamstick, advanced centerpost gun 21811
  - distributed field emitter array MM-wave power amp. 38213
  - gyroklystron amp., high-perform. 70 kV third-harmonic 6501
  - MIMIC power modules for sens. appls. 38012
  - Q-band high-efficiency monolithic HEMT power prematch structs. 29584
  - quasioptical gyroklystron expt., multimode simulation 6511
  - slotted third-harmonic gyro-TWT amp., 95 GHz, tests 29811
  - TE_{01} gyro-TWTA, stable, high power 1007
  - third-harmonic gyro-TWT amp., 1 MW, stable operation 1009
  - two-stage tapered gyro-TWTA, Ka-band, TE_{10} rect. waveguide 21846
  - GaAs IC, conf., San Jose, USA (1993) 36852
  - GaAs power HBT, 44 GHz 37994
- **millimetre wave power transistors**
  - *see also microwave power transistors*
  - pseudomorphic double heterojunction power FET, optim. 12771
  - AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
  - AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
  - GaAs power HBT, 44 GHz 37994
  - GaAs pseudomorphic HEMT, MM wave power perform. 37991
  - SiGe multi emitter finger HBTs, f_{max} up, 120 GHz 21544
- **millimetre wave propagation**
  - *see also submillimetre wave propagation*
  - 3 to 300 GHz rain and snow atten. software develop. 31817
  - 38 GHz building scatter and vegetation atten. meas. 15427
  - 40 GHz indoor opt. fibre SS PCN/LAN expt. 33818
  - 42 GHz anom. propag., marshland/estuaries 17029
  - 60 GHz band resistive-sheet type wave absorber, design and manufacture 40298
  - 60 GHz indoor commun. systs. for data/video commun. 40354
  - 60 GHz indoor wireless commun. systs., multipath meas. 8932
  - 60 GHz indoor wireless data systs. channel modelling, ray-tracing 8933
  - 60 GHz intervehicle channel model 33797
  - 60 GHz mobile-to-mobile radio channel, meas. 9262
  - 60 GHz vehicle-to-vehicle commun., time/freq. selectivity 9316
  - clear-air MM-wave scatt. 23602
  - Earth-space paths, microwave propag., 3-350 GHz, computer simul. 23647
  - IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865

millimetre wave propagation continued
indoor high-capacity transm. charact. *(Japanese)* 7987
indoor radio channels, charact. *(English)* 40348
mag. medium, guided nonlin. EM surface waves 39152
MM waveband, outdoor environ., propag. model 9317
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
pulse MM band sigs., ground cover effects 7961
quasi-MM waves, rain atten. charact. *(Japanese)* 40347
rain drops & cloud, microwave pulse backscatt., extinction 40345
raindrop size distrib. near Paris 31808
sand-powders permitt. meas. and sandstorm anal., W band 42892
sand/dust storms, cross-polariz. and atten. 15445
specific rain atten. models, MM wavelengths 15436
turbulent atmos. radiochannel, underlying terrestrial cover refls., mm/submm waves 40344
turbulent tropos. radio channel freq. response 31819
urban radiowave propag., IEE Colloquium, London (1994) 5480

millimetre wave range *see millimetre wave devices; millimetre waves*

millimetre wave receivers
see also microwave receivers; radio receivers; submillimetre wave receivers
meas. receiver, 42.5 GHz, oscillator/mixer config. 37986
monolithic 250 GHz Schottky-diode receiver, slot antenna based 12813
multi-beam MM-wave FPA airborne imaging syst. 42842
pass. millimetre wave imaging, radiometry 42843
space THz technol., symp., Ann Arbor, USA (May 1994) 36819
GaAs(InP) quasi-opt. slot HFET mixer, integrated, 40 GHz, car radar receiver appl. 12812
InP Gunn diode self-oscillating mixer for 90-GHz MM-wave receiver 21546

millimetre wave spectroscopy
see also submillimetre wave spectroscopy
BWO spectrometry and composite structs. appl. 42907
interstel. mols., lab. spectrometry, French develop. 42554
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
CdTe, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
GaAs, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
InGaAs strained-layer superlattices, opt. nonlin. suscept. 23405
InP, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
O_3 in stratos., mm-wave heterodyne spectral determ. 10486

millimetre wave transistors
see also microwave transistors; millimetre wave bipolar transistors; millimetre wave field effect transistors; millimetre wave power transistors; submillimetre wave transistors
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234

millimetre wave tubes
see also microwave tubes; submillimetre wave tubes
40 GHz band 30 W space TWT, RF power amp. *(Japanese)* 6030
95 GHz gyroklystron, beamstick, advanced centerpost gun 21811
autodyne diffr. radiation oscillator, noise charact. 981
BWO, flicker noise 999
Cassini mission Ka-band TWT, 32 GHz, CAD 21856
cyclotron autoresonance klystron operating, Doppler-shifted harmonics 29790
distributed field emitter array MM-wave power amp. 38213
dual grating resonator based MM-wave radiation source 2019
folded-waveguide high-power MM-wave TWTs 21858
fourth harmonic gyro oscillator expt., 95 GHz 38215
gyroklystron, 95 GHz harmonic, beamstick 21828
gyrotrons, high-power, for atm. remote sensing 10488
IREB, MM wave source, monochromatic current modulation 38212
Ka-band tapered gyro-TW amp., broadband operation 1002
large-orbit gyrotrons, axially-modulated, cusp-injected, analytic model 21813
long pulse gyrotron with collector pot. depression, high power 21808
megawatt 110 GHz gyrotron, internal mode converter 21809
open periodic structs., weak-relativistic electron beam diffr. radiation 40258
quasi-opt. mode converters for high order mode gyrotrons 21812
single-beam plasma wave tube, high-power microwave/MM-wave source 986
slotted third-harmonic gyro-TWT amp., 95 GHz, tests 29811
slow wave cyclotron interact. in folded rect. waveguide, theory 13014
submillimeter wave gyrotron, mode cooperation 979
TE_{01} gyro-TWTA, stable, high power 1007
third-harmonic gyro-TWT amp., 1 MW, stable operation 1009
two-stage tapered gyro-TWTA, Ka-band, TE_{10} rect. waveguide 21846
window materials for 110 GHz and 280 GHz gyrotron 38216

millimetre waves
see also microwaves
Gaussian beam, electro-optic power control 39474
Gaussian beam at MM wavelengths, kinoform for spatial distrib. 15181
immune status correction of patients, MM-waves appl. 43347
radar and fusion appls. of MM-wave technol. 42502
small launch vehicle propulsion, high power MM-waves 35272

milling *see machining*

mills, rolling *see rolling mills*

MIM devices
light-emission jn. MIM tunneling in SAW field 7467
light-emitting tunneling jn., surface topography anal. *(Chinese)* 38451
metal-to-metal oxide antifuses, reliable for VLSI appls. 22079
MIM diode, N-shaped I-V charact., mechanism 13262
NDR charact. rel., film resist. 29989
planar-type MIM diode, STM nanometer-size oxid. 38449
three-terminal switching device, prog. fusible link 29630
$Al/AlO_x/Al$ single-electron transistors and traps, fab. 13826
$Al/Fe(OH)_3/Al$, thin film capacitors, dielec. props. 22080
$Al-AlO_x-SiO-Al$ overlap capacitors in SET transistors, fab. 13825
$Al-MgF_2-Au(Cu)$ thin film light emitting devices, residual O_2 effect 7470
Au-SiO-Al overlap capacitors in SET transistors, fab. 13825
$CoSi_2/CaF_2$ reson. tunneling HET, quantum interf. 13822
SiN_x based metal-to-metal antifuse for FPGA appl. 21217
SiN-based antifuses, stress-induced leakage current, dielec. breakdown 38448
$SrTiO_3$ thin film capacitors, MMIC process technol. 38030
Ta_2O_5 MIM-CROWN cell and proc. technols. for 1 Gbit DRAMs 21335
Y_2O_3 MIM capacitors, elec./dielec./opt. props. 22082

MIM structures
see also MIM devices
polyimide LB films, MIM element voltage generation, atmos. effects *(Japanese)* 38452
Schottky barriers, interface impurity states 22081
thermometry by arrays of tunnel jns. 4009
$Au-SiO_x-Au$ sandwich structure, AC elec. cond. 22083
Eu_2O_3, thin film capacitors, elec. props. 38446
NiFe/oxide/Co jns., magnetoresist., mag. props. 6592
a-SiC:H MIM struct., electronic props. 1183
$p-SiO_2$/polymer, dielec. double-layer structs., elec. cond. 30534

MIMD computers *see parallel processing*

MIMIC
see also bipolar MIMIC; field effect MIMIC
bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
coplanar elements, design for MM-wave monolithic ccts. 38013
coplanar monolithic elements, cct. designs, 67 GHz 12787
lin. and nonlin. MMICs, design strategies 29597
MM-wave indoor LAN syst., min. delay spread 41752
MM-wave monolithic mixer, 94 GHz, design method 29602
model implement. for design proc. automation 28944
packaging and interconnection for modules 37082
power MIMIC modules for sens. appls. 38012
Schottky-diode receiver, 250 GHz, double-slot antenna based 12813
symposium, London, UK (Nov. 1994) 28265
T-jn. microwave ccts., prescribed response characts., design/anal. 862
GaAs IC, conf., San Jose, USA (1993) 36852
GaAs MMIC design and charactn., training software package *(French)* 21570
GaAs MMICs for space-borne systs., status and pot. 21554

MIMO systems
CDMA lin. fractional spaced equalisation interf. cancellation 8740
ident. algm. for unknown lin. MIMO systs. *(Korean)* 24339
LAN interconnection over high-speed gateway 41756
power syst. sync. generator dyn. stabil. control enhancement 43706
RF amp. dyn. biased cartesian feedback lin. 6041
time-variant syst., cyclic higher order stat. 40897
transmitter/receiver optim. 16413
turbogenerator modelling, self-organizing neural net-based *(Chinese)* 27677
turbogenerators, adaptive control, parallel proc. 27672

mineral oil industry *see petroleum industry*

mineral processing industry
adverse mining environs., motor selection/appls. 20185
coal mine transportation arcing, detection/suppression method 20107
contactless power delivery syst., mining appls. 20188
elec. utility acid rain precursor control model 44646
HV pulse technol., appls. 11192
indust. power systs., electromech. response 20186
longwall face equipt., 4160 V power syst. appl. 20184
respirable coal dust meas., fire sens.-based 20187
shuttle car cable reels, ampacity calc., thermal characts. 20183
sulphide-quartz mixtures, electrostatic separation 40207
underground hoist, digital controlled cycloconverter induction motor drive 11323

mines (coal) *see mining*

mines (mineral) *see mining*

minimax techniques
combined lin.-Viterbi equalizers, comparison and design 9175
complex FIR filter design, Remez multiple exchange algm. 32787
DS/SS systs., coherent chip-asynchronous, signature delay estim. 17014
dyn. approach, timed behaviour 28640
entropy-min. spectral estim., robustness 40776
FIR filters design, gradient approx. method 16012
freq. hopping commun., blind adaptation algm. 9166
general framework for min. search in game trees 5737
hybrid H_2/H_∞ filtering, PLL filter design 15950
invariant submersion method, min. filtration problem appls. 32573
McEliece's open problem on min. aperiodic correl. 40611
min. complexity criteria, asymptotically optimal fn. estim. 32023
minmax sig. design for detect. subj., lin. distortion 32536
n-pers. non-zero-sum game, computation of equilibria 11915
NDT, binary image correction 454
nonstationary channels tracking, optimal windowed RLS algm. 17097
null steering of adaptive arrays, min. approx. 31963
optimal set of views planning, max-min principle 24612
piecewise-lin. transcoders, weighted min. approx. and decomp., TV tuner 21085
power syst., VAr planning, interactive fuzzy satisfying method 4602
recession maps and appls. 224
robust matched field proc. perform. 17469
SMDS support network minimax open shortest path first routing algms. 41765
stochastic discrete-time systs., optimal filtering 8404
uncertainty and decision-making problems in fuzzy expts. 37233
uniqueness, modified strong, consts., computation 11957
vector-valued fn., constrained min. problem 11943

minimisation
see also minimisation of switching nets
2-level SCPC syst. carrier freq. assignment, intermodulation product minimization 42334
2D objs. recogn. by optimal matching 41131
3D inhomog. media local earthquakes, mechanisms determ. 43498
3D motion estim. from opt. flow, unbiased objective fn. 8535
adaptive image region-growing 2738
adaptive traffic prediction algm. for cellular radio 3404
astron. small bodies imaging, bispectral techs. 33140
ATM transport networks supporting multimedia traffic, optimal resource mgt. 16853
ATPG for heat dissipation minimization, test appl. 6856
automated null ellipsometer, rot. analyzer 10047
bipartite graph crossing reduction, assignment heuristic 21018
C^2 interpolating curve, local min. conditions *(Japanese)* 5770
CDMA cellular radio, uplink power control/base station assignment 25376
CDMA cellular radio link, prioritized channel control 25410
CELP codecs, multi-band residual coding, 8 kb/s 33695
chain-struct. sync. dataflow programs, memory requirements 32619
chaotic time series filtering 32466

minimisation continued
- charge-distrib. A-D converters, capacitance recharging error minimisation 37815
- class., optimal, independent discrete variables 33009
- color-sig. separation, constrained nonlin. optim. approach 16314
- combinat. optim. problems, annealing imitation method modif. 28639
- computer vision, optimisation approaches, CSP 41217
- concurrent engng., DFT in digital syst. 5576
- constrained neural network, complex activation fn. 32660
- constrained optim. based on recursive quadratic prog. 211
- constrained optim. problems with bounded variables, exact penalty-Lagrangian approach 232
- constrained roundoff noise minimisation in digital filters, algm. 15962
- cylinder backscatt. minimisation by central loading 23530
- data class., model, priori unknown params. estim. 2541
- differential method for computing local shape-from-texture 8605
- digital filter design, sparse struct., pole/zero sensitivity minimization 29391
- digital mobile commun., blind seq. detect. 17039
- discontinuous flow fields, recursive nonlin. estim. 24448
- discriminative feature extraction, filter bank design 32326
- distrib. network loss minimization re-config., genetic algm.-based *(Japanese)* 43746
- DS-CDMA syst., adaptive multiuser interf. rejection algm. 42163
- EEG corrupted sigs., minimization of EOG artefacts, neural net 43298
- electro-opt. sens., point source algms. for optimum acquisition range 15866
- electromagnetism, optimisation and synthesis 15206
- electronic component model minimization based on log simulated annealing 12280
- EM levitation with permanent and electro magnets, optimal design 20091
- enhanced response surface methodology algm., gradient-deflection and second-order search strategies 11941
- environ. constrained optimal economic dispatch, genetic algm. 19168
- environ. stress screening, 3-level syst. 20411
- extended H_∞ filter, robust EKF 40942
- FDMA cellular systs. capacity, ACI effects 3334
- fighter aircraft target detect., PRF set selection 4437
- FIR lin. phase digital filter, unit step response, design *(Polish)* 747
- fixed-polarity AND/XOR canonical networks minimisation 599
- flight image seqs., integrated 3D anal. 24458
- fused X-band radar/IR target detect. 8617
- generalized eigenvalue minimisation 11894
- genetic algms. for min. source reconstructions 8303
- goal-directed vector generation, sample ICs 6094
- graph bisection algm., subgraph migration 11926
- handover decision procedure, Bayes criterion minimization 3394
- hierarchical aspect graph generation, multiple range data *(Japanese)* 16303
- Hopfield neural networks, dyn. channel allocation tech. 25417
- IC interconnect design, convex optim. 30149
- ill-posed systs., implicit shift bidiagonalization algm. 20609
- image segmentation, variational vs. Markov random field methods 8492
- image thresholding by fuzziness measure minimization 16248
- inconsistent sig. feasibility problems solns. 2468
- Indian MHD retrofit channel, perform. prediction 10905
- induction motors, field oriented controller, iron losses influence 44054
- indust. motor controllers, self-tuning digital control 20154
- invariant pattern recogn. by moment Fourier descriptor 16243
- isolated word recogn., model topol. selection 32360
- kernel hidden unit anal., network size reduction by entropy minimization 37578
- Landsat Thematic Mapper data, multispectral lines of commun. extraction 16259
- lin. time-variant digital filters synthesis 2527
- local power syst., VAr benefits optimisation *(Chinese)* 43642
- mean field annealing, VLSI design appl. 38974
- min. Renyi inform., complex sig. reconstruction 24509
- min. sq. spectral factors 37222
- multilevel threshold selection for gray level images 2720
- multiserver queues, impatient customers 33244
- multiwavelength European opt. transport network 42368
- Newton directions, modified, computation using partial Cholesky factorization 20587
- noisy sinusoidal signal freq. estimation optimal algorithm 25764
- nonconvex variational problem, constraints 28564
- nonnegative sigs., relax. procedure for phase retrieval 2472
- nonslicing VLSI floorplan, optimum area minimisation 1475
- nonstationary sig. sources, blind separation, neural net appl. 24351
- nonstationary sig. sources separation networks 8389
- obj. recogn. by cost minimization 41330
- opt. flow, recursive filters 16294
- opt. path networks, no. of wavelengths required *(Japanese)* 25487
- optimal generation scheduling, ramping costs 35708
- parallel proc. for test generation, perform. anal. 17662
- partially ordered components, min. av. cost testing 24098
- PCB component assembly, lin. assignment algm. 29688
- PCB layouts optimisation, neural network algm. *(Japanese)* 904
- PDE with delay, difference analogues 20621
- perceptually motivated three-component image model 33126
- permutation layout, topol. via minimization problem 37602
- phase diversity to extract higher order Zernike coeffs., lab. expt. 16216
- planar antenna arrays design, pattern synthesis tech. 8079
- point/derivative constraints, time-freq. kernel design 40967
- power syst. harmonics minimisation, variable capacitance compensator 43611
- power syst. load-flow anal., ANN, Newton-Raphson algm. 19083
- power syst. state estim. by neural net 43711
- power syst. static security assess., load flow, ANN 19167
- projection approx. subspace tracking 24204
- pseudo-inverse-based probab. power flow 35462
- pulsed power multistage mag. compressors, switch loss minimisation *(Russian)* 44209
- PWM inverter-mounted induction motor, design 5306
- QAM, self-learning adaptive recursive equalizer 32771
- QAM systs., globally convergent blind equalization 32740
- QRD inverse-updates method for fast time-series adaptive filtering 32478
- QRD-based sq. root free and division free algms./archits. 28656
- quasi-static algm. for image restoration preserving discontinuity 8501
- radar imaging, automatic estim. and compensation of target kinematics 17392
- radio transmitter network, freq. assignment problem 3659
- random pattern testable ccts., automated logic synthesis 6073

minimisation continued
- real-time adaptive acoustic beamforming, design study 32598
- RECALS II list scheduling algm. for high level synthesis 28970
- Reed-Muller generalised expressions, easily testable logic design 12452
- regularized continuous method of second-order gradient projection 11950
- rigid rotors, computer-aided static and dyn. balancing 27661
- RLS based subspace tracking 32470
- run-time overhead minimisation in multi-proc. pre-emptive scheduling 32492
- scene segmentation in rem. sensed image, cost minimization approach 41331
- semicond. testing facility, scheduling algm., Lagrangian relax. based 20403
- sens. array sigs., multi-scale deconvolution, higher order spectra appl. 40987
- sens. array sigs. deconvolution, time-scaling 32615
- sens. systs. optimal operation, transputers 24317
- sensor calibration design 25706
- separable convex fn., minimisation, greedy algm. 37284
- seq./parallel image restoration, neural network appl. 2729
- shape reconstruction by combining stereo and photom. ratio 24510
- simultaneous driver/wire sizing for perform./power optim. 494
- sliding-window protocol 41530
- SMDS networks, link set capacity augmentation algms. 16435
- SONET rings, optim. problem, balancing loads 9553
- spacecraft power syst., multivariate nonlin. design optim. 26678
- sparse spike time series recovery by L_1 norm deconvolution 8415
- std. cells, orient. assignment, fuzzy math. transform. 5944
- struct. rank deficient matrices, struct. total LS problem 2482
- supply-side loading minimisation, intelligent SVC control 43656
- surface curvature and orient. recovery from texture distortion 24468
- surface matching algm. 16169
- surface segmentation, multilayer, energy minimization 16183
- table-lookup for binary/residue and residue/binary conversions 6196
- telephone based speech recogn., in adverse environ., sig. bias removal 32316
- TEM defocus series, exit wave reconstruction 24430
- three-level hierarchical telecomm. networks, link no. minimization 33166
- time difference of arrival meas., closed-form localization soln. 32616
- time-freq. kernel design, lin. constrained minimization approach 8341
- timing synthesis from VHDL description *(Korean)* 21273
- tracker correl. gate size optim. for maneuvering targets 18977
- tracking in clutter, adaptive waveform selection 15948
- transformer winding shape design, global optim. strategies 887
- two-level logic minimization, overview 630
- underground power cables, mag. field shielding studies 10747
- via minimization of cct. layer assignment problem 464
- VLSI, area minimization for floorplans 13830
- VLSI cell placement, self-organizing scheme 5962
- VLSI design, orient. assignment of std. cells, fuzzy maths 28975
- VLSI/WSI defect tolerant arrays, optimal group diagnosis 13837
- VQ, min. free energy, annealing control 28635
- VQ-based motion field segmentation under entropy criterion 16384
- wavelet-based approaches vs. subband coding techs. for still image coding 32826
- whiter than white noise 40990
- word-length determ./scaling software for sig. flow block diag. 28969

minimisation of switching nets
- *see also logic design*
- ANN connection topol. optim. by genetic algm. 29505
- asynchronous ccts., state assignment problem for event-based specs. 12259
- CAD conf., San Jose, CA, USA, Nov 1994 41
- cct. simul. compression by sampling *(Korean)* 12266
- FPGA logic implement., optimisation techs. based on genetic algms. 6108
- hierarchical systs., estims. of layout params. 28929
- high-level synthesis syst. for automatic generation of pipelined datapath *(Korean)* 12386
- LRAP optimiser, combined logic resynthesis and placement 21052
- LSI power/area optim., transistor sizing/wire length minimization 37745
- mixed polarity Reed-Muller represent., technol. mapping 21162
- multiplexor-based archit., area/delay tradeoff, fast technol. mapping 21196
- optimal virtual path bandwidth mgt. assuring network reliab. 41650
- Rent's rule generalizations 28927
- sync. seq. ccts., state assignment for low power dissipation 29095
- technology decomposition using optimal alphabetic trees 21213
- VLSI rect. cell placement, force-directed self-organizing maps and delta learning rules 5965

minimum entropy methods
- *see also maximum entropy methods*
- entropy min., spectral estim., inform. theory 40772
- entropy-min. spectral estim., robustness 40776
- period estim., min. entropy deconvolution 24136
- principal component anal., group action, entropy fn. minimisation 40901

minimum metallic conductivity
- CdSe:In, n-type, hopping cond., two-param. scaling 21922

minimum principle
- induction motor control, min. energy approach 27726

minimum shift keying
- 60 GHz vehicle-to-vehicle commun., time/freq. selectivity 9316
- BER, influence of multipath propag. *(German)* 23635
- binary FSK direct conversion receivers 3463
- CDMA with DS-SS GMSK, perform. study 33846
- cellular TDMA networks, cochannel interf. simul. 17060
- DECT channel error profiles 3123
- DGPS correction distrib. by radio beacons *(Croatian)* 3635
- differential GMSK perform. eval. using K^{th} order detectors 32032
- digital commun. systs. degrad., multipath environ. 3412
- digital mobile commun., adaptive Rayleigh fading compensation for coherent GMSK sigs. 3433
- direct seq. CDMA, GMSK modulation, perform. 33754
- dispersion-supported transm., opt. nonlin. 17227
- dispersive radio channel, MSK transm., error mechanisms 17120
- DMSK digital packet sync., preamble design 9362
- FH-SSMA, band-efficient modulations, cellular radio channels 25367
- freq.-selective fading channel, differential detect. 2217
- GMSK modulation, expt. investig. 15715
- high-speed train, adaptive channel equalization 3423
- matched-filter samples, max.-likelihood timing/data estim. 15711
- mobile satellite commun., MFSK/DPSK sigs., cutoff rates 25301
- multichannel coherent SCM lightwave syst. 17340
- multiple multiamplitude MSK trellis codes, AWGN/fading mobile satellite channels 33958
- narrowband CPM async. CDMA syst. all-digital receiver design 42150
- packet-based mobile radio, digital MSK receiver 3435

minimum shift keying continued
signals, orthogonality 8100
SMSK/MSK-modulated inputs recovery, modulator config. 25157
sub-optimum receiver, convolutional codes optim. 42170
timing recovery algms. 9372

mining
see also mineral processing industry
6 kV mining power networks, short-cct. protection design *(Russian)* 5433
adverse mining environs., motor selection/appls. 20185
coal mine transportation arcing, detection/suppression method 20107
contactless power delivery syst., mining appls. 20188
elec. locomotive braking, pulsed control syst. modelling 28202
elec. network protection reliab. *(Russian)* 44642
fibre optic sens. and Bragg gratings, mining appls. 17839
hard rock fragmentation, pulsed power plasma blasting tech. 36811
hoist cycloconvertor sync. motor drives 44643
hoist winder drive control upgrade project, South Africa 44644
indust. power systs., electromech. response 20186
Kiruna mine prod. syst. operational reliab. Markov model 20191
load-haul-dump mach. power supply cable life rel., operating environ. 20190
longwall face equipt., 4160 V power syst. appl. 20184
MV mine distrib. network, ground fault simul. 20193
plasma blasting appls., 1 MJ pulsed power studies 36812
respirable coal dust meas., fire sens.-based 20187
rock fractioning, pulsed power exploding wire expts. 36813
shuttle car cable reels, ampacity calc., thermal characts. 20183
sulphide-quartz mixtures, electrostatic separation 40207
transportation power syst., limited short cct. current 20182
underground hoist, digital controlled cycloconverter induction motor drive 11323
winder motor drives, digital control systs. 44645

Minitel *see viewdata*

minmax technique *see minimax techniques*

minor planets *see asteroids*

minority carrier conduction *see minority carriers*

minority carriers
2D MOSFET simul., local NMOS mobility model, screened minority impurity scatt. 1412
bipolar devices, emitter quantum efficiency, superposition principle 13625
bipolar power transistor switches, collector current/current gain rels. 38824
CMOS transistors in freeze-out regime, quasi-static behavior 13673
diodes, deep levels, charge exchange, injected minority carrier accumulation 13580
DMOS power transistors, Si-direct-bonded, static/dyn. props. 22467
dual-collector magnetotransistors in SOI technol. 25790
fully depleted SOI CMOS SRAM cell, SEU sensit., SPICE anal. 12522
ground recirculation parasitics in power ICs, protect. tech. *(English)* 30419
HBT modelling, particle transport eqns. 6725
HBTs, HF design, f_{max}-carrier mobility rels. *(Chinese)* 1354
high-low emitter bipolar power transistor, characts. 22379
IGBTs, soft-switching converters, switching dyn. 30242
III-V cpd. semiconds., minority carrier lifetime 1041
implanted MOS structs., I(t) tech. for generation rate determ. 1169
insulators/semiconds., asymmetric double charge injection 29824
inversion layer emitter thyristor, power device 30281
lateral advanced IGBT, fast turn off 30329
MIS struct. with charge transport, steady-state reverse I-V characts. 22070
MOS controlled power diodes, trench MCDs 38812
MOS-controllable thyristor, inversion layer emitter 1371
MOSFETs, short-channel, subthreshold slope, drift model 38878
n-p jn. devices, high-level free carrier injection, num./empirical model 30192
nonideal metal-semicond. contacts, Schottky diode soft-breakdown, hybrid diode 1342
planar devices, minority carrier diffusion length, direct meas. 13659
poly(3-methyl thiophene)/Al Schottky barriers 13212
polysilicon emitter bipolar transistors, LF 1/f noise 38820
PV cell pulsed laser illum., laser power beaming systs. 43948
RTO proc., opt./elec./mech. charactn. 22227
scaled DRAMs, α-particle-induced soft errors 21320
SOI n-MOSFET radiation hardness improvement by Ge-implant. 13726
solar cell perform., high injection effects 44414
solar cells, internal quantum efficiency anal., graphical eval. 44419
AlGaAs/GaAs:C,In HBTs, lattice strain control, In co-doping 22374
(Al)GaInP/AlInP DH, minority carrier lifetimes 13125
p-Cd$_x$Hg$_{1-x}$Te epitaxial layers, electron mobility 13070
CdTe electrodeposited films, SCLC 29862
n-CuInS$_2$, minority carrier diffusion length, EBIC meas. 29873
GaAs, devices, impact ionization/light emission, Monte Carlo study 1441
p-GaAs, electron-hole scatt. 1031
GaAs homojunction photodetector, subwavelength spatial resoln. 42819
GaAs photodetector for near-field optics 17766
GaAs:C, HBT base-layers, electron lifetimes, annealing effects 1200
GaAs/AlGaAs modulation doped heterojunctions, neg. photocond. 29919
GaAs$_{1-x}$P$_x$/Al$_y$Ga$_{1-y}$As DH, minority carrier lifetime 1081
GaInP$_2$ DH, ultralow interface recomb. vel. 29889
GaN-based LED, high efficiency, high disloc. densities 31099
Ge$_{0.3}$Si$_{0.7}$/Si heterostruct., minority/majority-carrier trapping 21950
HgCdTe photodetector array, variable area diode data 25837
Hg$_{1-x}$Cd$_x$Te MIS IR detectors, 1/f noise, temp. depend. 17768
n-InAs:Si, carrier mobility across surface depletion zones 13055
InAs/AlGaSb undoped quantum wells, neg. photocond. 29919
In$_x$Ga$_{1-x}$As/InP thermophotovoltaic cells, recomb. lifetime meas. 28006
InP Schottky barriers, minority carrier diffusion length 13210
InP high-efficiency n$^+$p solar cell, simul., improvements 11301
InP/Si, bonding using InSb, Au-based eutectic alloys 13269
Si, EFG growth in CO ambient, gettering 20647
Si GTO thyristors, var. of carrier lifetime with temp., device operation 30279
Si bilateral solar cells, minority carrier diffusion length 36595
Si, carrier-diffusion, Fourier-transient-grating method 21886
Si, charge carrier transport, electron-hole scatt. 13027
Si diode, MeV particle irrad. 13601
Si, heavily doped, majority/minority mobilities, device simul. 21873
Si, mesoporous, photocarrier grating tech. 22999
Si, neutron-irrad. single cryst., elec. params. *(Chinese)* 1016
Si, p-n jns., minority carrier diffusion length determ. 38284
p-Si, photoelectrochemical diffusion length, PV appls. 29834
Si photoelectrode, efficient reductive/oxidative current flow 38453
Si polycryst. solar cells, hydrogen passivated 44407

minority carriers continued
Si power devices, combined electron and ion irrad., local lifetime tailoring 30204
Si shallow-jn. form., RTA doped SOG films 21964
Si, single crysts., metal impurities, opt. detect. techs. 38242
Si solar cell perform., trap location/trap-assisted Auger recomb. effect 44395
Si wafer surface minority carrier lifetime meas. tech. 30388
Si wafers, doped, modulated photothermal reflectance charactn. 13031
Si wafers, p-n jns., leakage current, diffusion component 38297
Si wafers, photocurrent imaging, electrolyte contacts 31069
Si:Al solar cells, minority carrier diffusion length, Al gettering 44416
Si:B p-n-p lateral transistors, minority carrier diffusion length, band gap 13653
Si:Er cryst., Er opt. activation, excitation, conc. limits 38483
Si:Fe,Al(B), lifetime effects of Fe/Fe complexes 29826
Si:Mo p/p$^+$ epitaxial wafers, Mo contamination 38236
Si:O, intrinsic gettering, low temp. annealing *(Chinese)* 1193
Si/SiGe I^{2}L ccts., gate delay 12414
Si-SiGe-Si DHBTs, parasitic pot. barrier effect on base current *(Korean)* 13618
n-Si-SiO$_2$ semicond.-dielec. MOS interfaces, minority carrier generation 6588
p$^+$-Si-SiO$_2$-polysilicon STDS struct., charge carrier capture 13240
6H-SiC CVD layers, minority carrier lifetimes 21931
6H-SiC JFET, 1/f noise phenom. 1436
SiN-Si X-ray mask wafer stress, contactless laser/microwave eval. 6686
SnO$_2$-TiO$_2$, ultradisperse nanoheterogeneous systs., anom. photoresponse 1789

mirages *see atmospheric optics; light refraction*

mirror antennas *see reflector antennas*

mirrors
see also laser mirrors
0.5 MW, 140 GHz gyrotron, conditioning optics, astigmatic Gaussian beams 975
3×3 couplers in fibre optic sens. systs. 17909
7.5 kW solar dish/gas-fired heat pipe receiver Stirling engine syst. 28045
all-opt. clock-recovery cct. using dual mode-locking, 5-Gbit/s 14879
aspherical mirror testing, zone plate CGH common path interferometry 40122
audio-mirror speaker syst., corn-shaped, polar response *(Japanese)* 17611
BWG, mirror representation, inclined phase-transforming surfaces 30924
cascaded nonlin.-opt. loop mirror soliton switching 23379
catadioptric opt. syst., unit magnification develop. 31053
chilled mirror dew point sens. optics 17757
closed-loop adaptive-optics optimisation, multiple control bandwidths 3776
CMOS transimpedance amp./opt. syst., monolithic integrat. 31131
concave mirror, rad. meas. by zone plate interferometry 42924
conference, laser damage in optical materials, Boulder, CO, USA (1993) 11528
conference, optical interf. coatings, Grenoble, France (1994) 11556
cylindrical mirror energy analyzer, closed ends 10083
deep-space opt. commun., 10 meter-class ground-based receiver 17322
diffractive optics, radiation resist., electroforming *(German)* 31058
digital micromirror device, projection display 18007
double colour-pumped oscillator, high-power beam steering by Brillouin four-wave mixing 15104
double phase conjug. four wave mixing mirrors 23438
downsized multi-functional EO test collimators 35385
electron opt. benches, aberrations/LEEM appls. 1011
EUV projection lithog., diffr. mirror optics 38722
fibre reflectometry wideband beam-splitter mirror 3868
fig. of eight fibre lasers, mode locked by Sagnac interferometer 31455
flat mirror energy analyser, end electrodes 43029
flexure-beam micromechanical SLM 7391
four-wave mixing mirror response, spectrally broadened sig. beam 40088
freq. nondegenerate parametric amps., asymmetric losses, output quantum correl. 40074
hole diam. opt. meas. instrum. develop. *(Japanese)* 42939
holographic interferometer, autonomous reflector, ref. beam 31655
HV solar cell array for electrostatic MEMS 36606
hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
intens. interferometric correl. in image reconstruction 2709
large-screen HDTV projector, opt. config. 25922
laser beam machining delivery control syst. *(Japanese)* 37061
laser cutting machine, accuracy/error compensation *(Japanese)* 5608
LD mirror heating, thermal diffusivity 1958
machine tool rolling meas. syst., laser interferometer-based *(Japanese)* 42940
MEMS, power supply, solar cell array 22630
metal-mirrored Fabry-Perot resonator bistability 2102
micro-machined 3D micro-optics for integrated free-space opt. syst. 14484
mode locked fiber laser gyroscope, polariz. charact. 17833
modular imaging spectrometer instrum. modeling/testing 34591
multilayer coated reflective optics, EUV lithog. 38721
multilayer X-ray mirrors for X-ray lithog. 6689
multimode fibres, partial phase conjug., image restoration fidelity 24423
N-bit parallel opt. adder, fully parallel arith. algm. 31024
nonlin. crossed Fabry-Perot resonator, transm. fn. 15110
nonlin. opt. loop mirror demultiplexer, extinction ratio and switching efficiency, error rate perform. 17176
nonlin. opt. loop mirror extinction ratio improvement 15122
nonlin. opt. loop mirror noise filtering 25526
nonlin. opt. loop mirrors, saturable absorbers, picosecond solitons 7298
nonlin. optics appl. for large astron. telescopes 31577
nonlin.-opt. loop mirror/fibre Bragg grating, bandpass switching 31499
open resonators, geom. imperfections, perform. effects 818
opt. fiber ccts., time-reversal for polariz. state 14392
opt. solar reflectors, low absorptivity, environ. stabil., spacecraft charging 18690
optoelectronic packaging, Si surface-micromachined alignment mirrors 14673
parametric nonlin. mirror, short pulse generation, dispersion limitations 31493
pattern-evoked ERGs, laser ophthalmoscope, mech. mirror 35121
perfect shuffle opt. interconnect module 39513
photonic ICs, low loss mirrors, etching 14503
photorefr. double phase conjug. mirrors, gain-threshold, oscill. 23402
planar laser microcavity modes, self-consistent calc. 39993

mirrors continued
planar microcavity LED's, design/expt. comparison 31097
planar opt. crossover interconnect config. 39607
polaris. independ. nonlin. opt. loop mirror demultiplexers 34079
polariz. insensitive fibre-optic white-light interferometry 34521
polariz.-independent regenerator, nonlin. optoelectronic PLL 14655
projection display, Digital Micromirror Device 39028
projection displays, metallized viscoelastic control layers 25923
quasioptical resonators, mode interact. 8014
ray tracing facility for soft X-ray/VUV monochromators 10164
real-time atmos. compensation, SBS phase conjug. 31576
scanning laser vibrometers, directing meas. point 31693
scanning spherical tri-reflector antenna, moving flat mirror 40476
self-aligned integrated mirror intrinsic loss anal., finite-difference beam propag. method 39613
semicond. diode laser, mirror temp., photothermal deflection method 2033
semicond. integrated opt. routing array components, carrier diffusion effects 14479
semicond. multilayer struct., opt./X-ray/electron microscopy meas. 1122
single-mode fiber, self-aligning multibeam coupling 14399
single-mode fibre connections, mutually-pumped phase conjug. mirrors 15105
smart-pixel liq. cryst.-on-Si SLM for optoelectronic neural network 22960
soft X-ray projection lithog., multilayer mirrors *(Japanese)* 13438
soft X-ray projection lithog., opt. design *(Japanese)* 13439
solar energy prod. methods, overview 19549
solar space power transm., liq. space optics appls. 43415
soliton recovery, nonlin. amplif. loop mirror 31482
space solar concentrators, glass reflectors, optical eval. 26644
stable soliton transm. in nonlin. nonlin. amplif. loop mirror gain syst. 42459
straddling holographic images, one-step enlarging tech. 7817
submicron stripe patterns photoelectron imaging, soft X-rays 42978
surface-emitting vert.-cavity QW laser, time-depend. num. simul. 1972
thermal phase noise, Michelson vs Sagnac fiber interferometers 17914
thin plastic scintillator, mirror focused HI TOF appl. 34938
tris(8-hydroxyquinoline)aluminum photo- and electro-luminesc. devices, double mirrors 39576
tunable photodetectors and LEDs for WDM appls. 39617
two-level center thin film with a wide-aperture opt. feedback, spontaneous patterns form. 31566
untanned DCG layers, narrow-band holographic mirrors 7821
variable opt. delay line, birefr. planar opt. platform based 42443
videotelephony, blazed half-transparent mirror for eye contact 42098
vision device flight test 10387
walk-off-limitation-free all-opt. nonlin. fiber-loop-mirror switch 9568
waveguide-grating filters, plane wave and Gaussian beam illum. 30950
white-light scanning fiber Michelson interferometer for absol. posn.-dist. meas. 42832
X-ray lithog. beam lines, single mirror condenser 13540
YAG laser high power proc. appls. in heavy industries *(Japanese)* 20418
zero-dispersion dispersion-flattened nonlin. fibre loop mirror demultiplexing 3561
$Al_xGa_{1-x}As$ DBR, reflectivity spectrum 2034
(Al)GaAsSb/AlAsSb Bragg reflector on InP, high reflectivity 28748
AlN-GaN qtr.-wave reflector stack, gas-source MBE 14565
$BaTiO_3$ cryst. in CAT config., temporal behaviour of phase conjug. wave 31521
$BaTiO_3$ phase-conjug. mirror, mutually pumped, fish-head config. 40085
$BaTiO_3$ photorefr. cryst. for laser wavefront correction 30818
$BaTiO_3$ self-pumped phase-conjugating mirrors, interferometric systs. appls. 31051
$Bi_{12}TiO_{20}$ double phase-conjug. mirror, oscill. and amplif. props. 31565
$Bi_{12}TiO_{20}$ photorefr. fibre, phase conjug. mirrors 30819
GaAs micromachined widely tunable Fabry-Perot filters 22984
GaAs/(AlGa)As DBR, reflectivity, disordering 2035
GaAs/AlAs DBRs for GaSb-based reson. cavity photodetectors 25833
GaAs/AlAs four-wavelength Bragg mirror 22917
InGaAsP-InP ultrasmall waveguide bend corner mirrors 30970
InP:Fe double phase conjug. mirror, telecomm. appls. 23452
$(KNa)(SrBa)Nb_2O_6$, double phase-conjug. mirror, imaging props. 31594
$(KNa)(SrBa)Nb_2O_2$:Cu, self-pumped phase conjug. mirror, dyn. instabil. 23441
$KNaSrBaNb_2O_6$:Cu cryst. bird-wing double phase-conjug. mirror 40116
$KNbO_3$ tunable narrow-band mid-IR type I opt. parametric oscillator 40113
LiB_3O_5 doubly reson. opt. parametric oscillator cavity mirror crysts. 40091
$LiNbO_3$ elec. controlled supergaussian mirrors 14482
$LiNbO_3$ waveguides, quasi-phase-matched opt. parametric amplif./oscill. 23381
$LiNbO_3$:Fe cryst., phase conjugating mirror, scatt. light enhancement 31529
Mo-Si multilayer x-ray mirror, top layer oxid. 6690
Nd:YAG laser cryst., parametric pass. phase conjug. 2118
Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
Si (110) micro-opto-mech. devices, anisotropic etching 30977
Si LSI single-chip integrat. of LED, waveguide and micromirrors 39615
Si, anisotropically etched mirrors for opt. sens. appls. 37409
Si, micromirror arrays, KOH:H_2O micromachining, lens templates 7442
Si/B_4C narrow-bandpass mirrors, EUV reflectance 1779
a-Si-SiO_2-Si Fabry-Perot opt. intens. modulator by merged ELO 14647
SiO_2:Ge Bragg reflectors, UV laser fab. 14436
VO_2 94 GHz flying spot mirror, theory and expt. 23956

MIS capacitors
see also MOS capacitors
interface props. 13258
MOS capacitors, gate oxides, repeated N_2O RTA 22071
$BaTiO_3$/p-Si capacitors, struct., elec. props. 39061
Pt/PZT/Pt/SiO_2/p-Si MFMIS FET, ferroelec. thin films in NDRO nonvolatile memories 37780
Si_3N_4 thin films, MNS capacitors, jet vap. deposition 37504

MIS devices
see also charge-coupled devices; MIS capacitors; MISFET; MOS-controlled thyristors
1/f noise and radiation effects in MOS devices 1382
automotive low dropout regulator, HV DMOS pass element 20113
BiMOS MCT/IGBT VHV devices, gate oxide integrity improvement, external gettering 30275
border traps, MOS radiation response/long-term reliab. 20494
buck converter design, zero-current turn-off, MCT 19748
cone-shaped electron tunneling cathode, fab. 21790
DMOS device, quasi saturation, turn-off transient anal. 38434

MIS devices continued
dual lateral channel emitter switched thyristor characts. 13667
granular particle, lin. flow vel. meas., image sens. 3993
high efficiency reson. converter based on MCT 19730
low-dose-rate MOS device response testing 13734
MCTs, turn-off failure mechanisms in large devices 30274
MOS controlled power diodes, trench MCDs 38812
MOS device gate oxide, hot carrier transport-injection model 22433
MOS device phys., low temp. electronics 1172
MOS device reliab. studies under LabVIEW environ. 22320
MOS devices, transient 2D simul., waveform overrelaxation 22332
MOS diode, Na contamination free ashing, O_2+H_2O plasma downstream 22234
MOS hydrodynamic simul., nonlin. relax. 22326
MOS pixel readout for single-sided 2D detector 34933
MOS struct. with finite field plate, 2D field distrib. calc. 13232
MOS-assisted gate-triggered thyristors, pulsed power switching appls. 36431
MOS-controlled devices thermo characts. 22322
MOS-gated power devices, phys. and subcircuit models 30206
MOS-type posn.-sensitive detectors, angle/posn. detect., opt. interf. 34687
radiation effects R&D in 1970s, review 13021
(S)SAMCTs, (super) self aligned MOS controlled thyristors, switching 20 A at 4 kV 22397
semicond. gas sens., catalytic gate 3921
α-sexithiophene MIS diodes, charged excitations, opt. studies 13256
soft X-ray imaging syst., amplified MOS imager *(Japanese)* 17931
soft-switching power converters, GTO/MCT characts. comparison 19849
trench gate emitter switched thyristors 30272
trench MOS-gated power devices 6706
trench-oxide MOS struct., quantum wire devices 38435
triangular mesh generation for complex device structs. anal. 1420
tunnel MIS emitter Auger transistor, anal. model 38819
VDMOS devices, LV, on-resist. model 13761
X ray ionization radiation effects and mechanisms 6680
Al-SiN-Si syst., laser CVD, TFD charact. by DLTS 13597
GaAs MIS diodes, at. layer passiv. 13598
HgCdTe, quench recrystn. growth 5805
$Hg_{1-x}Cd_xTe$ MIS IR detectors, 1/f noise, temp. depend. 17768
InGaAsP/Au Schottky junctions, barrier height enhancement 13211
InP MIS Schottky diodes, S passiv. and RTA 13599
InP, MIS tunnel diodes, elec. props., oxid. temp. effects 1335
InP MOS tunnel diodes, elec. charactn. 38814
n-InP/Ta_2O_5/Ta MIS diodes, elec. props. 13595
InP-oxide-metal tunnel diodes, elec. charact./nature of interfacial oxides 38918
p-InSb MOS device, inversion layer subband, nonquantum limit *(Chinese)* 13259
Pd-Si tunnel MIS switching device, H-sensitive property 1336
Pt/SiO_2/Si MOS devices, interface states, XPS meas. 38436
Si MOS devices, transient impact ionization in bulk semicond. 1173
Si MOS diodes, interface-state passiv., surface pot. depend. 1182
Si-SiGe layers, elec. charactn. techs. 6538
Si-SiO_2 MOS devices, quasi-breakdown of ultrathin gate oxide under high field stress 22067
SiO_2 films prod. by PECVD, interface and elec. props. 29969
SiO_yN_z plasma CVD, MIS devices appl./elec. eval. 20973

MIS structures
see also MIS devices
0.6μm nMOS ESD I/O protection struct., EOS suscept. study 29978
accumulation mode MOS structs., effective dielec. thickness determ. 38421
CCD image sens. basic principles and archits. *(German)* 3874
charge transport, steady-state reverse I-V charact. 22070
diamond metal-semicond. and MIS structs., elec. charact. 6582
implanted MOS structs., I(t) tech. for generation rate determ. 1169
metal/SiH_x/Si diode struct., steady-state I-V charact. 38437
MOS devices/ccts., radiation effects, meas. syst. *(Chinese)* 25729
MOS microstruct., dielec. breakdown and reliab. 22062
MOS oxides, high-field stressing, interface state generation 13261
MOS struct., defective dielec., microcracks 29983
MOS struct., effective contact pot. difference factor 6584
MOS struct., hot carrier injection, C(I)-V charact. *(Chinese)* 1168
MOS struct., interface state dens., postoxidation cooling 22057
MOS struct., P ion implant., gettering efficiency 6620
MOS struct., reliab., X-ray irrad.-induced damage 13241
MOS struct., slow surface levels, elec. props. 29967
neg. bias temp. instabil. in MOS struct., low temp. *(Chinese)* 6580
polysilicon dual-gate CMOS, N implant. 38498
quantized accumulation layer, model 13242
relax. spectrosc. tech. for solid interfaces 25711
RTO/nitridation clusterable reactor, MOS gate oxides 22219
thin insulator p-type MOS structs., inversion charge anal. 38444
transistor struct., localized vol. state spectrosc. 13097
Ag-CdS-fluorinated polymer jn., elec. props. 13244
Al/SiO_2/3C-SiC:Na(K) MOS capacitors, ionic contamination 13254
Al-SiO_2-Si MOS struct., charge build-up/oxide wear-out, Fowler-Nordheim stress 13234
Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
Al-polysilicon-SiO_2-Si struct., HF plasma proc. effects 13239
Al_2O_3-Si, ML-ALE grown, elec. props. 22054
$As_2S_3(Se_3)$ MChDS structs., photocharging characts., opt. memory appl. 22053
Au/$BaTiO_3$/p-Si metal-ferroelec.-semicond. struct., charge polarity 22052
Au/Ta_2O_5/n-InP, interface state dens. determ. 13255
Au/$Zn_{0.4}Cd_{0.6}Te$:In solar cell, fab./charact. *(Korean)* 19985
Au-CeO_2-Si, elec. charact. 29965
CaF_2-based MIS struct., DOS, PES and BEEM studies 22072
CdTe based MISIM struct., photoelec. phenom. 6581
CdTe passiv. for long-wavelength HgCdTe photodiodes, elec. props. 1277
GaAs MIS struct., C-V charact., hysteresis 29966
GaAs, MOS struct., double oxide layer, RTA 29982
InGaAs/GaAs depletion-MIS-like delta-doped HFETs 13810
InGaAsP/Au Schottky junctions, barrier height enhancement 13211
InSb/SiO_2 MIS structs., low interface trap dens. 29981
Si, MOS gate fab., ECR ion stream etching 13377
Si MOS struct., lateral n-i-p-i superlattices 29985
Si MOS structs., oxide trap relax. spectrosc., difference method 38426
Si epitaxial p^+-n struct., tunneling-oxide-metal contact, photoelec. effect 29884

MIS structures continued
Si, substr. surface treatment 38535
Si:Fe based MOS structs., deep levels, thermal behavior 29971
a-Si:H MIS struct., conductance mechanisms *(Chinese)* 38439
a-Si:H MIS struct., response time/capture cross sect., gap states *(Chinese)* 2206[illegible]
Si/SiO_2, MOS structs., photoenhanced CVD, comp., elec. props. 38429
Si/SiO_2 antidot syst. MOS struct., far-IR excitations 29976
Si/SiO_2 interface states and neutral oxide traps induced by surface microroughness 29968
Si/SiO_2/Al, H-related instabilities, removal by F implant. 13314
Si/SiO_2/Al MOS structs., nitrided, reoxidised, elec. charactn. 13257
Si/SiO_2/Al MOS, tunnel jns., light-emission mechanism 22078
Si/SiO_2/Au MOS, tunnel jns., light-emission mechanism 22078
Si/SiO_2/Cs(In), metal overlayer-induced charge transfer effects 6591
Si/SiO_2/Pt MOS diodes, surface state energy distrib., XPS meas. 29973
Si/SiO_2/Si MOS oxides, border traps 13249
Si-Dy_2O_3 MIS structs., UV irrad., charge accum. 22056
Si-SiO_2 MOS interface, tunnelling emission, const. voltage DLTS 6585
Si-SiO_2 MOS struct., dielec. breakdown, charge stabil. 22064
Si-SiO_2 MOS struct. quality, N_2O ambient, furnace nitridation time 13237
Si-SiO_2 MOS surface layer defects, ECR etching in Cl_2/O_2 plasma 6631
Si-SiO_2 accumulated MOS thin dielec. struct., quantum effects 13235
n-Si-SiO_2 semicond.-dielec. MOS interfaces, minority carrier generation 6588
Si-SiO_2-Al structs., RF plasma treatment, radiation-thermal hydrogenation 22090
6H-SiC MOS struct., thermal oxid./computer simul. 38562
SiC epitaxial films, vap. phase chem. deposition form. 37453
p-SiC:Al MOS struct., fab. and C-V charact. *(Japanese)* 1178
SiC/SiO_2 MOS struct., radiation-tolerance *(Japanese)* 1179
SiC/SiO_2/Al struct., elevated temps., HF capacitance relax. features 13230
Si_3N_4/Si struct., PECVD 424
SiO_2 charge/mobile ion conc. meas., MOS struct. 29964
SiO_2 gate oxide films, ion-assisted oxid. 38592
SiO_2 layers in MIS struct., hole currents, threshold energies 6586
SiO_2 plasma-grown on Si, extremely low interface state densities 13233
SiO_2, radiation-induced trapped pos. charge 13250
SiO_2 ultrathin films, MOS struct., ultra-dry proc. 13248
SiO_2/Si MOS interfaces, interface-trap generation, neg.-bias temp. aging 38424
SiO_2-Si MOS struct., oxide layer cond., X-ray irrad. effects 13238
SiO_2N_x ultrathin N_2O-oxynitrided films, charge trapping, Fowler-Nordheim stress effects 22073
SiO_yN_z plasma CVD, MIS devices appl./elec. eval. 20973
SrF_2/InP(100) epitaxial diodes, elec. cond. 22065
ZnO-Al_2O_3-B_2O_3-SiO_2-PbO glasses, crystallizable, opt., polarizable and MOS props. 12213
ZnO-B_2O_3-Al_2O_3-SiO_2-P_2O_5 glasses, crystallizable, opt., polarizable and MOS props. 12213

MISFET
see also MOSFET
MLSFET, metal/Langmuir-Blodgett/semicond. FET, device phys., elec. anal. *(Chinese)* 13671
PPV, ion implant. doped, MISFET 38885
stacked nitride-oxide gate n-/p-MISFETs, hot-carrier reliab. 38856
supercond. MISFET, 3-terminal device *(Japanese)* 30354
TCNQ/polymer amorph. semicond. MISFET, cond. and field-effect mobility 13737
$Cd_xHg_{1-x}Te$, long-channel MIS transistor charact. 30302
GaAs MISFETs, MBE-grown GaAs insulator, breakdown voltage improve. 30337
GaAs MISFETs, photo-CVD P_3N_5 insulators, sulfide passiv. 38882
GaAs:As, implanted struct., MOCVD, charactn., appls. 22159
GaAs/AlAs low temp. MISFET struct. for power appl. 6752
GaAs/InGaAs MIS-like pseudomorphic transistor, two-layer struct. 38854
GaAs-P_3N_5 MISFETs, photo-CVD grown gate insulators, sulfide treated, charact. *(Korean)* 30355
InAlAs/n^+-InGaAs MISFET, deep levels 13696
InGaAs/InP:Fe MISFET, opt. controlled characts. 23015
InP MISFET, ECR plasma deposited gate dielecs. 13710
InP MISFET, modeling for power appl. 13709
InP MISFET, near-surface electron transport 13697
InP e-mode MISFETs, sulphide passiv., P_3N_5 gate insulators 30295
InP, gas phase polysulphide passivation, MISFET appls. 13342
InP/InGaAs, rapid thermal annealing, MISFET appls. 13274
InSb, high-speed MISFET, uncooled 30319
PZT ferroelec. film, neurodevice, adaptive-learning 39094
PZT films, adaptive-learning neuron ccts. appl. 30571
PZT films, polaris. reversal, adaptive learning metal-ferroelec.-semicond. FET appl. 39098
Pt/PZT/Pt/SiO_2/p-Si MFMIS FET, ferroelec. thin films in NDRO nonvolatile memories 37780
a-Si act. gate for polysilicon TFT 13713
a-Si:H TFT, Chebyshev approx. of field-effect mobility *(Korean)* 13683
a-Si:H TFTs, UV irrad. effects on characts. *(Korean)* 22417

missile control
see also missile guidance
EMRAAT missile, sliding mode planar autopilot design 18957
highly maneuverable missile, nonlin. autopilot/guidance 18956
multivariable H_∞ missile autopilot, robustness eval. 18958
surface-to-air missiles optimal guidance, differential games *(Chinese)* 43583
tail-control missile, LQG/LTR, eigenstruct. reassignment 18997
W-band missile syst. closed loop simul. 26836

missile guidance
ATR, ATLAS syst. 9648
generalized proportional navig., maneuvering/nonmaneuvering targets 26824
homing guidance, fuzzy logic, perform. eval. 26527
hyperspectral air-to-air seeker 18990
IR FPA non-uniformity meas., proposed std. 34571
Kalman filters for guidance sig. estim. 26809
LOS for homing guidance, improved command 35389
MATRA DEFENSE develops., DSP fn., MCM technol. 21741
MCM-D, Cu/polyimid TFML bare substr., MCM 21742
modified CLOS guidance law via right inversion 26825
modified CLOS guidance law via right inversion 18959
pass. fibre optic gyroscope develop. 17888
real-time navig., global positioning syst. 18991

missile guidance continued
Semi-Active-STINGER (SCORPION) missile simul. 26811
split gate trackers, tapped delay errors 26827
surface-to-air missiles optimal guidance, differential games *(Chinese)* 43583
Tomahawk cruise missile scene matching, image proc. 4433
W-band missile syst. closed loop simul. 26836

missiles
see also missile control
ballistic missile defense, discrim. perform. requirements 4435
ballistic missile track initiation from satellite obs. 18982
ballistic path estim., multisensor fusion 43563
CASS Navy/Air Force joint service missile testing 35412
computer simul. of missile systs., Ada framework 35418
cruise missile tests, perform. anal., ES 35404
D2 hypervelocity projectile program, air defence elec. launchers 18962
defense strategy, missile attack, inform. value 43591
dyn. RCS using the wavelet transform, time-freq. inform. 26822
EMC testing, direct/indirect current injection 4431
end game simul. for air defense missile systs. perform. 26841
HP2100 computer in US Navy test sets, replacement 35380
intell. missile black-box 4441
JSOW quality tracking syst. for sigma improvement 26835
kinetic impact debris distrib. computer simul. 26839
launch platform develops., weapon simulators 35405
mil. test set, design for manufacture/assembly 35403
Mission Effectiveness Model ballistic missile defense simulator 26842
MSX early midcourse algm. testbed 16111
multiple-model target-oriented tracking syst. 18983
Navy air-launched missile maint. 35415
Navy and joint service missile testing—A management update 43597
parametric endo/exoatmospheric lethality simul., ballistic missiles 26840
plastic encapsulated IC reliab., missile appls. 35386
Semi-Active-STINGER (SCORPION) missile simul. 26811
superspheroids, family of radome shapes 31998
Tomahawk Cruise Missiles, MVS/RLS register level simul. 26535
Tomahawk Land Attack Cruise Missile, force-level anal. 43588
TOPs opt. pattern recogn. program 18987
torpedo transducer, automated calib. facility 10594
vector neural network sig. integrat. for radar appl. 18976
vert. launch syst. maint. ES 43600
warship staying power in missile combat, salvo model 35401

mixed analogue-digital integrated circuits
see also application specific integrated circuits
3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
adaptive VLSI neural network chip 29436
analog high-level synthesis for mixed-sig. ASICs 29400
analog neural networks, digital programmability 37924
ART1 memories, mixed analog/digital implement. 29404
ASIC, Conf., Rochester, USA (1993) 36858
ATE develop. 25730
ATS 93 test conf., China (Nov. 93) 36857
behavioral simul. techs. for phase/delay-locked systs. 29402
behavioural level mixed A/D syst. exploration 768
benchmark ccts. for mixed-mode SPICE simulators 29401
BEST2, super self-aligned BiCMOS technol., low-power mixed-sig. appls. 21451
BiCMOS 9-32 Mbit/s single-chip read/write channel for disk-drive appls. 29409
BiCMOS SC bandpass delta-sigma A/D modulation, 10.7 MHz 29310
BiCMOS video sig. proc. IC for laser disk player 9756
board-level mixed-sig. test support, IC archit. 12663
cellular telephony, analog/digital interface 33833
CMOS analog current-mode ART1 algm. implement. 29475
CMOS analog/digital interface for cellular telephony 33774
CMOS audio channels for portable sound systs., mixed sig. amp. proc. 17606
CMOS bit-oriented parallel A/D converter 712
CMOS cellular neural net-based smart pixel chips, analog design 31130
CMOS charge sampling IC for capacit. detector/sens. interfaces 25774
CMOS clock-frame regeneration chip, ECL-compatible I/O 21446
CMOS custom automotive ICs, I_{DDQ} testing, fault coverage 36766
CMOS differential difference amp., mixed analog/digital VLSI systs. 37642
CMOS digitally-prog. analog cells for ANN 29450
CMOS IC crosstalk extraction from mask layout 22568
CMOS low-power transponder IC for identif. systs. 29397
CMOS mixed analogue-digital ISDN IC, analogue layout shrinkage CAD 28987
CMOS neural chip, 70 input, 20 ns pattern classifier 29483
CMOS neural network IC for high-energy phys. 29476
CMOS transponder microchip, low power biomedical telemetry appls. 34995
CMOS two-step flash converter, mixed sig. integrat. 695
CMOS VLSI implement. of modular ANN chip for character recogn. 6273
CMOS VLSI smart visual micro-sens. based on insect vision 34569
CMOS wireless vol. control receiver for hearing aids 18606
CMOS/BiCMOS hybrid AD677 16-bit A/D converter, single event effects 29333
codec for GSM voice/RF interface 42089
commun. LSIs, device/crosstalk noise, LV designs 12660
comparator-convertor implement. *(German)* 21388
complex mixed-sig. ICs, parametric yield prediction 29399
correction method for single chip power meter 4740
cortical amps., hybrid analogue-digital CMOS archit. 29482
crosstalk, effect of substr. material 21447
Crystal CS5327 16-bit ADC, single event effects testing, HI bombard. 29334
current-mode high-precision winner-take-all cct. 21450
custom IC, conf., San Diego, CA, USA (May 1994) 20247
deep submicron compact phys. model for analog ccts. in mixed analog-digital ICs 21452
design prototyping, A/D mixed tester 688
digital noise meas. tech. 21449
dual voltage mixed sig. 0.6 μm CMOS proc. 13880
EDA, mixed-sig. simulators 12659
electronic test, obj.-oriented technol. 34351
embedded analogue to digital converters, characterisation, model 707
embedded chip MCM technol., nondigital extensions 21752
fault diagnosis algms. for analog/mixed sigs. 29403
fault simul. software 488
FH-SS transceiver, 900 MHz, low-power CMOS chip 33745
flexible 8-channel data acquisition device for sig. proc. and anal. 25737
flexible ASICs incl. embedded proc. for smart sens. appls. 6244

mixed analogue-digital integrated circuits continued
fuzzy controller design mixing analogue and digital techs. 770
GPS receiver, mixed-sig. MCM-L design 21691
GSM handsets, three-chip struct. 17034
high precision testing 766
high-speed measuring syst. for testing mixed-sig.-LSI 767
HiPEC, high perform. elastic connection, reliable mixed sig. MCM device testing 21612
hippocampus, nonlin. syst. model, CMOS implement. 29434
HV analog/digital ccts., std. 5 V CMOS technol., design and optim. 29407
hybrid analog/digital VLSI sig. proc., single bit modulators 12661
I_{DDQ} BIT cct. for CMOS ICs 13884
III-V technol. analog/digital/mixed-sig. ICs for high speed appls. 6817
integrated analogue-digital microsystems, challenges for research and education 37826
International Test Conf., Washington, DC (Oct. 1994) 61
IQTV multipurpose scanning rate converter IC 25664
layout depend. fault models, analogue fault simul. 6871
low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
low power transponder IC for identif. systs. 33744
low-cost simul. of mixed-sig. ASIC functionality 6241
low-power 900-MHz mobile RF synthesizer, CMOS chip 33861
LSI neural chip of pulse-output net, prog. synapse 29431
LV mixed-sig. ccts., digital CMOS technols. 12662
machine vision, digital camera, CMOS intell. sens. 42848
macro-cell placement in WRIGHT, substr.-aware algms. 29405
macrocell placement in WRIGHT, substr.-aware algms. 29395
MCMs with ASICs global optim., concurrent engng. approach 21743
microASIC, mixed digital and analogue chips, design 6246
mixed sig. ATE, data driven archit. 9813
mixed-mode syst. simul., parallel computing 769
mixed-sig. simul., Alfa simul. backplane 487
modular mixed sig. testing, high speed/high resoln. 6239
motor-control servo power IC for hard disc drives 36671
multi-model neural network, systolic modular VLSI archit. 29459
multi-tone sig. generator for BIST appls. 9967
multifunctional autoranging DMMs, mixed-sig. chip set 34618
neural recogn. of diagnostic test data transforms 34359
neural syst. for high-speed pattern recogn. and image anal. 29473
neuro-fuzzy hybrid hardware implement., neural chip URAN 29514
noise decoupling techs. in chip design 29398
nose, electronic, sig. proc. ASIC, BiCMOS technol. 9839
ovenized cryst. oscillators, VLF transmitter freq. synchronized 39074
parametric testing of mixed-sig. ccts., ANN tech. 21444
parametric yield prediction of complex ICs 29396
PC-based data acquisition, crit. perform. params. 25736
π/4-shift QPSK baseband modulator for pers. handy phone syst., CMOS mixed-sig. IC 29078
portable 3-axis 11-bit shock meas. cct. 34702
pre-regulator IC, lateral IGBT and current mode sens. 29037
precision behavioural modelling of data converters components 701
prog. neural net archit., BiCMOS 37913
PSpice simulator for mixed-sig. designs 12658
RAIL synthesis tool, mixed-sig. noise-decoupling 29406
reconfigurable ASIC analogue front end, intell. sens., software drivers 6243
reconfigurable ASIC front end for intell. sens. syst. 6242
RF IC, UHF portable wireless commun. 21579
rocket-borne downconverter, space plasma turbulence meas. 35310
sampling oscilloscope front-end, HBT MMIC design 42869
Schmitt trigger, CMOS mixed-mode implement., equiv. cct. 21159
self-checking mixed-sig. ICs, analogue sect. design, safety appls. 29408
sens. and IC's for instrumentation 9899
service adaptive access SLIC, CMOS prog. DSP, oversampled ADC/DAC 21378
sigma-delta ADC, BIST scheme for SNR/freq. response test 12597
simul., modelling techs. 21445
simul., Verilog/VHDL stds. extension 21448
single-wire analog testability bus, struct. and metrology 6240
software archit. for mixed sig. functional testing 6414
SOI transistor, bipolar, VHV CMOS compatible 30488
Sony mixed sig. devices testing 765
submicron CMOS large-angle-tilt implanted drain technol. 22571
super self-aligned BiCMOS technol. for low-power mixed-sig. appls. 30483
switched-current oversampling A/D converters, mixed sig. ICs 12606
test strategies, DSP-based techs. 21443
testing, joint time-freq. anal. 6826
testing, synchronized control, real-time DSP 6247
TiCa, timing capture tool for design/test generation of digital ICs 37683
top-down constraint-driven CAD of n-bit DACs 28941
universally reconstructable ANN VLSI chip for speech recogn. 8203
US imaging multi-element array transducer, transmit and receive ASICs 6245
video decoding algm. mapping, mixed sig. IC 8553
voltage-mode CMOS multiple-valued logic memory cct. 29228
GaAs IC, conf., San Jose, USA (1993) 36852
GaAs transmitter/receiver chipset for opt. link 42404
HgCdTe IRFPAs, IRCCD and IRCMOS detectors 17950
PtSi 640×480 IRFPA, third generation, MOS readout multiplexer 17953
PtSi IR cameras, IR CCD/IR MOS imaging radiometers 17957
PtSi hybrid FPA, CMOS multiplexer readout 17946
PtSi middle wavelength 240×320 IR staring FPA 17954
Si bipolar clock-recovery and data-regenerator IC, 8 GHz, opt. fibre transm. 9544
Si range finder, realtime range finding VLSI sens. 34568
SiGe HBT technol. for wireless and mixed-sig. appls. 22562

mixed conductivity
Si/SiO_2 MOSFET, dispersive transport, seminumerical simul. 38892

mixed-mode integrated circuits *see mixed analogue-digital integrated circuits*

mixed signal integrated circuits *see mixed analogue-digital integrated circuits*

mixed state
see also flux creep; flux flow; flux-line lattice; flux pinning
anisotropic supercond. planar waveguides 1640
SQUID magnetometers, thin film, mag. hysteresis 9999
$Bi_2Sr_2Ca_2Cu_3O_x$ tape, thermoelec./thermomagnetic effects 39219
$YBa_2Cu_3O_{7-x}$ films, vortex-glass crit. regime, correl. length 30801

mixed valence compounds
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
$Gd_{1-x}Sr_xFeO_{3-\delta}$, struct., mag. props. 14104
a-Si:H films, conc. dense radiation effects, solar cells 36597

mixers (circuits)
see also frequency convertors; microwave mixers; millimetre wave mixers; radio receivers; Schottky diode mixers; submillimetre wave devices; submillimetre wave mixers; superconductor-insulator-superconductor mixers; UHF mixers
100 MHz wide-range BiCMOS four-quadrant multiplier/mixer 29422
200-MHz quadrature digital synthesizer/mixer in 0.8-μm CMOS 21370
broadband freq. synthesizer, increased operating speed 564
CMOS quadrature digital synthesizer/mixer, 200 MHz 29245
low-power quadrature modulator ICs for digital mobile commun. 42214
multiple microphone sig. mixing cct., speech quality *(Japanese)* 25685
Schottky diode microwave mixer noise temp. anal. *(Croatian)* 834
semicond. lasers, integrated optoelectronic up/down-converters 23232
weak-link Josephson jns., nonlin. mixer gain calcs. 14286
InP-based monolithic high-speed bal. mixer receiver 25523
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986

mixes *see mixtures*

mixing
see also blending; dissolving; mixtures
transformer elec. insulating oils, pre-treatment, testing procedures 22670
Pb-acid batt. pastes, mixing proc. study 36530
Pb-acid secondary batt. plates, paste mfg. proc. 36529

mixing circuits *see mixers (circuits)*

mixtures
see also mixing
chiral composites, enhanced polariz. effects 15395
gyrotropic effects, dielec. mixtures, anisotropic components 13925
sulphide-quartz mixtures, electrostatic separation 40207

MLB *see printed circuits*

MLC capacitors *see ceramic capacitors*

MLE *see maximum likelihood estimation*

MLE growth *see atomic layer epitaxial growth*

MLS *see microwave landing systems*

MM-wave devices *see millimetre wave devices*

mm wave propagation *see millimetre wave propagation*

mm wave spectroscopy *see millimetre wave spectroscopy*

mm waves *see millimetre waves*

MMIC
see also bipolar MMIC; field effect MMIC; MIMIC; MMIC amplifiers; MMIC frequency convertors; MMIC mixers; MMIC oscillators; MMIC phase shifters
2-18 GHz low-DC power monolithic matrix amp. 859
2-20 GHz low-noise wideband opt. receiver 9573
900 MHz-band HBT MMIC power amp. module *(Japanese)* 25337
act. integrated antennas, review 15628
act. resonators, integrat. for UHF wireless appls. 12826
active array radar MMIC packaging evol. 21578
Automatic RF Techniques Group, conf., San Diego (1991) 28249
bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
broadband wireless commun., MM waves, opt. fiber 9506
coplanar ccts., T and cross sects., lumped elements 21560
coplanar monolithic elements, cct. designs, 67 GHz 12787
dielec. resonators, whispering gallery mode, model 6330
discontinuities anal. method 860
doubleface populated MCM in thin film technol. for HF appl. 21707
edge-coupled microstrip loop resonators, capacitive loading 21576
em, EM simul. tool for MMIC design 29598
fast bias depend. device models for CAD of MMICs 38014
graphical layout in MMIC design 29599
HEMT-HBT integrat. for MMICs by selective MBE 38011
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
III-V technol. analog/digital/mixed-sig. ICs for high speed appls. 6817
injection-locked oscillator MMIC, act. combiner/divider 12815
interconnect lines of MMICs and ICs, metal-dielec. adhesion 13426
interconnections, quasistatic anal., method of lines 854
K_a-band phased array multilayer MCM design and fab. 23986
lin. and nonlin. MMICs, design strategies 29597
LRM probe-tip calib., nonideal stds. 25708
MCMs, low temp. cofired ceramic 29728
MELECON '94, conf., Antalya, Turkey (1994) 5470
microwave MESFET, noise temp. determ. 13766
mixed technology RF ICs for UHF portable commun., projected develop. 21579
MM-wave microstrip antenna, MMIC design *(Japanese)* 8061
mm-wave radars for airport surface surveillance 10421
mobile ATE for flightline and forward battle areas 34366
MOVPE optoelectronic device technol. 28747
multi-beam MM-wave FPA airborne imaging syst. 42842
multichip integrat. of MMICs, monolithic ceramic technol. 848
multiconductor CPW transm. lines, [C] and [L] matrices computation 12791
multiconductor interconnects, VHSICs, capacitance matrix computation 12795
multilayer microstrip struct. anal., matched load simul. 12794
multilayer MMIC directional coupler, MM-wave ccts. appl. *(Japanese)* 6335
multilevel monolithic inductors in Si BiCMOS technol. 21572
nonlin. transm. line CPW MMIC, design, modelling, fab. 12808
packaging and interconnection for modules 37082
pass. and act. devices for MMIC design 29596
pass. millimetre wave imaging, radiometry 42843
passive and act. slot line ring antenna design and meas. 23913
phased array module MMIC package EM design 23983
phased array packages, interconnects, HF charactn. 28461
PLL freq. synthesizers, phase noise reduction tech. 12816
postgraduate training on MMIC technol. *(French)* 20337
pseudomorphic HEMT small sig. equiv. cct. model scaling 6799
refl. topol. building blocks for adaptive microwave sig. proc. appls. 29588
RF syst., diversity combining, sectored antennas 33755
RF/microwave circuitry packaging, design considerations 37067
satellite payload miniaturization/standardization, transponders 25451

MMIC continued
shielded microstrip lines, arbitrary metal. cross sect., anal. 2290
space environ., proton irrad. effects, advanced digital/microwave III-V components 12803
spatial quasi-opt. MMIC power-combining array, device failures, DC open cct. 21563
surface mount thin-film ceramic package for microwave appls. 11766
symposium, London, UK (Nov. 1994) 28265
T-jn. microwave ccts., prescribed response characts., design/anal. 862
thin film multi-MMIC MCMs for microwave appls. 21580
triple coupled CPW lines, MMIC bandpass filter elements 6325
two-level power combining using lens amp., patch antenna array, PHEMTs 12811
uniplanar CPW hybrid-ring couplers and magic-T's 12732
vert. conductor, transit. props., semi-infinite microstrip lines 12790
vision probing techs. for testing MCM and bare die 21734
X-band SAR subpanel active antenna demons. model 25572
$Ba_xSr_{1-x}TiO_3$, voltage depend. dielec. losses for ferroelec. MMIC devices 39054
GaAs FET and IC for mobile radio *(German)* 21571
GaAs IC, conf., San Jose, USA (1993) 36852
GaAs MMIC 2-18 GHz low loss on-chip biased PIN diode switches 21561
GaAs MMIC, CSIRO prototyping facility 29581
GaAs MMIC act. filters, synthesis incorporating noise effects 6328
GaAs MMIC broadband braided microstrip coupler 857
GaAs MMIC control devices, review 29603
GaAs MMIC delay line/quadrature demodulator in opt. receiver 17199
GaAs MMIC design and charactn., training software package *(French)* 21570
GaAs MMIC design and test, high level training, ENSEA *(French)* 20336
GaAs MMIC design by engng. students of ENSERG/INPG *(French)* 20335
GaAs MMIC manufacture, proc.-induced defects 12804
GaAs MMIC mfg., SPC use/misuse 38017
GaAs MMIC technol. and foundry services 29595
GaAs MMIC technol./manufacture, MIC comparisons, status review 29580
GaAs MMICs for space-borne systs., status and pot. 21554
GaAs VLSI IC, current status, future prospects 30481
GaAs broadband CPW SPDT PIN diode switch, 50 MHz-30 GHz 21557
GaAs foundry and MMIC design 21566
GaAs high speed ICs, electro-optic sampling syst. for on-wafer tests *(Chinese)* 12786
Si IC technols. for RF/microwave appls. 847
$SrTiO_3$, voltage depend. dielec. losses for ferroelec. MMIC devices 39054

MMIC amplifiers
see also MMIC power amplifiers
1.9 GHz-band RF IC chip-set for pers. commun. 863
distributed amp., design-oriented FET model 21564
HBT MMIC distrib. amp. design based on atten. compen. techs. 12817
HEMT LNA MMIC, act. regulated self-bias 12821
high speed MMICs/digital ICs, fab., T-gate technol. 858
LNA, monolithic HBT-regulated HEMT config. by MBE 29591
matrix amp. design, FET-gate-width tapering 29582
matrix/distributed amps., comparison 29579
MIMIC amp., modelling and charactn. 29605
miniaturised MMIC amps., thin dielec. layers 29586
PHEMT mfg. technol. for multifunctional Ka-band MMIC appls. 21562
sampling oscilloscope front-end, HBT MMIC design 42869
transimpedance amps. with cascode struct., anal., MMIC amp. appl. 12807
transimpedance opt. receivers design, root-locus techs. 3564
triquint 0.5 μ MESFET device microwave transconductance amps. and filter ccts. 6327
V-band high gain monolithic PHEMT LNA design 21555
V-band MIMICs for pers. commun. terminals 38008
W-band high gain monolithic LNAs based on HEMTs 12818
W-band monolithic HEMT LNAs for microwave scanning radiometer 21558
AlGaAs/GaAs directly connected HBT UHF MMIC amp., high gain, portable cellular appl. 6326
AlGaAs/InGaAs PHEMT ultra LNA MMIC, 50 GHz band 29592
AlGaAs-GaAs HBT-based direct coupled feedback transimpedance amp. 29065
AlGaAs-GaAs HEMT monolithic downconvertor for X-band DBS 42315
GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
GaAs HBT multifunctional microwave-analog VGA 38023
GaAs L-band ultralow power LNA for mobile commun. 42234
GaAs MESFET TWA MMIC, 2-12 GHz *(Chinese)* 38039
GaAs MMIC LNA for wireless commun., ultralow noise 42235
GaAs MMIC distributed amps., design 12806
GaAs MMIC downconvertor for portable commun. 42233
GaAs MMIC dual-channel Ku-band DBS downconvertor 42316
GaAs MMIC multifunction EW receiver convertor chip 38018
GaAs MMIC process technol., $SrTiO_3$ film capacitors 38030
GaAs MMIC/pin photodiode-based opt. receiver, 2.488 Gbit/s IM-DD systs. 17169
InAlAs-InGaAs HBT X-band double-balanced upconvertor 38021
InGaAs-GaAs MODFET MIMIC amp., 5-80 GHz, CPW 38026
InP HEMT MMICs, low noise, V-/W-band amplifiers 12802
InP-based HEMT 140-GHz monolithic LNA 21581
Si MMIC broadband amps., Siemens devices for mobile radio 852
Si RF MMICs, LNAs and downconvertor for 1 V pager appls. 851

MMIC frequency convertors
bal. act. microwave freq. doublers, modelling/anal./design 861
divider chip 29593
fibre-optic transm. lines, external subcarrier modulation integrated-opt. components *(Russian)* 17353
lightwave-microwave mixing tech. using MESFET act. devices, MMIC compatible 29587
low-power technol. for GaAs front-end ICs and hybrid ICs, mobile commun. 38041
MM-wave low noise downconverter in MMIC technol., 60 GHz 29606
AlGaAs-GaAs HEMT monolithic downconvertor for X-band DBS 42315
AlGaAs-InGaAs MODFET based broadband dyn. freq. divider 38016
GaAs MMIC dual-channel Ku-band DBS downconvertor 42316
GaAs MMIC multifunction EW receiver convertor chip 38018
InAlAs-InGaAs HBT X-band double-balanced upconvertor 38021
Si RF MMICs, LNAs and downconvertor for 1 V pager appls. 851

MMIC mixers
1.9 GHz-band RF IC chip-set for pers. commun. 863
GaAs foundry and MMIC design 21566

MMIC mixers continued
lightwave-microwave mixing tech. using MESFET act. devices, MMIC compatible 29587
passive and act. slot line ring antenna design and meas. 23913
PHEMT mfg. technol. for multifunctional Ka-band MMIC appls. 21562
AlGaAs/InGaAs HEMT monolithic mixers, single/double bal. 29585
AlGaAs-GaAs HEMT monolithic downconvertor for X-band DBS 42315
AlGaAs-GaAs HEMT-based MMIC mixers, indoor commun. 42237
GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
GaAs Gilbert cell mixer IC fro coherent opt. transm. 42402
GaAs MMIC demodulator, distrib. mixing for CPFSK receiver 12801
GaAs MMIC double side-band modulators, Gilbert cell based, design 29589
GaAs MMIC downconvertor for portable commun. 42233
GaAs MMIC dual-channel Ku-band DBS downconvertor 42316
GaAs MMIC mixer, broadband double-bal. design 850
GaAs MMIC multifunction EW receiver convertor chip 38018
GaAs(InP) quasi-opt. slot HFET mixer, integrated, 40 GHz, car radar receiver appl. 12812
InAlAs-InGaAs HBT X-band double-balanced upconvertor 38021

MMIC oscillators
act. resonators, integrat. for UHF wireless appls. 12826
bipolar LC VCO, 1.6 GHz, on-chip inductor/varactor 21568
C-band MMIC FET oscillator, design, D05ML foundry proc. 29601
Doppler detector, low-cost, automotive appls. 20112
injection-locked oscillator MMIC, act. combiner/divider 12815
MESFET MMIC microwave oscillators, CAD 6329
PHEMT mfg. technol. for multifunctional Ka-band MMIC appls. 21562
V-band MIMICs for pers. commun. terminals 38008
X-band MMIC varactor-tuned VCOs, modelling and design 6342
AlGaAs/InGaAs MM-wave heterojunction FET MMIC oscillators *(Japanese)* 6336
AlGaAs-GaAs HBT, large sig. equiv. cct. model, MMIC oscill. 38828
AlGaAs-GaAs HEMT monolithic downconvertor for X-band DBS 42315
GaAs IC for portable commun., needs 42231
GaAs power MMICs for X-band radar appls. 6341
$InAlAs/n^+$-InP, monolithic tunable high-Q 12800
$In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ MODFET MMIC oscillators, opt. tuning 12788

MMIC phase shifters
broadband act. quadrature phase shifter for mobile commun. 12805
C-band monolithic vector modulator MMIC *(Chinese)* 38040
PIN diode phase shifter, 4-bit, X-band *(Korean)* 21573
V-band pseudomorphic HEMT MMIC phased array components 38009
GaAs FET microwave switching/phase shifting 21575
GaAs MMIC control devices, review 29603

MMIC power amplifiers
1.9 GHz-band RF IC chip-set for pers. commun. 863
bump heat sink technol. for power HBT and MMIC 38829
GaAs foundry and MMIC design 21566
Lange coupler power-distributed amp., high-perform. design 12814
MIMIC power modules for sens. appls. 38012
multilayer packaging technols. 21730
pHEMT Ka-Band 3-stage amps. for phased-array appls. 38010
PHEMT mfg. technol. for multifunctional Ka-band MMIC appls. 21562
pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
pseudomorphic HEMT power amp. MMIC, wide/med. band 38033
Q-band high-efficiency monolithic HEMT power prematch structs. 29584
satellite TWTAs, microwave power modules, radiation cooled collectors 26553
solid-state power amp. perform. assess. 37988
V-band pseudomorphic HEMT MMIC phased array components 38009
V-band pseudomorphic HEMT monolithic power amp. 12820
X-band MMIC power amp., two-stage, 2.5 W output 29600
AlGaAs/GaAs HBT MMIC power amp. 12825
AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
AlGaAs-InGaAs-GaAs Ka-band MMIC power amp., HEMT proc. 38031
GaAs HBT power MMIC, X-Ku band, high power 38034
GaAs IC for portable commun., needs 42231
GaAs MESFET MMIC power amp. modules, 10 W, X-band 12827
GaAs MESFET lin. power amp., digital mobile commun. appls., 1.9 GHz, 2.7 V supply 42298
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
GaAs MMIC power amp., instabil. prediction 37606
GaAs MMIC power amps. for cellular telephone systs. 849
GaAs power MMICs for X-band radar appls. 6341
GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. 6338
GaAs-based HJFET, 6.6 W, 12 GHz, power amp. appls. 21550
GaInP/GaAs HBT, MMIC power amps., MOCVD growth 12165
GaInP/GaAs LP-MOCVD grown HBTs for VCOs and power amp. MMICs 22377
InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency 6339

MNOS structures *see MIS structures*

MNOS transistors *see MISFET*

mobile antennas
60 GHz intervehicle channel model 33797
900 MHz propag. modelling, scaled road tunnel microwave meas. 33789
adaptive antennas in mobile commun., digital beamforming 33914
airborne antenna testing, Indoor Doppler Antenna Test Range 35217
Alcatel commun. satellite antennas 23895
Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
beam space adaptive array antennas, transmitting null beam forming 15665
blind adaptive array simul. for realistic mobile channel 33795
cavity enclosed broadband circ. patch antenna for L-band MSAT 15661
CDMA cellular syst. with macrocell diversity, perform. 33865
CDMA joint detect. mobile radio systs., interfer. suppression 33887
cellular hand-held phone, reduced EM field in human head 35184
cellular mobile radio networks, freq. planning 33860
circ. polarized N-element circ. array, characts. 40510
complex geom. indoor radio propag. ray-splitting model 31825
DBS mobile receiver, design *(Japanese)* 17144
DBS reception single-layer leaky-wave slotted waveguide array 23945
DBS-satellites, mobile reception, adaptive antenna array 15664
DECT, antenna diversity, practical considerations 17072
digital multi-beam forming antenna, DSP 17068
direction-finding cross interferometer perform. 25618
dual freq. multilayered circ. patch antenna, self-diplexing fn. 40507
dual patch shielded antenna array element for mobile satellite commun. 23947

mobile antennas continued
dual-freq. corner-reflector antennas fed by parallel feed lines *(Japanese)* 8054
elec.-small antennas, radiative props. 15616
hand-held telephones with low absorpt., integrated antennas 15640
handheld cellular phones, antenna design *(Japanese)* 33901
handheld transceiver planar inverted-F diversity antenna FDTD anal 25353
helicopter antenna pattern prediction, improved NEC code 26529
HF band handheld radio param. effects of operator's body 33862
high-capacity cell config. strategy 33811
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
indoor wireless transm. prediction by ray tracing 31823
K/K_a-band antenna syst. for mobile satellite service 23866
K/K_a-band series-fed dipole and slot arrays transversely coupled to microstrip line 23944
L-band steerable antennas for land mobile terminals 3479
microstrip patch antenna, laminated glass superstrate, perform. 2326
mobile commun., adaptive array methods 17067
modified transm. line antenna for portable telephone, anal. *(Japanese)* 8055
moving electrodynamic tethers, mag. antennas, fields, currents 23894
multichannel direction-finding syst. using MUSIC algm. 25616
multiple radio wave refls. in corridor 9340
NEC2 radiation patterns of under-segmented wire grid models 40455
NMT 900 mobile telephony syst. adaptive antenna 3481
pers. wireless commun., antennas charactn. 17129
planar spiral antenna above double-dielec. loaded ground plane 23868
RF design in mobile radio transceivers, IEE Colloquium, London (1994) 5483
road vehicle 24 GHz dual channel microwave front-end 11444
RS coded slow freq. hopped TDMA cellular syst. perform. 33827
S-band compact point-defence phased array antenna develop. 23955
semi-act. radar target, design of antenna subsystem 17430
series-fed nested wide-angled conical monopole syst. 23882
ship tapered resistively loaded monopole antenna characts. 40490
space fed planar array, vehicle roof refl. charact. 23941
SS-CDMA PCS in-building systs., distributed antenna 9231
superquadratic loop antenna circuits 23867
switched pattern diversity antenna comparison 33793
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899

mobile communication
see also aircraft communication; mobile radio
3E-L1 liq. cryst. TV, fast recharge *(Japanese)* 3661
anonymity in mobile computing environ. 33918
Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
ATM, multimedia and mobile commun. 33660
batt.-powered portable computers, technol. trends 37810
campus scale wireless Internet, ATM 33559
causally ordered message delivery, mobile systs. 33917
Cedervall-Johannesson algm. for computing dist. spectrum of convolutional codes *(Japanese)* 40623
cellular mobile commun. channel assignment by neural net 42269
cellular systs. with virtually fixed channel assignment, perform. anal. 17050
Chinese commun. research and related works 3072
circuits systs., symp., Chicago, USA (May 1993) 31
code-sens. commun. syst., introduction 24895
communicating vehicles, event-driven simul., diffusive dyn. load balancing by terrain parcel swaps 43577
computing, group commun. approach 33562
computing, mobile wireless 25297
context-aware computing appls. 33560
default forwarding protocol for mobile commun. *(Japanese)* 17139
digital mobile commun., adaptive Rayleigh fading compensation for coherent GMSK sigs. 3433
distributed computing systs., adaptive protocols, simul. model 41528
distributed mobile telecomputing archit. 16770
dyn. documents, mobile wireless access, WWW 33570
EM radiation in environ. from mobile commun. systs. *(Slovenian)* 43407
EMC of code-sens. commun. syst. 24889
enterprise network (in yr. 2000) 41640
enterprise network develop. and mgt. prospects *(Japanese)* 16751
European image media trends *(Japanese)* 17544
European research program for advanced mobile systs. 25330
gas company, mobile mapping syst., CD-ROM *(Japanese)* 42213
heterog. mobile environ. supporting adaptive services 33567
high-resoln. array proc. 33880
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
IMHP, mobile host protocol for Internet 16748
impedance element SAW filters 30649
inter-vehicle networking method, laser media 3078
Internet Mobile Host Protocol, IMHP 41506
$\lambda_{g0}/4$ CPW-based bandpass filters, spurious response suppression 12721
low-power technol. for GaAs front-end ICs and hybrid ICs, mobile commun. 38041
microelectronics, impact on telecom. and IT 33321
MLC substrs. and packages, telecomm. appls. 29652
MMIC broadband act. quadrature phase shifter for mobile commun. 12805
Mobility Workbench, tool for π-calculus 25327
Mobisaic IS for mobile wireless computing environ. 33571
multimedia commun. network prospects *(Japanese)* 16906
nonspeech services overview *(German)* 3376
odd-perfect, almost binary correl. seqs. 32545
optimum adaptive combiner for ciclostationary sigs. 16006
PCS technol., air-interface stds. competition 33772
PRESENT, multimedia inform. broadcasting service 41992
privacy of identity for mobile users, authentication 33572
radiocommunication, technol. and regulations 25627
routing in ad hoc networks of mobile hosts 33568
security related issues, mobile environ. 33919
security techs. 33349
single-block ceramic microwave bandpass filters 820
structural evol., mobile tools in professional arena *(French)* 42254
submicron fab. technol. GHz unidirectional SAW transducers 30636
Swiss microsensor and mobile commun. research programme *(German)* 3778
syst. dyn. channel assignment by ANN *(Japanese)* 17135
telecomm. systs. security 33350
teletraffic challenges, pers. and mobile commun. 25292

mobile communication continued
trellis coded CPFSK, coherent detect. on phase jitter channels *(Korean)* 33922
trends and future prospects *(Japanese)* 33888
UMTS 3rd generation systs. signalling, perform. eval. 25293
underwater acoustic channel simul. for commun. 17358
users security 25388
vehicle navigation and information systems, conf., Japan (1994) 36825
video-on-demand portable syst. in wireless commun. 42593
GaAs MESFET-based power module, optimum LV/high-efficiency design 11749
InGaAs/InP composite channel HEMT struct., LV mobile comm. appls. 1444

mobile office *see teleworking*

mobile power plants
see also space vehicle power plants
Army ground-mobile electronic systs., energy mgt. 18968
distrib. network mobile power plants, maint./emergency appls. 10730
fuel cell power plants, syst. design 27655
T3C-M transportable NPP, improved safety 35840

mobile radio
see also cellular radio; indoor radio; land mobile radio; mobile satellite communication; paging communication
1.8 GHz personal commun. radio channel polaris. dyn. charactn. 33788
16-DAPSK, differential detect., Viterbi-algm. *(Japanese)* 24175
29 GHz indoor wireless commun., radio link design 33835
32 kb/s ADPCM, frame erasures, perform. 8210
60 GHz indoor commun. systs. for data/video commun. 40354
864 to 868 MHz portable telephone indoor propag. loss anal. 33776
900 MHz-band HBT MMIC power amp. module *(Japanese)* 25337
ACTS Programme, mobile/pers. commun. research 9390
adaptive algms. for flexible equaliser in mobile receiver 42270
adaptive equalizer for digital FM 3428
adaptive MLSE, fading environ., equalization/decoding 15887
adaptive TDMA, link adaptation 33214
analogue speech channel spectrum scrambling encryption with isomorphic emphasis 33802
Australian ESI, commun. develops. 26975
automatic vehicle location subsystem interfaces 3461
BAR 63 and 80 series PIN diodes for antenna switches in mobile commun. 1334
batt.-powered pers. communicators, trends and limits 42296
BER, influence of multipath propag. *(German)* 23635
broadband dekameter local-commun. mast antenna 31944
burst error activity anal., network perform. determ. 9397
CDMA mobile radio systs., multi-user detect. equalisers 17041
CDMA multirate radio interface implement. 42192
CDMA networks, integrated voice/data traffic, code allocation 33908
CDMA syst. design, key elements 17074
CDMA syst. meas.-based perform. anal. in multipath fading 33791
cellular TDMA evol. for personal commun. 42225
channel heavy time dispersion estim. by path tracing 33821
channel modeling by echo estim. *(English)* 9338
CMOS LSIs for pers. inform. and telecom. systs., trends 22565
cochannel interf. modelling for sig. strength based handoff anal. 2273
coded direct-seq. systs., rake reception, multipath fading 33905
computing environ., commun. cost reduction 33556
connectionless-mode network protocol for mobile end syst. 2957
conversational speech, on-off patterns modelling 8211
Croatia, radiocommunications on inland waterways 42537
Croatian coastal satellite Earth station *(Croatian)* 3504
DARC encoder for mobile commun. appls. 25631
data network services 3377
delay lock loop, delay path cancellation *(Japanese)* 25274
destination-sequenced dist.-vector routing for mobile computers 2990
developing nation telecomms., satellite and mobile solns. 3515
digital modulation error perform. improvement by quaternary phase transition FSK 33782
digital modulation scheme selection 33778
digital modulation techs., spectral efficiency, speech quality 17033
digital portable phone transmitting amp., converter-control IC 25284
digital simulcast trunking syst. fine tuning 3373
digital wireless appl., lognormal sum distribs./outages 9374
digital-wireless commun., test equipt. selection 116
direct conversion receiver, FSK digital phase-shifting demodulator 3359
distributed computing systs., adaptive protocols, simul. model 41528
DOQPSK, differential demodulation of filtered offset QPSK 17073
DPSK differential detect. scheme, phase seq. estim. 32684
DQPSK in fading channels, unified error anal. 8090
DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
DS-CDMA, integrated CCI cancellation and decoding, fading multipath channel *(Japanese)* 25276
DS-CDMA for portable multimedia commun. appl. 25443
DS-CDMA systs., hybrid acquisition schemes 9384
DS-CDMA/DQPSK sig. in indoor radio channel *(Korean)* 17046
DS-SS cordless telephone *(Japanese)* 25149
DS-SSMA diversity commun. in fading channels, error perform. 3357
DS/CDMA adaptive interf. canceller for fast fading channel *(Japanese)* 25277
dual-rate alg. CELP-based speech transceiver 9221
elec.-small antennas, radiative props. 15616
electric railways in united Europe, IEE conf., Amsterdam (1995) 36833
electronic tagging 9342
Erlang capacity/uniform approx. for shared unbuffered resources 8088
EURESCOM project 230, combined pers. and terminal mobility in IN environ. *(Italian, English)* 42291
European Commission's mobile green paper 33305
European R&D activities in mobile multimedia commun. 9041
European research program for advanced mobile systs. 25330
fading channel 16-DAPSK perform. calc. and simul. 33798
FAMAP generic fault mgt. package for telecom networks 16604
file access design 33556
FM subcarrier data syst., develop. *(Japanese)* 3649
FQPSK modulation for wireless commun. systs. 17076
freq. hopping simulator for multipath mobile channels *(French)* 3361
freq.-selective Rayleigh fading channels, anal. 17134
geostationary satellite positioning syst. develop. *(Japanese)* 17507
global pers. commun. services 3362

mobile radio continued
- GPS positioning for field meas. appls. *(French)* 34189
- GSM full-rate vocoder chip design 42086
- GSM syst., speech and channel coding for half-rate channel 33927
- hand-off channel decentralized control 42245
- handheld transceiver planar inverted-F diversity antenna FDTD anal 25353
- handy phone, miniaturized dielec. filter *(Japanese)* 42290
- HF band handheld radio param. effects of operator's body 33862
- hi-fi mobile DAB scheme 9695
- high speed indoor wireless systs., directional antennas 3329
- hybrid DS/FH-SSMA mobile radio syst. perform. and capacity anal. 33831
- IEE Colloquium, London (1994) 16
- IEE telecommunications conf., Brighton, UK (1995) 36830
- IEEE MILCOM conf., Boston, USA (1993) 36897
- indoor cordless commun., teletraffic perform. 3488
- indoor mobile radio syst. planning with channel modelling 33816
- indoor space diversity antennas, proximity effects 25374
- inflight telephony systs. *(French)* 3125
- Inmarsat and pers. mobile satellite services 3363
- inter-vehicle commun., cooperative channel access 42240
- interf. cancelling of DFE transversal-combining diversity 17044
- ITU-T, pers. commun. services and teletraffic standardization 33930
- joint detect. CDMA third-generation mobile radio syst. concept *(German)* 42207
- key distrib. protocol for mobile commun. systs. 33775
- low complexity decoder for turbo-codes 24022
- low-power 900-MHz mobile RF synthesizer, CMOS chip 33861
- low-power quadrature modulator ICs for digital mobile commun. 42214
- low-power RF ICs for portable commun., all-CMOS radio 42295
- M-DPSK in fading channels with diversity reception, error bound anal. 3355
- MACAW, media access protocol for wireless LAN's 2946
- ME2632A/B/C digital mobile radio test syst. for PDC/PHS phone prod. *(Japanese)* 33769
- Mexico, rural telephony, mobile satellite commun. 3119
- microcell overlaid, umbrella cell syst. 17059
- microelectronics for IT, conf., Stuttgart, Germany (1992) 11534
- microstrip networks for multibeam/reconfigurable operation *(English, Italian)* 42292
- mixed technology RF ICs for UHF portable commun., projected develop. 21579
- MMSE seqs. for channel estim. 8083
- mobile service control point for intell. and multimedia mobile commun. 9042
- Mobitex data networks 42252
- modern commun. technol. advancement, problems *(Chinese)* 3234
- MosquitoNet, commun. environ. switching 33557
- multi-carrier CDMA modem design 9220
- multimedia commun., IN archit. 9035
- multipath/CCI sigs. separation 31979
- multiport mobile internet-router 16679
- multirate adaptive arrays for broadband mobile commun. 33851
- narrowband microcellular speech transm. schemes 3332
- network mgt., operational perspective 9401
- new telecomms. technols., social effects 3001
- Nikola Telsa mobile telephone syst. NMT 450, functionality upgrading project 33857
- non-lin. adaptive filters for time-variant equalization 29363
- non-stationary model for channel simul. 33770
- nonlin. phase precoding for pers. commun. 2385
- nonselective Rayleigh fading channels, sym.-aided channel estim. 24016
- odd-perfect, almost binary correl. seqs. 32545
- omnibus fleet mgt. syst., radio links 34389
- on-board large mesh antenna reflector, high surface accuracy 15636
- orthogonal FDM for mobile radio 9214
- outage probab./BER estim., dual protection margins 17056
- PCS, advanced digital receiver principles and technols. 17111
- pers. handy phone syst. for multimedia wireless commun. *(Japanese)* 25127
- pers. handy phone syst. terminal design for home 42217
- pers. satellite commun., satellite link requirements 33956
- pers. shopping assistance, indoor wireless syst. 33558
- phase tracking Viterbi demodulator *(Japanese)* 24176
- portable radio, UHF power transistors, MOSFET IC-technol. 1408
- private mobile radio systs., power utility appl. suitability 25285
- PRN, distributed media access protocol, set-up time, perform. anal. 33882
- Quick Alert technol., linking sens., alphanumeric pagers 3372
- R&S Signal Generator SME extensions for testing, digital networks 9968
- radio access network, evol. trends and economic considerations 41707
- radiocommunications and mobility *(English, French)* 42188
- RAKE receiver over multipath fading channel, CDMA perform. anal. *(English)* 17082
- rechargeable batts. for mobile communs. 27915
- RF design in mobile radio transceivers, IEE Colloquium, London (1994) 5483
- Rician sig. in L Rician interferers, outage probab. 33920
- Rohde & Schwarz Radiomonitoring System TS9965 9183
- rural telecom. networks/services, Africa 42182
- satellite reception, DSPN signalling in mobile dense scatterer ray tracing model 33944
- satellite services and Inmarsat in rural areas of developing countries 42313
- SAW filter appls. *(Japanese)* 39122
- security in telecommunication networks, IEE Colloquium, London (1995) 20253
- sigma-delta codec for mobile telephone appls., design 3276
- smart antenna appls. in mobile commun., const. modulus factorization 32465
- smart antennas, IEE Colloquium, London, (1994) 5509
- still image transm., unequal error protection coding *(Japanese)* 42293
- syst. controller for mobile audio visual terminal 42275
- TDMA portable radio channel uplink power control algm. 42197
- TDMA-TDD commun. syst. semiautonomous frame sync. 33829
- TETRA radio terminal design, phys. layer 42282
- TETRA std. for private mobile radio 42219
- time-variant multipath channel, simul. 33847
- trunked mobile commun. syst. mgt., ES environ. appl. 9396
- twin-counter digital-loop preset freq. synthesizer 12615
- ultra-broadband high perform. RF choke for commun. appls. 37996
- UMTS, migration 9387
- UMTS 3rd generation systs. signalling, perform. eval. 25293
- UMTS directory services, security aspects 9209
- UMTS revisited 9386
- UMTS/FPLMTS, networks, users and terminals 3491
- universal pers. telecomms. syst., interact. restructuring 3145

mobile radio continued
- universal personal communications, conf., San Diego, USA (1994) 20233
- UPT service in multi-operator environ. 16617
- variable rate speech/channel coding 9222
- variable-redundancy hybrid ARQ, invertible convolutional codes 17055
- vehicles, intelligent, conf., Paris (1994) 28224
- wide-area digital mobile wireless syst. *(Japanese)* 33899
- wideband propag. meas. 17031
- wideband radio propag. for pers. communs., freq.-domain model 7964
- wireless commun., GIS appls. 24850
- wireless commun. syst. adaptive array sig. acquisition and tracking 33792
- wireless commun. systs., stochastic model, capture space and time dyn. 33935
- wireless data services, archit. alternatives 25135
- GaAs FET and IC *(German)* 21571
- GaAs IC for portable commun., needs 42231
- GaAs L-band ultralow power LNA for mobile commun. 42234
- GaAs MMIC LNA for wireless commun., ultralow noise 42235
- GaAs MMIC downconvertor for portable commun. 42233
- GaAs MMIC power amp. and T/R switch, pers. commun. 42232
- GaAs radio front-ends, PCN 25328
- Li ion batts. for mobile telephone equipt. 19971
- Ni-Cd batts. for mobile telephone equipt. 19971
- Ni-MH batts. for mobile telephone equipt. 19971
- Ni-Zn batts. for mobile telephone equipt. 19971
- Si MMIC broadband amps., Siemens devices for mobile radio 852
- Si power MOSFET, UHF-band RF power amp. appl. 837
- Si radio front-ends, PCN 25328

mobile robots
- *see also legged locomotion*
- 3D point sets, mark-based approaches for motion estim. 2822
- active infrared sensors for robotics 25838
- ALMR, in-service inspection, robotics appl. 35873
- analog spot position coding retina, active obstacle detect. 21457
- analog stereo retina, automobile appls. 29419
- Aqua Explorer 1000 for inspection of underwater cables 9156
- autonomous underwater vehicles, sonar image reconstruction 8618
- autonomous underwater vehicles, UK collaborative research programme 10527
- autonomous underwater vehicles for bathymetric mapping 8619
- BIRIS range sensor, for mobile robot 25586
- colored-obj. detect. for mobile robot 24537
- divergent stereo in autonomous navig., bees, robots 41084
- electrostatic artificial muscle, lin. actuators with multiple-layer struct., robot appls. 31736
- environ. recogn., US sens., CCD camera 43556
- EPSILON proc. card, analog neural comp. framework 29508
- fission reactor decommissioning 27426
- ground vehicle vision, ladar, obstacle detectability 7878
- IEEE IECON '94 conf., Bologna, Italy (1994) 36823
- induction motor drives, PWM inverter-fed, mobile robot appls. 5266
- intell. multisensory vision syst., vision planner 16268
- intell. roving robot, multiple sens. 40792
- intell. vehicles, map generation, quantitat. eval. 34182
- location, laser-range/predicted image matching 34688
- MARIUS, flatfish type AUV, hydrodynamic manoeuvrability data 18850
- micro mobile robot in water, mechanism and swimming expt. 30519
- microflight mechanism on Si wafer 30510
- navig., sonar range data segmentation 43561
- navigation laser range image acquisition 31692
- neural archits. for environ. rebuilding 34413
- nuc. indust. robot, video/gamma ray imaging syst. 19399
- nuc. power stations, Utility/Manufacturers Robot User Group 35874
- nuc. waste mgt. mobile robots, vision posit. meas. syst. 3988
- observers-sens. for posture estim. 40791
- obstacle avoidance, error eliminating rapid US firing 35375
- ocean autonomous underwater vehicle, Antarctic 18856
- oceanographic AUV (ROBY), polar seas deployment 18857
- OCEANS 94, conference 60
- outdoor navig., tree detect./dead reckoning 41109
- plasma arc welding robot, TGZ-LNG membrane sheet appls. *(Japanese)* 28195
- posn. determ., visual landmark-based 9929
- real-time stereo and motion integrat. for autonomous vehicle navig. 41241
- robot environ., change detect. for human safety 24527
- robust stereo ranging syst. 3889
- self-actuated mobile device for load carrying 35170
- Skyball, electro-optic sens. for unmanned flight 3884
- solid-state gyroscope for robotics appls. 17733
- stereoscopic video, underwater rem. operated vehicle 32815
- tri-aural perception, correspondence problem, max. likelihood algm. 43555
- underwater autonomous vehicle for geological exploration 10528
- underwater cleaning robot, power station inlet channel appls. *(Japanese)* 4754
- underwater robot vehicles, 3D US localisation syst. 26785
- underwater robotics, opt./acoustic range sens. 8620
- underwater unmanned vehicles 11410
- unmanned autonomous underwater vehicles characts. 10529
- unmanned underwater surveillance vehicle systs. 9666
- unstructured power plant environ., navig. and manipulation 43814
- US Navy unmanned undersea vehicle navig. 35384
- vehicle following others, feedback control 4761
- vehicles, intelligent, conf., Paris (1994) 28224
- vision-based vehicle tracking, camera movement errors anal. 16293
- wheelchair, motor, sens. aids for partially-sighted 10281
- wheelchair-bound children's robotic training aid 26478

mobile satellite communication
- 1.5 GHz land mobile satellite commun., propag. characts. 9265
- 40 GHz band 30 W space TWT, RF power amp. *(Japanese)* 6030
- adaptive rate error control for land-mobile satellite channel 9370
- aeronautical mobile satellite services, 1960s, 1990s develops. 17153
- cavity enclosed broadband circ. patch antenna for L-band MSAT 15661
- CDMA, TU Delft research, overview 25255
- CDMA asynchronous satellite syst. for pers. commun. 9368
- CDMA DA chip synchronizers for bandlimited DS/SS M-PSK sigs. 9371
- CDMA for terrestrial/mobile satellite commun. networks 17049
- CDMA mobile radio schemes, modeling/perform. 25373
- CDMA multiple band-shared LEOS systs., capacity 9369
- channel, FSK-DPD/CPM-DPD, pulse shaping 25304

mobile satellite communication continued
- channels, partial response coded MPSK anal. 42205
- civ. aircraft, satellite commun., amp., dyn. efficient bias 42330
- COMETS, expt. advanced mobile satellite commun. syst. *(Japanese)* 42215
- CPFSK differential detect., LO phase noise effects 42283
- CPM coded quaternary scheme for satellite-vehicle/pers. commun. 42265
- cyclic sig., adaptive beamforming and fast implement. 40938
- DBS mobile receiver, design *(Japanese)* 17144
- DBS reception single-layer leaky-wave slotted waveguide array 23945
- DBS-satellites, mobile reception, adaptive antenna array 15664
- DGPS, positioning service for land-based mobile commun. systs. 3530
- digital channel-indiv. beamforming network 25321
- digital multi-beam forming antenna, DSP 17068
- digital radio, spectrum phase interpolation, detect. tech. 9381
- Doppler shift z 42303
- DS-CDMA, shadowed Rician fading land-mobile satellite channel 9268
- DS-CDMA outage perform., mobile satellite channel 33906
- DS-CDMA/TDMA for digital cellular systs. 3390
- DS-SS CDMA mobile satellite commun. syst. 25441
- DS-SS overlay for satellite commun. syst. 33971
- DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
- dual patch shielded antenna array element 23947
- ETS-V mobile commun. for ships/aircraft/land vehicles 42262
- European mobile satellite commun. systs., CDMA 25470
- fading channels, M/QPR-TCM perform. 17096
- FFT, coarse freq. acquisition 3438
- FQPSK modem/radio for PCS/ mobile satellite commun. 25312
- freq. reuse, interf. anal. 9212
- FSK-DPD, pulse shaping/transmitter filter 42304
- future public land mobile telecomm. systs. 3367
- future public land mobile telecommun. systs., satellite component 25405
- Future Public Land Mobile Telecommunication Systems 25424
- global mobile satellite complement, terrestrial cellular commun. 42307
- Globalstar PCS, satellite-terrestrial systs. integrat. 33912
- GSM procedures for integrated cellular/satellite syst. 25319
- handportable mobile satellite stations, power amp. design 37656
- handportable satellite commun., lin. transmitter archits. 42332
- hazardous load road transport, radio monitoring syst. 9300
- high sensitivity satellites/voice compression, PCN 42331
- idle-slot broadcasting multiple access for mobile satellite commun. 9213
- IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
- IEE Colloquium, London (1994) 16
- IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
- IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
- incoherent freq. hopping multiple access systs., diversity combining 25311
- integrated GSM-satellite syst. archit. 3360
- integrated satellite/terrestrial mobile radio, handover strategies 42277
- Iridium satellite phased array antenna design 23953
- ITU mobile radiocommunications freq. spectrum allocation *(Japanese)* 33904
- Japanese propag. studies (1990s) 2236
- K/K$_a$-band antenna syst. for mobile satellite service 23866
- K/K$_a$-band series-fed dipole and slot arrays transversely coupled to microstrip line 23944
- Ka band land mobile satellite channel meas. 9263
- L-band multipath fading for land mobile satellite 25299
- L-band propag. meas. for land mobile satellite links 17141
- L-band steerable antennas for land mobile terminals 3479
- land mobile satellite channel with max. ratio combining, BER and outage probab. 42259
- land mobile satellite commun. channel, M-ary FSK perform. 25401
- land mobile satellite commun. systs., field strength prediction *(English)* 42222
- LEO channel, downlink DS CDMA perform. 25372
- LEO satellite commun., nonuniform traffic, integrated voice/data syst. 25454
- LEO satellite systs., DLR channel meas. programme 25400
- LEO satellite systs., handover control 9211
- LEO satellite systs., partial coverage, perform. eval. 25399
- LEO satellite systs., perform. eval. 25309
- LEO/ICO-satellite commun. networks, syst. params. 25313
- LEO/MEO/GEO global mobile satellite systs., interf./fading 25308
- LMSS, open-loop power control error 25300
- LMSS, receiver 3rd order PLLs 42211
- low earth orbit satellite commun. 33967
- Luneberg-lens antenna, update 40492
- MEO constellation, global PCS, satellite network archit. 25398
- MFSK/DPSK sigs., cutoff rates 25301
- microcellular Ricean channels, switched diversity 3336
- microstrip components for mobile commun. systs., evol. 33836
- modified PDAMA protocol for mobile satellite commun. systs. 25320
- multi-beam mobile satellite commun., Viterbi decoding 25307
- multiaccess protocol for packet transm. in mobile satellite systs. *(Korean)* 24834
- multimedia PCN medium access control in mixed traffic environ. 41972
- multiple multiamplitude MSK trellis codes, AWGN/fading mobile satellite channels 33958
- narrowband digital FM sigs., seq. estim. 24280
- networks, handover queuing, dyn. channel allocation 25316
- North America mobile satellite commun. systs. *(Japanese)* 33900
- open-loop power control error on land mobile satellite link 25402
- orthogonal CDMA for mobile satellite commun., perform. 25310
- output-based objective speech quality 8195
- PCN, satellite/terrestrial interoperation 25404
- PCS, LEO satellite network, delivery time anal. 25315
- PCS, multiple hierarchical cellular overlays 25317
- PCS, multiple hierarchical cellular overlays 25397
- pers. commun. services, satellites role 25298
- pers. commun. systs., voice transm. quality 25322
- photogrammetric mobile satellite service prediction 25271
- pilot sym.-aided transm. for satellite/terrestrial mobile systs. 25403
- planar spiral antenna above double-dielec. loaded ground plane 23868
- propag. channel, wide band charactn. 9264
- QPR-TCM, fading mobile satellite channel, perform. anal. 9336
- radiocommunication, technol. and regulations 25627
- radiocommunications and mobility *(English, French)* 42188
- Rice-lognormal terrestrial/satellite channel model 31834
- satellite PCN, 3rd generation, technol./networking issues 25413
- satellite-PCN, UMTS evol. 9388

mobile satellite communication continued
- satellite-to-land-mobile commun. systs., perform. 9210
- satellite/cellular integrat., terminal manufacturer's perspective 25396
- secure digital mobile commun., conf. key distrib. 25318
- shared CDMA LEOS environ., total capacity 25303
- slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
- slow flat Rician fading, covariance matrix, ML detect. 25306
- small earth station hardware, IEE Colloquium, London (1995) 28267
- SW and satellite mobile radiotelephone characts. compared *(German)* 42318
- systs., multiple-access capacity 25302
- third generation mobile systs., satellite services integrat. 3443
- trellis shaping schemes bandlimited PSK-sig. envelope control 8095
- trends/developments 33430
- UMTS, vision for 21st century 42279
- UMTS satellite component, European activities, review 9389
- UMTS/B-ISDN, satellites appl. 17149
- universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
- Si chip digital end-user mobile commun. syst. 42193

mobility, carrier *see carrier mobility*

MOCVD *see chemical vapour deposition*

MOCVD epitaxial growth *see vapour phase epitaxial growth*

modal logic *see formal logic*

mode matching
- 2D axisymm. inhomog. medium inversion, distorted Born iterative method 23567
- anisotropic cylindrical dielec. shell, scatt. 2203
- bandpass filters, triple-mode dielec. rod resonators *(Japanese)* 21403
- bianisotropic waveguides, lin.-operator formalism 31911
- bidirectional opt. waveguide propag. modelling, mode expansion/matching 15560
- branch line quantum directional coupler 1454
- compact mode converters for overmoded waveguides, scatt. optim. design method 29545
- complex waveguide ccts., low cost CAD *(German)* 23785
- coplanar waveguide multistep discontinuity anal. 23776
- dielec. materials props. determ., coaxial cavity syst. 18029
- edge-type scatterer in rect. waveguide, Yasuura method 8022
- EM scatt. by dihedral strip grating 23544
- H-plane jns. in rect. waveguides, scatt. props., anal. solns. 40422
- inset dielec. guide structs. and vars., anal. 31913
- leaky coaxial cable with periodic symm. slots, propag. mode anal. *(Korean)* 33735
- long. magnetized ferrite loaded rect. waveguides 12699
- microstrip discontinuities, combined mode-matching/method-of-lines procedure 31912
- microstrip-to-waveguide transits., anal./design 15597
- mitered E-plane bends in rect. waveguide, mode matching anal. 8028
- mixed modes dielec. resonator loaded cavity filters 12733
- MM-wave circ. groove guide, dominant mode characts. 31910
- mode-field-converting fiber for coupling, photonic devices 14403
- parallel plate waveguide, HF wave coupling, UTD mode matching anal. *(English)* 40410
- quantum waveguide struct. and devices 6810
- rect. core waveguides, integrated optics, fibre coupling, mode matching techs. 39429
- rect. waveguide, EM scatt. by inductive discontinuities 8029
- rect. waveguide, isotropic/anisotropic obstacles, discontinuities anal. 2299
- slit-coupled ridge waveguide T-jns., struct., anal. 21515
- slowly evolutive waveguide reft. and transm. computation 23812
- three-layered electron waveguides, equiv. network approach for multistep discontinuities 21979
- trapped image guide type directional couplers 813
- waveguide cct. design by combination of field theory and nodal anal. *(German)* 23784
- waveguide filters, modal anal., hybrid MM/FE method 6287
- waveguide open and slit coupled T-jns., single port mode matching 31895
- CAD benchmark, EM simulators 12722

model-based reasoning
- combinat. cct., hierarchical knowledge modelling *(Japanese)* 5970
- diagnosing continuous systs., qualitat. dyn. models 34411
- DIVA/DIAPO expert systs., domain models 19585
- heterog. networks supervisor, intell. fault mgt. *(French)* 16603
- infrastructure networks, fault mgt. 3458
- power syst. pricing update, MBR 27067
- power syst. protection perform. anal., ES appl. 4712
- re-engng. test develop. proc. 34368
- semi-quantitat. MBR syst. for ECG diagnosis 10239
- space power distrib., model-based diagnostics 18765
- spacecraft electrical power system fault detection and diagnosis, model-based reasoning 10397
- telecommunication network mgt., MBR appl. 41647
- TIGER, model-based/rule-based real-time tool for monitoring and diagnosis of dyn. systs. 34393
- water distrib. systs., model based fault diagnosis 3159

model reduction *see reduced order systems*

model reference adaptive control systems
- DC servomotor, robust digital optimal model following syst. *(Korean)* 27751
- dexterous motions, nonlin. cct. theory for robot control problems 21090
- double-mass induction motor drive, vibr. control design *(Russian)* 28096
- flexible joint single-link robot ident. and tracking control ANN 36669
- high-order systs., model ref. adaptive fuzzy control 5245
- induction motor drive flux/torque MRAC design 11348
- induction motor drive tacholess vector control, low speed perform. 5292
- induction motor drives, CSI fed, adaptive params. compensator 36698
- induction motor drives, speed sensorless control, flux saturation effects 11328
- induction motor drives, vector controlled, rotor time const. ident. 20073
- induction motors, CSI-fed, torque control, vector approx. 5310
- motor drives, MRAC design, integral compensation 44434
- PLL systs., MRAC, Lyapunov fn. appls. 590
- power generation boiler, steam temp. MRAC *(Japanese)* 43905
- rapid thermal proces partial state MRAC 30402
- RF amp. lin., continuous-time adaptive control 12349
- robots, PM sync. motor drive, robust adaptive control 20054
- rolling mill ASDs, torsional vibr. damping 36800
- supply-side loading minimisation, intelligent SVC control 43656
- variable speed induction motor drive, adaptive fuzzy control 11392
- wind-diesel hybrid power plant, robust control 10912

modelling
see also brain models; catastrophe theory; corporate modelling; identification; integrated circuit modelling; physiological models; semiconductor device models; semiconductor process modelling; simulation
1D FEL model without slowly-varying approx. 39984
3D interface elements for modelling complex pot. drops 40193
3D modelling of EM actuators, iter. procedure 40273
3D moving vector Preisach hysteresis model 39186
AC supercond. current limiters, design and modelling 4731
AC-AC convertors, first harmonic approach, syst. modelling, cond. mode *(French)* 29011
actuator/servo interact. in opt. recording 30840
α-profile multimode opt. fiber channel, lin. systs. approach 9438
anisotropic waveguides, full-vectorial beam propag. method 7284
asynchronous opt. chip interconnects with direct detect., crosstalk anal. 9440
ATM syst. transaction-oriented simul. and source traffic modelling *(German)* 41422
beam propag. method num. algms. 39470
birdcage coil, field inhomog., math. model, MRI appl. 10197
bond graphs and variable causality 20546
centralized multihop packet radio network, simul. model 9160
ceramic BGA package mfg. vars., effects on solder joint reliab. 11856
chem. syst. hazard anal. integrat. 20173
Cherenkov FEL, Kerr-like medium loaded, efficiency enhancement 23319
cochannel interf. modelling for sig. strength based handoff anal. 2273
coherent opt. syst. nonuniform FM response, semicond. laser model 9471
combat modeling, variable resoln. 35399
communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
complete-moving-hysteresis model, param. ident. 7100
concave grating planar waveguide device diffr. 30963
connected ground and floating plane package design and anal. 11809
converter transformer cores, losses modelling, failure 44108
Δm curves modelling, complete-moving-hysteresis model 39187
diagnostic radiology, antiscatter grids design, computer modelling 18651
diff. eqns. soln. by event driven techs. for param. optim. 37351
diffuse objs., nonlin. recorded holograms, SNR 7812
discharge lamp, num. simul. study 11455
discrete-time multichannel sigs., neural net modelling 15976
dispenser cathodes, Ba transport modelling 6473
doped glass fibers, SHG, directional photoionization model 15042
doubly- and non-oriented sheets, anisotropic behaviour model 39126
ECG recordings, 50 Hz interf./noise, review 43278
echo path modelling, chaotic-driven, coding strategy 33398
elec. connectors, metall. considerations in FEM modeling 12869
electronic component model minimization based on log simulated annealing 12280
electronic components and technol., conf., Washington DC, 1994 5473
elevation map recovering, aerial image seq., stereo modeling 10341
EMC, conference, Dallas, TX, USA (1993) 36844
exchange biasing schemes for MR disk heads 7082
FEL gain calc. for imperfectly matched electron beams 39975
ferroelec. ceramics, twinning-induced stress, elec. field conc. 37537
fiber, periodically modulated core diam., multi-soliton fission 31533
full-vector waveguide modeling by iter. finite-difference method, transparent boundary conditions 40401
glass photoinduced SHG, time-depend. beam-propag. model 15115
green engng. framework for concurrent design of products/procs. 5579
GRINSCH VCSEL, graded heterointerfaces, modulation characts., cct. modelling 39780
hardware-software complex for real time optoelectronic syst. modeling 9652
helical-scan recording, lumped modeling of rotary transformers and heads 34272
high-dens. mag. recording channels, nonlin. compensation 7102
high-gain Compton FEL pulse evol., nonlin. macroscopic eqns. 39976
holographic interconnections, alignment, switching, resoln. 40165
HTSC microstrip travelling-wave resonators, double resons. 37971
human search/target acquisition perform. modeling, fixation-point 8599
IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
IM/DD TDM high bit rate opt. systs., modelling and anal. 34067
induction heating of long workpieces, num. modelling 11473
inductively coupled discharges, analytic models 21789
integral decoupling capacitors in IC/MCM packaging, simul. 12843
integrated opt. cct. simul., num. BPM algms. 22920
integro-differential systs. with delays, modelling, simul. and control 37350
internal combustion engines, combustion press. proc. modeling 4841
IR sens. model of noise equiv. temp. difference 3887
J-band relativistic klystron amplifiers, modelling and design 21826
Kiruna mine prod. syst. operational reliab. Markov model 20191
laser scalpels, energy transfer procs. modelling 4293
leaky/absorbing opt. waveguide/quantum well struct. modelling 40434
LF cavity oscill. driven by detuned current modulation 29787
load-haul-dump mach. power supply cable life rel., operating environ. 20190
mag. hysteresis, finite element modelling 39125
mag.-noise struct. anal., inverse problem model constr. 28920
magnicon 2.4 MW CW, modeling and anal. 21823
Marine Geophysics Modeling System 18792
materials, dichromatic refl. models 8475
melted microlens shapes, modelling/meas. 1724
microcellular commun. in corridor complex, model/path loss meas. 2232
microfabricated actuator arrays, manipulation/control theory 30507
microstrip fed slot antennas, approx. model 2325
microwave hyperthermia applicators, FDTD modelling 35144
Midwest Symp. on ccts. and systs., Detroit (1993) 33
mixed photonic/electronic cct. simul. 37603
MM-wave BWO, flicker noise eval. 999
mode switching syst. modelling 21093
MRI, shielded loop resonators theory 43209
multiphase composite, impedance spectrosc., simul. model 37566
multiple-valued PLAs, fault model and equivalences 607
multistage interconnection network systs., opt. devices, design 1829
narrow track thin film write head fields, modelling 7089
neural computation, phys. models and analogue VLSI implement. 6269
NLC layer electrooptic modulators, dyn. modelling 1744
nonhermetic enclosures and packages, moisture ingress model 5673
nonlin. bit shift in thin film heads, rise time/field gradient effect 7091
nonlin. glass-based opt. switches, BPM design/simul. 17167
nonreciprocal integrated optic couplers, magneto-optic materials, design 14413
ocean, 3-layer quasi-geostrophic models, data assimilation 26764
ocean circ. num. model, SWAFS 26754

modelling continued
open-circuited coaxial probes, neurocomputed model 34666
optoelectronic devices in vac., testing, thermal effect modelling 10312
OQPSK-type modulations, mobile radio transm. modeling/perform. eval. 17122
particulate mag. media, accommodation models 39124
PGA package, high speed elec. charactn./simul. 20442
photomultiplier tube solid angle fn. math. modeling, transm., diffusive plane 29813
planar microcavity LED's, design/expt. comparison 31097
pole geometries in thin film inductive heads, perform. eval. 7090
positron camera systs., simple data loss model 35043
preamplifier ASK syst. perform., incomplete ASK modulation, influence of ASE/laser phase noise 25531
PYRAMID interior area removal method in electron beam lithog. 13455
rare earth-doped fiber clusters charactn. by transm. meas. 22848
rare earth-doped fiber laser clusters, rate eqns. 31225
reciprocal procs. on tree, modeling and estim. issues 24192
relativistic klystron amp., beam-gap interacts., simul. 29786
rigid rotor mag. bearing syst., nonlin. control 27681
robust design, tutorial 11709
robust multilayer mirrors, X-ray laser cavity optics 7715
robust nonlin. least sq., data modeling 16009
SAL-biased MR heads, patterned PM bias 7085
scene params. estimating method, color histograms 2601
semicond. lasers, HF characts., nonlin. gain cct. model 31333
SESES, micro electro mech. systs. CAD modelling syst. 30498
single-mode opt. fibers, chromatic dispersion modeling 7282
smart material hysteresis, Preisach modeling and compensation 37546
solder profile model and expt. verification 37065
spoken dialogue syst. design, stochastic modeling 15846
std. EMI modeling problems 15526
structural eqn. models, non-recursive, equivalence 28630
surface roughness determ., refl. step edges 3974
symmetric 2×2 fused-fiber coupler modeling 22823
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
Terfenol-D rods, giant magnetostriction modelling by FEM 39148
thermal/visual imagery, robust phys.-based anal. 2597
thick-film resistor values estim., ANNs 21585
three-phase power syst. reliab. rel., voltage unbalance 19232
three-wavelength Mach-Zehnder demultiplexer, BPM simul., fab. 17166
tone synthesis, generalized overlap-add sinusoidal modeling 16004
transient surface impedance boundary condition, model 40192
TSOP solder joint crack initiation and propag. 37110
two-phase electronic cooling, mini-channel/micro-channel heat sink geom. 11759
US scatt. expts., syst. model predictions 18952
US testing, ray modeling 4423
very-short air gaps in plane-parallel electrodes, discharges 13979
wideband radio propag. for pers. communs., freq.-domain model 7964
wind meas. by heterodyne coherent laser radar 43504
X ray ionization radiation effects and mechanisms 6680
Y-branch modelling by method of lines/beam propag. method 40435
AgGaSe$_2$, thermal lensing modeling, laser beam aberration 7765
AlGaAs, multiwafer MOVPE reactor growth modelling 20795
[B-]BaB$_2$O$_4$ opt. parametric oscillator noncollinear phase matching 15114
CO$_2$ lasers, phase conjug. 15059
Er^{3+},Yb^{3+}:SiO$_2$ planar waveguide amps., pair induced energy transfer 31246
Er-doped integrated glass laser, modeling and optim. 22921
Er-doped planar waveguide lasers, theoretical modeling of relax. oscills. 14818
Fe core slab, mag. field diffusion, hysteresis models 39146
GaAs, multiwafer MOVPE reactor growth modelling 20795
GaAs:Cr, picosecond transient gratings, expts./modelling 31491
Ho:YAG quasi-three-level laser Q-switched operation 14819
I, photodissociation laser modelling, slow pumping 31161
LiB$_3$O$_5$ doubly-reson. opt. parametric oscillator mode selection 15116
LiNbO$_3$:Fe(Cu), IR holographic recording 31634
N$_2$ excimer laser, elec. discharge excited, model 7519
Nd:YAG Q-switched CW pumped laser, math. modeling 1895
Nd:YAG, saturable amp., pulsed phase conjug. modeling 2065
Pr^{3+}-doped fluoride fiber amps., gain dyn. anal. 31217
Pr(3+):ZBLAN fiber amplifer, emission cross-sect. spectrum of pump transit. 14772
SiO$_2$ opt. fiber, Vicker's indentation modeling 14358
Xe$_2^*$ self-sustained discharge-pumped laser at 172 nm, kinetics 14704
XeCl phototriggered lasers, modelling studies 31162
XeF excimer laser kinetic model 31178
YBaCuO bolometers at 10.6 μm wavelength, implement. 42814
ZBLAN:Ho fibre laser, upconversion, charactn., modelling 1903
ZnGeP$_2$, thermal lensing modeling, laser beam aberration 7765

modelling, computer *see computer aided analysis*

modelling languages *see simulation languages*

models *see modelling*

modems
3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
8PSK-TCM modem, develop. and transm. perform. 25156
automobiles, EMI reduction, high speed modem 31859
COMETS, expt. advanced mobile satellite commun. syst. *(Japanese)* 42215
digital modems, sym. synchronizer perform. 8457
digital PM, carrier tracking and sym. detect., nonlin. filtering 8107
DS-SS RAKE receiver, ASIC implement. 9191
embedded chip MCM technol., nondigital extensions 21752
envelope delay test time meas. methods, modem design 42085
FH-SS transceiver, 900 MHz, low-power CMOS chip 33745
FQPSK modem/radio for PCS/ mobile satellite commun. 25312
frame broadcasting by IR impulses, transmitters sync. 33478
handover during mobile data commun., error reduction 16635
hierarchical digital broadcasting, adaptively weighted CDM 25628
high data rate satellite commun. systs., R&D *(Japanese)* 17158
high speed indoor wireless systs., directional antennas 3329
high-speed QAM modem CAD tools 42081
home inform. control syst., develop. *(Japanese)* 3683
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
interactive TV overview from viewpoint of CATV settop converter's RF modem 34266
internat. digital route outer codec for satellite links 3268
ITU-T recommendation V.34 for high speed modems 42082

modems continued
Japanese std. based digital cellular syst. perform 33807
multi-carrier CDMA modem design 9220
multimodulation acoustic commun. syst. 9658
narrowband microcellular speech transm. schemes 3332
network adapter, archit. 16934
network karaoke syst., develop. *(Japanese)* 42648
OFDM for digital TV broadcasting 3646
PCMCIA std. for high-dens. PCB design 6407
pers. handy phone syst. for multimedia wireless commun. *(Japanese)* 25127
point-to-point telecomms. services for small/medium sized businesses 41615
portable telephone for pers. digital cellular syst. 3467
PSTN, secure speech/data commun. 33397
QAM demodulator appls., 6-GOPS sig. proc., archit. and CMOS cct. design 33681
Radon transform based constellation ident., anal. 33683
Rohde & Schwarz HF Data Modem GM 857 C4 9119
sector antenna/DFE modems for indoor radio commun. 3167
shallow-water acoustic LAN, store-and-forward protocol 10446
sig. proc. ASIC, digital SS modem for power line commun. 21379
SMD high-speed modem design *(German)* 16937
spectrally efficient modem for land-mobile radio, perform. 9272
Telsat 28812 high speed modem 42083
TRT's Sematrans 256 modem, 32 kbit/s transm. on telephone network 42084
unconventional cryptographic keying variable mgt. 15767
underwater acoustic data-commun., bandwidth efficient modulation 9657
underwater acoustic network node, design/perform. 16684
V.34 modem built, MC68356 integrated DSP 9118
V.34 modem std. 9115
V.34 modem std., appl. 33682
VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938
voice-controlled telecomm. terminal for phys. handicapped 4313
wireless modem, data transm. tech. 9117
wireless modem, high data link control protocol 9116

moderators
3200 MW Torness AGR power PLEX study, UK 19486
incore thermionic space nuc. power, Monte Carlo fuel burnup simul. 26622
methane, thermal neutron flux, KNK-21A fission ionization chamber 26114
water, thermal neutron flux, KNK-21A fission ionization chamber 26114

modes, laser *see laser modes*

MODFET *see high electron mobility transistors*

MODFET circuits *see HEMT circuits*

MODFET integrated circuits *see HEMT integrated circuits*

MODFET switches *see field effect transistor switches*

MODOR *see microwave-optical double resonance*

Modula
obj.-oriented user interface toolkit, adding digital video 34279

modular circuits *see modules*

modulation
see also amplitude modulation; angle modulation; chirp modulation; demodulation; demodulators; intermodulation; minimum shift keying; modulation coding; modulation spectroscopy; modulators; optical modulation; pulse modulation
2D nonseparable modulated filter banks 32713
3-phase AC-AC matrix converters, unbalanced supply 36350
AC/AC converters, vector control, min. energy storage 19758
antipodal Rayleigh fading sigs. detect. in severe CCI 8386
asymmetrical DSL, echo cancellation 9089
ATM multiplexer, Markov modulated arrivals, output proc. 16785
ATM networks, modulation level-controlled radio syst. 3314
automobiles, EMI reduction, high speed modem 31859
binary modulation proc. 32028
broadband satellite digital video transm. technol. *(Japanese)* 17542
broadcast multipath environ., multicarrier modulation perform. 34224
CDMA for automotive area network, power-lines 3310
clipped DMT ADSL sig., SNR/spectral props. 9097
communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
conductor-above-the-ground type line, impedance var. 31922
cosine-modulated 2D FIR filter banks, perfect reconstruction 32712
coupled oscillators, modulated sigs. sync. 12367
DC motor speed control, binary rate modulation 27749
DECT solid state radio front end, perform. eval. 3468
dielec. film periodically nonstationary nonuniformities, EM interact. 40330
digital broadcasting, overview of emerging technols. 34203
digital data transm., optimum stuff threshold modulation schemes 40573
digital receivers, sampling rate, analog prefiltering, stats. 15965
digital recorder data detecting cct. *(Japanese)* 3762
digital TV, hierarchical channel coding, turbo-codes 8684
digital TV broadcasting, modulation/demodulation *(Japanese)* 34217
direct digital synthesizers, modulated sigs. generation, perform. 16018
DMT-based ADSL, concept, archit., and perform. 9105
DMT/DWMT systs. and digital filter banks 9091
DS-CDMA FH-CDMA/narrow band cellular radio systs. 3452
DS-CDMA mobile syst., fading channel, anal./simul. 3391
DS-CDMA SS systs., permutation modulation 17126
DSL discrete multitone modulation, high-speed full-duplex echo cancellation 40560
echo-cancelled discrete multitone systs., timing recovery 9090
fractal modulation commun. syst., implement./simul. 15708
functional sig. transforms without multiplication operations 8268
Hermite wavelets for multicarrier data transmission 9092
HF discharge lamp ballasts, white noise modulation 11457
hierarchical modulation schemes for digital broadcasting, power assignment 25630
IEE telecommunications conf., Brighton, UK (1995) 36830
IEEE MILCOM conf., Boston, USA (1993) 36897
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
induction motor drive, SCR based, modulation strategies 20080
induction motor drives, sync. space vector modulation 36701
LF cavity oscill. driven by detuned current modulation 29787
lin. modulation in narrowband private mobile radio 3374
LPC params. for noisy channels, VQ 32329
MA-model ident., modulated cumulants 24248
Mitsubishi Electric base-station modulation/demodulation eqpt. *(Japanese)* 33892

modulation continued
Mitsubishi Electric digital cell phones for Europe/North America *(Japanese)* 33891
MM band IMPATTs wideband oscillators, modulation characts. 37997
mobile commun. services, digital modulation techs. 17033
mobile radio syst. digital modulation scheme selection 33778
multi-carrier CDMA in indoor Rician fading channel 9226
multicarrier modulation impulse noise mitigation strategies 40561
multicarrier modulation syst. equaliser training algms. 40559
narrowband microcellular speech transm. schemes 3332
ocean wave-atm. turbulence interact., microwave RCS meas. 10472
pitch mode modulation model based speech enhancement 8208
power converters, energetic characts., load current modulation, EMC *(Russian)* 44111
PWM techs. for invertors 11125
R&S Signal Generator SME extensions for testing, digital networks 9968
radio channel transm. with multichannel modulation 32034
radio LANs and MANs, IEE Colloquium, London (1995) 36864
radio links, computer generation of sigs., simul. program 17025
regular M-band modulated orthogonal transforms 32710
relativistic klystrons, inductively-loaded wide-gap designs 29785
resistive-wall klystron, nonlin. theory 29784
Sanyo multi-gray-scale proc. LSI for TFT-LCD *(Japanese)* 669
secure commun. systs., chaotic chips/Chua's ccts. 8690
secure commun. systs. via chaotic sync. and modulations 41381
separated drift field magnetotransistor, design, fab. *(Korean)* 25778
signal proc. in mag. recording, conf., San Diego (Aug. 1994) 20241
solid-state RF power amps., bias ripple effects eval. 546
spectral efficiency of multiple access techs. 17065
spread spectrum techniques, IEEE conf., Oulu, Finland (1994) 20200
SS PRN, delay capture, arrival-time distrib. 9174
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
superimposed microwave modulation, Gbps systs. perform. 42441
SVC, three-level invertor-based, expt. investig. 43665
Teradyne integrated ATE syst. for microwave devices/ccts. 25716
three-phase GTO rectifier, harmonic distortion reduction *(Polish)* 27789
time-variant filter, modulation-based, design 15986
time-varying modulated lapped transforms 8342
train-to-wayside commun., multicarrier modulation 9282
underwater acoustic channel simul. for commun. 17358
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
universal personal communications, conf., San Diego, USA (1994) 20233
wideband 1/2 regenerative freq. division, LSB-SSB modulation 29427
wireless multimedia commun., adaptive rate multiple access 41991
CoPtCr, mag. recording, texture-induced modulation noise 7121

modulation coding
see also pulse code modulation; trellis coded modulation
8-PSK multilevel block modulation, uniform dist. property 2361
American digital cellular syst. spectral efficiency 9275
analog coding/decoding, data transm., fading channels 8169
asymptotic bounds on size of error-correcting recording codes 2384
bandlimited quaternary phase FSK, error perform. 9276
block coded modulation schemes, design/eval. 15781
block encoding, CPM 15764
block modulation codes, differential encoding/decoding 40603
bounded-delay encodable modulation codes, constr. method 40647
CDMA systs., error-correcting coding 24782
CDMA wireless LAN, hybrid-ARQ error control scheme 8748
coded partial response digitally phase modulated sigs., perform. 15714
concatenated block coded modulation in Rayleigh fading channel 9171
CPM coded quaternary scheme for satellite-vehicle/pers. commun. 42265
CPM sigs., backtracking seq. detect. 15956
(d,k)-constrained seqs., synchronising methods 15755
digital compact cassette, seq. estim. algms. appl. 17582
digital transm. over degraded channels, coded modulation 8103
DPSK/FSK, differential phase detect., bit/sym. error probabilities 40614
DS-SS receiver, multiple-dwell serial-search code acquisition 15779
DS/CDMA, multilevel coded modulation, integrated receiver struct. 42144
error-correcting 2D modulation codes 15754
Golay-coded M-PSK, Rayleigh fading channel, decoding 32090
high-dens. opt. recording, variable length RLL codes 15758
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
M-ary phase coding for noncoherent AWGN channel 24046
microwave radio commun. systs., DSP and VLSI technol. 25223
mobile satellite channels, partial response coded MPSK anal. 42205
multi-carrier CDMA in indoor Rician fading channel, controlled equalization 9219
multilevel coded FSK/PSK modulation 15746
multiresolution modulation/concatenated coding, decoding algms. 8683
multistage decoders, complexity/perform. tradeoffs 15727
noisy (1,7) constrained channel, concatenated coding, perform. 40652
noncoherent orthogonal coding improvement by time overlapping 2375
opt. direct-detect. channel, coded multi-pulse PPM perform. 8170
phase/FM combined, multilevel block codes 24012
PPM, seq. detect. and equalization 15710
QPSK block-modulation codes for unequal error protection 32064
RS coded opt. PPM, PIN-FET receivers 9606
sig. constellations based on hypercubes 40576
space opt. commun., pulse-coded multiple access 42350
systematic TCM in coded modulation 8093
turbo-codes/high spectral efficiency modulation 15747
underwater acoustic data-commun., bandwidth efficient modulation 9657
upper bounds, error probab. calc. 15748
GaAs 2-to-4 level convertor IC for SOA modulators 42403
GaAs transmitter/receiver chipset for opt. link 42404

modulation/demodulation *see demodulation; modulation*

modulation doped field effect transistors *see high electron mobility transistors*

modulation factor *see modulation*

modulation index *see modulation*

modulation spectroscopy
conference, laser techniques for surface science, Los Angeles, CA, USA (Jan. 1994) 28208
semicond. device struct., charactn., modulation spectrosc. 1435
semicond. devices, charactn. methods 22319
Ag fractal nanospheres in PMMA film, cubic opt. nonlin. local field enhancement 15130

modulation transfer function *see optical transfer function*

modulational instability
10-Gbit/s 280-km nonrepeatered transm., suppression of modulation instabil. 9509
beam-plasma microwave generators, plasma dens. self-modulation 984
birefr. fibre modulation instabil. 30908
bright/dark solitons, cascaded second-order effects 31619
nonlin. Kerr-type resonators, modulational instabilities, suppression 2123
underdense plasma, self-resonant wakefield excitation by intense laser 23653

modulator-demodulators *see modems*

modulators
see also demodulators; modems; modulation
1.9 GHz-band RF IC chip-set for pers. commun. 863
1-bit beamforming proc., clipped data stream insertion 8349
16.5 MW med. LINAC pulsed power supply ceramic D thyratron 34983
50 kA coaxial orient. independent ignitron, pulsed power appls. 36413
100 kV 1 kHz Blumlein pulsed power supply, microwave appls. 36257
200 MW klystron pulsed power modulator, electron LINAC appls. 34744
522 MW, 310 kW pulsed power supply modulator 36463
900 MHz transmitter syst., highly integrated ASIC 9353
A-level bandwidth-efficient CPM 8101
antenna array photonic systs. 2352
BiCMOS fourth-order sigma-delta ADC, HF/resoln. 29328
BiCMOS laser control chip combining power control and 622 Mbit/s modulator 31426
BiCMOS SC bandpass delta-sigma A/D modulation, 10.7 MHz 29310
BiCMOS stereo audio sigma-delta ADC for audio appls. 9770
C-band monolithic vector modulator MMIC *(Chinese)* 38040
CMOS current-memory sigma-delta modulators, discrete-time simul. 29327
CMOS multiplier design, differential difference amp. 6252
CROSSATRON modulator switches, pulsed power supply appls. 36409
Crossatron-based modulator for plasma discharges 12382
data commun., sinewave modulation, DDS/sigma delta techniques 12353
DECT channel error profiles 3123
delta-sigma modulators with zero mean stochastic inputs, anal. 37819
digital video sig. transm. via RAI analogue FM radio links *(Italian)* 9158
digitally generated signals, filtering 8444
feedforward pulse-width modulator for boost DC-DC power converters 29042
folded waveguide gyrotron TWTA 29803
fourth-order SI delta-sigma modulators for HF appls. 21389
GLONASS DS-SS sigs., radioastronomy impact 25620
GMSK modulation, expt. investig. 15715
hardFET pulsed power modulators, array-type radar appls. 27820
hazardous pollution control, pulsed power accelerator appls. 36815
high power microwave transmitter perform., long pulse widths 29765
high-order universal sigma-delta modulator 12601
high-power magnetrons, phase locking 987
HV double pulse modulator, variable interpulse delay 5108
hybrid analog/digital VLSI sig. proc., single bit modulators 12661
I/Q modulators for mixing cellular sigs. 17032
Japan Linear Collider klystron modulator pulsed power supply 36402
Japanese Personal Handy Phone/DECT, IF modulator, DDS 3465
LINC transmitter, combined analogue locked loop universal modulator 3322
low-power quadrature modulator ICs for digital mobile commun. 42214
microelectronic component testing using circuit modeling 38963
microstrip QPSK modulator constr. and characts. *(Croatian)* 808
microwave modulator for 16-posn. amplit.-phase keyed sigs. 12373
multi-channel decimator for tri-level delta-sigma modulator 29080
multichannel environ., direct upconversion, reconstruction filters 25230
multichannel transmitters, DSP/direct conversion 3323
NEC, quasi-microwave band QPSK direct modulator modules *(Japanese)* 37679
partial response binary CPM ($h=1/2$) anal. algm. 32035
$\pi/4$-shift QPSK baseband modulator for pers. handy phone syst., CMOS mixed-sig. IC 29078
plasma source ion implanters, pulse power modulator design optim. 36803
power plant emissions control, pulsed corona discharge modulators 35998
pulsed power beam switch tube modulators, plasma ion implant. appls. 36404
pulsed power mag. modulator, laser power supply appls. 36401
pulsed power modulator systs., pulse forming network calcs. 36441
quadratic correl. archit. based single loop synthesizer and modulator 9176
quaternary full response CPM sigs., generation/coherent detect. 3434
second-order Δ-Σ modulator/freq.-to-digital converter 12608
semicond. components for opt. amplif./modulation/detect. 42472
SMSK/MSK-modulated inputs recovery, modulator config. 25157
solid-state SCR switches, space laser pulsed power modulator appls. 36417
STEL-1103, low cost return path CATV transmitter ASIC 42609
subcarrier comb generator, phase-locked tunable config. 9426
supercond. supercollider pulsed power supply thyratron modulators 34750
tone-free $\Sigma\Delta$ modulators, design aspects 12598
vector modulator, bal. design, C-band 12371
VHF/FM sigs. blind adaptive equalization by symm. tuning 17004
voltage controlled astable multivibrator, Miller-integrator 21146
GaAs Gilbert cell in MMIC, design tech., DSB modulator 38022
GaAs MMIC double side-band modulators, Gilbert cell based, design 29589
Si photocontrolled microwave modulator, atten. drop kinetics 589

modules
see also CAMAC; multichip modules
2.5 Gbit/s DFB LD/modules for long-haul opt. transm. 34002
2D heat transfer in semicond. device modules on PCBs, num. prediction 37070
3D archit. for high resoln. imaging 34583
3D functional modules, SMD miniaturisation for portable telephones 5621
10.4″ TFT-LCD module for 16.7 million color XGA *(Japanese)* 34636
900 MHz-band HBT MMIC power amp. module *(Japanese)* 25337
act. array module for spatial power combiners/act. antennas 31990
advanced composite materials, mil. electronics, environ. testing 5646
analog DFB laser modules, second-order IMD 7680
ATM opt. switching, high-speed module for wavelength encoding switching 16982
automotive subsystems control, electronic modules 5376
avionics systs., opt. interconnect, connectors, hybrids, backplane 18721
BH light-emission/detect. diode module for subscriber TCM transm. systs. 25472
blocks, heated, flow and heat transfer from an array, computational/expt. results 37069
BTPFL-C2 immersion-cooled electronic clamshell module, aircraft avionics 4432

modules continued
ceramic multicomponent modules, miniaturisation approach 5622
CMOS digital redundant random no. generator 29204
CMOS logic modules, ADEQUAT project 22578
coaxial laser module for Gb/s transm.-speed range 17275
computer convective cooling, flow resist. model 37071
couplers, silica-based planar lightwave ccts. *(Japanese)* 14427
DFB free-running laser modules, long-term wavelength drift 7675
DFB LD/module for CATV systs. 34261
distributed protocols design, compositional approach 2959
electronic components and technol., conf., Washington DC, 1994 5473
electronics cooling, adiabatic heat transfer coeff. on cube faces 37122
engine control module, hybrid interconnect technols. 28154
extrapolation of emanations from large systs. 23662
fiber optic module interconnection, parallel data bus 42474
gate-arrays, automatic cell placement, anal. procedure 625
handy phone UHF high power amp. module 42255
HF power module using GaAs semiconds., low induct. design 29029
high bit rate opt. transmitter module realised in opto-hybrid technol. 9480
HV power supplies, electronic modules develop. 36327
IBM high perform. carrier technol. for PCB packaging/interconnects 37153
IEEE P1149.5 MTM-Bus, backplane test/init. interface 9807
IEEE P1149.5 standard module test and maintenance bus 42702
IGBT, hybrid power modules, thermosensitive params. anal. 13700
IGBT power modules, packaging and reliab., failure anal. 30252
immersion-cooled std. electronic clamshell module, high-flux avionic systs. 37102
integrated avionics develops. civ. and mil. 26545
integrated optic device modules, sig. proc. 39460
intell. modules, power convertor appl. 21120
intell. power module, develop. trends 29028
interconnection technol., colloquium, London, Nov. 1994 5482
intra board opt. interconnects, high bit rate modules 17279
liq. cooling module, heat transfer design 37124
low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
LSI chips, high dens. modules, bump interconnection 30150
LSI module placement, Hopfield neural net, non-zero diagonal elements *(Japanese)* 37599
MEMS, power supply, solar cell array 22630
microwave and MM wave packaging and interconnection for modules 37082
MIMIC power modules for sens. appls. 38012
monolithic array LD module, small sized coupling optics 7671
MQW laser amp. module, 27 dB gain unidirectional 1300 nm polariz. insensitive 14860
μP thermal design, simul. and phys. models 12571
NEC 24 cm TFT color LCD module, develop. *(Japanese)* 3937
NEC 24 cm TFT full-color LCD module, develop. *(Japanese)* 3936
NEC graphic FIP modules *(Japanese)* 3940
neurochip core design, error BP on-chip learning capability *(Korean)* 37910
PCB substr. cond. effects, electronic components, convective cooling 909
penalty-free 2.5 Gbit/s photonic switching, opt. amp. module 33728
photon counting opt. sens. develop. trends *(Japanese)* 17803
photoreceiver module, packaging technol. 42413
power contactor armature posn. sens., rem. auxiliary contacts 29645
protocol architectures, modularity considerations 3221
protocol configuration, modules as building blocks 3222
public data network, integrated mgt. syst. 24910
public data network mgt. syst., monitoring subsystem 24913
PWBs, electronic modules, laser-based noncontact testing 29650
random pattern testable floating point adders 12458
receptacle LD modules, low refl. design *(Japanese)* 7666
RF ATE development, Modular Measurement System develop. 42688
satellite TWTAs, microwave power modules, radiation cooled collectors 26553
SIERA, appl.-specific syst. level hardware module generation 29659
smart power technol. evol., overview 29012
solder ball connection module, memory appls. 20430
space vehicle avionics upgrades, thermal design challenges 43429
sub-micron ASIC design, register-transfer module selection 29091
TCML-2 terminating/converting module for local area *(Japanese)* 25171
TFT-LCD module, outer lead bonding 34644
tilted semicond. opt. amp. arrays, flip-chip packaging 31125
VLSI placement, module clustering, fractal anal. 13842
voice mail syst., value added services 3150
WDM opt. transceiver module for pass. double star subscriber systs. 42371
AlGaInAs coaxial laser module, 1.3 μm for local-loop appls. 7681
$(Bi,Sb)_2(Te,Se)_3$ semicond. thermoelec. power modules, diffusion controlled degrad. model 28013
C-C composites, thermally conductive/CTE tailorable, MCM/PCB packaging 37146
GaAs MESFET MMIC power amp. modules, 10 W, X-band 12827
GaAs MESFET-based power module, optimum LV/high-efficiency design 11749
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 14498
InGaAsP MQW LD array design and fab. for opt. parallel links 31353
$LiNbO_3$ opt. waveguide modulator for bidirectional transm. 42442
Si 10 Gbit/s bipolar LD driver IC for direct modulation 29047
Si, modular mass flow sens. 25826
Si multitechnology module OEIC packaging for computer/commun. systs. 11815
SiC/Al metal matrix composite baseplate, high current power modules 28466
SiC/Al metal matrix composites, SEM-E cores and MCMs 29736
Sn-Ag solder, Pb-free, appl. in no-clean thick film electronic modules 6451

modulus, Young's *see Young's modulus*

moire fringes
axially asymmetric lenses, focusing props., Moire tech. 31056
chirped fibre moire grating transm. filters, wide stopband 30874
color separation, moire patterns, spectral anal./minimization 2641
colour CCD image sens., moire effect surface shape meas. 10017
conference, interferometry, photomechanics, Poland (1994) 28210
die attach proc., mfg. stresses in die, electronic packages 6453
electronic packages, thermal strain, size effects 28492
Fizeau interferometer, phase-map extraction by moire tech. 17697
graphite fibre reinforced PEEK thick composites, embedded SiO_2 opt. fibers, moire anal. 25852
interferometry anal. of laser weld induced thermal strain 2161
lithographic proc. monitoring and control, diffractive techs. 13489

moire fringes continued
local strain meas., electron beam moire 28911
PCB, displacement meas., shadow moire 29656
periodic struct. with macroscopic surface defects, moire and holographic visualisation 34690
phase stepping in projected-fringe moire interferometry 18071
photolithographic mask aligner based on moire interf. tech. 38709
profiling aspherical surfaces, moire deflectometry 17926
projected fringe surface topography meas. 18063
stress pattern slope/curvature determ. by coherent moire tech. 2141
moistening *see wetting*
moisture control
injection molding proc., plastic variables meas. 18135
moisture measurement
see also humidity measurement
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
fuzzy sensor fusion, concrete mixing plant quality monitoring 25808
injection molding proc., plastic variables meas. 18135
microwave moisture sens., green tea prod. appl. 3963
microwave moisture sens. for aggregates 43001
microwave sens., proc. control appl. *(German)* 18169
MM wave aquametry for water content determ. 42996
NMR 1D scanning of moisture in porous materials 10076
nonsteady state probe for thermal/humidity meas. 42757
plastic encapsulated IC reliab., missile appls. 35386
PLCC ink mark reliab. enhancement, flame treatment, tests 142
power transformer composite paper-oil insulation monitoring 19686
PQFP-based MCM, low cost, reliab. develop. and qualification 28468
response speed increase in trace moisture meas. 4025
seeds/kernels, impedance sensing, parallel plate capacitor 25942
snowpack, wetness & dens., hand held probe 18836
soil, elec. cond./water content, TDR 4387
soil moisture content detect. by TDR 10458
soil moisture rem. sens., UHF radiometry method 35350
tea moisture meas. systs. 18168
molar volume *see density*
molecular beam epitaxial growth
see also chemical beam epitaxial growth
BH SEL diodes, integrated vac. proc. 39810
book, Si and Si alloy based materials/devices 11540
calib. drift, source flange cooling 12095
capillary arrays, variable channel dens., improved gas injection syst. 5833
compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
conf., interface control of elec., chem. and mech. props., USA (1993) 36832
conference, vapour growth/epitaxy, Freiburg, Germany (1994) 20217
config. at. ordering, stochastic adsorpt. procs. in MBE-growth 20688
copper phthalocyanine film, MBE growth 20809
δ-doping during MBE, impurity atom distrib. 13296
double-solenoid pulsed valve used in cluster beam generation for laser vaporization *(Chinese)* 12082
epitaxial growth optim., opt. charactn. 319
filament heater for mol. beam source 20813
GaAs:Si, deltalike impurity confine. 38256
HEMT-HBT integrat. for MMICs by selective MBE 38011
II-VI cpds. MBE, in-situ charact. 20908
II-VI high-brightness blue-green LEDs on ZnSe substrs. 23052
II-VI semicond. MBE layers, cond. meas., contactless microwave method 42908
II-VI semicond. microstruct., optoelectronic appls. 14577
III-V heterostructs., selective area epitaxy, XRD charactn. 38311
III-V semicond. growth params. in MBE, in-situ meas. and control 20737
laser cryst. growth techs. 12132
LEOS, Lake Tahoe, NV, USA (July 1994) 39
LNA, monolithic HBT-regulated HEMT config. by MBE 29591
MBE facility, two synchronized modulated beams 37390
MBE on-line opt. modulation photoreflectance anal. syst. 5831
microcavity semicond. lasers 23203
modulation-doped photodetector, low-temp. MBE-grown GaAs 17783
nozzle-beam-type microwave radical source 28787
overview of epitaxial deposition technol. 12041
parallel Monte Carlo simul. 28770
phosphides, III-V cpds., MBE growth, solid P source 28719
photoassisted growth of II-VI semicond. films 28762
phthalocyanine films, MBE growth/photoelectrochemical procs. 20811
quantum effect devices, IC technol., MBE growth 13820
rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
SEL for multimode data link appls. 23280
semiconds., MBE, fast step-vel. oscills. 28729
semiconds., MBE growth, substr. temp., opt. pyrometer meas. 34496
soft cleaning, vacuo UV radiation and mol. H_2 gas 13389
substr. heater for MBE 20814
UHV-STM syst. combined, MBE 5837
vac. epitaxial growth systs., vis. laser interferometry 28788
VCSEL arrays, MBE, reliab., systs. appl. 39779
VCSEL arrays, mfg. 39784
vert. cavity laser arrays on patterned substr., wavelength shift 31409
vert. cavity LD, tunable, fibre coupling, threshold currents 39782
vert.-cavity SEL array for short dist. opt. fiber networks 14929
Ag MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
AlAs, C doping, CCl_4 and CBr_4, metalorganic MBE 1226
AlAs, MBE, dyn. surface procs., time-resolved RHEED 20872
AlAs, metalorganic MBE growth, reflectance anisotropy spectra 28720
$AlAs_ySb_{1-y}$ ternaries, comp. depend. on ratio of Sb/As fluxes/substr. temp. 37443
AlAsSb/GaAsSb DBR, highly reflective, MBE 15011
$AlAs_xSb_{1-x}$-InAs, modulated MBE growth 12076
AlGaAs HBT cct., manufacturable proc. 1360
AlGaAs LD, MBE prod., review 7663
AlGaAs, MOCVD/MBE on GaAs, elastic consts., Poisson ratio 28752
AlGaAs p-n jns., GaAs(111)A substrs., MBE growth, Si doping 20879
$Al_xGa_{1-x}As$, MBE from Ga_2Se_3 and Ga_2S_3 donor doping sources 37410
$Al_xGa_{1-x}As$ layers on GaAs(001), MBE, in situ reflectance anisotropy 37442
AlGaAs:(Si), MBE grown, positron annihilation studies 21915
AlGaAs:Si lateral jns., MBE growth on patterned substrs. 21947
$Al_xGa_{1-x}As$:Si, MBE grown, Hall and photolum. meas. 12129
AlGaAs/GaAs HEMTs for MM wave appls. 37978
AlGaAs/GaAs MODFETs, low-noise X-band transistors, MBE growth 22479
molecular beam epitaxial growth continued
AlGaAs/GaAs MQW, near- and mid-IR two-photon absorpt. 31538
AlGaAs/GaAs SQW, plasma cleaning, photolum. studies 1139
AlGaAs/GaAs npn HBTs, MBE fab. and charactn. *(Korean)* 30264
AlGaAs/GaAs quantum nanostructures, STM at.-scale anal. 29940
AlGaAs/InGaAs/GaAs high breakdown PHEMT, Te doping 29567
$Al_{0.3}Ga_{0.7}As/In_xGa_{1-x}As$, MBE, growth mechanism 340
$Al_xGa_{1-x}As$/GaAs:Be mirrors for VCSEL 15010
AlGaAs-GaAs DH LEDs, MBE 39588
AlGaAs-GaAs quantum wire struct., comp. modulation studied by photolum. 38357
AlGaAs-GaAs-AlGaAs HEMT/quantum well laser monolithic integrat., MBE/technol. 1945
AlGaAs-InGaAs strained-layer quantum well three-terminal switching device 22504
(Al)GaAsSb/AlAsSb Bragg reflector on InP, high reflectivity 28748
AlGaInAs/GaInAs, tunable lasers by masked implementation enhanced intermixing 14872
AlGaInAs/InP 1.5 μm MQW DFB LD exceeding 20 GHz bandwidth, MBE/MOCVD 23229
AlGaInP red-emitting LD grown by solid source MBE *(Japanese)* 39880
AlGaInP-GaInP yellow emitting semicond. lasers, MBE grown 1991
$Al_xGa_{1-x}Sb$, MBE from Ga_2Se_3 and Ga_2S_3 donor doping sources 37410
$Al_xIn_{1-x}As$, MBE/CVD growth, elec. props. 12060
AlInAs:Be, MBE growth, Be acceptor diffusion 338
AlInAs:Si, MBE, doping characts., deep levels 1219
AlInAs/(Al)GaInAs MSM photodetectors/modulators, solid source MBE 42809
AlInAs/GaInAs, quantum cascade laser, mid-IR source 14892
AlInAs-GaInAs npn/pnp HBTs, monolithic fabrication 13662
AlInP/InP pseudomorphic HBT, struct., fab., characts. 13645
AlN film growth on 6H-SiC, plasma assisted GSMBE 12090
AlN, thin films, MBE growth 5851
AlPSb/GaPSb Bragg reflector 1.55 μm LD 7619
Au MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
Au island mask-GaAs nanostruct. fab., MBE/MOVPE 385
BN, thin films, MBE growth 5851
$Bi_2Sr_2Ca_{n-1}Cu_nO_x$ thin films, MBE growth mechanism and control *(Japanese)* 5817
Bi_2Te_3 thin films on Si(111) substr., cryst. growth, sticking coeff. 28716
C_{60} single cryst. films on GaAs(111) substrs., MBE epitaxial growth 376
C_{60}, thin film growth, MBE growth, film struct. 37395
C_{70}, thin film growth, MBE growth, film struct. 37395
CaF_2/Si(111) MBE growth kinetics, X-ray photoelectron diffr. 28784
CaF_2/Si(111), epitaxial growth mechanisms and struct. 5836
$Cd_{1-x}Mg_xTe$, doping, MBE 38490
CdMnTe(001), MBE growth, struct., opt. props. 37392
CdS epitaxial films, pulsed laser deposition 358
CdSe epitaxial films, pulsed laser deposition 358
CdSe, metalorganic VPE/MBE growth, opt. monitoring 20725
CdTe MBE, two-zone effusion source 20812
CdTe epitaxial films, pulsed laser deposition 358
CdTe nanostructures, opt. studies 1793
CdTe:In, MBE growth/In doping 30057
CdTe/GaAs(100) heterojunction growth, Si interface layers 21966
CdZnTe on Si, direct MBE growth for large-area HgCdTe IR FPA appl. 375
CdZnTe(100)/ZnTe(100), MBE growth on Si(100) 37423
$CoSi_2$/Si(111) epitaxial films, situ study by BEEM 22037
$CuInSe_2$, heteroepitaxy on Si, charactn. 13087
$CuInSe_2$ layers, heteroepitaxial, direct growth on Si substrs. 363
$CuIn_3Se_5$, heteroepitaxy on Si, charactn. 13087
Er-doped PbF_2-SrF_2 epitaxial layers on GaAs(111)B for upconversion waveguide lasers 14832
Fe-silicides, depth-selective conversion electron Mossbauer spectrometry 38677
$Fe_{3(1-\delta)}O_4$, epitaxial thin films, stoichiometry var. 14103
Fe_3Si films, MBE, conversion electron Mossbauer spectrosc. 380
Ga(Al)As, MBE growth on (001) surface, dyn., RHEED study 37436
GaAs MBE, H-assisted 20862
GaAs, MBE at 250°C, growth, charactn. *(Korean)* 28782
GaAs, MBE, dyn. surface procs., time-resolved RHEED 20872
GaAs MBE growth monitoring, single photon ionization TOF mass spectrosc. 28723
GaAs MBE growth on B, RHEED intens. oscills. 20851
GaAs MBE heteroepitaxial growth on vicinal Si (110) substrs. 5843
GaAs MBE layers, dominant deep level 13054
GaAs, MBE, low temp. limit 366
GaAs MBE on Si, InGaAs/GaAs strained-layer superlattice effects 5842
GaAs MBE, step edge supersaturation, As/Ga flux depend. 20834
GaAs, MBE, struct. charactn. 37459
GaAs, MBE, surface diffusion, adatom stoichiometry, microprobe-RHEED/SEM MBE obs. 20682
GaAs MBE thin films grown on Si, biaxial compression 20837
GaAs MESFETs for HF high-temp. switched-mode power converter, MBE 30381
GaAs MISFETs, MBE-grown GaAs insulator, breakdown voltage improve. 30337
n-GaAs, MOVPE, MBE, electron irrad., schottky diode charact. 28741
GaAs TUNNETT diode oscillators above 100 GHz, diamond heat sinking and power combining 12778
GaAs buffer layers, MBE grown, electronic props. 13056
GaAs coupled quantum wells, far-IR radiation by difference freq. generation 23366
GaAs cpd. semicond. surfaces, stoichiometry changes 20839
GaAs epilayers, MBE, annealing thermal stabil., As precip. 308
GaAs growth mechanism on (110) GaAs, RHEED and AFM 20858
GaAs heteroepitaxial MBE growth on GaP, growth mode transit. *(Japanese)* 37408
GaAs in-situ maskless selective epitaxy by low-energy Ga focused ion beam, As_4 mol. beam 20875
GaAs layers on Si(001), MBE/ALE grown, defect struct. 12113
GaAs low-dimens. struct., cleaved edge overgrowth, lasing props. 1925
GaAs, low-temp. MBE growth, defects/As distrib., XPS, positron annihilation meas. 21916
GaAs, low-temp. MBE, nonalloyed ohmic contacts 29961
GaAs, low-temp. MBE, substr. orient. depend. 12093
GaAs, low-temp. grown, delta doping, As precip. 38501
GaAs planar gate power MESFETs, gate-drain breakdown volt. 13801

molecular beam epitaxial growth continued
GaAs power MESFET, MBE growth, 4.7 V operation, 900 MHz charact. *(Korean)* 38920
GaAs selective epitaxy on GaAs (111)B substrs., in-situ obs. 20874
GaAs substr., struct., interfacial studies 302
GaAs tapered QW, selectively contactable 2DEG, shadow masked MBE 38346
GaAs two-chamber MBE growth on Si(111), cryst. quality 337
GaAs:C, C ion beam doping/MBE 28773
GaAs:C MBE layers, ion-beam doping 22122
GaAs:C, elemental Ga/As sources and CCl_4 gas source, MBE growth 28739
GaAs:C films, MBE, C^+ beams, photolum. 28789
GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
GaAs:C, solid source MBE, uniform/delta doping, at. C pairing 38488
GaAs:C/AlGaAs HBT, reliab. 13640
GaAs:Er, MBE grown, struct. anal. 37440
GaAs:Er, ion implant./MBE, Er-related deep centres 38516
GaAs:Si epitaxial layer, MBE grown, LSI appl. *(Korean)* 20904
GaAs:Si, heavily doped, MBE, elec. props. 1040
GaAs:Si lateral jns., MBE growth on patterned substrs. 21947
GaAs:Si p-n struct., MBE growth interruption effects on GaAs(111)A 336
GaAs:Si, planar doped, autocompensation 22111
GaAs:Si/GaAs(111)A, p-n struct. charactn. 29876
GaAs:Si(Be), low-temp. MBE, dopant effects 21917
GaAs:Si(Ge)(Al), MBE, re-evap. and sub-oxide transport 335
GaAs:Sn, n-type doping, MBE 1207
GaAs/Al(Ga)As quantum wells, MOVPE/MBE growth, interface struct. 20878
GaAs/AlAs DBRs for GaSb-based reson. cavity photodetectors 25833
GaAs/AlAs MBE heterostruct., (311)A orient. 20860
GaAs/AlAs, epitaxial growth on corrugated semicond. surfaces, RHEED obs. 318
GaAs/AlAs four-wavelength Bragg mirror 22917
GaAs/AlAs quantum wells, MBE growth interruption, nonradiative recomb. 332
GaAs/AlAs quantum wires, MBE growth, GaAs(100) patterned substrs. 21977
GaAs/AlAs, short period superlattices, interface struct., STM 28751
GaAs/AlAs:C, LV VCSEL, low resist. C-doped mirrors 1946
GaAs/AlGaAs, MBE, optoelectronics appl. 5850
GaAs/AlGaAs, independently contacted double quantum well, MBE regrowth 28732
GaAs/AlGaAs microwave HEMT device, MBE fab. and charactn. *(Korean)* 29571
GaAs/AlGaAs quantum wire lasers fabricated by cleaved edge overgrowth 1964
GaAs/AlGaAs, wire, MBE regrowth on patterned substrs. 20808
GaAs/AlGaAs-heterostruct., low-dimens., direct MBE growth 331
GaAs/GaAlAs, 2D hole gas, MBE, elec. props. 355
GaAs/GaAlAs waveguide, TE/TM mode splitter fab. 22893
GaAs/GaP(001), MBE growth 37427
GaAs/InAs, GaAs capping layer growth, island induced strain driven adatom migration 354
GaAs/InGaAs/AlGaAs heterostruct., selective high-temp.-stable O implant. 1218
GaAs/InGaAs/AlGaAs strained quantum well lasers, MBE, max. output power 39794
GaAs/Si/SiN_x syst. diffusion barriers, MBE 1289
GaAs-AlAs MBE grown vert. Fabry-Perot laser cavities, periodic mode shift 31443
GaAs-AlGaAs GRINSCH LD modelling of MBE growth 39791
GaAs-AlGaAs multilayers, orient. depend. MBE growth on GaAs(111),(001) 339
GaAs-AlGaAs nano-heterostruct., UHV MBE growth 329
GaAs-AlGaAs near-perfect QW on vicinal surface, MBE, photolum. obs. 22011
GaAs-GaAs(111)A:Si, modulated beam epitaxy 20664
GaAs-InP nanostruct. fab., MBE/MOVPE 385
GaAs-Si, MBE, optoelectronics appl. 5850
GaAs(001), epitaxial growth, kinetic models 28775
GaAs(001), metalorganic CVD, surface photoabsorpt. obs. 20720
GaAs(001), metalorganic VPE/MBE growth, surface procs. 20722
GaAs(001), surface arsenic stoichiometric problem, in ALE growth 20690
GaAsP, at. layer MBE, P_2 incorporation efficiency 30059
GaInAs:Be, MBE growth, Be acceptor diffusion 338
GaInAs/InP high channel conductivity, HEMT appl. 13160
$Ga_xIn_{1-x}As$/GaAs syst., In segreg. in MBE 12092
$Ga_{0.84}In_{0.16}As_{0.68}P_{0.32}$ large area solar cells, space appls. 10396
$Ga_{0.51}In_{0.49}P$ large area solar cells, space appls. 10396
GaInP-AlGaInP quantum wire lasers, MBE grown 31317
GaN, MBE selective growth, phase struct. vars. 37387
GaN blue-violet light emitting p-n jns. grown by ECR-assisted MBE 14638
GaN films, ECR MBE, (001)/(111) Si substr., microstruct. 5822
GaN on Si(001), ECR plasma-assisted MBE growth 20898
GaN, thin films, MBE growth 5851
GaSb MBE, at. layer depositions, time-resolved RHEED 20873
GaSb films, MBE, lattice mismatch accommodation, disloc. threading, GaAs (001) substrs. 297
GaSb, spiral growth on GaAs(001) by MBE 28750
GaSb surface, oxide removal, photodiodes/Schottky diodes fab. 1240
GaSb, undoped, Te-doped, elec./photolum. charactn. 12109
p-GaSb-Au(Cr/Au)(Ti/Pt/Au), MBE growth, specific contact resistivities, surface prep. 29947
Ge SQW, interface sharpness, MBE growth conditions 13190
Ge δ-layers on Si(111), interface roughening 38522
Ge, surfactant-mediated epitaxial growth, 2D islands 28785
Ge/Si epilayers, MBE, charactn. 320
Ge(001) multilayer epitaxial growth, surface morph. 20840
GeSi:P-Si pseudomorphic MBE films, RTA vs. steady-state furnace annealing 22095
GeSi-Si strained layers, MODFET/HBT/photodetector appls., review 29874
HgCdTe, MBE growth on CdZnTe for IRFPAs 12096
HgCdTe MBE technol., chem. doping 37422
HgCdTe films, growth by MBE, ellipsometry 5819
HgCdTe photodiodes, MBE-grown, DLTS deep levels study 13060
$In_{0.52}Al_{0.48}As$ on InP(100), MBE growth, substr. temp. effects 5844
InAlAs/InGaAs QW struct. quantum Hall device *(Japanese)* 25791
InAlAs/InGaAs/InAlAs, HEMT, MBE grown, parasitic effects 13782
InAlGaAs/AlGaAs strained quantum well lasers, MBE growth 39887

molecular beam epitaxial growth continued
InAlGaAs/InP MBE grown heterostruct., charactn. 20833
InAs, MBE growth on GaAs (110) misoriented substrs. 20894
InAs nonplanar substrs., MBE, In inter-surface diffusion 20877
InAs on GaAs(100), MBE growth/strained island form. 20857
InAs, surface migration-induced self-aligned islands, MBE growth 37389
InAs/AlSb/GaSb MBE grown heterostruct., unintentional As incorporation 5825
InAs/GaAs mismatched heterostruct. growth, defect control 20876
InAs/GaAs, quantum wells, MBE, ALE growth, In segreg. 12111
InAs/GaAs(100), MBE, self-assembled islands, crit. layer thickness 387
InAs/GaAs($Ga_{0.47}In_{0.53}As$) heterostructs., MBE, defect control 12046
InAs/GaSb superlattices, struct., STM obs., growth condition effects 13151
InAs/InP(In_xGa_{1-x}) heterostruct., depth profiling, MBE 13121
InAsSb/AlAsSb 3.9-μm DH diode lasers, high output power 1955
InGaAs, MBE on GaAs(001), in-situ X-ray topography 37456
InGaAs, O contamination, rel. to MBE growth 12131
InGaAs lin. graded comp. buffer layers, strain relief 367
InGaAs surfaces, MBE growth on InP substrs. 20853
$In_{0.65}Ga_{0.35}As$ epilayers, MBE growth on InAlAs/InP heterostruct. 12091
$In_{0.35}Ga_{0.65}As$:Be/GaAs MWQs for high-speed lasers, MBE growth, disloc. glide 333
InGaAs/AlGaAs/GaAs MODFETs, high breakdown, fab. 22477
InGaAs/GaAs (InGaP) MQW optical modulators, MBE growth 14509
InGaAs/GaAs, buried wires, MBE overgrowth prep., opt. props. 38369
InGaAs/GaAs quantum wells, MBE, selective area bandgap modif. 12118
InGaAs/GaAs quantum wells on GaAs(111)A, MBE, photolum. 12125
InGaAs/GaAs wires, MBE overgrowth, opt. investig. 348
InGaAs/GaAs-on-GaAs superlattices, metal-semicond.-metal photodetectors, carrier trapping 22014
InGaAs/InAlAs, MBE on InP, high electron mobility 13156
InGaAs/InAlAs MODFETs, InP substrs., proc. technol. 13798
InGaAs/InAlAs epilayers, MBE on InP patterned substrs., TEM 5838
InGaAs/InAlAs heterobarrier diodes, delta doping enhancement 30221
$In_{0.22}Ga_{0.78}As$/AlAs RTDs on GaAs using relax. In_xGa_{1-x} buffers, MBE growth 13600
$In_xGa_{1-x}As$/InGaAsP/InP SQW laser, modulation bandwidth 39859
InGaAs-GaAs heterostruct. and HFET appls. *(Chinese)* 22486
InGaAs-InAlAs MBE p-type strained layer quantum well IR photodetector, FPAs 17786
InGaAs-InAlAs mid-IR LEDs for opt. gas sens. 31106
InGaAs-InAlGaAs strained/unstrained lasers, MBE grown 14975
$In_{1-x}Ga_xAs$-$In_{0.53}Ga_{0.47}As$ strained superlattice, gas source MBE 12056
InGaAs(P)/InP, lasers, HBT, monolithic integration 14651
InGaAsP-InP 1.3-μm folded-cavity SEL grown by gas-source MBE 14853
InGaP/InGaAs HEMTs for MM wave appls. 37978
InP Epi-ready wafers, growth character 12071
InP, migration enhanced epitaxy, charactn. 12072
InP, undoped, low temp. ALMBE growth 20746
InP:Fe, gas source MBE, optimal growth conditions 12057
InP:Si,H, gas-source MBE, H incorporation 38507
InP/InGaP, nanoscale InP islands by MBE 20738
InP(As)(AlAs) self-assembling quantum dot arrays, MBE and MOCVD growth 374
InSb, high quality, MBE growth 12077
InSb-nanocryst. on Se-terminated GaAs(001), MEE/MBE growth comparison 20681
InSe/GaSe heterointerfaces, Van der Waals epitaxy 20883
MgO on GaAs(001), integrat. thin film ferroelec., semiconds. 12123
Mn/GaAs(001), FCC Mn films, stabilization via MBE growth 13414
MnAs film, epitaxial ferromag., MBE on GaAs, struct., mag. props. 6974
c-MnTe, MBE growth, structural charactn. 37399
Nb MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
PbTe, MBE growth 5847
PbTe/$Pb_{1-x}Eu_xTe$ multi-quantum wells, MBE growth 5847
PbTe(111), MBE, RHEED intens. oscill. obs. 20749
Si MBE on GaAs(001), submonolayer coverages 28746
Si MBE on Si(111), RHEED/Monte Carlo anal. 20736
Si, SR MBE growth, perfect selectivity 28727
Si, low temp. MBE, review 37455
Si, low-temp. growth, ion-assisted deposition on Si(100) 28783
Si point contacts, nanofabrication, MBE growth, transport meas. 13128
Si substrs., nonplanar, low temp. homoepitaxial growth 323
Si:B, MBE growth, elec. props., reciprocal lattice mapping 304
Si:B, δ-doping, ultra-shallow/abrupt profiles 38499
Si:Er, surface segreg./trapping, MBE 30051
Si:H, low-temp. MBE, H-induced breakdown 28745
Si:In, MBE doping kinetics, rate eqn. model 1211
Si/$CoSi_2$($FeSi_2$) epitaxial silicide systs., ion channeling studies 6577
Si/Ge abrupt interface form., at. H in Si MBE 12039
Si/Ge heterostruct., MBE, optoelectronics appl. 5850
Si/$Si_{1-x}Ge_x$ strained heterostruct., thermal stabil. 37406
Si/SiGe nanometer struct., fab. 29941
Si(001), low temp. MBE, low-energy Si atoms 12075
Si(100), carbonization, solid source MBE 20902
Si(111), surface reson., RHEED intens. oscill. 37448
SiGe SQW, MBE, luminesc. props. optimisation 20866
SiGe buffer layers, epitaxial growth, defect dens. 28786
SiGe multi emitter finger HBTs, f_{max} up, 120 GHz 21544
a-$Si_{1-x}Ge_x$ MBE films, solid phase crystn. 37437
$Si_{1-x}Ge_x$ epilayers, compositionally graded, relax., MBE, charactn. 383
$Si_{1-x}Ge_x$, pseudomorphic growth on Si(001), crit. thickness 305
Si_xGe_{1-x} strained films, MBE growth, cuspidal pit form. 12089
SiGe/Si modulated quantum well/wires, luminesc. 1114
$SrGa_2S_4$:Ce , blue electroluminescent thin films, MBE 37402
Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
ZnCdSe/ZnSSe/ZnMgSSe LD struct., cpd.-source MBE 12081
$Zn_{0.9}Cd_{0.1}Se$/$ZnTe_{0.1}Se_{0.9}$ blue/green LEDs 23028
ZnMgSSe blue diode lasers/optoelectronic devices, MBE growth 7664
ZnMgSSe blue-LD, MBE growth 7665
ZnMgSSe, blue-green LD, MBE, charactn. 12085
ZnMgSe, mol. beam epitaxial doping, $ZnCl_2$ 38479
ZnMgSeTe:N,Cl, MBE, doping, diode electrolum. 22151
ZnMgSeTe/ZnMgSe LED 14622
ZnS, MBE on GaAs(001), struct., opt. props. 20807
ZnS epitaxial films, pulsed laser deposition 358

molecular beam epitaxial growth continued
- ZnS, epitaxial layers on (100) GaAs, ALE 28769
- ZnS film MBE on arsenic passivated silicon surfaces 37451
- ZnS low temp. epitaxial deposition, (100)Si by RF magnetron sputtering/MBE 303
- ZnS/ZnS$_{0.12}$Se$_{0.88}$ superlattices, MBE grown, opt. charactn. 38327
- ZnS(Se), low temp. MBE on GaAs, hot mol. beams *(Japanese)* 37413
- ZnSSe/ZnSe/CdZnSe LED films, substr. transfer proc. 31105
- ZnSe alloys, MBE, achieve RT CW LD 20906
- ZnSe based struct., epitaxial lift-off tech. 28756
- ZnSe blue-green LD for optoelectronics 23291
- p-ZnSe, elec. contacts based on HgSe and ZnTe 29891
- ZnSe epitaxial films, pulsed laser deposition 358
- ZnSe films, nucleation on GaAs(001):Se-(2×1) 20855
- ZnSe, metalorganic VPE/MBE growth, opt. monitoring 20725
- ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412
- p-ZnSe:N, MBE growth/opt. props. 22154
- ZnSe/GaAs heterostruct., MBE growth, high-resoln. XRD 21960
- ZnSe/ZnMnSe MQW structs., MBE, opt. props. 28744
- ZnSe-GaAs growth rate, surface state depend. 37391
- ZnSe-based MOVPE and MBE grown LEDs 23050
- ZnSe-based QW LEDs, MBE growth 37444
- ZnSe-based alloys, wide-gap II-VI materials, MBE growth, charactn. 20910
- ZnSe-based lasers, cpd.-source MBE 20907
- ZnTe epitaxial growth mechanism on (001) CdTe 37441
- ZnTe(100), MBE growth on Si(100) 37423

molecular beams
see also particle velocity analysis
- capillary arrays, variable channel dens., improved gas injection syst. 5833
- filament heater for mol. beam source 20813
- pulsed solenoid valve, 10 μs FWHM gas pulse generation 7931
- size selected clusters, opt. parametric oscillator IR spectrosc. 15058
- Ta(110)/Ta(110)-suboxide etch selectivity, Cl$_2$ mol. beams 30130

molecular bonds *see bonds (chemical)*

molecular computers *see molecular electronics*

molecular configuration interactions *see configuration interactions*

molecular drag gauges *see vacuum gauges*

molecular dynamics method
- computational nanoelectronics, parallel algms, QMD 6830
- electron cooling, mol. dyn. simul. 34792
- parallel approaches for intensive computing and instrumentation upgrading 42736
- ternary III-V semiconds., epitaxial growth, dyn. model 37446
- Si, ion implanted, defect prod., structural transforms. 30060
- Si, low energy ion beam deposition procs., mol. dyn. methods 20923
- Si:F layers, chem./phys. sputtering 38530
- a-Si:H thin film growth, mol. dyn. simul. *(Japanese)* 410
- a-Si:Kr, sputtered layers, Kr-incorporation obs. 38268

molecular electron correlations *see electron correlations*

molecular electronic states
general aspects only; for specific aspects use appropriate terms, e.g. "electron correlations", "fine structure", "metastable states"
see also configuration interactions; electron correlations; excited states; fine structure; rotational states; rotational-vibrational states; vibrational states
- conjug. polymers, electronic struct., nonlin. optics, scaling laws 15142
- Cu polymer metallization, adhesion mechanisms, theoretical modelling 12212

molecular electronic structure *see molecular electronic states*

molecular electronics
see also biomolecular electronics
- 1995 forecast for solid-state technol. 30389
- conjugated polymer interfaces, conf., Strasbourg, France (1994) 5497
- LB films, deposition, technol. and appls. 12947
- nanorobots, hard chem. and wave packet engng. 952
- organic materials for electronic/photonics, conf., Japan (1993) 11532
- organic mol. rectification 12948
- photochromic switches 15054
- polymer transistor archit. 6443
- principia mathematica for electronics/chem. analogies 21095
- supramolecular assemblies for mol. electronics 21664

molecular energy level calculations *see molecular electronic states*

molecular energy levels *see molecular electronic states*

molecular excited states *see excited states*

molecular fine structure *see fine structure*

molecular fluorescence *see fluorescence*

molecular hyperfine structure *see hyperfine structure*

molecular internal conversion *see nonradiative transitions*

molecular intersystem crossing *see nonradiative transitions*

molecular layer epitaxial growth *see atomic layer epitaxial growth*

molecular magnetic susceptibility *see magnetic susceptibility*

molecular metastable states *see metastable states*

molecular orbitals *see molecular electronic states*

molecular photoionisation *see photoionisation*

molecular reorientation
- bacteriorhodopsin variants, phase conjug. by DFWM 23398
- dye solns., light-induced SHG, six-wave mixing 7795
- dye-doped polymers, low-temp. transits., SHG 15132
- NLC, nonlin. opt. props. 23447
- NLC, opt. bistability study 23448
- NLC films, nonlin. waveguide, light-induced Frederiks transit. 22904
- planar waveguide directional coupler with NLC, nonlin. effects 30957
- polymer dispersed LCD, mol. motions and ordering 31006
- CS$_2$, third-order nonlin. opt. susceptibilities, picosecond pulses 31534

molecular reorientational states *see molecular reorientation*

molecular resonant states *see resonant states*

molecular rotation *see rotational states*

molecular rotation calculations *see rotational states*

molecular rotation in solids *see molecular reorientation; nuclear magnetic resonance*

molecular rotation-vibration *see rotational-vibrational states*

molecular rotation-vibration calculations *see rotational-vibrational states*

molecular rotational states *see rotational states*

molecular rotational-vibrational coupling *see rotational-vibrational states*

molecular rotational-vibrational states *see rotational-vibrational states*

molecular spectra *see spectra*

molecular spectral line breadth *see spectral line breadth*

molecular structure (electronic) *see molecular electronic states*

molecular vibration *see vibrational states*

molecular vibration calculations *see vibrational states*

molecular vibration in solids *see vibrational modes*

molecular vibrational states *see vibrational states*

MOMBE *see chemical beam epitaxial growth*

moment methods *see method of moments*

moments (magnetic) *see magnetic moments*

momentum
- 25 mm hypervelocity railgun, perform. characts. 15353
- EM launcher, plasma armatures, 3D MHD modelling, equiv. network 15313
- spacecraft pitch attitude and momentum LQG/LTR control 35238

monitoring
see also computerised monitoring; patient monitoring; radiation monitoring; surveillance
- 3-phase induction motor, over/undervoltage/phase seq. reversal protection 36151
- 340 MW CHP plant condition monitoring project, Netherlands 4832
- 4950 kW Vindeby offshore windfarm monitoring, Denmark 19569
- active phased array built-in perform. monitoring, fault-isolation and correction syst. 23950
- aircraft corros. monitoring and control 5935
- alkali seed monitoring, laser optogalvanic spectrosc. 27969
- back-up power syst. reliab. improvement, batt. monitoring 19055
- bearings, fault recogn., monitoring by neural nets 34391
- BiCMOS logic ccts., fault anal. and DFT *(Korean)* 39023
- boiler superheater headers, crack growth/stress prediction 19507
- broadband network termination syst., perform. monitoring, inform. model 9111
- chem. amplified resists, kinetics, real time IR spectrosc. monitoring 13514
- CHP syst. condition monitoring/predictive maint. 19539
- CMOS integrated micropower batt. monitor cct. 21112
- continuous ground water monitoring, sens. arrays 18911
- corporate ESD program, strategy and philosophy 30543
- crit. systs., failure monitoring, lifetime scales 37177
- decentralised sens. networks, routing for reliab. 15952
- dyn. structural response, vibr. wire opt. fiber sens. 9927
- dyn. syst. failure detect., nonlin. uncertain models 20471
- elec. heat tracing, controls/monitoring 36783
- electric machines condition monitoring, IEE Colloquium, London, UK (1995) 11599
- ELF mag. fields exposure meas. and risks 35185
- EM plant monitoring/mgt. instrumentation 19597
- EOS/ESD failure anal., CMOS IC mfg. proc., extent/cost 30545
- EUTELSAT multi-mission satellite control infrastructure 33964
- extremely small dia. thread detect., sig. proc. method 25748
- fiber-reinforced plastic struct., AE monitoring, surface waveguides 4424
- fluid filled taped cables, dissolved gas anal. 27205
- FM transducers in measuring, monitoring, and control 3807
- FTTH back-up batt. power supply monitoring 19868
- generator power transformers, tapchanger diverter monitor 5019
- goods vehicle enforcement weighing syst. 3724
- GTAW, sync. weld pool oscill. monitoring/control 5618
- hazardous load road transport, radio monitoring syst. 9300
- home security syst., pass. IR detectors 9759
- HV elec. power apparatus monitoring by opt. fiber sens. *(Japanese)* 3859
- HV machines, condition monitoring, ScottishPower 36109
- HV plant, PD monitor, transient earth voltage tech. 1537
- HV power cable thermovisual monitoring studies 35643
- induction motor bearing damage detect., stator current monitoring 4968
- layered nonuniform dielec., radiowave monitoring, inverse problem soln. 28907
- lithographic proc. monitoring and control, diffractive techs. 13489
- mach. condition monitoring, user's perspective 36181
- machine wear debris monitoring, transducer design 25779
- MAREL network meas. device, coastal water quality 10569
- mass flow rate meas., variable press. differential 42984
- metal coating, cond./thickness monitoring, electrothermal method 18028
- metallic contamination in ULSI, opt. monitoring techs. 29991
- microcontamination 93, conf., San Jose, USA (Sep. 1993) 42
- Mini-Smart SIPMOS switches in SOT-223 SMD packages 522
- Mitsubishi Thermal Imager *(Japanese)* 25885
- MLC actuators, intell. proc. monitoring, fiber sens. 10030
- Modicon Micro compact automation equipt. and appls. *(German)* 11220
- multicell batt. strings, single sens. wire monitoring 44264
- NEC's VisuaLinks AD-EX series teleconferencing syst. *(Japanese)* 41946
- network voltage quality monitoring *(German)* 27135
- nuc. reactor coolant syst. lin. regression leak rate calcs. 27398
- nuclear power plant monitoring by neural nets 27341
- opt. power monitor for two-beam LD 3999
- optimal alarm-sig. algms. for gas analyzers 3910
- Pb-acid valve regulated batt. condition monitoring 19953
- PCB mounted ceramic SMDs, capacit. monitoring while flex testing 12878
- plant insulation monitoring, IEE Colloquium, London (1994) 5458
- plastic encapsulated IC reliab., missile appls. 35386
- polarized target, SMC target, NMR polariz. meas., on-line syst. 34873
- portable ground-based atmos. monitoring syst. 18827
- power plants, PD monitoring 1526
- power station apparatus condition monitoring, acoustic methods *(German)* 4751
- power station monitoring, fault diagnosis/isolation, TOPMUSS CAE syst. 27296
- power station monitoring/control instrumentation maint. 43812
- power syst. harmonics monitoring program, benefits 10784

- **monitoring** continued
  - power syst. meas., voltage reducer breakdown studies *(French)* 35706
  - power syst. monitoring, fibre optic sens. appls. 4734
  - power syst. num. protection relays, fault diagnosis appls. 35673
  - power transformer condition monitoring, elec. utility experiences, UK 44102
  - power transm./distrib. equipt. condition monitoring, fibre optic sens.-based 43616
  - proc./equipt. monitoring, quadrupole mass analyzer 22087
  - PWR, on-line fatigue monitoring, probabilistic assess. of margins 27408
  - QMI, Qmimic, dyn. proc. monitoring/fault diagnosis 9815
  - radio equipt. ident., Wigner-Ville distrib. appls. *(Japanese)* 17021
  - regional power supply undertaking, monitoring/costing syst. *(German)* 43688
  - reliab. estim., stat. anal. 17623
  - reliab. params. in engng.-syst. monitoring, error var. 11859
  - rem. telecom. site, engine-generator power supply 19538
  - rot. mach., stat. monitoring, cumulant spectral anal. 32454
  - scribe line capacitors, thin oxide monitoring, nonvolatile memory devices 20489
  - selective plasma etch proc. monitoring, polysilicon test struct. 22206
  - semicond. short run mfg., Kalman filtering proc. control 37166
  - shipboard monitoring and control fibre-optic syst. *(Croatian)* 3551
  - solid state motor protective/control devices 4892
  - Sony total particle control syst., IC yield enhancement, defect reduction 20467
  - stand-alone PV power systs., batt. state-of-charge 19557
  - steam power plant boiler life, thermal transients effects 19519
  - surface mount ceramic capacitor failure test, board bending 29653
  - SvSig92 rem. monitoring syst., central telecom. power plants 19573
  - telecomm. equipt., power alarms, intell. power plants 44158
  - telecomm. power plant, supervision/control 19818
  - telecomm. syst., rem. proc., universal monitoring syst. 16606
  - teleteaching syst. in university environ., expt. monitoring *(Italian)* 28344
  - thermal monitoring of turbogenerator, fiber optic sens. network 17849
  - total organic carbon, opt. methods 9888
  - transducer errors estim., operation 3808
  - transmission and distrib. equip. reliability, IEE conf., Warwick, UK (1995) 36831
  - turboalternator winding eccentricity monitoring studies *(German)* 36126
  - TV picture monitor class. and appl. *(Croatian)* 3679
  - two wire automatic rem. sens./eval. syst. 17686
  - TX-2000 multimedia multiplexer, digital network *(Japanese)* 25176
  - valve-regulated secondary batt. monitoring method 44299
  - VLSI IC manufacture, QA methods 11827
  - wafer charge neutralization, high current ion implants 30022
  - waste water monitoring, automatic BOD test 25715
  - XLPE power cable insulation diagnosis, DC superimposition method *(Japanese)* 27194
  - Er-doped fiber amp. long-haul undersea syst. monitoring 17239
  - GaAs MBE growth monitoring, single photon ionization TOF mass spectrosc. 28723
  - Li ion batt. capacity monitoring 36547
  - Ni-Cd intell. batts., charging/discharging algms., hardware 36545
  - Ni-MH batt. capacity monitoring 36547
  - Ni-MH intell. batts., charging/discharging algms., hardware 36545
  - PZT sens.-actuator, truss struct. integrity ident. 34467
  - Pb-acid elec. vehicle batts., monitoring/control model 36539
  - Pb-acid flooded batts., perform. monitoring, telephone office 44198
  - Pb-acid secondary batt. state-of-charge, float current monitoring 44303
  - Pb-acid stationary batt., computerized test equipt. 17674
  - Pb-acid valve-regulated telecom. batts., ratiometric reliab. meas. 41631
  - Si diaphragm thickness opt. monitoring, wet etching 30104
  - Si, ion implant. proc. problems, surface photovoltage detect. 30017
- **monitoring, computerised** *see computerised monitoring*
- **monitors** *see monitoring*
- **monitors (displays)** *see computer displays*
- **monochromators**
  - *see also X-ray monochromators*
  - cold neutron polaris. instrum., 9 Å wavelength, KUR 26075
  - high resoln. neutron spectrosc. methods 4243
  - milking systs., automatic, opt. teat inspection 34533
  - multiple vernier grating monochromator etalon design *(Chinese)* 10046
  - MUSICAL, neutron backscatt. at pulsed neutron source 34966
  - plasma etch reactors, develop. pilot line, sens. integrat. 22205
  - small-angle cold neutron scatt., double refl. multilayer monochromator appl. 26074
- **monoids** *see group theory*
- **monolithic integrated circuits**
  - *see also application specific integrated circuits; BIMOS integrated circuits; bipolar integrated circuits; field effect integrated circuits; integrated optoelectronics; large scale integration; MIMIC; MMIC; power integrated circuits; very high speed integrated circuits*
  - 0.5-5 kW power convertor PCB distributed mag. components 11105
  - 3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
  - 7.5 Gb/s monolithically integrated PLL/QW-HEMT clock recovery cct. 29341
  - 1995 forecast for solid-state technol. 30389
  - BCDMOS monolithic quad line driver for indust. appls. 29050
  - centre-tapped spiral inductors for monolithic bandpass filters 37850
  - charge-sensitive preamplifier IC for Si calorimetry at colliders 26241
  - chip LED, MID technol. *(Japanese)* 1815
  - Chua's cct., review 12361
  - dual-use microelectronics mfg. spec., single/multichip packaging 20453
  - electron device science/technol., conf., South Africa (1992) 28214
  - ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
  - ground recirculation parasitics in power ICs, protect. tech. *(English)* 30419
  - HF monolithic cryst. filters, 30-150 MHz 30622
  - HV power ICs, dielec. isolation bonded wafer characts. 13855
  - IGBT, monolithic over-current protection cct. 30422
  - III-V semiconds. for high temp. electronics appls. 22528
  - intell. IGBT, overcurrent protection cct. 30423
  - isolation technol., overview 1459
  - ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
  - low power microelectronics, develop. and prospects 38971
  - low power radio 1 chip IC, develop. 17550
  - LV analog ICs for 3 V systs. 771
  - MEGATEXT, teletext IC, graphics for color TV 41750
  - monostable-bistable transit. logic elements, RTD/FET integrat. 21234
- **monolithic integrated circuits** continued
  - MQW injection mode diode, pulse-mode neural ccts. appl. *(Korean)* 30224
  - multiphase sinusoidal oscillator, CFOA pole 21142
  - pipelined ADCs, digital correction archit. and algm. 37817
  - power electronics ccts., reliab. enhancement technols. 29017
  - power estim. techs. in VLSI ccts., survey 1473
  - precision/low-cost temp. transducer, develop. 17762
  - prog. modular cellular neural network cell 21488
  - quartz monolithic struct. vibr. beam accelerometer 34492
  - radiated emissions reduction, SS clock generation 15490
  - radiation effects R&D in 1970s, review 13021
  - RTP, multivariable temp. controller develop. 13846
  - SDA 9189X proc. chip for picture-in-picture systs. 42583
  - SEU and charge collection meas. 12393
  - SEU testing of modern ccts., incidence angle implications 11724
  - SEUs in ICs due to terrestrial cosmic rays, modelling 13867
  - SEUs in monolithic ADCs, device perform. and syst. impact 12602
  - six-port module for built-in-test applications 25960
  - solid chip common mode chokes, develop. 21600
  - TCAD appls. with semicond. wafer representation, develop. and integrat. 22511
  - telephone exchange, primary protection, monolithic Si structs. 19843
  - thermocouple sig. conditioning, monolithic ICs 42781
  - three-terminal switching device, prog. fusible link 29630
  - TOPSwitch three terminal offline PWM switching voltage regulator 29007
  - universal sens. interface IC 9863
  - video IC effect on perform. 25663
  - AlGaAs-GaAs-AlGaAs HEMT/quantum well laser monolithic integrat., MBE/technol. 1945
  - GaAs IC, conf., San Jose, USA (1993) 36852
  - GaAs IC mfg., high vol., Anadigics experience 37045
  - GaAs ICs, voltage meas., electro-optic sampling 13850
  - GaAs wireless LAN opportunities 42160
  - InP OEIC for photonic networks *(German)* 7490
  - InP-InGaAs light amplifying optical switch, XOR logic fn. 14675
  - SIMS and microelectronics 1465
  - Si IC, failure anal. methods, develop. and mfg. appls. 22519
  - Si drift detector with on-chip electronics, design 26155
- **monolithic microwave integrated circuits** *see MMIC*
- **monopole antenna arrays**
  - 30 to 450 MHz multifeed passive antennas 23948
- **monopole antennas**
  - *see also monopole antenna arrays*
  - 905 MHz radio propag. in an office, metal low-partitions effect 31830
  - anisotropic monopole antenna bandwidth extension concept 2338
  - bandwidth maximisation 8063
  - base station antennas, evol. 2321
  - cellular hand-held phone, reduced EM field in human head 35184
  - cellular pers. commun., handset antenna/human EM interact. 9343
  - circ. cross sect., integral eqn. soln., moment method 2332
  - coated wire antennas/scatterers, anal. 31933
  - cylindrical monopole coaxial feed FDTD model 23997
  - dielec. coated wire scatterers/antennas, time domain anal. 15654
  - electrically thick monopole admittance calc. 23847
  - multi freq. antenna tech., closely-coupled resonators 2322
  - pers. wireless commun., antennas charactn. 17129
  - series-fed nested wide-angled conical monopole syst. 23882
  - ship tapered resistively loaded monopole antenna characts. 40490
  - short gap discharges, fast transient elec. fields meas. 23507
  - short gap discharges, meas. of fast transient fields 42882
- **Monte Carlo methods**
  - 0.25-μm fully-depleted CMOS/SOI invertor, SEUs, radiation hardening 13727
  - 2D MOSFET simulator, mixed particle Monte Carlo method *(Korean)* 13684
  - 10 Gbit/in^2 mag. recording, thermal instabil. 7181
  - above supply voltage hot carrier distrib. in semicond. devices 13583
  - airborne US rangefinders, adaptive target tracking algms. 42533
  - amplif. under std. quantum noise limit 15073
  - analogue IC mismatch simul., stat. modeling techs. 30441
  - APS SR beam lines, shielding 10290
  - asymmetric Compton suppression spectrometer, Monte Carlo simul. 34975
  - autonomous underwater vehicle navig., sparse ref. points 34171
  - axisymmetric pot. problems, floating random walk method 20531
  - ballistic missile track initiation from satellite obs. 18982
  - Bayes estim. of reliab. in geometric case 28529
  - beamformers output powers var., coherent source model 24217
  - bi-level MHT tracking algm. for two crossing targets in high clutter environ. 18978
  - bipolar technols., stat. cct. simul. 39001
  - brachistochrone problem, multistage Monte Carlo method 20563
  - CDMA rapid acquisition schemes in multipath delay fading environ. 33208
  - closed obj. boundaries ident., stat. approach 24493
  - collider detectors, high energy particles, calorimetric tracking 26212
  - combined cycle bottoming cycles, Kalina/steam cycle comparison 36022
  - commun. satellite constellation, availability, simul. algm. 3509
  - complex logic products, stat. design for perform., practical methodology 29137
  - complex models reliab. anal., SURE bounds-based 28536
  - Compton spectrometer, scintillator nonlin., energy resoln. 18309
  - convexity-based algms. for design centering of ICs 474
  - correl. control in parallel Monte Carlo 20526
  - CT exams., meas./calc. organ doses comparison 18657
  - DAMOCLES program, mcplotgl graphics, n-MOSFET simul. 22335
  - damped sinusoidal proc., variance of LS estimators 2474
  - decision-directed SS-RAKE receiver for fast fading mobile channels 9233
  - diagnostic radiology, grid design optimisation 18494
  - dielectric polarisation, Monte Carlo simulation 13929
  - direct detect. opt. CDMA commun. syst. simul. 41464
  - direct seq. CDMA, GMSK modulation, perform. 33754
  - directional fast neutron detector, scintillating fibers, CCD camera 18328
  - distrib. feeder elec. heating load prediction, computer-based 35620
  - distrib. network outage costs/reliab. indices eval. 35625
  - diversity gain of transmit diversity in Rayleigh fading systs. 9193
  - DS-SS ISM band radio LANs, receiver techs. 25261
  - dual-filter heterodyne FSK opt. syst., BER eval. 17251
  - dyn. PSA by Monte Carlo event simul. 11686
  - Eberline RO-2 ion chamber, β skin dose monitor 18629
  - electron beam generated X-ray spectra, optimal target-filter syst. 34978

Monte Carlo methods continued
electron storage rings, gas bremsstrahlung, photon-neutron shielding 26506
EM multiple scatt. by dielec. spheres random distrib. 31795
EM scatt. by vegetation, wave approach and stochastic Lindenmayer syst. 40284
epoxy, cast, partial discharge induced aging, surface resist. 14043
fast-RICH prototype with VLSI readout, beam tests 4164
FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
fiber connectors, stat. anal. of connection characts. 14351
fixed/hybrid dyn. channel allocation schemes perform. 9331
flip chip solder joints, surface cracks, fatigue life 29708
fluid catalytic cracking unit, assess. avail. simul. 37184
gamma camera scatt. response determ., phantom, SPECT appl. 43227
gas bremsstrahlung evals. for Φ-Factory, adsorbed dose 35198
Gismo Project, detector simul. 34954
global optimal search algms. 28648
HBT HF perform. calc., Fourier anal. 1363
heart rate, AR spectral estim. uncertainty 26424
helicopter avionics, LAMPS MK III block II simul. 10344
high power e-beam induced switching in diamond 36447
high-dimens. obs. vector sample comparison 28570
high-energy cosmic-ray neutron detect., sea level 34905
HV substation cct. breakers, simul.-aided short cct. risk eval. 44247
IC yield optim., Monte Carlo method *(Chinese)* 13829
III-V layers, MOCVD SEG, math. model 20761
illicit subst. detect., fast-neutron transm. spectrosc. 12241
image comparison, multi-resoln. tech. 2672
image restoration, stat. mech. 24388
imaging atmos. Cherenkov telescope, primary gamma ray spectra 34904
incore thermionic space nuc. power, Monte Carlo fuel burnup simul. 26622
indust. power syst. reliab., Monte Carlo simul. 28189
InP-based HBTs, high-speed, design and fabrication 13626
insulator charging simulation 14005
insulators, secondary electron emission, Monte Carlo study 14006
interconnected power systs., economic dispatch deviation cost penalty 35491
interconnected power systs., transfer capability eval. 27013
inverter ccts., single electron transistors, dyn. charact. 37737
ion implant., Monte Carlo simul., adaptive grid 22116
ion thruster plume modelling, spacecraft contamination 35270
IR FPA, high-resoln. closely spaced obj. location algms. 3885
IR MQW phototransistor, Monte Carlo modeling 1802
IR photodetectors, MQW/superlattice, Monte Carlo simul. 13581
joint replacement, orthopaedic biomechanics computational problems 18618
KAMIOKANDE, recent results, atmos. neutrinos 43129
known good die selection tradeoffs, cost model, MCM burn-in tests 21704
ladder filter CAD/anal. 12617
LCD, nematic, Monte Carlo simul. 39501
LDD MOSFETs, interface state generation effects, simul. models 1417
LEADS, graphically displayed computer program *(Chinese)* 26078
liq. ionization chamber, rejection delta electrons, dE/dx 26130
long. thin film with irregular lattice, Lorentz microscopy, model 14098
lossless composite chiral materials, params., full-wave computation 40279
lubricant depletion on a mag. storage disk, Monte Carlo simul. 1581
mammographic cancer screening, risk-benefit anal., computer model 18495
manoeuvring targets tracking, accel. modelling, turn-rate distribs. 40788
MESFET, intrinsic small-sig. equiv. cct., Monte Carlo determ. 38910
MESFETs, HF charact., self consistent 2D Monte Carlo simul. 13809
microcolumns, electron-electron scatt. 15244
micromaser, at. cluster pumping, thresholds fine struct. 23074
microprocessor chips, custom-designed, wear-out simulation environment for VLSI designs 29295
microscopic Monte Carlo simul. of electronic noise in semicond. devices 1319
microwave MESFET, noise temp. determ. 13766
mixed-sig. ICs, parametric yield prediction 29396
mol. beam epitaxial growth, parallel Monte Carlo simul. 28770
MOS device gate oxide, hot carrier transport-injection model 22433
MOS EPROM writing charact., hot electron injection model, transient simul. 12546
MOSFET, Monte Carlo simulator, Poisson-transport iter. 22406
MOSFET simul., coupling drift-diffusion and Monte Carlo models 38905
MOSFETs, electron mobility, bulk-impurity/interface-charge 22424
n-MOSFETs, substr. current simul., nonlocal impact ionization model 30359
MOSFETs, universality of electron mobility curves 13744
MQW IR phototransistor 14599
multiband Monte Carlo approach, Coulomb interact. for device anal. 6708
multiclass queuing networks, Monte Carlo summation 33217
multifrequency microwave radiometry, biological objs. temp. profiling 43248
multipath fading channels simul., Monte-Carlo method 15683
multiple stress of component, reliab. estim. 11852
multisensor tracking, track assoc., correction for bias and missing data 15876
NDA FF carrier synchronizer, Viterbi algm., cycle slip anal. 8455
network reliab./sampling, Monte Carlo/Markov chain techs. 41396
neutron radiography, transportable supercond. cyclotron 18463
nonlin./non-Gaussian filtering and bootstrap filter 8464
nuc. engng., systs. anal., time depend. transit. rates 19448
optimal CFAR detect. in Weibull clutter 32540
packet-switched WAN, distributed adaptive routing, perform. 3189
particle beam interacts., Monte Carlo simul. 13461
PBT, transport models/computer simul. 1368
PD, dielec. ageing 22645
PD pulse distrib. pattern anal. 22646
pellet-bed reactors, neutronics anal. for bimodal appls. 4359
PET, annihilation radiation detect. with BGO crysts., spatial resoln. 35067
piezoelec. telephone handset, acoustic param. estim. by Monte Carlo method *(Japanese)* 33675
pilot sym.-aided transm. for satellite/terrestrial mobile systs. 25403
PIN neutron detector with thick absorber, sensitivity calc. *(Chinese)* 34922
power syst., LF harmonics, probab. anal. techs. 4451
power syst., reliab. eval., weather events, seq. simul. 4461
power syst. adequacy indices, failure/repair proc. distrib. effects 26887
power syst. harmonics estim., superposition method-based *(Chinese)* 43625
power syst. planning, reliab. eval. 35569
power syst. reliab. worth assess., Monte Carlo simul.-based 26945
power syst. short-ccts. calc., ANN appl. 19067
power syst. stochastic prod. cost simul. method 27061
predictive project proc., Monte Carlo based tech. 11712
product estimator, Markov chain sampling 37236
quantum wires, electron streaming caused by inelastic acoustic-phonon scatt. 22021
α-quartz, dielec. strength, size effect. Monte Carlo anal. 13980

Monte Carlo methods continued
quasi-independence, simulate-and-reject Monte Carlo exact conditional tests 28583
quasi-spherical solid dens. stds., vol. determ. 17649
queueing systs., competitive systs. model 28579
RADLYS, noise particle based IC chip yield anal. 37189
random media with large-scale inhomogeneities, wave localization 31787
reliab. simulator, IC manufacturability 22547
reliab./safety engng., biased direct Monte Carlo simul. method 37180
residential elec. water heater loads, aggregate model 20127
resists, secondary electron line scans, local elec. fields 13470
RLS adaptive equaliser digital commun., importance sampling 16409
RTP modeling and simul. incl. thermal stress anal. 22551
RTP syst. radiative heat transfer, Monte Carlo simul. 22555
Schottky diode, Monte Carlo simul., noise reduction 1349
scintillator detectors, TOF meas. 26119
semicond. device num. modelling in 1990s, elec. behaviour 38784
semicond. lasers, carrier thermalization, ensemble Monte Carlo simul. 7654
semicond. RTP temp. distrib. modelling 22554
semiconds., lattice-mismatched heteroepitaxial growth, roughening/facetting 12114
SENSATION framework for optimal IC design and stat. anal. *(Korean)* 13834
SEUs in ICs due to terrestrial cosmic rays, modelling 13867
Si mesoscopic struct., α particle ionisation, Monte Carlo study 1457
single electron ccts., simul. 28977
single-electron logic, tunnel-jn. load 37738
single-electron logic ccts., quasi-CMOS inverter simul. 37731
sliding multiple sym. differential detect. of trellis-coded MDPSK *(Korean)* 15725
small animal positron tomograph, design/perform. eval. 35063
small geom. MOSFETs, impact ionization simul. 22432
soft etch contact proc., 0.1 μm CMOS device appl. 22572
sputter deposition, Monte Carlo simul. 20968
squirrel cage motors, computer-based design assistant 19643
SSNTD, ventilation rate, equilib. factor meas., Rn study 10126
stat. distrib. material, eddy current loss calc. 40248
synchrotron lithog., slope attenuated phase-shift X-ray masks 13529
TAGS, β^--decay intens. distribs. meas. 10153
tail electron hydrodynamic model based on Monte Carlo results 13579
TCM decoder perform., 8 PSK, 8 PAM, 16 QAM, additive mixture Gaussian/impulsive noise *(Korean)* 32195
TDMA mobile radio systs., CCI suppression 9393
telecomm. networks, routing, economic regulation 33299
telecomms. syst., forward error control, simul. techs. 42450
telephone/packet-switched networks, random variable seq. i.i.d. testing 41716
Texas A&M neutron ball 26133
Texas Cold Neutron Source, converging neutron guide focusing 18264
TOF positron imaging syst. 4265
TOPAZ-II space nuclear thermionic reactor, computer simul. 18742
toroidal magnets for eta decay mag. spectrometers 31739
trellis-coded MDPSK, sliding multiple sym. detect. *(Korean)* 24120
uncertain ocean environ., sonar matched field proc. 17470
uncertainty calc., ANSI/ASME and ISO models comparison 17620
underwater targets tracking, robust regression-based EKF 24172
worst-case IC optim. approach, cct. perform. model scheme 38979
X-band radar, obs. of K-distributed sea clutter 34119
X-ray lithog., photoelectron effect modelling 6682
X-ray refl. masks, electron scatt. 13436
X-ray resist-substr. interfaces, parametric modeling 13533
X-ray sources for angiography comparison, bremsstrahlung and monoenergetic 10199
Al-TiN high coverage barrier film form., ICB deposition 20955
AlGaAs on GaAs(001), adatom migration, Monte Carlo simul. 21899
$\mathrm{Al_xGa_{1-x}As}$, avalanche breakdown 1042
$\mathrm{Al_xGa_{1-x}As}$, bulk hole transport, Monte Carlo simul. 21905
AlGaAs/GaAs double-quantum-well devices, quantum state transfer 6561
CdTe detectors, correction of incomplete charge collection 18315
CdTe detectors, γ-ray spectra, charge trapping, ballistic deficit effects 18319
CdTe γ-ray spectrometer, Monte Carlo simul., time/energy resol. 4246
CdTe γ-rays detector simul. 43084
$\mathrm{CeF_3}$ scintillator for high speed dyn. PET imaging, perform. 10212
$\mathrm{Co/Si(SiO_2)}$, ion-beam mixing, Monte Carlo simul. and expts. 22023
Cu/quartz fiber calorimeter, forward calorimetry in supercollider expts. 26202
GaAs ACT transversal filters, yield model 39118
GaAs Gunn devices at 94 GHz, fund. and harmonic power generation 37998
GaAs, MBE, low temp. limit 366
GaAs MESFET, lin. stat. DC model, factor anal. 13812
GaAs MESFET, pulse doped, 2D electron transport, Monte Carlo simul. 6794
GaAs MESFETs, Monte Carlo simul. 1437
GaAs MM wave TEDs, CAD, thermal anal. 38791
GaAs, δ-doped, impact-ionization-breakdown simul. 38261
GaAs, δ-doping superlattices, pot. flucts., quantum effects 13167
GaAs, devices, impact ionization/light emission, Monte Carlo study 1441
GaAs, impact ionization, ensemble Monte Carlo simul. 21879
GaAs, intrinsic and p-doped, highly photoexcited carriers, femtosecond relax. 1036
GaAs lateral superlattice, Weiss oscills., small-angle scatt. effects 38350
GaAs, local diffusion noise sources, spatial extent of correl. 29848
GaAs, modulation-doped, plasma, scaled ensemble Monte Carlo method 1035
GaAs opt. activated switches, Monte Carlo simul. 3299
GaAs, photo-excited carriers, momentum reorientation 1034
GaAs quantum wire, hot electrons ultrafast relax. 1119
GaAs, subpicosecond elec. pulses, Monte Carlo investig. 22992
GaAs, warped band model, hole drift vel. 13069
GaAs:Er, MBE grown, struct. anal. 37440
GaAs:Si, multiple δ-layer-doped MQW, hot electrons 38365
$\mathrm{GaAs/Al_xGa_{1-x}As}$ multilayers, avalanche breakdown 1042
GaAs/AlGaAs, two quantum dots in series, Coulomb blockade 29933
GaAs-based p-i-n nanostructure, high-field electron transport, transient ps Raman studies 21974
GaAs-based quantum wires, hot electron transient transport, Monte Carlo method 1095
GaAs(001), epitaxial growth, kinetic models 28775
$\mathrm{GaAs_xSb_{1-x}}$, bulk hole transport, Monte Carlo simul. 21905
Ge(HP) detector, efficiency calib., 6-25 keV 18324

Monte Carlo methods continued
- Ge_xSi_{1-x} HBTs, graded and uniform base study 13647
- HgI_2 microdetectors, low-energy gamma-ray perform. 4192
- $In_{1-x}Al_xAs$, bulk hole transport, Monte Carlo simul. 21905
- InAlAs/InGaAs HEMT, self aligned dual 50 nm gate device 13786
- InGaAs GRINSCH QW laser, gain compression, Monte Carlo simul. 1992
- InGaAs-GaAs narrow quantum wells, carrier capture and relax. 2004
- InGaAsP/InP D-band Gunn devices, heterojunction cathode injectors 13587
- InP MESFETs, Monte Carlo simul. 1437
- InP MM wave TEDs, CAD, thermal anal. 38791
- InP n^+nn^+ diodes, hot carrier noise, Monte Carlo simul. 1348
- Ne laser, radially convergent electron-beam-pumped 14706
- SF_6, negative corona discharges 13981
- Si, Boltzmann transport eqn., band-struct. effects incorporation 1025
- Si MBE on Si(111), RHEED/Monte Carlo anal. 20736
- Si MOSFET, submicron, carrier transport, electron-electron scatt. 22458
- Si MOSFETs, ultra-short, heat flux effects on accuracy of hydrodynamic models 1418
- Si, anisotropic band struct., isotropic band models 22325
- Si, electron impact ionization coefficient, temp. dependence 29835
- Si, impact ionization, ensemble Monte Carlo simul. 21879
- Si microvolume CID sens. arrays, Monte Carlo/analytic treatments of displacement damage 17961
- Si porous, quantum dots, recomb. dyn. 22022
- Si, vacancy-mediated dopant diffusion at high doping levels, models 1026
- Si:As, deeply-channeled implanted profiles, Monte Carlo simul. 1220
- a-Si:As, ion implant., generalised transport eqn. 13292
- Si:As single-cryst., deeply-channeled implanted profiles simul. 30023
- Si:N for micromachining, cantilever/membrane structs., Monte Carlo simul. 30489
- Si:Sb, heavily doped, elec. act. impurity diff. 13033
- Si-Gd-Si sens., large area, thermal neutron detect. 18329
- Si-SiGe HFETs, mobility simul. 22494
- Si-SiO_2 interface, electron 2D behaviour modelling by Monte Carlo simulator 29986
- Si(001), epitaxial growth, Monte Carlo simul. 20896
- $Si_{1-x}Ge_x$, strained, hole transport, Monte Carlo simul. 38278
- Xe laser, radially convergent electron-beam-pumped 14706
- ZnS, high field electron transport, Monte Carlo simul. 21909
- ZnS:Mn, evaporated ACTFEL devices, band-to-band impact ionization 39577

Moon
- HV transm. line operation, simul. lunar environ. 35641
- lunar landing navig. schemes, precision landings 4356
- lunar surface fission power supplies, radiation protection 26515
- robotic/human exploration mission power requirements 18761

morale *see human factors; human resource management*

morphology, mathematical *see mathematical morphology*

MOS analogue integrated circuits
- *see also CMOS analogue integrated circuits*
- act. voltage attenuator using two cascaded MOSFETs, perform. 736
- adaptive compensation of MOSFET-C filters 6217
- automated cct. correction, qualitat. reasoning, analog IC design automation 21454
- automated cct. generation, analog IC design automation 21453
- continuous-time MOSFET-C filters, on-line error detect. 29361
- current mode S/H cct. *(Japanese)* 6259
- data-driven subthreshold analog MOS neural net cct., principal components computation 798
- DMOS, integrated N-Channel, parasitic PNP cond., power IC appls. 30479
- DMOS analogue HV control IC for small DC motors, PWM scheme 29048
- electronic lamp starter driver IC *(German)* 28160
- gradient projection network, analog solver for lin. constrained nonlin. prog. *(Japanese)* 37281
- micropower analogue second-order continuous time filter, SPICE simul. result 37846
- monolithic variable integrator design, appl., filters 12634
- NMOS integrated temp. sens., freq. output 9876
- optim., equivalence of dyn. systs. 11948
- SC filters with weakly nonlin. capacitors, harmonic distort. 729
- SPICE transient anal., cct. simul., integrat. methods, noncontinuous first derivative devices 6868
- static MOSFET model suitable for analog IC anal. 30292
- switched diffusion analog memory for ANN chip 29412
- VCO cct., current-controlled differential delay cell 12362
- VDMOS-type power ICs, void-free bonded SOI substrs. 39017
- voltage attenuator and lin. finite gain amp., charactn. 29062
- winner-take-all networks, VLSI analog parallel sig. proc., inhibitory mechanism anal. 37897
- Si retina analog image proc. 776

MOS capacitors
- accumulation mode MOS structs., effective dielec. thickness determ. 38421
- flash-based prog. nonlin. capacitor for SC neural nets 21473
- Fowler-Nordheim tunnelling current, strong inversion, HF capacitance 38438
- implanted MOS structs., I(t) tech. for generation rate determ. 1169
- lateral alkali-ion migration, reliab. implications 170
- lin. voltage sweep method, generation param. determ. *(Chinese)* 42920
- oxide reliab., nitrogen effects 38629
- passivated by PbO-B_2O_3-SiO_2-GeO_2 glasses, OH-related C-V recovery effect 13246
- plasma-charging damage meas., voltage vs. time curve 1181
- radiation effects, computerised meas. syst. *(Chinese)* 25729
- reliab. props., N_2O oxides, charact. *(Korean)* 30299
- Si-SiO_2-polySi:P, $TiSi_2$ superlayer, thin film oxide injection degrad. 22059
- stress-induced current, oxidized nitride/nitride thin films 6589
- surface pot. determ. 1170
- thin oxide MOS capacitor, current spike obs. 6583
- ultra-thin oxide/oxynitride dielec. films, reliab. characts., surface prep. tech. 22066
- Al/SiO_2/3C-SiC:Na(K) MOS capacitors, ionic contamination 13254
- InP/Al_2O_3 MIS capacitor, opt. control 13243
- N_2O-oxynitridation effects, thermal oxide breakdown, thickness breakdown 30126
- PbO-B_2O_3-SiO_2-Al_2O_3 glass passivated, C-V curve 13231
- PbO-B_2O_3-SiO_2-GeO_2 glasses passiv. of MOS capacitors, OH-related C-V recovery, Bi_2O_3 content effect 13245
- Si, RTO in N_2O, MOS capacitor testing 22220

MOS capacitors continued
- a-Si in-situ doped gate MOS capacitors/transistors, elec. props. *(Korean)* 30298
- Si/SiO_2 MOS capacitors, SiO_2 hole traps, small cross sect. 38427
- Si/SiO_2, MOS devices, prep. interface props. control 38611
- Si/SiO_2/Al MOS capacitors, charge induced by Fowler-Nordheim tunnel injection 29974
- Si/SiO_xN_y/Al MOS capacitors, charge trapping and interface states 29975
- Si-SiO_2 MOS struct. quality, N_2O ambient, furnace nitridation time 13237
- SiC, MOS capacitors, surface pot. flucts. 1316
- 6H-SiC MOS struct., thermal oxid./computer simul. 38562
- SiC-SiO_2 MOS capacitor, elec. props., annealing effects 22077
- β-SiC(111)/TiC(111) MOS capacitor, charactn. 1177
- SiO_2, PECVD modeling via neural nets and genetic algms. 398
- SiO_2 RTCVD/RTO/thermal oxide thin films, tunnelling current characterisation 22226
- SiO_2 RTO 10 nm films grown at different temps., MOS capacitor breakdown 1180
- SiO_2 films, high field dyn. stress 22063
- SiO_2 inter-poly oxides, MOS capacitors, lifetime/failure probab. 13236
- SiO_2, scaled, polarity depend. of dielec. breakdown in MOS ULSI capacitors 22608
- SiO_2/Si, thermal layers, wafer bonding induced degrad. 38422
- SiO_2-Si MOS struct., oxide layer cond., X-ray irrad. effects 13238
- SiO_2-Si_3N_4-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA, testing 22068
- SiO_xN_y-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA, testing 22068
- ZnO-B_2O_3-P_2O_5-SiO_2 glass passiv., OH-related C-V recovery 871

MOS-controlled thyristors
- 4.5 kV device, buffer layer/anode short struct. 30271
- 75 A second generation P-MCT, characts. 22393
- AC switch and AC voltage controller appls. 22400
- active cooling, Venturi flow 13668
- aircraft power conversion systs., soft switching appls. 43452
- base resist. controlled thyristor, turn-off charact. 22395
- BiMOS high power devices appl. in intell. snubberless power conditioning ccts. 29031
- BiMOS MCT/IGBT VHV devices, gate oxide integrity improvement, external gettering 30275
- buck converter design, zero-current turn-off, MCT 19748
- coal mine transportation arcing, detection/suppression method 20107
- converter, snubber efffect, switching loss, EMI reduction 6017
- dual lateral channel emitter switched thyristor characts. 13667
- emitter switched thyristor, p-channel diverter 22394
- Fuji Electric products and appls. 21117
- gate drive cct., overcurrent protection 12323
- high efficiency reson. converter based on MCT 19730
- HIP2030 power gate driver IC, MCT module appls. 29006
- HV appls. of IGBT or MCT in conjunction with diode, limits 30338
- HV dual-channel MOS-gated thyristor struct. 30270
- IGBT and MCT struct., 2D dopant profiles 30280
- insulated base MOS-controlled thyristor, num. anal. 1372
- insulated base MOS-controlled thyristor, num. simul. 30268
- inversion layer emitter 1371
- inversion layer emitter thyristor, power device 30281
- latch-up mechanism, subthreshold currents, switch-back *(French)* 22399
- lateral emitter switched thyristor, CMOS compatible 1376
- lateral IGBT and MOS-controlled thyristor structs. in SOI 30345
- MCT phase controlled rectifiers develop. 27833
- MOS-assisted gate triggered thyristor, pulse switching 11132
- MOS-assisted gate-triggered thyristors, pulsed power switching appls. 36431
- N-channel emitter switched thyristors, 550 V, at.-lattice-layout geom. 1375
- open cell technol. for single chip MOSFETs, IGBTs, and MCTs, very high power appls. 6777
- p-channel MCT, static/dyn. behaviour tests 12319
- power semicond. switches PSpice models, parametric sensitivity anal. 533
- reson. DC link inverters, MCT soft-switching tests 12320
- (S)SAMCTs, (super) self aligned MOS controlled thyristors, switching 20 A at 4 kV 22397
- second generation P-MCT, characts./operation 30269
- series reson. DC link power converter, anal. 5058
- soft-switching insulated gate devices, power losses, comparative investig. 30331
- soft-switching power converters, GTO/MCT characts. comparison 19849
- trench IGBT and MOS-controlled thyristors comparison *(German)* 22383
- turn-off failure mechanisms, large MCT devices 30274

MOS devices *see MIS devices*

MOS digital integrated circuits
- *see also CMOS digital integrated circuits; MOS logic circuits; MOS memory circuits*
- EMC-macromodels, parametrization 21174
- nMOS transistor depletion threshold volt. adjustment *(English)* 22606
- scaled-down MOS transistors for gigabit ccts., reliab. 22443

MOS integrated circuits
- *see also BIMOS integrated circuits; CMOS integrated circuits; MOS analogue integrated circuits; MOS digital integrated circuits*
- 1 Hz MOS integrated low-pass filter, high dyn. range/low distortion 29345
- advanced MOS and bipolar devices, symp., London (Feb. 1995) 36885
- Australian microelectronics, conf., Gold Coast, Qld (1993) 5449
- automobile electronic fuel injectors, power IC-based control 36776
- automotive low dropout regulator, HV DMOS pass element 20113
- BEST integrated syst. for macromodel develop. *(Korean)* 38978
- C_∞-continuous small-sig. model for MOS transistor in normal operation, IC simul. 22401
- DC/DC power convertors, SMT MOSFETs, VDMOS technol.-based 36345
- deep submicron compact phys. model for analog ccts. in mixed analog-digital ICs 21452
- deep submicron MOSFETs, param. changes caused by mfg. flucts. 1391
- digital, fast timing simulator, feedback proc. 592
- DMOS power transistors, Si-direct-bonded, static/dyn. props. 22467
- double RESURF device technol. for power ICs 13896
- electron-acoustic microscopy, nondestructive internal obs. 1497
- gate oxide proc.-induced damage, low/high temp. anneal effect 1202
- HVICs, Kirk effect 30480
- I/O device degrad., ESD-induced disloc. 22605
- intell. half bridge power module, 75A/250V/75KHz, switching power amps. 6027
- IR imager detector array MOS readout IC 34598
- IR readout electronics, historical perspective 34426

MOS integrated circuits continued
looped MOS inverters, chaotic behavior and bifurcation 37613
LSI neural chip of pulse-output net, prog. synapse 29431
LV MOSFETs, design methodology 13763
micro-submicrometer P-MOSFETs, electron beam doping *(Chinese)* 6755
nMOSFET, HISREM model, IC reliab. projections 13704
MOSFET IC radiation reliab. software simulator 13898
μP, develop. progress, MOS ccts. *(Japanese)* 6183
neuro-fuzzy hybrid hardware implement., neural chip URAN 29514
NMOS devices, deep submicron, closed-form phys. drain current model 1399
non-quasi-static transient effects in MOSFETs, model 22410
polysilicon SOI struct. obtained by laser zone melting, props. 38442
polysilicon TFT and driver integrat. technol. for LCDs 25919
radiation effects, computerised meas. syst. *(Chinese)* 25729
relax.-based transient sensitivity computations, MOSFET ccts. 22604
SECSPICE cct. simulator for submicron MOS designs *(Korean)* 39016
semicond. press. sens. based on FET struct. 3785
series-connected MOS struct., internal parasitic capacit. effect 30435
SMARTMOS quad low side automotive electronics switch, Saber modelling 36775
SWEC, stepwise equiv. conductance, MOS VLSI simul. 13899
thermal effects in integrable power semicond. devices 21121
transversal imager, photonic neurochip, prog. synaptic wts. 13897
ULSI device scaling and reliab. 13900
vert. DMOS power transistors for cct. simul., phys. modelling 1429
VHV SMARTMOS power convertor control IC 36331
a-Se Amplified MOS Imager, high speed TV camera 42851
Si:B MOS ULSI, MOSFET B diffusion model incorporating disloc. loop growth 22610
Si-SiGe p-MOSFETs, optimised Ge channel profiles 22434
SiO_2, scaled, polarity depend. of dielec. breakdown in MOS ULSI capacitors 22608
SiO_2 thin film reliab. at direct-tunneling voltages, MOS VLSI technol. 22607
MOS logic circuits
see also CMOS logic circuits
iRULE, fast hot-carrier reliab. diagnosis using macro-models, MOS digital logic 29114
lean integrat., perform. and cost improvement of logic LSIs 29146
M-to-B arbiter for multiple bus multiprocessor systs., high speed, VLSI 642
systolic parallel Booth multiplier, area/time efficient 6135
SiC NMOS digital IC, logic gates 632
MOS memory circuits
see also CMOS memory circuits
1 Gbit DRAM cell, diagonal bit-line config. 21323
3D capacitance charactn., floating-gate devices, coupling coeffs. meas., EEPROMs 6157
ART1 memories, mixed analog/digital implement. 29404
EEPROM CAD model for low power cct. design/simul. 21304
EEPROMs, 1M devices from SEEQ and Hybrid Memory, SEP charactn. 29238
EPROM writing charact., hot electron injection model, 2D transient simul. 12546
flash EEPROM prog. simul., hot-electron/hot-hole injection 12501
flash EPROM struct., ultra-short pulse erasing, characterisation 12502
interbay material handling/storage systs., large wafer fab, simul. tool 20413
LOCOS isolation technol. for 256 Mbit DRAM 22609
SALOT, self-aligned LOCOS/trench combination isolation, chem. mech. polishing 21329
self-aligned shallow trench isolation cell for 256 Mbit NAND EEPROMs 12553
Si flash EPROM device reliab., erase source bias effects 12500
Ta_2O_5 films, DRAMs, leakage currents and defect states 39038
MOS structures *see MIS structures*
MOS transistors *see MOSFET*
mosaic structure
(HgCd)Te semicond., bulk/2D conductivities 13067
$Si/Si_{1-x}Ge_x$ strained heterostruct., thermal stabil. 37406
MOSFET
see also MOSFET circuits; power MOSFET
0.05 μm CMOS with ultra shallow source/drain jns., fab. 22584
0.1 μm MOSFET on thin-film SOI substr., self-aligned source-body contact 22456
0.25-μm fully-depleted CMOS/SOI invertor, SEUs, radiation hardening 13727
1.2 μm CMOS-SOI technol. transistors, noise charactn., gamma ray effets 13728
1/f noise, carrier-no., mobility flucts. 1380
1/f noise, plasma etching induced gate oxide degrad. effect 22419
1/f noise, plasma-etch-induced gate oxide degrad. effects 22441
1/f noise and radiation effects in MOS devices 1382
1/f noise in MOSFETs and interconnects, model 22412
1/f noise in n- and p-MOSFETs, gate voltage dependencies 1381
2D Gummel model, liq.-nitrogen temp. 13678
2D MOSFET doping profile, extraction via inverse modeling 13703
2D MOSFET simul., local NMOS mobility model, screened minority impurity scatt. 1412
2D MOSFET simulator, mixed particle Monte Carlo method *(Korean)* 13684
5-phase SRM drive, phase converter, microcontroller 5317
77 K MOSFET simul., increment limit method *(Chinese)* 38783
accumulation-mode SIMOX MOSFETs, Si film thickness effects 38857
act. clamp forward converter, MOSFET sync. rectification 6002
advanced MOS and bipolar devices, symp., London (Feb. 1995) 36885
analogue divider, current feedback amps. 21463
at. force microscope fab., nanolithography 30320
back gate cond. effect on 0.25 μm SOI devices 22455
border traps, MOS radiation response/long-term reliab. 20494
C_∞-continuous model for small-geom. MOSFETs 13745
C_∞-continuous small-sig. model for MOS transistor in normal operation, IC simul. 22401
C-V charact., random channel dopant ion distrib. 1393
carrier freeze-out effect, low temp. semicond. device props. *(Chinese)* 22340
carrier multiplication noise sources, correl. meas., LF techs. 1388
channel thermal noise, 1D charge sheet model 1387
charge pump cct. for high output current EEPROM appls. 29046
CMOS device isolation for ULSI age 22600
CMOS ESD protection ccts., scaling, optim., design 6849
CMOS ESD protection ccts., scaling/optim./design considerations 30471
MOSFET continued
CMOS FET oxide reliab., plasma-induced gate oxide degrad. 20490
CMOS IR readout multiplexer radiation hardness improvement 30449
CMOS supply-voltage scaling limitation 30452
CMOS transistors, high-field electron injection, threshold voltage 38881
CMOS transistors in freeze-out regime, quasi-static behavior 13673
CMOSFET ultra-thin gate oxide thickness meas, quantum effects 22452
CMOSFETs, HI-induced single event transients in epitaxial struct. 13718
CMOSFETs, hot-carrier degrad., unified model, gate-to-drain capacitance meas. 6764
CMOSFETs with reduced jn. capacitance, $TiSi_2$ salicide, e-beam lithog., SPICE 30358
combined transport-injection model for hot carriers 22433
current flucts., device scaling effects 1386
DAMOCLES program, mcplotgl graphics, n-MOSFET simul. 22335
DC power lines, SMES, input cct. 10718
DC-DC converters, high power/self-oscill. type 27830
deep submicrometer MOSFETs, intrinsic capacitance modeling 30290
deep submicron CMOS devices, fab. and delay time anal., simul. models 30361
deep submicron MOSFETs, 2D energy-depend. substr. current models 1415
deep submicron MOSFETs, param. changes caused by mfg. flucts. 1391
deep submicron nMOSFETs under high current snapback conditions 22438
deep submicron/1.5 μm MOSFETs, comparative param. sensitivity anal. 30300
deep-submicrometer bulk and SOI MOSFETs, current drive vs. short-channel effect 22454
deep-submicron, profile doped elevated source/drain struct. 22422
deep-submicron MOSFET scaling study 38855
deep-submicron PMOSFETs, hot-carrier degrad. mechanisms 13676
degrad., charge pumping method 22404
diamond, highly oriented films on Si, growth, charact. and devices 5820
diamond MOSFETs on epitaxial thin films, fab., cct. appls. 22437
distributed gate resist., impact on perform. 1402
DMOSFETs/IGBTs switch HV, packaging, die sizes 1379
double-exponential diode model params. calc. 13578
double-gate SOI MOSFETs, subthreshold swing, scaling-param.-depend. model 1426
dual gate MOS-JFET CCD test struct. 34584
dual gate MOSFET, 2D pot. distrib./threshold voltage models *(Chinese)* 38893
dual voltage twin well CMOS proc., analog and digital appls. 30456
dyn. threshold voltage MOSFET for ultra-LV operation 22473
effective channel length in 0.1-μm MOSFETs 30351
electron mobility, bulk-impurity/interface-charge 22424
electron mobility, weak and strong inversion regimes 22440
electron mobility curves, Monte Carlo study 13744
ESD control/safety, surface testing, simulated MOSFET damage 15223
fig. of merit, sub 0.25 μm archit. range, anal. model 1414
flicker noise in CMOS transistors, expt. study 1383
Fowler-Nordheim tunneling of carriers, gate current simul. 38896
fully depleted SOI PMOSFETs, LF noise 1385
fully depleted thin-film SOI MOSFETs, moderate kink effect 22461
fully-depleted MOS transistors fabricated in SIMOX, radiation response 13729
grounded body SOI nMOSFET, fab. by wafer bonding 13702
HEMTs, threshold voltage, MOSFET model 38939
HF AC hot-carrier degrad. in CMOS ccts. 22573
HF analogue perform. of MOSFETs from CMOS procs. 22411
high-speed and low-power n^+-p^+ double-gate SOI CMOS 39010
hole trapping in MOSFET, hot carrier stressing/ionizing irrad. 30284
hot-carrier aging, charge-pumping charact. 22444
hot-carrier reliab., RTN, SiO_2 gate dielec. 22429
hot-electron damaged LDD NMOSFETs, modelling 13751
hydrogenous material for sensitizing pMOS dosimeters, neutrons 26496
IBM 0.1 μm MOSFET anal. by simul., lateral elec. field effects 30194
interface defect form. by at. H exposure 13715
interface states/trapped carriers, charge pumping/gate capacitance meas. 30301
inversion layer, carrier mobility model, wide temp. range, channel doping *(Chinese)* 6743
inversion layer carriers, saturation vel. and overshoot 22445
ionizing radiation effects, analog charact. *(Chinese)* 22459
irrad. MOSFETs, punch-through characts. study 13731
KYOKO, 2D proc. and device simul. coupling, NMOS transistors 1419
lateral alkali-ion migration, reliab. implications 170
lateral bipolar transistor, MOSFET struct., collector current 13620
lattice self-heating/hot-carrier transport, influ. on device perform. 6711
LDD MOSFET, anal. model for static characts. 30350
LDD MOSFETs, interface state generation effects, simul. models 1417
LDD MOSFETs, virgin and stressed, charge-pumping charact. 38903
LDD nMOS transistors, latent ESD damage recovery, hot electron treatment 6744
LDD NMOSFETs, hot carrier induced degrad. 6770
LDD p-MOSFETs, hot carrier reliab. 1407
LDD p-MOSFETs, hot-carrier degrad. 13692
LDD-MOSFETs, high temp. hot carrier degrad. 1409
LDMOS/LIGBT struct. modelling, high temps. 30336
lifetime calcs., depth-depend. impact ionization 38895
lifetime prediction methods, charge-pumping lifetime criteria 13675
LOCOS parasitic MOSFETs, threshold voltage, reverse short-channel effect 22421
low energy X-ray radiation source calib., dosimetry 18415
low threshold voltage CMOS devices for 1 V appls., fab. 22585
LV MOSFETs, design methodology 13763
MASTAR, analog/digital CAD model for sub-halfmicron MOSFETs 22409
micro-heterostruct. semicond. devices *(Japanese)* 22416
micro-submicrometer P-MOSFETs, electron beam doping *(Chinese)* 6755
MIS transistors, random telegraph sig. params., substr. bias effect 13756
mobility model, phys.-based carrier screening effects 30360
model, single expression, valid in all regions 30323
Monte Carlo device simulator, Poisson-transport iter. 22406
MOS SPICE transient cct. simul., integrat. methods, noncontinuous first derivative devices 6868
nMOS/SOI transistors, ultrathin double-gate, inversion model 13691
p-MOSFET, bi-directional operation, hot-carrier degrad. model 38875
p-MOSFET, Fowler-Nordheim limited band-to-band tunneling 13690
nMOSFET, HISREM model, IC reliab. projections 13704
n-MOSFETs, counter doped, mobility, reverse short channel effect 38873
n-MOSFETs, rapid thermal N_2O-reoxidized nitrided gate oxides 38899

MOSFET continued
- MOSFETs/SOI, total γ irrad. dose effects, I-V meas. 13705
- n-MOSTs, substr./channel hot electron injection 13688
- n-channel, CVD grown, channel mobility 13712
- n-channel, double channel hot-carrier injection, 77K, meas. 22403
- n-channel, Fowler-Nordheim electron tunneling, substr. hole current model 38884
- n-channel MOSFETs, hot carrier degrad. 13736
- n-channel MOSFETs at low gate bias, hot-carrier degrad. eval. 13679
- n-MOSFETs, bias/temp. depend. of gate/substr. currents 22413
- n-MOSFETs, hot-hole-induced neg. oxide charges 22414
- n-type, nonlocal impact ionization model, substr. current simul. 30359
- NMOS devices, deep submicron, closed-form phys. drain current model 1399
- nMOS transistor depletion threshold volt. adjustment *(English)* 22606
- NMOSFET(PMOSFET)/SIMOX struct., hot-carrier injection 6759
- NMOSFETs, anom. hot carrier degrad., elevated temps. 30353
- NMOSFETs with nitrided-oxide, high-field mobility enhancement 1390
- non-quasi-static transient effects in MOSFETs, model 22410
- nonfully depleted SOI MOSFETs, phys. charge-based model, floating-body effects 38858
- nonuniform degrad., charge pumping 22405
- off-state MOSFETs, interface trap induced emission current 22408
- off-state n-MOSFETs, interface trap-induced drain leakage current 38859
- oxide reliab., nitrogen effects 38629
- p-MOSFETs, radiation-induced oxide-trapped charge, mobility effect 30322
- p-MOSFETs, trench-isolated buried-channel, narrow channel effect 6769
- params. charactn., low long. field 13749
- parasitic resist., AC freq.-resolved meas. 22439
- partially depleted n-channel SOI twin-MOSTs, LF noise overshoot 1384
- partially depleted SOI CMOS ccts., dyn. floating-body instabilities 22589
- plasma-induced transconductance degrad., nMOSFET, thin gate oxide 30357
- PMOS dosimeter, fading, gate bias/oxide thickness depend. 18632
- pMOS dosimeters, energy depend., package geom. effects 26497
- pMOS dosimeters, sensit. increase, stacked RADFET approach 26498
- pMOS pixel detector design 18344
- PMOSFET degraded due to hot electrons, modelling *(Korean)* 30306
- PMOSFET submicrometer devices, hot-carrier-induced off-state current leakage 1425
- poly buffer LOCOS, in situ N-doped, for deep submicron CMOS 22591
- poly-Si:B/Si:N multilayer gate surface channel PMOSFETs 6762
- polysilicon films, CMOS TFTs, low temp. proc. 38879
- polysilicon gate, PMOS, B penetration, oxide gettering 38867
- polysilicon gate depletion effect on deep-submicron cct. perform. 1485
- polysilicon gate reentrant of submicron LDD MOSFETs 1394
- P^+-polysilicon gated FET devices, bias temp. reliab. 13750
- p^+-polysilicon gated p-MOSFET, reverse short-channel effect 1400
- polysilicon MOSFET, oxide trap relax. spectrosc. 38426
- polysilicon TFT and driver integrat. technol. for LCDs 25919
- polysilicon TFTs, ECR plasma oxid. effects on perform./stabil. 22450
- polysilicon TFTs, fab., pulsed laser annealing and plasma CVD 13743
- polysilicon TFTs for act. matrix LCDs, reliab. 22449
- quantum effects 30288
- radiation dosimeter, miniature MOSFET probe 10298
- radiation effects, computerised meas. syst. *(Chinese)* 25729
- radiation-induced leakage current, oxide isolation struct., nonuniform damage 13716
- radioimmunotherapy dose meas., miniature MOSFET dosimeter probe 35195
- recomb., radiation-induced defects 6747
- reliab. props., MOS capacitors, N_2O oxides *(Korean)* 30299
- reliab./quality diagnostic tool for electronic devices 1315
- reverse short channel effect suppression 22446
- scaled CMOSFETs, implant. fab., elec. characts. 13879
- scaled-down MOS transistors for gigabit ccts., reliab. 22443
- SEDAM, salicide proc. for sub-0.25 μm CMOS devices 22601
- self-adjusting threshold-voltage scheme for CMOS ICs 30453
- self-aligned, X-ray lithog. 13741
- self-aligned pocket implant. MOSFETs, low supply voltage operation 13672
- SGMOS, student-oriented program, microcomputer simul. of submicron-geom. MOSFETs 6753
- short channel MOSFETs, 2D charge sheet model 13693
- short channel MOSFETs, threshold voltage, quantum correction 1428
- short-channel, subthreshold slope, drift model 38878
- short-channel MOSFET, threshold-voltage model 13695
- short-channel MOSFETs, I-V characts. form. 6767
- short-channel MOSFETs, improved quasi 2D model 38902
- short-channel MOSFETs, series resist. 1406
- short-channel SOI MOSFETs, amplified GIDL, simul. 1413
- short-channel SOI MOSFETs, energy bal. eqn., transverse-field-induced carrier heating 13747
- short-channel vert. NMOSFETs for high dens. fast SRAMs 21332
- SIMOX MOSFET, high temp. operation 22468
- simul., drift-diffusion/Monte Carlo model coupling 38905
- simul. taking account of energy transport under non-isothermal conditions *(Japanese)* 30349
- simulated diffusion algm. for global optim. of device model params. 1323
- small geom. MOSFETs, impact ionization simul. 22432
- small-geom. MOSFETs, channel length extraction 13685
- SOI, conf., Ponte Verdra, FL, USA (Oct. 1992) 11581
- SOI dyn. threshold voltage MOSFET for LV operation 6773
- SOI GAA MOSFETs, γ-irrad., noise charact. 13686
- SOI MOSFET, current characts., 1D MISIS struct. soln. 22469
- SOI MOSFET, extremely thin film, inversion layer to accumulation layer tunneling characts. 22453
- SOI MOSFET, LF noise, gamma ray effects 22418
- SOI MOSFET, short channel effect, 1D model 38872
- SOI MOSFET, threshold voltage and I-V characts. study *(Korean)* 30305
- SOI MOSFETs, AC cond. tech. for self-heating meas. 22420
- SOI MOSFETs, fully depleted, carrier generation study 6763
- SOI MOSFETs, meas. of I-V curves without self-heating 30352
- SOI MOSFETs, short channel effects, source/drain engng. 38870
- SOI MOSFETs, submicron, self-heating effects 22470
- SOI MOSFETs, thin film fully-depleted, 2D mobility model 13694
- SOI MOSFETs, thin-film, self-heating effects, modeling 22425
- SOI MOSFETs, threshold voltage sensit. reduction 30294
- SOI MOSTs, partially depleted, body ties, cryogenic operation 1405
- SOI n-MOSFET radiation hardness improvement by Ge-implant. 13726
- SOI nMOSFET, SIMOX substrs., drain current charact. 38868
- SOI snapback nMOSFET, ESD protection/failure modes 22464

MOSFET continued
- SOI snapback nMOSFETs, ESD protection capability, mechanisms/failure modes 30308
- SOI thin film MOSFET with body terminal, photon emission 22475
- SOI transistors, alternating hot carrier injection anal. 22415
- SOI/bulk hybrid technol. on SIMOX wafers for ESD immune ccts. 13881
- space environ., extraterrestrial radiation effects 13735
- static MOSFET model suitable for analog IC anal. 30292
- STM lithog. damage 13740
- stress-induced current, oxidized nitride/nitride thin films 6589
- sub-0.1 μm double-gate SOI MOSFETs, design and perform. considerations 22472
- sub-0.1 μm MOSFETs, semiclassical device simul. 22430
- submicrometer gate length MOSFET, selectively doped substr., hot electron degrad. 30324
- submicron, small-sig. behaviour, non-quasi-static model 13689
- submicron CMOS, soft ESD failure suppression 30465
- submicron CMOS proc., soft ESD failure suppression 6848
- submicron LDD MOSFET, subthreshold current model 6754
- submicron MOS transistors degrad., 1/f noise spectral dens. 22463
- submicron MOSFETs, channel length depend. of random telegraph sig. 6772
- submicron MOSFETs, single-event-induced charge collection 13720
- submicron MOSFETs at 4.2 K, drain threshold voltage 30293
- submicron MOST model param. extraction in lin. region 1423
- submicron NMOSFET, transcond. enhancement, back bias 13746
- submicron NMOSFETs, GIDL, interface trap effect 6766
- submicron SOI MOSFET, self-heating, scaling constraints 30289
- submicron-channel MOSFETs, simulated x-ray lithog. exposure effects 6776
- subthreshold swing, short-channel effects 22428
- surface channel P-MOSFETs, gate oxide thickness hot carrier effects 13677
- switched diffusion analog memory for ANN chip 29412
- switching oxide traps, time depend. 13714
- Tanh law MOSFET model for high temp. cct. simul. 22462
- test struct., 2D device simul. 13687
- TFTs, fab. on N implanted polysilicon films, elec. characts. 22447
- thermal effects in integrable power semicond. devices 21121
- thermal noise, steady-state Nyquist theorem verification *(Korean)* 38864
- threshold voltage fluct., stat. var. of channel dopant no. 1392
- threshold voltage model, reverse short channel effect 30287
- triangular mesh generation for complex device structs. anal. 1420
- unified capacitance modelling 1427
- universal type hardware neuron model, lambda shaped transistor *(Japanese)* 29504
- very short channel MOSFETs, hot carrier gen. mechanism 13742
- VLF charact., high-order derivatives 22426
- ZVS-PWM full bridge DC/DC converter, losses, appl. 5089
- Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
- $CoSi_2$ thin film proc., thickness scalability and thermal stabil. 22274
- InSb-SiO_2-Si p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
- Si MOS transistors, surface roughness mobility model 13707
- Si MOSFET, 2D electron gas, ballistic transport 38862
- Si MOSFET, 2DEG, cyclotron phonon emission, quantum oscill. 38887
- Si MOSFET, diffusive transport, resist. flucts. 1430
- Si MOSFET, dopant atom stat. inhomog. distrib. 38886
- Si MOSFET, interband tunneling, 2D num. model 22407
- Si MOSFET, quasi-1D and Coulomb blockade devices 1401
- Si MOSFET, submicron, carrier transport, electron-electron scatt. 22458
- Si MOSFETs, LDD struct., low temp. operation 13762
- Si MOSFETs, drain leakage current 22427
- Si MOSFETs, drain leakage current calc., tunneling formulation 38315
- Si MOSFETs, inversion layer mobility, substr. impurity conc. 6760
- Si MOSFETs, inversion layer mobility, surface orient. 6761
- Si MOSFETs, simul. by cellular automaton method 22431
- Si MOSFETs, ultra-short, heat flux effects on accuracy of hydrodynamic models 1418
- Si cryogenic accumulation mode MOST, LF noise meas. 38904
- Si deep sub-μm MOSFETs under cryogenic conditions, quantum interf. flucts. 1389
- Si grooved-gate MOSFETs with W gate, short-channel-effect-suppressed devices 13674
- a-Si in-situ doped gate MOS capacitors/transistors, elec. props. *(Korean)* 30298
- Si, p-channel MOSFET, random telegraph sigs., capture kinetics 22457
- Si quantum dot, single electrons, thermally enhanced co-tunneling 38355
- Si small geom. MOSFETs, tunneling gate oxide approach, ultra-high current drive 22451
- Si:As MOSFET *(Japanese)* 13681
- Si:B, form./control of B buried layers, excimer laser 13291
- Si:B(BF_2) p^+ poly-Si gate surface-channel PMOSFETs, boron penetration, hot carriers 30356
- Si:P gate form. of MOSFETs, mech. stress simul. 38894
- Si/Al_2O_3 heteroepitaxial double SOI struct., press. sens. 38433
- Si/$Si_{1-x}Ge_x$/Si p-MOSFET, charge distrib. modelling 22471
- Si/SiO_2, MOS devices, prep. interface props. control 38611
- Si/SiO_2 MOSFET, dispersive transport, seminumerical simul. 38892
- Si/SiO_2 MOSFET, fixed and interface trap charges 38863
- Si/SiO_2 MOSFET interface trap generation, gate current simul. tech. 38901
- Si-FET, side gated, nanometer scale fab. in at. force microscope 30321
- Si-SiGe n-MOSFETs, strain depend. of perform. enhance. 22435
- Si-SiGe p-MOSFETs, optimised Ge channel profiles 22434
- Si-SiO_2 MOS struct. quality, N_2O ambient, furnace nitridation time 13237
- Si-SiO_2 MOS transistor, ionizing radiation dosimetry 43405
- Si-SiO_2 MOS transistor, leakage current and interface state 38891
- Si-SiO_2 MOSFET interface, indiv. interface traps 13758
- Si-SiO_2 interface, electron 2D behaviour modelling by Monte Carlo simulator 29986
- Si-SiO_2 interfaces, low-temp. plasma-assisted oxid., MOSFET appls. 6643
- SiGe PMOS, hole dens., inversion charge modeling 13760
- SiO_2/InP, direct photo-CVD using D_2 lamp, MOSFET appls. 28807
- SiO_2-polysilicon MOSFET degrad., substr. hot electron stress 13680
- $TiSi_2$-SiO_2-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775

MOSFET circuits
- *see also MOS integrated circuits*
- continuous-time filter compiler, specs., layout 21413
- diamond MOSFETs on epitaxial thin films, fab., cct. appls. 22437
- hybrid MOS-bipolar transistor switching, profiled drive sig. 521

MOSFET circuits continued
  RF MOSFET power amp., CAD 556
  smart hybrid power modules, design/appls., Russia 21104
  SOI power MOSFET, RF amp., num. simul. 38871
  solid-state relay design, aerospace appls. 26546
  spiking oscillator networks, on-focal-plane image preprocessing 29413
  stacked MOS transistors, cct. techs. 5964
  transconductance amps., nonlin. perform., closed-form anal. expressions 21124
MOSFET switches *see field effect transistor switches*
Mossbauer effect
  see also Mossbauer spectrometers; Mossbauer spectroscopy
  simultaneous conversion X-ray/transm. Mossbauer spectrosc., proportional counters 18410
  AgSn intermetallic phase, Mossbauer params., Sn-based Pb-free solder 11745
  $CoFe_2O_3$ acicular ferrite particles, Mossbauer effect study 7035
  $Cr_{1-x}Ir_xO_2$, ferromag. material, high coercivity 30677
  $Cu_{80}Co_{20}$, melt-spun ribbons, mag. props. 6949
  $Cu_{80}Co_{15}Fe_5$, melt-spun ribbons, mag. props. 6949
  $CuO/Al_2O_3(MgO)$ multilayers, mag. props. 39170
  Cu_9Sn_3Ni intermetallic phase, Mossbauer params., SnPb eutectic solder 11745
  Fe/Cu multilayers, mag. props. 30703
  Fe/Pd multilayers grown by electron-beam, mag. props. 39176
  Fe-silicides, depth-selective conversion electron Mossbauer spectrometry 38677
  a-$Fe_{78}B_{13}Si_9$, moment canting in applied fields, polarized Mossbauer obs. 14140
  $Fe_{80-x}M_xB_{20}$, (M=Ni,Co,Mn,Cr,V,Ti), amorph., mag. props. 14110
  $Fe_{16}N_2$ epitaxial films, mag./Mossbauer study 6995
  α''-$Fe_{16}N_2$, mag. props. 6993
  α''-$Fe_{16}N_2$, magnetisation/Mossbauer spectra/electronic struct. calcs. 6994
  Fe_4N nanometer-sized particles, mag. props. 6979
  a-$Fe_{90}Sc_{10}$:^{119}Sn, spin correl./relax., Mossbauer obs. 6932
  Fe_3Si films, MBE, conversion electron Mossbauer spectrosc. 380
  $Gd_{1-x}Sr_xFeO_{3-\delta}$, struct., mag. props. 14104
  MnZn ferrites, polycryst., microstruct., mag. props., heat treatment effect 14182
  $Nd_{4.5}B_{18.5}Fe_{77}$ ribbons, melt-spun, Mossbauer and mag. study 39159
  $R_3(Fe,Ti)_{29}$, (R=Nd,Sm), Mossbauer studies 39208
  a-Si:Kr, sputtered layers, Kr-incorporation obs. 38268
  Sm_2Fe_{17}, SiH_4 treatment, mag. props. 39142
  $Sm_2Fe_{17-x}Al_x$, PM, Mossbauer study 7199
  $Sm_2Fe_{17}N_x$, partially oxidized, mag. props. 39202
  Sr-Ba ferrite magnets, sheet, addits. effect on mag. props. 7220
  $YCa_2SbFe_4O_{12}$ garnet, mag. ordering studies 30689
  Y_2Fe_{17}, SiH_4 treatment, mag. props. 39142
Mossbauer spectra *see Mossbauer effect*
Mossbauer spectrometers
  see also Mossbauer spectroscopy
  SEDM and RSMR appls. 43143
  space borne probe appl., Mossbauer spectrometer 43167
Mossbauer spectroscopy
  see also Mossbauer spectrometers
  space borne probe appl., Mossbauer spectrometer 43167
  transducers for Mossbauer spectroscopy 43144
  Fe passivated particles in humid atmos., degrad., mag. tapes appl. 7132
  $Nd_{4.5}B_{18.5}Fe_{77}$ ribbons, melt-spun, Mossbauer and mag. study 39159
motion compensation
  3-D scenes, image seqs., global-motion estim., coding appl. 41088
  64 kbit/s image seq. coding, wavelet vector quantisation scheme 16367
  adaptive subregion variable shape block motion compensated prediction 24500
  arc welding robot coord. motion control, sens.-based *(Japanese)* 11505
  block-adaptive scanning for efficient encoding of DCT blocks 24401
  block-matching motion estim., quad-tree decomp. 2812
  camcorder DSP characts. *(Japanese)* 34278
  camera/obj. translation estim., camera rot. 32935
  complex image proc. syst. hierarchical simul. *(German)* 24673
  composite frames, spectral characts./motion-compensated restoration 16315
  consumer camcorder image stabilisation, digital and opt. methods *(German)* 42637
  consumer videophone, CMOS ASIC video codec, low cost 25166
  cube, 3D motion compensation *(Japanese)* 33108
  DCT-pyramid VQ video coding scheme 24698
  deinterlacing, motion-compensation method *(Japanese)* 32997
  dyn. image proximity meas., short-term memory control systs. 24387
  field modeling, motion estim./compensation 2842
  field rate conversion in HDTV, interpolation methods 9729
  global block matching, video encoding 16098
  Grand Alliance syst. for US HDTV 25665
  HDTV digital codec, high compression, develop. 42607
  HDTV stds. converter, develop. 9723
  image coding, quadtree-based motion compensation/classified VQ 2813
  image seqs., noise reduction, motion compensation/sig. decomp. 32874
  image seqs., temporal filtering, short-kernel filter pairs appl. 41077
  image seqs. coding by wavelets and subband schemes 16287
  low bit-rate image seq. compression method 24726
  MC-DCT compressed video, manipulation/compositing 16121
  MCP error images, wavelet transform coding, quadtree decomp./ECVQ 41091
  Mega pixel CCD image sens. technol. 22611
  mobile speech, video and data transceiver 3266
  model-based image coding, deformable 3-D model for face-to-face commun. 24556
  model-based video coding techs. for low bit-rate appl. 24395
  MPEG, full-motion internat. video compression std. 16365
  MPEG 2 appls. 32877
  MPEG-2, ATM 33598
  multimedia image techniques *(Japanese)* 32930
  NEC, digital video transm. technol. develop. *(Japanese)* 42617
  NEC video compression technol. *(Japanese)* 41352
  nodal-based deformable block matching, motion-compensated prediction 41175
  pel-recursion with integer estim. updates, non-interpolative kernel 2850
  PM sync. machines, act. vibr. compensation scheme *(French)* 10997
  prediction coding, isodensity areas based *(Japanese)* 16152
motion compensation continued
  radar imaging, automatic estim. and compensation of target kinematics 17392
  refr. eye microsurgery, laser tracking 17452
  scan-beam SAR imaging proc. 17425
  subband coding syst., motion compensation techs. for picture compression *(Korean)* 41168
  telecomms. network video coding 33354
  teleconference traffic from VBR video coders, modeling 16818
  time-space segmentation/motion estim. based on higher order stats. 32819
  topography, airborne interferometric SAR, motion compensation 43473
  tracking of objs., Kalman proc. for image seqs. 41334
  TV picture sig. conversion for progressive reprod. *(German)* 25656
  video coding, block matching algm. 24585
  video coding, motion-field segmentation *(Korean)* 24685
  video coding, variable block-size segmentation by motion vectors 16383
  video coding bit rate reduction tech. 16403
  VLSI archit. for motion estim. algms. 12580
  VLSI implement. of Huffman codec for digital video 33704
motion control
  2-phase stepping motor, PWM control, power FETs, multi-chip modules 27764
  AC motor multirate motion control algms. parallel proc. 10966
  act. suspen. syst., automotive appl. 11433
  APS, hardware supported by control syst. 18203
  Aqua Explorer 1000 for inspection of underwater cables 9156
  BATFISH, depth controllable towed body 10499
  CAD, SOAP software tool 11222
  cylindrical LIM-driven elevator, motion anal. *(Japanese)* 44561
  DC motors, motion controllers, software switch 19662
  DC servodrives, dyn. friction compensation 36644
  DC servomotor machining motion control, parallel DSP 36192
  dexterous motions, nonlin. cct. theory for robot control problems 21090
  electronic cams, mfg. motion control appls. 44632
  IEEE IECON '94 conf., Bologna, Italy (1994) 36823
  IEEE industry applications, conf., Denver, USA (1994) 10
  induction motor drive vector control, neural net-based 5291
  induction motor drives, neural net-based param. estim. 20061
  induction motor servodrive, VSS robust control 44483
  indust. robot/CNC machine tool digital joint motion controller 11509
  intelligent motion, conf., Dallas, USA (1994) 5506
  laparoscopic surgery, robotic cameraman 4288
  laser interferometers for lin./ang. displacement control appls. 39592
  lin. PM motors, design/anal. 11072
  machining robot control, inductive power/sig. transm. 20167
  metal/wood working, mechatronic components 44631
  micro-moving stage positioning, accel. feedback-based *(Japanese)* 11224
  motion compensated video coding, block matching algm. 24585
  optimisation, motor control gear designs 5166
  photomask scrubbing machine, integrated motion syst. 30084
  PM sync. motors, digital controller, Park model 10992
  rem. collaboration control syst. employing manipulators *(Japanese)* 33420
  selection, torque determ. 27666
  servomotor planetary gear precision speed reducers 44090
  SmartMotor 32-bit stepping servomotor motion control syst. 5165
  Space Station Freedom, brushless DC motor, posn. control 43453
  sync. reluctance motors, vector control *(Japanese)* 10969
  systs. develop., motors, drives, user interface 44440
  three-phase motor motion control, sinusoidal commutation-based 27665
  TW US motor actuated servo drive, fuzzy control 11091
  unmanned autonomous underwater vehicles characts. 10529
  unmanned underwater vehicles characts. 11410
  US motor actuated valve, direct drive fuzzy motion control 5284
motion estimation
  see also motion compensation
  2D motion estimation and region segmentation by region fragments 24713
  3-D motion estim., videophone appls., iter. tech. 16627
  3-D scenes, image seqs., global-motion estim., coding appl. 41088
  3D adaptive transform coding techs. for moving images 41089
  3D dyn. stereovision, stereo/motion matching without local constraints 16330
  3D edge location in motion based vision 32885
  3D motion, robust tracking 24454
  3D motion and shape estim., image struct. conditions 24441
  3D motion and struct. estim., multiresolution model-based segmentation algm. 8589
  3D motion estim., obj. tracking, B-spline curve modelling 16172
  3D motion estim. from noisy opt. flow, superior estimator, max. likelihood estimator 16328
  3D motion estim. from opt. flow, unbiased objective fn. 8535
  3D motion perception/struct. param. estim., neural nets 41377
  3D motion/struct. recursive estim. 2780
  3D obj. shape, pose, and deform. estim. 2758
  3D point sets, mark-based approaches for motion estim. 2822
  3D shape and motion recovery from image streams 16173
  3D steerable filter 24565
  3D-DCT pipe coding, video seq. coding 24506
  adaptive 3D DCT image coding, variable length coding scheme *(Korean)* 2826
  adaptive model for image motion estim. 32983
  adaptive moving method of search region *(Korean)* 24692
  adaptive subregion variable shape block motion compensated prediction 24500
  affine transform measuring, gaussian filters 24617
  aircraft motion estim., max., posteriori method 16358
  ang.-meas. systs., directional vectors estim. 18060
  ANN for motion anal. 2686
  aperture-array dyn. sens. systs., high resoln. imaging 8556
  Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
  binocular motion stereo, MAP estim. 2784
  block-matching motion estim., quad-tree decomp. 2812
  blur ident. based on higher order spectral nulls 16207
  boundary detect. in image seqs. by local stochastic tests 24626
  BP learning, internal neural struct. 41375
  brain model for local image vel. detect. *(Japanese)* 33000
  building security, pass. IR presence detectors 42807
  camera motion determ. from dyn. perceptual grouping of line segments 41229

motion estimation continued
camera/obj. translation estim., camera rot. 32935
class.-based motion estim. for video coding 16385
cluster matching method 8522
CMOS VLSI analogue sampled-data motion chip for visual motion detector 2845
CMOS VLSI smart visual micro-sens. based on insect vision 34569
common framework for kinetic depth, reconstruction/motion for deformable objs. 24640
computer visions, conf., Stockholm, May 1994 11563
consumer videophone, CMOS ASIC video codec, low cost 25166
contour extraction of moving objs. in complex outdoor scenes 24576
coronary arteries, 3D motion/reconstruction from biplane cineangiography 4268
coronary artery ident. from time series of angiogram 26324
depth from motion estim. 2763
discontinuous flow fields, recursive nonlin. estim. 24448
DSP-based image proc. syst., real time meas. of knee joint movement 26270
dyn. fixation of moving surface, log polar sampling 41142
dyn. scene objs., spatiotemporal representation 2746
ego motion computation, vert. cue 41159
ego-motion reconstruction, Essential Manifold 24608
egomotion estim. from affine motion parallax 24457
evol. algm. for phys. motion anal. 41228
expressway vehicle flow rate meas., TV picture *(Japanese)* 25726
extended obj. coord., image proc. algm. 16157
external intrusion detectors, harsh environ., installation 36991
fast motion estim. algm. for MPEG video coder 16195
fast response CCTV image recall and motion detect. 42634
feedback inform. guided motion estim. 16170
field modeling, motion estim./compensation 2842
field rate conversion in HDTV, interpolation methods 9729
first order optic flow from log-polar sampled images 24447
First Sight, human body outline labeling syst. 41288
flight image seqs., integrated 3D anal. 24458
frame-to-frame image motion estim., image 2852
FT of translating objs. image, diff. eqn. 24381
generalized brightness change model for computing optical flow 24706
Grand Alliance syst. for US HDTV 25665
half-pel precision motion estim. proc. for NTSC-resoln. video 16156
HDTV stds. converter, develop. 9723
hierarchical multiprocessor archit. for video coding 33698
hierarchical variable-block-size motion detect. *(Japanese)* 8595
high resoln. motion sens., ASIC implement. 37808
human motion tracking in real scenes, robust approach 2820
human visual syst. motion detect. mechanisms *(Japanese)* 16373
human-motion recogn. by fuzzy associative inference 8581
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
image anal., obj.-oriented anal.-synthesis coding *(Korean)* 24689
image matching under affine deform. 8551
image motion estim. algms., cumulants 24701
image proc., inform. theoretic approach, space-freq. localization 32838
image seq. anal. and appls. 16122
image seq. motion estim. by integral constraints 16245
image seqs., noise reduction, motion compensation/sig. decomp. 32874
image seqs. coding by wavelets and subband schemes 16287
independent motion segmentation and collision prediction, road vehicles 24451
independent obj. motion, recovery of egomotion/segmentation, EM algm. 41126
intell. robotic camera syst. 34236
IR image seqs., stat. anal. 41335
IR surveillance, motion estim. methods/noisy phenom. 2612
Kalman filtering-based image motion estim. 24450
large-scale analog neural computer, archit./appl. 29481
lin. algms. for multi-frame struct. from constrained motion 41143
local motion detect. by hierarchical neural network 24570
long image seq., moving objs., motion description/segmentation 33141
low bit rate video hybrid codec 42088
low bit-rate image seq. compression method 24726
low bitrate appls., video coding scheme 16097
manoeuvring objs., motion estim., rot. representations 33138
marine maneuvering target motion anal., HMM 34177
mean field theory appl. 16310
med., left ventricular motion anal. of 4D SPECT imaging 16331
Midcourse Space Experiment for tracking, image proc. 2696
mirror uncertainty and uniqueness conditions for determining shape and motion from orthographic projection 33103
model based techs. for image seqs. 8548
motion extraction by spatiotemporal filtering 8525
motion understanding, image seqs., Hopfield neural net 33045
motion-shape anal., multi-object; SVD neural networks 8680
movement charactn., low-light-level image spatiotemporal FT 41232
moving articulated objs., description and tracking 8528
moving image coding syst., wavelet transforms 16095
moving obj. param. estim. in image seq. 24386
moving obj. robust extraction, edge grouping, neural 41378
moving objs. extraction by digital time-varying image proc. *(Japanese)* 24604
moving observer, extracting obj. motion, optic flow and binocular disparity 32901
MPEG, full-motion internat. video compression std. 16365
MPEG-1 video, ISO/IEC software implement. 16090
MPEG-II video encoding, socket prog. in LAN 16088
MRF based motion detect. algm. on analog resistive network 24452
MRI reduced motion artifacts, spatio-temporal multiresolution reconstruction 35002
multimedia systs., image proc., Arizona State Univ. 8655
multiocular image seqs. for 3D TV, motion/depth estim. 32808
multiple image sens. integrat. 41111
multiple unknown objs. localisation/tracking 24665
multiresolution motion estim., wavelet transform 32836
μP meas. IS for params. of motion 3747
navig., affine struct. from motion 24609
neural net internal representation 41376
neurochip, opt. for image motion detect. 42853
noisy thermal IR image seqs., automatic small target detect. 16110
nonrigid motion anal. in 3D images, vibr. modes 24461
nonrigid motion recovery from stereo images 16176
nonuniform illum., motion field determ. 33094

motion estimation continued
nonuniform image motion estim., Kalman filter formulation 2849
obj. motion params. estim., Kalman filter *(Chinese)* 32805
occlusion reasoning for robust multiple car tracking 24455
opt. flow, probabilistic and seq. computation, temporal coherence 2728
opt. flow and discontinuities, determ., nonlin. diffusion 24625
opt. flow constraints, anal. 33130
opt. flow for autonomous navig. of moving vehicles 24449
opt. flow from 1-D correl., appl., simple time-to-crash detector 41082
opt. image sens., digital CMOS approach 42847
optical flow from 1D correlation, time-to-crash detector appl. 24715
paraperspective factorization method for shape and motion recovery 24610
pedestrian detect. based on rhythm of walking *(Japanese)* 41294
pel-recursion with integer estim. updates, non-interpolative kernel 2850
perspective views, 3, of 4 points, uniqueness 32927
phase-only multidimensional spatio-temporal anal. for moving sources 40995
physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
plane motion and struct. estim., necessary and sufficient conditions 41165
pose estim. using image, sens. and model uncertainty 41151
PRISM-3 real time image matching syst. 8549
pyramidal multiresolution source coding for progressive seqs. 16225
quadric ref. surface, appls. in registering views of complex 3D objs. 24634
radar imaging, automatic estim. and compensation of target kinematics 17392
rate-distortion optimized motion estim. archit., variable block matching 8570
real-time opt. flow estim. 24720
real-time stereo and motion integrat. for autonomous vehicle navig. 41241
recursive affine struct., motion from image seqs. 24459
rigid curves, motion field, appls. 24440
road vehicles, running speed estim., field image inform. *(Japanese)* 2628
robot vision, general learning algm. 8491
robust computation of optical flow in a multi-scale differential framework 24707
robust estim. for motion params. 41146
scalar fn. formulation for opt. flow, nonrigid motion of blood 24446
sea ice motion rem. sens., opt., automated method 10550
security appls., tracking and hierarchy 24539
security detector 42642
segmentation, vel. integrat., filter selection model 8659
segmentation of moving objs. by robust motion param. estim., multiple frames 24627
shape, surface reflectance, illuminant direction and illuminant intens. from images with shading 24571
shape from motion algms., scaled orthography and perspective 24456
shape memory from photomotion 16168
snowflakes, fall pattern anal. *(Japanese)* 2699
statistical regularisation and temporal integration framework for motion detection 24708
stereo image seq., unified motion anal. method 16145
stochastic approach for motion vector estim. in video coding 8497
stochastic motion clustering 24628
struct. recovery and motion estim. from stereo motion 16329
sub-scenes in video seqs., camera operations extraction 16082
successive elimination algm. for motion estim. 16317
survey, motion-based recogn. 32852
syst. for real-time video image compression appls. 41079
target motion anal., props./perform. 8280
target tracking, meas. selection validity improvement 17379
target vel. meas. from speckled images 16197
three point perspective pose estim. problem 33105
time-seq. sampled imagery based motion estim. 16312
time-space segmentation/motion estim. based on higher order stats. 32819
token correspondence, high-dimens. vector spaces 16244
tracking and motion class., switchable model Kalman filter 41144
tracking of objs., Kalman proc. for image seqs. 41334
transparent motions separation, filtering 16167
TV picture sig. conversion for progressive reprod. *(German)* 25656
two-stage fast block matching algm., integral projections *(Korean)* 24684
video annotation, representational frames 8552
video DSP, pipeline archit., MPEG2 CODEC 8664
video motion anal., planar parallax 8488
visual echo anal. of multi-frame optical flow 24717
visual human hand tracking 24607
visual motion estim., spatiotemporal computation 32952
visual motion transducers using gratings 24718
visual pattern image seq. coding 16945
VLSI archit. for motion estim. algms. 12580
VLSI proc., block matching algm. *(Korean)* 37789
VQ-based motion field segmentation under entropy criterion 16384
walking, cyclic motion detect./recogn. 16146
wide area surveillance, video image moving target detect. 41307
Si retina analog image proc. 776
act. camera self-orient., dyn. image params. 24611

motion picture photography *see cinematography*

motion planning *see path planning*

motivation *see human factors; human resource management*

motor drives
see also AC motor drives; DC motor drives; traction motor drives
1 hp ASD IGBT control device tests 28070
60 hp brushless doubly-fed pump drive, water treatment appls. 5431
15000 hp 6000 r/min ASD, petrochemical compressor appl. 5415
ASD, harmonics mitigation, IEEE 519-1992 stds. 5307
ASD perform. eval. by PC-based meas. 36652
brushless direct drive motor, robust speed control design 5287
brushless motor drives, high power, intell. interface 5271
brushless servo systs., motors/drives/posn. control, trends 28075
brushless variable speed drive network, diagnostic ES 11370
CAE computer program develops., former USSR 44455
cement indust., rotary kiln design criteria, clinker manufacture 5429
computer controlled dynamometer test syst. 36695
control automation R&D, Russia 44465
control design algms. 44454
controllable elec. drives, status overview, former USSR 44452
Diagnostika motor drive testing automation software 44469
digital control, graphic software designer appls. 36692
digital control systs. design 11383
direct drive lin./torque servomotors, appls. 11341
disk drives, PM spindle motor modelling 19581
doubly-fed brushless motor drives, pole no. model 5279

motor drives continued
drivetrain, tank propulsion/railgun power supply 20064
elec./diesel-elec. locomotives, bogie, traction motor drive 5333
external-injection fans, noise/power reduction tests 28178
ground recirculation parasitics in power ICs, protect. tech. *(English)* 30419
HDD spindle motor mech. testing, ANN 36210
high speed drives, energy/material savings 36672
high-starting-torque load motor drives, AFC appls. 20081
HV machines, condition monitoring, ScottishPower 36109
hybrid stepping motor drives, flux linkage meas. 5318
IEEE industry applications, conf., Denver, USA (1994) 10
intell. power IGBT modules, motor drive appls. 532
intelligent motion, conf., Dallas, USA (1994) 5506
inverter drives, meas. problems *(Polish)* 44491
iron rolling mill motor drive, random disturbance studies 11499
lin. step motors nuc. reactor control rod drives, dyn. characts. 20075
Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
mfg., design reliab. methodology 28076
microcontroller-based real-time speed meas. for motor drive systs. 36648
microrobot PM step servomotor drive, VSS control 11354
mine winder motor drives, digital control systs. 44645
motion control systs. develop., motors, drives, user interface 44440
MRAC design, integral compensation 44434
multi-motor uncompensated elec. drive, copper treatment line appls. 36636
μP-based motorised satellite antenna 2324
PM stepping motor drives, reverse rot. studies *(Japanese)* 11394
power electronics, drives and motors, conf., Taormina, Italy (1994) 28252
power IGBT short-cct. protection, motor drive appls. 29026
power systems, power electronics appls., Japan 35563
PWM invertor IGBT gate drive IC, eval. and appls. 5052
PWM rectifier/CSI motor drive, optimal design 11352
regulator/observer, multi-mass elastic obj. *(Russian)* 44436
residential ASDs, simplified control scheme 5397
robots, elec. drive testing, mech. simulator control 20060
rolling shutter, tubular motor ASD, control *(French)* 11333
salient-pole brushless motors, starting method 5286
sensorless brushless DC motor drive control studies 44474
servomotor drives, predictive posn. control design 28087
SIMSEN, power network/ASD simul. package 10608
single-chip microcontroller appls. 44460
slotless PM servomotors, design/control 19679
stepping motor drives, PC-based control syst. 44468
switched power harmonic filters, anal., appls. 19741
thyristor convertor-fed, math. modelling 11367
totally enclosed motors, hazardous locations appl. safety 19592
TW US motor, adaptive speed control 11089
TW US motor actuated servo drive, fuzzy control 11091
two-phase disc magnet stepping motor design *(French)* 11355
US motor actuated valve, direct drive fuzzy motion control 5284
variable speed drives, CASED educational software program 44442

motor industry *see automobile industry*

motor protection
see also AC motor protection; induction motor protection
core bal. ground fault protection 4894
explosion protection switches *(German)* 11203
induction motor vac. cct. breaker switching surge anal. *(Korean)* 27706
multifunctional inverse time relay protection, microcomputer based *(Chinese)* 4720
NEMA/IEC motor starters, protection, IEC Type 2 Coord. 4885
North American elec. motor market, German expert guidelines *(German)* 10940
petrochemical plant, elec./proc. control systs. integrat. 5410
solid state motor protective/control devices 4892
winding insulation, surge protection 4883

motorcoaches
PEM fuel cell, terrestrial/marine vehicle appls. 36741

motors, electric *see electric motors*

Mott insulator *see localised states*

Mott transition *see metal-insulator transition*

mouse controllers (computers)
multimedia computer-based teaching, case study 20315

movements, atmospheric *see atmospheric movements*

moving average processes
see also autoregressive moving average processes
8-kbit/s conjug. struct. CELP speech coder, perform. 33690
ATM enhanced exponentially weighted moving av. method 8731
blind ident./equalization of MA channels for QAM 8367
blind MA-syst. ident. based on higher order cumulants 32491
echo cancellers, acoustic transfer fns. modelling 32633
ident., modulated cumulants 24248
ident. of moving av. syst. from bispectrum 2542
local regression, optimized, moving av. case, computational methods 28590
parametric lin. models ident., cyclostationary inputs 40988
proc./chem. indust. SPC, correl. obs.-based 36998
Rayleigh fading channel, adaptive diversity receiver, error probab. 25263
room impulse responses approx. based on wavelet decomp. 15991
spectral factorization, cepstrum *(Japanese)* 11922

moving coil microphones *see microphones*

MPSK *see phase shift keying*

MPU *see microprocessor chips*

MQW lasers *see quantum well lasers*

MR imaging (biomedical) *see biomedical NMR*

MRI (medical) *see biomedical NMR*

MRP *see manufacturing resources planning*

MRP II *see manufacturing resources planning*

MSK *see minimum shift keying*

MTF (optical) *see optical transfer function*

MTL *see integrated injection logic*

mud *see sediments*

mufflers *see silencers*

multi-access systems
see also carrier sense multiple access; code division multiple access; cyclic reservation multiple access; demand assigned multiple access; frequency division multiple access; groupware; packet reservation multiple access; protocols; time division multiple access
adaptive multiuser detect., survey 24353
Aloha-type protocols for multichannel networks, destination conflicts 16504
anal. modelling device for distributed multiaccess protocols 41471
asymptotic capacity of multi-receiver networks 40530
asynchronous DS-SSMB commun. syst., TWT nonlin. distortion 25252
bandlimited orthogonal wavelet syms. 8347
BanyanNet—bidirectional equiv. of ShuffleNet fiber link 9447
broadband underwater acoustic commun. sigs., spatial proc. 8319
burst-mode receiver transm.-capacity penalty in all-opt. multiple-access networks 17198
Bus-Mesh wavelength multiplexed LAN, dyn. time slot allocation 34101
capacity evaluation of spread spectrum multiple access 8738
cellular commun., cyclic sigs. adaptive beamforming 3371
cellular digital packet data, perform. anal. 42271
cellular environ., resource auction multiple access 3348
cellular environ., resource auction multiple access 9291
cellular radio, adaptive SDMA 9350
cellular radio, syst. aspects 17112
centralised wireless commun. network, slotted idle sig. multiple access with collision detection 42230
channels, multiple-rate codes, capacity region 40597
CODENET, network for east/west European collaboration 16773
coding scheme for multiple-access adder channel 32190
communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
contention free multiple access, ad-hoc wireless networking 41885
Costas arrays for channel charactn./commun., decomp. 32610
DIVE, multi-user virtual reality system 16762
DS-SSMA, interf. effect on narrow-band commun. systs. 33748
DS-SSMA error probabilities calc., Gaussian approx. 33215
DS/FFH SS commun. syst., multiple access interf. 25245
FH-SSMA, adaptive retransmission control 16434
FH-SSMA, band-efficient modulations, cellular radio channels 25367
FH/SSMA systs., freq.-hopping seq. constr. 9173
frame reservation multiple access perform. anal. 33837
Gaussian multiple access channel, single-user decodable codes 40525
group randomly addressed polling for multicell data networks 8771
hard real-time commun. in multiple-access networks 33211
hazardous load road transport, radio monitoring syst. 9300
high dens. SDMA, double freq. reuse 25421
hybrid CCMA/SSMA coding scheme 8733
hybrid DS/FH SS syst. for mobile radio channel 3483
hybrid DS/FH-SSMA mobile radio syst. perform. and capacity anal. 33831
hybrid SFH-multitone DS SSMA syst., perform. 9172
IEEE MILCOM conf., Boston, USA (1993) 36897
incoherent freq. hopping multiple access systs., diversity combining 25311
instantaneous multiple access commun. system 16462
integrated networks partly obs., optimal access 16801
integrated voice/data mobile radio, design/perform. 17106
intelligent multi-access spectrum-sharing methodology 41467
inter-zone connection syst. for multi-channel access services *(Japanese)* 33898
K user union channel, multiuser syst. 40527
K-out-of-M multiple-access channel, source correl. 32007
M-Choose-T commun., multiple-access adder channel 32098
McEliece's open problem on min. aperiodic correl. 40611
memoryless multiaccess channel, multirate achievability 40528
mesh connected parallel computers, submesh allocation 41474
mesh-connected opt. multiple-access bus interconnects 1770
metropolitan microcellular radio environ. PRMA perform. 42194
MFSK signalling for RS coded freq.-hopped multiple-access commun. 2891
mobile radio channels, stack algm. 9294
moving picture inform., multiple access scheduling *(Japanese)* 8734
MSK multichannel coherent SCM lightwave syst. 17340
multi-cell direct-seq. microcellular systs., perform. eval. 33907
multi-channel/port traffic assignment fast algm. 8742
multi-LAN multi-order protocol, multicasting in distributed systs. 16705
multi-servicing opt. fibre network controller innovations 34089
multi-user inform. theory, std. convexity argument 40529
multimedia commun. technol. groupware appls. and trends *(Japanese)* 16907
multimedia PCN medium access control in mixed traffic environ. 41972
multimedia server for on-demand services 16832
multimedia servers, scheduling and storage struct. 3061
multiple-access arbitrarily varying channel, capacity region 24778
multiservice VSAT network, multi-access protocols 9417
multiservice VSAT networks, adaptive multiple access, dyn. channel allocation 17160
multiservice VSAT networks, multiple access protocols, perform. 42328
multiuser collaborative coding schemes, complex-value receiver 24779
multiwavelength fiber-amp. cascades for networks 9502
narrow band SSMA/multi-carrier high speed sigs., staggered superposed transm. *(Japanese)* 25209
narrowband microcellular speech transm. schemes 3332
on-board satellite SS correlator 25469
opt. fiber LANs, high speed, WDM multiple access protocols *(Korean)* 16476
opt. multiaccess star network archit. 42437
opt. space commun., second generation opt. terminals 34045
orthogonal FDM based syst. for multiaccess methods testing 9329

multi-access systems continued
parallel combinatory SSMA systs., Rayleigh fading channel, perform. eval. 25244
PCN design, SDMA adaptive array approach 25375
PCS, spectral efficiency of multitone freq. hopping syst. 9217
phase modulated FCMA syst. convolutional coding 25462
PRMA integrated data and speech transm. 41496
q-ary interleaved seqs., theory/appls. 32051
Rician fading nonco-operative multiple access channel capacity 41465
satellite commun. networks bistability issue 33972
satellite-to-land-mobile commun. systs., perform. 9210
SDMA for spectrally efficient commun. 17094
SDMA protocol, collision resoln. algm. 33269
secure Email gateway, RCAS external interface 8936
sig. packet network authentication assess *(Russian)* 16464
slotted ALOHA for high-capacity voice cellular commun. 3340
slotted freq.-hopped PRN, random/deterministic, anal. 17010
small aperture terminal data commun. *(Korean)* 25459
spectral efficiency of multiple access techs. 17065
speech stat. multiplexing, resource auction multi-access excess capacity 42200
SS commun., inform. theory aspects 24007
SSMA coded systs. combining FSK and PSK 33206
SSMA commun., evol. 24781
subcarrier multiple access PON, adjacent channels 42392
sync. DS-SS multiple access, acquisition based capacity 42168
sync. DS-SSMA, decorrelating decision-feedback detect. 42164
T-user q-ary multiple access permutation channel, transm. 40526
teletraffic theory in ex-USSR, Khinchin's papers 33223
time-varying channel, capacity region nonconvexity 41469
trellis-coded DS-SS commun. 17015
tunable channel multi-access network adaptive-cycle protocol 41495
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
VHF 3D cellular systs. for air-land commun. 25409
video channels, stat. real-time, over multiaccess network 16072
virtual cellular network, wireless commun. archit. 9280
WAN, wavelength requirements of all-opt. networks 16712
wavelength division multiple access networks, archit. 16527
wavelet-packet-based multiple access commun. 33202
WDM high-speed wavelength tunable liq. cryst. filter 42387
wide area video commun. network *(Japanese)* 42618
wireless integrated multiple access protocols 16501
wireless multimedia commun., adaptive rate multiple access 41991
wireless networks, variable rate speech coding 15830
wireless pers. commun., tree-search resource auction multiple access 9290

multi-databases *see distributed databases*

multi-user systems *see multi-access systems; multiprogramming; time-sharing systems*

multibeam antennas
22-GHz band satellite broadcasting multibeam antenna, breadboard model 3532
Alcatel commun. satellite antennas 23895
beam control techniques, IEE Colloquium, London, UK (1995) 11595
beamformers for space appls. 32002
dual-freq. corner-reflector antennas fed by parallel feed lines *(Japanese)* 8054
FDMA systs. using multi-beam satellite, optimal carrier freq. assignment *(Japanese)* 25448
Iridium satellite phased array antenna design 23953
Luneberg-lens antenna, update 40492
MM wave imaging aperture antenna feed array design and test results *(Russian)* 17428
mobile commun., adaptive antennas, digital beamforming 33914
mobile commun., DSP for digital multi-beam forming antenna 17068
mobile radio systs., microstrip networks for multibeam/reconfigurable operation *(English, Italian)* 42292
multiple contoured beam reflector antenna, feed networks 32001
radiation of multibeam antennas based on modified spherical reflector 40486
reflector antenna surface distortion EM compensation syst. requirements 23872
satellite prioritised nonblocking switch perform. under hotspot traffic 41412
semi-act. multimatrix reflector antennas 31934
shaped lens antennas for multibeam/scanning appls. 15648
single-reflector type wide beam-spacing multibeam antennas *(Japanese)* 15646

Multibus *see system buses*

multicast channels *see telecommunication channels*

multichannel analysers *see pulse height analysers*

multichip modules
2.4 Gbit single/multi fibre electro-optic transmitter 34031
2-phase stepping motor, PWM control, power FETs, multi-chip modules 27764
3D MCM, liq. cooling, miniature heat sink 29733
3D model constr., adaptive FEA, global/local anals. 29723
3D multichip packaging for memory modules 21753
3D polymer substrs., sputtered thin film metallization 12170
3D stackable MCM-D on C sig. proc. 21767
3D stacking MCM technol., GE HDI 21708
50 MHz multichip proc. module, flip chip technol. 21765
128 K×8 bit SRAM multichip package, fab. *(Korean)* 12504
act. mini-MCM daughterboard, opt. interconnect insertion, microelectronic systs. 11784
air jet impingement cooling of simulated MCM 37087
alumina ceramic substrs., MCM appls. 29732
area array interconnection, Cu-PI thin films on multi-layer glass-ceramic substr. 139
array module connector test program, UNISYS 21757
array probe card, micromachined, fab. proc. 20408
ASEM foundry, testing methodology 29731
ASEM MCM foundry, test methodology 6460
assembly, encapsulation, underfilling, proc. 37119
AT&T μSurface Mount Assembly, large vol. fab. of flip-chip MCMs 21705
ATM high-speed switching systs., MCM technols. 25182
ATM switching MCMs, heat-pipe cooling technol. 25183
ATM switching syst. hardware based on Cu-polyimide MCM, 320 Gb/s 16973
automobile smart sens., self-test and diagnosis 5364
autorouters, real world problems soln. 21763
B-ISDN ATM switching module, MCM-C technol. 25181

multichip modules continued
ball grid array ceramic packages 20449
ball grid array technol., develop. 5644
ball grid array/MCM technol., assembly proc. considerations 38178
bare board test program generation, self-learn/netlist methods 38083
BCB layers for MCM-D/L appls., attenuated refl. IR microscopy 12982
boundary scan testing 12975
BPDA-PDA polyimide in multilayer thin-film packages, dielec. anisotropy meas. 6464
brazed integrated low-temp. cofired ceramic packages 21766
buffer distrib. algm. for high-perform. MCM/VLSI clock net optim. 29335
bump-pad adhesion, thermocompression bonding effects 21668
bumped-substr. die-level burn-in carrier for MCMs, mech./elec. eval. 11772
burn-in experience, module testability 21699
burn-in/test systs. for IC/MCM manufacture, flexibility/modularity 11863
calorimetry at LHC, modular fault-tolerant approach 4237
capacitively coupled MCM 21755
capacitively coupled MCM, manufacturability 12968
categorization and appls., laminates and ceramics 955
CD3D constraint-driven 3D router thick film MCMs 21762
ceramic ball-grid-array packages, reliab./mfg. vars. 20450
ceramic substr., high capacitance 21715
ceramic-conductors, stress 21689
CFD thermal CAD technol. for electronic packaging thermal mgt. 11787
chip model library for integrated package/chip simul. 37081
chip service manufacture in countries *(Japanese)* 1462
chip sizing, syst. delay quality level maximization 12966
CIMID, electronic systs., high dens. integrat. 28458
coaxial SMD module connector for high-speed MCMs 6399
COB, single/double sided, Jedec stand., low cost 38189
COB encapsulation technol., stress anal., reliab., FEM 37077
COB sealed memory ccts., environ. perform. 21328
COB technol. for low cost MCM 21750
complex digital devices testing on 100 MHz tester 9796
complex MCMs test strategies 6461
computer building block, design and test 21697
concurrent MCM package design solns. 11780
conductive adhesives for assembly of SMT, fine pitch, MCMs and flip-chip bonding 37116
conference, Denver, CO, USA (Apr. 1994) 11562
crosstalk driven router 12965
custom design kits for cost-effective access, MCM foundry 21759
defect migration, structural test 21700
defects, algorithmic diagnosis, IEEE 1149.1 std. 21698
demountable TAB path for TAB technol., PCB design, reliab. testing 5640
design methodology, commercial electronic systs., MCM technol. 21787
design technol., review 6466
die attach systs. for hybrid/MCM assembly 38175
die mount methods for memory chip testing 38166
diffractive optics and CGH, opt. interconnects 31044
distributed baseband amp. IC module and MCM, 60 GHz bandwidth 6334
doubleface populated MCM in thin film technol. for HF appl. 21707
dual IEEE 1149.1 compliant multi-chip modules 6462
dual-sided MCM-L modules, wire bonding 21747
dual-use microelectronics mfg. spec., single/multichip packaging 20453
EDA tools and procs. 38194
EDA tools for high-speed digital PCB and MCM design, role of designer's intell. 28935
edge-cooled MCM, heat removal, substrs. comparison 21770
EDIF's emerging PCB and MCM std. 11779
electronic device trends in commun. systs. *(Japanese)* 41603
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
electronics mfg. technol., conf., Baltimore (1992) 11580
embedded chip MCM technol., nondigital extensions 21752
entry level MCM/MCP trade-offs and considerations 12973
epoxy resin, printing encapsulation syst., MCMs, PLCC, BGA, PGA, TAB, COB, flip-chips 20433
ES9000 multi-chip hybrid package, proc. modelling/design techs. 29716
excimer laser proc. syst. appls. *(Japanese)* 107
fine line cct. mfg. technol., electroless Cu plating 29680
fine line cct. mfg. technol., electroless Cu plating 12929
flex coating reliab., high-perform. MCM-PCB interconnection 12945
flex lead bending during thermal cycling, finite element stress model 12944
flexible SMD connector for high-speed data bus 38068
flip chip solder bumps, thermomechanical charactn. 29717
flip chip technol., known good die method 21732
four ASIC MCM-C, design for manufacturability 21712
France multi project chip service *(Japanese)* 1486
freq./noise budget limitations rel., CMOS chips integrat. 29718
General Electric HDI modules, MCM-D, reliab. 12980
genetic algm. based cct. partitioner 38197
global optim., concurrent engng. approach, space appls. 21743
GPS mixed-sig. receiver, MCM-L packaging 25610
HDI, laser created, quick prototyping of electronic ccts. 5676
HDI overlay struct., reliab. growth 29730
heat cond. anal., global-local procedure 37121
hierarchical multiprocessor archit. for video coding 33698
high dens. multi chip modules, direct num. simul. 21786
high dens. multilayer substr. for Si on Si high speed module 29719
high flux MCM config., liq. immersion cooling systs., substr. thickness 37103
high perform. Si/Si, low cost high vol. appl. 38191
high reliab. packaging, low stress epoxy resin 6469
high speed digital design using Spice controlled sources, accurate I/O models 20451
high speed digital interconnects, hierarchical simul., packaging simulator 5660
high speed VLSI interconnects, stat. anal., moment method 28442
high yield MCM, min. IC pretest 6456
high-G defense systs., HDI technol. 29725
high-perform. MCM, low cost design 11775
high-power flip-chip multi-chip modules, backside cooling soln. 11789
high-speed interconnect, laminate subst., dual C40 MCM 38186
high-speed MCM ATM switching syst. hardware technols. 25191
high-speed MCM using Cu/polyimide multilayer substr., B-ISDN 37080
high-speed MCMs, simul. of crosstalk 38198
HiPEC, high perform. elastic connection, reliable mixed sig. MCM device testing 21612
HTS/metal/polymer dielec. interconnect struct. for packaging appls. 11785
HTSC thin film interconnects, fracture strain meas. 12249

multichip modules continued
hybrid MCM, mixed interconnection considerations, wire bonding, flip chip and TAB 21709
hybrid WSI MCMs, laser creation of silicon vias for 3D interconnects 29720
I_{DDQ} built-in concurrent test for interconnects 6463
IBM MCM-D, polyimide dielec. material appls. 37542
IEEE/ACM conf. on CAD, Santa Clara, CA, USA, 1993 36906
immersion cooling by pool boiling of FC-86 38193
IMPS, interconnected mesh power syst. MCM topol. 21760
integral decoupling capacitors in IC/MCM packaging, simul. 12843
integrated flex, high perform. carrier technol. for MCMs 21720
intell. analyzer, thermal design tool 21785
interactive design aid for MCMs 21773
interchip radiative interconnection syst. 29724
interconnect considerations 38199
interconnected mesh power syst. MCM topol., elec. charactn. 21722
interconnected mesh power syst. MCM topol., elec. charactn. 12972
interferometric micropositioning, planar chip insertion 21727
International Test Conf., Washington, DC (Oct. 1994) 61
ionic salt photodefinable polyimides, MCM-D dielec., Cu metallization 21740
K_a-band phased array multilayer MCM design and fab. 23986
KGD, known good die, levels and effects, MCMs 12969
known good die, cost-effective design, MCM appl. 21677
known good die, universal membrane probe, MCM manufacture 21702
known good die prod. techs. 21728
known good die selection tradeoffs, cost model, MCM burn-in tests 21704
known-good die and MCM packaging aspects 959
known-good die testing, semicond. indust. implement. 5619
known-good-die, burn-in and test proc. 21679
known-good-die approach develop. 6454
known-good-die technols. 21676
large area fine line patterning, scanning projection lithog. 21686
large area fine line patterning, scanning projection lithog. 21717
large area MCM proc., cost implications 21682
large panel mfg., displays, PWBs and MCMs 21683
laser direct writing, 3D topographies 12979
laser induced vert. vias for prog. MCMs 21775
laser via ablation technol. for MCM thin film packaging 21772
latent open test in MCM-D/MCM-C substrs. 21733
liq. immersion cooled Si MCM, substr. thickness optim. 20440
logic modules, leaky wave antenna radiative interconnects 12970
low temp. cofired ceramic technol., mil. appls. 21768
low temp. cofired ceramics for MCMs, laser machining of cavities 21774
LSI chip mounting/packaging technol. *(Japanese)* 13857
LTCC internal capacitor, high reliab. , appls. 12967
LTCC MCMs, silver conductives, reliab. 29727
manufacture, assembly and testing guidelines 12964
MATRA DEFENSE develops., DSP fn., MCM technol. 21741
MCM-C, diffusion patterned vias, fine line printing 38188
MCM-C, four-ASIC, KISS principle based 21764
MCM-C develop., twenty-seven chip 20452
MCM-C package 3D interconnections by electron beam machining 958
MCM-C package for a multiprocessor digital syst., elec. design 21723
MCM-D, Cu/polyimid TFML bare substr., MCM 21742
MCM-D, interlevel shorts, mechanisms and reduction 12963
MCM-D, large format proc. 21685
MCM-D, low cost, large format fab. 21684
MCM-D, low cost, large format fab., photosensitive polyimides 21718
MCM-D, low cost fab., thin film transfer proc. 21719
MCM-D, low-cost, technol. choice impact 38190
MCM-D boundary scan techs., interconnect/functional testing appls. 21735
MCM-D cache SRAM products for workstation/PCs 21327
MCM-D fab., low cost, thin film transfer proc. 21687
MCM-D fast prototyping of superSPARC chipset 21756
MCM-D interconnects, perform., process var. effect 38184
MCM-D large format fab., mfg. procs. 21781
MCM-D open repair technols. 21724
MCM-D substr. fab., cost reduction approaches 957
MCM-D technol. for data commun. appl. 21744
MCM-D thin-profile packaging, small form factor appls. 21751
MCM-D with embedded thin film resistors, ECL gate array packaging 21706
MCM-L, Interconnected Mesh Power System 21696
MCM-L, laminate substr. current state 38192
MCM-L and SCM-L, high dens. laminate technols. 21693
MCM-L cost model and appl. case study 25180
MCM-L fab., through-holes, mech. punching 21694
MCM-L flip chip interconnection utilizing Au ball bumping 21782
MCM-L in APACHIP, European Cooperative Program 21745
MCM-L layout approach for high-speed problems 38187
MCM-L product develop. proc. for low-cost MCMs 21713
MCM-L product develop. proc. for low-cost MCMs 21749
MCM-L technol., systs. cost anal., automotive appl. 21736
MCM-L technol., systs. cost anal. for high vol. automotive electronics appl. 21716
MCM-L technols., myths/experiences in multiple product scenarios 21746
MCM-LD, photosensitive-BCB on laminate technol. 12978
mechanised assembly, competitive matrices 38181
membrane probe technol. for MCM Known-Good-Die 6455
metal capping of MCM thin film, laser 12977
metal/polymer interface durability, chem./water uptake 11817
mfg. test simulator, concurrent engng. tool 5597
microelectronic mfg. procs., design of expt. techs. 21674
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
MicroInterconnect Technology for redefining economics of MCM appls. 21710
microwave and MM wave packaging and interconnection for modules 37082
microwave MCMs, low temp. cofired ceramic 29728
mil. MCM packaging design and manufacture 29714
mini ball grid array MCM technol. 21780
miniaturization in telecomms. and workstations 38179
mixed-sig. MCM-L design, GPS receiver appl. 21691
mixed-sig. Si-on-Si MCMs, crosstalk noise 21771
MLC MCMs and SCMs, surface-mount arrays 29735
MMIC multilayer packaging technols. 21730
mother boards interconnecting MCM's 21758
motherboard technol. for active array opt. interconnection and packaging 23985
multi-chip carrier power hybrid, EMI study 21662

multichip modules continued
multiple coupled planes, inductance modeling, PCBs, MCMs and packages 20455
multiprocessor syst., elec. design 21754
multiway syst. partitioning under constraints, integer prog. 21042
nonhermetic coatings for MCM eval. 21737
obj. driven autorouting for PCBs/MCMs 12886
opens defects repair in MCM, diffusion bonding 21729
opt. profilometer, multiple virtual styli, IC packaging/interconnects 34337
optoelectronic MCM layout, phys. algms. and models 29712
package/module interconnect test syst., transient thermal sigs. 28440
packaging technols. 29713
PC materials technol., future IC packaging appls. 12880
peripheral/area array bonding tradeoff, partitioning advisor 38182
photoimageable thick films for MCM 21726
pick and place in electronic packaging, high precision, alignment techs. 29721
plastic encapsulated MCM technol., embedded chip 21725
plastic encapsulated multichip technol. for high vol. prod. 21721
plastic encapsulated multichip technol. for high vol. MCM prod. 12974
polyimide charring on thin film line deletes 12962
polyimide opt. waveguides fab., thin-film MCM proc. technol. 14490
polyimide substr. for Gb/s-class MCM-D/C 21784
polyimide thin-film on ceramic struct., MCM appls., thermomechanical stress anal. 20441
polyimides used in MCM HDI, charactn. 11748
power hybrid packaging for high power dens. ccts. 21779
power MCM technol. for high vol., low cost commercial electronics, plastic encapsulated 21777
PQFP-based MCM, low cost, reliab. develop. and qualification 28468
PQFP-based MCM, low-cost, reliab. develop./qualif. 6470
QRC, flyback approach, power multi-chip modules 37628
reliab. assess., integrated phys.-of-failure approach 28533
rework of wire bonded devices on MCMs 21680
ribbon/wire automatic bonding for hybrid and MCM assembly 38176
rigid-flex capability in high perform. MCM 21748
routing, evol. algm. 38200
satellite commun. appls. 29726
satellite equipt. packaging technols. 25452
second-generation SPARC proc. MCM, ROSS hyperSPARC archit. 21711
single-ended SMPS, control/switching, power MCM 29014
SM leadless solder connection, comparative compliance of commercial lead designs 5662
small planar packaging syst., card on board, high-dens. ATM switching systs. 28459
small via generation using modified TEA CO_2 laser based proc., PWB/MCM appl. 20447
smart substr. MCM, feasibility study 6457
SPC program anal., Hughes Aircraft MCM Operations 37039
SS-1 supercomputer cooling syst., 3D packaging config. 136
std. product MCMs for multiple customer usage in diverse appls. 6467
steady-state heat eqn., floating random walk algm. 5633
substr. manufacture, cost competitive appls. 21695
surface metall., solder flip chip, wirebond and TAB interconnections 21783
syst. level partitioning, adaptive method 28972
syst. partitioning of MCM for low power 29734
TAB, fine pitch, laser syst. 21670
TAB chip on MCM-D technol., review 38183
TAB tape-based known good die method for MCM systs. 21678
tactile sens., MCM technol., elementary autonomous cells 25827
TCC/MCM, μBGA on laminated substr. 21692
test trade-offs 6459
testing 12976
testing, IEEE 1149.1 boundary scan test 38196
testing methodologies overview 6458
testing strategy 6468
thermal anal., iter. direct soln. method 11768
thermal perform., finite element modeling techs. 21761
thermally conducting adhesives, thermo-mech. study 28496
thermoelastic anal., global-local procedure 28487
thick film MCMs, perform.-driven routing approach 29722
thick-film technol., diffusion-patterning vias for MCMs 956
thin film capacitor, MCM substr. 21690
thin film microstrip line dielec. thickness var. by TDR 38180
thin film multi-MMIC MCMs for microwave appls. 21580
thin film superconds., gamma-ray and fast neutron radiation effects 14276
thin film transfer process, low cost 38185
thin-film MCM, advanced micro-interconnection implement. 21681
thin-film MCM materials for high-speed appls., eval. 29715
through-plane thermal props. meas. of dielec. films 21738
transfer laminate cct. proc. for fine pitch wiring technol. 12971
transmitter/receiver modules, opto-hybrid technol. fabricated 31119
Unisys MCM experience and value of known good die 21701
unpackaged die for MCMs, die info. exchange format 21776
vision probing techs. for testing MCM and bare die 21734
wafer burn-in strategies for MCM die, BIST for KGD 21703
wafer-level burn-in technol., cost-effective technol. 21731
Ag/Pd thick-film conductors 29695
Ag-Au interconnects, transit. via fill material 30152
AlN ball/pad grid array MCM-C/D, elec. charactn. 21778
AlN stacked MCM using hot pressed, co-fired material, fab. 21739
Au-NiCr metallization, CVD diamond substrs., MCM appls. 12981
Au-Ti metallization, CVD diamond substrs., MCM appls. 12981
C-C composites, thermally conductive/CTE tailorable, MCM/PCB packaging 37146
Cr-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
Cu/photosensitive-BCB thin-film multilayer technol. for MCMs 21714
Cu/photosensitive-BCB thin-film multilayer technol. for high-perform. MCM-D 21688
Cu/polyimide MCM, embedded microstrip transm. line sig. characts. 6465
Cu/polyimide MCMs, microstrip interconnects, digital sigs. 29729
Cu-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
GaAs IC, ultrahigh speed pin-electronics and test station 6861
GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805
GaAs power multichip IC for cellular radio 42236
In-Sn based VLSI interconnections, solder joint reliab. 30146
PLZT thin-film decoupling capacitors for MCMs 29737
PLZT thin-film decoupling capacitors for MCMs and ICs 12842

multichip modules continued
PZT/Pt thin film decoupling capacitors, integrat. 21591
Si micromachined module platform for multiple opt. fibre I/O 23066
Si substr. MCM technol., sens. sig. proc./control 21769
Si substrs., Cyclotene 3022 coating adhesion, silane coupling agents 11818
SiC/Al metal matrix composites, SEM-E cores and MCMs 29736
Si_3N_4 plasma deposited coatings for sealed COB MCM technol. 12961
SiO_2 RIE, modelling using neural networks, ICs and MCMs 6656
$YBa_2Cu_3O_7$ coplanar transm. lines, eye diag., S-params. 1298
$YBa_2Cu_3O_7$ multilayers for MCMs, surface resist. simul. 38195
$YBa_2Cu_3O_{7-x}$ thin film, surface smoothing, MCM fab. 39252
multicriterion problems *see operations research*
multidimensional digital filters
see also two-dimensional digital filters
3D planar quadrantal and diagonal symm. based Winograd FT algm. 33024
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
biorthogonal m-dimens. two-band filter banks, realizability 40808
controllable multidimensional shaping filter synthesis for discrete-value Markov seqs. 29371
filtered EM algm. for joint HMM and sinusoidal param. estim. 24220
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
lin. trajectory filters, noise rejection perform. 8439
m-band bi-orthogonal multidimensional filter banks 29388
M-band filter bank, quantization compensation 33150
MRI restoration, multidimensional nonlin. edge-preserving filter 26330
NTSC or PAL color TV, digital Y/C separation 16231
perfect reconstructional multidimensional filter banks 8274
robust speech recogn., probabilistic optimum filtering 32309
separable-denominator multidimensional digital lattice filter 2545
multidimensional systems
3D obj. recogn. by hybrid Hopfield neural net 33028
3D planar quadrantal and diagonal symm. based Winograd FT algm. 33024
ATM stat. multiplexer multidimens. diffusion model 41431
bandlimited channel 8D 4-pulse 2-carrier signalling scheme 40547
block coded modulation perform. with time-correl. fading estim. 40549
circuits systs., symp., Chicago, USA (May 1993) 31
covariance estim. for multidimensional data 8285
decimation FFT algm. generalisation 37375
EM topol. attributes, modal estim. 15473
finite-dimens. continuous-time dyn. systs., nonlin. ccts. appls. 514
fusion devices, plasma spatial distrib., broadband reflectometry proc. 40977
intell. robust private networks, call proc. structural concepts 33631
transfer fns., continued-fraction expansion, inversion 5940
multifilamentary superconductors
see also superconducting tapes
Bean's model, homogenization in three dimens., transverse cond., coil quenching 39293
high T_c supercond. wires, elec. power appls. 27218
HTSC composite conductors, fab. and charact. 39240
multicoil adiabatic supercond. magnets, AC loss induced quenching 22769
normal zone propag. in Rutherford-type supercond. cables 27217
$(Bi,Pb)_{2+x}Sr_2Ca_2Cu_3O_{10+d}$/Ag, high temp. supercond. tapes, proc. 1602
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$ multifilamentary tapes, Ag-sheathed, AC losses 39217
(Bi,Pb)-Sr-Ca-Cu-O/Ag supercond. composite wires and tapes 14271
$(BiPb)_2Sr_2Ca_2Cu_2O_{10}$/Ag multifilamentary tapes and solenoids 1633
BiSrCaCuO/Ag supercond. coils, develop. and test 1629
Nb-Ti multifilamentary wires, artificial Nb pins, high field AC supercond. magnet 30804
Nb_3Sn fiber-reinforced superconds., thin film prep. *(Japanese)* 22721
NbTi multifilamentary wires, proximity-induced Cu-Mn matrices, upper crit. fields 30770
multigrid methods *see differential equations*
multilayer boards *see printed circuits*
multilayer ceramic capacitors *see ceramic capacitors*
multilayer perceptrons
see also feedforward neural nets
adaptive complex radial basis fn. networks, channel equalization 15889
adaptive filters, BP trained, stat. approach 2556
ATM networks, neural network traffic enforcement 16790
automotive engines, misfire detect., neural networks appl. 36779
bidirectional associative multilayer neural network, robust capability, hardware appl. *(Korean)* 29518
bone marrow smears, abnormal cell screening, automated image anal., spatial and freq. domains 43261
BP algm., analogue implement. 29435
chromosome class., neural net/Bayes method comparison 43204
class. fuzzy multilayer perceptron/partitioning 32678
CMOS VLSI implement. of modular ANN chip for character recogn. 6273
coded images, post-proc., unmasked noise, neural net cancellation 41061
commercial building cooling energy use, ANN modelling 36635
continuous speech recogn., expert-TDNNs/HMMs hybrid syst. 32398
CPM sigs. neural receiver 33913
cross-correl. neural network models 2490
cursive script recogn., time delay neural networks and HMM 32661
data storage channels, nonlin. equalization 7141
DC motor drives, supervised neural net-based control 11340
design algm. 8450
digital mag. recording, equalisation, nonlin. filtering and error confine. 7178
digital multilayer perceptron, FPGA implement. 6262
digital satellite channels, adaptive DFE, multilayer neural networks 25453
discriminative HMMs, non-lin. input transforms. 32265
discriminative nonlin. dimens. reduction 24055
dyn. feedforward supervised neural networks, perform. 8310
dyn. supervised neural networks, fixed pole IIR struct., perform. 8309
economics load dispatch, multilayer ANN training 27047
edge detect., multilayer neural net 16147
Eigenlips for robust speech recogn. 32433
elec. capacitance tomography, pattern assoc., neural network 3952
evoked pot. estim., multilayer perceptron appl. 18547
external wt. memory, VLSI implement., contour-shape recogn. syst. 6274
feedforward multilayer ANN, testability, behavioral approach 37917
feedforward neural networks and rejection of spurious patterns 32849
fetal QRS complex, detect. and classif. techs. 35091
FIR filter multilayer perceptrons, training algms. 8452
free-space matrix multiplier, diffractive/refr. micro-optics 7489
gearbox acoustic condition monitoring by neural net 34390
geographic map, colour image segmentation 41308
multilayer perceptrons continued
handwritten digit recogn., transform. of optimized prototypes 33039
hardware perform., structural design 29499
hearing perception, time-freq. neutral network layered model 15997
hierarchical clustering, neural archit. 33042
hybrid HMM-MLP speaker verification algm. for telephone speech 32247
hybrid HMM/MLP speech recognizer, linguistic, incorporation 32434
hybrid NN-HMM systs., model-discriminant training algm. 32435
image, class., robust by neural nets 16186
image compression, hybrid neural networks 16226
image compression, neural network approaches 24397
image segmentation, multiresolution probabilistic neural network 33034
impulsively loaded equipment, mechanical condition monitoring, neural networks appl. 11212
in-situ learning, analogue VLSP MLPs 29457
indoor radio, channel equalization, neural network techs. 17140
indoor radio channel, neural-based packet equalization 9307
induction motor drive vector control, neural net-based 5291
intell. opt. sens., multilayer opt. neural net, analogue VLSI 9938
intracardiac electrogram, low power, class. using analogue VLSI 35123
K-complex detect., multilayer perceptrons and recurrent networks 18544
land cover multi-spectral rem. sens. data classif. 35360
load forecasting, models comparison, fuzzy neural nets 19219
local motion detect., neural net internal representation 41376
machine olfaction, intell. odours sens. 25897
Mandarin neural network-based F0 text-to-speech synthesiser 2432
min. class. error, time-freq. masking filters optim. 32406
modular prog. neural archit., VLSI implement. 29506
multiple neural networks, reduced input dimens. 33036
multiplierless multilayer feedforward neural networks, hardware implement. 6266
multiprocessors, dyn. reconfig. pipeline archit. 12677
multisensors, neural estimators design 32658
myoelectric sig. recogn., fuzzy clustering and ANNs 35108
narrowband sig. extraction, neural net based scheme 2456
naval electronic surveillance measures radar fn. ident., ANN appl. 35392
neural network equalizers, perform. improvement 8308
neural network mapping, multiuser array beamforming 40907
neural networks, two-pattern class./feature selection 33038
NOAA images, class., multilayer neural network 4389
noise reduction, MLP based nonlin. spectral estimators 32378
non-cooperative ident. of ships, electrooptical data 9650
pattern class., optimal matching-score network 33035
pattern recogn. by multilayer neural nets and math. morph. 32887
PCB X-ray inspection, neural network classifiers 37162
PD pulse shape discrim., neural network paradigms 13944
power cable insulation PD pulse shape recogn., neural net-based 27207
power syst. daily load forecast, multilayer neural net-based *(Japanese)* 10708
power syst. daily load forecasting, neural net/regression anal.-based 19200
power syst. fault diagnosis, AI methods perform. eval. 19030
power syst. security assess. neural nets, perform. eval. 19134
power syst. short-ccts. calc., ANN appl. 19067
power syst. short-term load forecasting, neural net-based 19201
power transformer differential current anal., neural net classifier 19696
pseudo-segment based speech recogn. 32355
PSS, multilayer ANN appl. 43670
PSS, SMES-based, neural network-controlled 27030
PSS decentralized control, multilayer feedforward neural net-based 19100
PV array max. power neural tracking 36058
PV max. power tracking, neural networks 36589
PV power syst. max. power tracking, fuzzy neural net-based 19552
QR decomp. method of least sq., neural network algms. 33153
quantizer neuron chip, neuron model/neuroprocessor 12675
radar target recogn. schemes, neural networks 34157
rainfall estim., satellite imagery, hybrid neural net 43518
reconfigurable archit. mapping multilayer CNN paradigms 21500
residual VQ, multilayer competitive neural network 15718
rested/sleep-deprived EEG discrim. by ANN 43317
scalable completely connected digital neural networks 29443
seismic trace editing, fuzzy functional-link net 26712
short-term demand forecasting, neural network approach 4605
sig. detect. and class., perform. eval. 24341
sig. recogn., continual neurocomputer 40902
sleep EEG sig. proc., ANN appl. 35090
small obj. detect. by LMS filtering and multilayer perceptron 32898
speaker recogn. in tactical commun. 32287
speaker testing via neural network based syst. 9768
speaker-independent Mandarin plosive recogn. 24147
speech recogn., MLP probab. estimators, parallel training 8237
speech recogn., noise immunization, neural net 32437
speech recognizer stochastic trajectory model/discriminative 32436
spoken digit recogn., URAN VLSI chip 8203
surface reconstruction, robust BP 33058
sym.-by-sym. detector for lin. dispersive AWGN channels 16017
synaptic coeffs., simul. annealing and SPICE-PAC 21471
sync. generator stabil. pattern class., neural net-based 11006
target recogn., neural net based, MACE prefiltering 33048
telecomm. systs., neural networks appls. 41454
teletraffic syst., neural approach, perform. eval. 16789
TOTEM, digital proc. for neural networks and reactive Tabu search 29454
transient sonar sig. class., HMM/neural net 34178
voice conversion, formants transform., ANN 40730
vowel class. using neural predictive HMM, discriminative training 32432
word recogn., task independent and depend. training 32357
multilayers, compositionally modulated metallic *see metallic superlattices*
multilayers, magnetic *see magnetic multilayers*
multilayers, optical *see optical films*
multilevel logic *see multivalued logic*
multilevel logic circuits *see multivalued logic circuits*
multimedia communication
1/5-inch 270000 pixels color image sens. *(Japanese)* 3271
4-Mbit sync. DRAM for multimedia eqpt. *(Japanese)* 21298
100VG-AnyLAN, Ethernet/token ring frame inform., IEEE 802.12 technol. 41882
100VG-AnyLAN, network operation/real-time capabilities 33504
100VG-AnyLAN fast Ethernet std. 41815
access opt. fibre network, CATV/interactive multimedia appls. tv 34091
acoustic echo canceller develop. *(Japanese)* 42014

multimedia communication continued
- AD8600 series multimedia TDM *(Japanese)* 25155
- adaptive modulation/TDMA scheme for high capacity pers. multimedia commun. 9043
- advance reservation of network resources 16843
- agro-biotechnological teleworking commun. platform 41886
- application tailored protocol configuration, language support 33258
- application-driven approach to networked multimedia systems 33465
- asynchronous video coding for wireless transport 32187
- AT&T ATM switching-network products 16950
- AT&T PersonaLink, public network for smart agent PICs 41996
- ATM, multimedia and mobile commun. 33660
- ATM and multimedia appls. 33515
- ATM based multimedia servers 41965
- ATM broadband AIN control station testbed 41990
- ATM Canton switch, expt. infrastucture 42120
- ATM connection, traffic mgt., multimedia internetworking 25123
- ATM LAN, full-color real-time video broadcasting 16681
- ATM LAN syst., multimedia on demand appls. 16838
- ATM LANs, high-speed telecomms. technol. *(Japanese)* 33544
- ATM multimedia protocols, simplified QoS model 25101
- ATM network, service provision 16427
- ATM network variable bit rate MPEG video encoder characts. 41974
- ATM networks, high speed multimedia commun. archit. 25105
- ATM networks, multimedia appls., QoS selector 9075
- ATM networks, neural network traffic description 3240
- ATM queueing syst. perform., arrival law params. 33229
- ATM technol., elementary anal. *(Chinese)* 2866
- ATM technol., transit., advanced telecomm. networks 8824
- ATM technol. for CPN *(Japanese)* 25147
- ATM transport archit. for multiservices wireless PCN 17087
- ATM transport networks supporting multimedia traffic, optimal resource mgt. 16853
- ATM WAN, multimedia commun., routing problem 16892
- ATM-based network environ., media schedular for AAL 42039
- ATM-oriented multimedia LAN archit. 41806
- ATM/IEEE 802.9a isochronous Ethernet transport technols. 42015
- audio bridge for multimedia conferencing 16896
- audio support for sync. cooperative work 9072
- audio-IC technols., single vs multimedia solns. 25688
- B-ISDN, hyperdistributed switching syst. archit. 33588
- B-ISDN for video and high-speed sigs., modeling/optim. 9024
- B-ISDN signalling network, perform. params. 16787
- Bay Area broadband network testbeds and technol. 41995
- BERKOM multimedia mail teleservice 33658
- BERKOM multimedia teleservices 16856
- BERKOM MultiMedia Transport System 16888
- BERKOM-II FlowSpec, ATM mapping 9018
- binding archit. for multimedia networks 16872
- block-based simul. tool for TCP/UDP protocol enhancement 16513
- British Telecom's video on demand technol. 42580
- broadband multimedia communs., distrib. power archit. 44132
- broadband multimedia services, high speed access 42016
- broadband multipoint multimedia telecom. and computer supported collaborative work 42018
- broadband network evol. 8821
- broadband network services, archit. for high speed multimedia networking 25102
- broadband network services, distributed multimedia support-environ. 16870
- BT screenphone services in UK 42077
- buffer level control for multimedia playout sync. 16850
- business style creation *(Japanese)* 42022
- CAL, network-based, multimedia inform. mgt. syst. 8972
- campus directory, multimedia based, design 9048
- CATV network, digital telephone service *(Japanese)* 41709
- CATV network, high-perform. multimedia transm. 9740
- CATV networks, multimedia delivery on demand, capacity anal. 33652
- CDMA multirate radio interface implement. 42192
- CIO multimedia commun. platform 16857
- CIO multimedia commun. platform 16884
- CIO RACE-2060 initiative, multimedia mail services 25103
- client server multimedia on token ring 33439
- client server public network, multimedia appl. 16645
- CMOS low-power chipset for portable multimedia I/O terminal 9114
- co-operative software develop., distributed support environ. 25072
- CODE mesh VSAT network, protocols eval. 16515
- common LAN technologies for ATM connectivity 33442
- commun. network control archit., integrate service control and mgt. 25063
- commun. protocols, distributed multimedia appls. 9077
- commun. technol. *(Japanese)* 42038
- conf. scheduling service, multimedia, network support 16830
- conf. scheduling/voting facilities for multimedia conferencing syst. 3242
- conf. syst., FDDI sync. services 16812
- conf. syst. on TCP/UDP, FDDI 16819
- conference system on broadcast networks, design and implement. 33614
- conferencing network centralised and distributed control designs 41973
- conferencing protocols, ITU-T T.120 series 16881
- conferencing services in open distributed environ. 16862
- conferencing syst. and shared whiteboard, distributed multimedia appl. testbed 9071
- connection oriented protocols, ATM 16473
- constr. indust., multimedia product selector, X.500 directory service 9073
- continuous media networks, filter propag. in dissemination trees 8975
- cooperative work, obj.-oriented/hypermedia approach 33649
- corporate networks, multimedia appl. bandwidth 16908
- COST 226 project, network integrat. by satellite 42306
- CTA project, infrastructure for flexible dist. learning in Europe 16859
- DEDICATED's modular training syst., computer based teaching syst. 16860
- delayed conferencing, act. multimedia syst. 16802
- desktop audio sig. proc. methods and equipt. *(German)* 42649
- desktop computers, video commun. and presentation 16077
- developing countries, primary education, multimedia network 25114
- DFR std. for multimedia archiving teleservice 16865
- dial-up rem. access image database 16829
- dial-up X.400, APS alliance 25018
- digital movie systs., perform. bottlenecks 16841
- digital video display, Ethernet TCP-IP 16078
- display-based subscriber service trials and prospects 42078
- dissemination-oriented commun. abstraction, multimedia multicast channel 41531

multimedia communication continued
- dist. education, multimedia environ., computer-supported collaborative learning 11619
- dist. learning, digital video 41968
- distance learning environment and ATM, trial at University of Minnesota 33643
- distributed call proc. archit., design/implement. 9010
- distributed co-operative multiagent IN syst. 41976
- distributed connection manager, obj.-oriented interface 9057
- distributed multimedia computer network model 9045
- distributed multimedia computing, large scale multimedia server 41984
- distributed multimedia obj. services, media scaling 16844
- distributed multimedia syst. for commun. 41971
- distributed multimedia systs., software engng. tech. 41966
- dithering, fast source-based for networked digital video 16070
- DQDB behavioural simul., data and multimedia traffic 2917
- DS-CDMA, integrated voice/data wireless networks, grade of service 9364
- DS-CDMA for portable multimedia commun. appl. 25443
- DSP, multimedia ASSP *(Japanese)* 3261
- DSP OS modeling for multimedia appls. 3259
- DTM gigabit network, fast connection establishment 24805
- dyn. scaled multimedia data streams, network support 9078
- dynamic congestion control schemes in high-speed multimedia networks 33594
- economic and time-saving benefits 16836
- efficient multimedia satellite networks 41985
- electronic device trends in commun. systs. *(Japanese)* 41603
- electronic devices for multimedia equipt. *(Japanese)* 16935
- electronic museum syst. by multimedia database *(Japanese)* 42009
- ELPIDA, archit. for med. imaging supporting telemedicine appls. 43195
- EM education multimedia lessons 28286
- enhanced transport service, QoS Architecture 9076
- enterprise network develop. and mgt. prospects *(Japanese)* 16751
- environ. and pers. life *(Japanese)* 42020
- error concealment algms. for ATM videoconferencing syst. 9030
- ETHMICS multimedia commun. testbed 41977
- Eurescom IMS1 projects (integrated multimedia services, 1 Mbit/s) 16846
- European R&D activities in mobile multimedia commun. 9041
- European telecomms., towards more dyn. *(German)* 33322
- expandable ATOM switch archit. for ATM LANs 8970
- facility mgt. syst., multimedia technols. *(Japanese)* 42034
- fast Ethernet 8900
- fast motion estim. algm. for MPEG video coder 16195
- fibre channel technol., interoperable high speed connections 41793
- FITL powering, batt. reserve sizing calcs. 42066
- flexible commun. mgt. for multimedia multipoint commun. 25104
- flexible network characts. and develop. prospects *(Japanese)* 16570
- flow mgt. in quality of service archit. 25099
- FM subcarrier data syst., develop. *(Japanese)* 3649
- fn.-based commun. protocols 9074
- FR20 series high-perform. microcontroller for multimedia commun. *(Japanese)* 12581
- Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
- Fujitsu chip sets for ATM LANs, develop. *(Japanese)* 16736
- Fujitsu multimedia network, satellite distrib. syst. *(Japanese)* 42002
- Fujitsu multimedia teleconferencing syst. (VS-700SV) *(Japanese)* 42079
- full-motion digital video in Ethernet, perform. eval. 9049
- Galileo, real-time networks simulation/anal. tool 3074
- GCommS project, group commun. support for distributed multimedia systs. 16858
- global ref. mechanism for data objs., design and implement. 16510
- global store server, multimedia teleservice component 16869
- GRAMS distributed multimedia service syst. 16833
- graphics segmentation based coding of multimedia images 33097
- group communication protocol for large group 33644
- groupware, spatial workspace collaboration 41987
- handwriting proc. in indoor/outdoor environ. for multimedia 9063
- hard-of-hearing people, multimedia telephone 35179
- health care, secure multimedia appls. and teleservices 16855
- hierarchical video coding scheme, mean separated normalized VQ 33100
- high performance networking, conf., Grenoble, France (1994) 5496
- high speed inform. network planning, stochastic optim. 25109
- high speed network, multimedia commun. networking archit. model 33650
- high speed networks, two-level flow control scheme 8902
- high-dens. opt. disc and superresoln. head develop. *(Japanese)* 17587
- High-speed Distributed File System for multimedia commun. 9046
- high-speed multi-group commun. syst. *(Japanese)* 3246
- high-speed networks, large multimedia server, storage subsystem design 16834
- high-speed networks, link capacity allocation/network control 25129
- high-speed networks for multimedia applications, real-time performance 33475
- HIPERLAN, high perform. radio LAN std. 16653
- HMR, ATM-based medium access protocol for gigabit ring networks 24800
- HONET, integrated services WDM opt. network 16713
- HyperStation, distributed multimedia appls. platform 16889
- IBCN services for multimedia tourism appls. 16900
- IDEA project, broadband multimedia and collaboration tools 16885
- IDUN, broadcast multimedia syst. 25106
- IEE telecommunications conf., Brighton, UK (1995) 36830
- IEEE 802.12, Demand Priority and multimedia 16664
- IEEE 802.5 token ring LANs for multimedia traffic, priorities effectiveness 33441
- image commun., open distributed environ. 16864
- image commun. systs. *(Japanese)* 33647
- inform. society, networked multimedia 16901
- information superhighway technologies, conf., San Francisco, USA, March 1995 28233
- integrated appl./service platform for multimedia appls. 16893
- integrated commun. possibilities *(English)* 3233
- integrated services networks, sync. mechanisms 16874
- integrated video and data commun., dyn. quality and congestion control 24738
- INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
- intell. agents in multi-media systs. *(English)* 25125
- inter media sync. schemes 9054
- inter-media sync. in distributed and heterog. multimedia systs. 33641
- interactive CATV network 16845
- interactive multimedia environ., artificial animated community 9066
- Internet, multimedia services, distributed sync. protocols 3263

multimedia communication continued
Internet services *(Japanese)* 42031
interpolative VQ, high quality image compression 41970
intra-stream sync. by conditional dependency expressions 25098
IS for airports *(Japanese)* 10413
ISABEL, expt. distributed cooperative work appl., broadband networks 16863
ISDN, network based video storage, inform. retrieval 25111
ISDN, present status and future *(Japanese)* 9003
ISDN, transparent ATM LAN interconnection 16668
Japan's telecomms. indust., competition and regulatory reform 8811
JVTOS, platform for multimedia telecooperation bridging endsystem heterog. 16882
knowledge-based selector of multimedia commun. services 16902
LACE multimedia programme, ATM technol. 9050
LAN environ., audiovisual appls. 8941
LAN for multimedia traffic, priority commun. schemes 33651
large-scale LANs, interconnection via two-stage switching hub for multimedia appls. 33513
link capacity allocation by input power spectrum 33664
load balancing multicast tree approach for group-based multimedia applications 33645
load-adaptive/TDMA systs. perform., satellite networks appl. 9415
local computer networks, conf., Minneapolis, USA (1994) 20231
local pers. commun., archit. 25382
low bitrate appls., video coding scheme 16097
mail-based teleservice archit. for retrieving multimedia documents 16868
MARC, multimedia appl. for radiologist commun. 16910
media sync. protocols for packet audio-video syst. on multimedia inform. networks 16497
MediaSpaces for cooperation and commun. *(French)* 16807
MEGUMI groupware platform, multimedia E-mail 16839
MERMAID groupware platform, multimedia and multi-party desktop conferencing syst. *(Japanese)* 41947
MERMAID multimedia groupware platform, desktop conf. syst. 16805
MERMAID multimedia multi-party desktop conf. syst., groupware platform 9029
Metaring gigabit/s network under multipriority traffic 24802
MHEG coded representation for hypermedia IRS 16847
MHEG in std. messaging systs., complete multimedia mail 16867
MHEG multi- and hypermedia obj. interchange std. 41975
MICE project, security fns. for multimedia conferencing appls. 16854
microphone array for multimedia appls. 16899
MLAN Multimedia Local ATM Network archit. and perform. 16760
MMOSS soft real-time OS support in multimedia commun. subsystem 25121
mobile commun., trends and future prospects *(Japanese)* 33888
mobile multimedia commun., IN archit. 9035
mobile multimedia commun. network prospects *(Japanese)* 16906
mobile radio channel, still image transm., unequal error protection coding *(Japanese)* 42293
mobile service control point for intell. and multimedia mobile commun. 9042
mobile speech, video and data transceiver 3266
model-based image synthesis *(Japanese)* 25128
modern commun. and computers, multimedia techs., effects on society *(Chinese)* 11890
modern commun. technol. advancement, problems *(Chinese)* 3234
Mosaic, WWW and networked multimedia, learning tools 20342
MPEG2 appl. transm., ATM networks 16880
MPEG, technol. basis for multimedia appls. 41967
MPEG-2, ATM 33598
multi-wavelength transport networks 9451
multicast forwarding unified framework 8768
multicomputer routers, support for multiple classes of traffic 24856
Multimedia Chatting System on Ethernet LAN 16835
multimedia data streams, disc scheduling 16886
MultimETH, conferencing and joint editing syst. 9065
multiparty commun. support 16875
multiparty connection spec., resource allocation 33621
multipeer transport services 25097
multipoint control units for videoconferencing 33617
multipoint multimedia services, high perform. support 16877
multipurpose Internet mail extension protocol 33646
multiservice VSAT network, multi-access protocols 9417
multiservice VSAT networks, adaptive multiple access, dyn. channel allocation 17160
multiservice VSAT networks, multiple access protocols, perform. 42328
near-IR large-core high-bandwidth GRIN polymer opt. fiber multimedia network 42389
NEC, develop. of HyperROBOII/WINDOWSrobo *(Japanese)* 42094
NEC's PBX APEX1000/3000 *(Japanese)* 16963
NEC's view of multimedia *(Japanese)* 42019
NEC multimedia services, CATV network *(Japanese)* 42029
NEC multimedia services for med. systs. *(Japanese)* 42026
NEC multimedia services in central administrative offices *(Japanese)* 42027
NEC multimedia VAN services *(Japanese)* 42030
NECM multimedia services in mfg. industries *(Japanese)* 42024
Netfind, white pages tool for Internet, inform. gathering archit. appl. 3153
network distributed proc. technol. *(Japanese)* 16754
network layer scaling, congestion control in multimedia commun. 16878
network mgt. archit., distributed multimedia systs. 3270
networked interactive video and multimedia archit. 41978
networked multimedia, Medusa environ. 9067
networks, design issues and challenges 41998
news on demand for business, Nynex/Dow Jones 16828
newspaper, electronic publishing on Internet, network tools 16769
next-generation PCN multimedia traffic support 41979
NIFTY-Serve, multimedia related services *(Japanese)* 42006
Novell NetWare multimedia commun. syst., Microsoft Windows 33654
NTT's research activities on image devices for VI&P commun. 41988
NTT strategy for fast multimedia commun. 25119
OfficeMermaid, multimedia groupwork syst. *(Japanese)* 42033
online multimedia yellow pages appl. *(Japanese)* 42007
operations and mgt. (O&M) technol. for telecomms. 41664
opportunities for broadcasters 34205
packet switched networks for multimedia conferencing 9027
packet switching network, capacity assignment algm. 9040
PAGEIN project, networking issues 16728
partial-order transport service for multimedia and appls. 2920
passenger IS for Kansai International Airport *(Japanese)* 10412

multimedia communication continued
PC-controlled multiple window display card for TV 17552
PCN, client-server-based handover scheme 42247
PCN medium access control in mixed traffic environ. 41972
pers. commun. impact on multimedia teleservices 16866
pers. handy phone syst. for multimedia wireless commun. *(Japanese)* 25127
pers. multimedia systs. *(Japanese)* 33648
pers. video-on-demand, multimedia inform. caching 42586
Personal Telepresence, interactive multimedia workstation 16931
Philips Sopho ISPBX, VPN design/develop. 16972
planar lightwave ccts., opt. sig. proc. 39458
power station mgt., proc. visualisation and multimedia technol. *(German)* 19381
PRESENT, multimedia inform. broadcasting service 41992
presentation syst. *(Japanese)* 3272
prioritized distributed queueing random access protocol 33500
prod. mgt. syst., multimedia environ. 25095
protocol for multimedia appl. adaptation layer 16848
public domain syst. appls. *(Japanese)* 42021
QoS, end-to-end mgt. scheme 16585
QoS adaptation and flow filtering in ATM networks 16852
QoS negotiation for multicast commun. 16876
QoS negotiation for orchestrated, distributed multimedia presentation 25100
queueing syst. with Poisson and batch Poisson packet arrivals, traffic anal. 25107
RAMA, rem. access, museum archives 9069
rapid syst. visual prototyping 16898
rate-controlled service disciplines 33167
real-time data delivery for multimedia networks 33642
real-time in-door radio commun., antenna diversity *(Japanese)* 42180
real-time multimedia commun., transport protocol 25120
real-time multimedia commun., workstation support 9062
real-time multimedia services, sync. commun. protocols *(Korean)* 16840
real-time sync. control, multimedia segment delivery 16895
real-time video variable length decoding cct. using adaptive tree search, 162 Mbit/s 25131
reservation protocols for internetworks, comparison of ST-II and RSVP 8767
S-CDMA fibre optic systs., seq. designs 2892
Screencall PC videophone for desktop videoconferencing 24925
seamless acoustic environ. *(Japanese)* 42013
service creation/activation model 16894
service kernel for multimedia endstations 16842
service primitives for multimedia transfer protocol 9055
services for distrib. industries *(Japanese)* 42025
shared ephemeral teleconferencing state mgt. 16810
simul. of protocol conversion in multimedia networks 16909
single chip multimedia video proc. 21372
SkyNet, multicasting multimedia appls. of Internet 42041
slotted ring protocol for voice/data integrated network, perform. anal. *(Japanese)* 41512
software video, extended color cell compression 16851
speech/data integrat., real-time interactive, on LANs, multimedia in commercial indust. environ. 25066
ST-II connection-oriented internetworking protocol for Heidelberg Transport System 2901
stat. multiplex perform. anal. of multimedia sources 8732
Sticky conf. control protocol 41513
storage server design 16831
super high defn./super high resoln. digital image transm. 25116
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
sync. mechanisms, unified layered framework 16849
sync. model, appl. 41969
sync. scenario method for sync. anom. *(Korean)* 33663
sync. scheme 16883
systs. for financial organizations *(Japanese)* 42023
technol. groupware appls. and trends *(Japanese)* 16907
technol. significance for users/providers *(German)* 25126
tele-monitoring/computer-supported repair, multimedia syst. 42042
telecomm. config. implement. 9009
telecomm. equipt. air conditioning, power supply 44602
telecomms., ultra-fast self-routing networks 16532
teleradiology, image ref. database, WWW 9053
teleservices and high-speed archits., conf., Heidelberg, Germany (1994) 40
teleteaching multimedia syst. 5516
teleteaching syst. in university environ., expt. monitoring *(Italian)* 28344
teletutoring, trans-European ATM network 16861
telework environ., commun. media role 16897
terminal and human interface develop. trends *(Japanese)* 16936
terminals, syst. bus archits., perform. anal. 25153
text commun. via multimedia services for people, speaking disabilities 41981
time critical data communications, conf., London, UK, Dec 1994 5508
time stream Petri nets, model for multimedia streams sync. 9056
TINA-C archit., multi-media conferencing service 42017
TMN-based service control, Personal Communication Support System 41691
token ring LANs, multimedia support, multiple priorities, perform. 33653
traffic, loss/delay priorities, Markov-modulated fluid model 8694
transport and teleservices, conf., Vienna, Austria (1994) 44
transport protocol, high-level error control 9079
transport protocol for multimedia data transm. *(Korean)* 9051
transputers in multimedia teleconferencing syst. 25076
true progressive scan FT-CCD for multimedia appls., 640(H)*480(V), VGA compatible 25133
tunable channel multi-access network adaptive-cycle protocol 41495
TV systs. develop. w.r.t. LSI technol. 17532
two-way dual-view teleteaching syst., gestures/chalkboard 16890
universal multimedia switching archits., anal. 16837
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
universal personal communications, conf., San Diego, USA (1994) 20233
USA Nat. Inform. Infrastruct. project and video services *(Japanese)* 17575
variable-rate FEC perform. anal. for multimedia radio commun. 9044
VBR MPEG traffic in interactive appls., resource requirements 16879
VBR MPEG video, charact., modeling and multiplexing 33147
video decompression into arbitrary shapes, software based 16071
video dial tone, operation, set-top boxes and server 16930
video mail distribution system for networked personal computers 33613
video on demand server, design outline 42629
video on-demand services, multimedia server 16832
video response syst. based multimedia on demand *(Japanese)* 42008

multimedia communication continued
- Video Viewer interface design prototype for sharing video across, network 41997
- video-on-demand services *(Japanese)* 42032
- video/image recording technol. *(Japanese)* 34277
- VIF/SIF/PLL, TV sets/VCRs multistandard sig. detect. 42581
- virtual circuit/QoS routing architecture 2994
- visual commun. media trends and prospects *(Japanese)* 16905
- voice supported multimedia service on data commun. 9047
- VuNet, network architecture for distributed multimedia system 33444
- wide area video commun. network *(Japanese)* 42618
- wireless multi-access network multimedia service perform. requirements 41468
- wireless multimedia commun., adaptive rate multiple access 41991
- wireless network perform., multimedia traffic mgt. principles 25132
- World Wide Web network traffic patterns 33655
- World-Wide Web for Internet searching 41986

multimedia computing
- airport multimedia IS *(Japanese)* 10413
- ATM based multimedia servers 41965
- broadcasting appls. 34205
- CAL, network-based, multimedia inform. mgt. syst. 8972
- campus directory, multimedia based, design 9048
- CIO RACE-2060 initiative, multimedia mail services 25103
- civ. aviation flight decks and ATC, interface mgt. 26536
- client server public network, multimedia appl. 16645
- client-server network technol. and OS trends *(Japanese)* 16753
- co-operative software develop., distributed support environ. 25072
- collaborative appls., multimedia framework experience 9033
- commun. protocols, distributed multimedia appls. 9077
- computer-based teaching, case study 20315
- conf. scheduling/voting facilities for multimedia conferencing syst. 3242
- cooperative work, obj.-oriented/hypermedia approach 33649
- corporate networks, multimedia appl. bandwidth 16908
- data storage technol. *(Japanese)* 39505
- DEDICATED's modular training syst., computer based teaching syst. 16860
- delayed conferencing, act. multimedia syst. 16802
- desktop audio sig. proc. methods and equipt. *(German)* 42649
- desktop computers, video commun. and presentation 16077
- developing countries, primary education, multimedia network 25114
- dial-up rem. access image database 16829
- digital movie systs., perform. bottlenecks 16841
- digital video display, Ethernet TCP-IP 16078
- disk scheduling for multimedia data streams 16886
- distributed multimedia computing, large scale multimedia server 41984
- dithering, fast source-based for networked digital video 16070
- DQDB behavioural simul., data and multimedia traffic 2917
- dyn. scaled multimedia data streams, network support 9078
- elec. engng. continuing education in Malaysia, multimedia appl. 20298
- elec. engng. education, simul. modelling appl. 20299
- elec. power engng. education, multimedia impact 20303
- elec. undergraduate lab sessions, interactive multimedia syst. 20305
- elec./electronic engng., CBT products 20307
- electronic design, multiple media 20317
- electronic museum syst. by multimedia database *(Japanese)* 42009
- EM education, multimedia computing appl. 20313
- enhanced transport service, QoS Architecture 9076
- Ethernet, real-time traffic support 3178
- expt. virtual creature syst. *(Japanese)* 42005
- full motion graphics animation/TV images, lossless image compression scheme 41318
- GVIP, scalable high-perform. graphics proc. 21366
- high speed inform. network planning, stochastic optim. 25109
- High-speed Distributed File System for multimedia commun. 9046
- high-speed networks, large multimedia server, storage subsystem design 16834
- IBCN services for multimedia tourism appls. 16900
- image commun. systs. *(Japanese)* 33647
- image proc., multimedia IS, Arizona State Univ. 8655
- image proc./computer vision *(Japanese)* 32931
- InfoNet, networking infrastructure of InfoPad 33528
- inform. society, networked multimedia 16901
- interactive multimedia environ., artificial animated community 9066
- introductory-level ccts. learning, develop. of interactive tutorials 20301
- ISDN, network based video storage, inform. retrieval 25111
- JPEG picture retrieval in portable hypermedia documents 8602
- knowledge-based selector of multimedia commun. services 16902
- LACE multimedia programme, ATM technol. 9050
- LANs, protocol/interface 3192
- large-scale LANs, interconnection via two-stage switching hub for multimedia appls. 33513
- learner control in multimedia instruction in origami 9752
- MARC, multimedia appl. for radiologist commun. 16910
- MARS, large scale multimedia storage server, design 16904
- med., distributed multimedia patient data, Bermed Project 8942
- medical image capture, formatting and display, conf., USA (1994) 11570
- MEGUMI groupware platform, multimedia E-mail 16839
- MERMAID multimedia multi-party desktop conf. syst., groupware platform 9029
- metadatabase syst. for semantic image search 8473
- microwave expts., multimedia in teaching 28338
- MMOSS soft real-time OS support in multimedia commun. subsystem 25121
- modern commun. and computers, multimedia techs., effects on society *(Chinese)* 11890
- MPEG, technol. basis for multimedia appls. 41967
- MPEG video codec on single-chip multiprocessor 16939
- multi-std. video codec data flow proc. 25130
- multi-window full-motion video and graphics, memory archits. 17579
- Multicard, open hypermedia syst. 16662
- Multimedia Chatting System on Ethernet LAN 16835
- MultimETH, conferencing and joint editing syst. 9065
- natural-image proc. syst. *(Japanese)* 25776
- NEC multimedia services for med. systs. *(Japanese)* 42026
- network mgt. archit., distributed multimedia systs. 3270
- networked interactive video and multimedia archit. 41978
- networked multimedia, Medusa environ. 9067
- NIFTY-Serve, multimedia related services *(Japanese)* 42006
- Novell NetWare multimedia commun. syst., Microsoft Windows 33654

multimedia computing continued
- obj.-oriented user interface toolkit, adding digital video 34279
- online multimedia yellow pages appl. *(Japanese)* 42007
- open distributed environ. perform. considerations 41957
- opt. LAN technols. 8891
- OS/2 2.1 OS, digital video archit. 17576
- phys. lects., multimedia interact. 20310
- power syst. anal. and design education, computer appl. 20314
- QoS negotiation for orchestrated, distributed multimedia presentation 25100
- quality of service support for networked media players 33530
- RAMA, rem. access, museum archives 9069
- real-time multimedia commun., workstation support 9062
- real-time video proc. and video texture generation 24528
- Sanyo multi-gray-scale proc. LSI for TFT-LCD *(Japanese)* 669
- Screencall PC videophone for desktop videoconferencing 24925
- SH7600, RISC microcomputer for pers. commun./multimedia eqpt. 12582
- simul. of protocol conversion in multimedia networks 16909
- single chip multimedia video proc. 21372
- skeletal anatomy teaching, multimedia CD-ROM 43182
- solid-state device electronics demons., multimedia textbook paradigm 20300
- still video compression, DCT-based 8601
- storage server design 16831
- super high defn./super high resoln. digital image transm. 25116
- sync. model, appl. 41969
- teaching DSP via sound demons. software 28339
- TEAMSS Project, multi-level staff training, interactive videodisc use 25676
- technol. significance for users/providers *(German)* 25126
- telecomms. engineers, continuing professional develop. 33311
- teleradiology, image ref. database, WWW 9053
- text commun. via multimedia services for people, speaking disabilities 41981
- time stream Petri nets, model for multimedia streams sync. 9056
- TMN-based service control, Personal Communication Support System 41691
- transputers in multimedia teleconferencing syst. 25076
- two-way dual-view teleteaching syst., gestures/chalkboard 16890
- video decompression into arbitrary shapes, software based 16071
- video on-demand services, multimedia server 16832
- video response syst. based multimedia on demand *(Japanese)* 42008
- WESDA, multimedia expert system for wafer polisher maintenance 5566

multimedia systems
- *see also hypermedia; multimedia communication; multimedia computing*
- 2D kohonen neural network in multimedia speech recogn. 32448
- 10.4″ TFT-LCD module for 16.7 million color XGA *(Japanese)* 34636
- 18th conf., on local computer networks, Minneapolis, MN, USA, 1993 28220
- adaptive admission control algm. for multimedia servers 42001
- allocation strategies of multimedia data on disk arrays 42000
- ATM, link in ST-2 internet 8974
- Australian Broadcasting Corporation, technol. convergence implications 3652
- BALI, inhouse ATM and LANs/WANs for multimedia teleservices 41983
- business plans and develop. *(Japanese)* 25124
- car navig. equipt. for syst. upgrade *(Japanese)* 25613
- CCD based imaging systs., dyn. range maximisation 3893
- computational components for sync. cooperation on multimedia inform. 16871
- consumer electronics, conf., Hong Kong (1994) 5460
- cooperative working for end-users, MMTCA 41993
- copyright law and inform. services 9059
- corporate network mgt. *(Japanese)* 16715
- CU-SeeMe desktop videoconferencing software 41945
- decision making, visualization effect, AHP 16903
- develop. 9064
- develop. of Video-CD players *(Japanese)* 25682
- digital global library and inform. superhighway 3265
- digital IS, futuristic paperless syst. 34403
- digital video, interactive 9750
- digital video in PC environ. 9061
- digital video on PC, implement. and perform. 16076
- distributed multimedia, user perception/dyn. quality of service 16887
- DRAM based CMOS TV ccts. for advanced services/features 9706
- education, developments, courses conf., Washington, DC, USA (Nov. 1993) 36901
- education in computer sci., digital video delivery for digital library 17577
- ELVIS multimedia inform. syst. *(Japanese)* 42010
- ethnographic issues, multimedia prod. 9068
- ETS-V satellite workshop expt. 3528
- expt. virtual creature syst. *(Japanese)* 42005
- FIND2, multimedia/distributed inform. sharing systs., develop. *(Japanese)* 3264
- FIND2 multimedia IRS for white collar workers *(Japanese)* 41894
- FM TOWNS, multimedia tools *(Japanese)* 42011
- Fujitsu Multimedia Art *(Japanese)* 42012
- groupware for multimedia office *(Japanese)* 42004
- human interact. technol. *(Japanese)* 42036
- hybrid transform coding, videotelephony on PC 16093
- hypertext mathematics, multimedia interactivity 25112
- IC mfg. productivity improv., DVI-based perform. support syst. 30404
- ImagineDesk, software platform supporting cooperative appls. 16891
- imaging systs., present trends/future *(Japanese)* 25657
- indust., impact of multimedia 33659
- inform. services for municipalities *(Japanese)* 42028
- Informedia project, digital video access 16254
- intell. peripheral prototype syst., design and implement. 3252
- intell. video camera, serial control interface 9754
- interactive education, CD-ROMs and WWW 8895
- interactive LCD projector, multimedia presentation syst. *(Japanese)* 3260
- interactive multimedia 9052
- Internet, multimedia fax-MIME gateway 8943
- LACE multimedia programme in Oxford 9070
- LANs, internetworking and multimedia, present and future *(Japanese)* 8881
- liq. cryst. display technol. *(Japanese)* 42879
- marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
- marketplace pot. 25110
- markets, network evol. and stds. 25113
- med. phys. course, imaging/instrumentation 43183
- mission effectiveness increase, electronic performance support systems 42729
- motion compensated visual pattern image seq. coding 16945
- motion JPEG digital video storage, retrieval, and edit 16357

multimedia systems continued
- multi-std. video codec data flow proc. 25130
- MultiG research programme, distributed multimedia appls. on gigabit networks 42040
- Multimedia Forum, integrated digital inform. service 9060
- NEC recogn. technol. *(Japanese)* 42037
- NEC video compression technol. *(Japanese)* 41352
- Neo-Aquarium *(Japanese)* 42035
- networked delivery of multimedia resources, academic community 25117
- networked multimedia 33661
- networks, design issues and challenges 41998
- NPP, operator interfaces, multimedia 35783
- NTT Learning Systems Corporation, multimedia technol. in global market 41592
- obj. based archit. for digital compression camera 33620
- open and dist. education, interactive multimedia uses, emerging trends and develop. 20274
- oracle media server framework 33423
- PA-RISC μP for accelerating multimedia 37784
- parallel accel. syst. for low level library 33657
- parallel opt. inform. proc., appl. *(Japanese)* 32853
- PCB CAD drawings, electronic filing syst., LOCUS *(Japanese)* 475
- pers. shopping assistance, indoor wireless syst. 33558
- photographic image coding, methods and appls. *(Italian)* 2804
- power supplies 41994
- power syst. load dispatching tech. IS 19096
- power syst. operator training, Kytken multimedia training syst. 19164
- pre-scheduling mechanism for multimedia presentation sync. *(Korean)* 25122
- primary schools, Chilean network, multimedia messaging 41982
- priority encoding transm. 9080
- prog. genlocking video ADC for multimedia appls. 9113
- QoS and media sync., formal description tech. 16873
- random access on real time retrieval of digital continuous media 41999
- realtime MPEG video via software decompression on PA-RISC proc. 33656
- rem. multimedia presentation syst., pointing stick 9028
- rem. seminars, multimedia conferencing, MICE project 25118
- satellite commun. systs., preliminary study 3519
- scalable video server elements for multimedia systs. 33662
- scheduling and storage struct. of multimedia servers 3061
- SOAPP software, advanced power plant design 43921
- stds., Open Information Interchange 9058
- still video compression, DCT-based 8601
- storage and recording systems, conf., Keele, UK (1994) 11550
- swing restored pass-transistor logic based multiply/accumulate cct. 29110
- telecomms., ES/interactive multimedia technols. 3262
- teletutoring, BETEL network 25115
- teleworking/telelearning 3064
- Texas Instruments Multimedia Video Processor for DSP appl. 25108
- TFT act. matrix color LCDs, tech. trends and product line-up *(Japanese)* 3935
- TX-2000 multimedia multiplexer, digital network *(Japanese)* 25176
- university teaching profession, multimedia in context 20273
- US Army IETM develop. 35417
- user interact. with multimedia, multiuser systs., conferencing tools 41980
- video authoring, user models for intell. multimedia 41989
- video layout strategy eval. on high-bandwidth file server 16666
- virtual cybercampus, med. education appl. 25096
- workstations, elec. protection 43798

multimedia terminals *see multimedia communication; multimedia computing; telecommunication terminals*

multimeters
- *see also digital multimeters*
- high-power-level microwave multimeter 9972
- microwave multimeter, four-probe microwave transm.-power transducer 10008
- microwave multimeter and operating algms. 10007
- power std. improvement, microwave multimeter 9785
- specs. and cct. perform. 42657
- touch/step voltages meas. method/instrum. 4710
- waveguide thermistor sens. for microwave multimeter 9869

multipath channels
- *see also fading*
- 1.8 GHz mobile radio propag. meas. in mountainous areas 33784
- 1.9 and 4 GHz exterior wall refl. coeff. meas. 31820
- 4 GHz 88 km overwater digital radio link perform, characts. 42184
- 15 GHz LOS multipath propag. expt. 31815
- 18 GHz band wireless LAN, indoor multipath radio propag. 8930
- 40 GHz indoor opt. fibre SS PCN/LAN expt. 33818
- 60 GHz indoor wireless commun. systs., multipath meas. 8932
- 60 GHz intervehicle channel model 33797
- 864 to 868 MHz portable telephone indoor propag. loss anal. 33776
- 1890 MHz delay spread meas. in Melbourne 3407
- adaptive beamformers based on cyclostationary sig. props. 8353
- adaptive blind diversity combining for antenna arrays 31978
- adaptive channel equalization, perceptrons, inform.-theoretic approach 32027
- adaptive equalization for multipath fading environ. 3429
- adaptive modulation/TDMA scheme for high capacity pers. multimedia commun. 9043
- adaptive reduced-state channel equalizer, T-algm. 9302
- angle of arrival estim., neural network 8407
- antenna heights effect on multipath propag. occurrence 31839
- ARAKE type receiver struct. for narrow band wireless systs. 15955
- beam space adaptive array antennas, transmitting null beam forming 15665
- beamforming, multipath/CCI sigs. separation 31979
- BER, influence of multipath propag. *(German)* 23635
- blind adaptive array proc. methodology 9165
- blind adaptive array simul. for realistic mobile channel 33795
- blind adaptive beamforming and equalization 9228
- blind clustering equalizer for digital mobile radio channels 3432
- blind equalization based on Nakagami fading index, cost fn. 3430
- blind identifiability 24290
- blind spatio-temporal equalizer for radio-mobile channel 33937
- broadband channel modelling and perform. anal. 33849
- broadband underwater acoustic commun. sigs., spatial proc. 8319
- broadcast multipath environ., multicarrier modulation perform. 34224
- CDMA, CCI, spatial/temporal filtering 25234
- CDMA autonomous multipath diversity receiver 25440

multipath channels continued
- CDMA cellular network, forward link perform. 25366
- CDMA cellular networks, antenna arrays, downlink perform. 17093
- CDMA cellular radio, freq./time division duplex techs. 25371
- CDMA cellular syst., forward link multipath propag. 33885
- CDMA cellular systs., concatenated RS/convolutional coding 9358
- CDMA cellular time division duplex syst. capacity 3356
- CDMA for terrestrial/mobile satellite commun. networks 17049
- CDMA indoor microcellular mobile syst. 9204
- CDMA lin. fractional spaced equalisation interf. cancellation 8740
- CDMA microcellular systs., channel models 3419
- CDMA mobile radio, joint detect./coherent receiver antenna diversity 25364
- CDMA mobile radio schemes, modeling/perform. 25373
- CDMA mobile radio systs., multi-user detect. equalizers 9237
- CDMA multicarrier syst., CCI cancellation 9215
- CDMA overlays of narrowband waveforms, interf. suppression 25355
- CDMA rapid acquisition schemes in multipath delay fading environ. 33208
- CDMA syst. meas.-based perform. anal. in multipath fading 33791
- CDMA systs., multipath delay/fading 3473
- CDMA systs., multistage RAKE receiver 9242
- cellular base station phased array antenna syst 33794
- cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
- cellular systs., adaptive array base station, spectral efficiency 17062
- cellular TDMA networks, cochannel interf. simul. 17060
- chirp SS techs., multipath interf. suppression 25250
- code sync., principles/techs., review 25236
- coded direct-seq. systs., rake reception, multipath fading 33905
- decision-directed SS-RAKE receiver for fast fading mobile channels 9233
- DECT channel error profiles 3123
- digital cellular syst. radio link protocol throughout perform. 33799
- digital commun. systs. degrad., multipath environ. 3412
- digital LOS links, diversity considerations, review 3330
- digital mobile radio, adaptive arrays, fading correl. effect 3343
- digital mobile radio systs., anti-multipath modulation techs. 17075
- digital multipath wireless channels ident. in interf. 9303
- DPSK microwave link for indoor wireless LANs, perform. 33759
- DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
- DS-CDMA, integrated CCI cancellation and decoding, fading multipath channel *(Japanese)* 25276
- DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
- DS-CDMA mobile radio, sliding window decorrelation, anal. 25283
- DS-CDMA mobile radio syst., coherent reception, channel estim. 9229
- DS-CDMA syst. in multipath fading mobile channel, Rake reception 9234
- DS-SS commun. multipath diversity combination 42196
- DS-SS digital diversity receiver for multipath fading channels 25436
- DS-SS overlay for satellite commun. syst. 33971
- DS-SS RAKE receiver, ASIC implement. 9191
- DS-SS sigs. time division duplex transm. 9203
- DS-SS syst., RAKE reception, multipath fading, perform. 25446
- DS-SS/QPSK systs. for multipath channel, adaptive equalizer *(Japanese)* 25212
- DS-SSMA commun. in Nakagami fading channels, path diversity 9345
- DS-SSMA diversity commun. in fading channels, error perform. 3357
- DS-SSMA indoor cellular radio perform. 25370
- DS-SSMA multitone syst. in multipath Rician fading channel 16463
- DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
- DS/CDMA, M-ary orthogonal modulation in multipath fading channels 8736
- DS/SS CDMA slotted access channel perform. anal. 9293
- F-TDMA/CDMA cellular systs. perform. eval. 33838
- fading channels simul., Monte-Carlo method 15683
- fading ISI channel TCM detect. by sequential deq. estim. 40548
- freq. domain filtering for Gaussian seqs. generation 40978
- freq. hopped sigs., radiometric detect., multipath fading effects 25269
- freq. hopping simulator for multipath mobile channels *(French)* 3361
- freq. non-selective channels seq. estim. 8384
- freq.-selective fading channel, differential detect. 2217
- freq.-selective fading mobile radio channel, capacity eval. 17066
- frequency-selective fading channel orthogonalising simulator 40343
- fuzzy logic handoff algm. perform. anal. by indoor propag. simulator 33819
- GPS automatic depend. surveillance of aircraft, spontaneous mode S broadcast messages 4377
- GSM coverage estim., 900 MHz multipath meas. 9320
- guard interval in orthogonal FDM, multipath channels 2885
- high speed indoor wireless systs., directional antennas 3329
- hybrid DS/FH SS syst. for mobile radio channel 3483
- hybrid SFH-multitone DS SSMA syst., perform. 9172
- IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
- incoherent and skewness matched filter detectors, multipath environ. 24174
- incoherent freq. hopping multiple access systs., diversity combining 25311
- indoor mobile commun., CCI and multipath delay 17098
- indoor multipath channel real-time emulation, FIR models and ACT technol. 31824
- indoor radio, channel equalization, neural network techs. 17140
- indoor radio channel, neural-based packet equalization 9307
- indoor radio propag., multipath charact. for shielded building *(Japanese)* 23626
- indoor radio propag. channels phase modelling 9177
- indoor radio propag. model based on ray tracing and integral eqns. *(Japanese)* 23625
- interf. cancellation syst., pilot sig. for radio channel estim. *(Japanese)* 25278
- interf. suppression cct. 40382
- IQ filter struct. for use in adaptive equalisation, LTE/DFE, digital commun. 3313
- L-band multipath fading for land mobile satellite 25299
- L-PPM modulation, non-directed indoor IR channels, perform. eval. 17244
- land mobile radio multicarrier coded 16QAm syst. 33780
- land mobile satellite commun. channel, M-ary FSK perform. 25401
- M-ary wideband commun. syst., multipath channels appl., perform. 17019
- macrocellular PCS propag. channels, 1850-1990 MHz band 31836
- MLSE receivers, trellis codes for multipath fading ISI channels 8447
- MM-wave indoor high-capacity transm. charact. *(Japanese)* 7987
- mobile channels, simul./modelling 3410
- mobile commun., delay lock loop, delay path cancellation *(Japanese)* 25274
- mobile multipath channel, bit-rate selection, beam tilting effect 33878
- mobile packet radio LAN idle sig. casting multiple access with failure detect. 41821
- mobile radio postdetection diversity/concatenated channel coding 3341

multipath channels continued
  mobile satellite commun., MFSK/DPSK sigs., cutoff rates 25301
  mobile satellite systs., freq. reuse, interf. anal. 9212
  MPSK (un)coded transm. on multipath fading channels 9169
  MSK transm. over dispersive radio channel, error mechanisms 17120
  multi-mode OTHR data, model based data fusion algm. 9638
  multicarrier modulation impulse noise mitigation strategies 40561
  multicarrier transm. tech. in cellular systs. 9216
  multichannel FIR filters, blind ident., subspace methods 32559
  multimedia radio commun., variable-rate FEC perform. anal. 9044
  office building, propag. charact. meas./freq. reuse 9322
  orthogonal CDMA for mobile satellite commun., perform. 25310
  orthogonal FDM for mobile radio 9214
  pers. commun. systs., propag. channel model 3415
  pers. wireless commun., antennas charactn. 17129
  personal commun. syst. design, site-specific propag. modelling 33822
  pilot sym.-aided tech., digital sigs. in multipath environ. 9366
  pilot sym.-aided transm. for satellite/terrestrial mobile systs. 25403
  prog. blind adaptive spatial filtering 40917
  prog. canonical correl. anal. for blind adaptive spatial filtering 9167
  QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
  QPSK TDMA digital radio link, analog FM interf. 33841
  radio channel stat. charact., expt. eval. *(Italian)* 9688
  radio channel transm. with multichannel modulation 32034
  radiocommunications medium, novel study 17117
  RAKE receiver, mobile multipath fading channel, channel estim. 42268
  Rake receiver archit., perform. 25264
  RAKE receiver implement. of CDMA power control mechanism 25439
  RAKE receiver over multipath fading channel, CDMA perform. anal. *(English)* 17082
  real-time in-door radio commun., antenna diversity *(Japanese)* 42180
  recurrent ANNs, adaptive equalizers in digital commun. 32585
  recursive const. modulus algm. for real-time array proc. 8352
  reduced-state soft decision feedback Viterbi equaliser 3425
  rural communication in multi-path channels, spread spectrum appl. 9189
  satellite digital broadcasting using sync.-CDMA, multipath channels 33952
  SDMA for spectrally efficient commun. 17094
  sector antenna/DFE modems for indoor radio commun. 3167
  shallow water hydroacoustical commun. channel, data protection codes perform. 32015
  short range radio link, propag. charact. 9224
  short-block digital transm., adaptive MLSE for mobile radio 3427
  smart antenna appls. in mobile commun., const. modulus factorization 32465
  SS-CDMA PCS in-building systs., distributed antenna 9231
  subsea acoustic rem. commun., adaptive receiving beamformer 9613
  switched pattern diversity antenna comparison 33793
  systematic TCM in coded modulation 8093
  TCM for equalized multipath fading ISI channels, perform. 25340
  TCM perform. for equalised ISI channel 32084
  TDMA digital cellular commun., adaptive channel equalization 42267
  TDMA portable radio channel uplink power control algm. 42197
  time-delay estim., least-sq. algm. 2491
  time-variant multipath channel, simul. 33847
  transient sigs. detect. in multipath environ. 40888
  trellis coded 16 QAM/TDMA, space diversity combining, multipath fading *(Japanese)* 42172
  trellis coded CPFSK, coherent detect. on phase jitter channels *(Korean)* 33922
  TV receiver network echo-sig. protection 3667
  two-posn. radar, low-flying target detect. and height meas. 17377
  UHF DOA inside/outside buildings 9312
  underwater acoustic channel simul. for commun. 17358
  underwater acoustic commun., multipath effects 9614
  underwater acoustic commun. digital receiver 17359
  underwater acoustic data commun. link adaptive equaliser 9612
  underwater high data rate transm. equalizer 9611
  urban microcellular environ., time dispersion meas. 3408
  vehicle-to-vehicle commun. for AVCS platooning 5354
  vehicular scatt. effect on mobile commun. 9308
  VHF/FM sigs. blind adaptive equalization by symm. tuning 17004
  Viterbi algm. multitrellis decomp. 40558
  wide band indoor channel sounder, high delay resoln. 9178
  wideband commun., reciprocity based channel compensation 9665
  wideband microcellular environ., multipath propag. 3409
  Wigner distribution of complex spreading sequences 9188
  wireless commun., filter struct. for equalization and diversity combining 33875
  wireless LAN, high perform., implement. 25058
  wireless LAN MAC protocol selection for indoor environ. 41818
  X-band LOS multipath fading and vert. drift vel. 17027
multiple beam antennas *see multibeam antennas*
multiple frequency shift keying *see frequency shift keying*
multiple phase shift keying *see phase shift keying*
multiple processor systems *see computer networks*
multiple quantum well lasers *see quantum well lasers*
multiple quantum well structures *see semiconductor quantum wells*
multiple target tracking *see target tracking*
multiple valued logic *see multivalued logic*
multiple valued logic circuits *see multivalued logic circuits*
multiplex transmission *see multiplexing*
multiplexed analogue component system *see television standards*
multiplexers *see multiplexing equipment*
multiplexing
  see also demultiplexing; frequency division multiplexing; space division multiplexing; subcarrier multiplexing; time division multiplexing; trans-multiplexing; wavelength division multiplexing
  10-Gbit/s smart opt. terminal digital-video distrib. syst. 17222
  A-M-S type fluid queue output 33232
  AFIT multiplexed multi-electrode array and implant. package for neural recording and stimulation 35089
  ALWR plants, integrated digital instrumentation and control *(Japanese)* 4771
  angle-/wavelength-multiplexed image plane holograms, cross talk 2136
  ATM backbone, frame-relay traffic 41439
  ATM call admission neural control 41450
  ATM cross-connect syst., archit., develop. and field trial 3294
  ATM multiplexer, correl. real-time and independent non-real-time traffic 24752
multiplexing continued
  ATM multiplexer loaded by CBR, queueing anal. *(Korean)* 24772
  ATM multiplexer output busy/idle periods for homog. ON/OFF sources 33233
  ATM networks, adaptive call admission control 41436
  ATM networks, credit-based flow control 2881
  ATM networks, indiv. VC shaping 33235
  ATM networks, multiplexing for cell delay var. 16441
  ATM networks supporting time-crit. traffic, optimal resource allocation 24748
  ATM source worst case anal., broadband multiservice network appls. 33195
  ATM terminal adapters, interleaved/non-interleaved pipelining 33587
  ATM traffic source multiplexing 33193
  ATM transport networks supporting multimedia traffic, optimal resource mgt. 16853
  ATM worst deterministic pattern allocation 8710
  automobile control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
  B-ISDN, large deviations approx. for fluid queues fed by on/off sources 41929
  B-ISDN, queues, total recall 33603
  B-ISDN parallel opt. transm., line-coding proc. based on multiplexing 9520
  biquad high-order SC filters, multiplexing tech. 6220
  CDMA opt. systs. based on spectral encoding of noncoherent sources 41470
  cellular environ., resource auction multiple access 9291
  cellular environ., resource auction multiple access 3348
  cellular systs., packet transm., channel quality reliab. 9296
  CGH, opt. computing/neural net channel addressing 31632
  differential GPS data format stds. and trends *(Japanese)* 17510
  differential resistance measurement circuit, 3-wire 25944
  digital broadcasting, overview of emerging technols. 34203
  EDTV, 2nd generation, policy and digitalisation *(Japanese)* 34249
  EDTV-II, vert.-temporal/high helper sig. multiplexing scheme 9724
  EDTV-II black bar helper sig. multiplexing scheme *(Japanese)* 17555
  fiber optic sens. for smart materials and struct. 17841
  fiber optic sens. systs. develop. 17838
  fibre Fabry-Perot sens., absol. strain meas. 17904
  fibre optic sens. and Bragg gratings, mining appls. 17839
  fibre sens. based on multimode fiber Bragg gratings 17878
  fibre-optic sens., confocal scanning microscopy 17907
  finite-horizon stat. QoS measures for high-speed networks 33590
  free-space opt. interconnection prog. opt. logic systs. 39517
  generalized periodic Markovian sources multiplexing and VBR video 8717
  genotyping by multiplexing PCR *(French)* 24762
  HDTV, opt. transm. equipt. *(Japanese)* 42600
  hierarchical scalable expanders, packaging/multiplexing 24765
  hierarchical TV transm., SS multiplexing 25632
  high speed data networks, transit. splitting for estim. of rare events 33200
  high speed networks, bandwidth and buffer reservation schemes 33388
  high-dens. pin-board-matrix switch, crosstalk charact. *(Japanese)* 9125
  holographic image storage, phase-encoding multiplexing 31651
  hybrid transm. algms., multiplexing voice, data 16415
  infinite capacity N*D/D/1 queue, idle and busy period distribs. 33234
  information/control frame multiplexer, perform. study 33473
  integrated services digital broadcasting, transport struct. 24886
  inter media sync. schemes 9054
  interconnecting computers, archit./technol./economics 16702
  interferometric opt. fibre sens. networks, freq. hopping multiplexing 17905
  LAN for multimedia traffic, priority commun. schemes 33651
  LCD driver, 50-V, integrated in std. 5-V CMOS proc. 29083
  lightwave transm., low-rate parallel scrambling techs. 42380
  Markov modulated Poisson stream loaded multiplexer loss probab. estim. 41483
  mobile speech, video and data transceiver 3266
  mode selective fibre coupling, long-range surface-plasmons 30893
  MPEG2 appl. transm., ATM networks 16880
  MPEG 2 appls. 32877
  MPEG variable bit-rate video on LANs, rate control 16646
  MPEG-2 systs. layer, tutorial introduction 34218
  MPEG-2 video compression tutorial 32959
  MR imaging, time-domain multiplexer, 4-channel 26328
  multidimensional switching networks, universality 8704
  multiple chaotic systs. tracking from single obs. seq. 24057
  multiplex holographic data storage, materials props. 7839
  multiplex realization of low-pass filters, switchable capacitors 516
  multiplexed ATM traffic, policing/spacing 8695
  multiplexer, qtr. wave distributed lines, high dielec. ceramics 16951
  multiservice networks, call admission control 33190
  NEC's VisuaLink 5000EX10 video codec *(Japanese)* 42090
  network adapter, archit. 16934
  North Carolina Information Highway, ATM switching/CPE 8823
  ON-OFF sources, effect of multipath routing on loss perform. 41928
  opt. fibre sens., CDM, SLM 34549
  packet switch, quick simul. of stationary tail probabilities 41433
  parallel scrambling techs. for multibit-interleaved multiplexing environ. *(Korean)* 16422
  phased array antenna, opt. controlled multiple beam forming/steering 8078
  photonic SONET fund. frame structs. 42362
  pilot sym.-aided tech., digital sigs. in multipath environ. 9366
  radiated emissions from automotive multiplex bus wiring 15474
  reliab. models for multiplex systs., eval. 37192
  rural telecomm. networks, integrated cordless access 9208
  SDH, pointer conversion method *(Japanese)* 8693
  semidynamic/dyn. transm. algms. for voice/data multiplexing 41420
  shift multiplexing holographic storage 40164
  solid state modular laser, multiplexing method, fibre optic delivery syst. 31292
  SONET, digital network sync. 42379
  SS multiplexing, hierarchical TV transm. 25634
  SS tech. for automotive multiplexing systs. 25199
  stat. multiplex perform. anal. of multimedia sources 8732
  stat. multiplexer with generalized periodic sources, anal. 24750
  stationary single server queues, approx. for perform. eval. 16469
  tapered monomode fibre, temp. meas. appl. 18130
  tree APONs access, distributed FIFO spacer/multiplexer 9015
  TV broadcast systs. characts. *(Japanese)* 34250
  two-stage modified signed-digit opt. computing by spatial data encoding/polariz. multiplexing 22977
  VBR MPEG video, charact., modeling and multiplexing 33147
  video channels, stat. real-time, over multiaccess network 16072

multiplexing continued
voltage division multiplexing in commun./computer engng. 24746
wavelet packet modulation, orthogonally multiplexed commun. 32038
wide area video commun. network *(Japanese)* 42618
AlGaAs nonlin. directional coupler based opt. multiplexing 14463
GaAs/WN_x/W-gate MESFET multiplexer IC, 0.5 μm, A 20 GHz 8-bit implement., fibre transm. 9546
multiplexing equipment
see also demultiplexing equipment; line concentrators
10 Gbit/s sig. repeated wavelength conversion, wavelength-tunable semicond. lasers 25496
AD8600 series multimedia TDM *(Japanese)* 25155
all-opt. WDM/TDM transmultiplexers 34086
analog opt. converter modules *(Japanese)* 25511
anticrosstalk arrayed-waveguide add-drop WDM multiplexer 3283
arrayed waveguide N×N wavelength multiplexer transm. charact. 42353
arrayed-waveguide grating multiplexer, phase error compen. 22919
asymptotic queueing behavior of stat. multiplexers, heterog. traffic 42101
ATM cross-connect archit., expandability and non-blocking 3295
ATM multiplexer, jitter/delay anal. 16439
ATM multiplexer, Markov modulated arrivals, output proc. 16785
ATM multiplexer, on-off sources, cell loss probab. 16454
ATM multiplexer supporting bursty traffic, perform. computation 41427
ATM multiplexer traffic model for correl. periodic real-time and independ. batch Poisson traffic 41429
ATM multiplexers, dyn. transm./enqueueing priorities 8703
ATM multiplexers, Markovian arrivals, exponential upper bounds 24785
ATM network goals and challenges 24770
ATM stat. multiplexer, on/off sources and spacing, perform. anal. 3279
ATMXC01, 155 Mbit/s asynchronous cross-connect 25184
automobile control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
BH light-emission/detect. diode module for subscriber TCM transm. systs. 25472
Bragg fibre grating develop. for WDM appls. 39340
buffered direct injection multiplexer for IR cameras 34562
Butterworth diplexer, design, real-freq. approach 6201
C-band superconductive input multiplexer for commun. satellites 12776
Cassini Visible/Infrared Spectrometer FPA 34563
CMOS 54×54-b multiplier using pass-transistor multiplexer, 4.4-ns 29145
CMOS IR readout multiplexer radiation hardness improvement 30449
CMOS SDH termination chip for 622 Mbps STM-4c B-ISDN 16932
codirectional Bragg WDM tunable acousto-optic-filter design 39534
compression techs. conserve EM spectrum space 3380
contiguous band multiplexer design for satellite appls. 25457
cryogenic rad-hard CMOS readout multiplexer fab. 30448
CTIA multiplexer for 1024-element InGaAs line sens. 34580
differential resistance measurement circuit, 3-wire 25944
digital test system extension to Gbps range 25720
diplexers, crossover loss, singly terminated filters design 16953
diplexers, max. flat response/freq. symm., design 16954
dual freq. multilayered circ. patch antenna, self-diplexing fn. 40507
dual-bus digital syst. semicond. opt. amplifer-based subcarrier add-drop multiplexer 17214
embedded CMOS SRAM for ASIC implement. of transmultiplexer 9410
FDM-channel selection filter, arrayed-waveguide grating multiplexer 9433
FM subcarrier data syst., develop. *(Japanese)* 3649
four-channel high-dens. opt. FDM add-drop multiplexing filter 17200
fused biconical taper WDM, radiation effects 17261
information/control frame multiplexer, perform. study 33473
InGaAsP-InP four-wavelength DBR laser array, selective MOCVD 14960
Kronecker products, opt. generated, multiplexed imaging 34587
Ku band 12 channel contiguous band multiplexers, optimal design 3282
leased cct., low speed data/analogue voice band subscriber equipt. *(Japanese)* 25143
lin. multiplexer designs for rem. sens. appl. 34581
logic network design, spectral approach 6059
M/D/1 syst., unfinished work distrib., num. eval. 33186
metropolitan SDH networks, full/partial access solns. 42448
Mitsubishi 16-channel 622 Mbps FDM coherent opt. commun. equipt. 34003
modular multirate video switch design and dimensioning 42585
monoblock WDM multiplexers for opt. fibre commun. 3571
monolithic grating-based components for WDM networks 9131
MPEG 2 programme switching 34220
multichannel WDM opt. filters, birefr. planar opt. platforms 42386
multielement Ge detector, X-ray fluoresc. microprobe/microspectroscopy 42979
multimedia traffic, loss/delay priorities, Markov-modulated fluid model 8694
multiplexed readouts for FPA 34560
network adapter, archit. 16934
North Carolina Information Highway, ATM switching/CPE 8823
OC-12/STS-3c/ATM transm. interface for AURORA Gigabit Testbed 41766
pass. fibre optic components/sens. systs., radiation sensitivity 22845
phased waveguide arrays, wavelength multiplexers optim., beam propag. method 30955
photoimprinted Bragg grating all-fiber dense WDM/demultiplexer 42388
photonic beamformer archit. for multi-beam act. phase arrays 32004
phototransistor/LED based optoelectronic differential multiplexer logic 1837
planar lightwave cct. technols. *(Japanese)* 14426
prog. logic design, multiplexers appl. 596
qtr. wave distributed lines, high dielec. ceramics 16951
quasi-opt. image separation scheme for mm- and submm-waves 3961
radiated emissions from automotive multiplex bus wiring 15474
readout electronics for far-IR arrays 34579
rem. prog. opt. TDM clock division routing device 16987
road transport informatics systs., real-time messages multiplexing 9359
Rowland circle grating photonic integrated device for WDM appls. 9441
SDH 600 Mbps line termination and multiplexing equipt. 25179
SDH fibre-optic transm. systs., forward ECC 42455
SDH multiplex line terminal, CMOS LSI for SOH proc. 42097
SDH multiplexing and multiplexers 16421
SDH multirate time switching control algm. and sig. proc. DCS 41419
SDH network design 33291
Siemens PCM30H multiplexers for customized access 9130
silica-based planar lightwave ccts., opt. filters develop. *(Japanese)* 17182
soil, elec. cond./water content, TDR 4387
SONET, digital network sync. 42379
stationary single server queues, approx. for perform. eval. 16469

multiplexing equipment continued
subscriber connection line multiplexer appl. *(German)* 16955
substr.-mode holographic polariz.-division multi/demultiplexer for opt. commun. 25173
TCML-1 terminating/converting module for local area *(Japanese)* 25170
TCML-2 terminating/converting module for local area *(Japanese)* 25171
telecomms. digital multiplexers, diagnosis/repair, ES 9128
tree APONs access, distributed FIFO spacer/multiplexer 9015
twin-core wavelength demultiplexing fibres, UV light coupling/tuning 34098
two-sect. TW semicond. laser amp. opt. transparent TDM channel selector 9552
TX-2000 multimedia multiplexer, digital network *(Japanese)* 25176
WDM arrayed-waveguide grating multiplexer, flat spectral response 25497
WDM unidirectional ring network, wavelength reuse scheme, fibre grating add/drop multiplexer 34054
AlGaAs/GaAs HBT IC technol. for 4:1 TDM multiplexer 1487
GaAs/WN_x/W-gate MESFET multiplexer IC, 0.5 μm, A 20 GHz 8-bit implement., fibre transm. 9546
InP waveguide components, WDM opt. commun. syst. 34062
InP/InGaAs HBT IC technol. for 4:1 TDM multiplexer 1487
InP-based opt. multiplexer integrated, MQW modulators 34074
$LiNbO_3$ integrated acousto-opt. mode converters/tapered couplers , Tapered acoustical directional couplers 39506
PtSi 640×480 IRFPA, third generation, MOS readout multiplexer 17953
PtSi hybrid FPA, CMOS multiplexer readout 17946
Si bipolar 4:1-multiplexer IC, 12 Gb/s, SDH syst. appl. 25177
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046
Si multiplexers for lin. IR photodiode arrays 25875
SiO_2/Si arrayed-waveguide grating multiplexer 22909
SiO_2-on-Si:rare earth doped integrated opt. waveguide devices in opt. commun. 30968
intell. parallel opt. link and LSIs 34055
multiplier phototubes *see photomultipliers*
multipliers, frequency *see frequency multipliers*
multipliers, voltage *see voltage multipliers*
multiplying circuits
see also analogue multipliers
1st-order digital allpass filter sects., comparative study *(English)* 6232
analog and pulse stream VLSI hardware for neural nets and fuzzy systs. 29458
array multiplication scheme using (p, 2) counters and pre-addit. 37728
ASIC macrocell multiplier for complex numbers 21214
binary serial-parallel multiplier, hardware approach 37703
bit-pair recoding Booth algm. 32×32 bit high speed parallel multiplier *(Korean)* 37715
bit-serial multipliers and sq. 6124
Booth encoding in parallel multipliers, compressors 6127
C-testable design techs. for iter. logic arrays 29138
C-testable multipliers based on modified Booth algm. 12453
CMOS 16 bit multiplier, async. logic design techs. 21295
CMOS 54×54-b multiplier, pass-transistor multiplexer 29094
CMOS 54×54-b multiplier using pass-transistor multiplexer, 4.4-ns 29145
CMOS 8×8 multiplier, redundant binary no. rep. 6136
CMOS bit-serial fixed-point two's complement multiplier for neural network algms. 12486
CMOS cct. arith. elements optim. for sig. proc. 29142
CMOS cell library for formal high level synthesis, design 12497
CMOS digitally-prog. analog cells for ANN 29450
CMOS high speed pipelined multiplier-accumulator 12579
CMOS multipliers for digital filtering appls. 6134
column compression multipliers for sig. proc. appls. 29141
concurrent error detect. in serial-parallel multipliers 37704
current-mode CMOS quaternary multiplier cct. 21230
DCT, 2D, bit-serial VLSI archit. 21362
DCVS logic, std. CMOS cell design for testable self-timed systs. 29203
fast serial-parallel multiplier, two's-complement method 21252
fault-tolerant systolic array multiplier, time redundancy 12412
FIR filters using pipelined multipliers, FPGA implement. 21441
max.-redundancy radix-8 SRT division/sq.-root method 12476
neural chip, subthreshold MOS analog cct. 37928
PGM crypto-chip, parallel permutation multiplier 29189
pipelined parallel multiplier implement. 6061
pulse arith. based neural network implement. 21470
purely recursive digital filter testability 21442
self-timed floating point coprocessor prototyping, FPGAs 21288
serial-parallel multipliers 6060
synapse multiplication cct. for neural chip 37921
systolic multipliers/digital filters, sig. flow-graph 12485
systolic parallel Booth multiplier, area/time efficient 6135
wave-domino logic, theory and appls. 21278
wave-pipelined 8×8 b multiplier in CMOS technol., design and realisation 29139
multiport networks
see also two-port networks
3dB 180° hybrid, asymmetrically terminated impedances *(Korean)* 21398
act. memory syst. for network appls., design 37762
act. RC-networks, computer aided synthesis/sensitivity anal. tool 721
branch-line eight-port hybrid cct. 21518
broadband matched terminations in planar structs., simul. 12746
CATV transmitting ccts., tap-off, coupled-line theory *(Korean)* 25674
CCIIs, current followers, biquadratic current transfer fn. *(Japanese)* 6207
DC-DC power converter cross regulation charactn., SPICE-based 19794
digitally controlled lin. four-port network 463
FETs, controllable couplers, comparison 6801
finline multiport couplers, propag. charact. 12709
linear N-port network, stabil., return ratios 37606
lossless multiport network theorem 28928
microstrip components for mobile commun. systs., evol. 33836
microwave network problems soln., port refl. coeff. method 21520
MLC package, time-domain charactn. 28462
MMIC and hybrid planar IC discontinuities anal. method 860
mobile radio systs., microstrip networks for multibeam/reconfigurable operation *(English, Italian)* 42292
multilayer microstrip struct. anal., matched load simul. 12794
op amp incorporation, pass. networks *(Polish)* 37833
opto-electronic interferometric sens. ccts., CAA/CAD 17761
piezoelec. resonators, elec. params. meas. 30593
RAMs, complex couplings, fault modeling 29217
S-matrix eval. of microwave ccts., general topol. 12735

multiport networks continued
S-param. cct. anal., appl. of artificial two- and four-ports *(English)* 21531
six-port module for built-in-test applications 25960
T-jn. microwave ccts., prescribed response characts., design/anal. 862
TLM algm., alg. anal. method, charact. eqns. 12258
two-winding transformers, stray capacitance studies 12849
uninterruptible AC/DC power converter develop. 5073
GaAs Schottky diodes, five port hybrid ring mixer 29554

multiprocessing programs
COSY control syst., RT/OS environ. 18209
DSP programs, concurrency charact. 30413
polarized target 34873
real-time multiline OCR parallel archit. 33027

multiprocessing systems
see also distributed memory systems; distributed processing; shared memory systems
algm.-based fault tolerance, canonical computational model 32497
application-specific array processors, conf., Venice (Oct. 1993) 36903
automobile control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
Blitzen array proc., second level trigger element 43123
Canadian patrol frigate, implement. of AAW sens. fusion 18980
CERN calorimeter, computer archit./electronics 18366
complex models reliab. anal., SURE bounds-based 28536
concurrent VLSI archits., partitioning and prog. lin. alg. algms. 37792
continuous speech recogn., hidden Markov methods *(Japanese)* 15811
delay single server queueing model with finite source, modified diffusion approx. *(Japanese)* 41480
discrete interval orders and semi-orders, representation 20543
DSP, highly scalable hardware accelerator 29241
DSP algms. mapping, multiprocessors by simulated annealing 8355
DSP programs, concurrency charact. 30413
DSP real-time implement. on multiprocessors, CAD environ. 12584
efficient FFT on hierarchical multiprocessor archit. *(Korean)* 20646
European Fighter Aircraft modular computer concept 43431
fault detect. in multiprocessor systs. and array proc. 29170
FCM and FCHM multiprocessors for computer vision 16334
FDDI workstation cluster, meas. 33496
flight data acquisition syst., multiprocessor 26547
FPGA routing by concurrent maze method *(Korean)* 37714
fractal image compression, parallel algm. for hypercube multiprocessors 32960
gas turbine PM generator cycloconverter, digital control 10859
generator-transformer set protection, microcomputer-based *(Chinese)* 36089
hierarchical multiprocessor archit. for video coding 33698
hyperdistributed syst. develop. *(Japanese)* 16752
induction motor meas., transputter-based measurement apparatus 27718
local-area multiprocessor, surpassing clusters 33532
M-to-B arbiter for multiple bus multiprocessor systs., high speed, VLSI 642
MCM product, computer building block, design and test 21697
MCM-C package for a multiprocessor digital syst., elec. design 21723
Midwest Symp. on ccts. and systs., Detroit (1993) 33
mobile service control point for intell. and multimedia mobile commun. 9042
multiple TCM reduced complexity seq. decoding 8094
multiresolution image proc., VLSI 128-proc. chip 6167
neural network multiprocessors, dyn. reconfig. pipeline archit. 12677
parallel proc. for test generation, perform. anal. 17662
parallel RSA algm. for multiprocessors *(Korean)* 24115
parallel space filtering subsystem for target tracking, EKF 16030
parallel systs., Petri net perform. models 24774
portable data acquisition and control system, multitasking/multiprocessing 34414
power syst., sparse network eqns. soln., direct/inverse factors 4490
power syst. transient stabil. anal., shifted-Picard iters. method 19004
power system state estimation weighted least square methods 19022
protocol handling syst. spec. and perform. 33488
protocol specs., message collisions, automated synthesis 2935
real-time power syst. parallel simul., mutated tree archit. 4453
recursive DSP algms. mapping, multiprocessor 28953
robot skills development using a laser range finder 25585
robots, AC drives, optimised DSP field oriented control 36683
run-time overhead minimisation in multi-proc. pre-emptive scheduling 32492
Shiva multiprocessor syst., neural network simul. mapping 32427
single proc. array for pipelining multiple SVD 32459
space vehicles, multiprocessor archits., engine and vehicle guidance control 4357
Spirit III radiometer, scanned image constr. via optimal interpolation 24511
SVC digital control, transputer appl. advantages 4530
switching control multiprocessor, fault tolerant software *(Japanese)* 33187
Tartan Ada develops. for DSP 21355
telephone exchanges, distributed data, overload control 42119
tightly-coupled fault-tolerant networks, guaranteeing idempotence 24822
Ward-Leonard drive, digital control, roughing mill appl. 44624
wind-solar power plant control, Petri net-based model 19575
wire routing, automatic, evol., for multiprocessors 37584

multiprocessor interconnection networks
see also hypercube networks; multistage interconnection networks
adaptive router on worst case permutations, perform. anal. 24854
ART1 neural net memories, fuzzy optoelectronic implement. 31123
B-spline surface interpolation, parallel implement. 20583
Benes-Clos networks, randomized routing 28926
BiNMOS fast resolving synchronizer for parallel proc. interconnect 21395
buffered delta networks under nonuniform traffic, perform. anal. 33183
C-alg., interconnection network anal. appl. 8780
cascaded crossbar interconnected multiprocessors, cost perform. anal. 33185
Cayley coset graph, simplicity conditions 28597
COSINE III 3D board, board free space opt. interconnection multiprocessor 39516
Cranium, interface for message passing on adaptive packet routing networks 25030
Cray T3D MPP syst., optimized routing 24863
deadlock and livelock free routing algm., adaptive 24767
delta switching networks, perform. eval. 16456
double-loop networks, routing control *(Chinese)* 24848
fast VLSI-efficient self-routing permutation network 30420
hierarchical star-controlled rings for multiprocessors 16723
IBM SP1 multicomputer, routing algms. 24859
interconnecting computers, archit./technol./economics 16702
k-ary n-cubes, perform. eval. of adaptive routing algms. 24853

multiprocessor interconnection networks continued
low cost combining switch for shared memory syst. 29155
lower bounds of network embedding dilations 457
massively parallel sig. proc. archit. based on response of retina cells 32824
multi-level packaging, designing interconnection networks 28467
multicomputer routers, support for multiple classes of traffic 24856
multidestination message passing mechanism conforming, base wormhole routing scheme 24857
multistage interconnection network systs., opt. devices, design 1829
nonblocking multirate broadcast networks, anal. model 33170
offset cube, optoelectronic interconnection network 24644
optoelectronic parallel computer, opt. interprocessor connections 39509
packet routing schedule, O(congestion+dilation) algms. 16526
parallel proc. for test generation, perform. anal. 17662
photonic networks, graph-theoretic models 31026
porting telecomm. appls., transputer networks 41614
QMF filter bank trees, systolic archit. 29376
R2, damped adaptive router design 24864
reliable router, reliable and high-perform. commun. substr. for parallel computers 24823
ROMM routing, class of efficient min. routing algms. 24861
router for fault-tolerant networks 24862
router speed, implications for faster commun. 24852
Segment router, effect of queue sizes and channel scheduling policies 24855
systolic interconnection network 16537
torus networks, struct. commun. 16449
Transit project, reliable high speed interconnection technol. 8775
videoconferencing, transputer-based implement. of video codec interface 33616
wormhole router, cost of adaptivity and virtual lanes 29291
wormhole router, VLSI implement., virtual channels 5966
GaAs high perform. comput. and commun., ARPA research 38957

multiprocessor scheduling *see processor scheduling*

multiprogramming
see also multiprocessing programs; time-sharing systems
CMOS multitask micropower μP, hardware scheduler 29304
DFT windows in distortion computation 24232
distrib. network DSM/automation commun., added utilisation costs 27160
DRAM archits. in multiprogramming environ., perform. eval. *(Korean)* 21325
DSP programs, concurrency charact. 30413
Netware dyn. data exchange 16724
OS/2 2.1 OS, digital video archit. 17576
X pseudo server mgt. syst. in X Window syst. *(Japanese)* 33436

multisensors *see sensor fusion*

multistage interconnection networks
asynchronous shuffleout connectionless network switching archit. 41415
ATM Clos switch under symmetric bursty geometric traffic, perform. anal. 41449
ATM fast packet switch archits., reliab. models 2888
ATM self-routing bridged shuffle-exchange network 41414
ATM shuffleout switch, channel grouping techs. 33199
butterfly networks, regular layouts 12252
clustered computer switch MINs, routing/resource allocation 3284
delta network, expanded middle stages for large ATM cross-connects 24751
double tree network, routing and perform. 33184
extra-stage shuffle-exchange MINs, reliab. eval. 33576
fault-tolerant switches for photonic networks 16976
finite-buffered multistage interconnection network perform. anal. 41405
hierarchical scalable expanders, packaging/multiplexing 24765
large-scale packet switch interconnection archit. using overflow switches 41416
multicommodity flow problem 41402
nearest-neighbour interconnections 24753
nodal chip for parallel neural sig. proc. 29520
Omega network-based ATM switch, neural network-controlled 16416
opt. switching network, orthogonally polarized data inform. 39515
parallelism for cct simul., tearing approach 21026
single proc. array for pipelining multiple SVD 32459
split-buffered multistage interconnection network nonuniform traffic anal. 41406

multistep methods *see iterative methods*

multitarget tracking *see target tracking*

multitasking (computer operation) *see multiprogramming*

multitasking workstations *see workstations*

multiterminal networks
see also multiport networks
array mode-forming network systematic design 23975
channel routing of multiterminal nets 22522
diamond routing model for VLSI layout 462
global routing of ICs, crossing distrib. problem 38952
monotone element network theory, inequality in iter. methods 37611
multi-layer multi-terminal topol. routing, vias-per-net *(Japanese)* 12250
node-reduced multiterminal representations of semicond. devices, SPICE 12282
SG7915 voltage regulator, temp. depend. SPICE macromodel 5997
two-terminal nets via minimization through dyn. prog., partitioning of terminals 5950
W-graph and props. of ccts. 5939

multivalley semiconductors *see many-valley semiconductors*

multivalued logic
see also multivalued logic circuits; ternary logic
alg. for multiple valued logic systs. 591
arbitrary valued flip-flop cct., design and appl. *(Chinese)* 29156
cellular arrays realizing multiple-valued logic fns., design and fault diagnosis 6125
current-mode multiple-valued PLA, reson. tunnelling transistor model 623
digital ccts., data struct., solve satisfiability problem 29131
FPGA logic block archit., current-mode CMOS circuitry 6137
many-valued logic and mixed integer prog. 11951
Midwest Symp. on ccts. and systs., Detroit (1993) 33
parallel eval. algm. for fast fault simul. *(Korean)* 21271
protocol-driven scan test design rule checker 6103
SOLiT, reliable seq. ccts. automated synthesis, multilevel logic implement. 21229
two-level logic minimization, overview 630
voltage-mode CMOS multiple-valued logic memory cct. 29228
voltage-mode CMOS quaternary threshold logic latch cct. 616

- **multivalued logic** continued
  - AlAs/GaAs/AlAs RTDs, digital logic ccts. *(Korean)* 12427
- **multivalued logic circuits**
  - associative VLSI proc. 6174
  - current-mode CMOS quaternary multiplier cct. 21230
  - develop. of multiple-valued logic 37729
  - LRAP optimiser, combined logic resynthesis and placement 21052
  - multilevel logic optim., pseudo max. sets of permissible fns. 21204
  - multilevel logic optim., redundancy addit. and removal 21202
  - multilevel logic optim. cct. activity driven, low power oper. 21201
  - multilevel logic synthesis, Boolean factoring of logic fns. 6133
  - multilevel synthesis, coherent optim. strategies 21203
  - NAND gate ccts., automatic synthesis, CAD algms. 29100
  - neural nets, multiple-valued logic design in CMOS technol. 6275
  - technology decomposition using optimal alphabetic trees 21213
  - VLSI multiple-valued logic fn. optimisation based on Petri nets 6143
  - AlGaAs-GaAs HBT gate array for 5 GHz ASIC, cell libr. 37719
  - GaAs MESFET high speed adder, multiple-output domino logic 29127
- **multivariable control systems**
  - *see also decentralised control; MIMO systems*
  - act. mag. bearings, unbalancing estim. 30758
  - AGC syst. LQG controller design 35520
  - CD player, robust multivariable controller design 17615
  - CD player multivariable control, DSPs 17612
  - CMM, optimal posn./vibr. control design 3738
  - combined cycle power plant multivariable control 43931
  - combustion control design, indiv. channel design framework 27525
  - drug infusion, nonlin. multirate predictive control 18580
  - finite wordlength digital filters/controllers, optim. realisations 37883
  - gas turbine engine, aerospace, control/stabil. 4362
  - HV AC-DC systs., multivariable adaptive control 4549
  - induction motor, 3-phase inverter, robust current controller, finite state automaton 36158
  - long-dist. power syst. adaptive generation control *(Japanese)* 10689
  - missile autopilot, multivariable H_{∞}, robustness eval. 18958
  - multi output systs., online fault diagnosis, Kalman filter/neural net appl. 11830
  - plasma etching control of Si/SiO_2 in SF_6/Argon 30396
  - power syst., adaptive multivariable optimal controller 4579
  - power syst. decomposed fuzzy control 26942
  - power syst. robust multivariable PI secondary voltage/VAr control 27016
  - power systs., nonlin. reduced-order observers, design theory 43683
  - rapid thermal proc., 3D modelling for design optim. 22552
  - robust filtering/open-loop control, probab. 32529
  - RTP, multivariable temp. controller develop. 13846
  - slot array design and anal., interpolation methods 31965
  - SPC in IC mfg., nested normal/multivariate models 37156
  - sync. generators, automatic voltage regulators design 36116
  - thermomechanical pulping, adaptive refiner control syst. 10042
  - wind-diesel hybrid power plant, robust control 10912
  - wind-diesel hybrid power plant, robust control and anal. 19574
- **multivariable systems**
  - *see also MIMO systems; multivariable control systems; variable structure systems*
  - decentralized detect. systs. design, unified approach 32538
  - dyn. meas. systs., generalized Wishart-stat. variance 3707
  - fault detect./ident. for complex MISO lin. systs. 11883
  - filters, decentralized game-theoretic, optimal 16057
  - finite wordlength digital filters/controllers, optim. realisations 37883
  - multi-time scale modelling of elec. machine 36122
- **multivibrators**
  - *see also flip-flops*
  - current feedback mag.-multivibrator, oscill. freq. compensation 6046
  - EM coupled isolation op amp without input buffer 6035
  - freq. divider, current mirror type astable multivibrator *(Japanese)* 29428
  - Miller integral-type SC multivibrator based freq. divider 21468
  - phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
  - voltage controlled astable multivibrator, Miller-integrator 21146
  - voltage-controlled resistor, monostable multivibrates rem. control 29358
  - CoSiB amorph. MI reson. multivibrator current sens. 17713
- **multiwave mixing**
  - *see also optical phase conjugation*
  - 10 Gbit/s repeaterless WDM fiber transm. 9466
  - 10-GHz timing extraction from 20-Gbit/s data stream by opt. fiber PLL 9127
  - 100 Gbit/s multichannel TDM demultiplexer by multiwave mixing 3297
  - act. laser media, phase conjug. in four-wave mixing, feedback 14717
  - anisotropic crysts., beam propag., coupled thermal/nonlin. effects 7764
  - bacteriorhodopsin dyn. recording material, polariz. props. of four-wave interact. 2088
  - bacteriorhodopsin variants, phase conjug. by DFWM 23398
  - bifunctional chromophore for photorefr. appls. 14324
  - bis-anthracenyl polyenes:$SbCl_5$, opt. suscept., bipolaron enhancement 15133
  - book, bistabilities and nonlinearities in laser diodes 58
  - Brillouin-enhanced four-wave-mixing phase conjugator, FOV optim. 15050
  - broad act. area diode laser, lateral field instabil. and six-wave mixing 7652
  - cascaded second-order nonlin.-opt. suscept., phase conjug. 15076
  - cyanine dyes, ultrafast procs., time-resolved DFWM tech. 15140
  - DFWM pattern interferometry, refr. index vars. 31506
  - diode laser, opt. injected, reverse bifurcations and dyn. modif. 31340
  - diode lasers, spontaneous emission, nonlin. opt. coupling and noise 31370
  - disordered media, nonlin. optics, photon localization effects 15101
  - dispersion-shifted fibers, four-wave mixing efficiency longit. distrib. meas. 15026
  - distributed opt.-fiber sens. by four-photon mixing pulse walk-off 42833
  - dodecylbenzene, third-order nonlin. suscept., temp. depend. 31496
  - double colour-pumped oscillator, high-power beam steering by Brillouin four-wave mixing 15104
  - double phase conjug. four wave mixing mirrors 23438
  - dye doped film phase-matched grating generated by enhanced forward DFWM 15077
  - dye solns., light-induced SHG, six-wave mixing 7795
  - dyn. holography with arbitrary waves, multiwave mixing procs. 40167
  - erythrosin-B-doped polymer films, phase-conjug. wave generation, phase change 23393
  - fiber four wave mixing, polaris. independ. wavelength conversion 9439
  - fiber four-wave mixing, polariz.-insensitive wavelength conversion 15075
  - fiber four-wave mixing, tunable/selective wavelength conversion 15025
  - fiber four-wave mixing opt. wavelength conversion, SBS effects 30847
- **multiwave mixing** continued
  - fibre double-ring resonators, multiple bistability, degenerate two-wave mixing 22831
  - four-wave freq. mixing, transparency induced by additional strong field 31552
  - four-wave mixing mirror response, spectrally broadened sig. beam 40088
  - four-wave mixing sig. in freq. space charactn. 7743
  - four-wave mixing sig. in semicond. amps., high saturation behavior 31515
  - holographic grating, transm., photorefr. medium four-wave mixing 23468
  - in-line opt. amp. systs., num. simul. *(Japanese)* 14738
  - inhomog. media phase conjug., holography, and imaging 31575
  - laser doppler device for air pollution detect. 18917
  - light-shift grating, phase-conjug. sig. dyn. 40066
  - lightwave systs., parametric gain, four-photon mixing 17219
  - long-haul opt. fiber commun. syst. dispersion, distributed in-line group-delay equalizers 17250
  - methanol FIR laser lines, opt. pumped, freq. meas. 31475
  - multi-amp. syst. fiber four-wave mixing, nonuniform chromatic dispersion 17333
  - NLC, self-starting phase conjug. 40053
  - non-DFWM oscillators, quantum noise reduction 15039
  - nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
  - one planar coupler fiber-ring resonator, opt. bistability 15023
  - opt. amps. with strained quantum wells, interwell transport, four-wave mixing 1950
  - opt. associative memory design based on coherent four-wave mixing 1658
  - order-selective Raman conversion, pumped four-wave mixing 2053
  - organometallic cpds., nonlin. optics materials, review 23432
  - OTDR, four-wave mixing sampling gate, mm-resoln. 25985
  - parametrically down-converted photons, two-photon phase coherence probing 2082
  - periodically amplified syst. dark soliton sideband form. and stabil. 23360
  - phase-matched freq. doubling polymers, opt. prep. 23344
  - photoconductive semiconds., transient photocurrents generated by step-PM 23421
  - photorefr. conjug., spatio-temporal response measurement of 31530
  - photorefr. cryst. image correlator spatial fidelity 16369
  - photorefr. device opt. inform. proc. 32945
  - photorefr. double phase conjug. mirrors, gain-threshold, oscill. 23402
  - photorefr. nonlin. optics, opt. computing 31049
  - photorefr. polymer four wave mixing opt. correlator/computer 24425
  - photorefr. two-beam coupling optimal thresholding filter for additive sig.-depend. noise reduction 23406
  - photorefr. two-beam-coupling nonlin. joint-transform correlator 2052
  - picosecond pulses, DFWM, diffracted sig. 2058
  - polar mol. dimers, nonlin. opt. props. in intermediate stochastic region 15127
  - polariz. encoded opt. multiwavelength full adder 22972
  - poly(1,6-N-carbazolyl-2,4-hexadiyne), third-order opt. props. 15095
  - polymeric composite photorefr. materials for nonlin. opt. appls. 1651
  - polymers, nonlin. photorefr. props. 30815
  - polyvinyl alcohol film, organic dye doped, opt. phase conjug. proc. 31596
  - PPV composite film elastic moduli meas. by ps transient grating study 23392
  - pseudoisocyanine J aggregates, third-order opt. nonlin. 15096
  - pseudoisocyanine J-aggregates, wavelength depend. nonlin. opt. props. 2062
  - quadratic nonlin. medium, parametric procs., field depend. effects 31600
  - real-time opt. matrix multiplication, high accuracy 1761
  - reflective opt. mixer, polariz.-independent phase conjug. 25483
  - reson. cascaded surface-emitting SHG struct. self-PM 31485
  - ruby laser, thermal gratings, DFWM 23407
  - SBS stationary fibre amps., coherent 3-wave model 14733
  - semicond. lasers/amps., intracavity four-wave mixing 1933
  - semicond. opt. amp., short opt. pulse wave mixing 39754
  - semicond. opt. amp. photonic switching multi-carrier opt. network 25532
  - semicond. superlattices, Bloch oscills., four wave mixing 6543
  - semicond. TWAs, wavelength conversion, four-wave mixing 40057
  - semiconds., nonlin. optics, many body effects 15022
  - semiconds., pump depletion, coherent energy transfer 23414
  - single-mode fiber, polariz. effect on four-wave mixing efficiency, comment 30878
  - single-mode fibers, phase conjug. by four-wave mixing 15024
  - single-mode fibre, opt. phase conjug., chromatic dispersion, self-PM 30856
  - single-mode silica fibers, Raman amplif. of coherent Stokes wave on biharmonic laser pumping 15084
  - six-wave mixing SHG and opt. induced fields 2090
  - terabit/s transm., 150 km of dispersion-managed fiber 17347
  - tetrabenzporphyrins in solns., third-order nonlin. opt. interacts. 7782
  - thiapyrylium dye sensitized photorefr. polymeric composite 22782
  - α-thiophene oligomers, third-harmonic generation 15128
  - third-harmonic generation, wave mixing, soliton states 15029
  - transit. metal-phosphine complexes, nonlin. opt. props. 40050
  - TW semicond. laser amps., four-wave mixing 31395
  - two-colour dye laser syst., four-wave rot. Raman mixing 14724
  - two-sect. asymmetric LD, enhanced uniform phase conjug. 23198
  - ultrafast all-opt. AND gate, four wave mixing in laser amp. 1758
  - VUV laser radiation, reson. ionization, H-like atom ionization 40170
  - wavelength converters based on four wave mixing in semicond. opt. amps. 42385
  - XUV-radiation generation by high-order freq. mixing 31512
  - $AgGaSe_2$, thermal lensing modeling, laser beam aberration 7765
  - AlGaAs/GaAs superlattices, THz Bloch oscills. 1112
  - $BaTiO_3$, intens. depend. two-wave mixing 31524
  - $BaTiO_3$ photorefr. cryst. for laser wavefront correction 30818
  - $BaTiO_3$, photorefr. crysts., variable edge enhancement 8593
  - $BaTiO_3$ photorefr. crysts./waveguides, anom. photorefr. response in two-beam coupling 15088
  - $BaTiO_3$ photorefr. opt. novelty filter, design and perform. 31059
  - $BaTiO_3$ photorefr. phase conjug. beam time evol., multigrating operation 31522
  - $BaTiO_3$, photorefr. two wave mixing detect. of weak sig. beams 31570
  - $BaTiO_3$ self-pumped phase-conjugating mirrors, interferometric systs. appls. 31051
  - $BaTiO_3$:Fe, beam fanning, edge enhancement, contrast reversal, logic operation 30822
  - $Bi_{12}SiO_{20}$, photorefr., charge carriers grating competition 22778
  - $Bi_{12}SiO_{20}$ photorefr. cryst., coupled wave anal. of spatial subharmonics 7740
  - $Bi_{12}SiO_{20}$ photorefr. cubic media far from paraxial limit, wave coupling anal. 40062
  - $Bi_{12}SiO_{20}$ photorefr. response, AC field freq. effects 30813
  - Bi_2TeO_5, ps laser pulse induced effects 31520
  - $Bi_{12}TiO_{20}$ photorefr. fibre, phase conjug. mirrors 30819

multiwave mixing continued
$Bi_{12}TiO_{20}/Bi_{12}GeO_{20}$ planar waveguides, photorefr. gratings 15111
C_{60} LB films, degenerate multiwave mixing and opt. storage effects 15086
C_{60}, O_2 doped and photopolymerized, nonlin. opt. props. 23397
CO_2 laser, relax. time of phase-conjug. refl. via four-wave mixing 1850
CO_2 lasers, phase conjug. 15059
CS_2, third-order nonlin. suscept., temp. depend. 31496
CdS quantum dots, femtosecond dephasing determined by nondegenerate four-wave mixing 31535
CdS_xSe_{1-x} crysts., free carriers polariz. dyn. 21903
CdSe, ultrafast exciton dyn. in direct gap semicond. 1032
$CdSe_xS_{1-x}$, ultrafast exciton dyn. in direct gap semicond. 1032
CdTe:V, spectrosc. and photorefr. investig. 14583
$Cr:LiSrAlF_6$ Q-switched laser freq. tripling, UV region 39728
Cs vap. opt. correlator 2633
Cu_2O ultrafine particles in organosols, diffusion and carrier recomb. 40028
Er-doped fiber amplifiers, nonlin. wave mixing and dyn. controlled gratings 7577
GaAs, (001)-cut, CZ grown, disloc. dens.-depend. photorefr. effect 14319
GaAs QW, femtosec. pulse distortion, pump-probe/four-wave-mixing expts. 13195
GaAs cryst. photorefr. response time meas. by PM in two-wave mixing 2066
GaAs:Cr, free-carrier grating dyn., picosecond meas. 14341
GaAs:Cr/AlGaAs SI MQW photorefr. device 22942
GaAs/AlGaAs MQW, ultrafast nonlin. optics 2120
GaAs/AlGaAs quantum wells, four-wave mixing, biexciton effects 7807
GaAs/AlGaAs quantum wells, ultrafast exciton dyn. in direct gap semicond. 1032
GaAs-AlGaAs superlattice Bloch oscill. higher harmonics 21989
(GaIn)As/Ga(AsP) MQW, excitonic binding energies 15080
$Ga_{0.52}In_{0.48}P$, partially ordered, excitons homog./inhomog. linewidths 1045
GaSe, layered cpd., time-resolved DFWM 15098
InGaAsP amps., 4.3 terahertz four-wave mixing spectrosc. 555
$KLiTaNbO_3$, self-pumped phase conjug., doping effect 15148
$(K_xNa_{1-x})(Sr_yBa_{1-y})Nb_2O_6$:Cu, self-pump phase conjug., four-wave mixing 2063
$KNaSrBaNb_2O_6$:Cu cryst. bird-wing double phase-conjug. mirror 40116
$KNaSrBaNb_2O_6$:Cu two-wave coupling, red light 31567
$KNbO_3$ ion implanted photorefr. waveguides, two-wave mixing of focused Gaussian beams 23359
$KNbO_3$ photorefr. planar waveguides, focused Gaussian beam two-wave mixing 31568
$KNbO_3$:Fe photorefr. ring resonator, transverse mode oscills., spatiotemporal dyn. 23436
$KNbO_3$:Fe,H photorefr. planar waveguides, two-wave mixing 23434
$KTa_{1-x}Nb_xO_3$:Fe cryst. self-pumped phase conjug. 7732
$KTa_xNb_{1-x}O_3$:Fe, asymmetric opt. transm. device 40076
$KTiOPO_4$ sync. pumped opt. parametric oscillator, design, fab. and perform. 40052
LiB_3O_5, picosecond multiwavelength opt. parametric generation 40022
$LiNbO_3$ photorefr. crysts., effective carrier dens. *(Chinese)* 15064
$LiNbO_3$:Fe cryst., phase conjugating mirror, scatt. light enhancement 31529
$LiNbO_3$:Fe, forward phase conjug. wave generation by two-wave mixing 40071
$LiNbO_3$:Fe photorefr. waveguide, wave mixing and beam profile control 40083
Na reson. radiation sum-freq. generation of Nd:YAG laser beams 23364
Nd:YAG, saturable amp., pulsed phase conjug. modeling 2065
$Nd:YVO_4$ diode-pumped microchip amp., efficient DFWM 40080
Nd:glass lasers, thermal gratings, DFWM 23407
$Nd^{3+}:YAlO_3$ ps laser beam third-order correl. fn. by noncollinear two-beam third-harmonic generation 40105
Pb-phthalocyanine copolymer, excited state absorpt. and dyn. 31587
Si-on-insulator slab waveguide Bragg reflector, two polaris. coupling 39405
SiO_2 single-mode fiber, near-IR continuum generation, vis. 15044
SiO_2:Ge planar waveguide, seeding, static elec. fields 39381
SiO_2-based single-mode fibre, pumped, stimulated four-photon mixing 39347
SiO2, multimode fibre, SBS phase conjug., distortions compensation 1671
$Sr_{0.60}Ba_{0.40}Nb_2O_6$, light-induced grating, nonlin. opt. responses 31492
$SrBaNb_2O_6$ four-wave phase conjug. of time-depend. spatial struct. sig. 40102
$SrBaNb_2O_6$:Rh absorptive photorefractive material, two beam coupling 15078
XeCl excimer laser act. medium, UV phase-conjug. mirror 14722
$ZnGeP_2$, thermal lensing modeling, laser beam aberration 7765

multiwire ionisation chambers
MAGIC, multi anode gas ionization chamber 10112

multiwire proportional chambers
see also drift chambers
APEX, large solid-angle array for HI 4169
EM calorimeter, thin gap wire chambers 10107
FAD, DCCs, MiniMax, hadron-hadron collisions 18300
fast beam chambers of set-up ISTRA-M 10109
fast-RICH prototype with VLSI readout, beam tests 4164
gas detectors, perform., X-ray diffr., appls. 18297
interpolating cathode strip chambers, posn. and timing resoln. 43115
LAGRANGE detector, ESRF 34917
Large Acceptance Detector System, pion absorpt. studies 34912
micro-strip gas counter test with RD20 front-end 34929
microstrip gas chambers, recent results 18335
microstrip proportional counter perform. 26157
posn. sensitive gas-filled detectors, fast TDC. 34957
SANS, posn. sensitive detectors appl. 26156
STAR detector design for RHIC collider 18336

multiwiring *see printed circuits*

MUMPS
TCP/IP environ., M-based clients and servers 16644

muon detection
AMANDA detector, South Pole ice, opt. props. 26141
BES, particle separation, discriminant anal. method *(Chinese)* 34967
CMS detector, B phys./CP violation studies 4182
Eloisatron, particle detect. 4231
EM calorimeter, liq. Ar, Kr, accordion electrodes 26173
EM calorimeter for multimuon UNK spectrometer 4217
fast muon trigger for FNAL E771 34956
fiber scintillating detectors appls. 4197
interpolating cathode strip chambers, posn. and timing resoln. 43115

muon detection continued
L3 TEC track resoln. improvement, vertex *(Chinese)* 4223
Large Volume Detector, Gran Sasso Laboratory, status 34913
MACRO, upward-going muons 43135
scintillating fiber sampling calorimeter, high resol. for CHORUS expt. 26201
SDC detector, muon drift tubes, cosmic ray tests 4167
toroidal magnets for eta decay mag. spectrometers 31739
ZEUS calorimeter, first level trigger 34955
Fe/scintillating tiles hadron calorimeter, preliminary results 26190

muscle
see also electromyography
3D mapping of muscle activity, surface electrode array sig. proc. 26391
arm movements control, muscle stimulation patterns, neural network generation 10279
cardiac muscle cells, contractile characts., microelectromech. force transducer 34988
contracting muscle, skin/muscle blood flow discrim. 18522
ECG sigs., computer aided interp. 10244
electrostatic artificial muscle, lin. actuators with multiple-layer struct., robot appls. 31736
EMG motor control sig. proc. by neural net 18565
FES systs., prog. electronic stimulator 10280
hand, FNS control, specific manipulation tasks, instrumented assess. 4308
human eye location for quantifying eye muscle palsy 41130
infarcted myocardium, MR image contrast 35016
microwave thermography antennas coupled, layered tissue regions 35047
multifrequency microwave radiometry, biological objs. temp. profiling 43248
myocardial infarctions, optimum detect., intracavitary probe 18553
myocardial water exchange, bolus admin., MR contrast agents 35018
myocardium, frog, elec-fluoresc. recording with opt. fibres 10243
myoelectric sig. recogn., fuzzy clustering and ANNs 35108
neoanal press. meas., implantable press. sens. *(Japanese)* 18617
neuromuscular stimulation electrodes, elec. transients/corros. responses 18603
P-31 mag. reson. spectrosc., muscle contraction study 43247
paraplegics, elec. stimulated quadriceps ident. 18581
permitt. meas. of biological tissues, microwave range 43249
phrenic nerve, long-term intramuscular elec. activation 10275
planar microwave applicator, current line fed grounded dielec. layer 10268
pupillary light response model w.r.t. smooth muscle morph. *(Japanese)* 18524
transcutaneous diagnostics, fibre optic devices 43264
ventilatory prosthesis, phrenic nerve intramuscular elec. activation 10276
virtual space teleconferencing, human fig. synthesis/animation 33619

muscovite *see mica*

museums *see humanities*

music
Byzantine music, electronic musical instrum. design 42651
computer and music *(Japanese)* 34299
digital music services delivered via cable syst. 33343
dyn. range control and music/speech control 25641
flute music embedded in noise, sig. detect./restoration 16001
loose-harmonic matching fund. freq. estim. 34300
noise removal from music, local trigonometric bases and wavelet packets 2570
pitch tracking, principal decomp. anal. 32601
real-time issues in computer music 42653
recordings, pitch var. defects, recursive restoration 34294
recordings restoration, short-time spectral atten. techs. 9774
Solid State Logic and workstations for professional audio 17616
source/filter model for percussive sounds 16005
tonality recogn. from sound input 17619
tone synthesis, generalized overlap-add sinusoidal modeling 16004
wideband audio sigs. coding, transform coded excitation 32257
ZIPI Music Parameter Description Language 25694

music, electronic *see electronic music*

musical acoustics
artificial perception, axiomatic theory 32580
auditorium, colouration in assisted reverberation systs. 32605
conference on acoustics, Toulouse, France (May 1994) 5443
flute music embedded in noise, sig. detect./restoration 16001
wooden loudspeakers in artificial reverberation syst., acoustical props. 18925

musical instruments
Byzantine music, electronic musical instrum. design 42651
computer and music *(Japanese)* 34299
double FM synthesis, real-time implement. 9775
gesture translation, musical instrums. 34302
MIDI and ZIPI, comparison 25696
violin tonal quality, holographic pattern anal./test 7855
ZIPI network for musical instrums. 24977

myoelectricity *see electromyography*

myopia *see vision defects*

N-cube networks *see hypercube networks*

N-path filters *see switched filters*

n-port networks *see multiport networks*

naming services
DCE Web toolkit, enhancing WWW protocols, lower layer services 41862
LAN-based office, enterprise archit. 33519
OSI Directory Information Base, hash-based high-perform. name resoln. method *(Japanese)* 33438
schema publishing 25021
WWW, platform independent virtual reality 25077
WWW name servers, reliab. 41863
X.500 cache partitioning for faster name resoln. in X.400 8959

NAND circuits
board-level pin faults diagnosis 6402
CMOS logic, power consumption reduction tech. 37744
diamond MOSFETs on epitaxial thin films, fab., cct. appls. 22437
max. value determ. cct. for binary nos. 12483
multilevel NAND gate ccts., automatic synthesis, CAD algms. 29100
self-aligned shallow trench isolation cell for 256 Mbit NAND EEPROMs 12553
triple dens. DRAM cell, Si SEG channel and NAND-struct. 21321
two-pattern testing, test pattern generation ccts. eval. 12460

NAND gates *see logic gates*
nanobridges, superconducting *see nanotechnology; superconducting microbridges*
nanocrystalline materials *see nanostructured materials*
nanofabrication *see nanotechnology*
nanolithography *see lithography; nanotechnology*
nanophase materials *see nanostructured materials*
nanostructure fabrication *see nanotechnology*
nanostructured materials
  5BDSR nanocrystalline amorph. mag. alloy, EM characts. determ. 30659
  conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
  copperphthalocyanye/$SiO_2(TiO_x)$ hetero-nanostructs., mol. excitons, size effect 38423
  dye nanocrystals doped in polymer matrices prep. 22783
  high-tech mag. materials, recent develop. 30660
  mag. quantum struct., macroscopic consequences 14212
  nanoscopic struct., Josephson effect 7238
  optical props. of nanostructures, conf., Japan (1994) 28236
  Permalloy/Fe soft thin film elements, MFM anal. 14119
  PM, materials, review 39155
  polyimide nanofoams, high temp., for interlayer dielec. appls. 12207
  porous Si, thermal cond. 37544
  quantum wave bandstop microwave filters 716
  remanence enhanced nanocrystalline materials, magnetis. procs. 7012
  roughness meas. instrum. for nanometer range *(German)* 18103
  Ag fractal nanospheres in PMMA film, cubic opt. nonlin. local field enhancement 15130
  Ag-containing metallic nanostructure waveguiding systs., ion exchanged fab., nonlin. opt. charactn. 39416
  AgBr nanocrystal indirect bandgap semicond., lumin. props. 20653
  AlGaAs/GaAs heterostruct., gate, ohmic and interconnect metallization 13420
  Au cluster/SiO_2-Al_2O_3-Li_2O gel, nanocomposite capacitor 6358
  Au island mask-GaAs nanostruct. fab., MBE/MOVPE 385
  C_{60}, thin films, SHG 40035
  CdSe quantum dots, electron-phonon coupling/phonon confine. 29903
  CdSe quantum dots, electrospray OMCVD 5860
  CdTe nanostructures, opt. studies 1793
  CdTe polycryst. thin film solar cells, micro/nanostructs. 27940
  CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
  Co-Cr films, micromagnetic domains, neutron scatt. 6961
  a-$Co_{66}Fe_4Mo_2Si_{16}B_{12}$, magnetostriction, nanocrystn. effects 14141
  CuCl nanocrystals in glasses, persistent spectral hole-burning, opt. data storage 40026
  CuCl quantum dots, electron-phonon coupling/phonon confine. 29903
  $CuInSe_2$ polycryst. thin film solar cells, micro/nanostructs. 27940
  (Fe,Co)-B-Al-Nb alloys with ultrafine grain struct., mag. props. 14149
  α-Fe/$Nd_2Fe_{14}BTi_x$ nanocrystalline alloys, coercivity 7011
  Fe-Al-Ta-C nanocrystalline films, soft mag. props./corros. resist. 6991
  Fe-B-M-Cu (M=Hf,Zr,Nb), nanocrystalline/amorph. hybrid struct., soft mag. props. 14146
  Fe-Cu-Nb-Si-B, nanocrystalline ribbons, creep induced mag. anisotropy 14138
  Fe-based NANOCON materials, soft mag. props. 39123
  Fe-based nanometer cryst. alloy power CT core *(Chinese)* 27786
  FeCuNbSiB, nanocrystalline, induced anisotropy 14133
  a-$Fe_{73.5}CuNb_3Si_{13.5}B_9$ ribbons, mag. domain struct., crystn. effect 14142
  FeGdN, soft mag. thin film material 14151
  Fe_4N nanometer-sized particles, mag. props. 6979
  FeNbCuSiB ribbons, fast dc Joule heating, nanostructured materials prep. 14137
  $Fe_{73.5}Si_{16.5}B_6C_1Nb_3$, Young's modulus, mag. bias field depend. 14106
  FeSiBCuNb amorph. wires, crystn. proc. and mag. props. 14136
  FeSiHfC nanocrystalline films, soft mag. props., anisotropy dispersion *(Japanese)* 30674
  FeTaN nanocrystalline films, mag. anisotropy, mag. heads appl. *(Japanese)* 28815
  FeZrB(Cu) amorph. and nanocrystalline alloys, mag. and transport props. 14130
  $Fe_{86}Zr_7B_6Cu$ soft-mag. compacts, nanocryst., high saturation magnetis. 1572
  GaAs nanocrystal doped glass, time resolved pump/probe Z-scan study 40067
  GaAs nanometer-scale whiskers, growth/opt. props. 20815
  GaAs nanowhiskers, site-controlled growth 12121
  GaAs/$Al_{0.5}Ga_{0.5}As$ quantum wire struct., in-situ gas etching/selective-area MOVPE 20798
  GaAs/AlAs, epitaxial growth on corrugated semicond. surfaces, RHEED obs. 318
  GaAs/AlGaAs micro-pyramids, selective MOVPE growth 20767
  GaAs/AlGaAs-heterostruct., low-dimens., direct MBE growth 331
  GaAs-AlGaAs nano-heterostruct., UHV MBE growth 329
  GaAs-InP nanostruct. fab., MBE/MOVPE 385
  InAs nanometer-scale whiskers, growth/opt. props. 20815
  InP/InGaP, nanoscale InP islands by MBE 20738
  InSb-nanocryst. on Se-terminated GaAs(001), MEE/MBE growth comparison 20681
  Nb-Fe-B-type PM, proc. and props. 30749
  Ni, nanocrystalline, elec., mag., mech. props. 39127
  Ni single domain nanoscale bars, switching field, size effects 6997
  PbS nanoparticles embedded in polymer film, gas-aerosol reactive electrostatic deposition 20951
  $R_2Fe_{14}B$/Fe nanocomposite exchange coupled magnets, struct./mag. props. 7009
  Si 1D/2D nanostruct., lithographic/RIE prep., photolumin. obs. 30091
  Si isolated nanometer-size dot arrays, prep. studies 13148
  Si nanocrystalline films, laser-induced CVD 28839
  Si nanoparticles, photolum., surface passiv. role 38627
  Si nanostructures by anodic oxid., ECR etching 38537
  Si, porous, diode struct., elec./PV props. 38325
  Si porous layers, electron powder ribbon polycryst. plates 20662
  Si, porous layers, microstruct., spectrosc. ellipsometry obs. 22214
  Si, porous, nanocrystal size, preanodization ion implant. effects 1225
  Si porous nanostructures, electronic excitation, relax. mechanisms 14588
  Si, porous, photocond. 1790
  Si, porous, photolum., voltage-tunable electrolum. 14589
  Si_{60} nanoclusters, luminesc., chem. synthesis 31074
  Si:Ge epitaxial film, embedded nanocrystals, synthesis 12126
  Si:H, film, nanocryst., sputtered growth mechanism 12140
  Si:Sn(001), strain determ. and microstructural charact. 22150

nanostructured materials continued
  Si/$Si_{1-x}Ge_x(Si_{1-y}C_y)$ heterostruct., situ X-ray investig. 38306
  Si/SiO_x porous interface, paramag. centres 13349
  a-SiC/Si:P structs., P diffusion and interface segreg., HBT appls. 13118
  p-SiGe space power thermoelec. materials, nanophase inclusion expts. 26636
  SiN films, plasma-enhanced reactive sputtering, self-multilayered struct. 12176
  Sm-Co/Cr thin films, nanostructures 6962
  Sm-Fe-N/α-Fe remanence-enhanced mech. alloyed two phase magnets, coercivity 7010
  $Sm_2Fe_{17}N_3$/$Fe_{65}Co_{35}$ composite aligned two-phase magnets 7008
  SnO_2 thin films, nanocrystalline, casting 13073
  SnO_2-TiO_2, ultradisperse nanoheterogeneous systs., anom. photoresponse 1789
  TbFe magneto-opt. films, nanostructure and chem. inhomog. 14113
  TiC refractory material, laser ablation, cluster form. and deposition 28827
  TiO_2/PbS, nanocrystalline matrix-adsorbed cluster syst., quantum dot, photocond. 13176
  WO_3 thin films, nanocrystalline, casting 13073
  ZnO thin films, nanocrystalline, casting 13073
  ZnO-Bi_2O_3 varistors, proc. variables, grain growth, microstruct. 21584
  ZnSe-based nanostructures, waveguide DFB laser appls. 23296

nanotechnology
  2DEG channel, oxide wire, AFM fab. 38932
  3D-nanostructures for microdevice technol. *(Japanese)* 21803
  accelerated nanoparticle erosion, micromachining 39031
  alkylthiol/alkylsiloxane monolayers, electron beam lithog. 13491
  alkylthiol/alkylsiloxane monolayers, electron beam nanofabrication 30176
  allylcyclopentadienyl palladium, electron-beam-induced pattern deposition 6676
  black silicon nanowires, sub-10-nm, natural masking, RIE 30117
  chem. amplified neg. resist, electron beam nanolithography 22293
  chem. amplified pos. resists, micromachining 38738
  chem. beam etching, monolayer control, cation diffusion 13381
  cold-cathode field emitters, act. current limitation 21799
  combined lithographies, stitching errors 13483
  computational nanoelectronics, parallel algms, QMD 6830
  computing technols., Japanese research activities 6809
  drift diffusion modelling, alg. microscopic approach 38785
  dual-gate FET struct., fab. 30383
  electron, ion, and photon beams, symp., New Orleans (1994) 5484
  electron beam nanolithography, image reversal by ECR plasma oxid. 30180
  electron beam resist, nanofabrication, STM 13849
  electron-beam-induced deposition, additive lithog. 20922
  FIB technol. 38761
  global syst. model for X-ray lithog., image form. 13525
  III-V semiconds., photonic devices, clean/fine dry procs. 39809
  ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
  lithog., nanometer-scale dimens. metrology 13486
  locally focused electron-beam deposition 12175
  low energy e-beam lithog., energy control and variable energy exposure 30181
  low-dimensional electronic systems, Mauterndorf, Austria (1992) 11547
  metallic microstruct., fab., retarding-field focused ion beams 13485
  micro-heterostruct. semicond. devices *(Japanese)* 22416
  MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
  model nanoelectronic elements fab., electron beam induced struct. form. 30005
  mol. robots, hard chem. and wave packet engng. 952
  MOSFET, at. force microscope fab., nanolithography 30320
  NANOCON mag. materials, soft mag. props. 13905
  nanofabrication and microfabrication, conference, Davos, Switzerland (1994) 28244
  nanolithography, stitching and overlay errors 22289
  nanomechanical helical latch, Boolean logic operations 6872
  noble-metal nanoconstrictions and obs. of conductance flucts. 13428
  novolak resin, chem. amplif. neg. resist systs., nanometer-scale imaging charact. 13518
  optical instrumentation for process industries, conf., Germany (1994) 5486
  organosilane self-assembled monolayer resists, proximal probe study 13495
  pattern generation, localized CVD/STM 20921
  photonanofabrication and opt. nanoprobes 22810
  Phys Comp '94 conference, Dallas, USA 47
  physics and chem. of semicon. interfaces, conf., New York (1994) 20208
  planar-type MIM diode, STM nanometer-size oxid. 38449
  PMMA, grating and dot pattern nanofabrication, electron holographic lithog. 38706
  poly buffer LOCOS, in situ N-doped, for deep submicron CMOS 22591
  polymer surface morph. tailoring, improved adhesion 441
  polymeric LEDs, µm- and nm-sized 39580
  polysilicon-emitter transistors, fab., e-beam lithog. 30263
  pressure contact, nm-scale, surface layer effects 38060
  printability of sub-150 nm features in X-ray lithog., theory and expts. 13531
  proximity X-ray lithog., 50 nm, using SR 13530
  quantum dot, Coulomb blockade, X-ray nanolithography 13177
  quantum mag. disk, nanoscale struct., electron-beam lithog. 14245
  quantum neurocomputer 788
  quantum-effect devices, fab., X-ray nanolithography 38758
  reconfigurable stored program proc., appl.-specific hardware 21338
  rib waveguides, grating fab., electron-beam/X-ray lithog. 14461
  scanning probe microscopies, nano-electronics tool *(French)* 1302
  scanning probe microscopy, principles and appls. 13017
  semicond. nanostructures, ballistic cond., electronic interf. 21987
  single electron device develop. and technol. *(Chinese)* 22499
  single-domain mag. pillar array for ultrahigh dens. quantum mag. storage 7189
  soft X-ray projection lithog., resist perform., 5 nm 13570
  solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
  spontaneous form. mechanisms, nanostructure fab. 22085
  sub-Angstrom X-ray source, compact storage ring 43217
  super-ACO X-ray lithog., overview 13476
  switching nano-device based on Rabi oscills. 6565
  testing, diffractive struct. 38746
  ultra-high resoln. single-domain mag. force microscope tip, nanolithography prep. 14121
  V-shaped gate HEMT *(English)* 22480
  X-ray lithog., subnanometer alignment syst. 13482
  X-ray mask making, nanostructure patterning 13571
  X-ray resist-substr. interfaces, parametric modeling 13533

nanotechnology continued
Al single-cryst. nanostructures, fab. 30159
AlGaAs/GaAs nanostructures, surface-gate technol. 21972
AlGaAs/GaAs quantum nanostructures, STM at.-scale anal. 29940
AlGaSb/InAs nanostructures, CAIBE and electron-beam lithog. 13178
Au-SiN mask technol. for x-ray nanolithography 6683
Co/Cu multilayers on grooved substrs., perp. giant magnetoresist. 39172
CrO$_x$ lines, scanning tunneling lithog. 13494
GaAs oxide mask layers, in situ electron beam lithog., patterning mechanism 38770
GaAs/AlGaAs, column fab., RIE using Au island etching mask 30162
GaAs/AlGaAs quantum dots, ion implant. based nanofabrication, masks 13493
GaAs/AlGaAs/AlAs quantum nanostructures, mag. confined plasma RIE 13385
GaAs(100) surface, (NH$_4$)$_2$S$_x$-treatment, STM study 38595
InGaAs heterostruct., nanostructure fab., FIB technol. 13312
InGaAs strained quantum disk laser, nanoscale act. region 23216
Ni single domain nanoscale bars, switching field, size effects 6997
Ni, single-domain mag. pillar array, fab. 14244
Si MEMS piezoelec. microactuators, nanoindentation charactn. 13914
Si, direct laser etching, 3D nanostructures 30098
Si field emitters, electron beam lithog./plasma etching 29755
Si nanostruct. single-electron transistor, NTT prototype device 38944
Si nanostructures by anodic oxid., ECR etching 38537
Si point contacts, nanofabrication, MBE growth, transport meas. 13128
Si point contacts, nanofabrication, gas-source MBE 29895
Si surface, RIE, Nd:YAG laser image transfer 22172
Si surface, patterned Au deposition, STM tip-induced anodization 28804
a-Si:H, nanometer lithog., low-energy electrons 30177
Si:H surfaces, nanometer scale patterning/oxid., UHV STM 13496
a-Si:H,P films, elec. act. nanoscale struct., STM prep. 21929
Si/SiGe nanometer struct., fab. 29941
Si-FET, side gated, nanometer scale fab. in at. force microscope 30321
Si(100), self-sharpening {338} tips, etching 30123
Si(100) surface, STM field induced nanomodification 30116
Si(100) surface, nanoscale STM-patterning, chem. modif. 30175
Si(110), STM nanolithography 30179
Si(110), nanometer-scale struct. fab. 30178
Si(111)7×7 surfaces, regular artificial nm scale struct. fabricated, STM 38538
SiGe, low temp. UV oxid., Ge nanocrystal prep. in SiO$_2$ 22252
SiO$_2$, catalyzed HF vap. etching for micro-/nanolithographic masks 38556
SiO$_2$ nanometer cracks prod. by plasma-chem. etching, IC memory elements 30127
SiO$_x$N$_y$ nanometer thin films, nitridation, phys. charact. 30073
SiO$_x$N$_y$, sidewall proc. and pattern transfer 13490
YBa$_2$Cu$_3$O$_7$ Josephson jn.-based digital ccts., nanoscale patterning 14298
YBa$_2$Cu$_3$O$_{7-\delta}$ nanobridges, coherent cortex motion 14303

narrow band gap semiconductor materials *see narrow band gap semiconductors*

narrow band gap semiconductors
Ga$_{1-x}$In$_x$As-InAs$_y$P$_{1-y}$-InP, strain relax., photodiode appl. 12054
metal/III-V-semicond. contacts, fab./props. 1162
Cd$_x$Hg$_{1-x}$Te, long-channel MIS transistor charact. 30302
CrSi$_2$/Si(111), monotype domains, SPE on vicinal surface 5832
HgCd(Mn)Te gapless semiconds., hole thermal emf, temp. depend. 1049
HgCdTe, surface passiv. by electrochem. proc. *(Korean)* 30110
Hg$_{1-x}$Cd$_x$Te, narrow-gap, laser emission 14894
InAs/InAs$_x$Sb$_{1-x}$ midinfrared lasers, CW operation 23202
n-InSb doped crysts., parametric amplif. and oscill. 40115
PbS films, irrad., elec. props. 13091
ReSi$_2$ thin film photoresistor, IR detect. appls. 34501
ZnSe, press.-induced semicond.-metal transit. 21912

natural gas technology
acoustic sens. for natural gas combustion props. determ. 3911
fire-resistant and cryogenic opt.-fiber cable 5569
mobile mapping syst. using CD-ROM, gas company *(Japanese)* 42213
North Sea oil and gas installations, maint. risk-based optim. 20189
offshore field develop., life cycle availability assess. 20192
offshore gas pipeline compressors, sync. motor ASD 11518
offshore watersource heat pump appls. 28197
SOFC R&D initiatives, Norway 44348
SOFC-integrated power plants, natural gas firing 43957
thermal power generation, natural gas-fired, future prospects 35965

natural language interfaces
avionics multimodal dialogue, cognitive and sens.-motor interact. *(French)* 18712
conversation, computer aided for phys. impaired nonspeaking people 40759
cursive script recogn., time delay neural networks and HMM 32661
database query generation from spoken sentences 2452
digital sound processing architectures, sound synthesis, complexity optimisation 34298
Greek reading machine for visually impaired 4320
hierarchical HMMs for natural spoken lang. understanding *(German)* 40735
intonation spec. from context for speech synthesis 2436
multimodal consumer inform. server, IVR menu 3131
PASS, parallel speech understanding system 8202
PEGASUS, spoken dialogue interface for on-line air travel 15848
POLYPHONE corpus, Dutch for appl. develop. 3137
power syst. control, natural lang. speech interfaces 4559
speaker-independent continuous speech dictation 2413
speech recogn. candidates, chart parsing 32368
spoken dialogue, utterance units/topic struct., temporal charact. 32444
spoken lang., robust real-time interp. 15857
spontaneous speech recogn. search algm. 32392
telephone intermediary syst., voice activated 2451
telephone speech-interactive automation syst., dialog design 2449
telephone voice interfaces on the cheap, Zap & Zoom 41720
telephony, computer-aided, user-oriented dialogue struct. 16615
Texas Instruments multiserve enhanced voice services 3133
voice based human interface, speech coding, synthesis and recogn. *(Japanese)* 40754
VoiceMap spoken lang. syst. assess. 2450
WAIS, distributed inform. service for Internet access 16759

natural language processing *see grammars; natural language interfaces; natural languages*

natural languages
see also natural language interfaces
ARPA spoken lang. technol. demons. and appls. 32289
ATR research activities on speech translation 2444
Australian Nat. Database of Spoken Language 32233
automatic intonation tone contour labelling/class. algm. 32402
automatic lang. ident., perceptual benchmarks 32288
automatic lang. ident., sub-word models 32278
automatic lang. ident., syllabic spectral 32277
Bayesian belief networks stochastic parsing 24131
bimodal speech recogn. expts., recurrent neural networks 32426
CAPP, natural lang. part descriptions 28413
character set codes transform. for network appl. 16744
character-sync. integrated speech and lang. model, joint learning 32372
Chinese character encoding *(Chinese)* 24112
Chinese characters, modified simplex input method 24074
Chinese characters, user-defined 24076
confirmation and modif. of character recognized results *(Japanese)* 2621
connectionist parsing of spoken lang., complex output representation 32296
context-free large-vocab. connected speech recogn. 32393
continuous Mandarin speech recogn., segmental probab. model 32390
continuous speech recogn., HTK software toolkit 32388
continuous speech recogn., string hypothesization algm. 32395
continuous speech recogn. algm., telephone directory appl. 15845
conversation as collaboration, syntactic evidence 15841
conversational misunderstandings/non-understandings repair 15840
corpus-based local context anal. for spoken dialogues 15839
cross-lang. adaptation for rapid HMM devel. in lang. 32268
dialogue stat. modeling, next utterance speech act type 15838
educational electronic brainstorming syst. in Eng. teaching 9031
Eng., spoken, understanding, context 2453
Eng. intonation, rise/fall/connection model 2422
ergodic HMM and polygrams for lang. modeling 32294
European langs., poly- and mono-phonemes ident., data-driven clustering 32239
French, metrical patterns/lexical parsing 2420
German, prosodically marked phrase boundaries, automatic class. 32400
hand-written kanji recogn., HoneycombNET *(Japanese)* 2618
hierarchical HMMs for natural spoken lang. understanding *(German)* 40735
Hindi vowels in consonantal context, acoustic/perceptual study 15851
hybrid HMM/MLP speech recognizer, linguistic, incorporation 32434
ident., phone-based acoustic likelihoods 32276
ident., phoneme-based, anal. 32275
image representation for European lang. determ. 41313
internat. interpreting telephony *(Japanese)* 3101
isolated Mandarin syllable recogn., segmental 32413
isolated word recogn., hybrid neural network 32429
JANUS 93, towards spontaneous speech translation 32291
Japanese/Eng. digit recogn., comparative anal. 32234
Korean, part-of-speech tagging, HMM *(Korean)* 24154
KT-STOCK large vocab. speaker independent recogn. syst. 2440
large vocab. speech recogn., comparative expts. 32343
learning consistent semantics from training data 32374
LIMSI continuous speech dictation syst., eval. 32342
Mandarin Chinese, dictation syst., R&D 24144
Mandarin continuous speech, tone recogn., prosodic inform. 2423
Mandarin multispeaker isolated digits recogn. 2434
Mandarin neural network-based F0 text-to-speech synthesiser 2432
Mandarin speech recogn. syst., large vocab. 24142
NTT speech proc. technol. and telecommun. appl. 2441
NYNEX interactive speech/lang. systs., telecommun. appl 2443
Philips automatic train timetable IS 3130
prosodic rules for speech synthesis, automatic generation 32351
recurrent neural network based speech recogn. 32430
robust lang. model, substring parser and extended n-grams 32295
Spanish text to speech conversion, data-driven f$_0$/duration modeling 32350
speech dialogue syst., simultaneous understanding based 15847
speech pattern anal. for four south Indian langs. 32284
speech recogn., local/global constraints, stochastic lang. model 32366
speech recogn. candidates, chart parsing 32368
speech recognizer, ref. model optimisation via pronunciation variability *(German)* 40738
SPHINX-II speech recogn. syst., VQ codebooks and adaptive lang. models 32340
spoken dialogue syst. design, stochastic modeling 15846
spoken dialogue syst. for CD-ROM inform. retrieval 15850
spoken lang. ident. by ergodic HMMs 15806
spoken lang. systs., research directions 8219
SSS-LR continuous speech recogn., non-uniform unit parsing 32394
std. British/ToBI prosodic transcription systs., conversion 2418
stochastic CFG rules learning from example text 32293
stress shift, category ambiguities resoln. 2419
syntactic/semantic/dialog-level constraints integrat., heuristic search 32371
telephone network automatic call routing 3136
telephone speech messages automatic lang. ident. 32279
telephony, archit. for defining, and exploring interacts. 3146
text-to-speech conversion syst. for Basque lang. 15834
text-to-speech synthesis, rhythmic patterns characterisation 2421
text-to-speech syst. for Japanese, waveform splicing, develop. 32345
TOSBURG II, spontaneous speech dialogue syst., eval. 15849
voice transaction proc. appl., Spanish text-speech conversion 2448
word recogn., large vocab., tree-trellis search 32391

natural radioactivity hazards
coal-fired power plants, radiological impact, dose assess. 4345
low background HPGe detector, Holborn Underground lab. 26136
NORM, contaminated sites, cleanup criteria 18683
peninsular Malaysia west coast highway, radiation levels 4222
Rn, SSNTD ventilation rate, equilib. factor meas. 10126
Rn exposure, polycarbonate etched track detector calib. 18379
Rn low level detect., Lucas scintillation cell, efficiency 18362
Rn, meas. tool, buildings, remedial actions 18367
^{222}Rn gas, low-emanating materials, sensitive effluent method 18630
^{222}Rn progeny, automated gross alpha/beta activity monitor 43400
^{222}Rn progeny inhalation dose, Japanese NPP 18677

natural resources
see also agriculture; aquaculture; dams; energy resources; forestry; mining; water supply
LandcareNET, lateral inform. transfer for sustainable agric. in Australia 8980
sustainable develop., role of technol. 5469
trophical and morph. status of water resources, airborne hyperspectral algms. 18878
natural rubber *see rubber*
natural scenes
color image segmentation, tree representation *(English)* 41204
color scene matching, graph theoretic method 32961
colour image segmentation, perceptual method *(French)* 16185
Gabor wavelets for texture edge extraction 41274
motion video anal., planar parallax 8488
opt. flow for autonomous navig. of moving vehicles 24449
photogrammetric tech. integrat., conf., Orlando (1993) 36888
region segmentation, navig. images, fractal dimens. estim. *(Japanese)* 8510
natural sciences applications of computers *see natural sciences computing*
natural sciences computing
see also astronomy computing; biology computing; chemistry computing; environmental science computing; geophysics computing; mathematics computing; medical computing; physics computing; scientific information systems
Byelorussia, networking for sci. and education 41775
CASA project, high-perform. distributed computing environ. 16727
metrological software, QA 17622
teaching improved of electronic mail 36912
naval engineering
see also marine systems; naval engineering computing
consolidated automated support system for Navy sensors 43571
electrothermal guns, capacitor charging, voltage/current control 19777
helicopter avionics, LAMPS MK III block II simul. 10344
helicopter avionics, mission proc. archit. 10339
missile testing management 43597
torpedo transducer, automated calib. facility 10594
naval engineering computing
AEGIS ORTS integrated diagnostic system 42716
Coast Guard differential GPS Network and GIS 33973
expert maint. advisor develop., navy shipboard systs. 9812
LAMPS MK III reengineering, LOS ship-to-ship teleconferencing 16808
pulsed power guns, power syst. simul. 35408
ROV 6000 advanced data mgt. 16772
ship mag. protection, vectorial mag. field determ. 18043
Navier-Stokes equations
3D plasma armature railgun simul. 15371
conjug. gradient sq. preconditioning methods for Newton's method solvers 249
convergence of Legendre methods for NS eqns. 273
Fourier pseudospectral-finite difference method, incompressible flow 274
gas-particle flows, Cobra probe, purging 26010
high power lasers, improved mfg. procs. 15194
nonhomogeneous NS eqns., error estim. for spectral semi-Galerkin approxs. 11956
num. soln. of coupled syst. of ellipt. eqns., age fractional scheme 267
navigation
see also aircraft navigation; computerised navigation; inertial navigation; missile guidance; radar applications; radionavigation; sonar; tracking
aircraft navig. and data links, automatic depend. surveillance (ADS) *(French)* 3378
automobile navig. syst., visibility meas./eval. syst. *(Japanese)* 25684
autonomous underwater vehicle navig., sparse ref. points 34171
autonomous underwater vehicles, acoustic tracking/navig. 17361
divergent stereo in autonomous navig., bees, robots 41084
Doppler sonar navig., matrix algm. 34170
electric vehicles for disabled persons, IEE Colloquium, London (1995) 28274
EMC of code-sens. commun. syst. 24889
European permanent traffic observatory project, marine traffic radar data *(English)* 3593
generalized proportional navig., maneuvering/nonmaneuvering targets 26824
geolocation anal. by TDOA, comments/reply 32546
gravity field model, TOPEX/POSEIDON ocean radar satellite 18862
intelligent sensor fusion, conf., Las Vegas, NV, USA (1994) 28256
interferometric fiber optic gyros and appls. *(Japanese)* 3858
lunar landing navig. schemes, precision landings 4356
missile guidance sig. estim., Kalman filter 26809
mobile robot navig., sonar range data segmentation 43561
mobile robot outdoor navig., tree detect./dead reckoning 41109
navig. satellite selection, neural networks 42321
ocean electronics, conf., Cochin, India (1991) 11591
ocean electronics, conf., Cochin, India (1993) 11590
peak-holding navig. syst., obj. coord. correction 25604
radar target enhancer for navig. buoys, develop. and testing 25577
region segmentation, navig. images, fractal dimens. estim. *(Japanese)* 8510
ship syst. elec. meas. instrums. *(Croatian)* 3926
SOCRATES, European in-car radio navig. syst. 42540
stereo vision, ground plane obstacle detect. 8645
TOPEX/POSEIDON ocean radar, precise orbit determ. 18860
TOPEX/POSEIDON ocean radar satellite, CNES orbits 18861
TOPEX/POSEIDON ocean radar satellite, Earth gravity models 18862
unmanned autonomous underwater vehicles characts. 10529
vehicle localisation in poorly known environ. 24356
NDT *see nondestructive testing*
near edge structure, X-ray absorption *see XANES*
necking
AlN, 3D interconnected porous composites, proc., electronic packaging 146
Sn-Sb solder, room temp. tensile prop. 434
Neel temperature
$CuO/Al_2O_3(MgO)$ multilayers, mag. props. 39170
$Dy/DyFe_2$ eutectic, magnetisation, stress effects 7006
$Gd_{1-x}Sr_xFeO_{3-\delta}$, struct., mag. props. 14104
$(Tb_{0.6}Dy_{0.4})_{0.42}Fe_{0.58}$, magnetization, Young's modulus and magnetostriction 7004
$(Tb_{0.6}Dy_{0.4})_{0.72}Fe_{0.28}$, magnetization, Young's modulus and magnetostriction 7004
$(Tb_{0.6}Dy_{0.4})_{0.9}Fe_{0.1}$, magnetization, Young's modulus and magnetostriction 7004
negative binomial distribution *see binomial distribution*
negative feedback *see feedback*
negative feedback control systems *see closed loop systems*
negative impedance convertors
CMOS differential voltage-to-current converter 21467
floating generalised NIC/NII config., single opamp implement. 29354
ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
negative proportional transformers *see negative impedance convertors*
negative resistance
see also negative resistance devices
2D semiconductors, negative differential resist., conf., Lucca, Italy (1992) 11546
accumulation-base bipolar transistor, voltage controllable NDR *(English)* 22363
CMOS cryst. oscillators, neg. resist./equiv. capacitance 6925
common-collector bipolar transistor based oscillator design 830
double barrier quantum struct., shot noise 13199
nMOS ESD I/O protection structs., EOS suscept. 6749
p-n-p-n-struct. equiv. for integrated radio-electronic devices 33756
quantum well struct., rapidly changing transm. coeff., HF cond. 13162
quartz crysts., test oscillator for drive level study 30617
reverse-channel HV lateral IGBT, characts. study 30328
SC higher-order immittance simul. ccts., synthesis 12308
semicond. superlattices, Bloch oscills., four wave mixing 6543
SOI MOSFETs, submicron, self-heating effects 22470
space station secondary elec. power syst. modeling/simul. 26612
thermionic converter, interelectrode gap neg. resist. 28025
Zener diode, neg. resist. characts., onset of avalanche breakdown 22345
AlGaAs quantum waveguides, neg. differential cond. 6567
AlGaAs/GaAs HBTs, influence of emitter edge current on NDR 13632
AlGaAs/GaAs double-quantum-well devices, quantum state transfer 6561
AlGaAs/GaAs heterojunctions, high elec. fields, real-space transfer and current filamentation 1076
n-AlGaAs/InGaAs/GaAs struct., hot electron ballistic transport 38358
AlGaAs-InGaAs strained-layer quantum well three-terminal switching device 22504
As-Te-Se glasses, neg.-resist. and memory switching 13076
$Au-SiO_x-Au$ sandwich structure, AC elec. cond. 22083
Fe-Si multilayers, antiferromag. coupling/magnetoresist. 14214
GaAs films, anom. PV effect/neg. photocond. 39554
GaAs:Si(Cu) , opt. activated pulsed power switch, 2D model 39572
$GaAs/Al_xGa_{1-x}As$ modulation-doped multilayer heterostructures, current oscillations 29886
GaAs/AlAs, RTD with asymmetric spacer layers, microwave impedance 13606
GaAs/AlAs superlattice, X valley minibands, neg. differential cond. 1088
GaAs/AlAs superlattices, in-plane photocurrent spectrosc. 38317
GaAs/AlGaAs HET, quasi-ballistic electrons, reson. tunnelling 13654
n-GaAs/AlGaAs MQW struct. with Schottky and ohmic contacts, seq. tunneling 29897
GaAs/AlGaAs edge overgrown lateral superlattice, high field transport 13175
GaAs/GaAlAs heterojunctions, real space transfer 13126
GaAs/InGaAs, δ-doped heterostruct., hot carriers, NDR transistor 30374
GaAs/InGaAs:Si/GaAs(AlGaAs) δ-doped quantum wells, neg. magnetoresist. 29918
GaAs-Si films, anom. PV effect/neg. photocond. 39554
GaInAs/AlInAs superlattices, nonlin. cond., space charge wave generation 1120
$Ge_{27}Te_{62}Se_{11}$ chalcogenide glass, I-V characts., switching behaviour 29870
InGaAs/AlAs RTD, double barrier, dominant photogenerated valley current 13589
InGaAs/GaAs depletion-MIS-like delta-doped HFETs 13810
InP n^+nn^+ diodes, hot carrier noise, Monte Carlo simul. 1348
InP:Fe, nonlinear behaviour under high elec. field 13046
Si MOSFET, quasi-1D and Coulomb blockade devices 1401
Si double-barrier struct., fab. 38343
Si films, anom. PV effect/neg. photocond. 39554
a-Si single-barrier device, neg. resist. charact. 6811
SiC single-barrier device, neg. resist. charact. 6811
$Si_{1-x}Ge_x$, strained, hole transport, Monte Carlo simul. 38278
negative resistance devices
see also Gunn devices; tunnel diodes
act. array module for spatial power combiners/act. antennas 31990
act. genetically derived filter ccts., preferred value components 37845
act. RC filters, HF compensation of FDNR *(Japanese)* 12639
asynchronous excitation phenom. in oscillator,periodically operating analog switch *(Japanese)* 12358
coplanar MMIC act. bandpass filters, neg. resist. ccts. 12819
floating resonator terminal cryst. oscillators, freq. charact. meas. of neg. resist. *(Japanese)* 22680
injection-locked oscillating freq.-converters in dyn. phasor-domain, perturb. 6261
LAOS, light amplif. opt. switch, phys. model 7465
linear active dipole array loading by neg. resist. devices 23980
LV low power digital ccts., monolithic integrat. of RTD/HEMT 37691
microwave oscillator, neg. differential mobility, freq. limitations 13134
MIM thin-film devices, NDR characts. rel., film resist. 29989
monostable-bistable transit. logic elements, RTD/FET integrat. 37735
monostable-bistable transit. logic elements, RTD/FET integrat. 21234
NDR-SPICE cct. simul. of reson. tunneling devices 22336
oscillatory cct., async. simultaneous oscills. 21140
power dual base transistor, voltage/current controlled FM *(Chinese)* 38846
quantum-well diodes, harmonic and intermodul. generation 29570
quartz crysts., test oscillator for drive level study 30617
RTT, coupled-quantum-well base, simul. 38844
THETA transistor, high power THz freq. source 838
AlGaAs/GaAs, charge injection transistors, real space electron transfer 38823
AlGaAs/GaAs double-quantum-well devices, quantum state transfer 6561
AlGaAs/GaAs superlattice-emitter reson.-tunneling bipolar transistor, double NDR 38851
GaAs MIMIC TED-oscillator, 60 GHz, perform. 29590
GaAs/AlGaAs, double heterojunction, triangular barrier switch 30387
negative temperature coefficient thermistors *see thermistors*
negotiation support systems
sync. generators, computerised design proc. 27693

nematic liquid crystals
birefr. nonlin. film, polariz. switching, stimulated orient. scatt. 40036
cells, opt. nonlin., voltage sensitivity 7730
chiral nematic, polymer dispersed, lin. light modulation 14543
conf., Hungary (Oct. 1993) 11577
diacrylate in polymer networks, NLC displays 1748
double supertwisted nematic screens, color contrast enhancement 39498
electrooptic light modulators, NLC layers 1744
film, cross-polarized self-starting phase conjug. 23415
high-opt.-isolation low-loss moderate-switching-speed NLC opt. switch 1746
inter satellite cross links, non-mech. laser beam steering/spoiling methods 17308
LCD, nematic, Monte Carlo simul. 39501
LCD, wide-viewing-angle display mode, bend-alignment cell 42871
LCDs, surface mol. alignment, electrooptical perform. 7407
light control glass, liq. crysts. 22949
memory-type polymer-dispersed CLC, elec. write/erase operations 31003
moving-image quality of act. matrix LCD 18004
nonlin. opt. phenom. 23447
nonlin. waveguide, light-induced Frederiks transit. 22904
opt. attenuator, liq. cryst. film 7412
opt. bistability study 23448
opt. phase device modelling 39497
panels, phase retardation meas. 31009
phased-array antennas, liq. cryst.-based opt. controllers 7398
planar liq. cryst. opt. switch for opt. commun. 34014
planar waveguide directional coupler with NLC, nonlin. effects 30957
polymer-aligned liq.-cryst. cells, surface layer thickness 14539
projection screens, opt./electro-opt. charact. 39494
reflective STN-LCDs, retardation film *(Japanese)* 22959
reflective twisted nematic LCD birefr. wavelength dispersion effect *(Japanese)* 18010
self-starting phase conjug. 40053
side chain liq. cryst. polymer, computer controlled dielec. meas. 17672
TFT-LCD, viewing angle improvements 34641
twisted NLC panel optim. for spatial light PM 31007
twisted NLC panels, PM capability, double-pass config. 39495
twisted NLC SLM, ternary phase-AM 22955
Nd:YAG double-pass laser amp., NLC phase-conjug. mirror 7600
Nd:YAG four-pass laser amp., phase conjug. NLC mirror 23160
Nd:YAG laser beam, self-pumped phase conjug. in NLC, feedback 31548
NEMP *see electromagnetic pulse*
nephelometry *see turbidimetry*
Nernst effect *see thermomagnetic effects*
Nernst-Ettingshausen effect *see thermomagnetic effects*
nerve conduction *see neurophysiology*
nervous system *see brain; neurophysiology*
network analysers
2.5 Gb/s SDH/SONET analyzer, jitter option develop. *(Japanese)* 33975
AC network quantities representation, synchronoscope 10785
ANAs, ANA, quality comparison assess. of network meas. 25741
computer networks, rem. monitoring probes and mgt. appls. 17694
cylindrical objs. dielec. meas. in rect. waveguide 18030
discovery/monitoring algms. integrat. 41840
EM refls., PCs appl. 37938
global internetwork troubleshooting 16612
Hewlett-Packard low-cost RF NWA 25739
HF impedance analyzer up, 1.8 GHz 9828
HF iron loss measur., vector spectrum method 3958
HP8410 ANA syst. response calib. 34385
III-V FETs, pulsed semicond. param. analyser syst. 1431
leaky NWA calib. algm. 34314
low loss dielec. materials meas., 60 GHz band 3955
microstrip wafer calibration, process variations effects 25703
MM-wave NWA, single six-port reflectometer 34424
multiport vector NWA calib. 17635
Network Time Protocol servers, survey tool for discovery 24959
PCB crosstalk reduction with additional center traces 21618
permitt., permeab. and EMI shielding meas. 17696
protocol conformance test syst. using Petri nets, correctness of test logic programs 8765
rect. quartz plates vibrs. characts. meas. 30614
Rohde & Schwarz scalar NWA Polyskop ZWOB 9833
Rohde & Schwarz TV Network Analyzer SOKF, integral digital oscilloscope 9832
spurious resons. meas. of cryst. units 30616
time domain network analyzer, calibration/normalisation 25745
vector ANA, TRL calib. method 42680
vector NWA calibs., adapter effects 3760
vector reflectometer, portable, appl. for thickness and permitt. dielec. meas. 18048
very high resolution network analyser design 25746
network analysis
see also circuit analysis computing; linear network analysis; nonlinear network analysis; transient analysis
1 kW third-harmonic modulated AC/DC power electronics interface 44213
400 V/10 A matrix power converter, induction motor drive appls. 19811
1200 W zero output impedance UPS inverter 44170
AC-DC boost power converter, high PF, cct. anal. *(Japanese)* 11189
AC/DC buck rectifiers, supply voltage imbalance anal. 5994
AC/DC six-pulse power convertors, steady-state modelling 44123
act. band pass higher order element filters, cct. anal. *(Russian)* 6204
act. cct. anal. 37853
act. filters, fractional shifts of ω_0 and Q, Budak-Petrela's method 37838
act. RC second-order filter, modes comparison 6208
act. voltage attenuator using two cascaded MOSFETs, perform. 736
arc welding forward PWM inverter power source anal. *(Chinese)* 44633
boost PWM power convertor anal., averaging theory extension 11151
broadband matched terminations in planar structs., simul. 12746
buck rectifier, unity PF, nonlin. ripple feedback 36244
buck ZCS-ZVS PWM DC/DC power converter topol. 11167
buck ZVC-ZCS HF PWM power converter studies 19716
capacitated-flow network, min. pathsets, reliab. eval. 37201
CCIIs, act. network anal. 6212
circ. networks, conductors determ. from boundary meas. 12253
circuits systs., symp., Chicago, USA (May 1993) 31
class DE RF power amp., impedance plane anal. 551
CMOS cryst. oscillators, neg. resist./equiv. capacitance 6925
network analysis continued
CMOS differential voltage-to-current converter 21467
constant voltage anemometer circuit anal. 34447
contact welding equipt., biperiodic rectifier anal. 11506
controlled-root formulation for digital PLL 29076
cpd. quasi-opt. power combiner, cct. anal. 812
current source PWM rectifier cct. studies 44181
current transistor-transistor-inductor oscillator 580
current-mode rectifier, improved precision 21111
current-source reson. DC-DC MOSFET power converter anal. 44222
cycloconverter EMC problems, stochastic anal. appls. 5076
DC-DC converter with current injected control, current runaway anal. *(Japanese)* 5989
DC/DC LCC reson. power converter, digital control models 6010
DC/DC power convertor random switching control, LF noise studies 44155
DC/DC power convertor switching ripples, averaging anal. method *(Japanese)* 27795
DC/DC PWM reson. power converter topol., pulse load appls. 11172
DC/DC quasi-reson. ZCS power convertor topologies 44220
DC/DC ZVS power convertor, batt./solar cell sources 44169
DC/DC ZVS PWM forward power converter design 5045
deterministic chaos, theory, cct. anal. appl. *(Polish)* 37580
disjoint products approach, reliab. computation, survey 37203
disk-drive PLLs, anal./optim., Kalman filters 37675
elec. cct. anal. teaching, intell. computer tutor 5527
elec. network anal. course, content/results/instruction 20276
elec. network anal. course, problem types/sequencing 20277
exponential-hold circuit, properties and applications 29424
fault detect. cost reduction, BDD formalism 21015
fixed freq. LCL series reson. converter 29001
flyback PWM power convertor, nondissipative snubber optimal design 19709
flyback ZVS PWM power converter-nondissipative snubber calcs. 5047
fourth-order DC/DC power converters, limited duty cycle range 19792
full-bridge DC/DC power converter, extreme conditions operation 44137
full-bridge series-reson. rectifier, telecom. appls. 19831
GTO snubber networks, diode charactn. techs. 523
HF switching reson. power convertor, reson. rectifier appl. 44135
induction motor power supply, single/three phase conversion anal. 27722
Jones DC-DC converter, traction drive appls., av. modeling 19812
k-order reduced graph method for finding k-order cofactor *(Chinese)* 12251
kernel hidden unit anal., network size reduction by entropy minimization 37578
large-scale microwave networks, symbolic anal. 828
load distributor static and dyn. network anal. *(German)* 43731
lossless multiport network theorem 28928
low-power operation, self-timed ccts. and supply voltage scaling 593
mag. parametrons, chaotic oscills. studies *(Polish)* 577
measure of network fault tolerance, network resilience 5941
microwave heating, PWM flyback converter, nondissipative snubber 11479
Midwest Symp. on ccts. and systs., Detroit (1993) 33
mm-wave Gunn oscillators, harmonic injection locking 12759
mode-locked arrays of automatic level control oscillators, anal. 12773
multi-output SMPS EMI filter anal./design 44156
multielement two-terminal network resist., freq. independence study *(Russian)* 37579
multimodule parallel series-loaded reson. converters 29002
multiphase series-reson. power converter, novel topol. 19721
multiple cryst. filter IF strips, spec., design, and anal. 39080
multiple loop feedback OTA-C filters, perform. anal. 37848
multiple-output buck-type power converter, dyn. characts. 44153
multiple-output DC/DC power converters, stacked secondary anal. 19793
multiresonant PWM converters, reson. inductor freewheeling 6021
multistage amps., noise calc., equiv. input noise voltage 37639
multistage microwave two-port networks, IMD anal. *(Korean)* 12738
node expansion theorem for controlled sources 5943
oscillators for low phase noise/power consumpt., anal./optim. 37659
parallel reson. CSI, cct. design/anal. 44136
parallel-module power converter, current bal. controlled, dyn. anal. 44140
planar circulators, boundary element anal., spurious solns. elimination 12012
power cct. variable act.-pass. reactance studies *(Japanese)* 12311
power convertor busbar struct., current distrib. effects simul. *(Russian)* 44112
power convertor snubber energy recovery, pass. cct. configs. 526
power transformer windings, reduced modal models 5016
pulsed power capacitor rapid discharge ccts., param. estim. 27825
pulsed power energy capacitance integrator studies 19706
PWM CSI, PM sync. machine harmonic torque rejection appls. 36354
PWM DC/DC full-bridge ZVS power converter anal. *(Chinese)* 36337
PWM invertor AC motor drives, chaotic current control anal. 44480
PWM invertors, additional zero-seq. harmonics techs. 44163
PWM inverters, regularly sampled sinusoidal modulation technique 19772
PWM invertors, transient regime output params. correction *(Russian)* 44113
PWM power converters, discrete-time large sig. anal. 5086
PWM VSI, motor appls., HF leakage currents modelling *(Japanese)* 27814
quasi-reson. power converters, generalized state space averaging anal. 11150
quasi-reson. PWM DC link inverter topol. 19731
quasiresonant power converters, small-sig. modelling 11139
reson. DC link VSI, soft switched, cct. perform. studies 36282
reson. power converters, variable capacitance device appl. 19828
RF vector analyzer based on synchronous sampling 25958
sampling amp. diode bridge switches, offset voltage 37896
SC filters with weakly nonlin. capacitors, harmonic distort. 729
SC networks, nodal anal., linked-capacit. cct. model 5982
second-order PLLs, separatrix cycle, calc. and stabil. 21157
self-excited induction generators, rectifying bridge studies 36084
self-reson. DC-DC PWM power converter family 11168
self-reson. PWM forward DC/DC power converter 44225
SEPIC PWM ZVS dual power converter perform. studies 11130
series reson. DC/DC power convertors, perform. prediction 19708
series-parallel reson. converter, magamp postregulators 6020
series-parallel reson. power converter, small-sig. modelling 5122
single op-amp sinusoidal RC oscillators, equiv. forms 568
single-phase AC/DC low-harmonic power convertor 44168
single-phase PWM power converter models *(Japanese)* 36349
sinusoidal oscillators, single element control, current-feedback amp. 21137
SMES, DC power line appls., input/output cct. studies *(Japanese)* 11309
SMPS power converters, planar integrated filter/snubber cct. 19763
soft-switched parallel inverter, topol. anal. 11144
soft-switched PWM current source rectifier/inverter 11145

network analysis continued
- soft-switched PWM rectifiers, perform. improvement 11173
- spatial elec. ccts., automatic anal., graph theory 37576
- SRM drives, energy recovery snubbers anal./design 20057
- static power convertor filter capacitor fault detect. methods 19827
- static timing analyzers, sensitizable path anal., reconvergence method 28931
- stray capacitances of two coupled inductors 21596
- student lab. course, knowledge validation 20279
- switched-mode AC/AC voltage regulator, anal., design 5113
- symbolic anal. of networks with nullors, cct. level decomp. 460
- thin-strip capacitive nets, review 458
- three-phase AC-AC power convertor, cct./control anal. *(Japanese)* 11191
- three-phase AC/DC step-up power convertor anal. 36372
- three-phase bridge rectifiers, harmonic filter studies *(Polish)* 5995
- three-phase diode bridge rectifier, harmonic currents calc. 11119
- three-phase diode rectifier, PF/harmonics improvement 19850
- three-phase diode rectifier utility interface, harmonics reduction 19751
- three-phase four-wire distrib. syst. act. power filter 19278
- three-phase invertor-based act. power harmonic filter 19740
- three-phase isolated PWM ZVS buck rectifier 36243
- three-phase quasi-reson. soft switched thyristor invertor 19732
- three-phase voltage-source utility interface power convertor 19737
- three-phase VSI, space vector simplex PWM methods perform. 44174
- three-phase VSI nondeterministic AM-PWM strategy 44161
- three-stage Dickson voltage multiplier, dyn. anal. for optimized design 12333
- TLM algm., alg. anal. method, charact. eqns. 12258
- TLM mesh dispersion anal., scatt. matrix formulation 23763
- transimpedance amps. with cascode struct., anal., MMIC amp. appl. 12807
- Tri-Level PWM CSI, lin. controlled boost voltages 27806
- unbalanced AC voltage supplies, SVC dyn. anal./design 19124
- variational cct. anal. techs., introduction 28924
- ZVS PWM half-bridge power converter studies 44197
- ZVS PWM inverters, DC voltage notching scheme 19736
- ZVS PWM power converters, saturable reson. inductor anal. 19762
- ZVS-clamped voltage DC/DC PWM single-switch power convertors 11169
- InP-InGaAs high-speed heterojunction phototransistors, electrode 14611
- ZnO varistors, dielec. charactn./equiv. cct. studies 867

network analysis (management) *see management science*

network databases *see database management systems*

network equalisers *see equalisers*

network interfaces
- AAL5, ATM Adaptation Layer 5 for gigabit LAN 3191
- AD8600 series multimedia TDM *(Japanese)* 25155
- ATC, Ada computer commun. interfacing 41773
- ATM LAN emulation 16758
- ATM LANs, exposed buffering/sub-datagram flow control 33516
- ATM LANs, protocol/interface 3192
- automatic vehicle location subsystem interfaces 3461
- B-ISDN internetworking unit, VLSI implement. 16798
- Berkeley Networks of Workstations Project 33531
- BiCMOS gate array for B-ISDN 622 Mb/s UNI 33680
- C166 microcontroller connection, controller area networks 41876
- CODE mesh VSAT network, protocols eval. 16515
- controller area network, real-time commun. anal. 3177
- Cranium, interface for message passing on adaptive packet routing networks 25030
- distributed connection manager, obj.-oriented interface 9057
- DS-CDMA for portable multimedia commun. appl. 25443
- element mgt. requirements for evolving access networks 16594
- Ethernet, real-time traffic support 3178
- ETSI V5 interface globalisation 41917
- fault-tolerant convergence routing 3203
- FIFO design for high-speed network interface 33491
- firewall installations, IpAccess Internet service access syst. 24962
- flexible ATM syst. archit. for worldwide field trials 41407
- flexible network human interface roles and services *(Japanese)* 16755
- future public land mobile telecommun. systs., satellite component 25405
- Galileo, real-time networks simulation/anal. tool 3074
- GSM network, Q3 network mgt. interface 9402
- GTE advanced intell. peripheral config. 25091
- heterog. mobile environ. supporting adaptive services 33567
- high-speed networks, hardware meas. techs. 676
- HIPPI interconnection syst., camp-on strategy, perform. eval. 33493
- HIPPI-ATM-SONET terminal adapters, archit./perform. 41798
- home automation syst., data link layer design issues 3095
- host interface designs for transputer based LANs 41848
- HSSI for broadband appls. bandwidth allocation 16656
- hybrid opt./coaxial telecom. power distrib. options 42138
- internetwork interface, reliab. and performability anal., fault models *(Chinese)* 33427
- ISDN PC card, design *(Japanese)* 16933
- ISLAN interface, MAC/PHY layers, IEEE std. 24984
- Jetstream Gb/s LAN, user-space protocols for high perform. appls. 2940
- Los Alamos Nat. Laboratory gigabit network appls. 8918
- Mitsubishi LSI devices for SDH interfaces 33332
- MS3000/MS3100 multi-slot hub characts. *(Japanese)* 25001
- multimedia conferencing audio bridge 16896
- multimedia networks, binding archit. 16872
- multiport mobile internet-router 16679
- multiprotocol transport networking, internetworking soln. 3219
- Myrinet gigabit-per-second LAN 24972
- native-mode ATM appls., signaling and OS support 2945
- networked computing, transparent mistrust 16649
- NTT SDH network/SDH 52/156 Mbps (VC-3/4) DCS 8841
- OC-12/STS-3c/ATM transm. interface for AURORA Gigabit Testbed 41766
- optical network interface unit for multichannel ring networks 3227
- OSIRIS high-speed network adaptor, software perspective 3205
- parallel machines, software overhead in messaging layers 16660
- PC based OSI rem. database access client syst. 8759
- PCNs, merger of American and European mobile systs. 25432
- plant automation, parallel computers/fiber optic commun. links interface 34026
- private network-to-network interface (PNNI) for heterog. ATM networks 16699
- protocol architectures, modularity considerations 3221
- radio syst., PSTN network syst. interfaces/services 25383
- router speed, implications for faster commun. 24852
- SCI fairness protocol for increased throughput 3225

network interfaces continued
- SMDS technol. test results and issues 41764
- SONET interconnection, opt. drop interface 25492
- STU-III-multilevel secure computer interface 9082
- switching fabric control appl. connection mgt. interface 42104
- TCML-1 terminating/converting module for local area *(Japanese)* 25170
- TCML-2 terminating/converting module for local area *(Japanese)* 25171
- TCP/IP behavior in high-speed local ATM network environ. 33268
- TMN and open systs. 41661
- TMN interfaces for network mgt. 41662
- TMN-based SDH mgt. syst. implement. in Japan 41685
- TNet reliable syst. area network 24973
- transputer link interface on Canton ATM switch 42120
- universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
- user-level buffer mgt. protocol, network interface support 25029
- video dial tone, operation, set-top boxes and server 16930
- Virtual Permanent Connection, network computing, switch-based networks 16683
- virtual-memory-mapped network interfaces 24971
- wide area wireless data networks, connectivity 25057
- workstation, intell. LAN-PBX interface 33339
- zero-copy ATM memory-integrated network interface 24970
- ZIPI Music Parameter Description Language 25694

network management, telecommunications *see telecommunication network management*

network operating systems
- Analyser genetic algm. based LAN divider 41769
- AT&T PersonaLink, public network for smart agent PICs 41996
- ATM bandwidth-on-demand based on TINA archit. mgt. 16590
- ATM NAP archit., routing design 24980
- ATM network protocol develop. package 41841
- ATM networks, low-latency commun., act. messages 24974
- bandwidth assignment strategies in broadband networks 8973
- Berkeley Networks of Workstations Project 33531
- Chameleon 4.0, TCP/IP for windows 16657
- client-server network technol. and OS trends *(Japanese)* 16753
- CMIP-based OpS-WS interface supporting GUI 41673
- computer networks, star-based/ring-based conf. authentication facilities 8951
- Croatian telecomm. mgt. network 41659
- desktop CSCW syst. 16691
- digital audio/video, network and OS support, conf., Lancaster, UK (Nov. 1993) 5450
- distributed commun. syst. technol. 24885
- distributed computing for network mgt. syst. 41671
- distributed computing systs., adaptive protocols, simul. model 41528
- distributed database security 15769
- distributed OS, data/control transfer separation 16659
- distributed scalable routing based on link-state vectors 2988
- distributed systs., teaching, Ada reusable software components 5560
- DSP OS modeling for multimedia appls. 3259
- duplicated telecommunication system, CTRON based operating system 33713
- element mgt. requirements for evolving access networks 16594
- enterprise network LAN-ISDN integrat. *(German)* 9008
- ESPRIT MIDAS project, secure rem. mgt. 8953
- FDDI workstation cluster, meas. 33496
- file allocation policy in networked DBMS 16582
- GMICRO/500 microprocessor performance evaluation for CTRON based kernel 29256
- high-speed copper access transm. systs. 16915
- home automation syst., data link layer design issues 3095
- IN-based approach for PCS service provision, PSTN infrastructures *(Italian, English)* 41963
- intell. trouble mgt. based on operation scenario and fault simul. 41668
- Internet, security, protocols 16669
- kernel of distributed proc. platform for telecom network software *(Japanese)* 33437
- logical communication designer interfaces, implementation and evaluation 33714
- Magic functional model, resource control and B-ISDN protocols 16592
- ManageWORKS, user interface framework 41698
- media sync. protocols for packet audio-video syst. on multimedia inform. networks 16497
- MosquitoNet, commun. environ. switching 33557
- MS3000/MS3100 multi-slot hub characts. *(Japanese)* 25001
- multi-facility blocking models, stochastic, decomp. methods for anal. 24794
- multicast route finding algms. in WAN *(Korean)* 8913
- MultimETH, conferencing and joint editing syst. 9065
- NCMS network mgt. syst. upgrade 16778
- Netware dyn. data exchange 16724
- NetWare protocols, syst. manager's guide 41816
- NetWare security, guide for network managers 41687
- Novell NetWare multimedia commun. syst., Microsoft Windows 33654
- OO TMN based operations systs. develop. platform 16605
- open archit. telecomms. provisioning systs. 16481
- OSIRIS high-speed network adaptor, software perspective 3205
- packet demultiplexing for multiple endpoints and large messages, Mach 3.0 8922
- policy-free distributed general-purpose shared window syst. 25051
- public land mobile, network mgt. 9400
- real-time syst. design, temporal aspects 3228
- rightsizing, distributed LANs, UNIX appl. servers 41771
- SDL methodology for specifying radio protocols in CDMA syst. 2979
- service mgt. ref. platform in shared business environ. 16596
- SNMP local bridge ET1053C devel. *(Japanese)* 25002
- SNMP-based network mgt. appls. 41796
- spec. interacts. detect. in telecommun. services 16595
- telecomm. service software archit. for next-generation networks 25083
- TMN, platform support environ. constr. 16597
- TMN-based SDH mgt. syst. implement. in Japan 41685
- token ring network mgt., change mgt. 33545
- token ring network mgt., config. mgt. 16581
- Unix and open systems conf., Brussels, Belgium (1992) 11541
- video-on-demand file service, OS support 9720
- virtual-memory-mapped network interfaces 24971
- wavelet transforms, PVM computing 24406
- workstation networks, advantages and tech. difficulties 24975
- zero-copy ATM memory-integrated network interface 24970

network parameters
see also S-parameters
ATM-based LANs, bandwidth mgt. 33517
bipolar transistor sustained oscillators, energy/fluct. charact., computer anal. 570
cell-level analog ccts., integer prog. based topol. selection 37574
Colpitts oscillator, resistive nonlin. charact., phase/oscill. freq. *(Slovenian)* 12366
compensated network param. meas. by star-point current injection *(German)* 19368
complex mixed-sig. ICs, parametric yield prediction 29399
dist. protection gradation, influence of network fuzziness *(German)* 19336
FIFO design for high-speed network interface 33491
high speed VLSI interconnects, stat. anal., moment method 28442
IGBT, cct.-oriented static model *(Polish)* 1396
lattice mixers, noise fig. limitations/input matching 12742
lossy VLSI interconnect, sig. transients, propag., crosstalk 30426
MESFET amp., IMD, cct. param. and topol. effects 37649
microstrip and slotline planar struct. impedance matrix eqn. 23752
mixed-sig. ccts., ANN tech. for parametric testing 21444
non-separable multidimensional perfect reconstruction filter 8273
oscillator array dyn., broadband N-port coupling networks 832
packet-switched networks mgt., perform. trending 3087
parameterized Gaussian-like filters, synthesis by approx. 32646
random access LAN, unbalanced random no. generator 16658
saddle type periodic points in PLL eqn., stabilization by OGY-control method *(Japanese)* 12375
series reson. convertor with third-order commutation network 36306
subband adaptive digital filter with crit. sampling, perform. 745
surge arrester, ZnO, electro-thermal model params. ident., autoregressive techs. 27275
symbolic computation of approximated small-sig. characts. of analog ICs 28932
symbolic computation of approximated small-sig. charact. of analogue ICs 28955
thin-strip capacitive nets, review 458
third-order Butterworth characts., insensitive current mode realization, current conveyors 12641
TLM algm., alg. anal. method, charact. eqns. 12258
transformer coupled bridge, capacitance meas. errors 25940
wideband RF power amp. input matching network param. optim. *(Croatian)* 548

network routing
see also telecommunication network routing
1D logic gate assignment, parallel algm. 38975
3-D channel routing, VLSI 22513
128 K×8 bit SRAM multichip package, fab. *(Korean)* 12504
arallel lookahead line search router, automatic ripup/reroute 21034
bare board test program generation, self-learn/netlist methods 38083
Benes-Clos networks, randomized routing 28926
buffer distrib. algm. for high-perform. MCM/VLSI clock net optim. 29335
C4 packages, bumps, package design guideline, package layers 11771
CAD conf., San Jose, CA, USA, Nov 1994 41
CBGA package design for C4 PowerPC μP chips, substr. routability and perform. 5661
CD3D constraint-driven 3D router thick film MCMs 21762
cell placement method using cct. struct. props. 21039
cell-based hierarchical pitchmatching compaction 38954
channel router, 1-variable stochastic simulated annealing 37581
channel routing, extended distributed genetic algm. 37601
CMOS channel-less SOG arrays, HGALOP router 29148
cross point assignment, global rerouting for general-archit. designs 37707
cross point assignment, global rerouting for general-archit. designs 21257
crosstalk driven routing advice for PCB interconnects 12892
custom design kits for cost-effective access, MCM foundry 21759
decentralized routing control, overlapping decomp. 16531
decoded RAM storage reprogrammable interconnect archit. 22599
design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
design automation and ASIC design, conf., Paris (1993) 20199
diagonal channel routing, vias, unit dist. 37577
diamond routing model for VLSI layout 462
digit pipelined discrete wavelet transform 29381
double-loop networks, routing control *(Chinese)* 24848
ECL LSI design and test experience in supercomputer develop. 21221
edge-based heuristic for Steiner routing of VLSI and PCBs 456
Elmore delay model for optimal wiresizing, VLSI interconnect delay 22277
fast vectorized maze routing algm. for supercomputer implement. 12270
FPGA, long-lines, top-down hierarchical routing algm. *(Japanese)* 29107
FPGA channel archit., automatic synthesis for routability 639
FPGA develop. tools and design complexity issues 6107
FPGA routing by concurrent maze method *(Korean)* 37714
FPGAs, minimizing interconnection delays by CAD routing tools 21293
FPGAs, technol. mapping, placement and global routing algm. 12431
global router, weighted Steiner tree-based, simultaneous length and dens. minimization 610
global router for analog LSI based on branch-and-bound algm. 38949
global router for high-speed bipolar LSIs 13870
global routing of ICs, crossing distrib. problem 38952
Handel compiler, net-list descriptions, Xilinx FPGAs 6116
hot potato routing 16777
IMPS, interconnected mesh power syst. MCM topol. 21760
LRAP optimiser, combined logic resynthesis and placement 21052
MCM, crosstalk driven router 12965
MCM, optoelectronic, layout, phys. models and algms. 29712
MCM design evol. 21763
MCM design technol., review 6466
MCM interconnect considerations 38199
MCM-C develop., twenty-seven chip 20452
MCM-D with embedded thin film resistors, ECL gate array packaging 21706
mean field annealing, VLSI design appl. 38974
ML-Germinal, heuristic standard cell placement algm. 21038
modified genetic channel router 13844
module orient. problem based on Manhattan wire meas., NP-complete 1476
multi-chip module routing, evol. algm. 38200
multi-commodity flow problem, computational complexity *(Japanese)* 12254
multi-layer multi-terminal topol. routing, vias-per-net *(Japanese)* 12250
multi-layer VLSI, hybrid hierarchical global router 38948
multilayers, single row routing 29662

network routing continued
multiterminal network channel routing 22522
nonoriented network models, loops 24844
obj. driven autorouting for PCBs/MCMs 12886
one-layer routing on the EREW PRAM, optimal parallel algms. *(Korean)* 21017
over-the-cell channel router, algm., 2-layer model 21037
over-the-cell routing algm., via-less middle terminal models 21036
over-the-cell three-layer channel routing for std. cells 30409
parallel pipelinable VLSI archit. for finding max. binary no. 627
PC router perform. eval., single-server multi-queue syst. 8741
PCB automatic placement syst., design, GFDR algm. *(Korean)* 12884
permutation layout, topol. via minimization problem 37602
prototype opt. deflection network, design and implement. 3300
quickly customised logic, channel routing algm. 21035
row-based FPGAs, segmented routing channels, design and anal. 611
row-based placement, simulated annealing, hierarchical algm., MCNC benchmark ccts. 37708
scalable opt. hypercube-based interconnection network for massively parallel computing 7430
segmented channel routing complexity 12272
segmented channel routing problem, complexity 38953
SIPPOS (single poly pure CMOS) EEPROM embedded FPGA 21326
STANZA-M multilayer channel router, simulated annealing 13845
STC104 packet routing chip for parallel systs. 29290
std, cell global routing algm. for over-the-cell routing *(Japanese)* 13840
std. cells, orient. assignment, fuzzy math. transform. 5944
Steiner min. trees in grid graphs, appl., VLSI routing 28925
technology decomposition using optimal alphabetic trees 21213
thick film MCMs, perform.-driven routing approach 29722
torus networks, struct. commun. 16449
TRACER-fpga, router for RAM-based FPGAs 21259
TRACER-fpga, router for RAM-based FPGAs 37709
transformational design, formal semantic model, fit SIL 28961
TRED, parallel detailed router for VLSI 21067
triple-layer over-the-cell channel router 30410
two-terminal nets via minimization through dyn. prog., partitioning of terminals 5950
UPLD logic simul. for rapid prototyping 6115
VLSI, optimal wiresizing under Elmore delay model 37572
VLSI building-block layout, pin assign., global routing 21028
VLSI layout CAD, optimal net assignment, constraints 22509
W-graph and props. of ccts. 5939
wormhole router, VLSI implement., virtual channels 5966
wormhole routing on multichannel ring networks, opt. fibre interconnection 3217
XC5000 FPGA family, archit. and design 29161
zero-skew clock net constr., simulated annealing, VLSI layout 29336
GaAs-GaAlAs MQW electro optic modulator opt. data self-routing 13153

network servers
see also file servers
adaptive admission control algm. for multimedia servers 42001
Alcatel 4650 Transvox, voice mail server for public networks 24939
asymptotics of partition fn. in large closed BCMP networks, bottlenecks 24993
ATM, connectionless multicast service 42124
ATM networks, AAL and group commun. server for reliable multipoint services 16482
ATM-NAPs routing in presence of special ANS/NSFNET attachment 24944
business environ. cell-based switching node archit. and lab. model 41757
distributed multimedia computing, large scale multimedia server 41984
DQDB networks perform., gateway location effect 8984
EMS real-time distributed archit. project, Australia 19187
firewall installations, IpAccess Internet service access syst. 24962
Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
generalized proc. sharing networks, exponentially bounded burstiness arrivals 33591
global store server, multimedia teleservice component 16869
group admin. shell, GASH network computing environ. 41788
GSM data services for the mobile office, field trial 42250
HaL 64 bit SPARC based workstation and servers, architectural overview 33553
healthcare commun., future needs and present solns. 41875
high-speed networks, large multimedia server, storage subsystem design 16834
inform. obj. security, location-independent 24964
inter-media sync. in distributed and heterog. multimedia systs. 33641
ISDN routers and LAN traffic 8899
LAN evol., ATM 8888
LAN/WAN environ., contingency planning 41901
large-scale video servers, buffering/caching 34246
local ATM network, Internet protocol, design 8994
magneto-opt. disk video server syst. *(Japanese)* 25680
mail-based teleservice archit. for retrieving multimedia documents 16868
MARS, large scale multimedia storage server, design 16904
MHS parallel proc., implement. and eval. 24953
Mobile-IP, transparent resource discovery for mobile computers 33563
MS3000/MS3100 multi-slot hub characts. *(Japanese)* 25001
multiline server networks, mean-value anal. methods 16643
multimedia conferencing audio bridge 16896
multimedia servers, scheduling and storage struct. 3061
multimedia storage server design 16831
multipoint control units for videoconferencing 33617
multiprocess commun. in LAN, switching server 24945
multiprotocol transport networking, internetworking soln. 3219
Network Software Associates, server on Internet 16693
Network Time Protocol servers, survey tool for discovery 24959
OSI Directory Information Base, hash-based high-perform. name resoln. method *(Japanese)* 33438
portable notebook computers, connected/disconnected operation in distributed systs. 33564
public E-mail, interoperability 33414
RACE II project Combine, broadband network interworking 33353
RFC 1327 mapping rules distrib. via Internet DNS 16747
routing among different nodes, servers break down without losing jobs 41829
scalable storage servers for digital audio/video 25686
scalable video server elements for multimedia systs. 33662
SNMP local bridge ET1053C devel. *(Japanese)* 25002

network servers continued
switching fabric control appl. connection mgt. interface 42104
telecomms. operation and maint. workstation model, ES module 33369
testing/emulation of EFT systs., functional appraisal *(French)* 33539
video dial tone, operation, set-top boxes and server 16930
video on demand server, design outline 42629
video on demand servers, design 9721
WAIS, distributed inform. service for Internet access 16759
World-Wide Web proxies 8892
World-Wide Web server, Digital Equipment Corp. 8896
WWW name servers, reliab. 41863
X.500 cache partitioning for faster name resoln. in X.400 8959
X pseudo server mgt. syst. in X Window syst. *(Japanese)* 33436

network synthesis
see also circuit CAD; circuit optimisation; integrated circuit design; linear network synthesis; nonlinear network synthesis; printed circuit design
1 kW two-stage batt. charger cct. design 5071
2D digital filters, design techs. 6230
2D FIR digital filters, weighted LMS design 2488
2D scaled state space filters, fixed point arith. 12648
3-level GTO inverters, overvoltage clamping, cct. design 44183
3dB 180° hybrid, asymmetrically terminated impedances *(Korean)* 21398
45 kW DC-DC PWM rly. car power converter, design optim. 11414
50 W DC/DC PWM soft-switched power converters 19790
1500 W single-phase rectifier, high power dens. 19865
AC/DC soft-switched PWM power converter struct. 36344
act. voltage attenuator using two cascaded MOSFETs, perform. 736
adder synthesis for modified three module syst. of residue classes 21250
all pole/finite pole filter and delay equalizer design, monolithic dual resonators 39082
approx. algms. for network design problems 5946
automatic cct. breaker stabil., heat distrib. effects *(Russian)* 11196
BiCMOS, fast VLSI cct. design, complementary ECL elements 6870
bilinear transform. design of switched-current ladder filters *(Chinese)* 5983
buck rectifier, unity PF, nonlin. ripple feedback 36244
buck ZCS-ZVS PWM DC/DC power converter topol. 11167
buck ZVS power converters, anal./design 44134
canonic RC-act. oscillators using CCII, synthesis 579
CCII-based analog sig. filtering ccts., synthesis 722
CCII-K ccts., variable gain, optimal design for HF appls. 21418
charge pump cct. for high output current EEPROM appls. 29046
circuits systs., symp., Chicago, USA (May 1993) 31
class., fuzzy neural nets, FPGA-based implement. 32948
clock distrib. networks, topol. design 715
complex all-pass IIR digital filters, design 15908
complex band-pass filter, design based on freq. transform. *(Japanese)* 12619
complex FIR filter design, Remez multiple exchange algm. 32787
continuous mode interleaved flyback power converter design eqns. 44214
controlled refl. design in high speed digital computers 21175
cryst. oscillator design and spec., tutorial 39086
current source PWM rectifier cct. studies 44181
current transistor-transistor-inductor oscillator 580
DC/AC power convertor planar integrated reson. LCT cct. design 12321
DC/DC LCC reson. power converter, digital control models 6010
DC/DC power converter two-port lossless switching cct. design algm. *(Polish)* 36280
DC/DC power convertors, democratic load-current sharing cct. 44151
DC/DC PWM reson. power converter topol., pulse load appls. 11172
DC/DC ZVS PWM forward power converter design 5045
digitally controlled lin. four-port network 463
diplexers, max. flat response/freq. symm., design 16954
filter design, window fns. 6197
FIR all-pass opt. dispersion compensators for high-speed long-haul systs. 42366
FIR filter design, complex Chebyshev approx. algm. 32786
flash ADC archit., reduced complexity 21382
formal cct. synthesis from behavioural spec. in interval temporal logic 28960
forward digital lattice struct. for IIR digital filter synthesis 749
full-bridge series-reson. rectifier, telecom. appls. 19831
grounding principles, cct. design 12255
hybrid notch filters 12621
IGBT power convertors, turn on/off behaviour studies 44218
integrated ATE amp., switch mode design 29054
intermediate line power filters, impedance/EMI compatible designs 29008
ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
lin. phase FIR digital filters, max. SNR, design 15982
lin.-phased IIR Nyquist filters, design 12646
low-pass sampled-data/digital filters, equiripple charact. 12656
LR terminated LC filter, synthesis/RC-act. simul. 21415
Midwest Symp. on ccts. and systs., Detroit (1993) 33
minmax FIR filters design, gradient approx. method 16012
model based filter design, median of sq. of residuals 2585
multi-output SMPS EMI filter anal./design 44156
multiband least sq. FIR filter design 29369
multicrystal lattice filter design, lattice cascade splitting 37831
multimodule parallel series-loaded reson. converters 29002
multiple-output buck-type power converter, dyn. characts. 44153
multiple-output DC/DC power converters, stacked secondary anal. 19793
multiplex realization of low-pass filters, switchable capacitors 516
multiterminal array mode-forming network systematic design 23975
non-separable multidimensional perfect reconstruction filter 8273
oscillators for low phase noise/power consumpt., anal./optim. 37659
parallel reson. CSI, cct. design/anal. 44136
parameterized Gaussian-like filters, synthesis by approx. 32646
post-fab. tuning 37575
PRN capacity, distributed media access protocol, perform. anal. 33881
pseudolinear regression IIR adaptive algm., filter design 24185
pulse-coupled network, neuron, cct. design 21484
pulsed power energy capacitance integrator studies 19706
pulsed power modulator systs., pulse forming network calcs. 36441
PWM current-source rectifier, input harmonic filter design 19851
quasi-reson. soft-switched inverter, cct. anal. 11170
real-time syst. design, temporal aspects 3228
recursive filters design, Chebyshev norm, Remez algm. 24186
register transfer space exploration strategy, unrestricted library scheduling/binding algm. 28963
reson. DC link ZVS VSI topol. studies 36281
SAW filters, high stopband rejection, cascade connection design 29347

network synthesis continued
SC higher-order immittance simul. ccts., synthesis 12308
separable-denominator multidimensional digital lattice filter 2545
seq. cct. state assignment for low power dissipation 21290
seq. control ccts. with timing coord., design verification based on theorem-proving tech. *(English)* 29106
SMPS filter inductors, low loss windings design 36326
SMPS power converters, planar integrated filter/snubber cct. 19763
soft-switched PWM current source rectifier/inverter 11145
soft-switched PWM rectifiers, perform. improvement 11173
solid-state relay design, aerospace appls. 26546
spacecraft solar array, shunt switching unit act. ripple filter 26679
SRM drives, energy recovery snubbers anal./design 20057
stacked MOS transistors, cct. techs. 5964
state digital filters, design 24187
subband filter design, approach 8278
subband image coding, lin. phase filter banks design 24583
switched-mode AC/AC voltage regulator, anal., design 5113
syntactic, pictorial and relational paradigms for cct. design 21019
three-phase AC/DC boost rectifier, feedforward-feedback control 36374
three-phase boost power convertor, interleaved switching topol. 5124
three-phase diode rectifier, PF/harmonics improvement 19850
three-phase diode rectifier utility interface, harmonics reduction 19751
three-phase four-wire distrib. syst. act. power filter 19278
three-phase isolated PWM ZVS buck rectifier 36243
three-phase single-switch rectifier studies 19847
three-stage Dickson voltage multiplier, dyn. anal. for optimized design 12333
time domain network synthesis tech. 12257
tolerance design, orthogonal array optim. 5942
unbalanced AC voltage supplies, SVC dyn. anal./design 19124
variable IIR digital filters, complex coeffs., synthesis 6233
wideband/narrowband waveguide filters, design 12630
wind power self-excited induction generators, rectifying bridge studies 36084
withdrawal weighted fan-shaped SAW transducers 30629
XRAM pulsed power supply cct., repetitive operation studies 36256
Zener diodes, reverse I-V characts. 30210
zero-admittance switch-mode power converter synthesis 36242
zero-phase FIR filters, freq. domain design 24276
ZVS PWM inverters, DC voltage notching scheme 19736
ZVS PWM power converters, saturable reson. inductor anal. 19762

network theory *see circuit theory*

network topology
see also circuit layout
2D coupled cavity resonator cluster symm. anal. 31975
acyclic-graph evol. driven by node firing, concurrency and periodicity anal. 37571
analog VLSI neural net archit., on-chip learning 37911
ANN connection topol. optim. by genetic algm. 29505
ASIC row-based cell placement method utilizing cct. structural props. 37711
ATM network virtual path restoration, multiring approach 41760
ATM technol. for CPN *(Japanese)* 25147
autonomous distrib. mutual exclusion protocol for multiple net resources *(Japanese)* 2923
BiCMOS fourth-order sigma-delta ADC, HF/resoln. 29328
BiCMOS laser control chip combining power control and 622 Mbit/s modulator 31426
bitonic sorters, single faults diagnosis 2876
broadband impedance matching, GRABIM computer program 465
buck ZCS-ZVS PWM DC/DC power converter topol. 11167
C-alg., interconnection network anal. appl. 8780
canonic RC-act. oscillators using CCII, synthesis 579
capacity assignments of telecomm. network paths, reliab. eval. *(Japanese)* 16519
CDMA indoor microcellular mobile syst. 9204
cell-level analog ccts., integer prog. based topol. selection 37574
charact. eqns. develop., principal variables method 37593
clamped ZVS DC/DC converters, topol., operation and calc. *(Chinese)* 28997
clock distrib. networks, topol. design 715
cluster-based network, desirable fault-tolerant topol. 8962
CMOS functional cells, layout optim., integer LP *(Japanese)* 39005
CMOS prog. switched-current filters 29359
commun. network topologies, degree/diam. problem 2980
compensated network param. meas. by star-point current injection *(German)* 19368
computer aided cct. anal., matrix manipulation 12264
computer network multitype concentrator location 41755
computer network topol. design 33432
conferencing network centralised and distributed control designs 41973
continuous-time filter compiler, specs., layout 21413
cross point assignment, global rerouting for general-archit. designs 21257
cross point assignment, global rerouting for general-archit. designs 37707
data anal., complementary graphical methods 41675
DC/DC board-mounted telecom. power supply modules 44196
DC/DC PWM power convertor, small-sig. modelling 11148
decentralised sens. networks, routing for reliab. 15952
digital CMOS ccts., power consumption minimization 37689
digital opt. cellular image proc. parallel archit. 1772
dual current-feedback amp. techs., operation and advantages 37652
dyn. nonhierarchical routing network design graphic tool *(Croatian)* 2982
edge-based heuristic for Steiner routing of VLSI and PCBs 456
energy recirculation/storage converters, PF correction 11160
European research project COST 239, ultra-high capacity opt. transm. network 34040
fault-tolerant convergence routing 3203
FH packet commun. syst. capability in fast Rayleigh fading environ. 41461
fiber network survivability, emerging technols. 34056
fiber-optic delay line filter topologies, comment and reply 7287
fiber-optic networks, fault-tolerant layered approach 16687
fibre-optic subscriber network archit. and constr. *(Japanese)* 17337
FITL CATV syst. for broadcast/interactive services 42628
forward cell planning networks for UMTS 9334
fourth-order DC/DC power converters, limited duty cycle range 19792
Frankfurt (Main) city network control syst. *(German)* 35551
Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
full-bridge DC/DC power converter, extreme conditions operation 44137
full-bridge series-reson. rectifier, telecom. appls. 19831
fuzzy clustering neural net/systolic array mapping 791
fuzzy seq. cct., fuzzy flip-flop 621

network topology continued
general decentralized Kalman filters 15953
global router, weighted Steiner tree-based, simultaneous length and dens. minimization 610
global router for analog LSI based on branch-and-bound algm. 38949
global routing of ICs, crossing distrib. problem 38952
graph planarity eval. and network planarisation *(Croatian)* 2981
half-bridge ZVS multi-reson. power converters, light load mode anal. *(Chinese)* 36336
handover requests in microcell network archits., queue study 9330
heavily loaded cct.-switched network, congestion relief 24757
hierarchical inter-domain routing, on-demand TOS/policy resoln. 2958
high speed network, multimedia commun. networking archit. model 33650
high-level appls., layout-driven topol./functionality-based delay estim. 609
high-speed opt. fiber LAN, WDM access protocols *(Korean)* 17180
HONET, integrated services WDM opt. network 16713
hybrid tree-loop networks reliab. anal. 8776
Hybrid-Ethernet, perform. simul. 24999
hypercube fault-tolerant multicasting 8691
IEEE 802.6 DQDB MAN protocol, perform. anal. 3180
IMPS, interconnected mesh power syst. MCM topol. 21760
INFOSTEL, IS for telecomms. networks 41658
interactive terminal sliding algm. for hybrid IC planar layout *(Japanese)* 29696
interconnected mesh power syst. MCM topol., elec. charactn. 21722
isolated DC-DC converter, ZCS IGBTs, symm. topol. 6008
isolated PF correctors, fast output voltage control 11156
k-order reduced graph method for finding k-order cofactor *(Chinese)* 12251
LAN environ. mobile computing 8990
large scale switched telecomm. networks, traffic design method *(Japanese)* 24838
large-scale microwave networks, symbolic anal. 828
LEO/ICO-satellite commun. networks, syst. params. 25313
lin. hybrid syst. anal./charactn., bond-graphs 21094
low noise space borne freq. multipliers 29426
lower bounds of network embedding dilations 457
MANs, topol. design 41844
MCM-L, Interconnected Mesh Power System 21696
MESFET amp., IMD, cct. param. and topol. effects 37649
mesh-restorable network spare capacity placement strategies 41550
min. cost isolated failure immune networks 8788
MOS analog IC design automation, automated cct. correction, qualitat. reasoning 21454
MOS analog IC design automation, automated cct. generation, concepts and methods 21453
multi-hour hierarchical commun. networks design 8787
multi-layer multi-terminal topol. routing, vias-per-net *(Japanese)* 12250
multi-level packaging, designing interconnection networks 28467
multicast route finding algms. in WAN *(Korean)* 8913
multidimensional torus, hop dist. and multihop lightwave network 16525
multihop PRN, distributed routing algm. 25247
multiphase series-reson. power converter, novel topol. 19721
multiple-way partitioning, general-purpose iter. improvement algm. 612
multiport RAMs, complex couplings testing , fault modelling 29217
multistage amps., noise calc., equiv. input noise voltage 37639
multistage interconnection networks, nearest-neighbour interconnections 24753
multiwavelength European opt. transport network 42368
Nat. Ignition Facility, ICF, laser flashlamp power conditioning syst. 5106
NSFNET routing arbiter archit. 24846
opt. cable network database syst., obj.-oriented design 9102
opt. mesh networks, hot potato/single buffer deflection routing 16528
optical network interface unit for multichannel ring networks 3227
parallel feedback-based scheme for BIST 12395
party line, teletraffic model 16407
PCB pattern defect anal., divide and merge image proc. 29672
PCN archit. and location registration method 25389
PCS optimum multi-layered cell archit. 3485
permutation layout, topol. via minimization problem 37602
photonic switching archits., comparative study 42133
PON, private/authentic commun. 42072
power MOSFET switching, transformer-isolated gate drive cct. 535
power static converters, bond-graph config. enumeration 21114
power syst. network topol. error detect. 4546
pseudo-exhaustive testing, VLSI ccts., cct. partitioning and test generation method 37573
quasi-reson. DC link power convertor, topol., appls. 5084
quasi-reson. PWM DC link inverter topol. 19731
rectilinear Steiner min. trees, constr. 37248
refl. topol. building blocks for adaptive microwave sig. proc. appls. 29588
reson. link inverter topologies, UPS appls. 44206
row-based FPGAs, segmented routing channels, design and anal. 611
SDMA protocol, collision resoln. algm. 33269
series-parallel reson. converter, magamp postregulators 6020
shared channel lightwave networks, virtual topol. design 41561
single sect. lattice cryst. filters, normalized design 39079
soft switching, power converter design, EMC Directive 21097
soft-switched parallel inverter, topol. anal. 11144
SONET/SDH ring types 42360
SPICE, cct. schematics conversion from graphic display to netlist, appls. 5953
steady state eqns. formulation, main vars. methods *(Russian)* 37582
survivable ring networks, wideband DCS role 41759
sync. syst., stat. method of noise estim. 5638
telecomm. network config. for leased ccts. in metropolitan areas 33359
telecomms. networks, graphic presentation and anal. 33340
three-phase boost power convertor, interleaved switching topol. 5124
three-phase invertor-based act. power harmonic filter 19740
time-domain diakoptics, implement. in FDTD method 469
time-varying filter banks/wavelets, factorization 32706
token ring network mgt., config. mgt. 16581
TRACER-fpga, router for RAM-based FPGAs 21259
transformer matrix of transm. lines topologies 21084
Transit project, reliable high speed interconnection technol. 8775
tunable channel multi-access network adaptive-cycle protocol 41495
two-level hierarchical networks for opt. commun. 16524
two-port network, noise anal., recursive algm., S-wave approach 829
UHF digital cellular syst., network archit. 25407
video on demand services, hierarchical storage dimensioning 17573
virtual cellular network, wireless commun. archit. 9280

network topology continued
Virtual Permanent Connection, network computing, switch-based networks 16683
virtual private networks characts. 41873
VLSI, optimal wiresizing under Elmore delay model 37572
VLSI building block layout, floorplanning, topol. constraints 13843
VLSI layout CAD, optimal net assignment, constraints 22509
VLSI placement, module clustering, fractal anal. 13842
VLSI syst. partitioning, genetic algms., implement. and eval. 28923
W-graph and props. of ccts. 5939
WAN, wavelength requirements of all-opt. networks 16712
wavelength division multiple access networks, archit. 16527
wavelength-routing opt. networks 41580
WDM quasi-all-opt. broadband networks, packet headers encoding 16448
zero-skew clock net constr., simulated annealing, VLSI layout 29336
NiCd batt. charger HV IC for rectified mains operation 29049

networks *see networks (circuits)*

networks (circuits)
see also specific network and circuit headings, e.g. telecommunication networks, pulse circuits, oscillators
deformable ccts., EM induction, teaching paper 23510
KoREMA, conf., Zagreb, Croatia (Apr. 1993) 20203
Midwest Symp. on ccts. and systs., Detroit (1993) 33

Neumann algebra *see algebra*

neural chips
see also neurocontrollers
2D chaotic cellular neural network sync. phenom. 21493
3-D optoelectronic neural syst., hardware efficient learning 29502
3-D sugarcube neuroprocessor, low power analog neurosynapse chips 29492
4×4×2 neural network, modular neural chips, on-chip learning 29441
A/D converter, neural based, archit., speed and resoln. 714
A/D converter, neural-based, with CMOS inverters 29323
adaptive VLSI neural network chip 29436
analog and pulse stream VLSI hardware for neural nets and fuzzy systs. 29458
analog BiCMOS ASIC for modeling biological neurons 29416
analog CMOS neural nets, capacitive wts. learning 21475
analog neural net cct., learning rule 37922
analog neural net develop. syst., online training 37908
analog neural network for geometric optim. problem 29448
analog sig. neural proc. chip 29479
analog VLSI current mode cct. 6272
analog VLSI neural net archit., on-chip learning 37911
analog VLSI neural net OCR syst., extraction module 29466
analog VLSI neural network for texture anal. 29477
analog VLSI neuromorph, prog. dyn. 29438
analogue continuous time micropower CMOS Hopfield associative memory 29484
analogue image proc., neurobiol. based 12672
analogue neural chip, synapse wt. accuracy, expt. 37925
analogue VLSI hardware for ANNs 29487
analogue VLSI implement. and phys. models 6269
ANN, digital neuron model, custom hardware design 29516
application-specific array processors, conf., Venice (Oct. 1993) 36903
ART1 memories, mixed analog/digital implement. 29404
ASK sigs., neural demodulator 29512
associative memory integrated syst. for character recogn. 660
autoadaptive independ. component analyzer, analog CMOS implement. 21478
binary neural network syst., hardware implement. *(Japanese)* 6264
binary rel. inference neural net, VLSI implement. 29446
binaural source localizer chip, subthreshold analog CMOS 29485
Boolean neural net, dynamically configurable combinatory logic array 29451
BP algm., analogue implement. 29435
BP without multiplication, hardware implement. 29456
cellular neural net appls., optimal solns. by hardware annealing 21491
cellular neural nets, analogue CMOS implement. 29495
cellular neural network chips, opt. image acquisition 29486
cellular neural network universal chip in CMOS technol. 21489
cellular neural network with prog. control operator, VLSI implement. 6267
cellular neural networks, input/output hardware strategies 29491
chaotic neural nets, CMOS-VLSI design, current mode building blocks 29501
Chinese character recogn., sigmoid fn. VLSI neural net 29510
CMAC neural nets, archit. design, hardware implement. 29468
CMOS analog current-mode ART1 algm. implement. 29475
CMOS analog neural networks, Gilbert multipliers, in-cct. learning 6271
CMOS analogue synapse for Kohonen, maps 29421
CMOS bit-serial fixed-point two's complement multiplier for neural network algms. 12486
CMOS cellular neural net-based smart pixel chips, analog design 31130
CMOS cellular neural networks, elec. charact. 21498
CMOS digitally-prog. analog cells for ANN 29450
CMOS max. entropy coprocessor for computed tomography 29432
CMOS modular analog chip for feed-forward neural networks, on-chip learning 797
CMOS neural chip, 70 input, 20 ns pattern classifier 29483
CMOS neural net emulator chip 37920
CMOS neural network IC for high-energy phys. 29476
CMOS prog. current comparator for analog VLSI neural nets 29430
CMOS VLSI analog current-mode high-speed ART1 chip 29493
CMOS VLSI chaotic neural nets, current-mode 29513
CMOS VLSI implement. of modular ANN chip for character recogn. 6273
CNN Universal Machine, IC chip implement. 21486
concurrent error detect. in ANNs, algorithmic approach 29449
continuous-time cellular neural network chip, direction-selectable connected component detect. 29474
core design, error BP on-chip learning capability *(Korean)* 37910
cortical amps., hybrid analogue-digital CMOS archit. 29482
CPM sigs. neural receiver 33913
current mode cellular neural net, adjustable template coeffs. 29470
current-mode high-precision winner-take-all cct. 21450
custom IC, conf., San Diego, CA, USA (May 1994) 20247
custom VLSI parallel supercomputer for neural computation 21481
data-driven subthreshold analog MOS neural net cct., principal components computation 798
dedicated neural network, automated visual QC, massively parallel VLSI-implement. 32949
digitally prog. CNN chip, discrete templates 21487

neural chips continued
EPSILON proc. card, analog neural comp. framework 29508
error correcting decoder implemented, digital neural net 8152
exponential bidirectional associative memory capacity 21336
fast prototyping, goal seeking neuron digital implement. 29465
feature mapping neural network, VLSI implement. 6270
feedforward multilayer ANN, testability, behavioral approach 37917
feedforward neural networks, analogue CMOS implement. 29445
flash-based prog. nonlin. capacitor for SC neural nets 21473
four-quadrant CMOS analogue multiplier for ANNs 12665
FPGA implement. of ANNs, med. expert syst. appl. 29509
fully parallel Kohonen map, mixed analog digital approach 29440
fully parallel stochastic neural network, VLSI implement. 29439
fuzzy clustering neural net/systolic array mapping 791
geophys. computed tomography by neuro-fuzzy inversion 43500
Hamming neural net, CMOS analogue IC 37923
hardware perform., structural design 29499
high-speed pattern recogn., image anal., mixed analog/digital chip 29473
hippocampus, nonlin. syst. model, CMOS implement. 29434
horiz. and vert. expandable neural networks 29442
hyperchaos, clustering and cooperative phenom. in CNN arrays 21492
HyperNet RAM-based neural net archit. implements., anal. 29467
image associative memory for opt. neurochips 42854
image motion detect., opt. neurochip 42853
image obj. area estim., cellular neural network 21495
image proc., SIMD-based cellular neural network 24729
image proc. neuro chips, analogue, spatial/temporal dyns. 42755
image recogn., analog neural net chip 41164
in-situ learning, analogue VLSP MLPs 29457
inform. coding, neural net hardware realisation 29515
injection laser neural network, long. modes, neurons 29453
intell. opt. sens., multilayer opt. neural net, analogue VLSI 9938
intracardiac electrogram, low power, class. using analogue VLSI 35123
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
kanji character-recogn. appl. *(Japanese)* 786
kernel-based classifiers, analog VLSI implement. 29460
large-scale analog neural computer, archit./appl. 29481
lin. image filtering, analog VLSI neural networks, random param. var. 32955
locally connected CMOS neural cells, steady-state heat flow problem 795
long-term CMOS storage cell performing ADC/DAC for analogue neural net 6263
low-level cortical proc. in machine vision, analog VLSI massively parallel module 32947
LSI neural chip of pulse-output net, prog. synapse 29431
mixed-mode archit. for analog neural network implement. 37924
modular prog. neural archit., VLSI implement. 29506
MQW injection mode diode, pulse-mode neural ccts. appl. *(Korean)* 30224
multi-model neural network, systolic modular VLSI archit. 29459
multilayer Boltzmann machines, scalable CMOS analog implement. 29519
multilayer neural network archit., external wt. memory, shape recogn. 6274
multiple target tracking syst., analog VLSI neuromorphic proc. 32954
multiple-valued logic design of neural nets, CMOS implement. 6275
multiplierless multilayer feedforward neural networks, hardware implement. 6266
multiprocessors, dyn. reconfig. pipeline archit. 12677
NET32K high speed image understanding syst. 34429
Neural Screen and intell. patterns 37918
neuro-fuzzy hybrid hardware implement., neural chip URAN 29514
neuro/fuzzy systs., analogue, CMOS design, basic building block approach 790
neuron-MOS neural networks, hardware-learning algm. 37916
nodal chip for parallel neural sig. proc. 29520
opt. neural chips, artificial retina 7435
opt. neural networks based on opt. nonlin. devices 22974
opt. neuro-devices, develop. *(Japanese)* 1753
optoelectronic neural network, temporally multiplexed grey-scale wts. 29452
oscillator neural networks for image proc. 12678
parallel neural network emulator based on appl.-specific VLSI commun. chips 29472
perform. criteria 29488
perform. criteria for neural net hardware 29496
power controller, fuzzy chip-based fault classifier 11131
precision limited analog neural networks, training method 29437
probabilistic RAM, hardware-based learning syst. 37915
prog. analog neural chips, testing/ATE 21476
prog. multifn. optoelectronic cellular neural net 14667
prog. neural net archit., BiCMOS 37913
pulse coded neural net VLSI design automation 29480
pulse coded winner take all networks, VLSI implement. 796
pulse-coupled network, neuron, cct. design 21484
Q-state neuron for Q-state associative memories 29444
quantizer neuron chip, neuron model/neuroprocessor 12675
quantum neurocomputer 788
radial basis fn. networks, bump-resistor networks implement. 29490
radial basis fn. neural networks, CMOS archits. 29498
radial fns. hardware generator for neural comps., VLSI design 29507
RAN^{2}SOM, reconfigurable neural network archit. 29471
real time video, differential vector quantisation, entropy biased ANN codebooks 32953
recurrent neural net archit., pass. nonlin. elements 37912
residue-to-decimal conversion, neural net 29511
run-time reconfiguration neural net archit. 29503
self-contained error-compensated N-valued memory for neural appls. 29415
self-learning neuron-MOS neural networks, wt.-updating-lin. EEPROM cell 12676
self-organizing, maps 29455
self-organizing maps, digital implement. 29469
shift-invariant continuous time cellular ANNs, dense CMOS design 29494
single-layer feedforward neural networks, precision requirements 29461
soft competitive learning, analogue CMOS implement., hardware tolerance 29433
solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
stochastic ANNs, CMOS analog implement., temp. effects modelling 29463
subthreshold MOS analog cct. implement. 37928
switched diffusion analog memory for ANN chip 29412
switched-current/continuous-time current-mode cellular neural network, opt. addressable 29517
synapse multiplication cct. for neural chip 37921
synaptic coeffs., simul. annealing and SPICE-PAC 21471
time-delay neural networks, systolic computation scheme 6268

neural chips continued
time-variant delayed cellular neural network stabil. 21490
TOTEM, digital proc. for neural networks and reactive Tabu search 29454
transversal imager, photonic neurochip, prog. synaptic wts. 13897
Turing-machine-like neural syst., animat 12679
universal type hardware neuron model, lambda shaped transistor *(Japanese)* 29504
universally reconstructable ANN VLSI chip for speech recogn. 8203
very-high-speed analog bipolar neural net LSI 37926
visual cortex based neural archit. 29478
visual motion estim., spatiotemporal computation 32952
VLSI BP neural networks, neg. transfer 29447
VLSI multi-chip design, timing-driven syst. partitioning, fuzzy-neuro approach 792
VLSI neural learning, robustness against cct. limitations 29489
VLSI neurochips, develop. *(Japanese)* 785
AlGaAs-GaAs MQW diode, pulse-mode neural ccts. 37914
PZT ferroelec. film, neurodevice, adaptive-learning 39094

neural net architecture
3-D optoelectronic neural syst., hardware efficient learning 29502
A/D converter, neural based, archit., speed and resoln. 714
analog neural networks, helicopter gearbox fault detect./diagnosis 10311
analog VLSI neural net archit., on-chip learning 37911
ANN MOS-compatible quadratic synapses 787
Boolean neural net, dynamically configurable combinatory logic array 29451
cct. faults diagnosis, power supply current monitoring 17671
cellular neural network universal chip in CMOS technol. 21489
CMAC neural nets, archit. design, hardware implement. 29468
CMOS neural chip, 70 input, 20 ns pattern classifier 29483
CMOS neural network IC for high-energy phys. 29476
CMOS VLSI implement. of modular ANN chip for character recogn. 6273
color images anal., biol.-like neural net model 41212
continuous speech recogn., expert-TDNNs/HMMs hybrid syst. 32398
cortical amps., hybrid analogue-digital CMOS archit. 29482
cursive handwriting recogn., online connectionist recogniser 33041
custom VLSI parallel supercomputer for neural computation 21481
data-driven subthreshold analog MOS neural net cct., principal components computation 798
digital commun. sig. MLS estim. by neural net 32621
Dignet unsupervised-learning clustering/data fusion algm. 32854
DSP based acceleration, educational environment 21472
emulator CMOS chip 37920
feature mapping neural network, VLSI implement. 6270
feedforward neural networks, analogue CMOS implement. 29445
flash-based prog. nonlin. capacitor for SC neural nets 21473
fully parallel stochastic neural network, VLSI implement. 29439
gated neuronal archit., spatio-temporal feature maps, invariant prop. 33037
handwritten digit recogn., time delay neural network 33040
hardware perform., structural design 29499
hierarchical clustering, neural archit. 33042
horiz. and vert. expandable neural networks 29442
HyperNet RAM-based neural net archit. implements., anal. 29467
image obj. area estim., cellular neural network 21495
image proc., SIMD-based cellular neural network 24729
in-situ learning, analogue VLSP MLPs 29457
intensive care alarm monitor, neural net-based, comparative perform. studies 35140
large-scale analog neural computer, archit./appl. 29481
learning T-model neural network 21479
lenslet array opt. neural network, coaxial archit. 22973
lin. image filtering, analog VLSI neural networks, random param. var. 32955
mixed-mode archit. for analog neural network implement. 37924
mobile robots, neural archits. for environ. rebuilding 34413
modular prog. neural archit., VLSI implement. 29506
monitoring power supply current, neural network 34374
multilayer neural network archit., external wt. memory, shape recogn. 6274
multiprocessors, dyn. reconfig. pipeline archit. 12677
Neural Screen and intell. patterns 37918
neurochip core design, error BP on-chip learning capability *(Korean)* 37910
neurocomputers based on massively parallel opt. archit. 1775
nodal chip for parallel neural sig. proc. 29520
phase conjug. quadrature neural net archit. 40099
photolithographic masks, defect detect. by cellular neural nets 24734
power system decentralised control, neural net-based 19119
preattentive and attentive image proc., chromatic visual model 33049
prog. neural net archit., BiCMOS 37913
radial basis fn. neural networks, CMOS archits. 29498
RAN^{2}SOM, reconfigurable neural network archit. 29471
recurrent neural net archit., pass. nonlin. elements 37912
recurrent neural network based speech recogn. 32430
run-time reconfiguration neural net archit. 29503
scalable completely connected digital neural networks 29443
seismic event class. by ANN 35288
Shiva multiprocessor syst., neural network simul. mapping 32427
speaker independent phoneme recogn., autoassociator-based modular archit. 8239
speech recogn., MLP probab. estimators, parallel training 8237
stochastic computation, ones/zeros ratio in pulse stream *(Korean)* 21477
target recogn., self partitioning neural networks 16278
TOTEM, digital proc. for neural networks and reactive Tabu search 29454
tracking syst., hardware neural network implement. 8454
triangular connection Hopfield neural network, A/D conversion 12595
universal type hardware neuron model, lambda shaped transistor *(Japanese)* 29504
visual cortex based neural archit. 29478
VLSI ccts. for optoelectronic neural network wt. setting 1501
voiced stop consonant recogn. by block-windowed ANN 32422
word recogn., neural network and phonetically based DTW 8241
Zero Instruction Set Computer, Higgs search 41284

neural nets
see also ART neural nets; backpropagation; Boltzmann machines; brain models; cellular neural nets; cerebellar model arithmetic computers; feedforward neural nets; fuzzy neural nets; Hebbian learning; neural chips; neural net architecture; neurocontrollers; optical neural nets; perceptrons; recurrent neural nets; self-organising feature maps; unsupervised learning
1D logic gate assignment, parallel algm. 38975
1D sig. smoothing, sieves and weightless neural nets 8327
3-phase PWM VSI, ANN current regulator 44119
3D med. image registration, ANN 33050

neural nets continued
3D motion perception/struct. param. estim., neural nets 41377
3D target recogn. via sonar, neural net model 25593
500 kV transm. syst., adaptive autoreclosure, ANN 4677
AC ASD, torque/speed/posn. control, trends 20065
AC skin impedance meas., real-time direct method, ANN based 43315
act. filter, harmonic detect., neural net appl. 29355
act. power contingency ranking, radial basis fn. network 10662
adaptive digital image screen halftoning, wavelet transform 41370
adaptive image sharpening, multiresolution representations 16263
adaptive logic networks for particles recog. 34818
adaptive multiuser detect., survey 24353
adaptive nonlin. neural filters, algm. 32702
adaptive separation of sound sources, Herault-Jutten network 26782
adaptive traffic prediction algm. for cellular radio 3404
advanced plant maint., surveillance syst., AI techs. 35921
all-phoneme ergodic HMM for unsupervised speaker adaptation 32271
alternator field winding interturn fault detect., neural net-based 44014
Alzheimer's disease, EEG-based, neural-net predictive class. 18551
ambiguous vowels recogn., oscillator neural nets 40760
anaesthesia trials, patient awareness state monitoring via neural net interp. of EEG sigs. 43318
analog neural nets, simul./training tech. 29500
analogue nets, smooth seq. recollection 21482
analogue T-Model neural net hardware, backpropag. learning 37927
angled facial data obtained by bright-spots matrix projection 3854
ANN based PCB inspection syst. 29684
ANN connection topol. optim. by genetic algm. 29505
ANN-based speech recogn., generalized min. distortion segmentation 24152
approx. identity neural nets for analog synthesis of nonlin. dyn. systs. 12682
array proc., neural nets appl. 24315
ASIC, Conf., Rochester, USA (1993) 36858
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
asynchronous chaotic neural networks, pulse propag. dyn. *(Japanese)* 37909
ATE, machine-based intell. 34379
ATM, VBR video transm., predictive dyn. bandwidth allocation 16419
ATM call admission neural control 41450
ATM network call admission control by random neural net 33218
ATM networks, neural network traffic description 3240
atrial fibrillation diagnosis, ANN 10225
attentional scanning model 32891
augmented neural network for solving lin. and quadratic prog. problems *(Chinese)* 28631
autocalibration of fibre optic strain sensor 25860
automatic face recogn. syst., adaptive clustering network 2697
automatic imposter detect. in telephone speech 32251
autonomous underwater vehicles, acoustic tracking/navig. 17361
autonomously responsive syst., acoustic preprocessor 32584
B-ISDN connection admission control/routing, neural networks appl. 16788
bearings, fault recogn., monitoring by neural nets 34391
binary associative memory neural net appl., document fax images anal. 41127
binary neural associative memory, hardware implement. 29464
biological neuronal network, parallel simul. 10252
biomedical meas., computer diagnostics of dyn. systs. 18435
biomedical technols., ANN appl. 10167
BIT appls. in airborne systems 42730
blind equalization, higher order cumulants/neural networks 2862
BP algm., lossless image compression 2546
breast cancer detect., neural net spectral anal. 18455
brushless variable speed drive network, diagnostic ES 11370
bulk substations, seq. of events eval., neural networks 44244
buried objs. detect., dual-band IR images fusion 8555
BWR ATWS seqs., diagnosis, ES, neural network 35858
calorimeters, sig. proc., functional schemes 4152
car driver behavior evol. detect., fuzzy diagnosis proc. 34387
car outline extraction by neural net 41374
cardiac disease class. neural network 18575
cascaded VQ by non-lin. PCA network layers 2372
ccts., postfabrication tuning, neural network learning 12278
cellular neural networks for random-dot stereograms proc. 2788
channel router, 1-variable stochastic simulated annealing 37581
chaotic sig. modeling, nonlin. AR model 15917
chaotic sig. modelling, reconstructed dyn. 32620
circuits systs., symp., Chicago, USA (May 1993) 31
class., optimum-size learning, neural net training 32583
CMOS SOI transistors, matching props. 30475
code-excited neural vector quantizers 40712
coherent generator group recogn., dyn. equivs., ANN *(Korean)* 36105
colloid liver scintigrams, neural network anal. 18454
color image segmentation, fuzzy clustering and supervised learning 16326
color texture, extraction by neural nets 41214
colour image recogn., neural net and genetic algm. *(Japanese)* 33116
commun. networks, routing/flow control, neural networks approach 33297
commun. systs., modeling/simul. 17246
communication and signal processing, conf., South Africa (1993) 5502
commutating machines simul., ANN appl. 10960
comparison of neural net and conventional techs. for lighting control 20121
competitive, optimised neural vector network 793
competitive learning neural network, dyn. output neuron generation, speech data appl. *(Korean)* 32443
competitive/selective learning for vector quantizer design *(Japanese)* 15772
computational model of neural contour processing 24709
computer/telecomms. convergence and develop. 41585
conference, computers in cardiology, London, UK (1993) 11543
conference, IEEE Northeast Bioengng. Conf., Newark, New Jersey, USA (Mar. 1993) 36846
conference, medical image processing, USA (1994) 20236
conference, Orlando, FL, USA (1994) 20227
constrained neural network, complex activation fn. 32660
consumer electronics, conf., Hong Kong (1994) 5460
contingency constrained generation scheduling, ANN 19380
controlled cryst. oscillator, freq. std. appl. 39107
coprocessors for special neural nets 29497
coronary artery stenosis recogn., neural net on DSA syst. *(Japanese)* 4262
counterpropagation nets, rem. sens. class. appl. 43536
cross-lang. adaptation for rapid HMM devel. in lang. 32268
custom IC, conf., San Diego, USA (1993) 36842
cyclostationary sigs., neural network classifier 40940

neural nets continued
daily load forecasting, hybrid fuzzy-neural approach 4603
daily load forecasting, multilayer ANN *(Japanese)* 10707
dairy cow oestrus detect., intell. syst. 9820
decentralized detect., neural net approach 32579
decision based neural nets, sig./image class. appl. 15899
decision directed edge-adaptive Kalman filter, neural net based 33060
digital commun. channel equalizer, Kalman-trained neural network 33156
digital neural network error detect., algm.-based inner product protection 32499
digital radio data predistortion, neural-net-with-memory model 42149
discrete Walsh transforms, neural net cct. 12680
discrete-time multichannel sigs., neural net modelling 15976
distrib. line condition monitoring, neural net-based 43750
distrib. network fault diagnosis, neural net-based 19241
distrib. network loss reduction, syst. reconfig. 10728
distrib. network substation fault diagnosis, connectionist ES-based 27182
distrib. power lines fault diagnosis, neural net-based 19242
distrib. syst., harmonic current prediction, ANN/GMDH comparison *(Korean)* 27178
distribution network arcing fault detection/classification, neural net-based 19250
distribution network fault detection/protection, neural net-based 19249
district heating forecast, ANN appl. 19500
Doppler presence, pulse compression, neural nets appl. 9632
DSP-based parallel archit. for neural network simul. 29259
dyn. dispatch, neural network appl., multiproc. 4571
dynamic system fault identification and diagnosis, neural network 25721
ECG, ischemic episodes detect., neural nets 18546
ECG, morph. similar complexes, neural network compression 35115
edge detect., neural networks appl. 8559
edge detect. by neural net, line proc. 41372
edge maps, neural network arbitration 41322
educational appls., developments, courses conf., Washington, DC, USA (Nov. 1993) 36901
EEG anal., brain maturation estim., neural classifier 35127
EEG anal., topographic slow wave activity, demented patients/normals 18550
EEG corrupted sigs., minimization of EOG artefacts, neural net 43298
EEG extraction syst., neural nets and stat. anal. 35138
EEG sig. proc., neural network based artefact detect. syst. 35133
EEG spikes, automated neural net detect., wavelet preprocessing 43284
EGG, contractions ident. by backprop. neural nets 43297
elec. demand forecasting Rostovenergo power syst. *(Russian)* 35578
elec. energy systs. fault diagnosis via device-specific neural nets 10789
elec. load forecasting, short-term, adaptive neural net 35584
elec. vehicle PID speed neurocontroller 44575
electromachine vibr. data validation/recovery, ANN 19593
electron beam lithog., proximity effect correction, neural network 38713
electrophysiological sig. parametrisation/feature extraction, trends 26394
EMG motor control sig. proc. by neural net 18565
endoskeleton BK prosthesis, customized alignment, neural network models 43367
engng. education, obj. recogn. algm., graph matching-based 20346
error-correcting code design, probabilistic neural net 40711
estim., associative memory ANN 19335
EWSD digital switching syst., recovery from software faults 16965
explicit piecewise-lin. models 12303
exponential bidirectional associative memory capacity 21336
face recogn., knowledge-based, extraction/BP algm. *(Korean)* 24683
facsimile, neural network error-correcting 8872
failure detect./accommodation, stable neural learning 5712
fast-reponse ultrasonic distance sensors 26800
fault signatures recogn., diagnostic test data transforms 34359
faulted SRM drives modelling, evol. ANN 44448
fax image recognition using neural nets 41172
feature-extracting cells in the neocognitron, thresholds 8527
filters, neural, adaptive, finding, genetic algms. 32527
FIR digital filter design by interconnected neural net *(Japanese)* 15937
flexible joint single-link robot ident. and tracking control 36669
flight control systs., validation methodology 10362
focused gamma neural network, state space, noise reduction 32657
food indust., intell. gas odour sens. for QC 18139
food monitoring, nonmetal foreign body detection 25804
friction, accurate estim. 19654
fuzzy intelligent hybrid system, telecom network routing appl. 8789
GAIA, generalized adaptive image analyzer, inspection appls. 28513
generating units, modelling and control, neural net techs. 26943
genetic algms. for min. source reconstructions 8303
genetic seqs., class., BP 2630
geol., resist., inverse fn., neural net approx. 35293
graph-based stack filter neural networks, associative representation 653
gray valued still images, face regions extraction *(Japanese)* 16153
hand-written kanji recogn., HoneycombNET *(Japanese)* 2618
handwritten signature images verification, wavelet anal. 8542
hearing loss compensation, neural network based objective measures 18612
heart, left ventrical boundary extraction in echocardiography 35010
helicopter transm. health monitoring, neural computing methods 10363
hierarchical LPNN network for noise reduction/speech recogn. 32386
hierarchical neural network appl. to ident. of defects, elec. pot. *(Japanese)* 21009
high range resoln. radar returns, model based ATR 17393
Hindi vowel recog., neural net 32419
histogram thresholding, k-means clustering 24371
holographic NDT, neural network approach 31662
homog. threshold networks, dyn. props. 12298
human face recogn., neural nets 16163
hybrid neural nets/HMM, speech recogn. *(Chinese)* 8217
hybrid neuro-fuzzy power syst. stabilizer 27069
hydroelec. power plant rainfall runoff ratio estim. neural net *(Japanese)* 4864
hyperspectral imagery class., BP neural network 35361
hysteresis in Hopfield and T-model neural nets. 12681
IEEE conf. on instrumentation/meas., USA (1993) 20198
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
IEEE industry applications, conf., Denver, USA (1994) 10
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895

neural nets continued
image class. by classifier combining tech. 8505
image class. in marine sci., neural nets 10492
image compression, neural net based 8537
image compression, random network learning 33046
image descriptions, learning, fractals 32957
image noise suppression, filtering vs. neural networks 32897
image proc., neural front end systs. 42953
image recog. by extended BAM neural nets 33065
image recogn., invariant, high-order neural nets 41379
image recogn., liked-BAM neural net-based *(Chinese)* 8667
image segmentation, Canny-Deriche filter and ANN appl. 33054
image segmentation, pulse coupled neural networks 24727
image syst. class. algm., neural networks 2844
images chaotic scanning/recogn. in neuron-like systs. 8474
impulsively loaded equipment, mechanical condition monitoring 11212
induction motor, integrated on-line protection syst. 4969
induction motors, on-line fault detect., stator current monitoring 4967
indust. elec. loads nonintrusive monitoring 4537
instrumentation and measurement applications 25723
insulation PD pattern recogn., neural net-based 13920
intell. sig. proc., present and future *(Japanese)* 24333
intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
interconnected power systs., transient stabil., on-line anal. 27008
invariance property of neural network classifiers 32659
invariant image recogn., neural net-based *(Chinese)* 8668
invariant image recogn., triple correl. and neural networks 33056
invariant obj. recogn., continuous 3-D dist. transform , neural network representation 33057
invariant pattern recogn., fast dyn. link matching algm. 8594
ionograms, interfering HF sigs. ident. 10463
IR target simul. environ., pattern recogn. appls. 34578
ISDN speech recogn. syst., vowels extraction 41919
island power syst. spinning reserve, real-time estim. 4473
iterated fn. syst. codes calc., ANN appl. 33053
kanji character-recogn. appl. *(Japanese)* 786
Kanji pattern recogn., unification neural network *(Japanese)* 2828
Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
KBTAC, knowledge-based technol. centre 35853
kernel hidden unit anal., network size reduction by entropy minimization 37578
landcover class., rem. sensed imagery, data fusion 43537
Landsat Thematic Mapper data, multispectral lines of commun. extraction 16259
lang. ident., phone-based acoustic likelihoods 32276
large vocab. speech recogn., comparative expts. 32343
large vocab. speech recogn., connectionist model combination 8235
LHC calorimeter second-level trigger, neural net, extract., e/jet discrimin. 26193
LIM drives, neural net-based fault diagnosis 36703
lin. codes, correcting errors, neural network 32108
liver, CT images, boundary detect. by neural nets 43259
load forecasting, long-term max. demand, modified ANN approach 19209
load forecasting, neural net prediction syst. 19218
load forecasting, rule-based ANN approach 19203
local image vel. detect. by cells in visual cortex *(Japanese)* 33000
local motion detect. by hierarchical neural network 24570
local SCADA systs., intell. load shedding algm. *(Korean)* 35473
lower limb act. external orthosis, neural network appl. 10272
LP problems with bounded variables, soln., neural nets 20566
LVQ learning schedules for ANN speaker ident. 8199
LWR control rod wear data, intell. DP syst. 4819
machine fault detect., neural network/fuzzy logic technols. 4908
mammogram tumour pattern recogn., pyramidal neural networking 35046
mammography, pattern class., multistage neural net 43257
Mandarin speech recogn. syst., large vocab. 24142
maneuvering target tracking by neural net 32622
marine vessels pass. class., integrated approach 34176
med. image combined coding scheme, transform/neural net approaches 43207
med. imaging, neural networks 10222
MELECON '94, conf., Antalya, Turkey (1994) 5470
microcellular systs., handover initiation approach 9324
microcontroller-based batt. charger, neural-fuzzy technol. 6028
microelectronic syst. archit./design, conf., Darmstadt (1992) 11535
microelectronics for neural nets and fuzzy systems, conf., Italy (1994) 28223
microphone arrays and neural networks, speaker/speech recogn. 32205
Midwest Symp. on ccts. and systs., Detroit (1993) 33
mil. combat battle prediction, BP neural net appl. 18996
mil. image, ident. methods 32896
mobile commun. syst. dyn. channel assignment by ANN *(Japanese)* 17135
modal compensation of atmos. turbulence 16202
motion-shape anal., multi-object; SVD neural networks 8680
moving obj., vel. field estim. algm. *(Chinese)* 8530
moving obj. robust extraction, edge grouping, neural 41378
multi output systs., online fault diagnosis, Kalman filter/neural net appl. 11830
multi-ANN syst. for speech coding, design 24146
multi-sens. rem. sens. imagery, parametric/neural classifier 8506
multiple source synthesis for training array neural nets. 23959
multispectral image class. using BP neural net classifier, input codings assess. 8590
musical sigs., loose-harmonic matching fund. freq. estim. 34300
NASA ground operations, hybrid neural network systs. 26696
navig. satellite selection, neural networks 42321
NDT data collection/interpret., colloquium, London, UK (1994) 5507
neonatal av. evoked pot., sig. enhancement by neural network 35134
network control technol., user appls. *(German)* 43692
network mgt. systs., advanced inform. proc. techs. 3096
network traffic mgt., neural tech. 41682
Neurodevice, modelling interface for VLSI design 13865
next day peak load forecasting, ANN, modified BP learning algm. 35586
node complexity of threshold ccts. 6276
noise canceling, autoassociative memory trained by order stats. 32623
noise cancellation/sig. separation, unsupervised competitive learning rule 8449
nonlin. commun. channel equalization by wavelet neural nets 41397
nonlin. DFEs based on functional-link neural network 9153
nonlin. digital filter, optim. *(Japanese)* 21434

neural nets continued
nonlin. digital filters, neural network structs. 8451
nonlin. filter struct., act. sound and vibr. control, genetic algm. 32776
nonlin. SRM drive modelling, neural net-based 5256
nonparametric estim., neural networks 41207
nonstationary sig. sources separation networks 8389
North American power symposium, Washington, DC, USA, (1993) 11522
NPP, proc. variable est., parity space method, ANN *(Korean)* 27356
NPP, transient diagnostics by neural net 35741
NPP, vibr. anal., neural networks 35856
nuc. power safety, neural nets/fuzzy systs. 35849
nuc. reactors, anom. detect. credibility, neural networks 4785
nuclear power plant monitoring by neural nets 27341
obstacle detect. by binary expansion patterns recogn. 33070
odor discrim., fuzzy reasoning and neural networks 9955
odorant sens., SAW oscillator and neural network 17982
oil-filled transformers, fault detect., gas sens./neural net 36234
Omega network-based ATM switch, neural network-controlled 16416
optim., equivalence of dyn. systs. 11948
optim. of polling policy represented by neural network 2897
parallel algm. *(Chinese)* 8783
parallel image and signal algorithms texture analysis, conf., Genoa, May 1994 11593
particle impact noise detect. by neural net 34392
partitioned neural nets, optim. dyn. 24390
pass. rem. IR interferometers, analog detect. scheme 34427
pattern extraction, nonuniform resoln., neural net 41369
pattern recogn., neural networks, optoelectronic devices 2805
pattern search, genetic algms. and neural network model 41354
PCB diagnosis using artificial neural networks 38118
PCB layouts optimisation, neural network algm. *(Japanese)* 904
PD pattern recogn., neural network 22650
PD pattern recogn. for model electrodes 3972
PD pulse distrib. pattern anal. 22646
PD recogn., neural networks appl. 1535
PD separation from pulse-shaped noise sigs. 22649
PDs, pulse shaped noise sigs., neural network anal. 1524
phase conjug. quadrature neural net archit. 40099
phoneme dictionary automatic training based on mutual inform. criterion 32269
phys. models and analogue VLSI implement. 6269
phytoplankton monitoring by cytometry, neural net ident. 10536
picture region segmentation, neural network appl. *(Japanese)* 2615
piecewise-lin. radial basis fns. in sig. proc. 2518
plural defects in conductive plates, location via neural networks 37563
PM DC motor drives, AI speed control strategies 5285
positron ident., transit. radiation detector, neural net 4173
Potts neural nets, optimisation, dyn. systs. equivalence 21480
power distrib. syst. fault detect./ident., neural net 4657
power flow calculation, ANN *(English)* 4496
power grid, fault diagnosis, ES/neural networks 43618
power station condition-based maint. mgt., neural net-based 43815
power supply quality class., neural net/ES-based 4741
power supply undertaking load forecasting, ANN *(German)* 43721
power syst., dynamic security assess. 19018
power syst., phase selection, fault generated HF noise, ANN 19141
power syst., two-area load-frequency control with neural nets 19113
power syst. alarm proc., OO symbolic connectionist syst. 19158
power syst. alarm proc. syst., symbolic-ANN syst. 26867
power syst. anticipatory fuzzy control, neural net-based 43666
power syst. automation, computational intell. 19161
power syst. digital relay protection, ANN appl. 19347
power syst. distributed online fault sect. estim., neural net-based 26873
power syst. dyn., coherency ident., neural net-based 4492
power syst. dyn. load modeling, neural net-based 4488
power syst. emergency corrective control, ANN classifier 19114
power syst. fault detect., back-propag. ANN *(Korean)* 35702
power syst. fault diagnosis, AI methods perform. eval. 19030
power syst. fault location, neural net-based alarm proc. 19072
power syst. fault sect. estim., neural net discriminant anal. 27284
power syst. load forecasting, ANN based, EMS 4616
power syst. load freq. control, neural net-based 4542
power syst. load pattern classifier algm., neural net-based 10704
power syst. load static characts. ident., neural net-based *(Chinese)* 43604
power syst. load-flow anal., ANN, Newton-Raphson algm. 19083
power syst. meter allocation, genetic algm. 43712
power syst. online static security assess., neural net-based 35444
power syst. peak switching overvoltage calc., neural net-based 10703
power syst. real-time/offline fault anals., neural net appls. 19093
power syst. security assess., AI appls. 27011
power syst. security eval., ANN appl. 10677
power syst. security prediction by neural nets 35538
power syst. short cct. currents, real-time estim., ANN 19191
power syst. short-term load forecasting, genetic algm. neural net 27080
power syst. short-term load forecasting, neural net-based 19199
power syst. sig. param. estim., neural nets 19170
power syst. state estim., bad data detect., ANN appl. 19047
power syst. state estim. forecasts, neural net-based 26871
power syst. state estim. pattern anal., neural net-based 35447
power syst. static security assess., genetic neural net-based 19008
power syst. static security assess., load flow, ANN 19167
power syst. static voltage stabil. assess., ANN 26868
power syst. transient security assess., ANN *(Chinese)* 35528
power syst. transient security assess., ANN tangent hypersurfaces 26928
power syst. transient stabil. assess., neural net-based 19006
power syst. transient stabil. eval., ANN *(Japanese)* 43680
power syst. transient stabil. limits estim., ANN *(Chinese)* 4443
power syst. voltage security, ANN, patt. class., machine learning 19160
power syst. vulnerability assess., neural net-based 26966
power system fault direction identification, neural network approach 19358
power systems computation, conf., Avignon, France (1993) 20204
power systs., AI proc. monitoring/optim. 35698
power systs., operational intell. syst. appl. 43617
power systs. diagnosis by neural net 35699
power transformer differential current anal., neural net classifier 19696
power transformer oil, dissolved gas anal., ANN appl. 19683
power transformer resonance freqs. prediction, neural net-based 19684
power transm. line overloading alleviation, intell. control 4518
power transm. syst. optim., struct. neural nets 43727
press. sens. nonlin. estim. 17731

neural nets continued
principal component anal., group action, entropy fn. minimisation 40901
proc. monitoring, neural net-based *(Japanese)* 9790
pulse discharge pattern anal., neural network appl. 3973
pump fault diagnosis using neural nets 42719
PWR, ex-core neutron noise signature anal., neural networks 43859
PWR NPP neural control 35738
PWR primary cct., leak size, neural network determ. 27492
pyramid encoding by LRAAM neural net 16187
radar detect. of sigs. in chaos, small target in sea clutter 9630
radar sig. clustering microwave neural-network paradigms 17403
radar target classif., extraction, wavelets *(Chinese)* 34134
radar target discrim., wavelet transforms 16102
range image segmentation, hierarchical struct. of neural networks *(Korean)* 41170
range image temporal feature extraction, neural decomp. 33052
Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
real time class. proc., conventional and neural techs. 16284
real-time signature verification, neural network algms. 16282
rearrangeable Clos network control, neural net 2983
Redifon intell. ground probing radar 17413
reliab. engng. data anal., neural network appl. 37197
rem. sens., cloud masking, ensemble methods 18822
rem. sens. image class., neural nets 43467
rem. sens. spectral image class., Kohonen neural net *(Chinese)* 43478
rem.-sens. data, neural network class. 43544
renal transplant success prognosis, neural net appls. *(Italian)* 4292
RLC reson. cct. tuning, neural network adaptive controller 12631
RLCT pass. network synthesis, neural net approach 500
rolling element bearing fault diagnosis by vibrs. and neural networks 26805
rotors, rubbing fault, diagnostic methods *(Chinese)* 10926
SAMSON, Severe Accident Management System Online Network 35860
SAR images, max. likelihood algm. for target detect. 17365
Sarnoff engine, massively parallel computer for high defn. syst. simul. 12587
satellite commun. traffic mgt., mean field annealing 42327
satellite image anal., terrain neural classifier 18791
seafloor imaging, side scan sonar, neural image class. 18809
segmentation, pattern, excitatory/inhibitory oscillator nets 8678
seismic arrivals, local earthquake data, automatic picking 26700
seismic sens., real-time sig. class., neural nets 2743
selective color adjustment, neural net color classifier 8629
self-learning blind sig. separation of time delay narrow band sigs. *(Chinese)* 32449
semen quality assess., neural nets 18457
semicond. defect inspection syst. *(Japanese)* 106
semicond. gas sens., neural nets *(Japanese)* 42867
sens. perform. improvement by neural nets 17726
sens.-motor fusion, hierarchical, neural nets 40790
shading flow anal., surface recovery 32892
shift and rot. invariant texture recogn., neural nets 33059
ship detect. in radar images by neural net 42528
Shiva multiprocessor syst., neural network simul. mapping 32427
short term elec. load forecast, ANN 19212
short-term load forecasting, adaptive neural net 35566
short-term load forecasting model, ANN, fuzzy ES *(Korean)* 35587
short-term load forecasting models, artificial neural nets 27118
short-term peak load forecasting, ANN appl. 19217
SICE'94 conf., Japan, 1994 5455
sig. proc., convergence anal. of neural networks 40771
sig. recogn., continual neurocomputer 40902
signal proc. appls., conf., Linthicum Heights, MD, USA (1993) 40865
signal processing appls., IEE Colloquium, London (1994) 5512
single sided LIM, design, ANN, FEM, SUMT *(Korean)* 27758
single/multi-amplit. sigs. in interf. channels, neural-net based receiver 16408
sinusoidal current tracking inverter control, neural networks *(Korean)* 27826
sleeping state determ. from movement, neural net *(Japanese)* 26333
sources separation, analogue hardware 40903
spatio-temporal invariances learning 41226
speaker ident., multi-expert/hybrid connectionist 2429
speaker ident. bt time delay neural net 32421
speaker independent phoneme recogn., autoassociator-based modular archit. 8239
speaker recogn., neural tree network/VQ probab. estimators 8236
specular surface shape from shading, neural net 41367
speech, discriminative training for neural prediction systs. 32267
speech automatic recogn. in noisy environ. 32431
speech coding, neural networks in adaptive DPCM 15717
speech coding, nonlin. short-term prediction 32255
speech recogn., hybrid HMM/neural networks combination 2431
speech recogn., nonlin. syst., neural nets 40733
spiking oscillator networks, on-focal-plane image preprocessing 29413
SRM drive, nonlin. modelling, ANN 20074
static distrib. load param. ident., general regression neural networks 10647
statisitical models of ccts. and systs., neural computing 5963
stepless PWM speed control of AC motors, neural network approach 4939
substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
sync. generators, stabil./faults, neural net class. 36123
synchronous generator stabil., global detect., ANN 19608
syst. availability enhancement by fault diagnosis, ANN 19526
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
T-Model neural net for PCM encoding, nonlin. ADC appl. 6193
target recogn., min. error neural network (MENN) method 24557
target tracking, neural network maneuver modeling 32671
technols., present state/future prospects *(Japanese)* 784
telecomm. channel predistorter design by neural net 41638
telecomm. network mgt., neural network appls. 3099
telecomm. systs., neural networks appls. 41454
telephone network automatic call routing 3136
telephone speech scrambler echo cancellation 41722
temporal unit commitment problem, coupled gradient network soln. 35585
text depend. speaker verification, data fusion, channel detect. 32200
texture segmentation and class., neural network technol. 16190
textured image segmentation, autoregressive model, ANN 24642
thermal power units, load control syst., adaptive neural model *(Chinese)* 35983
thick-film resistor values estim., ANNs 21585
time-domain scatt. sig. extraction, BP neural net *(Chinese)* 8657
time-multiplex switches, neural scheduling algms. 16417
tone recogn. of continuous Mandarin speech based on neural networks 24153

neural nets continued
transform coding by lateral inhibited neural nets 32087
transformer fault detect., oil gas discrim. method 29620
transit time estim. in multiphase flow, mixed modality scheme 25698
transm. lines, fault location/discrim. *(Japanese)* 10786
transm. network expansion planning, neural net/genetic algm.-based *(Japanese)* 10716
turbine blade, faults, intell. diagnosis, neural nets/fuzzy logic 35714
turbogenerator online vibr. monitoring, neural net-based 19596
two-pattern class./feature extraction, neural networks 41209
underwater acoustic noise ident. 17492
underwater far field array proc., neural networks 32608
US defect ident. with laser generation, neural network appl. *(Japanese)* 21008
US eval. of adhesive fillet, neural nets appl. 12245
vector neural network sig. integrat. for radar appl. 18976
visual motion detect., BP learning, internal neural struct. 41375
visual solder inspection, neural network *(Japanese)* 38117
VLSI SC ccts. for realization of neuron-like binary Hamming classifier 13838
voltage security, machine learning, neural networks, stat. pattern recogn. 10663
vowel and consonant recogn. in Turkish, neural networks 15832
VQ, competitive learning algm. 33031
VQ, fast competitive learning, classified learning rates 41087
weighted order stat. filters design, perceptron algm. 2634
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
wind retrieval, ERS-1 scatterometer data, neural network approach 10470
word recogn., neural network and phonetically based DTW 8241
GaAlAs layers, OMCVD, characts. prediction, neural nets 13051
HgCdTe IRFPA nonuniformity correction algm., real-time hardware prototype 17948
Ni-Cd battery perform. modelling, neural net-based 27914
O_3 short-term forecasting by bidirectional associative memory, Mexico City 26773
PZT films, adaptive-learning neuron ccts. appl. 30571
Si polysrystalline PV array, optimal operation ident., ANN *(Japanese)* 5231
SiO_2 RIE, modelling using neural networks, ICs and MCMs 6656
TiO_2 epitaxial thin film MOCVD growth, neural network modelling 22548
ZnO:Al thin-film gas sens., dimethylamine/trimethylamine gas detect., neural network pattern recogn. 17978

neuristor networks *see neural nets*

neurocontrollers
adaptive time optimal control of disk drive actuator, neural network 7179
all-weather/terrain intell. vehicle for law enforcement 34586
buck converter, ANN controlled, simul. 37637
building HVAC nonlin. heater batt., neural net control 5239
central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
chopper fed PMDC motor elec. vehicles drive, adaptive ANN rule-based controller 36721
CMOS adaptive neuro-fuzzy analog chips 29418
DC drive, neural net adaptive control 44446
DC motor control, adaptive neural net, online training 44066
DC motor control based on ANN *(Korean)* 44069
DC motor drive adaptive neural speed regulators 36655
DC motor drive fuzzy logic control, neural net implement. 11316
DC motor drive sensorless operation, neural network-based 36676
DC motor drives, supervised neural net-based control 11340
distributed neural control of commun. network traffic 24901
elec. road vehicle speed control, PID neurocontroller 36723
elec. vehicle induction motor neuro-fuzzy control 36722
elec. vehicle PID speed neurocontroller 44575
EWSD digital switching syst., recovery from software faults 16965
fuzzy neural fast learning controller/filter 24354
gas turbines, integrated robust/neural controller 27568
hybrid neuro-fuzzy power syst. stabilizer 27069
hybrid neuro-fuzzy power syst. stabilizer 10609
hydraulic turbogenerators, intell. sync. control *(Chinese)* 10877
induction machine ident./control, neural net-based 44057
induction motor, trajectory learning method, neuro-fuzzy network *(Korean)* 36172
induction motor drive vector control, neural net flux estimator 5296
induction motor drive vector control, neural net-based 5291
induction motor drives, neural net-based param. estim. 20061
induction motor drives, sensorless speed control, neural net-based 20063
induction motor speed control, neural fuzzy controller design 44052
induction servo drive, neural model predictive control 28066
lin. DC motor posn. syst., tracking perform., neural net *(Japanese)* 44071
mobile robots, neural archits. for environ. rebuilding 34413
neural net-based load-flow models for elec. power systs. control 26986
neuro-fuzzy hybrid hardware implement., neural chip URAN 29514
plasma gate etch, neural network control 38567
power syst. intell. control, appl. develops. 19135
power syst. lin. optimal regulator, fuzzy neural net-based 19094
power syst. mgt., voltage/reactive power neurocontroller *(Japanese)* 4529
power syst. real-time/offline fault anals., neural net appls. 19093
power syst. transient stabil. assess., neural net-based 10626
power syst. voltage/VAr control, recurrent neural net-based 4512
power system decentralised control, neural net-based 19119
probabilistic RAM, hardware-based learning syst. 37915
PSS, feedforward neural net, inverse dyns. *(Korean)* 35540
PSS, SMES-based, neural network-controlled 27030
PSS decentralized control, multilayer feedforward neural net-based 19100
PV array max. power neural tracking 36058
PV max. power tracking, neural networks 36589
PV power syst. max. power tracking, fuzzy neural net-based 19552
PWM invertor optimal PI current control, neural net-based 19734
PWM VSI, current regulation techs. review 44178
PWR NPP neural control 35738
RLC reson. cct. tuning, neural network adaptive controller 12631
switched reluctance motor, torque ripple neural control 44011
sync. generator nonlin. adaptive control, neural net-based 19607
sync. generators, neural network nonlin. adaptive controller *(Japanese)* 4924
sync. machine excitation neural control 36117
three phase ASD PWM rectifier, neural net-controlled 5120
three-phase rectifier, deadbeat neural net predictive control 11174
variable speed induction motor drives, neural net-based vector control 36685

neuron models *see neural nets*

neurophysiology
- *see also brain; neural nets*
- 3D mapping of muscle activity, surface electrode array sig. proc. 26391
- 3D microelectrode array for chronic neural recording 10240
- acoustic pulse ident., auditory neuron simul. network 26747
- AFIT multiplexed multi-electrode array and implant. package for neural recording and stimulation 35089
- arm movements control, muscle stimulation patterns, neural network generation 10279
- auditory scenes, computational anal. 2406
- biological/computer vision, spatial freq. inform., self-organising feature map 33117
- brain, echo planar NMR imaging 26344
- brain, Fe levels, MRI, 3 tesla 26349
- discrim. task, evoked spatio-temporal cortical patterns 43309
- EEG extraction syst., neural nets and stat. anal. 35138
- EMG motor control sig. proc. by neural net 18565
- event reconstr., neural nets 43314
- FES systs., prog. electronic stimulator 10280
- gray brain matter imaging, double-inversion pulse seq. 26350
- hand, FNS control, specific manipulation tasks, instrumented assess. 4308
- heart rate variability sigs., complex dyn. assess. 26411
- human forearm, neural stimulation in mag. field, tissue models 35190
- lab., QA study, EMG/EEG 4281
- myoelectric sig. recogn., fuzzy clustering and ANNs 35108
- neurocardiology, heart electrostimulation, aspects 43362
- neuromuscular stimulation electrodes, elec. transients/corros. responses 18603
- neurosurgery, video-as-data, ethnographic studt 43324
- nuc. med., conf., Orlando, FL, USA (1994) 20218
- parallel simul. of biological neuronal network 10252
- paraplegics, elec. stimulated quadriceps ident. 18581
- phrenic nerve, long-term intramuscular elec. activation 10275
- real-time functional MRI 35020
- recording syst., telemetric power/control, CMOS circuitry 18566
- rehabilitation R&D progress reports, (1992-1993) 26477
- sig. detect., time series distrib. params., hypotheses testing 2540
- sig. proc., stochastic reson., ion channel cond. 24228
- transcutaneous elec. nerve stimulation, quasiresonant power supply 4255
- ventilatory prosthesis, phrenic nerve intramuscular elec. activation 10276
- visual evoked pot. sigs., factor anal., wavelet decomp. 35072
- visual neuroprosthetics, functional vision for blind 18615
- voltage-clamp techs., single-electrode, error sources 10224
- ^{1}H NMR, normal infant brains, perinatal hypoxia-ischemia 26346
- ^{1}H spectrosc. in stroke 26345
- electronic excitable membrane model, phase transit. curve anal. *(Japanese)* 37619

neutral beam injection (plasma) *see plasma beam injection heating*

neutrino detection
- AMANDA detector, South Pole ice, opt. props. 26141
- BARS liq. Ar detector-target for tagged neutrino beams 26150
- CHORUS detector for neutrino oscills., scintillating fiber trackers 10121
- KARMEN, neutrino oscills. search 43124
- Large Volume Detector, Gran Sasso Laboratory, status 34913
- liq. Xe detector, dark matter/neutrino detect. 4196
- Ga detectors, solar neutrino capture rates, Gamow-Teller strengths 34903

neutron absorption
- nuc. driven MHD device, nuc. induced elec. cond. 27968
- zero temp. coeff. core, dil. fuel, graphite moderator 35813

neutron activation analysis
- *see also radioactive chemical analysis*
- assoc. particle imaging, 4D image display 18465
- BiMOS MCT/IGBT VHV devices, gate oxide integrity improvement, external gettering 30275
- gamma-ray spectrosc. counting syst. automation for NAA 17657
- polyethylene high voltage cable insulation, diagnostic methods 14065
- pulsed fast neutron anal., cargo inspection 18413
- short lived isotopes, automated NAA syst. 17656
- Si:B depth profile, proton scatt. anal., alpha spectra simul. 21877

neutron beam effects *see neutron effects*

neutron beams
- focusing optic for submillimeter materials anal. 5933
- penumbral imaging of ICF targets 34948
- polarized neutron beam from TRIPLE spin filter 34829
- short curved neutron guides, transm. props. 34835
- small-angle cold neutron scatt., double refl. multilayer monochromator appl. 26074
- supercond. neutron spin-flipper 18280

neutron bottles *see particle traps*

neutron detection
- 1-MeV equiv. neutron fluence estim. from dosimetry responses 18372
- 14 MeV neutron spectrometer design, fusion expt. reactor *(Japanese)* 26252
- ^{3}He proportional counters, DSP 18334
- act. well coincidence counter meas. of high enriched U material 4229
- Bonner sphere response matrices, perform. comparison 18679
- cold fusion, neutron spectrometer, Gran Sasso lab. 4241
- conference, radiation meas./appls., Ann Arbor, USA (May 1994) 5488
- CR-39 detector, sensitivity, elec. field effects 43133
- CR-39 dosemeter, wide-range neutron dose determ. 43395
- CR-39 track detector, multi-field eval., pass. pers. dosemeter 10134
- diamond detector as fast neutron spectrometer, 14.6 MeV energies 10150
- directional fast neutron detector, scintillating fibers, CCD camera 18328
- dosimeter develop., CR-39 detector 26495
- dRAMs, radiation sens. appl. employing SEU 18316
- electron storage rings, gas bremsstrahlung, photon-neutron shielding 26506
- FERMI neutron and gamma detector for cold fusion expts. 34943
- fiber scintillating imaging detector for ICF neutrons 4198
- GSO scintillator, neutron detect., thermal neutron capture 18330
- Harwell Instruments N93 Slab Monitor for Pu assay, characteriz. 18368
- High Level Neutron Coincidence Counter, neutron burst meas., cold fusion 18298
- Hiroshima/Nagasaki, posteriori track recorder neutron dosimetry 10295
- hydrogenous material for sensitizing pMOS dosimeters, neutrons 26496
- ICF implosions, MEDUSA large scintillator arrays 26168
- LHC, neutron background, beam pipe geometries, transparency 4191
- microstrip proportional counter perform. 26157
- multi-anode proportional counter, neutron detector 18338

neutron detection continued
- NE213 liq. scintillator neutron detector 26131
- neutron-gamma mixed-field dosimetry syst., TLD-based 18635
- on-line capture γ-ray spectrometer, explosive det., thermal neutron flux 34971
- PIN diode, neutron spectrum meas., Army Pulse Radiation Facility 18371
- plastic scintillators, Y-12 plant crit. accident alarm syst. detectors, testing 4226
- resistive plate chamber, photon and neutron irrad. 34932
- room-return neutron spectra determ. 4341
- SANS, posn. sensitive detectors appl. 26156
- scintillating fiber-optic neutron detector, intensified CCD camera 4159
- scintillating-fiber neutron detector for fusion plasma diagnostics 26146
- scintillating-fibre neutron detector for TFTR, DT operation 26147
- self-powered neutron detectors, digital dyn. compensation 10130
- Texas A&M neutron ball 26133
- thermal neutron detector syst. using laser stimulated luminesc. 34939
- thermal neutron imaging detector, composite foil convertor/electron multipliers 4170
- ZEUS expt., forward neutron calorimeter test 26132
- BF_3 proportional counters, temp. depend. 18333
- Ce-doped scintillating-glass-fiber neutron sens. 18327
- GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
- H_2, tissue equiv. proportional counter, radiation protection microdosimetry 43393
- ^{3}He gas ionization chamber for neutron spectrometry 18331
- Li-glass detector, calib. for neutron energies above 50 keV 10123
- Si-Gd-Si sens., large area, thermal neutron detect. 18329

neutron diffraction
- *for neutron crystallography techniques and apparatus, use "neutron diffraction crystallography"*
- ferroelec. polymers, struct./Curie point, spectrosc. studies 6902
- MUSICAL, neutron backscatt. at pulsed neutron source 34966
- nuclear spin targets for biological struct. research, p/d types 34881
- radial collimator, strain meas. by neutron diffr. 21007
- SANS, polarized target station at GKSS 34882
- Co-Cr films, micromagnetic domains, neutron scatt. 6961
- $ErFe_{8.5}Co_2Mo_{1.5}D_y$, struct./mag. props., deuteration effects 39162
- Fe_3O_4/NiO superlattices, cryst. and mag. ordering 7045
- Ho/Er, superlattice, mag. struct., interacts. 7043
- Ho/Lu, superlattice, mag. struct., interacts. 7043
- Ho/Y, superlattice, mag. struct., interacts. 7043
- $Li_{0.673}Zn_{0.3}Mn_{0.05}Ti_{0.595}Fe_{1.28}$ $2O_4$ ferrite, mag. struct. 14196
- MnTe/CdTe multilayers, interlayer correl., helical spin ordering 7046
- NdFeB-based magnets, neutron depol. ang. depend. 39200
- $Nd_3Fe_{29-x}Ti_x$, mag. and cryst. struct. 6945
- $YCa_2SbFe_4O_{12}$ garnet, mag. ordering studies 30689

neutron effects
- *see also irradiation induced creep*
- 1960's radiation effects research on semicond. devices/materials 11558
- act. optoelectronic devices, LEDs, LDs, PDs, OCs 23047
- AD8001 op-amp, dielec.-isolated complementary-bipolar IC, total-dose/SEU results 29066
- ART2800 DC/DC converter family, 7846 post regulator, space radiation charactn. 29051
- blue scintillating fibres, radiation damage induced by thermal neutrons 26220
- Cr-39 detectors, alpha/fission track radiation effects 26232
- epoxy resin, neutron induced changes, dielec. response 14046
- LHC, neutron background, beam pipe geometries, transparency 4191
- LWR press. vessel, neutron transport, ENDF/B, JEF, JENDL, Fe 27421
- microelectronic devices, SEU and charge collection meas. 12393
- MOSFETs, punch-through charact. 13731
- nuc. driven MHD device, nuc. induced elec. cond. 27968
- nuc. facilities, opt. fibres, radiation hardness 22838
- Palisades PWR vessel neutron fluence reduction measures 4820
- particle accelerators, radiation effects on electronics 4239
- power MOSFET, breakdown voltage, neutron irrad. effects 6768
- PWR reactor internals, irrad. embrittlement 35863
- research reactors, neutron transmutation Si doping 27423
- SEU environ. for avionics at high lat., SRAM tests 18715
- SEUs in ICs due to terrestrial cosmic rays, modelling 13867
- thin film superconds., gamma-ray and fast neutron radiation effects 14276
- BaF_2 calorimeter, cryst. props., detector possibil. 26195
- GaAs monolithic C-HFET preamplifier 4234
- GaAs, radiation induced order effect, mobility study 13061
- GaAs:Cu,Si bistable opt. controlled switch, subnanosecond high-power perform. 2104
- GaAs:Ge, radiation damage, elec. and opt. meas. *(Japanese)* 1048
- Ge:Sb,Ga, nuc. transmutation doping, impurity elec. activity 13295
- Si, detector grade, bulk defects, radiation damage 43105
- Si detector, neutron irrad., Fermi level, TChT tech. 18370
- Si detectors, deep level compensated, X-ray appl. 43160
- Si detectors, heavily irrad., TSC data-anal. 26165
- Si detectors, neutron/proton/gamma irrad., electr. props., charge collect. efficiency 26224
- Si detectors, radiation hardness, fast neutron fields 43116
- Si, electrocatalysis, opt./elec. props., solar cell appls. *(German)* 38243
- Si, float-zone grown/NTD, positron annihilation obs. 38470
- Si, irrad. detectors, neutron fluence, DLTS, CV characts. 38794
- Si, neutron-irrad. single cryst., elec. params. *(Chinese)* 1016
- Si photocond. semicond. switches, pulsed power appls. 36386
- Si:B,O, heavily doped, interstitial O conc., neutron irrad./FTIR anal. *(English)* 6612
- Si:H, neutron irrad., defect anneal., H infl. 38469
- $Si-Si_{1-x}Ge_x$ epitaxial devices, Ge content depend. of radiation damage 13638
- SiC high-temp. JFETs, neutron damage anal. 13789

neutron interferometry *see particle interferometry*

neutron polarisation
- cold neutron polaris. instrum., 9 Å wavelength, KUR 26075
- research reactor IRT-Sofia, neutron depolarization facility 10824
- NH_3 target for pol. n beam, TRIPLE spin filter 34829

neutron radiography
- epoxy, water diffusion profile meas., neutron radiography 12222
- fission reactor simulated subchannel, void profile 27418
- illicit subst. detect., fast-neutron transm. spectrosc. 12241
- neutron sources, detecting techs. 37565
- thermal neutron detector syst. using laser stimulated luminesc. 34939

neutron radiography continued
- thermal neutron imaging detector, composite foil convertor/electron multipliers 4170
- tomographic syst. developed, Rome research reactor 12221
- transportable supercond. cyclotron 18463

neutron sources
- epithermal photoneutron source, accel.-based, boron neutron capture therapy 4146
- IREN, intense source of reson. neutrons 34847
- LANSCE, white neutron source, energy resoln. 4133
- pulsed neutron sources, thermal neutron TOF spectrum 26113
- pulsed sources, thermal neutron flux/temp., KNK-21A fission ioniz. chamber 26114
- Texas Cold Neutron Source, converging neutron guide focusing 18264
- thermal neutron target for RPI linac 26103
- thermonuclear magnetized plasma generation, mag. implosion syst. 36267
- H^- beams chopping, Penning surface-plasma source 34838

neutron spectra
- *see also neutron spectrometers*
- Bonner sphere response matrices, perform. comparison 18679
- ICF implosions, MEDUSA large scintillator arrays 26168
- pulsed neutron sources, thermal neutron TOF spectrum 26113
- room-return neutron spectra determ. 4341
- TRU/FP transmutation, accelerator based incineration syst. 35955
- Be(d,n), 13.5-22 MeV, thick Be target, neutron spectra 18365
- ^{3}He gas ionization chamber for neutron spectrometry 18331

neutron spectrometers
- 14 MeV neutron spectrometer design, fusion expt. reactor *(Japanese)* 26252
- cold fusion, Gran Sasso lab. 4241
- diamond detector as fast neutron spectrometer, 14.6 MeV energies 10150
- MUSICAL, neutron backscatt. at pulsed neutron source 34966

neutron spectroscopy
- 1-MeV equiv. neutron fluence estim. from dosimetry responses 18372
- high resoln. neutron spectrosc. methods 4243
- illicit subst. detect., fast-neutron transm. spectrosc. 12241
- photoneutrons from med. LINAC, spectrum/dose meas. 43409
- PIN diode, neutron spectrum meas., Army Pulse Radiation Facility 18371
- ^{3}He gas ionization chamber for neutron spectrometry 18331

neutron transmutation doping *see neutron effects; semiconductor doping*

neutron transport theory
- *see also fission reactor physics; fission reactor theory*
- effective delayed neutron fraction 35817
- LWR press. vessel, ENDF/B, JEF, JENDL, iron evals. 27421
- neutron dens. noise, non-min. phase reactor syst. 43858
- open-cycle gas core nuc. rocket, computational model 18769
- pellet-bed reactors, neutronics anal. for bimodal appls. 4359
- theta-weighted differencing scheme, oscills., DORT code 10834

neutron traps *see particle traps*

newspapers *see publishing*

Newton method
- 2D hybrid element image reconstruction for TM illum. 43222
- 2D inhomog. dielec. objs., permitt. profiles reconstruction *(Korean)* 16136
- 3D integral eqn. method for eddy current EM field anal. in anisotropic materials 39145
- 3D micro-electro-mech. struct., self-consistent electromechanical anal. 1502
- AC/DC power syst. load flow calc. *(Chinese)* 35557
- adaptive estim. of eigensubspace 32550
- additive unknown colored noise, max. likelihood DOA estim. 40839
- augmented device simul. models incorporating IV continuation and cct. element eqns. 1324
- automobile dyn. spark ignition engine control modelling 11438
- cct./device steady-state simul., nonlin. elimination 21025
- complex FIR filter design, Remez multiple exchange algm. 32787
- complex waveguide ccts., low cost CAD *(German)* 23785
- conducting cylinder, microwave imaging, Newton algm. *(Korean)* 25965
- conjug. gradient sq. preconditioning methods for Newton's method solvers 249
- constrained optimisation, nonmonotone line search 230
- DC power network, steady state calc., iter. calc. 27144
- DC-DC convertor control param. optimisation 21101
- distrib. network, load-flow eqns., starting point 27147
- economic dispatch, nonmonotonically increasing incremental cost 19109
- fast decoupled Newton optimal power flow *(Chinese)* 10633
- FIR filters iter. reweighted least-sq. design 2465
- homogeneous dielec. cylinder inverse scatt. 23568
- image recovery algms., efficient implement. 24432
- implicit complementarity problems, optim. of systs. 11981
- LMS-Newton adaptive filtering algm., variable convergence factor 40806
- modified Newton directions, computation, partial Cholesky factorization 20587
- multiterminal DC-AC syst. power flow anal. 27145
- nonlin. LSI cct. simul., relax. Newton method 22530
- nonlin. mag. field problems soln., Newton-Raphson method 40224
- num. soln. of secular eqn. 28676
- optim. of simul. via quasi-Newton methods 239
- optimal-power-flow soln., Newton's method 19000
- orthogonal regression models, nonlin. param. estim., algms. and appls. 28662
- parallel switched cct. simul. on networked workstations 5984
- polynomial factorization and partial fraction decomp. 20576
- power syst., small sig. stabil. anal., eigenvalue clusters calc. 35437
- power syst. load flow calc., compensating EMF method *(Russian)* 43627
- power syst. voltage phasor/freq. estim., Newton's iter. method 26851
- pseudo-inverse-based probab. power flow 35462
- PWM inverters, real-time alg. harmonic elimination eqns. soln. 44162
- radially stratified cylinder probing, inverse problem, iter. scheme 31788
- saturating/hysteretic inductor nonlin. cct. anal. by harmonic-bal. tech. 37610
- semicond. devices, nonequilibrium transport, PDE simul. 22331
- SRM drive, asymm. half bridge fed, discrete modelling 44497
- symmetric definite pencil eigenvalue optimisation 11895
- zero tracking algms. for stationary/nonstationary environ. 16058

Newton-Raphson method
- DFB LD above-threshold stabil. determ. 39875
- elec. load flow problem, ES appl. 4627
- elec. machine conjug. EM field calcs., Newton-Raphson method-based *(Polish)* 36093
- Harmonic Domain, power syst. harmonic anal. 35438
- hybrid double-sided lin. pulse motor, static thrust calc. *(Korean)* 27757

Newton-Raphson method continued
- internal resist. distrib. meas., elec. impedance tomography 9992
- microstrip discontinuities, combined mode-matching/method-of-lines procedure 31912
- multiplicative and zero crossing representations of sigs. 32522
- nonlin. LSI cct. simul., relax. Newton method 22530
- nonlin. mag. field problems soln., Newton-Raphson method 40224
- nonlin. mag. problems, improved tech. 15226
- power flow, column exchange tech., Newton-Raphson method 4548
- power syst. eigenvalue calc., AESOPS algm. improvement 4489
- power syst. freq. relaying algm., Newton-Raphson method 10612
- power syst. load flow calcs., floating point DSP 26890
- power syst. load-flow anal., ANN, Newton-Raphson algm. 19083
- power syst. static security assess., load flow, ANN 19167
- power syst. static voltage collapse anal., HARKAL package-based 26895
- power syst. unbalanced load flow anal. program 4444
- power syst. underfreq. load shedding optim. algm. eval. 26964
- power syst. voltage instabil., load flow-based preventive control 35554
- PWM power converters, discrete-time large sig. anal. 5086
- rly. traction syst., public grid interconnected, load flow 28109
- semicond. devices, avalanche breakdown voltage simul. *(Japanese)* 30202
- single phase AC choppers, asymm. PWM control 36246
- two-periodic solns. for nonlin. dyn. systs., direct determ. 28683

NEXAFS *see EXAFS; XANES*

night vision *see image intensifiers; image sensors; infrared imaging*

nitridation
- inversion layer carriers, saturation vel. and overshoot 22445
- LOCOS isolation, bird's beak inhib. by buffer N_2O oxide 22240
- MOS capacitors, N_2O-oxynitridation in resist. furnace, effects on thermal oxide breakdown 30126
- MOS oxides, high-field stressing, interface state generation 13261
- n-MOSFETs, rapid thermal N_2O-reoxidized nitrided gate oxides 38899
- MOSFETs with rapid thermally NO-nitrided SiO_2 gate dielec., hot-carrier reliab. 22429
- nitride PECVD, plasma clean cycle, cost of ownership model 38607
- NMOSFETs with nitrided-oxide, high-field mobility enhancement 1390
- polysilicon DRAM cell capacitors, Si_3N_4 dielec. films, RTP 22069
- RTO/nitridation clusterable reactor, MOS gate oxides 22219
- stacked nitride-oxide gate n-/p-MISFETs, hot-carrier reliab. 38856
- sub-5-nm oxynitride dielecs. prepared in NO ambient using RTP, props. 6590
- ultrathin dielec., microwave afterglow O_2/N_2O plasma growth 37505
- AlN, aerosol synthesis by nitridation of Al vap. and clusters 28867
- $CoSi_2$ thin film proc., thickness scalability and thermal stabil. 22274
- Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
- Cr/NH_3/GaAs(100), interface form., photoemission study 38377
- Cu grain growth during Cu-Cr and Cu-Ti thin film nitridation, situ TEM 38583
- Cu/TiN/$TiSi_2$/n^+-Si contact syst., RTN and characts. 38700
- Cu-Ti(Cr) self-encapsulated metallization, TiN(CrN) diffusion barriers 38651
- FeN foils, magnetron discharge nitridation, saturation magnetis. *(Japanese)* 30676
- GaAs/AlGaAs HBT, InN ohmic contacts 38817
- GaAs(100) surface, NH_3-plasma-nitridation, angle-depend. XPS 38594
- InP(110), nitridation/oxid., core-level/valence-band photoemission obs. 13335
- M^2CMOS twin-well yield enhancement, wet oxide strip proc. modif. 22579
- NO dielec. film, low press. CVD/nitridation 13942
- Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
- Si, RTO in N_2O, MOS capacitor testing 22220
- Si surfaces, monolayer nitridation, dry chem. proc. 38525
- Si, thermal nitridation mechanisms 38557
- Si, thermal oxid., N_2O ambient, num. simul. 38621
- Si:H(111), low temp. nitridation *(French)* 13336
- Si/SiO_2:N, plasma action under PECVD conditions 5882
- Si/SiO_2/Al MOS structs., nitrided, reoxidised, elec. charactn. 13257
- Si/SiO_xN_y, interfacial stress and struct., thermal nitridation and reoxidation effects 22055
- Si/SiO_xN_y/Al MOS capacitors, charge trapping and interface states 29975
- Si-SiO_2 MOS struct. quality, N_2O ambient, furnace nitridation time 13237
- Si(100) surface, thermal nitridation, Si 2p core-level shifts 13366
- Si(110), thermal nitridization in ammonia atmos. 38615
- $Si_{1-x}Ge_x$ and Ge/Si heterostruct., thermal nitridation 22236
- SiO_2 1.5 μm thick films, rapid nitridation in NH_3 ambient, SIMS study 13328
- SiO_2, NO-nitrided, elec. props., chem. comp. effects 30076
- SiO_2 thin films, N_2O RTP/oven nitridation, elec. characterisation 13327
- SiO_2 thin films, RTN in NH_3, N_2O for EEPROM appls. 13329
- SiO_2 thin films, plasma nitridation, electron beam irrad. 22253
- SiO_2-Si_3N_4-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- SiO_xN_y nanometer thin films, nitridation, phys. charact. 30073
- SiO_xN_y oxynitrided tunnel oxide films, flash EEPROMs 38593
- SiO_xN_y oxynitrides, N_2O grown, radiation effects 13386
- SiO_xN_y thin dielec. on Si, N_2-rich thermal growth, RTA 22255
- SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
- SiO_xN_y-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- SiO_2(ON)-Si device reliab., surface cleaning effects, ultrathin oxides/oxynitrides 22207
- Sm_2Fe_{17} powder, Nb-modified, nitriding 6947
- TiS_2 diffusion barrier, RTN, CVD-Al contact plug 38686
- W-AuGeNi-GaAs ohmic contact metallization, RTN 38580
- W-AuZn-GaAs ohmic contact metallization, RTN 38580
- W-Ti thin film resistors, elec. props., nitridation effects 866

nitriding *see surface hardening*

NMOS integrated circuits *see MOS integrated circuits*

NMOS transistors *see MOSFET*

NMR *see nuclear magnetic resonance*

NMR imaging
- biplanar gradient coil design, simulated annealing, NMR microscopy 21601
- cellular neural network, 2D NMR spectra filtering 24732
- DSP96002-based software pulse generator, NMR tomography/spectrosc. appls. 42683
- freq.-selective techs. based on SVD, TLS and bandpass filtering 32489
- image restoration, basis image priors effects 35026
- multigap parallel-plate bracelet resonator, freq. determ./appls. 10201
- restoration of mag. reson. images, Markov field model 35035

NMR imaging (biomedical) *see biomedical NMR*
NMR spectra *see nuclear magnetic resonance*
NMR spectrometers
see also NMR spectroscopy
Bonn polarized target NMR-syst. 34870
DSP96002-based software pulse generator, NMR tomography/spectrosc. appls. 42683
large polarized target, high precision polariz. meas. 34871
SMC target, NMR polariz. meas., nonlinearity 34872
SMC target, NMR polariz. meas., on-line syst. 34873
NH_3 irradiated target, ^{14}N pol. meas. using NMR 34869
NMR spectroscopy
see also NMR spectrometers
autoregressive spectral estimation fro NMR spectroscopy 24233
conference, MRI, Nottingham, UK (1994) 11568
DSP96002-based software pulse generator, NMR tomography/spectrosc. appls. 42683
ladder network resonators 6202
med. surface coil MRS, sensitivity correction factors 43210
porous materials, 1D scanning 10076
tubular surface coils perf., NMRIS appl. 26311
CoCr(CoCrTa) mag. recording media, compositional separation rel., film thickness 6956
Er,Yb-codoped fiber glass microstruct., NMR determ. 7293
noise
see also acoustic noise; atmospherics; circuit noise; electron device noise; interference; magnetic noise; optical noise; phase noise; random noise; roundoff errors
1st-order digital allpass filter sects., comparative study *(English)* 6232
2D digital filters, error spectrum shaping *(Japanese)* 15933
2D rank-conditioned median filter 24704
3.3V MUSE decoder sig. proc. LSI *(Japanese)* 34254
adaptive antenna arrays controlled by gradient algms. 2351
adaptive filter, multirate proc., convergence speed improvement 8411
adaptive KL-transform coding of images based on variable block shapes 16132
adaptive neighborhood mean and median image filtering 16322
additive unknown colored noise, max. likelihood DOA estim. 40839
ADSL, noise environ./syst. perform. 16918
alloys, magneto-inductive testing, sig. excitation/proc. methods 12227
ambulatory ECG, adaptive data compression *(Japanese)* 4285
AR order selection methods, comparison 15977
astron. image restoration tech., theoretical S/N ratio limit 8516
band-limited sigs. restoration from noisy obs. 40877
banded Toeplitz lease sq. problem regularization, fast algms. 32486
beamspace noise eigenvectors, multirate proc. 40906
bispectrum, invariant image averaging, practical issues 16159
block adaptive algm., conjug.-gradient method, perform. 41041
BPSK receiver, class-A impulsive noise quadrature components 25220
canceling, autoassociative memory trained by order statistics 32623
cellular environ., resource auction multiple access 9291
channel noise immunity rel., code and sig. constr. mutual effects *(Russian)* 15696
chaotic sigs., noise reduction, preprocessing method 24188
chaotic time series, noise reduction 15684
chaotic time series filtering 32466
chi-sq. stats. for goodness-of-fit tests for stationary time-series 32462
clipped DMT ADSL sig., SNR/spectral props. 9097
colour images, isolated noise detect./reduct., median filter 2851
constrained channel, concatenated coding, perform. 40652
constrained roundoff noise minimisation in digital filters, algm. 15962
coord. digital transm. 15861
coronary artery ident. from time series of angiogram 26324
curve shape restoration 32828
data depend. nonlin. filters family 24588
deconvolution regularization, SNR, stat. estim., multiscaling 40782
delayed self-excited oscillator, inertia, external noise sig. effect 6042
delta-sigma ADC, noise shaping, distributed zeros, new archits. 6189
design param. selection, noise 5574
deterministic noise cancellation in chaotic signals 32641
dielectric body permitt. reconstr., current modelling and Tikhonov regularisation 23565
digital commun. sigs. separation, joint space-time decorrelation 40935
digital halftoning, 2-D carriers, noninteger period 41195
digital images, relational descriptions, noise/scale behaviour 41250
digital systs., MTF, noise power spectra, noise equiv. quanta 35034
digital video sig. transm. via RAI analogue FM radio links *(Italian)* 9158
discontinuous sigs. smoothing, competitive approach 24198
distributed digital sig. transm. syst., sig. recovery, estim. method *(Japanese)* 15771
DMT-based ADSL systs., clipping effect anal. 9088
DOA estim. in unknown correl. noise, MUSIC and higher-order stats. 32481
Doppler estimators perform. losses, noise/equivocation effects 10561
DS-SS ISM band radio LANs, receiver techs. 25261
ECG, ambulatory, adaptive data compression, multi-template matching 26432
ECG, isoelectric intervals, noise props. comparison 35081
ECG, sig.-overlapping noise reduction method 35078
ECG proc., high-gain, real-time, beat-by-beat, freq.-band adaptive filtering, optimisation 26416
ECG QRS detect., robust and computationally efficient 26435
ECG recordings, 50 Hz interf./noise, review 43278
edge detect., discrete time cellular neural networks 32900
edge detector, Laplacian-of-Gaussian, noise removal 24382
EEG sigs., wavelet de-noising and ident. of evoked response pot. 35070
EKF freq. tracker, design 32781
EM environ. meas., catalogue, 30-300 Hz 31850
EM for multi-channel image ident. and restoration 24524
EMC, conference, Sendai, Japan (1994) 11561
EMI environ. meas. syst. employing freq. level selective proc. *(Japanese)* 8001
estimators of noise stats., adaptive filter *(Chinese)* 24278
evol. algms., selection methods, empirical comparison 11953
expansion matching, optimal edge detect. and generic recogn. 8625
expt. designs for syst. assess. and improvement, noise factors are correl. 11831
fault tolerant FIR adaptive filter, conjug. gradient algm. 29365
fourth-order cumulants, direction-finding algms., perform. anal. 24210
fourth-power law clock recovery with prefiltering 41390

noise continued
frequency estimation, parametric/non-parametric methods comparison 24239
frequency-selective fading channel orthogonalising simulator 40343
fuzzy filtering for mixed noise removal, image proc. 2791
gray level image filtering, Q-state mean field annealing algm. 8508
ground pot. var., frame wiring, induced noise 23696
handwritten Chinese characters, stroke extraction based on modified polygonal approx. 24535
harmonic quantisation noise in oversampled ADC 25754
harmonic/noise model for speech 15829
HDTV images, noise resistant sync. 16288
HDTV progressive and interlace scanning, camera SNR and bit rate reduction 25668
hearing, hierarchic models, sound separation/reconstruction 16002
hierarchical LPNN network for noise reduction/speech recogn. 32386
high sensitivity double relax. oscill. SQUIDs 1622
HMM, on-line ident., recursive prediction error 8432
HOS for blind channel estim. and deconvolution in colored noise 32457
HV rot. machines, PD detect. 4900
identification of processes with output drift, freq.-domain 25700
image noise reduction, prior knowledge, constraint 16198
image proc., line preserving adaptive median filter 24526
image registration, multi-scale texture moments 41125
image restoration, adaptive iter. approach 24512
image restoration, boundary distortion reduction 32823
image restoration, wavelet transform and multiresolution support constraint 16204
image restoration in freq. domain, EM algm. 16391
impedance cardiography, noncorrelated noise filtering 35076
impulse response meas. using sliding correl., dyn. range, self-noise 33155
impulsive stochastic transients detect., background noise 32647
inhomog. waveguide components, field matching/noise filtering 23800
IR and pass. millimetre wave images, line pattern removal 24515
IR image dim point target detect., difference method 16115
IR imaging sens., unified perform. model of detect. and tracking 16112
IR systs., noise equiv. temp. difference 3886
iter. reconstruction of moving obj. from image seqs., struct. noise 24525
K-distributed clutter, order param. estim., noise effect 25557
letterbox EDTV, 3D noise charact. *(Japanese)* 34256
lin. phase freq. sampling FIR filters, error spectrum shaping 41044
lin. systs. with non-Gaussian state and meas. noises, recursive estim. 40974
LP-MUSIC algm., consistency prop. 32564
LPC params. for noisy channels, VQ 32329
mammography, cumulant slices for 2-D autoregressive sig. modelling 32820
monolithic BCDMOS quad line driver for indust. appls. 29050
morph. filtering, model-based, opening spectrum 32913
Morse decoders, electronic, noise-masked telegraphy decoding perform. 41730
MRI image restoration, optim. approach, sens. fusion 8504
multicarrier modulation impulse noise mitigation strategies 40561
multichannel image restoration, regularized, using cross-validation 32916
multidimensional nonGaussian ARMA models, param. identifiability, cumulant matching 8340
multiple periodic waveforms extraction from noisy data 32614
multiple transients, param. estim., SDMP method 40949
multisensor noisy/fuzzy data filtering 32804
MUSE decoder, video noise reduction *(Japanese)* 34258
MUSE syst., picture quality improvement by resoln. enhancement *(Japanese)* 34253
Nakagami fading sigs. reception, sq.-law combiner perform. 42155
neural computation, phys. models and analogue VLSI implement. 6269
neutron dens. noise, non-min. phase reactor syst. 43858
noise and intens. invariant moments 41066
non-lin. image restoration algm., artifact reduction 24514
noncausal nonminimum phase ARMA modeling of non-Gaussian procs. 32458
nonGaussian noise, arrival angle estim. 40948
nonstationary random sigs. detect. in colored noise 41055
nonstationary spectral estim., optimal kernels 32556
obj. rapid recogn., noisy range images/tripod operators 2677
opt. Chinese handwritten character recogn., feature-based noise reduction 24550
optimal weighted median filtering, structural constraints 40804
outage probab./BER estim., dual protection margins 17056
overcomplete pyramid image representation, error correction 32827
parallel implement. of noise filter for image restoration 8585
param. estim., higher order stats./inverse filtering 40762
partially known sigs. in unknown noise fields, optimal localization 40947
polariz.-sensitive thermal imaging 16272
power syst., phase selection, fault generated HF noise, ANN 19141
Prabhu upper error bound for digital commun. syst. 15688
preamble-less packets surrounded by noise, optimum frame sync. 8715
progressive perceptually transparent coder for high quality images 24498
pushbroom scanners with large lin. arrays, odd/even detector noise removal 16260
quadrature component generation anal., narrow-band oscills., delay method 40766
quantum well IR photodetectors, photocond. gain/generation-recomb. noise 22013
radar detect., super noncoherent integrat. 17363
radar spatial-Doppler coherent proc. channel, quantization noise estim. 34121
radar target modeling, GTD-based approach 17394
random coding, optimal noisy channel quantization, asymptotic bounds 24043
reduction syst., voice activity detector influence 40752
residual and suppressed carrier systs., bandwidth, unwanted emission 32029
residual noise level prediction, short-baseline SHF interferometer 25622
reson., noise benefits, ice ages, crayfish, SQUIDs 14292
Richardson-Lucy algm., ghost images and image reconstruction feasibility 16209
robust $\mathcal{H}_\infty$ filtering for continuous time varying uncertain syst. 40813
robust Kalman filtering, QQ-plot approach 32681
robust sig. extrapolation, wavelets 32732
robust vector quantisers, neighbourhood fns. effect 33068
SAR image filtering, combined algm. 25546
second directional derivative edge detector, sampling/quantization/noise effects 33122
segmental SNR weighting, degraded word recogn. 32311

noise continued
self coupled harmonics, stationary/cyclostationary approaches 40937
separable-denominator 2D adaptive filters, appl., noise reduction in images 41324
shapes, noisy, morph. pattern-spectrum class. 16249
sig. anal., power distrib. fns. under multisignal conditions 32591
sig. extrapolation with wavelets, regularization approach 32487
sig. proc., evidencing chaos from dimens. 16023
sig. time-freq. distrib. dens. fns., spline-approx. 32691
silent discharge, gas discharge noise charact. 23679
single sinusoidal sig. enhance. by forward/backward difference fn. *(Japanese)* 2461
single-channel direction finders, ang. coord. resoln. improvement 42539
sinusoidal params. estim. in meas. noise by cross-spectral method 16026
sinusoidal sigs. in non-Gaussian noise, adaptive detect. 15900
smooth image segmentation via multiresolution anal. 32833
speaker ident., lin. predictive anal. techs. 32201
spectral substraction/HMM-based speech enhancement, hearing aid design 32213
speech recogn., noise immunization, neural net 32437
speech recogn., RASTA-PLP integrat. 32310
speech recogn. in noise, root adaptive homomorphic deconvolution schemes 32315
SS commun. syst. without ref. sig. for freq.-selective fading channel *(Japanese)* 25206
SSC, transverse feedback systs., noise 4109
stat. model-based approach, topographic labels assignment 41203
state-space digital filters, noise reduction, error feedback *(Japanese)* 739
subband coding and noise reduction in multiresolution anal. frames 32509
suppression, wavelet model 32577
surveillance vol., clutter/noise regions mapping 9622
T1 carrier syst. companding noise statistics 41388
tapered SVD, AR model estimation 41000
tapered SVD, multipulse input time series estim. from noisy output 40915
TCM sig. design for class-A impulsive noise channel 40569
TDOA estim., sig. selective, modified cyclic methods 2508
telephone based speech recogn., in adverse environ., sig. bias removal 32316
telephone network, speech recogn. degrad. sources 32236
thermal IR image seqs., automatic small target detect. 16110
time-freq. plane, sigs. filtering, FM/peak detect. 32745
tracking, fused noncoincident meas. 17368
tracks stabilization, multiple model filters 32694
transm. line, crosstalk coupling, digital noise propag. 25200
tropos. scatter radio commun., space diversity and space-time sig. proc. 32690
twisted noise cutout transformer, line noise prevention 21599
two-port network, noise anal., recursive algm., S-wave approach 829
ULLV decomp. computation 32473
ultrasound images, blind deconvolution 35000
UN-MUSIC/UN-CLE, DOA in unknown noise, perform. anal. 32554
valid sigs. in nonGaussian noise, asymptotically optimum detect. *(Russian)* 16050
vision-based vehicle tracking, camera movement errors anal. 16293
visualising predictability, chaotic ensembles 32467
wavelet domain bearing estim., unknown correl. noise 40926
word spotting, adaptive noise immunity learning 32317
GaAs, local diffusion noise sources, spatial extent of correl. 29848
SO_2, absorpt. cross sects., differential absorpt. laser spectrosc. 26009
$YBa_2Cu_3O_7$ nanobridge based DC SQUIDs 1621
$YBa_2Cu_3O_{7-\delta}$ step Josephson jn. thin-film RF SQUID 14282

noise abatement
see also acoustic wave absorption; active noise control; silencers
act. acoustic atten., adaptive generalized recursive control syst. 32604
archived recordings, impulsive noise removal, two-channel approach 34293
automobile diesel engines, acoustic combustion noise meas./control 34736
Chooz-1 NPP, turbine hall acoustic insulation *(French)* 35737
commun. headsets, act. noise reduction 3690
domestic appliances, rotor vibr. transm. prevention *(Japanese)* 11489
echo cancellation, voice commun., sig. proc. methods *(German)* 42049
elec. multiple units, 3-level IGBT traction inverter 5361
hands-free cellular phone, subband adaptive noise canceler 17115
hands-free telephone sig. proc. methods *(German)* 8846
helicopters, rotor blade noise reduction 4348
HVDC transm. lines, twin conductors, DC corona anal. 4634
IEEE audio/acoustics sig. proc. workshop, New Paltz, USA (1993) 5445
International Appliance Technical Conf., Madison, WI, USA (1994) 36908
Mitsubishi Electric twin-mechanism rotary refrigerator compressor 44610
motor-driven external-injection fans, noise/power reduction tests 28178
power-station exhaust stacks, noise reduction measures 4828
PWM inverters, AVS method, dead time compensation *(Japanese)* 11120
Shinkansen develop., Hitachi technols. 44505
ship space locally applied noise control *(Croatian)* 4426
single and multi microphone noise cancellation, fast algm. 32484
speech recogn., noise reduction, adaptive microphone array appl. 15827
SRM drive, chopper control, acoustic noise, ride through 11322
SRM drives, vibr./acoustic noise anal./control 20083
substation equipt. vibr./noise reduction *(Japanese)* 36477
wind energy develop., UK, planning/environ. aspects 10896

noise annoyance *see noise pollution*

noise control (acoustic) *see noise abatement*

noise control (interference) *see interference suppression*

noise elimination *see interference suppression*

noise generators
chaotic cct. noise generator, design *(Japanese)* 37662
CMOS inverter based chaos generator 649
composite noise generator, noise immunity tests for dig. systs. and TV pictures 40371
microwave oscillators, electron beam modulation, obtain stochastic output sigs. 21841
non-Gaussian noise models, composite/class A noise 20535
pulse noise generating source, direction finder develop. 23743
RSFQ pseudo random generator, possible appls. 602
TV picture degrad. by EM noise, opinion tests on still and motion pictures 42565

noise levels, acoustic *see acoustic noise*

noise measurement
see also acoustic noise measurement; electric noise measurement
1.2 μm CMOS-SOI technol. transistors, noise charactn., gamma ray effets 13728
5 to 100 MHz low power commun., SIT appl. 22481
BAW/SAW quartz resonators, noise charact. 37660
diode lasers, LF light flucts. meas. tech. 1923
EMC, line impedance stabilization network in noise meas. 40370
EMI meas. methodology 40369
first order stat., noise-intens. estim. stabil. 40364
FLIR imaging systs. charactn. requirements/algms. 34592
IR sens. testing, automated MRT 34508
LD opt. noise meas., reliab. estim. 23287
mid-IR fiber ring SBS devices and appls. 30894
MOSFET thermal noise, steady-state Nyquist theorem verification *(Korean)* 38864
pulse noise generating source, direction finder develop. 23743
rot.-slide contacts, power line noise 25966
Sagnac interferometer, fund. thermal induced phase flucts. in fiber loop 17921
tape noise charact., chaos appl. 14252
telecom. network sync., phase noise eval., time domain meas. 24887
Er-doped fiber amplifer noise meas. 7574

noise nuisance *see noise pollution*

noise pollution
use for man-made noise
environ. impulsive sounds, phys. descriptor computation algm. 42998
helicopters, rotor blade noise reduction 4348
power-station exhaust stacks, noise reduction measures 4828
wind energy develop., UK, planning/environ. aspects 10896
windfarm develop., noise aspects and legislation 10906

nomenclature
see also units (measurement)
dB down terminology for cryst. resonators 39083
network inform., X.500 directory, schema publishing 25021
waveform recorders digitizing, IEEE std. 25912

nomograms
see also graphs
mag. induction-transducers for charged particle beams meas. 18265
magnetographic inspection standardization 28918
metal-dielec.-ferrite-dielec.-metal layered magnetostatic-wave delay lines 22708
planar waveguide T-jns. matching, symm. wedge-shaped baffle 15559

nomographs *see nomograms*

noncrystalline defects
a-Se, PECVD, struct., opt. props. 28828
Si, ion implanted, defect prod., structural transforms. 30060
a-Si:H, H bonding config., metastability 29871
a-Si:H films, plasma chem. vap. deposition, piezoelec. vibr. effects 37481
a-Si:H, transport props., deposition condition effects 29869
a-Si:H,B n-i-n layers, current induced degrad. 38281
a-SiC:H, transport props., deposition condition effects 29869
a-SiGe:H films, PECVD under He dilution 5891

noncrystalline structure
see also amorphous state; noncrystalline defects; vitreous state
a-GaAs high-temp. RF sputtering 37525
a-Se, PECVD, struct., opt. props. 28828
Si, ion implanted, defect prod., structural transforms. 30060
a-Si:H, H bonding config., metastability 29871

nondestructive readout
GaAs MESFET SRAM, current mirror memory cell 37774

nondestructive testing
see also acoustic emission testing; eddy current testing; flaw detection; radiography; ultrasonic materials testing
3D ground penetrating radar imaging, multifrequency diffr. tomography 42505
3D ground penetrating radar imaging, SAR focusing 42506
automated detector of radiation-acoustic sigs. 28909
binary image correction 454
buried distrib. cable syst., rem. absol. phase meas. 27158
cement compressive strength estim., nondestructive microwave reflectometry 37562
coaxial probes, relative complex dielec. permitt., nondestructive meas. 25964
colloquium, NDT data collection/interpret., London, UK (1994) 5507
compact holographic apparatus for stomatology 23457
complex cct. board struct., holographic interferometry 5927
conference, radiation meas./appls., Ann Arbor, USA (May 1994) 5488
defects microwave detect. in glass reinforced polymer composites 37558
dielec. HF characterisation, open resonators 42894
dielectric material NDT by extinction pulse tech. 21014
Digiray RGX syst., X-ray mini-probes 18404
dual-mode indust. CT 21010
electromigration mechanisms, nondestructive elec. anal. techs. 38667
EM props. of materials mes., coaxial probe 18049
embedded fiber-optic acoustic sens. for NDE 34540
epoxy, water diffusion profile meas., neutron radiography 12222
fatigue damage study by computed speckle decorrelation 40129
ferritic steel weld images, automatic thresholding/edge linking 16135
ferromag. cross sects. meas., total mag. flux method 37555
fringe projection micro-shape meas., high-sensitivity 18070
ground penetrating advanced radar appls. 42503
hard switching power IGBTs, non-/punch-through technols. 12317
holographic NDT, neural network approach 31662
HV ceramic capacitors, mech. flaws, nondestructive detect. 29609
image processing An EDDM based toolset 41305
inclusions, magnetizing/demagnetizing interact. 12237
inspection using shearography, indust. appls. 18108
insulation condition monitoring, acoustic/US techs. 18948
IR-sensitive film-struct., opt. diagnostics 14569
L^2 deconvolution, fast seq. algm. *(French)* 41035
laser pulse effect on materials, nondestructive nuc. techs. 455
layered nonuniform dielec., radiowave monitoring, inverse problem soln. 28907
LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
mach. wear particle anal. by fiber-optic confocal laser scanning microscopy 31695
mag. suscept. tomography for 3D imaging 10175

nondestructive testing continued
- mag.-noise struct. anal., inverse problem model constr. 28920
- manual/automated offshore NDE, colloq., London (1994) 20259
- metal, plastic deformed, surface contouring by microlens array 34695
- metal contamination monitoring, surface photovoltage, SPC 38458
- metallic films, sputtering targets, NDT 5881
- micromachined materials mech. props. 5926
- microwave cavity resonators, modeling of testing params. 37561
- microwave sens. appls. 42912
- microwave/MM-wave detectors, conf., San Diego, CA, USA (July 1994) 28243
- mm-wave imaging syst., defect charactn. in dielec. slabs 37560
- mm-wave NDT of glass fiber/epoxy composites 37559
- MOS LSI chip, electron-acoustic microscopy, nondestructive internal obs. 1497
- multidielectric coatings, thermal stress, holographic interferometry 40140
- multiphase composite, impedance spectrosc., simul. model 37566
- neutron radiography, R&D 37565
- neutron tomographic syst. developed, Rome research reactor 12221
- noncontact thickness meas. of dielec. coatings 42937
- nondestructive materials charactn. fund. 12226
- nonmetallic materials/objs., QC apparatus, EM emission charact. 28921
- novel X-ray detector charact. for real-time radiographic imaging 21013
- NPP, material damage/ageing 27386
- NPP service water piping, corros., exam. 27377
- nuc. indust., severe operating conditions 27385
- opt. profilometer, multiple virtual styli, IC packaging/interconnects 34337
- optical instrumentation for process industries, conf., Germany (1994) 5486
- optothermal hybrid microscopy,coatings nondestructive/noncontacting testing 12216
- p-channel MCT, static/dyn. behaviour tests 12319
- package/module interconnect test syst., transient thermal sigs. 28440
- partially coherent quasioptical radio imaging 10004
- phase sensitive modulation thermography *(German)* 446
- photothermal deflection method, defects in ceramics anal. 12215
- plural defects in conductive plates, location via neural networks 37563
- polymer composites, NDT techs. *(German)* 5918
- polymer materials, NDE 12225
- power station component testing, surface replication methods 19392
- primary measuring transducers based on retardation systs. 42762
- PWB conductive anodic filaments, x-ray microtomography/SEM serial sectioning 12881
- QC of mag. data storage materials 3869
- quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
- radial collimator, strain meas. by neutron diffr. 21007
- radiographic images assess., region-of-interest fractal graphs 5937
- reactor deformed components profiling, ultrasonic pulse echo ranging 27416
- reinforcement fibres, strain rates meas. 37569
- ROC method, material testing syst., perform. 12223
- roughness meas. instrum. for nanometer range *(German)* 18103
- sapphire fiber strain gage for static/fatigue meas. 17860
- SCC, AE/elec. resist. meas. 21006
- second breakdown, power BJT/bipolar mode JFET comparison 30546
- semicond. multilayers, NDT charactn. 20998
- single-beam photothermal anal., semicond. proc. appls. 108
- slider-disc clearance meas. in magnetic disc drives 22702
- smart composites with embedded sens., in situ monitoring, diagnostic systs. 12220
- SOI struct., opt. and acoustic nondestructive charactn. 38443
- spray atomization/deposition, proc. params. monitoring, sens. 28898
- steel, unalloyed sheet, surface condition, ferromag. monitoring 12224
- steel wire rope, broken wires, mag. leakage field, math. model *(Chinese)* 31724
- step-freq. radar imaging for NDE/GPR appls. 42904
- stereoscopic radiation image perception upon coloring 21003
- strain meas. on plates/discs surface, shearographic method *(German)* 18116
- submicron struct., 3D meas. techs. 42930
- subst. ident., appl. of Rayleigh scatt. X-rays 12242
- surface penetrating radar for indust. and security appls. 17408
- thermographic NDT, single thermal image shape reconstruction 34597
- thermoset hardening, elec. impedance meas., piezoelec. sens. 5929
- thermovisual syst. for NDE of objs. 18920
- TV-holography in artwork nondestructive diagnostics 31679
- violin tonal quality, holographic pattern anal./test 7855
- VVER-440 fuel rods, pool side inspections, perform. eval. 27439
- wood grain angle meas., microwaves 18080
- X-ray microtomography, NDE of mm-scale struct. 5932
- Al, cracks, NDT, two-hole HTSC rf-SQUID 37564
- C fiber-reinforced composite surfaces, microwaves refl./absorpt. 12243
- CdZnTe energy selective arrays for indust. and med. radiation imaging 18407
- GaAlAs/GaAs, automated nondestructive meas., IR reflectance/transm. 21002
- GaAs substrs., automated nondestructive meas., IR reflectance/transm. 21002
- GaInP/GaAs tandem solar cells, high-efficiency 19998
- Pb-acid secondary batts., state-of-charge prediction 11268
- Pb-acid standby power batts., life testing methods 19962
- $Pb(Mg_{1/3}Nb_{2/3})O_3$ multilayer capacitors, electromechanical resons. 21587
- Si membranes control by refl. interferometry *(German)* 18102
- Si, single crysts., metal impurities, opt. detect. techs. 38242
- Si wafer mapping, lifetime/resist./oxygen precip. meas. 25945
- Si:O near-surface/subsurface defects, opt. prod. profiling 29992
- Si/SiN_x, automated nondestructive meas., IR reflectance/transm. 21002

nonelectric sensing devices
- *see also biosensors; optical sensors*
- bulk produce conveyors, drop dists., manual/electronic control 3803
- force-moment sens., universal, ligament forces determ. 34993
- optimal sens. location, multiple hypotheses testing 41020
- sens. irrelevancy testing, backward elimination/stepwise regression 11409
- $CaZr_{0.9}In_{0.1}O_{3-\alpha}$ protonic cond. amperometric sens., D_2O conc. meas 25792

nonlinear acoustics
- Dornier HM3 extracorporeal shock wave lithotripter, modelling 4296
- hydrodynamic type nonlin. random waves in particle fluxes, turbulence 2206

nonlinear control systems
- *see also bilinear systems; control nonlinearities*
- 1D two param. mappings of nonlin. systs. transit., chaos 509
- AC motor drives, CSI-fed, exact lin. H_∞ control *(Japanese)* 28063
- AC servomotors, digital control, syst. dyns. *(Korean)* 36214

nonlinear control systems continued
- aircraft ducted fan engine for nonlin. control expts. 18777
- automobile anti-skid braking systs., slip estim. 5375
- automobile dyn. spark ignition engine control modelling 11438
- automobile engine powertrain nonlin. sliding control design 5373
- B-ISDN hierarchical control approach 41925
- bidirectional boost converter, nonlinear continuous time control 19803
- brushless DC machines, multiple equilibria 27747
- brushless DC motor, posn.-vel. tracking control, obs. integrator backstepping approach 27750
- brushless DC motor posn.-vel. control design 36188
- brushless DC motors, nonlin. tracking controllers develop. 4994
- buck rectifier, unity PF, nonlin. ripple feedback 36244
- building HVAC nonlin. heater batt., neural net control 5239
- Cuk convertor, nonlin. control methods 27801
- DC drives, nonlin. controller, bi-orthogonal decomp. 5314
- DC motor, model following nonlin. control syst., GMDH algm. *(Korean)* 27746
- DC motor, separately excited, vel. control without meas. 19653
- DC motor drives, supervised neural net-based control 11340
- dexterous motions, nonlin. cct. theory for robot control problems 21090
- double-fed induction generators, PLL controlled, stabil. anal. 44061
- drug infusion, nonlin. multirate predictive control 18580
- dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
- elec. machines, nonlin. control 5001
- elec. power model syst., stabil. anal. of fuzzy decentralized control 19173
- FACTS, bilinear predictive control, thyristor controlled capacitor 4582
- field-oriented induction motor drive, nonlin. state observer 28090
- filter struct., genetic algm. adaptation, act. sound/vibr. control 32776
- flexible AC transmission control simulation, EMTP package-based 35614
- flexible joint single-link robot ident. and tracking control ANN 36669
- flexible shaft sync. motor, control techs. 27689
- gas turbines, integrated robust/neural controller 27568
- harmonic drive DC motor torque control 44445
- HAWT, nonlin. control appl. 36069
- hydroelectric generator nonlin. governor control *(Chinese)* 4856
- hydroturbine generator sets, nonlin. governor control 10944
- induction machines, field-oriented sliding mode digital control 4952
- induction motor, nonlin. control, DSP 28067
- induction motor, nonlin. posn. controller 27709
- induction motor drives, digital control strategy 5268
- induction motor nonlin. control, DSP approach 11057
- induction motors, integral action nonlin. control 44046
- induction motors, nonlin. observer-based tracking control 19622
- induction motors, stable nonlin. dyn. feedback control 4936
- induction motors with flux obs.. adaptive nonlin. control 27727
- indust. robot/CNC machine tool digital joint motion controller 11509
- κ-guidance dyn. eqns., lin./LQ control 18970
- MAGLEV systs., H_∞ control, exact lin. 40276
- missile, highly maneuverable, nonlin. autopilot/guidance 18956
- mobile robots, observers-sens. for posture estim. 40791
- PM stepper motor, global exponential posn. tracking controller 36201
- PM sync. motor, adaptive nonlin. control 27688
- PM sync. motor feedback lin. decoupling torque control 4933
- PM sync. motors, stable nonlin. observer design 44023
- power syst., unknown interconnections, adaptive nonlin. excitation control 10684
- power syst. SSR damping, SMES-based 10681
- power syst. stabil., nonlin. SVC control studies *(Chinese)* 35527
- power syst. transient nonlin. generator excitation control 26992
- power syst. voltage instabil., load flow-based preventive control 35554
- power system stability, potential energy boundary surface modelling 19023
- power systs., nonlin. reduced-order observers, design theory 43683
- PS, beam control feedback loops, instabil. 4087
- PSS intell. supervisory fuzzy control design 19103
- PWM DC/DC power converter, fuzzy logic optimal control 44121
- PWM power convertors, independent inputs, large-sig. modelling 11152
- PWM rectifier, state feedback nonlin. control 11153
- PWM reversible rectifier variable struct. control design 5054
- rapid thermal procs., model-based control 13866
- reactive ion etcher, nonlin. ident. and control 13368
- rigid rotor mag. bearing syst., nonlin. control 27681
- robotic servoactuators, quasi-optimal control design 36496
- robust observer design for biomedical systs. 43198
- series reson. converter, clamped capacitor voltage 11163
- sing. perturbed continuous time systs., discrete time observers 27692
- single machine infinite-bus power syst., nonlin. excitation control 27075
- solar collector dyns. ident., phys. model-based approach 27974
- squirrel cage motor, field oriented control strategy 19637
- squirrel cage motors, field oriented control param. estim. 4979
- static VAR compensator, nonlin. control design 10651
- stepping motor, nonlin. robust control 36200
- switched reluctance motor, torque ripple neural control 44011
- sync. DC motors, nonlin. control 27754
- sync. generator nonlin. adaptive control, neural net-based 19607
- sync. generators, neural network nonlin. adaptive controller *(Japanese)* 4924
- sync. motor, nonlin. digital controls comparison 27697
- sync. motor control, sing. perturbed methods 27696
- sync. PM motor vector control, stator iron loss considerations *(Japanese)* 10968
- tracks stabilization, multiple model filters 32694
- unity PF boost converter control 19284
- variable freq. DC-DC converter nonlin. control 21100
- variable reluctance motors, torque ripple minimization 11007
- variable reluctance stepping motor rotor oscill. control 11376
- variable speed drive inverse nonlin. speed controller design 11349
- variable speed induction motor drives, controller synthesis 11353
- vehicle following others, feedback control 4761

nonlinear differential equations
- AC-DC boost power converter, high PF, cct. anal. *(Japanese)* 11189
- aerodynamical config., complex flow fields, num. methods 10307
- ANN for commun. systs. modeling/simul. 17246
- computer-generated Fourier holograms based on pulse-dens. modulation 40127
- continuous-scale morph. filtering, evol. eqns. 8672
- exponential growth nonlin. diff. eqns., bifurcation phenom. 28563
- formal lin. of nonlin. systs., Chebyshev interpolation, nonlin. filter appl. 11965
- image morph. struct., diff. eqns. 8518

nonlinear differential equations continued
induction motors, stable nonlin. dyn. feedback control 4936
infinite-dimens. EM syst., chaotic dyn. 2283
inhomogeneous lossy medium nonlin. diff. eqn. and inverse scatt. solns. 23603
injection laser polariz. dragging 2001
JAWS supercond. logic gate, voltage-state study 622
large orbit magnetron-type gyrotron, num. modeling 21814
magnetron Vlasov model distrib. fn., cylindrical case 980
MeXeL simul. of micro-electromechanical systs., nonlin. partial differential eqns. 39032
microwave heating of materials having temp. depend. params., num. modeling 20130
mobile commun., hand-off channel decentralized control 42245
multi-tank cryogenic storage syst. anal., space appls. 35253
nonlin. ellipt. problem, BDM mixed methods 12006
nonlin. nondispersive media, complex sigs., self-similar evol. 16047
nonlin. reson. tunnelling, double-barrier struct. 38292
nonstationary thermistor problem, soln. regularity 38044
opt. flow and discontinuities, determ., nonlin. diffusion 24625
param. optim., event driven techs. 37351
power syst. modelling and control 27074
power syst. transient stabil. anal., shifted-Picard iters. method 19004
series reson. convertor with third-order commutation network 36306
solid armature railgun, current/heat transient diffusion 15310
space power thermionic convertors, thermal modelling 18740
Space Station Furnace Facility, sliding mode thermal control syst. 26690
stiff IVP, error of stopping Newton iter. 20625
stochastic particle method for Kolmogorov eqn. with variable coeffs., rate of convergence 275
surface-channel CCD, charge transfer inefficiency *(French)* 30369
surface-to-air missiles optimal guidance, differential games *(Chinese)* 43583
tapered rect. transm. line, anal. 40396
thermoelec. diff. eqn., lin. approx. *(Japanese)* 28689
thermoelec. power generation using thermoelec. element, anal. 20046
two-periodic solns. for nonlin. dyn. systs., direct determ. 28683

nonlinear dynamical systems
see also bifurcation
1D two param. mappings of nonlin. systs. transit., chaos 509
approx. identity neural nets for analog synthesis of nonlin. dyn. systs. 12682
biomedical multi-oscillator systs., nonlin. filtering tech. 16029
brushless DC machines, multiple equilibria 27747
BWR stabil. anal., bifurcation theory 35794
chaos in nonlin. ccts./dyn. systs., SVD 12301
chaotic chip for nonlin. dyn. network anal. 515
chaotic cryptology, speech encoding/decoding 24113
Chua's cct., strange attractors, discrete reconstruction 12296
Chua ccts., coupled, riddled behaviour 21087
coupled digital oscillators class, dyn. 6049
dexterous motions, nonlin. cct. theory for robot control problems 21090
digitally controlled lin. four-port network 463
directionally coupled chaotic systs., chaos synchronisation 28990
discrete time chaotic sigs. detect./charactn. 8291
double-scroll oscillator, chaos delayed feedback control 573
EEG predictability, adequacy of nonlin. forecasting methods 26405
EEG recordings, dissimilarity measure, nonlin. dyn. syst. approach 26381
electronic beam scanning by coupled MESFET oscillators 23970
finite-dimens. continuous-time dyn. systs., nonlin. ccts. appls. 514
high Fresnel no. dye laser, weak turbulence 23111
hydro turbine model, syst. dyn. studies 4860
induction motor output feedback stable controller 19633
instrum. fault detect. in nonlin. dyn. systs. 20472
Lyapunov exponents calc. from time series 16020
M-lattice, non-lin. dyn. syst. for halftoning 33033
mag. actuator, nonlin. struct. dyn. 22712
radar detect. of sigs. in chaos, small target in sea clutter 9630
reconfigurable knowledge database, nonlin. sig. proc. *(Japanese)* 24335
recurrent neural networks, Prony sig. anal. appl. 24352
recursive filters, chaotic sig. driven 16021
reduced systolic engine for nonlin. dyn. systs. anal. 29243
robust approx. likelihood ratio tests for nonlin. dyn. systs. 40975
secure commun. systs., chaotic chips/Chua's ccts. 8690
secure commun. using small time continuous feedback 24740
sound modelling, chaos 16022
speech time-scale modif. based on nonlin. oscillator model 32318
stochastic reson., noise benefits, ice ages, crayfish, SQUIDs 14292
sync. and control of dyn. systs. 12297
synchronized chaos oscillators for transmitting inform. sigs. 2358
two-periodic solns. for nonlin. dyn. systs., direct determ. 28683
visualising predictability, chaotic ensembles 32467
GaAs, current oscills., nonlin. dyn., time series anal. 29865

nonlinear equations
see also nonlinear differential equations
2D axisymm. inhomog. medium inversion, distorted Born iterative method 23567
2D separable FIR Wiener filter design, iter. method 24214
Adomian's polynomials, convergence of decomp. methods 28677
asymptotic error expansions and extrapolations, nonlin. integral eqns. *(Chinese)* 5789
automatic calib. of laser range cameras, arbitrary planar surfaces 17437
autophase TWT, azimuthally asymmetric field, nonlin. theory 997
brushless PM DC motor drives, torque ripple reduction 44477
Cerenkov-type microwave freq. multiplier, relativistic electron beam 21843
commutation test labs., ident. method for certain procs. 5140
contragredient transforms. applied, optimal projection eqns. 265
decomp. method, convergence 20612
delta-sigma modulators with zero mean stochastic inputs, anal. 37819
discrete multiwavelet transforms, alg. design 32665
elec. apparatus EM field calcs., equiv. cct.-based *(Russian)* 31734
elec. load flow problem, ES appl. 4627
electronic cct. time domain anal., unsteady modes of operation 512
electronic systs. design, models 5958
expansion solns. of nonlin. reducible functional eqn. systs. *(Chinese)* 28678
finite dimens., num. anal., interval iter. *(Japanese)* 11993
helical wiggler, equilib. electron orbits nonlin. evol., magnetoresonance 43035
hierarchically structured systems subsystems and noise signals identification 24236
homogeneous dielec. cylinder inverse scatt. 23568
image cluster expansions, Bayes estimators/Markov fields 32925

nonlinear equations continued
lumped param. power transformer model, computer-based 5021
Moonie piezoceramic actuator, geom. nonlin. anal. 14075
morph. wavelet transform 28568
motor drives, thyristor convertor-fed, math. modelling 11367
multiresolution motion estim., wavelet transform 32836
neural net-based load-flow models for elec. power systs. control 26986
nonlin. generalized conjug. gradient methods 11961
nonlin. Schrodinger eqn. soln. by coupled amplit.-phase formulation 23373
orthogonal regression models, nonlin. param. estim., algms. and appls. 28662
partial least sq. regression via additive splines 28663
Petrov-Galerkin methods applied, nonlin. problems 20639
phase field model, error estim., finite-element scheme 20571
PLL false lock breaking bifurcation 29079
power overhead line galloping, nonlin. 3D simultaneous eqn. calcs. *(Japanese)* 10756
power syst. short cct. current param. estim. 19062
PWM inverters, real-time alg. harmonic elimination eqns. soln. 44162
quasi-Gauss-Newton methods for nonlin. problems, convergence 28679
safe starting regions by fixed points and tightening 5783
scalar sig. separation, decorrelation 32697
self-phased TWT, azimuthally asymmetrical field 998
series reson. DC/DC power convertors, perform. prediction 19708
steam turboalternator set, rotor syst. bearings, optim. of installation posns. *(Chinese)* 36141
supercond. machine cryoresistive winding short cct. interacts. *(Russian)* 10919
surface sampling for shape representation, self-organising 41365
symbolic solns. for class of PDE 20620
transient 3D eddy currents in nonlin. media, calc. 40236
transm. lines, corona, transients simul., method of characts. 19231
triangulation problem soln. 15903
wavelet filters, compactly supported, coeff. computations 24316

nonlinear filters
see also median filters
1D sig. smoothing, sieves and weightless neural nets 8327
adaptive filters for time-variant equalization 29363
adaptive IIR digital filters 756
adaptive LMS filter algm., nonlin. behaviour 24345
adaptive modular Laguerre nonlin. model 21427
adaptive nonlin. filters, switched coeff. types 6199
adaptive nonlin. neural filters, algm. 32702
adaptive nonlin. recursive state-space filters 748
adaptive rational fn. filter for estim./detect. 8416
analog VLSI neural network for texture anal. 29477
autoregressive procs. and estim. in noise 2510
bilinear filtering, adaptive algms. 32469
biomedical multi-oscillator systs., nonlin. filtering tech. 16029
bootstrap filter, nonlin./non-Gaussian filtering approach 8464
continuous-scale morph. filtering, evol. eqns. 8672
data depend. nonlin. filters family 24588
deterministic sig./Gaussian noise, additive mixture, exact splitting 8260
digital filters, neural network structs. 8451
digital mag. recording, equalisation, nonlin. filtering and error confine. 7178
digital PM, carrier tracking and sym. detect., nonlin. filtering 8107
dim objs., detect. and tracking, fuzzy evidential filter 41031
direct form block floating digital filters, asymptotic behaviour 32796
discontinuous sigs. smoothing, competitive approach 24198
DS-SSMA systs. perform., filtering effects, transmitter 33207
dyn. overload recovery in sigma delta modulators 702
edge detect., neural networks appl. 8559
edge detect., saddle-node dyn. 8679
error-diffused image compression, decoder/VQ 2735
extended H_∞ filter, robust EKF 40942
extended obj. coord., image proc. algm. 16157
extended threshold Boolean filters, min. MSE filtering 33148
Fibonacci p-codes, stack filtering, decomp. methods 24180
FIR filters, magnitude/group delay, multiple criterion approx. 32549
formal lin. of nonlin. systs., Chebyshev interpolation, nonlin. filter appl. 11965
fourth-power law clock recovery with prefiltering 41390
fusion devices, plasma spatial distrib., broadband reflectometry proc. 40977
fuzzy filtering for mixed noise removal, image proc. 2791
fuzzy rule based adaptive nonlin. filter for myoelectric sigs. 35132
genetic algm. adaptation, act. sound and vibr. control 32776
graph-based stack filter neural networks, associative representation 653
image, nonlin. scale space filtering *(Japanese)* 2624
image filtering, struct. preserving inhomog. diffusion 8607
image-enhanced pass. tracking of maneuvering targets 16114
indirect method of nonlin. filtering, PLL synthesis appls. 32568
Kullback dist. based nonlin. phase estimators 41011
legal Wigner space filtering and interp. 2528
lin./nonlin. filtering 24292
marginal data ordering, multichannel L-filter design 32703
math. morph., multiresolution image decomp./compression 8545
morph. wavelet transform 28568
MRI restoration, multidimensional nonlin. edge-preserving filter 26330
noise filtering, piecewise lin. compression 29382
nonlin. satellite channel, optimum receiver for QPSK sigs. 3507
optimal edge-preserving hybrid filters 2737
order stat. algm. for rank order/stack filters 29380
order stat. LMS algms. for non-Gaussian noise 2467
PDF estim., order stat. filter bank 32799
quadratic filter and detect. 2668
quasi-optimal nonlin. filtration, non-Gaussian noise effect 8336
range image temporal feature extraction, neural decomp. 33052
recursive smoothing filters, perform. anal. 6238
Rice/Rayleigh channels state estim., nonlin. filtering 8456
RLS adaptive bilinear filters, stabil. result 8394
robust approx. likelihood ratio tests for nonlin. dyn. systs. 40975
scan conversion methods, subjective assess. 42582
seismic refl. profiling, multiple suppression, nonlin. filter 35283
sig. proc. and adaptive filtering, orthonormal fns. 32777
sig. quadrature proc. in bandpass non-Gaussian interf. 32566
sinusoidal sig./params. estim., nonlin. filter *(Japanese)* 2557
soft morph. filtering, threshold decomp., anal. 32870
speech coding, nonlin. short-term prediction 32255
stack filtering, parallel algms. and VLSI archits. 21422
stack filters, efficient implement. 6228

nonlinear filters continued
- stack filters, rank selection probabilities 2496
- stack filters, rank selection probabilities 8261
- texture recogn./noise filtering, optoelectronic neural net 39526
- theory and appls. 12644
- wave field, randomly nonuniform medium perturbed, optimal obs. 15865

nonlinear network analysis
- 1/2 regenerative freq. divider, input sensit., low-pass filter influ. 783
- 90° bridge coupler power amp./combiner, nonlin. anal. *(Chinese)* 12750
- almost-periodic ccts., time-freq. transform for spectral bal. method 28992
- analog VLSI neural network for texture anal. 29477
- analogue nonlinear cct., freq. domain simul. 21088
- asymptotic waveform eval. macromodels for nonlin. ccts. 513
- asynchronous excitation phenom. in oscillator,periodically operating analog switch *(Japanese)* 12358
- autonomous act.-R cct., chaotic perform. 21409
- canonical piecewise-lin. resistive networks, anal. 28933
- capacitor energy storage, nonlin. tervit resistor appls. *(Russian)* 44429
- cartesian feedback RF amp. lin., gain/phase margins 33758
- cct. modelling by local extended state eqns. 482
- chaos in nonlin. ccts./dyn. systs., SVD 12301
- chaotic chip for nonlin. dyn. network anal. 515
- Chua's cct., cubic nonlin. 12304
- Chua's cct. control by resistor switching 12309
- Chua's oscillator, anal. of chaos, SPICE simulator *(Slovenian)* 37664
- class D and class E rectifiers, efficiency comparison 5993
- class E amp., anal. by alternor tech. 12345
- class E amps., parasitic nonlin. capacitors 12347
- class E freq. multipliers with RF choke, anal./design 37905
- class E half-wave low dv/dt rectifier, anal. 37621
- Colpitts oscillator, resistive nonlin. charact., phase/oscill. freq. *(Slovenian)* 12366
- complex nonlin. elec. ccts., num. simul. 510
- converter-machine bond graph models, digital simul. 27821
- coupled sustained oscillators each with own time const., order-chaos transit. 21141
- current-controlled LC-oscillator cct., mag. materials lattice defects study 25955
- DC anal. of ideal diode network, decomposed piecewise-lin. model 511
- DC-DC power converters, fuzzy control based on quasilinear modelling 36369
- delay line waveforms, graphical anal. 21089
- directionally coupled chaotic systs., chaos synchronisation 28990
- dissipative non-autonomous cct., bifurcation and chaos 37617
- double loop SQUID, nonlin. phenom. anal. 1614
- dyn. analogies in parametric proc. theory 28991
- earth leakage cct. breakers, mag. nonlin. 36466
- electronic cct. time domain anal., unsteady modes of operation 512
- EM phenomena in nonlin. ccts., conf., Poznan, Poland (1994) 28257
- EM shock wave in transm. line, HF generation 40392
- explicit piecewise-lin. models 12303
- feedback amp. nonlin. distortion anal., Volterra series *(Croatian)* 549
- ferromag. nonlin. impulse cct. dyn. calcs. *(Russian)* 6048
- finite-dimens. continuous-time dyn. systs., nonlin. ccts. appls. 514
- four-dimens. plus hysteresis chaos generator 12299
- HEMT gate mixer, large sig. model for anal./design 6320
- hyperchaos from cellular neural networks 21474
- hysteresis hyperchaos generator, fund. bifurcations 12300
- JAWS supercond. logic gate, voltage-state study 622
- Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
- Katzenelson-like algm., nonlin. resistive networks, quadratic convergence 5979
- large scale cct. simul., relax. Newton method 22530
- linear active dipole array loading by neg. resist. devices 23980
- looped MOS inverters, chaotic behavior and bifurcation 37613
- lossless transm. lines and equiv. ccts. anal. 31879
- lossy distributed networks, successive asymptotic waveform eval. 1467
- LOSSYWIRE, lossy coupled transm. line simul. kernel 33732
- mag. device models, IDAS simul. syst. 12305
- microwave ccts., freq.-domain simul., harmonic bal. method *(Chinese)* 28994
- microwave power amp. design, nonlin. mixed anal./optim. algm. 29558
- MM wave harmonic oscillator anal. based on Volterra series method *(Chinese)* 29563
- monotone element network theory, inequality in iter. methods 37611
- MOSFET transconductance amps., approx. anal. nonlin. perform. 21124
- multi-conductor transm. lines, pulse responses, partitioning tech. 15547
- multiphase sinusoidal oscillator, CFOA pole 21142
- neg. resist. oscillatory cct., async. simultaneous oscills. 21140
- nonautonomous syst., symm., periodic solns., bifurcations 504
- nonuniform freq.-depend. interconnections, PSPICE simul. 23755
- oscillator array dyn., broadband N-port coupling networks 832
- oscillator neural networks for image proc. 12678
- oscillators coupled by resistor, sync. phenom. 21147
- oscillatory systs., parametric excitation area calcs. *(Russian)* 29071
- OTA-C ccts., continuous-time filters 37854
- parallel switched cct. simul. on networked workstations 5984
- phase-locked Josephson jn. oscillator array, noise 21139
- phase-syst. cascading, nonlin. dyn., modeling 12368
- piecewise lin. hysteresis cct., chaos control 37612
- piecewise-lin. ccts., contraction algo. for finding DC solns. 506
- piecewise-lin. resistive ccts., nonseparable transistor models 21092
- piecewise-lin. resistive ccts. containing transistor models, solns. 28993
- power converter, commutation cell bond graph model 21115
- power convertor nonlin. ccts., transm. line modelling 19720
- power electronic converters, stochastic models 5998
- power static converters, bond-graph config. enumeration 21114
- power syst. parametric oscills., chaotic behavior anal. 26905
- power syst. time-domain modelling, EMTP-based 26891
- power systems anal., Walsh fns.-based technique 19036
- PV array/batt. power switch network, nonlin. SPICE model 27635
- PWM power convertors, independent inputs, large-sig. modelling 11152
- QPO, component params. calc. 21149
- quasiperiodicity in single diode cct., Hopf bifurcation 37616
- relax. oscillator, periodic thresholds, chaos and bifurcation *(Japanese)* 12357
- resist. ccts., polyharmonical influence anal. *(Russian)* 37618
- resistive cct. anal., variable transform. methods *(Russian)* 5978
- RF design, nonlin. cct. anal. methods 37609
- RLC nonlin. cct., interact. of LF and HF oscills. 507
- RLS bilinear filter for channel equalization 32728

nonlinear network analysis continued
- saddle type periodic points in PLL eqn., stabilization by OGY-control method *(Japanese)* 12375
- saturating/hysteretic inductor nonlin. cct. anal. by harmonic-bal. tech. 37610
- SC network anal. and synthesis for image proc. 5981
- series integrated RTDs, subharmonic excitation simul. 6323
- series reson. converter, parallel reson. cct. under parallel reson. freq. 21099
- SiC nonlin. resistors, capacitive energy storage appls. 36502
- sigma DM of chaotic time series, nonlin. props. 21385
- single gate MESFET mixer, computer-aided anal./design 846
- soft-switching PWM boost converter, config., anal. 6000
- spatial power combining oscillators on microstrip structs. 12789
- steady state anal., power series expansion *(Japanese)* 508
- supercond. arrays, consts. of motion 22726
- sustained oscillator systs., noise characts. and conversion 12354
- switched-mode DC-DC converters for high-power appls. 11181
- three coupled relax. oscillators, chaos, torus and sync. 574
- time-delayed Chua's cct., chaotic behavior in lumped-distributed ccts. 12302
- time-domain diakoptics, implement. in FDTD method 469
- transm. line, counterpropagating waves, modulational instabil. 12306
- UHF bipolar-transistor self-excited oscillators, wideband electronic tuning 584
- unfolded Chua's cct. generated by cellular neural net cells 37615
- unified nonlin. microwave cct./num. solid-state device simul. 6300
- van der Pol oscillator, sing. induced bifurcation 575
- VIOMAP, S-param. equiv. for weakly nonlin. RF/microwave devices 12745
- voltage-reson. converter, AC dyn. characts. anal. 21110
- Volterra-Picard polynomial ident., periodic excitations 28995
- Wien-bridge oscillator, modified for chaos generation 21143
- GaAs FETs, non-lin. and distributed modelling procedure 845

nonlinear network synthesis
- act. antenna element design 31980
- bilinear transform. design of switched-current ladder filters *(Chinese)* 5983
- bipolar transistor ccts., lin. method, polynomial representation 21091
- broadband microwave amp., low noise stable, design 12785
- chaotic cct. noise generator, design *(Japanese)* 37662
- class E freq. multipliers with RF choke, anal./design 37905
- CMOS inverter based chaos generator 649
- CMOS VLSI chaotic neural nets, current-mode 29513
- DC-to-DC power converters, sliding mode control design 520
- dexterous motions, nonlin. cct. theory for robot control problems 21090
- differential amps., lin. techs. in IC design 12352
- double-scroll oscillator, chaos delayed feedback control 573
- FET MMIC design, low IMD 6332
- HEMT gate mixer, large sig. model for anal./design 6320
- homog. threshold networks, dyn. props. 12298
- low-noise oscillators design/optim., nonlin. CAD 29072
- marginal data ordering, multichannel L-filter design 32703
- MM-wave monolithic mixer, 94 GHz, design method 29602
- oscillator design, optimum large-sig. perform. 37667
- quartz cryst. oscillators CAD 39103
- recurrent neural net archit., pass. nonlin. elements 37912
- RF MOSFET power amp., CAD 556
- SC network anal. and synthesis for image proc. 5981
- secure commun. systs., chaotic chips/Chua's ccts. 8690
- single gate MESFET mixer, computer-aided anal./design 846
- switched-mode DC-DC converters for high-power appls. 11181
- synthesised LO for DB1NV spectrum analyser 34425
- unfolded Chua's cct. generated by cellular neural net cells 37615
- GaAs MESFET, capacitance model, microwave nonlin. cct. design appls. 855

nonlinear optical phase conjugation *see optical phase conjugation*

nonlinear optical susceptibility
- 4BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 15070
- 9BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 31489
- absorptive media SHG 2129
- adiabatic ultrashort light pulses propag. near two-photon reson. 31549
- all-opt. proc., vectorial interacts., second-order cascading 2632
- all-opt. sig. proc. via quadratic nonlin., coherent interacts. 32990
- bacteriorhodopsin thin films, autocorrelating femtosecond pulse charact. 40070
- bacteriorhodopsin variants, phase conjug. by DFWM 23398
- bis-anthracenyl polyenes:SbCl$_5$, opt. suscept., bipolaron enhancement 15133
- book, EM response of material media 30
- bright/dark solitons, cascaded second-order effects 31619
- cascaded second-order nonlin.-opt. suscept., phase conjug. 15076
- chiral mol. solns., opt. susceptibilities, nonlin. spectrosc. 31551
- chiral surfaces, second-order opt. activity, elec. and mag. contribs. 40097
- conjug. polymers, electronic struct., nonlin. optics, scaling laws 15142
- cryst. film, SHG in VUV and X-ray region 15126
- crysts., opt. second harmonic susceptibilities and opt. activity 7762
- cyanine dyes, ultrafast procs., time-resolved DFWM tech. 15140
- cyanovinyl aromatics, nonlin. opt. response 23346
- DAN/PMMA polymers, SHG, temporal stabil., orient. pair correl. 15129
- DFWM pattern interferometry, refr. index vars. 31506
- diacetylene-substituted polydiacetylenes, synthesis, opt. props. 23345
- 2,6-dibromo-N-methyl-4-nitroaniline, hyperpolarisabilities, nonlin. opt. props. 40095
- diffusion-driven semiconds., SBS gain profile 2059
- diyne-pyridine syst., mesophase and nonlin. opt. props. 7776
- dodecylbenzene, third-order nonlin. suscept., temp. depend. 31496
- doped glass fibers, SHG, directional photoionization model 15042
- electro-optic polymer, nonlin. optics, single-mode waveguide fab. 15063
- FLC nonlin. opt. waveguides 7403
- four-wave freq. mixing, transparency induced by additional strong field 31552
- four-wave mixing sig. in freq. space charactn. 7743
- functionalized polymers, nonresonant opt. Kerr nonlin. 40098
- functionalized polymers, third-order nonlin. opt. props. 15137
- glass-forming FLC material of high second-order nonlin. 7729
- helicenes, chiral opt. nonlin. 15094
- homodyne surface SHG 40079
- III-V semiconds., mag. field effects on opt. nutation 2089
- intersubband optics for symmetric and asymmetric quantum wells, wires and dots 40046
- LB films, mol. orient., SHG 15145

nonlinear optical susceptibility continued
- liqs. and solns., opt. act., nonresonant opt. rectification 23376
- main-chain polymers, processable, third-order nonlin. opt. props. 15097
- metal-oxide based gels, organically doped, nonlin. opt. props. 15091
- metallo-naphthalocyanine dyes, third-order nonlin. opt. props. 15136
- metallophthalocyanine, aggregation and nonlin. optics 31581
- metallophthalocyanine thin films for nonlin. optics 2101
- metallophthalocyanines, third order nonlinear opt. props. 23426
- metallophthalocyanines in PMMA films, nonlin. suscept., electroabsorption 31582
- NLC cells, opt. nonlin., voltage sensitivity 7730
- opt. fibres, SHG, $\chi^{(3)}$ effects, nonlin. phase shifts 30864
- organic macrocycles, third-order opt. nonlin. 23422
- organic materials, nonlin. opt. props. switching devices appls. 23423
- organometallic cpds., nonlin. optics materials, review 23432
- phthalocyaninato-oxytitanium (IV) highly ordered thin film, third-harmonic generation 23388
- plasma and gases, harmonic generation, optimal quasi-phase-matching 7805
- PMMA films with dye mols., 2D opt. nonlin. 15093
- polar mol. dimers, nonlin. opt. props. in intermediate stochastic region 15127
- poly(1,6-N-carbazolyl-2,4-hexadiyne), third-order opt. props. 15095
- poly-phenyl-acetone opt. waveguides, nonlin. coupling and propag. 39432
- polyazine and π-conjug. oligomers, third-order nonlin. opt. props. 15135
- polydiacetylene, third-order nonlin. opt. susceptibilities 7781
- polydiacetylene DCHD highly oriented film, fs. nonlin. opt. response 23396
- polydiacetylene films, synthesis and third order nonlin. opt. props. 40117
- polydiacetylene synthesis, nonlin. optics appls. 7778
- polydiacetylenes, nonlin. opt. props. 15053
- polymer amphiphiles LB films, fab., nonlin. optics props. 15089
- polymer opt. fibre, all-opt. and photomechanical devices 31584
- polymer waveguides, electro-opt. appls. 14457
- polyphenyl, didecyloxy substituted, third- and fifth-order opt. nonlin. 2111
- polysilicon grain boundary struct. characterisation by opt. SHG 29825
- polythiophene film waveguide third-order opt. nonlin. 2100
- pseudoisocyanine J-aggregates, wavelength depend. nonlin. opt. props. 2062
- quantum dot array, SHG model 31592
- quantum dot/wire struct., nonlin. optics 7738
- quantum well struct., large opt. nonlin. 40107
- refr. indices determ. by Z-scan/EZ-scan meas. 7780
- single-mode opt. fibers, supercompression of opt. radiation 1675
- squaraine dyes in PMMA, third-order opt. procs. 23399
- squaraines, neg. third-order opt. responses 15134
- tetrabenzporphyrins in solns., third-order nonlin. opt. interacts. 7782
- thiophene, bisbenzethiozole-substituted, third- and fifth-order opt. nonlin. 2111
- thiophene oligomers and derivatives, third-order nonlin. opt. props. 23350
- third-harmonic generation, wave mixing, soliton states 15029
- three-level medium, reson. radiation propag., nontrivial induced lenses 31610
- transit. metal-phosphine complexes, nonlin. opt. props. 40050
- two-color Z-scan tech., enhanced sensitivity 40023
- waveguide, counterpropagating beam distributed coupling, bistability 15030
- waveguides, light pulse propag., mode-coupling theory 22907
- Ag fractal nanospheres in PMMA film, cubic opt. nonlin. local field enhancement 15130
- AlGaAs asymmetric QWs, mid-IR difference-freq. generation 15108
- AlGaAs $\chi^{(3)}$ semicond. waveguides, squeeze-state generation 31505
- AlGaAs/GaAs MQW, near- and mid-IR two-photon absorpt. 31538
- AlGaAs/GaAs, QW, modulator, nonlin. optics 7739
- C$_{60}$ LB films, degenerate multiwave mixing and opt. storage effects 15086
- CS$_2$, third-order nonlin. opt. susceptibilities, picosecond pulses 31534
- CS$_2$, third-order nonlin. suscept., temp. depend. 31496
- CdS quantum dot/glass filters, sol-gel method 7445
- CdTe, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
- GaAlAs asymmetric two-step quantum well for cascaded second-order procs. 13189
- GaAs, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
- GaAs(001), oxide removal by H plasma, surface SHG 38599
- InGaAs/AlAs quantum wells, diode laser wavelengths, tunable mid-IR generation 14935
- InP, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
- n-InSb doped crysts., parametric amplif. and oscill. 40115
- KNbO$_3$ thin film act. opt. waveguide devices, fab. 39464
- LiNbO$_3$ film on surface crystallized glass, second order opt. nonlin. 31488
- Nd:YAG CW self-starting mode locked laser, cascaded second-order nonlin. 39745
- Nd:YVO$_4$ diode-pumped microchip amp., efficient DFWM 40080
- Nd^{3+}:YLF laser, chirp diagnosis, nonlin. Kerr coeff. 23338
- Pb-silicate glass planar waveguides, light-induced second-order nonlin. suscept. 7788
- PbO-SiO$_2$-Na$_2$O opt. waveguide glasses, photoinduced nonlin. suscept./SHG 14418
- Ru complexes, chiral, octupolar opt. nonlin. 40049
- a-Si:H films, nonlin. opt. suscept., laser-induced transient grating tech. 31546
- Si/SiGe asymmetric quantum wells, SHG 15021
- Si-Si$_{1\times x}$Ge$_x$ heterostruct., difference freq. mixing, intersubband nonlin. 23365
- Si(001) wafer, cubic centrosymmetric media, anisotropic SHG 31572
- SiO$_2$ opt. fibres, multiwavelength SRS, picosecond pulses 7301
- SiO$_2$:Ge planar waveguide, seeding, static elec. fields 39381
- YBa$_2$Cu$_3$O$_7$ high Tc epitaxial thin films, opt. SHG detect. 7745
- ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, phase matched SHG 39442
- polysilanes, opt. nonlin., essential states mechanism 23409

nonlinear optics
- *see also multiwave mixing; nonlinear optical susceptibility; optical bistability; optical chaos; optical coherent transients; optical frequency conversion; optical hole burning; optical parametric devices; optical phase conjugation; optical saturation; optical self-focusing; optical solitons; quantum optics; self-induced transparency; stimulated scattering; thermal blooming*
- 2.5 Gbit/s 407 km repeaterless opt. fiber transmitters 34011
- 2D feedback nonlin. opt. syst. with field rot., diffractive patterns 7752
- 4BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 15070
- 10 Gbit/s 138 km uncompensated duobinary transm., installed std. fibre 3555
- 10 Gbit/s data switched semicond. laser amp. nonlin. loop mirror 17326
- 10 Gbit/s systs., opt. transm. tech. *(German)* 42461
- 16-Gbit/s TDM/polariz.-division-multiplexed syst., compensation tech. 9126

nonlinear optics continued
- 1310-nm DFB lasers, correl. of leakage-induced distortion, I-V charact. 7685
- 1550 nm fiber lightwave systs., dispersion compensation 17242
- 1550 nm high-energy fiber SRS pulse transm. 25525
- 1550 nm opt. AM-SCM systs., self-PM induced second order distortion 34095
- aberchrome doped polymer photochromic film, nonlin. opt. gratings 39471
- ACOFT, optical fibre technol. conf., Australia (1994) 28253
- adiabatic ultrashort light pulses propag. near two-photon reson. 31549
- all-opt. device nonlin. materials 30823
- all-opt. time-division demultiplexing, nonlin. fiber Sagnac interferometer switch 17336
- alternant/condensed-ring conjug. systs., third-order hyperpolarizabilities 23349
- amorph. superlattice films, quadratic opt. nonlin. 7787
- anisotropic crysts., beam propag., coupled thermal/nonlin. effects 7764
- asymmetric Y-branch polymer-glass-waveguide all-opt. switch, nonlin. wave propag. 39420
- azo dye- doped photorefr. polymers 15163
- bacteriorhodopsin thin film interconnections, dyn. contrast reversal, self-PM 1783
- bacteriorhodopsin/protein-based two-photon 3D memories, nonlin. opt. props. 2099
- beam adaptive frame for FEA 14431
- benzene derivatives, polarizability, ab initio coupled perturbed HF calcs. 40114
- bichromatic field interact., induced self- and cross-focusing study 40069
- book, EM response of material media 30
- broad-area semicond. lasers, filamentation and beam propag. 23191
- cable fiber strain meas., photo-elastic correction factor 14397
- Cantor fractal nonlin. multilayers, EM refl. and transmisson 2061
- cascaded nonlin.-opt. loop mirror soliton switching 23379
- CATV DFB source laser lin. limits 25528
- channel waveguides, scalar FEA, isoparametric elements *(Japanese)* 22900
- channel waveguides, variational anal. 23805
- Cherenkov FEL, high peak power 39909
- Cherenkov laser, nonlin. characts., particle simul. *(Japanese)* 31431
- Compton FEL oscillators, sideband instabilities, electron dyn. 40009
- conf., lin./nonlin. integrated optics, Lindau, Germany (1994) 36839
- conf., nonlin. opt. materials for switching/limiting, USA (1994) 36892
- conference, laser optics, St. Petersburg, Russia (1993) 55
- conference, laser techniques for surface science, Los Angeles, CA, USA (Jan. 1994) 28208
- conference, nonlinear optics appls., Miedzyzdroje, Poland (1994) 20243
- conference, nonlinear optics/optical processing, Japan (1993) 11538
- conference, Port Barcares, France (1992) 11537
- conjug. polymers, electronic struct., nonlin. optics, scaling laws 15142
- conjugated polymers/fullerenes, optical probes, conf., USA (1994) 20195
- coupled fibres, light propag., contrast enhancement 7288
- Crank-Nicolson method, nonlin. opt. propag., split operator method comparison 40063
- cross-conjug. macrocyclic systs., second-order nonlin. opt. responses 2097
- cross-linked polymers, thermal stabil., electro-optic appls. 14517
- cross-PM for opt. A/D converter, high resoln. spectra 7793
- crossed Fabry-Perot resonator, transm. fn. 15110
- cyanovinyl aromatics, nonlin. opt. response 23346
- devices for neural networks appls. 22974
- DFB λ/4-shifted periodic struct., opt. switching 2073
- DFB laser IMD anal., dyn. spatial hole burning effect 23222
- DFB LD above-threshold stabil. determ. 39875
- diacetylene-substituted polydiacetylenes, synthesis, opt. props. 23345
- dielec. planar superlattices, quantum dimens. phenom. 39437
- diffr. grating, opt. induced, in waveguides/waveguide couplers 22902
- diffuse objs., nonlin. recorded holograms, SNR 7812
- directional coupler, opt. induced grating 7361
- dispersion-supported transm., opt. nonlin. 17227
- dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 23801
- diyne-pyridine syst., mesophase and nonlin. opt. props. 7776
- dye-doped polystyrene microsphere laser emission, reson. modes 31207
- electro-optical polymers, poling 13930
- Er-doped fibre amp., polaris. hole burning, time dyn. 14755
- extinction ratio improvement, nonlin. opt. loop mirror 15122
- Fabry-Perot resonators, dyn. pattern form. 7728
- FDTD formulations for nonlin. opt. simul., Z transforms 31558
- FEL oscillators, space charge effects, self-oscills. and chaos 39971
- femtosecond laser sources, extended tunability 31472
- fiber lightwave syst. nonlin. optics 34059
- fiber optics, nonlin. refr. index meas., cross PM *(Japanese)* 30903
- fibre, opt., propag., quantum noise 14408
- fibre Bragg gratings, pulse self-switching 22819
- fibre ring laser, opt. mode-locking, cross-PM 23121
- fibres, nonlin. guided wave anal., reson. tech. 22830
- fig. of eight fibre lasers, mode locked by Sagnac interferometer 31455
- FIR opt. pumped amps., nonlin. propag. effects 14676
- FLC, nonlin. optic props. *(Chinese)* 40045
- fused taper fibre coupler, control beam sig. switching 2054
- glass:Nd^{3+} doped channel waveguide, all-opt. switching 31542
- grating assisted directional coupler, opt. induced 40438
- helicenes, chiral opt. nonlin. 15094
- heteroaromatic chromophores in high temp. polymers interferometric films 1736
- high-gain Compton FEL pulse evol., nonlin. macroscopic eqns. 39976
- holographic photopolymers, second order grating form. 31684
- in-line fiber amp. systs., noise evol., nonlin. refr. index 14751
- in-line opt. amp. systs., SNR degrad. *(Japanese)* 42396
- information optics frontiers, conf., Kyoto, Japan (1994) 28211
- inhomog. media phase conjug., holography, and imaging 31575
- integrated-optic waveguides, radiation field guiding 22905
- intersubband optics for symmetric and asymmetric quantum wells, wires and dots 40046
- IQEC quantum electronics, conf., Anaheim, CA, USA (1994) 11551
- isotropic liq. cryst. film, IR all-opt. switching 31011
- J-aggregates nonlin. opt. props., oriented films prep. 15062
- large-scale image associative memory, optoelectronic implement. 1655
- laser appls., conf., St. Petersburg, Russia (1993) 11527
- laser imaging radar, nonlin. of rot. mirror scanning 17446
- laser-induced holographic surface relief gratings on nonlin. opt. polymer films 31640
- LEOS, San Jose, CA, USA (1993) 20270

nonlinear optics continued
LFM-CW lidar for rem. detect. of saturated hydrocarbons 17450
liq. cryst. cored fibres, nonlin. propag., opt. limiting, stimulated scatt. 30887
liq. cryst. light valve, feedback, nonlin. response 22956
liq. crysts., conf., Hungary (Oct. 1993) 11577
liq. crysts., electro/nonlin. optics appls. 7413
liq. crysts., opt. nonlin., opt. logic appls. 15120
liq. droplet microcavities, CW nonlin. optics 31507
liq.-cryst. fibers, nonlin. opt. propag. and self-limiting effect 7276
liquid cryst. polymers, conf., Seoul, Korea (1993) 11531
long dist. fibre commun., solitons 17185
long wavelength IR nonlin. semicond. superlattice appls. 29945
low-loss nonlin. opt. channel polymer waveguide laser ablation 1723
magneto-optic nonlin. waveguides, TM waves, power flow study 22965
main-chain polyester containing 3,6-disubstituted carbazole, depoling mechanism 23348
microdroplets, SBS/SRS, phonon/photon-retention effects 31508
MM wave FEL, reversed guide field operation 39637
mol. crysts. for nonlin. opt. appls. 31583
mols. and polymers, nonlin. opt. effects, issues and opportunities 7761
MQW laser, plasma-heating induced intens.-depend. gain 23263
MQW nonlin. struct., finite element characterisation 38352
MQW waveguides, nonlin. TE waves, finite-element soln. *(Chinese)* 7355
MQW-sandwich nonlin. directional coupler with nonlin. losses, all-opt. switching 31601
multilayer disc storage, nonlin. read/write 39307
N×N cross-bars, opt. implement., RNI devices 7433
n-core nonlin. fiber arrays, stationary pulse propag. 30877
Na, HFS, three-pulse photon echo, opt. Bloch eqn. 31510
nanostructures, optical props., conf., Japan (1994) 28236
near-field optics, nanometric spatial and femtosecond time resoln. 39477
nitroaniline based nonlin. opt. syst., cryst. growth 15066
NLC, nonlin. opt. props. 23447
NLC film, polariz. switching by stimulated orient. scatt. 40036
NLC films, nonlin. waveguide, light-induced Frederiks transit. 22904
nonlin. confocal Fabry-Perot resonator, Na filled, pattern form. 7749
nonlin. fiber directional couplers, pulse switching 40058
nonlin. Kerr-type resonators, modulational instabilities, suppression 2123
nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
nonlin. tapered opt. waveguide, beam propag. anal. 22873
oligothiophenes, conjug., transistors and SLM 22931
opt. radiation self-action in medium, cubic nonlin. 31612
optoelectronic material appl. in Japan, review 7453
organic dye solns., nonlin. light absorpt. 31591
organic materials, nonlin. opt. props. switching devices appls. 23423
organic materials for electronic/photonics, conf., Japan (1993) 11532
organic mols. in glasses, nonlin. opt. props. study 15143
organic solns., CW laser beam fanning 23357
organic-inorganic polar crysts. design for quadratic nonlin. optics 15146
organic/polymer system nonlinear props., conf., Pennsylvania Univ., USA, April 1991 28
organic/polymeric materials, nonlinear optics, conf., WA, USA (!992) 5495
parametric nonlin. mirror, short pulse generation, dispersion limitations 31493
pass. noise filter, nonlin. opt. loop mirror 25526
phenol/pyridinium triflate, synthesis, nonlin. optics 2121
photoactive solids, conf., Leuven, Belgium (1993) 11530
photonic ccts. written by dark spatial solitons in defocussing nonlin. materials 31617
photonic nonlin. polymer materials 7265
photorefr. crysts., speckle beam self-bending, space charge 2049
photorefr. gratings kinetics, light phase-shift effects 40051
photorefr. MQW materials, appls., sig. proc. 29915
photorefr. oscillator, weakly multimode dyn. 15072
planar opt. waveguides, power-param. charactn., vectorial simul. 31484
planar waveguide directional coupler with NLC, nonlin. effects 30957
planar waveguides in glass, nonlin. diffusion procs., refr. index profile 1713
PMMA polymeric film electro-optic phase modulator 14534
PMMA-EVA blend, nonlin. scatt. 2064
polaris. independ. nonlin. opt. loop mirror demultiplexers 34079
polariz.-independent regenerator, nonlin. optoelectronic PLL 14655
poling-induced opt. loss in nonlin. opt. polymeric waveguide 30937
poly(thiophene-3-acetic acid), ultrathin film fab., opt. props. 23351
poly(vinyl alcohol)polyaniline interpenetrating polymer network, nonlin.-opt. props. 40081
poly N-vinylcarbazole, photorefr., absorbing nonlin. opt. chromophores 1653
polyazines/polyacetylenes, donor and acceptor substituted, polarizabilities and second hyperpolarizabilities 23387
polydiacetylene DCHD highly oriented film, fs. nonlin. opt. response 23396
polydiacetylene synthesis, nonlin. optics appls. 7778
polydiacetylene waveguides, nonlin. absorpt. 31513
polydiacetylenes with chromophoric substituents, second and third order nonlin. optics 23410
polyimide-based guest-host systs., nonlin. optics, photonic devices 31585
polymer films for second order nonlin. optics *(French)* 2085
polymer integrated all opt. devices/ccts., fab./appls. 39614
polymer nonlin. opt. fibre devices 30914
polymeric LB and spin-coated films, light atten. 14318
polymeric nonlin. opt. materials, conf., Los Angeles, CA, USA, Jan 94 53
polymers, nonlin. optics, fund. and appls. 7775
polymers, nonlin. photorefr. props. 30815
polymers, polaris. distrib., stabil., nonlin. optics 31586
prism coupling, nonlin. guide, dyn. study *(French)* 14460
PTS, multi-photon absorpt./nonlin. refr., 800 to 1600 nm 23395
PTS-polydiacetylene, time-resolved nonlin. opt. studies in Fabry-Perot cavity 23411
quadratic nonlin. medium, parametric procs., field depend. effects 31600
quadratic nonlin. opt. materials *(French)* 1649
quartz glass radiation resist. and nonlin. absorpt. at 353, 248, and 193 nm 15019
refr. indices determ. by Z-scan/EZ-scan meas. 7780
repeaterless transm., 622-Mbit/s and 2.5-Gbit/s, self PM 15051
ring resonator, oscill. mode selection, chaotic mode transits. 15117
robust nonlin. filter for noise-smoothing and edge-enhancement 2847
school on nonlinear optics/optical physics, Capri, Italy (1992) 32
self PM with finite response time, quantum theory 31898
semicond. device material single event effects testing by laser beam 13573
semicond. diode laser nonlin. study by equiv. cct. modelling 1976
semicond. laser; linewidth, linewidth enhancement factor α, FM and AM response meas. 39878

nonlinear optics continued
semicond. laser amps., subpicosecond pulse amplif. 39805
semicond. laser amps. biased at transparency, quantum well no. effects on nonlin. refr. 39819
side-polished fiber fab., negligible opt. loss 30892
single mode LD, decay time of time-depend. transient stochastic dyn. 31331
single-mode opt. fiber, single-pulse degenerate-cross-PM 40078
SiO_2 fused fibre, pulsed UV laser radiation, photodegradation and nonlin. effects 39362
spatially nonuniform opt. beams, nonlin. nonparametric interacts. 40040
strain distrib. meas. in opt. fiber, Brillouin scatt. 7320
TE-TM nonlin.-grating MQW polariz. switch 23427
thermal self-interact. conditions, perturb. approxs. 40024
thiophene derivatives, polarizability, ab initio coupled perturbed HF calcs. 40114
thiophene oligomer thin film SLM *(French)* 2086
transient rot. SRS, gain reduction meas. 23413
twin-core doped opt. fiber, sub-Poissonian/super-Poissonian photon stats. 14401
two-level center thin film with a wide-aperture opt. feedback, spontaneous patterns form. 31566
ultrafast low-sig.-level opt. waveform digitization, induced beam deflection 7794
ultrafast nonlin. in semicond. laser amps. 7670
ultrashort laser pulses, Faraday rot. 31608
vinyl fluoride, far-IR opt. pumped laser lines, freq. determ. 23333
vycor silica glass, mesoporous, fab. for nonlin. optics 30810
walk-off-limitation-free all-opt. nonlin. fiber-loop-mirror switch 9568
waveguide arrays, spatially solitary wave evol. 39426
waveguide struct., local mode theory 22903
waveguides, FEM, modal solns. stabil. study 39423
waveguides, light pulse propag., mode-coupling theory 22907
WDM systs., modulation stats. effects on Raman crosstalk 17348
wide aperture semicond. lasers and amps., nonlin. dyn. modelling 23209
X opt. coupler with nonlin. dielec. region, anal. 31502
zero-dispersion dispersion-flattened nonlin. fibre loop mirror demultiplexing 3561
AlGaAs, act. waveguide LD, femtosecond band-edge index nonlin. 31337
AlGaAs all opt. switching waveguides, three-photon absorpt. 22912
AlGaAs cascaded nonlin. directional couplers, all-opt. switching 39411
AlGaAs $\chi^{(3)}$ semicond. waveguides, squeeze-state generation 31505
AlGaAs nonlin. directional coupler based opt. multiplexing 14463
AlGaAs nonlin. directional coupler, time-domain all-opt. demultiplexing 39377
AlGaAs waveguide design for all-opt. switching 31597
AlGaAs/GaAs MQW, near- and mid-IR two-photon absorpt. 31538
$Ba_7(BO_3)_3F_5$ struct. for nonlin. opt. appls. 15147
$BaCaBO_3F$ struct. for nonlin. opt. appls. 15147
$BaTiO_3$ beam fanning effect, opt. image combination/logic AND operation 31035
$BaTiO_3$ cryst. opt. image-combiner OR gate /AND gate, beam fanning effect 7438
$BaTiO_3$:Co, light-induced dark decay and sublinear intens. depend. 31483
$Bi_{12}GeO_{20}$ single crysts., nonlin. absorpt. of laser light 2081
$Bi_{12}SiO_{20}$, photorefr. response LF peculiarities 14322
$Bi_{12}SiO_{20}$, photorefr. response incoherent enhancement, subharmonic interact. 40158
C_{60}, O_2 doped and photopolymerized, nonlin. opt. props. 23397
CO_2 TEA laser dyn., freq. stabilisation, chaos 23087
$Cd_{0.6}Mn_{0.4}Te$, time-nonreversible lin./nonlin. opt. phenom. 23404
CdS, opt. bistability, opt. oscills., internal switching delay 23425
CdS, semicond. quantum dots, nonlin. opt. props. study 15143
$CdS_{1-x}Se_x$-doped glass waveguide couplers, nonlin. opt. perform. 14466
CdTe microcrystallites in CaF_2 thin film, nonlin. opt. prop. 40027
CdTe, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
CuCl semicond. biexciton and exciton systs., fs coherent transients 23367
CuCl, semicond. quantum dots, nonlin. opt. props. study 15143
Er-doped fiber amp. propag./switching 34061
Er-doped fiber amplifer gain peak meas. by spectral loss test 14745
Er-doped fibre amps., polaris. hole burning, computer modelling 14757
Er-doped fibre amps., polaris.-depend. gain 14756
Er-doped silica opt. fibre switching by ultra-fast nonlin. refr. index dyn. 30915
Er-doped tunable fibre lasers, all-opt. relax. oscill. damping 31236
GaAlAs asymmetric two-step quantum well for cascaded second-order procs. 13189
GaAs bistable Fabry-Perot device, array format operation 23378
GaAs nanocrystal doped glass, time resolved pump/probe Z-scan study 40067
GaAs, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
GaAs:Cr, picosecond transient gratings, expts./modelling 31491
$GaAs/Al_{0.35}Ga_{0.65}As$ MQW, refr. index, Fabry-Perot etalon meas. 34717
GaAs/AlAs, single-wavelength all-opt. phase modulator 2106
GaAs/AlGaAs MQW zero-gap directional coupler, disordered branching waveguides 14491
GaAs/AlGaAs QW waveguides, all-opt. PM 23370
GaAs-AlGaAs MQW, nonlin. opt. cross sect. 13187
GaAs-GaAlAs multilayers, far-IR radiation nonlin. refl. 7756
H Raman act. media Stokes pulse duration control in SRS 31560
InGaAs/GaAs piezoelec. MQWs, nonlin. opt. response, screening, and strain 15081
InGaAs/GaAs quantum wells, strained, absorpt. coeff. and refr. index 1136
InGaAs/GaAs strained [111]-oriented MQW, carrier and screening dyn. 29905
InGaAs/InGaAsP MQW opt. modulator, nonlin. opt. absorpt., spatial band bending 2103
InGaAs-AlGaAs QW laser, lateral mode anal. 23213
InGaAsP quantum-well quaternary lasers, gain nonlin. and temp. depend. 39798
InGaAsP/InGaAsP multiquantum well waveguide, nonlin., bias depend. recovery time 1717
InGaAsP/InP MQW laser gain-lever effect 23279
InGaAsP/InGaAsP MQW waveguide, bias-depend. recovery time of all-opt. reson. nonlin. 22874
InP nanocrystals in porous glass, nonlin. absorpt. and refr. 31514
InP, reson. nonlin. opt. susceptibilities, dispersion meas. 23405
$KNbO_3$:Fe photorefr. reconfigurable hexagonal spot array, self-organization of scatt. 22779
$KTa_{1-x}Nb_xO_3$ crysts., photorefr. diffr. dyn. 31618
$KTiOP_{1-y}As_yO_4$, noncritically phase-matched cascaded THG 31525

nonlinear optics continued
- $KTiOPO_4$ nonlin. devices, temp. dispersion 15121
- $LiNbO_3$ electrooptic modulator, conducted suscept. 7390
- Na vap., laser beam switching dyn. 40111
- Na^+-Ag^+ ion exchanged waveguides, nonlin. TE wave anal. 39424
- $NaPO_3$-$Na_2B_4O_7$-TiO_2 glasses, nonlin. opt. props. 40047
- Nd:glass diffr.-limited laser amp., SBS wavefront correction 23144
- Nd^{3+}:ZBLAN fibre, short pulse propag./ampl. 14739
- P_2O_5-SiO_2:Er^{3+},Yb^{3+} opt. fibres, transient gratings 30899
- Pr^{3+}-doped fibre amp., short-pulse amplif. study 31227
- Rb, counterpropagating beams, spatio-temporal instabil. 40068
- Ru complexes, chiral, octupolar opt. nonlin. 40049
- SiO_2 fiber nonlin., lightwave systs. 17209
- SiO_2-GeO_2 fibre, electro-optic modulation, UV-excited poling 30898
- $Sr_{1-x}Ba_xNb_2O_6$ crysts., photorefr. spatial solitons, theory, expts. 23401
- $SrBaNb_2O_6$ photorefr. holographic grating writing and readout by applied elec. fields 40154
- $SrLi(B_3O_5)_3$ struct. for nonlin. opt. appls. 15147
- ZnCdTe, electron-hole plasma, refr. index, opt. nonlin. 15107
- ZnSe-ZnS QW, nonlin. refr. index, nonlin. absorpt. coeff. 40030
- ZnTe, electron-hole plasma, refr. index, opt. nonlin. 15107

nonlinear programming
- *see also convex programming; quadratic programming*
- algorithmic sensitivity calcs., extensions, barrier and penalty fn. methods 37279
- behavioral logic test generation, mixed integer nonlin. prog. 6099
- cell-level analog ccts., integer prog. based topol. selection 37574
- concatenated block coded modulation in Rayleigh fading channel 9171
- constrained optim. problems with bounded variables, exact penalty-Lagrangian approach 232
- duality in nonlin. prog., convex fn. 229
- electronic packages, life enhancement, design optim. 28497
- fractional prog., duality concepts 231
- frame reservation multiple access perform. anal. 33837
- gradient projection network, analog solver for lin. constrained nonlin. prog. *(Japanese)* 37281
- hybrid double-sided lin. pulse motor, static thrust calc. *(Korean)* 27757
- IIR Hilbert transform design, weighted optim. *(Japanese)* 32687
- infeasible nonlin. programs anal. 28651
- loudspeaker mag. core, mag. field optimal shape design *(Polish)* 22706
- M-lattice, non-lin. dyn. syst. for halftoning 33033
- microelectronic packages, automated design 11757
- modified Broyden algms., convergence 241
- multiobjective optim., interactive tradeoff cutting-plane algm. *(Chinese)* 28645
- multiobjective optimal thermal power dispatch 26927
- multisensor bearings-only tracking, min. description length 8287
- non-conventional power systs., scheduling and resource allocation 10656
- nonlin. time/cost tradeoff models in project mgt. 28373
- optim., equivalence of dyn. systs. 11948
- phase diversity to extract higher order Zernike coeffs., lab. expt. 16216
- Potts neural nets, optimisation, dyn. systs. equivalence 21480
- power syst. discrete voltage control modelling, load flow soln. 26963
- power syst. fuel scheduling, optim. techs. comparison 4600
- power syst. transient stabil. enhancement, dyn. preventive control 26947
- projective quasi-Newton method for nonlin. optim. 11944
- quadratic nonlin. prog. problems 11936
- reactive power compensators for distrib. systs., harmonic distortion 19256
- SMDS support network minimax open shortest path first routing algms. 41765
- spacecraft power syst., multivariate nonlin. design optim. 26678
- unconventional power systs., scheduling/resource allocation 35496
- VLSI cct. performs., worst-case anal. and optim. 38981

nonlinear systems
- *see also bang-bang control; bilinear systems; nonlinear control systems; nonlinear dynamical systems*
- 1/f noise universality in high-technol. appls. 34313
- adaptive param. estim., QR methods of O(N) complexity 40814
- ASK and PSK sigs., spectrum conversion in filter-nonlin. amp. syst. 32595
- auto-/cross-trispectra, computation/interp. 40994
- biological systs., nonlin., adaptive filtering/estim. 34728
- bond graphs and variable causality 20546
- cascade nonlin. syst. ident., nonparametric deconvolution 40874
- chaotic sig. modeling, nonlin. AR model 15917
- digital signal processing, conf., Yosemite, CA, USA (1994) 11548
- discrete Wiener model, nonGaussian stochastic procs. representation 5743
- dyn. response of nonlin. meas. systs. 3700
- dyn. syst. failure detect., nonlin. uncertain models 20471
- explicit piecewise-lin. models 12303
- fault detect., uncertain nonlin. systs., diagnostic observers 28522
- fault detect. for nonlin. state-space systs. 11840
- filtering time series, topol. 32468
- formal lin. of nonlin. systs., Chebyshev interpolation, nonlin. filter appl. 11965
- heart, human, elec. sig., nonlin. deterministic syst. 26414
- higher-order stat. sig. proc., freq.-domain estim. 8314
- hippocampus, nonlin. syst. model, CMOS implement. 29434
- ident., Hammerstein model, cumulant-based Steiglitz-McBride algm. 40991
- ident./compensation, sampling freq. 32778
- invariant submersion method, min. filtration problem appls. 32573
- ISDN networks, chaotic maps, models of packet traffic 33606
- Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
- max. entropy image restoration, genetic algm. 8509
- modelling, K-filter archit. 40932
- neuro-fuzzy nets, nonlin. systs. control appl. 44065
- nonautonomous syst., symm., periodic solns., bifurcations 504
- nonlin. FM sigs., spectral-correl. charact. 2573
- nonlin. generalized conjug. gradient methods 11961
- oscillatory systs., parametric excitation area calcs. *(Russian)* 29071
- paraplegics, elec. stimulated quadriceps ident. 18581
- parity eqns. estim. for fault detect. 20477
- power syst. dyn. anal., num. efficient algos. 4499
- power syst. instabilities modelling, catastrophe theory appl. *(Japanese)* 26853
- sidelobe control in SAR imagery, nonlin. apodization 34118
- sig. proc., slope transforms, theory/appl. 40832
- sigma DM of chaotic time series, nonlin. props. 21385
- speech recogn., nonlin. syst., neural nets 40733
- Wiener-optimum lin. detectors for non-Gaussian channels 24246

nonlinear systems continued
- continuous-time/discrete-time nonlin. parametric models 32783

nonlinear waves (plasma) *see plasma nonlinear waves*

nonlinearities of control systems *see control nonlinearities*

nonparametric statistics
- 2D shape class., autoregressive/Fourier-based descriptors comparison 24420
- age and periodic replacement policies, nonparametric estim. 28546
- edge localisation, nonparametric algm. 16400
- harmonics in noise, cumulant-based estimators, perform. anal. 40992
- k-out-of-m systs., nonparametric inferences on syst. availability 11854
- nonlin. syst. ident., nonparametric deconvolution 40874
- power spectrum estim., wavelet thresholding techs. 2484
- power syst. simul. support, nonparametric stat. procedures 4483
- radiometric image proc. based on Parzen-Rosenblatt estim. *(Russian)* 17513
- second/higher order stats. change detect., texture segmentation 8560
- speech recogn., parametric/non-parametric representations 15835
- stochastic algm. for parametric/non-parametric estim. 40859

nonradiative dielectric waveguides
- anistropic channel waveguide coupling, finite-difference freq.-domain anal. 31897
- aperture coupled unidirectional dielec. radiator in NRD struct. 23860
- aperture-coupled NRD-fed patch antenna model expansion anal. 23912
- curved bends, insertion losses 21504
- H-guide/NRD-guide, higher-order modes, modal props. 15607
- leaky NRD guide, broadside radiation *(Japanese)* 15630
- leaky NRD guide, grating struct. based 12686
- slitted asymmetric ridge waveguides, lin. phase arrays 31961
- InP NRD-guide FM Gunn oscillator, 60 GHz band *(Japanese)* 6319

nonradiative transitions
- poly-(para-phenylene-vinylene) films and photodiodes, photoinduced current, ESR 14600
- terrylene single mol. in hexadecane, emission rate, saturation intens. 23375
- AlGaInP orange LEDs, misoriented p-GaAs substrs. 14642
- CdTe/$Cd_{1-x}Mg_xTe$ quantum wires, wet chem. etched, photolum. efficiency study 38331
- GaAs/AlAs quantum wells, MBE growth interruption, nonradiative recomb. 332
- GaAs/AlGaAs microdisk lasers 23259
- N-nGaSb/GaInAsSb staggered lineup heterojunction, recomb. obs. 38287
- InGaAs/AlGaAs SQW, recomb. procs., photolum. intens. effects 38349
- InGaAs/GaAs strained-layer QW, grown on (311)A GaAs, charactn. 14910
- a-Si:H diodes, recomb. regime under double injection, electrolum. obs. 31079

nonstoichiometry *see stoichiometry*

nonvolatile RAM *see random-access storage*

NOR circuits
- 16-Mbit flash memory, high reprogramming speed 12543
- diamond MOSFETs on epitaxial thin films, fab., cct. appls. 22437

NOR gates *see logic gates*

norators *see active networks*

normal distribution
- expt. data approx., exponential fn. 40775
- genetic algm., selection schemes, convergence models 37289
- Lempel-Ziv fixed-database algm., redundancy/distrib. 32021
- multivariate complex normal distrib., generalization 28584
- reliab. dens. fn. determ., failure rate, random variable 20498
- SPC in IC mfg., nested normal/multivariate models 37156
- speaker-independent speech recogn., normal distrib. supposition *(Chinese)* 24143
- telephone cct. holding time distribs. 33404
- time-varying speech sig. anal., seq. param. estim. 32319
- Ge detector, gamma-ray spectrometry, instrum. fn. 18403

normalising
- robust speech recogn. using direct cepstral comparison, environ. normalization 32380
- speech anal., noise, limitations of cepstral features 32377
- speech recogn., misrecognitions and out-of-vocab. words, detect. 32370

NOT gates *see logic gates*

notch brittleness *see brittle fracture; brittleness; notch strength*

notch ductility *see ductile fracture; ductility; notch strength*

notch filters
- act. scatterers, detect./ident./tracking 34131
- adaptive lattice notch filter, tracking anal. 40853
- adaptive sinusoid detect., IIR notch filters and multirate techs. 2548
- affine phase complex FIR filters, design/charactn. 8359
- broadband CDMA overlaying GSM cellular syst., capacity 3387
- CATV S6 special channel, notch filter for interf. reduction 34268
- hybrid notch filters 12621
- IIR notch filter, transient suppression 35129
- instrumentation syst., interf./noise 31847
- LEAR storage ring, notch filters modif., stoch. cooling syst. upgrade 34789
- photorefr. device opt. inform. proc. 32945
- radar sig. proc., space/time integrat. acoustooptic archits. 7424
- self-tuned continuous-time notch filters, CMOS implement. 21412
- sinusoidal param. estim., real time cascade adaptive notch filter 2524
- SS-orthogonal FDM syst. combination, interfer. rejection 33746
- triquint 0.5 μ MESFET device microwave transconductance amps. and filter ccts. 6327
- universal current-mode filter, non-inverting CCIIs 37858
- universal filter, two current-feedback amps. 37852
- universal voltage-mode filter, current conveyors 6206
- voltage-mode notch/lowpass/bandpass filter, current-feedback amps. 733
- WDF for TI's sens. sig. proc. MSP430, CAD 738

notch sensitivity *see notch strength*

notch strength
- *see also fracture toughness*
- micromechanical components, V-notches failure assess., cohesive zone model 30528

notebook computers
- *see also laptop computers*
- 3D stereoscopic imaging technol. 34630
- batt.-powered portable computers, technol. trends 37810
- communicating appls., archit. 33565
- context-aware computing appls. 33560
- database interface, pen-based for mobile computers 33566
- distributed systs., connected/disconnected operation 33564
- Hitachi IKAP makes PCs smaller and extends batt. life 21340
- Internet, today and tomorrow *(Japanese)* 8883

notebook computers continued
ISDN PC card, design *(Japanese)* 16933
NEC 24 cm TFT color LCD module, develop. *(Japanese)* 3937
pers. digital assistants, device control 17580
pers. digital assistants, trends/develop. 34202
pers. shopping assistance, indoor wireless syst. 33558
W4, Wireless World Wide Web, PDA based 33569
wireless world wide web client experience 33527
Ni-Cd intell. batts., charging/discharging algms., hardware 36545
Ni-MH intell. batts., charging/discharging algms., hardware 36545
nozzles
air blast quenching chambers, air flow interruption capability *(Japanese)* 11211
chem. lasers, CW, small-scale periodic inhomogeneities, lateral shearing interferometry 23088
closed cycle MHD generation, enthalpy extraction expts. *(English)* 5233
ejector expansion heat engine, refrigeration appl. design 28184
electrostatic assisted atomiser, nonwetting, catalytic melt spraying 7921
EM induction modif. 15237
fuel oils combustion atomisation, charge injection nozzle 7904
high power lasers, improved mfg. procs. 15194
kerosene burner configs., thermophotovoltaic appls. 27999
MAGO thermonuclear ignition syst., MHD nozzle chamber calcs. 36614
microwave radical source, N_2 plasma generation 28787
PCB conformal coating proc., Nordson Selective Coating System 6430
power overhead line live-line insulator washing expts. 27223
UCN 3&4 PWR, mid-loop operation, air entrainment 27462
waste fuel combustion, slurry atomisation 19397
Hg liq. jet pulsed power supply opening switch tests 36261
NP-complete problems *see computational complexity; optimisation*
NP-hard problems *see computational complexity; optimisation*
NRD waveguides *see nonradiative dielectric waveguides*
NTC thermistors *see thermistors*
Nubus *see system buses*
nuclear alignment *see nuclear polarisation*
nuclear bombardment targets
see also polarised targets
HERA-B, CP violation expt. 4134
internal halo targets, tests in HERA proton storage ring 26096
internal mol.-beam target for storage ring 26102
liquid target, H_2 recycling syst. using metal hydrides 34885
solid targets for radioisotope prod., thermal perform. 34886
thermal neutron target for RPI linac 26103
Be(d,n), 13.5-22 MeV, thick Be target, neutron spectra 18365
nuclear criticality safety
Fernald Environmental Management Project, crit. alarm syst. 4225
Y-12 plant, crit. accident alarm syst. detectors, testing 4226
nuclear electromagnetic pulse *see electromagnetic pulse*
nuclear electronics
see also pulse circuits
2D posn. sensitive detector, array type electron multiplier 18337
4π charged-particle detector array operating charact. 18341
1024-channel scintillation hodoscope, setup and control software 4221
^{3}He proportional counters, DSP 18334
AC-coupled Si microstrip sens., fab. proc. 10140
ADC requirements in nuc. and X-ray spectrometry 4251
amplit. discriminators, variable hysteresis voltage 4238
ATLAS expt. at LHC, liq. Ar accordion EM calorimeter 26153
BARS liq. Ar detector-target for tagged neutrino beams 26150
beauty search, secondary-vertex trigger, WA92 expt. 4236
bipolar PWM current controlled magnet power supply 18253
bit-serial first-level calorimeter trigger for LHC detectors 26250
calorimetry, monolithic front-end preamplifiers 26246
calorimetry at LHC, modular fault-tolerant approach 4237
cascadable neural network VME-module, Intel 80170NX chips 10141
CdTe detector syst. develop. 18314
CERES RICH detectors, pad readout 34926
CERN calorimeter, computer archit./electronics 18366
charge division posn.-sensitive detectors, error reduction 18345
charge-sensitive preamplifier IC for Si calorimetry at colliders 26241
CMOS neural network IC for high-energy phys. 29476
conference, high energy physics calorimetry, Italy (Sept. 1993) 20228
COSY accelerator facility, steering/timing syst. solns. 18201
cryogenic charge sensitive amp. for X/γ-ray spectrometer 18382
diamond microstrip high resoln. strip detector 26122
digital pulse height anal., radiation spectrosc. 18401
$D\Phi$ detector, control, monitoring 18305
drift cell wire tension determ., front-end electronics use 26163
dual spectrosc. amp. 26243
fast muon trigger for FNAL E771 34956
fast sig. proc. for NaI(Tl) detectors 26242
fast timing coincidence syst., gamma speed meas. 34958
fast-RICH prototype with VLSI readout, beam tests 4164
gain stabilized syst., gamma-ray peak broadenings, recovery times 18386
gamma-ray radiation dosimetry, Zener diodes 43137
gaseous 2D detectors, PC-based fast readout electronics 18384
high precision cathode strip chamber, plastic streamer tubes 26128
high precision high rate calorimeter readout 26244
hydrogenous material for sensitizing pMOS dosimeters, neutrons 26496
imaging X/γ-ray spectrosc., multiplexed readout electronics 18381
interpolating cathode strip chambers, posn. and timing resoln. 43115
KASCADE EAS expt., trigger electronics 26240
L3 silicon microvertex detector and electronics 10106
LAr calorimeters, cable-coupled preamplifier perform. 26247
LAr calorimetry, cold frontend electronics 26248
LAr preshower detector, monolithic GaAs readout 26180
level-1 calorimeter trigger syst. for LHC 26249
LHC, Si-strip detectors, low-noise front-end electronics 4235
LHC calorimetry, digital front-end and readout microsystem 26245
LHC expts., level-1 triggers 18387
LHC liq. Ar calorimetry, radiation resist. of front-end electronics 26251
low noise preamplifier design for room temp. detector appls. 43139
low-energy cosmic ion detector syst., amplif. electronics 26137
measuring electronics nonlin., pulse height spectra 18385
micro-strip gas counter test with RD20 front-end 34929
microstrip gas counter test, RD20 front-end 34950
microstrip Si detectors, readout syst. 10139
MOS pixel readout for single-sided 2D detector 34933
nuclear electronics continued
multielement Ge detector, X-ray fluoresc. microprobe/microspectroscopy 42979
multiparameter meas., PC-CAMAC based data acquisition 26236
multisection proportional chamber for P-viol. meas., design/ccts. 4171
NA48 liq. krypton calorimeter design 26152
NIM ADC, fast VMEbus interface 26237
optimum DSP for radiation spectrosc. 18390
particle accelerators, radiation effects on electronics 4239
pMOS dosimeters, energy depend., package geom. effects 26497
posn. sensitive gas-filled detectors, fast TDC. 34957
pulse delay/area, simul. determ., TOF method 10142
radiation detect. front end electronics, HEMT appl. 10144
RD3 liq. argon hadron calorimeter, beam tests results 26154
real-time pulse shaping in radiation meas., digital techs. 18383
scintillation counters, opt. pipeline read-out 26179
SDC detector, muon drift tubes, cosmic ray tests 4167
Shashlik calorimeter, WLS fibres readout by photodiode matrix 26176
single chip neural network photon trigger 29483
single-channel amplit. analyzer, exact timing 10147
single-sided AC-coupled silicon microstrip detectors 43059
surface barrier detectors, pile-up/defective pulse rejection 10145
tracking devices at future colliders, readout and data acquisition 4232
XSPRESS detector syst. for EXAFS studies 43165
ZEUS calorimeter, first level trigger 34955
$Cd_{0.9}Zn_{0.1}Te$ single cryst. radiation detectors 18318
CsI pure crysts., APD, fast low noise readout 26177
CsI(Tl) detector light output, pulse time gate effect 4174
GaAs monolithic C-HFET preamplifier 4234
GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
Ge semicond. arrays, multiplexer readout for gamma-ray imaging 18351
HgI_2, X- and gamma-ray detectors for space appls. 43072
HgI_2 microstrip detector, resistive charge division readout 43074
Kr liq. calorimeter, monolithic front-end amps. 26151
PbI_2 X-ray detectors, electronic noise 18320
Si data-driven trigger proc. test, RD21 4190
Si detector, HEMT input charge preamplifier, ns sig. proc. 43136
Si detectors, deep level compensated, X-ray appl. 43160
Si detectors, rem. controlled polariser 43062
Si drift chamber, high-resoln. X-ray spectrosc. 26254
Si drift detector with on-chip electronics, design 26155
Si low noise detector preamplifier, X-ray spectrosc. 43164
Si microstrip detector readout, AVLSIRA CMOS proc. 10138
Si strip detectors, binary readout, fast bipolar front-end 4172
Si-hybrid gas detector, cluster breakup appl. 10111
nuclear emulsions *see nuclear track emulsions*
nuclear energy *see nuclear power*
nuclear energy levels
Gammasphere detector array, identical bands, nuc. struct. 43109
nuclear engineering
see also fission reactors; fusion reactors; nuclear engineering computing
Cernavoda nuc. plants, project status *(German)* 10812
control enhancements in commercial mobile telerobot 4768
NNC's Engineering Development Centre, Risley 11694
nuclear engineering computing
see also computerised control; computerised instrumentation
3D thermal-hydraulic code THYC, mixing, DNB predictions 4802
1150 MW Hunterston B AGR power station, cumulative life assess. 19485
ABB BWR 90 design and characts. *(French)* 43838
ABWR reactors, piping syst. design, benchmark anal. 35898
accident mgt. strategies, human error probabilities 27513
advanced digital reactor control systs., safety policies 19456
advanced LMR plant control syst. 35927
advanced plant maint., surveillance syst., AI techs. 35921
AGR core life assess., probabilistic approach 19484
ALMR, in-service inspection, robotics appl. 35873
alternators, fault diagnosis, ES 35784
ALWR plants, integrated digital instrumentation and control *(Japanese)* 4771
ALWRs, severe accidents, iodine behavior, MAAP-IMPAIR interface 35811
analog systs. upgrades, safety crit. software 19457
anom. detect. credibility, neural networks 4785
ANS, hypothetical severe accidents, core debris recriticality 35828
ANS, refueling, crit.-induced severe accidents 35829
ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
ATHLET computer code based on BETHSY test 3.4a 4806
Beaver Valley transients, FSAR, RETRAN-03, RETRAN-02 MOD5 codes 27420
BETHSY 6.2 TC six-inch cold leg break test, RELAP5/MOD3, CATHARE2 27480
BETHSY integral test facility, 3 inch cold leg break 27475
boiling water flows, ASTRID 3D Eulerian code, heat transfer 35796
Browns Ferry NPP, proc. data network archit. plan 27344
Bulgaria, nuc. plant analyzer program 35839
BWR, accident mgt., fuzzy probab., influence diag. 35859
BWR, internal recirculation pumps, reactor stabil., TRACG code 35792
BWR ATWS seqs., diagnosis, ES, neural network 35858
BWR heating channel, post-dryout excursion, HECHAN model 27466
BWR instabilities, nonlin. effects, DYNOBOSS computer code 19421
BWR plants, accident mgt., ES 35861
BWR power maneuver, maint., knowledge-based planning support 35852
BWR thermal-hydraulics, core neutronics, two phase flow, DYNOBOSS 35799
BWR thermalhydraulics, isolation condenser perform., Relap5/Mod3 35795
BWR-6, short-term station blackout, optimum depressurization 19451
coil winder simul. for Superconducting Supercollider 22770
Comanche Peak station, 50% load rejection transient, plant data comparis. 4797
conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
conference, NPP simulators/plant analyzers, Finland (June 1992) 5513
containment, vented H deflagrations, H release/combustion 27503
control room design experience 35926
coolant pump syst., max. likelihood factor anal. 10808
crit. accident dosimetry, CRISIS, KBS 35196
cylindrical thermionic fuel elements modelling, MCTFE code 27986
Daya Bay NPP, pot. accidents, Hong Kong risks 35777
DECA, design change assistant, ES 35857
decommissioning, robot usage 27426

nuclear engineering computing continued
design, Toshiba integrated IS 35924
digital electronic ccts., automatic testing pattern generation 4770
Dodewaard natural circ. BWR, thermal hydraulic safety, TRACG 27489
emergency engng./mgt., ES-based DSS approaches 43875
enhanced operator perform., computer visualization 35928
EPRI instrum. calib./monitoring program for NPPs 27353
extended discharge burnup optim., CASMO-3/SIMULATE-3, PSFMP 27419
FIST expt. data, MELCOR thermal-hydraulic models 19433
flooding phenom. prediction, CATHARE code 4809
fusion devices, plasma spatial distrib., broadband reflectometry proc. 40977
HDR-hydrogen deflagration expts. E12, containment research 27500
HDR-hydrogen mixing expts. E11, code predictions 27499
HTGR, ring core, Xe oscills., 3D simul. computer code *(Chinese)* 43848
HTR-10, secondary shutdown syst., control rods, reactivity worth *(Chinese)* 43851
human related incidents, PC aided anal. *(Japanese)* 35820
I&C maint., operational experience 27342
Ignalina RBMK-1500 NPP, RELAP5/MOD3 anal. 19423
incore thermionic space nuc. power, Monte Carlo fuel burnup simul. 26622
intell. monitoring and diagnosis of NPP 43834
intranodal neutron flux shapes, variational nodal method 10836
ISP 33 safety codes, VVER-440 4803
ITER magnet cryogenic research facilities, computer-aided syst. 11719
KBS introduction for managers 27343
KBTAC, knowledge-based technol. centre 35853
Kori Units 3/4, station blackout transient 27486
Krsko plant, SBLOCA, LSTF SB-CL-21 counterpart expt., RELAP5/MOD2 anal. 35764
Krsko PWR, decompression wave in steam generator U tubes, LOCA 27463
Laguna Verde load rejection transient anal., TRAC-BF1 35801
light water research reactors, CRTA, fast reactivity transient anal. 10825
linac with integrated power source, RF energy compression 43002
LMFBR, pile natural convection, thermalhydraulics code 27476
LMFBR coolant filling, human errors ident., intell. CAI syst. 28350
LMR, wire wrap modelling, computer code BACCHUS 4801
LOBI-MOD2 test BT-02, ATHLET COVA 27474
LOFT integral expt. LP-FP-2, MELCOR assess. 35833
low-temp. overpressurization protection syst., RETRAN-02/MOD5 19450
LWR control rod wear data, intell. DP syst. 4819
LWR corium debris coolability, RPV/confine. struct., CORIUM-2D 27514
LWR dyn., MONA, 7-eqn. transient two-phase flow model 27472
LWR press. vessel, neutron transport, ENDF/B, JEF, JENDL, Fe 27421
LWRs, severe accident progression, MELCOR assess. 35832
MAAP4 model and validation status 35835
MEET database tools for nuc. plant maint. 43841
MEET/PEAT software tools for maint. effectiveness eval. 27370
Mihama Unit 2 PWR, steam generator tube rupture simul. 27487
model-based advanced control, functional prototype testing 19462
molten-salt Pu-fueled power reactor, nuc. charact. 35949
μP-based reactor protection syst. hardware 35929
naval nuc. submarine propulsion, IKBS surveillance 35782
naval nuc. submarine propulsion, surveillance, IKBS 35855
nodal diffusion eqn., hexagonal geom., 2 grid accel. 27424
Northern States Power Company Welding Manual Advisor 35854
NPP, proc. variable est., parity space method, ANN *(Korean)* 27356
NPP, safety systs. software, data prep./validation 43847
NPP control rooms, μP-based annunciator syst. 27369
NPP Krsko, station blackout anal., computer code RELAP5/MOD2 27485
NPP operation, intell. human-machine syst. 43823
NS Mutsu reactor syst., ship motion effects 27458
nuc. plant group overview displays, operator perform. support 3945
NUFREQ-NPW code, multichannel core stabil. margins 4774
OASYS rule/fuzzy-based ES 10831
open-cycle gas core nuc. rocket, computational model 18769
operator interfaces, multimedia 35783
Palo Verde NPP, safety param. display syst., ES 10806
PARR-1, fuel design, conversion, upgradation 4780
Peach Bottom 2 stabil., Engineering Plant Analyzer methodology 4773
pebble-bed blanket/core design, ATW 35954
Piper-One, BWRs, thermalhydraulic instabil., Relap5/Mod2 27478
plant commun. and computing archit. plan methodology 27367
plant safety software, guidelines, regulatory guidance 19455
PLR pump shaft-casing cover annulus gap, temp. flucts. 35869
postulated loss-of-river-water event, CONTAIN/SR computer code 35848
power plant, aircraft crash, react.-time response 43844
power plant advanced emergency operation procedure develop. 4763
power plant fault-diagnostic advisor, neural nets 19438
power plant monitoring, sens. failure detect. ES 19400
power plant safety, knowledge-aided decision-making appls. 43873
power plant safety, neural nets/fuzzy systs. 35849
power plants, digital control systs. 35742
power syst. dyn. stabil. simul., NPP models 35429
PRA methodology, operational safety 4786
Pratt and Whitney nuc. rocket, simul. syst. for advanced control develop. 4368
press. tube graphite-moderated BWRs, RELAP5/MOD3 code, RBMK 27491
PSAD, intell. monitoring diagnosis syst., nuc. plants 19402
PWR, 3D space-time kinetics, RELAP5, PANBOX2 27470
PWR, ex-core neutron noise signature anal., neural networks 43859
PWR, heat/mass transfer correl., MELCOR 19432
PWR, recovery expt., thermalhydraulics, RELAP5/MOD3, TLOFW 27479
PWR, transient monitoring systs., fatigue meters 27407
PWR 900 MW NPP, operation simul. in CASOAR project 35744
PWR accident mgt. actions, core damage prevention 27488
PWR burnable poison designs, ELCOS code, verification, modelling 27425
PWR cores, thermohydraulic parametric anal., computer codes 27469
PWR LB-LOCA, containment thermalhydraulics, reactor coolant syst. 27509
PWR load maneuvers, ES 35850
PWR LOCA, flow visualisation, heat transfer, and voidage meas. 4814
PWR low press. natural circ., AC power loss 35800
PWR mid-loop operation, loss of RHR, CATHARE 2, RELAP5/MOD3 codes 35803
PWR NPP neural control 35738

nuclear engineering computing continued
PWR primary cct., leak size, neural network determ. 27492
PWR severe accident, aerosol generation/growth in later phase 27504
PWR severe accidents, primary cct., vapour natural circ. 27510
PWR station blackout transient involving pump seal leak 4805
PWR thermalhydraulics, mid-loop operation, loss of RHR 27461
PWR-LOCA, multi-dimens. thermalhydraulics, REFLA/TRAC code 27467
RBMK LOCA anals., CATHARE and RELAP 5 27490
reactor bottom head dissolution, melt pool 35834
Reactor Core Management Support System 35851
RELAP5 appls., external user models, EUMOD interface 27471
related systs., components, seismic qualification 35902
REWET-II reflooding expts., RELAP5/MOD3, VVER-440 27481
rodded constraints, reload optim., multireference nodal GPT 10837
ROSA-IV LSTF, loss of RHR syst., midloop operation, RELAP5/MOD3 27482
S-PRIME space power thermionic convertors, emitter design 18743
S-PRIME thermionic space power system, Cs reservoir modelling 18737
SAMEX, ES, accident mgt., IKBS 35862
SAMSON, Severe Accident Management System Online Network 35860
San Onofre units 2 and 3, plant computer upgrades 19458
SASSYS computer code, helically coiled tube steam generator model 19449
SBWR, full-scale pass. containment cooling condenser 35847
SBWR, severe accident progression, MAAP-SBWR code 35827
SBWR LOCA anal. 35806
SBWR reactor building complex, structural design, microcomputers 35901
SBWR safety anal., TRACG/MAAP-SBWR codes 35797
seismic anal., vert. pumps/motors, computer model verification 35900
severe accident mgt., computational aids 35763
severe accident radionuclides transport, thermal-hydraulic modelling 27511
SGTR transients, plant analyzer model, RELAP5 verification 19424
siphon two-phase flows, CATHARE code 4808
Sizewell B, PSA, severe accident source term categorisation 35732
Sizewell B PWR control and instrumentation systs., reliab. assess. 35730
slab geom. thermal-hydraulics, immersion cooler posns. 4810
space nuc. reactor, thermionic fuel element modelling 26625
space power thermionic fuel elements, UO_2 swelling simul. 18744
SPES facility, station blackout expt. SP-ST-01, RELAP5/Mod2 35802
steam generator level control, fuzzy learning algm. 19447
submarine nuc. propulsion technol. develop. to PWR2, UK overview 44572
submarine propulsion nuc. reactors, digital control *(French)* 36732
Swedish BWR living PSA appl. 19483
thermal reactor safety anal., code validation 35757
thermal-hydraulics, transient natural convection 27515
thermalhydraulic code accuracy, PWR SBLOCA, methodology 27483
thermalhydraulics, current, future trends 27453
thermionic fuel element temps., nonuniform power dens. effects 27987
theta-weighted differencing scheme, oscills., DORT code 10834
TOPAZ-2 thermionic fuel element anal., HXTOPAZ computer code 26624
Topaz-II, reactor control unit develop. 4358
TOPAZ-II space nuclear thermionic reactor, computer simul. 18742
TRAC plant/safety anal. code, interactive model generator 19431
transient diagnostics by neural net 35741
TVO BWR overheated core, small steam line break accident, reflooding effects 27508
two loop PWR, LOCA, ECCS perform., RELAP5/MOD2 27484
Utility/Manufacturers Robot User Group 35874
vibr. anal., neural networks 35856
VVER 440 plants, hydraulic charact. determ. 27493
VVER 440/V230 units, ECCS upgrading, thermohydraulic anal., LOCA 27494
VVER plants, LOCA, containment heat transfer 43835
VVER-440 fuel rods, pool side inspections, perform. eval. 27439
VVER-440 plants, RELAP5 Posttest Calculation of IAEA-SPE-4 19425
VVER-440/213, RELAP5/MOD2, beyond design basis accident seq. 27477
Westinghouse AP600 plant accidents, MAAP4 models 35836
Westinghouse NPP and advanced PWR design *(French)* 43837
WWER-type transients, CATHARE V1.3E, SPE-1/SPE-2 expts., PMK-NVH 27495
Yonggwang NPP, alarm proc., on-line ES 10805
Gd burnable poison, computational methods, TPFAP/WIMS-SN2D code *(Chinese)* 43849
H-deflagration, containment, num. anal. 27501

nuclear explosions
see also weapons
dust cloud dens. estim., single wavelength lidar 17439
high-altitude nuc. explosion, underground EMP environ. study 23689
low altitude explosion, lower ionos. disturbances 7979
spacecraft engine, microexplosion ignition by head-on collisions 43456

nuclear fission piles *see fission reactors*

nuclear fusion reactors *see fusion reactors*

nuclear induction *see nuclear magnetic resonance*

nuclear instrumentation
see also beam handling equipment; counters; counting circuits; nuclear electronics; particle accelerators; particle detectors
calorimetry at LHC, modular fault-tolerant approach 4237
neutron depth profiling, Univ. of Texas 17667
SR instrumentation, conf., NY, USA (1994) 28248

nuclear magnetic resonance
see also biological NMR; biomedical NMR; chemical shift; NMR imaging; NMR spectrometers; NMR spectroscopy; nuclear spin-lattice relaxation; proton magnetic resonance; spin-spin relaxation
alkali metal thermoelec. converter, B-alumina electrolytes 20026
Bonn polarized target NMR-syst. 34870
ladder network resonators 6202
large polarized target, high precision polariz. meas. 34871
NMR laser with delayed feedback, locking and Arnold tongues 7590
polydiacetylene, third-order nonlin. opt. susceptibilities 7781
SMC target, NMR polariz. meas., nonlinearity 34872
SMC target, NMR polariz. meas., on-line syst. 34873
Co/Pd multilayers, FMR and NMR 30714
Co-Cr films, micromagnetic domains, neutron scatt. 6961
MnSbPt films, giant mag. Kerr rot. 14100
NH_3 irradiated target, ^{14}N pol. meas. using NMR 34869
PLZT thin films, sol-gel proc. 37466
$Y_2Co_{14}B_x$, PM, NMR/mag. meas. 39192

nuclear magnetic resonance imaging (biomedical) *see biomedical NMR*
nuclear medicine *see radioisotope imaging*
nuclear medicine (treatment) *see radiation therapy*
nuclear orientation *see nuclear polarisation*
nuclear polarisation
see also dynamic nuclear polarisation; magnetic double resonance
complex RF suscept. meas., series Q-meter 26097
nuclear power
see also radioisotope thermoelectric generators
5-40 kW S-PRIME space nuclear thermionic power system 18734
21st century, lessons from Sweden 35734
21st century energy sources, nuc. power role 10804
1978-1989 nuc. energy policy committee scenarios and reality *(German)* 27114
$^{241/243}$Am, ion-engine propellant 26694
AMTEC spacecraft systs., single/multiple tube designs 26632
Betacell microencapsulated nuc. batt., design and appls. 27961
Brayton cycle appl. to space power 26655
Cassini RTGs, small scale module tests 26633
conference, laser-plasma interactions, Monterey, USA (Oct. 1993) 22
cylindrical thermionic fuel elements modelling, MCTFE code 27986
East European countries, safe nuc. power *(French)* 4765
elec. generation, environ. economics 10794
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
energy economy internat. *(French, German)* 4523
FBR, devlop./funding, France/Japan 43845
First Mars Outpost power systs. 26516
fission energy renewal, paradigm shift 27422
French Navy on-board nuc. reactors, in-service safety feedback *(French)* 36733
fusion energy, advanced fission/fossil plant economics 4769
gas turbine transportation engine, throttle valve control 28143
HDTV GEO satellite, nuclear power/propulsion appls. 18753
health hazards of natural and radioactivity *(German)* 10294
HTR module prim. cct. press. boundary reliab. under accident conditions 19482
hybrid space nuclear power/propulsion syst., hot hydrogen test facility 18755
incore thermionic space nuc. power, Monte Carlo fuel burnup simul. 26622
introduction, developing countries 27357
lunar base power systs., life cycle cost 26517
lunar remote/mobile free piston Stirling engine power syst. 26518
Mars transfer vehicle, dual-mode nuclear rocket power requirements 18750
Nuclear Elec. Propulsion Space Test Program satellite, TOPAZ-II 26693
orb. spacecraft, nuc. power propulsion 26691
Pluto Fast Flyby mission, RTG fuel options 26630
Pluto Fast Flyby mission, RTG size/mass reduction 26631
power semiconds., radiation effects, nuc. power indust. appl. 38890
privatisation options, UK 43846
project cooperation, pan-Asian model 4764
prospective energy scenarios for France *(French)* 4758
robotic/human exploration mission power requirements 18761
Russia, nuc. power develop., conceptual aspects up to 2010 10800
Russian RTG capability 26634
S-PRIME space power thermionic convertors, emitter design 18743
S-PRIME thermionic space power system, Cs reservoir modelling 18737
single-cell thermionic fuel element convertors, fab., testing 27988
Small External Fueled Heat Pipe Thermionic Reactor fuel element 18756
socioeconomic develop. 27519
space bimodal thermionic reactors, sonic cesium supply 26627
space hybrid power/propulsion system, particle bed reactors 18754
space nuc. power, thermionic heat pipe module testing 26621
space nuc. power/propulsion, future 26555
space nuc. reactor, thermionic fuel element modelling 26625
space nuclear electric propulsion, NASA research programme 18771
space nuclear power sources, UN standards anal. 18733
space nuclear power/propulsion, fuel element design 18751
space nuclear power/propulsion, hybrid power system appls. 18752
space nuclear power/thermal propulsion requirements 18760
Space Nuclear Thermal Propulsion develop. programme, USA 18772
space power liq. metal thermoelec. generator thermodyn. 26554
space power planar thermionic convertor, UO fuel testing 18741
space power thermionic conversion, particle strengthened Mo appls. 18746
space power thermionic convertors, close-spaced, demonstration tests 18748
space power thermionic convertors, Cs circulation system testing 18739
space power thermionic convertors, thermal modelling 18740
space power thermionic electrodes, CVD diamond film appls. 18745
space power thermionic fuel elements, fission gas pressure anal. 18736
space power thermionic fuel elements, UO$_2$ swelling simul. 18744
space power thermionic heat pipes, work fn. tests 26623
space propulsion vapour core nuclear reactor rocket engine 18773
space thermionic nuclear power/propulsion, future prospects 18749
spacecraft thermionic nuc. power, biphase inversion calcs. 26620
thermionic fission reactors, design studies 27985
thermionic fuel element temps., nonuniform power dens. effects 27987
thermionic fuel elements, 2D transient anal. 18735
thermophotovoltaic cells, Am isotope mixture-based 36622
thermophotovoltaic nuc. energy conversion, space appls. 35240
TOPAZ-2 space reactor, NEPSTP spacecraft integrat. 26618
TOPAZ-2 thermionic fuel element anal., HXTOPAZ computer code 26624
TOPAZ-II space nuclear thermionic reactor, computer simul. 18742
video response syst. based multimedia on demand *(Japanese)* 42008
Virginia Power's nuc. operation strategy restruct. 35518
world energy supply problems and imponderables *(German)* 4757
worldwide develop. projects overview 35729
Cs-N$_2$ space power thermionics convertor, relaxation characts. 18738
^{222}Rn progeny inhalation dose, Japanese NPP 18677
W-Ir space power thermionic convertor alloys, work fn. expts. 18747
nuclear power stations
see also power station control
4S plant, environ. issues 35918
4S plant design, current status 35910
1150 MW Hunterston B AGR power station, cumulative life assess. 19485
1320 MW NPP auxiliary power syst. hist., UK 19415
3200 MW Torness AGR power PLEX study, UK 19486
abandoned SCC tunnel site project, USA 27382
ABB BWR 90 design and characts. *(French)* 43838
ABWR, SBWR std. plants, seismic design 35897
ABWR plant, conceptual design, operability, maint. 35914
Accelerator Molten Salt Breeder, energy systs. 35957
nuclear power stations continued
accelerator molten-salt breeding power reactor syst., Pu burning 35958
accelerator uses in power reactors 35952
advanced emergency operation procedure develop. 4763
advanced LWR technol., commercial appl. 27389
advanced plant design, Cook Nuclear Plant experience 35920
advanced plant designs, design goals, safety 35907
aging standby components, time-depend. unavailability 43822
AGR core life assess., probabilistic approach 19484
aircraft crash, react.-time response 43844
alternators, fault diagnosis, ES 35784
ALWR NPP, certification overview 27365
ALWR plants, integrated digital instrumentation and control *(Japanese)* 4771
ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
AP600 NPP develop. 35909
AP600 pass. syst. design, integrated approach 35846
Arkansas Nuclear One IPE, IPE back end Level 2 anal. 35892
automation, rem. operation 43941
autonomous nuc. power syst., rem. location appls. 35768
Belgium's Doel, reshufflings experience 43876
Besse-Davis PWR, moisture separator drain demineraliser eval. 27371
Borssele PWR, backfitting programme, safety aspects 10819
Borssele PWR, radiation protection experience 27364
Browns Ferry NPP, proc. data network archit. plan 27344
BUGEY NPP, $\bar{\nu}_e$p interacts. 4781
Bulgaria, nuc. plant analyzer program 35839
BWR, accident mgt., fuzzy probab., influence diag. 35859
BWR 90, sophisticated BWR 27390
BWR condensate filtration tests, Hope Creek 27412
BWR NPP, ecological interface for supervisory control 27417
BWR plants, accident mgt., ES 35861
BWR power plant, abnormal conditions, operator perf. 27403
BWR reactors, Grand Gulf Unit 1, fuel rod growth 27435
BWR-6, short-term station blackout, optimum depressurization 19451
BWR/PWR plant feed-pump vibr. reduction, diffuser redesign 43826
BWRs, outage risk assess. and mgt. 27351
cable ageing, life prediction/condition monitoring 10803
Callaway NPP, subcooled nucleate boiling 35877
Calvert Cliffs, tech. specs. improvement 19465
Calvert Cliffs nuc. plant, digital instrumentation upgrades 19403
Calvert Cliffs-1 PWR, extended burnup fuel exam. 27433
cct. breaker retrofitting projects, USA 43827
Cernavoda nuc. plants, project status *(German)* 10812
Chooz-1 NPP, turbine hall acoustic insulation *(French)* 35737
colour coded job cards, power plant maint. 19398
Comanche Peak station, 50% load rejection transient, plant data comparis. 4797
commercial grade item appl. in nuc. safety-related areas 27378
component mech. anal., lifetime eval. 35736
conference, NPP simulators/plant analyzers, Finland (June 1992) 5513
conference on nucl. engineering, San Francisco (Mar. 1993) 28217
control relays/timers, maint. guide 43839
control room, intell. human-machine syst. 43823
control rooms, μP-based annunciator syst. 27369
Davis-Besse PWR, OTSGs, secondary-side pH control amines 27355
Daya Bay NPP, pot. accidents, Hong Kong risks 35777
DECA, design change assistant, ES 35857
decommissioning, methodology 19477
deep draught vert. centrifugal pumps, NPP appls. 27379
DERAD decommissioning economic and risk adviser 19480
design, operation, PRA techs., IS 35879
design, Toshiba integrated IS 35924
Diablo Canyon, condensate dissolved O$_2$ control, corros. transport 35868
Diablo Canyon PWR, outage risk assess. and mgt. 27349
Diablo Canyon PWR, outage risk assess. and mgt. 27368
digital control systs. 35742
digital syst. immunisation against EMI 35930
discrete radioact. particles, nuc. indust. experience 43842
district heating, economic/ecological effectiveness 27361
Dodewaard natural circ. BWR, thermal hydraulic safety, TRACG 27489
Dukovany VVER licensing, cladding corros. and water chem. 27449
E. North America, NPP design basis ground motion determ. 27352
earthquakes, NPP safety, ground motion effects 27348
Edwin I. Hatch nuc. plant, improved tech. specs. 19464
emergency engng./mgt., ES-based DSS approaches 43875
engng. changes in NPPs, optimisation guidelines 27374
EPRI instrum. calib./monitoring program for NPPs 27353
EPRI Instrument Calibration and Monitoring Program, failure modes 27366
European LWRs, occupational radiation exposure 1981-1991 35745
extended nuc. plant operation, fatigue issues 35864
fault-diagnostic advisor, neural nets 19438
feedwater valves retrofitting, vibr. reduction 27339
Fermi 2, independent safety assess. of refueling outage 19471
Fort St. Vrain, decommissioning, final survey, site release plan 19445
French NPPs, safety, postaccident consequences 35769
French PWR NPPs, pump-excited piping syst. vibrs. *(French)* 35941
fuel bundle leak detect., telescope sipping 10807
gas-cooled reactors, structural integrity, periodic review 35822
generating equipt., struct. materials longevity determ. 35743
generation option, elec. utility requirements 27337
Golfech-2 PWR, safety injection syst. vibr. anal. *(French)* 35789
GPU Nuclear, personnel qualification/training 4782
Gravelines 1 plant, steam generator changeout and plants 27397
Gravelines 4 plant, closure head replacement std. 27395
Griefswald NPP, cold leg, LBLOCA 35841
Grohnde PWR, on-line pipe monitoring syst., stress and temp. meas. 27409
group overview displays, operator perform. support 3945
Gundremmingen KRB II BWR , ten yrs. of operating experience *(German)* 27359
Hamaoka Station Unit 1, failed fuel rod, post irrad. test 27447
Hatch Nuclear Plant, leaking fuel rods, operational experience 27443
heat supply, economic efficiency studies 27362
HF seismic event anal. 27346
HTGR-MHD combination, high efficiency power generation 35746
Human Error & Behaviour Prediction Syst. develop. 19413
human related incidents, PC aided anal. *(Japanese)* 35820
human reliab., emergency operating procedures 10830
hybrid fission nuc. pumped laser power plant 35951
Ignalina RBMK-1500 NPP, RELAP5/MOD3 anal. 19423

nuclear power stations continued
  in-service inspection methods 19414
  Indian Pt. 2 PWR, full coolant syst. decontamination eval. 27414
  inherent safety design efforts 43874
  instrum. calib. extension/reduction programmes 27431
  intell. monitoring and diagnosis of NPP 43834
  Japanese nuc. plants, operation/maint., safety and reliab. 43832
  Kansai Electric Power Co. nuc. plants, operation/maint. safety 43833
  KNK FBR plant decommissioning 35933
  Kola NPP, containment shell leaks determ. 35786
  Korean nuc. indust., codes/stds. develop. 43829
  Korean nuc. plants, regulatory activities, severe accident research program 43830
  Kori Units 3/4, station blackout transient 27486
  KRB BWR fuel, load follow conditions, operators experience 27437
  Krsko NPP SBLOCA, ISP-27 accident scenario 4796
  Krsko plant, SBLOCA, LSTF SB-CL-21 counterpart expt., RELAP5/MOD2 anal. 35764
  Krsko PWR, decompression wave in steam generator U tubes, LOCA 27463
  Krsko PWR AC/DC power supply syst. fault tree anal. 35731
  Laguna Verde BWR, PSA appls., Mexico 35881
  Laguna Verde load rejection transient anal., TRAC-BF1 35801
  LaSalle BWR, second law exergy anal. 35733
  license renewal environ. compliance programme 27380
  lin. step motors nuc. reactor control rod drives, dyn. characts. 20075
  liq. radwaste desk ref. for NPPs 27375
  live-loading valve design syst. 35867
  load factors, 1994 annual review 43836
  load factors, end Sept. 1994 10827
  loose parts monitoring by neural nets 27341
  Lotung Large-Scale Seismic Expts., NPP site geotechnical synthesis 27381
  Loviisa 2 nuc. plant, full syst. decontamination 27427
  Lunar Energy Park, nuc. power, laser beam transm. to Earth 26511
  lunar surface fission power supplies, radiation protection 26515
  LWR power plant spent nuc. fuel disposal strategy, USA 35728
  Maanshan PWR, reactor trip, possible mechanisms 43872
  Maine Yankee level II PRA anal., containment perform. 35893
  maint., risk-based optim. 19407
  maint., vehicle following others, feedback control 4761
  MEET database tools for nuc. plant maint. 43841
  MEET/PEAT software tools for maint. effectiveness eval. 27370
  MFZR NPP decommissioning 35934
  MHR gas filtration, variable speed induction motor drive appls. 10823
  MHTGR nuc. plants, safety, design 43831
  Mihama Unit 1 PWR, MOX fuel post irrad. exam. 35751
  Millstone unit 1 plant vulnerabilities, postulated severe accidents 35894
  minor actinides mass bal., transmutation 35953
  monitoring, sens. failure detect. ES 19400
  Monticello plant, motor-operated valve testing program, PRA study 4789
  MOX fuel experience in French power plants 27451
  neural nets/fuzzy systs. 35849
  next generation NPP simulators, two-phase flow 35798
  Niederaichbach NPP decommissioning 35935
  non-proc. instrumentation, surveillance and test reduction 27347
  North Anna service water syst. preservation project, IPE model 35888
  NPP, radiation monitors calib. 27373
  NPP Krsko, station blackout anal., computer code RELAP5/MOD2 27485
  NRC maint. team inspection reports, NPP aging 4818
  N.S. Mutsu, expt. voyages, NPP perform. 35805
  nuc. environments, rem. Raman fibre optic spectrosc. systs. 25869
  Nuclear Electric's AGR safety, operating periods 35766
  OASYS rule/fuzzy-based ES 10831
  OKG power plants in Sweden, fuel experience 27438
  Olkiluoto outage mgt., disturbance-free operation 43879
  Onagawa Unit 1 BWR fuel channel perform./localized corros. 35753
  operator mental model, multilevel flow modelling *(Japanese)* 43828
  operators, psychological confidence 35785
  Oskarshamn 1 plant, safety, Fenix project, upgrade 10817
  outage project mgt., USA 35735
  Paks nuc. plant, safety upgrading 35837
  Palisades PWR, fuel inspection-fuel shuffle integrat. 27448
  Palisades PWR vessel neutron fluence reduction measures 4820
  Palo Verde NGS, alternate safe shutdown anal. 19470
  Palo Verde NPP, safety param. display syst., ES 10806
  Pb-acid flooded batts., high gravity, power utility appls. 44304
  periodic safety reviews 35755
  piping seismic design requirements 4817
  planned lifetime mgt., availability, cost reduction 11651
  plant commun. and computing archit. plan methodology 27367
  plant longevity and world nuc. capacity 10802
  power syst. dyn. stabil. simul., NPP models 35429
  PRA, maint./operating cost effectiveness 35889
  press. sens. systs., blockage detect. 35932
  privatisation options, UK 43846
  proc. instrumentation channels in NPP, calib. 35931
  proc. variable est., parity space method, ANN *(Korean)* 27356
  project cooperation, pan-Asian model 4764
  protective relay maint. and appl. guide 43840
  PSA, low PSD operation 35759
  PSA reliab. param. requirements 19409
  PSAD, intell. monitoring diagnosis syst., nuc. plants 19402
  PVNGS, steam generator corros. prevention, chem. cleaning 19466
  PWR, efficient and safe large power changes automation 4792
  PWR, steam supply syst. maint. and structural mech. 27404
  PWR 900 MW NPP, operation simul. in CASOAR project 35744
  PWR containment design, inherent safety 43857
  PWR coolant syst. maint., chem. decontamination 35747
  PWR full-syst. decontamination, fuel assembly reirradiation 27432
  PWR life mgt., EDF approach 19510
  PWR low press. natural circ., AC power loss 35800
  PWR NPP, safety overview, Russia 27338
  PWR NPP neural control 35738
  PWR NPP-power syst. interact., dyn. stabil. simul. *(Chinese)* 43824
  PWR plants, flow controlled accumulator, fluidics 19435
  PWR power plant, seismic PSA, uniform risk spectra 43856
  PWR reflux cooling during shutdown, ORAM technol. 27430
  PWRs, outage risk assess. and mgt. 27350
  QA requirements, risk-based appl., methodology guidelines 4788
  radwaste treatment, backwashable fiber filter appl. 43825
  RBMK NPP, safety assistance programmes, Europe 27358

nuclear power stations continued
  reactor control rod drives, lin. step motors, static charact. 44438
  reactor coolant syst. lin. regression leak rate calcs. 27398
  reinforced concrete, stripping demolition, NPP appl. 35936
  reliab.-centered maint. project, USA 27340
  reliab.-centred maint., guidelines for implement. 27372
  renewable energy develops., ecological aspects, Switzerland *(Spanish)* 4760
  repowering, combined-cycle steam turbine/gas turbine plants 36031
  resist. temp./press. sens., aging effects 35770
  Ringhals 1 BWR, reactor stabil., dual oscills. 35816
  risk-based inspection, organizational factors 10841
  risk-based regulation, regulatory perspective 35906
  risk-based regulation, support systs. 35905
  risk-based regulations, PRA 35904
  River Bend Station, PRA and maint. rule 35886
  Russia's nuc. power safety, proposal 27363
  safety, knowledge-aided decision-making appls. 43873
  safety, neural networks, fuzzy systs. 35849
  Safety Anal. & Inform. Syst. 19411
  safety and operational efficiency simul. 19401
  safety software, guidelines, regulatory guidance 19455
  safety systs. software, data prep./validation 43847
  Salem, PWRs, low-temp. overpressurization protection syst. 19450
  San Onofre 1 PWR lifetime extension, thermal shield support repair 4793
  San Onofre 2 and 3, Technical Specification Improvement Program implement. 19404
  San'Onofre Unit 2 and 3 PWRs, fuel failure ident. 4783
  San Onofre units 2 and 3, plant computer upgrades 19458
  SBWR, severe accident progression, MAAP-SBWR code 35827
  Seabrook Station reactor cavity cleanup syst. shielded filter 35870
  seismic anal., vert. pumps/motors, computer model verification 35900
  seismic IPEEE, Unresolved Safety Issue A-46 35899
  service water piping, corros., exam. 27377
  service water piping syst. materials, corros. eval. 27376
  service water syst. corros. and deposition handbook 27429
  SGTR transients, plant analyzer model, RELAP5 verification 19424
  Shoreham Nuclear Power Station decommissioning, site release criteria 19443
  shutdown risk mgt., ORAM tools 35880
  single-failure criterion, NPP safety, IEEE std. 27415
  Sizewell 'B' NPP operational experience audit 19410
  Sizewell B, PSA, severe accident source term categorisation 35732
  Sizewell B plant, probabilistic safety anal. 10821
  Sizewell B probabilistic safety anal. 35760
  Sizewell B PSA, reliab./operational data 35765
  Sizewell B PWR control and instrumentation systs., reliab. assess. 35730
  space hybrid power/propulsion system, particle bed reactors 18754
  space nuclear power sources, UN standards anal. 18733
  space nuclear power/propulsion, fuel element design 18751
  standardization, licensing 35908
  steam turbine low-press. cylinder hood designs 35740
  steam turbine plant cycle arrangement model 35739
  steam turbines, specs., improvement 36001
  submarine propulsion nuc. reactors, digital control *(French)* 36732
  surveillance requirements, risk anal. 4762
  Swedish NPP component reliab. data anal. improvements 19405
  Swedish NPP safety database, incident and trend catalogues 19406
  Swiss NPP PSA uncertainty quantification 19412
  System 80+ Standard Plant, design, organizational struct., staffing 4794
  System 80+ std. LWR NPP design 35821
  T3C-M transportable NPP, improved safety 35840
  tech. document characterisation by data anal. *(French)* 43843
  tech. safety specs., probabilistic anal. 35938
  Temelin nuc. power station project, design modif. for safety *(German)* 10813
  TMI-2 lower head, molten material relocation 35773
  TMI-2 lower head, press. vessel samples, metallography 35775
  TMI-2 lower head debris, phys./radiochemical exams. 35774
  TMI-2 NPP, SB-LOCA, findings, 15 yrs 35772
  TMI-2 vessel, margin-to-failure calcs. 35776
  transient diagnostics by neural net 35741
  Trojan PWR, decommissioning strategies, decision anal. prioritisation 27354
  turbogenerator thermal monitoring, fiber optic sens. network 17849
  turbulent flow downstream from elbow, laser-Doppler meas. 19440
  Turkey Point plant, indiv. plant examin., maint. rule 19460
  Turkey Point PWR staff, effect of hurricane Andrew 4767
  TVO BWR overheated core, small steam line break accident, reflooding effects 27508
  UCN 3&4 PWR, mid-loop operation, air entrainment 27462
  Ukrainian nuc. plants, emergency early warning syst. *(English)* 10801
  US nuc. plants, cutting operation and maint. costs 19418
  USA NPP reliab.-centred maint. status 19408
  VC Summer nuc. station, steam generator replacement 27396
  vibr. anal., neural networks 35856
  VVER fuel develop., Finland Loviisa NPP 27428
  VVER plants, designs, experience in develop./improvement 10810
  VVER plants, LOCA, containment heat transfer 43835
  VVER-400, main coolant pump, operating reliab. improv. 35838
  VVER-440 fuel rods, pool side inspections, perform. eval. 27439
  VVER-440 plants, RELAP5 Posttest Calculation of IAEA-SPE-4 19425
  VVER-440/1000 reactors, boiler water, radionuclide accumulation 35788
  Westinghouse AP600 plant accidents, MAAP4 models 35836
  Westinghouse NPP and advanced PWR design *(French)* 43837
  Westinghouse NPP portfolio 27388
  worldwide develop. projects overview 35729
  Yankee Nuclear Power Station, site cleanup 19444
  Yonggwang NPP, alarm proc., on-line ES 10805
  CO_2 power generation emissions reduction anal., Japan *(Japanese)* 10797
  H risk, European research program 35771
  Pu, nuc. fuel, safety issues, elimination 10815
  UC-ZrC/NbC high temp. nuc. fuel tests 35767

nuclear pumped lasers
  combined wall and vol. pumping, thermal blooming 2110
  fission fragment pumped lasers, kinetic procs., plasma track struct. 14705
  hybrid fission nuc. pumped laser power plant 35951
  rare gas lasers, U fission fragment pumped, energy deposition efficiency 39673
  Ne laser, radially convergent electron-beam-pumped 14706
  Ne nuc. pumped laser, 3p-3s transits., lasing charact. 39674
  Xe laser, radially convergent electron-beam-pumped 14706

nuclear reactor fuel *see fission reactor fuel; fusion reactor fuel*
nuclear reactor maintenance
BWR risk-based regulation progress 4791
BWRs, outage risk assess. and mgt. 27351
cable ageing, life prediction/condition monitoring 10803
colour coded job cards, power plant maint. 19398
commercial grade item appl. in nuc. safety-related areas 27378
deep draught vert. centrifugal pumps, NPP appls. 27379
Diablo Canyon PWR, outage risk assess. and mgt. 27368
Diablo Canyon PWR, outage risk assess. and mgt. 27349
digital electronic ccts., automatic testing pattern generation 4770
endoscopes, fiber-optic and TV, nuc. plant equipt. inspection 25871
engng. changes in NPPs, optimisation guidelines 27374
Fermi 2, independent safety assess. of refueling outage 19471
Gravelines 1 plant, steam generator changeout and plants 27397
Gravelines 4 plant, closure head replacement std. 27395
HBC Limitorque valve gear operators, repair guidelines 27874
I&C maint., operational experience 27342
Japanese nuc. plants, operation/maint., safety and reliab. 43832
Kansai Electric Power Co. nuc. plants, operation/maint. safety 43833
KBS introduction for managers 27343
Loviisa 2 nuc. plant, full syst. decontamination 27427
LWR control rod wear data, intell. DP syst. 4819
MEET database tools for nuc. plant maint. 43841
MEET/PEAT software tools for maint. effectiveness eval. 27370
Monticello plant, motor-operated valve testing program, PRA study 4789
non-proc. instrumentation, surveillance and test reduction 27347
NPP operation, intell. human-machine syst. 43823
NRC maint. team inspection reports, NPP aging 4818
nuc. plants, control relays/timers, maint. guide 43839
Oskarshamn 1 plant, safety, Fenix project, upgrade 10817
outage project mgt., USA 35735
outage time reduction, Framatome Owners Group perspective 27393
Paks nuc. plant, safety upgrading 35837
Palisades PWR, fuel inspection-fuel shuffle integrat. 27448
Palisades PWR vessel neutron fluence reduction measures 4820
PHWRs in India, solns., channel problems 27394
power plant cct. breaker retrofitting projects, USA 43827
preventive maint. task intervals determ. 27345
proc. plant digital image archives, rem. meas. syst. 25732
protective relay maint. and appl. guide 43840
PWR, steam supply syst. maint. and structural mech. 27404
PWR and fuel element design, coherence *(German)* 43861
PWR coolant syst. maint., chem. decontamination 35747
PWR full-syst. decontamination, fuel assembly reirradiation 27432
PWR reflux cooling during shutdown, ORAM technol. 27430
PWRs, outage risk assess. and mgt. 27350
reliab. assurance program, rel., regul. 19459
reliab.-centred maint., guidelines for implement. 27372
San Onofre 1 PWR lifetime extension, thermal shield support repair 4793
San Onofre Unit 2 and 3 PWRs, fuel failure ident. 4783
shutdown risk mgt., ORAM tools 35880
T3C-M transportable NPP, improved safety 35840
tech. safety specs., probabilistic anal. 35938
Turkey Point plant, indiv. plant examin., maint. rule 19460
US nuc. plants, cutting operation and maint. costs 19418
V-213 reactors at Dukovany, upgrades, ageing control 10818
valves with elec. actuator drives, actuating power reserve *(German)* 27360
VC Summer nuc. station, steam generator replacement 27396
vehicle following others, feedback control 4761
nuclear reactor materials *see fission reactor materials; fusion reactor materials*
nuclear reactor operation *see fission reactor operation; fusion reactor operation*
nuclear reactor quality assurance
1150 MW Hunterston B AGR power station, cumulative life assess. 19485
3200 MW Torness AGR power PLEX study, UK 19486
AGR core life assess., probabilistic approach 19484
ALWR NPP, certification overview 27365
BWR risk-based regulation progress 4791
Dukovany VVER licensing, cladding corros. and water chem. 27449
IAEA regulations, revised *(German)* 4816
Paks nuc. plant, safety upgrading 35837
Palisades PWR vessel neutron fluence reduction measures 4820
risk-based appl. of quality assur. requirements, methodology guidelines 4788
San Onofre 1 PWR lifetime extension, thermal shield support repair 4793
through-life integrity assess., safety assessor's views 35754
valves with elec. actuator drives, actuating power reserve *(German)* 27360
nuclear reactor steam generators
boiling heat transfer, French plants, 900/1300 MWe, data anal. 4799
CANDU, steam generator tube relaxing, sludge sampling 10826
corros. prevention, chem. cleaning, PVNGS 19466
Davis-Besse PWR, OTSGs, secondary-side pH control amines 27355
Diablo Canyon, condensate dissolved O_2 control, corros. transport 35868
EFR-type reactor cold collector, thermal-hydraulic transients 4800
European Fast Reactor project status (1994) and prospects *(French)* 43866
failure during station blackout, core melt 19434
Gravelines 1 plant, steam generator changeout and plants 27397
inlined/staggered tube bundles, flow visualization, crossflow 27400
Kori Units 3/4, station blackout transient 27486
Krsko PWR, decompression wave in steam generator U tubes, LOCA 27463
LaSalle BWR, second law exergy anal. 35733
level control, fuzzy learning algm. 19447
liq. metal PBR for Moon base 35262
LMFR, duplex steam generator tubes 4811
Mihama Unit 2 PWR, steam generator tube rupture simul. 27487
Niederaichbach NPP decommissioning 35935
outage project mgt., USA 35735
outage time reduction, Framatome Owners Group perspective 27393
PWR, steam supply syst. maint. and structural mech. 27404
PWR power station, steam generator waste disposal 19446
PWR steam-generator corros., molar ratio control 19468
PWRs, SGR projects, design, schedule 19467
replacement, two-cut evol. 19416
San Onofre plant, U-tube steam generator leaks, ^{16}N det. methods 4795
SASSYS computer code, helically coiled tube steam generator model 19449
SGTR transients, plant analyzer model, RELAP5 verification 19424
sludge lancing, recirculating steam generator 19469
turbulence prediction, 2D bundle flows, large-eddy simul. 27401
nuclear reactor steam generators continued
VC Summer nuc. station, steam generator replacement 27396
VVER-440/1000, first loop coolant leak diagnostics 35787
VVER-440/1000 reactors, boiler water, radionuclide accumulation 35788
water level controller design, flow errors 35815
nuclear reactor theory and design *see fission reactor design; fission reactor theory*
nuclear reactors *see fission reactors; fusion reactors; nuclear power stations*
nuclear spin-lattice relaxation
brain MRI, high resoln. T_1, deep structs. 35049
nuclear spin-spin relaxation *see spin-spin relaxation*
nuclear track emulsions
ESA BIOPAN flight expt., cosmic ray irrad. EEPROMs 12530
photographic films, dosimeters survey, interventional radiology 43402
SKIF hybrid spectrometer, charmed particle generation study 34961
nullators *see active networks*
nullors *see active networks*
number theory
see also digital arithmetic
2-D circ. convolutions/no. theoretic transforms, fast algms. 40803
additive basis for nonnegative integers 5753
AICE-CRT/DSP algms. 32675
algorithmic number theory, conf., NY, USA, 1994 11565
complex multiplication field algms. 20549
cryptography, conf., Santa Barbara, CA (Aug. 1994) 32150
cubic orders, systs. of fund. units 11928
Diffie-Hellman protocol breaking equiv., computing discrete logarithms 32174
discrete convolution algm. develop., parallel-decomp. algm. appl. 32632
discrete logarithms, rational subgroup of Jacobians of large genus hyperelliptic curves, finite fields 20548
ellipt. curve cardinality over finite field, Schoof's algm. and isogeny cycles 20550
ellipt. curves constr., given group order, large finite fields 20553
exact anal. of priority queue algm. for random variate generation 5754
factorization forests, strongly Ramseyan fns. 28629
fast algms. for matrix multiplication, no. theoretic transforms 20605
Fermat no. transform, algm.-based fault tolerant array archit. 32498
finitely generated semi-groups appls. 20555
generalized Riemann hypothesis verifying class no. 20552
incremental prime no. sieves 20556
indoor 3D cellular syst. fixed channel assignment plan 33804
iter. modular multiplication algm. without magnitude comparison, cryptosystems 2386
L-R fuzzy no., median 11924
modular parametrization degree computing 20629
multiple insertion/deletion correcting codes 40604
multirate converters, signed-digit-based multiplier-free realizations 40807
multivariate polynomial factorization, modular interpolation algm. 20551
ordering method for grey decision, multi-targets 198
prime nos., provable, fast generation using searching in arith. progressions 28619
Rader's algm., recursive extensions, no.-theoretic transforms 28705
randomness, invariant for no. representations 20547
SAR image reconstruction, complex no. theoretic transform *(Japanese)* 9618
secure voting, part compatible homomorphisms 32184
numerical analysis
see also specific numerical analysis headings, e.g. extrapolation, finite element analysis, iterative methods
1.55 μm single-polariz. hollow pit opt. fiber, zero total dispersion 7283
1D FEL model without slowly-varying approx. 39984
2D nonuniform plasma cylinder with neg. core, E-wave diffr. 23655
3D distrib. node TLM mesh, cells of arbitrary aspect ratio 15596
3D objs. embedded in multilayered media, scatt. 40303
^{3}He proportional counters, DSP 18334
adaptive antenna arrays controlled by gradient algms. 2351
aerodynamical config., complex flow fields, num. methods 10307
Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
asymmetric external cavity semicond. lasers, LF resons. 31389
audio-visual-audio inform., hierarchical sens. fusion *(Japanese)* 16054
axial slot antenna on anisotropic dielec.-coated circ. cylinder 2336
broadside suspen. stripline coupler design 37962
BWR thermal-hydraulics, core neutronics, two phase flow, DYNOBOSS 35799
Cauchy principal value integrals approx., quadrature methods 20616
CDMA syst., coherent light pulse, encoding/decoding 42420
cellular network overlapping channel assignment tech. 42201
centralised wireless commun. network, slotted idle sig. multiple access with collision detection 42230
Cerenkov-type microwave freq. multiplier, relativistic electron beam 21843
CHP plant daily operation scheduling, num. model *(English)* 27548
CHP plant short-term operation, num. modelling *(Korean)* 27520
CMOS IC, effect of layout modif. on latchup triggering 13888
coastal marine environ., num. modeling 10568
computational verification of num. solns. *(Spanish)* 28653
computers in power electronics, conf., Trois-Rivieres, Que, Canada (1994) 36879
conducting bodies of rev., scatt. anal., fictitious currents/point-matching 40282
conducting objs, buried in dielec. half-space, 2D act. imaging polaris. effects 25548
cooled beams phys. 34775
curved waveguides, eigenmodes and ang. propag. consts. 2300
cyclotron autoresonance klystron operating, Doppler-shifted harmonics 29790
D-optimal designs, soft selection 37290
DC current amp., noise anal. simul., PSpice-based *(Japanese)* 6029
delayed self-excited oscillator, inertia, external noise sig. effect 6042
detect. perform. of lin./sq.-law detectors 32539
DFB laser local intens. modulation response, direct meas. 31323
dielec. HF characterisation, open resonators 42894
dielec. loaded T-septum waveguide props. anal. 21510
discharge lamp, num. simul. study 11455
domestic heating syst. thermionic converter design 28176
Doppler portrait, radar target image synthesis by math. simul. 17380
double gate IGBTs, forward blocking capability, high temps. 38907
double-barrier struct., reson. tunneling, scatt. effects 22017

numerical analysis continued
  doubly-salient variable-reluctance motor, starting model *(French)* 10993
  dual-reflector antenna CAD/modelling 31958
  eccentric circ.-ellipt. metallic waveguides, cutoff freqs. 2291
  edge-type scatterer in rect. waveguide, Yasuura method 8022
  elec. apparatus EM field calcs., equiv. cct.-based *(Russian)* 31734
  electrothermal guns, low mol. wt. working media, num. study 18967
  electrothermal-chem. plasma injectors, num. anal. 15284
  Ellipticus antenna, HF anal. 8037
  EM field computation, conf., Grenoble, France (July 1994) 36820
  EM fields and screens, diffusion interact. procs. anal. 31698
  EM launchers, plasma armatures, 2D MHD simul., secondary arcs 15309
  EM modelling in arbitrary geom., PIC methods on MIMD computers 31726
  EM scatt. by hemispherical bosses on infinite plane surface 23539
  EMC, conference, Dallas, TX, USA (1993) 36844
  emitter switched thyristors, forward biased SOA 13669
  fictitious sources in GMT, improvements 23606
  flow sens. params. determ., finite difference method 18155
  fuel cell stack fluid dyn. studies 27924
  Gaussian beam scatt. by coated conducting cylinder 40327
  generalized multiclass Engset model, asymptotic solns. 41931
  global optimal search algms. 28648
  GTO thyristor snubberless turn-off, avalanche proc., gate drive influence 30266
  GTO thyristor turn off, transient thermal effects simul. 30267
  gyrotron-type of interact., chaotic behaviour anal. 6490
  gyrotwystrons with mixed transverse geometries, theory 985
  H-T pair coupled by narrow slot *(Chinese)* 37959
  HERMES III electron beam pulsed power supply, radiation pulse studies 36305
  HF EM modelling techniques, IEE Colloquium, London (1995) 36883
  HF inductors modelling 6380
  HF quartz resonators charact. anal. 30610
  high dens. multi chip modules, direct num. simul. 21786
  high power lasers, improved mfg. procs. 15194
  high speed adaptive equalizers, complexity reduction 33768
  high temp. IGBT design, num. simul. program calib. 30315
  high-power Cherenkov device, superdimens. slow wave struct., simul. 29812
  high-power microwave pulse, propag., air breakdown, anal. 23633
  high-speed opt. fiber LAN, WDM access protocols *(Korean)* 17180
  HTSC, grain boundary jn., voltage steps 30796
  IC process/device numerical modelling, conf., Honolulu (1994) 38
  IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
  IGBT, n′ buffer layer, static characts. simul. 1410
  in-line Fresnel electron holography, max. entropy method 2182
  in-line opt. amp. systs., num. simul. *(Japanese)* 14738
  induction heating of long workpieces, num. modelling 11473
  inductive coilguns, driving field/projectile motion synchronisation 15300
  insulated base MOS-controlled thyristor, num. anal. 1372
  insulated base MOS-controlled thyristor, num. simul. 30268
  integrated opt. waveguide components design 39469
  intense helical electron beams, num. simul. 31733
  internal crack in half-plane solid, clamped boundary 28693
  ion flow in 3D elec. field, charge dens. distrib. 31737
  JAWS supercond. logic gate, voltage-state study 622
  Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
  Kuramoto-Sivashinsky eqn., pseudospectral methods 20570
  Laplace transforms, num. inversion difficulties 5733
  Laplace transforms of probab. distribs., num. inversion 28704
  large acceptance mass separator 10148
  layered anisotropic media planar transm. lines, characts. anal. 23796
  liq. ionization chamber, rejection delta electrons, dE/dx 26130
  mag. vector probe, 3D num. anal. 25831
  magneto-opt. recording marks anal. 9773
  mass flow rate meas., variable press. differential 42984
  material characterisation using coaxial aperture electromagnetic sensor 25784
  mech. component reliab. anal. 11867
  metal clad GRIN opt. planar waveguide anal. 40399
  metals, surface cracks, microwave detect., rect. waveguides 21011
  metropolitan power systs., supercond. cable losses simul. *(Japanese)* 27216
  MHD generators, disk-type closed-cycle, enthalpy extraction improvement 44421
  MHD reactor flue turbulent flow anal. *(Russian)* 11303
  microstrip struct., surface impedance, conductor losses modelling 29522
  mm-wave meas. of sub-wavelength thickness 42936
  monofilar Archimedean spiral slot antennas 8074
  MOSFET hot-carrier aging, modeling, charge pumping methods 22444
  multi-strand supercond. cable stabil., partial current distrib. *(Japanese)* 27215
  multibeam propag. in random medium, phase screens method 2237
  multidimensional semicond. laser syst., dyn. hysteresis 31357
  multilayer high-T_c supercond. CPW, anal. 12691
  multilayer planar opt. waveguiding struct., eigenvalue eqns. 14449
  multipath fading channels simul., Monte-Carlo method 15683
  next generation NPP simulators, two-phase flow 35798
  nonlin. coupler laser, subpicosecond soliton form., num. simul. 2045
  nonlin. Kerr media, beam steering, spatial PM 2057
  nonparallel dielec. waveguides, coupling charact. 8023
  num. simul. and visualization of ultrasounds propag. in carotidean region 4273
  numerical modelling of processes and devices, conf., Seattle (1992) 5499
  ocean-like surfaces, low grazing angle scatt. 7949
  open uniaxial anisotropic waveguide used as electrooptic modulator, anal. 40408
  opt. cellular neural network, contrast enhancement 794
  overhead power lines, pulsed plane wave EM field induction calcs. 19304
  patterned wafer RTA/RTCVD, thermal radiation absorpt. charact. 22229
  PCB substr. cond. effects, electronic components, convective cooling 909
  periodic waveguide wave propag., num. simul. method 40436
  phaseless planar near field tech., num./expt. validation 40460
  photothermal deflection method, defects in ceramics anal. 12215
  plane wave scatt., loaded trough on ground plane 15388
  PM film stabilised MR strips, sensit. distrib. anal. 7084
  polariz.-division-multiplexed solitons, freq. sliding/filtering effects 22857
  polling systs. with dormant server, power-series algm. 41486
  polymer-based travelling-wave electro-optic modulator, props. 14525
  polysilicon biased field plates for HVIC interconnections 30155
  power line short-cct. mech. effects, IEC 865 calc. studies 19311

numerical analysis continued
  power overhead line galloping, nonlin. 3D simultaneous eqn. calcs. *(Japanese)* 10756
  power syst. EM transient simul., matrix-based 4484
  power syst. load flow problems, Grobner basis soln. algm. 43626
  power syst. operational planning, reliab. eval. method 27090
  power syst. protective CT, transient perform. calcs. 19340
  power syst. VAr reserve problem simuls., Qatar 4458
  pulsed corona precipitator, charged aerosols modelling 15247
  pulsed power ferrite line pulse sharpeners, num. anal. 31872
  pulsed power mag. modulator, laser power supply appls. 36401
  pulsed power μs plasma opening switches, 2D snowplow model 36443
  quartz cryst. resonator, extralow excitation, stationary acoustic vibrs. 14085
  quasioptical resonators, mode interact. 8014
  radioelectronic apparatus, printed components dyn. charact. computing 38071
  railgun accelerator, structural response num. simul. 15322
  railgun plasma armatures, full-bore num. simul. 15365
  real no. model in num. anal. 28644
  relativistic klystron two-beam accelerator for beam-break-up suppress. 34828
  reluctance motor, rotor posn. meas., current meas. method 4934
  RESURF LDMOS struct., breakdown props., analytic approach 30309
  rot.-field machine control value fn. computation for single-sided grooving *(German)* 10938
  rough surface scatt., low grazing angles 7948
  S-params., calc. by orthogonal expansion and finite integrat. 2168
  S-SEED switching charact. 14520
  sampling errors elimination of band-limited sig. 2355
  sapphire loaded microwave resonators, enhanced quality factor 29577
  self-phased TWT, azimuthally asymmetrical field 998
  semicond. devices, parallel 3D simul. 13586
  shaped beam antenna aperture field anal. by Gaussian beam synthesis 23823
  shorted anode base resist. controlled thyristor, num. simul. 30283
  SIMSEN, power network/ASD simul. package 10608
  Sizewell ‘B’ NPP operational experience audit 19410
  slab integrated opt. waveguide path design 40402
  sliding-freq. guiding filters, stabil. of soliton propag. 22802
  SOFC geometries 3D num. simul., computer-based 44367
  SOFC stack modelling, num. simul. methods 44361
  solar heating, heat pump assisted building *(Italian)* 11483
  solid armature railguns, contact transit. anal. 15355
  solid-armature railgun, current/heat transport modelling 15320
  space target tracking, path params. vector determ. 17375
  SSC, long. beam dyn., RF noise 4092
  submersible induction motor pumps, soft starting calcs. 4954
  submicron NMOSFET, transcond. enhancement, back bias 13746
  superlattice, transm. spectrum, elec.-field-induced changes 29916
  surface antenna on polyhedron, radiation charact. 2311
  suspen. striplines, proper values/vectors calc. 37933
  symmetric coupled transm. line on suspen. substr., spectrum calc. 37932
  tapered nonlin. waveguides, num. simul. of pulse propag. 40431
  telephone exchange air conditioning units, air flow studies 20141
  teletraffic model anal., num. transform inversion 41489
  terrain model, propag. loss, UTD 15435
  thermoelec. power generation using thermoelec. element, anal. 20046
  thin lossy slab EM wave refl./transm., time-domain calcs. *(German)* 31801
  thin-film electro-optic beam deflectors, num. simul. 39485
  third-harmonic gyro-TWT amp., 1 MW, stable operation 1009
  time interval distribution measurements in photon counting distrib. 26238
  transformer winding shape design, global optim. strategies 887
  transm. network switching transient I-V calcs. 4621
  trapped field magnet and stable levitation region of HTSC, anal. 39294
  trench VDMOST struct. with no quasi-saturation, anal. 38897
  turbogenerator stator end core zone, EM procs. anal. *(Russian)* 36107
  two-sect. TW semicond. laser amp. opt. transparent TDM channel selector 9552
  ultra high bit rate soliton self-freq. shift and third-order dispersion 17268
  ultrashort light pulse amplit./phase, autocorrelator/spectrometer meas. 2821
  ultrashort-pulse reflectometry, 1D num. study 34682
  VAr planning, decomp. techs. 4609
  vector isotropic Preisach-type models of hysteresis, num. testing 15228
  VLF wave from dipole antenna in atmos., full-wave anal. method 31814
  waveguide apertures radiating into lossy media, num. anal. 2307
  $BaTiO_3$ photorefr. phase conjug. beam time evol., multigrating operation 31522
  CO_2 laser, CW, mirror resonator, super-Gaussian output 2031
  CdTe:Cl, I-V characts., detector appl. 43087
  Ge, hole-doped, hot carriers, thermoelec. power 21894
  H-deflagration, containment, num. anal. 27501
  InGaAs temp. difference growth, num. anal. of soln. convection *(Japanese)* 37380
  $KNbO_3$ ion implanted photorefr. waveguides, two-wave mixing of focused Gaussian beams 23359
  $LiTaO_3$ single crysts. for SAW device appls. 14093
  Nd:YAG laser cavity decay rate and relax. oscill. freq. 23166
  Nd^{3+}:ZBLAN fibre, short pulse propag./ampl. 14739
  Si crysts., anisotropic KOH soln. etching 13395
  Si high efficiency solar cells, 2D num. simul. 44418
  Si piezoresistive press. sens., electro-elastic simul. 42778
  Si porous, quantum dots, recomb. dyn. 22022
  SiON rib anti-reson. reflecting opt. waveguide couplers, design/fab. 14414

numerical control
  see also computerised numerical control; digital control; machine tools
  motors, interactive DSP-based acquisition/control syst. 10949
  variable reluctance motor, voltage-fed, dyn. model *(French)* 10994

numerical methods *see numerical analysis*

numerical methods, convergence *see convergence of numerical methods*

numerical simulation *see numerical analysis*

numerical stability
  2D diffusion, finite difference scheme 276
  AC/DC power syst. saddle node bifurcations detect. 35508
  adaptive param. estim., QR methods of O(N) complexity 40814
  algms. for intersecting parametric and alg. curves, multiple intersections 37332
  B-spline surface interpolation, parallel implement. 20583
  Bareiss and related Toeplitz factorization algms. stabil. 37321
  Bode’s integrals, imaginary part of antenna’s admittance calc. 31936
  collocation methods stabil. for 2D Burgers eqn., Fourier case 20645

numerical stability continued
- composite type wavelets 40928
- Crank-Nicolson method, nonlin. opt. propag., split operator method comparison 40063
- decorrelation algm. for blind DFE, lattice structs. 24264
- DECUHR, integrat. of sing. fns., hyperrectangular region 11995
- digital allpass networks design, eigenvalue problem based 8257
- EM wave scatt., moving boundary, grid generation 7957
- EMC problems, PEEC cct. models, stable time domain solns. 15511
- energy flux eqn., discretization, temp. depend. carrier dens. 22328
- FAEST, fast transversal algms., error generation and propag. 32699
- fast algms. for DCTs and discrete sine transforms 8371
- FDTD method for partially magnetized ferrites treatment 39210
- FDTD method in general curvilinear coord. 5801
- fixed-point digital filters, effects of overflow and quantization 2512
- fractional anal. method, image deblurring 2817
- fund. matrix, stabil. anal. 24480
- Gabor transforms for real discrete sigs. 24202
- Gaussian Elimination-based parallel algm. for lin. eqns. 28665
- general convex programs, stabil. under Slater's condition and primal soln. boundedness 37277
- general Toeplitz systs., look-ahead Schur-type algm. 32482
- IIR adaptive filters, optimum order assign. on numerator/denominator 744
- ill-posed systs., implicit shift bidiagonalization algm. 20609
- impulse response data, stable systs. parametrization 40979
- impulsive differential-functional eqns., difference methods 37346
- Kuramoto-Sivashinsky eqn., pseudospectral methods 20570
- lin. antenna stat. synthesis, sensitivity and stabil. *(Russian)* 15624
- lin. multistep methods and concepts of p-stabil. 37341
- LMS median filter, local stabil. 2462
- Maxwell's eqns., time-domain num. soln. errors 2178
- modified nonlin., one-step method for num. integrat. of ordinary DEs 12005
- multiplicative and zero crossing representations of sigs. 32522
- ODE, num. soln., stabilized 4th-order extended methods 11998
- ODE, stabilized extended one-step methods 37294
- ODEs, consistent, zero-stable, optimal, 4-step lin. method 20617
- orthogonal block adaptive line enhancer, LMS adaptation 8354
- oxid., stress depend., 2D num. simul. 22182
- parallel QR decomp. on network of transputers 37325
- parallel SVD updating, num. stable Jacobi array 32476
- Petrov-Galerkin methods applied, nonlin. problems 20639
- power syst. fast decoupled load flow, control adjustments 26925
- power syst. long-term dyn. simul., num. integrat. method 35466
- printed microstrip device full-wave anal., generalised Yee algm. 29537
- Prony algm. modified for exponential fn. fitting 20586
- PTD, fn., removable sing. 40300
- QR-RLS algm., stabil. anal., finite-precision arith. 8325
- RLSL algms., comparative anal. regarding num. behavior 32480
- robust nonlin. regression methods, dose response rels. 28569
- Runge-Kutta implicit 2-stage methods *(Japanese)* 37361
- Runge-Kutta methods, delay diff. eqns., stabil. 37354
- semilinear sing. perturb. problems, uniform convergence result 37345
- shaped reflector surfaces interpolation by cubic pseudosplines 40478
- shaping electrodes in axisymmetrical electron-beam optics, calc. 15242
- sig. time-freq. distrib. dens. fns., spline-approx. 32691
- sq.-root Bryson-Frazier smoothing algms. 40764
- stabil. and regularization of difference schemes 20622
- stabilized fast transversal filter algm., sig. proc. appls. 37871
- stochastic approx. algm., normalized, time-shift param. *(Japanese)* 11960
- texture anal., SVD 24533
- thin wire FDTD stabil. anal. 15553
- three point perspective pose estim. problem 33105
- transversal filter algm. for recursive LS adaptive filtering 2531
- tropos. EM wave propag. eqn., soln., box method 40350
- ULLV decomp. computation 32473
- ungauged 3D edge finite element anal., mixed soln. tech. 37370
- variational method for num. differentiation 37336
- vectorized systolic array for block constrained RLS 32752

nutation, Earth *see Earth rotation*

NVRAM *see random-access storage*

Nyquist criterion
- *see also Nyquist diagrams; Nyquist stability*
- allocation of Nyquist charact., transmitter and receiver *(Japanese)* 25213
- band-limited sigs., nonuniformly sampled, spectral estim. method 15863
- MIMO transm. systs., transmitter/receiver optim. 16413
- MUSE decoder chip set for HDTV, low power operation 17565
- nonlin. systs. ident./compensation, sampling freq. 32778
- nonuniform bandpass sampling generalization 40811
- PSK systs., hard limiting transmitting amps. *(Japanese)* 24011

Nyquist diagrams
- *see also Nyquist criterion; Nyquist stability*
- sidelobe control in SAR imagery, nonlin. apodization 34118
- variable speed wind turbine, test-rig, controller design 36068

Nyquist noise *see thermal noise*

Nyquist stability
- *see also Nyquist criterion; Nyquist diagrams*
- large-sized matrix displays, picture quality of different pixel arrangements 18012
- single machine power syst. stabil., direct Nyquist array 26911

O-type tubes *see microwave tubes; travelling wave tubes*

OBIC
- *see also EBIC*
- CMOS input gates, latent ESD damage ident. 6847
- SOI layer with voids, noncontact elec. eval. 38432
- Al gettering, multicryst. Si solar cells 27955
- AlGaAs/GaAs heterojunctions, high elec. fields, real-space transfer and current filamentation 1076
- InGaAsP quantum well lasers, carrier transport, near-field photocond. 1968

object detection
- *see also object recognition*
- 3-D laser radar range image, terrain description and obstacle detect. 17441
- 3-D sugarcube neuroprocessor, low power analog neurosynapse chips 29492
- 3D motion, robust tracking 24454
- acoustic pulse ident., auditory neuron simul. network 26747
- acousto-optic tunable filter hyperspectral imagery, anal. 18922
- act. contours approach, obj. tracking in image seqs. 32846
- adaptive algms. for small-size obj. detect. on digital images 24385
- adaptive obj. extraction/tracking in complex image seqs. *(Chinese)* 8658

object detection continued
- analog spot position coding retina, active obstacle detect. 21457
- analog stereo retina, automobile appls. 29419
- border detect., obj. segmented by pyramid linking method 8665
- building detect. by range and image data fusion 41256
- buried objs. detect., dual-band IR images fusion 8555
- buried pipe location, zero-crossed synthetic aperture 3599
- cellular neural nets, focused obj. extraction from unfocused background 24731
- clutter, Gabor filters 24549
- CMOS VLSI smart visual micro-sens. based on insect vision 34569
- crater detect. by lin. filters representing Hough transform 41266
- DTM generation, obj. based by MEOSS 3-line camera data 41245
- feature recog./obj. counting, genetic algm. 2796
- IIMS, integrated imagery mgt. syst., struct. quality assess., photogrammetry 24482
- image background detect. by reusable ANN 33018
- laser range gate underwater imaging systs. 18906
- Leukocyte class. by size fns. 8643
- lidar for underwater targets, pulse modulated method 10444
- machine vision, autonomous land vehicle laser radar range data 17442
- mag. objs., dipolar/ellipsoidal modelling 18851
- mammograms, detect. of microcalcifications, wavelets 35001
- med. obj. detect., transputers 26336
- mfg. product defect detect., CMOS real time image proc. systs., AOI 32940
- mode filters for sig. and image proc. appls., robust types 8328
- moving obj. detect., posn. sens.-based, meas. error probab. *(Russian)* 34701
- moving obj. location from image seq. *(Chinese)* 41085
- moving obj. param. estim. in image seq. 24386
- multiple obj. localization in real scenes, change-detect. method 41120
- obj. tracking novelty filters, resoln. theory 41298
- occlusion reasoning for robust multiple car tracking 24455
- ocean sens. instrumented vehicle, rem. operated, FOCUS 10543
- pedestrian detect. based on rhythm of walking *(Japanese)* 41294
- pose refinement of act. models, forces in 3D 24467
- RadioGuard, RF cable sens. for security appls 42175
- RADOBS, intrusion detect. sens., environ. effects reduction 42520
- real-time obj. extraction syst., seq. growing 8487
- rigid and affine registration of smooth surfaces, differential props. 24633
- rly. level crossing obj. detect. algm. 33145
- road traffic and vehicle control, image sens. appl. 41210
- road vehicle detect. for transport telematics 17685
- seafloor obj. detect. by sonar, nonlin. interact. 10442
- seafloor sediment sonar profiler, obj. detect. 10435
- shape recovery, underwater image shading 10532
- small obj. detect. by LMS filtering and multilayer perceptron 32898
- small objs. detect., high clutter backgrounds, neural net filter 16139
- sonar, directional PE wavefield method 43560
- stereoscopic viewing through corrugated refr. interface, obj. localization 24513
- surface penetrating radar for indust. and security appls. 17408
- tubular struct. posn. determ., pencil beam sonar 10533
- TV-Trackmeter, underwater stereoscopy, hostile environ. appls. 24483
- unmanned underwater surveillance vehicle systs. 9666
- US 3D camera, obj. recogn. tech. 10530
- view-insensitive descriptions, image obj. location 24465
- visual inspection operations, obj. registration 41121

object libraries *see software libraries*

object-oriented databases
- CAL, network-based, multimedia inform. mgt. syst. 8972
- DFR std. for multimedia archiving teleservice 16865
- EAN directory service, support for transactions and replication 8960
- ECG, RR-interval databases anal., obj.-oriented workstation 26427
- ESRF distrib. control syst., access control/security 18213
- Hyper-G for serving inform., World Wide Web 41871
- multiple inform. bases, flexible and dyn. integrat. 33550
- network mgt. systs., advanced inform. proc. techs. 3096
- network monitoring via adaptive ES 3097
- online multimedia yellow pages appl. *(Japanese)* 42007
- open distributed proc. trader federation, X.500 directory approach 41761
- opt. cable network database syst., obj.-oriented design 9102
- power distrib. fault diagnosis, obj.-oriented ES 27131
- power syst. load dispatching tech. IS 19096
- power systs., obj.-oriented approach appls. 26944
- power systs., technols. *(Chinese)* 43650
- power transm. line protection, ES-based relay setting 19291
- telecomms. networks, graphic presentation and anal. 33340
- telephone company outside plant engineers' graphics-intensive OO appl. 41704
- telephone network CAD grammar 41703
- telephone switching support syst., software operation syst. inform. model 42113
- video response syst. based multimedia on demand *(Japanese)* 42008

object-oriented languages
- *see also Smalltalk*
- adaptive filter perform. comparisons, obj.-oriented design 32628
- analog cct. macromodelling, knowledge based approach 483
- automatic protocol implement., generating C++ code from SDL/PR specs. 24830
- commun. protocol software, FSM-based program generator 2913
- EPICS, obj.-oriented enhancement 18235
- fast front-end computer design 18232
- network mgt. syst., managed objs., formal spec. 33375
- network mgt. systs., advanced inform. proc. techs. 3096
- power engng. education, OOP approach 28334

object-oriented methods
- *see also object-oriented programming*
- 2D simul. of oxide/silicide growth, phys. based proc. simulator 1296
- 3D field support in semicond. wafer representation, archit. and implement. 1483
- ABBET test resource stds., obj.-oriented anal. 34348
- AT&T PersonaLink, public network for smart agent PICs 41996
- ATE software design methodologies develops 42703
- ATM network modeling, obj. oriented simul. 24768
- audio-visual control, message obj. transm. 17560
- Automated Distrib. Syst. Modeler, OO design 35623
- autorouting of PCBs and MCMs 12886
- avionics breakthrough in inform. sharing 10332
- B-ISDN signalling, obj.-oriented implement. 9022

object-oriented methods continued
Bayesian 3D tomographic reconstruction from radiographs, obj.-oriented methods 2840
boiler steam-water syst. diagnosis/monitoring, ES 19511
client-server network technol. and OS trends *(Japanese)* 16753
CMIP-based OpS-WS interface supporting GUI 41673
command center obj.-oriented decomp. 26820
commun. protocol develop., obj.-oriented model 8746
commun. protocols, flexible and efficient implement. 8757
communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
computational components for sync. cooperation on multimedia inform. 16871
conference, medical image processing, USA (1994) 20236
contact erosion modelling, obj.-oriented technol. 6395
cooperative work, obj.-oriented/hypermedia approach 33649
dist. relaying coord., OO expert syst. *(Korean)* 27247
distrib. networks mgt., intell. support syst. 19275
distributed access network perform. eval. by DEVSim++ 25141
distributed commun. syst. technol. 24885
distributed connection manager, obj.-oriented interface 9057
distributed multimedia syst. for commun. 41971
distributed systs. design, OSI directory example 33433
energy dispersive EXAFS, data acquisition, obj. oriented methods 42746
engng. education, integrated experimentation/computerization 20304
fault tree anal., knowledge engng. approach 28535
helicopter avionics, LAMPS MK III block II simul. 10344
heterog. networks, generic mgt. syst. 16579
IC test, intell. software-integrated environ. 9802
image anal., obj.-oriented anal.-synthesis coding *(Korean)* 24689
intell. agents in multi-media systs. *(English)* 25125
IR seeker imaging simul. real-time model based on fractal theory 18989
KView II, network mgt. platform, appl. 33372
measurement system with object oriented architecture, user interface 34340
MHEG multi- and hypermedia obj. interchange std. 41975
mixed sig. ATE, data driven archit. 9813
multiple hypothesis filter for track initiation, perform. eval. 17370
μP syst. design environ. based on OO blackboard framework 666
network control syst. nonredundant rational data input *(German)* 43693
network mgt. syst., managed objs., formal spec. 33375
network mgt. systs., advanced inform. proc. techs. 3096
networked syst. mgt. integrat. archit. 41646
OSI commun. protocols, obj.-oriented design approach 8749
parallel lookahead line search router, automatic ripup/reroute 21034
pers. commun. services on distributed proc. environ. 41690
power electronic circuit design, OO tools, PC based *(Spanish)* 12340
power electronics design, educational strategies 29013
power substation reliab. , AI-based simul. 5164
power syst. alarm proc., OO symbolic connectionist syst. 19158
power syst. dispatch switch operation planning, ES-based 4510
power syst. interactive DSS, obj.-oriented framework 19095
protocol software implement., obj.-based approach 2948
pulse coded neural net VLSI design automation 29480
radar syst. CAD, knowledge based support 9639
SEAROADS, ship air defense computer simul. model 35402
SSCL, RF control, obj. oriented design approach 18277
Stanford TCAD, next generation, PISCES 2ET and SUPREM 007 22543
substation design, OO knowledge based tool 19906
TDMA access for third generation cellular commun., resources 25394
telecomms., case driven anal. of interacts. 3256
telecomms. syst. mgt. appl. develop. 33366
telephone switching support syst., software operation syst. inform. model 42113
TMN appl., highly reliable distributed switching node 41667
TMN based operations systs. develop. platform 16605
TMN-based SDH mgt. syst. implement. in Japan 41685
To-be-IN, obj.-oriented telecomms. services testbed syst. 25086
TPS life cycle evolution, object oriented CASE 42694
validation test generation, automated procedure 10330
virtual lab., obj.-oriented framework 3744
X.500 directory, basic model for public telecomm. networks representation 41656

object-oriented programming
see also object-oriented languages; object-oriented methods
ABBET obj.-oriented test develop. 34408
ACNET control syst., smart subsystems, shell software 18231
Ada simul. framework 35418
adaptive filter perform. comparisons, obj.-oriented design 32628
AGS accelerator distributed control syst. alarm, obj.-oriented design 18192
ALS, obj -oriented software constr. 18227
AUSTRAL, distrib. syst. power restoration ES 19246
Bell customer network mgt. software OO develop. 41653
cct. verification, O(n) algms. 28949
CERN PS accelerator complex, data driven alarm syst. 18202
COMNET III, obj.-oriented network perform. prediction simulator 24900
COMNET III, obj.-oriented network perform. prediction 16586
configurable/parallel protocols, prototype experiences 3218
control software for embedded DSPs, robot appl. 19923
distrib. network control, obj. oriented environ. appls. 27154
DSP software synthesis, Ptolemy environ. 40800
ECG sig. and echocardiographic image proc., ES 35135
enterprise mgt. syst. develop., Distributed Smalltalk 8961
EPICS, obj.-oriented enhancement 18235
EPRI Distrib. Engn. Workstation, appl. programmer interface 35627
ESRF linac, obj.-oriented control syst. 18185
ETHMICS multimedia commun. testbed 41977
FOCS, toolkit for flexible telecomm. systs. 24896
foetal ECG anal., real-time, Windows appl. 26377
Galileo, real-time networks simulation/anal. tool 3074
Gismo Project, detector simul. 34954
IC design, adaptive models, obj.-orientated prog. 30440
kernel of distributed proc. platform for telecom network software *(Japanese)* 33437
LEP2 cryogenics control syst. archit. 4036
measurement system with object oriented architecture, user interface 34340
med. devices QA services 18427
mixed sig. and RF testing, obj. technol. appl. 34351
multilingual appl. develop., Unicode std. 24075
Novell NetWare multimedia commun. syst., Microsoft Windows 33654
obj. oriented API for operations syst. develop. 16602

object-oriented programming continued
particle accelerator devices, persistent software objs. 18199
plant power/control syst., obj.-oriented simul. 20159
power engng. education, OOP approach 28334
power syst. control ES software design, OOP techs. 27070
power syst. fault diagnosis, parallel proc. ES-based 19029
power syst. fault ident./alarm proc., OO expert syst. 19154
power syst. obj.-oriented anal. methods 35428
power syst. real-time SCADA/EMS, OOP concept 26955
power syst. restoration, trouble call anal., OO prog. 43661
power systs., obj.-oriented approach appls. 26944
power systs., technols. *(Chinese)* 43650
rapid cycle display software design 10357
semicond. wafer CAD, C++ design and implement. 12293
simulation conf., Phoenix, USA (1995) 36829
std. cell VLSI placement, fuzzy logic approach 1474
substation design, OO knowledge based tool 19906
switching fabric control appl. connection mgt. interface 42104
switching syst. software OO design 42103
telecom. network mgt. using inform. and proc. models, spec. description 41669
telecomm. service software archit. for next-generation networks 25083
telephone network CAD grammar 41703
transformer testing teaching lab., graphic user interface software 20309
TRIUMF, device access, C++ on VAX/OpenVMS 18230
user interface toolkit, adding digital video 34279
user-guided measuring in digital aerial triangulation 41269
voice-controlled telecomm. terminal for phys. handicapped 4313
xpress transfer protocol, obj.-oriented implement. 16485
He cryoplants in CERN SPS, control aspects 10080

object recognition
see also object detection
1D nonlin. matched sieves, genetic algm. 2797
2D digital images, obj. extraction, topol. contour closure requirement 24723
2D image partioning/recog., computational aspects 32922
2D objs. recogn. by optimal matching 41131
3-D morph. algm. for obj. recogn., automated training 16269
3D elongated objs., recogn. from 2D intens. images 2757
3D indust. obj. recogn., vision based profiling method 41117
3D model based obj. recogn. 32995
3D obj. pose tracking/recovering 2772
3D obj. recog., probabilistic techs. 32923
3D obj. recogn. by hybrid Hopfield neural net 33028
3D obj. shape, pose, and deform. estim. 2758
3D objs. recogn. from 2D images 2764
3D position estimation, robot control model 25880
3D rigid solid obj. recogn. from 2D projective images 41252
3D shape recovery, deformable model 41133
3D shape recovery using context, Hopfield neural net 41366
3D target recogn. via sonar, neural net model 25593
3D vision, model-based invariants 2669
3D-DCT pipe coding, video seq. coding 24506
aircraft recogn. syst. for perspective aerial images 8639
alg. invariants, symbolic computation 5728
ATR, act./pass. cooperative image segmentation 25588
attributed relational tree approach, sig. classif. 2806
automated fiber pigtailing technol. 14383
automatic object recognition, conf., Orlando, USA (1994). 54
automatic recogn. of partially occluded objs., genetic algm. 16286
blob representation and relational voting 8550
blurred image, inhomog., act. obj. location 33044
brain anatomical struct. recog., genetic algm. 2799
building detect. by range and image data fusion 41256
charact. meas. for 3D surfaces based on multiple filtering *(Japanese)* 2622
chirped laser radar, optoelectronic chirp generation and sig. demodulation 17444
closed surfaces, parametrization, 3D shape description 32906
colored-obj. detect. for mobile robot 24537
colour image, obj. location 2675
colour image, obj. recogn., syntactic method 32879
complex and coloured obj. inspection 16356
complex objs., multi-sens. fusion, model-based recogn. 41104
concealed obj. surface reconstr. using dist. metric 33026
constraint satisfaction, Hopfield neural net 24722
context-free attentional operators, generalized symm. transform 41081
disabled pers. aiding by intell. robotic systs. 35173
distributed Bayes obj. recogn., geom. hashing 2767
dominance tree, line segmentation 41118
dyn. contour following, texture approach *(English)* 2656
dyn. obj. recogn., hit-or-miss approach 24538
engng. education, obj. recogn. algm., graph matching-based 20346
fax image recognition using neural nets 41172
feature extraction, parallel, distributed memory computer 41101
feature-based approach, 3D obj. reconstruction 41262
FLIR image aspect angle estim., model-based vision approach 24545
focus of attention in image understanding systems 8675
FT profilometry, obj. shape meas. 8490
fuzzy obj. recogn., model-based 2858
fuzzy relational inference logic for distributed obj. recogn. 16274
global color constancy, obj. recogn., illum.-invariant props. 2599
grayscale image preprocessing for viewpoint independent 3-D extraction of objs. 24521
grouping, fuzzy uncertainty measures 2860
hierarchical aspect graph generation, multiple range data *(Japanese)* 16303
high sampling resolution tactile sensor for object recognition 25807
highly parallel obj. recogn. scheme, Hough space based 8572
hyperspectral air-to-air seeker 18990
image descriptions, learning, fractals 32957
image proc., obj. recogn. by cost minimization 41330
indust. vision syst., range/intens. image fusion 41103
inspection, visual, shape recogn./anal. 11832
intell. multisensory vision syst., vision planner 16268
invariant obj. recogn., continuous 3-D dist. transform , neural network representation 33057
irregular curve pyramids, parallel line grouping 16395
ISAR radar image recog. by neural net 9633
knowledge-based 3-D obj. recogn. 2683
land surface rem. sens. by laser, pattern recogn. 10454
lin., extraction by least sq. template matching 41253

object recognition continued
- Line Patterns Hough Transform for line segment detect. 8565
- line-drawings from piecewise planar objs., edge detect. 24473
- Markov random field models in computer vision 24630
- mil. image, ident. methods 32896
- missing inform. principle in computer vision 24358
- mobile robot environ. recogn., US sens., CCD camera 43556
- mobile robot outdoor navig., tree detect./dead reckoning 41109
- mobile robots, tri-aural perception, correspondence problem, max. likelihood algm. 43555
- model based 3-D obj. recogn., intens. and range images 16275
- model based pose estim. of articulated and constrained objs. 24464
- model based robot vision 25881
- model-based 2-D obj. recogn., neural network archit. 8507
- model-based tactile obj. recogn. 2684
- motion understanding, image seqs., Hopfield neural net 33045
- motion-based recogn., survey 32852
- moving obj. robust extraction, edge grouping, neural 41378
- multiple view histogram representation for posn. and pose estim. *(Japanese)* 33115
- multiresolutional multisensor target ident. 41105
- multiscale shape simplification 32832
- natural obj. recog., L-syst. fractals 24373
- near-optimal MST-based shape description, genetic algm. 41190
- neural, invariant response learning 41363
- neural net; pattern extraction, nonuniform resoln. 41369
- neural network config. design 33032
- NMR image obj. recog., genetic algm. 2800
- non-iter. contextual correspondence matching 24614
- nonlin. diffr. tomography, inverse scatt. for imaging 8554
- obj. rapid recogn., noisy range images/tripod operators 2677
- obj. recogn., distributed cooperative vision syst. 41112
- obj. recogn., higher-order stats. 2673
- obj. recogn., indexing strategies design 2674
- objs. near ocean surface, pulse scatt. and target ident. 17477
- occluded obj. recog., dominant point approach 16361
- optical 3D measurement techniques, conf., Switzerland (1993) 20260
- parametric eigenspace method, 3D recogn. from visual appearance *(Japanese)* 16302
- partially occluded planar curves matching 24598
- partitioning, neck-based/limb-based, computational aspects 2755
- photogrammetric anal. of image invariance, computer vision 41242
- polariz.-sensitive thermal imaging 16272
- pose estim., noisy data fusion 24419
- projection distortion, boundary matching/gray-level models 33092
- projective invariants of planar curves, fund. limitations 16296
- qualitat./quantitat. shape recovery integrat. 33104
- quantitat. image assess. based on redundant, meas. and stat. reasoning 24422
- range image segmentation, hierarchical struct. of neural networks *(Korean)* 41170
- range image segmentation, SIMD algm. 24601
- range/vision sens. data, geometric constraints fusion, alg. framework 41102
- reconstruction of 3D obj., min. vol. intersection no. 2855
- reduced aspect graph for obj. recogn. 24374
- rotated obj., shape from contours, multiple cues 41249
- sampled act. contour model for obj. extraction *(Japanese)* 16301
- scene interp., multiple visual sens. inform. proc. fusion 41113
- segment based recogn. of 2D partially occluded objs. *(Korean)* 24691
- selective attention in multisensor obj. recogn. 24643
- self-organizing Hopfield network for attributed relational graph matching 24568
- semi-local projective and affine invariants 2670
- shape modeling, front propag. 24415
- shape recogn. via semi-differential invariants 24573
- ship data fusion target tracking, 21020 DSP family, multisensor SIMD archit. 10589
- ship detect. in radar images by neural net 42528
- simple obj. ident. in image seqs. 41251
- sine-wave crossings tech. for real-time target recogn. 10590
- single line drawing interp. for obj. reconstruction 41243
- spacecraft attitude determ., stochastic star ident. 26548
- spherical acoustic objs. in motion, ident. 34167
- stereoscopic viewing through corrugated refr. interface, obj. localization 24513
- straight line segments, invariant stable recovery 32992
- structural model bases, large, organisation 41285
- subspace-based line detect. algm. 8517
- surface geom. and segmentation, covariance techs. 8519
- surface reconstruction, discontinuities 41273
- tactile recogn. of solid objs. 24666
- target class., multisensor, using unsupervised neural net 33051
- target recogn., neural net based, MACE prefiltering 33048
- target recogn., self partitioning neural networks 16278
- terrain obj. dyn. and monitoring by GIS and rem. sens. 41271
- thermal/visual imagery, robust phys.-based anal. 2597
- translation/rot. invariant algm. for pattern recogn. 8632
- two stage real-time obj. tracking syst. 24359
- underwater acoustic noise ident. 17492
- underwater image shading, shape recovery 10532
- underwater obj. recogn., US tech. 10530
- US scanning, obj. recogn./localization 18955
- US sens., temp. effects 4420
- VC-dimens. anal. for obj. recogn. 24462
- video segmentation coding applied, H.261, low/low bitrates *(Italian, English)* 41353
- view-based obj. recogn., pairwise geometric histograms anal. 41124
- view-insensitive descriptions, image obj. location 24465
- viewer-centred representations for location/inspection 41129
- viewpoint-invariant representation of generalized cylinders, symm. set 41138
- views of 3D objs., stabil. and likelihood 24436
- visual learning and recogn. of 3D objs. from appearance 24572

observability
- ATM subnetwork syst. fns., timer-related perform. issues 24766
- ATPG for heat dissipation minimization, test appl. 6856
- CACOP, random pattern testability analyzer 37730
- constrained state assignment of easily testable FSMs 21275
- distrib. syst. state estim. algm., observability anal. 35619
- fault detect. cost reduction, BDD formalism 21015
- feedforward multilayer ANN, testability, behavioral approach 37917

observability continued
- hardware for testability adding in synthesised data paths 21187
- mobile robots, observers-sens. for posture estim. 40791
- multifrequency test vector generation for analog cct. testing 5593
- passive target tracking observability requirements 34139
- power syst. state estim., Otten partitioning method 26884
- power syst. state estim. algms., computer-based 27102
- power system oscillations, hierarchical control algm. 19121
- prog. space compactors selection for BIST 12459
- rapid pulsed microwave propag., time domain detect. 42915
- sens. faults representation in fault detect. filters 9865
- seq. test generation, massive observability environ. 12449
- weapon systems, design-for-test process improvements 43594

observers
- 3-phase power syst. symm. components calc., state observer 19061
- 3-phase syst., symm. components ident., state observer 4463
- AC ASD, torque/speed/posn. control, trends 20065
- AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
- AC machines, transducerless posn./vel. control 4910
- act. mag. bearings, unbalancing estim. 30758
- automobile dyn. spark ignition engine control modelling 11438
- automobile engine powertrain nonlin. sliding control design 5373
- brushless DC motor, posn.-vel. tracking control, obs. integrator backstepping approach 27750
- brushless DC motor posn.-vel. control design 36188
- brushless DC servomotor auto-tuning, fuzzy optimal control 4988
- brushless direct drive motor, robust speed control design 5287
- buck converter, ANN controlled, simul. 37637
- chaotic syst. nonlin. observers, commun. appl. 15685
- DC motor, separately excited, vel. control without meas. 19653
- DC motor drive indirect control, state stimulator-based 36646
- detect./isolation filters, geom. approach 20501
- discrete interval orders and semi-orders, representation 20543
- drive, regulator/observer, multi-mass elastic obj. *(Russian)* 44436
- dyn. syst. failure detect., nonlin. uncertain models 20471
- fault detect., nonlin., observer-based 20476
- fault detect., uncertain nonlin. systs., diagnostic observers 28522
- fiber optic sens. for flexible structs. control 9919
- field-oriented induction motor drive, nonlin. state observer 28090
- harmonic drive DC motor torque control 44445
- induction machines, flux observer design 27710
- induction motor control/fault diagnosis, observer 36153
- induction motor deadbeat flux level control *(Japanese)* 27717
- induction motor drive, rotor flux/time const., VSS observers 11325
- induction motor drive, VSI fed, DSP based variable struct. control 44049
- induction motor drive field oriented control, spindle appls. 5262
- induction motor drive flux/torque MRAC design 11348
- induction motor drives, extended Luenberger observer, state/param. estim. 36657
- induction motor drives, robust adaptive observers 11357
- induction motor drives, speed sensorless field-oriented control 5298
- induction motor servodrive, control, PI load estimator 20086
- induction motors, inertia-lowering digital control studies *(Japanese)* 36162
- induction motors, nonlin. observer-based tracking control 19622
- induction motors, rotor flux estim., Luenberger observers 11038
- induction motors, speed control, VSS, load torque observer *(English)* 36175
- induction motors with flux obs., adaptive nonlin. control 27727
- lin. optimal stochastic observers, sensitivity anal. 32578
- mobile robots, observers-sens. for posture estim. 40791
- PM stepper motor, global exponential posn. tracking controller 36201
- PM sync. motor drive, digital current control, state observers 44475
- PM sync. motor drive, posn. observer 44444
- PM sync. motors, nonlin. reduced order observer 44027
- power syst. dyn. state estim., sq. root filter algm. 19152
- power syst. generator operating point, fuzzy control *(Japanese)* 4592
- power syst. state estim. by neural net 43711
- power syst. topol. observability algm., computer-based 26877
- power systs., nonlin. reduced-order observers, design theory 43683
- rapid thermal proces partial state MRAC 30402
- robot, PM sync. motor drive, robust adaptive control 20054
- robust observer design for biomedical systs. 43198
- sens., actuators, fault detect. 25809
- sens. faults representation in fault detect. filters 9865
- servomotor control syst., inertia moment ident., speed observer *(Japanese)* 36208
- servomotor disturbance observer implement. and speed detect. improvement *(Korean)* 36216
- sing. perturbed continuous time systs., discrete time observers 27692
- SRM drives, sliding mode observer controller 5301
- steel rolling mill two-inertia syst. control *(Japanese)* 11501
- switched reluctance motor posn. tracking 19612
- sync. reluctance drive technol., theoretical overview 44473
- three-phase PWM inverter UPS, robust μP control 36248

Occam
- concurrent VLSI archits., partitioning and prog. lin. alg. algms. 37792
- Handel compiler, net-list descriptions, Xilinx FPGAs 6116
- transputers and num. solns. of diff. eqns. 37353
- videoconferencing, transputer-based implement. of video codec interface 33616

occultations
- GPS occultations, atmos. profiles determ. 18831
- radio image restoration from lunar occultations 17523

ocean-of-gates *see logic arrays*

ocean thermal energy conversion
- Dickson Island, planned OTEC plant 36063
- OC-OTEC syst., sea water temp./press. effects anal. *(Japanese)* 10893

ocean water *see seawater*

ocean waves
- atmos. turbulence interact., microwave RCS meas. 10472
- buoy drifter, for wave, sound, wind & temp. meas. 26749
- C-band V-polarized radar sea-echo model (from ERS-1) 43531
- East Australian Current, ERS-1 SAR imaging 35334
- friction vel., C/Ku-band scatterometer meas. 10525
- laser sens., wave slope stats. determ. 10554
- low grazing angle scatt. 7949
- marine radar, wave obs./anal., land station expt. *(Japanese)* 10489
- Mauritania coast waves, SAR radar rem. sens. obs. 26744
- parametric estim. of ocean surface currents, HF radar 43526
- polarized microwave emission rem. sens. 10490

ocean waves continued
radar altimetry method, ionos. corrections 18839
radar altimetry method for wave heights, TOPEX-POSEIDON-Geosat 18848
radar for directional spectra, focussed array imaging radar 43523
radar for directional spectra, HF radar computational geom. 26737
radar imagery, SAR distortion correction method 43525
radar imaging, image texture anal. 26742
radar rem. sens., French DP & archiving 10553
radar rem. sens., Geosat altimeter results 26741
radar rem. sens., HF for directional spectra 10508
radar rem. sens. of swell at coast, SAR method 26744
radar rem. sens. of wave directions, WaMos syst. 26738
radar rem. sens. of wave heights, TOPEX, ERS-1 & Geosat 18849
radar scatt., multipath, spatial temporal dyn. model 43524
radar sea scatt., rough surfaces, opt. backscatt. 23627
real-time ocean wave monitoring from space 3609
rem. sens., scanning lidar method, glitter vels. 35346
satellite rem. sens., sea state of oceanic sites 10511
surface EM scatt., salinity/temp. effects 10526
swell photographic meas., digital image matching 4400
towed laser slopemeter for ocean waves meas. 4405
ultrawideband polarimetric radar for study of sea scatter 10555
wind/waves, ERS-1 data vs., BSH num. model forecasts 10524

oceanic crust
acoustic backscatt. of seafloor, sediment struct. effects 10445
Seafloor Borehole Array Seismic System (SEABASS) 10432
seismic deep sea array for subbottom profiling, AUV syst. 18812
sonar/seismic streamer deep tow syst., PASISAR 10437

oceanographic equipment
see also oceanographic techniques
acoustic array, sub-ice deployment, seafloor tethered 10513
acoustic current profilers 10502
acoustic instrums., automatic, high level control 10538
acoustic tomography, shore station equipt. 18901
acoustic transducer for undersea use, piezoelec., cooling 18885
acoustic transducers, low-freq., Janus-Helmholtz projector 18884
aircraft K-band radiometer for sea surface brightness temp. meas. 26731
autonomous underwater vehicle, ROBY for polar seas deployment 18857
autonomous underwater vehicle, SARA for Antarctic 18856
autonomous underwater vehicle for geophys. study 10528
autonomous underwater vehicles, UK collaborative research programme 10527
BATFISH, depth controllable towed body 10499
benthic pop-up station, near bottom meas. 10541
benthic station, NADIA II for geophys. borehole re-entry 18793
buoy and telemetry, EMB30 for sea & atmos. obs. 10540
buoy drifter, for wave, sound, wind & temp. meas. 26749
CARIOCA, drifting buoys, monitor CO_2 transfer, air-sea interface 18890
cavitation nuclei & biological activity, meas. equipt. 18893
CTD & fluorimeter sens., BIST 18891
CTD and O_2 instrum., AMBRE, data acquisition syst. 10544
CTD equipt., depth determ., press. sens. corrections 18892
CTD profiling, autonomous profiling vehicle 10535
current meas. with acoustic sens., mounting design 10515
current profiler for deep sea, lowered acoustic instrum. 10516
data telemetry buoy, autonomous for Antarctic 18858
deep tow multibeam echo-sounder, first results 26758
eight-element fibre optic magnetometer array, undersea perform. 3865
fibre optic gradient hydrophones 18937
FOPAIR, focused array imaging radar for ocean rem. sens. 26732
GPS drifter buoy for current/temp. meas. 35336
high perform. micro-power CTD sens. 10495
instrums. for operation, ocean's temp. extremes 18855
laser imaging at close range, triangulation syst. 18905
laser range gate underwater imaging systs. 18906
LF barrel-stave transducer 10573
MAREL network meas. device, coastal water quality 10569
MICSOS, shear probe for microstruct. measuring systs. 10500
neutrally buoyant sens. for direct meas. of particle vel./intens. in water 43527
ocean currents, VHF radar-drifting transponder method 26750
OCEANS 94, conference 60
opt. beam transmissometer, 470, 565 and 670 nm operation 18903
opt. imaging syst., Nd:YLF laser 18904
pH meas., ISFET continuous flow method 10542
point, distributed, and gradient transducers for oceanographic research 10522
posn. determ. for instrums., acoustic array 10545
rem. operated vehicle for deep sea sens., FOCUS 10543
SAMPLE syst., concept of benthic station 26759
seafloor geotechnical/geoacoustic props. meas., tools 4404
seafloor imaging sonar, digital sidescan archit. 10436
seafloor instumentation, MABEL modules 18854
seafloor sonar, French deep water multibeam echo sounder 26716
seafloor sonar equipt., Shirshov Oceanology Inst. 10514
seafloor sonar sediment profiler, obj. detect. 10435
spectroradiometer, fast scanning high resoln. in-water appl. 26763
steered freq. source arrays, sea bed topography meas. 26757
submarine automated monitoring syst., USA navy 18895
telemetry, acoustic LAN protocol 10446
telemetry syst., satellites 26751
temp./salinity profile collection syst., vessels underway 10497
tide gauge height stabil., GPS meas., repeatability 10517
TOGA-TAO buoys deployed in Pacific, sens. eval. 18894
tomographic systs. sound transducer source 10574
TOPEX/POSEIDON, GPS flight expt. 18883
TOPEX/Poseidon Microwave Radiometer, description and calib. 26733
TOPEX/POSEIDON mission, ocean circ. radar, overview 18859
TOPEX/POSEIDON ocean radar satellite, CNES orbits 18861
TOPEX/POSEIDON sea level meas., microwave radiometer perform. 18840
topography of Earth surface, multibeam radar altimetry 18783
towed ADCP current meas., ENDECO CPV-FIN towed body tests 10501
towed laser slopemeter for ocean waves meas. 4405
UHF radiometer for Earth surface rem. sens., synthetic aperture 10452
ultrawideband polarimetric radar for study of sea scatter 10555
underwater camera systs., sens. develop. 10531
unmanned autonomous underwater vehicles characts. 10529

oceanographic equipment continued
US 3D camera, obj. recogn. tech. 10530
VACM data recording package and memory syst. 10496
wave direction rem. sens., WaMos syst. 26738
wave rem. sens., scanning lidar method, glitter vels. 35346
XCTD perform. eval., design improvements 10498

oceanographic techniques
see also bathymetry; oceanographic equipment
acoustic array, sub-ice deployment, seafloor tethered 10513
acoustic current profilers 10502
acoustic diffr. tomography 18887
acoustic DP, Thalassa II ocean research vessel 10494
acoustic instrums., automatic, high level control 10538
acoustic parametric meas. of hydrophys. inhomogeneities 10547
acoustic pass. localization, underwater sources 26821
acoustic pulse ident., auditory neuron simul. network 26747
acoustic scatter from mid-Atlantic ridge corners 18882
acoustic tomography, arrival angle & time determ. 18899
acoustic tomography, channel time response, array proc. 18902
acoustic tomography, probabilistic ray ident. 35342
acoustic tomography, record line up by robust method 10549
acoustic tomography, shore station equipt. 18901
acoustic tomography & sig. proc., close arrival separation 10546
acoustic tomography data assimilation, GCM models 18900
acoustic tomography of oceans, universal wave approach 18897
acoustic transducer for undersea use, piezoelec., cooling 18885
acoustic transducers, low-freq., Janus-Helmholtz projector 18884
atmos. turbulence interact., microwave RCS meas. 10472
autonomous underwater vehicle, ROBY for polar seas deployment 18857
autonomous underwater vehicle, SARA for Antarctic 18856
autonomous underwater vehicles for bathymetric mapping 8619
AVHRR imagery of coastal waters, data acquisition & study 10504
backscatt. of HF sound from objs./sea-bottom 42534
bathymetric prediction from satellite altimetry 10521
bathymetric simul. based on Kirchhoff scatt. and seafloor modeling 35345
bathymetry by multibeam sonar, mosaic computation 18807
bathythermic profiles proc., params. extraction 35343
Bayesian time delay estim. for ocean acoustic tomography 35344
beamforming techs. for circ. sonar arrays 9667
benthic pop-up station, near bottom meas. 10541
benthic station, NADIA II for geophys. borehole re-entry 18793
biological deep scatt. layer, multi-beam sonar detect. 35338
biological organism ident., flow cytometric imaging 10539
buoy and telemetry, EMB30 for sea & atmos. obs. 10540
buoy drifter, for wave, sound, wind & temp. meas. 26749
C-band V-polarized radar sea-echo model (from ERS-1) 43531
C/Ku-band scatterometer meas. by friction vel. 10525
calib. of side scan sonar, imaging deformable towed arrays 9669
CARIOCA, drifting buoys, monitor CO_2 transfer, air-sea interface 18890
cavitation nuclei & biological activity, meas. equipt. 18893
coastal changes, monitoring methods 26736
coastal polynya area estim. method, satellite microwave data 43519
coastal radar imaging, support of obs. and ocean modelling 26743
coastline change by SAR radar, image texture class. 10512
conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
CTD & fluorimeter sens., BIST 18891
CTD and O_2 instrum., AMBRE, data acquisition syst. 10544
CTD equipt., depth determ., press. sens. corrections 18892
CTD profiling, autonomous profiling vehicle 10535
current meas., acoustic scatt. from surface 18896
current meas. with acoustic sens., mounting design 10515
current profiler for deep sea, lowered acoustic instrum. 10516
current rem. sens. by VHF radar-drifting transponder method 26750
currents, HF radar rem. sens. from ship 26748
currents by acoustic doppler method, Symmiktos method 10503
currents from TOGA-TAO buoys, data display & software 10505
data assimilation in 3-layer quasi-geostrophic ocean models 26764
data assimilation into gridded models, irregular data 10509
data telemetry buoy, autonomous for Antarctic 18858
Doppler estimators perform. losses, noise/equivocation effects 10561
drifting buoys fine tracking from microsatellites 26761
dyn. at large-scale, TOPEX/POSEIDON altimetry 18872
dyn. by radar altimetry, Poseidon/Topex method 10551
dyn. topography, TOPEX/POSEIDON radar altimetry 18870
dyn. topography by TOPEX/POSEIDON, global crossover study 18873
Ecdis marine chart display IS navig. syst. 9681
electronics, conf., Cochin, India (1991) 11591
electronics, conf., Cochin, India (1993) 11590
ERS-1 SAR imaging 35334
ERS-I SAR image of Thames estuary, visual interp. 26746
fish shoal & plankton, sonar ident., MOVIES-B software 18889
fish shoal sonar imaging, non-uniform ambient noise 18805
FOPAIR, focused array imaging radar for ocean rem. sens. 26732
GASTOM 90 tomography expt. data inversion 35341
general circ., TOPEX/POSEIDON radar altimeter method 18871
geoid & ocean surface, TOPEX/POSEIDON radar obs. 18796
geoid (sea surface topography), NRCS radar altimetry product 26705
GFDL ocean circ. model on CEDAR multicluster archit. 18888
global/regional thermal anal., OTIS Version 4.0, FNMOC 26753
Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
GPS differential method, marine geodesy 4381
HF radar meas. of sea surface currents 35337
high spectral resoln. coastal ocean imagery, stat. and empirical anal. 18879
ice motion rem. sens., opt., automated method 10550
ice of Arctic, age & thickness, SAR rem. sens. method 43522
ice shelves of Antarctica, GEOSAT radar altimetry method 4399
ice thickness determ., SAR comprehensive automated approach 26730
icebergs, radar detect. 8416
image anal. syst. for sea ice maps from space 18886
image class., neural nets & expert class. 10492
Indian land & sea surfaces, radar clutter characts. 43468
instrums. for operation, ocean's temp. extremes 18855
inverted barometer effect, TOPEX/POSEIDON radar altimetry 18874
IR surface images, bidimensional oceanic struct. detect. 26760
laser imaging at close range, triangulation syst. 18905
laser radar image form., sea surface and water thickness 17454
mag. objs. detect., dipolar/ellipsoidal modelling 18851
mapping ocean sediments by RBF networks 10557
marine radar, wave obs./anal., land station expt. *(Japanese)* 10489

oceanographic techniques continued
MARIUS, flatfish type AUV, hydrodynamic manoeuvrability data 18850
mesoscale eddy probing, acoustic tomography method 10506
min. norm array proc. algm., phased array sonar 10534
model-based proc. for large aperture array 9673
multiaspect acoustic imaging systs. in plane layered medium 43520
multibeam echo-sounder sig. anal., deep seafloor appl. 35340
multiyear Arctic sea ice melt onset determ. algm. 10519
neural network current prediction, shipping guidance 10523
normal incidence echo-sounding, refl. and reverberation 4402
ocean surface, EM scatt., salinity/temp. effects 10526
ocean surface radar altimetry, EM bias 35335
ocean wave directional spectra, focussed array radar method 43523
ocean waveguide props., extraction, broadband pulse sigs. 18880
oceanic mesoscale variability, SOAP 93 prediction syst. 26765
OCEANS 94, conference 60
operational nowcast/forecast systs. struct. 26755
parametric estim. of ocean surface currents, HF radar 43526
periodic sigs. design, FM sweeps/AM 10559
pH meas., ISFET continuous flow method 10542
phytoplankton monitoring by cytometry, multivariate stats. 10537
phytoplankton monitoring by cytometry, neural net ident. 10536
polarized microwave emission rem. sens. 10490
pollution monitoring, acoustic methods 10507
posn. determ. for instrums., acoustic array 10545
radar altimetry method, ionos. sig. delay, IRI model 4378
radar altimetry method for circ., sea state bias 18845
radar altimetry of surface, multiresolution stochastic proc. 10552
radar backscatt. from surface, Euler vector-Mueller matrix 43528
radar data assimilation, circ. models 26752
radar detect. in ocean environ., chaos appl. 24173
radar for sea surface height, TOPEX/POSEIDON method 43465
radar imaging, image texture anal. 26742
radar obs. of sea surface, altimetry ionos. correction *(French)* 35352
radar rem. sens., French DP & archiving 10553
radar rem. sens., microwave radar polarimetric backscatt. 26740
radar rem. sens. of surface, scatt. rel., wind speed 10481
radar scatt., multipath, spatial temporal dyn. model 43524
RADARSAT, expt. airborne SAR obs. of Strait of Georgia 26739
radio scatt., wedges,method of iter. 42488
RCS, low incidence 26735
real-time ocean wave monitoring from space 3609
rem. operated vehicle for deep sea sens., FOCUS 10543
SAR images adaptative segmentation 17431
satellite radar altimetry, absol. sea-level meas. 43532
sea ice class., ERS 1 SAR imagery/Landsat TM images 10518
sea level by radioaltimetry, microwave troposheric corrections 18841
sea level by satellite radar altimetry, sea-state bias 18847
sea level by satellite radioaltimetry, ionos. correction 18838
sea level by TOPEX, radar perform., wave form tracking 18843
sea level by TOPEX radar, EM bias from retracked data 18844
sea level by TOPEX radar, ocean wave & attitude corrections 18842
sea level by TOPEX/POSEIDON radar altimetry, Great Lakes obs. 18868
sea level meas., TOPEX radar altimetry, sea state bias 18846
sea level monitoring, stable datum maint. 10491
sea level radar altimetry by satellite, ionos. correction 18839
sea levels by radar altimetry, TOPEX/POSEIDON accuracy 18869
sea surface brightness temp. meas., aircraft K-band radiometer 26731
seafloor, sidescan sonar imaging, geometric corrections 26709
seafloor & fish acoustic backscatt., reverberation obs. 26745
seafloor acoustic backscatt., sediment struct. effects 10445
seafloor geotechnical/geoacoustic props. meas., tools 4404
seafloor imaging, side scan sonar, neural image class. 18809
seafloor imaging, sonar sig. proc., tangent clusters 18810
seafloor imaging by side scan sonar, DELPH-SONAR proc. 18806
seafloor imaging by side scan sonar, shade correction 18808
seafloor imaging by sonar, azimuth resoln. increase 18853
seafloor imaging sonar, digital sidescan archit. 10436
seafloor instumentation, MABEL modules 18854
seafloor mapping, ACID synthetic aperture sonar 18852
seafloor sonar, French deep water multibeam echo sounder 26716
seafloor sonar, multibeam wide swath imaging, coverage 26713
seafloor sonar equipt., Shirshov Oceanology Inst. 10514
seafloor sonar imagery, wide swath, return angle estim. 26715
seafloor sonar imaging, French wide swath systs. 26714
seafloor sonar imaging, sidescan method 10493
seafloor sonar scatt. at 40 kHz, monostatic & bistatic 18802
seafloor sonar sediment profiler, obj. detect. 10435
sediment param. determ., hydroacoustical expts. 35339
shallow water HF bottom/subbottom backscatt. 4403
SOFAR acoustic propag., high-freq. modelling 18898
sonar holographic array proc. algm., perform. anal. 34185
sound scatt. by spatially-localized inhomogeneities in oceanic waveguides 18881
SST, satellite rem. sens. time series 10510
SST IR rem. sens. by satellite, effect of aerosol 10548
submarine automated monitoring syst., USA navy 18895
surface brightness temp. meas., aircraft K-band radiometer 26731
surface currents, long-range HF ground wave radar 10556
surface topography, TOPEX/POSEIDON altimetry, covariance model 18875
surface wind speed meas., ERS-1 vs. SSM/I, Atlantic 10471
SWAFS, shallow water anal. and forecast syst. 26754
swell photographic meas., digital image matching 4400
swell waves at coast, radar rem. sens., SAR method 26744
telemetry, acoustic LAN protocol 10446
telemetry syst., satellites 26751
tides & sea level, radar altimetry, tidal orbit perturb. 18837
tides at global scale, TOPEX/POSEIDON altimetry method 18876
tides by TOPEX/POSEIDON radar altimetry, inverse model 18877
TOGA-TAO buoys deployed in Pacific, sens. eval. 18894
TOPEX/POSEIDON, ocean radar calib., Platform Harvest 18864
TOPEX/Poseidon microwave radiometer, antenna pattern/brightness temp. 26734
TOPEX/POSEIDON mission, ocean circ. radar, overview 18859
TOPEX/POSEIDON ocean radar, precise orbit determ. 18860
TOPEX/POSEIDON ocean radar altimetry, calib., Lampedusa 18865
TOPEX/POSEIDON ocean radar satellite, CNES orbits 18861
TOPEX/POSEIDON ocean radar satellite, Earth gravity models 18862
TOPEX/POSEIDON ocean radar satellite, GPS for precise orbit 18863

oceanographic techniques continued
TOPEX/POSEIDON radar altimeter, ocean circ. 18871
TOPEX/POSEIDON radar altimetry, dyn. topography 18870
TOPEX/POSEIDON radar altimetry, global scale dyn. 18872
TOPEX/POSEIDON radar altimetry, global stat. study 18873
TOPEX/POSEIDON radar altimetry, inverted barometer effect 18874
TOPEX/POSEIDON radar altimetry for sea level, buoy calib. 18867
TOPEX/POSEIDON radar altimetry for sea levels, 2 cm accuracy 18869
TOPEX/POSEIDON radar altimetry for sea levels, Great Lakes obs. 18868
TOPEX/POSEIDON radar sea levels, verification, Bass Strait 18866
TOPEX/POSEIDON sea level meas., microwave radiometer 18840
topography of Earth surface, multibeam radar altimetry 18783
towed ADCP current meas., ENDECO CPV-FIN towed body tests 10501
towed ocean bottom instrum. image proc. 26728
UHF radiometer for Earth surface rem. sens., synthetic aperture 10452
uncertain ocean environ., sonar matched field proc. 17470
underwater image shading, shape recovery 10532
underwater target detect. by lidar, modulated pulse method 10444
underwater tubular struct. posn. determ., pencil beam sonar 10533
vectorial mag. field determ., ship mag. protection 18043
wave & winds, radar altimetry rem. sens., Geosat results 26741
wave direction radar rem. sens., WaMos syst. 26738
wave directional spectra, HF radar, computational geom. 26737
wave directional spectra, HF radar method 10508
wave height by radar, TOPEX, ERS-1 Geosat comparison 18849
wave heights by radar altimetry, TOPEX-POSEIDON-Geosat 18848
wave imaging by radar, SAR distortion correction method 43525
wave rem. sens., scanning lidar method, glitter vels. 35346
wave rem. sens. by satellite, oceanic sites 10511
wave slope meas., laser sens. 10554
wind/waves, ERS-1 data vs., BSH num. model forecasts 10524

oceanography
see also bathymetry; ocean waves; sea ice; seawater; sediments; tides
acoustic backscatt. from seafloor & fish, reverberation obs. 26745
acoustic modelling in SOFAR, high-freq. propag. 18898
acoustic propag., modelling, high-freq. 17480
acoustic sig. flucts., coastal areas 17481
acoustic tomography data assimilation, GCM models 18900
altimetric data mapping, stat. multiscale approach 10014
ASA 128th meeting, Austen, USA (Nov.-Dec. 1994) 6
coastal environ., ES description 26834
coastal marine environ., num. modeling 10568
conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
conference, underwater acoustics, Luxembourg (Sept. 1992) 5500
data assimilation into gridded models, irregular data 10509
dyn. topography, TOPEX/POSEIDON altimetry, covariance model 18875
energy coupling of points of inhomog. medium 15610
geoid, NRSC radar altimetry product 26705
geoid & ocean surface, TOPEX/POSEIDON radar obs. 18796
global/regional thermal anal., OTIS Version 4.0, FNMOC 26753
inverted barometer effect, influence on sea levels 18874
multivalued Bartlett proc., source tracking 15971
oceanographic nowcast/forecast operational syst., US Navy 26844
operational nowcast/forecast systs. struct. 26755
pass. sonar sig. proc., ocean acoustic source localisation 25597
radar scatter from surface, polarimetric, Euler vector 43528
radio scatt. by wedges, method of iter. 42488
sea level, inverted barometer effect 18874
sea-level, TOPEX POSEIDON altimeter mission, accuracy/appl. 43532
temp./salinity profile collection syst., vessels underway 10497
tides on global scale, TOPEX/POSEIDON altimetry method 18876
TOPEX/POSEIDON, GPS flight expt. 18883
trophical and morph. status of water resources, airborne hyperspectral algms. 18878
CO_2 emissions disposal, deep ocean injection expts. 10848

OCR *see optical character recognition*

octrees
see also quadtrees
lithog. simul., loop detect./removal algm. 22306
nonmanifold domains, octree-based automatic mesh generation 12016
robot/computer assisted surgery, 3D anatomical surfaces matching 43252
underwater robotics, opt./acoustic range sens. 8620

ODENDOR *see optical double resonance*

ODMR *see microwave-optical double resonance*

odometers *see distance measurement*

oecology *see ecology*

OEIC *see integrated optoelectronics*

OEM *see DP industry*

office automation
see also home working; mailing systems; records management; teleworking; voice equipment
audio support for sync. cooperative work 9072
automatic telephone operator based on client-server syst. archit. 3132
business environ. cell-based switching node archit. and lab. model 41757
electronic secretary syst. *(Japanese)* 24940
groupware for multimedia office *(Japanese)* 42004
intell. local operating network for office and home automation 9002
LAN-based office, enterprise archit. 33519
media richness theory-based anal. of e-mail, voice mail 24941
MultimETH, conferencing and joint editing syst. 9065
prod. mgt. syst., multimedia environ. 25095
satellite offices implement., recommendations based on obs. from one site 16821
security, client/server environ. *(French)* 25026
speech recogn. in the office, technol. supports dictation 32414
structural evol., mobile tools in professional arena *(French)* 42254
teleworking and telelearning, multimedia commun. 3064
US multinational corporations, telecomm. technol. use/investment patterns 3051

office environment
880 and 1922 MHz radiowave building penetration obs. 31821
946 MHz office-complex mobile radio channel meas. and modelling 33790
building, propag. charact. meas./freq. reuse 9322
complex geom. indoor radio propag. ray-splitting model 31825
high speed indoor wireless systs., directional antennas 3329
lighting plans, Japanese Energy Conservation Law *(Japanese)* 11470
optical wireless transmitter technols. 42358
task-ambient lighting *(Japanese)* 11466

- **office environment** continued
  - US Vice-President's office, image restoration of orig. painted designs 24529
- **office of the future** *see office automation*
- **offset reflector antennas**
  - broadband waveguide feed for offset parab. reflectors 15641
  - confocal parabolic reflector antenna design tradeoffs 23924
  - contour beam single offset reflector feed array blockage anal. 23995
  - dual offset reflector antenna design for optimal perform. 23917
  - dual offset shaped reflector design with tilted ellipt. main reflector 23918
  - K/K$_a$-band antenna syst. for mobile satellite service 23866
  - mesh reflector antenna sidelobe suppression by irregular radial division 23922
  - multi-beam MM-wave FPA airborne imaging syst. 42842
- **ohmic contacts**
  - alloyed ohmic contact model, IC metallization sheet resist. 38985
  - alloyed ohmic contacts, sheet resist. determ., TLM model 38415
  - conf., interface control of elec., chem. and mech. props., USA (1993) 36832
  - contact resist. meas. techs., ohmic contact assess. 29625
  - diamond:B film/metal high temp. contacts, reliab. issues 22045
  - diamond metal-semicond. and MIS structs., elec. charact. 6582
  - diamond-ohmic contacts, specific contact resist. meas. 22030
  - diamond/Ti-Au(-Ag)/Al CVD diodes, high temp. stabil. 22046
  - dual-gate FET struct., fab. 30383
  - IC ohmic contacts, interfs. of Peltier thermal waves 1151
  - III-V electronic device step response meas. on ps time scale by electro optic sampling 42963
  - impurity-band-cond. semiconds., SCL current injection 13024
  - insulated base MOS-controlled thyristor, num. anal. 1372
  - insulated base MOS-controlled thyristor, num. simul. 30268
  - lateral emitter switched thyristor, CMOS compatible 1376
  - metal-semicond. ohmic contacts, impurity bands 13208
  - metal/III-V-semicond. contacts, fab./props. 1162
  - metal/n-InAs/interlayer/n-GaAs struct., nonalloyed ohmic contact resist. 1154
  - soft etch contact proc., 0.1 μm CMOS device appl. 22572
  - tri-layer transm. line model applied, alloyed ohmic contacts 38419
  - Ag MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
  - Al$_x$Ga$_{1-x}$As n$^+$nn$^+$ devices, Al content x, effects on hot electron noise 1433
  - AlGaAs/GaAs heterojunctions, high elec. fields, real-space transfer and current filamentation 1076
  - AlGaAs/GaAs heterostruct., gate, ohmic and interconnect metallization 13420
  - AlGaAs/GaAs heterostruct., ohmic contacts, phys./elec. study 13169
  - Au MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
  - Au/GaSb, interfacial reacts., ohmic contacts effects 38376
  - Au/LaB$_6$/Au/Ni/Ge contacts on n-GaAs, SNMS study 13421
  - Au/Nb/AuGeNi, low resist. ohmic contact for GaAs, heterostruct. HEMT 29958
  - Au/Pd/Ti-based ohmic contact on AlGaAs/GaAs:C HBTs, elec./struct. props. 38701
  - Au/Pt/Ti/Ni/p-ZnTe ohmic contacts, props. 1153
  - Au/Zn/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
  - Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
  - Au-Zn-Au ohmic contacts to p-InP, elec./metall. charact. 38388
  - Au-Zn-Au-GaAs ohmic contacts, As loss during RTA, Cr-collector study 22097
  - AuBe ohmic contacts, GaAs photocond. semicond. switches 36388
  - AuGe ohmic contacts, GaAs photocond. semicond. switches 36388
  - AuGe/GaAs ohmic contacts, ion-assisted deposition 22265
  - AuGeNi, alloyed ohmic contacts, elec. modelling, charactn. 38408
  - AuPdTi-GaAs ohmic contact prep., Nd:YAG laser appl. 38370
  - CdTe/CdS/Au/Cu heterojunction solar cell/ohmic contacts syst., Cu effects 20001
  - CdTe/Ni-P, stable ohmic contact form., P diffusion from Ni-P 13225
  - CdTe-In ohmic contact, elec./struct. props. 38375
  - Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
  - Co-SiC, interface microstruct., chem. and elec. props. 13213
  - Cu$_3$Ge/n-GaAs ohmic contacts, microstruct./elec. charactn. 6573
  - GaAlAs/GaInP/GaAs passivated HBT, high bit rate opt. commun. appl. 6730
  - GaAs MESFETs for HF high-temp. switched-mode power converter, MBE 30381
  - GaAs MMIC manufacture, proc.-induced defects 12804
  - n-GaAs, Pd/In/Pd(Pd-In/Pd)(Pd-In) ohmic contacts 13207
  - GaAs SEL, transparent ITO ohmic contacts 39815
  - GaAs asymmetric Schottky-ohmic MSM photodetector 17810
  - n-GaAs, epitaxially lifted-off film, Pd/Ge ohmic contacts 29954
  - GaAs, low-temp. MBE, nonalloyed ohmic contacts 29961
  - GaAs, n-type, NiGe- and InAs-based ohmic contact metallizations 38655
  - GaAs ohmic/nonohmic contact form., interfacial react. effects 38392
  - GaAs, open-tube impurity doping, spin-on silica films *(Japanese)* 22145
  - GaAs p-n jns. and ohmic contact form. by laser solid-phase diffusion 30052
  - GaAs pseudomorphic HEMT, high yield, mfg. technol. 39020
  - GaAs radiation detectors for ionizing elementary particles and X-ray radiation 4250
  - GaAs/Al$_x$Ga$_{1-x}$As heterostruct., separately contacted electron-hole double layer 13108
  - n-GaAs/AlGaAs MQW struct. with Schottky and ohmic contacts, seq. tunneling 29897
  - GaAs-InGaAs δ-doped real-space transfer transistor 30367
  - GaAs-Si heteroepitaxial layers, ohmic contacts, RTA 22029
  - GaAsA/Al-Ni-Sn metallization scheme, ohmic contacts 1295
  - GaInAs/InP, regrown ohmic contacts, interface resist., TLM meas. 38417
  - Ge/Pd/n-GaAs ohmic contact interface studied by backside Raman spectrosc. 38385
  - p-HgCdTe, Au ohmic contacts, low specific contact resist. *(English)* 38381
  - Hg$_{1-x}$Cd$_x$Te:B large-area PV IR detector, fab. *(Korean)* 17771
  - In/n-Hg$_{1-x}$Cd$_x$Te contacts, modified sheet resist. 38416
  - n-InGaAs layer, thermal stabil. of ohmic contact 29953
  - p-InGaAs/InP/Pd/Zn/Pd/Au graded bandgap heterobarrier/ohmic contacts, resist. 38699
  - p-InGaAs/Pd-Zn(Cd)/Ge implanted shallow ohmic contacts, HBT appls. 38698
  - p-In$_{0.47}$Ga$_{0.53}$As/InP, modified sheet resist. of ohmic contacts 38374
  - InGaP/In$_{0.2}$Ga$_{0.8}$As:Si HEMTs, heavily Si-doped, MOVPE growth 5830
- **ohmic contacts** continued
  - InN ohmic contacts for GaAs/AlGaAs HBT 38817
  - InP HEMTs, ohmic contacts, cap-layer doping 1438
  - p-InP, defect-assisted ohmic contacts 29948
  - InP surface degrad. during contact form., FTIR study 30006
  - InP/AlInAs/AuGe/Au HEMT struct., thermally stable ohmic contacts 30363
  - InP/InGaAs/InAlAs HEMT, ohmic contacts 13774
  - InP/InGaAsP 2-terminal monolithic tandem solar cells 27956
  - InPt-GaAs ohmic contact prep., Nd:YAG laser appl. 38370
  - Nb MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
  - Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
  - Ni/Zn/Ni/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
  - Ni-Au-Te-Au contacts on n-GaAs, microstruct./elec. props. correl. 38657
  - Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
  - Ni-InP syst., interfacial reacts. and phase stabil. 38391
  - Ni-NiIn-Ge-GaAs ohmic contacts, interface microstruct./reacts. 38396
  - Ni-based ohmic contacts to β-SiC, anneal temp. effects on elec. characts. 38410
  - (Pb$_{0.72}$La$_{0.28}$)TiO$_3$/Pt films, elec. props., interface effects 1159
  - Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
  - Pd low-temp. bonding of InP structs., GaAs substrs. 30004
  - Pd/Mn/Sb/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
  - Pd/Zn/Pd/Au(Pd/Au), ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
  - Pd-Ge-Ti-Pt ohmic contacts, p$^+$-GaAs:C/Al$_{0.26}$Ga$_{0.74}$As:C 38658
  - Pd-Zn-Pd-Au ohmic contacts to p-InGaAs-InP, optim. 38387
  - Si cryogenic detectors, ion-implanted charge collection contacts 38487
  - Si/Si$_{1-x}$Ge$_x$ heterostruct. charge injection transistors and logic elements 22482
  - a-Si/poly-Si tandem solar cell, high efficiency 11294
  - Si-Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
  - β-SiC:N/Re(Pt)(Ta) contacts, contact resist. 22043
  - n-SiC/Ni high-temp. ohmic contacts, silicide form. 38372
  - n-SiC/Ni(Ti/Al), ohmic contact resist., reduction by heavy doping 22024
  - n-SiC-6H, Ohmic contacts prep. 1163
  - Ti/Au, diamond film thermistors, fab. and charactn. 9892
  - Ti-Pt ohmic contacts to InAs emitter layer, AlGaAs-GaAs HBTs 38831
  - Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
  - Ti-Pt-Au-InN nonalloyed ohmic contacts, thermal stabil./contact resist. 38393
  - TiC Ohmic contacts on n-type 6H α-SiC 29956
  - TiC/β-SiC, low specific resist. ohmic contacts 1160
  - TiPtAu nonalloyed contacts on InP/InGaAs HBTs 6724
  - W-AuGeNi-GaAs ohmic contact metallization, RTN 38580
  - W-AuZn-GaAs ohmic contact metallization, RTN 38580
  - W-Pt ohmic contacts to InGaAs emitter layer, AlGaAs-GaAs HBTs 38831
  - WN diffusion barrier for n-GaAs/AuGeNi/Au ohmic contact *(Chinese)* 22036
  - Y$_{0.9}$Ca$_{0.1}$Ba$_2$Cu$_4$O$_8$-Ag$_2$O/Ag interface, contact charact. 14273
  - (Zn,Mg)(S,Se):N green/blue LD, ohmic contact/transport props. 39827
  - Zn/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
  - ZnCdSe/ZnSSe/ZnMgSSe blue/green diode lasers, elec. props. 23267
  - ZnO dense non-ohmic electrode, humidity sensitive elec. props. 34457
  - Zn(S,Se):N green/blue LD, ohmic contact/transport props. 39827
  - ZnSe blue-green LD for optoelectronics 23291
  - p-ZnSe, elec. contacts based on HgSe and ZnTe 29891
  - ZnSe, ohmic contacts optim. by parab. grading of ZnSe$_{1-x}$Te$_x$ comp. 21973
  - ZnSe, p-type doping, Li$_3$N diffusion 1229
  - ZnSe:N green/blue LD, ohmic contact/transport props. 39827
- **ohmmeters**
  - *see also electric resistance measurement*
  - digital 3-lead ohmmeter 34619
- **oil refining**
  - field-stabilized two-phase fluidized flow, proc. concepts 40205
  - hydrocarbon storage risk assess. methodology 20172
  - MV distrib., capacitor switching characts./meas. 20168
  - petroleum refinery/elec. utility collaboration, overview 5414
  - squirrel cage motor fault survey 5404
  - substation alternative config. reliab. anal. 20170
- **oil technology**
  - *see also oil refining*
  - high-accuracy microwave sens. and calib. 3964
  - impulsive noise removal from measurement data 25772
  - laser fluorosensor syst., rem. charactn. 35357
  - North Sea oil and gas installations, maint. risk-based optim. 20189
  - offshore field develop., life cycle availability assess. 20192
  - Statoil, experience transfer 28297
  - stereoscopic video, underwater rem. operated vehicle 32815
  - submerged electrocentrifugal pumps, reliab. 5432
  - subsea wellhead, semicond. thermoelec. generator 36816
- **oils, insulating** *see insulating oils*
- **olfaction** *see chemioception*
- **OMCVD** *see chemical vapour deposition*
- **OMCVD epitaxial growth** *see vapour phase epitaxial growth*
- **omegatrons** *see cyclotrons*
- **OMMBE** *see chemical beam epitaxial growth*
- **on-off control**
  - *see also bang-bang control*
  - PWM VSI, current regulation techs. review 44178
- **one-dimensional conductivity**
  - *see also conducting polymers; synthetic metals*
  - organic conductors, magnetoresist./supercond. meas. 34662
  - poly(peri-naphthalene) thin films, chem. vap. deposition, elec. cond. 12169
- **one-dimensional conductors** *see one-dimensional conductivity*
- **online databases** *see information retrieval systems; information services*
- **online front-ends**
  - CoReview, interactive document and data retrieval tool for Internet 41867
  - CrystalWeb, distributed authoring environ. for World-Wide Web 41868
  - database interface, pen-based for mobile computers 33566
  - DCE Web toolkit, enhancing WWW protocols, lower layer services 41862
  - educational uses of World-Wide Web 41869

- **online front-ends** continued
  - Everywhere Access, rem. control software for Internet 8949
  - Footsteps for navigating World-Wide Web 41870
  - medical libraries and Internet conf., San Antonio, USA (1994) 36834
  - MIDAS, med. library's database access syst. 41803
  - mobile wireless access to the WWW, dyn. documents 33570
  - Mosaic, WWW and networked multimedia, learning tools 20342
  - multimedia IRS FIND2 for white collar workers *(Japanese)* 41894
  - Netfind, white pages tool for Internet, inform. gathering archit. appl. 3153
  - physicians, Mosaic and World Wide Web guide 41799
  - World Wide Web authoring tool improvements for Unix platform 41865
  - World Wide Web browsers reviewed 41857
  - World Wide Web struct. authoring environ., Grif 41866
  - World-Wide Web, servers work 41853
  - World-Wide Web conf., Darmstadt, Germany (1995) 36872
  - World-Wide Web for intell. publishing environ. 41860
  - World-Wide Web for Internet searching 41986
  - World-Wide Web for shared comments, SOAPs, trails, and online communities 41861
- **online literature searching** *see information retrieval*
- **online operation**
  - *used for systems software in online and real-time systems but for hardware aspects see real-time systems*
  - *see also interactive systems; real-time systems*
  - CardioA software package for online/off-line anal. of exercise ECG 26392
  - commun. network constr., online algms. 16517
  - distributed real-time, multi-access protocols schedulability anal. 2911
  - DQDB network, real-time commun. services 3176
  - imaging spectrometer for proc. indust. appls. 17925
  - interacting finite state machine design with self-checking capability 29188
  - load distributor static and dyn. network anal. *(German)* 43731
  - network planning, online data provision *(German)* 35588
  - observer concept for formal online validation of distributed systs. 16690
  - valves, motor-operated, noninvasive diagnostics 19624
  - vision-based gauge for online weld profile metrology 3891
  - waste-handling monitoring, fiber-optic chem. sens. 18916
  - Yonggwang NPP, alarm proc., on-line ES 10805
- **online programming** *see interactive programming*
- **online public access catalogues** *see bibliographic systems; cataloguing; library automation; public information systems*
- **online services** *see information services*
- **Onsager theory of dielectrics** *see dielectric properties*
- **opacimeters** *see turbidimetry*
- **opacity**
  - U gas, nuc. rocket fuel, opt./thermophysical props. 4370
- **OPACS** *see bibliographic systems; cataloguing; library automation; public information systems*
- **OPDAR** *see optical radar*
- **open systems**
  - 800 MHz PCS, IN technol. appl. 25433
  - Air Force ATE enabling technols. 34363
  - Alcatel 4650 Transvox, voice mail server for public networks 24939
  - algms. for deriving protocol specs. from service specs. written in LOTOS 2906
  - Analyser genetic algm. based LAN divider 41769
  - ASN.1, efficient packed encoding rules *(Japanese)* 40695
  - AT&T's open cooperative computing archit. 41801
  - AT&T's PassageWay Solutions family of computer telephone integrat. products 41800
  - ATC, Ada computer commun. interfacing 41773
  - ATE enabling technologies, Air Force appl. 42706
  - ATE enabling technols. for Air Force 18718
  - ATM NAP archit., routing design 24980
  - automatic vehicle location subsystem interfaces 3461
  - AXSIA module in PREVISIA, distributed IS *(French)* 16661
  - BERKOM multimedia mail teleservice 33658
  - broadband network services, distributed multimedia support-environ. 16870
  - CA-Browsing System, global security services support 16675
  - cable TV, structural reliab., open syst. for data commun. 34267
  - CCS network integrity experiences and risk reduction strategies 41518
  - client-server network technol. and OS trends *(Japanese)* 16753
  - client-server networks, heterog. data bank integrat. *(German)* 8886
  - CLNS networks, authority and routing registration 41781
  - CNMA, European initiative for OSI network mgt. 24921
  - color machine vision, true RGB line scan camera 17927
  - commun. gateways for network interoperability, methodology for synthesis 16511
  - complementary media packet switched networks, survivable commun. 17023
  - computational components for sync. cooperation on multimedia inform. 16871
  - conferencing syst. and shared whiteboard, distributed multimedia appl. testbed 9071
  - constr. indust., multimedia product selector, X.500 directory service 9073
  - Controller Area Network controller class. *(German)* 24832
  - cooperative computing/integrated syst. mgt. 24904
  - Croatian national MHS, config. model 33336
  - DC servomotor machining motion control, parallel DSP 36192
  - default forwarding protocol for mobile commun. *(Japanese)* 17139
  - Demand Priority MAC protocol for 100 Mb/s LANs 25043
  - digital commun. systs., open archit. 8945
  - digital TV broadcasting syst. requirements *(Japanese)* 17540
  - digital TV coding/decoding chipset, spec. and develop. 34248
  - directory authentication framework 8954
  - distrib. substation automation develop. 11214
  - distrib. syst. data commun. integrat. 10735
  - distributed environ. perform. considerations 41957
  - distributed message transfer and store appl. 33264
  - distributed proc. trader federation, X.500 directory approach 41761
  - distributed telecomm. syst. design, ODP approach 24954
  - distributed telecomm. systs., configurable call/service proc. 41955
  - Document Transfer & Manipulation std. 41499
  - DoD's tri-service ATE R&D program 35381
  - Dutch ATM pilot project 8822
  - EAN directory service, support for transactions and replication 8960
  - ECFSM model for commun. protocols, verification method *(Japanese)* 41511
  - efficient multimedia satellite networks 41985
  - enterprise mgt. syst. develop., Distributed Smalltalk 8961
- **open systems** continued
  - European leased lines, harmonisation 33352
  - European perspective on commun. security 33325
  - fast packet switching, intell. user entities 8697
  - fibre channel technol., interoperable high speed connections 41793
  - FIND2, multimedia/distributed inform. sharing systs., develop. *(Japanese)* 3264
  - FODATEC, open document manipulation syst. 8957
  - frame relay protocols and user interface 41809
  - gas turbine digital control syst. develop. 36012
  - global network mgt. for 90s 8842
  - global networks, emerging inform. technols. 33309
  - global ref. mechanism for data objs., design and implement. 16510
  - global store server, multimedia teleservice component 16869
  - GSM network, Q3 network mgt. interface 9402
  - healthcare commun., future needs and present solns. 41875
  - heterog. network mgt., composite perform. eval model 33546
  - high speed network, multimedia commun. networking archit. model 33650
  - high-perform. computing infrastructure in aircraft and aerospace indust. 16729
  - high-speed data transm., eval. of acknowledgement methods 16475
  - highly available/reliable commun. protocols for heterog. systs. 41508
  - home automation syst., data link layer design issues 3095
  - HS-series storageWorks array controllers, archit. and design 37809
  - image commun., open distributed environ. 16864
  - IN revenue, service creation 25093
  - inform. superhighway, protocols, bearer technol. 33429
  - integrated appl./service platform for multimedia appls. 16893
  - integrated road transport/traffic environ., protocols 3456
  - integrated services engng. 41693
  - inter departmental data exchange in open syst. context 33537
  - inter media sync. schemes 9054
  - interactive graphic syst., data network mgt./status visualization 24912
  - ISDN, Internet access, TCP/IP 41943
  - ISO FTAM basic file protocol, LOTOS specified, anal. 41538
  - ISO/Internet mgt. integrat. 24905
  - LAN, network mgt., capacity planning 33373
  - LAN/WAN environ., contingency planning 41901
  - MELSECNET/10 and open networks for factory automation *(Japanese)* 33541
  - message oriented middleware, MOM, appls. 41794
  - MHS parallel proc., implement. and eval. 24953
  - Mini-MAP reduced OSI stack, perform. eval. 3168
  - mixed media open networks for dist. learning 3069
  - MPPS, multiparty presentation service 8958
  - multi-provider environ., multi-service mgt. 41692
  - Multicard, open hypermedia syst. 16662
  - multimedia conferencing services in open distributed environ. 16862
  - multimedia networks, binding archit. 16872
  - multimedia systs., distributed, network mgt. archit. 3270
  - MultimETH, conferencing and joint editing syst. 9065
  - multiple inform. bases, flexible and dyn. integrat. 33550
  - MultiSIX, multi-vendor network interoperability 24946
  - multivendor integrat. archit. (MIA) 3196
  - Nat. Information Infrastructure, stds. and interoperability 24978
  - Nat. Motorway Communications System Mark 2, traffic mgt. 33552
  - NEC Videomix, appl. *(Japanese)* 42591
  - NetBIOS, OpenVMS 41817
  - network control proc. data transm., IEC 870-6 OSI protocols *(German)* 19179
  - network integrat., mgt. technols. *(Japanese)* 33378
  - network mgt. appls. spec., high-level notation 41838
  - networked interactive video and multimedia archit. 41978
  - networked syst. mgt. integrat. archit. 41646
  - NTT, customer globalization trends 41590
  - obj. oriented API for operations syst. develop. 16602
  - obj.-oriented design for distributed systs., OSI directory example 33433
  - obj.-oriented network mgt. syst., formal spec. 33375
  - observer concept for formal online validation of distributed systs. 16690
  - OMNIPoint, service mgt. challenge 3090
  - OSI, interconnectability testing syst. design/implement. 41903
  - OSI commun. protocols, obj.-oriented design approach 8749
  - OSI Directory Information Base, hash-based high-perform. name resoln. method *(Japanese)* 33438
  - OSI secure commun., implement. and eval. of SCSE 8752
  - OSI session layer protocol, formal spec./verif. 8754
  - PC based OSI rem. database access client syst. 8759
  - pers. commun. services on distributed proc. environ. 41690
  - planning, scheduling and constraint mgt. archits. 24915
  - power plant simul., PVM-based parallel computing 27299
  - power restoration support syst. for large-scale bulk power networks 10664
  - power syst. online anal./data mgt., open syst. approach 19127
  - power systs., technols. *(Chinese)* 43650
  - progressive image transm. software tool 41096
  - PROMISE pan-European traveller inform. syst. 3462
  - promotion activities, OSI standardization and appl. *(Japanese)* 8882
  - protocol conformance test syst. using Petri nets, correctness of test logic programs 8765
  - protocol conformance testing, test generation, multi-level approach 33251
  - protocol spec. proc. based on labelled transit. systs., support method 8764
  - provisioning systs., total systs. mgt. 33371
  - QoS, end-to-end mgt. scheme 16585
  - QoS negotiation for multicast commun. 16876
  - RAMA, rem. access, museum archives 9069
  - rapid prototyping of appl.-specific sig. proc., architectural issues 29240
  - real-time multiline OCR parallel archit. 33027
  - rightsizing, distributed LANs, UNIX appl. servers 41771
  - road transport and traffic mobile environ., ISO IP protocol suite 41783
  - SAR data quality anal. on open image proc. syst. 9615
  - SDL methodology for specifying radio protocols in CDMA syst. 2979
  - SDL-based protocol implement. tool, proc. scheduler/compiler 41542
  - SecuDE security toolkit, towards trustworthy commun. systs. 8955
  - security standards, Africa 33584
  - session layer conformance testing 8774
  - SHINE, strategic health informatics networks for Europe 3187
  - sig. transm. struct. of digital broadcasting 9700
  - software archit. for semicond. indust. 37053
  - SS7 network mgt., stds. aspects 24902
  - switching fabric control appl. connection mgt. interface 42104
  - tandem queueing network, pop. constraint and const. service times 24995

open systems continued
TCP/IP, open networking 24806
TCP/IP and SNA, interoperability issues 8744
telecomm. services, archit., prevent, interact. 3082
telecomm. services, rem. operations in test appl. 33480
telecomms. provisioning systs., open archit. 16481
telecomms. syst. mgt. appl. develop. 33366
teleradiology, image ref. database, WWW 9053
test lang. std. for distributive open test environ. 34342
time-crit. commun. archits. and quality of service 25031
TINA-C archit., multi-media conferencing service 42017
TMN and open systs. 41661
TMN appl., highly reliable distributed switching node 41667
TMN interfaces for network mgt. 41662
Trans-European commun., overview *(Dutch)* 16689
UMTS/FPLMTS, networks, users and terminals 3491
Unix and open systems conf., Brussels, Belgium (1992) 11541
upper layer products, archits. and appls., conf. Barcelona (1994) 29
X.500 cache partitioning for faster name resoln. in X.400 8959
X.500 directory services support for EDI 41896
X.500 distributed services, network mgt. 8840
ZIPI network for musical instrums. 24977

operating amplifiers *see operational amplifiers*

operating system kernels
ATM socket family implement., experience and results 8921
distributed commun. syst. technol. 24885
distributed proc. platform kernel for telecom network software *(Japanese)* 33437
distributed simul., transputer version of time warp OS 37803
GMICRO/500 microprocessor performance evaluation for CTRON based kernel 29256
native-mode ATM appls., signaling and OS support 2945
non-stop software extensible syst., dyn. program modif. 16558
OO TMN based operations systs. develop. platform 16605
QoS, end-to-end mgt. scheme 16585
service mgt. ref. platform in shared business environ. 16596
user-level buffer mgt. protocol, network interface support 25029
virtual-memory-mapped network interfaces 24971

operating systems (computers)
see also application program interfaces; distributed processing; input-output programs; interrupts; network operating systems; operating system kernels; report generators; resource allocation; Unix
AOS, avionics OS for multi-level secure real-time environ. 8939
ATM networks, low-latency commun., act. messages 24974
Berkeley Networks of Workstations Project 33531
commun. protocols, flexible and efficient implement. 8757
communicating appls., archit. 33565
database interface, pen-based for mobile computers 33566
desktop CSCW syst. 16691
element mgt. requirements for evolving access networks 16594
FDDI workstation cluster, meas. 33496
insectoid robot OS, modular 41872
Magic functional model, resource control and B-ISDN protocols 16592
MMOSS soft real-time OS support in multimedia commun. subsystem 25121
native-mode ATM appls., signaling and OS support 2945
OS/2 2.1 OS, digital video archit. 17576
policy-free distributed general-purpose shared window syst. 25051
role-based network security 33573
Software Assembly Workbench, hardware-like constr. 41827
spec. interacts. detect. in telecommun. services 16595
telephone switching support syst., software operation syst. inform. model 42113
TMN, platform support environ. constr. 16597
TMN-based SDH mgt. syst. implement. in Japan 41685
video-on-demand file service, OS support 9720
virtual-memory-mapped network interfaces 24971
workstation networks, advantages and tech. difficulties 24975
zero-copy ATM memory-integrated network interface 24970

operational amplifiers
act. filters, fractional shifts of ω_0 and Q, Budak-Petrela's method 37838
act. filters, OTA, anal. *(Croatian)* 21410
act. RC filter, compensation tech. for HF respons, functional trimming 6211
act. RC filters, HF compensation of FDNR *(Japanese)* 12639
act. RC second-order filter, modes comparison 6208
act.-R fn. generator, digitally prog. freqs. 12370
AD8001 op-amp, dielec.-isolated complementary-bipolar IC, total-dose/SEU results 29066
adaptive compensation of MOSFET-C filters 6217
analog cct., design procedures storage/reuse 554
analogue IC CAD, spreadsheets 28945
analogue signal proc., symp., London, UK (Oct. 1994) 28263
ARC-network design with op amp, parametric optim. subsystems 28982
AT&T CBIC lin. bipolar proc., radiation effects 30446
autonomous act.-R cct., chaotic perform. 21409
BiCMOS integrated op amp, EMI failures reduction 22618
bipolar AGC IC for hearing instrums. 35168
bipolar op amp, demodulation RFI 550
capacitive load driving and stabilisation *(German)* 21127
CCII-K ccts., variable gain, optimal design for HF appls. 21418
cell-level analog ccts., integer prog. based topol. selection 37574
CMOS 10 b, 20 MS/s, 35 mW pipeline A/D converter 29308
CMOS 3 V rail-to-rail I/O op amp for VLSI cell libraries 6037
CMOS +1V to -1V, rail, rail differential op amp 37653
CMOS class-AB op amp, prog., hybrid nested Miller compen. 6036
CMOS LNA design *(Chinese)* 13877
CMOS LV SC filters by switched-opamp tech. 29360
CMOS membrane IR sens., fab. and improved etchant 25846
CMOS micropower OTAs, SOI vs. bulk perform. comparison 553
CMOS multiplier design, differential difference amp. 6252
CMOS op amp, multipath Miller zero cancellation 29064
CMOS OTA-C act. filter simul., OTA macromodel 21404
CMOS VLSI continuous-time HF prog. nonrecursive filters 735
CMOS wireless vol. control receiver for hearing aids 18606
constant voltage anemometer circuit anal. 34447
current mode biquadratic filters employing operational amps. 12642
current-feedback op-amps, small-sig. macromodel 37651
current-mode quotient cct., nonideal act. elements 21406

operational amplifiers continued
DC small sig. symbolic anal. of large analog ICs 12281
digital portable phone transmitting amp., converter-control IC 25284
digitally prog. differential integrator, enlarged time const. 29349
digitally prog. integrator/differentiator ccts., OTA biasing 37860
dual current-feedback amp. techs., operation and advantages 37652
dyn. bias current tech., bipolar exponential-law/CMOS sq.-law elements 12667
electronically tunable grounded capacit. multipliers 12668
EM coupled isolation op amp without input buffer 6035
fault diagnosis, power-supply current monitoring/discrim. anal. 13847
floating generalised NIC/NII config., single opamp implement. 29354
four quadrant analog multiplier-type CMOS OTA, design 21123
fuzzy controller, analog implement. 773
gain-compensated SC integrator, four-input opamp based 6250
grounded capacitor oscillators, digitally prog. 12365
HF fully integrated OTA-C filters, 7.2 GHz bipolar OTA 6210
HI induced transients in lin. ICs, obs. 30431
high input impedance all-pass cct. 726
high input swing op amps., biasing cct., CMOS implement. 21129
high speed CMOS current op amp, bandwidth optim. 21126
high speed current-conveyor, accuracy in I-V transfer fns. 37847
high temp. precision op amp, CMOS implement. 21128
high-speed amp. ccts., current feedback macro models, perform. params. 6033
high-speed multiplier/VGA, simplified-transistor SPICE macromodel 6251
high-swing high-drive CMOS buffer, large capacitive loads 37645
IMD determ. for PCB design 557
insensitive second-order filters, high input impedance, current conveyors 12640
insensitive voltage-mode/current-mode filters from transimpedance opamps 37839
ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
LCD driver IC, high slew rate op amp 21464
lin. ccts., OTA/grounded capacitors, realization 37607
lin. MOS act. attenuator and amp., charactn. 29062
lin. voltage-controlled resist. in floating form 725
LNA, monolithic HBT-regulated HEMT config. by MBE 29591
LV analog ICs for 3 V systs. 771
mag. flows/MMF/currents, meas. device *(Russian)* 42899
meas. syst. amps., protection from overvoltage 547
MOS winner-take-all networks for VLSI analogue parallel sig. proc., inhibitory mechanism 37897
multiphase sinusoidal oscillator, CFOA pole 21142
multiple loop feedback OTA-C filters, perform. anal. 37848
nonidealities of op amps, effects on act. filters, anal. study 21407
OTA-based current-switching DAC 12593
OTA-based multifunction act. filter, prog., microcontroller appl. 12636
OTA-C ccts., continuous-time filters 37854
parallel-path biquad act.-RC oscillator, enhanced harmonic rejection 37665
pass. networks, incorporation of op amp *(Polish)* 37833
power electronics ccts., reliab. enhancement technols. 29017
price/perform. mark improvement for ADC and op amp ICs 13831
prog. CCII, variable current gain 37859
RC act. filter time-domain props., effect of gain bandwidth 6215
RC op amp and RC current conveyor filters, comparison 6216
replica-amp gain enhanced op amp, settling time anal. 37648
sampling oscilloscope front-end, HBT MMIC design 42869
sens. outputs tailoring, specialized needs 25811
single op-amp sinusoidal RC oscillators, equiv. forms 568
single-stage single-bit oversampling A/D converter, local feedback loops 711
SPICE macromodel for op amp power supply current sens. 552
SPICE macromodel for OTA 37844
SPICE noise macromodel, design eqns. 37638
Sun photometer, LED-op amp design 35309
symbolic anal. of large analog IC 29060
table-based lin. transform. filters, OTA-C techs. 732
two-stage CMOS op amps, optimized compensation strategy 37640
universal filter, two current-feedback amps. 37852
voltage controlled astable multivibrator, Miller-integrator 21146
voltage integrators using op-amps, current conveyors and transconductance amps 21408
voltage-mode filter with three current conveyors, comment 21416
wideband current-feedback op amps for RF appls. 545
Wien-bridge oscillator, modified for chaos generation 21143
GaAs MESFET SC third order ellipt. lowpass ladder filter *(Korean)* 734
GaAs fast radiation-hard CHIGFET op. amp. 29061

operations analysis *see operations research*

operations research
see also critical path analysis; forecasting theory; PERT; resource allocation; scheduling; stock control; travelling salesman problems
0-1 knapsack problem, GUB struct., syst. reliab. optim. 37205
branch and bound algm. for integer quadratic knapsack problems 28638
genetic algm. approach, operation assignment problem *(Japanese)* 222
inter-regional telephone call flows anal. *(Japanese)* 3106
large-scale work mgt. environ., work allocation 20361
linesearch method for quadratically constrained convex prog. 220
maint./QC mgt., OR models 28381
many-valued logic and mixed integer prog. 11951
multicriteria decision making, unintentional judgemental bias estim. 11658
multicriterion nature of diagnosis 42718
multiobjective LP, interior search directions generation, approx. gradients and anchoring points 233
multiobjective optim., interactive tradeoff cutting-plane algm. *(Chinese)* 28645
multiple objective LP, random problem generation 214
optim. of simul. via quasi-Newton methods 239
PCB automatic assembly time optim. 6420
PCB component assembly, lin. assignment algm. 29688
probabilities of events described by order stats. and appls., queue inference 28573
public-key cipher syst. based upon diophantine eqns. 24065
semicond. testing operations, dispatching rules 28419
single server queueing model in alternating random environ. 28575
SMT PCB placement seq., multiple batch, soln. methodology 29689
state-depend. queueing syst. using total hazard, variance reductions in simul. 193

operator training *see training*
operators (mathematical) *see mathematical operators*
optical aberrations *see aberrations*
optical absorption *see light absorption*
optical absorption coefficients *see optical constants*
optical absorption spectra *see spectra*
optical activity *see optical rotation*
optical beam induced currents *see OBIC*
optical beam modulators *see optical modulation*
optical beam splitters *see optical elements*
optical bistability
see also optical logic; SEEDs
2.5-Gbit/s all-opt. clocked decision/retiming cct: bistable semicond. lasers 9517
bistable liq. cryst. opt. syst. with global feedback, spatio-temporal behavior 15034
book, bistabilities and nonlinearities in laser diodes 58
bulk optically controlled semicond. switches design 25498
class-A bidirectional ring laser, cavity detuning, spontaneous phase symm. breaking 39992
conference, nonlinear optics appls., Miedzyzdroje, Poland (1994) 20243
delayed opt. bistable syst., chaos control 31555
DFB-LD with side-mode light injection, bistability and waveform reshaping 23250
dual fibre opt. traps, tapered hemispherically, confine. and trapping 39320
electrocapillarity micromirror opt. switch for subscriber loops 9569
Fabry-Perot cavity, opt. bistability, squeezed vac. effects 40096
Fabry-Perot resonators, transverse opt. bistability, incoupling conditions 7748
feedback laser resonator, quantum nondemolition tracking 23325
fiber resonators, nonlin. opt. bistability and differential amplif. 2115
fiber-optic mode converter, reflective, nonlin. perform. 22800
fibre double-ring resonators, multiple bistability, degenerate two-wave mixing 22831
FLC nonlin. opt. waveguides 7403
GaAs/AlGaAs pnpn optoelectronic switches, transient modelling 39545
heterojunction phototransistor-LD integrated device, flip-flop and multivibrator fns. 31048
heterostruct. QW bistable laser oscillators 7655
impurity centres in crysts., intrinsic opt. bistability 31590
injection laser polariz. dragging 2001
injection-locked dispersive bistable LD, fast opt. switching 39817
laser, injected at. coherence, nonlin. theory 2040
LD amps., opt. bistability and X-shaped hysteresis 39818
LD coupled, interf. filters, BOD 31554
metal-mirrored Fabry-Perot resonator bistability 2102
multidimensional semicond. laser syst., dyn. hysteresis 31357
multielectrode DFB laser self-pulsation charactn. 31327
multielectrode lasers, microwave small-sig. equiv. cct. model 14849
multistable single-mode emitting solid-state lasers 14807
NLC, opt. bistability 23448
NLC cells, opt. nonlin., voltage sensitivity 7730
nonlin. fiber resonators driven by arbitrary coherence laser sources, opt. bistability 23372
nonlin. planar opt. waveguides, vectorial simul. and power-param. charactn. 31484
nonlin. ring resonator, oscill. mode selection, bifurcation of chaotic mode transits. 15117
nonlin. waveguides, counterpropagating beam distributed coupling, bistability 15030
one planar coupler fiber-ring resonator, degenerate two-wave mixing 15023
particle image velocimetry, opt. real time fluid flow mapping 23487
periodic nonlin. multilayers, intens.-induced stopband bending 2116
PMMA doped film, opt. bistability, imaginary part of nonlin. coeff. 40042
polymer thin film waveguide devices, freq. doubling 2093
quasi-phase-matched SHG by backward propag. interact. 31559
QW bistable semicond. lasers, modeling and meas. 2000
semicond. lasers, opt. freq. bistability and power bistability 23235
semicond. lasers, static and dyn. props. of dispersive opt. bistability 14949
side-injection-light-controlled bistable LD as wavelength converter, digital sig. regeneration 17344
solid microballs, feasibility, opt. bistable elements 40100
SSFLC cell, electro-opt. bistability study *(Chinese)* 40044
superlattices, light transm. dyn., bistable behaviour 15031
tetrabenzporphyrins in solns., third-order nonlin. opt. interacts. 7782
two-level atoms, bistable, spatial-temporal light struct. 7750
two-level center thin film with a wide-aperture opt. feedback, spontaneous patterns form. 31566
two-level Rydberg atoms, mesomaser, self-pulsing behaviour 31134
two-mirror laser, saturable absorber, bistable operation 23340
VCSEL semicond. laser, stable states 2007
vert. cavity SELs, pitchfork bifurcation pol. bistabil. 14948
waveguide grating couplers, nonlin. optics, modal anal. 14458
AlAs/GaAs, triple-barrier reson. tunneling LED, fast opt. induced switching 31107
BaTiO$_3$ ferroelec., opt. bistability study 23449
CO$_2$ laser with saturable absorber, nonlin. dyn. 23078
CO$_2$ multimode laser with a saturable absorber, multistability 7518
CdS film, luminesc., all-opt. absorptive and dispersive bistabilities 1792
CdS thin films, opt. bistability, luminesc., DP device archit. 40032
CdS$_x$Se$_{1-x}$-doped glass, energy level struct., opt. bistability 31598
GaAs bistable Fabry-Perot device, array format operation 23378
GaAs thin film, Franz-Keldysh effect, opt. modulation 39486
GaAs:Cu,Si bistable opt. controlled switch, subnanosecond high-power perform. 2104
GaAs/Al$_x$Ga$_{1-x}$As, MQW, opt. transm. 15033
GaAs/AlGaAs bistable FET, optoelectronic switching 40056
GaAs/AlGaAs etched arrays of QW opt. bistable microresonators 14659
GaAs-Al$_x$Ga$_{1-x}$As quantum well lasers, bistable power switching 39863
GaAs-GaAlAs MQW electro optic modulator opt. data self-routing 13153
HeNe laser, phase-depend. helical pattern form. 23083
InGaAs/InP superlattice waveguide device, opt. multistable operation 1716
InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
InGaAsP/InP diode lasers with ridge struct., HF polariz. switching 42434
Si, porous, opt. bistability, photoinduced absorpt. 2114
Si/FLC light modulator, stochastic reson. 22928
Si/SiO$_2$ amorph. QW struct., dispersive subband-reson. nonlin. 1146

optical bistability continued
ZnS-ZnTe/GaAs MQW on refl. at RT, picosecond opt. bistability 38353
ZnSe-CdZnSe MQWs, excitonic opt. nonlin., opt. bistability 40029
ZnSe-ZnS superlattices opt. waveguide, opt. bistability 39380

optical bleaching *see optical saturable absorption*

optical breakdown *see electric breakdown*

optical cables
10 Gb/s transm., 5800 km opt. amplified testbed 42447
100 fibre ribbon slotted core opt. cable, low pol. mode dispersion 3562
access network, wireless technols. integrat. 25148
aerial plant, self-healing failures 3581
all-dielec. self-supporting opt. cables for Australian power lines 34103
ATF, gun trigger syst., fiber optic cables 18204
atten. meas. 30868
B-ISDN switching syst. subsyst. opt. interconnections 41914
cable short-term props. and creep behaviour *(German)* 10742
campus inform. network syst., LAN/FDDI based *(Japanese)* 16696
CPFSK coherent opt. transm. for repeaterless submarine syst. *(Japanese)* 16994
electrothermal-chem. gun, meas. techs. 31751
extending range of atten. meas. 30867
fiber losses, meas. method 30866
fiber reliab. modeling for multiple stress-time histories 39328
fiber strain meas., photo-elastic correction factor 14397
fibre strain meas. 1661
fibre-optic cables installed on overhead power transm. lines 17334
fire-resistant and cryogenic opt.-fiber cable 5569
FSA submarine opt. amp. syst., rem. supervision *(Japanese)* 16993
FSA submarine opt. amp. transm. syst. *(Japanese)* 16992
high bandwidth internat. video via fiber optic cable 3057
high reliab. undersea couplers, packaging proc. 17278
high-dens. opt. subscriber cable, helically single-grooved small units 9592
high-fiber-count cable, U-groove torsional rigidity 9593
in-service fiber line ident. based on high-resoln. fiber length meas. 17332
installed opt. submarine cable, long-term polariz.-mode-dispersion meas. 17207
integrated environ. for fibre optic cable design 17355
integrated power/opt. overhead cabling, utility experiences, UK 35651
internat. video transm. network and cable conditions and trends *(Japanese)* 17574
JWOTS, fibre optic commun. network, power utility 25494
modular SMPS, opt. submarine cable appls. 19836
MW9070A OTDR for opt. fibers maint. *(Japanese)* 33667
network database syst., obj.-oriented design 9102
OFC, San Jose, CA, USA (Feb. 1994) 5447
opt. glass carrier reliab. test 179
OPTOBUS parallel opt. links, data transm., 3 Gbits/s 3563
OTDR waveforms, pattern matching, opt. lines fault location 9454
petrochemical plant, chem.-moisture barrier cable 5411
Porta Systems opt. fiber cable splitters, CIM 14400
portable testers for fiber-optic commun. testing 17170
power utilities, opt. fibre commun. technol./trends 26976
ribbon opt.-fiber cable, polariz. OTDR and PMD meas. correl. for stress anal. 14353
ribbon-slotted-core opt. fibre subscriber loop cable 34102
SDH/SONET undersea fiber-optic systs. 17237
shipboard monitoring and control fibre-optic syst. *(Croatian)* 3551
Siemens MINISUB non-repeatered submarine cable syst. 34041
Siemens self-supporting fiber-optic aerial cables 9550
SNR high-speed transport protocol, spec./anal. 2922
soliton transm. on opt. fibres *(English, French)* 42342
spherical dipole antenna 23900
struct. wiring, opt. fibres 42370
submarine cables, EDFA repeaters, data transm. 33981
submarine opt. amp. systs., fault location, coherent OTDR *(Japanese)* 16995
submarine opt. cable systs., cost-effective backhaul routes 3306
submarine opt. cable systs., networking trends 3305
submarine opt. cable transm. syst., and characts. *(Croatian)* 3550
subscriber connection line multiplexer appl. *(German)* 16955
telecomms. syst., forward error control, simul. techs. 42450
tensile loaded cable, photo-elastic correction factor for fiber strain meas. 25524
test syst. integrat., network mgt. *(German)* 8830
testing, OTDR meas. and algms. *(German)* 3589
transoceanic amplified submarine systs., NRZ-zero chromatic dispersion/soliton based designs 42365
twisted fibre package, birefr. study 30845
ultra-high capacity telecomm. *(Japanese)* 3545
undersea cable systs., design requirements 33995
undersea cable systs., installation/maint. technol. 33998
undersea cable systs. in global networking 33994
undersea commun. systs., network planning/operation/maint. 33999
undersea non-repeatered technols., challenges, and products 33997
undersea opt. amplified repeatered technol./products 33996
underwater neutrally buoyant electrooptic tether cables 19301
vac./tube method, opt. fiber laying alongside power cable 25520
Venezuela, RED Costera opt. submarine cable syst. 3575
very-high-fiber-count preconnectorized opt. fiber cable 9591
VSB/QAM for hybrid fiber/coax, digital transm. 42610
Er-doped fiber amp. long-haul undersea syst. monitoring 17239
Er-doped fiber amplifer chromatic dispersion eval. 34060

optical chaos
act. mode-locked external-cavity semicond. laser, quasi-periodic route, chaos 31423
class-C laser, av. freq. shifts 40019
Compton FEL oscillators, sideband instabilities, electron dyn. 40009
delayed opt. bistable syst., chaos control 31555
diode laser, opt. injected, reverse bifurcations and dyn. modif. 31340
external cavity chaotic opt. commun. LD, periodic oscills. 39832
Fabry-Perot lasers, loss-modulated two-mode, antiphase dyn. 1887
FEL efficiency enhancement with incoherent pump wave or stochastic undulator, chaotic particle deceleration 39923
FEL oscillators, space charge effects, self-oscills. and chaos 39971
fibres with feedback, dyn. SBS 14406
FOM 1 MW 200 GHz free electron maser mode purity, plasma heating appls. 39924
grating couplers, nonlin. optics, modal diffr. theory 15071
high Fresnel no. dye laser, weak turbulence 23111

optical chaos continued
high power FEL electron output scheme, time-depend. multi-dimens. simul. 39922
high-order opt. soliton splitting under two-photon absorpt. 31629
inhomog. broadened dense media, laser instabilities and chaos 23337
IR FEL, sideband generation, transit. to chaos, time-resolved study 40011
IR lasers, conf., Ascona, Switzerland (1994) 5485
LD amps., opt. bistability and X-shaped hysteresis 39818
LD for chaotic opt. commun. 17249
liq. cryst. light valve, feedback, nonlin. response 22956
multielectrode DFB laser self-pulsation charactn. 31327
n-core nonlin. fiber arrays, stationary pulse propag. 30877
nonlin. ring resonator, oscill. mode selection, bifurcation of chaotic mode transits. 15117
periodically pumped and coupled lasers, phase locking study 31473
Raman FEL, chaotic behaviour anal. 39911
semicond. diode laser arrays, opt. feedback, chaos control 39804
solid-state ring lasers, self-modulation/relax. oscills. 7579
storage ring FEL, opt. field chaos 14990
superlattices, light transm. dyn., bistable behaviour 15031
sync. driven fiber optic resonator near zero dispersion, chaos 30852
synchronized chaotic laser digital commun. 25488
twin-stripe semicond. laser, three-torus bifurcation 2008
VCSEL diode under DC excitation, chaotic dyn. of mode competition 1999
CO_2 TEA laser dyn., freq. stabilisation, chaos 23087
CO_2 laser, small-amplit. pumping modulation, operation dyn. 39648
CO_2 laser with saturable absorber, nonlin. dyn. 23078
CO_2 mol., chaotic laser oscill. in seq. band 23097
Er^{3+} doped fiber laser, self pulsing chaos, antiphase dynamics 39715
Er-doped fiber laser model, two-wavelength operation 39716
Er-doped fiber laser, quasi-periodic route, chaos 23135
$(K_xNa_{1-x})(Sr_yBa_{1-y})Nb_2O_6$:Cu, self-pump phase conjug., four-wave mixing 2063
$LiNd(PO_3)_4$ laser, intracavity SHG, homoclinic chaos 31255
$LiNd(PO_3)_4$ multimode laser, antiphase dyn., Shil'nikov chaos 14812
NH_3 FIR lasers, Lorenz-like chaos 14692
Nd:YAG ring laser, chaos, dyn. and spectral charact. 40020
Nd-doped fiber laser, CW/self-pulsing regimes, stabilis. 39714
Rb, counterpropagating beams, spatio-temporal instabil. 40068
optical character recognition
see also character recognition equipment
2D HMMs for document image recogn./normalization 41312
AI, OCR 8622
analog VLSI neural net OCR syst., extraction module 29466
analogue neural chip, synapse wt. accuracy, expt. 37925
Arabic opt. text recogn., survey/bibliog. 24402
Braille writing, opt. recogn., std. equipt. 10286
Chinese character recogn., sigmoid fn. VLSI neural net 29510
Chinese handwritten characters, feature-based noise reduction 24550
Chinese online characters recogn., knowledge model based approach 16119
confirmation and modif. of character recognized results *(Japanese)* 2621
CRIPT, OCR syst., multicolumn texts anal. 41239
cursive handwriting recogn., online connectionist recogniser 33041
deformed patterns recog. 16150
degraded gray-scale text recogn., pseudo-2D HMMs and N-best hypotheses 40753
encoding of characters for OCR appls. 32186
extraction chip for high speed OCR *(Korean)* 24678
facsimile apparatus, OCR fn. *(Japanese)* 24942
free-space matrix multiplier, diffractive/refr. micro-optics 7489
Greek reading machine for visually impaired 4320
HALdoc, document mgt. syst. 16763
handwritten Chinese characters, opt. recogn. 41361
handwritten digit recogn., time delay neural network 33040
handwritten digit recogn., transform. of optimized prototypes 33039
Japanese writing characters, pattern recogn., visual field changes with familiarity 41064
lateral-alignment-free opt. neural network, pattern assoc. 16141
matched spatial filtering, correl. diags. for shape invariant pattern recogn. 32980
perturbed correl. method, effect on OCR 41362
printed Chinese characters recogn., heuristic algm. 32920
prog. accelerator chip for Chinese character recogn. 24543
raster adaptive document binarisation tech. 8511
real-time multiline OCR parallel archit. 33027
real-time signature verification, neural network algms. 16282
restoration of character image, charact. points 8574
Selfoc microlens array opt. learning neural network for pattern recogn. 31034
symbolic and pattern proc., character recogn. syst. *(Japanese)* 32863
text-image anal., skew angle estim., SLIDE 2614
translation-invariant second-order opt. neural network for multiple-pattern class. 24486
vehicle registration plate image capture/ident. 41380
watthour meter opt. character reading syst. *(Japanese)* 9969
word segmentation for cursive script recogn. 41316
$Bi_{12}SiO_{20}$ SLM-laser scanner hybrid joint transform correlator 33082
$Bi_{12}SiO_{20}$ real time opt. correlator 33083
optical choppers *see optical elements*
optical circulators
all-opt. clock-recovery cct. using dual mode-locking, 5-Gbit/s 14879
magneto-optic ridge waveguide struct., nonreciprocal mode propag. 39421
nonreciprocal integrated optic couplers, magneto-optic materials, design 14413
optical coatings *see antireflection coatings; optical films*
optical coherence *see light coherence*
optical coherent transients
see also photon echo
conjug. polymers with large opt. nonlin., ultrafast relax. 2092
III-V semiconds., mag. field effects on opt. nutation 2089
mag. grating free induction decay and echo 2074
CuCl semicond. biexciton and exciton systs., fs coherent transients 23367
$LiNbO_3$:Fe, photogalvanic effect, grating, phase-locked detect. 15168
optical collimators
autocollimation laser refractometer, highly sensitive fiber-optic output 42961
capillary-optic material characterisation, x-ray lithog. collimator 6692
cryst.-cored fiber second-harmonic wave focusing optics 1778
diffractive opt. element for laser beam sharpening 23328
downsized multi-functional EO test collimators 35385
optical collimators continued
fiber-optic evanescent field absorpt. sens., theoretical eval. 3856
free-space opt. computing module config., guide-frame assembly method 39514
intersatellite commun., LD transmitter 17173
LD package, collimating lens syst. 3547
micro-Fresnel lens LD collimating light sources 7443
multilayer X-ray mirrors for X-ray lithog. 6689
multislit variable width collimator for microplanar beam radiotherapy 43355
optimal absorbing boundary conditions 23648
PMMA monolithic integrat. of microlens and fiber holder arrays 22858
wedge plate interferometric laser beam tester 31476
optical communication
see also optical communication equipment; optical fibre communication; optical links; spread spectrum communication
155 Mbit/s 4 km opt. free space link low noise opt. receiver 42409
alg. geom. codes, code constr. *(Japanese)* 15738
ANN for commun. systs. modeling/simul. 17246
Australian ESI, commun. develops. 26975
CDMA, no.-state/coherent-state, lossy photon channels, perform. 42349
CDMA, spectral encoding, acoust. tunable opt. filters 33983
CDMA no.-/coherent-state opt. systs., perform. 34027
CDMA opt. commun., M-ary signalling 34058
CDMA opt. fiber networks, syst. and sync. perform. anal. 17270
CDMA opt. sync. systs., CCI cancellation 34028
CDMA syst., coherent light pulse, encoding/decoding 42420
CDMA with prime codes, perform. anal. 34073
CEMERLL (compensated Earth-Moon-Earth laser link) expt. 17287
channel/mode grouping effect in multi-bus network *(Japanese)* 41507
cluster-based shuffle network, conflict-free channel assignment 3578
coal mine transportation arcing, detection/suppression method 20107
coherent detect. tracking syst. in laser commun., ang. bias correction 17309
compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
conflict-free WDMA networks, buffer-sharing 8745
cross-connect syst. utilizing delivery and coupling matrix switch 16985
deep-space commun., direct detect. opt. relay satellite 17293
deep-space commun. via relay satellite, RF and opt. archits. 17285
deep-space navig., overview 17511
differential overlapping PPM in opt. direct-detect. channel 17269
digital atmos. opt. link 3588
direct detect. opt. commun. syst. that operates in sunlight 17319
direct-detect. channel, differential overlapping PPM 15706
Earth-space commun., opt. networks 17294
externally modulated analog opt. links, dyn. range 9537
free-space laser communication, conf., Los Angeles, USA (1994) 5437
free-space opt. commun. systs., pointing jitter, turbulence 9551
indoor wireless IR commun., hybrid PPM-CDMA systs. 42355
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
inter-vehicle commun., laser/retro-refl. 42435
inter-vehicle networking method, laser media 3078
IR commun. protocols, automatic protocol recogn. *(Japanese)* 42471
IR optoelectronic data transm., interfaces 34042
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
Jet Propulsion Laboratory, opt. commun. program 17283
L-PPM modulation, non-directed indoor IR channels, perform. eval. 17244
laser commun., Fabry-Perot interferometer for freq./spatial tracking 17312
lightwave commun., opt. amplified receivers, moment generating fn. 42363
local networks, novel sync. procedure 16547
long-haul submarine commun. systs., soliton transm. implement. 9484
M-ary opt. polariz. modulation detect. in commun. channel 17318
Mach Zehnder electro optic modulator for sideband suppressed carrier modulation of opt. fields 42394
maint. free UPS, advanced batt. technol. 19815
moving magnet lin. DC motor, const. vel. control *(Japanese)* 44073
multi-channel network, multiple/parallel data-transm. *(Japanese)* 17188
NASDA, opt. intersatellite commun. research 17282
no. of wavelengths required for opt. path networks *(Japanese)* 25487
noiseless photon commun. channel model and coding anal. *(Croatian)* 2353
noisy phase lightwave systs., power moment derivation 25478
nonlin. distortion of SCM systs., SBS caused 17172
nonpersistent CSMA/CD quasidiffuse IR LAN throughput 41763
one-out-of-two quantum oblivious transfer cryptography 15795
opt. commun., ARQ schemes, perform. eval. 17184
opt. switching, multiwavelength systs., Europe 16980
optimal const. wt. cyclically permutable codes/difference families 40709
optimal const. wt. cyclically permutable codes/difference families 24087
orthogonal FDM frame sync. offset, decision-directed MLE 9432
overlapping multipulse PPM in opt. direct-detect. channel, error perform. 8259
PPM sigs., airborne/underwater opt. commun., optimum detectors 41100
Prabhu upper error bound for digital commun. syst. 15688
profibus, light waveguide interlinking *(German)* 42446
quantum cryptography, photon pairs 15792
quantum eavesdropping inform. gain limits 15796
quantum sig. source, inform. extraction, quantum entropy reduction 15692
quantum states, inform. extraction 15694
Rome Laboratory, overview of laser commun. technols. 17284
shared-channel multihop lightwave networks, perform. eval. 17255
soliton lattice dyn., commun. systs. appls. 9483
space commun. appl. 17164
space laser commun., effect of turbulence on M-ary coherent PSK systs. 17317
space opt. commun., pulse-coded multiple access 42350
space opt. commun., visibility meas. for atmos. transm. model 15450
spatial opt. CDMA 42351
spectrum meas. syst., high resoln. 4003
stretched pulse PPM opt. channels, perform. improvement *(Chinese)* 9533
synchronized chaotic laser digital commun. 25488
throughput-competitive on-line routing 8818
two-state two-particle quantum systs., inform. transfer 15693
uncoded overlapping PPM perform. under commun. constraints 40556
unsynchronised opt. overlapping PPM channel coding 42357
Venezuela, RED Costera opt. submarine cable syst. 3575
video multiplexing, pulsed coded fiber optics 8676
voltage division multiplexing in commun./computer engng. 24746
WDM WAN trials 33524
AlGaSb/GaSb punch-through heterojunction phototransistors for lightwave commun. 7462

optical communication continued
- Er-doped fiber amps., MQW-LD pumping module *(Japanese)* 42464
- GaAlAs/GaInP/GaAs passivated HBT, high bit rate opt. commun. appl. 6730
- InP/InGaAs punch-through heterojunction phototransistors for lightwave commun. 7462

optical communication equipment
- *see also optical cables; optical receivers; optical repeaters; optical switches; optical transmitters; optical waveguides; photonic switching systems*
- 1.3 μm monolithic integrated optoelectronic receiver, InGaAs MSM photodiode/AlGaAs-GaAs HEMTs 25543
- 1.3 μm opt. fibre amps., device perform. and systs. impact 34065
- 2.5 Gbit/s DFB LD/modules for long-haul opt. transm. 34002
- 2.5 Gbit/s transm. expt., 1000 km of std. single-mode fibre, 1550 nm *(English, Italian)* 33993
- 2-axis EM translation mechanism for FPA 17311
- 10 Gbit/s data switched semicond. laser amp. nonlin. loop mirror 17326
- 10 Gbit/s transm. expt., direct modulation, 8:1 TDM setup 42454
- 12-channel fiber optic communs. equipt. *(Japanese)* 25510
- 250-Gb/s self-clocked opt. TDM, polariz.-multiplexed clock 42376
- 622 MHz voltage controlled SAW oscillator *(Japanese)* 37670
- 980 nm Bragg fibre grating coupled diode laser wavelength and intens. stabilisation 9431
- 1300 nm gain-clamped MQW laser amps., reduced IMD 34006
- 1300 nm MQW laser amplifer for opt. commun. 9456
- acoustic-optic filters 9449
- acousto-optic tunable filters, near-ideal bandpass charact. 7417
- act. integrated antennas, opt. control, microwave-opt. interact. *(Japanese)* 8062
- adjustable dispersion equaliser for 10/20 Gbit/s 160 km fibre transm. 9436
- Alcatel 1610 opt. amp. family 25501
- all-opt. clock-recovery cct. using dual mode-locking, 5-Gbit/s 14879
- all-opt. WDM/TDM transmultiplexers 34086
- analog opt. converter modules *(Japanese)* 25511
- Arcachon fiber optic distrib. network 25500
- arrayed-waveguide grating multiplexer, phase error compen. 22919
- asymmetric multimode Y-jn. splitters 34099
- BH light-emission/detect. diode module for subscriber TCM transm. systs. 25472
- birefr.-fibre sole wavelength filters 14394
- BMDO/IST lasercom advanced technol. demons. status 17290
- Bragg opt. fibre gratings, temp.-compensating mounts 34097
- bulk optically controlled semicond. switches design 25498
- buried channel silica-based waveguide fab., MCVD method 30960
- cascaded hybrid silica and fluoride-fibre-based amps., perform. 31239
- CATV technol. studies *(Japanese)* 34265
- CCD-based tracker for laser commmunication pointing acquisition and tracking control 17304
- CCD-based tracking loop for precision beam pointing, digital control design 17307
- chirped fibre Bragg grating dispersion compensator, directly modulated laser appl. 25521
- chirped grating integrated-optic dispersion compensator for fibre links 34016
- CMOS burst-mode clock recovery cct., 28.8 Mb/s PON 34104
- coaxial LD chip package for fibre in loop appls. 42427
- codec, high data rate error correction coding 17316
- codirectional Bragg WDM tunable acousto-optic-filter design 39534
- coherent FSK syst. DFB lasers, thermal contrib., FM response 3585
- collimating lens syst. for LD package 3547
- compact disc lasers, gigabit fibre optic links 42451
- coupled antiresonant reflecting opt. waveguides based wavelength selective device 14472
- DBR laser wavelength converter, bit-rate-independent operation, 10 Gbit/s 14903
- deep-space commun., direct detect. opt. relay satellite 17293
- demultiplexing, π phase shift recovery in semicond. laser amp. 25508
- DFB LD/module for CATV systs. 34261
- digital atmos. opt. link 3588
- direct detect. opt. systs., LMS filters, ISI reduction 9607
- directional coupler-type opt. power divider, large-angle low-loss charact. 30942
- DSSC lin. for wide dyn. range opt. link 9538
- dye-doped biomol. thermally-activated thin film opt. switch 39535
- Earth-space commun., opt. networks 17294
- electroabsorption modulator module *(Japanese)* 42463
- electrocapillarity micromirror opt. switch for subscriber loops 9569
- electrooptic polymer waveguides, packaging and charactn. 39491
- EURESCOM project P306, European access network evol. *(English, Italian)* 33988
- external cavity chaotic opt. commun. LD, periodic oscills. 39832
- Fabry-Perot wavelength-tunable picosecond LD pulse source 34090
- FADOF filter for space borne opt. commun., Doppler shift compensation 17325
- ferroelec. smectic C* liq. cryst. high-speed tunable filter 39539
- FET-based OEIC photoreceiver design, syst.-level considerations 34081
- fiber commun. systs., opt. device trends *(Japanese)* 42462
- fiber in board electro-opt. interconnection syst., packaging 42429
- fiber optic module interconnection, parallel data bus 42474
- fiber/planar waveguide coupler thin metal layer polariz. props. 7285
- fibre link systs. 4000 km long, perform. comparison 42377
- fibre optic sens. technol. evol. and commercialisation 17818
- fibre-optic connectors in outside plant environ., perform./reliab. 14381
- fig.-of-eight fibre laser for soliton transm. expts. 42453
- filter based WDM, reliab., opt. fibre amp. appl. 3540
- filter-embedded opt. fiber accessories 3541
- four-channel high-dens. opt. FDM add-drop multiplexing filter 17200
- France Telecom's fibre optic access networks 25499
- free space opt. interconnects, LD array, microlenses, photodetectors 7486
- Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
- fused biconical taper WDM, radiation effects 17261
- glass on Si, opt. interconnections/hybrid optoelectronic integrat. 31113
- GRINSCH lasers, carrier/radiation confinement 39771
- GRINSCH strained MQW LD, 1.5 μm, low threshold current, high output power 23269
- HDTV, opt. transm. equipt. *(Japanese)* 42600
- HEMT 20 Gb/s 2:1 data selector IC for commun. appl. 29339
- high bit rate opt. transmitter module realised in opto-hybrid technol. 9480
- high-speed digital systs., jitter anal. 33985

optical communication equipment continued
- high-speed optoelectronics, packaging technol. 11751
- holographic switches, LCD 31658
- III-V semicond. waveguiding devices, adiabatic tapers 7383
- in-line opt. amp. systs., num. simul. *(Japanese)* 14738
- integrated DFB LD modulator for 2.4 Gbps opt. transm. *(Japanese)* 39618
- inter satellite cross links, non-mech. laser beam steering/spoiling methods 17308
- interconnectable star couplers for distrib. star network 9427
- intersatellite commun., LD transmitter 17173
- IR FPA opt. interface technol. 34582
- Italian PON field trials *(English, Italian)* 33992
- Jet Propulsion Laboratory, opt. commun. program 17283
- laser commun., acquisition and tracking, CCD 17306
- LD FM transfer fn. modelling 1977
- LD output simul., mock eqns. 31425
- LD technol., conf., Los Angeles, CA, USA (Jan. 1994) 36891
- lensless in-line fibre filters 22989
- LEOS, Lake Tahoe, NV, USA (July 1994) 39
- lin. chirped fiber Bragg grating for fibre link dispersion compensation 42444
- Littrow hologram substr. guided wave WDM demultiplexer 42445
- low-loss compact all-fibre wavelength drop and insert filter 9437
- LSI packages for ultra high-speed opt. fiber transm. systs. *(Japanese)* 42470
- mech. design of Optical Communications Demonstrator telescope assembly 17324
- mixed-sig. commun. LSIs, design, device/crosstalk noise 12660
- modern commun. technol. advancement, problems *(Chinese)* 3234
- Moscow data network struct. 16548
- MQW three-branch Y3-lasers, tunable, WDM opt. networks 31401
- MQW-DFB-LD modules for SCM fiber-optic transm. *(Japanese)* 42468
- multi-mode opt. waveguide interf. devices based on self-imaging 40440
- multichannel acousto opt. tunable filter switches, reduced channel-to-channel interact. 39507
- multichannel WDM opt. filters, birefr. planar opt. platforms 42386
- narrowband PSK data transm. via opt. fiber, encoding/decoding ccts. 9527
- network interface unit for multichannel ring networks 3227
- non-destructive opt. fiber talk-set *(Japanese)* 42397
- nonlin. glass-based opt. switches, BPM design/simul. 17167
- North Carolina inform. highway 9547
- nuc. facilities, opt. fibres, radiation hardness 22838
- nuc. phys. expts., opt. fiber links 22843
- nuc. power indust., opt. fibres, ionizing radiation 22839
- opt. space commun., second generation opt. terminals 34045
- Optical Communication Demonstrator instrum., syst. design 17323
- optoelectronic device fab. by CBE 37417
- parallel opt. data links, VCSELs 42367
- parallel opt. interconnect, SEL and photodiode arrays 39601
- phased waveguide arrays, wavelength multiplexers optim., beam propag. method 30955
- photoimageable thick films for MCM 21726
- photoimprinted Bragg grating all-fiber dense WDM/demultiplexer 42388
- photonic networks, pulsed lightwave freq. supply module 9605
- pigtailing and connectorization techs. for optoelectronics 39610
- planar lightwave cct. dispersion equaliser module 17233
- planar lightwave cct. technols. *(Japanese)* 14426
- planar liq. cryst. opt. switch for opt. commun. 34014
- planar photodiode for high-dyn.-range analog transm. 17195
- PLL, amplit. modulated commun. link 42347
- polariz.-independent directional coupler wavelength filters, birefr. compensation 39536
- polariz.-insensitive telecomm. optoelectronic device design 14578
- polymer electro-optic waveguide modulators for data commun. 31000
- push-pull modulated DFB lasers, enhanced AM bandwidth 7635
- quadratic nonlin. opt. materials *(French)* 1649
- quantum cryptography, polariz. feedback 15791
- quantum cryptography, polarized photons in opt. fibres 17342
- rare earth-doped fluoride fiber amps./lasers, telecomm. appls. 31224
- rem. prog. all-opt. routing device, clock division 9531
- repeaterless opt. commun. syst. 3543
- Rowland circle grating photonic integrated device for WDM appls. 9441
- SAW filter appls. *(Japanese)* 39122
- SDH 600 Mbps line termination and multiplexing equipt. 25179
- self-holding opt. switch using opt. matrix board, FTTH appls. 9487
- semicond. amp., polariz. insensitive, gain-saturation, wavelength conversion 14881
- semicond. laser amps. biased at transparency, quantum well no. effects on nonlin. refr. 39819
- semicond. lasers in opt. broadband commun. *(German)* 7644
- semicond. opt. amp., polariz.-insensitive, wavelength conversion, 10 Gbit/s 14882
- side-injection-light-controlled bistable LD as wavelength converter, digital sig. regeneration 17344
- Siemens MINISUB non-repeatered submarine cable syst. 34041
- small opt. user terminal, flight config. 17292
- specs. for fibre optic instrumentation 39346
- split-beam Fourier filter, mid-stage filter in EDFA fibre link 31068
- static wavelength router all-opt. network crosstalk penalty 42425
- strained layer QW semicond. lasers for pumping Er^{3+}-doped opt. fiber amps. *(Japanese)* 3566
- subcarrier comb generator, phase-locked tunable config. 9426
- submarine fibre-optic syst. technol., review and future prospects 3574
- substr.-mode holographic polariz.-division multi/demultiplexer for opt. commun. 25173
- surface mount type LD/photodiode module *(Japanese)* 42466
- SW high reliab. LD for opt. data links 42430
- TDM systs./networks 9453
- TDRSS-LIGHT, space commun. archit. 17295
- telecomm. optoelectronics, OMCVD epitaxial growth 37416
- telecomm. syst. waveguide component polymer materials 7379
- thin film photocond.-electroluminescent ccts., opt. sig. delays 39603
- three-branch widely tunable semicond. laser design for WDM links 14915
- three-wavelength Mach-Zehnder demultiplexer, BPM simul., fab. 17166
- transfer-molded packaging for opt. data links 11783
- transm. systs., opt. components modelling *(French)* 3569
- travelling-wave MQW semicond. laser amp. switches, dyn. perform. 9476
- tunable photodetectors and LEDs for WDM appls. 39617
- twin-core fibre opt.-to-electrical demultiplexing detector 34087
- two-port coherent lattice-form opt. delay-line cct. synthesis 14669
- two-sect. travelling-wave semicond. laser amp. optoelectronic time division demultiplexer 42100

optical communication equipment continued
- ultrafast opt. CDMA all-serial coding archit. 42356
- ultrashort pulse amplif. in semicond. laser amps., theory and expt. 14939
- UPS *(Japanese)* 42070
- UV grating written planar silica waveguide semicond. external cavity laser 34034
- variable opt. delay line, birefr. planar opt. platform based 42443
- variable wavelength OTDR characts. and meas. 3542
- VCSEL arrays, conf., Los Angeles, CA, USA (Jan. 1994) 36835
- VCSEL diodes, Au-plated heat spreading layer 23268
- vert. cavity waveguide spectrometer, WDM commun. 34063
- wavelength converters based on four wave mixing in semicond. opt. amps. 42385
- wavelength division demultiplexer, multiplexed waveguide holograms 17281
- wavelength switching in opt. networks, acousto-opt. switches 17229
- wavelength-reusable/topol.-reconfigurable WDM opt. LAN networks, monolithic opt. equalizer array 42426
- WDM, LAN archit. 8891
- WDM channel NRZ, RZ format conversion, single semicond. laser amp. 25503
- WDM high-speed wavelength tunable liq. cryst. filter 42387
- WDM transceiver OEIC modules for local access fibre networks 17331
- wide free-spectral-range opt. resonator, FDM transm., novel archit. 17168
- zirconia alignment sleeve, opt. connectors, charact. and static fatigue reliab. 9473
- AlGaAs cascaded nonlin. directional couplers, all-opt. switching 39411
- AlGaAs nonlin. directional coupler, time-domain all-opt. demultiplexing 39377
- AlGaAs-GaAs HBT-based direct coupled feedback transimpedance amp. 29065
- AlGaAs-GaAs HBTs for high-speed opt. modulator driver cct. 42405
- $Cd_{1-x-y}Mn_xHg_yTe$ single cryst. opt. isolators for high power LD pumping 3556
- CdTe:In opt. switch 1550-nm sig. photonic sampler 42131
- Er doped fibre amps., gain peaking, undersea appls. 14746
- Er doped fibre amps., minimised gain tilt for CATV transm. systs. 3554
- $Er^{3+},Yb^{3+}:SiO_2$ planar waveguide amps., pair induced energy transfer 31246
- Er-doped 980-nm single-pump recycled fibre amplifer optim. 31226
- Er-doped distrib. fiber amp., pol. depend. of soliton interacts. 34019
- Er-doped fiber laser additive pulse limiting 31454
- Er-doped fibre amp. gain equalization by tunable coherent opt. transversal filter 39709
- Er-doped fibre amplifer high power broadband ASE sources for spectrum-sliced WDM systs. 34066
- Er-doped opt. fiber amp., commun. appls. *(Japanese)* 3565
- Er-doped opt. fiber amps., 1.3/1.55 μm 7556
- Er-doped waveguide amps., short-length, conc. effects 14747
- Er^{3+}-doped fiber amp., low noise, fab., opt. preamplification expt. *(Korean)* 31218
- Er^{3+}-doped fibre dispersion-modified act. modelocked laser, chirped fibre grating 7552
- GaAs 2-to-4 level convertor IC for SOA modulators 42403
- GaAs FET IC, const.-current cct.-biasing technol. 13901
- GaAs micromachined widely tunable Fabry-Perot filters 22984
- GaAs-AlGaAs monolithic optoelectronic switching network 42130
- GaInAsP MQW 1480-nm pump LD, life tests 9526
- InAlGaAs QW superlattice APD 9496
- InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 1729
- InGaAs/AlGaAs/GaAs grating demultiplexer/detector array integrat. 9422
- InGaAs/InP photodiode-opt. fiber array module using Si v-groove, photonic syst. appls. *(Korean)* 34013
- InGaAs/InP planar photoelastic low loss waveguides/electroabsorption modulators 30975
- InGaAs-InP 1.55μm photonic waveguide devices, quantum well struct.-based 14411
- InGaAsP DFB single-mode LD, small sig. cct. model 39821
- InGaAsP electroabsorp. modulator, low pol. depend. 22926
- InGaAsP electroabsorption waveguide modulator, shipboard analog links 9535
- InGaAsP/InP PBH-DFB-LD for 2.5 Gbps opt. fiber commun., fab./characts., 1.55 μm *(Korean)* 39769
- InGaAsP/InP diode lasers with ridge struct., HF polariz. switching 42434
- InGaAsP-InP pol.-independ. four-channel tunable opt. filter 25477
- InP 1.3 μm strained-quantum well laser telecomm. appls. 31360
- InP tunable phased-array wavelength demultiplexer 17257
- InP waveguide components, WDM opt. commun. syst. 34062
- InP wavelength converter based on integrated Mach-Zehnder interferometer 7371
- InP/InGaAsP 1.3 μm digital opt. switches, extinction ratio of 30 dB 42432
- InP-based opt. multiplexer integrated, MQW modulators 34074
- K^+-ion diffused waveguides, coupler-type wavelength demultiplexer 9554
- $LiNbO_3$ channel waveguide, wavelength converter for WDM opt. commun. 15074
- $LiNbO_3$ electro-opt. digital intens. modulation, chromatic dispersion tolerance 17234
- $LiNbO_3$ high-speed opt. modulators, Mach-Zehnder config. 30986
- $LiNbO_3$ integrated acousto-opt. mode converters/tapered couplers , Tapered acoustical directional couplers 39506
- $LiNbO_3$ opt. waveguide modulator for bidirectional transm. 42442
- $LiNbO_3$ passband-flattened guided wave acousto-optic filter 34009
- $LiNbO_3$:Ti electro-opt. modulator, CPW, optimum design 30997
- $LiNbO_3$:Ti guided-wave light modulators, filter-type electrodes 30987
- Nd:YAG. UV laser commun. syst., short range appls. 3582
- Nd:YLF laser pumped by LD for 1.3/μm opt. fiber amp. *(Japanese)* 42465
- Nd^{3+}:YAG lasers in commun. and range finding systs. 7875
- Pr^{3+}-doped GeS_x-based glass fiber amps. at 1.3 μm, photolum. 31234
- Si 10 Gbit/s bipolar LD driver IC for direct modulation 29047
- Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
- Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046
- Si bipolar wideband amp., 15 Gbit/s, opt. commun. appl. 21122
- Si integrated optoelectronic VLSI commun. cct. 34033
- Si planar hybrid optoelectronics, colloquium, London, UK (1994) 20255
- Si thermooptical micromodulator, 700-kHz -3-dB bandwidth 39490
- SiO_2 ARROW-based opt. wavelength filter, strip config., WDM systs. 34068
- SiO_2 planar waveguide ccts., telecomm. appls. 30983
- SiO_2/Si arrayed-waveguide grating multiplexer 22909
- SiO_2-on-Si Mach-Zehnder 1.3/1.5 μm demultiplexer 34032

optical communication equipment continued
- SiO_2-on-Si:rare earth doped integrated opt. waveguide devices in opt. commun. 30968
- ZnSe/ZnCdSe/ZnSe MQW device, opt. modulation and switching 25539

optical components *see optical elements*

optical computing
- *see also optical interconnections; optical logic; optical neural nets; symbolic substitution*
- 2D fiber optic bundle image associative memory sync. problem 1656
- appls., meas. and ident. 7439
- binary phase fan-out elements, opt. optim. 14558
- bitonic sorting optoelectronic recirculating archit. 22971
- CGH, opt. computing/neural net channel addressing 31632
- coherent opt. proc. for inverse filter generation 39511
- computer/telecomms. convergence and develop. 41585
- conf., opt. information processing advances, USA (1994) 36893
- COSINE III 3D board, board free space opt. interconnection multiprocessor 39516
- diffractive opt. elements for opt. computing 7434
- digital opt. cellular image proc. parallel archit. 1772
- digital opt. computing, magneto-optic SLM 7428
- digital opt. matrix-vector multiplication realization 22976
- distributed shared memory environ., perform. model 41491
- fiber-optic array alg. opt. computer proc. archits. 22978
- free-space holographic parallel optoelectronic computer, 300-MHz optoelectronic counter 7429
- free-space interconnect based optoelectronic integrated systs. 1766
- free-space opt. computing module config., guide-frame assembly method 39514
- free-space opt. interconnections, equal path lengths by layered struct. 1757
- heterojunction phototransistor-LD integrated device, flip-flop and multivibrator fns. 31048
- high-speed database proc. by opt. content-addressable parallel proc. 22970
- higher-order opt. quaternary signed-digit arith. 1760
- LEOS, San Jose, CA, USA (1993) 20270
- long data stream convolution, opt. implement. 1762
- matrix multiplier, vector unit design 31029
- matrix-vector opt. proc., multiple-error-correcting codes 39521
- mesh-connected opt. multiple-access bus interconnects 1770
- multilayer LB film opt. switching parallel proc. 7427
- multistage opt. butterfly interconnection and optoelectronic logic operations 1759
- multistage opt. switching network interconnections, orthogonally polarised data 39515
- opt. space-freq. anal. for real-time pattern recogn. 8592
- optoelectronic buses for high-perform. computing 1771
- optoelectronic computing 31041
- optoelectronic correlator for real time correl. fn. generation 31050
- optoelectronic matrix-vector multiplier, computational accuracy anal. 31027
- optoelectronic science/engineering, conf., China (1994) 28207
- optoelectronics technol. consortium (OETC)- opt. data link/optoelectronic components 33485
- oracle quantum computing, complexity 14563
- parallel arith. operations, iter. proc. 31037
- parallel modified signed-digit computing for large-scale 2D data array 31032
- parallel optoelectronic computer, opt. interprocessor connections 39509
- parallel rank order hit-miss transform 41296
- perfect shuffle opt. interconnect module 39513
- photonic networks, graph-theoretic models 31026
- photorefr. cryst., opt. parallel-access shared memory syst. 22975
- photorefr. nonlin. optics, opt. computing 31049
- photorefr. polymer four wave mixing opt. correlator/computer 24425
- planar packaged free-space opt. interconnections, computing/switching 1767
- planar-opt. mesh-connected tree computer chip interconnects 39602
- protein-based computers, parallel proc., 3D memories and neural networks 29698
- quantum computers, inform. representation and proc. 14562
- real-time opt. matrix multiplication, high accuracy 1761
- reconfigurable nearest-neighbour opt. cellular automata interconnects 1764
- refl. mode magneto optic SLM develop. for miniature correlators 31014
- scalable opt. hypercube-based interconnection network for massively parallel computing 7430
- single-step opt. matrix-matrix multiplier, diffractive opt. elements 31040
- space appls., opt. correlators 7436
- stored program opt. computer, develop. 7432
- TDM/WDM/SDM opt. computer 1763
- temporal proc. and time lenses implement. 41301
- two-stage modified signed-digit opt. computing by spatial data encoding/polariz. multiplexing 22977
- twos-complement parallel array multiplication algm. for complex matrix operation 31031
- waveguide optics, synthesis of matrix converters 14560
- $LiNbO_3$ planar waveguides, multifrequency acoustooptic interact., modeling 14551

optical conductivity
- p-$Si_{1-x}Ge_x$ quantum well detectors, 8-14 μm wave band absorpt. 42784

optical constants
- *see also absorption coefficients; light absorption; optical conductivity; reflectivity; refractive index*
- 3D opt. waveguide struct., vectorial FD-BPM anal. 40428
- automated null ellipsometer, rot. analyzer 10047
- carbohydrazide derivatives, nonlin. opt. props. 23385
- diazo dye attached electro-optic polymer waveguide modulator 1737
- diode laser wavelength shift meas. by fiber modal interferometers, altometer resoln. 25855
- DMNP cryst. cored fiber freq. doubler for blue light generation *(Japanese)* 2060
- electro-optical polymers, poling 13930
- heteroaromatic chromophores in high temp. polymers interferometric films 1736
- II-VI semicond. microstruct., optoelectronic appls. 14577
- kinoform lenses, solar cell light concentrator appl. 27972
- Lyot single-mode highly birefr. opt.-fibre depolarizers 1682
- MQW nonlin. struct., finite element characterisation 38352
- open-boundary waveguide modal anal., finite element approach 2305
- opt. fibers for sens. technol., atten. meas. by integrat. sphere 1680
- poly(3,4-dialkyl-1,6-phenyleneethynylene), opt. props., LED appls. 14320
- polymeric nonlin. opt. materials, conf., Los Angeles, CA, USA, Jan 94 53
- porous glasses, effective opt. consts. and light scatt. 7263

optical constants continued
- quantum well intermixing, repeated ion implant. 1213
- RF sputtered glass films, elec. induced second-order opt. nonlin. 23389
- soot props. meas. by two-colour pyrometry 10054
- sq./rect. core dielec. waveguide anal. by modified Fourier decomp. 31914
- Ag-As-Se glasses, thermal, elec. and opt. props. *(French)* 1055
- $Al_xGa_{1-x}N$, self-nucleated layers, MOCVD 414
- a-$BaTiO_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
- $BaTiO_3$:Co, light-induced dark decay and sublinear intens. depend. 31483
- C films, plasma deposited, ellipsometric params., sample temp. 34715
- $CdS_{1-x}Se_x$-doped glass waveguide couplers, nonlin. opt. perform. 14466
- CsB_3O_5, tunable UV generation, 0.185 μm 23371
- GaAS sputtered films, amorphous and microcryst., elec. props. 22994
- GaAs/AlAs quantum heterostruct., local space charge field 30816
- p-GaAs/AlGaAs quantum wells, reson. absorpt. and photoresponse 38318
- Ga_2O_3 films, electronic/optoelectronic appls. 22640
- GaP at high temp., photorefr. and photochromic effects 14323
- a-Ge:H,S, optoelectronic props, effects of S incorporation 39556
- a-$(GeS_2)_{100-x}Ga_x$ films, irreversible photoinduced changes 22189
- $Ge_{20}Te_{80-x}Bi_x$ amorph. thin films, opt. and electronic props. 13081
- H_2 micromirror opt.-fiber sens. 9960
- HgCdTe FTIR temp. depend. emissivity, pyrometer develop. 25987
- InGaAs-InAlAs quantum wells, electron scatt., photoreflectance obs. 13141
- $KNbO_3$ thin film act. opt. waveguide devices, fab. 39464
- $KTiOPO_4$ nonlin. devices, temp. dispersion 15121
- $LiTaO_3$ antiparallel domains ident. by interferometric method 10041
- $LiTaO_3$ proton-exchanged opt. waveguides, electrooptic consts. 14471
- $LiTaO_3$:H proton exchanged waveguides, opt./electrooptical props. 14422
- Sb_2S_3, films, microcrystalline, soln. growth from thioacetamide bath 20912
- Si absorpt. edge from solar cell spectral response 20007
- a-Si:H films, VUV laser CVD, gas phase chem./modelling 28840
- a-Si:H, glow discharge deposition, chem. annealing, at. H role 30008
- a-Si:H solar cell, Hg-sensitized photochem. vap. deposition, H_2 dilution tech. 5217
- a-Si:H,B(P), PECVD film, opt. props., photo/dark cond. 29830
- Si:Ru, ion implant., Ru-related defects, elec./opt. props. 38228
- Si/B_4C narrow-bandpass mirrors, EUV reflectance 1779
- a-SiC:H, RIE in CF_4/O_2 plasma 22243
- a-SiC/Si:P structs., P diffusion and interface segreg., HBT appls. 13118
- $Si_{1-x}Ge_x$ epitaxial films, opt. SHG 40041
- a-SiH, film, US assisted PECVD, in situ opt. diagnostics 28832
- SiO_2, poled, amorph., SHG lin. electro-optic coeff. meas. 2128
- SiON rib anti-reson. reflecting opt. waveguide couplers, design/fab. 14414
- $Sr_2Be_2B_2O_7$ UV-transparent nonlin. opt. cryst., design and synthesis 15123
- ZnO films, spray pyrolysis prep., opt. and elec. props. 12143
- polymers, electro-optic props./appls. 22923

optical cooling *see cooling*

optical correlation
- *see also acousto-optical correlation*
- 3D color textures, recogn. invariants 3D 2602
- 3D surface rendering, stereo image disparity map smoothing algm. 33025
- act.-matrix LC SLMs, parallel opt. proc. 7414
- adaptive correl. filter, noise adaptive discrim. 39544
- adaptive joint transform correlator shape retrieval 33007
- adaptive pattern recogn. with rot., scale, and shift invariance 41237
- all-fiber sync. soliton source 7317
- all-opt. nonlin. joint FT correlator 24409
- amplit. compensated joint transform correlator syst., target recogn. *(Korean)* 41167
- amplit.-modulated circ.-harmonic filter for pattern recogn. 24655
- apodized pixel lenses in compact shadow-casting correlators 41238
- astron. speckle interferometry, phase problem soln. *(Russian)* 16251
- bi-imaginary no. syst. for opt. complex calc. 16144
- binary joint transformer correlator for multitarget tracking *(Korean)* 16137
- binary nonlin. joint transform correlator perform., thresholding methods 24656
- binary phase extraction joint transform correlator *(Korean)* 24675
- binary phase only filter, spatial coded, simulated annealing algm. *(Korean)* 31064
- binary phase only matched filter symm. breaking 31060
- blood glucose conc. correl., reduced tissue scatt. coeff. in near IR 26286
- cathodoluminescent screens, partially coherent radiation, recording and inform. proc. 34645
- CCD camera, 3D inform. extraction, holographic method *(Japanese)* 16129
- CDMA opt. commun., M-ary signalling 34058
- complementary-ref. joint transform correlator, opt. pattern recogn. 8468
- complex opt. matrix-vector multiplication, neg. binary inner products 1756
- composite harmonic filters, scale-, projection-, and shift-invariant pattern recogn. 24490
- conjug. polymers, nonlin. opt. coeffs. 2096
- cuneiform inscription anal., holographic image proc. techs. 23466
- diffractive opt. element design for opt. sig. proc. 32944
- digital speckle correl. interferometry, fringe contrast, spatial resoln. 2135
- discrete Fourier preprocessing transforms for binary phase-only filter 32966
- disk-based opt. correlator, multiplexed transm. holograms 7862
- distortion-invariant phase-only filters, iter. design 7451
- DP neural-network device for adaptive opt. syst. 14564
- DS-CDMA seq. inversion keying opt. correl. receivers 34029
- dye-polymer films, photoanisotropic, joint transform correl. 8469
- fatigue damage study by computed speckle decorrelation 40129
- filter SDF, opt. correlator perform. 8470
- flexure-beam micromechanical SLM 7391
- fluid flow partical image velocimetry data anal. 42987
- fractional correl., FT operator 24489
- free-space opt. computing module config., guide-frame assembly method 39514
- grey-scale math. morph. operations computing, opt. implement. 16143
- harmonic filter, limited rot. invariant joint transform correl. 41300
- high-quality prior knowledge image error reduction 2706
- higher-order opt. quaternary signed-digit arith. 1760
- holographic particle velocimetry, 2D wavelet transform 23460
- hybrid-opt. parallel array logic syst. 16^2, overall operations 31046
- incoherent-only joint-transform correlator 32969
- intens. interferometric correl. in image reconstruction 2709
- interferometric 2D imaging amplit. correlator for ultrashort pulses 34720
- invariant opt. pattern recogn., calculus descriptors 8670
- IR radiometric lens/staring FPA camera syst., design/operation 17942
- joint transform correlator, incoherent output 8660
- joint transform correlator, posn. encoding appl. 32968

optical correlation continued
- joint transform correlators, chirp encoded, image class. 33016
- joint transform correlators, whole-beam method anal. of photorefr. effect 16307
- joint wavelet-transform correlator for image, extraction 24492
- knives edge profile meas., image automated anal. 3979
- Korean character recogn., opt. associative memory *(Korean)* 24674
- large-scale image associative memory, optoelectronic implement. 1655
- matched spatial filtering, correl. diags. for shape invariant pattern recogn. 32980
- min.-MSE filters for spatially nonoverlapping target and input-scene noise 22982
- model-based vision, aspect angle target estim. in forward-looking IR images 2714
- multichannel fiber-optic optoelectronic correlator 24427
- multichannel joint-transform correlator, multiobject recogn. 24426
- multiple distorted obj. detect. and image proc., morph. and wavelet transforms 24485
- multiple target detect., fringe-adjusted joint transform correlator 16277
- multiple-obj. computer-generated holographic discriminant correl. filter design 32967
- multitarget tracking syst. based on opt. BJTC and neural networks *(Korean)* 14561
- negabinary encoding for opt. complex matrix operation 16142
- noniterative image reconstruction from photon-limited data by self-cross-correl. 24360
- octaethylporphine-doped polystyrene sample, spectral hole burning, accumulated photon echo readout speed 40092
- opt. analog computing appls. 7439
- optimal trade-off distortion-tolerant constrained-modulation correl. filters 24362
- optoelectronic correlator for real time correl. fn. generation 31050
- OptoNeural target tracking syst. 41306
- parallel rank order hit-miss transform 41296
- particle image velocimetry, image labelling, flow meas. 18154
- particle image velocimetry, opt. real time fluid flow mapping 23487
- particle image velocimetry, ultra-high-speed camera 3982
- pass. mode-locked diode laser pulse charact. 39834
- peano curve modular optics 39447
- phase-matched filters in pattern recogn., symm. measure 7448
- photorefr. conjug., spatio-temporal response measurement of 31530
- photorefr. cryst. image correlator spatial fidelity 16369
- photorefr. device opt. inform. proc. 32945
- photorefr. phase-conjug. tech. for surface granularity meas. 10013
- photorefr. polymer four wave mixing opt. correlator/computer 24425
- photorefr. two-beam-coupling nonlin. joint-transform correlator 2052
- planar holographic lens doublet, FT 31685
- prog. opt. pattern recogn. image proc. 2829
- random rough surface heights stat. props. via rem. sens. 32857
- real-time nonlin. joint transform LCLV CCD sens. correlator 2713
- refl. mode magneto optic SLM develop. for miniature correlators 31014
- road sign recogn., opt. joint transform correlator 33003
- rough surface wave scatt. comparisons by holographic interferometry 2142
- scale-invariant opt. correlators using FLC SLM, road sign recogn. 41236
- SDF design by multiresolution wavelet anal. 24654
- semicond. laser reliab. and failure anal. 39816
- single-mode dispersive fibre, opt. noise correl. fn. 30871
- single-mode fibre, polaris. mode dispersion, pulse distortion meas. limitations 30862
- SLM, space appls. 7436
- slotted multichannel opt. networks, receiver collision effects 42359
- spatial envelop-free nonlin. joint transform correl. 24391
- spatial opt. CDMA 42351
- stellar image reconstruction, triple correl. and Knox-Thompson method 24496
- supervised/unsupervised hybrid opt. neural networks, JTC 31033
- three channel autocorrelator, electro optic switches 8476
- TOPS multifilter solid optic correlator 16255
- TOPs opt. pattern recogn. program 18987
- tunable photorefr. spatial filters, noise robustness 8654
- turbulent medium, coherent opt. fiber sens. 34527
- two-pulse photon echo opt. DP 41060
- ultrashort light pulse amplit./phase, autocorrelator/spectrometer meas. 2821
- UV subps laser pulse meas. based on Kerr shutter ultrafast beam deflection 15045
- VanderLugt folded opt. module correlator design geom. 24651
- wavefront reconstruction from phase differences, correl. noise propag. 16201
- Wiener spatial filter SDF for opt. correl. 41153
- Ar+ ion multimode lasers, polariz./intens. correl. 1851
- $Bi_{12}SiO_{20}$ SLM-laser scanner hybrid joint transform correlator 33082
- $Bi_{12}SiO_{20}$ cryst., holographic-recording, moving-grating tech. 7811
- $Bi_{12}SiO_{20}$ opt. correlator/SLM, multiple distortions 32964
- $Bi_{12}SiO_{20}$ real time opt. correlator 33083
- Cr^{4+}:YAG self-mode-locked laser, fs pulses near 1.5 μm 14786
- Cs vap. opt. correlator 2633
- GaAs, (001)-cut, CZ grown, disloc. dens.-depend. photorefr. effect 14319
- GaAs, (211)B orientated, surface-emitting second-harmonic generator/autocorrelator 23361
- GaAs-AlGaAs MQW SLM 29946
- InGaAs MSM photodetector charactn. by electrooptic LD sampling 23009
- $In_{0.85}Ga_{0.15}As$/GaAs relax. superlattice struct., ultrafast meas. of nonequilibrium carrier lifetime 38348
- KrF excimer laser fs VUV pulse meas. by field-ionization dyn. 23103
- Nd:glass laser pulse duration meas. 31465
- Nd^{3+}:$YAlO_3$ ps laser beam third-order correl. fn. by noncollinear two-beam third-harmonic generation 40105
- Ti:sapphire amp. syst., midinfrared femtosecond pulses 15049
- Ti:sapphire laser, femtosecond modelocked, FEL sync. 31280
- Ti^{3+}:Al_2O_3 mode-locked lasers, fs pulse phase meas. *(Japanese)* 14776

optical correlation methods *see optical correlation*

optical correlators *see optical correlation*

optical coupler losses *see optical losses*

optical couplers
- *see also optical directional couplers; optical fibre couplers; optical interconnections*
- 4BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 15070
- 9BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 31489

optical couplers continued
acousto-opt. spectrum analyzer modulator/deflector, radio-astron. appls. 17529
ARROW/integrated photodiodes light coupling, IC compatible techs. 30969
axially symm. four waveguide coupler design 30951
backplane for broadband switching syst. 25174
blazing effects of dielec. grating, periodically modulated two layers 30981
BOD, LDs coupled, interf. filters 31554
carry chain fast adder, hybrid opt./electronic approach 31025
CLIO FEL, step-tapered undulator, two-colour operation 39933
conflict-free WDMA networks, buffer-sharing 8745
coupled antiresonant reflecting opt. waveguides based wavelength selective device 14472
coupled waveguides, integrated opt. parametric sum-freq. generator 2048
Crank-Nicolson method, nonlin. opt. propag., split operator method comparison 40063
DFB LD with distributed coupling coeff., spectral charact. 23278
DFB semicond. laser threshold condition, local normal modes 14914
diazo dye attached electro-optic polymer waveguide modulator 1737
directional coupler-type opt. power divider, large-angle low-loss charact. 30942
distributed forward-/backward-coupling semicond. laser, wavelength tuning charact. 31322
double-surface corrugated grating waveguides, opt. input coupling 22888
electromechanical devices, tech. trends and motive technols. 6394
electronic components and technol., conf., Washington DC, 1994 5473
externally injected sig. laser cavity eqns. 2025
fibre, single mode, p-i-n diode coupling, field power 1665
fibre acousto-optic freq. shifter, null coupler based 14554
fibre optic couplers, reliab. assurance 3539
formic acid opt. pumped FIR lasers, reson. array input couplers 7537
four-channel integrated photonic wavelength router 16981
fused biconic coupler reliab., temp. effects 1664
grating coupler SHG, coupled mode formalism 1722
grating couplers, nonlin. optics, modal anal. 14458
grating-assisted coupler design, rigorous anal. of power transfer 39413
hollow-core ARROW waveguides, rem. coupling/switching 1709
identical period double surface corrugated planar waveguide grating coupler anal. 30928
integrated waveguide-photodetector coupling by modal fitting 17770
interf. wedge with unequal reflectivity mirrors, laser tuning element 15007
IR FPA opt. interface technol. 34582
joint finite-difference/FFT full vectorial beam propag. scheme anal. 40441
laser resonator, output beam quality 31449
long. invariant waveguide couplers, anal. by iter. method 14446
low-loss nonlin. opt. channel polymer waveguide laser ablation 1723
metal-clad waveguide polarizer integrated opt. cct. output coupling 30964
microlens integrated coupling device for LD/opt. fiber 22911
miniature multifiber connector appls. 30905
modular avionics, opt. interconnect, connectors, hybrids and backplanes 18721
multi-mode opt. waveguide interf. devices based on self-imaging 40440
multiple LD pumps, chromatic coupling, laser materials 31247
nonlin. couplers, soliton switching, variational approx. 31495
nonlin. grating couplers, anal. by sing. perturb. tech. 14445
nonlin. guide prism coupler, dyn. study *(French)* 14460
nonreciprocal integrated optic couplers, magneto-optic materials, design 14413
optoelectronic TOF all-opt. stored program digital computer design 1769
organic waveguide couplers, 2-photon absorpt.-induced luminesc. 30940
pass. fibre optic components/sens. systs., radiation sensitivity 22845
pass. planar opt. waveguide geodesic lens prod. 1714
pass. polymer multimode/single-mode waveguides, mass fab. 14432
phased waveguide arrays, wavelength multiplexers optim., beam propag. method 30955
photoimprinted Bragg grating all-fiber dense WDM/demultiplexer 42388
planar coupled magnetooptic waveguide, mode conversion 39415
planar hybrid optoelectronics, colloquium, London, UK (1994) 20255
planar waveguide components develop. 30945
polariz. splitter, dimens. tapered vel. coupler 14430
poly-phenyl-acetone opt. waveguides, nonlin. coupling and propag. 39432
polymeric thin-film waveguide coupling, single-mode fiber 22872
prism couplers, high-Q opt. whispering-gallery microresonators 14428
quantum well DFB rib waveguide LD design, spectral index method appl. 39876
radiationally coupled corrugated waveguides, rem. coupling 39369
rect. core waveguides, integrated optics, fibre coupling, mode matching techs. 39429
red sensitive photopolymer holographic plate grating coupler *(Chinese)* 15164
rhodamine B-doped glass planar waveguide, light amplif. 30933
self focusing opt. fibre, coupling efficiency, tolerance 1694
semicond. integrated opt. routing array components, carrier diffusion effects 14479
shielding effectiveness meas., opt. coupled elec. field sens. 2249
silica-based planar lightwave ccts. *(Japanese)* 14427
silica-based waveguide/opt. fiber coupling 14370
single leakage-channel grating coupler, wet-chem. fab. 39412
single mode fibre-rect. waveguide coupling losses, integrated optics 22837
single mode opt. fiber laser light coupling *(Japanese)* 1669
thin-film waveguide, grating coupler optimisation, Si substr. 14442
transversally multimodal 1×4 branch coupler, characterisation and BPM modelling 39436
triple-coupler ring-based opt. guided-wave resonator, transmittance charact. 22894
variable nonlin. coupler, soliton switching 14454
vert. $\Delta\kappa$ directional coupler switch, liq. crysts. 14465
waveguide couplers, opt. induced gratings, nonphase matched modes 22902
waveguides, loss meas., modified two prism method 39430
waveguiding struct. supported fields, transverse modal wts. determ. 30952
wavelength conversions, two silica fibre loss windows 7741
wavelength division demultiplexer, multiplexed waveguide holograms 17281
WDM cross connector electro-opt. controlled multiwavelength switch 34008
WDM opt. transceiver module for pass. double star subscriber systs. 42371
X opt. coupler with nonlin. dielec. region, anal. 31502
XY integrated opt. coupler for phase-sensitive opt.-power combining 39398
CO_2 CW laser diffr. couplers, oscill. charact. of cavities 7523
CO_2 slab-geom. lasers, mode and wavelength selectivity 31148
$CdS_{1-x}Se_x$-doped glass waveguide couplers, nonlin. opt. perform. 14466

optical couplers continued
GaAs short period corrugations, e-beam direct exposure, chem. amplified neg.-tone resist *(Japanese)* 22311
GaAs/AlGaAs, MQW IR detector, wideband response *(Chinese)* 17809
GaAs-AlAs vert. coupled-cavity microinterferometer, deformable-membrane top mirror 39991
InGaAs-AlGaAs laser oscillator surface grating output couplers 23255
InGaAs-GaAs folded/VCSEL 31391
InGaAs-GaAs-AlGaAs laterally-coupled DFB ridge LD, CW perform. 31318
$In_{0.53}Ga_{0.47}As$-InP reson. plasma waveguide modulator for mid IR 1734
InGaAsP-InP planar photoelastic waveguide, low propag. loss 7370
K^+-ion diffused waveguides, coupler-type wavelength demultiplexer 9554
$LiNbO_3$ opt. beam splitter, tapered vel. coupler 7401
$LiNbO_3$:Ti nonlin. directional coupler 39401
$LiNbO_3$:Ti planar waveguides, polariz. coupling 30946
$LiNbO_3$:Ti slab waveguides, characterisation, fn. of fab. conditions 30948
$LiNbO_3$:Ti(H^+) anisotropic opt. waveguides, leaky modes 39428
Si receiver module, hybrid integrat. of silica waveguide, photodiode interface 31116
a-Si/poly-Si tandem solar cell, high efficiency 11294
SiO_2-based waveguide bending loss reduction by lateral offsets 39440
SiO_2-on-Si NIR channel waveguides form. by electron-beam irrad. 14450
SiON planar waveguides, optimised coupling, cylindrical prisms 22914
SiON rib anti-reson. reflecting opt. waveguide couplers, design/fab. 14414
$SrBaNb_2O_6$ photorefr. planar waveguides, beam coupling, spatial mode conversion 39386
XeCl excimer laser, phase-unifying unstable resonator perform. 39668
Yb:YAG waveguide laser, epitaxially grown, diode pumped, high slope efficiency and low threshold 14833

optical crosstalk
1.3 μm single-mode 2×2 liq. cryst. opt. switch 16984
2.4 Gbit single/multi fibre electro-optic transmitter 34031
10 Gbit/s repeaterless WDM fiber transm. 9466
10 Gbit/s WDM 1310-nm opt. transm., 63.5-km std. single-mode fiber, opt. preamplifiers 17349
all-opt. network using dyn. wavelength routers, crosstalk penalty 9585
anticrosstalk arrayed-waveguide add-drop WDM multiplexer 3283
apodized pixel lenses in compact shadow-casting correlators 41238
arrayed waveguide N×N wavelength multiplexer transm. charact. 42353
arrayed-waveguide grating multiplexer, phase error compen. 22919
asynchronous opt. chip interconnects with direct detect., crosstalk anal. 9440
autostereoscopic display, high brightness/power efficiency 34621
binary/multilevel diffractive lenses, submicrometer, sizes 7373
CGH, multicolor imaging 7836
codirectional Bragg WDM tunable acousto-optic-filter design 39534
collinear 3×3 WDM fiber coupler ring resonator anal. 1695
discs, land/groove recording, crosstalk suppression 39305
double-layer cell FLC polariz.-control devices 22958
dual-filter heterodyne FSK opt. syst., BER eval. 17251
Fabry-Perot single-cavity demultiplexer OFDM networks, finite laser linewidth 25529
Faraday effect magnetometers, vibr. induced birefr. modulation compensation 17814
fiber-loop opt. buffer, crosstalk 9600
fibre FDM FSK syst., channel spacing, crosstalk *(Chinese)* 42354
fibre gratings, demultiplexing filters for WDMA networks 39345
fibre sens., CDM, SLM 34549
four-channel integrated photonic wavelength router 16981
free space opt. interconnects, LD array, microlenses, photodetectors 7486
high-capacity opt. disc storage, vol. holograms 39316
holographic interconnections, alignment, switching, resoln. 40165
III-V strip-loaded waveguide devices for photonic IC 39594
image fiber, transm. image, crosstalk 7333
LED spectral slicing, modelling of interchannel crosstalk 1828
Littrow hologram substr. guided wave WDM demultiplexer 42445
microwave fiber optic links 9504
monolithic wavelength demultiplexing switch arrays 42374
multi-amp. syst. fiber four-wave mixing, nonuniform chromatic dispersion 17333
multichord spectrometer, 8×8 anode photomultiplier 29814
multiplex holographic data storage, materials props. 7839
nonblocking single-substr. directional coupler opt. space switching networks 24761
nonlin. fiber Sagnac opt. TDM switch 17336
optoelectronic switch for SCM networks 17211
phase-change opt. disk, high-dens. recording 14334
photonic CDMA coherent matched filter time-addressed coded opt. ladder networks 9445
polaris. maintaining fibre coupler fab. 30913
polaris. maintaining opt. fibre coupler fab. tech. 1677
polariz.-maintaining opt. fiber, PANDA profile, polariz. crosstalk *(Japanese)* 30901
polymer-based single-mode bus array, channel cross-coupling 14668
rearrangeable nonblocking polymer waveguide thermo-optic switching matrix 30962
self-holding opt. switch using opt. matrix board, FTTH appls. 9487
static wavelength router all-opt. network crosstalk penalty 42425
stereoscopic views, anticrosstalk proc. 32812
sync. opt. chip interconnects, perform. anal. 39604
TDM switching networks, interchannel cross talk, noise degrad. 9147
three-channel FDM fiber-optic LF voltage sens. 9921
transparent opt. networks scaling limitations, low-level crosstalk 17345
two-beam LD, opt. power monitor 3999
vol. holographic memory storage capacity, cross-talk noise 40163
vol. recording media color holographic gratings, ang. selectivity 23470
wavelength division demultiplexer, multiplexed waveguide holograms 17281
WDM systs., modulation stats. effects on Raman crosstalk 17348
Y-jn. waveguide switch cross talk 22871
$BaTiO_3$ photorefr. cryst., dyn. phase-encoding image storage 7816
InGaAs/InGaAlAs electron transfer waveguide weighted-coupling digital Y-branch opt. switches 9448
InGaAs-InP MQW tensile-strained directional coupler, polariz.-independent switching operation 14529
InGaAsP/InP multi-quantum-well directional coupler, low-switching-voltage operation 30925
InGaAsP-InP directional coupler based tunable opt. filter 22910
InP tunable phased-array wavelength demultiplexer 17257
$LiNbO_3$, ang. selectivity, multiplexed hologram cross-talk 31648

optical crosstalk continued
Pr^{3+}-doped fluoride fiber amps., gain dyn. anal. 31217
SiO_2/Si arrayed-waveguide grating multiplexer 22909
SiO_2-on-Si Mach-Zehnder 1.3/1.5 μm demultiplexer 34032
optical data processing *see optical information processing*
optical deflectors
see also acousto-optical deflectors; electro-optical deflectors; optical scanners
holographic disk scanner, rectilinear laser beam scanning 23453
planar waveguide, guided modes via grating rotation deflection 22863
prototype opt. deflection network, design and implement. 3300
ultrafast low-sig.-level opt. waveform digitization, induced beam deflection 7794
optical delay lines
3D TDM LDA 18151
all-fiber interferometer, polariz.-mode-dispersion meas. 7340
antenna phased arrays, time delay transmit/receive opt. beamforming syst. 8076
array beam steering, acousto-optic control of time delays 8662
ATM switching archits. 33730
CDMA opt. archits., bipolar capacity, unipolar codes 9582
coherent opt. controlled phased array antenna syst. 7324
double coupler amplified fiber-optic delay line filter 14404
DPSK receiver, opt. preamplified/demodulated, act. delay-line stabilization 17208
dual wavelength opt. fiber HDTV distrib. networks 17571
fiber optic time-delay element for phased-array antennas 7323
fibre-optic delay line filter synthesis, modified Pade method 30875
flyable fiber-optic radar target generator 43428
GaAs integrated opt. time-shift network for phased arrays 7381
grating reflector opt. fibre transversal filter sig. proc. 30918
intracavity opt. delay line lasers 31445
monomode fibre torsion state-of-polaris. rotator *(German)* 22855
nonrecirculating delay line loop 7287
optics for phased array antennas 31993
panda fiber delay line dispersion equalisation scheme 9510
phased array antenna, opt. control 15668
radar phase noise meas., fiber-optic delay lines 34155
Register Insertion Bus network, optoelectronic technol. 41824
RF filter, SEL diode array 7421
staggering switch archit. growability and packet sync. 42126
TDM switching networks, interchannel cross talk, noise degrad. 9147
thin film photocond.-electroluminescent ccts., opt. sig. delays 39603
true-time delay fibre optic steering syst. for phased array antenna 23994
two-port coherent lattice-form opt. delay-line cct. synthesis 14669
variable opt. delay line, birefr. planar opt. platform based 42443
Westinghouse hardware-compressive true time delay fiber optic syst. 7325
wideband photonic array antenna, syst. design and perform. 7326
GaAs MMIC delay line/quadrature demodulator in opt. receiver 17199
GaAs detector-switched monolithic time-delay network for opt. control of phased arrays 31129
LiNbO3 low-loss SAW dispersive filters, low sidelobe level in compressed sig. 39542
TeO_2 long time aperture acousto-optic delay line, design and charactn. 31021
integrated opt. time-shift network for phased arrays 7381
optical design techniques
see also optical instruments
1.55 μm single-polariz. hollow pit opt. fiber, zero total dispersion 7283
3-dB single-mode Y-jn., optimized design 1708
10 Gb/s single-channel high-capacity soliton syst. design 17352
155 Mbit/s 4 km opt. free space link low noise opt. receiver 42409
achromatic computer generated HOE for coupling LD, single mode fiber 40144
act. mode locked semicond. lasers, ps pulse compression, model 31420
act./pass. semicond. OEIC, BPM simulator 14646
amplit.-modulated circ.-harmonic filter for pattern recogn. 24655
annular color filters, opt. syst. polychromatic response control 39541
antiresonant reflecting opt. waveguides, rigorous design method 15583
array opt. switching syst.-level VLSI platform for opt. interconnection insertion 42129
asymmetric multimode Y-jn. splitters 34099
axially symm. four waveguide coupler design 30951
beam propag. method num. algms. 39470
binary phase zone plate designs, far-field distrib. calcs. 39531
Bragg fibre grating develop. for WDM appls. 39340
broadband quasi-phase-matched planar waveguide SHG, optimal design by simulated annealing 40033
catadioptric opt. syst., unit magnification develop. 31053
CEBAF UV/IR FEL materials proc. subsystem testing 39920
CGH, polaris. selective, design/fab. 23461
codirectional Bragg WDM tunable acousto-optic-filter design 39534
conference, optical interf. coatings, Grenoble, France (1994) 11556
cryogenic optical systs./instruments. conf., Orlando (1994) 36837
DFB channel-dropping opt. filters, design and fab. 39538
dielec. waveguides, vector mode calcs. 40427
diffractive coupling lenses, 3D profiling, e-beam lithog./RIE 14568
diffractive opt. element design for opt. sig. proc. 32944
diffractive opt. elements, CAD 2139
diffractive phase elements for beam shaping, design method 31657
ellipsoidal holographic grating, geometric theory 7808
excimer laser discharge electrode design techs. 31182
extended thermal lens resonator cavity fund. mode calc. 14995
FET-based OEIC photoreceiver design, syst.-level considerations 34081
fiber Bragg grating systs., cubic/quadratic dispersion compensation 39360
fiber reliab. modeling for multiple stress-time histories 39328
fiber-compatible integrated-opt. S-bends, power splitters, and directional couplers, general design 7358
fibre device design for laser pumping, LD bar arrays 39323
fibre optic faceplate, colour image storage 30872
fibre optic pH sens. based on immobilised dyes 34542
fig. of eight fibre lasers, mode locked by Sagnac interferometer 31455
flat-field broadband planar waveguide spectrograph design 39457
FLIR subsystem perform. anal., PC based scientific spreadsheet 34593
fluoresc.-based fibre optic flow sens. scheme design 3866
Franz-Keldysh electroabsorption waveguide modulator perform. anal. 30989
free space opt. interconnects, LD array, microlenses, photodetectors 7486
Fresnel lens design for high-transmittance condenser 39527
Fresnel waveguide lenses, multiple phase shift 39433
G-band FEL amp. for cyclotron reson. heating in mag. fusion reactors 39921
optical design techniques continued
Gaussian mode forming phase opt. elements, iter. algm. 7447
gigabit opt. CDMA networks, bandwidth efficient matrix codes 42421
glass on Si, opt. interconnections/hybrid optoelectronic integrat. 31113
grating-assisted coupler design, rigorous anal. of power transfer 39413
high-fiber-count cable, U-groove torsional rigidity 9593
highly broadband buried channel fibre coupler design 30921
holographic focusing lens design, FT systs. 15169
holographic projection syst., design, testing 40135
image transfer microlens array design and anal. 9980
incoherent opt. syst. depth of field extension by wave-front coding 41234
integrated OEIC/device CAD design tools 39595
integrated opt. waveguide components design 39469
interf. wedge with unequal reflectivity mirrors, laser tuning element 15007
IR radiometric lens/staring FPA camera syst., design/operation 17942
laser beam homogenizer design for material proc. *(Japanese)* 20422
laser mirror jitter, overview of theoretical/expt. work 39999
laser systs., diffractive and binary optics 31138
lens design, global optim., escape fns. 39528
lens design, least-sq. optim. line search 7444
lightwave syst. dispersion compensation design 42419
long-haul digital transm. opt. preamplifier receivers 34037
low-loss wide-angle Y-branch waveguide design 30959
metal-dielec. heat-reflective filters design 39533
metallic holographic diffr. gratings for laser appls. 40146
micro-optics focusing LD material-proc. syst. design 5609
microbending fiber optic sens., varying spatial freq. 34535
miniaturized micro-opt. scanner lens arrays 9646
modular imaging spectrometer instrum. modeling/testing 34591
mole type plated optics, computer design 7849
monolithic array LD module, small sized coupling optics 7671
multilayered planar waveguide anal. by exact and variational FT methods 31899
multiorder binary grating design, anal. init. approx. 2143
multiple-obj. computer-generated holographic discriminant correl. filter design 32967
nonconventional opt. elements design, DEMOS software 15176
particle sizing by planar-phase Doppler syst. 34692
perfect shuffle opt. interconnect module 39513
periodic GRIN waveguides with Kerr nonlin., Gaussian beam control 40426
periodic waveguide gratings design, asymmetric discrete-time anal. 22897
phase-locked LD antiguide arrays , anal. theory 23237
phased waveguide arrays, wavelength multiplexers optim., beam propag. method 30955
photon echo based simultaneous opt. image proc. 32933
pickup design for mini disc drives 34295
planar holographic lens doublet, FT 31685
planar microcavity LED's, design/expt. comparison 31097
planar opt. waveguide design, inverse scatt. theory 1701
planar waveguide components develop. 30945
polariz.-encoded logic alg. opt. logic gate design 31039
polariz.-insensitive telecomm. optoelectronic device design 14578
precision reflectometer, HP 8504B, spurious-free enhanced sensitivity, fibre design 22825
projection screens, opt./electro-opt. charact. 39494
quantum well DFB rib waveguide LD design, spectral index method appl. 39876
quantum well lasers, 2D simul. 39792
radially varying gain lasers, geom. threshold zones and Gaussian modes 2027
rect. core waveguides, integrated optics, fibre coupling, mode matching techs. 39429
reflective telescope technol. for IR surveillance/rem. sens. 17798
ring laser gyroscope design, spatially resolved eigenstates for traveling/standing waves 14997
Rowland circle grating photonic integrated device for WDM appls. 9441
single leakage-channel grating coupler, wet-chem. fab. 39412
single-element laser-beam uniform cross projector design 7716
single-mode birefr. circ. polariz. maintaining opt. fiber coupler *(Chinese)* 14367
single-mode fibre coupler/filters, coupling suppression by periodic index modulation 30912
single-mode triangular-index fiber with a depressed cladding ring, bending-loss studies 7321
slab integrated opt. waveguide path design 40402
smart-pixel liq. cryst.-on-Si SLM for optoelectronic neural network 22960
spatial filter sens. for ground speed meas. 42760
substr.-mode grating struct. opt. switches 7754
super resoln. tech. for next-generation ULSI 13558
temporal proc. and time lenses implement. 41301
three-branch widely tunable semicond. laser design for WDM links 14915
travelling-wave grating filter design, inverse scatt. 31067
ultrahigh-efficiency, narrow-passband tunable opt. filter design 22983
VanderLugt folded opt. module correlator design geom. 24651
visor-display design, planar holographic optics based 31659
waveguides, low-loss abrupt bends design and appls. 14469
WDM arrayed-waveguide grating multiplexer, flat spectral response 25497
X-ray lithog. beam lines, single mirror condenser 13540
XY integrated opt. coupler for phase-sensitive opt.-power combining 39398
Y-jn. waveguide switch cross talk 22871
AlGaInAs-InP 1.3 μm laser design 23282
$BaTiO_3$ photorefr. opt. novelty filter, design and perform. 31059
$Bi_{12}SiO_{20}$ real time opt. correlator 33083
CO_2 unstable laser cavity design, compact output beam 14715
Cu vap. laser, ASE output form. 39658
Er-doped integrated glass laser, modeling and optim. 22921
Er-doped planar opt. amp. design, background loss, proc. control 39750
GaAs MESFET opt. triggered monolithic S/H cct. design 39590
GaAs/AlAs thin film opt. filters in Fabry-Perot cavity 31063
$He-Cd^+$ CW hollow-cathode discharge multicolour laser module, design and perform. 39659
InGaAs/InGaAlAs electron transfer waveguide weighted-coupling digital Y-branch opt. switches 9448
InGaAs-GaAs-AlGaAs strained-layer lasers with monolithically integrated photodiodes, MOCVD fab. 31319
InGaAs-InAlAs QW electroabsorption waveguide modulators 39488
$KTiOPO_4$ sync. pumped opt. parametric oscillator, design, fab. and perform. 40052
$LiNbO_3$ CW opt. parametric oscillator near 2.1 μm 31579
$LiNbO_3$:Ti nonlin. directional coupler 39401
Nd:YAG diode-pumped miniature slab laser 31250

optical design techniques continued
Nd:YAG mode-locked laser antiresonant Fabry-Perot saturable semicond. absorbers 31244
Nd:glass diffr.-limited laser amp., SBS wavefront correction 23144
PLZT-based scanning grating lobe opt. array generators, design and simul. 14523
SiO$_2$-on-Si Mach-Zehnder 1.3/1.5 μm demultiplexer 34032
TeO$_2$ long time aperture acousto-optic delay line, design and charactn. 31021

optical detection of ENDOR *see optical double resonance*

optical detection of magnetic resonance (EPR) *see microwave-optical double resonance*

optical detection of magnetic resonance (radiofrequency) *see magnetic double resonance; optical double resonance*

optical difference frequency generation *see optical frequency conversion*

optical diffraction *see light diffraction*

optical directional couplers
ARROW nonlin. directional coupler soliton switching 40106
asymmetrical grating assisted coupler calc. by eigenmode expansion/coupled mode theory 39419
book, integrated optics design/modeling 36821
broadband microwave fiber optic links, lin. integrated-optic modulators 9536
coupled waveguides, excitation conditions, math. refinements 39407
D-fibre/buried waveguide vert. coupling, vectorial FEA 14415
dielec. multilayered waveguide, directional-coupler mode splitter *(Japanese)* 7353
directly written directional coupler in planar silica waveguide 14462
fiber-compatible integrated-opt. S-bends, power splitters, and directional couplers, general design 7358
fibre nonlin. directional couplers, opt. soliton switching *(Japanese)* 30902
graded index channel waveguides, asymmetric directional couplers, spectral charact. 22889
grating assisted directional coupler, opt. induced 40438
integrated opt. waveguide components design 39469
integrated optic switches, electrostatic actuation of metallic membranes 7382
interconnectable star couplers for distrib. star network 9427
MQW-sandwich nonlin. directional coupler with nonlin. losses, all-opt. switching 31601
multi-mode opt. waveguide interf. devices based on self-imaging 40440
multilayer grating assisted directional coupler waveguides, normalized radiation modes 14448
narrow-band low sidelobe spectral commun. filter, weighted coupling 39543
nonblocking single-substr. directional coupler opt. space switching networks 24761
nonlin. coupler laser, subpicosecond soliton form., num. simul. 2045
nonlin. directional coupler, opt. induced grating 7361
nonlin. directional couplers, saturation and nonlin. asymmetrical distrib. effects 39427
nonlin. fiber directional couplers, pulse switching 40058
nonparallel transit. sects., coupled-mode eqns. *(Japanese)* 7364
parallel 3D finite difference beam propag. methods, opt. waveguide structs. 30956
planar waveguide directional coupler with NLC, nonlin. effects 30957
polariz.-independent directional coupler wavelength filters, birefr. compensation 39536
PON, clip-on OTDR for fault location 9565
power divider, large-angle low-loss charact. 30942
rearrangeable nonblocking polymer waveguide thermo-optic switching matrix 30962
rib anti-reson.-reflecting-waveguide coupler, rem. coupling 39425
Schrodinger-cat state opt. directional coupler 40412
semicond. ring lasers for integrated optoelectronic ccts. 14842
SiO$_2$ integrated opt. directional coupler, sol-gel proc., UV light imprinting 22915
slab nonlin. directional coupler multidimensional bisoliton states, stabil. and switching 23368
symmetric nonlin. directional coupler, coupled mode anal. 7366
triple-coupler ring-based opt. guided-wave resonator, transmittance charact. 22894
two-port coherent lattice-form opt. delay-line cct. synthesis 14669
vert. $\Delta\kappa$ directional coupler switch, liq. crysts. 14465
WDM opt. transceiver module for pass. double star subscriber systs. 42371
wide free-spectral-range opt. resonator, FDM transm., novel archit. 17168
AlGaAs cascaded nonlin. directional couplers, all-opt. switching 39411
AlGaAs nonlin. directional coupler based opt. multiplexing 14463
AlGaAs nonlin. directional coupler, time-domain all-opt. demultiplexing 39377
AlGaAs waveguide design for all-opt. switching 31597
Er:SiO$_2$, integrated planar-waveguide amp., WDM coupler 14787
Er^{3+}-doped fibre directional coupler, nonlin. refr. index 30873
GaAs MQW directional coupler waveguide saturable Kerr effect 15118
GaAs quantum wire, directional-coupler switch 22887
GaAs/AlGaAs MQW zero-gap directional coupler, disordered branching waveguides 14491
GaInAsP-InP 2×2 switch, monolithic integration with optical amplifiers 17191
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 1729
InGaAlAs/InP asymmetrical vert. coupler wavelength filter 14573
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 14498
InGaAs-InP MQW tensile-strained directional coupler, polariz.-independent switching operation 14529
InGaAsP/InP grating-assisted directional coupler, act. filter *(Japanese)* 7365
InGaAsP/InP multi-quantum-well directional coupler, low-switching-voltage operation 30925
InGaAsP-InP MQW 2×2 opt. space switch struct. for 10-GHz appls. 9148
InGaAsP-InP directional coupler based tunable opt. filter 22910
LiNbO$_3$ acousto opt. tunable filters 7418
LiNbO$_3$ integrated acousto-opt. mode converters/tapered couplers , Tapered acoustical directional couplers 39506
LiNbO$_3$:Ti nonlin. directional coupler 39401
LiNbO3:Ti anisotropic graded-index channel waveguide, finite element modelling 39463
Nd^{3+}-doped fibre laser, coherent coupling, Y-jn. 39707
SiO$_2$-based waveguide bending loss reduction by lateral offsets 39440
SiO$_2$-on-Si Mach-Zehnder 1.3/1.5 μm demultiplexer 34032

optical disc storage
see also CD-ROMs; magneto-optical recording
(4, 20) runlength limited modulation code for high dens. storage syst. 30745
actuator/servo interact. in opt. recording 30840
compensation detector of birefr. 14339
data storage technol. *(Japanese)* 39505
digital compression appl. 25677
digital video recording data reduction strategies *(German)* 17583
drive compatibility optimum design for opt. storage media 14328
dual focus opt. head, HOE for disk reading 30837
encoded opt. disks, database opt. correl. 30835
extended eye-diag. jitter theory, laser source criteria 30833
four-beam LD opt. heads, dyn. wavelength shifts 39317
high storage dens. opt. disk, SHG *(Japanese)* 7269
high-capacity opt. disc storage, vol. holograms 39316
high-dens. opt. disc and superresoln. head develop. *(Japanese)* 17587
high-dens. opt. recording, variable length RLL codes 15758
high-speed networks, large multimedia server, storage subsystem design 16834
image and video storage media prospects *(Japanese)* 17584
land/groove recording, crosstalk suppression 39305
laser tester of disk recording surface 7273
magneto-opt. disk techs. for high-data-dens. recording 31016
measuring syst. for opt. disk mech. characts. 10018
med. digital X-ray archive accessed, Internet 8484
memory and blue lasers 7268
micro-optic element, opt. disc memory read/write heads 39309
multilayer disc storage, nonlin. read/write 39307
multimedia data streams, disc scheduling 16886
multimedia server for on-demand services 16832
phase change opt. disk, mark edge recording waveform optimisation 30844
phase change rewritable disk syst., recording study 30843
phase-change opt. disc, optimum opt. multilayer coupling *(Chinese)* 39315
phase-change opt. disk, high-dens. recording 14334
phthalocyanine cpd. film, opt. recording 30824
pickp-up opt. head syst. tolerance used in phase-change opt. disk *(Chinese)* 14337
pickup design for mini disc drives 34295
pit models, light-beam scatt. *(Japanese)* 7270
planar-optic-disk pickup, diffractive micro-optics 7368
polycarbonate opt. disk substrs., birefr., wavelength depend. meas. 7267
Raman opt. data storage, 3D, surface-enhanced 14330
read-only opt. head, posn. sensitive detect. syst. 14345
readout sig. deterioration, dust induced 39306
retroreflecting ellipsometer, opt. disk substrs. birefr. meas. 14342
stds., overview 22787
STM, data stampers study 14338
storage and recording systems, conf., Keele, UK (1994) 11550
tracking adaptive learning control *(Japanese)* 14344
two-beam LD, focusing charact., appls. to opt. head 31479
two-beam LD drives, opt. power monitor 3999
vert. birefr. meas. of opt. disk substrs. 15192
video/image recording technol. *(Japanese)* 34277
write compensation, thermal transfer fn. 22795
In$_3$SbTe$_2$ phase-change opt. disks, crystn. 22798
SnSbSe/SbBi bilayer phase-change media for high-dens. write-once opt. recording 39314

optical dispersion
see also optical constants; optical fibre dispersion
adiabatic ultrashort light pulses propag. near two-photon reson. 31549
ARROW nonlin. directional coupler soliton switching 40106
autocollimation laser refractometer, highly sensitive fiber-optic output 42961
bright spatiotemporal solitons in planar opt. waveguide 15124
chiral mol. solns., opt. susceptibilities, nonlin. spectrosc. 31551
CLIO FEL, step-tapered undulator, two-colour operation 39933
dark opt. bullets in light self-trapping 23416
DFB laser chirp pulse pattern dependency, modulation and transm. perform. *(Japanese)* 39801
dielec. media ultrashort solitary-wave propag., reson.-dominated chromatic dispersion 40112
dye laser freq. stabilization by polariz. spectrosc. 23109
FEL with large μ_c planar undulator, waveguide appl. 39980
femtosecond CW mode-locked laser, third-order dispersion calc. *(Chinese)* 7713
graded-index planar waveguides, universal dispersion curves 22895
injection-locked dispersive bistable LD, fast opt. switching 39817
laser mirror group-delay meas. by spectrally resolved white-light interferometry 39996
long-span 2.5-Gbit/s CPFSK coherent opt. transm., power EDFA boosters 34000
micrometer/nanometer displacement and refractivity meas. by laser beam 4000
MPEOU-based polyceram planar waveguides, opt. loss study 25988
multilayer planar opt. waveguide with buffer layers, guided modes 7343
parab. deformed planar waveguides, modal power atten. 39408
parametric waveguide simultons(simultaneous fund./harmonic wave propag.) 31620
polaris. independ. nonlin. opt. loop mirror demultiplexers 34079
poled polymer films, freq. conversion and relax. phenom. 2091
polyceram MPEOU-based waveguides, proc., opt. props. 7356
prog. ultrashort opt. pulse delay by acousto-optic deflector 31020
quadratic-cubic nonlin. dispersive media, unique solitary-wave polaritons 7803
Rowland circle grating photonic integrated device for WDM appls. 9441
self-referenced fiber optic sens. for microdisplacement meas. 34537
semicond. lasers, opt. feedback with dispersive loss, amplit. noise 1980
semicond. lasers, static and dyn. props. of dispersive opt. bistability 14949
Stark anom. dispersion opt. filter for doubled Nd:YLF lasers 14575
thin film optimized nonlin. polymer struct., ultrashort pulse SHG 7783
waveguide high resoln. diagnostics, photon-STM 14474
AlN waveguide near phase-matching conditions, SHG conversion efficiency 39414
BaTiO$_3$ cryst. multiple wavelength phase-conjug. shear interferometry 2087
Cr^{4+}:Mg$_2$SiO$_4$ laser cavity, cubic phase distortion minimisation 31288
Cr^{4+}:YAG self-mode-locked laser, fs pulses near 1.5 μm 14786
Er^{3+},Yb^{3+}-doped fibers, anom. dispersion study 22852
GaAs/Al$_{0.35}$Ga$_{0.65}$As MQW, refr. index, Fabry-Perot etalon meas. 34717
GaAs-AlGaAs quantum-wire arrays on vicinal substrs., FEA of valence band struct. 21998

optical dispersion continued
$KTiOPO_4$ electro-optic laser Q switch, dispersion effects 22933
LiB_3O_5 ps Ti:sapphire-pumped opt. parametric oscillator 23420
$LiNbO_3$ electro-opt. digital intens. modulation, chromatic dispersion tolerance 17234
$LiNbO_3$ optical channel waveguides, direct meas. of cascaded nonlin. 14429
LiNbO3 low-loss SAW dispersive filters, low sidelobe level in compressed sig. 39542
Nd:YAG lamp-pumped laser, opt.-Kerr-enhanced mode locking 23179
Rb 532 nm Stark anom. dispersion opt. filter 39540
$RbTiOAsO_4$ noncritically phase-matched Ti:sapphire pumped fs opt. parametric oscillator 23383
Si/SiO_2 amorph. QW struct., dispersive subband-reson. nonlin. 1146
$Ta_2O_5/KTiOPO_4$ waveguide, phase-matched SHG 1725
$Ti:Al_2O_3$, Kerr-lens mode-locked femtosecond lasers, dispersion-compensation 1889
Ti:sapphire fs laser pulse space-time focusing 23182
Ti:sapphire laser 20 fs chirped pulse amplif. 31257
Ti:sapphire laser amplifer/pulse compressor, gain-narrowing limit 23151
Ti:sapphire regenerative amp. for ultrashort high-power multi-kHz pulses 31251
Ti:sapphire self mode locked laser ultrashort opt. waveform meas. by FROG 39744
Ti:sapphire sub-10-fs mirror-dispersion-controlled laser 39738
XeCl laser amplifier, SBS phase-conjug. cavity 1853
Yb^{3+}-doped fibers, anom. dispersion study 22852

optical double resonance
see also microwave-optical double resonance
spherical microcavities, enhanced two-level opt. reson. 40120
GaAs symmetric/asymmetric QW struct., lin./quadratic electrooptic effects 21999

optical elements
see also diffraction gratings; holographic optical elements; mirrors; monochromators; optical collimators; optical couplers; optical deflectors; optical delay lines; optical fibres; optical films; optical filters; optical isolators; optical klystrons; optical modulation; optical phase locked loops; optical polarisers; optical prisms; optical waveguides; optical windows
all-opt. device nonlin. materials 30823
antiresonant reflecting opt. waveguide polariz. splitter 22898
asymmetric multimode Y-jn. splitters 34099
birefr. meas., local-sampling phase shifting tech. 34718
calcite plate integrated polariz.-opt. logic proc. 1755
cholesteric liq. cryst., lin. electro-optic effect, flexoelectricity 14538
conference, lasers in optical systems/devices, St. Petersburg, Russia (1993) 11526
conical converters for uncollimated laser beam cross sect. 39995
curved struct. electron-beam lithog., enhanced vector-scan pattern generator 13457
diffr. focusing elements, quasioptical/opt., appls. 39529
diffractive opt. element for laser beam sharpening 23328
ESPI for spatial variables meas. 31681
FEL, Israeli tandem electrostatic project, resonator design and characterisation 39949
fiber-compatible integrated-opt. S-bends, power splitters, and directional couplers, general design 7358
fibre reflectometry wideband beam-splitter mirror 3868
FITL CATV syst. for broadcast/interactive services 42628
Gaussian mode forming phase opt. elements, iter. algm. 7447
graded opt. elements in solid state laser resonators 14998
high heat load optics, historical overview 39998
high-opt.-isolation low-loss moderate-switching-speed NLC opt. switch 1746
incoherent opt. syst. depth of field extension by wave-front coding 41234
integrated opt. waveguide components design 39469
interferometry-based quantum random-no. generation and key sharing 17343
IR antirefl. coating for cooled elements 39532
Italian PON field trials *(English, Italian)* 33992
laser beam cross-sect. conical converters, mutual error compensation 31459
laser beam homogenizer design for material proc. *(Japanese)* 20422
liq. cryst. film, opt. attenuator 7412
long-haul opt. fiber commun. syst. dispersion, distributed in-line group-delay equalizers 17250
metal diffr. gratings, laser power, energy dividers 15008
micro-machined 3D micro-optics for integrated free-space opt. syst. 14484
micro-optic element, opt. disc memory read/write heads 39309
micro-optics focusing LD material-proc. syst. design 5609
Moiré interferometry anal. of laser weld induced thermal strain 2161
MQW corner reflector p-doped lasers, microwave charactn., monolithic integrat. 14966
multichannel joint-transform correlator, multiobject recogn. 24426
multilayer-coated optics, guided-wave coupling and scatt. by interface random roughness 39391
near-field optics, nanometric spatial and femtosecond time resoln. 39477
nonlin. crossed Fabry-Perot resonator, transm. fn. 15110
phased-array antennas, liq. cryst.-based opt. controllers 7398
phthalocyanines, wavelength selective shutters, smart windows 14514
piezoelec. chopper for modulation-type pyroelec. IR detector 42802
polariz. CCD camera for computer vision, beam splitter 2596
polymer opt. fibre, all-opt. and photomechanical devices 31584
polymeric optochips, splitters, switches and modulators 14502
quartz piezoelectrically-operated opt. chopper, micromachining, sens. appls. 30597
read-only opt. head, posn. sensitive detect. syst. 14345
solid microballs, feasibility, opt. bistable elements 40100
space commun., second generation small opt. terminals 34045
spatial soliton collisions, weak-beam switching props. *(Spanish)* 7757
telecomm. syst. waveguide component polymer materials 7379
transm. systs., opt. components modelling *(French)* 3569
tree-type photonic switching networks 25192
TV camera lenses, latest develop. *(German)* 25653
twin high-ellipt.-core fibre-optic polariz. beam splitter coupling charact. 30857
VanderLugt folded opt. module correlator design geom. 24651
waveguides, low-loss abrupt bends design and appls. 14469
CO_2 laser continuously variable attenuator by ZnSe wedges 2036
GaAs cascaded guided wave gratings, out-of-plane opt. sig. proc. 14481
I Q-switched photodissociation laser, pass. shutter 39671
$LiNbO_3$ opt. beam splitter, tapered vel. coupler 7401

optical elements continued
Si (110) micro-opto-mech. devices, anisotropic etching 30977
SiO_2 waveguide ccts., low polaris. depend. fabricated on SiO_2 substrs. 1727

optical ellipsometers *see ellipsometers*

optical ellipsometry *see ellipsometry*

optical fabrication
see also optical fibre fabrication
2.4 Gbit single/multi fibre electro-optic transmitter 34031
acetylphenyl-1,4-dioxa-8-azaspiro[4.5] decane, LD pumped ring resonator, blue light emission 23429
achromatic computer generated HOE for coupling LD, single mode fiber 40144
act./pass. glass waveguides, sol-gel method prep., laser props. 14810
analog DFB laser modules, second-order IMD 7680
BH planar lasers, fab., spatial/spectral separation 39813
BH SEL diodes, integrated vac. proc. 39810
binary-phase holographic gratings on sapphire, VLSI fab. tech. 15186
binary/multilevel diffractive lenses, submicrometer, sizes 7373
Bragg opt. fibre gratings, temp.-compensating mounts 34097
buried channel silica-based waveguide fab., MCVD method 30960
CGH, polaris. selective, design/fab. 23461
conference, optical interf. coatings, Grenoble, France (1994) 11556
conical converters for uncollimated laser beam cross sect. 39995
continuous-relief micro-opt. elements, laser writing, photoresists 7375
CPODs, compact planar opt. devices, fab. by CVD technol. 14495
cross-linked and side-chain polymer films, nonlin. optics appls. 15090
curved struct. electron-beam lithog., enhanced vector-scan pattern generator 13457
desktop printer, diffractive optic elements fab. 39452
DFB laser, laterally coupled, fab., electron-beam lithog./CAIBE 14941
DFB LD grating fab. by holographic method 15183
diffractive coupling lenses, 3D profiling, e-beam lithog./RIE 14568
diffractive opt. element for laser beam sharpening 23328
diffractive opt. elements, electron-beam fab., FIB inspection 14497
diffractive opt. elements for opt. computing 7434
diffractive optics, radiation resist., electroforming *(German)* 31058
directly written directional coupler in planar silica waveguide 14462
double-surface corrugated grating waveguides, opt. input coupling 22888
downsized multi-functional EO test collimators 35385
dye-doped polymer waveguides, opt. losses/photocond. sensitivity 30961
electro-optic Fabry-Perot through-plane-modulator based on LB film 30998
electro-optic polymer light modulator, surface plasmon reson. based 22943
free-space opt. computing module config., guide-frame assembly method 39514
gain-coupled MQW DFB lasers, 1.55 μm, Ti surface Bragg grating 23274
germanosilicate planar glass waveguide fab., photo-induced by UV light 30985
high-contrast periodic corrugations, g-line photoresists, laser holographic exposure 39473
holographic grating fab., lin. equiv. fuzzy anal. 40152
holographic opt. element for Gaussian laser beam conversion 15174
holographically exposed photoresist gratings, developed profile 31638
hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
III-V semiconds., photonic devices, clean/fine dry procs. 39809
indust. Raman scatt. opt. materials charactn. facility 5693
InGaAsP-InP four-wavelength DBR laser array, selective MOCVD 14960
integrated taper opt. switch array, self-aligned packing 42390
kinoform lenses, solar cell light concentrator appl. 27972
large holographic opt. element writing by adaptive opt. syst. 7822
laser systs., diffractive and binary optics 31138
laterally-coupled DFB laser, EBL/CAIBE fab. 31410
low-loss nonlin. opt. channel polymer waveguide laser ablation 1723
main-chain polymers, processable, third-order nonlin. opt. props. 15097
melted microlens shapes, modelling/meas. 1724
metallic holographic diffr. gratings for laser appls. 40146
micro-encoder chip, integrated opt. component fab. 30979
micro-machined 3D micro-optics for integrated free-space opt. syst. 14484
micro-opt. components, laser forming, phys. fund. 7376
microchip diode pumped solid state laser arrays, mfg. cost 31282
microlens arrays, coherent refr., dry etching 7440
microlens arrays, long focal length, prog. mfg. tech. 39451
microlens fab. tolerances, multilevel etching, mass-transport smoothing 7369
microlens integrated coupling device for LD/opt. fiber 22911
microlens opt. coupling of LD array, single-mode fiber array 39355
micron-scale grating form., excimer laser irrad. phase masks 31052
monolithic grating-based components for WDM networks 9131
MQW electroabsorption opt. modulators integrated, low-loss waveguides 22938
multichannel fiber ferrule for stable LD array module packaging 37073
multifrequency waveguide grating MQW laser fab. by selective area epitaxy 7627
multilayer X-ray mirrors for X-ray lithog. 6689
multiple-level dry etching, self-aligned etch masks 13324
$Nd:SiO_2$ planar silica waveguide laser, aerosol doping method 14817
near field holographic grating mask technol. 15187
nonuniform wt. error diffusion CGH opt. interconnections 1839
optoelectronic device fab. by CBE 37417
optoelectronic device fab. by electron lithog. 30170
optoelectronic packages, spot-welding tech. 5645
optoelectronic packaging, Si surface-micromachined alignment mirrors 14673
organic materials, nonlin. opt. props. switching devices appls. 23423
organic semiconds., cryst., OEICs, photonic devices 39616
pass. planar opt. waveguide geodesic lens prod. 1714
pass. polymer multimode/single-mode waveguides, mass fab. 14432
phase gratings, fab., FIB milling/e-beam lithog. 14496
photonic IC, fab., phase grating masks 39456
photonic LSI interconnections/appls. 1833
photosensitive grating struct. opt. waveguide photoimprinting 30949
planar polymer substr., gradient-index profiles, lithographic tech. 14489
planar-optic-disk pickup, diffractive micro-optics 7368
PMMA storage media, azo-dye doped, real-time dyn. polariz. holographic recording 40142
PMMA waveguide, fab. procedures 22890
poly(phenylene) photoimageable waveguides, fab. and characterisation 39403
polyimide electro-optic integrated modulator syst. 22929
polyimide opt. waveguides fab., thin-film MCM proc. technol. 14490

optical fabrication continued

- polyimide-coated Ag hollow glass IR waveguides, loss characts. 14444
- polyimides, electron beam irrad., channel waveguide fab. 22891
- polymer amphiphiles LB films, fab., nonlin. optics props. 15089
- polymer film electro-optic modulators/waveguides 39489
- polymer integrated all opt. devices/ccts., fab./appls. 39614
- porous opt. glass struct., fab. 7260
- profiling aspherical surfaces, moire deflectometry 17926
- projection screens, opt./electro-opt. charact. 39494
- quartz piezoelectrically-operated opt. chopper, micromachining, sens. appls. 30597
- quasi-phase-matching waveguide freq. conversion, review 15099
- rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
- refr. microlens fab., preshaping photoresist 7441
- rhodamine B-doped glass planar waveguide, light amplif. 30933
- rhodamine perchlorate dye-doped sol-gel silica laser, XeCl laser-pumped, wideband tuning 31204
- rib waveguides, grating fab., electron-beam/X-ray lithog. 14461
- second-order grating waveguide-to-fiber coupling 39404
- SEL, circ. gratings, lithographic fab. 14940
- SEL for multimode data link appls. 23280
- self-aligned integrated mirror intrinsic loss anal., finite-difference beam propag. method 39613
- self-written glass slab waveguides 30958
- semicond. photonic IC, selective MOVPE growth 30976
- semicond. ring lasers for integrated optoelectronic ccts. 14842
- sens. develop. technol. overview *(Japanese)* 17802
- SI buried crescent laser regrowth tech. 31358
- single leakage-channel grating coupler, wet-chem. fab. 39412
- SiO_2 integrated opt. directional coupler, sol-gel proc., UV light imprinting 22915
- smart-pixel liq. cryst.-on-Si SLM for optoelectronic neural network 22960
- SOI waveguide single-mode opt. phase modulator, high efficiency 30972
- sol-gel derived interf. filters, porosity/comp. effects 22987
- spatial-phase-locked e-beam lithog., high-coherence QWS gratings 7385
- spherical microlens array fab., laser writing tech. 39454
- substr.-mode grating struct. opt. switches 7754
- surface-relief holograms, high diffr. efficiency, replication proc. 31643
- telecomm. optoelectronics, OMCVD epitaxial growth 37416
- tetraphenylporphyrin doped PMMA fibre, spectral hole burning 23369
- thin-film narrow-bandpass filters prod. by ion-assisted deposition, temp. stabil. 22988
- travelling-wave waveguide photodetectors, 172-GHz bandwidth and 76-GHz bandwidth-efficiency product 42804
- tris(8-hydroxyquinoline)aluminum photo- and electro-luminesc. devices, double mirrors 39576
- true-time delay fibre optic steering syst. for phased array antenna 23994
- variable-strain quantum well heterostruct., design and investig. 30820
- VCSEL wavelength control by nonplanar MOCVD 14963
- vert. cavity SEL arrays/micro-Fresnel lens array integrat. 23304
- vert. cavity surface emitting semicond. lasers fab. 31361
- vert.-cavity SEL array for short dist. opt. fiber networks 14929
- XY integrated opt. coupler for phase-sensitive opt.-power combining 39398
- Y-jn. waveguide switch cross talk 22871
- Ag-containing metallic nanostructure waveguiding systs., ion exchanged fab., nonlin. opt. charactn. 39416
- Ag^+-Na^+ ion exchange double-diffused waveguides, fab. and characterisation 30929
- (Al,Ga)InP-oxide epitaxial DBR in vis,-wavelength opt. devices 39800
- AlGaAs cascaded nonlin. directional couplers, all-opt. switching 39411
- AlGaAs diode lasers fabricated, pulsed anodic oxides 31362
- AlGaAs-GaAs thin film p-i-n photonic device integrat., micromachined movable platforms 39600
- AlGaAs-GaAs-InGaAs DBR elec. pumped VCSEL 31314
- AlGaInP/GaInAsP MQW vis. LD, beam charact., reliab. 31351
- AlN-GaN qtr.-wave reflector stack, gas-source MBE 14565
- As-S-Se resists, diffractive opt. elements, asymmetric profile fab. 39455
- B-doped glasses, multiphoton micrometer-scale photoetching in UV laser light 23488
- β-BaB_2O_4 cryst. growth by induction heating, nonlin. opt. appls. 23391
- $Ba_2NaNb_5O_{15}$, pulsed laser deposition epitaxial growth, waveguide props. 20905
- $Ba_2NaNb_5O_{15}/KTiOPO_4$ film waveguides, noncritical phase-matching 39384
- CdS thin film p-type/n-type light emitting/LD 14978
- Ce-doped gel quartz glass for opt. filters 31061
- Cl_2 ECR plasma etching of III-V semiconds., laser appls. 22188
- Er-doped planar opt. amp. design, background loss, proc. control 39750
- Er^{3+}-doped fiber amp., low noise, fab., opt. preamplification expt. *(Korean)* 31218
- GaAs LEDs, 3D opt. coupled common memory 39318
- GaAs MESFET transceiver, optoelectronic VLSI cct. fab. 39599
- GaAs micromachined widely tunable Fabry-Perot filters 22984
- GaAs short period corrugations, e-beam direct exposure, chem. amplified neg.-tone resist *(Japanese)* 22311
- GaAs:O, ion implant., waveguide material fab. 39402
- GaAs/AlAs four-wavelength Bragg mirror 22917
- GaAs/AlGaAs waveguides with quantum well claddings, opt. modulation, beam steering 22892
- GaAs/GaAlAs high-power 2D quantum wire laser arrays 14943
- GaAs/GaAlAs waveguide, TE/TM mode splitter fab. 22893
- GaAs-AlGaAs antiguided laser array fabricated by superlattice struct. 1988
- GaAs-AlGaAs electroabsorpt. modulators integrated, pass. waveguides 22918
- GaInAs/InP quantum-wire lasers, fab. procs. 39811
- GaInAs-GaAs multiwavelength SEL arrays, MOCVD fab. 1937
- GaInAs-InP tensile strained quantum wire laser fab. 39797
- GaInAsP BRS laser-GaAs MESFET driver for OEIC transmitter 31120
- GaInAsP DFB lasers, fab., maskless FIB implant. 39825
- GaInP/AlGaInP DFB QW lasers, fab., room temp. operation 23273
- GaInP-AlGaInP quantum wire lasers, MBE grown 31317
- GaP microlenses, enhanced mass-transport smoothing 31054
- InGaAs MQW laser, 1.75 μm, MOVPE grown on InAsP substr. 23184
- InGaAs strained quantum disk laser, nanoscale act. region 23216
- InGaAs/AlGaAs lasers, integrated optoelectronics, grating fab. 39596
- InGaAs/AlGaAs multiple wavelength VCSEL array for opt. interconnection 31334
- InGaAs/GaAs laser-mode-size convertor monolithic integrat., shadow-masked growth 22916

optical fabrication continued

- InGaAs/InP superlattice QW lasers, MOVPE grown 39807
- InGaAs/InP waveguide photodetector, saturation intens. 34512
- InGaAs-GaAs low threshold CW circ.-grating surface-emitting DBR lasers 7628
- InGaAs-GaAs strained layer single QW ring laser, reactive ion-etched tetragonal cavity 23192
- InGaAs-GaAs-AlGaAs strained layer BH laser fab. by MOCVD 31359
- InGaAs-GaAs-AlGaAs strained-layer lasers with monolithically integrated photodiodes, MOCVD fab. 31319
- InGaAs-InGaAsP MQW DFB LDs, 1.5 μm, MOVPE growth 7616
- InGaAs-InGaAsP MQW lasers, 1.55 μm, direct bonding on Si 23270
- InGaAs-InGaAsP strain-compensated MQW dielec.-bonded long wavelength vert. cavity laser 14851
- InGaAsP monolithic semicond. soliton transmitter 25530
- InGaAsP semicond. lasers, directly bonded InP-SiO_2-InP current-blocking struct. 14852
- InGaAsP/InP MQW integrated DFB-DBR laser modulator, MOVPE growth 23247
- InGaAsP/InP lasers, wafer scale proc. 23226
- InGaAsP/lnP strained MQW laser, integrated mode size converter 31383
- InGaAsP-InP 1.3-μm folded-cavity SEL grown by gas-source MBE 14853
- InGaAsP-InP directional coupler based tunable opt. filter 22910
- InGaAsP-InP ultrasmall waveguide bend corner mirrors 30970
- InGaP/GaAs multilayer reflector, MOCVD grown, VCSEL appl. 39865
- InGaP/GaAs/InGaAs strained MQW laser-MESFET, opt. transmitter fórm. 31124
- InGaP-InAlGaP MQW electro optic modulator, MOVPE grown 39483
- InP photonic integrated transceiver chip for WDM transm. 9458
- InP/InGaAsP 1.3 μm digital opt. switches, extinction ratio of 30 dB 42432
- InP-InGaAs MQW modulator waveguide devices, metallization/wet etch/passiv. 39461
- K^+-ion diffused waveguides, coupler-type wavelength demultiplexer 9554
- $KNbO_3$ thin film act. opt. waveguide devices, fab. 39464
- $KTiOPO_4$ channel waveguide, Rb^+ exchanged, fab., micro-Raman spectrosc. 30938
- $KTiOPO_4$ films by pulsed excimer laser ablation for nonlin. opt. appl. 15149
- $KTiOPO_4$ opt. waveguide fab. by Rb^+:K^+ ion-exchange proc. 30982
- $KTiOPO_4$ sync. pumped opt. parametric oscillator, design, fab. and perform. 40052
- $LiNbO_3$ chip assembly on silica-based waveguide on terraced Si substr. 31128
- $LiNbO_3$, ion beam induced domain-inverted grating, SHG study 31556
- $LiNbO_3$, periodic domain inverted struct., nonlin. optics 23394
- $LiNbO_3$ photo-induced waveguide fab. 30939
- $LiNbO_3$ planar waveguide fab., Zn diffusion 39374
- $LiNbO_3$, proton exchanged waveguides, deeply inverted periodic domains 22879
- $LiNbO_3$ proton-exchanged periodically segmented channel waveguides 22868
- $LiNbO_3$ quasi-phase-matched waveguide, periodic domain-inversion 39400
- $LiNbO_3$ ridge proton-exchanged waveguides fabricated by wet etching 22913
- $LiNbO_3$ single crysts. for opt. waveguides, direct bonding 39376
- $LiNbO_3$ thin-film waveguides on GaAs 14478
- $LiNbO_3$ waveguide quasi-matching SHG devices 22880
- $LiNbO_3$ waveguides, quasi-phasematched SHG conversion efficiency 22878
- $LiNbO_3$:Er,Ti waveguides, fab. and perform. eval. 39438
- $LiNbO_3$:Ti planar waveguides, polariz. coupling 30946
- $LiNbO_3$:Ti slab waveguides, characterisation, fn. of fab. conditions 30948
- $LiTaO_3$, ion beam induced domain-inverted grating, SHG study 31556
- $LiTaO_3$, periodic domain inverted struct., nonlin. optics 23394
- $LiTaO_3$, proton exchanged waveguides, deeply inverted periodic domains 22879
- $LiTaO_3$ proton-exchanged waveguide in benzonic acid, annealing property *(Chinese)* 1704
- $LiTaO_3$ proton-exchanged waveguides fab., cinnamic acid 39422
- $LiTaO_3$:H proton exchanged waveguides, opt./electrooptical props. 14422
- $LiTaO_3$:Ni opt. waveguides, fab., Ni diffusion 22885
- Na alkali borosilicate glasses, heat treated 7264
- Na_2O-Nb_2O_5-Al_2O_3-P_2O_5, planar ion-exchanged waveguide form. 22864
- Na_2O-WO_3-Ga_2O_3-P_2O_5, planar ion-exchanged waveguide form. 22864
- Nd-doped silica planar waveguide lasers fabricated by flame hydrolysis deposition/RIE 31260
- Ni^{2+}:$Gd_3Ga_5O_{12}$ pulsed laser operation 23155
- PZT thin films prod. by pulsed excimer laser deposition *(Chinese)* 5839
- Pb-silicate glass planar waveguides, light-induced second-order nonlin. suscept. 7788
- Si (110) micro-opto-mech. devices, anisotropic etching 30977
- Si, anisotropically etched mirrors for opt. sens. appls. 37409
- Si double-sided polished parallel wafers for direct bonding 13347
- Si, micromirror arrays, KOH:H_2O micromachining, lens templates 7442
- Si receiver module, hybrid integrat. of silica waveguide, photodiode interface 31116
- Si thermooptical micromodulator, 700-kHz -3-dB bandwidth 39490
- SiGe/Si heterojunction waveguides, Ge conc. effect on propag. charact. 39383
- SiO_2 core low temp. low loss PECVD channel waveguide fab. 30984
- SiO_2, fused, microlens arrays, RIE 14493
- SiO_2, submicron parallelogramic-shaped gratings fab. proc. 7345
- SiO_2:Ge Bragg reflectors, UV laser fab. 14436
- SiO_2:Ge, fused silica, waveguide form. by ion implant. 39387
- SiO_2:WO_3 porous glass laser optics fab., CO_2-laser radiation effects 7710
- SiO_2-TiO_2-SiO_2-Si ARROW opt. waveguides, sol-gel multilayer struct. 14417
- SiO_2-on-Si Mach-Zehnder 1.3/1.5 μm demultiplexer 34032
- SiO_2-on-Si:rare earth doped integrated opt. waveguide devices in opt. commun. 30968
- SiON/SiO_2/Si single-mode waveguides, plasma CVD prep. 39396
- TiO_2:Nb(Cr) thin films, RF reactive sputtered, optoelectronic/gas sens. appls. 39546
- TiO_2-MgF_2 composite multilayer films prepared by reactive ion-assisted coevaporation 1782
- Yb:$LiNbO_3$, waveguide laser, energy levels and spectra 14835
- Yb:YAG waveguide laser, diode pumped, fab. and characterisation 31296
- Yb:YAG waveguide laser, epitaxially grown, diode pumped, high slope efficiency and low threshold 14833
- ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, SHG generation 22908
- ZrF_4-BaF_2:Er glass thin film opt. element 22877

optical feedback
see also laser feedback
2D feedback nonlin. opt. syst. with field rot., diffractive patterns 7752
bistable liq. cryst. opt. syst. with global feedback, spatio-temporal behavior 15034
delayed opt. bistable syst., chaos control 31555
DFB Bragg grating struct., phase-shifted, fab. 39338
DFB $\lambda/4$-shifted periodic struct., opt. switching 2073
electroluminescent diode with photoresponsive organic pigment films, light amplif. 31104
fibre Bragg gratings, pulse self-switching 22819
fibres with feedback, dyn. SBS 14406
hybrid IC waveguide facet refl. reduction 14674
Korean character recogn., opt. associative memory *(Korean)* 24674
liq. cryst. light valve, feedback, nonlin. response 22956
NLC cells, opt. nonlin., voltage sensitivity 7730
nonlin. Fabry-Perot resonators, anal. of dyn. pattern form. 7728
nonlin. waveguides, counterpropagating beam distributed coupling, bistability 15030
optoelectronic feedback control for power supplies 37624
optoelectronic integrated devices, transient behaviour 39591
periodic nonlin. multilayers, intens.-induced stopband bending 2116
phase-locked phase-sensitive opt. parametric amp. soliton fibre pulse propag. 40082
photocurrent shot noise suppression in feedback loop 17777
polymer opt. fibre, all-opt. and photomechanical devices 31584
polymer thin film waveguide devices, freq. doubling 2093
precision optoelectronic devices, mech. displacement meas., automated pulsed-emission 23017
quantum cryptography, polariz. feedback 15791
Rowland circle grating photonic integrated device for WDM appls. 9441
semicond. ring lasers for integrated optoelectronic ccts. 14842
single feedback expt., hexagonal patterns form. and charactn. 2122
single-rail translation-invariant opt. associative memory for neural networks 22796
spherical microcavities, enhanced two-level opt. reson. 40120
SQ well submillimeter-wave generation and amplif. by coherent wave-packet oscills. 6559
two-level center thin film with a wide-aperture opt. feedback, spontaneous patterns form. 31566
wave-front sens., closed-loop adaptive optics syst., error propag. 14567
Nd:YAG laser beam, self-pumped phase conjug. in NLC, feedback 31548

optical fibre cables *see optical cables*

optical fibre cladding
1.55 μm single-polariz. hollow pit opt. fiber, zero total dispersion 7283
analog transm. syst. dispersion-compensating fiber, high fig. of merit 17205
chirofibre, EM wave propag., modal charact. 30859
coating design 39331
D-fibre/buried waveguide vert. coupling, vectorial FEA 14415
diam. meas., elastic-scatt. spectra 7314
doubly clad opt. fiber filled with chiral materials, modal cutoff 7290
dual-coated opt. fiber specimens, interfacial shearing stress, double lap shear joint 14384
dual-coated opt. fibre, interfacial shearing stress anal. 30896
elliptically cored opt. fibre, LP$_{11}$ modes comp. 7344
finite-clad fibres and waveguides, perturb. anal. limitations 30849
fire-resistant and cryogenic opt.-fiber cable 5569
H field vectorial Galerkin method 39358
H-loaded, depressed-cladding UV-written Bragg fibre gratings, cladding-mode coupling 30909
high-dens. opt. subscriber cable, helically single-grooved small units 9592
multimode fibres, singly-clad, modal dispersions anal. 22818
petrochemical plant, chem.-moisture barrier cable 5411
polymer nonlin. opt. fibre devices 30914
porous-clad fibres, tapered, gas sens. response time anal. 42829
porous-clad tapered fibers for gas detect. 25865
single cryst. core fibers, second-order cascading, third-order effects orig. 22806
single-mode birefr. opt. fiber polarizer 22859
single-mode fibre, microbending induced loss behaviour 30888
single-mode triangular-index fiber with a depressed cladding ring, bending-loss studies 7321
sq./rect. core fibre scalar anal. by Fourier decomp. method 39325
temp. sens., polymer ceramic composites 34543
thin coated fiber microbending charact. and mech. strength 7341
thin-coated opt. fibers, proc. handleability 14356
triple-clad single-mode fibers for dispersion flattening 7331
twin high-ellipt.-core fibre-optic polariz. beam splitter coupling charact. 30857
very-high-fiber-count preconnectorized opt. fiber cable 9591
F-doped silica cladding, radiation resist. 22841
H$_2$-loaded germanosilicate fiber adiabatic mode-field transformer fab. 7309
Nd doped fiber laser, long./side-pumped, silicone coating 31228
Nd:glass fiber laser, cladding-pumping 23128
Nd-doped double-clad fiber laser pumping, LD bar 7551
SiO$_2$ fiber coatings, fatigue behavior 14355
SiO$_2$ fibres, polymer clad, mode coupling, diffusion proc. 22834
SiO$_2$ opt. fibre atten., nuc. environ., prep. 22842

optical fibre communication
see also optical cables; optical fibre networks; optical fibre telemetry
1.3 μm monolithic integrated optoelectronic receiver, InGaAs MSM photodiode/AlGaAs-GaAs HEMTs 25543
1.3 μm opt. fibre amps., device perform. and systs. impact 34065
1.55 μm DFB-LD/modulator integrated light sources, MOVPE grown 9478
1.5-μm phase-sensitive opt. parametric amp. for ultrahigh-speed commun. 9604
2.4 Gbit single/multi fibre electro-optic transmitter 34031
2.4 Gbit/s high perform. dispersion compensating fibre 30920
2.5 Gbit/s 407 km repeaterless opt. fiber transmitters 34011
2.5 Gbit/s DFB LD/modules for long-haul opt. transm. 34002
2.5 Gbit/s transm. expt., 1000 km of std. single-mode fibre, 1550 nm *(English, Italian)* 33993
2.5-Gbit/s CPFSK transm. expt., AMI-encoded data 9578
2-20 GHz low-noise wideband opt. receiver 9573
2D WDM reconfigurable opt. interconnection smart pixels 42099
4×4 lossless opt. switch for photonic switching 9144
10 Gb/s lightwave syst. dispersion compensation based on semicond. Mach-Zehnder modulator 25518
10 Gb/s transm., 5800 km opt. amplified testbed 42447

optical fibre communication continued
10 Gbit/s 138 km uncompensated duobinary transm., installed std. fibre 3555
10 Gbit/s data switched semicond. laser amp. nonlin. loop mirror 17326
10 Gbit/s dispersion supported transm., computer simul./practical implications 34084
10 Gbit/s opt. transm. beyond dispersion limit 17252
10 Gbit/s opt. transmitter module, integrated electroabsorption modulator/DFB LD 9477
10 Gbit/s periodically amplified WDM soliton syst., filtering effects 17267
10 Gbit/s repeaterless WDM fiber transm. 9466
10 Gbit/s sig. repeated wavelength conversion, wavelength-tunable semicond. lasers 25496
10 Gbit/s soliton transm. expt., 1 Mm, 105 km amp. span 25475
10 Gbit/s systs., opt. transm. tech. *(German)* 42461
10 Gbit/s transm. expt., direct modulation, 8:1 TDM setup 42454
10 Gbit/s WDM 1310-nm opt. transm., 63.5-km std. single-mode fiber, opt. preamplifiers 17349
10 Gbit/s-259 km transm., SIL amp. 34083
10 km opt. fiber quantum key distrib. 24110
10-Gbit/s 280-km nonrepeatered transm., suppression of modulation instabil. 9509
10-Gbit/s four-channel dense WDM transm. 9488
10-Gbit/s sig. transm. following wavelength conversion, semicond. opt. amps. 9489
10-GHz timing extraction from 20-Gbit/s data stream by opt. fiber PLL 9127
12-channel fiber optic communs. equipt. *(Japanese)* 25510
15-Gbit/s high-speed monolithically integrated pin-HEMT photoreceiver 34082
16-Gbit/s TDM/polariz.-division-multiplexed syst., compensation tech. 9126
40 Gbit/s transm., 202 km of fibre, midspan spectral inversion 25504
40 GHz multisoliton pulse propag. in dispersion varying opt. fiber cct. 9468
70 terabit.km/sec soliton transm., packaged hybrid soliton pulse source 17351
100 Gbit/s multichannel TDM demultiplexer by multiwave mixing 3297
100-Gbit/s TDM opt. transm., two tunable Er-doped fiber lasers 9490
600 Mbps opt. receiver, high-speed AGC cct. *(Japanese)* 42469
622 Mbit/s self amplified Raman repeaterless fiber link 17350
1300 nm gain-clamped MQW laser amps., reduced IMD 34006
1300 nm MQW laser amplifer for opt. commun. 9456
1550 nm dispersion-supported transm. on long spans of conventional single-mode fiber 9508
1550 nm high-energy fiber SRS pulse transm. 25525
1550 nm opt. AM-SCM systs., self-PM induced second order distortion 34095
access network, wireless technols. integrat. 25148
access networks, conf. (1993) 36850
ACOFT, optical fibre technol. conf., Australia (1994) 28253
act. mode-locked telecomms. semicond. lasers, soliton generation 31415
act. planar lightwave cct. technol. *(Japanese)* 17183
act. SBS fibre amp./filter opt. clock recovery 39363
additive-pulse mode-locking/limiting storage ring 3546
adjustable dispersion equaliser for 10/20 Gbit/s 160 km fibre transm. 9436
ADRIA 1, opt. fibre submarine cable syst. 33736
all opt. SEED switching systs., appls. 9143
all-opt. formatted photonic packet switches archit. 3302
all-opt. network using dyn. wavelength routers, crosstalk penalty 9585
all-opt. soliton control for long dist. fibre transm. and opt. memory 7758
all-opt. WDM/TDM transmultiplexers 34086
α-profile multimode opt. fiber channel, lin. systs. approach 9438
amplit.-phase inform. transfer, waveguide holograms 39321
analog transm. syst. dispersion-compensating fiber, high fig. of merit 17205
analog/digital fiber lightwave systs., external modulators 9515
antenna array photonic systs. 2352
anticrosstalk arrayed-waveguide add-drop WDM multiplexer 3283
antiresonant waveguide add/drop filter, Fabry-Perot interf. filtering 17266
apodized acousto-optic WDM switch/filter 7419
asymmetric multimode Y-jn. splitters 34099
asynchronous opt. chip interconnects with direct detect., crosstalk anal. 9440
ATM shuffle-based switch, perform. anal. 8730
ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
atten. in regeneration sects., stat. normalization 30865
Australian photonics/ opt. fiber R&D, overview 34064
automated opt. main-distributing-frame FTTH syst. 9443
automated polariz.-depend. fiber loss meas. syst. 14354
automatic line protection testing, SDH/opt. fibre amp. 9530
bandwidth-limited soliton propag. in opt. fibers, higher-order effects 23363
BanyanNet—bidirectional equiv. of ShuffleNet fiber link 9447
BER estim. of opt. transm., monitoring 25481
BERKOM-II FlowSpec, ATM mapping 9018
BPSK homodyne detect. expt. with solitary DFB LD, 10 Gbit/s 17329
Bragg fibre grating develop. for WDM appls. 39340
Bragg grating systs., cubic/quadratic dispersion compensation 39360
Bragg-grating fiber filters with self-induced chirp, dispersion compensation 14352
broadband microwave fiber optic links, lin. integrated-optic modulators 9536
broadband pumped opt. fiber link, SBS suppression 9475
broadband transm. networks, multiwavelength technol. 17248
broadband wireless commun., MM waves, opt. fiber 9506
bulk optically controlled semicond. switches design 25498
burst-mode receiver transm.-capacity penalty in all-opt. multiple-access networks 17198
campus inform. network syst., LAN/FDDI based *(Japanese)* 16696
cascaded chirped fibre grating transm. filters, dispersion compensation 39342
cascaded fiber amp. syst. gain filtering 7575
CATV DFB LD, second-order distortions meas. 34004
CATV syst., fiber optic transm. cct. for 150 carrier VSB-AM modulation *(Japanese)* 42630
CDMA opt. archits., bipolar capacity, unipolar codes 9582
CDMA opt. systs. based on spectral encoding of noncoherent sources 41470
cellular multichannel video/data commun. optoelectronic components 34080
centralized control for fiber-optic microcell radio syst. 3450
channels, sliding block line codes, dispersion limitations 40578
chirped grating integrated-optic dispersion compensator for fibre links 34016
CMOS 248 Mb/s transimped. amp. and 155 Mb/s LED driver for fiber links 9543
coaxial laser module for Gb/s transm.-speed range 17275
coherent FSK syst. DFB lasers, thermal contrib., FM response 3585
coherent opt. CDMA, laser phase drift effects 42348

optical fibre communication continued
coherent opt. DPSK systs., phase noise corrupted, BER perform. 17327
coherent opt. syst. nonuniform FM response, semicond. laser model 9471
coherent opt. systs., recent trends 25480
colliding-pulse-modelocked quantum well laser, 15.8 Gbit/s syst. transm. expt. 25502
collimating lens syst. for LD package 3547
colloquium, optical solitons, London, UK (Nov. 1994) 62
commun. technol. *(Japanese)* 42038
conference, optical fibre gratings and appls., London, UK (1995) 20234
CPFSK coherent opt. transm. for repeaterless submarine syst. *(Japanese)* 16994
CPFSK opt. crossconnect systs. with noncoherent detect., interf. 9434
CPFSK wavelength-switched systs., coherent/noncoherent detect. 9501
cross-connect opt. systs., FDM technol. 9145
crosstalk in fiber-loop opt. buffer 9600
dBm semicond. opt. amplifer booster module for high-bit-rate transm. systs. 17228
DBR laser ultra-fast opt. switching by electro-opt. tuning sect. 34005
DBR LD wavelength conversion device 23196
DCS for very-high-speed networks 9151
DFB channel-dropping opt. filters, design and fab. 39538
DFB laser-fibre grating dispersion compensator, transm. dist. extension 39344
DFB lasers integrated with external modulators, freq. chirp anal. 14953
DFB LD/module for CATV systs. 34261
digital opt. burst-mode receiver BER perform. in TDMA, opt. multiaccess network 25485
digital opt. transm. syst., min. BER degrad. 25473
diode-pumped solid-state lasers in fiberoptic systs. 31283
direct detect. opt. CDMA commun. syst. Monte Carlo simul. 41464
direct-detect. transm. systs., opt. amp. posn. depend. 9581
directional coupler-type opt. power divider, large-angle low-loss charact. 30942
dispersion-supported transm., 20 Gbit/s, 53 km fibre 34071
dispersion-supported transm., opt. nonlin. 17227
distributed fiber-optic temp. sens. *(Japanese)* 1681
distributed forward-/backward-coupling semicond. laser, wavelength tuning charact. 31322
DSSC lin. for wide dyn. range opt. link 9538
DTM gigabit network 3190
dual wavelength opt. fiber HDTV distrib. networks 17571
dual-filter heterodyne FSK opt. syst., BER eval. 17251
duobinary opt. transm. syst., no receiver sensit. degrad. 25506
electroabsorption modulator integrated laser transmitters 17225
electroabsorption modulator module *(Japanese)* 42463
endless fiber-optic polariz. controller, low driving voltage and 30-dB extinction ratio 9566
external cavity chaotic opt. commun. LD, periodic oscills. 39832
externally modulated lasers for fibre transm., optimum prechirping 1971
externally modulated opt. AM-SCM systs., 1550 nm, distortion 9423
Fabry-Perot tunable polariz.-maintaining fiber filters 22803
Fabry-Perot wavelength-tunable picosecond LD pulse source 34090
fast distributed network restoration algm. 3548
fault-tolerant layered approach 16687
FDM FSK syst., channel spacing, crosstalk *(Chinese)* 42354
femtosecond soliton transm., pol. depend. of soliton interacts. 34019
ferroelec. smectic C* liq. cryst. high-speed tunable filter 39539
FET-based OEIC photoreceiver design, syst.-level considerations 34081
fiber bundle imagery of wavelength multiplexing, stat. eval. 16222
fiber in board electro-opt. interconnection syst., packaging 42429
fiber optic glass ferrule connector *(Japanese)* 42467
fiber-grating transm. filters in all-fiber demultiplexer 7312
fiber/planar waveguide coupler thin metal layer polariz. props. 7285
Fibre Channel Standard, rapid protocol develop. 33494
fibre grating interferometric characterisation 39337
fibre link systs. 4000 km long, perform. comparison 42377
fibre soliton propag. quantum noise reduction by phase-sensitive amplif. 1668
fig.-of-eight fibre laser for soliton transm. expts. 42453
FIR all-pass opt. dispersion compensators for high-speed long-haul systs. 42366
fire-resistant and cryogenic opt.-fiber cable 5569
FITL, commercial AC power quality issues 19227
FLAME project, fibre laser acousto-optic modulators 9479
four-channel freq. locking, fibre-fed Fabry-Perot filter 17328
four-channel WDM/PDM transm., 10 Gbit/s, 340 km 17230
freq.-guiding filter in opt. soliton transm., peak curvature meas. 9425
freq.-selective waveguide multiplexing receivers 9594
fs opt. solitary wave propag. at the zero dispersion point, nonlin. dyn. 22814
FSA submarine opt. amp. syst., rem. supervision *(Japanese)* 16993
FSA submarine opt. amp. transm. syst. *(Japanese)* 16992
FSK-FDM heterodyne detect. syst., cross-PM 17217
fused biconical taper WDM, radiation effects 17261
Gb/s intens.-modulated direct-detect. systs., laser turn-on delay and chirp noise effects 42460
global fibre transm. expt. for max. repeater spacing 9424
global power architect. 19813
Gordon-Haus effect reduction on dark solitons of nonlin. gain 30876
graded index polymer opt. fibre, high bandwidth, large core 39354
grating-frustrated coupler in WDM bandpass filtering appls. 34035
GRINSCH lasers, carrier/radiation confinement 39771
guided scrambling line codes, polynomials 40579
H-loaded, depressed-cladding UV-written Bragg fibre gratings, cladding-mode coupling 30909
heterodyne ASK lightwave systs., IF flucts. 17253
hierarchical star-controlled rings for multiprocessors 16723
high bandwidth internat. video via fiber optic cable 3057
high dyn. range fibre optic links, opt. carrier filtering 9435
high-data-rate MM-wave modulated subcarrier opt. transm., feedforward opt. modulation 9580
high-power MOPA LD 7657
high-speed optoelectronics, packaging technol. 11751
holographic fibre grating struct. fab. and appls. in systs. 7296
hybrid analogue/digital opt. transm. systs., clipping induced errors 34096
hybrid fiber/coaxial CATV network power distrib. systs. 42627
hybrid fibre/coaxial syst., power/backup power supply 44133
hybrid SCM AM/QAM lightwave transm., laser clipping distortion effects 42411
IBCN, opt. ATM components 33729
IM/DD fiber transm. syst. dispersion-limit formula 9575

optical fibre communication continued
in-fibre grating systs., pulse compression, dispersion charact. 39341
in-fibre wideband Fabry-Perot filter/resonator fab. 31066
in-line fiber amp. systs., noise evol., nonlin. refr. index 14751
in-line opt. amp. systs., num. simul. *(Japanese)* 14738
in-line opt. amp. systs., SNR degrad. *(Japanese)* 42396
in-line semicond. laser amp. opt. repeaters, stray refl. effects 3570
injection-locked directly modulated lasers in multigigabit-per-second std.-fiber transm. 9516
integrated DFB LD modulator for 2.4 Gbps opt. transm. *(Japanese)* 39618
integrated photonics for opt. networks 42438
intens. modulated lightwave syst., error-rate floor prediction 14877
intens. modulation/direct detect. syst., dispersion limit 42373
interferometry-based quantum random-no. generation and key sharing 17343
intra board opt. interconnects, high bit rate modules 17279
intra-syst. interconnection, opt. fiber fabrics 42428
IR commun. fiber amps. 9525
LABON, learning automata-based opt. network 9608
large-core silica fibers for data commun. appls. 42406
LD for chaotic opt. commun. 17249
LEOS, San Jose, CA, USA (1993) 20270
lightwave systs., parametric gain, four-photon mixing 17219
lightwave systs. with opt. preamplifier, perform. eval. 17186
lightwave transm., low-rate parallel scrambling techs. 42380
lin. chirped fiber Bragg grating for fibre link dispersion compensation 42444
lin. microwave fiber-optic links for antenna remoting and sig. proc. 9505
lin. repeatered terrestrial SDH transm. systs., bit-interleaved Hamming code 42440
linewidth-insensitive coherent AM opt. link, direct/external modulation format comparison 42410
linewidth-insensitive coherent analog opt. AM link receiver/transmitter 9442
LINK Optoelectronic Systems Programme, London, UK (June 1994) 20
long dist. fibre commun., solitons 17185
long dist. opt. soliton commun., optimal design *(Chinese)* 9532
long haul WDM fibre soliton transm., filtering 3587
long pitch fibre gratings, dispersion compensation 30919
long span submarine opt. fiber transm. systs., evol. *(Japanese)* 16991
long-dist. soliton transm., 20 Gbit/s, alternating-amplit. solitons and opt. TDM 34018
long-haul digital transm. opt. preamplifier receivers 34037
long-haul fibre links, light depolarisation 34053
long-haul opt. fiber commun. syst. dispersion, distributed in-line group-delay equalizers 17250
long-haul opt.-fiber spliced systs., polariz.-mode dispersion and power penalty 7337
long-haul soliton transm. syst., fibers, dispersion distrib. 39365
long-haul transm. systs., fibre amps., double Rayleigh backscatt. 33982
long-span 2.5-Gbit/s CPFSK coherent opt. transm., power EDFA boosters 34000
low birefr. opt. fiber polariz. states, PDF 17260
low-loss compact all-fibre wavelength drop and insert filter 9437
LSI packages for ultra high-speed opt. fiber transm. systs. *(Japanese)* 42470
Mach Zehnder electro optic modulator for sideband suppressed carrier modulation of opt. fields 42394
metropolitan SDH networks, full/partial access solns. 42448
microwave fiber optic links 9504
microwave modulated fibre-optic link efficiency improvement by SBS 3560
MM wave sig. transm. 9541
MM-wave fiber-optic radio syst., opt. TDM *(Japanese)* 9198
MM-wave/fiber-optic subcarrier transm. links, HBT photodetectors *(Japanese)* 9548
mode selective fibre coupling, long-range surface-plasmons 30893
modern commun. technol. advancement, problems *(Chinese)* 3234
monoblock WDM multiplexers for opt. fibre commun. 3571
monolithic grating-based components for WDM networks 9131
monolithic wavelength demultiplexing switch arrays 42374
MQW DFB laser with 25 GHz modulation bandwidth, packaged, 1.55 µm 3584
MQW electroabsorption modulator, efficient harmonic generation 34007
MQW electroabsorption opt. modulators integrated, low-loss waveguides 22938
MQW-DFB-LD modules for SCM fiber-optic transm. *(Japanese)* 42468
multi-amp. syst. fiber four-wave mixing, nonuniform chromatic dispersion 17333
multichannel liq.-cryst. opt. switch DCS 17204
multidimensional switching networks, universality 8704
multifrequency SWFM bidirectional data transm. syst. 9610
multimedia, business style creation *(Japanese)* 42022
multiple FM-video sig. transm., opt. fiber in security 9529
multiplexing/demultiplexing techs., ultrafast transm. 17226
multisoliton fibre interacts. and WDM 23417
multiwavelength opt.-fiber-loop memory, ATM packet simultaneous buffering 9149
MW9070A OTDR for opt. fibers maint. *(Japanese)* 33667
narrow-band low sidelobe spectral commun. filter, weighted coupling 39543
narrowband PSK data transm. via opt. fiber, encoding/decoding ccts. 9527
near-Kerr nonlin. media, soliton internal friction and inelastic interact. 31627
NEC's digital cellular base station syst. *(Japanese)* 17081
networking fund. and acronyms in opt. fiber commun. 9507
non-destructive opt. fiber talk-set *(Japanese)* 42397
nonblocking single-substr. directional coupler opt. space switching networks 24761
nonlin. fiber Sagnac opt. TDM switch 17336
nonlin. opt. loop mirror demultiplexer, extinction ratio and switching efficiency, error rate perform. 17176
nonlin. opt. loop mirror noise filtering 25526
nonlin. opt. loop mirrors, saturable absorbers, picosecond solitons 7298
nonlin. optics, high power opt. amplif. 34059
nonlin. Schrodinger eqn. soln. by coupled amplit.-phase formulation 23373
nonlin.-opt. loop mirror/fibre Bragg grating, bandpass switching 31499
NTT's HDTV opt. fiber transm. syst. 42603
OFC, San Jose, CA, USA (Feb. 1994) 5447
opt. device trends *(Japanese)* 42462
optics for phased array antennas 31993
optoelectronic buses for high-perform. computing 1771
optoelectronic science/engineering, conf., China (1994) 28207
orthogonal codes, unequal auto-/cross-correl. constraints 24089
orthogonally polarised fs soliton self-freq. shift 3559

optical fibre communication continued
OTDR by quaternary FSK modulated probe and coherent detect. 34012
OTDR waveforms, pattern matching, opt. lines fault location 9454
packaged fibre gratings for telecomms., fab. and perform. 39336
panda fiber delay line dispersion equalisation scheme 9510
penalty-free 100 Gbit/s opt. transm. of transform-limited pulses 25471
periodic/pseudorandom word modulated LD in fibre soliton transm. 42395
phase-locked phase-sensitive opt. parametric amp. soliton fibre pulse propag. 40082
phased array antennas, rem. located modulators 9540
photonic ATM backbone network 9025
photonic CDMA coherent matched filter time-addressed coded opt. ladder networks 9445
photonic networks pot. 9450
photonic switching archits., comparative study 42133
photonic time/space switching semicond. laser amps. 3586
photorefr. gratings, appls., high capacity transm. systs. 39343
photosensitive opt. fibers, devices and appls. in sens. and telecomm. 30854
planar lightwave ccts., opt. sig. proc. 39458
planar photodiode for high-dyn.-range analog transm. 17195
polaris. domain solitons 31624
polaris. independ. nonlin. opt. loop mirror demultiplexers 34079
polariz. independent wavelength conversion, fiber four-wave mixing 9439
polariz. mode dispersion compensation, Kerr effect 22820
polariz. mode dispersion meas. 7342
polariz.-independent directional coupler wavelength filters, birefr. compensation 39536
polariz.-independent regenerator, nonlin. optoelectronic PLL 14655
polyguides for opt. interconnect appls. 7493
polymer opt. fibre/high-speed LD, data transm. 34051
PON, ATM protocol 42069
PPM perform., jitter implications 17245
pulse sources in opt.-soliton transm., carrier linewidth timing jitter 15052
pulse timing detector, filter optim., opt. fibre commun. *(Japanese)* 34001
pulse transm., soliton source, beat sig. conversion 34052
pulse-width transmitter for opt.-fiber commun. lines 17263
push-pull modulated DFB lasers, enhanced AM bandwidth 7635
QAM receiver IC, 500-channel CATV systs. 3675
QPSK opt. homodyne transm. syst. receiver anal. 34044
quantum cryptography, operational syst. 24064
quantum cryptography, polarized photons in opt. fibres 17342
quantum cryptography fiber commun. 24109
quantum fiber-optics commun. channel, expt. realization 7275
quantum key distrib. channel based on opt. fibre 15794
quantum limited OOK, opt. amplif., perform./cutoff rates 40546
rack-mounted opt. ref. unit, 1547.825 nm 9469
Raman fiber amp. cross talk bandwidth 14752
randomly varying birefr. opt. fiber solitons 30906
rare earth-doped fluoride fiber amps./lasers, telecomm. appls. 31224
receivers, APD, dead space, BER 17264
reflective opt. mixer, polariz.-independent phase conjug. 25483
rem. prog. opt. TDM clock division routing device 16987
repeaterless opt. commun. syst. 3543
repeaterless transm., 10 Gb/s, fiber, dispersion compen. 34020
repeaterless transm., 2.4 Gbit/s, 306 km fibre, DFB LD 17231
repeaterless transm., 622-Mbit/s and 2.5-Gbit/s, self PM 15051
repeatless transm. of 2.5 Gbps sig. *(Korean)* 17179
Rowland circle grating photonic integrated device for WDM appls. 9441
satellite data mgt., fiber optic data links, particle-induced bit errors 17262
satellite earth station sig. distrib., opt. phase division multiplexed transm. 17339
SAW filter appls. *(Japanese)* 39122
scalable lightwave network self-regulating WDM amp. module 9457
SDH, route diversity, hitless path switching 3298
SDH fibre-optic transm. systs., forward ECC 42455
SEL for multimode data link appls. 23280
self-seeded gain-switched LD, elec. wavelength-tunable singlemode pulses 31326
semicond. lasers in opt. broadband commun. *(German)* 7644
semicond. opt. amp. all-opt. wavelength shifting 7683
side-injection-light-controlled bistable LD as wavelength converter, digital sig. regeneration 17344
silica-based planar lightwave ccts., opt. filters develop. *(Japanese)* 17182
single event effect ground test results, fiber optic data interconnect 18708
single mode opt. fibre phase noise cancellation 1672
single-mode fiber, opt. phase-conjug. waves and compensation for pulse shape distortion 17259
single-mode fiber systs., random mode coupling effects on polariz. mode dispersion and power penalty 30855
single-mode fibre, opt. phase conjug., chromatic dispersion, self-PM 30856
single-mode opt. fiber, polariz. mode dispersion meas. 30890
sliding-filter-controlled soliton transm., 20 Gbit/s, 14 Mm 25505
SNR high-speed transport protocol, spec./anal. 2922
soliton based opt. fibre commun. systs. *(Japanese)* 3567
soliton commun. in opt. fibre transm. line 25474
soliton data transm. over 200 km, polaris./time-domain multiplexing, 160 Gbit/s 34070
soliton propag., Fourier series anal. tech. 22815
soliton propag., phase-sensitive amplif., quantum noise 34025
soliton propag., up/down-sliding-freq. guiding filters 40077
soliton recovery, nonlin. amplif. loop mirror 31482
soliton self-freq. shift compensation, phase-sensitive amps. 23358
soliton self-freq. shift recovery by opt. phase conjug. 2067
soliton transm., 10 Gbit/s up, 27 Mm, sig. freq. sliding 17232
soliton transm. 90 km, distrib. Er-doped fibres 25476
soliton transm. control, ultra high speed syst. 34017
soliton transm. syst., 20 Gbit/s, 100 km spacing, 1000 km, robustness 42456
soliton transm. syst., non-Gaussian corrections 23443
SONET develop./deployment 17273
spectrum-sliced fiber-amp. light source for multichannel WDM appls. 9599
split-beam Fourier filter, mid-stage filter in EDFA fibre link 31068
sq. synchroniser jitter on direct detect. opt. commun., white cct. noise 3577
SRS suppression, mid span spectral inversion 34085
SSC, opt. fiber links, radiation effects 18206
stable soliton transm. in nonlin. nonlin. amplif. loop mirror gain syst. 42459
star opt. network, distributed channel controllers 9446
STM 16 syst. operation, 1.55 μm DFB laser module 34072
straight line 20 Gbit/s transm., 617 km of singlemode fibre 25522
strained layer QW semicond. lasers for pumping Er^{3+}-doped opt. fiber amps. *(Japanese)* 3566

optical fibre communication continued
submarine opt. amp. systs., fault location, coherent OTDR *(Japanese)* 16995
submarine opt. cable systs., networking trends 3305
suboctave-bandpass opt. analog links, lin. modulator 17335
subpicosecond soliton-like pulse propag. 22861
supercontinuum generation, pulse-width tunable self-freq. conversion of short opt. pulses 2077
superimposed microwave modulation, Gbps systs. perform. 42441
suppressed carrier coherent fiber optic transm. PSK modem 3590
SWFM sig. opt. fiber transm. of addressed audio and video sigs. 9528
telecomm. technols. innovation, hist. 33303
telecomms. opt. fibre ps soliton propag. 14388
telecomms. syst., forward error control, simul. techs. 42450
terabit/s transm., 150 km of dispersion-managed fiber 17347
three-branch widely tunable semicond. laser design for WDM links 14915
three-level modulation scheme, std. fibers, dispersion limit 42343
three-sect. DBR lasers, fast wavelength switching 25479
time/polaris. multiplexed opt. fiber soliton transm. 9467
Trans Europe line (TEL), fibre-optic link, Eastern/Western Europe 33977
trans-oceanic opt. systs., forward error control 42449
transform-limited opt. pulse dual-wavelength source for WDM soliton transm. 25489
transm. bandwidth meas. systs. *(Japanese)* 33976
transm. systs., opt. components modelling *(French)* 3569
transport network layer, concept/ demonstrator 42439
tree APONs access, distributed FIFO spacer/multiplexer 9015
trends/developments 33430
twin core nonlin. fiber couplers, soliton-effect pulse compression 30917
twin-core fiber long-dist. soliton transm. 23362
twin-core opt. fibres, UV tuning of coupling 7280
twin-core wavelength demultiplexing fibres, UV light coupling/tuning 34098
twin-sect. LD instabil., all-opt. sync. 7667
two-mode fiber equalizer ultrashort pulse transm., dispersion compensation 9472
two-port coherent lattice-form opt. delay-line cct. synthesis 14669
two-sect. DBR laser freq. and power control by dual act.-/Bragg-sect. tuning 9503
two-sect. TW semicond. laser amp. opt. transparent TDM channel selector 9552
ultra high bit rate soliton self-freq. shift and third-order dispersion 17268
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
ultra-long dist. soliton transm., fiber nonlin. 39353
ultrahigh-speed opt. fiber TDM transm. technols. 34088
ultralow threshold laser, zero-biased, ultralow power opt. interconnect 14672
undersea cable systs., design requirements 33995
undersea cable systs., installation/maint. technol. 33998
undersea cable systs. in global networking 33994
undersea commun. systs., network planning/operation/maint. 33999
undersea non-repeatered technols., challenges, and products 33997
undersea opt. amplified repeatered technol./products 33996
unrepeatered transm., 2.5 Gbit/s, 410 km of fibre 9428
unrepeatered transm., FEC 33980
unrepeatered transm., rem. pumped post/pre-amps. 34050
UV-written grating planar silica waveguide external-cavity semicond. laser 9570
variable wavelength OTDR characts. and meas. 3542
VCSELs, multiple transverse mode, high speed data commun. 39806
very-high-fiber-count preconnectorized opt. fiber cable 9591
VSB/QAM for hybrid fiber/coax, digital transm. 42610
walk-off-limitation-free all-opt. nonlin. fiber-loop-mirror switch 9568
WDM channel NRZ, RZ format conversion, single semicond. laser amp. 25503
WDM chirp reduction LD by injection locking 3557
WDM LB deposited film in-line fiber-optic components 17187
WDM systs., modulation stats. effects on Raman crosstalk 17348
WORFNET link for fibre-microwave networks 9481
zero dispersion wavelength meas. for long haul opt. amp. systs. 42964
zero-dispersion dispersion-flattened nonlin. fibre loop mirror demultiplexing 3561
zirconia alignment sleeve, opt. connectors, charact. and static fatigue reliab. 9473
AlGaAs-GaAs HBT OEIC for high-speed fiber commun. 17196
EDFA-repeatered syst. in-service fault-location 9430
Er^{3+},Yb^{3+}:SiO_2 planar waveguide amps., pair induced energy transfer 31246
Er^{3+}:Yb^{3+}-doped low-noise grating-feedback fiber laser 7567
Er-doped birefr. fiber amp. polariz. distortion 31216
Er-doped fiber amp. AM CATV syst. RIN noise 9576
Er-doped fiber amp. CATV, polariz.-mode dispersion meas. 25509
Er-doped fiber amp. WDM links 42415
Er-doped fiber amp. cascade, WDM syst. perform. optimisation 42416
Er-doped fiber amp., cascaded, gain-peak wavelength, Al-conc. depend. 14744
Er-doped fiber amp., dyn. gain compensation for multiwavelength transm. systs. 9598
Er-doped fiber amp. propag./switching 34061
Er-doped fiber amp. repeated opt. soliton transm. technol. 42418
Er-doped fiber amp. repeater 2.5-Gb/s channel 1420-km transm. 9465
Er-doped fiber amplifer chromatic dispersion eval. 34060
Er-doped fiber amplifer, counterpumped first stage suitable for long-haul soliton systs. 9567
Er-doped fiber amplifer gain peak meas. by spectral loss test 14745
Er-doped fiber amplifer subterabit soliton transm., soliton control 9571
Er-doped fiber amplifiers, nonlin. wave mixing and dyn. controlled gratings 7577
Er-doped fiber amps., concatenated, 980-nm-pumped, gain peaking 7569
Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
Er-doped fiber amps., optimized noise perform. for AM-VSB distrib. systs. 7555
Er-doped fiber amps., undersea lightwave commun. 42414
Er-doped fiber amps./opt. isolator 23134
Er-doped fiber grating laser transmitter at 5/2.5 Gb/s, long-term BER transm. 34038
Er-doped fiber laser additive pulse limiting 31454
Er-doped fibre amp. short pulse sources 9482
Er-doped fibre amplifer high power broadband ASE sources for spectrum-sliced WDM systs. 34066
Er-doped fibre amps., sensitivity, H_2 14754
Er-doped in-line fiber amp. Kerr nonlin./noise 9444
Er-doped opt. fiber amp., commun. appls. *(Japanese)* 3565

optical fibre communication continued
Er-doped refl. insensitive fiber amp., isolator insertion 31215
Er-doped single-mode fiber lasers, all-fiber subresonator 7571
Er-doped upconversion-pumped fiber amp. noise fig., theory 1881
Er^{3+}-doped fiber amp., low noise, fab., opt. preamplification expt. *(Korean)* 31218
Er^{3+}-doped fibre amps. for telecomm. systs. 17274
Er^{3+}-doped fibre dispersion-modified act. modelocked laser, chirped fibre grating 7552
Er$_{3+}$-doped fiber amps and lasers for lightwave transm. systs. 39696
GaAs Gilbert cell mixer IC fro coherent opt. transm. 42402
GaAs opt. controlled FET, current modulation 7487
GaAs/WN$_x$/W-gate MESFET multiplexer IC, 0.5 μm, A 20 GHz 8-bit implement., fibre transm. 9546
GaAs-AlGaAs 0.85-μm VCSELs, reliab. studies 7677
GaInAsP MQW 1480-nm pump LD, life tests 9526
GaInAsP/InP VCSEL array for 1.3 μm range parallel opt. fiber transms. 23300
Ga$_{0.51}$In$_{0.49}$P/GaAs PV converter, opt. power/data transm. 27943
InAlGaAs QW superlattice APD 9496
InGaAs MSM photodiode/AlGaAs-GaAs HEMT OEIC receiver, 1.3 μm 17235
InGaAs strained layer MQW laser for opt. fibre transm. systs. 31352
InGaAs/InP PIN waveguide photodetector, high saturation intens. 7463
InGaAs/InP photodiode-opt. fiber array module using Si v-groove, photonic syst. appls. *(Korean)* 34013
InGaAs/InP planar photoelastic low loss waveguides/electroabsorption modulators 30975
InGaAsP monolithic semicond. soliton transmitter 25530
InGaAsP strained layer MQW laser for opt. fibre transm. systs. 31352
InGaAsP/InP MQW laser gain-lever effect 23279
InGaAsP/InP PBH-DFB-LD for 2.5 Gbps opt. fiber commun., fab./characts., 1.55 μm *(Korean)* 39769
InGaAsP/InP waveguides for guided-wave photonic IC, low-loss fiber-chip coupling 7372
InGaAsP-InP 1.3 μm BH laser modules in fibre link 17254
InP photonic IC based light sources, WDM lightwave communication systems appls. 17190
InP:Fe double phase conjug. mirror, telecomm. appls. 23452
InP-InGaAsP pol. independ. ridge waveguide digital opt. switches 9460
LiNbO$_3$ electro-opt. digital intens. modulation, chromatic dispersion tolerance 17234
LiNbO$_3$ integrated acousto-opt. mode converters/tapered couplers , Tapered acoustical directional couplers 39506
LiNbO$_3$ passband-flattened guided wave acousto-optic filter 34009
LiNbO$_3$ reson. enhanced modulators for analog fiber-optic links 14527
Nd:YAG high-power opt. amps. for 1.06, 1.32 μm 9603
Pr^{3+}:ZBLAN fibre amp. AM-VSB video link 3583
Pr^{3+}:chalcogenide glass fibre amps., 1.3 microns 7559
Pr-doped opt. fiber amps. 7576
Pr-doped opt. power fiber amp., saturated output power of +18 dBm 9602
Pr^{3+}-doped GeS$_x$-based glass fiber amps. at 1.3 μm, photolum. 31234
Pr^{3+}-doped fluoride fiber amps., gain dyn. anal. 31217
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046
Si bipolar clock-recovery and data-regenerator IC, 8 GHz, opt. fibre transm. 9544
Si hybrid integrated fibre optic transmitter 17280
Si integrated optoelectronic VLSI commun. cct. 34033
SiGe base bipolar analog ICs for 20 Gb/s opt. receiver 9545
SiO$_2$-on-Si:rare earth doped integrated opt. waveguide devices in opt. commun. 30968
Tm:ZBLAN upconversion-pumped fiber laser, 810 nm telecomms. window 7572

optical fibre couplers
2.4 Gbit single/multi fibre electro-optic transmitter 34031
3×3 couplers in fibre optic sens. systs. 17909
3 by 3 fibre coupler phase jitter, pass. homodyne demodulation 30923
777 Maintenance Access Terminal and Side Displays 10335
980 nm Bragg fibre grating coupled diode laser wavelength and intens. stabilisation 9431
achromatic computer generated HOE for coupling LD, single mode fiber 40144
achromatic diffractive optics, LD fibre optic coupling 39445
ACOFT, optical fibre technol. conf., Australia (1994) 28253
acoustic modes excitation in opt. fibers, horns operation 14396
amplit.-phase inform. transfer, waveguide holograms 39321
asymmetric singlemode-to-multimode fibre couplers 30922
asynchronous opt. chip interconnects with direct detect., crosstalk anal. 9440
bent step-index single-mode fiber half-couplers, overlayer deposited, slab model 14379
bidirectional star network, secure data commun. protocols 33286
binary/multilevel diffractive lenses, submicrometer, sizes 7373
Bragg fibre grating develop. for WDM appls. 39340
cascaded chirped fibre grating transm. filters, dispersion compensation 39342
ceramic flush temp. meas., IR pyrometer, fused opt. coupler *(Japanese)* 42973
channel-dropping filter by grating-frustrated coupling in single-mode opt. fiber 7311
coaxial laser module for Gb/s transm.-speed range 17275
collinear 3×3 WDM fiber coupler ring resonator anal. 1695
composite opt. fiber-slab waveguide light coupling and propag. 23804
confocal scanning fibre-optic interferometry 34557
corrugated fiber waveguide coupling coeff. 22854
D-fibre/buried waveguide vert. coupling, vectorial FEA 14415
DFB laser gain-switched pulse spectral quality improvement 7621
diffractive opt. elements, electron-beam fab., FIB inspection 14497
dispersion mismatched nonlin. fibre coupler logic operations 30916
double coupler amplified fiber-optic delay line filter 14404
double-ring resonator, multiple bistability, degenerate two-wave mixing 22831
Fabry-Perot polariz.-maintaining fiber interferometers, fab. and charactn. 9922
FDM cross-connect switch, delayed self-duplex light source and opt. time-slot interchanger 17202
fiber commun. systs., opt. device trends *(Japanese)* 42462
fiber optic glass ferrule connector *(Japanese)* 42467
fiber-compatible integrated-opt. S-bends, power splitters, and directional couplers, general design 7358

optical fibre couplers continued
fiber-optic delay line filter topologies, comment and reply 7287
fiber-to-fiber connectors for scintillating tile/fiber calorimeters 43118
fiber/planar waveguide coupler thin metal layer polariz. props. 7285
fibre arrays, solitons, pulse dyn. 22833
fibre optic interferometric sens., parasitic cavities limitations 34539
fibre optic sens. technol. evol. and commercialisation 17818
fig.-of-eight fibre laser for soliton transm. expts. 42453
filter-embedded opt. fiber accessories 3541
FITL semicond. laser modules, low cost, packaging 17276
four-port fiber freq. shifter, null taper coupler 15046
fused biconic fibre coupler back-reflexion 30911
fused taper fibre coupler, control beam sig. switching 2054
fused taper fibre couplers, polariz.-maintaining 14393
fused tapered couplers, loss and spectral loss 7332
glass-Si substr. for hybrid optoelectronic packaging 31118
graded index polymer opt. fibre, high bandwidth, large core 39354
grating-frustrated coupler in WDM bandpass filtering appls. 34035
heterodyne fibre-optic vibrometer, pass. instrum. head 17864
hierarchical star-controlled rings for multiprocessors 16723
high reliab. undersea couplers, packaging proc. 17278
highly broadband buried channel fibre coupler design 30921
highly overcoupled fibre couplers to detect shifts in Bragg wavelength, strain sens. 34532
hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
insertion-loss improvement for opt. connector, transm. opt. intens. 1673
integrated opt. waveguide components design 39469
intra board opt. interconnects, high bit rate modules 17279
intra-syst. interconnection, opt. fiber fabrics 42428
joint finite-difference/FFT full vectorial beam propag. scheme anal. 40441
lightwave systs., parametric gain, four-photon mixing 17219
lin. chirped fiber Bragg grating for fibre link dispersion compensation 42444
long-haul opt.-fiber spliced systs., polariz.-mode dispersion and power penalty 7337
loop polarizers using fused taper coupler, birefr. 30904
microlens opt. coupling of LD array, single-mode fiber array 39355
microspheres, morph.-depend. reson. excitation 39364
miniature multifiber connector appls. 30905
modal effects in opt. fibre connections 14385
mode selective fibre coupling, long-range surface-plasmons 30893
mode-field-converting fiber for coupling, photonic devices 14403
MT multifiber connectors, struct. and appls. 14382
multi-fibre array packaging technol. 39356
multi-servicing opt. fibre network connector innovations 34089
multiaccess star network archit., WDM/SCM 42437
multichannel fiber ferrule for stable LD array module packaging 37073
multimode fiber-to-waveguide coupling suitable for pass. alignment 1674
multiple-core fibre, light focusing, ground-based interferometry appls. 30861
multiple-core fibre, light focusing, variational scalar-field treatment 30880
mutual injection locking of fibre laser and DFB semicond. laser 14758
narrow-band low sidelobe spectral commun. filter, weighted coupling 39543
noise in fibre-optic Michelson interferometer, polariz. induced 17854
nonlin. directional couplers, opt. soliton switching *(Japanese)* 30902
nonlin. fiber directional couplers, pulse switching 40058
nonlin. fibre couplers, radiation effets on soliton dyn. 31626
OFDM-LAN transparent all-opt. interconnection 17346
one planar coupler fiber-ring resonator, degenerate two-wave mixing 15023
opto-electronic interferometric sens. ccts., CAA/CAD 17761
outside plant environ. connectors, perform./reliab. 14381
parallel opt. interconnect modules, multifiber connectors 17277
plugs and matched syst. accessories *(German)* 7346
polaris. maintaining fibre coupler fab. 30913
polaris. maintaining opt. fibre coupler fab. tech. 1677
polymeric thin-film waveguide coupling, single-mode fiber 22872
PON, clip-on OTDR for fault location 9565
quantum well electron transfer waveguide, fiber coupling efficiency 22882
receptacle LD modules, low refl. design *(Japanese)* 7666
rect. core waveguides, integrated optics, fibre coupling, mode matching techs. 39429
ring and loop resonators with 3×3 fibre coupler, phase sensitivities 22829
Sagnac loop opt. fibre current sens., polariz. depend. 17916
saturable nonlin., stationary soliton states 31497
second-order grating waveguide-to-fiber coupling 39404
shape-birefr. fibre sens. systs. employing photogenerated polaris. couplers 42827
Si V-grooved waferboard, strained MQW semicond.-laser array coupling, fiber array 7491
silica-based waveguide/opt. fiber coupling 14370
single mode fibre-rect. waveguide coupling losses, integrated optics 22837
single-mode birefr. circ. polariz. maintaining opt. fiber coupler *(Chinese)* 14367
single-mode fiber, self-aligning multibeam coupling 14399
single-mode fiber systs., random mode coupling effects on polariz. mode dispersion and power penalty 30855
single-mode fiber/LD coupling, misalignment model 30884
single-mode fibre connections, mutually-pumped phase conjug. mirrors 15105
single-mode fibre coupler/filters, coupling suppression by periodic index modulation 30912
single-mode fibres, polaris. and perturb. power spectrum *(Chinese)* 39352
single-mode reliable opt. card-edge connector 10321
solid state modular laser, multiplexing method, fibre optic delivery syst. 31292
star opt. network, distributed channel controllers 9446
stat. anal. of fiber connector characts. 14351
stationary soliton states, saturable nonlin. 30907
step-index opt. fibers, gap coupling efficiency *(Japanese)* 7329
strained layer QW semicond. lasers for pumping Er^{3+}-doped opt. fiber amps. *(Japanese)* 3566
symmetric 2×2 fused-fiber coupler modeling 22823
tapered fibres, field power distrib. for optimal coupling 39368
three-core nonlin. fibre coupler, soliton self-switching 22832
tunable fibre optic delay generator utilising gel-glass delay line 39349
twin core nonlin. fiber couplers, soliton-effect pulse compression 30917
twin high-ellipt.-core fibre-optic polariz. beam splitter coupling charact. 30857
twin-core wavelength demultiplexing fibres, UV light coupling/tuning 34098
twisted birefr. fiber coupler, two-beam phase-controlled polariz. switching 22805

optical fibre couplers continued
two-branch double-stage phase-diversity coherent receiver, 3×3 fiber coupler 9470
ultrahigh-av.-brightness semicond. laser arrays 39839
vert. cavity LD, tunable, fibre coupling, threshold currents 39782
very-high-fiber-count preconnectorized opt. fiber cable 9591
wavelength-distributed data-interface network 9583
WDM opt. transceiver module for pass. double star subscriber systs. 42371
weakly fused fiber-optic couplers, rigorous anal. of form birefr. 39372
wide free-spectral-range opt. resonator, FDM transm., novel archit. 17168
Z-axis assembly proc. for connectorized opt. fiber ccts. 14380
zirconia alignment sleeve, opt. connectors, charact. and static fatigue reliab. 9473
Ag halide midIR opt. fiber Y coupler 1700
Er-doped coupled-cavity fiber lasers incorporating fiber-grating reflectors 7564
Er-doped fiber amp. DCS 17203
Er-doped fiber amp. lossless wide-band reflective star coupler 17177
Er-doped fiber amp. repeated opt. soliton transm. technol. 42418
Er-doped fig.-8 mode locked fiber laser stabilization 7568
Er-doped widely tunable polariz.-stable fiber lasers 39700
Er^{3+}-doped fibre directional coupler, nonlin. refr. index 30873
H_2-loaded germanosilicate fiber adiabatic mode-field transformer fab. 7309
InGaAsP MQW LD array design and fab. for opt. parallel links 31353
InGaAsP/InP tapered two-layer waveguides for chip coupling, single-mode fibers 30974
InGaAsP/InP waveguides for guided-wave photonic IC, low-loss fiber-chip coupling 7372
InP/InAlAs/InGaAsP MQW fibre-coupling tapered waveguide, spot-size converter 22835
InP-based MQW lasers, integrated tapered beam expander waveguide 14854
Nd doped fiber laser, long./side-pumped, silicone coating 31228
Nd:YAG pulsed kilowatt lasers, fibre optic beam delivery syst. 31263
Nd^{3+}-activated fibre lasers connected by single-mode couplers 23125
Nd^{3+}-doped fibre laser, coherent coupling, Y-jn. 39707
Si, hybrid motherboard, low loss opt. interfaces 31117
SiO_2 cascaded fibre Raman amp. operating at 1.3 μm, high gain 31232
SiO_2 fibres, polymer clad, mode coupling, diffusion proc. 22834
SiO_2 fibres, transm. props., Nd:YAG multimode CW laser 30853
SiO_2-Si waveguides, coupling and propag. losses 30889
SiO_2-on-Si:rare earth doped integrated opt. waveguide devices in opt. commun. 30968

optical fibre dispersion
1.55 μm single-polariz. hollow pit opt. fiber, zero total dispersion 7283
1.7-Gbit/s opt. amplified terrestrial lightwave syst. deployment in USA 17241
2.4 Gbit/s high perform. dispersion compensating fibre 30920
2.5 Gbit/s 407 km repeaterless opt. fiber transmitters 34011
2.5 Gbit/s transm. expt., 1000 km of std. single-mode fibre, 1550 nm *(English, Italian)* 33993
10 Gb/s lightwave syst. dispersion compensation based on semicond. Mach-Zehnder modulator 25518
10 Gb/s transm., 5800 km opt. amplified testbed 42447
10 Gbit/s dispersion supported transm., computer simul./practical implications 34084
10 Gbit/s opt. transm. beyond dispersion limit 17252
10 Gbit/s repeaterless WDM fiber transm. 9466
10 Gbit/s systs., opt. transm. tech. *(German)* 42461
10 Gbit/s-259 km transm., SIL amp. 34083
10-Gbit/s four-channel dense WDM transm. 9488
10-Gbit/s sig. transm. following wavelength conversion, semicond. opt. amps. 9489
16 THz beat freqs. generated via modulation instabil. in birefr. fibres 30881
40 GHz multisoliton pulse propag. in dispersion varying opt. fiber cct. 9468
100 fibre ribbon slotted core opt. cable, low pol. mode dispersion 3562
100-Gbit/s TDM opt. transm., two tunable Er-doped fiber lasers 9490
1550 nm dispersion-supported transm. on long spans of conventional single-mode fiber 9508
1550 nm fiber lightwave systs., dispersion compensation 17242
ACOFT, optical fibre technol. conf., Australia (1994) 28253
adjustable dispersion equaliser for 10/20 Gbit/s 160 km fibre transm. 9436
all-fiber interferometer, polariz.-mode-dispersion meas. 7340
all-fiber sync. soliton source 7317
α-profile multimode opt. fiber channel, lin. systs. approach 9438
analog lightwave link with large polariz.-mode dispersion, 64-QAM BER meas. 9560
analog transm. syst. dispersion-compensating fiber, high fig. of merit 17205
bandwidth-limited soliton propag. in opt. fibers, higher-order effects 23363
Bellcore Research Network opt. SONET/ATM layer implement. 9512
bending induced polaris. mode dispersion 39329
birefr. fibre modulation instabil. 30908
birefr. opt. fibers, polariz. mode dispersion 22816
birefr. opt. fibres, bright N-soliton trains propag. 39361
bit/packet opt. sync., fiber switching node inputs 25482
Bragg fiber gratings lin. chirped by temp. gradient 14349
Bragg grating systs., cubic/quadratic dispersion compensation 39360
Bragg-grating fiber filters with self-induced chirp, dispersion compensation 14352
broadband pumped opt. fiber link, SBS suppression 9475
cascaded chirped fibre grating transm. filters, dispersion compensation 39342
CATV/FITL video-transm. DFB laser components and systs. 17193
channels, sliding block line codes, dispersion limitations 40578
Cherenkov type radiation emitted by opt. fiber solitons 31622
chiral fibres, guided waves, modal dispersion charact. 7322
chirped Bragg gratings for all-fibre fs pulse amplif. cct. 31230
chirped fibre Bragg grating dispersion compensator, directly modulated laser appl. 25521
chirped grating integrated-optic dispersion compensator for fibre links 34016
chromatic dispersion compensation, chirped fibre Bragg gratings 39330
chromatic dispersion of opt. guiding struct. 7305
circ. N-layer lightguide, guided modes, dispersion eqn. 2287
cross phase modulated fiber laser modelocking 1880
cylindrical-core hollow fibre, atom guidance, opt. pot. 30863
dark soliton-like pulses, quasi-continuous train generation 2126
DFB fibre chirped laser, transm. charact. 39702
DFB laser-fibre grating dispersion compensator, transm. dist. extension 39344
digital opt. transm. syst., min. BER degrad. 25473
dispersion-supported transm., 20 Gbit/s, 53 km fibre 34071

optical fibre dispersion continued
dispersion-supported transm., opt. nonlin. 17227
distributed opt.-fiber sens. by four-photon mixing pulse walk-off 42833
distributed zero dispersion wavelength meas. tech. 25983
Fabry-Perot resonator group effective index meas. method 10044
femtosecond fiber lasers, third-order dispersion 1873
fiber bundle imagery of wavelength multiplexing, stat. eval. 16222
fiber links, polariz. mode dispersion meas. 7342
fiber photorefr. grating ps pulse refl. 22860
fiber ring lasers, stretched-pulse additive pulse mode-locking 23137
fibers, Raman noise and soliton squeezing 31504
fibre arrays, solitons, pulse dyn. 22833
fibre grating interferometric characterisation 39337
fibre link systs. 4000 km long, perform. comparison 42377
finite-length jn., opt. soliton tunnelling 7328
FIR all-pass opt. dispersion compensators for high-speed long-haul systs. 42366
four-wave mixing efficiency long. distrib. meas., dispersion-shifted fibers 15026
fractional FT, photonic implement. 8471
fs opt. solitary wave propag. at the zero dispersion point, nonlin. dyn. 22814
FSA submarine opt. amp. transm. syst. *(Japanese)* 16992
FT dispersive opt. fiber spectrometer/interferometer, temp./strain meas. 25857
fund.-mode dispersion-compensating CATV fiber links 17206
GRIN multimode opt. fibers, chromatic dispersion meas. 7281
IM/DD fiber transm. syst. dispersion-limit formula 9575
in-fibre grating systs., pulse compression, dispersion charact. 39341
in-line opt. amp. systs., num. simul. *(Japanese)* 14738
in-line opt. amp. systs., SNR degrad. *(Japanese)* 42396
installed opt. submarine cable, long-term polariz.-mode-dispersion meas. 17207
intens. modulation/direct detect. syst., dispersion limit 42373
lightwave syst. dispersion compensation design 42419
lightwave systs., parametric gain, four-photon mixing 17219
lin. chirped fiber Bragg grating for fibre link dispersion compensation 42444
long dist. fibre commun., solitons 17185
long dist. opt. soliton commun., optimal design *(Chinese)* 9532
long pitch fibre gratings, dispersion compensation 30919
long-haul fibre links, light depolarisation 34053
long-haul opt. fiber commun. syst. dispersion, distributed in-line group-delay equalizers 17250
long-haul opt.-fiber spliced systs., polariz.-mode dispersion and power penalty 7337
long-haul soliton transm. syst., fibers, dispersion distrib. 39365
microwave fiber optic links 9504
microwave transversal fiber-optic tunable filter 25513
multi-amp. syst. fiber four-wave mixing, nonuniform chromatic dispersion 17333
multimode fibres, singly-clad, modal dispersions anal. 22818
multiwavelength European opt. transport network 42368
nonincremental interferometric fiber-optic simultaneous temp./strain detect. 25856
nonlin. Schrodinger eqn. soln. by coupled amplit.-phase formulation 23373
normal dispersion regime, spatio-temporal coupling, NLSE approx. 22807
normally dispersive fibers, single-mode laser pulses propag. 1696
one-mode fiber-optic waveguide, obs. of ps opt. pulses, guiding-center soliton 14361
packaged fibre gratings for telecomms., fab. and perform. 39336
panda fiber delay line dispersion equalisation scheme 9510
periodically modulated core diam., multi-soliton fission 31533
photorefr. gratings, appls., high capacity transm. systs. 39343
planar lightwave cct. dispersion equaliser module 17233
polariz. depend. opt. fibre loss stats. 30848
polariz. mode dispersion compensation, Kerr effect 22820
pulse transm., soliton source, beat sig. conversion 34052
quantum cryptography, polarized photons in opt. fibres 17342
recirculating loop, dispersion-compensated transm. 33979
repeaterless transm., 10 Gb/s, fiber, dispersion compen. 34020
repeaterless transm., 2.4 Gbit/s, 306 km fibre, DFB LD 17231
ribbon opt.-fiber cable, polariz. OTDR and PMD meas. correl. for stress anal. 14353
short pulse tomographic meas., generalized Radon transform 39373
silica-based planar lightwave ccts., opt. filters develop. *(Japanese)* 17182
single-mode dispersive fibre, opt. noise correl. fn. 30871
single-mode fiber, opt. phase-conjug. waves and compensation for pulse shape distortion 17259
single-mode fiber systs., random mode coupling effects on polariz. mode dispersion and power penalty 30855
single-mode fibre, opt. phase conjug., chromatic dispersion, self-PM 30856
single-mode fibre, polaris. mode dispersion, pulse distortion meas. limitations 30862
single-mode fibres, equiv. step-index charactn. 39333
single-mode opt. fiber, polariz. mode dispersion meas. 30890
single-mode opt. fiber polariz. mode dispersion meas. by freq.-domain interferometer 1699
single-mode opt. fibers, chromatic dispersion modeling 7282
single-mode triangular-index fiber with a depressed cladding ring, bending-loss studies 7321
slowly decreasing dispersion opt. fibers, soliton-effect generation of Raman pulses *(Chinese)* 1667
soliton commun. in opt. fibre transm. line 25474
soliton generation, 1.06 μm 30860
soliton propag., Fourier series anal. tech. 22815
soliton propag., Fourier-series approach 39326
soliton self-freq. shift recovery by opt. phase conjug. 2067
SRS suppression, mid span spectral inversion 34085
straight line 20 Gbit/s transm., 617 km of singlemode fibre 25522
sync. driven fiber optic resonator near zero dispersion, chaos 30852
terabit/s transm., 150 km of dispersion-managed fiber 17347
third-order dispersion effects on squeezed soliton propag. 22809
third-order fibre dispersion effects on soliton-effect compression 31623
three-level modulation scheme, std. fibers, dispersion limit 42343
transm. bandwidth meas. systs. *(Japanese)* 33976
transoceanic amplified submarine systs., NRZ-zero chromatic dispersion/soliton based designs 42365
triple-clad single-mode fibers for dispersion flattening 7331
tunable chirping of fibre Bragg grating, cantilever beam 7279
twin core fibre coupler, dispersion mismatched 30916
twin-core fiber long-dist. soliton transm. 23362

optical fibre dispersion continued
twisted fibre package, birefr. study 30845
two-mode fiber equalizer ultrashort pulse transm., dispersion compensation 9472
two-mode fibre Michelson interferometer config., low-coherence excitation 3850
ultra high bit rate soliton self-freq. shift and third-order dispersion 17268
ultra-long dist. soliton transm., fiber nonlin. 39353
unrepeatered transm., 2.5 Gbit/s, 410 km of fibre 9428
WDM chirp reduction LD by injection locking 3557
zero dispersion wavelength meas. for long haul opt. amp. systs. 42964
Er,Yb-doped fiber amp. source of multigigahertz soliton pulse train 7566
Er doped fibre amps., gain peaking, undersea appls. 14746
Er doped nonlin. fibre, opt. soliton propag. 40119
Er^{3+},Yb^{3+}-doped fibers, anom. dispersion study 22852
Er-doped act. fibre laser soliton pulse compressor 1877
Er-doped fiber amp. CATV, polariz.-mode dispersion meas. 25509
Er-doped fiber amp. polariz.-scrambled fiber-loop config., gain-peak-wavelength meas. 14359
Er-doped fiber amplifer chromatic dispersion eval. 34060
Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
Er-doped fiber grating laser transmitter at 5/2.5 Gb/s, long-term BER transm. 34038
Er-doped in-line fiber amp. Kerr nonlin./noise 9444
Er-doped soliton fiber laser based on pulse width control, chirped fiber Bragg gratings 23129
Er^{3+}-doped fibre dispersion-modified act. modelocked laser, chirped fibre grating 7552
Nd^{3+}:ZBLAN fibre, short pulse propag./ampl. 14739
Pr^{3+}-doped fibre amp., short-pulse amplif. study 31227
SiO_2 fiber nonlin., lightwave systs. 17209
Yb^{3+}-doped fibers, anom. dispersion study 22852

optical fibre fabrication
apodised in-fibre Bragg grating reflectors, photoimprinted 22812
arc fusion splices, improved strength approaching that of opt. fibre 22824
asymmetric singlemode-to-multimode fibre couplers 30922
automated fiber pigtailing technol. 14383
Bragg fiber grating fab., prism-based scheme 14350
Bragg fibre grating develop. for WDM appls. 39340
Bragg fibre gratings, fab. for spectral response apodisation 22811
Bragg grating in opt. fibres, holographic and mask projection methods 39335
Bragg-grating fiber filters with self-induced chirp, dispersion compensation 14352
channel-dropping filter by grating-frustrated coupling in single-mode opt. fiber 7311
chirped fibre grating fab., stretch and write tech. 14375
chirped fibre gratings prod. by fibre tilting 22799
cores, microheterogeneity detect. 39332
DFB Bragg grating struct., phase-shifted, fab. 39338
DFB channel-dropping opt. filters, design and fab. 39538
drawing, fiber opt. losses 7291
ellipt., single-filament, interferometric meas. during continuous drawing 39367
embedded Fabry-Perot interferometric strain sens. 17894
embedded smart struct., low profile fibers appls. 17857
enlarging of opt. fiber preform, viscose silica fiber 7303
evanescent-field sens., cross-sectional transformers 34534
Fabry-Perot polariz.-maintaining fiber interferometers, fab. and charactn. 9922
Fabry-Perot tunable polariz.-maintaining fiber filters 22803
fiber-grating transm. filters in all-fiber demultiplexer 7312
fluoride glass act. opt. waveguides for laser sources 14767
fused tapered couplers, loss and spectral loss 7332
geom. estim., LMS/least sq. regression comparison 14364
germanosilicate fiber Bragg gratings, γ-ray exposure written, low dose rate 7286
H-loaded, depressed-cladding UV-written Bragg fibre gratings, cladding-mode coupling 30909
high birefr. fibre gratings, holographically written 39350
holographic fibre grating struct. fab. and appls. in systs. 7296
in-fibre wideband Fabry-Perot filter/resonator fab. 31066
integrated environ. for fibre optic cable design 17355
length-varying computer-controlled fibre drawing 1698
lensless in-line fibre filters 22989
liq. cryst. cored fibres, nonlin. propag., opt. limiting, stimulated scatt. 30887
long-haul opt.-fiber spliced systs., polariz.-mode dispersion and power penalty 7337
mode-field-converting fiber for coupling, photonic devices 14403
multi-fibre array packaging technol. 39356
multichannel fiber ferrule for stable LD array module packaging 37073
multimode fiber-to-waveguide coupling suitable for pass. alignment 1674
narrow band opt. fibre transm. Bragg grating filters 31065
near-field scanning opt. microscope fibre sens. tips fab. 42837
organic dye-doped polymer opt. fiber amp. 23110
organic materials, nonlin. opt. props. switching devices appls. 23423
oxide/fluoride/chalcogenide glass fiber comps. and config. 7295
packaged fibre gratings for telecomms., fab. and perform. 39336
pass. fibre optic components, Bellcore generic requirements 1663
pass. opt. cpds., adhesives reliab. 1692
photoimprinted Bragg grating all-fiber dense WDM/demultiplexer 42388
photonanofabrication and opt. nanoprobes 22810
PMMA monolithic integrat. of microlens and fiber holder arrays 22858
polaris. maintaining fibre coupler fab. 30913
polaris. maintaining opt. fibre coupler fab. tech. 1677
polymer nonlin. opt. fibre devices 30914
polymer opt. fibre, all-opt. and photomechanical devices 31584
Porta Systems opt. fiber cable splitters, CIM 14400
press. cutting, AE testing 30897
rare earth doped fibres, metallic coated, fluoresc. decay-time vars. 39359
residual stresses, optimal design 1688
sapphire fibers rapid drawing, LHPG 7334
scanning opt. microscope near-field fibre probes fab. and charactn. 30870
side-polished fiber fab., negligible opt. loss 30892
silica opt. fibres, Fl doped, plasmachemical technols. 22840
silica-based waveguide/opt. fiber coupling 14370
single cryst. fibres, temp. gradients, laser heated pedestal grown 30858
smart high temp. composites, opt. fibres, thermal spray/adhesive bonding 3853
soldering into ferrule, thermally induced stresses 39366

optical fibre fabrication continued
strain sens. based on fibres permanent bends 17844
superimposed multiple Bragg fibre gratings 1678
tapered strain-gradient chirped fibre Bragg gratings, fab. 22847
tetraphenylporphyrin doped PMMA fibre, spectral hole burning 23369
thin-coated opt. fibers, proc. handleability 14356
triple-clad single-mode fibers for dispersion flattening 7331
tunable fibre optic delay generator utilising gel-glass delay line 39349
twin-core fibre opt.-to-electrical demultiplexing detector 34087
twisting-annealing tech. for opt. fiber 14391
UV written refl. grating structs. in photosensit. opt. fibres 1679
Z-axis assembly proc. for connectorized opt. fiber ccts. 14380
Er,Yb-codoped fiber glass microstruct., NMR determ. 7293
Er-doped germanosilicate fibre laser fab. and opt. charactn. 14774
Ge,F-codoped fiber fab. and device appls. 7338
Ge-doped opt. fiber Bragg gratings, polariz. and temp. depend. of photosensitivity 7336
H_2-doped germanosilicate opt. fibers, thermal and photo-initiated reacts. 7308
H_2-loaded germanosilicate fiber adiabatic mode-field transformer fab. 7309
H_2-sensitized GeO_2 doped opt. fibers, refr.-index changes 7307
InP/InAlAs/InGaAsP MQW fibre-coupling tapered waveguide, spot-size converter 22835
KLiNbO fibre growth, blue-violet light generation 31595
Nd:fibre laser, quenched ion fluoresc., radiative lifetime 39705
Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
Nd^{3+}-doped lead-silicate glass fibers, fab., spectrosc. and laser perform. 31212
P_2O_5-SiO_2 core single-mode fiber drawing, low Rayleigh-scatt. loss 7292
SiO_2 opt. fibre atten., nuc. environ., prep. 22842
SiO_2:F low loss glass fibers from sol- gel derived preforms 7302
SiO_2:F, silica-core fibers, radiation resist. 7304

optical fibre filters
70 terabit.km/sec soliton transm., packaged hybrid soliton pulse source 17351
ACOFT, optical fibre technol. conf., Australia (1994) 28253
act. SBS fibre amp./filter opt. clock recovery 39363
bandwidth-limited amplified soliton transm., stabil. anal. 23374
birefr.-fibre sole wavelength filters 14394
Bragg fibre grating develop. for WDM appls. 39340
Bragg-grating fiber filters with self-induced chirp, dispersion compensation 14352
cascaded chirped fibre grating transm. filters, dispersion compensation 39342
CDMA commun. systs., all-opt. lin. detect. 42364
channel-dropping filter by grating-frustrated coupling in single-mode opt. fiber 7311
chirped fibre moire grating transm. filters, wide stopband 30874
chirped resonator fibre grating transm. filters 39339
codirectional Bragg WDM tunable acousto-optic-filter design 39534
delay line filter synthesis, modified Pade method 30875
DFB Bragg grating struct., phase-shifted, fab. 39338
DFB channel-dropping opt. filters, design and fab. 39538
DFB laser-fibre grating dispersion compensator, transm. dist. extension 39344
double coupler amplified fiber-optic delay line filter 14404
dyn. wavelength allocation opt. LAN network 34100
Fabry-Perot tunable polariz.-maintaining fiber filters 22803
Fabry-Perot-like filters, wide-band 14405
ferroelec. smectic C* liq. cryst. high-speed tunable filter 39539
fiber-grating transm. filters in all-fiber demultiplexer 7312
fibre lasers for sens., electro-opt. tunable 14770
filter-embedded opt. fiber accessories 3541
four-channel freq. locking, fibre-fed Fabry-Perot filter 17328
four-channel high-dens. opt. FDM add-drop multiplexing filter 17200
grating reflector opt. fibre transversal filter sig. proc. 30918
grating-frustrated coupler in WDM bandpass filtering appls. 34035
gratings, demultiplexing filters for WDMA networks 39345
in-fibre wideband Fabry-Perot filter/resonator fab. 31066
lensless in-line fibre filters 22989
linewidth-insensitive coherent AM opt. link, direct/external modulation format comparison 42410
linewidth-insensitive coherent analog opt. AM link receiver/transmitter 9442
long haul WDM fibre soliton transm., filtering 3587
microwave transversal fiber-optic tunable filter 25513
multiplexed vol. holograms, WDM appls. 7319
narrow band opt. fibre transm. Bragg grating filters 31065
narrow-band low sidelobe spectral commun. filter, weighted coupling 39543
nonrecirculating delay line loop 7287
oxide/fluoride/chalcogenide glass fiber comps. and config. 7295
photogenerated in-fiber gratings, simultaneous strain and temp. sens. 25873
photonic CDMA coherent matched filter time-addressed coded opt. ladder networks 9445
polariz.-division-multiplexed solitons, freq. sliding/filtering effects 22857
polariz.-independent directional coupler wavelength filters, birefr. compensation 39536
single-mode fibre coupler/filters, coupling suppression by periodic index modulation 30912
singlemode fibre digitally tunable wavelength filter, opt. transparent 17330
sliding-freq. guiding filters, stabil. of soliton propag. 22802
spectral filtering, nonlin. gain, soliton sing. 40090
split-beam Fourier filter, mid-stage filter in EDFA fibre link 31068
tapered single-mode fiber low-power acousto-optic devices 7420
travelling-wave grating filter design, inverse scatt. 31067
tunable continuous-fibre-optic bandpass filter, sens. appls. 14390
two-port coherent lattice-form opt. delay-line cct. synthesis 14669
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
wavelength-tuned Mach-Zehnder fiber filters 7318
wideband fiber optic systs. by carrier subtraction 25516
SiO_xN_y pass. selective filter, EDFA gain spectrum flattening 14574
Er-doped fiber amp. cascade, WDM syst. perform. optimisation 42416
Er-doped fiber amp., cascaded, gain-peak wavelength, Al-conc. depend. 14744
Er-doped fiber amplifer, counterpumped first stage suitable for long-haul soliton systs. 9567
Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
Er-doped fibre amp. gain equalization by tunable coherent opt. transversal filter 39709
Er-doped opt. fiber amplified WDM ring network, channel-dropping filters 9563

optical fibre filters continued
Er^{3+}-doped unidirectional fiber ring laser without isolator 31214
Ge,F-codoped fiber fab. and device appls. 7338
Rb 532 nm Stark anom. dispersion opt. filter 39540
SiO$_2$ planar waveguide ccts., telecomm. appls. 30983

optical fibre LAN
1.3 μm single-mode 2$\times$2 liq. cryst. opt. switch 16984
40 GHz indoor opt. fibre SS PCN/LAN expt. 33818
A-ONE, switched opt. fiber LAN 17221
ASK opt. transmitter, 790 nm LD for LANs 25507
asynchronous transfer mode LANs, switches, and congestion control 17216
automated opt. main-distributing-frame FTTH syst. 9443
BanyanNet—bidirectional equiv. of ShuffleNet fiber link 9447
Bellcore Research Network opt. SONET/ATM layer implement. 9512
Bus-Mesh wavelength multiplexed LAN, dyn. time slot allocation 34101
campus inform. network syst., LAN/FDDI based *(Japanese)* 16696
cascaded crossbar switches network, connections establishment 8727
CDMA fiber-optic LAN, opt. orthogonal codes, perform. 8969
CDMA fibre optic LAN, opt. orthogonal and codes generation 41897
CDMA opt. archits., bipolar capacity, unipolar codes 9582
CDMA opt. systs., bipolar codes 42352
centrally scheduled LAN, task distrib. 41774
CSMA/CD network to FDDI migration, simul. study 33499
distributed EMS, FDDI based, simul. 27009
dual-bus digital syst. semicond. opt. amplifer-based subcarrier add-drop multiplexer 17214
dyn. wavelength allocation opt. LAN network 34100
East Carolina Univ. library, migration, client/server computing 8978
FDDI-II networks, method for isochronous bandwidth allocation 24955
fibre channel, HSLAN interconnect archit. 41813
high-speed fibre optic local area bus networks, perform. eval. 41898
high-speed opt. fiber LAN, WDM access protocols *(Korean)* 17180
HONET, integrated services WDM opt. network 16713
interconnection of fiber optic module, parallel data bus 42474
large core opt. fiber links for desktop LAN access 41822
LARnet, local access router network 25515
LED cost effective packaging for fiber optics 31102
LEP accelerator beam dump control syst. 18198
lin. token passing bus/fiber distributed interface protocols 10323
Metaring gigabit/s network under multipriority traffic 24802
multi-Gb/s opt. WDM LAN/MAN/WAN networks 42422
multiaccess, wavelength/code concurrency 41797
network interface unit for multichannel ring networks 3227
OFDM-LAN transparent all-opt. interconnection 17346
packet LAN, collision-free reception 8964
photonics networks *(German)* 17236
plant automation, parallel computers/fiber optic commun. links interface 34026
plastic LAN fibre optic links 41851
register insertion bus fibre optic LAN, bandwidth balancing 33467
rotation counter protocol, token-ring protocol for integrated services 33471
RT1612F, opt. repeater for token-ring LAN *(Japanese)* 25535
SAFENET, fault-tolerance/timeliness, layered approach 33507
SCM CDM opt. LAN, theory and expt. 16716
slotted Aloha protocols for optical fibre LAN using WDM passive star technology 33256
soliton-dragging gates, RIB interface 41823
star opt. network, distributed channel controllers 9446
STARNET WDM computer commun. network, combined freq. and AM 17174
surface mount type LD/photodiode module *(Japanese)* 42466
transputer based video distrib. syst., fibre based LAN appl. 41850
trunk/local access SDH transport fibre network archits. 34092
wavelength routing fiber LAN network throughput 42417
wavelength-reusable/topol.-reconfigurable WDM opt. LAN networks, monolithic opt. equalizer array 42426
wavelength-routing network switching theory 9522
WDM, network archit. 8891
WDM multiple access protocols, receiver collision avoidance *(Korean)* 16476
wideband all-opt. FDDI LAN networks 9521
wormhole routing on multichannel ring networks, opt. fibre interconnection 3217
GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891

optical fibre lasers *see fibre lasers*

optical fibre losses
1.3 μm Raman fibre-optic amp. 1872
2.5-Gbit/s CPFSK transm. expt., AMI-encoded data 9578
4$\times$4 lossless opt. switch for photonic switching 9144
α-profile multimode opt. fiber channel, lin. systs. approach 9438
analog transm. syst. dispersion-compensating fiber, high fig. of merit 17205
apodized acousto-optic WDM switch/filter 7419
atten. factor meas. method 30866
atten. in regeneration sects., stat. normalization 30865
automated polariz.-depend. fiber loss meas. syst. 14354
Bragg fibre grating develop. for WDM appls. 39340
Brillouin loss based distributed sens. 17901
cascaded chirped fibre grating transm. filters, dispersion compensation 39342
channel-dropping filter by grating-frustrated coupling in single-mode opt. fiber 7311
chiral fibres, guided waves, modal dispersion charact. 7322
complex multiple refl. calc. *(Japanese)* 39351
deflection-routing transparent opt. networks, min.-loss node struct. 9564
double-coated fibres, thermally-induced microbending losses 7277
double-coated opt. fibers, hydrostatic press.-induced stresses 22827
electroabsorption modulator module *(Japanese)* 42463
fiber drawing induced opt. losses, fluorine's effect 7291
fiber soliton propag. by phase-sensitive amplif., quantum noise reduction 34025
fibre ring laser, opt. mode-locking, cross-PM 23121
fibre ring laser config. studied by collective coord. 14996
fibre ring long-term soliton bit stream storage by phase-sensitive amplif. 22786
fibre soliton propag. quantum noise reduction by phase-sensitive amplif. 1668
fibre soliton self-freq. shift compensation, phase-sensitive parametric amps. 23358
finite-clad fibres and waveguides, perturb. anal. limitations 30849
fund.-mode dispersion-compensating CATV fiber links 17206

optical fibre losses continued
fused tapered couplers, loss and spectral loss 7332
graded index polymer opt. fibre, high bandwidth, large core 39354
high-fiber-count cable, U-groove torsional rigidity 9593
IM/DD fiber transm. syst. dispersion-limit formula 9575
in-fiber freq. shifter, end-coupled mode filters 14389
insertion-loss improvement for opt. connector, transm. opt. intens. 1673
IR opt. fiber, absorpt./scatt. loss meas. method 14402
lensless in-line fibre filters 22989
lin. microwave fiber-optic links for antenna remoting and sig. proc. 9505
liq.-cryst. fibers, nonlin. opt. propag. and self-limiting effect 7276
loop polarizers using fused taper coupler, birefr. 30904
micro- and macrobending sensitivity charactn. by MAC value 7335
microbending effects in single-mode opt. fibres 14395
mode-field-converting fiber for coupling, photonic devices 14403
MT multifiber connectors, struct. and appls. 14382
multimode fiber-to-waveguide coupling suitable for pass. alignment 1674
multiwavelength fiber-amp. cascades for networks 9502
near-IR large-core high-bandwidth GRIN polymer opt. fiber multimedia network 42389
nuc. facilities, radiation hardness 22838
OFDM-LAN transparent all-opt. interconnection 17346
one-mode fiber-optic waveguide, obs. of ps opt. pulses, guiding-center soliton 14361
packaged fibre gratings for telecomms., fab. and perform. 39336
periodic microbend bare fibre sens., stabilization/sensitivity 17919
photoimprinted Bragg grating all-fiber dense WDM/demultiplexer 42388
polaris. maintaining fibre coupler fab. 30913
polaris. maintaining opt. fibre coupler fab. tech. 1677
polariz. depend. opt. fibre loss stats. 30848
polymer opt. fibre, all-opt. and photomechanical devices 31584
PON, clip-on OTDR for fault location 9565
quantum cryptography fiber commun. 24109
Raman fiber amp. cross talk bandwidth 14752
rect. core waveguides, integrated optics, fibre coupling, mode matching techs. 39429
referenced intens.-based opt. fibre sens. 34525
side-polished fiber fab., negligible opt. loss 30892
silica-based waveguide/opt. fiber coupling 14370
single mode fibre-rect. waveguide coupling losses, integrated optics 22837
single-mode birefr. opt. fiber polarizer 22859
single-mode fiber/LD coupling, misalignment model 30884
single-mode fibre, degree of polaris., single Mueller matrix 1687
single-mode fibre, microbending induced loss behaviour 30888
single-mode fibres, equiv. step-index charactn. 39333
single-mode triangular-index fiber with a depressed cladding ring, bending-loss studies 7321
smooth transm. spectrum fibre optic switch 7330
soliton propag., Fourier series anal. tech. 22815
soliton propag., Fourier-series approach 39326
soliton pulse trains in fibers, discrete amps. 40037
soliton self-freq. shift recovery by opt. phase conjug. 2067
split-beam Fourier filter, mid-stage filter in EDFA fibre link 31068
temp. sens., polymer ceramic composites 34543
thin coated fiber microbending charact. and mech. strength 7341
triple-clad single-mode fibers for dispersion flattening 7331
ultralong-span trunk lines/subscriber lines, 1.65-μm opt. surveillance and test syst. 9574
unrepeatered transm., rem. pumped post/pre-amps. 34050
UV grating written planar silica waveguide semicond. external cavity laser 34034
UV-written grating planar silica waveguide external-cavity semicond. laser 9570
very-high-fiber-count preconnectorized opt. fiber cable 9591
wavelength-tuned Mach-Zehnder fiber filters 7318
wideband fiber optic systs. by carrier subtraction 25516
zirconia alignment sleeve, opt. connectors, charact. and static fatigue reliab. 9473
Er-doped amp. fibers, H-induced-loss increases 14753
Er-doped fiber amp., cascaded, gain-peak wavelength, Al-conc. depend. 14744
Er-doped fiber amp. long-haul undersea syst. monitoring 17239
Er-doped fiber amp. lossless wide-band reflective star coupler 17177
Er-doped fiber amplifer gain peak meas. by spectral loss test 14745
Er-doped fiber amplifer subterabit soliton transm., soliton control 9571
Er-doped fibre amps. spontaneous emission noise modelling 14734
Er-doped fibres, H$_2$ and radiation resist. 14360
Er-doped opt. fiber amplified WDM ring network, channel-dropping filters 9563
Er^{3+}-doped unidirectional fiber ring laser without isolator 31214
F-doped silica fiber, radiation-resist. charact. 7294
GaInAsP-InP 2$\times$2 switch, monolithic integration with optical amplifiers 17191
GeO$_2$-P$_2$O$_5$-MF$_x$(M=Ca,Zn) germanate glass opt. fibre systs., low light scatt. *(Japanese)* 39304
InGaAsP electroabsorption waveguide modulator, shipboard analog links 9535
InGaAsP/InP waveguides for guided-wave photonic IC, low-loss fiber-chip coupling 7372
LiNbO$_3$ reson. enhanced modulators for analog fiber-optic links 14527
P$_2$O$_5$-SiO$_2$ core single-mode fiber drawing, low Rayleigh-scatt. loss 7292
Pb scintillating fibre calorimeter, radiation resist. 26222
Pr^{3+}:ZBLAN fibre amp. AM-VSB video link 3583
Pr^{3+}-doped fluoride fibre amp., pumped, design optimisation 31219
Si, hybrid motherboard, low loss opt. interfaces 31117
SiO$_2$ fiber nonlin., lightwave systs. 17209
SiO$_2$ opt. fibre atten., nuc. environ., prep. 22842
SiO$_2$:F low loss glass fibers from sol- gel derived preforms 7302
SiO$_2$-Si waveguides, coupling and propag. losses 30889

optical fibre networks
see also optical fibre LAN; optical fibre subscriber loops
1.55 μm WDM fiber freq. shifter 9461
1.7-Gbit/s opt. amplified terrestrial lightwave syst. deployment in USA 17241
1 Gbit/s QPSK opt. microwave transmitter, SOA modulator based 9561
1D interconnection parallel opt. data links 42431
2.5 Gbit/s DFB LD/modules for long-haul opt. transm. 34002
2.5-Gbit/s all-opt. clocked decision/retiming cct. bistable semicond. lasers 9517

optical fibre networks continued
  10 Gb/s single-channel high-capacity soliton syst. design 17352
  10 Gb/s transm., 5800 km opt. amplified testbed 42447
  10 Gbit/s opt. transm. beyond dispersion limit 17252
  10 Gbit/s systs., opt. transm. tech. *(German)* 42461
  10-Gbit/s smart opt. terminal digital-video distrib. syst. 17222
  16-channel 622-Mbit/s FDM heterodyne syst., error-rate degrad., fiber four-wave mixing 17218
  250-Gb/s self-clocked opt. TDM, polariz.-multiplexed clock 42376
  1550 nm fiber lightwave systs., dispersion compensation 17242
  access network, wireless technols. integrat. 25148
  ACOFT, optical fibre technol. conf., Australia (1994) 28253
  act. planar lightwave cct. technol. *(Japanese)* 17183
  all-opt. fiber ATM/SONET WDM network 9511
  all-opt. multihop photonic packet-switched networks, bandwidth limits 9579
  AM-VSB/64-QAM hybrid opt. transm. systs., impulse-induced bit-error impairment 9557
  AM-VSB/QAM CATV opt. transm. syst., 64-QAM sigs. 9556
  amp. custom-coded simul. for WDM networks 25540
  arrayed waveguide N×N wavelength multiplexer transm. charact. 42353
  ATM over PON access systs., out-of-band ranging method *(English, Italian)* 33990
  ATM transport systs. based on high-speed opt. transm. 34043
  automation of OTDR meas. 22826
  B-ISDN parallel opt. transm., line-coding proc. based on multiplexing 9520
  BERKOM-II FlowSpec, ATM mapping 9018
  bidirectional star network, secure data commun. protocols 33286
  bit/packet opt. sync., fiber switching node inputs 25482
  BOXER network, design and implement. 18973
  broadband transm. networks, multiwavelength technol. 17248
  CATV technol. studies *(Japanese)* 34265
  CDMA opt. fiber networks, syst. and sync. perform. anal. 17270
  centralized control for fiber-optic microcell radio syst. 3450
  channels, sliding block line codes, dispersion limitations 40578
  cluster-based shuffle network, conflict-free channel assignment 3578
  CMOS burst-mode clock recovery cct., 28.8 Mb/s PON 34104
  codirectional Bragg WDM tunable acousto-optic-filter design 39534
  coherent opt. systs., recent trends 25480
  commun. technol. *(Japanese)* 42038
  Cornish expansion anal. of opt. commun. syst. 9455
  Cox Communications Inc., fiber ring-in-ring archit. 42381
  CPFSK coherent opt. transm. for repeaterless submarine syst. *(Japanese)* 16994
  Croatian transm. network evol. towards broadband 33334
  DCS for very-high-speed networks 9151
  deflection-routing transparent opt. networks, min.-loss node struct. 9564
  dense WDM packet switching networks, review 3538
  desktop CSCW syst. 16691
  DFB LD/module for CATV systs. 34261
  direct modulation, phase-induced intens. noise 34015
  distributed opt. fibre network strain/temp. meas. by Brillouin OTDR 34544
  DQPSK AM-VSB/compressed-digital-video transm. syst. clipping penalty 9464
  DS-CDMA nonlin. effects in opt. transm. 34030
  DTM gigabit network 3190
  dual wavelength opt. fiber HDTV distrib. networks 17571
  dual-bus digital syst. semicond. opt. amplifer-based subcarrier add-drop multiplexer 17214
  efficient routing/scheduling algms. for opt. networks 8976
  European research project COST 239, ultra-high capacity opt. transm. network 34040
  Fabry-Perot single-cavity demultiplexer OFDM networks, finite laser linewidth 25529
  fault-tolerant layered approach 16687
  FDM coherent opt. networks, interchannel interf. 17271
  FDM cross-connect switch, delayed self-duplex light source and opt. time-slot interchanger 17202
  fiber bandwidth in opt. amp. links 9597
  Fibre Channel, simulation design for verification and development 33461
  Fibre Channel networks, optical link bandwidth optimisation 33460
  Fibre Channel Standard, rapid protocol develop. 33494
  fibre sens., CDM, SLM 34549
  four-channel high-dens. opt. FDM add-drop multiplexing filter 17200
  French terrestrial network:architecture and capacity 9589
  French WDM WAN wavelength-routed archit. 34039
  FSA submarine opt. amp. syst., rem. supervision *(Japanese)* 16993
  FSA submarine opt. amp. transm. syst. *(Japanese)* 16992
  fund.-mode dispersion-compensating CATV fiber links 17206
  gigabit network develop. and prospects *(Japanese)* 16756
  gigabit networking, review 41825
  gigabit opt. CDMA networks, bandwidth efficient matrix codes 42421
  gratings, demultiplexing filters for WDMA networks 39345
  guided scrambling line codes, polynomials 40579
  hierarchical star-controlled rings for multiprocessors 16723
  high-capacity photonic space-division switching syst. for broadband networks 25533
  hybrid access networks, conf. (1993) 36850
  hybrid fiber/coaxial CATV network power distrib. systs. 42627
  hybrid fiber/coaxial network technol. 9421
  hybrid multichannel AM/16QAM video lightwave syst., digital channel degrad. 17210
  hybrid opt./coaxial telecom. power distrib. options 42138
  IBCN, opt. ATM components 33729
  IM/DD TDM high bit rate opt. systs., modelling and anal. 34067
  in-service fiber line ident. based on high-resoln. fiber length meas. 17332
  installed opt. submarine cable, long-term polariz.-mode-dispersion meas. 17207
  integrated photonics for opt. networks 42438
  Italian PON field trials *(English, Italian)* 33992
  LABON, learning automata-based opt. network 9608
  large-area multiple-transverse-mode VCSELs in multimode-opt.-fiber links, modal and intens. noise 9595
  LEOS, Lake Tahoe, NV, USA (July 1994) 39
  LEOS, San Jose, CA, USA (1993) 20270
  lightwave syst. dispersion compensation design 42419
  lightwave systs. with opt. preamplifier, perform. eval. 17186
  lightwave transm., low-rate parallel scrambling techs. 42380
  linecoded opt. heterodyne FSK systs., nonuniform laser FM response 42457
  long span submarine opt. fiber transm. systs., evol. *(Japanese)* 16991
  Los Alamos Nat. Laboratory gigabit network appls. 8918

optical fibre networks continued
  mesh networks, hot-potato/single-buffer deflection routing 16528
  metropolitan SDH networks, full/partial access solns. 42448
  miniature multifiber connector appls. 30905
  modern telecomm. networks, archit., elements and network mgt. 33358
  motorway commun., radio distrib./opt. transm. network 42157
  MSK multichannel coherent SCM lightwave syst. 17340
  multi-Gb/s opt. WDM LAN/MAN/WAN networks 42422
  multi-wavelength transport networks 9451
  multiaccess star network archit., WDM/SCM 42437
  multichannel video transm., sync. digital fiber-optic networks 34021
  multidimensional switching networks, universality 8704
  multidimensional torus, hop dist. and multihop lightwave network 16525
  multigigabit opt. networks, direct-modulation/direct-detect. 17272
  multimedia, business style creation *(Japanese)* 42022
  multimedia conf. syst. on FDDI, TCP/UDP 16819
  multiple-access networks, opt. TDM 42128
  multiwavelength European opt. transport network 42368
  multiwavelength fiber-amp. cascades for networks 9502
  national toll networks, design techs. 41573
  near-IR large-core high-bandwidth GRIN polymer opt. fiber multimedia network 42389
  network config. for leased ccts. in metropolitan areas 33359
  next generation lightwave network planning for capacity upgrade and service growth 9586
  NTT Japanese next-generation enhanced transport network services 9590
  OFC, San Jose, CA, USA (Feb. 1994) 5447
  Ohio metropolitan area, telecomms. infrastructure needs 8798
  operation/maint. strategy 25541
  Optical Network Technology Consortium on multiwavelength opt. networks 9523
  optoelectronic switch for SCM networks 17211
  optoelectronics technol. consortium (OETC)- opt. data link/optoelectronic components 33485
  orthogonal codes, unequal auto-/cross-correl. constraints 24089
  OTDR waveforms, pattern matching, opt. lines fault location 9454
  packet add/drop, wavelength-coded header 25514
  packet-switched WDM-networks, wavelength stabilisation scheme 34093
  PCS technol. in fiber optic network deployment 9519
  phase/freq. detectors for opt. transm. systs. clock sync. 3568
  photoimprinted Bragg grating all-fiber dense WDM/demultiplexer 42388
  photonic ATM backbone network 9025
  photonic ATM switching systs. 33731
  photonic fast packet switching networks 9601
  photonic fiber ring video delivery and SONET protection 17224
  photonic networks, pulsed lightwave freq. supply module 9605
  photonic networks pot. 9450
  photonic switch matrices, opt. cross-connect syst. 17201
  photonic transport networks, opt. path cross-connect node archit. 16983
  photonics networks *(German)* 17236
  photorefr. material holographic data storage systs. 31673
  PON, clip-on OTDR for fault location 9565
  PON, power supplies 41994
  PPM perform., jitter implications 17245
  pretransmisson nonlin. channel compression in SCM lightwave systs. 17212
  push-pull opt. frontends for SCM CATV appls. 42458
  RACE 2001 transparent opt. networks, European progress 9524
  recirculating loop, dispersion-compensated transm. 33979
  Register Insertion Bus network, optoelectronic technol. 41824
  repeaterless opt. commun. syst. 3543
  S-CDMA fibre optic systs., seq. designs 2892
  scalable lightwave network 9452
  SDH 600 Mbps line termination and multiplexing equipt. 25179
  SDH/SONET undersea fiber-optic systs. 17237
  self-clocked self-routing photonic bit switching archit. 42127
  semicond. opt. amp. photonic switching multi-carrier opt. network 25532
  shared channel lightwave networks, virtual topol. design 41561
  silica-based planar lightwave ccts., opt. filters develop. *(Japanese)* 17182
  singlemode fibre digitally tunable wavelength filter, opt. transparent 17330
  SONET, network survivability 41562
  SONET develop./deployment 17273
  SONET rings, interoffice telecomms. clustering 25536
  SONET rings, optim. problem, balancing loads 9553
  SONET simul., testing and design 34023
  SONET/SDH ring types 42360
  STARNET opt. WDM network, high-speed interface 9514
  static wavelength router all-opt. network crosstalk penalty 42425
  Stockholm 10 Gb/s opt. fiber network 25517
  subcarrier multiple access PON, adjacent channels 42392
  submarine opt. amp. systs., fault location, coherent OTDR *(Japanese)* 16995
  SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
  superimposed microwave modulation, Gbps systs. perform. 42441
  survivability, emerging technols. 34056
  survivable ring networks, wideband DCS role 41759
  SW high reliab. LD for opt. data links 42430
  TDM switching networks, interchannel cross talk, noise degrad. 9147
  TDM systs./networks 9453
  telecom. network sync., phase noise eval., time domain meas. 24887
  telecomm. network develop., opt. fibre and ATM appl. *(German)* 8815
  telecomm. network distributed mgt. syst., formal design 33296
  telecomms., ultra-fast self-routing networks 16532
  telecomms. distributed maint. systs., abstr. design method 41655
  telecomms. syst., forward error control, simul. techs. 42450
  three-level modulation scheme, std. fibers, dispersion limit 42343
  transm. bandwidth meas. systs. *(Japanese)* 33976
  transparent opt. fiber networks, costs 9588
  transparent opt. networks scaling limitations, low-level crosstalk 17345
  transport network layer, concept/ demonstrator 42439
  tree APONs access, distributed FIFO spacer/multiplexer 9015
  two-level hierarchical networks for opt. commun. 16524
  two-sect. DBR laser transmitters in opt. FDMA networks 9500
  two-sect. travelling-wave semicond. laser amp. optoelectronic time division demultiplexer 42100
  undersea cable systs., design requirements 33995
  undersea cable systs., installation/maint. technol. 33998
  undersea cable systs. in global networking 33994
  undersea commun. systs., network planning/operation/maint. 33999
  undersea non-repeatered technols., challenges, and products 33997
  undersea opt. amplified repeatered technol./products 33996
  vert.-cavity SEL array for short dist. opt. fiber networks 14929

optical fibre networks continued
video multiplexing, pulsed coded fiber optics 8676
VSB/QAM for hybrid fiber/coax, digital transm. 42610
WAN, wavelength requirements of all-opt. networks 16712
Washington D.C. metro syst. tunnels commun. syst. 9281
wavelength converters based on four wave mixing in semicond. opt. amps. 42385
wavelength division multiple access networks, archit. 16527
wavelength path opt. networks, failure restoration 9513
wavelength-distributed data-interface network 9583
wavelength-routing opt. networks 41580
WDM channel sharing scheme for multihop lightwave networks 8696
WDM cross connector electro-opt. controlled multiwavelength switch 34008
WDM opt. fiber network evol. 9587
WDM opt. network, time-wavelength assignment algms. 42375
WDM quasi-all-opt. broadband networks, packet headers encoding 16448
WDM systs. and networks 42433
WDM transceiver OEIC modules for local access fibre networks 17331
WDM unidirectional ring network, wavelength reuse scheme, fibre grating add/drop multiplexer 34054
WDM WAN trials 33524
WDMA network, acousto-optic tunable filters and TAXIChip-based control channel 9562
wide area video commun. network *(Japanese)* 42618
wideband fiber optic systs. by carrier subtraction 25516
Er-doped fiber amp. DCS 17203
Er-doped fiber amp. polariz.-scrambled fiber-loop config., gain-peak-wavelength meas. 14359
Er-doped fiber amplifer chain link, polariz. scrambling improves SNR perform. 17238
Er-doped fiber amplifer ultralong commun. systs., polariz.-depend. gain and loss 17240
Er-doped fiber amplified low-distortion WDM AM SCM 4×50-channel CATV transm. 9572
Er-doped multiwavelength fiber-amp. cascades for networks 42423
Er-doped opt. fiber amplifer coherent AM analog opt. links 17213
Er-doped opt. fiber amplified WDM ring network, channel-dropping filters 9563
InGaAsP MQW LD array design and fab. for opt. parallel links 31353
InGaAsP-InP tunable DFB laser freq.-drift suppression 9596
InP technology, role in optical fibre communications 17189
Si monolithic photodetector/CMOS preamplifier fiber-optic data link 9518
TeO$_2$ acoustooptic tunable filters in multiwavelength opt. add-drop multiplexing appls. 17215
intell. parallel opt. link and LSIs 34055

optical fibre polarisation
1.55 μm single-polariz. hollow pit opt. fiber, zero total dispersion 7283
1.7-Gbit/s opt. amplified terrestrial lightwave syst. deployment in USA 17241
3 by 3 fibre coupler phase jitter, pass. homodyne demodulation 30923
10 Gb/s single-channel high-capacity soliton syst. design 17352
10 Gb/s transm., 5800 km opt. amplified testbed 42447
16-Gbit/s TDM/polariz.-division-multiplexed syst., compensation tech. 9126
100 fibre ribbon slotted core opt. cable, low pol. mode dispersion 3562
1300 nm gain-clamped MQW laser amps., reduced IMD 34006
acoustic modes excitation in opt. fibers, horns operation 14396
all-fiber interferometer, polariz.-mode-dispersion meas. 7340
all-opt. switching by spatial vector soliton collisions 3296
analog lightwave link with large polariz.-mode dispersion, 64-QAM BER meas. 9560
anisotropic waveguides, full-vectorial beam propag. method 7284
automated polariz.-depend. fiber loss meas. syst. 14354
bending induced polaris. mode dispersion 39329
birefr. opt. fibers, ellipt. polarised solitons 2124
birefr. opt. fibers, polariz. mode dispersion 22816
birefr. opt. fibres, bright N-soliton trains propag. 39361
birefr.-fibre sole wavelength filters 14394
Brillouin fibre optic gyro, stable characts. 17830
Brillouin opt. fiber gyro ring-resonator, state of polariz. anal. 42822
CATV/FITL video-transm. DFB laser components and systs. 17193
coupler fab., fusion tapering techs. 30913
coupler fab., low loss 1677
digital opt. transm. syst., min. BER degrad. 25473
dispersion compensation, Kerr effect, nonreturn-to-zero sigs. 22820
dual fibre opt. traps, tapered hemispherically, confine. and trapping 39320
dyn. SBS in fibers, feedback 14406
ellipt. core cross-sect. opt. fiber, first higher-order modes 22849
ellipt.-core fibre, lin. polarised mode anal. 1686
Er-doped fibre amp., polaris. hole burning, time dyn. 14755
extinction ratios of polariz.-maintaining fibers 30882
Fabry-Perot polariz.-maintaining fiber interferometers, fab. and charactn. 9922
Fabry-Perot resonator group effective index meas. method 10044
Fabry-Perot tunable polariz.-maintaining fiber filters 22803
femtosecond soliton transm., pol. depend. of soliton interacts. 34019
fiber four wave mixing, polaris. independ. wavelength conversion 9439
fiber interferometer guided-acoustic-wave Brillouin scatt. meas. 25853
fiber links, polariz. mode dispersion meas. 7342
fiber optic current sens. syst., birefr. exam. 9923
fiber-optic sens. array without polariz.-induced sig. fading 34522
fibre lasers, soliton polariz. rot. 23138
fibre ring-resonator for gyros, expt. 17887
fibre-optic white-light interferometry, polariz. insensitive 34521
flint glass fiber for Faraday sens., polariz. props. 17823
four-channel WDM/PDM transm., 10 Gbit/s, 340 km 17230
four-wave mixing, polariz.-insensitive wavelength conversion 15075
fused taper fibre coupler, control beam sig. switching 2054
fused taper fibre couplers, polariz.-maintaining 14393
fusion-spliced birefr. fibre Fabry-Perot interferometric temp. sens. 34556
germanosilicate glass opt. fiber, photoinduced birefr. rot. 30891
glass fiber Raman gain spectrum meas., fs pulses 22808
high birefr. fibre gratings, holographically written 39350
highly-birefr. fibers, hollow layer outside ellipt. core 30851
in-line mode splitter, dual polarimeter in fibre 14374
installed opt. submarine cable, long-term polariz.-mode-dispersion meas. 17207
interferometric birefr. opt. fiber transducer 17870
interferometric fiber-optic sens. arrays, eigenvalues determ. 17908
interferometric sens., birefr. polaris. maintaining fibre 17853

optical fibre polarisation continued
interferometric sens., develop. trends 17838
IR coherence-collapsed multimode LD for fiber-optic gyroscope 40176
isotropic fibers, rot. vector solitary waves 23437
lightwave polaris. analyser 30910
lightwave systs., parametric gain, four-photon mixing 17219
lin. birefr. in opt. fibres, freq. derived meas. anal. 17915
long-haul fibre links, light depolarisation 34053
long-haul opt.-fiber spliced systs., polariz.-mode dispersion and power penalty 7337
loop polarizers using fused taper coupler, birefr. 30904
low birefr. opt. fiber polariz. states, PDF 17260
mode locked fiber laser gyroscope, polariz. charact. 17833
monomode fibre torsion state-of-polaris. rotator *(German)* 22855
multimode fibre, plane of polariz. rot. 39322
multiwavelength fiber-amp. cascades for networks 9502
noise in fibre-optic Michelson interferometer, polariz. induced 17854
nonlin. opt. loop mirror noise filtering 25526
orthogonal polariz. fiber gyroscope, stabil., resoln. 17817
orthogonally polarised fs soliton self-freq. shift 3559
panda fiber delay line dispersion equalisation scheme 9510
PANDA profile, polariz.-maintaining fiber, polariz. crosstalk *(Japanese)* 30901
phase and polaris. modulator 30869
photoelastic phase difference, ray deviation angles 14362
Pockels effect opt. fibre elec. field sens. 17868
polarimetric fiber-optic sens., sig. meas. 25866
polaris. domain solitons 31624
polaris. independ. nonlin. opt. loop mirror demultiplexers 34079
polariz. shift keying, opt. digital transm., direct detect. 42344
polariz.-division-multiplexed solitons, freq. sliding/filtering effects 22857
polariz.-independent directional coupler wavelength filters, birefr. compensation 39536
polariz.-independent regenerator, nonlin. optoelectronic PLL 14655
polariz.-maintaining distributed fiber-optic sens., software elimination of second-order ghost coupling points 42831
preamplified opt. direct detect. systs., receiver noise effects 17178
preamplifier ASK syst. perform., incomplete ASK modulation, influence of ASE/laser phase noise 25531
preform deform. fabricated opt. fibers, birefr. anal. 22851
pulse collisions, polaris. conversion 1670
quantum cryptography, operational syst. 24064
quantum cryptography, polariz. feedback 15791
quantum cryptography, polarized photons in opt. fibres 17342
quantum cryptography fiber commun. 24109
Raman gain spectrum, short pulses 22821
randomly varying birefr. opt. fiber solitons 30906
Rayleigh-Sommerfield integral eqns. in wave propag. 14398
reflective opt. mixer, polariz.-independent phase conjug. 25483
residual stresses, optimal design 1688
ribbon opt.-fiber cable, polariz. OTDR and PMD meas. correl. for stress anal. 14353
Sagnac loop opt. fibre current sens., polariz. depend. 17916
self-starting fibre ring laser for distributed sens. 17832
semicond. laser pulse generation, soliton effect pulse compression fibre 39772
sens. array, polariz.-induced sig. fading suppression 17900
shape-birefr. fibre sens. systs. employing photogenerated polaris. couplers 42827
silica-based waveguide/opt. fiber coupling 14370
single mode birefr. fibers, different freq. opt. wave cross-PM 22804
single mode fibre polariz. modulators 14373
single-mode birefr. circ. polariz. maintaining opt. fiber coupler *(Chinese)* 14367
single-mode birefr. opt. fiber polarizer 22859
single-mode fiber, polariz. effect on four-wave mixing efficiency, comment 30878
single-mode fiber systs., random mode coupling effects on polariz. mode dispersion and power penalty 30855
single-mode fibre, degree of polaris., single Mueller matrix 1687
single-mode fibre, polaris. mode dispersion, pulse distortion meas. limitations 30862
single-mode fibres, polaris. and perturb. power spectrum *(Chinese)* 39352
single-mode opt. fiber, polariz. mode dispersion meas. 30890
single-mode opt. fiber, single-pulse degenerate-cross-PM 40078
single-mode opt. fiber polariz. mode dispersion meas. by freq.-domain interferometer 1699
soliton data transm. over 200 km, polaris./time-domain multiplexing, 160 Gbit/s 34070
spun lin. birefr. fibres, current sens., temp. compensation 3863
std. opt. fibers, polariz. depend. losses, stats. 30848
symmetric 2×2 fused-fiber coupler modeling 22823
time-reversal for polariz. state 14392
time/polaris. multiplexed opt. fiber soliton transm. 9467
twin high-ellipt.-core fibre-optic polariz. beam splitter coupling charact. 30857
twisted birefr. fiber coupler, two-beam phase-controlled polariz. switching 22805
twisted fiber laser polariz. props. 31222
two-mode fibres, intermodal interf., polariz.-mode atten. 30879
ultra-long dist. soliton transm., fiber nonlin. 39353
weakly fused fiber-optic couplers, rigorous anal. of form birefr. 39372
Er doped fiber ring laser, mode stabil. 15002
Er doped fibre amps., pol.-depend. gain meas. 31210
Er-doped Kerr-type mode locking fiber laser stabilization 7565
Er-doped birefr. fiber amp. polariz. distortion 31216
Er-doped fiber amp. CATV, polariz.-mode dispersion meas. 25509
Er-doped fiber amp. polariz.-scrambled fiber-loop config., gain-peak-wavelength meas. 14359
Er-doped fiber amplifer chain link, polariz. scrambling improves SNR perform. 17238
Er-doped fiber amplifer ultralong commun. systs., polariz.-depend. gain and loss 17240
Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
Er-doped fiber laser based fiber sens. 9920
Er-doped fiber-ring laser, mode instabil. suppression 39697
Er-doped fibre amps., polaris. hole burning, computer modelling 14757
Er-doped fibre amps., polaris.-depend. gain 14756
Er-doped soliton fiber laser based on pulse width control, chirped fiber Bragg gratings 23129
Er-doped twin-peak core fiber amp., polariz. 14750

optical fibre polarisation continued
- Er-doped widely tunable polariz.-stable fiber lasers 39700
- Er^{3+}-doped fiber ring laser gyroscope appls. 3871
- Er^{3+}-doped fibre amp., polaris. hole burning suppression, unpolarised source 39708
- Ge-doped opt. fiber Bragg gratings, polariz. and temp. depend. of photosensitivity 7336
- Nd-doped fiber laser, feedback-induced polariz. switching 14741
- Nd-doped fibre lasers, polaris. related phenom. 14766
- Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
- Pr-doped opt. fiber amps. 7576
- SiO2, multimode fibre, SBS phase conjug., distortions compensation 1671

optical fibre sensors *see fibre optic sensors*

optical fibre subscriber loops
- 30-Mbit/s high-sensitivity burst-mode/packet receiver for PON appl. 17197
- 622 Mbit/s TDMA PON, novel burst mode opt. transmitter *(English, Italian)* 33991
- access network upgrades, dyn. eval. method 42073
- access opt. fibre network, CATV/interactive multimedia appls. tv 34091
- ADSL, enabling network for VOD 9107
- Alcatel 1570 BB single mode opt. fibre CATV syst. 42615
- AM-SCM lightwave syst., simultaneous scatt./interf. suppression 17175
- AM/QPSK hybrid opt. transm. systs., BER depend. on CTB 9559
- Arcachon fiber optic distrib. network 25500
- AT&T/DEC/MIT precompetitive consortium on wideband all-opt. networks 34049
- ATM transport systs. based on high-speed opt. transm. 34043
- automated opt. main-distributing-frame FTTH syst. 9443
- B-ISDN appls. trials in Japan *(Japanese)* 41939
- B-ISDN for video and high-speed sigs., modeling/optim. 9024
- BH light-emission/detect. diode module for subscriber TCM transm. systs. 25472
- broadband multimedia services, high speed access 42016
- CATV DFB source laser lin. limits 25528
- CATV near-future archit., broadcast channels capacity 42616
- CATV videocommun. networks, AM-VSB TV sig. opt. transm. 17570
- CATV/FITL video-transm. DFB laser components and systs. 17193
- CDMA opt. systs., bipolar codes 42352
- coaxial LD chip package for fibre in loop appls. 42427
- complex multiple refl. calc. *(Japanese)* 39351
- compressed-digital-video fiber-based transm. systs., clipping penalty 9558
- customer-usable all-opt. networks, develop. 9084
- DFB transmitter selection for broadband services 42383
- digital services, broadband delivery 42054
- electrocapillarity micromirror opt. switch for subscriber loops 9569
- EURESCOM project P306, European access network evol. *(English, Italian)* 33988
- fiber access systs., archits. and technol. 9492
- FITL, commercial AC power quality issues 19227
- FITL, concepts/implement., network archit. 25519
- FITL CATV syst. for broadcast/interactive services 42628
- FITL deployment in BT network 42056
- FITL powering, batt. reserve sizing calcs. 42066
- FITL syst., opto-electronic IC impact 42052
- FITL syst. implement. 42055
- FITL syst. rem. power source, alarm commun. 19867
- FITL systs., MPEG encoding/ATM transport, video services delivery 42053
- flexible access network, technols. appl. 33978
- France Telecom's fibre optic access networks 25499
- FTTH back-up batt. power supply monitoring 19868
- FTTH trial network in Bastia, Corsica 25142
- Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
- high-dens. opt. subscriber cable, helically single-grooved small units 9592
- hybrid access networks, conf. (1993) 36850
- hybrid fiber/coax network broad-band AM-VSB/64 QAM CATV syst. 34010
- hybrid fiber/coaxial and CATV networks, planning and design 41563
- hybrid fiber/coaxial archits., analog services 42384
- hybrid fiber/coaxial technol. for broadband service delivery 33670
- inform. highway power distrib. archits. 42137
- LARnet, local access router network 25515
- local telephone network centralized powering recommendation 42067
- maint. free UPS, advanced batt. technol. 19815
- multi-servicing opt. fibre network connector innovations 34089
- multimedia commun., fast, NTT strategy 25119
- Multiplexed Network for Distributive & Interactive Services project *(German)* 42062
- multiwavelength interoffice commun., SONET/WDM ring networks 42424
- MW9070A OTDR for opt. fibers maint. *(Japanese)* 33667
- narrowband and video distrib. services, syst.-sharing config. 25139
- NEC, digital video transm. technol. develop. *(Japanese)* 42617
- network archit. and constr. *(Japanese)* 17337
- network database syst., obj.-oriented design 9102
- network systs., evol. *(Japanese)* 33671
- OFDM-LAN transparent all-opt. interconnection 17346
- partially-corrugated-waveguide LD, low modulation distortion for SCM telecom. appls. 17194
- pass. broadband WDM/TDM/SCMA opt. network syst. 9493
- pass. double star opt. fiber subscriber systs. in Japan 9494
- pass. WDM opt. network, cost-shared components 9463
- photonic networks pot. 9450
- planar lightwave cct. technols. *(Japanese)* 14426
- PON, ATM protocol 42069
- PON, private/authentic commun. 42072
- public telecomms. infrastructure, hybrid fiber/coax archit. 42619
- RACE 2001 transparent opt. networks, European progress 9524
- RACE 2087 TITAN project, opt. access network risk assess. and economics *(English, Italian)* 33987
- RACE 2087/TITAN, access network alternatives *(Italian, English)* 42071
- reconfiguration method *(Japanese)* 16925
- rem. node placement method *(Japanese)* 42060
- ribbon-slotted-core opt. fibre subscriber loop cable 34102
- rural telecommunication syst., optical fibre based, perform. 9094
- rural telecommunication using optical fibre 9093
- self-healing FITL archits. 9491
- self-holding opt. switch using opt. matrix board, FTTH appls. 9487
- semicond. laser modules, cost, packaging 17276
- service platform oriented fiber access network, archit./config. 9101
- service-provider/network-provider competitive fiber networks 17220

optical fibre subscriber loops continued
- STM-based high speed digital FTTH syst., design concept 9098
- strained MQW LDs, 1.3 μm, 1 Gbit/s bias-free operation 39868
- surface mount type LD/photodiode module *(Japanese)* 42466
- survivable interoffice networks, video/inform. transport 9099
- telecomm. network reliab. modelling, environ. considerations 16625
- telecomms. networks, access link systs. 25145
- thin coated fiber microbending charact. and mech. strength 7341
- trunk/local access SDH transport fibre network archits. 34092
- ultralong-span trunk lines/subscriber lines, 1.65-μm opt. surveillance and test syst. 9574
- UPS *(Japanese)* 42070
- video delivery options 9718
- wavelength-reusable/topol.-reconfigurable WDM opt. LAN networks, monolithic opt. equalizer array 42426
- WDM opt. transceiver module for pass. double star subscriber systs. 42371
- WDM transceiver OEIC modules for local access fibre networks 17331
- AlGaInAs coaxial laser module, 1.3 μm for local-loop appls. 7681
- AlGaInAs-InP strained layer QW lasers in FITL 7684
- Er-doped opt. fiber amp., commun. appls. *(Japanese)* 3565
- InGaAs-InP P-I (MQW)-N surface-normal electroabsorpt. modulator for 1.55 μm 14507
- InP 1.3 μm strained-quantum well laser telecomm. appls. 31360
- InP monolithically integrated tunable polariz. diversity heterodyne receiver OEIC 25484
- InP photonic integrated transceiver chip for WDM transm. 9458
- LiNbO$_3$ opt. waveguide modulator for bidirectional transm. 42442

optical fibre telemetry
- *see also fibre optic sensors*
- conference, optical fibre sensing/systems, Mol, Belgium (Oct. 1994) 20240
- FSA submarine opt. amp. syst., rem. supervision *(Japanese)* 16993
- three-axis fiber optic magnetometers for undersea appls. 17824
- wideband RF signal transmission, remote data sensing 34024

optical fibre testing
- 3 by 3 fibre coupler phase jitter, pass. homodyne demodulation 30923
- 10 Gb/s transm., 5800 km opt. amplified testbed 42447
- 1550 nm high-energy fiber SRS pulse transm. 25525
- all-dielec. self-supporting opt. cables for Australian power lines 34103
- all-fiber interferometer, polariz.-mode-dispersion meas. 7340
- analog lightwave link with large polariz.-mode dispersion, 64-QAM BER meas. 9560
- atten. meas. in opt. cable 30868
- automated polariz.-depend. fiber loss meas. syst. 14354
- automation of OTDR meas. 22826
- B-ISDN switching syst. subsyst. opt. interconnections 41914
- birefr. fibre modulation instabil. 30908
- cable fiber strain meas., photo-elastic correction factor 14397
- cable testing, OTDR meas. and algms. *(German)* 3589
- cladding diam. meas. 7314
- coating design 39331
- connectors for outside plant environ., perform./reliab. 14381
- connectors/splices, accelerated testing, life-stress 1690
- cores, microheterogeneity detect. 39332
- distributed fiber-optic temp. sens. *(Japanese)* 1681
- distributed fibre optic temp. sens. in Raman OTDR 42821
- distributed opt. fibre network strain/temp. meas. by Brillouin OTDR 34544
- distributed strain/temp. meas. in branched opt. fiber network 14372
- distributed zero dispersion wavelength meas. tech. 25983
- distributed-Brillouin-gain spectrum meas. in opt. fibers by single laser source 7315
- dual fibre opt. traps, tapered hemispherically, confine. and trapping 39320
- dual-coated opt. fiber specimens, interfacial shearing stress, double lap shear joint 14384
- ellipt., single-filament, interferometric meas. during continuous drawing 39367
- end-face bevel angle of an opt. fiber, meas. method 7299
- extending range of atten. meas. 30867
- external cavity fiber grating laser, coherent opt. freq. domain reflectometry 18122
- Fabry-Perot resonator group effective index meas. method 10044
- fiber four-wave mixing opt. wavelength conversion, SBS effects 30847
- fiber interferometer guided-acoustic-wave Brillouin scatt. meas. 25853
- fiber losses, meas. method 30866
- fibre grating interferometric characterisation 39337
- fused biconic fibre coupler back-reflexion 30911
- glass fiber Raman gain spectrum meas., fs pulses 22808
- GRIN multimode opt. fibers, chromatic dispersion meas. 7281
- high-Δ fiber core rad. meas. by opt. method 14386
- high-resoln. reflectometry techs. 7313
- HP 8156A prog. opt. attenuator, design 34712
- in-line mode splitter, dual polarimeter in fibre 14374
- in-service fiber line ident. based on high-resoln. fiber length meas. 17332
- installed opt. submarine cable, long-term polariz.-mode-dispersion meas. 17207
- integrat. sphere atten. meas. 1680
- interferometric refr. index profile meas. 14378
- IR opt. fiber, absorpt./scatt. loss meas. method 14402
- laser-induced diffraction signals, digital signal processing 25972
- lightwave polaris. analyser 30910
- microwave delay line, meas. method 7300
- multimode opt. fibre complex param. meas. *(Russian)* 14409
- MW9070A OTDR for opt. fibers maint. *(Japanese)* 33667
- nonlin. refr. index meas., cross PM *(Japanese)* 30903
- oblique incidence opt.-fiber diam. determ. by scatt. 7274
- opt. fiber guided acoustic-wave Brillouin scatt., LF line shapes 1684
- OTDR, photon counting, data correction 22846
- OTDR by quaternary FSK modulated probe and coherent detect. 34012
- OTDR waveforms, pattern matching, opt. lines fault location 9454
- packaged fibre gratings for telecomms., fab. and perform. 39336
- pass. fibre optic components, Bellcore generic requirements 1663
- pass. fibre optic components/sens. systs., radiation sensitivity 22845
- periodic microbend bare fibre sens., stabilization/sensitivity 17919
- photoelastic phase difference, ray deviation angles 14362
- polariz. mode dispersion meas. 7342
- PON, clip-on OTDR for fault location 9565
- portable testers for fiber-optic commun. testing 17170
- precision reflectometer, HP 8504B, spurious-free enhanced sensitivity, fibre design 22825
- press. cutting, AE testing 30897

optical fibre testing continued
- proof test, power law assumptions 1659
- Raman gain spectrum, short pulses 22821
- rare earth-doped fiber clusters charactn. by transm. meas. 22848
- ribbon opt.-fiber cable, polariz. OTDR and PMD meas. correl. for stress anal. 14353
- saturated EDFA/OTDR testing, transient gain compression effects 10045
- single cryst. core fibers, second-order cascading, third-order effects orig. 22806
- single-mode fibres, equiv. step-index charactn. 39333
- single-mode opt. fiber, polariz. mode dispersion meas. 30890
- single-mode opt. fiber attenuator, intercomparison of atten. 14369
- single-mode opt. fiber polariz. mode dispersion meas. by freq.-domain interferometer 1699
- single-mode opt. fibers with Brillouin freq. shift, SBS threshold power 7316
- skin-core fibre refr. index determ. 4002
- soldering into ferrule, thermally induced stresses 39366
- specs. for fibre optic instrumentation 39346
- Stockholm 10 Gb/s opt. fiber network 25517
- strain distrib. meas. in opt. fiber, Brillouin scatt. 7320
- submarine opt. amp. systs., fault location, coherent OTDR *(Japanese)* 16995
- syst. integrat., network mgt. *(German)* 8830
- tensile loaded cable, photo-elastic correction factor for fiber strain meas. 25524
- thin coated fiber microbending charact. and mech. strength 7341
- thin-coated opt. fibers, proc. handleability 14356
- transm. bandwidth meas. systs. *(Japanese)* 33976
- twist-induced effects in opt. fibers, birefr. meas. 1683
- ultralong-span trunk lines/subscriber lines, 1.65-μm opt. surveillance and test syst. 9574
- UV silica fiber, XeCl excimer laser induced damage props. *(Chinese)* 7327
- UV-induced fiber Bragg gratings decay 7310
- variable wavelength OTDR characts. and meas. 3542
- wideband all-opt. FDDI LAN networks 9521
- zero dispersion wavelength meas. for long haul opt. amp. systs. 42964
- zirconia alignment sleeve, opt. connectors, charact. and static fatigue reliab. 9473
- Er,Yb-codoped fiber glass microstruct., NMR determ. 7293
- Er-doped fiber amp. CATV, polariz.-mode dispersion meas. 25509
- Er-doped fiber amp. long-haul undersea syst. monitoring 17239
- Er-doped fiber amp. polariz.-scrambled fiber-loop config., gain-peak-wavelength meas. 14359
- Er-doped fiber amp. test syst. 31211
- Er-doped fiber amplifer chromatic dispersion eval. 34060
- Er-doped fiber amplifer gain peak meas. by spectral loss test 14745
- Er-doped fiber amplifer noise meas. 7574
- Er-doped germanosilicate fibre laser fab. and opt. charactn. 14774
- Er^{3+}-doped silica-glass fiber parasitic upconversion mechanism anal. by 980 nm fluoresc. 39324
- F-doped silica fiber, radiation-resist. charact. 7294
- Ge-doped opt. fiber Bragg gratings, polariz. and temp. depend. of photosensitivity 7336
- H$_2$-doped germanosilicate opt. fibers, thermal and photo-initiated reacts. 7308
- Pr-doped opt. fiber amps. 7576
- SiO$_2$ opt. fiber, Vicker's indentation modeling 14358
- SiO$_2$ opt. fibers, photoluminesc., Raman scatt. 22813

optical fibre theory
- 1.55 μm single-polariz. hollow pit opt. fiber, zero total dispersion 7283
- abruptly-terminated opt. fiber diffr. anal. by method of lines 22850
- all-opt. switching by spatial vector soliton collisions 3296
- α-profile multimode opt. fiber channel, lin. systs. approach 9438
- anisotropic waveguides, full-vectorial beam propag. method 7284
- asynchronous opt. chip interconnects with direct detect., crosstalk anal. 9440
- bandwidth-limited soliton propag. in opt. fibers, higher-order effects 23363
- bent step-index single-mode fiber half-couplers, overlayer deposited, slab model 14379
- birefr. fibres, solitons 7297
- birefr. opt. fibers, ellipt. polarised solitons 2124
- birefr. opt. fibers, polariz. mode dispersion 22816
- birefr. opt. fibres, bright N-soliton trains propag. 39361
- cascaded Kerr birefr. fiber PM simul. 7806
- Cherenkov type radiation emitted by opt. fiber solitons 31622
- chirofibre, EM wave propag., modal charact. 30859
- chromatic dispersion of opt. guiding struct. 7305
- circ. N-layer lightguide, guided modes, dispersion eqn. 2287
- collinear 3$\times$3 WDM fiber coupler ring resonator anal. 1695
- complex multiple refl. calc. *(Japanese)* 39351
- corrugated fiber waveguide coupling coeff. 22854
- coupled opt. fibre cores, bundles, single-moded 14348
- cylindrical-core hollow fibre, atom guidance, opt. pot. 30863
- dark opt. solitons, Lagrangian approach 23355
- dark soliton interact., periodic wave 40072
- dark soliton-like pulses, quasi-continuous train generation 2126
- direct-detect. transm. systs., opt. amp. posn. depend. 9581
- dispersion mismatched nonlin. fibre coupler logic operations 30916
- dispersion-shifted fibers, four-wave mixing efficiency longit. distrib. meas. 15026
- doped glass fibers, SHG, directional photoionization model 15042
- double-coated opt. fibers, hydrostatic press.-induced stresses 22827
- doubly clad opt. fiber filled with chiral materials, modal cutoff 7290
- EDFA, act. fibre sect. light intens. calcs. 14768
- ellipt. core cross-sect. opt. fiber, first higher-order modes 22849
- ellipt.-core fibre, lin. polarised mode anal. 1686
- elliptically cored opt. fibre, LP$_{11}$ modes comp. 7344
- fiber cabling, SBS suppression *(Japanese)* 22801
- fiber soliton propag. by phase-sensitive amplif., quantum noise reduction 34025
- fibre couplers with saturable nonlin., stationary soliton states 30907
- fibre SBS suppression by mid span spectral inversion 34085
- fused biconic fibre coupler back-reflexion 30911
- fused taper fibre coupler, control beam sig. switching 2054
- geom. estim., LMS/least sq. regression comparison 14364
- GRIN fibre syst., third-order aberrations, recursive formulations 30900
- H field vectorial Galerkin method 39358
- HE$_{11}$ mode beam, nonlin. propag. in opt. fiber, distorted parab. refr. index profile 39348
- highly-birefr. fibers, hollow layer outside ellipt. core 30851
- IM/DD fiber transm. syst. dispersion-limit formula 9575

optical fibre theory continued
- IM/DD TDM high bit rate opt. systs., modelling and anal. 34067
- image fiber, transm. image, crosstalk 7333
- in-line fiber amp. systs., noise evol., nonlin. refr. index 14751
- isotropic fibers, rot. vector solitary waves 23437
- joint finite-difference/FFT full vectorial beam propag. scheme anal. 40441
- lin. chirped fiber Bragg grating for fibre link dispersion compensation 42444
- loop polarizers using fused taper coupler, birefr. 30904
- microbend sens. perform., finite element/beam propag. methods 17858
- modal effects in opt. fibre connections 14385
- modal noise suppression in white light interferometer 17913
- multi-amp. syst. fiber four-wave mixing, nonuniform chromatic dispersion 17333
- multicarrier fiber optics, cross-modulation/IMD 30883
- multimode GRIN fibers, mode-noise anal. 39357
- multiple-core fibre, light focusing, variational scalar-field treatment 30880
- n-core nonlin. fiber arrays, stationary pulse propag. 30877
- nonadiabatic Berry's phase for light propag. in opt. fiber 14410
- nonlin. directional couplers, opt. soliton switching *(Japanese)* 30902
- nonlin. fiber directional couplers, pulse switching 40058
- nonlin. fiber resonators driven by arbitrary coherence laser sources, opt. bistability 23372
- nonlin. fibre couplers, radiation effets on soliton dyn. 31626
- nonlin. fibre/waveguide array, soliton-based opt. switching 31630
- nonlin. opt. channel waveguides, scalar FEA, isoparametric elements *(Japanese)* 22900
- nonlin. Schrodinger eqn. soln. by coupled amplit.-phase formulation 23373
- normal dispersion regime, spatio-temporal coupling, NLSE approx. 22807
- normally dispersive fibers, single-mode laser pulses propag. 1696
- one-mode fiber-optic waveguide, obs. of ps opt. pulses, guiding-center soliton 14361
- periodically amplified syst. dark soliton sideband form. and stabil. 23360
- periodically modulated core diam., multi-soliton fission 31533
- phase-locked phase-sensitive opt. parametric amp. soliton fibre pulse propag. 40082
- polaris. domain solitons 31624
- polaris. depend. opt. fibre loss stats. 30848
- polariz. mode dispersion compensation, Kerr effect 22820
- polariz.-maintaining opt. fiber, PANDA profile, polariz. crosstalk *(Japanese)* 30901
- preform deform. fabricated opt. fibers, birefr. anal. 22851
- propag. in opt. fibre, quantum noise 14408
- pulse collisions, polaris. conversion 1670
- Raman noise, soliton squeezing 31504
- randomly varying birefr. opt. fiber solitons 30906
- rare earth-doped fiber clusters charactn. by transm. meas. 22848
- Rayleigh-Sommerfield integral eqns. in wave propag. 14398
- SHG, third-order nonlin., nonlin. phase shifts 30864
- short pulse tomographic meas., generalized Radon transform 39373
- single mode, p-i-n diode coupling, field power 1665
- single mode birefr. fibers, different freq. opt. wave cross-PM 22804
- single-mode birefr. circ. polariz. maintaining opt. fiber coupler *(Chinese)* 14367
- single-mode dispersive fibre, opt. noise correl. fn. 30871
- single-mode fiber, polariz. effect on four-wave mixing efficiency, comment 30878
- single-mode fiber with two-photon absorpt. and bandwidth-limited opt. gain, solitary waves 31571
- single-mode fiber/LD coupling, misalignment model 30884
- single-mode fibers, phase conjug. by four-wave mixing 15024
- single-mode fibre, 3D finite difference beam propag. method *(Chinese)* 39394
- single-mode fibre, degree of polaris., single Mueller matrix 1687
- single-mode fibre, polaris. mode dispersion, pulse distortion meas. limitations 30862
- single-mode fibre coupler/filters, coupling suppression by periodic index modulation 30912
- single-mode opt. fibers, chromatic dispersion modeling 7282
- single-mode opt. fibers, supercompression of opt. radiation 1675
- single-mode triangular-index fiber with a depressed cladding ring, bending-loss studies 7321
- slowly decreasing dispersion opt. fibers, soliton-effect generation of Raman pulses *(Chinese)* 1667
- soliton propag., Fourier series anal. tech. 22815
- soliton propag., Fourier-series approach 39326
- soliton propag., quantum noise, phase-sensitive amplif. 1668
- soliton propag., up/down-sliding-freq. guiding filters 40077
- soliton pulse trains in fibers, discrete amps. 40037
- soliton self-freq. shift, mol. oscill. period 23356
- soliton transm. on opt. fibres *(English, French)* 42342
- soliton transm. syst., non-Gaussian corrections 23443
- soliton transm./storage rings, stabil., timing maint. 14347
- solitons in birefr. fibres, polaris. instabil. threshold 14365
- spectral filtering, nonlin. gain, soliton sing. 40090
- sq./rect. core fibre scalar anal. by Fourier decomp. method 39325
- step index silica opt. fibers, bending effects on transm. props. *(Chinese)* 14368
- step twin core fibre, scalar modes down, cutoff 39327
- step-index bent single-mode fiber matching by modal equiv. slab waveguide struct. 7306
- step-index opt. fibers, gap coupling efficiency *(Japanese)* 7329
- symmetric 2$\times$2 fused-fiber coupler modeling 22823
- tapered fibre nonlin. Kerr self-PM effects anal. 30885
- tapered fibres, field power distrib. for optimal coupling 39368
- telecomms. opt. fibre ps soliton propag. 14388
- third-order dispersion effects on squeezed soliton propag. 22809
- twin core nonlin. fiber couplers, soliton-effect pulse compression 30917
- twin-core fiber long-dist. soliton transm. 23362
- two-mode fibre Michelson interferometer config., low-coherence excitation 3850
- weakly fused fiber-optic couplers, rigorous anal. of form birefr. 39372
- Er doped nonlin. fibre, opt. soliton propag. 40119

optical fibres
- *see also optical cables; optical fibre cladding; optical fibre couplers; optical fibre dispersion; optical fibre fabrication; optical fibre filters; optical fibre losses; optical fibre polarisation; optical fibre testing; optical fibre theory*
- 2D fiber optic bundle image associative memory sync. problem 1656
- 10 Gbit/s transm. expt., direct modulation, 8:1 TDM setup 42454

optical fibres continued
16 THz beat freqs. generated via modulation instabil. in birefr. fibres 30881
acoustic modes excitation in opt. fibers, horns operation 14396
acousto-optic freq. shifter, null coupler based 14554
act. mode locked LD, soliton-forming pulses in fibre 7789
adsorpt. effects on modal propag. const., interferometer appls. 22836
Alcatel 1610 opt. amp. family 25501
all fibre ring resonator, time depend. response 1689
all-fiber interferometer, polariz.-mode-dispersion meas. 7340
all-opt. elemental-proc. lattice units 22978
at. waveguide, evanescent waves near opt. fibers 14366
ATM cell contention resoln. by multiwavelength fiber loop memory *(English, Italian)* 33989
ATM switching archits. 33730
axial strain-induced stresses in double-coated opt. fibers 1697
bandwidth-limited amplified soliton transm., stabil. anal. 23374
beam scanning charact. of opt. controlled array antenna *(Japanese)* 40515
biomedical fiber optic instrumentation, conf., Los Angeles, CA, USA (1994) 5465
biotissue, laser ablation under water, channel form. dyn. 10260
birefr., beat length, wavelength, temp. 1693
birefr. fibres, bound multiple soliton interacts. 22856
birefr. nonlin. opt. fibres, phase-locked stationary soliton states 31557
bladder carcinoma, human, cystoscopic photodetection without sensitizing agents 43213
BPSK homodyne detect. expt. with solitary DFB LD, 10 Gbit/s 17329
Bragg gratings, pulse self-switching 22819
Bragg gratings in fibres, charactn., heat-scan tech. 39370
Bragg opt. fibre gratings, temp.-compensating mounts 34097
cabled, fibre strain meas. 1661
China's economic develop., fiber optic networks 3044
chirped fibre Bragg grating dispersion compensator, directly modulated laser appl. 25521
coherent opt. controlled phased array antenna syst. 7324
coherent RF sig. combining in phased array, photonic techs. 9539
colliding-pulse-modelocked quantum well laser, 15.8 Gbit/s syst. transm. expt. 25502
colloquium, optical solitons, London, UK (Nov. 1994) 62
conference, optical fibre gratings and appls., London, UK (1995) 20234
conference, optical fibre sensing/systems, Mol, Belgium (Oct. 1994) 20240
connectors/splices, reliab. 1691
coupled opt. fibre cores, bundles, single-moded 14348
couplers, reliab. assurance 3539
cryo-electronics opt. readout. LD appl. 29132
cryst.-cored fiber second-harmonic wave focusing optics 1778
DBR LD with fibre external cavity, linewidth narrowing 39762
device design for laser pumping, LD bar array 39323
DFB semicond. laser, 1.55 μm, 185 fs pedestal-free pulse gen. 23186
DMNP cryst. cored fiber freq. doubler for blue light generation *(Japanese)* 2060
dual-coated opt. fiber specimens, interfacial shearing stress, double lap shear joint 14384
dual-coated opt. fibre, interfacial shearing stress anal. 30896
dual-core fibres, soliton interacts. 14387
EDFA modelling, num. methods efficiency 14768
embedded opt. fibre data bus, inpact survivability 3864
EMI field emitted from telecomms. line, estim. 40373
endoscopy, flexible regular fiber elements 26304
Fabry-Perot laser/fibre grating, pulse compression/mode selection 23225
faceplate, colour image storage 30872
fast distributed network restoration algm. 3548
FEL med. appls., fiber optics 35152
fiber Bragg reflectors with KrF excimer laser pulse, cladding surface struct. 1685
fiber cabling, SBS suppression *(Japanese)* 22801
fiber optic data links for satellite data mgt., particle-induced bit errors 17262
fiber optic time-delay element for phased-array antennas 7323
fibre arrays, solitons, pulse dyn. 22833
finite-length jn., opt. soliton tunnelling 7328
flexible archits., key, low cost FBL 10388
four-wave mixing, polariz.-insensitive wavelength conversion 15075
four-wave mixing, tunable/selective wavelength conversion 15025
free-space opt. computing module config., guide-frame assembly method 39514
free-space WDM interconnections based opt. switching nets 33726
fused biconic coupler reliab., temp. effects 1664
fused biconical taper WDM, radiation effects 17261
germanosilicate fiber Bragg gratings, γ-ray exposure written, low dose rate 7286
germanosilicate glass opt. fiber, photoinduced birefr. rot. 30891
glass fibres, doped, self-saturation, self-organised SHG 22862
glass opt. fibers, photoinduced SHG 31518
Gordon-Haus effect reduction on dark solitons of nonlin. gain 30876
gratings, picosecond pulse refl. 22860
GRIN rod lens focusing-collimating optics in Nd:YAG laser delivery syst. 1777
hadron calorimeter, reradiating fibers 34908
high-fiber-count cable, U-groove torsional rigidity 9593
hybrid laser, high-power, narrow-linewidth, stable single-mode 7674
hybrid multichannel AM/16QAM video lightwave syst., digital channel degrad. 17210
IEEE conf. on instrumentation/meas., USA (1993) 20198
in-fiber freq. shifter, end-coupled mode filters 14389
in-fibre/fibre-compatible acousto-optic components 14553
in-line mode splitter, dual polarimeter in fibre 14374
indust. cutting, YAG laser power transm., opt. fiber *(Japanese)* 124
integrated environ. for fibre optic cable design 17355
interconnection of fiber optic module, parallel data bus 42474
intrinsic thermocouple monitor for laser wirebonding 29710
laser angioplasty advantages, laser source choice 43340
laser binary FSK communication, integrated heterodyne receiver/spatial tracker 17296
laser commun., opt. commun. demonstrator 17289
laser surgery, fiber optics for power delivery 35151
laser techs., med. appls. *(Japanese)* 4269
LEOS, San Jose, CA, USA (1993) 20270
LF fiber-optic phase modulators 14363
liq.-cryst. fibers, nonlin. opt. propag. and self-limiting effect 7276
long-span 2.5-Gbit/s CPFSK coherent opt. transm., power EDFA boosters 34000

optical fibres continued
Lyot single-mode highly birefr. opt.-fibre depolarizers 1682
mach. wear particle anal. by fiber-optic confocal laser scanning microscopy 31695
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
mech. design of Optical Communications Demonstrator telescope assembly 17324
micro-optics focusing LD material-proc. syst. design 5609
microbending effects in single-mode opt. fibres 14395
microlens integrated coupling device for LD/opt. fiber 22911
microparticle nonlin. microwave optics 22780
mid-IR fiber ring SBS devices and appls. 30894
mixed photonic/electronic cct. simul. 37603
MQW DFB laser with 25 GHz modulation bandwidth, packaged, 1.55 μm 3584
multichannel fiber-optic optoelectronic correlator 24427
multimode fiber optic syst. design 3580
multimode fiber-optic bundle emitted speckle-fields *(Chinese)* 1666
multimode fibres, partial phase conjug., image restoration fidelity 24423
multiple FM-video sig. transm., opt. fiber in security 9529
multiple interferometrical config. *(Spanish)* 7289
near-IR large-core high-bandwidth GRIN polymer opt. fiber multimedia network 42389
neutron focusing optic for submillimeter materials anal. 5933
N-(4-nitrophenyl)-N-methylaminoacetonitrile, cryst. and fibres, SHG 15092
non-lin. refr. index meas., fibre Sagnac interferometer *(English, Italian)* 34713
nonlin. coupled fibres, light propag., contrast enhancement 7288
nonlin. fiber resonators, differential amplif., opt. bistability 2115
nonlin. fiber resonators driven by arbitrary coherence laser sources, opt. bistability 23372
nonlin. guided modes, reson. tech. 22830
nonlin.-opt. loop mirror/fibre Bragg grating, bandpass switching 31499
nuc. facilities, radiation hardness 22838
nuc. phys. expts., opt. fiber links 22843
nuc. power indust., response, ionizing radiation 22839
occlusion-free monocular computer vision syst. 2719
OFC, San Jose, CA, USA (Feb. 1994) 5447
opt. attenuator, liq. cryst. film 7412
opt. interconnection for mil. hostile environ. 43568
Optical Communication Demonstrator, laser transmitter assembly 17303
optoelectronic material appl. in Japan, review 7453
optoelectronic science/engineering, conf., China (1994) 28207
organic nonlin. materials, efficient ultrafast opt. Kerr shutters 2056
pass. fibre optic components, Bellcore generic requirements 1663
pass. opt. cpds., adhesives reliab. 1692
phased array antenna, opt. control 15668
phased array antenna, opt. controlled multiple beam forming/steering 8078
photoelastic phase difference, ray deviation angles 14362
photorefr. fiber array for holographic memory 30828
photosensitive grating struct. opt. waveguide photoimprinting 30949
photosensitive opt. fibers, devices and appls. in sens. and telecomm. 30854
pigtailing and connectorization techs. for optoelectronics 39610
prototype opt. deflection network, design and implement. 3300
pulse timing detector, filter optim., opt. fibre commun. *(Japanese)* 34001
pulsed TOF laser rangefinder appl. 22853
radiation resist., F-doped silica cladding 22841
rare earth doped fibres, metallic coated, fluoresc. decay-time vars. 39359
reflective fiber-optic mode converter, nonlin. perform. 22800
reliab. modeling for multiple stress-time histories 39328
rem. visual inspection equipt. for QC 37170
ring, long-term storage, soliton bit stream, phase-sensitive amplif. 22786
Sagnac/Mach-Zehnder fiber-optic interferometer thermal procs. comparisons 42835
SBS suppression in fibre by changing core rad. 39371
scalable opt. hypercube-based interconnection network for massively parallel computing 7430
scintillating fiber-optic neutron detector, intensified CCD camera 4159
scintillation counters, opt. pipeline read-out 26179
self focusing opt. fibre, coupling efficiency, tolerance 1694
self-Raman effect, soliton squeezing, self-consistent quantum theory 14407
semicond. lasers, soliton generation, opt. switching appls. 7651
semicond. lasers in opt. broadband commun. *(German)* 7644
Shashlyk EM calorimeter, gamma-irrad. of cast scintillators 34909
single event effect ground test results, fiber optic data interconnect 18708
single mode, p-i-n diode coupling, field power 1665
single mode fibre polariz. modulators 14373
single mode opt. fiber laser light coupling *(Japanese)* 1669
single mode opt. fibre phase noise cancellation 1672
single-mode opt. fiber attenuator, intercomparison of atten. 14369
SiO_2 fused fibre, pulsed UV laser radiation, photodegradation and nonlin. effects 39362
small opt. user terminal, flight config. 17292
smooth transm. spectrum fibre optic switch 7330
solid-state tapered opt. fibre devices 30850
soliton generation, 1.06 μm 30860
soliton transm. 90 km, distrib. Er-doped fibres 25476
soliton transm. control, ultra high speed syst. 34017
soliton transm./storage rings, stabil., timing maint. 14347
SONET interconnection, opt. drop interface 25492
step index opt. fibre 3D ray trajectory heuristic computation 30895
stimulated-Raman gain, threshold growth rate 14371
stored program opt. computer, develop. 7432
struct. wiring, opt. fibres 42370
submarine fibre-optic syst. technol., review and future prospects 3574
subpicosecond soliton-like pulse propag. 22861
surface-emitting vert.-cavity QW laser, time-depend. num. simul. 1972
SWFM sig. opt. fiber transm. of addressed audio and video sigs. 9528
sync. driven fiber optic resonator near zero dispersion, chaos 30852
Taiwan, opt. network constr. 3573
thin coated fiber microbending charact. and mech. strength 7341
tightly jacketed double-coated opt. fibers at low temp., thermal stresses 14377
time-reversal for polariz. state 14392
TOPs opt. pattern recogn. program 18987
transform-limited opt. pulse generation, 10 GHz 39493
transm. lines, external subcarrier modulation integrated-opt. components *(Russian)* 17353
transm. systs., aerial plant, self-healing failures 3581
true-time delay fibre optic steering syst. for phased array antenna 23994

optical fibres continued
twin-core doped opt. fiber, sub-Poissonian/super-Poissonian photon stats. 14401
twin-core opt. fibres, UV tuning of coupling 7280
ultra-high capacity telecomm. *(Japanese)* 3545
urologic appls. of laser technol. 43332
UV cured coatings, reliab. 1660
UV written refl. grating structs. in photosensit. opt. fibres 1679
Visible Light Photon Counter, weak scintillations 4158
voxel based spatial display 34631
waveguide optics, synthesis of matrix converters 14560
wavelength conversions, two silica fibre loss windows 7741
WDM channel NRZ, RZ format conversion, single semicond. laser amp. 25503
WDM LB deposited film in-line fiber-optic components 17187
Westinghouse hardware-compressive true time delay fiber optic syst. 7325
wideband photonic array antenna, syst. design and perform. 7326
YAG laser high power proc. appls. in heavy industries *(Japanese)* 20418
As_2S_3-based fibre, laser driven ultrafast all-opt. switch 22822
$Bi_{12}TiO_{20}$ photorefr. fibre, phase conjug. mirrors 30819
Er doped fiber ring laser, mode stabil. 15002
Er doped fibre amp., grating pump reflectors, gain 14749
Er^{3+},Yb^{3+}-doped fibers, anom. dispersion study 22852
Er^{3+} doped fluoride fibre, photon avalanche up-conversion 22817
Er:YAG laser clinical niches, fiberoptic delivery systs. 35150
Er^{3+}:GeO_2-Al_2O_3-SiO_2 opt. fibres, two photon reson. SHG 2070
Er-doped bridge-type bidirectional fiber amp., 622 Mbit/s operation *(Japanese)* 25486
Er-doped silica opt. fibre switching by ultra-fast nonlin. refr. index dyn. 30915
Er^{3+}-doped phosphate fibers, Nd:YAG laser pulses upconversion 31528
GaInAsP/InP VCSEL array for 1.3 μm range parallel opt. fiber transms. 23300
$Ga_{0.51}In_{0.49}P$/GaAs PV converter, opt. power/data transm. 27943
Ge doped opt. fibers, UV-induced transient photodarkening/photolum. 7339
GeO_2-SiO_2 opt. fibre preforms, X-ray photoelectron imaging 30886
GeO_2-SiO_2 opt. fibres, lin. electro-optic effect meas. 7278
$Hg_{0.3}Cd_{0.7}Te$:B photodetectors, LPE/ion implant., fibre optic appl. 3830
Ho:fluoride glass fiber, superfluorescent mid-IR source 30846
InGaAs MSM photodiode/AlGaAs-GaAs HEMT OEIC receiver, 1.3 μm 17235
InGaAs/InP photodiode-opt. fiber array module using Si v-groove, photonic syst. appls. *(Korean)* 34013
$LiNbO_3$ electro-opt. digital intens. modulation, chromatic dispersion tolerance 17234
Nd:YAG second harmonic laser beam light sheet shaping on fibre transm. *(Chinese)* 15015
Nd:YLF, additive-pulse mode-locked laser, diode pumped, pulse compression 31298
Nd^{3+}:ZBLAN fibre, short pulse propag./ampl. 14739
P_2O_5-SiO_2:Er^{3+},Yb^{3+} opt. fibres, transient gratings 30899
Pr^{3+}-doped fluoride fiber amps., pump config. *(English)* 23127
Si micromachined actuator, fiber-optic roller bearings 30491
Si micromachined module platform for multiple opt. fibre I/O 23066
SiO_2 fiber coatings, fatigue behavior 14355
SiO_2 opt. fiber, Vicker's indentation modeling 14358
SiO_2 opt. fiber, mech. reliab. assess. 14357
SiO_2 opt. fibres, C coating, plasma CVD 22828
SiO_2 opt. fibres, multiwavelength SRS, picosecond pulses 7301
SiO_2 opt. fibres, organically modified silicate coatings 1662
SiO_2 pure silica fibres, radiation colour centres 22844
SiO_2 single-mode fiber, near-IR continuum generation, vis. 15044
SiO_2 thermally poled opt. fibres, Pockels effect 14376
SiO_2-GeO_2 fibre, electro-optic modulation, UV-excited poling 30898
SiO_2-GeO_2 fibres, Bragg grating, UV writing, spectra 15038
SiO_2-GeO_2 preforms and fibres, UV photosensitivity 39334
SiO_2-based single-mode fibre, pumped, stimulated four-photon mixing 39347
SiO2, multimode fibre, SBS phase conjug., distortions compensation 1671
Tb^{3+}-doped silica fibres, laser-induced photochromic effect 1676
Yb^{3+}-doped fibers, anom. dispersion study 22852

optical filing *see document image processing*

optical films
see also antireflection coatings; optical fibre cladding; solar control films
3D HOE, holographic recording 2152
3D LCD on VLSI die, electrostatic anal. 42875
9BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 31489
aberchrome doped polymer photochromic film, nonlin. opt. gratings 39471
all-opt. fiber ATM/SONET WDM network 9511
amorph. superlattice films, quadratic opt. nonlin. 7787
antirefl. coatings, ion implant. effects *(German)* 7446
antiresonant reflecting opt. waveguide polariz. splitter 22898
antiresonant reflecting opt. waveguides, rigorous design method 15583
antiresonant waveguide add/drop filter, Fabry-Perot interf. filtering 17266
azo dye doped EO-PVA film, opt. storage character *(Chinese)* 14335
azo-benzene doped PMMA polymer film, holographic recording and light amplif. 31686
bacteriorhodopsin dyn. recording material, polariz. props. of four-wave interact. 2088
bacteriorhodopsin film based motion-sensitive posn. sens. 10012
bacteriorhodopsin thin film interconnections, dyn. contrast reversal, self-PM 1783
bacteriorhodopsin thin film photoanisotropic incoherent-to-coherent image converter 22990
bacteriorhodopsin thin film real-time reson. holography 40157
bichromic holographic media vol. diffr. grating two-beam amplif. 7813
Cantor fractal nonlin. multilayers, EM refl. and transmisson 2061
chiral SLC-on-Si SLM, HV circuitry 22961
coated tapered opt. fibre sens. 9925
conf., thin film physics/appl., Shanghai, China (1994) 28235
conference, laser damage in optical materials, Boulder, CO, USA (1993) 11528
conference, optical interf. coatings, Grenoble, France (1994) 11556
diamond-like C coating for opt. windows, CVD deposited 1780
diamondlike film IR antirefl. coating for cooled elements 39532
dielec. laser mirrors, refl. opt. harmonics 7712
DuPont photopolymer film hologram recording dyn. 23471
dye doped film phase-matched grating generated by enhanced forward DFWM 15077

optical films continued
dye-doped biomol. thermally-activated thin film opt. switch 39535
dye-doped polymer waveguides, opt. losses/photocond. sensitivity 30961
dye-doped sol-gel coated fibre optic LED based O_2 sens. 9926
electro-optic polymer light modulator, surface plasmon reson. based 22943
endless fiber-optic polariz. controller, low driving voltage and 30-dB extinction ratio 9566
erythrosin-B-doped polymer films, phase-conjug. wave generation, phase change 23393
excimer laser ablation apparatus opt. syst. *(Japanese)* 23480
fibre reflectometry wideband beam-splitter mirror 3868
fibre-optic reflectometer with thin film a-Si interfaces, temp. meas. 34555
heteroaromatic chromophores in high temp. polymers interferometric films 1736
inhomog. media phase conjug., holography, and imaging 31575
IR coating bidirectional reflectance distrib. fn. ref. stds. 9777
IR-sensitive film-struct., opt. diagnostics 14569
isotropic liq. cryst. film, IR all-opt. switching 31011
Kodak KAF 4200 CCD chip, Lumigen coating 34596
large holographic opt. element writing by adaptive opt. syst. 7822
laser cryst. growth techs. 12132
laser mirror group-delay meas. by spectrally resolved white-light interferometry 39996
laser-induced holographic surface relief gratings on nonlin. opt. polymer films 31640
lateral-alignment-free opt. neural network, pattern assoc. 16141
light control glass, liq. crysts. 22949
lightly shaded opt. syst. port, photom. charact. 7455
lossless multilayer dielec. waveguide radiation modes 23797
metal-dielec. heat-reflective filters design 39533
metallophthalocyanine thin films for nonlin. optics 2101
micro-encoder chip, integrated opt. component fab. 30979
microlens, holographic, shape fn. investig. by image proc. 2153
multilayer coated reflective optics, EUV lithog. 38721
multilayer grating assisted directional coupler waveguides, normalized radiation modes 14448
multilayer LB film opt. switching parallel proc. 7427
multilayer planar opt. waveguide with buffer layers, guided modes 7343
multilayer planar opt. waveguiding struct., eigenvalue eqns. 14449
multilayer second order nonlin. media, generated femtosecond pulse phase distortions 31615
multilayer slab waveguide nonlin. modal fields by finite difference beam propag. method 40433
multilayer-coated diffr. gratings, differential method 1702
multilayer-coated optics, guided-wave coupling and scatt. by interface random roughness 39391
multilayered planar waveguide anal. by exact and variational FT methods 31899
NLC film, cross polarised self starting phase conjug. 23415
NLC layer electrooptic modulators, dyn. modelling 1744
organic macrocycles, third-order opt. nonlin. 23422
organic semiconds., cryst., OEICs, photonic devices 39616
organic/polymer system nonlinear props., conf., Pennsylvania Univ., USA, April 1991 28
oxide film deposition, rapid isothermal proc.-MOCVD 20846
periodic nonlin. multilayers, intens.-induced stopband bending 2116
periodically stratified media light, Bloch eigenvalue eqn. 2196
phase-change opt. disc, optimum opt. multilayer coupling *(Chinese)* 39315
photonic LSI interconnections/appls. 1833
phthalocyaninato-oxytitanium (IV) highly ordered thin film, third-harmonic generation 23388
phthalocyanine cpd. film, opt. recording 30824
physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
planar coupled magnetooptic waveguide, mode conversion 39415
PMMA films with dye mols., 2D opt. nonlin. 15093
PMMA polymeric film electro-optic phase modulator 14534
poled polymer films, freq. conversion and relax. phenom. 2091
poling-induced opt. loss in nonlin. opt. polymeric waveguide 30937
poly(2,5-thienylene vinylene) film, reson. opt. Kerr effect 15085
poly(3-hexylthiophene)-poly(N-vinylcarbazole), blend films, electrolum. 31073
poly(p-phenylenevinylene) LED, transient electrolumin. 14634
polyaniline, ellipsometric sens., spectral response 3819
polydiacetylene films, synthesis and third order nonlin. opt. props. 40117
polydiacetylene synthesis, nonlin. optics appls. 7778
polyguides for opt. interconnect appls. 7493
polyimide-based guest-host systs., nonlin. optics, photonic devices 31585
polymer dispersed liq. cryst. layer pattern form. 39500
polymer film electro-optic modulators/waveguides 39489
polymer films for second order nonlin. optics *(French)* 2085
polymer thin film waveguide devices, freq. doubling 2093
polymer-dispersed CLC films, opt. memory 39308
polymeric LB and spin-coated films, light atten. 14318
polymeric optochips, splitters, switches and modulators 14502
polymeric thin-film waveguide coupling, single-mode fiber 22872
polythiophene film waveguide third-order opt. nonlin. 2100
PPV composite film elastic moduli meas. by ps transient grating study 23392
projection displays, metallized viscoelastic control layers 25923
PVDF/PMMA blend polymers, opt. SHG *(Japanese)* 7747
random amorph. semicond. multilayers, opt. props. 1115
rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
refl. mode magneto optic SLM develop. for miniature correlators 31014
repeat-rate-laser induced damage, opt. coatings, accumulation effect *(Chinese)* 14572
RF sputtered glass films, elec. induced second-order opt. nonlin. 23389
rhodamine B-doped glass planar waveguide, light amplif. 30933
robust multilayer mirrors, X-ray laser cavity optics 7715
self-holding photochromic polymer Mach-Zehnder opt. switch 14556
shaped quantum well opt. modulation, enhanced electrorefractive effects 39492
SILVERIGHT downlight for lighting fixture *(Japanese)* 11462
smart-pixel liq. cryst.-on-Si SLM for optoelectronic neural network 22960
sol-gel derived interf. filters, porosity/comp. effects 22987
solar cells, phosphate glass based protective coating 36596
Teflon film high-speed through-hole drilling, vis. laser *(Japanese)* 20420
thin film optimized nonlin. polymer struct., ultrashort pulse SHG 7783
thin film photocond.-electroluminescent ccts., opt. sig. delays 39603
thin layer double phase conjug., coherentization condition 7784
thin-film narrow-bandpass filters prod. by ion-assisted deposition, temp. stabil. 22988

optical films continued
- thiophene oligomer thin film SLM *(French)* 2086
- three-layer waveguides, thin film influence on guiding props. 39434
- travelling wave semicond. laser end facet output spectra 31398
- two-level center thin film with a wide-aperture opt. feedback, spontaneous patterns form. 31566
- untanned DCG layers, narrow-band holographic mirrors 7821
- UV laser cavity optics under ionizing radiation, radiation resist. 7709
- waveguide-grating filters, plane wave and Gaussian beam illum. 30950
- Weigert hologram, Jones matrix 31660
- $AgInTe_2$-Sb-Te amorph. phase-change opt. recording films 30826
- AlGaAs-GaAs thin film p-i-n photonic device integrat., micromachined movable platforms 39600
- AlGaInAs vis. diode laser with phase-conjug. feedback, stable mode locking 39833
- Ar air-cooled 75 mW laser develop. *(Japanese)* 7511
- Ar+water-cooled low-cost ion laser *(Japanese)* 7512
- Ba-Y-Yb-F:Tm^{3+} glass thin film upconverting waveguides for vis. and UV light sources 30936
- $Ba_2NaNb_5O_{15}$ opt. waveguide film, epitaxial growth by pulsed laser deposition 1715
- $Ba_2NaNb_5O_{15}$ opt. waveguiding films, excimer laser ablation prep. 12168
- $Ba_2NaNb_5O_{15}$, pulsed laser deposition epitaxial growth, waveguide props. 20905
- $Ba_2NaNb_5O_{15}$, waveguiding epitaxial films, pulsed laser deposition 20806
- $Ba_2NaNb_5O_{15}/KTiOPO_4$ film waveguides, noncritical phase-matching 39384
- C films, plasma deposited, ellipsometric params., sample temp. 34715
- C_{60} LB films, degenerate multiwave mixing and opt. storage effects 15086
- CO_2 CW laser diffr. couplers, oscill. charact. of cavities 7523
- CO_2 laser, solar pumped, opt. selectivity, efficiency 7530
- $CaWO_4$ film, room-temp. electrochem. prep., photoluminesc. props. 28794
- CdMnTe magnetic field sensor, fibre optic laser deposited 25858
- CdS thin film p-type/n-type light emitting/LD 14978
- CoPt multilayers SW magneto-opt. recording films 30741
- Cu phthalocyanine write-once read-many recording medium 14332
- Cu vap. laser window contamination *(Chinese)* 14694
- Fe garnet thick film Faraday effect sens., domain effects 25818
- GaAs, (211)B orientated, surface-emitting second-harmonic generator/autocorrelator 23361
- GaAs thin film, Franz-Keldysh effect, opt. modulation 39486
- GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
- Ga_2O_3 films, electronic/optoelectronic appls. 22640
- Ge thin films, opt. props., thickness depend. *(Japanese)* 39303
- GeO_2-SiO_2 glass, thin films, planar waveguide appls. 7350
- $(GeTe)_{85}Sn_{15}$ chalcogenide thin films, laser ablation, atmos. comp. and press. effects, opt. storage appl. 30834
- HfO_2-SiO_2 opt. coating defect reduction for increased laser damage thresholds 14571
- ITO windows, polypyrrole-latex coatings, electrochem./spectroelectrochemical studies 39482
- InGaAs high power quantum well diode laser, MOVPE fab. *(Korean)* 39803
- InGaAs-GaAs folded/VCSEL 31391
- InGaAs-InAlAs QW electroabsorption waveguide modulators 39488
- InGaAsP/InP 1.3 μm compressive-strained-MQW lasers, low threshold 1987
- InGaAsP/InP lasers, wafer scale proc. 23226
- InGaP/GaAs multilayer reflector, MOCVD grown, VCSEL appl. 39865
- InP:Fe/InGaAs:Fe fully passivated AR coated MSM photodetectors 9907
- InP-In_2S_3, ellipsometric investig. of transit. layer heterostruct. 22774
- InSnO thin films, RF magnetron sputtered, fab./charact. 14317
- $KNbO_3$ thin film act. opt. waveguide devices, fab. 39464
- $KTiOPO_4$ films by pulsed excimer laser ablation for nonlin. opt. appl. 15149
- LiB_3O_5 doubly reson. opt. parametric oscillator cavity mirror crysts. 40091
- $LiNbO_3$ Fabry-Perot planar etalon filters 1781
- $LiNbO_3$ elec. controlled supergaussian mirrors 14482
- $LiNbO_3$ film on surface crystallized glass, second order opt. nonlin. 31488
- Mo/Si multilayer facilities, EUV lithog. 13508
- Mo-Si multilayer charactn. by high-resoln. TEM *(Chinese)* 1643
- Nd:YAG TEM_{00}-mode diode-laser-pumped CW miniature-slab laser 31300
- NiO electrochromic films, sputtering atm. H_2 content effects *(Japanese)* 37489
- PZT thin films prod. by pulsed excimer laser deposition *(Chinese)* 5839
- PbO films in acid soln., local photocurrent characts., opt. storage phenom. 39311
- $PbTiO_3$ epitaxial thin film waveguide, Blue light by SHG 15151
- Pd, micromirror opt.-fiber gas sens. 9960
- Si CMOS addressing matrices, light-valve projection displays 25928
- Si integrated optoelectronic VLSI commun. cct. 34033
- a-Si:H PECVD growth proc., optoelectronics appl. 395
- a-Si:H films, ESR determ. of opt./elect. props. 1644
- a-Si:H, microscopic struct. determ. of dangling bonds by pulsed ESR 1646
- Si/B_4C narrow-bandpass mirrors, EUV reflectance 1779
- SiC-SiN_x multilayer x-ray lithog. membranes by ECR CVD 6698
- $Si_{1-x}Ge_x$ epitaxial films, opt. SHG 40041
- a-SiGe:H/SnO_2 solar cell struct., interfacial reduction 38294
- SiH_4:H films prod., cryogenic temps. by plasma CVD 396
- SiO_2:WO_3 porous glass laser optics fab., CO_2-laser radiation effects 7710
- SiO-LiF:F_2 evanescent field thin-film opt. amp. 14775
- SiO_2-TiO_2-SiO_2-Si ARROW opt. waveguides, sol-gel multilayer struct. 14417
- $SrGa_2S_4$:Ce , blue electroluminescent thin films, MBE 37402
- $SrTiO_3$ thin films, r.f. sputtering proc., X-ray diffr./opt. charactn. 37499
- TiO_2, microporous electrode, PV study 28803
- TiO_2:Nb(Cr) thin films, RF reactive sputtered, optoelectronic/gas sens. appls. 39546
- TiO_2-MgF_2 composite multilayer films prepared by reactive ion-assisted coevaporation 1782
- TiO_2-SiO_2 sol-gel film opt.-chem. sens. 3812
- TiZrO antirefl. coatings, source comp. evol. effects 14570
- $YBa_2Cu_3O_7$ high Tc epitaxial thin films, opt. SHG detect. 7745
- Y_2O_3 IR antirefl. coating for cooled elements 39532
- Yb:YAG waveguide laser, epitaxially grown, diode pumped, high slope efficiency and low threshold 14833
- Zn resin film hole burning opt. storage *(Chinese)* 7272
- ZnO waveguiding piezoelec. films, microstructural and opt. charact. 39435
- ZrF_4-BaF_2:Er glass thin film opt. element 22877

optical filters
- *see also acousto-optical filters; electro-optical filters; interference filters; light absorption; optical films; optical isolators; optical waveguide filters; solar control films; spatial filters*
- 10 Gbit/s periodically amplified WDM soliton syst., filtering effects 17267
- all-opt. clock-recovery cct. using dual mode-locking, 5-Gbit/s 14879
- annular color filters, opt. syst. polychromatic response control 39541
- antenna phased arrays, time delay transmit/receive opt. beamforming syst. 8076
- ATM cell contention resoln. by multiwavelength fiber loop memory *(English, Italian)* 33989
- bacteriorhodopsin thin film interconnections, dyn. contrast reversal, self-PM 1783
- binary phase only filter, spatial coded, simulated annealing algm. *(Korean)* 31064
- BMDO/IST lasercom advanced technol. demons. status 17290
- bottleneck opt. limiters, excited-state absorbers 2047
- coherent laser radar, spectral matched filters 3621
- coherent opt. proc. for inverse filter generation 39511
- color and high resoln. head-mounted display 34639
- colour CCD image sens., moire effect surface shape meas. 10017
- conference, optical fibre gratings and appls., London, UK (1995) 20234
- DFB laser gain-switched pulse spectral quality improvement 7621
- DFB MQW lasers, gain-coupled, wavelength filtering 39864
- direct detect. opt. commun. syst. that operates in sunlight 17319
- dual-filter heterodyne FSK opt. syst., BER eval. 17251
- dye-mixture laser tunable in primary color regions by lin. variable filter 39685
- extending range of atten. meas. in opt. cables 30867
- FADOF filter for space borne opt. commun., Doppler shift compensation 17325
- fibre optic channel dropping filter, LB film 17910
- fibre soliton transm. control for ultra high speed syst. 34017
- filter based WDM, reliab., opt. fibre amp. appl. 3540
- freq.-guiding filter in opt. soliton transm., peak curvature meas. 9425
- FSA submarine opt. amp. transm. syst. *(Japanese)* 16992
- hemispherical concentrators/spectral filters, planar sens., diffuse radiation 17776
- high dyn. range fibre optic links, opt. carrier filtering 9435
- holographic Fabry-Perot filters, refl. and transm. props. 15162
- in-fiber freq. shifter, end-coupled mode filters 14389
- IT-CCD image sens. for HDTV, 1/4-inch 560 k pixel, high perform. CCD technol. 34260
- LEOS, San Jose, CA, USA (1993) 20270
- low coherence reflectometry, tunable narrowband light source, symm. crossing config. 18127
- multichannel WDM opt. filters, birefr. planar opt. platforms 42386
- multiple-phase-shift-controlled DFB wavelength tunable opt. filters 31062
- nonincremental interferometric fiber-optic simultaneous temp./strain detect. 25856
- nonlin. opt. loop mirror noise filtering 25526
- oblique illum. opt. lithog. using a transmittance-adjusted pupil filter, resoln. enhancement 38749
- opt. ATM components 33729
- optimal color filters for multi-illuminant color correction 39537
- packet LAN, collision-free reception 8964
- phase-modulated fiber laser, spectral stabil. and smoothness 25991
- polariz. shift keying, opt. digital transm., direct detect. 42344
- polyvinyl alcohol film, dye doped, novelty filtering, phase conjug. wave 31553
- pulse timing detector, filter optim., opt. fibre commun. *(Japanese)* 34001
- quantum limited OOK, opt. amplif., perform./cutoff rates 40546
- QW lasers/opt. amps., ultrafast gain dyn. 31339
- QW mid IR lasers, above barrier transits. 7612
- ring dye laser, intracavity freq. shift, self-pulsing and instabilities 39690
- selectogram surface 3D image reconstruction 2140
- semicond. laser amp. based switching struct., gain saturation effects on size limitations 23251
- single-prism transient filter, opt. whispering-gallery microresonators 14428
- solid-state lasers, liq. cooling agents and opt. filters 14825
- soliton fiber laser, filtering optimiz. 14736
- soliton propag., up/down-sliding-freq. guiding filters 40077
- soliton propag. in syst. with spectral filtering, lin./nonlin. gain 31562
- spectral filtering lidar light possessing non-Gaussian stats. 3616
- SSB opt. lithog., pupil filter in replicating isolated patterns 13557
- superresolution lithog., partially coherent imaging theory, isolated struct. 38772
- superresolution photolithography, phys. limits 6671
- switchable Polaroid holograms appl. 40131
- thin-film narrow-bandpass filters prod. by ion-assisted deposition, temp. stabil. 22988
- three-channel SW IR spectrum distinguishable detector array develop. *(Chinese)* 42806
- ultrahigh-efficiency, narrow-passband tunable opt. filter design 22983
- WDM high-speed wavelength tunable liq. cryst. filter 42387
- WDM unidirectional ring network, wavelength reuse scheme, fibre grating add/drop multiplexer 34054
- Yb:YAG diode-pumped thin disk laser continuously tunable, 1018/1053 nm 39742
- zero-dispersion dispersion-flattened nonlin. fibre loop mirror demultiplexing 3561
- CO_2 multimode laser with a saturable absorber, multistability 7518
- CO_2 waveguide laser arrays, side lobe suppression, phase filter design 31188
- CdS quantum dot/glass filters, sol-gel method 7445
- Ce-doped gel quartz glass for opt. filters 31061
- Cu vapour laser oscillator, adjoint-coupled self-filtering injection 39670
- Er-doped fiber amp. preamplified receiver perform. eval., ISI 25527
- GaAlAs LD, wavelength locked, bandpass filters, freq. doubling 31593
- GaAs/AlAs quantum heterostruct., local space charge field 30816
- GaAs/AlAs thin film opt. filters in Fabry-Perot cavity 31063
- GaInAsP-InP continuously tunable LD, mode hopping *(French)* 1924
- I_2 photodissociation laser, VUV radiation inversion accumulation 14720
- InGaAs thermophotovoltaic energy conversion 27994
- $LiNbO_3$:Fe cryst., real-time LF spatial filtering 7449
- Nd:YAG($YAlO_3$), efficient high-power laser operation 31264
- Si/B_4C narrow-bandpass mirrors, EUV reflectance 1779
- SiN_x filter effect on LED intens. temp. depend. 7479
- Ti:sapphire ring laser with four mirrors, CW freq. stabilisation *(Chinese)* 14801

optical flow *see image sequences*

optical focusing
see also optical self-focusing
3-param. affine approx. of focus and zoom vars. *(French)* 41349
3D HOE, holographic recording 2152
actuator/servo interact. in opt. recording 30840
axially asymmetric lenses, focusing props., Moire tech. 31056
bent gratings, focusing props., cylindrical wavefront generation 15170
binary phase zone plate designs, far-field distrib. calcs. 39531
CCD image sens. range cameras, focal error based 3872
CGH design for nonplanar focal curves reconstruction 15172
CO_2 laser, opt. distortion effects on focusing charact. *(Japanese)* 7515
confocal scanning fibre-optic interferometry 34557
cryst.-cored fiber second-harmonic wave focusing optics 1778
depth estim. from image defocus, fuzzy logic 2792
diffr. focusing elements, quasioptical/opt., appls. 39529
diffractive opt. elements for opt. computing 7434
dual focus opt. head, HOE for disk reading 30837
expts. on laser-plasma triggered lightning 23485
extended thermal lens resonator cavity fund. mode calc. 14995
FEL gain, alternating-gradient focusing, scaling fn. 14991
FEL intra-cavity light pulse, hole-coupling effect on transverse struct. 40017
FEL wiggler ubitron amp., design and perform. 39927
Fresnel lens written magneto opt. SLM 22963
Fresnel lenses written onto SLM, fractional pixel translations 22981
Fresnel waveguide lenses, multiple phase shift 39433
G-band FEL amp. for cyclotron reson. heating in mag. fusion reactors 39921
gas turbine particle charactn., optoelectronic imaging syst. *(French)* 42849
glass photoinduced SHG, time-depend. beam-propag. model 15115
GRIN rod lens focusing-collimating optics in Nd:YAG laser delivery syst. 1777
holographic disk scanner, rectilinear laser beam scanning 23453
holographic focusing lens design, FT systs. 15169
i-line lithog., pupil filtering and dipole illum. 13559
image transfer microlens array design and anal. 9980
incoherent-type pupil filter for opt. lithog. 13560
IR detector perform. enhancement, Fresnel zone plate lenses 17789
ISKRA X-ray laser beam line focusing of radiation 7503
laser beams, moment determ. by polynomial transmittance windows 40018
lithog., exposure-defocus forest 13546
mach. wear particle anal. by fiber-optic confocal laser scanning microscopy 31695
micro-Fresnel lens LD collimating light sources 7443
micro-optics focusing LD material-proc. syst. design 5609
microassembly, focused laser beam 30520
multimode VCSEL, noise perform. 1984
multiorder binary grating design, anal. init. approx. 2143
multiple-core fibre, light focusing, ground-based interferometry appls. 30861
multiple-core fibre, light focusing, variational scalar-field treatment 30880
multistage laser syst., effective aperture optimisation 31463
nonlin. media, bichromatic field interact., induced self- and cross-focusing study 40069
photonic ccts. written by dark spatial solitons in defocussing nonlin. materials 31617
planar-optic-disk pickup, diffractive micro-optics 7368
projection printing, defocus asymmetry 13500
second-order grating waveguide-to-fiber coupling 39404
shearing interferograms in diffusely scatt. fields 31675
shot leveling/focusing , interferometry for opt. lithog. 13561
single-mode antiresonant reflecting opt. waveguide diode lasers, above-threshold behavior 14908
SK5 glass, SHG phase meas. 31569
solid surface high speed cleaning by high-repetition rated TEA CO_2 laser pulses *(Japanese)* 7871
spike defects, imaging props. simul. 37173
spiral zone plates, focal point central dark spot 22985
superresolution lithog., partially coherent imaging theory, line and space struct. 38771
superresolution photolithography, phys. limits 6671
telephoto lens, focus error detect., astigmatic method 31055
TV camera lenses, latest develop. *(German)* 25653
two-beam LD, focusing charact., appls. to opt. head 31479
ultrashort laser pulses, focusing limits, anal. theory 2039
wedge plate interferometric laser beam tester 31476
X-ray FEL, perform. charact., param. sensitivities 39903
YAG laser high power proc. appls. in heavy industries *(Japanese)* 20418
$AgGaS_2$, CW difference freq. generation 7766
AlGaInP vis. light LD, 650 nm, dry-etched mesa stripe 39867
$BaTiO_3$ photorefr. crysts./waveguides, anom. photorefr. response in two-beam coupling 15088
CO_2 laser, diamond turned optics 31145
Cs_2Te photocathode electron source for Los Alamos advanced FEL 39944
H_2 laser source, second-order Stokes shift, mid-IR generation 39665
$KNbO_3$ ion implanted photorefr. waveguides, two-wave mixing of focused Gaussian beams 23359
KrF excimer laser fs VUV pulse meas. by field-ionization dyn. 23103
Nd:YAG laser, pumped, pulsed RT operation 23167
$Nd:YVO_4$ miniature microchip laser modes *(Japanese)* 14823
Nd:glass laser higher-order harmonic generation, phase matching effects 15102
Nd^{3+}:YAG pulsed laser beam materials proc. *(Japanese)* 7870
SiO_2 thin film thickness meas., Brewster angle reflectometer 34686
Ti:sapphire laser modulation procs. and radiation charact. 7601

optical free induction decay *see optical coherent transients*

optical frequency conversion
see also optical harmonic generation; optical parametric devices
1.55 μm WDM fiber freq. shifter 9461
10 Gbit/s sig. repeated wavelength conversion, wavelength-tunable semicond. lasers 25496
10-Gbit/s sig. transm. following wavelength conversion, semicond. opt. amps. 9489
adiabatic ultrashort light pulses propag. near two-photon reson. 31549
book, bistabilities and nonlinearities in laser diodes 58
broadly-tunable single-freq. opt. parametric freq. conversion syst. *(Danish)* 7742
car exhaust trace gas monitoring by laser photoacoustic spectrosc. 18907
chiral mol. solns., opt. susceptibilities, nonlin. spectrosc. 31551
coupled waveguides, integrated opt. parametric sum-freq. generator 2048

optical frequency conversion continued
DFB-LD with side-mode light injection, bistability and waveform reshaping 23250
diode laser freq. tunable light generation/freq. conversion 23286
fiber four wave mixing, polaris. independ. wavelength conversion 9439
fiber four-wave mixing, polariz.-insensitive wavelength conversion 15075
fiber four-wave mixing, tunable/selective wavelength conversion 15025
fiber four-wave mixing opt. wavelength conversion, SBS effects 30847
four-beam LD opt. heads, dyn. wavelength shifts 39317
four-port fiber freq. shifter, null taper coupler 15046
four-wave freq. mixing, transparency induced by additional strong field 31552
gyrotropic medium, light freq. translation, electro-optic modulation 30994
intracavity SHG opt. parametric oscill. 15083
mol. adsorbates, steady-state sum-freq. generation 15028
mol. crysts. for nonlin. opt. appls. 31583
noncritical phase matching in difference freq. generation, noncollinear alignment 7724
noncritical vectorial phase matching freq. up-conversion 7733
nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
parametric freq. conversion, solid laser pumping 7769
parametrically down-converted photons, two-photon phase coherence probing 2082
quadratic nonlin. medium, parametric procs., field depend. effects 31600
quadratic nonlin. opt. materials *(French)* 1649
quasi-phase-matching waveguide freq. conversion, review 15099
Raman laser, intracavity freq. conversion, spectral charact. 7735
rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
rhodamine 6G laser, parametric nonlin. mirror, refl. coeff. 31205
semicond. amp., polariz. insensitive, gain-saturation, wavelength conversion 14881
semicond. laser freq. control, PM, and nonlin. freq. conversion *(Japanese)* 7624
semicond. lasers, integrated optoelectronic up/down-converters 23232
semicond. opt. amp., polariz.-insensitive, wavelength conversion, 10 Gbit/s 14882
semicond. opt. amp. photonic switching multi-carrier opt. network 25532
semicond. TWAs, wavelength conversion, four-wave mixing 40057
semiconds., pump depletion, coherent energy transfer 23414
Stanford FEL wavelength shifting 39937
supercontinuum generation, pulse-width tunable self-freq. conversion of short opt. pulses 2077
thresholdless opt. dye microlaser, picosecond pulse generation 1870
type-II opt. parametric down-conversion, two-photon entanglement 15027
ultrashort UV FEL 7697
VUV/XUV lasing and wavelength tuning techs. 31172
waveguide-type opt.-freq. comb generator 22883
wavelength conversions, two silica fibre loss windows 7741
wavelength converters based on four wave mixing in semicond. opt. amps. 42385
$AgGaS_2$, CW difference freq. generation 7766
$AgGaS_2$, compact tunable difference freq. sources, laser pumping 7767
$AgGaS_2$, external difference freq. source 31486
$AgGaS_2$ nonresonant difference freq. generation in Nd:YAG lasers 40054
$AgGaS_2$ opt. parametric generated IR Ti:sapphire solid-state laser pulses 15049
$AgGaS_2$ sync. pumped ultrafast opt. parametric oscillator 31625
AlGaAs asymmetric QWs, mid-IR difference-freq. generation 15108
AlGaAs/GaAs quantum well DBR laser, femtosecond upconversion, time-resolved study 31374
$Al(IO_3)_3.8H_2O$ nonlin.-opt. cryst. for freq. conversion 7786
CO_2 laser, injection locking, freq. stabilisation, line narrowing 1865
$Cr:LiSrAlF_6$ Q-switched laser freq. tripling, UV region 39728
$Cr:LiSrAlF_6$, self-modelocked femtosecond solid-state lasers 14815
$Cr^{4+}:Mg_2SiO_4$ solid-state tunable laser 1882
$CsCdBr_3:Er^{3+}$, excited state dyn., vis. to UV conversion 15068
D_2, SRS of KrF laser radiation 31550
Er laser systs., 3 μm emission, pump quantum efficiency 31277
Er^{3+} doped fluoride fibre, photon avalanche up-conversion 22817
$Er^{3+}:YAlO_3$ laser, photon avalanche upconversion pumping 23164
$Er^{3+}:YAlO_3$ upconversion laser, Q-switched 14821
Er-doped PbF_2-SrF_2 epitaxial layers on GaAs(111)B for upconversion waveguide lasers 14832
Er-doped upconversion-pumped fiber amp. noise fig., theory 1881
Er^{3+}-doped phosphate fibers, Nd:YAG laser pulses upconversion 31528
GaAs coupled quantum wells, far-IR radiation by difference freq. generation 23366
GaAs, high freq. photomixing 15109
GaAs radiation-damaged refl. switch, IR pulse generation 31541
GaSe single cryst. props. 5807
Ho doped laser syst., CW 3 μm laser action 7588
InGaAsP/InP integrated three-port Mach-Zehnder interferometer, all-opt. wavelength conversion 30973
InP wavelength converter based on integrated Mach-Zehnder interferometer 7371
KD_2PO_4, Cu laser sum freq. generation 31516
$KTiOAsO_4$, opt. parametric freq. conversion props. 7725
$KTiOPO_4$ difference freq. mixing, tunable near-IR generation 40104
$KTiOPO_4$, freq. conversion cryst. for diode-pumped Nd:YAG slab laser 31268
$KTiOPO_4$, parametric image amplif., spatial freqs. transfer fn. 23353
$KTiOPO_4$, solid state eyesafe wavelength converter, YAG lasers 7768
$KTiOPO_4$ sum freq. generation in opt. parametric oscillator 15047
$KTiOPO_4$, tunable near IR source by difference freq. mixing 31490
$LiF:F_2^-$ cryst. Q-switch for Nd:YAG freq.-doubled laser stabil. *(Chinese)* 14794
$LiNbO_3$ channel waveguide, wavelength converter for WDM opt. commun. 15074
$LiNbO_3:Nd^{3+}$, elec.-field-induced periodic domain inversion, act. device appls. 7586
$LiTaO_3$ surface emitting FIR by difference freq. mixing 7802
$LuLiF_4:Ce^{3+}$, broadband UV amplif. medium 23444
Na reson. radiation sum-freq. generation of Nd:YAG laser beams 23364
$Nd:LaMgAl_{11}O_{19}$, excited-state-absorpt./upconversion 23154
$Nd:Y_3Al_5O_{12}$, excited-state-absorpt./upconversion 23154
$Nd:YLiF_4$, excited-state-absorpt./upconversion 23154
Nd:glass Nova laser for inertial fusion expts. 1899
Nd:glass all-solid-state laser syst. pulses, tunable by down conversion 14779
Pr^{3+}-doped fluoride glass fibre upconversion laser, blue output power 23115

optical frequency conversion continued
$Si-Si_{1\times x}Ge_x$ heterostruct., difference freq. mixing, intersubband nonlin. 23365
SiO_2 single-mode fiber, near-IR continuum generation, vis. 15044
SiO_2-based single-mode fibre, pumped, stimulated four-photon mixing 39347
SiO_2-core fibre ring oscillator, Nd laser pumped 14999
$Ti:Al_2O_3$, self-modelocked femtosecond solid-state lasers 14815
Ti:sapphire fs laser amp., tuning range extension 14808
Ti:sapphire fs laser pulse parametric conversion, 1 kHz 14782
Ti:sapphire laser, high-repetition-rate femtosecond mid-IR pulse generation 31574
Ti:sapphire laser wavelengths, nonlin. conversion 40061
Ti:sapphire tunable laser, $KNbO_3$ in external cavity, freq. doubling 1892
Ti:sapphire/Nd:YAG laser syst., high power tunable femtosecond light prod. 23149
Tm:ZBLAN CW upconversion laser 14743
Tm:ZBLAN upconversion-pumped fiber laser, 810 nm telecomms. window 7572
Tm-doped ZBLAN blue upconversion fiber laser theory 39710
XeCl tunable laser syst., Pb vap. SRS cell 14721

optical frequency doubling *see optical harmonic generation*

optical gap *see energy gap; optical constants*

optical glass
asymmetric Y-branch polymer-glass-waveguide all-opt. switch, nonlin. wave propag. 39420
buried waveguides fabricated by purely thermal ion back diffusion 39466
conference, laser damage in optical materials, Boulder, CO, USA (1993) 11528
fluorophosphate glass spacing materials for LCD panels 34640
glass:Nd^{3+} doped channel waveguide, all-opt. switching 31542
glass on Si, opt. interconnections/hybrid optoelectronic integrat. 31113
glass-ceramic, laser-stimulated opt. props., local change 7259
high-power laser radiation damaged opt. glass elements 7707
hollow glassware stress meas. by photoelasticity 34722
ion-exchanged glass waveguides, secondary ion mass spectrometry charactn. 30934
light control glass, liq. crysts. 22949
micro-opt. components, laser forming, phys. fund. 7376
nonlin. glass-based opt. switches, BPM design/simul. 17167
nonlin. opt. materials for switching/limiting, conf., USA (1994) 36892
opt. glass carrier reliab. test 179
oxide/fluoride/chalcogenide glass fiber comps. and config. 7295
perylimide dye doped SiO_2-PMMA glass, superradiant film laser operation 14729
phosphate laser glasses, platinum-inclusion dens., proc. gas environ. effects *(German)* 37543
photoinduced effects, time-depend. beam-propag. method 15115
photoinduced SHG 31518
planar waveguides in glass, nonlin. diffusion procs., refr. index profile 1713
PMMA filled porous silica glass opt. composites 7262
porous glass, holographic storage medium 7261
porous glasses, effective opt. consts. and light scatt. 7263
porous opt. glass struct., fab. 7260
rare-earth-ion-based act. waveguide lasers 39722
RF sputtered glass films, elec. induced second-order opt. nonlin. 23389
rhodamine B-doped glass planar waveguide, light amplif. 30933
self-written glass slab waveguides 30958
SK5 glass, SHG phase meas. 31569
solar control sheet glass conductive coatings, radio wave transm. 7450
split-beam Fourier filter, mid-stage filter in EDFA fibre link 31068
surface cleaning, laser proc. 30821
thin-coated opt. fibers, proc. handleability 14356
transversally multimodal 1×4 branch coupler, characterisation and BPM modelling 39436
vycor silica glass, mesoporous, fab. for nonlin. optics 30810
waveguide radiation, electron emission 14443
Ag-containing metallic nanostructure waveguiding systs., ion exchanged fab., nonlin. opt. charactn. 39416
As-S chalcogenide glass single-mode active fibre waveguide 39706
B-doped glasses, multiphoton micrometer-scale photoetching in UV laser light 23488
$BaF_2-InF_3-ZnF_2-YF_3-ThF_4-GaF_3$ glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647
CdS quantum dot/glass filters, sol-gel method 7445
CdS_xSe_{1-x}-doped glass, energy level struct., opt. bistability 31598
$CsGaSCl_2:Pr^{3+}$ glass for 1.3 μm opt. fibre amp. 23118
Er,Yb:glass disc laser mode locking 23146
Er,Yb:phosphosilicate fiber Fabry-Perot lasers, continuous/discrete wavelength tuning 31220
Er,Yb-codoped fiber glass microstruct., NMR determ. 7293
Er-doped 1.5-μm borophosphate/fluoroborate glass lasers 7599
Er-doped glass laser, pass. Q switching of cavity, SBS mirror 7595
Er-doped integrated glass laser, modeling and optim. 22921
F-doped silica fiber, radiation-resist. charact. 7294
Ge-doped opt. fiber Bragg gratings, polariz. and temp. depend. of photosensitivity 7336
$GeO_2-Na_2O:Pr^{3+}$ glass, alkali ion role on persistent hole burning 31563
$GeO_2-P_2O_5-MF_x(M=Ca,Zn)$ germanate glass opt. fibre systs., low light scatt. *(Japanese)* 39304
GeO_2-SiO_2 glass, thin films, planar waveguide appls. 7350
GeS_x-based glass:Pr^{3+} fiber amps., photolum. props. 31234
$(GeTe)_{85}Sn_{15}$ chalcogenide thin films, laser ablation, atmos. comp. and press. effects, opt. storage appl. 30834
H_2-loaded germanosilicate fiber adiabatic mode-field transformer fab. 7309
H_2-sensitized GeO_2 doped opt. fibers, refr.-index changes 7307
La-doped fluoride glass fiber lasers, IR pumped 14773
$LiNbO_3$:Ti channel waveguides, photothermal opt. losses charactn. 39418
Na alkali borosilicate glasses, heat treated 7264
$Na_2O-Nb_2O_5-Al_2O_3-P_2O_5$, planar ion-exchanged waveguide form. 22864
$Na_2O-WO_3-Ga_2O_3-P_2O_5$, planar ion-exchanged waveguide form. 22864
Nd doped phosphate/silicate glass, surface luminesc., ion exchange effects 14419
Nd^{3+} doped fluoride glass, spectrosc. and laser props. 14809
Nd:glass all-solid-state laser syst. pulses, tunable by down conversion 14779
Nd:glass amps., sub-100-TW femtosecond pulse amplif. 31252
Nd:glass laser amps. using electro-polished Al reflectors, gain enhancement 1894
Nd:glass laser higher-order harmonic generation, phase matching effects 15102

optical glass continued
Nd:glass laser pulse shortening by gain reshaping and soliton form. 23153
Nd:glass ring laser single freq. operation, acousto opt. induced 23140
Nd:silicate glass fiber waveguide lasers review 31223
Nd-glass laser, polariz. collapse of radiation 14824
Nd^{3+}-doped lead-silicate glass fibers, fab., spectrosc. and laser perform. 31212
Nd^{3+}-doped semicond. glasses, elastic props., lasing transit. 23290
Pb-silicate glass planar waveguides, light-induced second-order nonlin. suscept. 7788
$PbO-SiO_2-Na_2O$ opt. waveguide glasses, photoinduced nonlin. suscept./SHG 14418
Pr(3+):ZBLAN fiber amplifer, emission cross-sect. spectrum of pump transit. 14772
$SiO_2-SiO-CaO-Al_2O_3$ glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647
Ti:sapphire/Nd mixed glass laser, 250-fs pulse generation 31256
$ZrF_4-BaF_2-LaF_3-AlF_3-NaF$ glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647

optical gratings *see diffraction gratings*

optical harmonic generation
see also lasers
1.5 μm MQW DFB VUG laser opt. harmonic converter for MM wave radio appls. 3558
3-methyl-4-methoxy-4′-nitrostilbene, cryst. growth and second order nonlin. opt. props. *(Chinese)* 2051
absorptive media SHG 2129
acetylphenyl-1,4-dioxa-8-azaspiro[4.5] decane, LD pumped ring resonator, blue light emission 23429
alkali metal vapour, phase-matching for efficient third-harmonic generation 15103
all-opt. proc., vectorial interacts., second-order cascading 2632
all-opt. sig. proc. via quadratic nonlin., coherent interacts. 32990
amorph. superlattice films, quadratic opt. nonlin. 7787
anisotropic crysts., beam propag., coupled thermal/nonlin. effects 7764
bacteriorhodopsin thin films, autocorrelating femtosecond pulse charact. 40070
BESOI stress/strain investig., opt. SHG method 29963
borate-based nonlin. opt. materials, UV SHG, opt. birefr. 31561
bright/dark solitons, cascaded second-order effects 31619
broadband quasi-phase-matched planar waveguide SHG, optimal design by simulated annealing 40033
butadienes, doped into polymer films, SHG 2112
carbohydrazide derivatives, nonlin. opt. props. 23385
cascade third harmonic generation in laser cavity 7736
chiral surfaces, second-order opt. activity, elec. and mag. contribs. 40097
conference, nonlinear optics appls., Miedzyzdroje, Poland (1994) 20243
conjug. polymers, nonlin. opt. coeffs. 2096
continuously operating solid-state lasers, SHG mode locking 7582
corrugated waveguide, SHG, light diffr. 14459
coupled waveguides, integrated opt. parametric sum-freq. generator 2048
cross-linked and side-chain polymer films, nonlin. optics appls. 15090
crosslinked poled polymer waveguides, Cerenkov SHG 14455
cryst. film, SHG in VUV and X-ray region 15126
cryst.-cored fiber second-harmonic wave focusing optics 1778
crysts., opt. second harmonic susceptibilities and opt. activity 7762
DAN/PMMA polymers, SHG, temporal stabil., orient. pair correl. 15129
DCG, dye-sensitised, holographic gratings recording, spatial freq. doubling 31637
diarylacetylenes, quadratic hyperpolarizabilities, conform. depend. 15141
2,6-dibromo-N-methyl-4-nitroaniline, hyperpolarisabilities, nonlin. opt. props. 40095
dielec. laser mirrors, refl. opt. harmonics 7712
disordered media, nonlin. optics, photon localization effects 15101
Dispersed Red 1 in PMMA film, photoisomerisation, photoinduced orient. and orient. relax. 15144
DMNP cryst. cored fiber freq. doubler for blue light generation *(Japanese)* 2060
donor-acceptor conjug. polyenes, polarisabilities, SHG 31580
doped glass fibers, SHG, directional photoionization model 15042
dye laser, pumped, SHG, appl. to tropos. OH detect. 7864
dye solns., light-induced SHG, six-wave mixing 7795
dye-doped polymers, low-temp. transits., SHG 15132
FEL, chirped pulse amplif., OHG, deep UV pulse generation 39907
FEL, high-gain single-pass amps., UV/X-ray radiation generation 39896
FEL supercond. undulator, harmonic generation, mag. field meas. 39965
fiber lightwave syst. nonlin. optics 34059
FLC, nonlin. optic props. *(Chinese)* 40045
four-wave freq. mixing, transparency induced by additional strong field 31552
freq.-doubled laser energy meas. by calorimeter *(Chinese)* 2038
freq.-resolved opt. gating, SHG 2055
functionalized polymers, third-order nonlin. opt. props. 15137
2-furyl methacrylic anhydride cryst. noncollinear phase matched SHG 23384
2-furyl-methacrylic anhideride, freq. doubling study 7779
gain-switched LD, femtosecond opt. pulse generation, soliton compression 7613
glass fibres, doped, self-saturation, self-organised SHG 22862
glass opt. fibers, photoinduced SHG 31518
glass photoinduced SHG, time-depend. beam-propag. model 15115
glass-forming FLC material of high second-order nonlin. 7729
grating coupler SHG, coupled mode formalism 1722
grating couplers, nonlin. optics, modal diffr. theory 15071
high storage dens. opt. disk, SHG *(Japanese)* 7269
L-histidine tetrafluoroborate soln.-grown semiorganic cryst. for nonlin. freq. conversion 23439
homodyne surface SHG 40079
inert gases, harmonic generation, intense picosecond laser pulses 7744
intersubband optics for symmetric and asymmetric quantum wells, wires and dots 40046
intracavity SHG opt. parametric oscill. 15083
laser beam reson. high-harmonic generation 2119
laser radiation harmonic generation, opt. rectification 23431
LB films, mol. orient., SHG 15145
LD, freq. doubling, domain-inverted waveguide 31382
liqs. and solns., opt. act., nonresonant opt. rectification 23376
main-chain polymers, processable, third-order nonlin. opt. props. 15097
metal-electrolyte interface, nonlin. opt. response, DEFT 15139
metal-oxide based gels, organically doped, nonlin. opt. props. 15091
metallo-naphthalocyanine dyes, third-order nonlin. opt. props. 15136

optical harmonic generation continued
metallophthalocyanine thin films for nonlin. optics 2101
metallophthalocyanines, third order nonlinear opt. props. 23426
mode-locked solid-state ring laser, second harmonic intracavity generation 1886
MQW electroabsorption modulator, efficient harmonic generation 34007
multilayer disc storage, nonlin. read/write 39307
multilayer second order nonlin. media, generated femtosecond pulse phase distortions 31615
multiplexed diode-laser sens. syst., gas/temp. meas. 7874
nitroaniline based nonlin. opt. syst., cryst. growth 15066
4-nitrophenol sodium salt dihydrate, intracavity SHG, opt. loss 31481
N-(4-nitrophenyl)-N-methylaminoacetonitrile, cryst. and fibres, SHG 15092
opt. fibres, SHG, $\chi^{(3)}$ effects, nonlin. phase shifts 30864
optoelectronic devices for consumer appls. 7492
organic macrocycles, third-order opt. nonlin. 23422
organic material waveguide opt. freq. doubling 2094
organic waveguide couplers, 2-photon absorpt.-induced luminesc. 30940
organic waveguides, SHG in ATR expt. 14476
organic/polymer system nonlinear props., conf., Pennsylvania Univ., USA, April 1991 28
organic/polymeric materials, nonlinear optics, conf., WA, USA (!992) 5495
p-nitroaniline centrosymmetric single cryst., surface opt. SHG 40118
parallel beam propag. method for SHG anal. 40048
phase matching tech. for poled polymer waveguide 22866
phase-matched freq. doubling polymers, opt. prep. 23344
phenol/pyridinium triflate, synthesis, nonlin. optics 2121
phthalocyaninato-oxytitanium (IV) highly ordered thin film, third-harmonic generation 23388
plasma and gases, harmonic generation, optimal quasi-phase-matching 7805
PMMA films with dye mols., 2D opt. nonlin. 15093
PMMA opt. waveguides, dye doped, electron irrad., ageing 1703
poled polymer films, freq. conversion and relax. phenom. 2091
poly(thiophene-3-acetic acid), ultrathin film fab., opt. props. 23351
polyazine and π-conjug. oligomers, third-order nonlin. opt. props. 15135
polydiacetylene, third-order nonlin. opt. susceptibilities 7781
polydiacetylene films, synthesis and third order nonlin. opt. props. 40117
polymer amphiphiles LB films, fab., nonlin. optics props. 15089
polymer interfaces, nonlin. opt. study 7777
polymer thin film waveguide devices, freq. doubling 2093
polymer waveguide second harmonic light phase matching tech. 31614
polymer waveguides, electro-opt. appls. 14457
polymer-aligned liq.-cryst. cells, surface layer thickness 14539
polymeric materials for SHG and electro-optic appls. 23386
polymers, polaris. distrib., stabil., nonlin. optics 31586
polymers for second-order nonlin. optics, elec.-field induced orient. and relax. 2095
polysilicon grain boundary struct. characterisation by opt. SHG 29825
polysiloxane, ferroelec. chiral smectic, opt. SHG 7731
polythiophene film waveguide third-order opt. nonlin. 2100
precision meas., freq. ratio 31539
pulsed laser temporal coherence meas. by collinear second-harmonic interf. tech. 15016
PVDF/PMMA blend polymers, opt. SHG *(Japanese)* 7747
pyridyl analogues, hyperpolarizabilities, elec.-field induced SHG 15131
quadratic nonlin. opt. materials *(French)* 1649
quantum dot array, SHG model 31592
quantum well struct., large opt. nonlin. 40107
quasi phase matched periodically segmented waveguides, lin./nonlin. effects anal. 40437
quasi phase-matched SHG, inverted ferroelec. domains 40094
quasi-phase-matched SHG by backward propag. interact. 31559
Raman-act. medium, femtosecond pulse propag., higher harmonics generation 40025
rare gases, harmonic generation, multiphoton ionisation effects 2083
reson. cascaded surface-emitting SHG struct. self-PM 31485
reson. two-photon three-level atom syst., echoes 15040
RF sputtered glass films, elec. induced second-order opt. nonlin. 23389
second-order nonlin. media, stationary solitary wave propag. 23377
semicond. laser freq. control, PM, and nonlin. freq. conversion *(Japanese)* 7624
SHG, semiclassical infinite-barrier approx. 7796
shorter-wavelength LD and SHG technol. prospects *(Japanese)* 14959
single cryst. core fibers, second-order cascading, third-order effects orig. 22806
six-wave mixing SHG and opt. induced fields 2090
size selected clusters, opt. parametric oscillator IR spectrosc. 15058
SK5 glass, SHG phase meas. 31569
sol-gel nonlin. opt. polymers, improved poling, thermal stabil. 2108
squaraine dyes in PMMA, third-order opt. procs. 23399
stilbenes, quadratic hyperpolarizabilities, conform. depend. 15141
styrylpyridinium salts, charge transfer complexes, SHG 23347
supercond. FEL, harmonic generation, end fields 39966
surface SHG, lin. polarisability effects 2131
thieno[3,2-b]thiophenes, donor-acceptor substituted, SHG 40093
thin film optimized nonlin. polymer struct., ultrashort pulse SHG 7783
α-thiophene oligomers, third-harmonic generation 15128
thiophene oligomers and derivatives, third-order nonlin. opt. props. 23350
third-harmonic generation, wave mixing, soliton states 15029
tolanes, hyperpolarizabilities, elec.-field induced SHG 15131
UV high repetition rate tunable sources by dye laser beam freq. conversion 15035
UV/X-ray FELs, single-pass, milestone expts. 39901
VUV/XUV lasing and wavelength tuning techs. 31172
VUV/XUV-soft X-ray radiation source and appls. 31613
waveguide grating couplers, nonlin. optics, modal anal. 14458
XUV-radiation generation by high-order freq. mixing 31512
Ag, reflecting surface, SHG study 23408
$AgGaSe_2$ cryst. second harmonic conversion of pulse-periodic CO_2 laser radiation 40103
AlGaAs anti-reson. reflecting opt. waveguide, second harmonic surface emission 39399
AlGaAs/GaAs asymmetric QW struct., quasi-phase-matched, 1.06 μm SHG 15056
AlN waveguide near phase-matching conditions, SHG conversion efficiency 39414
AlN waveguide, phase-matched freq. doubling, tunable laser source 31543
Au, reflecting surface, SHG study 23408
β-BaB_2O_4 cryst. growth by induction heating, nonlin. opt. appls. 23391
β-BaB_2O_4 cryst., high-efficiency SHG of pulsed Ti:Al_2O_3 laser 40034

optical harmonic generation continued
$Ba_2NaNb_5O_{15}$/$KTiOPO_4$ film waveguides, noncritical phase-matching 39384
$Bi_{12}SiO_{20}$, spatial subharmonics generation 31523
C_{60}, thin films, SHG 40035
CO_2 laser, loss perturb. near period-doubling 14688
$Cd_{1-x}Mn_xTe$ transm. SHG, 1.064 μm 40039
Cr,Nd:GdScGG parallel amp. 8.2 J phase-conjug. solid-state laser 1909
Cr:$BeAl_2O_4$, alexandrite laser, intracavity freq. doubling 7737
Cr:$BeAl_2O_4$, alexandrite laser syst., lin. scanning THG 7583
Cr:$LiSrAlF_6$ Q-switched laser freq. tripling, UV region 39728
Cr:$LiSrAlF_6$ laser syst. high-efficiency harmonic generation 23172
Cr:forsterite 100-fs pulse freq. doubling by reson. enhancement cavity 14781
CsB_3O_5, tunable UV generation, 0.185 μm 23371
Cu, reflecting surface, SHG study 23408
Cu/Co/Au multilayers, buried interfaces, opt. SHG 1152
D_2, harmonic generation, intense picosecond laser pulses 7744
Er^{3+}:GeO_2-Al_2O_3-SiO_2 opt. fibres, two photon reson. SHG 2070
Er^{3+}-doped fiber laser ASE green light 1878
GaAs, (211)B orientated, surface-emitting second-harmonic generator/autocorrelator 23361
GaAs coupled quantum wells, far-IR radiation by difference freq. generation 23366
GaAs, diffusion bonded stacked, IR parameteric oscill. 7770
GaAs, epitaxial growth, surface SHG study 37429
GaAs/AlAs vert. cavity laser, SW light generation 23281
GaAs/Au buried interfaces, opt. SHG 1152
GaAs(001), oxide removal by H plasma, surface SHG 38599
H_2, harmonic generation, intense picosecond laser pulses 7744
InGaAs/AlAs quantum wells, diode laser wavelengths, tunable mid-IR generation 14935
InP waveguides, opt. harmonic mixers 23412
KH_2PO_4 cryst. SHG, const. temp. gradient influences on spectral-bandwidth 15087
KH_2PO_4 high-power freq. doubling laser syst. *(Chinese)* 40043
KLiNbO fibre growth, blue-violet light generation 31595
$KNb0_3$, single cryst., growth, SHG, appls. 2113
$KNbO_3$, intracavity freq. doubling in Nd:YAG laser 23167
$KNbO_3$ ion-implanted waveguides, CW diode laser freq. doubling, blue light generation 2076
KTP cryst., laser intracavity freq. doubling 7598
$KTaO_3$:Li, pure and doped, polar config., SHG obs. 22660
$KTiOAsO_4$ type II phase matching SHG 15100
$KTiOP_{1-y}As_yO_4$, noncritically phase-matched cascaded THG 31525
$KTiOPO_4$ Bragg-reson. quasi-phase-matched periodically segmented waveguides, SHG 39409
$KTiOPO_4$, SHG of YAG laser, self-heating *(Japanese)* 7792
$KTiOPO_4$, SHG, photochromic gray-tracking damage 2107
$KTiOPO_4$ cryst. SHG of laser light *(Chinese)* 14796
$KTiOPO_4$ cryst. second harmonic for Nd:YAG cw ring laser freq. stabil. 39726
$KTiOPO_4$ films by pulsed excimer laser ablation for nonlin. opt. appl. 15149
$KTiOPO_4$ intracavity freq. doubler 14812
$KTiOPO_4$ opt. waveguides charact. by second harmonic spectrosc. 1712
$KTiOPO_4$ proton exchanged waveguides, ultrashort SHG study 23440
$KTiOPO_4$, type I phase matching angles, SHG conversion efficiency 23428
$KTiOPO_4$, type-II phase-matched SHG study 7797
$KTiOPO_4$ waveguides, diode laser light freq. doubling 31487
LiB_3O_5 intracavity SHG laser cryst. 39745
LiB_3O_5, picosecond multiwavelength opt. parametric generation 40022
LiB_3O_5, temp.-tuned 90° phase-matching props. 15113
LiF:F_2 color center laser progress 39727
$LiNbO_3$ film on surface crystallized glass, second order opt. nonlin. 31488
$LiNbO_3$, ion beam induced domain-inverted grating, SHG study 31556
$LiNbO_3$ optical channel waveguides, direct meas. of cascaded nonlin. 14429
$LiNbO_3$, periodic domain inverted struct., nonlin. optics 23394
$LiNbO_3$ proton exchanged waveguide, quasi-phase-matched SHG 14470
$LiNbO_3$, proton exchanged waveguides, deeply inverted periodic domains 22879
$LiNbO_3$ proton exchanged waveguides, ultrashort SHG study 23440
$LiNbO_3$, quasi-phase matching, opt. freq. doubling 40108
$LiNbO_3$ quasi-phase-matched waveguide, periodic domain-inversion 39400
$LiNbO_3$ waveguide QPM-SHG device, tuning bandwidth *(Japanese)* 7746
$LiNbO_3$ waveguide quasi-matching SHG devices 22880
$LiNbO_3$ waveguides, quasi-phasematched SHG conversion efficiency 22878
$LiNbO_3$:MgO,Nd self-freq.-doubled laser, diode pumped 23390
$LiNd(PO_3)_4$ laser, intracavity SHG, homoclinic chaos 31255
$LiTaO_3$ DBR grating for LD freq. doubling 31382
$LiTaO_3$ channel waveguide phase matched SHG 15150
$LiTaO_3$, domain-inverted, proton-exchanged waveguides, lattice consts. 14438
$LiTaO_3$, ion beam induced domain-inverted grating, SHG study 31556
$LiTaO_3$, periodic domain inverted struct., nonlin. optics 23394
$LiTaO_3$, proton exchanged waveguides, deeply inverted periodic domains 22879
$LiTaO_3$ waveguide, LD freq. doubling 31593
$LiTaO_3$ waveguide SHG of LD radiation 23442
$Li_3VO_4(PO_4)$-type crysts., SHG props. 7773
N_2, harmonic generation, intense picosecond laser pulses 7744
Nb, ultrathin films, opt. SHG, thickness depend. 31532
Nd laser, pass. Q-switching, fund./second harmonic freqs. 1883
Nd:YAG LTN-404-1A laser, radiation beam positional stabil. 39718
Nd:YAG flashlamp-pumped pulsed lasers, SHG 31272
Nd:YAG laser, diode-pumped nonlin. mirror mode-locked 1897
Nd:YAG second harmonic laser beam light sheet shaping on fibre transm. *(Chinese)* 15015
Nd:$YAl_3(BO_3)_4$ self-doubling lasers, LD pumped *(Chinese)* 1885
Nd:YLF, additive-pulse mode-locked laser, diode pumped, pulse compression 31298
Nd:YVO_4 all-solid-state intracavity freq. doubled laser *(Chinese)* 7602
Nd:glass diffr.-limited laser amp., SBS wavefront correction 23144
Nd:glass laser higher-order harmonic generation, phase matching effects 15102
Nd:glass laser pulse duration meas. 31465
Nd:glass laser pulses, KDP freq. doubling 31511
Nd:glass ultraintense laser pulses, highly efficient SHG 31498
Nd^{3+}:$YAlO_3$ ps laser beam third-order correl. fn. by noncollinear two-beam third-harmonic generation 40105
O_2, harmonic generation, intense picosecond laser pulses 7744
O_2-I chem. laser constr. for thermonuclear fusion driver 31193

optical harmonic generation continued
Pb-silicate glass planar waveguides, light-induced second-order nonlin. suscept. 7788
$PbO-SiO_2-Na_2O$ opt. waveguide glasses, photoinduced nonlin. suscept./SHG 14418
$PbTiO_3$ epitaxial thin film waveguide, Blue light by SHG 15151
Rb, Rydberg states, two-photon SHG 40065
$Rb(Ti_{1-2x}Ln_xNb_x)OAsO_4$, defect chem., opt. props. 7774
$RbTiOPO_4$ cryst., flux grown, nonlin. opt. props. 2080
n-Si, high-power far-IR radiation, third-harmonic-generation efficiency 31599
Si porous struct., investig. by Raman spectrosc./SHG techs. 14587
Si/SiGe asymmetric quantum wells, SHG 15021
Si/XeF_2 syst., etching react., SHG 22165
$Si-SiO_2(SiGe)$ epitaxial growth, ex-situ/in-situ probing by opt. SHG 28724
Si(001) wafer, cubic centrosymmetric media, anisotropic SHG 31572
Si(111), surface SHG, wavelength depend., laser induced props. 15037
Si(111) wafers, surface anal., opt. SHG 2078
$Si_{1-x}Ge_x$ epitaxial films, opt. SHG 40041
SiO_2, poled, amorph., SHG lin. electro-optic coeff. meas. 2128
SiO_2:Ge planar waveguide, seeding, static elec. fields 39381
$Sr_2Be_2B_2O_7$ UV-transparent nonlin. opt. cryst., design and synthesis 15123
$Ta_2O_5/KTiOPO_4$ waveguide, phase-matched SHG 1725
Ti:sapphire CW mode-locked laser, tunable UV light pulse prod. 23148
Ti:sapphire fs laser pulse SHG 23173
Ti:sapphire laser, flashlamp pumped narrow-linewidth, dual-wavelength operation 14793
Ti:sapphire laser freq.-doubled femtosecond pulses for parametric light generation 23419
Ti:sapphire laser wavelengths, nonlin. conversion 40061
Ti:sapphire ultrashort laser pulse compression, single shot meas. 23152
XeF 10^5 J (C-A) transit. inversion wave by Nd-laser second harmonic amplif. 14718
$YBa_2Cu_3O_7$ high Tc epitaxial thin films, opt. SHG detect. 7745
ZnS thin film opt. waveguides, SHG study 22908
ZnSe thin film opt. waveguides, SHG study 22908
ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, SHG generation 22908
ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, phase matched SHG 39442
ZnTe thin film opt. waveguides, SHG study 22908
polysilanes, opt. nonlin., essential states mechanism 23409

optical hole burning
1300 nm gain-clamped MQW laser amps., reduced IMD 34006
1310-nm DFB lasers, correl. of leakage-induced distortion, I-V charact. 7685
asymmetric three-phase-shift DFB LD, design 14921
Brillouin fiber amp., spectral gain hole burning and modulation instabil. 23122
broad-area semicond. lasers, filamentation and beam propag. 23191
conjug. polymers with large opt. nonlin., ultrafast relax. 2092
DFB laser IMD anal., dyn. spatial hole burning effect 23222
DFB lasers, long. spatial hole burning complete elimination 7679
DFB LD above-threshold stabil. determ. 39875
DFB LD nonlin. distortions, power-depend. loss and leakage current 31355
Dispersed Red 1 in PMMA film, photoisomerisation, photoinduced orient. and orient. relax. 15144
dye solns., light-induced SHG, six-wave mixing 7795
Er-doped fibre amp., polaris. hole burning, time dyn. 14755
freq. selective opt. memory recording dens. increase 30829
impurity activated solids, hole burning, zero-phonon line appls. 7791
miniature Fabry-Perot interferometric sens., pass. sig. proc. 17851
MQW DFB lasers, external modulation, freq. chirp simul. 31348
MQW VSCEL, gain-guided, transverse mode num. anal. 31469
multielectrode DFB lasers, transfer matrix method based large-sig. dyn. model 1995
octaethylporphine-doped polystyrene sample, spectral hole burning, accumulated photon echo readout speed 40092
phase-matched freq. doubling polymers, opt. prep. 23344
phase-shifted DFB laser stabil. against hole burning 1996
rare-earth doped materials, time freq. domain opt. storage 22791
semicond. amps., carrier heating, spectral hole burning, FWM 31503
single-mode antiresonant reflecting opt. waveguide diode lasers, above-threshold behavior 14908
tetraphenylporphyrin doped PMMA fibre, spectral hole burning 23369
THP/PMMA freq. domain opt. storage, anisotropic spectral hole form. *(Chinese)* 14336
VCSEL diodes, transverse mode competition dyn. 31356
CuCl nanocrystals in glasses, persistent spectral hole-burning, opt. data storage 40026
Er-doped fiber amplifer gain peak meas. by spectral loss test 14745
Er-doped fiber amplifer ultralong commun. systs., polariz.-depend. gain and loss 17240
Er-doped fibre amps., polaris. hole burning, computer modelling 14757
Er-doped fibre amps., polaris.-depend. gain 14756
Er^{3+}-doped fibre amp., polaris. hole burning suppression, unpolarised source 39708
GaAs cw semicond. lasers with Boltzmann kinetics, gain saturation 31354
GaAs-GaAlAs waveguide saturable absorber, carrier heating dyn. 2109
$GeO_2-Na_2O:Pr^{3+}$ glass, alkali ion role on persistent hole burning 31563
InGaAs/GaAs SQW laser, spectral hole burning 39758
InGaAs/InAlGaAs QW DFB laser facet influence on wavelength tunability and linewidth-chirp 39860
InGaAsP amps., 4.3 terahertz four-wave mixing spectrosc. 555
InGaAsP-InP DFB lasers, long. mode hole burning 1997
$LiF:F_2^+$ laser pumped by a flash lamp, multimode oscill. 7596
$Nd:KGd(WO_4)_2$ laser diode pumping/FM mode locking 23157
Nd:YAG mode-locked diode end-pumped laser, spatial hole burning effects 23150
Nd^{3+}:YAG DFB lasers, modulation bandwidth, nonlin. effects influence 23341
$Y_2SiO_5:Eu^{3+}$, hole-burning materials, time-domain opt. memory 22797
Yb,Er:phosphate glass, pop. dyn., Nd laser pumping 23163
Zn resin film hole burning opt. storage *(Chinese)* 7272

optical images
see also aberrations
2D image range estim., PM 10029
3-D brightfield microscope systs., modeling 16218
3-D image reconstructions from partially confocal scanning microscope 16221
3-D light microscopy, simultaneous image and point spread fn. reconstruction 16219

optical images continued
3-param. affine approx. of focus and zoom vars. *(French)* 41349
3D HOE, holographic recording 2152
3D obj. composite Fourier hologram optim. 40162
act. contour model, opt.-to-SAR image registration 8608
adaptive optics imaging through atmos. turbulence, frame selection 16200
addressable SLM, image readout 31008
aerospace photography, ground sampled dist. determ. 18921
agricultural rem. sens., spatial pattern class. 24540
Airborne Visible/Infrared Imaging Spectrometer, inflight calib. validation (1993) 18798
amplit.-modulated circ.-harmonic filter for pattern recogn. 24655
angle-/wavelength-multiplexed image plane holograms, cross talk 2136
annular color filters, opt. syst. polychromatic response control 39541
apodized pixel lenses in compact shadow-casting correlators 41238
approx. shift-invariance by warping shift-variant systs. 16206
atmos. turbulence, finite-size obj. double-passage imaging 26725
automatic recogn. of partially occluded objs., genetic algm. 16286
axial stereovision, 3-D reconstruction of natural objs. *(French)* 41350
azo dye doped EO-PVA film, opt. storage character *(Chinese)* 14335
bacteriorhodopsin thin film interconnections, dyn. contrast reversal, self-PM 1783
binary images, second-order histograms 33073
binary nonlin. joint transform correlator perform., thresholding methods 24656
CCD holographic image sens., first-arriving light spatial filtering 34588
CCD image sens. range cameras, focal error based 3872
CCD images, readout noise compensation 24495
cellular neural network chips, opt. image acquisition 29486
channel opt. waveguide charactn. by photon scanning tunnelling microscope 22865
color-image quantization, fast binary splitting tech. 2591
computational opt. sectioning microscopy, EM algm. 16220
computational opt.-sectioning microscopy for 3-D quantification of cell motion 18430
cuneiform inscription anal., holographic image proc. techs. 23466
cylindrical objs., refr. index, image reconstruction, opt. diffr. tomography 41063
degraded images, blur ident. and restoration, generalized cross-validation criterion 33085
detect. in spatial noise and background radiation 2833
diffractive lens with the substr. shape effects, num. investig. 7818
discretised objs., geom. charact. determ. 41154
disk-based opt. correlator, multiplexed transm. holograms 7862
distant objs., focused-image holographic recording 31687
double-passage coherent imaging through random-phase screen, complex-valued obj. reconstruction 41233
dyn. white light holography, opt. addressed MQW SLM 31636
ellipsoidal holographic grating, geometric theory 7808
fiber, image transm., crosstalk 7333
Fresnel holograms, computer-generated image quantization, error diffusion algm. 23455
fringe thinning algms. in photomechanics, perform. eval. 41198
FT profilometry, obj. shape meas. 8490
gas turbine particle charactn., optoelectronic imaging syst. *(French)* 42849
hologram wavefront reconstruction, quantitat. schlieren method 40130
holographic image reconstruction, time-multiplexing, aberration correction 23473
holographic lens, constr.-reconstruction wavelength shift, image aberrations 31683
holographic points patterns, image space/spectral anal. 40128
holographic shearing interferograms in diffusely scatt. fields 31675
holographic stereogram, distortion compensation method 31677
Hough-transform filter for plural element shape parallel detect. 33080
hyperspectral air-to-air seeker 18990
image reconstruction/restoration, conf., San Diego, USA (1994) 26
image transfer microlens array design and anal. 9980
image vel./opt. flow meas. by augmented generalized gradient scheme 2592
inhomog. media phase conjug., holography, and imaging 31575
IR detector array, point spread fn. from imprecise meas. data 17788
IR interferometric SAR act. coherent imaging *(Japanese)* 9645
joint wavelet-transform correlator for image, extraction 24492
kinoform calc. by adaptive iter. method 2133
large holographic opt. element writing by adaptive opt. syst. 7822
large-depth obj. 3D reconstruction, Ronchi grating Fresnel diffr. 32982
large-scale image associative memory, optoelectronic implement. 1655
laser radar image form., sea surface and water thickness 17454
lateral shear interf. imagery, holographic grating 2138
lateral-shear holographic interferograms, spatial filtering 7823
LCDs, field-seq.-color tech. 7408
LD freq.-modulated interferometer, selective imaging 40177
liq. cryst. light valve, feedback, nonlin. response 22956
liq. photopolymers, radiation curable, diffractive optics replication 39453
Lockheed phase diversity test facility, expt. results 16215
mach. wear particle anal. by fiber-optic confocal laser scanning microscopy 31695
MAP image super-resoln. algm. improvements, constraining inform. 16205
Midcourse Space Experiment for tracking, image proc. 2696
min.-MSE filters for spatially nonoverlapping target and input-scene noise 22982
movement charactn., low-light-level image spatiotemporal FT 41232
multi-mode opt. waveguide interf. devices based on self-imaging 40440
multimode fiber-optic bundle emitted speckle-fields *(Chinese)* 1666
multimode interf. ultracompact waveguide devices 30954
multiple target detect., fringe-adjusted joint transform correlator 16277
multiplexed holographic image storage, ang. and phase-encoding 31651
multistage opt. switches for 2D images based on polaris.-sensitive elements 42132
neural network for modal compensation of atmos. turbulence 16202
obj. tracking novelty filters, resoln. theory 41298
off-axis holographic lens extended obj. imaging 15159
optoelectronic proc., image detail morph. enhancement, rank-order 24487
partial pixel diffractive display archit. 25917
particle image velocimetry, image labelling, flow meas. 18154
particle image velocimetry FT lens, off-axis holographic tech. 23475
pattern projection by conventional, diffractive optics 15173
phase diversity as on-line wavefront sens., expt. results 16217
phase diversity to extract higher order Zernike coeffs., lab. expt. 16216
phase-diverse speckle reconstruction of solar data 16211
photon-limited images, low-pass filtering, histogram spec. 33144

optical images continued
photorefr. cryst. image correlator spatial fidelity 16369
photorefr. fiber array for holographic memory 30828
pixons and Bayesian image reconstruction 16203
plasma etch endpoint, interferometric imaging 13367
polaris. interferometer-based spectral imaging syst., liq. cryst. cells 31010
polariz.-difference imaging, obs., scatt. media 42852
polyvinyl alcohol film, methyl-red doped, SLM 22930
polyvinyl alcohol film, organic dye doped, opt. phase conjug. proc. 31596
portable ground-based atmos. monitoring syst. 18827
profilometry by phase-shifted Talbot images 17727
Projection Pursuit, optimal transforms. for multispectral change detect. 16265
psychedelic autostereogram prod. and appl. *(German)* 24667
random rough surface heights stat. props. via rem. sens. 32857
real-time digital single-exposure speckle photography for vel./flow fields study 41299
refl. holographic screen, stereographic displays 31676
rigorous diffr. theory, opt. metrology and AFM topography, nm accuracy 34721
rough surfaces, glitter fn. for rem. sens. 16304
Rowland circle grating photonic integrated device for WDM appls. 9441
RTO proc., opt./elec./mech. charactn. 22227
satellite image fusion, multiresolution anal. 32886
scanned-beam laminography image, out-of-plane material contrib. 5923
SDF design by multiresolution wavelet anal. 24654
semicond. device defects, image display/anal., laser scanner 32818
snowflakes, fall pattern anal. *(Japanese)* 2699
solder paste printer vision systs., SMT/PCB manufacture 38106
superresolution photolithography, phys. limits 6671
surface profile reconstruction, near-field data 41297
Talbot effect, multichannel image texture segmentation 32837
telephoto lens focusing/space compression 2665
temporal-color space anal. of refl. 2598
thick photorefr. hologram, angle-depend. diffr. efficiency 31656
time-domain computer generated holographic images 40159
Tomahawk cruise missile scene matching, image proc. 4433
TOPS multifilter solid optic correlator 16255
TOPs opt. pattern recogn. program 18987
turbulence-induced phase error param. dimens., estim. in phase diversity 16214
two-pulse photon echo opt. DP 41060
vol. holographic memory storage capacity, cross-talk noise 40163
vol. holography for one-way image transm. and reconstruction 8661
wave-front sens., closed-loop adaptive optics syst., error propag. 14567
wavefront reconstruction from phase differences, correl. noise propag. 16201
$BaTiO_3$ beam fanning effect, opt. image combination/logic AND operation 31035
$BaTiO_3$ phase-conjug. mirror, mutually pumped, fish-head config. 40085
$BaTiO_3$ photorefr. opt. novelty filter, design and perform. 31059
$BaTiO_3$ refreshed photorefr. holographic buffer memory for permanent readout 31650
$Bi_{12}SiO_{20}$ SLM, 2D lock-in detector array 31001
$Bi_{12}SiO_{20}$ SLM-laser scanner hybrid joint transform correlator 33082
CO lasers, act. medium phase-conjug. 31480
CO_2 lasers, act. medium phase-conjug. 31480
CO_2 slab waveguide lasers , mode and freq. control 39656
Cs vap. opt. correlator 2633
Cu vapour laser oscillator, adjoint-coupled self-filtering injection 39670
$(KNa)(SrBa)Nb_2O_6$, double phase-conjug. mirror, imaging props. 31594
$KTiOPO_4$, parametric image amplif., spatial freqs. transfer fn. 23353
$LiNbO_3$, ang. selectivity, multiplexed hologram cross-talk 31648
$LiNbO_3$, hologram coherent erasure and updating 31649
$LiNbO_3$ passband-flattened guided wave acousto-optic filter 34009
$LiNbO_3$ plates, electronic image reconstruction by electrooptic tech. 2134
LiNbO3 low-loss SAW dispersive filters, low sidelobe level in compressed sig. 39542
S_2 opt. pumped brightness amp., laser projection microscope 23094

optical information processing
see also acousto-optical convolution; acousto-optical signal processing; optical computing; optical correlation; optical signal detection; optical tomography; spatial filters
2-D opt. BFN 8077
3-D holographic DP and wavelength readout for range-doppler-angle radar, SAR 9640
acousto-optic correlator for radar report-track assoc. 7423
act. planar lightwave cct. technol. *(Japanese)* 17183
addit. fringe ESPI, phase extraction 7809
addressable SLM, image readout 31008
airborne CW Doppler lidar, wind field meas. 26726
airborne laser scanner meas., filtering and calib. 43484
alkali halide surfaces, opt. sens. 32981
all-opt. proc., vectorial interacts., second-order cascading 2632
all-opt. sig. proc. via quadratic nonlin., coherent interacts. 32990
analog apodizers, binary ang. sectors 22986
antenna phased arrays, time delay transmit/receive opt. beamforming syst. 8076
associative memory design based on coherent four-wave mixing 1658
atmos. turbulence, finite-size obj. double-passage imaging 26725
azo dye doped EO-PVA film, opt. storage character *(Chinese)* 14335
bacteriorhodopsin SLM, opt. proc. 31672
beam-steering/jammer-nulling photorefr. phased-array radar proc. 7437
binary images, second-order histograms 33073
bispectrum anal., 1D regular fractals, additive random noise 32979
Bode transform, opt. implement. 24652
cathodoluminescent screens, partially coherent radiation, recording and inform. proc. 34645
CCD holographic image sens., first-arriving light spatial filtering 34588
CCD images, readout noise compensation 24495
cellular logic two-level networks for morph. image proc. 31038
CMOS VLSI smart visual micro-sens. based on insect vision 34569
coherent opt. proc. for inverse filter generation 39511
conf., opt. information processing advances, USA (1994) 36893
conference, nonlinear optics/optical processing, Japan (1993) 11538
cuneiform inscription anal., holographic image proc. techs. 23466
DCS for very-high-speed networks 9151
decoding archit., iterated fn. syst. code algm. 33079
degraded images, blur ident. and restoration, generalized cross-validation criterion 33085

optical information processing continued
diffractive opt. element design for opt. sig. proc. 32944
discretised objs., geom. charact. determ. 41154
double-layer cell FLC polariz.-control devices 22958
DP neural-network device for adaptive opt. syst. 14564
electro-holography, inform. reduction *(Japanese)* 2148
ESPI deform. anal., phase eval. 40161
fiber-optic array alg. opt. computer proc. archits. 22978
fibre optic faceplate, colour image storage 30872
forest change, automated rem. sens. image method 43487
fractional Fourier domain filtering and chirp transforms 16007
fractional Fourier domains, convolution and filtering 32978
fractional FT, photonic implement. 8471
freq.-phase optoelectronic speed-measuring devices 42947
freq.-resolved opt. gating, generalized projections, pulse retrieval 23334
FT profilometry, obj. shape meas. 8490
Gabor's expansion coeff. coherent-opt. generation, Zak transform 33081
glass on Si, opt. interconnections/hybrid optoelectronic integrat. 31113
glass-ceramic, laser-stimulated opt. props., local change 7259
grating reflector opt. fibre transversal filter sig. proc. 30918
gray level image filtering, Q-state mean field annealing algm. 8508
Gunn effect radars equipped, sig. opt. proc. 42509
Hartley intens. spectrum reconstruction from sinusoidal crossings 24424
heterojunction phototransistor-LD integrated device, flip-flop and multivibrator fns. 31048
holographic image reconstruction, time-multiplexing, aberration correction 23473
holographic lens, constr.-reconstruction wavelength shift, image aberrations 31683
holographic points patterns, image space/spectral anal. 40128
Hough-transform filter for plural element shape parallel detect. 33080
image vel./opt. flow meas. by augmented generalized gradient scheme 2592
impurity activated solids, hole burning, zero-phonon line appls. 7791
information optics frontiers, conf., Kyoto, Japan (1994) 28211
information technologies/systs., conf., Ukraine, 1993 3
integrated opt. spectrometer, polaris. independent 14552
integrated optic device modules, sig. proc. 39460
interferogram fringe pattern anal., noise reduction 33005
interferometric sens., opt. demodulated 17852
IR detector array, point spread fn. from imprecise meas. data 17788
IR imager continuous syst. transfer fns. from sampled pulse response data 9941
Japanese writing characters, pattern recogn., visual field changes with familiarity 41064
joint transform correlator, incoherent output 8660
large-depth obj. 3D reconstruction, Ronchi grating Fresnel diffr. 32982
laser beam phase sing. charge and posn. detect., holograms 23458
laser interferometers for lin./ang. displacement control appls. 39592
LD direct FM, coherence fn., inform. proc. 32977
lidar profiles, deconvolved, pulse-shape uncertainty effect on accuracy 25587
lightwave commun., opt. amplified receivers, moment generating fn. 42363
lin.-contoured image struct. anal., opt./digital 2819
low-cost colour SLM develop. from liq. cryst. TV 42753
machine vision optics, illumination, and image sensing, conf., Boston, USA (Sept. 1993) 20194
motion segmentation and vel. integrat., filter selection model 8659
moving observer, extracting obj. motion, optic flow and binocular disparity 32901
multi-orient. filters 16166
multimode fibres, partial phase conjug., image restoration fidelity 24423
multiple target detect., fringe-adjusted joint transform correlator 16277
multiple-image FT spectral imaging, fast phenom. meas. appls. 33086
multiplexing/demultiplexing techs., ultrafast transm. 17226
multistage interconnection network systs., opt. devices, design 1829
obj. beam expander noise monitoring in speckle correl. interferometry 33143
obj. tracking novelty filters, resoln. theory 41298
ocean coastal AVHRR imagery, data acquisition & study 10504
on-platform radar and opt. track fusion 9647
opt. neural networks based on opt. nonlin. devices 22974
optical processor systems, conf., Orlando, USA (1994) 5435
optoelectronic deflectors operation 39480
optoelectronic integrated device, opt. multi-stable fns. 23058
optoelectronic proc., image detail morph. enhancement, rank-order 24487
optoelectronic science/engineering, conf., China (1994) 28207
parallel opt. inform. proc., appl. *(Japanese)* 32853
partially absorbent phase objs., phase reconstruction/unwrapping from holographic interferograms 31663
pattern projection by conventional, diffractive optics 15173
PC compatible opt. data acquisition unit 3751
periodic waveguide gratings design, asymmetric discrete-time anal. 22897
phase shifting interferometry, ref. phase shift determ. 33072
phased array antennas, rem. located modulators 9540
photon echo, discrete digital DP 31607
photon-limited images, low-pass filtering, histogram spec. 33144
photonics materials for IT, conf., USA (1994) 11523
photorefr. fiber array for holographic memory 30828
photorefr. MQW materials, appls., sig. proc. 29915
photorefr. two-beam coupling optimal thresholding filter for additive sig.-depend. noise reduction 23406
planar lightwave ccts., opt. sig. proc. 39458
PLL interferometric profilometry 3984
polaris. interferometer-based spectral imaging syst., liq. cryst. cells 31010
polyvinyl alcohol film, methyl-red doped, SLM 22930
profilometer, multiple virtual styli, IC packaging/interconnects 34337
quasi-phase-matched SHG by backward propag. interact. 31559
real-time digital single-exposure speckle photography for vel./flow fields study 41299
real-time morph. transforms opt. proc. *(Chinese)* 16335
real-time shearography, fractional fringe order by phase shifting 32856
recording codes based on sampled servo format, perform. comparisons 15756
refl. holographic screen, stereographic displays 31676
rem. sens., principal components transform matrix 18786
rem. sens. spectral image class., Kohonen neural net *(Chinese)* 43478
rot.-invariant filter, opt. wavelet transform, pattern recogn. 33084
rough surfaces, glitter fn. for rem. sens. 16304
SAR image form., opt. proc. 17417
sea ice motion rem. sens., opt., automated method 10550
selectively erasable LCD, opt. storage appls. 7409
self organizing opt. systs. 31043
self-clocked self-routing photonic bit switching archit. 42127

optical information processing continued
semicond. device defects, image display/anal., laser scanner 32818
sens. develop. technol. overview *(Japanese)* 17802
solder paste printer vision systs., SMT/PCB manufacture 38106
soliton transm. on opt. fibres *(English, French)* 42342
spatial vision, demodulation and predictive coding 41155
surface emitting opt. devices, 2D integrat. 7482
TDI CCD image camera, dyn. recording 17933
telecomms., ultra-fast self-routing networks 16532
thin film waveguides for opt. neural devices 39522
topography, ice-covered terrain, shape-from-shading algm. 18787
transition of opt. processors into systs., conf., Orlando (1993) 28242
true-time delay fibre optic steering syst. for phased array antenna 23994
twin core nonlin. fiber couplers, soliton-effect pulse compression 30917
two-state two-particle quantum systs., inform. transfer 15693
ultrafast low-sig.-level opt. waveform digitization, induced beam deflection 7794
ultrafast opt. phenom., visualisation *(Japanese)* 32932
vol. holography for one-way image transm. and reconstruction 8661
wideband microwave sigs., opt. nulling 41205
wind meas. by heterodyne coherent laser radar 43504
X opt. coupler with nonlin. dielec. region, anal. 31502
AlGaAs-GaAs ARROW waveguides, atten. meas. 30931
BaTiO$_3$ photorefr. opt. novelty filter, design and perform. 31059
Bi$_{12}$SiO$_{20}$ photorefr. integrator charactn. 7422
CdS thin films, opt. bistability, luminesc., DP device archit. 40032
Fe garnet thick film Faraday effect sens., domain effects 25818
GaAs MESFET opt. triggered monolithic S/H cct. design 39590
GaAs cascaded guided wave gratings, out-of-plane opt. sig. proc. 14481
InAs MQW photorefr. material 30814
InGaAs/InP, pin photodiode array, integrated lens *(Chinese)* 14613
KTiOPO$_4$, parametric image amplif., spatial freqs. transfer fn. 23353
LiNbO$_3$, ang. selectivity, multiplexed hologram cross-talk 31648
PbMg$_{1/3}$Nb$_{2/3}$O$_3$, quadratic electrooptical effect, opt. inform. proc. 7826
SiO2/Si, planar lightwave ccts., opt. sig. proc. 14487

optical instruments
see also colorimeters; ellipsometers; light interferometers; optical microscopes; optical prisms; optical scanners; optical sensors; photometers; polarimeters
cryogenic optical systs./instruments. conf., Orlando (1994) 36837
excimer laser ablation apparatus opt. syst. *(Japanese)* 23480
heterodyne interferometry-laser microscopy hybrid meas. syst., acousto-opt. deflectors 31023
hole diam. opt. meas. instrum. develop. *(Japanese)* 42939
metallic contamination in ULSI, opt. monitoring techs. 29991
quasiconical energy analyser, instrum. fn. 23026
scintillometer for atm. C_n^2 and winds meas. 4396

optical interconnections
1D interconnection parallel opt. data links 42431
2D opt. three-layer neural associative memory 39524
2D WDM reconfigurable opt. interconnection smart pixels 42099
3-D optoelectronic interconnect 9542
3D opt. interconnected neural network 1773
155 Mb/s FET-SEED free-space switching network 14649
act. mini-MCM daughterboard, opt. interconnect insertion, microelectronic systs. 11784
adaptive device, competitive learning cct. 39518
alignment tolerance in hybrid source and receiver arrays 20460
all-opt. formatted photonic packet switches archit. 3302
antenna array photonic systs. 2352
array opt. switching syst.-level VLSI platform for opt. interconnection insertion 42129
asynchronous opt. chip interconnects with direct detect., crosstalk anal. 9440
ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
axially symm. four waveguide coupler design 30951
B-ISDN switching syst. subsyst. opt. interconnections 41914
backplane for broadband switching syst. 25174
bacteriorhodopsin thin film interconnections, dyn. contrast reversal, self-PM 1783
CGH, opt. computing/neural net channel addressing 31632
cluster-based shuffle network, conflict-free channel assignment 3578
conf., opt. information processing advances, USA (1994) 36893
COSINE III 3D board, board free space opt. interconnection multiprocessor 39516
cross-connect opt. systs., FDM technol. 9145
cross-connect syst. utilizing delivery and coupling matrix switch 16985
custom IC, conf., San Diego, USA (1993) 36842
diffractive opt. interconnect element design for digital switching 39593
diffractive optics and CGH, opt. interconnects 31044
diffractive/holographic optics, conf., Los Angeles, CA, USA (Jan. 1994) 36836
digital opt. cellular image proc. parallel archit. 1772
digital opt. matrix-vector multiplication realization 22976
distributed multimedia computing, large scale multimedia server 41984
distributed shared memory environ., perform. model 41491
electrooptic polymer waveguides, packaging and charactn. 39491
fault-tolerant switches for photonic networks 16976
fiber in board electro-opt. interconnection syst., packaging 42429
flip-chip bonding of holographic opt. interconnects, alignment 38177
free space opt. interconnects, LD array, microlenses, photodetectors 7486
free-space digital opt. SEED switching systs. 3301
free-space holographic parallel optoelectronic computer, 300-MHz optoelectronic counter 7429
free-space interconnect based optoelectronic integrated systs. 1766
free-space matrix multiplier, diffractive/refr. micro-optics 7489
free-space opt. interconnection prog. opt. logic systs. 39517
free-space opt. interconnections, equal path lengths by layered struct. 1757
free-space optoelectronic technol. neural networks 1774
free-space parallel opt. interconnects, cascadable thyristors 23063
free-space WDM interconnections based opt. switching nets 33726
glass on Si, opt. interconnections/hybrid optoelectronic integrat. 31113
high-capacity photonic space-division switching syst. for broadband networks 25533
holographic interconnections, alignment, switching, resoln. 40165
integrated opt./optoelectronic switch for parallel opt. interconnects 31127
integrated optoelectronic interconnect for phased-array antenna appls. 7494
interconnection technol., colloquium, London, Nov. 1994 5482
intra board opt. interconnects, high bit rate modules 17279
intra-syst. interconnection, opt. fiber fabrics 42428

optical interconnections continued
IR FPA opt. interface technol. 34582
lenslet array opt. neural network, coaxial archit. 22973
LEOS, San Jose, CA, USA (1993) 20270
long data stream convolution, opt. implement. 1762
low-threshold 1.3 μm MQW LDs, high-speed modulation 31335
MCM, optoelectronic, layout, phys. models and algms. 29712
mesh-connected opt. multiple-access bus interconnects 1770
microlens opt. coupling of LD array, single-mode fiber array 39355
military hostile environ. appls. 43568
Mitsubishi semicond. laser array for opt. interconnection 31313
modular avionics, opt. interconnect, connectors, hybrids and backplanes 18721
monolithic photonic/optoelectronic switching technol. 9146
motherboard technol. for active array opt. interconnection and packaging 23985
multi-fibre array packaging technol. 39356
multimode fiber-to-waveguide coupling suitable for pass. alignment 1674
multistage interconnection network systs., opt. devices, design 1829
multistage opt. butterfly interconnection and optoelectronic logic operations 1759
multistage opt. switching network interconnections, orthogonally polarised data 39515
N×N cross-bars, opt. implement., RNI devices 7433
neurocomputers based on massively parallel opt. archit. 1775
nonlin. glass-based opt. switches, BPM design/simul. 17167
nonsymmetric opt. neural networks, memorized pattern retrieval 1776
nonuniform wt. error diffusion CGH opt. interconnections 1839
OFDM-LAN transparent all-opt. interconnection 17346
optoelectronic buses for high-perform. computing 1771
optoelectronic computing 31041
optoelectronic TOF all-opt. stored program digital computer design 1769
optoelectronics technol. consortium (OETC)- opt. data link/optoelectronic components 33485
organic LEDs, Si compatible monolithic integrat. 14664
parallel opt. data links, VCSELs 42367
parallel opt. interconnect, SEL and photodiode arrays 39601
parallel opt. interconnect modules, multifiber connectors 17277
parallel optoelectronic computer, opt. interprocessor connections 39509
perfect shuffle opt. interconnect module 39513
photonic LSI interconnections/appls. 1833
photonic RF phased-arrays, phase noise from lasers and sources 8075
photonic SONET fund. frame structs. 42362
photonic transport networks, opt. path cross-connect node archit. 16983
photonics for broadband switching 16977
phototransistor/LED based optoelectronic differential multiplexer logic 1837
pigtailing and connectorization techs. for optoelectronics 39610
planar liq. cryst. opt. switch for opt. commun. 34014
planar opt. crossover interconnect config. 39607
planar packaged free-space opt. interconnections, computing/switching 1767
planar-opt. mesh-connected tree computer chip interconnects 39602
polariz.-opt. morph. proc., prog. struct. elements 31036
polyguides for opt. interconnect appls. 7493
polyimide electro-optic integrated modulator syst. 22929
polymer electro-optic waveguide modulators for data commun. 31000
polymer-based single-mode bus array, channel cross-coupling 14668
polymers, OEIC connections 1830
prog. Dammann grating, interconnections, FT lens, SLM 39450
prototype opt. deflection network, design and implement. 3300
rare-earth doped materials, time freq. domain opt. storage 22791
reconfigurable nearest-neighbour opt. cellular automata interconnects 1764
red sensitive photopolymer holographic plate grating coupler *(Chinese)* 15164
scalable opt. hypercube-based interconnection network for massively parallel computing 7430
SEL opt. devices, low threshold 39787
self-aligned integrated mirror intrinsic loss anal., finite-difference beam propag. method 39613
shaped quantum well opt. modulation, enhanced electrorefractive effects 39492
Si V-grooved waferboard, strained MQW semicond.-laser array coupling, fiber array 7491
stacked ARROW crossconnect, 3D opt. interconnects 14494
staggering switch archit. growability and packet sync. 42126
strained MQW LDs, 1.3 μm, 1 Gbit/s bias-free operation 39868
substr. mode holograms design, opt. interconnects 7846
supervised/unsupervised hybrid opt. neural networks, JTC 31033
surface emitting diode lasers 14902
surface emitting opt. devices, 2D integrat. 7482
sync. opt. chip interconnects, perform. anal. 39604
three-sect. DBR lasers, fast wavelength switching 25479
translation-invariant second-order opt. neural network for multiple-pattern class. 24486
tunable interconnection network, thick photorefr. cryst. 15182
ULSI CMOS/opt. polymer opt. interconnections 1832
ultralow threshold laser, zero-biased, ultralow power opt. interconnect 14672
VanderLugt folded opt. module correlator design geom. 24651
VCSEL, integrated opt. beam router, opt. interconnection 23305
vert. cavity SEL arrays/micro-Fresnel lens array integrat. 23304
vert.-cavity SELs, 967 nm, integrated refr. microlenses 14898
wavelength multiplexed holographic lens arrays for opt. interconnection 40132
wavelength routing fiber LAN network throughput 42417
WDM cross connector electro-opt. controlled multiwavelength switch 34008
wormhole routing on multichannel ring networks, opt. fibre interconnection 3217
Z-axis assembly proc. for connectorized opt. fiber ccts. 14380
AlGaAs/GaAs intracavity laser coupled VCSEL syst., opt. gain control 39774
GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891
GaAs-AlGaAs FET-SEED technol. based ring oscillators 23057
GaAs-AlGaAs p-i-n MQW modulators, opt. bandwidth 39476
GaInAsP/InP surface emitting lasers, materials, performance and appls. 14868
InGaAs/AlGaAs multiple wavelength VCSEL array for opt. interconnection 31334
InGaAs/InP, pin photodiode array, integrated lens *(Chinese)* 14613
InGaAsP/InP tapered two-layer waveguides for chip coupling, single-mode fibers 30974

- **optical interconnections** continued
  - InGaAsP-InP 10-element monolithic laser array in parallel interconnects 14961
  - LiNbO$_3$ photo-induced waveguide fab. 30939
  - LiNbO$_3$ photo-induced waveguide, opt. dyn. 3D interconnections 39523
  - Si LSI single-chip integrat. of LED, waveguide and micromirrors 39615
  - Si hybrid integrated fibre optic transmitter 17280
  - Si integrated optoelectronic VLSI commun. cct. 34033
  - Si:Er light emitters in integrated opt. interconnects 23060
  - intell. parallel opt. link and LSIs 34055
- **optical interconnects** *see optical interconnections*
- **optical interference** *see light interference*
- **optical interferometers** *see light interferometers*
- **optical interferometry** *see light interferometry*
- **optical isolators**
  - *see also magneto-optical isolators*
  - coaxial laser module for Gb/s transm.-speed range 17275
  - high-opt.-isolation low-loss moderate-switching-speed NLC opt. switch 1746
  - MQW laser amp. module, 27 dB gain unidirectional 1300 nm polariz. insensitive 14860
  - semicond. opt. amp. switch gain optim. 39879
  - Cd$_{1-x-y}$Mn$_x$Hg$_y$Te single cryst. opt. isolators for high power LD pumping 3556
  - Er-doped 980-nm single-pump recycled fibre amplifer optim. 31226
  - Er-doped fiber amp. AM CATV syst. RIN noise 9576
  - Er-doped fiber amp. polariz.-scrambled fiber-loop config., gain-peak-wavelength meas. 14359
  - Er-doped fiber amps./opt. isolator 23134
  - Er-doped fig.-8 mode locked fiber laser stabilization 7568
  - Er-doped refl. insensitive fiber amp., isolator insertion 31215
  - Er^{3+}-doped fiber amp., low noise, fab., opt. preamplification expt. *(Korean)* 31218
  - KTa$_x$Nb$_{1-x}$O$_3$:Fe, asymmetric opt. transm. device 40076
- **optical Kerr effect**
  - 2D feedback nonlin. opt. syst. with field rot., diffractive patterns 7752
  - alkali metal vapour, phase-matching for efficient third-harmonic generation 15103
  - Brillouin fiber ring laser, freq. stabil. 14762
  - cascaded Kerr birefr. fiber PM simul. 7806
  - Cherenkov FEL, Kerr-like medium loaded, efficiency enhancement 23319
  - Cherenkov laser, Kerr-like medium 7699
  - dark opt. bullets in light self-trapping 23416
  - degenerate parametric oscillators, ultrashort-pulse generation 40089
  - DFB lasers and solitons 15060
  - dielec. slab, TM$_0$ mode propag. 40398
  - dye doped film phase-matched grating generated by enhanced forward DFWM 15077
  - feedback laser resonator, quantum nondemolition tracking 23325
  - fiber resonators, nonlin. opt. bistability and differential amplif. 2115
  - fibre link systs. 4000 km long, perform. comparison 42377
  - fibre polariz. mode dispersion compensation by Kerr effect for nonreturn-to-zero sigs. 22820
  - functionalized polymers, nonresonant opt. Kerr nonlin. 40098
  - Gaussian beams and pulses, nonlin. propag. in Kerr media 23445
  - grating couplers, nonlin. optics, modal diffr. theory 15071
  - guided TM wave propag. by nonlin. media interface 22901
  - isotropic Kerr-like media, nonlin., TM solns. 22906
  - light beam collision in neg. Kerr-type medium 31537
  - lin. birefr. in opt. fibres, freq. derived meas. anal. 17915
  - magneto-optic nonlin. waveguides, TM waves, power flow study 22965
  - multi-freq. spatial solitons in Kerr media 15041
  - multilayer slab waveguide nonlin. modal fields by finite difference beam propag. method 40433
  - naphthalenes, 1,8-disubstituted, conform., dipole moment, Kerr effect 2079
  - near-Kerr nonlin. media, soliton internal friction and inelastic interact. 31627
  - neural network, Kerr-type nonlin. materials 31030
  - NLC cells, opt. nonlin., voltage sensitivity 7730
  - nonlin. grating couplers, anal. by sing. perturb. tech. 14445
  - nonlin. Kerr media, beam steering, spatial PM 2057
  - nonlin. Kerr medium, Maxwell eqns. 7755
  - nonlin. Kerr-like ordered liq., stochastic procs. 7727
  - nonlin. Kerr-type resonators, modulational instabilities, suppression 2123
  - nonlin. opt. channel waveguides, nonstationary-field dyn. 7367
  - nonlin. opt. waveguide, iter. finite difference anal. *(Japanese)* 7352
  - nonlin. waveguide arrays, spatially solitary wave evol. 39426
  - normal dispersion regime, spatio-temporal coupling, NLSE approx. 22807
  - normally dispersive fibers, single-mode laser pulses propag. 1696
  - optoelectronic devices for consumer appls. 7492
  - organic materials, nonlin. opt. props. switching devices appls. 23423
  - organic nonlin. materials, efficient ultrafast opt. Kerr shutters 2056
  - periodic GRIN waveguides with Kerr nonlin., Gaussian beam control 40426
  - poly(2,5-thienylene vinylene) film, reson. opt. Kerr effect 15085
  - ring lasers, mode-locked, cavity design 31453
  - semicond. laser spatial patterns/solitons 31616
  - single feedback expt., hexagonal patterns form. and charactn. 2122
  - single-mode fiber, opt. phase-conjug. waves and compensation for pulse shape distortion 17259
  - single-mode fibre, opt. phase conjug., chromatic dispersion, self-PM 30856
  - spatial soliton collisions, weak-beam switching props. *(Spanish)* 7757
  - spatial solitons excitation by second-order Hermite-Gaussian beams 23446
  - superlattices, light transm. dyn., bistable behaviour 15031
  - symmetric nonlin. directional coupler, coupled mode anal. 7366
  - sync. driven fiber optic resonator near zero dispersion, chaos 30852
  - tapered fibre nonlin. Kerr self-PM effects anal. 30885
  - tapered nonlin. waveguides, num. simul. of pulse propag. 40431
  - transient ultrafast Kerr lens in soln. detected by dual-beam thermal-lens method 23380
  - UV subps laser pulse meas. based on Kerr shutter ultrafast beam deflection 15045
  - vortex soliton dyn. in Kerr nonlin. materials 31509
  - waveguide grating couplers, nonlin. optics, modal anal. 14458
  - As$_2$S$_3$-based fibre, laser driven ultrafast all-opt. switch 22822
  - CdS, colloidal microcrystallites, CW self-focusing/PM 31531
  - Er-doped Kerr-type mode locking fiber laser stabilization 7565
  - Er-doped in-line fiber amp. Kerr nonlin./noise 9444
  - Er-doped soliton fiber laser based on pulse width control, chirped fiber Bragg gratings 23129
  - Er^{3+}-doped fibre directional coupler, nonlin. refr. index 30873

- **optical Kerr effect** continued
  - Fe, surface domains, lancet shape 39137
  - GaAs MQW directional coupler waveguide saturable Kerr effect 15118
  - GaAs symmetric/asymmetric QW struct., lin./quadratic electrooptic effects 21999
  - KTiOPO$_4$, sub-picosecond opt. parametric oscillator, Kerr lens mode-locking 31564
  - LiNbO$_3$:Ti nonlin. directional coupler 39401
  - Na$^+$-Ag$^+$ ion exchanged waveguides, nonlin. TE wave anal. 39424
  - Nd:YAG CW self-starting mode locked laser, cascaded second-order nonlin. 39745
  - Nd^{3+}:YLF laser, chirp diagnosis, nonlin. Kerr coeff. 23338
  - Nd-doped fs fiber laser, controllable dual-wavelength operation 23131
  - Ti:Al$_2$O$_3$, Kerr-lens mode-locked femtosecond lasers, dispersion-compensation 1889
  - Ti:sapphire fs laser pulse space-time focusing 23182
  - Ti:sapphire high intens. femtosecond laser syst. *(French)* 1891
  - Ti:sapphire laser, self-starting, femtosecond pulse generation 1890
  - Ti:sapphire self-mode-locked laser *(Chinese)* 14803
  - Ti:sapphire ultrashort laser pulse intens./phase meas. 14778
  - YLF:Nd laser, Kerr-lens mode-locked 23141
- **optical klystrons**
  - CLIO FEL, step-tapered undulator, two-colour operation 39933
  - Duke storage ring UV FEL, dyn., 3D code 39957
  - FEL, spectra and intens. spatial profile visualisation 40015
  - NIJI-IV FEL storage ring, opt. klystron effect on electron beam 39959
  - NIJI-IV storage ring FEL, dielec.-coated cavity mirror degrad. and restoration 39962
  - NIJI-IV storage-ring FEL, UV lasing study 39953
- **optical lenses** *see lenses*
- **optical links**
  - *for optical fibre links, use "optical fibre communication" and NTs as appropriate*
  - *see also optical communication equipment*
  - 1D interconnection parallel opt. data links 42431
  - 2.5 Gbit/s transm. expt., 1000 km of std. single-mode fibre, 1550 nm *(English, Italian)* 33993
  - 3-D optoelectronic interconnect 9542
  - 4 km 155 Mbit/s terrestrial LOS opt. free space link 17291
  - 155 Mbit/s 4 km opt. free space link low noise opt. receiver 42409
  - 622 Mbit/s TDMA PON, novel burst mode opt. transmitter *(English, Italian)* 33991
  - 1550 nm dense-WDM opt. links 42382
  - ADRIA 1, opt. fibre submarine cable syst. 33736
  - advanced access network archits. and service demand forecasting 42064
  - airborne laser commun. syst., adaptive jitter rejection tech. 17310
  - antenna array photonic systs. 2352
  - Australian ESI, commun. develops. 26975
  - BMDO/IST lasercom advanced technol. demons. status 17290
  - broadband microwave fiber optic links, lin. integrated-optic modulators 9536
  - cableless LANs, emerging technol. 41900
  - CATV, evol., digital technol. 9739
  - CATV 151-channel AM-FDM transm., 1.3 μm SL-MQW-DFB laser, high opt. output power 25542
  - CATV DFB LD, second-order distortions meas. 34004
  - CEMERLL (compensated Earth-Moon-Earth laser link) expt. 17287
  - China's economic develop., fiber optic networks 3044
  - coal mine transportation arcing, detection/suppression method 20107
  - coherent opt. controlled phased array antenna syst. 7324
  - coherent RF sig. combining in phased array, photonic techs. 9539
  - compact disc lasers, gigabit fibre optic links 42451
  - compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
  - control proc. syst. archit. for Optical Communications Demonstrator 17314
  - deep-space commun., coherent detect. opt. relay satellite 17298
  - deep-space commun., direct detect. opt. relay satellite 17293
  - deep-space commun. via relay satellite, RF and opt. archits. 17285
  - desktop CSCW syst. 16691
  - developing economies, cost effective installation and maint. of subsea links 3308
  - developing nations, submarine fiber-optic systs., economic building block 3307
  - DFB laser chirp pulse pattern dependency, modulation and transm. perform. *(Japanese)* 39801
  - digital atmos. opt. link 3588
  - direct detect. opt. commun. syst. that operates in sunlight 17319
  - distrib. substation automation develop. 11214
  - DS-CDMA nonlin. effects in opt. transm. 34030
  - DSSC lin. for wide dyn. range opt. link 9538
  - elec. utilities, involvement in inform. superhighway develop. 43658
  - elec./telecom. infrastructure develop. projects, Estonia 43639
  - electrothermal-chem. gun, meas. techs. 31751
  - embedded opt. fibre data bus, inpact survivability 3864
  - European research project COST 239, ultra-high capacity opt. transm. network 34040
  - externally modulated analog opt. links, dyn. range 9537
  - fiber optic data links for satellite data mgt., particle-induced bit errors 17262
  - fiber-optic WAN, tactical airborne sens./ground station 43569
  - Fibre Channel networks, optical link bandwidth optimisation 33460
  - fibre commun. network, operation/maint. strategy 25541
  - fibre optic aerial plant, self-healing failures 3581
  - fibre optic microwave delay line, meas. method 7300
  - fibre optic video/audio link, adverse environ. appls. 3579
  - fibre PPM, slot/frame spectral props. 3576
  - FITL couplers, reliab. assurance 3539
  - free space laser commun., demons. of jitter rejection tech. 17313
  - free-space laser communication, conf., Los Angeles, USA (1994) 5437
  - free-space opt. commun. syst., Faraday filter 9486
  - future broadcast technols. 3651
  - global power architect. 19813
  - high-speed tracking target simulator for fine tracking mechanisms 17305
  - integrated power/opt. overhead cabling, utility experiences, UK 35651
  - inter-vehicle networking method, laser media 3078
  - intersatellite commun., heterodyne opt. detect./spatial tracking syst. 34077
  - intersatellite opt. preamplified PPM syst. anal. 34078
  - invertor control/status sigs., fault resistant opt. fibres 5134
  - IR wireless indoor channel, freq. response 17247
  - Iridium and MSS constellations, effect of solar interf. on laser commun. 33941

optical links continued
- Jet Propulsion Laboratory, opt. commun. program 17283
- JWOTS, fibre optic commun. network, power utility 25494
- laser binary FSK communication, integrated heterodyne receiver/spatial tracker 17296
- laser commun., acquisition and tracking, CCD 17306
- laser commun., Fabry-Perot interferometer for freq./spatial tracking 17312
- laser commun., opt. commun. demonstrator 17289
- laser space commun., adaptive opt. multi-aperture receiver antenna 17321
- linewidth-insensitive coherent AM opt. link, direct/external modulation format comparison 42410
- LITE (Laser Intersatellite Transmission Experiment) model, functional testing 17288
- long-dist. soliton transm., 20 Gbit/s, alternating-amplit. solitons and opt. TDM 34018
- long-haul fibre links, light depolarisation 34053
- military satellite commun., IEE Colloquium, London (1995) 36863
- monolithic photonic/optoelectronic switching technol. 9146
- MOPA LD for satellite commun. 17300
- multichannel biomedical data acquisition, analog opt. link in SMT 17690
- multigigabit opt. transm. expt., free-space simulator 17286
- multimode fiber optic syst. design 3580
- NASDA, opt. intersatellite commun. research 17282
- NEC's digital cellular base station syst. *(Japanese)* 17081
- nuc. phys. expts., opt. fiber links 22843
- opt. commun. codec, high data rate error correction coding 17316
- Optical Communication Demonstrator instrum., syst. design 17323
- OPTOBUS parallel opt. links, data transm., 3 Gbits/s 3563
- optoelectronics technol. consortium (OETC)- opt. data link/optoelectronic components 33485
- parallel opt. data links, VCSELs 42367
- phased array antennas, rem. located modulators 9540
- photonic networks, pulsed lightwave freq. supply module 9605
- photonic switching archits., comparative study 42133
- photonic transport networks, opt. path cross-connect node archit. 16983
- photonics networks *(German)* 17236
- plant automation, parallel computers/fiber optic commun. links interface 34026
- PLL, amplit. modulated commun. link 42347
- power indust. fibre optic network project, Poland 10683
- power syst. telecontrol commun., develop. trends 19189
- power utilities, opt. fibre commun. technol./trends 26976
- profibus, light waveguide interlinking *(German)* 42446
- radar phase noise meas., fiber-optic delay lines 34155
- rib anti-reson.-reflecting-waveguide coupler, rem. coupling 39425
- satellite earth station sig. distrib., opt. phase division multiplexed transm. 17339
- satellite laser commun. links *(Japanese)* 17341
- Siemens MINISUB non-repeatered submarine cable syst. 34041
- single-mode fiber systs., random mode coupling effects on polariz. mode dispersion and power penalty 30855
- small opt. user terminal, flight config. 17292
- SOUT opt. intersatellite commun. terminal 3536
- space commun., pointing, acquisition and tracking 17148
- space commun., second generation small opt. terminals 34045
- space laser commun., effect of turbulence on M-ary coherent PSK systs. 17317
- submarine cable network procurement in 2000 and beyond 3034
- submarine fibre-optic syst. technol., review and future prospects 3574
- submarine opt. cable systs., cost-effective backhaul routes 3306
- submarine opt. cable systs., future prospects 3035
- SW high reliab. LD for opt. data links 42430
- Taiwan, opt. network constr. 3573
- TDRSS-LIGHT, space commun. archit. 17295
- telecomm. network reliab. modelling, environ. considerations 16625
- Trans Europe line (TEL), fibre-optic link, Eastern/Western Europe 33977
- turbulent atmos. light propag. 17256
- two-way opt. fiber wideband FM sig. transm. 3553
- ultra-high capacity telecomm. *(Japanese)* 3545
- USA, fiber otpics deployment via non-traditional rights-of-way 3572
- Venezuela, RED Costera opt. submarine cable syst. 3575
- video multiplexing, pulsed coded fiber optics 8676
- VXIbus embedded PC-based data acquisition 17688
- Washington D.C. metro syst. tunnels commun. syst. 9281
- wavelength switching in opt. networks, acousto-opt. switches 17229
- WDM sig. transm., crosstalk elimination cct. 3552
- wireless LAN, intra-office commun. 41858
- Er doped fibre amps., gain peaking, undersea appls. 14746
- GaAs transmitter/receiver chipset for opt. link 42404
- InGaAs/InP PIN waveguide photodetector, high saturation intens. 7463
- InGaAs/InP photodiode-opt. fiber array module using Si v-groove, photonic syst. appls. *(Korean)* 34013
- InGaAsP electroabsorption waveguide modulator, shipboard analog links 9535
- SiO$_2$ fiber nonlin., lightwave systs. 17209

optical lithography *see photolithography*

optical logic
- 1-bit symbolic substitution adder, opt. implement. *(Korean)* 31028
- adder based on soliton interact. props., theoretical model 14557
- all opt. SEED switching systs., appls. 9143
- ANN for commun. systs. modeling/simul. 17246
- asymmetric spatial soliton dragging opt. logic gate 15043
- BOD, LDs coupled, interf. filters 31554
- calcite plate integrated polariz.-opt. logic proc. 1755
- carry chain fast adder, hybrid opt./electronic approach 31025
- cellular logic two-level networks for morph. image proc. 31038
- complex opt. matrix-vector multiplication, neg. binary inner products 1756
- digital opt. computing, symbolic substitution implement. 39525
- diode laser logic, smart pixels for opt. sig. proc. 7496
- dispersion mismatched nonlin. fibre coupler logic operations 30916
- electron-trapping material optoelectronic neural dendritic tree proc. 39520
- fiber optic LAN, RIB interface, soliton-dragging gates 41823
- four-grating interferometer for opt. logic gate implement. 31047
- free-space digital opt. SEED switching systs. 3301
- free-space holographic parallel optoelectronic computer, 300-MHz optoelectronic counter 7429
- free-space matrix multiplier, diffractive/refr. micro-optics 7489
- free-space opt. interconnection prog. opt. logic systs. 39517

optical logic continued
- heterojunction phototransistor-LD integrated device, flip-flop and multivibrator fns. 31048
- hit-or-miss transform binary/gray-tone image proc. archit. 2717
- hybrid sparse-wavelength angle-multiplexed opt. data storage syst. 22794
- hybrid-opt. parallel array logic syst. 16^2, overall operations 31046
- liq. crysts., opt. nonlin., opt. logic appls. 15120
- liq.-cryst. light valve, opt. parallel logic gates 1754
- multichannel fiber-optic optoelectronic correlator 24427
- multistage interconnection network systs., opt. devices, design 1829
- multistage opt. butterfly interconnection and optoelectronic logic operations 1759
- N×N cross-bars, opt. implement., RNI devices 7433
- N-bit parallel opt. adder, fully parallel arith. algm. 31024
- opt. fibre monolithic wavelength demultiplexing switch arrays 42374
- optoelectronic EX-OR, phototransistors and VCSELs 39512
- optoelectronic fuzzy syst., inference methods, stabil. eval. 31045
- optoelectronic TOF all-opt. stored program digital computer design 1769
- P-OPALS, pure opt.-parallel array logic syst. 1768
- photonic SONET fund. frame structs. 42362
- photorefr. nonlin. optics, opt. computing 31049
- phototransistor/LED based optoelectronic differential multiplexer logic 1837
- polariz. encoded opt. multiwavelength full adder 22972
- polariz.-encoded logic alg. opt. logic gate design 31039
- polyvinyl alcohol film, methyl-red doped, SLM 22930
- PTS-polydiacetylene, time-resolved nonlin. opt. studies in Fabry-Perot cavity 23411
- rare-earth doped materials, time freq. domain opt. storage 22791
- SEED based logic syst., VCSEL array input 39788
- self-prog. opt. parallel logic 39510
- shadow-casting multi-input opt. parallel logic proc. 22969
- surface emitting opt. devices, 2D integrat. 7482
- switchable-logic photonic switch array monolithically integrat. MSMs, FETs, and MQW modulators 14531
- TDM/WDM/SDM opt. computer 1763
- thin film photocond.-electroluminescent ccts., opt. sig. delays 39603
- ultrafast all-opt. AND gate, four wave mixing in laser amp. 1758
- VCSEL, opt. switching and logic gates 15048
- VCSEL-based logic, optoelectronic look-up table 31042
- vert. cavity SELs, pitchfork bifurcation pol. bistabil. 14948
- AlGaAs/GaAs intracavity laser coupled VCSEL syst., opt. gain control 39774
- BaTiO$_3$ beam fanning effect, opt. image combination/logic AND operation 31035
- BaTiO$_3$ cryst. opt. image-combiner OR gate /AND gate, beam fanning effect 7438
- BaTiO$_3$:Fe, beam fanning, edge enhancement, contrast reversal, logic operation 30822
- Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
- Er-doped fibre amp., low-latency soliton logic gates 7799
- GaAs/AlGaAs tunnelling MQW struct., picosecond opt. sig. recovery 31519
- InP-InGaAs light amplifying optical switch, XOR logic fn. 14675
- LiNbO$_3$, hologram coherent erasure and updating 31649
- Si, porous, opt. bistability, photoinduced absorpt. 2114

optical logic gates *see optical logic*

optical loss measurement
- atten. meas. in opt. cable 30868
- coherent-OTDR, reduction of stochastic amplit. fluct. 18121
- diode lasers, internal loss and quantum efficiency meas. *(Korean)* 14863
- extending range of atten. meas. 30867
- fiber losses, meas. method 30866
- high-Q opt. cavities and mirrors, laser gain meas. 7705
- IR opt. fiber, absorpt./scatt. loss meas. method 14402
- MPEOU-based polyceram planar waveguides, opt. loss study 25988
- PC-based charactn. syst. for opt. waveguides 39385
- periodic microbend bare fibre sens., stabilization/sensitivity 17919
- planar opt. waveguides, diagnostic methods 30966
- smooth transm. spectrum fibre optic switch 7330
- variable wavelength OTDR characts. and meas. 3542
- waveguides, loss meas., modified two prism method 39430
- AlGaAs-GaAs ARROW waveguides, atten. meas. 30931
- Er-doped bridge-type bidirectional fiber amp., 622 Mbit/s operation *(Japanese)* 25486
- Er-doped fiber amplifer gain peak meas. by spectral loss test 14745
- InGaAsP-InP MQW-LD fabricated by LPE, opt. charact. *(Korean)* 39802
- LiNbO$_3$:Er,Ti waveguides, fab. and perform. eval. 39438
- LiNbO$_3$:Ti channel waveguides, photothermal opt. losses charactn. 39418
- SiO$_2$-based waveguide bending loss reduction by lateral offsets 39440
- SiO$_2$-on-Si NIR channel waveguides form. by electron-beam irrad. 14450

optical losses
- *see also optical fibre losses; optical loss measurement*
- 1.3 μm single-mode 2×2 liq. cryst. opt. switch 16984
- 2.4 Gbit single/multi fibre electro-optic transmitter 34031
- 3-dB single-mode Y-jn., optimized design 1708
- 3D laparoscopic syst., single-camera 34998
- 1550 nm QW lasers, temp. depend. loss and overflow effects 7631
- acetylphenyl-1,4-dioxa-8-azaspiro[4.5] decane, LD pumped ring resonator, blue light emission 23429
- act. mode-locked laser, neg. feedback, stabil. 31474
- antiresonant reflecting opt. waveguide intens. modulation 23781
- arrayed waveguide N×N wavelength multiplexer transm. charact. 42353
- arrayed-waveguide grating multiplexer, phase error compen. 22919
- ARROW-B type polarizer utilizing birefr. in multilayer stripe lateral confine. 14501
- ARROW/integrated photodiodes light coupling, IC compatible techs. 30969
- asymmetric multimode Y-jn. splitters 34099
- axial strain-induced stresses in double-coated opt. fibers 1697
- bad-cavity laser, quantum-limited linewidth 15018
- bent dielec. waveguides, finite difference BPM anal. 23803
- Compton FEL oscillators, sideband instabilities, electron dyn. 40009
- cross-linked and side-chain polymer films, nonlin. optics appls. 15090
- DFB LD nonlin. distortions, power-depend. loss and leakage current 31355
- diazo dye attached electro-optic polymer waveguide modulator 1737
- directional coupler-type opt. power divider, large-angle low-loss charact. 30942
- directional couplers, nonparallel transit. sects. *(Japanese)* 7364
- dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 23801
- dye color/conc. detect. by realtime opt. sens. *(Japanese)* 18138

optical losses continued
dye laser models, single-mode, steady-state anal. 31206
dye-doped polymer waveguides, opt. losses/photocond. sensitivity 30961
electrooptic polymer waveguides, packaging and charactn. 39491
evanescent-field planar waveguide sens., mode-independent atten. 42768
Fabry-Perot lasers, loss-modulated two-mode, antiphase dyn. 1887
Fabry-Perot lasers for polarisation insensitive optical amplifiers 14973
FEL, Israeli tandem electrostatic project, resonator design and characterisation 39949
FEL, long wavelength operation, slippage/diffr. effects 31430
FEL hole-coupled reson. cavity, gain maximization 39947
FEL oscillator spectral anal., Green fn. anal. 39977
FEL with large μ_c planar undulator, waveguide appl. 39980
FELIX hole-coupled resonators, radial mode struct. influence on losses 39945
finite-clad fibres and waveguides, perturb. anal. limitations 30849
formic acid opt. pumped FIR lasers, reson. array input couplers 7537
Franz-Keldysh electroabsorption waveguide modulator perform. anal. 30989
freq. nondegenerate parametric amps., asymmetric losses, output quantum correl. 40074
fused biconic coupler reliab., temp. effects 1664
Gaussian beam propag. in nonlin. saturable medium 7760
heteroaromatic chromophores in high temp. polymers interferometric films 1736
high power FEL electron output scheme, time-depend. multi-dimens. simul. 39922
high-opt.-isolation low-loss moderate-switching-speed NLC opt. switch 1746
III-V semicond. opt. waveguide modulator modeling 22924
III-V semicond. waveguiding devices, adiabatic tapers 7383
integrated optics evanescent wave sens., atten. losses 39375
intense laser pulse plasma waveguide, mode props. 15453
interconnectable star couplers for distrib. star network 9427
interferometry-based quantum random-no. generation and key sharing 17343
IR detector perform. enhancement, Fresnel zone plate lenses 17789
IR photodetector cooling by opt. immersion lens 3833
leaky/absorbing opt. waveguide/quantum well struct. modelling 40434
lossless multilayer dielec. waveguide radiation modes 23797
low pulse energy optical parametric oscillators, solid laser pumped 15082
low-loss nonlin. opt. channel polymer waveguide laser ablation 1723
low-loss wide-angle Y-branch waveguide design 30959
Mark III FEL, hole coupling expts. 39946
microcavity semicond. laser modulation bandwidth 7636
microcavity semicond. lasers, nonequilibrium many-body theory and mode confine. effects 23205
microlens opt. coupling of LD array, single-mode fiber array 39355
MPEOU-based polyceram planar waveguides, opt. loss study 25988
MQW electroabsorption opt. modulators integrated, low-loss waveguides 22938
MQW opt. amps., pump probe meas. and carrier overflow effects anal. 14954
multilayer grating assisted directional coupler waveguides, normalized radiation modes 14448
multilayer planar opt. waveguide with buffer layers, guided modes 7343
multistable single-mode emitting solid-state lasers 14807
NIJI-IV storage-ring FEL, UV lasing study 39953
4-nitrophenol sodium salt dihydrate, intracavity SHG, opt. loss 31481
non-destructive opt. fiber talk-set *(Japanese)* 42397
nonblocking single-substr. directional coupler opt. space switching networks 24761
nonlin. grating couplers, anal. by sing. perturb. tech. 14445
nontransparent waveguides, bound and leaky eigenmode techs. 39393
open-boundary waveguide modal anal., finite element approach 2305
OTDR, four-wave mixing sampling gate, mm-resoln. 25985
parab. cylindrical dielec. waveguide, modal power loss 30941
parab. deformed planar waveguides, modal power atten. 39408
pass. fibre optic components/sens. systs., radiation sensitivity 22845
periodic waveguide gratings design, asymmetric discrete-time anal. 22897
phase-locked LD antiguide arrays, anal. theory 23237
phased waveguide arrays, wavelength multiplexers optim., beam propag. method 30955
photodelineated electro-optic polymers, GRIN profiles and loss mechanisms 14456
photonic ICs, low loss mirrors, etching 14503
planar waveguide components develop. 30945
PMMA waveguide, fab. procedures 22890
polarizing rect. prism used in laser techs. 7711
poling-induced opt. loss in nonlin. opt. polymeric waveguide 30937
poly(1,4-phenylene-1,2-bis(4-methoxyphenyl)vinylene) opt. waveguides, prism coupling 22870
poly(2,5-dimethoxy-p-phenylenevinylene) electro-opt. intens. modulator 14524
poly(phenylene) photoimageable waveguides, fab. and characterisation 39403
poly-phenyl-acetone opt. waveguides, nonlin. coupling and propag. 39432
polydiacetylene waveguides, nonlin. absorpt. 31513
polydimethylsiloxane/oxide polycerams, opt. props., proc. 7357
polyimide opt. waveguides fab., thin-film MCM proc. technol. 14490
polyimide-coated Ag hollow glass IR waveguides, loss characts. 14444
polymeric LB and spin-coated films, light atten. 14318
polymeric thin-film waveguide coupling, single-mode fiber 22872
quantum well electron transfer waveguide, fiber coupling efficiency 22882
quasi-Cherenkov X-ray DFB FEL under multi-wave diffr. 39978
radiationally coupled corrugated waveguides, rem. coupling 39369
rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
real-time atmos. compensation, SBS phase conjug. 31576
rearrangeable nonblocking polymer waveguide thermo-optic switching matrix 30962
red perylimide dye lasers, photostability, loss mechanism 39691
resonator with apertures, transverse eigenmode set 23322
ring dye laser, intracavity freq. shift, self-pulsing and instabilities 39690
self-aligned integrated mirror intrinsic loss anal., finite-difference beam propag. method 39613
self-holding opt. switch using opt. matrix board, FTTH appls. 9487
semicond. laser amps., absorptive/dispersive nonlin. 31494
semicond. laser amps. biased at transparency, quantum well no. effects on nonlin. refr. 39819
semicond. lasers, opt. feedback with dispersive loss, amplit. noise 1980
semicond. lasers with unstable resonators, simul. 23210
semicond. ring lasers for integrated optoelectronic ccts. 14842
single mode fibre-rect. waveguide coupling losses, integrated optics 22837

optical losses continued
single-mode laser, intracavity adaptive mirror output charact. 31448
slab integrated opt. waveguide path design 40402
SOI opt. rib waveguide, loss, mode characts., bends and y-jns. 1719
solid state laser modulator loss anal. 15006
stat. anal. of fiber connector characts. 14351
storage ring solitonlike pulse stabilization, slow saturable absorber 22792
submillimeter wavelength CARM electron opt. syst. 39915
synchronized chaotic laser digital commun. 25488
triple-coupler ring-based opt. guided-wave resonator, transmittance charact. 22894
two-mirror laser, saturable absorber, bistable operation 23340
Ultradel 9000 D crosslinked electrooptic polyimides, electro-optic props. 1652
ultrafast opt. CDMA all-serial coding archit. 42356
vert.-cavity semicond. laser amps., perform. predictions 1998
waveguide, finite-difference beam propag. method *(Japanese)* 14425
waveguides, loss meas., modified two prism method 39430
waveguides, low-loss abrupt bends design and appls. 14469
wide free-spectral-range opt. resonator, FDM transm., novel archit. 17168
Y-branch modelling by method of lines/beam propag. method 40435
AlGaAs BH photonic devices, melt etching, LPE regrowth 12119
AlGaAs cascaded nonlin. directional couplers, all-opt. switching 39411
AlGaAs/GaAs VCSEL, internal quantum efficiency and loss meas. 39775
AlGaAs/InGaAs/GaAs QW lasers, perform., MOVPE growth interruption effect 23248
$Al_xGa_{1-x}As$/GaAs:Be mirrors for VCSEL 15010
AlN waveguide near phase-matching conditions, SHG conversion efficiency 39414
Ar+ ion multimode lasers, polariz./intens. correl. 1851
$Ba_2NaNb_5O_{15}$ opt. waveguide film, epitaxial growth by pulsed laser deposition 1715
$Ba_2NaNb_5O_{15}$ opt. waveguiding films, excimer laser ablation prep. 12168
$Ba_2NaNb_5O_{15}$, waveguiding epitaxial films, pulsed laser deposition 20806
Br photodissociation laser, flashlamp-induced opt. losses 1857
C_{60}/toluene solns., opt. limiting mechanisms 23433
CO_2 injection-seeded supra-atmos. laser operated below emission threshold by ring cavity 39655
CO_2 laser continuously variable attenuator by ZnSe wedges 2036
CO_2 laser, loss perturb. near period-doubling 14688
CO_2 laser, response, loss perturb. near period doubling 15017
CO_2 loss modulated laser, amplit.-detuning charact. 31195
CO_2 single mode class-B laser phase dyn. 31169
CO_2 slab-geom. lasers, mode and wavelength selectivity 31148
$Cd_{1-x-y}Mn_xHg_yTe$ single cryst. opt. isolators for high power LD pumping 3556
CdS waveguide cavity microlaser, losses, spectrum crevasse appearance 39862
Er-doped fiber laser mode locked by semicond. saturable absorber 31235
Er-doped glass laser, pass. Q switching of cavity, SBS mirror 7595
Er-doped integrated glass laser, modeling and optim. 22921
Er-doped planar opt. amp. design, background loss, proc. control 39750
GaAs, (211)B orientated, surface-emitting second-harmonic generator/autocorrelator 23361
GaAs MQW directional coupler waveguide saturable Kerr effect 15118
GaAs symmetric/asymmetric QW struct., lin./quadratic electrooptic effects 21999
GaAs/$Al_{0.3}Ga_{0.7}As$ MQW waveguides, pulse squeezed light generation 1721
GaAs/AlGaAs MQW zero-gap directional coupler, disordered branching waveguides 14491
GaAs/AlGaAs photonic ICs, plasma induced QW layer intermixing 30971
GaAs/AlGaAs waveguides with quantum well claddings, opt. modulation, beam steering 22892
GaAs/GaAlAs waveguide, TE/TM mode splitter fab. 22893
GaInAs/GaInAsP MQW tuned lasers fabricated by photoabsorption induced disordering 1957
GaInAsP/InP MQW QCSE tuning element for surface emitting laser 15014
GaP microlenses, enhanced mass-transport smoothing 31054
GeO_2-SiO_2 glass, thin films, planar waveguide appls. 7350
InGaAlP/GaAs hybrid-type DBR for InGaAlP LED 1819
InGaAs/GaAs strained QW modulator perform., well/barrier ratio effect 7389
InGaAs/InGaAsP microdisk lasers, fab., resonator modes, losses 7702
InGaAs/InP planar photoelastic low loss waveguides/electroabsorption modulators 30975
InGaAs-InGaAsP-InGaAs strained QW lasers, temp. depend. of light-current charact. 7633
InGaAsP electroabsorp. modulator, low pol. depend. 22926
InGaAsP/GaAs LD, threshold current dens., differential efficiency, 20-105 C 14933
InGaAsP/InP quantum well lasers, watt-ampere charact. 39760
InGaAsP/InP tapered two-layer waveguides for chip coupling, single-mode fibers 30974
InGaAsP-InP 1.3 μm BH laser modules in fibre link 17254
InGaAsP-InP, low-loss pass. polariz. convertor 14500
InGaAsP-InP planar photoelastic waveguide, low propag. loss 7370
InP QW electro-optic waveguide circuits 14486
InP periodically segmented waveguide based spot size transformer 39606
InP polariz. diversity receiver OEIC heterodyne receiver frontend module 23061
InP/InGaAsP 1.3 μm digital opt. switches, extinction ratio of 30 dB 42432
InP-based MQW lasers, integrated tapered beam expander waveguide 14854
InSnO thin films, RF magnetron sputtered, fab./charact. 14317
$KNbO_3$ thin film act. opt. waveguide devices, fab. 39464
$LiNbO_3$ CW opt. parametric oscillator near 2.1 μm 31579
$LiNbO_3$ acousto opt. tunable filters 7418
$LiNbO_3$ electro-optic modulators, cryogenic temp. characterisation 14506
$LiNbO_3$ proton-exchanged periodically segmented channel waveguides 22868
$LiNbO_3$ thin film hybrid integrated opt. devices 39608
$LiNbO_3$ waveguide Mach-Zehnder modulator, white light spectral anal. 14499
$LiNbO_3$:Er,Ti waveguides, fab. and perform. eval. 39438
$LiNbO_3$:Ti, periodically segmented waveguides, loss mechanisms 1706
$LiNbO_3$:Ti planar waveguides, polariz. coupling 30946
$LiNbO_3$:Ti struct., index profile/bending loss from near-field meas. 14416
$LiNbO_3$:Ti travelling-wave channel waveguide modulator modelling 39397
$LiNbO_3$:Ti,MgO,Co waveguide, low-loss sharp bends, optim. 14473
$LiTaO_3$:Ni opt. waveguides, fab., Ni diffusion 22885

optical losses continued
- Nd:YAG CW self-starting mode locked laser, cascaded second-order nonlin. 39745
- Nd:YAG Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
- Nd:YAG laser cavity decay rate and relax. oscill. freq. 23166
- Nd:YAG mode-locked laser antiresonant Fabry-Perot saturable semicond. absorbers 31244
- SiGe/Si heterojunction waveguides, Ge conc. effect on propag. charact. 39383
- SiO_2 core low temp. low loss PECVD channel waveguide fab. 30984
- SiO_2 planar waveguide ccts., telecomm. appls. 30983
- SiO_2 waveguide ccts., low polaris. depend. fabricated on SiO_2 substrs. 1727
- SiO_2-TiO_2-SiO_2-Si ARROW opt. waveguides, sol-gel multilayer struct. 14417
- SiO_2-based waveguide bending loss reduction by lateral offsets 39440
- SiO_2-on-Si NIR channel waveguides form. by electron-beam irrad. 14450
- SiON integrated optic intens. modulator based on mode coupling 1731
- SiON:Er,Yb low-loss waveguides, deep implant codoping 39439
- SiON/SiO_2/Si single-mode waveguides, plasma CVD prep. 39396
- $Sr_5(VO_4)_3F:Mn^{5+}$, spectrosc. and laser props. 14836
- Ti:sapphire Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
- Tm:$YAlO_3$ 1.94-μm laser, biomedical appls. 39731
- Yb:Er:$Y_3Al_5O_{12}$ waveguide laser, low threshold, RT 1.64 μm operation 7604
- (Zn,Cd)(Se,S) quantum well laser heterostruct., opt. waveguide confine. 14900
- ZnO waveguiding piezoelec. films, microstructural and opt. charact. 39435
- ZnSe semicond. lasers, linewidth enhancement factor and nonlin. gain 23224
- ZnSe/ZnMgSSe DH laser, photopumped lasing props., MOCVD-grown, cavity length depend. 14942
- ZrF_4-BaF_2:Er glass thin film opt. element 22877

optical mark reading *see mark scanning equipment*

optical masers *see lasers*

optical materials
- *see also glass; optical films; optical glass; optical polymers; photorefractive materials*
- 3-methyl-4-methoxy-4′-nitrostilbene, cryst. growth and second order nonlin. opt. props. *(Chinese)* 2051
- absorptive media SHG 2129
- alkali halide cryst. based opt. inform. recording 30831
- all-opt. device nonlin. materials 30823
- all-opt. sig. proc. via quadratic nonlin., coherent interacts. 32990
- azo dye film Weigert hologram 31660
- bacteriorhodopsin SLM, opt. proc. 31672
- bacteriorhodopsin/protein-based two-photon 3D memories, nonlin. opt. props. 2099
- benzene derivatives, polarizability, ab initio coupled perturbed HF calcs. 40114
- borate-based nonlin. opt. materials, UV SHG, opt. birefr. 31561
- carbohydrazide derivatives, nonlin. opt. props. 23385
- conference, laser damage in optical materials, Boulder, CO, USA (1993) 11528
- conference, materials for advanced solid state lasers, Boston, MA, USA (1993) 11552
- conference, nonlinear optics/optical processing, Japan (1993) 11538
- conference, optical interf. coatings, Grenoble, France (1994) 11556
- conference, optical materials for energy efficiency, Freiburg, Germany (April 1994) 28209
- cross-conjug. macrocyclic systs., second-order nonlin. opt. responses 2097
- cubic nonlin. opt. media, multidimensional solitons 2069
- DCG, dye-sensitised, holographic gratings recording, spatial freq. doubling 31637
- 2,6-dibromo-N-methyl-4-nitroaniline, hyperpolarisabilities, nonlin. opt. props. 40095
- DMNP cryst. cored fiber freq. doubler for blue light generation *(Japanese)* 2060
- electro-optic Fabry-Perot through-plane-modulator based on LB film 30998
- electroluminescent diode with photoresponsive organic pigment films, light amplif. 31104
- electron-trapping material optoelectronic neural dendritic tree proc. 39520
- fluoride laser crysts., growth atmos. contamination effects on opt. quality 14327
- 2-furyl methacrylic anhydride cryst. noncollinear phase matched SHG 23384
- gelatin, dichromated, refl. hologram grating, diffr. spectrum asymmetry 31668
- glass and optical materials, conf., Honolulu (Nov. 1993) 5442
- L-histidine tetrafluoroborate soln.-grown semiorganic cryst. for nonlin. freq. conversion 23439
- holographic photosensitive materials, props. and characterisation *(Spanish)* 7820
- holographic storage, ideal photorefr. material quest 31646
- indanthrone/indanthrone derivatives, excited-state reversable saturable absorpt. 2098
- indust. Raman scatt. opt. materials charactn. facility 5693
- ion-conducting amorph. semiconds., photo-electro ionic phenom. 1645
- Kerr-type nonlin. materials, opt. neural network 31030
- laser materials charactn., spectral anal. of relax. oscills. by intracavity method 34716
- laser radiation harmonic generation, opt. rectification 23431
- laser window materials, intens.-depend. transm. props., 193-nm irrad. 22775
- metallo-naphthalocyanine dyes, third-order nonlin. opt. props. 15136
- metallo-organics, saturated excited state absorptive limiters 31589
- microparticle nonlin. microwave optics 22780
- mol. crysts. for nonlin. opt. appls. 31583
- nitroaniline based nonlin. opt. syst., cryst. growth 15066
- N-(4-nitrophenyl)-N-methylaminoacetonitrile, cryst. and fibres, SHG 15092
- NLC, self-starting phase conjug. 40053
- noncritical vectorial phase matching freq. up-conversion 7733
- nonlin. opt. materials for switching/limiting, conf., USA (1994) 36892
- octaethylporphine-doped polystyrene sample, spectral hole burning, accumulated photon echo readout speed 40092
- optoelectronic material appl. in Japan, review 7453
- organic material waveguide opt. freq. doubling 2094
- organic materials for electronic/photonics, conf., Japan (1993) 11532
- organic media holographic pulse shaping 31674
- organic-inorganic polar crysts. design for quadratic nonlin. optics 15146
- organic/polymeric materials, nonlinear optics, conf., WA, USA (!992) 5495
- organometallic cpds., nonlin. optics materials, review 23432

optical materials continued
- oxide laser crysts., CZ growth 14828
- photoactive solids, conf., Leuven, Belgium (1993) 11530
- photonic ccts. written by dark spatial solitons in defocussing nonlin. materials 31617
- photonics materials for IT, conf., USA (1994) 11523
- polariz. vol. hologram, coupled mode anal. 23465
- proc., diffractive optics 39446
- quadratic nonlin. opt. materials *(French)* 1649
- rare-earth doped materials, time freq. domain opt. storage 22791
- school on nonlinear optics/optical physics, Capri, Italy (1992) 32
- sol-gel matrix solid state dye lasers 14731
- solid-state laser gain media, phys. and perform. 23156
- spiropyran aggregates for multiple opt. memory 22790
- surface cleaning, laser proc. 30821
- thieno[3,2-b]thiophenes, donor-acceptor substituted, SHG 40093
- thiophene derivatives, polarizability, ab initio coupled perturbed HF calcs. 40114
- transit. metal-phosphine complexes, nonlin. opt. props. 40050
- Ultradel 9000 D crosslinked electrooptic polyimides, electro-optic props. 1652
- variable-strain quantum well heterostruct., design and investig. 30820
- vol. recording media color holographic gratings, ang. selectivity 23470
- Ag halide holographic phase grating, modulation profile 40141
- $AgGaS_2$ sync. pumped ultrafast opt. parametric oscillator 31625
- $AgGaSe_2$ noncritically phase matched mid-IR generation by opt. parametric oscillator 40060
- $Al(IO_3)_3.8H_2O$ nonlin.-opt. cryst. for freq. conversion 7786
- AlN waveguide near phase-matching conditions, SHG conversion efficiency 39414
- As_2S_3 amorph. film, holographic recording, lin. phase shift response 31667
- β-BaB_2O_4 cryst. growth by induction heating, nonlin. opt. appls. 23391
- β-BaB_2O_4 ps opt. parametric amplif. 2117
- BaB_2O_4 type I opt. parametric oscillator, noncollinear phase matching 2125
- $Ba_7(BO_3)_3F_5$ struct. for nonlin. opt. appls. 15147
- $BaCaBO_3F$ struct. for nonlin. opt. appls. 15147
- C_{60}-conjug. polymer supramolecular composite, role in photoelec. devices 31081
- $Ca_5\ (PO_4)_3F:Er^{3+}$, Q-switch saturable absorber materials 1902
- $CaF_2:Er^{3+}$, Q-switch saturable absorber materials 1902
- CdS thin films, opt. bistability, luminesc., DP device archit. 40032
- Ce-doped gel quartz glass for opt. filters 31061
- Cr^{4+}:doped laser host lattices, tunable output 39729
- CsB_3O_5, tunable UV generation, 0.185 μm 23371
- GaAs cascaded guided wave gratings, out-of-plane opt. sig. proc. 14481
- GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
- n-InSb doped crysts., parametric amplif. and oscill. 40115
- In_3SbTe_2 phase-change opt. disks, crystn. 22798
- KBr electrolytically colored crysts., nonlin. amplit. recording of holographic gratings 23469
- KCl:Eu photostimulated phosphor storage material photolum. 30830
- KH_2PO_4 cryst. SHG, const. temp. gradient influences on spectral-bandwidth 15087
- $KNbO_3$ tunable narrow-band mid-IR type I opt. parametric oscillator 40113
- $KTiOAsO_4$ tunable near IR opt. parametric oscillators 15067
- $KTiOAsO_4$ type II phase matching SHG 15100
- $KTiOPO_4$ broadly tunable fs opt. parametric oscillators 40059
- $KTiOPO_4$ cryst. second harmonic for Nd:YAG cw ring laser freq. stabil. 39726
- $KTiOPO_4$ difference freq. mixing, tunable near-IR generation 40104
- $KTiOPO_4$ electro-optic laser Q switch, dispersion effects 22933
- $KTiOPO_4$ nonlin. devices, temp. dispersion 15121
- $KTiOPO_4$ opt. parametric oscillator in fs time domain 31578
- LiB_3O_5 all-solid-state ps opt. parametric generator 23418
- LiB_3O_5 ps Ti:sapphire-pumped opt. parametric oscillator 23420
- $LiNbO_3$ CW opt. parametric oscillator near 2.1 μm 31579
- $LiNbO_3$ elec. controlled supergaussian mirrors 14482
- $LiNbO_3$, periodically poled, 1.064-μm-pumped opt. parametric oscillator 23382
- $LiNbO_3$ plates, electronic image reconstruction by electrooptic tech. 2134
- $LiNbO_3$-$LiTaO_3$, direct heterobonding 30932
- Nd:YVO_4 cryst. laser charact., LD pumping *(Chinese)* 14795
- PLZT-based scanning grating lobe opt. array generators, design and simul. 14523
- $RbTiOAsO_4$ noncritically phase-matched Ti:sapphire pumped fs opt. parametric oscillator 23383
- $RbTiOPO_4$ cryst., flux grown, nonlin. opt. props. 2080
- Ru complexes, chiral, octupolar opt. nonlin. 40049
- Si, porous, vis. luminesc. props. 14590
- SiO_2, poled, amorph., SHG lin. electro-optic coeff. meas. 2128
- $Sr_2Be_2B_2O_7$ UV-transparent nonlin. opt. cryst., design and synthesis 15123
- $SrF_2:U^{4+}$, Q-switch saturable absorber materials 1902
- $SrLi(B_3O_5)_3$ struct. for nonlin. opt. appls. 15147
- Ta_2O_5/$KTiOPO_4$ waveguide, phase-matched SHG 1725
- Ti:Al_2O_3 laser cryst. conc. quenching and mechanism of reson. energy transferring *(Chinese)* 15065
- YAG:Cr^{4+} cryst. opt. polariser of short laser beam 1642
- YAG:Tm^{3+} swept-carrier time-domain opt. memory 22793
- $Y_3Sc_2Ga_3O_{12}:Co^{2+}$ saturable absorber Q switch for IR Er lasers 23331
- $Y_2SiO_5:Eu^{3+}$, hole-burning materials, time-domain opt. memory 22797
- YVO_4:Nd(Er)(Ho) single crysts., growth, opt. props. 1905

optical memories *see optical storage*

optical microscopes
- *see also optical microscopy*
- 3-D brightfield microscope systs., modeling 16218
- 3-D image reconstructions from partially confocal scanning microscope 16221
- confocal theta microscope, three objective lenses 10202
- fiber-optic evanescent field absorpt. sens., theoretical eval. 3856
- heterodyne interferometry-laser microscopy hybrid meas. syst., acousto-opt. deflectors 31023
- near field opt. microscope, piezoelec. tip-sample dist. control 39088
- near-field scanning opt. microscope fibre sens. tips fab. 42837
- photon scanning tunneling microscope, nanometric fiber probe 17847
- pickp-up opt. head syst. tolerance used in phase-change opt. disk *(Chinese)* 14337
- profilometer, multiple virtual styli, IC packaging/interconnects 34337
- scanning opt. microscope near-field fibre probes fab. and charactn. 30870
- tele-microscope for meas. of polished curved surfaces *(Japanese)* 2741

optical microscopes continued
- transm. mode near-field opt. microscope 25845
- S_2 opt. pumped brightness amp., laser projection microscope 23094

optical microscopy
- *see also optical microscopes*
- 3-D light microscopy, simultaneous image and point spread fn. reconstruction 16219
- ball grid array package, popcorn cracking 11812
- BCB layers for MCM-D/L appls., attenuated refl. IR microscopy 12982
- biomedical image data, surface rendering, Fourier descriptors 10205
- brightness meas. of rough surfaces, confocal microscopy/image anal. 18065
- CCD image sens. range cameras, focal error based 3872
- cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
- channel opt. waveguide charactn. by photon scanning tunnelling microscope 22865
- CMOS gate arrays, EOS induced polysilicon migration 30466
- command surface controlled liq. cryst. waveguide structs., opt. inform. storage 14343
- computational opt. sectioning microscopy, EM algm. 16220
- computational opt.-sectioning microscopy for 3-D quantification of cell motion 18430
- confocal scanning fibre-optic interferometry 34557
- DC SQUID, indiv. weak links, crit. currents 1604
- edge angles meas. of knives, light sectioning tech. 3978
- EM gun technol., Cu/Al component protection coatings 15331
- emission microscopy in semicond. failure determ. 6837
- fluoresc. microscopy scanner, 2D CCD, cytometry appl. 43221
- graphite fibre reinforced epoxy laminated panels, opt. fiber embedded, low vel. impact 12194
- high precision opt. meas. methods 18061
- holographic microscopic displacement pattern, 3D graphic image representation, cubic spline fn. 15152
- image reconstruction/restoration, conf., San Diego, USA (1994) 26
- mach. wear particle anal. by fiber-optic confocal laser scanning microscopy 31695
- marine organism ident., flow cytometric imaging 10539
- metal pattern deposition, laser-induced forward transfer 28859
- MLC actuators using antiferroelecs., destruction mechanism 39110
- multiplexing of fibre-optic sens., scanning microscopy 17907
- nanostructures, optical props., conf., Japan (1994) 28236
- near-field optics, nanometric spatial and femtosecond time resoln. 39477
- opt. polishing monitoring, computerised microscopy 17600
- p-i-n photodiode defect localization by laser scanning microscopy 40174
- painless tooth prep., Nd:LiYF$_4$ picosecond laser *(German)* 10261
- polymer morph., influence on water treeing 13943
- pyranine doped SiO$_2$ sol-gel matrix, μm-size fluoresc. pH sens. 9877
- relay contact surface, arc discharge damage, scanning laser microscopy 29633
- semicond. wafer defects discrim. by laser-based systs. 13833
- SnPb-soldered joint reliab., interstitial PGA packages 940
- surface profile reconstruction, near-field data 41297
- thermal diffusivity meas. of thin films and foils 25994
- video-rate electron-holographic interf. microscopy, liq.-cryst. panel 31680
- waveguide high resoln. diagnostics, photon-STM 14474
- Al electrode/organic electrolum. devices, degrad. procs. 1810
- AlGaAs near-IR LEDs, failure anal., expt. techs. 39584
- Au-NiCr metallization, CVD diamond substrs., MCM appls. 12981
- Au-Ti metallization, CVD diamond substrs., MCM appls. 12981
- Ba$_2$NaNb$_5$O$_{15}$, waveguiding epitaxial films, pulsed laser deposition 20806
- CdTe on GaAs and Si substrs., OMVPE 37452
- CdZnTe(100)/ZnTe(100), MBE growth on Si(100) 37423
- Cu MOCVD thin films from pyrazolylborato-Cu(I) complexes, charactn. 38679
- GaAs devices, reliable thermosonic wire bond, IR-microscopy 12959
- GaAs homojunction photodetector charactn. by near-field scanning opt. microscope 42819
- GaAs/InP heterostruct., (111) A, B oriented, MOVPE growth, Raman scatt. 12107
- InGaAsP LD, sensitivity, ESD 14926
- InGaAsP quantum well lasers, carrier transport, near-field photocond. 1968
- InGaAsP quantum-well lasers, near-field scanning opt. microscopy imaging 14919
- InP wafers, LEC growth, flats location/control 12086
- InP waveguide mode field determ. from intens. profiles 39468
- Li$_2$B$_4$O$_7$, Bridgman grown, defects and SAW appl. 30634
- PbO films in acid soln., local photocurrent characts., opt. storage phenom. 39311
- SiC, single-crysts., sublimation growth 20661
- SiO$_2$, fused, microlens arrays, RIE 14493
- YBa$_2$Cu$_3$O$_{7-x}$ thin film multiturn coil, laser scanning imaging 1632
- ZnSe OMVPE growth, diisopropyl selenide and diethyl zinc 20838
- ZnTe(100), MBE growth on Si(100) 37423

optical modulation
- *see also acousto-optical modulation; chirp modulation; electro-optical modulation; magneto-optical modulation; optical pulse compression; spatial light modulators*
- 1.5 μm MQW DFB VUG laser opt. harmonic converter for MM wave radio appls. 3558
- 1.7-Gbit/s opt. amplified terrestrial lightwave syst. deployment in USA 17241
- 1 Gbit/s QPSK opt. microwave transmitter, SOA modulator based 9561
- 1 GHz sum/difference opt. modulator, E/H field meas. 18053
- 2.5 Gbit/s transm. expt., 1000 km of std. single-mode fibre, 1550 nm *(English, Italian)* 33993
- 2.5-Gbit/s CPFSK transm. expt., AMI-encoded data 9578
- 2.5-Gbit/s return-to-zero integrated DBR laser/modulator transmitter 9459
- 2D image range estim., PM 10029
- 3 by 3 fibre coupler phase jitter, pass. homodyne demodulation 30923
- 3D opt. interconnected neural network 1773
- 3D TDM LDA 18151
- 10 Gbit/s data switched semicond. laser amp. nonlin. loop mirror 17326
- 10 Gbit/s dispersion supported transm., computer simul./practical implications 34084
- 10 Gbit/s soliton transm. expt., 1 Mm, 105 km amp. span 25475
- 10 Gbit/s transm. expt., direct modulation, 8:1 TDM setup 42454
- 10-Gbit/s 280-km nonrepeatered transm., suppression of modulation instabil. 9509
- 10-Gbit/s smart opt. terminal digital-video distrib. syst. 17222
- 16 THz beat freqs. generated via modulation instabil. in birefr. fibres 30881

optical modulation continued
- 16-channel 622-Mbit/s FDM heterodyne syst., error-rate degrad., fiber four-wave mixing 17218
- 20 GHz bandwidth photonic microwave mixer/superhet receiver 34094
- 40 GHz indoor opt. fibre SS PCN/LAN expt. 33818
- 622 Mbit/s self amplified Raman repeaterless fiber link 17350
- 1300 nm gain-clamped MQW laser amps., reduced IMD 34006
- 1310-nm DFB lasers, correl. of leakage-induced distortion, I-V charact. 7685
- 1550 nm dispersion-supported transm. on long spans of conventional single-mode fiber 9508
- 1550 nm opt. AM-SCM systs., self-PM induced second order distortion 34095
- absorptive-grating gain-coupled DFB semicond. lasers, opt. pulse chirp 14947
- act. mode locked semicond. lasers, ps pulse compression, model 31420
- act. mode-locked external-cavity semicond. laser, quasi-periodic route, chaos 31423
- all-opt. clock recovery syst., ring mode-locked laser 39990
- all-opt. network using dyn. wavelength routers, crosstalk penalty 9585
- AM-SCM lightwave syst., simultaneous scatt./interf. suppression 17175
- AM-VSB/64-QAM hybrid opt. transm. systs., impulse-induced bit-error impairment 9557
- AM-VSB/QAM CATV opt. transm. syst., 64-QAM sigs. 9556
- AM/QPSK hybrid opt. transm. systs., BER depend. on CTB 9559
- analog lightwave link with large polariz.-mode dispersion, 64-QAM BER meas. 9560
- analog/digital fiber lightwave systs., external modulators 9515
- antenna array photonic systs. 2352
- antiresonant reflecting opt. waveguide intens. modulation 23781
- ASK opt. transmitter, 790 nm LD for LANs 25507
- asynchronous opt. chip interconnects with direct detect., crosstalk anal. 9440
- atten. meas. in opt. cable 30868
- bacteriorhodopsin thin film interconnections, dyn. contrast reversal, self-PM 1783
- BH diode lasers, multimode self-consistent model 23283
- BH light-emission/detect. diode module for subscriber TCM transm. systs. 25472
- birefr. fibre modulation instabil. 30908
- BMDO/IST lasercom advanced technol. demons. status 17290
- Brillouin fiber amp., spectral gain hole burning and modulation instabil. 23122
- broadband microwave fiber optic links, lin. integrated-optic modulators 9536
- cascaded Kerr birefr. fiber PM simul. 7806
- CATV 151-channel AM-FDM transm., 1.3 μm SL-MQW-DFB laser, high opt. output power 25542
- CATV DFB LD, second-order distortions meas. 34004
- CATV DFB source laser lin. limits 25528
- CATV near-future archit., broadcast channels capacity 42616
- CATV syst., fiber optic transm. cct. for 150 carrier VSB-AM modulation *(Japanese)* 42630
- CATV videocommun. networks, AM-VSB TV sig. opt. transm. 17570
- CDMA, lossy photon channels, no.-state/coherent-state, perform. 42349
- CDMA opt. systs., bipolar codes 42352
- CDMA opt. systs. based on spectral encoding of noncoherent sources 41470
- CGH, opt. computing/neural net channel addressing 31632
- channels, sliding block line codes, dispersion limitations 40578
- chirped fibre Bragg grating dispersion compensator, directly modulated laser appl. 25521
- chirped laser radar, optoelectronic chirp generation and sig. demodulation 17444
- CLIO FEL, step-tapered undulator, two-colour operation 39933
- coherent detect. photodiode, optimum opt. LO power levels 25847
- coherent FSK syst. DFB lasers, thermal contrib., FM response 3585
- coherent laser radar with diffuse/aerosol targets, heterodyne efficiency 3620
- coherent opt. syst. nonuniform FM response, semicond. laser model 9471
- commun. LD FM transfer fn. modelling 1977
- compressed-digital-video fiber-based transm. systs., clipping penalty 9558
- computer-generated Fourier holograms based on pulse-dens. modulation 40127
- continuously operating solid-state lasers, SHG mode locking 7582
- Costas loop, phase subtraction, perform. enhancement 17338
- CPFSK coherent opt. transm. for repeaterless submarine syst. *(Japanese)* 16994
- CPFSK opt. crossconnect systs. with noncoherent detect., interf. 9434
- CPFSK opt. receivers with Gaussian freq. pulse shape, perform. anal. 42436
- CPFSK wavelength-switched systs., coherent/noncoherent detect. 9501
- cross phase modulated fiber laser modelocking 1880
- cross-PM for opt. A/D converter, high resoln. spectra 7793
- cubic nonlin. opt. media, multidimensional solitons 2069
- DBF QW lasers, gain compression factor determ. 23189
- DBR laser wavelength converter, bit-rate-independent operation, 10 Gbit/s 14903
- deep pot. well strained quantum well laser freq. response 7637
- degenerate parametric oscillators, ultrashort-pulse generation 40089
- delay-and-multiply opt. FSK receivers, line-coding, anal. 42345
- DFB laser chirp pulse pattern dependency, modulation and transm. perform. *(Japanese)* 39801
- DFB laser IMD anal., dyn. spatial hole burning effect 23222
- DFB laser local intens. modulation response, direct meas. 31323
- DFB laser-fibre grating dispersion compensator, transm. dist. extension 39344
- DFB lasers integrated with external modulators, freq. chirp anal. 14953
- DFB LD nonlin. distortions, power-depend. loss and leakage current 31355
- DFB-LD with side-mode light injection, bistability and waveform reshaping 23250
- diazo dye attached electro-optic polymer waveguide modulator 1737
- dielec. surface asperities, near-field opt. detect. 31792
- differential overlapping PPM in opt. direct-detect. channel 17269
- diode laser wavelength shift meas. by fiber modal interferometers, altometer resoln. 25855
- diode pumped solid-state lasers, freq. tuning, pump-power modulation 1893
- direct-detect. channel, differential overlapping PPM 15706
- dispersion-supported transm., 20 Gbit/s, 53 km fibre 34071
- distributed opt.-fiber sens. by four-photon mixing pulse walk-off 42833
- DPSK/heterodyne detect. scheme, two polariz. planes *(Japanese)* 17265
- DQPSK AM-VSB/compressed-digital-video transm. syst. clipping penalty 9464
- DSSC lin. for wide dyn. range opt. link 9538
- dual-filter heterodyne FSK opt. syst., BER eval. 17251
- electroabsorption modulator module *(Japanese)* 42463

optical modulation continued
extending range of atten. meas. in opt. cables 30867
externally modulated analog opt. links, dyn. range 9537
externally modulated lasers for fibre transm., optimum prechirping 1971
externally modulated opt. AM-SCM systs., 1550 nm, distortion 9423
Fabry-Perot laser/fibre grating, pulse compression/mode selection 23225
Fabry-Perot lasers, loss-modulated two-mode, antiphase dyn. 1887
Fabry-Perot lasers for polarisation insensitive optical amplifiers 14973
Fabry-Perot LD modeling 31321
FEL, single-mode generation, stabil. loss 39955
fiber commun. systs., opt. device trends *(Japanese)* 42462
fiber optic time-delay element for phased-array antennas 7323
fiber optics, nonlin. refr. index meas., cross PM *(Japanese)* 30903
fiber-optic phase modulators, low-freq. 14363
fibre, opt., propag., quantum noise 14408
fibre intens. modulation/direct detect. systs., dispersion limit 42373
fibre laser mode-locking by pump pulse induced cross-PM 31233
fibre lasers, pump induced modulation by saturable absorpt. opt. switch 31238
fibre networks, directly modulated, seq. depend. of phase-induced intens. noise 34015
fibre optic polaris. and phase modulator 30869
fibre PPM, slot/frame spectral props. 3576
fibre ring laser, opt. mode-locking, cross-PM 23121
fibre SBS suppression by mid span spectral inversion 34085
fibre soliton transm. control for ultra high speed syst. 34017
fibre-optic transm. lines, external subcarrier modulation integrated-opt. components *(Russian)* 17353
fractional FT, photonic implement. 8471
FSA submarine opt. amp. syst., rem. supervision *(Japanese)* 16993
FSK-FDM heterodyne detect. syst., cross-PM 17217
GaAs-AlGaAs monolithically integrated interferometric opt. sens. 1835
gain-switched Fabry-Perot LD, spectral behaviour 14932
gain-switched semicond. lasers, chirp estim. in opt. pulses *(Japanese)* 7626
Gb/s intens.-modulated direct-detect. systs., laser turn-on delay and chirp noise effects 42460
Gbit/s opt. transmitters, accurate opt. extinction ratio meas. 9462
glass plates, stress measuring method, polarized laser and photo-elastic modulator 34705
GRINSCH VCSEL, graded heterointerfaces, modulation characts., cct. modelling 39780
heterodyne ASK lightwave systs., IF flucts. 17253
heterodyne binary-DPSK systs., perform./anal. 42346
heterodyne opt. interferometry, LD power change effects 42965
heterodyne polarimetric fiber-coil deform. sens. *(Japanese)* 3857
heterodyne PPM, convolutional coding 9474
HF modulated light source, phase fluorometry/fluoresc. imaging 28159
high dyn. range fibre optic links, opt. carrier filtering 9435
high-data-rate MM-wave modulated subcarrier opt. transm., feedforward opt. modulation 9580
high-perform. quantum well electron transfer modulators, self-consistent modeling 1733
holographic grating fab., lin. equiv. fuzzy anal. 40152
hybrid analogue/digital opt. transm. systs., clipping induced errors 34096
hybrid IC drivers, flip chip bonded, SPICE simul. 7485
hybrid multichannel AM/16QAM video lightwave syst., digital channel degrad. 17210
hybrid SCM AM/QAM lightwave transm., laser clipping distortion effects 42411
III-V interferometric electroabsorption QW modulators 1738
IM/DD fiber transm. syst. dispersion-limit formula 9575
IM/DD TDM high bit rate opt. systs., modelling and anal. 34067
in-line opt. amp. systs., num. simul. *(Japanese)* 14738
indoor wireless IR commun., hybrid PPM-CDMA systs. 42355
injection-locked directly modulated lasers in multigigabit-per-second std.-fiber transm. 9516
injection-locked quantum-well laser, RT amplit.-squeezed light 23256
injection-modulated semicond. lasers, chirped pulse, α-param. depend. 31402
integrated DFB LD modulator for 2.4 Gbps opt. transm. *(Japanese)* 39618
intens. modulation/direct detect. opt. commun. syst., optimum sig. detect. 34076
interferometric sens., opt. demodulated 17852
intersatellite opt. preamplified PPM syst. anal. 34078
IR FPA opt. interface technol. 34582
IR seeker, scan modulation meas./modeling 43582
joint transform correlator, posn. encoding appl. 32968
L-PPM modulation, non-directed indoor IR channels, perform. eval. 17244
lamps, light modulation flicker expts. 11449
large-area multiple-transverse-mode VCSELs in multimode-opt.-fiber links, modal and intens. noise 9595
laser commun., Fabry-Perot interferometer for freq./spatial tracking 17312
laser scanning imaging systs., modulation waveform effects on S/N ratio 40172
LCTV image reconstruction of holograms 40151
LD act. interferometer, sinusoidally modulated *(Chinese)* 2154
LD direct FM, coherence fn., inform. proc. 32977
LD freq.-modulated interferometer, selective imaging 40177
LED modulation bandwidth extension by pole cancel. 23032
LFM-CW lidar for rem. detect. of saturated hydrocarbons 17450
light beam collision in neg. Kerr-type medium 31537
light photon equalization, appl., X-ray film digitization 43242
lightwave syst. dispersion compensation design 42419
lightwave systs., parametric gain, four-photon mixing 17219
lightwave-microwave mixing tech. using MESFET act. devices, MMIC compatible 29587
linecoded opt. heterodyne FSK systs., nonuniform laser FM response 42457
linewidth-insensitive coherent AM opt. link, direct/external modulation format comparison 42410
liq. cryst. light valves for schlieren opt. projection 25929
liq. crysts., opt. nonlin., opt. logic appls. 15120
long wavelength IR nonlin. semicond. superlattice appls. 29945
long-dist. soliton transm., 20 Gbit/s, alternating-amplit. solitons and opt. TDM 34018
long-haul submarine commun. systs., soliton transm. implement. 9484
long-span 2.5-Gbit/s CPFSK coherent opt. transm., power EDFA boosters 34000
low-threshold 1.3 μm MQW LDs, high-speed modulation 31335
M-ary opt. polariz. modulation detect. in commun. channel 17318
Mach-Zehnder interferometer for elec. field sens. 25817
MBE on-line opt. modulation photoreflectance anal. syst. 5831

optical modulation continued
methanol FIR laser lines, opt. pumped, freq. meas. 31475
microcavity semicond. laser modulation bandwidth 7636
microchip diode pumped solid state laser arrays, mfg. cost 31282
microwave modulated fibre-optic link efficiency improvement by SBS 3560
mixed photonic/electronic cct. simul. 37603
MM wave sig. transm. in opt. fibers 9541
MM-wave modulated opt. sigs., heterodyne reception, HEMT 3544
mode locked semicond. lasers; self PM, timing jitter 31418
mol. crysts. for nonlin. opt. appls. 31583
monolithic quantum-well lasers, inhomog. biased, MM freq. reson. modulation 31324
MOPA LD for satellite commun. 17300
MQW DFB laser with 25 GHz modulation bandwidth, packaged, 1.55 μm 3584
MQW DFB lasers, external modulation, freq. chirp simul. 31348
MQW lasers, freq. chirp, quantum carrier/escape time effects 39766
MQW-semicond. opt. amps., mode-locked ring lasers 31417
multi-pulse PPM,, optimal/suboptimal frame synchronizers 40565
multicarrier fiber optics, cross-modulation/IMD 30883
multichannel MM wave subcarrier transm. by reson. modulation of monolithic LD 42393
multielectrode DFB laser self-pulsation charactn. 31327
multielectrode DFB lasers, transfer matrix method based large-sig. dyn. model 1995
multielectrode semicond. laser broadband freq. generation 7668
multigigabit opt. networks, direct-modulation/direct-detect. 17272
multigigabit opt. transm. expt., free-space simulator 17286
multilayer planar opt. waveguide with buffer layers, guided modes 7343
multiple FM-video sig. transm., opt. fiber in security 9529
multiple-access networks, opt. TDM 42128
multiplexed diode-laser sens. syst., gas/temp. meas. 7874
multiplexed holographic image storage, ang. and phase-encoding 31651
multistage opt. switches for 2D images based on polaris.-sensitive elements 42132
NLC panels, phase retardation meas. 31009
non-destructive opt. fiber talk-set *(Japanese)* 42397
nonintrusive probing techs. for EM meas. 2248
nonlin. fiber Sagnac opt. TDM switch 17336
nonlin. Kerr media, beam steering, spatial PM 2057
nonlin. Kerr-type resonators, modulational instabilities, suppression 2123
nonlin. media, bichromatic field interact., induced self- and cross-focusing study 40069
nonlin. opt. loop mirror extinction ratio improvement 15122
nonlin. Schrodinger eqn. soln. by coupled amplit.-phase formulation 23373
OFDM transparent cross connect, TV channel switching 17223
opt. heterodyne receivers, noise perform. of AFC loops 42407
Optical Communication Demonstrator, laser transmitter assembly 17303
optoelectronic device simul., conf., Los Angeles, CA, USA, Jan., 1994 36838
optoelectronic signal processing for phased array antennas, conf., Los Angeles (1994) 24
organic media holographic pulse shaping 31674
OTDR by quaternary FSK modulated probe and coherent detect. 34012
overlapping multi-pulse PPM, noisy photon counting channel, perform. 40566
parallel opt. data links, VCSELs 42367
partial pixel diffractive display archit. 25917
partially-corrugated-waveguide LD, low modulation distortion for SCM telecom. appls. 17194
pass. demodulated Michelson/polarimetric coupled fiber strain sens. 17866
pass. mode-locked diode laser pulse charact. 39834
pass. WDM opt. network, cost-shared components 9463
periodic/pseudorandom word modulated LD in fibre soliton transm. 42395
phase-modulated fiber laser, spectral stabil. and smoothness 25991
phase-modulating opt. coherence domain reflectometry 18128
phase-modulating opt. coherence domain reflectometry, synthesis of coherence fn. 34719
phased array antennas, rem. located modulators 9540
photoconductive semiconds., transient photocurrents generated by step-PM 23421
photoelastic modulator of light, opt. feedback 14566
photorefr. gratings kinetics, light phase-shift effects 40051
piezoceramic plate bending motion meas. by homodyne holographic interferometry 40153
planar photodiode for high-dyn.-range analog transm. 17195
PLL, amplit. modulated commun. link 42347
PLL interferometric profilometry 3984
polariz. shift keying, opt. digital transm., direct detect. 42344
polariz.-selective birefr. CGH based intell. photonic switch 25538
PPM channels, cutoff rate/capacity 15704
PPM perform., jitter implications 17245
PPM sigs., airborne/underwater opt. commun., optimum detectors 41100
preamplified PPM receivers, laser intersatellite commun. 34036
preamplifier ASK syst. perform., incomplete ASK modulation, influence of ASE/laser phase noise 25531
pretransmisson nonlin. channel compression in SCM lightwave systs. 17212
proton-exchanged waveguide devices, lifetime projections 22884
pulsed coherent Doppler lidar with opt. amp., heterodyne detect. 3622
push-pull modulated DFB lasers, enhanced AM bandwidth 7635
push-pull opt. frontends for SCM CATV appls. 42458
QPSK opt. homodyne transm. syst. receiver anal. 34044
quantum confined light modulators 7400
quantum limited OOK, opt. amplif., perform. bounds/cutoff rates 40564
quantum limited OOK, opt. amplif., perform./cutoff rates 40546
quantum well lasers, intens. modulation, carrier heating/transport 14865
quantum-well semicond. lasers *(German)* 7615
quasi-phase-matched SHG by backward propag. interact. 31559
QW diode laser, high freq. modulation, dual modal gain/pumping current control 7648
QW semicond. lasers, carrier transport effects on wavelength chirp 1974
random PM techs., opt. pattern recogn. 32943
rapidly tuned FDM laser transm. receiver, multichannel heterodyne detect. 9499
rare earth doped opt.-fiber preamplifiers for ladar detect., SNR 9653
referenced intens.-based opt. fibre sens. 34525
rem. ellipt.-core dual-mode fiber strain sens., coherence-tuned interrogation 17918
repeaterless transm., 10 Gb/s, fiber, dispersion compen. 34020
repeaterless transm., 2.4 Gbit/s, 306 km fibre, DFB LD 17231
repeaterless transm., 622-Mbit/s and 2.5-Gbit/s, self PM 15051

optical modulation continued
reson. cascaded surface-emitting SHG struct. self-PM 31485
ridge-waveguide MQW DFB lasers, static and dyn. simul. 23193
ring fibre interferometer, sig. drift by transient polaris. effects 3849
RS coded opt. PPM, PIN-FET receivers 9606
Sagnac interferometer, elec./mag. fields simultaneous meas. 17865
second-order grating waveguide-to-fiber coupling 39404
SEL mirror effects on dyn. response 31315
self PM with finite response time, quantum theory 31898
self-excited chopper, quartz micromachined, opt. sens. appl. 30978
self-referenced fiber optic sens. for microdisplacement meas. 34537
semicond. components for opt. amplif./modulation/detect. 42472
semicond. diode laser nonlin. study by equiv. cct. modelling 1976
semicond. laser; linewidth, linewidth enhancement factor α, FM and AM response meas. 39878
semicond. laser, AM/FM noise from coherent feedback 14864
semicond. laser, dual modulation, large sig. anal. 1975
semicond. laser, modulation response, carrier conc./temp. 23217
semicond. laser amp., carrier depletion effects on opt. phase conjug. 39830
semicond. laser freq. control, PM, and nonlin. freq. conversion *(Japanese)* 7624
semicond. laser noise, Volterra functional series expansion 2003
semicond. laser second-order/third-order nonlin. harmonic/IMD *(Korean)* 14901
semicond. lasers, HF characts., nonlin. gain cct. model 31333
semicond. lasers with weak coherent opt. feedback, equiv. cct. 23272
semicond. struct. photomodulated diagnostics, microwave resonator transducer synthesis *(Russian)* 13098
short cavity DBR lasers, narrow band Bragg mirror, dyn. charact. 14788
single mode birefr. fibers, different freq. opt. wave cross-PM 22804
single mode dye laser freq. stabilization, forward scatt. 7536
single mode fibre polariz. modulators 14373
single mode opt. fibre phase noise cancellation 1672
single mode semicond. lasers, opt. injection/feedback 39824
single-mode diode lasers, feedback, external light injection, switch-on time, timing jitter 31397
single-mode fiber, opt. phase-conjug. waves and compensation for pulse shape distortion 17259
single-mode fibre, opt. phase conjug., chromatic dispersion, self-PM 30856
single-mode fibre coupler/filters, coupling suppression by periodic index modulation 30912
single-mode opt. fiber, single-pulse degenerate-cross-PM 40078
slab waveguide, polariz. coupling and transverse interact. of spatial opt. solitons 14451
slab waveguide liq. cryst. modulator 14540
SOI waveguide single-mode opt. phase modulator, high efficiency 30972
solid-state laser modelocking, birefr. and PM 14811
solid-state ring lasers, self-modulation/relax. oscills. 7579
soliton transm. on opt. fibres *(English, French)* 42342
space laser commun., effect of turbulence on M-ary coherent PSK systs. 17317
space opt. commun., pulse-coded multiple access 42350
spectral charactn. of opt. heterodyne generated microwave sigs. 6293
spectral filtering lidar light possessing non-Gaussian stats. 3616
spectrum meas. syst., high resoln. 4003
SQW LD guided-wave devices, heterodyne nondegenerate pump-probe meas. 25990
STARNET opt. WDM network, high-speed interface 9514
STARNET WDM computer commun. network, combined freq. and AM 17174
Stockholm 10 Gb/s opt. fiber network 25517
storage ring UV FEL, giant laser pulse generation 39950
strained MQW LDs, 1.3 μm, 1 Gbit/s bias-free operation 39868
subcarrier comb generator, phase-locked tunable config. 9426
subcarrier multiple access PON, adjacent channels 42392
supercontinuum generation, pulse-width tunable self-freq. conversion of short opt. pulses 2077
suppressed carrier coherent fiber optic transm. PSK modem 3590
SWFM sig. opt. fiber transm. of addressed audio and video sigs. 9528
synchronized chaotic laser digital commun. 25488
tapered fibre nonlin. Kerr self-PM effects anal. 30885
temp. sens., polymer ceramic composites 34543
temporal proc. and time lenses implement. 41301
three-channel FDM fiber-optic LF voltage sens. 9921
three-level modulation scheme, std. fibers, dispersion limit 42343
time/polaris. multiplexed opt. fiber soliton transm. 9467
transm. bandwidth meas. systs. *(Japanese)* 33976
trellis coded overlapping multi-pulse PPM, opt. channel 15705
tunable four-sect. DBR LD, lasing charact. modelling 14845
tunneling injection quantum well laser, cold device, large modulation bandwidth 7645
turbid media imaging by CW US modulation of scatt. laser light 43254
twin emitter semicond. laser arrays, high-speed modulation 7659
two-mode fiber equalizer ultrashort pulse transm., dispersion compensation 9472
two-mode fibre Michelson interferometer config., low-coherence excitation 3850
two-sect. DBR laser transmitters in opt. FDMA networks 9500
ULSI CMOS/opt. polymer opt. interconnections 1832
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
ultralow threshold laser, zero-biased, ultralow power opt. interconnect 14672
uncoded overlapping PPM perform. under commun. constraints 40556
unsynchronised opt. overlapping PPM channel coding 42357
UV grating written planar silica waveguide semicond. external cavity laser 34034
VCSEL, lateral injection, high speed modulation, act. region 39781
VCSELs, multiple transverse mode, high speed data commun. 39806
VUV/soft X-ray FEL, subfemtosecond pulse generation, modulation techs. 39902
waveguide-type opt.-freq. comb generator 22883
WDM chirp reduction LD by injection locking 3557
WDM systs., modulation stats. effects on Raman crosstalk 17348
wideband fiber optic systs. by carrier subtraction 25516
wind meas. by heterodyne coherent laser radar 43504
Ag halide holographic phase grating, modulation profile 40141
AlGaAs/GaAs MQW, opt.-modulator struct., hydrogenation 1803
AlGaAs/GaAs VCSEL, linewidth/α-factor 14936
AlGaAs-GaAs HBTs for high-speed opt. modulator driver cct. 42405
BaTiO$_3$ cryst. multiple wavelength phase-conjug. shear interferometry 2087

optical modulation continued
BaTiO$_3$ photorefr. crysts./waveguides, anom. photorefr. response in two-beam coupling 15088
CO$_2$ IR coherent lidar, enhanced opt. heterodyne detect. 3617
CO$_2$ gas lasers, internal FM 14713
CO$_2$ laser, lin. modulation freq. 39677
CO$_2$ laser, small-amplit. pumping modulation, operation dyn. 39648
CO$_2$ loss modulated laser, amplit.-detuning charact. 31195
CO$_2$ single mode class-B laser phase dyn. 31169
CdS, colloidal microcrystallites, CW self-focusing/PM 31531
Cs FIR laser lines around 1.2/1.6 THz, heterodyne freq. meas. 23081
Cs vap. opt. correlator 2633
Er,Yb:glass disc laser mode locking 23146
Er,Yb:glass laser, harmonic modelocking 23177
Er-doped fiber amp. AM CATV syst. RIN noise 9576
Er-doped fiber amplified low-distortion WDM AM SCM 4×50-channel CATV transm. 9572
Er-doped fiber amplifiers, nonlin. wave mixing and dyn. controlled gratings 7577
Er-doped fiber amps., optimized noise perform. for AM-VSB distrib. systs. 7555
Er-doped fiber laser config., wavelength switching 14735
Er-doped fig.-8 mode locked fiber laser stabilization 7568
Er-doped in-line fiber amp. Kerr nonlin./noise 9444
Er-doped mode-locked fiber ring laser freq. stabilisation 23119
Er-doped opt. fiber amplifer coherent AM analog opt. links 17213
Er-doped self starting fiber based soliton laser 14761
Er^{3+}-doped fiber ring laser gyroscope appls. 3871
Er^{3+}-doped intracavity LD pumped modulated fiber lasers 1879
Er^{3+}-doped silica-glass fiber parasitic upconversion mechanism anal. by 980 nm fluoresc. 39324
GaAlAs LD feedback interferometer for displacement meas. 23479
GaAs 2-to-4 level convertor IC for SOA modulators 42403
GaAs MMIC delay line/quadrature demodulator in opt. receiver 17199
GaAs adaptive photodetector, broadband detect. of PM, 10 MHz freq. range 34509
GaAs cryst. photorefr. response time meas. by PM in two-wave mixing 2066
GaAs, high freq. photomixing 15109
GaAs transmitter/receiver chipset for opt. link 42404
GaAs:Si QW, uniform intermixing in p-i-n modulator structs. 39605
GaAs/AlAs, single-wavelength all-opt. phase modulator 2106
GaAs/AlGaAs QW waveguides, all-opt. PM 23370
GaAs/AlGaAs opt. phase modulators for microwave/photonic ICs 7495
GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
GaAs-AlGaAs LD with opt. feedback, line narrowing and modulation bandwidth 1981
GaAs-AlGaAs monolithic optoelectronic switch, modulation response 23055
GaAs-GaAlAs multilayers, far-IR radiation nonlin. refl. 7756
GaInAs/GaAs quantum wire laser, gain coupling, RIE 31385
GaInAsP DFB lasers, fab., maskless FIB implant. 39825
GaInAsP/InP strained-layer quantum well lasers, temp. depend. reflectivity mirror 40021
GaInAsP-InP continuously tunable LD, mode hopping *(French)* 1924
GaSb quantum well based IR devices 9908
He-Ne gas laser with nonadiabatic modulation of cavity, oscill. dyn. 7526
He-Ne laser, I$_2$ stabilized, freq. shift 34320
He-Ne laser, axial modes, UHF beat prod. 31198
InGaAs GRINSCH QW laser, gain compression, Monte Carlo simul. 1992
InGaAs quantum well LD, modulation response, self-consistent calcs. 1963
InGaAs/GaAs-laser waveguide, radiation leakage, gain spectrum and directivity pattern 23199
InGaAs/InAlGaAs QW DFB laser facet influence on wavelength tunability and linewidth-chirp 39860
InGaAs/InGaAsP MQW opt. modulator, nonlin. opt. absorpt., spatial band bending 2103
InGaAs/InP p-i-n waveguide photodetector, dyn. range 34069
In$_x$Ga$_{1-x}$As/InGaAsP/InP SQW laser, modulation bandwidth 39859
InGaAs-GaAs QW laser modulation by short opt. excitation, energy and spatial depend. effects 14967
InGaAs-GaAs narrow quantum wells, carrier capture and relax. 2004
InGaAs-InP 1.55μm photonic waveguide devices, quantum well struct.-based 14411
In$_{0.53}$Ga$_{0.47}$As-InP reson. plasma waveguide modulator for mid IR 1734
InGaAsP DFB single-mode LD, small sig. cct. model 39821
InGaAsP strained MQW heterostruct., lasers, modulators, integrated optics 14922
InGaAsP/InGaAsP multiquantum well waveguide, nonlin., bias depend. recovery time 1717
InGaAsP/InP MQW laser gain-lever effect 23279
InGaAsP/InP grating-assisted directional coupler, act. filter *(Japanese)* 7365
InGaAsP/InP lasers, Q-switched pulses 14875
InGaAsP-InP 1.3 μm BH laser modules in fibre link 17254
InGaAsP-InP DFB lasers, long. mode hole burning 1997
InGaAsP-InP electroabsorption modulators for LDs, nonlin. effects model 14846
InGaAsP-InP tunable DFB laser freq.-drift suppression 9596
InP, and related materials, conf., Paris, France (April 1993) 11521
InP polariz. diversity receiver OEIC heterodyne receiver frontend module 23061
InP-based broadband optoelectronic receivers 9497
KrF high power microwave freq. modulated laser 31151
LiNbO$_3$ phase modulator for lase third-order harmonic mode locking 14784
LiNbO$_3$ ridge proton-exchanged waveguides fabricated by wet etching 22913
LiNbO$_3$ waveguide Mach-Zehnder modulator, white light spectral anal. 14499
LiTaO$_3$ proton-exchanged opt. waveguides, electrooptic consts. 14471
Nd:YAG CW self-starting mode locked laser, cascaded second-order nonlin. 39745
Nd:YAG birefr. microchip laser used in heterodyne vibrometry 23481
Nd:YAG diode pumped regenerative amp. for picosecond pulses 1896
Nd:YAG injection-locked solid-state laser, freq. and intens. noise 31245
Nd:YAG lamp-pumped laser, opt.-Kerr-enhanced mode locking 23179
Nd:YAG laser commun. syst., PPM commun. optim. 17301
Nd:YAG ring laser, chaos, dyn. and spectral charact. 40020
Nd:glass ultraintense laser pulses, highly efficient SHG 31498
Nd^{3+}:YAG lasers in commun. and range finding systs. 7875
PZT, film, photoactivated birefr., struct. transit. 1557
Pr^{3+}:ZBLAN fibre amp. AM-VSB video link 3583
Pr^{3+}-doped fibre amp., short-pulse amplif. study 31227

optical modulation continued
Pr^{3+}-doped fluoride fiber amps., gain dyn. anal. 31217
Si 10 Gbit/s bipolar LD driver IC for direct modulation 29047
Si APD, elec. breakdown, thermo-optic investig. 1801
a-Si-SiO_2-Si Fabry-Perot opt. intens. modulator by merged ELO 14647
Ti:sapphire fs laser pulse SHG 23173
Ti:sapphire laser, FM operation 31254
Ti:sapphire laser modulation procs. and radiation charact. 7601
Ti:sapphire regenerative amp., tunable 30-fs pulses 39739
YBaCuO films, high-freq. modulated laser radiation, nonequilib./bolometric response 39233
ZnMgSSe blue diode lasers/optoelectronic devices, MBE growth 7664
ZnSe/ZnCdSe/ZnSe MQW device, opt. modulation and switching 25539

optical modulators *see modulators; optical modulation*

optical monochromators *see monochromators*

optical neural nets
2D opt. three-layer neural associative memory 39524
3-D optoelectronic neural syst., hardware efficient learning 29502
3D opt. interconnected neural network 1773
adaptive device, competitive learning cct. 39518
ART1 neural net memories, fuzzy optoelectronic implement. 31123
associative memory design based on coherent four-wave mixing 1658
bipolar winner-take-all model with a threshold, real-time pattern recogn. syst. 24428
cellular neural network chips, opt. image acquisition 29486
cellular neural networks, input/output hardware strategies 29491
CGH, opt. computing/neural net channel addressing 31632
contrast enhancement for opt. cellular neural network 794
digital associative memory neural network, opt. learning capability 14559
DP neural-network device for adaptive opt. syst. 14564
electron-trapping material optoelectronic neural dendritic tree proc. 39520
free-space optoelectronic technol. neural networks 1774
graded index thin film waveguide approach 39522
halftoning opt. neural learning algm. 16305
high-capacity opt. neural networks, nonideal hardware 7431
image quantization and rel., network struct. procs. 33088
image recogn., 2D sparse distributed opt. neural memory 32895
image sensors/processing, conf., UK, 1994 5481
injection laser neural network, long. modes, neurons 29453
intell. opt. sens., multilayer opt. neural net, analogue VLSI 9938
IPA model using hierarchical recogn. algm., opt. implement. *(Korean)* 22979
IR cloud pattern-class., neural-network decision surfaces 2715
Kerr-type nonlin. materials 31030
Korean character recogn., opt. associative memory *(Korean)* 24674
lateral-alignment-free opt. neural network, pattern assoc. 16141
lenslet array opt. neural network, coaxial archit. 22973
LEOS, San Jose, CA, USA (1993) 20270
mesoscopic neural device, electron waveguiding, nonlin. neural connection 14660
morph. filter optim. by learning, opt. neural net appl. 1765
multitarget tracking syst. based on opt. BJTC and neural networks *(Korean)* 14561
neural network, temporally multiplexed grey-scale wts. 29452
neuro-devices, develop. *(Japanese)* 1753
neurocomputers based on massively parallel opt. archit. 1775
nonsymmetric opt. neural networks, memorized pattern retrieval 1776
opt. neural chips, artificial retina 7435
optoelectronic integrated device, opt. multi-stable fns. 23058
optoelectronic science/engineering, conf., China (1994) 28207
OptoNeural target tracking syst. 41306
photorefr. neural-network wt. decay, gain and exposure scheduling 39519
protein-based computers, parallel proc., 3D memories and neural networks 29698
self organizing opt. systs. 31043
Selfoc microlens array opt. learning neural network for pattern recogn. 31034
single-rail translation-invariant opt. associative memory for neural networks 22796
smart-pixel liq. cryst.-on-Si SLM for optoelectronic neural network 22960
supervised/unsupervised hybrid opt. neural networks, JTC 31033
switched-current/continuous-time current-mode cellular neural network, opt. addressable 29517
synaptic networks based on opt. nonlin. devices 22974
texture recogn./noise filtering, optoelectronic neural net 39526
translation-invariant second-order opt. neural network for multiple-pattern class. 24486
transversal imager, photonic neurochip, prog. synaptic wts. 13897
VLSI ccts. for optoelectronic neural network wt. setting 1501
$LiNbO_3$ photo-induced waveguide, opt. dyn. 3D interconnections 39523
a-Si thin film optoelectronic cellular neural networks 22980

optical noise
see also laser noise
1.7-Gbit/s opt. amplified terrestrial lightwave syst. deployment in USA 17241
2-20 GHz low-noise wideband opt. receiver 9573
3D laparoscopic syst., single-camera 34998
3D motion and struct. estim., multiresolution model-based segmentation algm. 8589
12-Gb/s high-sensitivity monolithic p-i-n/HBT photoreceiver module 25512
1300 nm gain-clamped MQW laser amps., reduced IMD 34006
1550 nm opt. AM-SCM systs., self-PM induced second order distortion 34095
absol. air refractivity meas. 10473
adaptive optics imaging through atmos. turbulence, frame selection 16200
addit. fringe ESPI, phase extraction 7809
all-opt. multihop photonic packet-switched networks, bandwidth limits 9579
all-opt. nonlin. joint FT correlator 24409
AM-SCM lightwave syst., simultaneous scatt./interf. suppression 17175
AM-VSB/64-QAM hybrid opt. transm. systs., impulse-induced bit-error impairment 9557
AM-VSB/QAM CATV opt. transm. syst., 64-QAM sigs. 9556
AM/QPSK hybrid opt. transm. systs., BER depend. on CTB 9559
amplif. under std. quantum noise limit 15073
analog lightwave link with large polariz.-mode dispersion, 64-QAM BER meas. 9560
atmos. distorted images, high-resoln. restoration techs. 33004
binary phase only matched filter symm. breaking 31060

optical noise continued
bipolar preamp. for digital opt. receiver, Haus-Adler noise measure anal. 29058
CATV DFB LD, second-order distortions meas. 34004
CATV/FITL video-transm. DFB laser components and systs. 17193
CCD images, readout noise compensation 24495
CDMA opt. commun., M-ary signalling 34058
coherent detect. photodiode, optimum opt. LO power levels 25847
coherent opt. POLSK receivers, LO intens. noise and unmatched quantum efficiencies 25491
compressed-digital-video fiber-based transm. systs., clipping penalty 9558
correl. filter, noise adaptive discrim. 39544
Costas loop, phase subtraction, perform. enhancement 17338
CPFSK opt. receivers with Gaussian freq. pulse shape, perform. anal. 42436
deconvolution from wavefront sens., lin. and speckle image reconstruction 16212
deflection-routing transparent opt. networks, min.-loss node struct. 9564
degraded images, blur ident. and restoration, generalized cross-validation criterion 33085
direct detect. opt. commun. syst. that operates in sunlight 17319
dispersion mismatched nonlin. fibre coupler logic operations 30916
dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 23801
dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 1705
distortion invariant opt. pattern recogn. 32941
distortion-invariant composite filter for target detect. in nonoverlapping scene noise 32869
double-cryst. SR monochromators, exit beam distortions 43150
drive compatibility optimum design for opt. storage media 14328
Earth-space commun., opt. networks 17294
ESPI, speckle size, optimum determ. 15185
externally modulated analog opt. links, dyn. range 9537
Fabry-Perot LD modeling 31321
faint stellar obj. astron. imaging, light amplif. 2593
fiber lightwave syst. nonlin. optics 34059
fiber soliton propag. by phase-sensitive amplif., quantum noise reduction 34025
fiber transm. lines, complex multiple refl. calc. *(Japanese)* 39351
fibers, Raman noise and soliton squeezing 31504
fibre, opt., propag., quantum noise 14408
fibre networks, directly modulated, seq. depend. of phase-induced intens. noise 34015
fibre ring long-term soliton bit stream storage by phase-sensitive amplif. 22786
fibre soliton propag. quantum noise reduction by phase-sensitive amplif. 1668
fibre-optic Michelson interferometer, polariz. induced noise 17854
fibres, subpicosecond soliton-like pulse propag. 22861
flexure-beam micromechanical SLM 7391
freq.-domain adaptive iter. image restoration 2705
Fresnel holograms, computer-generated image quantization, error diffusion algm. 23455
fund.-mode dispersion-compensating CATV fiber links 17206
gain-guided semicond. microlasers, noise props. 23204
heterodyne ASK lightwave systs., IF flucts. 17253
high-quality prior knowledge image error reduction 2706
homodyne surface SHG 40079
hybrid fiber/coax network broad-band AM-VSB/64 QAM CATV syst. 34010
hybrid SCM AM/QAM lightwave transm., laser clipping distortion effects 42411
image detect. in spatial noise and background radiation 2833
image reconstruction, iter. deconvolution, variable convergence speed 41235
in-line opt. amp. systs., num. simul. *(Japanese)* 14738
in-line opt. amp. systs., SNR degrad. *(Japanese)* 42396
in-line recording off-axis viewing holographic particle velocimetry 40148
input plane/Fourier plane random encoding, opt. image encryption 41302
interferogram fringe pattern anal., noise reduction 33005
intersatellite commun., heterodyne opt. detect./spatial tracking syst. 34077
IR FPA, high-resoln. closely spaced obj. location algms. 3885
IR images, high-resoln. real-time restoration of atmos. distortions 16199
IR sens. model of noise equiv. temp. difference 3887
IR surveillance, motion estim. methods/noisy phenom. 2612
laser alignment meas. syst. based on opt. activity, adaptive noise cancelling 31691
laser scanning imaging systs., modulation waveform effects on S/N ratio 40172
lightwave commun., opt. amplified receivers, moment generating fn. 42363
lightwave syst. dispersion compensation design 42419
lightwave systs. with opt. preamplifier, perform. eval. 17186
linewidth-insensitive coherent analog opt. AM link receiver/transmitter 9442
long-haul digital transm. opt. preamplifier receivers 34037
long-haul submarine commun. systs., soliton transm. implement. 9484
Mach Zehnder electro optic modulator for sideband suppressed carrier modulation of opt. fields 42394
mag. fiber-optic sens., magnetostrictive noise limitation 3852
magneto-optic Kerr effect sens., field meas. 10002
min.-MSE filters for spatially nonoverlapping target and input-scene noise 22982
monolithic quantum-well lasers, inhomog. biased, MM freq. reson. modulation 31324
multielement photodetector, sensitivity variability and noise influence 42796
multielement photodetector device for point source coord. meas. 25968
multilayer second order nonlin. media, generated femtosecond pulse phase distortions 31615
multimode fiber interferometric syst., up- and down-lead fiber sensitivity 9915
multimode GRIN fibers, mode-noise anal. 39357
noniterative image reconstruction from photon-limited data by self-cross-correl. 24360
nonlin. opt. loop mirror noise filtering 25526
obj. beam expander noise monitoring in speckle correl. interferometry 33143
opt. amps., sig. jitter, ASE 14769
opt. disks, eye-diag. jitter, source wavelength, aberration and noise effects 30833
opt. flow, probabilistic and seq. computation, temporal coherence 2728
opt. heterodyne receivers, noise perform. of AFC loops 42407
opt. phase conjug., sig. wave reflectivity 31517
optoelectronic matrix-vector multiplier, computational accuracy anal. 31027
orthogonal polariz. fiber gyroscope, stabil., resoln. 17817

optical noise continued
overlapping multi-pulse PPM, noisy photon counting channel, perform. 40566
overlapping multipulse PPM in opt. direct-detect. channel, error perform. 8259
partially absorbent phase objs., phase reconstruction/unwrapping from holographic interferograms 31663
particle image velocimetry FT lens, off-axis holographic tech. 23475
phase retrieval methods for opt. diffr. tomography 23456
photoconductive layered solid-state imaging device, SNR anal. 17930
photon-limited images, low-pass filtering, histogram spec. 33144
photorefr. two-beam coupling optimal thresholding filter for additive sig.-depend. noise reduction 23406
photorefr. two-beam-coupling nonlin. joint-transform correlator 2052
polariz. shift keying, opt. digital transm., direct detect. 42344
preamplified opt. direct detect. systs., receiver noise effects 17178
preamplifier ASK syst. perform., incomplete ASK modulation, influence of ASE/laser phase noise 25531
pulse train noise, spectral meas. 2041
push-pull opt. frontends for SCM CATV appls. 42458
QPSK opt. homodyne transm. syst. receiver anal. 34044
Rayleigh backscatt. in opt. fibres, noise/sens. 17899
real time electro-optic probing for long logic pattern anal. 34649
real-time morph. transforms opt. proc. *(Chinese)* 16335
receivers, broadband freq. charactn. via intens. noise 25534
Richardson-Lucy blind deconvolution algm. 24361
robust nonlin. filter for noise-smoothing and edge-enhancement 2847
S-SEED operation with noise, BER anal. 22946
Sagnac interferometer, fund. thermal induced phase flucts. in fiber loop 17921
Sagnac interferometer, thermal induced phase flucts. 17855
Sagnac/Mach-Zehnder fiber-optic interferometer thermal procs. comparisons 42835
sheared beam imaging in space-time distortions 17433
single mode opt. fibre phase noise cancellation 1672
single-mode dispersive fibre, opt. noise correl. fn. 30871
single-mode fiber, opt. phase-conjug. waves and compensation for pulse shape distortion 17259
single-mode opt. fiber, polariz. mode dispersion meas. 30890
single-shot laser radar sigs., principal-component filtering 17440
soliton syst., amplit. noise, timing jitter, suppression/control 7759
soliton transm. on opt. fibres *(English, French)* 42342
spatially disjoint sig./scene noise opt. pattern recogn. 32946
spectral charactn. of opt. heterodyne generated microwave sigs. 6293
storage ring solitonlike pulse stabilization, slow saturable absorber 22792
SWFM sig. opt. fiber transm. of addressed audio and video sigs. 9528
sync. opt. chip interconnects, perform. anal. 39604
TDM switching networks, interchannel cross talk, noise degrad. 9147
telecom. network sync., phase noise eval., time domain meas. 24887
thermoplastic photographic plate, holographic opt. image proc. 7854
thin layer double phase conjug., coherentization condition 7784
transparent opt. networks scaling limitations, low-level crosstalk 17345
tunable photorefr. spatial filters, noise robustness 8654
turbulent atm. wind profile estim. from laser distortion data 35311
twin-core doped opt. fiber, sub-Poissonian/super-Poissonian photon stats. 14401
two-branch double-stage phase-diversity coherent receiver, 3×3 fiber coupler 9470
video path params. of analog dissection of astrotransducers 8266
vol. holographic memory storage capacity, cross-talk noise 40163
wavefront reconstruction from phase differences, correl. noise propag. 16201
waveguide-type opt.-freq. comb generator 22883
wavelength converters based on four wave mixing in semicond. opt. amps. 42385
wide-band coherent laser radar sigs., optoelectronic proc. 17453
Wiener spatial filter SDF for opt. correl. 41153
Wiener spectra meas., digital systs. 26299
Ag halide vol. holograms, noise sources 7840
AlGaSb/GaSb punch-through heterojunction phototransistors for lightwave commun. 7462
$BaTiO_3$ photorefr. centers in vol. holographic capacity storage 15167
$BaTiO_3$, photorefr. two wave mixing detect. of weak sig. beams 31570
$Bi_{12}SiO_{20}$ opt. correlator/SLM, multiple distortions 32964
Er-doped fiber amp., cascaded, gain-peak wavelength, Al-conc. depend. 14744
Er-doped fiber amp. preamplified receiver perform. eval., ISI 25527
Er-doped fiber amplifer chain link, polariz. scrambling improves SNR perform. 17238
Er-doped fiber amplifer noise meas. 7574
Er-doped fiber amplifer ultralong commun. systs., polariz.-depend. gain and loss 17240
Er-doped fiber amplified low-distortion WDM AM SCM 4×50-channel CATV transm. 9572
Er-doped in-line fiber amp. Kerr nonlin./noise 9444
Er-doped opt. fiber amplifer coherent AM analog opt. links 17213
GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891
GaAs-AlGaAs GRINSCH LD modelling of MBE growth 39791
InGaAs MSM photodetector charactn. by electrooptic LD sampling 23009
InGaAsP DFB single-mode LD, small sig. cct. model 39821
InGaAsP channel HFET OEIC photoreceiver 17258
InP/InGaAs punch-through heterojunction phototransistors for lightwave commun. 7462
In_3SbTe_2 phase-change opt. disks, crystn. 22798
$KTiOPO_4$ nonlin.-opt. waveguides, quadrature squeezing, ultrashort pulses 40084
Pr^{3+}-doped fluoride fiber amps., pump config. *(English)*. 23127

optical nutation *see optical coherent transients*

optical parametric amplifiers
1.5-μm phase-sensitive opt. parametric amp. for ultrahigh-speed commun. 9604
amplif. under std. quantum noise limit 15073
av. power effects, thermally induced lensing depend. 15079
Bragg gratings, parametric amplif. 40038
broadly-tunable single-freq. opt. parametric freq. conversion syst. *(Danish)* 7742
coupled waveguides, integrated opt. parametric sum-freq. generator 2048
fiber soliton propag. by phase-sensitive amplif., quantum noise reduction 34025

optical parametric amplifiers continued
fibre soliton propag. quantum noise reduction by phase-sensitive amplif. 1668
fibre soliton self-freq. shift compensation, phase-sensitive parametric amps. 23358
freq. nondegenerate parametric amps., asymmetric losses, output quantum correl. 40074
noiseless opt. preamplification, photodetection quantum efficiency 31540
phase-locked phase-sensitive opt. parametric amp. soliton fibre pulse propag. 40082
single-cryst. parametric oscillator-amp. of short ns pulses tunable in vis. range 7785
TW femtosecond parametric lasers 31289
undersea cable systs., opt. amplified, design and deployment 33738
weak opt. sig. detect. 17320
β-BaB_2O_4 ps opt. parametric amplif. 2117
n-InSb doped crysts., parametric amplif. and oscill. 40115
$KTiOPO_4$ nonlin.-opt. waveguides, quadrature squeezing, ultrashort pulses 40084
$LiNbO_3$ waveguides, quasi-phase-matched opt. parametric amplif./oscill. 23381
$NH_4H_2PO_4$ cryst., opt. parametric oscill./amp., spectrosc. appl. 7772
Ti:sapphire fs laser amp., tuning range extension 14808
Ti:sapphire regenerative amp., tunable femtosecond opt. parametric amp. 2130

optical parametric devices
see also optical parametric amplifiers; optical parametric oscillators
parametric receiver design, modelling techs. 12744
type-II opt. parametric down-conversion, two-photon entanglement 15027
$AgGaS_2$ opt. parametric generated IR Ti:sapphire solid-state laser pulses 15049
BaB_2O_4, noncollinear parametric generation by freq.-doubled femtosecond laser pulses 23419
GaSe travelling-wave opt. parametric generator, 2.8 μm laser pumped 23354
LiB_3O_5 all-solid-state ps opt. parametric generator 23418
$LiIO_3$, noncollinear parametric generation by freq.-doubled femtosecond laser pulses 23419
Nd:YAG laser cryst., parametric pass. phase conjug. 2118
Nd:glass all-solid-state laser syst. pulses, tunable by down conversion 14779
Ti:sapphire fs laser pulse parametric conversion, 1 kHz 14782
Ti:sapphire laser wavelengths, nonlin. conversion 40061

optical parametric oscillators
see also lasers
av. power effects, thermally induced lensing depend. 15079
car exhaust trace gas monitoring by laser photoacoustic spectrosc. 18907
CW phase locked opt. parametric oscillator, terahertz source 7763
intracavity SHG opt. parametric oscill. 15083
laser radiation harmonic generation, opt. rectification 23431
liq. droplet microcavities, CW nonlin. optics 31507
low pulse energy optical parametric oscillators, solid laser pumped 15082
non-DFWM oscillators, quantum noise reduction 15039
nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
pump sources for parametric freq. conversion 7769
quadratic nonlin. opt. materials *(French)* 1649
Raman scatt., squeezing props. 15119
school on nonlinear optics/optical physics, Capri, Italy (1992) 32
single-cryst. parametric oscillator-amp. of short ns pulses tunable in vis. range 7785
size selected clusters, opt. parametric oscillator IR spectrosc. 15058
ultrashort-pulse generation in degenerate oscillators 40089
VUV/XUV lasing and wavelength tuning techs. 31172
$AgGaS_2$ sync. pumped ultrafast opt. parametric oscillator 31625
$AgGaSe_2$, mid-IR opt. parametric oscillator, 2.54 μm-pumped type II 31527
$AgGaSe_2$ noncritically phase matched mid-IR generation by opt. parametric oscillator 40060
$AgGaSe_2$ parametric oscillator, diode-pumped Ho:Tm:YLF laser 7800
AlN waveguide, phase-matched freq. doubling, tunable laser source 31543
[B-]BaB_2O_4 opt. parametric oscillator noncollinear phase matching 15114
β-BaB_2O_4 injection-seeded opt. parametric oscillator, bandwidth studies 31500
β-BaB_2O_4 opt. parametric oscillator, spectrosc. light source 31573
BaB_2O_4 type I opt. parametric oscillator, noncollinear phase matching 2125
CsB_3O_5, tunable UV generation, 0.185 μm 23371
D_2O laser, spectral narrowing, oscill.-amp. 23102
GaAs, diffusion bonded stacked, IR parameteric oscill. 7770
H_2 laser source, second-order Stokes shift, mid-IR generation 39665
n-InSb doped crysts., parametric amplif. and oscill. 40115
$KNbO_3$ high-repetition-rate femtosecond opt. parametric oscillator 40086
$KNbO_3$ tunable narrow-band mid-IR type I opt. parametric oscillator 40113
$KTiOAsO_4$, opt. parametric freq. conversion props. 7725
$KTiOAsO_4$ tunable near IR opt. parametric oscillators 15067
$KTiOPO_4$ broadly tunable fs opt. parametric oscillators 40059
$KTiOPO_4$ crysts., parametric oscill., pulse compression 2072
$KTiOPO_4$ opt. parametric oscillator in fs time domain 31578
$KTiOPO_4$, solid state eyesafe wavelength converter, YAG lasers 7768
$KTiOPO_4$, sub-picosecond opt. parametric oscillator, Kerr lens mode-locking 31564
$KTiOPO_4$ sum freq. generation in opt. parametric oscillator 15047
$KTiOPO_4$ sync. pumped opt. parametric oscillator, design, fab. and perform. 40052
$KTiOPO_4$, type-II phase-matched SHG study 7797
LiB_3O_5 doubly reson. opt. parametric oscillator cavity mirror crysts. 40091
LiB_3O_5 doubly-reson. opt. parametric oscillator mode selection 15116
LiB_3O_5, opt. parametric oscillator, CW singly reson. pumping 2071
LiB_3O_5, picosecond multiwavelength opt. parametric generation 40022
LiB_3O_5 ps Ti:sapphire-pumped opt. parametric oscillator 23420
LiB_3O_5/BaB_2O_4 crysts., opt. parameteric oscills., thermal loading 7771
$LiNbO_3$ CW opt. parametric oscillator near 2.1 μm 31579
$LiNbO_3$, periodically poled, 1.064-μm-pumped opt. parametric oscillator 23382
$LiNbO_3$ waveguides, quasi-phase-matched opt. parametric amplif./oscill. 23381
$NH_4H_2PO_4$ cryst., opt. parametric oscill./amp., spectrosc. appl. 7772
$RbTiOAsO_4$ noncritically phase-matched Ti:sapphire pumped fs opt. parametric oscillator 23383

optical phase conjugation
see also multiwave mixing
act. laser media, phase conjug. in four-wave mixing, feedback 14717
astron. telescopes, adaptive optics appl. 31577
azo-dye-doped polymers opt. storage, holographic interferometry 15155

optical phase conjugation continued
bacteriorhodopsin dyn. recording material, polariz. props. of four-wave interact. 2088
bacteriorhodopsin variants, phase conjug. by DFWM 23398
Brillouin-enhanced four-wave-mixing phase conjugator, FOV optim. 15050
cascaded second-order nonlin.-opt. suscept., phase conjug. 15076
DFWM pattern interferometry, refr. index vars. 31506
diffusion-driven semiconds., SBS gain profile 2059
disordered media, nonlin. optics, photon localization effects 15101
double colour-pumped oscillator, high-power beam steering by Brillouin four-wave mixing 15104
double phase conjug. four wave mixing mirrors 23438
dye solns., light-induced SHG, six-wave mixing 7795
erythrosin-B-doped polymer films, phase-conjug. wave generation, phase change 23393
four-wave mixing mirror response, spectrally broadened sig. beam 40088
Gaussian beam SBS phase conjug., transverse charact. of reflectivity profile 23450
inhomog. media phase conjug., holography, and imaging 31575
laser external SBS mirror, mode size increase 39997
light-shift grating, phase-conjug. sig. dyn. 40066
microparticle nonlin. microwave optics 22780
multimode fibres, partial phase conjug., image restoration fidelity 24423
neural net archit., phase conjug. quadrature 40099
NLC, self-starting phase conjug. 40053
NLC film, cross polarised self starting phase conjug. 23415
photorefr. conjug., spatio-temporal response measurement of 31530
photorefr. cryst. image correlator spatial fidelity 16369
photorefr. double phase conjug. mirrors, gain-threshold, oscill. 23402
photorefr. mutually pumped phase conjug., partially coherent pump beams 23343
photorefr. nonlin. optics, opt. computing 31049
photorefr. phase-conjug. tech. for surface granularity meas. 10013
polyvinyl alcohol film, dye doped, novelty filtering, phase conjug. wave 31553
polyvinyl alcohol film, organic dye doped, opt. phase conjug. proc. 31596
PPV composite film elastic moduli meas. by ps transient grating study 23392
real-time atmos. compensation, SBS phase conjug. 31576
reflective opt. mixer, polariz.-independent phase conjug. 25483
SBS, parametric instabil., sig. wave reflectivity 31517
school on nonlinear optics/optical physics, Capri, Italy (1992) 32
semicond. laser amp., carrier depletion effects on opt. phase conjug. 39830
semicond. lasers using phase conjug. feedback, phase noise reduction by self-phase locking 2002
single mode semicond. lasers, opt. injection/feedback 39824
single-mode fiber, opt. phase-conjug. waves and compensation for pulse shape distortion 17259
single-mode fiber, self-aligning multibeam coupling 14399
single-mode fibers, phase conjug. by four-wave mixing 15024
single-mode fibre, opt. phase conjug., chromatic dispersion, self-PM 30856
single-mode fibre connections, mutually-pumped phase conjug. mirrors 15105
soliton self-freq. shift recovery by opt. phase conjug. 2067
thin layer double phase conjug., coherentization condition 7784
time-reversal for polariz. state 14392
turbulent atmos. laser beams, adaptive direction correction 15020
two-sect. asymmetric LD, enhanced uniform phase conjug. 23198
AlGaInAs vis. diode laser with phase-conjug. feedback, stable mode locking 39833
$BaTiO_3$ cat conjugator, real-time image proc. 24491
$BaTiO_3$ cryst. in CAT config., temporal behaviour of phase conjug. wave 31521
$BaTiO_3$ cryst. multiple wavelength phase-conjug. shear interferometry 2087
$BaTiO_3$ phase-conjug. mirror, mutually pumped, fish-head config. 40085
$BaTiO_3$, photorefr., bidirectional ring resonator, mode alternation, pattern 23403
$BaTiO_3$ photorefr. cat phase conjugator, unstable backward beam patterns and internal beams 15069
$BaTiO_3$ photorefr. cryst. for laser wavefront correction 30818
$BaTiO_3$, photorefr. crysts., variable edge enhancement 8593
$BaTiO_3$ photorefr. phase conjug. beam time evol., multigrating operation 31522
$BaTiO_3$ self-pumped phase-conjugating mirrors, interferometric systs. appls. 31051
$BaTiO_3$:Fe, beam fanning, edge enhancement, contrast reversal, logic operation 30822
$Bi_{12}TiO_{20}$ double phase-conjug. mirror, oscill. and amplif. props. 31565
$Bi_{12}TiO_{20}$ photorefr. fibre, phase conjug. mirrors 30819
C_{60} LB films, degenerate multiwave mixing and opt. storage effects 15086
CO lasers, act. medium phase-conjug. 31480
CO_2 laser phase-conjug. multidither adaptive opt. syst. *(Japanese)* 7517
CO_2 laser, relax. time of phase-conjug. refl. via four-wave mixing 1850
CO_2 lasers, act. medium phase-conjug. 31480
CO_2 lasers, phase conjug. 15059
Cr,Nd:GdScGG parallel amp. 8.2 J phase-conjug. solid-state laser 1909
Cu vapour lasers, beam quality improvement, SBS phase conjug. 31185
I_2 high-power photodissociation laser, high-quality phase conjug. 7521
InP:Fe double phase conjug. mirror, telecomm. appls. 23452
$KLiTaNbO_3$, self-pumped phase conjug., doping effect 15148
$(KNa)(SrBa)Nb_2O_6$, double phase-conjug. mirror, imaging props. 31594
$(K_xNa_{1-x})(Sr_yBa_{1-y})Nb_2O_6$:Cu, self-pump phase conjug., four-wave mixing 2063
$(KNa)(SrBa)Nb_2O_2$:Cu, self-pumped phase conjug. mirror, dyn. instabil. 23441
$KNaSrBaNb_2O_6$:Cu cryst. bird-wing double phase-conjug. mirror 40116
$KNbO_3$:Mn(Co) mirrorless self-pumped phase conjug. 40087
$KTa_{1-x}Nb_xO_3$:Fe cryst. self-pumped phase conjug. 7732
$KTa_{1-x}Nb_xO_3$:Fe, high reflectivity self-pumped phase conjug. 31545
$LiNbO_3$:Fe cryst., phase conjugating mirror, scatt. light enhancement 31529
$LiNbO_3$:Fe, forward phase conjug. wave generation by two-wave mixing 40071
Nd,Ce:YAG laser resonator, SBS methane gas phase conjugating mirror *(Chinese)* 14993
Nd:YAG diode-pumped laser driver for X-ray projection lithog. 31270
Nd:YAG double-pass laser amp., NLC phase-conjug. mirror 7600
Nd:YAG four-pass laser amp., phase conjug. NLC mirror 23160
Nd:YAG laser beam control, Brillouin and photorefr. nonlin. 31478
Nd:YAG laser beam, self-pumped phase conjug. in NLC, feedback 31548
Nd:YAG laser cryst., parametric pass. phase conjug. 2118
Nd:YAG, saturable amp., pulsed phase conjug. modeling 2065
Nd:$YAlO_3$ 125 W laser, SBS phase conjugation 31266

optical phase conjugation continued
Nd:YVO_4 diode-pumped microchip amp., efficient DFWM 40080
Nd:glass diffr.-limited laser amp., SBS wavefront correction 23144
Nd:glass high power laser reasearch 31261
Nd:glass high-power laser, composite aperture/phase-conjug. mirrors 7597
SiO2, multimode fibre, SBS phase conjug., distortions compensation 1671
$SrBaNb_2O_6$ four-wave phase conjug. of time-depend. spatial struct. sig. 40102
XeCl excimer laser act. medium, UV phase-conjug. mirror 14722
XeCl laser amplifier, SBS phase-conjug. cavity 1853

optical phase locked loops
10-GHz timing extraction from 20-Gbit/s data stream by opt. fiber PLL 9127
amplit. modulated commun. link, solid-state lasers 42347
Costas loop, phase subtraction, perform. enhancement 17338
heterodyne/homodyne opt. receiver design 42369
MM wave sig. transm. in opt. fibers 9541
optoelectronic PLL freq. stabilise quantum well laser 7656
phase/freq. detectors for opt. transm. systs. clock sync. 3568
polariz.-independent regenerator, nonlin. optoelectronic PLL 14655
profilometry, automatic 3D shape inform. 3984
QPSK opt. homodyne transm. syst. receiver anal. 34044
subcarrier comb generator, phase-locked tunable config. 9426

optical planar waveguides
1D refr. index struct., modal fields calc. by finite difference beam propag. method 14447
2D leaky opt. waveguides, vectorial FEM modelling 39406
3-dB single-mode Y-jn., optimized design 1708
10 Gb/s lightwave syst. dispersion compensation based on semicond. Mach-Zehnder modulator 25518
ACOFT, optical fibre technol. conf., Australia (1994) 28253
acousto-optic tunable filters, electro-optic tuning and sidelobe control 22966
act. planar lightwave cct. technol. *(Japanese)* 17183
antiresonant reflecting opt. waveguide intens. modulation 23781
antiresonant reflecting opt. waveguide polariz. splitter 22898
antiresonant reflecting opt. waveguides, rigorous design method 15583
antiresonant waveguide add/drop filter, Fabry-Perot interf. filtering 17266
arrayed waveguide N×N wavelength multiplexer transm. charact. 42353
ARROW-B type polarizer utilizing birefr. in multilayer stripe lateral confine. 14501
asymmetric multimode Y-jn. splitters 34099
blazing effects of dielec. grating, periodically modulated two layers 30981
bright spatiotemporal solitons in planar opt. waveguide 15124
broad area lasers, 980 nm, bandgap widened extended slab waveguides, far-field behaviour 30980
broadband quasi-phase-matched planar waveguide SHG, optimal design by simulated annealing 40033
buried channel silica-based waveguide fab., MCVD method 30960
buried waveguides fabricated by purely thermal ion back diffusion 39466
carry chain fast adder, hybrid opt./electronic approach 31025
channel opt. waveguide charactn. by photon scanning tunnelling microscope 22865
circ. curved integrated opt. channel waveguides, source-type integral eqn. anal. 22881
CMOS transimpedance amp./opt. syst., monolithic integrat. 31131
CMOS-based technol. for integrated optoelectronics 23062
composite opt. fiber-slab waveguide light coupling and propag. 23804
concave grating planar waveguide device diffr. 30963
concentric-circle gratings, highly directional surface emission 23766
couplers, silica-based planar lightwave ccts. *(Japanese)* 14427
CPODs, compact planar opt. devices, fab. by CVD technol. 14495
CPW optoelectronic gratings, light-induced microwave refl. coeff. 14483
cubic cryst. planar waveguides, photorefr. effect 39431
D-fibre/buried waveguide vert. coupling, vectorial FEA 14415
diagnostic methods 30966
dielec. planar superlattices, quantum dimens. phenom. 39437
diffractive beamsplitter, 3D integrated optics 39392
diffused channel waveguides, Δn/index profile determ. 39417
directional coupler with NLC, nonlin. effect 30957
directly written directional coupler in planar silica waveguide 14462
dispersion equaliser module, planar lightwave cct. config. 17233
dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 23801
dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 1705
double-surface corrugated grating waveguides, opt. input coupling 22888
dye-doped polymer waveguides, opt. losses/photocond. sensitivity 30961
evanescent-field planar waveguide sens., mode-independent atten. 42768
Fabry-Perot resonator group effective index meas. method 10044
fiber-compatible integrated-opt. S-bends, power splitters, and directional couplers, general design 7358
fiber/planar waveguide coupler thin metal layer polariz. props. 7285
finite difference beam propag. method, vol. integral method 30943
flat-field broadband planar waveguide spectrograph design 39457
FLC nonlin. opt. waveguides 7403
fluoride glass act. opt. waveguides for laser sources 14767
freq.-selective waveguide multiplexing receivers 9594
gain-distributed DFB opt. filters 22899
germanosilicate planar glass waveguide fab., photo-induced by UV light 30985
graded-index planar waveguides, universal dispersion curves 22895
grating-assisted coupler design, rigorous anal. of power transfer 39413
GRIN planar opt. waveguide anal. by impedance boundary method of moments 7347
guided modes via grating rotation deflection 22863
guided wave scatt. in slightly rough boundary waveguide, stochastic functional approach 14441
gyrotropic planar opt. waveguides, Bragg diffr. of light by ultrasound 1707
n-heptane/iso-octane vap. opt. detect. by polyimide lightguides 34731
highly broadband buried channel fibre coupler design 30921
hollow-core ARROW waveguides, rem. coupling/switching 1709
hybrid IC waveguide facet refl. reduction 14674
identical period double surface corrugated planar waveguide grating coupler anal. 30928
III-V strip-loaded waveguide devices for photonic IC 39594
inhomogeneous integrated optic planar waveguide anal. by Galerkins method 1711
integrated optic switches, electrostatic actuation of metallic membranes 7382
integrated-optic waveguides charactn., review 39395

optical planar waveguides continued
ion-exchange planar glass waveguide holograms for fibre optic communication lines 39321
ion-exchanged glass waveguides, secondary ion mass spectrometry charactn. 30934
Kerr-type nonlin. dielec. slabs, TM mode propag. 40398
Littrow hologram substr. guided wave WDM demultiplexer 42445
loss meas., modified two prism method 39430
low-loss wide-angle Y-branch waveguide design 30959
magneto-optic nonlin. waveguides, TM waves, power flow study 22965
metal clad GRIN opt. planar waveguide anal. 40399
metal-clad waveguide polarizer integrated opt. cct. output coupling 30964
motherboard technol. for active array opt. interconnection and packaging 23985
MPEOU-based polyceram planar waveguides, opt. loss study 25988
MQW electroabsorption opt. modulators integrated, low-loss waveguides 22938
multilayer planar opt. waveguide with buffer layers, guided modes 7343
multilayer planar opt. waveguiding struct., eigenvalue eqns. 14449
multilayer-coated diffr. gratings, differential method 1702
multilayered planar waveguide anal. by exact and variational FT methods 31899
Nd:SiO_2 planar silica waveguide laser, aerosol doping method 14817
nonblocking single-substr. directional coupler opt. space switching networks 24761
nonlin. Kerr media, beam steering, spatial PM 2057
nonlin. planar opt. waveguide MOL and FDBPM simul. 40432
nonlin. planar opt. waveguides, vectorial simul. and power-param. charactn. 31484
nontransparent waveguides, leaky guiding, eigenmode expansions 39389
normal dispersion regime, spatio-temporal coupling, NLSE approx. 22807
opt. glass surface, waveguide radiation, electron emission excitation 14443
optoelectronic device simul., conf., Los Angeles, CA, USA, Jan., 1994 36838
optoelectronic devices for consumer appls. 7492
parab. deformed planar waveguides, modal power atten. 39408
partially-corrugated-waveguide LD, low modulation distortion for SCM telecom. appls. 17194
pass. planar opt. waveguide geodesic lens prod. 1714
pass. polymer multimode/single-mode waveguides, mass fab. 14432
phased array antenna, opt. controlled multiple beam forming/steering 8078
photodetector-integrated waveguide coupling, modal fitting 17770
photonic ccts. written by dark spatial solitons in defocussing nonlin. materials 31617
photorefr. planar waveguides, phase-locked detect. mechanism 14453
photorefr. waveguide, hologram form., lock-in detect. 39379
photosensitive grating struct. opt. waveguide photoimprinting 30949
planar coupled magnetooptic waveguide, mode conversion 39415
planar lightwave cct. technols. *(Japanese)* 14426
planar lightwave ccts., opt. sig. proc. 39458
planar opt. waveguide design, inverse scatt. theory 1701
planar photodiode for high-dyn.-range analog transm. 17195
planar polymer substr., gradient-index profiles, lithographic tech. 14489
planar waveguide components develop. 30945
planar-opt. mesh-connected tree computer chip interconnects 39602
planar-optic-disk pickup, diffractive micro-optics 7368
PMMA polymeric film electro-optic phase modulator 14534
polariz.-coupled spatial solitons 14475
poly-phenyl-acetone opt. waveguides, nonlin. coupling and propag. 39432
polydimethylsiloxane/oxide polycerams, opt. props., proc. 7357
polyguides for opt. interconnect appls. 7493
polyimide electro-optic integrated modulator syst. 22929
polyimide opt. waveguides fab., thin-film MCM proc. technol. 14490
polyimide planar waveguide for alkane vapour conc. monitoring 42865
polymer film electro-optic modulators/waveguides 39489
polymer thin film waveguide devices, freq. doubling 2093
polymer waveguide second harmonic light phase matching tech. 31614
polymer-based single-mode bus array, channel cross-coupling 14668
polymeric optochips, splitters, switches and modulators 14502
Radiation-field guiding in integrated-optic waveguides 22905
rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
rare-earth-ion-based act. waveguide lasers 39722
refr. index profile, nonlin. diffusion procs. 1713
refr. index profile reconstruction 22875
rhodamine B-doped glass planar waveguide, light amplif. 30933
segmented planar waveguides with parab. index segments, propag. charact. 23770
self-written glass slab waveguides 30958
semicond. laser spatial patterns/solitons 31616
silica-based planar lightwave ccts., opt. filters develop. *(Japanese)* 17182
silica-based thermo-optic switches *(Japanese)* 17181
slab nonlin. directional coupler multidimensional bisoliton states, stabil. and switching 23368
slab waveguide, polariz. coupling and transverse interact. of spatial opt. solitons 14451
SOI waveguide single-mode opt. phase modulator, high efficiency 30972
stacked ARROW crossconnect, 3D opt. interconnects 14494
sync. opt. chip interconnects, perform. anal. 39604
tapered slab waveguides, conducting surfaces, radiation modes 39441
TE-TM nonlin.-grating MQW polariz. switch 23427
telecomm. syst. waveguide component polymer materials 7379
thermo-optic planar waveguide, temp. profile anal. 1710
thin-film waveguide, grating coupler optimisation, Si substr. 14442
time and space transients, spectral techs. 22896
travelling modes, generalized theory 22869
travelling-wave waveguide photodetectors, 172-GHz bandwidth and 76-GHz bandwidth-efficiency product 42804
UHF free-electron maser oscillator expt. 39918
ULSI CMOS/opt. polymer opt. interconnections 1832
uniaxial planar waveguides, hybrid mode FEA by iter. method 23799
UV grating written planar silica waveguide semicond. external cavity laser 34034
UV light written grating planar silica waveguides 1720
UV-written grating planar silica waveguide external-cavity semicond. laser 9570
vert. cavity waveguide spectrometer, WDM commun. 34063
vert. $\Delta\kappa$ directional coupler switch, liq. crysts. 14465
waveguide-grating filters, plane wave and Gaussian beam illum. 30950
waveguiding struct. supported fields, transverse modal wts. determ. 30952
WDM arrayed-waveguide grating multiplexer, flat spectral response 25497
WDM opt. transceiver module for pass. double star subscriber systs. 42371

optical planar waveguides continued
wide bandwidth opt. transm. syst. integrated opt. receivers/transmitters 9498
XY integrated opt. coupler for phase-sensitive opt.-power combining 39398
Y-jn. waveguide switch cross talk 22871
Ag^+-Na^+ ion exchange channel waveguide for multimode planar refractometer 30930
Ag^+-Na^+ ion exchange double-diffused waveguides, fab. and characterisation 30929
AlGaAs all opt. switching waveguides, three-photon absorpt. 22912
AlGaAs cascaded nonlin. directional couplers, all-opt. switching 39411
AlGaAs $\chi^{(3)}$ semicond. waveguides, squeeze-state generation 31505
AlGaAs-GaAs ARROW waveguides, atten. meas. 30931
AlN waveguide near phase-matching conditions, SHG conversion efficiency 39414
Ba-Y-Yb-F:Tm^{3+} glass thin film upconverting waveguides for vis. and UV light sources 30936
$Ba_2NaNb_5O_{15}/KTiOPO_4$ film waveguides, noncritical phase-matching 39384
Er^{3+},Yb^{3+}:SiO_2 planar waveguide amps., pair induced energy transfer 31246
Er:SiO_2, integrated planar-waveguide amp., WDM coupler 14787
Er:SiO_2 planar waveguide amp. based modelocked ring laser 23132
Er-doped PbF_2-SrF_2 epitaxial layers on GaAs(111)B for upconversion waveguide lasers 14832
Er-doped pass. mode-locked fiber laser based on polariz. rot. in MQW waveguide 23123
Er-doped planar opt. amp. design, background loss, proc. control 39750
Er-doped planar waveguide lasers, theoretical modeling of relax. oscills. 14818
GaAs cascaded guided wave gratings, out-of-plane opt. sig. proc. 14481
GaAs integrated opt. time-shift network for phased arrays 7381
GaAs wide-bandwidth MSM photodiode, extrinsic freq. response 39570
GaAs:O, ion implant., waveguide material fab. 39402
GaAs/AlGaAs photonic ICs, plasma induced QW layer intermixing 30971
GaAs/GaAlAs waveguide polarizer, high extinction ratio metal-clad, design 30944
GaAs-AlGaAs coupled QW polariz.-independent waveguide opt. modulator 7394
GaInAsP/InP VCSEL array for 1.3 μm range parallel opt. fiber transms. 23300
GeO_2-SiO_2 glass, thin films, planar waveguide appls. 7350
InGaAs/InGaAlAs electron transfer waveguide weighted-coupling digital Y-branch opt. switches 9448
InGaAs/InP planar photoelastic low loss waveguides/electroabsorption modulators 30975
InGaAs-InAlAs QW electroabsorption waveguide modulators 39488
InGaAs-InP quantum well polariz. control photonic functional devices 14480
InGaAsP/InP tapered two-layer waveguides for chip coupling, single-mode fibers 30974
InGaAsP/InP waveguides for guided-wave photonic IC, low-loss fiber-chip coupling 7372
InGaAsP/InGaAsP MQW waveguide, bias-depend. recovery time of all-opt. reson. nonlin. 22874
InGaAsP-InP directional coupler based tunable opt. filter 22910
InGaAsP-InP, low-loss pass. polariz. convertor 14500
InGaAsP-InP planar photoelastic waveguide, low propag. loss 7370
InGaAsP-InP ultrasmall waveguide bend corner mirrors 30970
InP periodically segmented waveguide based spot size transformer 39606
InP/InGaAsP 1.3 μm digital opt. switches, extinction ratio of 30 dB 42432
InP-InGaAs MQW modulator waveguide devices, metallization/wet etch/passiv. 39461
K^+-ion exchanged planar waveguide refr. index meas. 39465
$KNbO_3$ ion implanted photorefr. waveguides, two-wave mixing of focused Gaussian beams 23359
$KNbO_3$ photorefr. planar waveguides, focused Gaussian beam two-wave mixing 31568
$KNbO_3$ thin film act. opt. waveguide devices, fab. 39464
$KNbO_3$:Fe,H photorefr. planar waveguides, two-wave mixing 23434
$KTiOPO_4$ channel waveguides, photorefr. effect 1726
$KTiOPO_4$ ion-exchanged waveguides, refr. index profiles 14437
$KTiOPO_4$ opt. waveguide fab. by Rb^+:K^+ ion-exchange proc. 30982
$LiNbO_3$ chip assembly on silica-based waveguide on terraced Si substr. 31128
$LiNbO_3$ high-speed electro-optic modulator, travelling wave electrode optimisation 1735
$LiNbO_3$ integrated AO space-division opt. crossbar 7426
$LiNbO_3$ integrated acousto-opt. mode converters/tapered couplers , Tapered acoustical directional couplers 39506
$LiNbO_3$ integrated acousto-optic devices, SAW phase vel. meas. *(Chinese)* 14090
$LiNbO_3$, integrated waveguides, refr.-index profiles anals. 14488
$LiNbO_3$ optical channel waveguides, direct meas. of cascaded nonlin. 14429
$LiNbO_3$ planar waveguide fab., Zn diffusion 39374
$LiNbO_3$ planar waveguides, multifrequency acoustooptic interact., modeling 14551
$LiNbO_3$ ridge proton-exchanged waveguides fabricated by wet etching 22913
$LiNbO_3$ strongly proton exchanged planar waveguides, opt./RHEED study 39462
$LiNbO_3$ thin-film waveguides on GaAs 14478
$LiNbO_3$ waveguide Mach-Zehnder modulator, white light spectral anal. 14499
$LiNbO_3$ waveguides, electro-optic/thermo-optic meas. of birefr. 22886
$LiNbO_3$ waveguides, forced TM-mode operation, GaAlAs LD 23257
$LiNbO_3$ waveguides, quasi-phase-matched opt. parametric amplif./oscill. 23381
$LiNbO_3$:Er,Ti waveguides, fab. and perform. eval. 39438
$LiNbO_3$:Fe photorefr. waveguide, wave mixing and beam profile control 40083
$LiNbO_3$:Ti 75-GHz opt. CPW modulator 7359
$LiNbO_3$:Ti electro-opt. modulator, CPW, optimum design 30997
$LiNbO_3$:Ti, nearly cut-off modes caused by diffusion 7349
$LiNbO_3$:Ti opt. modulator, CPW characts., cross sectional deform. 7402
$LiNbO_3$:Ti planar waveguides, polariz. coupling 30946
$LiNbO_3$:Ti strip waveguide thermooptic coeff. determ. for phase compensated appls. 39467
$LiNbO_3$:Ti waveguide acousto-optic Bragg cells 7380
$LiNbO_3$:Ti(H^+) anisotropic opt. waveguides, leaky modes 39428
$LiNbO_3$:Ti,Fe photorefr. waveguides, holographic storage 40168
LiNbO3:Ti anisotropic graded-index channel waveguide, finite element modelling 39463

optical planar waveguides continued
  $LiTaO_3$ electro-optic probes, guided polariton generation 39478
  $LiTaO_3$ proton-exchanged opt. waveguides, electrooptic consts. 14471
  $LiTaO_3$ waveguide SHG of LD radiation 23442
  $LiTaO_3$ waveguides, forced TM-mode operation, GaAlAs LD 23257
  $LiTaO_3$:H proton exchanged waveguides, opt./electrooptical props. 14422
  $LiTaO_3$:Ni opt. waveguides, fab., Ni diffusion 22885
  Na^+-Ag^+ ion exchanged waveguides, nonlin. TE wave anal. 39424
  Na_2O-Nb_2O_5-Al_2O_3-P_2O_5, planar ion-exchanged waveguide form. 22864
  Na_2O-WO_3-Ga_2O_3-P_2O_5, planar ion-exchanged waveguide form. 22864
  Nd-doped silica planar waveguide lasers fabricated by flame hydrolysis deposition/RIE 31260
  Pb-silicate glass planar waveguides, light-induced second-order nonlin. suscept. 7788
  $PbTiO_3$ epitaxial thin film waveguide, Blue light by SHG 15151
  Si LSI single-chip integrat. of LED, waveguide and micromirrors 39615
  Si hybrid opto-electronic sens. syst. 31115
  Si integrated optoelectronic VLSI commun. cct. 34033
  Si planar hybrid optoelectronics, colloquium, London, UK (1994) 20255
  Si receiver module, hybrid integrat. of silica waveguide, photodiode interface 31116
  Si thermooptical micromodulator, 700-kHz -3-dB bandwidth 39490
  SiGe/Si heterojunction waveguides, Ge conc. effect on propag. charact. 39383
  SiO_2 core low temp. low loss PECVD channel waveguide fab. 30984
  SiO_2 planar waveguide ccts., telecomm. appls. 30983
  SiO_2 waveguide ccts., low polaris. depend. fabricated on SiO_2 substrs. 1727
  SiO_2:Ge planar waveguide, seeding, static elec. fields 39381
  SiO-LiF:F_2 evanescent field thin-film opt. amp. 14775
  SiO_2-GeO_2 glass planar struct., proton implanted, photosensitivity 39382
  SiO_2-TiO_2-SiO_2-Si ARROW opt. waveguides, sol-gel multilayer struct. 14417
  SiO_2-on-Si:rare earth doped integrated opt. waveguide devices in opt. commun. 30968
  SiO2/Si, planar lightwave ccts., opt. sig. proc. 14487
  SiON integrated optic intens. modulator based on mode coupling 1731
  SiON planar waveguides, optimised coupling, cylindrical prisms 22914
  SiON:Er,Yb low-loss waveguides, deep implant codoping 39439
  SiON/SiO_2/Si single-mode waveguides, plasma CVD prep. 39396
  $SrBaNb_2O_6$ photorefr. planar waveguides, beam coupling, spatial mode conversion 39386
  Ta_2O_5/$KTiOPO_4$ waveguide, phase-matched SHG 1725
  Yb:YAG waveguide laser, diode pumped, fab. and characterisation 31296
  Yb:YAG waveguide laser, epitaxially grown, diode pumped, high slope efficiency and low threshold 14833
  ZrF_4-BaF_2:Er glass thin film opt. element 22877
  integrated opt. time-shift network for phased arrays 7381
optical polarimeters *see polarimeters*
optical polarimetry *see polarimetry*
optical polarisation *see light polarisation*
optical polarisers
  antiresonant reflecting opt. waveguide polariz. splitter 22898
  ARROW-B type polarizer utilizing birefr. in multilayer stripe lateral confine. 14501
  double-layer cell FLC polariz.-control devices 22958
  endless fiber-optic polariz. controller, low driving voltage and 30-dB extinction ratio 9566
  fiber-optic gyroscope polarizer pair extinction coeff. 17871
  fibre loop polarizers using fused taper coupler, birefr. 30904
  LCTV image reconstruction of holograms 40151
  lightwave polaris. analyser 30910
  low birefr. opt. fiber polariz. states, PDF 17260
  Lyot single-mode highly birefr. opt.-fibre depolarizers 1682
  metal grating polarizers, quasi-opt. power combining 29531
  metal-clad waveguide polarizer integrated opt. cct. output coupling 30964
  morph. proc., prog. struct. elements 31036
  multistage opt. switches for 2D images based on polaris.-sensitive elements 42132
  optoelectronic devices for consumer appls. 7492
  planar coupled magnetooptic waveguide, mode conversion 39415
  polarizing rect. prism used in laser techs. 7711
  reflective STN-LCDs, retardation film *(Japanese)* 22959
  semicond. laser pulse generation, soliton effect pulse compression fibre 39772
  single-mode birefr. opt. fiber polarizer 22859
  solid-state laser modelocking, birefr. and PM 14811
  twin high-ellipt.-core fibre-optic polariz. beam splitter coupling charact. 30857
  twisted NLC panel optim. for spatial light PM 31007
  GaAlAs LD forced TM-mode operation by annealed proton-exchanged waveguides 23257
  GaAs/GaAlAs waveguide polarizer, high extinction ratio metal-clad, design 30944
  InGaAsP-InP, low-loss pass. polariz. convertor 14500
  Nd:YAG laser, diode-pumped, Q-switching study 31299
  YAG:Cr^{4+} cryst. opt. polariser of short laser beam 1642
optical polymers
  2-exposure holographic interferogram recording, residual memory 40125
  3D HOE, holographic recording 2152
  4BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 15070
  9BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 31489
  aberchrome doped polymer photochromic film, nonlin. opt. gratings 39471
  acrylamide-based dry photopolymer holographic recording material charactn. 7860
  act./pass. polymeric guided wave devices 14502
  amphiphile film fab., second-order nonlin. optics 15089
  asymmetric Y-branch polymer-glass-waveguide all-opt. switch, nonlin. wave propag. 39420
  azo dye doped EO-PVA film, opt. storage character *(Chinese)* 14335
  azo-benzene doped PMMA polymer film, holographic recording and light amplif. 31686
  azo-dye-doped polymer systs., dyn. holographic recording media 40121
  bacteriorhodopsin dyn. recording material, polariz. props. of four-wave interact. 2088
  chromophore-incorp. polymers for nonlin. optics, two-photon absorpt. and photodegradation 15138
  composite photorefr. materials for nonlin. opt. appls. 1651
  conjug. polymer LEDs, transient/DC electrolum. 39585
optical polymers continued
  conjug. polymers, electronic struct., nonlin. optics, scaling laws 15142
  conjug. polymers, nonlin. opt. coeffs. 2096
  conjug. polymers with large opt. nonlin., ultrafast relax. 2092
  conjugated polymer interfaces, conf., Strasbourg, France (1994) 5497
  cross-linked and side-chain polymer films, nonlin. optics appls. 15090
  crosslinked poled polymer waveguides, Cerenkov SHG 14455
  DAN/PMMA polymers, SHG, temporal stabil., orient. pair correl. 15129
  DCG, PVA doped, holographic perform. props. *(Chinese)* 40139
  diazo dye attached electro-optic polymer waveguide modulator 1737
  disk-based opt. correlator, multiplexed transm. holograms 7862
  double step image holography, self-proc. polymer materials appls. 15188
  DuPont photopolymer film hologram recording dyn. 23471
  dye activated polymeric lasers, photophysical props., thermooptical props. 7540
  dye doped film phase-matched grating generated by enhanced forward DFWM 15077
  dye impregnated polymer lasers, beam control elements 7541
  dye nanocrystals doped in polymer matrices prep. 22783
  dye-doped polymer waveguides, opt. losses/photocond. sensitivity 30961
  dye-doped polymers, low-temp. transits., SHG 15132
  dye-polymer films, photoanisotropic, joint transform correl. 8469
  dye-polymer randomly addressable read/write/erase holographic recording medium 30841
  electro-optic polymer device technol. 39484
  electro-optic polymer for stable organic act. components *(French)* 1650
  electro-optic polymer light modulator, surface plasmon reson. based 22943
  electro-optic waveguide modulators for data commun. 31000
  electro-optical polymers, poling 13930
  electrooptic polymer waveguides, packaging and charactn. 39491
  fibre, all-opt. and photomechanical devices 31584
  fibre optic microsensor arrays, multiple analytes detect. 17893
  fibre temp. sens., polymer ceramic composites 34543
  films for second order nonlin. optics *(French)* 2085
  functionalized polymers, nonresonant opt. Kerr nonlin. 40098
  functionalized polymers, third-order nonlin. opt. props. 15137
  glass-Ag-polymer struct., light switching, ATR study 22945
  graded index polymer opt. fibre, high bandwidth, large core 39354
  GRIN fibre/high-speed LD, data transm. 34051
  guest-host photorefr. polymers 22781
  n-heptane/iso-octane vap. opt. detect. by polyimide lightguides 34731
  heteroaromatic chromophores in high temp. polymers interferometric films 1736
  high-speed SLM, photosensitive polymer layer 31005
  holographic photopolymers, second order grating form. 31684
  inhomog. media phase conjug., holography, and imaging 31575
  integrated optics, polymer waveguide fab. 39614
  interfaces, nonlin. opt. study 7777
  ladder-type oligo(para-phenylene), electrolumin. devices, electrolumin./photolumin. obs. 14620
  LEDs, Si monolithic opto-electronics 31126
  liq. photopolymers, radiation curable, diffractive optics replication 39453
  liquid cryst. polymers, conf., Seoul, Korea (1993) 11531
  Littrow hologram substr. guided wave WDM demultiplexer 42445
  low-loss nonlin. opt. channel polymer waveguide laser ablation 1723
  main-chain polymers, processable, third-order nonlin. opt. props. 15097
  metal-oxide based gels, organically doped, nonlin. opt. props. 15091
  metallophthalocyanine doped polymers, opt. limiting study 31588
  metallophthalocyanine thin films for nonlin. optics 2101
  MPEOU-based polyceram planar waveguides, opt. loss study 25988
  nanosecond pass. switch for Nd-doped lasers 39746
  near-IR large-core high-bandwidth GRIN polymer opt. fiber multimedia network 42389
  nonlin. optics, fund. and appls. 7775
  nonlin. organic material waveguide devices 2093
  nonlin. photorefr. props. 30815
  nonlin. polymer opt. fibres, all-opt. devices 30914
  nonlinear optics, conf., Port Barcares, France (1992) 11537
  novel ladder poly(p-phenylene)s, high efficiency blue LED 23034
  OEIC connections 1830
  oligothiophenes, conjug., transistors and SLM 22931
  organic dye-doped polymer opt. fiber amp. 23110
  organic materials, nonlin. opt. props. switching devices appls. 23423
  organic/polymer system nonlinear props., conf., Pennsylvania Univ., USA, April 1991 28
  organic/polymeric materials, nonlinear optics, conf., WA, USA (!992) 5495
  organometallic cpds., nonlin. optics materials, review 23432
  pass. polymer multimode/single-mode waveguides, mass fab. 14432
  perylimide dye doped SiO_2-PMMA glass, superradiant film laser operation 14729
  phase matching tech. for poled polymer waveguide 22866
  phase-matched freq. doubling polymers, opt. prep. 23344
  photodelineated electro-optic polymers, GRIN profiles and loss mechanisms 14456
  photonic LSI interconnections/appls. 1833
  photonic nonlin. polymer materials 7265
  photopolymer composite, real time reflective hologram gratings recording 40138
  photopolymer films, 3D holographic discs 40133
  photopolymer-liq. cryst. composite, dyn. holograms appl. 40137
  photopolymers, holographic opt. element imaging 40136
  photopolymers, transm. holographic gratings recording, fringe effects 31666
  photorefr. polymer four wave mixing opt. correlator/computer 24425
  physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
  planar lightwave cct. dispersion equaliser module 17233
  planar polymer substr., gradient-index profiles, lithographic tech. 14489
  planar waveguide, guided modes via grating rotation deflection 22863
  PMMA, doped, highly efficient ultrafast opt. Kerr shutter 2056
  PMMA, low loss channel waveguides 14435
  PMMA doped film, opt. bistability, imaginary part of nonlin. coeff. 40042
  PMMA filled porous silica glass opt. composites 7262
  PMMA films with dye mols., 2D opt. nonlin. 15093
  PMMA monolithic integrat. of microlens and fiber holder arrays 22858
  PMMA opt. waveguides, dye doped, electron irrad., ageing 1703
  PMMA polymer film electro-optic modulators/waveguides 39489
  PMMA polymeric film electro-optic phase modulator 14534
  PMMA storage media, azo-dye doped, real-time dyn. polariz. holographic recording 40142
  PMMA waveguide, fab. procedures 22890
  PMMA-based photorefr. polymer opt. trap activation 1654

optical polymers continued
PMMA-EVA blend, nonlin. scatt. 2064
polaris. distrib., stabil., nonlin. optics 31586
poled polymer films, freq. conversion and relax. phenom. 2091
poling-induced opt. loss in nonlin. opt. polymeric waveguide 30937
poly(1,4-phenylene-1,2-bis(4-methoxyphenyl)vinylene) opt. waveguides, prism coupling 22870
poly(1,6-N-carbazolyl-2,4-hexadiyne), third-order opt. props. 15095
poly(2,5-thienylene vinylene) film, reson. opt. Kerr effect 15085
poly(3-buthyl-co-3,4-dibutylthiophene) copolymers, synthesis and electrochromism 37538
poly(3-hexylthiophene)-poly(N-vinylcarbazole), blend films, electrolum. 31073
poly(3-octylthiophene):poly(N-vinylcarbazole), electrolum. obs. 39559
poly(methyl methacrylate)-doped solid-state dye laser 39687
poly(p-phenylene vinylene)-based LEDs, chlorine precursor route 31108
poly(p-phenylenevinylene) LED, polaron/hole charge transport 14636
poly(p-phenylenevinylene) LED, transient electrolumin. 14634
poly(phenylene) photoimageable waveguides, fab. and characterisation 39403
poly(vinyl alcohol), dichromated, refl. hologram grating, diffr. spectrum asymmetry 31668
poly(vinyl alcohol)polyaniline interpenetrating polymer network, nonlin.-opt. props. 40081
poly N-vinylcarbazole, photorefr., absorbing nonlin. opt. chromophores 1653
poly-phenyl-acetone opt. waveguides, nonlin. coupling and propag. 39432
polyacrylamide gel, dye doped, laser host 7544
polyaniline, ellipsometric sens., spectral response 3819
polyazine and π-conjug. oligomers, third-order nonlin. opt. props. 15135
polyazines/polyacetylenes, donor and acceptor substituted, polarizabilities and second hyperpolarizabilities 23387
polycarbonate opt. disk substrs., birefr., wavelength depend. meas. 7267
polydiacetylene, third-order nonlin. opt. susceptibilities 7781
polydiacetylene DCHD highly oriented film, fs. nonlin. opt. response 23396
polydiacetylene films, synthesis and third order nonlin. opt. props. 40117
polydiacetylene synthesis, nonlin. optics appls. 7778
polydiacetylenes, nonlin. opt. props. 15053
polyesters, liq. cryst., holographic storage 30838
polyguides for opt. interconnect appls. 7493
polyimide electro-optic integrated modulator syst. 22929
polyimide opt. waveguides fab., thin-film MCM proc. technol. 14490
polyimide planar waveguide for alkane vapour conc. monitoring 42865
polyimide-based guest-host systs., nonlin. optics, photonic devices 31585
polyimides, electron beam irrad., channel waveguide fab. 22891
polyimides, low dielec. const., opt. props./orient. effects 12209
polymer blend LED, majority carrier injection from ITO anodes 31101
polymer dispersed liq. cryst. layer pattern form. 39500
polymer-based single-mode bus array, channel cross-coupling 14668
polymeric nonlin. opt. materials, conf., Los Angeles, CA, USA, Jan 94 53
polymeric thin-film waveguide coupling, single-mode fiber 22872
polyphenylene, light-emitting copolymer, synthesis, luminesc. 14594
polythiophene, LED, polarized electrolum. 31109
polythiophene film waveguide third-order opt. nonlin. 2100
polyvinyl alcohol film, dye doped, novelty filtering, phase conjug. wave 31553
polyvinyl alcohol film, methyl-red doped, SLM 22930
polyvinyl alcohol film, organic dye doped, opt. phase conjug. proc. 31596
poly[3(4-octylphenyl)-2,2′-bithiophene]-based LED, white light 7478
PTS-polydiacetylene, time-resolved nonlin. opt. studies in Fabry-Perot cavity 23411
PVA films, dichromated, real-time hologram recording, humidity effects 40143
PVDF/PMMA blend polymers, opt. SHG *(Japanese)* 7747
pyrromethene-BF_2 complex dye, polymer host, lasing perform. 7543
pyrromethene-BF_2 doped polymer matrix, laser perform. and material props. 14732
quadratic nonlin. opt. materials *(French)* 1649
rearrangeable nonblocking polymer waveguide thermo-optic switching matrix 30962
red sensitive photopolymer holographic plate grating coupler *(Chinese)* 15164
Rheoxane photorefr. polymer holographic recording material 7858
second-order nonlin. optics, elec.-field induced orient. 2095
SHG, electro-optic appl. 23386
side-chain polymer films, electro-optic effect, freq. response 14325
sol-gel nonlin. opt. polymers, improved poling, thermal stabil. 2108
squaraine dyes in PMMA, third-order opt. procs. 23399
swellable polymeric/fiber optic distributed sens. for water and pH meas. 26001
switchable Polaroid holograms appl. 40131
Teflon film high-speed through-hole drilling, vis. laser *(Japanese)* 20420
telecomm. syst. waveguide component polymer materials 7379
tetraphenylporphyrin doped PMMA fibre, spectral hole burning 23369
thiapyrylium dye sensitized photorefr. polymeric composite 22782
thin film optimized nonlin. polymer struct., ultrashort pulse SHG 7783
thiophene oligomer thin film SLM *(French)* 2086
THP/PMMA freq. domain opt. storage, anisotropic spectral hole form. *(Chinese)* 14336
travelling-wave electro-optic modulator, polymer-based, props. 14525
ULSI CMOS/opt. polymer opt. interconnections 1832
Ultradel 9000 D crosslinked electrooptic polyimides, electro-optic props. 1652
variable colour polymer blend LED 7475
vinylidene cyanide-vinyl acetate copolymer polaris. distrib., stabil., nonlin. optics 31586
waveguide, phase matching tech., second harmonic light 31614
waveguides, electro-opt. props. 14457
ITO windows, polypyrrole-latex coatings, electrochem./spectroelectrochemical studies 39482
LB and spin-coated films, light atten. 14318
Pb-phthalocyanine copolymer, excited state absorpt. and dyn. 31587
Si bipolar monolithic opto-electronics, polymer LEDs 14665
SiON integrated optic intens. modulator based on mode coupling 1731
polymers, electro-optic props./appls. 22923
polysilanes, opt. nonlin., essential states mechanism 23409

optical prisms
accurate refr. index meas. 18124
Bragg fiber grating fab., prism-based scheme 14350
Bragg grating in opt. fibres, holographic and mask projection methods 39335

optical prisms continued
directional coupler-type opt. power divider, large-angle low-loss charact. 30942
Faraday effect current sens., improved sensitivity-bandwidth product 14548
fiber optic current sens. syst., birefr. exam. 9923
helmet mounted displays, Schmidt optical relays 18014
hybrid grating-prism stretcher-compressor, cubic phase tunability 2046
large area concentrator buried contact solar cells 19984
LCD projector with interleaved pixels, opt. syst. and charact. 25931
NLC phase device modelling 39497
nonlin. guide prism coupler, dyn. study *(French)* 14460
organic media holographic pulse shaping 31674
planar opt. crossover interconnect config. 39607
polarizing rect. prism used in laser techs. 7711
poly(1,4-phenylene-1,2-bis(4-methoxyphenyl)vinylene) opt. waveguides, prism coupling 22870
rhodamine B-doped glass planar waveguide, light amplif. 30933
slab laser prism resonator charact. 31447
spheroidal dielec. microresonators, prism couplers, emission pattern 14428
split image vision sens., optimal design 34599
telescopic and dispersive prism devices for laser technol. 39994
waveguides, low-loss abrupt bends design and appls. 14469
wedge prism freq.-tuning mechanism in single-mode tunable laser 23330
$KTiOPO_4$ proton exchanged waveguides, ultrashort SHG study 23440
$LiNbO_3$ proton exchanged waveguides, ultrashort SHG study 23440
Nd:YAG laser, diode-pumped, Q-switching study 31299
Nd:YLF, additive-pulse mode-locked laser, diode pumped, pulse compression 31298
$RbTiOAsO_4$ noncritically phase-matched Ti:sapphire pumped fs opt. parametric oscillator 23383
SiON planar waveguides, optimised coupling, cylindrical prisms 22914
Ti:sapphire laser 20 fs chirped pulse amplif. 31257
Ti:sapphire regenerative amp., tunable 30-fs pulses 39739
Ti:sapphire ultrashort pulse lasers, cubic phase compensation 31279

optical projectors
3D visual stimulator, liq. cryst. projectors 25933
adaptive whole-field opt. profilometry 18089
autostereoscopic back-projection and flat screens *(German)* 9983
colour diffr.-based optics, light-valve projection displays 25926
colour TV projection, fast-switching reflective light valves 25644
digital micromirror device, projection display 18007
display, Digital Micromirror Device 39028
grating light valves for high resoln. displays 25927
holographic projection syst., design, testing 40135
large screen teleconferencing prototype display 41944
large-screen HDTV projector, opt. config. 25922
LCD projector with interleaved pixels, opt. syst. and charact. 25931
liq. cryst. light valves for schlieren opt. projection 25929
LVP 2000×3R high-precision video projector *(Japanese)* 25658
metallized viscoelastic control layers, light-valve projection displays 25923
microlens arrays for projection LCD, efficiency study 18005
multistage opt. switches for 2D images based on polaris.-sensitive elements 42132
occlusion-free monocular computer vision syst. 2719
photolithography, projection printing, defocus asymmetry 13500
polarized light source for LCD projection 25930
polygonal scanners for TV/HDTV laser projectors 3662
single-element laser-beam uniform cross projector design 7716
soft X-ray projection lithog., resist perform., 5 nm 13570
stereoscopic display, eye-posn. tracking for multi-viewers 34627
straddling holographic images, one-step enlarging tech. 7817
VS 4571 tabletop projection TV *(Japanese)* 25650
wide-aspect rear projection TV, 39″, depth of 39 cm 9705
Si CMOS addressing matrices, light-valve projection displays 25928

optical propagation *see light propagation*

optical properties
see also acousto-optical effects; birefringence; brightness; colour; dichroism; dielectric function; electro-optical effects; electrochromism; magneto-optical effects; opacity; optical constants; optical Kerr effect; optical rotation; optical saturation; optical susceptibility; photochromism; piezo-optical effects; pleochroism; reflectivity; thermo-optical effects
diamond films, plasma CVD, opt. emission spectra 20930
electron device science/technol., conf., South Africa (1992) 28214
$Ga_{1-x}In_xAs$-$InAs_yP_{1-y}$-InP, strain relax., photodiode appl. 12054
intersubband optics for symmetric and asymmetric quantum wells, wires and dots 40046
polyceram MPEOU-based waveguides, proc., opt. props. 7356
polyimides, low dielec. const., opt. props./orient. effects 12209
real-time monitoring of epitaxial procs. by p-pol. reflectance spectrosc. 28776
South Pole ice, opt. props., AMANDA detector 26141
two-phase high-temp. media, radiation transfer 10049
B, borides and related compounds, conf., Tsukuba, Japan (1993) 11553
a-C:H films, sputtering/struct./opt./elec. props. 20917
CdS, film, chem. bath deposition, props. 28799
CdSe, metalorganic VPE/MBE growth, opt. monitoring 20725
CdTe:Cl, elec./opt. props., detector appl. 43085
CdTeSe:Cl, elec./opt. props., detector appl. 43085
CoNi, multilayers, magneto-optics, opt. props. influence 14202
$GaAs/Al_xGa_{1-x}As$ growth with $DEAlH$-NMe_3, MEAs and DMAAs sources 20780
GaAs/AlAs superlattice, random, electronic/opt. props., disorder effect 6558
GaInAsP multilayer, gas source MBE, tensile/compressive strain modulation 12062
GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
GaN films, metal-organic CVD growth, struct./elec./opt. props. 20897
$HgBr_xI_{2-x}$ radiation detectors, Processing and charactn. 43096
HgI_2, electronic and opt. props. 43077
HgI_2, variable angle spectrosc. ellipsometry 43094
InAs/AlSb QW, ALE grown, opt. props. 20677
InAsP-InP quantum wells/PIN diodes, growth/charactn. 12058
InGaAsP MWQ edge-emitting LED, opt. props. 14628
In_2O_3-ZnSe-CdTe-In, injection-contact phenom. in sub-micron layers 38313
In_2O_3-ZnSe-In, injection-contact phenom. in sub-micron layers 38313
Pb_5CrO_8 films, optoelectronic props., contact-type line-image sens. appl. 42789
a-Si:H,B(P), PECVD film, opt. props., photo/dark cond. 29830
SiC and related materials, conf., USA (1993) 28218
n-SiC:V, 6H, elec./opt. props. 6539
TbCo, multilayers, magneto-optics, opt. props. influence 14202

optical properties continued
ZnS/ZnSe superlattices, opt. props., elec. struct., exciton binding 38347
ZnS-ZnSe superlattices, electronic states and binding energies 13194
ZnSe, metalorganic VPE/MBE growth, opt. monitoring 20725

optical publishing
interactive education, CD-ROMs and WWW 8895

optical pulse compression
see also chirp modulation
40 GHz multisoliton pulse propag. in dispersion varying opt. fiber cct. 9468
act. mode locked semicond. lasers, ps pulse compression, model 31420
act. mode-locked LD array, tunable picosecond pulse generation, chirp compensation 7614
chirped Bragg gratings for all-fibre fs pulse amplif. cct. 31230
DFB fibre chirped laser, transm. charact. 39702
Fabry-Perot laser/fibre grating, pulse compression/mode selection 23225
fibre ring laser, simul., split-step Fourier method 39694
gain-switched LD, femtosecond opt. pulse generation, soliton compression 7613
in-fibre grating systs., pulse compression, dispersion charact. 39341
Mach-Zehnder modulator output, soliton pulse compression, 40-GHz pulse train generation 14533
master oscillator power semicond. laser amp., mode-locked operation 31422
multiple-access networks, opt. TDM 42128
pass. mode-locked diode laser pulse charact. 39834
photon echo based inform. recording, storage, and reprod. 30827
semicond. laser pulse generation, soliton effect pulse compression fibre 39772
third-order fibre dispersion effects on soliton-effect compression 31623
twin core nonlin. fiber couplers, soliton-effect pulse compression 30917
ultrashort UV FEL 7697
Ce^{3+}:LuLiF$_4$ laser, self-injection-seeded UV, sub-ns pulse train generation 39737
Er-doped fibre laser, femtosecond pulse compression 31209
KTiOPO$_4$ crysts., parametric oscill., pulse compression 2072
KrF, multipass excimer amp., saturable absorber, pulse compression 1854
Nd:glass laser pulse shortening by gain reshaping and soliton form. 23153
Pr^{3+}-doped fluoride fiber amps., gain dyn. anal. 31217
Ti:sapphire chirped pulse amplif. beyond 1 μm 31258
Ti:sapphire compact multiterawatt ultrashort pulse laser oscillator/amplifer syst. 31285
Ti:sapphire high intens. femtosecond laser syst. *(French)* 1891
Ti:sapphire laser 20 fs chirped pulse amplif. 31257
Ti:sapphire laser amplifer/pulse compressor, gain-narrowing limit 23151
Ti:sapphire pulse stretcher-compressor in chirped pulse amplif. 31287
Ti:sapphire regenerative amp. for ultrashort high-power multi-kHz pulses 31251
Ti:sapphire regenerative amp., tunable 30-fs pulses 39739
Ti:sapphire ultrashort laser pulse compression, single shot meas. 23152
Ti:sapphire/Nd mixed glass laser, 250-fs pulse generation 31256

optical pumping
see also lasers
1.3 μm opt. fibre amps., device perform. and systs. impact 34065
1.3 μm Raman fibre-optic amp. 1872
1.55 μm WDM fiber freq. shifter 9461
2.5 Gbit/s 407 km repeaterless opt. fiber transmitters 34011
2 μm diode pumped miniature lasers 14834
16 THz beat freqs. generated via modulation instabil. in birefr. fibres 30881
100 Gbit/s multichannel TDM demultiplexer by multiwave mixing 3297
400 nm/3.4 μm fiber components and lasers 7562
622 Mbit/s self amplified Raman repeaterless fiber link 17350
670 nm low-threshold-current multiquantum-well LD 7620
980 nm Bragg fibre grating coupled diode laser wavelength and intens. stabilisation 9431
1550 nm high-energy fiber SRS pulse transm. 25525
acetylphenyl-1,4-dioxa-8-azaspiro[4.5] decane, LD pumped ring resonator, blue light emission 23429
act. modelocked external cavity LD, ps gain dyn. 1978
alkali salicylates, lasing activity, luminesc. props. 1868
asymmetric spatial soliton dragging opt. logic gate 15043
Brillouin fiber amp., spectral gain hole burning and modulation instabil. 23122
Brillouin-enhanced four-wave-mixing phase conjugator, FOV optim. 15050
broadband pumped opt. fiber link, SBS suppression 9475
broadly-tunable single-freq. opt. parametric freq. conversion syst. *(Danish)* 7742
cascade third harmonic generation in laser cavity 7736
compact holographic solid-state DFB laser 7581
conjug. polymers with large opt. nonlin., ultrafast relax. 2092
cross phase modulated fiber laser modelocking 1880
difluoromethane FIR laser, opt. pumped, freq. std. 7508
diode array-pumped solid-state lasers, economic issues 31281
diode laser side-pumped rod lasers, materials proc. appls. *(German)* 7585
diode pumped solid-state lasers, freq. tuning, pump-power modulation 1893
diode-pumped solid-state lasers in fiberoptic systs. 31283
diode-pumped solid-state-lasers, high-duty-factor, high-av.-power, economics 31365
Dispersed Red 1 in PMMA film, photoisomerisation, photoinduced orient. and orient. relax. 15144
distributed opt.-fiber sens. by four-photon mixing pulse walk-off 42833
distributed-Brillouin-gain spectrum meas. in opt. fibers by single laser source 7315
double colour-pumped oscillator, high-power beam steering by Brillouin four-wave mixing 15104
double-clad fiber laser, LD bar array pumping 39323
dye impregnated polymer lasers, beam control elements 7541
dye laser, CW, diode pumping 7545
dye laser, flash lamp pumped, beam quality 7719
dye laser, flashlamp pumped, single-mode operation 23108
dye laser, pumped, SHG, appl. to tropos. OH detect. 7864
dye laser cell, plane-convex cylindrical lenses 39683
dye mixture DFB laser, nanosecond excitation, picosecond emission 39681
dye-mixture laser tunable in primary color regions by lin. variable filter 39685
FEL efficiency enhancement with incoherent pump wave or stochastic undulator, chaotic particle deceleration 39923
fiber four wave mixing, polaris. independ. wavelength conversion 9439
fiber four-wave mixing, tunable/selective wavelength conversion 15025
fiber optics, nonlin. refr. index meas., cross PM *(Japanese)* 30903
fiber Raman soliton laser for fs opt. pulse generation 1874
fibre, unrepeatered transm., rem. pumped post/pre-amps. 34050

optical pumping continued
fibre laser mode-locking by pump pulse induced cross-PM 31233
fibre lasers, pump induced modulation by saturable absorpt. opt. switch 31238
fibre optics, unrepeatered transm., FEC 33980
fibre-rem. pumped Nd:YAG laser, heterodyne sens. appls. 17863
FIR gas lasers, bi-directional pumping, Lamb-dip line shape 31170
FIR laser, opt. pumped, beam divergence study 40004
FIR lasers, CW opt. pumped, efficiency 14689
FIR opt. pumped amps., nonlin. propag. effects 14676
fluoresc. Tm^{3+}-doped fluoride fibre, H$_2$O detect. 18163
formic acid opt. pumped FIR lasers, reson. array input couplers 7537
freq.-selective waveguide multiplexing receivers 9594
gain-switched semicond. laser min. pulsewidth cavity optim. 31325
gamma-ray laser pumping 31132
GARPUN excimer laser energy distrib., transverse pumping 7525
gas lasers with RF excitation, electrode dielec. coating effects 14714
heptamethine thiapyrylium IR tunable laser dyes of superior photostability tunable 14723
II-VI semicond. microstruct., optoelectronic appls. 14577
inhomog. broadened dense media, laser instabilities and chaos 23337
intracavity SHG opt. parametric oscill. 15083
IR commun. fiber amps. 9525
IR FEL, down-shifted freq. pumping 39888
laser doppler device for air pollution detect. 18917
laser external SBS mirror, mode size increase 39997
LD array, solid state laser pumping perform. 39838
LD-pumped IR solid-state lasers 14789
long pulse dye laser develop., high resoln. spectrosc. appls. *(Japanese)* 7549
long-haul digital transm. opt. preamplifier receivers 34037
low pulse energy optical parametric oscillators, solid laser pumped 15082
low-cost reliable high power CW LD arrays for solid state laser pumping 31399
methanol FIR laser lines, opt. pumped, freq. meas. 31475
methanol-d$_2$, opt. pumped, far IR laser lines and assignment 14711
microcavity semicond. lasers, nonequilibrium carrier dyn. 31338
microchip diode pumped solid state laser arrays, mfg. cost 31282
microlaser lin. arrays, thermal modeling for mode-size estim. 1910
micromaser, at. cluster pumping, thresholds fine struct. 23074
MQW opt. amps., pump probe meas. and carrier overflow effects anal. 14954
MQW semicond. lasers, nonuniform pumping 1961
near-IR dye laser for diode-pumped operation 23106
noncritical vectorial phase matching freq. up-conversion 7733
nonlin. ring resonator, oscill. mode selection, bifurcation of chaotic mode transits. 15117
opt. fiber stimulated Raman gain spectrum meas. by short pulses 22821
optoelectronic device reliab. 28526
order-selective Raman conversion, pumped four-wave mixing 2053
organic dye-doped polymer opt. fiber amp. 23110
parametric freq. conversion, solid laser pumping 7769
parametric oscillators/amps., av. power effects, thermally induced lensing depend. 15079
pass. tunable Q-switch 31295
periodically pumped and coupled lasers, phase locking study 31473
perylene-/pyrromethene-doped xerogel pulsed laser 39684
perylimide dye doped SiO$_2$-PMMA glass, superradiant film laser operation 14729
photorefr. cryst. image correlator spatial fidelity 16369
photorefr. grating opt. resonator, self-organized learning of purely temporal inform. 14329
photorefr. two-beam-coupling nonlin. joint-transform correlator 2052
poly(methyl methacrylate)-doped solid-state dye laser 39687
polyacrylamide gel, dye doped, laser host 7544
pulsed dye laser amplif., nanosecond phase dyn. 7550
pulsed power vac. switch foil support struct., laser pumping appls. 36442
pyrromethene-BF$_2$ complex dye, polymer host, lasing perform. 7543
pyrromethene-BF$_2$ complex dye solns., laser perform., spectrosc. 7548
pyrromethene-BF$_2$ doped polymer matrix, laser perform. and material props. 14732
pyrromethene-BF$_2$ laser dyes, pumping, perform. 7547
quantum-well semicond. lasers *(German)* 7615
QW diode laser, high freq. modulation, dual modal gain/pumping current control 7648
QW lasers/opt. amps., ultrafast gain dyn. 31339
Raman fiber amp. cross talk bandwidth 14752
rare earth doped CaYAlO$_4$ for eyesafe laser appls., spectrosc. eval. 1913
rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
rare-earth-ion-based act. waveguide lasers 39722
red perylimide dye lasers, photostability, loss mechanism 39691
reflective opt. mixer, polariz.-independent phase conjug. 25483
rhodamine 640 doped copolymers, laser action study 31202
rhodamine 6G dye lasers, Cu laser pumped, tunable collinear operation 23107
rhodamine 6G laser, parametric nonlin. mirror, refl. coeff. 31205
rhodamine 6G regenerative-feedback mode-locked dye laser, acousto-optic mode locker 39686
rhodamine dye colloid solns., scatt. media, laser action 31203
rhodamine dye laser, CW, diode pumping 7546
rhodamine dye laser, waveguide N$_2$ laser pumped 7538
rhodamine perchlorate dye-doped sol-gel silica laser, XeCl laser-pumped, wideband tuning 31204
ridge waveguide semicond. pump laser design 39842
scalable lightwave network self-regulating WDM amp. module 9457
semicond. amps., carrier heating, spectral hole burning, FWM 31503
semicond. laser, dual modulation, large sig. anal. 1975
semicond. laser, tapered gain region devices 39848
semicond. laser amp., carrier depletion effects on opt. phase conjug. 39830
semicond. laser/amp. for 1.3μm-1.5μm wavelength conversion, model 14844
semicond. lasers, coherent opt. pumping 23195
semicond. opt. amp. all-opt. wavelength shifting 7683
semicond. opt. amp. switch gain optim. 39879
semicond. superlattices, Bloch oscills. 38359
semiconds., pump depletion, coherent energy transfer 23414
short-cavity semicond. laser, opt. pumped, transient response 39835
single-cryst. parametric oscillator-amp. of short ns pulses tunable in vis. range 7785
single-mode antiresonant reflecting opt. waveguide diode lasers, above-threshold behavior 14908
single-mode fiber, opt. phase-conjug. waves and compensation for pulse shape distortion 17259

optical pumping continued
- single-mode fibre connections, mutually-pumped phase conjug. mirrors 15105
- single-mode opt. fibers with Brillouin freq. shift, SBS threshold power 7316
- single-mode silica fibers, Raman amplif. of coherent Stokes wave on biharmonic laser pumping 15084
- size selected clusters, opt. parametric oscillator IR spectrosc. 15058
- slowly decreasing dispersion opt. fibers, soliton-effect generation of Raman pulses *(Chinese)* 1667
- soft-X-ray laser prod., plasma waveguides 39678
- solid laser, diode pumped, reson. pump cavity, CW theory 39733
- solid-state chip laser, cavity mode/inversion profile correl. 23161
- SPRITE laser syst., waveguide Raman conversion simul. 31176
- SQW LD guided-wave devices, heterodyne nondegenerate pump-probe meas. 25990
- strained layer QW semicond. lasers for pumping Er^{3+}-doped opt. fiber amps. *(Japanese)* 3566
- surface-emitting vs. edge-emitting solid-state laser pumps, comparison 31364
- suspen.-single-droplet dye laser, wavelength shifts, pumping 1871
- TW femtosecond parametric lasers 31289
- ultrashort UV FEL 7697
- ultrashort-pulse submillimeter-wave lasers and appls. 39660
- unrepeatered transm., 2.5 Gbit/s, 410 km of fibre 9428
- UV high repetition rate tunable sources by dye laser beam freq. conversion 15035
- VCSEL, spectrally/temporally resolved emission 31450
- walk-off-limitation-free all-opt. nonlin. fiber-loop-mirror switch 9568
- Yb:YAG diode-pumped thin disk laser continuously tunable, 1018/1053 nm 39742
- $AgGaS_2$, compact tunable difference freq. sources, laser pumping 7767
- $AgGaS_2$, external difference freq. source 31486
- $AgGaS_2$ sync. pumped ultrafast opt. parametric oscillator 31625
- $AgGaSe_2$ cryst. second harmonic conversion of pulse-periodic CO_2 laser radiation 40103
- $AgGaSe_2$, mid-IR opt. parametric oscillator, 2.54 μm-pumped type II 31527
- $AgGaSe_2$ noncritically phase matched mid-IR generation by opt. parametric oscillator 40060
- AlGaAs $\chi^{(3)}$ semicond. waveguides, squeeze-state generation 31505
- AlGaAs/GaAs integrated lin. injection laser array, emission charact., pumping appls. 39759
- AlGaAs/GaAs, photopumped vert. cavity QW, hot carrier recomb. 23264
- AlGaAs-AlAs DBR QW microcavity, fast coherent emission 31376
- AlGaInAs vis. diode laser with phase-conjug. feedback, stable mode locking 39833
- AlGaN/GaN doubleheterojunction, UV/blue LEDs 7476
- Al_xO_y/GaAs VCSEL laser with high-contrast mirrors, gain switching 23231
- [B-]BaB_2O_4 opt. parametric oscillator noncollinear phase matching 15114
- β-BaB_2O_4 injection-seeded opt. parametric oscillator, bandwidth studies 31500
- β-BaB_2O_4 opt. parametric oscillator, spectrosc. light source 31573
- β-BaB_2O_4 ps opt. parametric amplif. 2117
- BaB_2O_4 type I opt. parametric oscillator, noncollinear phase matching 2125
- $BaTiO_3$ cat conjugator, real-time image proc. 24491
- $BaTiO_3$ cryst. in CAT config., temporal behaviour of phase conjug. wave 31521
- $BaTiO_3$ phase-conjug. mirror, mutually pumped, fish-head config. 40085
- $BaTiO_3$, photorefr., bidirectional ring resonator, mode alternation, pattern 23403
- $BaTiO_3$ photorefr. cat phase conjugator, unstable backward beam patterns and internal beams 15069
- $BaTiO_3$ photorefr. phase conjug. beam time evol., multigrating operation 31522
- Br photodissociation laser, flashlamp-induced opt. losses 1857
- CO_2 CW amp., transverse pumping, 3D modelling 14699
- CO_2 elec.-discharge lasers, gain restriction 7524
- CO_2 gas lasers, power supplies comparison 1861
- CO_2, high power laser, line-selective unstable resonator 1858
- CO_2 laser, small-amplit. pumping modulation, operation dyn. 39648
- CO_2 laser, solar pumped, opt. selectivity, efficiency 7530
- CO_2 sealed-tube TEA lasers, pulse repetition rate up, 5 kHz 14712
- Cd^+ photo-ionization laser, blackbody source pumped, charactn. 31196
- $Cd_{1-x-y}Mn_xHg_yTe$ single cryst. opt. isolators for high power LD pumping 3556
- CdS waveguide cavity microlaser, losses, spectrum crevasse appearance 39862
- CdSe-ZnSe quantum well lasers, photopumping, spectral/spatial resoln. 39753
- $Ce:LiCaAlF_6$, UV laser props. 1901
- $Ce:LiSrAlF_6$, UV laser props. 1901
- $Ce^{3+}:LuLiF_4$ laser, self-injection-seeded UV, sub-ns pulse train generation 39737
- Cr,Er:YScGG 2.79 μm laser pumped, 790 nm by Ti:sapphire laser 7593
- Cr,Nd:GdScGG parallel amp. 8.2 J phase-conjug. solid-state laser 1909
- Cr,Nd:YAG monolithic self-Q-switched laser, picosecond pulse generation 31248
- $Cr:LiSAF_6$ slab laser perform. 31294
- Cr:LiSrAlF diode-pumped single-freq. coupled-cavity microchip laser 14814
- $Cr:LiSrAlF_6$ fs diode-pumped all-solid-state regenerative amps., Ar ion-pumped 23170
- $Cr:LiSrAlF_6$ high power cw diode-pumped laser 14830
- $Cr:LiSrAlF_6$ pass. mode-locked laser, antiresonant Fabry-Perot saturable absorber 23142
- $Cr:LiSrAlF_6$ self-mode-locked diode-pumped laser 14785
- $Cr:ZnWO_4$ cryst. lasing, lasing efficiency improvement by Nd^{3+} codoping *(Chinese)* 14799
- $Cr^{4+}:Mg_2SiO_4$ laser cavity, cubic phase distortion minimisation 31288
- Cr^{4+}:YAG laser, sync. pumped self-mode-locked, fs pulse generation 31306
- Cr^{4+}:doped laser host lattices, tunable output 39729
- Cr^{4+}:forsterite laser, CW operation, output power, thermal problems 39734
- Cs FIR laser lines around 1.2/1.6 THz, heterodyne freq. meas. 23081
- Cs beam freq. std., vel. distribs. determ. 42666
- CsB_3O_5, tunable UV generation, 0.185 μm 23371
- Cu vapour laser pumping, scientific and indust. appls. 40171
- CuCl semicond. biexciton and exciton systs., fs coherent transients 23367
- D_2O laser, opt. pumped, computer simul., longit. mode 1867
- D_2O laser, spectral narrowing, oscill.-amp. 23102
- Er,Yb:glass disc laser mode locking 23146
- Er,Yb:glass laser, opt. pumped, mech. Q-switching 31293
- Er doped fibre amp., grating pump reflectors, gain 14749
- Er doped fibre amp., single-mode, kilowatt pulses 14748

optical pumping continued
- Er doped fibre amps., minimised gain tilt for CATV transm. systs. 3554
- Er fiber loop lasers, ultrashort pulse solitons 31229
- Er laser systs., 3 μm emission, pump quantum efficiency 31277
- Er^{3+} doped ZBLA laser, upconversion lasing 39717
- $Er:SiO_2$ planar waveguide amp. based modelocked ring laser 23132
- Er:YAG laser dyn., upconversion characts. 1904
- Er:YSGG laser, 300 K 7584
- Er:YScGG, 2D microlaser array, monolithic LD array pumping 1888
- $Er^{3+}:GeO_2$-Al_2O_3-SiO_2 opt. fibres, two photon reson. SHG 2070
- $Er^{3+}:YAlO_3$ laser, photon avalanche upconversion pumping 23164
- $Er^{3+}:YAlO_3$ upconversion laser, Q-switched 14821
- Er^{3+}:ZBLAN fluoride fiber lasers in multiple cascade operation 39698
- Er-doped 980-nm single-pump recycled fibre amplifer optim. 31226
- Er-doped PbF_2-SrF_2 epitaxial layers on GaAs(111)B for upconversion waveguide lasers 14832
- Er-doped distrib. fiber amp., pol. depend. of soliton interacts. 34019
- Er-doped fiber amp. cascade, WDM syst. perform. optimisation 42416
- Er-doped fiber amp., dyn. gain compensation for multiwavelength transm. systs. 9598
- Er-doped fiber amp. lossless wide-band reflective star coupler 17177
- Er-doped fiber amp. polariz.-scrambled fiber-loop config., gain-peak-wavelength meas. 14359
- Er-doped fiber amplifer, counterpumped first stage suitable for long-haul soliton systs. 9567
- Er-doped fiber amplifiers, nonlin. wave mixing and dyn. controlled gratings 7577
- Er-doped fiber amps., MQW-LD pumping module *(Japanese)* 42464
- Er-doped fiber amps., Rayleigh scatt. effects 23133
- Er-doped fiber amps., concatenated, 980-nm-pumped, gain peaking 7569
- Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
- Er-doped fiber amps., optimized noise perform. for AM-VSB distrib. systs. 7555
- Er-doped fiber amps./opt. isolator 23134
- Er-doped fiber grating laser transmitter at 5/2.5 Gb/s, long-term BER transm. 34038
- Er-doped fiber laser config., wavelength switching 14735
- Er-doped fiber laser mode locked by semicond. saturable absorber 31235
- Er-doped fiber laser, quasi-periodic route, chaos 23135
- Er-doped fibre amp., LD pumped, gain and bandwidth charact. of 1480 nm *(Chinese)* 14759
- Er-doped fibre amp. gain equalization by tunable coherent opt. transversal filter 39709
- Er-doped fibre amps. spontaneous emission noise modelling 14734
- Er-doped integrated glass laser, modeling and optim. 22921
- Er-doped opt. fiber amp., commun. appls. *(Japanese)* 3565
- Er-doped planar waveguide lasers, theoretical modeling of relax. oscills. 14818
- Er-doped silica fibre high-temp. point sens. 17873
- Er-doped silica opt. fibre switching by ultra-fast nonlin. refr. index dyn. 30915
- Er-doped upconversion-pumped fiber amp. noise fig., theory 1881
- Er^{3+}-doped fiber laser ASE green light 1878
- Er^{3+}-doped intracavity LD pumped modulated fiber lasers 1879
- Er^{3+}-doped opt. fiber amp., control ccts. *(Japanese)* 39711
- Er^{3+}-doped opt. fiber amps. pumped by 1.45 μm and 1.47 μm LD *(Chinese)* 14760
- Er^{3+}-doped silica-glass fiber parasitic upconversion mechanism anal. by 980 nm fluoresc. 39324
- Eu-chelate-doped microdroplet laser, morph.-depend. resons. 39680
- GaAs microcavity, reson. excited exciton, coherent light emission 31375
- GaAs/AlGaAs MQWs, nonlin. index saturation in bandtail absorpt. region 13172
- GaAs/AlGaAs, QW microcavity LED, mode-coupling 7472
- GaAs/AlGaAs QW waveguides, all-opt. PM 23370
- GaAs/AlGaAs hexagonal-facet laser with opt. waveguides, selective area metalorganic CVD 23214
- GaInAs/GaAs quantum wire laser, gain coupling, RIE 31385
- GaInAsP DFB lasers, fab., maskless FIB implant. 39825
- GaInAsP MQW 1480-nm pump LD, life tests 9526
- $Ga_{1-x}In_xAs_yP_{1-y}$/InP VCSEL 14923
- GaN film, opt. pumped, UV lasing 14907
- GaN p-n homojunction, UV/blue LEDs 7476
- GaSe travelling-wave opt. parametric generator, 2.8 μm laser pumped 23354
- Ge,F-codoped fiber fab. and device appls. 7338
- Ge^+, Ne-like, soft X-ray laser brightness on double pulse pumping 23084
- Ge^+ Ne-like soft-X-ray laser 1852
- H Raman act. media Stokes pulse duration control in SRS 31560
- H two-stage Raman conversion tunable laser *(Japanese)* 7516
- Ho,Tm:YLF laser pumping, $AgGaSe_2$ parametric oscillator 7800
- Ho doped laser syst., CW 3 μm laser action 7588
- Ho:YAG 2.1μm laser for atmos. lidar research 10474
- Ho:YAG quasi-three-level laser Q-switched operation 14819
- Ho:ZBLAN fiber laser, upconversion, charactn., modelling 1903
- I gas laser, solar pumped, concentrator 23105
- I, photodissociation laser modelling, slow pumping 31161
- I_2 photodissociation laser, VUV radiation inversion accumulation 14720
- $InAs/InAs_xSb_{1-x}$ midinfrared lasers, CW operation 23202
- InAsSb/GaSb DH high-temp. mid-IR lasers 1982
- InGaAs MSM photodetector charactn. by electrooptic LD sampling 23009
- InGaAs/AlGaAs flared amp. monolithically integrated arrays, DBR laser driven 23262
- InGaAs/AlGaAs strained quantum well lasers, small-divergence angles, fibre laser pump 1990
- InGaAs/GaAs strained QW 980 nm pump lasers, thermal behaviour 14843
- InGaAs/InGaAsP microdisk lasers, fab., resonator modes, losses 7702
- InGaAs/InGaP/GaAs QW lasers, 0.98 μm, reliab. pump source 23188
- $In_{0.2}Ga_{0.8}As$/GaAs microcavity lasers, transient pulse response 39756
- InGaAs-GaAs-AlGaAs single mode lasers, long. modes/nonlin. mode-mode interact. 1969
- InGaAs-InGaAsP strain-compensated MQW dielec.-bonded long wavelength vert. cavity laser 14851
- InP:Fe double phase conjug. mirror, telecomm. appls. 23452
- InP/InGaAsP, high power BH laser, 1.15 μm 14924
- InP/InGaAsP, whispering-gallery-mode microdisk QW lasers 31367
- InP-AlInAs type II syst., laser emission 14928
- InSb spin-flip Raman laser, pumped, 11～16 μm tunable, sens. appl. 1941
- K magnetometer, opt. pumping, saturated absorpt. 34462
- $KNbO_3$ high-repetition-rate femtosecond opt. parametric oscillator 40086
- $KNbO_3$ tunable narrow-band mid-IR type I opt. parametric oscillator 40113

optical pumping continued
$KTa_{1-x}Nb_xO_3$:Fe cryst. self-pumped phase conjug. 7732
$KTa_{1-x}Nb_xO_3$:Fe, high reflectivity self-pumped phase conjug. 31545
$KTiOPO_4$ crysts., parametric oscill., pulse compression 2072
$KTiOPO_4$ opt. parametric oscillator in fs time domain 31578
$KTiOPO_4$, sub-picosecond opt. parametric oscillator, Kerr lens mode-locking 31564
$KTiOPO_4$ sum freq. generation in opt. parametric oscillator 15047
$KTiOPO_4$ sync. pumped opt. parametric oscillator, design, fab. and perform. 40052
KrF excimer laser fs VUV pulse meas. by field-ionization dyn. 23103
La-doped fluoride glass fiber lasers, IR pumped 14773
Li-like Al, autoionising states, X-ray lasing transits., photopumping 14686
LiB_3O_5 all-solid-state ps opt. parametric generator 23418
LiB_3O_5 doubly reson. opt. parametric oscillator cavity mirror crysts. 40091
LiB_3O_5 doubly-reson. opt. parametric oscillator mode selection 15116
LiB_3O_5, opt. parametric oscillator, CW singly reson. pumping 2071
LiB_3O_5 ps Ti:sapphire-pumped opt. parametric oscillator 23420
LiB_3O_5/BaB_2O_4 crysts., opt. parameteric oscills., thermal loading 7771
LiF:F_2^+ laser pumped by a flash lamp, multimode oscill. 7596
$LiNbO_3$ CW opt. parametric oscillator near 2.1 μm 31579
$LiNbO_3$, periodically poled, 1.064-μm-pumped opt. parametric oscillator 23382
$LiNbO_3$ waveguides, quasi-phase-matched opt. parametric amplif./oscill. 23381
$LiNbO_3$:Ti,Er integrated opt. DBR waveguide laser, 1531 nm 31304
$LuLiF_4$:Ce^{3+}, broadband UV amplif. medium 23444
NH_3 FIR lasers, Lorenz-like chaos 14692
NH_3 miniature opt. pumped cavity far-IR laser 31167
$NH_4H_2PO_4$ cryst., opt. parametric oscill./amp., spectrosc. appl. 7772
Na narrowband wind-temp. lidar syst. sensitivity anal. 43503
Na vap., laser beam switching dyn. 40111
Nd doped fiber laser, long./side-pumped, silicone coating 31228
Nd:$Ca_2Al_2SiO_7$ cryst. diode pumped lasers, opt. props. 1914
Nd:$Ca_5(PO_4)_3F$ laser, quasi-CW LD-pumping, output/input charact. *(Chinese)* 39725
Nd:$KGd(WO_4)_2$ laser diode pumping/FM mode locking 23157
Nd:$LaMgAl_{11}O_{19}$, excited-state-absorpt./upconversion 23154
Nd:MgO:$LiNbO_3$ self-freq.-doubled laser, diode pumped 23390
Nd:$Y_3Al_5O_{12}$, excited-state-absorpt./upconversion 23154
Nd:YAG 1.4kW slab laser, diffusive closed-coupled pump cavity 23181
Nd:YAG 3.5 W output, diode-pumped, Q-switched 532 nm laser 14816
Nd:YAG LD pumped laser, eye-safe 1.443 μm wavelength 7587
Nd:YAG LTN-404-1A laser, radiation beam positional stabil. 39718
Nd:YAG Q-switched CW pumped laser, math. modeling 1895
Nd:YAG Q-switched diode-pumped laser, freq. conversion 31268
Nd:YAG Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
Nd:YAG TEM_{00} diode-laser-pumped Q-switched laser 31302
Nd:YAG TEM_{00}-mode diode-laser-pumped CW miniature-slab laser 31300
Nd:YAG diode-pumped laser driver for X-ray projection lithog. 31270
Nd:YAG diode-pumped laser single-mode operation by pump-beam focusing 14820
Nd:YAG diode-pumped miniature slab laser 31250
Nd:YAG diode-pumped nonplanar ring laser, intens. noise suppression 15004
Nd:YAG diode-pumped solid-state lasers, kilowatt av. power 31269
Nd:YAG flashlamp-pumped pulsed lasers, SHG 31272
Nd:YAG freq.-doubled laser stabil. *(Chinese)* 14794
Nd:YAG high-power opt. amps. for 1.06, 1.32 μm 9603
Nd:YAG lamp-pumped laser, opt.-Kerr-enhanced mode locking 23179
Nd:YAG laser beam control, Brillouin and photorefr. nonlin. 31478
Nd:YAG laser cavity decay rate and relax. oscill. freq. 23166
Nd:YAG laser, chromatic coupling by multiple LD pumps 31247
Nd:YAG laser, diffractive-optic graded-phase resonator, modal props. meas. 39740
Nd:YAG laser, diode-pumped, Q-switching study 31299
Nd:YAG laser, diode-pumped nonlin. mirror mode-locked 1897
Nd:YAG laser, intracavity freq. doubling, KTP cryst. 7598
Nd:YAG laser, pumped, LiF:F_2 pass. opt. Q-switches 31309
Nd:YAG laser, pumped, pulsed RT operation 23167
Nd:YAG laser, quasi-CW LD array pumped, absorpt. efficiency control method *(Japanese)* 31307
Nd:YAG mode-locked diode end-pumped laser, spatial hole burning effects 23150
Nd:YAG monolithic laser, diode pumped, power scaling 31297
Nd:YAG pass. Q switched laser, double pulse operation 31305
Nd:YAG pass. Q-switched quasicontinuously pumped laser 31274
Nd:YAG pass. Q-switched transverse-diode-pumped laser oscillator *(Chinese)* 14797
Nd:YAG periodical Q-switch lasers, pulse duration, output power 31271
Nd:YAG ring laser, chaos, dyn. and spectral charact. 40020
Nd:YAG ring laser freq. stabil., interferometric gravit. wave detector light source appl. 31301
Nd:YAG slab laser, LD array side-pumped, output power *(Chinese)* 39724
Nd:YAG tunable laser, diode end-pumped 7578
Nd:YAG($YAlO_3$), efficient high-power laser operation 31264
Nd:$YAl_3(BO_3)_4$ self-doubling lasers, LD pumped *(Chinese)* 1885
Nd:YLF, additive-pulse mode-locked laser, diode pumped, pulse compression 31298
Nd:YLF all-solid-state self-mode locking laser 23141
Nd:YLF laser, chromatic coupling by multiple LD pumps 31247
Nd:YLF laser pumped by LD for 1.3/μm opt. fiber amp. *(Japanese)* 42465
Nd:YLF long. end-diode-pumped regenerative amp. 23168
Nd:$YLiF_4$, excited-state-absorpt./upconversion 23154
Nd:YVO_4 all-solid-state intracavity freq. doubled laser *(Chinese)* 7602
Nd:YVO_4 cryst. laser charact., LD pumping *(Chinese)* 14795
Nd:YVO_4 diode-pumped microchip amp., efficient DFWM 40080
Nd:YVO_4 high-efficiency TEM_{00} laser long. pumped by high-power array 23169
Nd:YVO_4 laser, diode laser end pumped *(Chinese)* 7603
Nd:YVO_4 miniature microchip laser modes *(Japanese)* 14823
Nd:YVO_4 slab laser, diode-pumped, high-repetition-rate 1919
Nd:YVO_4 solid-state laser, Ti:sapphire laser pumped *(Chinese)* 14796
Nd:glass all-solid-state laser syst. pulses, tunable by down conversion 14779
Nd:glass fiber laser, cladding-pumping 23128
Nd:glass laser amps. using electro-polished Al reflectors, gain enhancement 1894
Nd:glass ring laser single freq. operation, acousto opt. induced 23140
Nd:phosphate glass fibre-bundle laser, Q-switching 23114

optical pumping continued
Nd^{3+}:$KY(MoO_4)_2$ ribbon and sheet miniature cryst. lasers 23158
Nd-doped 1.064 μm fibre amp. 7553
Nd-doped double-clad fiber laser pumping, LD bar 7551
Nd-doped fiber laser, feedback-induced polariz. switching 14741
Nd-doped fibre switching by fast relax. of reson. nonlin. 31621
Nd-doped high-power cw fiber laser, high beam quality 39704
Nd-doped phosphate glass waveguide laser, pass. Q-switched 1917
O_2-I chem. laser constr. for thermonuclear fusion driver 31193
Pr^{3+},Yb^{3+}:ZBLAN glass, Pr 1.31 μm fluoresc. by opt. pumped Yb ions 23117
Pr^{3+}:$LaCl_3$ IR laser emissions on Tm:YAG pumping 14822
Pr^{3+}:ZBLAN upconversion laser, pump scavenging 39703
Pr-doped opt. power fiber amp., saturated output power of +18 dBm 9602
Pr^{3+}-doped GeS_x-based glass fiber amps. at 1.3 μm, photolum. 31234
Pr^{3+}-doped blue upconversion fibre laser, optimised output coupling 31237
Pr^{3+}-doped fiber amps., temp. effects on amplif. charact. 31221
Pr^{3+}-doped fluoride fiber amp., LD pumped, gain characts. 1875
Pr^{3+}-doped fluoride fiber amps., gain dyn. anal. 31217
Pr^{3+}-doped fluoride fiber amps., pump config. *(English)* 23127
Pr^{3+}-doped fluoride fibre amp., pumped, design optimisation 31219
Pr(3+):ZBLAN fiber amplifer, emission cross-sect. spectrum of pump transit. 14772
Rb at. freq. std., opt. pumping scheme, diode lasers 17630
Rb maser freq. std., double bulb 39636
$RbTiOAsO_4$ noncritically phase-matched Ti:sapphire pumped fs opt. parametric oscillator 23383
S_2 opt. pumped brightness amp., laser projection microscope 23094
Si/SiO_2 amorph. QW struct., dispersive subband-reson. nonlin. 1146
Si-on-insulator slab waveguide Bragg reflector, two polaris. coupling 39405
SiO_2 cascaded fibre Raman amp. operating at 1.3 μm, high gain 31232
SiO_2-based single-mode fibre, pumped, stimulated four-photon mixing 39347
SiO_2-core fibre ring oscillator, Nd laser pumped 14999
$SrBaNb_2O_6$:Rh absorptive photorefractive material, two beam coupling 15078
$SrGdGa_3O_7$:Nd laser, diode-laser pumping 23139
Ti,Er:$LiNbO_3$ harmonically mode-locked waveguide laser 39736
Ti:Al_2O_3 laser, flash-lamp-pumped, hybrid mode locking 1918
Ti:S cryst. multipass laser amplifer 31286
Ti:sapphire CW laser perform., high fig. of merit 1908
Ti:sapphire CW mode-locked laser, tunable UV light pulse prod. 23148
Ti:sapphire Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
Ti:sapphire amp. syst., midinfrared femtosecond pulses 15049
Ti:sapphire compact 24-kHz laser, Cu-laser-pumped 39735
Ti:sapphire dual-cavity-type pulsed laser oscillator, self-seeding 39741
Ti:sapphire flashlamp pumped laser, two-wavelength pulsed operation 31242
Ti:sapphire fs laser pulse parametric conversion, 1 kHz 14782
Ti:sapphire laser amplifer/pulse compressor, gain-narrowing limit 23151
Ti:sapphire laser, low-threshold, self-modelocked 31253
Ti:sapphire laser, self-mode-locked 1920
Ti:sapphire laser, self-starting, femtosecond pulse generation 1890
Ti:sapphire laser syst., single long. mode Littman config. *(Chinese)* 14798
Ti:sapphire laser, tunable, laser pumped, time charact. *(Chinese)* 39723
Ti:sapphire regenerative amp., tunable 30-fs pulses 39739
Ti:sapphire/DDI ps cw pass. mode-locked laser starting dyn. 23171
Tm,Ho mid-IR lasers, LD pumped, for med. appls. 31308
Tm^{3+},Cr^{4+},Ca^{2+}:YAG 2 μm laser, luminesc. sensitisation 14806
Tm^{3+},Fe^{3+}:garnet 2 μm laser, Fe sensitization 31273
Tm:YVO_4 microchip laser pumping schemes 39721
Tm:ZBLAN CW upconversion laser 14743
Tm:ZBLAN upconversion-pumped fiber laser, 810 nm telecomms. window 7572
Tm-doped 1.9-μm fluoride fiber laser amp., 1.6-μm pumped 23136
Tm-doped ZBLAN blue upconversion fiber laser theory 39710
Tm-doped fibre source, LD pumped, methane gas detect. by correl. spectrosc. *(Chinese)* 17973
U isotope separating dye laser wavelength control syst. *(Japanese)* 7872
Xe IX, femtosecond-pulse-driven XUV laser 23104
Xe lamp pulse power-pumped Nd:glass laser, crack mechanisms 31457
Xe_2* self-sustained discharge-pumped laser at 172 nm, kinetics 14704
XeF 10^5 J (C-A) transit. inversion wave by Nd-laser second harmonic amplif. 14718
Yb,Er:phosphate glass, pop. dyn., Nd laser pumping 23163
Yb:$Sr_5(PO_4)_3F$ 1.047-μm energy storage opt. amp. 39730
Yb:YAG waveguide laser, diode pumped, fab. and characterisation 31296
Yb:YAG waveguide laser, epitaxially grown, diode pumped, high slope efficiency and low threshold 14833
Yb^{3+}:SiO_2 fiber lasers, sources 1, 1.2 μm 39699
Yb^{3+}:YAG laser, CW tunable, Ti:sapphire pump 39751
(Zn,Cd)(Se,S) quantum well laser heterostruct., opt. waveguide confine. 14900
ZnCdSe-ZnSSe-ZnMgSSe blue-green vert. cavity SCH SELs 14946
ZnSe/ZnMgSSe DH laser, photopumped lasing props., MOCVD-grown, cavity length depend. 14942
ZnSe-based laser struct., opt. pumped, exciton dyn. and gain mechanisms 23298
ZnSe-based nanostructures, waveguide DFB laser appls. 23296
ZnSe-based vert.-cavity surf. emitting lasers, blue emission 23295

optical quantum generators *see lasers*

optical radar
see also laser ranging; optical tracking; remote sensing by laser beam
2 μm LIDAR for laser-based rem. sens. 10384
2 μm LIDAR for laser-based rem. sens. 26552
2D clutter for IR surveillance image recogn., defn. 4440
3-D contouring by opt. radar syst. (ORAS) 17447
3-D laser radar range image, terrain description and obstacle detect. 17441
advanced terrain data proc. 10394
airborne CW Doppler lidar, wind field meas. 26726
airborne laser scanner meas., filtering and calib. 43484
atmos. comp., IR NH_3-CO_2 laser method 10487
ATR, act./pass. cooperative image segmentation 25588
ATR, ATLAS syst. 9648
automatic calib. of laser range cameras, arbitrary planar surfaces 17437
automatic recogn. of partially occluded objs., genetic algm. 16286
chirped laser radar, optoelectronic chirp generation and sig. demodulation 17444
chirped laser radar, optoelectronic sig. demodulation 17448
clouds, laser rem. sens., polariz. diversity methods 10485

optical radar continued
- coherent detect. photodiode, optimum opt. LO power levels 25847
- coherent laser radar, appl., decontamination/decommissioning 42685
- coherent laser radar, spectral matched filters 3621
- coherent laser radar and aircraft wake vortices 3623
- coherent laser radar syst. efficiency, semi-analytic approach 3619
- coherent laser radar with diffuse/aerosol targets, heterodyne efficiency 3620
- coherent mode locked TEA CO_2 LADAR for risk reduction and phenomenology expts. 17443
- coherent opt. systs., recent trends 25480
- data fusion, joint detect./estim. filter 34124
- DIAL meas. of vert. ozone profiles, aerosol layers 26724
- diffuse surface roughness, opt. rem. sens., turbulent atmos. 7877
- dust cloud dens. estim., single wavelength lidar 17439
- eyesafe IR aerosol lidar, stimulated Raman backscatt. appl. 9651
- FMCW-LIDAR, tunable twin-guide LD 17449
- ground vehicle vision, ladar, obstacle detectability 7878
- ground-based mobile scanning lidar, contrails rem. sens. 26766
- helicopter-based lidar complex for vegetation rem. sens. 25589
- image reconstruction, reflective tomography 17435
- industrial appls. of laser radar, conf., San Diego, USA (1994) 5439
- inverse synthetic-aperture imaging radar, gradient-search phase-retrieval algm. 3629
- IR imaging, ΔT metric eval., mil. target and background under various stats. 4439
- IR imaging of mil. ground vehicles, clutter metric based on texture 10592
- IR interferometric SAR act. coherent imaging *(Japanese)* 9645
- IR lasers, conf., Ascona, Switzerland (1994) 5485
- IR lidar sens., turbulence-noise 17432
- laser imaging radar, nonlin. of rot. mirror scanning 17446
- laser radar, DSP, dyn. range *(Japanese)* 34164
- laser radar image form., sea surface and water thickness 17454
- laser radar signatures, enhanced backscatt. 17445
- LFM-CW lidar for rem. detect. of saturated hydrocarbons 17450
- LIDAR inversion methods for atmos. of arbitrary opt. dens. 4411
- lidar profiles, deconvolved, pulse-shape uncertainty effect on accuracy 25587
- LIDAR wide-band Doppler detect. tech. 42530
- machine vision, autonoumous land vehicle laser radar range data 17442
- middle atmos., wind meas. comparison, DYANA campaign 26720
- miniaturized micro-opt. scanner lens arrays 9646
- model-based multi-sens. fusion 9649
- multielement photodetector, sensitivity variability and noise influence 42796
- non-cooperative ident. of ships, electrooptical data 9650
- ocean waves, scanning lidar method, glitter vels. 35346
- oil films at water surface, rem. thickness meas. by excimer laser 7876
- on-platform radar and opt. track fusion 9647
- pass. ranging, image expansion 26549
- PERCEPTRON LASAR System for 3-D robot guidance 17455
- pulsed coherent Doppler lidar with opt. amp., heterodyne detect. 3622
- pulsed solid-state coherent laser radar aircraft wake vortex detect. 3624
- pulsed TOF laser radar, CMOS ASIC struct. 34165
- Raman lidar profiling, atmos. water vapour, collocated systs. 18818
- range-resolved bistatic imaging lidar, CCD camera *(Japanese)* 34163
- rare earth doped opt.-fiber preamplifiers for ladar detect., SNR 9653
- reflective tomography for space obj. imaging, short-pulse-length laser 17434
- semicond.-wafer proc. equipt., particle detect., in situ coherent lidar 37047
- sheared beam imaging in space-time distortions 17433
- sine-wave crossings tech. for real-time target recogn. 10590
- single-shot laser radar sigs., principal-component filtering 17440
- spectral filtering lidar light possessing non-Gaussian stats. 3616
- target vel. meas. from speckled images 16197
- time-depend. sig., single-multiple scatt. model 34161
- time-freq. distrib., laser radar backscatt., FM demodulation 34166
- towed laser slopemeter for ocean waves meas. 4405
- underwater opt. imager, Nd:YLF laser (green) 18904
- underwater scene imaging at close range, laser syst. 18905
- underwater target detect. by lidar, modulated pulse method 10444
- unmanned underwater surveillance vehicle systs. 9666
- vehicle-to-vehicle commun. ranging, SS radar 42244
- wide-band coherent laser radar sigs., optoelectronic proc. 17453
- wind, scanning lidar method, glitter vels. 35346
- wind meas. by heterodyne coherent laser radar 43504
- CO_2 IR coherent lidar, enhanced opt. heterodyne detect. 3617
- CO_2 coherent lidars for measuring wind vel. /atmos. turbulence 3628
- CO_2 laser for rem. sens. meas. 18830
- CO_2 laser phase-conjug. multidither adaptive opt. syst. *(Japanese)* 7517
- CO_2 pulsed TE laser radar, freq. spectral meas. 3618
- HgCdTe varactor photodetectors for space-borne wind lidar, heterodyne tech. 34162
- Ho:YAG 2.1μm laser for atmos. lidar research 10474
- KrF, excimer-Raman radiation source, lidar meas. 34160
- KrF-laser-based O_3 lidar syst. for tropos meas. 4394
- NO_2 pollution detect., DIAL perform. predictions 17438
- Na narrowband wind-temp. lidar syst. sensitivity anal. 43503
- Nd:YAG laser, eye-safe compact Mie scatt. lidar 18908
- Nd:YAG laser radar for wide-area fire detect. 17451
- Nd:YAG/CO_2 laser three-color opt. range finding 7863

optical receivers
- 1.3 μm monolithic integrated optoelectronic receiver, InGaAs MSM photodiode/AlGaAs-GaAs HEMTs 25543
- 2.5-Gbit/s CPFSK transm. expt., AMI-encoded data 9578
- 2-18 GHz low-DC power monolithic matrix amp. 859
- 2-20 GHz low-noise wideband opt. receiver 9573
- 4 km 155 Mbit/s terrestrial LOS opt. free space link 17291
- 10 Gbit/s dispersion supported transm., computer simul./practical implications 34084
- 10-Gbit/s 280-km nonrepeatered transm., suppression of modulation instabil. 9509
- 10-Gbit/s smart opt. terminal digital-video distrib. syst. 17222
- 12-Gb/s high-sensitivity monolithic p-i-n/HBT photoreceiver module 25512
- 15-Gbit/s high-speed monolithically integrated pin-HEMT photoreceiver 34082
- 20 GHz bandwidth photonic microwave mixer/superhet receiver 34094
- 30-Mbit/s high-sensitivity burst-mode/packet receiver for PON appl. 17197
- 155 Mbit/s 4 km opt. free space link low noise opt. receiver 42409
- 600 Mbps opt. receiver, high-speed AGC cct. *(Japanese)* 42469
- alignment tolerance in hybrid source and receiver arrays 20460
- APD with dead space, BER 17264
- aperture averaging, opt. scintillations 34057

optical receivers continued
- ATM transport systs. based on high-speed opt. transm. 34043
- ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
- atten. meas. in opt. cable 30868
- bipolar preamp. for digital opt. receiver, Haus-Adler noise measure anal. 29058
- BPSK homodyne detect. expt. with solitary DFB LD, 10 Gbit/s 17329
- broadband freq. charactn. via intens. noise 25534
- burst-mode compatible receivers, high speed digital opt. commun. 42412
- burst-mode receiver transm.-capacity penalty in all-opt. multiple-access networks 17198
- Bus-Mesh wavelength multiplexed LAN, dyn. time slot allocation 34101
- CATV SCM receivers, IMD 9738
- CDMA opt. archits., bipolar capacity, unipolar codes 9582
- CMOS 248 Mb/s transimped. amp. and 155 Mb/s LED driver for fiber links 9543
- CMOS opt. receiver IC, wide dyn. range 34047
- coherent opt. CDMA, laser phase drift effects 42348
- coherent opt. POLSK receivers, LO intens. noise and unmatched quantum efficiencies 25491
- coherent opt. syst. nonuniform FM response, semicond. laser model 9471
- coherent opt. systs., recent trends 25480
- concave grating planar waveguide device diffr. 30963
- Costas loop, phase subtraction, perform. enhancement 17338
- CPFSK opt. receivers with Gaussian freq. pulse shape, perform. anal. 42436
- deep-space commun., coherent detect. opt. relay satellite 17298
- deep-space opt. commun., 10 meter-class ground-based receiver 17322
- delay-and-multiply opt. FSK receivers, line-coding, anal. 42345
- diffuse surface roughness, opt. rem. sens., turbulent atmos. 7877
- digital opt. burst-mode receiver BER perform. in TDMA, opt. multiaccess network 25485
- direct detect. opt. commun. syst. that operates in sunlight 17319
- direct detect. opt. systs., zero-forcing elec. filters 41099
- DPSK opt. heterodyne receiver, combat laser phase noise 42372
- DPSK receiver, opt. preamplified/demodulated, act. delay-line stabilization 17208
- DS-CDMA seq. inversion keying opt. correl. receivers 34029
- dual wavelength opt. fiber HDTV distrib. networks 17571
- duobinary opt. transm. syst., no receiver sensit. degrad. 25506
- FET-based OEIC photoreceiver design, syst.-level considerations 34081
- fiber optics, 2.5 Gbps sig., repeaterless transm. *(Korean)* 17179
- fibre gratings, demultiplexing filters for WDMA networks 39345
- free-space laser communication, conf., Los Angeles, USA (1994) 5437
- free-space opt. commun. syst., Faraday filter 9486
- free-space parallel opt. interconnects, cascadable thyristors 23063
- free-space WDM interconnections based opt. switching nets 33726
- heterodyne binary-DPSK systs., perform./anal. 42346
- heterodyne receivers, noise perform., AFC loops 42407
- heterodyne/homodyne opt. receiver design 42369
- high-speed photoreceiver module, packaging technol. 42413
- hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
- IM/DD TDM high bit rate opt. systs., modelling and anal. 34067
- intens. modulation/direct detect. opt. commun. syst., optimum sig. detect. 34076
- interdigitated high speed MSM photodetector/receiver design 34517
- interferometry-based quantum random-no. generation and key sharing 17343
- intersatellite opt. preamplified PPM syst. anal. 34078
- laser binary FSK communication, integrated heterodyne receiver/spatial tracker 17296
- laser commun. terminal for LEO satellite constellations 17297
- LEOS, Lake Tahoe, NV, USA (July 1994) 39
- LEOS, San Jose, CA, USA (1993) 20270
- lightwave commun., opt. amplified receivers, moment generating fn. 42363
- lightwave syst. dispersion compensation design 42419
- lightwave systs. with opt. preamplifier, perform. eval. 17186
- linecoded opt. heterodyne FSK systs., nonuniform laser FM response 42457
- linewidth-insensitive coherent analog opt. AM link receiver/transmitter 9442
- LINK Optoelectronic Systems Programme, London, UK (June 1994) 20
- LITE (Laser Intersatellite Transmission Experiment) model, functional testing 17288
- long-haul digital transm. opt. preamplifier receivers 34037
- low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
- low-noise TW front-end for coherent opt. receiver 9577
- Mitsubishi 16-channel 622 Mbps FDM coherent opt. commun. equipt. 34003
- MM-wave modulated opt. sigs., heterodyne reception, HEMT 3544
- monolithic MM wave IC, high speed opt. detectors 9534
- NASA planetary missions, laser transmitter/receiver systs. 42408
- nonlin. opt. loop mirror noise filtering 25526
- OFDM transparent cross connect, TV channel switching 17223
- opt. DPSK/heterodyne detect. scheme, two polariz. planes *(Japanese)* 17265
- opt. transm. systs. employing VCSEL and monolithically integrated photoreceivers 14656
- OPTOBUS parallel opt. links, data transm., 3 Gbits/s 3563
- parallel opt. interconnect modules, multifiber connectors 17277
- parametric receiver design, modelling techs. 12744
- phase/freq. detectors for opt. transm. systs. clock sync. 3568
- phased array antennas, rem. located modulators 9540
- planar hybrid optoelectronics, colloquium, London, UK (1994) 20255
- plastic LAN fibre optic links 41851
- polariz. shift keying, opt. digital transm., direct detect. 42344
- preamplified opt. direct detect. systs., receiver noise effects 17178
- preamplified PPM receivers, laser intersatellite commun. 34036
- preamplifier ASK syst. perform., incomplete ASK modulation, influence of ASE/laser phase noise 25531
- pulse timing detector, filter optim., opt. fibre commun. *(Japanese)* 34001
- QPSK opt. homodyne transm. syst. receiver anal. 34044
- rapidly tuned FDM laser transm. receiver, multichannel heterodyne detect. 9499
- Rome Laboratory, overview of laser commun. technols. 17284
- RS coded opt. PPM, PIN-FET receivers 9606
- satellite data mgt., fiber optic data links, particle-induced bit errors 17262
- slotted multichannel opt. networks, receiver collision effects 42359
- SONET networks/ATM, syst. develop. 42473
- SONET opt. commun. components, cryst. controlled 17171
- space commun. appl. 17164
- spatial opt. CDMA 42351
- sq. synchroniser jitter on direct detect. opt. commun., white cct. noise 3577
- stabil. improve. of receiver chip, FIB 33984

optical receivers continued
Stark anom. dispersion opt. filter for doubled Nd:YLF lasers 14575
STARNET opt. WDM network, high-speed interface 9514
STARNET WDM computer commun. network, combined freq. and AM 17174
superheterodyne receiver elec. test sig. source *(German)* 9485
transimpedance opt. receivers design, root-locus techs. 3564
transmitter/receiver modules, opto-hybrid technol. fabricated 31119
two-branch double-stage phase-diversity coherent receiver, 3×3 fiber coupler 9470
ultrahigh-speed MSM photodetectors for opt. commun. 42452
vert.-cavity SEL array for short dist. opt. fiber networks 14929
wavelength routing fiber LAN network throughput 42417
WDM multiple access protocols, high-speed opt. fiber LANs *(Korean)* 16476
WDM opt. network life-range-delimitation opt. transceiver for fast routing 9584
WDM opt. transceiver module for pass. double star subscriber systs. 42371
WDM receiver, monolithically integrated device 34075
weak opt. sig. detect., opt. parametric amplif. 17320
wide bandwidth opt. transm. syst. integrated opt. receivers/transmitters 9498
Er-doped fiber amp. preamplified receiver perform. eval., ISI 25527
Er-doped fibre amp. noise characterizes high-speed photoreceivers 15191
Er-doped in-line fiber amp. Kerr nonlin./noise 9444
Er-doped opt. fiber amplifer coherent AM analog opt. links 17213
GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891
GaAs Gilbert cell mixer IC fro coherent opt. transm. 42402
GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
GaAs MMIC delay line/quadrature demodulator in opt. receiver 17199
GaAs MMIC demodulator, distrib. mixing for CPFSK receiver 12801
GaAs MMIC/pin photodiode-based opt. receiver, 2.488 Gbit/s IM-DD systs. 17169
GaAs heterojunction p-i-n photodiode transient simul., computational methods 39564
GaAs low-noise broad-band MESFET monolithic distributed preamplifier 42391
GaAs transmitter/receiver LSI chips, parallel opt. links 42401
GaAs transmitter/receiver chipset for opt. link 42404
GaInAs PIN/HEMT receiver OEICs for Gb/s opt. systs., fab. 25495
InGaAs MSM photodiode/AlGaAs-GaAs HEMT OEIC receiver, 1.3 μm 17235
InGaAs monolithically integrated pin-FETs, noise characts. 14671
InGaAs/InP PIN waveguide photodetector, high saturation intens. 7463
InGaAs/InP p-i-n waveguide photodetector, dyn. range 34069
InGaAs/InP transimpedance opt. receiver OEIC 1834
InGaAsP channel HFET OEIC photoreceiver 17258
InGaAsP/InP integrated three-port Mach-Zehnder interferometer, all-opt. wavelength conversion 30973
InP OEIC for photonic networks *(German)* 7490
InP monolithically integrated tunable polariz. diversity heterodyne receiver OEIC 25484
InP polariz. diversity receiver OEIC heterodyne receiver frontend module 23061
InP/InGaAs HBT OEIC photoreceiver 9495
InP/InGaAs HBT, integrated optical receiver front-ends noise 14662
InP-GaInAsP-GaInAs composite collector HBT/circuits 13663
InP-InGaAs DHBT/p-i-n PD monolithic photoreceiver, 23 GHz bandwidth 7483
InP-based 10 Gbit/s photoreceiver OEICs, noise and perform. 9429
InP-based broadband optoelectronic receivers 9497
InP-based monolithic high-speed bal. mixer receiver 25523
Si OEIC with built-in PIN-photodiode, fab., perform. 14648
Si bipolar 156 Mb/s clock/data recovery PLL cct., S/H tech. 6052
Si bipolar clock-recovery and data-regenerator IC, 8 GHz, opt. fibre transm. 9544
Si bipolar monolithic opto-electronics, polymer LEDs 14665
Si receiver module, hybrid integrat. of silica waveguide, photodiode interface 31116
SiGe base bipolar analog ICs for 20 Gb/s opt. receiver 9545

optical reflection *see light reflection; reflectivity*
optical reflection spectra *see reflectivity; spectra*
optical reflectometers *see reflectometers*
optical reflectometry *see reflectometry*
optical refraction *see light refraction*
optical repeaters
10 Gbit/s soliton transm. expt., 1 Mm, 105 km amp. span 25475
10-Gbit/s four-channel dense WDM transm. 9488
CATV videocommun. networks, AM-VSB TV sig. opt. transm. 17570
FSA submarine opt. amp. syst., rem. supervision *(Japanese)* 16993
global fibre transm. expt. for max. repeater spacing 9424
in-line semicond. laser amp. opt. repeaters, stray refl. effects 3570
lightwave systs., IC 39459
lin. repeatered terrestrial SDH transm. systs., bit-interleaved Hamming code 42440
long-dist. soliton transm., 20 Gbit/s, alternating-amplit. solitons and opt. TDM 34018
polariz.-independent regenerator, nonlin. optoelectronic PLL 14655
RT1612F, opt. repeater for token-ring LAN *(Japanese)* 25535
SDH/SONET undersea fiber-optic systs. 17237
soliton transm. syst., 20 Gbit/s, 100 km spacing, 1000 km, robustness 42456
submarine cables, EDFA repeaters, data transm. 33981
submarine opt. amp. systs., fault location, coherent OTDR *(Japanese)* 16995
submersible opt. repeater unit 25537
undersea cable systs., opt. amplified, design and deployment 33738
undersea opt. amplified repeatered technol./products 33996
EDFA-repeatered syst. in-service fault-location 9430
Er-doped bridge-type bidirectional fiber amp., 622 Mbit/s operation *(Japanese)* 25486
Er-doped fiber amp., cascaded, gain-peak wavelength, Al-conc. depend. 14744
Er-doped fiber amp. repeated opt. soliton transm. technol. 42418
Er^{3+}-doped fibre amps. for telecomm. systs. 17274
Er^{3+}-doped opt. fiber amp., control ccts. *(Japanese)* 39711
GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
optical resolving power
see also image resolution
beam steerable semicond. lasers, large steering range and resolvable spots 1985

optical resolving power continued
diode laser wavelength shift meas. by fiber modal interferometers, altometer resoln. 25855
distributed opt.-fiber sens. by four-photon mixing pulse walk-off 42833
dual-laser writing scheme for opt. data storage 30839
external cavity fiber grating laser, coherent opt. freq. domain reflectometry 18122
in-service fiber line ident. based on high-resoln. fiber length meas. 17332
IR FPA, high-resoln. closely spaced obj. location algms. 3885
laser mirror group-delay meas. by spectrally resolved white-light interferometry 39996
laser range-finding CMM calib. 2159
long pulse dye laser develop., high resoln. spectrosc. appls. *(Japanese)* 7549
MRTD GO-NO GO tester develop. and appls. 34594
multichannel laser measuring systs., resolving power adaptive correction 15201
multilayer disc storage, nonlin. read/write 39307
multiresolution image compression, Gaussian Markov random fields 2399
near-field scanning opt. microscope fibre sens. tips fab. 42837
oblique illum. opt. lithog. using a transmittance-adjusted pupil filter, resoln. enhancement 38749
orthogonal polariz. fiber gyroscope, stabil., resoln. 17817
OTDR, four-wave mixing sampling gate, mm-resoln. 25985
self-referenced fiber optic sens. for microdisplacement meas. 34537
semicond.-liq. cryst. interfaced opt. addressed SLM 14536
solid-state image sens. for visual spectrum *(Japanese)* 17967
superresolution photolithography, phys. limits 6671
three-channel FDM fiber-optic LF voltage sens. 9921
trace gas rem. sens. in mid-IR/nadir geom. 43533
waveguide high resoln. diagnostics, photon-STM 14474
white-light phase-stepping interferometry for surface profiling 3976
CO_2 pulsed TE laser radar, freq. spectral meas. 3618
GaAlAs LD feedback interferometer for displacement meas. 23479
GaAs homojunction photodetector, subwavelength spatial resoln. 42819
Nd^{3+}:YAG pulsed laser beam materials proc. *(Japanese)* 7870
ZnSe transparent IR opt. elements, photothermal meas. 2037
optical resonators
see also Fabry-Perot resonators; laser cavity resonators
acetylphenyl-1,4-dioxa-8-azaspiro[4.5] decane, LD pumped ring resonator, blue light emission 23429
all fibre ring resonator, time depend. response 1689
antiresonant reflecting opt. waveguide intens. modulation 23781
Brillouin opt. fiber gyro ring-resonator, state of polariz. anal. 42822
cascaded nonlin.-opt. loop mirror soliton switching 23379
chirped fibre moire grating transm. filters, wide stopband 30874
collinear 3×3 WDM fiber coupler ring resonator anal. 1695
degenerate parametric oscillators, ultrashort-pulse generation 40089
double colour-pumped oscillator, high-power beam steering by Brillouin four-wave mixing 15104
Fabry-Perot resonator group effective index meas. method 10044
fiber resonator sens., opt. phase amplif. 25861
fiber resonators, nonlin. opt. bistability and differential amplif. 2115
fibre additive-pulse mode-locking/limiting storage ring 3546
fibre double-ring resonators, multiple bistability, degenerate two-wave mixing 22831
fibre ring and loop resonators with 3×3 fibre coupler, phase sensitivities 22829
fibre ring long-term soliton bit stream storage by phase-sensitive amplif. 22786
fibre ring-resonator for gyros, expt. 17887
freq. nondegenerate parametric amps., asymmetric losses, output quantum correl. 40074
interferometric fiber optic gyros and appls. *(Japanese)* 3858
liq. droplet microcavities, CW nonlin. optics 31507
Moire gratings, fibre transm. filters 39339
nonlin. fiber resonators driven by arbitrary coherence laser sources, opt. bistability 23372
nonlin. opt. loop mirror demultiplexer, extinction ratio and switching efficiency, error rate perform. 17176
nonlin. opt. loop mirror extinction ratio improvement 15122
nonlin. ring resonator, oscill. mode selection, bifurcation of chaotic mode transits. 15117
nonlin. waveguides, counterpropagating beam distributed coupling, bistability 15030
nonlin.-opt. loop mirror/fibre Bragg grating, bandpass switching 31499
one planar coupler fiber-ring resonator, degenerate two-wave mixing 15023
organic luminesc. display devices, opt. microcavity *(Japanese)* 9979
parametric oscillators, Raman scatt., squeezing props. 15119
photocathode opt. resonator, coherent photoelectron bunch generation 970
photonic fiber ring video delivery and SONET protection 17224
photorefr. grating opt. resonator, self-organized learning of purely temporal inform. 14329
photorefr. oscillator, weakly multimode dyn. 15072
planar microcavity LED's, design/expt. comparison 31097
polaris. independ. nonlin. opt. loop mirror demultiplexers 34079
rare earth doped fibres, metallic coated, fluoresc. decay-time vars. 39359
ring fibre interferometer, sig. drift by transient polaris. effects 3849
semicond. QW microcavity light emitters, combined quantum effects 1817
silica-based planar lightwave ccts., opt. filters develop. *(Japanese)* 17182
single-mode fibre connections, mutually-pumped phase conjug. mirrors 15105
spherical microcavities, enhanced two-level opt. reson. 40120
SQ well submillimeter-wave generation and amplif. by coherent wave-packet oscills. 6559
storage ring solitonlike pulse stabilization, slow saturable absorber 22792
sync. driven fiber optic resonator near zero dispersion, chaos 30852
transverse eigenmode set 23322
triple-coupler ring-based opt. guided-wave resonator, transmittance charact. 22894
tris(8-hydroxyquinoline)aluminum photo- and electro-luminesc. devices, double mirrors 39576
tunable photodetectors and LEDs for WDM appls. 39617
two-level atoms, micromaser fields, mean-photon-no. and Shannon entropy decay 39631
walk-off-limitation-free all-opt. nonlin. fiber-loop-mirror switch 9568
whispering-gallery microresonators, spherical mode anal., prism couplers 14428
wide free-spectral-range opt. resonator, FDM transm., novel archit. 17168

optical resonators continued
zero-dispersion dispersion-flattened nonlin. fibre loop mirror demultiplexing 3561
$BaTiO_3$, photorefr., bidirectional ring resonator, mode alternation, pattern 23403
$BaTiO_3$ self-pumped phase-conjugating mirrors, interferometric systs. appls. 31051
Er-doped fiber amp. polariz.-scrambled fiber-loop config., gain-peak-wavelength meas. 14359
GaAs heterojunction p-i-n photodiodes, transient simul., reson. cavity enhanced 39565
GaSb-based reson. cavity detectors, GaAs/AlAs DBRs 25833
$KNbO_3$:Fe photorefr. ring resonator, transverse mode oscills., spatiotemporal dyn. 23436
$KTiOPO_4$, sub-picosecond opt. parametric oscillator, Kerr lens mode-locking 31564
LiB_3O_5 doubly reson. opt. parametric oscillator cavity mirror crysts. 40091
$LiNbO_3$ CW opt. parametric oscillator near 2.1 μm 31579
$LiNbO_3$ waveguides, quasi-phase-matched opt. parametric amplif./oscill. 23381
$LiTaO_3$ surface emitting FIR by difference freq. mixing 7802

optical retarders *see optical elements*

optical ring resonators *see optical resonators*

optical rotation
see also Faraday effect; Kerr magneto-optical effect
2D feedback nonlin. opt. syst. with field rot., diffractive patterns 7752
bihelicoidal laser eigenstate opt.-activity meas. 42960
Brillouin opt. fiber gyro ring-resonator, state of polariz. anal. 42822
calcite plate integrated polariz.-opt. logic proc. 1755
chiral surfaces, second-order opt. activity, elec. and mag. contribs. 40097
crysts., opt. second harmonic susceptibilities and opt. activity 7762
dark 3D spatial solitons in a Gaussian laser beam, nonlin. rot. 2127
dyn. holography with arbitrary waves, multiwave mixing procs. 40167
ferroelec. thin films, ferroelec.-opt. memory 14082
ferroelec.-opt. memory on ferroelec. thin films 30836
germanosilicate glass opt. fiber, photoinduced birefr. rot. 30891
glass-forming FLC material of high second-order nonlin. 7729
gyroelectric chiral media, field representation by cylindrical vector wavefunctions 31887
gyrotropic medium, light freq. translation, electro-optic modulation 30994
gyrotropic planar opt. waveguides, Bragg diffr. of light by ultrasound 1707
helicenes, chiral opt. nonlin. 15094
high-opt.-isolation low-loss moderate-switching-speed NLC opt. switch 1746
isotropic fibers, rot. vector solitary waves 23437
laser alignment meas. syst. based on opt. activity, adaptive noise cancelling 31691
liqs. and solns., opt. act., nonresonant opt. rectification 23376
monomode fibre torsion state-of-polaris. rotator *(German)* 22855
multimode fibre, plane of polariz. rot. 39322
nonreciprocal integrated optic couplers, magneto-optic materials, design 14413
phase retarders, metallic grating based, laser cutting appls. 125
planar coupled magnetooptic waveguide, mode conversion 39415
polariz. insensitive fibre-optic white-light interferometry 34521
polymer amphiphiles LB films, fab., nonlin. optics props. 15089
stress induced opt. activity in piezoelec. crysts. 30575
$Bi_{12}GeO_{20}$ opt. voltage sens., opt. rotary power 17756
$Bi_{12}Si_{O20}$, polariz. props. of transm. and diffr. 14321
$Bi_{12}SiO_{20}$ photorefr. cubic media far from paraxial limit, wave coupling anal. 40062
CdTe detectors, semi-insulat. material prep., internal field distrib. 4212
Er,Yb-doped tunable fiber sliding-freq. soliton laser 14765
Er-doped pass. mode-locked fiber laser based on polariz. rot. in MQW waveguide 23123
$Ho_3Fe_{5-z}Al_zO_{12}$ garnet single crysts., magnetooptical props. 14172
Na vap., laser beam switching dyn. 40111
Rb 532 nm Stark anom. dispersion opt. filter 39540
$(TbBi)_3(FeGa)_5O_{12}$ garnet film current/mag. field sens. by Faraday effect 42884

optical saturable absorption
acetylene, saturated-absorpt. lines, HF-stabil. laser 39829
bottleneck opt. limiters, excited-state absorbers 2047
chromophore-incorp. polymers for nonlin. optics, two-photon absorpt. and photodegradation 15138
colliding-pulse mode-locked QW laser dyn. response simul. 23236
DBR LD wavelength conversion device 23196
dye impregnated polymer lasers, beam control elements 7541
dye lasers, phase-polarizing wavelength selector, generation characts. 39689
dye-doped sol-gel coated fibre optic LED based O_2 sens. 9926
dyes, intracavity saturable absorbers, absorpt. recovery lifetimes 23352
erythrosin-B-doped polymer films, phase-conjug. wave generation, phase change 23393
fiber Raman soliton laser for fs opt. pulse generation 1874
fibre lasers, pump induced modulation by saturable absorpt. opt. switch 31238
four-wave mixing sig. in freq. space charactn. 7743
four-wave mixing sig. in semicond. amps., high saturation behavior 31515
functionalized polymers, nonresonant opt. Kerr nonlin. 40098
Gaussian beam propag. in nonlin. saturable medium 7760
indanthrone/indanthrone derivatives, excited-state reversable saturable absorpt. 2098
laser with saturable absorber, transverse pattern dyn. 7751
metallo-organics, saturated excited state absorptive limiters 31589
metallophthalocyanine doped polymers, opt. limiting study 31588
methane mol., saturated absorpt. reson., R-line 7734
MQW LD mode-locking proc., transient gratings *(Chinese)* 39795
multielectrode lasers, microwave small-sig. equiv. cct. model 14849
multistable single-mode emitting solid-state lasers 14807
nonlin. opt. loop mirrors, saturable absorbers, picosecond solitons 7298
optoelectronic PLL freq. stabilise quantum well laser 7656
organic dye solns., nonlin. light absorpt. 31591
organically-modified sol-gels, opt. limiting study 31588
oxide/fluoride/chalcogenide glass fiber comps. and config. 7295
photodelineated electro-optic polymers, GRIN profiles and loss mechanisms 14456
poly(1,6-N-carbazolyl-2,4-hexadiyne), third-order opt. props. 15095
polydiacetylene DCHD highly oriented film, fs. nonlin. opt. response 23396
polydiacetylenes, nonlin. opt. props. 15053
polymer film electro-optic modulators/waveguides 39489

optical saturable absorption continued
polymeric optochips, splitters, switches and modulators 14502
pseudoisocyanine J aggregates, third-order opt. nonlin. 15096
quantum dot/wire struct., nonlin. optics 7738
quantum freq. ref., two-beam cell/multibeam interferometer, self-focusing 23430
rare earth-doped fiber clusters charactn. by transm. meas. 22848
self-limited additive pulse mode-locking laser models 31249
semicond. laser amps., absorptive/dispersive nonlin. 31494
semicond. laser freq. stabilization, Faraday effect/saturated absorpt. 14848
spectrosc., diode-laser phase noise 2084
stable soliton transm. in nonlin. nonlin. amplif. loop mirror gain syst. 42459
storage ring solitonlike pulse stabilization, slow saturable absorber 22792
tetrabenzporphyrins in solns., third-order nonlin. opt. interacts. 7782
three-level medium, reson. radiation propag., nontrivial induced lenses 31610
two-mirror laser, saturable absorber, bistable operation 23340
variable attenuator for KrF laser radiation 39679
vert.-cavity SELs, self-pulsations 14992
Ag-halide bleached emulsions, shear angles in holographic gratings 2132
BaF_2 calorimeter, cryst. props., detector possibil. 26195
C_{60}/toluene solns., opt. limiting mechanisms 23433
CO_2 laser with saturable absorber, nonlin. dyn. 23078
CO_2 multimode laser with a saturable absorber, multistability 7518
CO_2-laser generation, intracavity saturable absorber 39666
CS_2, third-order nonlin. opt. susceptibilities, picosecond pulses 31534
$Ca_5\ (PO_4)_3\ F:Er^{3+}$, Q-switch saturable absorber materials 1902
$CaF_2:Er^{3+}$, Q-switch saturable absorber materials 1902
CdS, nonlin. dyn. of opt. switching fronts 23451
CdS_xSe_{1-x}-doped glass, energy level struct., opt. bistability 31598
$Cr:LiSrAlF_6$ pass. mode-locked laser, antiresonant Fabry-Perot saturable absorber 23142
Cr^{4+}:YAG, saturable absorber for Q-switched Nd:YAG laser 40064
CuInSSe-doped glass saturable absorbers for pass. mode-locking of Nd lasers 7726
$Er^{3+}:Ca_5(PO_4)_3F$, saturable absorber Q-switch materials for solid state lasers 14838
$Er^{3+}:CaF_2$, saturable absorber Q-switch materials for solid state lasers 14838
Er^{3+}:ZBLAN fiber laser, 2.7 μm output saturation 39701
Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
Er-doped fiber laser mode locked by semicond. saturable absorber 31235
GaAs/AlGaAs MQWs, nonlin. index saturation in bandtail absorpt. region 13172
GaAs/AlGaAs, in-plane strained, polariz. depend. excitonic opt. nonlin. 23424
GaAs/AlGaAs tunnelling MQW struct., picosecond opt. sig. recovery 31519
GaAs-AlGaAs MQW, nonlin. opt. cross sect. 13187
GaAs-AlGaAs, field-effect LD, picosecond, saturable absorpt. 2005
GaAs-GaAlAs waveguide saturable absorber, carrier heating dyn. 2109
a-$(GeS_2)_{100-x}Ga_x$ films, irreversible photoinduced changes 22189
HCN saturated absorpt., 1.5-μm freq. refs. for LD freq. stabilization 23400
$Ho:YLiF_4$ saturable absorber Q-switch for 2-μm $Tm,Cr:Y_3Al_5O_{12}$ laser 15055
InGaAs/GaAs strained [111]-oriented MQW, carrier and screening dyn. 29905
InGaAs/InAlAs:Be superlattices, ultrafast opt. nonlin., MSM-PD appls. 2105
InGaAs-AlAs strained p-i-n modulator, ultrafast recovery time 22939
InGaAsP/InP lasers, Q-switched pulses 14875
K magnetometer, opt. pumping, saturated absorpt. 34462
KrF, multipass excimer amp., saturable absorber, pulse compression 1854
$Mg_2SiO_4:Cr^{4+}$, absorpt. saturation, pass. laser switch appls. 31547
Nd:YAG lamp-pumped laser, opt.-Kerr-enhanced mode locking 23179
Nd:YAG mode-locked laser antiresonant Fabry-Perot saturable semicond. absorbers 31244
Nd:YAG pass. Q-switched transverse-diode-pumped laser oscillator *(Chinese)* 14797
Nd:YAG, saturable amp., pulsed phase conjug. modeling 2065
Nd:fibre laser, quenched ion fluoresc., radiative lifetime 39705
Nd-doped fibre switching by fast relax. of reson. nonlin. 31621
Nd-doped phosphate glass waveguide laser, pass. Q-switched 1917
SiO_2 opt. fibers, photoluminesc., Raman scatt. 22813
SiO_2-GeO_2 fibres, Bragg grating, UV writing, spectra 15038
SiO_2-GeO_2 preforms and fibres, UV photosensitivity 39334
$SrF_2:U^{4+}$, Q-switch saturable absorber materials 1902
$Ti:Al_2O_3$ laser cryst. conc. quenching and mechanism of reson. energy transferring *(Chinese)* 15065
$Ti:Al_2O_3$ laser, flash-lamp-pumped, hybrid mode locking 1918
Ti:sapphire self-starting soliton modelocked laser, semicond. saturable absorber 23176
$U^{4+}:SrF_2$, saturable absorber Q-switch materials for solid state lasers 14838
$Y_3Sc_2Ga_3O_{12}:Co^{2+}$ saturable absorber Q switch for IR Er lasers 23331
$Y_2SiO_5:Cr^{4+}$, absorpt. saturation, pass. laser switch appls. 31547
$Y_2SiO_5:Cr^{4+}$ broad-band solid-state saturable absorber for Cr:LiCAF laser 31295
Yb,Er:phosphate glass, pop. dyn., Nd laser pumping 23163

optical saturation
see also optical saturable absorption
1300 nm gain-clamped MQW laser amps., reduced IMD 34006
1300 nm MQW laser amplifer for opt. commun. 9456
ASE lasers, collisional-cross-relax. effects 1844
asymmetric spatial soliton dragging opt. logic gate 15043
bacteriorhodopsin dyn. recording material, polariz. props. of four-wave interact. 2088
bad-cavity laser, quantum-limited linewidth 15018
Beijing FEL saturation on undulator replacement 39938
book, bistabilities and nonlinearities in laser diodes 58
bright spatial solitons in saturable nonlin. self focusing media 7753
Compton FEL oscillators, sideband instabilities, electron dyn. 40009
couplers, saturable nonlin., stationary soliton states 31497
dBm semicond. opt. amplifer booster module for high-bit-rate transm. systs. 17228
FEL at UVSOR, micro-macro temporal struct. and saturation mechanism 39956
fibre couplers with saturable nonlin., stationary soliton states 30907
fibres, nonlin. guided wave anal., reson. tech. 22830
FIR gas lasers, bi-directional pumping, Lamb-dip line shape 31170
glass fibres, doped, self-saturation, self-organised SHG 22862
graded opt. elements in solid state laser resonators 14998

optical saturation continued
laser mode-locking with nonlin. mirror, analytic soln. 39720
lin. regime photorefr. kinetics, light phase-shifts 30811
multimode VCSEL, noise perform. 1984
nonlin. directional couplers, saturation and nonlin. asymmetrical distrib. effects 39427
nonlin. planar opt. waveguide MOL and FDBPM simul. 40432
OTDR testing, transient gain compression 10045
Raman FEL, freq., phase and saturation characts. 23310
rhodamine dye colloid solns., scatt. media, laser action 31203
semicond. laser amp. based switching struct., gain saturation effects on size limitations 23251
semicond. opt. amp. switch gain optim. 39879
tapered nonlin. waveguides, num. simul. of pulse propag. 40431
terrylene single mol. in hexadecane, emission rate, saturation intens. 23375
TW semicond. laser amps., four-wave mixing 31395
two-freq. undulator FEL, space-charge effects 14985
vert.-cavity semicond. laser amps., perform. predictions 1998
wavelength converters based on four wave mixing in semicond. opt. amps. 42385
C_{60}, O_2 doped and photopolymerized, nonlin. opt. props. 23397
CO_2 laser, relax. time of phase-conjug. refl. via four-wave mixing 1850
CO_2 subnanosecond multi-gigawatt laser 23099
Er-doped fiber amp., transient anal. 14737
Er-doped fiber amps., optimized noise perform. for AM-VSB distrib. systs. 7555
Er-doped refl. insensitive fiber amp., isolator insertion 31215
Er-doped upconversion-pumped fiber amp. noise fig., theory 1881
GaAs MQW directional coupler waveguide saturable Kerr effect 15118
GaAs/AlGaAs FET-SEED, smart pixels and saturation charact. 14657
GaAs-AlGaAs proton-implanted MQW modulators for low-photocurrent SEEDs 14528
InGaAs/InP PIN waveguide photodetector, high saturation intens. 7463
InGaAs/InP waveguide photodetector, saturation intens. 34512
InGaAs-InGaP MQW opt. modulators, saturation intens. 22935
InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
$LuLiF_4$:Ce^{3+}, broadband UV amplif. medium 23444
Na narrowband wind-temp. lidar syst. sensitivity anal. 43503
Nd:YVO_4 diode-pumped microchip amp., efficient DFWM 40080
Nd^{3+}:YAG DFB lasers, modulation bandwidth, nonlin. effects influence 23341
Pr-doped opt. power fiber amp., saturated output power of +18 dBm 9602
Pr^{3+}-doped fluoride fiber amps., gain dyn. anal. 31217
Si/SiO_2 amorph. QW struct., dispersive subband-reson. nonlin. 1146
SiO_2:Ge planar waveguide, seeding, static elec. fields 39381
$Sr_{1-x}Ba_xNb_2O_6$:Cr, broadband photorefractivity 30825
Ti:sapphire chirped-pulse amplif. beyond 1 μm 23178
Ti:sapphire high intens. femtosecond laser syst. *(French)* 1891
Tm-doped ZBLAN blue upconversion fiber laser theory 39710
Yb:$Sr_5(PO_4)_3F$ 1.047-μm energy storage opt. amp. 39730

optical scanners
see also image scanners; mark scanning equipment; optical deflectors
2D large scale laser digitizer, with cordless cursor 25769
airborne laser scanner meas., filtering and calib. 43484
CMOS latchup detect., low cost laser scanning tech. 30450
digital opt. microphone and digital transducer 42645
dual gate MOS-JFET CCD test struct. 34584
fan-/cone-beam projection synthetic scanner array tomographic reconstructions 26320
high-sensitivity DNA anal., laser-excited confocal fluoresc. scanning 26292
holographic disk scanner, rectilinear laser beam scanning 23453
human body surface, colour 3D electronic imaging 34566
laser imaging radar, nonlin. of rot. mirror scanning 17446
laser scanners, OS *(German)* 40175
laser scanning imaging systs., modulation waveform effects on S/N ratio 40172
mach. wear particle anal. by fiber-optic confocal laser scanning microscopy 31695
miniaturized micro-opt. scanner lens arrays 9646
moving magnet opt. scanners, scanning speed and accuracy 31057
multi-beam, 2D binary optics laser scanner 39444
p-i-n photodiode defect localization by laser scanning microscopy 40174
patterned wafer inspection, IC yield/cost-of-ownership factors 37157
polygonal scanners for TV/HDTV laser projectors 3662
pushbroom scanners with large lin. arrays, odd/even detector noise removal 16260
scanning laser vibrometers, directing meas. point 31693
seafloor imaging at close range, underwater laser syst. 18905
semicond. device defects, image display/anal., laser scanner 32818
two-mode fiber-optic time-delay scanner for white-light interferometry 25854
underwater opt. imager for subsea inspection/mapping 18904
white-light scanning fiber Michelson interferometer for absol. posn.-dist. meas. 42832
$Bi_{12}SiO_{20}$ SLM-laser scanner hybrid joint transform correlator 33082
PLZT-based scanning grating lobe opt. array generators, design and simul. 14523
Si micromachined 2D galvano opt. scanner 17719
Si wafers, photocurrent imaging, electrolyte contacts 31069

optical scattering *see light scattering*

optical self-focusing
see also electrostriction; Kerr electro-optical effect; optical Kerr effect
bright spatial solitons in saturable nonlin. self focusing media 7753
dark 3D spatial solitons in a Gaussian laser beam, nonlin. rot. 2127
depth-from-defocus, camera aperture change, spatial domain 2753
fibre, coupling efficiency, tolerance 1694
HE_{11} mode beam, nonlin. propag. in opt. fiber, distorted parab. refr. index profile 39348
laser beam, transverse blowing, thermal self-action reduction 7718
MQW VSCEL, gain-guided, transverse mode num. anal. 31469
nonlin. media, bichromatic field interact., induced self- and cross-focusing study 40069
nonlin. polar crysts., photonic superguiding state 15125
nuc. pumped lasers, combined wall and vol. pumping, thermal blooming 2110
opt. radiation self-action in medium, cubic nonlin. 31612
photorefr. crysts., Gaussian beam compression, self-bending, and collapse 2068
photorefr. medium, opt. beam propag. 23435

optical self-focusing continued
polyphenyl, didecyloxy substituted, third- and fifth-order opt. nonlin. 2111
pulsed solid-state lasers, self-focusing, self-mode locking 31291
PV photorefr. materials, dark and bright spatial solitons 7804
quantum freq. ref., two-beam cell/multibeam interferometer, self-focusing 23430
rare gases, harmonic generation, multiphoton ionisation effects 2083
semicond. laser amp. laser beam stabil. 23212
thiophene, bisbenzethiozole-substituted, third- and fifth-order opt. nonlin. 2111
third-harmonic generation, wave mixing, soliton states 15029
two-color Z-scan tech., enhanced sensitivity 40023
vortex soliton dyn. in Kerr nonlin. materials 31509
$Bi_{12}SiO_{20}$ cryst. opt. limiter, effective nonlin. 30832
CdS film, luminesc., all-opt. absorptive and dispersive bistabilities 1792
Na vap., nonlin. laser beam propag., phase sing. 31526
Ti:sapphire chirped-pulse amplif. beyond 1 μm 23178
Ti:sapphire high intens. femtosecond laser syst. *(French)* 1891
ZnCdTe, electron-hole plasma, refr. index, opt. nonlin. 15107
ZnTe, electron-hole plasma, refr. index, opt. nonlin. 15107

optical self-induced transparency *see self-induced transparency*

optical sensors
used for sensing by optical means
see also fibre optic sensors; magneto-optical sensors
2D intell. photosensor array, MInOSS project 17797
3D free-form surface noncontact opt. profile sens. *(Japanese)* 42941
3D laser-based sens. for robotics 17763
3D profiles noncontact meas., opt. sens. *(Japanese)* 42943
advanced rem. sens. simulator, geometric mapping 26530
apposition cpd. eye opt. sens., design and anal. 34466
artificial cpd. eye opt. sens. array 9852
AVIRIS calib. of Japanese Earth Resources Satellite-1 opt. sens. 17959
blood leakage detect., opt. sens. syst. 10208
chilled mirror dew point sens. optics 17757
closed-loop adaptive-optics optimisation, multiple control bandwidths 3776
CMM, interf. probe head 17729
contracting muscle, skin/muscle blood flow discrim. 18522
develop. technol. overview *(Japanese)* 17802
displacement sens. with opt. feedback, LD 18097
distributed sens., grating Fabry-Perot interferometers 17740
dual-probe interferometers for accurate surface wave meas. 9870
dye color/conc. detect. by realtime opt. sens. *(Japanese)* 18138
electro-opt. E field sens., SAR distribs. prediction, hyperthermia appl. 43354
evanescent-field planar waveguide sens., mode-independent atten. 42768
fluorescent opt. probes, phosphoresc. sigs. reemitted from tissues 17971
GaAs-AlGaAs monolithically integrated interferometric opt. sens. 1835
generation of image data for Mars mission, verification for WAOSS 43441
GTAW, sync. weld pool oscill. monitoring/control 5618
head tracking autostereoscopic display, syst. perform. requirements 34622
high precision opt. meas. methods 18061
high-Q opt. cavities and mirrors, laser gain meas. 7705
integrated opt. sens. review *(Spanish)* 9851
integrated optics evanescent wave sens., atten. losses 39375
intell. opt. sens., multilayer opt. neural net, analogue VLSI 9938
intell. sens. for metal ions, fluoresc. reson. based 25782
IR opt. transducer for force meas., appl. *(Croatian)* 25839
laminate materials, alignment, sens.-based robot techs. 110
laser beam machining delivery control syst. *(Japanese)* 37061
lateral displacement sens., 4Q detector 18090
LEOS, San Jose, CA, USA (1993) 20270
master slice-type transimped. amp. photosensors, PIN-bipolar proc. 25835
micromechanical Mach-Zehnder interferometer, Si IC compatibility 42808
motor speed monitoring syst., PC based, noncontact 10961
multiple-refl. beams for simplified heterodyne interferometers 17705
New Wireless LinguControl 43370
oils, crude and refined, rem. charactn. by laser fluorosensor syst. 35357
opto-electronic interferometric sens. ccts., CAA/CAD 17761
PCB, through-holes, inner wall defect inspection *(Japanese)* 38074
photon counting opt. sens. develop. trends *(Japanese)* 17803
plant-monitoring technol. develop. 27285
polyaniline, ellipsometric sens., spectral response 3819
polyimide planar waveguide for alkane vapour conc. monitoring 42865
posn. sens., source width insensitive 17782
primary sig. sens. optimisation for fabric defect detect. 34507
process industries appls., conf., Germany (1994) 5486
profilometry by phase-shifted Talbot images 17727
pulsed IR dist. meas. sens. ccts. for weapon systs., ASIC implement. 10587
quartz piezoelectrically-operated opt. chopper, micromachining, sens. appls. 30597
read-only opt. head, posn. sensitive detect. syst. 14345
rem. multimedia presentation syst., pointing stick 9028
ring laser gyroscope design, spatially resolved eigenstates for travel-ing/standing waves 14997
road vehicle opt. detector, range finding method 42770
robotic plasma arc cutting, laser sens.-based 126
scanning in white light interferometer, tunable laser 17754
self-excited chopper, quartz micromachined, opt. sens. appl. 30978
Si integrated optics for sens. 7378
spatial filter sens. for ground speed meas. 42760
stratified liqs., opt. detector for internal waves amplit. 4386
supercond. opt. detector principles and characts. *(Japanese)* 17805
surface-plasmon-reson. biosensor, particle-enhanced sensitivity 34602
thermochromic props. of bis(β-diimino-tetracyano-pyrrolizinido)Nickel(II) 42774
thermomechanical pulping, adaptive refiner control syst. 10042
time-freq. distrib., laser radar backscatt., FM demodulation 34166
trace gas sensitive detect., laser opt. lever 3907
triggering in rot. dielec. spark gap 11204
US opt. sens. for monitoring indust. surfaces 18944
wave-front sens., closed-loop adaptive optics syst., error propag. 14567
waveguide-coupled surface-plasmon sens. for aq. environ. 3822
X-ray aligner, through-the-mask alignment sens. 13480
Ag^+-Na^+ ion exchange channel waveguide for multimode planar refractometer 30930
$Bi_{12}GeO_{20}$ opt. voltage sens., opt. rotary power 17756
InGaAs 3.3 μm LEDs for detecting methane gas, RT 1820
InGaAs-InAlAs mid-IR LEDs for opt. gas sens. 31106
$LiNbO_3$:Ti(H^+) anisotropic opt. waveguides, leaky modes 39428
$LiTaO_3$ electro-optic probes, guided polariton generation 39478

optical sensors continued
PZT/YBaCuO heterostruct. capacitor, photoresponse, fast opt. readout 30595
Ru(bpy)$_3^{2+}$ luminesc. probe, microenvironmental studies 34612
Si, anisotropically etched mirrors for opt. sens. appls. 37409
Si hybrid opto-electronic sens. syst. 31115
Si range finder, realtime range finding VLSI sens. 34568
Si-on-sapphire photoconductive probes, fab. and charactn. 7464
TiO$_2$:Nb(Cr) thin films, RF reactive sputtered, optoelectronic/gas sens. appls. 39546
TiO$_2$-SiO$_2$ sol-gel film opt.-chem. sens. 3812

optical shutters *see optical elements*

optical signal detection
CCD-based tracker for laser commmunication pointing acquisition and tracking control 17304
CDMA commun. systs., all-opt. lin. detect. 42364
CDMA opt. systs., bipolar codes 42352
coherent opt. controlled phased array antenna syst. 7324
coherent RF sig. combining in phased array, photonic techs. 9539
coherent-OTDR, reduction of stochastic amplit. fluct. 18121
compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
coning scan imager, point detect. 2608
deep-space commun., coherent detect. opt. relay satellite 17298
deep-space commun., direct detect. opt. relay satellite 17293
deep-space commun. via relay satellite, RF and opt. archits. 17285
delay line RF filter, SEL diode array 7421
delay-and-multiply opt. FSK receivers, line-coding, anal. 42345
dielec. surface asperities, near-field opt. detect. 31792
differential overlapping PPM in opt. direct-detect. channel 17269
direct detect. opt. systs., LMS filters, ISI reduction 9607
direct detect. opt. systs., zero-forcing elec. filters 41099
direct-detect. channel, coded multi-pulse PPM perform. 8170
direct-detect. channel, differential overlapping PPM 15706
discs, pit models, light-beam scatt. *(Japanese)* 7270
DPSK/heterodyne detect. scheme, two polariz. planes *(Japanese)* 17265
electro-opt. sens., point source algms. for optimum acquisition range 15866
externally modulated analog opt. links, dyn. range 9537
extremely small dia. thread detect., sig. proc. method 25748
fibre intens. modulation/direct detect. systs., dispersion limit 42373
FSK-FDM heterodyne detect. syst., cross-PM 17217
heterodyne/homodyne opt. receiver design 42369
intens. modulation/direct detect. opt. commun. syst., optimum sig. detect. 34076
inter satellite cross links, non-mech. laser beam steering/spoiling methods 17308
intersatellite commun., heterodyne opt. detect./spatial tracking syst. 34077
IR seeker, scan modulation meas./modeling 43582
laser binary FSK communication, integrated heterodyne receiver/spatial tracker 17296
laser commun., acquisition and tracking, CCD 17306
laser commun., Fabry-Perot interferometer for freq./spatial tracking 17312
M-ary opt. polariz. modulation detect. in commun. channel 17318
MM-wave modulated opt. sigs., heterodyne reception, HEMT 3544
multi-pulse PPM,, optimal/suboptimal frame synchronizers 40565
multigigabit opt. networks, direct-modulation/direct-detect. 17272
non-destructive opt. fiber talk-set *(Japanese)* 42397
Optical Communications Demonstrator, control proc. syst. archit. 17314
overlapping multipulse PPM in opt. direct-detect. channel, error perform. 8259
phase/freq. detectors for opt. transm. systs. clock sync. 3568
photodetectors, sig. detect. limits 3827
photonic transport networks, opt. path cross-connect node archit. 16983
polariz. shift keying, opt. digital transm., direct detect. 42344
PPM sigs., airborne/underwater opt. commun., optimum detectors 41100
preamplifier ASK syst. perform., incomplete ASK modulation, influence of ASE/laser phase noise 25531
read-only opt. head, posn. sensitive detect. syst. 14345
semicond. components for opt. amplif./modulation/detect. 42472
spatial opt. CDMA 42351
sq. synchroniser jitter on direct detect. opt. commun., white cct. noise 3577
unsynchronised opt. overlapping PPM channel coding 42357
video path params. of analog dissection of astrotransducers 8266
weak opt. sig. detect., opt. parametric amplif. 17320
Er-doped fiber amp. preamplified receiver perform. eval., ISI 25527

optical solitons
1.5-μm phase-sensitive opt. parametric amp. for ultrahigh-speed commun. 9604
2.5-Gbit/s return-to-zero integrated DBR laser/modulator transmitter 9459
(2+1)-dimens. fund. spatial dark soliton 31544
10 Gb/s single-channel high-capacity soliton syst. design 17352
10 Gbit/s periodically amplified WDM soliton syst., filtering effects 17267
10 Gbit/s soliton transm. expt., 1 Mm, 105 km amp. span 25475
10 Gbit/s transm. up, 27 Mm, sig. freq. sliding 17232
20 Gbit/s, 100 km spacing, 1000 km soliton transm. syst., robustness 42456
40 GHz multisoliton pulse propag. in dispersion varying opt. fiber cct. 9468
70 terabit.km/sec soliton transm., packaged hybrid soliton pulse source 17351
400 nm/3.4 μm fiber components and lasers 7562
1300 nm MQW laser amplifier for opt. commun. 9456
ACOFT, optical fibre technol. conf., Australia (1994) 28253
act. mode locked LD, soliton-forming pulses in fibre 7789
act. mode-locked telecomms. semicond. lasers, soliton generation 31415
adder based on soliton interact. props., theoretical model 14557
all-fiber sync. soliton source 7317
all-opt. soliton control for long dist. fibre transm. and opt. memory 7758
all-opt. switching by spatial vector soliton collisions 3296
amplit. noise, timing jitter, suppression/control 7759
ARROW nonlin. directional coupler soliton switching 40106
asymmetric spatial soliton dragging opt. logic gate 15043
bandwidth-limited amplified soliton transm., stabil. anal. 23374
bandwidth-limited soliton propag. in opt. fibers, higher-order effects 23363
birefr. fibres, bound multiple soliton interacts. 22856
birefr. fibres, polaris. instabil. threshold 14365
birefr. fibres, solitons 7297
birefr. nonlin. dispersive media, vector solitary wave stabil. 15032
birefr. nonlin. opt. fibres, phase-locked stationary soliton states 31557
birefr. opt. fibers, ellipt. polarised solitons 2124
birefr. opt. fibres, bright N-soliton trains propag. 39361

optical solitons continued
bright spatial solitons in saturable nonlin. self focusing media 7753
bright spatiotemporal solitons in planar opt. waveguide 15124
bright/dark solitons, cascaded second-order effects 31619
cascaded nonlin.-opt. loop mirror soliton switching 23379
Cherenkov type radiation emitted by opt. fiber solitons 31622
colliding-pulse-modelocked quantum well laser, 15.8 Gbit/s syst. transm. expt. 25502
colloquium, optical solitons, London, UK (Nov. 1994) 62
conference, nonlinear optics appls., Miedzyzdroje, Poland (1994) 20243
couplers, saturable nonlin., stationary soliton states 31497
cubic nonlin. opt. media, multidimensional solitons 2069
dark 3D spatial solitons in a Gaussian laser beam, nonlin. rot. 2127
dark opt. bullets in light self-trapping 23416
dark opt. solitons, Lagrangian approach 23355
dark soliton interact., periodic wave 40072
dark soliton-like pulses, quasi-continuous train generation 2126
degenerate parametric oscillators, ultrashort-pulse generation 40089
DFB lasers and solitons 15060
DFB semicond. laser, 1.55 μm, 185 fs pedestal-free pulse gen. 23186
dielec. media ultrashort solitary-wave propag., reson.-dominated chromatic dispersion 40112
dispersion mismatched nonlin. fibre coupler logic operations 30916
dual-core fibres, soliton interacts. 14387
femtosecond fiber lasers, third-order dispersion 1873
femtosecond soliton transm., pol. depend. of soliton interacts. 34019
femtosecond temporal and spatial soliton num. simul. in nonlin. optics 40055
Fermi-Dirac kink propag. in high-order nonlin. media 40031
fiber, periodically modulated core diam., multi-soliton fission 31533
fiber, soliton propag., Fourier-series approach 39326
fiber bandwidth in opt. amp. links 9597
fiber jn., opt. soliton tunnelling 7328
fiber lasers, filtering optim. 14736
fiber lightwave syst. nonlin. optics 34059
fiber loss, soliton propag., Fourier series anal. tech. 22815
fiber optic LAN, RIB interface, soliton-dragging gates 41823
fiber Raman soliton laser for fs opt. pulse generation 1874
fiber soliton propag. by phase-sensitive amplif., quantum noise reduction 34025
fibers, Raman noise and soliton squeezing 31504
fibers with discrete amps., soliton pulse trains 40037
fibre additive-pulse mode-locking/limiting storage ring 3546
fibre arrays, solitons, pulse dyn. 22833
fibre couplers with saturable nonlin., stationary soliton states 30907
fibre lasers, soliton polariz. rot. 23138
fibre link, interact. soliton Gordon-Haus distrib. 23443
fibre link systs. 4000 km long, perform. comparison 42377
fibre nonlin. directional couplers, opt. soliton switching *(Japanese)* 30902
fibre optic commun. systs. *(Japanese)* 3567
fibre polariz. mode dispersion compensation by Kerr effect for nonreturn-to-zero sigs. 22820
fibre ring laser config. studied by collective coord. 14996
fibre ring long-term soliton bit stream storage by phase-sensitive amplif. 22786
fibre soliton propag. quantum noise reduction by phase-sensitive amplif. 1668
fibre soliton self-freq. shift, mol. oscill. period 23356
fibre soliton self-freq. shift compensation, phase-sensitive parametric amps. 23358
fibre soliton self-freq. shift recovery by opt. phase conjug. 2067
fibre soliton transm., up/down-sliding-freq. guiding filters 40077
fibre soliton transm. control for ultra high speed syst. 34017
fibre transm. line, opt. soliton commun. 25474
fibre transm. systs., polaris. domain solitons 31624
fibres, self-Raman effect, self-consistent quantum theory 14407
fibres, soliton generation, 1.06 μm 30860
fibres, spectral filtering, nonlin. gain, soliton sing. 40090
fibres, subpicosecond soliton-like pulse propag. 22861
fibres, third-order dispersion effects on squeezed soliton propag. 22809
fig.-of-eight fibre laser for soliton transm. expts. 42453
freq.-guiding filter in opt. soliton transm., peak curvature meas. 9425
fs harmonically mode-locked fiber laser, time jitter below 1 ps 23130
fs opt. solitary wave propag. at the zero dispersion point, nonlin. dyn. 22814
gain-switched LD, femtosecond opt. pulse generation, soliton compression 7613
gap soliton propag., interface effects, effective particle picture 31628
Gaussian beam propag. in nonlin. saturable medium 7760
Gaussian beams and pulses, nonlin. propag. in Kerr media 23445
glass-based switches, BPM simul./design 17167
Gordon-Haus effect reduction on dark solitons of nonlin. gain 30876
high-order opt. soliton splitting under two-photon absorpt. 31629
in-fibre grating systs., pulse compression, dispersion charact. 39341
inhomog. broadened media, SRS, soliton propag. 40075
init. overlapping soliton interact. 7798
IR lasers, conf., Ascona, Switzerland (1994) 5485
isotropic fibers, rot. vector solitary waves 23437
long dist. fibre commun., solitons 17185
long dist. opt. soliton commun., optimal design *(Chinese)* 9532
long haul WDM fibre soliton transm., filtering 3587
long-dist. soliton transm., 20 Gbit/s, alternating-amplit. solitons and opt. TDM 34018
long-haul soliton transm. syst., fibers, dispersion distrib. 39365
long-haul submarine commun. systs., soliton transm. implement. 9484
Mach-Zehnder modulator output, soliton pulse compression, 40-GHz pulse train generation 14533
multi-freq. spatial solitons in Kerr media 15041
multimode fibres, singly-clad, modal dispersions anal. 22818
multisoliton fibre interacts. and WDM 23417
n-core nonlin. fiber arrays, stationary pulse propag. 30877
near-Kerr nonlin. media, soliton internal friction and inelastic interact. 31627
nonlin. coupler laser, subpicosecond soliton form., num. simul. 2045
nonlin. couplers, soliton switching, variational approx. 31495
nonlin. fibre couplers, radiation effets on soliton dyn. 31626
nonlin. fibre/waveguide array, soliton-based opt. switching 31630
nonlin. opt. loop mirrors, saturable absorbers, picosecond solitons 7298
nonlin. polar crysts., photonic superguiding state 15125
nonlin. Schrodinger eqn. soln. by coupled amplit.-phase formulation 23373
nonlin. waveguide arrays, spatially solitary wave evol. 39426
nonlin. waveguides, coupled soliton states dyn. 31611
nonlin.-opt. loop mirror/fibre Bragg grating, bandpass switching 31499

optical solitons continued
nonuniform gratings, gap solitons, launching power estim. 15036
normal dispersion regime, spatio-temporal coupling, NLSE approx. 22807
one-mode fiber-optic waveguide, obs. of ps opt. pulses, guiding-center soliton 14361
orthogonally polarised fs soliton self-freq. shift 3559
parametric waveguide simultons(simultaneous fund./harmonic wave propag.) 31620
particle trapping, doughnut beams, CGH 23467
periodic GRIN waveguides with Kerr nonlin., Gaussian beam control 40426
periodic/pseudorandom word modulated LD in fibre soliton transm. 42395
periodically amplified syst. dark soliton sideband form. and stabil. 23360
phase-locked phase-sensitive opt. parametric amp. soliton fibre pulse propag. 40082
photonic ccts. written by dark spatial solitons in defocussing nonlin. materials 31617
photorefr. crysts., Gaussian beam compression, self-bending, and collapse 2068
planar waveguides, spatial solitons polaris. interact. 14475
polariz.-division-multiplexed solitons, freq. sliding/filtering effects 22857
propag. in syst. with spectral filtering, lin./nonlin. gain 31562
pulse sources in opt.-soliton transm., carrier linewidth timing jitter 15052
pulse trains, commun. systs. 9483
pulse transm., soliton source, beat sig. conversion 34052
PV photorefr. materials, dark and bright spatial solitons 7804
quadratic-cubic nonlin. dispersive media, unique solitary-wave polaritons 7803
randomly varying birefr. opt. fiber solitons 30906
recovery, nonlin. amplif. loop mirror 31482
reson. waveguide, self-induced transparency soliton stabil. 39378
second-order nonlin. media, stationary solitary wave propag. 23377
semicond. laser pulse generation, soliton effect pulse compression fibre 39772
semicond. laser spatial patterns/solitons 31616
semicond. lasers, soliton generation, opt. switching appls. 7651
single-mode fiber with two-photon absorpt. and bandwidth-limited opt. gain, solitary waves 31571
slab nonlin. directional coupler multidimensional bisoliton states, stabil. and switching 23368
slab waveguide, polariz. coupling and transverse interact. of spatial opt. solitons 14451
sliding-filter-controlled soliton transm., 20 Gbit/s, 14 Mm 25505
sliding-freq. guiding filters, stabil. of soliton propag. 22802
slowly decreasing dispersion opt. fibers, soliton-effect generation of Raman pulses *(Chinese)* 1667
soliton data transm., polaris./time-domain-multiplexed sigs. 34070
spatial soliton collisions, weak-beam switching props. *(Spanish)* 7757
spatial solitons excitation by second-order Hermite-Gaussian beams 23446
stable soliton transm. in nonlin. nonlin. amplif. loop mirror gain syst. 42459
storage ring solitonlike pulse stabilization, slow saturable absorber 22792
submarine fibre-optic syst. technol., review and future prospects 3574
surfaces and films, transient optics, photon echos 31603
SW FEL, periodic plasma struct. 14986
tapered nonlin. waveguides, num. simul. of pulse propag. 40431
telecomms. opt. fibre ps soliton propag. 14388
third-harmonic generation, wave mixing, soliton states 15029
third-order fibre dispersion effects on soliton-effect compression 31623
three-core nonlin. fibre coupler, soliton self-switching 22832
time/polaris. multiplexed opt. fiber soliton transm. 9467
transform-limited opt. pulse dual-wavelength source for WDM soliton transm. 25489
transm., pulse storage rings, timing maint., stabil. 14347
transm. 90 km, distrib. Er-doped fibres 25476
transoceanic amplified submarine systs., NRZ-zero chromatic dispersion/soliton based designs 42365
transversely moving 2D diffr. laser autosolitons 2075
twin core nonlin. fiber couplers, soliton-effect pulse compression 30917
twin-core fiber long-dist. soliton transm. 23362
ultra high bit rate soliton self-freq. shift and third-order dispersion 17268
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
ultra-long dist. soliton transm., fiber nonlin. 39353
ultrashort laser pulses, Faraday rot. 31608
ultrashort pulsed-beam propag. in Kerr medium 31501
variable nonlin. coupler, soliton switching 14454
vortex soliton dyn. in Kerr nonlin. materials 31509
waveguides, superluminal solitons, nonlin. Klein-Gordon eqn. 15106
WDM channel NRZ, RZ format conversion, single semicond. laser amp. 25503
$X^{(2)}$:$X^{(2)}$ cascaded solitary waves 7801
AlGaAs nonlin. directional coupler, time-domain all-opt. demultiplexing 39377
$Bi_{12}TiO_{20}$ photorefr. cryst., spatial dark solitons, probe beam waveguiding 31536
Er,Yb-doped fiber amp. source of multigigahertz soliton pulse train 7566
Er,Yb-doped tunable fiber sliding-freq. soliton laser 14765
Er doped nonlin. fibre, opt. soliton propag. 40119
Er fiber loop lasers, ultrashort pulse solitons 31229
Er-doped act. fibre laser soliton pulse compressor 1877
Er-doped fiber amp. repeated opt. soliton transm. technol. 42418
Er-doped fiber amplifer, counterpumped first stage suitable for long-haul soliton systs. 9567
Er-doped fiber amplifer subterabit soliton transm., soliton control 9571
Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
Er-doped fibre amp., low-latency soliton logic gates 7799
Er-doped fibre amp. short pulse sources 9482
Er-doped fibre ring laser, asynchronous soliton mode locking 14740
Er-doped opt. fiber amp., commun. appls. *(Japanese)* 3565
Er-doped self starting fiber based soliton laser 14761
Er-doped soliton fiber laser based on pulse width control, chirped fiber Bragg gratings 23129
Er^{3+}-doped fibre dispersion-modified act. modelocked laser, chirped fibre grating 7552
GaAs-AlAs semicond. superlattice deep gratings, nonlin. optics 31631
InGaAs MSM photodetector charactn. by electrooptic LD sampling 23009
InGaAsP MQW modulator/DFB laser integrated light source 30965
InGaAsP monolithic semicond. soliton transmitter 7790
InGaAsP monolithic semicond. soliton transmitter 25530
Nd:glass fibre laser, pass. mode-locked, soliton generation at 1.06 μm 30860
Nd:glass laser pulse shortening by gain reshaping and soliton form. 23153
$Sr_{1-x}Ba_xNb_2O_6$ crysts., photorefr. spatial solitons, theory, expts. 23401

optical solitons continued
Ti:sapphire self-starting soliton modelocked laser, semicond. saturable absorber 23176

optical sources *see light sources*

optical spectra *see spectra*

optical squeezing
DFB QW semicond. laser amplit. squeezing 1965
dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 1705
dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 23801
dye lasers, threshold long. pump power, spontaneous emission influence 14728
Fabry-Perot cavity, opt. bistability, squeezed vac. effects 40096
fiber soliton propag. by phase-sensitive amplif., quantum noise reduction 34025
fibers, Raman noise and soliton squeezing 31504
fibre, opt., propag., quantum noise 14408
fibre soliton propag. quantum noise reduction by phase-sensitive amplif. 1668
fibres, self-Raman effect, self-consistent quantum theory 14407
fibres, third-order dispersion effects on squeezed soliton propag. 22809
injection-locked quantum-well laser, RT amplit.-squeezed light 23256
laser, injected at. coherence, nonlin. theory 2040
non-DFWM oscillators, quantum noise reduction 15039
parametric oscillators, Raman scatt., squeezing props. 15119
quantum-well laser, wavelength-tunable amplit.-squeezed light 31371
semicond. lasers, squeezing bandwidth, Coulomb blockade effects 31373
semicond. microcavities, sub-Poissonian photon generation 31372
two-quantized-mode Raman micromaser model 1841
AlGaAs $\chi^{(3)}$ semicond. waveguides, squeeze-state generation 31505
$GaAs/Al_{0.3}Ga_{0.7}As$ MQW waveguides, pulse squeezed light generation 1721
$KTiOPO_4$ nonlin.-opt. waveguides, quadrature squeezing, ultrashort pulses 40084

optical storage
see also holographic storage; magneto-optical recording; optical disc storage
2D fiber optic bundle image associative memory sync. problem 1656
adaptive joint transform correlator shape retrieval 33007
addressable SLM, image readout 31008
alkali halide cryst. based opt. inform. recording 30831
all-opt. soliton control for long dist. fibre transm. and opt. memory 7758
ART1 neural net memories, fuzzy optoelectronic implement. 31123
associative memory design based on coherent four-wave mixing 1658
ATM cell contention resoln. by multiwavelength fiber loop memory *(English, Italian)* 33989
azo dye doped EO-PVA film, opt. storage character *(Chinese)* 14335
bacteriorhodopsin dyn. recording material, polariz. props. of four-wave interact. 2088
bacteriorhodopsin/protein-based two-photon 3D memories, nonlin. opt. props. 2099
colloquium, optical solitons, London, UK (Nov. 1994) 62
command surface controlled liq. cryst. waveguide structs., opt. inform. storage 14343
computer/telecomms. convergence and develop. 41585
data storage, micromechanical struct. 39029
dual-laser writing scheme for opt. data storage 30839
ferroelec. thin films, ferroelec.-opt. memory 14082
ferroelec.-opt. memory on ferroelec. thin films 30836
fibre additive-pulse mode-locking/limiting storage ring 3546
fibre optic faceplate, colour image storage 30872
fibre ring long-term soliton bit stream storage by phase-sensitive amplif. 22786
freq. selective opt. memory recording dens. increase 30829
full-text inform. delivery, electronic, US infrastructure 16546
heptamethine thiapyrylium IR tunable laser dyes of superior photostability tunable 14723
higher-order opt. quaternary signed-digit arith. 1760
ICI opt. data storage tape, certification 14346
image recogn., 2D sparse distributed opt. neural memory 32895
induced cholesteric liq. cryst. polymers for opt. data storage 14542
M-ary runlength limited codes for high dens. opt. recording 39313
memory-type polymer-dispersed CLC, elec. write/erase operations 31003
multiwavelength opt.-fiber-loop memory, ATM packet simultaneous buffering 9149
n-track (d, k) codes with redundancy, new constr. 40650
octaethylporphine-doped polystyrene sample, spectral hole burning, accumulated photon echo readout speed 40092
optoelectronic deflectors operation 39480
optoelectronic photorefr. memory, NDRO and updating 14340
optoelectronic science/engineering, conf., China (1994) 28207
phase-struct. writing mechanism, crystallisation proc., num. simul. 14331
photon echo, state of art and perspectives 31602
photon echo based inform. recording, storage, and reprod. 30827
photonics materials for IT, conf., USA (1994) 11523
photorefr. grating opt. resonator, self-organized learning of purely temporal inform. 14329
PMMA-based photorefr. polymer opt. trap activation 1654
polymer-dispersed CLC films, opt. memory 39308
prog. ultrashort opt. pulse delay by acousto-optic deflector 31020
protein-based computers, parallel proc., 3D memories and neural networks 29698
rare-earth doped materials, time freq. domain opt. storage 22791
reversible storage of light-induced gratings in low molar mass liq. crysts. 22785
ridge-shaped polymer liq. cryst., LC cell resoln. 14544
selectively erasable LCD, opt. storage appls. 7409
semicond. components for opt. amplif./modulation/detect. 42472
semicond. doped glasses, opt. storage by laser beam written gratings 22789
soliton transm./storage rings, stabil., timing maint. 14347
solitonlike pulse stabilisation, slow saturable absorber 22792
spiropyran aggregates for multiple opt. memory 22790
tetraphenylporphyrin doped PMMA fibre, spectral hole burning 23369
thermo-opt. recording, smectic-isotropic liq. phase transit. 39310
THP/PMMA freq. domain opt. storage, anisotropic spectral hole form. *(Chinese)* 14336
two-pulse photon echo opt. DP 41060
video-on-demand systs., storage hierarchy 9744
$AgInTe_2$-Sb-Te amorph. phase-change opt. recording films 30826

optical storage continued
$As_2S_3(Se_3)$ MChDS structs., photocharging characts., opt. memory appl. 22053
$Bi_{12}SiO_{20}$ cryst. opt. limiter, effective nonlin. 30832
C_{60} LB films, degenerate multiwave mixing and opt. storage effects 15086
Cu phthalocyanine write-once read-many recording medium 14332
CuCl nanocrystals in glasses, persistent spectral hole-burning, opt. data storage 40026
GaAs LEDs, 3D opt. coupled common memory 39318
GaAs:Cr, free-carrier grating dyn., picosecond meas. 14341
$(GeTe)_{85}Sn_{15}$ chalcogenide thin films, laser ablation, atmos. comp. and press. effects, opt. storage appl. 30834
$In_{46}Sb_{54}$ thin films, growth, microstruct., multiple recording appls. 28811
KCl:Eu phosphor, erasable and rewritable opt. memory, photostimulated luminesc. 30842
KCl:Eu photostimulated phosphor storage material photolum. 30830
$LaF_3:Pr^{3+}$, long-lived photon echo, opt. memory and DP 31604
PbO films in acid soln., local photocurrent characts., opt. storage phenom. 39311
Sb-Ge amorph. films, crystn. kinetics, in situ studies 20914
$YAG:Tm^{3+}$ swept-carrier time-domain opt. memory 22793
$Y_2SiO_5:Eu^{3+}$, hole-burning materials, time-domain opt. memory 22797
Zn resin film hole burning opt. storage *(Chinese)* 7272
optical storage devices *see optical storage*
optical stores *see optical storage*
optical sum frequency generation *see optical frequency conversion*
optical susceptibility
see also nonlinear optical susceptibility
MQW struct., free carrier effect on refr. index change 14956
universal dielec. response, energy criterion 13927
Er-doped fiber amplifer chromatic dispersion eval. 34060
optical switches
see also acousto-optical switches; electro-optical switches; optical logic; photonic switching systems
1.3 μm single-mode 2×2 liq. cryst. opt. switch 16984
2.5-Gbit/s all-opt. clocked decision/retiming cct. bistable semicond. lasers 9517
10 Gbit/s data switched semicond. laser amp. nonlin. loop mirror 17326
A-ONE, switched opt. fiber LAN 17221
all-opt. proc., vectorial interacts., second-order cascading 2632
all-opt. switching by spatial vector soliton collisions 3296
analog distorted helix FLC-on-silicon SLM 31013
antiresonant reflecting opt. waveguide polariz. splitter 22898
apodized acousto-optic WDM switch/filter 7419
array opt. switching syst.-level VLSI platform for opt. interconnection insertion 42129
ARROW nonlin. directional coupler soliton switching 40106
asymmetric Y-branch polymer-glass-waveguide all-opt. switch, nonlin. wave propag. 39420
asynchronous transfer mode LANs, switches, and congestion control 17216
ATM, technol. develop. *(English, French)* 41398
ATM shuffle-based switch, perform. anal. 8730
atten. meas. in opt. cable 30868
automation of OTDR meas. 22826
bit/packet opt. sync., fiber switching node inputs 25482
BOD, LDs coupled, interf. filters 31554
book, bistabilities and nonlinearities in laser diodes 58
bulk optically controlled semicond. switches design 25498
cascaded Kerr birefr. fiber PM simul. 7806
cascaded nonlin.-opt. loop mirror soliton switching 23379
CGH, polaris. selective, design/fab. 23461
colloquium, optical solitons, London, UK (Nov. 1994) 62
couplers, saturable nonlin., stationary soliton states 31497
CPFSK wavelength-switched systs., coherent/noncoherent detect. 9501
cross-connect opt. systs., FDM technol. 9145
DCS for very-high-speed networks 9151
demultiplexing, π phase shift recovery in semicond. laser amp. 25508
DFB $\lambda/4$-shifted periodic struct., opt. switching 2073
diffractive opt. interconnect element design for digital switching 39593
diode laser logic, smart pixels for opt. sig. proc. 7496
double-layer cell FLC polariz.-control devices 22958
dye-doped biomol. thermally-activated thin film opt. switch 39535
dyn. wavelength allocation opt. LAN network 34100
electroluminescent diode with photoresponsive organic pigment films, light amplif. 31104
fast amplif. opt. switch, opt. pumped VCSEL appl. 14994
FDM cross-connect switch, delayed self-duplex light source and opt. time-slot interchanger 17202
FEL at UVSOR, micro-macro temporal struct. and saturation mechanism 39956
femtosecond temporal and spatial soliton num. simul. in nonlin. optics 40055
fibre arrays, solitons, pulse dyn. 22833
fibre Bragg gratings, pulse self-switching 22819
fibre couplers with saturable nonlin., stationary soliton states 30907
fibre lasers, pump induced modulation by saturable absorpt. opt. switch 31238
fibre nonlin. directional couplers, opt. soliton switching *(Japanese)* 30902
fibre-optic sens. array, polariz.-induced sig. fading 17900
fused taper fibre coupler, control beam sig. switching 2054
GaAs/AlGaAs pnpn optoelectronic switches, transient modelling 39545
gain-switched semicond. laser min. pulsewidth cavity optim. 31325
gigabit opt. CDMA networks, bandwidth efficient matrix codes 42421
$glass:Nd^{3+}$ doped channel waveguide, all-opt. switching 31542
heterostruct. QW bistable laser oscillators 7655
high-capacity photonic space-division switching syst. for broadband networks 25533
high-opt.-isolation low-loss moderate-switching-speed NLC opt. switch 1746
hollow-core ARROW waveguides, rem. coupling/switching 1709
holographic interconnections, alignment, switching, resoln. 40165
holographic switches, LCD 31658
IBCN, opt. ATM components 33729
injection-locked dispersive bistable LD, fast opt. switching 39817
integrated opt./optoelectronic switch for parallel opt. interconnects 31127
integrated optic switches, electrostatic actuation of metallic membranes 7382
integrated taper opt. switch array, self-aligned packing 42390
intersectional opt. switch, finite difference beam propag. anal. *(Japanese)* 9549
isotropic liq. cryst. film, IR all-opt. switching 31011
LAOS, light amplif. opt. switch, phys. model 7465

optical switches continued
LD amps., opt. bistability and X-shaped hysteresis 39818
LEOS, San Jose, CA, USA (1993) 20270
long wavelength IR nonlin. semicond. superlattice appls. 29945
main-chain polymers, processable, third-order nonlin. opt. props. 15097
mesh-connected opt. multiple-access bus interconnects 1770
monolithic photonic/optoelectronic switching technol. 9146
MQW-sandwich nonlin. directional coupler with nonlin. losses, all-opt. switching 31601
multi-channel non-blocking holographic switch, FLC SLM 40145
multichannel liq.-cryst. opt. switch DCS 17204
multichannel opt. switching, high-speed 15061
multielectrode DFB laser self-pulsation charactn. 31327
multilayer LB film opt. switching parallel proc. 7427
multistage interconnection network systs., opt. devices, design 1829
multistage opt. butterfly interconnection and optoelectronic logic operations 1759
multistage opt. switches for 2D images based on polaris.-sensitive elements 42132
multistage opt. switching network interconnections, orthogonally polarised data 39515
$N\times N$ cross-bars, opt. implement., RNI devices 7433
NLC film, polariz. switching by stimulated orient. scatt. 40036
nonblocking single-substr. directional coupler opt. space switching networks 24761
nonlin. couplers, soliton switching, variational approx. 31495
nonlin. fiber directional couplers, pulse switching 40058
nonlin. fiber Sagnac opt. TDM switch 17336
nonlin. fibre/waveguide array, soliton-based opt. switching 31630
nonlin. glass-based opt. switches, BPM design/simul. 17167
nonlin. opt. materials for switching/limiting, conf., USA (1994) 36892
nonlin. planar opt. waveguides, vectorial simul. and power-param. charactn. 31484
nonlin. ring resonator, oscill. mode selection, bifurcation of chaotic mode transits. 15117
nonlin.-opt. loop mirror/fibre Bragg grating, bandpass switching 31499
OFC, San Jose, CA, USA (Feb. 1994) 5447
OFDM transparent cross connect, TV channel switching 17223
optics and ATM, IEE Colloquium, London (1995) 20251
optoelectronic material appl. in Japan, review 7453
optoelectronic switch for SCM networks 17211
organic materials, nonlin. opt. props. switching devices appls. 23423
organic nonlin. materials, efficient ultrafast opt. Kerr shutters 2056
OTDR, four-wave mixing sampling gate, mm-resoln. 25985
parallel optoelectronic computer, opt. interprocessor connections 39509
photochromic switches 15054
photoconducting switches, 3D FDTD simulation 23012
photonic fiber ring video delivery and SONET protection 17224
photonic switch matrices, opt. cross-connect syst. 17201
photonic time/space switching semicond. laser amps. 3586
photonics materials for IT, conf., USA (1994) 11523
planar packaged free-space opt. interconnections, computing/switching 1767
polariz.-selective birefr. CGH based intell. photonic switch 25538
polymer nonlin. opt. fibre devices 30914
polymeric optochips, splitters, switches and modulators 14502
protein-based computers, parallel proc., 3D memories and neural networks 29698
prototype opt. deflection network, design and implement. 3300
PSG waveguide opt. routing switch for radar phase control 14663
PTS, multi-photon absorpt./nonlin. refr., 800 to 1600 nm 23395
PTS-polydiacetylene, time-resolved nonlin. opt. studies in Fabry-Perot cavity 23411
quantum dot/wire struct., nonlin. optics 7738
quasi-phase-matched SHG by backward propag. interact. 31559
QW diode laser, high freq. modulation, dual modal gain/pumping current control 7648
rapidly tuned FDM laser transm. receiver, multichannel heterodyne detect. 9499
rare-earth doped materials, time freq. domain opt. storage 22791
rearrangeable nonblocking polymer waveguide thermo-optic switching matrix 30962
refl. mode magneto optic SLM develop. for miniature correlators 31014
regenerative picosecond feedback scheme based CW semicond. lasers 31421
S-SEED switching charact. 14520
self-holding opt. matrix switch, intersecting grooved waveguides, low Δ/low loss 14440
self-holding opt. switch using opt. matrix board, FTTH appls. 9487
self-holding photochromic polymer Mach-Zehnder opt. switch 14556
self-seeded gain-switched LD, elec. wavelength-tunable singlemode pulses 31326
semicond. laser amp. based switching struct., gain saturation effects on size limitations 23251
semicond. laser amps., absorptive/dispersive nonlin. 31494
semicond. laser amps. biased at transparency, quantum well no. effects on nonlin. refr. 39819
semicond. lasers, soliton generation, opt. switching appls. 7651
semicond. lasers, static and dyn. props. of dispersive opt. bistability 14949
semicond. opt. amp. switch gain optim. 39879
semiconds., pump depletion, coherent energy transfer 23414
side-injection-light-controlled bistable LD as wavelength converter, digital sig. regeneration 17344
silica-based thermo-optic switches *(Japanese)* 17181
single-mode diode lasers, feedback, external light injection, switch-on time, timing jitter 31397
slab nonlin. directional coupler multidimensional bisoliton states, stabil. and switching 23368
slab waveguide, polariz. coupling and transverse interact. of spatial opt. solitons 14451
smooth transm. spectrum fibre optic switch 7330
spatial soliton collisions, weak-beam switching props. *(Spanish)* 7757
staggering switch archit. growability and packet sync. 42126
substr.-mode grating struct. opt. switches 7754
switchable Polaroid holograms appl. 40131
symmetric nonlin. directional coupler, coupled mode anal. 7366
TE-TM nonlin.-grating MQW polariz. switch 23427
thiophene oligomer thin film SLM *(French)* 2086
three-core nonlin. fibre coupler, soliton self-switching 22832
transport network layer, concept/ demonstrator 42439
travelling-wave MQW semicond. laser amp. switches, dyn. perform. 9476

optical switches continued
  twisted birefr. fiber coupler, two-beam phase-controlled polariz. switching 22805
  two-level center thin film with a wide-aperture opt. feedback, spontaneous patterns form. 31566
  variable nonlin. coupler, soliton switching 14454
  variable opt. delay line, birefr. planar opt. platform based 42443
  VCSEL, opt. switching and logic gates 15048
  vert. cavity SELs, pitchfork bifurcation pol. bistabil. 14948
  walk-off-limitation-free all-opt. nonlin. fiber-loop-mirror switch 9568
  wavelength switching in opt. networks, acousto-opt. switches 17229
  WDM high-speed wavelength tunable liq. cryst. filter 42387
  X opt. coupler with nonlin. dielec. region, anal. 31502
  Y interferometric laser technology 14971
  AlAs/GaAs, triple-barrier reson. tunneling LED, fast opt. induced switching 31107
  AlGaAs cascaded nonlin. directional couplers, all-opt. switching 39411
  AlGaAs waveguide design for all-opt. switching 31597
  As_2S_3-based fibre, laser driven ultrafast all-opt. switch 22822
  CdS, nonlin. dyn. of opt. switching fronts 23451
  CdTe:In opt. switch 1550-nm sig. photonic sampler 42131
  Er-doped fiber amp. DCS 17203
  Er-doped fiber amp. propag./switching 34061
  Er-doped fiber amps. for short pulse switching, lasers, and propag. 7554
  Er-doped fibre amp., low-latency soliton logic gates 7799
  Er-doped fibre amp., rem. all-opt. nanosecond gain switching 39695
  Er-doped silica opt. fibre switching by ultra-fast nonlin. refr. index dyn. 30915
  GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891
  GaAs bistable Fabry-Perot device, array format operation 23378
  GaAs detector-switched monolithic time-delay network for opt. control of phased arrays 31129
  GaAs opt. activated switches, Monte Carlo simul. 3299
  GaAs photoconductive switches, illum. uniformity effects 14610
  GaAs quantum wire, directional-coupler switch 22887
  GaAs radiation-damaged refl. switch, IR pulse generation 31541
  GaAs:Cu,Si bistable opt. controlled switch, subnanosecond high-power perform. 2104
  GaAs/AlGaAs MQW zero-gap directional coupler, disordered branching waveguides 14491
  GaAs/AlGaAs QW, opt. switching effects under hydrostatic press. 38251
  GaAs/AlGaAs bistable FET, optoelectronic switching 40056
  GaAs-Al$_x$Ga$_{1-x}$As quantum well lasers, bistable power switching 39863
  GaAs-AlGaAs MQW SLM 29946
  GaAs-AlGaAs laser, multiple colliding pulse mode-locked operation 1949
  GaAs-AlGaAs monolithic optoelectronic switch, modulation response 23055
  GaAs-AlGaAs monolithic optoelectronic switching network 42130
  GaAs-AlGaAs opt. thyristor-based differential pair switch, 50 Mbit/s 31087
  GaAs-GaAlAs MQW electro optic modulator opt. data self-routing 13153
  GaInAsP-InP 2×2 switch, monolithic integration with optical amplifiers 17191
  InAlAs:Zn, MOVPE grown, doping, MQW electron transfer struct. appl. 13318
  InGaAs/InGaAsP MQW opt. modulator, nonlin. opt. absorpt., spatial band bending 2103
  InGaAs-AlAs opt. switched reson. tunnelling diodes 31085
  InGaAs-InP 1.55μm photonic waveguide devices, quantum well struct.-based 14411
  InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
  InGaAsP/InP DFB lasers, wavelength and polaris. switching 31349
  InGaAsP/InP diode lasers with ridge struct., HF polariz. switching 42434
  InGaAsP/InP laser amp. gate switch arrays 31400
  InGaAsP/InP/InAlAs quantum well electron transfer struct., finite difference methods 13582
  InGaAsP-InP MQW 2×2 opt. space switch struct. for 10-GHz appls. 9148
  InP 4×4 polarisation insensitive switch matrices, fabrication 17192
  InP photonic IC based light sources, WDM lightwave communication systems appls. 17190
  InP/InGaAsP 1.3 μm digital opt. switches, extinction ratio of 30 dB 42432
  InP-InGaAs light amplifying optical switch, XOR logic fn. 14675
  InP-InGaAsP pol. independ. ridge waveguide digital opt. switches 9460
  LiF:F$_2^-$ colour center laser switches 7708
  LiF:F$_2^-$ pass. laser switch 14824
  LiNbO$_3$ electro-opt. devices, proton radiation effects 1728
  LiNbO$_3$:Ti nonlin. directional coupler 39401
  Mg$_2$SiO$_4$:Cr^{4+}, absorpt. saturation, pass. laser switch appls. 31547
  Na vap., laser beam switching dyn. 40111
  Nd-doped fiber laser, feedback-induced polariz. switching 14741
  Nd-doped fibre switching by fast relax. of reson. nonlin. 31621
  Nd-doped lasers, nanosecond polymer pass. switch develop. 39746
  a-Si:H diodes for act. matrix addressing 1798
  a-Si/c-Si(a-SiC) based opt. controlled switching devices 38790
  Si-on-insulator slab waveguide Bragg reflector, two polaris. coupling 39405
  Y$_2$SiO$_5$:Cr^{4+}, absorpt. saturation, pass. laser switch appls. 31547
  ZnSe/ZnCdSe/ZnSe MQW device, opt. modulation and switching 25539

optical telescopes *see telescopes*

optical television recording *see video recording*

optical testing
  Used for testing of optical components. For testing by optical means see materials testing or nondestructive testing
  see also optical fibre testing; optical workshop techniques
  aspherical mirror testing, zone plate CGH common path interferometry 40122
  aspherical surface shape interferometry meas., HOE 31678
  CEBAF UV/IR FEL materials proc. subsystem testing 39920
  compensation detector of birefr. 14339
  computer-controlled high accuracy opt. meas. 18120
  cryogenic optical systs./instruments. conf., Orlando (1994) 36837
  electron opt. benches, aberrations/LEEM appls. 1011
  FLIR imaging systs. charactn. requirements/algms. 34592
  FPA testing, low-background opt. simulator 34590
  Fresnel waveguide lenses, multiple phase shift 39433
  high-power laser radiation damaged opt. glass elements 7707
  holographic grating, opt. test appls. 7853
  holographic projection syst., design, testing 40135
  III-V electronic device step response meas. on ps time scale by electro optic sampling 42963

optical testing continued
  indust. Raman scatt. opt. materials charactn. facility 5693
  ion-exchanged glass waveguides, secondary ion mass spectrometry charactn. 30934
  IR sens. testing, automated MRT 34508
  IR-sensitive film-struct., opt. diagnostics 14569
  Italian PON field trials *(English, Italian)* 33992
  laser commun., opt. commun. demonstrator 17289
  laser mirror group-delay meas. by spectrally resolved white-light interferometry 39996
  laser tester of disk recording surface 7273
  lightly shaded opt. syst. port, photom. charact. 7455
  liq. cryst. light valve, feedback, nonlin. response 22956
  LITE (Laser Intersatellite Transmission Experiment) model, functional testing 17288
  Lockheed phase diversity test facility, expt. results 16215
  long-wavelength LD interferometer, surface flatness meas. 18068
  mirrors, concave, rad. meas. by zone plate interferometry 42924
  modular imaging spectrometer instrum. modeling/testing 34591
  MOPA LD for satellite commun. 17300
  multiple quantum barrier height meas. by LED 13186
  opt. disk substr. vert. birefr. measuring method 15192
  optoelectronic devices in vac., testing, thermal effect modelling 10312
  p-i-n photodiode defect localization by laser scanning microscopy 40174
  pass. fibre optic components/sens. systs., radiation sensitivity 22845
  PC-based charactn. syst. for opt. waveguides 39385
  pickp-up opt. head syst. tolerance used in phase-change opt. disk *(Chinese)* 14337
  planar opt. waveguides, diagnostic methods 30966
  poly(phenylene) photoimageable waveguides, fab. and characterisation 39403
  process industries appls., conf., Germany (1994) 5486
  profiling aspherical surfaces, moire deflectometry 17926
  refr. microlens fab., preshaping photoresist 7441
  second generation FLIR testing, MRTD 34595
  semicond. laser reliab. and failure anal. 39816
  single leakage-channel grating coupler, wet-chem. fab. 39412
  smart-pixel liq. cryst.-on-Si SLM for optoelectronic neural network 22960
  SONET simul., testing and design 34023
  spatial filter sens. for ground speed meas. 42760
  superheterodyne receiver elec. test sig. source *(German)* 9485
  SW high reliab. LD for opt. data links 42430
  thermal laser mirror distortion test facility 40000
  true-time delay fibre optic steering syst. for phased array antenna 23994
  waveguide high resoln. diagnostics, photon-STM 14474
  waveguiding struct. supported fields, transverse modal wts. determ. 30952
  wedge plate interferometric laser beam tester 31476
  AlGaAs LD testing for SILEX program 17299
  AlGaAs-GaAs ARROW waveguides, atten. meas. 30931
  GaAs-InP pin photodiode lightwave meas., error correction 42797
  He-Cd$^+$ CW hollow-cathode discharge multicolour laser module, design and perform. 39659
  K$^+$-ion exchanged planar waveguide refr. index meas. 39465
  KTiOPO$_4$ sync. pumped opt. parametric oscillator, design, fab. and perform. 40052
  LiNbO$_3$:Er,Ti waveguides, fab. and perform. eval. 39438
  LiNbO$_3$:Ti planar waveguides, polariz. coupling 30946
  SiO$_2$, fused, microlens arrays, RIE 14493
  ZnSe transparent IR opt. elements, photothermal meas. 2037

optical thyristors *see photothyristors*

optical time-domain reflectometers *see optical time-domain reflectometry; reflectometers*

optical time-domain reflectometry
  automation of OTDR meas. 22826
  cable testing, OTDR meas. and algms. *(German)* 3589
  coherent-OTDR, reduction of stochastic amplit. fluct. 18121
  distributed fiber-optic temp. sens. *(Japanese)* 1681
  distributed fibre optic temp. sens. in Raman OTDR 42821
  distributed opt. fibre network strain/temp. meas. by Brillouin OTDR 34544
  distributed strain/temp. meas. in branched opt. fiber network 14372
  fiber, OTDR perform. enhancement, quaternary FSK modulated probe 34012
  fiber subsystems/devices testing by high-resoln. reflectometry techs. 7313
  fibre distributed zero dispersion wavelength meas. 25983
  fibre optic aerial plant, self-healing failures 3581
  fibre optic/hydrogel probe for distributed chem. meas. 17834
  fibre reflectometry wideband beam-splitter mirror 3868
  four-wave mixing sampling gate, MM-resoln. 25985
  miniature portable OTDR instrum. *(German)* 42962
  multiple reflective markers monitoring 17837
  MW9070A OTDR for opt. fibers maint. *(Japanese)* 33667
  photon counting, data correction 22846
  PON, clip-on OTDR for fault location 9565
  ribbon opt.-fiber cable, polariz. OTDR and PMD meas. correl. for stress anal. 14353
  saturated EDFA/OTDR testing, transient gain compression effects 10045
  single-mode opt. fibers with Brillouin freq. shift, SBS threshold power 7316
  submarine opt. amp. systs., fault location, coherent OTDR *(Japanese)* 16995
  swellable polymeric/fiber optic distributed sens. for water and pH meas. 26001
  tea moisture meas. systs. 18168
  variable wavelength OTDR characts. and meas. 3542
  waveforms, pattern matching, opt. lines fault location 9454

optical tomography
  complex wave-field reconstruction, phase-space tomography 32890
  cylindrical objs., refr. index, image reconstruction, opt. diffr. tomography 41063
  diffr. tomography, holographic measuring techs. 7844
  FEL relativistic electron beams, phase space tomography 39940
  image reconstruction, reflective tomography 17435
  pulsed laser microtomograph 26301
  reflective tomography for space obj. imaging, short-pulse-length laser 17434
  short pulse tomographic meas., generalized Radon transform 39373
  InP:S (Sn) (Fe) (ND), defects, photolum. obs. 13049
  InP: S(Sn)(Fe) substrates, scatt. defects, laser scanning tomography 13043
  Si wafers, light scatt. tomography detecting defect, annealing 38468

optical tracking
- *see also optical radar*
- acquisition, tracking and pointing, conf., Orlando (1993) 36889
- adaptive correl. based tracking algm. 16281
- airborne multisensor surveillance, data fusion IKBS 35395
- aircraft landing tracking, multisensor integrat. 41115
- amplit. compensated joint transform correlator syst., target recogn. *(Korean)* 41167
- automated stereo camera mount control tasks, parallel implement. 16348
- bi-level MHT tracking algm. for two crossing targets in high clutter environ. 18978
- binary phase extraction joint transform correlator *(Korean)* 24675
- coherent detect. tracking syst. in laser commun., ang. bias correction 17309
- coherent opt. CDMA, laser phase drift effects 42348
- contactless real-time meas. of robot pose 42529
- fishing vessels tracking, SAR/AVHRR data 25584
- FLIR scenes, jump-diffusion procs. for automated understanding 16285
- free-space laser communication, conf., Los Angeles, USA (1994) 5437
- fusion of radar and imaging sens. data for target tracking 16113
- hardware-software complex for real time optoelectronic syst. modeling 9652
- head tracking autostereoscopic display, syst. perform. requirements 34622
- hyperspectral air-to-air seeker 18990
- image-based air target ident. 26823
- image-enhanced pass. tracking of maneuvering targets 16114
- intell. robotic camera syst. 34236
- intersatellite commun., heterodyne opt. detect./spatial tracking syst. 34077
- IR image dim point target detect., difference method 16115
- IR imaging sens., unified perform. model of detect. and tracking 16112
- Midcourse Space Experiment for tracking, image proc. 2696
- mil. tracker perform., eval. 18984
- mobile flight test support 10316
- motion extraction by spatiotemporal filtering 8525
- moving obj. param. estim. in image seq. 24386
- multiframe target detect. anal., pixel stats. 32855
- Navy sensors, consolidated automated support system 43571
- refr. eye microsurgery, laser tracking 17452
- refr. surface flow visualization, image proc. 42988
- roads, cluttered scenes, real-time visual tracking 32950
- security, site, visual surveillance by depth-from-focus 42686
- self tracking of human motion, virtual reality systs. 34685
- space commun., pointing, acquisition and tracking 17148
- spaceborne UV/vis. imager simul. 42850
- spatial opt. CDMA 42351
- stereoscopic display, eye-posn. tracking for multi-viewers 34627
- target tracking, effect of cross correl. on track-to-track fusion 18979
- tracking of objs., Kalman proc. for image seqs. 41334
- wide-screen autostereoscopic display syst., head-posn. tracking 9985
- Pb-acid flooded batts., perform. monitoring, telephone office 44198

optical transfer function
- 3-D image reconstructions from partially confocal scanning microscope 16221
- 3-D light microscopy, simultaneous image and point spread fn. reconstruction 16219
- 3D intracellular ion meas., visualisation/quantification 43189
- acousto-optic pupil-plane filtering, incoherent image proc. 22967
- actuator/servo interact. in opt. recording 30840
- adaptive optics telescope image proc. 2708
- adaptive-neighborhood image deblurring 16323
- analog apodizers, binary ang. sectors 22986
- apodized pixel lenses in compact shadow-casting correlators 41238
- apposition cpd. eye opt. sens., design and anal. 34466
- approx. shift-invariance by warping shift-variant systs. 16206
- atmos. distorted images, high-resoln. restoration techs. 33004
- birefr.-fibre sole wavelength filters 14394
- bispectral speckle near-diffr.-limited imaging, unknown aberrations 24653
- blur ident. based on higher order spectral nulls 16207
- commun. LD FM transfer fn. modelling 1977
- computational opt. sectioning microscopy, EM algm. 16220
- computational opt.-sectioning microscopy for 3-D quantification of cell motion 18430
- computer-controlled high accuracy opt. meas. 18120
- deconvolution from wavefront sens., lin. and speckle image reconstruction 16212
- degraded images, blur ident. and restoration, generalized cross-validation criterion 33085
- diffr. limited slit-spectrography 16213
- diffractive lens with the substr. shape effects, num. investig. 7818
- digital imaging, image quality anal., std. tools 18485
- direct-write electron-beam lithog. kinoforms, proximity effect 23472
- dual plate computed radiography, image quality 26341
- equal power spectrum for image ident. and restoration 24552
- fibre-optic delay line filter synthesis, modified Pade method 30875
- FLIR imaging systs. charactn. requirements/algms. 34592
- FLIR subsystem perform. anal., PC based scientific spreadsheet 34593
- fluid flow partical image velocimetry data anal. 42987
- FPA, MRTD and MTF derivation 34573
- frame integrat. perform. improvement in unknown sens. jitter 16108
- freq.-guiding filter in opt. soliton transm., peak curvature meas. 9425
- gas turbine particle charactn., optoelectronic imaging syst. *(French)* 42849
- high-dens. opt. recording, variable length RLL codes 15758
- HOE, wave front aberration minimisation 31642
- Hough-transform filter for plural element shape parallel detect. 33080
- hybrid lens quality, point spread fn. calc. 15177
- hypersonic vehicle image resoln. rel. to turbulence random phase var. 33017
- image restoration, SNR estim. for Wiener filter 16324
- incoherent opt. syst. depth of field extension by wave-front coding 41234
- IR detector array, point spread fn. from imprecise meas. data 17788
- IR image restoration, atmos. MTF 34589
- IR imager continuous syst. transfer fns. from sampled pulse response data 9941
- IR images, high-resoln. real-time restoration of atmos. distortions 16199
- IR sens. testing, automated MRT 34508
- MAP image super-resoln. algm. improvements, constraining inform. 16205
- modular imaging spectrometer instrum. modeling/testing 34591
- multimode opt. fibre complex param. meas. *(Russian)* 14409
- noniterative image reconstruction from photon-limited data by self-cross-correl. 24360
- opt. receivers, aperture averaging of opt. scintillations 34057
- optoelectronic matrix-vector multiplier, computational accuracy anal. 31027

optical transfer function continued
- phase-measuring profilometry digital image-acquisition device, MTF effects 24408
- photorefr. conjug., spatio-temporal response measurement of 31530
- photorefr. neural-network wt. decay, gain and exposure scheduling 39519
- range estim. from camera blur, regularized adaptive ident. 32991
- Richardson-Lucy algm., ghost images and image reconstruction feasibility 16209
- Richardson-Lucy blind deconvolution algm. 24361
- rough surfaces, glitter fn. for rem. sens. 16304
- Rowland circle grating photonic integrated device for WDM appls. 9441
- second generation FLIR testing, MRTD 34595
- soft X-ray projection lithog., opt. design *(Japanese)* 13439
- solar image, segmentation, parallel blind deconvolution methods 33087
- stellar image reconstruction, triple correl. and Knox-Thompson method 24496
- superresolution photolithography, phys. limits 6671
- target acquisition modeling, atmos. blurring effects 31844
- thermal image target acquisition probabilities, vibrs. 34558
- thermal images distorted by atmos. restoration 32903
- thermal imaging, detector, diffr. image matching 34600
- thermal imaging, visibility model for MRTD prediction 32976
- voxel similarity, measure of med. image registration 43235
- GaAs-AlGaAs LD with opt. feedback, line narrowing and modulation bandwidth 1981
- HgCdTe, LPE-grown, photovoltaic detectors charact. 34505
- InGaAs/InP SEED, opt. switch/power discriminator 15112
- KTiOPO$_4$, parametric image amplif., spatial freqs. transfer fn. 23353
- LiTaO$_3$ phase modulator, opt. heterodyne impulse-response meas. 30995
- Nd:YAG injection-locked solid-state laser, freq. and intens. noise 31245
- SiO$_2$, fused, microlens arrays, RIE 14493

optical transmission *see light transmission*

optical transmitters
- 1 Gbit/s QPSK opt. microwave transmitter, SOA modulator based 9561
- 2.4 Gbit single/multi fibre electro-optic transmitter 34031
- 2.5 Gbit/s 407 km repeaterless opt. fiber transmitters 34011
- 2.5-Gbit/s return-to-zero integrated DBR laser/modulator transmitter 9459
- 10 Gbit/s opt. transmitter module, integrated electroabsorption modulator/DFB LD 9477
- 622 Mbit/s TDMA PON, novel burst mode opt. transmitter *(English, Italian)* 33991
- 1550 nm dispersion-supported transm. on long spans of conventional single-mode fiber 9508
- alignment tolerance in hybrid source and receiver arrays 20460
- amplit.-phase inform. transfer, waveguide holograms 39321
- ASK opt. transmitter, 790 nm LD for LANs 25507
- ATM transport systs. based on high-speed opt. transm. 34043
- atten. meas. in opt. cable 30868
- Bus-Mesh wavelength multiplexed LAN, dyn. time slot allocation 34101
- CATV 151-channel AM-FDM transm., 1.3 μm SL-MQW-DFB laser, high opt. output power 25542
- CMOS 248 Mb/s transimped. amp. and 155 Mb/s LED driver for fiber links 9543
- coaxial laser module for Gb/s transm.-speed range 17275
- colliding-pulse-modelocked quantum well laser, 15.8 Gbit/s syst. transm. expt. 25502
- collimating lens syst. for LD package 3547
- cross-connect opt. systs., FDM technol. 9145
- DFB 1.5-μm lasers, aging-induced wavelength shifts 7676
- DFB free-running laser modules, long-term wavelength drift 7675
- DFB laser-fibre grating dispersion compensator, transm. dist. extension 39344
- DFB transmitter selection for broadband services 42383
- distributed feedback lasers, phase tunable, flat FM response 14972
- DPSK receiver, opt. preamplified/demodulated, act. delay-line stabilization 17208
- duobinary opt. transm. syst., no receiver sensit. degrad. 25506
- electroabsorption modulator integrated laser transmitters 17225
- external electro-opt. modulation technols., develops. 39481
- fiber optics, 2.5 Gbps sig., repeaterless transm. *(Korean)* 17179
- fibre gratings, demultiplexing filters for WDMA networks 39345
- fibre photorefr. gratings, appls., high capacity transm. systs. 39343
- frame broadcasting by IR impulses, transmitters sync. 33478
- free-space laser communication, conf., Los Angeles, USA (1994) 5437
- free-space opt. commun. syst., Faraday filter 9486
- free-space parallel opt. interconnects, cascadable thyristors 23063
- free-space WDM interconnections based opt. switching nets 33726
- freq.-selective waveguide multiplexing receivers 9594
- Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
- Gbit/s opt. transmitters, accurate opt. extinction ratio meas. 9462
- high bit rate opt. transmitter module realised in opto-hybrid technol. 9480
- hybrid IC drivers, flip chip bonded, SPICE simul. 7485
- integrated DBR laser/modulator transmitter, 5.0 Gbit/s transm., 192 km 14878
- integrated laser/modulator, long-dist. transm., 2.5 Gbit/s 14880
- intens. modulated lightwave syst., error-rate floor prediction 14877
- laser commun., opt. commun. demonstrator 17289
- laser commun. terminal for LEO satellite constellations 17297
- LED cost effective packaging for fiber optics 31102
- LED modulation bandwidth extension by pole cancel. 23032
- LEOS, Lake Tahoe, NV, USA (July 1994) 39
- LEOS, San Jose, CA, USA (1993) 20270
- lightwave syst. dispersion compensation design 42419
- linewidth-insensitive coherent analog opt. AM link receiver/transmitter 9442
- LINK Optoelectronic Systems Programme, London, UK (June 1994) 20
- low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
- Mitsubishi 16-channel 622 Mbps FDM coherent opt. commun. equipt. 34003
- MOPA LD for satellite commun. 17300
- MQW DFB laser with 25 GHz modulation bandwidth, packaged, 1.55 μm 3584
- multiaccess star network archit., WDM/SCM 42437
- multichannel MM wave subcarrier transm. by reson. modulation of monolithic LD 42393
- multielectrode lasers, microwave small-sig. equiv. cct. model 14849
- NASA planetary missions, laser transmitter/receiver systs. 42408
- office environ. opt. wireless transmitter technols. 42358
- Optical Communication Demonstrator, laser transmitter assembly 17303
- OPTOBUS parallel opt. links, data transm., 3 Gbits/s 3563
- packet-switched WDM-networks, wavelength stabilisation scheme 34093

optical transmitters continued
- parallel opt. interconnect modules, multifiber connectors 17277
- planar hybrid optoelectronics, colloquium, London, UK (1994) 20255
- plastic LAN fibre optic links 41851
- pulse-width transmitter for opt.-fiber commun. lines 17263
- rapidly tuned FDM laser transm. receiver, multichannel heterodyne detect. 9499
- Rome Laboratory, overview of laser commun. technols. 17284
- SEL for multimode data link appls. 23280
- soliton data transm. over 200 km, polaris./time-domain multiplexing, 160 Gbit/s 34070
- spectrum-sliced fiber-amp. light source for multichannel WDM appls. 9599
- STARNET WDM computer commun. network, combined freq. and AM 17174
- strained MQW LDs, 1.3 μm, 1 Gbit/s bias-free operation 39868
- transmitter/receiver modules, opto-hybrid technol. fabricated 31119
- triple-coupler ring-based opt. guided-wave resonator, transmittance charact. 22894
- two-sect. DBR laser transmitters in opt. FDMA networks 9500
- undersea cable systs., opt. amplified, design and deployment 33738
- vert.-cavity SEL array for short dist. opt. fiber networks 14929
- wavelength routing fiber LAN network throughput 42417
- WDM multiple access protocols, high-speed opt. fiber LANs *(Korean)* 16476
- WDM opt. transceiver module for pass. double star subscriber systs. 42371
- wide bandwidth opt. transm. syst. integrated opt. receivers/transmitters 9498
- WORFNET link for fibre-microwave networks 9481
- Y interferometric laser technology 14971
- AlGaAs LD based broad beam transmitter for space commun. 17302
- AlGaAs LD testing for SILEX program 17299
- AlGaInAs coaxial laser module, 1.3 μm for local-loop appls. 7681
- Er-doped fiber grating laser transmitter at 5/2.5 Gb/s, long-term BER transm. 34038
- Er^{3+}-doped fibre amps. for telecomm. systs. 17274
- Er$_{3+}$-doped fiber amps and lasers for lightwave transm. systs. 39696
- GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
- GaAs transmitter/receiver LSI chips, parallel opt. links 42401
- GaAs transmitter/receiver chipset for opt. link 42404
- GaAs/WN$_x$/W-gate MESFET multiplexer IC, 0.5 μm, A 20 GHz 8-bit implement., fibre transm. 9546
- GaInAsP BRS laser-GaAs MESFET driver for OEIC transmitter 31120
- GaInAsP/InP VCSEL array for 1.3 μm range parallel opt. fiber transms. 23300
- InGaAs strained layer MQW laser for opt. fibre transm. systs. 31352
- InGaAsP MQW LD array design and fab. for opt. parallel links 31353
- InGaAsP MQW modulator/DFB laser integrated light source 30965
- InGaAsP monolithic semicond. soliton transmitter 7790
- InGaAsP monolithic semicond. soliton transmitter 25530
- InGaAsP strained layer MQW laser for opt. fibre transm. systs. 31352
- InGaAs(P) strained-layer MQW laser amps. 14904
- InGaP/GaAs/InGaAs strained MQW laser-MESFET, opt. transmitter form. 31124
- Nd:YAG laser commun. syst., PPM commun. optim. 17301
- Si hybrid integrated fibre optic transmitter 17280
- intell. parallel opt. link and LSIs 34055

optical variables control
- 26 W CFL, dimming ballast effect on colour temp. 11458
- excimer lasers, indust.-scale, automated control 31155
- FEL centre user diagnostics and control 40016
- fluoroscopic imaging, automatic exposure control 26298
- intrinsic thermocouple monitor for laser wirebonding 29710
- light control glass, liq. crysts. 22949
- semicond. laser power digital stabilization 39765
- AlGaAs/GaAs intracavity laser coupled VCSEL syst., opt. gain control 39774
- CO_2 TE laser, high repetition rate, long pulse *(Japanese)* 31199
- Er-doped fibre amp., rem. all-opt. nanosecond gain switching 39695
- Nd:YAG laser, quasi-CW LD array pumped, absorpt. efficiency control method *(Japanese)* 31307

optical variables measurement
- *see also colorimetry; densitometry; ellipsometry; laser variables measurement; optical loss measurement; optical time-domain reflectometry; photometry; polarimetry; refractive index measurement; streak photography; turbidimetry*
- 3D wavebeam field reconstruction from cross sect. intens. meas. 33001
- 26 W CFL, dimming ballast effect on colour temp. 11458
- artificial and natural lighting, fluct. meas. *(Japanese)* 18126
- artificial lighting, computerised control, daylight use 28158
- automatic birefr. eval. syst. 5697
- bihelicoidal laser eigenstate opt.-activity meas. 42960
- birefr. meas., local-sampling phase shifting tech. 34718
- Bragg gratings in fibres, charactn., heat-scan tech. 39370
- chromatic colored papers, glossiness, simplified measuring method *(Japanese)* 25989
- compensation detector of birefr. 14339
- computer-controlled high accuracy opt. meas. 18120
- cryogenic all-sapphire Fabry-Perot opt. freq. ref. 31462
- domestic appliances, μP fuzzy logic control technol. *(Japanese)* 44616
- electro-optic Kerr relax. meas., pulse generators 1732
- facsimile document quality perception/meas. *(French)* 3156
- ferroelec. cathodes, electron emission, meas. 29753
- fibre distributed zero dispersion wavelength meas. 25983
- FLIR imaging systs. charactn. requirements/algms. 34592
- focal length detect. by using Haar wavelet transform, expt. syst. *(Japanese)* 34714
- FPA, MRTD and MTF derivation 34573
- HP 8156A prog. opt. attenuator, design 34712
- LD opt. noise meas., reliab. estim. 23287
- Lockheed phase diversity test facility, expt. results 16215
- multimode lightguide differential charact. expt. set-up *(Russian)* 14477
- ocean opt. transmissometer, 470, 565 and 670 nm operation 18903
- PET films, creepage surface discharge in SF_6 gas *(English)* 30585
- polycarbonate opt. disk substrs., birefr., wavelength depend. meas. 7267
- portable testers for fiber-optic commun. testing 17170
- rigorous diffr. theory, opt. metrology and AFM topography, nm accuracy 34721
- Sagnac interferometer, fund. thermal induced phase flucts. in fiber loop 17921
- Sagnac interferometer, thermal induced phase flucts. 17855

optical variables measurement continued
- single mode opt. fibre phase noise cancellation 1672
- space opt. commun., visisbility meas. for atmos. transm. model 15450
- space solar concentrators, glass reflectors, optical eval. 26644
- specs. for fibre optic instrumentation 39346
- spectrum meas. syst., high resoln. 4003
- supercond. ccts., macroscopic quantum mech., mag. flux meas. 30798
- thermomechanical pulping, adaptive refiner control syst. 10042
- ultrashort light pulse amplit./phase, autocorrelator/spectrometer meas. 2821
- zero dispersion wavelength meas. for long haul opt. amp. systs. 42964
- Er-doped fiber amp. test syst. 31211
- Er-doped fiber amplifer noise meas. 7574
- GeO_2-SiO_2 opt. fibres, lin. electro-optic effect meas. 7278
- HgCdTe FTIR temp. depend. emissivity, pyrometer develop. 25987
- $LiNbO_3$ waveguides, electro-optic/thermo-optic meas. of birefr. 22886
- Si (110) micro-opto-mech. devices, anisotropic etching 30977
- Si FTIR temp. depend. emissivity, pyrometer develop. 25987
- SiO_2-Si FTIR temp. depend. emissivity, pyrometer develop. 25987
- Ta_2O_5 film, electron beam deposited, electroluminescent device appl. 5894
- Yb_2O_3-Al_2O_3 thermal-opt. energy converter, characts. meas. 36619
- ZnSe pulsed power photoconductive switches, elec. field studies 36437

optical video discs *see video discs*

optical wavefront reversal *see optical phase conjugation*

optical waveguide components
- *see also optical circulators; optical couplers; optical isolators; optical waveguide filters*
- 3-dB single-mode Y-jn., optimized design 1708
- adder based on soliton interact. props., theoretical model 14557
- antiresonant reflecting opt. waveguide polariz. splitter 22898
- concave grating planar waveguide device diffr. 30963
- CPODs, compact planar opt. devices, fab. by CVD technol. 14495
- CPW optoelectronic gratings, light-induced microwave refl. coeff. 14483
- depolarized source, rem. waveguide modulator high-power operation 14512
- dielec. cylindrical waveguides with Al cladding, light propag. 7354
- directional coupler-type opt. power divider, large-angle low-loss charact. 30942
- external electro-opt. modulation technols., develops. 39481
- freq. comb generator 22883
- Fresnel waveguide lenses, multiple phase shift 39433
- guided-wave optoelectronic device model, FDTD/Fourier expansion method 14412
- III-V semicond. waveguiding devices, adiabatic tapers 7383
- intersectional opt. switch, finite difference beam propag. anal. *(Japanese)* 9549
- magneto-optic ridge waveguide struct., nonreciprocal mode propag. 39421
- magnetooptic channel waveguide devices, geometric phases 31017
- micro-encoder chip, integrated opt. component fab. 30979
- parallel 3D finite difference beam propag. methods, opt. waveguide structs. 30956
- periodic waveguide gratings design, asymmetric discrete-time anal. 22897
- planar liq. cryst. opt. switch for opt. commun. 34014
- planar opt. waveguides, diagnostic methods 30966
- planar photodiode for high-dyn.-range analog transm. 17195
- planar photorefr. waveguides, hologram form., lock-in detect. 39379
- planar waveguide components develop. 30945
- plugs and matched syst. accessories *(German)* 7346
- polymer-based travelling-wave electro-optic modulator, props. 14525
- QW polariz.-independent waveguide modulator, mass-depend. width 14508
- rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
- semicond. laser spatial patterns/solitons 31616
- telecomm. syst. waveguide component polymer materials 7379
- travelling-wave waveguide photodetectors, 172-GHz bandwidth and 76-GHz bandwidth-efficiency product 42804
- UV-written grating planar silica waveguide external-cavity semicond. laser 9570
- vert. cavity waveguide spectrometer, WDM commun. 34063
- GaAs wide-bandwidth MSM photodiode, extrinsic freq. response 39570
- GaAs/GaAlAs waveguide polarizer, high extinction ratio metal-clad, design 30944
- GaAs-InAlAs tensile-strained quantum wells, polariz.-independent opt. modulation *(Japanese)* 22944
- InGaAs/InP PIN waveguide photodetector, high saturation intens. 7463
- InGaAs-InP 1.55μm photonic waveguide devices, quantum well struct.-based 14411
- InGaAs-InP double HBT, high speed/voltage driver circuit appl. 13876
- InGaAs-InP quantum well polariz. control photonic functional devices 14480
- InP waveguide components, WDM opt. commun. syst. 34062
- $LiNbO_3$ electro-optic modulators, cryogenic temp. characterisation 14506
- $LiNbO_3$ integrated AO space-division opt. crossbar 7426
- $LiNbO_3$ opt. waveguide modulator for bidirectional transm. 42442
- $LiNbO_3$ opt. waveguide modulator in fin line, optimum design 39443
- $LiNbO_3$ planar waveguides, multifrequency acoustooptic interact., modeling 14551
- $LiNbO_3$ waveguide Mach-Zehnder modulator, white light spectral anal. 14499
- $LiNbO_3$:Ti electro-opt. modulator, CPW, optimum design 30997
- $LiNbO_3$:Ti guided-wave light modulators, filter-type electrodes 30987
- $LiNbO_3$:Ti planar waveguides, polariz. coupling 30946
- $LiTaO_3$ proton-exchanged opt. waveguides, electrooptic consts. 14471
- Nd doped phosphate/silicate glass, surface luminesc., ion exchange effects 14419
- SiO2/Si, planar lightwave ccts., opt. sig. proc. 14487
- YIG:Ce, opt. waveguide isolator, nonreciprocal radiation 14549

optical waveguide filters
- *see also optical fibre filters*
- antiresonant waveguide add/drop filter, Fabry-Perot interf. filtering 17266
- asymmetrical grating assisted coupler calc. by eigenmode expansion/coupled mode theory 39419
- DFB channel-dropping opt. filters, design and fab. 39538
- FDM-channel selection filter, arrayed-waveguide grating multiplexer 9433
- gain-distributed DFB opt. filters 22899
- planar lightwave cct. technols. *(Japanese)* 14426
- rib waveguides, grating fab., electron-beam/X-ray lithog. 14461
- silica-based planar lightwave ccts., opt. filters develop. *(Japanese)* 17182
- triple-coupler ring-based opt. guided-wave resonator, transmittance charact. 22894
- UV light written grating planar silica waveguides 1720
- waveguide-grating filters, plane wave and Gaussian beam illum. 30950

optical waveguide filters continued
- GaAs short period corrugations, e-beam direct exposure, chem. amplified neg.-tone resist *(Japanese)* 22311
- InGaAlAs/InP asymmetrical vert. coupler wavelength filter 14573
- InGaAsP/InP grating-assisted directional coupler, act. filter *(Japanese)* 7365
- InGaAsP-InP directional coupler based tunable opt. filter 22910
- InGaAsP-InP pol.-independ. four-channel tunable opt. filter 25477
- $LiNbO_3$ Fabry-Perot planar etalon filters 1781
- SiO_2 ARROW-based opt. wavelength filter, strip config., WDM systs. 34068
- SiO_2, submicron parallelogramic-shaped gratings fab. proc. 7345
- SiO2/Si, planar lightwave ccts., opt. sig. proc. 14487

optical waveguide losses *see optical losses*

optical waveguide theory
- *see also optical fibre theory*
- 1D refr. index struct., modal fields calc. by finite difference beam propag. method 14447
- 2D leaky opt. waveguides, vectorial FEM modelling 39406
- 3-dB single-mode Y-jn., optimized design 1708
- 3D finite difference beam propag. method *(Chinese)* 39394
- 3D opt. waveguide struct., vectorial FD-BPM anal. 40428
- act. cylindrical waveguides with step-index profiles, transverse modes 30953
- anisotropic waveguides, full-vectorial beam propag. method 7284
- antiresonant reflecting opt. waveguide intens. modulation 23781
- antiresonant reflecting opt. waveguides, rigorous design method 15583
- ARROW nonlin. directional coupler soliton switching 40106
- asymmetric Y-branch polymer-glass-waveguide all-opt. switch, nonlin. wave propag. 39420
- axially symm. four waveguide coupler design 30951
- beam adaptive frame for FEA 14431
- beam propag. method num. algms. 39470
- bent dielec. waveguides, finite difference BPM anal. 23803
- bidirectional opt. waveguide propag. modelling, mode expansion/matching 15560
- blazing effects of dielec. grating, periodically modulated two layers 30981
- book, integrated optics design/modeling 36821
- bright spatiotemporal solitons in planar opt. waveguide 15124
- broadband quasi-phase-matched planar waveguide SHG, optimal design by simulated annealing 40033
- buried waveguides fabricated by purely thermal ion back diffusion 39466
- Cerenkov laser, conducting inner surface 7592
- circ. curved integrated opt. channel waveguides, source-type integral eqn. anal. 22881
- circ. waveguide photon, nonzero mass in centrifuge 40425
- CLC, axial propag. modes, handedness/atten. 7351
- coaxial hybrid iron wiggler FEL theory 39916
- composite opt. fiber-slab waveguide light coupling and propag. 23804
- concave grating planar waveguide device diffr. 30963
- corrugated waveguide, SHG, light diffr. 14459
- coupled waveguides, excitation conditions, math. refinements 39407
- cubic cryst. planar waveguides, photorefr. effect 39431
- dark opt. solitons, Lagrangian approach 23355
- dark soliton interact., periodic wave 40072
- dielec. cylindrical waveguides with Al cladding, light propag. 7354
- dielec. media ultrashort solitary-wave propag., reson.-dominated chromatic dispersion 40112
- dielec. multilayered waveguide, directional-coupler mode splitter *(Japanese)* 7353
- dielec. planar superlattices, quantum dimens. phenom. 39437
- dielec. waveguide discontinuities, freq. charact., FD-TD method *(Japanese)* 30927
- dielec. waveguides, vector mode calcs. 40427
- dielec.-coated circ. hollow waveguides for IR, mode struct. and atten. 14423
- diffused channel waveguides, Δn/index profile determ. 39417
- directional couplers, nonparallel transit. sects. *(Japanese)* 7364
- dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 23801
- dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 1705
- EDFA modelling, num. methods efficiency 14768
- FEL with large μ_c planar undulator, waveguide appl. 39980
- FEM for anal. of microwave and opt. waveguide devices 15604
- femtosecond temporal and spatial soliton num. simul. in nonlin. optics 40055
- finite-difference beam propag. method, oblique coord. *(Japanese)* 14425
- finitely-periodic dielec. waveguide mode reflectivity 23769
- Franz-Keldysh electroabsorption waveguide modulator perform. anal. 30989
- full-vector waveguide modeling by iter. finite-difference method, transparent boundary conditions 40401
- gain-distributed DFB opt. filters 22899
- grating assisted directional coupler, opt. induced 40438
- grating-assisted coupler design, rigorous anal. of power transfer 39413
- GRIN planar opt. waveguide anal. by impedance boundary method of moments 7347
- guided photon-dens. waves, diffusion theory 23782
- guided wave scatt. in slightly rough boundary waveguide, stochastic functional approach 14441
- gyrotropic planar opt. waveguides, Bragg diffr. of light by ultrasound 1707
- identical period double surface corrugated planar waveguide grating coupler anal. 30928
- III-V semicond. opt. waveguide modulator modeling 22924
- inhomogeneous integrated optic planar waveguide anal. by Galerkins method 1711
- integrated opt. cct. simul., num. BPM algms. 22920
- integrated opt. waveguide components design 39469
- integrated optics anal., paraxial wave eqn., multilevel finite element soln. 40430
- integrated-optic waveguides, radiation-field guiding 22905
- intersectional opt. switch, finite difference beam propag. anal. *(Japanese)* 9549
- isotropic Kerr-like media, nonlin., TM solns. 22906
- joint finite-difference/FFT full vectorial beam propag. scheme anal. 40441
- Kerr-type nonlin. dielec. slabs, TM mode propag. 40398
- leaky/absorbing opt. waveguide/quantum well struct. modelling 40434
- light propag., Richardson extrapolation 15598
- lossless multilayer dielec. waveguide radiation modes 23797
- low-loss wide-angle Y-branch waveguide design 30959
- magneto-optic nonlin. waveguides, TM waves, power flow study 22965
- magneto-optic ridge waveguide struct., nonreciprocal mode propag. 39421
- magnetooptic channel waveguide devices, geometric phases 31017

optical waveguide theory continued
- metal clad GRIN opt. planar waveguide anal. 40399
- metal-clad waveguide polarizer integrated opt. cct. output coupling 30964
- micropipette cylindrical waveguide surface polaritons propag., near field opt. device appl. 40443
- mirrors in BWG, inclined phase-transforming surface representation 30924
- modal reflectivity, rapid approx. methods 39390
- MQW nonlin. struct., finite element characterisation 38352
- MQW waveguides, nonlin. TE waves, finite-element soln. *(Chinese)* 7355
- multi-mode opt. waveguide interf. devices based on self-imaging 40440
- multilayer planar opt. waveguide with buffer layers, guided modes 7343
- multilayer planar opt. waveguiding struct., eigenvalue eqns. 14449
- multilayer slab waveguide nonlin. modal fields by finite difference beam propag. method 40433
- multilayer-coated diffr. gratings, differential method 1702
- multilayer-coated optics, guided-wave coupling and scatt. by interface random roughness 39391
- multilayered planar waveguide anal. by exact and variational FT methods 31899
- nonlin. channel waveguides, variational anal. 23805
- nonlin. directional couplers, saturation and nonlin. asymmetrical distrib. effects 39427
- nonlin. fibre/waveguide array, soliton-based opt. switching 31630
- nonlin. guide prism coupler, dyn. study *(French)* 14460
- nonlin. Kerr media, beam steering, spatial PM 2057
- nonlin. media interface, guided TM wave propag. 22901
- nonlin. opt. channel waveguides, nonstationary-field dyn. 7367
- nonlin. opt. channel waveguides, scalar FEA, isoparametric elements *(Japanese)* 22900
- nonlin. opt. waveguide, iter. finite difference anal. *(Japanese)* 7352
- nonlin. opt. waveguides, light pulse propag., mode-coupling theory 22907
- nonlin. planar opt. waveguide MOL and FDBPM simul. 40432
- nonlin. tapered opt. waveguide, beam propag. anal. 22873
- nonlin. waveguide arrays, spatially solitary wave evol. 39426
- nonlin. waveguides, counterpropagating beam distributed coupling, bistability 15030
- nonlin. waveguides, coupled soliton states dyn. 31611
- nonlin. waveguides, FEA, modal solns. stabil. 39423
- nonparaxial propag., reflecting opt. waveguide, 3D vectorial eigenmode algm. 14439
- nontransparent waveguides, bound and leaky eigenmode techs. 39393
- nontransparent waveguides, leaky guiding, eigenmode expansions 39389
- normal dispersion regime, spatio-temporal coupling, NLSE approx. 22807
- open-boundary waveguide modal anal., finite element approach 2305
- parab. cylindrical dielec. waveguide, modal power loss 30941
- parab. deformed planar waveguides, modal power atten. 39408
- parab. tapered graded-index waveguides, beam propag. 8017
- parallel 3D finite difference beam propag. methods, opt. waveguide structs. 30956
- parallel beam propag. method for SHG anal. 40048
- parametric waveguide simultons(simultaneous fund./harmonic wave propag.) 31620
- periodic GRIN waveguides with Kerr nonlin., Gaussian beam control 40426
- periodic waveguide wave propag., num. simul. method 40436
- periodic waveguides, coupled-mode/FEA *(Japanese)* 14424
- phased waveguide arrays, wavelength multiplexers optim., beam propag. method 30955
- planar opt. waveguide design, inverse scatt. theory 1701
- planar opt. waveguides, highly directional surface emission from concentric-circle gratings 23766
- planar opt. waveguides, refr. index profile reconstruction 22875
- planar waveguide directional coupler with NLC, nonlin. effects 30957
- planar waveguides, finite difference beam propag., vol. integral formulation 30943
- planar waveguides, guided modes via grating rotation deflection 22863
- planar waveguides, time and space transients, spectral techs. 22896
- planar waveguides, travelling modes, generalized theory 22869
- polymeric thin-film waveguide coupling, single-mode fiber 22872
- quantum well DFB rib waveguide LD design, spectral index method appl. 39876
- quasi phase matched periodically segmented waveguides, lin./nonlin. effects anal. 40437
- quasi-phase-matching waveguide freq. conversion, review 15099
- rect. dielec. waveguide scalar variational anal. by Hermite-Gaussian modal approxs. 40403
- rect. dielec. waveguides, effective index considerations 30926
- reson. cascaded surface-emitting SHG struct. self-PM 31485
- reson. waveguide, self-induced transparency soliton stabil. 39378
- rib waveguide anal. by wide-angle techs., convergence props. 15582
- Schrodinger-cat state opt. directional coupler 40412
- segmented planar waveguides with parab. index segments, propag. charact. 23770
- self PM with finite response time, quantum theory 31898
- self-aligned integrated mirror intrinsic loss anal., finite-difference beam propag. method 39613
- shaped quantum well opt. modulation, enhanced electrorefractive effects 39492
- slab integrated opt. waveguide path design 40402
- slab nonlin. directional coupler multidimensional bisoliton states, stabil. and switching 23368
- slab waveguide, polariz. coupling and transverse interact. of spatial opt. solitons 14451
- sq./rect. core dielec. waveguide anal. by modified Fourier decomp. 31914
- symmetric nonlin. directional coupler, coupled mode anal. 7366
- tapered nonlin. waveguides, num. simul. of pulse propag. 40431
- tapered opt. waveguides, slant-propag. charact. anal. 14433
- tapered slab waveguides, conducting surfaces, radiation modes 39441
- thermo-optic planar waveguide, temp. profile anal. 1710
- thin films with surface corrugation, guided-mode interacts. 7363
- three layer ridge quantum well waveguide anal. by FEA 40400
- three-layer waveguides, thin film influence on guiding props. 39434
- transparent boundary for finite-element beam-propag. method 15451
- transverse vector wave eqn., variational derivation 30935
- uniaxial planar waveguides, hybrid mode FEA by iter. method 23799
- variable nonlin. coupler, soliton switching 14454
- vectorial beam propag. method based on EM field directional decomp. 40429
- WDM arrayed-waveguide grating multiplexer, flat spectral response 25497
- wide-angle BPM and power conservation 14464
- wide-angle propag. beam opt. waveguide anal., generalized Douglas scheme 22876

optical waveguide theory continued
X opt. coupler with nonlin. dielec. region, anal. 31502
Y-branch modelling by method of lines/beam propag. method 40435
Y-jn. waveguide switch cross talk 22871
AlGaAs $\chi^{(3)}$ semicond. waveguides, squeeze-state generation 31505
Er-doped integrated glass laser, modeling and optim. 22921
GaAs quantum wire, directional-coupler switch 22887
InSb waveguide Gaussian beam SBS phase conjug., transverse charact. of reflectivity profile 23450
LiNbO$_3$ open type waveguides, refr. index var. 30947
LiNbO$_3$ planar waveguides, multifrequency acoustooptic interact., modeling 14551
LiNbO$_3$:Ti nonlin. directional coupler 39401
LiNbO$_3$:Ti, periodically segmented waveguides, loss mechanisms 1706
LiNbO$_3$:Ti,MgO,Co waveguide, low-loss sharp bends, optim. 14473
LiNbO3:Ti anisotropic graded-index channel waveguide, finite element modelling 39463
Na$^+$-Ag$^+$ ion exchanged waveguides, nonlin. TE wave anal. 39424
SiO$_2$-based waveguide bending loss reduction by lateral offsets 39440
SiON integrated optic intens. modulator based on mode coupling 1731

optical waveguides
see also optical fibres; optical planar waveguides; optical waveguide components; optical waveguide theory; waveguide lasers
4BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 15070
AlGaAs-GaAs waveguide gratings, polariz.-insensitive outcoupling 7360
anisotropic waveguides, full-vectorial beam propag. method 7284
arrayed-waveguide grating multiplexer, phase error compen. 22919
ARROW-B type polarizer utilizing birefr. in multilayer stripe lateral confine. 14501
backplane for broadband switching syst. 25174
bidirectional opt. waveguide propag. modelling, mode expansion/matching 15560
chirped grating integrated-optic dispersion compensator for fibre links 34016
circ. grating waveguide devices, integrated optics/optoelectronics 7481
command surface controlled liq. cryst. waveguide structs., opt. inform. storage 14343
conf., lin./nonlin. integrated optics, Lindau, Germany (1994) 36839
conference, lasers in optical systems/devices, St. Petersburg, Russia (1993) 11526
coupled antiresonant reflecting opt. waveguides based wavelength selective device 14472
coupled waveguides, excitation conditions, math. refinements 39407
coupled waveguides, integrated opt. parametric sum-freq. generator 2048
crosslinked poled polymer waveguides, Cerenkov SHG 14455
D0 upgrade, scintillating fiber detectors 4155
dielec.-coated circ. hollow waveguides for IR, mode struct. and atten. 14423
diffr. grating, opt. induced, in waveguides/waveguide couplers 22902
electro-optic polymer, nonlin. optics, single-mode waveguide fab. 15063
electrooptic polymer waveguides, packaging and charactn. 39491
evanescent-field sens., cross-sectional transformers 34534
external electro-opt. modulation technols., develops. 39481
FEL, Israeli tandem electrostatic project, resonator design and characterisation 39949
finite-clad fibres and waveguides, perturb. anal. limitations 30849
four-channel integrated photonic wavelength router 16981
Franz-Keldysh electroabsorption waveguide modulator perform. anal. 30989
2-furyl-methacrylic anhideride, freq. doubling study 7779
GaAs-AlGaAs monolithically integrated interferometric opt. sens. 1835
glass:Nd^{3+} doped channel waveguide, all-opt. switching 31542
graded index channel waveguides, asymmetric directional couplers, spectral charact. 22889
grating couplers, nonlin. optics, modal anal. 14458
guided-wave optoelectronic device model, FDTD/Fourier expansion method 14412
high resoln. diagnostics, photon-scanning tunneling microscope 14474
III-V semicond. opt. waveguide modulator modeling 22924
integrated optics evanescent wave sens., atten. losses 39375
integrated-optic waveguides charactn., review 39395
intense laser pulse plasma waveguide, mode props. 15453
ion implanted opt. waveguides, disloc. distribs. 7348
LEOS, San Jose, CA, USA (1993) 20270
low-loss abrupt bend struct., design and appl. 14469
low-loss nonlin. opt. channel polymer waveguide laser ablation 1723
main-chain polymers, processable, third-order nonlin. opt. props. 15097
micro-encoder chip, integrated opt. component fab. 30979
micromechanical Mach-Zehnder interferometer, Si IC compatibility 42808
modes in opt. waveguides form. by diffusion 14434
mol. crysts. for nonlin. opt. appls. 31583
multimode interf. ultracompact waveguide devices 30954
multimode lightguide differential charact. expt. set-up *(Russian)* 14477
NLC films, nonlin. waveguide, light-induced Frederiks transit. 22904
nondispersive waveguide cyclotron reson. maser expt. 39623
nonlin. propag. of light pulses in amorph.-semicond. waveguides 1718
nonlin. waveguide struct., local mode theory 22903
opt. glass surface, waveguide radiation, electron emission excitation 14443
organic material waveguide opt. freq. doubling 2094
organic materials, nonlin. opt. props. switching devices appls. 23423
organic semiconds., cryst., OEICs, photonic devices 39616
organic waveguides, SHG in ATR expt. 14476
organic/polymer system nonlinear props., conf., Pennsylvania Univ., USA, April 1991 28
packaging relax. semicond. lasers, dil. waveguide struct. 14930
PC-based charactn. syst. 39385
periodic waveguide gratings design, asymmetric discrete-time anal. 22897
PET, mag. field, photomultiplier tubes/lightguides 43255
phase matching tech. for poled polymer waveguide 22866
photodelineated electro-optic polymers, GRIN profiles and loss mechanisms 14456
photonics networks *(German)* 17236
PMMA, low loss channel waveguides 14435
PMMA opt. waveguides, dye doped, electron irrad., ageing 1703
PMMA waveguide, fab. procedures 22890
polariz.-insensitive telecomm. optoelectronic device design 14578
poling-induced opt. loss in nonlin. opt. polymeric waveguide 30937
poly(1,4-phenylene-1,2-bis(4-methoxyphenyl)vinylene) opt. waveguides, prism coupling 22870
poly(2,5-dimethoxy-p-phenylenevinylene) electro-opt. intens. modulator 14524

optical waveguides continued
poly(phenylene) photoimageable waveguides, fab. and characterisation 39403
polyceram MPEOU-based waveguides, proc., opt. props. 7356
polydiacetylene waveguides, nonlin. absorpt. 31513
polyimide-coated Ag hollow glass IR waveguides, loss characts. 14444
polyimides, electron beam irrad., channel waveguide fab. 22891
polymer amphiphiles LB films, fab., nonlin. optics props. 15089
polymer electro-optic waveguide modulators for data commun. 31000
polymer integrated all opt. devices/ccts., fab./appls. 39614
polymer waveguides, electro-opt. appls. 14457
polymeric LB and spin-coated films, light atten. 14318
polymeric nonlin. opt. materials, conf., Los Angeles, CA, USA, Jan 94 53
polythiophene film waveguide third-order opt. nonlin. 2100
proton-exchanged waveguide devices, lifetime projections 22884
PSG waveguide opt. routing switch for radar phase control 14663
pulsed capillary gas lasers with waveguide resonators, opt. charact. 31201
quantum well electron transfer waveguide, fiber coupling efficiency 22882
QW mid IR lasers, above barrier transits. 7612
radiationally coupled corrugated waveguides, rem. coupling 39369
rearrangeable nonblocking polymer waveguide thermo-optic switching matrix 30962
rect. core waveguides, integrated optics, fibre coupling, mode matching techs. 39429
rect. dielec. waveguide scalar variational anal. by Hermite-Gaussian modal approxs. 40403
rib anti-reson.-reflecting-waveguide coupler, rem. coupling 39425
second-order grating waveguide-to-fiber coupling 39404
self-holding opt. matrix switch, intersecting grooved waveguides, low Δ/low loss 14440
semicond. photonic IC, selective MOVPE growth 30976
single mode fibre-rect. waveguide coupling losses, integrated optics 22837
slab integrated opt. waveguide path design 40402
slab waveguide liq. cryst. modulator 14540
SOI opt. rib waveguide, loss, mode characts., bends and y-jns. 1719
strip waveguides, loss meas., modified two prism method 39430
superluminal solitons, nonlin. Klein-Gordon eqn. 15106
surface-plasmon sens. for aq. environ. 3822
tactile sens., finger-shaped, opt. waveguide 25874
tellurite:Pr(Nd)-based glasses, 1.3 μm emission studies 7561
thin film waveguides for opt. neaural devices 39522
transversally multimodal 1×4 branch coupler, characterisation and BPM modelling 39436
tree-type photonic switching networks 25192
triple-coupler ring-based opt. guided-wave resonator, transmittance charact. 22894
tunable semicond. lasers, continuously chirped DFB gratings 1954
ultra-compact quantum well waveguide electro-optic modulators 7387
waveguide CO$_2$ laser, act. medium diagnostics 7513
waveguide CO$_2$ laser, resonator, plane mirrors, signature simul. 7514
waveguide struct., refl. holograms, diffractive surface relief elements 15175
wavelength division demultiplexer, multiplexed waveguide holograms 17281
WDM receiver, monolithically integrated device 34075
Ag-containing metallic nanostructure waveguiding systs., ion exchanged fab., nonlin. opt. charactn. 39416
AlGaAs BH photonic devices, melt etching, LPE regrowth 12119
AlGaAs MQW, opt. channel waveguides by FIB induced compositional mixing 14452
AlGaAs anti-reson. reflecting opt. waveguide, second harmonic surface emission 39399
AlGaAs waveguide design for all-opt. switching 31597
Al$_x$Ga$_{1-x}$As depressed cladding semicond. waveguides and lasers, modal props. 14468
AlN waveguide, phase-matched freq. doubling, tunable laser source 31543
Ba$_2$NaNb$_5$O$_{15}$ opt. waveguide film, epitaxial growth by pulsed laser deposition 1715
Ba$_2$NaNb$_5$O$_{15}$ opt. waveguiding films, excimer laser ablation prep. 12168
Ba$_2$NaNb$_5$O$_{15}$, pulsed laser deposition epitaxial growth, waveguide props. 20905
Ba$_2$NaNb$_5$O$_{15}$, waveguiding epitaxial films, pulsed laser deposition 20806
BaTiO$_3$ photorefr. crysts./waveguides, anom. photorefr. response in two-beam coupling 15088
Bi$_{12}$TiO$_{20}$ photorefr. cryst., spatial dark solitons, probe beam waveguiding 31536
Bi$_{12}$TiO$_{20}$/Bi$_{12}$GeO$_{20}$ planar waveguides, photorefr. gratings 15111
CO$_2$ laser, beam delivery, hollow core waveguides 23077
CdZnSe-ZnSe strained layer superlattice disordering, diffusion/ion implant. *(Japanese)* 38339
GaAs/Al$_{0.3}$Ga$_{0.7}$As MQW waveguides, pulse squeezed light generation 1721
GaAs/Al$_x$Ga$_{1-x}$As, MQW, opt. transm. 15033
GaAs/AlAs, single-wavelength all-opt. phase modulator 2106
GaAs/AlGaAs MQW zero-gap directional coupler, disordered branching waveguides 14491
GaAs/AlGaAs QW waveguides, all-opt. PM 23370
GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
GaAs/AlGaAs waveguides with quantum well claddings, opt. modulation, beam steering 22892
GaAs/GaAlAs waveguide, TE/TM mode splitter fab. 22893
GaAs-AlGaAs MQW waveguides, coupling props. 14467
GaAs-AlGaAs electroabsorpt. modulators integrated, pass. waveguides 22918
GaAs-GaAlAs waveguide saturable absorber, carrier heating dyn. 2109
GaAs-InAlAs tensile-strained quantum wells, polariz.-independent opt. modulation *(Japanese)* 22944
GaInAsP/InP superluminescent diode, FIB modif. 39586
InGaASP/InP travelling wave optical amplifiers integrated with passive waveguides 14485
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 1729
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 14498
InGaAs/AlGaAs strained-layer quantum-well lasers, band-gap renormalization effects 7662
InGaAs/AlGaAs/GaAs grating demultiplexer/detector array integrat. 9422
InGaAs/GaAs SQW RW lasers, mode coupling/antiguiding 1973
InGaAs/InP superlattice, electro-refractive effect, modulator appl. 14510
InGaAs/InP superlattice waveguide device, opt. multistable operation 1716
InGaAs/InP waveguide photodetector, saturation intens. 34512
In$_{0.53}$Ga$_{0.47}$As-InP reson. plasma waveguide modulator for mid IR 1734
InGaAsP electroabsorp. modulator, low pol. depend. 22926

optical waveguides continued
- InGaAsP electroabsorption waveguide modulator, shipboard analog links 9535
- InGaAsP/InGaAsP multiquantum well waveguide, nonlin., bias depend. recovery time 1717
- InGaAsP/InGaP/GaAs high-power 0.8 μm LD, minority carrier leakages 1956
- InGaAsP/InP multi-quantum-well directional coupler, low-switching-voltage operation 30925
- InGaAsP-InP IR strained MQW lasers, reverse-mesa ridge-waveguide struct. 14964
- InP QW electro-optic waveguide circuits 14486
- InP tunable phased-array wavelength demultiplexer 17257
- InP waveguide mode field determ. from intens. profiles 39468
- InP waveguides, opt. harmonic mixers 23412
- InP wavelength converter based on integrated Mach-Zehnder interferometer 7371
- InP/InAlAs/InGaAsP MQW fibre-coupling tapered waveguide, spot-size converter 22835
- InP-InGaAsP pol. independ. ridge waveguide digital opt. switches 9460
- InP-based monolithic high-speed bal. mixer receiver 25523
- K$^+$-Na$^+$ ion-exchanged channel waveguide profile params. by mode-index meas. 39388
- K$^+$-ion diffused waveguides, coupler-type wavelength demultiplexer 9554
- KTiOPO$_4$ Bragg-reson. quasi-phase-matched periodically segmented waveguides, SHG 39409
- KTiOPO$_4$ channel waveguide, Rb$^+$ exchanged, fab., micro-Raman spectrosc. 30938
- KTiOPO$_4$ films by pulsed excimer laser ablation for nonlin. opt. appl. 15149
- KTiOPO$_4$ nonlin.-opt. waveguides, quadrature squeezing, ultrashort pulses 40084
- KTiOPO$_4$ opt. waveguides charact. by second harmonic spectrosc. 1712
- KTiOPO$_4$ periodically segmented waveguides, Bragg refl. 7362
- KTiOPO$_4$ proton exchanged waveguides, ultrashort SHG study 23440
- KTiOPO$_4$ waveguides, diode laser light freq. doubling 31487
- LiNbO$_3$ channel waveguide, wavelength converter for WDM opt. commun. 15074
- LiNbO$_3$ electro-opt. devices, proton radiation effects 1728
- LiNbO$_3$, electrooptic waveguide modulators, total internal refl. 14518
- LiNbO$_3$ integrated optics Pockels cell, cryst. cut and waveguide orient. 14515
- LiNbO$_3$ opt. waveguides, ferroelec. domain inversion 22666
- LiNbO$_3$ passband-flattened guided wave acousto-optic filter 34009
- LiNbO$_3$ photo-induced waveguide fab. 30939
- LiNbO$_3$ photo-induced waveguide, opt. dyn. 3D interconnections 39523
- LiNbO$_3$ proton exchanged waveguide, quasi-phase-matched SHG 14470
- LiNbO$_3$, proton exchanged waveguides, deeply inverted periodic domains 22879
- LiNbO$_3$ proton exchanged waveguides, ultrashort SHG study 23440
- LiNbO$_3$ proton-exchanged channel waveguides, MgO doping effect on photorefr. index 39410
- LiNbO$_3$ proton-exchanged periodically segmented channel waveguides 22868
- LiNbO$_3$ quasi-phase-matched waveguide, periodic domain-inversion 39400
- LiNbO$_3$ single crysts. for opt. waveguides, direct bonding 39376
- LiNbO$_3$ thin film hybrid integrated opt. devices 39608
- LiNbO$_3$ waveguide QPM-SHG device, tuning bandwidth *(Japanese)* 7746
- LiNbO$_3$ waveguide quasi-matching SHG devices 22880
- LiNbO$_3$ waveguides, quasi-phasematched SHG conversion efficiency 22878
- LiNbO$_3$:Ti channel waveguides, photothermal opt. losses charactn. 39418
- LiNbO$_3$:Ti, periodically segmented waveguides, loss mechanisms 1706
- LiNbO$_3$:Ti slab waveguides, characterisation, fn. of fab. conditions 30948
- LiNbO$_3$:Ti struct., index profile/bending loss from near-field meas. 14416
- LiNbO$_3$:Ti travelling-wave channel waveguide modulator modelling 39397
- LiNbO$_3$-LiTaO$_3$, direct heterobonding 30932
- LiTaO$_3$ DBR grating for LD freq. doubling 31382
- LiTaO$_3$ channel waveguide phase matched SHG 15150
- LiTaO$_3$, domain-inverted, proton-exchanged waveguides, lattice consts. 14438
- LiTaO$_3$ opt. waveguides, controlling birefr., nonisovalent ion exchange 14421
- LiTaO$_3$, proton exchanged waveguides, deeply inverted periodic domains 22879
- LiTaO$_3$ proton-exchanged waveguide in benzonic acid, annealing property *(Chinese)* 1704
- LiTaO$_3$ proton-exchanged waveguides fab., cinnamic acid 39422
- LiTaO$_3$ waveguide, LD freq. doubling 31593
- LiTaO$_3$ waveguides, proton-exchanged, cryst. struct. and opt. props. 22867
- LiTaO$_3$:H proton-exchanged waveguides, structural and opt. props. 14420
- PbO-SiO$_2$-Na$_2$O opt. waveguide glasses, photoinduced nonlin. suscept./SHG 14418
- RbTiOPO$_4$ films, epitaxial growth, excimer laser ablation tech. 12127
- Si-on-insulator slab waveguide Bragg reflector, two polaris. coupling 39405
- SiO$_2$:Ge Bragg reflectors, UV laser fab. 14436
- SiO$_2$:Ge, fused silica, waveguide form. by ion implant. 39387
- SiO$_2$/Si arrayed-waveguide grating multiplexer 22909
- SiO$_2$-on-Si NIR channel waveguides form. by electron-beam irrad. 14450
- (Zn,Cd)(Se,S) quantum well laser heterostruct., opt. waveguide confine. 14900
- ZnO waveguiding piezoelec. films, microstructural and opt. charact. 39435
- ZnS thin film opt. waveguides, SHG study 22908
- ZnSe thin film opt. waveguides, SHG study 22908
- ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, SHG generation 22908
- ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, phase matched SHG 39442
- ZnSe-ZnS superlattices opt. waveguide, opt. bistability 39380
- ZnTe thin film opt. waveguides, SHG study 22908

optical windows
- *see also solar control films*
- aircraft window, fast risetime EMP coupling 18705
- automobile elec. windows, anti-trap safety syst. 5366
- conference, optical materials for energy efficiency, Freiburg, Germany (April 1994) 28209
- diamond-like C coating for opt. windows, CVD deposited 1780
- laser window materials, intens.-depend. transm. props., 193-nm irrad. 22775
- phthalocyanines, wavelength selective shutters, smart windows 14514
- poly(N-methyl-10,10-dimethylphenazasiline), electrochromic windows 22948
- poly(N-methyl-10,10-dimethylphenazasiline)/ITO electrode electrochromic window syst. 22932
- soft X-ray transm. props. of thin polyimide windows 43146

optical windows continued
- solar control sheet glass conductive coatings, radio wave transm. 7450
- AlGaAs lasers with grown opt. facets, metalorganic CVD deposition 20961
- Ar+ ion multimode lasers, polariz./intens. correl. 1851
- a-B:H CVD film characterisation and x-ray imaging appls. 5900
- Cr:LiSAF$_6$ slab laser perform. 31294
- Cu vap. laser window contamination *(Chinese)* 14694
- ITO windows, polypyrrole-latex coatings, electrochem./spectroelectrochemical studies 39482
- SrBaNb$_2$O$_6$:Rh absorptive photorefractive material, two beam coupling 15078

optical workshop techniques
- *see also optical fabrication*
- array opt. switching syst.-level VLSI platform for opt. interconnection insertion 42129
- fiber optic glass ferrule connector *(Japanese)* 42467
- J-aggregates nonlin. opt. props., oriented films prep. 15062
- laser alignment meas. syst. based on opt. activity, adaptive noise cancelling 31691
- laser proc., opt. surface cleaning 30821
- Moiré interferometry anal. of laser weld induced thermal strain 2161
- opt. material proc., diffractive optics 39446
- opt. polishing monitoring, computerised microscopy 17600
- PMMA monolithic integrat. of microlens and fiber holder arrays 22858
- projection displays, metallized viscoelastic control layers 25923
- CO$_2$ laser, diamond turned optics 31145

optical zone plates *see zone plates*

optics
- *see also aberrations; adaptive optics; aspherical optics; atmospheric optics; Fourier transform optics; geometrical optics; gradient index optics; holography; integrated optics; nonlinear optics; optical elements; physical optics; quantum optics*
- IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
- MM-wave imaging optics, offset paraboloidal reflector 23904
- opt. tape recording syst., rot. head optics 39319
- planar electron beams, optics, shaping electrodes calc. 2184
- system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239

optimal control
- *see also cost optimal control; dynamic programming; game theory; H^∞ control; linear quadratic control; maximum principle; minimum principle; periodic control; predictive control; suboptimal control; time optimal control*
- 60 hp brushless doubly-fed pump drive, water treatment appls. 5431
- 130 kV rly. power syst. operation optim., Sweden 44534
- 200 W PV power syst. DC/AC power convertor control 43953
- AC/DC power syst. stabil., DC modulation control *(Chinese)* 35471
- AC/DC PWM converters, on-line optimal control 36247
- AC/DC PWM power convertor, quasi-optimal control 44165
- air conditioner direct load control, multipass dyn. prog. algm. 27055
- alarm-sig. algms., simultaneous conc. monitoring 3910
- ATM network policing mechanism with state-depend. control 41430
- automobile hybrid internal combustion engine, computer controlled 28156
- B-ISDN hierarchical control approach 41925
- brushless AC motors, digital servo amp. concept 11338
- brushless DC motor drives, variable speed control design 5243
- brushless DC motors, fuzzy speed control design 4989
- brushless DC servomotor, optimal DSP control 36195
- brushless DC servomotor auto-tuning, fuzzy optimal control 4988
- brushless PM motors, cogging torque minimisation design 10946
- CMM, optimal posn./vibr. control design 3738
- cold strip rolling, proc. output optim. studies 11496
- commun. networks, routing/flow control, neural networks approach 33297
- control systs., co-design method, combined models 28981
- controlled Markov chains, empirical measures, rate of convergence 5747
- DC link power converter, induction motor drive appls. 44450
- DC motor drives, optimal speed control method *(Polish)* 36647
- DC-DC convertor optimum control 36308
- DC/AC PWM power convertor, quasi-optimal control 44165
- DC/DC converter, fuzzy optimal control commutation 44120
- DC/DC PWM power convertor, small-sig. modelling 11148
- distrib. network load restoration planning algm., ES-based 19245
- distrib. network optimal switching planning, fuzzy inference appl. 19268
- distrib. network power capacitor placement/replacement/control, computer simul. 35622
- distrib. network power capacitor placement/replacement/control optim. 35621
- district heating syst. operational optim. simul., PC-based 43906
- double-mass induction motor drive, vibr. control design *(Russian)* 28096
- doubly-fed variable speed wind generator adaptive control 4876
- dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
- elec. drives, high inertia, optimal control design 5277
- electrothermal launchers, operation, mass supply, distrib. heat sources 15293
- EM spiral lin. step motor, thrust anal. 11073
- extrusion proc. DC motor drive cascaded control design *(Russian)* 11497
- force-commutated supply, cost-optimal control algm. 44118
- generator excitation syst., gain scheduling control *(Chinese)* 4881
- generic plant control, global optim. method 4985
- HF switched-mode PWM power amp., perform. anal. 542
- hybrid step motor control, torque ripples minimisation *(Korean)* 27761
- hybrid step motors, feedback-lin. control design *(Korean)* 27767
- hydroelectric power syst. optimal, short-term scheduling 27613
- hydrogenerators, optimal robust governor design 43989
- induction motor, trajectory learning method, neuro-fuzzy network *(Korean)* 36172
- induction motor ASD, VVVF inverter-based control *(Korean)* 28061
- induction motor drive field weakening voltage control strategy 44482
- induction motor drives, CSI-fed, field-oriented predictive control 5259
- induction motor drives, direct torque control method 11339
- induction motor starting, optimal control anal. *(Russian)* 11012
- induction servomotor drive control studies *(French)* 11335
- integrated networks partly obs., optimal access 16801
- Iridium satellite phased array antenna design 23953
- LIM drive coil winding actuators, control design 44257
- LIM field control perform. improvement 11035
- lin. pulse motors, vibr. suppression design 4996
- lin. reluctance servomotor drives, control perform. 5319
- load distributor static and dyn. network anal. *(German)* 43731
- long-dist. power syst. adaptive generation control *(Japanese)* 10689
- Markovian decision procs., modelling and appls, China 196

optimal control continued
metall. indust., thermal proc., optimal control software 44628
MIMO LAN interconnection over high-speed gateway 41756
motion control optimisation, motor control gear designs 5166
multimachine power syst., optimal robust stabiliser 27022
multimachine power syst. coord. control, reinforcement learning 4539
multimachine power syst. resync., optimal variable aim control *(Chinese)* 10634
multizone HVAC syst. optimal control, aggregation/disaggregation method 28180
narrowband fading channel spectral efficiency with power control 42199
network control technol., user appls. *(German)* 43692
packet switching network routing mgt. 41649
PM sync. motor feedback lin. decoupling torque control 4933
PM sync. servomotor drives, optimal/VSS control 5288
power syst., adaptive multivariable optimal controller 4579
power syst., optimal kVAr control, capacitor sizing 19150
power syst., optimal voltage-ractive power control *(Chinese)* 43628
power syst., two-area load-frequency control with neural nets 19113
power syst. discrete voltage control modelling, load flow soln. 26963
power syst. dyn. stabil., optimal control modelling 4515
power syst. economic dispatch optim., genetic algm.-based *(English)* 43698
power syst. extended optimal power flow algm. anal. 27023
power syst. fuzzy adaptive excitation control method *(Chinese)* 43631
power syst. fuzzy optimal load freq. control design *(Japanese)* 43682
power syst. generator operating point, fuzzy control *(Japanese)* 4592
power syst. hierarchical optimal control design 4517
power syst. intell. control, appl. develops. 19135
power syst. load freq. control, disturbance accommodating optimal controller *(Korean)* 26988
power syst. load freq. control, neural net-based 4542
power syst. load freq. optimal PID controller design *(Korean)* 26922
power syst. load shedding optimal fuzzy control design *(Korean)* 35542
power syst. optimal generation mix, CO_2 emissions constrained 4599
power syst. optimal load tracking, nonlin. parametric approach 27024
power syst. optimal VAr control, fuzzy neural net-based 35480
power syst. preventive control design, nonlin. optim.-based 26956
power syst. real-time economic dispatch design 4569
power syst. real-time voltage/VAr control, optim. algms. 10630
power syst. security, optimal control, power stations, dyn. equiv. 35495
power syst. state control optim. algm. 19078
power syst. static security fuzzy optimal control simuls. 35479
power syst. sync. generator damping, SMES-based 10680
power syst. transient stabil., optimal decentralised control *(Korean)* 35543
power syst. transient stabil. control, online calcs.-based *(Japanese)* 27042
power syst. underfreq. load shedding optim. algm. eval. 26964
power syst. unit commitment problem, ES approach 35532
power syst. VAr compensation control planning, ES appls. 26961
power syst. VAr compensation planning, Benders-type decomp. 26962
power syst. VAr compensation planning, computer model-based 26960
power syst. voltage instabil., load flow-based preventive control 35554
power syst. voltage/VAr security enhancement control design 27017
power systs., indiv. efficiency control theory *(Russian)* 43635
PSS, SMES-based, neural network-controlled 27030
PSS controller tuning, systematic design method 27056
PSS design method/algm. 4560
PV array max. power extraction, fuzzy logic control 19560
PV array max. power point tracking, power convertor-based 11296
PV array max. power point tracking scheme 19559
PV power syst. invertors, instantaneous current tracking control *(Korean)* 27620
PV power syst. max. power tracking, fuzzy neural net-based 19552
PWM DC-DC converters, voltage control, feedforward/feedback 11117
PWM DC/DC full-bridge ZVS power converter anal. *(Chinese)* 36337
PWM DC/DC power converter, fuzzy logic optimal control 44121
PWM harmonics optimal control, pulse width reduction 5996
PWM inverters, optimal PWM control, harmonic levels prediction 5057
PWM invertor drivers, device current utilisation optim. 5067
PWM invertor optimal PI current control, neural net-based 19734
quantum series reson. inverter, optimal predictive current control 11387
rearrangeable Clos network control, neural net 2983
reluctance motor drive, optimal current angle control algm. 36684
robotic servoactuators, quasi-optimal control design 36496
rolling rotor SRM, optimal digital control design 36134
saturated sync. motor drives, control modelling 5324
self commutated sync. motor nonlin., steady state operation 10996
semicond. mfg. syst. planning/yield learning 20381
servomotor, bang-bang fuzzy controller, time optimal/min. chatter 27769
single phase squirrel cage motor, variable speed optimal control *(French)* 11040
single-server queueing networks optimal control 11910
six-phase salient-pole PM motors, optimal control studies 27675
steel beam mill monitoring syst., PC-based 42949
stepping motor, nonlin. robust control 36200
stepping motor drive, real-time mech. params. estim. *(French)* 11324
stepping motor positioning, closed loop optimal operation 11087
substation control/protection integrat., μP-based *(English)* 36476
surface-to-air missiles optimal guidance, differential games *(Chinese)* 43583
switched reluctance motor, phase current, loss, model *(French)* 44029
sync. salient pole/wound rotor motors, control studies 4919
synchronous motor, self-controlled, current fed, simul. 19613
thermal power plant controls upgrade projects, USA 43651
three-phase regenerative power convertor design project 5119
three-phase VSI, space vector simplex PWM methods perform. 44174
thyristor inverters, freq./voltage optimal control design 5098
tidal power generation, optimal control model 43945
turbogenerator stabil., robust optimal control, PSS design 27019
underwater sound, refl. coeff. control, piezoelec. materials 26795
variable reluctance motors, torque ripple minimization 11007
variable speed squirrel cage motor drives, indust. appls. 5294
Victoria network voltage-reactive power optim. *(German)* 35552
virtual path bandwidth mgt. assuring network reliab. 41650

optimal systems
airport large electroacoustic syst. speech intelligibility meas. and optim. *(Croatian)* 2411
CDMA gap-free fit channel access protocol 41494
danger warning syst. technol. aspects *(German)* 20386
dual offset reflector antenna design for optimal perform. 23917
integrated networks partly obs., optimal access 16801

optimal systems continued
multicopy ALOHA packet transm. policy 41466
optimal regularization param. determ., L-curve 11962

optimisation
see also circuit optimisation; genetic algorithms; H^∞ optimisation; linear quadratic control; linear quadratic Gaussian control; mathematical programming; minimax techniques; minimisation; simulated annealing; travelling salesman problems
0-1 knapsack problem, GUB struct., syst. reliab. optim. 37205
1 μm BiCMOS proc., 200 Å gate oxide charactn./manufacturability 13902
1D logic gate assignment, parallel algm. 38975
2.45 GHz power transm. rectenna perform. 35610
2 to 26 GHz slant polarised omni azimuthal antenna and radome 23884
2D Fourier kinoforms by genetic algm., quantized phase optim. 40160
2D objs. recogn. by optimal matching 41131
2D sigs., cyclic, parametric proc., solar appl. 2568
3-D light microscopy, simultaneous image and point spread fn. reconstruction 16219
3-dB single-mode Y-jn., optimized design 1708
3D attitude determ., curvature fns. 2660
3D digitized curves optimal length estim. 41182
3D obj. composite Fourier hologram optim. 40162
3D obj. shape, pose, and deform. estim. 2758
3D posn./direction determ. syst., Hall sens.-based *(Korean)* 34696
35 kV transformer substation fuses, protection characts. optim. *(Russian)* 5162
200 MWe MHD generator channel, supercond. magnet optim. 4871
AC motor multirate motion control algms. parallel proc. 10966
AC rly. power syst. protection/fault meas., PC-based 44536
AC rly. syst. energy conservation, optim. train running curves 44530
adaptive antenna array pattern synthesis, constraint selection 40513
adaptive nonlin. predistorter, high power amp. compensation *(Korean)* 25460
additive unknown colored noise, max. likelihood DOA estim. 40839
adhesive-based IC interconnects, materials/reliab. considerations 13432
aerodynamics and aeroelasticity, aerospace indust. progress 10302
agricultural mach. preventive maint./replacement 11682
airborne systems, neural network technology for BIT applications 42730
aircraft altitude profile estim., natural spline fn. 18710
Alcatel, customer SDH network optim. 41556
alkali metal vapour, phase-matching for efficient third-harmonic generation 15103
anal. gradient iter. procedures, beam shaping techs. 31931
annealing evol. algm., fn. optimizer 28636
approx. algm. for tandem, split and merge queueing networks 16470
approx. shift-invariance by warping shift-variant systs. 16206
AR sig. modelling for short seqs., efficient Bayes soln. 40973
ARC-network design with op amp, parametric optim. subsystems 28982
array antenna excitation laws, synthesis methods 15655
array calib./self-calib. methods, class. *(French)* 16039
ASAT battle mgt., evol. prog. 10593
assembly parts hole dist. optimal estim., Kalman filters 8623
astron. imager with PM focusing, demagnetification *(Chinese)* 17923
asymptotically optimum space-diversity detect. in non-Gaussian noise 15969
ATM network, video frames temporal placement control 24494
ATM network source traffic priority shaping fn. 41551
ATM networks, adaptive bandwidth mgt. 24909
ATM networks, multiple traffic classes, hierarchical dyn. control 16423
ATM networks, optimal estim. framework for adaptive traffic admission 41678
ATM networks, real-time traffic estim. 41927
ATM networks supporting time-crit. traffic, optimal resource allocation 24748
Austrian power syst., heat pump technol. success *(German)* 4826
automated visual indust. QC, data visualization and num. assess. of class separability 41221
axisymmetrical radiating struct., simul./optim. software 15626
B-ISDN, tree computation for reserved bandwidth traffic 33593
B-ISDN for video and high-speed sigs., modeling/optim. 9024
band-limited sig. recovery, lin. fn. approx. 24298
beamline optim. and phase space transform. 43012
BiCMOS collector implants, stat. optim. 1500
binary phase fan-out elements, opt. optim. 14558
BISDN/ATM environ., resource allocation model 3232
blind channel estim./equalization, partial-response input sigs. 33162
block adaptive subband coding, optimized AMBTC 8117
boundary scan optimisation in proprietary environ. 5598
branch adaptive random search method 28652
Brillouin-enhanced four-wave-mixing phase conjugator, FOV optim. 15050
broadband quasi-phase-matched planar waveguide SHG, optimal design by simulated annealing 40033
building cogen. systs., design methodology 4827
building HVAC retrofits, postponement economics overview 44432
cable TV networks measuring data compression 42613
CAD conf., San Jose, CA, USA, Nov 1994 41
calib. of instruments optimisation 3715
cannon caliber EM launcher syst., air core compulsator design 31740
cannon caliber railgun, air core compulsator design 19781
cannon calibre EM railgun, discarding armature, design 18965
capacity constrained flow shop, optimized prod. technol. 11700
cardiac defibrillation optimisation, human thorax finite element modelling 18588
CATR reflectors, triangular serrations width/height 15633
cct. design, optimal stat., computer-aided approach 5956
CDMA coded packet cellular networks, code rate optim. 25384
cellular mobile networks, freq. assignment 25423
cellular mobile syst., additional channel assignment by graph theoretic model 33932
cellular mobile syst. nominal channel allocation 42203
cellular mobile telephone systs., optimal paging 33934
cellular neural net appls., optimal solns. by hardware annealing 21491
cellular syst. models, meas. propag. data 9313
cement kiln optimisation experience, LINKman graphic 5425
central office building power distrib., loop voltage drop optim. 43748
Cerenkov-type microwave freq. multiplier, relativistic electron beam 21843
chaotic sigs. MLE 24291
CHIP lang. impl., large computer network optimal mgt. 24985
chip sizing, syst. delay quality level maximization 12966
CHOPIN, heuristic model, transm. expansion planning 4614

optimisation continued
CHP plant, gas turbine, HRSG, exergoeconomic optim. 4849
CHP plant, stochastic heat storage, progressive hedging algm. 19499
CHP plant short-term operation, num. modelling *(Korean)* 27520
CHP plant structural reliab. optim. 19489
closed surfaces, parametrization, 3D shape description 32906
closed-loop adaptive-optics optimisation, multiple control bandwidths 3776
CMOS max. entropy coprocessor for computed tomography 29432
code-excited neural vector quantizers 40712
color image compression, neural nets 16347
color image segmentation, fuzzy clustering and supervised learning 16326
combinat. optim., constrained Potts systs. 777
combined cycle bottoming cycles, Kalina/steam cycle comparison 36022
combined cycle CHP plant step swirl combustor perform. optim. 36025
combined cycle power plant heat recovery steam generators 27584
commun. networks, routing/flow control, neural networks approach 33297
commutator motors, optimal design algm. 10956
competitive, optimised neural vector network 793
complex waveguide ccts., low cost CAD *(German)* 23785
computational-morph. filters, mean-absol.-error representation and optim. 32915
computer commun. networks with unreliable links, capacity assignment 3209
computer vision, correspondence problem, Hopfield net approach 33062
computer vision, optimisation approaches, CSP 41217
constrained beamformer design, optim. result 40763
constrained contouring in polar coord. 2666
constrained FIR filter design for 2-band filter banks and orthonormal wavelets 21425
constrained image enhancement/halftoning, threshold accepting 32934
constrained optim. based on recursive quadratic prog. 211
constrained optimisation, nonmonotone line search 230
constrained power economic dispatch, optim. algm. 4574
core selection optimisation in transformer designs, Basic program 27787
cpd. hard tissue phantom, radiologic diagnostic optimisation 18498
CSMA/CD LANs, packet starvation effect and soln. 33510
data commun. monitoring, measuring sig. optimisation 42752
data compression, adaptive image sampling/interpolation 16387
DC-DC convertor control param. optimisation 21101
deconvolution filter design considering channel sensitivity 2526
Delaunay triangulation, constrained 282
dense subgraph, approx. algms. 5757
design optimisation in theory and practice 11705
design-of-expts. techs., SPC of high-purity gas prod. 20397
diagnostic fault simul. for seq. ccts. 12445
diagnostic radiology, antiscatter grids design, computer modelling 18651
diagnostic radiology, grid design optimisation 18494
diagnostic radiology optimisation programme, Madrid area 18501
dielec. coating on aircraft fuselage, scatt. signature optim. 40314
dielec. loaded T-septum waveguide props. anal. 21510
diff. eqns. soln. by event driven techs. for param. optim. 37351
digital halftoning, 2-D carriers, noninteger period 41195
digital images, relational descriptions, noise/scale behaviour 41250
digital phase recovery in presence of freq. shift 8458
digital sound processing architectures, sound synthesis, complexity optimisation 34298
discrete-time sig. design for maximizing amplit. separation 24282
discretized energy minimization in wave guide, point sources 12017
discriminative HMMs, non-lin. input transforms. 32265
distrib. network expansion planning, multi-stage branch exchange method 27151
distrib. network optimal config. planning, branch exchange methods 27153
distrib. network optimal switching planning, fuzzy inference-based 27179
distrib. systs., capacitor placement, fuzzy algm. 10725
distributed binary hypothesis testing, feedback 8405
district heating forecast, ANN appl. 19500
DMSK digital packet sync., preamble design 9362
DOA of multiple narrowband/broadband sources, estim. 15984
domestic heating syst. thermionic converter design 28176
DPSK opt. heterodyne receiver, combat laser phase noise 42372
DragCAD dragline excavator drive design optim. software 44557
drive compatibility optimum design for opt. storage media 14328
DRS-Sched, data relay satellite syst. scheduler 33950
drum boilers, circ. cct., water supply/steam removal 35990
Eastern Europe, telecomms. network planning 33301
ECG proc., high-gain, real-time, beat-by-beat, freq.-band adaptive filtering, optimisation 26416
edge detect., Hopfield neural network 8598
edge detect., Markov random field models *(Japanese)* 16237
Egyptian hydropower/irrigation networks, multicriteria optim. 36044
ejector expansion heat engine, refrigeration appl. design 28184
elec. consumer demand cycle optimis., cost savings *(Italian)* 4591
elec. train fault-tree generation automation, ES-based 44551
elec. utility distributed resources planning, optimum location 10692
electromagnetism, optimisation and synthesis 15206
electrothermal capillary optimisation 15287
electrothermal launcher solid armatures, design optim. 15352
electrothermal launchers, operation, mass supply, distrib. heat sources 15293
EM field computation, conf., Grenoble, France (July 1994) 36820
EM fields optimisation and synthesis, IEE Colloquium, London (1994) 64
EM guns, launch package integrat. design 18963
EMC conditions optimisation of radio equipt. 25219
endoreversible power plants, thermoeconomics optim. 27293
eqn.-error adaptive IIR filters, bias removal 24201
equivalence of dyn. systs. for optim. 11948
expansion matching, optimal edge detect. and generic recogn. 8625
fault-detect. filter, optimal detect. filter 8252
FDMA systs. using multi-beam satellite, optimal carrier freq. assignment *(Japanese)* 25448
FEL interact. optim. via electron bunch trapping 39983
fiber optic hydrophones, demodulator optim. 18941
fibre optic current sens. for EHV, design optimisation 3855
file allocation policy in networked DBMS 16582
filters, decentralized game-theoretic, optimal 16057
fingerprint image compression, wavelet scalar quantization vs. JPEG 41194
finite element syst., structural optim. *(Japanese)* 28699
finite wordlength digital filters/controllers, optim. realisations 37883
FIR digital filters, data detect., modified window fn. 8264
FIR filters iter. reweighted least-sq. design 2465
FIR optimal least sq. multiband filter design 24259
FIR stat. optimum filter bank design 24261

optimisation continued
FIR systs. blind ident., third order cumulants 2525
fire/gas detector test schemes optim., reliab. model 36979
fluoroscopic imaging, automatic exposure control 26298
focused beamforming for underwater imaging 9661
four-level accelerated life-test plans optim., computer-based 20480
Franz-Keldysh electroabsorption waveguide modulator perform. anal. 30989
Fresnel holograms, computer-generated image quantization, error diffusion algm. 23455
FTP traffic on Internet, optimisation 41834
fuzzy reliab. optim. problem soln. 11848
gain-switched semicond. laser min. pulsewidth cavity optim. 31325
Gamma and Laguerre filters equivalence 37892
gamma filter, adaptation of memory depth 37891
gas turbine CHP plant, multi-objective operation optim. 36010
gate array VLSI, optimal placement of components 37592
gate size seq. most probable hypothesis tracking 15880
generalised wt. adaptation algms. for 2-D feedforward neural networks 20567
generalized change detect. problem 24283
generalized dominators 20559
geometric vector optim., vector approx. 227
geothermal double stage flash syst. optim., computer-based 36034
global optimal discriminant vectors under global Fisher discriminant criterion 24555
GOES-I Imager, radiometric accuracy optim. 4382
gradient coils with mag. shielding/eddy shapes, coil shape optim. *(Japanese)* 21598
gray level image filtering, Q-state mean field annealing algm. 8508
gray-level images, multiresolution estim., probabilistic models 33121
greedy packet scheduling 33171
grey level point distrib. models fitting, animals in scenes 24563
grey-scale image geodesic dist./time 16362
GTO gate-drive, power supply optimisation 11109
GW pulsed power network, magneto-elec. switching-based 5048
hadron colliders, scaling laws, cost optim. 4098
handwritten digit recogn., transform. of optimized prototypes 33039
HBTs, high-power, modeling, scaling approach 30246
HDSL design, computer based optim. techs. 16921
head-mounted displays, interactive stereoscopy optim. 34633
heat generation, shadow prices, time depend./dyn. energy systs. 4835
heat sinks, flat plate heat pipe effective length calcs. 28479
heavily loaded cct.-switched network, congestion relief 24757
Hermes space vehicle PRA pilot study 18698
HF FSK radio links, optimal syst. params. choice 17018
HF power transformer CAD optim., scant modelling 19685
HF power transformer core geom. CAD, fuzzy ES-based 44110
HF transformer edge effect anal., 2D FEM-based 6376
hidden nearly completely decomposable Markov chains, adaptive estim. 40971
hierarchical LPNN network for noise reduction/speech recogn. 32386
high resoln. image reconstruction, mean field annealing 8681
high speed inform. network planning, stochastic optim. 25109
Hopfield and T-model neural networks, hysteresis study 12681
hybrid PV-wind power syst., optimal unit sizing 10894
hydro-power daily generation scheduling, decomp. methods 27614
hydroelectricity, reservoir syst., optimal policies 35726
hydropower station, optimal compensation regulation, nonlin. network flow *(Chinese)* 36037
hydrothermal power systs., optimal short-term scheduling 27111
hypercube fault-tolerant multicasting 8691
IC yield optim., Monte Carlo method *(Chinese)* 13829
ICRP recommendations, radiological protection, med. 18641
image coding, interpolative VQ by dominant points 33090
image compression, neural based optimal VQ 33063
image proc., intens. connectedness extraction 33096
image segmentation, stat. model based, automatic param. estim. *(Japanese)* 32865
implicit complementarity problems, optim. of systs. 11981
in-bin grain drying energy systs., computer simul. 28200
Indian MHD retrofit channel, perform. prediction 10905
induction machine optim. conflict problems, univariant search method 11053
induction motor, dyn. behaviour/param. calc. optimisation 4942
induction motor, single phase, torque control, controlled capacitor 27716
induction motor ASD, fuzzy on-line efficiency optimisation control 36659
inform. transm., control decisions *(Chinese)* 15678
init. phase wavelet transform 24255
inspection, sampling strategy eval. under two criteria 5692
insulation PD meas., optimal bandpass filter characts. 13917
integrated ATM networks, dimensioning and design methods 41569
integrated IR sens. design, computer-aided trade-off study 3838
intell. optim. method for large-scale systs., fuzzy params. 11935
inter-vehicle commun., cooperative channel access 42240
interconnected power syst., min. prod. cost model *(Chinese)* 27033
inverter-AC motor motor drive syst., param. ident. 5249
irrigation pumps, induction motors, energy efficient design 5430
ISDN networks with partial sharing, optim. 41932
iterated random maps convergence 201
k-out-of-n:G systs. spares cost optim. method, computer-based 20484
Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
L^2 space optimisation for extraction of natural freqs. of radar target 9617
layout recycling, compaction, shape optim. 21074
LDV, sig. detect./proc. optim. 4021
least sq. sig. reconstruction, normalized autocorrelation constraints 32735
lens design, global optim., escape fns. 39528
lens design, least-sq. optim. line search 7444
lin. binary codes, interpolation curve, decoding algm. 40639
lin. block codes, optimal inform. bit decoding 24091
lin.-quadratic mixture of independent components, separation 40981
linear error models for analog devices 25760
liq. metal PBR for Moon base 35262
local regression, optimized, moving av. case, computational methods 28590
long-term energy modeling, current techs. 26924
low sensitivity state space digital filters, Pareto optimal design 32788
low sidelobe lin. array tolerance optim. design 23978
low-noise oscillators design/optim., nonlin. CAD 29072
LPC params. for noisy channels, VQ 32329
LSI via-hole shape optim. by quasi-3D topography simul. 13863
M-ary wavelet transform and formulation reconstruction 8426
M-lattice, non-lin. dyn. syst. for halftoning 33033

optimisation continued
MAC-02 Stirling engine, indicated power, heat input trade-off 28041
magnicon amp., efficiency optimisation 29770
maint. activities mgt., optim./priorities/planning integrat. 28387
maint. scheduling, Hopfield neural net appls. *(Japanese)* 43893
maint./QC mgt., OR models 28381
mammography, image quality optimisation 18487
mammography, QA, patient dosimetry 18647
mammography, QC, exposure params. automatic acquisition 18649
math. prog./resource mgt. 20562
max. entropy image restoration, genetic algm. 8509
max. flat optimum broadband antenna arrays, constraints 41014
metallic coatings, eddy current thickness inspection optim. 28919
metrology, math. software class. 17621
mfg. optim., simul., response surface/Taguchi methods 28404
MHD generator, kerosene oil-heavy oil fuelled, optimum perform. design 44420
MHD generators, gas dyn. design optim. 27965
microphone array, optimal positioning of sens. for microphone array 42647
microwave tubes, efficiency optimisation, gradient search 21833
midsagittal profiles/formant freq., vocal-tract area fns. 24128
Midwest Symp. on ccts. and systs., Detroit (1993) 33
MIMO transm. systs., transmitter/receiver optim. 16413
min. class. error, time-freq. masking filters optim. 32406
min. cost power transm., EM field considerations 35650
MLE of multiple freqs. guaranteeing unit circle roots 40825
model adaptive image restoration 8609
monolithic dielec. filters based on integrated waveguide technol. 37944
morph. filter optim. by learning, opt. neural net appl. 1765
motion clustering, stochastic 24628
motion control syst. CAD, SOAP software tool 11222
motor-driven external-injection fans, noise/power reduction tests 28178
moving obj. param. estim. in image seq. 24386
MRI image restoration, optim. approach, sens. fusion 8504
multi-area fuel cell CHP power systs., elec. wheeling anal. 10644
multi-channel deconvolution, generalized sampling approach 15924
multi-hour hierarchical commun. networks design 8787
multi-level/period elec. tariff, unit cost calc. *(Italian)* 4565
multi-objective dyn. load dispatching, optimal operation *(Japanese)* 26936
multi-press. condenser optim. *(Chinese)* 10851
multi-user demodulation, real time, hybrid digital computer-Hopfield neural network CDMA detector 16459
multiarea power syst. simultaneous transfer capability anal. 26997
multichannel systs. optim. for measuring inform. transm. 42751
multicollinearity, nonoptimal estim. 28586
multicriterion nature of diagnosis 42718
multilayer absorber on perfectly conducting plate, worst-case design 23547
multiobjective optim., interactive tradeoff cutting-plane algm. *(Chinese)* 28645
multiorder binary grating design, anal. init. approx. 2143
multipath compensation for underwater acoustic commun. 9614
multiple narrowband/broadband sources, MUSIC approach for DOA estim. 8318
multiple quantum barrier height meas. by LED 13186
multiprojection algm., Bregman projections 11927
multirate filters design, operational-graph approach 12657
multisensor random sig. detect., quantization 24285
multisensor track fusion, optimal 15912
multiservice VSAT networks, multiple access protocols, perform. 42328
multistage laser syst., effective aperture optimisation 31463
multitarget tracking, dominant probab. data assoc. 15913
MV power syst. earthing, phase-to-ground fault current selection 19327
neural net filter, nonlin. fn. optim. *(Japanese)* 21434
neural nets, partitioned, optim. dyn. 24390
neural network appls. in telecomm. network mgt. 3099
neural network for solving LP problems, bounded variables 20566
noisy channels, robust VQ 2382
non-Gaussian sigs., noncausal ARMA models, param. estim. 40834
nondifferentiable optim. in Banach space 225
nonlin. Kerr media, beam steering, spatial PM 2057
nonlin. oscillator design for max. power 37667
nonlin. scale space filtering of image *(Japanese)* 2624
nonlocal optimisation methods, search methods, pot. theory 28641
nonsmooth quasiconvex fns., quasidifferential anal. 226
nonstationary procs., matched generalized Gabor expansion 8343
nonstationary spectral estim., optimal kernels 32556
North Sea oil and gas installations, maint. risk-based optim. 20189
NP-hard optimisation problems 20569
NPP maint., risk-based optim. 19407
obj. recogn. by cost minimization 41330
obs. selection in sig. reconstruction 40823
oceanic midlatitude cyclones, press. determ. from radar obs. 10460
opt. telescope, direct drive, low cogging torque PM brushless motors 11320
optimal on-line algm. for optimisation 37251
optimal-power-flow soln., Newton's method 19000
optimized mapping of video appls., VLSI hardware-software 16253
optimum combining in wireless systs., BER upper bounds 9170
optimum sounding sig. for time-delay measuring syst. 16063
opto-electronic interferometric sens. ccts., CAA/CAD 17761
orthomode transducer and horn EM anal. 23990
oscillators for low phase noise/power consumpt., anal./optim. 37659
oscillatory neural net, optimisation problem, solns. eval. extraction *(Japanese)* 789
outer approx. methods for semi-infinite optim. 11949
packet based access mechanism, perform. params. 33863
PAFC CHP feasibility, multiobjective optimal unit sizing 36074
parallel protocol implement., formalizations/algms. 2938
parallel SVD algm. implemented on MIMD archit. 11990
partial response CPM decoder optim. by state-space partition 40588
partially known sigs. in unknown noise fields, optimal localization 40947
passive target tracking observability requirements 34139
pattern recogn. by homomorphic graph matching, Hopfield neural networks 24567
PCB assembly, CAPP 29666
PCB assembly, component grouping heuristics 942
PCS optimum multi-layered cell archit. 3485
peak-holding navig. syst., obj. coord. correction 25604
penalty, exact-penalty, and multiplier methods, survey 37278
perturb. dual problems, charactns. 11937
phase change opt. disk, mark edge recording waveform optimisation 30844

optimisation continued
phase-change opt. disc, optimum opt. multilayer coupling *(Chinese)* 39315
phased waveguide arrays, wavelength multiplexers optim., beam propag. method 30955
PHIDEO, high-level synthesis for high throughput appls. 41173
photogrammetry inverse problem, soln. 41279
planar p-n jn. termination, theoretical investig. 29888
planar SOFCs, param. design optimisation 44364
plane orient. from skew symm. 2663
plasma source ion implanters, pulse power modulator design optim. 36803
PM rectifier motor, EM field/torque calcs. *(Russian)* 10920
PM syst. synthesis, optimal topography calcs. *(Russian)* 30747
PM-excited sync. motorcar generator, design optim. 5379
point charges, electrostatic min. energy, constrained global optim. 23505
polling systs. optim., Bernoulli schedules 41890
polling systs. with dormant server, power-series algm. 41486
polyphase Barker seqs. up, length 31 2379
power bipolar transistor perform. optimisation, high current dens. 30253
power bipolar transistors, cryogenic operation 30259
power freq. EM devices, shape optim. 15254
power radial network, economically justified modif. 35519
power syst. automation, computational intell. 19161
power syst. directional relays coord., graph theory 35676
power syst. economic dispatch, interior point methods 19112
power syst. emissions-constrained optimal power flow calcs. 10610
power syst. expansion planning under uncertainty 27098
power syst. optimal power flow anal., security constrained 26902
power syst. optimal power flow simul., security constrained 10603
power syst. reliab. optim., elec. utility efforts 4555
power syst. short cct. currents, real-time estim., ANN 19191
power syst. sig. param. estim., neural nets 19170
power syst. stabilizers, real-time, fuzzy controller optim. 4913
power syst. VAr allocation planning, ADAPOS package-based 27092
power system VAr planning, enhanced quadratic interior point method 19204
power systs., AI proc. monitoring/optim. 35698
power transm. syst. optim., struct. neural nets 43727
power VDMOSFETs, channel doping profile proc. design/optim. 30311
preventive maint., IR thermography *(German)* 36983
private data network design, concentrator positioning optimisation 24986
probabilistic fitness measure for deformable template models 41218
proc./device simul., optimal moving meshes 22538
prod. and energy mgt., optimal rule based syst. 36795
pseudomorphic double heterojunction power FET, optim. 12771
pulsed coilguns, two-step design procedure 15303
PV DC motor pumping syst., design optim. 19553
PV systs. sizing optimisation, Algeria 36057
PV water pumping systs., optim. techs. 27628
PWM inverter drive syst. adaptive control 5254
QR decomp. method of least sq., neural network algms. 33153
quartz cryst. mount design optim. via holographic interferometry 39073
quasi-phase-matching waveguide freq. conversion, review 15099
queueing syst., perturb. anal., optim. 195
radial distrib. networks, optimal capacitor selection search method 19264
radial distrib. syst., fixed/SC, optimal choice 19240
radial syst. struct. determ., chaotic neural net *(Japanese)* 4495
radiographic automatic exposure control syst., perform. optimisation 26284
radiographic image quality, scientific work-up, radiologist's approach 18476
radioisotope thermophotovoltaic power, space mission appls. 26638
railgun, operating current limit increase, EM shields 15266
railguns, optim., efficiency improvement 15306
railguns, power supply mode optimisation 23526
random graphs, optimal and random partitions 208
range arith., precise optim. 11954
rapid thermal procs., model-based control 13866
rare-earth PM motor, optimal design *(Chinese)* 44092
re-engng. approach, ATE 34372
real no. model in num. anal. 28644
receiver design, wavelet bases 40929
reconfigurable virtual path network mgt. 41676
recovering 3D shape of unfolded book surface from scanner image *(Japanese)* 32868
recovery based FIR synthesis filters 21424
reduced systolic engine for nonlin. dyn. systs. anal. 29243
reduced-search decoder, storage requirements, optim. algm. 40672
reflector surface distortion compensation by diffr. synthesis 23871
rem. ellipt.-core dual-mode fiber strain sens., coherence-tuned interrogation 17918
repair/replacement policies, marginal cost anal. appl. 28386
resistively loaded bowtie antenna FDTD anal. and optim. for pulse radiation 23926
ribbon-slotted-core opt. fibre subscriber loop cable 34102
ridge-waveguide MQW DFB lasers, static and dyn. simul. 23193
robust design, tutorial 11709
rolling-stock electronic equipt. burn-in optimisation 11869
RTO/nitridation clusterable reactor, MOS gate oxides 22219
rubber tyre image, characters, edge detect., fuzzy α-cut set *(Korean)* 24677
satellite commun., optimum freq. assignment, neural networks 33948
satellite commun. access optim., simul. 17154
satellite reflector antenna diffr. synthesis 23874
scene segmentation in rem. sensed image, cost minimization approach 41331
second-order nonlocal optimisation, pot. theory 11938
segmental PM DC commutator motor, design optim. 36193
self-organizing Hopfield network for attributed relational graph matching 24568
self-seeded gain-switched LD, elec. wavelength-tunable singlemode pulses 31326
semi-continuous magnetic fields optimisation of coils 23514
semicond. laser, hybrid mode-locking, time-bandwidth product 1962
semicond. opt. amp. switch gain optim. 39879
sens. and light source positioning 24369
sens. fusion, Pitman closeness/complete linkage algm. 32801
sens. fusion, sens. location estim. errors 41107
sens. micro-struct., optimal design 34451
series consecutive-k-out-of-n:G systs., optimal design 172
shallow-water fishing sonar param. optim. *(Croatian)* 3632
shared channel lightwave networks, virtual topol. design 41561
ship struct., multi-objective optimum design, reliab. theory *(Chinese)* 5703
short-term intersectoral factor immobility 28380
sig. proc., complex gradient and Hessian appl. 2566

optimisation continued
sig.-subspace param. estimators, resoln. thresholds, defn./eval. 40945
signaling waveforms, ISI/timing jitter effects reduction 15968
simply connected moving objs., static scene, segmentation algm. 8524
simul. optim. via quasi-Newton methods 239
simulated annealing for graph bisection 5759
simultaneous real-time cryst. filter alignment in freq./time domains 39081
single phase induction motor, lamination, optimal design *(Chinese)* 44043
single sided LIM, design, ANN, FEM, SUMT *(Korean)* 27758
single sided LIM, urban transit appl., nonlin. optimisation *(Japanese)* 44560
skeletonization algm. by max. tracking 41180
slotted ALOHA, channel access probabilities, maximize throughput 41516
slow-way systs., heaters for heat treatment of dielec. 44587
small caliber electrothermal accelerator, design optimisation 15289
small power plants, optimal operational planning syst. 35717
smart antenna appls. in mobile commun., const. modulus factorization 32465
SMES coil design optim. 20047
SOFC ceramic component mfg. optim. expts. 44318
SOFC stack modelling, num. simul. methods 44361
solar dyn. space power systs., orbit perform. effects 35243
solid-state power combiner, dielec. tuned, optim. 29553
sonar, global inversion by genetic algm. 17468
spacecraft solar array size optim. efforts, UK 26686
speaker recogn., min. error discriminative training 15826
speaker recogn., min. error discriminative training 32286
spectral reflectance factor scale for calib. and stds. 9776
speech coding, adaptive dens. pulse excitation 24158
speech recognizer, ref. model optimisation via pronunciation variability *(German)* 40738
spherical anechoic chamber, EM field multipole anal. 31708
split image vision sens., optimal design 34599
spring finger EM shielding gaskets in indust., perform. optim. 23714
squirrel cage motor perform. characts. calc., nameplate data-derived *(Russian)* 11011
squirrel cage motors, computer-based design assistant 19643
stabil. anal. in combinat. optim. 37283
stable barrier-projection and barrier-Newton methods in LP 212
stat. multiplexing mechanism for advanced TDMA 9277
stat. phys. approach, optim. problems 11939
state vector reconstruction, optimal in 2D systs. 32685
steam power plant water treatment optim., economic benefits 43901
steam turboalternator set, rotor syst. bearings, optim. of installation posns. *(Chinese)* 36141
stereoscopic images, matching point detect. optim. *(Japanese)* 16128
stochastic optim., identifying policies most likely, produce desirable outcome 11921
stochastic optim. algms., gradient approxs. based on fn. meas. 11940
sub-optimum receiver, convolutional codes optim. 42170
suboptimal detectors, discrim./perform. measures 24284
super-resoln. range-Doppler imaging 25556
surface-relief holograms, high diffr. efficiency, replication proc. 31643
SVC, nonsinusoidal periodic real voltage source, optim. 35499
SW FEL amps., perform. simul. and param. optim. 39900
switched reluctance machines, torque optim. design *(French)* 10990
switching systs., Markovian, 1-step fixed-lag smoothers 15910
symmetric definite pencil eigenvalue optimisation 11895
symmetric lin. complementarity problems, accelerating iter. algms. 245
symmetric matrix, largest eigenvalue minimisation 188
syst. test cost modelling, event rate anal. 5587
syst./subsystem/component burn-in modelling/maximisation 28427
telecomm. network optim. 3073
telecomm. systs., neural networks appls. 41454
telecomms. network cct. optim., detailed traffic data 41570
telecomms. network design, time-series traffic data *(Japanese)* 41564
telecomms. network optim., part of network planning proc. 33331
telephony, network service pricing in competitive environ. 41719
test proc. optim. and cost modeling tool 5588
texture anal., center-symmetric autocorrelation 24370
thermal cogen. with wheeling, model anal. *(Japanese)* 10850
thermal power plant third order composite generation prod. cost fn. 10847
thermal power plants, optimisation, init. inform. uncertainty 19491
thick/thin film resistors, built-in reliab., ageing kinetics 5706
three-scale detect. systs., synthesis 41030
TRANSEPT ES, point-to-point transm. network CAD appls. 27128
transm. line towers, reliab.-based optim. 43789
transm. network expansion planning, computer software appl. 10712
transm. network optimal fault location, μP-based 4623
transm. network transient fault simul., EMTP-based 27129
trellis coded 8-PSK and 4-AM for Rayleigh channel 8104
triangulation problem soln. 15903
TsV centrifugal fan induction motor drive selection program 44603
turbine blades, detailed design, KBS 19512
twisted NLC panel optim. for spatial light PM 31007
two-channel rejection filters with countable coeffs., optim. 32571
two-stage endoreversible combined cycle, max. specific power output 36028
ultra-efficient desalination, dual purpose plant 28201
ultrathin gate oxide optim. SILO/RTN isolation proc., advanced ULSI 1281
ultrathin MLB optim., materials and PCB fab. issues 38128
UN-MUSIC/UN-CLE, DOA in unknown noise, perform. anal. 32554
underwater acoustic commun. digital receiver 17359
underwater commun., self-optimized adaptive algm., equalization *(French)* 25592
unified phase I-phase II semi-infinite constrained optim., steering param. *(Korean)* 28647
unimodality of nonlin. scheme of compromises 238
unique input output test seqs. length, lower bounds 41492
unit commitment optimisation, ramp-rate limit considerations *(Chinese)* 43716
unit disk graphs, heuristics 37247
unstable cavity excimer laser, radiation field form. 31446
urban distrib. systs. operational structuring, reliab. aspects 43753
URD cable routing, Automated Primary Router GIS 35624
US sens. perform. enhancement, driving sig. optim. 43553
USA NPP reliab.-centred maint. status 19408
VAR planning, partitioned power syst. networks 4618
variational method for num. differentiation 37336
variational problems, symmetric duality 228
Venezuelan telecomms., network planning 2985
VGA colourmap optim. methods compared 33022
video compression by coeff. compensation 16194

optimisation continued
VLSI design, neural net for scheduling/allocation 30414
VLSI multi-chip design, timing-driven syst. partitioning, fuzzy-neuro approach 792
voltage limited transm. interface constraints, lin. model 35591
Volterra models, stochastic, Kalman-Bucy filtering 20505
vortex meter configuration optimisation 26013
wave power generation, oscillating water column-type caisson 19547
waveguide divider, anal./design *(Polish)* 810
wavelet based image proc. algms., quantitat. eval. 35003
wavelet transform and translation invariance 32664
weak-sig. image proc., multichannel whitening of non-Gaussian data 16100
whispering gallery sapphire resonators, 2D finite element calc. 30625
wideband high-gain stacked microstrip antenna element 23981
wideband RF power amp. input matching network param. optim. *(Croatian)* 548
wind powered sync. generator, operating conditions improvement *(Russian)* 27650
window flow control, perturb. anal. 8778
WISE CAD software for indoor wireless systs. design 42189
wordspotter training, fig.-of-merit back propag. 32302
wordspotting systs., recogn./rejection perform. 32298
workers protection optimisation, NRPB recommendations 10296
worldwide IN, dyn. routing strategies 33639
AlCu-Si multilevel IC interconnections, manufacturability/reliab. 38644
AlCu-TiN VLSI interconnect systs., design and building-in reliab. 38645
AlGaAs anti-reson. reflecting opt. waveguide, second harmonic surface emission 39399
CO_2 lasers, closed loop gas ccts. simul./optim. 31158
Cu-Cr bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
Cu-Ti bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
Cu-polyimide-Si multilevel IC interconnections, manufacturability/reliab. 38644
CuCr alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
CuTi alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
Er-doped 980-nm single-pump recycled fibre amplifer optim. 31226
Er-doped fiber amp. cascade, WDM syst. perform. optimisation 42416
Er-doped fiber amps., optimized noise perform. for AM-VSB distrib. systs. 7555
Er-doped integrated glass laser, modeling and optim. 22921
Er-doped planar opt. amp. design, background loss, proc. control 39750
FeNi-SiO_2-Si thin-film magnetoresistive sens., param. optim. 17724
GaInP/GaAs, MOVPE grown heterointerfaces, III/V exchange 20886
Ge XXIII plasmas, X-ray laser gain 23075
H masers Frequency control, high accuracy calibs. 39635
Ni-H_2 Astra 1A satellite batts., perform. improvement schemes 26661
O_2 effects on solder surface, PCB assembly options 38153
Pd-Zn-Pd-Au ohmic contacts to p-InGaAs-InP, optim. 38387
Pr^{3+}-doped fluoride fibre amp., pumped, design optimisation 31219
SO_2 emission compliance, optimal planning 4846
Si RTP, optimum gas flow engng. 22230
Si bipolar transistors, optimized base design for low temp. operation *(Chinese)* 22378
Si rect. diaphragm press. sens. 17753
Si:B(P), low-energy implant., RTA/furnace annealing, XRD optimisation 22102
SiGe thermoelec. materials optim., space power appls. 26585
Ti:sapphire pulse stretcher-compressor in chirped pulse amplif. 31287
YBaCuO step-edge devices optim. 22719

optimising compilers
SDL-based protocol implement. tool, proc. scheduler/compiler 41542

optimum control *see optimal control*

opto-couplers *see opto-isolators*

opto-isolators
IGBT driver PC928, short cct. protection, OPIC photocoupler *(Japanese)* 529
motor drives, inverter design, optocouplers 28073
optocouplers, ageing 14607
optoelectronic feedback control for power supplies 37624
precision optoelectronic devices, mech. displacement meas., automated pulsed-emission 23017
radiation effects, LEDs, LDs, PDs, OCs 23047

optoacoustic effect *see photoacoustic effect*

optoacoustic spectra *see photoacoustic spectra*

optoacoustic spectroscopy *see photoacoustic spectroscopy*

optodes *see fibre optic sensors*

optoelectronic devices
see also integrated optoelectronics; light emitting diodes; opto-isolators; photoelectric devices
2D opt. three-layer neural associative memory 39524
2D prog. photonic time-delay device for MM-wave sig. proc. appls. 14576
ANN for commun. systs. modeling/simul. 17246
Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
Australian photonics/ opt. fiber R&D, overview 34064
bitonic sorting optoelectronic recirculating archit. 22971
cathodoluminescent screens, partially coherent radiation, recording and inform. proc. 34645
CBE, proc. control 37417
cellular multichannel video/data commun. optoelectronic components 34080
chirped laser radar, optoelectronic chirp generation and sig. demodulation 17444
chirped laser radar, optoelectronic sig. demodulation 17448
conf., Los Angeles, CA, USA, Jan., 1994 36838
conference, optoelectronic science/engineering, China (1994) 28207
consumer appls., compact device 7492
delayed opt. bistable syst., chaos control 31555
dense WDM packet switching networks, review 3538
digital photogrammetric assembly point determ. 41272
electron lithog. fab. 30170
electron-trapping material optoelectronic neural dendritic tree proc. 39520
electronic components and technol., conf., Washington DC, 1994 5473
electronic packaging, conf., Binghampton, NY, USA (1993) 20249
electrothermal-chem. gun, digital/optoelectronic ccts. 31750
Fourier domain opt. pattern recogn. syst. illum. sensitivity 32942
freq.-phase optoelectronic speed-measuring devices 42947
fuzzy syst., inference methods, stabil. eval. 31045
GaAs/AlGaAs pnpn optoelectronic switches, transient modelling 39545
gas turbine particle charactn., optoelectronic imaging syst. *(French)* 42849

optoelectronic devices continued
GIS arc detect. by optoelectronic systs. *(German)* 27855
gray level image filtering, Q-state mean field annealing algm. 8508
hardware-software complex for real time optoelectronic syst. modeling 9652
HOE, wave front aberration minimisation 31642
Hong Kong electron devices meeting (July 1994) 36827
hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
indust. Raman scatt. opt. materials charactn. facility 5693
information optics frontiers, conf., Kyoto, Japan (1994) 28211
interferometric sens. ccts., CAA/CAD 17761
IR optoelectronic data transm., interfaces 34042
ITRI, Industrial Technology Research Inst., optoelectronics technol. 7454
lightly shaded opt. syst. port, photom. charact. 7455
LINK Optoelectronic Systems Programme, London, UK (June 1994) 20
market outlook 7452
matrix multiplier, vector unit design 31029
matrix-vector multiplier, computational accuracy 31027
med. US transducers, optoelectronic transmitters 35005
microwave semicond. diodes, optoelectronic charactn. 6304
MOMS-02 sens., combined stereoscopic along-track and multispectral data 41270
MOVPE optoelectronic device technol. 28747
multistage opt. butterfly interconnection and optoelectronic logic operations 1759
Nordic semicond. meeting, Iceland (Jun. 1994) 27
nuclear and space radiation effects, conf., Tucson (1994) 5489
optocouplers, ageing 14607
optoelectronic material appl. in Japan, review 7453
optoelectronic photorefr. memory, NDRO and updating 14340
optoelectronics technol. consortium (OETC)- opt. data link/optoelectronic components 33485
packages, spot-welding tech. 5645
pigtailing and connectorization techs. for optoelectronics 39610
polariz.-insensitive telecomm. optoelectronic device design 14578
poly(phenylene) photoimageable waveguides, fab. and characterisation 39403
quadratic nonlin. opt. materials *(French)* 1649
rangefinder phase meas., double referent mixing *(Croatian)* 3625
solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
telecomm. optoelectronics, OMCVD epitaxial growth 37416
test stands, thermal effects 10312
two-sect. travelling-wave semicond. laser amp. optoelectronic time division demultiplexer 42100
wide-band coherent laser radar sigs., optoelectronic proc. 17453
AlGaAs/GaAs optoelectronic device reliab. 28526
Cl_2 ECR plasma etching of III-V semiconds. 22188
GaAs/AlGaAs, MBE, optoelectronics appl. 5850
GaAs/AlGaAs bistable FET, optoelectronic switching 40056
GaAs-AlGaAs monolithic optoelectronic switching network 42130
GaAs-Si, MBE, optoelectronics appl. 5850
GaSb QW struct., highly excited, opt. absorpt. and refr. spectra 13185
InAlAs:Zn, MOVPE grown, doping, MQW electron transfer struct. appl. 13318
InAsP/InP/InGaP 1.5 μm strain compensated MQWs, optoelectronic appls. 1140
InAsP-InP quantum wells/PIN diodes, growth/charactn. 12058
InGaAsP/InP optoelectronic device reliab. 28526
Si substr. integrated optoelectronic devices 7488
a-Si:H PECVD growth proc., optoelectronics appl. 395
a-Si:H films, ESR determ. of opt./elect. props. 1644
Si/Ge heterostruct., MBE, optoelectronics appl. 5850
TiO_2:Nb(Cr) thin films, RF reactive sputtered, optoelectronic/gas sens. appls. 39546
ZnSe/ZnCdSe/ZnSe MQW device, opt. modulation and switching 25539
ZnSe-based nanostructures, waveguide DFB laser appls. 23296
image detail morph. enhancement and rank-order, optoelectronic proc. 24487
optoelectronic integrated circuits *see integrated optoelectronics*
optogalvanic spectroscopy
MHD, alkali seed monitoring, laser optogalvanic spectrosc. 27969
optothermal effects *see photothermal effects*
optothermal spectroscopy *see photothermal spectroscopy*
optrodes *see fibre optic sensors*
optrons *see opto-isolators*
OR *see operations research*
OR gates *see logic gates*
Oracle *see teletext*
orbitals, atomic *see atomic structure*
orbitals, molecular *see molecular electronic states*
organic insulating materials
see also epoxy insulation; insulating oils; paper; plastics; polyethylene insulation; rubber; silicone insulation; varnish
anti-ESD polymer, internal space charge distrib. meas. 30586
cellulose insulation intrinsic elec. strength *(German)* 30591
cyclohexane dielec. liq., cathode streamer initiation obs. 13957
distribution syst. multiple dielec. lightning impulse strengths 35633
EPR-insulated cables, thermal life testing/charactn. 14011
ethylene-propylene copolymer, charge injection/polarisation 14036
flashover voltage, wetting conditions effect 19322
fluoropolymer-based dielec. materials for PCBs, fab., proc. considerations 29679
glass forming polymers and non-polymers, cooperative relax. processes 14038
heat/radiation-resistant coaxial cable insulation *(Japanese)* 16990
high-capability polymers and appls. *(German)* 28883
HTPB/Al particle composites, elec. cond., low fields 30589
HV vac. diode insulators, elec. breakdown 35659
mechanical properties/electrical treeing behaviour correlation 13971
Midel 7131 liq. ester substitution for transformer oil *(German)* 19697
nylons of metaxylylenediamine and aliphatic dicarboxylic acids, ferroelec. behaviour 14001
PEEK, poly(ether ether ketone), crystallinity and dielec. props. 14015
PET films, creepage surface discharge in SF_6 gas *(English)* 30585
PET films, elec. breakdown under hydrostatic press. 13949
plastic tape covered winding wire, transformers, characts. *(Japanese)* 12853
poly(p-phenylene) polymer, TSDC spectra 14037
polyesterimide magnet wire, thermal degradation mechanism 14047
organic insulating materials continued
polyimide/borosiloxane insulated ceramic wires *(Japanese)* 12855
polymer ageing kinetics, elec. meas. 1515
polymer insulation dielec. strength under PD stress 22675
polymer insulation PD stabil., energy characts. *(Russian)* 6894
polymer morph., influence on water treeing 13943
polymer-insulated MV cable ageing diagnosis from post-discharge meas. *(German)* 10743
polymeric HV cable, PD testing 4687
polymeric insulating materials, elec. treeing 1510
polymeric insulation, testing equipt./methods 1562
polymeric insulators, thermal anal. techs. 6918
polymeric materials, water treeing, computer simulation 14062
polymers, electrical ageing problems 13969
polypropylene film insulation, aging-model consts., HF HV fields 14019
polypropylene films, ultra thin, elec. props. 13955
polypropylene thin films, partial discharge and breakdown 13963
polystyrene, partial discharge stability, struct. depend. 13965
power station HV equipt. insulation, online PD anal. 4756
PVC cable components, reliab. test methods 29621
PVDF films, gas emissions, poling conditions influence 14039
PVDF metal/polymer interface, dielec. breakdown 13961
PVDF/polyetherimide laminates, breakdown strength 13962
resin based composite insulation, discharge barriers 1514
resin insulators, PD, light emission detect. 1528
self-healing metallized polypropylene power capacitor testing 27877
silicone oil/polymer particles suspen., electrorheological effect 39066
streaming electrification, polymeric material effects 14022
submerged water-filled elec. motors, insulation 10957
surface charging, field- and photo-effects 13937
Teflon-Af films, spin-coated, electret props. 13932
thermogravimetric point slope procedure, thermal endurance 14018
thin walled polymer insulators, mech. characts. 10760
traction motors, Class 200 armature insulation syst. 11395
water treeing, mech. aspects 39065
organic semiconductor materials *see organic semiconductors*
organic semiconductors
C black-filled semicond. materials, props., HV power cable appls. 13974
copper dicyanoanthraquinone diimine thin film electrodes, H sens. 17976
copper phthalocyanine film, MBE growth 20809
copper phthalocyanine single mols. and islands, STM obs. 28809
cryst. organic semiconds., OEICs, photonic devices 39616
dibenzotetrazaannulenes films, elec. cond. in strong elec. fields 1061
disordered, geminate recomb., field depend. 1015
α-hexathienylene act. layer TFT, characts. and appls. 22448
HV-proof aluminum solid electrolytic capacitor, develop. *(Japanese)* 38051
MEH-PPV sandwich devices, photosensitivity and implication, polymer electronic struct. 23013
multimode reson. cavity LED, organic semicond., colour var. 1824
oligothiophenes, conjug., transistors and SLM 22931
organic materials for electronic/photonics, conf., Japan (1993) 11532
phthalocyanine films, MBE growth/photoelectrochemical procs. 20811
phthalocyanine LB films, RT toluene gas sens. 17986
poly(2,5-thienylenevinylene), TFT, charactn. 22402
poly(3-methyl thiophene)/Al Schottky barriers 13212
poly(3-methylthiophene) conducting polymer films, photoelectrochemical response 13094
poly(p-phenylene vinylene)/tris(8-hydroxy) quinoline aluminum heterostruct. LED 31103
polyaniline conducting polymer films, photoelectrochemical response 13094
polyaniline network electrode LED, enhanced perform. 23033
polymer LED at LV, I-V characts. 23040
polymer transistor archit. 6443
polymers, semicond., carrier injection, Fowler-Nordheim field-emission tunneling 14644
polypyrrole conducting polymer films, photoelectrochemical response 13094
polypyrrole-polyamide composite films, gas sens., NH_3, CO_2 25899
PPV, ion implant. doped, MISFET 38885
PV cells, excitonic light collection, high charge carrier mobilities 27937
reson. cavity organic electroluminescent devices 23045
α-sexithiophene MIS diodes, charged excitations, opt. studies 13256
TCNQ/polymer amorph. semicond. MISFET, cond. and field-effect mobility 13737
tetra-tertbutyl copper phthalocyanine LB film NO_x gas sens. 25893
C_{60}-conjug. polymer supramolecular composite, role in photoelec. devices 31081
Co-phthalocyanine thin films, elec. cond., O doping, IV charact. 21939
MgF_2/organic layer superlattices, struct., opt. props. 29898
organic superconductors
Shubnikov-de Haas and supercond. meas., uniaxial stress method 34662
organs (artificial body) *see artificial organs*
orientational glasses
(Ba,Sr)TiO_3, diffuse ferroelec. transit., relax. dipolar freezing 30568
original equipment manufacture *see DP industry*
orotrons *see free electron lasers; microwave generation; microwave tubes*
orthicons *see television camera tubes*
orthosis *see orthotics*
orthotics
see also handicapped aids; prosthetics
arm movements control, muscle stimulation patterns, neural network generation 10279
automated ventilator testing, intermittent/unconfirmed faults 4303
back belts, perceived benefits, placebo effect 85
FES systs., prog. electronic stimulator 10280
lower limb act. external orthosis, neural network appl. 10272
neoanal press. meas., implantable press. sens. *(Japanese)* 18617
paraplegic locomotion, hybrid functional elec. stimulation syst. 10273
phrenic nerve, long-term intramuscular elec. activation 10275
rehabilitation R&D progress reports, (1992-1993) 26477
upper-limb orthosis, powered, task anal./motion simul. 4306
oscillations
see also circuit oscillations; electromagnetic oscillations; harmonic oscillators; harmonics; piezoelectric oscillations; plasma oscillations; resonance; stability; waves
1.55 μm DFB lasers with strained-layer MQW act. grating, transfer-matrix dyn. model 1993
adaptive PSS, turbine governor control 4564
apparent power, phys. meaning, comment/reply 4470

oscillations continued
capacitor voltage transformers, ferroresonant oscills. 27788
charged-particle beam in EM field, oscill. 40264
circ. FEL, expt. mode anal. 39914
cross cpd. turbine generator, PSS design *(Japanese)* 10616
cylindrical resonator, insert made of absorptive dielec. 15588
DFB-LD with side-mode light injection, bistability and waveform reshaping 23250
diffr.-coupled lasers, collective mode phase profile control 15005
external cavity chaotic opt. commun. LD, periodic oscills. 39832
FEL, 2D DFB, dyn. 2011
FEL oscillator spectral anal., Green fn. anal. 39977
fibre soliton self-freq. shift, mol. oscill. period 23356
grating free oscills. and waves, Morse crit. points 15611
GTAW, sync. weld pool oscill. monitoring/control 5618
heterostruct. QW bistable laser oscillators 7655
high-gain Compton FEL pulse evol., nonlin. macroscopic eqns. 39976
induction motors, torque oscills. reduction, supply switching 19636
laser materials charactn., spectral anal. of relax. oscills. by intracavity method 34716
LF cavity oscill. driven by detuned current modulation 29787
lin. induction launcher, in-bore projectile dyn. 15297
long. power syst., PSS experience 35442
MOSFET device perform., distrib. gate resist. impact 1402
motors, double power supply, LF oscillatory motion 4904
multiconductor bundle power lines, short-cct. mech. loads 19313
multigenerator power systs., damping anal. program 4486
nonlin. ring resonator, oscill. mode selection, bifurcation of chaotic mode transits. 15117
nonstationary M/G/1 queue charactn., Bode plots 11904
opt. fiber stimulated Raman gain spectrum meas. by short pulses 22821
orbital debris radar antenna pointing Kalman filter 25581
p-nitroaniline centrosymmetric single cryst., surface opt. SHG 40118
parallel turbogenerators, phase shifts, SSR, incipient stabil. 43978
power syst. dyn. stabil. assess., Rayleigh's quotient *(Japanese)* 35453
power syst. oscills. anal., Hopf bifurcation theory *(Chinese)* 26908
PSS, multilayer ANN appl. 43670
PSS, rule-based, variable-gain 19082
pulsed excimer lasers, dense gases pumped, self-sustained discharge 14716
quasi-Cherenkov X-ray DFB FEL under multi-wave diffr. 39978
Queensland-NSW power syst. interconnection, tech. aspects 26977
radioelectronic apparatus, printed components dyn. charact. computing 38071
SEL mirror effects on dyn. response 31315
semicond. laser, dual modulation, large sig. anal. 1975
single-mode fibre connections, mutually-pumped phase conjug. mirrors 15105
SQ well submillimeter-wave generation and amplif. by coherent wave-packet oscills. 6559
submersible induction motor pumps, soft starting calcs. 4954
sync. generator rotor angle calcs., zero seq. harmonic components-based 4912
sync. machine stator cct., transient effects on power syst. stabil. 4922
two-freq. undulator FEL, space-charge effects 14985
UHF free-electron maser oscillator expt. 39918
US NDT syst. automatic class. algm. 28905
vis. emitting fluoresc. dye solid state tunable lasers 14804
Zener diode, neg. resist. characts., onset of avalanche breakdown 22345
AlGaAs-GaAs modulation-doped heterostructs., microwave I/V characts. 1075
CO_2 CW laser diffr. couplers, oscill. charact. of cavities 7523
CO_2 multimode laser with a saturable absorber, multistability 7518
Cu vapour laser oscillator, adjoint-coupled self-filtering injection 39670
Er-doped fibre laser, mode-locked, stabilisation 23126
Er-doped planar waveguide lasers, theoretical modeling of relax. oscills. 14818
Er^{3+}-doped intracavity LD pumped modulated fiber lasers 1879
GaAs/AlGaAs superlattices, electro-optic detect. of Bloch oscills. 21988
GaAs-AlGaAs superlattice Bloch oscill. higher harmonics 21989
He-Ne gas laser with nonadiabatic modulation of cavity, oscill. dyn. 7526
InGaAs-AlGaAs laser oscillator surface grating output couplers 23255
n-InSb, freq. tuning prop. of HF nonlin. acoustoelec. oscills. 30566
$LiF:F_2^-$ colour center laser switches 7708
$LiF:F_2^+$ laser pumped by a flash lamp, multimode oscill. 7596
$LiNbO_3$, periodically poled, 1.064-μm-pumped opt. parametric oscillator 23382
$LiTaO_3$ waveguide SHG of LD radiation 23442
Nd:YAG injection-locked solid-state laser, freq. and intens. noise 31245
Nd:YAG laser cavity decay rate and relax. oscill. freq. 23166
Nd:YAG pass. Q-switched transverse-diode-pumped laser oscillator *(Chinese)* 14797
$Nd:YVO_4$ miniature microchip laser modes *(Japanese)* 14823
Si single electron transistor at RT, conductance oscills. 22323
Tm-doped 1.9-μm fluoride fiber laser amp., 1.6-μm pumped 23136
Xe_2* self-sustained discharge-pumped laser at 172 nm, kinetics 14704
XeF(C→A) 170 J excimer laser, electron beam pumped 23098

oscillator strengths
III-V semiconds., mag. field effects on opt. nutation 2089
squaraines, neg. third-order opt. responses 15134
superlattice, -1 Stark ladder transit., electro-opt. modulator appls. 14521
GaAs MQW struct., semiempirical line shape model 1145
InGaAs-InAlAs asymmetric coupled QWs, elec.-field-induced refr. index changes 21980
Na narrowband wind-temp. lidar syst. sensitivity anal. 43503

oscillators
see also audio-frequency oscillators; backward wave oscillators; dielectric resonator oscillators; feedback oscillators; Gunn oscillators; harmonic oscillators (circuits); IMPATT oscillators; injection locked oscillators; parametric oscillators; phase locked oscillators; radiofrequency oscillators; relaxation oscillators; tunnel diode oscillators; variable-frequency oscillators; voltage-controlled oscillators
2D chaotic cellular neural network sync. phenom. 21493
act.-R oscillator based meas. tech. of capacit./loss factors 42891
act.-R sinusoidal oscillators, current feedback amp. pole 21138
asynchronous excitation phenom. in oscillator,periodically operating analog switch *(Japanese)* 12358
bipolar transistor sustained oscillators, energy/fluct. charact., computer anal. 570
CCII-based multiphase sinusoidal oscillators 29068

oscillators continued
chaos masked messages extraction 32590
chaotic cct. noise generator, design *(Japanese)* 37662
Chua's oscillator, anal. of chaos, SPICE simulator *(Slovenian)* 37664
CMOS analogue chaotic oscillator for sig. encryption 34433
coherent detect. photodiode, optimum opt. LO power levels 25847
coherent opt. POLSK receivers, LO intens. noise and unmatched quantum efficiencies 25491
combined sapphire oscillator-H_2 maser freq. std. 9778
coupled sustained oscillators each with own time const., order-chaos transit. 21141
current transistor-transistor-inductor oscillator 580
delayed self-excited oscillator, inertia, external noise sig. effect 6042
digital portable phone transmitting amp., converter-control IC 25284
Josephson jn. arrays, adiabatic chaos 7240
laser commun. terminal for LEO satellite constellations 17297
lin. inertial networks, wideband param. flucts. 21148
MOPA LD for satellite commun. 17300
multiphase sinusoidal oscillator, CFOA pole 21142
n-phase oscillators, integrated analog switches 6044
neg. resist. oscillatory cct., async. simultaneous oscills. 21140
neural networks for image proc. 12678
nonlin. charact., resistor coupled ccts. sync. 21147
nonlin. oscillatory systs., parametric excitation area calcs. *(Russian)* 29071
phase-syst. cascading, nonlin. dyn., modeling 12368
quadrature oscillator cct., anal., APEX simulator 572
radar systs. freq. control devices 42522
reactive elements, flicker noise, thermodyn. constraints 37661
RLC nonlin. cct., interact. of LF and HF oscills. 507
single op-amp sinusoidal RC oscillators, equiv. forms 568
sinusoidal oscillators, single element control, current-feedback amp. 21137
sinusoidal oscillators using current feedback amplifiers 29069
spiking oscillator networks, on-focal-plane image preprocessing 29413
sustained oscillator systs., noise characts. and conversion 12354
Wien-bridge oscillator, modified for chaos generation 21143
GaAs-AlGaAs FET-SEED technol. based ring oscillators 23057

oscilloscopes
see also cathode-ray oscilloscopes; digital storage oscilloscopes
AC network quantities representation, synchronoscope 10785
broadband sampling oscilloscope, nose-to-nose calibration 25913
DL5180/5140 digital oscilloscopes 9970
linearity of fast digital oscilloscopes improvement 25753
oscilloscope waveforms and their representation 5945
planar inductors charactn., 1 MHz, large excitation 6379
refl. pulse method for material props. determ. 9829
sampling oscilloscope calibration IEEE-1057 draft standards 25702
specs., IEEE Standard 1057 42868
spectral estimation using distorted-timebase digitizer 25735
waveform recorders digitizing, IEEE std. 25912

oscilloscopes, cathode-ray *see cathode-ray oscilloscopes*
OSI *see open systems*
osmosis
aq. rosin flux cleaning, PCB manufacture, thermodyn./kinetics 38142
integrated membrane purification, water reuse in electronics mfg. 11888
semi-aq. flux cleaning, equipt. considerations and rels. 6425
spherical dielec. particles, dielectrophoretic interact. 7905

osmotic pressure *see osmosis*
OTA *see operational amplifiers*
OTDR *see optical time-domain reflectometry*
OTEC *see ocean thermal energy conversion*
OTF *see optical transfer function*
otology *see ear*
output feedback *see feedback*
outsourcing
Amadeus's computerized reservation syst., global outsourcing 16601
ASIC products, turn-key design *(Dutch)* 100
contract mfg., continuing trend, outsourcing 28384
mfg. service provider selection, OEM considerations 36978

ovens
see also domestic appliances; electric heating
3D EM cavity anal. using high order edge elements, microwave ovens 37964
cement indust., rotary kiln design criteria, clinker manufacture 5429
cement plant design, power/emissions reduction 44637
elec. utility DSM planning, elec. cooking implications, Nepal 35475
induction cooker coil CAD, Pascal program-based 36785
induction stove, hybrid reson. converter 5390
International Appliance Technical Conf., Madison, WI, USA (1994) 36908
microwave heating power supply, high PF mode 11185
microwave oven, double turn defrosting syst. *(Japanese)* 44614
microwave oven, high loss dielec., EM fields, FD-TD anal. *(Japanese)* 28186
microwave oven design, EM wave anal. methods *(Japanese)* 44619
microwave ovens, rect. waveguide trough model 11476
SC-cut resonators appl., high stabil. oscillators 39108
SMT reflow soldering oven perform. maximization 913
snap cure ovens, upscaled models, flow patterns 30438
steel indust. wireless coke oven SCADA syst. 9824

overcurrent protection
1 MJ pulse power capacitor bank short-cct. current protection 11228
3-phase indust. transformers, overcurrent protection 5014
6 kV mining power networks, short-cct. protection design *(Russian)* 5433
12 kW/250 kHz series resonant power convertors, induction heating appls. 36787
35 kV transformer substation fuses, protection characts. optim. *(Russian)* 5162
220-500 kV power grid control/protection planning, China *(Chinese)* 35572
225/42 kV substation lightning protection *(French)* 36485
600 V current limiting fuses spec., AC switchboard appl. 19900
AC rly. power syst. protection/fault meas., PC-based 44536
automotive high side power switches, intell. diagnostics 20114
current-limiting devices, AI action 544
DC telecom. power distrib. syst. overcurrent protection, batt. model 43749
distrib. double-cct. lines, dist. protection relay calcs. 19260
distrib. line overcurrent protection settings determ., DSS-based 19259
distrib. network fault current reson. grounding project, Australia 19258
distrib. network protection, pos. temp. coeff. thermistors 4643
distrib. network sectionalizer allocation, genetic algm.-based 10729
EHV radial transm. networks, transient recovery voltage stresses 4619
environ. test chambers, safety guidelines 94

- **overcurrent protection** continued
  - fuzzy logic power supply protection cct. for severe transients 44188
  - I_s-Limiter, distrib. switchboard short-cct. protection 19339
  - IGBT, monolithic over-current protection cct. 30422
  - indust. distrib. networks, capacitor overcurrent protection 4653
  - intell. IGBT, overcurrent protection cct. 30423
  - intell. power IGBT modules, motor drive appls. 532
  - interconnected power syst., directional overcurrent relay coord. 4534
  - LV cct. breakers, overcurrent discrim. modelling *(French)* 11210
  - LV cct. breakers, principles and develop. 19886
  - LV hybrid AC cct. breaker switching params., computer simul. 19342
  - MCT, gate drive cct., overcurrent protection 12323
  - MCT phase controlled rectifiers develop. 27833
  - Mini-Smart SIPMOS switches in SOT-223 SMD packages 522
  - motor explosion protection switches *(German)* 11203
  - MV power syst. earthing, phase-to-ground fault current selection 19327
  - MV power syst. protection, neutral earthing techs. *(French)* 10772
  - phase differential currents, faults, relay protection *(Chinese)* 43794
  - polyphase motor protection principles and ccts. *(Italian)* 10941
  - power IGBT converters, overcurrent fuse studies 6016
  - power IGBT short-cct. protection, motor drive appls. 29026
  - power MOSFET, integrated protection ccts. 38861
  - power overhead line overcurrent protection devices, recent develops. 43778
  - power semicond. fuse selection, surge current tests 6015
  - power syst. automatic cct. breakers, protection charact. stabil. *(Russian)* 10773
  - power syst. directional overcurrent relays coord., decomp. approach 10780
  - power syst. HTSC short-cct. current limiter studies 19341
  - power syst. LV fuse overcurrent behaviour 19343
  - power syst. overcurrent relay harmonic simul./testing 10613
  - power syst. overload current interrupter verification studies *(Russian)* 36395
  - power syst. protection, interactive software, education/training appl. 35683
  - power syst. protective CT, transient perform. calcs. 19340
  - power syst. short-cct. arcing fault effects limitation 19344
  - power syst. short-cct. current meas., transreactor-based, calcs. 19362
  - power transformer xx *(Korean)* 36220
  - pulsed power supply slow capacitor banks, overcurrent protection 36313
  - PV generating plants, lightning protection methods *(German)* 4869
  - PWM IGBT invertor power supplies, case study 36353
  - PWM self-commutated SVC, power syst. appls. 4511
  - single-phase transformer magnetis. and inrush currents *(German)* 11102
  - telecom. network line interface overvoltage/overcurrent protection 16573
  - telecomm. DC distrib. networks, overcurrent fuse simul. model 19276
  - three-phase power transm. line adaptive resist. relay 4715
  - three-phase PWM reson. buck converters, power control 5060
  - thyristor power converter, short-cct. current protection *(Polish)* 27790
  - $YBa_2Cu_3O_{7-y}$ high T_c current limiting element 10776
- **overhead line conductors**
  - 10 kV rural distrib. ABC installations, Eire 43776
  - 330 kV compact transm. line, phase conductor configs. *(Chinese)* 35652
  - accessories/fittings develop., manufacturer/user rels. 43785
  - bundle conductors, phase-to-ground/phase air gaps, flashover voltage 27219
  - compact 230 kV line, corona perform. 27221
  - elec. field meas., oscill. transients, static probe 4693
  - freq.-independent cct. model of conductor under surge conditions 31878
  - HVDC transm. lines, twin conductors, DC corona anal. 4634
  - LV ABC, XLPE insulated, reliab. 43774
  - LV aerial bundle cables, moisture ingress 35655
  - MAGLEV train coil syst., transient induced voltages study 11428
  - multilayered earth excited by overhead wire, EM field components 2179
  - MV overhead XLPE insulated Al alloy conductors, experience 43775
  - rural distribution, IEE Colloquium, London (1995) 28273
  - TRIVAI aeolian vibr. indicator 43779
  - AlCuMg based alloy overhead line conductors 27220
- **overhead line mechanical characteristics**
  - *see also oscillations; poles and towers*
  - 400 kV distrib. substations, conductor short-cct. effects simul. 19281
  - ACSR power overhead lines, high-temp. operation tests 27235
  - distrib. line pole struct., risk-based design 43755
  - flexible overhead power conductors, reclosure mech. effects 19312
  - HV substation flexible busbars, plastic impact simul. 19915
  - multiconductor bundle power lines, short-cct. mech. loads 19313
  - power line short-cct. current mech. effects, IEC 865-1 calc. std. 19310
  - power line short-cct. mech. effects, IEC 865 calc. studies 19311
  - power overhead line, conductor clearances, meas., calcs. *(Italian)* 4694
  - power overhead line galloping, nonlin. 3D simultaneous eqn. calcs. *(Japanese)* 10756
  - power overhead line tornado loading effects study 27222
  - power syst. transm./microwave towers, mech. design 27234
  - self-damping meas. methods *(German)* 10754
  - split phase overhead wires, aerodyn. instabil. 27226
  - substation flexible overhead busbars, mech. calc. algm. 19916
  - substation overhead conductors, equiv. static mech. load calcs. 19921
- **overhead line sagging** *see overhead line mechanical characteristics*
- **overhead lines, power** *see power overhead lines*
- **overhead lines, telecommunication** *see telecommunication transmission lines*
- **overvoltage**
  - 3-level GTO inverters, overvoltage clamping, cct. design 44183
  - 63/90 kV power overhead line insulators, overvoltage breakdown characts. 35661
  - 77 kV overhead line-underground cable lightning surge anal. 19306
  - 220/69/13.8 kV three-phase transformers, EM transients *(Spanish)* 5028
  - 500 kV insulator string overvoltages, lightning stroke inclination expts. 35667
  - A/D convertors, transient and overvoltage recovery testing 12596
  - air gaps, impulse strength, nonstand. lightning surges 4722
  - asynchronous generators, asymmetric failure conditions studies 27729
  - distrib. network capacitor banks, synchronised/soft switching 10722
  - distrib. network overvoltage phenom., motor load disconnection-induced 4640
  - distribution network capacitor bank failures, harmonics effects 19262
  - double cct. 500 kV transm. tower, lightning surge anal., EMTP 4703
  - electronic equipt. hardening, lightning surges 864
  - emitter-controlled punch-through, fast switching PIN-diode soft recovery 30218
  - generators, neutral grounding *(Chinese)* 27678
  - GIS, coaxial pulse generator, VFT generation 36487
  - GIS, fast transient overvoltage *(Chinese)* 5155
  - GIS, fast transient overvoltage meas. device *(Korean)* 36383
- **overvoltage** continued
  - GIS, VFTO studies, transformer model 5163
  - GIS fast transient overvoltage effects anal. 19917
  - GIS very fast transient overvoltage meas., capacitive voltage sens. 36469
  - home appliances, effect of overvoltages in power distrib. syst. 11492
  - HV induction motors, overvoltage simul., pole closure 11052
  - HV power syst., overvoltage monitoring syst. *(Chinese)* 35696
  - HVDC submarine cables, overvoltages, testing 27198
  - IGBT power convertors, turn on/off behaviour studies 44218
  - lightning disturbances of power overhead lines 43772
  - LV AC power syst. clearances flashover, overvoltage wave-based 35457
  - mains network surge transients, EM immunity testing 19050
  - MCFC cathodes, porous, current interruption anal. 36583
  - multiconductor telecomm. cables, lightning overvoltages 25202
  - overhead line lightning-induced underground telecom. cable overvoltages 19305
  - overhead line-underground coaxial cable syst., lightning surge anal. 10755
  - power line tower surge response, computer simul. 19315
  - power overhead line switching overvoltages, computer simul. 19309
  - power syst. lightning-induced overvoltage calcs., coupling models 27252
  - power syst. peak switching overvoltage calc., neural net-based 10703
  - power syst. restoration transformer saturation overvoltages, computer simul. *(French)* 35537
  - power transformer winding inner short-cct. fault diagnosis 19689
  - power transformers, freq. response, electrostatic screen effect 5023
  - telecomm. cables lightning currents interf., computer model 15539
  - transm. line tower lightning surge response calc. 19314
  - transm. network single/multiple lightning overvoltages simul. 4459
  - ultrafast high press. pulsed power gas switch expts. 36416
  - vac. cct. breakers, transient overvoltages, stat. model 27847
  - variable speed induction motor drives, peak voltage appl. 11336
  - Vietnam 500 kV North-South transm. line project 26980
  - Cu electrolytic refining, polariz. occurrence/reduction 11494
  - $La_{0.9}Sr_{0.1}MnO_3$-YSZ cathodes, microstruct./resist., SOFC 44384
- **overvoltage protection**
  - *see also snubbers*
  - 3-phase induction motor, over/undervoltage/phase seq. reversal protection 36151
  - 4.5 MJ Pegasus-II pulsed power capacitor bank protection fuse calcs. 36504
  - 6-10 kV power syst. overvoltage protection 27260
  - 500 kV power syst. series capacitor VAr compensation project, China *(Chinese)* 35510
  - AC motor failure, steep fronted switching surges 19590
  - automobile electronic fuel injectors, power IC-based control 36776
  - automotive high side power switches, intell. diagnostics 20114
  - automotive microcontroller, on-chip voltage regulator 44577
  - custom power supply cost optim. *(German)* 21116
  - distrib. lines, lightning outage ratio anal. *(Japanese)* 10737
  - distrib. lines lightning surge protection, scale model expts. *(Japanese)* 43747
  - distrib. network, intermittent arcing grounding overvoltage restraint *(Chinese)* 35632
  - distrib. network protection, pos. temp. coeff. thermistors 4643
  - environ. test chambers, safety guidelines 94
  - fuzzy logic power supply protection cct. for severe transients 44188
  - GIS lightning overvoltages, computer simul. 19912
  - half-wavelength power lines, operational problems anal. 35642
  - insulator string overvoltages, lightning stroke inclination 35668
  - intell. IGBT power modules for driving systs. 36670
  - LV hybrid AC cct. breaker switching params., computer simul. 19342
  - LV power distrib. lines, lightning overvoltage effects study 10727
  - meas. simul. computation comparison *(German)* 43797
  - meas. syst. amps., protection from overvoltage 547
  - monolithic BCDMOS quad line driver for indust. appls. 29050
  - MV power syst. earthing, phase-to-ground fault current selection 19327
  - power MOSFET, integrated protection ccts. 38861
  - power open-phasing, self-generated overvoltage studies 27779
  - power syst. MOV protection, series compensation capacitors, response calc. 27251
  - power syst. reliab., rectifier perform. improvement 19053
  - reson. DC link inverter, low-noise, high-output power 19861
  - reson. DC link ZVS VSI topol. studies 36281
  - subscriber telecomm. equipt., lightning-surge test method 42046
  - supercond. transm. systs., quenching current level coord. 10777
  - telecom. network line interface overvoltage/overcurrent protection 16573
  - three-phase PWM reson. buck converters, power control 5060
  - underground distrib. syst., overvoltage protection, pad mounted switchgear 27164
  - underground transm. syst., surge arresters, overvoltage anal. *(Korean)* 35686
  - Walkie Edgar spark gap, mag. field, arc velocities 19338
  - SF_6 145 kV distrib. substation metal oxide surge arresters 4674
  - Si power IC transient voltage suppressors 29019
  - ZnO surge arresters, sudden voltage reversal transient response 4727
  - ZnO varistor/air gap surge arresters comparison, LV syst. 19354
- **oxidation**
  - *see also anodisation; corrosion*
  - 2D simul. of oxide/silicide growth, phys. based proc. simulator 1296
  - 2DEG channel, oxide wire, AFM fab. 38932
  - black silicon nanowires, sub-10-nm, natural masking, RIE 30117
  - Calvert Cliffs-1 PWR, extended burnup fuel exam. 27433
  - CONCAVE-DMOSFET, super-low on-resist. power MOSFET 38877
  - conf., interface control of elec., chem. and mech. props., USA (1993) 36832
  - contact resist., contaminant films thickness, humidity effects 6385
  - diamond films, enhanced oxid. etching, annealing, Mo effect 22192
  - EEPROM ultrathin thermal oxide, elec. and reliab. props., surface prep. 1278
  - electron beam nanolithography, image reversal by ECR plasma oxid. 30180
  - electrothermal gun, metal oxidiser research, chem. energy release 31776
  - environ. pollution prevention/reduction, elec. procs. *(German)* 44641
  - etch-stop layers, heavily B-doped, TEM obs. 13401
  - ethanol oxid., Pt(hkl) basal surfaces, $NaOH/Na_2CO_3$ media 11283
  - field-emission triodes, fab., emitter-gate separation of 0.18 μm 21804
  - GaAs:Se(100), passivated, oxid. 13373
  - gas turbines, nontraditional fuel conversion efficiency calcs. 19522
  - gate-all-around TFT, dummy nitride pattern, SRAM cells 38876
  - high-temp. elec. heating elements, oxygen getters *(German)* 11472
  - in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
  - LDPE, water treeing progress, oxidation role 14061
  - LOCOS, poly-buffered, furnace oxid. 6646

oxidation continued
LOCOS isolation, bird's beak inhib. by buffer N_2O oxide 22240
LOCOS isolation technol. for 256 Mbit DRAM 22609
LOCOS parasitic MOSFETs, threshold voltage, reverse short-channel effect 22421
LSIs, self-aligned complementary bipolar technol. 30442
MCM-D metal/polymer interface durability, chem./water uptake 11817
metal lines, defective, current induced failure 30153
microfabricated heavy metal ion sens. 42779
MOS oxides, high-field stressing, interface state generation 13261
MOS struct., interface state dens., postoxidation cooling 22057
MOS struct., P ion implant., gettering efficiency 6620
MOSFET, at. force microscope fab., nanolithography 30320
n-MOSFETs, rapid thermal N_2O-reoxidized nitrided gate oxides 38899
MOSFETs and MOS capacitors, oxide reliab., nitrogen effects 38629
native oxides on Si surfaces of deep-submicron contact-hole bottoms 38617
onium salt based liq. electrolytes, electrochem. props. 883
organic electroluminescent diode stabil. 23030
planar-type MIM diode, STM nanometer-size oxid. 38449
plasma polymerized all-dry resist proc. for 0.25 μm photolithography 13521
poly buffer LOCOS, in situ N-doped, for deep submicron CMOS 22591
polyamideimide films containing glass, sol-gel prep., dielectric breakdown 14053
polyamideimide glass composite films, dielec. breakdown/thermal degrad. *(Japanese)* 28875
polyaniline-sulphur cpds., batt. electrode appls. 36575
polyaniline/anionic quinone multicolor expressible electrochromic display materials 28884
polymeric insulation radiation effects, reliab. testing tutorial 22639
polysilicon TFTs, ECR plasma oxid. effects on perform./stabil. 22450
pulsed solid state laser materials proc. *(German)* 7866
PWB soldering proc. versatility vs.stability, O_2 effect 12912
redox batts., graphite-felt electrode, overcharge expts. 11262
RTO film thickness distrib. modelling 22561
RTO proc., opt./elec./mech. charactn. 22227
RTO/nitridation clusterable reactor, MOS gate oxides 22219
RTP, multivariable temp. controller develop. 13846
Si film growth, temp. control, pyrometric interferometry 42974
SIMOX, stacking fault growth/shrinkage 22074
SIMOX/ZMR/direct bond SOI struct., opt. charactn. *(Japanese)* 38430
simul., quadtree based grid generator 1267
SOFC, internal methane reforming 44383
SOFC monolith, reversed flow operation modelling/simul. 44366
SOFCs, methane-fuelled, fuel quality/coking suppression 44360
spectral ellipsometry for semicond. proc. in situ diagnostics and control 22200
spring finger EM shielding gaskets in indust., perform. optim. 23714
steel, ferromag., surface imaging using Barkhausen effect 14122
stress depend. oxid., 2D num. simul. 22182
sub-5-nm oxynitride dielecs. prepared in NO ambient using RTP, props. 6590
submicron CMOS isolation struct., calib. method for oxid./mech. stress models 22254
superthin ONO stacked dielec. high-dens. memory devices 1503
Texas Instruments MMST program, all-RTO/RTA/RTCVD 0.35 μm CMOS IC prod. 22594
ultra-thin dielec., plasma-assisted/RTP 22167
ultrathin gate oxide optim. SILO/RTN isolation proc., advanced ULSI 1281
vert. cavity SELs, 50% power conversion efficiency 23215
vert.-cavity lasers fabricated by selective oxid., low threshold voltage 1989
XLPE power cable insulation, degradation characts. 14072
Ag contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
Ag/Pd thick-film conductors 29695
Al electrode/organic electrolum. devices, degrad. procs. 1810
Al porous anodization proc. anisotropy, VLSI planar metallization 38673
Al ultrathin films for Cu oxid. prevention *(Korean)* 38638
Al/Ta/Hf multi-layered anodized capacitor, oxid. *(Japanese)* 6357
Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
AlAs, MBE grown, wet oxid. 1276
AlGaAs diode lasers fabricated, pulsed anodic oxides 31362
$Al_xGa_{1-x}As$, wet thermal oxid. studies 1248
AlGaAs/GaAs, deep-oxide PBH LD 14889
Au/n-GaAs:Ar Schottky barrier study, ion implant. damage 22035
C-H_2SO_4 secondary cell electrodes, large discharge capacity 11263
CO sens., polymer-electrolyte lamination, life-elongation 3916
CdS films, CO dual cond. response 1287
CdTe, surface reactivity, H 22241
CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
CrO_x lines, scanning tunneling lithog. 13494
Cu metallization, oxid. barrier layers 38689
Cu polymer metallization, adhesion mechanisms, theoretical modelling 12212
Fe anodes, SOFC, direct methane oxid. 44359
γ-Fe_2O_3:Co,Zn particles, prep. and mag. props. 7028
GaAs, surface reactivity, H 22241
GaAs:Si, Si diffusion by RTO 38523
GaAs(100) surface, NH_3-plasma-nitridation, angle-depend. XPS 38594
Ge (001), oxid., surface roughening 13364
a-$(GeS_2)_{100-x}Ga_x$ films, irreversible photoinduced changes 22189
$Hg_{0.85}Zn_{0.15}Te$, surface comp., chem. treatment effects 13360
InAlAs, surface chem., $(NH_4)_2S_x$ sulphidation 13409
InP MESFET, CdO_x interfacial layers, adsorpt./oxidation prep. method 13773
InP, MIS tunnel diodes, elec. props., oxid. temp. effects 1335
n-InP/Ta_2O_5/Ta MIS diodes, elec. props. 13595
InP(110), nitridation/oxid., core-level/valence-band photoemission obs. 13335
InSb(100) surface, Ar ion bombard. and electron stimulated oxid. 30101
$La_{0.7}Ca_{0.3}Cr\ O_3$/YSZ anodes, CH_4 oxid., SOFC 44358
$La_{0.8}Ca_{0.23}CrO_{3-\delta}$ anodes, SOFC, direct methane oxid. 44359
$La_{1-x}Sr_xCoO_{3+\delta}$ SOFC electrodes, methanol oxid. expts. 36582
$La_2Zr_2O_7$/YSZ interface, SOFC, react. products morph. 44375
$LiCoO_2$, solid state redox reacts., secondary Li cell 5196
M^2CMOS twin-well yield enhancement, wet oxide strip proc. modif. 22579
MnO_2 primary batt. electrodes, chem./phase comp. 11239
Mo-Si multilayer x-ray mirror, top layer oxid. 6690
N_2O gate poly reoxidation proc. for MOSFETs 22446
Nd-FeCoNi-B-AlTi melt-spun ribbons, corros./mag. props. 30681
$(NdDy)_{15}Fe_{78.3}Al_{0.7}B_6$, sintered, electrochem. hydrogenation 6972

oxidation continued
$(NdDy)_{15}Fe_{67}Co_5V_4Al_2B_7$, sintered, electrochem. hydrogenation 6972
Ni anodes, SOFC, direct methane oxid. 44359
Ni-H_2 cells, storage-induced capacity loss 27911
$Ni_{1-y}Mn_yO_2O_{2-z}$, ageing interstratification, Ni-Cd cells 27905
O_2 effects on solder surface, PCB assembly options 38153
PZT films, laser ablation on Ag coated Si substrs. 13993
Pb-acid batts., Pb-Sb alloy electrochem. props. 11258
α-PbO film, electrochem. anodic oxid. 1273
Pd contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
Pd thin electroplated coatings, solderability, semicond. packaging 37143
PdO form. caused by mechanochemical react. 6392
Pt anodes, SOFC, direct methane oxid. 44359
Pt/Si(111) interface and props. of thin Pt layers on Si 1166
SO_2 emission effects on aerosols 35973
SOI wafer, counter-oxid. of superficial Si 13320
Si 1D/2D nanostruct., lithographic/RIE prep., photolumin. obs. 30091
Si (110) and (111), oxid. rates, crossover phenom. 30080
Si, LPE growth, oxide form. prevention 28733
Si RT oxid. catalyzed by Cu_3Si 38578
Si, RTO in N_2O, MOS capacitor testing 22220
Si, conical field emitters, fab., elec. characts. 38211
Si double-barrier struct., fab. 38343
Si, etching mechanism and band model in aq. KOH 13388
Si high-efficiency solar cells, RTP 5226
Si nanostructures by anodic oxid., ECR etching 38537
Si nitroxides, rapid thermal, growth, struct. 1245
Si, oxid., VLSI gate dielec. appls. 30086
Si oxid. proc., fractal aspects 30125
Si oxides, rapid thermal, growth, struct. 1245
Si photoelectrode, efficient reductive/oxidative current flow 38453
Si, porous, LED appl., blue, beyond 1.5 μm 14625
Si, porous, anodic oxid., high efficiency electrolumin. 38527
Si porous film, two-step chem. immersion form. 6644
Si porous layers, passiv., FT IR monitoring 22251
Si, porous, passiv. by RTO 22217
Si, porous, plasma-oxidised, luminesc. charactn. 13028
Si, porous, radical-beam-induced surface react. 22170
Si, porous surface, backbond oxid. by O radical irrad. 30075
Si, porous, surface struct., EPR/XPS study 22247
Si, porous/HF treated, photolumin., oxid. effects 22249
Si quantum wire surrounded by SiO_2, fab./transport props. 6669
Si single-electron transistor, room temp. operation, fab. 13827
Si substrs., Cyclotene 3022 coating adhesion, silane coupling agents 11818
Si, thermal oxid., N_2O ambient, num. simul. 38621
Si thermal oxid., advanced field isolation model, calibrated viscoelastic stress anal. 22560
Si, thermal oxid. mech., form. and diffusion of volatile SiO mols. 6642
Si, thermal oxid., ultrathin oxide film growth mechanism 38609
Si ultra-fine wire fabricated by SIMOX technol., quantized conductance 38354
Si wafers, thermal proc., quartzglass materials influence 22208
Si, wet oxid. film growth, flow effects 28833
Si:B, δ-doping, ultra-shallow/abrupt profiles 38499
p-Si:Cu, RTA, OISF, deep states, Cu diffusion 13034
Si:Fe, LEC grown, Fe contamination influence on LSI-yield related cryst. quality 29828
Si:H, H passiv., multiple internal refl. IR spectrosc. 1253
a-Si:H, nanometer lithog., low-energy electrons 30177
Si:H, porous, lumin., surface modif. effect 1246
Si:H surfaces, nanometer scale patterning/oxid., UHV STM 13496
Si:H surfaces, oxid., X-ray PES 22235
Si:H(111), low temp. nitridation *(French)* 13336
Si:O, CZ-grown, lattice strain and oxygen precip. 20648
Si:O syst., ion implanted, oxide growth, refr. index, and comp. depth profiles 22123
Si:P, elec. act. P profile, thermal oxid. 6624
Si/$In_xSn_yO_z$, Si oxid. by interfacial react. 38614
Si/SiO_2, MOS devices, prep. interface props. control 38611
Si/SiO_2, very thin oxide quality, wafer surface orient. depend. 38529
Si/SiO_2/Al MOS capacitors, charge induced by Fowler-Nordheim tunnel injection 29974
Si/SiO_2/Al MOS structs., nitrided, reoxidised, elec. charactn. 13257
Si/SiO_x porous interface, paramag. centres 13349
Si/SiO_xN_y, interfacial stress and struct., thermal nitridation and reoxidation effects 22055
Si/SiO_xN_y/Al MOS capacitors, charge trapping and interface states 29975
Si-SiO_2 interfaces, low-temp. plasma-assisted oxid., MOSFET appls. 6643
Si-SiO_2 stacked-gate structs., plasma-assisted/RTP 22058
Si(001), O_2 adsorpt./oxid., dimer reconstruction 6654
Si(001), O_2 mol. adsorpt., subsequent oxid. 38612
Si(100), ion beam-induced oxid., ion emission 6655
Si(100), passiv. and microroughness in aq. hydrogen halide 38531
Si(100) surface, STM field induced nanomodification 30116
Si(100), wet cleaned, thin oxides, Auger spectra, angle-resolved XPS 38613
p-Si(100)/Hf interfaces, elec. charact., H-termination 38397
Si(100)-2×1 surface, H-terminated, oxid. 38587
Si(110), STM nanolithography 30179
Si(111), H adsorpt./dissolved O in hot water 38604
Si(111), H terminated, surface electronic props. 6524
Si(111)-H, oxid., ultrathin oxides, struct. imperfections 38608
SiC, 3C and 6H polytypes, thermal oxid. in N_2O 1252
p-SiC, 6H, dry oxid., oxide elec. props. 1272
6H-SiC MOS struct., thermal oxid./computer simul. 38562
6H-SiC, n- and p-type, thermal oxid. 1288
SiC/Si wafer bonding, CVD and etching 13392
SiC/SiO_2/Al struct., elevated temps., HF capacitance relax. features 13230
SiGe, low temp. UV oxid., Ge nanocrystal prep. in SiO_2 22252
SiGe oxide prepared by RF plasma anodisation, interface quality 1243
SiO_2, RF oxygen plasma oxide, Si surface dry cleaning 38620
SiO_2 RTCVD/RTO/thermal oxide thin films, tunnelling current characterisation 22226
SiO_2 RTO 10 nm films grown at different temps., MOS capacitor breakdown 1180
SiO_2 films, thermal CVD, microdefects 407
SiO_2, fluorinated and N_2O plasma-annealed, elec. props. 1508
SiO_2 gate oxide films, ion-assisted oxid. 38592
SiO_2, oxide thickness, oxid. params. 1257
SiO_2 plasma-grown on Si, extremely low interface state densities 13233
SiO_2 ultrathin films, MOS struct., ultra-dry proc. 13248

oxidation continued
- SiO_2 ultrathin films growth, ultradry oxid. syst. 6645
- SiO_x, growth, interface of directly bonded Si wafers 30069
- SiO_2:N films on Si, N_2O-plasma oxid. tech. 1279
- SiO_2:N thin films, grown/processed in N_2O, N depth profiles 38524
- SiO_2/Si interface struct., reliab. charact. 13253
- SiO_2/Si, low-temp. grown oxide film, X-ray reflectivity 38610
- SiO_2-Si, EX centres, ESR study 6641
- SiO_2-Si, stacked RTO/RTCVD oxide gate dielec., elec. props. 22637
- SiO_2-Si ultrathin CMOS gate dielec., RTP growth in N_2O ambient 22221
- SiO_2-Si wet oxid. by RTP, homog. 22222
- SiO_2-Si_3N_4-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- SiO_xN_y oxynitrided tunnel oxide films, flash EEPROMs 38593
- SiO_xN_y oxynitrides, N_2O grown, radiation effects 13386
- SiO_xN_y thin dielec. on Si, N_2-rich thermal growth, RTA 22255
- SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
- SiO_xN_y-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
- SiO_2(ON)-Si device reliab., surface cleaning effects, ultrathin oxides/oxynitrides 22207
- $Sm_2Fe_{17}N_x$, partially oxidized, mag. props. 39202
- Sn immersion coatings, PWB surface finishes 12934
- α-$SnWO_4$ films, CO dual cond. response 1287
- Ta(110)/Ta(110)-suboxide etch selectivity, Cl_2 mol. beams 30130
- $TaSi_x$, plasma oxid., mechanism, kinetics 30113
- TiO interface layer, Cu-Ti bilayer on SiO_2, interfacial reacts./adhesion 38672
- TiO_2/$BaTiO_3$ epitaxial film form. on Si substr. 37426
- VC anodes, SOFC, direct methane oxid. 44359
- WSi_x CVD as-deposited/oxidized films, DCS-based, comp./struct. 38664
- YAG:Sm garnet films, soln. deposition, press.-temp. sens. appls. 5854
- $YBa_2Cu_3O_{7-\delta}$/polypyrrole sandwich struct., reversible supercond. modulation 1616

oxide coated cathodes
- *see also thermionic electron emission*
- BeO CFA tube cathodes, secondary electron emission props. 6475
- Sc_2O_3 impregnated cathode, charactn., semicond. model 6476

oxide isolation technology *see isolation technology*

p-i-n diodes
- *see also p-i-n photodiodes*
- BAR 63 and 80 series PIN diodes for antenna switches in mobile commun. 1334
- breakdown voltage, local/nonlocal calcs. 30214
- emitter-controlled punch-through, fast switching PIN-diode soft recovery 30218
- low energy X-ray radiation source calib., dosimetry 18415
- microwave limiter cct., chaos obs. 6299
- microwave modulator for 16-posn. amplit.-phase keyed sigs. 12373
- microwave PIN diode 4-bit phase shifter, design *(Korean)* 21573
- neutron spectrum meas., Army Pulse Radiation Facility 18371
- nonlin. coupling of reciprocal mobilities, charge carrier distrib., pin power devices 13610
- PIN neutron detector with thick absorber, sensitivity calc. *(Chinese)* 34922
- power devices, cct. simulators, look-up table models 38781
- power p-i-n diodes, PSpice-based modelling 5987
- RS coded opt. PPM, PIN-FET receivers 9606
- self-protected microwave detector for microwave receivers 37999
- ultra fast power diodes, GaAs/Si characts. comparison 29016
- AlAs/GaAs, p-i-n double-barrier reson. tunnelling structs., electrolum. 6722
- AlAs-GaAs luminesc. p-n-i-n^+ dynistor, behaviour 23025
- AlGaAs-GaAs thin film p-i-n photonic device integrat., micromachined movable platforms 39600
- GaAs MMIC 2-18 GHz low loss on-chip biased PIN diode switches 21561
- GaAs broadband CPW SPDT PIN diode switch, 50 MHz-30 GHz 21557
- GaAs/$Al_xGa_{1-x}As$ p-i-n diodes, ballistic-electron energy distrib. 29896
- GaAs/AlAs RTD, QW electroluminesc. 38945
- GaAs/AlAs submicron light-emitting RTDs 14623
- GaAs/AlGaAs multilayer p-i-n struct. multilayers, ionization 38335
- GaSb, ion implant. effects 1214
- InAsP-InP quantum wells/PIN diodes, growth/charactn. 12058
- InGaAs/AlAs MQW p-i-n diodes, room-temp. charactn. 13592
- InGaAs/AlGaAs MQW pin diodes, optoelectronic effects and field distrib. 1341
- InGaAs/GaAs (InGaP) MQW optical modulators, MBE growth 14509
- InGaAs/GaAs MQW pin diode stained struct., leakage current mechanisms 1129
- InGaAs/GaAs quantum wells, carrier screening effect 1125
- InGaAs/InP superlattice, low volt. electroabsorption light modulator 14511
- $In_{0.53}Ga_{0.47}As$/$In_{0.40}Ga_{0.60}As$ superlattices, Wannier-Stark effect 1138
- InP, MeV ion implantation, device appls. 13288
- Pd low-temp. bonding of InP structs., GaAs substrs. 30004
- Si bipolar devices, impact ionisation 22384
- Si, pin diodes, emitter props., heat generation effects 1345
- a-Si:C,H p-i-n diode struct. for electron flux conversion 30229
- a-Si:H high elec.-field p-i-n diodes, p-layer thickness effects 6721
- a-Si:H nip and pin diodes, 1/f noise anal. 38798
- a-Si:H p-i-n detectors, charge collection procs. 43107
- a-Si:H, p-i-n diodes, forward current transients 1343
- SiC, pin diodes, emitter props., heat generation effects 1345
- SiC:Al HV rectifiers, expts. and simul. 1346
- a-$Si_{1-x}C_x$:H p-i-n struct., electrolum. characts. 31091

p-i-n photodiodes
- 2-20 GHz low-noise wideband opt. receiver 9573
- 12-Gb/s high-sensitivity monolithic p-i-n/HBT photoreceiver module 25512
- 15-Gbit/s high-speed monolithically integrated pin-HEMT photoreceiver 34082
- broadband matching approach 31089
- computer-aided PIN-PD model *(Chinese)* 14597
- defect localisation, laser scanning microscopy 40174
- double-barrier p-i-n heterojunction single-photon turnstile device 1807
- GaInAs-InP heterostruct., elec. props./interface defects 13103
- high sensitivity opt. detectors, perform. meas., radiation effects 1796
- hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
- master slice-type transimped. amp. photosensors, PIN-bipolar proc. 25835
- opt. fibre coupling, field power distrib. 1665
- optoelectronic switch for SCM networks 17211
- PET detector modules based on novel detector technols. 18464
- push-pull opt. frontends for SCM CATV appls. 42458
- Shashlik calorimeter, WLS fibres readout by photodiode matrix 26176

p-i-n photodiodes continued
- SOI bonded wafer, eval. and PIN photodiode characts. 14609
- solid ring armature transaugmented railgun studies 15350
- sq. synchroniser jitter on direct detect. opt. commun., white cct. noise 3577
- travelling-wave waveguide photodetectors, 172-GHz bandwidth and 76-GHz bandwidth-efficiency product 42804
- tunable photodetectors and LEDs for WDM appls. 39617
- WDM transceiver OEIC modules for local access fibre networks 17331
- AlGaAs/GaAs MQW, opt.-modulator struct., hydrogenation 1803
- AlGaAs-GaAs ARROW waveguides, atten. meas. 30931
- CsI:Tl, struct. film, med. radiation imaging appl. 43231
- GaAs MMIC/pin photodiode-based opt. receiver, 2.488 Gbit/s IM-DD systs. 17169
- GaAs heterojunction p-i-n photodiode transient simul., computational methods 39564
- GaAs heterojunction p-i-n photodiodes, transient simul., reson. cavity enhanced 39565
- GaAs low-noise broad-band MESFET monolithic distributed preamplifier 42391
- GaAs/AlAs, p-i-n photodiode superlattices, transm. intens. oscills. 14602
- GaAs/InGaP quantum well p-i-n diodes, blue shift obs. 14603
- GaAs-AlGaAs proton-implanted MQW modulators for low-photocurrent SEEDs 14528
- GaAs-InP pin photodiode lightwave meas., error correction 42797
- GaInAs PIN photodiode, LPE growth, Er gettering 39567
- GaInAs PIN/HEMT receiver OEICs for Gb/s opt. systs., fab. 25495
- Ge_xSi_{1-x} PIN photodiode, RT electroabsorption 7466
- $Hg_{1-x}Cd_xTe$, p^+n jn. photodiodes, deep defect levels *(Chinese)* 14605
- InGaAs monolithically integrated pin-FETs, noise characts. 14671
- InGaAs/GaAs piezoelec. [111] MQW p-i-n photodiodes, cond.-band engng. 1804
- InGaAs/GaAs strained MQWs, photogenerated carrier transport 39574
- InGaAs/GaAs[111] MQW P-I-N photodiodes, cond. band engng. 1808
- InGaAs/InP PIN waveguide photodetector, high saturation intens. 7463
- InGaAs/InP p-i-n waveguide photodetector, dyn. range 34069
- InGaAs/InP photodiode-opt. fiber array module using Si v-groove, photonic syst. appls. *(Korean)* 34013
- InGaAs/InP, pin photodiode array, integrated lens *(Chinese)* 14613
- InGaAs/InP waveguide photodetector, saturation intens. 34512
- $In_{0.2}Ga_{0.8}As$/GaAs MQW struct., strain relax., photodetector appls. 1131
- InGaAs-AlAs strained p-i-n modulator, ultrafast recovery time 22939
- InGaAsP channel HFET OEIC photoreceiver 17258
- InP/InGaAs HBT OEIC photoreceiver 9495
- InP/InGaAs JFET/pin photodiodes for optoelectronic integrat. 1439
- InP-InGaAs DHBT/p-i-n PD monolithic photoreceiver, 23 GHz bandwidth 7483
- InP-based 10 Gbit/s photoreceiver OEICs, noise and perform. 9429
- Si OEIC with built-in PIN-photodiode, fab., perform. 14648
- Si photodetector, epitaxial wafer 42801
- Si photodiode, thickness meas. of SiO_2 film 18079
- a-Si thin film optoelectronic cellular neural networks 22980
- a-Si:H diodes, recomb. regime under double injection, electrolum. obs. 31079
- a-Si:H nip and pin diodes, 1/f noise anal. 38798
- a-Si:H p/i/n struct., annealing, resist. effect 1198
- a-Si:H thin film posn. sensitive detector 9912
- a-Si:H/CsI(Tl) X-ray detectors for radiation monitoring 43161

p-n heterojunctions
- abrupt p-n heterojns. with inversion layers, capacit. 38314
- bipolar transistor p-n heterojunction carrier generation-recomb. current modelling 6726
- diamond:B heteroepitaxial films, plasma CVD, p-n jn. diodes 20740
- double-barrier p-i-n heterojunction single-photon turnstile device 1807
- AlGaAs lasers, nonplanar MOVPE, lateral p-n jns. containing p-type (311)A facets 1943
- AlGaAs-GaAs heterojn. solar cells, prod./props. 11285
- AlGaN/GaN/GaInN, stacked heterostruct. LED, MOVPE 23049
- a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
- CdS thin film p-type/n-type light emitting/LD 14978
- p^+-n-CdS/InP solar cells, space appl., projected efficiency 19989
- p-CdS(Cu)/n-CdSe heterojunctions, PV charact. 6545
- CdTe polycryst. thin-film solar cells 27938
- $CuInS_2$ polycryst. thin film solar cells 27954
- $CuInSe_2$ polycryst. thin film solar cells 27954
- $CuInSe_2$ polycryst. thin-film solar cells 27938
- GaAs p-n jn., Franz-Keldysh electro-absorpt. effect 1082
- GaAs/Si heteroepitaxially thin film growth *(Japanese)* 6525
- p-GaAs/n-Ge struct., photoelec. props. in lin. polarized light 1097
- GaAs-AlGaAs conc. photoconverter, wide-band GAP substr. 36593
- GaAs-AlGaAs heterojn. 3-cascade solar cells, monolithic struct. 11288
- GaAs-GaAlAs waveguide saturable absorber, carrier heating dyn. 2109
- GaAs-based struct., electrochem. C-V profiling, electrolyte 13122
- Ga_2AsSb/InP thermophotovoltaic cell modelling 28004
- InAlAs/InP, selective MOCVD growth 20943
- InGaAs/InAlAs heterobarrier diodes, delta doping enhancement 30221
- $In_xGa_{1-x}As$/InP thermophotovoltaic cells, recomb. lifetime meas. 28006
- InP/$In_{0.53}Ga_{0.47}As$/InP, Zn area-selective diffusion for lateral pn photodiodes 29855
- InP-based struct., electrochem. C-V profiling, electrolyte 13122
- Si pulsed power semicond. switches, p^+-n^--n^+/n^+-n^--n^+ struct. 36436
- a-Si:H p-i-n solar cell structs., computer model 20006
- a-Si:H/a-SiC:H three colour detector 34502
- a-Si/poly-Si tandem solar cell, high efficiency 11294
- Si-SiGe layers, elec. charactn. techs. 6538
- SiC/Si hetero- and homo-jn. photodiodes, fab. and props. *(Japanese)* 1805
- SiC/Si heterojunctions, elec. props. 1096
- SiGeB-Si heterostruct., B thermal stabil., stress compensation 13130
- ZnSe/ZnCdSe/ZnSe MQW device, opt. modulation and switching 25539

p-n junctions
- *see also p-n heterojunctions*
- diffusion capacitance, space-charge-layer thickness modulation effects 1077
- generation-recomb. current, saturation for small recomb. times 6551
- HBT modelling, particle transport eqns. 6725
- IGBT, hybrid power modules, thermosensitive params. anal. 13700
- n^+p jn., reverse-bias current, hydrogen radical sintering 38295
- n-p jn. devices, high-level free carrier injection, num./empirical model 30192
- nonlin. transm. line, varicap jns., interactive waves 40388
- open cct. p-n jn., photodiode charact. *(Chinese)* 1797
- p-n-p-n-struct. equiv. for integrated radio-electronic devices 33756
- paralleled IGBT reliab., equalized jn. temp. 6750

p-n junctions continued

- planar p-n jn. termination, theoretical investig. 29888
- power SOI lateral p^+-n jn. diode breakdown voltage *(Korean)* 28999
- radiation resist. improvement of semicond. detectors 18376
- semicond. cryst. lattice defects, nonlin. microwave scatt. 38293
- shift eval. by C-V method 21956
- SOI power device blocking voltage, HVIC interconnection influence 29979
- solar cells, radiation effects/external factors 11289
- solar cells, satellite power systs. 26639
- submillimeter range EM oscills. in p-n jn., laser gen. mechanism 39793
- surface sources of piezoelec. transduction 25819
- temperature sensor with switched current excitation 25802
- thermal equilib., electronic states 21954
- tunnelling, p-n jn., quantum oscills., quantum wells 38360
- AlGaAs p-n jns., GaAs(111)A substrs., MBE growth, Si doping 20879
- $Al_xGa_{1-x}As$, graded p-n jns., capacitance, frozen dopant levels 29887
- AlGaAs:Si lateral jns., MBE growth on patterned substrs. 21947
- $(Al_xGa_{1-x})_{0.52}In_{0.48}P$ p-i-n jns., impact ionisation 38302
- p-CdS films, pulsed laser deposition, p-n jn. PV effect 37483
- $CoSi_2$ doping source for RTA of shallow p^+-n jns. 22099
- $CoSi_2$ shallow p^+n jns., reverse I-V charact. 13100
- $CuInSe_2$, jn. electrolum., microscopic diode struct. 31110
- $Ga_{1-x}Al_xAs$/GaAs, p-n jn. incorporating quantum well, light emitting 14621
- GaAs, open-tube impurity doping, spin-on silica films *(Japanese)* 22145
- GaAs p^+-SI-n^+ SI struct., I-V charact. 38300
- GaAs p-n jns. and ohmic contact form. by laser solid-phase diffusion 30052
- GaAs photodetector for near-field optics 17766
- GaAs pn-jn. diodes, ECR plasma-induced damage 30209
- GaAs:Si lateral jns., MBE growth on patterned substrs. 21947
- GaAs:Si p-n struct., MBE growth interruption effects on GaAs(111)A 336
- GaAs:Si/GaAs(111)A, p-n struct. charactn. 29876
- $Ga_{0.84}In_{0.16}As_{0.68}P_{0.32}$ large area solar cells, space appls. 10396
- $Ga_{0.51}In_{0.49}P$ large area solar cells, space appls. 10396
- GaN blue-violet light emitting p-n jns. grown by ECR-assisted MBE 14638
- GaN p-n homojunction, UV/blue LEDs 7476
- GaSb, ion implant. effects 1214
- H-SiC pulsed power switching devices, fab., charactn. 36449
- InGaAs-InAsP three-band near-IR FPA for 1.0-2.5 μm 17935
- InP p^+n and n^+p structs., electrochem. anal. solar cells appl. 13107
- InP:Be annealing, e-beam evaporated borosilicate glass thin film encapsulant 13313
- InP/InGaAsP 2-terminal monolithic tandem solar cells 27956
- InSb p-n jn., photoresponse, CO_2 laser illum. 13114
- InSb-SiO_2-Si p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
- SIMS and microelectronics 1465
- Si VLSI ESD sensitivity, thermal/dielec. breakdown 30462
- Si, charge carrier transport, electron-hole scatt. 13027
- Si epitaxial p^+-n struct., tunneling-oxide-metal contact, photoelec. effect 29884
- Si p-n jn., secondary breakdown, pinch effect 13102
- Si p-n jn., time-depend. characts. underneath TiN/Ti contact metal 1078
- Si, p-n jns., minority carrier diffusion length determ. 38284
- Si p-n jns., transient component of leakage current 1092
- Si polycryst. ribbon solar cells 36592
- Si, porous layers, thickness control, microelectronic appls. 21874
- Si, porous, novel p-n jn. device electrolum. 14615
- Si, radiation-induced defect introduction rates 13116
- Si shallow-jn. form., RTA doped SOG films 21964
- Si solar cells, charged defect conc. profile, C-V meas. 27947
- a-Si solar cells, high efficiency 27958
- Si solar cells, waste material-mfg., testing 19981
- Si surface, quantum-well p-n jn., electron-beam diagnostics 13161
- Si thin polycryst. films, BF_2^+ implant., shallow p^+n jn. form., Co silicidation 30032
- Si wafers, p-n jns., leakage current, diffusion component 38297
- Si:B doping, proximity rapid thermal diffusion from spin-on-dopants 22144
- Si:B lightly doped epitaxial layers, direct growth 357
- a-Si:H p-i-n solar cell structs., computer model 20006
- Si:Li, fast Li electromigration, low temp. device creation 30047
- Si/Si p-n jns., pot. distrib., off-axis electron holography 1093
- SiC, 6H polytype, high temp. dinistor, sublimation epitaxy 22507
- SiC, 6H polytype, high temp. stabilitrons, 4 to 50 V 22506
- SiC p-n struct., power rectifiers 30226
- SiC power device passiv., porous SiC 38792
- Si_3N_4-Si IR detector, p-n jn.-based, SIMOX technol. fab. 34499
- ZnO dense non-ohmic electrode, humidity sensitive elec. props. 34457
- ZnSe:I jn. devices, thermionic behavior studies 28026

P-V-T relations *see equations of state*

PABX *see private telephone exchanges*

pacemakers

- *see also patient treatment*
- ambulatory monitoring, rate-responsive pacemakers, activity sens./algms. 35157
- computers in cardiology, conf., London, UK (1993) 11543
- drug delivery syst., μP-based pacemaker control 18582
- intracardiac electrograms, data collection syst., pacemakers appl. 4286
- pacer-cardioverter-defibrillator, tachycardia/fibrillation discrim. 35155
- patient risk, high power transmitters 4302
- power supply convertor, flat transformer-based 10277
- review, heart electrostimulation, aspects 43362
- Triple-TEM cell, simple device for immunity testing 23748
- ventricular evoked response, rate adaptive pacemakers appl. *(German)* 43360
- Wilson Greatbatch, inventor of implantable cardiac pacemakers 35153

packages (software) *see software packages*

packaging

- *see also encapsulation; integrated circuit packaging; modules; multichip modules; plastic packaging; semiconductor device packaging; surface mount technology; tape automated bonding*
- 1D interconnection parallel opt. data links 42431
- 3D EM simulator, IE3-D, HF and high-speed cct. appls. 21071
- 3D power cct. package for aircraft appls. 26687
- 3D stacks of chips/wafers, through-hole interconnections 30425
- 48 V, 200 A high dens. rectifier, PF correction 19864
- 70 terabit.km/sec soliton transm., packaged hybrid soliton pulse source 17351
- accelerated environ. tests for interconnect reliab. 20475
- adhesives, cohesive mech. props., tensile testing 28912

packaging continued

- adsorbed gases, surface conductance meas. 11774
- advanced composite materials, mil. electronics, environ. testing 5646
- archit., concurrent design methodology 5659
- ASIC, Conf., Rochester, USA (1993) 36858
- automated fiber pigtailing technol. 14383
- automotive components packaging/handling, ESD sensitivity 20118
- B-ISDN, high-dens. high-bandwidth connectors 9112
- backplane power source capability 6435
- ball grid array packages 11776
- ball grid array soldering proc. meas., X-ray techs. 37142
- ball grid arrays 11778
- ball grid arrays, ceramic thin-film technol. 5651
- ball grid arrays tech. 12938
- bending bilayer, polymer film viscoelasticity effects, packaging 147
- binary fluid mixtures, pool boiling crit. heat flux on surface 37127
- blocks, heated, flow and heat transfer from an array, computational/expt. results 37069
- board-based syst. power distrib., onboard regulators 38088
- boundary layer fracture of copper/composite solder interfaces in electronic packaging 37131
- BPDA-PDA polyimide thin films, thermomechanical props., curing effects 12208
- Bragg opt. fibre gratings, temp.-compensating mounts 34097
- BTPFL-C2 immersion-cooled electronic clamshell module, aircraft avionics 4432
- ceramic multicomponent modules, miniaturisation approach 5622
- ceramic packages, die attach polymer bleedout 153
- CFD thermal CAD technol. for electronic packaging thermal mgt. 11787
- chip mounting technol. meets fine pitch demands 152
- COB, SMT and TAB packaging technols., design tradeoffs 28449
- collimating lens syst. for LD package 3547
- computational fluid dyn. thermal modelling for workstation design 11702
- computer convective cooling, flow resist. model 37071
- computer syst. enclosures, CFD tool for syst.-level thermal simul. 5630
- concentric cylinders, heat cond., electronic package appl. 149
- concurrent packaging archit. design 20437
- condensation inert heating mass reflow soldering systs., challenges 38162
- conducting enclosures, direct lightning strike, internal voltages 40189
- conformal coating, robotic appl. 935
- conjug. heat transfer, convectively cooled discrete heat source, conductive substr., BEM 28475
- connected ground and floating plane package design and anal. 11809
- convective heat transfer from PCBs, num. anal. interface, GUI appls. 12891
- cooling, heat transfer decoupling strategy 11761
- coupled transient simul. of ccts. and 3D packaging, algms. 11808
- coupled transient simul. of ccts. and 3D packaging, algos. 21070
- CPODs, compact planar opt. devices, fab. by CVD technol. 14495
- CPW ccts., single mode operation 6278
- Cu/polyimide multilevel thin film struct., reliab. 11860
- cycle time reduction strategies implement. for new package introd. 36950
- diamond, polycryst. CVD, cost factors 5899
- diamond metal matrix composites, electronic packaging material 28465
- diamond packaging, CVD, tech. cost modelling, scale-up factors 37527
- digital tomosynthesis for X-ray inspection of flip chip attach 37172
- DIP switches, Nihon Kaiheiki products 12859
- discrete surface source with substr. heat sink, conjug. heat transfer 37123
- distributed power modules, decentralized systs., telecom. appl. 19816
- dual-use microelectronics mfg. spec., single/multichip packaging 20453
- elec. connectors, vibr. induced wear 29648
- electronic assemblies, non-Pb bearing solder alloys 936
- electronic chassis, rapid prototyping pilot 28499
- electronic components and technol., conf., Washington DC, 1994 5473
- electronic enclosures, thermal mgt. and design , software simul. tool 28445
- electronic equipt./systs., thermal mgt./engng. 5586
- electronic packages, life enhancement, design optim. 28497
- electronic packages, thermal and sorptive effects, dyn. investig. 28500
- electronic packages, thermal strain, size effects 28492
- electronic packaging, conf., Binghampton, NY, USA (1993) 20249
- electronic packaging, conf, Monterey, USA (Oct 1993) 36898
- electronic packaging, future develop. 28478
- electronic packaging, mech. anal. 28493
- electronic packaging technol., present situation/trend *(Japanese)* 37141
- electronic systs., enhanced convective cooling, surface roughness 37085
- electronic systs., package cracking, probabilistic sensitivity anal. of dyn. response 5664
- electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
- electronics mfg. technol., conf., Baltimore (1992) 11580
- electrooptic polymer waveguides, packaging and charactn. 39491
- EMC problems, inverse-forward anal. 23738
- entry level MCM/MCP trade-offs and considerations 12973
- ESD shielding, inflatable-bag technol. 15516
- extruded heat sinks, natural-convection cooling, convective thermal resist. 37104
- fiber in board electro-opt. interconnection syst., packaging 42429
- fiber optic module interconnection, parallel data bus 42474
- flip chip struct., encapsulation 28453
- flip COB process charactn., no-clean flux, ionic residue 38108
- flip-chip bonding of holographic opt. interconnects, alignment 38177
- flip-chip package, high-power, cooling 28498
- fluoropolymer-based dielec. materials for PCBs, fab., proc. considerations 29679
- food packaging waste, thermal proc., microwave heating 11477
- forced convection cooling, electronic components, heat sink effects, num. study 37097
- gas turbine packaging proc., installation/startup benefits 27570
- green IC fab., recycling/environ. contamination control 37208
- header plate with 51-pin elec. feed-thru, electronic package thermal stress anals. 28486
- heated blocks array in rect. channel, simul. of convective heat transfer 37083
- heatsink radiation, fn. of geom. 15475
- HF power module using GaAs semiconds., low induct. design 29029
- Hi-PAS, EMC design for high-dens. packaging syst. *(Japanese)* 31862
- high reliab. internal capacitor of low-temp. ceramic cct. 29611
- high speed interconnects, simul., packaging simulator 20438
- horiz. rect. duct for packaging of two PWBs, cooling by laminar airflow 37101
- hybrid elec. vehicle, IGBT based syst., packaging/perform. 20095
- IBM high perform. carrier technol. for PCB packaging/interconnects 37153
- IBM Microelectronics, MLC packaging plant 11762

packaging continued
  III-V semicond. waveguiding devices, adiabatic tapers 7383
  immersion-cooled std. electronic clamshell module, high-flux avionic systs. 37102
  impingement cooling fins, improved heat-transfer rates for electronic devices 37099
  impingement heat sink, flow and heat transfer, num. prediction 37107
  inserted film resistors, future prospects 21582
  integrated taper opt. switch array, self-aligned packing 42390
  intell. power module, develop. trends 29028
  interconnect resist., reliab. tool in electronic packaging leaded connections 11790
  interconnection technol., colloquium, London, Nov. 1994 5482
  intra-syst. interconnection, opt. fiber fabrics 42428
  IVS, integrated vol. visualization syst. for electronic package cooling 37092
  known-good die testing, semicond. indust. implement. 5619
  LCC, soldered, survivability, temp. cycling 28464
  liq. cooling module, heat transfer design 37124
  long. fin heat sink perform., flow bypass effect 148
  long. fin heat sink perform. in arrays of low-profile electronic packages 37098
  low temp. cofired ceramics, pass. elements, RF-design 28463
  low-temp. solder alloys in insertion mount assembly, thermal fatigue 37111
  mag. thin-film disk packaging, desiccant humidity barrier 30744
  manifold cooling, supercritical H_2, flowdown 11782
  metal cabinet enclosing PCB, radiation anal. 23695
  metal/ceramic laminates for electronic packaging, thermomechanical failure 12197
  metals indust., elec. equipt. rooms ventilation 20164
  microelectronic reliab., functional rels., temp. 22321
  microelectronics for IT, conf., Stuttgart, Germany (1992) 11534
  microengineering devices, packaging 5624
  microlens opt. coupling of LD array, single-mode fiber array 39355
  microstruct. technol., advances 39035
  microwave amplifiers, cooling, supercritical hydrogen 12774
  microwave circuitry, metal matrix composite packaging 12748
  microwave material selection for PCB design 11799
  microwave packages, time domain meas./modeling 28460
  MID, moulded interconnection device, mfg., adhesion/metallisation proc. 37138
  Mini SO-8 VDMOS power transistors, portable electronics appls. 29018
  mixed convection cooling of electronic components in open ended channels 37100
  mixed convection from simulated electronic components, posn. effects 11763
  MLC package, time-domain charactn. 28462
  MLC substrs. and packages, telecomm. appls. 29652
  molding cpds., copper leadframes 5668
  MQW electroabsorption opt. modulators integrated, low-loss waveguides 22938
  multi-fibre array packaging technol. 39356
  multi-level packaging, designing interconnection networks 28467
  multichannel fiber ferrule for stable LD array module packaging 37073
  multifunctional piezoceramic resonators, design and size reduction 39084
  multilayer PBGA, perform. enhancement 20456
  MV/HV elec. equipt., enclosure internal arcing tests 4879
  MV/LV secondary cubicle thermal behaviour *(Italian)* 19905
  NEMA 7 safety enclosure design, mfg. viewpoint 91
  nonhermetic enclosures and packages, moisture ingress model 5673
  offset fins, heat transfer and press. drop 37084
  OMPAC package-to-board attach reliab. 28534
  opt. fibre coupler packaging for high undersea reliab. 17278
  opt. glass fiber soldered into ferrule, thermally induced stresses 39366
  OPTOBUS parallel opt. links, data transm., 3 Gbits/s 3563
  ovenized cryst. oscillators, VLF transmitter freq. synchronized 39074
  PCB, conformal coating proc. optim. 934
  PCB convective cooling, conjug. heat transfer, boundary element formulation 12896
  PCB packaging matching for DFM 38087
  PCB/electronics indust. trends 21642
  photoreceiver module, packaging technol. 42413
  PMMA filled porous silica glass opt. composites 7262
  polyimide dielec. films for electronics packaging, plasma etching 20462
  polyimides, low dielec. const., opt. props./orient. effects 12209
  power transformer enclosure CAD, parametric prog.-based 5024
  precoat soldering, fine pitch component mounting 38168
  product marketability meas., holistic approach 11661
  PWB technol. trends, multifunctions and size reduction *(Japanese)* 923
  PWBs, current carrying capacity of Cu conductors 906
  PWBs, glass fibre reinforced epoxy laminate, interfacial debonding 11819
  qualified manufacturers list approach in electronic packaging 28450
  quartz cryst. mount design optim. via holographic interferometry 39073
  rare-earth-ion-based act. waveguide lasers 39722
  rect. block array, heat transfer, wake effect 37074
  rect. plate, dyn. response to shock load, package appls. 11811
  RF/microwave circuitry packaging, design considerations 37067
  rigid-flex MLB package, z-axis intermetallic/thermosetting adhesive method 37140
  rot. machine act. noise control studies *(Korean)* 27668
  satellite equipt. packaging technols. 25452
  SAW delay line packaging, manufacture and perform. anal. 39117
  second-order grating waveguide-to-fiber coupling 39404
  shallow horiz. air layers encountered in electronic cooling, natural convection 37095
  shielded enclosure, EM leakage, slots 15498
  shielded enclosures radiation, FDTD method 15472
  shielding enclosures, hybrid finite element-anal. solns. 7999
  single-phase submerged-jet impingement cooling for electronic components 151
  small planar packaging syst. for ATM switching systs. 33722
  SmartMotor 32-bit stepping servomotor motion control syst. 5165
  SMT solder ball connection reliab. model and crit. param. optim. 926
  SnPb-soldered joint reliab., interstitial PGA packages 940
  solder joint fatigue testing, elec. resist. spectrosc. 28477
  solder joint reliab. prediction, computer-aided syst. develop. 37206
  solder profile model and expt. verification 37065
  soldering, wetting bal. meas. of components, dissimilar surfaces 37063
  Space Station Freedom PMAD syst., thermal anal. 18763
  space vehicle avionics upgrades, thermal design challenges 43429
  SS-1 supercomputer cooling syst., 3D packaging config. 136
  SS-1 supercomputer storage card design, packaging challenges 144
  subminiature/SIPAC-S connectors of EMC design, shielded housings 895

packaging continued
  surface props., tailoring by laser irrad. 31689
  sync. syst., stat. method of noise estim. 5638
  tall enclosures with flush-mounted heat sources, convective flow and heat transfer 37094
  tape carrier package, thermal charactn. 28471
  Teflon film high-speed through-hole drilling, vis. laser *(Japanese)* 20420
  Teflon PCBs, fab., proc. considerations 12932
  telecomm. cabinets, thermo-hydraulic simul. 16541
  telephone exchange, equipt. enclosures, thermal control 16969
  thermal stress anal. of soldered/bonded joints, defects 28457
  three-by-three array of protrusions cooled by liq. immersion, substr. thermal cond. 37093
  three-phase power conductor arrangements, short cct. losses 35645
  through-hole components, lead-fatigue, design model 29661
  TLM method, plane-wave illum., partial Huygen's surface 2282
  Tokyo Engineering Univ., electronics packaging education 28348
  transfer-molded packaging for opt. data links 11783
  transient strain response meas., scanning laser vibrometry 34706
  transm. lines, efficient freq.-domain modeling and cct. simul. 5977
  TSOP solder joint crack initiation and propag. 37110
  twisted fibre package, birefr. study 30845
  two-phase electronic cooling, mini-channel/micro-channel heat sink geom. 11759
  two-phase electronic cooling, mini-channel/micro-channel heat sinks 11758
  two-phase thermosyphon cooling of array of discrete heat sources in rect. cavity 37108
  ULSI CMOS/opt. polymer opt. interconnections 1832
  underfill encapsulants for flip chip assembly, characterisation and eval. 37137
  unshrouded pin fin heat sinks, pin fin dens. effect on thermal perform. 11760
  vert. channel, protruding heat sources, 3D convective cooling 37126
  wire bonding, present and future trends 38170
  Al-ceramic surface activated bonding, electronic/chem. procs. 37530
  AlN, 3D interconnected porous composites, proc., electronic packaging 146
  AlN, excimer laser ablation, fluence depend. 12192
  AlN particle filled Al, low CTE thermal conductor 12199
  AlN, reliable thin film metallization, microelectronics packaging 37118
  AlN substr./Ti thin films, interface form. kinetics 20459
  C-C composites, thermally conductive/CTE tailorable, MCM/PCB packaging 37146
  Cr thin films on polyimide, adhesion study 11820
  Cr/Au microstrip lines, HF/high dens. packaging 21511
  Cu gull-wing leads for thin SOP 150
  Cu thin films on polyimide, adhesion study 11820
  Cu-clad polyimide sheets for thin film multilayer substr. fab. 138
  InP polariz. diversity receiver OEIC heterodyne receiver frontend module 23061
  $LiNbO_3$ electro-optic modulators, cryogenic temp. characterisation 14506
  Ni-Fe Alloy 42 leadframe, freq.-depend. complex permeab. determ. 11810
  PZT/Pt ferroelec. capacitors, passiv., SOG 39100
  PZT/Pt thin film decoupling capacitors, integrat. 21591
  Pb and Pb-free solder joints, thermomech. and fatigue behavior 37557
  Pb-acid valve regulated batts., modular installation 44288
  Pb-based solder alternatives develop. 127
  Si CMOS addressing matrices, light-valve projection displays 25928
  Si multitechnology module OEIC packaging for computer/commun. systs. 11815
  SiC/Al metal matrix composite baseplate, high current power modules 28466
  Sn-Cu(Pb) solder joints, thermal cyclic shear stress/strain hysteresis 11742
  Sn-Pb-Ag solder interconnects, creep study 37128
  Ta capacitor resist., high humidity 884

packet radio networks
  broadband ATM indoor radio, packet diversity 16700
  burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
  capacity, distributed media access protocol, perform. anal. 33881
  CDMA gap-free fit channel access protocol 41494
  CDMA integrated voice/data cellular packet network 17095
  CDMA packet combining error control 25368
  CDPD network, cellular digital packet data transm., 19.2 kbps 17114
  CELARN, cellular local area radio network 3484
  cellular digital packet data on analog systs. 25416
  cellular environ., self-adaptive channel allocation strategies, PRMA 9248
  cellular systs., packet transm., channel quality reliab. 9296
  centralized multihop packet radio network, simul. model 9160
  complementary media packet switched networks, survivable commun. 17023
  conferencing SS radio 25260
  digital demodulators using fixed point FIR interpolators, BER perform. 32037
  direct global mktg., amat. radio packet switched network 9163
  distributed adaptive routing, simul. *(Chinese)* 42143
  distributed media access protocol, set-up time, perform. anal. 33882
  DS-SS CDMA cellular voice/data commun. 25342
  DS-SS packet radio syst. automatic threshold control 42151
  DS-SSMA unslotted PRN 25257
  DS/CDMA digital cellular systs., error control algms. 9361
  DS/SS indoor wireless commun., near-perfect multi-packet capture 33869
  FFH-CDMA packet radio network, capacity 42142
  FH packet commun. syst. capability in fast Rayleigh fading environ. 41461
  FH-SS PRN, channel access protocol perform. 8756
  FM multiplex broadcasting syst. DARC devel. by NHK 42264
  frame reservation multiple access perform. anal. 33837
  GSM adaptive type-II hybrid ARQ/FEC protocol 3445
  handwriting proc. in indoor/outdoor environ. for multimedia 9063
  idle-slot broadcasting multiple access for mobile satellite commun. 9213
  IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
  IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
  intell. vehicle/highway syst., packet-switched commun. 3460
  inter-vehicle packet radio commun., network archit. 42243
  IVHS, packet success probabs., meas. headway distribs. 42239
  LANs, frame synchronisation codes 16676
  LEO satellite networks data link control protocol, datagram service 24835
  macro-/micro-cellular radio systs., throughput perform. 9295
  mobile packet radio LAN idle sig. casting multiple access with failure detect. 41821
  mobile radio, digital MSK receiver 3435
  mobile radio networks, transactions via short range commun. links 9355
  mobile systs., packet based access mechanism, perform. params. 33863

packet radio networks continued
- mobile telecomm. network radio lines EMC estim. methods 25289
- MOBITEX and mobile data systs. 41859
- multi-access sig. packet network authentication assess *(Russian)* 16464
- multicopy ALOHA, enhancements 16508
- multihop FH-SS PRN, channel access protocol 25246
- multihop packet radio network with capture, fading effects 9180
- Multihop Packet Radio Networks, routing algm. 2993
- multihop PRN, distributed routing algm. 25247
- optimal multicopy ALOHA packet transm. policy 41466
- PCN voice transm., PRMA and DAMA comparison 33839
- PCS, outage probab. in presence of Rice fading 17099
- pers. commun. systs., packet transm. 25415
- portable computing, cellular digital packet data (CDPD) air interface 25352
- power system control, packet radio network appls. 33766
- PRMA, Rayleigh fading effects 8739
- PRMA-ISA protocol for multiple access of voice/data traffic 9297
- radio LANs, FEC, ARQ, and throughput of 16678
- Rayleigh fading environ., mobile PRN anal. 3349
- reservation ALOHA multiple access, throughput anal. 24799
- road vehicle-vehicle commun., 60 GHz by TDMA/CDMA 9333
- Rohde & Schwarz HF Data Modem GM 857 C4 9119
- RTI related services, packet based data link protocol 8769
- shared time division duplexing for wireless digital speech commun. 3333
- slotted ALOHA, power assigning and immediate transm. controls 8770
- slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
- slotted freq.-hopped PRN, random/deterministic, anal. 17010
- SOCRATES in Europe and TANGO field trial in Gothenburg 3076
- SS7 network infrastructure, connection-less packet data transm. 25414
- SS PRN, delay capture, arrival-time distrib. 9174
- stat. multiplexing mechanism for advanced TDMA 9277
- TDM/SS packet radio, modulation/coding 33753
- TDMA access for third generation cellular commun., resources 25394
- TDMA digital cellular networks, voice/data channel access 3338
- variable length packet ALOHA systs., capture effect on throughput 2950
- virtual cellular network, wireless commun. archit. 9280
- wireless data services, archit. alternatives 25135
- wireless integrated multiple access protocols 16501
- wireless LAN protocols, radio capture models 25059
- wireless network perform., multimedia traffic mgt. principles 25132

packet reservation multiple access
- cellular environ., self-adaptive channel allocation strategies, PRMA 9248
- channel impairments effects 9298
- dual-rate alg. CELP-based speech transceiver 9221
- fast PRMA protocol, perform. eval. 33249
- frame reservation multiple access perform. anal. 33837
- integrated data and speech transm. 41496
- integrated voice/data syst., data steal, voice 17089
- metropolitan microcellular radio environ. PRMA perform. 42194
- mobile speech, video and data transceiver 3266
- mobile systs., packet based access mechanism, perform. params. 33863
- multiaccess protocol for packet transm. in mobile satellite systs. *(Korean)* 24834
- narrowband microcellular speech transm. schemes 3332
- PCN voice transm., PRMA and DAMA comparison 33839
- perform. study, Markov anal. 8737
- protocol, indoor radio, BPSK, capture effect, perform. 9299
- protocol for multiple access of voice/data traffic 9297
- Rayleigh fading effects 8739
- reservation ALOHA multiple access, throughput anal. 24799
- satellite PCN, 3rd generation, technol./networking issues 25413
- shared time division duplexing for wireless digital speech commun. 3333
- stat. multiplexing mechanism for advanced TDMA 9277
- TDMA digital cellular networks, voice/data channel access 3338
- third generation mobile systs., adaptive radio interface 25395

packet switching
- *see also asynchronous transfer mode; frame relay; packet radio networks*
- 2D round-robin schedulers for packet switches, multiple input queues 2875
- 60 GHz mobile-to-mobile radio channel, meas. 9262
- 250-Gb/s self-clocked opt. TDM, polariz.-multiplexed clock 42376
- AAL5, ATM Adaptation Layer 5 for gigabit LAN 3191
- adaptive rate error control for land-mobile satellite channel 9370
- all-opt. multihop photonic packet-switched networks, bandwidth limits 9579
- ARPANET, early yrs. 41907
- asymptotic resource consumption in multicast reservation styles 2882
- asynchronous packet transm. optimum frame sync. 41418
- asynchronous packet-switched shared memory multiprocessor cache coherency scheme 2953
- asynchronous shuffleout connectionless network switching archit. 41415
- ATM, burst reduction props. of leaky bucket flow control scheme 16451
- ATM, comparative eval. of output buffer mgt. schemes 8724
- ATM archit., photonic devices 16986
- ATM backbone, frame-relay traffic 41439
- ATM based embedded real-time systs., admission policies, perform. 33505
- ATM bursty user traffic allowed by jitter tolerant leaky bucket 2872
- ATM fast packet switch archits., reliab. models 2888
- ATM fast packet switches, simul. environ. 25172
- ATM multiplexer loaded by CBR, queueing anal. *(Korean)* 24772
- ATM multistage networks, shared queueing under correl. traffic 33240
- ATM network goals and challenges 24770
- ATM network routing, congestion tolerant commun., perform. 8728
- ATM networks, end-to-end queueing delay 33216
- ATM networks, multi-rate traffic shaping/perform. 2879
- ATM networks, multiplexing for cell delay var. 16441
- ATM networks, neural network traffic description 3240
- ATM networks, nonblocking multi-channel switching 8713
- ATM networks, resource sharing schemes in connectionless server 41438
- ATM packet switch, output buffering/imbalanced correl. traffic, anal. 8716
- ATM preventive congestion control based routing 16443
- ATM shared-buffer direct-access switch archit. 8709
- ATM shuffleout switch, channel grouping techs. 33199
- ATM shuffleout switch, multicast services provision 16440
- ATM stat. multiplexer multidimens. diffusion model 41431
- ATM switch, weighted round-robin cell multiplexing 8720
- ATM switches, buffer allocation schemes 8723
- ATM switches, queue mgt., multiple delay/loss priorities 8726
- ATM tandem queues, estim. of cell loss probabilities 8718
- ATM technol., switching success 8856
- ATM technol. for link syst. develop. 24849

packet switching continued
- ATM techs. for high speed networks 33534
- ATM three stage switch, cell-level path allocation 8725
- ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
- ATM-based LANs, bandwidth mgt. 33517
- B-ISDN, source model for connectionless traffic 25062
- banyan-based B-ISDN switches, priority perform. 9006
- bursty traffic in packet switched networks 33238
- campus-wide network, packet voice distrib. 33520
- cascaded crossbar interconnected multiprocessors, cost perform. anal. 33185
- CCS signaling networks, traffic forecasting 8722
- cct.-mode data on wireless links, retransmission scheme 17090
- CDPD network, cellular digital packet data transm., 19.2 kbps 17114
- cellular digital packet data, perform. anal. 42271
- centralized multihop packet radio network, simul. model 9160
- CMOS buffered switch for gigabit ATM switching B-ISDN 16974
- combined token/random access protocol for LAN/MAN ring networks 16708
- common store queueing syst., threshold-type foreground-background congestion control 24788
- commun. networks, modelling of segmentation and reassembly procs. 33236
- complementary media packet switched networks, survivable commun. 17023
- Concert packet services network, planning 16533
- conflict-free WDMA networks, buffer-sharing 8745
- conflicts multiplicities, packet output time 16424
- congestion feedback control 16426
- corporate network choices 33581
- Cranium, interface for message passing on adaptive packet routing networks 25030
- Croatian ISDN, init. experience 41918
- CSMA/CD LAN interconnection by bridge, finite buffer *(Japanese)* 8947
- CSMA/CD LANs, packet starvation effect and soln. 33510
- customer-usable all-opt. networks, develop. 9084
- data commun., sync., DFT appl. 33201
- DDT, Internet tunneling technol. 16749
- deadlock and livelock free routing algm., adaptive 24767
- deep water acoustic LAN, adaptive lin. multiuser receiver 34181
- delta switching networks, perform. eval. 16456
- demand assignment packet switch for terrestrial and satellite networks 17151
- dense WDM packet switching networks, review 3538
- digitised voice over high speed LANs, error control scheme 33445
- distrib. network based on controlled switching elements 24773
- distributed commun. networks with semi-shortest routing, loss probab. *(Japanese)* 16455
- Distributed multicast contention resoln., content addressable FIFOs 16964
- distributed radio port controller archit., develop. 25381
- distributed virtual simul., networking 18995
- DMSK digital packet sync., preamble design 9362
- double tree network, routing and perform. 33184
- DPCM for diversity systs., packetized speech appl. 8223
- DUALCAST, reliable multicasting scheme 2925
- embedded ATM networks, distributed pricing 41677
- EURADAT, pan-European data transm. network *(German)* 8813
- expanded delta fast packet switch 9141
- fast packet switching, intell. user entities 8697
- fault-tolerant convergence routing 3203
- fault-tolerant lin. broadcasting 24764
- fault-tolerant routing algms. 24756
- FDDI, mean waiting time approxs. 41845
- FDDI networks connected through ATM, video traffic mgt. perform. 24916
- fDDI-2 packet services and latency adjustment buffers 33454
- FDDI-II MAC protocol, assessment and alternative design 33457
- FDDI-II networks, method for isochronous bandwidth allocation 24955
- ferroelec. smectic C* liq. cryst. high-speed tunable filter 39539
- FH-SS PRN, channel access protocol perform. 8756
- FH-SSMA, adaptive retransmission control 16434
- FIFO design for high-speed network interface 33491
- finite-buffered multistage interconnection network perform. anal. 41405
- finite-horizon stat. QoS measures for high-speed networks 33590
- frame-induced packet discarding, strategy for video networking 8677
- general-mesh packet flow networks, controlled alternate routing scheme 2989
- generalized periodic Markovian sources multiplexing and VBR video 8717
- generalized proc. sharing networks, exponentially bounded burstiness arrivals 33591
- GeNeRIC inform. centre in multi-protocol environ. 41523
- GIGAswitch control proc. 25044
- greedy packet scheduling 33171
- high speed networks, two-level flow control scheme 8902
- high-capacity broadband packet switch archit., multilink approach 41912
- high-speed fibre optic local area bus networks, perform. eval. 41898
- high-speed network QoS, per-session end-to-end delay and call admission 33168
- high-speed networks, hardware meas. techs. 676
- high-speed packet switch, input access, perform. anal. 16794
- HONET, integrated services WDM opt. network 16713
- hot potato routing 16777
- hot-spot-avoiding, adaptive strategy for transputer routing 41432
- I-NET, Packet Switched Public Data Network, India 24893
- IEEE 802.6 DQDB MAN protocol, perform. anal. 3180
- image seqs., temporal filtering, short-kernel filter pairs appl. 41077
- IMHP, mobile host protocol for Internet 16748
- implosion-avoidance protocols for reliable group commun. 33270
- input queueing packet switch with two priority classes, throughput 16452
- input/output buffer control policy, effect on packet switch waiting time *(Japanese)* 41490
- INRIA Videoconferencing System software 25073
- integrated services digital broadcasting, transport struct. 24886
- integrated services network scheduling and admission control priority token bank 41916
- integrated video and data commun., dyn. quality and congestion control 24738
- integrated voice/data network, cellular packet CDMA, perform. 17131
- intell. vehicle/highway systs., compressed video commun. 8682
- interconnected LAN, congestion avoidance 3174
- internetwork interface, reliab. and performability anal., fault models *(Chinese)* 33427
- internetworking archit. for integrated voice and data commun. 9007
- IP layer perform. diagnostics, windowed ping appl. 16746
- IP multigigabit router design 8901
- IP networks, congestion avoidance for video 16680

packet switching continued
IP over ATM, cell traffic efficiency 25067
ISDN, basic rate UNI, packet-switched data anal. 16793
ISDN, present status and future *(Japanese)* 9003
ISDN networks, chaotic maps, models of packet traffic 33606
ITAPAC, Italian packet switching data network, planning 16565
label swapping routing, self-termination mechanism 2984
LABON, learning automata-based opt. network 9608
LAN, all opt., multiaccess with wavelength/code concurrency 41797
LAN switch traffic overflow 16722
LANs, cct. switched, perform. under different traffic conditions 33514
large-scale LANs, interconnection via two-stage switching hub for multimedia appls. 33513
large-scale packet switch interconnection archit. using overflow switches 41416
leaky bucket regulator perform. in broadband integrated networks 8911
leaky bucket traffic shaper fed by bursty source, output traffic 16442
LEO satellites, global store/forward commun. syst. 25467
load-adaptive/TDMA systs. perform., satellite networks appl. 9415
long local computer networks, methodology for partitioning 3171
MACAW, media access protocol for wireless LAN's 2946
Mach 3.0, packet demultiplexing for multiple endpoints and large messages 8922
Manhattan Street Network, binary addressing/routing 24869
Markovian networks, extreme values of random times 33194
ME-based approxs. for general discrete-time queueing models 3280
media sync. protocols for packet audio-video syst. on multimedia inform. networks 16497
MIMO LAN interconnection over high-speed gateway 41756
min. adaptive router, perform. anal. 25028
mixed X.25/frame relay networks congestion control 16447
mobile radio channels, stack algm. 9294
modified PDAMA protocol for mobile satellite commun. systs. 25320
MPEG video traffic, network congestion avoidance 42588
MPEG-2 std. flexible digital data transm. *(German)* 17539
multi single-stage-shuffling for fast packet switching 9134
multi-channel/port traffic assignment fast algm. 8742
multiaccess protocol for packet transm. in mobile satellite systs. *(Korean)* 24834
multicast and multidestination transport protocol 8772
multicast protocol, round-robin ACK and selective retransmission *(Korean)* 24831
multicopy ARQ strategies, Stutter XOR strategies 2927
multihop 2×2 all-opt. photonic packet switch 9152
multihop 2×2 photonic packet switch, header reinsertion 16978
multimedia capable network, ATM/IEEE 802.9a isochronous Ethernet transport technols. 42015
multimedia conferencing on packet switched networks 9027
multimedia packet switching network, capacity assignment algm. 9040
multimedia queueing syst. with Poisson and batch Poisson packet arrivals, traffic anal. 25107
multiple route real-time channels in packet-switched networks 2870
multitone sync. for fading channels 8459
multiwavelength opt.-fiber-loop memory, ATM packet simultaneous buffering 9149
native ATM-multicast and IP-multicast, comparison/mapping 33272
NEC, digital video transm. technol. develop. *(Japanese)* 42617
network mgt., perform. trending 3087
network routing mgt. 41649
nodes, message delays eval. 16457
nonblocking multi-$\log_2 N$ multiconnection networks 2867
nonblocking multirate broadcast networks, anal. model 33170
nonblocking space-division packet switch, 2 correl. input call types 41459
oblivious packet-routing networks, queueing anal. 8714
opt. ATM components 33729
opt. mesh networks, hot potato/single buffer deflection routing 16528
opt. multi-pulse PPM, optimal/suboptimal frame synchronizers 40565
opt. packet add/drop, wavelength-coded header 25514
opt. packet LAN, collision-free reception 8964
opt. switching, multiwavelength systs., Europe 16980
optical network interface unit for multichannel ring networks 3227
optical staggering switch archit. growability and packet sync. 42126
output queueing, priority class in ATM switch 33181
packet-switched WAN, distributed adaptive routing, perform. 3189
parallel neural network emulator based on appl.-specific VLSI commun. chips 29472
partially blocking finite-buffered switching networks, anal. model 2878
PC packet switching network flag detect. 8904
PC router perform. eval., single-server multi-queue syst. 8741
pers. commun. systs., packet transm. 25415
Petri net perform. models 24774
photonic ATM backbone network 9025
photonic fast packet switching networks 9601
photonic time/space switching semicond. laser amps. 3586
pipeline banyan, fast packet switch design/anal. 25188
pipelined common buffer archit. for memory based switching systs. 33716
PL CEBUS with/without acknowledgment, perform. 16692
power series algm. for anal. timed-token ring protocols 41524
preamble-less packets surrounded by noise, optimum frame sync. 8715
priority token-ring network, perform. modeling/anal. 8986
private commun. groups in packet-switched networks 8956
PRIZMA, flexible shared-buffer switch for ATM, Gb/s rates 33712
probab. distrib. type of speech packet network residence time, effect on speech legibility 15801
prototype opt. deflection network, design and implement. 3300
quick simul. of stationary tail probabilities 41433
random access LAN, unbalanced random no. generator 16658
rate based flow control scheme for time-varying traffic, perform. eval. *(Japanese)* 41458
rate-control throttles, burst reduction props. 24797
rate-controlled service disciplines 33167
rate-reservation protocols verification, flow theory 2966
real-time sync. control, multimedia segment delivery 16895
real-time traffic in packet-switched networks, routing and admission control eval. 24840
Real-Time VirtualClock, network traffic control mechanism for real-time commun. 8910
reliable and efficient hop-by-hop flow control 2880
reliable commun., unreliable channels 33265
reliable packet delivery service interface for parallel systs. 41493

packet switching continued
ring based multicast service, high speed deflection network 33476
routing algms. on mesh-connected computer 41403
routing schedule, O(congestion+dilation) algms. 16526
satellite commun., combined free/DAMA protocol 9418
satellite-based packet-switching networks, on-board closed-loop congestion control 33942
scalable lightwave network 9452
SDMA protocol, collision resoln. algm. 33269
self-similar Ethernet LAN traffic, stat. anal. and stochastic modeling 33586
self-similar VBR video traffic, anal., modeling and generation 2883
shared buffer memory, fast packet switches 24759
shared channel lightwave networks, virtual topol. design 41561
shared-medium ATM switch under bursty arrivals, approx. anal. 2865
shortest-path first routing algms. 24847
sig. transm. struct. of digital broadcasting 9700
simul. of packet loss rate, commun. networks, priorities 11907
single-stage output buffer packet switches, independent batch arrivals 41456
SkyNet, multicasting multimedia appls. of Internet 42041
slotted ring protocol for voice/data integrated network, perform. anal. *(Japanese)* 41512
SMDS network simul. 33477
SMDS networks, link set capacity augmentation algms. 16435
SMDS technol. test results and issues 41764
speech stat. multiplexing, resource auction multi-access excess capacity 42200
SS7 network infrastructure, connection-less packet data transm. 25414
STARNET opt. WDM network, high-speed interface 9514
stat. data forks, packet flow control 16436
stat. multiplexer with generalized periodic sources, anal. 24750
STC104 packet routing chip for parallel systs. 29290
supra-high-speed packet switching networks, deflection routing strategy 2887
syst., propag. delay, nonuniform traffic scheduling 33164
systolic interconnection network 16537
TCP traffic dyn., ATM networks 2943
TCP-SS versus adaptive rate-based congestion control, perform. 2965
TCP/IP, mobility impact, simul. study 3201
TCP/IP window-based flow control, effect of high bandwidth-delay products and random loss 24804
telecomm. systs., neural networks appls. 41454
telecomms. traffic charactn., fractal procs. 33189
teleconference traffic from VBR video coders, modeling 16818
telephone exchange alarm traffic charactn., methodology and case study 33406
telephone/packet-switched networks, random variable seq. i.i.d. testing 41716
three-sect. DBR lasers, fast wavelength switching 25479
three-stage networks, strictly non-blocking condition 33198
TNet reliable syst. area network 24973
token ring protocol for single/dual ring LAN systs. 2916
variable length packet ALOHA systs., capture effect on throughput 2950
video commun., low latency, over high bandwidth-delay networks, using FEC 25134
virtual private networks characts. 41873
virtual rate-based queueing, generalized discipline for high-speed networks switches 24787
voice supported multimedia service on data commun. 9047
VSAT systs. role in broadband networks and IN 42308
WAN, TCP/IP, perform. 33508
wavelength division multiple access networks, archit. 16527
WDM channel sharing scheme for multihop lightwave networks 8696
WDM quasi-all-opt. broadband networks, packet headers encoding 16448
WDM-networks, packet-switched, wavelength stabilisation scheme 34093
wide-area ATM dyn. multipoint routing, geographic spread 41452
wide-area multicast routing archit. 2987
wide-area traffic, inadequacy of Poisson modeling 3207
wideband all-opt. FDDI LAN networks 9521
wireless LAN's, collision detect. algm. 41846
wireless multiservice CDMA environ., adaptive packet decoding 9360
wormhole router, cost of adaptivity and virtual lanes 29291

packing *see packaging*

PACS
conference, computers in cardiology, London, UK (1993) 11543
distributed picture archiving and commun. syst. for hospitals, image prefetching 35205
healthcare commun., future needs and present solns. 41875
image storage and presentation 43414
med. workstation supporting image save & carry std. *(Japanese)* 18536
medical image capture, formatting and display, conf., USA (1994) 11570
medical imaging, PACS design/evaluation, conf., USA (1994) 20213
NEC multimedia services for med. systs. *(Japanese)* 42026
radiologic image compression, review 26287
SIENET, hospital X-ray dept., routine digital operation 35053
workstation monitors, image default display arrangements 35048

page description languages
conference, New Face of Technical Communications, Philadelphia, PA, USA (Oct. 1993) 28216
FIND2, inform. sharing syst., develop. *(Japanese)* 3211
HTML+ document format review 25015

paged storage
Internet protocol, connection-oriented networks and distributional paging 16489

paging (storage) *see paged storage*

paging communication
cellular mobile commun., stat. paging area selection scheme 3453
cellular mobile telephone systs., optimal paging 33934
CMOS/PLL LV synthesizer, SIMOX technol. *(Japanese)* 21152
direct conversion receiver, FSK digital phase-shifting demodulator 3359
Ermes pager testing, SME sig. generator *(German)* 25350
FM multiplex broadcasting syst. DARC devel. by NHK 42264
INFONAVI, in-vehicle navig. syst., radio pager 42542
intell. Chinese pen-based screen phone 9110
location mgt. procedures 25390
low-power RF ICs for portable commun., all-CMOS radio 42295
low-power wireless mobile commun. syst. 3490
NEC, develop. of small highly-functional radio pager *(Japanese)* 42212
positioning/paging syst. operating principles *(Croatian)* 3636
power line isolation monitoring syst., paging/fax commun. *(Japanese)* 27287
R&S Signal Generator SME extensions for testing, digital networks 9968

paging communication continued
radiopaging technol./systs., wide-area 33773
Swiss Telecom PTT, radio paging service *(German)* 42300
wireless commun. overview, consumer electronics perspective 9403
Si RF MMICs, LNAs and downconvertor for 1 V pager appls. 851
Si-bipolar front-end IC for 900 MHz homodyne wireless receivers, 3 V, 28 mW 21567
paging, radio *see paging communication*
pair algebra *see algebra*
pair breaking, Cooper *see Cooper pairs*
pairing, Cooper *see Cooper pairs*
PAL *see programmable logic arrays*
palmtop computers *see notebook computers*
PAM *see pulse amplitude modulation*
pan-European radio *see cellular radio; digital radio*
pantographs
elec. rly. pantograph standardisation efforts, Europe *(German)* 28123
paper
see also paper industry
230 kV HPFF cable, wrinkled/creased paper insulation, eval. 27204
chromatic colored papers, glossiness, simplified measuring method *(Japanese)* 25989
EM paper drying, nonlin. problem soln. 28167
fluid filled taped cables, dissolved gas anal. 27205
HVDC cables, paper insulated, breakdown, comment/reply 35647
insulation, HV testing, μP based 30590
insulation lab. charactn., microscopy/spectrosc. 13919
oil-paper insulation, breakdown characts., impulse voltages 1561
power transformer aramid paper insulation, elec. strength tests *(Japanese)* 11106
power transformer composite paper-oil insulation monitoring 19686
power transformers, oil-filled, paper degrad. by-products anal. 44097
sheet no. meas., microwave counter 3983
underground distrib. feeder cables, failure prediction 4646
paper industry
42.5 MW paper mill combined cycle CHP project, UK 4852
Aylesford paper mill CHP plant, distrib. control syst. 11513
induction motor drives, VSI-IGBT, vector control 36805
noncontact IR based temp. sens. 10051
steel calender rolls, induction heating, finite element simul. 11514
thermomechanical pulping, adaptive refiner control syst. 10042
waste heat recovery, energy conservation *(Japanese)* 35725
parabolic equations
atmos. natural waveguides, ducts/elevated ducts, soln. 15438
broadband acoustic propag. and scatt. in waveguide, scatt. 18923
diagonal implicit scheme for quasi-lin. parab. syst. *(Chinese)* 5787
difference schemes for parab. eqns., time-adaptive grids 28691
elec. machine conjug. EM field calcs., Newton-Raphson method-based *(Polish)* 36093
integrated space-time adaptive hp-refinement methods 37344
nonconforming element multigrid method, parab. eqns. *(Chinese)* 5795
ocean acoustic scatter from mid-Atlantic ridge corners, CW and time-domain simul. 18882
phase field model, error estim., finite-element scheme 20571
scalar EM propag., parab. eqns., split-step Pade approx. 40353
second-order accurate difference schemes for quasi-lin. parab. eqns. *(Chinese)* 5786
sonar matched mode proc., parab. eqn. 17467
space power thermionic convertors, thermal modelling 18740
tropos. EM wave propag. eqn., soln., box method 40350
paraelectric materials *see dielectric materials*
parallel access storage *see random-access storage*
parallel algorithms
1D logic gate assignment, parallel algm. 38975
1st order Reed-Muller code decoding on SIMD machines 8115
2-D FFT algms., parallel, eight-neighbor proc. array implement. *(English)* 285
2D and 3D optimal parallel image warping 41075
2D DCT systolic archits. based on CORDIC techs. 12573
2D eddy current problem, domain decomp., serial/parallel 40250
2D systolic array proc. design *(Korean)* 681
3D charact.-based time-domain Maxwell eqns. solver 40180
3D fully parallel thinning algm. 24377
3D objs., drawings, geometric characterisation 16240
AC motor multirate motion control algms. parallel proc. 10966
adaptive beamformer, recursive modified Gram-Schmidt algm. 2520
adaptive estim. of eigensubspace 32550
adaptive sig. proc., fault tolerant QR decomp. 32494
adaptive string matching algm. for data compression chip 21376
adder, algo. implement. for high dens. codes 6063
algm.-based fault tolerance, canonical computational model 32497
algm.-based fault tolerance (ABFT) 32493
array proc. for block adaptive LS FIR filtering 2529
ASIC implementation of image proc. algm., silicon compilation 21343
asynchronous parallel matrix multisplitting relax. iters. model 37309
asynchronous parallelism in steady-state genetic algms. 8247
B-spline surface interpolation, parallel implement. 20583
binary image shrinking parallel algm. 24597
biological neuronal network, parallel simul. 10252
broadband acoustic propag. and scatt. in waveguide, scatt. 18923
bulletin-board subsystems for exchanging obj. inform., operation protocols, formal description 33288
butterfly algm. and VLSI archit. for image decorrelation 16096
CDMA fibre optic LAN, opt. orthogonal and codes generation 41897
channel routing, extended distributed genetic algm. 37601
circuit simul., parallelism develop., tearing 21026
coarse-grain parallelizations of interval algms. 5776
color image coding, morph. pyramid decomp. 24592
computational nanoelectronics, parallel algms, QMD 6830
computer vision, 2-D chromosomes 8494
concurrent VLSI archits., partitioning and prog. lin. alg. algms. 37792
correl. control in parallel Monte Carlo 20526
data placement for wavelet decomp., 2-D image data 24407
delayed LMS transversal adaptive filter vectorization 741
depth from motion estim. 2763
diagonal implicit scheme for quasi-lin. parab. syst. *(Chinese)* 5787
diffr. tomography, multistage parallel algm. 32970
parallel algorithms continued
diffusion eqns., alternating segment explicit-implicit method 269
digital filtering, parallel algm. 2567
digital opt. computing, magneto-optic SLM 7428
discrete convolution algm. develop., parallel-decomp. algm. appl. 32632
discrete lin.-quadratic filtering 8361
discrete/CW transforms, single chip/SIMD computers 37799
DSP algms. mapping, multiprocessors by simulated annealing 8355
DSP algms. mapping onto multiprocessors, cost fns. 24225
DSP teaching aid, algorithmic engng. 36926
dyn. repartitioning of parallel logic simulator 481
edge coloring series parallel graphs 28621
edge maps, neural network arbitration 41322
efficient FFT on hierarchical multiprocessor archit. *(Korean)* 20646
eigenproblem of banded symmetric Toeplitz matrices soln. on multicomputers 20603
ellipt. shapes location in image, pyramid archit. 2589
EM anal., guided wave systs., domain decomp. methods 40421
embedded image proc. appl., top down struct. parallelisation 2810
explicit method for resoln. of semicond. device eqns. 38779
fast algms. for DCTs and discrete sine transforms 8371
fast convergent Jacobi algms. for VLSI sig. proc. 32597
fast least sq. QRD-based algm. for complex data 2500
fast simul. of semicond. devices, multigrid method 38782
fast vectorized maze routing algm. for supercomputer implement. 12270
fast VLSI systolic array for large modulus residue addit. 21245
fast VLSI-efficient self-routing permutation network 30420
fault simul. of digital designs on parallel proc., distrib. algm. 37685
feature mapping neural network, VLSI implement. 6270
FFT algms., radix 4 butterfly computation on 8-neighbor proc. array 20643
FFT algos., implement. on transputer computational structs. 5799
fractal image compression, parallel algm. for hypercube multiprocessors 32960
free-space optoelectronic technol. neural networks 1774
freq. assignment problems, genetic algm. appls. 9199
full search vector quantisation algm., massively parallel implement. 15837
Gaussian Elimination-based parallel algm. for lin. eqns. 28665
generalized symmetric tridiagonal eigenvalue problem 11987
generation expansion planning, parallel GA, parallel proc. *(Japanese)* 27086
genetic algms. for earliness-tardiness job scheduling 28642
genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
grey level co-occurrence matrix parallel array algm. 33019
homog. threshold networks, dyn. props. 12298
image compression, 2D DCT 24646
image registration, parallel genetic algm. hardware archit. 2802
image seq. coding algms., parallelising method 2811
image texture anal., stat., matrix method 24648
implicit matrix multiplication on various transputer networks 5777
information technologies/systs., conf., Ukraine, 1993 3
integrated memory array proc., image proc. appl. *(Japanese)* 29210
interact. multiple model tracking algm., parallel implement. 2561
interconnected power systs., small-sig. stabil., eigenvalue method, parallel proc. 35493
Iterative matrix inversion on systolic array 257
Jacobi algm. space, systematic exploration 32475
Jacobi and Kogbetliantz algms., parallel implement. 255
Jacobi-type methods, monitoring diagonalization stage 32764
JPEG picture retrieval in portable hypermedia documents 8602
Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
lin. alg. kernels, build efficient finite element solver 20598
logic simul., benchmark ccts., dyn. scheduling 12428
lookahead line search router, automatic ripup/reroute 21034
Markov random field models, color images segmentation 8606
massively parallel semicond. device simul., irregular grids 1326
med. obj. detect., transputers 26336
mesh decomp. and commun. procedures for FE appls. on Connection Machine CM-5 syst. 12015
mesh generation for large-scale num. simul. 5792
MIMD parallel cct. simul., matrix soln. 28951
modified signed-digit computing, parallel algm. 31032
mol. beam epitaxial growth, parallel Monte Carlo simul. 28770
MPEG-II video encoding, socket prog. in LAN 16088
MRI restoration, multidimensional nonlin. edge-preserving filter 26330
multidimensional DFTs on parallel machines, implement. 24215
multipass image rot., additional aliasing avoidance 2724
multiphase systolic algms. for spectral decomp., comments/reply 32565
multiprocessor DSP, task allocation/scheduling 40827
multiprocessor implement. of protocols, locking effects 2919
multiprocessor sparse matrix eqn. solver for SPICE 12275
multirate sig. proc. algms., compact code from dataflow specs. 40770
N-bit parallel opt. adder, fully parallel arith. algm. 31024
neural network based parallel algm. *(Chinese)* 8783
non-computationally intensive appls., algm.-based fault tolerance 32495
nonsymmetric matrices, real Schur decomp., hardware implement. 28668
one-layer routing on the EREW PRAM, optimal parallel algms. *(Korean)* 21017
one-sided Jacobi algm. for SVD, parallel implement. 20601
operational space mass matrix and inverse, Schur complement and factorisations 187
opt. flow, computation in multi-scale differential framework 24575
opt. flow detect., real time, self-tuning syst. 24719
packet routing algms. on mesh-connected computer 41403
packet routing schedule, O(congestion+dilation) algms. 16526
parallel image and signal algorithms texture analysis, conf., Genoa, May 1994 11593
parallel SVD algm. implemented on MIMD archit. 11990
parallelizable adaptive least sq. algm., tracking abilities 32751
perfectly parallel thinning algm. 8669
phonetic segmentation, parallel algm., mean field annealing 15802
Poisson eqn. on irregular domains, fast parallel soln. 12004
power syst., fast decoupled load flow calc., parallel algm. *(Chinese)* 35608
power syst., sparse network eqns. soln., direct/inverse factors 4490
power syst. anal., parallel elimination method *(Japanese)* 4494
power syst. parallel simul., automatic partitioning, factorisation tree 19044
power syst. sig. param. estim., neural nets 19170
preconditioned conjug. gradient method, distributed memory systs. 11969
Princen-Bradley filter bank implement. 742
pure alternating block explicit-implicit method 270
Q-coders parallel design for bilevel image compression 16188

parallel algorithms continued
QR decomp. on network of transputers 37325
QR decomp.-based least sq. tech., improve ATC radar 2579
QRD-based sq. root free and division free algms./archits. 28656
range image segmentation, SIMD algm. 24601
real-time adaptive acoustic beamforming, design study 32598
real-time motion stereo 2761
real-time power syst. parallel simul., mutated tree archit. 4453
recombinative simulated annealing 20561
regular arrays for matrix multiplication by two-step regularization 20604
RITE algm., pipelined regular array proc. implement. 8370
RLS estim., systolic array, formal derivation 28659
RNS to binary conversion, parallel algm., moduli set 29089
road boundary detect., parallel local, extraction 24596
roots of polynomial and derivatives 5774
RS codes, decoding, fast parallel algms. 40618
RSA algm. for multiprocessors *(Korean)* 24115
scalable archit. syst. for ATR 8647
scan line array proc., image proc. algms. 16292
scheduling, genetic algm. appl. 2992
semicond. devices, parallel 3D simul. 13586
seq./parallel image restoration, neural network appl. 2729
series-parallel digraph drawing 20560
shading flow anal., surface recovery 32892
short ccts. location, parallel short detector 12871
sig. and image proc., mapping strategies 24647
sig. representation, hierarchical parallel matching pursuit 15926
signal and image processing algorithm mapping onto parallel processors, conf., London, UK (July 1994) 32586
SIMD DSP for real-time MPEG video encoding/decoding 29268
soft-output Viterbi decoder, high speed VLSI archit. 12586
SONET-based self-healing mesh network real-time bandwidth allocation and path restorations 41652
sparse Cholesky factorizations 11985
speech recogn., HMM with duration modelling, parallel implement. 40745
speech recogn., Markov random field based parallel proc. 32352
speech recogn. algm., Markov random fields 8201
speech recogn. using lin. predictive HMM, parallel proc. 8184
splitting methods implement. for solving block tridiagonal lin. systs. on transputers 20602
sq.-root info. Kalman filter, Jacobi-type systolic array implement. 21358
SRIF DSP algo., VLSI systolic array implement. 665
stack filtering, parallel algms. and VLSI archits. 21422
state-space modeling, direction finding of wide-band emitters 2554
step-parallel iterated Runge-Kutta methods 12002
stiff ODE soln. 37352
stratified media, inverse scatt. soln. by massively parallel computers 23570
struct. detect., parallel algm., wavelet/segmentation anal. 32918
subspace tracking algm. based on SVD 41003
surface reconstruction, adaptive mesh generation 2756
surface-based obj. reconstruction, parallel algm. 16241
SVD tracking, VLSI algm. and systolic archit. 28667
SVD updating, num. stable Jacobi array 32476
systolic algm. implement., RLS lattice example 37886
systolic algms., space-time modeller 21024
systolic algms. for digital image filtering 24380
systolic arrays for spherical subspace tracking 6170
systolic interconnection network 16537
systolic VLSI implementation of Galois field arith. algm. 22569
table-lookup for binary/residue and residue/binary conversions 6196
test scheduling, test subsession partitioning 17661
texture generation by self-organizing neural net 33064
thinning algm., boundary noise tolerance 16149
time stream Petri nets, model for multimedia streams sync. 9056
time-domain diakoptics, implement. in FDTD method 469
traceback algm. for perform. improve. in Viterbi decoder *(Korean)* 32096
tree-to-tree dist. computation algm. on VLSI archit. 12498
two scan algm. implement. on systolic array/multicomputer 12569
updating rate of Jacobi SVD arrays and data nonstationarity 32477
VLSI fast algms. for division and sq. root 12585
VLSI layout compaction and wire balancing, parallel algm. 12267
VLSI routing via parallelized inversion no. algm. 12271
VLSI systs., parallel logic simul. 12277
waveform relax., overlapping splittings 20631
workstation network, parallel image proc. appls. 24410

parallel architectures
see also neural net architecture; systolic arrays
1D interconnection parallel opt. data links 42431
2-D FFT algms., parallel, eight-neighbor proc. array implement. *(English)* 285
2D DCT/IDCT VLSI, fully bit-serial archit. *(Korean)* 21367
3D computer graphics media chip, single-chip archit. 12556
4-Mbit sync. DRAM for multimedia eqpt. *(Japanese)* 21298
acoustic echo-canceler for teleconferencing syst. 16912
adaptive modular Laguerre nonlin. model 21427
array multiplication scheme using (p, 2) counters and pre-addit. 37728
array proc. for block adaptive LS FIR filtering 2529
ATM exchange, parallel computer architect., perform. modelling 42125
ATM networks, parallel computing, commun. issues 16429
bi-level image high speed codec, architectural design 9124
binary, residue transform., respect, 2^m+1 moduli 626
Blitzen array proc., second level trigger element 43123
Booth encoding in parallel multipliers, compressors 6127
buffered telemetry demodulator for Galileo mission 9420
butterfly algm. and VLSI archit. for image decorrelation 16096
calcite plate integrated polariz.-opt. logic proc. 1755
CAM design, modular VLSI scheme 21315
CERN calorimeter, computer archit./electronics 18366
chaotic time series, functional predictor, parallel implement. 24179
circuits systs., symp., Chicago, USA (May 1993) 31
CMAC neural nets, archit. design, hardware implement. 29468
CMOS 1.2 GIP general purpose digital image proc. 21374
CMOS adaptive equalizer for partial-response channels 29246
CMOS array proc. for digital image compression 29247
CMOS bit-oriented parallel A/D converter 712
CMOS cellular neural net-based smart pixel chips, analog design 31130
CMOS chip set for pipeline and parallel pipeline FFT archits. 21357
CMOS expandable sorting engine, rebound sorting algm., pipelining scheme 12559

parallel architectures continued
CMOS multi-channel data compression chip, parallel archit. 21376
CMOS multitask micropower μP, hardware scheduler 29304
CMOS neural network IC for high-energy phys. 29476
CMOS prog. digital filter proc. chip, ring topol. 29378
CMOS real time image class. proc., parallel archit. 21375
CMOS video ADC with decimated parallel archit., 85-mW, 10-bit, 40-Ms/s 29315
CMOS video sig. proc. chip, 1.5 GIPS 21373
CMOS VLSI opto-electronic array proc., morph. image proc. 29277
CMOS/BiCMOS monolithic mask-prog. analog fuzzy logic controller 30476
code-string matching proc., design, EWLD algm. *(Korean)* 12555
commun. latency hiding, parallel network computing 16682
commun. sig. proc., complex arith. proc. archit. 29239
concurrent error detect. in fast Fermat no. transform networks 41049
concurrent VLSI archits., partitioning and prog. lin. alg. algms. 37792
COSINE III 3D board, board free space opt. interconnection multiprocessor 39516
dataparallel semi-Lagrangian num. weather forecasting 26721
dedicated neural network, automated visual QC, massively parallel VLSI-implement. 32949
delayed LMS transversal adaptive filter vectorization 741
delta-sigma A/D conversion, archit. and CMOS implement. 29317
depth from motion estim. 2763
Diagnostician-on-a-chip, concepts/implement. 34357
digital CMOS ccts., power consumption minimization 37689
digital opt. cellular image proc. parallel archit. 1772
digital parallel VLSI archit., fuzzy database mining 677
distributed multimedia computing, large scale multimedia server 41984
DQDB node, highly parallelized architecture 3220
DSP, highly scalable hardware accelerator 29241
DSP archits., scheduling, register constraints 12558
DSP core for speech coding appls. 33701
DSP synthesis tools for real time systs. 40802
DSP teaching aid, algorithmic engng. 36926
DSP-based parallel archit. for neural network simul. 29259
ellipt. shapes location in image, pyramid archit. 2589
embedded image proc. appl., top down struct. parallelisation 2810
embedded proc.-shared multiprocessor syst., bus arbitration 3290
error-correction archit. for digital avionics 10364
extraction chip for high speed OCR *(Korean)* 24678
fault-tolerant VLSI/WSI array proc., design and anal. 6829
FCM and FCHM multiprocessors for computer vision 16334
feature mapping neural network, VLSI implement. 6270
FEM, massively parallel computers, domain-decomp. methods 40203
free-space holographic parallel optoelectronic computer, 300-MHz optoelectronic counter 7429
fully parallel Kohonen map, mixed analog digital approach 29440
genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
GFDL ocean circ. model on CEDAR multicluster archit. 18888
GFLOPS, real-time image proc. parallel VLSI archit. 29272
gray level image co-occurrence matrix computation, parallel archit. 8568
HDTV, parallel divide-and-conquer video decompression 42599
heterog. data networks, addressing/routing 24841
high perform. transparent bridge modular archit. 41404
high sample rate archits. for median filters 29379
high-speed database proc. by opt. content-addressable parallel proc. 22970
high-speed protocol proc., parallel approach 41537
high-speed time-to-digital converter 9841
hit-or-miss transform binary/gray-tone image proc. archit. 2717
hot-spot-avoiding, adaptive strategy for transputer routing 41432
hypercube fault-tolerant multicasting 8691
image proc., parallel DSP archits. 29242
image proc., SIMD-based cellular neural network 24729
image seq. coding algms., parallelising method 2811
integrated memory array proc., image proc. appl. *(Japanese)* 29210
interact. multiple model tracking algm., parallel implement. 2561
large-scale analog neural computer, archit./appl. 29481
linear eqn. solvers for computational electromagnetics problems 23557
liq.-cryst. light valve, opt. parallel logic gates 1754
live speech network assess., digital adaptive filter 40750
logic simul. accel., data flow archit. 21060
low-level cortical proc. in machine vision, analog VLSI massively parallel module 32947
LUC digital signature computation, fast algms. 32188
massive parallelism on a chip, dyn. logic 6121
massively parallel archit. for IC testing 20401
massively parallel archit. for time-based simul., feasibility study 39004
massively parallel sig. proc. archit. based on response of retina cells 32824
MCM defects testing, IEEE 1149.1 boundary scan test 38196
MCM elec. design for multiprocessor syst. 21754
mesh generation for large-scale num. simul. 5792
mesh-connected opt. multiple-access bus interconnects 1770
MicroSPARC RISC μP, scan based debug, case-study 6162
motion estim. VLSI proc., block matching algm. *(Korean)* 37789
MPEG2 codec, video DSP archit. 33699
MPEG2 real-time codec, video DSP appl. *(Japanese)* 25165
multi-DSP archit., high perform. appl., expt. eval. 12588
multi-rate bandpass filter bank, QRNS complex arith. 6229
multidimensional DFTs on parallel machines, implement. 24215
multilayer LB film opt. switching parallel proc. 7427
multimedia video proc., parallel archit. DSP chip 21372
multiple-fault-propag. concurrent fault simul. 12435
multiprocessor implement. of protocols, locking effects 2919
multistage ATM switching network, delay perform. 33197
multistage opt. switching network interconnections, orthogonally polarised data 39515
N-bit parallel opt. adder, fully parallel arith. algm. 31024
neural net archit., phase conjug. quadrature 40099
neural network emulator, appl.-specific VLSI commun. proc. 29472
neural network simulations, educational environment, DSP based acceleration 21472
Neural Screen and intell. patterns 37918
neurocomputers based on massively parallel opt. archit. 1775
next-generation μP running x86 appls. 12572
nodal chip for parallel neural sig. proc. 29520
nonblocking multi-$\log_2 N$ multiconnection networks 2867
offset cube, optoelectronic interconnection network 24644
opt. archit., parallel arith. operations, iter. techs. 31037

parallel architectures continued
- opt. interconnect, VCSEL, photodiode arrays 39601
- opt. learning neural network, Selfoc microlens array for pattern recogn. 31034
- optoelectronic parallel computer, opt. interprocessor connections 39509
- P-OPALS, pure opt.-parallel array logic syst. 1768
- parallel image and signal algorithms texture analysis, conf., Genoa, May 1994 11593
- partitioned/parallel CRC, VLSI implement. 645
- perfect shuffle opt. interconnect module 39513
- PHIDEO, high-level synthesis for high throughput appls. 41173
- photonic networks, graph-theoretic models 31026
- photorefr. cryst., opt. parallel-access shared memory syst. 22975
- Phys Comp '94 conference, Dallas, USA 47
- pipelinable VLSI archit. for finding max. binary no. 627
- pipelined A/D converters, high resoln., fully digital self-calib. method 713
- pipelined median filters, architectural implement. 8392
- pipelined parallel multiplier implement. 6061
- POWER2, IBM RISC System/6000 series 670
- POWER2 floating-point unit, archit./implement. 672
- power syst., two-area load-frequency control with neural nets 19113
- Princen-Bradley filter bank implement. 742
- radar sidelobe canceling, mapping QR decomp. on parallel computers 17421
- radial basis fn. neural networks, CMOS archits. 29498
- RAIN (redundant array of inexpensive networks), multitraffic perform. 24949
- real-time adaptive acoustic beamforming, design study 32598
- real-time adaptive filtering algms., parallel archits., perform. eval. 37894
- real-time multiline OCR 33027
- real-time parallel DCT/DST lattice structs. for video commun. 29266
- real-time power syst. parallel simul., mutated tree archit. 4453
- regular VLSI archit. synthesis for 1-D discrete wavelet transform 32518
- regularisation vision chips, light-adaptive archits. 21458
- Sarnoff engine, massively parallel computer for high defn. syst. simul. 12587
- scalable archit. syst. for ATR 8647
- scalable completely connected digital neural networks 29443
- scalable opt. hypercube-based interconnection network for massively parallel computing 7430
- scalable/foldable VLSI archit. for Viterbi algm. 29293
- shading flow anal., surface recovery 32892
- shadow-casting multi-input opt. parallel logic proc. 22969
- shape detect., parallel simulated annealing 24366
- ship data fusion target tracking, 21020 DSP family, multisensor SIMD archit. 10589
- Shiva multiprocessor syst., neural network simul. mapping 32427
- SIMD DSP for real-time MPEG video encoding/decoding 29268
- simulation conf., Phoenix, USA (1995) 36829
- simultaneous high-speed measuring syst. of multiple points 3883
- soft-output Viterbi decoder, high speed VLSI archit. 12586
- space filtering subsystem for target tracking, EKF 16030
- space vehicles, multiprocessor archits., engine and vehicle guidance control 4357
- special purpose array proc. for digital logic simul. 38960
- speech recogn., HMM with duration modeling, parallel implement. 24133
- speech recogn., MLP probab. estimators, parallel training 8237
- stack filtering, parallel algms. and VLSI archits. 21422
- stack filters, efficient implement. 6228
- STC104 packet routing chip for parallel systs. 29290
- SVD algm., implement. on MIMD archit. 11990
- symmetric superpipeline superscalar μP, high out-of-order issue 29282
- synapse multiplication cct. for neural chip 37921
- table-lookup for binary/residue and residue/binary conversions 6196
- Texas Instruments Multimedia Video Processor for DSP appl. 25108
- time-variant struct. matrices, instrumental variable method appls. 32485
- traceback algm. for perform. improve. in Viterbi decoder *(Korean)* 32096
- Transit project, reliable high speed interconnection technol. 8775
- tri-array VLSI archit. for higher order moment estim. comp. 29294
- turbogenerators, adaptive control, parallel proc. 27672
- video-rate Hough transform, GFLOPS SIMD/MIMD parallel archit. implement. 32884
- VLSI fast algms. for division and sq. root 12585
- VLSI low-power sig. proc. systs. 29264
- VLSI/WSI defect tolerant arrays, optimal group diagnosis 13837
- wideband all-digital PLL design with multirate digital filter banks 37674
- GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891
- GaAs buffered DCFL gate array, differential push-pull I/O 37720
- GaAs high perform. comput. and commun., ARPA research 38957
- InGaAsP-InP 10-element monolithic laser array in parallel interconnects 14961

parallel languages
- *see also Occam*
- enterprise mgt. syst. develop., Distributed Smalltalk 8961
- hardware compilation of parallel programs 21057
- high level DSP code synthesis, dyn. data flow/control flow 32654
- Linda implement. on LAN 25034

parallel machines
- adaptive multiresolution struct. for parallel image proc. 8514
- CASA project, high-perform. distributed computing environ. 16727
- client-server behaviour modelling of parallel systs. via Petri nets 16730
- configurable/parallel protocols, prototype experiences 3218
- controller, fuzzy, pipeline custom design 650
- custom VLSI parallel supercomputer for neural computation 21481
- DiPaCS concept for parallel cct. simul. 37595
- embedded image proc. appl., top down struct. parallelisation 2810
- exterior Helmholtz problem on IBM SP-1, FEM 23580
- fast display of radiosity images on DEC MP-1 41211
- icosahedral viruses, 3D reconstruction, parallel computer 10170
- massive parallelism on a chip, dyn. logic 6121
- massively parallel machine based on T9000 and C104 37804
- messaging layers, software overhead in parallel machines 16660
- opt. hologram, real-time parallel-computed holography *(Japanese)* 15157
- optimized parallel protocol implement., formalizations/algms. 2938
- parallel proc. for image segmentation 12574
- PASS, parallel speech understanding system 8202
- QR decomp. on network of transputers 37325
- radar sidelobe canceling, mapping QR decomp. on parallel computers 17421
- research center supercomputer in computer network *(Japanese)* 8885
- router speed, implications for faster commun. 24852

parallel machines continued
- SAG-MESFET for supercomputers, proc., implement. 37721
- Sarnoff engine, massively parallel computer for high defn. syst. simul. 12587
- signal and image processing algorithm mapping onto parallel processors, conf., London, UK (July 1994) 32586
- STC104 packet routing chip for parallel systs. 29290
- submesh allocation in mesh connected parallel computers 41474

parallel processing
- *see also data flow computing; parallel algorithms; parallel architectures; parallel languages; parallel machines; parallel programming*
- 2D DCT for image coding, implement. on DSP96002 proc. 2836
- 3-D holographic DP and wavelength readout for range-doppler-angle radar, SAR 9640
- 3D diffusion eqns., compact finite vol. soln. 28684
- 3D EM scatt., parallel computation, finite elements 2216
- 3D finite difference beam propag. methods, parallel computers, opt. waveguides 30956
- 3D fully parallel thinning algm. 24377
- 3D models of solder joints, generation, X-ray laminography 29674
- 525-line progressive scanning TV camera, 16:9 aspect ratio 34235
- advanced telecomms. services, distributed control archit. 25084
- algm.-based fault tolerance (ABFT) 32493
- application-specific array processors, conf., Venice (Oct. 1993) 36903
- Asian Test Symposium, Japan, Nov. (1994) 5504
- bi-imaginary no. syst. for opt. complex calc. 16144
- binary phase fan-out elements, opt. optim. 14558
- BiNMOS fast resolving synchronizer for parallel proc. interconnect 21395
- bit-serial systolic array for DSP, reconfigurable arith. operators 29255
- Blitzen array proc., second level trigger element 43123
- calorimeters, sig. proc., functional schemes 4152
- CAMAC rem. meas. syst., special computer 3752
- cct. simul., parallel proc., direct method *(Japanese)* 471
- CD3D constraint-driven 3D router thick film MCMs 21762
- celestial image proc. on symm. multi-proc. 24532
- CERN NA48 simul. program, parallelisation 18377
- chaotic time series, functional predictor, parallel implement. 24179
- circuits systs., symp., Chicago, USA (May 1993) 31
- CMOS parallel-pipelined ADC, 85 mW, 10 b, 40 MS/s 29309
- commutating machines simul., ANN appl. 10960
- complex models reliab. anal., SURE bounds-based 28536
- complex opt. matrix-vector multiplication, neg. binary inner products 1756
- computer and telecommunication systems, modelling and simulation, conf., NC, USA, Jan. 1995 11567
- consecutive-weighted-k-out-of-n:F syst. reliab. algms. 20485
- cost fn. for syst. ident. utilizing parallel adaptive filter 2515
- DC servomotor machining motion control, parallel DSP 36192
- DCVS logic, std. CMOS cell design for testable self-timed systs. 29203
- decentralised sens. networks mgt. for reliab. 41887
- DFE, RNS 32727
- digital filtering, parallel algm. 2567
- distributed protocols design, compositional approach 2959
- domain decomp. of conjug. gradient method on Parsytec GCel-3/512 37310
- DSP synthesis, high-level algm./archit. transforms. 37798
- DWP, Digital Wave Processor, dependable space instrum. 26539
- dyn. dispatch, neural network appl., multiproc. 4571
- eigenproblem of pos. definite matrices, parallel processed scheme 20608
- facsimile high-speed image codec 16946
- fast fault simul., parallel eval. algm. *(Korean)* 21271
- FDMA systs. using multi-beam satellite, optimal carrier freq. assignment *(Japanese)* 25448
- feature extraction, parallel, distributed memory computer 41101
- flexible exponentiation with precomputation, public key cryptography 32161
- formant synthesizer control param. coding 4315
- generator-transformer set protection, microcomputer-based *(Chinese)* 36089
- greedy packet scheduling 33171
- HiCon model, dyn. load proc. on computer networks *(German)* 33540
- high range resoln. radar returns, model based ATR 17393
- high-performance computing and communications, applications development and technology transfer to industry 28556
- hybrid-opt. parallel array logic syst. 16^2, overall operations 31046
- hyperdistributed syst. develop. *(Japanese)* 16752
- IEEE IECON '94 conf., Bologna, Italy (1994) 36823
- image compression, methods, parallel proc. 24645
- image texture anal., stat., matrix method 24648
- images, range/intens., fusion on connection machine CM-2 16246
- IMPEL, domain-specific image proc. environ., lang., and compiler 32843
- induction motor drives, digital adaptive control, transputer based 11379
- induction motor drives, field oriented control, parallel proc. 36700
- induction motor servodrive, control, PI load estimator 20086
- induction motor servodrive, VSS robust control 44483
- intensive computing and instrumentation upgrading, parallel approaches extensions 42736
- ISHTAR, real-time time-varying image proc. *(Japanese)* 42754
- Jacobi sig. proc. unit for time-adaptive SVD 32655
- joint replacement, orthopaedic biomechanics computational problems 18618
- LANs, distributed planning/problem solving environ. 19222
- lookahead line search router, automatic ripup/reroute 21034
- massively parallel array proc. for logic, fault, and design error simul. 12292
- MCM, optoelectronic, layout, phys. models and algms. 29712
- measurement system resolution improvement through optimal filtering 25766
- MELECON '94, conf., Antalya, Turkey (1994) 5470
- MHS parallel proc., implement. and eval. 24953
- microchemical systs., micromech. elements 22622
- microstrip antennas, design, simul., testing 40457
- Mobility Workbench, tool for π-calculus 25327
- mol. beam epitaxial growth, parallel Monte Carlo simul. 28770
- multi-bit parallel adder, symmetric signed-digit nos. 6065
- multi-level packaging, designing interconnection networks 28467
- multi-std. video codec data flow proc. 25130
- multicast operations for ATM-based high perform. computing 8909
- N×N cross-bars, opt. implement., RNI devices 7433
- negabinary encoding for opt. complex matrix operation 16142
- open high-perform. computing infrastructure in aerospace indust. 16729
- opt. Chinese character recogn., prog. accelerating chip 24543
- opt. cluster-based shuffle network, conflict-free channel assignment 3578
- opt. inform. proc. appl. *(Japanese)* 32853
- optical network interface unit for multichannel ring networks 3227
- optimal scheme of parallel proc. for test generation in distributed syst. 29172
- oracle quantum computing, complexity 14563

parallel processing continued
oscillator neural networks for image proc. 12678
parallel SME filter for 3-D tracking of multiple targets 15871
parallel switched cct. simul. on networked workstations 5984
photorefr. nonlin. optics, opt. computing 31049
poly-phase struct. for syst. ident./adaptive filtering 32762
POWER2 floating-point unit, archit./implement. 672
power network, parallel soln., clustering/factorisation tree techs. 4462
power syst. anal., parallel proc., block-diag.-band matrix 19071
power syst. directional overcurrent relays coord., decomp. approach 10780
power syst. distributed online fault sect. estim., neural net-based 26873
power syst. fault diagnosis, parallel proc. ES-based 19029
power syst. generation expansion planning, parallel genetic algm.-based 19206
power syst. load static characts. ident., neural net-based *(Chinese)* 43604
power syst. node-oriented load flow solns., Bergeron's method 26862
power syst. optimal clustering, genetic algm.-based 4446
power syst. optimal power flow simul., security constrained 10603
power syst. parallel load flow algm. 4445
power syst. security assess., systolic accelerator-based 19009
power syst. security assess./real power rescheduling 26968
power syst. short-term dyn., real-time parallel simul. 26880
power syst. static security assess., load flow, ANN 19167
power syst. transient stabil. anal., shifted-Picard iters. method 19004
power system load flow anal., computer-based methods 19021
power system state estimation weighted least square methods 19022
pre-stack seismic proc. 43495
protocol architectures, modularity considerations 3221
radar sigs., wavelet subband decomp. in adaptive arrays 17395
real time class. proc., conventional and neural techs. 16284
real-time opt. matrix multiplication, high accuracy 1761
real-time power syst. anal. digital simulator 10611
real-time synthesis of humanlike agent in response, user's moving image 41163
reliable router, reliable and high-perform. commun. substr. for parallel computers 24823
run-time reconfiguration neural net archit. 29503
scalable array proc. in SUN SPARCstation 1, perform. meas. 29252
Schur method for low-rank matrix approx. 32471
SDH fibre-optic transm. systs., forward ECC 42455
self-sorting in-place FFT algm. suitable for vector and parallel proc. 286
seq. ccts., test generation, parallel fault simul. *(Japanese)* 12426
simulated annealing on loosely-connected parallel computer 20568
SISim, syst.-level interactive simulator for array proc. syst. 28954
SNAP, bispectrum signal processing 24350
sparse matrices parallel partitioning 28675
speech recogn., parallel distributed binary mapping models 32306
sq. root filtering in space-time estim. 16068
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
target tracking, neural network maneuver modeling 32671
Terasys massively parallel PIM array 37806
test generation, perform. anal. 17662
texture generation by self-organizing neural net 33064
three-phase turboalternator adaptive control, transputer-implemented 36119
tracking appls. of parallel transputer network Kalman filters 24191
transient 2D eddy current problem, domain decomp. 23511
transputer supernode syst. for study of EM wave scatt. 40319
transputer-based visual inspection syst. 28506
tree-struct. vector quantizer for image compression on MasPar MP-1 parallel machine 16189
twos-complement parallel array multiplication algm. for complex matrix operation 31031
ultrafast photonic ATM switch based on parallel sig. proc. 33727
VLSI parallel rip-up and rerouting, wiring quality in parallel wire routing problems *(Japanese)* 37600
word spotting, adaptive noise immunity learning 32317
workstation clusters, data partitioning for networked parallel proc. 41880
wormhole router, cost of adaptivity and virtual lanes 29291
Zero Instruction Set Computer, Higgs search 41284
GaAs implement., systolic floating point proc. element 29253

parallel programming
3D scatt. FEA absorbing boundary condition code parallelisation 23556
ASAT battle mgt., evol. prog. 10593
ATM networks, parallel computing, commun. issues 16429
automated stereo camera mount control tasks, parallel implement. 16348
client-server behaviour modelling of parallel systs. via Petri nets 16730
commun. latency hiding, parallel network computing 16682
communicating vehicles, event-driven simul., diffusive dyn. load balancing by terrain parcel swaps 43577
decentralised optimal power pricing, parallel programming development 27066
digital opt. cellular image proc. parallel archit. 1772
DiPaCS concept for parallel cct. simul. 37595
distributed logic simul., test environ. 12496
distributed shared memory implement. based on DCE 25032
DSP, highly scalable hardware accelerator 29241
DSP real-time implement. on multiprocessors, CAD environ. 12584
DSP software synthesis, Ptolemy environ. 40800
EM modelling in arbitrary geom., PIC methods on MIMD computers 31726
EM scatt., axisymmetric cases, integral eqns., parallel computing 2197
embedded controller, transputer-based, eval. for high dyn. control appls. 44260
exterior Helmholtz problem on IBM SP-1, FEM 23580
full search vector quantisation algm., massively parallel implement. 15837
hardware compilation of parallel programs 21057
image compression, methods, parallel proc. 24645
Jacobi algm. space, systematic exploration 32475
kernel of distributed proc. platform for telecom network software *(Japanese)* 33437
mixed-mode syst. simul., parallel computing 769
multimedia systs., parallel accel. syst. for low level library 33657
network protocol perform. in multi-workstation parallel distributed appls. 25039
non-computationally intensive appls., algm.-based fault tolerance 32495
PASS, parallel speech understanding system 8202
Petri net perform. models 24774
power plant simul., PVM-based parallel computing 27299
reliable packet delivery service interface for parallel systs. 41493
run-time overhead minimisation in multi-proc. pre-emptive scheduling 32492

parallel programming continued
SCIDDLE, tool for large scale distributed computing 33583
semicond. device matrices, irregular grid, parallel iter. lin. solver 6710
seq. ccts., distributed ATPG 12291
Si, cryst. growth simul. program, automatic parallelization 12034
sig. and image proc., mapping strategies 24647
simulation conf., Phoenix, USA (1995) 36829
static task allocation heuristic eval. by random acyclic diagraph generation 28617
telecomm. networks, high perform. parallel simul. 24898
TRAPPER approach for monitoring T9000 proc. 37805
vision appls. via specialised transputer modules 24484
wavelet transforms, PVM computing 24406
wireless cellular commun., dyn. channel assignment, parallel simul. 25291
workstation network, parallel image proc. appls. 24410

parallel software *see parallel programming*

paralleled resonator filters *see band-pass filters*

parallelising compilers
DSP archits./compilers, appl.-driven design 32618
Si, cryst. growth simul. program, automatic parallelization 12034

paramagnetic Curie temperature *see Curie temperature*

paramagnetic-ferromagnetic transitions *see ferromagnetic-paramagnetic transitions*

paramagnetic materials
see also paramagnetic resonance
dil. mag. semiconds. for opt. sens./nonreciprocal devices 31018
mag. film resist./permeab., simultaneous measuring 3957
$Cd_{1-x}Mn_xTe$, magnetis. and photomagnetic effects 1071
LaF_3:Pr^{3+}, long-lived photon echo, opt. memory and DP 31604
MnAs film, epitaxial ferromag., MBE on GaAs, struct., mag. props. 6974
$Sm_2Fe_{17}N_x$, partially oxidized, mag. props. 39202
TbFeCo/Ta multilayers, mag. and magneto-opt. props. 14200

paramagnetic resonance
see also CESR; EPR spectrometers; EPR spectroscopy; spin-spin relaxation
copper phthalocyanine film, MBE growth 20809
LDPE, degradation mech. in high elec. field 14056
pentanol and polyethylene, deuterated cpds., EPR-spectra, radicals 34863
poly(3-alkylthiophenes)/O_2, reversible charge transfer complexes 20995
poly-(para-phenylene-vinylene) films and photodiodes, photoinduced current, ESR 14600
polymer dispersed LCD, mol. motions and ordering 31006
polysilicon bottom gate TFTs, excimer laser crystn. 38880
3C-SiC undoped CVD epilayer, carriers orig. *(Japanese)* 1067
CdTe bulk substrs., intrinsic defects, vacancies, dangling bonds 38255
GaAs/AlGaAs heterostruct., plasma etching damage 30109
Si, glow-discharge polycryst. films, grain boundary defects 20936
Si, porous, surface struct., EPR/XPS study 22247
Si:B, ion implant., defect prod. 6622
Si:H, defect passiv./light-induced metastability 13359
a-Si:H, film, light induced defects, spatial distrib. 29839
a-Si:H films, ESR determ. of opt./elect. props. 1644
a-Si:H, microscopic struct. determ. of dangling bonds by pulsed ESR 1646
$Si/SiO_2/Si$ MOS oxides, border traps 13249
$Si/SiO_2/Si$, high temp. annealed, near interface oxide degrad. 38477
Si/SiO_x porous interface, paramag. centres 13349
Si/SiO_xN_y, interfacial stress and struct., thermal nitridation and reoxidation effects 22055
SiO_2 buried layers, H-annealing induced pos. charge, ESR/C-V anal. 38425
SiO_2 films, UV excimer lamp annealing 30013
SiO_2:N films on Si, N_2O-plasma oxid. tech. 1279
SiO_2/Si, thermal oxide, natural intrinsic EX center, ESR 29984
SiO_2-Si, EX centres, ESR study 6641
SiO_2-antireflective film coated SiN(SiC) X-ray mask membranes 22314
SiO_xN_y oxynitrides, N_2O grown, radiation effects 13386
SnO_2 thin film gas sens., carrier conc. change anal. 17972
ZnO varistors, Bi_2O_3 nonstoichiometry, nonlin. property 869

paramagnetic resonance of conduction electrons *see CESR*

parameter estimation
see also adaptive estimation; amplitude estimation; direction-of-arrival estimation; frequency estimation; maximum likelihood estimation; moving average processes; phase estimation; recursive estimation; sequential estimation
2-D noncausal Gaussian Markov random field model, param. estim. 33078
2D autoregressive noise model, broadband planewave detect. 40840
2D microwave imaging, TLS-ESPRIT, matrix enhancement 42480
2D radar image reconstruction, diffr. tomography 9636
2D sig., bispectrum estim., projection method *(Japanese)* 15895
2nd and 3rd order digital filters 29370
3-D array, plane sine wave sig., azimuth/elevation angles estim. 2501
3-param. affine approx. of focus and zoom vars. *(French)* 41349
3D Hough param. space, clustering, circ. arc extraction 33014
3D iterated fn. systs., discrete seqs. representation 2499
3D location estim. of airborne targets, Radon transform *(Korean)* 24676
3D motion estim., obj. tracking, B-spline curve modelling 16172
3D motion perception/struct. param. estim., neural nets 41377
3D motion/struct. recursive estim. 2780
230 kV level load behaviour params., stat. anal. 35690
RC calibration standards, multifreq. binary testing 25704
AC ASD, torque/speed/posn. control, trends 20065
AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
AC screened pole electromagnets, params. estim. *(Russian)* 7929
accelerated life test data, threshold stress estim. *(Japanese)* 28525
accommodation model, param. ident. 14230
adaptive algms. for speech sig. proc., comparative study 2430
adaptive blind equalization, weighted cumulant slices 41026
adaptive channel equalisers, off-line modulus restoral algm. 33159
adaptive estim. of eigensubspace 32550
adaptive handoffs, estim. of fading params. 9367
adaptive HMM filters for sigs. in noisy fading channels 32736
adaptive modular Laguerre nonlin. model 21427
adaptive nonlin. excitation control, large-scale power systs., unknown interconnections 10684
adaptive road param. estim. in monocular image seqs. 41227
adaptive time-varying parametric modeling 40908
adaptive traffic prediction algm. for cellular radio 3404
adaptive-neighborhood image deblurring 16323
aircraft altitude profile estim., natural spline fn. 18710

parameter estimation continued
- aircraft roll attitude meas. using solid state devices 26541
- analog IC soft fault diagnosis, ANN-based tech. 30399
- analytic sig. generation, tips and traps 2493
- antenna array, multiple co-channel digital sigs., blind estim. 8306
- antenna phased arrays in dispersed groupings, spatial selectivity 40505
- AR param. estim., noisy data, EM algm. appl. 40921
- ARMA lattice filter, reduced no. of coeffs. 37877
- ARMA parametric spectrum estim., order selection 15909
- array proc., adaptive rational subspace estim. for non-white additive noise 32452
- array proc. perform., finite samples/model errors 2479
- array sig. no. detect. for coherent/incoherent sigs. 40955
- Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
- asynchronous machines, elec./mech. params. ident., math. method 11042
- asynchronous machines, standstill freq. response studies *(French)* 11044
- ATM networks, traffic contract params. and CAC guaranteeing cell-loss ratio 41942
- ATM systs., tech. for measuring rare cell losses 41434
- ATM tandem queues, estim. of cell loss probabilities 8718
- ATR, Lie group parametrization for dyn. based prior 25552
- automobile anti-skid braking systs., slip estim. 5375
- automobile engine powertrain nonlin. sliding control design 5373
- autonomous intell. cruise control radar syst. 34151
- B-ISDN, large deviations approx. for fluid queues fed by on/off sources 41929
- bathymetric mapping from autonomous underwater vehicles 8619
- Bayes theory, joint discrim., detect., estim. and ident. of sigs. 15902
- Bayesian marginal estimator variance, lower bounds 41004
- bearings-only tracking in distributed sens. network, reduced sufficient stats. 15877
- Bellini-Tartara lower bound 40870
- blind channel estim./equalization, partial-response input sigs. 33162
- blind equalization, higher order cumulants/neural networks 2862
- blind equalization, recursive Bayesian techs. 15943
- breast cancer detect., neural net spectral anal. 18455
- buried pipe location, zero-crossed synthetic aperture 3599
- C-band dual-polariz. radar, computer error anal. of rainfall rates 10571
- calibration of electroacoustic transducers, parametric technique 22681
- CDMA microcellular systs., channel models 3419
- cellular handover proc. model, limited queuing time 42208
- cellular networks with dyn. channel allocation, perform. 9344
- chaotic time series, functional predictor, parallel implement. 24179
- circularity and sig. proc. 8423
- CMOS cct. timing, device resist. estim. tech. 30457
- coherent detect. tracking syst. in laser commun., ang. bias correction 17309
- coherent/incoherent localization methods, sensitivity 17461
- colour images, textured, unsupervised segmentation 16184
- complete-moving-hysteresis model, param. ident. 7100
- complex exponential sigs. param. estim. 2569
- complex exponentials sum, matrix pencil method, param. estim. 40894
- complex gradient and Hessian 2566
- complex sig. detect. in white Gaussian noise and narrow-band interf. 32592
- concatenated coding and ARQ, TCM for Rayleigh fading 8102
- constrained anti-Hebbian learning algo. for total least sq. estim. 2549
- contact erosion modelling, obj.-oriented technol. 6395
- continuous Doppler ultrasound, parametric/nonparametric spectral estim. 26319
- continuous Mandarin speech recogn., segmental probab. model 32390
- cpd. Gauss-Markov model, param. reduction 24703
- Cramer-Rao lower bounds for biased image restoration 2843
- Cramer-Rao lower bounds for damped sinusoidal proc. 40833
- CRLB/HOS of polyphase sigs. in additive/multiplicative noise 24245
- cumulant-based MUSIC method with meas. errors, asymptotic anal. 40826
- damped harmonics and polynomial phase sigs. 32463
- dampled sinusoidal signals anal. freq.-domain 24235
- data class., model, priori unknown params. estim. 2541
- DC motor ASD, self-tuning digital controllers appl. 5316
- DC motor drive digital regulator disturbance retuning design 11371
- DC motor drive sensorless operation, neural network-based 36676
- DC motor/sync. motor speed ident. 44459
- DC telecom. power distrib. syst. overcurrent protection, batt. model 43749
- deconvolution filter design considering channel sensitivity 2526
- deconvolution regularization, SNR, stat. estim., multiscaling 40782
- DECT channel error profiles 3123
- deep water acoustic LAN, adaptive lin. multiuser receiver 34181
- deep-bar induction machine dyn. params. determ. 4964
- deinterleaving pulse trains 2481
- depth from motion estim. 2763
- DFT windows in SNR and harmonic distortion computation 24232
- diff. eqns. soln. by event driven techs. for param. optim. 37351
- digital meas. of random-sig. rolling mean/variance 3772
- digital seq. reduced-state seq. estim. 40535
- digital signal processing, conf., Yosemite, CA, USA (1994) 11548
- digital storage channels, knowledge-based adaptive channel estim. 7192
- discrete/continuous spectra, separable estim. 8463
- distrib. ident. algm. appl., sig. detect. 8294
- distributed detect./estim., comment 32599
- DMSK digital packet sync., preamble design 9362
- DOA estim., modified cumulant matrix 2506
- DOA estimators, covariance based, robustness property 2505
- double-talk detect. for adaptive noise canceller 8182
- dust cloud dens. estim., single wavelength lidar 17439
- dyn. charact. ident. of sens., discrete obs. 3708
- EEG/MEG dipole localization bounds for head models 43312
- EHV transm. network oscillatory param. ident. 4625
- elec. motor speed estim., shaft encoder meas.-based 44001
- elec. vehicles, induction motor drives, posn. sensorless 20097
- electromechanical transducers, sig. params. estim. 17704
- ellipse param. estim. by image seqs. 41106
- EM field distrib. estim. for buildings, wire-grid approx. *(Japanese)* 40386
- EM for multi-channel image ident. and restoration 24524
- EM pulse, param. estim. of currents induced in cylindrical conducting shell 8003
- EMI field emitted from telecomms. line, estim. 40373
- error model of data acquisition systems 34415
- exponentially damped sinusoids, param. calc., third-order stat. 40863
- expt. data approx., exponential fn. 40775
- extended obj. coord., image proc. algm. 16157

parameter estimation continued
- fast algms. for exponential data modeling, NMR data appl. 43256
- fast blind equalization of wireless commun. channels 15944
- fault diagnosis in ATE analogue cct. modules 25722
- FDMA cellular systs. capacity, ACI effects 3334
- FDTD waveforms, spectral estim. by AR methods 2169
- field-excited transm. line systs., time domain anal. 15495
- filtered EM algm. for joint HMM and sinusoidal param. estim. 24220
- finite metallic cone scatt. component estim., PO correction 40333
- FIR channel fractionally-spaced blind equalisation and estim. 41384
- FIR channels fractionally spaced blind equalization 8368
- FIR systs. blind ident., third order cumulants 2525
- first order optic flow from log-polar sampled images 24447
- FLIR image aspect angle estim., model-based vision approach 24545
- fractal renewal procs., multiscale synthesis/anal. 20527
- fractional Brownian motion, extended self-similarity 8430
- frame of wavelets for edge detect. 32825
- frameless registration of MR and CT 3D vol. data sets 10206
- freq. estim., threshold behavior 2507
- freq.-selective techs. based on SVD, TLS and bandpass filtering 32489
- fuzzy sensor fusion, concrete mixing plant quality monitoring 25808
- Gabor expansion of discrete-time sigs., frame theory 15905
- gamma bases, parametric LSA 40821
- Gaussian procs., generalized spectral-centroid estimator 24170
- generalized Cramer-Rao bound and location param. case 41005
- generator transient/subtransient params. ident. 4907
- GI/G/1 queue with Bernoulli service discipline, on-line derivative estim. 33241
- go-back-N ARQ scheme for variable-error-rate channels 16500
- Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
- GPS-supported block adjustment, self-calib. params. 42547
- harmonics ident. and power meas. in power systs. 4738
- harmonics no. detect., max. eigenvalue varied rate criteria *(Chinese)* 8401
- harmonizable time series, generalized spectrum/spectral coherence 2511
- heart arrhythmia detect. by digital spectral anal. of ECGs 10238
- high resoln. space-time anal. by act. array *(French)* 41034
- higher order stats./inverse filtering 40762
- higher-order stats., allpass systs. ident. algm. 32648
- HMM, on-line ident., recursive prediction error 8432
- HMM speech recogn. perform., MAP estim. params. 32266
- HOS for blind channel estim. and deconvolution in colored noise 32457
- Hough transform, autoregression param. estim. 40857
- human motion tracking in real scenes, robust approach 2820
- hydro turbine model, syst. dyn. studies 4860
- IC proc. flow mgt., decision-making 29693
- image anal., obj.-oriented anal.-synthesis coding *(Korean)* 24689
- image motion estim. based on Kalman filtering 24450
- image proc., Bayesian closely spaced obj. resoln. tech. 16099
- image restoration, adaptive iter. approach 24512
- image restoration, SNR estim. for Wiener filter 16324
- image restoration in freq. domain, EM algm. 16391
- image segmentation, stat. model based, automatic param. estim. *(Japanese)* 32865
- image synthesis based on estim. of camera params. from image seq. 2646
- impulse responses ident. by wavelet transform. 8256
- inconsistent sig. feasibility problems solns. 2468
- induction machine ident./control, neural net-based 44057
- induction machine low speed region control method 44051
- induction machine param. estim., standstill time-domain data 19642
- induction machines, broken bar detect., current spectrum/param. estim. 4966
- induction motor, rotor time const. meas. magnetizing flux 4965
- induction motor drive, CSI-fed, microcomputer-DSP control 20072
- induction motor drive control, rotor time const. ident. 11369
- induction motor drive self-commissioning, param. estim. accuracy 5297
- induction motor drive tacholess vector control, low speed perform. 5292
- induction motor drive vector control, neural net flux estimator 5296
- induction motor drive vector control, neural net-based 5291
- induction motor drives, adaptive control, param. estim. 28064
- induction motor drives, CSI-fed, field-oriented predictive control 5259
- induction motor drives, extended Luenberger observer, state/param. estim. 36657
- induction motor drives, field oriented control, parallel proc. 36700
- induction motor drives, neural net-based param. estim. 20061
- induction motor drives, sensorless speed control, neural net-based 20063
- induction motor drives, speed sensorless field-oriented control 5298
- induction motor drives, stator voltage 3rd harmonic direct field oriented control 5299
- induction motor drives, vector control, feedback sigs. estim., ANN 44488
- induction motor drives, vector controlled, rotor time const. ident. 20073
- induction motor fault current simul., rotor leakage flux-caused 19647
- induction motor offline param. ident., computer-based 4956
- induction motor param. determ., genetic algms. appl. 4962
- induction motor param. est. models 4977
- induction motor speed control, stator resist. estim. 36155
- induction motor stator current control, neural net-based 19629
- induction motor vector control, param. ident. software 4950
- induction motors, field oriented controller, iron losses influence 44054
- induction motors, param. estim., output-error ident. method 11023
- induction motors, parameter estim., dyn. anal. 19649
- induction motors, PWM VSI fed, self-commissioning 44496
- induction motors, rotor flux estim., Luenberger observers 11038
- induction motors, rotor flux/speed ident., polar coord. method *(Korean)* 36174
- induction motors, sensorless vector speed control scheme 19632
- induction motors, speed sensorless indirect field oriented control 11045
- indust. motor controllers, self-tuning digital control 20154
- intens. estim. from shot-noise data 15925
- interarea/local generator reson. modes ident. 35486
- interf. cancellation syst., pilot sig. for radio channel estim. *(Japanese)* 25278
- interf.-tolerant time-delay estim. 8418
- invariant submersion method, min. filtration problem appls. 32573
- inverse coeff. of var., asymptotic sampling distribs. 20481
- inverter-AC motor motor drive syst., param. ident. 5249
- iter. reconstruction of moving obj. from image seqs., struct. noise 24525
- joint PDF, stat. param. space 40544
- K-distributed clutter, order param. estim., noise effect 25557
- labeled/unlabeled samples, unknown mixture param., class. 40867
- land mobile commun., pilot sym. aided CCI canceller *(Japanese)* 42294
- laser Doppler airflow velocimeter, receiving antenna sig. estim. 4020

parameter estimation continued
lin. DC motor actuator, wire-driven syst., robust control *(Japanese)* 19667
lin. FM sigs., fast param. estim. algms. 40909
lin. models ident., cyclostationary inputs 40988
lin. non-Gaussian sigs., multichannel ARMA models, identifiability 40993
lin.-quadratic mixture of independent components, separation 40981
Lloyd-Max algm., init. param. estim. *(Korean)* 20595
LMS median filter, local stabil. 2462
local and global multiscale image class. 32835
logarithmic error measure, pole-zero approxs. design 2494
Loran-C, GRI ranking based on cross-rate interf. 25609
low-dimens. sig. subspace computation 32472
M-QAM digital mobile radio systs., diversity/equalisation 9270
MA-model ident., modulated cumulants 24248
mammography, cumulant slices for 2-D autoregressive sig. modelling 32820
mammography, higher order spectral estim., AR modelling 10195
maneuvering target, underwater tracking, time delay meas. 25594
marine maneuvering target motion anal., HMM 34177
metallic enclosure model source, EM emission estim. by inverse-forward anal. 40374
microcellular systs., compatibility matrix learning 9253
microphone array, talker radiation pattern meas. 34283
microwave HBTs, nonlin. SPICE model param. extraction 6309
min. complexity criteria, asymptotically optimal fn. estim. 32023
mixed-sig. ccts., ANN tech. for parametric testing 21444
MMD, 2nd order Volterra filter approx. 32779
MMP-CG-PET, param. estim., MMP code, conjug. gradients 15211
mobile radio channel modeling by echo estim. *(English)* 9338
mode-space spatial spectral estim. for circ. arrays 2560
model adaptive image restoration 8609
model based 3D scene reconstruction from perspective images 41257
model order estim. from covariance matrix eigenvectors 24251
model-based adaptive histogram equalization 2653
modulation-based time-variant filter design, Wigner distrib. 15986
motion anal., ANN 2686
moving obj. param. estim. in image seq. 24386
moving obj. segmentation by robust motion param. estim., multiple frames 24627
moving sources with complex spatial-time struct., rem. acoustic sens. 17479
multichannel IIR filtering, Levinson-type algm. 8413
multichannel rational syst. ident. 8282
multichannel sig. modeling and separation 24253
multidimensional high-order moments estim., amplit. quantis. 2534
multidimensional nonGaussian ARMA models, param. identifiability, cumulant matching 8340
multiexponential sig. anal., data preprocessing techs. eval. 32644
multilinear time-freq. representations, multicomponent sigs. anal. 32743
multipath channels blind identifiability 24290
multipath time-delay estim., least-sq. algm. 2491
multiple cyclostationary sigs., power/timing param. estim. 40864
multitone signal components estim., low sidelobe time windows appl. 8445
multiwindow method for array spectrum estim./sinusoid detect. 2473
near-far resistant CDMA detectors, param. estim. errors effects 16460
neural estimators for multisensors, design 32658
neural network-based nonlin. estim. of press. sens. 17731
noise, diagnostic tool in reliab. phys. 20496
noise adaptive speech recogn., HMM representation 40741
noise-like sigs., HMM, params. estim. 32630
noisy quantized random obs. coeff. AR time-series, estim. 40869
noisy sigs. estim., time-invariant wavelet packets 8271
noisy/textured images adaptive segmentation 16151
non-Gaussian sigs., noncausal ARMA models, param. estim. 40834
non-Gaussian time-varying AR models, cumulant-based approaches 2523
noncausal autoregressive systs., cumulant based param. estim. method 40918
nonlin. ccts., Volterra-Picard polynomial ident., periodic excitations 28995
nonlin. least-sq. problem 11966
nonlin. param. estimators approx. 25575
nonlin. syst. fault detect., parity eqns. estim. 20477
nonlin. syst. ident., Hammerstein model, cumulant-based Steiglitz-McBride algm. 40991
nonminimum-phase syst. ident., adaptive allpass filtering 2565
nonstationary sigs., instantaneous spectral estim. 41053
normalised order stat. LMS adaptive filtering 8329
NPP, proc. variable est., parity space method, ANN *(Korean)* 27356
ocean surveillance, array localization, least sq. error minimization 18993
one-sided/two-sided lin. prediction 24218
one-step fixed-lag IMM smoothing for alignment of asynchronous sens. 15875
opt. fibre PPM slot/frame spectral props., timing extraction 3576
opt. flow computation, mixture models 16177
optimal alarm-sig. generation algms. for gas analyzers 3909
optimal sens. location, multiple hypotheses testing 41020
order stat. LMS algms. for non-Gaussian noise 2467
orthogonal least sq. algm., computational requirement 32782
orthogonal least sq. algm., computational schemes 24226
orthogonal regression models, nonlin. param. estim., algms. and appls. 28662
orthonormal discriminant vector method for pattern recogn. 15897
otoacoustic emissions, cumulant-based cubic difference tone detectors 32453
outlier-resistant methods for estim. and model fitting 14364
p-adic stationary proc., max. Ch-entropy estim./fast algm. 32768
packet switch, quick simul. of stationary tail probabilities 41433
param. estimator bias, finite-difference regularization operators 43491
parametric array sig. proc., auto-calib. approach 8425
parametric estim. of ocean surface currents, HF radar 43526
parametric ident. problems 8335
pass. sonar sig. proc., probab. modeling and Bayesian inversion 25596
pass. stochastic approx. with averaging along trajectory, optimal algm. 37240
PDF estim., order stat. filter bank 32799
perceptual eval. of MSE choice of regularization param. 16318
periodic discrete event procs., param. estim. 40924
periodic instrumental variable ident. method 34303
phase tracking Viterbi demodulator *(Japanese)* 24176
phase-diverse speckle reconstruction of solar data 16211
phasor tracking, estimator based on fuzzy IF-THEN rules 4502
pitch mode modulation model based speech enhancement 8208
planar array, mutual coupling estim./modelling 41018
plane orient. from skew symm. 2663
PM AC motors, rotor flux posn. indirect sens. method 4909
PM sync. motor ASD, EM params. determ. *(French)* 11334

parameter estimation continued
point 3D posn. measuring syst. for detecting fixation point on screen *(Japanese)* 3930
pole-zero syst. model order estim. algm. 40848
polygonal contour extraction/lin. filtering 2693
polynomial-shaped meas. sigs. class., BP neural network 15930
power generation boiler, steam temp. MRAC *(Japanese)* 43905
power overhead line thermal dimensioning, stochastic real-time forecasting *(German)* 10753
power plant generator control, fuzzy modeling 4889
power source voltage sensorless 3-phase PWM AC/DC converter *(Japanese)* 27793
power station monitoring, fault diagnosis/isolation, TOPMUSS CAE syst. 27296
power syst. element modelling, param. estim. techs. 35467
power syst. fault current estim., Kalman filter 19190
power syst. fault impedance, fast estim. 19063
power syst. harmonic sig. estim./retrieval, act. power filter 10604
power syst. load modelling, computer-based *(Chinese)* 35424
power syst. recursive load ident. method, computer-based 35427
power syst. short cct. current param. estim. 19062
power syst. short cct. currents, real-time estim., ANN 19191
power syst. sig. param. estim., neural nets 19170
power syst. state estim., param. error ident./estim. 35485
power syst. voltage phasor/freq. estim., Newton's iter. method 26851
power-temp. cycle accelerated testing 28520
PRA' Bayesian predictive approach inevitability 11881
process instruments condition changes detection 26015
PSD estim. simul., max. entropy method 2582
pseudo roots and effects of model order overestimation on ESPRIT algm. 40983
PSK M-ary modulated sigs., CCI estim. 33884
PWM inverter drive syst. adaptive control 5254
quadratic stochastic syst., blind identifiability 24288
quadric surface reconstruction from disparity meas. 24547
quasi-spherical solid dens. stds., vol. determ. 17649
radar data, single and full-polariz. 2-D Prony techs. 17396
radar data fusion, joint detect./estim. filter 34124
radar imaging, automatic estim. and compensation of target kinematics 17392
radar spatial-Doppler coherent proc. channel, quantization noise estim. 34121
radiated interf. field estim. for electronic equipt. 31866
radiated interf. of electronic equipt., randomly assigned phase terms 31857
random AM harmonics estim., higher order spectra 8406
rapid thermal procs., model-based control 13866
reciprocal Gaussian random procs., model param. estim. 40824
regularized param. estimator, systolic implement. 29279
reliab. engng. data anal., neural network appl. 37197
reliab. modelling, Weibull distribs., failure data anal. 37183
reluctance generators, sensorless DC output voltage control 4927
reluctance motors, modelling/param. meas. methods *(Japanese)* 10973
RESTART method, accelerated simul., multiple thresholds 33248
Rice/Rayleigh channels state estim., nonlin. filtering 8456
rly. traction drive readhesive control studies *(Korean)* 28121
robust estim. for motion params. 41146
robust recursive spectral estim., AR model excited by t-distrib. proc. 32774
room impulse responses approx. based on wavelet decomp. 15991
rot. mach., stat. monitoring, cumulant spectral anal. 32454
RTP temp. profile reconstruction, acoustic tomography 9836
salient-pole brushless motors, starting method 5286
SAR param. estim., adaptive algm., texture recogn. *(Chinese)* 34108
satellite attitude determ., lin. combination of models 24531
saturated sync. motor drives, control modelling 5324
segment based recogn. of 2D partially occluded objs. *(Korean)* 24691
self-similar procs., increments, sig. modeling 40930
semicontinuous HMM speech recogn., multiple VQ 2433
sensitivity anal. of IGBT static model *(Polish)* 1397
sensorless brushless DC motor drive control studies 44474
separate discrete filtration of freq. and sig. time delay 32575
servo induction motor adaptive speed control 19625
servomotor control syst., inertia moment ident., speed observer *(Japanese)* 36208
shallow water commun. syst. for autonomous underwater vehicle 9663
shape-from-texture, diff. method 2776
shape/pose recovery from shading, contour 2759
sig. anal., power distrib. fns. under multisignal conditions 32591
sig. integral, time delay estimator, ECG sigs., perform./testing 4280
sig.-subspace selectivity, 2-D wavenumber estim. 24178
sigs. with exponential amplit. freq. depend., time-domain meas. *(Japanese)* 41039
sinewave parameter estimation, improved algorithm 24238
sinusoidal params. estim. in meas. noise by cross-spectral method 16026
sinusoidal params. estim. in non-Gaussian ARMA noise 24219
sinusoidal sig./params. estim., nonlin. filter *(Japanese)* 2557
small-cell environ., radio channel characts. prediction 3335
source/filter model for percussive sounds 16005
sparse spike time series recovery by L_1 norm deconvolution 8415
speech coding, multipulse algm., adaptive Boltzmann annealing 15808
speech compression, hierarchical stochastic modelling 40919
speech enhancement, constrained iter., HMM-based phoneme class partitioning 8227
speech enhancement, higher order AR modelling, parameterized Wiener filtering 15836
speech param. extraction, noisy environ., masking model 32384
speech recogn., HMM param. estim., fuzzy VQ 15819
speech recogn., local/global constraints, stochastic lang. model 32366
speech recogn., SCHMM params., Bayesian learning 32264
split phase induction motor drives, vector control 5295
squirrel cage motor drives, self-commissioning scheme 5300
squirrel cage motor harmonic equiv. cct. param. determ. 36161
squirrel cage motor rotor time const. ident. studies 4953
squirrel cage motor vector controllers, rotor models improvement 4975
squirrel cage motors, field oriented control param. estim. 4979
stable systs. parametrization from impulse response data 40979
state-depend. time warping in trended HMM 2410
static distrib. load param. ident., general regression neural networks 10647
stationary procs., sample cumulants, asymptotic results 40841
stepping motor drive, real-time mech. params. estim. *(French)* 11324
stepping motors, sensorless rotor posn. control 11084

parameter estimation continued
stochastic algm. for parametric/non-parametric estim. 40859
stochastic discrete-time systs., optimal filtering 8404
stray capacitances of two coupled inductors 21596
struct. recovery and motion estim. from stereo motion 16329
subband decomp. of video, generalized Gaussian distribs. 24584
submarine navig. data integrat. 24296
subspace-based line detect. algm. 8517
substation, elec. load, on-line modelling *(Chinese)* 35421
superquadrics param. estim. from shading image, genetic algms. 41119
surge arrester, ZnO, electro-thermal model params. ident., autoregressive techs. 27275
SVD, periodic sigs. anal./prediction 15979
SVD, subspace swap probab. 40815
switching transients simul., multiport equivalencing 26872
sync. generator rotor angle calcs., zero seq. harmonic components-based 4912
sync. image restoration 24620
sync. machine param. ident., multitime scale tech. 19615
tapered SVD, AR model estimation 41000
target tracking, meas. selection validity improvement 17379
target tracking, neural network maneuver modeling 32671
TDOA estim., sig. selective, modified cyclic methods 2508
telecomm. traffic, modified adaptive seq. projection algm. 41679
TEM defocus series, exit wave reconstruction 24430
texture synthesis, phase transits./ multi-scale Markov random fields 8541
textured image segmentation by context enhanced clustering 2808
thermal diffusivities meas., IR images proc. 25995
thermal diffusivity/cond. determ., freq. domain method 42969
thermocouples, dyn. calib., multipoint sampling data, param. estim. *(Chinese)* 3777
three-phase induction motor, measurability anal./simul. 27707
three-phase squirrel cage induction motor, adaptive vector control 36171
time series, discontinuity location, recursive Bayesian method 41009
time-freq. representations, adaptive method 8431
time-seq. sampled imagery based motion estim. 16312
time-variant struct. matrices, instrumental variable method appls. 32485
time-varying speech sig. anal., seq. param. estim. 32319
torque-speed characteristics meas. of electric machines 25718
tracking constrained adaptive power syst. stabiliser 43660
traffic noise meas. and param. estim. methods *(Croatian)* 4026
transducer errors estim., operation 3808
transitory evol. spectrum 40984
tricoherence stats. 8419
turbulence-induced phase error param. dimens., estim. in phase diversity 16214
underwater matched-field source localisation by reduced-rank sig. proc. 34186
universal coding, param. estimators, convergence rates bounds 32143
updating rate of Jacobi SVD arrays and data nonstationarity 32477
urban microcell environ., av. power prediction 3422
variable-dimens. filter, input estim. 24329
vector parametric model of random procs., DSP appls. 32567
vector spectrum analyzer freq. domain least-sq. syst. ident. 25743
visualising predictability, chaotic ensembles 32467
VLSI cct. testability and coverage estim. 22518
voiced speech, robust time-varying parametric modelling 40758
voiced speech/perceptual cost fns., mixed-phase AR models 32260
voiced/unvoiced/silent transit. regions detect. in speech sigs. 8186
walking recogn. from image seqs., incremental 2745
waveform estimation with jitter noise, stochastic methods 25752
Weibull probab. distrib., param. estim. 192
whiter than white noise 40990
wideband sigs., time delay/Doppler stretch estim. 40836
wind induction generators, harmonics prediction/ident. 43960
continuous-time/discrete-time nonlin. parametric models 32783

parameter identification *see parameter estimation*

parametric amplifiers
see also optical parametric amplifiers
subquantum limit DC Josephson parametric amp. 1607

parametric devices
see also acoustic parametric devices; optical parametric devices; parametric amplifiers; parametric oscillators
dyn. analogies in parametric proc. theory 28991
mag. tape recorder, short-time reprod. *(Japanese)* 22705
pulse selector design and operation *(Russian)* 12383

parametric oscillators
see also microwave parametric oscillators; optical parametric oscillators
HF oscill. param. current sens., feedback loop 34463
induction motor drive, parametric oscill. speed sens. 44451
mag. parametrons, chaotic oscills. studies *(Polish)* 577
nonlin. oscillatory systs., parametric excitation area calcs. *(Russian)* 29071

parametric up-convertors *see parametric devices*

parametric varactor diodes *see varactors*

parametrons *see parametric oscillators*

parcel post *see postal services*

parking control *see traffic control*

parsers *see grammars*

parsing *see grammars; program compilers*

partial differential equations
see also boundary-value problems; Laplace equations; wave equations
2D diffusion, finite difference scheme 276
3-D semicond. device simulator on distributed-memory MIMD/SIMD machines 1317
3D diffusion eqns., compact finite vol. soln. 28684
AC/DC six-pulse power convertors, steady-state modelling 44123
adaptive space time hp-refinement algms. for 1D parab. systs. 37349
aerodynamical config., complex flow fields, num. methods 10307
ATM stat. multiplexer multidimens. diffusion model 41431
axial symmetric shield penetrating EM field time const. calcs. *(Polish)* 31699
broad-area semicond. lasers, filamentation and beam propag. 23191
computer-generated Fourier holograms based on pulse-dens. modulation 40127
constitutive/Maxwell's EM field theories, comparison 2166
continuous-scale morph. filtering, evol. eqns. 8672
difference analogues of PDE, delay 20621
diffusion eqns., alternating segment explicit-implicit method 269

partial differential equations continued
dyn. holography with arbitrary waves, multiwave mixing procs. 40167
dyn. load-balancing for PDE solvers on adaptive unstructured meshes 28682
edge-type scatterer in rect. waveguide, Yasuura method 8022
elec. machine conjug. EM field calcs., Newton-Raphson method-based *(Polish)* 36093
ellipt. PDE, inseparable variables, soln. 190
EM scatt., perfectly matched absorbing boundary conditions 23601
EM waves reflectionless absorpt. , perfectly matched layer concept 23600
fission reactor cooling, liq. enthalpy, two-phase quality 19422
flat surface radiation and scatt., measured eqn. of invariance 23604
Hamiltonian-Jacobi connection of mathematical morphology 24716
HF quartz resonators charact. anal. 30610
hyperb. 1D wave eqn. soln., spreadsheet program 5525
hyperb. partial diff. eqns., boundary layer method asymptotic anal. *(Chinese)* 5785
ILU factorization, 5-point difference scheme 28562
impulsive differential-functional eqns., difference methods 37346
large orbit magnetron-type gyrotron, num. modeling 21814
LCRG nonuniform transm. line, sig. restoration 2278
lin. 1D PDE init.-value hyperb. problems 20626
MeXeL simul. of micro-electromechanical systs., nonlin. partial differential eqns. 39032
modified block incomplete factorizations, ordering strategies 28687
motion boundary detect. in image seqs. by local stochastic tests 24626
multi-stripe and broad-area semicond. lasers, spatio-temporal complexity 7640
nonparallel dielec. waveguides, coupling charact. 8023
nonperiodic BVP, polynomial time-marching 5784
nonstationary thermistor problem, soln. regularity 38044
num. soln. of coupled syst. of ellipt. eqns., age fractional scheme 267
overlapping generations models, inverse problem soln. 28378
parab. systs., integrated space-time adaptive hp-refinement methods 37344
periodic waveguide wave propag., num. simul. method 40436
phase field model, error estim., finite-element scheme 20571
piecewise Hermite bicubic orthogonal spline collocation 11968
Poisson problems in cuboidal domains, conforming spectral methods 20623
proc./device simul., optimal moving meshes 22538
pure alternating block explicit-implicit method 270
semicond. device drift-diffusion eqns., artificial diffusion *(Spanish)* 30195
semicond. devices, nonequilibrium transport, PDE simul. 22331
stochastic particle method for Kolmogorov eqn. with variable coeffs., rate of convergence 275
symbolic solns. for class of PDE 20620
time-domain EM plane waves in static and dyn. conducting media 31784
trapped energy resonators, transversely varying thickness modes anal. 30607
two-level unidirectional ring laser, travelling waves, class-B limit 2028
Ne-Ar gas glow discharge pos. column, elec. field-current charact. *(Japanese)* 29738

partial discharges
adaptive filtering meas., noise suppression 13967
anal. syst., HV test lab 1536
bulk dielectrics, partial discharge related stresses 13966
cable insulation, void discharge deterioration, semicond. layer effect *(Japanese)* 43771
condensed insulation, PD modelling 1517
detect., electrostatic induction 1516
detect., Poissonian/Laplacian induced charge 22644
diagnosis, digital measuring techs., expert class. 22652
diagnosis and pattern recogn. 1534
dielec. degrad. obs., PD mechanisms in voids 22648
dielec./metallic bounded cavities, PD 1522
dielectric liquids, cond., breakdown, conf., Switzerland (1993) 5444
dyn. modeling 1509
effects on materials, phys. and chem. aspects 22642
elec. machine stator insulation, corona activity studies 19586
electrical insulation and dielec. phenomene, conf., Pocono Manor, Pa, USA (Oct. 1993) 11586
epoxy, cast, partial discharge induced aging, surface resist. 14043
epoxy discharge ageing, void gas press. meas. 22672
epoxy resin insulation, PD resist. improvement 22673
epoxy resin surfaces, PD stressing 1542
EPR, treeing in cryogenic temp. region 14060
ethylene-propylene rubber cable insulation, damaged, breakdown volt. 14071
gas streamers, PD, phys. 1549
GIS equipt., UHF tech. of PD detect. using simulator, calib. 36478
GIS insulation diagnostics, UHF techs. 19910
GIS PD detect. automation method 36468
HV plant, PD monitor, transient earth voltage tech. 1537
HV rot. machines, PD detect. 4900
HV rot. machines, slot discharges 4901
HV solid dielec., gas inclusion surface charge deposition 22669
HV solid dielec., gaseous cavity, surface charge *(Russian)* 6917
HVDC cables, paper insulated, breakdown, comment/reply 35647
hydroelectric generator stator insulation, PD detect. techs. 43942
hydrogenerators, PD spectra, HF grounding 4897
insulating materials, PD 1512
insulation, defects/degrad., US NDT 6916
insulation, elec. treeing, mech. aspects 39064
insulation aging, nonstationary PD 1519
insulation PD meas., optimal bandpass filter characts. 13917
insulation PD pattern recogn., neural net-based 13920
insulation systems, partial discharge diagnosis 13964
insulation systs., PD, risk fns. 1530
LDPE, elec. treeing, PD pattern recogn. 1531
LDPE insulation diagnosis, pattern recogn. ES-based 6895
machine stator winding insulation, on-line monitoring 36110
meas., height-distrib. anal., Weibull stats. 22654
models, image converter/cct. simul. studies 1513
motor/generator stator winding maint., PD testing 4893
motor/generator stator windings, in-service PD tests 36101
multichannel pulse-height analyzer, computer controlled, calib. 3745
neural networks based separation from noise sigs. 22649
oil, acoustic sigs. directivity 22651
oil, PD, acoustic sig. directivity 1527
pattern recogn., HV equipt. 1521
pattern recogn., neural network 22650
pattern recogn. in HV equipt. 22647
pattern recogn. of model electrodes, neural network 3972

partial discharges continued
PD, dielec. ageing 22645
phase resolved PD detect. 22643
plant insulation monitoring, IEE Colloquium, London (1994) 5458
plant-monitoring technol. develop. 27285
polyethylene, discharges, pulse-seq.-anal. 1525
polyethylene, time-resolved discharge meas. 1523
polyethylene, treeing under AC voltage, space charge buildup, power cables 30584
polyethylene insulating walls, chink, AC breakdown *(Japanese)* 1547
polymer insulation dielec. strength under PD stress 22675
polymer insulation PD stabil., energy characts. *(Russian)* 6894
polymeric HV cable, PD testing 4687
polymeric insulating materials, elec. treeing 1510
polypropylene, corona streamer degrad., humidity effect 1541
polypropylene thin films, partial discharge and breakdown 13963
polystyrene, partial discharge stability, struct. depend. 13965
power cable insulation PD pulse shape recogn., neural net-based 27207
power cables, PD meas. and location 4688
power capacitors, PD detect., acoustical method 5172
power plants, PD monitoring 1526
power station HV equipt. insulation, online PD anal. 4756
power transformer oil flow, static electrification and PD 36227
power transformers, insulating syst., internal defects detect. 5025
pulse discharge pattern anal., neural network appl. 3973
pulse distrib. pattern, stat. data anal. 22646
pulse distrib. pattern anal. 1520
pulse shape recogn., neural network paradigms 13944
pulse shaped noise sigs., neural network anal. 1524
pulse-seq. anal., insulation ageing/degrad. diagnosis 22653
recogn., neural networks appl. 1535
rect. pulse voltages 1539
resin insulators, PD, light emission detect. 1528
rot. machine stator, PD pulse meas. 4896
sig. generation, transm. and acquisition 1518
solid insulation, PD damaging energy 1532
solid polymeric insulators, breakdown, PD meas. 4705
stator windings, PD calib., transfer fn. 4898
stator windings, PD-meas. 4899
swarming pulsive microdischarges, CAA 1538
turbogenerators, stator insulation, PD monitoring sens. 4888
underground distrib. cable joints, PD meas. 4704
very-short air gaps in plane-parallel electrodes, discharges 13979
void gas press. 1540
water vapour-gas mixtures, partial discharges 13982
XLPE cable insulation, damaged, breakdown volt. 14071
SF$_6$ gas, PD, phase-resolved meas. 1550
SF$_6$, leader discharges, UHF detect. 36479
SF$_6$/N$_2$ gas mixtures, PD 1551

partial response channels
2D multichannel partial response class IV recording codes 30736
64 Mbits/s PRML HDD channel, BiCMOS analog front-end sig. proc. 7143
binary CPM (h=1/2) anal. algm. 32035
binary partial-response channels, concatenated coding 15753
blind channel estim./equalization, partial-response input sigs. 33162
CMOS adaptive equalizer for partial-response channels 29246
CMOS adaptive equalizer/Viterbi seq. detector, Class IV PRML 21156
CMOS VLSI trellis-coded partial response channel codec 29249
codes, quasi-catastrophic error propag. prevention 32069
CPM decoder optim. by state-space partition 40588
(d, k) codes with multiple spacing, spectral props., mag./magnetooptic recording 7176
(d, k/I) constrained partial response max. likelihood codes, hard disks 22696
digital mag. recording, equalisation, nonlin. filtering and error confine. 7178
digital mag. recording channels, different detect. techs., comparison 30731
digital tape recording, optim. of azimuth angle/geom. params. 14238
hard disk freq. domain nonlin. meas. method 7183
mag. disk, analog/digital PRML read channel equalizers 30737
mag. disk PRML read channels, A/D interface 7144
mag. recording, EEPR4 detect., digital read/write channel 30738
mag. recording channel, neural net equalization 7106
mag. recording channel equalization for max. likelihood detectors 30724
mag. recording systs., partial response polynomials 30726
mag. storage, digital syst., 2D coding 7175
magnetooptical recording, n/m code and modified Viterbi decoding 15724
mobile satellite fading channels, M/QPR-TCM perform. 17096
modified duobinary PAM fast timing recovery syst. design and simul. 32039
multilevel-coded quaternary partial-response sigs., soft-decision multistage decoding 8174
nonlin. multi-h phase codes, full response and partial response CPFSK 8171
Osman Nuri Ucan receiver, trellis coded M-QAM schemes, partial response channels 40704
PRML channel, nonlin. mag. recording read-back distortion effect *(Japanese)* 22704
PRML channel perform. eval., window-margin-like procedure 30728
PRML digital mag. recording systs. anal. by write and read equalization 30723
PRML mag. read channels, high speed, CMOS analog front-end archits. 30727
PRML mag. recording syst. anal. by write and read equalization 30722
PRML read channel, high speed low power device 32547
PRML read channels for mag. disk drives 7071
QPR-TCM, fading mobile satellite channel, perform. anal. 9336
quaternary partial response CPM digital transm. syst. 40557
recording codes based on sampled servo format, perform. comparisons 15756
trellis-coding for partial-response channels, Viterbi detectors 30733

particle accelerator accessories
component modeling, dispersive soft ferrite models 18171
magnetically insulated transmission line, electron flow diagnostic 26022
magnetically insulated transmission lines, power flow study 26023
polarized hydrogen gas target for storage rings 26101
pulsed power μs plasma opening switches, 2D snowplow model 36443
RADAN SEF-303 pulsed power source, compact accelerator appls. 36320
vac. syst. design, electron/proton storage rings 961

particle accelerators
see also accelerator cavities; accelerator control systems; accelerator magnets; accelerator RF systems; beam handling equipment; beam handling techniques; booster injectors; colliding beam accelerators; cyclic accelerators; electron accelerators; electrostatic accelerators; ion accelerators; linear accelerators; particle beam fusion accelerators; proton accelerators
adaptive logic networks for particles recog. 34818
appls., scientific research, applied phys., med. 4045
ATW, pebble-bed blanket/core design, actinide transmutation 35954
electronic component degrad., radiation 4239
emittance, beam phase space 4061
IEEE pulsed power conf., Albuquerque, USA (1993) 20246
local dispersion insert for particle accelerators 43017
mag. flux compression/expansion, EM launchers/power supplies 31761
pulsed power μs plasma opening switches, 2D snowplow model 36443
RADAN SEF-303 pulsed power source, compact accelerator appls. 36320
review, brief hist. 4038
TRU/FP transmutation, accelerator based incineration syst. 35955
CO$_2$ ps laser for relativistic particle accel. 15195
Pu-burning, ^{233}U-prod., accelerator molten-salt breeding reactor 35956
SF$_6$ in accelerator gas, conc. determ., sound vel. meas. 34830

particle backscattering
see also electron backscattering; electron energy loss spectra; Rutherford backscattering
MUSICAL, neutron backscatt. at pulsed neutron source 34966
HgI$_2$, crysts./detectors, PIXE/ion backscatt. spectrosc., impurity anal. 43071
PbI$_2$, crysts./detectors, PIXE/ion backscatt. spectrosc., impurity anal. 43071

particle beam diagnostics
accelerated radioact. ion beams, challenge and perspectives 34768
adaptive logic networks for particles recog. 34818
beam energy recovery, gyrotron efficiency improvement method 10099
beam transfer lines, various problems 4064
betatron difference reson., expt. meas. 10094
bunched beam, stationary long. envelope eqn. soln., emittance 4094
bunched beams, axisymmetric systs., image effects 18256
bunched charged particle beams, thermal equilib. 34822
central tracking in high lumin. future colliders 4111
charged particle beam tomographic monitors, distrib. fns. meas. 34824
charged-particle beam param. sens. selection and design 4079
chromaticity and circ. accelerators 4063
circ./LINAC, primary beam lines 4117
CLIC, develop., progress 34761
coasting beam long. coherent instabilities 4069
coasting beam transverse coherent instabilities 4070
colliders, tracking and pattern recogn. 4112
collimators, diagnostic tools in HERA 10085
cooled beams phys. 34775
cooler storage ring, ion beam ordering 10095
cyclotron autoresonance accel., beam energy limit 43016
cylindrical mirror energy analyzer, closed ends 10083
DAΦNE, bunch length control, higher harmonic cavity 26061
diagnostic foil, JINR phasotron, ioniz. loss effects, longit. phase motion 18271
differential params. meas. of charged particle beams 4078
elctron storage ring SR facility constr. 10092
electron, ion, and photon beams, symp., New Orleans (1994) 5484
electron beam temp., opt. anal. 34782
electron beams, size and position diagnostics, time resolved and photographic techs. 26055
electron beams, transversal/long. velocities meas. 34783
electron bunched beams in mag. field, emittance growth in bends 34764
electron bunches, longit. asymm., synchrotron/transit. radiation 18254
electron gun, intens. profile meas., modulation techs. 29760
electron-positron collider, lumin. meas./calcs. 4062
electrons, finite trajectory, Cerenkov radiation 10093
electrostatic ion engine, beam-centroid tracking 18768
ESRF accelerator, VME image acquisition/proc., TV CCD cameras 18272
expanded H$^-$ beam meas., megapixel imaging camera 4053
extraction geometry B-diodes, PIC simulations 26048
extraction magnetically insulated diode study on Gamble II accelerator 26094
fiber scintillating detectors appls. 4197
flat mirror energy analyser, end electrodes 43029
helical wiggler, equilib. electron orbits nonlin. evol., magnetoresonance 43035
helical wiggler with uniform axial guide, electron trajectories 43032
HI beams, strongly coupled, emittance growth 10086
high current electron flux, energy meas. Cherenkov detect. 34819
I-3000 accelerator, electron spectrometer, TF 34960
induction accelerators, ion beam vel. control 26092
intense ion beam charactn. 26049
intense particle beam in solenoidal fields, envelope Hamiltonian 34765
ion beams, transport and focusing expts. in neutralising gas 26091
ion sources energy spread/ion current meas. 17693
ion vel. in RF ion beam, LIF meas. 43021
ionizing-radiation meas., ion implant. dose/uniformity monitoring 4080
IUCF polarized ion source, beam transport syst. 18259
KIAE-4 two-sect. undulator, mag. field test 43030
laser-cooled ion beam, anom. Schottky sigs. 18251
light ion beam accelerator, commissioning technological appls. 26057
mag. induction-transducers for charged particle beams meas. 18265
magnetically-insulated ion diodes, beam divergence 26089
magnetron injection guns, electron beams, vel. spread 29764
MAMI microtron, beam intens. profile monitor 34832
micro-strip gas counter test with RD20 front-end 34929
microstrip gas counter test, RD20 front-end 34950
multibeam dichroism, modulated detect., photodiodes 43027
multicascade electrostatic analyser, focusing props. 43038
multicavity gyrodevices, two-harmonic electron prebunching 29769
neutron penumbral imaging of ICF targets 34948
parametric X-radiation, beam divergence meas. appl. 4056
particle collider tracking calorimetry detector requirements 4113
PBFA, pulsed ion and neutral beam power dens., piezoelec. stress gauge meas. 26086
PBFA II, applied-B ion diode, ion source divergence 26044
PBFA II, intense Li$^+$ hohlraum expts., target diagnostics 26071
PBFA II, Li-beam driven hohlraum expts. 26072

particle beam diagnostics continued
- PBFA II, mag. insulated ion diode, meas. 26045
- PBFA II ion diodes, 3D PIC simulations 26047
- PBFA-II ion diode, field profile 26046
- Photon Factory e^+ storage ring, longit. bunch struct., photon counting 26060
- photon spectra meas., bolometer and photodiode 4077
- plasma accelerator, azimuthal electron drift, num. simul. 26085
- proton accelerators, gamma transit. jump schemes 4067
- proton beam transport through gas, electron density 26090
- Proton Synchrotron, LHC, transverse emittance conserv., low energy 4105
- pseudospark discharge, ion beam prod. 26087
- recirculating accelerator FEL syst., energy-current loss instabilities 39985
- relativistic charged beams, particle simul., using integral kernel method 31427
- relativistic electron beam propag. in neutral gas. Nordsieck length meas. 26054
- relativistic electron beam propag. through gas, time-resolved partition meas. 26056
- relativistic electron beams, interactions with X-band microwaves 13000
- repetitive electron beam source for high power microwave expts. 26088
- RF linac, high-current, beams in thermal equilib. 26070
- ring probe, 3D ion beam scanner *(Chinese)* 43019
- S-band lin. accelerator, electron bunch generation 4046
- second-order focusing of 210° cylindrical energy analyzer 43010
- single shot charge analyzer for laser-prod. plasma 25747
- single-beam lifetime 4071
- SIS, beam profile monitor for HI beams 4052
- SLC/SLD, lin. collider expt. experience 34842
- SR sources, electron/proton rings 4072
- SSC, transverse feedback systs. 4109
- State Notation Language, run-time sequencer, accelerator control 18278
- STIC, DELPHI lumin. monitor 26093
- storage ring FEL, radiation power stabilisation 7687
- storage rings, spin tune shifts 43026
- sub-picosecond FEL micropulse length and electron bunch meas. 39931
- symplectic tracking, point magnets and ref. orbit 43018
- synchrotrons, transverse instabilities, space charge effects 10097
- Test Storage Ring, intrabeam scatt. studies 34788
- tracking devices at future colliders, readout and data acquisition 4232
- triode gun, standing wave electron linac beam dyn. 26040
- TRISTAN accelerator tune, workstations, digitalised sigs. 18275
- TRISTAN MR status 34769
- tune shifts from self-fields and images 4068
- undulator with anharmonic mag. fields, focusing props. 43033
- undulators, distorted orbits, electron trajectory, Fourier anal. 43034
- UNK Project, accelerator control, MMI 18279
- UNK transfer line beam diagnostics control 18263
- e^+e^- lin. colliders, TeV-scale, submicron beam focusing 34837
- $p\bar{p}$ lumin. monitor, Fermilab expt. E760 34834
- Li beam characterisation in PBFA II from inner-shell X-ray images 26073
- NaI(Tl) scintillator, proton beam energy meas. 4163

particle beam dynamics
- 250 MeV proton cyclotron, central region design 34836
- azimuthally varying field racetrack microtron, canonical treatment 4089
- beamline optim. and phase space transform. 43012
- bunched beam, stationary long. envelope eqn. soln. 4094
- charged particle motion, precise integrator, Runge-Kutta method 40260
- charged-particle beam in EM field, oscill. 40264
- circ. accelerators, nonlin. betatronic motion, LHC/SPS appl. 34839
- coherent bremsstrahlung, SLAC PEP-II and KEK Tristan-B B factories 40262
- conference, e^+e^- colliders, Benalmadena, Spain (Oct./Nov. 1992) 5505
- conference on accelerator physics, Dallas, USA (1992-1993) 36886
- conference on beam cooling, Montreux, Switzerland (Oct. 1993) 20271
- cyclotrons, particle trajectory, ion optics 4124
- cylindrical cavity gyrotrons, mode competition and startup 6491
- DAΦNE, bunch length control, higher harmonic cavity 26061
- δf algm. for beam dyn. 26084
- dense electron beams shaping, exterior problem soln. 40265
- electron beams, radiative laser cooling syst. 43022
- electron beams, size and position diagnostics, time resolved and photographic techs. 26055
- electron linac, reson. freq., temp. stabilization 34766
- ellipsoidal charged particles bunch, dyn. 2183
- Eloisatron beam dyn. 4101
- ESRF source, target specs., SR source 18245
- extraction magnetically insulated diode study on Gamble II accelerator 26094
- FODO cell, diffusion, modulation effects 4086
- gamma-gamma collider, crab crossing 26067
- gyrotron-type of interact., chaotic behaviour anal. 6490
- hadronic colliders, transverse beam dyn./losses 4103
- heavy ion fusion driver beams, longitudinal dynamics 26051
- heavy ion fusion injector, ion acceleration and focusing 34841
- heavy ion ICF driver beams, charge neutralisation 26052
- helical wiggler with uniform axial guide, electron trajectories 43032
- HI beams, strongly coupled, emittance growth 10086
- high energy cyclic accelerators, introductory course 76
- ILSE expts. 4076
- ion-beam undulator, high-current electron beam propag., nonlin. wave procs. 43036
- isochronous storage ring FEL 23318
- IUCF Cooler, cooled beam intens. limits 34806
- LEADS, graphically displayed computer program *(Chinese)* 26078
- LEADS program, lin. and electrostatic accelerator beam dynamics 34833
- LHC accelerator, Pb ion accumulation scheme 34811
- lin. struct., dyn./accel. 4065
- linacs, electrons, ions, complex accelerating elements 26039
- long. beam dyn., circ. accelerators 4066
- magnetically-insulated ion diodes, beam divergence 26089
- PS, beam control feedback loops, instabil. 4087
- recirculating accelerator FEL syst., energy-current loss instabilities 39985
- relativistic electron beam propag. in neutral gas. Nordsieck length meas. 26054
- relativistic electron beam propag. through gas, time-resolved partition meas. 26056
- spatially-varying wave struct., adiabatic particle motion 4093
- SPring-8 storage ring, equilib. bunch length, RF noises 34831
- SSC, emittance growth, computer simul. 26037

particle beam dynamics continued
- SSC, emittance growth, noise 26036
- SSC, long. beam dyn., RF noise 4092
- stochastic cooling, theory, technol., and tech. 34770
- storage ring, trapped secondary particle motion 43025
- storage ring FEL, electron beam long. dyn. 39951
- storage ring UV FEL, giant laser pulse generation 39950
- storage rings, spin tune shifts 43026
- symplectic maps, monomial factorization, particle dyn. 4090
- symplectic maps in $\mathbb{R}^4$, Birkhoff normal forms, ARES code 43020
- synchrotron rad. source, low emittance, betatron oscills. coupling 18268
- synchrotrons, space charge dominated cooled bunched beam investig. 34810
- synchrotrons, transverse instabilities, space charge effects 10097
- Test Storage Ring, intrabeam scatt. studies 34788
- transverse charged-particle beam dyn., thermal wave model 4058
- triode gun, standing wave electron linac beam dyn. 26040
- TSR accelerator, charge depend. of electron cooling force for HI 34812
- TSR storage ring, laser cooled $^9Be^+$ beam, interbeam scatt. 34803
- undulators, distorted orbits, electron trajectory, Fourier anal. 43034

particle beam extraction
- AVF cyclotrons, HF accel. *(Dutch)* 43013
- cyclotrons, injection, extraction, external ion sources 4125
- ESRF, kicker magnet pulsed power supplies 34820
- ESRF source, target specs., SR source 18245
- KEK PS main ring, beam extraction magnets *(Japanese)* 34840
- LEP beam bumping kicker syst. high power pulse generator 34821
- positron microbeam prod., retarding-mode opt. syst. 43051
- relativistic klystron two-beam accelerator, RF power extraction 10090
- relativistic klystron two-beam accelerator for beam-break-up suppress. 34828
- Reltron/Super-Reltron high power microwave source develop. 29788
- SPS, proton extraction, Si bent cryst. 4057
- SPS proton beam extraction by bent crystal, simulation 43008
- SSC, long. beam dyn., RF noise 4092
- synchrotrons, equilib. orbit transforms., injection/extract. 10098

particle beam focusing
- *see also electron beam focusing*
- 250 MeV proton cyclotron, central region design 34836
- bunched beam, stationary long. envelope eqn. soln., focusing 4094
- co-planar multiple-ring electrostatic particle-beam lenses 15250
- cryst. beam feasibility, weak-focusing betatron magnet 34796
- finite-emittance charged-particle beam, invariant-focusing lens 43028
- heavy ion fusion driver beams, longitudinal dynamics 26051
- heavy ion fusion injector, ion acceleration and focusing 34841
- high energy cyclic accelerators, introductory course 76
- ILSE expts. 4076
- ion beam focusing gradients, 3D ion beam scanner *(Chinese)* 43019
- ion beams, transport and focusing expts. in neutralising gas 26091
- light ion beam transport efficiency, TOF bunching, voltage ramping effect 26050
- lin. inductive accelerator, pulsed power supply 34817
- local dispersion insert, focusing element for accelerators 4082
- local dispersion insert for particle accelerators 43017
- mismatches, emittance growth control, stellarator transport 26041
- multicascade electrostatic analyser, focusing props. 43038
- neutron focusing optic for submillimeter materials anal. 5933
- second-order focusing of 210° cylindrical energy analyzer 43010
- Texas Cold Neutron Source, converging neutron guide focusing 18264
- ^{4}He superfluid cryogenics for LHC 4048
- Li beam characterisation in PBFA II from inner-shell X-ray images 26073

particle beam fusion accelerators
- energetic light ion beams in PBFA 26021
- extraction magnetically insulated diode study on Gamble II accelerator 26094
- FET-switched induction accelerator cell 36410
- heavy ion fusion driver beams, longitudinal dynamics 26051
- heavy ion fusion injector, ion acceleration and focusing 34841
- heavy ion ICF driver beams, charge neutralisation 26052
- HI fusion accelerator research, LBL 43005
- lin. inductive accelerator, pulsed power supply 34817
- LMF triaxial MITL voltage adder syst. Marx generator 36300
- PBFA II, applied-B ion diode, ion source divergence 26044
- PBFA II, intense Li^+ hohlraum expts., target diagnostics 26071
- PBFA II, Li-beam driven hohlraum expts. 26072
- PBFA II, mag. insulated ion diode, meas. 26045
- PBFA II ion diodes, 3D PIC simulations 26047
- PBFA-II ion diode, field profile 26046
- pos. ion driver, induction adder 36301
- pulse ion and neutral beam power dens., piezoelec. stress gauge meas. 26086
- Li beam characterisation in PBFA II from inner-shell X-ray images 26073

particle beam injection
- accelerator injection methods 4120
- BRENDA, GSI RIB-facility 34814
- capillary arrays, variable channel dens., improved gas injection syst. 5833
- conference, e^+e^- colliders, Benalmadena, Spain (Oct./Nov. 1992) 5505
- cyclotrons, injection, extraction, external ion sources 4125
- Eloisatron, injector design 4100
- Fermilab Tevatron, high field injection kicker magnet 34826
- gamma-gamma colliders, high intens. lasers 26064
- heavy ion fusion injector, ion acceleration and focusing 34841
- HI fusion accelerator research, LBL 43005
- IUCF Cooler, cooled beam intens. limits 34806
- IUCF Cooler experience of electron cooling, injection aid 34807
- local dispersion insert, focusing element for accelerators 4082
- Proton Synchrotron, LHC, transverse emittance conserv., low energy 4105
- SSC, long. damper, design 4107
- SSC, transverse feedback systs. 4109
- storage ring, double RF syst., transverse mode coupling instabil. 18288
- storage ring, transverse injection oscill. dampers, requirements 4106
- supercond. compact storage ring, injection syst. 26059
- synchrotrons, equilib. orbit transforms., injection/extract. 10098
- triode gun, standing wave electron linac beam dyn. 26040
- H^- injector design for SSC RFQ 4091

particle beam stability
- 2-gap accelerating struct., transverse impedance 18257
- CLIC, develop., progress 34761
- conference, e^+e^- colliders, Benalmadena, Spain (Oct./Nov. 1992) 5505
- coupled-bunch instabil., three-cavity syst. 18286
- DAΦNE, bunch length control, higher harmonic cavity 26061

particle beam stability continued
DAΦNE, RF cavities, broadband waveguide, coaxial transit., HOM damping 18287
Eloisatron, injector design 4100
ESRF source, target specs., SR source 18245
hadron supercolliders, wide-band transverse feedback 4108
high energy cyclic accelerators, introductory course 76
high-power X-band microwave generators, LLNL expts. 34827
intense helical electron beams, num. simul. 31733
ion-beam undulator, high-current electron beam propag., nonlin. wave procs. 43036
KEKB bunch feedback systs., 2-tap digital filters 43015
LEADS program, lin. and electrostatic accelerator beam dynamics 34833
longit. coupled-bunch instabil., accel. RF-cavity/energy storage cavity 26035
microtrons, operating principles and beam stabil. 4130
Proton Synchrotron, LHC, transverse emittance conserv., low energy 4105
relativistic klystron two-beam accelerator for beam-break-up suppress. 34828
SR rings, figs. of merit 18248
SSC, long. damper, design 4107
SSC, transverse feedback systs. 4109
standing wave FEL two-beam accelerator, beam-break-up 34823
storage ring, 100 TeV, transverse feedback 4104
storage ring, double RF syst., transverse mode coupling instabil. 18288
storage ring, long. coupled-bunch instabil. suppression 4088
storage ring, transverse injection oscill. dampers, requirements 4106
synchrotrons, transverse instabilities, space charge effects 10097

particle beams
see also atomic beams; beam handling techniques; electron beams; ion beams; molecular beams; neutron beams; particle beam diagnostics; particle optics; proton beams
bunched charged particle beams, thermal equilib. 34822
high intens. localized pulse producer, particle beams 34861
high intens. particle beam, distant source accel. 34860

particle counters *see counters*

particle counting
counting of microscopic particles in disperse systems (aerosols, colloids etc.)
blood platelet aggregation, aggregates counting, laser light scatt. 26329
clean room, laminar flow, flow vel. meas. 112
microcontamination 93, conf., San Jose, USA (Sep. 1993) 42
Norcross Project, manual/robotic wafer handling, degraded cleanroom 22086
semicond. proc. equipt., in-situ particle meas. 6632
semicond.-wafer proc. equipt., particle detect., in situ coherent lidar 37047
Sony total particle control syst., IC yield enhancement, defect reduction 20467
UHP gas supply consistency of on-site N_2 plants 38461

particle detectors
see also chemical radiation detectors; electron multiplier detectors; ionisation chambers; position sensitive particle detectors; radiation detection; streak cameras; superconducting particle detectors
act. well coincidence counter meas. of high enriched U material 4229
activated charcoal canisters, calibr., secondary std. Rn detector 34947
calorimeters, sig. proc., functional schemes 4152
CERN calorimeter, computer archit./electronics 18366
CERN NA48 simul. program, parallelisation 18377
conference, e^+e^- colliders, Benalmadena, Spain (Oct./Nov. 1992) 5505
FAD, DCCs, MiniMax, hadron-hadron collisions 18300
GALLEX detector, ^{51}Cr neutrino source expt., solar neutrinos 26100
gamma-gamma collider, detector requirements 26140
Gismo Project, detector simul. 34954
high energy physics detector models, transfer to CAD 43122
ICF implosions, MEDUSA large scintillator arrays 26168
ICF ρR meas., charged particle spectrometer 26149
JLC detector, design, perform. 34953
LHC liq. Ar calorimetry, radiation resist. of front-end electronics 26251
microphonic noise reduction by digital waveform proc. 10119
scintillating-fiber neutron detector for fusion plasma diagnostics 26146
scintillating-fibre neutron detector for TFTR, DT operation 26147
SLAC, BABAR detector, PEP-II, CP-violating asymmetries 4178
soft X-ray detectors, calibr., SUPER ACO synchrotron rad. 4227
GaAs CHIGFET noninductive impedance transformer design 29351

particle interferometry
fund. consts. determ., X-ray/neutron interferometry 17646
local strain meas., electron beam moire 28911

particle lenses, electrostatic *see electrostatic lenses*

particle lenses, magnetic *see magnetic lenses*

particle optics
see also aberrations; beam handling techniques; electrodynamics; electron optics; ion optics; particle beam diagnostics
evanescent EM waves, ang. momentum 2162
finite-emittance charged-particle beam, invariant-focusing lens 43028
flat mirror energy analyser, end electrodes 43029
high energy cyclic accelerators, introductory course 76
HV regulator for charged-particle optics 7909
LEADS program, lin. and electrostatic accelerator beam dynamics 34833
particle trapping, doughnut beams, CGH 23467
storage rings, spin tune shifts 43026
transverse charged-particle beam dyn., thermal wave model 4058

particle reinforced composites
see also filled polymers
diamond metal matrix composites, electronic packaging material 28465
z-axis conductive adhesives, fine pitch appls. in consumer electronics, accelerated life test 135
Al-SiC metal matrix composites, microwave/MM wave IC packages 20464
AlN particle filled Al, low CTE thermal conductor 12199
RuO_2/B_2O_3-SiO_2-PbO glass composite thick resistive films, metal-insulator transit. 21657
SiC/Al metal matrix composite baseplate, high current power modules 28466
SiC/Al metal matrix composites, SEM-E cores and MCMs 29736
SiC/Al metal matrix composites for GaAs power semicond. packaging 11753

particle scattering *see particle backscattering; radiation effects; transport processes*

particle separators
ISOLDE isotope separator control syst. design 18391
KUR-ISOL, mixed-gas jet syst. characts. 10149
large acceptance mass separator 10148
RITU, gas-filled recoil separator, heavy elements studies 43141
VASSILISSA kinematic separator 4240
waveguide particle vel. separator 18255
Si micromachined particle manipulator/separator 31748

particle size measurement
blood platelet aggregation, aggregates counting, laser light scatt. 26329
electroacoustic charactn. of particulates, conf., Gaithersburg (1993) 28261
falling raindrop, nonintrusive temp./size meas. 42935
killer particle detect. on rough wafer surfaces 11826
planar-phase Doppler syst. 34692
simultaneous particle size/3D posn./vel. meas. 18075
Cu-Cr contacts, vac. interrupters, microparticles generation 27846

particle sources
see also electron sources; ion sources; neutron sources; positron sources; proton sources; radioactive sources
electron sources, PBGUNS, digital simulation computer program 26108
high intens. localized pulse producer, particle beams 34861
high intens. particle beam, distant source accel. 34860
intense slow positron source at INEL 26110
lin. polarized photons from laser Compton backscatt. 18293
repetitive electron beam source for high power microwave expts. 26088

particle spectrometers
see also alpha-particle spectrometers; beta-ray spectrometers; electron spectrometers; gamma-ray spectrometers; neutron spectrometers; particle separators; time of flight spectrometers; X-ray spectrometers
BES, BEPC, recent status, J/ψ events, m_τ 18388
BES, particle separation, discriminant anal. method *(Chinese)* 34967
Big Liquid Argon Spectrometer, data acquis. electronics, Tagged Neutrino Expt. 25738
calorimeters, sig. proc., functional schemes 4152
CEBAF, expt. instrumentation, phys. program 26167
CHAOS polarized proton target 34867
CMS detector, B phys./CP violation studies 4182
coal-fired MHD facility, laser induced breakdown spectra 20016
conference, nuclear physics, Zakopane, Poland (Sept. 1994) 36817
cylindrical drift chamber, 3D data output 34907
GAJET expt., LHC 4184
GAMS, light-meson spectrosc., results 18389
HYPERON spectrometer complex for studies of K-meson decays 4242
ICF ρR meas., charged particle spectrometer 26149
MAGIC, multi anode gas ionization chamber 10112
neutral meson spectrometer at LAMPF, perform. checks 34963
optimum DSP for radiation spectrosc. 18390
radiative muon capture spectrometer, TRIUMF 34964
re-emitted positron energy spectrometer 43142
SKIF hybrid spectrometer, charmed particle generation study 34961
SPHERE spectrometer, calorimetry develop. for relativistic nuclei 26206
supercond. kaon spectrometer for KEK PS 34962
toroidal magnets for eta decay mag. spectrometers 31739
total depletion mode Si surface-barrier telescope detectors 4218

particle tracks
Cr-39 detectors, alpha/fission track radiation effects 26232
energetic ^{132}Xe ion track lengths, Cr-39 detectors 26231
pixel detector, primary vertex location, neural network appl. 34941
scintillating fiber arrays, posn.-sensitive photomultiplier readout 43119
scintillating-fiber hodoscope, multi-anode photomultiplier readout 43120

particle traps
field stabilization of supercond. magnet, He press. control 22767
JPL lin. trapped ion freq. stds., stabil. comparisons 42671
KEK slow-positron source 43052
miniaturized elec. field traps, cells/microparticles manipulation 40266
opt. particle trapping, doughnut beams, CGH 23467
ring trap for freq. std. appl. *(Japanese)* 42662
TrapCAD, tool, design and study ECR ion sources mag. traps 10104
waveguide particle vel. separator 18255

particle velocity analysis
see also ion mobility; mass spectrometers; particle spectrometers
granular particle, lin. flow vel. meas., image sens. 3993
image velocimetry, ultra-high-speed camera 3982
induction accelerators, ion beam vel. control 26092
waveguide particle vel. separator 18255

Pascal listings
power radial network, economically justified modif. 35519

Paschen-Back effect *see Zeeman effect*

pass-band filters *see band-pass filters*

passenger traffic *see traffic*

passivation
Al interconnect film etching, stat. optimisation 38696
CMOS radiation-hardened 32-bit μP based commercial proc. 12567
diamond films (111), H exposure, XPS/UV PES 13365
diamond surface, O-H adsorpt., EELS/Auger study 1268
DRAM/memory LSI failure anal., EB tester voltage contrast image 21317
EEPROM ultrathin thermal oxide, elec. and reliab. props., surface prep. 1278
electrorefining proc., anode passiv. expts. 28192
epitaxial diamond Schottky barrier diode, fab., characts. 22350
GaAs:Se(100), passivated, oxid. 13373
HBT, passiv. procs. 1361
IC passiv. layer probe holes charging dyn. 13836
III-V semiconds., surface passiv., Si interface control layer 38596
MIS capacitors on cleaved GaAs(110), interface props. 13258
MOS capacitors, glass passiv., C-V characts., OH absorpt. 871
MOS capacitors, PbO-B_2O_3-SiO_2-Al_2O_3 glass passivated, C-V curve 13231
MOS capacitors, PbO-B_2O_3-SiO_2-GeO_2 glass passivated, OH radical absorpt. 13245
MOS capacitors, PbO-B_2O_3-SiO_2-GeO_2 glass passivated, OH-related C-V recovery effect 13246
MOS diode, Na contamination free ashing, O_2+H_2O plasma downstream 22234
PEO-PC-$LiClO_4$ electrolyte batt., storage study 27895
physics and chem. of semicon. interfaces, conf., New York (1994) 20208
plastic IC package params., effect on temp. cycling failures 5674

passivation continued
polyimide film, fracture, hygrothermal effects 28882
polysilicon bottom gate TFTs, excimer laser crystn. 38880
polysilicon etching profiles, side wall passiv. and ion saturation effects 1265
polysilicon grain boundary struct. characterisation by opt. SHG 29825
polysilicon p-channel TFTs, ECR hydrogen plasma passiv. 6771
polysilicon TFT, trap-state dens. model *(Korean)* 30347
polysilicon TFTs, hydrogen passiv. 38866
polysilicon TFTs, self-induced LDD devices, SiO_2 gate-insulator, passiv. layer 13748
semicond. ring lasers for integrated optoelectronic ccts. 14842
Si-SiO_2-polySi:P, $TiSi_2$ superlayer, thin film oxide injection degrad. 22059
TFTs, fab. on N implanted polysilicon films, elec. characts. 22447
W-band monolithic HEMT LNAs for microwave scanning radiometer 21558
window Josephson tunnel jns., dyn. props., idle region influence 30775
Al-Si/TiN/Ti bamboo lines, electromigration, activation energy 30147
Al-Si-V-Pd microstruct., IC interconnect reliab., Al-Si-Cu comparison 38652
AlGaAs LD, MBE prod., review 7663
AlGaAs/GaAs HBT passiv., sulfide solns. and SiN_x overlayer 30233
AlGaAs/GaAs HBT, surface passiv. layer struct., design considerations 6732
AlGaAs/GaAs HBTs, Pt/Ti/Pt/Au base electrodes, passiv. 38837
AlGaInP:Zn, H-passiv. of acceptors in MOVPE layers 22129
$(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P$:Zn, metalorganic CVD, impurity passiv. 20938
$Al_{0.60}In_{0.40}As$/GaInAs/InP single pulse doped HEMTs for Q-band power appls. 29566
AlSi/TiN/Ti bamboo metal lines, NIST electromigration test-struct. 6664
Au/n-GaAs Schottky contacts, barrie height change, ballistic electron emission obs. 38378
C/MnO_2 composite primary cell electrode synthesis 11236
CdTe passiv. for long-wavelength HgCdTe photodiodes, elec. props. 1277
Co/Si(111), Co silicide nucleation, H passiv. effects 13204
Cu IC interconnections, materials issues 30137
Cu interconnects, high-reliab., dry etching 38688
Cu interconnects, subquarter-micron, dry etching 30144
Cu metallization mfg. issues for future ICs 38643
Cu surface/interface modif. for IC appls. 38647
Cu-SiO_2 IC metallisation, refractory metal encapsulation/barrier layer 38650
Cu_5Si passiv. layer, growth kinetics and materials props. 38577
Ga(Al)As:H,S(Se)(Te), hydrogen-group VI donor interacts., passiv. 38258
GaAlAs/GaInP/GaAs passivated HBT, high bit rate opt. commun. appl. 6730
GaAs, H passivated, EL2 defect 1262
GaAs MESFETs, selectively dry-etch gate-recessed devices, LF noise 22490
GaAs MIS diodes, at. layer passiv. 13598
GaAs MISFETs, MBE-grown GaAs insulator, breakdown voltage improve. 30337
GaAs MISFETs, photo-CVD P_3N_5 insulators, sulfide passiv. 38882
GaAs, MOCVD on annealed Si in H_2 20771
GaAs devices, plasma-assisted passivating proc., LF noise meas. 13410
GaAs, electronic passiv., electrodeposition of organic mols. containing reactive S 30070
GaAs, n- and p-type, effect of ion energy on H diffusion 29861
GaAs passiv., integrated plasma clean/CVD/RTA, Si_3N_4 encapsulation 22224
GaAs planar gate power MESFETs, gate-drain breakdown volt. 13801
GaAs power MESFET, passiv., ECR CVD Si_3N_4 tech. 13356
GaAs pseudomorphic HEMT, high yield, mfg. technol. 39020
GaAs substrs., SiN_x films, surface passiv. 30131
GaAs, sulfidated surface, electron work fn. 13372
GaAs, surface, NH_3-plasma treatment in rem./direct plasma reactor 38628
n-GaAs, surface passiv., As_2S_3 film 30089
GaAs:As, implanted struct., MOCVD, charactn., appls. 22159
GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
GaAs:Cr, doped/undoped, elec. props., heat treatment *(Korean)* 13330
GaAs:III-VI gallium chalcogenides(100), passiv. 30077
GaAs:Li, shallow and deep level passiv. by lithium 1052
GaAs:O(S)(110), surface states, ambient/vac. STS 1244
GaAs/$Al_xGa_{1-x}As$, MOVPE, n-doping, 2D electron gas struct. 22152
GaAs/AlGaAs heterostruct., plasma etching damage 30109
GaAs/AlGaAs microdisk lasers 23259
GaAs/Ti Schottky contacts, elec. param. stabil., cleaning depend. 29959
GaAs-AlGaAs(InGaP) based HBTs, H^+ and He^+ implant isolation comparison 30234
GaAs-SiN, passiv. film form. by laser CVD 13370
GaAs(100), S-passivated, absol. coverage meas. 30129
GaAs(100) modified with octadecylthiol monolayers, near-surface electronic struct. 38539
GaAs(100) surface, $(NH_4)_2S_x$-treatment, STM study 38595
GaAs(100) surface, NH_3-plasma-nitridation, angle-depend. XPS 38594
GaAs(100) surfaces, sulfide passivated, stabil. 38622
$GaAs_{1-x}P_x/Al_yGa_{1-y}As$ DH, minority carrier lifetime 1081
GaInP/GaAs tandem solar cells, high efficiency 27960
$Ga_{0.51}In_{0.49}P$/GaAs I-HEMT and I^2HEMT, GSMBE growth 13767
Ge/GaAs, heteroepitaxy, As segreg., passiv. 37396
Ge(100)-(1×1), S-passiv. 30092
HgCdTe, surface passiv. by electrochem. proc. *(Korean)* 30110
$Hg_xCd_{1-x}Te$, passiv. by anodic sulphidation, CdS layer charactn. 13361
InAlAs, surface chem., $(NH_4)_2S_x$ sulphidation 13409
InAlAs/InGaAs/InAlAs, HEMT, MBE grown, parasitic effects 13782
InGaAlP, H passiv. effects 6650
InGaAs/GaAs wires, MBE overgrowth, opt. investig. 348
$In_xGa_{1-x}As$/InP thermophotovoltaic cells, recomb. lifetime meas. 28006
InGaAs-AlInAs HEMTs, dopant passiv., dry etching 30364
InGaAs-InAsP three-band near-IR FPA for 1.0-2.5 μm 17935
InGaAsSb epilayers, GaSb lattice matched, H passiv. effects 1261
InGaP, H passiv. effects 6650
$In_{0.5}Ga_{0.5}P$ Schottky contacts, $(NH_4)_2S_x$-treated, interface props. 29949
InGaP/GaAs HBTs, self-aligned fab., high reliab. 22360
InP MIS Schottky diodes, S passiv. and RTA 13599
InP MOS tunnel diodes, elec. charactn. 38814
InP, S treated, MSM photodetector, high speed 17780
InP e-mode MISFETs, sulphide passiv., P_3N_5 gate insulators 30295
InP, gas phase polysulphide passivation, MISFET appls. 13342
InP regrowth by GSMBE, rel. to surface treatment 12051
InP:Fe/InGaAs:Fe fully passivated AR coated MSM photodetectors 9907
InP:H,Mg, passivated acceptors, reactivation kinetics during annealing 22106

passivation continued
p-InP:Zn,H, near-surface carrier passiv. by H, SEM study 38565
InP/GaAs heterostruct., H-passiv., carrier trapping by disloc. 38304
InP-InGaAs MQW modulator waveguide devices, metallization/wet etch/passiv. 39461
InP-based HEMT, extremely low-noise, Si_3N_4 passiv. 21552
p-InP(100), anodic passiv. in $(NH_4)_2S_x$ soln. 13387
InSb, SiN_x films, surface passiv. quality 30131
InSb-SiO_2-Si p-channel MOSFET for IRFPA, photo-CVD, high breakdown voltage 17939
Li batt. electrode surfaces, Ar+CO_2 gas prepared 27881
PZT/Pt ferroelec. capacitors, passiv., SOG 39100
Pb-Sn secondary batt. alloy pass. layers, XPS studies 11260
Pb-acid secondary batts., PbCaSn electrode passiv./corros. 36561
Pb-acid secondary batts., PbSn electrode pass. layers 36573
Si, H passiv. caused by soft sputter etch cleaning in Ar plasma 38585
Si MOS diodes, interface-state passiv., surface pot. depend. 1182
Si, etching mechanism and band model in aq. KOH 13388
Si high-efficiency solar cells, RTP 5226
Si, low temp. etching, high dens. SF_6/O_2 plasma 38550
Si multicrystalline solar cells, gettering, passiv. 27955
Si multicrystalline solar cells improvements, key technol. 27953
Si nanoparticles, photolum., surface passiv. role 38627
Si, polycryst., grain-boundary defects, plasma treatment effects 13321
Si polycryst. solar cells, hydrogen passivated 44407
Si porous layers, passiv., FT IR monitoring 22251
Si, porous, passiv. by RTO 22217
Si, porous, surface struct., EPR/XPS study 22247
Si shallow-jn. form., RTA doped SOG films 21964
p-Si, soft sputter etch cleaning, H passiv. 38619
Si solar cells, 23% efficient, limiting loss mechanisms 44401
Si thin film solar cells, zone melting recryst. 44404
Si wafers, photocurrent imaging, electrolyte contacts 31069
Si:Al solar cells, minority carrier diffusion length, Al gettering 44416
p-Si:B/Er Schottky-barrier diodes, H effects 38807
Si:F/SiO_2 TFT, F^+ implant. effects 38883
Si:H, H passiv., multiple internal refl. IR spectrosc. 1253
Si:H, defect passiv./light-induced metastability 13359
Si:H, ion implanted defects, thermal evol., slow positron study 38492
Si:H, neutron irrad., defect anneal., H infl. 38469
Si:H, porous, lumin., surface modif. effect 1246
a-Si:H solar cells, reverse biased annealing studies 11291
Si:H surfaces, nanometer scale patterning/oxid., UHV STM 13496
n-Si:Li,Au, defect complexes, DLTS/SIMS/C-V profiling 38601
Si/SiGe:H epilayers, misfit disloc., elec./opt. props. 6628
Si/SiO_x porous interface, paramag. centres 13349
Si-SiO_2 stacked-gate structs., plasma-assisted/RTP 22058
Si(100), As adsorpt. and passiv. for ZnS film MBE 37451
Si(100), passiv. and microroughness in aq. hydrogen halide 38531
SiC, porous, fab./props. for power device passiv. 22505
SiC power device passiv., porous SiC 38792
SiC-SiO_2 MOS capacitor, elec. props., annealing effects 22077
$Si_{1-x}Ge_x$/Si heterostruct., surface passiv., photolum. meas. 13146
SiN films, PECVD, $[(CH_3)_2N]_3SiN_3$ 20919
Si_3N_4 plasma deposited coatings for sealed COB MCM technol. 12961
SiN_x filter effect on LED intens. temp. depend. 7479
Si_3N_4/Si struct., PECVD 424
SiO_2 films, thermal CVD, microdefects 407
SiO_2 passiv. of InGaAs:Fe MSM photodetectors 22187
SiO_2:H ECR oxides, stress-temp. behavior, hydrogenous species conc. 37513
SiO_2:P/InP interface layers, low-temp. damage-free plasma-CVD, adhesion 37523
SiO_2/SiN coatings on Si, defect passiv. by PECVD 1270
SiO_2/amorph. As/GaAs passiv. systs., PECVD 5870
SiO_2(ON)-Si device reliab., surface cleaning effects, ultrathin oxides/oxynitrides 22207
W etching, SF_6-based ECR RIE 13378
ZnSe:N(Cl), film, GSMBE, H-passiv. effects 28754
ZnSe:N,H, metalorganic chem. vap. deposition, nitrogen source materials 20944

passive attenuators *see attenuators*

passive circuits *see passive networks*

passive filters
see also surface acoustic wave filters
AC distrib. networks, harmonic distortion reduction 35634
act. resonators, integrat. for UHF wireless appls. 12826
ang. bandpass filters, improved design flexibility 37828
ASD, harmonics mitigation, IEEE 519-1992 stds. 5307
asymmetric cross-coupled filters, synthesis 12628
Butterworth diplexer, design, real-freq. approach 6201
coplanar elements, design for MM-wave monolithic ccts. 38013
dielec. resonators, microstrip tuning tech. 12713
diplexers, crossover loss, singly terminated filters design 16953
diplexers, max. flat response/freq. symm., design 16954
DSP-based integrated software environ. for filter design 5952
dual-band circ. polarized microstrip patch antenna, anal./design 31930
EHF waveguide grating syst., elec. characts. 29527
EMC device for telecomms. equipt. *(Japanese)* 31861
even-degree lower-sideband polylithic cryst. filters, design 12629
finline band-pass filter design, TLM method 37945
handy phone, miniaturized dielec. filter *(Japanese)* 42290
isolated power systs., harmonic filtering, tined pass. filters 4455
LC lowpass/highpass/bandpass ladders, Butterworth/Chebyshev response 720
low-pass elec. filters for cryogenic detectors 37830
Maglev rly. inverter harmonic suppression method 11423
microstrip passive filter anal., FDTD algm. improvement 29536
microwave LC filters, accurate small air-wound inductor design, program 823
mixed modes dielec. resonator loaded cavity filters 12733
MLC dielec. stripline planar filter for portable telephones 805
monolithic dielec. filters based on integrated waveguide technol. 37944
optim. method for pass. filter design 6203
power feeder EMI/RFI filters, nonlin. load effects 19279
power syst. harmonics compensation, pass./act. power filter syst. 4500
RLC miniature elec. filters for single electron devices 37829
semicond. jn. igniter in 2.75 folding fin aircraft rocket, RF charact. 35398
surface mount RF/microwave filters, high dielec. const. ceramics 21401
three-phase bridge rectifiers, harmonic filter studies *(Polish)* 5995

passive filters continued
triple coupled CPW lines, MMIC bandpass filter elements 6325
waveguide bandpass, higher-order passbands suppression 6200
waveguide filter simul. and design, TLM method 804
waveguide filters, modal anal., hybrid MM/FE method 6287
waveguide filters, qtr.-wave coupling, design 12625
wide bandpass filter, ladder type, compact design *(Japanese)* 12626
wide-band noise filter, mag. cct. 21400
wideband bandpass filter, three parallel-coupled lines 6282
CdS film CPW, high-refl. 30 GHz grating struct. 29529
Fe-polymer composite absorber chip for RF EMI filtering 37834
YBaCuO HTSC microwave resonators and filters 37969
$YBa_2Cu_3O_{7-x}$ high T_c film dielec. resonator, MM-wave filter develop. 811

passive networks
see also passive filters
30-Mbit/s high-sensitivity burst-mode/packet receiver for PON appl. 17197
broadband impedance matching, GRABIM computer program 465
broadband matching to capacitive devices, limits, SIS mixer design 12792
DC/AC power convertor planar integrated reson. LCT cct. design 12321
ladder network resonators 6202
LC ccts., intrinsic Hamiltonian formulation of dyn. 37608
LC reson. cct. security tags, design study 12627
long lowpass LC ladders, synthesis 719
matched-line directional two-way power divider design 821
multi-Gb/s opt. WDM LAN/MAN/WAN networks 42422
node expansion theorem for controlled sources 5943
op amp incorporation, pass. networks *(Polish)* 37833
periodically-operated switch ccts., stabil. 5980
phased array defective element automatic diagnosis and localisation 23951
power cct. variable act.-pass. reactance studies *(Japanese)* 12311
power convertor snubber energy recovery, pass. cct. configs. 526
PWM inverter act.-pass. reactance power cct. 5030
RLC nonlin. cct., interact. of LF and HF oscills. 507
RLC reson. cct. tuning, neural network adaptive controller 12631
RLCT pass. network synthesis, neural net approach 500
symbolic cct. anal., Mathematica package-based 5967
T-jn. microwave ccts., prescribed response characts., design/anal. 862
unified theory of compatible impedances 21016
Ni-H_2 common pressure vessel batt., spacecraft, impedance 26568

patch antennas *see microstrip antennas*

patents
digital positional shaft encoders, patents review 34699
halftoning technol., United States patent literature 184
high technol. R&D, internat. patenting overview 36966
infringement, lawsuits, cellular telephones appl. 36840
intellectual property protection survey, Africa 36967
on-line access, patents database 36587
parab. concentrating solar collectors, patent survey 36059
strategic technols. mgt., math. revelation method 20353
US Patent System, characts. and proposed changes 36962
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824

path control *see position control*

path planning
3D point sets, mark-based approaches for motion estim. 2822
analog spot position coding retina, active obstacle detect. 21457
analog stereo retina, automobile appls. 29419
autonomous underwater vehicles, sonar image reconstruction 8618
car, VITA II, collision avoidance in traffic, vision 36769
car collision avoidance syst. design 44581
controlled act. vision framework, robotic and transportation problems 8642
dexterous motions, nonlin. cct. theory for robot control problems 21090
element quality anal., accuracy of ephemeris prediction from satellite orb. elements 18985
five-axis EDM machine tool, CAD/CAM syst. develop. *(Japanese)* 11511
independent motion segmentation and collision prediction, road vehicles 24451
intell. multisensory vision syst., vision planner 16268
joint torque disturbance observer for robotic PCB assembly 6415
mobile robot environ. recogn., US sens., CCD camera 43556
mobile robot obstacle avoidance, error eliminating rapid US firing 35375
navig., affine struct. from motion 24609
navigation laser range image acquisition 31692
nuc. waste mgt. mobile robots, vision posit. meas. syst. 3988
optimal set of views planning, max-min principle 24612
paraperspective factorization method for shape and motion recovery 24610
rem. collaboration control syst. employing manipulators *(Japanese)* 33420
robot environ., change detect. for human safety 24527
sphere joint PM stepping motor controller, robot appls. *(Chinese)* 11219
unstructured power plant environ., navig. and manipulation 43814
vehicles, intelligent, conf., Paris (1994) 28224

patient care
see also handicapped aids; health care
Automatic Patient Symptom Monitor, clinical research voice mail 43325
foetal ECG, pattern anal. and interp. of changes, fuzzy logic concepts 35136
Health Technical Memorandum 2014, elec. interf. abatement 10258
hospital commun. and signalling syst. *(Italian)* 10300
intensive care alarm monitor, neural net-based, comparative perform. studies 35140
ischaemic episodes determ. in real-time syst. 35104
neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
PACS design/evaluation, conf., USA (1994) 20213
patient monitoring and therapy mgt., intell. systs., research projects, survey 26447
photographic films, dosimeters survey, interventional radiology 43402
X-ray computed tomography, med. exposure source 18664

patient diagnosis
see also biomedical imaging; computerised tomography; electrocardiography; electroencephalography; medical diagnostic computing
atrial fibrillation misdiagnosis by implantable defibrillator algms. 35083
biochemical diagnostic instrumentation, conf., USA (1994) 11573
bioelectromagnetics in Russia, review 35028
biomedical sig. proc., pattern recogn. *(German)* 18429
biorhythm diagnostic problems and solns. *(Japanese)* 18437
bladder carcinoma, human, cystoscopic photodetection without sensitizing agents 43213
blood pressure measuring instrument with Korotkoff sensor 26269
cardiovascular interventions, diagnostic/therapeutic, conf., Los Angeles, CA, USA (1994) 5463

patient diagnosis continued
cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
chest diseases diagnosis portable flowmeter 26268
conference, IEEE Northeast Bioengng. Conf., Newark, New Jersey, USA (Mar. 1993) 36846
elec./thermal injuries, eval./treatment advances 93
epileptic seizure, EEG series 43296
fiber guided laser beam appls. in med. *(Japanese)* 4269
fiber optic instrumentation, conf., Los Angeles, CA, USA (1994) 5465
fibre optic press./temp. sens., min. invasive diagnostics 18432
genetic disease diagnosis, challenges and opportunities 43190
heart arrhythmia detect. by digital spectral anal. of ECGs 10238
heart valve stenosis, mag. reson. phase shift mapping 26343
laser-tissue interaction, conf., Lille, France (1994) 20265
laser/light induced fluoresc. spectrosc., biomedical appls. 43214
lung pathologies diagnosis by two-channel proc. of breathing sounds 43199
MARC, multimedia appl. for radiologist commun. 16910
motion artifacts in X-ray CT image of revolving point obj. 26325
multi-oscillator systs., nonlin. filtering tech. 16029
multichannel apparatus for biologically act. spots study 26266
multiwavelength fiber drop analyzer for med. diagnostics 10220
portable photometer, amniotic fluid, bilirubin conc. determ. 26307
sinoatrial node dysfunction patients, heart rate variability anal. 26425
SQUID mag. field sens. for med. appls. *(German)* 18538
stomach X-ray images, cancer detect., line fig. pattern *(Japanese)* 2626
tissue stiffness estim., fuzzy reasoning/telerobot 34992
turbid media imaging by CW US modulation of scatt. laser light 43254

patient monitoring
see also electrocardiography; electroencephalography
Alzheimer's disease, phys. activity monitoring 10171
ambulatory monitoring, rate-responsive pacemakers, activity sens./algms. 35157
amperometric glucose biosensors in vivo monitoring 34989
anaesthesia documentation, automatic systs. 43201
anaesthesia trials, patient awareness state monitoring via neural net interp. of EEG sigs. 43318
anesthesia data, HUD, clinical eval. 43202
anesthesia supervision, smart sens., data validation 26283
artificial heart valve state, acoustic class. 43365
atrial fibrillation, intracardiac sig. anal., std. ambulatory monitoring equipt. 26438
Automatic Patient Symptom Monitor, clinical research voice mail 43325
biosensors, viable monitoring technol., review 9943
blood press., noninvasive oscillometric meas. under anaesthetic 43200
cardiotocograph data acquisition/replay, Microsoft Windows based appl. 10172
computers in cardiology, conf., London, UK (1993) 11543
digital Holter monitoring syst., noise cancelling filter 35130
ECG, rate variability, extrasystoles exclusion from anal. 26428
ECG amp./detector for dry-electrode heart rate monitoring 10230
ECG data compression, VQ, k-dimens. tree for fast search 26437
ECG diagnosis, real-time ES 10245
ECG mapping, ambulatory, integrated software environ. 26431
feeble grasping rubber opt. fiber sens. *(Japanese)* 18438
fiber-optic micro press. sens. develop. *(Japanese)* 26357
foetal condition assess. and labour mgt., multicentre comparative study and intell. syst. 35137
foetal ECG anal., real-time, Windows appl. 26377
fuzzy rule based adaptive nonlin. filter for myoelectric sigs. 35132
glucose, in vivo monitoring, open flow microperfusion 43193
glucose conc. influence on light scatt. in tissue-simulating phantoms 25888
haemodynamics, noninvasive monitoring, impedance cardiography/cardiointervalography 35098
heart arrhythmia detect. by digital spectral anal. of ECGs 10238
heart rate variability, 24 h ECG 10249
integrated care syst., networked patient-based, basis for achieving quality 35208
intell. systs. appls., research projects, survey 26447
ischaemic episodes determ. in real-time syst. 35104
laser ablation bubble, fiber optic probe method, time-resolved photography 43215
left ventricular monitoring, CsI radioisotopic ambulatory recorder 26360
leukemia detect./monitoring, EM wave imaging 10215
living tissues monitoring by elec. impedance spectrosc. 4276
microcirculation, laser Doppler monitoring, emergency radio call syst. *(German)* 10174
MR exams., ECG acquisition, patient monitoring/seq. triggering 26395
Navicon, noninvasive instantaneous blood press. monitor 18436
neonatal av. evoked pot., sig. enhancement by neural network 35134
neuro-intensive care, computer-supported multimodal bed-side monitoring 26275
paediatric/infant apnoea monitoring, electrodes comparison 10237
paroxysmal atrial fibrillation episodes, self-monitoring in ambulatory patients, PAFHPI program 26434
physiological pH monitoring, fluoresc. indicator fibre optic sens. 43223
physiological sigs. monitoring, interf. 10173
pulse oximeter for mag. reson. scanners 18470
skin cryosurgery, MRI monitored, integrated probe 35059
sleep posn. monitor 26278
sleep vegetative background, heart rate variability spectral anal. 26385
speech training aid for aphatic children 4326
subcutaneous tissue glucose, portable monitoring syst., perfusion 26279
video/EEG long-term monitoring and behaviour 26393
vivo radiotracer monitoring by portable gamma spectrosc. syst. 18468

patient treatment
see also biomedical ultrasonics; radiation therapy; surgery
Automatic Patient Symptom Monitor, clinical research voice mail 43325
biomedical microrobots driven by miniature cybernetic actuator 35139
biomedical sig. proc., pattern recogn. *(German)* 18429
cardiac arrhythmia, cond. syst. ablation, ferrite rod 18579
cardiac defibrillation optimisation, human thorax finite element modelling 18588
Computer assisted Speech Eval. & Rehabilitation ES 4312
defibrillation, transthoracic/transvenous, human thorax model 18587
defibrillation/ECG pots., acquisition/display, 528 channel syst. 18584
dose determ. for producing given amount of change, PC program 26450
drug infusion, nonlin. multirate predictive control 18580
elec./thermal injuries, eval./treatment advances 93
electrostatics appl. in med., hist. 18586

patient treatment continued
electrostimulators functional checking, ESTRACE-1 stethoscope 4283
EMI in hospitals, IEE Colloquium, London (1994) 17
growing subjs., PC program for assessing effect of treatment, randomized parallel groups design 4287
implantable delivery syst., μP-based pacemaker control 18582
intell. systs. appls., research projects, survey 26447
intra-aortic balloon pump, lin. pulse motor-driven 10256
mentally retarded children's speech rehabilitation programme 4323
multimedia and community *(Japanese)* 42021
paraplegics, elec. stimulated quadriceps ident. 18581
physiotherapy, exercise bicycle computer control 26449
rehabilitation R&D progress reports, (1992-1993) 26477
robotic/mechatronic systs. appl., education, therapy, training 35174
transthoracic defibrillation, current fraction entering heart 18583
ulcer, press., LF pulsed current healing 10257
ultrasound phased-array controller for hyperthermia appls. 26316
urinary incontinence treatment, cough-induced electrostimulation 26446
US hyperthermia, theoretical thermal model 43265
visuo-motor testing, automated image anal., rehabilitation support 35027

pattern classification
see also image classification
1D nonlin. matched sieves, genetic algm. 2797
RC calibration standards, multifreq. binary testing 25704
adaptive logic networks for particles recog. 34818
area surveillance, ambient sigs. fusion 42508
assess. in imperfectly supervised environ. 16279
auditory evoked pot. class., ART 2-A/fuzzy ARTMAP comparison 43316
automatic intonation tone contour labelling/class. algm. 32402
autonomous intell. cruise control radar syst. 34151
Bayesian probab. dens. approach 32642
biological sigs., non-orthogonal Gabor representation 43321
chromosome class., neural net/Bayes method comparison 43204
CMOS analog current-mode ART1 algm. implement. 29475
CMOS neural chip, 70 input, 20 ns pattern classifier 29483
CMOS neural network IC for high-energy phys. 29476
CMOS VLSI analog current-mode high-speed ART1 chip 29493
coherent grouping of power systs., neural networks 4498
continuous speech recogn., expert-TDNNs/HMMs hybrid syst. 32398
continuous speech recogn., suprasegmental 32401
design sample size/pattern class. perform., comparison 32676
distrib. network disturbance waveforms class., neural net-based 27161
distrib. network fault diagnosis, neural net-based 19241
distribution network arcing fault detection/classification, neural net-based 19250
ECG, dyn. anal., waveform class. 43303
EEG, feature selection, VQ/genetic algms. 43313
EEG recordings, dissimilarity measure, nonlin. dyn. syst. approach 26381
EMG class. by hybrid neural net 43205
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
feedforward neural networks and rejection of spurious patterns 32849
fetal QRS complex, detect. and classif. techs. 35091
frame class. multimode variable rate CELP coder 40721
front face ident., alg., extraction 33075
Fuzzy ARTMAP, radar target recog. neural net 25583
fuzzy Boolean neural network for character recogn. 41157
fuzzy classifier derived from data, tuning 8577
fuzzy multilayer perceptron/partitioning 32678
fuzzy nearest prototype classifier learning 37919
gated neuronal archit., spatio-temporal feature maps, invariant prop. 33037
genetic seqs., class., BP 2630
German, prosodically marked phrase boundaries, automatic class. 32400
hand-written kanji recogn., HoneycombNET *(Japanese)* 2618
handoff/service area determ. 3398
HDD spindle motor mech. testing, ANN 36210
human speech detect. in struct. noise 32409
hyperspectral imagery, appl. of Krawtchouk polynomials 15959
intracardiac electrogram, low power, class. using analogue VLSI 35123
isolated word recogn., hybrid neural network 32429
kernel-based classifiers, analog VLSI implement. 29460
land surface rem. sens. by laser, pattern recogn. 10454
lang. ident., phoneme-based, anal. 32275
large-scale analog neural computer, archit./appl. 29481
Leukocyte class. by size fns. 8643
lin. discriminant anal., shrinkage param. 33093
lin. stationary syst. ident. and sig. recogn. 32569
load forecasting, models comparison, fuzzy neural nets 19219
machine olfaction, intell. odours sens. 25897
mammography, pattern class., multistage neural net 43257
marine vessels pass. class., integrated approach 34176
Markov random fields, tree approxs. 41289
min. class. error, time-freq. masking filters optim. 32406
mixed pattern class. method 24662
multilayer neural nets and math. morph. for pattern recogn. approach 32887
multilayer perceptron design algm. 8450
multilayer perceptrons, dimens. reduction 24055
multilayer perceptrons, sig. detect. and class. perform. eval. 24341
multiple neural networks, reduced input dimens. 33036
multiposition incoherent sigs., simple method of invariant reception 40858
narrowband sig. extraction, neural net based scheme 2456
neural estimators for multisensors, design 32658
neural network classifier, invariance property and training 32659
neural networks, two-pattern class./feature selection 33038
nuclear power plant monitoring by neural nets 27341
odor discrim., fuzzy reasoning and neural networks 9955
optimal class. independent discrete variables 33009
optimal matching-score network 33035
PCB manufacture, defects, fault coverage, yield and cost 6413
PD diagnosis and pattern recogn. 1534
PD pulse shape discrim., neural network paradigms 13944
PD recogn., neural networks appl. 1535
phytoplankton monitoring by cytometry, neural net ident. 10536
polynomial-shaped meas. sigs. class., BP neural network 15930
power controller, fuzzy chip-based fault classifier 11131
power distrib. syst. fault detect./ident., neural net 4657
power syst. load pattern classifier algm., neural net-based 10704
power syst. security, economic dispatch coord. 19153
power syst. security assess., multicontingency preprocessing ES 35505
power syst. security assess., pattern recogn./fuzzy estim. ES-based 35506

pattern classification continued
power syst. short-term load forecasting, neural net-based 19201
power syst. state estim. pattern anal., neural net-based 35447
power syst. voltage security, ANN, patt. class., machine learning 19160
power syst. vulnerability assess., neural net-based 26966
power transformer differential current anal., neural net classifier 19696
probab. measures, learning decision rules 41208
probabilistic RAM, hardware-based learning syst. 37915
radar sig. clustering microwave neural-network paradigms 17403
radar target classif., extraction, wavelets *(Chinese)* 34134
radar target ident., bispectrum 34112
radar target recogn. schemes, neural networks 34157
recurrent ANNs, adaptive equalizers in digital commun. 32585
rested/sleep-deprived EEG discrim. by ANN 43317
rolling element bearing fault diagnosis by vibrs. and neural networks 26805
rot. mach., stat. monitoring, cumulant spectral anal. 32454
SBP, hybrid neural model for pattern recogn. 24404
seismic event class. by ANN 35288
seismic event class. by fuzzy logic 35290
seismic events automatic classif. in BUG small array 26699
seismic sens., real-time sig. class., neural nets 2743
seismic sig. discrim. by radial basis fn. network 35289
semantic phase transit. in classifier based on adaptive fuzzy syst. 8580
shift and rot. invariant texture recogn., neural nets 33059
sig. class., local discriminant bases 32500
speaker recogn. in tactical commun. 32287
speech recogn., parallel distributed binary mapping models 32306
speech template matching tech., subspace approach 15854
spherical acoustic objs. in motion, seq. class. 17490
sync. generator stabil. pattern class., neural net-based 11006
sync. generators, stabil./faults, neural net class. 36123
synchronous generator stabil., global detect., ANN 19608
target class., multisensor, using unsupervised neural net 33051
telephone speech, extraction/classif. methods 2446
text-independent speaker verification, hierarchical pattern class. 32248
tracking syst., hardware neural network implement. 8454
transient sonar sig. class., HMM/neural net 34178
two-pattern class./feature extraction, neural networks 41209
unconstrained handwritten numerals recogn., combining multiple experts method 16298
underwater acoustic noise ident. 17492
unknown-multiple sig. source clustering problem, ergodic HMM *(Japanese)* 32548
varying, erring sens., class. 15860
wavelet transform for modulation class. 32515
wideband multiple target tracking 41010

pattern matching
see also image matching
1D seq. decomp. based AR HMM for signature ident./verif. 2839
AI prod. syst., pattern matching algm. *(Korean)* 2815
antifuse based FPGA technol. mapping, matching, Boolean fns. 21248
clock controlled shift registers, cryptanalysis 8129
code-string matching proc., design, EWLD algm. *(Korean)* 12555
degraded word recogn., double autocorrelation anal., weighted DP matching *(Japanese)* 15809
ECG, ambulatory, adaptive data compression, multi-template matching 26432
fast Huffman decoder, high speed pattern matching 41078
gamma camera QC ES, knowledge acquisition/representation 18493
inform. theory, typical seqs. 33029
IPA model using hierarchical recogn. algm., opt. implement. *(Korean)* 22979
LVQ learning schedules for ANN speaker ident. 8199
magnetostatic field inverse problem, sampled pattern matching *(Japanese)* 31722
matching probab. in HMM, integer algm. *(Korean)* 24157
multiple auditory template matching, expansion 8381
OTDR waveforms, pattern matching, opt. lines fault location 9454
pers. ident., human face images proc. 41116
segmental SNR weighting, degraded word recogn. 32311
SP20, computing, compression 40797
SP theory and syst., computing, compression 40620
super-pattern matching, patterns of patterns 24670
tree-to-tree dist. computation algm. on VLSI archit. 12498
voice recogn., robust matching method 32202

pattern recognition
see also character recognition; computer vision; feature extraction; image recognition; object detection; object recognition; pattern classification; pattern matching; radar target recognition; sonar target recognition; speech recognition
affine transform measuring, gaussian filters 24617
algm. for pattern search, genetic algms. and neural network model 41354
algms., learning proc. 2689
algms. based on local optimality criteria 2690
arc patterns, shape approx., dyn. neural networks 41304
associative memory with ODE, appls. 15744
automated visual indust. QC, data visualization and num. assess. of class separability 41221
automatic reading device for analog display instrums., appl. constraints 8641
bearings, fault recogn., monitoring by neural nets 34391
bidirectional associative multilayer neural network, robust capability, hardware appl. *(Korean)* 29518
calorimeters, sig. proc., functional schemes 4152
car driver behavior evol. detect., fuzzy diagnosis proc. 34387
cardiac arrhythmias, pattern recogn., 2 intracardiac channels 18578
CCD image sens., defect detect., neural nets 3877
color image segmentation, tree representation *(English)* 41204
communication and signal processing, conf., South Africa (1993) 5502
competitive self-organizing neural network 41364
computer vision/recogn., conf., New York, 1993 36
CRIPT, OCR syst., multicolumn texts anal. 41239
Dignet unsupervised-learning clustering/data fusion algm. 32854
discharge pattern recogn. in HV equipt. 22647
discrete spline transform, computation/effectiveness 16045
discriminant anal. based on exponential possibility distribs. 8579
ECG pattern anal., chaos theory 10248
foetal ECG, pattern anal. and interp. of changes, fuzzy logic concepts 35136
Fuzzy Self-Organizing Map, pattern recogn. 8578
gearbox acoustic condition monitoring by neural net 34390

pattern recognition continued
gesture recogn., recurrent neural networks vs. competing techs. 35171
GSM radio meas. data, proc. methods 3447
handoff/service area determ. 3398
HDD spindle motor mech. testing, ANN 36210
hierarchical analog fault diagnosis, neural net approach 42734
hierarchical pattern recogn. systs., efficient search strategies 24736
HMM monitoring, unknown states 16406
homomorphic graph matching, Hopfield neural networks 24567
HVRI algm., VLSI implement. 41358
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
image model bases, struct., inform.-theoretic clustering 2766
image segmentation, phase coding and wavelet transform 32834
inform. theory principles 24544
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
insulation PD pattern recogn., neural net-based 13920
integrated diagnostics for aircraft propulsion systems 43454
interconnected power systs., transient stabil., on-line anal. 27008
invariant pattern recogn., fast dyn. link matching algm. 8594
knowledge-directed EEG sig. anal., recurrent context-learning neural networks 8246
Kohonen self-organizing, map and in clustering 41281
land surface rem. sens. by laser, pattern recogn. 10454
LDPE, elec. treeing, PD pattern recogn. 1531
LDPE insulation diagnosis, pattern recogn. ES-based 6895
load forecasting, long-term max. demand, modified ANN approach 19209
map topol. clustering by genetic algm. 24378
marine organism ident., flow cytometric imaging 10539
material props. discrim., mono-structural thin plate touch sens. 42767
Moon, spacecraft landing regions, albedo and colour 16158
multisensor data fusion, autonomous fuzzy archit. 40786
multisensor multitarget tracking, fuzzy estimator 8326
multisensor/knowledge fusion, seismic prospecting 43464
myoelectric sig. recogn., fuzzy clustering and ANNs 35108
network traffic mgt., neural tech. 41682
neural nets, conf., Linthicum Heights, MD, USA (1993) 40865
neural network appls. in telecomm. network mgt. 3099
neural recogn. of diagnostic test data transforms 34359
nonparametric estim., neural networks 41207
odorant sens., SAW oscillator and neural network 17982
online pattern clustering, fuzzy neural networks *(Korean)* 24687
opt. correlators for space computers 7436
optical processor systems, conf., Orlando, USA (1994) 5435
optimum-size learning, neural net training 32583
optoelectronic devices appl. for pattern recogn., neural nets 2805
particle colliders, tracking and pattern recogn. 4112
pass. navig., pattern recogn. problem 41083
PD, dielec. ageing 22645
PD pattern recogn., HV equipt. 1521
PD pattern recogn., neural network 22650
PD pattern recogn. for model electrodes 3972
PD separation from pulse-shaped noise sigs. 22649
PD study by height-distrib. anal. 22654
phytoplankton monitoring by cytometry, multivariate stats. 10537
possibilistic clustering, fuzzy membership fns. 8583
power cable insulation PD pulse shape recogn., neural net-based 27207
power harmonics pattern recogn., fuzzy eqns. 4464
power syst., two-area load-frequency control with neural nets 19113
power syst. digital relay protection, ANN appl. 19347
power syst. dyn. security assess., patt. recogn. method *(Chinese)* 35512
power syst. dyn. stabil., fast anal., patt. recogn. appl. 10638
power syst. fault detect., back-propag. ANN *(Korean)* 35702
power syst. online static security assess., neural net-based 35444
power syst. security assess., patt. recogn./decision trees 19159
power syst. transient security assess., ANN *(Chinese)* 35528
power syst. transient security assess., ANN tangent hypersurfaces 26928
power syst. transient stabil. assess., neural net-based 19006
power syst. transient stabil. enhancement, dyn. preventive control 26947
power system fault direction identification, neural network approach 19358
power systs. transient stabil. estim., PC ES-based *(Russian)* 27048
problem solving *(Japanese)* 16046
pulse discharge pattern anal., neural network appl. 3973
QR decomp. method of least sq., neural network algms. 33153
retro-reflective laser automatic inspection systs. for proc. control 37174
scalable archit. syst. for ATR 8647
seismic arrivals picking, ANN 26700
self organizing opt. systs. 31043
semicond. defect inspection syst. *(Japanese)* 106
shower recogn., feed-forward neural networks appl. 34942
SICE'94 conf., Japan, 1994 5455
sig. recogn., continual neurocomputer 40902
signal segmentation using self-organizing maps 10457
sleeping state determ. from movement, neural net *(Japanese)* 26333
small elec. motor diagnosis/QA, unsupervised classifier design *(German)* 11834
syntactic pattern recogn., graphs, inform. similarity 16359
syntactic pattern recognizer for vehicle ident. nos. 24564
synthesized images for pattern recogn. 41191
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
terrain, recogn. for SAR imagery 41263
turbine blade, faults, intell. diagnosis, neural nets/fuzzy logic 35714
US eval. of adhesive fillet, neural nets appl. 12245
viewer-centred representations for location/inspection 41129
VLSI design, orient. assignment of std. cells, fuzzy maths 28975
VLSI SC ccts. for realization of neuron-like binary Hamming classifier 13838
voltage security, machine learning, neural networks, stat. pattern recogn. 10663
voltage stabil., automatic control, ES pattern recogn. 10661
VQ, fuzzy, algms., efficiency 2401
wavelets and digital image proc. 2635
Zero Instruction Set Computer, Higgs search 41284
ZnO:Al thin-film gas sens., dimethylamine/trimethylamine gas detect., neural network pattern recogn. 17978

pattern recognition equipment
see also character recognition equipment; speech recognition equipment
disposable rem. chem. sens. network 9864
eye-gaze detect. 2 light sources, image differences 10284

pattern recognition equipment continued
high vol. wire bonding automation, pattern recogn./video lead locators 38167
hybrid opt. syst. for freq.-domain texture class. of imagery 16271
MQW injection mode diode, pulse-mode neural ccts. appl. *(Korean)* 30224
polariz.-sensitive thermal imaging 16272

Patterson diagrams *see X-ray crystallography*
payroll *see salaries*
PBT *see bipolar transistors*
PBX *see private telephone exchanges*
PCB *see printed circuits*
PCB accessories *see printed circuit accessories*
PCB design *see printed circuit design*
PCB layout *see printed circuit layout*
PCB manufacture *see printed circuit manufacture*
PCB testing *see printed circuit testing*
PCM *see pulse code modulation*
PCM (computing industry) *see DP industry*
PCM links *see pulse code modulation links*
P^{2}CMOS *see CMOS integrated circuits*
PD control *see two-term control*
PDA *see notebook computers*
PDP computers *see DEC computers*

peak detectors
BiCMOS 9-32 Mbit/s single-chip read/write channel for disk-drive appls. 29409
chest diseases diagnosis portable flowmeter 26268
composite noise generator, noise immunity tests for dig. systs. and TV pictures 40371
high-speed peak detector for pulsed lasers meas. 40002
low-power monolithic RF peak detector anal. 12374

peaking circuits *see differentiating circuits*

Peltier effect
IC ohmic contacts, interfs. of Peltier thermal waves 1151
residential size Peltier effect refrigerator 20042
shape memory alloy actuators, thermoelec. cooling, theoretical modeling 37549
solid-state thermoelectric refrigeration develop. progress 20144
thermoelec. diff. eqn., lin. approx. *(Japanese)* 28689
thermoelement, thermoelec. anal., nonequilibrium thermodyn. model *(French)* 28014
FeSi$_2$/MnSi$_x$, single couple thermoelec. generators, fab., meas. 20024

Pelton turbines *see hydraulic turbines*
PEM effect *see photoelectromagnetic effects*
pen computers *see notebook computers*
Pendellosung fringes *see X-ray crystallography*

penetration depth (superconductivity)
Nb supercond. microstrip resonators, nonlin. microwave props. 39270
NbTi multifilamentary wires, proximity-induced Cu-Mn matrices, upper crit. fields 30770
YBa$_2$Cu$_3$O$_{7-\delta}$ nanobridges, coherent cortex motion 14303
YBa$_2$Cu$_3$O$_{7-\delta}$ thin films, microwave surface impedance determ. 25946
YBa$_2$Cu$_3$O$_{7-x}$ SQUID, RF props. 30786
YBa$_2$Cu$_3$O$_{7-x}$, microwave penetration depth, contactless meas. 39227
YBa$_2$Cu$_3$O$_{7-x}$ supercond. microstrip resonators, spectral-domain anal. 21516

peniotrons *see microwave tubes*

Penning ion sources
H$^-$ beams chopping, Penning surface-plasma source 34838

Penning traps *see particle traps*
pens (light) *see light pens*
pension systems *see financial data processing*
pentary algebra *see algebra*
perception (hearing) *see hearing*

perceptrons
see also feedforward neural nets; multilayer perceptrons
channel equalization with perceptrons, inform.-theoretic approach 32027
isolated word recogn., hybrid neural network 32429
load forecasting, short-term, fuzzy neural net 19208
polynomial hierarchy and perceptrons PP 21281
power syst. elec. load-weather temp. fn. calc. method 35589
speaker independent speech proc. method 8213
sync. generators, stabil./faults, neural net class. 36123
weighted order stat. filters design, perceptron algm. 2634

performance evaluation
used for computer equipment performance
see also program testing; queueing theory; software performance evaluation
1-persistent CSMA bus throughput, discrete space-time model 33212
3-D semicond. device simulator on distributed-memory MIMD/SIMD machines 1317
3D grid partitioning for network parallel proc. 16703
3D scatt. FEA absorbing boundary condition code parallelisation 23556
18th conf., on local computer networks, Minneapolis, MN, USA, 1993 28220
64 kbps switched internat. ISDN, transm. perform. 16795
adaptive router on worst case permutations, perform. anal. 24854
admission control policies, perform. eval. framework 24996
ADSL, noise environ./syst. perform. 16918
advanced IN services, computer platforms 9036
algorithms on dynamic priority scheduling for heterogeneous traffic in ATM 33708
Analyser genetic algm. based LAN divider 41769
annealing evol. algm., fn. optimizer 28636
approx. MVA for client-server systs., nonpreemptive priority 24994
asymptotic queueing behavior of stat. multiplexers, heterog. traffic 42101
asymptotics of partition fn. in large closed BCMP networks, bottlenecks 24993
ATM based embedded real-time systs., admission policies, perform. 33505
ATM computer network concurrent access, discrete event simul. modelling 24997
ATM cross-connect networks, guided restoration 16432
ATM LANs, exposed buffering/sub-datagram flow control 33516
ATM network, LAN/MAN interworking, bandwidth allocation 8996
ATM network routing, congestion tolerant commun., perform. 8728
ATM networks, dyn. virtual path bandwidth control, perform. anal. 24908

performance evaluation continued
ATM networks, end-to-end perform. 9023
ATM node, syst./perform. design 16701
ATM stat. multiplexer, on/off sources and spacing, perform. anal. 3279
ATM subnetwork syst. fns., timer-related perform. issues 24766
ATM virtual private network design alternatives 16458
ATM virtual private networks, perform. comparisons 16591
ATM-based LANs, bandwidth mgt. 33517
ATM-DQDB, integrated services interworking, perform. eval. 33599
ATM-FDDI gateway, simulation model 33466
audiovisual commun., perform. assess. 17602
auto-switched hybrid MAC, anal. and research *(Chinese)* 16474
automotive control syst. benchmark based on Time Triggered Protocol 5369
B-ISDN connection admission control/routing, neural networks appl. 16788
B-ISDN signalling network, perform. params. 16787
benchmarking issues and pot. solns. 9799
Benes-Clos networks, randomized routing 28926
bit-serial systolic array for DSP, reconfigurable arith. operators 29255
block transm. systs., channel equalization 15888
block-based simul. tool for TCP/UDP protocol enhancement 16513
Boeing 777 onboard maint. syst., Maintenance Terminal Function 10320
broadband network termination syst., perform. monitoring, inform. model 9111
buffered delta networks under nonuniform traffic, perform. anal. 33183
burst error activity anal., network perform. determ. 9397
campus networks, detection and discrimination of injected network faults 33548
campus-wide network, packet voice distrib. 33520
carrier freq. offset-SSMA method 25254
cascaded crossbar interconnected multiprocessors, cost perform. anal. 33185
CDMA, TU Delft research, overview 25255
CDMA cellular network, forward link perform. 25366
CDMA cellular networks, antenna arrays, downlink perform. 17093
CDMA for terrestrial/mobile satellite commun. networks 17049
CDMA overlays of narrowband waveforms, interf. suppression 25355
CDMA wireless LAN, hybrid-ARQ error control scheme 8748
CDMA/FDMA satellite commun. systs. overlay, perform. anal. 25466
CELARN, cellular local area radio network 3484
cellular radio, distributed algms. for dyn. channel allocation 25420
cellular systs. with virtually fixed channel assignment, perform. anal. 17050
CERN calorimeter, computer archit./electronics 18366
client-server systs., perform. prediction, traffic dependencies effect 41828
code-synchronized transm. syst., design params. 24739
combined token/random access protocol for LAN/MAN ring networks 16708
COMNET III, obj.-oriented network perform. prediction 16586
COMNET III, obj.-oriented network perform. prediction simulator 24900
complementary media packet switched networks, survivable commun. 17023
computer network routing, perform. anal. 8779
concurrent checking sorting networks design 32119
configurable/parallel protocols, prototype experiences 3218
congestion avoidance in computer networks, fuzzy control 16732
connection mgt. without retaining inform. 16714
CPM perform., mobile radio diversity operations 17119
Cray T3D MPP syst., optimized routing 24863
CRC perform. and interact., data scrambler 25178
CRMA/ATM network interconnection flow control protocol 41762
cruise missile tests, perform. anal., ES 35404
CSMA/CD LAN interconnection by bridge, finite buffer *(Japanese)* 8947
CSMA/CD network all-sharing load-balancing scheme 33574
CSMA/CD network to FDDI migration, simul. study 33499
customer network mgt. in SMDS, subscriber's viewpoint 16706
DAB single freq. network project 17536
DECT, multibearer connections syst., ARQ protocols perform. 17051
DECT solid state radio front end, perform. eval. 3468
delay single server queueing model with finite source, modified diffusion approx. *(Japanese)* 41480
delta switching networks, perform. eval. 16456
dependability eval., hybrid fault/error injection 37722
desktop CSCW syst. 16691
digital movie systs., perform. bottlenecks 16841
digital video on PC, implement. and perform. 16076
direct-seq. systs. in lineal microcells, perform. eval. 25365
distributed access network perform. eval. by DEVSim++ 25141
distributed antenna syst., freq. selective fading, perform. 17091
distributed audit trail anal. 24968
distributed ISDN test syst., monitoring/modelling 24824
DQDB analytical model 33448
DQDB MANs, dyn. 3-tier protocol, unfairness control 33501
DQDB networks, overload throughput perform. of erasure node protocols 33449
DQDB networks perform., gateway location effect 8984
DQDB protocol erasure-nodes modif., fairness and perform. 33283
DQDB subnetworks, hierarchical commun. syst., perform. 8987
DRAM archits. in multiprogramming environ., perform. eval. *(Korean)* 21325
DS-CDMA, integrated voice/data wireless networks, grade of service 9364
DS-CDMA SS systs., noncoherent parallel acquisition 9382
DS-CDMA SS systs., permutation modulation 17126
DS-SS systs., adaptive filters, freq. sweeping sig. rejection 17020
DS/CDMA diversity combining, convolutional encoding/Viterbi decoding 9380
DSP-based parallel archit. for neural network simul. 29259
DSP-based teleconferencing syst., perform. eval. 16815
edge detect., regularized cubic B-spline fitting 32919
electrostatic US transducer, bandwidth control 10581
ergodic Markov chains, large, perform. eval. 37241
Ethernet capture effect, anal. and soln. 33511
Ethernet LANs, low-speed appls. 8905
Ethernet switches for virtual LANs 42117
event controlled asynchronous μP, design method eval. 29254
fast distributed network restoration algm. 3548
fast link assignment algm. for satellite commun. networks 17152
FDDI commun., proc. control, fieldbuses connection 33497
FDDI network perform. eval., guarantee probab. 41905
FDDI workstation cluster, meas. 33496
FDDI-II for isochronous, synchronous and asynchronous traffic, bandwidth allocation 33456
FDDI-II MAC protocol, assessment and alternative design 33457
Fibre Channel networks, optical link bandwidth optimisation 33460

performance evaluation continued
Fibre Channel switch, performance improvement using camp-on 33255
fibre optic accelerometer, compliant cylinder design, perform. anal. 25862
file migration policy, finite storage, limited effects 33518
finite-buffer polling syst. with exhaustive service, virtual buffering 16468
flexible high-speed transport MultiStream Protocol 41497
formal specification of communication protocols, perform. eval. 2975
FPGA-synthesis benchmarking 634
FQPSK modem/radio for PCS/ mobile satellite commun. 25312
FR20 series high-perform. microcontroller for multimedia commun. *(Japanese)* 12581
full-motion digital video in Ethernet, perform. eval. 9049
G-networks, triggered batch state-depend. movement 24791
Gbit/s-LANs, ATMR/CRMA-II, perform. comparison 16710
general renewal multi-server finite waiting room model, perform. anal. 24792
generalises DQDB protocol for improved medium access control 33447
GI/G/1 queueing syst. perform. space under percentile goal criterion 24992
global test schedules assembling, unified method 12464
GMICRO/500 microprocessor application system, graphic primitives evaluation 29257
GMICRO/500 microprocessor performance evaluation for CTRON based kernel 29256
GSM, M-detector, coherent receiver antenna diversity, perform. 17040
HDD, off-track perform., soft error rate model 14236
head mounted display, eye movement tracking 9981
heterog. network mgt., composite perform. eval model 33546
hierarchical and modular local ATM switch, design and anal. 33169
hierarchical queueing networks, lumpability/nearly-lumpability 37266
hierarchical scalable expanders, packaging/multiplexing 24765
high speed indoor wireless systs., directional antennas 3329
high speed MAN, guaranteed bandwidth/balancing mechanism 16709
high speed networks, flow control methods 16478
high speed networks, transport layer protocols, rate control 8993
high-end proc., CMOS and bipolar, perform. trends 6185
high-perform. distributed computing, architectural support 2907
high-speed ATM networks, TCP perform. improvements 25041
high-speed computer commun. network, models and simul. for anal. 8925
high-speed networks, hardware meas. techs. 676
high-speed networks, inter-proc. commun. perform. 8967
high-speed networks for multimedia applications, real-time performance 33475
high-speed packet switch, input access, perform. anal. 16794
high-speed self-token ring LAN, perform. eval. 9001
high-speed transport protocols, local workstation environ., flow control 33492
HIPPI interconnection syst., camp-on strategy, perform. eval. 33493
HIPPI-ATM-SONET terminal adapters, archit./perform. 41798
HSLAN, comparison 33495
hybrid fault simulator for sync. seq. ccts. 6089
Hybrid-Ethernet, perform. simul. 24999
hypercube machine, image partitioning 24548
IEEE 802.5 token ring LANs for multimedia traffic, priorities effectiveness 33441
IEEE 802.6 based PCN, distributed paths migration 9363
image input microphone, nonacoustic speech commun. syst. 17604
imprecision probab. computation, queueing theoretical formulation in real time systs. *(Korean)* 20514
IN services, interact. benchmark 3253
indoor mobile radio, burst-level ARQ error protection 17054
indoor radio LAN, channel outage, token based MAC protocol 8991
inform. proc. systs. eval. centre, reliab. improvement *(Japanese)* 16737
information/control frame multiplexer, perform. study 33473
instrument performance 9788
integrated services networks, perform. eval., iter. approach 3236
integrated voice/data mobile radio, design/perform. 17106
integrated voice/data network, cellular packet CDMA, perform. 17131
internal overload control perform. in large switches, simul. 37724
International Test Conf., Washington, DC (Oct. 1994) 61
Internet, windowed ping, IP layer perform. diagnostic 41836
IP layer perform. diagnostics, windowed ping appl. 16746
ISDN routers and LAN traffic 8899
isochronous LANs and systems, perform. anal. of voice/video services 33440
JANUS, TCP/IP VSAT network, first yr. experience 16775
jn. class. by multiple orient. detect. 24443
k-ary n-cubes, perform. eval. of adaptive routing algms. 24853
L-PPM modulation, non-directed indoor IR channels, perform. eval. 17244
lab. expt. broadband switching syst., field trial 16784
LAN for multimedia traffic, priority commun. schemes 33651
LAN protocol, modelling/perform. eval. 16707
LAN/B-ISDN interworking unit, congestion control, perform. eval. 25053
land mobile satellite commun. channel, M-ary FSK perform. 25401
LANs, cct. switched, perform. under different traffic conditions 33514
leaky bucket regulator perform. in broadband integrated networks 8911
leaky window, flow and congestion control tech. for HS-WANs 33536
LEO satellite commun., nonuniform traffic, integrated voice/data syst. 25454
LEO satellite systs., partial coverage, perform. eval. 25399
LEO satellite systs., perform. eval. 25309
lightwave systs. with opt. preamplifier, perform. eval. 17186
load balancing in distributed environ., ES approach 8926
load modelling for commun. systs., Petri net-based model 25042
load sharing based on multicasting in LANs 3172
load-adaptive/TDMA systs. perform., satellite networks appl. 9415
logical fault diagnosis for combinat. ccts. 12443
M-ary wideband commun. syst., multipath channels appl., perform. 17019
MAC-layer hybrid protocol for real-time bus networks 2915
media access protocols for Gbit/s networks, perform. comparison 16498
media access schemes, CTMA and CRMA for hidden terminal problem 3173
media sync. protocols for packet audio-video syst. on multimedia inform. networks 16497
mesh decomp. and commun. procedures for FE appls. on Connection Machine CM-5 syst. 12015
MetaNet, LAN/MAN architecture, configuration and performance issues 33463
micro-cellular mobile commun. systs., handoff strategies 17061
microphone array for multimedia appls. 16899
MIMO transm. systs., transmitter/receiver optim. 16413
min. adaptive router, perform. anal. 25028
Mini-MAP three-layer commun. archit. 3168
MLAN Multimedia Local ATM Network archit. and perform. 16760

performance evaluation continued
mobile IP, secure short-cut routing 24845
mobile-satellite pers. commun. syst., voice transm. quality 25322
modified PDAMA protocol for mobile satellite commun. systs. 25320
Monte Carlo summation and integrat. applied, multiclass queuing networks 33217
multi-address encoding for multicast commun. 24858
multi-channel ARQ protocols, perform. anal. 8927
multi-class non-hierarchical networks, dyn. routing 8791
multi-level hierarchical distributed fail-safe architecture for metropolitan area networks 33595
multi-server discrete-time queues, transient anal. 2894
multi-server threshold queues, hysteresis 20509
multiaccess protocol for packet transm. in mobile satellite systs. *(Korean)* 24834
multicast operations for ATM-based high perform. computing 8909
multihop FH-SS PRN, channel access protocol 25246
multilayer perceptrons, sig. detect. and class. perform. eval. 24341
multiline server networks, mean-value anal. methods 16643
multimedia teletutoring, trans-European ATM network 16861
Multinet, multistage ATM switch archit., design/perform. 9139
multiple fault test generation, efficient techs. 12441
multiple model adaptive estimator target tracker, accel. models 32542
multiple-output ccts., efficient test response compression 6087
multiservice struct. Markovian traffic source model 8989
Myrinet gigabit-per-second LAN 24972
network adapter, archit. 16934
network integrat., mgt. technols. *(Japanese)* 33378
network protocols, conf., San Francisco USA (1993) 35
neural net hardware perform. criteria 29496
neural network hardware perform. criteria 29488
no slot wasting bandwidth balancing of TAR bit 8985
noisy phase lightwave systs., power moment derivation 25478
nonpersistent CSMA/CD quasidiffuse IR LAN throughput 41763
obj.-oriented design for adaptive filter perform. comparisons 32628
online transaction proc., scalable net modelling 41878
opt. fibre PPM perform., jitter implications 17245
opt. interconnected distributed shared memory syst., memory and network archit. interact. 41491
opt. multi-channel network, multiple/parallel data-transm. *(Japanese)* 17188
optimal CFAR detect. in Weibull clutter 32540
optimal design of finite-buffer polling network 33426
optimal stochastic flow control in high speed virtual ccts. 16479
optimized group randomly addressed polling for wireless data network 16677
OQPSK-type modulations, mobile radio transm. modeling/perform. eval. 17122
orthogonal CDMA for mobile satellite commun., perform. 25310
orthogonal multi-carrier CDMA, nonfading/nonselective fading 24783
overall syst. perform., summing subsystem random variables 24776
overlay CDMA syst., multiple BPSK interferers, perform. anal. 33747
packet satellite commun., combined free/DAMA protocol 9418
packet switches, shared buffer memory 24759
packet-switched WAN, distributed adaptive routing, perform. 3189
PAGEIN project, networking issues 16728
parallel proc. for test generation, perform. anal. 17662
parallel sparse Cholesky factorizations evals. 11985
partial scan algm. based on reduced scan shift 12473
PC router perform. eval., single-server multi-queue syst. 8741
PCS, multiple hierarchical cellular overlays 25317
PCS traffic perform. stds. 25427
PET, high resoln. detector array module, design/perform. 43226
PL CEBUS with/without acknowledgment, perform. 16692
POWER2, fixed-point/data cache/storage units 671
POWER2, IBM RISC System/6000 series 670
POWER2 IBM proc., perform. monitor 674
power quality, real-valued fast convolution algm. perform. 35606
prioritized distributed queueing random access protocol 33500
priority token-ring network, perform. modeling/anal. 8986
product form in discrete-time queueing networks 24793
product-form discrete-time queues in series, batch transit. 24969
progressive image transm. software tool 41096
protocol handling syst. spec. and perform. 33488
pumped-storage plant static/dyn. benefit eval. *(Chinese)* 36046
QuickRing network 16704
R^2SPG tech., systs. upset thresholds meas. 15496
radio LANs, FEC, ARQ, and throughput of 16678
radiometer perform. limitations in spherically invariant noise 32541
random proc. charact. in LAN 16505
real-time syst. design, temporal aspects 3228
reduced scan shift, testing method for seq. ccts. 6090
redundant faults in combinat. ccts., test generation 12447
relay, smart, AI-based 6397
reliable router, reliable and high-perform. commun. substr. for parallel computers 24823
ring network, spatial reuse, CQBT algm., perform. anal./design 16494
rotation counter protocol, token-ring protocol for integrated services 33471
routing among different nodes, servers break down without losing jobs 41829
rural telecommunication syst., optical fibre based, perform. 9094
SAFENET, fault-tolerance/timeliness, layered approach 33507
SAFENET lightweight protocol, off-host communication architecture, perform. eval. 33259
scalable array proc. in SUN SPARCstation 1, perform. meas. 29252
SCM CDM opt. LAN, theory and expt. 16716
SDH, independent/synchronized clocks, freq. stabil. measures 8721
SDH networks, pointer adjustment jitter cancelation 16453
selectively totally ordered broadcast protocol on single channel network *(Japanese)* 16514
self-organizing wireless LAN system 33470
semicond. mfg. systs. scheduling policies 114
semicond. opt. amp. photonic switching multi-carrier opt. network 25532
sensor performance assessment strategies 25803
shared-channel multihop lightwave networks 17255
simul. comparison of broadband networking, MAN config. 16761
simul. of protocol conversion in multimedia networks 16909
single bridging faults diagnosis in CMOS combinat. ccts. 13883
slotted Aloha protocols for optical fibre LAN using WDM passive star technology 33256
slotted ring LAN, bandwidth allocation scheme 41906
small animal positron tomograph, design/perform. eval. 35063

performance evaluation continued
SNAP, bispectrum signal processing 24350
SS code hopping syst. 25251
SS tech. for automotive multiplexing systs. 25199
ST-II connection-oriented internetworking protocol for Heidelberg Transport System 2901
static task allocation heuristic eval. by random acyclic diagraph generation 28617
stationary single server queues, approx. for perform. eval. 16469
strategic commun. networks simul. 26819
symbolic ATPG for large ccts. 6101
synchronous messages with arbitary deadline constraints in a FDDI network 33455
TCP end-to-end perform. improvement, mobile internetworks 33285
TCP/IP behavior in high-speed local ATM network environ. 33268
TCP/IP local environ., integrat. of voice and data, perform. eval. 8928
TDX-1B ISDN switching syst., D-channel config. *(Korean)* 25068
telecomm. networks, perform., ES 3194
telecomms. models anal., perform. 2861
teletraffic syst., neural approach, perform. eval. 16789
ternary-valued compiled logic simul. of complex logic networks 37725
Texas Instruments and Analog Devices, fixed- and floating point DSP chips *(Polish)* 37791
thermal imaging, visibility model for MRTD prediction 32976
thermal imaging syst., perform. model 34574
third generation mobile systs., adaptive radio interface 25395
token bus LAN, mfg. environ., perform. models 24990
token ring LAN environment supporting priorities, output process characterisation 33472
token ring LANs, multimedia support, multiple priorities, perform. 33653
token ring network, perform. mgt. 33381
token ring protocols, dyn. 3204
token-based fault-tolerant distributed mutual exclusion algm. 24812
token-cycle time characteristics of FDDI networks with multiple classes of traffic 33474
transient transit. count testing, fault detect. 12436
transputter-based measurement apparatus for induction motor meas. 27718
trellis coded multi-amplit./-PM, noncoherent detect. 24281
TX2 microprocessor design based on TRON specifications 29258
UltraSAN, model-based environ. for large scale telecomm. systs. 16553
underwater acoustic commun. syst. perform., stochastic model 16639
unidirectional-bus networks, slot occupancy, Bernoulli approx. 8988
university diskless workstation network traffic charactn. 28347
uplink multiple access protocols in meshed VSAT satellite networks 16480
VENIS real-time distributed prototype syst. 4442
video streams, encoded, efficient transm. on high-speed networks, frame-induced packet discarding 16911
viewpoint-controlled displays for teleoperated robots, perform. eval. 34629
virtual paths, syst. optimisation 8702
WAN, TCP/IP, perform. 33508
wideband all-digital PLL design with multirate digital filter banks 37674
wireless commun., network issues 17113
wireless LAN protocols, radio capture models 25059
wireless LANs in indoor environment, perform. eval. 33468
workstation clusters, data partitioning for networked parallel proc. 41880
workstation-clusters, transfer systs. efficiency *(German)* 24825
World Wide Web caching relay 8894
wormhole router, cost of adaptivity and virtual lanes 29291
Xpress transfer protocol, error control mechanism 33260
XTP over BERKOM B-ISDN network, perform. comparison, TCP/IP 2905
XTP protocol flow and rate control algm. 41498
CAD benchmark, EM simulators 12722
Er-doped fiber amp. preamplified receiver perform. eval., ISI 25527
GaAs implement., systolic floating point proc. element 29253
performance index
see also control systems; reliability; sensitivity
1-7 day ahead load forecasting, weather uncertainties *(Japanese)* 35576
act. power contingency ranking, radial basis fn. network 10662
bulk power syst. reliab. perform. assess. 27059
ergodic Markov chains, large, perform. eval. 37241
induction motor drive, decoupled preview control syst. 28083
interf. cancelling, hyperstability theory 16019
long. power syst., PSS experience 35442
multi-machine syst. learning coord. control 36121
power syst. stabiliser, fuzzy logic based 10641
periodic control
see also optimal control; time-varying systems
SDH multirate time switching control algm. and sig. proc. DCS 41419
periodic systems *see periodic control; time-varying systems*
peripheral controllers *see peripheral interfaces*
peripheral equipment (computers) *see computer peripheral equipment*
peripheral interfaces
see also CAMAC; field buses
accelerator distributed control syst., stand-alone Internet nodes appl. 18200
actuator/sens. interface instrumentation 25727
air-bag crash sens., VXIbus-aided automated test syst. 17680
ATE, VXIbus technol. 17666
ATE environ., ±30 ps accuracy 9803
ATE technology trends and appls. 42713
avionics ATE, joint Honeywell/Aerospatiale develop. 43438
bidirectional parallel peripheral interface, signalling method 24983
bit stream generator for HDTV, SCSI hard disc 9732
brushless motor drives, high power, intell. interface 5271
computer-power converter commun. link, syst./alarm mgt. 41826
DFT/BIST hardware, chip-based, control strategies 9805
enhanced parallel port for two-way commun., PC/data acquisit. instrums. 25733
gamma-ray spectrometer, data acquisition syst. 34969
generic test/maint. node for embedded syst. test 9795
GPIB-controlled VXI systs. perform. improvement 34377
high speed sync. DRAMs, testing issues 6147
home automation syst., data link layer design issues 3095
IEEE 1149.1 backplane test bus selection criteria 9808
IEEE 1149.1 scan control transport levels 9809
IEEE 1149.1 Standard backplane test bus extension 9797
IEEE 1149.31 protocol addressable, multi-drop, backplane test bus 9782
indust. electronics, trends/develop. 33431
indust. image proc., Micro Channel interface 41215
insectoid robot OS, modular 41872

peripheral interfaces continued
intell. peripheral prototype syst., design and implement. 3252
microcontrollers, integrated CAN control 21346
MIDI and ZIPI, comparison 25696
Misnet, inexpensive network for PC connection 41889
mixed sig. functional testing, software archit. 6414
motion JPEG digital video storage, retrieval, and edit 16357
MPC105 PCI bridge/memory controller 37786
multiphase AC power converters, modular interface/algm. 19880
navigating test access in electronic systs. 9806
Operational Avionics Smart Instrumentation System (OASIS) 10331
primary/secondary batts., testing, VXIbus 36510
relay test automation/data acquisition, PC-based 29644
SRRC accelerator control syst. design schemes 18218
struct. syst. interconnect test, modeling 9793
subscriber interface, ARINC 629 current mode bus 35229
transputer-based soft-correlator for radio-astron. 42556
TRIUMF, device access, C++ on VAX/OpenVMS 18230
virtual instruments develop., ATE future 42707
virtual instruments in VXI 42704
VXI, std. instrum. drivers/soft front panels 34378
VXI and digital stimulus/response test for PCBs 12923
VXI based test systems develop. 42726
VXI implementation of millimeter wave measurement 25959
VXI meas. and test systs. *(Slovak)* 25719
VXI syst. hardware support 3746
VXI-based systs. for telecom. network perform. monitoring 24882
VXI-based test system 42725
VXIbus card cage for transportable testers ruggedisation 42724
VXIbus interface hardware, FPGA implementation/testing 42735
VXIbus/GPIB-based test syst., Boeing 757 flap/slat electronics unit 4350
ZIPI musical interface, frequently asked questions 25697
GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891

peripheral processors *see satellite computers*

permanent magnet generators
gas turbine PM generator cycloconverter, digital control 10859
PM-excited sync. motorcar generator, design optim. 5379
rectifier-loaded PM-excited sync. generator operation *(German)* 10986
single-phase doubly salient PM sync. generator 4926

permanent magnet machines
see also permanent magnet generators; permanent magnet motors
acoustic model, modal shapes, mag. forces 19594
air-gap flux dens. calcs., computer-based *(Chinese)* 10927
artificial heart lin. oscillatory actuator, structural anal. 35167
brushless machine, induced EMF/torque waveforms 10933
electromechanical energy convertors, develop. overview *(Russian)* 43993
energy optimising control techs. 44000
flux weakening operation, design concept 36103
flywheel energy storage, high T_c supercond. mag. bearing appl. 28050
interior PM sync. machines, tangential vibrs. rejection 4918
irreversible demagnetization loss calcs. 36098
mag. field anal., FEM 44067
mag. support struct., HTSC PM appls. 43980
PM reluctance machines, theoretical anal. *(Japanese)* 4923
PM sync. machines, act. vibr. compensation scheme *(French)* 10997
PWM CSI, PM sync. machine harmonic torque rejection appls. 36354
reluctance machines, dyn. charact. investig. 19609
revolving PM magnet wheels, actuators, lin. drive *(Japanese)* 44254
revolving PM magnet wheels, static characts. anal. *(Japanese)* 44255
rotary PM sync. machine, FEA 19669
sync. machine, vibrs. of mag. orig., feeding currents 44024
sync. machines, stabil., cage bar effects 36125
NdFeB PM operating conditions in elec. machines 43998

permanent magnet motors
2-phase sync. FHPM, self starting 36678
AC motors, 3-phase, rotors comparison 36165
AC PM servomotor digital controller, appls. 43979
automotive rotary actuator homopolar PM motor studies 11436
axial flux interior PM sync. elec. vehicle motor drives 36756
bearingless PM sync. motor characts. 4932
brush DC motor design principles 36186
brush DC motors, tracking control studies 36190
brushless DC drive, var. struct. speed control 36665
brushless DC motor drives, variable speed control design 5243
brushless DC motors, field weakening, control 11360
brushless DC motors, laminated rotor, FEM modelling 11064
brushless DC motors anal., FEM 27743
brushless DC motors design, mag. ccts. 36191
brushless DC servomotor, optimal DSP control 36195
brushless drives, integrated CAD syst. 11344
brushless motor drive, comparison, induction motor drives 5274
brushless motor drives, state-of-the-art 36677
brushless motors, EM/thermal design 36104
brushless PM DC motor drives, torque ripple reduction 44477
brushless PM motors, cogging torque minimisation design 10946
brushless PM sync. motor drive, predictive control 20087
chopper fed PMDC motor elec. vehicles drive, adaptive ANN rule-based controller 36721
commutator motor drives, const. power speed range 36724
DC brushless homopolar motor, math. model 4987
DC motor, computer modelling 19661
DC motor, power efficiency 44063
DC motor control, fuzzy proportional-derivative tech. 19665
DC motor drive adaptive neural speed regulators 36655
DC motor drive fuzzy speed controller 36654
DC motors, hysteresis loop, num. model 11066
DC PM motor, electronically commutated 19663
design, mag. field anal. *(Japanese)* 11018
digital torque angle meas. for params. determ. 11002
disk drives, PM spindle motor modelling 19581
domestic appliances, doubly salient PM motor, commutation, design/anal. 11491
double sided PM sync. motor, vert. movement *(Japanese)* 11071
DP 25 DC micromotor, PM excitation, video recorders 4992
elec. drivetrain, tank propulsion/railgun power supply 20064
elec. road vehicle drive syst. thermal behaviour *(German)* 36745
elec. scooter, axial flux PM motor drive, wheel coupled 11401
elec. vehicle, flywheel, torque controlled, peak power transfer 5357

permanent magnet motors continued
elec. vehicle drive chain power consumption model 11412
elec. vehicle drives, time-varying adaptive μP control 36739
elec. vehicle motor drive syst. design, test results 5345
EM field anal., 3D equiv. mag. cct. method *(Korean)* 27667
external rotor PM motor, perform., current waveforms influence 10948
hybrid double-sided lin. pulse motor, static thrust calc. *(Korean)* 27757
hybrid step motor control, reconstructed mag. flux sig. 11327
hybrid stepping motor, PWM inverter-fed 11088
hybrid stepping motor drives, flux linkage meas. 5318
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
IEEE industry applications, conf., Denver, USA (1994) 10
indust. robot/CNC machine tool digital joint motion controller 11509
indust. truck power steering, DC motor appls. 11442
intell. sync. servodrive, fuzzy/digital cascaded state controllers comparison 44012
interior PM servomotors, EM props. calcs. 44080
lifts, PM lin. sync. motor, transient current, thrust 36736
lin. PM motor traction drives, basic considerations 11419
lin. PM motors, design/anal. 11072
lin. PM motors, finite element modelling 11076
lin. pulse motor actuators, principles and characts. 44256
mag. field anal., FEA 44067
Maglev, PM lin. motor 36737
Maglev LIM-driven undercarriage develop. 28148
Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
Maglev PM wheels, basic characts. 5356
microrobot PM step servomotor drive, VSS control 11354
opt. telescope, direct drive, low cogging torque PM brushless motors 11320
PM AC motors, rotor flux posn. indirect sens. method 4909
PM DC motor drives, AI speed control strategies 5285
PM rectifier motor, EM field/torque calcs. *(Russian)* 10920
PM sync. elec. vehicle motor drive, design, testing 11417
PM sync. motor feedback lin. decoupling torque control 4933
PM sync. servomotor drives, optimal/VSS control 5288
power electronics, drives and motors, conf., Taormina, Italy (1994) 28252
rare-earth PM motor, optimal design *(Chinese)* 44092
rectifier-type motor, mag. field anal. 27682
reduction of reluctance torque in brushless PM motors 19650
reluctance motor drives, axially-laminated interior rotor design 36664
residential ASDs, simplified control scheme 5397
robots, PM sync. motor drive, robust adaptive control 20054
round-annealed AC-motor magnet prod. and meas. technol. *(German)* 10939
segmental PM DC commutator motor, design optim. 36193
ships, axial flux PM machines, counter-rot. rotors 11400
six-phase salient-pole PM motors, optimal control studies 27675
slotless PM servomotors, design/control 19679
slotless PM sync. motors, perform. anal. 10984
solar elec. vehicle, PM brushless DC motor drive 5355
sphere joint PM stepping motor controller, robot appls. *(Chinese)* 11219
stable nonlin. observer design, PM sync. motors 44023
stepper motor, global exponential posn. tracking controller 36201
stepping motor drives, reverse rot. studies *(Japanese)* 11394
stepping motor robust tracking control 36203
stepping motors, orient. pattern/magnetisation calcs. 27765
stepping surface motor, approx. 3D anal. *(Japanese)* 27762
surface mount PM motors, cogging torque, mag. field anal. 36215
sync. mag. levitated rot. motors *(Japanese)* 44026
sync. motor, adaptive nonlin. control 27688
sync. motor, back EMF estim., torque harmonics minimisation 4916
sync. motor, radial posn. control 10979
sync. motor ASD, EM params. determ. *(French)* 11334
sync. motor drive, digital current control, state observers 44475
sync. motor drive, flux-weakening control 20078
sync. motor drive, posn. observer 44444
sync. motor drives, design for flux-weakening appls. 11326
sync. motor drives, high-efficiency, PF control 36642
sync. motor drives, nonsinusoidal field distrib. 5263
sync. motor drives, sliding mode current control 5264
sync. motor efficiency optim. design method *(Korean)* 27690
sync. motors, digital controller, Park model 10992
sync. motors, digital self-tuning tracking controller 11009
sync. motors, nonlin. reduced order observer 44027
sync. motors, observer-based control syst. 27692
sync. motors, single-phase, line started, FEM 10978
sync. motors, sliding mode control *(French)* 10991
sync. motors, vector control, stator iron loss *(Japanese)* 27687
sync. motors, VSI PWM inverter fed, design, params. 5283
sync. PM motor vector control, stator iron loss considerations *(Japanese)* 10968
sync. servomotor, space voltage vector PWM control *(Korean)* 27694
sync. servomotor drive, VSI-fed, field oriented control 36675
sync. servomotor drives, PWM inverter-fed, LF torque ripple 44479
torque prod., unified theory 4930
variable reluctance PM motor drive, elec. vehicle appl. *(French)* 11413
vehicular air conditioning, rotary stepping motor, missed step detect. *(French)* 11485
vernier motor, optimum design *(Japanese)* 27685
vernier motors, anal. *(Japanese)* 10974
washing machine energy efficient brushless motor drive 5396
NdFeB PM hysteresis motors, starting/synchronisation studies 10977
NdFeB PM motor torque prod./efficiency, temp. effects 36102
Ni-H_2 batt.-powered bicycles, propulsion motor options 28144

permanent magnets
3 DOF Maglev, actuators, PM *(Japanese)* 39216
arrangements for supercond. pass. bearings 14310
astron. imager with PM focusing, demagnetification *(Chinese)* 17923
augmented PM railgun, plasma armature behaviour 15356
Beijing FEL, wiggler, electron traject. improvement *(Chinese)* 31441
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
cylindrical mag. wall struct., microwave ion source calc. 4137
cylindrical microwave ion source, magnet syst. calc. 4138
elec. machine mag. support struct., HTSC PM appls. 43980
elec. machines, irreversible demagnetization loss calcs. 36098
electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
EM launcher hypervelocity projectile passage sens. design 15335
EM levitation syst. for rapid transit and high speed transportation 20092

permanent magnets continued
EM levitation with permanent and electro magnets, optimal design 20091
EM rot. sens., cpd. mag. wire 17717
extended magnet in pass. dI/dt limiter 10778
FEL with focusing PM wiggler, 3D gain anal. 31429
field uniformity, field orient. effects 7208
high-field struct., spheroidal field sources 7210
high-tech mag. materials, recent develop. 30660
highly uniform field generation, review 7204
HTSC flywheel levitation force, num. eval. 1583
HTSC-based mag. levitated transport syst. in vac. 30808
injection-locked magnetron, high av. power, compact design 29782
itinerant electrons in noncollinear and incommensurate struct. magnets 7214
lin. PM motors, finite element modelling 11076
lin. pulse motor actuators, principles and characts. 44256
lin. spring for PM levitation syst., EM control 44509
loudspeaker mag. core, mag. field optimal shape design *(Polish)* 22706
mag. coupling torque, magnetis. profiles 7211
mag. coupling without parasitic force for measuring devices 7212
mag. field/irreversible demagnetisation loss calcs. 30750
mag. suspen., PM/lin. actuator reluctance control-based 28127
MAGLEV, pass. mag. bearings, superconductors, PM *(French)* 7258
magnetisation, thyristor-based, calib. appls. 536
miniature relay matrix, multi-actuator systs., electromechanical interf. 30524
MR strips stabilised by permanent mag. films, sensit. distrib. anal. 7084
MR-SAL struct., hard-magnet biasing strengths 17707
multipolar mag. field source fab. 7205
nanometer-sized granular alloys, PM design 30748
NdFeB PM, high perform., sintering expts. 7202
new materials, review 39155
noncontact permanent mag. levitation table, vibr. isolation 17654
particle accelerators, mag. field generation by PM 4131
planar permanent mag. multipoles for accelerator/storage ring appls. 10089
polycryst. PM, remanence angle hysteresis 14259
powder magnet proc., mag. alignment 7033
radially polarized PM cylinders, 3D field soln. 15232
rare earth bonded hard magnet material remanance 1582
rare earth magnets, spiral mag. struct., X-ray reson. mag. scatt. 39193
rare-earth/α-Fe based composite magnets, remanence enhancement, 2D/3D calc. 7007
rect. magnetised PM, demagnetisation factor 7213
rectifier-type motor, mag. field anal. 27682
reluctance motor drives, axially-laminated interior rotor design 36664
remanence enhanced nanocrystalline materials, magnetis. procs. 7012
round-annealed AC-motor magnet prod. and meas. technol. *(German)* 10939
SAL-biased MR heads, patterned PM bias 7085
SAL/MR device, PM biased, stabil., bias characts. 7083
skew gear, PM 14267
small railgun, bore erosion reduction 31757
steelmaking, sintering cake magnetic suspen., electromagnets *(Japanese)* 44626
strong mag. field sources, lightweight distortion-free access 7209
syst. synthesis, optimal topography calcs. *(Russian)* 30747
TCMA, thermally controlled magnetis. actuator, thermosensitive mag. materials 30761
$BaFe_xO_x$, mini transducer magnets, Moessbauer spectrosc., transducers 43144
$Er_2Fe_{14}B$, spin reorientation transits., X-ray circ. mag. dichroism 39158
$Er_2Fe_{17-x}Ga_xC_2$, mag./struct. props. 39205
α-Fe/$Nd_2Fe_{14}BTi_x$ nanocrystalline alloys, coercivity 7011
$Fe_{66}M_2Nd_{20}C_{9.5}B_{0.5}$ (M=Ga,Nb,Cu,Al) ingot magnets by solid-state transform. 6969
$Fe_{77}Nd_{15}B_8$, mag.-field orient. and coercivity 7207
FeNdB-based magnets, Ga and Nb addits., mag. and microstructural props. 14163
FeNdBGaNb PM, microstruct., mag. props. 22687
$Fe_{72}Nd_{17}B_{7.5}Ga_{1.5}Nb_2$, permanent mag./microstruct. props., additive effects 39195
$Gd_2Fe_{17}H_x$ syst., high field magnetis. 14156
$Ho_2Fe_{14}BH_x$, short-range mag. after-effect 39157
$Ho_2Fe_{17-x}Ga_x$, mag. props., struct. 7217
MnAlC, MnAl, PM prod. by mech. alloying 14260
MnBiDy alloy films, PM and struct. props. 7002
MnBiDy(Sm) PM films, struct. and mag. props. 39132
Nb-Fe-B-type PM, proc. and props. 30749
Nd-Dy-Fe-B sintered PM, coercivity ang. depend. 39196
Nd-Fe-B PM, electron beam/γ-ray irrad. effects 7203
Nd-Fe-B PM, magnetis. procs., torsion pendulum magnetometry 39133
Nd-Fe-B, PM variable flux sources 14257
Nd-Fe-B, anisotropic, microstruct./mag. props. 6967
Nd-Fe-B anisotropic powder, H decrepitated, XRD obs. 6971
Nd-Fe-B based particulate magnets, polymer bonded, fluct. fields 39207
Nd-Fe-B high-dens. bonded magnets, PTFE 5907
Nd-Fe-B, hydrogenation/disproportionation/desorpt./recomb. study 6970
Nd-Fe-B magnets, extruded, sintered, mag. props. 39199
Nd-Fe-B magnets, flux stabil. in direct joule heating 6988
Nd-Fe-B magnets, texture determ. method 7206
Nd-Fe-B sintered magnets, Nd-Fe-O intergranular phase, coercivity effect 39190
Nd-Fe-B-Co(Ga)(Zr) anisotropic powders, HDDR treatment, mag. props. 6984
Nd-Fe-Co-B die-upset magnets from dissimilar ribbon blends 6965
Nd-Fe(Co)-B magnets fab., rare-earth melt-spun ribbons and hydrogen-decrepitation powders *(Japanese)* 7201
NdBFe magnet-$YBa_2Cu_3O_{7-\delta}$, vert. mag. force/stiffness 14270
$(NdDy)_{15}Fe_{78.3}Al_{0.7}B_6$, sintered, electrochem. hydrogenation 6972
$Nd_{2-x}Dy_xFe_{14-y}Co_yB$ sintered magnets, remanence/coercivity 6973
(NdDy)(FeCo)B-W sintered magnets, domain-wall pinning 6985
$(NdDy)_{15}Fe_{67}Co_5V_4Al_2B_7$, sintered, electrochem. hydrogenation 6972
$Nd(Fe,Mo)_{12}N_x$, PM props. 6940
NdFeB PM hysteresis motors, starting/synchronisation studies 10977
NdFeB PM motor torque prod./efficiency, temp. effects 36102
NdFeB PM operating conditions in elec. machines 43998
NdFeB, inclination meas. by mag. method 18082
$Nd_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
$Nd_{14}Fe_{79}B_7$ magnets, recomb. and desorpt., HDDR proc. 6983
$Nd_{15}Fe_{77}B_8$ sintered magnets, microstruct., mag. props., $Dy_{40}Al_{30}Cu_{30}$ powder addit. *(Japanese)* 30751

permanent magnets continued
$Nd_2Fe_{14}B$ fine particles, spark erosion prep., struct., mag. props. 6975
$Nd_2Fe_{14}B$, interstitially-modified PM 30672
$Nd_2Fe_{14}B$, spin reorientation transits., X-ray circ. mag. dichroism 39158
NdFeB-based magnets, neutron depol. ang. depend. 39200
$Nd_{15.4}Fe_{75.7}B_{6.7}Cu_{1.3}Nb_{0.9}$ sintered magnets, prep./TEM 6968
$Nd_2Fe_{14}BH_x$, short-range mag. after-effect 39157
$Nd_3Fe_{29-x}Ti_x$, mag. and cryst. struct. 6945
$Nd_{17-x}Pr_xFe_{75}B_8$ sintered magnets, mag. props. 39198
$Pr(Fe,Mo)_{12}N_x$, PM props. 6940
$Pr_{13.75}Fe_{80.25}B_6$ die-upset magnets, magnetisation reversal by nucleation 6966
$Pr_{16}Fe_{76-x-y}Co_xAl_yB_8$ magnets, mag. props. 14161
PrNdFe, melt spun magnets, mag. viscosity, prep. from amorph. precursors 39194
PrNdFeB amorph. precursors, mag. hardening by crystn. 6987
R-Fe-B magnets, magnetis. reversal crit. fields in indiv. grains 39197
$RCo_{10}Mo_2$ (R=rare earth) PM, mag. props. 6986
RE-Fe-B PM, thermal remagnetization effect 39209
R_2Fe_{17} (R=rare earth), interstitial insertion, vol. effects, mag. props. 39144
$R_3(Fe,M)_{29}X$ (R=Ce,Pr,Nd,Sm,Gd; M=Ti,V,Cr,Mn; X=H,N,C), permanent mag. props. 6944
$R_3(Fe,Ti)_{29}$, (R=Nd,Sm), Mossbauer studies 39208
$R_2Fe_{14}B$/Fe nanocomposite exchange coupled magnets, struct./mag. props. 7009
$R_2(Fe_{1-x}Ga_x)_{17}$ (R=Y,Sm,Dy,Ho), mag. props. 39143
$RFe_{11.35}Nb_{0.65}N_y$, pure and nitrided, (R=Y,Sm,Gd,Tb,Dy,Ho,Er,Lu), struct. and mag. props. 22688
$R_2Fe_{14}ZH_x$ (Z=B,C;R=rare earth), spin reorientation transit., hydrogenation effects 39156
Sm-Co PM, electron beam/γ-ray irrad. effects 7203
Sm-Co based particulate magnets, polymer bonded, fluct. fields 39207
Sm-Fe-Ga-C, melt-spun alloys, high coercivity 39204
Sm-Fe-N/α-Fe remanence-enhanced mech. alloyed two phase magnets, coercivity 7010
Sm-Fe-Ti, rapidly quenched, struct./mag. props. 39206
Sm-Fe-Ti/nitrides, mag. props. 14160
$SmCo_5$, micro transducer magnets, Moessbauer spectrosc., transducers 43144
$Sm_{12.5}Fe_{87.5}$ nitride, mech. alloyed, nitrogenation behaviour and thermostability 1574
Sm_2Fe_{17}, SiH_4 treatment, mag. props. 39142
Sm_2Fe_{17}, high field magnetis. 7198
Sm_2Fe_{17}, magnetocrystalline anisotropy 39139
$Sm_2Fe_{17-x}Al_x$, PM, Mossbauer study 7199
$Sm_2Fe_{17-x}Al_xC$ (x=2-8), arc melted, struct., mag. anisotropy 7215
$Sm_2(FeAl)_{17}C_x$, arc-melted, Al-effect on mag. props. 39201
$Sm_2Fe_{17}C_x$, high field magnetis. 7198
$Sm_2Fe_{17}C_xH_{5-x}$, high field magnetis. 7198
$Sm_2Fe_{17-x-y}Co_yAl_x$, uniaxial mag. anisotropy 7216
$Sm_2Fe_{17-x-y}Co_yGa_x$, uniaxial mag. anisotropy 7216
$Sm_2(Fe_{1-x}Co_x)_{14}Ga_3C_2$, arc melted, struct., mag. props. 7219
$Sm_2Fe_{14-x}Co_xSi_2$-based quasiternary syst., mag./struct. props. 6946
$Sm_2(Fe_{1-x}Ga_x)_{17}$ (x=0-0.5) cpds. and nitrides, mag. props. 7218
$Sm_2Fe_{17}N_3$, Zn-bonded magnets, AC/differential DC-suscept. 39191
$Sm_2Fe_{17}N_3$ magnet fabricated by shock-compaction tech. 22685
$Sm_2Fe_{17}N_x$, partially oxidized, mag. props. 39202
$Sm_2Fe_{17}N_x$ powders, powder and HDDR method prep., coercivity mechanism 22686
$Sm_2Fe_{17}N_x$ with discontinuous nitrogen profiles, mag. props. 39203
$Sm_2Fe_{17}N_3/Fe_{65}Co_{35}$ composite aligned two-phase magnets 7008
$Sm_{1-y}Pr_yCo_{4-x}Fe_xB$, mag. material by substitution/nitridation 7200
$(Sm_{1-y}Pr_y)_2Fe_{17}N_x$ magnets, remanence enhancement 30678
Sr-Ba ferrite magnets, sheet, addits. effect on mag. props. 7220
$SrZn_2$-W type hexagonal ferrite, $CaO(SiO_2)$ additives 7019
YBaCuO, mag. bearings 1639
YBaCuO pellets, mag, textured, permanent mag. config., mag. bearings appl. 39244
$Y_2Co_{14}B_x$, PM, NMR/mag. meas. 39192
Y_2Fe_{17}, SiH_4 treatment, mag. props. 39142
$Y_2Fe_{17-x}Ga_x$, mag. props., struct. 7217
$Y_2Fe_{17-x}Ga_xC_2$, form. and mag. props. 39141
$Y_2Fe_{17-x}M_x$ carbides (M=Al,Si), mag. props. 39140
$Y_2Fe_{17}N_3$, pure and nitrided, magnetocrystalline anisotropy 39139
permeability
dyadic Green's fns., radially multilayered chiral media 40291
ferrite tiles, temp. behaviour of reflectivity 14198
MHD free convection flow, Hall current effects 27964
porous piezoceramics, dyn. fluid compressibility/permeab. 18927
steelmaking, sintering cake magnetic suspen., electromagnets *(Japanese)* 44626
CO sens., polymer-electrolyte lamination, life-elongation 3916
$La_{0.7}Sr_{0.3}MnO_3$ porous cathode substrs., SOFC 11274
MnZn ferrite, low loss, role of microstruct. 7021
permeability (magnetic) *see magnetic permeability*
permeability measurement (magnetic) *see magnetic permeability measurement*
permeable base transistors *see bipolar transistors*
permittivity
see also electric strength
1D medium, approx. profile inversion, appl . 40294
2D dielec. objs., EM imaging, expt. study 23577
2D EM scatt., MoM-CGM-FFT appl. *(Chinese)* 31804
2D inhomog. dielec. objs., permitt. profiles reconstruction *(Korean)* 16136
3-layer insulation syst., discharge, dielec. characts. 22668
absorbing dispersive dielec., energy-vel. description of pulse propag. 31779
accumulation mode MOS structs., effective dielec. thickness determ. 38421
aperture coupling, adjacent layers, stripline geom. 6288
Beltrami-Maxwell postulates for time-varying EM fields in materials 15207
BH diode lasers, multimode self-consistent model 23283
bianisotropic media, duality transforms., Green dyadics, plane-wave solns. 40322
borosilicate glass, cristobalite-free low-K dielec. 22632
BPDA-PDA polyimide in multilayer thin-film packages, dielec. anisotropy meas. 6464
castor oil, elec. permitt. and dielec. loss, high press. transform. 14014
composite medium composed of lossy dielec. spheres, dielec. const. 23590
condensed dielec., breakdown develop., fractal model 39041
coplanar strips, anal. considering finite strip metal. thickness 2295
coplanar strips on finitely thick substr., quasistatic params. calc. 23798

permittivity continued
coplanar transm. lines on low permit. substrs., THz bandwidth characts. 12696
cross borehole tomography, improved inversion/iter. scheme *(Korean)* 18790
CVD diamond, metallization and die attach 38662
cylindrical microstrip line mounted inside ground cylinder, quasistatic soln. 21505
dielec. coating on aircraft fuselage, scatt. signature optim. 40314
dielec. disk radiator, slot excitation 31929
dielec. media ultrashort solitary-wave propag., reson.-dominated chromatic dispersion 40112
dielec.-loaded Raman-type FEL, efficiency enhancement 2017
dielectric body permitt. reconstr., current modelling and Tikhonov regularisation 23565
dispersive media, wave propag. anal., FDTD formulation 40316
dyadic Green's fns., radially multilayered chiral media 40291
EM scatt. by nonlin. bounded dielec., FDTD approach 15386
EMI reduction by lossy PWB 23667
equilateral triangular microstrip antenna, input impedance 15621
ferrite EM wave absorbers, bandwidth widening by attaching rubber ferrite 2210
ferromag. thin film-based high impedance anisotropic composites 14123
full-vector EM scatt. by 3D nonlin. bounded dielec. 23587
furnace black-polyethylene composite, resist./dielec. props. 14073
glass fiber with high dielec. const., synthesis, PCB appls. 5911
gyrotropic effects, dielec. mixtures, anisotropic components 13925
high dens. multilayer substr. for Si on Si high speed module 29719
high-permittivity cube RCS computation, FDTD method 25563
high-speed MCMs, simul. of crosstalk 38198
homogeneous dielec. cylinder inverse scatt. 23568
IBM MCM-D, polyimide dielec. material appls. 37542
indoor wireless transm. prediction by ray tracing 31823
inhomog. dielec. half-space, EM wave refl. coeff. 7939
inhomogeneous lossy medium nonlin. diff. eqn. and inverse scatt. solns. 23603
insulated wire at interface of two dielec. media, acting force determ. 15245
intrinsically conducting polymers, EM radiation shielding 2275
isotropic Kerr-like media, nonlin., TM solns. 22906
leukemia detect./monitoring, EM wave imaging 10215
LF model for wedge, pyramid absorber arrays 7994
lin., first order finite element pot. solns. 40196
lin. and nonlin. MMICs, design strategies 29597
liq. cryst. polymer composite films, elec. characterisation 12200
lossless dielec. mixtures, effective permitt. calc., boundary integral method 13922
low temp. co-fireable ceramics, wideband elec. charactn. 34673
low-profile circ. disk DR antenna, characts. 31947
MCM ceramic substr., high capacitance 21715
microstrip antenna surface wave efficiency comparison 23839
microstrip phase-trim device, dielec. overlay 806
microwave boards, elec. perform. 21530
microwave cct. boards, elec. perform. 12741
microwave diffr. tomography, adaptive imaging algm. 16349
microwave imaging, cost minimisation approach, simulated annealing 43277
microwave imaging of infinite dielec. cylinders, modified Born approx. 2208
microwave material selection for PCB design 11799
multi-layer wave-absorber for oblique incidence, point freq. matching method 23579
multilayer microstrip struct., freq.-depend. permitt., quasistatic model 40439
multilayer radome wall synthesis criteria *(Russian)* 15676
multilayer-multiconductor transm. line network, pulse propag. *(Korean)* 37931
NEC MLC chip capacitors, develop. *(Japanese)* 878
no-clean low residue solder paste for fine pitch appls. 939
nonuniform ionos., point source field calc. 2227
nonvolatile ferroelec. thin film technol. for semicond. memory 39047
ocean surface, EM scatt., salinity/temp. effects 10526
oil-impregnated pressboard, dielec. props., moisture depend. 14044
oligophenylene thin films, vac.-deposited, elec. props. 13923
organic liqs., microwave freq. permitt. meas. 18034
P(VDF/TrFE) copolymer pyroelec. thin film sens. and arrays 42817
PBZT particle/suspension in mineral oil, electrorheological responses 13933
periodic dielec. struct., EM wave interacts., finite element modeling 15565
periodic wedge absorber using transm. mode approx., permitt. anal. *(Japanese)* 23536
periodically stratified media light, Bloch eigenvalue eqn. 2196
perovskites, rf dielec. relax., measuring methods 30573
photoimageable liq. dielec. for seq. PWB fab. 38124
piezoelec. resonator materials metric for materials eval. 30574
planar microstrip ccts., FDTD anal., spectral domain Prony's method 12730
planar plasma waveguide, surface waves self-action 2240
polamide/$BaTiO_3$ ceramic composite grain boundary capacitors, prep. 6370
polariz.-maintaining opt. fiber, PANDA profile, polariz. crosstalk *(Japanese)* 30901
polyethylene-2, 6-naphthalate film, morphology, dielec, strength, thermal effects 14054
polyimides, low dielec. const., opt. props./orient. effects 12209
polyimides/copolyimides for IC interlayer dielec., props. 39037
polymer-ferroxide film absorbers, microwave, mag., dielec. props. 14102
polymer/metal/$BaTiO_3$ multi-component composites, dielec. props. 12195
polymeric materials, water treeing, computer simulation 14062
polyurea films, pyroelec./piezoelec. 6903
power cable junctions, dissipation factor studies 14010
propag. of EM pulses in conducting medium, comments/reply 23586
PVDF copolymers, ferroelec. behaviour/phys. props. 6904
PVDF/polyetherimide laminates, breakdown strength 13962
radiation currents, low contrast scatterers, surface integral eqn. 40288
rain, atten. and phase shift calc., dielec. mixture model 23632
sapphire, r-cut, microstrip lines, effective permitt. 12703
SHF EM fields generation, pulsed power-based 31701
short-pulse water breakdown power technol., electrode phenom. 36259
sq. patch antenna, radiation characts., permitt. effects 40471
static anal. using measured eqn. of invariance 23751
surface mount RF/microwave filters, high dielec. const. ceramics 21401
Symetrix Y-1 ferroelec., memory cell, C-V characts. 39056
tapered slot antennas, FDTD anal. of transient EM fields 2333
thick film/tape capacitor dielec., capacitance densities up, 3 nF/mm^2 6359
thin-film MCM materials for high-speed appls., eval. 29715
TLM mesh of symm. condensed nodes with stubs, dispersion anal. 23758
transformer oil, double layer heterogeneity 14023

permittivity continued
tropical crops, X-band dielec. consts. 26779
ULSI multilevel interconnects, proc. integrat./manufacturability 38641
wave permitt., engng. and phys. concepts 40304
waveguides based on electron drift/diffusion 23806
wet snow, dielec. mixtures, effective permitt., scatt. losses 15389
AlN, 3D interconnected porous composites, proc., electronic packaging 146
Al_2O_3-Si, ML-ALE grown, elec. props. 22054
$(As_2S_3)_{1-x}(PbS)_x$, vitreous semicond., electronic cond. 29867
Au cluster/SiO_2-Al_2O_3-Li_2O gel, nanocomposite capacitor 6358
Au-CeO_2-Si, elec. charact. 29965
BN thin films, plasma-enhanced CVD, structural props. 20953
$(Ba,Pb)(Zr,Ti)O_3$ films, sputtered, dielec. props. 6913
$(Ba,Sr)TiO_2$, chem. vap. deposition, DRAM appls. 12163
$(Ba,Sr)TiO_3$, diffuse ferroelec. transit., relax. dipolar freezing 30568
BaO-Sm_2O_3-TiO_2 ceramics, microwave dielec. props. *(Korean)* 22631
$Ba_{6-3x}Sm_{8+2x}Ti_{18}O_{54}$, microwave dielec. props. 22638
$Ba_{0.5}Sr_{0.5}TiO_3$ thin films, sputtering, electric props. 20965
$Ba_{0.5}Sr_{0.5}TiO_3$ thin films, structural and elec. props., thickness depend. 20984
a-$BaTiO_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
$BaTiO_3$ Y5V 0603 ceramic chip capacitor 12839
$BaTiO_3$ films on Pt, epitaxial growth and dielec. props. 12099
$BaTiO_3$ films on Si, heteroepitaxial growth by pulsed laser deposition 28757
$BaTiO_3$ films, sputtered for SOI struct. 6909
$BaTiO_3$/p-Si capacitors, struct., elec. props. 39061
$BaTiO_3$/poly(vinylidene fluoride-trifluoroethylene) thin-film composites, pyroelec. props. 6908
$Ba(Y_{1/2}{}^{+3}Ta_{1/2}{}^{+5})O_3$, struct., dielec. props., 10^2-10^{14} Hz, 20-600 K 6890
$Ba(Zn,Ta)O_3$-ZnO-Y_2O_3 ceramics, microwave dielec. charact. *(Korean)* 22635
$Bi_4Ti_3O_{12}$ films, MOCVD, memory device appls. 37514
$Bi_4Ti_3O_{12}$ films, spin-coating pyrolysis, surface morph., O_2 effect 13988
CdTe thin films, trapping params., SCL cond. 29847
CeO_2/Si(111), epitaxial oxide film, elec. props. 13229
$CeO_2/YBa_2Cu_3O_{7-\delta}$, supercond. FET, prep., charactn. 14301
$CrTiO_3$, elec. cond., thermoelec. power and dielec. const. 13074
$Er_2Cu_2O_5$, dielec. const., cond. 21923
EuF_3 thin films, dielec., cond. and breakdown studies 1544
$Fe(OH)_3$ thin films form. at soln.-gas interface, dielec. props. 22080
FeSi, hopping cond. 38273
GaAlAs/GaAs QW, dielec. const., doping and mag. field effects 29908
GaAs photocond. pulsed power switches, filaments 36446
GaN-related alloys, acceptor binding energy 13068
Ga_2O_3 films, electronic/optoelectronic appls. 22640
Ge thin films, opt. props., thickness depend. *(Japanese)* 39303
$KNbO_3$ crysts., electro- and acousto-optic props. 30555
Li-Mg-Zn-Ti-Mn-Fe-O, substituted spinels, mag./dielec. props., microwave appl. 30532
$Li_{0.4}K_{0.6}NbO_3$ cryst., dielec./ferroelec. props. 22659
$Mn_{0.05}Mg_{1.9-2x}Fe_{4x}O_{4+\gamma}$-$Al_2O_3$ ferrite, microwave loss *(Korean)* 30687
Ni-Zn ferrite, sintered, microwave absorbing props. 14179
PLZT, ceramic, surface layers effect on dielec. props. 39096
PLZT thin film capacitors, CMOS ULSI DRAM appls., post proc. damage 21310
PLZT thin films, sol-gel proc. 37466
PLZT thin-film decoupling capacitors for MCMs 29737
PZT ferroelec. films, cryst.-oriented, sol-gel deposition 39048
PZT ferroelec. thin films, sol-gel deposition 1559
PZT film, ferroelec. props., thickness effect 6911
PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
PZT, film, sputtered, poling effect on dielec. props. 39043
PZT films by MOD technol. for nonvolatile memory and DRAM appls. 13999
PZT films, reactive co-sputtering/elec. props. 39059
PZT multilayer electromechanical actuators, fab. and charactn. 39111
PZT piezoceramics, ferroelec. actuator/sens. materials, driving field/temp. effects 30570
PZT, surface-acoustic-wave atten., mech./dielec. losses 39052
PZT thin films, MOCVD, Pb precursor 37516
PZT thin films, donor doping, leakage resist. control 13992
$(Pb,La)(Zr,Ti)O_3$ ferroelec. films, metalorganic CVD/elec. props. 20758
$(Pb_{1-x}Ba_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$(Pb_{1-x}Ca_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$(Pb_{0.72}La_{0.28})TiO_3$/Pt films, elec. props., interface effects 1159
$PbMg_{0.3}Nb_{0.6}O_{0.3}$, ferroelec. actuator/sens. materials, driving field/temp. effects 30570
$Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$ ferroelec. thin films, pulsed laser deposition 37471
$PbMgNbO_3$-$PbTiO_3$ ceramics, domain walls, piezoelec. and electrostrictive props. 22663
$Pb(Mg_{1/3}Nb_{2/3})_xTi_{1-x}O_3$ thin films, deposition, charactn. 400
PbO thin films, MOCVD, Pb precursor 37516
$Pb_{1-x}Sm_x(Zr_{0.65}Ti_{0.35})O_3$ ceramics, pyroelec. studies 22664
$(Pb_{1-x}Sr_x)(Zr_{0.7}Ti_{0.3})O_3$ ceramics, dielec. props., MLCs appl. 5902
$PbTiO_3$ sol-gel derived ferroelec. thin films 13997
$PbTiO_3$, surface-acoustic-wave atten., mech./dielec. losses 39052
$PbTiO_3$ thin films, MOCVD, Pb precursor 37516
$PbTiO_3$:Cu, film, sol-gel prep., charactn. 6912
$PbZr_{0.53}Ti_{0.47}O_3$:Ca transducers, acoustic props. 30633
Si, SIPOS films, cond. mechanism 21885
Si, oxid., VLSI gate dielec. appls. 30086
Si, porous, AC cond., hopping transport 21895
$Si:BF_2{}^+$ amorphous ion-implanted layers, recrystn. kinetics 38464
SiO_2 PECVD, neural network based modelling 37415
SiO_2 layer characterisation, Electrotech ND6210 PECVD syst. 28816
SiO_2 porous thin films, interlevel dielec. in IC packaging, sol-gel proc. 12141
$SrTiO_3$ capacitors, leakage current, electrode contacts effect 12837
$SrTiO_3$ metal-semicond. Schottky diodes, field depend. permitt. 29955
Ta_2O_5 sputtered films, elec. and optical props. 13958
Ta_2O_5 thin high-dielec. films, leakage current, elec. props. 13915
$Ta_2O_5(TiO_2)$ LPCVD DRAM storage dielec. film, leakage current reduction, RTA 22094
$TiO_2/BaTiO_3$ epitaxial film form. on Si substr. 37426
$YBa_2Cu_3O_{7-\delta}$ film bicrystal grain boundary jn., field effect device 1615
$YBa_2Cu_3O_{7-x}$ thin film, surface smoothing, MCM fab. 39252
$YBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795
$YBa_2Cu_3O_7SrTiO_3$ CPW, elec. controlled 803
Y_2O_3 MIM capacitors, elec./dielec./opt. props. 22082
$YbBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795

permittivity measurement
- 1D complex-permitt. profiles, estim., feasibility study 42897
- 2D axisymm. inhomog. medium inversion, distorted Born iterative method 23567
- biological tissues, microwave freq. 43249
- broadband permitt. meas., T/R method in coaxial transm. lines 3953
- coaxial cavity syst. for dielec. materials 18029
- coaxial probes, relative complex dielec. permitt., nondestructive meas. 25964
- commercial petrol, microwave props., 900 MHz, 9 GHz 42896
- complex dielec. permitt. meas., microwave freqs. 25948
- complex permitt. meas. of low loss ceramics 34665
- composite chiral material, wide freq. band, calc./meas. 23596
- dielec. meas. in microwave range, indust., scientific and med. appls. 34663
- EM props. of materials mes., coaxial probe 18049
- geological forms., radar wave propag. 7966
- Josephson microstrip resonators, dielec. const./surface resist. meas. 18047
- liq. complex permitt. meas., phase info. of standing waves 34664
- low loss materials, 3-posn. transm./refl. method 9998
- micro EHD pumps, fabr./expts. *(Korean)* 30527
- microstrip discontinuity meas., resonator techs. *(Croatian)* 809
- microwave 4-param. materials, radar absorber design 3615
- microwave complex permitt. meas. using coaxial line, error correction 18035
- microwave complex permitt. meas. using coaxial probe, error estim. 18036
- microwave heating syst. permitt. meas. correction procedures 44593
- microwave meas. chamber for liq. dielec., 37-47 GHz 42893
- MM wave aquametry for water content determ. 42996
- NIST cylindrical cavity resonator for permitt. meas. 37958
- non-invasive dielec. meas., scanning pot. microscope 3954
- nonradiating metal-dielec. waveguide, dielec. params. meas. 18033
- open-circuited coaxial probes, neurocomputed model 34666
- open-ended coaxial probe 18031
- organic liqs., microwave freq. permitt. meas. 18034
- planar transm. line atten. meas. tech. 18025
- plates, permitt./tan δ meas., dielec. loaded cavity resonator in UHF band *(Japanese)* 25951
- power overhead lines, lightning-induced voltage expts. *(Japanese)* 4696
- radially stratified cylinder probing, inverse problem, iter. scheme 31788
- RF absorptive cables, characts. calc. and meas. 890
- sand-powders permitt. meas. and sandstorm anal., W band 42892
- Schering bridge sensitivity and convergence for AC machine anti-discharge varnish ageing tests *(French)* 9973
- soil elec. props. meas., RF treatment appls. 10562
- techs. review 17696
- unguarded disc electrodes meas., capacitance corrections 1504
- vector reflectometer, portable, appl. for thickness and permitt. dielec. meas. 18048

perpendicular magnetic anisotropy
- Ba ferrite films, perp. anisotropy *(Japanese)* 14193
- Co/(Pt-Bi) multilayers, magnetis., magneto-opt. props. 14204
- Co/Au multilayer films, struct./mag. props. 7057
- Co/Ni multilayer, sputtered, anisotropy and magneto-opt. props. 14203
- Co/Pd multilayer films, struct./mag. props. 7057
- Co/Pt multilayer films, struct./mag. props. 7057
- Co/X multilayer films, (X=Pt,Au,Ag,Ni), temp. depend. of mag. anisotropy 30699
- (Co-Bi)/Pt multilayers, magnetis., magneto-opt. props. 14204
- CoCr films on Ti, perp. recording, low temp. sputter-deposition, high coercivity 6959
- Co$_{78}$Cr$_{22}$ films,sputter-deposited, chem./structural anisotropy, EXAFS studies 6958
- CoNiPt-SiO$_2$ films, mag., structural props. 1570
- CoPt binary thin films, perp. recording, microstruct. and mag. props. 6960
- CoPt thin film media, microstruct., mag. props. and noise perform. 6990
- FeAlN/NiFe pole tips, laminated, high moment, perp. contact recording head 7097
- FeSiB amorph. wires, annealed, engng. magnetostriction meas. 14132
- MnSbPt films, giant mag. Kerr rot. 14100
- Nd-Fe-B PM, magnetis. procs., torsion pendulum magnetometry 39133
- Nd-Fe-B magnets, extruded, sintered, mag. props. 39199
- NdFeB-based magnets, neutron depol. ang. depend. 39200
- NiZn-ferrite films, ferrite plated, mag./struct. props. 14184
- Pt/Co multilayers, interface struct., perp. mag. anisotropy 39175
- Pt/Pd/Co multilayers, interface struct., perp. mag. anisotropy 39175
- Pt-Ni multilayers, enhanced magnetis., perp. anisotropy 30716

perpendicular magnetic recording
- graded magnetis. single pole head for perp. recording 39178
- multi-track submicron-width perp. mag. recording, integrated single pole head 7098
- overwrite and transit. shift in perp. mag. recording 14224
- partial response syst. in perp. mag. recording, perform. 22700
- Co-Zr-Nb films, high resoln. single-pole recording head 7187
- CoCr films on Ti, perp. recording, low temp. sputter-deposition, high coercivity 6959
- Co$_{1-x}$Cr$_x$ perp. mag. recording media, epitaxial growth 7103
- Co$_{78}$Cr$_{22}$ films,sputter-deposited, chem./structural anisotropy, EXAFS studies 6958
- CoPt binary thin films, perp. recording, microstruct. and mag. props. 6960
- CoPt thin film media, microstruct., mag. props. and noise perform. 6990
- FeAlN/NiFe pole tips, laminated, high moment, perp. contact recording head 7097
- Ni$_{81}$Fe$_{19}$/Co$_{67}$Cr$_{33}$ multilayers, perp. recording media, soft mag. props. 7042
- Pd/Co multilayers for perp. mag. recording 7041

personal communication networks
- 1.8 GHz personal commun. radio channel polaris. dyn. charactn. 33788
- 1.9 GHz-band RF IC chip-set for pers. commun. 863
- 2 GHz radio propag. for local loop appls. 33844
- 3D PCN, reception reliab. 17057
- 5.6 kbits/s PSI-CELP of half-rate PDC speech coding std. 8191
- 38 GHz building scatter and vegetation atten. meas. 15427
- 40 GHz indoor opt. fibre SS PCN/LAN expt. 33818
- 800 MHz PCS, IN technol. appl. 25433
- 1890 MHz delay spread meas. in Melbourne 3407
- access network, wireless technols. integrat. 25148
- accounting mgt. for pers. commun. 25431
- ACTS Programme, mobile/pers. commun. research 9390
- adaptive modulation/TDMA scheme for high capacity pers. multimedia commun. 9043
- adaptive prediction handoff algm. 9378
- advanced digital receiver principles and technols. 17111

personal communication networks continued
- advanced telecomms. services, distributed control archit. 25084
- AIN, pers. mobility services trial 25092
- AIN archit. expectations *(Japanese)* 16827
- ATM, multimedia and mobile commun. 33660
- ATM and frame relay switching technol. 41424
- ATM transport archit. for multiservices wireless PCN 17087
- Australian review, wireless pers. commun. services 3108
- batt.-powered pers. communicators, trends and limits 42296
- BellSouth Telecommunications, pers. services, AIN 24931
- burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
- CDMA asynchronous satellite syst. for pers. commun. 9368
- CDMA coded packet cellular networks, code rate optim. 25384
- CDMA PCS, spectrum sharing feasibility 25379
- CDMA PCS syst. perform., simul. results 3384
- cellular environ., resource auction multiple access 9291
- cellular environ., self-adaptive channel allocation strategies, PRMA 9248
- cellular radio systs., constrained power control 9249
- cellular TDMA evol. 42225
- Chinese commun. research and related works 3072
- CLAD implement. and expt. results in ATM networks *(Japanese)* 24948
- CMOS LSIs for pers. inform. and telecom. systs., trends 22565
- COMETS, expt. advanced mobile satellite commun. syst. *(Japanese)* 42215
- corporate mobile commun. solns. 41725
- CPFSK differential detect., LO phase noise effects 42283
- CPM coded quaternary scheme for satellite-vehicle/pers. commun. 42265
- Croatian telecomms., struct. and develop. of services 41612
- CW meas. in residential environ. 31831
- D1900 micro cell indoor/outdoor appls. 25435
- data services 42249
- DECT, rural/urban wireless local loop access 42273
- DECT technols. and pot. markets 41714
- DECT-PCS implement., archit. and perform. 8854
- dense urban environ., cellular coverage 9278
- design, site-specific propag. modelling 33822
- digital cordless telephone syst. *(Japanese)* 17136
- distributed antenna syst., freq. selective fading, perform. 17091
- distributed commun. control archit. 25380
- distributed PCN server-independ. service acquisition syst. 42195
- distributed proc. environ., pers. commun. services 41690
- distributed proc. technol. *(Japanese)* 16754
- distributed radio port controller archit., develop. 25381
- Doppler shift z 42303
- DS-SS CDMA mobile satellite commun. syst. 25441
- EURESCOM project 230, combined pers. and terminal mobility in IN environ. *(Italian, English)* 42291
- European and American mobile systs. mergers 25432
- European Commission's mobile green paper 33305
- European GSM and PCN portable phone develop. *(Japanese)* 17078
- European research program for advanced mobile systs. 25330
- FDM-FM microwave receivers, PCS sig. interfs. 25377
- flexible network technol. prospects *(Japanese)* 16572
- FQPSK modem/radio for PCS/ mobile satellite commun. 25312
- FQPSK modulation for wireless commun. systs. 17076
- freq. hopped systs. for PCS 25360
- future public land mobile telecomm. and fixed services, freq. sharing feasibility 42198
- future public land mobile telecomm. systs. 3367
- future public land mobile telecommun. systs., satellite component 25405
- Future Public Land Mobile Telecommunication Systems 25424
- global mobile satellite complement, terrestrial cellular commun. 42307
- global pers. commun. services 3362
- global power architect. 19813
- Globalstar PCS, satellite-terrestrial systs. integrat. 33912
- group randomly addressed polling for multicell data networks 8771
- GSM internat. standardisation *(German)* 9225
- GSM network evol. 3449
- GSM procedures for integrated cellular/satellite syst. 25319
- GSM/DCS1800 syst., base station, diversity reception 3497
- GSM/DCS air interface enhancement for high speed data appl. 25408
- GTE advanced intell. peripheral config. 25091
- handset antennas 25329
- handy-phone syst. for public services network *(Japanese)* 33895
- hierarchical cellular syst., dyn. channel allocation/speed estim. 3397
- high dens. SDMA, double freq. reuse 25421
- high sensitivity satellites/voice compression, PCN 42331
- I/Q modulators for mixing cellular sigs. 17032
- IEE telecommunications conf., Brighton, UK (1995) 36830
- IEEE 802.6 based PCN, distributed paths migration 9363
- IEEE MILCOM conf., Boston, USA (1993) 36897
- IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
- implicit deregistration 9347
- implicit deregistration 3339
- IN-based approach for PCS service provision, PSTN infrastructures *(Italian, English)* 41963
- India, satellite systs. for global pers. commun. 33953
- indoor pico-cell radio syst., spectrum requirements 25339
- inform. infrastructure, space/terrestrial PCS integrat. 25056
- Inmarsat and pers. mobile satellite services 3363
- integrated voice/data network, cellular packet CDMA, perform. 17131
- intelligent multi-access spectrum-sharing methodology 41467
- interact. restructuring 3145
- interoperable unlicensed/licensed wireless access 33842
- IS 54C digital control channel, PCS support 33843
- ITU-T, teletraffic standardization 33930
- Japan mobile telephone syst., detect. study 9273
- Japanese digital cellular std., IN archit. 42258
- Japanese Personal Handy Phone/DECT, IF modulator, DDS 3465
- LEO satellite commun., nonuniform traffic, integrated voice/data syst. 25454
- LEO satellite systs., partial coverage, perform. eval. 25399
- LEO satellite systs., perform. eval. 25309
- LEO/ICO-satellite commun. networks, syst. params. 25313
- local pers. commun., archit. 25382
- location registration method for PCN archit. 25389
- low earth orbit satellite commun. appl., distributed simul. 25464
- macrocellular PCS propag. channels, 1850-1990 MHz band 31836
- MEO constellation, global PCS, satellite network archit. 25398
- mgt. and digital cash replacement 8845
- microcellular mobile commun. systs., perform. anal. 3405

personal communication networks continued
  microcellular personal commun. service F-QPSK perform. 33781
  microcellular propag. for PCN networks, review 31837
  microcellular radio, distributed control channel allocation 9351
  microstrip components for mobile commun. systs., evol. 33836
  Mitsubishi Electric 800 MHz PDC spec. cellular phone *(Japanese)* 33890
  Mitsubishi Electric base-station modulation/demodulation eqpt. *(Japanese)* 33892
  Mitsubishi Electric pers. handy-phone syst. PT-MDP *(Japanese)* 33896
  mixed urban/suburban propag. meas. for PCS in OFS band 9266
  mobile commun. networks, handover related perform. 3401
  mobile commun. regulation 33928
  mobile communications, IEE Colloquium, London (1994) 16
  mobile data services, IEE Colloquium, London (1995) 28232
  mobile LEO channel, downlink DS CDMA perform. 25372
  mobile multimedia commun., IN archit. 9035
  mobile networks with bursty user mobility, dyn. channel allocation 25338
  mobile service control point for intell. and multimedia mobile commun. 9042
  mobile systs., transit. path, European view 25334
  mobile telephony, present status and future trends 42209
  mobile-satellite pers. commun. syst., voice transm. quality 25322
  MT2607A/B/C PDC handyphone tester used service shops *(Japanese)* 34334
  multimedia PCN medium access control in mixed traffic environ. 41972
  multimedia teleservices, impact of pers. commun. 16866
  multiple access protocols for voice commun. 33839
  multiple radio wave refls. in corridor 9340
  multitone freq. hopping syst., spectral efficiency 9217
  NEC's digital cellular base station syst. *(Japanese)* 17081
  NEC's pers. digital cellular telecomm. syst., develop. *(Japanese)* 17079
  NEC's portable phone for pers. digital cellular syst. *(Japanese)* 16929
  network management for personal and mobile systems, IEE Colloquium, London (1994) 18
  next-generation PCN multimedia traffic support 41979
  no. mobility techs. for PCS 25386
  non-blocking channel assignment for hand-offs 25422
  non-geostationary satellite technols. for future commun. systs. 9411
  nonlin. phase precoding for pers. commun. 2385
  NTT's research activities on image devices for VI&P commun. 41988
  numbering schemes 3113
  optimum multilayered cell archit. 3485
  outage probab. in Rice fading conditions 17099
  packet data transm. 25415
  parallel concatenated recursive systematic (turbo) codes 32105
  PCN, client-server-based handover scheme 42247
  PCS, antenna arrays, co-channel digital sigs. reception 17092
  PCS, LEO satellite network, delivery time anal. 25315
  PCS, multiple hierarchical cellular overlays 25317
  PCS air interface stds., develop. 3369
  PCS CDMA syst. overview 33870
  PCS evol. 3352
  PCS network perform. optimisation by multilink B-ISDN routing protocol 25070
  PCS OAM&P stds. 25426
  PCS provisioning in cellular environ. 3496
  PCS retailers, network infrastructure wholesale opportunities 25430
  PCS stds. develop., Committee T1 work 25425
  PCS systs., OAM&P std. 3368
  PCS technol., air-interface stds. competition 33772
  PCS traffic perform. stds. 25427
  π/4-shift QPSK baseband modulator for pers. handy phone syst., CMOS mixed-sig. IC 29078
  portable telephone for pers. digital cellular syst. 3467
  portable wireless access for voice/data 17132
  propag. channel model 3415
  public key cryptography, benefits and limitations 15720
  QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
  queueing channel assignment for PCS hand-off/init. access 25391
  radio syst., PSTN network syst. interfaces/services 25383
  RF design in mobile radio transceivers, IEE Colloquium, London (1994) 5483
  RF prediction tool selection, microcells/PCS modeling 31832
  RF predictions and modeling for microcells and PCS cell design 9311
  Rice-lognormal terrestrial/satellite channel model 31834
  Rohde & Schwarz Digital Radiocommunication Testers CMD 54/57 9341
  routing, cct.-switched network with wireless subscribers, optimal FCL table *(Korean)* 41566
  satellite link requirements 33956
  satellite PCN, 3rd generation, technol./networking issues 25413
  satellite systs. for pers. commun. services 25298
  satellite-PCN, UMTS evol. 9388
  satellite/cellular integrat., terminal manufacturer's perspective 25396
  satellite/terrestrial interoperation 25404
  SDMA adaptive array approach role in design 25375
  service dyn. time slot assignment strategies 42224
  shared time division duplexing for wireless digital speech commun. 3333
  shared time-division duplexing for wireless speech commun. 3442
  SHF/UHF indoor radiowave propag. meas. 7976
  slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
  slow freq. hopped data commun. syst., design 9287
  space/terrestrial PCS, multiple hierarchical cellular overlays 25397
  speech coding for pers. commun. 8196
  speech stat. multiplexing, resource auction multi-access excess capacity 42200
  SS-CDMA PCS in-building systs., distributed antenna 9231
  stepwise telecomm. software generation, service specs. 3122
  street microcellular syst., channel allocation, distributed control 25419
  SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
  switching center, cellular and PCS digital-mobile services 17042
  TDMA digital cellular systs., PDC std. based 3441
  TDMA radio syst., autonomous SIR-based power control 17130
  TDMA systs., unique-words perform. eval./selection/design 24780
  TDMA-TDD commun. syst. semiautonomous frame sync. 33829
  TDMA-TDD personal commun. syst. ADPCM voice transm. improvement 33830
  telecomm. service enhancement, pers. handy phone syst. 3115
  teletraffic challenges, pers. and mobile commun. 25292
  teletraffic perform. of GSM900/DCS1800, street microcells 42261
  TMN-based service control, Personal Communication Support System 41691

personal communication networks continued
  transmit antenna selection diversity, prediction 9304
  trends/developments 33430
  UHF DOA inside/outside buildings 9312
  UMTS, advanced TDMA mobile access syst. 25332
  UMTS, vision for 21st century 42279
  UMTS/FPLMTS, networks, users and terminals 3491
  United States PCS policy and rural develop. 3114
  universal pers. commun., indust. paradigm shift 17128
  universal pers. commun., security archit. 24930
  universal pers. commun., wireline network access 33929
  universal pers. telecomm. trends and indust. prospects *(German)* 2995
  universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
  universal personal communications, conf., San Diego, USA (1994) 20233
  unlicensed PCS band, wireless operation 25428
  UPT, PCS, pers. mobility 3366
  UPT service in multi-operator environ. 16617
  USA, future prospects of pers. commun. 3112
  USA, wireless technols. and PCS appls. 41712
  USA unlicensed PCS band, coexistence/access etiquette 3370
  V-band MIMICs for pers. commun. terminals 38008
  visual commun. media trends and prospects *(Japanese)* 16905
  wideband radio propag. for pers. communs., freq.-domain model 7964
  wireless access systs., low bit-rate video transm. 17088
  wireless commun., antenna design 17129
  wireless commun., GIS appls. 24850
  wireless commun., network issues 17113
  wireless commun. channels, propag. meas. and models 17108
  wireless data services, archit. alternatives 25135
  wireless multimedia commun., adaptive rate multiple access 41991
  wireless network mgt., impact of site selection 41674
  wireless PCS radiowave propag. 3379
  wireless pers. commun., overview 17107
  wireless pers. commun., TDMA methods 17109
  wireless pers. commun., tree-search resource auction multiple access 9290
  wireless world wide web client experience 33527
  GaAs IC for portable commun., needs 42231
  GaAs radio front-ends, PCN 25328
  Si radio front-ends, PCN 25328
personal computers *see microcomputers*
personal digital assistants *see notebook computers*
personal identity verification *see biometrics (access control)*
personal information systems
  CMOS LSIs for pers. inform. and telecom. systs., trends 22565
  SH7600, RISC microcomputer for pers. commun./multimedia eqpt. 12582
personal organisers *see time management*
personnel
  see also education; human resource management; management; teaching; training
  132 kV indoor substation earthing, pot. gradients control 36481
  138 kV power line damper repair, live-line working 10751
  B-ISDN, IN mgt. syst. 8843
  Bulgaria, nuc. plant analyzer program 35839
  cardiac angiography, radiation exposure, personnel 18668
  career develop. 5563
  career develop., job searching, in-house adverts 28363
  chem. indust. safety practices, IEEE 463 Standard, 1994 changes 89
  company downsizing, organisational change, Newtonian metaphor 20371
  cooperative R&D venture commun., social comparison problems 28374
  CR-39 dosemeter, wide-range neutron dose determ. 43395
  curriculum, technol. and staff develop., college-school partnership 20272
  Dosicard, indiv. dosimetry syst., on-site eval. 43394
  Eastern and Western Europe, telecomms. engineers 16545
  elec. accidents, Tort liability for injuries, employees 78
  elec. engng. training programmes, overview 36935
  elec. utility operation/maintainance, business strategies adoption 10637
  elec. utility personnel education/training overview 26971
  elec. utility quality mgt. case study, Cyprus 19148
  electronics indust. CAQ, real-time proc. control-based 11839
  EMF health risks for elec. utility workers 43386
  employment mgt. struture changes, UK 11630
  engineer promotion, projects, problem solving 5564
  engng. education, consultancy opportunity/challenges, India 5556
  engng. education, indust.-university collaboration, India 5555
  engng. graduate work/employment profile survey, India 5552
  engng. manpower education and economic develop., India 5550
  engng. mgt. execs. selection, in-house recruitment 11665
  engng. mgt. status, working level viewpoint 11671
  engng. personnel mentoring, career guidance benefits 28341
  excellence promotion 28340
  flame-resistant clothing develop., elec. indust. 36984
  GPU Nuclear, personnel qualification/training 4782
  high-technol. mfg., business cycle anal., USA 11673
  higher engng. education, quality improvement syst. 20320
  human expert emergency situation perform. assess. 37182
  IC manufacture, self-directed work team evol. 36953
  intensive care unit, radiological activity, patient/worker exposure 18665
  interventional radiology, occupational exposure, pers. dosimetry guidance 10297
  laid-off engineers, pers. experiences 5561
  LV switchgear arcing fault protection 19891
  manager selection/training/employment in Russian market economy 82
  med. exam./treatment, ionising radiation, patient dose reduction 18638
  mfg. at IBM 200 mm-wafer facility, tech. support integrat. 36977
  mgt. exec. mentoring, psychological case study 11668
  mgt./skilled worker qualification and training, former East Germany 81
  model contract forms, overview 11629
  network reconstr. simul. for control room staff *(German)* 19178
  nuc. waste salt dome repository reliab. and safety assess. 11689
  Nuremberg regional power supply undertaking restructuring *(German)* 10649
  nurses, power freq. mag. field exposures 18621
  operator mental model, multilevel flow modelling *(Japanese)* 43828
  pers. protective grounding, param. anal., software 20384
  petrochemical indust. MV arc resistant metalclad switchgear, safety benefits 5416
  photolithography procs., work cell design for high perform. 37027
  physicians, job dismissal for economic reasons, ethical considerations 43184
  post-takeover R&D fns. integrat., empirical study 36943

personnel continued
  power station operator training, techs. and perform. 28279
  power syst. operator training, Kytken multimedia training syst. 19164
  product develop. cycle time, conceptual model 28375
  product introduction, vol. mfg. 28371
  professional engineer career develop., education effectiveness study 20326
  professional engng. careers develop., education-based 11666
  project-oriented careers, human resource mgt. 36941
  quality mgt., human resource aspects *(German)* 5682
  R&D employee empowerment, mgt. reengng. project 11667
  R&D personnel, career develop. surveys, UK/Japan 36945
  R&D personnel, invention incentives overview, Germany 36946
  R&D project team climate/perform. study, Korea 36944
  resource mgt., stochastic techs. 20362
  reward systs., current trends 11627
  scientific research institutions, scientist/manager occupational roles 36942
  small business innovation activity overview 28376
  supervisorless semicond. fab. environ., CIM productivity monitors 37052
  System 80+ Standard Plant, design, organizational struct., staffing 4794
  teaching professional interpersonal skills via interactive video 34273
  TEAMSS Project, multi-level staff training, interactive videodisc use 25676
  tech. personnel mgt., requirements, guidelines 11669
  technician education, India, World Bank assistance 5545
  technol.-based firms, skilled workforce mgt. struct. 36947
  telecomms. equipt. fire risks, safety alarm syst. 16542
  TQM programme neg. impacts, case study 11642
  university research lab. personnel, tech. supervisor role 11670
  video teleconference use among geographically dispersed work groups, usage patterns and user preferences 33624
  WMS real time algm./AIP predictive schedulers, comparison 20363
  women in technical/scientific fields, national survey results 28366
  workers protection optimisation, NRPB recommendations 10296
  X-ray exams., Estonia hospitals, QC, patient dose 18503
  ^{222}Rn progeny inhalation dose, Japanese NPP 18677
  SF_6 distrib. switchgear, personnel safety 11201
personnel monitoring *see radiation monitoring*
PERT
  see also project engineering
  net-present-value cost/time tradeoff 36976
  PACE programme anal., control and eval. 36975
  PERT/CPM network params. eval. 20394
  series-parallel digraph drawing 20560
perturbation techniques
  see also control system analysis; control system synthesis; singularly perturbed systems
  1/f noise in SAW resonators 30653
  analog neural net cct., learning rule 37922
  array sig. proc. algos., nonasymptotic perform. anals. 2550
  biisotropic materials, chirality/non-reciprocity determ. 15600
  biisotropic materials, chirality/nonreciprocity params., waveguide/resonator perturb. 15576
  circ.-polarized annular microstrip antenna, tuning stub anal. *(Japanese)* 40522
  complex permitt. meas. of low loss ceramics 34665
  computer network routing, perform. anal. 8779
  computer network topol. design 33432
  dielec. meas. in microwave range, indust., scientific and med. appls. 34663
  dielec. resonators, stress induced freq. shift 30658
  digital filters, multiple poles, perturb. effects 29393
  diversely-polarized array, MUSIC and Pencil-MUSIC algms., perform. anal. 40946
  double-scroll oscillator, chaos delayed feedback control 573
  dual problems, perturb., charactns. 11937
  feedforward neural nets, fault tolerance training method 12684
  fibers, Raman noise and soliton squeezing 31504
  flux-gate magnetometers on spinning spacecraft, calib. 35220
  fs opt. solitary wave propag. at the zero dispersion point, nonlin. dyn. 22814
  GI/G/1 queue with Bernoulli service discipline, on-line derivative estim. 33241
  HTSC thin films, microwave surface resist., calorimetric/perturb. methods 39232
  magnetron Vlasov model distrib. fn., cylindrical case 980
  microwave filter response of nonuniformly corrugated circ. waveguide 37965
  microwave heating syst. permitt. meas. correction procedures 44593
  microwave rect. waveguide applicator for dielec. sheet materials proc. 5385
  narrowband adaptive arrays proc., quantisation error modelling 32609
  nonlin. grating couplers, anal. by sing. perturb. tech. 14445
  nonlin. lossless transm. lines and equiv. ccts. anal. 31879
  optimum sounding sig. for time-delay measuring syst. 16063
  power converter, commutation cell bond graph model 21115
  priority queueing syst., RPA and harmonic gradient estimators appl. 11903
  RF syst., time const., pass. mode randomization 42177
  semilinear sing. perturb. problems, uniform convergence result 37345
  single-server queues, derivative estim., structural infinitesimal perturb. anal. 20513
  small and nearby large cylinder scattered field 31796
  solar collector dyns. ident., phys. model-based approach 27974
  spatial anal. methods, model errors influence *(French)* 16038
  spectral anal., ML method based on correl. matrix lin. symm. 32574
  transverse surface wave propag. on piezoelec. substr., modelling 30608
  vibrs. of piezoelec. body, thermal dissipation effect 30609
  window flow control, perturb. anal. 8778
PET (tomography) *see positron emission tomography*
Petri nets
  acyclic-graph evol. driven by node firing, concurrency and periodicity anal. 37571
  application specific syst. partitioning algm. 21198
  asynchronous ccts., state assignment problem for event-based specs. 12259
  ATM network congestion control algms., validation/perform. anal. by Petri net 41448
  autonomous decentralized power systs. growth modelling 26998
  autonomous distrib. mutual exclusion protocol for multiple net resources *(Japanese)* 2923
  AWK simul. of Petri nets for signalling protocol validation 41509
  circuits systs., symp., Chicago, USA (May 1993) 31
  client-server behaviour modelling of parallel systs. via Petri nets 16730
  coloured Petri nets, conflict sets 37272
  commun. framework for appls. 33333
  communication protocols, Petri nets/self-stabilization 2964
Petri nets continued
  deterministic and SPN, steady state solns. 41534
  digital ccts., data struct., solve satisfiability problem 29131
  EMC effects on connectivity of radio networks 17009
  Estelle specifications verification, numerical Petri nets 2974
  frame synchronized ring bus modeling, predicate/transit. nets 25038
  fuzzy Petri nets *(Chinese)* 28611
  hardware/software co-synthesis, design representation 28962
  hazard-free asynchronous cct. synthesis, sig. transit. graph constraints 6141
  hazard-free asynchronous ccts. with bounded wire delays, synthesis 12403
  high-level modeling and design of asynchronous interface logic 29167
  infinite SPN, matrix-geometric soln. 37265
  init. marking comparison modified incidence matrix *(Korean)* 209
  ISO FTAM basic file protocol, LOTOS specified, anal. 41538
  load modelling for commun. systs., Petri net-based model 25042
  Markov regenerative SPN, non-overlapping activity cycles 37267
  Markov regenerative SPN, sensitivity anal. 37261
  Markov regenerative stochastic models, soln. techs. 37274
  mfg. message spec., protocol design/anal., Petri net-based 8873
  mine elec. locomotive braking, pulsed control syst. modelling 28202
  online transaction proc., scalable net modelling 41878
  OR causality, modelling and hardware implement. 21247
  OSI environ., distributed message transfer and store appl. 33264
  parallel systs., Petri net perform. models 24774
  Petri-net-based algms. for parallel-controller synthesis 601
  power static converters, bond-graph config. enumeration 21114
  power syst. alarm proc., OO symbolic connectionist syst. 19158
  power syst. fault diagnosis, parallel proc. ES-based 19029
  protocol conformance test syst. using Petri nets, correctness of test logic programs 8765
  protocol handling syst. spec. and perform. 33488
  real-time Petri nets for modeling, controlling, and simul. of LANs in FMSs 16735
  rem. procedure call protocol, probabilistic validation 24821
  SPN, accomplishments and open problems 37263
  SPN, Markov regenerative SPN 20530
  SPN, structural perform. anal. 37264
  SPN, underlying stochastic proc. 37260
  static power converter interactive control syst., computer simul. *(French)* 27800
  static power converters, voltage control modelling *(French)* 27798
  stochastic event graph, iter. algm. for perform. eval. 5750
  stochastic Petri nets, automated time scale decomp. and anal. 37262
  telecomm. service protocol synthesis, Petri nets, validation tool 33632
  three-phase induction machines, two/three-level PWM invertor-fed *(French)* 11032
  time stream Petri nets, model for multimedia streams sync. 9056
  timed Petri nets, eventual invertibility 210
  token bus LAN, mfg. environ., perform. models 24990
  trace semantics for Petri nets 28594
  VLSI multiple-valued logic fn. optimisation based on Petri nets 6143
  wind-solar power plant control, Petri net-based model 19575
petrol engines *see internal combustion engines*
petroleum industry
  15000 hp 6000 r/min ASD, petrochemical compressor appl. 5415
  ASDs, power quality issues 5413
  CHP, develop. opportunities, East Asia 10845
  electrical systems, cards, standards and recommended practices 20169
  Hibernia offshore platform, integrated control syst. 5412
  high-accuracy microwave sens. and calib. 3964
  mach. condition monitoring, user's perspective 36181
  MV arc resistant metalclad switchgear, safety benefits 5416
  MV induction/sync. motors, design/protection/safety 5409
  MV/HV systs., protective relaying 5406
  offshore watersource heat pump appls. 28197
  petrochemical indust., used elec. equipt. sold 44635
  petrochemical plant, chem.-moisture barrier cable 5411
  petrochemical plant, elec./proc. control systs. integrat. 5410
  pipeline service, peak shaving generator appl. 5408
  refinery/elec. utility collaboration, overview 5414
  safety mgt., Norway 88
  squirrel cage motor fault survey 5404
  storage tank recirculatory flow, electrostatic charge estim. 15215
  substation, 5th/7th harmonic filters appl. 5407
  totally enclosed motors, hazardous locations appl. safety 19592
  weights and measures, conf., Kansas City, USA (1993) 28260
petroleum refining *see oil refining*
PFM *see pulse frequency modulation*
PGA *see packaging*
pH
  artificial acid rain, surface impulse breakdown tests 1505
  enzyme-based potentiometric/pH-stat biosensors, stainless steel electrodes 9945
  Ni-Zn ferrite powders, mag. props., microwave absorpt., pH depend. *(Korean)* 22689
  Si wafers, particle contamination minimization, wet proc. 30083
  SiO_2 opt. fibres, organically modified silicate coatings 1662
pH control
  Davis-Besse PWR, OTSGs, secondary-side pH control amines 27355
pH factor *see pH*
pH measurement
  Dome Water Monitoring Instrumentation System, submarine sonar dome corrosivity meas. 17676
  fibre optic microsensor arrays, multiple analytes detect. 17893
  fibre optic pH sens. based on immobilised dyes 34542
  fibre optic/hydrogel probe for distributed chem. meas. 17834
  glass pH sens. for temps. of 200-250°C 34464
  in-vivo biomedical monitoring by fiber optic systs. 18434
  integrated pH-ISFET/press. sens., SDB/SOI materials *(Chinese)* 25810
  lifetime-based opt. sens. of pH 34729
  multichannel biotelemeter, custom IC/syst. manufacture *(Korean)* 26280
  physiological pH monitoring, fluoresc. indicator fibre optic sens. 43223
  power transformer composite paper-oil insulation monitoring 19686
  pyranine doped SiO_2 sol-gel matrix, μm-size fluoresc. pH sens. 9877
  seawater pH meas., ISFET continuous flow method 10542
  solid-state pH sens., Nafion-coated IrO_2 electrode 3821
  swellable polymeric/fiber optic distributed sens. for water and pH meas. 26001

pH measurement continued
CO$_2$ emissions disposal, deep ocean injection expts. 10848
phantom images, television *see television interference*
pharmaceutical industry
QA of pharmaceutical vials, laser Raman spectrosc. 17928
phase changers *see phase convertors*
phase comparators
color TV subcarrier based freq. calib. device 17634
phase conjugation (optical) *see optical phase conjugation*
phase-contrast microscopy *see microscopy*
phase control
1.9 kW ZVS PWM phase switched DC/DC converter 44193
3-phase act. power filter, sliding mode control 19759
3-phase current invertor control strategy 36307
3-phase sync. motor, single phase supply, operation 19617
3ϕ phase controlled converter, software-based controller eliminating LF harmonics *(Korean)* 36370
200 MW klystron pulsed power modulator, electron LINAC appls. 34744
AC/DC buck rectifiers, supply voltage imbalance anal. 5994
adaptive phase control, RLS phase estim. 40799
AN/FPS-85 radar, peak power tailoring and phase nulling 34159
COSY, digital phase control syst. design *(German)* 43014
cyclotron autoreson. maser, efficiency enhancement, mag. field profiling 31136
DC motor drives, fuzzy speed/voltage control 28099
DC motors, motion controllers, software switch 19662
DC/DC PWM power convertor, small-sig. modelling 11148
double-fed induction generators, PLL controlled, stabil. anal. 44061
electrothermal guns, capacitor charging, voltage/current control 19777
FACTS, static phase shifters appl. 4629
fixed-freq. phase-controlled full-bridge reson. converter 19715
full period quadrature phase shifters, low losses 12739
HV/EHV power systs., boost transformers, optimal phase angles 43663
hybrid step motor control, torque ripples minimisation *(Korean)* 27761
hydraulic turbogenerators, intell. sync. control *(Chinese)* 10877
induction motor drives, closed-loop phase angle control 5260
induction motor drives, control, DC chopper 28081
induction motor speed controller, line voltage feedforward-based 27712
induction motors, voltage fed, field orient. control 19639
induction/PM sync. motors, radial posn. control 10979
ISL-EMA railguns, phase controlled thyristor main switches 31758
JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
LINC transmitters, automatic adjustment of gain/phase imbalances 25204
line conditioning syst., harmonics reduction, PF compensation 43659
Lockheed phase diversity test facility, expt. results 16215
mobile radio systs., microstrip networks for multibeam/reconfigurable operation *(English, Italian)* 42292
multiphase AC power converters, modular interface/algm. 19880
opt. Costas loop, perform. enhancement, phase subtraction 17338
phase-shift controlled converter input currents anal. *(Polish)* 36278
PM sync./induction mag. levitated rot. motors *(Japanese)* 44026
power syst. phase asymmetry relay control design 27057
power syst. sliding mode control, phase shifter-based design *(Japanese)* 26996
PSG waveguide opt. routing switch for radar phase control 14663
quasi-optic act. arrays using subharmonic locking, beamforming 40506
residential ASDs, simplified control scheme 5397
reson. power sources, freq./phase regulation, chokes 5092
sens. array sig. proc. tech. 32731
three-phase PWM rectifier, unity PF microcontroller 44177
thyristor power converters, nontunable pulse-phase control syst. 5102
universal motor cycloconverter control, microcontroller-based 44002
UPS PWM inverter, instantaneous feedback controlled 11177
US motors, adaptive speed control by phase control *(Japanese)* 11077
wind power self-excited induction generators, rectifying bridge studies 36084
GaAs MMIC control devices, review 29603
Si bipolar 4:1-multiplexer IC, 12 Gb/s, SDH syst. appl. 25177
phase convertors
see also phase shifters
3-phase induction motor, single phase supply, phase converter 11377
5-phase SRM drive, phase converter, microcontroller 5317
induction motor power supply, single/three phase conversion anal. 27722
induction motors, power convertor-fed, torque pulsation calcs. 27731
polarizers, translucent surfaces, constr. 23585
PV generation power conditioners, develop. efforts 27639
phase diagrams
oxide laser crysts., CZ growth 14828
Au-Ge alloy/GaAs contacts, phase comp. and microstruct. under high press. 6576
Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
GaSb:Cu single crysts., Cu doping 13302
Ge-GaAs consecutive LPE growth, GaAs static induction thyrister appl. *(Japanese)* 37407
$Hg_{1-x}Cd_xTe$, LPE layers, liq. temp., Hg press. effets 28780
Ni-InP syst., interfacial reacts. and phase stabil. 38391
RuO$_2$-Bi$_2$O$_3$(Al$_2$O$_3$)-NiO systs., phase equilibria 38046
RuO$_2$-PbO-NiO(TiO$_2$) systs., phase equil., thick film resist. 435
Si-Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
phase diagrams, magnetic *see magnetic transitions*
phase equilibrium diagrams *see phase diagrams*
phase estimation
adaptive phase control, RLS phase estim. 40799
adaptive Viterbi decoder, respective-state channel estim. *(Japanese)* 15741
ARMA syst. ident. based on second-order cyclostationarity 8424
auditory model inversion for sound separation 32383
chirp rate estim., weighting coeffs. 24223
closed loop carrier phase sync. techs. 8461
coherent FH-SS commun. syst. capacity 40551
damped sinusoidal proc., variance of LS estimators 2474
digital phase recovery in presence of freq. shift 8458
digital PM, carrier tracking and sym. detect., nonlin. filtering 8107
digital radio open-loop max. likelihood carrier sync. 42152
discrete polynomial-phase transform, co-channel FM/PM sigs. separation 24182
DPSK differential detect. scheme, phase seq. estim. 32684
FIR systs. blind ident., third order cumulants 2525
fully-polarimetric GLRTs for detecting scatt. centers in terrain clutter 17390
phase estimation continued
fusion devices, plasma spatial distrib., broadband reflectometry proc. 40977
Kullback dist. based nonlin. phase estimators 41011
lin. equispaced arrays, joint DOA estim. and phase calib. 8421
M-ary PSK single-sample symbol sync. algms. 40562
multicomponent sigs., amplit./phase params. estim. 40837
multiscale phase measuring syst., param. determ. algm. 3702
multitone signal components estim., low sidelobe time windows appl. 8445
multitone sync. for fading channels 8459
non-stationary sigs., amplit./phase estim. 8312
noncausal nonminimum phase ARMA modeling of non-Gaussian procs. 32458
nonnegative sigs., relax. procedure for phase retrieval 2472
phasor tracking, estimator based on fuzzy IF-THEN rules 4502
point source field of NB sig., atmos. spatial phase fluct. estim. 31789
polynomial phase param. estim.-phase unwrapping algm. 40931
random amplit. polynomial phase sigs. estim. 32557
recursive digital filter design, parallel allpass sects. and delay elements 29372
Rician fading channel nonlin. carrier sync. tracking perform. 33803
self coupled harmonics, stationary/cyclostationary approaches 40937
sig. correl. matrix, array receivers phase delays estim. 32611
single tone max. likelihood freq. estim., threshold effect 40828
spherical acoustic objs. in motion, seq. class. 17490
Unitary ESPRIT, rel., relational invariance struct. 40950
phase jitter *see jitter*
phase locked loops
see also digital phase locked loops; optical phase locked loops; phase locked oscillators
4-CPSK, carrier recovery scheme 8099
7.5 Gb/s monolithically integrated PLL/QW-HEMT clock recovery cct. 29341
64 Mbits/s PRML HDD channel, BiCMOS analog front-end sig. proc. 7143
act. mag. suspen. systs., PLL appl. *(Japanese)* 39215
analog and direct digital freq. synthesis, comparison 21132
analytic struct., complex time plane 12378
ATE environ., ±30 ps accuracy 9803
automotive ICs, dedicated protective fns. 36765
behavioral simul. techs. for phase/delay-locked systs. 29402
BiCMOS PLL, 6 GHz, 60 mW 6051
bifurcation, Galerkin-based anal. 21158
bipolar ring oscillators using inverters, freq. tuning 567
BPSK carrier demodulator and phase/freq. comparator 587
broadband freq. synthesizer, increased operating speed 564
CMOS/PLL LV synthesizer, SIMOX technol. *(Japanese)* 21152
coupled phase systs., locking response 12380
cryst. oscillator compensation in DDS/PLL appl. 21135
custom IC, conf., San Diego, CA, USA (May 1994) 20247
damped, homoclinic points and chaos 12376
DC motor drives, fuzzy speed/voltage control 28099
digital mobile commun., adaptive Rayleigh fading compensation for coherent GMSK sigs. 3433
digital PLL, wide locking range, fractional divider *(Japanese)* 37676
direct-carrier-modulation, low data-rates, sync. perform. 40613
disk-drive PLLs, anal./optim., Kalman filters 37675
double-fed induction generators, PLL controlled, stabil. anal. 44061
Earth satellite commun. systs. with low orbits, Doppler shift effects 17146
elastic force motors, speed control of integrated piezoelec. sens. 36206
equiv. diag. 37677
false lock breaking bifurcation 29079
fast acquisition PLL synthesizer, parallel N-stage cycle swallower 21134
fast pull-in PLL, anti-pseudo-lock fn. *(Japanese)* 29077
fast response phase detector for PLL 29081
FH-SS commun., PLL demodulator response 12377
first-order PLL in noise/interf., cycle slip 2547
GTAW, sync. weld pool oscill. monitoring/control 5618
HDTV transm. on SDH network, stuff sync. cct. design 25666
HF devices/ICs for portable cellular phones 17133
high-power magnetrons, phase locking 987
hybrid H_2/H_∞ filtering, PLL filter design 15950
IF amp. having low noise and wide AGC range *(Korean)* 37647
indirect method of nonlin. filtering, PLL synthesis appls. 32568
layout depend. fault models, analogue fault simul. 6871
LINC transmitter, combined analogue locked loop universal modulator 3322
LMSS, receiver 3rd order PLLs 42211
low noise CMOS freq. synthesizer, dyn. bandwidth control 21133
low-power 900-MHz mobile RF synthesizer, CMOS chip 33861
MMIC freq. synthesizers, phase noise reduction tech. 12816
MOS VCO cct., current-controlled differential delay cell 12362
moving magnet lin. DC motor, const. vel. control *(Japanese)* 44073
MRAC, Lyapunov fns. 590
multilayer Teflon microwave PWBs, isolation techs. 37974
noise models 21153
noncontact scanning force microscope 21154
oscillators, phase-syst. cascading, nonlin. dyn., modeling 12368
phase noise prediction, CAE software 12372
PLLs, sig. injection, sync. systs., anal./optim. 16014
radiotelescope continuum receiving syst. *(Korean)* 42553
S-band TT&C up link transmitters, DDS 42740
saddle type periodic points in PLL eqn., stabilization by OGY-control method *(Japanese)* 12375
SDH networks, pointer adjustment jitter cancelation 16453
second order PLL in presence of weak CW interf., Melnikov anal. 12379
second-order PLLs, separatrix cycle, calc. and stabil. 21157
self-tuned continuous-time notch filters, CMOS implement. 21412
single tone max. likelihood freq. estim., threshold effect 40828
slave clocks in chain, random noise accumulation 42954
SONET opt. commun. components, cryst. controlled 17171
super self-aligned BiCMOS technol. for low-power mixed-sig. appls. 30483
tanlock carrier phase recovery without divider and VCO 588
Telecom LSI series, Astro Array *(Japanese)* 13854
top/down analogue IC design CAD, behavioural modelling lang. 28986
UHF FM transmitter, 900 MHz, 80 channels 9181
UMA 1005T PLL IC with speed-up charge pumps, synthesizer appl. 21151
unequalized mag. recording channels, clock recovery 7193
utility/PV lines, automatic interconnecting syst. 43954
VCO jitter reduction, bandpass filtering 12363
VIF/SIF/PLL, TV sets/VCRs multistandard sig. detect. 42581
Si bipolar 156 Mb/s clock/data recovery PLL cct., S/H tech. 6052

phase locked oscillators
autonomous/injection-locked flux-flow oscillators, spectral linewidth 38015
coupled digital oscillators class, dyn. 6049
coupled oscillators, retrieval states, natural freq. distrib. effects 12355
gyrotrons, cyclotron harmonics, theory 6488
Josephson jn. array, noise 21139
Josephson jn. HTSC oscillator array, phase locking 38004
many coupled oscillators, self-sync. 37823
multi-stage PASOTRON, phase-locked BWO 21857
PLA of Josephson jns., GHz/THz oscillators 39280
radioastronomical receiver, 3-mm phase-locked LO 17528
X-band MMIC varactor-tuned VCOs, modelling and design 6342
$YBa_2Cu_3O_{7-\delta}$, 3 mm waveband Gunn oscillator, phase locking 21537

phase measurement
ATM over PON access systs., out-of-band ranging method *(English, Italian)* 33990
bathymetry data postprocessing/corrections, sidescan sonar syst. 10560
buried distrib. cable syst., rem. absol. phase meas. 27158
correction method for single chip power meter 4740
Decca Navigator radionavigation receiver design and DSP 42543
double differenced GPS phase obs., high precision positioning 42545
food monitoring, nonmetal foreign body detection 25804
GPS, baseline length estim. algms. *(Japanese)* 34195
GPS synchronized power syst. phase angle meas. 19369
harmonics ident. and power meas. in power systs. 4738
HF electronic component measuring syst. 9821
HF receiver for Doppler studies, design and fab. 42525
ICs, noise immunity, heatsink, influences 20436
induction motor param. est. models 4977
laser rangefinder, error sources 2156
liq. complex permitt. meas., phase info. of standing waves 34664
Loran-C waves near huge bridge, phase disturbances *(Japanese)* 42550
microwave dielec. resonator oscillator charact. meas. *(Croatian)* 569
multifrequency AM-based US syst. for dist. meas. 17473
multiscale phase measuring syst., param. determ. algm. 3702
optimized phase detect., radiation intens., probab. operators 34511
optoelectronic rangefinder phase meas., double referent mixing *(Croatian)* 3625
planar inductors charactn., 1 MHz, large excitation 6379
posn. detect. of multiple light beams 17781
power converters, digital current mode control charactn. 5116
power syst. disturbance stabilisation, phasor meas.-based 35488
pulsed FEL amp., temporal/spatial phase vars. meas. 7688
quasi-synchronous sampling algorithm for power system meas. 35693
RF vector analyzer based on synchronous sampling 25958
SK5 glass, SHG phase meas. 31569
transm. line dist. protection, power flow/voltage phasor oscill. meas. 4743
transm. line propag. const. determ. from phase inform. of standing waves 15551
video speed ADCs, differential gain and phase meas. 12609
wavelet anal. for sync. and timekeeping 42679

phase modulation
see also continuous phase modulation; phase shift keying
1 Gbit/s QPSK opt. microwave transmitter, SOA modulator based 9561
2D image range estim., PM 10029
10-Gbit/s 280-km nonrepeatered transm., suppression of modulation instabil. 9509
40 GHz indoor opt. fibre SS PCN/LAN expt. 33818
200-MHz quadrature digital synthesizer/mixer in 0.8-μm CMOS 21370
622 Mbit/s self amplified Raman repeaterless fiber link 17350
1550 nm opt. AM-SCM systs., self-PM induced second order distortion 34095
ADSL high speed equalizer, sig. proc. design 9086
AM-SCM lightwave syst., simultaneous scatt./interf. suppression 17175
analogue speech channel spectrum scrambling encryption with isomorphic emphasis 33802
asynchronous DS-SSMB commun. syst., TWT nonlin. distortion 25252
bacteriorhodopsin thin film interconnections, dyn. contrast reversal, self-PM 1783
binary phase only matched filter symm. breaking 31060
birefr. fibre modulation instabil. 30908
block coded modulation schemes, design/eval. 15781
cartesian feedback RF amp. lin., gain/phase margins 33758
cascaded Kerr birefr. fiber PM simul. 7806
CMOS quadrature digital synthesizer/mixer, 200 MHz 29245
cross phase modulated fiber laser modelocking 1880
cross-linked polymers, thermal stabil., electro-optic appls. 14517
cross-PM for opt. A/D converter, high resoln. spectra 7793
cubic nonlin. opt. media, multidimensional solitons 2069
DDS-based PM and FM gen., modulating sig. sampling effects 37657
depolarized source, rem. waveguide modulator high-power operation 14512
discrete polynomial-phase transform, co-channel FM/PM sigs. separation 24182
distrib. network disturbances, light flicker voltage requirements 20125
distributed opt.-fiber sens. by four-photon mixing pulse walk-off 42833
dual-mode dielec. resonator freq./phase discriminator 12740
extended H_∞ filter, robust EKF 40942
externally modulated opt. AM-SCM systs., 1550 nm, distortion 9423
fiber laser, spectral stabil., smoothness 25991
fiber optics, nonlin. refr. index meas., cross PM *(Japanese)* 30903
fiber-optic phase modulators, low-freq. 14363
fibre SBS suppression by mid span spectral inversion 34085
flexure-beam micromechanical SLM 7391
handportable satellite commun., lin. transmitter archits. 42332
HDSL archit./perform., practical implement. 9104
heterodyne PPM, convolutional coding 9474
in-fibre/fibre-compatible acousto-optic components 14553
in-line opt. amp. systs., num. simul. *(Japanese)* 14738
incoherent filtration of complex sigs. 8267
laser commun., Fabry-Perot interferometer for freq./spatial tracking 17312
lin. power amp. for cellular telephone, envelope feedback method 12342
liq. cryst. light valves for schlieren opt. projection 25929
mode locked semicond. lasers; self PM, timing jitter 31418
monopulse proc., AM-AM and AM-PM errors compensation 17423
multilayer planar opt. waveguide with buffer layers, guided modes 7343
noisy phase or freq. modulated sigs., demodulation, Kalman filters 40574
noncoherent freq.-PM, BER/PSD 24014
nonlin. fiber Sagnac opt. TDM switch 17336
opt. coherence domain reflectometry 18128

phase modulation continued
opt. coherence domain reflectometry, coherence fn. synthesis 34719
opt. FSK-FDM heterodyne detect. syst., cross-PM 17217
opt. pattern recogn., random PM techs. 32943
phase/FM combined, multilevel block codes 24012
photoconductive semiconds., transient photocurrents generated by step-PM 23421
piezoceramic plate bending motion meas. by homodyne holographic interferometry 40153
PMMA polymeric film electro-optic phase modulator 14534
polymer, electro-optic, for stable organic act. components *(French)* 1650
quantum confined light modulators 7400
rem. ellipt.-core dual-mode fiber strain sens., coherence-tuned interrogation 17918
residual and suppressed carrier systs., bandwidth, unwanted emission 32029
reson. cascaded surface-emitting SHG struct. self-PM 31485
ring fibre interferometer, sig. drift by transient polaris. effects 3849
self PM with finite response time, quantum theory 31898
semicond. laser freq. control, PM, and nonlin. freq. conversion *(Japanese)* 7624
single electron digital phase modulator 22501
single mode birefr. fibers, different freq. opt. wave cross-PM 22804
single-mode opt. fiber, single-pulse degenerate-cross-PM 40078
SOI waveguide single-mode opt. phase modulator, high efficiency 30972
solid-state laser modelocking, birefr. and PM 14811
soliton transm. on opt. fibres *(English, French)* 42342
Stockholm 10 Gb/s opt. fiber network 25517
subcarrier comb generator, phase-locked tunable config. 9426
suboptimum binary phase code search, genetic algm. 40577
tapered fibre nonlin. Kerr self-PM effects anal. 30885
telecom. network sync., phase noise eval., time domain meas. 24887
twisted NLC panel optim. for spatial light PM 31007
twisted NLC SLM, ternary phase-AM 22955
two-mode fiber equalizer ultrashort pulse transm., dispersion compensation 9472
waveguide-type opt.-freq. comb generator 22883
Er,Yb:glass laser, harmonic modelocking 23177
Er-doped fig.-8 mode locked fiber laser stabilization 7568
Er^{3+}-doped intracavity LD pumped modulated fiber lasers 1879
GaAs adaptive photodetector, broadband detect. of PM, 10 MHz freq. range 34509
GaAs/AlGaAs QW waveguides, all-opt. PM 23370
GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
GaAs/AlGaAs opt. phase modulators for microwave/photonic ICs 7495
InGaAsP/InGaAsP multiquantum well waveguide, nonlin., bias depend. recovery time 1717
$LiNbO_3$ act. stabilised electro-optic phase modulator, holographic recording 14526
$LiNbO_3$ waveguide Mach-Zehnder modulator, white light spectral anal. 14499
$LiTaO_3$ phase modulator, opt. heterodyne impulse-response meas. 30995
Nd:YAG lamp-pumped laser, opt.-Kerr-enhanced mode locking 23179
Nd:glass ultraintense laser pulses, highly efficient SHG 31498
PZT phase modulators in opt. fiber sens., transfer fns. 34523
Ti,Er:$LiNbO_3$ harmonically mode-locked waveguide laser 39736
Ti:sapphire laser, FM operation 31254
Ti:sapphire regenerative amp., tunable 30-fs pulses 39739
$YBa_2Cu_3O_{7-x}$ film parallel-plate microwave reson., freq. modulation 7253

phase modulation, optical *see optical modulation; phase modulation*

phase noise
BAW/SAW quartz resonators, noise charact. 37660
BiCMOS PLL, 6 GHz, 60 mW 6051
bipolar transistor ccts., LF phase and amplit. noise 40381
broadband freq. synthesizer, increased operating speed 564
ceramic DRO aging 29575
charge pump phase detector for digital PLL 37678
coherent opt. DPSK systs., phase noise corrupted, BER perform. 17327
coherent opt. POLSK receivers, LO intens. noise and unmatched quantum efficiencies 25491
combined sapphire oscillator-H_2 maser freq. std. 9778
CPFSK differential detect., LO phase noise effects 42283
CPFSK opt. receivers with Gaussian freq. pulse shape, perform. anal. 42436
cryogenic sapphire dielec. resonator microwave oscillators 12760
DDS-based synthesizer for mil. spaceborne appls. 43581
Doppler radar IF spectrum, range correl. and LO phase noise effects 34140
DPSK opt. heterodyne receiver, combat laser phase noise 42372
extremely low noise SAW oscillator 30648
FET, phase and baseband 1/f noise correl. study 833
HBT oscillators, bias-depend. noise up-conversion factor 6322
high isolation distrib. amp., 5 and 10 MHz 42756
high-speed freq.-switching synthesizer, fractional N PLL 561
in-line opt. amp. systs., SNR degrad. *(Japanese)* 42396
Ka band satellite terminals, phase noise charact. 3534
L-band low noise DRO 29576
linecoded opt. heterodyne FSK systs., nonuniform laser FM response 42457
LO for commun. satellite transponder, 2.8 GHz *(Korean)* 12763
low noise CMOS freq. synthesizer, dyn. bandwidth control 21133
low-noise oscillators design/optim., nonlin. CAD 29072
MFSK sigs., non-coherent detect., phase noise, AWGN channel 15701
microwave oscillators, high-Q temp. stabilized sapphire resonators 30623
MMIC freq. synthesizers, phase noise reduction tech. 12816
noisy phase lightwave systs., power moment derivation 25478
opt. Costas loop, perform. enhancement, phase subtraction 17338
opt. DPSK/heterodyne detect. scheme, two polariz. planes *(Japanese)* 17265
opt. heterodyne binary-DPSK systs., anal./perform. 42346
oscillators for low phase noise/power consumpt., anal./optim. 37659
phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
photonic RF phased-arrays, phase noise from lasers and sources 8075
PLL noise models 21153
PLL phase noise prediction, CAE software appl. 12372
PLL synthesizer, fast acquisition, using parallel N-stage cycle swallower 21134
preamplified opt. direct detect. systs., receiver noise effects 17178
quartz resonators/oscillators, 1/f freq. flucts./nonlin. 30627
radar exciter, ultra-low phase noise 42523
radar phase noise meas., digital DP 34156
radar phase noise meas., fiber-optic delay lines 34155
resonator selection in quartz oscillators 37663

phase noise continued
Sagnac interferometer, fund. thermal induced phase flucts. in fiber loop 17921
Sagnac interferometer, thermal induced phase flucts. 17855
SC-cut resonators appl., high stabil. oscillators 39108
semicond. devices, carrier fluct., excess noise generation 22348
semicond. lasers using phase conjug. feedback, phase noise reduction by self-phase locking 2002
series reson. oscillator design tech. for VHF/UHF ccts. 21136
single mode opt. fibre phase noise cancellation 1672
STW fixed-freq. oscillators, low g-sensitivity 37989
surface transverse wave oscillators, extremely low thermal noise 30650
TCXO with quartz cryst. resonators, cellular telephones appl. 39106
telecom. network sync., phase noise eval., time domain meas. 24887
UHF FM transmitter, 900 MHz, 80 channels 9181
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
VCO, low phase noise, analog cellular portable radio appl. 12356
VLBI fringe detect. methods 42557
X-band sapphire resonator-oscillator, temp. stabil. 29572
GaAs MESFET varactor tunable oscillators, noise calcs. 21565
GaAs TUNNETT diodes above 100 GHz, efficiency, RF power levels, free running oscillator appl. 37976
GaInP/GaAs HBT K-band DRO 6307
InP D-band Gunn devices, second-harmonic power extraction up, 290 GHz 1332

phase regulation *see phase control*

phase shift circuits *see phase shifters*

phase shift keying
see also differential phase shift keying; quadrature phase shift keying
8-PSK multilevel block modulation, uniform dist. property 2361
8PSK-TCM modem, develop. and transm. perform. 25156
act. sonar class., bearing meas. 34184
antenna array, multiple co-channel digital sigs., blind estim. 8306
ARMA modeling for radar sig. detect. 34132
auto-correl. polyphase seqs. of prime length 40545
automatic class. of PSK sigs. by optimum method 15689
band limited PRBS, PSK syms. 8388
bandlimited DS/SS and narrowband M-ary PSK timing jitter sensitivities 40550
bandlimited PSK channel with hard limiting amp., charact. *(Japanese)* 24011
bandlimited PSK-sig., envelope control 15702
BER, influence of multipath propag. *(German)* 23635
binary block codes, scarce-state-transit. error-trellis decoding 40705
blind adaptive array simul. for realistic mobile channel 33795
blind equalization based on Nakagami fading index, cost fn. 3430
block demodulation, overview 24019
BPSK homodyne detect. expt. with solitary DFB LD, 10 Gbit/s 17329
BPSK receiver, class-A impulsive noise quadrature components 25220
BPSK with open-loop tanlock carrier recovery, perform. 24015
CDMA DA chip synchronizers for bandlimited DS/SS M-PSK sigs. 9371
CDMA multiple-cell radio syst., perform. eval. 3386
CDMA receiver, near-far immunity 25228
CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
closed loop carrier phase sync. techs. 8461
coded modulation, Rayleigh fading channels, error probab. 24017
coherent FH-SS commun. syst. capacity 40551
coherent opt. CDMA, laser phase drift effects 42348
coherent radar PSK sigs., complementary C-seqs. 17381
complex sig. detect. in white Gaussian noise and narrow-band interf. 32592
concatenated coding syst., modified erasure declaration Viterbi decoder 8173
data commun., sinewave modulation, DDS/sigma delta techniques 12353
decision feedback multiple-sym. differential detect., diversity 9200
decision-feedback max.-likelihood decoder for finite-state Markov channels 15750
deep-space commun., coherent detect. opt. relay satellite 17298
digital commun. systs. degrad., multipath environ. 3412
digital modems, sym. synchronizer perform. 8457
digital radio open-loop max. likelihood carrier sync. 42152
digital satellite channels, adaptive DFE, multilayer neural networks 25453
digital transm. over degraded channels, coded modulation 8103
digital TV for terrestrial broadcasting, modulation 17534
digitally generated signals, filtering 8444
direct-seq. systs. in lineal microcells, perform. eval. 25365
dispersive fading channel, high-speed data transm., SR-chirp PSK 9356
diversity combining, correl. slowly flat-fading Rayleigh channels 8374
diversity gain of transmit diversity in Rayleigh fading systs. 9193
double half-bandwidth OFDM syst. for digital video broadcasting 9698
DS-CDMA, shadowed Rician fading land-mobile satellite channel 9268
DS-CDMA interf. cancellation schemes 17084
DS-CDMA syst., perform. of space diversity 33840
DS-SS commun. syst., path-diversity based on multiple path selection *(Japanese)* 25275
DS-SS RAKE receiver, ASIC implement. 9191
DS-SS receiver, multiple-dwell serial-search code acquisition 15779
DS-SS sigs. radiometric detect., wavelet transform 17012
DS-SS transceiver, digital IF BPSK, CMOS technol. 9182
DS-SSMA commun. systs., signature pairs 42181
DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
DS/CDMA, multilevel coded modulation, integrated receiver struct. 42144
FFT, coarse freq. acquisition 3438
FFT for PSK sig. carrier freq. meas. 34658
filter-nonlin. amp. syst. for PSK sig. spectrum conversion 32595
FQPSK modulation for wireless commun. systs. 17076
freq.-energy efficiency of repeater channel in satellite commun. 42312
fully phase transparent multidimensional trellis-coded MPSK 15700
Golay-coded M-PSK, Rayleigh fading channel, decoding 32090
heterodyne/homodyne opt. receiver design 42369
high speed indoor wireless systs., directional antennas 3329
high-data-rate MM-wave modulated subcarrier opt. transm., feedforward opt. modulation 9580
high-rate orthogonalizable convolutional codes 40632
high-speed staged decoder VLSI systolic archit. 40586
hybrid DS/FH SS syst. for mobile radio channel 3483
hybrid DS/SFH SSMA commun., nonselective fading channels 3321
indoor mobile commun., CCI and multipath delay 17098
intell. vehicle/highway syst., packet-switched commun. 3460
ISI pilot symbol asisted modulation perform. and delay spread sensitivity 32031

phase shift keying continued
low SNR approx., phase PDF for PSK sigs. 2364
M-ary phase coding for noncoherent AWGN channel 24046
M-ary PSK non-decision-aided feedforward carrier sync. asymptotic cycle slip probab. 40554
M-ary PSK single-sample symbol sync. algms. 40562
M-ary PSK suboptimal coherent detect., error rate bound 15961
microstrip QPSK modulator constr. and characts. *(Croatian)* 808
microwave modulator for 16-posn. amplit.-phase keyed sigs. 12373
MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
mobile satellite channels, partial response coded MPSK anal. 42205
module-phase codes with noncoherent detect. 40635
MPSK (un)coded transm. on multipath fading channels 9169
multi-access sig. packet network authentication assess *(Russian)* 16464
multi-D trellis decoder for 155 Mb/s concatenated codec 33684
multichannel MM wave subcarrier transm. by reson. modulation of monolithic LD 42393
multidimensional 6PSK trellis code design 40585
multifrequency binary measurement using frequency shift keyed symbols 25744
multilevel block codes for Rayleigh-fading channels 15768
multilevel coded FSK/PSK modulation 15746
multimodulation acoustic commun. syst. 9658
multipath channel Viterbi algm. multitrellis decomp. 40558
multipath compensation for underwater acoustic commun. 9614
narrowband PSK data transm. via opt. fiber, encoding/decoding ccts. 9527
neural network mapping, multiuser array beamforming 40907
non-Gaussian fading channels, perform. 32041
nonselective Rayleigh fading channels, sym.-aided channel estim. 7975
nonselective Rayleigh fading channels, sym.-aided channel estim. 24016
Nyquist charact. allocation, transmitter and receiver *(Japanese)* 25213
opt. Costas loop, perform. enhancement, phase subtraction 17338
optimum receiver, class A interf./relative freq. wt. 25217
OQPSK-type modulations, mobile radio transm. modeling/perform. eval. 17122
orthogonal multi-carrier CDMA, nonfading/nonselective fading 24783
P^2 codes, pragmatic trellis codes utilizing punctured convolutional codes 32114
PCS, antenna arrays, co-channel digital sigs. reception 17092
PCS, spectral efficiency of multitone freq. hopping syst. 9217
phase/freq. comparator and BPSK carrier demodulator 587
pilot sym.-aided tech., digital sigs. in multipath environ. 9366
pilot sym.-aided transm. for satellite/terrestrial mobile systs. 25403
PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
PSK M-ary modulated sigs., CCI estim. 33884
radio LANs, FEC, ARQ, and throughput of 16678
recursive const. modulus algm. for real-time array proc. 8352
residual and suppressed carrier systs., bandwidth, unwanted emission 32029
RG algm., blind equalization algm. *(Chinese)* 8403
Rician-type error probabilities, tight bounds and appls. 15712
RLS adaptive equaliser digital commun., importance sampling 16409
Rohde & Schwarz HF Data Modem GM 857 C4 9119
rot. invariant nonlin. trellis codes for 2D modulation 24031
rural communication in multi-path channels, spread spectrum appl. 9189
satellite TDMA binary PSK sig. demodulation without explicit carrier sync. 40553
satellite-to-land-mobile commun. systs., perform. 9210
sector antenna/DFE modems for indoor radio commun. 3167
sectorized mobile microcellular radio syst., perform. anal. 3451
sig. copy, partially known, unknown array response 40957
single/multi-amplit. sigs. in interf. channels, neural-net based receiver 16408
slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
space laser commun., effect of turbulence on M-ary coherent PSK systs. 17317
SSMA coded systs. combining FSK and PSK 33206
STARNET opt. WDM network, high-speed interface 9514
STEL-1103, low cost return path CATV transmitter ASIC 42609
suppressed carrier coherent fiber optic transm. PSK modem 3590
tanlock carrier phase recovery without divider and VCO 588
TCM, probab. dens. of ISI 15713
TCM decoder perform., 8 PSK, 8 PAM, 16 QAM, additive mixture Gaussian/impulsive noise *(Korean)* 32195
TCM/M-PSK, trellis-coded M-ary PSK for digital land mobile commun. *(Korean)* 17045
time-varying nonselective fading channels, max. likelihood data-aided symbol sync. algms. 41386
trellis codes, error probab., dist. spectra/upper bounds 32063
trellis shaping schemes bandlimited PSK-sig. envelope control 8095
underwater acoustic data commun. link adaptive equaliser 9612
underwater high data rate acoustic commun. systs. perform. 17360
vector modulator, bal. design, C-band 12371
Viterbi demodulator, phase tracking *(Japanese)* 24176
Weil exponential sums over Galois rings, upper bound 32057
WinAnalysis software, fully automatic sig. detect. and anal. 9816

phase shift microphones *see microphones*

phase shifters
see also ferrite phase shifters; microwave phase shifters; millimetre wave phase shifters; phase convertors; UHF phase shifters
asymmetric three-phase-shift DFB LD, design 14921
CMOS delay-locked loop for 18 Mbit, 500 Mbyte/s DRAM 6155
CPW, patterned conductive top covers, phase shifts 29524
current source PWM rectifier cct. studies 44181
FACTS, interphase power controller, voltage injection 4520
FACTS, line fault protection, variable reactor, phase shifter *(Japanese)* 10783
FACTS, static phase shifters appl. 4629
full-bridge DC/DC power converter, extreme conditions operation 44137
HF series reson. PWM inverters, induction heating appls. 5123
induction motor power supply, single/three phase conversion anal. 27722
magnetooptic channel waveguide devices, geometric phases 31017
optics for phased array antennas 31993
phased array antennas, EW appls. 40511
power syst. electromechanical oscills. damping, controllable capacitors 4521
power syst. oscills. damping, control design 27004
power syst. sliding mode control, phase shifter-based design *(Japanese)* 26996
power syst. unified power flow control algm., phase shifter *(Chinese)* 27032
precision freq.-independent variable-phase phase shifter 21465
silica-based thermo-optic switches *(Japanese)* 17181

phase shifters continued
two-port coherent lattice-form opt. delay-line cct. synthesis 14669
VCSEL, integrated opt. beam router, opt. interconnection 23305
wideband polarizing phasing sects., charact. 12726
GaAs CPW opt. illum. 3D full-wave anal. 23810

phase shifting masks
0.35 μm I-line photolithography, automatic proximity correction, chip layout 1311
2×2 phase mask, 2D pattern form. 13551
apodised in-fibre Bragg grating reflectors, photoimprinted 22812
attenuated phase shift masks, contact prod. 13552
attenuated phase shift masks, etched quartz/embedded materials 38724
attenuated phase shift masks, transm. and side-lobe effect 38726
attenuated phase-shifting mask, lithographic charact., phase error 13550
Bragg fibre gratings, fab. for spectral response apodisation 22811
Bragg grating in opt. fibres, holographic and mask projection methods 39335
chirped fibre gratings prod. by fibre tilting 22799
CMOS devices, proximity SOR/deep UV PSM lithographies 13527
CMOS proc., DUV lithog. 39003
contact hole printing, simul. 13434
deep UV phase shifted-single layer halftone reticles, 256 Mbit DRAM cell patterns 13556
defect inspection, database comparison 22302
dense contact holes, phase-shifting masks, EDM methodology 13553
design, compactor 13548
design, SIMPHAD program 13435
exposure-defocus forest 13546
lens aberrations 13502
lithog., nanometer-scale dimens. metrology 13486
LSI technol. 13503
NOLMEX, resoln. enhancement lithog. tech. 13562
opt. lithog., 0.35-0.25 μm technols. 38764
opt. lithog., gigabit technols. 1303
opt. lithog., phase-shifting masks, optimized illum. 13501
opt. lithog. technols., lifetime, wavefront engng. 13547
opt. phase-shifting masks, inspection, automated electron-beam syst. 13488
photolithography, 0.13 μm pattern delineation using KrF excimer laser light, ULSI fab. 13555
photolithography, i-line projection systs., duty ratio of line and space 30161
photonic IC, fab., phase grating masks 39456
point and 2-dimens. meas. 38725
polysilicon level random logic ccts., phase shift mask 13549
quartz etching, phase shifting masks 38727
quartz-etch attenuate phase shifting mask, i-line stepper 38751
rim and attenuated phase shift masks, FIB defect repair 38762
rim phase-shifting mask, high-dens. cct. layout 13504
synchrotron lithog., slope attenuated phase-shift X-ray masks 13529
UV written refl. grating structs. in photosensit. opt. fibres 1679
void defect repair, focused ion beam tool 13497
MoSi based attenuated phase-shift masks 13498

phase space methods
transient energy and stabil., interactive program 28335

phase transfer function *see optical transfer function*

phased array radar
2D spectrum estim. method for bearings and Doppler freq. determ. 16027
act. phased array radar for Royal Netherlands Navy *(English)* 3611
adaptive beam pointing control 17416
computer controlled, archit. and design 42517
FOPAIR, focused array imaging radar for ocean rem. sens. 26732
Gunn effect radars equipped, sig. opt. proc. 42509
integrat. of tracking and sig. proc. 17366
maneuvering targets, beam pointing control 17414
ocean surface currents meas., HF radars 35337
optical processor systems, conf., Orlando, USA (1994) 5435
radar, ang. coord. meas., modelling 3608
revisit control for tracking maneuvering targets 17371
spatial-Doppler coherent proc. channel, quantization noise estim. 34121
spatial-Doppler filter, projection method, calculate weighted coeff. vector 42492
surface contour mapping, harsh environ. appl. 42514
transition of opt. processors into systs., conf., Orlando (1993) 28242
transmitter, pulsed power monitor syst. 34153

phased arrays (antenna) *see antenna phased arrays*

phased locked oscillators *see parametric oscillators*

philosophical aspects
see also humanities
principia mathematica for electronics/chem. analogies 21095

phonetics *see speech processing*

phonon bottleneck *see phonons*

phonon spectra
see also vibrational modes
diamond, CVD grown, photoconductive spectrosc. 38244
GaAs:Si, multiple δ-layer-doped MQW, hot electrons 38365

phonons
see also interface phonons; localised modes; phonon spectra; polaritons; surface phonons; tunnelling spectra; tunnelling spectroscopy
diamond crysts./superlattices, isotopically engineered 38502
InP, ALE growth, XRD/Raman Obs. 12052
microdroplets, SBS/SRS, phonon/photon-retention effects 31508
quadratic-cubic nonlin. dispersive media, unique solitary-wave polaritons 7803
quantum well lasers, intens. modulation, carrier heating/transport 14865
$BaTiO_3$/p-Si capacitors, struct., elec. props. 39061
$Ba(Y_{1/2}{}^{+3}Ta_{1/2}{}^{+5})O_3$, struct., dielec. props., 10^2-10^{14} Hz, 20-600 K 6890
$CuInSe_2$ films, laser ablation, stress-induced Raman freq. shift 37482
GaAs crysts./superlattices, isotopically engineered 38502
GaAs/AlAs double-barrier heterostruct., tunnel current oscills. 1147
GaN epitaxial film on AlN-buffered Si(111), strain effects 12098
Ge crysts./superlattices, isotopically engineered 38502
Ge:Ga, hole lifetime, uniaxial stress depend. 38240
Ge:O crysts./superlattices, isotopically engineered 38502
HgI_2, electronic and opt. props. 43077
InGaAs-GaAs narrow quantum wells, carrier capture and relax. 2004
InGaAs-InAlAs quantum wells, electron scatt., photoreflectance obs. 13141
n-InSb doped crysts., parametric amplif. and oscill. 40115
InSb, low press. CVD, using neopentylstibine, trimethylindium 37485
PZT thin film memory materials, fatigue mechanisms 30569
Si:P crysts./superlattices, isotopically engineered 38502

phosphate glasses
for iron and vanadium phosphate semiconducting glasses see amorphous semiconductors
see also phosphosilicate glasses
laser glasses, platinum-inclusion dens., proc. gas environ. effects *(German)* 37543
silicate/phosphate high-ohmic glass films with electronic cond., ion-beam sputter prep. 20927
solar cells, phosphate glass based protective coating 36596
Cu^+:CaO-P_2O_5 glasses for lasers 5910
Er-doped integrated glass laser, modeling and optim. 22921
Er^{3+}-doped phosphate fibers, Nd:YAG laser pulses upconversion 31528
Na_2O-Nb_2O_5-Al_2O_3-P_2O_5, planar ion-exchanged waveguide form. 22864
Na_2O-WO_3-Ga_2O_3-P_2O_5, planar ion-exchanged waveguide form. 22864
Nd doped phosphate/silicate glass, surface luminesc., ion exchange effects 14419
Nd:phosphate glass fibre-bundle laser, Q-switching 23114
Nd:phosphate glass laser, thermal effects on lasing charact. *(Korean)* 14777
Nd-doped phosphate glass waveguide laser, pass. Q-switched 1917
V_2O_5-P_2O_5(Sb_2O_3)(Bi_2O_3), semicond. glasses, transport props. 13080

phosphorescence
see also fluorescent screens; phosphors
fluorescent opt. probes, phosphoresc. sigs. reemitted from tissues 17971
luminesc. lifetime-based sens. for relative air humidity 3870
polymer surface transformations luminesc. obs. 12204
O_2 opt. sens., nonlin. anal., phosphoresc. lifetime quenching 10181
O_2 opt. sens., phosphoresc. quenching 3917

phosphors
see also fluorescent screens; luminescence
Betacell microencapsulated nuc. batt., design and appls. 27961
cathodoluminescent screens, partially coherent radiation, recording and inform. proc. 34645
EUV aerial images, fluoresc. microimaging 13472
field-emission flat panel displays, beam focusing 18009
HDTV display, 6.9-in. high-resoln. projection CRT 17567
imaging plate X-ray detectors, BaF(Br,I):Eu phosphors 26257
mannose, lyoluminescence sensitivity, grain size depend. 14595
phosphor thin foil scintillating screen for TEM 7459
stereoscopic viewing systems using active and passive glasses, performance limits 18018
CaF_2:Mn TLD, uniformity/reproducibility 4340
$CaS_{1-x}Se_x$:Eu thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
Cu-Al-S syst. sensitized with rare-earth elements, blue-to-green phosphor 23007
KCl:Eu phosphor, erasable and rewritable opt. memory, photostimulated luminesc. 30842
KCl:Eu photostimulated phosphor storage material photolum. 30830
LiF:Mg,Ti (DTG-4), thermoluminesc. dosimetric characts. 10293
$Mg_{28}Ge_{10}O_{48}$:Mn, charge transfer excitation luminesc. 23003
α-Si liq. cryst. light valve projection display, phosphor develop. 1750
SrS phosphor thin-film electrolum. devices, rare-earth-ion-activated, transient emission 31090
$SrS_{1-x}Se_x$:Ce thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
Y_2O_3-SiO_2 thin film phosphors, for color display, rare earth doping 23008
Y_2SiO_5:Ce,Tb,Zr, X-ray storage phosphors 7458
ZnS:Cu electroluminescent lamp, fab. and characts. *(Korean)* 14616
ZnS:Mn/$BaTiO_3$ LV driven electroluminescent device, fab./characts. *(Korean)* 31094
ZnS:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
ZnSSe:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561

phosphosilicate glasses
borophosphosilicate glass films on Si wafers, neutron depth profiling 17667
borophosphosilicate-based glass, selective etching, low press. vap. HF 12214
PSG waveguide opt. routing switch for radar phase control 14663
B_2O_3-P_2O_5-SiO_2 glass reflow, 3D num. model 22181
BPSG dielec. film fusion, steam reflow and RTA/furnace annealing 20997
BPSG glasses, direct wafer bonding technol. charactn. by AFM 13400
Cu-Cr bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
Cu-Ti bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
CuCr alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
CuTi alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
Er,Yb:phosphosilicate fiber Fabry-Perot lasers, continuous/discrete wavelength tuning 31220
Er-doped 1.5-μm borophosphate/fluoroborate glass lasers 7599
P_2O_5-SiO_2 core single-mode fiber drawing, low Rayleigh-scatt. loss 7292
P_2O_5-SiO_2:Er^{3+},Yb^{3+} opt. fibres, transient gratings 30899
ZnO-Al_2O_3-B_2O_3-SiO_2-PbO glasses, crystallizable, opt., polarizable and MOS props. 12213
ZnO-B_2O_3-Al_2O_3-SiO_2-P_2O_5 glasses, crystallizable, opt., polarizable and MOS props. 12213
ZnO-B_2O_3-P_2O_5-SiO_2:BaO glass passivated, MOS capacitors, C-V 871

photoacoustic effect
differential fibre-optic sens. of laser-generated ultrasound 34518
dyn. IC devices, layered photoacoustic imaging 1464
lattice defects induced by ion implant., photo-acoustic displacement meas. 6616
MCM HTSC thin film interconnects, fracture strain meas. 12249
percutaneous absorptiometry by UV laser photoacoustic method 4263
plates, Lamb waves, mode propag., laser-based techs. 10582
pulsed laser ablation proc. deposition, optodynamic aspect 28862
resonator, high-Q, pulsed laser mode excitation, noise reduction 4417
shipboard toxic gas anal. by photoacoustic detectors *(Croatian)* 3902
stress induced opt. activity in piezoelec. crysts. 30575
Si, dust particles, cleaning, laser-generated nonlin. SAW 1239

photoacoustic spectra
methanol-d_2, opt. pumped, far IR laser lines and assignment 14711
polyimide thin-layers, curing, photoacoustic IR spectrosc. 20996
BaF_2-InF_3-ZnF_2-YF_3-ThF_4-GaF_3 glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647
Si, porous/light emitting, opt. response, photoacoustic spectrosc. 1238
SiO_2-SiO-CaO-Al_2O_3 glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647
Tm,Cr,Ho:YAG eye-safe pulsed laser and study of radiation absorpt. by mol. gases and air 14790
ZrF_4-BaF_2-LaF_3-AlF_3-NaF glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647

photoacoustic spectroscopy
see also photoacoustic spectra
car exhaust trace gas monitoring by laser photoacoustic spectrosc. 18907
fibre optic interferometry for photoacoustic spectrosc. in liqs. 17880
IR lasers, conf., Ascona, Switzerland (1994) 5485
quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
Stark cell and power supply develops. 26008
trace gases photoacoustical detect. 17984
CO_2 lasers, phys. and spectrosc. appls. 14691

photobleaching *see optical saturable absorption*

photocapacitance
see also photodielectric effect
GaAs:Sb grown by LPE, electron traps, DLTS 21918
InP/Al_2O_3 MIS capacitor, opt. control 13243

photocathodes
see also photoemission
Cs_2Te film photocathode electron source for Los Alamos advanced FEL 39943
DISKTRON electrostatic accelerator and laser-induced photoelectrons facility 31464
dispersed systs. of fine particles, IR detectors 25834
FEL, compact CW operation, supercond. RF accelerator technol. 39893
fine mesh photomultipliers, perform. tests, 1.2 T 21860
gaseous detectors, vis./UV photons 18339
imaging Si pixel array based posn.-sensitive photon detector 34514
materials for x-ray conversion microscope, photoemission 6694
multichannel imaging camera, TeV gamma rays, optimal charact. 4230
photocathode opt. resonator, coherent photoelectron bunch generation 970
photomultiplier photocathodes, ionic mechanism for degrad. 21859
photon spectrum meas. and calib. 4077
RF gun, laser driven, FEL operation appls. *(Japanese)* 29757
RF photocathode guns for γ-γ colliders 26031
RICH detector, CsI photocathode readout, low press. avalanche 34927
soft X-ray detectors, calibr., SUPER ACO synchrotron rad. 4227
streak camera subfemtosecond laser pulse meas. 31471
X-ray FEL, high-brightness RF photocathode guns 39897
X-ray streak camera operation, VUV wavelengths 21797
Ag-O-Cs photocathode, long-wave current sensitivity, thermionic current 6471
Ar, liq., UV scintillation light detect., CsI photocathode 26178
Ba photocathode, photoemission studies in polarized laser light 972
CsI photocathode for solid rare gas scintillation detector 18313
CsI, photoelec. and secondary electron emission, field enhancement 29744
CsK_2Sb photocathodes in RF linacs 43055
Cs_2Te Los Alamos FEL photocathode electron source 39942
Cs_2Te photocathode electron source for Los Alamos advanced FEL 39944
Cu surface two-color photoemission on fs laser pulse irrad. 38208
GaAs photocathode, polarized electron source, SLC 34888
GaAs photoemitter, response time, expt. study 29741
GaAs-$Al_{0.25}Ga_{0.75}As$/Cs-Au struct., elec. gated field-assisted photoemission 38379
GaAs-AlGaAs superlattice, high pol./quantum efficiency photocathode 22007
$In_{0.46}Ga_{0.54}As_{0.06}P_{0.94}$ photocathode, electron longitud. energy spread 29745
Kr, liq., UV scintillation light detect., CsI photocathode 26178
LaB_6 FEL photocathode photoemission studies by ns KrF excimer laser 38207
LaB_6, RF electron gun photocathode for FEL lasers *(Japanese)* 29758
LaB_6 photocathodes, photoemission studies in polarized laser light 972
Mg, short pulse UV/VIS laser irrad., photoemission 38204
W, RF electron gun photocathode for FEL lasers *(Japanese)* 29758
W, single-/two-photon photoelec. emission sensitivity, inversion 21792
Xe, liq., UV scintillation light detect., CsI photocathode 26178

photocells *see photoelectric cells*

photochemical energy conversion *see chemical energy conversion*

photochemical hole burning *see optical hole burning; photochemistry*

photochemistry
see also photochromism; photoelectrochemical cells; photoelectrochemistry; photolysis; photosynthesis
2-exposure holographic interferogram recording, residual memory 40125
bisazo pigments IR/near-IR, synthesis and xerographic props. 39557
BPDA/PDA/6FDAm photosensitive polyimide copolymer, low stress/high sensitivity 12205
command surface controlled liq. cryst. waveguide structs., opt. inform. storage 14343
conference, laser techniques for surface science, Los Angeles, CA, USA (Jan. 1994) 28208
conference, optical materials for energy efficiency, Freiburg, Germany (April 1994) 28209
HLW partitioning, Eu^{3+}-Eu^{2+} photoreduction, laser photochem. 35961
multilayer LB film opt. switching parallel proc. 7427
1,2-naphthoquinone diazide-4-sulfonate photoacid generators, chem. amplified resists 1308
oxide film deposition, rapid isothermal proc.-MOCVD 20846
photoactive solids, conf., Leuven, Belgium (1993) 11530
photodefinable benzocyclobutene thin films for MCM/IC packaging appls. 12206
photodelineated electro-optic polymers, GRIN profiles and loss mechanisms 14456
photoresist technol. for deep-UV lithog., sub-half micron linewidths 6670
PVA films, dichromated, real-time hologram recording, humidity effects 40143
rapid isothermal proc., photophysical/photochem. effects 22232
soft cleaning, vacuo UV radiation and mol. H_2 gas 13389
tetraphenylporphyrin doped PMMA fibre, spectral hole burning 23369
Ag patterns on Ag-rich Ag-Ge-S films, reversible photowriting, thermal erasing 13419
CO_2 sealed-tube TEA lasers, pulse repetition rate up, 5 kHz 14712
GaAs/Ti Schottky contacts, elec. param. stabil., cleaning depend. 29959
Si, UV excited Cl-radical etching, SEM obs. 1247

photochromism
aberchrome doped polymer photochromic film, nonlin. opt. gratings 39471
bacteriorhodopsin thin film photoanisotropic incoherent-to-coherent image converter 22990
bichromic holographic media vol. diffr. grating two-beam amplif. 7813
command surface controlled liq. cryst. waveguide structs., opt. inform. storage 14343

photochromism continued
conference, optical materials for energy efficiency, Freiburg, Germany (April 1994) 28209
mol. electronics, photochromic switches 15054
multilayer LB film opt. switching parallel proc. 7427
self-holding photochromic polymer Mach-Zehnder opt. switch 14556
thiophene oligomer thin film SLM *(French)* 2086
tunable fibre optic delay generator utilising gel-glass delay line 39349
UVSC photochromic dosimeter film for x-ray lithog. source eval. 6693
GaAs multiple gratings, anisotropic diffr. props. 31653
GaP at high temp., photorefr. and photochromic effects 14323
Ge doped opt. fibers, UV-induced transient photodarkening/photolum. 7339
KBr electrolytically colored crysts., nonlin. amplit. recording of holographic gratings 23469
$KTiOPO_4$, SHG, photochromic gray-tracking damage 2107
$Na_2[Fe(CN)_5NO].2H_2O$, metastable electronic states, holographic inform. storage 23454
a-Se, PECVD, struct., opt. props. 28828
Tb^{3+}-doped silica fibres, laser-induced photochromic effect 1676
$Tb_3Ga_5O_{12}$ photorefr. phase hologram recording 31645

photoconducting devices
see also photoconducting switches; photodiodes; phototransistors
bulk optically controlled semicond. switches design 25498
diamond photocond. detectors, high power z-pinch X-ray diagnostics 26264
digital opt. microphone and digital transducer 42645
dye-doped polymer waveguides, opt. losses/photocond. sensitivity 30961
GaAs fast opening photocond. switches for pulsed power system 27852
mammography, digital, amorph. Se photocond. receptors efficiency 35033
microstrip microwave attenuators, opt. controlled 37966
microwave sig. photodetector, carrier sync. drift interf. pattern obs. 17764
semicond. struct. photomodulated diagnostics, microwave resonator transducer synthesis *(Russian)* 13098
SLM, electrooptical jelly films 7393
solid-state imaging device, photocond. layered, SNR anal. 17930
switches, 3D FDTD simulation 23012
thin film photocond.-electroluminescent ccts., opt. sig. delays 39603
CdS film CPW, high-refl. 30 GHz grating struct. 29529
GaAs avalanche photoconductors, dyn. opt. probing meas. 31078
GaAs high-power high-speed photoconductive switching devices, temp.-depend. delay time 14532
GaAs homojunction photodetector, subwavelength spatial resoln. 42819
GaAs photoconductive freq. impulse device 36299
GaAs photoconductive switches, filamentary elec. breakdown 23010
GaAs photoconductive switches, illum. uniformity effects 14610
Ge:Ga photoconductor arrays, design considerations 9901
InGaAs/AlAs RTD, double barrier, dominant photogenerated valley current 13589
a-Se Amplified MOS Imager, high speed TV camera 42851
Si-on-sapphire photoconductive probes, fab. and charactn. 7464
6H-SiC p-type photoconductive switches investig. 23011

photoconducting materials
see also photoconductivity
bipolar photoconductors with arbitrary level struct., nonsteady-state photoelectromotive force 39553
bisazo pigments IR/near-IR, synthesis and xerographic props. 39557
cct. testing by ps photoconductive elec. pulse injection 1787
dye-doped polymer waveguides, opt. losses/photocond. sensitivity 30961
electroluminescent diode with photoresponsive organic pigment films, light amplif. 31104
photoactive solids, conf., Leuven, Belgium (1993) 11530
photonic nonlin. polymer materials 7265
photorefr. photoconductive cryst., rectification property 22996
picosecond interdigitated photoconductors, scaling charact. 1786
polymeric composite photorefr. materials for nonlin. opt. appls. 1651
transient photocurrents, two-wave mixing expts. 23421
AlGaAs composites, As cluster dispersion, optoelectronic appls. 7456
CdS electrophotographic discharge, surface-depletion discharge model 22997
CdTe/CdZnTe, accelerated crucible rot. growth 5804
GaAs biased photoconductors, terahertz radiation generation 14579
GaAs composites, As cluster dispersion, optoelectronic appls. 7456
GaAs photoconductors, compensated/partially compensated opt. gain 39547
GaAs-AlGaAs quantum well photoconductors, long-wavelength IR appls. 17785
Ge:Ga photoconductor arrays, design considerations 9901
HgCdTe, quench recrystn. growth 5805
$Hg_{1-x}Cd_xTe$, accelerated crucible rot. growth 5804
InGaP-InAlGaP MQW electro optic modulator, MOVPE grown 39483
InTlSb photocond., MOCVD, IR detect. 9902
Si, porous, vis. luminesc. props. 14590
Si:Sb low compensation impurity band photoconductors 39551
Si-on-sapphire photoconductive probes, fab. and charactn. 7464

photoconducting switches
3D FDTD simulation 23012
bulk avalanche semicond. switch, perform./reliab. 36384
bulk optically controlled semicond. switches design 25498
diamond, opt. switch, photocond. props. in high elec. field 31083
free-space parallel opt. interconnects, cascadable thyristors 23063
GaAs fast opening photocond. switches for pulsed power system 27852
high power light triggered triac, light sensitive struct. develop. 39568
high-power ps pulse gen./meas. from Q-switched QW lasers 14906
high-speed opt. sampling/STM, elec. waveform meas. 9830
HV steep power pulses, opt. semicond. switch-generated 36432
IEEE pulsed power conf., Albuquerque, USA (1993) 20246
III-V electronic device step response meas. on ps time scale by electro optic sampling 42963
in-plane gate transistor integrated with photoconductive switches, ultrafast characts. 29555
integrated opt./optoelectronic switch for parallel opt. interconnects 31127
med. US transducers, optoelectronic transmitters 35005
microstrip photoconductor switch ultrashort elec. pulse generator *(Chinese)* 14596
microwave transm. line., photocond. switches simul. 31082
pulsed power photoconductive semicond. switches, breakdown limitation 36430
pulsed power photoconductive switch charactn., deep level spectrosc.-based 36424
pulsed power semicond. switches, opt. controlled, filamentation models 36435

photoconducting switches continued
pulsed power supplies, photoconductive switch-triggered, perform. and appls. 36252
reverse biased photoconductive detectors/switches 31086
side-chain polymer films, electro-optic effect, freq. response 14325
solid-state photoconductive microwave generation pulsed power source 36434
spectral domain approach modeling 12701
ultrawide band pulse sources, picosecond photoconductive switch appl. *(Chinese)* 34158
AlAs-GaAs luminesc. p-n-i-n$^+$ dynistor, behaviour 23025
GaAs HV photocond. switches, electro-optic imagery 14598
GaAs high-power high-speed photoconductive switching devices, temp.-depend. delay time 14532
GaAs photocond. pulsed power switches, filaments 36446
GaAs photocond. semicond. switches, AuBe, AuGe ohmic contacts 36388
GaAs photocond. semicond. switches, opt. controlled 36387
GaAs photoconductive pulsed power opening switch 36425
GaAs photoconductive pulsed power switches, Ti:sapphire laser-triggered 36440
GaAs photoconductive pulsed power switches, vac. surface flashover tests 36433
GaAs photoconductive switches, elec. field structs. 36448
GaAs photoconductive switches, filamentary elec. breakdown 23010
GaAs photoconductive switches, illum. uniformity effects 14610
GaAs, picosecond photocond. switch *(Chinese)* 7460
GaAs substrs., coplanar strip lines/waveguides, ultrashort elec. pulse generation 39562
GaAs:Cu,Si bistable opt. controlled switch, perform. 36385
GaAs:Cu,Si bulk opt. controlled semicond. switch, inductive energy storage 36392
GaAs:O, MOVPE, ultrafast photodetector materials appl. 23064
GaAs:Si(Cu) , opt. activated pulsed power switch, 2D model 39572
GaAs:Si,Cu photoconductive pulsed power switch perform. tests 36428
GaAs-GaAlAs quantum point contact, dyn. response 6560
Si heterostruct. switch, elec. and opt. speed 6718
Si photocond. semicond. switches, pulsed power appls. 36386
Si photoconductive pulsed power switches, dark current characts. 36438
Si photoconductive pulsed power switches, vac. surface flashover tests 36433
SiC devices, high-dark-resist., photoconductive and PV response 31077
6H-SiC p-type photoconductive switches investig. 23011
ZnSe HV switches, time-resolved impact ionization 27840
ZnSe pulsed power photoconductive switches, elec. field studies 36437

photoconductivity
see also dark conductivity; photoconducting devices; photoconducting materials
bipolar photoconductors with arbitrary level struct., nonsteady-state photoelectromotive force 39553
bisazo pigments IR/near-IR, synthesis and xerographic props. 39557
conjugated polymers/fullerenes, optical probes, conf., USA (1994) 20195
copper dicyanoanthraquinone diimine thin film electrodes, H sens. 17976
cubic cryst. planar waveguides, photorefr. effect 39431
diamond, CVD grown, photoconductive spectrosc. 38244
diamond, natural IIA, elec. props., detector appl. 43088
diamond, synthetic type IIa, carrier mobility/lifetime 38234
diamond, type IIa detector, photoconductive props. 43157
diamond CVD films, elec. props., detector appl. 38233
diamond high mobility CVD films, electron-hole mobility 6517
diamond MSM device, detector appl., photoresponse 38447
disordered semiconds. and devices, mobility edge concept 29823
electroluminescent diode with photoresponsive organic pigment films, light amplif. 31104
fluorenone bisazo pigment/α-phenylstilbene derivative interface, extrinsic photocarrier generation 14581
glass opt. fibers, photoinduced SHG 31518
homojunction internal photoemission far-IR detectors, photoresponse perform. 17801
insulators, rel. to HTSC, photocond. 1784
IR multiquantum-well photoconductor struct., emission and capture of electrons 13188
IR photodetector cooling by opt. immersion lens 3833
MOS struct., neg. bias temp. instabil., low temp. *(Chinese)* 6580
MQW electroabsorption modulator, efficient harmonic generation 34007
multicolor IR detect., voltage tunable bandpass filter 17765
multilayer bond and etch SOI buried insulators, radiation response 13252
photocurrent shot noise suppression in feedback loop 17777
photonic nonlin. polymer materials 7265
phthalocyanine films, MBE growth/photoelectrochemical procs. 20811
planar photodiode for high-dyn.-range analog transm. 17195
poly(3-butyl)thiophene, acceptor substituted, photocond. 39549
poly(3-methylthiophene) conducting polymer films, photoelectrochemical response 13094
poly-(para-phenylene-vinylene) films and photodiodes, photoinduced current, ESR 14600
polyaniline conducting polymer films, photoelectrochemical response 13094
polypyrrole conducting polymer films, photoelectrochemical response 13094
PV quantum well intersubband IR detectors by internal elec. fields 3834
PVDF doped ferroelec. polymers, dielec./photoelec. props. 1555
quantum well IR photodetectors, photocond. gain/generation-recomb. noise 22013
quantum wires, widely tunable confining pot., capacitance/IR absorpt. 13136
RTO proc., opt./elec./mech. charactn. 22227
Schottky contacts, photovoltage, transient charact. modelling 6579
semicond. device defects, image display/anal., laser scanner 32818
semicond. LDs, elec. and opt. photocurrent noises correl. 1922
thin charged insulator foil, delayed radiation induced cond. 1560
thin photoconductive layers, nonsteady-state photo-EMF 1791
vert. cavity surface emitting DBR lasers, voltage controlled 7622
AlGaAs-GaAs MODFETs, neg. photoresponse study 31088
AlInAs/InP type-II superlattice, elec.-field induced excitons, opt. studies 6555
$As_2S_3(Se_3)$ MChDS structs., photocharging characts., opt. memory appl. 22053
Au/CdTe/Au, impurity level energy effect 1185
$BaTiO_3$, photocond., high light intens. 14582
a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
3C-SiC CVD grown epilayer, carrier lifetime, deep levels *(Japanese)* 1066
$Cd_xHg_{1-x}Te$ epitaxial layers, laser irrad., photoelectrical props. 14585

photoconductivity continued
$Cd_xHg_{1-x}Te/CdTe$ epitaxial struct., carrier recomb., microwave method 21943
CdTe based MISIM struct., photoelec. phenom. 6581
CdTe detectors, afterglow effects 4211
CdTe detectors responses to pulsed X-rays, growth method effects 43083
CdTe:V, spectrosc. and photorefr. investig. 14583
CdZnTe:In, thick plasma gratings, local photorefr. effect 22777
$CuInSe_2$ films, ambipolar diffusion, carrier drift 1069
β-$FeSi_2$ thin films, photocurrent spectra 22998
GaAS sputtered films, amorphous and microcryst., elec. props. 22994
GaAs, MSM photodetectors, temporal response, polariz. depend. 17767
GaAs, SI, EL2 metastability, temp. depend. 6533
GaAs, carrier transport phase ident., 10 fs resoln. 21893
GaAs, excess carrier transfer, time-resolved photovoltage meas. 22995
GaAs fast photoconductor responses, subnanosec. proton pulses 43098
GaAs films, anom. PV effect/neg. photocond. 39554
GaAs, high freq. photomixing 15109
GaAs homojunction photodetector, subwavelength spatial resoln. 42819
GaAs, intrinsic and p-doped, highly photoexcited carriers, femtosecond relax. 1036
GaAs, photo-excited carriers, momentum reorientation 1034
GaAs photoconductors, compensated/partially compensated opt. gain 39547
GaAs, shallow impurity, far-IR photocond. mechanism 6530
GaAs, subpicosecond elec. pulses, Monte Carlo investig. 22992
GaAs, sulfidated surface, electron work fn. 13372
GaAs:Cu,Si bistable opt. controlled switch, subnanosecond high-power perform. 2104
$GaAs/Al_{0.4}Ga_{0.6}As$ QW npn phototransistor fab. 31084
GaAs/AlAs superlattices, in-plane photocurrent spectrosc. 38317
GaAs/AlAs/AlGaAs double-barrier QW, interband/intersubband absorpt. 29907
GaAs/AlGaAs double barrier, seq. tunnelling assisted by light 1099
GaAs/AlGaAs, mesoscopic electro-opt. switching element 39475
GaAs/AlGaAs modulation doped heterojunctions, neg. photocond. 29919
GaAs/GaAlAs, 2D hole gas, MBE, elec. props. 355
GaAs-AlGaAs conc. photoconverter, wide-band GAP substr. 36593
GaAs-AlGaAs proton-implanted MQW modulators for low-photocurrent SEEDs 14528
GaAs-Si films, anom. PV effect/neg. photocond. 39554
GaInAs/AlInAs superlattices, nonlin. cond., space charge wave generation 1120
GaInP/AlGaInP SQW, bias and temp.-depend. photocurrent spectrosc. 38338
GaInP/GaAs/GaInP quantum wells, persistent photocond. 13174
GaSb:S, Hall/photo-Hall effect meas. 38252
Ge:Ga, hole lifetime, uniaxial stress depend. 38240
a-Ge:H,S, optoelectronic props, effects of S incorporation 39556
$HgBr_xI_{2-x}$ radiation detectors, Processing and charactn. 43096
$Hg_{1-x}Cd_xTe$, stable-state photoconductive/transient decay response *(Chinese)* 14584
(In,Ga)As/(In,Al)As, superlattice-equiv. MQW, Stark shifts 38330
In/p-$CuGaS_2$ surface-barrier struct., photoelec. props. 13214
n-InAs:Si, carrier mobility across surface depletion zones 13055
InAs/AlGaSb undoped quantum wells, neg. photocond. 29919
InAs/GaSb strained layer superlattices growth 20804
InAsP/InP MQW structs., strain studies 13142
$InAs_{0.91}Sb_{0.09}$, MOVPE, electronic props., photocond. 28779
$In_xGa_{1-x}As$ thermophotovoltaic cell perform. vs. bandgap 27976
InGaAs/GaAs (InGaP) MQW optical modulators, MBE growth 14509
InGaAs/GaAs(111)B strained MQW, piezoelec. field 1085
InGaAs/InGaAsP/InP MQW laser, thermionic emission, tunneling 1931
InGaAs/InP MQW modulators in expt. and theory 14658
InGaAs/InP, short period superlattices for Wannier-Stark modulators, growth 12120
InGaAs/InP short-period superlattice, wavefunction coherence length 1739
InGaAs/InP superlattice, low volt. electroabsorption light modulator 14511
$In_{0.53}Ga_{0.47}As/In_{0.40}Ga_{0.60}As$ superlattices, Wannier-Stark effect 1138
$In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ superlattice, electron-wave-fn. coherence length 13193
$In_{0.53}Ga_{0.47}As/InP$ quantum wires, tunable width of conducting channel 13184
InGaAsP quantum well lasers, carrier transport, near-field photocond. 1968
$In_{0.5}Ga_{0.5}P_{0.99}As_{0.01}$ epilayers, doped and undoped, deep level studies 29852
InP:Fe, SI, Fe distrib., photocurrent study 13064
n-InSb films, neg. photocond. 13057
InSb p-n jn., photoresponse, CO_2 laser illum. 13114
InSe-In_4Se_3 heterojunctions, photosensitivity band 1.0-1.8 μm, IR photodetector appl. 21942
K_xC_{60}, thin films, photocond., absorpt. spectra 39550
$KNbO_3$, photocond., high light intens. 14582
$LiNbO_3$:Fe, photogalvanic effect, grating, phase-locked detect. 15168
PZT ferroelec. thin film capacitors, fatigue and photoresponse 39102
Pb_5CrO_8 films, optoelectronic props., contact-type line-image sens. appl. 42789
PbO films in acid soln., local photocurrent characts., opt. storage phenom. 39311
PbS photosensitive layers, charge carrier transfer and recomb. 39548
PbSe/BaF_2, MBE layers, long-term photocond. 21934
$Pb_{1-x}Sn_xTe_{1-y}Se_y$:In, epitaxial layers, photocond. 13095
PbTe:Cl, excess Te films, photosensitivity 1070
PbTe:Ga, electron irrad., elec. and photoelec. props. 1788
PbTe:Ga, photocond. kinetics under pulse laser excitation 1064
$ReSi_2$ thin film photoresistor, IR detect. appls. 34501
$Se_{70}Te_{30-x}Cd_x$ film, photocond. 13077
Si HV solar cells, bilateral sensitivity 44412
Si absorpt. edge from solar cell spectral response 20007
Si, carrier transport phase ident., 10 fs resoln. 21893
Si, electrocatalysis, opt./elec. props., solar cell appls. *(German)* 38243
Si, etching mechanism and band model in aq. KOH 13388
Si films, anom. PV effect/neg. photocond. 39554
Si, mesoporous, photocarrier grating tech. 22999
a-Si, mobility-lifetime products, dispersive transport effects 13029
Si photoelectrode, efficient reductive/oxidative current flow 38453
Si,porous, laser induced form. 29840
Si, porous, photocarrier electronic states, photomodulated IR spectrosc. 6653
Si, porous, photocond. 1790
Si, porous, photoconduction effects and luminesc. props. 39552
Si porous, quantum dots, recomb. dyn. 22022
Si porous struct., photocurrent collection, photodetector appl. 22051

photoconductivity continued
Si, self-supporting porous layer, photocond. 23000
Si solar cell degrad., e-beam direction influence 36602
Si solar cells, 23% efficient, limiting loss mechanisms 44401
Si solar cells, short-cct. currents defn. method 19978
n-Si, surface recomb. vel., Schockley-Read Hall model 21892
Si, thick wafers, bulk carrier lifetime, contactless meas. 13036
Si wafer mapping, lifetime/resist./oxygen precip. meas. 25945
Si wafers, photocurrent imaging, electrolyte contacts 31069
Si:Fe, recomb. centers, microwave refl. photoconductive decay 38237
a-Si:H, Staebler-Wronski effect, trapping and recomb. procs. 39555
a-Si:H, film, light soaking effect on DC cond. 38235
a-Si:H films, ECR plasma deposition 20975
a-Si:H, low-temp. recomb., elec. field depend. 29872
Si:H, microcrystalline, elec. props., degrad. kinetics 21881
a-Si:H nip and pin diodes, 1/f noise anal. 38798
a-Si:H, pseudodoped, vidicon target material 1057
a-Si:H solar cell, Hg-sensitized photochem. vap. deposition, H_2 dilution tech. 5217
a-Si:H thin films prepared by layer-by-layer deposition 427
a-Si:H/a-SiC:H three colour detector 34502
a-Si:H,B(P), PECVD film, opt. props., photo/dark cond. 29830
a-Si:H,O solar cells, intrinsic layer, O impurity effects 5227
Si/SiO_xN_y/Al MOS capacitors, charge trapping and interface states 29975
Si-Dy_2O_3 MIS structs., UV irrad., charge accum. 22056
p^+-Si-SiO_2-polysilicon STDS struct., charge carrier capture 13240
6H-SiC p-type photoconductive switches investig. 23011
SiC thermally crystallized films on sapphire, electronic transport 21937
a-SiC:H MIM struct., electronic props. 1183
a-SiGe:H films, PECVD under He dilution 5891
a-SiO:H films, plasma CVD, solar cell appl. 5213
SnO_2 thin films, nanocrystalline, casting 13073
n-SnO_2/a-SiC/Al photodetector, voltage-controlled spectral response 25850
SnO_2/a-SiC/Au Schottky cells, photocurrent multiplication model 44396
SnO_2-TiO_2, ultradisperse nanoheterogeneous systs., anom. photoresponse 1789
TiO_2/PbS, nanocrystalline matrix-adsorbed cluster syst., quantum dot, photocond. 13176
$TlAsSe_2$ glassy films, photocond./impact ionisation 22343
WO_3 thin films, nanocrystalline, casting 13073
n-WSe_2/aq. polyiodide photoelectrochem., cation electrolytic modif. 31071
(Zn,Mg)(S,Se):N green/blue LD, ohmic contact/transport props. 39827
$Zn_{0.3}Cd_{0.7}Se$, metal-insulator transit., persistent photocond. meas. 29851
ZnCdSe/ZnSe MQW, photocurrent/absorpt. spectrosc. 29910
$Zn_{1-x}Cd_xSe$/ZnSe quantum wells in p-i-n heterostruct., photocurrent study 1127
ZnO layers, anodically grown, surface photocond. 1785
ZnO thin films, nanocrystalline, casting 13073
Zn(S,Se):N green/blue LD, ohmic contact/transport props. 39827
ZnSe alloys, MBE, achieve RT CW LD 20906
ZnSe:N green/blue LD, ohmic contact/transport props. 39827

photoconductors *see photoconducting materials*

photocopying
see also electrophotography
bisazo pigments IR/near-IR, synthesis and xerographic props. 39557
holographic counterfeit protection 31670
mag. brush, mag. field modelling/simul. 30762
PPC scanner motor, power brushless type *(Japanese)* 10931
reprographic devices, energy consumption meas. techs. 9991

photocurrent *see photoconductivity; photoemission*

photodarkening *see photochromism*

photodetectors
see also infrared detectors; microwave detectors; ultraviolet detectors
2-20 GHz low-noise wideband opt. receiver 9573
2-D opt. BFN 8077
12-Gb/s high-sensitivity monolithic p-i-n/HBT photoreceiver module 25512
128×128 pn-np variable-sensitivity photodetector array artificial retina chip, edge extraction 24577
155 Mb/s FET-SEED free-space switching network 14649
absol. spectral response calib. 9780
adaptive algms. for small-size obj. detect. on digital images 24385
atmos. visibility meas. device 10461
avalanche photodetector, double-drift struct. 9910
background suppression, adaptive in photoelec. sens. 3829
bandwidth enhanced MSM photodetectors 3841
BH light-emission/detect. diode module for subscriber TCM transm. systs. 25472
charge transport and device params. from noise meas. 3970
CMOS transimpedance amp./opt. syst., monolithic integrat. 31131
coherent detect. photodiode, optimum opt. LO power levels 25847
coherent detect. tracking syst. in laser commun., ang. bias correction 17309
diamond fast photodetectors response 42799
diamond MIS integrated radiation imagers 9904
diamond photocond. detectors, high power z-pinch X-ray diagnostics 26264
differential fibre-optic sens. of laser-generated ultrasound 34518
diode laser logic, smart pixels for opt. sig. proc. 7496
direct injection readout cct. model 34561
dist. meter, fast APD 25975
duolateral photoeffect diodes, opt. posn. sens. 17808
emission microscopy in semicond. failure determ. 6837
extremely small dia. thread detect., sig. proc. method 25748
free space opt. interconnects, LD array, microlenses, photodetectors 7486
free-space WDM interconnections based opt. switching nets 33726
freq.-selective waveguide multiplexing receivers 9594
GaAs-AlGaAs monolithically integrated interferometric opt. sens. 1835
gas photomultipliers, scintillators/Cherenkov detector readout 26175
high quantum efficiency dual wavelength reson.-cavity photodetector 25848
high sensitivity opt. detectors, perform. meas., radiation effects 1796
high speed testing, optoelectronic techs. 6825
hole diam. opt. meas. instrum. develop. *(Japanese)* 42939
hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
III-V quantum-well IR photodetectors, noise perform. 42788
imaging plate 2D detector for SW lasers *(Japanese)* 9931
imaging Si pixel array based posn.-sensitive photon detector 34514
indicator tubes of gas analyzers optoelectronic detector 25894
integrated waveguide-photodetector coupling by modal fitting 17770
intell. diagnostics in photoelec. sens. 3828
interdigitated high speed MSM photodetector/receiver design 34517

photodetectors continued
interferometry-based quantum random-no. generation and key sharing 17343
IR camera syst., selection criteria 9914
IR HET, narrow bandpass filter 17784
IR MQW phototransistor, hot electron effects 39573
IR MQW/superlattice photodetectors, Monte Carlo simul. 13581
IR photodetector cooling by opt. immersion lens 3833
IR photodetectors, 2-12 μm, high perform. near RT 17787
IR photodetectors, very long wavelength QW, 2D gratings optim. 3831
Josephson jn. IC opt. input/output interface syst. 1625
lateral displacement sens., 4Q detector 18090
light photon equalization, appl., X-ray film digitization 43242
lightly shaded opt. syst. port, photom. charact. 7455
linewidth-insensitive coherent analog opt. AM link receiver/transmitter 9442
long-haul digital transm. opt. preamplifier receivers 34037
microwave sig. photodetector, carrier sync. drift interf. pattern obs. 17764
mixed photonic/electronic cct. simul. 37603
MM-wave/fiber-optic subcarrier transm. links, HBT photodetectors *(Japanese)* 9548
modulation-doped photodetector, low-temp. MBE-grown GaAs 17783
monolithic grating-based components for WDM networks 9131
MOS-type posn.-sensitive detectors, angle/posn. detect., opt. interf. 34687
MOVPE optoelectronic device technol. 28747
MQW IR photodetectors, electron injection and transport model 42786
multicolor IR detect., voltage tunable bandpass filter 17765
multielement photodetector, sensitivity variability and noise influence 42796
multielement photodetector device for point source coord. meas. 25968
nonchemical photopyroelectric gas sens., thermal wave based, H detect. 3901
nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
open cct. p-n jn., photodiode charact. *(Chinese)* 1797
opt. CDMA commun. syst. M-ary signalling 34058
opt. neural chips, artificial retina 7435
optimized phase detect., radiation intens., probab. operators 34511
optimum event rate for CCD detector 43061
optoelectronic matrix-vector multiplier, computational accuracy anal. 31027
organic semiconds., cryst., OEICs, photonic devices 39616
parametric amp., noiseless preamplification, photodetection quantum efficiency 31540
peripheral artificial vision, lateral inhibitory networks, IC implement. 23067
photocurrent shot noise suppression in feedback loop 17777
photoelec. detectors, expt. spectral sensitivity 42812
photon spectrum meas. and calib. 4077
photorefr. material holographic data storage systs. 31673
photosensor for transients tracking 34510
photothermal microscope, sigs. anal. 17795
piezoceramic plate bending motion meas. by homodyne holographic interferometry 40153
posn. detect. of multiple light beams 17781
posn. sens., source width insensitive 17782
primary sig. sens. optimisation for fabric defect detect. 34507
prog. multifn. optoelectronic cellular neural net 14667
pulsed power syst. dielecs., real-time surface flashover detect. 36292
quantum well IR photodetectors, photocond. gain/generation-recomb. noise 22013
refr. index of liqs. mes., posn.-sensitive detector 18125
reverse biased photoconductive detectors/switches 31086
road surface conditions detect., photodetectors based prototype 42791
sig. detect. limits 3827
single CMOS photodetector/analog/digital chip, vel. sens. 3992
smart-pixel liq. cryst.-on-Si SLM for optoelectronic neural network 22960
sparse telescope array undersampled focal plane image reconstruction 2710
speckle referenceless config. using adaptive photodetectors, vibr. meas. 34704
sq. synchroniser jitter on direct detect. opt. commun., white cct. noise 3577
strained MQW lasers, photo-detect., polariz. depend. 25841
switchable-logic photonic switch array monolithically integrat. MSMs, FETs, and MQW modulators 14531
thermal detectors, theoretically limited temp. sensitivity 17793
thin opt. pickup head of CD player, laser/detector/hologram unit 17613
travelling-wave waveguide photodetectors, 172-GHz bandwidth and 76-GHz bandwidth-efficiency product 42804
trends in IR photodetector develop. 42794
tunable photodetectors and LEDs for WDM appls. 39617
twin-core fibre opt.-to-electrical demultiplexing detector 34087
two-beam LD, opt. power monitor 3999
ultrahigh-speed MSM photodetectors for opt. commun. 42452
video path params. of analog dissection of astrotransducers 8266
vis. light photon counters, high quantum efficiency photodetectors 4160
vis. photon imaging using hybrid Si pixel detectors 34515
waveguides, pass. alignment 31117
wideband fiber optic systs. by carrier subtraction 25516
AlGaAs/GaAs epitaxial lift-off MSM photodetectors,field assisted etching 34516
AlGaAs-GaAs HBTs, heavily doped, opt. device appl. 39566
AlGaAs-GaAs MODFETs, neg. photoresponse study 31088
AlInAs/(Al)GaInAs MSM photodetectors/modulators, solid source MBE 42809
$BaTiO_3$, photorefr. two wave mixing detect. of weak sig. beams 31570
CsI(Tl) photon detector for KEK E246 expt. 34918
Er-doped fiber amplifer noise meas. 7574
GaAs MSM photodetectors, buried layer effect, modeling 38450
GaAs, MSM photodetectors, temporal response, polariz. depend. 17767
GaAs adaptive photodetector, broadband detect. of PM, 10 MHz freq. range 34509
GaAs asymmetric Schottky-ohmic MSM photodetector 17810
GaAs detector-switched monolithic time-delay network for opt. control of phased arrays 31129
GaAs heterojunction p-i-n photodiodes, transient simul., reson. cavity enhanced 39565
GaAs homojunction photodetector, subwavelength spatial resoln. 42819
GaAs photodetector for near-field optics 17766
GaAs:O, MOVPE, ultrafast photodetector materials appl. 23064
GaAs/$Al_xGa_{1-x}As$ quantum wells, IR focal arrays 42785
GaAs/$Al_xGa_{1-x}As$ quantum-well IR photodetectors, design, perform. 9905
GaAs/AlGaAs devices, appls., opt. neural networks 22974
GaAs/AlGaAs, hot electron tunnelling photodetector 3837
GaAs/AlGaAs multiquantum well vert. cavity tunable photodetector 17800
GaAs/AlGaAs quantum well IR photodetector arrays, thermal imaging appl. 3844
GaAs/AlGaAs superlattices, IR detectors, MOVPE growth 37418

photodetectors continued
p-GaAs/AlGaAs superlattices, heavily-doped, IR photodetector appls. 3836
$GaAs/Ga_{1-x}Al_xAs$ quantum-well IR photodetector, dark current 25832
GaAs/InGaP/AlGaAs QW IR photodetectors 9903
GaAs-InP pin photodiode lightwave meas., error correction 42797
GaInAs, heterobarrier photodiode MSM struct., subpicosecond temporal resoln. 1795
GaN/AlGaN HFET based gated photodetector 34498
GaSb-based reson. cavity detectors, GaAs/AlAs DBRs 25833
Ge APD based photodetector, AGC 42787
Ge:Zn, impurity photoresistor, pulsed-opt.-heterodyning mode 31080
Ge_xSi_{1-x}/Si heterostruct., IR focal arrays 42785
GeSi-Si strained layers, MODFET/HBT/photodetector appls., review 29874
$HgBr_xI_{2-x}$ radiation detectors, Processing and charactn. 43096
HgCdTe, LPE-grown, photovoltaic detectors charact. 34505
HgCdTe long wavelength IR PV detectors 42795
HgCdTe photodetector array, variable area diode data 25837
HgCdTe photodiodes, epitaxially grown CdTe passiv., elec. props. 1277
HgCdTe varactor photodetectors for space-borne wind lidar, heterodyne tech. 34162
$Hg_{1-x}Cd_xTe$ photodiodes, IR focal arrays 42785
$Hg_{0.3}Cd_{0.7}Te$:B photodetectors, LPE/ion implant., fibre optic appl. 3830
HgI_2 photodetectors combined, scintillators for gamma-ray spectrosc. 18312
InAlAs-InGaAs:Fe MSM photodetectors, inductive bandwidth enhancement 42798
$InAs_{1-x-y}Sb_xBi_y/InSb$ strained heterostruct., phys. props. 21965
InGaAs MSM photodetector charactn. by electrooptic LD sampling 23009
InGaAs:Fe/InP:Fe large area MSM photodetectors 17775
InGaAs/AlGaAs/GaAs grating demultiplexer/detector array integrat. 9422
InGaAs/GaAs-on-GaAs superlattice photodetectors, ultrafast response 3835
InGaAs/GaAs-on-GaAs superlattices, metal-semicond.-metal photodetectors, carrier trapping 22014
InGaAs/InP PIN waveguide photodetector, high saturation intens. 7463
InGaAs/InP p-i-n waveguide photodetector, dyn. range 34069
InGaAs/InP waveguide photodetector, saturation intens. 34512
$In_{0.2}Ga_{0.8}As/GaAs$ MQW struct., strain relax., photodetector appls. 1131
InGaAs-InAlAs MBE p-type strained layer quantum well IR photodetector, FPAs 17786
InGaAs-InAsP three-band near-IR FPA for 1.0-2.5 μm 17935
InGaAs-InP, reverse bias laser struct., photodetection 17811
$In_{0.4}Ga_{0.6}As$-GaAs quantum well IR photodetector 9906
InP, S treated, MSM photodetector, high speed 17780
InP polariz. diversity receiver OEIC heterodyne receiver frontend module 23061
InP:Fe/InGaAs:Fe fully passivated AR coated MSM photodetectors 9907
InP/GaInAs heterostruct. MSM photodetectors, sub-ps resoln. 25849
InP/InGaAs HBT OEIC photoreceiver 9495
InP/InGaAs/InP photodetector arrays, RTS noise and excess currents 17773
InP/InGaAs/InP photodetector arrays, noise/current meas. 17774
InP/InGaAs reson. cavity enhanced photodiode on Si, epitaxial liftoff 3839
InSb photodiodes, IR focal arrays 42785
$InSe-In_4Se_3$ heterojunctions, photosensitivity band 1.0-1.8 μm, IR photodetector appl. 21942
InTlSb photocond., MOCVD, IR detect. 9902
$Nb-Al-AlO_x-Nb$ tunnel jn. photon detectors, TEM/AFM anal. 39287
Pb_5CrO_8 films, optoelectronic props., contact-type line-image sens. appl. 42789
Pt/Co multilayer, magneto-opt. Faraday effect, STM obs. 14546
Si PV cells, solar radiation resource assess. 42792
Si amorph. photodiode array, noncontact vel. meter 3990
Si bipolar monolithic opto-electronics, polymer LEDs 14665
Si hybrid opto-electronic sens. syst. 31115
Si monolithic photodetector/CMOS preamplifier fiber-optic data link 9518
Si photodetector, epitaxial wafer 42801
Si photodiode, thickness meas. of SiO_2 film 18079
Si porous struct., photocurrent collection, photodetector appl. 22051
Si, transm. mode near-field opt. microscope 25845
Si:As scanning hybrid IR detector array, radiometric charactn. 17940
a-Si:H thin film posn. sensitive detector 9912
a-Si:H/a-SiC:H three colour detector 34502
Si:Sb low compensation impurity band photoconductors 39551
$Si/CoSi_2$ vert. MSM photodetectors, buried contacts 34500
$a-Si_{1-x}C_x$:H, plasma CVD, monolithic light-converters 3876
6H-SiC-Ti semicond.-metal contacts, UV sensitive photodetectors 3846
$p-Si_{1-x}Ge_x$ quantum well detectors, 8-14 μm wave band absorpt. 42784
SiO_2 passiv. of InGaAs:Fe MSM photodetectors 22187
$n-SnO_2$/a-SiC/Al photodetector, voltage-controlled spectral response 25850
Th(BrI), photodetectors for scintillation spectrometers 43092
$TlBr_xI_{1-x}$ photodetectors for scintillation spectrosc., eval., prep. 10128
YBaCuO HTSC thin films, thermopile effect, laser radiation heating 22714
$YBa_2Cu_3O_{7-\delta}$ normal state films, fast thermoelec. response, detector appls. 42793
$YBa_2Cu_3O_{7-x}$ epitaxial ultrathin films, photoresponse 3826
$YBa_2Cu_3O_7/La_2CuO_4$ microbridge radiation detectors 39288
$Yb_2O_3-Al_2O_3$ thermal-opt. energy converter, characts. meas. 36619

photodielectric effect
PZT ferroelec. thin film capacitors, fatigue and photoresponse 39102

photodiodes
see also avalanche photodiodes; p-i-n photodiodes
analog sens. sig. quantisation, effective no. of bits *(German)* 17703
ARROW/integrated photodiodes light coupling, IC compatible techs. 30969
artificial cpd. eye opt. sens. array 9852
ASICs, photosensitive cells, study and characterisation 39006
asynchronous opt. chip interconnects with direct detect., crosstalk anal. 9440
CMOS transimpedance amp./opt. syst., monolithic integrat. 31131
CMOS-based technol. for integrated optoelectronics 23062
coherent detect. photodiode, optimum opt. LO power levels 25847
coherent RF sig. combining in phased array, photonic techs. 9539
DFWM pattern interferometry, refr. index vars. 31506
direct detect. opt. commun. syst. that operates in sunlight 17319
direct injection readout cct. model 34561
duolateral photoeffect diodes, opt. posn. sens. 17808
fibre optic laser Doppler velocimeter, coherence dependence 26014
flattened-pear shaped photodiode struct. for low smear and high sensitivity CCD image sens. 22613
freq. response meas. to 40 GHz, comparison, NPL/NIST 31075
$Ga_{1-x}In_xAs-InAs_yP_{1-y}-InP$, strain relax., photodiode appl. 12054

photodiodes continued
granular particle, lin. flow vel. meas., image sens. 3993
high quantum efficiency dual wavelength reson.-cavity photodetector 25848
hybrid photo diode, recent develop. 23020
IR opt. transducer for force meas., appl. *(Croatian)* 25839
IR-bi-color Schottky-barrier IR CCD image sens. 25887
Josephson jn. IC opt. input/output interface syst. 1625
machine vision, digital camera, CMOS intell. sens. 42848
MEH-PPV sandwich devices, photosensitivity and implication, polymer electronic struct. 23013
miniature multifiber connector appls. 30905
monolithic integrat. of optoelectronic smart pixels 7484
monolithic MM wave IC, high speed opt. detectors 9534
multibeam dichroism, modulated detect., photodiodes 43027
near-sens. image proc. 2725
open cct. p-n jn., photodiode charact. *(Chinese)* 1797
opt. image sens., digital CMOS approach 42847
opt. power monitor for two-beam LD 3999
optimum event rate for CCD detector 43061
parallel opt. interconnect, SEL and photodiode arrays 39601
PbSnSe photodiodes, computer modeling of carrier transport 7461
photon spectrum meas. and calib. 4077
photothermal microscope, sigs. anal. 17795
planar hybrid optoelectronics, colloquium, London, UK (1994) 20255
planar photodiode for high-dyn.-range analog transm. 17195
poly-(para-phenylene-vinylene) films and photodiodes, photoinduced current, ESR 14600
preamplified opt. direct detect. systs., receiver noise effects 17178
prog. multifn. optoelectronic cellular neural net 14667
radiation effects, LEDs, LDs, PDs, OCs 23047
road surface conditions detect., photodetectors based prototype 42791
semicond. laser power digital stabilization 39765
soft X-ray detectors, calibr., SUPER ACO synchrotron rad. 4227
surface mount type LD/photodiode module *(Japanese)* 42466
sync. opt. chip interconnects, perform. anal. 39604
vert.-overflow-drain CCD image sens., photoresponse anal. 42838
WDM receiver, monolithically integrated device 34075
WDM sig. transm., crosstalk elimination cct. 3552
AlGaAs/GaAs micromachining, monolithic integrat. of micromechanical struct. 23065
AlInAs/GaInAs MSM photodiode, cutoff freq., responsivity 14608
CsI(Tl)/Si-photodiode detector, X-ray sig. pulse shape anal. 18311
Ga(Al)Sb mesa photodiodes, dark current improvement, $(NH_4)_2S$ treatment 14604
GaAs wide-bandwidth MSM photodiode, extrinsic freq. response 39570
GaAs:Er very high-speed MSM photodiodes, fab., charactn. 31076
$GaAs/Al_xGa_{1-x}As$ quantum wells, IR focal arrays 42785
GaAs/AlAs RTDs, photoinduced hole tunneling 38804
GaAs/AlAs thin film opt. filters in Fabry-Perot cavity 31063
GaAs-AlAs vert. coupled-cavity microinterferometer, deformable-membrane top mirror 39991
GaInAs, heterobarrier photodiode MSM struct., subpicosecond temporal resoln. 1795
GaSb photodiodes, MBE fab., GaSb surface oxide removal 1240
Ge_xSi_{1-x}/Si heterostruct., IR focal arrays 42785
HgCdTe IR Earth-imaging array, total dose and proton testing 17960
HgCdTe, LPE-grown, photovoltaic detectors charact. 34505
HgCdTe, MBE growth on CdZnTe for IRFPAs 12096
HgCdTe PV lin. FPA for Cassini IR spectrometer 17949
HgCdTe VPE growth, long wavelength IR detector, zero tunnel leakage current 12097
HgCdTe heterojunction photodiodes, built-in elec. field 14612
HgCdTe long wavelength IR PV detectors 42795
HgCdTe, long-wavelength photodiodes, n^+-p vs. p-n structs. 39571
HgCdTe longwave IR scanning FPAs, CMOS readout IC, surveillance appls. 17947
HgCdTe photodetector array, variable area diode data 25837
HgCdTe photodiodes, MBE-grown, DLTS deep levels study 13060
HgCdTe photodiodes, epitaxially grown CdTe passiv., elec. props. 1277
HgCdTe photodiodes, long-wavelength IR appls. 17785
HgCdTe varactor photodetectors for space-borne wind lidar, heterodyne tech. 34162
$Hg_{1-x}Cd_xTe$ ($x \sim 0.2$) grown by THM in (111) direction, twinning effects 37383
$Hg_{1-x}Cd_xTe$ photodiodes, IR focal arrays 42785
InAlAs-InGaAs:Fe MSM photodetectors, inductive bandwidth enhancement 42798
$InAs/In_xGa_{1-x}Sb$ superlattice based IR detectors 3842
InGaAs MSM photodetector charactn. by electrooptic LD sampling 23009
InGaAs MSM photodiode, monolithic integrated optoelectronic receiver 25543
InGaAs MSM photodiode/AlGaAs-GaAs HEMT OEIC receiver, 1.3 μm 17235
InGaAs absorpt. layer, MSM PDs 7488
InGaAs diodes, radiation effects, long wavelength sensitivity 1806
$In_{0.53}Ga_{0.47}As$ MSM photodiode, transparent CTO Schottky contacts 1184
InGaAs/InAlAs:Be superlattices, ultrafast opt. nonlin., MSM-PD appls. 2105
InGaAs/InP transimpedance opt. receiver OEIC 1834
InGaAs-GaAs-AlGaAs strained-layer lasers with monolithically integrated photodiodes, MOCVD fab. 31319
InP monolithically integrated tunable polariz. diversity heterodyne receiver OEIC 25484
InP/GaInAs heterostruct. MSM photodetectors, sub-ps resoln. 25849
$InP/In_{0.53}Ga_{0.47}As/InP$, Zn area-selective diffusion for lateral pn photodiodes 29855
InP/InGaAs reson. cavity enhanced photodiode on Si, epitaxial liftoff 3839
InP-based broadband optoelectronic receivers 9497
InP-based monolithic high-speed bal. mixer receiver 25523
InSb photodiodes, IR focal arrays 42785
Si amorph. photodiode array, noncontact vel. meter 3990
Si detector X-ray/γ-ray probe, backscatt. det., struct. nonuniformity meas. 4210
Si multiplexers for lin. IR photodiode arrays 25875
Si photodiode, X/γ-ray detector 43163
Si photodiode, X-ray lithog. dosimetry 13567
Si photodiode, self-calibrated, appl., photodetector calib. 9780
Si range finder, realtime range finding VLSI sens. 34568
Si receiver module, hybrid integrat. of silica waveguide, photodiode interface 31116

photodiodes continued
a-Si:H arrays, X-ray transm. scans, PET/SPECT appl. 35062
a-Si:H diodes for act. matrix addressing 1798
Si/$CoSi_2$ vert. MSM photodetectors, buried contacts 34500
SiC/Si hetero- and homo-jn. photodiodes, fab. and props. *(Japanese)* 1805
n-SnO_2/a-SiC/Al photodetector, voltage-controlled spectral response 25850
$TlAsSe_2$ glassy films, photocond./impact ionisation 22343

photodissociation lasers *see chemical lasers*

photoelasticity
see also mechanical birefringence
cable fiber strain meas., photo-elastic correction factor 14397
conference, interferometry, photomechanics, Poland (1994) 28210
conference, London (Nov. 1993) 11588
dielec. resonators, stress induced freq. shift 30658
epoxy resin photoelastic fiber-optic strain gage 42834
ferromag. mech. stressed thin films, magneto-opt. meas. 30682
fiber-optic phase modulators, low-freq. 14363
fringe thinning algms. in photomechanics, perform. eval. 41198
glass plates, stress measuring method, polarized laser and photo-elastic modulator 34705
hollow glassware stress meas. by photoelasticity 34722
InP and related devices, resonant acousto-optic effects 14555
opt. fibres, photoelastic phase differences, ray deviation angles 14362
polariz. modulator, opt. feedback 14566
polyethylene, electrical treeing, in-situ photoelastic monitoring 14068
preform deform. fabricated opt. fibers, birefr. anal. 22851
strain meas. on plates/discs surface, shearographic method *(German)* 18116
surface mount joint, thermal stress under uniform temp. change 28481
tensile loaded cable, photo-elastic correction factor for fiber strain meas. 25524
GaAs and related devices, resonant acousto-optic effects 14555
InGaAs/InP planar photoelastic low loss waveguides/electroabsorption modulators 30975
InGaAsP, ridge waveguide lasers, strain meas., photoelastic effects 39826
InGaAsP-InP planar photoelastic waveguide, low propag. loss 7370
InP wafers, LEC grown, residual strains, photoelastic charact. 13042
Nd:YAG laser, diode-pumped, Q-switching study 31299

photoelectric cells
see also photovoltaic cells
-aSe avalanche multiplication photocells 1799

photoelectric devices
see also image sensors; photocathodes; photoconducting devices; photodetectors; photoelectric cells; photothyristors
detectors, expt. spectral sensitivity 42812
electron device science/technol., conf., South Africa (1992) 28214
UV photoelec. sens. and peripheral combinations *(Japanese)* 17804
C_{60}-conjug. polymer supramolecular composite, role in photoelec. devices 31081
Si photocontrolled microwave modulator, atten. drop kinetics 589
Si photoelec. converter, LaF_3/SmF_3/DyF_3 antirefl. coatings 1800
a-Si/c-Si(a-SiC) based opt. controlled switching devices 38790

photoelectric effects *see photoelectricity*

photoelectric electron emission *see photoemission*

photoelectric emission *see photoemission*

photoelectricity
see also photocapacitance; photoconductivity; photodielectric effect; photoelectromagnetic effects; photoemission; photoionisation; photorefractive effect; photovoltaic effects
ESD anals. for spacecraft in geosynchronous orbit 35213
photoactive solids, conf., Leuven, Belgium (1993) 11530
p-GaAs/n-Ge struct., photoelec. props. in lin. polarized light 1097
Si epitaxial p^+-n struct., tunneling-oxide-metal contact, photoelec. effect 29884
Si porous nanostructures, electronic excitation, relax. mechanisms 14588

photoelectrochemical cells
see also solar cells
multiple nano contacts, solar energy storage appls. 27887
salino voltaic cells, solar elec. generation, solar stills 28036
TiO_2:Bi PEC electrodes, props. expts. 27880
n-$CuInSe_2$/polysulphide photoelectrochem. solar cells, spray-pyrolysis 27933
H_2 prod., Fresnel lens PEC-based 11302
p-InP, photoelectrochem. solar cells, charge transfer, open-cct. impedance 36599
Pt-deposited p-InP photoelectrochem. cells, band gap, surface states 6572
Si photoelectrode, efficient reductive/oxidative current flow 38453

photoelectrochemistry
see also photoelectrochemical cells
conference, optical materials for energy efficiency, Freiburg, Germany (April 1994) 28209
ion-conducting amorph. semiconds., photo-electro ionic phenom. 1645
PEC multiple nano contacts, solar energy storage appls. 27887
phthalocyanine films, MBE growth/photoelectrochemical procs. 20811
poly(3-methylthiophene) conducting polymer films, photoelectrochemical response 13094
polyaniline conducting polymer films, photoelectrochemical response 13094
polypyrrole conducting polymer films, photoelectrochemical response 13094
TiO_2:Bi PEC electrodes, props. expts. 27880
CdSe films, pulsed plating, photoelectrochem. behaviour 37468
GaP-Co-KOH-O_2 photorechargeable air batts. *(Japanese)* 19944
InP films, prep. by PH_3 treatment of electrodeposited In layers 37463
n-InP, photoelectrochemical etching, surface texture form. 38564
InP, wet electrochemical etching, via hole form. 13413
PbO films in acid soln., local photocurrent characts., opt. storage phenom. 39311
p-Si, photoelectrochemical diffusion length, PV appls. 29834
Si photoelectrode, efficient reductive/oxidative current flow 38453
Si,porous, laser induced form. 29840
Ti-KOH-O_2 photorechargeable air batts. *(Japanese)* 19944
n-WSe_2/aq. polyiodide photoelectrochem., cation electrolytic modif. 31071
$Zn_{1-x}Hg_xSe$, electrochem. deposition, EPMA, XRD 28802

photoelectromagnetic effects
IR photodetector cooling by opt. immersion lens 3833
GaSb:S, Hall/photo-Hall effect meas. 38252
Ge:Hg, Poole-Frenkel effect, centre ionis. deep impurity 21889
n-InAs:Si, carrier mobility across surface depletion zones 13055

photoelectron multipliers *see photomultipliers*

photoelectron spectra
see also Auger effect; photoemission; photoionisation; ultraviolet photoelectron spectra; X-ray photoelectron spectra
CaF_2-based MIS struct., DOS, PES and BEEM studies 22072
Cr/NH_3/GaAs(100), interface form., photoemission study 38377
Cs/InAs(110), giant band bending, interface form. 13222
$CuInSe_2$, heteroepitaxy on Si, charactn. 13087
$CuIn_3Se_5$, heteroepitaxy on Si, charactn. 13087
GaAs(001), water treated, SR PES 1269
InSe/GaSe heterointerfaces, Van der Waals epitaxy 20883
Si surface layer elastic deform., photoelectron emission meas. 21005
Si(111)-H, oxid., ultrathin oxides, struct. imperfections 38608

photoelectron spectroscopy
semicond. mfg. environ., microscopic contamination, SAXPS 38457
submicron stripe patterns photoelectron imaging, soft X-rays 42978
thin-film CdSe and CdS oxygen sens., surface spectrosc. 34611
xerographic toner triboelectrification mechanism 7916
XPS spectrometer, 2D charged-particle sens. ASICs, high resoln. 10155
Cu selective CVD on diamond surfaces, self-assembled monolayers 37493
GaAs(001), Sb-terminated, Ga/As surface reacts. 21900

photoemission
see also photoelectron spectra; photoemissive devices
CCD image sens. basic principles and archits. *(German)* 3874
CEBAF FEL injector, space charge dominated perform. modelling 39974
diamond:B,N, elec./opt. charactn. 21891
diamond nucleation and growth, SR studies 404
IR multiquantum-well photoconductor struct., emission and capture of electrons 13188
mag. quantum struct., macroscopic consequences 14212
opt. glass surface, waveguide radiation, electron emission excitation 14443
OSEE inspection for flux residue on PCB-based electronics assemblies 38114
photocathode materials for x-ray conversion microscope 6694
semicond. failure anal. appl. 6837
thermionic converters, photoelec. emission-based characts. tests 28030
X-ray resist-substr. interfaces, parametric modeling 13533
X-ray streak camera operation, VUV wavelengths 21797
Al/n-InP contacts, inhomogeneous reaction and Schottky-barrier change 13228
Ba photocathode, photoemission studies in polarized laser light 972
CaF_2/Si(111), epitaxial growth mechanisms and struct. 5836
CsI, photoelec. and secondary electron emission, field enhancement 29744
Cu surface two-color photoemission on fs laser pulse irrad. 38208
GaAs photoemitter, response time, expt. study 29741
GaAs photosource for electron cooling devices 34849
n-GaAs, surface photovoltage, photoemission spectrosc. 14586
GaAs-$Al_{0.25}Ga_{0.75}As$/Cs-Au struct., elec. gated field-assisted photoemission 38379
GaAs-AlGaAs superlattice, high pol./quantum efficiency photocathode 22007
Ge heteroepitaxy on Si(001), init. stage, Auger electron diffr. 20709
$In_{0.5}Ga_{0.5}As$ heterostruct., gateable ultrafast field-assisted photoemission 1836
InGaAsP, strained layers, LPE, spin-polarized electron sources 21798
InP(110), nitridation/oxid., core-level/valence-band photoemission obs. 13335
LaB_6 FEL photocathode photoemission studies by ns KrF excimer laser 38207
LaB_6 photocathodes, photoemission studies in polarized laser light 972
Mg, short pulse UV/VIS laser irrad., photoemission 38204
Si surface layer elastic deform., photoelectron emission meas. 21005
Si/SiO_xN_y/Al MOS capacitors, charge trapping and interface states 29975
SnO_2:Sb thin film photoemission under elec. field amplif. 29743
TiO_2 thin film photoemission under elec. field amplif. 29743
W, single-/two-photon photoelec. emission sensitivity, inversion 21792

photoemission, inverse *see inverse photoemission spectra*

photoemission spectra *see photoelectron spectra*

photoemissive devices
see also photocathodes; photoemission
a-Si:H, field-enhanced photoemitter 38205

photoemissivity *see photoemission*

photoflash lamps *see flash lamps*

photogalvanic cells *see photoelectrochemical cells*

photogalvanic effects *see photoconductivity; photovoltaic effects*

photogalvanic spectroscopy *see optogalvanic spectroscopy*

photogrammetry
3D digital images vol. elements tracking in seqs. 41332
3D obj. imaging, light plane calib. 42944
aerial photography restoration, MLE algm. 41339
aerotriangulation using digitized images, OEEPE research project 41265
aircraft navig. using GPS, parallel flight lines 26708
automatic relative orient., digital photogrammetry 41260
camera calib. from spheres images 24605
close range dimens. meas., grating techs. 18078
combined block adjustment, GPS data 42548
combined block adjustment, precise differential GPS data 42317
digital photogrammetric assembly point determ. 41272
Digital Video Plotter, 42870
DTM generation, obj. based by MEOSS 3-line camera data 41245
dyn. space resection, straight lines 41280
extraction in digital aerial triangulation 41255
facets stereo vision method, digital terrain reconstruction 41341
global image matching and surface reconstruction, aerial images 41261
GPS controlled triangulation of single flight lines 42549
GPS supported aerial triangulation 26707
ground control points in photogrammetric point determ. 41248
IIMS, integrated imagery mgt. syst., struct. quality assess., photogrammetry 24482
image invariance photogrammetric anal., computer vision 41242
in-proc. 3D coord. meas., CCD camera *(German)* 17970
inverse problem of stereo photogrammetry, soln. 41279
kinematic resection of scanned imagery 41275
lin., extraction by least sq. template matching 41253
machine vision integrat., conf., Orlando (1993) 36888
med. diagnosis via visualization techs. in facial surgery 41246
mobile satellite commun. systs., service prediction 25271
MOMS-02 sens., combined stereoscopic along-track and multispectral data 41270

photogrammetry continued
neurosurgery, stereophotogrammetric-controlled pointing device 43323
orthoimages (digital), airborne line scanner imagery 43489
PC-based softcopy photogrammetric syst., experience in low-cost survey of archit. 41337
pixel size and compression effect on digital aerial image metric quality 41264
relative orient. of image triples, straight lin. 41338
robot vision-based calib. syst. 17658
SPOT stereopairs, orbit attitude params. 10450
stereo image matching, digital photogrammetry 41344
stereo image proc., facets stereo vision 41340
stereo images, disparity map computation method 26701
surface reconstruction, multi image shape from shading 41259
user-guided measuring in digital aerial triangulation 41269
video camera use, modelling & calib. 43486

photographic applications
see also photogrammetry; photolithography; remote sensing
electronic speckle photography, systematic/random errors 7810
laser ablation bubble, fiber optic probe method, time-resolved photography 43215
non-polar liqs., electrokinetic study, LDA 42985
particle image velocimetry, image labelling, flow meas. 18154
real-time digital single-exposure speckle photography for vel./flow fields study 41299
rough surface transversal displacement/rot., speckle movement 3977
ship's screw cavitation recording, angle sampling control *(Croatian)* 3685
stereoscopic syst., particle trajectories meas., underwater model 34732
surfaces digital models, opt. images 2823
ultrahigh-speed photography, conf., San Diego (1993) 36890

photographic developers *see photographic materials*

photographic emulsions
Ag-halide bleached emulsions, shear angles in holographic gratings 2132

photographic filters *see optical filters*

photographic lenses
see also aberrations
telephoto lens focusing/space compression 2665
TV camera lenses, latest develop. *(German)* 25653

photographic light sources *see light sources; photography*

photographic material sensitivity
chest radiography, true film-screen sensitivity 18504
films, dosimeters, interventional radiological procedures 43402
holographically exposed photoresist gratings, developed profile 31638
med. radiography screen-film systs., speed determ. 26296
phthalocyanine, organic photoreceptor, spectral sensitization 2189
TiO_2 photoreceptor, direct digital color proofing 2190

photographic materials
see also photographic emulsions
physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
As_2S_3 amorph. film, holographic recording, lin. phase shift response 31667

photographic recording media *see photographic materials*

photographic techniques *see photography*

photography
see also cinematography; colour photography; electrophotography; photogrammetry; photographic applications; photographic lenses; photographic materials; radiography; streak photography
aerospace photography, ground sampled dist. determ. 18921
focus of attention in image understanding systems 8675
high energy EM transducer acoustic shock field, Schlieren meas. 4029
image coding, methods and appls. *(Italian)* 2804
perspective terrain visualization using rem. sens., GIS and computer graphics 18919
physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
PWR, stratified flow visualisation, horiz. pipework, stratification 27410
telephoto lens focusing/space compression 2665
ultrahigh-speed photography, conf., San Diego (1993) 36890
Al target, laser ablation plumes, reson. holographic interferometry 2158

photoionisation
see also photoelectron spectra
doped glass fibers, SHG, directional photoionization model 15042
glass photoinduced SHG, time-depend. beam-propag. model 15115
rare gases, harmonic generation, multiphoton ionisation effects 2083
thermionic converters, photoelec. emission-based characts. tests 28030
VUV laser radiation, reson. ionization, H-like atom ionization 40170
ArF excimer laser discharge simul., plasma charact. 39652
Cd^+ photo-ionization laser, blackbody source pumped, charactn. 31196
GaAs MBE growth monitoring, single photon ionization TOF mass spectrosc. 28723
GaAs, shallow impurity, far-IR photocond. mechanism 6530
GaAs:Si(Cu) , opt. activated pulsed power switch, 2D model 39572
n-GaAs(100), surface photo-emf spectra 1051
Ge:Hg, Poole-Frenkel effect, centre ionis. deep impurity 21889
HgI_2:Cu,Ag X-ray spectrometers, defect traps, photoionization 4247
KrF excimer laser fs VUV pulse meas. by field-ionization dyn. 23103
Li-like Al, autoionising states, X-ray lasing transits., photopumping 14686
SF_6, negative corona discharges 13981
Si:B, simultaneous B^+ implant./photoexcitation 22109
SiO_2:Ge planar waveguide, seeding, static elec. fields 39381

photoisomerisation *see photochemistry*

photolithography
see also photoresists; X-ray lithography
0.13-μm pattern delineation, excimer laser light, ULSI fab. 13555
0.2 μm gate length HEMT technol., conventional opt. lithog. 1440
0.35 μm I-line photolithography, automatic proximity correction, chip layout 1311
3D lithog., resist coating of cylindrical samples 22316
3D micro integrated fluid systs. and microactuator 30494
3D multidirectional inclined structs., microfabrication, UV lithog., electroplating 30504
4X reticles, eval. for 250 nm DUV lithog. 38768
attenuated phase shift masks, contact prod. 13552
attenuated phase-shifting mask, lithographic charact., phase error 13550
BiCMOS quadruple well, quadruple polysilicon proc. for fast 16 Mb SRAMs 6156
biosensors, biotechnology-based recogn. elements 43187
cellular neural nets for defect detect. in photolithographic masks 24734
channel-constrained deposition of electroless metallization on ligating self-assembled films 13429
chem.-mech. polishing for planarization, forecast of future trends 13323

photolithography continued
CMOS devices, proximity SOR/deep UV PSM lithographies 13527
CMOS integrated thermal press. gauge and read-out cct. 25786
CMOS random logic, electron beam/DUV mix-and-match lithog. 39002
CMOS technol., 0.15-μm channel length, mixed X-ray/opt. lithog. 22592
COG, COG technol. for LCD driver LSIs, resin and flexible metal bumps 134
contact recording coatings, nanoindentation, microscratch, friction, wear 39184
deep UV lithog., KrF(ArF) excimer laser 38719
deep UV phase shifted-single layer halftone reticles, 256 Mbit DRAM cell patterns 13556
dense contact holes, phase-shifting masks, EDM methodology 13553
desktop printer, diffractive optic elements fab. 39452
diffractive opt. elements for opt. computing 7434
diffractive optics, radiation resist., electroforming *(German)* 31058
DRAM cell photolithography, annular pupil filtering, modified mask 12541
electron, ion, and photon beams, symp., New Orleans (1994) 5484
electronic chassis, rapid prototyping pilot 28499
electrooptic polymer waveguides, packaging and charactn. 39491
EUV lithog., expanded-field Schwarzschild objective 13507
EUV lithog., low-contamination laser plasma source 38756
EUV lithographic masks, programmed substr. defects 13509
exposure-defocus forest 13546
field-emission triodes, fab., emitter-gate separation of 0.18 μm 21804
fine line cct. mfg. technol., electroless Cu plating 29680
fine/ultrafine pitch printing, electroformed/laser cut/etched stencils 37152
gigabit chips, mfg. technols. 22308
gigabit technols. 1303
gray-tone lithog., arbitrarily shaped surfaces fab. 30172
gray-tone lithog., fab. of arbitrarily shaped surfaces, simul. and proc. design 13554
gray-tone lithog., simul. assisted design 38728
high NA photolithography simul., scalar planewave model 1310
holographic lithog. 38716
hybrid lithog., e-beam direct writing and opt. stepper 38769
i-line lithog., pupil filtering and dipole illum. 13559
i-line opt. lithog., sub-half-micron contact hole defn. 38752
image shortening effects 13526
incoherent-type pupil filter for opt. lithog. 13560
integrated force arrays, membrane based actuators 13910
kinoform lenses, solar cell light concentrator appl. 27972
lasers in flat-panel display manufacture 2157
lifetime, wavefront engng. 13547
main-chain polymers, processable, third-order nonlin. opt. props. 15097
Markle-Dyson gapped syst., qtr.-micron lithog. 13505
Markle-Dyson opt. syst. 13506
mask aligner based on moire interf. tech. 38709
mask defect inspection, database comparison 22302
MCM fab., planar chip insertion, interferometric micropositioning 21727
MCM large area fine line patterning by scanning projection lithog. 21686
MCM large area fine line patterning by scanning projection lithog. 21717
MCM-D substr. fab., cost reduction approaches 957
MCM-LD, photosensitive-BCB on laminate technol. 12978
micro photoforming proc., archit. combination 30515
micro-machined 3D micro-optics for integrated free-space opt. syst. 14484
microlens arrays, coherent refr., dry etching 7440
microlens arrays, long focal length, prog. mfg. tech. 39451
microlithography, polarized masks, image contrast 38715
MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
miniature fluid control devices, fab., lithog. and electroforming 6875
MOSFET, at. force microscope fab., nanolithography 30320
μBGA packages, fine pitch wire bonding 21675
multilayer coated reflective optics, EUV lithog. 38721
multilayer PCB prototyping, engng. lab environ. 38089
multiple-level dry etching, self-aligned etch masks 13324
NOLMEX, resoln. enhancement lithog. tech. 13562
nonlin. photolithography, spatial excitation patterns, time-domain fields 15160
oblique illum. opt. lithog. using a transmittance-adjusted pupil filter, resoln. enhancement 38749
partially coherent opt. systs. for num. aperture optim., degree of coherence 13443
phase mask, pattern form. 13551
phase-shift masks, contact hole printing, simul. 13434
phase-shifting lithog., duty ratio of line and space, DRAM chips 30161
phase-shifting masks, inspection, automated electron-beam syst. 13488
phase-shifting masks, lens aberrations 13502
phase-shifting masks, optimized illum. 13501
photoimageable thick films for MCM 21726
photonic LSI interconnections/appls. 1833
photoplotter/printer image contamination, PCB mfg. cleanliness 38101
planar polymer substr., gradient-index profiles, lithographic tech. 14489
pole trimmed inductive thin film head, off-track capability 7095
polymer film electro-optic modulators/waveguides 39489
polysilicon side-drive micromotors, fab. 11093
proc. monitoring and control, diffractive techs. 13489
projection printing, defocus asymmetry 13500
quartz capillary tubes for chem. anal., fab. 34461
random reticle CD var., mask defects 13441
rapid prototyping, laser optics, theoretical anal. *(Japanese)* 7869
relief type surface topographies, semitransparent mask 38723
review, 0.35-0.25 μm technols. 38764
rim phase-shifting mask, high-dens. cct. layout 13504
scanned laser mask lithog. tool, mask mfg. 38720
semicond. wafer cleaning procedure, effects on surface charging of substrs. 22210
shot alignment improvement inside exposure field for IC photolithography 38710
shot leveling/focusing , interferometry for opt. lithog. 13561
simul., 2D num. algm. 22307
SR steppers, compatibility 38754
SSB opt. lithog., pupil filter in replicating isolated patterns 13557
stepper-lens syst., pupil-filtering 38717
submicrometer gate length MOSFET, selectively doped substr., hot electron degrad. 30324
submicron holographic lithog., limitations 30163
super resoln. tech. for next-generation ULSI 13558
superresolution lithog., partially coherent imaging theory, line and space struct. 38771

photolithography continued
- superresolution lithog., partially coherent imaging theory, isolated struct. 38772
- superresolution photolithography, phys. limits 6671
- thermal printing head, line type, convex struct. 29704
- work cell design for high perform. 37027
- AlGaAs, MBE-grown, As capping 1286
- AlGaAs/GaAs npn HBTs, MBE fab. and charactn. *(Korean)* 30264
- AlGaAs/$In_{0.15}Ga_{0.85}As$ DH-PHEMT, short-channel effects 13808
- AlGaAs-GaAs-AlGaAs HEMT/quantum well laser monolithic integrat., MBE/technol. 1945
- AlGaAs-InGaAs E/D-HJFET LSI technol., 0.6 V 39022
- AlGaInP/GaInAs/GaAs:C MODFETs, fab. scheme 6783
- $Bi_2Sr_2Ca_1Cu_2O_{8+x}$ thin films, micropatterning, Nb lift-off 30764
- Co films/$CoSi_2$ films, opt. props., G-line/I-line lithog. 38748
- Cu/photosensitive-BCB thin-film multilayer technol. for MCMs 21714
- Cu/photosensitive-BCB thin-film multilayer technol. for high-perform. MCM-D 21688
- GaAs MESFET, ion implant., photolithog., SAG 38923
- GaAs, patterned substrs., LP MOCVD InGaP 20830
- GaAs permeable jn. base transistor, homoepitaxial gate 6727
- GaAs/AlAs, sub-micron p-i-n RTD, discrete electrolum. lines 14640
- GaAs/AlGaAs quasi-1D struct., holographic lithog., wet etching 21975
- GaAs/WN_x/W-gate MESFET multiplexer IC, 0.5 μm, A 20 GHz 8-bit implement., fibre transm. 9546
- GaAs-InP MESFETs and ccts. fro OEICs 39598
- He-Kr-F_2 excimer laser for microtechnology 39649
- HfO_2/SiO_2 dielec. layers, excimer laser ablation patterning 30121
- $Hg_{1-x}Cd_xTe$:B large-area PV IR detector, fab. *(Korean)* 17771
- InGaAs/InP composite channel HEMT struct., LV mobile comm. appls. 1444
- InP/InGaAsP, whispering-gallery-mode microdisk QW lasers 31367
- Mo/Si multilayer facilities, EUV lithog. 13508
- Nb/Al-oxide/Nb SIS jns. fab. 12758
- $PbTiO_3$ thin film pyroelec. IR detector 42818
- Si grooved-gate MOSFETs with W gate, short-channel-effect-suppressed devices 13674
- Si miniature capacitive absol. press. sens. 9858
- Si, porous layers, thickness control, microelectronic appls. 21874
- Si, porous struct. from lithographically patterned substrs., photolumin. obs. 20983
- a-Si:H, TFT LCD, photolithographic pattern transform., backside exposure 34635
- SiO_2, submicron parallelogramic-shaped gratings fab. proc. 7345
- Ti films/$TiSi_2$ films, opt. props., G-line/I-line lithog. 38748
- UO_3 lines, 3 μm width, photoresist-free opt. litho. 6674
- W CVD films, opt. props., G-line/I-line lithog. 38748
- W/SiO_2, W fine lines, micro-wedge scratching 38705
- YBaCuO thin films, planarized patterns 39230
- $YBa_2Cu_3O_7$ microbolometers, free-standing, on Si substrs. 3825
- ZnO thin film US transducer array, 100-MHz, fab., integrated devices, NDT appls. 35367
- flexible etched cct.-based IC interconnection, high speed/dens. 13431

photoluminescence
- *see also fluorescence; phosphorescence*
- alkali salicylates, lasing activity, luminesc. props. 1868
- conjugated polymers/fullerenes, optical probes, conf., USA (1994) 20195
- diamond:He^+ film detector, Raman/photoluminesc. charactn. 43089
- diamond, synthetic, radiophotoluminesc., dosimetry 43403
- dil. mag. semicond. QW struct., diffusion, opt. methods 39171
- epitaxial growth optim., opt. charactn. 319
- fluorenone bisazo pigment/α-phenylstilbene derivative interface, extrinsic photocarrier generation 14581
- heteroepitaxial III-V struct. charactn. 21901
- ii-vi wide-gap semiconds., MOVPE, optoelectronic appls., review 20887
- III-V semiconds., surface passiv., Si interface control layer 38596
- impurity activated solids, hole burning, zero-phonon line appls. 7791
- InGaAs/InGaAsP MQW lasers long wavelength, thermal annealing effects 14869
- ladder-type oligo(para-phenylene), electrolumin. devices, electrolumin./photolumin. obs. 14620
- laser dye DCM, photostability, inorganic-organic host matrices 39692
- MQW, coupled, electron escape rate, coherence length, hopping effects 38364
- nanostructures, optical props., conf., Japan (1994) 28236
- oils, crude and refined, rem. charactn. by laser fluorosensor syst. 35357
- oligothiophene-based LED, charge carrier injection/lumin. 14635
- organic mols., nonlin. opt. props. study 15143
- organic waveguide couplers, 2-photon absorpt.-induced luminesc. 30940
- oxides activated by rare-earth ions, act. layers of electroluminescent screens 7457
- photolum. spectra study of MESFET and HEMT 38933
- poly(p-phenylene vinylene), color changes in photolum., doping/conversion time effects 1794
- poly(p-phenylene vinylene)-based LEDs, chlorine precursor route 31108
- poly-(para-phenylene-vinylene) films and photodiodes, photoinduced current, ESR 14600
- polyphenylene, light-emitting copolymer, synthesis, luminesc. 14594
- PPV conjug. polymer based electroluminescent devices, quantum efficiency 23024
- pseudomorphic HEMT device wafers, photolum. eval. 13792
- quantum well struct., doped n-type, carrier and impurity profiles 13170
- quantum wires, fab., etching damage, electron beam lithog. 13397
- scintillating, wavelength-shifting, clear fibers, fluores. yield, γ-irrad. 26223
- semicond. multilayer struct., opt./X-ray/electron microscopy meas. 1122
- semicond. QW microcavity light emitters, combined quantum effects 1817
- Si residual impurities, spectrosc. meas., lattice distortion determ. 14593
- single-mode silica fibers, Raman amplif. of coherent Stokes wave on biharmonic laser pumping 15084
- ultrafast carrier capture in quantum well struct. 1117
- variable colour polymer blend LED 7475
- variable-strain quantum well heterostruct., design and investig. 30820
- AgBr nanocrystal indirect bandgap semicond., lumin. props. 20653
- $AlAs_xSb_{1-x}$-InAs, modulated MBE growth 12076
- AlGaAs, high purity, methyl-based precursors, in situ alkoxide gettering 299
- (AlGa)As, low press. metalorganic vap. phase epitaxy, N_2 carrier 311
- AlGaAs, patterned photon-driven cryoetching 30065
- $Al_xGa_{1-x}As$:Si, MBE grown, Hall and photolum. meas. 12129
- AlGaAs/AlGaAs superlattice, comp. ordering, opt. props enhancement 1083

photoluminescence continued
- AlGaAs/GaAs MODFETs, low-noise X-band transistors, MBE growth 22479
- AlGaAs/GaAs MQW, opt.-modulator struct., hydrogenation 1803
- AlGaAs/GaAs SQW, plasma cleaning, photolum. studies 1139
- AlGaAs/GaAs quantum well DBR laser, femtosecond upconversion, time-resolved study 31374
- AlGaAs/GaAs quantum wells, photolum., in-situ charactn. method 1137
- AlGaAs/GaAs quantum wires, flow rate modulation epitaxy on nonplanar substr. 37386
- AlGaAs/GaAs/InGaAs reson. coupled asymmetric double QW, intersub-band transit. 1135
- AlGaAs/InGaAs/GaAs HEMT, photolum. spectrosc. 6780
- AlGaAs/InGaAs/GaAs QW lasers, perform., MOVPE growth interruption effect 23248
- AlGaAs/InGaAs/GaAs, δ-doped pseudomorphic structs., opt./transport props. 6550
- $Al_xGa_{1-x}As$/AlAs/GaAs quantum wells, reson. electron capture 22019
- $Al_xGa_{1-x}As/In_yGa_{1-y}As$/GaAs, pseudomorphic HEMT, photolum. 6807
- AlGaAs-GaAs quantum wire struct., comp. modulation studied by photolum. 38357
- $Al_xGa_{1-x}As$-$In_yGa_{1-y}As$-GaAs, modulation doped HEMT, photolumin. linewidth 13145
- AlGaInP based wide band gap quantum wells, opt. spectrosc. 13165
- AlGaInP red-emitting LD grown by solid source MBE *(Japanese)* 39880
- p-AlGaInP:Zn, metalorganic VPE growth, alternate sources, phosphine 20752
- AlInAs/InP type-II superlattice, elec.-field induced excitons, opt. studies 6555
- AlN, excimer laser ablation, fluence depend. 12192
- AlN sintered ceramics for electronic packaging, oxygen-related defect 12191
- AlP/GaP short period superlattice, organometallic VPE growth, photolumin. obs. 20753
- Au/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
- Au/ZnCdTe, electroless Au film deposition 37465
- Au/native oxide/p-Si, electrolumin. study 31100
- Au/porous Si diodes, electrolumin. study 31100
- Ba-Y-Yb-F:Tm^{3+} glass thin film upconverting waveguides for vis. and UV light sources 30936
- BaF_2 calorimeter, cryst. props., detector possibil. 26195
- BaF_2-InF_3-ZnF_2-YF_3-ThF_4-GaF_3 glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647
- BaFBr:Eu^{2+}, laser stimulated luminesc. 34939
- $Ba_{1-x}Ga_2S_4:Ce_x$, electrolum., photolum., TFEL devices 1811
- C_{60}/toluene solns., opt. limiting mechanisms 23433
- $Ca_3Ga_2Ge_3O_{12}:Cr^{4+}$ single crysts., growth and photolum. 28710
- $Ca_{1-x}Ga_2S_4:Ce_x$, electrolum., photolum., TFEL devices 1811
- $CaWO_4$ film, room-temp. electrochem. prep., photoluminesc. props. 28794
- $Cd_{1-x}Mn_xSe$ quantum dots, magneto-opt. studies 39502
- CdMnTe(001), MBE growth, struct., opt. props. 37392
- CdS film, luminesc., all-opt. absorptive and dispersive bistabilities 1792
- CdS films, electro-opt. charactn. 1039
- CdS, semicond. quantum dots, nonlin. opt. props. study 15143
- CdS thin films, opt. bistability, luminesc., DP device archit. 40032
- $CdS_{1-x}Se_x$ hexagonal alloy films, epitaxial growth, photolum. 20882
- CdSe, MOVPE, precursor gas monitoring by photolum. 34617
- CdSe quantum dots, electron-phonon coupling/phonon confine. 29903
- CdSe quantum dots, electrospray OMCVD 5860
- CdTe microcrystallites in CaF_2 thin film, nonlin. opt. prop. 40027
- CdTe nanostructures, opt. studies 1793
- CdTe:Cl, elec./opt. props., detector appl. 43085
- CdTe:Ga, diffusive doping, photolumin. obs. 22147
- CdTe:In photolum., stoichiometry effect 38513
- CdTe:N MBE films, photolum. and p-type cond. 1038
- CdTe/$Cd_{1-x}Mg_xTe$ quantum wires, wet chem. etched, photolum. efficiency study 38331
- CdTe/CdMnTe MQW, low temp. mobility limiting defects 1087
- CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
- CdTeSe:Cl, elec./opt. props., detector appl. 43085
- $(CdTe)_1(ZnTe)_2$/ZnTe short-period-superlattice MQW, above-barrier excitons 1086
- CdZnSe-ZnSe strained layer superlattice disordering, diffusion/ion implant. *(Japanese)* 38339
- $Cd_{1-x}Zn_xTe$:In, pure and doped, doping induced defects, photolum. obs. 22142
- CdZnTe(100)/ZnTe(100), MBE growth on Si(100) 37423
- $CsCdBr_3:Er^{3+}$, excited state dyn., vis. to UV conversion 15068
- Cu^+:CaO-P_2O_5 glasses for lasers 5910
- Cu-Al-S syst. sensitized with rare-earth elements, blue-to-green phosphor 23007
- CuCl quantum dots, electron-phonon coupling/phonon confine. 29903
- CuCl, semicond. quantum dots, nonlin. opt. props. study 15143
- $CuGaS_2$, travelling heater growth, CuI solvent 5810
- $CuInSe_2$:Sb thin films, growth and props. 38275
- Er^{3+} doped fluoride fibre, photon avalanche up-conversion 22817
- Er-doped PbF_2-SrF_2 epitaxial layers on GaAs(111)B for upconversion waveguide lasers 14832
- Fe:InP/InGaAs MESFET, metalorganic CVD growth 38926
- GaAlAs/GaAs thin-emitter solar cells, photolumin. study 20002
- GaAlAs/GaAs/Ge thin-emitter solar cells, photolumin. study 20002
- GaAs, CBE growth from tertiarybutylarsine, triethylgallium precursors 12105
- GaAs MBE thin films grown on Si, biaxial compression 20837
- GaAs MMIC manufacture, proc.-induced defects 12804
- GaAs, MOMBE using triethylgallium, trisdimethylaminoarsenic 28726
- GaAs, MOS-hydride epitaxial growth, cryogenic purification of arsine 28737
- GaAs MOVPE, multiatomic step form., GaAs/AlGaAs QW wires 20835
- GaAs, MOVPE, trialkyl-group-V-precursors 314
- GaAs VPE grown films, DTLS 20869
- GaAs buffer layers, MBE grown, electronic props. 13056
- GaAs, bulk cryst. growth, rare earth effect 20656
- p-GaAs, electron-hole scatt. 1031
- GaAs, electronic passiv., electrodeposition of organic mols. containing reactive S 30070
- GaAs epilayers, metalorganic CVD growth 37411
- GaAs epitaxial layers, charactn., annealing effects 13277
- GaAs heterojunction, 2D electron Wigner cryst., electron diffr., photolum. 21968
- GaAs low-dimens. struct., cleaved edge overgrowth, lasing props. 1925
- GaAs, low-press. metalorganic vap. phase epitaxy 12078

photoluminescence continued
  - GaAs microcryst./AlGaAs interlayers low-press. MOCVD growth 20945
  - GaAs nanometer-scale whiskers, growth/opt. props. 20815
  - GaAs, neutron-transmutation-doped, annealing/hydrogenation effect 13276
  - GaAs passiv., integrated plasma clean/CVD/RTA, Si_3N_4 encapsulation 22224
  - GaAs, patterned photon-driven cryoetching 30065
  - GaAs, photon-assisted MOMBE growth 28765
  - GaAs quantum wells, intersubband relax., ultrafast dyn. 13164
  - GaAs quantum wires, dense electron-hole plasma phase 1118
  - GaAs, radiation induced order effect, mobility study 13061
  - GaAs, selective area CBE 28768
  - GaAs, sulfur treatment and hydrogen plasma treatment 38597
  - GaAs, surface, NH_3-plasma treatment in rem./direct plasma reactor 38628
  - GaAs thin film, GaAs substr., eutectic bonding-induced in-plane strain 38341
  - GaAs thin film, Si substr., eutectic bonding-induced in-plane strain 38341
  - GaAs triple-barrier reson. tunneling diode, time-resolved photolum. 1451
  - GaAs:Be, electron thermalization, picosecond time-scale 1033
  - GaAs:C, C ion beam doping/MBE 28773
  - GaAs:C, HBT base-layers, electron lifetimes, annealing effects 1200
  - GaAs:C MBE layers, ion-beam doping 22122
  - GaAs:C, MOCVD, doping and growth rate reduction by CCl_4 403
  - GaAs:C films, MBE, C^+ beams, photolum. 28789
  - GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
  - GaAs:Er, ion implant./MBE, Er-related deep centres 38516
  - GaAs:Er, metalorganic CVD, $Er(C_4H_9C_5H_4)_3$ 12164
  - GaAs:Ge, radiation damage, elec. and opt. meas. *(Japanese)* 1048
  - GaAs:In layers, LPE grown, charactn. 5826
  - GaAs:Li, shallow and deep level passiv. by lithium 1052
  - GaAs:Si QW, uniform intermixing in p-i-n modulator structs. 39605
  - GaAs/(InGa)As/(AlGa)As quantum wire, 1DEG opt. emission 1142
  - GaAs/$Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., photolum. intens., sens. appls. 39558
  - GaAs/$Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., sens. appls. 38303
  - GaAs/$Al_{0.5}Ga_{0.5}As$ quantum wire struct., in-situ gas etching/selective-area MOVPE 20798
  - GaAs/$Al_xGa_{1-x}As$, LP-MOVPE, DEAlH-NMe_3, Al source 346
  - GaAs/Al(Ga)As quantum wells, MOVPE/MBE growth, interface struct. 20878
  - GaAs/AlAs QW, exciton diffusion/energy relax. in strong mag. field 29904
  - GaAs/AlAs quantum wells, MBE growth interruption, nonradiative recomb. 332
  - GaAs/AlAs superlattice, photolum. pol. depend. 38336
  - GaAs/AlAs superlattice, random, electronic/opt. props., disorder effect 6558
  - GaAs/AlAs/AlGaAs double-barrier QW, interband/intersubband absorpt. 29907
  - GaAs/AlGaAs, MOVPE, V-grooved GaAs substrs. 20884
  - GaAs/AlGaAs QW, exciton relax., recomb. dyn. 1116
  - GaAs/AlGaAs, QW microcavity LED, mode-coupling 7472
  - GaAs/AlGaAs QW, opt. switching effects under hydrostatic press. 38251
  - GaAs/AlGaAs QW wires, form., photolum. charactn. 20819
  - GaAs/AlGaAs QWs and quantum wires, growth and opt. props. *(Chinese)* 5815
  - GaAs/AlGaAs double quantum wells, photoreflectance and photolum. 1124
  - GaAs/AlGaAs heterostruct., plasma etching damage 30109
  - GaAs/AlGaAs micro-pyramids, selective MOVPE growth 20767
  - GaAs/AlGaAs quantum dots, ion implant. based nanofabrication, masks 13493
  - GaAs/AlGaAs quantum dots, photolum. charactn. 29926
  - GaAs/AlGaAs quantum wires/dots, X-ray lithog. and Ga^+ intermixing 38344
  - GaAs/AlGaAs quasi-1D struct., holographic lithog., wet etching 21975
  - GaAs/GaAsP heterostruct., MOVPE grown, interface flatness 20822
  - GaAs/GaAsP quantum wires, MOVPE, luminesc. props. 20796
  - GaAs/GaAsP strained-layer quantum well struct., photolum. linewidth 23002
  - GaAs/GaInP syst. MOVPE grown quantum-well struct., InP/GaInP barriers 20801
  - GaAs/GaN/GaAs thin-layer struct., plasma-assisted MOCVD growth 37506
  - GaAs/InAs/GaAs heterostruct., MBE growth, substr. misorient. effect 20856
  - GaAs/InGaAs/AlGaAs heterostruct., selective high-temp.-stable O implant. 1218
  - GaAs/InGaP quantum well p-i-n diodes, blue shift obs. 14603
  - GaAs-AlGaAs MQW, $LiTaO_3$ substr., eutectic bonding-induced in-plane strain 38341
  - GaAs-AlGaAs MQW, Si substr., eutectic bonding-induced in-plane strain 38341
  - GaAs-AlGaAs near-perfect QW on vicinal surface, MBE, photolum. obs. 22011
  - GaAs-AlGaAs-GaAs HEMT struct., elec./lumin. props., CF_4 plasma effect 13352
  - n- GaAs-InP, CVD layers/MESFET, elec./optical charactn. 13104
  - GaAs-Si heteroepitaxial layers, ohmic contacts, RTA 22029
  - GaAsN, low-press. metalorganic CVD growth, plasma-cracked N_2 20730
  - GaAsP/AlGaAs strained-layer quantum well, opt. props. 23001
  - $GaAs_{1-x}P_x/Al_yGa_{1-y}As$ DH, minority carrier lifetime 1081
  - GaInAs, MOVPE, coherency limits 315
  - GaInAs/InP syst. MOVPE grown quantum-well struct., InP/GaInP barriers 20801
  - GaInAsP/GaAs, MOCVD, lattice match, photoluminesc. Hall mobility 7610
  - GaInAsP/GaInAsP MQW stacks, wavy layer growth elimination 20802
  - GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
  - GaInP, MOVPE, coherency limits 315
  - GaInP layers/heterostruct. on GaAs substrs., VPE, surface photo-absorpt. charactn. 20718
  - GaInP, selective area CBE 28768
  - GaInP, selective epitaxy, low press. MOCVD 360
  - $Ga_{0.5}In_{0.5}P$ order/disorder heterostruct., organometallic VPE growth 20750
  - $Ga_{0.52}In_{0.48}P$ layers, CBE grown, opt. charactn. 12104
  - $Ga_xIn_{1-x}P$ strained quantum wells, MOVPE growth 20799
  - GaInP/(AlGa)InP buried quantum wires, local order-disorder transition 13203
  - GaInP/AlGaInP quantum wells, MOVPE, anom. photolum. 341
  - GaInP/GaAs DH interface, MOVPE growth 20805
  - GaInP/GaAs ordered heterointerface, type-II band alignment 38282

photoluminescence continued
  - GaInP/InP, quantum sized structs., MOVPE, 2D-3D growth mode transit. 12040
  - GaInP/InP:S QW, strained barriers, optical/struct. props. 13159
  - $Ga_xIn_{1-x}P$/AlGaInP quantum wells, strained, opt. investig. 1134
  - GaN films, low-press. metalorganic CVD 419
  - GaN, low temp MOCVD epitaxy, photolum. 365
  - GaN, two-step-growth on AlN buffer layer 20743
  - GaN:Si metal-organic VPE, shallow/deep levels charactn. 13052
  - Ga_2O_3 films, electronic/optoelectronic appls. 22640
  - GaP:N layers, OMVPE using TBP, N doping 1208
  - GaP:N, metalorganic VPE, photolumin. obs. 20728
  - GaP:N microcrystals, gas evap. doping, photolumin. study 38481
  - GaP/AlP short period superlattices, GSMBE grown, opt. props. 20673
  - GaP/GaAsP strained-layer quantum wells grown by MOCVD 20800
  - GaP/InGaP strained-layer quantum wells grown by MOCVD 20800
  - $GaP_{1-x}N_x$, MOVPE 342
  - $GaP_{1-x}N_x$, metalorganic VPE, photolumin. obs. 20728
  - $GaP_{1-x}N_x$/GaP quantum wells, MOVPE 342
  - GaSb, thick buffer layers on GaAs, opt., elec. charactn. 12108
  - GaSb, undoped, Te-doped, elec./photolum. charactn. 12109
  - Ge doped opt. fibers, UV-induced transient photodarkening/photolum. 7339
  - GeS_x-based glass:Pr^{3+} fiber amps., photolum. props. 31234
  - HgI_2, detector etching effects 43080
  - HgI_2, extrinsic defects incorporation, detector fab. 43076
  - HgI_2:Ag crysts., defects, rel. to X-ray/γ-ray detector perform. 43075
  - In/*p*-$AgGaS_2$ struct., PV effect 13215
  - In/p-$CuGaS_2$ surface-barrier struct., photoelec. props. 13214
  - $In_{0.52}Al_{0.48}As$ on InP(100), MBE growth, substr. temp. effects 5844
  - InAlGaAs/InP MBE grown heterostruct., charactn. 20833
  - InAlP/InGaP quantum wells/superlattice barrier cladding layers, metalorganic CVD growth 20939
  - InAs nanometer-scale whiskers, growth/opt. props. 20815
  - InAs on GaAs(100), MBE growth/strained island form. 20857
  - InAs/AlSb QW, ALE grown, opt. props. 20677
  - InAs/GaAs, quantum wells, MBE, ALE growth, In segreg. 12111
  - InAs/InP quantum wells, 3-D island form., cathodolum. investigs. 22001
  - InAsP 1.3 μm compressively strained MQW lasers for high-temp. operation 39883
  - $InAs_{0.08}P_{0.92}$ ternary substr., charactn. for InGaAs MQW laser 23184
  - InAsP/InGaAsP strained MQW for 1.3 μm wavelength LD, MOMBE 23249
  - InAsP/InP MQW, metalorganic VPE, interface study 12102
  - InAsSbP/InAsSb/InAsSbP heterostruct., radiative recomb. 23266
  - InGaAlP epilayers, metalorganic CVD using tertiarybutylphosphine, deep levels 20751
  - InGaAlP strained multiquantum-well LD, photolum. meas. 14920
  - InGaAs buried layers MOVPE grown on nanoscale InP islands, photolum. 20832
  - InGaAs crystals, LEC growth, props. 12023
  - InGaAs epilayers, metalorganic CVD growth 37411
  - InGaAs highly uniform quantum dots, MOVPE grown on GaAs 20831
  - InGaAs, low-temp. CBE growth on GaAs(100) 37432
  - InGaAs superlattices, optical props., device appls. 13143
  - InGaAs:Dy on InP, LPE growth, photolum., double-cryst. X-ray study 37400
  - InGaAs:Si/GaAs strained QW, δ-doped, electronic struct. 29943
  - $In_{0.35}Ga_{0.65}As$:Be/GaAs MWQs for high-speed lasers, MBE growth, disloc. glide 333
  - InGaAs/AlGaAs SQW, recomb. procs., photolum. intens. effects 38349
  - InGaAs/GaAs, buried wires, MBE overgrowth prep., opt. props. 38369
  - InGaAs/GaAs depletion-MIS-like delta-doped HFETs 13810
  - InGaAs/GaAs quantum wells, MBE, selective area bandgap modif. 12118
  - InGaAs/GaAs quantum wells, carrier screening effect 1125
  - InGaAs/GaAs quantum wells on GaAs(111)A, MBE, photolum. 12125
  - InGaAs/GaAs quantum wire fab., LV electron beam lithog. 13179
  - InGaAs/GaAs quantum wires, opt. props. 1094
  - InGaAs/GaAs strained-layer QW, grown on (311)A GaAs, charactn. 14910
  - InGaAs/GaAs wires, MBE overgrowth, opt. investig. 348
  - InGaAs/GaAs(111)B strained MQW, piezoelec. field 1085
  - InGaAs/GaAs[111] MQW P-I-N photodiodes, cond. band engng. 1808
  - InGaAs/InGaAlAs, MQW, absorpt., photolum., excitonic transitions 13158
  - InGaAs/InGaAs strained layer superlattices, struct., optoelectronic device appls. 13150
  - InGaAs/InGaAsP MQWs, strained, thermal stability 13140
  - InGaAs/InGaAsP SQW, group V interdiffusion 13139
  - InGaAs/InP MQW modulators in expt. and theory 14658
  - InGaAs/InP MQW, selective area MOVPE, quantum energy tuning 20760
  - InGaAs/InP QW wires, electron beam lithography fabrication 13200
  - InGaAs/InP buried wires, selective thermal intermixing 13180
  - InGaAs/InP layers, gas source MBE, atomic H irradiation 12049
  - InGaAs/InP surface quantum wells, ion-gun hydrogenation, luminesc. 14592
  - $In_{0.2}Ga_{0.8}As$/GaAs quantum wells, metalorganic VPE, multistep form./In comp. var. 20735
  - $In_{0.22}Ga_{0.78}As$/AlAs RTDs on GaAs using relax. In_xGa_{1-x} buffers, MBE growth 13600
  - $In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ superlattice, electron-wave-fn. coherence length 13193
  - $In_{1-x}Ga_xAs$/InP-quantum well struct., recomb. dyn. 13163
  - InGaAs-GaAs MQW lasers, low growth temp., photolum. 14965
  - InGaAs-GaAs narrow quantum wells, carrier capture and relax. 2004
  - InGaAs-GaAs quantum wells, surface segreg., photolumin. study 13171
  - InGaAs-GaAs strained SQWs, photoluminesc. props., cap layer thickness influ. 1123
  - InGaAs-GaAs-AlGaAs:Ar(He) strained SQW, disordering by ion implant. 13135
  - InGaAs-InAlAs:Si quantum well, ion implant./annealing, comp. disordering 1216
  - $In_{1-x}Ga_xAs$-$In_{0.53}Ga_{0.47}As$ strained superlattice, gas source MBE 12056
  - InGaAsP MQW LD, metalorganic VPE, entirely organic sources 23244
  - InGaAsP, dual-fluid-layer struct. MOVPE reactor 20794
  - InGaAsP epitaxial layers on GaAsP substrs., orange LED appl. 12128
  - InGaAsP low threshold multi-quantum well LD, MOVPE 23240
  - InGaAsP, ridge waveguide lasers, strain meas., photoelastic effects 39826
  - InGaAsP:Si quantum well, intermixing, spatially resolved/polaris. resolved photolumin. 38495
  - InGaAsP/GaAs LD, threshold current dens., differential efficiency, 20-105 C 14933
  - InGaAsP/GaAs heterostruct., low press. MOCVD, charactn. 12106
  - InGaAs(P)/In(GaAs)P abrupt heterointerfaces, GSMBE growth 20744

photoluminescence continued
InGaAsP/InP structures, MOVPE, optical device appls. 12047
InGaAsP/InP quantum well laser, photoexcited carrier transport 1953
InGaAsP-InP strained quantum well laser struct., excess carrier spillover, photolumin. obs. 31380
InGaAsSb epilayers, GaSb lattice matched, H passiv. effects 1261
InGaN/AlGaN DH blue-green LED 14641
InGaN-AlGaN double heterostruct. violet LED, CVD growth 5895
InGaP, H passiv. effects 6650
InGaP, LD current blocking layer, selective MOVPE regrowth 20764
InGaP homojunctions, LP MOVPE, 2DEG 21957
$In_{0.5}Ga_{0.5}P$, LPE growth, oxygen effects 20748
$In_{0.5}Ga_{0.5}P$, highly strained, wide-gap material for heterojunction FET 20769
InGaP/GaAs epilayers grown by low-press. MOVPE, cationic ordering 12116
InGaP/GaAs heterostruct., MOCVD growth, charactn. 20825
InGaP/GaAs heterostruct., low press. MOCVD, charactn. 12106
In_xO_y:Er RF sputtered films, photolum. and elec. props. 13096
In_2O_3-ZnSe-CdTe-In, injection-contact phenom. in sub-micron layers 38313
In_2O_3-ZnSe-In, injection-contact phenom. in sub-micron layers 38313
InP, ALE growth, charactn. 20770
InP, CVD growth by phosphine modulation 12059
InP, bulk cryst. growth, rare earth effect 20656
p-InP, defect-assisted ohmic contacts 29948
InP, low-temp.-grown, femtosecond carrier dyn., photolum. obs. 38248
InP, migration enhanced epitaxy, charactn. 12072
InP, photolum. excitation spectra, acceptors/donors 13048
InP, undoped, low temp. ALMBE growth 20746
InP, vert. gradient freeze growth, charactn. 12032
InP:Be, MOVPE growth, bismethylcyclopentadienyl-beryllium 37430
InP:Fe, Fe doping nonuniformity, mapping method charactn. 13300
InP:Fe, Mg, Mg/P, Mg/Ar implants, elec./opt. charactn. 29856
InP:Fe, hydride-vap. phase epitaxial growth, FeP precip., anal. 20810
InP:Fe, photolum., Fe concentration depend. 13045
InP:Fe wafers, SI, prep., annealing 13279
InP:S (Sn) (Fe) (ND), defects, photolum. obs. 13049
InP:S, low dislocation density, LEC cryst. growth 12026
InP:Zn(Mg), MOVPE precursor Et_2InNMe_2, photolum. and Hall study 12117
InP/GaInAs QW dot struct., fabrication 13202
InP/InAs SQW/superlattices, ALE growth, charactn. 20770
InP/InGaAs single dots/wires, dry etched, luminesc. spectrosc. 14591
InP/InGaAs/InP heterostruct., highly strained, mobility enhancement 13111
InP/InGaP, nanoscale InP islands by MBE 20738
InP-AlInAs type II syst., laser emission 14928
InPAsSb alloys lattice matched InAs, MOVPE 301
KCl:Eu phosphor, erasable and rewritable opt. memory, photostimulated luminesc. 30842
KCl:Eu photostimulated phosphor storage material photolum. 30830
$LaAlO_3:Sr^{2+},Mn^{4+}$, charge transfer excitation luminesc. 23003
LiF cryst. F_2^- colour centre laser luminesc. quantum efficiency 1912
$Li_2TiO_3:Mn^{4+}$, charge transfer excitation luminesc. 23003
$LuLiF_4:Ce^{3+}$, broadband UV amplif. medium 23444
$Mg_{28}Ge_{10}O_{48}$:Mn, charge transfer excitation luminesc. 23003
$MgO:Li^+,Cr^{3+}$, charge transfer excitation luminesc. 23003
Nd doped phosphate/silicate glass, surface luminesc., ion exchange effects 14419
Nd^{3+} doped fluoride glass, spectrosc. and laser props. 14809
PbF_2 crysts., scintillation search studies 26196
Pd/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
$Ru(bpy)_3{}^{2+}$ luminesc. probe, microenvironmental studies 34612
Si 1D/2D nanostruct., lithographic/RIE prep., photolumin. obs. 30091
Si contacts on $Si_{1-x}Ge_x$/Si quantum well, gas source MBE, electrolumin. diode appl. 28722
Si nanoparticles, photolum., surface passiv. role 38627
Si plasma-treated surfaces, luminesc. props. 23006
Si, porous, LED appl., blue, beyond 1.5 μm 14625
Si, porous, conf., Strasbourg, France (1994) 20222
Si porous film, two-step chem. immersion form. 6644
Si porous films, chem. etching, porosity/thickness meas. 38603
Si porous lateral injection device struct. for LED 23054
Si, porous, layered struct., opt. props. 1022
Si porous layers, passiv., FT IR monitoring 22251
Si, porous layers, thickness control, microelectronic appls. 21874
Si, porous, nanocrystal size, preanodization ion implant. effects 1225
Si porous nanostructures, electronic excitation, relax. mechanisms 14588
Si, porous, photocarrier electronic states, photomodulated IR spectrosc. 6653
Si, porous, photoconduction effects and luminesc. props. 39552
Si, porous, photolum., voltage-tunable electrolum. 14589
Si, porous, photolumin. excitation mechanism, sensitisers 22250
Si, porous, plasma-oxidised, luminesc. charactn. 13028
Si porous, quantum dots, recomb. dyn. 22022
Si, porous, radical-beam-induced surface react. 22170
Si, porous, struct., EXAFS/photolumin. study 22248
Si, porous struct. from lithographically patterned substrs., photolumin. obs. 20983
Si porous struct., investig. by Raman spectrosc./SHG techs. 14587
Si, porous surface, backbond oxid. by O radical irrad. 30075
Si, porous, surface struct., EPR/XPS study 22247
Si, porous, vis. luminesc. props. 14590
Si, porous, vis. photolum., homog. broadened spectra 13030
Si, porous/HF treated, photolumin., oxid. effects 22249
Si solar cells, SiO_2 AR coating tests 19979
Si visibly photoluminescent microstruct., ion implant./wet etching prep. 1271
Si_{60} nanoclusters, luminesc., chem. synthesis 31074
Si:B porous film, photolum., Auger spectr., annealing, solvent effects 38238
p-Si:Cu, RTA, OISF, deep states, Cu diffusion 13034
Si:Er, coimplantation, photolumin. study 38489
Si:Er cryst., Er opt. activation, excitation, conc. limits 38483
Si:Er implant., Si-based optoelectronics appls. 30042
Si:Er, opt. act. centres, local struct., photolumin. obs. 30045
a-Si:H, laser annealing, light-emitting Si prep. 23005
a-Si:H, low-temp. recomb., elec. field depend. 29872
Si:H, porous, lumin., surface modif. effect 1246
$Si/Si_{1-x}Ge_x$/Si heterostruct., 2D hole gases, magnetotransport and photolumin. 21993
Si/SiGe nanometer struct., fab. 29941
Si/SiGe:H epilayers, misfit disloc., elec./opt. props. 6628

photoluminescence continued
Si-SiGe-Si strained quantum wells, rapid thermal CVD, photolum. 22004
$Si-SiO_2$ porous DQW, tunneling, photoluminesc. 21995
Si-sapphire, porous, photolumin., microstruct. effects 6618
6H-SiC CVD layers, minority carrier lifetimes 21931
SiC cubic films, struct./opt./elec. props. 21938
4H-SiC epitaxial layers, CVD growth 28758
SiC, props./growth, rel. to HF device appls. 1072
SiC, single-crysts., sublimation growth 20661
SiC:Al(B), ion implant., SIMS/RBS/photolumin./Hall/C-V obs. 38484
SiGe SQW, MBE, luminesc. props. optimisation 20866
SiGe alloys, SEG, film props. 12103
SiGe, low temp. UV oxid., Ge nanocrystal prep. in SiO_2 22252
$Si_{1-x}Ge_x$ epilayers, compositionally graded, relax., MBE, charactn. 383
SiGe/Si QW, luminesc. spectral modulation 13144
SiGe/Si modulated quantum well/wires, luminesc. 1114
SiGe/Si quantum dots, island growth, photolum., electrolum. 28830
SiGe/Si quantum wires/dots, growth on patterned Si substrs. 28810
$Si_{1-x}Ge_x$/Si heterostruct., surface passiv., photolum. meas. 13146
SiN_x films, ECR plasma synthesis 30131
SiO_2 films, plasma CVD, breakdown characts. 13960
SiO_2 opt. fibers, photoluminesc., Raman scatt. 22813
SiO_2-SiO-CaO-Al_2O_3 glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647
SiON:Er,Yb low-loss waveguides, deep implant codoping 39439
SnS_2:In, elec. props./photolumin. study 30054
$Sr_{1-x}Ga_2S_4:Ce_x$, electrolum., photolum., TFEL devices 1811
$SrGa_2S_4$:Ce , blue electroluminescent thin films, MBE 37402
$SrZrO_3:La^{3+},Cr^{3+}$, charge transfer excitation luminesc. 23003
Y_2SiO_5:Ce,Tb,Zr, X-ray storage phosphors 7458
$Zn_xCd_{1-x}S$:N, metalorganic vap. phase epitaxy growth, photo-assistance 20789
ZnCdSe QW LD, gain/Coulomb-correl. electron-hole pairs 31336
ZnCdSe based II-VI heterostruct. for blue-green lasers, structural props. 23293
p-ZnCdSe/ZnSe:N, tilted substrs. effect 22155
$Zn_{1-x}Cd_xSe$-ZnSe superlattice, reson. Raman scatt. and photolum. 38319
ZnS, MBE on GaAs(001), struct., opt. props. 20807
ZnS:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
$ZnS/ZnS_{0.12}Se_{0.88}$ superlattices, MBE grown, opt. charactn. 38327
ZnS/ZnSe superlattices, opt. props., elec. struct., exciton binding 38347
ZnS/ZnSe/GaAs(100) superlattices, photo-assisted VPE growth 38322
ZnS-ZnSe superlattices, electronic states and binding energies 13194
ZnS-ZnSe-ZnS/GaAs(100) SQW, photo-assisted VPE growth 38322
ZnS(Se), low temp. MBE on GaAs, hot mol. beams *(Japanese)* 37413
ZnSSe:Te, blue light emitter, prep., opt. props. *(Japanese)* 39561
ZnSSe/ZnSe superlattices, excitonic procs. and lasing 29912
$(ZnS)_3(ZnSe)_{42}$:I, ALE grown, carrier transport props. 38259
ZnSe MOVPE growth, O and Te impurities effect 20890
ZnSe OMVPE growth, diisopropyl selenide and diethyl zinc 20838
ZnSe based struct., epitaxial lift-off tech. 28756
ZnSe single crysts., photolum. meas. *(Japanese)* 39560
n-ZnSe:Cl, doping characts. 21921
p-ZnSe:N, MBE growth/opt. props. 22154
p-ZnSe:N, doping characts. 21921
ZnSe:N, metalorganic VPE grown, p-type cond., annealing 38473
ZnSe:N, photoassisted doping, ethyl azide 1224
ZnSe:N,C,H, plasma-stimulated low-press. metalorganic vapour phase epitaxy syst. 20791
ZnSe:N,H, metalorganic chem. vap. deposition, nitrogen source materials 20944
ZnSe/GaAs heterostruct., deep level electronic struct. 38301
ZnSe/ZnMnSe MQW structs., MBE, opt. props. 28744
ZnSe/ZnS strained layer superlattices, MOVPE growth and opt. charact. 12124
ZnSe/ZnSSe symmetric superlattices, radiative mechanisms 29911
p-ZnSe/ZnSe:N, tilted substrs. effect 22155
ZnSe-based LED, low-press. MOVPE 23043
ZnSe-based MOVPE and MBE grown LEDs 23050
ZnSe-based alloys, wide-gap II-VI materials, MBE growth, charactn. 20910
ZnSe-based nanostructures, waveguide DFB laser appls. 23296
ZnTe:Al,Cl, photo-assisted metalorganic vap. phase epitaxy, photolum. props. 20790
ZnTe:N grown by MBE, N incorporation, Ar dilution in N plasma source 1212
ZnTe(100), MBE growth on Si(100) 37423
$ZrF_4-BaF_2-LaF_3-AlF_3$-NaF glass, Er^{3+} 1.5 μm emission, quantum efficiency 1647

photolysis
HLW partitioning, $Eu^{3+}-Eu^{2+}$ photoreduction, laser photochem. 35961
Al thin films, selective area deposition, photo-assisted OMCVD 30158
GaAs passiv., integrated plasma clean/CVD/RTA, Si_3N_4 encapsulation 22224
GaAs-SiN, passiv. film form. by laser CVD 13370
Si, SR-excited ALE growth, TOFMS 37447
SiC/SiO_2 micropatterning by UV irrad., heat treatment of poly(phenylsilyne) film 38533
UO_3 lines, 3 μm width, photoresist-free opt. litho. 6674

photomagnetic effect
$Cd_{1-x}Mn_xTe$, magnetis. and photomagnetic effects 1071

photomagnetoelectric effects *see photoelectromagnetic effects*

photometers
see also photometry; spectrophotometers
bactericidal radiation, gas-discharge sources, dosimeters 26305
scanning HEPA filters, photometers 11728
Sun photometer, LED-op amp design 35309
UV photoelec. sens. and peripheral combinations *(Japanese)* 17804

photometric light sources
photom. stereo vision, arbitrary motion light source 2605
surface curvature segmentation by photom. invariant 2606

photometry
see also brightness; colorimetry; densitometry; spectrophotometry
3D image reconstr. from photom. stereo/silhouette 41213
cement kiln dust recycling, water leaching, proc. control 17673
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
geometric meas. based on photom. inform. 2685
gradient/curvature, photom.-stereo method, local confidence estim. 2603
HID light sources, lighting/brightness perception expts. 11448
IR-sensitive film-struct., opt. diagnostics 14569
lamps, light modulation flicker expts. 11449

photometry continued
- lightly shaded opt. syst. port, photom. charact. 7455
- mammography, image quality optimisation 18487
- mammography image quality, UK survey 18489
- multicolour surface shape determ., photom. 16180
- multiformat cameras image quality vars. assess. 18499
- opt. fibers for sens. technol., atten. meas. by integrat. sphere 1680
- opt. pulse train noise, spectral meas. interp. 2041
- polyhedron shape and reflectance from inter-refls. by 2-image photom. stereo 2649
- polyhedron shape recovery and reflectance estim. *(Japanese)* 32866
- reflector lamp replacements, EPACT impact 11459
- reversed projection blurring model, occluding edge photom. props. *(Japanese)* 32862
- solid ring armature transaugmented railgun studies 15350
- specular lobe surfaces, roughness, shape, photom. sampling method 16179
- InP-In_2S_3, ellipsometric investig. of transit. layer heterostruct. 22774

photomultiplier tubes *see photomultipliers*

photomultipliers
- AMANDA detector, South Pole ice, opt. props. 26141
- circ. photomultiplier tube, scintillation point, math. modeling 29813
- Digiray RGX syst., X-ray mini-probes 18404
- FEU-87 photomultipliers for multichannel TOF syst. scintill. counters 18303
- fibre-coupled pyrometer for shock-wave studies 42824
- fine mesh photomultipliers, perform. tests, 1.2 T 21860
- gamma camera, high energy, multiple hole collimator/PMT based 18406
- gamma-ray spectrometer, data acquisition syst. 34969
- GAMMASPHERE, BGO Compton-suppress. shield, Ge detector 18400
- gas photomultipliers, scintillators/Cherenkov detector readout 26175
- ICF implosions, MEDUSA large scintillator arrays 26168
- laser radar, DSP, dyn. range *(Japanese)* 34164
- liq. scintill. counter, beta det. effic., PMT dynode output, DYEFIC code 43114
- MCP 38221
- multichannel imaging camera, TeV gamma rays, optimal charact. 4230
- multichord spectrometer, 8×8 anode photomultiplier 29814
- paraffin scintillator, solid support 34946
- PET, mag. field, photomultiplier tubes/lightguides 43255
- PET detector modules based on novel detector technols. 18464
- photocathodes, ionic mechanism for cathode degrad. 21859
- photon counting opt. sens. develop. trends *(Japanese)* 17803
- plastic scintillating opt. fibers, small animal whole body imaging 4162
- scintillating fiber arrays, posn.-sensitive photomultiplier readout 43119
- scintillating fiber detector, energy resoln. 4161
- scintillating fibre calorimetry, H1 backward EM calorimeter, HERA 26183
- scintillating-fiber hodoscope, multi-anode photomultiplier readout 43120
- scintillation calorimeter, liq.-krypton 18373
- scintillation counters, opt. pipeline read-out 26179
- scintillation detectors, gain monitoring syst., ultra bright LEDs 26135
- SIS, beam profile monitor for HI beams 4052
- turbid media imaging by CW US modulation of scatt. laser light 43254
- video/gamma ray imaging syst., nuc. indust. robot appl. 19399
- Visible Light Photon Counter, weak scintillations 4158
- wide-aperture scintillation hodoscope based on FEU-143 photomultipliers 4214
- Ar modulated laser source for PMT detectors monitoring 4168
- CsI(Tl) detector light output, pulse time gate effect 4174
- CsI(Tl) pixellated arrays, posn.-sensitive PMT readout 18354
- (^{7}Li,^{7}Be), γ-ray coincidence timing, BGO detector array 18306
- NaI PET detectors, correction of distortions in discontinuous image 18467

photon correlation spectroscopy
- Tm-doped fibre source, LD pumped, methane gas detect. by correl. spectrosc. *(Chinese)* 17973

photon counting
- biomedical photon counting X-ray radiography syst. *(Japanese)* 18526
- D0 upgrade, scintillating fiber detectors 4155
- emission microscopy in semicond. failure determ. 6837
- Gaussian sig., analytic generating fn., autocorrelation 32640
- imaging Si pixel array based posn.-sensitive photon detector 34514
- intens. modulated lightwave syst., error-rate floor prediction 14877
- opt. sens. develop. trends *(Japanese)* 17803
- OTDR, photon counting, data correction 22846
- parametric amp., noiseless preamplification, photodetection quantum efficiency 31540
- Photon Factory e^+ storage ring, longit. bunch struct., photon counting 26060
- rare earth doped fibres, metallic coated, fluoresc. decay-time vars. 39359
- super-ACO UV FEL, time resolved fluoresc. appls. 14988
- twin-core doped opt. fiber, sub-Poissonian/super-Poissonian photon stats. 14401
- Ba, single trapped ion, nonlin. electro-optic switch 7392
- Si APD, SR detector 4245

photon echo
- discrete digital DP 31607
- mag. grating free induction decay and echo 2074
- Na, HFS, three-pulse photon echo, opt. Bloch eqn. 31510
- octaethylporphine-doped polystyrene sample, spectral hole burning, accumulated photon echo readout speed 40092
- opt. storage/recording, inform. reprod. 30827
- rare-earth doped materials, time freq. domain opt. storage 22791
- reson. two-photon three-level atom syst., echoes 15040
- ruby, gamma-irrad. samples, photon echo spectrosc. investigs. 31602
- simultaneous opt. image proc. 32933
- single photon in opt. interferometer, time-delayed self-interf. 31609
- state of art and perspectives 31602
- surfaces and films, transient optics, photon echos 31603
- two-pulse photon echo opt. DP 41060
- LaF_3:Pr^{3+}, long-lived photon echo, opt. memory and DP 31604
- $^{15}NH_3$, translational motion effects in photon echo 31605
- SF_6, translational motion effects in photon echo 31605
- $W(CO)_6$ in organic glass, vibr. photon echo, FEL 40110
- YAG:Pr, photon echo decay time depend. 31606

photon-phonon excitations *see polaritons*

photon polarisation
- lin. polarized photons from laser Compton backscatt. 18293

photon stimulated desorption
- soft cleaning, vacuo UV radiation and mol. H_2 gas 13389
- GaAs, light-induced dry etching, desorpt. 30099
- ZnO(0001), photoinduced CO desorpt./adsorpt. 20715

photon stimulated desorption continued
- ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412

photon transport theory
- circ. waveguide photon, nonzero mass in centrifuge 40425
- TAGS, β^--decay intens. distribs. meas. 10153

photon tunnelling microscopy *see optical microscopy*

photonic band gap
- FCC photonic cryst. for microwave/MM-wave appls. 12737
- nonuniform gratings, gap solitons, launching power estim. 15036
- photonic/OEIC appls. of photonic-band-gap materials 30967
- ultrawideband photonic crysts. for broadband antenna appls. 8082

photonic band structure *see photonic band gap*

photonic logic *see optical logic*

photonic switching systems
- 1D interconnection parallel opt. data links 42431
- 4×4 lossless opt. switch for photonic switching 9144
- 250-Gb/s self-clocked opt. TDM, polariz.-multiplexed clock 42376
- all opt. SEED switching systs., appls. 9143
- all-opt. formatted photonic packet switches archit. 3302
- archits., comparative study 42133
- ATM archit., photonic devices 16986
- ATM cell contention resoln. by multiwavelength fiber loop memory *(English, Italian)* 33989
- ATM opt. switch, cell synchronisation *(English, Italian)* 33725
- ATM photonic switching module, dimens. and architectural anal. *(English, Italian)* 33724
- ATM shuffle-based switch, perform. anal. 8730
- ATM switches, HDTV switching 33731
- B-ISDN, photonic ATM backbone network 9025
- B-ISDN parallel opt. transm., line-coding proc. based on multiplexing 9520
- broadband switching 16977
- CPFSK opt. crossconnect systs. with noncoherent detect., interf. 9434
- fault-tolerant switches for photonic networks 16976
- FDM-channel selection filter, arrayed-waveguide grating multiplexer 9433
- fiber optic subscriber loops, reconfiguration method *(Japanese)* 16925
- four-channel integrated photonic wavelength router 16981
- free-space opt. interconnections, equal path lengths by layered struct. 1757
- free-space WDM interconnections based opt. switching nets 33726
- French WDM WAN wavelength-routed archit. 34039
- FRONTIERNET freq.-routing-type time-division interconnection network, FDM output buffers 9150
- graph-theoretic models for photonic networks 31026
- high-capacity photonic space-division switching syst. for broadband networks 25533
- in-fibre grating systs., pulse compression, dispersion charact. 39341
- integrated opt./optoelectronic switch for parallel opt. interconnects 31127
- integrated photonics for opt. networks 42438
- monolithic photonic/optoelectronic switching technol. 9146
- multihop 2×2 all-opt. photonic packet switch 9152
- multihop 2×2 photonic packet switch, header reinsertion 16978
- multistage opt. switches for 2D images based on polaris.-sensitive elements 42132
- multiwavelength opt.-fiber-loop memory, ATM packet simultaneous buffering 9149
- opt. ATM switching archits. 33730
- opt. fibre monolithic wavelength demultiplexing switch arrays 42374
- opt. path cross-connect syst. utilizing delivery and coupling matrix switch 16985
- opt. switching, multiwavelength systs., Europe 16980
- opt. TDM switching fabrics 16979
- optics and ATM, IEE Colloquium, London (1995) 20251
- penalty-free 2.5 Gbit/s photonic switching, opt. amp. module 33728
- Rowland circle grating photonic integrated device for WDM appls. 9441
- SDH, route diversity, hitless path switching 3298
- self-clocked self-routing photonic bit switching archit. 42127
- self-routing switch element for photonic generalized shuffle networks 16530
- semicond. integrated opt. routing array components, carrier diffusion effects 14479
- semicond. opt. amp. photonic switching multi-carrier opt. network 25532
- sliding-filter-controlled soliton transm., 20 Gbit/s, 14 Mm 25505
- SONET fund. frame structs. 42362
- staggering switch archit. growability and packet sync. 42126
- survivable interoffice networks, video/inform. transport 9099
- TDM switching networks, interchannel cross talk, noise degrad. 9147
- telecomms., ultra-fast self-routing networks 16532
- transm. technols./network constr. 9450
- transport networks, opt. path cross-connect node archit. 16983
- tree-type photonic switching networks 25192
- ultrafast all-opt. AND gate, four wave mixing in laser amp. 1758
- ultrafast photonic ATM switch based on parallel sig. proc. 33727
- GaAs-AlGaAs monolithic optoelectronic switching network 42130
- InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 14498
- InP-based opt. multiplexer integrated, MQW modulators 34074

photopolymers *see optical polymers*

photoreceivers *see optical receivers*

photoreflectance
- Bragg fibre gratings, fab. for spectral response apodisation 22811
- IC, second harmonic modulated photo-reflectance imaging 155
- MBE on-line opt. modulation photoreflectance anal. syst. 5831
- modulation spectrosc. for semicond. device anal. 22319
- real-time monitoring of epitaxial procs. by p-pol. reflectance spectrosc. 28776
- semicond. device struct., charactn., modulation spectrosc. 1435
- GaAs epilayers, metalorganic CVD growth 37411
- GaAs, neutron-transmutation-doped, annealing/hydrogenation effect 13276
- GaAs, sulfur treatment and hydrogen plasma treatment 38597
- GaAs surface cleaning by H ECR plasma, opt. refl. spectra 13348
- GaAs:O, MOVPE, ultrafast photodetector materials appl. 23064
- GaAs/AlGaAs QWs and quantum wires, growth and opt. props. *(Chinese)* 5815
- GaAs/AlGaAs double quantum wells, photoreflectance and photolum. 1124
- GaAs/AlGaAs quantum well struct., etching, photoreflectance phase shift 38532
- GaAs/InGaAs/GaAs SQW, current transport and deep levels 21994
- InGaAs epilayers, metalorganic CVD growth 37411
- InGaAs-InAlAs quantum wells, electron scatt., photoreflectance obs. 13141
- Si, surface temp./pot. meas., photoreflectance spectrosc. 42972

photoreflectance continued
$YBa_2Cu_3O_x$ thin films, at. layer-by-layer MOCVD, opt. reflectance meas. *(Japanese)* 5816
ZnS/ZnSe superlattices, opt. props., elec. struct., exciton binding 38347
ZnSe/ZnS strained layer superlattices, MOVPE growth and opt. charact. 12124

photorefractive effect
see also photorefractive materials
3-D holographic DP and wavelength readout for range-doppler-angle radar, SAR 9640
all-opt. nonlin. joint FT correlator 24409
chirped fibre grating fab., stretch and write tech. 14375
conjug., spatio-temporal response 31530
cubic cryst. planar waveguides, photorefr. effect 39431
dark and bright spatial solitons in PV photorefr. materials 7804
directly written directional coupler in planar silica waveguide 14462
double phase conjug. four wave mixing mirrors 23438
dyn. holography with arbitrary waves, multiwave mixing procs. 40167
fiber array for holographic memory 30828
fibre photorefr. gratings, appls., high capacity transm. systs. 39343
gratings kinetics, light phase-shifts effects 40051
hologram recording, phase-modulated light beams in elec. field 7825
holograms, opt. restoration, self-enhanced diffr. 23476
holographic grating, transm., photorefr. medium four-wave mixing 23468
holographic storage, ideal photorefr. material quest 31646
mol. crysts. for nonlin. opt. appls. 31583
mols. and polymers, nonlin. opt. effects, issues and opportunities 7761
MQW photorefr. asymmetric Fabry-Perot struct. 22941
nonlin. optics, opt. computing 31049
nonlinear optics, conf., Port Barcares, France (1992) 11537
obj. tracking novelty filters, resoln. theory 41298
opt. beam propag. in photorefr. medium 23435
opt. inform. proc., photorefr. devices 32945
opt. resonator, self-organized learning 14329
phase conjug., partially pump beams 23343
photorefr. double phase conjug. mirrors, gain-threshold, oscill. 23402
planar photorefr. waveguides, hologram form., lock-in detect. 39379
polymers, nonlin. photorefr. props. 30815
spatial solitons, predictions, theoretical study, expt. results 23401
spatially nonuniform opt. beams, nonlin. nonparametric interacts. 40040
surface granularity, self-aligned photorefr. autocorrelator 10013
tunable photorefr. spatial filters, noise robustness 8654
two-beam coupling optimal thresholding filter, additive sig.-depend. noise reduction 23406
two-beam-coupling nonlin. joint-transform correlator 2052
$BaTiO_3$ photorefr. opt. shift- and rot.-invariant associative memory 1657
$Bi_{12}SiO_{20}$ photorefr. cryst., coupled wave anal. of spatial subharmonics 7740
CdTe:V, spectrosc. and photorefr. investig. 14583
$LiNbO_3$ photo-induced waveguide, opt. dyn. 3D interconnections 39523
$LiNbO_3$:Fe(Cu), IR holographic recording 31634
Nd:YAG laser beam control, Brillouin and photorefr. nonlin. 31478
SiO_2-GeO_2 fibres, Bragg grating, UV writing, spectra 15038

photorefractive materials
see also photorefractive effect
400 nm/3.4 μm fiber components and lasers 7562
azo dye- doped photorefr. polymers 15163
beam-steering/jammer-nulling photorefr. phased-array radar proc. 7437
bifunctional chromophore for photorefr. appls. 14324
bipolar photoconductors with arbitrary level struct., nonsteady-state photoelectromotive force 39553
crysts., speckle beam self-bending, space-charge field 2049
fiber photorefr. grating ps pulse refl. 22860
Gaussian beam self-bending 2068
guest-host photorefr. polymers 22781
hologram writing, external field parallel, interf. fringes 7857
holographic data storage systs. 31673
image correlators, spatial fidelity 16369
joint transform correlators, whole-beam method anal. of photorefr. effect 16307
lin. regime photorefr. kinetics, light phase-shifts 30811
MQW materials, sig. proc. 29915
neural-network wt. decay, exposure scheduling 39519
optoelectronic photorefr. memory, NDRO and updating 14340
oscillator, weakly multimode dyn. 15072
photoconductive cryst. under spatially asymmetric illum., rectification property 22996
photonic nonlin. polymer materials 7265
planar photorefr. waveguides, phase-locked detect. mechanism 14453
PMMA-based photorefr. polymer opt. trap activation 1654
polariz. encoded opt. multiwavelength full adder 22972
poly N-vinylcarbazole, photorefr., absorbing nonlin. opt. chromophores 1653
polymeric composite photorefr. materials for nonlin. opt. appls. 1651
polymers, matched-filter four-wave-mixing opt. correlator, opt. computing 24425
Rheoxane photorefr. polymer holographic recording material 7858
single cryst. fibres, temp. gradients, laser heated pedestal grown 30858
thiapyrylium dye sensitized photorefr. polymeric composite 22782
thick photorefr. hologram, angle-depend. diffr. efficiency 31656
tunable interconnection network, thick photorefr. cryst. 15182
β-BaB_2O_4 injection-seeded opt. parametric oscillator, bandwidth studies 31500
$BaTiO_3$ beam fanning effect, opt. image combination/logic AND operation 31035
$BaTiO_3$ cat conjugator, real-time image proc. 24491
$BaTiO_3$ cryst. in CAT config., temporal behaviour of phase conjug. wave 31521
$BaTiO_3$ cryst. multiple wavelength phase-conjug. shear interferometry 2087
$BaTiO_3$ cryst. opt. image-combiner OR gate /AND gate, beam fanning effect 7438
$BaTiO_3$, intens. depend. two-wave mixing 31524
$BaTiO_3$, photocond., high light intens. 14582
$BaTiO_3$, photorefr., bidirectional ring resonator, mode alternation, pattern 23403
$BaTiO_3$ photorefr. cat phase conjugator, unstable backward beam patterns and internal beams 15069
$BaTiO_3$ photorefr. centers in vol. holographic capacity storage 15167
$BaTiO_3$ photorefr. cryst., dyn. phase-encoding image storage 7816
$BaTiO_3$ photorefr. cryst. for laser wavefront correction 30818
$BaTiO_3$ photorefr. cryst. phase conjug. mirrors 15105

photorefractive materials continued
$BaTiO_3$, photorefr. crysts., variable edge enhancement 8593
$BaTiO_3$ photorefr. crysts./waveguides, anom. photorefr. response in two-beam coupling 15088
$BaTiO_3$ photorefr. opt. novelty filter, design and perform. 31059
$BaTiO_3$ photorefr. phase conjug. beam time evol., multigrating operation 31522
$BaTiO_3$, photorefr. two wave mixing detect. of weak sig. beams 31570
$BaTiO_3$ refreshed photorefr. holographic buffer memory for permanent readout 31650
$BaTiO_3$ self-pumped phase-conjugating mirrors, interferometric systs. appls. 31051
$BaTiO_3$:Co, light-induced dark decay and sublinear intens. depend. 31483
$BaTiO_3$:Fe, beam fanning, edge enhancement, contrast reversal, logic operation 30822
$Bi_{12}GeO_{20}$ single crysts., nonlin. absorpt. of laser light 2081
$Bi_{12}Si_{O20}$, polariz. props. of transm. and diffr. 14321
$Bi_{12}SiO_{20}$ cryst. opt. limiter, effective nonlin. 30832
$Bi_{12}SiO_{20}$, photorefr., charge carriers grating competition 22778
$Bi_{12}SiO_{20}$ photorefr. cryst., coupled wave anal. of spatial subharmonics 7740
$Bi_{12}SiO_{20}$ photorefr. cubic media far from paraxial limit, wave coupling anal. 40062
$Bi_{12}SiO_{20}$ photorefr. integrator charactn. 7422
$Bi_{12}SiO_{20}$ photorefr. response, AC field freq. effects 30813
$Bi_{12}SiO_{20}$, photorefr. response LF peculiarities 14322
$Bi_{12}SiO_{20}$, photorefr. response incoherent enhancement, subharmonic interact. 40158
$Bi_{12}SiO_{20}$ real time opt. correlator 33083
$Bi_{12}SiO_{20}$, spatial subharmonics generation 31523
Bi_2TeO_5, ps laser pulse induced effects 31520
$Bi_{12}TiO_{20}$ double phase-conjug. mirror, oscill. and amplif. props. 31565
$Bi_{12}TiO_{20}$ photorefr. cryst., spatial dark solitons, probe beam waveguiding 31536
$Bi_{12}TiO_{20}$ photorefr. fibre, phase conjug. mirrors 30819
$Bi_4Ti_3O_{12}$, photorefr., large contrast interf., space-charge field 7266
$Bi_{12}TiO_{20}/Bi_{12}GeO_{20}$ planar waveguides, photorefr. gratings 15111
CdTe:V, spectrosc. and photorefr. investig. 14583
CdTe/CdZnTe MQW SEED, RT photorefr. effect 30990
CdZnTe:In, thick plasma gratings, local photorefr. effect 22777
GaAs, (001)-cut, CZ grown, disloc. dens.-depend. photorefr. effect 14319
GaAs cryst. photorefr. response time meas. by PM in two-wave mixing 2066
GaAs multiple gratings, anisotropic diffr. props. 31653
GaAs:Cr/AlGaAs SI MQW photorefr. device 22942
GaAs/AlAs quantum heterostruct., local space charge field 30816
GaAs/AlGaAs heterostruct., deep impurity doped, elec. field and refr. index change 30817
GaP at high temp., photorefr. and photochromic effects 14323
InAs MQW photorefr. material 30814
InP:Fe double phase conjug. mirror, telecomm. appls. 23452
$KLiTaNbO_3$, self-pumped phase conjug., doping effect 15148
$(KNa)(SrBa)Nb_2O_2$:Cu, self-pumped phase conjug. mirror, dyn. instabil. 23441
$KNaSrBaNb_2O_6$:Cu two-wave coupling, red light 31567
$KNbO_3$ crysts., anisotropy of acoustooptic effect 1648
$KNbO_3$ ion implanted photorefr. waveguides, two-wave mixing of focused Gaussian beams 23359
$KNbO_3$, photocond., high light intens. 14582
$KNbO_3$ photorefr. planar waveguides, focused Gaussian beam two-wave mixing 31568
$KNbO_3$:Fe photorefr. reconfigurable hexagonal spot array, self-organization of scatt. 22779
$KNbO_3$:Fe photorefr. ring resonator, transverse mode oscills., spatiotemporal dyn. 23436
$KNbO_3$:Fe,H photorefr. planar waveguides, two-wave mixing 23434
$KTa_{1-x}Nb_xO_3$ crysts., photorefr. diffr. dyn. 31618
$KTa_{1-x}Nb_xO_3$:Fe cryst. self-pumped phase conjug. 7732
$KTa_{1-x}Nb_xO_3$:Fe tetragonal crysts., holographic double-exposure interferometry 31652
$KTa_xNb_{1-x}O_3$:Fe, asymmetric opt. transm. device 40076
$KTiOPO_4$ channel waveguides, photorefr. effect 1726
$LiNbO_3$, ang. selectivity, multiplexed hologram cross-talk 31648
$LiNbO_3$, cryst., holographic gratings appl. 15184
$LiNbO_3$, hologram coherent erasure and updating 31649
$LiNbO_3$ photo-induced waveguide fab. 30939
$LiNbO_3$ photorefr. FPA concentrator 9928
$LiNbO_3$ photorefr. crysts., effective carrier dens. *(Chinese)* 15064
$LiNbO_3$ proton-exchanged channel waveguides, MgO doping effect on photorefr. index 39410
$LiNbO_3$, wavelength multiplexed holographic lens array 40132
$LiNbO_3$:Fe cryst., real-time LF spatial filtering 7449
$LiNbO_3$:Fe deeply modulated stabilized photorefr. recording 31647
$LiNbO_3$:Fe ferroelec. cryst., real-time holographic interferometry 31682
$LiNbO_3$:Fe, forward phase conjug. wave generation by two-wave mixing 40071
$LiNbO_3$:Fe, laser-induced transient holographic gratings 31644
$LiNbO_3$:Fe, opt. parallel-access shared memory syst. 22975
$LiNbO_3$:Fe photorefr. waveguide, wave mixing and beam profile control 40083
$LiNbO_3$:Fe[Cu] crysts., light-induced scatt. 30812
$LiNbO_3$:Ti,Fe photorefr. waveguides, holographic storage 40168
$PbMg_{1/3}Nb_{2/3}O_3$, quadratic electrooptical effect, opt. inform. proc. 7826
$Sr_{0.60}Ba_{0.40}Nb_2O_6$, light-induced grating, nonlin. opt. responses 31492
$Sr_{1-x}Ba_xNb_2O_6$ crysts., photorefr. spatial solitons, theory, expts. 23401
$SrBaNb_2O_6$ four-wave phase conjug. of time-depend. spatial struct. sig. 40102
$SrBaNb_2O_6$ photorefr. holographic grating writing and readout by applied elec. fields 40154
$SrBaNb_2O_6$ photorefr. planar waveguides, beam coupling, spatial mode conversion 39386
$Sr_{1-x}Ba_xNb_2O_6$:Cr, broadband photorefractivity 30825
$SrBaNb_2O_6$:Ce illum. by nominal homog. light, refr.-index change 22776
$SrBaNb_2O_6$:Rh absorptive photorefractive material, two beam coupling 15078
$Tb_3Ga_5O_{12}$ photorefr. phase hologram recording 31645

photoresistors
2DEG, quantum Hall device, photoresist. imaging 1079
Ge:Zn, impurity photoresistor, pulsed-opt.-heterodyning mode 31080
$ReSi_2$ thin film photoresistor, IR detect. appls. 34501

- **photoresists**
  - *see also electron resists*
  - advanced microstruct. products by SR lithog. 13475
  - Al interconnect film etching, stat. optimisation 38696
  - AZ 5214 resist, wet silylation, O_2 plasma develop. 38733
  - BPDA/PDA/6FDAm photosensitive polyimide copolymer, low stress/high sensitivity 12205
  - charge effect, indust. plasma proc. 13469
  - chem. amplif. resist syst., dissolution inhibitor, mol. design 30164
  - chem. amplified deep UV resist, dissolution kinetics 22296
  - chem. amplified resist, organic base, KrF lithog. 22299
  - chem. amplified resist, photo acid generator conc. 13513
  - chem. amplified resists, kinetics, real time IR spectrosc. monitoring 13514
  - chem. amplified resists, transparent, ArF laser lithog. 22300
  - CMOS proc., DUV lithog. 39003
  - contaminant particles on photoresist, size effects on lithog. 38707
  - continuous-relief micro-opt. elements, laser writing, photoresists 7375
  - deep etch lithog., LURE-D.C.I. storage ring 13477
  - deep UV chem. amplified resist, modeling and simul. 38739
  - deep UV resists, thermal and acid-catalyzed deprotection 38737
  - deep UV resists, thermal/acid-catalyzed deprotectian kinetics 13512
  - deep-UV lithog., sub-half micron linewidths 6670
  - deep-UV resists, neg.-tone, benzylic crosslinking 13511
  - develop. 1305
  - develop., submicron microlithography proc. window 22295
  - diamond, CVD films, seeding patterning, field emission props. 12988
  - edge posn. meas., scanning probe microscope 18093
  - etching rate, atmos.-press. pulsed-corona plasma 38616
  - EUV aerial images, fluoresc. microimaging 13472
  - EUV lithog., resist pattern flucts. 22313
  - EUV lithog., resist sidewall angle 13510
  - films, elec. field distribs., polariz. depend. 22294
  - fine photoresist pattern form., double exposure, wafer stepper *(Korean)* 22317
  - first-wafer effect, rem. plasma proc., photoresist/polysilicon stripping 22203
  - flip chip proc. based on electroplated solder bumps 5620
  - flip-chip, solder bump fab. by electroplating 38173
  - flip-chip interconnection, fine pitch bump array 29700
  - glass transit. temp., wafer curvature meas. 38741
  - gray-tone lithog., arbitrarily shaped surfaces fab. 30172
  - high-contrast periodic corrugations, g-line photoresists, laser holographic exposure 39473
  - high-defn. PCB imaging, high-yield/high-resoln. manufacture 6410
  - holographic grating fab., lin. equiv. fuzzy anal. 40152
  - holographic gratings, surface relief struct., GO 15171
  - holographically exposed photoresist gratings, developed profile 31638
  - lithographic proc. monitoring and control, diffractive techs. 13489
  - LSI via-hole shape optim. by quasi-3D topography simul. 13863
  - melted microlens shapes, modelling/meas. 1724
  - 1,2-naphthoquinone diazide-4-sulfonate photoacid generators, chem. amplified resists 1308
  - neg. tone resists, sub-qtr. micron lithog. 38736
  - NOLMEX, resoln. enhancement lithog. tech. 13562
  - Novolak-based photoresist, dissolution, developer diffusion model 22297
  - Novolever cantilever for SFM, polymers 17725
  - opt. params., meas. syst. *(Japanese)* 13437
  - PASTBSS terpolymer resist, lithographic technols. 38730
  - PCB manufacture, chem./rinse water saving method 21651
  - Permalloy film overlayers, mag. easy axis, water sorption, photoresist underlayers, heads 7094
  - plasma etch resistant modified I-line/deep UV/e-beam resists 30174
  - plasma etching, I-line, deep UV and E-beam resists 13447
  - plasma polymerized all-dry resist proc. for 0.25 μm photolithography 13521
  - plasma-enhanced photoresist dry stripping, IC manufacture 38543
  - PMMA resist for X-ray lithog., photoelectron effect modelling 6682
  - poly(p-hydroxystyrene) pos. X-ray resist for precise replication of sub-0.25-μm 13520
  - polyhydroxystyrene, chem. amplified monodispersal pos. resist 22298
  - polythiophene, conducting derivatives, charge dissipation, electron-beam lithog. 6677
  - polyurea films, vap. deposition polymerization, photoresist characts. 13444
  - pos. chem. amplified photoresist for X-ray lithog., modeling and simul. 13519
  - pos. deep UV resists, acid diffusion effects 13517
  - pos.-tone silylated, dry-developed, deep UV resist with 0.2 μm resoln. 13523
  - post exposure bake effects, simul. 1304
  - PRIME proc., PLASMASK 302U, SPC 13446
  - printability of sub-150 nm features in X-ray lithog., theory and expts. 13531
  - proximity X-ray lithog., 50 nm, using SR 13530
  - proximity X-ray lithog., pos./neg. resists 38735
  - qtr.-micron lithog., wet-silylated and dry-developed commercial photoresist 13522
  - refr. microlens fab., preshaping photoresist 7441
  - resist pattern collapse prevention by flood exposure, rinse proc. 13445
  - semicond. mfg., photoresist ashing, on-line diagnostic monitoring 22209
  - silicon-containing polymers, pos./neg. resists 38732
  - soft X-ray projection lithog., resist perform. 38759
  - soft X-ray projection lithog., resist perform., 5 nm 13570
  - spherical microlens array fab., laser writing tech. 39454
  - stripping, sensitive light scatt., semiquantitative method 13474
  - surface imaging, e-beam/photolithography resist proc. 38731
  - surface micromachining, galvanoplating and sacrificial layers 39030
  - UHF FETs, T-shaped gate fab., double-layer resist 13492
  - X ray ionization radiation effects and mechanisms 6680
  - X-ray lithog., exposure window and resist profile 13545
  - X-ray lithog. steppers, mask/wafer gap, He presence 38757
  - X-ray mask inspection, replicated resist patterns 13569
  - X-ray resist-substr. interfaces, parametric modeling 13533
  - X-ray sensitive chem. amplified resists, design/perform. 6681
  - As-S layers, pos./neg. etching, submicron photoresists 22173
  - As-S-Se resists, diffractive opt. elements, asymmetric profile fab. 39455
  - a-As_2S_3-Zn bilayers, electron/photon irrad. effects 38405
  - a-As_xS_y-Ag bilayers, electron/photon irrad. effects 38405
  - Au bumps on Si substrs., stabil., gold sulfite plating 12160
  - a-C:H films, diamond-like lithographic appls. 22310
  - GaAlAs/GaAs 150-nm gate-length HEMTs, fab., X-ray lithog. 13800
  - GaAs digital FET multilevel metal interconnects, isotropic etch planarization 13322
  - GaAs, low-temp. dry etching 6630
  - HgCdTe bulk wafer-based two-colour IRFPAs, design/fab. 17943
  - Nb/Al-oxide/Nb SIS jns. fab. 12758
- **photoresists** continued
  - a-P_2Se_3-Ag bilayers, electron/photon irrad. effects 38405
  - Si 1D/2D nanostruct., lithographic/RIE prep., photolumin. obs. 30091
  - Si CMOS ccts., g-line exposure and deep UV hardening 22577
  - Si electrostatic wobble motor, miniature gear reduction unit 36205
  - Si-based device proc., radiation damage 22160
  - SiN_x mask, mag. confined dry etching, GaAs device technol. 38586
  - SiO_2 mask, mag. confined dry etching, GaAs device technol. 38586
  - W mask, mag. confined dry etching, GaAs device technol. 38586
  - diamond membrane-based X-ray lithog. masks 6687
- **photostimulated exoelectron emission** *see exoelectron emission*
- **photosynthesis**
  - sens. for photosynthesis meas., trends 3791
- **phototelegraphy** *see facsimile*
- **photothermal effects**
  - aq. solns., temp. lens and grating study 15057
  - buried defects detect., num. anal. 12215
  - glaucoma filtering surgery, laser appls. 43336
  - hybrid microscopy, coatings noncontacting/NDT 12216
  - meas., lock-in amp. sync. detect. 10055
  - microscope, sig. anal. 17795
  - mirror temp. meas. of semicond. lasers, photothermal deflection 15012
  - nonchemical photopyroelectric gas sens., thermal wave based, H detect. 3901
  - organic vaps., photopyroelectric detect. 3905
  - photopyroelectric thermal-wave imaging instrum., probe-tip optimisation 42790
  - photothermally modulated playback from mag. tape 1580
  - photothermoplastic recording of stroboscopic holographic interferograms 15180
  - quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
  - quantum point contact, far-IR radiation-induced thermopower 29923
  - semicond. diode laser, mirror temp., photothermal deflection method 2033
  - single-beam photothermal anal., semicond. proc. appls. 108
  - tomographic photopyroelectric imaging, thermal wave multi-probes appl. 3757
  - Ultradel 9000 D crosslinked electrooptic polyimides, electro-optic props. 1652
  - AlN, excimer laser ablation, fluence depend. 12192
  - H-O mixtures, photopyroelectric detect. 3900
  - LiF cryst. F_2^- colour centre laser luminesc. quantum efficiency 1912
  - $LiNbO_3$:Ti channel waveguides, photothermal opt. losses charactn. 39418
  - Si:Ar(100), ion implant. transient reflecting grating study 1205
  - Si:Cr, carrier/thermal wave photothermal sigs. 1017
  - $YBa_2Cu_3O_{7-\delta}$ normal state films, fast thermoelec. response, detector appls. 42793
- **photothermal imaging** *see photothermal effects*
- **photothermal spectroscopy**
  - *see also photothermal effects*
  - chromophore-incorp. polymers for nonlin. optics, two-photon absorpt. and photodegradation 15138
  - femtojoule calorimeter, micromechanical sens. 9891
  - micromechanical biosensor for photothermal spectrosc., femtojoule sensitivity 3894
  - SO_2/CO_2 detect. by laser optothermal spectrosc. 10566
  - CdS, optoelectronic charactn. by photothermal deflection 38229
  - Si, optoelectronic charactn. by photothermal deflection 38229
  - Si, solar cells, optoelectronic charactn. by photothermal deflection 44398
  - ZnSe transparent IR opt. elements, photothermal meas. 2037
- **photothyristors**
  - 1500 V-20 A Photo Power Module DC solid-state relay 6396
  - free-space parallel opt. interconnects, cascadable thyristors 23063
  - high power light triggered triac, light sensitive struct. develop. 39568
  - opt. fibre monolithic wavelength demultiplexing switch arrays 42374
  - self protected light triggered thyristor, HVDC valve appls. 6742
  - GaAs-AlGaAs opt. thyristor-based differential pair switch, 50 Mbit/s 31087
- **phototransistors**
  - BJT array in CMOS proc. for intell. imaging 9935
  - CMOS transimpedance amp./opt. syst., monolithic integrat. 31131
  - heterojunction phototransistor-LD integrated device, flip-flop and multivibrator fns. 31048
  - hydrogenated amorph. silicon phototransistor cellular neural network 21497
  - integrated opt./optoelectronic switch for parallel opt. interconnects 31127
  - IR HET, narrow bandpass filter 17784
  - IR MQW phototransistor, hot electron effects 39573
  - IR MQW phototransistor, Monte Carlo modeling 1802
  - LAOS, light amplif. opt. switch, phys. model 7465
  - lateral hot-electron phototransistor for long-wave length IR radiation, modeling 39563
  - MM-wave/fiber-optic subcarrier transm. links, HBT photodetectors *(Japanese)* 9548
  - monolithic photonic/optoelectronic switching technol. 9146
  - MQW IR phototransistor 14599
  - optoelectronic EX-OR, phototransistors and VCSELs 39512
  - optoelectronic feedback control for power supplies 37624
  - optoelectronic integrated device, opt. multi-stable fns. 23058
  - optoelectronic integrated devices, transient behaviour 39591
  - phototransistor/LED based optoelectronic differential multiplexer logic 1837
  - VCSEL-based logic, optoelectronic look-up table 31042
  - VLSI ccts. for optoelectronic neural network wt. setting 1501
  - AlGaAs substrs., MOCVD growth 20826
  - AlGaAs-GaAs HBTs, heavily doped, opt. device appl. 39566
  - AlGaAs-GaAs MODFETs, neg. photoresponse study 31088
  - AlGaSb/GaSb punch-through heterojunction phototransistors for lightwave commun. 7462
  - AlInAs-GaInAs HBTs, ultrafast photocarrier transport 23014
  - GaAs OPFET, ion implanted, PV effect 39575
  - GaAs/$Al_{0.4}Ga_{0.6}As$ QW npn phototransistor fab. 31084
  - GaAs-AlGaAs monolithic optoelectronic switching network 42130
  - InGaAs/InP:Fe MISFET, opt. controlled characts. 23015
  - InP/InGaAs punch-through heterojunction phototransistors for lightwave commun. 7462
  - InP-InGaAs high-speed heterojunction phototransistors, electrode 14611
  - Si:Li, fast Li electromigration, low temp. device creation 30047
- **photovoltaic cells**
  - *for photovoltaic solar cells, use "solar cells"*
  - Betacell microencapsulated nuc. batt., design and appls. 27961
  - cogen., thermophotovoltaic conversion, wood powder combustion 28001

photovoltaic cells continued
compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
GaSb thermophotovoltaic converter, SiC emitter/burner 27998
high power dens. thermophotovoltaic energy conversion 28000
kerosene burner configs., thermophotovoltaic appls. 27999
mil. unmanned undersea vehicle, thermophotovoltaic power source 36705
organic PV cells, excitonic light collection, high carrier mobilities 27937
poly-yne, Pt containing, PV effect 14606
power syst. HV sens., integrated optics Pockels cell-based 27280
pulsed power adiabatic transformer, semicond. switched, design/perform. 36295
radioisotope thermophotovoltaic power, space mission appls. 26638
solar cells, thermophotovoltaic power appls., design/modeling 27944
space vehicle radioisotope thermophotovoltaic syst. 26637
thermophotovoltaic cell, thin film selective emitter efficiency 36618
thermophotovoltaic cells, Am isotope mixture-based 36622
thermophotovoltaic cells, composite emitters develop. 27982
thermophotovoltaic cells, efficiency determ. anal. 28007
thermophotovoltaic cells, expt. charactn. studies 28008
thermophotovoltaic cells, perform. charactn. 27945
thermophotovoltaic conversion, vert. multi-jn. cells 27975
thermophotovoltaic conversion bibliog. 27993
thermophotovoltaic electricity generation, conf., USA (1994) 20206
thermophotovoltaic emitter develop., refractory oxide ceramics 27997
thermophotovoltaic generators, PV principles 27996
thermophotovoltaic generators, US Army batt. needs 43567
thermophotovoltaic nuc. energy conversion, space appls. 35240
thermophotovoltaic technol., mktg. challenges 36586
thermophotovoltaics, appls., cost, GRI research 27995
thermophotovoltaics, DOE's Advanced Energy Projects 36621
transm. line, PV transformer for power take off 27291
C_{60}-conducting polymer jns., mol. D-A type photocells, spectral characts. 23018
Ga_2AsSb/InP thermophotovoltaic cell modelling 28004
GaInAs thermophotovoltaic cells, growth/fabr. 27978
GaInAs thermophotovoltaic cells, metallisation contacts studies 28005
$Ga_{0.51}In_{0.49}P/GaAs$ PV converter, opt. power/data transm. 27943
GaSb PV cells, extended IR response 27934
GaSb thermophotovoltaic cells, tech./economic anal. 28002
InGaAs OMVPE growth/charactn.,thermophotovoltaic cells 27977
InGaAs thermophotovoltaic cells, charactn. meas. techs. 28009
InGaAs thermophotovoltaic energy conversion 27994
$In_xGa_{1-x}As$ thermophotovoltaic cell perform. vs. bandgap 27976
$In_xGa_{1-x}As$ thermophotovoltaic cells, quantum efficiency model 28003
InGaAs/InP thermophotovoltaic device develop. 27979
$In_xGa_{1-x}As/InP$ thermophotovoltaic cells, recomb. lifetime meas. 28006
InGaAsSb/GaSb thermophotovoltaic cells, LPE grown 27980
YAG thin film selective emitter models, thermophotovoltaic cell appls. 27981
YAG:Er,Ho thin film selective emitters, thermophotovoltaic cells 36620
Yb_2O_3-Al_2O_3 thermal-opt. energy converter, characts. meas. 36619

photovoltaic effects
act. integrated antennas, opt. control, microwave-opt. interact. *(Japanese)* 8062
dark and bright spatial solitons in PV photorefr. materials 7804
ferroelec. thin films, ferroelec.-opt. memory 14082
human skin-semicond. heterocontacts, photosensitivity 38454
II-VI thin film PV 22993
in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
IR photodetector cooling by opt. immersion lens 3833
MEH-PPV sandwich devices, photosensitivity and implication, polymer electronic struct. 23013
metal contamination monitoring, surface photovoltage, SPC 38458
metallic contamination in ULSI, opt. monitoring techs. 29991
photorefr. medium, opt. beam propag. 23435
poly-(para-phenylene-vinylene) films and photodiodes, photoinduced current, ESR 14600
poly-yne, Pt containing, PV effect 14606
PVDF doped ferroelec. polymers, dielec./photoelec. props. 1555
quantum point contact, far-IR radiation-induced thermopower 29923
α-sexithiophene MIS diodes, charged excitations, opt. studies 13256
standalone PV syst., concepts, economic anal. 36056
thermophotovoltaic generators, PV principles 27996
$As_2S_3(Se_3)$ MChDS structs., photocharging characts., opt. memory appl. 22053
a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
C_{60}-conducting polymer jns., mol. D-A type photocells, spectral characts. 23018
p-CdS films, pulsed laser deposition, p-n jn. PV effect 37483
CdS/CdTe, sintered solar cells, InSnO electrode, PV props. 11295
p-CdS(Cu)/n-CdSe heterojunctions, PV charact. 6545
CdTe electrodeposited films, SCLC 29862
$Cu(In,Ga)Se_2$, laser ablation deposition 431
$Cu(In,Ga)Se_2$ thin-film growth, mixed-phase precursor 20935
$CuInSe_2/SnO_2$, PV solar cell material 36605
GaAS sputtered films, amorphous and microcryst., elec. props. 22994
GaAs OPFET, ion implanted, PV effect 39575
GaAs adaptive photodetector, broadband detect. of PM, 10 MHz freq. range 34509
GaAs films, anom. PV effect/neg. photocond. 39554
GaAs photoconductors, compensated/partially compensated opt. gain 39547
n-GaAs, surface photovoltage, photoemission spectrosc. 14586
GaAs-Si films, anom. PV effect/neg. photocond. 39554
n-GaAs(100), surface photo-emf spectra 1051
Ge:Hg, Poole-Frenkel effect, centre ionis. deep impurity 21889
In/p-$AgGaS_2$ struct., PV effect 13215
InGaAs superlattices, optical props., device appls. 13143
K_xC_{60}, thin films, photocond., absorpt. spectra 39550
$LiNbO_3$:Fe, bulk PV effect 22991
$LiNbO_3$:Fe, laser-induced transient holographic gratings 31644
$LiNbO_3$:Fe[Cu] crysts., light-induced scatt. 30812
$Pb(Zn_{1/3}Nb_{2/3})O_3$ single crysts., bulk PV effect 31070
Si, EFG growth in CO ambient, gettering 20647
a-Si based PV solar cells 5212
Si films, anom. PV effect/neg. photocond. 39554
Si, ion implant. proc. problems, surface photovoltage detect. 30017
Si, neutron-irrad. single cryst., elec. params. *(Chinese)* 1016
Si, p-n jns., minority carrier diffusion length determ. 38284

photovoltaic effects continued
Si, porous, diode struct., elec./PV props. 38325
Si, self-supporting porous layer, photocond. 23000
Si, single crysts., metal impurities, opt. detect. techs. 38242
Si wafer cleaning, surface charge effects, surfactant solns. 30068
Si:Fe,Al(B), lifetime effects of Fe/Fe complexes 29826
Si:O near-surface/subsurface defects, opt. prod. profiling 29992
SiC, 6H polytype, subnanosecond PV response 14580
SiC devices, high-dark-resist., photoconductive and PV response 31077
6H-SiC p-type photoconductive switches investig. 23011
SiO_2 charge/mobile ion conc. meas., MOS struct. 29964
SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
TiO_2, microporous electrode, PV study 28803

photovoltaic power systems
2 kW Solar Dynamic Ground Test, solar simul. selection 26615
2 kW Solar Dynamic Ground Test Demons. program 26614
10-100 kW hybrid diesel/renewable power systs., developing country appls. 36032
200 W PV power syst. DC/AC power convertor control 43953
Advanced PV Solar Array testbed wing results 26598
array/batt. power switch network, nonlin. SPICE model 27635
arrays, max. power operating point tracking 19982
batt. life extension, charge equaliser 19964
buck-boost PWM inverter, PV power syst. appls. *(Japanese)* 11122
building archit., PV systs. integrat. 11298
Burgdorf (Switzerland) Engng. School 60 kWp PV test centre *(German)* 10881
CO_2 emissions mitigation technols., Japan *(Japanese)* 4755
commercial buildings, PV integrat., economics 10884
cost-effectiveness issues in space PV 18728
DC motor pumping syst., design optim. 19553
DC motor water pumping syst., characts. anal. 27638
decentralised PV syst., value, society 27634
Deep Space Probe Science Expt., elec. power syst. 26646
desalination, electrodialysis systs., PV powered 11516
develop. trends, NEDO 27622
dispersed PV power systs., islanding phenom. 43947
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
energy conversion engng. conf., Atlanta, GA, USA (Aug. 1993) 20225
energy losses, batt. voltage regulator 10889
energy losses, batt. voltage regulator 36061
EPRI R&D efforts, USA 27619
existing/future trends *(Japanese)* 4867
First Mars Outpost power systs. 26516
fuzzy logic controller for PV-utility interfacing 19558
generating plants, lightning protection methods *(German)* 4869
Giubiasco (Switzerland) mains-connected PV installation *(German)* 43951
GPS Block IIR solar array power syst., historical overview 26604
grid connected buildings, energy flow, economics 43955
grid connection 10882
high perform. space power technol. options 35247
household radio equipt., solar cell power supply tests 20151
household radio equipt. power supplies, solar cell-based 20150
Hubble Space Telescope, power syst. servicing 35245
Hubble Space Telescope, solar array change out 35246
hybrid PV-wind power syst., optimal unit sizing 10894
hybrid PV/diesel power supply, mobile radio repeater 19563
hybrid PV/photothermal water heater syst., perform. modelling 27631
hybrid PV/wind/diesel power systs., computer modelling 19571
hybrid renewable energy prod. projects, Germany *(German)* 19551
INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
invertors, instantaneous current tracking control *(Korean)* 27620
large scale PV plants, experience 10885
laser space power beaming, PV cell pulsed laser illum. 43948
LINE BACK, utility connected PV inverter 44204
lunar base power systs., life cycle cost 26517
max. power extraction, fuzzy logic control 19560
max. power point tracking scheme 19559
max. power tracking, fuzzy neural net-based 19552
max. solar power neural tracking 36058
microwave radio syst. PV power supply, project overview 19562
model farm PV and biogas power supply *(German)* 20176
modules perform. meas., algm., facility 11297
needs/prospects, European perspective 27621
New Sunshine Project, PV develop., Japan 27633
operational behaviour anal. by standardised representation *(German)* 43952
parametric cost model 26654
PASP plus arrays, arcing predictions 26569
plasma MHD thrusters, solar elec. propulsion system 26590
power conditioners, develop. efforts 27639
PV cladding, Northumberland Building, Northumbria Univ. 11299
PV-hydrogen energy conversion syst. studies 27624
PVMaT Project, USA, status overview 27640
PVMaT/PV, BONUS, US PV program initiatives 27632
R&D projects, New Eng. Electric 43950
reliab./economic anal., elec. generation syst. 35504
rem. power generation sources for harsh environ. 35711
rem. telephone services, alternative power sources 3107
renewable energy develops., ecological aspects, Switzerland *(Spanish)* 4760
repeater, PV/VRLA batt. power supply, low temp./voltage operation 19565
residential PV systs., real energy prod. 27630
residential solar-powered air conditioners 5393
roof integrated commercial PV design 10886
Sampex spacecraft derived power syst., stabil. anal. 26611
single-phase composite PWM voltage source converter 19723
single-phase PWM VSI, residential PV power syst. appls. *(Japanese)* 36346
site/time specific simul., satellite insolation data 10892
sizing, load matching, short-term energy storage 4870
sizing optimisation, Algeria 36057
small-scale rem. PV power systs. design 43956
solar arrays, load matching calcs. 27626
solar cell pulse power generators/low current switches 19550
solar cells, high efficiency, develops. overview 36603
solar concentrators, glass reflectors, optical eval. 26644
Solar Dyn. Ground Test Demons., heat receiver fabr./testing 26616
Solar Dyn. Ground Test Demons., radiator design/testing 26617
solar dyn. test demonstrator space power syst., heat receiver 26656
solar elec. orbital transfer vehicle, power syst. 26652
solar energy prod. methods, overview 19549

photovoltaic power systems continued
solar hydrogen energy systs. simul. 4868
space power generation, develops., economic incentives overview 43417
space power solar cells, develop. prospects workshop 43450
space power/propulsion synergies 35268
space solar energy systs., develop. projects overview 43418
space solar power syst. studies, USSR 35241
Space Station Alpha PV module thermal control syst. 35252
space station elec. power syst. requirements/issues 35249
Space Station Freedom, brushless DC motor, posn. control 43453
Space Station Freedom, solar array elec. perform. environ. effects 26642
Space Station Freedom power system, on-orbit floating potentials 26592
Space Station Freedom solar array development testing 26643
Space Station Freedom solar cell dynamics, SPICE modelling 26584
space station solar panel terminal characts. model 26676
spacecraft line-focus refr. concentrator solar arrays 26602
spacecraft power conditioning, tri-state power converter 26677
spacecraft PV power technols., future trends 26685
spacecraft solar array, shunt switching unit act. ripple filter 26679
spacecraft solar array size optim. efforts, UK 26686
spacecraft solar arrays, on-orbit output power mgt. 26601
spacecraft solar cell assemblies, Teflon coverglass bonding 26684
spacecraft solar cell lifetime, space factors testing 18726
spacecraft solar elec. propulsion, energy storage mass impact 26608
stand-alone PV power systs., batt. state-of-charge 19557
standalone PV syst., concepts, economic anal. 36056
SUNPAC, PV installations, rem. monitoring 20004
surface floating PV pumping syst., experience, Khartoum 20180
technol. develops. 27642
telecomm. equipt., solar generator perform., high temp. 20005
telecomm. relay stations, PV power supply experience 19556
telephone PV power supply syst. develop., Finland 19561
thermophotovoltaic electricity generation, conf., USA (1994) 20206
TOPEX/Poseidon elec. power syst., on-orbit perform. 26645
TOPEX/Poseidon satellite, solar array on-orbit perform. studies 26606
TOPEX/Poseidon solar array on-orbit performance 26599
transformers, metering transducer appls. *(Russian)* 10880
UK and IEA PV programmes 10883
unconventional power systs., scheduling/resource allocation 35496
utility/PV lines, automatic interconnecting syst. 43954
water pumping, SRM drive-based, perform. anal. 10890
water pumping PV DC solar pump, simul. model 19554
water pumping syst., environ./economic concerns, Brazil 27637
water pumping systs., optim. techs. 27628
West Beacon Power Farm, PV implement. 10887
GaAs thin solar cell, light trapped, spacecraft appls. 26600
GaAs/Ge Clementine spacecraft solar cell array studies 26603
GaInP/GaAs tandem solar cells, high-efficiency 19998
$Ni-H_2$ International Space station batt. power syst. tests 26663
PB-acid batt. service life prediction, PV systs. 36527
Pb-acid batt. develop., PV syst. appl. *(French)* 19969
Pb-acid batt., low maint., rem. PV syst. appl. 36528
Pb-acid valve-regulated batts., PV telecom. power supply perform. 41629
a-Si PV cells in large scale utilization, energy pay-back time *(Japanese)* 27629
a-Si PV power systs., spectral output eval. method 27623
Si based PV systs., life cycle anal. 43949
Si solar array, X-ray Timing Explorer Power syst. 26650
Si solar cells, PV power generation prospects 36060

photovoltaic solar cells *see solar cells*

physical data, collections of *see collections of physical data*

physical instrumentation control
see also accelerator control systems
astron. Fabry-Perot imaging camera 9942
Beijing FEL time resolved electron spectrometer, control/scanning syst. *(Chinese)* 34965
bipolar HV amp. for precision piezodrive 14078
camera motion strategy, localize uncertain 3D lines 24641
CERN calorimeter, computer archit./electronics 18366
CMM, control input shaping against vibr. 17675
CMM, optimal posn./vibr. control design 3738
computer-controlled high accuracy opt. meas. 18120
conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
Cortex quasi-real-time IS, build HEP control systs. 18241
double supertwisted nematic screens, color contrast enhancement 39498
DΦ detector, control, monitoring 18305
Elettra, beam line control syst. 18399
EUV spectrograph, back-illum. ion-implanted CCD 9934
FEL centre user diagnostics and control 40016
field stabilization of supercond. magnet, He press. control 22767
IUE astron. satellite, coarse-grained scheduling 26522
lab. of indust. control systs. 17689
near field opt. microscope, piezoelec. tip-sample dist. control 39088
Newton's gravit. const. meas. 17650
NIST-7 freq. std., hybrid digital/analog servo 42667
Nobeyama Radio Observatory, telescope control syst. upgrade 17515
physiochemical expt. dyn. controller develop. 34727
polarized target 34873
SMC polarized target, computer control 34874
Tesla linac test facility controls status and future plans 18258
torque magnetometer for rocks/crysts. meas. 10000
UHV-STM syst. combined, MBE 5837
vac. manipulators, commercial elec. devices adaptation 44439
VENUS vertex chamber, temp. DDC 10115
Windows-based control syst. for electron microscope 9817
AlGaAs/GaAs intracavity laser coupled VCSEL syst., opt. gain control 39774
Er-doped fibre amp., rem. all-opt. nanosecond gain switching 39695
Si detectors, rem. controlled polariser 43062

physical metallurgy *see metallurgy*

physical optics
see also physical theory of diffraction
2D TW current strips, closed-form field expressions 23529
anal. gradient iter. procedures, beam shaping techs. 31931
CATR reflectors, rect. type serrations 23864
CATR reflectors, triangular serrations width/height 15633
circ. loop antenna, radiated emissions, finite ground plane effect 8046
converging scalar wave diffr., conducting screen 7938
discontinuity in curvature, backscatt. 40318

physical optics continued
edges of perfectly conducting wedges, PO current dens. correct. 7940
EM scatt., 3D perfectly conducting bodies, PO-MM hybrid method 23598
EM scatt. by large open-ended cavities, iter. PO 40278
finite metallic cone scatt. component estim., PO correction 40333
high perform. reflector antennas, generalized diffr. synth. 23886
information optics frontiers, conf., Kyoto, Japan (1994) 28211
MM/PO hybrid method, rounded wedge diffr. 15378
Mueller matrix struct., polaris. state changes 23571
multiband reflector antenna freq.-selective subreflector design and perform. 23873
OTH radar receiving array terrain compensation 25562
parab. reflector antenna perform., dielec. coatings effect 31956
radiowave, PO and terrain diffr. 7963
reflector antenna crosspolarization, fringe-current effects 23903
reflector antenna radiation integral eval. by predictor-corrector algm. 23820
reflector antennas, uniform PO diffr. coeffs. and pol. anal. 23862
reson.-sized reflectors, approx. num. modeling techs. 23902
ribbed cylindrical shells, ident. by acoustic Bragg diffr. patterns 17475
scalar wave diffr. theory, Fresnel/Fraunhofer regions 31845
shaped reflector surfaces interpolation by cubic pseudosplines 40478
target HF ultrawideband radar sig. response, PO computation 34127
ultra-wideband or short-pulse radar, time-domain imaging 42487

physical theory of diffraction
aperture radiation problems, PTD problems extension 7951
BVP soln., scatt. fields 15417
converging scalar wave diffr., conducting screen 7938
finite metallic cone scatt. component estim., PO correction 40333
finned cylinder, hybrid soln. for EM scatt. 15406
fns., removable sing. 40300
high perform. reflector antennas, generalized diffr. synth. 23886
multiple diffr. modeling, high freq. methods 2212
reflector surface distortion compensation by diffr. synthesis 23871
satellite reflector antenna diffr. synthesis optim. 23874

physics
see also physics computing
EDUCATE project, end-user courses in inform. access, commun. technol. 20339
nonrigid motion anal. in 3D images, vibr. modes 24461
phys. lects., multimedia interact. 20310
quantum computers, two-bit gate design 6118
thermal logic ccts. 6119

physics computing
see also computerised instrumentation; high energy physics instrumentation computing; spectroscopy computing
1.5 MV Gamble II pulsed power generator, plasma filled diode studies 36444
2D detector systs., distortions calib. and correction 43151
3D plasma armature railgun simul. 15371
3D simul. anal. of 3 cm wavelength FEL afterburner 2021
acoustic pulse sig. generation for long impulse response meas. 26802
adaptive logic networks for particles recog. 34818
adaptive separation of sound sources, Herault-Jutten network 26782
AGS accelerator distributed control syst. alarm, obj.-oriented design 18192
alkali metal thermoelec. convertors, Na recirculation wick design 20030
ALS accelerator control syst. status 18187
APS accelerator and control syst. 18173
APS SR beam lines, shielding 10290
astron. imager with PM focusing, demagnetification *(Chinese)* 17923
beam dyn., complex accelerating elements, DYNAC code 26039
beam propag. method num. algms. 39470
beamline optim. and phase space transform. 43012
BEPC accelerator control syst. design 18195
calorimetry at LHC, modular fault-tolerant approach 4237
CATEF program, elec. field calc., accelerating tubes *(Chinese)* 26077
CERN accelerator control, VME std. analogue fn. generator 18193
CERN PS accelerator, timing syst. 18183
coal-fired MHD facility, laser induced breakdown spectra 20016
computation algm. for low-press. gas-discharge systs., 2D electrode geom. 12990
conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
DANTE control syst. for DAΦNE, Macintosh/LabVIEW based 18236
differential params. meas. of charged particle beams 4078
diffractive opt. elements, CAD 2139
diffuse acoustic refl., macroscopic view 4414
DIII-D tokamak, reflectometric dens. profile meas. advances 34679
double-cryst. SR monochromators, exit beam distortions 43150
dual gas turbine combined cycles, thermodynamics modelling 19525
eddy current, 2D, iter. domain decomp. algms. 2181
elec. launcher plasma-surface interact., computer simul. 15372
electron cooling, mol. dyn. simul. 34792
EM, computational methods and considerations 40178
EM modelling in arbitrary geom., PIC methods on MIMD computers 31726
EM plasma dyn. accelerator, 2D MHD simul. code 15323
EM scatt., axisymmetric cases, integral eqns., parallel computing 2197
exterior Helmholtz problem on IBM SP-1, FEM 23580
fatigue life of solder joints, FEM study of factors 11756
FEL expt., ang. steering 2022
FEL operation incl. space-charge effects, beam transport simul. 31440
FLIR subsystem perform. anal., PC based scientific spreadsheet 34593
flow sens. params. determ., finite difference method 18155
freq.-domain adaptive iter. image restoration 2705
freq.-resolved opt. gating, generalized projections, pulse retrieval 23334
GANIL ion accelerator, control syst. 18184
gas turbogenerator cascade flow, 3D compressible Euler solver 36016
gas-particle flows, Cobra probe, purging 26010
Hartley intens. spectrum reconstruction from sinusoidal crossings 24424
Helmholtz eqn., eigenvalue problems, adaptive boundary element 11999
HF range M-seq. meas., interleaved sampling method 26017
hybrid finite-vol. FDTD modelling of curved surfaces 23595
ICARUS detector, data reduction techs., phys. param. extraction 10125
image quantisation error diffusion and min. av. error algms. 16306
indust. gauges, ES, β/γ/X-ray transm. 18369
integrated opt. cct. simul., num. BPM algms. 22920
intens. interferometric correl. in image reconstruction 2709
KEK PS magnet power supplies and beam line control 18260
Laplace transforms, num. inversion difficulties 5733
laser range-finding CMM calib. 2159
LEADS program, lin. and electrostatic accelerator beam dynamics 34833
leaky/absorbing opt. waveguide/quantum well struct. modelling 40434

physics computing continued
lens design, global optim., escape fns. 39528
LEP accelerator beam dump control syst. 18198
LEP accelerator pretzel separators, control syst. 18261
metal coating elec. cond./thickness, eddy current data rapid inversion 42890
microbend sens. perform., finite element/beam propag. methods 17858
modal noise suppression in white light interferometer 17913
mol. beam epitaxial growth, parallel Monte Carlo simul. 28770
nonequilibrium MHD generator, plasma electron dens. calc. *(Japanese)* 36611
noniterative complex-valued obj. reconstruction from two intens. meas. 2707
nonorthogonal basis fn. image representation, FFT 2595
nonperiodic BVP, polynomial time-marching 5784
NSLS accelerator control syst. upgrade 18188
NSLS rings, transverse orbit stabilization, digital feedback syst. 18274
ODE, B-spline solns. 37340
opt. disk substr. vert. birefr. measuring method 15192
opt. waveguides, light propag., Richardson extrapolation 15598
opt. waveguides characts. meas., PC-based syst. 39385
PBGUNS, digital simulation computer program 26108
phase-struct. writing mechanism, crystallisation proc., num. simul. 14331
photoelasticity, conf., London (Nov. 1993) 11588
Phys Comp '94 conference, Dallas, USA 47
phys. lects., multimedia interact. 20310
piezoelec. tube scanners in STM/AFM, nonlin. behaviour correction 39070
pixel detector, primary vertex location, neural network appl. 34941
polariz.-maintaining distributed fiber-optic sens., software elimination of second-order ghost coupling points 42831
positron ident., transit. radiation detector, neural net 4173
Procyon pulsed power supply plasma flow switches, computer modeling 36423
PSI accelerator control syst. and tools 18194
quantum computers, two-bit gate design 6118
quantum-mech. tunneling, FEM 6548
rect. Hall devices, pot. distrib. determ. software 30208
resist. furnace stationary temp. fields, digital simul. *(Polish)* 36784
RHIC accelerator control syst. design 18172
SABRE pos. polarity inductive adder MITL, refl. waves 34741
scanning LLL X-ray interferometers, Takagi eqns. appl. 18424
semicond. laser; linewidth, linewidth enhancement factor α, FM and AM response meas. 39878
semicond. material anal., multidimensional software tool 6516
shift/BETEL project, CERN involvement 25000
Si, cryst. growth simul. program, automatic parallelization 12034
SIBERIA SR source control syst. 18262
Simulation Generator package, computer simul. of phys. problem 22346
SIRENS electrothermal launcher, plasma flow simul./expt. 15317
space power thermionic fuel elements, UO_2 swelling simul. 18744
SPS/LEP commun. control network evol. 18197
storage ring, cryst. ion beam, computer simul. 34795
struct. detect., parallel algm., wavelet/segmentation anal. 32918
supercond. supercollider pulsed power supply thyratron modulators 34750
suspens. and aggregates, combined rheometer/image analyser 25876
TEM defocus series, exit wave reconstruction 24430
Tesla linac test facility controls status and future plans 18258
thermophotovoltaic cell, thin film selective emitter efficiency 36618
three-channel homodyne interferometry, opt. thickness meas. 18074
TRIUMF accelerator central control syst. upgrade 18186
UVSOR SR source, gracefully-degradable operationable control syst. 18196
wake fields, boundary element anal., Kirchhoff's integral eqn. 23515
GaAs, liq. phase electroepitaxial growth, 2-D diffusion model 300
$Li_2B_4O_7$ substrs., leaky SAW propag. props. 30638
Ni-Cd battery perform. modelling, neural net-based 27914
Si detectors, rem. controlled polariser 43062
Si, low energy ion beam deposition procs., mol. dyn. methods 20923
Si rect. diaphragm press. sens. 17753
a-Si:As, ion implant., generalised transport eqn. 13292
Si-SiO_2 interface, electron 2D behaviour modelling by Monte Carlo simulator 29986
SiO_2, PECVD modeling via neural nets and genetic algms. 398
SiO_2 PECVD, neural network based modelling 37415
^{132}Xe energetic ion track lengths, Cr-39 detectors 26231
$YBa_2Cu_3O_{7-x}$ parallel connected elements, current distrib. 7229

physiological models
see also brain models; neurophysiology; physiology
arm modeling for anal./synthesis image coding 8564
attentional scanning model 32891
biological/computer vision, spatial freq. inform., self-organising feature map 33117
biomedical meas., computer diagnostics of dyn. systs. 18435
cardiac defibrillation optimisation, human thorax finite element modelling 18588
cellular phone EM fields, induced current/SAR, human head 18622
cochlea, driving currents for focused stimulation, implants appl. 35165
conference, IEEE Northeast Bioengng. Conf., Newark, New Jersey, USA (Mar. 1993) 36846
defibrillation, transthoracic/transvenous, human thorax model 18587
ECG, excitation/body surface, computer heart models simul. 35125
ECG data compression, adaptive Hermite models, perform. eval. 26408
EEG/MEG dipole localization bounds for head models 43312
EMG, multiple site, amplit. estim., waveforms whitening/combination 18569
EMG motor control sig. proc. by neural net 18565
event-related pots., second order model, time lags *(Japanese)* 4279
head, human, hair dryer mag. field-induced elec. activity 18626
heart beats modelled on supercomputer 34982
heart rate variability, unevenly-spaced, spectral anal. 10247
hippocampus, nonlin. syst. model, CMOS implement. 29434
His-bundle sig., timing meas. improvement, bioelec. model 10242
human body/pulsed EM wave interact., induced currents 18627
human model, AC field exposure, induced current densities 26485
human motion tracking in real scenes, robust approach 2820
human speech prod. models for anal./synthesis 8206
impedance tomography, cylinder/human thorax, finite element models 43288
interstitial laser heating, large vessel cooling 26464
joint replacement, orthopaedic biomechanics computational problems 18618
mammography, air kerma/glandular tissue dose conversion factors 18660
materials, dichromatic refl. models 8475
motion segmentation and vel. integrat., filter selection model 8659

physiological models continued
myocardial infarctions, optimum detect., intracavitary probe 18553
nuc. med., urinary nuclides excretion, pharmacokinetics model 18663
paraplegics, elec. stimulated quadriceps ident. 18581
peripheral artificial vision, lateral inhibitory networks, IC implement. 23067
pupillary light response model w.r.t. smooth muscle morph. *(Japanese)* 18524
QRS complex, high resoln. ECG, abnormal sigs. modelling 26420
robust observer design for biomedical systs. 43198
SAR mapping within human eye, portable transceivers effect 18625
SAR reduction in human body by perfect conducting shield *(Japanese)* 43412
SQUID mag. field sens. for med. appls. *(German)* 18538
thorax, computer model, ECG lead field calc. 26372
thorax models, impedance cardiogram multiple sources 18568
transthoracic defibrillation, current fraction entering heart 18583
US hyperthermia, theoretical thermal model 43265
ventricular late pots., freq.-domain anal., autoregressive models 26421
visual cortex based neural archit. 29478
walking, cyclic motion detect./recogn. 16146
electronic excitable membrane model, phase transit. curve anal. *(Japanese)* 37619

physiological optics *see vision*

physiology
see also blood; hearing; neurophysiology; physiological models; speech; vision
cineangiograms, computerised vessel diam. meas., magnification effect *(Japanese)* 4271
EMI in hospitals, IEE Colloquium, London (1994) 17
physiological sigs. monitoring, interf. 10173
speech prod. model, articulatory movements based *(Japanese)* 40744

physisorption *see adsorption; sorption*

PI control *see two-term control*

pick-up tubes, television *see television camera tubes*

pick-ups
CD-ROM, quadruple dens. opt. disc technol. *(Japanese)* 3682
opt. pickup design for mini disc drives 34295
shear piezoelec. vibr. pickups 3811
thin opt. pickup head of CD player, laser/detector/hologram unit 17613

pickups *see pick-ups*

pictorial bandwidth compression *see bandwidth compression*

pictorial databases *see visual databases*

picture archiving and communication systems *see PACS*

picture pattern recognition *see image recognition*

picture processing *see image processing*

picture transmission *see facsimile*

picture tubes, television *see television picture tubes*

PID control *see three-term control*

piecewise constant techniques
asynchronous machines, piecewise-const. approx. anal. method *(Polish)* 36148
dielectric body anal., conjug. gradient method, test fns. 15379
dish antenna design alternatives, test beds for student investigs., DishPat and FeedPat programs 31915

piecewise-linear techniques
asymptotic waveform eval. macromodels for nonlin. ccts. 513
automatic intonation tone contour labelling/class. algm. 32402
canonical piecewise-lin. resistive networks, anal. 28933
chaotic chip for nonlin. dyn. network anal. 515
Chua's cct., cubic nonlin. 12304
Chua's cct., review 12361
CML cct. delay components and current dependency 12423
CMOS VLSI chaotic neural nets, current-mode 29513
Colpitts oscillator, chaos 576
contraction algo. for finding DC solns. of piecewise-lin. ccts. 506
DC anal. of ideal diode network, decomposed piecewise-lin. model 511
delay single server queueing model with finite source, modified diffusion approx. *(Japanese)* 41480
dielectric body anal., conjug. gradient method, test fns. 15379
digital filter with arbitrary piecewise-lin. freq. response, impulse response 24305
digitally controlled lin. four-port network 463
dissipative non-autonomous cct., bifurcation and chaos 37617
driven oscillator dyn., piecewise-lin. charact. 578
explicit piecewise-lin. models 12303
formant freq./spectrum tilt, piecewise lin. voice conversion rules 40727
high speed/high resoln. ADC, nonlin. correction 37818
hydroelectricity, reservoir syst., optimal policies 35726
hysteresis cct., chaos control 37612
hysteresis hyperchaos generator, fund. bifurcations 12300
image coding, uniform/piecewise-uniform VQ 24591
Katzenelson-like algm., nonlin. resistive networks, quadratic convergence 5979
ladder cct., static hysteresis 12295
lin. array, shape reconstruction 42536
lossy sig. compression archit., single-chip implement., ECG data 29275
MV power network arcing faults, computer modelling 19032
NDR-SPICE cct. simul. of reson. tunneling devices 22336
neural net filter, nonlin. fn. optim. *(Japanese)* 21434
non-lin. noise filtering, piecewise lin. compression 29382
nonlin. digital filters, neural network structs. 8451
oscillators, integrated analog switches 6044
piecewise-lin. resistive ccts., nonseparable transistor models 21092
PLLs, large damping, homoclinic points and chaos 12376
polygonal slices, piecewise-lin. interpolation 20584
power equipt. control syst. design, ES-based interpolation methods 19494
radial basis fns. in sig. proc. 2518
radio waves, multibeam diffractive propag. 2226
resistive ccts. containing transistor models, solns. 28993
robust speech recogn., probabilistic optimum filtering 32309
Rsim switch-level simulator, piecewise lin., timing anal. 1481
SC/SI filter networks, cct. nonlin., piecewise lin. techs. 37855
segmental phoneme recogn., piecewise lin. regression 32221
semicond. diode, piecewise-lin. model for transient behaviour 22347
shape modeling, front propag. 24415
SWEC, stepwise equiv. conductance, MOS VLSI simul. 13899
three coupled relax. oscillators, chaos, torus and sync. 574

piecewise-linear techniques continued
  time series, discontinuity location, recursive Bayesian method 41009
  transcoders, automatic TV tuner alignment, electronic tuning 21086
  transcoders, weighted min. approx. and decomp., TV tuner 21085
  variable reluctance machine magnetisation characts. modelling 19604
  voice conversion based on piecewise lin. conversion rules 32322
piecewise polynomial techniques
  2D EM field calcs., FEM-piecewise polynomial method *(Chinese)* 40202
  asymptotic error expansions and extrapolations, nonlin. integral eqns. *(Chinese)* 5789
  best k-link piecewise-lin. fn. approx., uniform metric 20585
  delay Volterra integral eqns., collocation and Runge-Kutta methods 12010
  electrostatic pot., symm., modified slice-method 31721
  finite element multiwavelets 32511
  fractal fns., splines intertwining multiresolution anal. and wavelets 32514
  image coding, piecewise polynomial wavelet, IIR implement. 2654
  multiresolution motion estim., wavelet transform 32836
  orthogonal spline collocation, matrix decomp. 28671
  parab. systs., integrated space-time adaptive hp-refinement methods 37344
  proc./device simul., optimal moving meshes 22538
  projection decomp. method, well-conditioned bases 37307
  recovering 3D shape of unfolded book surface from scanner image *(Japanese)* 32868
piezo-magneto-optical effects *see magneto-optical effects; piezo-optical effects*
piezo-optical effects
  dielec. resonators, stress induced freq. shift 30658
  high press. semicond. physics, conf., Vancouver (Aug. 1994) 28247
  $CuInSe_2$ films, laser ablation, stress-induced Raman freq. shift 37482
  GaAs/AlGaAs, in-plane strained, polariz. depend. excitonic opt. nonlin. 23424
  InGaAsP, ridge waveguide lasers, strain meas., photoelastic effects 39826
  InGaP strained quantum-well lasers, gain, threshold currents 23265
  $KNbO_3$ crysts., anisotropy of acoustooptic effect 1648
  $KNbO_3$ crysts., electro- and acousto-optic props. 30555
piezoceramics
  cylinder, 1-3 composite, hydrostatic press. response 14081
  discs with elastic addits., vibr. anal. 26789
  face plate effects on surface displacement profile in 2-2 piezoelec. composites 13987
  ferroelec. ceramics piezoelec. responses, interferometric meas. 22667
  finite piezoelec. transducers mounted in a baffle, acoustic radiation 43557
  inplane fork-mode vibr. of piezoceramic resonators *(Japanese)* 14086
  intell. ceramic materials, brittle fracture 28892
  mass flow meas. by PZT AE sens. 10067
  MICSOS, shear probe for microstruct. measuring systs. 10500
  MLC actuators, intell. proc. monitoring, fiber sens. 10030
  Moonie piezoceramic actuator, geom. nonlin. anal. 14075
  multifunctional piezoceramic resonators, design and size reduction 39084
  multilayer piezoelec. ceramic transformer for power supply 12854
  piezoceramic polymer composite, 2-2 connectivity, dyn. modelling 6900
  piezoelec. ceramic fiber/polymer composites, transducer appls. 22661
  piezoelec. digital actuator, max. bit enlargement 39097
  piezoelec. US motors 30596
  porous piezoceramics, dyn. fluid compressibility/permeab. 18927
  rect. piezoceramic electroacoustic transducer, reson. freq. 10578
  rect. piezoceramic resonator, AM filter appl. *(Japanese)* 39089
  resonators, microcontroller timing, LV operation 39085
  RF-magnetron sputtering of piezoelec. PZT actuator films 28851
  rotary US motor model, perform. prediction, distributed piezoceramics 36198
  shape memory boundary conditions 28888
  smart material hysteresis, Preisach modeling and compensation 37546
  underwater displacement meas., acoustic reson. freq. 42922
  US atomizing device, coupled-mode vibr. 4428
  US NDT of adherent area, metal/nonmetal surfaces 453
  vibr. gyroscopes, solid state rot. sens. 9861
  PCM/PVDF composite film, dielec./piezoelec. props. 22662
  PLZT ferroelec. ceramic cathode technol., electron emission from bulk material 21791
  PLZT, ferroelec. ceramics, non-lin. behavior, micromechanical theory 37551
  PLZT ferroelec. thin film capacitors, DRAMs, polariz. loss, elec. stress params. 37752
  PLZT thin film capacitors, CMOS ULSI DRAM appls., post proc. damage 21310
  PLZT thin-film decoupling capacitors for MCMs 29737
  PLZT thin-film decoupling capacitors for MCMs and ICs 12842
  PZT ceramic substr., BGS wave resonators 14087
  PZT disk plates, multimode coupling vibr. in piezoelec. ceramics *(Chinese)* 30620
  PZT multilayer electromechanical actuators, fab. and charactn. 39111
  PZT piezoceramics, ferroelec. actuator/sens. materials, driving field/temp. effects 30570
  PZT piezoelec. ceramics, capacitance, dyn. meas. 39050
  PZT, piezoelec. patch actuators, integrat., design 30599
  PZT piezoelec. torsional actuator, high dielec. const. ceramics 39112
  PZT porous ceramics, prep. and elec. props., echo sounder transducers *(Korean)* 35365
  PZT sens.-actuator, truss struct. integrity ident. 34467
  PZT, surface-acoustic-wave atten., mech./dielec. losses 39052
  PZT thin films, donor doping, leakage resist. control 13992
  PZT:Nb transducers, sound wave vel. and Tawfik percentage 26786
  PZT/PVDF composite film, dielec./piezoelec. props. 22662
  PZT(PMN) ceramic-metal composite actuators 39113
  $PbMg_{0.3}Nb_{0.6}O_{0.3}$, ferroelec. actuator/sens. materials, driving field/temp. effects 30570
  $Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$ solid solns., piezoelec./mech. props. 30564
  $PbMgNbO_3$-$PbTiO_3$ ceramics, domain walls, piezoelec. and electrostrictive props. 22663
  $PbNi_{1/3}Nb_{2/3}O_3$-$PbZrTiO_3$-$PbTiO_3$, piezoelec. actuator 39093
  $PbTiO_3$, surface-acoustic-wave atten., mech./dielec. losses 39052
  $Pb(Zr,Ti)O_3$, micro mobile robot, swimming expt. 30519
piezoelectric actuators
  appl. possibilities *(German)* 11221
  automobile suspen., piezoelec. actuator/sens.-based 5372
  bipolar HV amp. for precision piezodrive 14078
  ceramic material systs., boundary conditions for shape memory 28888
  cylindrical shell vibr. control 34333
  digital actuator, max. bit enlargement 39097
piezoelectric actuators continued
  elec. machine act. vibr. control, piezoelec. actuator-based, simul. 36090
  EM cycloid motor, EM lin. actuator *(Japanese)* 44086
  face plate effects on surface displacement profile in 2-2 piezoelec. composites 13987
  far-field sound radiation, act. control 10576
  gripper force control, piezoelec. actuator-based *(Japanese)* 44253
  IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
  micro mobile robot in water, mechanism and swimming expt. 30519
  micro-mobile mechanisms, thermal expansion 36494
  micromechanical actuator syst., mag. fluid-based *(Japanese)* 44087
  modal shapes meas. of inhomog. cantilevers, opt. deflection 25974
  Moonie piezoceramic actuator, geom. nonlin. anal. 14075
  nano-indenters, high-accuracy, using electrostatic force 12244
  NEC multilayer piezoelec. actuator, develop. *(Japanese)* 5168
  open-loop control, precise positioning *(Japanese)* 39072
  piezoceramic lin. motor, flexible space struct. control 4995
  piezoelec. US motors 30596
  primary-on-slider type, multi DOF plane actuator expts. *(Japanese)* 11225
  PVDF, piezoelec. bimorph actuators, force improvement 39109
  quartz piezoelectrically-operated opt. chopper, micromachining, sens. appls. 30597
  RF-magnetron sputtering of piezoelec. PZT actuator films 28851
  solid-state actuators, periodic forces cancellation 30755
  TW US motor actuated servo drive, fuzzy control 11091
  Z-cut quartz piezoelec. microactuator, large pseudo-static displacement 13908
  PMN-PSN based solid soln. ceramics, electrostrictive actuators 39095
  PZT multilayer electromechanical actuators, fab. and charactn. 39111
  PZT piezoelec. actuator, fab. *(Korean)* 14076
  PZT, piezoelec. patch actuators, integrat., design 30599
  PZT piezoelec. torsional actuator, high dielec. const. ceramics 39112
  PZT sens.-actuator, truss struct. integrity ident. 34467
  PZT stack act. member, power consumption charact. 30598
  PZT/ZnO piezoelec. actuator, mech. response, gases reduction 34608
  PZT(PMN) ceramic-metal composite actuators 39113
  $PbNi_{1/3}Nb_{2/3}O_3$-$PbZrTiO_3$-$PbTiO_3$, piezoelec. actuator 39093
  Si MEMS piezoelec. microactuators, nanoindentation charactn. 13914
piezoelectric ceramics *see piezoceramics*
piezoelectric devices
  see also crystal filters; crystal resonators; piezoelectric actuators; piezoelectric motors; piezoelectric transducers
  acoustic-EM piezoelec. waveguide coupler 6924
  axisymmetric, numer. simul. 14077
  BAW composite resonator *(Chinese)* 14083
  cantilever beam state meas., distributed PVDF film sens. 42775
  chopper for modulation-type pyroelec. IR detector 42802
  color-LCD backlight inverters utilizing piezoelec. transformer *(Japanese)* 7405
  compact cryogenic scanner for scanning probe microscopies 39071
  micromachined piezoelec. benders, dyn. deflection and capacitance 30603
  multilayer piezoelec. ceramic transformer for power supply 12854
  nonlin. behavior correction in SYM/AFM 39070
  opt. chopper, quartz micromachining 30597
  PBFA, pulsed ion and neutral beam power dens., piezoelec. stress gauge meas. 26086
  quartz bulk piezoelec. odour sens. array, coating materials 34450
  quartz cryst. mount design optim. via holographic interferometry 39073
  ring-type piezoelec. ceramic US motor characts. *(Korean)* 27766
  tactile inform., laterally moving, display 43374
  thermoset hardening, elec. impedance meas., piezoelec. sens. 5929
  transformers and structs., controller design 30621
  transverse surface wave propag. on piezoelec. substr., modelling 30608
  vibrs. of piezoelec. body, thermal dissipation effect 30609
  InGaAs-GaAs 111 strained layer piezoelec. QWs, electronic struct. and field screening effects 13192
  PZT phase modulators in opt. fiber sens., transfer fns. 34523
  PZT thin ferroelec. films, dyn. deform. sens. 25794
  Si micromechanical resonator, struct. and perform. 13912
piezoelectric effects *see piezoelectricity*
piezoelectric filters *see crystal filters*
piezoelectric materials
  see also piezoceramics; piezoelectric semiconductors; piezoelectric thin films; piezoelectricity
  ceramic-polymer composites, HF appls. 6921
  face plate effects on surface displacement profile in 2-2 piezoelec. composites 13987
  frequency control, symp., Salt Lake City (Jun. 1993) 34
  frequency control symp., Boston, MA, USA (Jun. 1994) 28221
  high-Q piezoelec. materials and BAW/SAW resonator devices, advances 39046
  induced strain-actuated struct., FEA 6915
  langasite etching and chem./mech. polishing 30581
  metric for resonator materials eval. 30574
  polyurea films, pyroelec./piezoelec. 6903
  PVDF metal/polymer interface, dielec. breakdown 13961
  α-quartz, facets, charging, SEM anal. 14000
  quartz, hydrothermal cryst. growth 13994
  quartz, piezoelec. composite microcantilever for accelerometer appls. 30605
  α-quartz, SAW, extreme press.-sensitive cuts 30645
  quartz cryst. growth technol., platinum vessel 5808
  quartz crysts. etching and chem. /mech. polishing 30581
  quartz crysts. impurities conc. determ., IR spectrosc. 34730
  quartz reson. sens., develop., FEM 9848
  sonar future transducers, transduction materials modeling 9662
  surface sources of piezoelec. transduction 25819
  $AlPO_4$, bulk wave propag. and energy trapping 30578
  $(BaSr)TiO_3$, elec. field biased ferroelec., electromechanical response, polariz. 39045
  $GaPO_4$ and $La_3Ga_5SiO_{14}$ crysts. and resonators study, X-ray topography 30577
  $GaPO_4$, bulk wave propag. and energy trapping 30578
  InGaAs-GaAs strained quantum well SEL 31392
  $KNbO_3$ crysts., electro- and acousto-optic props. 30555
  $La_3Ga_5SiO_{14}$, bulk wave propag. and energy trapping 30578
  $La_3Ga_5SiO_{14}$, langasite, growth and opt./piezoelec. props. 30576
  $Li_2B_4O_7$, Bridgman grown, defects and SAW appl. 30634
  $Li_2B_4O_7$, long. leaky surface waves with high phase vel., SAW devices 14091

piezoelectric materials continued
$Li_2B_4O_7$ natural single phase unidirectional SAW transducer, cryst. orient. 6928
$Li_2B_4O_7$ promising material for BAW filters 30582
$Li_2B_4O_7$ single cryst. growth, CZ method 30579
$Li_2B_4O_7$ substr. SAW devices 30637
$LiTaO_3$ single crysts. for SAW device appls. 14093
PMN ferroelec. relaxors, inhomog. dyn. strain charact. 30563
PMN-$PbTiO_3$ ceramic relaxors, high-field electromechanical props. 30560
PZT ferroelec. relaxors, inhomog. dyn. strain charact. 30563
PZT, film, sputtered, poling effect on dielec. props. 39043
PZT, laser ablation deposition 431
PZT/$YBa_2Cu_3O_{7-\delta}$ heterostruct., laser ablation deposition 431
$(Pb,La)(Zr,Ti)O_3$ thin-film capacitors, imprint/O deficiency 30619
$Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$-$SrTiO_3$ ferroelec. relaxor, dyn. strain response 39051
ZnO, piezoelec. composite microcantilever for accelerometer appls. 30605
ZnO waveguiding piezoelec. films, microstructural and opt. charact. 39435

piezoelectric motors
see also ultrasonic motors
EM cycloid motor, EM lin. actuator *(Japanese)* 44086
long. composite vibrs. 11086
micromechanical actuator syst., mag. fluid-based *(Japanese)* 44087
micromotors, PZT ferroelec. thin film appls. 44091
piezoceramic lin. motor, flexible space struct. control 4995
piezoelec.-driven inertial slider based STM 6926
reson. piezoelec. motor, struct./characts., gearing *(Japanese)* 11083

piezoelectric oscillations
see also crystal oscillators
AT-cut piezoelec. spherical lens elements 1564
axisymmetric piezoelec. devices, numer. simul. 14077
bar, N-electrode piezoquartz, thermally excited, dyn. problem 4422
discs with elastic addits., vibr. anal. 26789
piezoceramic resonator anal., inplane fork-mode vibr. *(Japanese)* 14086
quartz bulk piezoelec. odour sens. array, coating materials 34450
quartz cryst. resonator stabil., electrode metallization barrier layer 39075
structurally chiral medium, piezoelec. wave prop. 13986

piezoelectric resonators *see crystal resonators*

piezoelectric semiconductor materials *see piezoelectric semiconductors*

piezoelectric semiconductors
semicond. quantum-wire heterostruct., strain and piezoelec. fields 29902
GaAsP/AlGaAs strained-layer quantum well, opt. props. 23001
GaN-AlN-GaN strained piezoelec. struct., I-V charact. 22084
InGaAs/GaAs piezoelec. MQWs, nonlin. opt. response, screening, and strain 15081
InGaAs/GaAs strained [111]-oriented MQW, carrier and screening dyn. 29905
$In_{0.20}Ga_{0.80}As$/GaAs MQW, strain and piezoelec. fields 29901
n-InSb, freq. tuning prop. of HF nonlin. acoustoelec. oscills. 30566

piezoelectric thin films
BAW composite resonator *(Chinese)* 14083
DC biased RF PECVD 1558
ferroelec. ceramics piezoelec. responses, interferometric meas. 22667
refined (3,1) drive LF piezofilm hydrophones 26793
RF-magnetron sputtering of piezoelec. PZT actuator films 28851
ruby on sapphire, integrated thin film stress sens., epitaxial regrowth 17749
$LiNbO_3$ epitaxial films, pulsed laser deposition, SAW props. 20863
PCM/PVDF composite film, dielec./piezoelec. props. 22662
PZT piezoelec. thin films deposited on Si 6914
PZT/PVDF composite film, dielec./piezoelec. props. 22662
PZT/$YBa_2Cu_3O_{7-\delta}$ heterostruct., laser ablation deposition 431
$(Pb,La)(Zr,Ti)O_3$ thin-film capacitors, imprint/O deficiency 30619

piezoelectric transducers
see also interdigital transducers
(3,1) drive multifilm piezopolymer hydrophone 18934
acoustic params., piezo-elec. telephone, Monte Carlo method *(Japanese)* 33675
acoustic transducer for undersea use, cooling 18885
air bags, piezoelec. sens. in automobiles 28150
ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
automobile suspen., piezoelec. actuator/sens.-based 5372
bar, N-electrode piezoquartz, thermally excited, dyn. problem 4422
bimorphs, force meas. in colloidal systs. 18114
ceramic-polymer composites, HF appls. 6921
charge amplifiers for piezoelectric sensors 26790
circ. shaft, dyn. response, piezoelec. sens. 9890
composite vol. acoustic wave resonators, freq. control 39120
cylinder, 1-3 composite, hydrostatic press. response 14081
discs with elastic addits., vibr. anal. 26789
eight-element fibre optic magnetometer array, undersea perform. 3865
elastic force motors, speed control of integrated piezoelec. sens. 36206
electrolum. coupled opt. fibre chem. sens. 17889
face plate effects on surface displacement profile in 2-2 piezoelec. composites 13987
far-field sound radiation, act. control 10576
fast-reponse ultrasonic distance sensors, neural nets appl. 26800
finite piezoelec. transducers mounted in a baffle, acoustic radiation 43557
flextensional transducers, piece-part equiv. cct., modes, antires. freq. 14080
foot press. meas. syst. utilising piezoelec. film transducers 26277
frequency control, symp., Salt Lake City (Jun. 1993) 34
goods vehicle enforcement weighing syst. 3724
inclined transducer, directivity, contact region dimens. influence 21004
large-area US gap profile meas., 2D PVDF blanket array transducers 18946
liq. level sens., thin walled vibr. cylinders 17745
mag. gas spring, vert./horiz. transfer fn. meas. 25813
mag. suspen., PM/lin. actuator reluctance control-based 28127
mass flow meas. by PZT AE sens. 10067
microdynamic gyroscope develops. and appls. 9859
ocean acoustic tomography barrel stave transducer 10573
photoelastic modulator of light, opt. feedback 14566
piezocomposite US transducers, transient acoustic fields, opt. imaging 18932
piezoelec. ceramic fiber/polymer composites, transducer appls. 22661
pipes, propag. acoustic press. meas. by piezofilm sens. 4024
polycryst. diamond press. sens., fab., props. 34456
polymer transducers, indust. appls. 34453
porous piezoceramics, dyn. fluid compressibility/permeab. 18927
pulsed piezoelec. disk with damper, directivity patterns calc. 35373
PVDF piezoelectric sensors, structural engineering appls. 25799
PVDF stress gauge, fast press./shock effects meas. 42764

piezoelectric transducers continued
PZT-5A piezoelec. tube scanner for STM 9896
rect. piezoceramic electroacoustic transducer, reson. freq. 10578
refined (3,1) drive LF piezofilm hydrophones 26793
robot motional perform. measuring systs. *(Japanese)* 10026
sandwich US transducers with large cross sect., design 43558
scanning force microscope, piezoelec. excitation/detect. 25822
shear piezoelec. vibr. pickups 3811
sonar future transducers, transduction materials modeling 9662
stress transducers, shock loading/unloading, piezoresistance gauges 34443
struct., foreign obj. impact ident., distributed sens. 10038
structurally chiral medium, piezoelec. wave prop. 13986
tactile sens. syst., piezoresistive for robots 17735
thickness mode quartz transducers, mounting effect on vibr. charact. 35371
underwater displacement meas., acoustic reson. freq. 42922
underwater sound, refl. coeff. control, piezoelec. materials 26795
US deform. of crysts. obs., near 100 kHz 35376
US piezoelec. microphone charact. meas. *(Croatian)* 4419
US piezoelec. microphone charact. simul. and exam. *(Croatian)* 4418
US piezoelec. transducer array elements, general approximated 2D model 35366
US transducer array, CMOS IC proc. 10577
vibr. gyroscopes, solid state rot. sens. 9861
$LiNbO_3$ acoustic superlattice, growth/transducer props. 13995
PZT porous ceramics, prep. and elec. props., echo sounder transducers *(Korean)* 35365
PZT:Nb transducers, sound wave vel. and Tawfik percentage 26786
PZT-polymer composites, piezoelec. transducer, design 6922
$PbZr_{0.53}Ti_{0.47}O_3$:Ca transducers, acoustic props. 30633
Si piezoelec. sens. for robots, analogue proc. 3787
Si piezoresistive press. sens., electro-elastic simul. 42778
Si wafer stress test chip, piezoresistive sens. rosettes 18111

piezoelectric ultrasonic motors *see ultrasonic motors*

piezoelectricity
see also electrostriction; piezoelectric devices; piezoelectric materials; piezoelectric oscillations
ferroelec. ceramic-polymer composite, piezoelec./pyroelec. 6906
ferroelec. ceramics piezoelec. responses, interferometric meas. 22667
ferroelec. thin films, ferroelec.-opt. memory 14082
ferroelec.-opt. memory on ferroelec. thin films 30836
material consts. determ., resonator method, IEEE Standard 30580
opp. charged electrode pair, Rayleigh wave excitation 13989
poly-p-phenylene sulfide films, space charge, elec. breakdown 14031
stress induced opt. activity in piezoelec. crysts. 30575
transverse surface wave propag. on piezoelec. substr., modelling 30608
vibrs. of piezoelec. body, thermal dissipation effect 30609
vinylidene fluoride-trifluoroethylene copolymer films, electrostriction 39060
AlAs/GaAs/As(001) double barrier reson. tunnelling struct., piezoelec. effects 29924
GaAs MESFET, piezoelec. act. defects, impact modelling 13793
GaN-AlN-GaN strained piezoelec. struct., I-V charact. 22084
GeO_2-SiO_2 opt. fibres, lin. electro-optic effect meas. 7278
$Hg_{1-x}Cd_xTe$, hole scatt. mechanisms 13063
InGaAs/GaAs(111)B strained MQW, piezoelec. field 1085
$KNbO_3$ crysts., anisotropy of acoustooptic effect 1648
$SrBaNb_2O_6$ photorefr. holographic grating writing and readout by applied elec. fields 40154

piezomagnetic effects *see magnetomechanical effects*

piezooptical effects *see piezo-optical effects*

piezoresistance
see also piezoresistive devices
diamond, electronic/sens. props., review 6520
polycryst. diamond press. sens., fab., props. 34456
polymer films, ion implanted, piezoresistivity, sens. appls. 28878
stress transducers, shock loading/unloading, piezoresistance gauges 34443
C:B CVD film, piezoresistive effect 29845
n-Ge, extremely strained crysts., nontrivial transport phenom. 38231
Ge:Ga, hole lifetime, uniaxial stress depend. 38240
n-Si, extremely strained crysts., nontrivial transport phenom. 38231

piezoresistive devices
cantilevers, at. force/SEM 6899
diamond, polycryst. double layers, high temp. sens. 34441
humidity sens., design, simul. and metrological charact. 3795
indust. thick film press. sens./transducers, develop. *(Slovenian)* 34446
jn. field effect-press. Halltron, sensitivity anal. 25815
micro-torque sens., differential force meas. based 34478
piezoresistor fabricated by high energy ion implant. 25823
polycryst. diamond press. sens., fab., props. 34456
strain gauges, integrated instrumentation amp. 17732
stress transducers, shock loading/unloading, piezoresistance gauges 34443
tactile sens. syst., piezoresistive for robots 17735
wafer-level calib. of stress sens. test chips 17748
Si membrane resonators realized with bipolar IC technol., US transducer appls. 35369
Si microelectronic sens. 34440
Si piezoresistive circ. diaphragm sens., low-press. meas. 34491
Si piezoresistive press. sens., electro-elastic simul. 42778
Si, piezoresistive press. sens., high-press. meas. 34490
Si piezoresistive stress sens., thermally induced errors 34472

piezoresistors *see piezoresistive devices; resistors*

piles (nuclear fission) *see fission reactors*

PIN diodes *see p-i-n diodes*

pin grid arrays *see packaging*

PIN photodiodes *see p-i-n photodiodes*

pinch effect
see also reversed field pinch; Z pinch
400 kV distrib. substations, conductor short-cct. effects simul. 19281
high current pseudospark switch, pinch plasma devices 36397
INPIStron dense plasma pinch pulsed power switch 36464
power line short-cct. mech. effects, IEC 865 calc. studies 19311
Si p-n jn., secondary breakdown, pinch effect 13102

pincushion distortion *see aberrations*

pipe diffusion *see diffusion*

pipeline arithmetic
2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
2D DCT/IDCT VLSI, fully bit-serial archit. *(Korean)* 21367
CMOS 16 bit multiplier, async. logic design techs. 21295

pipeline arithmetic continued
CMOS chip set for pipeline and parallel pipeline FFT archits. 21357
CMOS high speed pipelined multiplier-accumulator 12579
CMOS VLSI array proc. for basic arith. operations, redundant no. syst. 29265
CORDIC array struct. for implement. of DCT 21359
DCT IC chip design using RNS 21345
digit pipelined discrete wavelet transform 29381
fast VLSI systolic array for large modulus residue addit. 21245
FFT, 8192 complex points, single-chip implement. 21377
FIR filters using pipelined multipliers, FPGA implement. 21441
FPGA implement. of ANNs, med. expert syst. appl. 29509
IIR digital filter struct., stable pipelined config. 764
inner-product proc., area efficient, VLSI implement. 12562
parallel multiplier implement. 6061
parallel pipelinable VLSI archit. for finding max. binary no. 627
polynomial GCD computation, finite field division, VLSI array synthesis 12570
QRD-RLS/STAR-RLS adaptive filters, fixed/floating point error anal. 32700
self-timed adder with pipelined output, design, CMOS implement. 6064
systolic multipliers/digital filters, sig. flow-graph 12485
systolic VLSI implementation of Galois field arith. algm. 22569
table-lookup for binary/residue and residue/binary conversions 6196
wave-pipelined 8×8 b multiplier in CMOS technol., design and realisation 29139

pipeline processing
see also pipeline arithmetic
1D fully pipelined VLSI archit. for DFT 682
2D DCT systolic archits. based on CORDIC techs. 12573
2D digital filters implement., matrix decomp. 32674
2D systolic array proc. design *(Korean)* 681
4-Mbit sync. DRAM for multimedia eqpt. *(Japanese)* 21298
32-bit RISC proc., embedded control systs., CMOS VLSI implement. *(English)* 37795
100 Mips event controlled ALU for asynchronous μP 29122
A/D converters, self-calib. method 713
adaptive correl. based tracking algm. 16281
ASTRX/OBLX tools for analog cct. synthesis, pipelined ADC appl. 28940
asynchronous design methodologies, overview 6142
ATM terminal adapters, interleaved/non-interleaved pipelining 33587
bi-level image high speed codec, architectural design 9124
BiCMOS pipelined A/D converter using current-mode sigs., LV design *(Korean)* 12590
BiCMOS ULSI video sig. proc. for single chip teleconferencing syst. 34432
charge-balancing A/D convertor 25757
CMAC neural nets, archit. design, hardware implement. 29468
CMOS 10 b, 20 MS/s, 35 mW pipeline A/D converter 29308
CMOS 1.2 GIP general purpose digital image proc. 21374
CMOS A/D converters, SC vs. SI techs. 21384
CMOS adaptive equalizer for partial-response channels 29246
CMOS adaptive equalizer/Viterbi seq. detector, Class IV PRML 21156
CMOS array proc. for digital image compression 29247
CMOS expandable sorting engine, rebound sorting algm., pipelining scheme 12559
CMOS five-stage pipelined FFT proc. chip 12578
CMOS high-speed VLSI pipelined proc. design for lossless image data compression 29274
CMOS LSI archit., ultra-high speed error correction, majority decoding 29200
CMOS parallel-pipelined ADC, 85 mW, 10 b, 40 MS/s 29309
CMOS pipeline ADC, 10 bit, 20 MS/s, 35 mW 29316
CMOS pipeline current mode ADC, redundant signed digit algm. 29329
CMOS RISC proc., 500 MHz, 32 bit, 0.4 μm design 6180
CMOS SRAM macro with current sens. scheme, 400 MHz, 300 mW, 8 kb 29222
CMOS video ADC with decimated parallel archit., 85-mW, 10-bit, 40-Ms/s 29315
CMOS VLSI predictive tree-searched vector quantizers for real-time video compression 29276
common buffer archit. for memory based switching systs. 33716
commun. sig. proc., complex arith. proc. archit. 29239
complexity eval. of digital cct. simulators 480
continuous speech recogn., hidden Markov methods *(Japanese)* 15811
contour interpolation, morph., image space algm. 16351
controller, fuzzy, pipeline custom design 650
DCT chip, VLSI archit., 100 MHz, 0.8 μm CMOS implement. 6187
DCVS logic, std. CMOS cell design for testable self-timed systs. 29203
delayed LMS transversal adaptive filter vectorization 741
digit pipelined discrete wavelet transform 29381
distributed logic simul., test environ. 12496
DSP real-time implement. on multiprocessors, CAD environ. 12584
error correcting decoder implemented, digital neural net 8152
extraction chip for high speed OCR *(Korean)* 24678
facsimile high-speed image codec 16946
FIR decimators and interpolators, systolic implement. 751
FIR decimators and interpolators, systolic implement. 6226
global operations in affine space-time mapping, real-time sig. proc. appls. 32596
HDTV, parallel divide-and-conquer video decompression 42599
heuristic transform. techs. for simultaneous optim. of latency/throughput 29261
high sample rate archits. for median filters 29379
high-level DSP synthesis, concurrent algm. 37793
high-level DSP synthesis using concurrent transforms., scheduling, and allocation 21363
high-level synthesis syst. for automatic generation of pipelined datapath *(Korean)* 12386
high-speed staged decoder VLSI systolic archit. 40586
high-speed time-to-digital converter 9841
Hough transform chip-set, config., CMOS implement. 29269
IIR digital filters, design/implement. 37879
IIR digital filters, time-domain pipelining tech., stabil. 6225
image manipulation, real-time, FPGAs 24725
image proc./computer vision systs. characts. *(Japanese)* 32931
image seq. coding algms., parallelising method 2811
JAGUAR, pipelined VLSI archit. for JPEG image compression 21341
level-1 calorimeter trigger syst. for LHC 26249
logic simul. accel., data flow archit. 21060

pipeline processing continued
lossy sig. compression archit., single-chip implement., ECG data 29275
massively parallel sig. proc. archit. based on response of retina cells 32824
MC68060 μP, superscalar archit. 37783
median filter, polarizing/sorting, architectural implement. 8392
micropipeline asynchronous digital logic design, systolic arrays, DSP appls. 29124
modular data conversion archits. and functional building blocks 700
monolithic pipelined ADCs, digital correction archit./algm. 37817
motion estim. VLSI proc., block matching algm. *(Korean)* 37789
MPEG2 codec, video DSP archit. 33699
MPEG2 real-time codec, video DSP appl. *(Japanese)* 25165
MPEG audio decoder chip 37788
multistreaming RISC proc., VLSI, pipeline execution 2846
nanomechanical helical latch, Boolean logic operations 6872
neural network emulator, appl.-specific VLSI commun. proc. 29472
neural network multiprocessors, dyn. reconfig. pipeline archit. 12677
next-generation μP running x86 appls. 12572
NIM ADC, fast VMEbus interface 26237
NORA dyn. logic cct., technol. ,mapping algm. 21197
opt. Chinese character recogn., prog. accelerating chip 24543
order stat. algm. for rank order/stack filters 29380
power syst. load flow calcs., floating point DSP 26890
radial basis fn. neural networks, CMOS archits. 29498
radial fns. hardware generator for neural comps., VLSI design 29507
radio linked pipelined automatic meter reading scheme 35692
rank order filters, sorting network-based archits. 754
rate-distortion optimized motion estim. archit., variable block matching 8570
real-time image generation *(Chinese)* 41283
recursive scaled DCT algm., ASIC implement. 16080
RITE algm., pipelined regular array proc. implement. 8370
RLS estim., systolic array, formal derivation 28659
running bispectra computation and implement. 40849
simul.-based proc. verification, automatic program generator 17663
single proc. array for pipelining multiple SVD 32459
STC104 packet routing chip for parallel systs. 29290
systolic freq. dividers/counters, cct. implement. 620
thermal logic ccts. 6119
throughput/resource utilization optim., transform. 12583
time-delay neural networks, systolic computation scheme 6268
tri-array VLSI archit. for higher order moment estim. comp. 29294
two scan algm. implement. on systolic array/multicomputer 12569
updating rate of Jacobi SVD arrays and data nonstationarity 32477
V810 CMOS 32-bit RISC μP, 0.9 V, 2.5 MHz 37811
variable data initiation intervals, pipeline struct. synthesis *(Korean)* 28934
video DSP, pipeline archit., MPEG2 CODEC 8664
VLSI archit. for motion estim. algms. 12580
wave-domino logic, theory and appls. 21278
GaAs high perform. comput. and commun., ARPA research 38957

pipes, cable *see electric conduits*

piracy, software *see computer crime*

pitch detection *see acoustic variables measurement*

PIXE *see ion microprobe analysis; X-ray chemical analysis*

PLA *see programmable logic arrays*

planar waveguide lasers *see waveguide lasers*

planar waveguides
see also coplanar waveguides; optical planar waveguides
10 GHz Vivaldi antenna microstrip-to-slot-line transition 31941
ferrite-loaded multilayer planar line 2D-FDTD dispersion anal. 23811
ground-plane-backed planar slot antenna expt. and calc. 23911
microstrip transm. line, ps pulse propag. 40387
oblique surface waves on planar periodic slotted waveguides 22683
open planar waveguide screens, EM waves scatt. 15593
passive and act. slot line ring antenna design and meas. 23913
plasma waveguide, surface waves self-action 2240
refr. index profile, shift formula method 802
spiral systs., waves of const. radial phase vel. 8013
static anal. using measured eqn. of invariance 23751
supercond. waveguides in DC mag. field 37937
T jns. matching, symm. wedge-shaped baffle 15559

planetaria *see astronomical instruments*

planetary bases, power supply *see space power generation*

planetary vehicles, power supply *see space power generation*

planetoids *see asteroids*

planimeters *see area measurement*

planning (artificial intelligence)
see also path planning
civ. aviation flight decks and ATC, interface mgt. 26536
disabled pers. aiding by intell. robotic systs. 35173

plants (industrial) *see industrial plants*

plants (power) *see power plants*

plasma
see also antennas in plasma; plasma applications; plasma-beam interactions; plasma confinement; plasma devices; plasma diagnostics; plasma heating; plasma interactions; plasma production; plasma properties; plasma sheaths; plasmons; relativistic plasmas; solid-state plasma
alumina/vac. interface, pre-flashover lumin. 13948
E-region irregularities, radio scintillation studies 40328
HF ionos. pulse propag., electron dens. fluct. effects 23622
high-lat. bottomside F region, high freq. ducting 40355
ionos. electron beam injection, assoc. radiowave absorpt. 7970
ionos. electron distrib., tomographic imaging 10465
ionos. model assisted tomography algm. 10464
ionos. plasma line studies, coded long pulse tech. appl. 43505
ionos. radio tomography, max. entropy 43479
ionos. with inhomogeneities, vert. radio sounding 43502

plasma accelerators *see collective accelerators*

plasma applications
see also plasma arc spraying; plasma deposition; plasma devices
arc welding robot, TGZ-LNG membrane sheet appls. *(Japanese)* 28195
compact ECR plasma syst., fab. and charactn. *(Korean)* 13332
corona discharge-electron beam combustion FGD 19495
downstream plasma proc., selective etch and procs. 13338
electro-technologies for waste processing, IEE Colloquium, London (1994) 5461
electronic materials, plasma processing 22190
EM launcher plasma pulse-based metal surface treatment 15337

plasma applications continued
etching, chamber wall, UV-absorpt. spectrosc. 22186
etching, helicon/ECR sources, Langmuir probe diagnostics 22194
etching, helicon/multiple ECR sources 22193
etching, helicon/multiple ECR sources, ion flux 22195
flat pack flux-free soldering proc. for PCBs 12937
flue gas metal hazardous air pollutants determ. 18913
gaseous organic cpds., low temp. discharge plasma proc. 13941
glass fiber reinforced composite insulator, plasma surface treatment *(Korean)* 28874
hard rock fragmentation, pulsed power plasma blasting tech. 36811
hazardous pollution control, pulsed power accelerator appls. 36815
high-current electron source, plasma emitter 18294
ICP etching, electron source and ion flux uniformity 13402
ion beam surface treatment, ion diode design 13346
ion implant., pulsed power modulator totem pole drive 36804
ion implanters, pulse power modulator design optim. 36803
laser-plasma x-ray source target materials, x-ray lithog. appls. 6691
materials processing, microsecond plasma opening switch appl. 27851
metal ion vacuum arc plasma source, ion implantation appls. 26107
mining plasma blasting appls., 1 MJ pulsed power studies 36812
MOS diode, Na contamination free ashing, O_2+H_2O plasma downstream 22234
n-MOSFET with thin gate oxide, plasma-induced transconductance degrad. 30357
oxide etching, surface wave coupled plasma 22163
PASOTRON amplifier experiments 21822
photoresists, charge effect, indust. plasma proc. 13469
plasma source ion implant., cost estim. 22148
polymer surface, plasma modif., adhesion, review 440
polysilicon p-channel TFTs, ECR hydrogen plasma passiv. 6771
polysilicon TFT, plasma hydrogenation effects *(Korean)* 30348
power syst. lightning protection, laser-generated plasma-based 27261
Procyon explosive pulsed power syst. review 36253
pulsed, intense ion beams for thermal surface treatment 13345
pulsed power beam switch tube modulators, plasma ion implant. appls. 36404
PWB testing, laser-induced plasma as cond. pathway 6405
RF discharges, low press., for lighting 28164
spacecraft engine, microexplosion ignition by head-on collisions 43456
surface proc., plasma technol., symp., London (Mar. 1995) 36884
toxic liq. waste treatment, plasma pyrolysis 28205
X-ray sources based on subpicosecond-laser-prod. plasmas 10162
$e\gamma$ and $\gamma\gamma$ colliders, plasma lens form. 26068
$e\gamma$ colliders, plasma lens appl. 26069
$e\gamma$ colliders, plasma lens appl. 43024
Al-reflow proc., surface modif. by ECR plasma treatment 22261
AlGaAs/GaAs SQW, plasma cleaning, photolum. studies 1139
CO_2, IR lasers, high power, plasma supported proc. 15193
Cu surface/interface modif. for IC appls. 38647
GaAs, modulated RF plasma etching, Langmuir probes 13406
InGaP and InGaAlP, influ. of H plasma treatment on reverse currents 38809
NH_3 removal from gases, semi-wet type plasma reactor 43534
NO removal from gases, semi-wet type plasma reactor 43534
NO_x removal from gases, semi-wet type plasma reactor 43534
Si-SiO_2-Al structs., RF plasma treatment, radiation-thermal hydrogenation 22090
SiO_2 thin films, plasma nitridation, electron beam irrad. 22253

plasma arc sprayed coatings
metallic substr. tubular SOFC, flame coated 44328
SOFC anode layers, vac. plasma spraying prod. method 44317
SOFC components prod., vac. plasma spraying appls. 44316
SOFC element fab., vac. plasma spraying proc. 44315
space power thermionic heat pipes, work fn. tests 26623
Si films, microcryst./amorph., RF plasma spray/ion beam deposition 5856

plasma arc spraying
metallic substr. tubular SOFC, flame coated 44328
SOFC anode layers, vac. plasma spraying prod. method 44317
SOFC components prod., vac. plasma spraying appls. 44316
SOFC element fab., vac. plasma spraying proc. 44315
space power thermionic heat pipes, work fn. tests 26623

plasma ashing *see sputter etching*

plasma-assisted CVD *see plasma CVD*

plasma beam injection heating
fusion reactor NBI beam direct converter, varying mag. field 11133
neg. ion NBI syst., energy recovery 44424

plasma-beam interactions
used for plasma-particle beam interactions
see also plasma beam injection heating
beam-plasma oscillator, sig. stochastization mechanism 994
coaxial electron beam, cyclotron harmonic wave growth 37934
electron beam, relativistic, refl. by virtual cathode 29792
electron beam propagation, welding and materials processing appls. 11508
FEL plasma undulator constr. 39968
high-power wideband beam-plasma microwave amps./generators 974
ion-ripple laser kinetic theory, beam long. momentum spread 2015
spacecraft, environment critical vel. ionisation 10308
travelling wave tubes, collective effects, theoretical anal. 6515
weak warm beam instabil. meas. 29801

plasma Bernstein waves
coaxial electron beam, cyclotron harmonic wave growth 37934

plasma chemical vapour deposited coatings *see plasma CVD coatings*

plasma chemical vapour deposition *see plasma CVD*

plasma confinement
see also magnetic traps; pinch effect; plasma focus; plasma inertial confinement; plasma toroidal confinement
2 kV 10 kA pulsed GTO bridge fusion power supply 5128
augmented PM railgun, plasma armature behaviour 15356
cylindrical microwave ion source, magnet syst. calc. 4138
ECR source, multiple-ionization effect on charge-state distrib. 34851
JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
RF hollow cathode etching reactor, multipolar confine. 22212
Wendelstein 7-X, advanced modular stellarator, supercond. coil syst. 7244

plasma containment *see plasma confinement*

plasma CVD
256Mb/1Gb DRAM develop. implications, Japanese semicond. indust. 11717
anom. solid form., exhaust systs. of LPCVD/PECVD semicond. procs. 20954

plasma CVD continued
diamond, CVD from capacitively coupled RF plasma source 20982
diamond, CVD on cubic BN, carbonaceous layer form. *(Japanese)* 37460
diamond, device quality polycryst., microwave PECVD 5866
diamond, highly oriented films on Si, growth, charact. and devices 5820
diamond, homoepitaxial thin film, plasma CVD grown *(Chinese)* 5849
diamond film, oriented, plasma CVD, carburized Si substr. 12152
diamond film, plasma CVD, surface wave discharges 28820
diamond film thermistors, fab. and charactn. 9892
diamond films, compositional and spectrosc. study 5868
diamond films, DC plasma arc tech. 20931
diamond films, enhanced oxid. etching, annealing, Mo effect 22192
diamond films, heteroepitaxy on Si via SiC buffer layers 20849
diamond films, metal/intrinsic semicond./semicond. FET 13753
diamond films, microwave plasma CVD, charactn. 6521
diamond films, plasma CVD, localized epitaxy, Si substrs. 5841
diamond films, plasma CVD, opt. emission spectra 20930
diamond films, plasma-assisted CVD, porous Si substr. 12137
diamond films, pulse modulated ECR plasma CVD 37470
diamond films adhesion on Mo/W/carburized W substrs. 37478
diamond films on stainless steel substrs., hot cathode DC discharge plasma CVD 5877
diamond membranes for x-ray lithog. masks 6688
diamond nucleation on a-SiO_2, AC bias microwave plasma CVD 12157
diamond nuclei on the Si mirror surface, DC glow discharge CVD 5834
diamond plasma CVD on heteroepitaxial BN on Si(100) 28818
diamond polycryst. films for x-ray lithog. masks 6703
diamond thin films, microwave PECVD 1019
diamond-like C coating for opt. windows, CVD deposited 1780
ECR CVD, electrostatic chuck, improved temp. uniformity 28847
ion-assisted deposition, modeling, BCA computer simul. 20924
nitride PECVD, plasma clean cycle, cost of ownership model 38607
piezoelec. thin films, DC bias RF plasma CVD 1558
polysilicon TFTs, fab., pulsed laser annealing and plasma CVD 13743
pulse-doped diamond p-channel MESFET, fab. and characts. 13778
Si_3 N_4, PECVD proc., monitor wafer based controller 37519
simultaneous spectrosc. ellipsometry/reflectance, thin-film prep. monitoring 5880
single wafer proc. integrat. for submicron struct., RTP and PECVD 22088
space power thermionic heat pipes, work fn. tests 26623
TFTs, low temp. fab., multi proc. reactor 13739
ultra-thin dielec., plasma-assisted/RTP 22167
AlGaAs/GaAs HBT passiv., sulfide solns. and SiN_x overlayer 30233
BN thin films, plasma-enhanced CVD, structural props. 20953
BN turbostratic and cubic films, ECR plasma-assisted CVD 12181
$(Ba,Sr)TiO_2$, chem. vap. deposition, DRAM appls. 12163
a-C:H films, plasma CVD, ion impact energy distribs. 402
Cu films, rem. PECVD 12161
Cu, selective copper chem. vap. deposition, proc. windows 12162
GaAs based cpds., Si diffusion, doping profile control and 2DEG form. 6627
GaAs devices, plasma-assisted passivating proc., LF noise meas. 13410
GaAs, metalorganic CVD, plasma-generated hydrogen radical effects 37480
GaAs/GaN/GaAs thin-layer struct., plasma-assisted MOCVD growth 37506
GaAs/Si/SiN_x syst. diffusion barriers, MBE 1289
MgO films, plasma-enhanced metalorganic CVD, crystallographic orient. 401
$Ni_yZn_xFe_{3-x-y}$, ferrite films, rapid plasma MOCVD 5887
a-Se, PECVD, struct., opt. props. 28828
Si, PECVD, surface reacts., FT-IR-ATR monitoring 37502
Si epitaxial layers, ECR plasma CVD, ellipsometry obs. 28721
Si, grain size and deposition rate, VHF glow discharge 423
Si high efficiency solar cells, plasma CVD 5216
Si high-efficiency solar cells, RTP 5226
Si, low-temp. polycryst. films, PECVD prep., gas flow rate effect on props. 5829
Si, plasma CVD, atmos. press. ionization mass spectrometer syst. 20976
Si plasma-treated surfaces, luminesc. props. 23006
Si, polycryst., growth from $SiF_4/SiH_4/H_2$ plasma 20937
a-Si:H PECVD growth proc., optoelectronics appl. 395
μc-Si:H, PECVD, surface morph., crystallite size 28806
a-Si:H films, ECR plasma deposition 20975
a-Si:H films, microwave plasma CVD, control of radical species *(Japanese)* 37526
a-Si:H films, plasma chem. vap. deposition, piezoelec. vibr. effects 37481
a-Si:H films, pulsed plasma CVD, deposition rate 12158
a-Si:H inverted-staggered tri-layer TFTs, fab. proc. 38860
a-Si:H plasma CVD films, H profile, DC bias/substr. table area effects *(Japanese)* 20966
a-Si:H thin film growth, mol. dyn. simul. *(Japanese)* 410
a-Si:H thin films prepared by layer-by-layer deposition 427
a-Si/Si_3N_4 TFT, PECVD nitride gate dielec. studies 13791
Si/SiO_2, MOS devices, prep. interface props. control 38611
Si/SiO_2:N, plasma action under PECVD conditions 5882
Si/SiO_2/Al MOS structs., nitrided, reoxidised, elec. charactn. 13257
SiC amorphous material appl. in Si micromachining 428
SiC wide gap films by rem. plasma CVD from organo-silicon source *(Japanese)* 37490
a-SiC:H films, plasma CVD, opt. props. 20980
a-SiC:H,F films, plasma deposition, props. 5878
a-$Si_{1-x}C_x$:H, plasma CVD, monolithic light-converters 3876
$Si_{1-x}Ge_x$ thin films, plasma-enhanced very-LPCVD 37475
a-SiGe:H films, PECVD under He dilution 5891
a-SiH, film, US assisted PECVD, in situ opt. diagnostics 28832
SiH_4:H films prod., cryogenic temps. by plasma CVD 396
SiN films, PECVD, $[(CH_3)_2N]_3SiN_3$ 20919
SiN_x, ECR plasma CVD and etching on GaSb, optoelectronic appls. 12166
SiN_x, PECVD, computational fluid dyn. model 37518
Si_3N_4:H films, rem. ECR CVD 37472
Si_3N_4/Si struct., PECVD 424
SiO_2, PECVD modeling via neural nets and genetic algms. 398
SiO_2 PECVD, neural network based modelling 37415
SiO_2 advanced planarization by SiO_x PECVD/SiH_4-H_2O_2 CVD combination 37479
SiO_2 core low temp. low loss PECVD channel waveguide fab. 30984
SiO_2 film, low temp. CVD, helicon plasma source 37501
SiO_2 film, low temp. PECVD for TFT gate insulator *(Japanese)* 37524
SiO_2 films by rem. plasma CVD form organo-silicon source *(Japanese)* 37490
SiO_2 films, plasma CVD, breakdown characts. 13960

plasma CVD continued
SiO_2 on large-scale glass, high rate deposition by dc arc PECVD 5879
SiO_2 opt. fibres, C coating, plasma CVD 22828
a-SiO:H films, plasma CVD, solar cell appl. 5213
SiO_2:H ECR oxides, stress-temp. behavior, hydrogenous species conc. 37513
SiO_2:P/InP interface layers, low-temp. damage-free plasma-CVD, adhesion 37523
SiO_2/ZnS:Mn, AC electrolum. devices, prep. 20948
SiO_2/amorph. As/GaAs passiv. systs., PECVD 5870
SiO_2-Si_3N_4-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
SiO_2-on-Si NIR channel waveguides form. by electron-beam irrad. 14450
SiO_yN_z plasma CVD, MIS devices appl./elec. eval. 20973
SiON/SiO_2/Si single-mode waveguides, plasma CVD prep. 39396
SiO_xN_y-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
TiN, ECR chem. vap. deposition, 20 C 12173
W/WN/Si, nitride barriers for thermally stable metallization, TEM studies 38704

plasma CVD coatings
diamond:B,N, elec./opt. charactn. 21891
diamond, free-standing thin films, blue-green electrolum. 7468
diamond (001) B-doped homoepitaxially grown films, Hall mobility, carrier conc. 21883
diamond film, oriented, plasma CVD, carburized Si substr. 12152
diamond film thermistors, fab. and charactn. 9892
diamond films, DC plasma arc tech. 20931
diamond films, enhanced oxid. etching, annealing, Mo effect 22192
diamond films, plasma CVD, localized epitaxy, Si substrs. 5841
diamond films, plasma-assisted CVD, porous Si substr. 12137
diamond films adhesion on Mo/W/carburized W substrs. 37478
MEMS fab., lithog. and RIE 39027
space power thermionic heat pipes, work fn. tests 26623
ultrathin dielec., microwave afterglow O_2/N_2O plasma growth 37505
BN films, PECVD, RIE, high selectivity 6639
C, DLC protective PECVD film, thin film mag. disk 7152
C:B CVD film, piezoresistive effect 29845
a-C:H films, diamond-like lithographic appls. 22310
GaAs-WN Schottky contacts, plasma deposited, thermal stabil. 22033
Si, epitaxial growth, 300°C by confined PECVD 5835
Si, glow-discharge polycryst. films, grain boundary defects 20936
Si:B solar cell, low temp. PECVD/laser annealing fab. 19996
a-Si:C,H p-i-n diode struct. for electron flux conversion 30229
a-Si:H, PECVD, defect annealing kinetics 13275
a-Si:H films, microwave plasma CVD, control of radical species *(Japanese)* 37526
a-Si:H,B(P), PECVD film, opt. props., photo/dark cond. 29830
Si:P, epitaxial films grown by rem. PECVD 38509
a-$Si_{1-x}C_x$:H, plasma CVD, monolithic light-converters 3876
a-$Si_{1-x}C_x$:H films, PECVD grown, struct. props. 13407
a-SiGe:H/SnO_2 solar cell struct., interfacial reduction 38294
$Si_{1-x}Ge_x$:P, epitaxial films grown by rem. PECVD 38509
Si_3N_4, ECR plasma deposition, microwave power effect 408
SiN_x films, X-ray lithog. mask membrane, plasma chem. vap. deposition 13568
a-$Si_{1-x}N_x$:H surface, hydrogen radical treatment 38590
SiO_2 films prod. by PECVD, interface and elec. props. 29969
SiO_2 layer characterisation, Electrotech ND6210 PECVD syst. 28816
SiO_2 opt. fibres, C coating, plasma CVD 22828
SiO_2 passiv. of InGaAs:Fe MSM photodetectors 22187
a-SiO:H films, plasma CVD, solar cell appl. 5213
SiO_2/Si, low-temp. grown oxide film, X-ray reflectivity 38610
SiO_2/SiN coatings on Si, defect passiv. by PECVD 1270
W/WN/Si, nitride barriers for thermally stable metallization, TEM studies 38704

plasma CVD epitaxial growth *see plasma CVD; vapour phase epitaxial growth*

plasma deposited coatings
see also plasma CVD coatings
capacitive humidity sens., cross-linked PMMA 9887
diamonds film form. from graphite dust 12138
fluorocarbon films for MEMS appls., materials anal. 28852
leaky-wave field applicator, microwaves, lin. uniform plasmas 37930
PMMA polymerisation for electron beam resist preparation 30171
polysilicon TFTs, ECR plasma oxid. effects on perform./stabil. 22450
Au/Ta_2O_5/n-InP, interface state dens. determ. 13255
C films, plasma deposited, ellipsometric params., sample temp. 34715
a-C:H,N films, ion implanted, in-depth modifs. 6537
Cu coating, plasma sputtered, characts., Al contacts 29626
a-Ge:H,S, optoelectronic props, effects of S incorporation 39556
a-Si:H, laser annealing, light-emitting Si prep. 23005
Si:H, microcrystalline, elec. props., degrad. kinetics 21881
a-$Si_{1-x}C_x$:H p-i-n struct., electrolum. characts. 31091
Si_3N_4, ECR-plasma-deposited gate dielectrics for InP MISFETs 13710
Si_3N_4 plasma deposited coatings for sealed COB MCM technol. 12961
SiN_x films, ECR plasma synthesis 30131
SiO_2, ECR-plasma-deposited gate dielectrics for InP MISFETs 13710
SiO_2 plasma-grown on Si, extremely low interface state densities 13233
p-SiO_2/polymer, dielec. double-layer structs., elec. cond. 30534

plasma deposition
see also plasma CVD
black silicon nanowires, sub-10-nm, natural masking, RIE 30117
diamond films, dual-freq. plasma growth, a-C:H layer effect 5869
diamonds film form. from graphite dust 12138
ion plasma sources based on microwave oven 38528
knowledge based monitoring/control of plasma, chromaticity meas. 12147
modelling and robust control 12171
PM ECR plasma source, rem. window 37509
PMMA polymerisation for electron beam resist preparation 30171
Raduga, metal vap. vac. arc ion sources 4135
surface proc., plasma technol., symp., London (Mar. 1995) 36884
AlN film growth on 6H-SiC, plasma assisted GSMBE 12090
C adherent film deposition by cathodic arc, implant. 37511
a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
GaAs MMIC manufacture, proc.-induced defects 12804
H maser storage box, radiation resistant/reproducible coatings 39639
InGaAsP/InP lasers, wafer scale proc. 23226
$(InSn)_2O_3$ films, activated electron beam evap., water partial press. depend. 37487
PZT piezoelec. thin films deposited on Si 6914
Si, BF_3 plasma immersion ion implant., dose-time rel. 37488

plasma deposition continued
a-Si solar cells, high efficiency 27958
a-Si:H MIS struct., conductance mechanisms *(Chinese)* 38439
Si:H films, amorph./microcrystalline, selective deposition/etching 12179
a-Si:H, glow discharge deposition, chem. annealing, at. H role 30008
a-Si:H, multijunction solar cell, microwave glow discharge deposition 20971
a-Si:H, plasma deposition, enhanced neg. ion form. 422
a-Si:H, transport props., deposition condition effects 29869
Si-SiO_2 stacked-gate structs., plasma-assisted/RTP 22058
a-SiC:H, transport props., deposition condition effects 29869
a-SiGe:H, multijunction solar cell, microwave glow discharge deposition 20971
SiN films, plasma-enhanced reactive sputtering, self-multilayered struct. 12176
Si_3N_4 plasma deposited coatings for sealed COB MCM technol. 12961
SiN_x films, ECR plasma synthesis 30131
SiO_2, BF_3 plasma immersion ion implant., dose-time rel. 37488
SiO_2 films, double-plasma deposition, SiF_4 predecomposition effects 37486
TaC films, pulsed-laser deposition and charactn. 28858
Ti, film deposition in hollow cathode arc discharge, ion energy transfer, substr. 37473
ZnO, ECR sputtered thin films, opt. atten., resist. 28800
ZnSe:N,C,H, plasma-stimulated low-press. metalorganic vapour phase epitaxy syst. 20791

plasma devices
see also magnetohydrodynamic convertors; plasma diodes; plasma filled waveguides; plasma focus; plasma guns; plasma switches; plasma torches; stellarators; Tokamak devices
3D plasma armature railgun simul. 15371
90 mm railgun-fired air defense projectiles 18966
300 NS plasma opening switch, optimisation 12861
, conf., Vancouver, BC, Canada (June 1993) 6301
ACE 4 inductive storage technol., 6 MA driver 36390
ACE 4 plasma opening switch/plasma filled diode charactn. 36391
arc driven railguns, MHD generator pulse power supply 20013
armature railguns, foil breakdown, num. simulations 23521
augmented PM railgun, plasma armature behaviour 15356
beam-plasma oscillator, sig. stochastization mechanism 994
compacted plasma armature railgun expts. 15267
conference, laser-plasma interactions, Monterey, USA (Oct. 1993) 22
elec. launcher plasma-surface interact., computer simul. 15372
elec. launcher technol. component erosion expts. 15326
electron accelerators, inductive storage, plasma injectors 36452
electrothermal capillary optimisation 15287
electrothermal launcher, SIRENS, drag forces, in-bore diagnostics 31770
electrothermal launchers, phys. proc., param. studies 15291
electrothermal launchers, powder materials accel. studies 15340
electrothermal launchers, scaling laws, 0D time-depend. model 15370
electrothermal-chem. gun pulse shape requirements 19780
electrothermal-chem. guns, interior ballistics, elec. generated plasma 15292
electrothermal-chem. guns, plasma augmented propellants 15288
electrothermal-chem. launchers, plasma-propellant interface expts. 15368
electrothermal-chem. plasma injectors, num. anal. 15284
EM launcher, accelerated plasmas, resistive Rayleigh-Taylor instabil. 15316
EM launcher plasma pulse-based metal surface treatment 15337
EM launchers, plasma armatures, 2D MHD simul., secondary arcs 15309
EM plasma dyn. accelerator, 2D MHD simul. code 15323
EMG-PIRIT expt. complex, high energy plasma form. 36398
energetic light ion beams in PBFA 26021
extraction geometry B-diodes, PIC simulations 26048
extraction magnetically insulated diode study on Gamble II accelerator 26094
FEL plasma undulator constr. 39968
FEL static and dyn. plasma wigglers 39969
ferroelec. plasma reactor, animal house ammonia/odor control appls. 20175
flow switches computer modeling 12863
flux compressor ouput sharpening, exploding foil, plasma switch 36287
Green Farm elec. gun facility, expts. 15275
helical explosive mag. generators, explosive switches 36289
high current pseudospark switch, pinch plasma devices 36397
high power microwave generation, magnetron driven Q switched cavity 29767
high-power microwave amplifier, plasma klystron concept 21838
high-power wideband beam-plasma microwave amps./generators 974
high-press. AC gas discharge, dielec. coated electrodes, plasma display 38202
hollow-cathode discharge, high-power RF generation 29739
inductive energy store pulsed-power generators, switch-load coupling 12864
intense diagnostic neutral beam development 26109
ion beam surface treatment, ion diode design 13346
j×B railgun, rod-shaped projectile acceleration 23524
long-time-scale plasma opening switches, simulation 12866
low-press. arc-discharge plasma, ion extraction 4140
magnetically-insulated ion diodes, beam divergence 26089
magnetised coaxial plasma gun, electric propulsion appls. 31773
materials processing, microsecond plasma opening switch appl. 27851
microsecond Marx with plasma opening switch, barrel type ion diode load 27853
microsecond plasma opening switches, flashboard plasma source 36421
muzzle-fed railgun expts., 3-D EM simul. 15279
opening switch, throughput jitter operation 21861
opening switch expts., long cond. time 36389
opening switch expts., plasma source variations 27850
opening switch investig. using gas discharge plasma source 21862
opening switch spectroscopy, novel gaseous plasma source 12865
opening switches, electron/ion MHD effects 21863
PBFA II, applied-B ion diode, ion source divergence 26044
PBFA II, mag. insulated ion diode, meas. 26045
PBFA II ion diodes, 3D PIC simulations 26047
PBFA-II ion diode, field profile 26046
PBFA-II opening switch, magnetically injected plasmas 12862
Pegasus II pulsed power machine, plasma switch, foil implosion 36445
plasma=propellant interaction expt. construction and operational characts. 31771
plasma radiation source pulsed power, ultra fast foil closing valve 36269
Procyon explosive pulsed power syst. review 36253
pulsed, intense ion beams for thermal surface treatment 13345
railgun armature plasma brush electrode materials 15334
railgun plasma armatures, dyn./struct. studies 15333

plasma devices continued
railgun plasma armatures, full-bore num. simul. 15365
railgun plasma armatures, opt. thick, temp. meas. 15325
railgun plasma armatures, serrated bore surface effects 15360
railgun projectile accel., plasma armature 15344
railgun weapon solid armatures, instrumentation develop. 15336
railguns, channel segmentation, efficiency, MHD aspects 15272
railguns, composite electrodes, crit. current dens. 15364
railguns, design, coupled EM-hydro FEM 15311
railguns, energy transport, boundary layer model 31772
railguns plasma armature exploding wires, vis./UV spectrosc. 15328
SIRENS electrothermal launcher, plasma flow simul./expt. 15317
SIRENS electrothermal launcher, plasma-material interaction 31766
SIRENS electrothermal launcher plasma, mol./at. meas. 15369
small body launching, plasma armature railgun 15268
small bore plasma armature railgun expts. 15270
space nuclear electric propulsion, NASA research programme 18771
TITAN ion source 4145
CCl_4 greenhouse gas destruction, plasma reactor-based 20181
$Cs-N_2$ space power thermionics convertor, relaxation characts. 18738
H^- extraction from mag. multipole plasma source and accelerator 10102

plasma diagnostics
see also plasma probes; plasma properties
1.5 MV Gamble II pulsed power generator, plasma filled diode studies 36444
accel. transducers, plasma investig. appls. 25977
ATF Torsatron, microwave scatt. diagnostic 34677
band-stop filters for 70 and 140 GHz 12720
bolometer and photodiode diagnostic techs. 4077
coal-fired MHD facility, laser induced breakdown spectra 20016
conf., Vancouver, BC, Canada (June 1993) 6301
corona discharge elec. wind meas. by opt. fiber interferometer 42830
dens. flucts. diagnostics, freq.-tunable MM-wave sources 31846
diamond films, DC plasma arc tech. 20931
diamond films, pulse modulated ECR plasma CVD 37470
DIII-D tokamak, inside launch reflectometer systs. 34680
DIII-D tokamak, reflectometric dens. profile meas. advances 34679
DIII-D tokamak, RF wave monitor reflectometer 34678
distributed plasma armature, electromagnetism, lumped element description 23523
electrothermal gun, plasma-water interaction, mixing visualisation 31774
electrothermal launchers, phys. proc., param. studies 15291
electrothermal-chem. launchers, plasma-propellant interface expts. 15368
etching, chamber wall, UV-absorpt. spectrosc. 22186
extraction geometry B-diodes, PIC simulations 26048
extraction magnetically insulated diode study on Gamble II accelerator 26094
freq.-step-tunable gyrotrons, plasma heating/fusion diagnostics 6478
fusion devices, plasma spatial distrib., broadband reflectometry proc. 40977
fusion reactor plasma diagnostics, scintillating-fiber neutron detector 26146
glow discharge plasma temp. meas. by fast two-wavelength CARS thermometry 2050
gyrotron collective Thomson scatt. diagnostic, antenna decoupling requirements 29793
hybrid armature railguns, current/fuse thickness props. 23525
ICF ρR meas., charged particle spectrometer 26149
impressed elec. field meas., coaxial ECR plasma source 34652
INPIStron dense plasma pinch pulsed power switch 36464
intense diagnostic neutral beam development 26109
intense ion beam charactn. 26049
intense laser pulse plasma waveguide, mode props. 15453
ITER tokamak reactor, α-particle spectrometer, scintillation detector 4228
JET divertor, mm-wave two-color interferometer appl. 34676
knowledge based monitoring/control of plasma, chromaticity meas. 12147
laser plasmas, density gradients, X-ray laser based meas. 23482
magnetised coaxial plasma gun, electric propulsion appls. 31773
MHD, supersonic flows, purging fluid effects, optical diagnostics 20020
microwave plasma torch, waveguide-fed, axial gas injection 967
microwave reflectometry in tokamaks, dens. meas., turbulent flucts. 34681
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
MM-wave technol. in radar and fusion appls. 42502
multichord spectrometer, 8×8 anode photomultiplier 29814
muzzle-fed railgun expts., plasma armature 31752
neutron penumbral imaging of ICF targets 34948
opening switch expts., plasma source variations 27850
PASP plus arrays, arcing predictions 26569
PBFA, pulsed ion and neutral beam power dens., piezoelec. stress gauge meas. 26086
PBFA II, applied-B ion diode, ion source divergence 26044
PBFA II, intense Li^+ hohlraum expts., target diagnostics 26071
PBFA II, mag. insulated ion diode, meas. 26045
PBFA II ion diodes, 3D PIC simulations 26047
PBFA-II ion diode, field profile 26046
plasma=propellant interaction expt. construction and operational characts. 31771
polychromatic dye laser, comb-like lasing spectrum 7542
proton beam transport through gas, electron density 26090
pseudospark discharge, ion beam prod. 26087
railgun plasma armatures, dyn./struct. studies 15333
railgun weapon solid armatures, instrumentation develop. 15336
RF discharge, electron conc. determ., Fabri-Perot cavity 3759
rocket-borne downconverter, space plasma turbulence meas. 35310
silent discharge, gas discharge noise charact. 23679
single shot charge analyzer for laser-prod. plasma 25747
SIRENS electrothermal launcher plasma, mol./at. meas. 15369
slow-scan CCD image sens., real-time plasma spectrosc. 9932
soft X-ray lasers, short pulse, development and applications 23080
spectral line emission measuring syst., calib. 17629
submillimeter laser interferometer-polarimeter for plasma diagnostics 40173
submillimeter wave gyrotron for plasma scatt. meas., transm. line 2239
surface proc., plasma technol., symp., London (Mar. 1995) 36884
TFTR, DT operation, scintillating-fiber neutron detector diagnostics 26147
TFTR, He proportional counters, absol. calib. 26145
TFTR tokamak, 14 MeV neutron meas., Si diode detectors 26148
time-resolved plasma absorpt. spectra monitoring facility 40001
ultrashort-pulse reflectometry, 1D num. study 34682
waveguide CO_2 laser, act. medium diagnostics 7513
wire ion plasma source, electrical characts. 21796
X-ray proximity lithog., source charactn. 22304
X-ray sources based on subpicosecond-laser-prod. plasmas 10162

plasma diagnostics continued
z-pinch diagnostics, diamond photocond. detectors 26264
ArF excimer laser discharge simul., plasma charact. 39652
Au plasma, X-ray yield meas. 26072
CO_2, IR lasers, high power, plasma supported proc. 15193
CO_2 high-power fast axial flow laser, aerothermic characterisation 7531
CO_2 laser welding, laser induced plasma, spectrosc. meas. 15199
H^-, C^-, F^-, I^-, Pb^- high-power pulsed ion beams 34855
H^- ion source, large vol., hybrid multicusp design 43048
$(InSn)_2O_3$ films, activated electron beam evap., water partial press. depend. 37487
Si X-ray detectors develop. for plasma diagnostics 26143

plasma diodes
2.5 MJ DECADE pulsed power generator, plasma load appls. 36357
ACE 4 plasma opening switch/plasma filled diode charactn. 36391
anode-based electron gun, low-energy high-current beams 968
dense cathode plasma form., neg. ions prod. 36624
energetic light ion beams in PBFA 26021
extraction geometry B-diodes, PIC simulations 26048
extraction magnetically insulated diode study on Gamble II accelerator 26094
high voltage high brightness electron accelerators 10082
intense diagnostic neutral beam development 26109
intense diagnostic neutral beam prod., pulsed power supply-based 36319
magnetically insulated diode, ion beam generation 26091
magnetically-insulated ion diodes, beam divergence 26089
microsecond Marx with plasma opening switch, barrel type ion diode load 27853
multi-diode thermionic converter, feasibility expts. 28028
PBFA II, applied-B ion diode, ion source divergence 26044
PBFA II, mag. insulated ion diode, meas. 26045
PBFA II ion diodes, 3D PIC simulations 26047
PBFA-II ion diode, field profile 26046
radial electron flows in diodes, microwave sig. amplif., Pierce instabil. 6477
solid propellant electrothermal chem. launchers, pulsed power 31763
H^-, C^-, F^-, I^-, Pb^- high-power pulsed ion beams 34855

plasma displays *see gas-discharge displays*

plasma disruptions *see plasma instability*

plasma drift waves
dielec.-loaded Raman-type FEL, efficiency enhancement 2017

plasma electromagnetic wave propagation
see also ionospheric electromagnetic wave propagation; magnetospheric electromagnetic wave propagation; plasma light propagation
2D nonuniform plasma cylinder with neg. core, E-wave diffr. 23655
anisotropic plasma, impedance wedge diffr. 15452
beam-plasma microwave generators, plasma dens. self-modulation 984
circ. sector microstrip antenna, electroacoustic radiation charact. 40451
dens. flucts. diagnostics, freq.-tunable MM-wave sources 31846
Doppler/aberrational effects in dispersive medium 2243
FEL static and dyn. plasma wigglers 39969
HF fields, smoothly inhomog. media, dyn. states 2241
high power microwave pulse propag. in self-generated plasma, freq. up-conversion 23654
inhomog. current-carrying plasmas, electron-cyclotron absorpt. 23656
magnetoactive plasma, inhomog., radiation-transport eqn. 40361
microwave propag., backscatter 23651
nonlin. interact. of intense microwaves with space plasmas, computer simul. *(Japanese)* 40362
planar plasma waveguide, surface waves self-action 2240
radio wave propag., FDTD study 7988
submillimeter wave gyrotron for plasma scatt. meas., transm. line 2239
waves in nonstationary media 2242

plasma electrostatic waves
nonlin. interact. of intense EM wave and plasma waves in ionos. *(Japanese)* 40363
single-beam plasma wave tube, high-power microwave/MM-wave source 986

plasma-enhanced CVD *see plasma CVD*

plasma etching *see sputter etching*

plasma filled waveguides
beam-plasma microwave generators, plasma dens. self-modulation 984
coaxial electron beam, cyclotron harmonic wave growth 37934
hybrid plasma-cavity slow-wave struct. wideband power amp. 1008
microwave plasma torch, waveguide-fed, axial gas injection 967
planar plasma waveguide, surface waves self-action 2240
single-beam plasma wave tube, high-power microwave/MM-wave source 986
soft-X-ray laser prod., plasma waveguides 39678
unmagnetized BWO high-power microwave source 1003

plasma fluctuations
ATF Torsatron, microwave scatt. diagnostic 34677
dens. flucts. diagnostics, freq.-tunable MM-wave sources 31846
microwave reflectometry in tokamaks, dens. meas., turbulent flucts. 34681
ultrashort-pulse reflectometry, 1D num. study 34682

plasma focus
dense plasma focus X-ray source for sub-micron lithography 22309
high current pseudospark switch, pinch plasma devices 36397
INPIStron dense plasma pinch pulsed power switch 36464

plasma generation *see plasma production*

plasma guns
arc driven railguns, MHD generator pulse power supply 20013
armature railgun, secondary arc form. 23520
armature railguns, foil breakdown, num. simulations 23521
armature railguns, projectile vel., conductivity 23522
compacted plasma armature railgun expts. 15267
distributed plasma armature, electromagnetism, lumped element description 23523
electrothermal gun, plasma-water interaction, mixing visualisation 31774
electrothermal launchers, phys. proc., param. studies 15291
electrothermal-chem. gun pulse shape requirements 19780
electrothermal-chem. guns, interior ballistics, elec. generated plasma 15292
electrothermal-chem. guns, plasma augmented propellants 15288
EM launcher, accelerated plasmas, resistive Rayleigh-Taylor instabil. 15316
EM launcher, exploding wires, elec./radiative props. 31777
EM launcher, plasma armatures, 3D MHD modelling, equiv. network 15313
EM launchers, plasma armatures, 2D MHD simul., secondary arcs 15309
Green Farm elec. gun facility, expts. 15275
hybrid armature railguns, current/fuse thickness props. 23525

plasma guns continued
j×B railgun, rod-shaped projectile acceleration 23524
launcher pulsed power supply, solid liner implosion-based 36271
magnetised coaxial plasma gun, electric propulsion appls. 31773
muzzle-fed railgun expts., 3-D EM simul. 15279
muzzle-fed railgun expts., plasma armature 31752
opening switch expts., plasma source variations 27850
opening switch investig. using gas discharge plasma source 21862
plasma=propellant interaction expt. construction and operational characts. 31771
railgun projectile accel., plasma armature 15344
railguns, channel segmentation, efficiency, MHD aspects 15272
railguns, design, coupled EM-hydro FEM 15311
railguns, energy transport, boundary layer model 31772
SIRENS electrothermal launcher, plasma flow simul./expt. 15317
SIRENS electrothermal launcher, plasma-material interaction 31766
small body launching, plasma armature railgun 15268
small bore plasma armature rail launcher, high current densities 15263
small bore plasma armature railgun expts. 15270
Tokamak pellet injection, electrothermal accelerator 15290
VIRA-2P X-ray pulse generator, plasma opening switches 36460

plasma heating
see also plasma beam injection heating; plasma focus; plasma heating by laser
2.45 GHz microwave heating-based large diam. plasma generation 44596
electron beam, relativistic, refl. by virtual cathode 29792
glass recycling, elec. heating appls. 28199
helical explosive mag. generators, explosive switches 36289
intense diagnostic neutral beam development 26109
ITER tokamak reactor, α-particle spectrometer, scintillation detector 4228
MAGO thermonuclear ignition syst., MHD nozzle chamber calcs. 36614
preheated plasma, short laser pulse energy deposition 23652
semicond. lasers, plasma-heating induced intens.-depend. gain 23263
thermonuclear magnetized plasma generation, mag. implosion syst. 36267
TPX, power supplies, quench protection 11110

plasma heating by laser
FOM 1 MW 200 GHz free electron maser mode purity, plasma heating appls. 39924

plasma in solids *see solid-state plasma*

plasma inertial confinement
see also fusion reactors
antiproton-initiated ICF syst. and pulse fission drive, space propulsion 4365
Beamlet laser for Nat. Ignition Facility 1906
conference, emerging nucl. energy systems, Makuhari, Japan (Sept. 1993) 28251
conference, laser-plasma interactions, Monterey, USA (Oct. 1993) 22
energetic light ion beams in PBFA 26021
heavy ion fusion driver beams, longitudinal dynamics 26051
heavy ion ICF driver beams, charge neutralisation 26052
HI fusion accelerator research, LBL 43005
HI fusion ILSE expts., injectors 4041
ICF pulsed power cylindrical implosion loads 11111
ILSE expts. 4076
ILSE HI induction accelerator 4042
laser evaporation ion source for plasma ICF 26105
light ion beam transport efficiency, TOF bunching, voltage ramping effect 26050
LMF triaxial MITL voltage adder syst. Marx generator 36300
Nat. Ignition Facility, ICF, laser flashlamp power conditioning syst. 5106
Nat. Ignition Facility protect 4429
neutron penumbral imaging of ICF targets 34948
Nike KrF laser, overview 1863
OMEGA laser, upgrade 1907
PBFA II, mag. insulated ion diode, meas. 26045
pos. ion driver, induction adder 36301
proton beam transport through gas, electron density 26090
ρR meas., charged-particle spectrometer 26149
Nd:glass Nova laser for inertial fusion expts. 1899

plasma instability
see also filamentation instability; modulational instability; plasma oscillations
crossed-field devices, small signal gain 6509
cyclotron reson. masers, bunches, phase mixing, space charge instabil. 31135
electron beam propagation, welding and materials processing appls. 11508
EM launcher, accelerated plasmas, resistive Rayleigh-Taylor instabil. 15316
etching, helicon/multiple ECR sources, ion flux 22195
flow switches computer modeling 12863
gyrotron TWT, launching loss, Weibel instabil. 29800
hollow-cathode discharge, high-power RF generation 29739
pulsed power supplies, plasma producing gas discharge studies 36310
radial electron flows in diodes, microwave sig. amplif., Pierce instabil. 6477
railgun plasma armatures, serrated bore surface effects 15360
time-varying mag. field, conductive plate, induced eddy currents, Tokamak fusion reactor 31725
two-cavity second harmonic gyroklystron, stabil. and amplif. studies 6489
weak warm beam instabil. meas. 29801

plasma interactions
see also plasma electromagnetic wave propagation
electrothermal gun, plasma-water interaction, mixing visualisation 31774
microwave coupling devices for rem. plasma appls. 6286
target surface temp. meas., laser-induced plasma 10053

plasma jets
electrothermal capillary optimisation 15287
solid propellant electrothermal chem. launchers, pulsed power 31763

plasma Langmuir waves
clustered-cavity klystron, lin. theory 991
nonlin. interact. of intense EM wave and plasma waves in ionos. *(Japanese)* 40363
nonlin. interact. of intense microwaves with space plasmas, computer simul. *(Japanese)* 40362
SW FEL, periodic plasma struct. 14986

plasma light propagation
high-order harmonic generation, optimal quasi-phase-matching 7805
highly inhomog. plasma, obliquely incident short laser pulse energy absorpt. 15454
intense laser pulse plasma waveguide, mode props. 15453
laser wakefield particle accel. 4035
preheated plasma, short laser pulse energy deposition 23652

plasma light propagation continued
relativistic electron plasma waves, electron accel., laser opt. mixing 10081
underdense plasma, self-resonant wakefield excitation by intense laser 23653
Be plasma, laser beam reson. high-harmonic generation 2119

plasma magnetohydrodynamics
3D plasma armature railgun simul. 15371
arc driven railguns, MHD generator pulse power supply 20013
armature railguns, foil breakdown, num. simulations 23521
closed cycle plasma MHD generator ducts, friction/heat loss 27970
closed cycle plasma MHD generator ducts design 20018
coal-fired MHD facility, laser induced breakdown spectra 20016
commercial MHD power plants develop., historical perspective 10904
convertor channel perform. particle deposition effects 20019
electrothermal launchers, powder materials accel. studies 15340
EM launcher, plasma armatures, 3D MHD modelling, equiv. network 15313
EM launchers, plasma armatures, 2D MHD simul., secondary arcs 15309
EM plasma dyn. accelerator, 2D MHD simul. code 15323
flow switches computer modeling 12863
generator, segmented Faraday channel, Q1D electrodyn. part 20012
long-cond. time plasma opening switch, MHD effects 44240
magnetised coaxial plasma gun, electric propulsion appls. 31773
MAGO thermonuclear ignition syst., MHD nozzle chamber calcs. 36614
nonequilbrium MHD generator, supersonic flow, plasma temp. *(Japanese)* 36612
nonequilibrium disk plasma MHD generator, conceptual design 27966
nonequilibrium MHD generator, plasma electron dens. calc. *(Japanese)* 36611
opening switches, electron/ion MHD effects 21863
pulsed power μs plasma opening switches, 2D snowplow model 36443
railguns, channel segmentation, efficiency, MHD aspects 15272
railguns, design, coupled EM-hydro FEM 15311
SIRENS electrothermal launcher, plasma flow simul./expt. 15317
space craft plasma MHD thrusters, solar elec. propulsion system 26590
space nuclear electric propulsion, NASA research programme 18771
supersonic flows, purging fluid effects, optical diagnostics 20020
Tokamak pellet injection, electrothermal accelerator 15290
CO_2 laser discharge, rot. mag. field effects 1866
He-Cs nonequilibrium constant area MHD generator 20017

plasma measurement techniques *see plasma diagnostics*

plasma nonlinear waves
FEL plasma undulator constr. 39968
nonlin. interact. of intense EM wave and plasma waves in ionos. *(Japanese)* 40363
nonlin. interact. of intense microwaves with space plasmas, computer simul. *(Japanese)* 40362

plasma oscillations
see also plasma waves
2D nonuniform plasma cylinder with neg. core, E-wave diffr. 23655
VIRA-2P X-ray pulse generator, plasma opening switches 36460

plasma panel displays *see gas-discharge displays*

plasma probes
see also Langmuir probes
ionos., geomag. field effect on -ve voltage spheres 35300
ionos., satellites, tethers, current collection study 35302
muzzle-fed railgun expts., plasma armature 31752
propag. surface waves sustained microwave discharge, electron energy distrib. fn. 966
wire ion plasma source, electrical characts. 21796
H^- ion source, large vol., hybrid multicusp design 43048

plasma production
see also plasma production by laser
1.5 MA MAGPIE pulsed power generator, plasma prod. appls. 36380
2.45 GHz microwave heating-based large diam. plasma generation 44596
beat wave accelerator (GeV), prospects 18170
conf., Vancouver, BC, Canada (June 1993) 6301
Crossatron-based modulator for plasma discharges 12382
dense cathode plasma form., neg. ions prod. 36624
electron accelerators, inductive storage, plasma injectors 36452
electron/ion sources, PBGUNS, digital simulation computer program 26108
electrothermal capillary optimisation 15287
electrothermal-chem. guns, interior ballistics, elec. generated plasma 15292
electrothermal-chem. launchers, plasma-propellant interface expts. 15368
EMG-PIRIT expt. complex, high energy plasma form. 36398
etching, helicon/ECR sources, Langmuir probe diagnostics 22194
etching, helicon/multiple ECR sources 22193
etching, helicon/multiple ECR sources, ion flux 22195
expts. on laser-plasma triggered lightning 23485
foil breakdown, armature railguns form., num. simulations 23521
high electron current dens., plasma edge cathode 29752
high power microwave generation, magnetron driven Q switched cavity 29767
impressed elec. field meas., coaxial ECR plasma source 34652
intense diagnostic neutral beam prod., pulsed power supply-based 36319
ion plasma sources based on microwave oven 38528
laser evaporation ion source for plasma ICF 26105
leaky-wave field applicator, microwaves, lin. uniform plasmas 37930
metal ion vacuum arc plasma source, ion implantation appls. 26107
microsecond plasma opening switches, flashboard plasma source 36421
microwave coupling devices for rem. plasma appls. 6286
nozzle-beam-type microwave radical source 28787
opening switch, pos. polarity on Gamble I, flashboard plasma sources 44227
opening switch expts., plasma source variations 27850
opening switch investig. using gas discharge plasma source 21862
opening switch spectroscopy, novel gaseous plasma source 12865
plasma=propellant interaction expt. construction and operational characts. 31771
pulsed ion diodes, temp. controlled, beam-target interact. expts. 34854
pulsed plasma generator, discharge chamber operating conditions 19765
pulsed power supplies, plasma producing gas discharge studies 36310
radiation source pulsed power, ultra fast foil closing valve 36269
railguns plasma armature exploding wires, vis./UV spectrosc. 15328
RFX 4.8 MJ-7 kV toroidal capacitor bank, experience 36632
SIRENS electrothermal launcher, plasma flow simul./expt. 15317
small railgun, bore erosion reduction 31757
solid propellant electrothermal chem. launchers, pulsed power 31763
thermal implosions study 19769
thermonuclear magnetized plasma generation, mag. implosion syst. 36267
vac. diodes, breakdown 29762
wire ion plasma source, electrical characts. 21796

plasma production continued
  H^-, C^-, F^-, I^-, Pb^- high-power pulsed ion beams 34855
  H^- ion source, large vol., hybrid multicusp design 43048

plasma production and heating by laser beam *see plasma heating by laser; plasma production by laser*

plasma production by laser
  used for production processes only
  1 MW 130-260 GHz free electron maser for fusion 39919
  conf., Vancouver, BC, Canada (June 1993) 6301
  conference, laser-plasma interactions, Monterey, USA (Oct. 1993) 22
  EUV lithog., low-contamination laser plasma source 38756
  expts. on laser-plasma triggered lightning 23485
  FOM 1 MW 200 GHz free electron maser mode purity, plasma heating appls. 39924
  G-band FEL amp. for cyclotron reson. heating in mag. fusion reactors 39921
  high power microwave generation, magnetron driven Q switched cavity 29767
  ICF pulsed power cylindrical implosion loads 11111
  inductive energy storage pulsed power plasma opening switch expts. 36422
  intense laser pulse plasma waveguide, mode props. 15453
  ion source, laser evaporation, for plasma ICF 26105
  laser evaporation ion source for plasma ICF 26105
  laser wakefield particle accel. 4035
  laser-plasma x-ray source target materials, x-ray lithog. appls. 6691
  lightning triggering, lab. laser-induced discharge expts. 35298
  metallized electrode capacitors, nuc. fusion, capacitor banks 36631
  single shot charge analyzer for laser-prod. plasma 25747
  soft-X-ray laser prod., plasma waveguides 39678
  X-ray lithog., laser-plasma source 38755
  X-ray proximity lithog., source charactn. 22304
  Al, laser prod. plasmas, X-ray spectrosc. 31261
  CO_2, IR lasers, high power, plasma supported proc. 15193
  CO_2 laser welding, laser induced plasma, spectrosc. meas. 15199
  Ge XXIII plasmas, X-ray laser gain 23075
  Ge^+, Ne-like, soft X-ray laser brightness on double pulse pumping 23084
  H_2 pellets, plasma lens form. in $e\gamma$ and $\gamma\gamma$ colliders 26068
  Kr^{26+} laser plasmas, 3p-3s transits., X-ray laser gain parametric depend. 39651
  KrF excimer laser fs VUV pulse meas. by field-ionization dyn. 23103
  O_2-I chem. laser constr. for thermonuclear fusion driver 31193
  Si(111), surface SHG, wavelength depend., laser induced props. 15037
  XeCl excimer laser, ang. multiplexed syst., X-ray generation 1862

plasma properties
  see also plasma fluctuations; plasma instability; plasma oscillations; plasma transport processes; plasma waves
  electrothermal launchers, scaling laws, 0D time-depend. model 15370
  FEL static and dyn. plasma wigglers 39969
  inductively coupled discharges, analytic models 21789
  planar plasma waveguide, surface waves self-action 2240
  Cs-N_2 space power thermionics convertor, relaxation characts. 18738

plasma sheaths
  see also plasma confinement
  charge neutralisation by neutral gas release, 3D calcs. 26524
  hollow-cathode discharge, high-power RF generation 29739
  opening switches, gap form. procs. 19884
  PBFA-II ion diode, field profile 26046
  travelling wave tubes, collective effects, theoretical anal. 6515
  a-Si:H plasma CVD films, H profile, DC bias/substr. table area effects *(Japanese)* 20966

plasma shock waves
  conference, laser-plasma interactions, Monterey, USA (Oct. 1993) 22
  EMG-PIRIT expt. complex, high energy plasma form. 36398
  helical explosive mag. generators, explosive switches 36289
  thermonuclear magnetized plasma generation, mag. implosion syst. 36267

plasma simulation
  3D plasma armature railgun simul. 15371
  AC plasma display panel gas discharges, Boltzmann simul. 1010
  armature railguns, foil breakdown, num. simulations 23521
  elec. launcher plasma-surface interact., computer simul. 15372
  extraction geometry B-diodes, PIC simulations 26048
  G-band FEL amp. for cyclotron reson. heating in mag. fusion reactors 39921
  high power microwave pulse propag. in self-generated plasma, freq. up-conversion 23654
  ion thruster plume modelling, spacecraft contamination 35270
  MAGO thermonuclear ignition syst., MHD nozzle chamber calcs. 36614
  opening switches, gap form. procs. 19884
  PBFA II ion diodes, 3D PIC simulations 26047
  pulsed power μs plasma opening switches, 2D snowplow model 36443
  railgun plasma armatures, full-bore num. simul. 15365
  railguns, energy transport, boundary layer model 31772
  SIRENS electrothermal launcher, plasma flow simul./expt. 15317
  solar RF emission anal., spectrometer methods and obs. *(German)* 25625
  two-pole arc model for elec. fuses *(German)* 29649
  underdense plasma, self-resonant wakefield excitation by intense laser 23653
  ArF excimer laser discharge simul., plasma charact. 39652

plasma sprayed coatings *see plasma arc sprayed coatings*

plasma spraying *see plasma arc spraying*

plasma switches
  1.5 MV Gamble II pulsed power generator, plasma filled diode studies 36444
  10-30 kV rail-gap pulsed power supply, compact mag. plasma switch 36403
  300 NS plasma opening switch, optimisation 12861
  ACE 4 inductive storage technol., 6 MA driver 36390
  ACE 4 plasma opening switch/plasma filled diode charactn. 36391
  conf., Vancouver, BC, Canada (June 1993) 6301
  CROSSATRON modulator switches, pulsed power supply appls. 36409
  electron accelerators, inductive storage, plasma injectors 36452
  electron beam generation, plasma pulsed power closing/opening switch-based 34859
  EMG-PIRIT expt. complex, high energy plasma form. 36398
  flow switches computer modeling 12863
  flux compressor ouput sharpening, exploding foil, plasma switch 36287
  helical explosive mag. generators, explosive switches 36289
  high current pseudospark switch, pinch plasma devices 36397
  high power microwave generation, magnetron driven Q switched cavity 29767
  IEEE pulsed power conf., Albuquerque, USA (1993) 20246
  inductive energy storage pulsed power plasma opening switch expts. 36422
  inductive energy store pulsed-power generators, switch-load coupling 12864

plasma switches continued
  INPIStron dense plasma pinch pulsed power switch 36464
  long-cond. time plasma opening switch, MHD effects 44240
  long-time-scale plasma opening switches, simulation 12866
  materials processing, microsecond plasma opening switch appl. 27851
  microsecond Marx with plasma opening switch, barrel type ion diode load 27853
  microsecond plasma opening switch, material surface modif. 36465
  microsecond plasma opening switches, flashboard plasma source 36421
  opening switch, Hawk pulsed power generator appl. 36419
  opening switch, pos. polarity on Gamble I, flashboard plasma sources 44227
  opening switch, throughput jitter operation 21861
  opening switch expts., long cond. time 36389
  opening switch expts., plasma source variations 27850
  opening switch investig. using gas discharge plasma source 21862
  opening switch spectroscopy, novel gaseous plasma source 12865
  opening switches, electron/ion MHD effects 21863
  opening switches, gap form. procs. 19884
  PBFA-II opening switch, magnetically injected plasmas 12862
  Pegasus II pulsed power machine, plasma switch, foil implosion 36445
  plasma opening switch, voltage scaling, cathode rad. 44228
  Procyon pulsed power supply plasma flow switches, computer modeling 36423
  pseudospark operation, hollow cathode phase studies 29819
  pseudospark switches for excimer-lasers/pulsed CO_2-lasers 29628
  pulsed power μs plasma opening switches, 2D snowplow model 36443
  pulsed power opening switch, low jitter operation tests 36418
  vacuum electronics and displays, conf., Garmish-Partenkirchen (1992) 20196
  VIRA-2P X-ray pulse generator, plasma opening switches 36460
  Hg liq. jet pulsed power supply opening switch tests 36261

plasma thermocouples *see plasma devices; thermocouples*

plasma torches
  environ. pollution prevention/reduction, elec. procs. *(German)* 44641
  microwave plasma torch, waveguide-fed, axial gas injection 967
  toxic liq. waste treatment, plasma pyrolysis 28205

plasma toroidal confinement
  see also reversed field pinch
  HL-1 Tokamak TF magnets, stress anal. 40270
  ITER tokamak reactor, α-particle spectrometer, scintillation detector 4228
  JET divertor assembly and early operation 7242
  LHD magnet syst. design and constr. 7243
  TFTR, DT operation, scintillating-fiber neutron detector diagnostics 26147
  TFTR, He proportional counters, absol. calib. 26145
  TFTR tokamak, 14 MeV neutron meas., Si diode detectors 26148
  Tokamak-15 supercond. TF coil (STFC) heating under quench 7245
  TPX, power supplies, quench protection 11110

plasma transport processes
  see also Vlasov equation
  armature railguns, projectile vel., conductivity 23522
  book, EM response of material media 30
  electrothermal-chem. plasma injectors, num. anal. 15284
  EM launcher, accelerated plasmas, resistive Rayleigh-Taylor instabil. 15316
  inhomog. current-carrying plasmas, electron-cyclotron absorpt. 23656
  ion flow in 3D elec. field, charge dens. distrib. 31737
  ion thruster plume modelling, spacecraft contamination 35270
  leader current, equiv. elec. network modelling 30531
  multichord spectrometer, 8×8 anode photomultiplier 29814
  opening switches, gap form. procs. 19884
  preheated plasma, short laser pulse energy deposition 23652
  radial electron flows in diodes, microwave sig. amplif., Pierce instabil. 6477
  SIRENS electrothermal launcher, plasma flow simul./expt. 15317
  Cu vapour laser, long. elec.-discharge pumped, elec. field evol. 39650
  He-Cs nonequilibrium constant area MHD generator 20017

plasma waveguides *see plasma filled waveguides*

plasma waves
  see also magnetohydrodynamic waves; plasma Bernstein waves; plasma drift waves; plasma electrostatic waves; plasma Langmuir waves; plasma nonlinear waves; plasma oscillations; plasma shock waves
  beat wave accelerator (GeV), prospects 18170
  HF sigs. scatt. by artificial ionos. turbulence, Doppler shift 40342
  particle accel. in lab. plasmas 4034
  planar plasma waveguide, surface waves self-action 2240
  relativistic electron plasma waves, electron accel., laser opt. mixing 10081
  underdense plasma, self-resonant wakefield excitation by intense laser 23653

plasmatrons *see plasma diodes*

plasmoids *see plasma*

plasmons
  see also solid-state plasma; surface plasmons
  mode selective fibre coupling, long-range surface-plasmons 30893
  submillimeter range EM oscills. in p-n jn., laser gen. mechanism 39793

plastic deformation
  see also buckling; creep; ductility; elastoplasticity; necking; plastic flow
  bronze-graphite materials, repeated indentation, local brittleness, AE 28910
  coil winder simul. for Superconducting Supercollider 22770
  fatigue life of solder joints, FEM study of factors 11756
  IC packages, molding, wirebond deform. 28495
  interconnect resist., reliab. tool in electronic packaging leaded connections 11790
  MCM flex lead bending during thermal cycling, finite element stress model 12944
  metal, plastic deformed, surface contouring by microlens array 34695
  multiplated elec. contacts, impact wear 37556
  NPP, aircraft crash, react.-time response 43844
  PCB thermally loaded solder joints, fatigue life prediction methods, finite element study 38121
  polyimides, thermomechanical props. and interfacial fracture 12210
  SMT solder joints, stress anal. model for fatigue prediction 37114
  SMT stress sing. allowing for local plastic deform. 29660
  solder ball form. in PCB wave soldering 38135
  solder joint failure, thermal cycling fatigue, crit. accumulated strain energy 120
  solder joint fatigue testing, elec. resist. spectrosc. 28477
  space power thermionic fuel elements, fission gas pressure anal. 18736
  steel, ferromag., surface imaging using Barkhausen effect 14122
  TAB inner lead fatigue anal. in thermal cycle environ. 28474
  TAB inner lead gang bonding on Ni-Au bumps 12960
  wirebond geom. and die setting, effect on wire sweep 20445

plastic deformation continued
- Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417
- Au-plated X-ray masks, brightener conc. rel., thermal distortion 13534
- a-$(Fe_{0.06}Co_{0.94})_{72.5}Si_{12.5}B_{15}$, creep-induced mag. anisotropy 1571
- In-Sn based VLSI interconnections, solder joint reliab. 30146
- Sn-Bi solders, microstruct. evol., mech. prop. 37529
- Sn-Pb-Ag solder joints, thermal fatigue/isothermal mech. fatigue damage 37112
- Sn-Sb solder, room temp. tensile prop. 434

plastic flow
- *see also ductility; necking*
- polyimide thin film, time-depend. inelastic deform. 28881
- single lap shear layers, stresses, FEA 29647
- SiO_2 films, HI irrad., densification and plastic flow 1312
- Sn-Bi solders, microstruct. evol., mech. prop. 37529

plastic packaging
- 296-lead fine pitch thin plastic QFP package, TAB interconnect 5655
- 1024-pin plastic ball grid array for flip chip die, design, SPICE model 5652
- act. ICs assembled in plastic packages, area array wire bonds 12958
- assembly procs. for high reliab. IC appls., eval. 6452
- automotive engine controllers, potted, PQFP solder joint reliab. 28155
- ball grid array package, popcorn cracking 11812
- ball grid array packages, thermal/elec. perform. enhancements 37150
- ball-grid arrays 28441
- C4 packages, bumps, package design guideline, package layers 11771
- ceramic QFP, epoxy encapsulation, SM appls. 11765
- COB encapsulation technol., stress anal., reliab., FEM 37077
- cracking, molding cpd. and die attach adhesive 5665
- cyanate ester die attach adhesive, plastic packaging 5634
- EDQUAD plastic package 5657
- encapsulated IC reliab., missile appls. 35386
- encapsulated multichip technol. for high vol. MCM prod. 12974
- exposed silicon plastic package, thermal enhancement 5658
- HV power ICs, plastic package design 6838
- IC package assembly, organic contamination detect. 20429
- IC package params., effect on temp. cycling failures 5674
- IC plastic packages, thermal enhancement 28470
- IC thin film cracking detect., test chip design 11861
- lead on chip plastic package adhesive tapes 11800
- lead-on-chip package, tapeless technol. 11794
- lead-on-chip package, temp. cycle-induced chip surface damage 20435
- lead-on-chip packages, cracking failures induced by chip backside contamination 20439
- leaded chip solder joints in handy phone, fatigue life 5710
- low stress polymer die attach adhesive for plastic packages 11801
- MCM-L, laminate substr. current state 38192
- MCMs, satellite commun. appls. 29726
- metal-filled polymer conductive adhesives, elec. props. 438
- Mini L, miniature power relay for vol. prod. 38065
- miniature power relay IF for 250 V/16 A load switching 891
- mold proc. params. and tooling variables for high quality plastic packaging 28451
- molded LSI package, interface edge/interface crack tip, thermal stresses 28488
- molding cpd. materials for IC plastic packaging, fracture props. 5626
- molding cpds. for IC plastic packaging, fracture props. 5671
- molding cpds. for plastic packaging, thermal anal. 5670
- MUSE decoder chip set for HDTV, low power operation 17565
- OMPAC assembly, no clean mass reflow 38171
- particulate-loaded polymer molding cpds. for plastic packaging, thermal cond. 5625
- Parylene conformal coatings compatibility with no-clean flux residue 38109
- PCB ESD protection material selection, shielding effectiveness meter 28456
- PLCC chip and package design, plastic assembling, simple test chip 5632
- PLCC ink mark reliab. enhancement, flame treatment, tests 142
- PLCC temp. cycling failures, die coatings, mold cpds., and test conditions effects 28469
- PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
- polyimide thin-layers, curing, photoacoustic IR spectrosc. 20996
- polyimides used in MCM HDI, charactn. 11748
- power MCM technol. for high vol., low cost commercial electronics, plastic encapsulated 21777
- PQFP surface mount plastic packages, heat sinks for thermal enhancement 20463
- PQFP VLSI packages, quality function deployment 37076
- PQFP warpage prediction, finite element techs. 5663
- QFP, VLSI chip, assembly, outlead cross-sect. effect on lead skew 11796
- QFP family, thermal perform. limits, finite difference based software 5631
- QFP IC, mold void, SPC 5635
- QFP PowerQuad2, 28×28 mm, thermal perform. 11788
- self/mutual inductance of package/interconnect struct., inductive parasitics 20461
- semicond. encapsulating material, flow anal. 5667
- simultaneous switching noise, mutual inductance, simul. 12273
- SMT relays, reliab., heat stress during reflow soldering *(Japanese)* 6411
- solder joints of 256-pin plastic QFP, failure anal. 37129
- SRAM, bond pads, lead on chip TSOP assembly 29218
- SRAM reliab., comparison of HAST, THB testing 12540
- structural integrity eval., reflow soldering proc. 28485
- surface mount IC packages, moisture/reflow induced delaminations, IC thermal perform. 11797
- surface mount joint, thermal stress under uniform temp. change 28481
- teflon film, laser through-hole drilling and cutting 20423
- thermally enhanced QFP packages, moisture sensit./reliab. 11803
- thermally-pulsed plastic IC package, thermo-structural behavior, delamination 28483
- thermoplastic die attach for hermetic packaging 21666
- thin opt. pickup head of CD player, laser/detector/hologram unit 17613
- thin SOP, second level assembly and reliab. aspect 37134
- thin SOP delamination, moulding cpd./polyimide interface chem. 37078
- TSOP encapsulation reliab. modeling 37135
- TSOP solder joint reliab. enhancement, encapsulation 131
- Ultra-Thin Small Outline Package 11793
- VLSI microelectronic packaging, nonlin. finite element model 28443
- VLSI plastic packages, reflow soldering perform. improvement 6840
- GaAs MMIC LNA for wireless commun., ultralow noise 42235
- GaAs MMIC power amp. and T/R switch, pers. commun. 42232

plastic strain *see plastic deformation*

plastic theory *see plasticity*

plastic track detectors *see solid-state nuclear track detectors*

plasticity
- *see also elastoplasticity*
- nuc. power piping syst., circumferential crack, J-integral 35866
- polypropylene, graphite filled, strain sensitivity 28894
- SMT solder joint reliab., voids and void interacts. 178
- superplastic micro-forming of microstruct. 30525
- Al thin-film interconnects, thermal stresses, cryst. plasticity simul. 22264

plastics
- *see also carbon fibre reinforced plastics; glass fibre reinforced plastics; plastic packaging; polymer insulators; polymers*
- ABS plastics, EMI shielding, electroless plating 8002
- arcs, plastic tubes, ablation gas vols. *(Japanese)* 965
- CR-39 detectors, sensitivity enhancement, etching effects 43132
- EMI shielding, electroless coatings 2258
- epoxy resin photoelastic fiber-optic strain gage 42834
- hard disks, pre-embossed servo pattern, magnetizing proc. 7174
- insulation lab. charactn., microscopy/spectrosc. 13919
- large-core silica fibers for data commun. appls. 42406
- mass determ. of perturbing obj., reson.-cavity appl. 3997
- molding, micro-EDM tools 28877
- OEIC connections 1830
- perp. mag. field for shielding materials meas. 15489
- steam power plant pressurized CFBC gasification reactor expts. 27565
- two-colour near-IR sens., recycled plastic waste sorting 25844

plastics industry
- five-axis EDM machine tool, CAD/CAM syst. develop. *(Japanese)* 11511
- injection molding proc., plastic variables meas. 18135
- molding control, computerized meas. and control 42745
- plant elec. modernization project 5405

plate tectonics *see tectonics*

plates (anodes) *see anodes*

plating (electroplating) *see electroplating*

PLC *see programmable controllers*

PLD *see programmable logic devices*

PLD programming
- *see also firmware; microprogramming; PROM*
- algm. updates for prog. ICs 12491
- antifuse prog. in Crosspoint's FPGA 21294
- flash EEPROM prog. simul., hot-electron/hot-hole injection 12501
- flash EPROM endurance simul., phys.-based models 21306
- JTAG boundary scan test std. for improved on-board prog. 603
- LV flash memories, read-disturb degrad. mechanism 12549
- metal-to-metal oxide antifuses, reliable for VLSI appls. 22079
- nonvolatile prog. devices and in-cct. test 6095
- self-learning neuron-MOS neural networks, wt.-updating-lin. EEPROM cell 12676
- surface mount PLD, prog. and testing 37699
- three-terminal switching device, prog. fusible link 29630
- SiN_x based metal-to-metal antifuse for FPGA appl. 21217

pleochroism
- *see also dichroism*
- p-GaAs/n-Ge struct., photoelec. props. in lin. polarized light 1097

plexiglas *see plastics*

PLL *see phase locked loops*

plotters
- DAMOCLES program, mcplotgl graphics, n-MOSFET simul. 22335
- photogrammetry, Digital Video Plotter, new features 42870

plug compatible manufacturers *see DP industry*

plug-in boards *see add-on boards*

plugs (electric) *see electric connectors*

PMOS integrated circuits *see MOS integrated circuits*

PMOS transistors *see MOSFET*

PMR *see proton magnetic resonance*

PMR imaging (biomedical) *see biomedical NMR*

PN coded radar *see spread spectrum radar*

PN codes *see pseudonoise codes*

pneumatic control equipment
- *see also electropneumatic control equipment*
- thermally driven microvalve, buckling type, pneumatic appls. 30496

pneumatic logic *see fluidics*

Pockels effect
- fast electro-optic HV sens. 25781
- fibre optic electrets and electro-acousto-optic transduction 17820
- high-repetition-rate electrooptic cavity dumping 30999
- opt. fibre elec. field sens. 17868
- particle image velocimetry, image labelling, flow meas. 18154
- polymer, electro-optic, for stable organic act. components *(French)* 1650
- power syst. HV sens., integrated optics Pockels cell-based 27280
- power syst. voltage meas., optic cryst. based sens., Pockels effect 4745
- voltage meas., robust sens. head 34482
- $Bi_{12}SiO_{20}$, surface charge distrib., Pockels effect. meas. 18059
- CdTe detectors, semi-insulat. material prep., internal field distrib. 4212
- $KTa_{(1-x)}Nb_xO_3$ thin films, ferroelec. hysteresis, electro-optic response 13996
- $LiNbO_3$ integrated optics Pockels cell, cryst. cut and waveguide orient. 14515
- SiO_2 thermally poled opt. fibres, Pockels effect 14376

Pockels readout optical modulator *see electro-optical modulation*

pocket computers *see notebook computers*

point contact spectroscopy
- Si point-contact, force microscopy-supported resist. meas. 42887
- α-SiC:N(Al), ion implanted dopant activation, pulsed laser annealing 30048

point contacts
- *see also point contact spectroscopy; quantum point contacts*
- HTSC tunnel jns., photon detectors 39283
- LF noise in quantum point contacts 22031
- noble-metal nanoconstrictions and obs. of conductance flucts. 13428
- AlGaAs/GaAs 2DEG, ballistic electron transport 29944
- AlGaAs-GaAs Schottky quantum point contacts, airbridge post 1091
- $Cu_{0.10}As_{0.40}Se_{0.50}$, elec. switching, bulk props. 38265
- Si point contacts, nanofabrication, MBE growth, transport meas. 13128
- Si point contacts, nanofabrication, gas-source MBE 29895

point defect scattering
used for carrier scattering by point defects
GaAs epilayers, MBE, annealing thermal stabil., As precip. 308
InGaP, deep center scatt. pot. 6532
point defects
see also colour centres; interstitials; point defect scattering; vacancies (crystal)
directly bonded wafer, point defects, bonded SOI wafer 38431
lattice defects induced by ion implant., photo-acoustic displacement meas. 6616
n$^+$p jn., reverse-bias current, hydrogen radical sintering 38295
n-p-n transistors, thin base, lateral ion implant., enhanced diffusion 30245
B polyemitter form., role of point defect sources 22381
CdTe, cryst. growth from melt 20658
GaAs MESFET, piezoelec. act. defects, impact modelling 13793
GaAs, SI, degrad. during heat treatment 29854
GaAs, SI props. of low-temp.-grown material 13038
GaAs epilayers, MBE, annealing thermal stabil., As precip. 308
GaAs/AlGaAs photonic ICs, plasma induced QW layer intermixing 30971
HgCdTe photodiodes, MBE-grown, DLTS deep levels study 13060
Si, B implants through SiO$_2$ films, implant. damage/anom. diffusion 13283
Si, detector grade, bulk defects, radiation damage 43105
Si:B MOS ULSI, MOSFET B diffusion model incorporating disloc. loop growth 22610
Si:B, ion implant., defect prod. 6622
Si:Co, ion implant., defect/impurity profile 30028
Si:P,B(As), phosphorus diffusion 29844
Si/SiO$_x$N$_y$, interfacial stress and struct., thermal nitridation and reoxidation effects 22055
TiO$_2$:Ba,Bi,Nb ceramic varistors, Nb$_2$O$_5$ effect 21583
ZnSe alloys, MBE, achieve RT CW LD 20906
point of sale systems
see also EFTS
2.4 GHz low power data commun. syst., develop. *(Japanese)* 42179
vending machine data collection syst. *(Japanese)* 42178
point spread function *see optical transfer function*
point to point radio links *see radio links*
Poisson distribution
bipolar dc corona, PIC simul., HVDC transm. lines 13978
CDMA cellular syst. with macrocell diversity, perform. 33865
CMOSFET ultra-thin gate oxide thickness meas, quantum effects 22452
computer networks, game-theoretic anal. of switch service disciplines 3206
DAMOCLES program, mcplotgl graphics, n-MOSFET simul. 22335
fair distributed queue network priority schemes 41479
ISDN, basic rate UNI, packet-switched data anal. 16793
M^b/M/C queueing systs., optimality conditions 11905
M-ary opt. polariz. modulation detect. in commun. channel 17318
nonpreemptive queueing syst., simul. study 28577
opt. disk, readout sig. deterioration , dust induced 39306
optimum event rate for CCD detector 43061
repairable systs., Weibull proc. failure intens. estim. 87
tridiagonal lin. syst. and Poisson's eqn. soln., distributed memory systs. 28669
wide-area traffic, inadequacy of Poisson modeling 3207
AlGaAs/GaAs(InGaAs/GaAs) microwave/millimetre-wave HEMTs, noise model 831
GaAs ACT transversal filters, yield model 39118
Poisson ratio
opt. fibres, double-coated, thermally-induced microbending losses 7277
through-plane thermal props. meas. of dielec. films 21738
tightly jacketed double-coated opt. fibers at low temp., thermal stresses 14377
AlGaAs, MOCVD/MBE on GaAs, elastic consts., Poisson ratio 28752
ZnSe/GaAs heterostruct., MBE growth, high-resoln. XRD 21960
polar cap absorption *see ionospheric electromagnetic wave propagation*
polar plots (control systems) *see Nyquist diagrams*
polarimeters
see also polarimetry
digital interface for quadrature demodulation of interferometer sigs. 25773
fiber laser/amp. based sens. 34551
fibre-optic sens. for mech. deform. meas. 17856
heterodyne polarimetric fiber-coil deform. sens. *(Japanese)* 3857
in-line mode splitter, dual polarimeter in fibre 14374
ionos. Faraday effect, polaris. meas. syst. develop. 18829
lightwave polaris. analyser 30910
pass. demodulated Michelson/polarimetric coupled fiber strain sens. 17866
submillimeter laser interferometer-polarimeter for plasma diagnostics 40173
UV/X-ray spectroscopy and polarimetry, conf., San Diego (July 1994) 5468
Si CCDs, X-ray polaris. sensitivity 34976
polarimetric radar *see radar polarimetry*
polarimetry
see also ellipsometry; polarimeters; radar polarimetry
3D surface reconstruction, polariz. state anal. 41290
acousto-optic tunable filter hyperspectral imagery, anal. 18922
clouds, laser rem. sens., polariz. diversity methods 10485
electron positron storage rings, spin dyn. 18243
embedded fiber-optic acoustic sens. for NDE 34540
fiber-optic sens., polarimetric, sig. meas. 25866
fibre optic sens. for radiation dosimetry 18678
fibre optic sensors, conf., Glasgow, Scotland (Oct. 1994) 11524
HERA, large electron spin polariz. 34816
hyperspectral data from AO tunable filter, spectral and polarimetric anal. 16267
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
land surface microwave radiometry, winter landscape signatures 35295
LEP, large electron spin polariz. 34816
ocean surface, microwave radar polarimetric backscatt. 26740
rainfall over the sea, imaging microwave radiometry 35317
rainfall over the sea, multichannel microwave radiometry 35316
rainfall rate, radar rem. sens. methods, review 26723
rem. sens., digital polariz. image treatment 24558
single-feed circ. polarized microstrip antenna, boundary elements anal. *(Japanese)* 40497
vector diffr. tomography, inverse scatt. 40274
Er-doped fiber amp. CATV, polariz.-mode dispersion meas. 25509
NH$_3$ target for pol. n beam, TRIPLE spin filter 34829
Si CCDs, X-ray polaris. sensitivity 34976
polarimetry continued
(TbBi)$_3$(FeGa)$_5$O$_{12}$ garnet film current/mag. field sens. by Faraday effect 42884
polarisation
see also dielectric polarisation; electromagnetic wave polarisation; neutron polarisation; nuclear polarisation; photon polarisation; polarisation in nuclear reactions and scattering; proton polarisation
ellipt. hole in finite thickness wall, EM field penetration 15204
ferroelec. cathode pulsed electron emission characts. 29750
HERA, HERMES, long. electron polariz., spin rotators 43039
nonlin. polarised ferromag. systs., computer anal. *(Russian)* 6941
PAFC, methanol/ammonia/siloxane contamination 11272
radar sea scatt., rough surfaces, opt. backscatt. 23627
Siberian snakes for high energy accelerators 26038
Ag-based fast ionic conducting glassy electrolytes, batts. 11238
Cu electrolytic refining, polariz. occurrence/reduction 11494
La$_{0.85}$Sr(0.15)MnO$_3$-ZrO$_2$-Y$_2$O$_3$ syst., SOFC cathode material microstruct. 44379
La$_{0.8}$Sr$_{0.2}$MnO$_3$/YSZ interface, O$_2$ reduction, SOFC air electrode 44385
Li rechargeable batts., polymer gel electrolyte/electrodes *(Japanese)* 5183
LiCoO$_2$ MCFC porous cathode studies 11280
LiFeO$_2$ MCFC porous cathode studies 11280
Ni-YSZ cermet SOFC electrodes, kinetics expts. 44356
NiO(Li) MCFC porous cathode studies 11280
Pb-acid secondary batts., PbSb grid corros. study 36564
Pb-acid valve-regulated secondary cells, life testing 44292
PbO tubular electrodes, discharge behaviour, Pb-acid batt. 44281
Pb(Zr$_{0.53}$Ti$_{0.47}$)O$_3$ thin film capacitors, electrodes, microstruct., elec. props. 881
Zn secondary batts., organic corros. inhibitor studies 27903
ZrO$_2$ double cell O$_2$ sens., polaris. curves, humidity effect 42769
polarisation in nuclear reactions and scattering
^{3}He(n,X), solid pol. target appl. 43056
polariscopes *see polarimeters*
polarised targets
biomolecule struct. research, polarized target station at GKSS 34882
Bonn polarized target NMR-syst. 34870
CHAOS polarized proton target 34867
complex RF suscept. meas., series Q-meter 26097
conference, polarised targets, Bad Honnef, Germany (June 1994) 28245
dark matter detectors, axions 34880
deuterated butanol-D$_2$O mixture, EHBA-Cr(V) 34876
dyn. nuc. spin polariz., FM effect 34875
frozen spin targets, internal supercond. holding coil 34878
HELP project, update/status, LEP 18296
JINR movable polarized proton target, high energy spin phys. 34868
large polarized target, high precision polariz. meas. 34871
nuclear spin targets for biological struct. research, p/d types 34881
pentanol and polyethylene, deuterated cpds., polarized target materials 34863
polariz. reversal, adiabatic fast passage 34877
PSI 100 cm^3 frozen spin target 34866
SLAC high-dens. gaseous polarized ^{3}He target 34883
SMC polarized butanol target 34865
SMC polarized target, computer control 34874
SMC target, NMR polariz. meas., nonlinearity 34872
SMC target, NMR polariz. meas., on-line syst. 34873
solid HD targets, frozen spin mode 34864
spin refrigerator polarized target, nuc. phys. expts. 34887
VEPP-3, storage cell for polarized gas internal targ. 4132
H gas target for storage rings 26101
HD solid polarized target, transport, in-beam cryostat 34879
^{3}He polarized internal gas target, polarized proton scatt. 26098
^{3}He solid pol. target for neutron transmission 43056
^{3}He target, polarized for SLAC E142 expt. 34857
NH$_3$ irradiated target, ^{14}N pol. meas. using NMR 34869
NH$_3$ target for pol. n beam, TRIPLE spin filter 34829
^{15}NH$_3$/^{15}ND$_3$ Virginia/Basel/SLAC polarized target 34862
polaritons
micropipette cylindrical waveguide surface polaritons propag., near field opt. device appl. 40443
quadratic-cubic nonlin. dispersive media, unique solitary-wave polaritons 7803
TE EM waves in nonlin. film, closed dispersion curves 40302
GaAs quantum wire, directional-coupler switch 22887
n-InSb doped crysts., parametric amplif. and oscill. 40115
LiTaO$_3$ electro-optic probes, guided polariton generation 39478
Si/SiO$_2$/Al MOS, tunnel jns., light-emission mechanism 22078
Si/SiO$_2$/Au MOS, tunnel jns., light-emission mechanism 22078
polarons
see also bipolarons; magnetic polarons; small polaron conduction
amorph. semiconds., electronic props., hopping transport mechanisms *(French)* 6535
insulators, secondary electron emission, Monte Carlo study 14006
poly-(para-phenylene-vinylene) films and photodiodes, photoinduced current, ESR 14600
(As$_2$S$_3$)$_{1-x}$(PbS)$_x$, vitreous semicond., electronic cond. 29867
PZT thin film memory materials, fatigue mechanisms 30569
polarons, magnetic *see magnetic polarons*
pole assignment
dyn. interconnected systs., decentralized pole-assignment self-tuning controller 35560
hybrid wind/diesel power syst. stabilisation, SMES controller design *(Japanese)* 27645
induction motor drives, digital adaptive control, transputer based 11379
microwave ccts., pole-zero computation, multipoint Pade approx. 21528
missile, tail-control, LQG/LTR, eigenstruct. reassignment 18997
multiple transients, param. estim., SDMP method 40949
power syst. stabilizer design, pole-placement algm. 43678
PSS, SMES-based, neural network-controlled 27030
PSS design, self-tuning regulator 19194
rapid thermal proc., pole placement adaptive control 30010
rapid thermal proces partial state MRAC 30402
syst. ident., pole-zero syst. model order estim. 40848
uniform RC lines, resistive termination, time domain response 15545
poles and towers
77 kV overhead line-underground cable lightning surge anal. 19306
115 kV power line lightning protection, spline ioniser tests 19331

poles and towers continued
500 kV insulator string overvoltages, lightning stroke inclination expts. 35667
500 kV overhead power line insulators, natural contamination expts. *(Chinese)* 43783
500 kV transm. line, 3-ground-wires, impulse response *(Japanese)* 4697
common-tower double-cct. power lines, earthing switch simul. *(Chinese)* 35653
compact overhead power line polymer insulators, develop. prospects *(Japanese)* 27239
distrib. network overhead line fiberglass poles, case study 27172
double cct. 500 kV transm. tower, lightning surge anal., EMTP 4703
glass fibre epoxy slender tubes, axial compression stress, appl. *(Polish)* 5904
guyed transm. towers, anal./design, Kuwait case study 43790
HV overhead line earth fault compensation coeff. modelling 19328
indust. control syst. lightning protection, grounding/shielding studies 20160
insulator string overvoltages, lightning stroke inclination 35668
microwave commun. towers, lightning stroke-generated EMI expts. *(Chinese)* 42174
MV overhead line board-control wooden mast trials *(German)* 10759
ocean-based force-of-gravity power conversion systs. 27616
orbital debris radar antenna pointing Kalman filter 25581
overhead distrib. line pole struct., risk-based design 43755
overhead line-underground coaxial cable syst., lightning surge anal. 10755
OXR overhead distrib. line pole-mounted auto-recloser 27156
power line tower surge response, computer simul. 19315
power overhead line H-frame towers, design strength improvement 27243
power overhead line survival anal., stat. method-based 43780
power overhead line telecom. cables integrat., UK 35649
power overhead line tower impulse characts., simul. theory *(Chinese)* 35656
power syst. transm./microwave towers, mech. design 27234
transm. line tower lightning surge response calc. 19314
transm. line towers, reliab.-based optim. 43789
transm. tower model, simul. upward lightning current path *(Japanese)* 10764
UHV tower model, lightning surge anal. 27238

poles and zeros
see also pole assignment; zero assignment
1st-order digital allpass filter sects., comparative study *(English)* 6232
3D EM scatt. problems, fast multipole soln. 23537
a posteriori error estimator for lin., ellipt., 1D problems 37366
act. filters, fractional shifts of ω_0 and Q, Budak-Petrela's method 37838
act.-R sinusoidal oscillators, current feedback amp. pole 21138
all pole/finite pole filter and delay equalizer design, monolithic dual resonators 39082
allpass transfer fns., prescribed group delay 32792
analytic sig. generation for time-freq. distribs., efficient algm. 32718
ARMA modelling methods for low bit rate speech coding 32273
ARMA syst. ident. based on second-order cyclostationarity 8424
asymmetric cross-coupled filters, synthesis 12628
asymptotic waveform eval. macromodels for nonlin. ccts. 513
autonomous act.-R cct., chaotic perform. 21409
calibration of electroacoustic transducers, parametric technique 22681
CD digital audio, high order phase lock loop for jitter reduction 6050
CMOS cascode current mirror, HF response 12351
CMOS current mirrors, freq. domain anal. *(Italian)* 37643
complex coeff. ref. networks for WDF, transm. zeros on imaginary axis *(Japanese)* 37872
complex polynomial zeros approx. 5773
DC motor ASD, self-tuning digital controllers appl. 5316
delta-sigma ADC, noise shaping, distributed zeros, new archits. 6189
digital filter design, sparse struct., pole/zero sensitivity minimization 29391
digital filters, multiple poles, perturb. effects 29393
digitally prog. differential integrator, enlarged time const. 29349
discrete-time wavelet extrema representation, design/reconstruction 40810
ECG P wave delineation, parametric tech. 35131
echo cancellers, acoustic transfer fns. modelling 32633
electronic cct. network fns., matrix proper values 28983
EVAM, eigenvector-based algm., multichannel blind deconvolution 24301
first-order lossless digital two-pair realisation 21423
fuzzy based syst. ident. 32772
half-lin. diff. eqn., dist., zeros 28681
high speed CMOS current op amp, bandwidth optim. 21126
high-speed VLSI interconnects, freq./time domain simul. 12287
IIR adaptive filters, optimum order assign. on numerator/denominator 744
IIR ADF for line canceller and pole-control algm. *(Japanese)* 21436
IIR digital filters, time-domain pipelining tech., stabil. 6225
IIR Powell and Chau lin. phase filters design 29390
large-target scatt. cross-sections, fast multipole computation 25564
LED modulation bandwidth extension by pole cancel. 23032
logarithmic error measure, pole-zero approxs. design 2494
long lowpass LC ladders, synthesis 719
low sensitivity state space digital filters, Pareto optimal design 32788
low-order LTI filters for controlling chaos, num. expt. 37825
microstrip problems, pole extraction 23767
minmax sig. design for detect. subj., lin. distortion 32536
model order estim. from covariance matrix eigenvectors 24251
multichannel IIR filtering, Levinson-type algm. 8413
multiphase sinusoidal oscillator, CFOA pole 21142
multiple loop feedback OTA-C filters, perform. anal. 37848
multiple output forward converters, current control, small sig. anal. 11147
multiple-crit.-pole-coupled act. filters for FLF, SCF, CBQ, and LF struct. 12637
norm-bounded polynomials zeros bounds 37312
normal external descriptions and feedback design computing 251
orthogonal block adaptive line enhancer, LMS adaptation 8354
parallel act. power filter, control stabil. study 5112
perfectly conducting sphere reson. in eccentric spherical dielec. shell 25568
PF preregulators, Sepic/Cuk converter based 19753
power system oscillations, hierarchical control algm. 19121
PSS design method/algm. 4560
queueing problems modelled by Toeplitz matrices 37225
recursive filters design, Chebyshev norm, Remez algm. 24186
replica-amp gain enhanced op amp, settling time anal. 37648
review of polynomial eqns.-solving in ancient China 28658
room transfer fns., common acoustical pole/zero model. *(Japanese)* 40893
SAW contiguous filter bank, m-derived ladder *(Japanese)* 717
SEPIC PWM ZVS dual power converter perform. studies 11130
single sect. lattice cryst. filters, normalized design 39079

poles and zeros continued
sparse polynomial interpolation in nonstandard bases 37314
speech coding, adaptive postfiltering for quality enhancement 8224
speech coding, spectral envelope, high-order allpole modelling 32337
speech formant extraction, zero tracking 8185
spherical anechoic chamber, EM field multipole anal. 31708
Sturm seq. and no. of zeros of real params. polynomial in unit disk 20578
symbolic anal. of large analog IC 29060
sync. generator predictive voltage control *(Japanese)* 44010
tracking constrained adaptive power syst. stabiliser 43660
truncated Kautz networks, optimality conditions 24193
two-stage CMOS op amps, optimized compensation strategy 37640
Weierstrass formula and zero-finding methods 20581
wide bandpass filter, ladder type, compact design *(Japanese)* 12626
zero tracking algms. for stationary/nonstationary environ. 16058

police
see also police data processing
2.3 GHz TV broadcasting, mobile live reporting *(German)* 34222
explosive booby traps internat. terroristic actions 36992
flexible network human interface roles and services *(Japanese)* 16755
law enforcement/internal security communic. archits., advanced tech. based 43580
NEC's High-Tech Koban syst. for police commun. *(Japanese)* 41708
Wireless Integrated Digital Equipment syst. 42263

police data processing
fingerprint image compression, wavelet scalar quantization vs. JPEG 41194

poling *see dielectric polarisation*

polishing
see also electrolytic polishing
BESOI stress/strain investig., opt. SHG method 29963
bipolar transistors, SEG and chemo-mech. polishing 6738
chem. mech. polishing abrasive slurries, IC dielec./metallization 38571
chem.-mech. planarization, elasticity theory, defect reduction 38570
chem.-mech. polishing, IC interlayer dielec. planarisation, review 13340
chem.-mech. polishing for planarization, forecast of future trends 13323
chemical-mechanical planarisation, Run by Run controller 38566
CMOS multilevel metallization dielec., chem.-mech. polishing 38573
fine pitch surface mount IC package solder joints, exam./testing 37117
interlayer dielec. films, postchemical-mech. planarization cleanup 13391
logic IC interconnection technol., syst. engng., manufacturability 37723
multilevel metallization beyond 0.35 μm technol. 22258
opt. polishing monitoring, computerised microscopy 17600
piezoelec. langasite and quartz crysts. polishing/etching 30581
plasma assisted chem. etching, surface shaping/smoothing 13379
post-chem.-mech. planarization cleaning, secondary platen press. 38534
reliable 256 Mbit/1 Gbit DRAMs, mfg. proc. technol. 21322
SALOT, self-aligned LOCOS/trench combination isolation, chem. mech. polishing 21329
semiconductor manufacturing, fault isolation using automated discovery from wafer tracking databases 6605
side-polished fiber fab., negligible opt. loss 30892
silica glass polishing, diamond abrasive, water incorporation effects 38568
SOI, thin bonded wafers, pH-controlled chem. mech. polishing method 22237
stacked capacitor half-micron ferroelec. NVDRAM memory cell 21330
thick film ceramic capacitive sensor, embedded in polymer 25797
ULSI, ILD film planarization, silica slurry/ammonium salt CMP 38962
wafer chem.-mech. polishing, combined asperity contact and fluid flow model 1263
WDM LB deposited film in-line fiber-optic components 17187
WESDA, multimedia expert system for wafer polisher maintenance 5566
Al-Ge-Cu multilevel damascene metallisation proc. 22259
AlCu dual damascene interconnect struct., ionized magnetron deposition 30132
Al_2O_3, chemically etched, surface flashover performance 13956
Au/n-GaAs Schottky contacts, barrie height change, ballistic electron emission obs. 38378
Cu CVD precursor chem./mol. struct., IC metallization 28812
Cu CVD thin films, direct liq. coinjection, ULSI device metallisation appls. 30133
Cu dual damascene interconnect struct., ionized magnetron deposition 30132
Cu inlaid struct., chem.-mech. polishing, pattern geom. effects 1292
Cu metallization technol. for deep submicron ULSIs 30140
Cu planarized copper multilevel ULSI interconnections, damascene proc. 30139
Cu thin films, chem. mech. polishing, surface layer form. 38572
GaAs surfaces, wet/dry etched, ellipsometric model 21914
GaSb, chem. etching in Br_2-methanol solns. 1259
α-HgI_2, cryst. struct., topol., X-ray anal. 43081
InP(100),(111), HBr-$K_2Cr_2O_7$-H_2O etching 13399
Nd doped fiber laser, long./side-pumped, silicone coating 31228
Si double-sided polished parallel wafers for direct bonding 13347
Si microtechnol., develops. and proc. tech. depend. 38950
Si single-cryst. spheres, fab./sphericity meas. 18100
Si, surface mech./pulsed photon proc., DLTS 13351
SiC LPCVD films, X-ray mask membranes 6695
SiC device proc./substr. fab., high power/temp. microwave 37990
SiO_2 films, chem. mech. polishing, planarization ability 38575
SiO_2 layer planarization by chem.-mech. polishing, IC manufacture 38569
SiO_2 surface damage, chem. mech. polishing on IC-60 pads 38576
Ti, chem.-mech. polish rate, Cu ions in slurry effect 6662
W IC metallisation, chem.-mech. polishing, halogen-based slurries 38574
YBaCuO thin films, planarized patterns 39230
$YBa_2Cu_3O_{7-x}$ thin film, surface smoothing, MCM fab. 39252
ZnSSe/ZnSe/CdZnSe LED films, substr. transfer proc. 31105
chem. mech. polishing, polishing pad material props. effects 38584

politics
China's satellite policy, historical evol. 42314
CREAD, inter-American effort for collaboration in dist. education 3048
energy policy for sustainable develop. 26931
European GEO and freq. resource allocation, economic assess. 33306
European telecomms. strategy 24874
inform. rev., socioeconomic implications 41584
intellectual property protection, technol. protectionism 36965
international technical communication, American-Russian collaboration 28308
Pacific islands develop., telecomms. and IT 3033
telecomms., inform. infrastructure strategic issues 8806
USA, public participation in FCC rulemaking proc. for DBS 34223

politics continued
- USA and Japan, inform. infrastructure develop. 8887
- White House inform., public access via Internet e-mail 3210

polluted insulators *see insulator contamination*

pollution
- *see also air pollution; noise pollution; pollution control; pollution measurement; radioactive pollution; water pollution*
- conference, radiation meas./appls., Ann Arbor, USA (May 1994) 5488
- eco-balancing in quality mgt. *(German)* 160
- electronics indust., environ. design considerations 28547
- electrosmog, EM fields in environ. 15542
- Giubiasco (Switzerland) mains-connected PV installation *(German)* 43951
- PV water pumping syst., environ./economic concerns, Brazil 27637
- space debris near geosync. orbit *(Japanese)* 18697
- Swedish authorities' accident prevention approaches 11685
- tetrachloroethylene-contaminated soil remediation by soil vap. extraction 37211
- urban household water pumping, energy alternatives eval. 44433
- Cu vap. laser window contamination *(Chinese)* 14694

pollution control
- *see also air pollution control; pollution measurement; water pollution control*
- 920 MW Hwange thermal power plant, fly ash Al extraction 35992
- CFC removal from troposphere 26767
- combined cycle CHP plant step swirl combustor perform. optim. 36025
- ecology recovery, eastern Europe, subsidy strategy 27307
- elec. technols. appl. *(French)* 5717
- elec. utility environ. policies, planning/operations effects 35530
- elec. vehicle secondary batts., recycling infrastructure, USA 44511
- electrochem. methods, environ. appls. 20502
- energy policy for sustainable develop. 26931
- environ. preservation, telecomm. services role 2996
- field-stabilized two-phase fluidized flow, proc. concepts 40205
- fossil fuel NO_x emissions, form./control studies 35975
- global environ. protection, energy conservation methods 28052
- hazardous pollution control, pulsed power accelerator appls. 36815
- household batts., mercury environ. considerations, USA 44262
- HV pulse technol., appls. 11192
- narrow pulsed corona discharge, FGD appl. 19496
- portable equipt. secondary batt. cycle life, waste reduction impact 44274
- power plant emissions control, pulsed corona discharge modulators 35998
- power plant flue gas scrubbing, pulsed corona/electron beam technols. 35997
- proc. network models of energy/environ. systs. 18915
- pulsed power technol., power plant pollution control appls. 35967
- renewable energy develops., ecological aspects, Switzerland *(Spanish)* 4760
- residential energy demand sector restructuring, South Bohemia 26933
- soil elec. props. meas., RF treatment appls. 10562
- space hardware, microbial contamination, anal. and protection 4353
- substation waste heat recovery syst., heat pump-based 36473
- thermal power plant combustion proc. investigs. 35969
- two-colour near-IR sens., recycled plastic waste sorting 25844
- waste mgt., recycling/conversion technols. 20503
- world energy syst. concept 26935
- NO_x control, MHD steam combined cycle, natural gas fuel 27654
- Ni-Cd secondary batt. recycling, high-temp. recovery experience, USA 44273
- Ni-Cd secondary batts., collection/recycling efforts, USA 44272

pollution measurement
- *see also air pollution measurement; pollution control; water pollution measurement*
- anal. instrums. trends, Hitachi's technol. overview 10059
- continuum-source at. absorpt. spectrometer 10567
- EDXRF analyzer, portable, PC based, environ. contaminants meas. 18799
- fiber-optic sens. for soil/groundwater contamination monitoring 18910
- fibre optic sensors, conf., Glasgow, Scotland (Oct. 1994) 11524
- fluoresc.-based lifetime meas. thermometer, subroom temps. 42823
- multielement profiling anal. of geochem./environ. samples 4383
- oils, crude and refined, rem. charactn. by laser fluorosensor syst. 35357
- organic detect. in soil, fiber optic near IR reflectance sens. 17920
- space hardware, microbial contamination, anal. and protection 4353
- STW chem./biological contaminant detector 34605
- waste disposal sites, mag. anom. site charactn. 10570
- waste-handling monitoring, fiber-optic chem. sens. 18916

polyelectrolytes *see electrolytes; polymers*

polyethylene insulation
- *see also XLPE insulation*
- AC aged liq. electrodes, dielec. polarisation/relax. 13940
- binary lin. polyethylene blends, water treeing, mech. aspect 14013
- bow-tie water trees in EPR/XLPE cable insulation 14055
- C black-filled semicond. materials, props., HV power cable appls. 13974
- charge trapping, thermodynamic effects 14052
- cond., preapplied voltage effect 14027
- discharge meas., pulse-seq.-anal. 1525
- electrical treeing, in-situ photoelastic monitoring 14068
- ethylene based copolymers, elec. treeing, degassing/low temp. effect 14059
- ethylene-propylene copolymer, charge injection/polarisation 14036
- furnace black-polyethylene composite, resist./dielec. props. 14073
- gamma-irrad. polyethylene insulation, space charge accumulation meas. *(Japanese)* 43793
- high power underground cables, constr./installation 35644
- high voltage cable insulation, diagnostic methods 14065
- high-field cond., semi-empirical model 30535
- ionomer/polyethylene blends, space charge form., TSC meas., dielec. strength 30547
- LDPE, degradation mech. in high elec. field 14056
- LDPE, elec. treeing, PD pattern recogn. 1531
- LDPE, space charge form., additive/polarisation temp. effects 14033
- LDPE, space charge form., suppression layer effect 14032
- LDPE, water treeing 13973
- LDPE, water treeing progress, oxidation role 14061
- LDPE insulation diagnosis, pattern recogn. ES-based 6895
- LDPE-based blended polymer materials, mech./dielec. props. *(Japanese)* 22674
- LDPE/ethylene vinyl acetate copolymer blends, cable insulants 1563
- PE/polymer laminates, charge formation 14035
- polyethylene-2, 6-naphthalate film, morphology, dielec, strength, thermal effects 14054
- polyethyleneterephthalate films, radiation treatment *(Russian)* 6893
- polymer insulators, surface charging, field- and photo-effects 13937

polyethylene insulation continued
- polyolefins, homog. ac aging field, electrolum., surface roughness 30548
- power cable insulation, basic aspects 4683
- space charge form., B_aTiO_3 additive effects 14028
- streaming electrification, polymeric material effects 14022
- time-resolved discharge meas. 1523
- treeing, AC voltage, space charge buildup, ageing effects, power cables 30584
- walls, chink, AC breakdown *(Japanese)* 1547
- water-treed additive-free LDPE, TSDC spectra, power cable insulation 14021

polygonisation *see recovery*

polymer alloys *see polymer blends*

polymer blends
- binary lin. polyethylene blends, water treeing, mech. aspect 14013
- BPDA/PDA/6FDAm photosensitive polyimide copolymer, low stress/high sensitivity 12205
- cross-linked and side-chain polymer films, nonlin. optics appls. 15090
- crosslinkable polar siloxane copolymers for ISFET ion detect. devices 28876
- ethylene based copolymers, elec. treeing, degassing/low temp. effect 14059
- ferroelec., polaris., poling/props. 6907
- ferroelec., struct./Curie point, spectrosc. studies 6902
- LDPE-based blended polymer materials, mech./dielec. props. *(Japanese)* 22674
- LDPE/ethylene vinyl acetate copolymer blends, cable insulants 1563
- LED, majority carrier injection from ITO anodes 31101
- methacrylate-based copolymers, rhodamine doped, laser action study 31202
- P(VDCN-VAc), elec. polarisation, thermal pulse study 13934
- P(VDF/TrFE) copolymer pyroelec. thin film sens. and arrays 42817
- PE/polymer laminates, charge formation 14035
- photodelineated electro-optic polymers, GRIN profiles and loss mechanisms 14456
- piezoceramic polymer composite, 2-2 connectivity, dyn. modelling 6900
- PMMA-EVA blend, nonlin. scatt. 2064
- poly(3-buthyl-co-3,4-dibutylthiophene) copolymers, synthesis and electrochromism 37538
- poly(3-hexylthiophene)-poly(N-vinylcarbazole), blend films, electrolum. 31073
- polyaniline network electrode LED, enhanced perform. 23033
- polyethylene, lin. low-dens./low-dens. blends, shear, elongation 20994
- polyethylene/ionomer blends, space charge, TSC meas., dielec. strength 30547
- polyimide nanofoams, high temp., for interlayer dielec. appls. 12207
- polyphenylene, light-emitting copolymer, synthesis, luminesc. 14594
- polypyrrole-polyamide composite films, gas sens., NH_3, CO_2 25899
- polypyrrole/polypyrrole-polyamide composite films, gas sens. 25890
- polysiloxane, ferroelec. chiral smectic, opt. SHG 7731
- PVC cable insulation and sheathing suitability *(German)* 27210
- PVDF copolymers, ferroelec. behaviour/phys. props. 6904
- PVDF/PMMA blend polymers, opt. SHG *(Japanese)* 7747
- solid polymer electrolytes, design concepts, materials 36508
- surface modif., wet proc., adhesion, metallis., review 442
- surface morph. tailoring, improved adhesion 441
- Teflon-Af films, spin-coated, electret props. 13932
- vinylidene cyanide-vinyl acetate copolymer polaris. distrib., stabil., nonlin. optics 31586
- vinylidene fluoride-trifluoroethylene copolymer films, electrostriction 39060
- z-axis anisotropic polymer-matrix composite conducting film, SMT/PWC connectors 12196
- Ag-CdS-fluorinated polymer jn., elec. props. 13244
- Li ion rechargeable cells, solid polymer electrolytes 36553
- Pb-phthalocyanine copolymer, excited state absorpt. and dyn. 31587
- polymers, electro-optic props./appls. 22923

polymer coatings *see polymer films*

polymer dispersed liquid crystals
- *used for liquid crystals dispersed in a polymer matrix. For polymers in the liquid crystalline state, see "liquid crystal polymers"*
- chiral liq. cryst. films, lin. electrooptic modulation 7410
- chiral nematic, polymer dispersed, lin. light modulation 14543
- CLC display 7411
- CLC films, opt. memory 39308
- conf., Hungary (Oct. 1993) 11577
- conference, liquid crystals, San Jose, CA, USA (Feb. 1994) 51
- diacrylate in polymer networks, NLC displays 1748
- dielec. behaviour 6905
- direct-view polymer-dispersed LCD 18002
- displays, mol. motions and ordering 31006
- FLC light modulators 39496
- LCDs, surface mol. alignment, electrooptical perform. 7407
- memory-type polymer-dispersed CLC, elec. write/erase operations 31003
- opt. attenuator, liq. cryst. film 7412
- pattern form., polymer dispersed liq. cryst. layers 39500
- photopolymer-liq. cryst. composite, dyn. holograms appl. 40137
- switchable Polaroid holograms appl. 40131
- TFT-LCD, viewing angle improvements 34641
- thermal addressing display device cell, light scatt./refl. props. 34637
- polymers, electro-optic props./appls. 22923

polymer fibres
- elec. augmented filter, conducting/dielec. fibres comp. 4410
- opt. fibre, all-opt. and photomechanical devices 31584
- polyethylene fibre reinforced plastics, frictional props. 12189
- tetraphenylporphyrin doped PMMA fibre, spectral hole burning 23369
- Ni-Cd pasted fibre plate batteries, LEO cycling perform. 26580

polymer filaments *see polymer fibres*

polymer films
- *see also dielectric thin films; insulating thin films*
- 3D micro integrated fluid systs. and microactuator 30494
- 3D stackable MCM-D on C sig. proc. 21767
- 3D stacking MCM technol., GE HDI 21708
- 9BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 31489
- (3,1) drive multifilm piezopolymer hydrophone 18934
- 60 GHz band resistive-sheet type wave absorber, design and manufacture 40298
- amphiphile film fab., second-order nonlin. optics 15089
- area array interconnection, Cu-PI thin films on multi-layer glass-ceramic substr. 139

polymer films continued
ATM switching syst. hardware based on Cu-polyimide MCM, 320 Gb/s 16973
automatic birefr. eval. syst. 5697
azo dye doped EO-PVA film, opt. storage character *(Chinese)* 14335
BCB layers for MCM-D/L appls., attenuated refl. IR microscopy 12982
bending bilayer, polymer film viscoelasticity effects, packaging 147
bilateral solar cell bearing struct. configs., spacecraft 35255
BPDA-PDA polyimide in multilayer thin-film packages, dielec. anisotropy meas. 6464
BPDA-PDA polyimide thin films, thermomechanical props., curing effects 12208
BPDA/PDA/6FDAm photosensitive polyimide copolymer, low stress/high sensitivity 12205
capacitive humidity sens., cross-linked PMMA 9887
charged dielec./metal thin films, peeling ESD 7901
chlorinated α-methylstyrene, plasma-polymerized, high perform. neg. electron resist 30165
conf., thin film physics/appl., Shanghai, China (1994) 28235
conformal coatings, dyn. thermal mech. anal. 451
conjug. polymer LED on Si substrs. 1826
conjug. polymer LEDs 14627
conjug. polymer LEDs, μm- and nm-sized 39580
conjug. polymer LEDs, transient/DC electrolum. 39585
conjug. polymers, electronic struct., nonlin. optics, scaling laws 15142
conjug. polymers and oligomers, electrolum. 23038
connected ground and floating plane package design and anal. 11809
cross-linked and side-chain polymer films, nonlin. optics appls. 15090
cross-linked polymers, thermal stabil., electro-optic appls. 14517
Cu/polyimide multilevel thin film struct., reliab. 11860
DAN/PMMA polymers, SHG, temporal stabil., orient. pair correl. 15129
deep UV resists, thermal and acid-catalyzed deprotection 38737
deep UV resists, thermal/acid-catalyzed deprotectian kinetics 13512
dye-polymer films, photoanisotropic, joint transform correl. 8469
electrical ageing problems 13969
EM screening, intrinsically conductive polymer 2260
embedded Fabry-Perot interferometric strain sens. 17894
erythrosin-B-doped polymer films, phase-conjug. wave generation, phase change 23393
flex coating reliab., high-perform. MCM-PCB interconnection 12945
fluorocarbon films for MEMS appls., materials anal. 28852
fluoroethylenepropylene, ESD in vac., light emission and outgases *(Japanese)* 30538
functionalized polymers, nonresonant opt. Kerr nonlin. 40098
high-speed MCM ATM switching syst. hardware technols. 25191
high-speed MCM using Cu/polyimide multilayer substr., B-ISDN 37080
HTS/metal/polymer dielec. interconnect struct. for packaging appls. 11785
human body fluids Na assay, ISFET 34603
hybrid humidity sens., PTF sens. elements 25829
IBM MCM-D, polyimide dielec. material appls. 37542
IC packaging, anisotropic thermal diffusivity meas. 18137
impedance spectrosc. on dielec. gas sens. 3918
integrated force arrays, membrane based actuators 13910
ion implanted, piezoresistivity, sens. appls. 28878
ionic salt photodefinable polyimides, MCM-D dielec., Cu metallization 21740
ladder-type oligo(para-phenylene), electrolumin. devices, electrolumin./photolumin. obs. 14620
laser-induced holographic surface relief gratings on nonlin. opt. polymer films 31640
LB and spin-coated films, light atten. 14318
lead on chip struct. memory package, adhesive material 13853
lead-on-chip package, tapeless technol. 11794
lead-on-chip package, temp. cycle-induced chip surface damage 20435
liq. level sens., thin walled vibr. cylinders 17745
low stress polymer die attach adhesive for plastic packages 11801
machine stator winding varnish ageing, TSC anal. *(French)* 10937
MCM, COB, single/double sided, Jedec stand., low cost 38189
MCM, thin film transfer process, low cost 38185
MCM technol., plastic encapsulated, high vol./low cost 21725
MCM-D, Cu/polyimid TFML bare substr., MCM 21742
MCM-D, low cost, large format fab., photosensitive polyimides 21718
MCM-D metal/polymer interface durability, chem./water uptake 11817
micro-encoder chip, integrated opt. component fab. 30979
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
micromembrane pump manufactured by thermoplastic molding 30497
mm-wave meas. of sub-wavelength thickness 42936
multifunctional thin-film transducer of phys. quantities 9867
multilevel metallization beyond 0.35 μm technol. 22258
non-invasive dielec. meas., scanning pot. microscope 3954
nonhermetic coatings for MCM eval. 21737
nonlinear optics, conf., Port Barcares, France (1992) 11537
odorant sens., SAW oscillator and neural network 17982
oligothiophenes, conjug., transistors and SLM 22931
organic waveguide couplers, 2-photon absorpt.-induced luminesc. 30940
organically modified ceramics hardness and elasticity characts. *(German)* 20993
Parylene conformal coating economies 933
Parylene conformal coatings compatibility with no-clean flux residue 38109
PASTBSS terpolymer resist, lithographic technols. 38730
PCB resin/resin-glass composite insulation, moisture absorpt. effects 12942
PEEK films, DC cond., ionic behavior 30588
PET, ESD in vac., light emission and outgases *(Japanese)* 30538
PET films, creepage surface discharge in SF$_6$ gas *(English)* 30585
PET films, elec. breakdown under hydrostatic press. 13949
pH sens., solid-state, Nafion-coated IrO$_2$ electrode 3821
photodefinable benzocyclobutene thin films for MCM/IC packaging appls. 12206
photodelineated electro-optic polymers, GRIN profiles and loss mechanisms 14456
photopolymer films, 3D holographic discs 40133
photoresist glass transit. temp., wafer curvature meas. 38741
piezoresistive humidity sens., design, simul. and metrological charact. 3795
plasma polymerized films as electron resist, prep./etching *(Korean)* 22303
PMMA, grating and dot pattern nanofabrication, electron holographic lithog. 38706
PMMA doped film, opt. bistability, imaginary part of nonlin. coeff. 40042
PMMA films, metallophthalocyanine doped nonlin. suscept. 31582
PMMA films with dye mols., 2D opt. nonlin. 15093
PMMA polymerisation for electron beam resist preparation 30171

polymer films continued
PMMA resist for X-ray lithog., photoelectron effect modelling 6682
PMMA thin film fab., laser ablation 20952
PMMA waveguide, fab. procedures 22890
PMMA with Ag fractal nanospheres, cubic opt. nonlin., local field enhancement 15130
PMMA with Dispersed Red 1, photoisomerization, photoinduced orient./orient. relax. 15144
PMMA-Ge-AZ trilayer electron resist, deep submicron patterning *(Korean)* 38747
poling-induced opt. loss in nonlin. opt. polymeric waveguide 30937
poly(1,4-phenylenevinylene) films, CVD, LED appls. 12182
poly(3,4-dialkyl-1,6-phenyleneethynylene), opt. props., LED appls. 14320
poly(3-hexylthiophene)-poly(N-vinylcarbazole), blend films, electrolum. 31073
poly(3-methylthiophene) conducting polymer films, photoelectrochemical response 13094
poly(aniline) film, glucose biosensor 3895
poly(di-methyl silane) film, highly oriented, electron beam irrad. 38708
poly(dimethyldiallylammonium chloride) polymer film humidity sens. 34465
poly(methyl methacrylate), butadiene doped, SHG 2112
poly(N-methyl-10,10-dimethylphenazasiline), electrochromic windows 22948
poly(p-phenylene vinylene), color changes in photolum., doping/conversion time effects 1794
poly(p-phenylene vinylene)-based LEDs, chlorine precursor route 31108
poly(p-phenylenevinylene) LED, transient electrolumin. 14634
poly(peri-naphthalene) thin films, chem. vap. deposition, elec. cond. 12169
poly(phenylene vinylene) films, electroluminescent edge emission, brightness 23004
poly(thiophene-3-acetic acid), ultrathin film fab., opt. props. 23351
poly(vinyl alcohol)/liq. cryst. composite films, low driving voltage 14537
poly(vinylcarbazole), tris(8-quinolinolato)-aluminum doped, blue-green LED 1821
poly-(acrylic acid) overcoats in chem. amplified resists 30167
poly-(α-methyl-styrene) overcoats in chem. amplified resists 30167
poly-(para-phenylene-vinylene) films and photodiodes, photoinduced current, ESR 14600
poly-p-phenylene sulfide films, space charge, elec. breakdown 14031
polyamideimide films containing glass, sol-gel prep., dielectric breakdown 14053
polyamideimide glass composite films, dielec. breakdown/thermal degrad. *(Japanese)* 28875
polyaniline conducting polymer films, photoelectrochemical response 13094
polyaniline film, magneto-opt. materials/devices 39503
polyaniline-p-styrenesulfonic acid composite, synthesis and Schottky diode appls. 28885
polyaniline/anionic quinone multicolor expressible electrochromic display materials 28884
polyazine and π-conjug. oligomers, third-order nonlin. opt. props. 15135
polydiacetylene DCHD highly oriented film, fs. nonlin. opt. response 23396
polydiacetylene synthesis, nonlin. optics appls. 7778
polydimethylsilane film, surface-imaging proc. for electron beam lithog. 38711
polyester films, laser generated Lamb waves, capacitance transducers 10586
polyesterimide magnet wire, thermal degradation mechanism 14047
polyesters, liq. cryst., holographic storage 30838
polyethermide films, multistress aging statical anal. 14049
polyethylene, cond., preapplied voltage effect 14027
polyethylene insulation, charge trapping, thermodynamic effects 14052
polyethylene-2, 6-naphthalate film, morphology, dielec, strength, thermal effects 14054
polyethyleneterephthalate films, radiation treatment *(Russian)* 6893
polyethyleneterephthalate/Mg interface, X-ray PES 37540
polyimide charring on thin film line deletes 12962
polyimide dielec. films for electronics packaging, plasma etching 20462
polyimide electro-optic integrated modulator syst. 22929
polyimide film, fracture, hygrothermal effects 28882
polyimide film, water immersion effects on mech. behavior 12202
polyimide LB films, MIM element voltage generation, atmos. effects *(Japanese)* 38452
polyimide opt. waveguides fab., thin-film MCM proc. technol. 14490
polyimide sheets, CaF$_2$:Mn TLD 4340
polyimide thin film, time-depend. inelastic deform. 28881
polyimide thin-film on ceramic struct., MCM appls., thermomechanical stress anal. 20441
polyimide thin-layers, curing, photoacoustic IR spectrosc. 20996
polyimide-based guest-host systs., nonlin. optics, photonic devices 31585
polyimide-coated Ag hollow glass IR waveguides, loss characts. 14444
polyimide-metal interfaces, curing chem. and hydrolytic stabil. 12211
polyimides, electron beam irrad., channel waveguide fab. 22891
polyimides, low dielec. const., opt. props./orient. effects 12209
polyimides, thermomechanical props. and interfacial fracture 12210
polyimides used in MCM HDI, charactn. 11748
polymer insulators, surface charging, field- and photo-effects 13937
polymer-ferroxide film absorbers, microwave, mag., dielec. props. 14102
polyolefins, homog. ac aging field, electrolum., surface roughness 30548
polypropylene, corona streamer degrad., humidity effect 1541
polypropylene film insulation, aging-model consts., HF HV fields 14019
polypropylene film type capacitor for HF HV appls. 11229
polypropylene films, ultra thin, elec. props. 13955
polypropylene thin films, partial discharge and breakdown 13963
polypyrrole conducting polymer films, photoelectrochemical response 13094
polypyrrole free-standing films, electrochem. driven, actuation props. 28880
polypyrrole lines, lateral deposition, scanning electrochem. microscopy 28879
polypyrrole-polyamide composite films, gas sens., NH$_3$, CO$_2$ 25899
polypyrrole/polypyrrole-polyamide composite films, gas sens. 25890
polystyrene, butadiene doped, SHG 2112
polythiophene, LED, polarized electrolum. 31109
polyurea films, pyroelec./piezoelec. 6903
polyurea films, vap. deposition polymerization, photoresist characts. 13444
polyvinyl alcohol film, dye doped, novelty filtering, phase conjug. wave 31553
polyvinyl alcohol film, methyl-red doped, SLM 22930
polyvinyl alcohol film, organic dye doped, opt. phase conjug. proc. 31596
PPV, ion implant. doped, MISFET 38885
prog. interconnect arrays, thin film , chip-to-substr. interconnect switching 20434
PTFE thin film fab., laser ablation 20952
PVA films, dichromated, real-time hologram recording, humidity effects 40143

polymer films continued
PVDF film, pyroelec. imaging 1567
PVDF films, gas emissions, poling conditions influence 14039
PVDF stress gauge, fast press./shock effects meas. 42764
PVDF/PMMA blend polymers, opt. SHG *(Japanese)* 7747
PVDF/polyetherimide laminates, breakdown strength 13962
pyroelec. single-element/lin.-array sens., P(VDF/TrFE) films 17772
Schottky LEDs using polymer act. film, fab. and characts. *(French)* 1822
second order nonlin. optics *(French)* 2085
self-holding photochromic polymer Mach-Zehnder opt. switch 14556
side-chain polymer films, electro-optic effect, freq. response 14325
silicon-containing polymers, pos./neg. resists 38732
silicone oil/polymer particles suspen., electrorheological effect 39066
soft X-ray transm. props. of thin polyimide windows 43146
surface inspection by opt. triangulation 18069
Teflon, rigid-flex capability in high perform. MCM 21748
teflon film, laser through-hole drilling and cutting 20423
Teflon-Af films, spin-coated, electret props. 13932
thick film ceramic capacitive sensor, embedded in polymer 25797
thin SOP delamination, moulding cpd./polyimide interface chem. 37078
through-plane thermal props. meas. of dielec. films 21738
UV radiation dosimeter, polymer coated microcantilevers 43391
vinylidene fluoride-trifluoroethylene copolymer films, electrostriction 39060
waveguides, electro-opt. props. 14457
wobble micromotors appl. 30518
XLPE films, electron irradiated, high field AC cond. 14029
z-axis anisotropic polymer-matrix composite conducting film, SMT/PWC connectors 12196
AlGaAs, RIE 38563
AlGaAs/GaAs HBTs, polyimide deposition, recomb. current 1358
BaTiO$_3$/poly(vinylidene fluoride-trifluoroethylene) thin-film composites, pyroelec. props. 6908
CF polymer film deposition, high-aspect-ratio SiO$_2$ holes 13357
CO sens., polymer-electrolyte lamination, life-elongation 3916
Cu/polyimide MCM, embedded microstrip transm. line sig. characts. 6465
Cu/polyimide, adhesion strength, continuous micro-wedge scratch test, metallisation appls. 37570
Cu-polyimide-Si multilevel IC interconnections 38644
Fe pigments protection with amine-quinone polymers, metal particle tape appls. 7145
GaAs, RIE 38563
GaInP, RIE 38563
H maser storage box, radiation resistant/reproducible coatings 39639
InGaAsP electroabsorp. modulator, low pol. depend. 22926
Li/polypyrrole polymer batt., ambient-temp. rechargeable 19936
Pb-phthalocyanine copolymer, excited state absorpt. and dyn. 31587
Si substrs., Cyclotene 3022 coating adhesion, silane coupling agents 11818
SiO$_2$ contact hole, selective ICP etching, microloading effect 22164
p-SiO$_2$/polymer, dielec. double-layer structs., elec. cond. 30534
V redox batt., polyolefin cation exchange membrane 11243
free-standing Cu/polyimide films, MCM-D packaging 21751

polymer insulators
see also epoxy insulators
110-275 kV composite long rod insulator monitoring experiences, Australia 43788
compact overhead power line polymer insulators, develop. prospects *(Japanese)* 27239
composite aromatic polyamide insulation, conduction currents 14030
disordered materials, charge carrier dynamics, elec. field depend. 14034
distribution syst. multiple dielec. lightning impulse strengths 35633
fluoropolymer insulator, γ-ray irrad., ageing effect, position annihilation meas. 14048
HV vac. diode insulators, elec. breakdown 35659
leakage current monitoring, coastal site 43784
poly-p-phenylene sulfide films, space charge, elec. breakdown 14031
polyamideimide films containing glass, sol-gel prep., dielectric breakdown 14053
polyethermide films, multistress aging statical anal. 14049
polyethylene insulation, charge trapping, thermodynamic effects 14052
polyethylene insulators, dendrites, fractal charact., time var. 1543
pulsed power insulator degrad., high vac. surface discharges tests 36293
solid polymeric insulators, breakdown, PD meas. 4705
solid polymeric insulators, elec. treeing studies 35657
thin walled polymer insulators, mech. characts. 10760

polymer liquid crystals *see liquid crystal polymers*

polymer mixtures *see polymer blends*

polymers
see also carbon fibre reinforced plastics; conducting polymers; elastomers; epoxy insulation; filled polymers; glass fibre reinforced plastics; inorganic polymers; liquid crystal polymers; optical polymers; plastics; polyethylene insulation; polymer blends; polymer fibres; polymer films; polymer insulators; rubber
3D polymer substrs., sputtered thin film metallization 12170
ageing kinetics, elec. meas. 1515
azo dye- doped photorefr. polymers 15163
azo-dye-doped polymers opt. storage, holographic interferometry 15155
cable insulation, void discharge deterioration, semicond. layer effect *(Japanese)* 43771
ceramic packages, die attach polymer bleedout 153
chem. amplified deep UV resist, dissolution kinetics 22296
composite material, mag. field sensitive polymer 5914
computer hard disks, phosphazene lubricated, environ. effects 7155
conference, materials processing, Singapore (1994) 20244
conjugated polymers/fullerenes, optical probes, conf., USA (1994) 20195
cooker rangehood oil-dirt removal, polymer paint/fuzzy air flow control *(Japanese)* 44615
diacetylene-substituted polydiacetylenes, synthesis, opt. props. 23345
dielec. behaviour 6905
dual phase polymer electrolyte, solid state secondary cell *(Japanese)* 19941
electro-optic polymer, nonlin. optics, single-mode waveguide fab. 15063
electrolyte fuel cells, develops. and appls. 5209
electrolyte PEM fuel cell expts. 27929
EMC, resin material, metallic layers 21606
epoxy, water diffusion profile meas., neutron radiography 12222
epoxy based liq. encapsulant 20431
epoxy resin photoelastic fiber-optic strain gage 42834
epoxy resins, elec. tree growth, voltage/age effects 30537
excimer laser micromachining, replication 28439
extruded polymer power cable insulation, mech. stress meas. 43769

polymers continued
ferroelec., polaris., poling/props. 6907
ferroelec., struct./Curie point, spectrosc. studies 6902
ferroelec., struct./props. 6901
fibre optic/hydrogel probe for distributed chem. meas. 17834
fluoropolymer insulator, γ-ray irrad., ageing effect, position annihilation meas. 14048
human body fluids Na assay, ISFET 34603
HV cable, PD testing 4687
HV underground cables, termite attack prevention *(French, English)* 35646
hybrid elec. vehicles, Pb-acid batt./PEM fuel cell syst. 36725
insulating materials, elec. treeing 1510
insulating materials, mech. stress effect on elec. perform. 39063
insulation, testing equipt./methods 1562
insulation dielec. strength under PD stress 22675
insulation PD stabil., energy characts. *(Russian)* 6894
insulation radiation effects, reliab. testing tutorial 22639
insulators, thermal anal. techs. 6918
lead on chip plastic package adhesive tapes 11800
LED, carrier tunnelling/device characts. 14626
Li secondary batts., gelled polymer electrolytes 19933
liq.-cryst. cells, polymer-aligned 14539
long term perform., prediction 439
metal diffusion in polymers, expt. study 12201
metal/polyimide fine line struct., adhesion and fracture anal. 1171
meterials reliab. in microelectronics, conf., San Francisco (1994) 28229
mineral oils EHD, DC cond. expts. 2165
mol. wires/transducers/devices 28891
molding cpds. for IC plastic packaging, fracture props. 5671
multilayer Teflon microwave PWBs, isolation techs. 37974
1,2-naphthoquinone diazide-4-sulfonate photoacid generators, chem. amplified resists 1308
NDE methods 12225
nonlin. opt. effects, issues and opportunities 7761
Novolak-based photoresist, dissolution, developer diffusion model 22297
Novolever cantilever for SFM, polymers 17725
nylons of metaxylylenediamine and aliphatic dicarboxylic acids, ferroelec. behaviour 14001
organic insulation, water treeing, mech. aspects 39065
outgassing under thermal stress, semicond. technol. effects 29997
PBZT particle/suspension in mineral oil, electrorheological responses 13933
PCB laminate materials, moisture absorpt. 29690
photonics materials for IT, conf., USA (1994) 11523
piezoelec. polymer transducers, indust. appls. 34453
plastic scintillators, radiation stabil., polymer design 26215
plastic tape covered winding wire, transformers, characts. *(Japanese)* 12853
plastic-encapsulated IC, reliab. testing 30427
plastics separation, tribo-electrification syst. 7919
polamide/BaTiO$_3$ ceramic composite grain boundary capacitors, prep. 6370
poly(2,5-thienylenevinylene), TFT, charactn. 22402
poly(methylmethacrylate), lithographic and dissolution behavior, residual casting solvent effect 38750
poly(p-hydroxystyrene) pos. X-ray resist for precise replication of sub-0.25-μm 13520
poly(tetraethylene glycol diacrylate) based polymer electrolytes reinforced by Celgard membranes, Li batt. appls. 36517
poly-butene-sulfone resist, electron beam lithog., CD 22292
polyacryl amide-AgNO$_3$ electrolyte batt., prep./charactn. 19928
polyceram MPEOU-based waveguides, proc., opt. props. 7356
polydiacetylenes with chromophoric substituents, second and third order nonlin. optics 23410
polydimethylsiloxane/oxide polycerams, opt. props., proc. 7357
polyethylene, oxidized, elec. breakdown, DC current pre-stress effect 22641
polyethyleneterephthalate/Mg interface, X-ray PES 37540
polyhydroxystyrene, chem. amplified monodispersal pos. resist 22298
polyimide, adhesion of Cu and Cr films 11820
polyimides/copolyimides for IC interlayer dielec., props. 39037
polymer-ceramic composite batt. electrolyte develops. 27884
polymer-SiO$_2$ composite dielec., ULSI multilevel interconnect 38641
polymethine dyes, lasing props., temp. effect 39688
polyphenyl, didecyloxy substituted, third- and fifth-order opt. nonlin. 2111
polyurethane cable sheath cold casting syst. props. *(German)* 27213
power cable insulating materials, lab. charactn. thermal anal. 19292
power station HV equipt. insulation, online PD anal. 4756
power syst. polymer arresters, moisture sealing testing 27272
PTFE surface electrification, sliding ultrapure water 7900
PVC cable components, reliab. test methods 29621
PVC-DOPH artificial membrane, elec. field effects 26481
PVDF, piezoelec. bimorph actuators, force improvement 39109
PVDF doped ferroelec. polymers, dielec./photoelec. props. 1555
PWBs, glass fibre reinforced epoxy laminate, interfacial debonding 11819
resin based composite insulation, discharge barriers 1514
resin insulators, PD, light emission detect. 1528
silicone oil/polymer particles suspen., electrorheological effect 39066
SMART materials in polymer sci. 12203
SOFC, reduced temp., tape calendering 44313
solid polymer electrolyte composite fuel cells, ion-exchange proc. 36584
solid polymer electrolyte composite fuel cells, precip. proc. 36585
solid polymeric insulators, elec. treeing studies 35657
supercond. magnet, normal-zone propag. vel. *(Korean)* 30805
surface, plasma modif., adhesion, review, review 440
surface modif., wet proc., adhesion, metallis., review 442
surface morph. tailoring, improved adhesion 441
surface mount polymer capacitors, HF switchers 6355
surface transformations luminesc. obs. 12204
water treeing in insulation, influence of polymer morph. 13943
water-absorbent polymer ground-resist. reducing material, characts. 37541
C electrode/polyacrylonitrile-based polymer electrolyte Li cells 5188
C$_{60}$-conjug. polymer supramolecular composite, role in photoelec. devices 31081
Co-Zr-Ta-Nb amorph. thin film deposited cores on polyimide sheets *(Japanese)* 30662
Cr-SiO$_2$ cermet-polyimide interfacial reacts., thin film resistor appls. 38045
Cr-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
Cu polymer metallization, adhesion mechanisms, theoretical modelling 12212
Cu/polyimide MCMs, microstrip interconnects, digital sigs. 29729
Cu/polyphenylquinoxaline interface form., HREELS obs. 22278

polymers continued
Cu-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
Li polymer electrolyte secondary cell expts. 11247
Li rechargeable batts., polymer gel electrolyte/electrodes *(Japanese)* 5183
Li secondary batt. dimercaptan-polyaniline composite electrodes 27906
Li solid polymer electrolyte thin film batt., current distrib. 44283
$Li/a-V_2O_5(-P_2O_5)$ secondary cells, cathode characts. 5193
Li-polymer batts., 3D thermal modeling 5191
Li-polymer rechargeable batt., PolyPlus 44276
Na_xMnO_2 orthorhombic cathode material for secondary Na and Li polymer batts. 5189
Nd-Fe-B high-dens. bonded magnets, PTFE 5907
$Ni-Mh_2$ bipolar elec. vehicle batt., cell design/eval. 36714
PCM/PVDF composite film, dielec./piezoelec. props. 22662
PZT/PVDF composite film, dielec./piezoelec. props. 22662
Pb-acid secondary batt. separator technol. 36531
V redox batts., C-polypropylene composite electrode expts. 27894
WO_3/lithium-polymer electrolyte/V_2O_5 struct., electrochromic devices 1742
chem. mech. polishing, polishing pad material props. effects 38584

polynomial matrices
electrostatic pot., symm., modified slice-method 31721
fast algms. for matrix multiplication, no. theoretic transforms 20605
Las Vegas algms. for matrix groups 5781
LTI act. networks, polynomial matrix theory *(Chinese)* 12632
MLE of multiple freqs. guaranteeing unit circle roots 40825
polynomial time randomised approx. schemes for Tutte polynomial 11923
rational convolutional encoding matrices, predictable degree property 32130
testing equalities of multiplicative representations in polynomial time 5780
transfer matrices, partial fraction expansion 5727

polynomials
see also Legendre polynomials; polynomial matrices; splines (mathematics)
1-D and 2-D DCTs, high-throughput VLSI archits. 24582
2.5D scalar Helmholtz eqn., spectral Lanczos decomp. 23773
2-D circ. convolutions/no. theoretic transforms, fast algms. 40803
2-D FIR filters, freq. sampling, Hermite interpolation 752
2D backpropag. cascade adaptive recursive filters 6231
2D digital filters, nonseparable transfer fns. generated from all-pass networks 757
2D polynomial RNS 15981
2nd and 3rd order digital filters 29370
absol. water dens. meas., 1°C, 40°C 18119
adaptive channel equaliser, functional-link models 32737
adaptive deconvolution method time jitter effect elimination 2354
adaptive space time hp-refinement algms. for 1D parab. systs. 37349
Adomian's polynomials, convergence of decomp. methods 28677
AICE-CRT/DSP algms. 32675
alg. invariants, symbolic computation 5728
algorithmic work, orthogonal polynomials and special fns. 20580
ANN-based speech recogn., generalized min. distortion segmentation 24152
audio perception, artificial, axiomatic theory 32580
best approx. by incomplete polynomials, error curve, extreme points distrib. 5768
binary BCH codes, fast decoding algm. 8166
binary Goppa codes, min. dist. equal, design dist. 32060
binary primitive cyclic codes, wt. distribs. 24049
bipolar transistor ccts., lin. method, polynomial representation 21091
Boolean fns., real polynomials 20596
Boolean fns. representation, polynomials modulo composite nos. 20597
Boolean reliab. polynomial qualitat./quantitat. exploitation 11873
calibration of electroacoustic transducers, parametric technique 22681
Caratheodory fns., convergence of rational interpolation approximant 37308
chaotic time series, functional predictor, parallel implement. 24179
Chebyshev binary/bit seqs., correl. props. 40612
Chua's cct., cubic nonlin. 12304
circ. self-test path, fault coverage estim. 29175
code size, cross-correl., lower bounds 40609
coil shielding by short ferromag. tube 23692
column reduction of polynomial matrices 250
complete wt. distrib. of RS codes, derivation *(Japanese)* 2367
complex cyclotomic polynomials for cyclic convolution 8307
complex polynomial zeros approx. 5773
complex polynomials and cct. lower bounds for modular counting 21280
computational complexity of weighted integrity 11982
cpd. sig. modified recurrent search *(Russian)* 16051
curved struct. electron-beam lithog., enhanced vector-scan pattern generator 13457
cyclostationary time-series, cumulant theory 8417
cyclostationary time-series, cumulant theory devel. 8418
damped harmonics and polynomial phase sigs. 32463
data class., model, priori unknown params. estim. 2541
depth-two deterministic ccts., class ACC 21282
digital filter design, order reduction tech., Chebyshev polynomial 21430
digital images, enlargement, reduction, min. loss of inform. 32872
digital signature, (t,n) shared verif. based on discrete logs. 24027
discrete polynomial-phase transform, co-channel FM/PM sigs. separation 24182
DS-CDMA nonlin. effects in opt. transm. 34030
electronic cct. network fns., matrix proper values 28983
ellipt. waveguide anal., improved polynomial approx. 2301
error bounds for Lagrange interpolation 11977
exact encoding, space containing polygonal obstacles, polynomial time algm. 2366
fast algms. for matrix multiplication, no. theoretic transforms 20605
fast algms. for running wavelet anals. 32519
fault-tolerant sig. proc., redundant finite rings 29244
finite elements, distortion, degeneracy and rezoning survey 281
FLIR image aspect angle estim., model-based vision approach 24545
freq.-rectangles, nonisomorphic complete sets, prime power dimens. 28628
general Toeplitz systs., formally biorthogonal polynomials, look-ahead Levinson algm. 262
general Toeplitz systs., look-ahead Schur-type algm. 32482
generalized Mobius/arith. FT 2469
German, prosodically marked phrase boundaries, automatic class. 32400
glottal source modelling for voice conversion 40725
Grobner bases, alg.-geometric codes decoding 40658
guided scrambling line codes, polynomials 40579
Hamilton cycles counting in dense graphs 5775

polynomials continued
hemispherical shell Neumann scatt., modal series accel. 31798
hierarchical commun. networks, message routing, polynomial-time algm. 8784
high order approx. method for curves 20574
Hurwitz polynomial, very strict, 2-variable, computationally efficient derivation tech. 28559
hyperspectral imagery, appl. of Krawtchouk polynomials 15959
integrated optics anal., paraxial wave eqn., multilevel finite element soln. 40430
interpolation, filter digitization 40820
inverse synthetic-aperture imaging radar, gradient-search phase-retrieval algm. 3629
inverter-AC motor motor drive syst., param. ident. 5249
irreducible components of semialgebraic set, finding complexity 28660
irreducible lin. diff. eqns. of prime order 37339
iter. methods, convergence speed *(English)* 248
Ku-band waveguide cross guide directional coupler *(Korean)* 29541
Landau's inequality via Hadamard's 37299
Levinson-type algms. for polynomial fitting, Cholesky and Q factors 20582
LIM, single-sided, theoretical perform. anal. *(Japanese)* 44045
line segment of polynomials, stabil. 12256
low-degree tests of polynomials 5771
M-seq. generation 32101
mag. recording systs., partial response polynomials 30726
MCMs, flip chip solder bumps, thermomechanical charactn. 29717
meas. sigs. class., BP neural network 15930
microstrip antenna space-domain Green's fn. series form 23841
model-based vision, aspect angle target estim. in forward-looking IR images 2714
monic factors of univariate polynomial, alg. no. field 20577
multigrid algms., recombining iterants, problems with small islands 20630
multiple secrets, secure transm. in broadcasting networks 40697
multiple-polynomial LFSR, BIT 21266
multitarget tracking and motion correspondence, ranked assignments 32544
multivariate polynomial factorization, modular interpolation algm. 20551
neural network for modal compensation of atmos. turbulence 16202
Newton's method for quadratics, nested intervals 37316
Noether irreducibility forms and appls. 37311
noisy images, point reconstruction 32937
non-parametric multiscale curve smoothing 32994
nonbinary irreducible polynomials 5730
nonideal acquisition devices, general sampling theory 2464
nonlin. ccts., Volterra-Picard polynomial ident., periodic excitations 28995
nonlin. filter struct., act. sound and vibr. control, genetic algm. 32776
nonlin. generalisation of point distrib. models, polynomial regression 41134
nonlin. mag. field problems soln., Newton-Raphson method 40224
nonlin. predictor, zero-memory nonlin., second order Volterra filter 40985
nonminimum-phase syst. ident., adaptive allpass filtering 2565
nonnegative sigs., relax. procedure for phase retrieval 2472
nonperiodic BVP, polynomial time-marching 5784
nonrandom interf., freq. estim. 24250
nonrigid motion recovery from stereo images 16176
norm-bounded polynomials zeros bounds 37312
normal bases computing in finite fields 20579
normal external descriptions and feedback design computing 251
num. soln. of secular eqn. 28676
off-line segmentation of sigs., MAP soln. 41007
oracle quantum computing, complexity 14563
packing rad., covering rad., and dual dist. 24094
parab. tapered graded-index waveguides, beam propag. 8017
parametric image models, Bayesian segmentation methodology 24421
pass. acoustic param. estim., PWVD optimal window length 40968
perceptrons, PP, and polynomial hierarchy 21281
periodically disturbed data channels, error correcting codes 32142
permutation fns. tests 37300
phase param. estim.-phase unwrapping algm. 40931
polynomial factorization and partial fraction decomp. 20576
power syst. dyn. security assess., patt. recogn. method *(Chinese)* 35512
power syst. load modelling, cumulant-based probabilistic simul. *(Chinese)* 35449
power syst. loads simul. *(Russian)* 35464
power syst. voltage stabil./collapse point, load flow soln. *(English)* 26847
predictor-corrector infeasible-interior-point algm. for LP 219
prime decomp. of radicals in polynomial rings 37298
PSS, feedforward neural net, inverse dyns. *(Korean)* 35540
public-key cipher syst. based upon diophantine eqns. 24065
q^m-ary cyclic code, q-ary image 32050
q-ary lin. codes, trace description 32147
QPO, component params. calc. 21149
quartz cryst. oscillators CAD 39103
random amplit. polynomial phase sigs. estim. 32557
random seqs. generated by LFSR with nonlin. fn., anal. *(Korean)* 32095
rational convolutional encoding matrices, predictable degree property 32130
rational cubic curves, BR-curves 20573
real polynomial set with coeffs. in weighted L_p domain, stabil. 37216
repairable systs. reliab., time-varying failure rates 28541
review of polynomial eqns.-solving in ancient China 28658
roots of polynomial and derivatives 5774
RS codes, decoding, fast parallel algms. 40618
sampling rate conversion, fractional-sample delay 32734
scatt. by coated bodies, higher order impedance boundary conditions 25544
scene reconstruct. multiple viewed scatt. data 2779
segment based recogn. of 2D partially occluded objs. *(Korean)* 24691
separable-denominator multidimensional digital lattice filter 2545
short binary cyclic codes, decoding via covering polynomials 15726
sig. proc., decomp. of quantics in sums of powers 32456
sigma-delta DAC, interpolator archit. 21380
smooth image segmentation via multiresolution anal. 32833
sparse polynomial interpolation in nonstandard bases 37314
sparse polynomials, randomized interpolation and approx. 37313
speaker-independent Mandarin plosive recogn. 24147
speech compression, hierarchical stochastic modelling 40919
split film sens. calib., pitch angle determ. 34454
sq. unsymmetric Lanczos method 20590
state-depend. time warping in trended HMM 2410
steel rolling mill two-inertia syst. control *(Japanese)* 11501
Sturm seq. and no. of zeros of real params. polynomial in unit disk 20578
subset sum problem, polynomial approx. scheme 37296
superimposed exponential sigs. estim. methods 2530

polynomials continued
symplectic maps, monomial factorization, particle dyn. 4090
tapered resistive strip grating, E-polarized refl. coeff. *(Korean)* 15394
thermohydraulics, optimized locally exact num. scheme 35780
time-varying higher-order cumulant spectra, noise, composite FM sigs. anal. 40970
transform adapted, polynomial phase sigs. 16016
Tutte polynomial coeffs. complexities 37295
vector FEM, propag. wave num. dispersion 8018
VLSI interconnect struct., mixed freq.-time domain anal. 22512
wavefront simul. for atmos. turbulence 15448
Weierstrass formula and zero-finding methods 20581
weighted fractional and k-matching cumulating in hypergraphs 37297
X-ray lithog. beam lines, single mirror condenser 13540
zero-phase FIR filters, freq. domain design 24276
zero-phase recursive 2-D variable filters, quadrantal symms., design 29387

Pontryagin maximum principle *see maximum principle*

Poole-Frenkel effect
carrier freeze-out effect, low temp. semicond. device props. *(Chinese)* 22340
poly(p-phenylenevinylene) LED, transient electrolumin. 14634
$As_2S_3(Se_3)$ MChDS structs., photocharging characts., opt. memory appl. 22053
Co-phthalocyanine thin films, elec. cond., O doping, IV charact. 21939
Ge:Hg, Poole-Frenkel effect, centre ionis. deep impurity 21889
Si MOSFETs, LDD struct., low temp. operation 13762
Si, SIPOS films, cond. mechanism 21885
Si, polycryst., SI, deep-levels, transient current spectra 38226
a-Si:H, low-temp. recomb., elec. field depend. 29872
SiN-based antifuses, stress-induced leakage current, dielec. breakdown 38448

popcorn noise *see random noise*

population inversion
see also laser theory; lasers; stimulated emission
bad-cavity laser, quantum-limited linewidth 15018
injection laser polariz. dragging 2001
laser, injected at. coherence, nonlin. theory 2040
semicond. lasers without pop. inversion 1927
soft-X-ray laser prod., plasma waveguides 39678
superluminality/parelectricity, NH_3 maser 23072
VCSEL, 2D diffusion eqn. 23208
CO gas-dyn. laser, generalized model 39667
CO_2 laser, relax. time of phase-conjug. refl. via four-wave mixing 1850
Er doped fibre amp., single-mode, kilowatt pulses 14748
Er^{3+}-doped fiber amp., low noise, fab., opt. preamplification expt. *(Korean)* 31218
Er^{3+}-doped fiber laser ASE green light 1878
Ge p-type cyclotron reson. laser emission lines 14955
He-like soft X-ray laser research 31261
I_2 photodissociation laser, VUV radiation inversion accumulation 14720
InGaAs/AlInAs vert. transit. quantum cascade laser, Bragg confined excited state 23260
$LiF{:}F_2^+$ laser pumped by a flash lamp, multimode oscill. 7596
Nd:YAG laser cryst., parametric pass. phase conjug. 2118
Nd-doped fibre switching by fast relax. of reson. nonlin. 31621
P_2O_5-$SiO_2{:}Er^{3+},Yb^{3+}$ opt. fibres, transient gratings 30899
Rb maser freq. std., double bulb 39636

porcelain insulators
275-345 kV porcelain surge arresters, contamination withstand characts. *(Japanese)* 43800
345 kV porcelain suspen. insulators, replacement experience 10757
comparison, silicone rubber/EPR insulator tests 4700
EHV/UHV AC/DC overhead lines, porcelain/glass composite insulators 27241
mech. stress test methods 43791
polluted conditions, CAD, software package 35662
ZnO UHV surge arresters, breakdown perform., computer simul. 19345

porosity
see also porous materials
gas-diffusion electrodes for PAFC, limiting current 5206
polymer electrolytes reinforced by Celgard membranes, Li batt. appls. 36517
smart high temp. composites, opt. fibres, thermal spray/adhesive bonding 3853
SMT reflow-soldered joints, porosity form. rel., mech. props. 12920
SOFC, air electrode degrad., microscopical charactn. *(Japanese)* 44341
SOFC thin tape-cast YSZ materials, Young's modulus expts. 44391
sol-gel derived interf. filters, porosity/comp. effects 22987
TAB outer lead contact reliab., degrad. study 5642
AlN, 3D interconnected porous composites, proc., electronic packaging 146
$(Ba,Ca)TiO_3$, humidity-sensitive characts. *(Korean)* 20989
C fibre reinforced epoxy, degrad., acousto-US class. 5922
Cu, electrodeposited/electroless for PCBs, mech. props. 12940
Cu foil for high perform. PCBs, high strength, low profile 38126
Cu-matrix Mo particle composite low thermal expansion conductor 12198
$La_{0.7}Sr_{0.3}MnO_3$ porous cathode substrs., SOFC 11274
MnZn ferrite, low loss, role of microstruct. 7021
PLZT thin films, sol-gel proc. 37466
Pd thin electroplated coatings, solderability, semicond. packaging 37143
Si, porous, anodised, form. under uniform current dens., props. 1024
Si, porous, passiv. by RTO 22217
Si, porous, single gas sens., species ident. *(Japanese)* 42866
Si porous superlattices, type of heterostruct. 22015
Si:B, anodized/cryst. sample, elec. props. alteration by water vap. 38239
W-AlN cofired multilayer substrs., low temp. sintering 11744
ZnO, multilayer-chip varistors, elec. props., moist environ. 12833

porous materials
activated C fibers, pore struct., fractal anal. 5913
dens. determ., hydrostatic weighing 42957
gas-diffusion electrodes for PAFC, limiting current 5206
glasses, effective opt. consts., light scatt. eval. 7263
high power dens. thermophotovoltaic energy conversion 28000
MCFC cathodes, porous, current interruption anal. 36583
metal closed-die compression test, Gurson-type behavioural model 28886
microporous glasses, macroporous glasses, pore sizes 7260
NMR 1D scanning of moisture in porous materials 10076
opt. storage medium, porous glass 7261
optical props. of nanostructures, conf., Japan (1994) 28236
piezoceramics, dyn. fluid compressibility/permeab. 18927
PMMA filled porous silica glass opt. composites 7262
polyimide nanofoams, high temp., for interlayer dielec. appls. 12207

porous materials continued
vycor silica glass, mesoporous, fab. for nonlin. optics 30810
Al porous anodization proc. anisotropy, VLSI planar metallization 38673
Al-porous Si jn., elec. behaviour 22049
AlN, 3D interconnected porous composites, proc., electronic packaging 146
Au/native oxide/p-Si, electrolumin. study 31100
Au/porous Si diodes, electrolumin. study 31100
$Bi_2Sr_2CaCu_2O_{8-x}$ porous films gas sens. response anal. 34615
$Bi_2Sr_2CaCu_2O_{8+x}$-based sens. for CO and NO 34614
ITO/porous SiC blue LED, charactn. 14624
Nd-Fe-B high-dens. bonded magnets, PTFE 5907
Ni filaments in porous Si matrix, mag. props. 6996
Si, LED appl., blue, beyond 1.5 μm 14625
Si diodes, porous, immersed conducting polymer contacts, electrolumin. 39579
Si, macroporous form., self-organised props. 22213
Si, mesoporous, photocarrier grating tech. 22999
Si, porous, AC cond., hopping transport 21895
Si, porous, anodic oxid., high efficiency electrolumin. 38527
Si, porous, anodised, form. under uniform current dens., props. 1024
Si, porous, bond-and-etch-back SOI, selective etching 38591
Si, porous, conf., Strasbourg, France (1994) 20222
Si, porous, diode struct., elec./PV props. 38325
Si, porous, dyn. effective cond. 29846
Si, porous etched layer, transport, humidity infl. 21898
n-Si porous field emitter arrays, enhanced electron emission 29748
Si porous film, two-step chem. immersion form. 6644
Si porous films, chem. etching, porosity/thickness meas. 38603
Si porous films, laser ablation fab. 20964
Si,porous, laser induced form. 29840
Si porous lateral injection device struct. for LED 23054
Si, porous, layered struct., opt. props. 1022
Si porous layers, I-V charact. 21896
Si porous layers, electron powder ribbon polycryst. plates 20662
Si, porous layers, microstruct., spectrosc. ellipsometry obs. 22214
Si porous layers, passiv., FT IR monitoring 22251
Si porous membranes, gas sens. appls. 25900
Si, porous, micromachining appls. 22627
Si, porous, nanocrystal size, preanodization ion implant. effects 1225
Si porous nanostructures, electronic excitation, relax. mechanisms 14588
Si, porous, novel p-n jn. device electrolum. 14615
Si, porous, opt. bistability, photoinduced absorpt. 2114
Si, porous, passiv. by RTO 22217
Si, porous, photocarrier electronic states, photomodulated IR spectrosc. 6653
Si, porous, photocond. 1790
Si, porous, photoconduction effects and luminesc. props. 39552
Si, porous, photolum., voltage-tunable electrolum. 14589
Si, porous, photolumin. excitation mechanism, sensitisers 22250
Si, porous, plasma-oxidised, luminesc. charactn. 13028
Si, porous, post-treatment effects on elec. cond. 21888
Si, porous, quantum dot/wire struct., nonlin. optics 7738
Si porous, quantum dots, recomb. dyn. 22022
Si, porous, radical-beam-induced surface react. 22170
Si, porous, resist., surface effect 21897
Si, porous, semicond.-metal struct., current flow mechanism 13205
Si, porous, stain etch thin films, surface struct., sonication effects 6638
Si, porous, struct., EXAFS/photolumin. study 22248
Si, porous struct. from lithographically patterned substrs., photolumin. obs. 20983
Si porous struct., investig. by Raman spectrosc./SHG techs. 14587
Si, porous substrs., plasma CVD diamond 12137
Si, porous superlattices, etching 22246
Si, porous surface, backbond oxid. by O radical irrad. 30075
Si, porous, surface struct., EPR/XPS study 22247
Si, porous, vis. luminesc. props. 14590
Si, porous, vis. photolum., homog. broadened spectra 13030
Si porous wells for power devices 22508
Si, porous/HF treated, photolumin., oxid. effects 22249
Si, porous/electrochem. etched, enhanced Raman scatt. 22162
Si, porous/light emitting, opt. response, photoacoustic spectrosc. 1238
Si, self-supporting porous layer, photocond. 23000
Si thermal cond. 37544
Si visibly photoluminescent microstruct., ion implant./wet etching prep. 1271
Si_{60} nanoclusters, luminesc., chem. synthesis 31074
Si:B, anodized/cryst. sample, elec. props. alteration by water vap. 38239
Si:B porous film, photolum., Auger spectr., annealing, solvent effects 38238
Si:H, porous, lumin., surface modif. effect 1246
n-Si:In(Al), porous, metal deposition into pores, electrolumin. obs. 22157
Si/Au interface, electronic props. and Schottky barrier 22050
Si/SiO_x porous interface, paramag. centres 13349
Si-SiO_2 porous DQW, tunneling, photoluminesc. 21995
Si-based porous materials, anodization, etching 30085
Si-sapphire, porous, photolumin., microstruct. effects 6618
SiC, porous, fab./props. for power device passiv. 22505
SiC power device passiv., porous SiC 38792
SiO_2 porous thin films, interlevel dielec. in IC packaging, sol-gel proc. 12141
^{90}Sr activity meas., Cherenkov radiation in silica aerogel 18343
TiO_2, microporous electrode, PV study 28803
ZnO, multilayer-chip varistors, elec. props., moist environ. 12833

porous media *see porous materials*

portability, data *see electronic data interchange*

portability, software *see software portability*

portable computers
see also laptop computers; notebook computers
batt.-powered portable computers, technol. trends 37810
campus scale wireless Internet, ATM 33559
disk drive power consumption reduction by spin-down 11332
disk drive power mgt. in portable computers, quantitat. anal. 11331
distributed computing systs., adaptive protocols, simul. model 41528
flash storage standardization in PCMCIA cards 29206
flat-panel displays, power reduction for portable computer market 25924
Hitachi IKAP makes PCs smaller and extends batt. life 21340
IMHP, mobile host protocol for Internet 16748
InfoNet, networking infrastructure of InfoPad 33528
Internet Mobile Host Protocol, IMHP 41506
IP/Secure for security on datagram delivery for mobile host environ. 41784
low earth orbit satellite commun. appl., distributed simul. 25464
mobile computers, destination-sequenced dist.-vector routing 2990

portable computers continued
mobile computing, components, syst. aspects, appls. *(German)* 25036
mobile computing, group commun. approach 33562
mobile environ., file access design 33556
mobile wireless computing 25297
Mobile-IP, transparent resource discovery for mobile computers 33563
MosquitoNet, commun. environ. switching 33557
network bottlenecks in mobile computing, Coda file syst. 33555
power mgt. aspects 21351
routing in ad hoc networks of mobile hosts 33568
Sony MD Data rewritable data-storage syst., magneto-opt. recording 22701

portable instruments
see also portable computers
Ascom TCS P7 series test instrums. for telephone and data network fault finding 33391
batt. design, environ. factors 19926
chest diseases diagnosis portable flowmeter 26268
digital hand-held meter for RF field strength testing 17995
fiber-optic commun. testers, OL series 17170
fruit tester, portable, microcomputer-based 9819
generators, condition based maint. 36095
laser rangefinder, time interval meas. chip 10039
loaded elec. machines, noise meas., sound intens. method *(Chinese)* 10925
mag. field meters devel. 26486
miniature portable OTDR instrum. *(German)* 42962
miniature spectrometer, integrated acousto-optic tunable filter 7425
mobile ATE for flightline and forward battle areas 34366
multifunctional autoranging DMMs, mixed-sig. chip set 34618
multitasking/multiprocessing portable data acquisition and control system 34414
μP-based portable test equipt. for elec. network 4736
paroxysmal atrial fibrillation episodes, self-monitoring in ambulatory patients, PAFHPI program 26434
pollution meas. and control, portable analyser *(Czech)* 26768
power quality meas. system 27282
radiation protection meas. techs., recent develop. *(German)* 26501
RF component testing, wireless equipt. appls. 117
SAW sens. for airborne organic gases meas. 25895
shock meas. cct., portable 3-axis config. 34702
vector reflectometer, portable, appl. for thickness and permitt. dielec. meas. 18048
Pb-acid batt. impedance meas., maint. tool 44297
Si detector X-ray/γ-ray probe, backscatt. det., struct. nonuniformity meas. 4210

position control
see also attitude control; motion control
3-phase stepping motors positon control *(German)* 44089
3D point sets, mark-based approaches for motion estim. 2822
35 GHz forward looking altimeter for terrain avoidance 25612
777 Autopilot Flight Director System 10336
AC ASD, torque/speed/posn. control, trends 20065
AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
AC machines, transducerless posn./vel. control 4910
AC motor, flexible struct. attached, H_∞ posn. controller design 10967
actuator/servo interact. in opt. recording 30840
α-β target tracking approach, benchmark tracking problem 17415
arc welding robot coord. motion control, sens.-based *(Japanese)* 11505
automated pick-place laser soldering for electronics assembly 12933
automobiles, elec. power steering, present/future 5370
axial-field actuators for controllable bidirectional rot. 15255
brushless DC motor, posn.-vel. tracking control, obs. integrator backstepping approach 27750
brushless DC motor direct voltage vector control implement. 4990
brushless DC motor posn.-vel. control design 36188
brushless DC motor/robotic load, adaptive integrator backstepping tracking controller 19655
brushless DC motors, nonlin. tracking controllers develop. 4994
brushless motor drives, high power, intell. interface 5271
brushless servo systs., motors/drives/posn. control, trends 28075
bulk produce conveyors, drop dists., manual/electronic control 3803
car collision avoidance syst. design 44581
chip shooter, image proc. algm. for IC alignment *(Japanese)* 29694
CMM, optimal posn./vibr. control design 3738
DC motor, PID/fuzzy posn. controllers comparison 11070
DC motor drive adaptive neural speed regulators 36655
DC servomotor, fuzzy precompensated PID controllers 11068
DC servomotor fuzzy logic VSS control design *(Korean)* 27744
DC servomotor posn. control, fuzzy-Lyapunov fn.-based *(Korean)* 27745
DC servomotor posn. control appl., multicriteria fuzzy control 11061
dexterous motions, nonlin. cct. theory for robot control problems 21090
DGPS, positioning service for land-based mobile commun. systs. 3530
differential positioning, single satellite 42541
double differenced GPS phase obs., high precision positioning 42545
elec. drives, digital control systs. design 11383
elec. wheelchair motors, fuzzy posn. controllers *(French)* 10283
element quality anal., accuracy of ephemeris prediction from satellite orb. elements 18985
fibre-optic proximity sens., spindle stop posn. control 17897
fine/ultrafine pitch printing, electroformed/laser cut/etched stencils 37152
five-axis EDM machine tool, CAD/CAM syst. develop. *(Japanese)* 11511
free piston Stirling engine/alternator syst., nonlin. anal. 28038
fuzzy precompensated PD controller 19658
geodetic positioning and GIS 42326
GPS, block triangulation, aerial control, reliab. 42546
GPS category III precision landing, real-time flight testing, integrity beacons 3639
high-dens. tape and disc track-following control techs. *(Japanese)* 14249
high-speed vehicle convoy, control feasibility simul. *(Japanese)* 28107
HTSC-based mag. levitated transport syst. in vac. 30808
induction motor, nonlin. posn. controller 27709
induction motor, trajectory learning method, neuro-fuzzy network *(Korean)* 36172
induction motor adaptive tracking control 36152
induction motor deadbeat flux level control *(Japanese)* 27717
induction motor drives, position/speed dyn. control, DSP 20069
induction motor servodrive, control, PI load estimator 20086
induction motor servodrive, robust 2DOF posn. controller 36658
induction motors, indirect vector control, ang. vel. calc. *(Korean)* 36173
induction motors, nonlin. observer-based tracking control 19622

position control continued
induction motors, posn. control, fuzzy sliding mode control 44048
induction servodrives, field-oriented control, fixed-point DSP 11358
induction/PM sync. motors, radial posn. control 10979
indust. robot mech. positioning errors, meas. and correction *(Japanese)* 3985
indust. robot/CNC machine tool digital joint motion controller 11509
integrated positioning syst. for underwater autonomous vehicle MT-88 25600
joint torque disturbance observer for robotic PCB assembly 6415
laminate materials, alignment, sens.-based robot techs. 110
laser beam machining delivery control syst. *(Japanese)* 37061
lin. DC actuator, valve control 4352
lin. DC motor posn. syst., tracking perform., neural net *(Japanese)* 44071
lin. pulse motors, vibr. suppression design 4996
lin. reluctance servomotor drives, control perform. 5319
lin. tubular induction drive, DSP posn. controller 11342
long. vehicle dist. control, meas. error effects *(Japanese)* 10028
mag. levitated lin. positioning syst., time-delay control 15341
maglev contact anal. probe tool for automated IC manufacture 20415
Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
magnetoresistive head track following method, rigid disk servo 7173
MCM fab., planar chip insertion, interferometric micropositioning 21727
micro-moving stage positioning, accel. feedback-based *(Japanese)* 11224
microfabricated actuator arrays, manipulation/control theory 30507
microrobot PM step servomotor drive, VSS control 11354
MM-wave radar sens. for road vehicle positioning 42512
mobile robot posn. determ., visual landmark-based 9929
MOS-type posn.-sensitive detectors, angle/posn. detect., opt. interf. 34687
motor-control servo power IC for hard disc drives 36671
moving magnet lin. DC motor, const. vel. control *(Japanese)* 44073
μP-based motorised satellite antenna 2324
near field opt. microscope, piezoelec. tip-sample dist. control 39088
oblique grating, US control of geometric params. 26801
obstacle avoidance sens., automatic Nap-of-the-Earth flight 10385
optoelectronic packaging, Si surface-micromachined alignment mirrors 14673
phased array radar, adaptive beam pointing control 17416
phased array radar, revisit control for tracking manoeuvring targets 17371
photolithographic mask aligner based on moire interf. tech. 38709
piezoelec. actuator, precise positioning, open-loop control *(Japanese)* 39072
plasma arc welding robot, TGZ-LNG membrane sheet appls. *(Japanese)* 28195
PM AC motors, rotor flux posn. indirect sens. method 4909
PM stepper motor, global exponential posn. tracking controller 36201
PM stepping motor robust tracking control 36203
PM sync. motor drive, posn. observer 44444
PM sync. servomotor drives, optimal/VSS control 5288
PV power syst. max. power tracking, fuzzy neural net-based 19552
radar image proc. for ship traffic control 34145
real-time on-the-fly kinematic GPS syst. results 3533
robot vision, general learning algm. 8491
robotic arm ASIC-based motor controller develop. 11227
robots, PM sync. motor drive, robust adaptive control 20054
salient-pole brushless motors, starting method 5286
SCARA robot, posn. accuracy meas. method *(Japanese)* 42938
sensorless brushless DC motor drive control studies 44474
servo drive posn. control, direct channel nonlin. element 28078
servomotor drives, predictive posn. control design 28087
sheet glass mfg., LIM-based elevation control studies *(Japanese)* 44636
sheet metal bending, lin. hydraulic DC servomotor valve appls. *(Japanese)* 36493
shot leveling/focusing , interferometry for opt. lithog. 13561
SMD soldering/inspection workcell, develop. 6419
solder paste printer vision systs., SMT/PCB manufacture 38106
solid-state gyroscope for robotics appls. 17733
Space Station Freedom, brushless DC motor, posn. control 43453
space/aircraft actuators, integrated control *(French)* 10952
sphere joint PM stepping motor controller, robot appls. *(Chinese)* 11219
squirrel cage drives, positioning, vector control strategy 20071
SRM actuated rigid-link robot hybrid adaptive tracking control 36650
SRM drives, sensorless rotor posn. meas./control 5257
steam turbines, large, optimal load cycling 4845
step motors, hybrid, posn. determ. from EMF sigs. 11095
stepping motor positioning, closed loop optimal operation 11087
stepping motors, closed-loop posn. feedback control 19672
stepping motors, perform. improvements, develops. 44082
stepping motors, sensorless rotor posn. control 11084
switched reluctance motor posn. tracking 19612
sync. posn. VSI fed, control laws, POSTMSYNC simul. program 36673
sync. reluctance motors, vector control *(Japanese)* 10969
thin film inductive heads, write induced track misregistration 7092
tracking antenna controller, design/implement. 15677
TW US motor actuated servo drive, fuzzy control 11091
two-link collision free robot positioning, microcontroller-based 11226
two-stage approach, multi-sens. temporal data fusion 41230
universal fuzzy posn. controller for motor drives 36653
US beam levitator/positioner, acoustic radiation forces 43552
US Navy unmanned undersea vehicle navig. 35384
variable reluctance stepping motor rotor oscill. control 11376
VSC robust control of induction motor servodrive 19922
xerographic laser printer, vibr.-induced halftone banding 41196

position finding *see navigation*

position measurement
2-phase brushless motor, feedback phase winding current *(Russian)* 43996
2D large scale laser digitizer, with cordless cursor 25769
3D echocardiography, miniature mag. posn./orient. locator 18473
3D image meas. of moving objs., laser rangefinding 3627
3D position estimation, robot control model 25880
3D posn./direction determ. syst., Hall sens.-based *(Korean)* 34696
3D shape determ. from perspective image view 2775
3D shape direction/posn. meas., opt. fibre sens. *(Japanese)* 10016
AC servomotor integrated single-output sig. rotary encoder 10934
airborne DGPS, DME navig. aid coord. and calib. error detect. 25605
aircraft altitude profile estim., natural spline fn. 18710
all-weather/terrain intell. vehicle for law enforcement 34586
amorph. materials in sens. appls. 34480
analog antecedent and consequent fuzzy inference units, optoelectronic 31122
angle and displacement meas., seq./cyclic-seq. coding *(German)* 18101

position measurement continued
attitude determ. using GPS, space flight tests 17502
automated syst. for mapping spatial movement patterns in behavioral research 17669
automatic vehicle location in cellular commun. systs. 3331
automatic vehicle location subsystem interfaces 3461
bacteriorhodopsin film based motion-sensitive posn. sens. 10012
barbed plate ESP, particle motion meas. 7922
beam-centroid tracking instrum. for ion thrusters 18768
blind people globe inform. syst., TV camera/speech synthesis *(Japanese)* 26476
bubbles, size, vel. and long. posn. opt. meas. 18156
CCD sensor for position and attitude sensing 25882
CMOS analogue VLSI current-mode mesh-type posn. sensitive cct. 34495
coilgun perform., timing errors effect 31755
contactless obj. posn. and shape meas. *(Japanese)* 18098
contactless real-time meas. of robot pose 42529
coord. meas. machines, accuracy assess. 42933
DGPS correction distrib. by radio beacons *(Croatian)* 3635
digital positional shaft encoders, patents review 34699
directional PE sig., obj. location 43560
duolateral photoeffect diodes, opt. posn. sens. 17808
edge posn. meas., scanning probe microscope 18093
electron beams, size and position diagnostics, time resolved and photographic techs. 26055
EM launcher hypervelocity projectile passage sens. design 15335
event localization, crosspower-spectrum phase based tech. 32606
gas turbine engines, SRM fuel-lube pump drive 20053
GEO satellite aircraft ranging and positioning, flight route and orbit effects 17493
geolocalization, range difference/range rate difference meas. 35292
geostationary satellite positioning syst. develop. *(Japanese)* 17507
geosynchronous satellite navig. co-ord. transform. *(Japanese)* 17508
GIS charged conducting particles, motion meas. 11205
GPS positioning for field meas. appls. *(French)* 34189
Hall IC sens., contactless posn./speed detect. 34468
head tracking autostereoscopic display, syst. perform. requirements 34622
image-based air target ident. 26823
induction motor, nonlin. posn. controller 27709
indust. robot calib. by opt. methods 10031
indust. robot mech. positioning errors, meas. and correction *(Japanese)* 3985
kinematic GPS, resolving cycle slips, redundant satellites *(Japanese)* 42538
large-volume position and orientation tracking 18104
lateral displacement sens., 4Q detector 18090
lin. pulse servomotor control, 2 DOF controller *(Japanese)* 44074
line-focus-beam acoustic microscopy syst., precision mech.-translation stages meas. *(Japanese)* 43551
Loran-C waves near huge bridge, phase disturbances *(Japanese)* 42550
mag. suspen. syst., real-time posn./attitude sens. 18088
Maglev train protection/posn. detect. 5339
magnetoresistor lin. posn. sens., automotive appls. 11434
manoeuvring objs., motion estim., rot. representations 33138
manufacture, coord. referencing, uncertainty anal. 34694
microwave sens. SMX-1, motion meas. 34470
mobile robot location, laser-range/predicted image matching 34688
mobile robot outdoor navig., tree detect./dead reckoning 41109
mobile robot posn. determ., visual landmark-based 9929
MOS-type posn.-sensitive detectors, angle/posn. detect., opt. interf. 34687
moving magnet lin. DC motor, const. vel. control *(Japanese)* 44073
moving magnet lin. DC motors, capacitive type posn. sens. *(Japanese)* 44076
moving obj. detect., posn. sens.-based, meas. error probab. *(Russian)* 34701
moving observer, extracting obj. motion, optic flow and binocular disparity 32901
multi-site ref. station differential GPS syst. *(French)* 34190
multielement photodetector device for point source coord. meas. 25968
multiple light beams posn. detect. 17781
multiposition sensor syst. charactn. 34513
multitarget radial rem.-positioning syst., perform. simul. 25973
nuc. waste mgt. mobile robots, vision posit. meas. syst. 3988
ocean instrum., array element localization syst. 10545
oil spill tracking, Argos syst. 26774
opt. posn. sens., source width insensitive 17782
Optotrac, opt. non-contact 3D motion tracking instrum. 17659
Panorama Eye room air conditioner body posn. sens. 44606
parallel SME filter for 3-D tracking of multiple targets 15871
particle image velocimetry, ultra-high-speed camera 3982
pattern-deviation photon scanning method, component location 18095
peak-holding navig. syst., obj. coord. correction 25604
PM AC motors, rotor flux posn. indirect sens. method 4909
PM sync. motor drive, posn. observer 44444
point 3D posn. measuring syst. for detecting fixation point on screen *(Japanese)* 3930
positioning/paging syst. operating principles *(Croatian)* 3636
power contactor armature posn. sens., rem. auxiliary contacts 29645
railgun meas., high accuracy 15374
real-time on-the-fly kinematic GPS syst. results 3533
relativistic e-beam, rad. meas. time-resolved images 31732
relativistic electron beam propag. through gas, time-resolved partition meas. 26056
reluctance motor, rotor posn. meas., current meas. method 4934
reluctance motor drives, sensorless posn. meas. 11318
robot 3D posn./orient. meas., US ranging *(Japanese)* 42942
robot motional perform. measuring systs. *(Japanese)* 10026
robot sens. registration from posn., closed form soln. 3792
robot vision-based calib. syst. 17658
satellite attitude determ., lin. combination of models 24531
SCARA robot, posn. accuracy meas. method *(Japanese)* 42938
self tracking of human motion, virtual reality systs. 34685
short-range 2D positioning by microwave cellular telemetry 3975
sig. normalisation module for posn.-sensitive devices 34431
simultaneous particle size/3D posn./vel. meas. 18075
SRM drives, sensorless rotor posn. meas./control 5257
SRM drives, sliding mode observer controller 5301
SRM drives technol. simplification, commercial appls. 20068
step motors, hybrid, posn. determ. from EMF sigs. 11095
submarine navig. data integrat. 24296
submarines detect./location, sonar array studies 4438
survey vessels, precision attitude meas. 17496
underwater tubular struct. posn. determ. 10533
unmanned autonomous underwater vehicles characts. 10529

position measurement continued
variable reluctance motors, indirect rotor posn. sens. 5302
white light interferometric fibre optic meas. systs. 17813
white-light scanning fiber Michelson interferometer for absol. posn.-dist. meas. 42832
X-ray aligner, through-the-mask alignment sens. 13480
X-ray fan beam *z*-axis position measurement 26290
Si range finder, realtime range finding VLSI sens. 34568

position sensitive particle detectors
see also bubble chambers; multiwire proportional chambers; time projection chambers; transition radiation detectors
1D posn.-sensitive detector, resistive anode *(Chinese)* 26158
2D posn. sensitive detector, array type electron multiplier 18337
2D posn. sensitive detector for coincidence expts. 10120
ALEPH expt., LEP, slow control syst. 18304
AMY expt., lumin., endcap shower counter meas. 34894
ARGO RPC carpet, small EAS detect. 34906
ATLAS detector B phys. 4181
blue scintillating fibres, radiation damage induced by thermal neutrons 26220
CDF End Plug Upgrade Project 26187
CEBAF, expt. instrumentation, phys. program 26167
CERES RICH detectors, pad readout 34926
charge division posn.-sensitive detectors, error reduction 18345
charge division type PSPC 26116
CHORUS detector for neutrino oscills., scintillating fiber trackers 10121
CMS detector, B phys./CP violation studies 4182
COBEX, collider beauty expt. for LHC 4183
conference, high energy physics calorimetry, Italy (Sept. 1993) 20228
Cornell high lumin. upgrade, CLEO II detector, CLEO III 4177
D0 tracker upgrade, B phys. projections 4180
D0 upgrade, scintillating fiber detectors 4155
diamond microstrip high resoln. strip detector 26122
doped scintillating-fiber bundle particle detectors, cross talk 43108
DORIS II detectors and calorimetry 34900
double-sided Si microstrip detectors, probe fixture 34940
double-sided Si microstripe detectors, charge sharing and resoln. 34930
DΦ detector, control, monitoring 18305
dRAMs, radiation sens. appl. employing SEU 18316
Eloisatron particle detectors 4231
EM calorimeter, $PbWO_4$-based, electron beam tests 26194
energetic ion detect., solenoid lens and posn. sensitive counters 18342
fast TDC for gas-filled detectors 34957
fiber scintillating detectors appls. 4197
fiber scintillating imaging detector for ICF neutrons 4198
fiber-to-fiber connectors for scintillating tile/fiber calorimeters 43118
GAJET expt., LHC 4184
Gammasphere detector array, identical bands, nuc. struct. 43109
GEM detector, COSY, meson prod., meson nucleus interact. 43007
GEM detector syst., COSY accelerator, Ge wall 43113
GEM EM calorimeter perform. 26211
H1 detector, lead scintillating fiber calorimeter 26182
HERA detectors and calorimetry 34900
high precision cathode strip chamber, plastic streamer tubes 26128
high-press. gas-filled posn.-sensitive proportional counter, X-ray detect. 26144
HPC second level trigger, DELPHI 26191
imaging Si pixel array based posn.-sensitive photon detector 34514
INDRA 4π detector, design, phys. program 34898
interpolating cathode strip chambers, posn. and timing resoln. 43115
KEDR tagging syst. for two-photon phys., VEPP-4M 34924
KLOE EM calorimeter, blue scintillating fibres tests 26185
L3 TEC track resoln. improvement, vertex *(Chinese)* 4223
large area Xe drift chambers for high energy gamma-ray astrophys. 4199
Large Volume Detector, Gran Sasso Laboratory, status 34913
LHC, Si-strip detectors, low-noise front-end electronics 4235
LHC detectors, bit-serial first level calorimeter trigger 26250
LHC detectors and calorimeters 34902
liq. rare gas imaging detectors 4194
microstrip gas chambers ageing, outgassing effects 4165
microstrip gas counter for single VUV photons 10118
microstrip gas counter test, RD20 front-end 34950
MOS pixel readout for single-sided 2D detector 34933
multidetector photon intens. interferometry 10113
neutral meson spectrometer at LAMPF, perform. checks 34963
optimum event rate for CCD detector 43061
Phenix EM calorimeter, main 26189
photomultipliers with MCP 38221
photon-photon collider, detectors 26139
pixel detector, primary vertex location, neural network appl. 34941
pixel vertex detectors for high lumin. expts. 4187
pixel X-ray detector for digital mammography 35060
plastic scintillating opt. fibers, high energy CT imaging 4259
plastic scintillating opt. fibers, small animal whole body imaging 4162
plastic scintillator plates, wavelength shifting fibers, low dose rate tests 26219
pMOS pixel detector design 18344
positron ident., transit. radiation detector, neural net 4173
profile-based detectors with external pick-up strips, spatial resoln. 10133
radial collimator, strain meas. by neutron diffr. 21007
scintillating, wavelength-shifting, clear fibers, fluores. yield, γ-irrad. 26223
scintillating fiber arrays, posn.-sensitive photomultiplier readout 43119
scintillating fiber detector, energy resoln. 4161
scintillating fiber for ZEUS barrel calorimeter shower max. detector 26120
scintillating fibre calorimetry, energy resol., response uniformity 26200
scintillating tile hodoscope with WLS fibre readout 34928
scintillating tile/fiber syst., CDF plug upgrade EM calorimeter 26162
scintillating-fiber hodoscope, multi-anode photomultiplier readout 43120
scintillation-fiber detectors, relativistic HI cross sect. 43112
scintillator detectors, TOF meas., Monte-Carlo program 26119
scintillator-fiber syst. for calorimetry, radiation damage 26227
SDC barrel/endcap calorimeters, decay time, light yield, rad. damage 26226
SDC Level-1 calorimeter trigger 26192
secondary-vertex trigger, WA92 expt. 4236
Shashlik calorimeter, radiation hardness 26228
Shashlik calorimeter, WLS fibres readout by photodiode matrix 26176
Shashlik scintillator/lead sandwich calorimeter for CMS 26181
SIS, beam profile monitor for HI beams 4052
SLC/SLD, lin. collider expt. experience 34842

position sensitive particle detectors continued
SPHERE spectrometer, calorimetry develop. for relativistic nuclei 26206
STIC, DELPHI lumin. monitor 26093
thermal neutron detector syst. using laser stimulated luminesc. 34939
TIGRE, Tracking/Imaging Gamma Ray Experiment (1, 100 MeV) 18412
TOPAZ forward calorimeter at TRISTAN, lumin. meas. 34895
tracking devices at future colliders, readout and data acquisition 4232
VENUS vertex chamber, temp. DDC 10115
vis. light photon counters, high quantum efficiency photodetectors 4160
vis. photon imaging using hybrid Si pixel detectors 34515
ZEUS calorimeter, perform. 26186
B rare decay modes, CLEO II detector, CP violation 4176
β-γ coincidence, multiplexed gamma spectrometry 18363
e^+e^- lin. collider, requirements on detectors/machine 10079
BaF_2 calorimeter, cryst. props., detector possibil. 26195
CsI(Tl) photon detector for KEK E246 expt. 34918
CsI(Tl) pixellated arrays, posn.-sensitive PMT readout 18354
Fe/scintillating tiles hadron calorimeter, preliminary results 26190
NaI PET detectors, correction of distortions in discontinuous image 18467
Pb scintillating fibre calorimeter, radiation resist. 26222
Pb/scintillating fiber calorimeters, projective, electron-pion discrimin. 26188
Pb-scintillating fiber calorimeters, electron irrad. damage 26221
PbF_2 EM calorimetry, Cerenkov detector/cryst. props. 26196
Si CCDs, X-ray polaris. sensitivity 34976
Si double side microstrip wafers, large scale prod. 26169
Si microstrip detector readout, AVLSIRA CMOS proc. 10138
Si microstrip detectors, charactn./QC using IR diode laser 26164
Si surface barrier detectors, neutron meas. in TFTR 26148
Si-hybrid gas detector, cluster breakup appl. 10111
Si-microstrip detector, relativistic HI cross sect. 43112
Ta supercond. strip α detector, current-biased, posit. sensitive 43060
Xe-CO_2 proportional chambers, X-ray posn. resoln. 4175
positioning *see position control*
positive column
see also glow discharges
CO_2 laser discharge, rot. mag. field effects 1866
He-Cd^+ pos. column type UV 325 nm lasers *(Japanese)* 14683
Ne-Ar gas glow discharge pos. column, elec. field-current charact. *(Japanese)* 29738
positive feedback *see feedback*
positive impedance invertors *see gyrators*
positive ray sources *see ion sources*
positive rays *see ion beams*
positive temperature coefficient thermistors *see thermistors*
positron emission tomography
3D binary data, fast neighborhood operations, boundary approach 32914
annihilation radiation detect. with BGO crysts., spatial resoln. 35067
brain, 3D multimodality images, registration by curve matching 35068
brain activity, spatial/temporal imaging, visual selective attention 10234
camera systs., simple data loss model 35043
cameras, depth-of-interact. blurring correction method 35011
conference, medical image processing, USA (1994) 20236
dyn. PET scans, kinetic rate consts., neural estim. 18458
HEADTOME-V positron emission tomograph (SET-2000 W series) develop. *(Japanese)* 18529
high resoln. detector array module, design/perform. 43226
high-resoln. PET imaging, pharmaceutical biodistributions, small animal 10177
image reconstruction from truncated, 2D parallel projections 43263
lungs, acute and chronic left heart failure, PET eval. 43260
mag. field, PET within, photomultiplier tubes/lightguides 43255
mathematical methods in medical imaging, conf., USA (1994) 20238
neuro-PET scanner, 3D dyn. acquisition develop. 43228
neurosurgery, on-line stereoscopic image-guidance 43322
novel detector technols. for PET detector modules 18464
nuc. med., conf., Orlando, FL, USA (1994) 20218
plastic scintillating opt. fibers, high energy CT imaging 4259
small animal positron tomograph, design/perform. eval. 35063
stereotactic ^{125}I seed brachytherapy, computer planning, malignant gliomas 26461
TOF positron imaging syst. 4265
vol. imaging camera, post injection transm. scanning 35039
vol. imaging PENN-PET scanner, countrate perform. 10210
voxel similarity, measure of med. image registration 43235
whole body imaging, sampling schemes charactn. 43229
whole-body PET scanner, perform. charact. 10178
BGO block detectors, 144-/256-cryst., testing, PET appl. 43225
BaF_2-TMAE detector for PET, perform. 10211
CeF_3 scintillator for high speed dyn. PET imaging, perform. 10212
NaI PET detectors, correction of distortions in discontinuous image 18467
a-Si:H arrays, X-ray transm. scans, PET/SPECT appl. 35062
positron microscopes *see electron microscopes*
positron sources
see also electron sources
high intens. beam gen. by SR 43050
intense slow positron source at INEL 26110
KEK slow-positron source 43052
lifetime spectrosc., positron sources 43040
microbeam prod., retarding-mode positron opt. syst. 43051
Munich pulsed low energy positron syst. upgrade, prebuncher 43053
pulsed positron microbeam, operation, constr. 43057
yield, emittance, opt. matching syst. 4150
^{58}Co positron source fab. 18292
POSIX *see Unix*
possibility theory
architectural synthesis, possibilistic prog. 12276
clustering, fuzzy membership fn. generation 8583
discriminant anal. based on exponential possibility distribs. 8579
fuzzy reliab. optim. problem soln. 11848
inform. compression view of possibility theory 203
LP with fuzzy nos., possibility distrib. 28613
satellite fault diagnosis, possibility theory 10304
spacecraft qualitat. model-based diagnosis, possibilistic approach 18695
postal scales *see mailing systems*
postal services
Japan, freight, post and telecomms. regional interrelationships 8797
localized arc pattern method for zip code recogn. 40702
real-time multiline OCR parallel archit. 33027
PostScript *see page description languages*
potential dividers *see voltage dividers*
potential transformers
AC machine, alternating to direct voltage conversion, transducer *(Polish)* 43977
capacitor voltage transformers, ferroresonant oscills. 27788
coupling capacitor voltage transformer, perform. anal. 5008
MOV series compensated transm. network, mag. pot. transformers 4624
MV transformer diagnostics, RFI meas. 5026
power syst. fault quantities on-line meas. 19372
power transformer relay protection CAD, ES-based *(Chinese)* 44094
power voltage transformers, external compensation 5018
substation cables, induced transients meas./models 5157
teed transm. systs., fault generated HF noise meas. 4746
potentials (bioelectric) *see bioelectric potentials*
potentials (electric) *see electric potential*
potentiometers
see also voltage measurement
automatic calibration of test equipment 42733
fast potentiometric CO_2 sens., open ref. electrodes 9948
sens., LB films prep./immobilization 3897
ZrO_2 lambda gas sens., pseudo-ref. 17974
powder cores
Fe powder core inductors, HF modelling 12850
powder metallurgy
see also mechanical alloying
conference, powder manufacturing and industry trends, Canada (1994) 28226
porous metal closed-die compression test, Gurson-type behavioural model 28886
Cu-matrix Mo particle composite low thermal expansion conductor 12198
$FeSi_2/MnSi_x$, single couple thermoelec. generators, fab., meas. 20024
Nd-Fe-B magnets, flux stabil. in direct joule heating 6988
$Nd(Fe,Mo)_{12}N_x$, PM props. 6940
$Nd_2Fe_{14}BH_x$ powders, synthesis and mag. props. 39128
NiCr thick film resistors, sheet resist. and TCR 6349
Pb-acid secondary batt. plates, phase comp. expts. 11254
$PbNi_{1/3}Nb_{2/3}O_3$-$PbZrTiO_3$-$PbTiO_3$, piezoelec. actuator 39093
Pd powder railgun projectiles, impact expts. 15357
Pd(-Ag) spherical powders prod. for MLC capacitors 37532
$Pr(Fe,Mo)_{12}N_x$, PM props. 6940
$Sm_2Fe_{17}C_xN_y$, synthesis and mag. props. 1573
Ta-46%Ir eutectic brazing filler, thermionic appls. 28023
powder sprayed coatings *see spray coatings*
powder spraying *see powder technology; spray coating techniques*
powder techniques *see powder technology*
powder technology
see also combustion synthesis; densification; hot pressing; powder metallurgy; sintering
alkali metal thermoelec. convertor, ceramic electrode characts. 20027
anatase-based sens. materials, high-temp. immittance response 34609
coal liquefaction proc., nanoscale catalyst precursor powder prep. 27328
conference, materials processing, Singapore (1994) 20244
electrostatic flow syst., pulse charge injection modelling 28887
electrostatic powder painting, particle trajectories, math. model 7903
ferrites, self-propag. high temp. synthesis 1577
HTSC, depend. of J_c on microstruct. and proc. 7227
HTSC, Z 7
HTSC composite conductors, fab. and charact. 39240
IGBT power module interconnection busbars 37634
PM, powder proc., mag. alignment 7033
polamide/$BaTiO_3$ ceramic composite grain boundary capacitors, prep. 6370
remanence enhanced nanocrystalline materials, magnetis. procs. 7012
SOFC components, perovskite oxides combustion synthesis 44311
SOFC element fab., vac. plasma spraying proc. 44315
thick film hybrid microelectronics glasses, prep., charact. 5909
tubular SOFC, air electrode, multilayer slurry casting fab. 11273
AlN, 3D interconnected porous composites, proc., electronic packaging 146
AlN, aerosol synthesis by nitridation of Al vap. and clusters 28867
Ba ferrite, substituted, particle prep., flux method 7030
$BaFe_{12}O_{19}$, fine ferrite powders, synthesis, props. 14191
$(Bi,Pb)_{2+x}Sr_2Ca_2Cu_3O_{10+d}/Ag$, high temp. supercond. tapes, proc. 1602
(Bi,Pb)-Sr-Ca-Cu-O/Ag supercond. composite wires and tapes 14271
$Bi_{1.8}Pb_{0.4}Sr_2Ca_{2.2}Cu_3O_x$-Ag tapes/test magnets, prep./charact. 7248
$Bi_2Sr_2CaCu_2O_x$ superconds., reactive sintering 7226
$Bi_2Sr_2Ca_2Cu_3O_x$:Pb/Ag, monofilamentary tapes, Hall sens. magnetometry 39228
$(CuFe)_{2.2}Te_2$, synthesis/charactn. 20650
Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
α''-$Fe_{16}N_2$, synthesis/struct./charactn. 7032
$La_{1-x}(Sr/Ca)_xCrO_{3-\delta}$ powder planar SOFC interconnectors 44314
$La_{1-x}Sr_xMnO_{3\pm\delta}$-powders prod. by drip pyrolysis 37536
$LiFe_5O_8$ ferrite powders, prep. by co-precip. *(Korean)* 5901
Ni-Cu-Zn powder ferrite for multilayer chip inductors 14186
Ni-Zn ferrite powders, mag. props., microwave absorpt., pH depend. *(Korean)* 22689
Si porous layers, electron powder ribbon polycryst. plates 20662
SiC nanometer ceramic powder, pulsed CO_2 laser assisted synthesis *(Chinese)* 443
$Si_{0.3}Ge_{0.2}$ thermoelec. space power alloys, large-scale prod. 26586
SnO_2:Pt sens., liquified petroleum gas detect. 42861
$(Tl,Pb)(Ba,Sr)_2Ca_2Cu_3O_9/Ag_{0.37}$ thick c-axis textured supercond. tapes 1598
$Tl_2Ba_2Ca_2Cu_3O_{10}$ material for bulk appls. 22718
$(Tl_{0.6}Pb_{0.2}Bi_{0.2})(Sr_{1.8}Ba_{0.2})Ca_2Cu_3O_{9+x}$ powder/Ag-sheathed tape, synthesis/charact. 39251
W-AlN cofired multilayer substrs., low temp. sintering 11744
YBaCuO HTSC, bulk mfg., XRD, SEM 20988
$YBa_2Cu_3O_{7-\delta}$, texturing by microwave heating 39241
ZnO, LV varistors, two-step fab. proc. 38047
ZnO dense non-ohmic electrode, humidity sensitive elec. props. 34457
$ZrO_2:Y_2O_3$ SOFC electrolytes, high temp. ageing expts. 44321
powders
see also densification; sintering
coal liquefaction proc., nanoscale catalyst precursor powder prep. 27328
electrothermal launchers, powder materials accel. studies 15340
ESP, particle charging, unipolar ionic bombard., AC elec. field 7925
IR coating bidirectional reflectance distrib. fn. ref. stds. 9777

powders continued
MLC prod., advanced dielec. powders 5912
SOFC tubular cogen. syst. design 43964
thick film paste dispersion procs., pass. electronic component manufacture 6419
travelling wave panel electrode design, computer user interface 15248
AlN, 3D interconnected porous composites, proc., electronic packaging 146
α''-$Fe_{16}N_2$, mag. props. 6993
Si nanocrystalline films, laser-induced CVD 28839
$Sm_2(Fe,V)_{17}N_y$ coarse powder, struct., mag. props. 7001
Sm_2Fe_{17} powder, Nb-modified, nitriding 6947
$Sm_2Fe_{17}N_x$ powders, powder and HDDR method prep., coercivity mechanism 22686
TiC containing layers, high wear resist. on steel surfaces by laser melting *(German)* 7868
ZnO, LV varistors, two-step fab. proc. 38047

power amplifiers
see also microwave power amplifiers; millimetre wave power amplifiers; UHF power amplifiers
2 kV 10 kA pulsed GTO bridge fusion power supply 5128
3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
20 MVA GTO power amp., fusion research appls. 5115
200 W FM-band high-efficiency power amp. develop. *(Japanese)* 17548
act. mag. suspen. systs., PLL appl. *(Japanese)* 39215
adaptive feedforward lin., convergence behaviour 3324
adaptive nonlin. predistorter, high power amp. compensation *(Korean)* 25460
audio amp., n-channel output FETs 6039
audio power amps. for loudspeaker loads 558
brushless AC motors, digital servo amp. concept 11338
capacitive load driving and stabilisation *(German)* 21127
car audio, high efficiency power amp. 11443
cartesian feedback RF amp. lin., gain/phase margins 33758
centralized control for fiber-optic microcell radio syst. 3450
civ. aircraft, satellite commun., amp., dyn. efficient bias 42330
class D output stages lin. for high-perform. audio power amps. 3697
class DE RF power amp., impedance plane anal. 551
class E amp., anal. by alternor tech. 12345
class E power amp., 2nd order effects in collector AM 29057
class E power amps./freq. multipliers, RF choke reactance 21130
Class E tuned power amp., computer-aided anal. *(Chinese)* 5988
CMOS audio channels for portable sound systs., mixed sig. amp. proc. 17606
DC motors, pulsed μP control design 11067
Earth/space obs. spacecraft, pulsed power insulation design 35257
elec. motor drives, single-chip microcontroller appls. 44460
elec. vehicle drives, time-varying adaptive μP control 36739
even harmonic reson. class E tuned power amp. without RF choke *(Japanese)* 37646
HF devices/ICs for portable cellular phones 17133
HF switched-mode PWM power amp., perform. anal. 542
intell. half bridge power module, 75A/250V/75KHz, switching power amps. 6027
KrF excimer laser pulsed power amps., electron beam-pumped 36304
laser commun. terminal for LEO satellite constellations 17297
M-QAM digital mobile radio systs., diversity/equalisation 9270
medium-wave radio transmitter perform., hybrid modulation *(Japanese)* 17549
microstrip components for mobile commun. systs., evol. 33836
MOPA LD for satellite commun. 17300
nonlin. amps., intermodulation power, data modulation 560
phased array radar transmitter, pulsed power monitor syst. 34153
predistortor for high power amp. nonlin. correction *(Korean)* 12343
pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
rectifier telecom. power supplies, digital current control 19797
reliab. enhancement technols. 29017
RF amp. lin., continuous-time adaptive control 12349
RF MOSFET power amp., CAD 556
RF power amp., digital predistortion lin., reconstruction filters 25231
RF reed relay for antenna-transmitter power amp. matching 29642
small earth station hardware, IEE Colloquium, London (1995) 28267
solid-state RF power amps., bias ripple effects eval. 546
spectrally efficient modem for land-mobile radio, perform. 9272
triode/pentode audio amps., SPICE models 37655
V-band pseudomorphic HEMT monolithic power amp. 12820
VHV SMARTMOS power convertor control IC 36331
wideband RF power amp. input matching network param. optim. *(Croatian)* 548
AlGaAs-InGaAs HFET MMIC power amp., V-band, high gain 38037
AlGaAs-InGaAs-GaAs Ka-band MMIC power amp., HEMT proc. 38031
GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
GaAs power devices, heat transfer, flip chip technol. 30378
GaAs pseudomorphic HEMT, MM wave power perform. 37991
GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. 6338
InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency 6339
InP HEMT MMIC power amp., Q-band, high-efficiency 38036

power apparatus
see also electric machines; power conversion; switchgear; transformers
air gaps, nonstandard lightning voltage waves, bibliog. 4878
air gaps, nonstandard lightning voltage waves, research 4877
cement plant power/control automation project, Germany 36807
chem./plastics plant elec. modernization project 5405
computer models, phys. verification tests 43607
elec. area class., practical considerations, stds. 90
elec. equipt., general course, Moscow Power Inst. 77
elec. equipt., interchangeable components assembly methods 5615
European power apparatus prequalification rationalisation and database constr. *(German)* 20266
fibre-optic current sens., Faraday effect 17822
fully supercond. power syst. 4690
heat shielding improvement efforts *(Russian)* 4880
hot rolling mill control/power equipt. modernisation project, USA 44630
HV apparatus electrode elec. field calc., charge simul. method 19577
HV DC apparatus, charging condition, LCD indicator *(Japanese)* 36085
HV elec. power apparatus monitoring by opt. fiber sens. *(Japanese)* 3859
HV equipt. insulation eval., intell. instrum. 19578

power apparatus continued
HV mineral particulate-filled epoxy composite insulation tests *(Korean)* 27657
HV power syst. synthetic insulators, state-of-the-art *(French)* 10762
insulating params., computerised tester *(Chinese)* 27658
JR Freight prototype elec./diesel-elec. locomotives 11399
metals indust., elec. equipt. rooms ventilation 20164
MV/HV elec. equipt., enclosure internal arcing tests 4879
MV/HV power equipt. mfg. QC, supply quality effects *(French)* 36086
NPP generating equipt., struct. materials longevity determ. 35743
parametric oscills., chaotic behavior anal. 26905
petrochemical indust., used elec. equipt. sold 44635
petroleum refinery/elec. utility collaboration, overview 5414
power station apparatus condition monitoring, acoustic methods *(German)* 4751
power syst. element modelling, param. estim. techs. 35467
power syst. maint., ALICE-ES software-based 19056
rly. traction power equipt. purchasing, specs. experiences, UK 44535
short-circuit currents in power systems, conf., Liege, Belgium (1994) 5453
substation column structs., seismic protection prediction 19903
SVC design, math. modelling 4561
telecom. DC power supply equipt, product safety engng. 41625
transformer substation, HV equipt. maint., experience/feedback *(French)* 36489
transm./distrib. equipt. condition monitoring, fibre optic sens.-based 43616
transm./distrib. equipt. reliab. assess., data concepts 43613
transm./distrib. equipt. reliab. assess. approach, Canada 43614
transmission and distrib. equip. reliability, IEE conf., Warwick, UK (1995) 36831
UHV power transm. develop. overview, China *(Chinese)* 43726
SF_6 power distrib. equipt. enclosures, ventilation requirement calcs. 35628

power bipolar transistors
see also insulated gate bipolar transistors
1 hp ASD IGBT control device tests 28070
3-level IGBT PWM inverters for traction drives 27831
10 kW DC/DC PWM ZVS bipolar SIT-based power converter 19830
15 kW DC/DC IGBT ZVS reson. power converter 5080
100 kA, 5 kV solid state opening switch, railgun appl. 31762
100 MVA IGBT reson. AC/AC power converter design 5111
200 V KZ-DHC32 IGBT invertor-based induction heating cooker *(Japanese)* 44588
1200 kW HF IGBT invertor, induction heating appls. *(Japanese)* 28166
AC locomotives, line-side switching harmonics compensator 20101
AC voltage regulator harmonic capability, SPICE anal. 540
aircraft power conversion systs., soft switching appls. 43452
AlInAs/GaInAs/InP microwave HBTS, performances 12764
bipolar-mode FET, turn-on transient anal. 13813
bipolar-MOSFET monolithic cascode switch, VIPower technol. 6014
bump heat sink technol. for power HBT and MMIC 38829
Cassini spacecraft solid-state power switch develop. 26660
cct.-device mixed eqns. 22333
convertor semicond. device develops., former USSR 27803
cryogenic operation 30259
Darlington transistor fab., student lab. exercises 30255
Darlington transistor inverter, 99.3% efficiency 19743
Darlington transistors, thermal resist. meas. *(Polish)* 30232
DC/DC PWM ZVS reson. power convertor develop. 5078
dispersed generation syst. power conditioning technols. *(Japanese)* 35716
dual base transistor, voltage (current) controlled FM *(Chinese)* 38846
EA 3000 rly. IGBT auxiliary power converter series *(German)* 28124
elec. props., temp. influence 30254
flyback PWM power convertor, nondissipative snubber optimal design 19709
flyback ZVS PWM power converter-nondissipative snubber calcs. 5047
four-quadrant bipolar power converters, computer simul. 5096
Fuji Electric IGBT intell. power module products 21118
Fuji Electric moulded IGBTs, voltage reson. invertor appls. 27824
Fuji Electric power IGBT modules, elec. vehicle invertor appls. 28133
Fuji Electric power integrated modules, invertor appls. 21119
Fuji Electric products and appls. 21117
hard switching power IGBT modules, dyn. perform. tests 21102
hard switching power IGBTs, non-/punch-through technols. 12317
HBTs, high-power, modeling, scaling approach 30246
HBTs, transient thermal simul., TLM method appl. 37980
high power FET/IGBT gate driver cct. 13701
high-low emitter bipolar power transistor, characts. 22379
HV bipolar SOI transistor, fully depleted collector 13617
HV bipolar technol., trench-isolated base 30260
HV soft recovery rectifiers, motor control appls. 27802
hybrid MOS-bipolar transistor switching, profiled drive sig. 521
hybrid MOS-bipolar transistors, temp. effects tests 29043
IBGT develop. prospects, Russia 21105
IBGT module perform. testing, low inductance cct. 29009
IGBT, hybrid power modules, thermosensitive params. anal. 13700
IGBT, n' buffer layer, static characts. simul. 1410
IGBT, short-cct. phenom., simul. 38839
IGBT converters, overcurrent fuse studies 6016
IGBT power convertors, turn on/off behaviour studies 44218
IGBT power module gate drive considerations 37632
IGBT power module interconnection busbars 37634
IGBT power modules, packaging and reliab., failure anal. 30252
IGBT PWM invertors, indust. appls. 5066
IGBT short-cct. protection, motor drive appls. 29026
IGBT SPICE macromodel develop. 21108
IGBT SPICE model, power converter design appls. 12316
IGBT switches, third generation technol. 29010
IGBTs, parallel operation guidelines 21103
IGBTs, soft-switching converters, switching dyn. 30242
induction motor drive freq. converters, IGBT-based 44456
intell. power IGBT modules, motor drive appls. 532
low noise 150 V self-aligned double diffused lateral p-n-p transistor 30262
matrix power converter, switching freq. harmonics studies 5051
MELACT-1100 Series power act. filters, IGBT-based *(Japanese)* 519
MGBT, MOS-gated power bipolar transistor, 750 V 1365
modelling, ES develop. 534
multi-finger power HBT, stabil., emitter ballasting resist. effects 6734
optimal driver ccts. 29040
perform. optimisation, high current dens. 30253
PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
PM-excited sync. motorcar generator, design optim. 5379

power bipolar transistors continued
polysilicon:As microwave bipolar power transistors *(Chinese)* 21545
polysilicon emitter bipolar transistors, power appls. 22367
PWM IGBT bridge invertors, switching strategy implement. 5055
PWM IGBT invertor power supplies, case study 36353
PWM invertor IGBT gate drive IC, eval. and appls. 5052
PWM invertors, telecomm. power supply appls. 19801
quasi-reson. HF PWM ZVS DC/DC power convertors 5061
quasi-reson. HF ZVS IGBT invertor, induction heating appls. 5087
reson. DC link IGBT ZVS invertors, optimal design 36342
rly. passenger carriage power supply, IGBT batt. chargers *(German)* 28125
Scott cct. in LV stabilized secondary power supply 5109
second breakdown, power BJT/bipolar mode JFET comparison 30546
semicond. switches, device characts. comparison 537
semicond. switches PSpice models, parametric sensitivity anal. 533
single-phase IGBT switch-mode rectifier *(Japanese)* 11187
smart power technol. evol., overview 29012
SOI transistor, bipolar, VHV CMOS compatible 30488
SOI transistor, lateral fully depleted collector region, model 22390
SRM novel buck power converter topol. *(Korean)* 27691
switches, collector current, current gain rels. 38824
switching simul. models, PSPICE package-based 37636
three-phase IGBT rectifier, low harmonic pollution 19846
three-phase multifn. batt. energy storage syst. 43967
VSI, IGBT-based, asynchronous machine appls. *(French)* 11193
VSI IGBTs, on-state short-cct. behaviour expts. 44217
ZVS quasiresonant IGBT power converter, PSPICE modelling 5079
AlGaAs/GaAs HBTs, collector launcher struct., 1 W, 3.5 V 21535
AlGaAs/GaAs heterosource bipolar mode SIT 30261
AlGaAs/GaAs multiemitter finger HBT, model, self-heating and thermal coupling effects 841
AlGaAs/GaAs power HBT, current gain collapse and avalanche breakdown 38818
AlGaAs/GaAs power HBTs, self-aligned, LF noise characts. 13648
AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
AlGaAs-GaAs power HBTs, thermal stabil. tech. *(Japanese)* 38003
GaAlAs/GaAs HBTs, power amp. appls. 13655
GaAs power HBT, 44 GHz 37994
GaAs:C/AlGaAs power HBTs, bias-stressed, failure mode 22359
GaAs/GaInP(AlGaAs)-based HBTs, thermal-elec. feedback coeffs. 12783
InGaP HBTs, high-temp./microwave power appls. 38838
InP/InGaAs/InP DHBTs, microwave power performance 12765
Si BJTs, UHF const. output power contour predict. 38000
SiC-H aerospace power IC device structures 26587
SiGe multi emitter finger HBTs, f_{max} up, 120 GHz 21544

power cable insulation
3-phase underground pipe cable, above ground mag. field prediction 27206
15 kV power cable FEM modelling, computer-based 4686
15/35 kV EPR insulated cables, field aging assess. 27201
20 kV plastic cable repair by silicone injection *(German)* 27214
69 kV HPFF pipe-type cable ccts., ampacity upgrade 27199
110 kV oil-filled cable, HF EM wave transm. 10745
110 kV XLPE power cable installation project, China 27196
230 kV HPFF cable, wrinkled/creased paper insulation, eval. 27204
500 kV oil-filled cable installation, Honshu-Shikoku transm. line *(Japanese)* 19295
500 kV XLPE power cables, develop. status *(Japanese)* 10748
AC/DC HV power cable develops., CIGRE study Committee 21 activities 27195
basic aspects 4683
British Rail elec. insulation experiences, UK 44569
C black-filled semicond. materials, props., HV power cable appls. 13974
cable joints, interface insulation, elec. breakdown *(Japanese)* 10763
condition monitoring, acoustic/US techs. 18948
EPR, filler conc. effects on elec. cond. and ultralow-freq. dielec. props. 30587
EPR, treeing in cryogenic temp. region, supercond. cable appl. 14060
ethylene-propylene rubber cable insulation, damaged, breakdown volt. 14071
European power apparatus prequalification rationalisation and database constr. *(German)* 20266
extruded polymer power cable insulation, mech. stress meas. 43769
fluid filled taped cables, dissolved gas anal. 27205
high power underground cables, constr./installation 35644
high temp. XLPE flame retardant cable insulation, bromide free *(Japanese)* 19293
HV cables, synthetic elastomers, nonlin. I-V characts. 43767
HV equipt., gas chromatography diagnostics 11206
HV power cable elastomer materials, nonlin. V-I charact. *(Russian)* 43766
HV power cable thermovisual monitoring studies 35643
HV XLPE cable laying/installation 27236
HVDC cables, paper insulated, breakdown, comment/reply 35647
impulse test procedure, IEEE std. 27208
insulating materials, lab. charactn. thermal anal. 19292
junctions, dissipation factor studies 14010
LV ABC, XLPE insulated, reliab. 43774
LV aerial bundle cables, moisture ingress 35655
materials, fire safety, improvement 27203
MV overhead XLPE insulated Al alloy conductors, experience 43775
MV XLPE covered overhead lines, utility experiences, Norway/UK 43777
New Zealand HVDC link upgrade 27141
oil field submerged electrocentrifugal pumps, reliab. 5432
PD meas. and location 4688
PD pulse shape recogn., neural net-based 27207
polyethylene, treeing under AC voltage, space charge buildup, power cables 30584
polyethylene high voltage cable insulation, diagnostic methods 14065
polymer morph., influence on water treeing 13943
polymer-insulated MV cable ageing diagnosis from post-discharge meas. *(German)* 10743
polymeric HV cable, PD testing 4687
polyurethane cable sheath cold casting syst. props. *(German)* 27213
PVC cable insulation and sheathing suitability *(German)* 27210
solid dielec. power cable-to-air terminations 27237
thermogravimetric point slope procedure, thermal endurance 14018
time-depend. space charge profiles in XLPE cable under high elec. fields 19299
transm. cable lines, online control/meas. proposal 19193
underground distrib. feeder cables, failure prediction 4646

power cable insulation continued
used power cable quality determ., field tests 4685
void discharge deterioration, semicond. layer effects *(Japanese)* 43771
water-treed additive-free LDPE, TSDC spectra, power cable insulation 14021
XLPE, field-aged, water trees conversion 14063
XLPE 250 kV DC cable, insulation develop./testing 27209
XLPE 500 kV power cables, installation, terminations 43768
XLPE cable, water trees, DC component current evol. *(Japanese)* 10749
XLPE cable insulation, damaged, breakdown volt. 14071
XLPE cable insulation, DSC meas. 14069
XLPE cable insulation, TSDC meas. 14064
XLPE cable insulation, water tree DC component generation *(Japanese)* 19296
XLPE cable long-term ageing tests *(German)* 27212
XLPE constituent effects on form. of space charge 14020
XLPE high voltage cable diagnostics, dielec. response 19300
XLPE insulated 230 kV cable syst., pre-qualification testing 27200
XLPE power cable insulation, degradation characts. 14072
XLPE power cable insulation characts., defects/moisture effects 4679
XLPE power cable insulation diagnosis, DC superimposition method *(Japanese)* 27194
XLPE power cable life, DC testing effects 10741
XLPE thermally aged cable models, relax. processes 14066
XLPE/EP insulated power cables, low temp. ageing 27202

power cable testing
6/12 kV MV power syst. cables, arc fault tests 19363
110 kV XLPE power cable installation project, China 27196
230 kV HPFF cable, wrinkled/creased paper insulation, eval. 27204
500 kV XLPE power cables, extrusion-moulded joint tests 4682
500 kV XLPE underground power cables, insulation tests 4681
ampacity, thermal effects studies 4680
buried distrib. cable syst., rem. absol. phase meas. 27158
extruded polymer power cable insulation, mech. stress meas. 43769
fault location, fibre optic distrib. temp. sens. 10746
fluid filled taped cables, dissolved gas anal. 27205
HV power cable thermovisual monitoring studies 35643
HV underground cables, termite attack prevention *(French, English)* 35646
HVDC submarine cables, overvoltages, testing 27198
life, DC testing effects 10741
LV aerial bundle cables, moisture ingress 35655
PD meas. and location 4688
polymer-insulated MV cable ageing diagnosis from post-discharge meas. *(German)* 10743
polymeric HV cable, PD testing 4687
rly. feeder overhead lines, hard-drawn stranded wire testing 36749
single core power cables, trefoil form. installation guidelines 19298
SMES 200 kA cable-in-conduit conductor, perform. tests 4691
transm. network maint./fault diagnosis experiences, Hungary *(French)* 35601
underground distrib. cable joints, PD meas. 4704
underground power cable fault location, fiber optic sens.-based 27277
used power cable quality determ., field tests 4685
XLPE 250 kV DC cable, insulation develop./testing 27209
XLPE cable insulation, water tree DC component generation *(Japanese)* 19296
XLPE cable long-term ageing tests *(German)* 27212
XLPE insulated 230 kV cable syst., pre-qualification testing 27200
XLPE power cable insulation characts., defects/moisture effects 4679
XLPE power cable insulation diagnosis, DC superimposition method *(Japanese)* 27194
XLPE/EP insulated power cables, low temp. ageing 27202
AlCuMg based alloy overhead line conductors 27220

power cables
see also power cable insulation; power cable testing; power overhead lines; superconducting cables; underground cables
3-phase underground pipe cable, above ground mag. field prediction 27206
10-110 kV power overhead lines, current dens. estim. *(Russian)* 27230
24.94 kV underground distrib. systs., switching transients meas. 27173
69 kV HPFF pipe-type cable ccts., ampacity upgrade 27199
77 kV overhead line-underground cable lightning surge anal. 19306
77 kV overhead line-underground cable lightning surge anal. 10713
110 kV forcibly cooled and HTS power cable comparison *(German)* 27211
230 kV HPFF cable, wrinkled/creased paper insulation, eval. 27204
275 kV power cable systs., voltage/VAr control develop. 27031
300 MW submarine power syst. link project, South Korea 19238
400 kV EHV transm. syst. planning/develop., Singapore 27122
500 kV transm. line, 3-ground-wires, impulse response *(Japanese)* 4697
500 kV XLPE power cables, extrusion-moulded joint tests 4682
aircraft shielding, swept freq. single point excitation tech. 18704
aircraft window, fast risetime EMP coupling 18705
ampacity, thermal effects studies 4680
basic aspects 4683
building distrib. wiring, power cable burn-out, harmonics 10721
busbars, steady-state/transient ampacity calcs. 4448
cable, conduit, tray schedules, computer generation 19319
central office building power distrib., loop voltage drop optim. 43748
current leads develop., high T_c supercond., Ag addit. *(Japanese)* 19302
current sens., mag. field meas.-based *(Japanese)* 35648
distrib. cables, long service life designs 43770
distrib. networks, automatic cable router 43741
distrib. substations, switchgear internal arc fault protection design 4661
elec. shock safety, develop. 18624
elec./telecom. infrastructure develop. projects, Estonia 43639
electrical systems, cards, standards and recommended practices 20169
EM environ. meas., catalogue, 30-300 Hz 31850
EM induction shielding methods, theoretical anal. *(Japanese)* 2277
faults, capacitor discharge effects calcs. *(Russian)* 10740
fibre-optic sens. props. for quasi-intrinsic safety *(German)* 10744
fluid filled taped cables, dissolved gas anal. 27205
four stage RHEPP accelerator testing, power supply 36302
hard rock fragmentation, pulsed power plasma blasting tech. 36811
heat shrinkable power cable accessories, material props. 10761
high anti-radiation cables, nuc. fuel proc. facilities *(Japanese)* 19294
high power underground cables, constr./installation 35644
high T_c supercond. wires, elec. power appls. 27218
hospital commun. and signalling syst. *(Italian)* 10300
HV underground power cable, termite attack prevention 27197
improved power syst. perform., conf., Australia (1993) 5472

power cables continued
induced EMF on nearby telecommun. cable 25194
installation, guided boring method, IEEE Guide 35669
junctions, dissipation factor studies 14010
LEMP effects on subtransmission line, MOM 15480
load-haul-dump mach. power supply cable life rel., operating environ. 20190
LV distrib. feeders, neutral conductor current distrib. 19272
mag. fields calc., conductors subdivision method 19297
materials, fire safety, improvement 27203
metropolitan power systs., supercond. cable losses simul. *(Japanese)* 27216
MOTOR ES, motor/cables/control gear selection appls. 10959
multidimensional syst., topol. attributes, modal estim. 15473
MV cable earth fault neutralisation by conductor earthing *(German)* 4707
neutrally buoyant electrooptic tether cables 19301
nontrenching power/telecom. cable conduit installation method *(Japanese)* 20383
opt. waveguide cable short-term props. and creep behaviour *(German)* 10742
overhead line-underground coaxial cable syst., lightning surge anal. 10755
petrochemical plant, chem.-moisture barrier cable 5411
pipelines, skin effect/impedance heat tracing, appl./control 5387
resist. heat tracing cables, safety 5386
rot.-slide contacts, power line noise 25966
seafloor cable laying, SHRIMP seismic investig. tool 18817
secondary distrib. directly buried T-branch power cable joint *(Japanese)* 27183
shuttle car cable reels, ampacity calc., thermal characts. 20183
single core cable, short cct., current distrib. *(Croatian)* 4684
single core power cables, trefoil form. installation guidelines 19298
space craft plasma MHD thrusters, solar elec. propulsion system 26590
state-of-the-art supercond. material appls. 43972
substation cables, induced transients meas./models 5157
supercond. materials, power systs./transportation appl. possibilities 43612
surge protection 19348
telephone central office cable tray support failures 43786
three-phase power conductor arrangements, short cct. losses 35645
transformer overvoltages, no-load switching 27776
transient plane wave coupling, bare/insulated cables in lossy half-space 31869
transm. network single/multiple lightning overvoltages simul. 4459
transm. systs., electronics growth overview 35594
underground distrib. feeder cables, failure prediction 4646
underground power cable fault location, fiber optic sens.-based 27277
underground power cables, mag. field shielding studies 10747
underground transm. syst., surge arresters, overvoltage anal. *(Korean)* 35686
Union of Swiss Elec. Power Stations, 4th annual report *(French, German)* 4525
URD, primary cable routing, intell. syst. 19247
URD cable routing, Automated Primary Router GIS 35624
used power cable quality determ., field tests 4685
vac./tube method, opt. fiber laying alongside power cable 25520
variable speed induction motor drives, peak voltage appl. 11336
XLPE insulated 230 kV cable syst., pre-qualification testing 27200

power capacitors
1 MJ pulse power capacitor bank short-cct. current protection 11228
1 MJ transportable pulsed power source, electrothermal gun appls. 36314
2.5 MJ DECADE pulsed power generator, plasma load appls. 36357
2 kV 10 kA pulsed GTO bridge fusion power supply 5128
3 MJ railgun, expt./computer simul. studies 15281
3-phase sync. motor, single phase supply, operation 19617
3-phase TSC-TCR SVC anal., recurrences theory 19924
4.5 MJ Pegasus-II pulsed power capacitor bank protection fuse calcs. 36504
6 kV compact power capacitor syst., urban distrib. substation *(Japanese)* 27864
15 mm sq.-bore railgun, EM field meas. 15330
50 kJ railgun pulse forming unit, semicond. switched 19782
50 mm diam. induction coilgun launcher, design, eval. 15296
66 J magnetron pulsed power supply, flyback convertor-based 36321
230 kV FACTS power lines, advanced series VAr compensation *(Italian)* 4695
300 keV X-ray source develop., pulsed electron beam diode-based 36270
300 kJ railgun, high efficiency, expt. characts. 15282
500 kV LIA-30 radial line charging Marx generator pulsed power supply 34753
500 kV power syst. series capacitor VAr compensation project, China *(Chinese)* 35510
500 m/s lin. induction launcher perform. studies 15376
AC/AC back-to-back power converters, capacitor minim. 5118
AC/AC PWM power converters, vector control studies 5117
AC/DC soft switching PWM power converter, SMES appls. 11176
bipolar double layer capacitors, pulsed power appls. 36501
cable faults, capacitor discharge effects calcs. *(Russian)* 10740
capacitor discharge induction launcher model, validation 15314
class D^2 DC/DC parallel reson. MOSFET power supply 44223
continuous mode interleaved flyback power converter design eqns. 44214
current source PWM rectifier cct. studies 44181
DC/DC board-mounted telecom. power supply modules 44196
DC/DC convertor plants, distrib. fuse fault clearing study 44144
DC/DC HF SMPS, solid Ta power capacitor appls. 19826
DC/DC PWM boost power converter, switching capacitor-based 44195
distrib. network disturbances prediction, Kalman filter-based 10724
distrib. network harmonics, motor load effects modelling 19267
distrib. network overvoltage phenom., motor load disconnection-induced 4640
distrib. network power capacitor placement/replacement/control optim. 35621
distrib. network power capacitor placement/replacement/control, computer simul. 35622
distrib. network thyristor-based nonlin. loads, harmonic effects 19266
distrib. substations, thyristor controlled series capacitor appls. 27163
distribution network capacitor bank failures, harmonics effects 19262
EHV power syst. restoration voltage control, ES-based 35555
elec. gun capacitive pulse forming networks 19776
elec. transit bus, Pb-acid batt. power conditioning develops. 36730
elec. vehicle ultracapacitors, load levelling batt. appls. 36738
elec./hybrid vehicles, electrochem. capacitors charactn. 36715
electromechanical oscills. damping, controllable capacitors 4521
electron beam generation, plasma pulsed power closing/opening switch-based 34859

power capacitors continued
electronics capacitors, inductance/EMI reduction 541
electrothermal guns, capacitor charging, voltage/current control 19777
electrothermal-chem. launchers, plasma-propellant interface expts. 15368
emergency generators, rectifier supply, harmonic distortion 19536
energy storage, nonlin. tervit resistor appls. *(Russian)* 44429
FACTS, advanced series VAr compensator appls. 27138
FACTS, bilinear predictive control, thyristor controlled capacitor 4582
FACTS voltage stabiliser, series act. filter-based 19233
flexible AC transm. systs., steady state/dyn. perform. eval. 35613
fourth-order DC/DC power converters, limited duty cycle range 19792
GTO invertors, energy recovery snubber cct. 5085
GTO PWM three-level VSI, induction motor drive appls. 19761
half-bridge PWM power converter, small DC link capacitor *(Japanese)* 36348
hard rock fragmentation, pulsed power plasma blasting tech. 36811
hardFET pulsed power modulators, array-type radar appls. 27820
harmonics meas./anal., China *(Chinese)* 43805
harmonics minimisation, variable capacitance compensator 43611
Hercules capacitor bank pulsed power switch life test project 36459
high-power elec. double layer capacitors, develop. *(Japanese)* 5170
HV equipt., gas chromatography diagnostics 11206
HV metal-film capacitors, liq. impregnation 36498
HV power capacitor technol. in Japan, develop. 27876
HV pulse low-inductive capacitors, high repetition freq. 36505
hybrid elec. cars, ultracapacitors, energy storage 20098
induction motor, single phase, torque control, controlled capacitor 27716
induction motors, capacitively compensated, line commutated power converter-fed 27732
indust. distrib. networks, capacitor overcurrent protection 4653
INPIStron dense plasma pinch pulsed power switch 36464
lin. induction launcher, multi-sect. transit. simul. 15299
lin. ion accelerator FET-switched pulsed power supply, PSpice simul. 34742
Marx generator-based EMP simulator pulsed power supply 36264
metallized electrode capacitors, nuc. fusion, capacitor banks 36631
mining plasma blasting appls., 1 MJ pulsed power studies 36812
MOV protection, series compensation capacitors, response calc. 27251
multilevel inverter-based SVC, computer simul. 19122
multiple single-tuned harmonic filters, ratings selection 26874
Nat. Ignition Facility, ICF, laser flashlamp power conditioning syst. 5106
oscills. damping, control design 27004
PD detect., acoustical method 5172
Pegasus II pulsed power capacitor bank explosive closing switch 36454
plasma source ion implant., pulsed power modulator totem pole drive 36804
plasma source ion implanters, pulse power modulator design optim. 36803
polypropylene film type capacitor for HF HV appls. 11229
power cct. variable act.-pass. reactance studies *(Japanese)* 12311
power convertor nonlin. ccts., transm. line modelling 19720
power saving in embedded proc. 6159
power syst., optimal kVAr control, capacitor sizing 19150
power syst. nodes, dyn. loads, transient anal. 19068
power systs. education, distrib. feeder power quality calcs. 20348
Procyon explosive pulsed power syst. review 36253
pulsed plasma generator, discharge chamber operating conditions 19765
pulsed power capacitor dielec. eval., ringing conditions 36499
pulsed power capacitor rapid discharge ccts., param. estim. 27825
pulsed power energy capacitance integrator studies 19706
pulsed power forming line capacitors develop. 36503
pulsed power high-Q capacitor banks, long-duration arc discharge appls. 36500
pulsed power supply slow capacitor banks, overcurrent protection 36313
quasi-reson. AC/DC forward power converter topol. 44145
radial distrib. networks, optimal capacitor selection search method 19264
radial distrib. syst., fixed/SC, optimal choice 19240
radiation source pulsed power, ultra fast foil closing valve 36269
railgun metal armature contact press. studies 15358
railgun multi-tiered Cu wire solid armature studies 15354
railgun test range develop. results, Russia 15367
railguns plasma armature exploding wires, vis./UV spectrosc. 15328
reactive power compensators for distrib. systs., harmonic distortion 19256
refinery MV distrib., capacitor switching characts./meas. 20168
reson. power converters, variable capacitance device appl. 19828
rock fractioning, pulsed power exploding wire expts. 36813
rural power network VAr compensation overview, China *(Chinese)* 35511
self-excited induction generators, capacitor selection studies 44036
self-healing metallized polypropylene power capacitor testing 27877
self-reson. PWM forward DC/DC power converter 44225
series reson. power converter, integrated L-C-T struct. 19717
SiC nonlin. resistors, capacitive energy storage appls. 36502
single-phase high efficiency induction motor, perform. studies 19627
single-phase PWM VSI, residential PV power syst. appls. *(Japanese)* 36346
SMES, DC power line appls., input/output cct. studies *(Japanese)* 11309
stand alone induction generator, wind driven, induction motor load 27741
static power convertor filter capacitor fault detect. methods 19827
steel plant power syst., harmonic meas./anal., PF correction 11502
supercond. machine cryoresistive winding short cct. interacts. *(Russian)* 10919
SVC, GTO-switched, elec. welding appls. 4531
SVC, μP based, unbalanced load appls. 10670
SVC, three-level invertor-based, expt. investig. 43665
switched power harmonic filters, anal., appls. 19741
three-phase AC/DC step-up power convertor anal. 36372
three-phase boost power convertor, interleaved switching topol. 5124
three-phase power systs., sinusoidal currents decomp. 4465
three-phase PWM neutral point clamped invertors, voltage control *(Japanese)* 11121
three-phase sync. motors, single-phase supply starting transients 44017
thyristor-controlled series capacitors tuning by eigenvalue sensit. anal. 4630
transm. equipt. reliab. IS, Canada 43722
transm. line, thyristor controlled series capacitor compensation 27187
transm. network automatic SC, dyn. perform. 4620
transmission network distance relay macromodel, EMTP-based 19330
triggered gap switch, LV operation *(Japanese)* 5137
UHF power capacitors, thermal rating characteristics 6362
voltage indication syst. operational experience *(German)* 19901
voltage stabil., shunt VAr compensator effects *(Japanese)* 10709
XeCl laser, controllable pulse duration 7533
Ta SpeedPower SMD capacitors, B45197 series 873

power combiners
see also power dividers
90° bridge coupler power amp./combiner, nonlin. anal. *(Chinese)* 12750
act. array module for spatial power combiners/act. antennas 31990
act. integrated antennas, review 15628
branch-line hybrid-rings, coupled-lines 37943
cpd. quasi-opt. power combiner, cct. anal. 812
double cylindrical cavity multiple device, power combiner *(Japanese)* 6285
dual FET act. patch elements for spatial power combiners 15658
grid oscillator design, act. quasi-opt. power combining appls. 12777
lumped element microwave phase-shifting and matching networks, design 12736
metal grating polarizers, quasi-opt. power combining 29531
microwave radiometer Earth obs. phased array antenna design 26711
solid-state power combiner, dielec. tuned, optim. 29553
spatial power combining oscillators on microstrip structs. 12789
spatial quasi-opt. MMIC power-combining array, device failures, DC open cct. 21563
two-level power combining using lens amp., patch antenna array, PHEMTs 12811

power consumption
1.8-μm CMOS 60-MBaud single-chip QAM proc. for digital radio appls. 21369
3 DOF Maglev, actuators, PM *(Japanese)* 39216
670 nm low-threshold-current multiquantum-well LD 7620
AC motor drives, state-of-the-art, overview 44453
AC motor variable speed drives, design specs. 20062
AC rly. syst. energy conservation, optim. train running curves 44530
adiabatic CMOS, reversible logic issues 6862
agricultural elec. demand, pricing effects model, USA 36809
building energy anal. simul. programs 5240
building energy systs., fractional factorial design 11313
cache designs for energy efficiency 12514
cement plant design, efficiency/environ. issues 5428
cement plant design, power/emissions reduction 44637
cement plant design for stringent environ. stds 5427
China's energy consumption situation, characts. 28057
closed-cycle gas turbines, combined pinch/exergy anal. 36009
CMOS ccts., power consumption, cell library characts. 12488
CMOS IC state assignment for low-power FSM synthesis, genetic local search 21079
cogen. desalination plant, desalter, fuel cost 35984
commercial building envelope loads, elec. use simul., Hong Kong 36794
customer energy needs assess. project, Australia 4503
customer power consumption contract agreements, PC-based *(Russian)* 5241
DC LV low power energy meter, μP based, design 10791
delay-insensitive codes, power-efficient, for data transm. 15759
desktop computer power mgt., cost-effective archit. 6012
disk drive power consumption reduction by spin-down 11332
disk drive power mgt. in portable computers, quantitat. anal. 11331
district heating forecast, ANN appl. 19500
domestic appliances, energy consumption, economic approach 44620
domestic hot water supply, elec. heating energy savings 5381
DynEAF dyn. modeling tool, integrated elec. steelmaking 44629
Eastern Europe sustainable develop., energy policy 26930
elec. consumer demand cycle optimis., cost savings *(Italian)* 4591
elec. drives energy conservation, energy efficient options 28098
elec. end-use efficiency, worldwide experience 19084
elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
elec. power markets, optional forward contracts 4572
elec. rly. power consumption characts. estim. *(German)* 44503
elec. tariff syst. principles, Croatia *(Croatian)* 10625
elec. utility DSM, customer commun. appls. 10659
elec. utility DSM opportunities case study, India 35535
elec. utility DSM overview, UK 10657
elec. utility DSM planning, elec. cooking implications, Nepal 35475
elec. utility DSM programmes, concepts and eval. 43697
elec. utility DSM programmes assess. methods 26991
elec. utility energy efficiency programmes, EPRI research 26920
elec. utility energy services/DSM, objectives overview 10660
elec. utility integrated resources planning projects, Scotland 10658
elec. utility load mgt., tariff-based, UK experiences 4506
elec. vehicle drive chain power consumption model 11412
electronic equipt. cooling fans, air vel. problems 20139
EM levitation with permanent and electro magnets, optimal design 20091
energy consumption change forecasting, Slovenia 26932
energy efficiency, bottom-up economic meas. approach 28054
energy efficiency markets, perform. assess. 28053
energy efficient building design research programmes, Europe 11314
energy use/conservation, climate change, economics 27314
energy-efficiency gap, market barriers/failures 27315
farmhouse power consumption limiters, methods and advantages *(Russian)* 4589
forecasting, temp. inputs 19174
fresh-produce refrigerated store, wt. loss/power consumption model 44638
fuel cells, building CHP appls., perform./cost requirements 36077
full service broadband networks, power requirements 42622
future final energy consumption forecast, former USSR 27082
gas turbine CHP plant, multi-objective operation optim. 36010
global environ. protection, energy conservation methods 28052
handportable satellite commun., lin. transmitter archits. 42332
HFC 134a refrigerator rotary compressor 44609
high speed drives, energy/material savings 36672
household appliances, energy conservation pot., former USSR 28185
household lighting, energy resource alternatives 20120
hybrid PV-wind power syst., optimal unit sizing 10894
ICE elec. locomotives, energy consumption/pollution study, Germany *(German)* 44502
India, energy use/carbon implications, CO$_2$ emission 28190
indust. distrib. network improvement, Clean Air Act effects 11493
indust. elec. consumers, competition-led CHP markets 43640
indust. elec. pricing, voluntary TOU tariff 44622
indust. energy/exergy anals., Turkey 20153
indust. waste heat recovery, energy conservation *(Japanese)* 35725
intercontinental elec. connections, rational use/efficiency anal. 26934
LIM, rolling rotor, pulsed operation modelling 27720
lin. pulse motor actuators, principles and characts. 44256

power consumption continued
Lithuania, energy consumption/efficiency prospects 27313
load-weather temp. fn. calc. method 35589
low driving voltage CCD, single layer electrode struct. for area image sens. 22612
LV distrib. feeders, neutral conductor current distrib. 19272
metropolitan power systs., supercond. cable losses simul. *(Japanese)* 27216
Mitsubishi Electric ice storage air conditioning syst. 44604
Mitsubishi Electric twin-mechanism rotary refrigerator compressor 44610
Mitsubishi Electric ventilation syst., airtight dwellings appls. 44607
motor-driven external-injection fans, noise/power reduction tests 28178
multi-level/period elec. tariff, unit cost calc. *(Italian)* 4565
multi-zone cooling systs. with storage, efficient operation 20148
multizone HVAC syst. optimal control, aggregation/disaggregation method 28180
narrowband microcellular speech transm. schemes 3332
New Sunshine Project, PV develop., Japan 27633
NKK DC arc furnaces, technol. *(Japanese)* 20131
office building power quality survey, Hong Kong 4501
PAFC CHP feasibility, multiobjective optimal unit sizing 36074
Panorama Eye room air conditioner body posn. sens. 44606
parallel inverter for energy saving, power factor regulation 19872
petroleum pipeline service, peak shaving generator appl. 5408
petroleum refinery/elec. utility collaboration, overview 5414
piezoelec. stack act. member, power consumption, electromechanical anal. 30598
playback-only MD syst. chip set *(Japanese)* 42650
pollution control, elec. technols. appl. *(French)* 5717
prospective energy scenarios for France *(French)* 4758
pulsed power technol., power plant pollution control appls. 35967
pump/ventilation elec. drives, energy consumption reduction 28077
PV array max. power point tracking scheme 19559
PV grid connected buildings, energy flow, economics 43955
reprographic devices, energy consumption meas. techs. 9991
residential air conditioner, solar-powered, perform. eval. 28179
residential consumer's energy anal. environ. 28055
residential energy demand sector restructuring, South Bohemia 26933
residential energy use patterns survey, Philippines 35474
residential heat pumps, improper refrigerant charging expts. 28187
residential lighting, energy efficiency opportunities, Mexico 28157
rly. syst. technols. develop., Hitachi 44504
SIPPOS (single poly pure CMOS) EEPROM embedded FPGA 21326
solar air heating, const. temp., simul. 36792
squirrel cage motor perform. characts. calc., nameplate data-derived *(Russian)* 11011
Stockholm lighting energy efficiency programme, Sweden 35534
subband low power video decoder archit. 33666
supply quality distortion, consumer/utility responsibility *(Russian)* 10621
switches, free-standing air conditioning units *(French)* 20138
telecomms. switch room cooling, natural convection-based 20140
telephone exchange energy efficiency, EE2000 study project 19820
thermal generation capacity improvement proposals, Russia 27532
urban household water pumping, energy alternatives eval. 44433
variable speed induction motor drive retrofits, centrifugal load appls. 36690
watthour meter opt. character reading syst. *(Japanese)* 9969
world energy syst. concept 26935
Al scrap electrorefining, chloride melts-based 28193
CO$_2$ emissions from elec. generation *(German)* 43818
Cu electrolytic refining, energy consumption expts. 11495
InGaAsP semicond. opt. amp. array 23223

power control
see also load regulation; reactive power control
2.4 MJ multi-module capacitor bank, electrothermal launcher 20049
2 kW series resonant converter, CO$_2$ gas discharge laser appl. *(Spanish)* 19877
10 kHz inductively coupled power transfer, elec. vehicle appls. 5344
130 kV rly. power syst. operation optim., Sweden 44534
622 Mbit/s TDMA PON, novel burst mode opt. transmitter *(English, Italian)* 33991
900 MHz GSM integrated power amp. control cct. 33936
aircraft intell. rem. power controller 26682
AN/FPS-85 radar, peak power tailoring and phase nulling 34159
BiCMOS laser control chip combining power control and 622 Mbit/s modulator 31426
built-in diagnostics for advanced power mgt. 34356
CDMA, imperfect power control, acquisition-based capacity estim. 25256
CDMA cellular mobile radio syst., power control/coding 17102
CDMA cellular radio, uplink power control/base station assignment 25376
CDMA mobile systs., power control, perform. and syst. design 33868
CDMA multiple-cell radio syst., perform. eval. 3386
CDMA systs., multistage RAKE receiver 9242
cellular CDMA, forward-link power control law 3347
cellular DS/CDMA systs., lin. interf. canceller 9241
cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
cellular radio channel assignment via power level control 9256
cellular radio systs., constrained power control 9249
cellular radio systs., downlink power control algms. 25344
cellular syst., power control algm. 9251
cellular syst. all-channel concentric allocation algm. 42204
commercial airplane auxiliary power unit starting drive 4360
commercial power syst. DSM, PLC-based scheme 35490
controller, fuzzy chip-based fault classifier 11131
D1900 micro cell indoor/outdoor appls. 25435
DC rly. power systs., intell. traction power control 28126
distributed power balancing, sparse inform. link 9250
DS-CDMA cellular mobile radio network, down-link power control 33871
DS-CDMA cellular slotted syst., throughput/delay anal. 25438
DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
DS-CDMA outage perform., mobile satellite channel 33906
DS-SS CDMA cellular voice/data commun. 25342
DS-SS sigs. time division duplex transm. 9203
DS-SSMA, unknown seq. estimator, near-far problem 25361
dyn. channel allocation algm., transmitter power control 9252
elec. locomotives, adaptive output power control studies *(Japanese)* 28112
failsafe contactors, electronic coil power economizers 29639
farmhouse power consumption limiters, methods and advantages *(Russian)* 4589
freq. hopped TDMA cellular syst., down-link capacity 9285

power control continued
generalised power flow controller, anal. *(Chinese)* 43629
GSM radio meas. data, proc. methods 3447
hierarchical digital broadcasting, adaptively weighted CDM 25628
Huygens power system, power control/distrib. 26648
hybrid output relays, semicond. switch-based, DC/AC power control 29635
IEEE industry applications, conf., Denver, USA (1994) 10
IGBT short cct. current behaviour 29025
induction motor drives, μP-based, vector control algm. 36643
interconnected power systs., tie-line bias prioritized energy control 35477
joint automatic generation control regulation 4580
LEO satellite commun., nonuniform traffic, integrated voice/data syst. 25454
LINE BACK, utility connected PV inverter 44204
LMSS, open-loop power control error 25300
local networks, novel sync. procedure 16547
microcell overlaid, umbrella cell syst. 17059
MM-wave Gaussian beam, electro-optic power control 39474
multi-user channel, capacity constraints 40524
narrowband fading channel spectral efficiency 42199
network mgt., KBS and distributed problem solving 10650
nonequilibrium MHD generator/line commutated inverter, power control *(Japanese)* 36613
nuc. gas turbine transportation engine, throttle valve control 28143
open-loop power control error on land mobile satellite link 25402
orthogonal multi-carrier FH-CDMA schemes for freq. selective fading *(Japanese)* 25280
PM sync. motor drives, high-efficiency, PF control 36642
PM sync. motors, stable nonlin. observer design 44023
power syst. security assess./real power rescheduling 26968
power syst. short-cct. power control, ES-based 19136
power syst. sliding mode control, phase shifter-based design *(Japanese)* 26996
PSS, SMES-based, neural network-controlled 27030
PV array, max. power point tracking, fuzzy control *(Japanese)* 11293
PV power syst. max. power tracking, fuzzy neural net-based 19552
PWM regenerative sinusoidal converters, H^∞ control 5131
QAM, self-learning adaptive recursive equalizer 32771
quasi-MM microwave access systs., transm. power control effects *(Japanese)* 42158
radio networks, distributed power control 9376
RAKE receiver implement. of CDMA power control mechanism 25439
rapid thermal proc., 3D modelling for design optim. 22552
RS coded slow freq. hopped TDMA cellular syst. perform. 33827
Russian unified power grid, power flow/freq. control 10639
saturated sync. motor drives, control modelling 5324
semicond. components for opt. amplif./modulation/detect. 42472
semicond. laser power digital stabilization 39765
series-parallel reson. converter, magamp postregulators 6020
shadow fading dyn. channel assignment and power control capacity 42202
single phase AC choppers, asymm. PWM control 36246
solar cell, max. power point tracking control, chopper *(Korean)* 36608
space platforms, power syst. control/protection integrat. 26680
Space Shuttle rem. power controllers, AlN metalization/joining 26688
space vehicle power control syst., automated fault diagnostics 26681
spacecraft, battery mgt./scheduling integration 26565
spacecraft, electronic switching, reversible energy mgt. 26596
spacecraft solar arrays, on-orbit output power mgt. 26601
squirrel cage ASD, speed/torque/PF control 5270
SS multiplexing, hierarchical TV transm. 25634
SS receivers, diversity reception improvements 25444
steam turbine robust controller design 35968
supercond. magnet power supply convertor, current control studies *(Japanese)* 11188
TDMA cellular commun. systs., sig.-to-interf. calc. 33854
TDMA portable radio channel uplink power control algm. 42197
TDMA radio syst., autonomous SIR-based power control 17130
TDMA satellite commun. systs., transm. power control 17145
TDMA syst. capacity enhancement by adaptive channel allocation and power control 33203
TDMA/FDMA wireless access, dyn. channel assignment/power control 9243
three-phase PWM reson. buck converters, power control 5060
unified power flow control algm., phase shifter *(Chinese)* 27032
unified power flow controller, long. model *(German)* 35544
Unified Power Syst., power freq. control *(Russian)* 27049
VHV SMARTMOS power convertor control IC 36331
X-ray Timing Explorer Power syst. 26650
ZCS HF inverter/converter, overlapping commutation 19788

power conversion
see also direct energy conversion
dielec.-loaded Raman-type FEL, efficiency enhancement 2017
lunar remote/mobile free piston Stirling engine power syst. 26518
solar space power, RTG, parametric cost model 26654
SRM design considerations, aircraft engine pump appl. 10982
NiCd batt. charger HV IC for rectified mains operation 29049

power convertors
see also AC-AC power convertors; AC-DC power convertors; cycloconvertors; DC-AC power convertors; DC-DC power convertors; HVDC power convertors; mercury arc rectifiers; PWM power convertors; resonant power convertors; rotary convertors; thyristor convertors
0.5-5 kW power convertor PCB distributed mag. components 11105
2.2-1500 kW SIMOVERT MASTER DRIVE power convertors, AC drive appls. 44216
2×3-phase sync. machine, extended Park's transform. 44020
2 kW single-phase buck PF conditioner 4504
2D skin effect in power foils for HF appls. 29003
3-phase converter, fault diagnosis, Kohonen ANN class. 36376
3-phase DC clamped switch mode rectifier, IGBT 19747
5 kW marine propulsion SRM/propeller drive 5340
20 MW batt. storage syst., distrib. network stabil. appls. 35637
500 kW ultra-high-speed gas turbine CHP syst. 10861
500 W-2 MW DATAPOWER UPS product family 19800
15000 hp 6000 r/min ASD, petrochemical compressor appl. 5415
AC motor drives, converter-fed, side effects 11373
AC motor drives, six-step power convertor-fed, anal. 20082
AC power supply, instantaneous current distortion compensation *(Japanese)* 10964
AC/DC drives, prog. high speed digital control 44498

power convertors continued
AC/DC load flow, normal/post-fault condition calcs. 26866
act. clamp forward converter, MOSFET sync. rectification 6002
AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
asynchronous machine, two stator windings, EM torque 36144
autonomous nuc. power syst., rem. location appls. 35768
batt. charger, flyback converter, US/European/PF correction inputs 36328
bridge cct. IGBTs, gate drive methods 6013
brushless doubly fed machines, pump drives, pole no. combinations 5282
brushless doubly-fed induction motor drives, speed control 20055
built-in-input filter forward converter 6005
busbar struct., current distrib. effects simul. *(Russian)* 44112
closed loop syst., anal., static converter, steady state stabil. *(Russian)* 27823
combined act. filter, high pass filter/current source converter 37861
commercial airplane auxiliary power unit starting drive 4360
commutation cell bond graph model 21115
complementary energy storage, modern power conversion options 5237
computer UPS, single power convertor/batt. scheme 36272
computer-power converter commun. link, syst./alarm mgt. 41826
computers in power electronics, conf., Trois-Rivieres, Que, Canada (1994) 36879
continuous mode interleaved flyback power converter design eqns. 44214
controllable elec. drives, status overview, former USSR 44452
converter-machine bond graph models, digital simul. 27821
COSY accelerator facility, steering/timing syst. solns. 18201
current meas., HF shunt designs 19718
current source converter, patt. generator switching freq. minimization 19729
current-source drive cct., ZVS converters 11388
DC rly. vehicles, act. power filter appls. *(German)* 11421
digital current mode control charactn. 5116
double induction output generator, commutation angle anal. 19638
doubly salient doubly excited variable reluctance motor 19616
doubly-fed brushless motor, sync. frame model/decoupled control 11378
doubly-fed brushless motor drives, pole no. model 5279
EA 3000 rly. IGBT auxiliary power converter series *(German)* 28124
efficiency meas. by compensation calorimetry *(German)* 44128
elec. car batt. charger, unity PF 5342
elec. machine power convertors, 2D FEM computer modelling 36099
elec. motor drives, control design algms. 44454
elec. rolling stock, induction motor traction drive appls. 36706
elec. transit bus, Pb-acid batt. power conditioning develops. 36730
elec. vehicle ultracapacitors, load levelling batt. appls. 36738
electromechanical energy convertors, develop. overview *(Russian)* 43993
electronics and variable speed drives, IEE conf., London, (1994) 37
EM noise emitted from elec. vehicle 28116
EM phenomena in nonlin. ccts., conf., Poznan, Poland (1994) 28257
EM quantities, harmonic anal. *(Polish)* 11123
embedded chip MCM technol., nondigital extensions 21752
EMC, power transm. systs. 44129
energetic characts., load current modulation, EMC *(Russian)* 44111
FACTS, static phase shifters appl. 4629
FBK-SDU series of digitally controlled uninterruptible power systs. *(Japanese)* 36339
FMC high power dens. elec. drive technol. 44566
force-commutated supply, cost-optimal control algm. 44118
four-quadrant bipolar power converters, computer simul. 5096
GTO thyristors, cct. oriented simul., bond-graphs 22396
half-wave voltage converter with backward diode, stabil. estim. 539
harmonics, current compensation/act. filtering overview 19774
harmonics compensation, pass./act. power filter syst. 4500
HF AC power distrib., telecom. power supply appls. 44143
Hubble Space Telescope, power syst. servicing 35245
hybrid fiber/coaxial CATV network power distrib. systs. 42627
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
IEEE industry applications, conf., Denver, USA (1994) 10
IGBT converters, overcurrent fuse studies 6016
IGBT power convertors, turn on/off behaviour studies 44218
IGBT SPICE model, power converter design appls. 12316
IGBT switches, electrothermal charactn. 13699
IGBTs, soft-switching converters, switching dyn. 30242
induction machine harmonic rotor current/loss symm. calcs. 36169
induction machines, rotor/air-gap boundary layer, equiv. ccts. *(Russian)* 44033
induction motor core losses meas., static power convertor-based 19620
induction motor drive flux/torque MRAC design 11348
induction motor drives, inverter-fed, magnetising flux saturation 5261
induction motor drives, microcomputer control components *(Slovenian)* 44471
induction motor power supply, single/three phase conversion anal. 27722
induction motors, capacitively compensated, line commutated power converter-fed 27732
induction motors, power convertor-fed, torque pulsation calcs. 27731
INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
intell. modules, power convertor appl. 21120
isolated PF correctors, fast output voltage control 11156
matrix power converter, switching freq. harmonics studies 5051
MCM technol. for high vol., low cost commercial electronics, plastic encapsulated 21777
medium freq. converter with VSI, control syst. 19879
MELUPS 9200 UPS series, IGBT based *(Japanese)* 5036
multimodule secondary power source CAD, params. optim. 5097
multiple output forward converters, current control, small sig. anal. 11147
multiple-output buck-type power converter, dyn. characts. 44153
multiple-output forward converters, small-sig. model 11146
multiterminal AC-DC power syst. outage contingency ranking 10669
multiterminal DC-AC syst. power flow anal. 27145
noncontact batt. charging high power converter, mag. coupling 19712
nonlin. ccts., transm. line modelling 19720
online UPS, PF correction, low harmonic distortion 36332
p-channel MCT, static/dyn. behaviour tests 12319
PCIM '94 power conversion conf., Dallas, USA (1994) 20250
PF preregulator power convertors, EMI emission studies 10653
phase-shift controlled converter input currents anal. *(Polish)* 36278
planar busbar low inductive connections, power electronics 12868
PM brushless DC motors, field weakening, control 11360
PM sync. motor ASD, EM params. determ. *(French)* 11334
PM sync. motor drives, sliding mode current control 5264
power electronics, drives and motors, conf., Taormina, Italy (1994) 28252
power syst. harmonics interf. anal., FRESCA package-based 19002
power syst. PF correction trends, topologies *(Spanish)* 19192

power convertors continued
power syst. short-cct. current meas., transreactor-based, calcs. 19362
power syst. stabilisation, SMES appl. 4562
pulse amplit./synthesis converters, power syst. appls. 27809
pulsed power converter dyn. characts., computer modelling 5095
pulsed voltage/current/power, stepped line conversion 36364
PV array max. power point tracking, power convertor-based 11296
PV DC motor water pumping syst., characts. anal. 27638
RAMO telecomms. environ. equipt. mgt. network 19870
rectifier converter, branches current distrib., math. model 44130
rectifier converters, opposed stars connection, anal. 11124
regenerative DC drive, sinusoidal line current consumption 5321
rly. passenger carriage power supply, IGBT batt. chargers *(German)* 28125
rolling mill elec. drive harmonics, computerised meas. syst. 36801
salient reluctance generator voltage control, DSP-based *(Korean)* 36113
self commutated sync. motor nonlin., steady state operation 10996
semicond. convertors, emergency state diagnostic calcs. 11138
semicond. device develops., former USSR 27803
Shinkansen develop., Hitachi technols. 44505
simul. of networks, ideal switches 6022
single-ended forward-feed converter, vert. radiated field strength of interf. 27817
single-phase induction motors, multi-speed control studies 19621
single-phase multilevel power converter, control method 11136
single-stage single-phase parallel PF correction 11157
sinusoidal converters, high PF 19725
SMPS filter inductors, low loss windings design 36326
snubber energy recovery, pass. cct. configs. 526
soft switching, power converter design, EMC Directive 21097
soft-switching converters, IGBT computer simul. and design optim. 29030
soft-switching MOSFET-based power converter *(Japanese)* 27815
solar dyn. space power systs., orbit perform. effects 35243
solar elec. vehicle, PM brushless DC motor drive 5355
Space Station Freedom, UPS orbital replacement unit 18762
Space Station Freedom power syst. CAD, APSPP package-based 35251
spacecraft power conditioning, tri-state power converter 26677
SRM, ripple/torque, stator thickness/teeth shape effects 36137
SRM drive, converter topol., efficiency, control 11372
SRM drives, dual-decay converter, efficiency/perform. anal. 5304
SRM drives, energy recovery snubbers anal./design 20057
static converter/machine set, digital control, emulator 36375
static converters, bond-graph config. enumeration 21114
static power converter supply, local spectral approx. methods 36355
static power converters, burndown prevention 44126
static power converters, voltage control modelling *(French)* 27798
static power convertor filter capacitor fault detect. methods 19827
STRV-1 spacecraft power conditioning syst., in-orbit perform. 26683
supercond. magnet power supply convertor, current control studies *(Japanese)* 11188
switch-controlled drive ccts., EMTP compatible algm. 5244
switch-mode power converter predictive control, current prog. tech. 44152
switched reluctance starter/generator, aircraft engine 43457
sync. machines, damper winding/rotor iron currents modelling 11004
sync. machines, power converter-fed, harmonic conditions anal. 27698
sync. machines, power convertor-fed, PC-based simul. 4921
tandem induction furnaces, cost-effective smelting *(German)* 11500
telecom. power convertors, MOSFET-based voltage coupling 19825
telecom. power equipt., preventive maint. overview 44157
three-phase AC/DC universal traction drive syst. design 44542
three-phase distrib. networks, harmonic current reduction 4654
three-phase induction motors, math. modelling eqns. *(Polish)* 27703
three-phase power syst. reliab. rel., voltage unbalance 19232
three-phase voltage-source utility interface power convertor 19737
transformer cores, modelling of losses, failure 44108
transformer windings, current harmonics calcs. 27791
transient anal., envelope following method 6009
unbalanced AC voltage supplies, SVC dyn. anal./design 19124
unity PF 3-phase dither rectifier, one switching device 19724
variable reluctance motor, voltage-fed, dyn. model *(French)* 10994
variable speed conc. winding induction motor testing 11393
variable speed induction motor drive, adaptive fuzzy control 11392
VHV SMARTMOS power convertor control IC 36331
voltage source power convertors, current control loop simul. 5114
wind power converter/inverter syst., 600 A/1200 V intell. IGBT module 19567
zero-admittance switch-mode power converter synthesis 36242
AlGaAs LD based broad beam transmitter for space commun. 17302
Cu vapour laser power supply, regenerative snubber topol. 36250
GaAs MESFETs for HF high-temp. switched-mode power converter, MBE 30381
Pb-acid elec. vehicle onboard batt. mgt. syst. 36727

power distribution networks *see distribution networks*

power dividers
see also power combiners
branch-line hybrid-rings, coupled-lines 37943
CATV transmitting ccts., tap-off, coupled-line theory *(Korean)* 25674
ferrite-semicond. MM-wave dielec. strip waveguides 37929
four-point fed radial line planar array for monopulse tracking 23946
low-loss splitter 3317
matched-line directional two-way power divider design 821
multiport finline couplers, propag. characts. 12709
multiport microwave network problems soln., port refl. coeff. method 21520
S-band 4x4 circ. polarised patch array design 31968
spaceborne appls., RF connector and interconnect reliab. 18713
TW microwave power divider, waveguide type, design 12711
waveguide divider, anal./design *(Polish)* 810
wide-band radial line slot antenna 40517
X-band SAR subpanel active antenna demons. model 25572

power electronics
see also power filters; power integrated circuits; power semiconductor devices; power semiconductor diodes; power supplies to apparatus; power supply circuits
2-step PWM sinusoidal inverter, modulation switching and freq. spectra *(Japanese)* 37635
AC motor drive, adaptive predictive control algm. for compensation of params. 27875
automatic distrib. node transfer, electronic cct. *(Spanish)* 19282
batt.-powered portable computers, technol. trends 37810
boost PWM converter, feedback controlled, averaging theory 19770

power electronics continued
cct. design/layout, EMI reduction, perform. improvement 12312
circuit design, OO tools, PC based *(Spanish)* 12340
color-LCD backlight inverters utilizing piezoelec. transformer *(Japanese)* 7405
computers in power electronics, conf., Trois-Rivieres, Que, Canada (1994) 36879
conference, Taormina, Italy (1994) 28252
consumer electronics, conf., Hong Kong (1994) 5460
contactless power delivery syst., mining appls. 20188
converters, transient anal., envelope following method 6009
DC machines, commutation, external power electronic assistance *(English, French)* 19657
distrib. installations, intell. systs. *(German)* 35640
education, tutorial syst., filters *(Spanish)* 12339
elec. drives, anal., simul., software package 20077
elec. equipt., interchangeable components assembly methods 5615
elec. machine control, harmonic anal. methods comparison 5320
elec. vehicle propulsion inverter, power electronics design 44485
EMC components 23723
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
energy conversion engng. conf., Atlanta, GA, USA (Aug. 1993) 20225
evol. in Europe 37620
FACTS, develop., perform., appls. 27137
functional models for space power electronic ccts. 35244
generating sets, electronics, high altitude NEMP hardening 19587
GTO thyristors, cct. simuls., math. model 5063
GTO thyristors, turn-off characts. modelling 11113
harmonics, expert syst. anal. 43620
HF power module using GaAs semiconds., low induct. design 29029
HF transformers/inductors, naturally cooled, design, noniterative method 12851
high speed drives, energy/material savings 36672
high-press. discharge lamps, electronic starters *(German)* 28163
HV power supplies, electronic modules develop. 36327
HV power supplies, engng. overview 36330
hybrid elec. vehicle, IGBT based syst., packaging/perform. 20095
hybrid MOS-bipolar transistor switching, profiled drive sig. 521
IDAS, power electronic/elec. drive simul. tool 11347
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
IEE conf., London, (1994) 37
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
IEEE industry applications, conf., Denver, USA (1994) 10
integrated power electronics education, undergraduate courses, USA 11611
integrated power packaging, trends, driving forces 11752
interconnected mesh power syst. MCM topol., elec. charactn. 21722
KoREMA, conf., Zagreb, Croatia (Apr. 1993) 20203
limit-cycle oscillators, switching-mode, fund. struct. 6043
lin. DC actuator, valve control 4352
LV operation of portable systs., design techs. 29004
Midwest Symp. on ccts. and systs., Detroit (1993) 33
MOS-controlled devices thermo characts. 22322
motor drives, inverter design, optocouplers 28073
multiple winding transformer, model, mag. leakage 6378
nonactive power compensation, act. filters 27064
North American power symposium, Washington, DC, USA, (1993) 11522
parallel act. power filter, control stabil. study 5112
PM magnetisation, thyristor-based, calib. appls. 536
portable computers, power mgt. aspects 21351
portable equipt. power syst. anal. tools, develop. 21054
power syst. appls. *(Chinese)* 43610
power systems, power electronics appls., Japan 35563
power systs., power electronics appl. overview *(Chinese)* 35451
railgun air core compulsator, power electronics/controls 19783
space vehicle power control syst., automated fault diagnostics 26681
spacecraft elec. propulsion, NASA R&D programme 35264
switched reluctance machines, torque optim. design *(French)* 10990
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
thyristors/diodes, transient thermal impedance modelling/verification 13666
transm. systs., electronics growth overview 35594
transport aircraft systs., power electronics implement. 43451
transportation, conf., Dearborn, USA (1994) 5451
undergraduate/graduate education survey, USA 5532
X-ray Timing Explorer Power syst. 26650
$Bi_{2-x}Pb_xSr_2Ca_2Cu_3O_x$, current leads, power device appl. 14316
$Bi_2Sr_2CaCu_2O_x$, current leads, power device appl. 14316
SiC, porous, fab./props. for power device passiv. 22505
SiC/Al metal matrix composite baseplate, high current power modules 28466
$YBa_2Cu_3O_7$, current leads, power device appl. 14316

power engineering
see also high-voltage engineering; power engineering computing; power engineering education
generating units, modelling and control, neural net techs. 26943
Indian MHD retrofit channel, perform. prediction 10905
NNC's Engineering Development Centre, Risley 11694
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239

power engineering computing
see also electric machine analysis computing; electric machine CAD; power system analysis computing; power system CAD
0.5 MW batt. test facility, microcomputer-controlled 27883
1.5 MV Gamble II pulsed power generator, plasma filled diode studies 36444
1 MW grid connected PV plant, perform. anal. 27636
3 MJ railgun, expt./computer simul. studies 15281
3-phase controllable bridge rectifier, μP based 5104
3-phase converter, fault diagnosis, Kohonen ANN class. 36376
3-phase diode rectifier, input current waveform *(Korean)* 36366
3-phase PWM converters, small-sig. model, control 19760
3-phase PWM rectifier, line current harmonics minimisation 44147
3-phase PWM VSI, ANN current regulator 44119
3-phase squirrel cage motor drive, thyristor controlled 11364
3-phase ZVS-PWM rectifier, reson. DC link, digital control 5068
3-winding transformer, digital relaying, data skew 19704
3D plasma armature railgun simul. 15371
4 wheel drive elec. vehicle, integral batt. charger 5359
6.6 kV solid insulated switchboard *(Japanese)* 27839
12-pulse traction rectifiers simul., Saber simul. 44554
15 kV power cable FEM modelling, computer-based 4686
96-hour power meas. experiences *(German)* 35704

power engineering computing continued
120/5 A CT model, mag. nonlin. 5011
300 MW combined cycle power station operator training simulator *(French)* 27594
500 kV LIA-30 radial line charging Marx generator pulsed power supply 34753
500 kV transm. line, 3-ground-wires, impulse response *(Japanese)* 4697
500 m/s lin. induction launcher perform. studies 15376
1150 MW Hunterston B AGR power station, cumulative life assess. 19485
AC ASD, torque/speed/posn. control, trends 20065
AC choppers, input PF improvement, asymm. PWM tech. 36334
AC motor drives, asynchronous μP control design 36637
AC motor multirate motion control algms. parallel proc. 10966
AC voltage regulator harmonic capability, SPICE anal. 540
AC/DC converters, harmonics elimination, current injection method 44125
AC/DC converters, line current harmonics, predeterm. 44124
AC/DC drives, prog. high speed digital control 44498
AC/DC PWM converters, on-line optimal control 36247
AC/DC PWM power convertor, quasi-optimal control 44165
act. power harmonic filters, computer simul. studies *(Korean)* 28998
AELAP, Aircraft Load Anal. Program 26559
ageing power plant equipt. operation, hazard eval. 27297
AGR core life assess., probabilistic approach 19484
air temp./wind speed prediction, electronic syst. 19396
air-core foil-wound pulse power transformer design concept 36358
alkali metal thermoelec. convertors, Na recirculation wick design 20030
alternator field winding interturn fault detect., neural net-based 44014
AM/FM/GIS implement. 10734
AMR, design considerations 27278
ASPEN PLUS shell, combined cycle power plant simul. package 27582
ASTRA knowledge based syst., transformer assess./diagnosis 19695
Auburn Univ., power engng. curriculum and GUI software 28337
augmented railgun-based fusion reactor solid H_2 pellet accel. 15283
automobiles, elec. distrib. syst. archits. 20115
autonomous voltage inverters, μP control 5100
basic chem. recuperated gas turbine, methane-steam reformer 36007
batt. capacity tests, computer based eval. 19954
batt. charger, flyback converter, US/European/PF correction inputs 36328
batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966
batt. preventive maint., computerised eval. 11248
Battery Mgt. Syst., microcomputer based *(Japanese)* 5187
boiler steam-water syst. diagnosis/monitoring, ES 19511
boost converter, control, dyn. response *(Chinese)* 11186
boost converter, PF correction cct. simul. 11162
boost PWM converter, feedback controlled, averaging theory 19770
breakwater power plants, wind energy eval. 10901
brushless AC motors, digital servo amp. concept 11338
brushless DC drives, control strategies comparison 44476
brushless DC servomotor, optimal DSP control 36195
brushless motor drives, high power, intell. interface 5271
brushless PM sync. motor drive, predictive control 20087
brushless turbo compressor drive, intell. diagnostic syst. 36693
brushless variable speed drive network, diagnostic ES 11370
buck chopper GTO thyristors, bond graph modelling 29039
buck converter, ANN controlled, simul. 37637
buck ZVS power converters, anal./design 44134
building energy anal. simul. programs 5240
building energy systs., fractional factorial design 11313
busbars, joints, preliminary CAD 19325
cable, conduit, tray schedules, computer generation 19319
cable ampacity, thermal effects studies 4680
cable insulation PD pulse shape recogn., neural net-based 27207
cage induction machines, online winding param. meas. 4940
capacitor motor drive, single phase, speed control 5272
cct. breaker status ident., least absol. value state estim.-based 19896
cct. breakers, condition-based monitoring develops. 5154
cct. breakers, on-line condition monitoring 44234
Class E tuned power amp., computer-aided anal. *(Chinese)* 5988
CO_2 power plant emissions, UK energy policy 4829
coal-fired power plant simul., genetic algm.-based 36004
coilgun launchers, power conditioning, thyristor appls. 31765
combined cycle power plant Kalina heat engine appls., thermal anal. 27598
commercial building cooling energy use, ANN modelling 36635
commercial building envelope loads, elec. use simul., Hong Kong 36794
contingency constrained generation scheduling, ANN 19380
contingency eval. training simulator, PC-based 4606
continuous gravimetric dosing syst. elec. drives, microcomputer control 44623
converter-machine bond graph models, digital simul. 27821
converters, digital current mode control charactn. 5116
convertor fault diagnosis, ES-based 5053
coupling capacitor voltage transformer, perform. anal. 5008
crossing current reson. power converter CAD 44219
current source converter, patt. generator switching freq. minimization 19729
current-limiting devices, AI action 544
customer power consumption contract agreements, PC-based *(Russian)* 5241
cylindrical thermionic fuel elements modelling, MCTFE code 27986
cylindrically-symm. vircator high power microwave source 29766
dairy barn environ. for arctic climates, computer anal. 11515
DC arc furnace control, simul. *(German)* 44590
DC drive, digitally controlled 20088
DC LV low power energy meter, μP based, design 10791
DC machine online spark detect. syst. develop. 4991
DC motor, PID/fuzzy posn. controllers comparison 11070
DC motor drive digital regulator disturbance retuning design 11371
DC motor drive fuzzy logic control, neural net implement. 11316
DC motor drive sensorless operation, Kalman filter-based 36674
DC motor drive sensorless operation, neural network-based 36676
DC motors, motion controllers, software switch 19662
DC motors, pulsed μP control design 11067
DC power plants, seismic qualification, computer simul. 44142
DC servomotor, robust digital optimal model following syst. *(Korean)* 27751
DC servomotor machining motion control, parallel DSP 36192
DC source, HV, 70 kV, 60 A, design and simul., EMTP software *(French)* 19767
DC-DC power converter cross regulation charactn., SPICE-based 19794
DC/AC PWM power convertor, quasi-optimal control 44165
DC/DC LCC reson. power converter, digital control models 6010
DC/DC power converter quasi-lin. controller, DSP-based 11149

power engineering computing continued
DC/DC power convertors, parallel-connected, current distrib. control 44141
DC/DC PWM power convertor, small-sig. modelling 11148
DC/DC PWM step-up power supply, SC cct.-based 27807
design, ES-based interpolation methods 19494
device-specific neural nets for elec. energy systs. fault diagnosis 10789
Diagnostika motor drive testing automation software 44469
diaphragm defined Stirling refrigerator 28021
digital relay protection, fuzzy logic 4725
direct drive robot, torque compensation 11359
discharge pattern recogn. in HV equipt. 22647
distrib. indust. mgt. IS, data anal. integrat. 19253
distrib. line, 3-phase, lightning perform. *(Japanese)* 10739
distrib. substation automation develop. 11214
distrib. syst. drawings, graphic representation, computer programme 19280
district heating forecast, ANN appl. 19500
district heating syst. operational optim. simul., PC-based 43906
DIVA/DIAPO expert systs., domain models 19585
double cct. 500 kV transm. tower, lightning surge anal., EMTP 4703
drives, computer controlled dynamometer test syst. 36695
drives, software based, testing/develop. 36694
drum boilers, circ. cct., water supply/steam removal 35990
dual gas turbine combined cycles, thermodynamics modelling 19525
dyn. DVM, rly. reactive power compensation appl. 3947
DynEAF dyn. modeling tool, integrated elec. steelmaking 44629
e-beam gyrotron-BWO, interact. tubes effects 29798
earth leakage cct. breakers, mag. nonlin. 36466
economically justified modif., radial power network 35519
education, OOP approach 28334
educational software develop., collaboration, tertiary institutions 20316
EHV transformer insulation, transients, nonlin. core characts. model 5009
elec. device insulating params., computerised tester *(Chinese)* 27658
elec. drive μP control systs., regulation error meas. 44464
elec. drives, digital control systs. design 11383
elec. generator maint. scheduling, simulated evol.-based 19602
elec. generator real-time condition monitoring 44007
elec. generator stator insulation diagnosis, ES-based *(Russian)* 10918
elec. heat tracing, controls/monitoring 36783
elec. launcher plasma-surface interact., computer simul. 15372
elec. load flow problem, ES appl. 4627
elec. locomotives, adaptive output power control studies *(Japanese)* 28112
elec. locomotives, total systs. simul., SIMULINK 44555
elec. motor drives, single-chip microcontroller appls. 44460
elec. power engng., intell. tutoring syst. 20302
elec. power engng. education, multimedia impact 20303
elec. rly. traction syst., EMI assess. modelling 44548
elec. vehicle fleet monitoring, batt./charger mgt. syst. 36728
elec. wheelchair motors, fuzzy posn. controllers *(French)* 10283
electronics modelling, ES develop. 534
electronics switching simul. models, PSPICE package-based 37636
electronics undergraduate/graduate education survey, USA 5532
electrorefining proc., anode passiv. expts. 28192
electrothermal-chem. gun pulse shape requirements 19780
EM launchers, multi-fibre brush armature perform. simul. 15321
EM plasma dyn. accelerator, 2D MHD simul. code 15323
EM spiral lin. step motor, thrust anal. 11073
EMTP as educational tool, power syst. transients anal. 4475
Europe, power plant component life assess. technol. transfer 10696
expansion planning, long-term, computer-based 4607
feeder database, work ordering syst. 43745
FEM, transformer design/anal. 36235
fluidised bed combustion procs., modelling/simul./control 4833
fluoresc. lamp current var., electronic ballast tolerances, PSPICE 11460
fossil fuel power plant compact simulators 35982
fossil plant operation improvement, compact simulator 43908
fossil power plant, drum-type boiler syst., fuzzy ES for fault diagnosis *(Korean)* 43907
four stage RHEPP accelerator testing, power supply 36302
four-quadrant bipolar power converters, computer simul. 5096
full-bridge PWM DC/DC soft-switching power converter 19791
fuzzy logic based power syst. stabilizer 10641
fuzzy logic power supply protection cct. for severe transients 44188
gas turbine bottoming cycle, internal reforming SOFC appl. simul. 36020
gas turbine digital control syst. develop. 36012
gas turbine PM generator cycloconverter, digital control 10859
gas turbine power plants, monolithic SOFC appl. studies 36019
GE SPEEDTRONIC Mark V turbine control syst. 43923
generating units, modelling and control, neural net techs. 26943
generator-transformer set protection, microcomputer-based *(Chinese)* 36089
generator-transformer unit relaying scheme, PC-based 35684
generators, condition based maint. 36095
generators, reverse power flow protection, relays 4886
geothermal double stage flash syst. optim., computer-based 36034
geothermal energy drilling, software-based anal. tool 27611
GIS abnormality detect., self-organizing neural net appls. 27854
GIS PD detect. automation method 36468
global energy problem solving, computer models 43821
GTO PWM three-level VSI, induction motor drive appls. 19761
guyed transm. towers, anal./design, Kuwait case study 43790
half-bridge ZVS multi-reson. power converters, light load mode anal. *(Chinese)* 36336
harmonic/reactive currents adaptive detecting method 27276
harmonics meas. syst., PC-based 4750
hermetically sealed Stirling engine batt. charger 27973
HF power transformer CAD optim., scant modelling 19685
HF power transformer core geom. CAD, fuzzy ES-based 44110
HF switched-mode PWM power amp., perform. anal. 542
human/machine-based demand forecasts combination 27081
Hungarian power suppliers, service eval., QA computerisation *(French)* 35562
HV equipt. insulation eval., intell. instrum. 19578
HV impulse test results, digital anal./proc. 11731
HV machine stator insulation, discharge monitoring 19600
HV power syst., overvoltage monitoring syst. *(Chinese)* 35696
HV stator winding insulation, on-line discharge monitoring 36108
HV substations, EMI anal., switch arc restrikes 5159
HV substations reliab. studies, TOPASE knowledge tool 19907
HV transformer winding voltage distrib., computer model validation 5005
HVSE-I power line safety monitor, μP-based *(Chinese)* 27193
hydro power station struct., safety/reliab., inform.-anal. support 10873

power engineering computing continued
- hydroelec. power plant rainfall runoff ratio estim. neural net *(Japanese)* 4864
- hydroelectric dam surveillance, ES/mgt. IS-based 19544
- hydroelectric generator nonlin. governor control *(Chinese)* 4856
- hydroelectric generator online condition monitoring methods 10875
- hydroelectric power plant operator training simulator develops. *(German)* 4862
- hysteresis current controlled VSI, switching freq. control 11137
- IGBT, n′ buffer layer, static characts. simul. 1410
- IGBT SPICE macromodel develop. 21108
- IGBT SPICE model, power converter design appls. 12316
- impulsively loaded equipment, mechanical condition monitoring, neural networks appl. 11212
- incore thermionic space nuc. power, Monte Carlo fuel burnup simul. 26622
- Indian MHD retrofit channel, perform. prediction 10905
- induction coil launcher armature perform., computer simuls. 15302
- induction cooker coil CAD, Pascal program-based 36785
- induction heating/melting, ZCS-HF inverter, bipolar-mode SITs 5384
- induction launchers, projectile transverse motion/stabil. 15301
- induction motor, condition monitoring, unsupervised learning ANN 4943
- induction motor, terminal-impedance control, energy-saving 4981
- induction motor, trajectory learning method, neuro-fuzzy network *(Korean)* 36172
- induction motor ASD, adaptive speed control, ANN 28080
- induction motor ASD, fuzzy on-line efficiency optimisation control 36659
- induction motor drive, control methods, high dyn. perform. 11356
- induction motor drive, CSI-fed, microcomputer-DSP control 20072
- induction motor drive, VSI fed, DSP based variable struct. control 44049
- induction motor drive elec./shaft torque indirect two-speed meas. method 36661
- induction motor drive meas. technique, microprocessor-based 20058
- induction motor drives, computerized test equipt., PC-based 44467
- induction motor drives, digital adaptive control, transputer based 11379
- induction motor drives, discrete-time sliding mode digital control 11390
- induction motor drives, field oriented, digital implement. 36702
- induction motor drives, field oriented control, parallel proc. 36700
- induction motor drives, microcomputer control components *(Slovenian)* 44471
- induction motor drives, microprocessor based digital control 36687
- induction motor drives, μP-based, vector control algm. 36643
- induction motor drives, online current monitoring-based fault detect. 36704
- induction motor drives, position/speed dyn. control, DSP 20069
- induction motor drives, thyristor converter-fed, μP control 44457
- induction motor drives, VSI-IGBT, vector control, paper/steel industries 36805
- induction motor incipient fault diagnosis, fuzzy neural net-based 36157
- induction motor rotor speed meas., slot harmonics-based 4941
- induction motor servodrive, control, PI load estimator 20086
- induction motor servodrive, robust 2DOF posn. controller 36658
- induction motor speed controller, line voltage feedforward-based 27712
- induction motor stator current control, neural net-based 19629
- induction motor/transformer economics teaching, software package 27725
- induction motors, indust. meas. syst., LAN based 25728
- induction motors, on-line fault detect., stator current monitoring 4967
- induction motors, PWM VSI-fed, ASIC/microcontroller control comparison 36180
- induction motors, voltage fed, current regulated, field oriented control 19630
- induction servodrives, field-oriented control, fixed-point DSP 11358
- induction servomotor drives, LQG/LTR digital control design 36641
- inductive coilguns, driving field/projectile motion synchronisation 15300
- indust. motor controllers, self-tuning digital control 20154
- industrial drive control systs., DSP based tool 44441
- intell. building, power receiving/transforming equipt. *(Japanese)* 28056
- internal combustion engine power generation, O_2 enrichment simuls. 35970
- intertripping relay, design/appl. 4726
- inverters, on-line harmonic elimination 5081
- isolated high power boost topol., transformer models 19745
- JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
- knowledge base mgt. syst. for turboalternator diagnosis *(Chinese)* 36127
- LCC parallel reson. power converter, discrete time domain modelling 36249
- LCC parallel reson. power converter, small sig. anal. 11129
- Li-$SOCl_2$ space power batteries, thermal models 26581
- LIM drives, neural net-based fault diagnosis 36703
- lin. DC motor posn. syst., tracking perform., neural net *(Japanese)* 44071
- lin. induction launcher, multi-sect. transit. simul. 15299
- lin. ion accelerator FET-switched pulsed power supply, PSpice simul. 34742
- lin. tubular induction drive, DSP posn. controller 11342
- linac with integrated power source, RF energy compression 43002
- line current harmonic reduction, polyphase transformers 35445
- load forecasting, rule-based ANN approach 19203
- load forecasting, short-term, adaptive neural net 35584
- lumped param. power transformer model, computer-based 5021
- LV distrib. networks, computer optimised planning 27177
- LV hybrid AC cct. breaker switching params., computer simul. 19342
- LV switchgear made-to-measure commun. 44241
- MA818 controller for three phase 10 kVA voltage source PWM inverter 36283
- MAC-02 Stirling engine, indicated power, heat input trade-off 28041
- magnetron, leakage flux transformer, HV power supply *(French)* 29616
- material explosion, pulsed currents/elec. fields, simul. 30551
- matrix converter, low loss, input filter design 5132
- matrix power converter, switching freq. harmonics studies 5051
- MELUPS 8400V medium-capacity UPS *(Japanese)* 5037
- microrobot PM step servomotor drive, VSS control 11354
- microwave heating, refl. meas., pulsed/CW sigs., 2.45 GHz 11478
- microwave heating cavity, FDTD simul. 11475
- mine hoist winder drive control upgrade project, South Africa 44644
- mine winder motor drives, digital control systs. 44645
- miniature CHP syst., solar heat engine-based 27627
- motor drive control automation R&D, Russia 44465
- motor drive digital control, graphic software designer appls. 36692
- motor speed monitoring syst., PC based, noncontact 10961
- motors, interactive DSP-based acquisition/control syst. 10949
- multifunctional inverse time relay protection, microcomputer based *(Chinese)* 4720
- multilevel inverter-based SVC, computer simul. 19122
- multimodule secondary power source CAD, params. optim. 5097
- multiphase AC power converters, modular interface/algm. 19880

power engineering computing continued
- multiple current-source GTO CSI, control techs. anal. 19853
- multiresonant parallel ZVS power converter, anal., design 11171
- μP based protection, synthesised filtering algm. 27245
- MW solid-state cct. breaker pulsed power supply, GTO-based 36461
- natural gas fired combined cycle, perform. anal. 27599
- Navy pulsed power guns, power syst. simul. 35408
- network control technol., user appls. *(German)* 43692
- network planning, online data provision *(German)* 35588
- Ni-H_2 batt. power syst., μP charger control 27921
- Ni-H_2 space power batteries, thermal models 26581
- noninductive supercond. fault current limiter, simul. *(Korean)* 27274
- nonsinusoidal power syst. meas., parametric approach 4748
- NPP, intell. monitoring and diagnosis 43834
- NPP monitoring, sens. failure detect. ES 19400
- nuc. driven MHD device, nuc. induced elec. cond. 27968
- Nuremberg regional power supply undertaking restructuring *(German)* 10649
- offline power syst. planning, relational database concept 27097
- offshore wind turbines, nonlin. integrated computer modelling 10899
- oil-filled transformers, fault detect., gas sens./neural net 36234
- online vibr. monitoring, neural net-based 19596
- overhead line-underground coaxial cable syst., lightning surge anal. 10755
- p-i-n diodes, PSpice-based modelling 5987
- paper insulation, HV testing, μP based 30590
- parallel DC-DC power converters, output droop characts. 11165
- PD diagnosis and pattern recogn. 22652
- PD induced ageing, pulse-seq. anal. 22653
- PD pattern recogn., neural network 22650
- periodically switched networks modelling, Cuk converter 11164
- pers. protective grounding, param. anal., software 20384
- phased array radar transmitter, pulsed power monitor syst. 34153
- planar SOFC stacks, bipolar plate/manifold design tool 44368
- plasma gun launcher pulsed power supply, solid liner implosion-based 36271
- PM brush DC motors, tracking control studies 36190
- PM brushless DC motors, field weakening, control 11360
- PM sync. motor drive, digital current control, state observers 44475
- PM sync. motor drive, flux-weakening control 20078
- PM sync. motors, digital controller, Park model 10992
- pole transformers/induction motors, harmonic losses meas. 5029
- porcelain insulators, CAD under polluted conditions 35662
- power convertor nonlin. ccts., transm. line modelling 19720
- Power Plant Analyser, MATLAB Toolbox package 35978
- power plant life extension, boiler drum monitoring 19506
- power station condition-based maint. mgt., neural net-based 43815
- power station fire protection systs. upgrade 43813
- power station HV equipt. insulation, online PD anal. 4756
- power station lab. data inform./mgt syst. *(German)* 4752
- power station thermohydraulic syst. reliab. study, EXPRESS IKBS 19379
- power supply component temp. prediction, thermal anal. software 11112
- power syst., wide bandwidth fast act. power transducer 19371
- power syst. appl. ES 19005
- power syst. digital relay protection, ANN appl. 19347
- power syst. dist. relaying, Kalman stat. filter testing 10779
- power syst. elements, EM anal. using finite difference method, software tool 40182
- power syst. fault ident./alarm proc., OO expert syst. 19154
- power syst. fault quantities on-line meas. 19372
- power syst. HTSC short-cct. current limiter studies 19341
- power syst. interconnection restoration, intell. tools 19142
- power syst. operator training, Kytken multimedia training syst. 19164
- power syst. protection, interactive software, education/training appl. 35683
- power syst. protection, probabilistic decision approach 10768
- power syst. security assess., patt. recogn./decision trees 19159
- power syst. sig. param. estim., neural nets 19170
- power systems computation, conf., Avignon, France (1993) 20204
- power transformer differential current anal., neural net classifier 19696
- power transformer inrush current calc., hysteresis loops 19702
- power transformer oil, dissolved gas anal., ANN appl. 19683
- primary substn. operation support, multiple inference engines *(Japanese)* 19913
- primary/secondary batts., testing, VXIbus 36510
- proc. monitoring/optim., intell. 35698
- Procyon pulsed power supply plasma flow switches, computer modeling 36423
- protection, digital integrated relay-based 4891
- PSS, rule-based, variable-gain 19082
- pulsed power converter dyn. characts., computer modelling 5095
- pulsed power modulator systs., pulse forming network calcs. 36441
- pulsed power syst. dielecs., real-time surface flashover detect. 36292
- pumped storage plant, converter-fed var. speed generator-motor *(Japanese)* 36047
- pumped storage plant, converter-fed var. speed generator-motor, fault current *(Japanese)* 36048
- PV max. power tracking, neural networks 36589
- PV syst. arrays, max. power operating point tracking 19982
- PV-hydrogen energy conversion syst. studies 27624
- PWM AC-to-DC voltage-type convertors, current control 5062
- PWM AC/DC power converter, current control studies 5070
- PWM inverter, sinusoidal output current, pulse posn. selection *(Korean)* 27792
- PWM inverter drives, Kohonen self-organising ANN appl. 44447
- PWM inverters, current-source compensated deadbeat control 11166
- PWM inverters, real-time alg. harmonic elimination eqns. soln. 44162
- PWM invertor optimal PI current control, neural net-based 19734
- PWM invertor space vector modulation strategy, PC-based 44164
- PWM power convertors, independent inputs, large-sig. modelling 11152
- PWM rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
- PWM reversible rectifier variable struct. control design 5054
- PWM UPS inverter perform., computer simuls. 5077
- quasi-reson. DC link series reson. converter 12313
- quasi-reson. dual power converter UPS 5075
- quasi-reson. soft-switched inverter, cct. anal. 11170
- quasi-synchronous sampling algorithm for power system meas. 35693
- railguns, EM forces calc., 3D FEM 31753
- real-time harmonics/flicker meas., PC-based 19367
- rectifier cct. transient anal., diode modelling, SPICE-based 12325
- rectifier telecom. power supplies, digital current control 19797
- rep-rate pulser, high-power microwave source develop. 36323

power engineering computing continued
repetitively pulsed relativistic BWO, slow wave struct. 29797
residential pass. energy technol., simul./eval. 44600
resist. furnace stationary temp. fields, digital simul. *(Polish)* 36784
reson. DC link ZVS VSI topol. studies 36281
reson. DC/DC converter, simul./testing, laser supply appl. 36279
reson. inverters anal., electronic ballast appls. 11128
restoration support syst. for large-scale bulk power networks 10664
rly., traction drive, snubber energy recovery cct. 44540
robotic arm ASIC-based motor controller develop. 11227
robots, AC drives, optimised DSP field oriented control 36683
rolling mill elec. drive harmonics, computerised meas. syst. 36801
rolling rotor SRM, optimal digital control design 36134
rot. machines, condition diagnosis, monitoring syst. *(Japanese)* 36087
S-PRIME space power thermionic convertors, emitter design 18743
S-PRIME thermionic space power system, Cs reservoir modelling 18737
salient reluctance generator voltage control, DSP-based *(Korean)* 36113
semicond. 2-D simul., PAMSSEC package-based 524
semicond. convertors, emergency state diagnostic calcs. 11138
semicond. diode modelling, SABER package-based 525
semicond. switches, 3D thermal modelling software 543
semicond. switches PSpice models, parametric sensitivity anal. 533
series reson. converter, clamped capacitor voltage 11163
series reson. power converter, pulsed welding load appls. 5121
series-reson. AC link inverter, output current anal. 11143
servodrives, all-digital current control loops limits 28071
ships, cycloconverter drives 36755
short-term load forecasting models, artificial neural nets 27118
shorted turn location, fuzzy neural net-based 19687
single core cable, short cct., current distrib. *(Croatian)* 4684
single phase AC choppers, asymm. PWM control 36246
single phase quasi-reson. rectifier, unity PF 44146
single-phase VSI UPS, multiple feedback loop control 11142
single-switch discontinuous-mode boost PF corrector 44211
small power plants, optimal operational planning syst. 35717
smart power CMOS IC, 2D charactn./perform. optim. 12315
SMARTMOS quad low side automotive electronics switch, Saber modelling 36775
SMPS transformer design ES 44122
SMPS multiwinding power transformers, computer-aided optim. 19749
snubberless IGBT PWM-VSI inverterbridge, design/test 19728
SOAPP software, advanced power plant design 43921
SOFC geometries 3D num. simul., computer-based 44367
SOI lateral p^{+}-n jn. diode breakdown voltage *(Korean)* 28999
solar air heating, const. temp., simul. 36792
solar cell, max. power point tracking control, chopper *(Korean)* 36608
solar collector, heat output, absorbing panel shadowing effect 44426
solar hot water/swimming pool heating, concrete collectors 20022
solar hydrogen energy systs. simul. 4868
solar thermosyphon water heater, water load temp. effect 44586
solid polymeric insulators, breakdown, PD meas. 4705
solid ring armature transaugmented railgun studies 15350
space power thermionic fuel elements, UO$_2$ swelling simul. 18744
space station solar panel terminal characts. model 26676
SPS projects, computer inform./anal. syst. 36053
squirrel cage drives, positioning, vector control strategy 20071
squirrel cage motor rotor winding fault detect. ES 44059
SRM drive control, DSP based syst. archit. 11380
SRM drive speed/current regulation, microcontroller-based 11350
SRM drives, brushless DC motor microcontroller appls. 36679
static neg.-phase-seq. current compensator, rly. 44537
static power converter interactive control syst., computer simul. *(French)* 27800
stationary batt. UPS systs., status determ. method 36549
stationary batts., diagnostics/perform. prediction approaches 19956
stator windings, in-service PD tests 36101
steam power plant boiler online water chem. monitoring 4843
steam turbines, generators, on-line monitoring 36005
steam turboalternator freq. control governor design 43909
stepping motor drives, PC-based control syst. 44468
stepping motor torque-speed characts., computer aided testing *(Chinese)* 44093
stepping motors, microcomputer control 27760
subsea wellhead, semicond. thermoelec. generator 36816
substation, filter coil overheat fault diagnosis, 7th harmonic *(Chinese)* 44243
substation design, OO knowledge based tool 19906
substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
substation fault recovery operation support syst., knowledge reuse methods 11216
substation intell. control, fault diagnosis/proc. *(Chinese)* 36471
substation reliab. eval., act. min. cut set selection 36482
substation reliab. eval., simul. approach 27868
substation struct./grounding syst., lightning strike, transient anal. 44251
SUNPAC, PV installations, rem. monitoring 20004
supercond. magnet power supply convertor, current control studies *(Japanese)* 11188
supercond. supercollider pulsed power supply thyratron modulators 34750
SVC develop. testing by simul. *(German)* 27879
SVC TCR dyn. behaviour modelling, computer-based 4532
SvSig92 rem. monitoring syst., central telecom. power plants 19573
switch-mode DC-DC power converter dyn. response, CAI 5533
switch-mode magnet power supply, modelling and control 29027
switched power harmonic filters, anal., appls. 19741
sync. generator nonlin. adaptive control, neural net-based 19607
sync. generators, stabil./faults, neural net class. 36123
sync. generators, static exciter, LCI 36142
sync. motors, self-commutated, low-power, control device *(French)* 10989
synthetic insulators, leakage current monitoring, coastal site 43784
telecomm. batt. racks, earthquake resist., computer anal. 19955
telecomm. power supply/air-conditioning, reliab. modelling 19858
telephone exchange rectifier syst., ring topol. 44192
temp. rise anal., harmonic voltage propag./penetration 5020
temporal unit commitment problem, coupled gradient network soln. 35585
thermal cells, tester develop. 36511
thermal power plant computer simul., CAMEL package-based 27521
thermal power plant continuous emissions monitoring, software-based 27537
thermal power plant maint. scheduling, Hopfield neural net appls. *(Japanese)* 43893
thermal power stations, generating unit diagnostic monitoring 35991
thermionic fuel element temps., nonuniform power dens. effects 27987

power engineering computing continued
thermoelectrical power plant operation, CAI 35966
three phase ASD PWM rectifier, neural net-controlled 5120
three phase transformer, connection group syms. verification *(Chinese)* 44104
three-phase AC/DC ZVS power convertor topol. 19839
three-phase CT protection, computer simul. 19691
three-phase induction motor drives, online fault monitoring 20084
three-phase motor motion control, sinusoidal commutation-based 27665
three-phase power convertor, quasi-reson. DC/HF transformer links 5088
three-phase PWM GTO invertor, design, constr. 5090
three-phase PWM inverter UPS, robust μP control 36248
three-phase PWM inverter voltage control, μP-based *(Russian)* 11108
three-phase PWM invertors, real-time harmonics control 19722
three-phase PWM rectifier, unity PF microcontroller 44177
three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
three-phase rectifier, deadbeat neural net predictive control 11174
three-phase single-switch AC/DC buck-boost power converter 19841
three-phase UPS VSI, feedback control strategy 44173
TOPAZ-II space nuclear thermionic reactor, computer simul. 18742
touch/step voltages meas. method/instrum. 4710
transformer cyclic loading evals., computer-based 27774
transformer enclosure CAD, parametric prog.-based 5024
transformer protection, iron core nonlin. *(Chinese)* 36219
transformer resonance freqs. prediction, neural net-based 19684
transformer substation, HV equipt. maint., experience/feedback *(French)* 36489
transformer time-domain K-factor computation methods 36222
transformer windings, reduced modal models 5016
transformer windings, thermal capability assess. 44101
transformers, DC bias-exposed, VAr demand meas. 11100
transm. equipt. reliab. IS, Canada 43722
transm. line harmonics measuring instrum., μP-based *(Chinese)* 43806
transm. line towers, reliab.-based optim. 43789
transm. network expansion planning, neural net/genetic algm.-based *(Japanese)* 10716
transm. network maint./fault diagnosis experiences, Hungary *(French)* 35601
transm. network optimal fault location, μP-based 4623
travelling wave US servo motor, speed tracking control 19676
TsV centrifugal fan induction motor drive selection program 44603
turbine blade, faults, intell. diagnosis, neural nets/fuzzy logic 35714
turboalternators, vibr. features of faults, automatic recogn. *(Chinese)* 36139
turbogenerator fault diagnosis, consultative ES-based 19595
turbogenerator rotor bore, automated US inspection syst. 19599
turbogenerator rotor shorted turns, online monitoring 19598
turbogenerator stabil., robust optimal control, PSS design 27019
turbogenerators, stator bar water cooling, fault diagnosis, model-based 27671
turbomachinery, condition monitoring 36096
TW US motor actuated servo drive, fuzzy control 11091
two freq. elec. locomotives, act. DC link filter 44541
two-phase disc magnet stepping motor design *(French)* 11355
underground power cables, mag. field shielding studies 10747
unity PF 3-phase dither rectifier, one switching device 19724
universal motor cycloconverter control, microcontroller-based 44002
UPS CSI, DSP-based output voltage control 44172
UPS modelling/simul./anal., software-based 44171
UPS PWM inverter, instantaneous feedback controlled 11177
URD, primary cable routing, intell. syst. 19247
vac. cct. breakers, transient overvoltages, stat. model 27847
VAR planning, partitioned power syst. networks 4618
variable freq. induction motor drive, pulsating torque compensation 5290
variable reluctance motors, indirect rotor posn. sens. 5302
variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
variable speed drives, CASED educational software program 44442
variable speed induction motor drive, adaptive fuzzy control 11392
variable speed induction motor drives, neural net-based vector control 36685
VDMOS power transistor thermal modelling, PC-based 12335
Victoria network voltage-reactive power optim. *(German)* 35552
voltage measuring syst., fast sampled data, DSP 10790
voltage source power convertors, current control loop simul. 5114
VSI, digital adaptive hystersis current control 19756
VSI AC motor drives, sync. quasi-vector control 11351
VSI-fed PWM motor drives, predictive fuzzy control 5273
watthour meter opt. character reading syst. *(Japanese)* 9969
ZVS quasiresonant IGBT power converter, PSPICE modelling 5079
GaAlAs layers, OMCVD, characts. prediction, neural nets 13051
GaInAs thermophotovoltaic cells, metallisation contacts studies 28005
In$_x$Ga$_{1-x}$As thermophotovoltaic cells, quantum efficiency model 28003
Li ion batt. capacity monitoring 36547
NaOH-H$_2$O-NH$_3$ syst., gas turbine/generator syst., thermal storage 27579
Ni-Cd battery perform. modelling, neural net-based 27914
Ni-Fe batt. cycling expts. 36548
Ni-H$_2$ Astra 1A satellite batts., perform. improvement schemes 26661
Ni-H$_2$ spacecraft secondary batts., empirical modelling 26667
Ni-MH batt. capacity monitoring 36547
Ni-MH batt. cycling expts. 36548
Pb-acid automobile starter batt., computer model 36541
Pb-acid elec. vehicle onboard batt. mgt. syst. 36727
Pb-acid sealed batt. surveillance syst., POWCOM program 44301
Pb-acid telecom. power supply batts., total monitoring syst. 41630
Pb-acid valve-regulated telecom. batts., expert mgt. syst. 41632
Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
PbO tubular electrodes, discharge behaviour, Pb-acid batt. 44281
SF$_6$ HV switchgear reliab. monitoring automation 5153
Si polysrystalline PV array, optimal operation ident., ANN *(Japanese)* 5231
Si solar cells, efficiency improvement, conc. radiation 11286
a-Si:H p-i-n solar cell structs., computer model 20006
ZnO UHV surge arresters, breakdown perform., computer simul. 19345

power engineering education
3-phase induction motor simul. for teaching purposes 66
3-phase transformer no-load characts. anal. 36221
Auburn Univ., power engng. curriculum and GUI software 28337
bifurcations/chaos education, student lab. 20349
commercial facility, power quality improvement, student project 35618
contingency eval. training simulator, PC-based 4606
distrib. feeder power quality calcs. 20348

power engineering education continued
- educational software develop., collaboration, tertiary institutions 20316
- elec. power engng., intell. tutoring syst. 20302
- elec. power engng. education, multimedia impact 20303
- elec. utility personnel education/training overview 26971
- electronics undergraduate/graduate education survey, USA 5532
- engng. education, integrated experimentation/computerization 20304
- fuel cell R&D projects overview, Scandinavia 44354
- induction motor drive, PC based perform. simul. 19648
- induction motor/transformer economics teaching, software package 27725
- integrated generation/transm. syst. simul. 35476
- integrated power electronics education, undergraduate courses, USA 11611
- OOP approach 28334
- power line EM field prediction, educational design project 11610
- power station operator training, techs. and perform. 28279
- power syst. control education, general-purpose software-based 26972
- power syst. dyns., hands-on teaching package 19025
- power syst. education, computer based learning 19048
- power syst. elements, EM anal. using finite difference method, software tool 40182
- power syst. protection, interactive software, education/training appl. 35683
- power syst. security computer anal., educational interactive program 20284
- project-oriented power engng. curriculum 28278
- switch-mode DC-DC power converter dyn. response, CAI 5533
- sync. machines, transient stabil. teaching 11001
- thermoelectrical power plant operation, CAI 35966
- transformer and induction motor losses cost anal. interactive software package 28333
- transient energy and stabil., interactive program 28335
- transient stabil. simul. package, teaching/research appls. 35426
- variable speed drives, CASED educational software program 44442

power factor
- *see also reactive power*
- 1-phase supply, drive appl., DC/AC outputs control, thyristor ccts. 5343
- 3-phase AC-AC matrix converters, unbalanced supply 36350
- 3-phase induction motor, single phase supply, phase converter 11377
- 4 wheel drive elec. vehicle, integral batt. charger 5359
- 48 V DC reson. power converter distributed power supply 5049
- 70 A telecom. rectifier, high efficiency 12337
- 1500 W single-phase rectifier, high power dens. 19865
- AC drives, on-line unity PF PWM rectifier 5305
- AC-DC boost power converter, high PF, cct. anal. *(Japanese)* 11189
- AC/AC back-to-back power converters, capacitor minim. 5118
- AC/DC power converters, harmonic pollution anal. 36377
- AC/DC/AC PWM power converters, DC link energy storage reduction 36343
- act. power harmonic filters, computer simul. studies *(Korean)* 28998
- air conditioning, controllable induction micromotor 5395
- batt. cycling automation, sinewave interface 4872
- brushless doubly fed machines, pump drives, pole no. combinations 5282
- buck rectifier, unity PF, nonlin. ripple feedback 36244
- buck-boost PWM inverter, PV power syst. appls. *(Japanese)* 11122
- current source PWM rectifier cct. studies 44181
- discontinuous current mode series-parallel reson. converter 37623
- distrib. network thyristor-based nonlin. loads, harmonic effects 19266
- distrib. network voltage control, wind power generator effects 10720
- doubly-fed induction machines, torque/VAr control 4973
- elec. car batt. charger, unity PF 5342
- elec. consumer demand cycle optimis., cost savings *(Italian)* 4591
- elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
- elec. syst. efficiency improvement 10622
- elec. utility harmonics reduction efforts, tariff-based 26993
- electronics and variable speed drives, IEE conf., London, (1994) 37
- FBK-SDU series of digitally controlled uninterruptible power systs. *(Japanese)* 36339
- force commutated three level boost type rectifier 19856
- force-commutated supply, cost-optimal control algm. 44118
- halogen cycle lamps, HF power supply transformer 11446
- induction motor ASD, inverter/cycloconverter fed, single-phase inputs 44489
- induction motor param. determ., genetic algms. appl. 4962
- induction motors, field accel. controlled, energetic efficiency 11036
- MCT phase controlled rectifiers develop. 27833
- metal halide lamps, electronic ballast develop. *(Japanese)* 36341
- multifn. single-phase PWM power supplies, residential appls. *(Japanese)* 27813
- nonlin. power syst. anal., mean generalised content theory 35458
- nonpolluting automobiles, energy storage, propulsion 5326
- nonsinusoidal current ccts., PF determ. *(Russian)* 27050
- nonsinusoidal current power syst., PF determ. 10640
- parallel reson. power converter, half-cycle current control 19714
- PM machines, energy optimising control techs. 44000
- power source voltage sensorless 3-phase PWM AC/DC converter *(Japanese)* 27793
- power syst. VAr compensation, power theories anal. 19086
- power system voltage collapse point estim. algm. 19034
- power systs., power/voltage curves, bifurcation diagrams 19013
- power systs. education, distrib. feeder power quality calcs. 20348
- power transformer/shunt reactor loss meas., direct method 19692
- pulse amplit./synthesis converters, power syst. appls. 27809
- PWM AC/AC power convertor, freq. control method 29044
- PWM cycloconverter control, induction heating appls. *(Korean)* 36786
- PWM rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
- PWM voltage-type rectifier, I-V control studies 19796
- quality class., neural net/ES-based 4741
- saturated sync. motor drives, control modelling 5324
- security eval., ANN appl. 10677
- shunt compensated power systs., voltage stabil. boundaries 19215
- single-phase high efficiency induction motor, perform. studies 19627
- single-phase nonsinusoidal ccts., power decomp. *(Chinese)* 43647
- single-phase switch-mode rectifier, voltage-reversal cct. 29020
- single-to-three-phase PWM soft switching power converters 19707
- sinusoidal converters, high PF 19725
- soft-switching MOSFET-based power converter *(Japanese)* 27815
- squirrel cage ASD, speed/torque/PF control 5270
- SRM design considerations, aircraft engine pump appl. 10982

power factor continued
- sync. salient pole/wound rotor motors, control studies 4919
- three phase ASD PWM rectifier, neural net-controlled 5120
- three-level rectifier/inverter, force-commutated 19733
- three-phase AC-DC low harmonic boost rectifier topol. 36275
- three-phase AC/DC step-up power convertor anal. 36372
- three-phase arc furnaces, operational reactance calcs. *(German)* 11480
- three-phase diode rectifier utility interface, harmonics reduction 19751
- three-phase four wire AC line conditioner, voltage controlled 19710
- three-phase IGBT rectifier, low harmonic pollution 19846
- three-phase PWM bridge-rectifier, harmonic minimization 19810
- three-phase regenerative power convertor design project 5119
- three-phase single-switch PWM rectifier develop. 5127
- three-phase step up/down AC/DC power convertor 19711
- three-phase voltage-source utility interface power convertor 19737
- uninterruptible AC/DC power converter develop. 5073
- unity PF 3-phase dither rectifier, one switching device 19724
- unity PF PWM rectifier, DC ripple compensation 44184
- unity-PF PWM rectifier, DC ripple compensation *(Japanese)* 21098
- urban transit syst., LIM/LSM combination Maglev *(Japanese)* 11398
- wind turbine, self-excited induction generator 10911

power factor correction
- *see also static VAr compensators*
- 1.5-7 kW HF ZVS full-bridge MOSFET-based rectifiers 19802
- 1 kW two-stage batt. charger cct. design 5071
- 2 kW single-phase buck PF conditioner 4504
- 3-phase diode rectifier, power factor correction 19808
- 3-phase ZVS-PWM rectifier, reson. DC link, digital control 5068
- 7 kW three-phase soft-switched telecom. rectifier 19799
- 48 V, 200 A high dens. rectifier, PF correction 19864
- 100 kHz 2 kW boost ZVT-PWM converter, PF correction 19807
- AC choppers, input PF improvement, asymm. PWM tech. 36334
- AC/AC reson. converters, LF waveforms modulation 44201
- batt. charger, flyback converter, US/European/PF correction inputs 36328
- boost converter, PF correction cct. simul. 11162
- DC/DC quasi-reson. ZCS power convertor topologies 44220
- direct AC-AC matrix power convertor, AC motor appls. 19738
- distrib. network harmonics, motor load effects modelling 19267
- distrib. network overvoltage phenom., motor load disconnection-induced 4640
- distrib. network thyristor-based nonlin. loads, harmonic effects 19266
- distrib. networks, AVC relays, sensitivity anal., PF changes 4652
- energy recirculation/storage converters, PF correction 11160
- frequently operated vac. cct. breakers, plant insulation failures 4650
- generalised load modelling in presence of harmonics and distortion 35607
- harmonics monitoring program, benefits 10784
- high PF convertor, single-switch single-stage 29041
- hybrid/elec. vehicles, batt. chargers 20099
- IEEE IECON '94 conf., Bologna, Italy (1994) 36823
- IEEE power electronics conf., Seattle, USA (June 1993) 36843
- indust. distrib. networks, capacitor overcurrent protection 4653
- INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
- isolated high power boost topol., transformer models 19745
- isolated PF correctors, fast output voltage control 11156
- line conditioning syst., harmonics reduction, PF compensation 43659
- local power syst., VAr benefits optimisation *(Chinese)* 43642
- LV high output current AC/DC converter, boost struct. 19727
- Maglev, instantaneous current detect., PWM converter *(Japanese)* 44563
- online UPS, PF correction, low harmonic distortion 36332
- parallel inverter for energy saving 19872
- parallel proc. UPS, harmonic suppression/VAr compensation 11175
- power syst. PF controller microcct. 26987
- power syst. PF correction trends, topologies *(Spanish)* 19192
- preregulator power convertors, EMI emission studies 10653
- preregulators, Sepic/Cuk converter based 19753
- PWM regenerative sinusoidal converters, H^{∞} control 5131
- quasi-reson. AC/DC forward power converter topol. 44145
- refinery MV distrib., capacitor switching characts./meas. 20168
- shunt act. filter control, compensation strategies 10631
- single phase AC choppers, asymm. PWM control 36246
- single phase AC/DC converter, PF correction, reduced losses 44182
- single phase quasi-reson. rectifier, unity PF 44146
- single-phase AC/DC low-harmonic power convertor 44168
- single-phase SMPSs, PF correction, overview 6018
- single-phase telecom. supply PF correction cct. 41627
- single-stage single-phase parallel PF correction 11157
- single-switch discontinuous-mode boost PF corrector 44211
- SMPS PF correction, microcontroller 44116
- soft switching DC converter, PF correction 19752
- steel plant power syst., harmonic meas./anal., PF correction 11502
- SVC, GTO-switched, elec. welding appls. 4531
- switched-mode AC/AC voltage regulator, anal., design 5113
- techs., converter topologies, control ccts. 35503
- three-phase AC/DC PWM ZVS power convertor develop. 5082
- three-phase AC/DC ZVS power convertor topol. 19839
- three-phase boost power convertor, interleaved switching topol. 5124
- three-phase diode rectifier, PF/harmonics improvement 19850
- three-phase distrib. networks, harmonic current reduction 4654
- three-phase multifn. batt. energy storage syst. 43967
- three-phase PWM rectifier, unity PF microcontroller 44177
- three-phase single-switch rectifier studies 19847
- three-phase SVC, voltage controlled CSI-based 10654
- thyristor controlled ractor compensator 19873
- unity PF boost converter control 19284
- unity PF ccts., boost/Cuk topologies comparison 5069
- utility/PV lines, automatic interconnecting syst. 43954
- VHV SMARTMOS power convertor control IC 36331
- Zeta converter, PF correction appl. 11158
- GaAs power diodes, PF correction boost converter appls. 36284
- GaAs rectifier PF correction cct. tests 36324

power factor measurement
- 3-phase unbalanced loads, PF meas. 43809
- 3-phase unbalanced loads, PF meas. *(Russian)* 43804
- induction motor drive meas. technique, microprocessor-based 20058
- power syst. supply quality improvement, meas. problems 19357
- switchgear short-cct. tests, PF determ. 19882

power factor meters *see power factor measurement*
power factor Q *see Q-factor*
power field effect transistors
  see also power HEMT; power MESFET; power MOSFET
  100 kA, 5 kV solid state opening switch, railgun appl. 31762
  400 V/10 A matrix power converter, induction motor drive appls. 19811
  1500 V-20 A Photo Power Module DC solid-state relay 6396
  1500 W single-phase rectifier, high power dens. 19865
  asymmetrical double recessed power MESFETs, breakdown anal. 13802
  bipolar-mode FET, turn-on transient anal. 13813
  bipolar-MOSFET monolithic cascode switch, VIPower technol. 6014
  buck ZVC-ZCS HF PWM power converter studies 19716
  class D^2 DC/DC parallel reson. MOSFET power supply 44223
  current-source reson. DC-DC MOSFET power converter anal. 44222
  DC reson. link-based topol. 27832
  diamond power transistor perform. 13796
  electrochem.-induced etching nonuniformities effects 12766
  FET-switched induction accelerator cell 36410
  full-bridge DC/DC power converter, extreme conditions operation 44137
  full-bridge MOSFET inverter, US transducer power supply appls. 44166
  hardFET pulsed power modulators, array-type radar appls. 27820
  high power FET/IGBT gate driver cct. 13701
  IGBT, hybrid power modules, thermosensitive params. anal. 13700
  inductive tube welding reson. invertor syst. 20166
  lin. ion accelerator FET-switched pulsed power supply, PSpice simul. 34742
  multiresonant parallel ZVS power converter, anal., design 11171
  parallel reson. CSI, cct. design/anal. 44136
  planar two-mode channel FET, MMIC, pers. handy phone 38925
  pseudomorphic double heterojunction power FET, optim. 12771
  pseudomorphic power HEMT, 2 V, cellular phone appl. 21551
  quasi-reson. AC/DC forward power converter topol. 44145
  second breakdown, power BJT/bipolar mode JFET comparison 30546
  solid-state photoconductive microwave generation pulsed power source 36434
  switching simul. models, PSPICE package-based 37636
  symposium, Davos, Switzerland (1994) 28219
  $Al_{0.3}Ga_{0.7}As/In_{0.2}Ga_{0.8}As$ doped-channel FETs, lin. improvement 12767
  GaAs MESFET, high V_{BD}, planar gate, power MMIC 38922
  GaAs MESFET switch IC for handy phone 38024
  GaAs MISFETs, MBE-grown GaAs insulator, breakdown voltage improve. 30337
  GaAs MMIC power amp. and T/R switch, pers. commun. 42232
  GaAs SIT-based pulsed power switch develop. 36427
  GaAs high current power VFET, fab. proc. 30384
  GaAs power multichip IC for cellular radio 42236
  GaAs pseudomorphic HEMT, MM wave power perform. 37991
  GaAs pseudomorphic HEMT, high power, large periphery 37993
  GaAs pseudomorphic HEMT power amp., C-band, high power 38032
  GaAs/AlAs low temp. MISFET struct. for power appl. 6752
  GaAs-based HJFET, 6.6 W, 12 GHz, power amp. appls. 21550
  GaInAS/InP, high power HJFET, MOCVD, performance 13775
  InP MISFET, modeling for power appl. 13709
  InP/InAlAs IG-MODFET, power appl. 13708
  Si MOSFET with internal matching cct., 1.5 GHz, 35 W 29562
  SiC device proc./substr. fab., high power/temp. microwave 37990
power filters
  3-phase act. power filter, sliding mode control 19759
  110/20(10) kV transformer substation ripple control filter protection *(Croatian)* 10765
  200 W PV power syst. DC/AC power convertor control 43953
  AC/DC soft-switched PWM power converter struct. 36344
  act. power filters, compensation, 3D space current co-ordinate *(Korean)* 29356
  act. power harmonic filters, computer simul. studies *(Korean)* 28998
  arc welding forward PWM inverter power source anal. *(Chinese)* 44633
  autonomous power syst. higher harmonics reduction methods 43677
  class D^2 DC/DC parallel reson. MOSFET power supply 44223
  continuous mode interleaved flyback power converter design eqns. 44214
  current source PWM rectifier cct. studies 44181
  cycloconverter multiple noninteger harmonics, act. filtering 5125
  DC rly. vehicles, act. power filter appls. *(German)* 11421
  DC/DC PWM reson. power converter topol., pulse load appls. 11172
  DC/DC ZVS PWM full-bridge power convertor, MOSFET-based 5044
  digital dist. relays, transient perform. study 27255
  digital protection criterion values estim. 27257
  distrib. network harmonic filter CAD, genetic algm.-based 4641
  distrib. network harmonic filters, EMTP-based anal. 4642
  FACTS voltage stabiliser, series act. filter-based 19233
  full-bridge ZVS PWM DC/DC power converter 19852
  generalized magnitude and power complementary filters 29392
  harmonic sig. estim./retrieval, act. power filter 10604
  harmonics compensation, pass./act. power filter syst. 4500
  harmonics/reactive power/unsymm. load compensation 4474
  HVDC harmonic filter design trends 4633
  induction machines, invertor-fed, EM procs. anal. method *(Russian)* 44041
  indust. arc furnace power systs., voltage flicker study 20157
  indust. power supply harmonic control, switched filter-based 4456
  indust. power systs., harmonics meas. 19370
  intermediate line power filters, impedance/EMI compatible designs 29008
  matrix power converter, switching freq. harmonics studies 5051
  MELACT-1100 Series power act. filters, IGBT-based *(Japanese)* 519
  multi-output SMPS EMI filter anal./design 44156
  multiple single-tuned harmonic filters, ratings selection 26874
  noise reduction transformer, perform. and noise atten. mechanism 19681
  nonactive power compensation, act. filters 27064
  nonsinusoidal power syst. supply quality improvement 19088
  parallel act. power filter, control stabil. study 5112
  petroleum indust., substation, 5th/7th harmonic filters appl. 5407
  power convertor harmonics, current compensation/act. filtering overview 19774
  power electronics education, tutorial syst., filters *(Spanish)* 12339
  power syst. PF controller microcct. 26987
  power syst. VAr control algms., formulation requirements 19085
  PWM current-source rectifier, input harmonic filter design 19851
  PWM rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
  PWM voltage-type rectifier, I-V control studies 19796
  quasi-reson. DC link power convertor, topol., appls. 5084
  reactive power compensators for distrib. systs., harmonic distortion 19256
  self-excited brushless multifield induction generators 11049
power filters continued
  SMPS filter inductors, low loss windings design 36326
  SMPS power converters, planar integrated filter/snubber cct. 19763
  soft-switched current-fed PWM inverter, struct., appls. 19735
  Space Station Freedom bidirectional PWM UPS power convertor 26589
  static power convertor filter capacitor fault detect. methods 19827
  steel plant power syst., harmonic meas./anal., PF correction 11502
  switched power harmonic filters, anal., appls. 19741
  three-phase AC/DC ZVS power convertor topol. 19839
  three-phase diode bridge rectifier, harmonic currents calc. 11119
  three-phase distrib. networks, harmonic current reduction 4654
  three-phase four-wire distrib. syst. act. power filter 19278
  three-phase invertor-based act. power harmonic filter 19740
  three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
  three-phase series reson. act. power filter 19739
  three-phase unbalanced power systs., act. power filter 10655
  three-phase voltage-source utility interface power convertor 19737
  transm. network voltage flicker studies, AC/DC furnace-generated 27124
  two freq. elec. locomotives, act. DC link filter 44541
  utility-grid interactive three-phase inverters 5083
  variable speed elec. heat pumps, harmonic eval. tests 5394
  variable speed squirrel cage motor drives, indust. appls. 5294
  VLF switching sigs. over local power lines, fraud countermeasures 43811
  GaAs power diodes, PF correction boost converter appls. 36284
power generation, electric *see electric power generation*
power generators, electric *see electric generators*
power HEMT
  pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
  pseudomorphic HEMT power amp. MMIC, wide/med. band 38033
  pseudomorphic power HEMT, 2 V, cellular phone appl. 21551
  AlGaAs/InGaAs/GaAs high breakdown PHEMT, Te doping 29567
  AlGaAs-InGaAs-GaAs Ka-band MMIC power amp., HEMT proc. 38031
  AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
  $Al_{0.60}In_{0.40}As/GaInAs/InP$ single pulse doped HEMTs for Q-band power appls. 29566
  GaAs pseudomorphic HEMT, MM wave power perform. 37991
  GaAs pseudomorphic HEMT, high power, large periphery 37993
  GaAs pseudomorphic HEMT power amp., C-band, high power 38032
  GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. 6338
  $Ga_{0.51}In_{0.49}P/GaAs$ I-HEMT and I^2HEMT, GSMBE growth 13767
  InAlAs/InGaAs MODFETs, off-state breakdown study 13764
  InAlAs/InGaAs inverted HEMT, InAs inserted channel 38007
  InP HEMT MMIC power amp., Q-band, high-efficiency 38036
  InP/InAlAs IG-MODFET, power appl. 13708
power inductors
  2 MJ 2N Megajoule Pulser electrothermal chem. gun pulsed power supply 36315
  10 kHz inductively coupled power transfer, elec. vehicle appls. 5344
  200 MW klystron pulsed power modulator, electron LINAC appls. 34744
  buck ZVS power converters, anal./design 44134
  cct. breakers, fast-acting, EM/inductor drive design *(Russian)* 11195
  elec. network flicker compensation, arc furnace model 5383
  electron beam generation, plasma pulsed power closing/opening switch-based 34859
  fourth-order DC/DC power converters, limited duty cycle range 19792
  full-bridge ZVS PWM DC/DC power converter 19852
  GW pulsed power network, magneto-elec. switching-based 5048
  MHD induction pumps, 3D EM field/force anal. 36610
  power convertor nonlin. ccts., transm. line modelling 19720
  pulsed power high-Q capacitor banks, long-duration arc discharge appls. 36500
  PWM CSI DC link notching cct., switching loss reduction 44180
  PWM rectifier/CSI motor drive, optimal design 11352
  quasi-reson. PWM DC link inverter topol. 19731
  railgun test range develop. results, Russia 15367
  SEPIC PWM ZVS dual power converter perform. studies 11130
  SMPS filter inductors, low loss windings design 36326
  SMPS planar inductors, design/fab. study 44109
  Space Station Freedom bidirectional PWM UPS power convertor 26589
  spacecraft solar array, shunt switching unit act. ripple filter 26679
  supercond. magnet power supply convertor, current control studies *(Japanese)* 11188
  three-phase AC-DC low harmonic boost rectifier topol. 36275
  three-phase power systs., sinusoidal currents decomp. 4465
  three-phase step up/down AC/DC power convertor 19711
  Tri-Level PWM CSI, lin. controlled boost voltages 27806
  XRAM pulsed power supply cct., repetitive operation studies 36256
  ZCS/ZVS saturable inductor PWM DC-DC power converter 44224
  ZVS PWM power converters, saturable reson. inductor anal. 19762
  ZVS-clamped voltage DC/DC PWM single-switch power convertors 11169
power integrated circuits
  0.5-5 kW power convertor PCB distributed mag. components 11105
  3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
  analogue ICs, SETIPIC electrothermal simul. 30439
  ART2800 DC/DC converter family, 7846 post regulator, space radiation charactn. 29051
  ATT2161/2 series reson. electronic ballast IC products 36781
  automobile electronic fuel injection, quad injector driver power IC 36777
  automobile electronic fuel injectors, power IC-based control 36776
  automotive high side power switches, intell. diagnostics 20114
  automotive ICs, dedicated protective fns. 36765
  automotive interface design, VLSI compatible BiCMOS technol. 36778
  automotive low dropout regulator, HV DMOS pass element 20113
  bandgap ref. temp. drift decrease, on-chip analogue ROM 12324
  Bi-CDMOS technol., lateral DMOSFET, oxide sidewall-spacers 29033
  BiCMOS 500 V 1A three-phase inverter IC 29036
  BiCMOS IC ESD protection, harsh automotive, indust. environ. 30487
  BiCMOS power ICs with high level integrat., advances 29032
  BiMOS high power devices appl. in intell. snubberless power conditioning ccts. 29031
  bipolar-MOSFET monolithic cascode switch, VIPower technol. 6014
  car audio, high efficiency power amp. 11443
  Cassini spacecraft solid-state power switch develop. 26660
  complementary BiCMOS technol., 0.5-μm, μP-based smart power appls. 29000
  current-reson. type converters for switching power supplies *(Japanese)* 29023
  custom IC, conf., San Diego, CA, USA (May 1994) 20247

power integrated circuits continued
DC/DC power convertors, SMT MOSFETs, VDMOS technol.-based 36345
DMOS, integrated N-Channel, parasitic PNP cond., power IC appls. 30479
DMOS analogue HV control IC for small DC motors, PWM scheme 29048
DMOS power transistors, Si-direct-bonded, static/dyn. props. 22467
double RESURF device technol. for power ICs 13896
electronics design, educational strategies 29013
Fuji Electric IGBT intell. power module products 21118
Fuji Electric intell. power switches, automotive appls. 28153
Fuji Electric moulded IGBTs, voltage reson. invertor appls. 27824
Fuji Electric power IGBT modules, elec. vehicle invertor appls. 28133
Fuji Electric power integrated modules, invertor appls. 21119
Fuji Electric products and appls. 21117
ground recirculation parasitics in power ICs, protect. tech. *(English)* 30419
high power substrs. for thick film ccts. 21658
HIP2030 power gate driver IC, MCT module appls. 29006
HV analog/digital ccts., std. 5 V CMOS technol., design and optim. 29407
HV power ICs, dielec. isolation bonded wafer characts. 13855
HVICs, Kirk effect 30480
IGBT, monolithic over-current protection cct. 30422
IGBT power module interconnection busbars 37634
intell. half bridge power module, 75A/250V/75KHz, switching power amps. 6027
intell. IGBT, overcurrent protection cct. 30423
intell. modules, power convertor appl. 21120
intell. power ICs, partial SOI struct. 39018
intell. power IGBT modules, motor drive appls. 532
intell. power module, develop. trends 29028
ion implant., edge struct. 29035
lateral emitter switched thyristor, CMOS compatible 1376
lateral IGBT and MOS-controlled thyristor structs. in SOI 30345
LCD driver, 50-V, integrated in std. 5-V CMOS proc. 29083
LDMOS RESURF devices for HVIC switching, on-resist. modelling/improvement 30313
LDMOS-FET fab. steps in submicron CMOS technol., complementary 40 V power devices 22576
low noise 150 V self-aligned double diffused lateral p-n-p transistor 30262
MIMIC power modules for sens. appls. 38012
monolithic BCDMOS quad line driver for indust. appls. 29050
motor-control servo power IC for hard disc drives 36671
multi-chip carrier power hybrid, EMI study 21662
on-chip power supply coupling diodes, ESD protection, noise immunity 5986
package low temp. joining tech., thermomechanical stress reduction 28504
plastic package design for HV power ICs 6838
polysilicon biased field plates for HVIC interconnections 30155
polysilicon resistors for large current detect. on power transistor chips *(Japanese)* 29024
portable radio, UHF power transistors, MOSFET IC-technol. 1408
power syst. PF controller microcct. 26987
pre-regulator IC, lateral IGBT and current mode sens. 29037
PV generation power conditioners, develop. efforts 27639
PWM invertor IGBT gate drive IC, eval: and appls. 5052
reliab. enhancement technols. 29017
SGE-630 smart compact fail-safe power supply 27804
smart hybrid power modules, design/appls., Russia 21104
smart power CMOS IC, 2D charactn./perform. optim. 12315
smart power IC, current limiter 30424
smart power technol. evol., overview 29012
SMARTMOS quad low side automotive electronics switch, Saber modelling 36775
SOI technol. for high-temp. smart-power appls. 22614
SOI transistor, bipolar, VHV CMOS compatible 30488
Space Shuttle rem. power controllers, AlN metalization/joining 26688
submicron BiCMOS compatible HV MOS transistors 29034
submicron BiCMOS proc., HV NMOS devices, simple structural changes 22615
symposium, Davos, Switzerland (1994) 28219
thermal effects in integrable power semicond. devices 21121
thermal mgt. of power IC packaging 37120
thin SOI IGBT leakage current and struct. for high temp. 30344
three-stage Dickson voltage multiplier, dyn. anal. for optimized design 12333
through-substr. cooling of high power IC packages for avionics 37091
TK75001/75003 five-pin PWM SMPS IC 29015
TOPSwitch three terminal offline PWM switching voltage regulator 29007
transient thermal impedance tester, power IC packages 137
V-band pseudomorphic HEMT monolithic power amp. 12820
VDMOS-type power ICs, void-free bonded SOI substrs. 39017
vert. DMOS power transistors for cct. simul., phys. modelling 1429
VHV SMARTMOS power convertor control IC 36331
VLSI power supply coupling diode design, ESD protection/noise immunity 30470
X-band SAR subpanel active antenna demons. model 25572
GaAS IC lab. at Motorola, CS-1 facility 37046
GaAs IC for portable commun., needs 42231
GaAs MESFET MMIC power amp. modules, 10 W, X-band 12827
GaAs MESFET, high V_{BD}, planar gate, power MMIC 38922
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
GaAs power MMIC for 1.9 GHz digital cordless phones 12823
GaAs power MMICs for X-band radar appls. 6341
GaAs power multichip IC for cellular radio 42236
GaAs pseudomorphic HEMT, MM wave power perform. 37991
GaAs vert. MESFET, smart power switching 38928
GaAs-based 94 GHz HEMT power amp., MMIC prod. technol. 6338
InGaAs PHEMT MMIC power amp., Q-band, 1-W, high-efficiency 6339
Mo-Cu layered foil conductors, power hybrids, ceramic substrs. 21663
NiCd batt. charger HV IC for rectified mains operation 29049
Si microtechnol., develops. and proc. tech. depend. 38950
Si power IC transient voltage suppressors 29019
SiC-H aerospace power IC device structures 26587
$TiSi_2$ buried layers in Si by direct wafer bonding 30154
WSi_2 buried layers in Si by direct wafer bonding 30154

power lines *see power cables*

power measurement
see also energy measurement; power meters; wattmeters
AC power syst. operating conditions meas., synchronoscope appls. *(Russian)* 27289
AC voltages/currents, precise power/RMS values meas. *(Croatian)* 25939
AMR, design considerations 27278
attenuating cover panels/shielding gaskets, leakage power meas. 15500

power measurement continued
cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
competition in supply of elec., metering equipt. 35700
core-loss power, direct meas., effective control of error 39188
correction method for single chip power meter 4740
DC LV low power energy meter, μP based, design 10791
digital multirate meas. algms. 27279
driving power meas. of quartz cryst. units 30618
embedded generators, pole slipping protection studies 4895
harmonic/reactive currents adaptive detecting method 27276
harmonics ident. and power meas. in power systs. 4738
harmonics power logger, adaptive storage/automatic data selection 34657
HF behavior of electrooptic Kerr modulators, voltage meas. appl. 19365
HV power system metering/protection transducers 19364
IEC555 parts 2 and 3, digital power analyser 34656
induction watthour meters, harmonic perform. studies 35705
LF power meas./anal., colloq., London (1994) 20258
LV distrib. feeders, neutral conductor current distrib. 19272
LV/MV power systs., apparent power components meas. 4747
microcalorimeter, mm-band power converters 18050
microwave multimeter, four-probe microwave transm.-power transducer 10008
milling cutter failure, power monitoring method *(Chinese)* 10916
multipurpose sens., thermosensitive quartz resonator 25814
μP-based portable test equipt. for elec. network 4736
nonsinusoidal 3-phase systs., real/imaginary power defn./meas. *(Italian)* 4733
nonsinusoidal power syst. meas., parametric approach 4748
nonuniformly sampled sigs., power meas., discrete time method 8391
opt. power monitor for two-beam LD 3999
pipelined automatic meter reading scheme 35692
Pointel portable phone, indoor environ., power loss models 9261
portable integrated power quality measurement system 27282
power syst., wide bandwidth fast act. power transducer 19371
power syst. short-cct. power meas., probab. estim. 19374
power syst. SVC control syst. instabil., birfurcation theory *(Japanese)* 10688
reflection coefficient formulations evaluation, microwave test ccts. design 23783
reprographic devices, energy consumption meas. techs. 9991
residential consumer's energy anal. environ. 28055
Rogowski transducers for high bandwidth high current meas. 34484
sens. and IC's for instrumentation 9899
sensing gluten development during bread dough mixing 25806
SS low-power equipt., peak power meas. 25226
SSB noise fig. determ., microwave freqs. 18058
std. improvement, microwave multimeter 9785
SVC, μP based, unbalanced load appls. 10670
TOPEX/Poseidon solar array on-orbit performance 26599
traceability in power/reactive power meas., NPL approach 34655
traceable power meas., audio freqs. 35701
transm. line dist. protection, power flow/voltage phasor oscill. meas. 4743
true RMS av. power meas. of complex sig. 3950
watthour meter opt. character reading syst. *(Japanese)* 9969
Cu electrolytic refining, energy consumption expts. 11495
$LiVO_3$:Cr_2O_3 ceramics, thermoelec. power meas. 27983

power MESFET
asymmetrical double recessed power MESFETs, breakdown anal. 13802
civ. aircraft, satellite commun., amp., dyn. efficient bias 42330
diamond power transistor perform. 13796
lateral power diamond MESFETs, partial ionisation, charact. 1446
thermal and dispersion modelling 6798
GaAs MESFET develop. at Caswell, 1964-1985 6808
GaAs MESFET, high V_{BD}, planar gate, power MMIC 38922
GaAs MESFET switch IC for handy phone 38024
GaAs planar gate power MESFETs, gate-drain breakdown volt. 13801
GaAs power MESFET, MBE growth, 4.7 V operation, 900 MHz charact. *(Korean)* 38920
GaAs power MESFET, passiv., ECR CVD Si_3N_4 tech. 13356
GaAs power multichip IC for cellular radio 42236
GaAs vert. MESFET, smart power switching 38928
GaN MESFETs for high-power/-temp. microwave appls. 29557
SiC device proc./substr. fab., high power/temp. microwave 37990

power meters
see also power measurement; standing wave meters; watthour meters; wattmeters
Model 2531 digital power meter 9971
RF power meter, lin. scale 34620

power MOSFET
1.5-7 kW HF ZVS full-bridge MOSFET-based rectifiers 19802
1-MW power MOSFET switch, SPICE macromodel 6756
2 kW single-phase buck PF conditioner 4504
2-phase stepping motor, PWM control, power FETs, multi-chip modules 27764
12 kW/250 kHz series resonant power convertors, induction heating appls. 36787
30 W HF foil-type air-core power convertor transformer 6381
48 V/50 A telecom. switching power supply 19832
200 W FM-band high-efficiency power amp. develop. *(Japanese)* 17548
400 V/10 A matrix power converter, induction motor drive appls. 19811
500 W DC-DC converter, power MOSFETs, 200°C operation 12322
1500 V-20 A Photo Power Module DC solid-state relay 6396
1500 W single-phase rectifier, high power dens. 19865
batt. charger, flyback converter, US/European/PF correction inputs 36328
Bi-CDMOS technol., lateral DMOSFET, oxide sidewall-spacers 29033
bipolar-MOSFET monolithic cascode switch, VIPower technol. 6014
breakdown voltage, neutron irrad. effects 6768
buck and boost DC-DC PWM convertor anal. 11184
buck ZVC-ZCS HF PWM power converter studies 19716
Cassini spacecraft solid-state power switch develop. 26660
class D^2 DC/DC parallel reson. MOSFET power supply 44223
CONCAVE-DMOSFET, super-low on-resist. power MOSFET 38877
convertor semicond. device develops., former USSR 27803
current-source reson. DC-DC MOSFET power converter anal. 44222
DC reson. link-based topol. 27832
DC/DC power convertors, SMT MOSFETs, VDMOS technol.-based 36345
DC/DC SMPS, MOSFET-based, capacitive isolation method *(Japanese)* 6025
DC/DC ZVS PWM full-bridge power convertor, MOSFET-based 5044

power MOSFET continued
design methodology, simul. *(French)* 6751
DMOS power transistors, Si-direct-bonded, static/dyn. props. 22467
DMOS transistors, drain doping anal., hump in leakage current 6758
DMOS transistors, steady on-state operation model 30318
DMOSFETs, HV, HF cell designs 30335
fixed freq. LCL series reson. converter 29001
floating-field-limiting rings in power MOSFET, pot. meas. by electron beam probe 30304
Fuji Electric intell. power switches, automotive appls. 28153
Fuji Electric products and appls. 21117
full-bridge DC/DC power converter, extreme conditions operation 44137
full-bridge MOSFET inverter, US transducer power supply appls. 44166
gamma-irrad. induced degrad. mechanisms in VDMOSFET 22465
gate oxide reliab. in power MOSFET, ion irrad. 22466
HF devices/ICs for portable cellular phones 17133
HF switched-mode PWM power amp., perform. anal. 542
HV power MOSFETs, SCR device integrat. for ESD robustness 22436
HV trench drain LDMOS-FET, SOI wafer 30341
hybrid MOS-bipolar transistor switching, profiled drive sig. 521
hybrid MOS-bipolar transistors, temp. effects tests 29043
IBGT develop. prospects, Russia 21105
inductive tube welding reson. invertor syst. 20166
integrated power MOSFET switch, design 38889
integrated protection ccts. 38861
irrad. induced gate oxide charge, interface traps 1424
irrad. power MOSFETs, surface generation hump 13730
LDMOS RESURF devices for HVIC switching, on-resist. modelling/improvement 30313
LDMOS-FET fab. steps in submicron CMOS technol., complementary 40 V power devices 22576
LDMOSFET, dielec. isolated, high temp. perform. 30342
low-dose-rate irrad. response 13733
m-FETs, LV SIPMOS transistors, lower drain-source on resist. 1395
MCT, gate drive cct., overcurrent protection 12323
Mini SO-8 VDMOS power transistors, portable electronics appls. 29018
Mini-Smart SIPMOS switches in SOT-223 SMD packages 522
model, power electronic ccts. simul. 13698
modelling, ES develop. 534
MOS transistors, bulk-Si/SOI device self-heating effects 22474
motor-control servo power IC for hard disc drives 36671
multiresonant parallel ZVS power converter, anal., design 11171
n-channel power MOSFETs, irrad., possible sources of 1/f noise 13717
N-channel power MOSFETs, single event burnout study 13723
n-channel/p-channel power MOSFETs, ionizing radiation effects 13732
nMOS ESD I/O protection structs., EOS suscept. 6749
open cell technol. for single chip MOSFETs, IGBTs, and MCTs, very high power appls. 6777
optimal driver ccts. 29040
parallel reson. CSI, cct. design/anal. 44136
portable radio, UHF power transistors, MOSFET IC-technol. 1408
PWM invertors, telecomm. power supply appls. 19801
quasi-reson. AC/DC forward power converter topol. 44145
radiation effects rel., nucl. power indust. appls. 38890
RESURF LDMOS struct., breakdown props., analytic approach 30309
scaled vert. power DMOSFETs, static I-V charact., bipolar turn-on 30291
semicond. switches, device characts. comparison 537
SGE-630 smart compact fail-safe power supply 27804
Siemens power DIMOS device, ESD gate oxide breakdown, stat. model 30307
single event burnout caused by nuc. reacts., HI 13724
single event failure, test data 30362
single event gate rupture, substr. response study 13725
smart hybrid power modules, design/appls., Russia 21104
smart power technol. evol., overview 29012
SMPS, gate controlled, conducted emissions reduction 5050
soft-switching MOSFET-based power converter *(Japanese)* 27815
SOI power devices, forward blocking charact., high temps. 30333
SOI power MOSFET, RF amp., num. simul. 38871
solid-state relay design, aerospace appls. 26546
spacecraft, electronic switching, reversible energy mgt. 26596
STRV-1 spacecraft power conditioning syst., in-orbit perform. 26683
submicron BiCMOS compatible HV MOS transistors 29034
switching, behavioral study *(English, French)* 13706
switching, transformer-isolated gate drive cct. 535
switching simul. models, PSPICE package-based 37636
telecom. power convertors, MOSFET-based voltage coupling 19825
thermal cells, tester develop. 36511
thin film SOI power MOSFET, switching charact. 38869
TOPSwitch three terminal offline PWM switching voltage regulator 29007
trench VDMOST struct. with no quasi-saturation, anal. 38897
UMOSFET, high-speed, double-layer W gate, selective CVD 30343
VDMOS power transistor, single event gate rupture threshold 13722
VDMOS power transistor thermal modelling, PC-based 12335
VDMOS transistor, 1D anal. modeling 13670
VDMOS transistor quasi-saturation, self-heating effects 30312
VDMOS transistors, self-shielding phenom. 30310
VDMOSFET, cct. simulators, look-up table models 38781
VDMOSFETs, channel doping profile proc. design/optim. 30311
vert. DMOS power transistors for cct. simul., phys. modelling 1429
vert. power MOSFETs, low on-resist. proc. 13682
vert. power MOSFETs, single-event gate rupture 13721
VHV SMARTMOS power convertor control IC 36331
Si MOSFET with internal matching cct., 1.5 GHz, 35 W 29562
Si power MOSFET, UHF-band RF power amp. appl. 837
SiC device proc./substr. fab., high power/temp. microwave 37990
SiC vert. submicron TFT 13759
SiC-H aerospace power IC device structures 26587

power networks *see distribution networks; transmission networks*

power overhead lines
see also overhead line conductors; power cables; power transmission
3 kV DC rly. power syst. harmonics, time domain anal. 44553
3 kV DC rly. traction systs., catenary harmonics ident. 20109
3-phase power transm. lines, corona losses 19307
10 kV rural distrib. ABC installations, Eire 43776
10-110 kV power overhead lines, current dens. estim. *(Russian)* 27230
63/90 kV power overhead line insulators, overvoltage breakdown characts. 35661
77 kV overhead line-underground cable lightning surge anal. 19306

power overhead lines continued
77 kV overhead line-underground cable lightning surge anal. 10713
115 kV power line lightning protection, spline ioniser tests 19331
138 kV power line damper repair, live-line working 10751
220 kV compact overhead line design for 500 kV syst. *(Chinese)* 27227
230 kV FACTS power lines, advanced series VAr compensation *(Italian)* 4695
275 kV power cable systs., voltage/VAr control develop. 27031
330 kV compact transm. line, phase conductor configs. *(Chinese)* 35652
345 kV porcelain suspen. insulators, replacement experience 10757
400 kV distrib. substations, conductor short-cct. effects simul. 19281
500 kV insulator string overvoltages, lightning stroke inclination expts. 35667
500 kV overhead power line insulators, natural contamination expts. *(Chinese)* 43783
500 kV power line elec. and mag. fields 27225
500 kV power line-induced overhead telecom. line voltages study *(Chinese)* 35654
500 kV transm. line, 3-ground-wires, impulse response *(Japanese)* 4697
500 kV transm. lines/railroad crossings, EMI protection *(Chinese)* 27229
500-1150 kV overhead lines, corona loss calc., probab. method *(Russian)* 27231
1000 kV power line maint. IS, meas.-based 27126
AC locomotives, line-side switching harmonics compensator 20101
AC overhead lines, elec./mag. fields meas., IEEE std. 43810
AC power lines/radio commun. sites, min. separation dist. 15508
accessories/fittings develop., manufacturer/user rels. 43785
ACSR power overhead lines, high-temp. operation tests 27235
agriculturally acceptable routing criteria *(German)* 10695
air gap flashover, charged droplets, lightning impulse voltage *(Japanese)* 35685
all-dielec. self-supporting opt. cables for Australian power lines 34103
British Rail elec. insulation experiences, UK 44569
CIGRE HVDC power line control Benchmark model *(French, English)* 35616
common-tower double-cct. power lines, earthing switch simul. *(Chinese)* 35653
compact 230 kV line, corona perform. 27221
compact overhead power line polymer insulators, develop. prospects *(Japanese)* 27239
conductor clearances, meas., calcs. *(Italian)* 4694
corona effects anal., probab. method 10750
DC rly. locomotives, induction motor-driven, computer simul. 5348
distrib. line, 3-phase, lightning perform. *(Japanese)* 10739
distrib. line pole struct., risk-based design 43755
distrib. lines, lightning outage ratio anal. *(Japanese)* 10737
distrib. network overhead line fiberglass poles, case study 27172
distrib. network planning, economic/environ. considerations 43742
distrib. network protection, overhead auto-recloser automation 4664
distrib. network rem. monitoring/control syst. develop. 4667
distrib. overhead line assets mgt., technol. 43744
distrib. overhead switchgear develops., South Africa 4666
distrib. systs., Japanese approach 43743
earth fault compensation coeff. modelling 19328
earth-return effects, freq.-independ. cct. model 43728
EHV transformer insulation level for lightning strikes *(French)* 36232
EHV/UHV AC/DC overhead lines, porcelain/glass composite insulators 27241
elec. rly. AC power supply syst. *(Russian)* 28131
elec. rly. pantograph standardisation efforts, Europe *(German)* 28123
EM anal. of power-transm. lines 27233
EM environ. meas., catalogue, 30-300 Hz 31850
EM field health risks, elec. utility strategies 4507
EM field prediction, educational design project 11610
EM transients simul., EMTP MODELS lang. 26894
fibre-optic cables installed on overhead power transm. lines 17334
flexible overhead power conductors, reclosure mech. effects 19312
galloping, nonlin. 3D simultaneous eqn. calcs. *(Japanese)* 10756
H-frame towers, design strength improvement 27243
HV overhead lines, mag./elec. fields calc, BEM *(Polish)* 43773
HV overhead power EM field calcs., FEM-based 4692
HV substation flexible busbars, plastic impact simul. 19915
HVDC transm. lines, twin conductors, DC corona anal. 4634
ice coating form. conditions *(Chinese)* 27228
impedance meas./anal. studies *(Japanese)* 4698
insulating materials, lab. charactn. thermal anal. 19292
insulator string overvoltages, lightning stroke inclination 35668
integrated power/opt. overhead cabling, utility experiences, UK 35651
JWOTS, fibre optic commun. network, power utility 25494
lightning disturbances of power overhead lines 43772
lightning-induced underground telecom. cable overvoltages 19305
lightning-induced voltage expts. *(Japanese)* 4696
live-line insulator washing expts. 27223
long radial supply syst., SVC, operational aspects 26984
LV AC power syst. clearances flashover, overvoltage wave-based 35457
LV power distrib. lines, lightning overvoltage effects study 10727
mag. fields generated by power lines, calc. code 40231
Mead-Phoenix transm. line project 43782
mech. self-damping meas. methods *(German)* 10754
min. cost power transm., EM field considerations 35650
multiconductor bundle power lines, short-cct. mech. loads 19313
mutual impedance, overhead/buried line, earth return 2253
MV overhead line board-control wooden mast trials *(German)* 10759
MV XLPE covered overhead lines, utility experiences, Norway/UK 43777
narrow-gauge rly. line catenary systs., R&D results 36750
Nat. Electrical Safety Code, 1994-5 interps. 27224
opt. fibre commun. technol./trends 26976
outdoor HV substations, short-cct. mech. tests 19914
overcurrent protection devices, recent develops. 43778
overhead line-underground coaxial cable syst., lightning surge anal. 10755
overhead transm. lines, spacer dampers energy dissipation 27232
OXR overhead distrib. line pole-mounted auto-recloser 27156
planning approval criteria and compliance possibilities *(German)* 10694
protective multiple earth, overhead distributors 10781
pulsed plane wave EM field induction calcs. 19304
right-of-way dimensioning and protection from vegetation *(German)* 10752
rly., contact wires, power collection efficiency 5331
rly. feeder overhead lines, hard-drawn stranded wire testing 36749
rly. overhead contact lines, high-speed insulator develop. 36748

power overhead lines continued

- rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658
- rural distribution, IEE Colloquium, London (1995) 28273
- short-cct. current mech. effects, IEC 865-1 calc. std. 19310
- short-cct. mech. effects, IEC 865 calc. studies 19311
- short-term loading capacity assess., ES-based 19308
- single core cable, short cct., current distrib. *(Croatian)* 4684
- SNCF rly. overhead power supply maint., mgt. experience *(French)* 36753
- substation flexible overhead busbars, mech. calc. algm. 19916
- substation overhead conductors, equiv. static mech. load calcs. 19921
- survival anal., stat. method-based 43780
- switching overvoltages, computer simul. 19309
- telecom. cables integrat., UK 35649
- thermal dimensioning, stochastic real-time forecasting *(German)* 10753
- tornado loading effects study 27222
- tower impulse characts., simul. theory *(Chinese)* 35656
- tower surge response, computer simul. 19315
- transformer substations, EM transients anal. 36480
- transm. line towers, reliab.-based optim. 43789
- transm. network single/multiple lightning overvoltages simul. 4459
- transm. tower model, simul. upward lightning current path *(Japanese)* 10764
- transm./microwave towers, mech. design 27234
- TRIVAI aeolian vibr. indicator 43779
- UHV overhead line protection, false operation prevention *(Russian)* 35677
- unbalanced load flow anal. program 4444
- upgrade/refurbishment options 43781
- VXIbus embedded PC-based data acquisition 17688
- Cu alloy rly. trolley wire develop., high-strength *(Japanese)* 28135
- Cu-Mg overhead rly. contact wire, high strength *(German)* 28122
- SF_6 24-38 kV LG 107 cct. breaker product range 27836
- SF_6 puffer cct. breaker, elec. strength restoration *(Russian)* 44238

power overhead transmission lines *see power overhead lines*

power packs *see power supplies to apparatus*

power plants

see also battery storage plants; fuel cell power plants; magnetohydrodynamic power plants; mobile power plants; solar power; space vehicle power plants; waste-to-energy power plants; wave power plants; wind power plants

- 5/220 V thermionic generator power convertor design 28031
- DC power plants, seismic qualification, computer simul. 44142
- distributed power plants, telecom. appl. 19817
- Europe, power plant component life assess. technol. transfer 10696
- generating plant freq. control capability, IEE Colloquium, London (1995) 20254
- generator control, fuzzy modeling 4889
- INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
- knowledge-based support shell for plant automation 27298
- life management, conf., Edinburgh, UK (1994) 5454
- microcomputer-based control and monitoring 10642
- nondestructive inspection using shearography, indust. appls. 18108
- NPP, aircraft crash, react.-time response 43844
- phased array surface contour mapping, harsh environ. 42514
- piping networks, press. and flow transient response prediction 4844
- simul., PVM-based parallel computing 27299
- small power plants, optimal operational planning syst. 35717
- SO_2/CO_2 detect. by laser optothermal spectrosc. 10566
- solar power plant, distributed collector field, adaptive predictive control 10891
- state space and freq. domain predictive controller design 27524
- SvSig92 rem. monitoring syst., central telecom. power plants 19573
- telecomm. equipt., power alarms, intell. power plants 44158
- telecomm. power plant, supervision/control 19818
- thermal, automatic optimal fuel mgt. syst. *(Chinese)* 19497
- Pb-acid batt./rectifiers based DC bulk power plant 44190

power semiconductor devices

see also power integrated circuits; power semiconductor diodes; power semiconductor switches; power transistors; thyristors

- 2-D simul., PAMSSEC package-based 524
- bipolar power devices, materials and lifetimes 30205
- convertors, emergency state diagnostic calcs. 11138
- EM phenomena in nonlin. ccts., conf., Poznan, Poland (1994) 28257
- failure caused by cosmic radiation 30190
- fourth-order DC/DC power converters, limited duty cycle range 19792
- fuse selection, surge current tests 6015
- hermetic advanced power package, solid state power controller 20458
- high-speed high-power semicond. devices, modeling 13577
- high-temp. electronic device technols. and pot. appls. 6705
- hybrid packaging for high power dens. ccts. 21779
- IEEE power electronics conf., Seattle, USA (June 1993) 36843
- induction motor ASD, integrated power stage 28072
- induction motors, power convertor-fed, torque pulsation calcs. 27731
- indust. electronics, trends/develop. 33431
- intell. power module, develop. trends 29028
- intelligent motion, conf., Dallas, USA (1994) 5506
- low temp. modeling 30203
- modelling, ES develop. 534
- MOS-controlled devices thermo characts. 22322
- MOS-gated power devices, phys. and subcircuit models 30206
- num. simul., discretisation techs. 38780
- PCIM '94 power conversion conf., Dallas, USA (1994) 20250
- planar p-n jn. termination, theoretical investig. 29888
- polysilicon biased field plates for HVIC interconnections 30155
- PTC thermistors, overheat protection, equipt. safety 6353
- review 38775
- SOI power device blocking voltage, HVIC interconnection influence 29979
- symposium, Davos, Switzerland (1994) 28219
- symposium, London, UK (Dec. 1994) 28225
- thermal effects in integrable power semicond. devices 21121
- thermal simul., 3D RC network concept 38777
- trench MOS-gated power devices 6706
- two-terminal large area power semicond. devices 518
- Si porous wells for power devices 22508
- Si power IC transient voltage suppressors 29019
- Si power devices, combined electron and ion irrad., local lifetime tailoring 30204
- SiC, 6H polytype, high temp. stabilitrons, 4 to 50 V 22506
- SiC p-n struct., power rectifiers 30226

power semiconductor devices continued

- SiC/Al metal matrix composites for GaAs power semicond. packaging 11753
- Sn-Sb solder, adhesion, evaporated multilayer *(Japanese)* 5616

power semiconductor diodes

- 3-phase PWM rectifier, line current harmonics minimisation 44147
- 50 kJ railgun pulse forming unit, semicond. switched 19782
- 50 W DC/DC ZVS PWM half-bridge power convertor 44194
- double-rectifier multilevel-voltage source diode bridge ccts. 19842
- emitter-controlled punch-through, fast switching PIN-diode soft recovery 30218
- fast reverse recovery perform. characterisation 30219
- full-bridge PWM DC/DC soft-switching power converter 19791
- full-bridge series-reson. rectifier, telecom. appls. 19831
- GTO cct. snubber diodes, low temp. elec. transient tests 528
- GTO snubber networks, diode charactn. techs. 523
- high current IGBT switching modules, dyn. perform. eval. 30316
- HV damper diodes, 1800 V, FMR-G5HS/FMP-G5HS series *(Japanese)* 30222
- HV semicond. devices breakdown, model, phenomenological lifetime prediction 30282
- isolated high power boost topol., transformer models 19745
- modelling, SABER package-based 525
- MOS controlled power diodes, trench MCDs 38812
- nonlin. coupling of reciprocal mobilities, charge carrier distrib., pin power devices 13610
- on-chip power supply coupling diodes, ESD protection, noise immunity 5986
- p-i-n diodes, PSpice-based modelling 5987
- PIN power diode, cct. simulators, look-up table models 38781
- rectifier cct. transient anal., diode modelling, SPICE-based 12325
- reverse recovery, charge anal. approach 30217
- SEMDEM bipolar power diode/thyristor modelling program 30199
- simul., temp. depend. phys. models 30227
- Simulation Generator code simul. 22346
- SMPS power converters, planar integrated filter/snubber cct. 19763
- soft recovery diodes, design and technol. 30228
- soft switching IGBT converters, vol. vs freq. 29629
- SOI lateral p^+-n jn. diode breakdown voltage *(Korean)* 28999
- switching simul. models, PSPICE package-based 37636
- three-phase AC-DC low harmonic boost rectifier topol. 36275
- three-phase diode bridge rectifier, harmonic currents calc. 11119
- three-phase diode rectifier, PF/harmonics improvement 19850
- three-phase diode rectifier utility interface, harmonics reduction 19751
- three-phase double diode PWM rectifier syst. *(Japanese)* 36347
- transient inverse recovery modelling 538
- TRAPATT diode, time domain ps-kV pulse generation 1338
- ultra fast power diodes, GaAs/Si characts. comparison 29016
- VLSI power supply coupling diode design, ESD protection/noise immunity 30470
- ZVS PWM half-bridge power converter studies 44197
- ZVS PWM power converters, saturable reson. inductor anal. 19762
- ZVS-clamped voltage DC/DC PWM single-switch power convertors 11169
- GaAs power diodes, PF correction boost converter appls. 36284
- GaAs rectifier PF correction cct. tests 36324
- GaAs ultrafast power diode characts. 37633
- H-SiC pulsed power switching devices, fab., charactn. 36449
- n^+nn^+ InP diodes, submicrometer, microwave power generation, model 836
- Pt/SiC/Si vert. Schottky barrier diodes 22349
- Si power diodes, electron/He ion irrad. for local lifetime tailoring 30197
- SiC power device passiv., porous SiC 38792
- SiC:Al HV rectifiers, expts. and simul. 1346

power semiconductor switches

- 1 hp ASD IGBT control device tests 28070
- 3-phase DC clamped switch mode rectifier, IGBT 19747
- 3D thermal modelling software 543
- 5 kW laser power supply, IGBT mag. pulse compressor-based 36297
- 7 kW three-phase soft-switched telecom. rectifier 19799
- 10 kW DC/DC PWM ZVS bipolar SIT-based power converter 19830
- 15 kW DC/DC IGBT ZVS reson. power converter 5080
- 50 kJ railgun pulse forming unit, semicond. switched 19782
- 50 W DC/DC ZVS PWM half-bridge power convertor 44194
- 70 A telecom. rectifier, high efficiency 12337
- 100 kA, 5 kV solid state opening switch, railgun appl. 31762
- 100 kHz 2 kW boost ZVT-PWM converter, PF correction 19807
- 100 kJ Kapitza pulsed power facility status, Netherlands 36258
- 100 MVA IGBT reson. AC/AC power converter design 5111
- 200 V KZ-DHC32 IGBT invertor-based induction heating cooker *(Japanese)* 44588
- 400 V/10 A matrix power converter, induction motor drive appls. 19811
- 600V punch-through-epilayer IGBTs for HVIC switching, cell design 30198
- 1500 V-20 A Photo Power Module DC solid-state relay 6396
- 1500 W single-phase rectifier, high power dens. 19865
- AC drivers, power semicond. devices *(Slovenian)* 20052
- AC locomotives, line-side switching harmonics compensator 20101
- aircraft power conversion systs., soft switching appls. 43452
- automotive high side power switches, intell. diagnostics 20114
- automotive ICs, dedicated protective fns. 36765
- BiMOS MCT/IGBT VHV devices, gate oxide integrity improvement, external gettering 30275
- bipolar power transistor switches, collector current/current gain rels. 38824
- bipolar-MOSFET monolithic cascode switch, VIPower technol. 6014
- bridge cct. IGBTs, gate drive methods 6013
- buck chopper GTO thyristors, bond graph modelling 29039
- buck ZVC-ZCS HF PWM power converter studies 19716
- buffer layer IGBT modelling for cct. simul. 30297
- bulk avalanche semicond. switch, perform./reliab. 36384
- Cassini spacecraft solid-state power switch develop. 26660
- cct. breakers, solid-state devices 44237
- class D^2 DC/DC parallel reson. MOSFET power supply 44223
- coal mine transportation arcing, detection/suppression method 20107
- continuous mode interleaved flyback power converter design eqns. 44214
- convertors, turn on/off behaviour studies 44218
- current sens., Rogowski coil-based 21107
- current-source reson. DC-DC MOSFET power converter anal. 44222
- Darlington transistor inverter, 99.3% efficiency 19743
- DC reson. link-based topol. 27832
- DC-DC converters, high power/self-oscill. type 27830
- DC/DC power convertors, SMT MOSFETs, VDMOS technol.-based 36345
- DC/DC PWM reson. power converter topol., pulse load appls. 11172

power semiconductor switches continued
DC/DC PWM ZVS reson. power convertor develop. 5078
DC/DC SMPS, MOSFET-based, capacitive isolation method *(Japanese)* 6025
device characts. comparison 537
DMOSFETs/IGBTs switch HV, packaging, die sizes 1379
double trench IGBT, struct. and anal. 38898
double-rectifier multilevel-voltage source diode bridge ccts. 19842
elec. vehicles, 40 kHz, 1.5 kW DC/DC converter 20117
elec. vehicles, high current power modules, SiCAl packaging 20116
electrothermal charactn. 13699
emitter-controlled punch-through, fast switching PIN-diode soft recovery 30218
FACTS, static phase shifters appl. 4629
FET-switched induction accelerator cell 36410
Fuji Electric intell. power switches, automotive appls. 28153
full-bridge DC/DC power converter, extreme conditions operation 44137
full-bridge MOSFET inverter, US transducer power supply appls. 44166
full-bridge PWM DC/DC soft-switching power converter 19791
full-bridge series-reson. rectifier, telecom. appls. 19831
GTO switching under external cct. influence, 2D simul. 1374
GTO thyristors, cct. oriented simul., bond-graphs 22396
hard switching power IGBT modules, dyn. perform. tests 21102
hard switching power IGBTs, non-/punch-through technols. 12317
high current IGBT switching modules, dyn. perform. eval. 30316
high power DC SMPS, electron gun appl. 19755
high power DC-to-DC soft-switched converter topologies 19754
high power e-beam induced switching in diamond 36447
high power FET/IGBT gate driver cct. 13701
high temp. IGBT design, num. simul. program calib. 30315
HIP2030 power gate driver IC, MCT module appls. 29006
HV appls. of IGBT or MCT in conjunction with diode, limits 30338
HV dual-channel MOS-gated thyristor struct. 30270
HV soft recovery rectifiers, motor control appls. 27802
HV steep power pulses, opt. semicond. switch-generated 36432
hybrid MOS-bipolar transistor switching, profiled drive sig. 521
hybrid output relays, semicond. switch-based, DC/AC power control 29635
IBGT module perform. testing, low inductance cct. 29009
IGBT power convertors, turn on/off behaviour studies 44218
IGBT power module gate drive considerations 37632
IGBT PWM invertors, indust. appls. 5066
IGBT short-cct. protection, motor drive appls. 29026
IGBT SPICE model, power converter design appls. 12316
IGBT switches, third generation technol. 29010
IGBT switching losses, hard switching, ZVS, ZCS 6757
IGBT turn-off charact. and HF appl. 6779
IGBTs, soft-switching converters, switching dyn. 30242
induction kitchen range, reson. power converter-based 36788
induction motor drives, duty cycle-based V/f inverter control 20059
induction motor drives, thyristor switched, control algm. studies 44461
inductive tube welding reson. invertor syst. 20166
input filter design optimisation for low loss matrix converter 893
insulated base MOS-controlled thyristor, num. simul. 30268
integrated power MOSFET switch, design 38889
intell. IGBT power modules for driving systs. 36670
invertor control/status sigs., fault resistant opt. fibres 5134
ISL-EMA railguns, phase controlled thyristor main switches 31758
isolated DC-DC converter, ZCS IGBTs, symm. topol. 6008
LASS based ultrawideband radar syst. 34149
lateral IGBT and MOS-controlled thyristor structs. in SOI 30345
LDMOS RESURF devices for HVIC switching, on-resist. modelling/improvement 30313
light triggered triac, light sensitive struct. 39568
lin. ion accelerator FET-switched pulsed power supply, PSpice simul. 34742
MGBT, MOS-gated power bipolar transistor, 750 V 1365
Mini-Smart SIPMOS switches in SOT-223 SMD packages 522
MOS controlled power diodes, trench MCDs 38812
MOS controlled thyristor, latch-up mechanism, subthreshold currents, switch-back *(French)* 22399
MOS-assisted gate triggered thyristor, pulse switching 11132
MOS-assisted gate-triggered thyristors, pulsed power switching appls. 36431
MOS-controlled thyristor, AC switch and AC voltage controller appls. 22400
multiphase series-reson. power converter, novel topol. 19721
multiresonant parallel ZVS power converter, anal., design 11171
N-channel emitter switched thyristors, 550 V, at.-lattice-layout geom. 1375
nonpunch-through-IGBTs, electromechanical crit. load simul. 30314
p-channel MCT, static/dyn. behaviour tests 12319
parallel reson. CSI, cct. design/anal. 44136
parallel reson. power converter, half-cycle current control 19714
parallel-module power converter, current bal. controlled, dyn. anal. 44140
PM-excited sync. motorcar generator, design optim. 5379
polysilicon resistors for large current detect. on power transistor chips *(Japanese)* 29024
power control ccts., IGBT short cct. current behaviour 29025
power IGBT short-cct. protection, motor drive appls. 29026
power IGBT SPICE model, power converter design appls. 12316
power MOSFET/IGBT optimal driver ccts. 29040
pre-regulator IC, lateral IGBT and current mode sens. 29037
PSpice models, parametric sensitivity anal. 533
pulsed power adiabatic transformer, semicond. switched, design/perform. 36295
pulsed power nanosecond semicond. opening switch develop. 36263
pulsed power photoconductive semicond. switches, breakdown limitation 36430
pulsed power photoconductive switch charactn., deep level spectrosc.-based 36424
pulsed power semicond. switches, opt. controlled, filamentation models 36435
PV generation power conditioners, develop. efforts 27639
PWM IGBT invertor power supplies, case study 36353
PWM inverters, current-source compensated deadbeat control 11166
PWM inverters, IGBT gate drive ccts., optimum switching 19809
PWM invertor drivers, device current utilisation optim. 5067
PWM invertors, telecomm. power supply appls. 19801
PWM matrix power convertors, static induction thyristor-based 27818
quartz cryst. pulsed power switches, electron-beam controlled 36450
quasi-reson. AC/DC forward power converter topol. 44145
quasi-reson. HF ZVS IGBT invertor, induction heating appls. 5087
rectifier cct. transient anal., diode modelling, SPICE-based 12325
reson. DC link IGBT ZVS invertors, optimal design 36342
reson. DC link inverters, MCT soft-switching tests 12320

power semiconductor switches continued
reson. power converters, HEXFET/IGBT switches comparison 44208
restaurant induction heating rice cookers, invertor-based *(Japanese)* 44640
Rogowski transducers for high bandwidth high current meas. 34484
SCR millisecond switches eval., railgun launchers 31747
series reson. DC link GTO invertor expts. 44167
single-phase IGBT switch-mode rectifier *(Japanese)* 11187
SIT elec./thermal behaviour, 2D simul. 30372
SMARTMOS quad low side automotive electronics switch, Saber modelling 36775
SMPS, gate controlled, conducted emissions reduction 5050
SMPS power converters, planar integrated filter/snubber cct. 19763
snubberless IGBT PWM-VSI inverterbridge, design/test 19728
soft switching IGBT converters, vol. vs freq. 29629
soft-switched PWM current source rectifier/inverter 11145
soft-switching converters, IGBT computer simul. and design optim. 29030
soft-switching insulated gate devices, power losses, comparative investig. 30331
soft-switching power converters, GTO/MCT characts. comparison 19849
solid-state photoconductive microwave generation pulsed power source 36434
solid-state thyristor technols., pulsed power closing switch appls. 36439
squirrel cage drives, IGBT inverters, audible noise, losses 5308
switching simul. models, PSPICE package-based 37636
syst. simul., educational tool 30200
thermal cells, tester develop. 36511
thin film SOI power MOSFET, switching charact. 38869
thin SOI IGBT leakage current and struct. for high temp. 30344
three-phase bidirectional PWM power convertor config. 5126
three-phase diode rectifier, PF/harmonics improvement 19850
three-phase diode rectifier utility interface, harmonics reduction 19751
three-phase isolated PWM ZVS buck rectifier 36243
three-phase PWM bridge-rectifier, harmonic minimization 19810
three-phase quasi-reson. AC/DC transistor power converter 5074
three-phase single-switch PWM rectifier develop. 5127
TOPSwitch three terminal offline PWM switching voltage regulator 29007
transient inverse recovery modelling 538
ultra fast power diodes, GaAs/Si characts. comparison 29016
vert. power MOSFETs, low on-resist. proc. 13682
VSI IGBTs, on-state short-cct. behaviour expts. 44217
wind power converter/inverter syst., 600 A/1200 V intell. IGBT module 19567
ZCS mode of IGBTs, turn-off anal. 30332
ZVS PWM half-bridge power converter studies 44197
ZVS PWM power converters, saturable reson. inductor anal. 19762
ZVS quasiresonant IGBT power converter, PSPICE modelling 5079
ZVS-clamped voltage DC/DC PWM single-switch power convertors 11169
GaAs HV photocond. switches, electro-optic imagery 14598
GaAs MESFET switch IC for handy phone 38024
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
GaAs SIT-based pulsed power switch develop. 36427
GaAs high current power VFET, fab. proc. 30384
GaAs photocond. pulsed power switches, filaments 36446
GaAs photocond. semicond. switches, AuBe, AuGe ohmic contacts 36388
GaAs photocond. semicond. switches, opt. controlled 36387
GaAs photoconductive pulsed power opening switch 36425
GaAs photoconductive pulsed power switches, Ti:sapphire laser-triggered 36440
GaAs photoconductive pulsed power switches, vac. surface flashover tests 36433
GaAs photoconductive switches, elec. field structs. 36448
GaAs semicond. spark gap, pulsed power appls. 36426
GaAs switches, e-beam activated, optimisation 36429
GaAs ultrafast power diode characts. 37633
GaAs vert. MESFET, smart power switching 38928
GaAs:Cu,Si bistable opt. controlled switch, perform. 36385
GaAs:Cu,Si bulk opt. controlled semicond. switch, inductive energy storage 36392
GaAs:Si,Cu photoconductive pulsed power switch perform. tests 36428
H-SiC pulsed power switching devices, fab., charactn. 36449
Si photocond. semicond. switches, pulsed power appls. 36386
Si photoconductive pulsed power switches, vac. surface flashover tests 36433
Si pulsed power semicond. switches, p^+-n^--n^+/n^+-n^--n^+ struct. 36436
SiC high-temp. thyristor, transient switching charact. 22398
ZnSe HV switches, time-resolved impact ionization 27840
ZnSe pulsed power photoconductive switches, elec. field studies 36437
ZnSe pulsed power switches, electron-beam controlled 36450

power station control
50 MW hydro plant, oilless servomotor governor 19540
300 MW combined cycle power station operator training simulator *(French)* 27594
680 MW Hemweg Unit no. 8 thermal power plant project, Netherlands 19509
908 MW thermal power plant control/monitoring integrat., Australia 19508
2500 MW Black Point power plant distributed control project 19528
ABB BWR 90 design and characts. *(French)* 43838
advanced control systs., μP-based 27295
ALWR plants, integrated digital instrumentation and control *(Japanese)* 4771
assoc. control services, generator level experience, France 43705
Aylesford paper mill CHP plant, distrib. control syst. 11513
batt. cycling automation, sinewave interface 4872
BWR NPP, ecological interface for supervisory control 27417
cct. breaker operation seq. recording, fault *(Chinese)* 36382
CHP plant intell. control/monitoring, μP-based 35993
cogen. practice, options and design stds. *(Italian)* 19504
Comanche Peak station, 50% load rejection transient, plant data comparis. 4797
combined cycle CHP power plant telecontrol projects, Denmark *(German)* 4850
combined cycle gas turbine power plants, freq. control capability 43933
combined cycle power plant multivariable control 43931
combined cycle power plants, freq. regulating duty dyn. response characts. 43932
dedicated control benefits vs. PLC 35713
design, ES-based interpolation methods 19494
diesel CHP plant, intell. control/monitoring 4854
district heating syst. operational optim. simul., PC-based 43906
elec. utility generating plant AFC services 43702
elec. utility generating units, freq. response capability develops., UK 43704

power station control continued
elec. utility sens. technol. improvement efforts, USA 43652
fluidised bed combustion procs., modelling/simul./control 4833
fluidized bed utility boiler, computerised control 10856
fossil plant operation improvement, compact simulator 43908
fossil power plant cycling operation, steam bypass systs. 27550
gas turbine CHP, turbine cooling, part load control 36017
GE SPEEDTRONIC Mark V turbine control syst. 43923
generating unit automation, human contrib. overview 43817
generation costs reduction, valve develops. 19391
Guangzhou Pumped Storage Power Station, operation mgt. 27617
hydroelectric power plant operator training simulator develops. *(German)* 4862
hydroelectric power stations, press. cushion lubrication automation *(Spanish)* 4859
hydropower station, optimal compensation regulation, nonlin. network flow *(Chinese)* 36037
hydropower station supervisory control syst. software environ. *(Chinese)* 19543
intell. control, life extension mgt. 19387
islands of automation integrat., distrib. control 10853
knowledge-based support shell for plant automation 27298
life extension, data historian software appls. 19386
maint., vehicle following others, feedback control 4761
Markovian decision procs., modelling and appls, China 196
mgt., proc. visualisation and multimedia technol. *(German)* 19381
micro-hydroelec. power induction generator stabilisation 4857
monitoring, fault diagnosis/isolation, TOPMUSS CAE syst. 27296
monitoring/control instrumentation maint. 43812
multimachine power syst. generator shedding, neural net-based 19098
NPP, digital control systs. 35742
NPP, plant commun. and computing archit. plan methodology 27367
NPP advanced emergency operation procedure develop. 4763
NPP I&C maint., operational experience 27342
NPP monitoring, sens. failure detect. ES 19400
NPP safety, knowledge-aided decision-making appls. 43873
operator training, techs. and perform. 28279
power plant control and monitoring systs. 10642
pumped storage power plant, surge tanks, reverse-flow throttle 36049
rem. operation 43941
rem. telecom. site, engine-generator power supply 19538
run-of-river hydro power station, rem. control syst. 43944
Rye House combined cycle gas turbine power plant 36024
Schwabisch Hall (Germany) combined cycle power station and network control technol. *(German)* 19527
seq. control ccts. with timing coord., design verification based on theorem-proving tech. *(English)* 29106
Sizewell B PWR control and instrumentation systs., reliab. assess. 35730
small power plant generators/auxiliaries, protection/monitoring concepts 27306
solar power plant, generalized predictive control 19566
state space and freq. domain predictive controller design 27524
steam power plant, self-tuning cascade temp. control 27549
steam power plant distributed control, commissioning perform. audit, USA 27561
submarine propulsion nuc. reactors, digital control *(French)* 36732
Suomenoja combined cycle CHP plant control upgrade, Finland 43936
thermal power plant, automatic optimal fuel mgt. syst. *(Chinese)* 19497
thermal power plant controls upgrade projects, USA 43651
thermal power plant generation scheduling, SHAPES ES-based 43890
thermal power plant start-up/shut-down proc. automation 4823
thermal power plants, flexible operation design options 43899
thermal power station, adaptive predictive control 27526
tidal power generation, optimal control model 43945
valve/actuator develops. 35709
variable speed wind turbine, test-rig, controller design 36068
voltage regulator, μP based controls 27305
wind-diesel hybrid power plant, robust control 10912
wind-solar power plant control, Petri net-based model 19575
WZB5-III series computer-based control unit for substations *(Chinese)* 19911

power station load
air-blown fluidized bed GCC 10866
combined cycle gas turbine power plants, freq. control capability 43933
combined cycle power plants, freq. regulating duty dyn. response characts. 43932
elec. utility generating units, freq. response capability develops., UK 43704
thermal power plant generation scheduling, SHAPES ES-based 43890
thermal power units, load control syst., adaptive neural model *(Chinese)* 35983
thermal unit commitment, Lagrangian relax.-based 27108
unit commitment problem, ES approach 35532
weekly thermal unit commitment scheduling method 27105

power stations
see also combined cycle power stations; diesel-electric power stations; energy resources; gas turbine power stations; geothermal power stations; hydroelectric power stations; nuclear power stations; power plants; solar power stations; steam power stations; substations; thermal power stations; tidal power stations
110/220/400 kV power station power syst. short-ccts. eval. 19059
ageing power plant equipt. operation, hazard eval. 27297
apparatus condition monitoring, acoustic methods *(German)* 4751
auxiliaries, var. speed squirrel cage motor drives *(Polish)* 43819
auxiliary power systs., short-cct. current calcs. 19383
auxiliary power systs., short-cct. current calcs. 19382
auxiliary switchboards, short-cct. current calcs. 19385
boiler superheater headers, crack growth/stress prediction 19507
component structural integrity, R5/R6 assess. procedures 19390
component testing, surface replication methods 19392
components, long term creep prediction model 19389
condition-based maint. mgt., neural net-based 43815
Croatian power syst., war consequences overview *(Croatian)* 10624
DC power syst. short-cct. current calcs. 19039
DC/AC power networks, arcing short cct. expts. 19376
economic distrib. planning, computer-based *(Russian)* 10691
elec. utility generator VAr capability assess. experience, USA 35487
elec. utility sens. technol. improvement efforts, USA 43652
endoreversible power plants, thermoeconomics optim. 27293
fire protection systs. upgrade 43813

power stations continued
generation costs reduction, valve develops. 19391
heat exchanger dyn. modelling, integral-power Volterra series 19375
HV equipt. insulation, online PD anal. 4756
interconnected power systs., power delivery reliab. index calcs. 19077
lab. data inform./mgt syst. *(German)* 4752
life extension, boiler drum monitoring 19506
life management, conf., Edinburgh, UK (1994) 5454
lifetime mgt., integrated approach 19377
national power syst. develop. policy, Romania 27116
operator training, techs. and perform. 28279
power systs., partial short-cct. current calcs. 19384
preventive maint., IR thermography *(German)* 36983
thermohydraulic syst. reliab. study, EXPRESS IKBS 19379
transient stabil. control, SCADA syst.-based *(Chinese)* 43641
turbogenerator maint., welding experiences, UK 19388
underfrequency load shedding proposal 27005
underwater cleaning robot, power station inlet channel appls. *(Japanese)* 4754
unstructured power plant environ., navig. and manipulation 43814

power supplies to apparatus
see also accelerator RF systems; cells (electric); computer power supplies; constant current sources; power plants; power supply circuits; prosthetic power supplies; switched mode power supplies; telecommunication power supplies; uninterruptible power supplies
0.5 MW batt. test facility, microcomputer-controlled 27883
0.6 caliber railgun, air-core compulsator driven 19779
1.5 MA MAGPIE pulsed power generator, plasma prod. appls. 36380
1.5 MV Gamble II pulsed power generator, plasma filled diode studies 36444
1 kW, 12 V SOFC DC generator develop., liq. gas fuel 44337
1 kW AC/DC power factor pre-regulator, ZVS-PWM topology 19874
1 kW two-stage batt. charger cct. design 5071
1 kW X-pinch soft X-ray source, IC lithog. appls. 30169
1 MJ pulse power capacitor bank short-cct. current protection 11228
1 MJ transportable pulsed power source, electrothermal gun appls. 36314
1-phase supply, drive appl., DC/AC outputs control, thyristor ccts. 5343
2.4 MJ multi-module capacitor bank, electrothermal launcher 20049
2.5 MJ DECADE pulsed power generator, plasma load appls. 36357
2 kV 10 kA pulsed GTO bridge fusion power supply 5128
2 kW series resonant converter, CO$_2$ gas discharge laser appl. *(Spanish)* 19877
2 MJ 2N Megajoule Pulser electrothermal chem. gun pulsed power supply 36315
3 MJ railgun, expt./computer simul. studies 15281
3-phase controllable bridge rectifier, μP based 5104
3D power cct. package for aircraft appls. 26687
4.5 MJ modular pulse power supply, electrothermal gun 31764
4.5 MJ Pegasus-II pulsed power capacitor bank protection fuse calcs. 36504
5 kW laser power supply, IGBT mag. pulse compressor-based 36297
6 kV mining power networks, short-cct. protection design *(Russian)* 5433
6 MV, 2 TW pos. ion driver, induction adder 36301
9 MJ Range Gun syst., design 15305
10 kHz inductively coupled power transfer, elec. vehicle appls. 5344
10 W thin DC/DC converter, coreless wire transformer-based 6011
10-30 kV rail-gap pulsed power supply, compact mag. plasma switch 36403
12 kW/250 kHz series resonant power convertors, induction heating appls. 36787
16.5 MW med. LINAC pulsed power supply ceramic D thyratron 34983
20 MVA GTO power amp., fusion research appls. 5115
45 kW DC-DC PWM rly. car power converter, design optim. 11414
48 V DC reson. power converter distributed power supply 5049
50 kA coaxial orient. independent ignitron, pulsed power appls. 36413
50 kJ railgun pulse forming unit, semicond. switched 19782
50 mm solid armature pulsed power EM launcher develop., USA 31749
52 MJ railgun power supply perform. 19775
66 J magnetron pulsed power supply, flyback convertor-based 36321
100 kA, 5 kV solid state opening switch, railgun appl. 31762
100 kJ Kapitza pulsed power facility status, Netherlands 36258
100 kV 1 kHz Blumlein pulsed power supply, microwave appls. 36257
100 kV compact nanosecond Pichugin pulser 36260
100 MJ flux compression pulse power systs., design considerations 36298
200 MW klystron pulsed power modulator, electron LINAC appls. 34744
200 ps high press. pulsed power gas switch studies 36414
250 MW pulsed power thyratron, design anal. 36462
270 V DC aircraft components, corona testing 26594
300 keV X-ray source develop., pulsed electron beam diode-based 36270
300 kJ ion beam accelerator, Marx generator power supply 34749
300 kJ railgun, high efficiency, expt. characts. 15282
500 kJ capacitor bank, electrothermal gun appl. 31760
500 kJ multi-module capacitor bank, electrothermal launcher 20048
500 kV LIA-30 radial line charging Marx generator pulsed power supply 34753
500 W thermoelec. generator power supply, preliminary design 27992
522 MW, 310 kW pulsed power supply modulator 36463
1320 MW NPP auxiliary power syst. hist., UK 19415
AC machine, alternating to direct voltage conversion, transducer *(Polish)* 43977
AC motor variable speed drives, design specs. 20062
AC power supply, instantaneous current distortion compensation *(Japanese)* 10964
AC rly., autotransformer feeding cct., harmonic reson. *(Japanese)* 11408
ACE 4 inductive storage technol., 6 MA driver 36390
ACE 4 plasma opening switch/plasma filled diode charactn. 36391
AELAP, Aircraft Load Anal. Program 26559
air core compulsator, power electronics/controls 19783
air-core foil-wound pulse power transformer design concept 36358
airborne laser syst. pulsed power supply, compulsator-based 36254
aircraft power conversion systs., soft switching appls. 43452
aircraft secondary maint.-free batts., state-of-health tests 43443
airport transit syst. power distrib. design project, USA 44571
amphibious landing ship, diesel-elec. propulsion 11416
AmPS magnet control syst. 18276
arc furnace supply plant, flicker/distortion compensation 20129
arc welding forward PWM inverter power source anal. *(Chinese)* 44633
asynchronous generators, EM launcher pulsed power supplies 31742
AutoMax distributed power/control syst. 10710
automobiles, elec. distrib. syst. archits. 20115
autonomous nuc. power syst., rem. location appls. 35768
autonomous underwater vehicles, power systs. comparison 28106

power supplies to apparatus continued
back lighted thyratron pulsed power switch, anti-missile radar appls. 36408
backplane power source capability 6435
batt. powered vehicles, batt. exchange concept 44514
bending magnets power supply syst., 400 MeV electron synchrotron *(Dutch)* 44117
bipolar double layer capacitors, pulsed power appls. 36501
bipolar PWM current controlled magnet power supply 18253
board-based syst. power distrib., onboard regulators 38088
buck converter design, zero-current turn-off, MCT 19748
built-in diagnostics for advanced power mgt. 34356
busgun design, operation/losses 15265
cannon caliber EM launcher, rapid fire, ultra stiff 15280
cannon caliber EM launcher syst., air core compulsator design 31740
cannon caliber railgun, air core compulsator design 19781
cascade compulsator, YAG laser power supply 31456
Channel Tunnel rly. and power supply equipt. *(Italian)* 11404
Channel Tunnel traction/auxiliary power supplies 44533
coilgun launchers, power conditioning, thyristor appls. 31765
commercial airplane auxiliary power unit starting drive 4360
component temp. prediction, thermal anal. software 11112
computer-controlled power switch 12867
conference, San Diego, USA (1994) 5490
contactless power delivery syst., mining appls. 20188
controller, fuzzy chip-based fault classifier 11131
COSY accelerator facility, steering/timing syst. solns. 18201
CROSSATRON modulator switches, pulsed power supply appls. 36409
current feedback mag.-multivibrator, oscill. freq. compensation 6046
current power converter transformers, short-cct. inductance calcs. 19771
custom power supply cost optim. *(German)* 21116
DAHRT lin. induction accelerator test facility, pulsed power supply 36265
DC power plants, seismic qualification, computer simul. 44142
DC power supply, overload/short-cct. current protection 27266
DC power supply, two-phase induction generator-based 5110
DC source, HV, 70 kV, 60 A, design and simul., EMTP software *(French)* 19767
DC sources, large loads, effective use 5105
DC/DC converter, simul./testing, laser supply appl. 36279
DC/DC PWM reson. power converter topol., pulse load appls. 11172
DC/DC PWM step-up power supply, SC cct.-based 27807
DC/DC ZVS PWM forward power converter design 5045
Deutsche Bahn elec. rly. operation review, 1994 *(German)* 44500
distrib. installations, intell. systs. *(German)* 35640
distrib. network mobile power plants, maint./emergency appls. 10730
distributed energy fed railgun, perform. enhancement 15274
distributed power archits., bus voltage level comparisons 36325
dyn. threshold voltage MOSFET for ultra-LV operation 22473
E7-25 capacitor storage unit, ET/railgun launcher 31756
EHV traction power networks, harmonic generation calcs. *(Italian)* 5349
elec. drivetrain, tank propulsion/railgun power supply 20064
elec. gun capacitive pulse forming networks 19776
elec. railcars, regenerative braking, DC feeding syst. 36752
elec. rly. AC power supply syst. *(Russian)* 28131
elec. rly. real-time control/monitoring syst. integrat. *(Chinese)* 36710
elec. vehicle propulsion inverter, power electronics design 44485
electrical systems, cards, standards and recommended practices 20169
electroluminescent lamp, power supply, SC AC-AC converter *(Japanese)* 20124
electron beam accelerator, long power pulse operation retrofit 34751
electron beam generation, plasma pulsed power closing/opening switch-based 34859
electron beam generation pulsed power supplies, back-lighted thyratron-based 36359
electron beam producing cathode, pulsed power-supplied 34858
electron source ferroelec. cathodes, pulsed power supplied 29751
electronic equipt. power syst. design, power archit. selection 19848
electronics capacitors, inductance/EMI reduction 541
electrothermal guns, capacitor charging, voltage/current control 19777
electrothermal-chem. gun, digital/optoelectronic ccts. 31750
electrothermal-chem. gun, meas. techs. 31751
electrothermal-chem. gun, ship defence appl. demons. 15285
electrothermal-chem. gun pulse shape requirements 19780
electrothermal-chem. guns, pulsed disk alternator storage 19610
EMG-PIRIT expt. complex, high energy plasma form. 36398
EMP simulators, HV pulsed power generators design, Ukraine 36268
ESRF, kicker magnet pulsed power supplies 34820
excimer laser pulsed power supply, mag. pulse compression cct.-based 36317
farmhouse power consumption limiters, methods and advantages *(Russian)* 4589
fast batts. charger, voltage inflection points detect. 27908
ferroelec. cathode pulsed electron emission characts. 29750
FET-switched induction accelerator cell 36410
FEUERSTELLUNG 2000, 30 MJ capacitive power supply 31744
fluoresc. lamps supply 527
flux-compression pulsed power generators 44215
force-commutated supply, cost-optimal control algm. 44118
forward ZCS-QRC, distrib. power supply *(Spanish)* 12338
four stage RHEPP accelerator testing, power supply 36302
fuel cells, theory, operation, appls. 5210
full-bridge MOSFET inverter, US transducer power supply appls. 44166
fusion reactor NBI beam direct converter, varying mag. field 11133
gas discharge equipt. power supply, control syst. 5093
Green Farm elec. gun facility, expts. 15275
GTO gate-drive, power supply optimisation 11109
GW pulsed power network, magneto-elec. switching-based 5048
gyrocons and magnicons microwave generators, circ. beam deflection 6483
halogen cycle lamps, HF power supply transformer 11446
hard rock fragmentation, pulsed power plasma blasting tech. 36811
hardFET pulsed power modulators, array-type radar appls. 27820
hazardous pollution control, pulsed power accelerator appls. 36815
helical explosive mag. generators, explosive switches 36289
Hercules capacitor bank pulsed power switch life test project 36459
HERMES III electron beam pulsed power supply, radiation pulse studies 36305
HF fluoresc. lamps, lighting control, electronic ballast *(Japanese)* 11452
HF high perform. power supplies, SMT 12332
HF series reson. inverter, PFM/PWM control strategies 5388
high av. power e-beam appls. 36294
high current/energy closing switches. railgun appls. 31746
High Energy Power Syst. Facility, Li batt. syst. eval. 28425

power supplies to apparatus continued
high power DC SMPS, electron gun appl. 19755
high power microwave sources, pulsed power requirements 29794
high speed elec. rly., power/control systs. *(French)* 11427
high speed trains, AC/DC power supplies 36751
high-power gas switches, ferroelec. electron beam triggering 36406
high-power microwave tubes, lab. and online appls. 6479
household radio equipt., solar cell power supply tests 20151
household radio equipt. power supplies, solar cell-based 20150
HV DC power supplies for HERA accelerator transmitters 27828
HV double pulse modulator, variable interpulse delay 5108
HV power supplies, electronic modules develop. 36327
HV power supplies, engng. overview 36330
HV solar cell array for electrostatic MEMS 36606
HV steep power pulses, opt. semicond. switch-generated 36432
hybrid elec. vehicles, AMTEC auxiliary power unit 28145
hybrid/elec. vehicles, DC/DC power converters 20100
hyper-cooled 6-phase sync. generator, pulsed load 36120
Hypervelocity High Efficiency railgun design 15262
ICF pulsed power cylindrical implosion loads 11111
IEEE pulsed power conf., Albuquerque, USA (1993) 20246
induction cooker coil CAD, Pascal program-based 36785
induction heating/melting, ZCS-HF inverter, bipolar-mode SITs 5384
induction machines, rotor/air-gap boundary layer, equiv. ccts. *(Russian)* 44033
induction motor power supply, single/three phase conversion anal. 27722
inductive energy storage pulsed power plasma opening switch expts. 36422
indust. distrib. network improvement, Clean Air Act effects 11493
indust. plant power syst. planning, tech.-economical eval. *(Russian)* 44621
indust. power supply harmonic control, switched filter-based 4456
INMARSAT-C commun. syst. characts. *(Croatian)* 3503
INPIStron dense plasma pinch pulsed power switch 36464
intense diagnostic neutral beam prod., pulsed power supply-based 36319
ISL-EMA railguns, phase controlled thyristor main switches 31758
ITC test conference, USA (1993) 36853
Japan Linear Collider klystron modulator pulsed power supply 36402
JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
KAON Factory synchrotron beam chopper pulsed power supply 34743
KEK PS magnet power supplies and beam line control 18260
Kirkcudbright EM launch facility, pulsed power syst. 31743
KrF excimer laser pulsed power amps., electron beam-pumped 36304
Ku band second harmonic gyroklystron expt. 6487
L10M lin. induction accelerator 36362
LEAR storage ring, stochastic cooling systs., upgrading 34789
LEP beam bumping kicker syst. high power pulse generator 34821
LIA-30 lin. induction accelerator, 6 MJ capacitor bank 36633
LIM, rolling rotor, pulsed operation modelling 27720
lin. generators, railgun pulsed power supply appls. 36309
lin. induction accelerators, 500 kV Marx generator 36361
lin. inductive accelerator, pulsed power supply 34817
lin. ion accelerator FET-switched pulsed power supply, PSpice simul. 34742
LINAC, klystron modulator, energy efficient deQing cct. 36360
linac with integrated power source, RF energy compression 43002
LMF triaxial MITL voltage adder syst. Marx generator 36300
load-haul-dump mach. power supply cable life rel., operating environ. 20190
local bypass capacitors, high-speed-syst. demands 21113
low-press. gas discharge pulsed power switches, mag. delayed 36415
machining robot control, inductive power/sig. transm. 20167
mag. flux compression/expansion, EM launchers/power supplies 31761
Maglev, instantaneous current detect., PWM converter *(Japanese)* 44563
Maglev on-board power supply lin. generator, math. model 36759
Maglev power feed ccts., impedance freq. characts. 11406
magnetocumulative pulsed power generators, 1D calc. studies 36291
magnetron, leakage flux transformer, HV power supply *(French)* 29616
Marx generator, 60 J/600 kV, 500 ps risetime 5107
Marx generator-based EMP simulator pulsed power supply 36264
MEMS, power supply, solar cell array 22630
metal halide lamps, electronic ballast develop. *(Japanese)* 36341
metal induction heating, MF parallel power converter appls. 20163
metal-to-metal closing switch, capacitative pulsed power supply 36455
microwave heating power supply, high PF mode 11185
microwave helicopter power supply demons. project 35597
microwave pulsed power research facility, Culham, UK 36379
mil. aircraft INS, maint.-free Pb-acid batt. develop. 43564
mil. unmanned undersea vehicle, thermophotovoltaic power source 36705
Mini SO-8 VDMOS power transistors, portable electronics appls. 29018
miniature SMPS, domestic appliance appls. *(Japanese)* 44618
mining plasma blasting appls., 1 MJ pulsed power studies 36812
mixed sig. device, high precision testing 766
mobile pulsed power supply, homopolar generator, inductive storage 36255
MOS-assisted gate triggered thyristor, pulse switching 11132
MOS-assisted gate-triggered thyristors, pulsed power switching appls. 36431
motors, double power supply, LF oscillatory motion 4904
multifn. single-phase PWM power supplies, residential appls. *(Japanese)* 27813
multimodule secondary power source CAD, params. optim. 5097
multiphase feed power source, voltage control characts. *(Russian)* 11107
muzzle-fed railgun expts., plasma armature 31752
MW solid-state cct. breaker pulsed power supply, GTO-based 36461
Navy pulsed power guns, power syst. simul. 35408
Ni-Cd cells, elec. vehicle appls. 5350
off-line reson. power supplies, design, anal. 37629
outdoor solar cell power unit *(Japanese)* 5215
ozone-generator power source, current control 5099
pancake coil for pulsed power amplif. of electrothermal load, freq. effects 36239
parallel-module power converter, current bal. controlled, dyn. anal. 44140
PCIM '94 power conversion conf., Dallas, USA (1994) 20250
Pegasus II pulsed power capacitor bank explosive closing switch 36454
PEM fuel cell, terrestrial/marine vehicle appls. 36741
PFN, rep-rated, capacitor thermal mgt. 31745
phased array radar transmitter, pulsed power monitor syst. 34153
photoacoustic Stark cell and power supply 26008
plasma arc driven railguns, MHD generator pulse power supply 20013
plasma gun launcher pulsed power supply, solid liner implosion-based 36271
plasma opening switch, Hawk pulsed power generator appl. 36419
plasma pulsed power opening switch, low jitter operation tests 36418
plasma radiation source pulsed power, ultra fast foil closing valve 36269
plasma source ion implant., pulsed power modulator totem pole drive 36804

power supplies to apparatus continued
- plasma source ion implanters, pulse power modulator design optim. 36803
- plasma thermal implosion 19769
- PM-excited sync. motorcar generator, design optim. 5379
- portable equipt. power supply design, intell. batt. mgt. 36274
- portable equipt. power syst. anal. tools, develop. 21054
- portable equipt. secondary batt. cycle life, waste reduction impact 44274
- power by wire aircraft, spec./testing 26560
- power plant emissions control, pulsed corona discharge modulators 35998
- power plant flue gas scrubbing, pulsed corona/electron beam technols. 35997
- press. pulses generation, arcs, capacitor store 31754
- Procyon explosive pulsed power syst. review 36253
- Procyon pulsed power supply plasma flow switches, computer modeling 36423
- protective conductor currents in studios and DP buildings *(German)* 27265
- pseudospark operation, hollow cathode phase studies 29819
- pseudospark switch develop., appls. 29818
- pulse-repeated Marx generator, forming line props. 36266
- pulsed accelerator magnets and power supplies 4127
- pulsed disk alternator, flywheel struct., EM gun 20050
- pulsed gas laser, external cct. effects on spark-gap arc-discharge 23100
- pulsed gas laser discharge, inductance and resist. effects 23101
- pulsed mag. field facility, capacitive storage 44114
- pulsed plasma generator, discharge chamber operating conditions 19765
- pulsed power adiabatic transformer, semicond. switched, design/perform. 36295
- pulsed power beam switch tube modulators, plasma ion implant. appls. 36404
- pulsed power capacitor dielec. eval., ringing conditions 36499
- pulsed power capacitor rapid discharge ccts., param. estim. 27825
- pulsed power energy capacitance integrator studies 19706
- pulsed power ferrite line pulse sharpener develop. 36318
- pulsed power ferrite line pulse sharpeners, num. anal. 31872
- pulsed power forming line capacitors develop. 36503
- pulsed power high-Coulomb triggered vac. switch tests 36458
- pulsed power high-Q capacitor banks, long-duration arc discharge appls. 36500
- pulsed power insulator degrad., high vac. surface discharges tests 36293
- pulsed power mag. modulator, laser power supply appls. 36401
- pulsed power microwave generation, long-pulse expts. 36312
- pulsed power modulator systs., pulse forming network calcs. 36441
- pulsed power multistage mag. compressors, switch loss minimisation *(Russian)* 44209
- pulsed power μs plasma opening switches, 2D snowplow model 36443
- pulsed power nanosecond semicond. opening switch develop. 36263
- pulsed power networks, mag. enegy storage switch-based 36405
- pulsed power photoconductive semicond. switches, breakdown limitation 36430
- pulsed power photoconductive switch charactn., deep level spectrosc.-based 36424
- pulsed power semicond. switches, opt. controlled, filamentation models 36435
- pulsed power spark gap switches, voltage recovery expts. 36456
- pulsed power supercond. opening switch, laser pulse triggered 36262
- pulsed power supplies, ferrite materials appls. comparison 36296
- pulsed power supplies, photoconductive switch-triggered, perform. and appls. 36252
- pulsed power supplies, plasma producing gas discharge studies 36310
- pulsed power supply slow capacitor banks, overcurrent protection 36313
- pulsed power supply technol., indust./mil. appls. 36251
- pulsed power switch energy loss studies 36303
- pulsed power syst. dielecs., real-time surface flashover detect. 36292
- pulsed power systems, environmental, industrial appls. 11520
- pulsed power technol., power plant pollution control appls. 35967
- pulsed power vac. switch foil support struct., laser pumping appls. 36442
- PV cladding, Northumberland Building, Northumbria Univ. 11299
- PV syst. needs/prospects, European perspective 27621
- PWM IGBT invertor power supplies, case study 36353
- PWM rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
- PWM Sinewave invertor design, outdoor remote area power supply appls. 36371
- PWM VSI, deadbeat control cct. 44176
- quartz cryst. pulsed power switches, electron-beam controlled 36450
- quasi-sq. parallel reson. power converter 5046
- RADAN SEF-303 pulsed power source, compact accelerator appls. 36320
- railgun pulsed power superspeed contacts, inverse problem calcs. 36311
- railguns, current pulse forming, capacitive energy storage 19778
- railguns, power supply mode optimisation 23526
- rechargeable batts. for mobile communs. 27915
- rep-rate pulser, high-power microwave source develop. 36323
- repetitive pulsed power spark gaps, breakdown recovery expts. 36457
- repetitively pulsed relativistic BWO, slow wave struct. 29797
- reson. power sources, freq./phase regulation, chokes 5092
- reson. series counterpulse, high current opening switches 19895
- resonant systems, IEE Colloquium, London (1995) 28230
- RHEPP 1 μs mag. pulse compression pulsed power module 36316
- rly. passenger carriage power supply, IGBT batt. chargers *(German)* 28125
- rly. power supply, static converter, Muldenstein *(German)* 44522
- rly. substation load levelling, energy storage *(German)* 44523
- rly. substations, 3-phase power flow studies 20108
- rly. traction power equipt. purchasing, specs. experiences, UK 44535
- rly. traction power supplies, overview 11425
- rock fractioning, pulsed power exploding wire expts. 36813
- rolling shutter, tubular motor ASD, control *(French)* 11333
- RUSLAN e-beam accelerator, Marx generator supply 34738
- SCR millisecond switches eval., railgun launchers 31747
- self-excited cycle mag. flux compressor 36286
- self-excited pulsed MHD generator, meatgrinder cct. 36609
- semi act. suspens., electrorheological fluid dampers, HV supply unit 44131
- series reson. power converter, pulsed welding load appls. 5121
- SHF EM fields generation, pulsed power-based 31701
- short-pulse water breakdown power technol., electrode phenom. 36259
- SIBERIA SR source control syst. 18262
- single phase squirrel cage motor, variable speed optimal control *(French)* 11040
- single-phase iron-core compulsator, computer modelling 36290
- slow capacitor banks, protection systs. *(Japanese)* 11312
- small railgun, bore erosion reduction 31757
- small-scale rem. PV power systs. design 43956
- smart hybrid power modules, design/appls., Russia 21104
- SOFC power sources, liq. fuelled, transportation appls. 44519

power supplies to apparatus continued
- soft-switched current-fed PWM inverter, struct., appls. 19735
- solar cell pulse power generators/low current switches 19550
- solid propellant electrothermal chem. launchers, pulsed power 31763
- solid-state photoconductive microwave generation pulsed power source 36434
- solid-state SCR switches, space laser pulsed power modulator appls. 36417
- solid-state thyristor technols., pulsed power closing switch appls. 36439
- space craft plasma MHD thrusters, solar elec. propulsion system 26590
- spark gap pulsed power switch, electrode perform. tests 36411
- squirrel cage motor, sensorless speed detect., supply current , FFT 36167
- squirrel cage motors, perform. prediction, power supply vars. 11051
- SRM drive, chopper control, acoustic noise, ride through 11322
- static neg.-phase-seq. current compensator, rly. 44537
- steel, induction heating, load/freq. converter influence 44597
- STRAUS-2 electron pulsed accelerator, pulsed power supply 36363
- submarine opt. cable transm. syst., and characts. *(Croatian)* 3550
- substation house emergency supply modelling, computer-based 27859
- subway elec. supply, energy saving, batt. storage plant 44539
- subway trains, AC supply network, load impact eval. 28108
- supercond. magnet power supply convertor, current control studies *(Japanese)* 11188
- supercond. supercollider pulsed power supply thyratron modulators 34750
- switch-mode magnet power supply, modelling and control 29027
- switched reluctance machines, torque optim. design *(French)* 10990
- tandem induction furnaces, cost-effective smelting *(German)* 11500
- thermally fused explosive switch, railgun appl. 31759
- thermonuclear magnetized plasma generation, mag. implosion syst. 36267
- three-phase four wire AC line conditioner, voltage controlled 19710
- three-phase reluctance motors, single-phase-fed, transient anal. 36124
- thyristor control pulse shaping cct. 1373
- TPX, power supplies, quench protection 11110
- traction reson. DC link inverters, soft/hard switching methods 44568
- transcutaneous elec. nerve stimulation, quasiresonant power supply 4255
- transport aircraft systs., power electronics implement. 43451
- ultrafast high press. pulsed power gas switch expts. 36416
- unbalanced AC voltage supplies, SVC dyn. anal./design 19124
- underground rly. transformers selection, safety 44538
- urban rly. substation systs. 44508
- US Army batt. needs 43567
- US Navy batt. requirements, develop. efforts 43565
- valve-regulated secondary batt. monitoring method 44299
- variable speed fan motors, chopper control syst. *(Japanese)* 4884
- VHV SMARTMOS power convertor control IC 36331
- VIRA-2P pulsed power X-ray generator, electron beam size meas. 34973
- wire mfg., distributed power syst. control concept 11503
- XRAM pulsed power supply cct., repetitive operation studies 36256
- ZVS-PWM full bridge DC/DC converter, losses, appl. 5089
- CCl_4 greenhouse gas destruction, plasma reactor-based 20181
- CO_2 gas lasers, power supplies comparison 1861
- Cu vapour laser, current pulse waveform shaping cct. *(Japanese)* 39664
- Cu vapour laser power supply, regenerative snubber topol. 36250
- Fe-cored compulsator modelling, num. anal. techs. 19784
- GaAs FET cct. power supply 21096
- GaAs SIT-based pulsed power switch develop. 36427
- GaAs photoconductive pulsed power opening switch 36425
- GaAs photoconductive pulsed power switches, Ti:sapphire laser-triggered 36440
- GaAs photoconductive pulsed power switches, vac. surface flashover tests 36433
- GaAs:Si,Cu photoconductive pulsed power switch perform. tests 36428
- H_2 spark gap pulsed power switches, recovery characts. 36412
- H-SiC pulsed power switching devices, fab., charactn. 36449
- Hg liq. jet pulsed power supply opening switch tests 36261
- KrF NIKE laser, e-beam pumped amp. 31190
- KrF excimer lasers, HV pulsed power supplies 31171
- KrF laser amp., Titania, pulsed power syst. 31189
- Li ion secondary batts., safety eval. *(Japanese)* 19943
- Li primary batts., domestic utility meter appls. 44267
- Li-$SOCl_2$ long life reserve batt., wide area mine 43566
- Li-ion rechargeable batt., high energy dens. *(Japanese)* 5182
- LiAl-FeS batts., operation, elec. vehicle appls. 5203
- Na-$NiCl_2$ zebra batts., β-alumina electrolyte 5202
- Ni-Cd aircraft batts., life cycle testing 43442
- Ni-Cd rechargeable batt., high capacity/reliab. *(Japanese)* 5184
- Ni-MH sealed batts. for elec. vehicles, characts. *(Japanese)* 5327
- Ni-MH secondary batts., safety eval. *(Japanese)* 19943
- Ni-Mh_2 bipolar elec. vehicle batt., cell design/eval. 36714
- Ni-Zn batts., operation, devlop., problems/soln. 5351
- Pb-Ca type car batt., high-temp. durability *(Japanese)* 5328
- Pb-acid batt./rectifiers based DC bulk power plant 44190
- Pb-acid car batts., dual elec. archit. 36729
- Pb-acid pulsed discharge bipolar batts., design/perform. 44270
- Pb-acid sealed batts. for elec. vehicles, characts. *(Japanese)* 5327
- Pb-acid sealed maint.-free batt., Boeing 777 appl. 43444
- Pb-acid valve-regulated 24 V aircraft batts., conductance testing 43445
- Si monocrystalline solar cells, portable power supply appls. 19980
- Si photoconductive pulsed power switches, dark current characts. 36438
- Si photoconductive pulsed power switches, vac. surface flashover tests 36433
- Si pulsed power semicond. switches, p^+-n^--n^+/n^+-n^--n^+ struct. 36436
- Si solar cell array based transportable power supply 36598
- V_2O_5-$LiNb_2O_5$ rechargeable coin type batt. characts. *(Japanese)* 5181
- Xe lamp pulse power-pumped Nd:glass laser, crack mechanisms 31457
- XeCl excimer lasers, HV pulsed power supplies 31171
- Zn-MnO_2 rechargeable Leclanche cells, elec. vehicle appl. 36514
- Zn-air batts., design/develop./testing 19931
- ZnSe pulsed power photoconductive switches, elec. field studies 36437
- ZnSe pulsed power switches, electron-beam controlled 36450

power supply circuits
- *see also constant current sources; power supplies to apparatus; switched mode power supplies*
- 16 Gbit DRAM, 2D power-line selection, subthreshold current reduction 29231
- 32 ns 64 Mb DRAM, extended second metal line archit. 29233
- AC-AC convertors, first harmonic approach, syst. modelling, cond. mode *(French)* 29011
- cannon caliber EM launcher syst., air core compulsator design 31740
- charge pump cct. for high output current EEPROM appls. 29046
- Cockcroft-Walton rectifier cct., ripple, asymmetry 6026
- digital ICs, power-reduction schemes 21168

power supply circuits continued
- electronic packaging, mech. anal. 28493
- fuzzy logic power supply protection cct. for severe transients 44188
- half-wave voltage converter with backward diode, stabil. estim. 539
- handy phone UHF high power amp. module 42255
- HF miniature planar thick film transformers 36225
- monitoring power supply current, neural network 34374
- on-chip power supply coupling diodes, ESD protection, noise immunity 5986
- optoelectronic feedback control for power supplies 37624
- PCIM '94 power conversion conf., Dallas, USA (1994) 20250
- power electronics conf., Cuernavaca, Mexico (Aug. 1993) 11564
- reliable power subsystem prod., design/test for quality 37626
- RFX RFP, fast protection syst. 4730
- Scott cct. in LV stabilized secondary power supply 5109
- smart batt. packs for portable equipt., develop. 21109
- ultrathin dc/dc converters for compact PCMCIA cards 12329
- variable act.-pass. reactance studies *(Japanese)* 12311
- VLSI power supply coupling diode design, ESD protection/noise immunity 30470

power supply, emergency *see emergency power supply*

power supply industry *see electricity supply industry*

power supply quality
- 3-phase transformer no-load characts. anal. 36221
- 3-phase unbalanced loads, PF meas. 43809
- 5/220 V thermionic generator power convertor design 28031
- 6 kV mining power networks, short-cct. protection design *(Russian)* 5433
- 11 kV rural distrib. network perform. improvement designs, UK 43752
- AC line point of utilization power quality study, USA 19288
- AC transm. line disturbances, adaptive feedforward control 10711
- AC voltage regulator harmonic capability, SPICE anal. 540
- ASD, power quality impact reduction 5269
- class., neural net/ES-based 4741
- commercial facility, power quality improvement, student project 35618
- commercial/indust. facilities, harmonics eval. 10602
- consumer power supply reliab. indices calcs. *(Russian)* 43606
- converters, energetic characts., load current modulation, EMC *(Russian)* 44111
- custom power supply cost optim. *(German)* 21116
- diesel engine generator distrib. feeders, voltage flicker studies 43938
- digital multirate meas. algms. 27279
- dimmers, EMI and effects on lamp life and power quality 11445
- distortion, consumer/utility responsibility *(Russian)* 10621
- distrib. network disturbance waveforms class., neural net-based 27161
- distrib. network disturbances, light flicker voltage requirements 20125
- distrib. network disturbances prediction, Kalman filter-based 10724
- distrib. network harmonic filters, EMTP-based anal. 4642
- distrib. network quality/reliab. improvement options 43760
- distrib. network real-time control tools 10731
- distrib. syst. power quality monitoring 27165
- elec. consumer demand cycle optimis., cost savings *(Italian)* 4591
- elec. power quality improvement/monitoring *(Chinese)* 27130
- elec. supply indust. challenges, Germany *(German, English)* 35500
- elec. supply service quality assess. overview, Argentina *(Spanish)* 4590
- elec. utility customer service improvement, distrib. automation-based, UK 43684
- elec. utility generating plant AFC services 43702
- elec. utility power supply quality mgt., South Africa 43708
- elec. utility reliab. improvement experiences, Australia 43685
- FITL, commercial AC power quality issues 19227
- harmonics, current compensation/act. filtering overview 19774
- harmonics, expert syst. anal. 43620
- harmonics effects on power quality/transformers, comments, reply 36796
- IEEE industry applications, conf., Denver, USA (1994) 10
- imperfections, bad service, sensitive equipt. *(French)* 35600
- induction motors, freq.-depend. model 11048
- induction motors, nonsinusoidal supply-fed, additional loss calcs. 27737
- induction motors, PWM power convertor feed problem calcs. 27730
- indust. arc furnace power systs., voltage flicker study 20157
- indust. feeder load interruptions, fast breaker tripping impact 20158
- indust. power supply harmonic control, switched filter-based 4456
- indust. power syst. voltage sag compatibility, utility perspective 20156
- INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
- INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
- load relief prediction/control, computer-based 26965
- local bypass capacitors, high-speed-syst. demands 21113
- meas., voltage reducer breakdown studies *(French)* 35706
- MV/HV power equipt. mfg. QC, supply quality effects *(French)* 36086
- network operator's viewpoint *(German)* 27134
- network voltage quality monitoring *(German)* 27135
- nonsinusoidal power syst. supply quality improvement 19088
- office building power quality survey, Hong Kong 4501
- PC, effect of quality vars., testing 5601
- PCIM '94 power conversion conf., Dallas, USA (1994) 20250
- petroleum terminal ASDs, power quality issues 5413
- portable power-quality demo. board 10733
- power syst. dispatch switch operation planning, ES-based 4510
- power syst. supply quality improvement, meas. problems 19357
- power systs. education, distrib. feeder power quality calcs. 20348
- public power supply network impedance and harmonics calc. *(German)* 35609
- PWM invertors, transient regime output params. correction *(Russian)* 44113
- real-valued fast convolution algm. perform. 35606
- rectifier input current harmonic distortion, stds. 44149
- reliab. worth assess., Monte Carlo simul.-based 26945
- short-cct. current limitation on distrib. nets 27269
- SMPS, power syst. harmonic compatibility design 5031
- Southern African grid, SVC 43655
- static power converter supply, local spectral approx. methods 36355
- three-phase AC/AC power converters, power quality issues 36276
- three-phase power syst. quality indices, computer simul. *(Russian)* 26913
- three-phase power syst. reliab. rel., voltage unbalance 19232
- three-phase power systs., supply quality-oriented theory 4466
- three-phase PWM AC/AC converters, power conditioning appls. 36277
- three-phase single-switch PWM rectifier develop. 5127
- three-phase VSI, space vector simplex PWM methods perform. 44174
- TZ standby UPS/diesel generating set 19786
- urban distrib. systs. operational structuring, reliab. aspects 43753
- VSI, harmonic current comp. improvement 5094

power supply quality continued
- wave power stations, energy conversion problems 4866
- wind power converter/inverter syst., 600 A/1200 V intell. IGBT module 19567

power supply systems *see power systems*

power system analysis computing
- *see also power system control*
- 2-area power syst. prod. cost, cumulant method *(Chinese)* 27034
- 2D colour pattern load anal., DSS tool supporting DSM 27053
- 3 kV DC rly. power syst. harmonics, time domain anal. 44553
- 3 kV DC rly. traction systs., catenary harmonics ident. 20109
- 3-phase power syst. symm. components calc., state observer 19061
- 77 kV overhead line-underground cable lightning surge anal. 19306
- 77 kV overhead line-underground cable lightning surge anal. 10713
- 110/220/400 kV power station power syst. short-ccts. eval. 19059
- 220/69/13.8 kV three-phase transformers, EM transients *(Spanish)* 5028
- 400 kV distrib. substations, conductor short-cct. effects simul. 19281
- 400 kV power syst. quadrature boosters planning, UK 4601
- 400 kV transm. line earth fault location algm. 43763
- 500 kV transm. syst., adaptive autoreclosure, ANN 4677
- AC rly. syst. energy conservation, optim. train running curves 44530
- AC/DC power syst. saddle node bifurcations detect. 35508
- act. power contingency ranking, radial basis fn. network 10662
- adaptive dist. relay protection automation simul. 27259
- adaptive multivariable optimal controller 4579
- adaptive PSS, turbine governor control 4564
- adaptive relay protection, hierarchical structs. 4723
- adequacy indices, failure/repair proc. distrib. effects 26887
- air conditioner direct load control, multipass dyn. prog. algm. 27055
- air insulated substations, EM field calcs., computer-based 5161
- alarm proc., OO symbolic connectionist syst. 19158
- alarm proc. syst., symbolic-ANN syst. 26867
- anal./design/operation/planning, knowledge engng. tools 4487
- AUSTRAL, distrib. syst. power restoration ES 19246
- Automated Distrib. Syst. Modeler, OO design 35623
- automation, computational intell. 19161
- AXAF space observatory, power syst., CLIPS troubleshooting ES 26658
- BC Hydro's on-line transient stabil. assess. model 35434
- branch flow contingency anal., computer-based 4482
- bulk power network restoration, ES support syst. 19140
- bulk power syst. restoration procedures, knowledge-based approach 26953
- bulk power syst. security anal. model, computer-based 26969
- bulk power system reliability, assess. methods 19019
- bulk substations, seq. of events eval., neural networks 44244
- bulk transmission security assess., nonutility generation representation 19224
- busbars, steady-state/transient ampacity calcs. 4448
- cct. capability assess., rating sheets prepn. 43657
- cement plant elec. network design, ADELIA expert syst. 5417
- chaos simul., EMTP package-based 26882
- chaotic phenom. model, computer-based 4480
- CHOPIN, heuristic model, transm. expansion planning 4614
- CHP plant power syst. short cct. calc., simul. package 19505
- CHP power syst. long-term operations planning 27100
- coherent generator group recogn., dyn. equivs., ANN *(Korean)* 36105
- coherent grouping of power systs., neural networks 4498
- common-tower double-cct. power lines, earthing switch simul. *(Chinese)* 35653
- compact 230 kV line, corona perform. 27221
- complete model state estimator, computer-based 27101
- composite generation-transm. syst., reliab. indices 35579
- composite power syst., earth fault currents/pot. distrib. 43619
- computer models, phys. verification tests 43607
- computers in power electronics, conf., Trois-Rivieres, Que, Canada (1994) 36879
- control techs. and modelling 27074
- crit. contingencies ident., heuristic method 19133
- daily load forecast, multilayer neural net-based *(Japanese)* 10708
- daily load forecasting, hybrid fuzzy-neural approach 4603
- daily load forecasting, multilayer ANN *(Japanese)* 10707
- daily load forecasting, neural net/regression anal.-based 19200
- DC convertor stations, generator shaft torsion simul. 4635
- DC link, transient anal., converter model, series expansion 27143
- DC motor drives, fuzzy speed/voltage control 28099
- DC power syst. short-cct. current calcs. 19039
- DC rly. locomotives, induction motor-driven, computer simul. 5348
- designated distrib. area, short range planning, computerized procedure 10699
- Diagnostician, submarine power distrib. syst. appl. 28113
- digital protection criterion values estim. 27257
- digital relaying fault ident., fuzzy-set approach 27249
- directional overcurrent relays coord., decomp. approach 10780
- discrete voltage control modelling, load flow soln. 26963
- dispatcher training simulator, GUI-based 19157
- dispatcher training simulator, problem-oriented teaching tech. 20306
- dispersed generation/storage, islanding protection 19334
- dispersed storage/generation pole slipping protection algm. 27250
- dist. relaying coord., OO expert syst. *(Korean)* 27247
- distrib. fault diagnosis, obj.-oriented ES 27131
- distrib. feeder elec. heating load prediction, computer-based 35620
- distrib. line condition monitoring, neural net-based 43750
- distrib. lines, lightning outage ratio anal. *(Japanese)* 10737
- distrib. mgt. syst., power anal. software integrat. 19252
- distrib. network, intermittent arcing grounding overvoltage restraint *(Chinese)* 35632
- distrib. network, load forecasting, decision making, hybrid ES 19270
- distrib. network, load-flow eqns., starting point 27147
- distrib. network adaptive high/low impedance fault detect. 4644
- distrib. network expansion planning, multi-stage branch exchange method 27151
- distrib. network fault diagnosis, neural net-based 19241
- distrib. network fuel cells, optimal deployment genetic algm. 19257
- distrib. network ground fault discrim. method, computer-based *(Japanese)* 27174
- distrib. network harmonic filters, EMTP-based anal. 4642
- distrib. network load restoration planning algm., ES-based 19245
- distrib. network loss reduction, syst. reconfig. 10728
- distrib. network operator training, DIAPASON simulator-based 19274
- distrib. network optimal config. planning, branch exchange methods 27153
- distrib. network optimal switching planning, fuzzy inference-based 27179

power system analysis computing continued
distrib. network optimal switching planning, fuzzy inference appl. 19268
distrib. network outage costs/reliab. indices eval. 35625
distrib. network planning, fuzzy math. prog.-based 27155
distrib. network power capacitor placement/replacement/control, computer simul. 35622
distrib. network real-time anal., business opportunity/experiences 19254
distrib. network real-time SCADA systs., AM/FM appls. 19273
distrib. network reliab. eval., fuzzy set theory-based 27150
distrib. network restoration, ES-based heuristic methods 19244
distrib. network state estim. method, branch-current-based 35626
distrib. networks, optimal supply restoration, develop. countries 27169
distrib. networks develop., reliab. anal. *(Russian)* 43739
distrib. power lines fault diagnosis, neural net-based 19242
distrib. substations, thyristor controlled series capacitor appls. 27163
distrib. syst., harmonic current prediction, ANN/GMDH comparison *(Korean)* 27178
distrib. syst., transient anal., equiv. homog. line model *(Japanese)* 10738
distrib. systs., sig.-spectrum anal./diff. eqn. 35635
distributed EMS, FDDI based, simul. 27009
distributed online fault sect. estim., neural net-based 26873
distribution network arcing fault detection/classification, neural net-based 19250
distribution network capacitor bank failures, harmonics effects 19262
distribution networks, periodic steady state anal. methods 19248
double cct. lines, digital phase/current protection 4711
dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
DYANA best-first hierarchical diagnosis, diff. eqn. models 19493
dyn., coherency ident., neural net-based 4492
dyn., real-time simul. survey 26854
dyn. anal., num. efficient algms. 4499
dyn. anal., protective syst. modelling 4716
dyn. anal., simulated distributed computing tool 4454
dyn. dispatch, neural network appl., multiproc. 4571
dyn. equivalence calc., model reduction algm. 26903
dyn. load modeling, neural net-based 4488
dyn. security assess., ELISA ES-based 26861
dyn. stabil., fast anal., patt. recogn. appl. 10638
dyn. stabil., optimal control modelling 4515
dyn. stabil. simul., NPP models 35429
dyn. state estimator, computer-based 4457
dyn. voltage instabil., induction motor model *(Korean)* 35461
dynamic equivalents, synchrony concept 19037
dynamic response anal., nonlinear terms significance 19020
earthing syst. transient behaviour, computer models 19352
economic dispatch optim., refined genetic algm.-based 35482
economic distrib. planning, computer-based *(Russian)* 10691
economics load dispatch, multilayer ANN training 27047
economy energy wheeling, benefits, Canada 4622
education, OOP approach 28334
educational courses, computer appl. 20314
Egypt Power Network fault diagnosis, ES 19333
EHV lines fault location simul., DS-SS techs. 19356
EHV radial transm. networks, transient recovery voltage stresses 4619
EHV/HV networks, reliab. data collection 26857
EHV/UHV transm. line arcing fault protection simul. 27190
eigenvalue calc., AESOPS algm. improvement 4489
elec. demand forecasting Rostovenergo power syst. *(Russian)* 35578
elec. generator modelling, power syst. simulator-based method *(Russian)* 43995
elec. load-weather temp. fn. calc. method 35589
elec. network flicker compensation, arc furnace model 5383
elec. supply restoration training, Netherlands 19089
elec. utility distributed resources planning, optimum location 10692
ELECTRABEL, long term planning methodologies and models 27000
element modelling, param. estim. techs. 35467
EM transient simul., matrix-based 4484
EM transients simul., EMTP MODELS lang. 26894
EM transients simul. programs, GUI appls. 19026
emergency voltage situations control, anal. 26958
emissions-constrained optimal power flow calcs. 10610
EMS/SCADA systs., mgt. IS-integrated 26954
EMTP as educational tool, power syst. transients anal. 4475
engng. anal., GUI database appls. 35436
ES, evidence theory-based 26919
estim., associative memory ANN 19335
EUROSTAG software, power syst. dyn. simul. 19144
expansion planning, optimal generation mix algm. 27099
expansion planning under uncertainty 27098
FACTS, bilinear predictive control, thyristor controlled capacitor 4582
fast decoupled load flow, control adjustments 26925
fast decoupled load flow calc., parallel algm. *(Chinese)* 35608
fault current estim., Kalman filter 19190
fault detect., back-propag. ANN *(Korean)* 35702
fault diagnosis, AI methods perform. eval. 19030
fault diagnosis, diagnostic ES shell-based 35431
fault diagnosis, fuzzy ES-based 19031
fault diagnosis, interval based approach 19040
fault diagnosis, parallel proc. ES-based 19029
fault direction identification, neural network approach 19358
fault impedance, fast estim. 19063
fault level estim., computer-based 19058
fault location, neural net-based alarm proc. 19072
fault quantities on-line meas. 19372
fault sect. estim., discrim. anal.-based 35465
fault sect. estim., neural net discriminant anal. 27284
flexible AC transmission control simulation, EMTP package-based 35614
flexible power syst. modeling 43621
flexible software for power supply testing, design approach 19051
Frankfurt (Main) city network control syst. *(German)* 35551
freq. relaying algm., Newton-Raphson method 10612
fuzzy adaptive excitation control method *(Chinese)* 43631
generalised unit commitment problem, computer-based 35492
generation expansion planning, fuzzy no.-based 19205
generation expansion planning, parallel GA, parallel proc. *(Japanese)* 27086
generation expansion planning, parallel genetic algm.-based 19206
GIS lightning overvoltages, computer simul. 19912
GOLDSMITH, DSM cost/benefit options 19132
grid, fault diagnosis, ES, neural networks 43618
grounding syst. anal., EMTP based model 4721

power system analysis computing continued
half-hour data-based load forecasting method 27095
half-wavelength power lines, operational problems anal. 35642
harmonic penetration studies, load modelling 4478
harmonic waveform distortion, computer simul. 4481
harmonics, dyn. filter, least absol. value algm. 19001
harmonics, EM field prod. studies 19024
harmonics, expert syst. anal. 43620
harmonics interf. anal., FRESCA package-based 19002
hierarchical GUI 19027
high parallel capacitance, short cct. distortion *(Japanese)* 26910
HSPICE/EMTP comparison, power syst./power electronics anal. 4476
HV AC-DC systs., multivariable adaptive control 4549
HV substation cct. breakers, simul.-aided short cct. risk eval. 44247
HV substation flexible busbars, plastic impact simul. 19915
HV substations/MV networks operation, diagnostic ES 19909
HV transm. line fault location, digital simul. *(Chinese)* 35697
HV transm. syst. planning, SELF expert syst. 19202
HV/EHV power systs., boost transformers, optimal phase angles 43663
HVDC real-time digital/analogue simulator interface 27142
HVDC transm. network computer simul. methods comparison 35617
HVDC transm. systs., dyn. digital simul. studies 19236
HVDC transmission links control stability, L_∞ robustness anal. 19235
HWL-01 excitation regulator, STD bus *(Chinese)* 35529
hybrid PV/wind/diesel power systs., computer modelling 19571
hydroelectric power syst. optimal, short-term scheduling 27613
hydrothermal power syst., unit commitment, knowledge based dyn. prog. 19017
hydrothermal power syst. energy mgt., long/medium/short term *(Chinese)* 27037
hydrothermal power syst. reliab. assess., computer-based 26888
hydrothermal power syst. transm. anal. model, planning appls. 27110
hydrothermal syst., best fuel mix, seasonal planning, fuzzy mathematics 10700
hydrothermal syst. reliab. assess. 36035
hydrothermal syst. short-term coord., multi-pass dyn. prog. 19043
incident anal./maint. mgt., SAS intell. syst. 19007
induction motor aggregate model/expt. responses comparison 4959
induction motor model, dyn. aggregation, power syst. simul. 4960
induction motor stator current control, trained ANN, syst. ident. 11059
indust. power syst. elec. risk/reliab. calcs., PC-based 4553
indust. power syst. reliab., Monte Carlo simul. 28189
indust. power systs., electromech. response 20186
indust. resistive load control, disturbance minimisation 4541
insulator string overvoltages, lightning stroke inclination 35668
integrated generation/transm. syst. simul. 35476
intell. control, appl. develops. 19135
intell. syst. appl. 43617
interactive graphic anal. software appls. 19128
interarea/local generator reson. modes ident. 35486
interconnected power syst., transient response, single line-to-ground faults 4593
interconnected power systs., small-sig. stabil., eigenvalue method, parallel proc. 35493
interconnected power systs., transfer capability eval. 27013
island power syst. spinning reserve, real-time estim. 4473
islanding strategies for regional power producers 27021
isolated part power syst., control behaviour 27020
knowledge acquisition/config., KA7 project 19045
LANGAGE, expert system for real-time diagnosis of hydroelectric power system faults 10690
LANs, distributed planning/problem solving environ. 19222
lightning-induced overvoltage calcs., coupling models 27252
load distributor static and dyn. network anal. *(German)* 43731
load flow anal., computer-based methods 19021
load flow calcs., floating point DSP 26890
load flow calcs., modified incomplete Cholesky method 26864
load flow feasibility region ident., computer-based 26863
load flow modelling, phasor dynamics-based 19035
load flow solvability, computation method 35435
load forecasting, long-term max. demand, modified ANN approach 19209
load forecasting, models comparison, fuzzy neural nets 19219
load forecasting, neural net prediction syst. 19218
load forecasting, short-term, fuzzy neural net 19208
load forecasting, weather-sensitive short-term, neural net approach 10701
load freq. control, disturbance accommodating optimal controller *(Korean)* 26988
load modelling, computer-based *(Chinese)* 35424
load modelling, cumulant-based probabilistic simul. *(Chinese)* 35449
load modelling/freq. estim., microcomputer appl. 10614
load models, power flow/dyn. perform. simul. 35441
load pattern classifier algm., neural net-based 10704
load relief prediction/control, computer-based 26965
load static characts. ident., neural net-based *(Chinese)* 43604
load-flow anal., ANN, Newton-Raphson algm. 19083
load/state estim. software, security assess. appls. 27103
loads simul. *(Russian)* 35464
logic-based components modelling lang. 26893
long-dist. power syst. adaptive generation control *(Japanese)* 10689
long-term dyn. simul., num. integrat. method 35466
long-term load forecasting, recurrent neural network 27112
LV power distrib. lines, lightning overvoltage effects study 10727
maint., ALICE-ES software-based 19056
maint. of plants/equipt., learning environ., virtual reality *(Japanese)* 36486
marginal outage costs eval. 10671
MBR, power syst. pricing update 27067
modified Ward-type equiv. model, partitioning techs. *(Korean)* 35460
MORGAT, EHV transm. digital relay protection simulator 10714
MOV protection, series compensation capacitors, response calc. 27251
multi-area power syst. reliab. eval., PC-based 26855
multi-objective dyn. load dispatching, optimal operation *(Japanese)* 26936
multiarea power syst. automatic generation control simul. 10666
multiarea power syst. simultaneous transfer capability anal. 26997
multicontingency power syst. transient stabil. assess. decision trees 26860
multigenerator power systs., damping anal. program 4486
multimachine interconnected power syst., transient perform. model 19149
multimachine power syst., param. adaptive control 19156
multimachine power syst. auto-parametric reson. calcs. 26896
multimachine power syst. generator shedding, neural net-based 19098

power system analysis computing continued
multimachine power syst. resync., optimal variable aim control *(Chinese)* 10634
multimachine power syst. transient stabil., prediction/control *(Chinese)* 35513
multiple fault computation algm. 19060
multiple single-tuned harmonic filters, ratings selection 26874
multiterminal AC-DC power syst. outage contingency ranking 10669
multiterminal power systs. anal., reduced ccts. methods 26899
multiterminal power transm. lines fault location algm. 27281
MV mine distrib. network, ground fault simul. 20193
MV power network arcing faults, computer modelling 19032
MV power syst. planning, energy storage, ES 27176
Nat. Grid power syst. anal./data mgt. rationalisation 19126
Navy pulsed power guns, power syst. simul. 35408
network connectivity tracking, topol. based algm. 35489
network dyn. transient phenom. simul. program *(German)* 10717
network mgt. training simulator, software develop. 19125
network reconstr. simul. for control room staff *(German)* 19178
neural nets for power syst. security prediction 35538
neural nets for power systs. diagnosis 35699
New York power pool simul., dispatcher training appl. 4584
Newton optimal power flow convergence studies 26848
node-oriented load flow solns., Bergeron's method 26862
nonlin. asymm. components, short cct. calc. 19069
nonlin. elements simul. techs. 26883
North American power symposium, Washington, DC, USA, (1993) 11522
NPP safety and operational efficiency simul. 19401
obj.-oriented anal. methods 35428
obj.-oriented approach appls. 26944
on-line load relief control 4575
on-load power transformer tap changing modelling 4540
online anal./data mgt., open syst. approach 19127
online dyn. security anal. implement. 4568
online dyn. security assess., EMS ES-based 19099
online static security assess., neural net-based 35444
open access power transm., anal. software 19129
operator training simulator, workstation based 4581
optimal clustering, genetic algm.-based 4446
optimal power flow anal., security constrained 26902
optimal power flow simul., security constrained 10603
optimal reactive dispatch, act.-reactive coupling 4573
optimum generation schedule, transm. loss formula 10796
overcurrent relay harmonic simul./testing 10613
overhead line, conductor clearances, meas., calcs. *(Italian)* 4694
overhead line short-term loading capacity assess., ES-based 19308
overhead line switching overvoltages, computer simul. 19309
overhead lines, earth-return effects, freq.-independ. cct. model 43728
overvoltage protection meas. simul. computation comparison *(German)* 43797
parallel elimination method *(Japanese)* 4494
parallel load flow algm. 4445
parallel proc., block-diag.-band matrix 19071
parallel simul., automatic partitioning, factorisation tree 19044
parallel soln., clustering/factorisation tree techs. 4462
PC programs for power systs. security calc./anal. *(Russian)* 10620
peak load forecasting, fuzzy neural net-based 35590
peak load forecasting, regression based, transform. tech. 4610
peak switching overvoltage calc., neural net-based 10703
phase selection, fault generated HF noise, ANN 19141
planning, reliab. eval. 35569
planning/operation, R&D trends, probab. appls. 4597
plant power/control syst., obj.-oriented simul. 20159
plant simul., PVM-based parallel computing 27299
polyphase power syst. VAr compensation, computer simul. 4550
post fault operation anal., computer-based *(Russian)* 10600
post-disturbance anal., records reduction/compression 26900
power flow calculation, ANN *(English)* 4496
power generation planning, fuzzy multi-attribute decision-making 19216
power pools, transient stabil. calc., dyn. props. 27027
power station auxiliary power systs., short-cct. current calcs. 19383
power station auxiliary power systs., short-cct. current calcs. 19382
power station auxiliary switchboards, short-cct. current calcs. 19385
power station power systs., partial short-cct. current calcs. 19384
power syst., dynamic security assess. 19018
power syst., two-area load-frequency control with neural nets 19113
power syst. dyns., hands-on teaching package 19025
power syst. emergency corrective control, ANN classifier 19114
power syst. LV fuse overcurrent behaviour 19343
power syst. restoration, trouble call anal., OO prog. 43661
power syst. state estim., bad data detect., ANN appl. 19047
power syst. voltage security, ANN, patt. class., machine learning 19160
power systems computation, conf., Avignon, France (1993) 11544
power transm., transfer limit calc., integrated approach 19146
prod. simul. methods, comparison, MONA tech. 27113
production costing, Markovian model 19110
protection perform. anal., ES appl. 4712
PSS, design, μ synthesis 43671
PSS, fuzzy controlled SVC design *(Japanese)* 26939
PSS, intell. variable gain control, multitransputer-based *(Chinese)* 43691
PSS fuzzy excitation control syst. develop. 4509
pulse amplit./synthesis converters, power syst. appls. 27809
PV array max. power extraction, fuzzy logic control 19560
PV array/batt. power switch network, nonlin. SPICE model 27635
PWR NPP-power syst. interact., dyn. stabil. simul. *(Chinese)* 43824
quality, real-valued fast convolution algm. perform. 35606
quality improvement by short-cct. current limitation on distrib. nets 27269
radial distrib. networks, optimal capacitor selection search method 19264
radial distrib. syst., value based reliab. assess. 27168
radial syst. struct. determ., chaotic neural net *(Japanese)* 4495
real-time power syst. anal. digital simulator 10611
real-time power syst. parallel simul., mutated tree archit. 4453
real-time/offline fault anals., neural net appls. 19093
recursive load ident. method, computer-based 35427
relay protection, low ratio CTs, high fault currents 35675
relay protection DC current sens., meas. modelling *(Russian)* 35672
relay testing simul., user interface software develop. 27246
reliab., anal., methods, software 27006
reliab., fuzzy logic appl. 26889
reliab., generating unit operating reserve assess. 26856

power system analysis computing continued
reliab. eval., weather events, seq. simul. 4461
reliab. worth assess., Monte Carlo simul.-based 26945
rem. area power supply systs. load forecasting, neural nets 35570
remedial action modelling, operator training appls. 19139
residential elec. water heater loads, aggregate model 20127
restoration, training, ES appl. 19165
restoration transformer saturation overvoltages, computer simul. *(French)* 35537
rly. power syst. stabil./power flow limit calcs. 5341
rly. traction substation transformers, unbalance modelling 44520
secondary voltage control, pilot buses selection 19155
security anal., static on-line voltage contingency screening 4485
security assess., AI appls. 27011
security assess., Kohonen classifier 27073
security assess., multicontingency preprocessing ES 35505
security assess., pattern recogn./fuzzy estim. ES-based 35506
security assess., systolic accelerator-based 19009
security assess. neural nets, perform. eval. 19134
security assess./real power rescheduling 26968
security computer anal., educational interactive program 20284
security constrained dispatch, LP appl. *(Chinese)* 10635
security eval., ANN appl. 10677
security margins, spatial aspects visualisation methods 26970
series compensated power syst. protection relays, perform. studies 4709
shock load-based oscills. simul. *(Russian)* 26914
shock loads investig., digital-analogue-phys. complex 10605
short cct. anal., characts. current method 35446
short cct. current, automatic calc., IEC 909 4479
short cct. current param. estim. 19062
short cct. currents, decaying AC contribs. 19052
short cct. currents, real-time estim., ANN 19191
short cct. currents calc., IEC 909, ES appl. 4477
short term elec. load forecast, ANN 19212
short-cct. anal., charact. currents method 19057
short-cct. current calcs., transformer modelling 19065
short-cct. power control, ES-based 19136
short-ccts. calc., ANN appl. 19067
short-term demand forecasting, neural network approach 4605
short-term dyn., real-time parallel simul. 26880
short-term elec. load forecasting syst. *(Chinese)* 35580
short-term load forecasting, adaptive neural net 35566
short-term load forecasting, DSS appls. *(Chinese)* 35565
short-term load forecasting, genetic algm. neural net 27080
short-term load forecasting, neural net-based 19199
short-term load forecasting, neural net-based 19201
short-term load forecasting, radial basis fn. neural net model 19198
short-term load forecasting, state-space model 27094
short-term load forecasting, time series methods 10702
short-term load forecasting methods, computer-based 27093
short-term load forecasting model, ANN, fuzzy ES *(Korean)* 35587
short-term operational planning security assess. 27109
short-term peak load forecasting, ANN appl. 19217
SIGMA AM/FM/GIS project, Colombia 43623
SIMSEN, power network/ASD simul. package 10608
simul. support, nonparametric stat. procedures 4483
single machine infinite-bus power syst., nonlin. excitation control 27075
single-phase act. power line conditioners 10673
small sig. stabil. anal., computer programs *(Japanese)* 26875
small sig. stabil. anal., eigenvalue clusters calc. 35437
small sig. stabil. anal., SMAS3 package 26897
smart relay, AI based 19350
software interfacing, IEE Colloquium, London (1994) 5457
space power distrib., model-based diagnostics 18765
Space Station Freedom solar cell dynamics, SPICE modelling 26584
space station secondary elec. power syst. modeling/simul. 26612
spacecraft electrical power system fault detection and diagnosis, model-based reasoning 10397
spacecraft power syst. modelling/diagnosis 26566
SPARSE ES for alarm proc. and operator assistance 26999
sparse network eqns. soln., direct/inverse factors 4490
sparse power syst. computations, vectorisation algms. 35439
spatial load forecasting, three stage method 43717
SSR damping, SMES-based 10681
stabil., bifurcations, voltage collapse, load modeling 35440
stabil., learning coord. control 27010
stabil., nonlin. SVC control studies *(Chinese)* 35527
stabil. robustness, control perform. anal. 4576
state estim., least absol. value solns. 26879
state estim., Otten partitioning method 26884
state estim., quantitat. local redundancy eval. 26885
state estim., topol. proc.-based method 26878
state estim. algms., computer-based 27102
state estim. forecasts, neural net-based 26871
state estim. Lagrange multipliers significance 26876
state estim. pattern anal., neural net-based 35447
state estimation weighted least square methods 19022
static distrib. load param. ident., general regression neural networks 10647
static security assess., genetic neural net-based 19008
static security assess., graphic representation 4578
static security assess., load flow, ANN 19167
static security fuzzy optimal control simuls. 35479
static voltage collapse anal., HARKAL package-based 26895
static voltage stabil. assess., ANN 26868
steady-state voltage instability index 19033
steady-state/transient conditions, equiv. cct. math. model 43622
substation, elec. load, on-line modelling *(Chinese)* 35421
substation flexible overhead busbars, mech. calc. algm. 19916
substation house emergency supply modelling, computer-based 27859
substation reliab. , AI-based simul. 5164
substation reliab. anal., STAREL/COMREL computer programs 36474
substation reliab. eval., TOPASE project 36475
subsystems interact. of power syst. 19092
subtransmission network reliability, customer interruption costs eval. 27119
supply quality class., neural net/ES-based 4741
supply undertakings, tech. and cost anal. integrat. *(German)* 19176
SVC control strategy, sliding mode, nonlin. load 10676
SVC operational/maint. experience, Tenaga Nasional Berhad 26983
switching transients simul., multiport equivalencing 26872
sync. and induction machines, transient state, faults effect 19197

power system analysis computing continued
sync. generator damping, SMES-based 10680
sync. generator oscill. damping, state feedback controller 4594
tech.-economical condition, diagnostic ES *(Russian)* 43634
telecomm. DC distrib. networks, overcurrent fuse simul. model 19276
thermal unit commitment, Lagrangian relax.-based 27108
three-phase autotransformer, short-cct. transients simul. 19682
three-phase conductively isolated busbar voltages anal. algm. 35481
three-phase load flow algm., decoupling-compensation Newton type *(Chinese)* 43603
three-phase power syst. harmonics anal., computer-based 26881
three-phase power syst. quality indices, computer simul. *(Russian)* 26913
three-phase power systs., harmonic distortion source localisation 19003
three-phase power systs., time-freq. representations 4468
three-phase power transm. lines, EM transients simul. 19290
tie line utilization, power syst. restoration 35484
TIGER, model-based/rule-based real-time tool for monitoring and diagnosis of dyn. systs. 34393
time-domain modelling, EMTP-based 26891
TOPASE ES, substation reliab. anal. appls. 27869
topol. observability algm., computer-based 26877
TRANSEPT ES, point-to-point transm. network CAD appls. 27128
transient security assess., ANN *(Chinese)* 35528
transient security assess., ANN tangent hypersurfaces 26928
transient stabil., transient energy fn. anal. *(Chinese)* 43645
transient stabil. anal., multi-step partitioned approach 26859
transient stabil. anal., shifted-Picard iters. method 19004
transient stabil. assess., neural net-based 19006
transient stabil. control, online calcs.-based *(Japanese)* 27042
transient stabil. enhancement, transm. line control switching 26949
transient stabil. eval., ANN *(Japanese)* 43680
transient stabil. limits estim., ANN *(Chinese)* 4443
transient stabil. simul. package, teaching/research appls. 35426
transients stabil. assess., ANN approach 26946
transm. AC/DC real-time simul. *(German)* 27133
transm. line dist. protection, power flow/voltage phasor oscill. meas. 4743
transm. line EM transients anal. 35603
transm. line energisation, simul., black start studies 19196
transm. line fault location algm., computer-based 27192
transm. line load flow violations security assess., ES-based 19285
transm. line shield wires, unbalanced , modelling/simul. 4676
transm. line tower surge response, computer simul. 19315
transm. lines, combined phase/current comparison protection 27254
transm. lines, fault location/discrim. *(Japanese)* 10786
transm. lines transient anal., method of charact. 27191
transm. network back-up protection, expert syst. 19351
transm. network contingency load transfer capability modelling 10665
transm. network probabilistic prod. costing simul. 27120
transm. network protection simul., short-cct. current eval. 19229
transm. network reliab. anal syst., primary substations 26904
transm. network single/multiple lightning overvoltages simul. 4459
transm. network transient fault simul., EMTP-based 27129
transm. network use charging, marginal cost methods 27121
transm. network voltage flicker studies, AC/DC furnace-generated 27124
transmission network distance relay macromodel, EMTP-based 19330
transmission planning ES design 35577
transmission syst. model reliab. anal., freq. and duration method 35604
transmission syst. model reliab. anal., probab. method 35605
turbogenerator, online adaptive stabilisation 4505
turbogenerator shaft torque amplif. prediction 36092
UHV overhead line protection, false operation prevention *(Russian)* 35677
UHV tower model, lightning surge anal. 27238
unbalanced load flow anal. program 4444
unbalanced power systs., transient stabil. simul. 26912
unbalanced radial distrib. system, power flow algm. 19263
underground distrib. feeder cables, failure prediction 4646
underground transm. syst., surge arresters, overvoltage anal. *(Korean)* 35686
unit commitment methodology, computer-based *(Korean)* 27077
unit commitment optim., EnerPLUS package-based 27107
unsymmetrical load flow, elec. locomotive caused *(Chinese)* 35423
URD cable routing, Automated Primary Router GIS 35624
VAr allocation planning, ADAPOS package-based 27092
VAr compensation control planning, ES appls. 26961
VAr compensation planning, Benders-type decomp. 26962
VAr compensation planning, computer model-based 26960
VAr planning, enhanced quadratic interior point method 19204
VAr reserve problem simuls., Qatar 4458
voltage collapse determ., power syst. transient 4450
voltage collapse margins computation, algms. 19042
voltage collapse point estim. algm. 19034
voltage collapse proximity anal., matrix nearness approach 26870
voltage contingency selection method 4557
voltage distortion compensation, meas. aspects 4551
voltage phasor/freq. estim., Newton's iter. method 26851
voltage security, machine learning, neural networks, stat. pattern recogn. 10663
voltage stabil., automatic control, ES pattern recogn. 10661
voltage stabil., shunt VAr compensator effects *(Japanese)* 10709
voltage stabil. anal., continuation power flow 19117
voltage stabil. anal. , energy fn.-based *(Korean)* 26845
voltage stabil. assess., neural network 19046
voltage stabil. indication, rotor heating simuls. 35432
voltage stabil. limit determ. method 35468
voltage stabil. region estim. method 35469
voltage stabil./collapse point, load flow soln. *(English)* 26847
voltage/reactive power control, coupling-transformers *(Chinese)* 27035
voltage/VAr control, recurrent neural net-based 4512
vulnerability assess., neural net-based 26966
Walsh fns.-based technique 19036
weekly thermal unit commitment scheduling *(Japanese)* 27522
weekly thermal unit commitment scheduling method 27105
wheeling flow, short cct. simuls. 43732
SO$_2$ emission compliance, optimal planning 4846

power system CAD
see also power system control
directional protection relays coord., computer-based 27258
distrib. line overcurrent protection settings determ., DSS-based 19259
distrib. network expansion planning, multi-stage branch exchange method 27151

power system CAD continued
distrib. network harmonic filter CAD, genetic algm.-based 4641
distrib. network optimal config. planning, branch exchange methods 27153
distrib. network planning, fuzzy math. prog.-based 27155
distrib. networks, automatic cable router 43741
educational courses, computer appl. 20314
global uncertain planning methodology, computer-based 27117
multiobjective model optim. of elec. energy distrib. systs. design 35631
network systematic planning principles *(German)* 19221
reactive power compensators for distrib. systs., harmonic distortion 19256
Space Station Freedom power syst. CAD, APSPP package-based 35251
substation earthing systs., 3D CAD studies 5160
three-phase distrib. network CAD, multiobjective optim. approach 27146
TRANSEPT ES, point-to-point transm. network CAD appls. 27128
transformer relay protection CAD, ES-based *(Chinese)* 44094
transm. line relay protection CAD, ES-based 35571
transm. network expansion planning, computer software appl. 10712
VAr allocation planning, ADAPOS package-based 27092

power system computer aided analysis *see power system analysis computing*

power system computer aided design *see power system CAD*

power system control
see also load regulation; power station control; power system security
3-phase TSC-TCR SVC anal., recurrences theory 19924
3ϕ phase controlled converter, software-based controller eliminating LF harmonics *(Korean)* 36370
11 kV distrib. network telecontrol/metering syst. 4660
20 MW batt. storage syst., distrib. network stabil. appls. 35637
66/6.6 kV power receiving/transformer facility project, Japan *(Japanese)* 35629
66/6 kV distrib. substation develop. project, Japan *(Japanese)* 35630
110 kV switchyard PYRAMID digital control syst. installation project 36483
110/20(10) kV transformer substation ripple control filter protection *(Croatian)* 10765
130 kV rly. power syst. operation optim., Sweden 44534
220 and 380 kV line dist. protection, adaptive automatic reclosure *(German)* 27267
220-500 kV power grid control/protection planning, China *(Chinese)* 35572
230 kV step-up substation, characts. *(Japanese)* 27861
275 kV power cable systs., voltage/VAr control develop. 27031
400 kV EHV transm. syst. planning/develop., Singapore 27122
400/500 kV CLP-China interconnection, operational aspects 26982
500 kV Central China power syst. EMS overview 19188
500 kV power syst. series capacitor VAr compensation project, China *(Chinese)* 35510
1000 kV power line maint. IS, meas.-based 27126
AC rly. power syst. protection/fault meas., PC-based 44536
AC transm. line disturbances, adaptive feedforward control 10711
AC/DC power syst. stabil., DC modulation control *(Chinese)* 35471
adaptive dist. relay protection automation simul. 27259
adaptive multivariable optimal controller 4579
adaptive nonlin. excitation control, large-scale power systs., unknown interconnections 10684
adaptive power syst. stabiliser, freq. domain design 27043
adaptive PSS, turbine governor control 4564
adaptive underfreq. emergency control schemes 43676
advanced SCADA concepts, substation appl. 19131
AF rem. control sig. decentralised prod. *(German)* 27052
AGC syst. LQG controller design 35520
air conditioner direct load control, multipass dyn. prog. algm. 27055
aircraft intell. rem. power controller 26682
AISMAN, subtransm. network switching operations planning tool 27089
anticipatory fuzzy control, neural net-based 43666
area power generation control, implement. issues 10645
assoc. control services, generator level experience, France 43705
AUSTRAL, distrib. syst. power restoration ES 19246
auto-reclosers/sectionalisers operation 43796
automatic cct. breakers, protection charact. stabil. *(Russian)* 10773
automatic distrib. node transfer, electronic cct. *(Spanish)* 19282
automatic generation control, tie-line freq. bias settings 35498
automatic voltage control, math. modelling 27015
automation/DSM/AMR study 43761
autonomous power syst. higher harmonics reduction methods 43677
autotransformer tertiary winding voltage regulation study *(Russian)* 44107
AXAF space observatory, power syst., CLIPS troubleshooting ES 26658
batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966
bulk power network restoration, ES support syst. 19140
bulk power syst. restoration procedures, knowledge-based approach 26953
bulk substations, seq. of events eval., neural networks 44244
capacitor placement/replacement/control, computer simul. 35622
capacitor placement/replacement/control optim. 35621
Cassini power management and distribution 26647
Cassini spacecraft solid-state power switch develop. 26660
cement plant power/control automation project, Germany 36807
CENTREL/VEAG interconnected/islanded systs., operation *(Russian)* 35546
Chinese power network, commercialization operation *(Chinese)* 35516
CIGRE HVDC power line control Benchmark model *(French, English)* 35616
Cologne transfer station control technol. *(German)* 36488
compensation, pass./act. power filter syst. 4500
composite PSS, auxiliary self-tuning/fixed param. controller design 35507
computational intell. 19161
consolidated energy systs. mgt., operational experience 27026
constrained power economic dispatch, optim. algm. 4574
converters control, microcontroller appl. 19239
current-mode controlled converters, instabil. predictions 11182
data visualisation techs. 26921
DC rly. power systs., intell. traction power control 28126
decentralised AI controllers, intell. home automation 4536
decentralised control, neural net-based 19119
decomposed fuzzy control of power systs. 26942
deregulated power markets, planning/operation anal. *(Japanese)* 43679
develops., future prospects 19182
Diagnostician, submarine power distrib. syst. appl. 28113
digital computer power syst. operating tools evol. 43673
digital dist. relays, transient perform. study 27255
digital impedance relay, improved perform. *(Chinese)* 27263
digital protection criterion values estim. 27257

power system control continued
digital relaying fault ident., fuzzy-set approach 27249
discrete voltage control modelling, load flow soln. 26963
dispatch switch operation planning, ES-based 4510
dispatcher training simulator, GUI-based 19157
dispersed storage/generation pole slipping protection algm. 27250
dist. protection, microcomputer Kalman filter algm.-based *(Chinese)* 43795
distrib. mgt. strategy, elec. utility benefits 27152
distrib. mgt. syst., power anal. software integrat. 19252
distrib. network automatic fault location/isolation syst. *(Japanese)* 10736
distrib. network automatic multiple-cct. switchgear develop. 4659
distrib. network control, obj. oriented environ. appls. 27154
distrib. network control automation, recent develops. 27149
distrib. network load restoration planning algm., ES-based 19245
distrib. network operator training, DIAPASON simulator-based 19274
distrib. network optimal switching planning, fuzzy inference appl. 19268
distrib. network protection, overhead auto-recloser automation 4664
distrib. network quality/reliab. improvement options 43760
distrib. network real-time anal., business opportunity/experiences 19254
distrib. network real-time control tools 10731
distrib. network rem. monitoring/control syst. develop. 4667
distrib. network restoration, ES-based heuristic methods 19244
distrib. network restoration operations planner, IKBS-based 19243
distrib. network SCADA syst. installation project, USA 10732
distrib. network voltage control, wind power generator effects 10720
distrib. networks, AVC relays, sensitivity anal., PF changes 4652
distrib. networks mgt., intell. support syst. 19275
distrib. switchgear, design overview 4670
distrib. syst., SCADA syst. spec./anal., IEEE std. 27175
distrib. syst. data commun. integrat. 10735
distrib. syst. online mgt./control, ES-based 19271
distrib. syst. post-outage restoration, infrastructure enhancement 10726
distributed EMS, FDDI based, simul. 27009
distributed power systs.-benefits and challenges 10675
distributed problem solving systs. appl. 27054
distributed rem. data terminals, develop. *(Chinese)* 19130
distributed SCADA syst., design/archit. *(Chinese)* 43649
distributed SCADA/EMS syst., Unix based, Johannesburg 4519
disturbance stabilisation, phasor meas.-based 35488
DSM, PLC-based scheme 35490
DSM/automation commun., added utilisation costs 27160
DSS 27044
DSS, AI-based 10648
DSS, user interface 4563
dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
dyn. behaviour model, diff./alg. syst. 43701
dyn. stabil., optimal control modelling 4515
dyn. stabil. improvement, SMES-based design 27003
dyn. state estim., sq. root filter algm. 19152
dyn. voltage security assess., fuzzy-set approach 43664
Eastern European power network regulation test planning and eval. *(German)* 35550
economic dispatch optim., genetic algm.-based *(English)* 43698
economic dispatches, seq. decision dyn. prog. improvement 35521
education, general-purpose software-based 26972
EHV power syst. restoration voltage control, ES-based 35555
elec. machines, nonlin. control 5001
elec. melting shop, energy optimisation, control syst. *(German)* 11507
elec. power model syst., stabil. anal. of fuzzy decentralized control 19173
elec. rly. real-time control/monitoring syst. integrat. *(Chinese)* 36710
elec. supply restoration training, Netherlands 19089
elec. utility customer service improvement, distrib. automation-based, UK 43684
elec. utility distrib. automation syst. project, India 27170
elec. utility DSM, customer commun. appls. 10659
elec. utility EMS fns., user experiences survey 19185
elec. utility EMS projects, South-East Asia/Western Pacific survey 19183
elec. utility environ. policies, planning/operations effects 35530
elec. utility network IS, introduction and constr. *(German)* 4587
elec. utility network IS, requirements and uses *(German)* 4586
elec. utility personnel education/training overview 26971
electromechanical oscills. damping, controllable capacitors 4521
EMC reactive power control systs. 23664
emergency control, real time ES model 27041
emergency corrective control, ANN classifier 19114
emergency freq. control, fst underfreq. relay 4533
emergency voltage situations control, anal. 26958
EMS, state estim., meter placement algm. 19151
EMS environ., AI archits. 26951
EMS migration/develop. strategies 10687
EMS multiserver/multiclient gateway syst. 43637
EMS project implement./operation overview, Thailand 19186
EMS real-time distributed archit. project, Australia 19187
EMS/SCADA systs., mgt. IS-integrated 26954
energy billing syst., Central China Power Network *(Chinese)* 43630
EPRI Distrib. Engn. Workstation, appl. programmer interface 35627
equilib. equivalence theorem, stabil. anal. 35459
ES, rule modif. ease expts. 19097
ES software design, OOP techs. 27070
EUROSTAG software, power syst. dyn. simul. 19144
extended optimal power flow algm. anal. 27023
FACTS, advanced series VAr compensator appls. 27138
FACTS, bilinear predictive control, thyristor controlled capacitor 4582
FACTS, develop., perform., appls. 27137
FACTS, interphase power controller, voltage injection 4520
FACTS, static phase shifters appl. 4629
FACTS devices for power syst. stabil. enhancement 10646
FACTS inter-area dynamics, nonlinear modelling 19138
FACTS SVC appl. planning projects, USA 27139
FACTS voltage stabiliser, series act. filter-based 19233
failures, cascade-like propag., simul. 27025
fan-cooled power systs., telecom appls. 19837
farmhouse power consumption limiters, methods and advantages *(Russian)* 4589
fast decoupled load flow, control adjustments 26925
fast decoupled load flow, load tap changing transformer 26948
fast transient control, energy-based sensitivity method 10672
fault current estim., Kalman filter 19190
fault detection/protection, neural net-based 19249
fault ident./alarm proc., OO expert syst. 19154

power system control continued
flexible AC transm. systs., steady state/dyn. perform. eval. 35613
flexible AC transmission control simulation, EMTP package-based 35614
Frankfurt (Main) city network control syst. *(German)* 35551
French HV network, secondary voltage control, tertiary coord. 27014
freq. actuated load shedding, electronic relay 10678
fuel cell power syst. conditioners, microcomputer control appls. 43968
full-graphics interface appls. 26952
fuzzy adaptive excitation control method *(Chinese)* 43631
fuzzy logic controller for PV-utility interfacing 19558
fuzzy optimal load freq. control design *(Japanese)* 43682
generalised power flow controller, anal. *(Chinese)* 43629
generating units, modelling and control, neural net techs. 26943
generation control automation, fuzzy controller design 35545
generator operating point, fuzzy control *(Japanese)* 4592
generator transient/subtransient params. ident. 4907
generator-transformer unit relaying scheme, PC-based 35684
German VEW syst. *(Czech)* 26989
H_∞ oscills. damping controller design 35483
harmonics, defns. and reduction measures *(Russian)* 35548
Harris 20-20 intell. dispatching syst. *(Chinese)* 19255
heat/power syst., suboptimal control, modal decoupling *(Chinese)* 43886
Hibernia offshore platform, integrated control syst. 5412
hierarchical optimal control design 4517
human/machine-based demand forecasts combination 27081
Huygens power system, power control/distrib. 26648
HV AC-DC systs., multivariable adaptive control 4549
HV substations/MV networks operation, diagnostic ES 19909
HV/EHV power systs., boost transformers, optimal phase angles 43663
HVDC links, power syst. enhancement 27140
HVDC transmission links control stability, L_∞ robustness anal. 19235
HWL-01 excitation regulator, STD bus *(Chinese)* 35529
hybrid fuzzy/PSS control method 10668
hybrid neuro-fuzzy power syst. stabilizer 27069
hydroelectric power syst. optimal, short-term scheduling 27613
hydrothermal power syst., interconnected, adaptive load-freq. control 10627
improved power syst. perform., conf., Australia (1993) 5472
independent power systs., decentralized open-loop control 19079
indiv. efficiency control theory *(Russian)* 43635
induction motor drives, sensorless vector control by Intel i860 and transputer network 44039
indust. appliances, load balancing/control, feedback elimination 4596
indust. PC based energy mgt. 36797
indust. power systs., reactive power compensation 26940
indust. resistive load control, disturbance minimisation 4541
integrated generation/transm. syst. simul. 35476
INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
intell. control, appl. develops. 19135
intell. data, expert systs. 19166
intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
interactive DSS, obj.-oriented framework 19095
interactive graphic anal. software appls. 19128
interarea/local generator reson. modes ident. 35486
interconnected power syst., control area trends 43674
interconnected power syst. control design, SMES-based 27002
interconnected power systs., tie-line bias prioritized energy control 35477
interconnected power systs., transient stabil., on-line anal. 27008
interconnection restoration, intell. tools 19142
intertripping relay, design/appl. 4726
island power syst. restoration, ES-based 4543
islanding strategies for regional power producers 27021
isolated part power syst., control behaviour 27020
joint automatic generation control regulation 4580
LANGAGE, expert system for real-time diagnosis of hydroelectric power system faults 10690
lin. optimal regulator, fuzzy neural net-based 19094
load dispatching real-time computer network *(Chinese)* 35515
load dispatching tech. IS 19096
load forecasting, ANN based, EMS 4616
load freq. control, disturbance accommodating optimal controller *(Korean)* 26988
load freq. control, neural net-based 4542
load freq. optimal PID controller design *(Korean)* 26922
load relief prediction/control, computer-based 26965
load shedding optimal fuzzy control design *(Korean)* 35542
load-freq. controller, H_∞ optim. 43675
local SCADA systs., intell. load shedding algm. *(Korean)* 35473
logic-based components modelling lang. 26893
long. power syst., PSS experience 35442
long radial supply syst., SVC, operational aspects 26984
long syst. interconnection security, emergency control 26979
long-dist. power syst. adaptive generation control *(Japanese)* 10689
lossless power syst. load flow feasibility/stabil. anal. *(Russian)* 10618
LSA coord. substation protection/control syst. *(English)* 44250
LV cct. breakers, DC power syst. appl. guidelines 19346
LV high T_c supercond. DC transm. network 10719
meter allocation, genetic algm. 43712
micromachine PSS, real-time fuzzy control 10679
min. generation reserve/transm. constraint 26978
modelling and control 27074
modular secondary voltage fuzzy control design *(Slovenian)* 43690
monitoring, expert syst. 19162
MORGAT, EHV transm. digital relay protection simulator 10714
MOV series compensated transm. network, mag. pot. transformers 4624
multi-machine syst. learning coord. control 36121
multi-objective dyn. load dispatching, optimal operation *(Japanese)* 26936
multiarea power syst. automatic generation control simul. 10666
multimachine power syst., optimal robust stabiliser 27022
multimachine power syst., param. adaptive control 19156
multimachine power syst. coord. control, reinforcement learning 4539
multimachine power syst. generator shedding, neural net-based 19098
multimachine power syst. resync., optimal variable aim control *(Chinese)* 10634
multimachine power syst. stabilizers, location/design 26926
multimachine power syst. transient stabil., prediction/control *(Chinese)* 35513
multimachine power systs., freq. control requirements 43703
multiphase power systs., harmonics/VAr control design 19087
multiterminal DC-AC syst. power flow anal. 27145

power system control continued
μP based protection, synthesised filtering algm. 27245
MV distrib. network control/protection, PLC-based 4655
MV distrib. network protection/control integrat., reliab. design 43751
natural lang. speech interfaces 4559
network connectivity tracking, topol. based algm. 35489
network control proc. data transm., IEC 870-6 OSI protocols *(German)* 19179
network control syst. nonredundant rational data input *(German)* 43693
network control technol., user appls. *(German)* 43692
network mgt., KBS and distributed problem solving 10650
network mgt. training simulator, software develop. 19125
network planning, online data provision *(German)* 35588
network reconstr. simul. for control room staff *(German)* 19178
network topol. error detect. 4546
network/generators protection coord., CIGRE survey 27664
neural net-based load-flow models for elec. power systs. control 26986
neural networks based monitoring of indust. elec. loads 4537
New York power pool simul., dispatcher training appl. 4584
New Zealand HV power syst., communs./control systs. 26973
New Zealand HVDC link upgrade 27141
nonactive power compensation, act. filters 27064
nonlin. reduced-order observers, design theory 43683
nonsinusoidal power syst. supply quality improvement 19088
North China/adjacent power systs. interconnection *(Chinese)* 43643
num. protection relays, fault diagnosis appls. 35673
obj.-oriented approach appls. 26944
on-line load relief control 4575
on-load power transformer tap changing modelling 4540
on-load tap changer/voltage stabil. rel. anal. *(Chinese)* 43633
online anal./data mgt., open syst. approach 19127
online dyn. security anal. implement. 4568
online dyn. security assess., EMS ES-based 19099
operating conditions planning, reliab. considerations *(Russian)* 43720
operation, marginal pricing effects 19145
operation control, ES appl. overview 27071
operation control software, IBM PC-based *(Russian)* 10619
operational planning, reliab. eval. method 27090
operations control, ES implement. tutorial 27072
operator training, Kytken multimedia training syst. 19164
operator training simulator, workstation based 4581
optimal controller design with prescribed eigenvalues 35522
optimal kVAr control, capacitor sizing 19150
optimal load tracking, nonlin. parametric approach 27024
optimal VAr control, fuzzy neural net-based 35480
optimal voltage-ractive power control *(Chinese)* 43628
oscillations, hierarchical control algm. 19121
oscills. damping, control design 27004
output feedback variable struct. power syst. stabilizer 19090
overdutied cct. breakers, intell. reclosing 27271
overload control, line switching selection 26950
overload current interrupter verification studies *(Russian)* 36395
packet radio network appls. 33766
parallel power transm. lines, digital protection tech. 27188
partial energy fn. for fast transient control of power systs. 4567
PF correction trends, topologies *(Spanish)* 19192
phase asymmetry relay control design 27057
plant power/control syst., obj.-oriented simul. 20159
polyphase power syst. VAr compensation, computer simul. 4550
power flow, column exchange tech., Newton-Raphson method 4548
power systems computation, conf., Avignon, France (1993) 11544
power transm., transfer limit calc., integrated approach 19146
preventive control design, nonlin. optim.-based 26956
probabilistic constrained load flow, sensitivity anal.-based 4613
protection/control, μP technol. *(English)* 43648
PSCN 3020 distrib. network integrated protection/control syst. 27157
PSS, design, μ synthesis 43671
PSS, dyn. stabilisation tech. 43653
PSS, feedforward neural net, inverse dyns. *(Korean)* 35540
PSS, fuzzy controlled SVC design *(Japanese)* 26939
PSS, fuzzy controller studies *(Chinese)* 27038
PSS, intell. variable gain control, multitransputer-based *(Chinese)* 43691
PSS, multilayer ANN appl. 43670
PSS, rule-based, variable-gain 19082
PSS, SMES-based, neural network-controlled 27030
PSS controller tuning, systematic design method 27056
PSS decentralized control, multilayer feedforward neural net-based 19100
PSS design, self-tuning regulator 19194
PSS design method/algm. 4560
PSS fuzzy excitation control syst. develop. 4509
PSS intell. supervisory fuzzy control design 19103
PSS SVC fuzzy logic switching design 19102
pulse amplit./synthesis converters, power syst. appls. 27809
pumped storage plant, converter-fed var. speed generator-motor *(Japanese)* 36047
pumped storage plant, converter-fed var. speed generator-motor, fault current *(Japanese)* 36048
PV array max. power extraction, fuzzy logic control 19560
PV power syst. invertors, instantaneous current tracking control *(Korean)* 27620
PV power syst. max. power tracking, fuzzy neural net-based 19552
Queensland-NSW power syst. interconnection, tech. aspects 26977
RAMO telecomms. environ. equipt. mgt. network 19870
reactive power mgt., SEGRE expert syst. 19104
reactive reserve mgt. 19081
real-time digital control environ., controller develop. appls. 10674
real-time economic dispatch design 4569
real-time LAN commun. technol. *(Chinese)* 43668
real-time power syst. operations, loss minimization fn. 10629
real-time SCADA systs., AM/FM appls. 19273
real-time SCADA/EMS, OOP concept 26955
real-time voltage/VAr control, optim. algms. 10630
real-time/offline fault anals., neural net appls. 19093
refinery MV distrib., capacitor switching characts./meas. 20168
regional power supply undertaking, monitoring/costing syst. *(German)* 43688
regional substations control centre, ES appls. 27018
relay, smart, AI-based 6397
relay protection setting/coord., ES-based 27256

power system control continued
relay protection/control devices, metering elements diagnostics *(Russian)* 35678
reliab. improvement, digital control 35525
remedial action modelling, operator training appls. 19139
restoration, intell. guidance syst. 19169
restoration planning, local control centre, ES *(Korean)* 35541
robust control, power distrib. approach 43713
robust multivariable PI secondary voltage/VAr control 27016
rural distrib. network auto-reclose protection telecontrol 4665
rural power network VAr compensation overview, China *(Chinese)* 35511
Russian unified power grid, power flow/freq. control 10639
Sampex spacecraft derived power syst., stabil. anal. 26611
SCADA/EMS, third party software packages integrat. 43638
secondary voltage control, fuzzy sets 19143
secondary voltage control, pilot buses selection 19155
secondary voltage control, voltage instab. *(English)* 10686
security, optimal control, power stations, dyn. equiv. 35495
security assess./real power rescheduling 26968
security computer anal., educational interactive program 20284
security control, reactive power rescheduling, V-formulation *(Chinese)* 43636
security enhancement, ES-based 26967
series reactive power compensation, bidirectional switches 43654
short cct. currents, real-time estim., ANN 19191
short-cct. power control, ES-based 19136
shunt act. filter control, compensation strategies 10631
sig. param. estim., neural nets 19170
single machine infinite-bus power syst., nonlin. excitation control 27075
single on-load tap changer, reverse control anal. 27028
single-phase act. power line conditioners 10673
sliding mode control, phase shifter-based design *(Japanese)* 26996
smart relay, AI based 19350
SMPS PF correction, microcontroller 44116
solar space power, RTG, parametric cost model 26654
Southern African grid, SVC 43655
space platforms, power syst. control/protection integrat. 26680
space power syst. automation knowledge develop. 26562
space power systs., fault detect. anal., sensor relationships 26561
Space Station Freedom, UPS orbital replacement unit 18762
Space Station Freedom power system, small-signal stability 26593
space vehicle power control syst., automated fault diagnostics 26681
spacecraft, electronic switching, reversible energy mgt. 26596
spacecraft, fault-tolerant power distrib. module 26563
spacecraft solar arrays, on-orbit output power mgt. 26601
SPARSE ES for alarm proc. and operator assistance 26999
SPIDER MicroSCADA distrib. network control syst. 27184
SSR damping, SMES-based 10681
stabil., learning coord. control 27010
stabil., nonlin. SVC control studies *(Chinese)* 35527
stabil. robustness, control perform. anal. 4576
stabilisation, fuzzy control design studies 4508
stabilisation, SMES, fuzzy control 19171
stabilisation, SMES appl. 4562
stability, potential energy boundary surface modelling 19023
stabilizers, real-time, fuzzy controller optim. 4913
state control optim. algm. 19078
state estim. algm., observability anal. 35619
state-of-the-art supercond. material appls. 43972
static security fuzzy optimal control simuls. 35479
static VAR compensator, nonlin. control design 10651
stressed power syst., dyn. model interactio 19014
substation control/protection integrat., μP-based *(English)* 36476
substation fault diagnosis, connectionist ES-based 27182
substation protection/control coord., μP ES-based 44246
substation SCADA syst., relay network integrat. project, USA 10769
substation VAr/volt supervision/control units, fault tolerant *(Chinese)* 36472
substations, thyristor controlled series capacitor appls. 27163
supply ES appl. experience *(German)* 27132
supply-side loading minimisation, intelligent SVC control 43656
SVC, GTO-switched, elec. welding appls. 4531
SVC, μP based, unbalanced load appls. 10670
SVC control strategy, sliding mode, nonlin. load 10676
SVC control syst. instabil., birfurcation theory *(Japanese)* 10688
SVC digital control, transputer appl. advantages 4530
SVC operating/maint. strategies, rly. supply, transm. support 26985
SVC operational/maint. experience, Tenaga Nasional Berhad 26983
sync. generator damping, SMES-based 10680
sync. generator dyn. stabil. control enhancement 43706
sync. generator nonlin. adaptive control, neural net-based 19607
sync. generator oscill. damping, state feedback controller 4594
sync. generators, neural network nonlin. adaptive controller *(Japanese)* 4924
tapping transformers, dyn. interact. calcs. 27784
technol., current status/prospects, China *(Chinese)* 43644
technols. *(Chinese)* 43650
telecom. power supply systs., μP control appls. 41626
telecomm. energy mgt., Alenia distributed soln. 19835
telecomm. power systs., IN 19147
telecomm. public network power syst. mgt. 16613
telecomms. network power supply interface planning project, Sweden 19819
telecontrol commun., develop. trends 19189
thermal power units, load control syst., adaptive neural model *(Chinese)* 35983
Three Gorges power project, China, peak load regulation study *(Chinese)* 27040
three-phase multifn. batt. energy storage syst. 43967
three-phase power transm. line adaptive resist. relay 4715
three-phase SVC, voltage controlled CSI-based 10654
three-phase unbalanced power systs., act. power filter 10655
tracking constrained adaptive power syst. stabiliser 43660
transfer fn. ident. methods, comparison 4595
transformer tap changer, voltage/reactive power control 27783
transient nonlin. generator excitation control 26992
transient stabil., optimal decentralised control *(Korean)* 35543
transient stabil., SVC fuzzy control design 19101
transient stabil., transient energy fn. anal. *(Chinese)* 43645
transient stabil. assess., neural net-based 10626
transient stabil. assess./control, status and develop. *(Chinese)* 43632
transient stabil. control, online calcs.-based *(Japanese)* 27042

power system control continued
transient stabil. control, SCADA syst.-based *(Chinese)* 43641
transient stabil. cooperative control design *(Japanese)* 10617
transient stabil. enhancement, dyn. preventive control 26947
transient stabil. enhancement, SVC blocking effects 4558
transient stabil. enhancement, transm. line control switching 26949
transient stabil. estim., PC ES-based *(Russian)* 27048
transient stabil. eval., ANN *(Japanese)* 43680
transient stabil. improvement, SMES 27001
transients stabil. assess., ANN approach 26946
transm. cable lines, online control/meas. proposal 19193
transm. line, thyristor controlled series capacitor compensation 27187
transm. line adaptive resist. relay params. 4714
transm. line overloading alleviation, intell. control 4518
transm. line protection, ES-based relay setting 19291
transm. network automatic SC, dyn. perform. 4620
transm. network contingency load transfer capability modelling 10665
transm. network series power flow control, GTO VSI-based 27125
transm. network substation control centers, SPARSE ES appls. 19230
transmission and distrib. equip. reliability, IEE conf., Warwick, UK (1995) 36831
transmission network static voltage stability indices, numerical comparison 19225
turbines, intell. adaptive controller 43816
turbogenerator, decentralized pole-assignment self-tuning controller 35560
turbogenerator, online adaptive stabilisation 4505
turbogenerator stabil., robust optimal control, PSS design 27019
two-area load-frequency control with neural nets 19113
two-input PSS develop., LF oscills. control appls. *(Japanese)* 26995
underfreq. load shedding optim. algm. eval. 26964
underfrequency conditions control *(Russian)* 35547
underfrequency load shedding, control design 4556
underfrequency load shedding proposal 27005
undervoltage load shedding, energy-based approach 19120
unified power flow control algm., phase shifter *(Chinese)* 27032
unified power flow controller, long. model *(German)* 35544
Unified Power Syst., power freq. control *(Russian)* 27049
unit commitment problem, ES approach 35532
unity PF boost converter control 19284
utility-grid interactive three-phase inverters 5083
vac. switchgear technol., μP appls. 5145
VAr compensation, power theories anal. 19086
VAr compensation control planning, ES appls. 26961
VAr compensation planning, Benders-type decomp. 26962
VAr compensation planning, computer model-based 26960
VAr control algms., formulation requirements 19085
variable impedance power syst., decentralised stabilisation scheme *(Japanese)* 43681
Victoria network voltage-reactive power optim. *(German)* 35552
VLF switching sigs. over local power lines, fraud countermeasures 43811
voltage collapse ident., network partitioning 19115
voltage collapse margins calc., network partitioning 4547
voltage contingency selection method 4557
voltage distortion compensation, meas. aspects 4551
voltage instabil., load flow-based preventive control 35554
voltage security, machine learning, neural networks, stat. pattern recogn. 10663
voltage stabil., automatic control, ES pattern recogn. 10661
voltage stabil., crit. voltage approach 35524
voltage stabil., shunt VAr compensator effects *(Japanese)* 10709
voltage stabil. syst. crit. area ident. 26957
voltage stabil./security assess. methods 4516
voltage/reactive power control, coupling-transformers *(Chinese)* 27035
voltage/reactive power neurocontroller *(Japanese)* 4529
voltage/VAr control, recurrent neural net-based 4512
voltage/VAr security enhancement control design 27017
west-European interconnected syst., optimal security dispatch 27012
wind power syst., max. power point tracking, fuzzy control *(Japanese)* 10903
wire mfg., distributed power syst. control concept 11503
X-ray timing Explorer Power Syst., stabil. anal. 26651
Pb-acid batt. energy storage systs., utility appls. 36080

power system disturbances *see electrical faults; power systems*

power system harmonics
1 kW third-harmonic modulated AC/DC power electronics interface 44213
2 kW single-phase buck PF conditioner 4504
3.5 MW sync. motor drive, cycloconvertor-fed, modelling 5323
3 kV DC rly. power syst. harmonics, time domain anal. 44553
3 kV DC rly. traction systs., catenary harmonics ident. 20109
3-phase 5-level converter, voltage waveform synthesis 19742
3-phase current invertor control strategy 36307
3-phase DC clamped switch mode rectifier, IGBT 19747
3-phase diode rectifier, power factor correction 19808
3-phase power syst. symm. components calc., state observer 19061
3-phase PWM rectifier, line current harmonics minimisation 44147
3ϕ phase controlled converter, software-based controller eliminating LF harmonics *(Korean)* 36370
5/220 V thermionic generator power convertor design 28031
110/20(10) kV transformer substation ripple control filter protection *(Croatian)* 10765
220 kV power syst. protection misoperation, traction harmonics-based *(Chinese)* 43609
500 kV UHV power transformer inrush current-induced harmonics *(Chinese)* 44095
AC distrib. networks, harmonic distortion reduction 35634
AC locomotive PWM rectifiers, harmonic current calcs. 36760
AC locomotives, line-side switching harmonics compensator 20101
AC motor drives, six-step power convertor-fed, anal. 20082
AC rly., autotransformer feeding cct., harmonic reson. *(Japanese)* 11408
AC traction load, 3-phase equiv. cct. model *(Chinese)* 44499
AC transm. line disturbances, adaptive feedforward control 10711
AC voltage regulator harmonic capability, SPICE anal. 540
AC/AC converters, vector control, min. energy storage 19758
AC/DC buck rectifiers, supply voltage imbalance anal. 5994
AC/DC converters, harmonics elimination, current injection method 44125
AC/DC converters, line current harmonics, predeterm. 44124
AC/DC power converters, harmonic pollution anal. 36377
AC/DC PWM GTO power converters, high-speed train appls. *(Korean)* 28120

power system harmonics continued
AC/DC PWM power convertors, common mode conducted RFI emissions 5072
AC/DC soft switching PWM power converter, SMES appls. 11176
AC/DC/AC PWM power converters, DC link energy storage reduction 36343
act. power harmonic filters, computer simul. studies *(Korean)* 28998
adaptive digital relaying, LMS algms. 35674
arc furnace power systs., voltage flicker study 20157
arc furnace supply plant, flicker/distortion compensation 20129
ASD, power quality impact reduction 5269
autonomous power syst. higher harmonics reduction methods 43677
bifurcations/chaos education, student lab. 20349
buck rectifier, unity PF, nonlin. ripple feedback 36244
buck ZVS power converters, anal./design 44134
building distrib. wiring, power cable burn-out, harmonics 10721
building power syst./alternators, SMPS harmonic currents effect 43756
built-in-input filter forward converter 6005
cement plant, roll crusher, variable speed DC drive 5419
combined act. filter, high pass filter/current source converter 37861
commercial/indust. facilities, harmonics eval. 10602
compensation, pass./act. power filter syst. 4500
convertor transformer windings, current harmonics calcs. 27791
Cuk PWM DC/DC soft-switching power convertor 19795
current compensation/act. filtering overview 19774
current power converter transformers, short-cct. inductance calcs. 19771
current source PWM rectifier cct. studies 44181
cycloconverter multiple noninteger harmonics, act. filtering 5125
DC rly. vehicles, act. power filter appls. *(German)* 11421
DC source, HV, 70 kV, 60 A, design and simul., EMTP software *(French)* 19767
DC/DC power convertor random switching control, LF noise studies 44155
DC/DC power convertor switching ripples, averaging anal. method *(Japanese)* 27795
defns. and reduction measures *(Russian)* 35548
diesel engine generator distrib. feeders, voltage flicker studies 43938
digital multirate meas. algms. 27279
discontinuous PWM preregulators, conducted EMI reduction 11161
distrib. feeders, nonlin. loads, harmonics effects, economics 27167
distrib. feeders, nonlin. loads, voltage distortion forecast 27166
distrib. network AC/DC power convertor harmonics, load modelling 35638
distrib. network adaptive high/low impedance fault detect. 4644
distrib. network disturbances, light flicker voltage requirements 20125
distrib. network disturbances prediction, Kalman filter-based 10724
distrib. network harmonic filter CAD, genetic algm.-based 4641
distrib. network harmonic filters, EMTP-based anal. 4642
distrib. network harmonics, motor load effects modelling 19267
distrib. network harmonics anal., single-phase power electronic load generated 27171
distrib. network thyristor-based nonlin. loads, harmonic effects 19266
distrib. networks, harmonic reson. studies 20155
distrib. syst., harmonic current prediction, ANN/GMDH comparison *(Korean)* 27178
distrib. syst. design, nonsinusoidal load operation 43757
distrib. syst. power quality monitoring 27165
distrib. systs., sig.-spectrum anal./diff. eqn. 35635
distribution network capacitor bank failures, harmonics effects 19262
distribution network fault detection/protection, neural net-based 19249
distribution networks, periodic steady state anal. methods 19248
double induction output generator, commutation angle anal. 19638
double-rectifier multilevel-voltage source diode bridge ccts. 19842
dyn. filter, least absol. value algm. 19001
EHV traction power networks, harmonic generation calcs. *(Italian)* 5349
elec. consumer demand cycle optimis., cost savings *(Italian)* 4591
elec. power quality improvement/monitoring *(Chinese)* 27130
elec. utility harmonics reduction efforts, tariff-based 26993
elec. utility power supply quality improvement efforts 43709
elec. utility power supply quality mgt., South Africa 43708
EM field prod. studies 19024
EMC, power transm. systs. 44129
EMC reactive power control systs. 23664
estim., superposition method-based *(Chinese)* 43625
expert syst. anal. 43620
external syst. model, bilinear theorem 35463
FACTS voltage stabiliser, series act. filter-based 19233
fault detect., back-propag. ANN *(Korean)* 35702
fluoresc. lamps supply 527
freq. relaying algm., Newton-Raphson method 10612
GTO CSI induction motor drives, harmonic reson. elimination 11375
GTO PWM three-level VSI, induction motor drive appls. 19761
half-bridge PWM power converter, small DC link capacitor *(Japanese)* 36348
Harmonic Domain, power syst. harmonic anal. 35438
harmonic loads ident. 35695
harmonic/reactive currents adaptive detecting method 27276
harmonics effects on power quality/transformers, comments, reply 36796
harmonics meas. 19370
harmonics power logger, adaptive storage/automatic data selection 34657
harmonics/reactive power/unsymm. load compensation 4474
HF AC power distrib., telecom. power supply appls. 44143
HVDC harmonic filter design trends 4633
hydroelectric generator, winding I^2R losses, harmonic interf. 43986
ident., digital method 19361
IEC555, harmonics and legislation 31865
induction machine harmonic rotor current/loss symm. calcs. 36169
induction motor drive, space vector PWM control, vector space decomp. 5312
induction motor drives, vector control 44443
induction motors, nonsinusoidal supply-fed, additional loss calcs. 27737
induction motors, power convertor-fed, torque pulsation calcs. 27731
induction motors, PWM power convertor feed problem calcs. 27730
induction watthour meters, harmonic perform. studies 35705
indust. power supply harmonic control, switched filter-based 4456
indust. power systs., harmonics meas. 19370
indust. resistive load control, disturbance minimisation 4541
interf. anal., FRESCA package-based 19002
isolated power systs., harmonic filtering, tined pass. filters 4455
K factor power transformers, orig., design, develop. 19693
LF harmonics, probab. anal. techs. 4451
line conditioning syst., harmonics reduction, PF compensation 43659

power system harmonics continued
- line current harmonic reduction, polyphase transformers 35445
- load flow modelling, phasor dynamics-based 19035
- load shedding, freq. relay, testing 4535
- long-dist. transm. syst., harmonic modelling 4628
- Maglev rly. inverter harmonic suppression method 11423
- mains insulation monitoring, computerised monitoring 39062
- marine propulsion cycloconvertors, harmonic voltages elimination 5346
- matrix power converter, switching freq. harmonics studies 5051
- meas. and ident. of harmonics in power systs. 4738
- meas. syst., PC-based 4750
- meas./anal., China *(Chinese)* 43805
- meas./calc. 35691
- MELACT-1100 Series power act. filters, IGBT-based *(Japanese)* 519
- minimisation, variable capacitance compensator 43611
- monitoring program, benefits 10784
- multi-output SMPS EMI filter anal./design 44156
- multifn. single-phase PWM power supplies, residential appls. *(Japanese)* 27813
- multiphase power systs., harmonics/VAr control design 19087
- multiple current-source GTO CSI, control techs. anal. 19853
- multiple single-tuned harmonic filters, ratings selection 26874
- MV distrib. network harmonic and AF behaviour *(German)* 4637
- nonlin. power syst. anal., mean generalised content theory 35458
- nonsinusoidal power syst. meas., parametric approach 4748
- nonsinusoidal power syst. supply quality improvement 19088
- office building power quality survey, Hong Kong 4501
- online UPS, PF correction, low harmonic distortion 36332
- overcurrent relay harmonic simul./testing 10613
- parallel act. power filter, control stabil. study 5112
- parallel operating 3-phase PWM inverter, cross current control 11140
- parallel proc. UPS, harmonic suppression/VAr compensation 11175
- parametric oscills., chaotic behavior anal. 26905
- pattern recogn., fuzzy eqns. 4464
- penetration studies, load modelling 4478
- petroleum indust., substation, 5th/7th harmonic filters appl. 5407
- petroleum terminal ASDs, power quality issues 5413
- PF controller microcct. 26987
- PF preregulator power convertors, EMI emission studies 10653
- PM sync. servomotor drives, PWM inverter-fed, LF torque ripple 44479
- pole changing induction motors, pole AM studies *(Japanese)* 11020
- power feeder EMI/RFI filters, nonlin. load effects 19279
- power station auxiliaries, var. speed squirrel cage motor drives *(Polish)* 43819
- protective conductor currents in studios and DP buildings *(German)* 27265
- public power supply network impedance and harmonics calc. *(German)* 35609
- pulse amplit./synthesis converters, power syst. appls. 27809
- PV power syst. invertors, instantaneous current tracking control *(Korean)* 27620
- PWM CSI, PM sync. machine harmonic torque rejection appls. 36354
- PWM current-source rectifier, input harmonic filter design 19851
- PWM cycloconverter control, induction heating appls. *(Korean)* 36786
- PWM IGBT bridge invertors, switching strategy implement. 5055
- PWM inverters, real-time alg. harmonic elimination eqns. soln. 44162
- PWM invertor space vector modulation strategy, PC-based 44164
- PWM invertors, additional zero-seq. harmonics techs. 44163
- PWM invertors, regularly sampled sinusoidal modulation technique 19772
- PWM invertors, transient regime output params. correction *(Russian)* 44113
- PWM power convertors, independent inputs, large-sig. modelling 11152
- PWM rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
- PWM self-commutated SVC, power syst. appls. 4511
- PWM VSI, deadbeat control cct. 44176
- quasi-reson. AC/DC forward power converter topol. 44145
- quasi-reson. soft-switching PWM conversion, space vector control 19757
- radial distrib. syst., fixed/SC, optimal choice 19240
- reactive power compensators for distrib. systs., harmonic distortion 19256
- real-time harmonics/flicker meas., PC-based 19367
- rectifier input current harmonic distortion, stds. 44149
- refinery MV distrib., capacitor switching characts./meas. 20168
- resonant DC link invertor, PWM scheme develop. 27819
- rly. feeder traction substations, harmonic prediction formulae *(Chinese)* 44249
- rly. traction transformers, asymmetry/harmonic/fluct. loss calcs. *(Chinese)* 44564
- rolling mill elec. drive harmonics, computerised meas. syst. 36801
- Russia-Finland HVDC interconnection, third harmonic 4632
- series reson. DC/DC power convertors, perform. prediction 19708
- shock load-based oscills. simul. *(Russian)* 26914
- shock loads investig., digital-analogue-phys. complex 10605
- shunt act. filter control, compensation strategies 10631
- sig. estim./retrieval, act. power filter 10604
- single-phase 12-step VSI, output voltage harmonics reduction *(Korean)* 36238
- single-phase AC/DC low-harmonic power convertor 44168
- single-phase act. power line conditioners 10673
- single-phase induction motors, multi-speed control studies 19621
- single-phase telecom. supply PF correction cct. 41627
- single-to-three-phase PWM soft switching power converters 19707
- single/three phase invertors, sinusoidal PWM methods 27822
- sinusoidal converters, high PF 19725
- slip energy recovery induction motor drives, harmonic anal. 11391
- small motor thyristor power convertors, RFI generation study 44081
- SMPS, power syst. harmonic compatibility design 5031
- solid state elec. meters, revenue protection 43807
- squirrel cage drives, IGBT inverters, audible noise, losses 5308
- squirrel cage motor harmonic equiv. cct. param. determ. 36161
- static power converter supply, local spectral approx. methods 36355
- steam turbogenerator exciter shaft torsional vibrs. anal. 43738
- steel plant power syst., harmonic meas./anal., PF correction 11502
- submersible induction motor pumps, soft starting calcs. 4954
- supply imperfections, bad service, sensitive equipt. *(French)* 35600
- supply quality class., neural net/ES-based 4741
- supply quality distortion, consumer/utility responsibility *(Russian)* 10621
- supply quality improvement, meas. problems 19357
- SVC, GTO-switched, elec. welding appls. 4531
- SVC, PWM invertor-based, HF/multiple connection studies 19123
- SVC, three-level invertor-based, expt. investig. 43665

power system harmonics continued
- switch-mode magnet power supply, modelling and control 29027
- switched power harmonic filters, anal., appls. 19741
- sync. machines, power converter-fed, harmonic conditions anal. 27698
- three phase ASD PWM rectifier, neural net-controlled 5120
- three-level PWM invertor, optimal design studies 19719
- three-level PWM motor inverters, harmonic loss calcs. 44175
- three-level rectifier/inverter, force-commutated 19733
- three-phase AC-DC low harmonic boost rectifier topol. 36275
- three-phase AC/AC power converters, power quality issues 36276
- three-phase AC/DC power converters, harmonics reduction 19798
- three-phase AC/DC step-up power convertor anal. 36372
- three-phase bidirectional PWM power convertor config. 5126
- three-phase diode bridge rectifier, harmonic currents calc. 11119
- three-phase diode rectifier, PF/harmonics improvement 19850
- three-phase diode rectifier utility interface, harmonics reduction 19751
- three-phase distrib. networks, harmonic current reduction 4654
- three-phase double diode PWM rectifier syst. *(Japanese)* 36347
- three-phase four-wire distrib. syst. act. power filter 19278
- three-phase GTO rectifier, harmonic distortion reduction *(Polish)* 27789
- three-phase IGBT rectifier, low harmonic pollution 19846
- three-phase invertor-based act. power harmonic filter 19740
- three-phase isolated PWM ZVS buck rectifier 36243
- three-phase multifn. batt. energy storage syst. 43967
- three-phase power syst. harmonics anal., computer-based 26881
- three-phase power syst. quality indices, computer simul. *(Russian)* 26913
- three-phase power systs., harmonic distortion source localisation 19003
- three-phase power systs., sinusoidal currents decomp. 4465
- three-phase power systs., supply quality-oriented theory 4466
- three-phase power systs., time-freq. representations 4468
- three-phase power systs., time/freq. domain decomp. 4467
- three-phase PWM bridge-rectifier, harmonic minimization 19810
- three-phase PWM GTO invertor, design, constr. 5090
- three-phase PWM inverter UPS, robust μP control 36248
- three-phase PWM invertors, real-time harmonics control 19722
- three-phase PWM rectifier, unity PF microcontroller 44177
- three-phase regenerative power convertor design project 5119
- three-phase series reson. act. power filter 19739
- three-phase single-switch PWM rectifier develop. 5127
- three-phase SVC, voltage controlled CSI-based 10654
- three-phase unbalanced power systs., act. power filter 10655
- three-phase voltage-source utility interface power convertor 19737
- three-phase VSI, space vector simplex PWM methods perform. 44174
- three-phase VSI nondeterministic AM-PWM strategy 44161
- traction reson. DC link inverters, soft/hard switching methods 44568
- transformer inrush/steady-state currents, harmonics meas. 5022
- transformer temp. rise anal., harmonic voltage propag./penetration 5020
- transformer time-domain K-factor computation methods 36222
- transm. line dist. relaying algm., diff. eqn.-based *(Korean)* 27244
- transm. line harmonics measuring instrum., μP-based *(Chinese)* 43806
- transm. network voltage flicker studies, AC/DC furnace-generated 27124
- TZ standby UPS/diesel generating set 19786
- unity PF boost converter control 19284
- universal motor cycloconverter control, microcontroller-based 44002
- UPS CSI, DSP-based output voltage control 44172
- UPS PWM inverter, instantaneous feedback controlled 11177
- VAr compensation, power theories anal. 19086
- variable speed elec. heat pumps, harmonic eval. tests 5394
- virtual instrum. for determ. of elec. power quality 4739
- voltage distortion compensation, meas. aspects 4551
- voltage source power convertors, current control loop simul. 5114
- VSI, harmonic current comp. improvement 5094
- VSI, shunt act. filter control, CAD 44186
- wastewater plant, var. freq. drive. parallel act. harmonic filter 36810
- wave power stations, energy conversion problems 4866
- waveform distortion, computer simul. 4481
- wind induction generators, harmonics prediction/ident. 43960
- wind power converter/inverter syst., 600 A/1200 V intell. IGBT module 19567
- wind turbines, weak distrib. syst. connection, generation limits 43970
- GaAs rectifier PF correction cct. tests 36324

power system interconnection
- 2-area power syst. prod. cost, cumulant method *(Chinese)* 27034
- 66/6.6 kV power receiving/transformer facility project, Japan *(Japanese)* 35629
- 110 kV XLPE power cable installation project, China 27196
- 300 MW submarine power syst. link project, South Korea 19238
- 400/500 kV CLP-China interconnection, operational aspects 26982
- 500 kV Central China power syst. EMS overview 19188
- 500 kV power interchange transm. line project, USA 27065
- AC/DC power syst. load flow calc. *(Chinese)* 35557
- AC/DC power syst. saddle node bifurcations detect. 35508
- adaptive load freq. control with dual-rate sampling, design method 35559
- adaptive nonlin. excitation control, large-scale power systs., unknown interconnections 10684
- AGC syst. LQG controller design 35520
- air-core reactors, line overloading prevention 10643
- automatic generation control, tie-line freq. bias settings 35498
- bulk transm. syst. interconnection develop. projects, Japan *(Japanese)* 10715
- bulk transmission security assess., nonutility generation representation 19224
- Central/East China power systs. connection *(Chinese)* 35509
- CENTREL/VEAG interconnected/islanded systs., operation *(Russian)* 35546
- combined cycle power plants, freq. regulating duty dyn. response characts. 43932
- competition in supply of elec., metering equipt. 35700
- composite power syst. demand-side reliab. eval. 27029
- control area trends 43674
- control design, SMES-based 27002
- DC convertor stations, generator shaft torsion simul. 4635
- develop., SE Asia 26981
- directional overcurrent relay coord. 4534
- directional relays coord., graph theory 35676
- distrib. networks, interconnected, relay protection coord. 4639
- dyn. behaviour model, diff./alg. syst. 43701
- dyn. stabil. improvement, SMES-based design 27003
- Eastern European power network regulation test planning and eval. *(German)* 35550
- economic dispatch deviation cost penalty 35491

power system interconnection continued
economy energy wheeling, benefits, Canada 4622
elec. interchange pricing, probabilistic prod. simul. *(Chinese)* 27039
elec. power market overview *(Chinese)* 43700
electromechanical oscills. damping, controllable capacitors 4521
European elec. syst. interconnection, SYSTINT group report *(French)* 4526
European power syst. interconnection status and prospects *(German)* 19180
European-wide power syst. interconnection, tech. limits 19076
expansion planning under uncertainty 27098
FACTS inter-area dynamics, nonlinear modelling 19138
French HV network, secondary voltage control, tertiary coord. 27014
fuzzy logic controller for PV-utility interfacing 19558
generation control automation, fuzzy controller design 35545
grid reliab./perform. assurance, former USSR 19075
Guangzhou Pumped Storage Power Station, operation mgt. 27617
H_∞ oscills. damping controller design 35483
half-wavelength power lines, operational problems anal. 35642
hierarchical optimal control design 4517
HV AC-DC systs., multivariable adaptive control 4549
HVDC links, power syst. enhancement 27140
HVDC transmission links control stability, L_∞ robustness anal. 19235
hybrid PV-wind power syst., optimal unit sizing 10894
hydroelectric interconnected power syst. static security anal., China *(Chinese)* 43646
hydrothermal power syst., interconnected, adaptive load-freq. control 10627
hydrothermal power syst. transm. anal. model, planning appls. 27110
I_s-Limiter, distrib. switchboard short-cct. protection 19339
improved power syst. perform., conf., Australia (1993) 5472
independent power generation protection, tie bus cct. breaker 10771
integrated tidal barrage network, power supply reliab./economics 10878
inter-area dynamics, linearised modelling approach 19137
interarea/local generator reson. modes ident. 35486
intercontinental elec. connections, rational use/efficiency anal. 26934
isolated part power syst., control behaviour 27020
isolated/multi-area systs., spinning reserve, probab. assess. 27060
load freq. control, neural net-based 4542
long syst. interconnection security, emergency control 26979
Malaysia-Thailand power interconnection, upgrading project options 19181
marginal outage costs eval., quantitative reliab. 26918
mgt. agreement, former USSR 19073
min. prod. cost model *(Chinese)* 27033
multi-area fuel cell CHP power systs., elec. wheeling anal. 10644
multiarea power syst. automatic generation control simul. 10666
multiarea power syst. simultaneous transfer capability anal. 26997
multimachine interconnected power syst., transient perform. model 19149
multiterminal AC-DC power syst. outage contingency ranking 10669
network control proc. data transm., IEC 870-6 OSI protocols *(German)* 19179
New York power pool simul., dispatcher training appl. 4584
New Zealand HV power syst., communs./control systs. 26973
New Zealand HVDC link upgrade 27141
North China/adjacent power systs. interconnection *(Chinese)* 43643
oscillations, hierarchical control algm. 19121
post-contingency load flow feasibility algm. 19118
power delivery reliab. index calcs. 19077
power electronics appls., Japan 35563
power pools, transient stabil. calc., dyn. props. 27027
power station DC/AC power networks, arcing short cct. expts. 19376
power systs., technols. *(Chinese)* 43650
power transfer effects eval. *(English)* 10685
probabilistic constrained load flow, sensitivity anal.-based 4613
PSS decentralized control, multilayer feedforward neural net-based 19100
PV power syst. invertors, instantaneous current tracking control *(Korean)* 27620
PV power syst. max. power tracking, fuzzy neural net-based 19552
PV power syst. solar arrays, load matching calcs. 27626
PWR NPP-power syst. interact., dyn. stabil. simul. *(Chinese)* 43824
quasi-reson. DC link power convertor, topol., appls. 5084
Queensland-NSW power syst. interconnection, tech. aspects 26977
reliab. calcs., load models 27007
restoration, intell. tools 19142
Russia-Finland HVDC interconnection, third harmonic 4632
Russian unified power grid, power flow/freq. control 10639
security computer anal., educational interactive program 20284
security margins, spatial aspects visualisation methods 26970
single line-to-ground fault transient response 35564
small-sig. stabil., eigenvalue method, parallel proc. 35493
Southern African grid, SVC 43655
stabilisation, SMES appl. 4562
subsystems interact. of power syst. 19092
sync. and induction machines, transient state, faults effect 19197
sync. generators, stabil./faults, neural net class. 36123
technol., current status/prospects, China *(Chinese)* 43644
thermal cogen. with wheeling, model anal. *(Japanese)* 10850
thermal unit commitment, Lagrangian relax.-based 27108
Three Gorges hydroelec. power station interconnection project, China *(Chinese)* 43699
three-phase autotransformer, short-cct. transients simul. 19682
three-phase conductively isolated busbar voltages anal. algm. 35481
three-phase voltage-source utility interface power convertor 19737
tie line utilization, power syst. restoration 35484
tie-line bias prioritized energy control 35477
transfer capability eval. 27013
transformer secondary winding DC currents, effects eval. 5017
transient response, single line-to-ground faults 4593
transient stabil., on-line anal. 27008
transient stabil. assess., neural net-based 10626
transm. network probabilistic prod. costing simul. 27120
two-input PSS develop., LF oscills. control appls. *(Japanese)* 26995
UCPTE power syst. parallel trial project, Europe *(Croatian, English)* 10623
underfrequency load shedding proposal 27005
Unified Power Syst., power freq. control *(Russian)* 27049
utility-grid interactive three-phase inverters 5083
utility/PV lines, automatic interconnecting syst. 43954
variable impedance power syst., decentralised stabilisation scheme *(Japanese)* 43681
Vietnam 500 kV North-South transm. line project 26980
voltage limited transm. interface constraints, lin. model 35591
wave power stations, energy conversion problems 4866
west-European interconnected syst., optimal security dispatch 27012

power system interconnection continued
wheeling flow, short cct. simuls. 43732

power system measurement
3-phase unbalanced loads, PF meas. 43809
3-phase unbalanced loads, PF meas. *(Russian)* 43804
6.6 kV solid insulated switchboard *(Japanese)* 27839
6/12 kV MV power syst. cables, arc fault tests 19363
11 kV distrib. network telecontrol/metering syst. 4660
15 kV URD syst., transients, above ground detect./interp. 27159
24.94 kV underground distrib. systs., switching transients meas. 27173
96-hour power meas. experiences *(German)* 35704
110-275 kV composite long rod insulator monitoring experiences, Australia 43788
110/20(10) kV transformer substation ripple control filter protection *(Croatian)* 10765
115 kV power line lightning protection, spline ioniser tests 19331
220/69/13.8 kV three-phase transformers, EM transients *(Spanish)* 5028
230 kV level load behaviour params., stat. anal. 35690
500 kV insulator string overvoltages, lightning stroke inclination expts. 35667
1000 kV power line maint. IS, meas.-based 27126
AC electrified rly., AT power supply syst., earth pot. 28114
AC line point of utilization power quality study, USA 19288
AC network quantities representation, synchronoscope 10785
AC overhead lines, elec./mag. fields meas., IEEE std. 43810
AC power syst. operating conditions meas., synchronoscope appls. *(Russian)* 27289
AC rly. power syst. protection/fault meas., PC-based 44536
AMR, design considerations 27278
AXAF space observatory, power syst., CLIPS troubleshooting ES 26658
bulk power syst. reliab. perform. assess. 27059
buried distrib. cable syst., rem. absol. phase meas. 27158
cables, PD meas. and location 4688
CENTREL/VEAG interconnected/islanded systs., operation *(Russian)* 35546
compact 230 kV line, corona perform. 27221
compensated network param. meas. by star-point current injection *(German)* 19368
computers in power electronics, conf., Trois-Rivieres, Que, Canada (1994) 36879
control centres, full-graphics interface appls. 26952
correction method for single chip power meter 4740
CT props., short cct. transients 19373
DC LV low power energy meter, μP based, design 10791
DC power supply, overload/short-cct. current protection 27266
DC/DC convertor plants, distrib. fuse fault clearing study 44144
diesel engine generator distrib. feeders, voltage flicker studies 43938
digital line differential protection, auxiliary cores *(German)* 35682
digital multirate meas. algms. 27279
digital protection criterion values estim. 27257
dispatcher training simulator, GUI-based 19157
distrib. line condition monitoring, neural net-based 43750
distrib. lines lightning surge protection, scale model expts. *(Japanese)* 43747
distrib. network, opt. current sens. *(Japanese)* 27180
distrib. network automatic fault location/isolation syst. *(Japanese)* 10736
distrib. network disturbance waveforms class., neural net-based 27161
distrib. network rem. monitoring/control syst. develop. 4667
distrib. network substation fault diagnosis, connectionist ES-based 27182
distrib. network three/zero phase current sens., Hall IC-based 35639
distrib. networks mgt., intell. support syst. 19275
distrib. syst., automation/DSM/AMR study 43761
distrib. syst. power quality monitoring 27165
distribution network fault detection/protection, neural net-based 19249
disturbance stabilisation, phasor meas.-based 35488
DMM computer instrumentation for power distrib. monitoring 4737
domestic power freq. EM field meas., South Africa 35707
EHV transm. network oscillatory param. ident. 4625
EHV transmission/distrib. power lines, EM fields studies 19286
EHV/UHV transm. line arcing fault protection simul. 27190
elec., efficiency improvement by targeted meas. *(German)* 27290
elec. consumer demand cycle optimis., cost savings *(Italian)* 4591
elec. power quality improvement/monitoring *(Chinese)* 27130
elec. utilities, involvement in inform. superhighway develop. 43658
electronic energy meters, develop. prospects *(French)* 10792
EMS, state estim., meter placement algm. 19151
EMS/SCADA systs., mgt. IS-integrated 26954
fault impedance, fast estim. 19063
fault level estim., computer-based 19058
fault quantities on-line meas. 19372
faulty cable line, capacitive energy discharge, power distrib. 27292
freq. meas., digital method, bandpass/orthogonal tech. 4744
freq. relaying algm., Newton-Raphson method 10612
generalised load modelling in presence of harmonics and distortion 35607
GIS RFI/transient field meas. 27867
GPS synchronized power syst. phase angle meas. 19369
harmonic loads ident. 35695
harmonic/reactive currents adaptive detecting method 27276
harmonics, EM field prod. studies 19024
harmonics meas. syst., PC-based 4750
harmonics meas./anal., China *(Chinese)* 43805
harmonics meas./calc. 35691
harmonics monitoring program, benefits 10784
high-impedance fault detect. algms. long-term trials 10770
HV current meas., slow-wave Rogowski coil studies 4742
HV plant, PD monitor, transient earth voltage tech. 1537
HV power syst., overvoltage monitoring syst. *(Chinese)* 35696
HV power system metering/protection transducers 19364
HV sens., integrated optics Pockels cell-based 27280
HV switchboard busbars, travelling disturbance arc tests 19888
HVSE-I power line safety monitor, μP-based *(Chinese)* 27193
impulse voltage/current meas. correction 4749
induction watthour meters, harmonic perform. studies 35705
indust. arc furnace power systs., voltage flicker study 20157
indust. distrib. networks, harmonic reson. studies 20155
indust. power syst. voltage sag compatibility, utility perspective 20156
indust. power systs., harmonics meas. 19370
indust. power systs., reactive power compensation 26940
insulation monitoring, fibre optic sens. appls. 19359
intell. building, power receiving/transforming equipt. *(Japanese)* 28056

power system measurement continued
line isolation monitoring syst., paging/fax commun. *(Japanese)* 27287
load profile data retrieval, cellular commun. 10793
LV cct., gas insulated switchgear, surge voltage meas. 27870
LV distrib. feeders, neutral conductor current distrib. 19272
LV network, arcing faults detect./anal. 19366
LV power distrib. lines, lightning overvoltage effects study 10727
LV power syst., earth ground resist. testing 19355
LV switchgear arcing fault protection 19891
LV/MV power systs., apparent power components meas. 4747
maint., ALICE-ES software-based 19056
maint./fault diagnosis experiences, Hungary *(French)* 35601
meter allocation, genetic algm. 43712
monitoring, expert syst. 19162
monitoring, fibre optic sens. appls. 4734
multichannel PC-based helicopter electrical power monitor 26540
μP-based portable test equipt. for elec. network 4736
neural networks based monitoring of indust. elec. loads 4537
nonsinusoidal 3-phase systs., real/imaginary power defn./meas. *(Italian)* 4733
nonsinusoidal power syst. meas., parametric approach 4748
num. protection relays, fault diagnosis appls. 35673
opt. current transducers, review 4735
outdoor HV substations, short-cct. mech. tests 19914
overcurrent relay harmonic simul./testing 10613
overhead line, conductor clearances, meas., calcs. *(Italian)* 4694
overhead line impedance meas./anal. studies *(Japanese)* 4698
overhead lines, lightning-induced voltage expts. *(Japanese)* 4696
packet radio network appls. 33766
PD monitoring in power plants 1526
pipelined automatic meter reading scheme 35692
plant-monitoring technol. develop. 27285
portable integrated power quality measurement system 27282
power station DC/AC power networks, arcing short cct. expts. 19376
proc. monitoring/optim., intell. 35698
PSCN 3020 distrib. network integrated protection/control syst. 27157
PSS, intell. variable gain control, multitransputer-based *(Chinese)* 43691
PV power syst. transformers, metering transducer appls. *(Russian)* 10880
quasi-synchronous sampling algorithm for power system meas. 35693
real-time harmonics/flicker meas., PC-based 19367
real-time lightning detect./location, power syst. appls. *(Chinese)* 27288
refinery MV distrib., capacitor switching characts./meas. 20168
relay protection DC current sens., meas. modelling *(Russian)* 35672
relay protection/control devices, metering elements diagnostics *(Russian)* 35678
rem. meter reading and proc. technol. *(German)* 35703
residential consumer's energy anal. environ. 28055
rolling mill elec. drive harmonics, computerised meas. syst. 36801
short-cct. current meas., transreactor-based, calcs. 19362
short-cct. power meas., probab. estim. 19374
small power plant generators/auxiliaries, protection/monitoring concepts 27306
solid state elec. meters, revenue protection 43807
state estim., quantitat. local redundancy eval. 26885
steel plant power syst., harmonic meas./anal., PF correction 11502
substation cables, induced transients meas./models 5157
superimposed power line voltage disturbances detect., analog method 19360
supply company tariff calc. and contract data acquisition *(German)* 43689
supply quality class., neural net/ES-based 4741
supply quality improvement, meas. problems 19357
sync. generators, stabil./faults, neural net class. 36123
teed transm. systs., fault generated HF noise meas. 4746
telecomm. energy mgt., Alenia distributed soln. 19835
three-phase power transm. line adaptive resist. relay 4715
three-phase systs. distortion source ident. 43803
touch/step voltages meas. method/instrum. 4710
transformer harmonisation, electronic systs. *(German)* 10788
transformer inrush/steady-state currents, harmonics meas. 5022
transformer open-phasing, self-generated overvoltage studies 27779
transformers, DC bias-exposed, VAr demand meas. 11100
transient EMI meas. 5158
transm. cable lines, online control/meas. proposal 19193
transm. line, PV transformer for power take off 27291
transm. line fault location, sync. sampling algm. 43808
transm. line harmonics measuring instrum., μP-based *(Chinese)* 43806
transm. line transient current meas., Rogowski coil *(Korean)* 27286
transm. lines, combined phase/current comparison protection 27254
transm. network optimal fault location, μP-based 4623
transm. network voltage flicker studies, AC/DC furnace-generated 27124
transm./distrib. equipt. condition monitoring, fibre optic sens.-based 43616
transm./distrib. equipt. reliab. assess. approach, Canada 43614
transm./microwave towers, mech. design 27234
transputers-based data acquisition 35694
UCPTE power syst. parallel trial project, Europe *(Croatian, English)* 10623
underground distrib. cable joints, PD meas. 4704
undervoltage load shedding, energy-based approach 19120
variable speed elec. heat pumps, harmonic eval. tests 5394
virtual instrum. for determ. of elec. power quality 4739
voltage distortion compensation, meas. aspects 4551
voltage meas., optic cryst. based sens., Pockels effect 4745
voltage measuring syst., fast sampled data, DSP 10790
voltage reducer breakdown studies *(French)* 35706
VXIbus embedded PC-based data acquisition 17688
wide bandwidth fast act. power transducer 19371
Li primary batts., domestic utility meter appls. 44267

power system planning
110/10 kV substation planning and reliab. anal. *(German)* 19220
220-500 kV power grid control/protection planning, China *(Chinese)* 35572
400 kV EHV transm. syst. planning/develop., Singapore 27122
400 kV power syst. quadrature boosters planning, UK 4601
500 kV Hunan power syst. develop. prospects, China *(Chinese)* 35573
1978-1989 nuc. energy policy committee scenarios and reality *(German)* 27114
act. power reserve scheduling 27088
adequacy/reliab. eval. 35569
AISMAN, subtransm. network switching operations planning tool 27089
AUSTRAL, distrib. syst. power restoration ES 19246
capacitor placement/replacement/control, computer simul. 35622
capacitor placement/replacement/control optim. 35621

power system planning continued
Central/East China power systs. connection *(Chinese)* 35509
Chinese power network, commercialization operation *(Chinese)* 35516
CHOPIN, heuristic model, transm. expansion planning 4614
CHP power syst. long-term operations planning 27100
city power networks, math. planning method *(Chinese)* 43715
coal/elec. delivery syst., China, planning, DSS 43669
composite generation-transm. syst., reliab. indices 35579
contingency eval. training simulator, PC-based 4606
DC fuzzy optimal power flow algm. perform. eval. 19211
deregulated power markets, planning/operation anal. *(Japanese)* 43679
designated distrib. area, short range planning, computerized procedure 10699
directional protection relays coord., computer-based 27258
dispatch switch operation planning, ES-based 4510
dispersed generation, optimal planning, economics *(Japanese)* 27087
distrib. network asset replacement programmes, reliab. worth calcs. 43754
distrib. network fuel cells, optimal deployment genetic algm. 19257
distrib. network load restoration planning algm., ES-based 19245
distrib. network loss minimization re-config., genetic algm.-based *(Japanese)* 43746
distrib. network optimal config. planning, branch exchange methods 27153
distrib. network optimal switching planning, fuzzy inference-based 27179
distrib. network optimal switching planning, fuzzy inference appl. 19268
distrib. network planning, economic/environ. considerations 43742
distrib. network planning, fuzzy math. prog.-based 27155
distrib. network planning inform. syst. *(German)* 10723
distrib. network restoration, ES-based heuristic methods 19244
distrib. network restoration operations planner, IKBS-based 19243
distrib. network sectionalizer allocation, genetic algm.-based 10729
distrib. networks develop., reliab. anal. *(Russian)* 43739
distrib. systs., optimum planning, branch and bound method *(Chinese)* 43740
distrib. transformer EMC planning *(German)* 11104
DSM, eval., T&D level 4570
DSM and resource planning, IEE Colloquium, London (1994) 14
DSM in power syst. develop. 10697
economic distrib. planning, computer-based *(Russian)* 10691
Egyptian hydropower/irrigation networks, multicriteria optim. 36044
elec. power market overview *(Chinese)* 43700
elec. utility distributed resources planning, optimum location 10692
elec. utility DSM planning, elec. cooking implications, Nepal 35475
elec. utility DSM strategy economics, math. anal. 35533
elec. utility environ. policies, planning/operations effects 35530
elec. utility integrated resources planning projects, Scotland 10658
elec. utility long-term planning methods/models 4585
elec. utility reliab. assess./maint./life cycle costing, UK 43686
elec. utility reliab. concepts integrat., New Zealand 27062
ELECTRABEL, long term planning 27000
energy economy internat. *(French, German)* 4523
EPRI Distrib. Engn. Workstation, appl. programmer interface 35627
ES design 35577
expansion LCP, Eastern Europe 10698
expansion planning, long-term, computer-based 4607
expansion planning, optimal generation mix algm. 27099
expansion planning optim., CO_2 emissions constrained *(Japanese)* 43719
expansion planning under uncertainty 27098
expansion/operation planning, multiobjective, uncertainty *(Japanese)* 27083
FACTS SVC appl. planning projects, USA 27139
fast transient control, energy-based sensitivity method 10672
fuel scheduling, optim. techs. comparison 4600
generation expansion planning, fuzzy no.-based 19205
generation expansion planning, parallel GA, parallel proc. *(Japanese)* 27086
generation expansion planning, parallel genetic algm.-based 19206
generation expansion planning integrat./enhancement *(Japanese)* 27084
generation planning, fuzzy multi-attribute decision-making 19216
generation/transm. syst. planning, reliab. criteria *(Japanese)* 10706
German hinterland wind power projects *(German)* 36082
global uncertain planning methodology, computer-based 27117
HV transm. syst. planning, SELF expert syst. 19202
hybrid PV-wind power syst., optimal unit sizing 10894
hydro-power daily generation scheduling, decomp. methods 27614
hydro-power sales data fuzzy interpolation 4865
hydroelectric power syst. decentralised planning 35568
hydroelectric power syst. optimal, short-term scheduling 27613
hydropower station, optimal compensation regulation, nonlin. network flow *(Chinese)* 36037
hydrothermal power syst. energy mgt., long/medium/short term *(Chinese)* 27037
hydrothermal power syst. prod. costing, chron. operation representation 27091
hydrothermal power syst. transm. anal. model, planning appls. 27110
hydrothermal power systs., optimal short-term scheduling 27111
hydrothermal syst., best fuel mix, seasonal planning, fuzzy mathematics 10700
indust. plant power syst. planning, tech.-economical eval. *(Russian)* 44621
insulation altitude effects, IEC 71 std. *(French)* 35582
insulation co-ordination, IEC 71 std. *(French)* 35581
intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
interactive graphic anal. software appls. 19128
isolated/multi-area systs., spinning reserve, probab. assess. 27060
LANs, distributed planning/problem solving environ. 19222
load forecasting, decision making, hybrid ES 19270
local power syst., VAr benefits optimisation *(Chinese)* 43642
local transm./distrib. planning, load research appls. 27079
long-term coord. 19214
loss of load probab. estim. *(Japanese)* 27085
LV distrib. networks, computer optimised planning 27177
LV installation divertor coord. principle *(German)* 35689
min. cost power transm., EM field considerations 35650
modular power generation/storage, targeted DSM 43672
multi-area fuel cell CHP power systs., elec. wheeling anal. 10644
multiobjective model optim. of elec. energy distrib. systs. design 35631
multiterminal AC-DC power syst. outage contingency ranking 10669
MV power syst. planning, energy storage, ES 27176
national power syst. develop. policy, Romania 27116
network planning, online data provision *(German)* 35588
network systematic planning principles *(German)* 19221
non-conventional power systs., scheduling and resource allocation 10656

power system planning continued
nonutility generation in customer delivery syst. planning 4611
offline power syst. planning, relational database concept 27097
operating conditions planning, reliab. considerations *(Russian)* 43720
operational planning, reliab. eval. method 27090
optimal generation mix, CO_2 emissions constrained 4599
optimal generation mix, fuzzy algm. 4598
optimal multistage distrib. network planning, genetic algms. 4615
overhead line, agriculturally acceptable routing criteria *(German)* 10695
overhead line planning approval criteria and compliance possibilities *(German)* 10694
peak load capacity planning studies, China *(Chinese)* 35574
peak switching overvoltage calc., neural net-based 10703
planning/operation, R&D trends, probab. appls. 4597
power station auxiliary power systs., short-cct. current calcs. 19383
power systems computation, conf., Avignon, France (1993) 11544
probabilistic constrained load flow, sensitivity anal.-based 4613
proc. monitoring/optim., intell. 35698
prod. simul. methods, comparison, MONA tech. 27113
radial distrib. networks, optimal capacitor selection search method 19264
radial distrib. syst., value based reliab. assess. 27168
reactive reserve mgt. 19081
regional power supply undertaking, monitoring/costing syst. *(German)* 43688
reinforcement planning, fuzzy optimal power flow 19213
reliab. optim., elec. utility efforts 4555
reliab. planning, customer outage costs-based 27078
resource planning, multicriteria method 4612
resource planning, risk mgt. eval. 35567
restoration planning, local control centre, ES *(Korean)* 35541
short-term operational planning security assess. 27109
short-term scheduling, price-based resources integrat. 10705
shunt compensated power systs., voltage stabil. boundaries 19215
spacecraft power syst., multivariate nonlin. design optim. 26678
spatial load forecasting, three stage method 43717
struct. neural nets for syst. optim. 43727
supply quality, network operator's viewpoint *(German)* 27134
sustainability, value trade offs, Canada 27115
technol., current status/prospects, China *(Chinese)* 43644
temporal unit commitment problem, coupled gradient network soln. 35585
Thailand, generation/transm. develop. strategies 27096
thermal power syst. short-term operation planning calcs. 27106
thermal unit commitment, Lagrangian relax.-based 27108
three-phase distrib. network CAD, multiobjective optim. approach 27146
traction power supply maint. project mgt., UK 44525
TRANSEPT ES, point-to-point transm. network CAD appls. 27128
transm. network expansion planning, computer software appl. 10712
transm. network expansion planning, neural net/genetic algm.-based *(Japanese)* 10716
transm. network series power flow control, GTO VSI-based 27125
transm. network strategic planning, PLAER methodology 27127
transm. planning, adequacy eval. 27104
unit commitment methodology, computer-based *(Korean)* 27077
unit commitment optim., EnerPLUS package-based 27107
unit commitment optimisation, ramp-rate limit considerations *(Chinese)* 43716
urban distrib. systs. operational structuring, reliab. aspects 43753
urban power networks, develop. prospects, China *(Chinese)* 35575
URD, primary cable routing, intell. syst. 19247
value based planning, probab. tech. 4617
VAr allocation planning, ADAPOS package-based 27092
VAr compensation control planning, ES appls. 26961
VAr compensation planning, Benders-type decomp. 26962
VAr compensation planning, computer model-based 26960
VAr planning, decomp. techs. 4609
VAr planning, enhanced quadratic interior point method 19204
VAr planning, interactive fuzzy satisfying method 4602
VAR planning, partitioned power syst. networks 4618
voltage contingency selection method 4557
voltage limited transm. interface constraints, lin. model 35591
voltage stabil., shunt VAr compensator effects *(Japanese)* 10709
weekly thermal unit commitment scheduling method 27105
wind energy develop., UK, planning/environ. aspects 10896
CO_2 emissions abatement, energy strategies, Brazil 27300
SO_2 emission compliance, optimal planning 4846

power system protection
see also lightning protection; machine protection; overcurrent protection; overvoltage protection; power system relaying; power system security; relay protection; switchgear protection; transformer protection
3-phase indust. transformers, overcurrent protection 5014
3-phase syst., symm. components ident., state observer 4463
6 kV mining power networks, short-cct. protection design *(Russian)* 5433
6-10 kV power syst. overvoltage protection 27260
11 kV distrib. network telecontrol/metering syst. 4660
11 kV distrib. switchgear innovation prospects, UK 4673
11 kV rural distrib. network perform. improvement designs, UK 43752
12/36/145 kV distrib. cct. breakers, utility experiences 4668
13 kV distrib. network solid-state cct. breakers 4672
35 kV transformer substation fuses, protection characts. optim. *(Russian)* 5162
66/6.6 kV power receiving/transformer facility project, Japan *(Japanese)* 35629
66/6 kV distrib. substation develop. project, Japan *(Japanese)* 35630
77 kV substation fault sect. localizer *(Japanese)* 27865
110-500 kV metal-oxide surge arrester reliab. study, China *(Chinese)* 43801
110/20(10) kV transformer substation ripple control filter protection *(Croatian)* 10765
115 kV power line lightning protection, spline ioniser tests 19331
220 kV power syst. protection misoperation, traction harmonics-based *(Chinese)* 43609
220-500 kV power grid control/protection planning, China *(Chinese)* 35572
225/42 kV substation lightning protection *(French)* 36485
230 kV step-up substation, characts. *(Japanese)* 27861
275-345 kV porcelain surge arresters, contamination withstand characts. *(Japanese)* 43800
500 kV power line-induced overhead telecom. line voltages study *(Chinese)* 35654
500 kV power syst. series capacitor VAr compensation project, China *(Chinese)* 35510

power system protection continued
500 kV transm. lines/railroad crossings, EMI protection *(Chinese)* 27229
600 V current limiting fuses spec., AC switchboard appl. 19900
1000 kV power line maint. IS, meas.-based 27126
AC rly. power syst. protection/fault meas., PC-based 44536
adaptive digital relaying, LMS algms. 35674
adaptive dist. relay protection automation simul. 27259
adaptive relay protection, hierarchical structs. 4723
air gap flashover, charged droplets, lightning impulse voltage *(Japanese)* 35685
automatic cct. breakers, protection charact. stabil. *(Russian)* 10773
building power systs., short cct. currents, design params. 19261
Cassini spacecraft solid-state power switch develop. 26660
central office integrated power plant 44159
Channel Tunnel traction/auxiliary power supplies 44533
CHP plant power syst. short cct. calc., simul. package 19505
common-tower double-cct. power lines, earthing switch simul. *(Chinese)* 35653
control syst. lightning protection, grounding/shielding studies 20160
CT, transient perform. calcs. 19340
DC elec. rly., pulsed power switch-based protection 36712
DC power supply, overload/short-cct. current protection 27266
DC telecom. power distrib. syst. overcurrent protection, batt. model 43749
DC/DC convertor plants, distrib. fuse fault clearing study 44144
differential ground fault protection 19337
digital dist. relays, transient perform. study 27255
digital impedance relay, improved perform. *(Chinese)* 27263
digital line differential protection, auxiliary cores *(German)* 35682
digital power syst. protection, sig. magnitude est. *(Polish)* 35671
digital protection criterion values estim. 27257
digital relay protection, ANN appl. 19347
digital relay protection, fuzzy logic 4725
digital relaying fault ident., fuzzy-set approach 27249
direction/dist./current differential relays, power freq. var. *(Chinese)* 43799
directional overcurrent relays coord., decomp. approach 10780
directional protection relays coord., computer-based 27258
directional relays coord., graph theory 35676
dispatcher training simulator, GUI-based 19157
dispersed generation/storage, islanding protection 19334
dispersed storage/generation pole slipping protection algm. 27250
dist. protection, microcomputer Kalman filter algm.-based *(Chinese)* 43795
dist. relaying, Kalman stat. filter testing 10779
dist. relaying coord., OO expert syst. *(Korean)* 27247
distrib. double-cct. lines, dist. protection relay calcs. 19260
distrib. installations, intell. systs. *(German)* 35640
distrib. line, 3-phase, lightning perform. *(Japanese)* 10739
distrib. line overcurrent protection settings determ., DSS-based 19259
distrib. lines, lightning outage ratio anal. *(Japanese)* 10737
distrib. lines lightning surge protection, scale model expts. *(Japanese)* 43747
distrib. network, intermittent arcing grounding overvoltage restraint *(Chinese)* 35632
distrib. network automatic fault location/isolation syst. *(Japanese)* 10736
distrib. network automatic multiple-cct. switchgear develop. 4659
distrib. network fault current reson. grounding project, Australia 19258
distrib. network protection, overhead auto-recloser automation 4664
distrib. network protection, pos. temp. coeff. thermistors 4643
distrib. network rem. monitoring/control syst. develop. 4667
distrib. network restoration operations planner, IKBS-based 19243
distrib. network sectionalizer allocation, genetic algm.-based 10729
distrib. networks, capacitor overcurrent protection 4653
distrib. overhead switchgear develops., South Africa 4666
distrib. substation earthing systs., safety design 4662
distrib. substations, switchgear internal arc fault protection design 4661
distrib. switchgear, design overview 4670
distrib. syst. online mgt./control, ES-based 19271
distrib. syst. post-outage restoration, infrastructure enhancement 10726
distrib. systs., sig.-spectrum anal./diff. eqn. 35635
double cct. lines, digital phase/current protection 4711
dyn. anal., protective syst. modelling 4716
earthing syst. transient behaviour, computer models 19352
Egypt Power Network fault diagnosis, ES 19333
EHV radial transm. networks, transient recovery voltage stresses 4619
EHV/UHV transm. line arcing fault protection simul. 27190
environ. test chambers, safety guidelines 94
FACTS, advanced series VAr compensator appls. 27138
FACTS, line fault protection, variable reactor, phase shifter *(Japanese)* 10783
fault current estim., Kalman filter 19190
fault detect., back-propag. ANN *(Korean)* 35702
fault detection/protection, neural net-based 19249
fault direction identification, neural network approach 19358
feeder load interruptions, fast breaker tripping impact 20158
France Telecom power syst. lightning protection 19332
fuel cell power syst. conditioners, microcomputer control appls. 43968
generators, reverse power flow protection, relays 4886
GIS lightning overvoltages, computer simul. 19912
grounding electrodes, impulsed ground impedance studies 19251
grounding expts., lab. two-layer soil model *(Chinese)* 10767
half-wavelength power lines, operational problems anal. 35642
HTSC short-cct. current limiter studies 19341
HV overhead line earth fault compensation coeff. modelling 19328
HV power system metering/protection transducers 19364
HV substation cct. breakers, simul.-aided short cct. risk eval. 44247
HV substations/MV networks operation, diagnostic ES 19909
HV transm. line fault location, digital simul. *(Chinese)* 35697
HVSE-I power line safety monitor, μP-based *(Chinese)* 27193
independent power generation protection, tie bus cct. breaker 10771
indust. distrib. networks, capacitor overcurrent protection 4653
indust. feeder load interruptions, fast breaker tripping impact 20158
indust. power syst. reliab., Monte Carlo simul. 28189
inform. highway power distrib. archits. 42137
insulator string overvoltages, lightning stroke inclination 35668
integrated generation/transm. syst. simul. 35476
intell. building, power receiving/transforming equipt. *(Japanese)* 28056
intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
interactive software, education/training appl. 35683
interconnected power syst., directional overcurrent relay coord. 4534
intertripping relay, design/appl. 4726
lightning control, UV laser triggering expts. 27262

power system protection continued
lightning discharge path, ion background effects *(Chinese)* 10766
lightning distrib., earthing systs. 19349
lightning protection, laser-generated plasma-based 27261
LINE BACK, utility connected PV inverter 44204
line protection practices, indust. survey 27162
load shedding optimal fuzzy control design *(Korean)* 35542
logic-based components modelling lang. 26893
long radial supply syst., SVC, operational aspects 26984
loss of grid protection, power based algm. 4713
LSA coord. substation protection/control syst. *(English)* 44250
LV cct. breakers, DC power syst. appl. guidelines 19346
LV cct. breakers, overcurrent discrim. modelling *(French)* 11210
LV cct. breakers, principles and develop. 19886
LV distrib. feeder pillars/cutouts overview 43759
LV fuse overcurrent behaviour 19343
LV hybrid AC cct. breaker switching params., computer simul. 19342
LV power distrib. lines, lightning overvoltage effects study 10727
LV switchgear arcing fault protection 19891
mains insulation monitoring, computerised monitoring 39062
mine elec. network protection reliab. *(Russian)* 44642
MORGAT, EHV transm. digital relay protection simulator 10714
MOV protection, series compensation capacitors, response calc. 27251
multifunctional inverse time relay protection, microcomputer based *(Chinese)* 4720
multimedia workstations, elec. protection 43798
μP based protection, synthesised filtering algm. 27245
MV distrib. network control/protection, PLC-based 4655
MV distrib. network protection/control integrat., reliab. design 43751
MV distrib. switchgear, internal fault withstand tests 19887
MV power syst. earthing, phase-to-ground fault current selection 19327
MV power syst. protection, neutral earthing techs. *(French)* 10772
network/generators protection coord., CIGRE survey 27664
North American power symposium, Washington, DC, USA, (1993) 11522
num. protection relays, fault diagnosis appls. 35673
operator training, Kytken multimedia training syst. 19164
outage case study, USA 19329
overcurrent relay harmonic simul./testing 10613
overdutied cct. breakers, intell. reclosing 27271
overhead line overcurrent protection devices, recent develops. 43778
overhead line tower impulse characts., simul. theory *(Chinese)* 35656
overhead rural distribution, IEE Colloquium, London (1995) 28273
overload current interrupter verification studies *(Russian)* 36395
OXR overhead distrib. line pole-mounted auto-recloser 27156
parallel power transm. lines, digital protection tech. 27188
perform. anal., ES appl. 4712
petroleum indust., MV/HV systs., protective relaying 5406
phase differential currents, faults, relay protection *(Chinese)* 43794
polymer arresters, moisture sealing testing 27272
power supply quality improvement by short-cct. current limitation on distrib. nets 27269
power systems computation, conf., Avignon, France (1993) 11544
power transformer differential current anal., neural net classifier 19696
probabilistic decision approach 10768
protection/control, μP technol. *(English)* 43648
protective multiple earth, overhead distributors 10781
PSCN 3020 distrib. network integrated protection/control syst. 27157
PV generating plants, lightning protection methods *(German)* 4869
real-time/offline fault anals., neural net appls. 19093
rectifier perform. improvement 19053
relay, smart, AI-based 6397
relay protection, low ratio CTs, high fault currents 35675
relay protection DC current sens., meas. modelling *(Russian)* 35672
relay protection setting/coord., ES-based 27256
relay protection/control devices, metering elements diagnostics *(Russian)* 35678
relay testing simul., user interface software develop. 27246
Reprocon LV sealed switchgear relays 36381
RFX RFP, fast protection syst. 4730
ring main substation protection, HV HRC fuse appls. 4663
rly. low freq. supply networks protection 5329
rural distrib. network auto-reclose protection telecontrol 4665
secondary network protectors, IEEE std. requirements 27273
series compensated power syst. protection relays, perform. studies 4709
short cct. currents, real-time estim., ANN 19191
short-cct. arcing fault effects limitation 19344
short-cct. current meas., transreactor-based, calcs. 19362
short-circuit currents in power systems, conf., Liege, Belgium (1994) 5453
sig. param. estim., neural nets 19170
small power plant generators/auxiliaries, protection/monitoring concepts 27306
smart relay, AI based 19350
space platforms, power syst. control/protection integrat. 26680
space power syst., wiring syst. safety 26597
Space Station Freedom power system, on-orbit floating potentials 26592
spacecraft, fault-tolerant power distrib. module 26563
spacecraft DC power systs., series arcing detect. 26564
state-of-the-art supercond. material appls. 43972
substation control/protection integrat., μP-based *(English)* 36476
substation earthing systs., 3D CAD studies 5160
substation fault diagnosis, connectionist ES-based 27182
substation protection/control coord., μP ES-based 44246
substation SCADA syst., relay network integrat. project, USA 10769
substations, lightning/surge protection 19918
substations, thyristor controlled series capacitor appls. 27163
supercond. transm. systs., quenching current level coord. 10777
superimposed power line voltage disturbances detect., analog method 19360
surge protection 19348
teed transm. systs., fault generated HF noise meas. 4746
telecomm. DC distrib. networks, overcurrent fuse simul. model 19276
telecomm. equipt./computers, surge protection 24875
telephone DC distrib. networks, arc detect. 19277
telephone exchange, primary protection, monolithic Si structs. 19843
three-phase distrib. network CAD, multiobjective optim. approach 27146
three-phase power transm. line adaptive resist. relay 4715
three-wire DC distrib. telecom. power supply 41624
time integrated EMI safety margins 15465
TOPASE ES, substation reliab. anal. appls. 27869
transformer open-phasing, self-generated overvoltage studies 27779
transient stabil. control, SCADA syst.-based *(Chinese)* 43641

power system protection continued
transm. line adaptive resist. relay params. 4714
transm. line dist. protection, power flow/voltage phasor oscill. meas. 4743
transm. line dist. relaying algm., diff. eqn.-based *(Korean)* 27244
transm. line protection, ES-based relay setting 19291
transm. line relay protection CAD, ES-based 35571
transm. line shield wires, unbalanced , modelling/simul. 4676
transm. lines, combined phase/current comparison protection 27254
transm. network back-up protection, expert syst. 19351
transm. network protection simul., short-cct. current eval. 19229
transm. network transient fault simul., EMTP-based 27129
transm./distrib. switchgear, historical overview 5139
transm./microwave towers, mech. design 27234
transmission network distance relay macromodel, EMTP-based 19330
UHV overhead line protection, false operation prevention *(Russian)* 35677
UHV power systs., high-speed relay protection appl. *(Chinese)* 27264
UHV transm. lines, arc jet control, slit arc horns 10774
underfrequency load shedding, control design 4556
underground distrib. syst., overvoltage protection, pad mounted switchgear 27164
underground transm. syst., surge arresters, overvoltage anal. *(Korean)* 35686
undervoltage load shedding, energy-based approach 19120
unit protection systs. eval. 4724
vac. switchgear technol., μP appls. 5145
VHV power systs., digital protection relay method 4717
voltage contingency selection method 4557
ZX1 VISIO-COMPACT MV gas-insulated switchgear 11200
SF_6 145 kV cct. breakers, develop. efforts 4669
SF_6 145 kV dead tank cct. breaker develop. 5151
SF_6 145 kV distrib. substation metal oxide surge arresters 4674
SF_6 145 kV type F75 GIS develop. 5152
SF_6 24 kV ring main switchgear, thermal behaviour modelling 5147
SF_6 24-38 kV LG 107 cct. breaker product range 27836
SF_6 MV distrib. substation switchgear develop. 5148
SF_6 MV switchgear experiences, France 5149
SF_6 distrib. transformer protection, develop. trends 4671
SF_6 ring main distrib. switchgear, latest trends 5146
Si component develop., telecom. equipt. protection 19844
$YBa_2Cu_3O_{7-y}$ high T_c current limiting element 10776
ZnO UHV surge arresters, breakdown perform., computer simul. 19345
ZnO surge arrester leakage current, external field effects 4728
ZnO surge arresters, sudden voltage reversal transient response 4727
ZnO varistor/air gap surge arresters comparison, LV syst. 19354

power system relaying
500 kV power line-induced overhead telecom. line voltages study *(Chinese)* 35654
AC rly. power syst. protection/fault meas., PC-based 44536
adaptive dist. relay protection automation simul. 27259
adaptive relay protection, hierarchical structs. 4723
auto-reclosers/sectionalisers operation 43796
digital dist. relays, transient perform. study 27255
digital impedance relay, improved perform. *(Chinese)* 27263
digital relaying fault ident., fuzzy-set approach 27249
directional protection relays coord., computer-based 27258
directional relays coord., graph theory 35676
dist. relaying coord., OO expert syst. *(Korean)* 27247
distrib. double-cct. lines, dist. protection relay calcs. 19260
distrib. line overcurrent protection settings determ., DSS-based 19259
distrib. network line protection practices, indust. survey 27162
distrib. network substation fault diagnosis, connectionist ES-based 27182
distrib. networks, AVC relays, sensitivity anal., PF changes 4652
distrib. networks, interconnected, relay protection coord. 4639
fault direction identification, neural network approach 19358
freq. relaying algm., Newton-Raphson method 10612
generators, reverse power flow protection, relays 4886
high phase order systs., impedance relaying 35611
induction motor starting transients, simul. algm. 19631
indust. power syst. reliab., Monte Carlo simul. 28189
literature bibliog., 1992 IEEE committee report 27248
load shedding, freq. relay, testing 4535
load shedding optimal fuzzy control design *(Korean)* 35542
LSA coord. substation protection/control syst. *(English)* 44250
MORGAT, EHV transm. digital relay protection simulator 10714
MOV protection, series compensation capacitors, response calc. 27251
MV distrib. network protection/control integrat., reliab. design 43751
num. protection relays, fault diagnosis appls. 35673
overcurrent relay harmonic simul./testing 10613
overdutied cct. breakers, intell. reclosing 27271
OXR overhead distrib. line pole-mounted auto-recloser 27156
parallel power transm. lines, digital protection tech. 27188
petroleum indust., MV/HV systs., protective relaying 5406
phase asymmetry relay control design 27057
power syst. protection, interactive software, education/training appl. 35683
power transformer differential current anal., neural net classifier 19696
protection setting/coord., ES-based 27256
real-time/offline fault anals., neural net appls. 19093
relay protection DC current sens., meas. modelling *(Russian)* 35672
relay protection/control devices, metering elements diagnostics *(Russian)* 35678
Reprocon LV sealed switchgear relays 36381
rural distrib. network auto-reclose protection telecontrol 4665
series compensated power syst. protection relays, perform. studies 4709
small power plant generators/auxiliaries, protection/monitoring concepts 27306
smart relay, AI based 19350
testing simul., user interface software develop. 27246
three-phase power transm. line adaptive resist. relay 4715
transformer relay protection CAD, ES-based *(Chinese)* 44094
transm. line adaptive resist. relay params. 4714
transm. line dist. relaying algm., diff. eqn.-based *(Korean)* 27244
transm. line fault location, sync. sampling algm. 43808
transm. line protection, ES-based relay setting 19291
transm. line relay protection CAD, ES-based 35571
transm. network transient fault simul., EMTP-based 27129
transm./microwave towers, mech. design 27234
transmission network distance relay macromodel, EMTP-based 19330
UHV power systs., high-speed relay protection appl. *(Chinese)* 27264
VHV power systs., digital protection relay method 4717

power system reliability
6 kV spot-network switchgear *(Japanese)* 27837
11 kV rural distrib. network perform. improvement designs, UK 43752
110-275 kV composite long rod insulator monitoring experiences, Australia 43788
110/10 kV substation planning and reliab. anal. *(German)* 19220
adequacy indices, failure/repair proc. distrib. effects 26887
adequacy/reliab. eval. 35569
anal., methods, software 27006
assess., concepts/hist. review 26917
auditing, heuristic method 19054
back-up power syst. reliab. improvement, batt. monitoring 19055
bal. reliab. params. estim., probab. method 18999
bulk power syst. reliab. perform. assess. 27059
bulk power system reliability, assess. methods 19019
capacitor bank failures, harmonics effects 19262
cct. capability assess., rating sheets prepn. 43657
cement plant, power distrib., IEEE std. 36808
cement plant elec. network design, ADELIA expert syst. 5417
chem./plastics plant elec. modernization project 5405
CHOPIN, heuristic model, transm. expansion planning 4614
composite generation-transm. syst., reliab. indices 35579
composite power syst. demand-side reliab. eval. 27029
consumer power supply reliab. indices calcs. *(Russian)* 43606
daily load forecasting, multilayer ANN *(Japanese)* 10707
DC elec. rly., pulsed power switch-based protection 36712
digital computer power syst. operating tools evol. 43673
dispatch switch operation planning, ES-based 4510
distrib. network asset replacement programmes, reliab. worth calcs. 43754
distrib. network quality/reliab. improvement options 43760
distrib. network reliab. eval., fuzzy set theory-based 27150
distrib. networks, interconnected, relay protection coord. 4639
distrib. networks develop., reliab. anal. *(Russian)* 43739
distrib. overhead line assets mgt., technol. 43744
distrib. syst., automation/DSM/AMR study 43761
Dresden energy model and Nossener Brucke CHP station *(German)* 19502
EHV/HV networks, reliab. data collection 26857
EHV/UHV transm. line arcing fault protection simul. 27190
elec. risk/reliab. calcs., PC-based 4553
elec. service reliab., customer cost eval. 35494
elec. supply, customer outage costs, probab. distribs. 4545
elec. supply service quality assess. overview, Argentina *(Spanish)* 4590
elec. utility customer service improvement, distrib. automation-based, UK 43684
elec. utility reliab. assess./maint./life cycle costing, UK 43686
elec. utility reliab. concepts integrat., New Zealand 27062
elec. utility reliab. improvement experiences, Australia 43685
energy economy internat. *(French, German)* 4523
eval. incl. PV syst. 35504
expansion LCP, Eastern Europe 10698
fault current waveform, freq. phasor/DC components determ. 27268
feeder load interruptions, fast breaker tripping impact 20158
FITL powering, batt. reserve sizing calcs. 42066
fuzzy logic appl. 26889
gas turbine/combined cycle units, reliab./availability guarantees 19523
generating unit operating reserve assess. 26856
generating unit preventive maint. scheduling, energy cost method 19378
generation/transm. syst. planning, reliab. criteria *(Japanese)* 10706
GIS elec. utility experience, USA 27866
grid reliab./perform. assurance, former USSR 19075
HV substation cct. breakers, simul.-aided short cct. risk eval. 44247
HV substation reliab. centered maint. project, France 44248
HV transm. line reliab./maint. practices, Australasia 43764
hydrothermal power syst. energy mgt., long/medium/short term *(Chinese)* 27037
hydrothermal power syst. reliab. assess., computer-based 26888
hydrothermal syst. reliab. assess. 36035
IEEE industry applications, conf., Denver, USA (1994) 10
improvement, digital control 35525
indust. feeder load interruptions, fast breaker tripping impact 20158
indust. power syst. reliab., Monte Carlo simul. 28189
integrated tidal barrage network, power supply reliab./economics 10878
interconnected power systs., economic dispatch deviation cost penalty 35491
interconnected power systs., power delivery reliab. index calcs. 19077
interconnected power systs., reliab. calcs., load models 27007
interconnected power systs., tie-line bias prioritized energy control 35477
isolated/multi-area systs., spinning reserve, probab. assess. 27060
Krsko PWR AC/DC power supply syst. fault tree anal. 35731
LV fuse overcurrent behaviour 19343
marginal outage costs eval. 10671
marginal outage costs eval., quantitative reliab. 26918
mine elec. network protection reliab. *(Russian)* 44642
multi-area power syst. reliab. eval., PC-based 26855
multi-MW batt. storage plant, power conditioning reliab. 36081
multiobjective model optim. of elec. energy distrib. systs. design 35631
MV distrib. network protection/control integrat., reliab. design 43751
NERC reliab. forecast, 2003 43718
nonutility generation in customer delivery syst. planning 4611
NPP load factors, end Sept. 1994 10827
operating conditions planning, reliab. considerations *(Russian)* 43720
operational planning, reliab. eval. method 27090
optim., elec. utility efforts 4555
outage costs/reliab. indices eval. 35625
overhead distrib. line pole struct., risk-based design 43755
overhead line survival anal., stat. method-based 43780
petroleum refinery/elec. utility collaboration, overview 5414
phase selection, fault generated HF noise, ANN 19141
planning, customer outage costs-based 27078
planning/operation, R&D trends, probab. appls. 4597
power systems computation, conf., Avignon, France (1993) 11544
prod. simul. methods, comparison, MONA tech. 27113
PV systs. sizing optimisation, Algeria 36057
radial distrib. syst., value based reliab. assess. 27168
rectifier perform. improvement 19053
reliab. eval., weather events, seq. simul. 4461
reliab.-centred maint., economic eval. 19080
security assess., AI appls. 27011
space power syst. wiring syst. safety 26597
SPIDER MicroSCADA distrib. network control syst. 27184
substation control/protection integrat., μP-based *(English)* 36476

power system reliability continued
substation protection/control coord., μP ES-based 44246
substation reliab. , AI-based simul. 5164
substation reliab. eval., act. min. cut set selection 36482
substation reliab. eval., TOPASE project 36475
subtransmission network reliability, customer interruption costs eval. 27119
telecom. power supply systs., μP control appls. 41626
three-phase power syst. reliab. rel., voltage unbalance 19232
TOPASE ES, substation reliab. anal. appls. 27869
traction power supply maint. project mgt., UK 44525
TRANSEPT ES, point-to-point transm. network CAD appls. 27128
transformer condition assess., elec. utility techs. 44098
transformer reliab., design considerations 44096
transm. equipt. reliab. IS, Canada 43722
transm. line outages freq., Canada 19287
transm. network probabilistic prod. costing simul. 27120
transm. network reliab. centred maint. projects, South Africa 43725
transm. network strategic planning, PLAER methodology 27127
transm. syst. reliab. anal., data determ., Jordan 43615
transm. syst. with overloads, reliab. anal. 27136
transm./distrib. equipt. condition monitoring, fibre optic sens.-based 43616
transm./distrib. equipt. reliab. assess., data concepts 43613
transm./distrib. equipt. reliab. assess. approach, Canada 43614
transmission and distrib. equip. reliability, IEE conf., Warwick, UK (1995) 36831
transmission network reliab. anal syst., primary substations 26904
transmission syst. model reliab. anal., freq. and duration method 35604
transmission syst. model reliab. anal., probab. method 35605
Unified Power Syst., power freq. control *(Russian)* 27049
urban distrib. systs. operational structuring, reliab. aspects 43753
USA NPP reliab.-centred maint. status 19408
voltage limited transm. interface constraints, lin. model 35591
voltage sags, motor re-accel. influence 19038
VVER-400, main coolant pump, operating reliab. improv. 35838
wind-diesel energy syst. perform., probabilistic eval. 10913
worth assess., Monte Carlo simul.-based 26945
worth eval. tech. 27058
NO_x reducing combined-cycle power plant availability anal. 19529
SF_6 145 kV distrib. substation metal oxide surge arresters 4674

power system restoration
11 kV distrib. network telecontrol/metering syst. 4660
AUSTRAL, distrib. syst. power restoration ES 19246
bulk power network restoration, ES support syst. 19140
bulk power syst. restoration procedures, knowledge-based approach 26953
distrib. network, post-fault service restoration, network reconfig. 4645
distrib. network, real time service restoration 4647
distrib. network expansion planning, multi-stage branch exchange method 27151
distrib. network load restoration planning algm., ES-based 19245
distrib. network optimal switching planning, fuzzy inference appl. 19268
distrib. network optimal switching planning, fuzzy inference-based 27179
distrib. network restoration, ES-based heuristic methods 19244
distrib. network restoration operations planner, IKBS-based 19243
distrib. networks, optimal supply restoration, develop. countries 27169
distrib. syst. post-outage restoration, infrastructure enhancement 10726
EHV power syst. restoration voltage control, ES-based 35555
elec. supply restoration training, Netherlands 19089
estim., associative memory ANN 19335
intell. guidance syst. 19169
intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
interconnection restoration, intell. tools 19142
island power syst. restoration, ES-based 4543
large-scale bulk power network restoration support syst. 10664
loss of grid protection, power based algm. 4713
outage case study, USA 19329
planning, local control centre, ES *(Korean)* 35541
relay literature bibliog., 1992 IEEE committee report 27248
rural distrib. network auto-reclose protection telecontrol 4665
substation fault recovery operation support syst., knowledge reuse methods 11216
tie line utilization 35484
training, ES appl. 19165
transformer saturation overvoltages, computer simul. *(French)* 35537
transm. line energisation, simul., black start studies 19196
transm. network substation control centers, SPARSE ES appls. 19230
trouble call anal., OO prog. 43661

power system security
11 kV rural distrib. network perform. improvement designs, UK 43752
400 kV power syst. quadrature boosters planning, UK 4601
act. power contingency ranking, radial basis fn. network 10662
adaptive underfreq. emergency control schemes 43676
AI appls. 27011
assess., fuzzy set theory appl. 19105
assess., Kohonen classifier 27073
assess., multicontingency preprocessing ES 35505
assess., patt. recogn./decision trees 19159
assess., pattern recogn./fuzzy estim. ES-based 35506
assess., systolic accelerator-based 19009
assess. neural nets, perform. eval. 19134
assess./real power rescheduling 26968
assessment, probabilistic eval. 19116
automatic SC, dyn. perform. 4620
branch flow contingency anal., computer-based 4482
bulk power syst. reliab. perform. assess. 27059
bulk power syst. security anal. model, computer-based 26969
bulk power system reliability, assess. methods 19019
bulk transmission security assess., nonutility generation representation 19224
computer anal., educational interactive program 20284
constrained power economic dispatch, optim. algm. 4574
contingency screening method, genetic algm.-based *(Japanese)* 26994
crit. contingencies ident., heuristic method 19133
dispatch, LP appl. *(Chinese)* 10635
distrib. network restoration operations planner, IKBS-based 19243
disturbance stabilisation, phasor meas.-based 35488
dyn. security assess., ELISA ES-based 26861
dyn. security assess., patt. recogn. method *(Chinese)* 35512
dyn. security improvement, generation rescheduling 35478
dyn. voltage security assess., fuzzy-set approach 43664

power system security continued
- dynamic security assess. 19018
- economic dispatch coord. 19153
- elec. utility generator VAr capability assess. experience, USA 35487
- enhancement, ES-based 26967
- hydroelectric interconnected power syst. static security anal., China *(Chinese)* 43646
- hydroturbine generator sets, nonlin. governor control 10944
- intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
- interconnected power syst., control area trends 43674
- island power syst. spinning reserve, real-time estim. 4473
- load flow feasibility region ident., computer-based 26863
- load flow solvability, computation method 35435
- load relief prediction/control, computer-based 26965
- load shedding optimal fuzzy control design *(Korean)* 35542
- load/state estim. software, security assess. appls. 27103
- long syst. interconnection security, emergency control 26979
- margins, spatial aspects visualisation methods 26970
- meter allocation, genetic algm. 43712
- multiterminal AC-DC power syst. outage contingency ranking 10669
- NERC reliab. forecast, 2003 43718
- network connectivity tracking, topol. based algm. 35489
- neural nets for power syst. security prediction 35538
- Newton optimal power flow convergence studies 26848
- North American power symposium, Washington, DC, USA, (1993) 11522
- online dyn. security anal. implement. 4568
- online dyn. security assess., EMS ES-based 19099
- online static security assess., neural net-based 35444
- open access transm. services pricing appl. 35598
- optimal control, power stations dyn. equiv. 35495
- optimal power flow anal., security constrained 26902
- optimal power flow simul., security constrained 10603
- overload control, line switching selection 26950
- PC programs for power systs. security calc./anal. *(Russian)* 10620
- phase selection, fault generated HF noise, ANN 19141
- post-contingency load flow feasibility algm. 19118
- power systems computation, conf., Avignon, France (1993) 11544
- preventive control design, nonlin. optim.-based 26956
- privatisation, British experience 19195
- real-time power syst. operations, loss minimization fn. 10629
- real-time voltage/VAr control, optim. algms. 10630
- reliab., generating unit operating reserve assess. 26856
- security control, reactive power rescheduling, V-formulation *(Chinese)* 43636
- security eval., ANN appl. 10677
- short-cct. arcing fault effects limitation 19344
- short-term dyn., real-time parallel simul. 26880
- short-term operational planning security assess. 27109
- static on-line voltage contingency screening 4485
- static security assess., genetic neural net-based 19008
- static security assess., graphic representation 4578
- static security assess., load flow, ANN 19167
- static security fuzzy optimal control simuls. 35479
- subway elec. supply, energy saving, batt. storage plant 44539
- three-phase distrib. network CAD, multiobjective optim. approach 27146
- transient security assess., ANN *(Chinese)* 35528
- transient security assess., ANN tangent hypersurfaces 26928
- transient stabil., transient energy fn. anal. *(Chinese)* 43645
- transient stabil. assess., excitation control considerations 26941
- transient stabil. enhancement, dyn. preventive control 26947
- transm. line load flow violations security assess., ES-based 19285
- transm. network contingency load transfer capability modelling 10665
- underfreq. load shedding optim. algm. eval. 26964
- underfrequency load shedding, control design 4556
- undervoltage load shedding, energy-based approach 19120
- urban distrib. systs. operational structuring, reliab. aspects 43753
- VAr allocation planning, ADAPOS package-based 27092
- VAr compensation planning, Benders-type decomp. 26962
- VAr compensation planning, computer model-based 26960
- voltage collapse, load pattern anal. 4452
- voltage contingency selection method 4557
- voltage instabil., load flow-based preventive control 35554
- voltage security, ANN, patt. class., machine learning 19160
- voltage security, machine learning, neural networks, stat. pattern recogn. 10663
- voltage stabil. limit determ. method 35468
- voltage stabil. region estim. method 35469
- voltage stabil./security assess. methods 4516
- voltage/VAr security enhancement control design 27017
- vulnerability assess., neural net-based 26966
- west-European interconnected syst., optimal security dispatch 27012

power system stabilisers *see power system stability*

power system stability
- 3-phase TSC-TCR SVC anal., recurrences theory 19924
- 6 kV compact power capacitor syst., urban distrib. substation *(Japanese)* 27864
- 20 MW batt. storage syst., distrib. network stabil. appls. 35637
- 220 kV compact overhead line design for 500 kV syst. *(Chinese)* 27227
- 500 kV power syst. series capacitor VAr compensation project, China *(Chinese)* 35510
- 500 kV transm. syst., adaptive autoreclosure, ANN 4677
- AC/DC power syst. saddle node bifurcations detect. 35508
- AC/DC power syst. stabil., DC modulation control *(Chinese)* 35471
- adaptive digital relaying, LMS algms. 35674
- adaptive multivariable optimal controller 4579
- adaptive nonlin. excitation control, large-scale power systs., unknown interconnections 10684
- adaptive power syst. stabiliser, freq. domain design 27043
- adaptive PSS, turbine governor control 4564
- anticipatory fuzzy control, neural net-based 43666
- ASD, power quality impact reduction 5269
- assoc. control services, generator level experience, France 43705
- automatic cct. breakers, protection charact. stabil. *(Russian)* 10773
- automatic SC, dyn. perform. 4620
- automatic voltage control, math. modelling 27015
- autotransformer tertiary winding voltage regulation study *(Russian)* 44107
- BC Hydro's on-line transient stabil. assess. model 35434
- bifurcations, voltage collapse, load modeling 35440

power system stability continued
- bifurcations/chaos education, student lab. 20349
- boundary controlling unstable method 35433
- bulk transm. syst. interconnection develop. projects, Japan *(Japanese)* 10715
- bulk transmission security assess., nonutility generation representation 19224
- chaos simul., EMTP package-based 26882
- combined cycle gas turbine power plants, freq. control capability 43933
- composite PSS, auxiliary self-tuning/fixed param. controller design 35507
- constrained dyn. systs. stabil., appl. 19091
- contingency screening method, genetic algm.-based *(Japanese)* 26994
- controller tuning, systematic design method 27056
- cross cpd. turbine generator, PSS design *(Japanese)* 10616
- DC convertor stations, generator shaft torsion simul. 4635
- decentralized control, multilayer feedforward neural net-based 19100
- design, μ synthesis 43671
- dispersed storage/generation pole slipping protection algm. 27250
- distrib. network harmonics, motor load effects modelling 19267
- distrib. network optimal switching planning, fuzzy inference-based 27179
- distrib. network overvoltage phenom., motor load disconnection-induced 4640
- distrib. network power capacitor placement/replacement/control optim. 35621
- distrib. network power capacitor placement/replacement/control, computer simul. 35622
- distribution networks, periodic steady state anal. methods 19248
- disturbance stabilisation, phasor meas.-based 35488
- dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
- dyn., coherency ident., neural net-based 4492
- dyn., induction motor loads aggregation 4491
- dyn. anal., protective syst. modelling 4716
- dyn. behaviour model, diff./alg. syst. 43701
- dyn. equivalence calc., model reduction algm. 26903
- dyn. load modeling, neural net-based 4488
- dyn. load models, state variable description 35430
- dyn. security assess., ELISA ES-based 26861
- dyn. security assess., patt. recogn. method *(Chinese)* 35512
- dyn. security improvement, generation rescheduling 35478
- dyn. stabil., fast anal., patt. recogn. appl. 10638
- dyn. stabil., optimal control modelling 4515
- dyn. stabil. assess., Rayleigh's quotient *(Japanese)* 35453
- dyn. stabil. improvement, SMES-based design 27003
- dyn. stabil. models develop. 26898
- dyn. stabil. simul., NPP models 35429
- dyn. stabilisation tech. 43653
- dyn. voltage instabil., induction motor model *(Korean)* 35461
- dyn. voltage security assess., fuzzy-set approach 43664
- dynamic response anal., nonlinear terms significance 19020
- EHV power syst. restoration voltage control, ES-based 35555
- EHV transm. network oscillatory param. ident. 4625
- eigenvalue calc., AESOPS algm. improvement 4489
- elec. demand forecasting Rostovenergo power syst. *(Russian)* 35578
- elec. utility generator VAr capability assess. experience, USA 35487
- emergency control, real time ES model 27041
- emergency voltage situations control, anal. 26958
- energy fn. method, path dependent integrals 19010
- equilib. equivalence theorem, stabil. anal. 35459
- EUROSTAG software, power syst. dyn. simul. 19144
- excitation control, transient stabil. assess. 26941
- FACTS, bilinear predictive control, thyristor controlled capacitor 4582
- FACTS devices for power syst. stabil. enhancement 10646
- FACTS inter-area dynamics, nonlinear modelling 19138
- FACTS SVC appl. planning projects, USA 27139
- FACTS voltage stabiliser, series act. filter-based 19233
- fast transient control, energy-based sensitivity method 10672
- feedforward neural net, inverse dyns. *(Korean)* 35540
- flexible AC transm. systs., steady state/dyn. perform. eval. 35613
- flexible AC transmission control simulation, EMTP package-based 35614
- flexible power syst. modeling 43621
- fuzzy control design studies 4508
- fuzzy controlled SVC design *(Japanese)* 26939
- fuzzy controller studies *(Chinese)* 27038
- fuzzy excitation control syst. develop. 4509
- fuzzy logic based power syst. stabilizer 10641
- generation/transm. syst. planning, reliab. criteria *(Japanese)* 10706
- generator brake, thick film resistor 4906
- generator transient/subtransient params. ident. 4907
- H_∞ optimisation-based 43662
- H_∞ oscills. damping controller design 35483
- hierarchical optimal control design 4517
- HV AC-DC systs., multivariable adaptive control 4549
- HVDC links, power syst. enhancement 27140
- HVDC transmission links control stability, L_∞ robustness anal. 19235
- hybrid fuzzy/PSS control method 10668
- hybrid neuro-fuzzy power syst. stabilizer 10609
- hybrid neuro-fuzzy power syst. stabilizer 27069
- hybrid transient stabil. anal., struct. preserving model 26858
- hybrid wind/diesel power syst. stabilisation, SMES controller design *(Japanese)* 27645
- hydro turbine governor model struct./params., power syst. stabil. 4861
- hydroturbine generator sets, nonlin. governor control 10944
- independent power systs., decentralized open-loop control 19079
- induction motor model, dyn. aggregation, power syst. simul. 4960
- instabilities modelling, catastrophe theory appl. *(Japanese)* 26853
- intell. supervisory fuzzy control design 19103
- intell. variable gain control, multitransputer-based *(Chinese)* 43691
- intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
- inter-area dynamics, linearised modelling approach 19137
- interarea/local generator reson. modes ident. 35486
- interconnected power syst. control design, SMES-based 27002
- interconnected power systs., power delivery reliab. index calcs. 19077
- interconnected power systs., small-sig. stabil., eigenvalue method, parallel proc. 35493
- interconnected power systs., transient stabil., on-line anal. 27008
- island power syst. restoration, ES-based 4543
- learning coord. control 27010
- lin. optimal regulator, fuzzy neural net-based 19094
- line conditioning syst., harmonics reduction, PF compensation 43659
- load distributor static and dyn. network anal. *(German)* 43731
- load flow soln., Jacobian sing., voltage stabil. margin *(Chinese)* 35448

power system stability continued
  load freq. control, neural net-based 4542
  load shedding optimal fuzzy control design *(Korean)* 35542
  long. power syst., PSS experience 35442
  long. power systs., autoparametric reson. LF oscills. *(Japanese)* 43624
  long-dist. power syst. adaptive generation control *(Japanese)* 10689
  long-term dyn. simul., num. integrat. method 35466
  lossless power syst. load flow feasibility/stabil. anal. *(Russian)* 10618
  Malaysia-Thailand power interconnection, upgrading project options 19181
  matched four-terminal power network, deviation defn. *(Russian)* 10601
  micromachine PSS, real-time fuzzy control 10679
  modelling and control 27074
  multi-machine syst. learning coord. control 36121
  multicontingency power syst. transient stabil. assess. decision trees 26860
  multilayer ANN appl. 43670
  multimachine power syst., optimal robust stabiliser 27022
  multimachine power syst., param. adaptive control 19156
  multimachine power syst. auto-parametric reson. calcs. 26896
  multimachine power syst. generator shedding, neural net-based 19098
  multimachine power syst. stabilizers, location/design 26926
  multimachine power syst. transient stabil., prediction/control *(Chinese)* 35513
  multimachine power syst. transient stabil., probab. approach 4460
  multimachine syst. transient stabil. anal. *(Chinese)* 35425
  nonlin. SVC control studies *(Chinese)* 35527
  nonlinear load model, stabil. anal. methods comparison 19012
  North American power symposium, Washington, DC, USA, (1993) 11522
  on-load tap changer/voltage stabil. rel. anal. *(Chinese)* 43633
  online dyn. security anal. implement. 4568
  online dyn. security assess., EMS ES-based 19099
  online static security assess., neural net-based 35444
  oscillations, hierarchical control algm. 19121
  oscills. damping, control design 27004
  output feedback variable struct. power syst. stabilizer 19090
  partial energy fn. for fast transient control of power systs. 4567
  phase selection, fault generated HF noise, ANN 19141
  pole-placement algm., power syst. stabilizers 43678
  polyphase power syst. VAr compensation, computer simul. 4550
  post-contingency load flow feasibility algm. 19118
  potential energy boundary surface modelling 19023
  power pools, transient stabil. calc., dyn. props. 27027
  power syst. dyns., hands-on teaching package 19025
  power systems computation, conf., Avignon, France (1993) 11544
  power transm., transfer limit calc., integrated approach 19146
  preventive control design, nonlin. optim.-based 26956
  PSS design, self-tuning regulator 19194
  PSS design method/algm. 4560
  pump-generators, dyn. perform., PSS appl. *(Chinese)* 43946
  PV array/batt. power switch network, nonlin. SPICE model 27635
  PWR NPP-power syst. interact., dyn. stabil. simul. *(Chinese)* 43824
  Queensland-NSW power syst. interconnection, tech. aspects 26977
  reactive reserve mgt. 19081
  real-time digital control environ., controller develop. appls. 10674
  real-time power syst. anal. digital simulator 10611
  real-time power syst. operations, loss minimization fn. 10629
  real-time stabilizers, fuzzy controller optim. 4913
  recursive load ident. method, computer-based 35427
  relay, smart, AI-based 6397
  rly. power syst. stabil./power flow limit calcs. 5341
  rly. traction substation transformers, unbalance modelling 44520
  robust multivariable PI secondary voltage/VAr control 27016
  robustness, control perform. anal. 4576
  Sampex spacecraft derived power syst., stabil. anal. 26611
  secondary voltage control, voltage instab. *(English)* 10686
  security, economic dispatch coord. 19153
  security assess., AI appls. 27011
  security computer anal., educational interactive program 20284
  security margins, spatial aspects visualisation methods 26970
  short-term dyn., real-time parallel simul. 26880
  shunt compensated power systs., voltage stabil. boundaries 19215
  single machine infinite-bus power syst., nonlin. excitation control 27075
  single machine power syst. stabil., direct Nyquist array 26911
  single on-load tap changer, reverse control anal. 27028
  small sig. stabil. anal., computer programs *(Japanese)* 26875
  small sig. stabil. anal., eigenvalue clusters calc. 35437
  small sig. stabil. anal., SMAS3 package 26897
  smart relay, AI based 19350
  SMES, fuzzy control 19171
  SMES appl. 4562
  SMES-based, neural network-controlled 27030
  Southern African grid, SVC 43655
  space station, switching regulators, source-load interact. 26613
  Space Station Freedom power system, small-signal stability 26593
  space station secondary elec. power syst. modeling/simul. 26612
  SSR damping, SMES-based 10681
  stabil. control, online calcs.-based *(Japanese)* 27042
  stabiliser, rule-based, variable-gain 19082
  state-of-the-art supercond. material appls. 43972
  static voltage collapse anal., HARKAL package-based 26895
  static voltage stabil. assess., ANN 26868
  static voltage stabil limit determ., load flow algm. *(Chinese)* 26907
  static voltage stabil. studies, generator modelling 26892
  steady-state voltage instability index 19033
  struct. preserving power syst. model, voltage stabil. 4497
  subsystems interact. of power syst. 19092
  supply quality distortion, consumer/utility responsibility *(Russian)* 10621
  SVC control syst. instabil., birfurcation theory *(Japanese)* 10688
  SVC develop. testing by simul. *(German)* 27879
  SVC fuzzy logic switching design 19102
  sync. and induction machines, transient state, faults effect 19197
  sync. generator damping, SMES-based 10680
  sync. generator dyn. stabil. control enhancement 43706
  sync. generator nonlin. adaptive control, neural net-based 19607
  sync. generator oscill. damping, state feedback controller 4594
  sync. generator voltage stabil., voltage depend. reactive power limits 36114
  sync. generators, neural network nonlin. adaptive controller *(Japanese)* 4924
  sync. generators, stabil./faults, neural net class. 36123
  sync. machine stator cct., transient effects on power syst. stabil. 4922
  tapping transformers, dyn. interact. calcs. 27784
  three-phase power syst. harmonics anal., computer-based 26881

power system stability continued
  three-phase power syst. stabil., apparent power misinterpretations 4447
  three-phase power systs., supply quality-oriented theory 4466
  three-phase power systs., time-freq. representations 4468
  three-phase power systs., time/freq. domain decomp. 4467
  thyristor-controlled series capacitors tuning by eigenvalue sensit. anal. 4630
  tracking constrained adaptive power syst. stabiliser 43660
  TRANSEPT ES, point-to-point transm. network CAD appls. 27128
  transient energy and stabil., interactive program 28335
  transient nonlin. generator excitation control 26992
  transient security assess., ANN tangent hypersurfaces 26928
  transient stabil., faults calc., mutually coupled lines *(Japanese)* 35452
  transient stabil., optimal decentralised control *(Korean)* 35543
  transient stabil., quasi stationary phasor dyns., error anal. 26886
  transient stabil., SVC fuzzy control design 19101
  transient stabil., transient energy fn. anal. *(Chinese)* 43645
  transient stabil., turbogenerator torsional vibr., fast valving *(Chinese)* 35456
  transient stabil. anal., energy fn., Taylor series *(Chinese)* 43608
  transient stabil. anal., multi-step partitioned approach 26859
  transient stabil. anal., novel Lyapunov method *(Chinese)* 35450
  transient stabil. anal., shifted-Picard iters. method 19004
  transient stabil. assess., neural net-based 19006
  transient stabil. assess., neural net-based 10626
  transient stabil. assess./control, status and develop. *(Chinese)* 43632
  transient stabil. control, SCADA syst.-based *(Chinese)* 43641
  transient stabil. cooperative control design *(Japanese)* 10617
  transient stabil. enhancement, dyn. preventive control 26947
  transient stabil. enhancement, SVC blocking effects 4558
  transient stabil. enhancement, transm. line control switching 26949
  transient stabil. estim., PC ES-based *(Russian)* 27048
  transient stabil. eval., ANN *(Japanese)* 43680
  transient stabil. improvement, SMES 27001
  transient stabil. limits estim., ANN *(Chinese)* 4443
  transient stabil. simul. package, teaching/research appls. 35426
  transients stabil. assess., ANN approach 26946
  transmission network static voltage stability indices, numerical comparison 19225
  turboalternators, shaft torsional vibr., PSS effects *(Chinese)* 36140
  turbogenerator, online adaptive stabilisation 4505
  turbogenerator shaft torque amplif. prediction 36092
  turbogenerator stabil., robust optimal control, PSS design 27019
  two-input PSS develop., LF oscills. control appls. *(Japanese)* 26995
  unbalanced load flow anal. program 4444
  unbalanced power systs., transient stabil. simul. 26912
  unbalanced radial distrib. system, power flow algm. 19263
  underfreq. load shedding optim. algm. eval. 26964
  underfrequency load shedding proposal 27005
  undervoltage load shedding, energy based approach 35556
  undervoltage load shedding, energy-based approach 19120
  unified power flow controller, long. model *(German)* 35544
  VAr allocation planning, ADAPOS package-based 27092
  VAr reserve problem simuls., Qatar 4458
  variable impedance power syst., decentralised stabilisation scheme *(Japanese)* 43681
  Vietnam 500 kV North-South transm. line project 26980
  voltage collapse, load pattern anal. 4452
  voltage collapse determ., power syst. transient 4450
  voltage collapse ident., network partitioning 19115
  voltage collapse index, reactive power loss sensitivity *(Korean)* 26846
  voltage collapse margins calc., network partitioning 4547
  voltage collapse margins computation, algms. 19042
  voltage collapse point estim. algm. 19034
  voltage collapse proximity anal., matrix nearness approach 26870
  voltage instabil., load flow-based preventive control 35554
  voltage limited transm. interface constraints, lin. model 35591
  voltage regulator, μP-based, power station 27305
  voltage stabil., automatic control, ES pattern recogn. 10661
  voltage stabil., crit. voltage approach 35524
  voltage stabil., security indices *(Chinese)* 35472
  voltage stabil., shunt VAr compensator effects *(Japanese)* 10709
  voltage stabil., sing. perturb. theory 26850
  voltage stabil. anal., continuation power flow 19117
  voltage stabil. anal., dyn. load model *(Japanese)* 26852
  voltage stabil. anal., load modelling, eigenvalue calc. 26869
  voltage stabil. anal., PV curve tracing 35455
  voltage stabil. anal. , energy fn.-based *(Korean)* 26845
  voltage stabil. assess., neural network 19046
  voltage stabil. indication, rotor heating simuls. 35432
  voltage stabil. limit determ. method 35468
  voltage stabil. region estim. method 35469
  voltage stabil. syst. crit. area ident. 26957
  voltage stabil./collapse point, load flow soln. *(English)* 26847
  voltage stabil./security assess. methods 4516
  voltage/VAr security enhancement control design 27017
  vulnerability assess., neural net-based 26966
  X-ray timing Explorer Power Syst., stabil. anal. 26651

power system state estimation
  3-phase power syst. symm. components calc., state observer 19061
  3-phase syst., symm. components ident., state observer 4463
  algms., computer-based 27102
  bad data detect., ANN appl. 19047
  commutation test labs., ident. method for certain procs. 5140
  complete model state estimator, computer-based 27101
  computers in power electronics, conf., Trois-Rivieres, Que, Canada (1994) 36879
  distrib. network state estim. method, branch-current-based 35626
  distrib. syst. state estim. algm., observability anal. 35619
  dyn. state estim., sq. root filter algm. 19152
  dyn. state estimator, computer-based 4457
  dynamic weighting, bad data rejection algm. 19011
  EMS, state estim., meter placement algm. 19151
  fast decoupled P-Q calc. method *(Chinese)* 43605
  forecasts, neural net-based 26871
  French HV network, secondary voltage control, tertiary coord. 27014
  Lagrange multipliers significance 26876
  least absol. value solns. 26879
  load/state estim. software, security assess. appls. 27103
  meter allocation, genetic algm. 43712
  MW/MVAr/MVA margins approx., energy measures 19015

power system state estimation continued
network topol. error detect. 4546
neural net approach, minimisation 43711
nonlin. reduced-order observers, design theory 43683
North American power symposium, Washington, DC, USA, (1993) 11522
optimal reactive dispatch, act.-reactive coupling 4573
Otten partitioning method 26884
param. error ident./estim. 35485
pattern anal., neural net-based 35447
power systems computation, conf., Avignon, France (1993) 11544
quantitat. local redundancy eval. 26885
robust Mahalanobis dists. in power syst. state estim. 10607
security assess., AI appls. 27011
state control optim. algm. 19078
topol. observability algm., computer-based 26877
topol. proc.-based method 26878
transient stabil. estim., PC ES-based *(Russian)* 27048
weighted least square methods 19022

power system transients
2 kW single-phase buck PF conditioner 4504
3-phase TSC-TCR SVC anal., recurrences theory 19924
15 kV URD syst., transients, above ground detect./interp. 27159
24.94 kV underground distrib. systs., switching transients meas. 27173
77 kV overhead line-underground cable lightning surge anal. 10713
220/69/13.8 kV three-phase transformers, EM transients *(Spanish)* 5028
330 kV substation busbar short-ccts., turbogenerator saturation modelling 19064
500 kV power line-induced overhead telecom. line voltages study *(Chinese)* 35654
AC generator nonlin. excitation control *(Chinese)* 36088
AC line point of utilization power quality study, USA 19288
AC transm. line disturbances, adaptive feedforward control 10711
AC voltage regulator harmonic capability, SPICE anal. 540
anticipatory fuzzy control, neural net-based 43666
BC Hydro's on-line transient stabil. assess. model 35434
boundary controlling unstable method 35433
complementary IGBT, turnoff transient characts. 6765
contingency screening method, genetic algm.-based *(Japanese)* 26994
control syst. lightning protection, grounding/shielding studies 20160
converters, transient anal., envelope following method 6009
CT props., short cct. transients 19373
current power transformer time-impulse diff. protection selection *(Russian)* 44106
DC link, transient anal., converter model, series expansion 27143
DC/DC power convertor switching ripples, averaging anal. method *(Japanese)* 27795
DC/DC PWM power convertor, small-sig. modelling 11148
digital power syst. protection, sig. magnitude est. *(Polish)* 35671
distrib. network disturbances prediction, Kalman filter-based 10724
distrib. network protection, overhead auto-recloser automation 4664
distrib. syst. power quality monitoring 27165
disturbance stabilisation, phasor meas.-based 35488
dyn. anal., protective syst. modelling 4716
dyn. anal., time varying phasors 26849
dyn. equivalence calc., model reduction algm. 26903
dyn. security assess., ELISA ES-based 26861
dyn. security improvement, generation rescheduling 35478
dyn. stabil., fast anal., patt. recogn. appl. 10638
dyn. stabil. models develop. 26898
elec. consumer demand cycle optimis., cost savings *(Italian)* 4591
elec. motor winding interturn switching transient voltage studies 43985
elec. utility power supply quality improvement efforts 43709
EM transient simul., matrix-based 4484
EM transients simul., EMTP MODELS lang. 26894
EM transients simul. programs, GUI appls. 19026
EMTP as educational tool, power syst. transients anal. 4475
EUROSTAG software, power syst. dyn. simul. 19144
excitation control, transient stabil. assess. 26941
FACTS, bilinear predictive control, thyristor controlled capacitor 4582
FACTS devices for power syst. stabil. enhancement 10646
FACTS SVC appl. planning projects, USA 27139
fast transient control, energy-based sensitivity method 10672
GIS fast transient overvoltage effects anal. 19917
GIS very fast transient overvoltage meas., capacitive voltage sens. 36469
grounding syst. anal., EMTP based model 4721
hierarchical optimal control design 4517
high parallel capacitance, short cct. distortion *(Japanese)* 26910
home appliances, effect of overvoltages in power distrib. syst. 11492
HV plant, PD monitor, transient earth voltage tech. 1537
hybrid transient stabil. anal., struct. preserving model 26858
hybrid wind/diesel power syst. stabilisation, SMES controller design *(Japanese)* 27645
impulse breakdown of insulators and air gaps of similar electrode configs. 13946
induction motor model, dyn. aggregation, power syst. simul. 4960
induction motors, two rotor ccts., reduced order models 11054
indust. power systs., electromech. response 20186
interarea/local generator reson. modes ident. 35486
interconnected, single line-to-ground fault transient response 35564
interconnected power syst., transient response, single line-to-ground faults 4593
interconnected power systs., transient stabil., on-line anal. 27008
lightning disturbances of power overhead lines 43772
load flow modelling, phasor dynamics-based 19035
load relief prediction/control, computer-based 26965
long radial supply syst., SVC, operational aspects 26984
LV AC power syst. clearances flashover, overvoltage wave-based 35457
LV elec. power device, switching noise meas. 27858
mains network surge transients, EM immunity testing 19050
MOS-controlled thyristor, AC switch and AC voltage controller appls. 22400
multicontingency power syst. transient stabil. assess. decision trees 26860
multimachine power syst. generator shedding, neural net-based 19098
multimachine power syst. transient stabil., prediction/control *(Chinese)* 35513
multimachine power syst. transient stabil., probab. approach 4460
multiterminal power systs. anal., reduced ccts. methods 26899
μP based protection, synthesised filtering algm. 27245
MV mine distrib. network, ground fault simul. 20193
node-oriented load flow solns., Bergeron's method 26862
nodes, dyn. loads, transient anal. 19068
nonlin. elements simul. techs. 26883
nonlinear load model, stabil. anal. methods comparison 19012
oil-paper insulation, breakdown characts., impulse voltages 1561
on-line load relief control 4575
online dyn. security anal. implement. 4568
online dyn. security assess., EMS ES-based 19099
overhead line impedance meas./anal. studies *(Japanese)* 4698
overhead lines, earth-return effects, freq.-independ. cct. model 43728
partial energy fn. for fast transient control of power systs. 4567
PC programs for power systs. security calc./anal. *(Russian)* 10620
petroleum terminal ASDs, power quality issues 5413
portable integrated power quality measurement system 27282
power line switching transients immunity control spec. 19041
power overhead line switching overvoltages, computer simul. 19309
power pools, transient stabil. calc., dyn. props. 27027
power station auxiliary power systs., short-cct. current calcs. 19382
power transformer winding inner short-cct. fault diagnosis 19689
PSS design, self-tuning regulator 19194
PSS intell. supervisory fuzzy control design 19103
pulsed power energy capacitance integrator studies 19706
PV array/batt. power switch network, nonlin. SPICE model 27635
PWM invertors, transient regime output params. correction *(Russian)* 44113
PWM rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
quality improvement by short-cct. current limitation on distrib. nets 27269
real-time power syst. anal. digital simulator 10611
recursive load ident. method, computer-based 35427
Russia-Finland HVDC interconnection, third harmonic 4632
security assess., AI appls. 27011
security assess., ANN *(Chinese)* 35528
security computer anal., educational interactive program 20284
short-term dyn., real-time parallel simul. 26880
single machine infinite-bus power syst., nonlin. excitation control 27075
small motor thyristor power convertors, RFI generation study 44081
smart relay, AI based 19350
stabil., faults calc., mutually coupled lines *(Japanese)* 35452
stabil., optimal decentralised control *(Korean)* 35543
stabil., quasi stationary phasor dyns., error anal. 26886
stabil., SVC fuzzy control design 19101
stabil., transient energy fn. anal. *(Chinese)* 43645
stabil., turbogenerator torsional vibr., fast valving *(Chinese)* 35456
stabil. anal., energy fn., Taylor series *(Chinese)* 43608
stabil. anal., multi-step partitioned approach 26859
stabil. anal., novel Lyapunov method *(Chinese)* 35450
stabil. anal., shifted-Picard iters. method 19004
stabil. assess., ANN approach 26946
stabil. assess., neural net-based 19006
stabil. assess./control, status and develop. *(Chinese)* 43632
stabil. control, online calcs.-based *(Japanese)* 27042
stabil. control, SCADA syst.-based *(Chinese)* 43641
stabil. enhancement, dyn. preventive control 26947
stabil. enhancement, SVC blocking effects 4558
stabil. enhancement, transm. line control switching 26949
stabil. estim., PC ES-based *(Russian)* 27048
stabil. eval., ANN *(Japanese)* 43680
stabil. improvement, SMES 27001
stabil. limits estim., ANN *(Chinese)* 4443
stabil. simul. package, teaching/research appls. 35426
stabilisation, SMES, fuzzy control 19171
steady-state/transient conditions, equiv. cct. math. model 43622
substation cables, induced transients meas./models 5157
substations, lightning/surge protection 19918
substations, transient EMI meas. 5158
superimposed power line voltage disturbances detect., analog method 19360
surge protection 19348
switching transients simul., multiport equivalencing 26872
switching transients simul., multiport equivalencing 26872
sync. and induction machines, transient state, faults effect 19197
sync. generator nonlin. adaptive control, neural net-based 19607
sync. generators, neural network nonlin. adaptive controller *(Japanese)* 4924
sync. generators, stabil./faults, neural net class. 36123
telecomm. rectifiers, AC power line disturbance effects 44150
thin metallic shell EM fields, power syst.-induced 2173
three-phase autotransformer, short-cct. transients simul. 19682
three-phase power transm. lines, EM transients simul. 19290
three-phase sync. motors, single-phase supply starting transients 44017
transformer overvoltages, no-load switching 27776
transient energy and stabil., interactive program 28335
transient nonlin. generator excitation control 26992
transient security assess., ANN tangent hypersurfaces 26928
transient stabil. assess., neural net-based 10626
transient stabil. cooperative control design *(Japanese)* 10617
transm. line, current transient proc. meas. 23686
transm. line, radiated transient EM field calc. 4678
transm. line EM transients anal. 35603
transm. line fault location algm., computer-based 27192
transm. line outages freq., Canada 19287
transm. line transient current meas., Rogowski coil *(Korean)* 27286
transm. lines, corona, transients simul., method of characts. 19231
transm. lines transient anal., method of charact. 27191
transm. network switching transient I-V calcs. 4621
transm. network transient fault simul., EMTP-based 27129
turbogenerator stabil., robust optimal control, PSS design 27019
UHV tower model, lightning surge anal. 27238
unbalanced power systs., transient stabil. simul. 26912
unified power flow controller, long. model *(German)* 35544
vac. cct. breaker, transient recovery rise interruption 27843
vac. cct. breakers, transient overvoltages, stat. model 27847
Vietnam 500 kV North-South transm. line project 26980
voltage collapse determ., power syst. transient 4450
voltage surge eval. 35454
vulnerability assess., neural net-based 26966
SF_6, surface flashover voltage var., press. 19898

power systems
see also more specific headings e.g. "power system interconnection", "photovoltaic power systems"
500 kV transm. syst., Thailand 43723
1320 MW NPP auxiliary power syst. hist., UK 19415
AC/DC load flow, normal/post-fault condition calcs. 26866
AC/DC multi-machine power syst., SSR, shaft torsional vibr. *(Chinese)* 35470
AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
apparent power, nonsinusoidal power theory, comment/reply 4471
apparent power, phys. meaning, comment/reply 4470
asymmetrical power syst. load flow/fault studies *(Chinese)* 35422
autonomous decentralized power systs. growth modelling 26998
autonomous nuc. power syst., rem. location appls. 35768
autonomous underwater vehicles, variable length, parametric perform. anal. 28138
Channel Tunnel traction/auxiliary power supplies 44533
chaotic phenom. model, computer-based 4480
circuits systs., symp., Chicago, USA (May 1993) 31
complex admittance/power defns. 10606
complex power/admittance notions/defn. *(Russian)* 26915
Croatian power syst., war consequences overview *(Croatian)* 10624
daily load forecasting, nonlin. SETAR model *(Chinese)* 43714
decentralised optimal power pricing, parallel programming development 27066
demand modelling considering meteorological factors 4608
Deutsche Bahn elec. rly. operation review, 1994 *(German)* 44500
dispersed generation/time of pricing effects *(Japanese)* 26937
dispersed power generation systs., develop. and appls. *(Japanese)* 35715
distrib. network radio/TV interf. detect. experiences, USA 27186
economic dispatch, decomp.-coord. theory *(Chinese)* 27036
economic dispatch, interior point methods 19112
education, computer based learning 19048
education, distrib. feeder power quality calcs. 20348
elec. power markets, optional forward contracts 4572
elec. rly. power consumption characts. estim. *(German)* 44503
elec. transm. pricing, spot price calcs. 26959
elec. vehicle propulsion batts., pos. phys. disconnect 36767
electronics appl. overview *(Chinese)* 35451
electronics appls. *(Chinese)* 43610
emission constrained economic dispatch 4583
energy policy for sustainable develop. 26931
Eng. & Wales elec. power syst. tariff develop. *(German)* 35549
enhanced capability transm. line, short cct. current calc. 19070
ES, equiv. class validation algm. 19005
fast contingency anal., AC load flow *(Chinese)* 26909
fast decoupled Newton optimal power flow *(Chinese)* 10633
fuel cell power systs., CO$_2$ capture studies 36076
generator maint. scheduling, subjective constraints relax. *(Japanese)* 27663
geomag. induced currents, directional sensitivity 4449
HV power syst. synthetic insulators, state-of-the-art *(French)* 10762
IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
LF EM fields, living organism health effects 4329
LF power syst. EM field mgt. project experience, USA 26906
line loss eval., load unbalance 43729
load flow, Z-matrix algms., triangular factors 26865
load flow calc., compensating EMF method *(Russian)* 43627
load flow calc. convergence improvement *(Chinese)* 35514
load flow problems, Grobner basis soln. algm. 43626
load flow soln. criteria 26901
load voltage dyn., state variable description *(Japanese)* 10615
LV AC power syst. clearances flashover, overvoltage wave-based 35457
maint./fault diagnosis experiences, Hungary *(French)* 35601
MELECON '94, conf., Antalya, Turkey (1994) 5470
metropolitan power systs., supercond. cable losses simul. *(Japanese)* 27216
Midwest Symp. on ccts. and systs., Detroit (1993) 33
mine transportation power syst., limited short cct. current 20182
mobile substations, elec. utility requirements survey, USA 11217
model reduction, Hankel-norm approx. 4493
multi-reed switch, contact erosion/spatial mag. field var. 29636
network back-up *(Russian)* 26916
nonlin. power syst. anal., mean generalised content theory 35458
nonsinusoidal current power syst., PF determ. 10640
optimal generation scheduling, ramping costs 35708
optimal-power-flow soln., Newton's method 19000
oscills. anal., Hopf bifurcation theory *(Chinese)* 26908
overhead line upgrade/refurbishment options 43781
power indust. develop. prospects, far East Russia 19074
power systems computation, conf., Avignon, France (1993) 20204
power/voltage curves, bifurcation diagrams 19013
pseudo-inverse-based probab. power flow 35462
reactive power, Mean Generalised Content 4469
rem. area power supply systs. load forecasting, neural nets 35570
renewable energy resources, power syst., Jordan 10798
rly. traction power equipt. purchasing, specs. experiences, UK 44535
rly. traction power supplies, overview 11425
rly. traction syst., public grid interconnected, load flow 28109
short cct. currents, ANSI/IEEE C37.010-1979, IEC 909, comparison 19326
short-cct. current calc. methods *(Polish)* 4472
short-circuit currents in power systems, conf., Liege, Belgium (1994) 5453
short-term load forecasting tech. *(Korean)* 27076
single-phase nonsinusoidal ccts., power decomp. *(Chinese)* 43647
SNCF rly. overhead power supply maint., mgt. experience *(French)* 36753
Space Station Alpha power syst., environ. control/protection 26610
spacecraft distributed power systs. design 26595
spacecraft elec. propulsion missions, power syst. technol. anal. 35266
spacecraft solar-heated alkali metal thermoelec. power syst. 26605
stochastic prod. cost simul. method 27061
STRV-1 spacecraft power conditioning syst., in-orbit perform. 26683
supercond. current limiter, quenching *(Japanese)* 35688
supercond. fault current limiters, spec. *(Japanese)* 4732
supercond. materials, power systs./transportation appl. possibilities 43612
SVC design, math. modelling 4561
sync. generator, back-swing phenom. anal. 11000
sync. wind power generator, operating conditions 10907
tech.-economical condition, diagnostic ES *(Russian)* 43634
telecomm. network power syst. develop. projects, Hungary 19049
telecomm. satellites power systs. study, USA 26619
terrestrial energy conversion, aerospace technol. appls. 35710
three-phase power syst. earth fault factor determ. 19066

power systems continued
transm. open access, internat. experience 35593
Vietnam's power syst., existing/future develop. 35443
wire mfg., distributed power syst. control concept 11503
World Energy Syst./Lunar Energy Syst., efficiency 27320
Fe-based nanometer cryst. alloy power CT core *(Chinese)* 27786
Ni-Cd batt. satellite power systs., orb. mgt. strategy 26609
Ni-H$_2$ secondary batts., terrestrial power syst. appls. 36071
Pb-acid batt. state of charge modelling, dyn. conditions 11270

power transformer insulation
see also gas insulated transformers
aramid paper insulation, elec. strength tests *(Japanese)* 11106
British Rail elec. insulation experiences, UK 44569
co-ordination, IEC 71 std. *(French)* 35581
composite paper-oil insulation monitoring 19686
CT, thermal short-cct. strength determ. 19690
cyclic loading evals., computer-based 27774
distrib. transformer oil drying controller 19705
dry type/general purpose transformers, insulation thermal endurance, IEEE std. 27781
EHV transformer insulation, transients, nonlin. core characts. model 5009
EHV transformer insulation level for lightning strikes *(French)* 36232
fault/ageing detect., transfer fns. 27777
HV equipt., gas chromatography diagnostics 11206
HVDC converter transformers/smoothing reactors, service stresses *(French, English)* 36228
insulating oil test syringes, gas-tightness studies 36224
internal defects detect. 5025
life extension, insulation preservation expts. 19698
liq.-immersed power transformers, high temp. insulation 5007
mineral oil, leader discharges, time resolved study 30549
oil, dissolved gas anal., ANN appl. 19683
oil flow, static electrification, PD 36227
oil-filled, paper degrad. by-products anal. 44097
oils, characterisation 6919
oils, pulsating laminar flow studies 44103
overvoltages, no-load switching 27776
PD anal. syst., HV test lab 1536
PD separation from pulse-shaped noise sigs. 22649
PDs, pulse shaped noise sigs., neural network anal. 1524
plant insulation monitoring, IEE Colloquium, London (1994) 5458
power station HV equipt. insulation, online PD anal. 4756
pre-treatment and charactn. of transformer elec. insulating oils 22670
silicone transformer fluid, UL class. 5010
silicone-rubber encapsulants, power transformers, thermal cond. meas. 36233
stretched power transformer windings, short-cct. perform. calcs. 19688
SF$_6$ insulated transformers, decomp. by-products 5006

power transformer protection
3-phase indust. transformers, overcurrent protection 5014
3-winding transformer, digital relaying, data skew 19704
current power transformer time-impulse diff. protection selection *(Russian)* 44106
differential current anal., neural net classifier 19696
generator-transformer unit, ground-fault protection, 3rd harmonic voltage 19584
generator-transformer unit relaying scheme, PC-based 35684
ground differential relaying 19589
iron core nonlin. *(Chinese)* 36219
life extension, insulation preservation expts. 19698
lightning distrib., earthing systs. 19349
multifunctional inverse time relay protection, microcomputer based *(Chinese)* 4720
MV/LV secondary cubicle thermal behaviour *(Italian)* 19905
open-phasing, self-generated overvoltage studies 27779
power syst. short-cct. arcing fault effects limitation 19344
relay protection CAD, ES-based *(Chinese)* 44094
three-phase CT protection, computer simul. 19691
winding short-cct. withstand capability estim. criteria 36223
SF$_6$ distrib. switchgear, personnel safety 11201
SF$_6$ distrib. transformer protection, develop. trends 4671

power transformer testing
30 W HF foil-type air-core power convertor transformer 6381
500 kVA distrib. transformers, swept freq. response tests 36237
aramid paper insulation, elec. strength tests *(Japanese)* 11106
composite paper-oil insulation monitoring 19686
condition assess., elec. utility techs. 44098
condition monitoring, elec. utility experiences, UK 44102
coupling capacitor voltage transformer, perform. anal. 5008
CT, thermal short-cct. strength determ. 19690
DC bias-exposed, VAr demand meas. 11100
dry type/general purpose transformers, insulation thermal endurance, IEEE std. 27781
fault/ageing detect., transfer fns. 27777
generator power transformers, tapchanger diverter monitor 5019
HV transformer winding voltage distrib., computer model validation 5005
HVDC converter transformers/smoothing reactors, service stresses *(French, English)* 36228
impulse testing, IEEE std. 27780
insulating oils, characterisation 6919
insulating oils, pulsating laminar flow studies 44103
insulating syst., internal defects detect. 5025
insulation, PDs, pulse shaped noise sigs., neural network anal. 1524
life extension, insulation preservation expts. 19698
life mgt. strategies 19703
loss meas., direct method 19692
MF power transformers, amorph. metal core studies 5015
mineral oil, leader discharges, time resolved study 30549
multiturn HF coaxial winding power transformers 19699
MV transformer diagnostics, RFI meas. 5026
oil, dissolved gas anal., ANN appl. 19683
oil-filled, paper degrad. by-products anal. 44097
oil-filled transformers, fault detect., gas sens./neural net 36234
open-phasing, self-generated overvoltage studies 27779
PD anal. syst., HV test lab 1536
pole transformer, single phase, harmonic losses meas. 5029
power station HV equipt. insulation, online PD anal. 4756
pre-treatment and charactn. of transformer elec. insulating oils 22670
pulsed power adiabatic transformer, semicond. switched, design/perform. 36295

power transformer testing continued
rectifier converters, opposed stars connection, anal. 11124
shorted turn location, fuzzy neural net-based 19687
silicone transformer fluid, UL class. 5010
supercond. air-core power transformers, characts. anal. 27785
transfer fn. in transformer testing 5012
transm. network maint./fault diagnosis experiences, Hungary *(French)* 35601
voltage transformers, external compensation 5018
winding inner short-cct. fault diagnosis 19689
windings, online stray inductance meas. 5013
SF$_6$ insulated transformers, decomp. by-products 5006

power transformers
see also autotransformers; power transformer insulation; power transformer protection; power transformer testing; superconducting transformers
0.5-5 kW power convertor PCB distributed mag. components 11105
1.5-7 kW HF ZVS full-bridge MOSFET-based rectifiers 19802
1.9 kW ZVS PWM phase switched DC/DC converter 44193
3-phase transformer no-load characts. anal. 36221
3-phase transformer transients prediction 19694
10 W thin DC/DC converter, coreless wire transformer-based 6011
22 kV GIS, mold transformer banks *(Japanese)* 27863
22 kV spot network power receiving/transforming facility *(Japanese)* 27775
35 kV transformer substation fuses, protection characts. optim. *(Russian)* 5162
48 V DC reson. power converter distributed power supply 5049
66 J magnetron pulsed power supply, flyback convertor-based 36321
66/6.6 kV power receiving/transformer facility project, Japan *(Japanese)* 35629
77 kV GIS, power receiving/transforming facilities *(Japanese)* 27862
100 kJ Kapitza pulsed power facility status, Netherlands 36258
120 kW coaxial winding transformer, elec. vehicle appls. 20103
130 kV rly. power syst. operation optim., Sweden 44534
220/69/13.8 kV three-phase transformers, EM transients *(Spanish)* 5028
300 keV X-ray source develop., pulsed electron beam diode-based 36270
400 kV power syst. quadrature boosters planning, UK 4601
400 V/10 A matrix power converter, induction motor drive appls. 19811
500 kV UHV power transformer inrush current-induced harmonics *(Chinese)* 44095
AC locomotives, line-side switching harmonics compensator 20101
AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
air-core foil-wound pulse power transformer design concept 36358
arc furnace supply plant, flicker/distortion compensation 20129
arc welding forward PWM inverter power source anal. *(Chinese)* 44633
ASTRA knowledge based syst., transformer assess./diagnosis 19695
bridge cct. IGBTs, gate drive methods 6013
capacitor voltage transformers, ferroresonant oscills. 27788
condition monitoring, IEE Colloquium, London, UK (1995) 11599
contactless power delivery syst., mining appls. 20188
continuous mode interleaved flyback power converter design eqns. 44214
converter transformer cores, losses modelling, failure 44108
convertor busbar struct., current distrib. effects simul. *(Russian)* 44112
convertor transformer windings, current harmonics calcs. 27791
current power converter transformers, short-cct. inductance calcs. 19771
cyclic loading thermal response, noniterative soln. 5003
DC converted power systs., energy conservation benefits 35615
DC source, HV, 70 kV, 60 A, design and simul., EMTP software *(French)* 19767
DC/AC power CT, operating principle 19701
DC/DC PWM reson. power converter topol., pulse load appls. 11172
DC/DC PWM ZVS reson. power convertor develop. 5078
DC/DC quasi-reson. ZCS power convertor topologies 44220
DC/DC ZVS PWM full-bridge power convertor, MOSFET-based 5044
distrib. network automatic multiple-cct. switchgear develop. 4659
distrib. network harmonics, motor load effects modelling 19267
distrib. network overvoltage phenom., motor load disconnection-induced 4640
distrib. network power capacitor placement/replacement/control, computer simul. 35622
distrib. network revitalisation project overview, Bahrain 19283
distrib. substations, switchgear internal arc fault protection design 4661
distrib. transformer EMC planning *(German)* 11104
distribution network fault detection/protection, neural net-based 19249
distribution substation transformer cold load pickup modelling 19265
dyn. hysteresis losses 27778
economics teaching, software package 27725
EHV power syst. restoration voltage control, ES-based 35555
EHV transformer insulation, transients, nonlin. core characts. model 5009
elec. locomotives, total systs. simul., SIMULINK 44555
elec. rly. AC power supply syst. *(Russian)* 28131
electrical systems, cards, standards and recommended practices 20169
electronic welding, HF reson. inverter-based 36802
enclosure CAD, parametric prog.-based 5024
excitation under geomag. induced currents 11101
fast decoupled load flow, load tap changing transformer 26948
fault location, neural net-based alarm proc. 19072
freq. response, electrostatic screen effect 5023
fuel cell power syst. conditioners, microcomputer control appls. 43968
full-bridge MOSFET inverter, US transducer power supply appls. 44166
full-bridge PWM DC/DC soft-switching power converter 19791
full-bridge ZVS PWM DC/DC power converter 19852
generator-transformer set protection, microcomputer-based *(Chinese)* 36089
generator-transformer unit faults, relay protection algms. 27680
ground-fault protection, 3rd harmonic voltage 19584
halogen cycle lamps, HF power supply transformer 11446
harmonics effects on power quality/transformers, comments, reply 36796
HF miniature planar thick film transformers 36225
HF power transformer CAD optim., scant modelling 19685
HF power transformer core geom. CAD, fuzzy ES-based 44110
HF transformers, core geom. selection, experto-fuzzy approach 36226
high explosive generator, switching cct. perform. anal. 36288
high-power controlled reactors, EM proc. 11099
HSPICE/EMTP comparison, power syst./power electronics anal. 4476
HV/EHV power systs., boost transformers, optimal phase angles 43663
HVDC, state-of-the-art develops./technol. 19237
inductive load switching by electronic relays *(German)* 36236
inrush current calc., hysteresis loops 19702

power transformers continued
inrush current relay protection algm., fast Walsh transform-based *(Korean)* 36220
inrush/steady-state currents, harmonics meas. 5022
intell. building, power receiving/transforming equipt. *(Japanese)* 28056
Japan Linear Collider klystron modulator pulsed power supply 36402
K factor power transformers, orig., design, develop. 19693
line current harmonic reduction, polyphase transformers 35445
loss meas., direct method 19692
lumped param. power transformer model, computer-based 5021
LV high-current DC rectifiers, transformer series connection 12336
Maglev rly. inverter harmonic suppression method 11423
magnet wire, selection/perform. overview 5004
multi-output reson. DC/DC space power converters 4361
multiphase feed power source, voltage control characts. *(Russian)* 11107
MV mine distrib. network, ground fault simul. 20193
noise reduction transformer, perform. and noise atten. mechanism 19681
on-load power transformer tap changing modelling 4540
on-load tap changer/voltage stabil. rel. anal. *(Chinese)* 43633
pacemaker power supply convertor, flat transformer-based 10277
parallel reson. CSI, cct. design/anal. 44136
paralleled transformers for efficient systs. 11097
plasma source ion implant., pulsed power modulator totem pole drive 36804
pole transformer, single phase, harmonic losses meas. 5029
power station auxiliary power systs., short-cct. current calcs. 19383
power station power systs., partial short-cct. current calcs. 19384
power syst. nodes, dyn. loads, transient anal. 19068
power syst. protective CT, transient perform. calcs. 19340
power syst. restoration transformer saturation overvoltages, computer simul. *(French)* 35537
power syst. short-cct. current calcs., transformer modelling 19065
power syst. short-cct. current meas., transreactor-based, calcs. 19362
power syst. tapping transformers, dyn. interact. calcs. 27784
pulse amplit./synthesis converters, power syst. appls. 27809
pulsed power mag. modulator, laser power supply appls. 36401
PV power syst. transformers, metering transducer appls. *(Russian)* 10880
PWM Sinewave invertor design, outdoor remote area power supply appls. 36371
quasi-reson. AC/DC forward power converter topol. 44145
quasi-reson. DC link power convertor, topol., appls. 5084
quasi-reson. dual power converter UPS 5075
quasi-reson. HF PWM ZVS DC/DC power convertors 5061
reliab., design considerations 44096
reson. switching power convertors, HF mag. design 44207
resonance freqs. prediction, neural net-based 19684
RHEPP 1 μs mag. pulse compression pulsed power module 36316
rly. substations, 3-phase power flow studies 20108
rly. traction transformers, asymmetry/harmonic/fluct. loss calcs. *(Chinese)* 44564
rot. mag. field, inductive reactance calc. 11098
secondary network protectors, IEEE std. requirements 27273
secondary winding DC currents, effects eval. 5017
series reson. DC/DC power convertors, perform. prediction 19708
series reson. power converter, integrated L-C-T struct. 19717
series reson. power converter, pulsed welding load appls. 5121
shell element for computing 3D eddy currents, earthing transformer appl. 44099
Shinkansen develop., Hitachi technols. 44505
single on-load tap changer, reverse control anal. 27028
single-phase transformer magnetis. and inrush currents *(German)* 11102
SMPS, transformer design ES 44122
SMPS multiwinding power transformers, computer-aided optim. 19749
state-of-the-art supercond. material appls. 43972
substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
substations, EM transients anal. 36480
supercond. supercollider pulsed power supply thyratron modulators 34750
SVC, PWM invertor-based, HF/multiple connection studies 19123
tap changer, voltage/reactive power control 27783
tap-changer monitoring syst., fibre opt. sens. 44100
telecom. power supply systs., μP control appls. 41626
temp. rise anal., harmonic voltage propag./penetration 5020
three phase transformer, connection group syms. verification *(Chinese)* 44104
three-phase AC/DC step-up power convertor anal. 36372
three-phase CT protection, computer simul. 19691
three-phase diode rectifier, PF/harmonics improvement 19850
three-phase diode rectifier utility interface, harmonics reduction 19751
three-phase four-wire distrib. syst. act. power filter 19278
three-phase invertor-based act. power harmonic filter 19740
three-phase power convertor, quasi-reson. DC/HF transformer links 5088
three-phase power transformer constr. and charactn. *(German)* 11103
three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
three-phase SVC, voltage controlled CSI-based 10654
three-phase ZVS AC/DC act. power convertor 19840
time-domain K-factor computation methods 36222
traction power supply maint. project mgt., UK 44525
transformer and induction motor losses cost anal. interactive software package 28333
transm. equipt. reliab. IS, Canada 43722
transm. network single/multiple lightning overvoltages simul. 4459
transmission and distrib. equip. reliability, IEE conf., Warwick, UK (1995) 36831
two winding ferrite core transformer, equivalent cct. 27782
ultrafast high press. pulsed power gas switch expts. 36416
underground distrib. feeder cables, failure prediction 4646
underground rly. transformers selection, safety 44538
urban distrib. systs. operational structuring, reliab. aspects 43753
urban rly. substation systs. 44508
utility-grid interactive three-phase inverters 5083
vac. cct. breaker, transient recovery rise interruption 27843
voltage stabil. region estim. method 35469
voltage/reactive power control, coupling-transformers *(Chinese)* 27035
winding deform. probab., external fault *(Russian)* 36229
windings, reduced modal models 5016
windings, thermal capability assess. 44101
CCl$_4$ greenhouse gas destruction, plasma reactor-based 20181
Fe-based nanometer cryst. alloy power CT core *(Chinese)* 27786

power transistors
see also microwave power transistors; millimetre wave power transistors; power bipolar transistors; power field effect transistors; power HEMT; power integrated circuits; power MESFET
2-phase brushless motor, feedback phase winding current *(Russian)* 43996
complementary IGBT, turnoff transient characts. 6765
complementary transistor inverter, driving characts. *(Korean)* 36367
continuous mode interleaved flyback power converter design eqns. 44214
DC power supply, two-phase induction generator-based 5110
double gate IGBTs, forward blocking capability, high temps. 38907
double trench IGBT, struct. and anal. 38898
HF high power SIT 38916
HF series reson. PWM inverters, induction heating appls. 5123
high current IGBT switching modules, dyn. perform. eval. 30316
HV IGBT, self aligned proc., double implanted n/n^+-emitter 30339
IGBT, parallel operation, thermal coupling effect 30317
IGBT modelling, bond graph techs. 13757
IGBT turn-off charact. and HF appl. 6779
IGBTs, current sens. for short-cct. protection 34474
IGBTs, short cct. behaviour and protection 6778
IGBTs, turn-off failure and inhomog. operation 30326
induction kitchen range, reson. power converter-based 36788
induction motor drives, duty cycle-based V/f inverter control 20059
intell. IGBT, overcurrent protection cct. 30423
lateral advanced IGBT, fast turn off 30329
lateral IGBT on SOI wafer, latch-up characts. improvement 13752
lateral power devices on SOI substrs., thermal behaviour 30334
LDMOS/LIGBT struct. modelling, high temps. 30336
micro-stack IGBT, 2.5 kV, 100 A, reliable design 30325
motor drives, inverter design, optocouplers 28073
n- and p-channel IGBT structs., wider safe SOA 30340
n-channel IGBT integrated current sens. 34473
n-channel IGBTs, 500 V, cell optim. 30330
non-punch-through IGBT, crit. switching condition 30327
parallel reson. power converter, half-cycle current control 19714
parallel-module power converter, current bal. controlled, dyn. anal. 44140
people mover, inverter, parallel connected IGBTs 44518
power supply component temp. prediction, thermal anal. software 11112
PWM inverters, IGBT gate drive ccts., optimum switching 19809
PWM invertor batt. charger, UPS appl., fuzzy logic control 44154
PWM VSI, deadbeat control cct. 44176
railcar inverter control syst., HV IGBT 44507
reliab. enhancement technols. 29017
residential ASDs, simplified control scheme 5397
reverse-channel HV lateral IGBT, characts. study 30328
single-phase 12-step VSI, output voltage harmonics reduction *(Korean)* 36238
smart power CMOS IC, 2D charactn./perform. optim. 12315
sync. motor drives, inverter-fed, self-controlled, perform. characts. 5289
THETA transistor, high power THz freq. source 838
thin SOI IGBT leakage current and struct. for high temp. 30344
three-phase PWM bridge-rectifier, harmonic minimization 19810
three-phase quasi-reson. AC/DC transistor power converter 5074
trench IGBT, 600 V, develop. and perform. comparison 30346
ZVS-clamped voltage DC/DC PWM single-switch power convertors 11169

power transmission
see also DC power transmission; distribution networks; flexible AC transmission systems; microwave power transmission; transmission networks
2-area power syst. prod. cost, cumulant method *(Chinese)* 27034
10 kHz inductively coupled power transfer, elec. vehicle appls. 5344
110 kV forcibly cooled and HTS power cable comparison *(German)* 27211
220 kV compact overhead line design for 500 kV syst. *(Chinese)* 27227
AC transm., voltage levels develop. *(Chinese)* 35612
access and wheeling 43724
AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
autotransformer tertiary winding voltage regulation study *(Russian)* 44107
bulk power syst. reliab. perform. assess. 27059
bulk transmission security assess., nonutility generation representation 19224
cogenerator-customer wheeling syst., buy-back syst. 10667
composite generation-transm. syst., reliab. indices 35579
constrained power economic dispatch, optim. algm. 4574
diesel powertrain for heavy trucks, dyn. behaviour 28137
DSM, eval., T&D level 4570
dyn. thermal rating, transm. line capacity increase 27123
Earth to space laser power beaming, FEL 35595
economy energy wheeling, benefits, Canada 4622
EHV transm. network oscillatory param. ident. 4625
equipt. reliab. assess., data concepts 43613
equipt. reliab. assess. approach, Canada 43614
equipt. reliab. IS, Canada 43722
FACTS voltage stabiliser, series act. filter-based 19233
high T_c superconds., power indust. appl. prospects 27068
hydrothermal power syst. transm. anal. model, planning appls. 27110
interconnected power syst., min. prod. cost model *(Chinese)* 27033
interconnected power systs., power transfer effects eval. *(English)* 10685
interconnected power systs., transfer capability eval. 27013
Lunar Energy Park, nuc. power, laser beam transm. to Earth 26511
machining robot control, inductive power/sig. transm. 20167
mine transportation power syst., limited short cct. current 20182
North China/adjacent power systs. interconnection *(Chinese)* 43643
open access, internat. experience 35593
open access power transm., anal. software 19129
open access transm. services pricing appl. 35598
optimum generation schedule, transm. loss formula 10796
pacemaker power supply convertor, flat transformer-based 10277
pers. protective grounding, param. anal., software 20384
planning, adequacy eval. 27104
power syst. control, min. generation reserve/transm. constraint 26978
power syst. reliab.-centred maint., economic eval. 19080
power system inter-area dynamics, linearised modelling approach 19137
power systems computation, conf., Avignon, France (1993) 11544
pumped storage operation, economic assess., spot pricing 27618
real/reactive power economic dispatch *(Chinese)* 10632
reliab. anal syst., primary substations 26904
reliab. centred maint., economic considerations 19226
services, marginal pricing, cost recovery anal. 35592
services, optimal pricing 19223
solar power generation, aerospace technol.-based 26520
solar space power transm., liq. space optics appls. 43415

power transmission continued
solid dielec. power cable-to-air terminations 27237
struct. neural nets for syst. optim. 43727
Thailand, generation/transm. develop. strategies 27096
transfer limit calc., integrated approach 19146
transm. network voltage flicker studies, AC/DC furnace-generated 27124
UHV power transm. develop. overview, China *(Chinese)* 43726
voltage limited transm. interface constraints, lin. model 35591
voltage stabil. syst. crit. area ident. 26957
wheeling flow, short cct. simuls. 43732
$Ga_{0.51}In_{0.49}P/GaAs$ PV converter, opt. power/data transm. 27943

power transmission line carrier systems *see carrier transmission on power lines*

power transmission lines
see also power overhead lines
3 kV DC rly. traction systs., catenary harmonics ident. 20109
3-phase power transm. lines, corona losses 19307
63/90 kV power overhead line insulators, overvoltage breakdown characts. 35661
77 kV overhead line-underground cable lightning surge anal. 19306
110-275 kV composite long rod insulator monitoring experiences, Australia 43788
115 kV power line lightning protection, spline ioniser tests 19331
130 kV rly. power syst. operation optim., Sweden 44534
230 kV step-up substation, characts. *(Japanese)* 27861
400 kV transm. line earth fault location algm. 43763
500 kV oil-filled cable installation, Honshu-Shikoku transm. line *(Japanese)* 19295
500 kV power interchange transm. line project, USA 27065
500 kV power line elec. and mag. fields 27225
500 kV power syst. series capacitor VAr compensation project, China *(Chinese)* 35510
500 kV split conductor transm. lines, EM wave transm. mode calcs. *(Chinese)* 43765
500 kV transm. syst., adaptive autoreclosure, ANN 4677
500 kV UHV power transformer inrush current-induced harmonics *(Chinese)* 44095
500 kV XLPE underground power cables, insulation tests 4681
1000 kV power line maint. IS, meas.-based 27126
AC line point of utilization power quality study, USA 19288
AC locomotives, line-side switching harmonics compensator 20101
AC overhead lines, elec./mag. fields meas., IEEE std. 43810
AC power line corona loss, charge simul. calc. method 19289
AC power lines/radio commun. sites, min. separation dist. 15508
AC transm. line disturbances, adaptive feedforward control 10711
adaptive dist. relay protection automation simul. 27259
adaptive resist. relay params. 4714
air insulated substations, EM field calcs., computer-based 5161
airport lighting power lines, light failure reporting syst. 25197
bipolar dc corona, PIC simul., HVDC transm. lines 13978
bundle conductors, phase-to-ground/phase air gaps, flashover voltage 27219
cable lines, online control/meas. proposal 19193
central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
combined phase/current comparison protection 27254
compact 230 kV line, corona perform. 27221
composite power syst., earth fault currents/pot. distrib. 43619
corona, transients simul., method of characts. 19231
DC power lines, SMES, input cct. 10718
digital relay protection, ANN appl. 19347
digital relay protection, fuzzy logic 4725
dist. protection, power flow/voltage phasor oscill. meas. 4743
dist. relaying algm., diff. eqn.-based *(Korean)* 27244
distance relay macromodel, EMTP-based 19330
domestic power freq. EM field meas., South Africa 35707
double cct. lines, digital phase/current protection 4711
dyn. thermal rating, transm. line capacity increase 27123
EHV lines fault location simul., DS-SS techs. 19356
EHV power syst. restoration voltage control, ES-based 35555
EHV radial transm. networks, transient recovery voltage stresses 4619
EHV transmission/distrib. power lines, EM fields studies 19286
EHV/UHV transm. line arcing fault protection simul. 27190
EM field prediction, educational design project 11610
EM transients anal. 35603
energisation, simul., black start studies 19196
equipt. reliab. IS, Canada 43722
FACTS SVC appl. planning projects, USA 27139
farmhouse power consumption limiters, methods and advantages *(Russian)* 4589
fault direction identification, neural network approach 19358
fault location, neural net-based alarm proc. 19072
fault location, sync. sampling algm. 43808
fault location algm., computer-based 27192
fault location/discrim. *(Japanese)* 10786
faulty cable line, capacitive energy discharge, power distrib. 27292
finite length multiconductor power line, impedance/line params. 4675
flexible AC transm. systs., steady state/dyn. perform. eval. 35613
flexible AC transmission control simulation, EMTP package-based 35614
GPS synchronized power syst. phase angle meas. 19369
half-wavelength power lines, operational problems anal. 35642
harmonics, EM field prod. studies 19024
harmonics measuring instrum., μP-based *(Chinese)* 43806
high phase order systs., impedance relaying 35611
homogenous transm. line, heterogenous telegraphic eqns. *(Russian)* 43733
HV transm. line, wide bandwidth corona model 27189
HV transm. line fault location, digital simul. *(Chinese)* 35697
HV transm. line operation, simul. lunar environ. 35641
HV transm. line reliab./maint. practices, Australasia 43764
HVDC transmission links control stability, L_∞ robustness anal. 19235
HVSE-I power line safety monitor, μP-based *(Chinese)* 27193
insulation co-ordination, IEC 71 std. *(French)* 35581
interconnected systs., air-core reactors, line overloading prevention 10643
LEMP effects on subtransmission line, MOM 15480
lin. induction accelerators, relativistic microwave electronics 34752
lin. inductive accelerator, pulsed power supply 34817
live-line insulator washing expts. 27223
LMF triaxial MITL voltage adder syst. Marx generator 36300
load flow violations security assess., ES-based 19285
long. power syst., PSS experience 35442
mag. fields generated by power lines, calc. code 40231

power transmission lines continued
maint./fault diagnosis experiences, Hungary *(French)* 35601
MOV protection, series compensation capacitors, response calc. 27251
multiarea power syst. automatic generation control simul. 10666
multifunctional inverse time relay protection, microcomputer based *(Chinese)* 4720
multiterminal power transm. lines fault location algm. 27281
neutral grounding reactor ratings selection 36231
optimal fault location, μP-based 4623
oscills. damping, control design 27004
outages freq., Canada 19287
overhead line lightning-induced underground telecom. cable overvoltages 19305
overhead line switching overvoltages, computer simul. 19309
overhead power transm. lines, EM anal. 27233
overloading alleviation, intell. control 4518
parallel power transm. lines, digital protection tech. 27188
polluted UHV insulator flashover model for ac voltage 35663
power syst. crit. contingencies ident., heuristic method 19133
power syst. enhanced capability transm. line, short cct. current calc. 19070
power syst. fault diagnosis, interval based approach 19040
power syst. node-oriented load flow solns., Bergeron's method 26862
power syst. SSR damping, SMES-based 10681
protection, ES-based relay setting 19291
protection simul., short-cct. current eval. 19229
pulsed voltage/current/power, stepped line conversion 36364
PV transformer for power take off 27291
radiated transient EM field calc. 4678
real-time/offline fault anals., neural net appls. 19093
relay protection CAD, ES-based 35571
rly. traction power supply, 130 kV transm. lines *(German)* 44521
rly. traction syst., public grid interconnected, load flow 28109
SABRE pos. polarity inductive adder MITL, refl. waves 34741
shield wires, unbalanced , modelling/simul. 4676
shunt compensated power systs., voltage stabil. boundaries 19215
single-phase act. power line conditioners 10673
SMES, DC power line appls., input/output cct. studies *(Japanese)* 11309
supercond. fault current limiters, spec. *(Japanese)* 4732
sync. machine stator cct., transient effects on power syst. stabil. 4922
teed transm. systs., fault generated HF noise meas. 4746
thermal cogen. with wheeling, model anal. *(Japanese)* 10850
Three Gorges hydroelec. power station interconnection project, China *(Chinese)* 43699
three-phase power transm. line adaptive resist. relay 4715
three-phase power transm. lines, EM transients simul. 19290
thyristor controlled series capacitor compensation 27187
tornado loading effects study 27222
transformer substations, EM transients anal. 36480
transient anal., method of charact. 27191
transient current meas., Rogowski coil *(Korean)* 27286
transient stabil. 26949
transient stabil. control, online calcs.-based *(Japanese)* 27042
transm. network expansion planning, neural net/genetic algm.-based *(Japanese)* 10716
transm. network switching transient I-V calcs. 4621
transm. syst. with overloads, reliab. anal. 27136
UHV tower model, lightning surge anal. 27238
UHV transm. lines, arc jet control, slit arc horns 10774
underground faults, data commun. syst. *(Japanese)* 25196
voltage stabil. anal. , energy fn.-based *(Korean)* 26845
AlCuMg based alloy overhead line conductors 27220
Cu vapour laser power supply, regenerative snubber topol. 36250

power transmission networks *see transmission networks*

power utilisation
see also domestic appliances; drives; environmental engineering; heating; metering; refrigeration; transportation
96-hour power meas. experiences *(German)* 35704
bandlimited PSK channels, transmitting power effective 9159
commercial building cooling energy use, ANN modelling 36635
efficiency improvement by targeted meas. *(German)* 27290
electro-technologies for waste processing, IEE Colloquium, London (1994) 5461
European image media trends *(Japanese)* 17544
food proc., membrane appls., electrotechnol. appl. 20177
fuel cell cogen., commercial/residential appls. 36791
India, energy use/carbon implications, CO_2 emission 28190
traction batt. syst. defns. and appl. *(German)* 28132
CO_2 emissions abatement, energy strategies, Brazil 27300

pragmatics (programming languages) *see computational linguistics*

preamplifiers
10 Gbit/s WDM 1310-nm opt. transm., 63.5-km std. single-mode fiber, opt. preamplifiers 17349
10-Gbit/s 280-km nonrepeatered transm., suppression of modulation instabil. 9509
155 Mbit/s 4 km opt. free space link low noise opt. receiver 42409
bipolar preamp. for digital opt. receiver, Haus-Adler noise measure anal. 29058
bolometers readout, FIR/mm-wave, astrophys. appls. 34504
burst-mode compatible receivers, high speed digital opt. commun. 42412
calorimetry, monolithic front-end preamplifiers 26246
charge-sensitive preamplifier IC for Si calorimetry at colliders 26241
CMOS preamplifier, 4.2 K operation, human biomag. field meas. 34994
CMOS preamplifier for IC-magneto-resistive read elements, $0.8nV/\sqrt{Hz}$ 7142
CMOS transimpedance amp./opt. syst., monolithic integrat. 31131
current domain regenerative comparators 3766
digital 3-lead ohmmeter 34619
externally modulated analog opt. links, dyn. range 9537
intersatellite opt. preamplified PPM syst. anal. 34078
LAr calorimeters, cable-coupled preamplifier perform. 26247
LAr preshower detector, monolithic GaAs readout 26180
lightwave commun., opt. amplified receivers, moment generating fn. 42363
lightwave systs. with opt. preamplifier, perform. eval. 17186
long-haul digital transm. opt. preamplifier receivers 34037
low noise preamplifier design for room temp. detector appls. 43139
Mitsubishi MD004H hybrid antenna switch for 23 cm band 32003
MRI, RF coil/cryogenic preamplifier, high temp. supercond. 35069
multisection proportional chamber for P-viol. meas., design/ccts. 4171
opt. commun. in space appls. 17164

preamplifiers continued
opt. fibre, unrepeatered transm., rem. pumped post/pre-amps. 34050
opt. preamplified PPM receivers, laser intersatellite commun. 34036
pulsed TOF laser radar, CMOS ASIC struct. 34165
radiation detect. front end electronics, HEMT appl. 10144
read/write amp. design considerations for MR heads 29052
real-time pulse shaping in radiation meas., digital techs. 18383
Shashlik calorimeter, WLS fibres readout by photodiode matrix 26176
single-sided AC-coupled silicon microstrip detectors 43059
tapered semicond. opt. amp., preamplifier monolithic integrat. 39611
ultra-low noise preamplifier for room temp. X-ray detectors 43138
WDM receiver, monolithically integrated device 34075
weak opt. sig. detect., opt. parametric amplif. 17320
weak RF sig. meas. by spectral analyser *(Croatian)* 3756
GaAs CHIGFET noninductive impedance transformer design 29351
GaAs HBT multifunctional microwave-analog VGA 38023
GaAs fast radiation-hard CHIGFET op. amp. 29061
GaAs image rejecting downconvertor, single chip, 2.44 GHz 42161
GaAs low-noise broad-band MESFET monolithic distributed preamplifier 42391
GaAs monolithic C-HFET preamplifier 4234
GaAs-InP MESFETs and ccts. fro OEICs 39598
InGaAs/InP transimpedance opt. receiver OEIC 1834
InP-GaInAsP-GaInAs composite collector HBT/circuits 13663
Kr liq. calorimeter, monolithic front-end amps. 26151
Si detector, HEMT input charge preamplifier, ns sig. proc. 43136
Si detectors, deep level compensated, X-ray appl. 43160
Si drift chamber, high-resoln. X-ray spectrosc. 26254
Si low noise detector preamplifier, X-ray spectrosc. 43164
Si monolithic photodetector/CMOS preamplifier fiber-optic data link 9518
Si strip detectors, binary readout, fast bipolar front-end 4172
SiGe base bipolar analog ICs for 20 Gb/s opt. receiver 9545

precession, Earth *see Earth rotation*

precipitation (atmospheric) *see atmospheric precipitation*

precipitation ageing *see precipitation hardening*

precipitation annealing *see precipitation hardening*

precipitation, electrostatic *see electrostatic precipitators*

precipitation hardening
Pb-acid secondary batts., PbSb:Bi grid age-hardening/corros. 36562
Pb-acid secondary batts., PbSbSn grid precip. hardening 36560

prediction theory
see also linear predictive coding
2D lin. extension, super resoln. radar imagery 9626
adaptive bilinear predictors 32773
adaptive diversity reception, prediction, smoothing, interpolation 25447
adaptive inter-channel prediction, joint stereo audio coding 15776
adaptive moving method of search region *(Korean)* 24692
adaptive prefiltering for blind equalization *(Japanese)* 40769
adaptive time-varying parametric modeling 40908
adaptive traffic prediction algm. for cellular radio 3404
adaptive vector quantisation speech coding, codebook search algm. 32412
ADPCM speech coding based on adaptive mel-cepstral anal. *(Japanese)* 15812
AR proc., non-Gaussian source, Gaussian mixture dens. modeling 40835
ATM, VBR video transm., predictive dyn. bandwidth allocation 16419
ATM networks, fast reactive congestion control method 41441
automatic imposter detect. in telephone speech 32251
Bayesian predictive densities, DOA estim./detect. 2477
Bayesian predictive densities, multiple cisoids detect./estim. 41006
beam, bending wave structural intens., adaptive control 2543
blind fractionally-spaced equalization, filter banks/lin. prediction 41024
blind fractionally-spaced equalization based on cyclostationarity 8387
blind wideband source separation 40920
cellular radio, correl. log-normal random variables 3406
chaotic sigs. MLE 24291
chaotic time series, functional predictor, parallel implement. 24179
chaotic time series prediction, outliers *(Japanese)* 15934
color images in RGB domain, lossless compression 24505
convolutional codes/time-varying errors/Kalman error correction 40664
deconvolution filter design considering channel sensitivity 2526
dialogue stat. modeling, next utterance speech act type 15838
discontinuous sigs. smoothing, competitive approach 24198
discrete convolution by forward/backward modeling, comments 40822
distant sample prediction, speech coders 8205
DSP teaching aid, algorithmic engng. 36926
EEG predictability, adequacy of nonlin. forecasting methods 26405
error-diffused image compression, decoder/VQ 2735
fast Newton multichannel algm. for decision feedback equalization 24309
focused gamma neural network, state space, noise reduction 32657
forward-backward lin. predictor, DOA estim., Kalman-based 24332
general decentralized Kalman filters 15953
generalised autoregressive prediction, speech coding appl. 24160
Haar wavelet transform with inter-band prediction, image coding appl. *(Japanese)* 16236
hierarchical LPNN network for noise reduction/speech recogn. 32386
high-speed train, adaptive channel equalization 3423
higher-order stats., allpass systs. ident. algm. 32648
HMM, on-line ident., recursive prediction error 8432
image coding, directional ADPCM 24504
image seq. interp., qualitat. predicting rels. 16405
image syst. class. algm., neural networks 2844
Kalman filter for telephone revenue prediction 41718
lossless image compression, block scans codebook 15886
lossless image compression, context-depend. distrib. shaping and parameterization 24502
LP-MUSIC algm., consistency prop. 32564
LS/SVD based techs. for high-resoln. freq. estim. 24203
MCP error images, wavelet transform coding, quadtree decomp./ECVQ 41091
med. image lossless compression, multiresolution multiplicative autoregressive models 2848
motion compensated prediction coding, isodensity areas based *(Japanese)* 16152
motion compensated video coding, block matching algm. 24585
motion field modeling for motion estim. and compensation 2842
multichannel IIR filtering, Levinson-type algm. 8413
multisensor multitarget tracking, fuzzy estimator 8326
multivariable robust filtering/open-loop control, probab. 32529

prediction theory continued
nodal-based deformable block matching, motion-compensated prediction 41175
non-lin. speech anal., recurrent radial basis fn. networks 8240
nonlin. adaptive prediction of nonstationary sigs. 32560
nonlin. autoregressive modeling and estim. in noise 2510
nonlin. predictor, zero-memory nonlin., second order Volterra filter 40985
nonlin. speech predictors, recurrent nets 32425
nonminimum-phase syst. ident., adaptive allpass filtering 2565
obj. recogn., neural network config. design 33032
one-sided/two-sided lin. prediction 24218
one-step fixed-lag IMM smoothing for alignment of asynchronous sens. 15875
optimal sens. location, multiple hypotheses testing 41020
orthogonal least sq. algm., computational requirement 32782
orthogonal least sq. algm., computational schemes 24226
PCN, handoff criteria 9378
penalty factor influence in order selection criteria 8393
piecewise-lin. radial basis fns. in sig. proc. 2518
QAM, self-learning adaptive recursive equalizer 32771
QPSK adaptive DFE with MLSE 41385
QR decomp.-based least sq. tech., improve ATC radar 2579
radar high resoln. imaging, data extrapolation 9629
reversible subband coding of images *(Japanese)* 33112
RIQ-DPCM, audio sigs. compression 15775
RLS weighted algm. for speech proc. 32447
RLSL prediction filter, a posteriori, error accumulation effects 24302
robust approx. likelihood ratio tests for nonlin. dyn. systs. 40975
segmentation-based predictive multiresolution image coder 16311
sentence recogn. syst., finite state automaton, perform. prediction 32304
small-cell environ., radio channel characts. prediction 3335
speaker ident., robust cepstral 32241
speech, discriminative training for neural prediction systs. 32267
speech coding, neural networks in adaptive DPCM 15717
speech coding, nonlin. short-term prediction 32255
speech coding, predictive vector quantizers design 2404
speech coding, product code VQ 32199
speech/audio proc., warped lin. prediction 32446
spontaneous monologues, discourse finality, prosodic predictors 2417
stereo vision, ground plane obstacle detect. 8645
sub-optimal nonlin. predictor, reduced complexity config. 8465
subband coding syst., motion compensation techs. for picture compression *(Korean)* 41168
subband image coding, watershed/watercourse lines of wavelet transform 2727
subband sigs. lin. prediction 15885
super-resoln. range-Doppler imaging 25556
superimposed exponential sigs. estim. methods 2530
SVD, periodic sigs. anal./prediction 15979
TCM sig. detector, time-dispersive channels 15957
text-depend. speaker recogn., higher freq. band inform. 32243
time-of-arrival prediction model for transionospheric EMP 25458
tracking in clutter with nearest neighbour filters, perform. prediction 15872
unequal-length multichannel δ_b-Levinson/Schur type RLS algm. 24310
variable-rate predictive residual vector quantizer 41059
very low bit rate video coding, predictive-transform 16404
visualising predictability, chaotic ensembles 32467
voiced speech, robust time-varying parametric modelling 40758
vowel class. using neural predictive HMM, discriminative training 32432
Yonggwang NPP, alarm proc., on-line ES 10805

predictive control
AC motor drive, adaptive predictive control algm. for compensation of params. 27875
brushless PM sync. motor drive, predictive control 20087
combined cycle power plant multivariable control 43931
drug infusion, nonlin. multirate predictive control 18580
FACTS, bilinear predictive control, thyristor controlled capacitor 4582
fuel cell power syst. conditioners, microcomputer control appls. 43968
induction motor drive, decoupled preview control syst. 28083
induction motor drives, CSI-fed, field-oriented predictive control 5259
induction motor drives, VSI-fed, generalized predictive control 5248
induction motor drives, VSI-fed, predictive vector current control 44492
induction servo drive, neural model predictive control 28066
indust. motor controllers, self-tuning digital control 20154
PM sync. motor, back EMF estim., torque harmonics minimisation 4916
PM sync. servomotor drives, optimal/VSS control 5288
power plant control, state space and freq. domain predictive controller design 27524
power syst. anticipatory fuzzy control, neural net-based 43666
power syst. transient nonlin. generator excitation control 26992
PWM VSI, current regulation techs. review 44178
quantum series reson. inverter, optimal predictive current control 11387
RTP, absol. temp. control 30401
servomotor drives, predictive posn. control design 28087
solar power plant, distributed collector field, adaptive predictive control 10891
solar power plant, generalized predictive control 19566
steam turbines, large, optimal load cycling 4845
switch-mode power convertor predictive control, current prog. tech. 44152
sync. generator predictive voltage control *(Japanese)* 44010
thermal power station, adaptive predictive control 27526
three-phase rectifier, deadbeat neural net predictive control 11174
turbo-alternator excitation predictive control 44006
turbo-alternator predictive excitation control 36131
VSI-fed PWM motor drives, predictive fuzzy control 5273

predictor-corrector methods
see also Runge-Kutta methods
3D motion, robust tracking 24454
hierarchy embedded differential image, progressive transm., lossless compression 24580
LP, predictor-corrector infeasible-interior-point algm. 219
MQW-sandwich nonlin. directional coupler with nonlin. losses, all-opt. switching 31601
nonuniformly sampled sigs., real-time reconstruction *(French)* 15929
power overhead line thermal dimensioning, stochastic real-time forecasting *(German)* 10753
reflector antenna radiation integral eval. by predictor-corrector algm. 23820
steplength algms. for tracing soln. curves in bipolar analogue LSI simul. *(Japanese)* 37591

premises cabling *see building wiring*

prescalers
CMOS prescalers, asynchronous and dual-modulus configs. 29112
dual modulus prescaler IC 29082
dual modulus prescaler IC, PHEMT struct. on Si substrs. 21296
max.-redundant radix-4 SRT divider 615
NEC, 10 GHz Si bipolar static prescaler *(Japanese)* 37682
PLL synthesizer, fast acquisition, using parallel N-stage cycle swallower 21134
TFSOI complementary BiCMOS technol. for low power appls. 30482
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
GaAs image rejecting downconvertor, single chip, 2.44 GHz 42161
GaAs on Si PLL freq. synthesizer IC, chip on chip technol. 29338

presentation graphics *see business graphics*

presentation methods, radar *see radar displays*

presentation, technical *see technical presentation*

presintering *see sintering*

pressing, hot *see hot pressing*

pressure control
see also vacuum control
field stabilization of supercond. magnet, He press. control 22767
neoanal press. meas., implantable press. sens. *(Japanese)* 18617
plasma deposition proc., modelling/robust control 12171
Space Station Furnace Facility, sliding mode thermal control syst. 26690
steam turbines, large, optimal load cycling 4845
Cs vapour pressure control, thermionic fuel elements 20043

pressure gauges *see pressure transducers*

pressure measurement
see also blood pressure measurement; vacuum measurement; vapour pressure measurement
air blast quenching chambers, air flow interruption capability *(Japanese)* 11211
alkali metal thermoelec. convertors, high efficiency, remote condensing 20033
APS, hardware supported by control syst. 18203
automobile diesel engines, acoustic combustion noise meas./control 34736
beamline front-end mock-up at APS, vac. tests 43148
building pressurisation, interior switchgear arcing *(German)* 19899
capacitive displacement transduction method for press. meas. 18141
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
cough detect., clinical syst., fuzzy logic 10169
diaphragm approx. model *(Japanese)* 25740
differential press. method for fluid flow control 18153
elec. utility sens. technol. improvement efforts, USA 43652
electrothermal launchers, phys. proc., param. studies 15291
electrothermal-chem. gun, meas. techs. 31751
epoxy discharge ageing, void gas press. meas. 22672
fibre optic press./temp. sens., min. invasive diagnostics 18432
fibre optic sens., monomolecular films surface press. meas. *(German)* 17922
fluid dens. meter, press. gradient var. *(Japanese)* 42958
foot press. meas. syst. utilising piezoelec. film transducers 26277
free-cylinder press. transducer design, 1 GPa 17742
fruit tester, portable, microcomputer-based 9819
fuel cell stack fluid dyn. studies 27924
gas-particle flows, Cobra probe, purging 26010
high energy EM transducer acoustic shock field, Schlieren meas. 4029
high press. computer controlled dielec. meas. 17672
high-press. meas., white-light interferometric transducer calib. 3783
impulsive noise removal from measurement data 25772
LSI electronic packages, cooling enhancement by modified barriers 37086
LV aerial bundle cables, moisture ingress 35655
mass flow rate meas., variable press. differential 42984
micromechanical fibre optic press. sens., temp. cross-sensitivity 17862
miniature fibre-optic interferometric med. press./temp. sens. 18433
multichannel biotelemeter, custom IC/syst. manufacture *(Korean)* 26280
multifunctional thin-film transducer of phys. quantities 9867
natural gas powered automobiles, fuel level sens. develop. 5363
neoanal press. meas., implantable press. sens. *(Japanese)* 18617
NPP resist. temp./press. sens., aging effects 35770
Pirani gauge, Halas-Kaminski bridge cct. 34471
process instruments condition changes detection 26015
PVDF stress gauge, fast press./shock effects meas. 42764
railgun, seq. fired, thermal loading, heat removal 15271
railgun weapon solid armatures, instrumentation develop. 15336
SAW press. sens., design/params. optimisation 3794
sensitive strips/mats/bumpers, safety appls. *(Italian)* 3798
simultaneous temp./hydrostatic pressure meas. 25859
smart capacitive displacement transducer 10061
switchroom internal arc-based press. rise studies 19889
T700 series intell. press./differential press. transmitters *(Japanese)* 3823
thermionic CHP convertors, optimal perform. tests 28029
transfer and develop. of metrology stds., Japan/Asia 34327
turbulent pipe flow, press. and vel. meas. 42986
turbulent press. flucts. meas., buoyant vehicle, thin elastomer layer 17458
turbulent wall press. spectrum, press. transducer resoln. 17741
white light interferometric fibre optic meas. systs. 17813
Ni-MH batt. cycling expts. 36548
SF_6 puffer cct. breaker, elec. strength restoration *(Russian)* 44238
SF_6-N_2 auto-expansion cct. breaker studies 19890
Si diaphragm press. sens., differential press. transmitter design 3784
Si piezoresistive circ. diaphragm sens., low-press. meas. 34491
Si, piezoresistive press. sens., high-press. meas. 34490
ZrO_2 pump-gauge oxygen sens. 9952

pressure sensors
see also pressure transducers
aircraft roll attitude meas. using solid state devices 26541
automobile elec. windows, anti-trap safety syst. 5366
biomedical fiber-optic micro press. sens. devel. *(Japanese)* 26357
CMOS integrated thermal press. gauge and read-out cct. 25786
concrete stress meas. fiber optic sens., polarimetric/white-light interferom.-based 25978
displacement/press. sens., field emitter triode modeling 42980
elec. utility sens. technol. improvement efforts, USA 43652
electrolarynx with pitch freq. control fn., eval. *(Japanese)* 35166
fibre optic sens., commercially available, 1985-95 develops. 17877
fibre optic sensors, conf., Glasgow, Scotland (Oct. 1994) 11524
fibre-optic interferometric hydropressure sens. 17917
gas-particle flows, Cobra probe, purging 26010

pressure sensors continued
indust. thick film press. sens./transducers, develop. *(Slovenian)* 34446
integrated CMOS polysilicon coil-based micro-Pirani gauge 25787
integrated pH-ISFET/press. sens., SDB/SOI materials *(Chinese)* 25810
intell. differential press. transmitter develop. 3786
jn. field effect-press. Halltron, sensitivity anal. 25815
micromechanical fibre optic press. sens., temp. cross-sensitivity 17862
micropressure sens. and interfaces 9899
Mitsubishi Electric ventilation syst., airtight dwellings appls. 44607
neoanal press. meas., implantable press. sens. *(Japanese)* 18617
neural network-based nonlin. estim. of press. sens. 17731
NPP, press. sens. systs., blockage detect. 35932
NPP resist. temp./press. sens., aging effects 35770
ocean high perform. micro-power CTD sens. 10495
omnidirectional airspeed sens. 10383
polycryst. diamond press. sens., fab., props. 34456
polysilicon sacrificial layer etching technol. for micromachined sens. 25785
quartz reson. sens., develop., FEM 9848
SAW oscillators, quartz package, dyn./static press. sensitivities 30647
SAW press. sens., design/params. optimisation 3794
semicond. press. sens., PWM output 17759
semicond. press. sens. based on FET struct. 3785
sens. outputs tailoring, specialized needs 25811
sensitive SAW sens. 30651
sensitive strips/mats/bumpers, safety appls. *(Italian)* 3798
T700 series intell. press./differential press. transmitters *(Japanese)* 3823
thermally driven liq.-vap. phase-change microactuation 34455
Si diaphragm press. sens., differential press. transmitter design 3784
Si low temp. sacrificial wafer bonding for planarization, deep etching 30502
Si microelectronic sens. 34440
Si miniature capacitive absol. press. sens. 9858
Si piezoresistive circ. diaphragm sens., low-press. meas. 34491
Si piezoresistive press. sens., electro-elastic simul. 42778
Si, piezoresistive press. sens., high-press. meas. 34490
Si rect. diaphragm press. sens. 17753
Si/Al_2O_3 heteroepitaxial double SOI struct., press. sens. 38433
YAG:Sm garnet films, soln. deposition, press.-temp. sens. appls. 5854
ZrO_2 pump-gauge oxygen sens. 9952
pressure sintering *see sintering*
pressure transducers
see also pressure sensors
biomedical fiber-optic micro press. sens. devel. *(Japanese)* 26357
blood pressure measuring instrument with Korotkoff sensor 26269
capacitive displacement transduction method for press. meas. 18141
current to press. transducer, mag. fluid 17720
epoxy discharge ageing, void gas press. meas. 22672
field-emission-press.-gauge, sensitivity quantitat. estim. 42761
free-cylinder press. transducer design, 1 GPa 17742
indust. thick film press. sens./transducers, develop. *(Slovenian)* 34446
integrated CMOS polysilicon coil-based micro-Pirani gauge 25787
integrated press. transducers, 0.04, 30 MPa 17737
intell. differential press. transmitter develop. 3786
irrigation well totalizing flowmeter 9835
multifunctional thin-film transducer of phys. quantities 9867
Pirani gauge, Halas-Kaminski bridge cct. 34471
press. meas., smart capacitive displacement transducer 10061
proc. instrumentation channels in NPP, calib. 35931
pulse diagnosis, Chinese, computer/fuzzy theory 43203
T700 series intell. press./differential press. transmitters *(Japanese)* 3823
turbulent wall press. spectrum, transducer resoln. 17741
UH-60A airloads data acquisition and proc. syst. 10313
KrF excimer laser electron beam pumped, energy meas. 2042
Ni-MH batt. cycling expts. 36548
ZrO_2 pump-gauge oxygen sens. 9952
pressure vessels
conference, failure anal., Johannesburg, South Africa (1994) 20245
hollow cylinders, axial cracks, SIF 35940
HTR module prim. cct. press. boundary reliab. under accident conditions 19482
LWR press. vessel, neutron transport, ENDF/B, JEF, JENDL, Fe 27421
MFZR NPP decommissioning 35934
Palisades PWR vessel neutron fluence reduction measures 4820
Ni-H_2 batt. designs, spacecraft power systs. 26572
Ni-H_2 batts., Deep Space Probe Science Expt., elec. power syst. 26646
Ni-H_2 common pressure vessel batt., spacecraft, impedance 26568
Prestel *see viewdata*
preview control *see predictive control*
pricing *see costing*
primary cells
alkaline manganese batt., mercury free *(Japanese)* 5175
battery appls. and advances, conf., Long Beach, USA (1995) 28262
chemistries, control techs. and constr. methods 19929
Li-$SOCl_2$ batt. submodule, self-discharge failure anal. 36512
Li-$SOCl_2$ space power batteries, thermal models 26581
$LiMn_2O_4$ films, sputtered, charactn. for rechargeable microbatteries 11232
low power electronics, batt. technol. 44307
polyacryl amide-$AgNO_3$ electrolyte batt., prep./charactn. 19928
telecomms. power supplies, batt. research *(Japanese)* 19768
testing, VXIbus 36510
thermal cells, tester develop. 36511
US Army batt. needs 43567
60AgI-20Ag_2O-2B_2O_3-18V_2O_5 batts., internal resist./cathode content 11241
Ag-based fast ionic conducting glassy electrolytes, batts. 11238
AgI-AgCl-Ag_2O-B_2O_3, Ag^+ ion conducting glass, solid state batt. appls. 5173
C/MnO_2 composite primary cell electrode synthesis 11236
Cd/HgO primary cells, open-cct. voltage expts. 5177
K-C continuosly refuelable primary batt. 27893
Li based batt. trends *(Japanese)* 5174
Li batt. develops. conf., Boston, MA, USA (May 1994) 36894
Li primary batts., domestic utility meter appls. 44267
Li-MnO_2 batts., Li electrode surface charactn. 44266
Li-MnO_2 primary batt., dissolved Mn species *(Japanese)* 27892
Li-$SOCl_2$ batt. develop. 26674
Li-$SOCl_2$ batt. develop./status, Titan IV Centaur launch vehicle 26673
Li-$SOCl_2$ cells, failure proc., 200°C 11240
Li-$SOCl_2$ long life reserve batt., wide area mine 43566
Li-$SOCl_2$ primary batts., delay effect expts. 11231
Li-$SOCl_2$ prismatic primary cell charactn. expts. 27888
primary cells continued
Li-$SOCl_2$ thin parallel plate batteries, space power appls. 27891
LiAl-CuO primary batts., cathode material expts. 11237
Mg-AgCl batts., Mg alloy corros. rate studies 27890
Mn based batt. trends *(Japanese)* 5174
MnO_2, chem. activated, batt. cathode 11233
B-MnO_2, discharge characts., H_2SO_4 electrolyte 11235
β-MnO_2 electrodes, $ZnCl_2$ electrolyte, Leclanche cell 11234
MnO_2 primary batt. electrodes, chem./phase comp. 11239
$NaVO_3$:La_2O_3 electrodes, solid-state batts. 27889
$NaYF_4$ solid electrolyte based solid state batt. 36509
Zn-AgO batt., Zn content determ., EDTA titration 44265
Zn-MnO_2 cells, mercury free, perform. 19930
Zn-air batts., design/develop./testing 19931
Zn-air batts., hearing aid power supplies *(Japanese)* 5176
printed antennas *see microstrip antennas*
printed circuit accessories
B-ISDN, high-dens. high-bandwidth connectors 9112
backplane power source capability 6435
bare board test program generation, self-learn/netlist methods 38083
card edge connector soldering, surface mount proc. 916
coaxial SMD module connector for high-speed MCMs 6399
connector design, high dens./small size, PCB/backplane appls. 38069
connector reliab., no fault found category 5704
connectors, vibr. testing methodology 12870
discrete discontinuities along coupled PCB traces, meas./simulation 21506
electromechanical devices, tech. trends and motive technols. 6394
flex coating reliab., high-perform. MCM-PCB interconnection 12945
flexible interconnection selection, PCB design 38070
flexible SMD connector for high-speed data bus 38068
flux selection, PCB component and wire tinning appls. 38140
fuzz button interconnects, reliab. study 21656
high-dens. high-pin-count flexible SMD connector 6398
IBM high perform. carrier technol. for PCB packaging/interconnects 37153
interconnections, microwave charactn. 38164
intra-syst. interconnects for digital commun., cable elec. perform. 12856
manufacture, densification techs. 6408
MCM flex lead bending during thermal cycling, finite element stress model 12944
no-clean wave solder defect reduction, N_2 atmos. effects 38155
PC card connectors, adoption of back connectors 21611
PCMCIA specs. for PC card connectors selection 897
PCMCIA standardization for PCB design, manufacture and assembling 12927
platable MLC termination materials/proc., PCB bend strength effects 6434
PTH of PCBs, suitable conditions for connections 29692
rack syst. with coaxial board connectors, high-speed transm. 42095
SMT proc., through-hole connectors, X-ray meas. 12922
SMT rework, conductive/convective hand tools 38161
surface mount and fine pitch technol. advances, overview 37151
surface mount connector design, respect, solder creep 28503
surface mount connectors and assembly proc. develops. 894
TQM appl., pollution prevention in PCB manufacture 37212
z-axis anisotropic polymer-matrix composite conducting film, SMT/PWC connectors 12196
C-C composites, thermally conductive/CTE tailorable, MCM/PCB packaging 37146
printed circuit boards *see printed circuits*
printed circuit design
see also printed circuit layout
3D power cct. package for aircraft appls. 26687
1024-pin plastic ball grid array for flip chip die, design, SPICE model 5652
assembly yield, design factors, stat. and ANN models 38080
avionics PCB SMC, reliable design 10317
CAD, integrat., product design, concurrent engng. approach 37035
CAD/design data mgt. syst. *(Japanese)* 1460
ceramic multicomponent modules, miniaturisation approach 5622
component data access, IT appls. 21629
component/proc. selection guidelines, SMT/PCB/fine pitch manufacture 38131
concurrent CAD design of PWB, PLANET-TWINS *(Japanese)* 477
concurrent engng., logic-based support syst. implement. 36999
conformal coating proc. optim. 934
conjug. heat transfer, convectively cooled discrete heat source, conductive substr., BEM 28475
connector design, high dens./small size, PCB/backplane appls. 38069
convective cooling, conjug. heat transfer, boundary element formulation 12896
convective heat transfer from PCBs, num. anal. interface, GUI appls. 12891
crosstalk reduction with additional center traces 21618
current carrying capacity of Cu conductors 906
decal library constr., PCB/SMT design 38079
demountable TAB path for TAB technol., PCB design, reliab. testing 5640
design for manufacture implement., PCB manufacture 38103
design for manufacture philosophy, PCB design appl. 38078
dyn. stiffening by drilling central orifice 38082
EDA tools, evol. 12888
EDA tools for high-speed digital PCB and MCM design, role of designer's intell. 28935
EDAC focuses on stds. collaboration, develop. proc. 12893
EDIF's emerging PCB and MCM std. 11779
electronic packaging, mech. anal. 28493
EMC compliance, software simul. tools 38086
EMC stds. and design proc. 38085
flexible interconnection selection, PCB design 38070
groundplanes, radiated emission reduction 23668
high speed digital design using Spice controlled sources, accurate I/O models 20451
high speed digital interconnects, hierarchical simul., packaging simulator 5660
high speed logic ccts., crosstalk, printed patterns 21637
high speed VLSI interconnects, stat. anal., moment method 28442
high-speed interconnect, laminate subst., dual C40 MCM 38186
high-speed syst. power/ground plane with ECL, switching noise 38081
implemetation of EMC criteria 29658
interconnect technols., strategic implications, knowledge base 12889
IPC-SM-782A, Surface-Mount Design and Land Pattern Standard spec., review 902
LOCUS, PCB CAD drawings, electronic filing syst. *(Japanese)* 475

printed circuit design continued
- lossy finite width image planes influence on radiation 21636
- matching PCB packaging for DFM 38087
- microstrip device full-wave anal., generalised Yee algm. 29537
- microwave material selection for PCB design 11799
- multilayer PCB prototyping, engng. lab environ. 38089
- multilayer PWBs, segmented ground planes, common mode currents 15477
- multilayer Teflon microwave PWBs, isolation techs. 37974
- multilayered board, via-hole, excess capacitance, connecting striplines 12882
- NET32K high speed image understanding syst. 34429
- new product introduction teams, SMT/PCBs, design for manufacturability 37030
- op amp IMD determ. for PCB design 557
- parallel raster image proc., CAD/CAM 38077
- Parylene conformal coating economies 933
- PCB pattern defect anal./eval. using CAD data, AOI 37161
- PCB SMA, DFM, Integrated Expert System Environment 29670
- PCI-based systs., cct. boards, design 12890
- PCMCIA standardization for PCB design, manufacture and assembling 12927
- PCMCIA std. for high-dens. PCB design 6407
- power distrib., board-based systs., onboard regulator perform. 38088
- proc. variability control, PCB/SMT manufacture 37193
- radiated emissions, finite element-based CAE tools 38084
- radiation aspects calc., EMC-workbench 21634
- reduced radiated emission 12895
- refl. and crosstalk effects, simul. methods 908
- refl./crosstalk effects, Pade approx. 907
- rigid-flex MLB package, z-axis intermetallic/thermosetting adhesive method 37140
- rule develop. for PCB design under EMC constraints 21633
- S-bend lead design for SM components, clip-leads appl., compliance metric 140
- SIERA, appl.-specific syst. level hardware module generation 29659
- SMT, DFM automated tools, manufacturable data 903
- SMT cct. wave soldering technol. *(English)* 922
- SMT connectors, lead/hold-down redesign, auto-placement 905
- SMT stress sing. allowing for local plastic deform. 29660
- SS-1 supercomputer storage card design, packaging challenges 144
- step-by-step SMT design for manufacture 38132
- substr. cond. effects, convective cooling 909
- synthesis tools 12894
- tape carrier package, thermal charactn., PCB enhancements 11798
- team approach 12885
- technol. trends, multifunctions, size-reduction *(Japanese)* 923
- through-hole components, lead-fatigue, design model 29661
- transm. lines, leakage criterion, comments 12883
- O_2 effects on solder surface, PCB assembly options 38153
- Sn/Pb eutectic solder-bumped flip chip test die and organic PCB substrs. 37136

printed circuit layout
- 2D heat transfer in semicond. device modules on PCBs, num. prediction 37070
- analog combinatorics and cellular automata 21639
- automated component placement, shape-based technol. 12887
- automatic placement syst., design, GFDR algm. *(Korean)* 12884
- avionics PCB SMC, reliable design 10317
- bare board test program generation, self-learn/netlist methods 38083
- butterfly networks, regular layouts 12252
- CAD support tool, EM noise consideration 21631
- CBGA package design for C4 PowerPC μP chips, substr. routability and perform. 5661
- CMOS driven, center tap terminated network in shared bus design, optimisation 11769
- computer syst. enclosures, CFD tool for syst.-level thermal simul. 5630
- concurrent design approach 21630
- crosstalk driven routing advice for PCB interconnects 12892
- edge-based heuristic for Steiner routing of VLSI and PCBs 456
- EMC, PCB layout tips 910
- fast vectorized maze routing algm. for supercomputer implement. 12270
- high speed digital interconnects, hierarchical simul., packaging simulator 5660
- lossy transm. line simulator in PCB layout package 21638
- manufacture, densification techs. 6408
- multilayer PCBs, decoupling effects of Vcc/Vgg struct. 21635
- multilayers, single row routing 29662
- multiple coupled planes, inductance modeling, PCBs, MCMs and packages 20455
- obj. driven autorouting for PCBs/MCMs 12886
- ONYX-CS software modules for microstrip components design 12708
- open CAD tool, NEC PWB layout syst., technol. trends *(Japanese)* 476
- optim., neural network algm. *(Japanese)* 904
- parallel rip-up and rerouting, wiring quality in parallel wire routing problems *(Japanese)* 37600
- pattern anal./eval. 38138
- Protel TRAXEDIT PCB file package *(Chinese)* 6406
- rect. block array, heat transfer, wake effect 37074
- refl. and crosstalk effects, simul. methods 908
- ROSAR rule oriented syst. for anal. of refls. 21632
- solder joint reliab. prediction, computer-aided syst. develop. 37206
- team approach 12885
- two-terminal nets via minimization through dyn. prog., partitioning of terminals 5950

printed circuit manufacture
- 0.5-5 kW power convertor PCB distributed mag. components 11105
- 3D models of solder joints, generation, X-ray laminography 29674
- 3D X-ray inspection of fine pitch PCBs, automatic testing 29673
- 6-sigma fixturing QC program, electronics assembly environ. 37176
- 25 mil pitch SMT mount assembly, conductive adhesives/Pb-free solder 38152
- AC elec. charactn. of solder paste 9994
- alcohol-based semi-aq. cleaning in electronics assembly 930
- aq. rosin flux cleaning, PCB manufacture, thermodyn./kinetics 38142
- aq. US cleaning in electronics 931
- aq.-saponifier post-solder defluxing, waste water effluent testing 38143
- assembly, CAPP 29666
- assembly, DSS develop. 28407
- assembly, QC, fault anal., visual inspection, computer based 943
- assembly proc. perform. meas., multiple defects 38095

printed circuit manufacture continued
- assembly yield, design factors, stat. and ANN models 38080
- assembly/soldering, Penn State initiatives 29671
- assembly/soldering defects, inspection/SPC workstations 5696
- automated fine pitch solder paste dispensing, SMT PCB manufacture 38137
- automated pick-place laser soldering for electronics assembly 12933
- automatic assembly time optim. 6420
- ball grid array soldering proc. meas., X-ray techs. 37142
- ball grid arrays tech. 12938
- boundary-scan in SMT, design, mfg. and syst. test 38113
- CAM syst. for fab. of PCB elec. tester fixture 6432
- CAPP, natural lang. part descriptions 28413
- card assembly detailed thermal response, IR reflow soldering 38098
- card edge connector soldering, surface mount proc. 916
- cct. board prod. lines, crane scheduling, time windows 37058
- ceramic ball grid array, reliab. comparison of two metallurgies 21647
- ceramic BGA package mfg. vars., effects on solder joint reliab. 11856
- CFC elimination of no-clean fluxes, Northern Telecom RTP 5718
- CFC-free solder fluxes for electronic assembly, selection guidelines 38127
- chip shooter, image proc. algm. for IC alignment *(Japanese)* 29694
- cleaning, saponified aq. syst. 946
- cleaning and treatment technol., syst. approach 929
- cleaning technols. 29682
- COB encapsulation technol., stress anal., reliab., FEM 37077
- complex board mfg., fault coverage, yield and cost 6413
- component assembly, lin. assignment algm. 29688
- component lead trimming shock meas. 29667
- component reel arrangement problem in PCB assembly 948
- component/proc. selection guidelines, SMT/PCB/fine pitch manufacture 38131
- cond. rework tool design paradigm, PCB/SMT manufacture 38146
- condensation inert heating mass reflow soldering systs., challenges 38162
- conducting adhesives for HDI 11813
- conductive adhesive eval. as solder replacement 38107
- conductive adhesives 12925
- conductive adhesives and solders for SMT, environ. comparison 38110
- conductive filament form. in PWBs, woven fabric 29669
- conductive polymer solders for Pb-free SMT/PCB/fine-pitch assembly 38130
- conference on electronics mfg. technol., Baltimore (1992) 11580
- conformal coating, robotic appl. 935
- conformal coating methods, review 12909
- conformal coating proc. develop., Nordson Selective Coating System 6430
- conformal coating proc. optim. 934
- conformal coating stresses, SMT/fine pitch technol. 6431
- conformal coatings, dyn. thermal mech. anal. 451
- connector design, high dens./small size, PCB/backplane appls. 38069
- controlling solder ball form., wave soldering 944
- convection reflow soldering oven, N_2 inerting, cost implications 38147
- cooling optim., reflow soldering in N_2-O_2 atmos. 38156
- core materials for SMT appls., engng. props. 21645
- cost effective ceramic surface mount packaging 20448
- crown ether-enhanced nonpolar solvent-based PCB defluxing 38141
- defect trends, O_2 conc. in wave soldering N_2 atmos. 38154
- defects, wave soldering, no-clean flux, O_2 conc. 12916
- densification techs. 6408
- design for manufacture implement., PCB manufacture 38103
- design for manufacture philosophy, PCB design appl. 38078
- digital tomosynthesis for X-ray inspection of flip chip attach 37172
- direct, board interconnect technol. 38133
- drain and fill method, chem./rinse water saving 21651
- EDAC focuses on stds. collaboration, develop. proc. 12893
- EDIF's emerging PCB and MCM std. 11779
- elec. verification, value to proc., SMA 38105
- electronic assemblies, non-Pb bearing solder alloys 936
- electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
- electronics/PCB indust. trends 21642
- epoxy based liq. encapsulant 20431
- excimer laser proc. syst. appls. *(Japanese)* 107
- film redistribution layer technol., fine grid SM components 917
- fine line cct. mfg. technol., electroless Cu plating 12929
- fine line cct. mfg. technol., electroless Cu plating 29680
- fine pitch QFP, no-clean/water-clean mass reflow procs. 29676
- fine pitch solder deposition/dispensing, productivity enhancement 38150
- fine pitch solder joints, microstruct. phenom. 6424
- fine pitch surface mount IC package solder joints, exam./testing 37117
- fine-pitch SMT, automated soldering inspection 163
- fine-pitch wire bonding for COB 38096
- fine/ultrafine pitch printing, electroformed/laser cut/etched stencils 37152
- finite capacity scheduling syst. for PC manufacture 11722
- flat pack flux-free soldering proc. for PCBs 12937
- flexible assembly lines for PCB, design and scheduling 29663
- flip chip assemblies, rework proc. 38125
- flip COB assemblies, material selection 12930
- flip COB process charactn., no-clean flux, ionic residue 38108
- fluoropolymer-based dielec. materials for PCBs, fab., proc. considerations 29679
- flux reliab. assess., electromigration and SIR 177
- flux residues, electronic assembly quality 937
- flux selection, PCB component and wire tinning appls. 38140
- fluxless wave soldering 21650
- FR-4 boards, flip-chip interconnections 21653
- hand-soldering equipt., PCB manufacture, modern requirements 12913
- HDI, laser soldering 12936
- high dens. rigid flex PWB mfg. 911
- high reliab. cct. board repair, PCB/SMT manufacture 38145
- high-defn. PCB imaging, high-yield/high-resoln. manufacture 6410
- hot-bar soldering, 0.15 mm OLB pitch TAB components 941
- IBM Austin Electronic Card Assembly and Test, quality mgt. 28515
- inert gas wavesoldering, proc. variables, PBA KBS appls. 12935
- integrated membrane purification, water reuse in electronics mfg. 11888
- IR detector selection for laser soldering proc./joint qualif. 6417
- ISO 9000 series stds., CFC-free bench top cleaning implications 37214
- isotropic conductive adhesives, solder replacements 21654
- joint torque disturbance observer for robotic PCB assembly 6415
- laminate indust., future trends 29664
- laminate materials, alignment, sens.-based robot techs. 110
- laminate materials, moisture absorpt. 29690
- large panel mfg., displays, PWBs and MCMs 21683
- laser-cut stencils, no-clean solder cream printing 12898

printed circuit manufacture continued
- loaded board test philosophies, PCB/SMT testing 38158
- low-solids flux conc. analyser, automated 42976
- matching PCB packaging for DFM 38087
- materials, flammability 12919
- MCM-L fab., through-holes, mech. punching 21694
- MCM-LD, photosensitive-BCB on laminate technol. 12978
- metal recovery/water recycling, electronics mfg., integrated solns. 11885
- mfg. test simulator, concurrent engng. tool 5597
- mil. electronics, environ. safe soldering/cleaning 6427
- mixed SMT/PTH component technol. and assembly 37066
- molten solder profiles for rect. pad geometries in SMT, calc. 38123
- multi-layer PWB for high-speed/HF appls., low-dielec. materials *(Japanese)* 924
- multilayer registration control, PCMCIA card materials 38129
- multiple batch surface mount PCB placement seq. problem, soln. 12915
- multiple robot PCB assembly syst. 20396
- N_2-purity selection guideline, controlled atmos. reflow soldering 38104
- new product introduction teams, SMT/PCBs, design for manufacturability 37030
- no-clean flux eval., SIR testing 927
- no-clean fluxes and solder pastes technol. 21649
- no-clean low residue solder paste for fine pitch appls. 939
- no-clean solder deposition, reflow technol. for fine pitch 21641
- no-clean solder paste reflow, N_2 atmos., O_2 conc. influence 38149
- no-clean solder pastes 12899
- no-clean wave solder defect reduction, N_2 atmos. effects 38155
- no-clean wave soldering, technol. issues and N_2-based inert proc. 38136
- no-clean/water-clean PCB solder joints, plastic quad flat, failure anal. 947
- non-palladium metallization 12921
- nonhazardous alternative chem. for semicond./PCB proc. 37213
- nonrosin solder flux residue corrosivity testing 12941
- OMPAC assembly, no clean mass reflow 38171
- organic protective coatings for SMT/PCB finish 12910
- OSEE inspection for flux residue on PCB-based electronics assemblies 38114
- parallel raster image proc., CAD/CAM 38077
- Parylene conformal coating economies 933
- Parylene conformal coatings compatibility with no-clean flux residue 38109
- pattern anal./eval. 38138
- PCB assembly, component grouping heuristics 942
- PCB assembly reliab., call rate level reduction 5701
- PCB pattern defect anal./eval. using CAD data, AOI 37161
- PCB prod., computer-aided manual workstation, graphics generation 38112
- PCB X-ray inspection, neural network classifiers 37162
- PCMCIA, material considerations 21648
- PCMCIA standardization for PCB design, manufacture and assembling 12927
- PCMCIA std. for high-dens. PCB design 6407
- PCMCIA-style PCBs, depaneling proc. selection considerations 12926
- PGA burn-in board loading, machine vision in robotic guidance 29668
- photoimageable liq. dielec. for seq. PWB fab. 38124
- photoplotter/printer image contamination, PCB mfg. cleanliness 38101
- picolitre flux dispensing for PWB assembly 12939
- plastic ball grid array packages, thermal/elec. perform. enhancements 37150
- plated hole deform., soldering thermal cycle 29685
- populated computer PCBs, IR meas. and anal. predictions 38097
- post-solder proc. PCB cleaning in post-CFC world 38091
- proc. variability control, PCB/SMT manufacture 37193
- pulse reversal plated Cu for PCBs 21652
- Pulse Shooter solid-state conformal coating proc., PCB mask elimination 38139
- PWA cleanliness testing, ionic contamination meas. variables 6426
- PWB, PTH, reliab., mfg. defects 21655
- quality perform. meas., SMT/PCB manufacture 37159
- reduced oxide soldering activation, prod. compat. eval. 38115
- reduced oxide soldering activation solderability enhancement technol. 6428
- resin/resin-glass composite insulation, moisture absorpt. effects 12942
- rework cell controller, software modelling 115
- reworking area array components 945
- rigid flex PC, cover sheet wrinkling 29687
- rigid-flex MLB package, z-axis intermetallic/thermosetting adhesive method 37140
- robotic electronic component insertion/mounting *(Japanese)* 5603
- S-bend lead design for SM components, clip-leads appl., compliance metric 140
- semi-aq. cleaning agent selection 932
- semi-aq. cleaning proc. control, closed-loop water recycling syst. 919
- semi-aq. flux cleaning, equipt. considerations and rels. 6425
- shop floor control inform. flow, PCB assembly 5600
- small via generation using modified TEA CO_2 laser based proc., PWB/MCM appl. 20447
- SMC solderability testing, microwetting bal. 6422
- SMD soldering/inspection workcell, develop. 6419
- SMD/PCB quality inspection by computer vision 37165
- SMDs, inspection/subpixel alignment, fuzzy morph. *(Korean)* 29691
- SMT, aq. cleaning, closed-loop water treatment 928
- SMT, DFM, Integrated Expert System Environment 29670
- SMT, DFM automated tools, manufacturable data 903
- SMT, prod. line, soldering, prod. procs. 128
- SMT, solder alternatives eval. 145
- SMT, solder paste flow, stencil aperture, computer simul. 12918
- SMT, solder paste thickness effects 6416
- SMT assembly, adhesive dispensing 12900
- SMT assembly, solder paste flow, computer simul. 12917
- SMT attach, thermally stable water soluble solder paste 920
- SMT board testing, method selection 38102
- SMT components on PCBs, proc. control of reworking 12903
- SMT IR reflow soldering, knowledge based decision support 29677
- SMT lead scanning, control of shape and coplanarity params. 915
- SMT package, moisture-sensitivity ratings 11750
- SMT PCB assembly, placement machine, multi-criteria DSS 28424
- SMT PCB placement seq., multiple batch, soln. methodology 29689
- SMT PCB solder replacement technol. testing 5607
- SMT proc., through-hole connectors, X-ray meas. 12922
- SMT prod., integrated process monitoring/testing 38111
- SMT reflow soldering oven perform. maximization 913
- SMT reflow-soldered joints, porosity form. rel., mech. props. 12920
- SMT relays, reliab., heat stress during reflow soldering *(Japanese)* 6411
- SMT rework, conductive/convective hand tools 38161
- SMT rework, meet ISO9001 38093

printed circuit manufacture continued
- SMT screen printing, on-line monitor, print QC 912
- SMT solder joint reliab., voids and void interacts. 178
- SMT solder paste reflow, soldering proc. interact., obs. phenomenology 938
- SMT/FPT assemblies, reflow soldering 914
- SnPb thickness meas., X-ray fluoresc. systs. 38094
- solder ball form. in PCB wave soldering 38135
- solder joint reliab., rework/repair techs. and procedures 12904
- solder joint rework, effect on PTHs in multilayer PWBs 38116
- solder joints vision inspection machine *(Italian)* 5687
- solder masking proc. warpage, FEA 918
- solder masks, PCB manufacture, cost reduction/quality improvement 38099
- solder paste considerations for SMT reflow soldering 12911
- solder paste printer vision systs., SMT/PCB manufacture 38106
- solder paste screen printing proc. in SMT mfg., SPC 38134
- solder paste/stencil interface, shear stress, SMT manufacture 12943
- solderability and impact of surface coatings 6421
- soldering materials trends to yr. 2000, user requirements 29665
- soldering proc. versatility vs. stabil., O_2 effect 12912
- soldering station selection, modern through-hole/SMA 38144
- SPC in PCB mfg. 12907
- static elec. shielding bags, testing requirements 15212
- surface insulation resist. and electromigration test methods 113
- surface mount and fine pitch technol. advances, overview 37151
- surface mount connectors and assembly proc. develops. 894
- surface-mounted reflow, proc. control for high yields 12914
- Taguchi method of environ. stress testing for PWB prod. proc. 29678
- tape ball grid array package technol. 5641
- technol. trends, multifunctions, size-reduction *(Japanese)* 923
- Teflon PCBs, fab., proc. considerations 12932
- terpene cleaning agents, defluxing appls., review 38160
- tetrachloroethylene-contaminated soil remediation by soil vap. extraction 37211
- thermally loaded solder joints, fatigue life prediction methods, FEA 38121
- thermocompression hot bar soldering tech. 21646
- thin SOP delamination, moulding cpd./polyimide interface chem. 37078
- thin SOP with Cu gull-wing leads, SMT advantages 37133
- tight-tolerance fixturing problems for loaded PCB prod. 12924
- total QC on PCB assembly proc. 6433
- TQM appl., pollution prevention in PCB manufacture 37212
- transputer-based visual inspection syst. 28506
- TSOP solder joint reliab. enhancement, encapsulation 131
- ultrathin MLB optim., materials and PCB fab. issues 38128
- underfill encapsulants for flip chip assembly, characterisation and eval. 37137
- Univ. of Arkansas, electronics mfg. curriculum 28332
- US cleaning for PCB manufacture, induced damage/fatigue reduction 38092
- vac. actuated hot mockup PCB test stations 38159
- vac. systs. in electronics mfg. 37059
- vapour phase reflow soldering, viability for SMT ball grid array assembly 38090
- waste water recycling systs. for electronics defluxing procs. 6429
- water soluble organic acid solder flux, ozone depleting subst. elimination 6423
- water soluble/no-clean selection guidelines, PCB/SMT/fine pitch soldering 38151
- wave soldering in SMT assembly 6418
- wave-soldered SM solder joints, size/shape prediction, model 38122
- wettability of immersion coated PWBs, temp. and humidity effects 29681
- Au-Sn flip chip bonding on flexible prints 12955
- Cu, electrodeposited/electroless for PCBs, mech. props. 12940
- Cu electroless deposition troubleshooting, PCB manufacture 38100
- Cu electroplating of PCB PTH, current dens. effects 6409
- Cu foil for high perform. PCBs, high strength, low profile 38126
- Cu gull-wing leads for thin SOP 150
- N_2/convection reflow soldering oven, input gas flow var. influence 38148
- O_2 effects on solder surface, PCB assembly options 38153
- Pb-based solder alternatives develop. 127
- Sn immersion coatings, PWB surface finishes 12934
- Sn/Pb eutectic solder-bumped flip chip test die and organic PCB substrs. 37136
- Sn-Ag(Cu) binary eutectic comp. for lead-free soldering 12928
- Sn-Bi(Ag) soldering alternatives for fine-pitched electronics packaging 29675
- Ta coated chip capacitor, SMT reduced board height requirements 6360

printed circuit testing
- 3D models of solder joints, generation, X-ray laminography 29674
- 3D X-ray inspection of fine pitch PCBs, automatic testing 29673
- alcohol-based semi-aq. cleaning in electronics assembly 930
- ANN based PCB inspection syst. 29684
- assembly proc. perform. meas., multiple defects 38095
- ATE develops. and quest for direction, 1980s-1990s 9792
- ATE software, PCB test requirements in generic formats 29655
- ATE software design methodologies develops 42703
- automatic test options for PCBs 898
- ball grid array soldering proc. meas., X-ray techs. 37142
- ball grid arrays tech. 12938
- bare board test program generation, self-learn/netlist methods 38083
- BIST and fault location 6820
- boundary scan optimisation in proprietary environ. 5598
- boundary scan testing, syst. level 6401
- boundary-scan in SMT, design, mfg. and syst. test 38113
- burn-in time determ. for PCB assembly 38072
- CAM syst. for fab. of PCB elec. tester fixture 6432
- ceramic ball grid array, sphere metallurgies reliab. comparison 20500
- ceramic SMDs on PCB, capacit. monitoring while flex testing 12878
- COB sealed memory ccts., environ. perform. 21328
- common-mode radiation, emission reduction 21640
- complex board mfg., fault coverage, yield and cost 6413
- complex cct. board struct., holographic interferometry 5927
- complex MCMs test strategies 6461
- computerised diagnosis using artificial neural networks 38118
- conductive anodic filaments, x-ray microtomography/SEM serial sectioning 12881
- conductive filament form. in PWBs, woven fabric 29669
- conformal coating proc. optim. 934
- connector reliab., no fault found category 5704
- controlled impedance boards testing 21624

printed circuit testing continued
core materials for SMT appls., engng. props. 21645
cost effective ceramic surface mount packaging 20448
cost reduction in electronics indust. 5589
crit. vibr. behavior, holography, finite element modeling 921
crosstalk reduction with additional center traces 21618
current carrying capacity of Cu conductors 906
CW immunity test conditions 16952
defect trends, O_2 conc. in wave soldering N_2 atmos. 38154
deformation anal. holographic pattern meas. 21619
delay test for boundary-scan based archits. *(Korean)* 21272
design for manufacture philosophy, PCB design appl. 38078
DFT, full/boundary scan, economics 11676
DFT approach in electronics testing 5575
dielec. systs., SIR profile, elec. perform. 901
elec. verification, value to proc., SMA 38105
electronic packaging, mech. anal. 28493
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
EM suscept. testing in time/freq. domains 15470
EMC testing, near-field probes appl. 2245
EMI reduction by lossy PWB 23667
environ. stress screening, 3-level syst. 20411
fine pitch solder joints, microstruct. phenom. 6424
fine pitch surface mount IC package solder joints, exam./testing 37117
fine-pitch SMT, automated soldering inspection 163
fixturing in PCB prod. testing 12906
flex coating reliab., high-perform. MCM-PCB interconnection 12945
flux reliab. assess., electromigration and SIR 177
flux residues, electronic assembly quality 937
fuzzy pattern recognition, trace map reconstruction 38075
groundplanes, radiated emission reduction 23668
HBM ESD testers/specs. anal., 4th order lumped element model 34422
HDTV decoders testing, boundary scan test impact 9725
HIST hierarchical self test for chips/boards/systs. 25725
IBM Austin Electronic Card Assembly and Test, quality mgt. 28515
IBM high perform. carrier technol. for PCB packaging/interconnects 37153
insulation resist. meas. 20410
interconnections, microwave charactn. 38164
International Test Conf., Washington, DC (Oct. 1994) 61
isotropic conductive adhesives, solder replacements 21654
ITC test conference, USA (1993) 36853
laser-based noncontact testing of electronic modules 29650
laser-induced plasma as cond. pathway 6405
leaded SM devices, creep strain response of solder joints, temp. profile params. 38163
leaded SM devices and solder joints in thermal cycling environ., 3D FEA 37132
loaded board test philosophies, PCB/SMT testing 38158
local strain meas., electron beam moire 28911
manufacture, densification techs. 6408
mfg. test simulator, concurrent engng. tool 5597
microcircuit simul. and test develop. BEST TEST software 34407
mixed scannable/non-scannable device boards, boundary scan testing 20395
mixed sig. functional testing, software archit. 6414
multi-strategy tester, boundary scan test addition 38120
multilayer PCB prototyping, engng. lab environ. 38089
multilayer PCBs, decoupling effects of Vcc/Vgg struct. 21635
NAND trees, board-level pin faults diagnosis 6402
netlist automatic extractor, image proc. software for PCB 12874
no-clean flux eval., SIR testing 927
no-clean low residue solder paste for fine pitch appls. 939
no-clean solder paste reflow, N_2 atmos., O_2 conc. influence 38149
no-clean wave solder defect reduction, N_2 atmos. effects 38155
no-clean/water-clean PCB solder joints, plastic quad flat, failure anal. 947
nonrosin solder flux residue corrosivity testing, PCB manufacture 12941
nonvolatile prog. devices and in-cct. test 6095
open stds. appl., board-level testing 29654
organic protective coatings for SMT/PCB finish 12910
Parylene conformal coatings compatibility with no-clean flux residue 38109
pattern defect anal., divide and merge image proc. 29672
PCB pattern defect anal./eval. using CAD data, AOI 37161
PCB X-ray inspection, neural network classifiers 37162
PCB/MLC capacitor bending stress, surface strain measuring method 6412
picolitre flux dispensing for PWB assembly 12939
platable MLC termination materials/proc., PCB bend strength effects 6434
plug-in PC board testing, EMC Directive 21643
populated computer PCBs, IR meas. and anal. predictions 38097
predictive sensitivity based fault detection 38119
proc. variability control, PCB/SMT manufacture 37193
prod. test guidelines 12905
PWA cleanliness testing, ionic contamination meas. variables 6426
PWB plated holes deform., soldering thermal cycle 29685
quality perform. meas., SMT/PCB manufacture 37159
radiated emission prediction/reduction 23666
radiation, lossy finite width image planes influence 21636
radiation aspects calc., EMC-workbench 21634
reduced radiated emission 12895
reson. DC link inverters, MCT soft-switching tests 12320
RF A universal probing syst. for PCBs 12908
rolling-stock electronic equipt. burn-in optimisation 11869
S-bend lead design for SM components, clip-leads appl., compliance metric 140
short ccts. location, parallel short detector 12871
single meas. testing, pros and cons 34381
single-wire analog testability bus, struct. and metrology 6240
SMC solderability testing, microwetting bal. 6422
SMT, solder alternatives eval. 145
SMT bare board ATE, std. mirror board enhancement 38157
SMT board testing, method selection 38102
SMT lead scanning, control of shape and coplanarity params. 915
SMT package, moisture-sensitivity ratings 11750
SMT PCB solder replacement technol. testing 5607
SMT prod., integrated process monitoring/testing 38111
SMT solder joint reliab., voids and void interacts. 178
SnPb-soldered joint reliab., interstitial PGA packages 940
solder joint failure, thermal cycling fatigue, crit. accumulated strain energy 120
solder joint reliab. prediction, computer-aided syst. develop. 37206
solderability and impact of surface coatings 6421
stds. impact on product life-cycle costs reduction 28395

printed circuit testing continued
surface insulation resist. and electromigration test methods 113
surface mount ceramic capacitor failure test, board bending 29653
Taguchi method of environ. stress testing for PWB prod. proc. 29678
thermal deform. anal., holographic tech. 21623
thermal deform. meas. of PCB, holography 6404
through hole solder joints automatic inspection, automated inspection 42705
through-holes, inner wall defect inspection *(Japanese)* 38074
torsion anal., elec. resist. meas. 29657
TPS for multiple test environments 38076
vac. actuated hot mockup PCB test stations 38159
VHDL testbench, board-level test programs develop. 30421
virtual test tools for improved test-develop. productivity 3729
VXI and digital stimulus/response test for PCBs 12923
water soluble organic acid solder flux, ozone depleting subst. elimination 6423
wettability of immersion coated PWBs, temp. and humidity effects 29681
Au-Sn flip chip bonding on flexible prints 12955
Cu, electrodeposited/electroless for PCBs, mech. props. 12940
Cu electroplating of PCB PTH, current dens. effects 6409
Cu gull-wing leads for thin SOP 150
Sn immersion coatings, PWB surface finishes 12934
Sn-Pb SMT solder joint reliab. prediction, model validation 925

printed circuits
see also add-on boards; printed circuit accessories; printed circuit design; printed circuit manufacture; printed circuit testing
0.5-5 kW power convertor PCB distributed mag. components 11105
10 GHz strip line antenna 31932
anisotropic substrs., sig. line models 21628
AOI, travelling cameraman problem 28516
cables, common-mode radiation 15476
capacitance based meas. of ang./lin. displacements 18087
ceramic ball-grid-array packages, reliab./mfg. vars. 20450
cooling, heat transfer decoupling strategy 11761
digital cct. board, near-field EM emission, reson. charact. 21625
discrete discontinuities along coupled PCB traces, meas./simulation 21506
displacement meas., shadow moire 29656
electronic components and technol., conf., Washington DC, 1994 5473
EM emission from PCB sig. line, peak freq. prediction 38073
EM protection/estim. for telecomms. buildings *(Japanese)* 31863
EM radiation, method of moments appl. 899
EM radiation from packaged ICs, anal. 21621
EMC, conference, Dallas, TX, USA (1993) 36844
EMC, conference, Sendai, Japan (1994) 11561
EMI reduction technol. by placing metal plate close, PCB 23713
ESD, finite element time domain simul. 15218
ESD protection material selection, shielding effectiveness meter 28456
FDTD, ESD source modeling 15217
fiber optic module interconnection, parallel data bus 42474
fine line thin dielec. cct. board, charactn. 12877
glass fiber reinforced epoxy laminate PWBs, interfacial debonding 11819
high speed pulse propag., radiation prediction, 3D FDTD 900
horiz. rect. duct for packaging of two PWBs, cooling by laminar airflow 37101
inductance ident./quantification 12873
interactive terminal sliding algm. for hybrid IC planar layout *(Japanese)* 29696
locally nonuniform mesh FDTD anal. 15541
LOCUS, PCB CAD drawings, electronic filing syst. *(Japanese)* 475
materials technol., chip interconnection requirements 12880
MCM-L technols., myths/experiences in multiple product scenarios 21746
metal cabinet enclosing PCB, radiation anal. 23695
microscopic displacement pattern, holographic, 3D graphic image representation using cubic spline fn. 15152
microstrip systs., FEA, approx. capacitance formulas 6283
microwave boards, elec. perform. 21530
microwave cct. boards, elec. perform. 12741
middle gull-wing joint, thermal fatigue life, FEM 28502
MLC substrs. and packages, telecomm. appls. 29652
mother boards interconnecting MCM's 21758
multilayer PCB, power bus decoupling, modeling 15534
multilayers, single row routing 29662
OMPAC package-to-board attach reliab. 28534
organic substrs., low cost miniaturisation 12879
PCB assembly reliab., call rate level reduction 5701
PTH of PCBs, suitable conditions for connections 29692
PTH reliab., direct power/ground plane interconnection 12875
PWB, thermal expansion, copper-invar-copper foil 12876
radiated/crosstalk, edge-elements charactn. 12872
radiation from finite-length printed-pattern, cct.-concept 21626
radiation from PCB with a cable, anal. 23665
radioelectronic apparatus, printed components dyn. charact. computing 38071
recycling, resource param., life cycle assess. 37209
reduced radiated emission, S/N transform. 12895
sig. line, EM emission, spectral profile 23669
SMT PCB solder replacement technol. testing 5607
solder joints of 256-pin plastic QFP, failure anal. 37129
stripline PCB with center traces, crosstalk reduction 21627
tape carrier package, thermal charactn. 28471
telecomm. equipt., 2-step ohmic distrib. syst., printed board assemblies 19838
transm. charact. 21620
transm. line struct. on PCBs and dielec. substrs. 21622
visual inspection-diagnosis expert system, reverse engineering 29651
PZT/Pt thin film decoupling capacitors, integrat. 21591
Si_3N_4 plasma deposited coatings for sealed COB MCM technol. 12961
flexible etched cct.-based IC interconnection, high speed/dens. 13431

printed wiring boards *see printed circuits*

printers
see also ink jet printers; laser printers; matrix printers; thermal printers
3D image hardcopy, holoprinter develop. *(Japanese)* 2150
3D stereoscopic imaging technol. 34630
color correction, CMAC neural net chip 30415
digital halftoning, printer models and error diffusion 16313
digital halftoning by iter. isotropic error feedback 16377
mag. brush, mag. field modelling/simul. 30762
MFP-510 multifunction plain paper facsimile *(Japanese)* 41744

printing
color separation, moire patterns, spectral anal./minimization 2641
computational-morph. filters, mean-absol.-error representation and optim. 32915
constrained image enhancement/halftoning, threshold accepting 32934
facsimile document quality perception/meas. *(French)* 3156
gravure offset printing for fine line thick film conductors 12946
halftoning technol., United States patent literature 184
holographic image printing syst. 7856
IC mask multiple-pass printing, spatial freq. filtering 13456
laser-cut stencils, no-clean solder cream printing 12898
multiscale error-diffusion digital halftoning, local intens. quality measure 24517
non-conventional printing proc., color designing and simul. 24516
screen printing, low defect proc. 12897
SMT screen printing, on-line monitor, print QC 912
super high defn./super high resoln. digital image transm. 25116
xerographic laser printer, vibr.-induced halftone banding 41196
CeO$_2$ thick film buffer layers for HTSC films 22724

prisms (optical) *see optical prisms*

privacy of data *see data privacy*

private telephone exchanges
3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
Ascotel bcs 8 digital commun. syst., ISDN for small enterprises *(German, French)* 25154
automatic telephone operator based on client-server syst. archit. 3132
Centrex, benefits and UK market 16959
corporate telecomm. networks, trends and integrat. issues 41937
Croatia, business commun. syst. MD110 in private networks 33338
CT2Plus based wireless PABX, traffic capacity perform. 9205
data communication, PBX systs. 3165
data network design, concentrator positioning optimisation 24986
DECT, rural/urban wireless local loop access 42273
digital-wireless commun., test equipt. selection 116
frame relay for voice transm. 33396
iOX100 series PBX, digital cordless telephone syst. appl. 25186
ISDN PABXs, overload control 33723
JWOTS, fibre optic commun. network, power utility 25494
Matracom 6400, mgt. syst. for business commun. networks 25185
NEC's PBX APEX1000/3000 *(Japanese)* 16963
PBX-computer connection technol. *(Japanese)* 16970
Philips SOPHO iS3000 ISPBX, internal/external commun. for cruise liners 42114
POTS network value addit. for developing nations 3110
switching syst. MD110, specific appl. develop. 33715
telecomms. operation and maint. workstation model, ES module 33369
voice-activated telephone exchange syst. 3292
VPN's and business commun. solns. 41953
wide-area digital mobile wireless syst. *(Japanese)* 33899
workstation, intell. LAN-PBX interface 33339

PRMA *see packet reservation multiple access*

probabilistic automata
telephone network mgt., learning automata 8777

probabilistic logic
cyclostationary sigs., neural network classifier 40940
DC servomotor stochastic logic PI control 44064
fuzzy controller; on-chip learning, stochastic logic 6166
spectral coeff. calc., cct. output probabilities 2513

probabilistic reasoning *see inference mechanisms; uncertainty handling*

probability
see also binomial distribution; exponential distribution; game theory; gamma distribution; Gaussian distribution; log normal distribution; Monte Carlo methods; normal distribution; Poisson distribution; queueing theory; random processes; statistics; Weibull distribution; Wigner distribution
2D autoregressive noise model, broadband planewave detect. 40840
2D rank-conditioned median filter 24704
3-D morph. algm. for obj. recogn., automated training 16269
3D digitized curves optimal length estim. 41182
3D obj. recog., probabilistic techs. 32923
3D PCN, reception reliab. 17057
10 Gbit/s repeaterless WDM fiber transm. 9466
60 GHz vehicle-to-vehicle commun., time/freq. selectivity 9316
110/220/400 kV power station power syst. short-ccts. eval. 19059
400 kV distrib. substations, conductor short-cct. effects simul. 19281
500-1150 kV overhead lines, corona loss calc., probab. method *(Russian)* 27231
A/d convertors linearisation, analog and digital dither techniques 25755
acoustic sig. proc., regression anal., reduced inform. loss 40884
acoustic state estim., transit. probab. digital filter 40885
act. power contingency ranking, radial basis fn. network 10662
adaptive conscientious competitive learning, appls. 15743
adaptive detectors, effects of sig. contamination 32543
adaptive DQDB bandwidth balancing, blocking probab. and convergence 3175
additional space special service facility heterog. queue 20517
additive basis for nonnegative integers 5753
adjacent channel pulse interf., superheterodyne immunity estim. 23701
admissible nonparametric estim. of probab. dens. 15901
aggregation/disaggregation and direct algm. for computing stationary probabilities of Markov chain 28585
AGOSTO framework, VLSI BIST wt. distrib. generation 30430
AGR core life assess., probabilistic approach 19484
aircraft guidance/decision aid for wind shear avoidance 35219
AM-VSB/64-QAM hybrid opt. transm. systs., impulse-induced bit-error impairment 9557
AR(1)+IPP model for video cell traffic approx. *(Japanese)* 24747
asymptotic relative efficiency of distributed detect. schemes 32534
asynchronous DS/CDMA syst., multistage detector perform. 25240
ATM, threshold priority queueing syst., anal. 33173
ATM based embedded real-time systs., admission policies, perform. 33505
ATM cell loss priority tagging leaky-bucket usage param. control perform. 41411
ATM multiplexer, on-off sources, cell loss probab. 16454
ATM multiplexer loaded by CBR, queueing anal. *(Korean)* 24772
ATM multiplexer output busy/idle periods for homog. ON/OFF sources 33233
ATM multiplexer supporting bursty traffic, perform. computation 41427

probability continued
ATM network, flow control, hysteresis effect *(Korean)* 33188
ATM network end-stations, perform. charact. 33175
ATM network policing mechanism with state-depend. control 41430
ATM network routing, congestion tolerant commun., perform. 8728
ATM network under partial buffer sharing policy, cell loss proc. 8698
ATM networks, bursty traffic, call admission control 8707
ATM networks, cell conformance and QoS guarantees 41445
ATM networks, cell loss probab., state-space reduction method 16437
ATM networks, effective bandwidths for admission control 33231
ATM networks, end-to-end queueing delay 33216
ATM networks, multiple traffic classes, hierarchical dyn. control 16423
ATM networks, neural network traffic enforcement 16790
ATM node buffer allocation algm. for correl. arrivals 41478
ATM peak cell rate monitor algm. dimensioning, discrete time anal. 41447
ATM self-routing bridged shuffle-exchange network 41414
ATM source worst case anal., broadband multiservice network appls. 33195
ATM stat. multiplexer, on/off sources and spacing, perform. anal. 3279
ATM stat. multiplexer multidimens. diffusion model 41431
ATM switch bursty and correl. mean delay and cell loss probab. 41410
ATM traffic source multiplexing 33193
ATM-based LANs, bandwidth mgt. 33517
ATR, sens. motion and vibr. 16276
authentication code with arbitration, lower bound 32165
authentication codes, detection probability 8163
averaging entropy, probab. n-tuples distrib. 24004
B-ISDN, variable bit-rate video modelling 25065
ballistic missile track initiation from satellite obs. 18982
Bayes estim. of reliab. in geometric case 28529
Bayesian approach to confidence in system testing 42654
BiCMOS integrated op amp, EMI failures reduction 22618
bidirectional estim. and confidence regions for TES procs. 20528
binary adaptive detectors, convergence perform. 24326
binary CPM-DPD, diversity in Rician fading channels 32042
binary ECCs over Gaussian QAM channels, perform. eval. 2377
binary lin. block codes in Rayleigh fading channels, decoding algms. 40681
binocular motion stereo, MAP estim. 2784
bipolar games, lin. incentives, risk dominance measure 37232
blind equalization, deterministic approach 8086
bounding fault detection probabilities in combinational circuits 37733
broadband microwave absorber Pareto-optimal design using genetic algms. 31791
bulk power syst. security anal. model, computer-based 26969
bulk power system reliability, assess. methods 19019
bunsetsu, provisional boundaries, 2nd-order Markov model 8188
Burr type X distrib., predict. with outliers, Bayesian approach 20533
BWR, accident mgt., fuzzy probab., influence diag. 35859
CACOP, random pattern testability analyzer 37730
CDMA cellular network, forward link perform. 25366
CDMA fiber-optic LAN, opt. orthogonal codes, perform. 8969
cellular commun., CBWL schemes, hand-off anal. 25411
cellular environ., resource auction multiple access 3348
cellular handover proc. model, limited queuing time 42208
cellular mobile radio systs., outage probab. computation 33909
cellular radio systs., downlink power control algms. 25344
cellular TDMA networks, cochannel interf. simul. 17060
certified electronic mail 16631
CFAR proc., robust neural net scheme 17387
CFAR proc. in nonhomogeneous background 17401
channel equalization with perceptrons, inform.-theoretic approach 32027
circ. 16-DAPSK in fading channels, diversity recept., error anal. 2363
circ. self-test path, fault coverage estim. 29175
class., priori evidence, ambiguous 16273
clutter effect, fixation point anal. 34503
cluttered images, robust model-based edge recogn. 2676
CMOS logic, power consumption reduction tech. 37744
CMOS SRAM soft-error simul. syst. 657
cochannel interf. modelling for sig. strength based handoff anal. 2273
coded direct-seq. systs., rake reception, multipath fading 33905
coded modulation, error probab., upper bounds calc. 15748
coded modulation, Rayleigh fading channels, error probab. 24017
coherent detect. mobile wireless commun., phase ambiguity resolver 33876
coherent opt. POLSK receivers, LO intens. noise and unmatched quantum efficiencies 25491
color images, adaptive Bayesian segmentation 16327
common store queueing syst., threshold-type foreground-background congestion control 24788
compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
complex structural engng. systs. safety, logical-probab. anal. *(Russian)* 5565
composite noise generator, noise immunity tests for dig. systs. and TV pictures 40371
compression window algms. design for elimination of errors 3704
computer equipt., wave fields modeling 2164
conflicts multiplicities, packet output time 16424
conformance testing of protocols with unobservable transitions 2976
connected digit recogn., GPD segmental discrim., rejection method 32303
consecutive-weighted-k-out-of-n:F syst. reliab. algms. 20485
constrained-sig. sources, unique localization, alternative proofs 8435
consumer power supply reliab. indices calcs. *(Russian)* 43606
content based retrieval in image databases, probabilistic approach 8481
contextual classifiers of multispectral image data in rem. sens. 2642
continuous level probab. fn. eval., sig. proc. method *(Japanese)* 2458
continuous Mandarin speech recogn., segmental probab. model 32390
continuous speech phoneme recogn., large inhomog. HMM 32219
continuous speech recogn., expert-TDNNs/HMMs hybrid syst. 32398
continuous speech recogn., models and algms. 8209
continuous speech recogn., prosodic inform., generalised model 32399
convexity-based algms. for design centering of ICs 474
convolutional code, exact perform. calc. 32055
convolutional coded ARQ scheme for moderately time-varying channels 40583
convolutionally encoded seq. decoding, pairwise error probab. 32115
cooperative games, complete inform., equilib. selection 37230
correl. fading channels, FEC perform. 32140
coset codes on fading channel matched constellations 32138
CPM sigs., backtracking seq. detect. 15956
CPM sigs., channel coding/multiple-sym. diff. demod. 24078
Cramer-Rao inequality, large deviation, quantum analogues 40534
CRMA network real-time appls., perform. anal. 41525

probability continued
- CRMA protocol, anal. 33502
- CSMA/CD LAN interconnection by bridge, finite buffer *(Japanese)* 8947
- cut-off priority delay-loss syst., 3 types of traffic and overload control 33228
- DAB single freq. network project 17536
- data assoc. in multitarget tracking, efficient algm. 24331
- data fusion of assoc. hypotheses in distributed sens. network 15873
- decentralized CFAR detect. based on order stats. 2577
- deconvolution regularization, SNR, stat. estim., multiscaling 40782
- defect efficient anal., simul. results 6093
- delta network, expanded middle stages for large ATM cross-connects 24751
- design param. selection, noise 5574
- detect. perform. of lin./sq.-law detectors 32539
- differential cryptoattack, provable security 40626
- differentially detected $\pi/4$-DQPSK syst. perform., AWGN/Rayleigh fading 40568
- digital images, relational descriptions, noise/scale behaviour 41250
- digital indoor radio channels, diversity, block error probab. *(Japanese)* 42173
- digital opt. transm. syst., min. BER degrad. 25473
- digital signature, (t,n) shared verif. based on discrete logs. 24027
- digital VLSI CAD tools based on probab. 28971
- discontinuous transm. in Nakagami/Rician-Nakagami channels 17063
- discrete data protection, inform.-theoretic problems 15732
- discrete search game 37235
- discrete-time queue with gate, anal. 33225
- discriminative feature extraction, filter bank design 32326
- distrib. power lines fault diagnosis, neural net-based 19242
- distributed commun. networks with semi-shortest routing, loss probab. *(Japanese)* 16455
- distributed detect., gradient algm. for quantization levels 24328
- distributed dyn. channnel inform. assisted reuse partitioning 25418
- DPSK/FSK, differential phase detect., bit/sym. error probabilities 40614
- DS-CDMA, integrated voice/data wireless networks, grade of service 9364
- DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
- DS-CDMA outage perform., mobile satellite channel 33906
- DS-CDMA receivers, min. MSE, complexity reduction 3328
- DS-SS communications, doubly selective fading channel, spreading seqs. 17016
- DS-SS packet radio syst. automatic threshold control 42151
- DS-SS syst., RAKE reception, multipath fading, perform. 25446
- DS-SS systs., narrowband interf. rejection 33750
- DS-SSMA error probabilities calc., Gaussian approx. 33215
- DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
- DS/SS systs., coherent chip-asynchronous, signature delay estim. 17014
- dyn. speech recogn. tasks, connectionist approach 32428
- dyn. virtual path bandwidth control, perform. anal. 24908
- $E_l/E_k/1$ queue, restricted min. lattice paths 20506
- edge detect., Markov random field models *(Japanese)* 16237
- edge detect., probabilistic and dictionary-based relax. techs. 8503
- edge detect., relax. labelling tech. 41187
- edge-line ambiguities resoln., probabilistic relax. 2781
- elec. accidents, Tort liability for injuries, employees 78
- elec. supply, customer outage costs, probab. distribs. 4545
- electronic systs., package cracking, probabilistic sensitivity anal. of dyn. response 5664
- EMC of microelectronic rly. traffic control systs. 28117
- engng. syst. safety anal./synthesis, fuzzy sets/evidential reasoning-based 36980
- environ. constrained optimal economic dispatch, genetic algm. 19168
- ergodic HMM and polygrams for lang. modeling 32294
- ergodic Markov chains, large, perform. eval. 37241
- Erlang capacity of shared resource 40540
- Erlang capacity/uniform approx. for shared unbuffered resources 8088
- error rate for differential demodulation of 2-h CPM *(Korean)* 24018
- error-correcting codes, Gilbert channel, perform. eval. 15749
- ESD-immunity tests eval., fault probab. fn. 23508
- expander graphs, Chernoff bound for random walks 5756
- exponential bidirectional associative memory capacity 21336
- extended sources, resoln./detect. 2539
- fast min. error probab. blind equalization algm. 16028
- fault detect., lin. dyn. systs., functional vector method *(Japanese)* 176
- fault detect./ident. for complex MISO lin. systs. 11883
- fault tree uncertainty anal., coeff. of var. appl. 37186
- fault-tolerant VLSI/WSI array proc., design and anal. 6829
- FDDI network perform. eval., guarantee probab. 41905
- FFH-CDMA packet radio network, capacity 42142
- fiber connectors, stat. anal. of connection characts. 14351
- film syst. params., detail perception 18486
- finite-buffer polling syst. with exhaustive service, virtual buffering 16468
- finite-buffered cellular mobile radio syst. 3493
- finite-horizon stat. QoS measures for high-speed networks 33590
- fixed L-ary seq. in random data, search duration 40543
- fixed-rate entropy-coded VQ algms. 8151
- fluorescent opt. probes, phosphoresc. sigs. reemitted from tissues 17971
- framework for probab. distribs. construction on space of image segmentations 32909
- free energy minimisation algm. for decoding and cryptanal. 32111
- free-space opt. commun. systs., pointing jitter, turbulence 9551
- freq. hopped TDMA cellular syst., down-link capacity 9285
- freq.-selective fading channel, differential detect. 2217
- fund. matrix, stabil. anal. 24480
- future mobile telecomm. systs., handover, cell archits. 3402
- fuzzy VQ based HMM 32362
- gas turbine CHP plant, multi-objective operation optim. 36010
- gate size seq. most probable hypothesis tracking 15880
- gated neuronal archit., spatio-temporal feature maps, invariant prop. 33037
- generalized product codes and their perform. 32194
- German telephone network, impulsive noise survey for stat. modeling 16913
- GI/G/1 queueing syst. with repairable service station, reliab. 20516
- GI/GI/1/r queueing syst., stationary queue length distrib. 28574
- gray-level images, multiresolution estim., probabilistic models 33121
- ground station-geostationary satellite link, radio wave atten. 40357
- hazard engineering and the management of risk 5711
- heterog. fluid queues handling general on-off sources, overflow probab. 33221
- high speed adaptive equalizers, complexity reduction 33768
- high speed data networks, transit. splitting for estim. of rare events 33200
- high speed networks, transport layer protocols, rate control 8993
- high-capacity broadband packet switch archit., multilink approach 41912
- high-dens. mag. recording channels, nonlin. compensation 7102

probability continued
- high-dens. pin-board-matrix switch, crosstalk charact. *(Japanese)* 9125
- high-dimens. obs. vector sample comparison 28570
- high-speed opt. fiber LAN, WDM access protocols *(Korean)* 17180
- histogram thresholding, k-means clustering 24371
- HMM, joint moments, simple calc. 41054
- HMM, on-line ident., recursive prediction error 8432
- human expert emergency situation perform. assess. 37182
- human-machine syst. transient-state effectiveness simul. 20479
- HV substation cct. breakers, simul.-aided short cct. risk eval. 44247
- HV substation reliab. centered maint. project, France 44248
- hybrid analogue/digital opt. transm. systs., clipping induced errors 34096
- hybrid HMM-MLP speaker verification algm. for telephone speech 32247
- hybrid NN-HMM systs., model-discriminant training algm. 32435
- hybrid SCM AM/QAM lightwave transm., laser clipping distortion effects 42411
- hybrid tree-loop networks reliab. anal. 8776
- hybrid-ARQ scheme, convolutional code and Viterbi decoding 32099
- IC defects, proc. induced/elec. act., ident. methodology 20469
- IC tester diagnosis, Bayesian network appl. 30428
- ID-codes and measures separated in L_1 metrics 40630
- image coding, arith. and adaptive-Huffman entropy coders, prob. estim. 32871
- image compression, PDF estimators 33011
- image primitive grouping, stochastic, graph-based 41110
- image proc., Bayesian closely spaced obj. resoln. tech. 16099
- image proc., inform. theoretic approach, space-freq. localization 32838
- image segmentation, fuzzy probabilistic relax. 2789
- image segmentation, multiresolution probabilistic neural network 33034
- IMM-IPDAF for track form. on maneuvering targets in clutter 17372
- imprecise probab., expert forecasting, elec. utility 4544
- impulsive stochastic transients detect., background noise 32647
- in-service inspection, risk-based approach 5695
- incoherent freq. hopping multiple access systs., diversity combining 25311
- indirect method of nonlin. filtering, PLL synthesis appls. 32568
- infinite capacity N*D/D/1 queue, idle and busy period distribs. 33234
- inform. theory, typical seqs. 33029
- integrated networks, single resource loss in heavy traffic 41475
- integrated networks partly obs., optimal access 16801
- interconnected power systs., economic dispatch deviation cost penalty 35491
- interconnected power systs., power delivery reliab. index calcs. 19077
- intermittent sigs., effective sweep width 40768
- invariant submersion method, min. filtration problem appls. 32573
- inverters, av./RMS currents anal. 5135
- ionos. sig., stochastic props. of phase derivative 32594
- IPA, improved phone modelling, recurrent neural networks 32218
- IR multiquantum-well photoconductor struct., emission and capture of electrons 13188
- ISI nonlin. equalization, further decision prediction *(Polish)* 40794
- isolated/multi-area systs., spinning reserve, probab. assess. 27060
- IVHS, packet success probabs., meas. headway distribs. 42239
- joint PDF, stat. param. space 40544
- judgemental probab. elicitation, analyst/manager interact. 20372
- k-out-of-n:G syst. reliab. anal. 175
- k-out-of-n:G systs. reliab., probab. arguments 28542
- k-out-of-n:G systs. reliab., simple lower bound calc. 20486
- Ka band satellite terminals, phase noise charact. 3534
- kernel-based classifiers, analog VLSI implement. 29460
- Kullback dist. based nonlin. phase estimators 41011
- label swapping routing, self-termination mechanism 2984
- labeled/unlabeled samples, unknown mixture param., class. 40867
- LABON, learning automata-based opt. network 9608
- LAN protocol, modelling/perform. eval. 16707
- land mobile radio channel multipath excess delay, probab. dens. 3365
- land mobile satellite commun. channel, M-ary FSK perform. 25401
- lang. models, weakness anal. *(English)* 40736
- large-scale packet switch interconnection archit. using overflow switches 41416
- large-scale syst. reliab., phased mission anal. method 174
- LDV, sig. detect./proc. optim. 4021
- Leaky Bucket algm. queueing models, fast simul. methods 11906
- Lee sparse valued reconstruction computer generated holographic storage 31661
- letter-to-sound/sound-to-letter generation, phonological parsing 32365
- LFSR-based hashing and authentication 32164
- life distribs., EBELC/EWELC classes 37239
- life distribs. categorisation, randomly right censored data-based 20482
- lightwave systs. with opt. preamplifier, perform. eval. 17186
- lin. block codes, optimal inform. bit decoding 24091
- lin. code, threshold probab. 32058
- Lin divergence, generalisation and info. divergence derivation *(Japanese)* 15681
- lin. output space compression schemes, bounding error masking 12438
- lin. PMR technol., RF param. for standardisation 3466
- line segment based axial motion stereo 41189
- linear block codes, channels with memory, undetected error probability 8167
- load-adaptive/TDMA systs. perform., satellite networks appl. 9415
- LOS microwave link, 11 GHz, rain atten., worst month stats. 7965
- low birefr. opt. fiber polariz. states, PDF 17260
- low sensitivity state space digital filters, Pareto optimal design 32788
- lower estim. of probab., distinct subsets of unit cube 40532
- Lu-Lee cryptosystem breaking method 40706
- $M^X/G/1$ vacation models, N-policy 20507
- $M^{[x]}/M^{[b]}/1$ queueing syst., correl. server vacations 11911
- M-ary PSK non-decision-aided feedforward carrier sync. asymptotic cycle slip probab. 40554
- M-ary/SS commun. syst., frame sync. method 17008
- M-out-of-N event probab. anal. algms. 37181
- M/M/1 fuzzy queueing syst. 2898
- mag. recording channel, binary/ternary DFE 7191
- magic-sq. codes for hiding DS/SS sigs. from intercept receivers 25266
- maint. activities mgt., optim./priorities/planning integrat. 28387
- maint. engng., qualitat. probab. modelling appls. 83
- manoeuvring targets tracking, accel. modelling, turn-rate distribs. 40788
- mapping approach, rate-distortion computation/anal. 24044
- Markov decision proc., fuzzy approach 5736
- Markov modulated Poisson stream loaded multiplexer loss probab. estim. 41483
- Markov random fields, tree approxs. 41289
- Markovian networks, extreme values of random times 33194

probability continued
Markovian queueing networks, unsteady state probabilities 16466
matched median filter for QAM sigs. detect. 15967
mean residual life/failure rate rels., distribs. charactn. 20483
meas. integral error charact. eval., distrib.-free methods 17624
mfg. test simulator, concurrent engng. tool 5597
MFSK signalling for RS coded freq.-hopped multiple-access commun. 2891
micro-cellular mobile commun. systs., handoff strategies 17061
microwave waveguide filter charact., random mfg. errors effects 29534
min. Renyi inform., complex sig. reconstruction 24509
minMax inform. measure 32016
mismatched decoders, inform. rates 24045
missile attack, defense strategy, inform. value 43591
mixed-sig. ICs, parametric yield prediction 29396
mobile commun., slow freq. hopping, time offset effect 42272
mobile satellite channels, partial response coded MPSK anal. 42205
mobile satellite networks, handover queuing, dyn. channel allocation 25316
mobile sig. reception, stat. model 31833
mobile telecomm. network radio lines EMC estim. methods 25289
model based 3D scene reconstruction from perspective images 41257
MOS device gate oxide, hot carrier transport-injection model 22433
motion clustering, stochastic 24628
motion vector estim. in video coding, stochastic approach 8497
moving obj. detect., posn. sens.-based, meas. error probab. *(Russian)* 34701
multi-codebook HMM speech recogn. systs., learning 32263
multi-hypothesis tracking, max. likelihood method 15870
multi-objective dyn. load dispatching, optimal operation *(Japanese)* 26936
multi-service networks, mean-value anal. of call admission control thresholds 41394
multialternative seq. threshold rule convergence by correl. obs. 32014
multiarea power syst. simultaneous transfer capability anal. 26997
multicast ATM switch copy network shared-buffer archit. 41417
multicopy ALOHA, enhancements 16508
multidimensional BCM on fading channel, BER improvement *(Japanese)* 2368
multielement photodetector, sensitivity variability and noise influence 42796
multilayer cellular networks with classes of mobile stations, perform. anal. 33933
multilevel digital sigs. estim., impulsive interf. presence 24208
multimachine power syst. transient stabil., probab. approach 4460
multimedia commun., intra-stream sync. by conditional dependency 25098
multimedia traffic, loss/delay priorities, Markov-modulated fluid model 8694
multipath self-routing switch fabric, perform. anal. of resequencing unit 33608
multiple call hand-off, queued hand-offs/mixed platform types 33855
multiple model adaptive estimator target tracker, accel. models 32542
multiple target tracking, importance of resoln. 17367
multiplex systs., reliab. models eval. 37192
multipoint cell buffering in ATM, perform. eval. 33178
multiresolution anal., wavelets, probab. dens. estim. 28706
multiround authentication protocol cryptanalysis 32163
multisensor multitarget mixture reduction algm. for tracking 24322
multiserver queues, impatient customers 33244
multitarget tracking, dominant probab. data assoc. 15913
multitarget tracking, quick data assoc. algm. 16056
multitarget tracking and motion correspondence, ranked assignments 32544
multivariable robust filtering/open-loop control, probab. 32529
μP systs. simul. for param. meas. of thermophysical procs. 37800
MUSIC algm., probab. of resoln. 40842
N-tuple modular redundancy systs. reliab. modelling 37185
neural network based flight control, validation methodology 10362
neural network based on stochastic computation *(Korean)* 21477
noise canceling, autoassociative memory trained by order stats. 32623
noise cancellation/sig. separation, unsupervised competitive learning rule 8449
noisy/textured images adaptive segmentation 16151
non-Gaussian coherent radar clutter models 42495
non-Gaussian noise models, composite/class A noise 20535
non-interactive ID-base key sharing schemes and perform. 32081
non-lin. image restoration algm., artifact reduction 24514
non-Markovian proc., conditional probab. dens., kinetic eqns. 20534
nonadditive measures, additive representations, and the Choquet integral 28593
nonblocking space-division packet switch, 2 correl. input call types 41459
nonGaussian stochastic syst. state estim. based on time transits. of moment and probab. fn. 2544
nonlin. predictor, zero-memory nonlin., second order Volterra filter 40985
nonlin. recursive smoothing filters, perform. anal. 6238
nonlin. sig. proc. and adaptive filtering, orthonormal fns. 32777
nonpreemptive priority queue, SPP arrivals of high class 20510
nonutility generation in customer delivery syst. planning 4611
NPP advanced emergency operation procedure develop. 4763
NPP surveillance requirements, risk anal. 4762
NPP tech. safety specs., probabilistic anal. 35938
nuc. attack C^2 sigs., Bayesian interp. 43576
num. inversion of Laplace transforms of probab. distribs. 28704
Nyquist data converters, verif., behavioral simul. 37816
obj. recogn., higher-order stats. 2673
obj. recogn., indexing strategies design 2674
oblivious packet-routing networks, queueing anal. 8714
opt. agricultural rem. sens., spatial pattern class. 24540
opt. CDMA commun. syst. M-ary signalling 34058
opt. CDMA with prime codes, perform. anal. 34073
opt. direct-detect. channel, coded multi-pulse PPM perform. 8170
opt. fiber atten. in regeneration sects., stat. normalization 30865
opt. fibre FDM FSK syst., channel spacing, crosstalk *(Chinese)* 42354
opt. fibre PPM perform., jitter implications 17245
opt. flow computation, mixture models 16177
optimal alarm-sig. algms. for gas analyzers 3910
optimal reception, error probab. in channel, variable param. under ISI 32018
optimal stack filters, rank selection/structural constraints 40780
optimal strategies for searching in presence of errors 5741
optimisation of genetic algms., Taguchi method 223
oracle quantum computing, complexity 14563
outage probab./BER estim., dual protection margins 17056
overhead distrib. line pole struct., risk-based design 43755
overhead lines, corona effects anal., probab. method 10750
packet loss rate simul., commun. networks, priorities 11907
packet satellite commun., combined free/DAMA protocol 9418
packet switch, output buffering/imbalanced correl. traffic, anal. 8716

probability continued
packet switch, quick simul. of stationary tail probabilities 41433
packet switch waiting time, input/output buffer control policy *(Japanese)* 41490
PAFC CHP feasibility, multiobjective optimal unit sizing 36074
parallax field, intens.-based estim., smoothness constraint 33124
param. estim., improved Bellini-Tartara lower bound 40870
parametric image models, Bayesian region merging probab. 16392
parametric image models, Bayesian segmentation methodology 24421
parametric model output probab. laws, study and simul. *(French)* 15928
partial 4-trees, forbidden minor/reliab. 37202
party line, teletraffic model 16407
pass. sonar sig. proc., ocean acoustic source localisation 25597
pass. sonar sig. proc., probab. modeling and Bayesian inversion 25596
pass. stochastic approx. with averaging along trajectory, optimal algm. 37240
pattern class., probab. measures, learning decision rules 41208
PCB assembly, effective burn-in time determ. 38072
PCB manufacture, defects, fault coverage, yield and cost 6413
PCS, LEO satellite network, delivery time anal. 25315
PCS, multiple hierarchical cellular overlays 25317
PCS, multiple hierarchical cellular overlays 25397
PCS, non-blocking channel assignment for hand-offs 25422
PDF estim., order stat. filter bank 32799
phoneme recogn., restricting training sect. in concatenated HMM training 32272
phonetic segmentation, parallel algm., mean field annealing 15802
PM stepping motor drives, reverse rot. studies *(Japanese)* 11394
Potts neural nets, optimisation, dyn. systs. equivalence 21480
power estim. techs. in VLSI ccts., survey 1473
power syst. act. power reserve scheduling 27088
power syst. adequacy indices, failure/repair proc. distrib. effects 26887
power syst. anal. ES, evidence theory-based 26919
power syst. bal. reliab. params. estim., probab. method 18999
power syst. contingency screening method, genetic algm.-based *(Japanese)* 26994
power syst. failures, cascade-like propag., simul. 27025
power syst. harmonics estim., superposition method-based *(Chinese)* 43625
power syst. load modelling, cumulant-based probabilistic simul. *(Chinese)* 35449
power syst. load static characts. ident., neural net-based *(Chinese)* 43604
power syst. operational planning, reliab. eval. method 27090
power syst. planning, loss of load probab. estim. *(Japanese)* 27085
power syst. planning/operation, R&D trends, probab. appls. 4597
power syst. probabilistic constrained load flow, sensitivity anal.-based 4613
power syst. protection, probabilistic decision approach 10768
power syst. security assess., multicontingency preprocessing ES 35505
power syst. security assessment, probabilistic eval. 19116
power syst. short-cct. power meas., probab. estim. 19374
power syst. short-ccts. calc., ANN appl. 19067
power syst. static security fuzzy optimal control simuls. 35479
power syst. value based planning, probab. tech. 4617
Prabhu upper error bound for digital commun. syst. 15688
prefix codes, equiprobable words and unequal letter costs 24108
PRMA perform. study, Markov anal. 8737
PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
probabilistic methods, continuing engng. education 71
probabilistic recurrence rels. 28581
probabilistic safety anal., probab. meaning 86
probabilistic timed protocol verification for extended state transit. model 8773
probabilities of events described by order stats. and appls., queue inference 28573
product defects, stress testing 28422
pseudo-inverse-based probab. power flow 35462
PSK sigs., class., optimum method 15689
PSK sigs., low SNR approx., phase PDF 2364
PWR power plant, seismic PSA, uniform risk spectra 43856
QAM signaling, Rician-fading diversity channels, error probab. 32040
QC Taguchi methods, Goh's paradox anal. 5681
quantitat. seafloor charactn., bathymetric sidescan sonar 10558
quantum limited OOK, opt. amplif., perform. bounds/cutoff rates 40564
quantum limited OOK, opt. amplif., perform./cutoff rates 40546
quartz cryst. resonator, extralow excitation, stationary acoustic vibrs. 14085
queueing anal. of partial buffer sharing, Markov modulated Poisson inputs 33220
queueing problems modelled by Toeplitz matrices 37225
radar targets, polariz.-space-time domain detect. 34136
radio direction finding results, simul. modeling 34191
radio sig. pseudoenvelope distribs. and their approx. 2572
radio-electronic apparatus, probab. of failure-free operation 3318
radiological investigs., probab. methods 35201
radiometer perform. limitations in spherically invariant noise 32541
random access LAN, unbalanced random no. generator 16658
random branching procs., entropies, convergence results 40539
random coding, optimal noisy channel quantization, asymptotic bounds 24043
random fuzzy sets and fuzzy martingales 28614
random pattern testable ccts., automated logic synthesis 6073
random seq., finite change-time, abrupt change detect. 24168
random string evol., stabilization laws 41481
range data, agglomerative clustering 16401
range data, curvature based segmentation 24416
Rayleigh fading channel, adaptive diversity receiver, error probab. 25263
Rayleigh fading channel model, first-order Markovian assumption 31835
recurrent neural network based speech recogn. 32430
reliab. anal. life distribs., location params. Bayesian estim. 173
reliab. dens. fn. determ., failure rate, random variable 20498
reliab. params. in engng.-syst. monitoring, error var. 11859
reliab. theory, syst. components importance ranking theorems 28544
rem. procedure call protocol, probabilistic validation 24821
renewal models for maneuvering targets 34114
repairable systs. interval reliab., integral eqn. approach 37178
resoln. cell based fusion 15919
RESTART method, accelerated simul., multiple thresholds 33248
Rice-lognormal terrestrial/satellite channel model 31834
Richardson-Lucy blind deconvolution algm. 24361
Rician sig. in L Rician interferers, outage probab. 33920
Rician-fading channels, convolutional codes, finite interleaving depth 33911
ring channel reliab. investig., computer networks 25035
road segment matching using probabilistic relax., hierarchical approach 8502

probability continued
robust Kalman filtering insensitive, continuous outlier *(Chinese)* 2454
robust nonlin. regression methods, dose response rels. 28569
robust speech recogn., probabilistic optimum filtering 32309
RS coding, freq.-hop commun., correl. fading 17024
S-SEED operation with noise, BER anal. 22946
SAR images, max. likelihood algm. for target detect. 17365
satellite mobile channel, FSK-DPD/CPM-DPD, pulse shaping 25304
secret sharing, robust, dealer, honest, cheating 32094
sector antenna/DFE modems for indoor radio commun. 3167
sectorized mobile microcellular radio syst., perform. anal. 3451
secure addit. chain for SASC protocol appls., cryptanal. 24026
selection in presence of noise, design of playoff systs. 5740
selective attention in multisensor obj. recogn. 24643
self-testing PLM design, lin. seq. machines 12413
sens. sig. reliab. for knowledge based fault diagnosing syst. *(Chinese)* 32637
seq. ccts., ATPG, fault ordering 12448
sig. restoration, random nos. of counts 32013
sig.-subspace param. estimators, resoln. thresholds, defn./eval. 40945
simply connected moving objs., static scene, segmentation algm. 8524
Simpson's quadrature, probabilistic anal. 5788
single chip ceramic package stress states, reliab. terms 11755
single-mode fiber, polariz. effect on four-wave mixing efficiency, comment 30878
single-server queueing networks optimal control 11910
single-stage output buffer packet switches, independent batch arrivals 41456
Sizewell B, PSA, severe accident source term categorisation 35732
Sizewell B plant, probabilistic safety anal. 10821
slotted freq.-hopped PRN, random/deterministic, anal. 17010
SNR estim. algm., fourth-order moments 40871
soft-decision seq. decoders perform., estim. 8175
solar cell, mag. moment, probab. estim. 44408
sonar, global inversion by genetic algm. 17468
sound level meter stochastic response anal., road traffic appl. 10074
Space Station Freedom wireless commun. propag. theory and expt. 31816
speaker recogn., neural tree network/VQ probab. estimators 8236
speaker verification, discrim. semi-continuous HMM 32281
speech packet network residence time, speech legibility 15801
speech recogn., frame correl. constrained phoneme HMM 15805
speech recogn., HMM, state duration modelling 24134
speech recogn., HMM based on visual/auditory info. fusion 15820
speech recogn., misrecognitions and out-of-vocab. words, detect. 32370
speech recogn., MLP probab. estimators, parallel training 8237
speech recogn. candidates, chart parsing 32368
speech recogn. syst., microphones adaptation, tied-mixture normalization 32313
speech sigs., recursive formants tracking 32408
spotting events in continuous speech 32300
SRAMs, 1 Mbit, single hard errors from single ion, charactn. 12526
SS digital data link for aviation 10379
SS PRN, delay capture, arrival-time distrib. 9174
SSS-LR continuous speech recogn., non-uniform unit parsing 32394
stack filters, rank selection probabilities 8261
stack filters, rank selection probabilities 2496
standby complex syst. having imperfect switch-over device, availability anal. 11853
stat. distrib. material, eddy current loss calc. 40248
stat. multiplex perform. anal. of multimedia sources 8732
stat. multiplexer with generalized periodic sources, anal. 24750
state depend. multiserver queues busy period 20508
stereo images for deriving orient. cues 24470
stochastic algm. for parametric/non-parametric estim. 40859
stochastic CFG, sentence recogn. 32367
stochastic event graph, iter. algm. for perform. eval. 5750
stochastic modelling, continuing engng. education approaches 68
stochastic sig. energy theory, meas. theory 2359
strategic R&D project selection/resource allocation, DSS-based 11657
stress testing optimisation formulation, net benefit concept 11726
struct. reliab. estim. models, uncertain data handling 37179
suboptimal detectors, discrim./perform. measures 24284
subspace GLRT for vector-sens. array detect. 40954
substation reliab. eval., TOPASE project 36475
successful deception probab., max. no. of messages estim. 15731
SVD, subspace swap probab. 40815
SVD methods, subspace swap probab. 8302
switching systs. carrying multi-channel traffic streams, combinat. anal. 41930
sync. CDMA commun. syst., adaptive interf. cancelation 25241
sync. DS-SS multiple access, acquisition based capacity 42168
sync. image restoration 24620
sync. multiuser CDMA detector, multidimensional adaptive canceler 15898
sync. opt. chip interconnects, perform. anal. 39604
sync. seq. ccts., state assignment for low power dissipation 29095
T1 carrier syst. companding noise statistics 41388
talker clustering/ident., model dist. measure 32282
target acquisition probabilities for image motion and vibr. 32904
target discrim., computational vision human perception models 35393
target tracking, cpd. Markov chain anal. of false track generation 15868
target tracking, data assoc./nearest neighbour combinations 15914
TCM, probab. dens. of ISI 15713
TDMA systs., unique-words perform. eval./selection/design 24780
team ROC curve in binary hypothesis testing environ. 32011
telecom. network mgt. using inform. and proc. models, spec. description 41669
telecomm. networks, perform., ES 3194
telecomm. traffic, modified adaptive seq. projection algm. 41679
test pattern generation algorithm acceleration, probabilistic measures 42722
testability measures combining probablistic and sampling techniques 21205
text independent speaker ident., robust segmental method 32245
thermal image target acquisition probabilities, vibrs. 34558
thin film heads, inductance fluct., domain instabil. and popcorn noise 7093
three-phase salient pole sync. machines, param. estim. algm. 44016
three-state device networks, reliab. eval. formulae 20499
time interval distribution measurements in photon counting distrib. 26238
time-series anal., rank determ. 40910
token passing MAC protocols, quality of service estim. 16499
totem single-ring protocol, message delivery, probabilistic bounds 2914
traffic sign recogn. syst. 32951
transformer winding deform. probab., external fault *(Russian)* 36229
transient sigs. detect. in multipath environ. 40888

probability continued
transit. counting, aliasing error probab. final value 122
transm. network probabilistic prod. costing simul. 27120
transm. syst. reliab. anal., data determ., Jordan 43615
transmission syst. model reliab. anal., probab. method 35605
trellis coded overlapping multi-pulse PPM, opt. channel 15705
trellis codes, error probab., dist. spectra/upper bounds 32063
trimmed-mean CFAR proc., detect. perform. 25555
Turkey, rainfall atten. climatic map, develop. 15437
TV image stat. model, color distrib. probab. 8539
two-unit cold standby syst. with instructions at need, probabilistic anal. 28530
uncertain ocean environ., sonar matched field proc. 17470
uncertainty and decision-making problems in fuzzy expts. 37233
undetected error, worst case probab. bounds 24100
VC-dimens. anal. for obj. recogn. 24462
vector-valued fns., commun. complexity 24737
vert. polarized bistatic RCS for random rough surfaces 34111
VHF channels, digital fading mobile, Markov charactn. 3337
view-based obj. recogn., pairwise geometric histograms anal. 41124
visualising predictability, chaotic ensembles 32467
VLSI cct. testability and coverage estim. 22518
VLSI interconnect reliab. studies, computer simul. 22553
wavelet transform image coding, successive approx. quantization/generalized decoding 8604
wind-diesel energy syst. perform., probabilistic eval. 10913
wind-diesel syst., probabilistic/time series model 10915
wireless cellular network distributed dyn. channel allocation algms. 42229
word recogn. algm., part of speech tagging 2657
Cs at. freq. stds., second harmonic level monitors 42676
Er-doped in-line fiber amp. Kerr nonlin./noise 9444
Pb-Ca automobile batts., reliab. studies 36540

probes
see also electron probes; plasma probes
300 kJ railgun, high efficiency, expt. characts. 15282
array probe card, micromachined, charactn. 20409
array probe card, micromachined, fab. proc. 20408
bal. probe, coaxial type for 1-500 MHz CRO meas. 3925
bare-chip probe for high I/O, high speed IC testing 6839
boundary biased-probe method, I_p/I_{po}-V_b nonlin. 7918
broadband, isotropic, electric-field probe with tapered resistive dipoles 25798
capacitively fed microstrip antenna element 23852
CMM, interf. probe head 17729
coaxial line probes, shorted, NMR imaging appl. 43250
coaxial probe for ESD voltage waveform meas., 1 ns risetime 34651
coaxial probes, relative complex dielec. permitt., nondestructive meas. 25964
coaxial slot antenna dielec. meas. model 23906
coaxial-to-waveguide adaptor with probe/tuning post, anal. 21521
coaxially-fed rect. patch antenna input impedance rel. to substr. thickness 31939
compact range imaging, main-beam reduction 2320
cryosurgery, high-perform. multiprobe device develop. 26448
cylindrical hot-film probes in water flows, calib. 10066
dielec. tissue meas., coaxial probe, qtr.-wave choke 35124
double-sided Si microstrip detectors, probe fixture 34940
dual freq. US probe for med. appls. 35007
dual patch shielded antenna array element for mobile satellite commun. 23947
EM coupled stacked rect. patch antennas 31927
EMC testing, near-field probes appl. 2245
EMI meas., std. antennas calib. 7991
fiber-optic luminesc. probes, biomedical studies 26306
fluorescent opt. probes, phosphoresc. sigs. reemitted from tissues 17971
hole diam. opt. meas. instrum. develop. *(Japanese)* 42939
HV subnanosecond pulses meas., probes/attenuators 3817
hydroelectric generator stator insulation, PD detect. techs. 43942
IC probe cards, manufacture and Si LSI/VLSI R&D/prod. testing *(Slovenian)* 30393
intracavitary probe, small myocardial infarctions, optimum detect. 18553
known good die, universal membrane probe, MCM manufacture 21702
layered metals with continuous cond. profiles, eddy current testing 37553
line conductors, elec. field meas., oscill. transients, static probe 4693
low-temp. two-axis goniometer, accurate temp. control 9874
LRM probe-tip calib., nonideal stds. 25708
mag. fields from appliances meas., coil probe dimens./uncertainties 3813
mag. vector probe, 3D num. anal. 25831
maglev contact anal. probe tool for automated IC manufacture 20415
membrane probe, increase digital/RF IC testing 20402
membrane probe technol. for MCM Known-Good-Die 6455
microwave complex permitt. meas. using coaxial probe, error estim. 18036
MOSFET miniature radiation dosimeter probe 10298
moulded case cct. breakers, hot gas ejection studies 19892
MRI topical probe, flat, truncated line probe 43251
muzzle-fed railgun expts., 3-D EM simul. 15279
non-rigid materials, thermal conductivity meas., heat probe 3815
nonsteady state probe for thermal/humidity meas. 42757
open-circuited coaxial probes, neurocomputed model 34666
planar near-field meas. of low-sidelobe antennas 2350
power IBGT module perform. testing, low inductance cct. 29009
probing elec. discharges, opt. fibres 17828
quasioptical Josephson detectors for MM-wave spectrum anal. 42759
radioimmunotherapy dose meas., miniature MOSFET dosimeter probe 35195
real time electro-optic probing for long logic pattern anal. 34649
scanning opt. microscope near-field fibre probes fab. and charactn. 30870
skin cryosurgery, MRI monitored, integrated probe 35059
space power thermionic convertors, Cs circulation system testing 18739
supercond. technol., space appls. *(Japanese)* 35212
superconds. transport crit. current dens. meas. 17746
TCP implement., act. probing 24807
test zone field compensation 40452
tetrachloroethylene-contaminated soil remediation by soil vap. extraction 37211
transm. line propag. const. determ. from phase inform. of standing waves 15551
ultrahigh-speed IC diagnosis, electro-optic probing 6835
vector components of elec. field meas., electrooptic sampling 34650
VIRA-2P pulsed power X-ray generator, electron beam size meas. 34973
vision probing techs. for testing MCM and bare die 21734

- **probes** continued
  - VLSI plasma charging induced damage, transient and electrode edge effect meas. 22191
  - Si detector X-ray/γ-ray probe, backscatt. det., struct. nonuniformity meas. 4210
  - Si-on-sapphire photoconductive probes, fab. and charactn. 7464
- **problem oriented languages** *see high level languages*
- **problem solving**
  - *see also backtracking; divide and conquer methods; forward chaining*
  - appl. distributed constraint satisfaction, commun. network path assignments 33384
  - cellular network planning, radio coverage defn. methodology 42227
  - CMOS fab. intuition and reasoning in problem solving 36916
  - continuous improvement project mgt. overview 11656
  - DRS-Sched, data relay satellite syst. scheduler 33950
  - dyn. environ., distributed problem solving systs. 27054
  - dyn. problems, cooperative search scheme 24851
  - elec. power engng., intell. tutoring syst. 20302
  - engng. problem explanation/understanding, intell. tutoring syst. 20275
  - fuzzy logic problem-solving capabilities and limitations *(German)* 29196
  - innovation mgt., leadership effects anal. 11640
  - math. prog./resource mgt. 20562
  - multimedia commun. distributed co-operative multiagent IN syst. 41976
  - obj. recogn., model-based, fuzzy 2858
  - parallel lin. eqn. solvers for computational electromagnetics problems 23557
  - power network mgt., KBS and distributed problem solving 10650
  - satisfiability problem solving, static elec. field theory 15246
  - telecommunication network optimal alternative routing algms. 41552
  - VLSI CAD, cooperative problem solving 492
  - VLSI design, categorization-based diagnostic systems 5959
- **procedure libraries** *see software libraries*
- **procedure oriented languages** *see high level languages*
- **process algebra**
  - *see also calculus of communicating systems; communicating sequential processes; relational algebra*
  - Deep Sace Network, microwave controller software, higher order logic 42338
  - DSN controller software develop., higher order logic expt. 42339
  - p-adic nos. complexity theory 5739
- **process computers**
  - CERN PS accelerator, control syst. overview and status 18182
  - polarized target, SMC target, NMR polariz. meas., on-line syst. 34873
  - TRISTAN accelerator control syst., rejuvenation status 18190
  - UVSOR SR source, gracefully-degraded operationable control syst. 18196
- **process control**
  - *see also direct digital control; statistical process control*
  - 1 μm BiCMOS proc., 200 Å gate oxide charactn./manufacturability 13902
  - advanced semicond. manufacture, conf., Boston, USA (Oct. 1993) 36877
  - analytic techs., conf. Mandelieu la Napoule, France (1994) 5494
  - arc welding robot coord. motion control, sens.-based *(Japanese)* 11505
  - AutoMax distributed power/control syst. 10710
  - bioprocess operations and drug discovery 43178
  - biotechnology research lab. proc. control, GUI-based *(German)* 34984
  - bulk chem. distrib. systs., impact on semicond. proc. 11715
  - cement indust., clinker grinding, roller mills 36806
  - cement kiln dust recycling, water leaching, proc. control 17673
  - cement kiln optimisation experience, LINKman graphic 5425
  - cement plant automation strategy, ESSROC 5424
  - cement plant power/control automation project, Germany 36807
  - cement storage/dispatch terminal automation 3731
  - ceramic multicomponent modules, miniaturisation approach 5622
  - chemical-mechanical planarisation, Run by Run controller 38566
  - cold strip rolling, proc. output optim. studies 11496
  - COMPACT 90 small-scale control syst. *(Japanese)* 3748
  - competitive microelectronics mfg., concepts 20404
  - component/proc. selection guidelines, SMT/PCB/fine pitch manufacture 38131
  - current-loop transmitter, 4-20 mA, for telemeasuring 3158
  - drum-type boiler of power plant, automatic control *(Japanese)* 4840
  - elec. proc. heating, thermal/control considerations 5382
  - electronic welding, HF reson. inverter-based 36802
  - electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
  - epoxy die attach, dispensing technol. and systs. 12950
  - extrusion proc. DC motor drive cascaded control design *(Russian)* 11497
  - FDDI commun., proc. control, fieldbuses connection 33497
  - film interface control in integrated IC proc. systs. 20405
  - fine-pitch wire bonding for COB 38096
  - five-axis EDM machine tool, CAD/CAM syst. develop. *(Japanese)* 11511
  - flip COB process charactn., no-clean flux, ionic residue 38108
  - furnace, elec., fuzzy adaptive controller, proc. control appl. *(Korean)* 5389
  - golf car arc welding modernisation project, USA 5400
  - Hibernia offshore platform, integrated control syst. 5412
  - high power lasers, improved mfg. procs. 15194
  - hot rolling mill control/power equipt. modernisation project, USA 44630
  - IC proc. control/failure anal., FIB appl. *(French)* 1490
  - IC proc. flow mgt., decision-making 29693
  - IEEE industry applications, conf., Denver, USA (1994) 10
  - III-V semicond. growth params. in MBE, in-situ meas. and control 20737
  - imaging spectrometer for proc. indust. appls. 17925
  - indust. fieldbus technol., standardisation efforts 41795
  - indust. laser cutting syst., knowledge-based adaptive control 5614
  - industrial appls. of laser materials proc., conf., Vienna (1994) 36867
  - injection molding proc., plastic variables meas. 18135
  - integrated RTP/MOCVD technol., IC manufacture, model-based proc. control 22533
  - intrinsic thermocouple monitor for laser wirebonding 29710
  - ion implantation, advanced SPC methods 38496
  - knowledge based monitoring/control of plasma, chromaticity meas. 12147
  - lab. of indust. control systs. 17689
  - laser materials processing/machining, conf., Frankfurt, Germany (1994) 11555
  - laser-created interconnects for rapid prototyping of IC 38639
  - lean prod. in semicond., new process introduction 36951
  - length-varying computer-controlled fibre drawing 1698
  - LEP2 cryogenics, large indust. control syst. appl. 18239
  - lithographic proc. monitoring and control, diffractive techs. 13489
  - lithography tool, reliab. demons. test. design, Bayesian tech. 37194
  - low-solids flux conc. analyser, automated 42976
  - LSI manufacturing yield, integrated database syst., cond. anal. 37040
  - machining robot control, inductive power/sig. transm. 20167
- **process control** continued
  - MCM assembly, encapsulation and underfilling, proc. notes 37119
  - mechatronics fund., meas. sci. and technol. 9850
  - MES, Manufacturing Execution Systems, real-time control of factory floor resources 37036
  - metal contamination monitoring, surface photovoltage, SPC 38458
  - metall. indust., thermal proc., optimal control software 44628
  - microelectronics mfg., technol., conf., Orlando, USA (Nov. 1993) 20209
  - mil. electronics, environ. safe soldering/cleaning 6427
  - moisture meas. units, proc. control appls. *(German)* 18169
  - multivariable combustion control design, indiv. channel design framework 27525
  - network control proc. data transm., IEC 870-6 OSI protocols *(German)* 19179
  - noncontact IR based temp. sens. 10051
  - open software archit. for semicond. indust. 37053
  - parallel computers/fiber-optic commun. links interfacing 34026
  - PCB assembly rework cell controller, software modelling 115
  - PCB semi-aq. cleaning proc. control, closed-loop water recycling syst. 919
  - petrochemical plant, elec./proc. control systs. integrat. 5410
  - plasma arc welding robot, TGZ-LNG membrane sheet appls. *(Japanese)* 28195
  - plasma etching control of Si/SiO_2 in SF_6/Argon 30396
  - plasma gate etch, neural network control 38567
  - plasma technol. in surface proc., symp., London (Mar. 1995) 36884
  - plastic molding control, ISA, PCMCIA data acquisition 42745
  - power station mgt., proc. visualisation and multimedia technol. *(German)* 19381
  - preforms manufacture for ceramic- and metal-matrix composites 20426
  - proc. industries appls. of fibre optic sens. 17812
  - proc. monitoring, neural net-based *(Japanese)* 9790
  - product temp. profile meas., IR linescanning 3879
  - programmable rainfall simulator design and software develop. 35348
  - qualified manufacturers list approach in electronic packaging 28450
  - rapid thermal proc., pole placement adaptive control 30010
  - rapid thermal procs., model-based control 13866
  - rapid thermal procs., uniformity control, phys. modelling 30434
  - reactive ion etcher, nonlin. ident. and control 13368
  - real time galvanizing plant temp. control 28191
  - refr. index determ., temp. meas. and proc. control 18129
  - retro-reflective laser automatic inspection systs. for proc. control 37174
  - ribbon/wire automatic bonding for hybrid and MCM assembly 38176
  - robotic plasma arc cutting, laser sens.-based 126
  - RTP, absol. temp. control 30401
  - RTP systs., capabilities and limitations 28411
  - safety-crit. tech. proc. spec. toolkit 11691
  - screen printing, low defect proc. 12897
  - SEMI equipt. commun. std., automation guidelines 11716
  - semicond. mfg., proc. control, quadrupole mass spectrometer 6601
  - semicond. mfg. proc. modeling and control, fuzzy logic model 20414
  - semicond. short run mfg., Kalman filtering proc. control 37166
  - sensing gluten development during bread dough mixing 25806
  - sheet metal bending, lin. hydraulic DC servomotor valve appls. *(Japanese)* 36493
  - shop floor control inform. flow, PCB assembly 5600
  - Si_3 N_4, PECVD proc., monitor wafer based controller 37519
  - sig. sampling scheme in real-time, alternative filter 24314
  - SMT components on PCBs, proc. control of reworking 12903
  - SMT prod., integrated process monitoring/testing 38111
  - SMT screen printing, on-line monitor, print QC 912
  - spectral ellipsometry for semicond. proc. in situ diagnostics and control 22200
  - SSC accelerator proc. control syst. 18177
  - steel beam mill monitoring syst., PC-based 42949
  - steel indust. wireless coke oven SCADA syst. 9824
  - steel plant noncontact rail dimens. meas., machine vision-based 42931
  - steel rolling mill two-inertia syst. control *(Japanese)* 11501
  - steel struct. beams automatic painting syst. *(Japanese)* 3892
  - submicrometer feature etched IC fab. proc. control, UV-vis. ellipsometry 30078
  - surface-mounted reflow, proc. control for high yields 12914
  - Texas Instruments MMST program, all-RTO/RTA/RTCVD 0.35 μm CMOS IC prod. 22594
  - thermal power plant start-up/shut-down proc. automation 4823
  - tobacco factory automation, SINEC commun. network 41899
  - torque disturbance effects 5265
  - TV amps. tuning, robot fingers, fuzzy logic 37654
  - two-link collision free robot positioning, microcontroller-based 11226
  - vision-based gauge for online weld profile metrology 3891
  - VLSI mfg. pilot line, SPC implementation 37164
  - VLSI RIE systs., real-time control, plasma generation, phenomenological modeling 1264
  - VLSI work cell manufacturing syst. 37042
  - wafer dicing process optim. 38956
  - wafer fab. line, feedback control syst., implementation 37043
  - waste minimization in electronic component proc., systs. approach 5715
  - wire extrusion lines, diam. gauges, control systs. 5399
  - wire mfg., distributed power syst. control concept 11503
  - GaAs, LEC cryst. growth, analytic model, proc. control 28715
  - GaAs MMIC mfg., SPC use/misuse 38017
  - GaAs wafer breakage, impact on proc. facilities 38459
  - InP-based heterostruct. device/cct. proc. facility design 29996
  - SiGe-Si UHV-CVD MQWs, in-situ spectrosc. ellipsometry growth control 20845
- **process heating** *see electric heating*
- **process-oriented simulation** *see discrete event simulation*
- **processor scheduling**
  - behavioural synthesis, scheduling problem, Hopfield network 37604
  - CMOS multitask micropower μP, hardware scheduler 29304
  - controller area network, real-time commun. anal. 3177
  - DSP real-time implement. on multiprocessors, CAD environ. 12584
  - DSP software synthesis, Ptolemy environ. 40800
  - high-level DSP synthesis, concurrent algm. 37793
  - high-level DSP synthesis using concurrent transforms., scheduling, and allocation 21363
  - high-level synthesis of sig. flow graphs, algm. based fault tolerance 32496
  - massively parallel semicond. device simul., irregular grids 1326
  - multimedia commun. in real-time, workstation support 9062
  - multiprocessor DSP, task allocation/scheduling 40827

- **processor scheduling** continued
  - packet routing schedule, O(congestion+dilation) algms. 16526
  - parallel logic simul., benchmark ccts., dyn. scheduling 12428
  - parallel systs., Petri net perform. models 24774
  - pipeline struct. synthesis, variable data initiation intervals *(Korean)* 28934
  - prog. DSP, scheduling/instruction selection 6184
  - protocol specs., message collisions, automated synthesis 2935
  - recursive DSP algms. mapping, multiprocessor 28953
  - run-time overhead minimisation in multi-proc. pre-emptive scheduling 32492
- **product control** *see quality control*
- **product development**
  - 50 MHz multichip proc. module, flip chip technol. 21765
  - advanced sens./instrums. used in aero-engines 4355
  - AT&T Switching Systems Business Unit, customer-focused mfg. 16538
  - BICMOS product develop. by cross-functional team 37028
  - BT's architectural approach to develop. of products, systs. and services 16543
  - casting proc. product inform. model, STEP-based 11740
  - change leadership procs., case study 11643
  - change mgt., Philips Electronics overview 11631
  - collaborative product develop., success factors overview 20376
  - computational fluid dyn. thermal modelling for workstation design 11702
  - concurrent engng., concept and practice 96
  - concurrent engng. and prod. control for small manufacturers 37005
  - concurrent product design for mfg. syst. perform. 11698
  - cost-benefit anal. model, product design, recyclability 5713
  - customer value deployment 43687
  - customisation, user involvement, voice networks example 28362
  - cycle time, conceptual model 28375
  - cycle time reduction strategies implement. for new package introd. 36950
  - data based testability analysis system 37000
  - design for manufacturability within Motorola, Bandit and MicroTAC programs 11704
  - design for quality mgt. survey, Sweden 37020
  - design mgt., overview 11696
  - design proc. improvement, CAD tool-based 11697
  - design quality, economic tolerance models 37019
  - design-mfg. practice, USA/Sweden 28398
  - design/prototyping, accelerated life testing 20400
  - DFT, cycle time reduction, ASIC test design appl. 5576
  - DFT/reliab./maintainability 97
  - diversification strategies, Sweden 20352
  - DSEG product develop. proc., systs. engng. approach 36974
  - DSO purchase choices 3923
  - electronic chassis, rapid prototyping pilot 28499
  - electronics product and proc. design eval. 28403
  - global marketplace, product design, develop. and mktg. for different cultures 41602
  - golf car arc welding modernisation project, USA 5400
  - green design, introduction, issues and challenges 5714
  - integrated product develop. proc., founded on TQM principles 36948
  - integrated product development/concurrent engineering 37026
  - interfunctional product develop. project group concurrency 20355
  - IVHS vehicle systs., commercial success considerations 44578
  - knowledge-based engng. design appls. 37008
  - make-to-order products, concurrent engng. effects 20391
  - marketability meas., holistic approach 11661
  - MCFC develop./commercialization efforts, USA 36577
  - MCM-C, four-ASIC, KISS principle based 21764
  - MCM-C develop., twenty-seven chip 20452
  - MCM-D, Cu/polyimid TFML bare substr., MCM 21742
  - MCM-L product develop. proc. for low-cost MCMs 21749
  - MCM-L product develop. proc. for low-cost MCMs 21713
  - medium power RCCB design for severe environ. conditions 36393
  - mfg. indust. product develop. mgt. experiences, Sweden 20377
  - mfg. test simulator, concurrent engng. tool 5597
  - mgt., product and cycle-time methodology 37004
  - mil. readiness increase, dual, design/test technol. 34365
  - MV/HV power equipt. mfg. QC, supply quality effects *(French)* 36086
  - new product engng., QC 37010
  - Nikola Telsa mobile telephone syst. NMT 450, functionality upgrading project 33857
  - PCB assembly reliab., call rate level reduction 5701
  - PCB design, team approach 12885
  - photolithography procs., work cell design for high perform. 37027
  - proc./product design, integrated resources mgt. *(German)* 28397
  - prod. develop. procs., simul. techs. *(German)* 28396
  - product/proc. design, integrat. differentiated approaches 11703
  - project risk mgt. 28400
  - qualified manufacturers list approach in electronic packaging 28450
  - quality avionic systs., systs. develop. guide 10325
  - quality fn. deployment, engng. manager implement. considerations 11634
  - quality fn. deployment, experiences and appls., USA 11641
  - R&D perform. goals, risks balancing 11711
  - R&D product matrix, innovation mgt. tool 20351
  - R&D project selection/scheduling model 20378
  - R&D technol. mgt. economics 20354
  - R&D/commercialisation, federal government policy, USA 20379
  - rapid proof-of-concept prototyping 37006
  - six sigma design, worksheets. anal. methodologies 37013
  - small business innovation activity overview 28376
  - stds. impact on product life-cycle costs reduction 28395
  - storage reliab. estim. problem 37198
  - strategic business mgt. in competitive environ. 11662
  - strategic technols. mgt., math. revelation method 20353
  - tech. intell., R&D mgt. appl. 20356
  - technol. innovation strategy, dominant design anal. 20374
  - Texas Instruments DSEG, product develop. cycle time 36997
  - Texas Instruments SC business proc., product develop. proc. 37015
  - Texas Instruments Semiconductor Group product develop. proc. improvement 37014
  - time to market problems, R&D mgt. aspects 11663
  - WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
  - GaAs wireless LAN opportunities 42160
  - PtSi FPA-based Inframetrics InfraCAM thermal imaging camera 17955
- **product liability**
  - conference, failure anal., Johannesburg, South Africa (1994) 20245
  - dependability, element of contractual agreements 11864
  - introduction, recovery 11632
- **production**
  - *this heading is restricted to industrial production*
  - *see also assembling; manufacture; quality control; reliability*
  - business cash-in-advance economy, stationary sunspot equilibria 28379
  - business-proc. improvement, cross-functional teams 36957
  - concentricity tolerance meas., man, meas. error source *(German)* 10019
  - develop. procs., simul. techs. *(German)* 28396
  - J-deck VTR chassis for global prod. facilities, develop. *(Japanese)* 25681
  - KKF push buttons, prod. overview, Russia 38064
  - magnetographic inspection equipt. develop. in prod. 28902
  - preventive maint., IR thermography *(German)* 36983
  - prod. mgt., JIT organisation 36956
  - product introduction, vol. mfg. 28371
  - reduced oxide soldering activation, prod. compat. eval. 38115
  - reengineering, systs. engng. and mgt. 11695
  - round-annealed AC-motor magnet prod. and meas. technol. *(German)* 10939
  - shielded motors prod., enclosed motor basis, former USSR 36143
  - short-term intersectoral factor immobility 28380
  - storage power station economic viability anal. *(German)* 36051
  - vision systs. for indust. QC, resoln. aspects 37171
  - Pb-acid automotive batts. prod., Russia/CIS 36525
- **production control**
  - *see also process control; quality control*
  - 8 inch wafer pilot line in Taiwan, total prod maint. 37054
  - ASIC line mgt. technol., operator's skill-level, scheduling-factor 28434
  - ASIC mfg. line mgt., on-line scheduler 28435
  - back-press. control, adaptive, local inform. based 24790
  - cct. board prod. lines, crane scheduling, time windows 37058
  - CMOS proc. appl., wafer level reliab. SPC program 20493
  - cold strip rolling, proc. output optim. studies 11496
  - concurrent engng. and prod. control for small manufacturers 37005
  - cond. rework tool design paradigm, PCB/SMT manufacture 38146
  - dependability, risk control 5708
  - federal policies for mfg. technols. 20364
  - hot jobs proc. and effect on normal orders 37018
  - JIT, electronics instrumentation manufacturer 11723
  - logistics, cost reduction appls. *(Italian)* 98
  - LSI delivery management, lot-sampling scheduling 37041
  - LSI delivery mgt. syst., lot sampling scheduling method for ASIC prod. line 28432
  - manual Kanban inventory control syst., JIT 37051
  - MES, Manufacturing Execution Systems, real-time control of factory floor resources 37036
  - microelectronics manufacturer, batch prod. syst., open queueing network anal. 28423
  - mixed 0-1 integer prog. problem, approx. method, min. conflict *(Japanese)* 28634
  - optimal rule-based syst. 36795
  - optimized prod. technol. in capacity constrained flow shop 11700
  - ORCHARD II, ASIC CIM syst., scalable and flexible, precise quick scheduler 28433
  - ORCHARD II, flexible ASIC CIM syst., prod. line mgt. 28414
  - PCB assembly, component grouping heuristics 942
  - PCB automatic assembly time optim. 6420
  - PCB prod., computer-aided manual workstation, graphics generation 38112
  - primary measuring transducers based on retardation systs. 42762
  - proc./product design, integrated resources mgt. *(German)* 28397
  - quality assess. models for init. prod. proc. control 20474
  - quality fn. deployment, improve distrib. 165
  - Rohde & Schwarz Industrial Controller PSM, automated prod. testing and control 5604
  - scheduling, genetic algm. appl. 2992
  - scheduling, knowledge elicitation/IKBS develop. 43971
  - semicond. mfg. plants, scheduling 37029
  - semicond. mfg. syst. planning/yield learning 20381
  - semicond. mfg. systs. scheduling policies 114
  - semicond. testing facility, scheduling algm., Lagrangian relax. based 20403
  - semicond. wafer mfg., prod. control, fuzzy simul. model 20399
  - semiconductor testing facility, reactive scheduling 37044
  - SLACK/OTD dyn. lot dispatch methodology, IC manufacture scheduling 22521
  - SMT, prod. line, soldering, prod. procs. 128
  - supervisorless semicond. fab. environ., CIM productivity monitors 37052
  - syst. functional discrete event modelling 11729
  - US telecom. indust., firm level efficiency 33324
  - VLSI mfg. line mgt. and troubleshooting, ES 28415
  - VLSI semicond. mfg. proc. noise/learning 37037
  - VLSI work cell manufacturing syst. 37042
- **production engineering computing**
  - *see also computer aided production planning*
  - ASIC line mgt. technol., operator's skill-level, scheduling-factor 28434
  - CAM syst. for fab. of PCB elec. tester fixture 6432
  - casting proc. product inform. model, STEP-based 11740
  - coating syst. design, SIMAN 5602
  - education in indust. engng., computers 11602
  - electronics mfg. technol., conf., Baltimore (1992) 11580
  - epoxy die attach, dispensing technol. and systs. 12950
  - IC mfg. productivity improv., DVI-based perform. support syst. 30404
  - injection mould design, intell. support syst. 37023
  - LSI delivery mgt. syst., lot sampling scheduling method for ASIC prod. line 28432
  - mfg. execution systs. software selection guidelines 38967
  - mfg. lead time anal., simul./design of expts. 37060
  - mixed prod. of ultra-short TAT LSIs and low-cost LSIs, mfg. line config. 28431
  - nonprobabilistic risk anal. method and results 11730
  - ORCHARD II, flexible ASIC CIM syst., prod. line mgt. 28414
  - PCB assembly, QC, fault anal., visual inspection, computer based 943
  - PCB assembly/soldering defects, inspection/SPC work stations 5696
  - PCB prod., computer-aided manual workstation, graphics generation 38112
  - plasma etch systs., automated preventive maint., SECS protocol 30088
  - semicond. IC defect anal., yield enhancement software tools 154
  - semiconductor testing facility, reactive scheduling 37044
  - shop floor control inform. flow, PCB assembly 5600
  - SMT IR reflow soldering, knowledge based decision support 29677
  - SMT PCB assembly, placement machine, multi-criteria DSS 28424
  - SMT PCB placement seq., multiple batch, soln. methodology 29689
  - steel calender rolls, induction heating, finite element simul. 11514
  - welded pipe prod., CAQ syst., std. software *(German)* 5683

production engineering computing continued
  XFACT, diffusion furnace anal. and charactn. tool 22557
production schedules *see production control*
production systems (rules) *see knowledge based systems*
production testing
  1 μm BiCMOS proc., 200 Å gate oxide charactn./manufacturability 13902
  3B21D BIST/Boundary-Scan syst. diagnostic test 5590
  3D models of solder joints, generation, X-ray laminography 29674
  ABBET obj.-oriented test develop. 34408
  ASMAT known good die microbump interconnection syst., anal. 37148
  ATE, off-equipment integrated diagnostics 42714
  ATE develops. and quest for direction, 1980s-1990s 9792
  automated RF/microwave testing, status and develop. 34406
  automatic birefr. eval. syst. 5697
  B-2 automatic test equipment 43436
  ball grid array soldering proc. meas., X-ray techs. 37142
  bare board test program generation, self-learn/netlist methods 38083
  benchmarking trade-offs 9798
  boundary scan optimisation in proprietary environ. 5598
  boundary-scan in SMT, design, mfg. and syst. test 38113
  CAM syst. for fab. of PCB elec. tester fixture 6432
  capacitively coupled MCM, manufacturability 12968
  CMOS bridging fault diagnosis with stuck-at, IDDQ, and voting model fault dictionaries 30455
  CMOS IC testing using IDDQ, QTAG Action Group 6850
  CMOS RAM test complexity reduction, I_{DDQ} and voltage testing 37776
  compact diagnostic chamber, testing, EMC stds. 2246
  conductive filament form. in PWBs, woven fabric 29669
  controlled impedance boards testing 21624
  core materials for SMT appls., engng. props. 21645
  cost modeling tool, test proc. optim. 5588
  dB down terminology for cryst. resonators 39083
  DECT prod. test requirements and strategies *(German)* 42216
  design oriented, product test information model 37048
  DFT approach in electronics testing 5575
  diagnosis algm. for const. degree struct., VLSI cct. testing appl. 38947
  die grid array packaging, known good die IC prod. testing 37147
  digitizer error extraction in nonlin. test 9837
  dual gate MOS-JFET CCD test struct. 34584
  elec. verification, value to proc., SMA 38105
  electronic product test data anal., product costs improvement 37175
  environ. stress screening, Taguchi method 11727
  environ. stress testing, boundary-scan 5591
  ET10071, LAN coaxial transceivers *(Japanese)* 25169
  fault diagnosis algms. for analog/mixed sigs. 29403
  fault tolerant air data inertial ref. syst. testing 10365
  fine pitch surface mount IC package solder joints, exam./testing 37117
  fixturing in PCB prod. testing 12906
  fuzzy test syst. charact. 11720
  gate oxide defect screen for VLSI CMOS reliab. 22588
  gate-level, realistic faults in digital ICs 6092
  generic test/maint. node for embedded syst. test 9795
  GSM mobile telephones, type approval methods 16616
  HDTV decoders testing, boundary scan test impact 9725
  Hewlett-Packard low-cost RF NWA 25739
  high dens. DRAMs, elec. failure anal. 37757
  high speed sync. DRAMs, testing issues 6147
  HiPEC, high perform. elastic connection, reliable mixed sig. MCM device testing 21612
  IC, test errors detect./correction, concurrent engng. 6823
  IC failure anal., quality and reliab. improvement 20495
  IC mfg. yield verification by testing 13848
  IC reliab. problems, brief hist. 6816
  IC testing/testability practices 5596
  IEEE 1149.1 Standard backplane test bus extension 9797
  inline EMI checker for small elec. appliances 23673
  instrums. specs. rel., meas. stds. 42656
  insulation resist. meas. 20410
  integrated test system, small/large signal device characterisation 25957
  known good die, universal membrane probe, MCM manufacture 21702
  laser-induced diffraction signals, digital signal processing 25972
  latent open test in MCM-D/MCM-C substrs. 21733
  linear error models for analog devices 25760
  maglev contact anal. probe tool for automated IC manufacture 20415
  mass-prod. instrums., metrological charact. monitoring 119
  MCM defects testing, IEEE 1149.1 boundary scan test 38196
  MCM test trade-offs 6459
  MCM testing 12976
  MCM-D boundary scan techs., interconnect/functional testing appls. 21735
  MCMs, defect migration, structural test 21700
  membrane probe, increase digital/RF IC testing 20402
  mfg. test simulator, concurrent engng. tool 5597
  mixed scannable/non-scannable device boards, boundary scan testing 20395
  mixed sig. functional testing, software archit. 6414
  MRTD GO-NO GO tester develop. and appls. 34594
  multilayer PCB prototyping, engng. lab environ. 38089
  multitone AF testing of telecomms equipt. 3758
  MV/LV secondary cubicle thermal behaviour *(Italian)* 19905
  Navy's factory, fleet maint. concept 35411
  off-chip IDDq current meas., telecomm. ASICs appl. 6853
  operational test release vectors, verification approaches 17668
  OSEE inspection for flux residue on PCB-based electronics assemblies 38114
  PCB conformal coating proc., Nordson Selective Coating System 6430
  PCB mounted ceramic SMDs, capacit. monitoring while flex testing 12878
  PCB pattern defect anal., divide and merge image proc. 29672
  PCB prod. test guidelines 12905
  plug-in PC board testing, EMC Directive 21643
  populated computer PCBs, IR meas. and anal. predictions 38097
  power subsystem prod., design/test for quality 37626
  preencapsulation cleaning methods and control for microelectronics packaging 5627
  probe cards, manufacture and Si LSI/VLSI IC R&D/prod. testing *(Slovenian)* 30393
  proc. variability control, PCB/SMT manufacture 37193
  profiling aspherical surfaces, moire deflectometry 17926
  program generation using graphical tools, Navy appl. 42691
  PWB plated holes deform., soldering thermal cycle 29685
  QTAG std. for test fixture I_{DDQ}/I_{SSQ} monitors 6852
  RADLYS, noise particle based IC chip yield anal. 37189

production testing continued
  relay operate time/contact bounce, microcontroller in-proc. test cct. 29643
  RF marking principle for antenna analyzer 15660
  Rohde & Schwarz Industrial Controller PSM, automated prod. testing and control 5604
  screening ICs at bare chip level, temporary packaging 28448
  scribe line capacitors, thin oxide monitoring, nonvolatile memory devices 20489
  SEMATECH defect detect./reduction methodology, 0.25 micron technol. proc. equipt. 1479
  semicond. IC defect anal., yield enhancement software tools 154
  semicond. testing, SPC, tester capacity, productivity 104
  semiconductor testing facility, reactive scheduling 37044
  SMT attach, thermally stable water soluble solder paste 920
  SMT bare board ATE, std. mirror board enhancement 38157
  SMT board testing, method selection 38102
  SMT lead scanning, control of shape and coplanarity params. 915
  stress testing optimisation formulation, net benefit concept 11726
  syst. test cost modelling, event rate anal. 5587
  syst.-level testability of hardware/software systs. 9794
  Taguchi method of environ. stress testing for PWB prod. proc. 29678
  telecomm. equipt. prod., CAT tool integrat. in factory inform. network 33341
  thin SOP with Cu gull-wing leads, SMT advantages 37133
  tight-tolerance fixturing problems for loaded PCB prod. 12924
  TQM, role of test 28505
  transparent memory BIST tech. for RAMs 37769
  variable supply voltage testing, analogue CMOS/bipolar ccts. 5592
  vision probing techs. for testing MCM and bare die 21734
  VlSI reliab. challenges, Japanese vs American industries 22527
  VLSI testing, online data collection/anal. syst. 6827
  VLSI workcell controller and resource rels. design 5595
  VXI and digital stimulus/response test for PCBs 12923
  VXI syst. hardware support 3746
  VXI-based test system 42725
  wettability of immersion coated PWBs, temp. and humidity effects 29681
  $BaSrTiO_3$ hybrid uncooled IR detectors, producibility advances 17792
  Si IC, failure anal. methods, develop. and mfg. appls. 22519
  Si wafer surface minority carrier lifetime meas. tech. 30388
  Si wafers, thermal proc., quartzglass materials influence 22208
professional aspects
  see also professional communication
  business meeting expt., video teleconferencing 33611
  career develop. 5563
  career develop., job searching, in-house adverts 28363
  conference, New Face of Technical Communications, Philadelphia, PA, USA (Oct. 1993) 28216
  continuing professional develop. for engineers 36828
  corporate hiring 5722
  educational computer conferencing, professional recommendations 25074
  elec., efficiency improvement by targeted meas. *(German)* 27290
  engineer career develop., education effectiveness study 20326
  engineer promotion, projects, problem solving 5564
  engng. careers develop., education-based 11666
  engng. careers mentoring, case study, Canada 11664
  engng. education, mgt. develop. requirements 11624
  engng. mgt. execs. selection, in-house recruitment 11665
  engng. personnel mentoring, career guidance benefits 28341
  IEEE United States Activities Board, overview 28367
  judgemental probab. elicitation, analyst/manager interact. 20372
  laid-off engineers, pers. experiences 5561
  multimedia prod., ethnographic issues 9068
  nontechnical writer problems/opportunities 28296
  Pacific cultures and commun. ethics 3000
  physicians, job dismissal for economic reasons, ethical considerations 43184
  Professional Activities Council for Engineers 28368
  R&D personnel, career develop. surveys, UK/Japan 36945
  R&D personnel, invention incentives overview, Germany 36946
  schools and the Internet, survey of networking activities 25011
  TEAMSS Project, multi-level staff training, interactive videodisc use 25676
  technical communications in Russia, implic. of market economy 28300
  Technical Policy Council for US policy interpret. 28369
  technical professional continuing engng. education overview 28352
  technol. based firm perform., entrepreneur's experience 20370
  undergraduate engng. curricula, environ. topics 11614
  university engng. course, professional skills education, UK 28281
  university teaching profession, multimedia in context 20273
professional communication
  see also public speaking; technical presentation
  business/technical communication for entrepreneurs 28316
  channeling, internal/external communication, contextual approach 28552
  co-workers/subject matter experts, communication improvement 28553
  collaboration, technical communicator appl. 28554
  collaborative communications 28318
  conference, New Face of Technical Communications, Philadelphia, PA, USA (Oct. 1993) 28216
  corporate and organizational commun. 28382
  corporate commun. in cyberspace via Internet, rhetorical dyn. 33577
  cross-site writing, shared responsibilities 33410
  elec. engng. programs, commun. training 28349
  empty pathways, computer mediated comm., faculty use 33409
  management tool 28317
  nontechnical writer problems/opportunities 28296
  project teams, communicator's role 28319
program and system documentation *see system documentation*
program compilers
  see also compiler generators; optimising compilers; parallelising compilers
  DSP archits./compilers, appl.-driven design 32618
  DSP programs, concurrency charact. 30413
  DSP synthesis tools for real time systs. 40802
  FSM compiler and simulator 29133
  hardware compilation of parallel programs 21057
  high-speed QAM modem CAD tools 42081
  IMPEL, domain-specific image proc. environ., lang., and compiler 32843
  medium-throughput sig. proc. on flexible instruction-set archits. 37797
  nanoprocessors, stored program proc., reconfigurable, flexible archit. 21338
  num. C for efficient DSP code 679
  pipelining, throughput/resource utilization optim., transform. 12583

program compilers continued
PLD-based cct. CAD, behavioral level synthesis 37727
prog. DSP, scheduling/instruction selection 6184
Q.931 call protocol, LOTOS based validation/perform. 16797
self-timed ripple-carry adders, compiler changes for efficient operation 29121
top down ASIC design, test design compilers 42723
VISTA virtual instrum. std. test archit. 34398
program correctness proving *see program verification; programming theory*
program debugging
see also program testing
client/server models, commun., spec./validation 2932
high-level VLSI design spec. validation, algorithmic debugging 12390
switching systs., debugging and simul. environ. 3281
Tartan Ada develops. for DSP 21355
Totem protocol develop. environ. 2937
transputers and num. solns. of diff. eqns. 37353
program development *see software engineering*
program diagnostics
see also program testing; reachability analysis
Asian Test Symposium, Japan, Nov. (1994) 5504
deterministic and SPN, steady state solns. 41534
program documentation *see system documentation*
program editors *see text editing*
program generators *see automatic programming*
program interpreters
client/server models, commun., spec./validation 2932
Estelle interpreter for incremental protocol verification 2973
State Notation Language, run-time sequencer, accelerator control 18278
program linkers *see program compilers*
program listings *see complete computer programs*
program loading techniques *see data handling*
program monitoring *see system monitoring*
program saving techniques *see data handling*
program testing
see also performance evaluation; program debugging; program diagnostics; program verification
Asian Test Symposium, Japan, Nov. (1994) 5504
ATS 93 test conf., China (Nov. 93) 36857
Berne telecomms. admin., software maint. and distrib. *(German, French)* 16554
cct. anal. software testing 502
cct. simul. packages, comparative study *(Italian)* 489
conformance tests for nondeterministic protocol machines 2951
elec. launcher plasma-surface interact., computer simul. 15372
Envisat-1 satellite radar-altimeter on-board real time software testing 43421
Eurostar Informatique control syst. software 44573
IN, detecting, interacts. 3258
indust. and academic protocol testing, comparison 33250
International Test Conf., Washington, DC (Oct. 1994) 61
motor drive digital control, graphic software designer appls. 36692
multiple faults localization in protocols, test seq. generation 16491
power syst. operations control, ES implement. tutorial 27072
power syst. security assess. neural nets, perform. eval. 19134
product reliab. testing, practical considerations 5680
reliab. estim. and software testing, automated environ. 8833
sig. proc. algms., software environ. for develop./testing 40796
switching systs., debugging and simul. environ. 3281
To-be-IN, obj.-oriented telecomms. services testbed syst. 25086
validation test generation, automated procedure 10330
program translators *see program interpreters*
program understanding *see reverse engineering*
program verification
AIN switch testing without service logic execution environ. 41956
aperture-coupled multiplayer microstrip antenna anal. 31942
cavity radiator infinite phased arrays, hybrid finite element/waveguide mode anal. 31971
Deep Sace Network, microwave controller software, higher order logic 42338
distributed real-time protocol, spec. and verification 41543
embedded flight control syst. design, integrated proc. 10333
Envisat-1 satellite radar-altimeter on-board real time software testing 43421
Frankfurt (Main) city network control syst. *(German)* 35551
knowledge representation, verification and reasoning, real time systs. 3737
message router, formal spec. and design 41578
power syst. appl. ES 19005
protocol conformance testing, test seq. generation methods 2912
rem. procedure call protocol, probabilistic validation 24821
sliding-window protocol 41530
test requirements conversion into test program sets 42692
TPS harmonization, vert. and perform. metrics, systs. approach 34401
programmable controllers
for applications, see relevant control application e.g. chemical industry; control of specific variables
see also control systems; programmed control
bulk chem. distrib. systs., impact on semicond. proc. 11715
cement plant automation strategy, ESSROC 5424
cement storage/dispatch terminal automation 3731
CERN accelerator control, commercial indust. control syst. integrat. 18238
CMOS/BiCMOS monolithic mask-prog. analog fuzzy logic controller 30476
commercial power syst. DSM, PLC-based scheme 35490
consumer electronics human controlled devices prog. 17580
continuous gravimetric dosing syst. elec. drives, microcomputer control 44623
crop canopy, evapotranspiration/photosynthesis meas., SCADA syst. 9826
DC/DC power converter quasi-lin. controller, DSP-based 11149
distrib. syst. online mgt./control, ES-based 19271
embedded controller, transputer-based, eval. for high dyn. control appls. 44260
Eurostar Informatique control syst. software 44573
EWSD digital switching syst., recovery from software faults 16965
FES systs., prog. electronic stimulator 10280
hot rolling mill control/power equipt. modernisation project, USA 44630
indust. control syst. lightning protection, grounding/shielding studies 20160
magneto-opt. disk unit, data/disk servo control chips *(Japanese)* 22962
MELSECNET/10 and open networks for factory automation *(Japanese)* 33541
microcontroller modular design for flexibility *(German)* 21364
Modicon Micro compact automation equipt. and appls. *(German)* 11220
programmable controllers continued
monolithic BCDMOS quad line driver for indust. appls. 29050
MV distrib. network control/protection, PLC-based 4655
physiochemical expt. dyn. controller develop. 34727
power station control, dedicated control benefits vs. PLC 35713
power syst. control, real-time LAN commun. technol. *(Chinese)* 43668
prog. logic design, multiplexers appl. 596
rainfall simulator design and software develop. 35348
real-time commun. protocol, contention-resolving algm. 41505
real-time multiline OCR parallel archit. 33027
solid state motor protective/control devices 4892
steel indust. wireless coke oven SCADA syst. 9824
tech. inform. services for PC/fax users *(Japanese)* 33418
tracking antenna controller, design/implement. 15677
VENIS real-time distributed prototype syst. 4442
weighing feeder retrofits/upgrades 3996
programmable filters
64 Mbits/s PRML HDD channel, BiCMOS analog front-end sig. proc. 7143
blind adaptive spatial filtering 40917
CMOS high-speed DAC, embedded prog. video FIR filtering fn. 29326
CMOS multipliers for digital filtering appls. 6134
CMOS prog. switched-current filters 29359
CMOS VLSI continuous-time HF prog. nonrecursive filters 735
fractional sample delay FIR filter coeffs. 12649
indoor multipath channel real-time emulation, FIR models and ACT technol. 31824
OTA-based multifunction act. filter, prog., microcontroller appl. 12636
SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
GaAs ACT transversal filters, yield model 39118
programmable logic arrays
see also field programmable gate arrays
8-bit μP based fuzzy-proc. archit. 678
act. periodic noise cancelling syst., FPGAs 8380
algm. updates for prog. ICs 12491
antifuse prog. in Crosspoint's FPGA 21294
ASIC sig. proc. archits. with min. structural complexity, ILP synthesis 29251
CAD conf., San Jose, CA, USA, Nov 1994 41
CAD tools, digital hardware designs 21286
cellular-archit. FPGAs, routing-driven mapping 498
class., fuzzy neural nets, FPGA-based implement. 32948
CMOS real time image class. proc., parallel archit. 21375
combined folding/testing for PLAs 606
constrained state assignment of easily testable FSMs 21275
CPM sigs. neural receiver 33913
current-mode multiple-valued PLA, reson. tunnelling transistor model 623
custom IC, conf., San Diego, CA, USA (May 1994) 20247
dependability eval., hybrid fault/error injection 37722
DSP FPGA archit. 29262
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
finite state machines, testable synthesis and testing 12468
FIR filters using pipelined multipliers, FPGA implement. 21441
FPGA channel archit., automatic synthesis 639
FPGA SEU hardening for space appls. and device charactn. 12478
FPGA synthesis, look-up table and multiplexor based archits. 12487
FPGA technol., optimal registerfile archit. synthesis 29108
FPGAs, minimizing interconnection delays by CAD routing tools 21293
fuzzy controllers, FPGA implement. 6140
fuzzy PLAs design realizing fuzzy logic fns. 29104
gate array chip, HF DSP appls. 12576
hybrid-opt. parallel array logic syst. 16^2, overall operations 31046
image manipulation, real-time, FPGAs 24725
MAX 9000 PLD family, dens. and package options 29163
meas. engng. appls. 17660
metal-to-metal oxide antifuses, reliable for VLSI appls. 22079
multi-D trellis decoder for 155 Mb/s concatenated codec 33684
multiple-valued logic in FPGAs, current-mode CMOS implement. 6137
multiple-valued PLAs, fault model and equivalences 607
multiplexor-based archit., area/delay tradeoff, fast technol. mapping 21196
opt. Chinese character recogn., prog. accelerating chip 24543
optimisation, simulated annealing algm. 21238
range/image sens., FPGA archits. 3881
row-based FPGAs, segmented routing channels, design and anal. 611
RRANN, run-time reconfiguration ANN 21287
self-checking cct., automatic generation algm., parity codes 21185
self-testing checkers for 1-out-of-n codes 21181
self-testing PLM design, lin. seq. machines 12413
semicustom design of ASICs, Si chips vs. FPGAs for engng. education 6834
a-Si anti-fuse used in high speed FPGA, improved reliab. 29144
SIPPOS (single poly pure CMOS) EEPROM embedded FPGA 21326
technol. mapping, testability considerations 12451
TRACER-fpga, router for RAM-based FPGAs 21259
VXIbus interface hardware, FPGA implementation/testing 42735
SiN_x based metal-to-metal antifuse for FPGA appl. 21217
programmable logic devices
see also PLD programming; programmable logic arrays
1.9 kW ZVS PWM phase switched DC/DC converter 44193
3.3V PLDs design 635
Arabic alphanumeric dot matrix decoder, PLD based design 29099
cct. CAD, behavioral level synthesis 37727
chip technol., economics and support *(Dutch)* 80
CMOS EPROM technol. for high speed/high dens. PLDs and memory appls. 29219
complex PLDs, archit. and design issues 29159
DA techs. for PLD and FPGA based systs. 12419
design portability, logic develop. systs. 6106
developing bus-friendly inputs and I/O 29165
FPGA prototypes, package partitioning technol. 6114
free-space opt. interconnection prog. opt. logic systs. 39517
high-dens. PLDs, CPLDs and FPGAs 37746
in-cct. programmability 12495
laser induced vert. vias for prog. MCMs 21775
low power prog. logic device reconfig. for 3.3/5 V supply 21292
PLD, resources maximisation 21246
prog. high-rate PCM telemetry frame synchronizer *(Chinese)* 41748
self-learning neuron-MOS neural networks, wt.-updating-lin. EEPROM cell 12676
surface mount PLD, prog. and testing 37699
three-terminal switching device, prog. fusible link 29630

programmable logic devices continued
  UAHPL lang. for ASIC design 37713
  undergraduate digital design courses 28346
  UPLD logic simul. for rapid prototyping 6115
  WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
  SiN-based antifuses, stress-induced leakage current, dielec. breakdown 38448
programmable read-only-memory *see PROM*
programmed control
  see also process control; production control
  3-phase squirrel cage motor drive, thyristor controlled 11364
  3-phase stepping motors positon control *(German)* 44089
  AC/DC drives, prog. high speed digital control 44498
  boost converter, current programmed, large sig. model 12314
  consumer electronics human controlled devices prog. 17580
  DC arc furnace control, simul. *(German)* 44590
  digitally prog. differential integrator, enlarged time const. 29349
  energy capacitance integrator studies 19706
  epoxy die attach, dispensing technol. and systs. 12950
  Harris 20-20 intell. dispatching syst. *(Chinese)* 19255
  indust. robot mech. positioning errors, meas. and correction *(Japanese)* 3985
  mine hoist winder drive control upgrade project, South Africa 44644
  multiple target sputter syst., real-time control 20967
  Ni-H_2 batt. power syst., μP charger control 27921
  PCB assembly rework cell controller, software modelling 115
  robotic plasma arc cutting, laser sens.-based 126
  thermal cells, tester develop. 36511
  VENIS real-time distributed prototype syst. 4442
  ZVS PWM inverters, DC voltage notching scheme 19736
programmer training *see training*
programming
  see also application generators; automatic programming; functional programming; interactive programming; logic programming; microprogramming; object-oriented programming; parallel programming; program testing; robot programming; software tools; structured programming; system documentation; systems analysis; visual programming
  avionics ATE, develops. towards independence 35223
  dist. teaching of informatics, motivations, means, and alternatives 24934
  engng. CAD, AI prog. approach 37021
  injection mould design, intell. support syst. 37023
  mfg. engng. education, computing technol. teaching experiences 36937
  power syst. control ES, rule modif. ease expts. 19097
  power transformer enclosure CAD, parametric prog.-based 5024
  teaching real-time DSP, Univ. of Leicester 36921
programming, automatic *see automatic programming*
programming environments
  see also development systems
  ABBET, A Broad Based Environment for Test 34345
  ABBET obj.-oriented test develop. 34408
  AIN, reuse-driven service creation environ. 9038
  behavioral stimulus generation for digital test programs 34358
  co-operative software develop., distributed support environ. 25072
  COSY control syst., RT/OS environ. 18209
  data acquisition tutor and prog. interface 65
  diagnostics implementation in standard ATE environment 42699
  distributed visual programming environment: Applications within data-acquisition 25724
  ECG mapping, ambulatory, integrated software environ. 26431
  EPICS, obj.-oriented enhancement 18235
  flexible network characts. and develop. prospects *(Japanese)* 16570
  hydropower station supervisory control syst. software environ. *(Chinese)* 19543
  IMPEL, domain-specific image proc. environ., lang., and compiler 32843
  ISO virtual terminal protocol, semi-automatic implement. 8758
  mixed sig. functional testing, software archit. 6414
  model implement. for design proc. automation 28944
  product test information model 37048
  rapid cycle display software design 10357
  reliable packet delivery service interface for parallel systs. 41493
  robot skills development using a laser range finder 25585
  sig. proc. algms., software environ. for develop./testing 40796
  SMART and ABBET common architectural heritage 35237
  SMART test standard for commercial air transport industry 43433
  Software Assembly Workbench, hardware-like constr. 41827
  SSC control syst., develop. environ. 18229
  switching systs., debugging and simul. environ. 3281
  telecomm. databases, knowledge acquisition and proc. 41559
  test lang. std. for distributive open test environ. 34342
  top down ASIC design, test design compilers 42723
  Totem protocol develop. environ. 2937
  TRIUMF, device access, C++ on VAX/OpenVMS 18230
  UltraSAN, model-based environ. for large scale telecomm. systs. 16553
  upper layer products, archits. and appls., conf. Barcelona (1994) 29
  VISTA virtual instrum. std. test archit. 34398
programming, geometric *see geometric programming*
programming, interactive *see interactive programming*
programming languages
  see also high level languages; report generators
  broadcasting, priority 16414
  MODELS, power syst. EM transients simul. appls. 26894
  power syst. logic-based components modelling lang. 26893
  Safe-Tcl lang. for enabled mail 8867
programming, mathematical *see mathematical programming*
programming, structured *see structured programming*
programming theory
  see also computation theory; computational geometry
  broadcasting, priority 16414
  Prolog program, prog. fast colour recogn. hardware by symbolic reasoning 24546
  simul. approach, provably correct hardware compilation 28985
programs (computer listings) *see complete computer programs*
project engineering
  see also design engineering; electromagnetic compatibility; quality control; reliability; scheduling; systems engineering
  1.4 GW Bieudron hydroelec. power plant project, Switzerland 19541
  2 MW MCFC power plant demons. project, USA 36073
  6 kV/170 A supercond. power transm., PROMISE project *(Japanese)* 4626
  10 kV rural distrib. ABC installations, Eire 43776
project engineering continued
  10 kW hermetic Stirling engine CHP alternator, operating experiences 27539
  10 MW pressurised CFBC combined cycle pilot power plant 27586
  13.2 kV underground feeder project, USA 27185
  25 MW gas turbine CHP plant project, Netherlands 27576
  30 MW Lieksa CFBC cogen. project, Finland 19513
  37.3 MW diesel power plant demons. project, Japan 27603
  42.5 MW paper mill combined cycle CHP project, UK 4852
  47.7 MW waste-to-energy power plant project, Germany 19516
  66/6.6 kV power receiving/transformer facility project, Japan *(Japanese)* 35629
  66/6 kV distrib. substation develop. project, Japan *(Japanese)* 35630
  70 MW Four Rivers combined cycle PFBC CHP project, USA 27601
  75 MW oil shale FBC power plant project, Israel 4831
  100 kW SOFC CHP plant demons. project, Netherlands 43959
  110 kV switchyard PYRAMID digital control syst. installation project 36483
  110 kV XLPE power cable installation project, China 27196
  150 MW 13E2 gas turbine research project, Japan 4848
  250 kW AC batt. syst., Pb-acid marine cell-based 36552
  250 kW MCFC demons. power plant project, USA 36075
  300 MW submarine power syst. link project, South Korea 19238
  317 MW Milliken steam power plant clean coal project, USA 35995
  340 MW CHP plant condition monitoring project, Netherlands 4832
  360 MW Karita PFBC combined cycle power project, Japan 36026
  400 kV EHV transm. syst. planning/develop., Singapore 27122
  400 kV power syst. quadrature boosters planning, UK 4601
  443 MW steam power plant scrubber renewal project, USA 27544
  463 MW Vuosaari B combined cycle CHP project, Finland 43926
  500 kV Hunan power syst. develop. prospects, China *(Chinese)* 35573
  500 kV power interchange transm. line project, USA 27065
  500 kV power syst. series capacitor VAr compensation project, China *(Chinese)* 35510
  600 MW Muskingham power plant low NO_x burner retrofit, USA 43903
  680 MW Hemweg Unit no. 8 thermal power plant project, Netherlands 19509
  700 MW Rye House combined cycle power plant project, UK 10864
  732 MW supercritical steam power plant project, Germany 27551
  750 MW Franken II combined cycle power plant project, Germany *(German)* 43934
  908 MW thermal power plant control/monitoring integrat., Australia 19508
  927 MW CHP plant AFBC boiler retrofit, Czech Republic 19515
  1800 MWe combined cycle CHP district heating project, Russia 27593
  2500 MW Black Point power plant distributed control project 19528
  4950 kW Vindeby offshore windfarm monitoring, Denmark 19569
  airport elec. vehicle appl. projects, USA 28102
  airport transit syst. power distrib. design project, USA 44571
  Bayerische Rundfunk TV prod. studio refurbishment *(German)* 25655
  Berlin-Bonn inform. link BRAVO project *(German)* 8915
  BICMOS product develop. by cross-functional team 37028
  biomass/coal co-firing power plant technol. demons., USA 43904
  biotechnology research lab. proc. control, GUI-based *(German)* 34984
  bulk transm. syst. interconnection develop. projects, Japan *(Japanese)* 10715
  cannon caliber EM launcher syst., air core compulsator design 31740
  CARAT rly. signalling project overview, Japan 36747
  cement plant power/control automation project, Germany 36807
  change mgt., Philips Electronics overview 11631
  Channel Tunnel project ventilation syst. overview 11484
  Channel Tunnel traction/auxiliary power supplies 44533
  chem./plastics plant elec. modernization project 5405
  CHP double reheat steam power plant projects, Denmark 43900
  CO_2 emissions mitigation technols., Japan *(Japanese)* 4755
  cogen. projects, economic attractiveness study 43895
  combined cycle CHP power plant telecontrol projects, Denmark *(German)* 4850
  combined cycle CHP project, gas/refuse-fired, Denmark 4851
  combined cycle power plant CO_2 flue gas clean-up projects, Russia 27592
  combined cycle power plant heat recovery steam generators 27584
  continuing engng. education projects, India 5548
  continuous improvement project mgt. overview 11656
  copper rod mfg., QC syst. upgrade, USA 5677
  Croydon Tramlink light rail transit project, UK 44526
  customer energy needs assess. project, Australia 4503
  Deutsche Bahn elec. rly. operation review, 1994 *(German)* 44500
  digital commun. education course, senior undergraduate project 20282
  distrib. network fault current reson. grounding project, Australia 19258
  distrib. network operator training, DIAPASON simulator-based 19274
  distrib. network revitalisation project overview, Bahrain 19283
  distrib. network SCADA syst. installation project, USA 10732
  elec. engng. education, European stds. assess. project, Netherlands 20322
  elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
  elec. multiple units, Metro Line 1 project, Shanghai *(German)* 11420
  elec. utility batt. energy storage, trends and status 35539
  elec. utility distrib. automation syst. project, India 27170
  elec. utility DSM opportunities case study, India 35535
  elec. utility EMS projects, South-East Asia/Western Pacific survey 19183
  elec. utility integrated resources planning projects, Scotland 10658
  elec. utility network IS, introduction and constr. *(German)* 4587
  elec. utility R&D technol. transfer demons. projects, USA 43710
  elec./telecom. infrastructure develop. projects, Estonia 43639
  EMS project implement./operation overview, Thailand 19186
  EMS real-time distributed archit. project, Australia 19187
  Energy Systems product delivery project 28402
  engng. education, India, bilateral co-operation role 5558
  engng. projects, dyn. measures for economic worth of investment 11701
  EOCC project, approach, internat. telecomms. develop. projects 41583
  European Fast Reactor project status (1994) and prospects *(French)* 43866
  FACTS SVC appl. planning projects, USA 27139
  Formentor risk prevention DSS project 11690
  fossil power plant zebra mussels control project, USA 27547
  fuel cell CHP difficulties and prospects *(German)* 43961
  fuel cell R&D projects overview, Scandinavia 44354
  gas turbine power plant emissions compliance upgrade projects, USA 27577
  geothermal heat pumps, R&D studies, USA 27608
  German hinterland wind power projects *(German)* 36082
  golf car arc welding modernisation project, USA 5400
  Gulf Stream-based hydroelec. generation, project overview 19542
  Hercules capacitor bank pulsed power switch life test project 36459

project engineering continued
hot rolling mill control/power equipt. modernisation project, USA 44630
HV substation reliab. centered maint. project, France 44248
hybrid renewable energy prod. projects, Germany *(German)* 19551
hydroelectric generation develop. programme, Laos 36041
hydroelectric power, large scale generation programmes, China 36042
hydroelectric power plant Francis turbine maint. project, India 10874
ideal combined cycle power station, design considerations 27581
independent wind power generation projects, Canada 4874
indust. distrib. network improvement, Clean Air Act effects 11493
indust. power syst. voltage sag compatibility, utility perspective 20156
inertial propulsion, concept and expt. 28149
interfunctional product develop. project group concurrency 20355
IS develop. project risk mgt., case study 36971
Islay Wells bidirectional wave power air turbine project, UK 27615
LF power syst. EM field mgt. project experience, USA 26906
light-duty alternative fuel vehicles, operational experiences, USA 36717
magma power plant project, USA, air pollution benefits anal. 27606
Malaysia-Thailand power interconnection, upgrading project options 19181
MCFC technol. develop. status, USA 36578
MHD repowering projects, environ./economic benefits 19576
microwave radio syst. PV power supply, project overview 19562
mine hoist winder drive control upgrade project, South Africa 44644
mining plasma blasting appls., 1 MJ pulsed power studies 36812
Multiplexed Network for Distributive & Interactive Services project *(German)* 42062
net-present-value cost/time tradeoff 36976
Nikola Telsa mobile telephone syst. NMT 450, functionality upgrading project 33857
NorCell II planar SOFC research programme, Norway 44334
NPP, abandoned SCC tunnel site project, USA 27382
NPP reliab.-centered maint. project, USA 27340
nuc. power, worldwide develop. projects overview 35729
nuc. power project cooperation, pan-Asian model 4764
nuc. reactor coolant syst. lin. regression leak rate calcs. 27398
offshore wind power plant, environ. impact study, Sweden 19568
offshore wind turbine demons., UK, feasibility study 10897
petroleum refinery/elec. utility collaboration, overview 5414
power indust. fibre optic network project, Poland 10683
power line EM field prediction, educational design project 11610
power syst. reliab. planning, customer outage costs-based 27078
power syst. technol., current status/prospects, China *(Chinese)* 43644
product customisation, user involvement, voice networks example 28362
project-oriented careers, human resource mgt. 36941
public telecomm. network syst. quality and reliab. assurance 16536
PV DC motor water pumping syst., characts. anal. 27638
PV water pumping syst., environ./economic concerns, Brazil 27637
PV-hydrogen energy conversion syst. studies 27624
PVMaT Project, USA, status overview 27640
R&D employee empowerment, mgt. reengng. project 11667
R&D project prioritization model develop., Turkey 11655
R&D project selection/scheduling model 20378
R&D work group research, strategies/opportunities 28361
refuse-fired power generation prospects, UK 43915
reliab. database for telecomm. project engng. and mktg. 11877
residential fuel cell systs., elec. utility R&D projects, USA 44340
RHEPP 1 μs mag. pulse compression pulsed power module 36316
sci. inform. network flexibility needs and trends *(Japanese)* 16800
secondary distrib. directly buried T-branch power cable joint *(Japanese)* 27183
Sloy hydroelectric power station refurbishment project, UK 19545
SOFC power generation facility research project, Russia 44336
SOFC R&D activities, Japan 44350
SOFC R&D initiatives, Australia/New Zealand 44351
SOFC R&D programmes, IEA Agreement overview 44353
SOFC R&D programmes overview, USA 44349
solar thermal power plant, thermal fatigue failure study, Australia 36062
space solar energy systs., develop. projects overview 43418
steam power plant boiler refractories, condition assess. technols. 19520
steam power plant distributed control, commissioning perform. audit, USA 27561
steam power plant equipt. repowering study project, Romania 27541
steam power plant repowering projects design, Italy 10870
Stockholm lighting energy efficiency programme, Sweden 35534
strategic R&D project selection/resource allocation, DSS-based 11657
suburban elec. rly. link project, UK 44552
Suomenoja combined cycle CHP plant control upgrade, Finland 43936
tele-teaching over-dist. education, ISDN-based 20283
telecomm. network power syst. develop. projects, Hungary 19049
telecomms. network power supply interface planning project, Sweden 19819
telecomms. power plants, diesel-elec. CHP systs., Japan 19535
Telekom (Germany) wired commun. technol. status and trends *(German)* 8782
telephone exchange energy efficiency, EE2000 study project 19820
The Year In Industry engng. training scheme, UK 36933
thermal power plant controls upgrade projects, USA 43651
Three Gorges hydroelec. power station interconnection project, China *(Chinese)* 43699
Three Gorges power project, China, peak load regulation study *(Chinese)* 27040
three-phase regenerative power convertor design project 5119
TMN appls., software develop. complexity 33361
transm. network reliab. centred maint. projects, South Africa 43725
transportation, worldwide technol. develops. overview, 1994 36711
Tyrolean provincial energy economy develop. *(German)* 4528
UCPTE power syst. parallel trial project, Europe *(Croatian, English)* 10623
USA Nat. Inform. Infrastruct. project and video services *(Japanese)* 17575
VESTA std. CFBC steam power plant turnkey projects 19514
waste wood-fired power plants projects, USA 35996
waste-to-energy recycling plant project, Lebanon 27572
Pb-acid secondary cells, Pb alloy grid R&D overview 36558
a-Si PV technol. transfer, OASIS project, Europe 11292
Zn-Br$_2$ elec. vehicle secondary batts. 44516

project evaluation review techniques *see PERT*

project management
see also project engineering
Alusaf project, automation mgt. 5573
BT customer networks, ensuring quality in design 16534
building services projects CAD, STEP technol. 11315

project management continued
cement plant automation strategy, ESSROC 5424
chem. research, LANs and Internet 8919
client/server appls. design, prototypical software projects *(German)* 16654
continuous improvement project mgt. overview 11656
CoReview, interactive document and data retrieval tool for Internet 41867
cost effective logistic support for electronic assemblies 43593
custom Si IC design, project mgt., coord. struct. 20392
design engng. education, project mgt. teaching principles 37022
design projects, preserving knowledge, what designers need to know 37032
electronics indust., technol. acquisition proc. 11647
Energy Systems product delivery project 28402
engineer promotion, projects, problem solving 5564
engineering management, conf., Dayton North, OH, USA (1994) 5503
EOCC project, approach, internat. telecomms. develop. projects 41583
General Purpose Heat Source RTG program, mgt. 18757
internat. project consortium mgt./planning 28399
IS develop. project risk mgt., case study 36971
LEP high level control syst., ORACLE online database 18234
mass transit rly. renovation project, systs. engng. approach, UK 44528
Mead-Phoenix transm. line project 43782
New Zealand HVDC link upgrade 27141
NNC's Engineering Development Centre, Risley 11694
nonlin. time/cost tradeoff models in project mgt. 28373
NPP cct. breaker retrofitting projects, USA 43827
NPP outage project mgt., USA 35735
PACE programme anal., control and eval. 36975
PERT/CPM network params. eval. 20394
predictive project proc., Monte Carlo based tech. 11712
product develop., R&D perform. goals, risks balancing 11711
product/proc. develop., project risk mgt. 28400
quality syst., ISO model-based 11710
R&D mgt., strategies, project selection, mktg. interface 11648
R&D project prioritization model develop., Turkey 11655
R&D project selection project, seq. decisions, uncertainty 20393
R&D project team climate/perform. study, Korea 36944
Rye House combined cycle gas turbine power plant 36024
Shajiao C coal fired plant, constr., project mgt. 10858
small/medium size enterprises, technol. transfer, training 11612
strategic R&D project selection/resource allocation, DSS-based 11657
syst. design, project mgt., ergonomics *(French)* 5582
telecomms. project mgt. 37016
Texas Instruments Semiconductor Group product develop. proc. improvement 37014
TQM appl., pollution prevention in PCB manufacture 37212
traction power supply maint. project mgt., UK 44525
Vietnam 500 kV North-South transm. line project 26980
virtual wafer fab./assembly/test facilities, operational planning 11699
yield model for IC manufacture 13860

project support environments
co-operative software develop., distributed support environ. 25072
GENESIS, seamless environ. for telecomms. networks 24884
IN, service creation environ. 33625
telecomm. service and simul. engng., integrated toolset 3080
To-be-IN, obj.-oriented telecomms. services testbed syst. 25086
trunked mobile commun. syst. mgt., ES environ. appl. 9396

projectiles
see also missiles; rockets; weapons
3 MJ railgun, expt./computer simul. studies 15281
3D plasma armature railgun simul. 15371
25 mm hypervelocity railgun, perform. characts. 15353
50 mm, 3 MJ nonstiff bore railgun, tech. aspects 15277
50 mm diam. induction coilgun launcher, design, eval. 15296
90 mm railgun-fired air defense projectiles 18966
500 m/s lin. induction launcher perform. studies 15376
armature railgun, secondary arc form. 23520
busgun design, operation/losses 15265
cannon calibre EM railgun, discarding armature, design 18965
coilgun perform., timing errors effect 31755
compacted plasma armature railgun expts. 15267
D2 hypervelocity projectile program, air defence elec. launchers 18962
electrothermal gun, metal oxidiser research, chem. energy release 31776
electrothermal gun, plasma-water interaction, mixing visualisation 31774
electrothermal launcher, SIRENS, drag forces, in-bore diagnostics 31770
electrothermal launchers, operation, mass supply, distrib. heat sources 15293
electrothermal launchers, phys. proc., param. studies 15291
electrothermal launchers, scaling laws, 0D time-depend. model 15370
electrothermal press. pulses generation, arcs, capacitor store 31754
EM chem. propulsion concept 15264
EM guns, launch package integrat. design 18963
EM launched projectiles, rail straightness effects 15343
EM launcher, accelerated plasmas, resistive Rayleigh-Taylor instabil. 15316
EM launcher hypervelocity projectile passage sens. design 15335
EM launchers, 3D structural/EM anal. calcs. 15366
hypervelocity EM armament, main battle tank, anti-armor mission 15308
induction coil launcher armature perform., computer simuls. 15302
induction launchers, projectile transverse motion/stabil. 15301
inductive coilguns, driving field/projectile motion synchronisation 15300
j×B railgun, rod-shaped projectile acceleration 23524
Kirkcudbright 32 MJ EM gun facility firings 31775
lin. induction launcher, in-bore projectile dyn. 15297
lin. induction launcher, multi-sect. transit. simul. 15299
lin. induction launcher, projectile balloting/spinning/nutation 15298
memorized testing/measuring technol. 3735
muzzle-fed railgun expts., 3-D EM simul. 15279
muzzle-fed railgun expts., plasma armature 31752
plasma armature railguns, foil breakdown, num. simulations 23521
plasma armature railguns, projectile vel., conductivity 23522
plasma gun launcher pulsed power supply, solid liner implosion-based 36271
plasma hybrid armature railguns, current/fuse thickness props. 23525
projectile vel. meas., flash shadowgraph syst. 3989
railgun, lin. DC motor-based, stabilisation study 31768
railgun armature plasma brush electrode materials 15334
railgun armour penetrating projectiles, armature designs 18964
railgun meas., high accuracy 15374
railgun plasma armatures, full-bore num. simul. 15365
railgun plasma armatures, serrated bore surface effects 15360
railgun projectile accel., plasma armature 15344
railgun weapon solid armatures, instrumentation develop. 15336

- **projectiles** continued
  - railguns, composite electrodes, crit. current dens. 15364
  - railguns, launch-induced static/dyn. deflection calcs. 15363
  - railguns, mid-range integrated launch package, current maldistrib. 15348
  - small bore plasma armature railgun expts. 15270
  - small railgun, bore erosion reduction 31757
  - solid armature railgun, current/heat transient diffusion 15310
  - solid-armature railgun, current/heat transport modelling 15320
  - Tokamak pellet injection, electrothermal accelerator 15290
  - Pd powder railgun projectiles, impact expts. 15357
- **projectors (optical)** *see optical projectors*
- **PROLOG**
  - CHIP lang. impl., large computer network optimal mgt. 24985
  - ECXpert, event correl. in telecomms. 24917
  - prog. fast colour recogn. hardware by symbolic reasoning 24546
  - telecomm. config. implement. 9009
  - telephony network real-time control, ES 24927
  - VHDL-based methodology for Prolog proc. design 12289
- **PROM**
  - *see also EPROM*
  - metal-to-metal oxide antifuses, reliable for VLSI appls. 22079
  - prog. high-rate PCM telemetry frame synchronizer *(Chinese)* 41748
  - radiation hardened n-p-n transistor for CMOS fusible-link PROM 12537
- **PROM programming** *see PLD programming*
- **proof systems** *see theorem proving*
- **propagation, wave** *see wave propagation*
- **proportional control**
  - building HVAC nonlin. heater batt., neural net control 5239
  - DC motor drive indirect control, state stimulator-based 36646
  - diaphragm valves, normally-closed, elec. activation 6879
  - fuzzy logic based engine idle-speed controllers 11441
  - generalized proportional navig., maneuvering/nonmaneuvering targets 26824
  - missile, highly maneuverable, nonlin. autopilot/guidance 18956
  - parallel-module power converter, current bal. controlled, dyn. anal. 44140
- **proportional counters**
  - *see also helium-3 counters; liquid proportional counters; multiwire proportional chambers; position sensitive particle detectors; time projection chambers; transition radiation detectors*
  - ALEPH expt., LEP, slow control syst. 18304
  - charge division type PSPC 26116
  - diamond microstrip high resoln. strip detector 26122
  - energetic ion detect., solenoid lens and posn. sensitive counters 18342
  - gas filled ΔE-counter, deterioration, impurities 34937
  - gas microstrip chamber on sapphire substr. 26121
  - High Pressure Gas Scintillation Proportional Counter, SAX appl. 26260
  - high-energy astronomy instrumentation conf., San Diego (July 1994) 5466
  - high-press. gas-filled posn.-sensitive proportional counter, X-ray detect. 26144
  - large-area proportional counter, situ TRU meas. 4249
  - microstrip gas chamber, semicond. coating, spectrometry 26112
  - microstrip gas counter test, RD20 front-end 34950
  - Moessbauer spectrometer, SEDM, RSMR 43143
  - multi-anode proportional counter, neutron detector 18338
  - multisection proportional chamber for P-viol. meas., design/ccts. 4171
  - photoneutrons from med. LINAC, spectrum/dose meas. 43409
  - positron ident., transit. radiation detector, neural net 4173
  - simultaneous conversion X-ray/transm. Mossbauer spectrosc., proportional counters 18410
  - toroidal proportional detector for conversion X-ray/transm. Mossbauer spectrosc. 10124
  - tracking devices at future colliders, readout and data acquisition 4232
  - ^{37}Ar, tissue equiv. proportional counters, calib./testing 10299
  - BF_3 proportional counters, temp. depend. 18333
  - H_2, tissue equiv. proportional counter, radiation protection microdosimetry 43393
  - He proportional counters, absol. calib., TFTR diagnostics 26145
  - He-filled proportional counter, after-pulse near 4.2 K 34936
  - Xe compact gas proportional scintillation counter for hard X-ray spectrometry 18340
  - Xe-CO_2 proportional chambers, X-ray posn. resoln. 4175
- **proportional + derivative control** *see two-term control*
- **proportional + integral control** *see two-term control*
- **proportional + integral + differential control** *see three-term control*
- **proprioception** *see mechanoception*
- **propulsion**
  - *see also aerospace propulsion; electric propulsion; electromagnetic launchers; electrothermal launchers*
  - annular MHD submarine propulsion syst., field/current calcs. *(French)* 27967
  - combined Maglev levitation, propulsion, guidance syst., anal. 28134
  - EM chem. propulsion concept 15264
  - inertial propulsion, concept and expt. 28149
  - lin. reluctance motor can secondaries, suspen./propulsion forces 19671
  - naval nuc. submarine propulsion, IKBS surveillance 35782
  - naval nuc. submarine propulsion, surveillance, IKBS 35855
  - N.S. Mutsu, expt. voyages, NPP perform. 35805
  - NS Mutsu reactor syst., ship motion effects 27458
  - ship's propulsion syst. forced torsional vibr. meas. and anal. *(Croatian)* 4027
  - ship's screw cavitation recording, angle sampling control *(Croatian)* 3685
  - submarine nuc. propulsion technol. develop. to PWR2, UK overview 44572
- **prospecting (geophysical)** *see geophysical prospecting*
- **prosthetic power supplies**
  - amorph. wires-based energy transfer syst. 35154
  - pacemaker power supply convertor, flat transformer-based 10277
  - Zn-air batts., hearing aid power supplies *(Japanese)* 5176
- **prosthetics**
  - *see also artificial limbs; artificial organs; handicapped aids; orthotics; pacemakers; prosthetic power supplies; sensory aids*
  - biomimetric powered prosthetic hand, myoelectrogram controlled *(Japanese)* 26471
  - cardiac valve prosthetic, algm. for regurgitant vol. eval. *(Italian)* 26475
  - cardiography, signal processing colloquium, London, UK (1995) 28228
  - CMOS transponder microchip, low power biomedical telemetry appls. 34995
  - cochlear implant, technol. for profoundly deaf 43363
  - conversation, computer aided for phys. impaired nonspeaking people 40759
  - dental prostheses, holographic interferometry 23457
- **prosthetics** continued
  - endoskeleton BK prosthesis, customized alignment, neural network models 43367
  - heart valve state, artificial, acoustic class. 43365
  - joint replacement, orthopaedic biomechanics computational problems 18618
  - mol. wires/transducers/devices 28891
  - multichannel biotelemeter, custom IC/syst. manufacture *(Korean)* 26280
  - neuromuscular stimulation electrodes, elec. transients/corros. responses 18[illegible]03
  - neuroprostheses for hand grasp, control assess. 4308
  - rehabilitation R&D progress reports, (1992-1993) 26477
  - tinnitus suppressor, elec. implant, develop. *(Japanese)* 4301
  - two-microphone adaptive beamforming speech proc. for cochlear implant patients 43366
  - ventilatory prosthesis, phrenic nerve intramuscular elec. activation 10276
  - visual neuroprosthetics, functional vision for blind 18615
  - voice commun. prosthesis enhancement, speaker emotion 4316
- **protection**
  - *see also alarm systems; corrosion protection; flameproofing; lightning protection; machine protection; overcurrent protection; overvoltage protection; power system protection; protective coatings; radiation protection; relay protection; safety; surge protection; switchgear protection; transformer protection*
  - 3-level GTO inverters, overvoltage clamping, cct. design 44183
  - 3-phase DC clamped switch mode rectifier, IGBT 19747
  - 4.5 MJ Pegasus-II pulsed power capacitor bank protection fuse calcs. 36504
  - 6.6 kV solid insulated switchboard *(Japanese)* 27839
  - 50 to 300 kVA UPS installation guide 19875
  - 70 A telecom. rectifier, high efficiency 12337
  - advanced SCADA concepts, substation appl. 19131
  - ATM network hitless line protection switching 41409
  - automatic line protection testing, SDH/opt. fibre amp. 9530
  - automotive ICs, dedicated protective fns. 36765
  - beamline front-end mock-up at APS, vac. tests 43148
  - BiCMOS IC ESD protection, harsh automotive, indust. environ. 30487
  - bimetallic batt. packs, overcharge/short cct. protection 5179
  - broadband EM disturbances, electronic systs. protection 15520
  - Calvert Cliffs nuc. plant, digital instrumentation upgrades 19403
  - CMOS ASIC ESD failure, substr.-power bus contact effect 30468
  - CMOS ESD protection ccts., scaling, optim., design 6849
  - CMOS ESD protection ccts., scaling/optim./design considerations 30471
  - CMOS SRAM technol., ESD design methodology 29224
  - coaxial probe for ESD voltage waveform meas., 1 ns risetime 34651
  - Compact NS moulded-case cct. breaker series *(Italian)* 5143
  - computer and communications security and protection, conf., Paris, France (June 1994) 24870
  - DC/DC capacitive idling converters, input current shaping 19789
  - elec. control room fire protection, sprinkler syst. options 92
  - elec. vehicle propulsion inverter, power electronics design 44485
  - ELETTRA insertion devices, init. operation 43011
  - ESD control/safety, surface testing, simulated MOSFET damage 15223
  - ESD packaging, environ. perspective 28455
  - ESD protection cct., 2D electrothermal simul. and design 30467
  - Fuji Electric IGBT intell. power module products 21118
  - fuzzy logic power supply protection cct. for severe transients 44188
  - generating sets, electronics, high altitude NEMP hardening 19587
  - ground recirculation parasitics in power ICs, protect. tech. *(English)* 30419
  - HF high perform. power supplies, SMT 12332
  - HV underground cables, termite attack prevention *(French, English)* 35646
  - HV underground power cable, termite attack prevention 27197
  - hybrid/elec. vehicles, DC/DC power converters 20100
  - IGBT, monolithic over-current protection cct. 30422
  - IGBT driver PC928, short cct. protection, OPIC photocoupler *(Japanese)* 529
  - IGBTs, current sens. for short-cct. protection 34474
  - IGBTs, short cct. behaviour and protection 6778
  - intell. IGBT, overcurrent protection cct. 30423
  - intell. IGBT power modules for driving systs. 36670
  - intell. power module, develop. trends 29028
  - Maglev supercond. magnet protection, discharge tube switch-based 5338
  - Maglev train protection/posn. detect. 5339
  - mature CMOS proc., unusual HBM ESD failure mechanisms 30469
  - MCT converter, snubber efffect, switching loss, EMI reduction 6017
  - medium power RCCB design for severe environ. conditions 36393
  - microprocessor based protection systems 9787
  - microwave heating, PWM flyback converter, nondissipative snubber 11479
  - MOS I/O device degrad., ESD-induced disloc. 22605
  - nMOS ESD I/O protection structs., EOS suscept. 6749
  - on-chip power supply coupling diodes, ESD protection, noise immunity 5986
  - outdoor solar cell power unit *(Japanese)* 5215
  - PCB ESD protection material selection, shielding effectiveness meter 28456
  - photonic fiber ring video delivery and SONET protection 17224
  - power control ccts., IGBT short cct. current behaviour 29025
  - power electronic cct. design/layout, EMI reduction, perform. improvement 12312
  - power electronics ccts., reliab. enhancement technols. 29017
  - power station intell. control, life extension mgt. 19387
  - PTC thermistors, overheat protection, equipt. safety 6353
  - pulsed power, slow capacitor banks, protection systs. *(Japanese)* 11312
  - pulsed power supply slow capacitor banks, overcurrent protection 36313
  - read/write amp. design considerations for MR heads 29052
  - RISC μPs in isolation CMOS technols., ESD protection 21348
  - rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658
  - secondary batts. for portable electronic equipt. 44308
  - self protected light triggered thyristor, HVDC valve appls. 6742
  - ships, vectorial mag. field, mag. protection 18043
  - snubberless IGBT PWM-VSI inverterbridge, design/test 19728
  - SOI snapback nMOSFET, ESD protection/failure modes 22464
  - SOI snapback nMOSFETs, ESD protection capability, mechanisms/failure modes 30308
  - SOI/bulk hybrid technol. on SIMOX wafers for ESD immune ccts. 13881
  - solid propellant electrothermal chem. launchers, pulsed power 31763
  - static control footwear, perform.-oriented design and test procedures 31715
  - static power converters, burndown prevention 44126
  - static protective shrink wrap film for JEDEC tray packaging 28454
  - supercond. coil, protected, loss of supercond. state *(Polish)* 22766
  - switching syst. EMI prevention/protection experiences, France 16968
  - VLSI ESD sensitivity, thermal breakdown and dielec. breakdown 6844

protection continued
VLSI power supply coupling diode design, ESD protection/noise immunity 30470
H maser storage box, radiation resistant/reproducible coatings 39639
protection of software, legal *see industrial property*
protective coatings
see also conformal coatings; corrosion protective coatings; wear resistant coatings
conformal coating, robotic appl. 935
conformal coatings, dyn. thermal mech. anal. 451
double-coated opt. fibers, hydrostatic press.-induced stresses 22827
embedded Fabry-Perot interferometric strain sens. 17894
opt. fibres, UV cured coatings, reliab. 1660
organic protective coatings for SMT/PCB finish 12910
parab. reflector antenna perform., dielec. coatings effect 31956
Parylene conformal coating economies 933
PCB, conformal coating proc. optim. 934
PWB dielec. systs., SIR profile, elec. perform. 901
solar cells, phosphate glass based protective coating 36596
solderability and impact of surface coatings 6421
spacecraft solar cell assemblies, Teflon coverglass bonding 26684
thin-coated opt. fibers, proc. handleability 14356
wettability of immersion coated PWBs, temp. and humidity effects 29681
Al microchip bond pads, oxide layer F contamination, wafer storage 30141
Al ultrathin films for Cu oxid. prevention *(Korean)* 38638
C, DLC protective PECVD film, thin film mag. disk 7152
H maser storage box, radiation resistant/reproducible coatings 39639
Nd doped fiber laser, long./side-pumped, silicone coating 31228
SiN protective layer, Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417
SiN_x filter effect on LED intens. temp. depend. 7479
SiO_2 opt. fibres, C coating, plasma CVD 22828
SiO_2 opt. fibres, organically modified silicate coatings 1662
Sn immersion coatings, PWB surface finishes 12934
Ta capacitor resist., high humidity 884
protective relays *see relay protection*
proteins
see also gelatin
bacteriorhodopsin, protein-based computers 29698
bacteriorhodopsin dyn. recording material, polariz. props. of four-wave interact. 2088
bacteriorhodopsin film based motion-sensitive posn. sens. 10012
bacteriorhodopsin SLM, opt. proc. 31672
bacteriorhodopsin thin film interconnections, dyn. contrast reversal, self-PM 1783
bacteriorhodopsin thin film photoanisotropic incoherent-to-coherent image converter 22990
bacteriorhodopsin thin film real-time reson. holography 40157
bacteriorhodopsin thin films, autocorrelating femtosecond pulse charact. 40070
bacteriorhodopsin variants, phase conjug. by DFWM 23398
bacteriorhodopsin/protein-based two-photon 3D memories, nonlin. opt. props. 2099
bi-electrodes based electrochem. sens., voltage relax. meas. 9947
biosensors, biotechnology-based recogn. elements 43187
computational opt.-sectioning microscopy for 3-D quantification of cell motion 18430
crystallography, sub-Angstrom X-ray source, compact storage ring 43217
cytochrome b_{562}, electroactive protein for bioelectronics 21665
enzyme-based potentiometric/pH-stat biosensors, stainless steel electrodes 9945
ESRF undulator, double-focusing X-ray scatt. camera 34981
genotyping by multiplexing PCR *(French)* 24762
high resoln. struct. studies 43169
hybrid semicond./biomol. 3D memories and computers 12949
IgG Langmuir films oriented by protein A sublayer 42857
laser/light induced fluoresc. spectrosc., biomedical appls. 43214
peroxidase, immobilized, glassy C electrode, H_2O_2 detect. 9944
phosvitin, parallel EELS, CCD camera syst. 9930
potentiometric sens., LB films prep./immobilisation 3897
surface-plasmon-reson. biosensor, particle-enhanced sensitivity 34602
thermal detect. of enzyme-labelled antigen-antibody complexes 9946
urea biosensor, NH_3 sensitive Pt/GaAs Schottky diode 3896
^3H-labelled, solid state detector for research 35042
protocol analysers *see network analysers*
protocols
see also access protocols; automatic repeat request; frame relay; memory protocols; telecommunication congestion control; transport protocols
11 kV distrib. network telecontrol/metering syst. 4660
18th conf., on local computer networks, Minneapolis, MN, USA, 1993 28220
100VG-AnyLAN, Ethernet/token ring frame inform., IEEE 802.12 technol. 41882
A-ONE, switched opt. fiber LAN 17221
abstr. test suites validation, SDL 24828
ACNET control syst., smart subsystems, shell software 18231
adaptive token release mechanism for ring LAN and MAN 41529
aggregate level simul. protocol, evolving syst. 16495
air/ground digital commun. for ATC 10420
algms. for deriving protocol specs. from service specs. written in LOTOS 2906
analog cellular facsimile commun. time reduction *(Japanese)* 41741
application tailored protocol configuration, language support 33258
architectures, modularity considerations 3221
ASN.1, efficient packed encoding rules *(Japanese)* 40695
asymptotic resource consumption in multicast reservation styles 2882
asynchronous packet-switched shared memory multiprocessor cache coherency scheme 2953
ATC, Ada computer commun. interfacing 41773
ATM, link in ST-2 internet 8974
ATM adaptation layer, service specific connection oriented protocol 2960
ATM appl., digital avionics 10389
ATM backbone, frame-relay traffic 41439
ATM cross-connect networks, guided restoration 16432
ATM fund. 33182
ATM LANs, high-speed telecomms. technol. *(Japanese)* 33544
ATM multimedia protocols, simplified QoS model 25101
ATM NAP archit., routing design 24980
ATM network modeling, obj. oriented simul. 24768
protocols continued
ATM network protocol develop. package 41841
ATM networks, AAL and group commun. server for reliable multipoint services 16482
ATM networks, credit-based flow control 41400
ATM networks, credit-based flow control 2881
ATM socket family implement., experience and results 8921
ATM switch, integrated control/mgt. model 8844
ATM terminal adapters, interleaved/non-interleaved pipelining 33587
ATM/PVC-based video retrieval network, path reservation protocol 41526
audio control protocol verification 34288
augmented priority ceiling protocol, task sync. for preemptive real-time systs. 16492
authentication and key exchange, practical protocols 24067
authentication protocol, design, verification and implement. 2930
authentication protocols verification, methodology/example 2954
automated derivation of protocols implementing IN services 24827
automatic protocol implement., generating C++ code from SDL/PR specs. 24830
automatic vehicle location subsystem interfaces 3461
automating verification by functional abstraction, syst. level 41503
automobile control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
automotive control syst. benchmark based on Time Triggered Protocol 5369
autonomous distrib. mutual exclusion protocol for multiple net resources *(Japanese)* 2923
autonomous load sharing, mutual priority protocol 8747
avionics computers, real-time, Ada 9X solns. 10370
AWK simul. of Petri nets for signalling protocol validation 41509
AXSIA module in PREVISIA, distributed IS *(French)* 16661
B-ISDN signalling network, perform. params. 16787
Bell Atlantic, centralization/automation in telecom. network testing 33355
BERKOM multimedia mail teleservice 33658
BERKOM-II FlowSpec, ATM mapping 9018
bidirectional networks, link failures, global computation complexity 41510
bit commitment, secure, lang.-depend. 32169
broadband ATM indoor radio, packet diversity 16700
broadband networks, resource allocation 9017
broadcast channel, causal order protocol, eval. *(Japanese)* 16720
brushless motor drives, high power, intell. interface 5271
byzantine agreement with a minimum number of messages both in the faultless and worst case 33282
CALS develop., military appls. 43596
campus-wide network, packet voice distrib. 33520
Canadian patrol frigate, implement. of AAW sens. fusion 18980
casting proc. product inform. model, STEP-based 11740
CATV data network syst. security 34264
CATV status monitoring syst. using HDLC protocol, implement. *(Korean)* 42624
causally ordering group commun. protocol 8997
CCS network integrity experiences and risk reduction strategies 41518
CCS network SS7 protocol, software fault impact model 41517
centralized control for fiber-optic microcell radio syst. 3450
certified electronic mail 16631
channel/node grouping effect in multi-bus network *(Japanese)* 41507
client/server models, commun., spec./validation 2932
clinical record and integrated guidelines 33290
CMIP-based OpS-WS interface supporting GUI 41673
color image proc./transm. technols. *(Japanese)* 41745
commun. complexity, lower bound methods 33284
commun. gateways for network interoperability, methodology for synthesis 16511
commun. protocol, stabilization, modified distributed snapshots algm. 3208
commun. protocol design methodology 2947
commun. protocols, timed communicating state machine 33267
communicating finite state machines, diagnostic tests 2904
communicating finite state machines, language-based anal. 2978
communication protocols, hierarchy-based incremental anal. 2972
communication protocols, Petri nets/self-stabilization 2964
communication protocols, reverse-engineering 2967
Compac's LMX 506 router-concentrator 25175
complementary media packet switched networks, survivable commun. 17023
computed tomography practice, Sweden, QC, techs., patient dose 18519
Computer assisted Speech Eval. & Rehabilitation ES 4312
computer network, trees/rings, fault-tolerant reconfiguration 3202
computer network clocks, improved sync. algms. 2949
computer networks, star-based/ring-based conf. authentication facilities 8951
computer-power converter commun. link, syst./alarm mgt. 41826
configurable/parallel protocols, prototype experiences 3218
configuration, modules as building blocks 3222
conflict-free WDMA networks, buffer-sharing 8745
conformance test generation, efficient approach *(Chinese)* 24810
conformance test syst., Petri nets, test logic programs correctness 8765
conformance testing, quality 25009
conformance testing of protocols 24829
conformance tests for nondeterministic protocol machines 2951
congestion avoidance networks, congestion estim. feedback 9016
connection mgt. protocols, trade-offs, message delivery and quiesce times 16516
connection mgt. without retaining inform. 16714
connectionless-mode network protocol for mobile end syst. 2957
consensus nos., exotic behaviour 41500
conservative simul. protocols, deriving global virtual time algms. 41539
continuous media networks, filter propag. in dissemination trees 8975
Controller Area Network controller class. *(German)* 24832
counter-based reliable broadcast protocol 33266
Croatian videotex syst., terminal/external computer min. param. requirements 33421
cryptanalysis and protocol failures 24061
cryptographic algms., conventional 24062
cryptographic protocol verification software 24071
cryptographic protocols and computer voting 24815
cryptographic protocols for auctions and bargaining 24816
cryptography, conf., Santa Barbara, CA (Aug. 1994) 32150
cryptological applications of square roots in Z_{pq} 8162
CSYCOM commun. protocol *(Bulgarian)* 24811
customer network management services for broadband data services 33364
customer queue and resource queue networks 41485
cyclic protocols, generalized fair reachability anal. 2931

protocols continued
- data compression, network link congestion control appls. 40793
- DCE Web toolkit, enhancing WWW protocols, lower layer services 41862
- DDT, Internet tunneling technol. 16749
- DDT, versatile Internet tunneling technol. 41785
- default forwarding protocol for mobile commun. *(Japanese)* 17139
- delay-insensitive codes, power-efficient, for data transm. 15759
- DELPHI distributed IS, LEP appl. 18210
- desktop appl. program interfaces 33395
- deterministic and SPN, steady state solns. 41534
- deterministic FSM model, fault detect. and diagnosis capabilities of test seq. selection methods 33274
- diagnostic radiology optimisation programme, Madrid area 18501
- dial-up X.400, APS alliance 25018
- Diffie-Hellman protocol breaking equiv., computing discrete logarithms 32174
- digital cellular syst. radio link protocol throughout perform. 33799
- digital movie systs., perform. bottlenecks 16841
- digitised voice over high speed LANs, error control scheme 33445
- directory authentication framework 8954
- discrete logarithms in real-quadratic orders, cryptographic protocols 32157
- dissemination-oriented commun. abstraction, multimedia multicast channel 41531
- distrib. syst. data commun. integrat. 10735
- distributed algms. for unidirectional networks 8766
- distributed call proc. archit., design/implement. 9010
- distributed control appls., home power ccts. 9039
- distributed picture archiving and commun. syst. for hospitals, image pre-fetching 35205
- distributed protocols design, compositional approach 2959
- distributed quorum attainment protocols, unified framework for eval. 8751
- distributed rem. data terminals, develop. *(Chinese)* 19130
- distributed SCADA/EMS syst., Unix based, Johannesburg 4519
- distributed systs. reliab. conf., Princeton, USA (1993) 36876
- distributed telecomm. syst. design, ODP approach 24954
- distributed virtual simul., networking 25019
- distributive lighting control syst., Local Operating Network appl. 20122
- document delivery using X.400 protocol, British Library DSC 41736
- DSA type secure interactive batch verification protocols 24079
- DTM gigabit network, fast connection establishment 24805
- dyn. scaled multimedia data streams, network support 9078
- e-mail gateway translation 8866
- EAN directory service, support for transactions and replication 8960
- echo-cancelled discrete multitone systs., timing recovery 9090
- electronic mail security *(Slovenian)* 41738
- embedded systs., network mgt. fns. 3162
- environ. dosemeters, ninth internat. miniintercomparison 43392
- error recovery method/tool 25008
- ESIS on World Wide Web 8898
- ESPRIT MIDAS project, secure rem. mgt. 8953
- Estelle, automatic test case generation 2969
- Estelle formal spec. described protocol, validation tech. 2902
- Estelle interpreter for incremental protocol verification 2973
- Estelle specifications verification, numerical Petri nets 2974
- Ethernet LANs, low-speed appls. 8905
- expt. design, improved quality protocol testing 16786
- fast reservation protocol/stat. multiplexing 16438
- fast reservation shaper, novel approach for fast resource mgt. 41683
- fault tolerant protocol for distributed mutual exclusion 2903
- fault-detecting network membership protocols, design/anal. 41522
- fault-tolerant convergence routing 3203
- FDDI concentrator tree topology with loopback 33451
- FDDI LANs interconnection 33498
- fDDI-2 packet services and latency adjustment buffers 33454
- FDDI-M, scheme, double FDDI's ability of supporting sync. traffic 16487
- fiber-optic networks, fault-tolerant layered approach 16687
- Fibre Channel Standard, rapid protocol develop. 33494
- Fibre Channel switch, performance improvement using camp-on 33255
- fibre channel technol., interoperable high speed connections 41793
- fieldbus commun. controller chips 6169
- flexible commun. mgt. for multimedia multipoint commun. 25104
- flow mgt. in quality of service archit. 25099
- formal specification of communication protocols, perform. eval. 2975
- frame relay computer commun. service for high-speed data 41807
- frame relay protocols and user interface 41809
- FSM-based program generator for commun. protocol software 2913
- FTP MAIL,e-mail automatic file transfer syst. *(Spanish)* 3152
- Futurebus+ cache coherence protocol verification 41811
- Galileo, real-time networks simulation/anal. tool 3074
- GeNeRIC inform. centre in multi-protocol environ. 41523
- geographical/provider-rooted Internet addressing, comparison 16745
- gigabit LAN interfacing to high perform. disk array file servers 33257
- gigabit router archits. comparison 24842
- global network mgt. for 90s 8842
- global ref. mechanism for data objs., design and implement. 16510
- group communication, multicast mechanism 2970
- group communication protocol for large group 33644
- GSM data services, overview 42248
- GSM procedures for integrated cellular/satellite syst. 25319
- GT-1000 image transm. device, develop. *(Japanese)* 33610
- guaranteed bandwidth protocol, connection-oriented data service in DQDB simul. 2909
- half-converters derivation, formal approach 16477
- Hamming space, superimposed codes 24039
- heterog. network mgt., composite perform. eval model 33546
- heterog. networks, generic mgt. syst. 16579
- hierarchical inter-domain routing, on-demand TOS/policy resoln. 2958
- hierarchical membership protocol for sync. distributed systs. 41544
- high data rate satellite commun. systs., R&D *(Japanese)* 17158
- high perform. transparent bridge modular archit. 41404
- high speed networks, flow control methods 16478
- high-perform. distributed computing, architectural support 2907
- high-speed channel, selective total-ordering group commun. 2939
- high-speed computer commun. network, models and simul. for anal. 8925
- high-speed data transm., eval. of acknowledgement methods 16475
- high-speed networks, inter-proc. commun. perform. 8967
- high-speed opt. fiber LAN, WDM access protocols *(Korean)* 17180
- high-speed protocol proc., parallel approach 41537
- high-speed self-token ring LAN, perform. eval. 9001
- HIPPI interconnection syst., camp-on strategy, perform. eval. 33493

protocols continued
- HIPPI-ATM-SONET terminal adapters, archit./perform. 41798
- ident. schemes, short-size keys, design 32167
- IEEE 1149.31 protocol addressable, multi-drop, backplane test bus 9782
- IEEE 802.3 CSMA/CD protocol modeling and verification, symbolic model checking 24819
- IEEE P1149.5 standard module test and maintenance bus 42702
- IMHP, mobile host protocol for Internet 16748
- implosion-avoidance protocols for reliable group commun. 33270
- imprecise computations, scheduling algms., max. error minimization timing constraints 33277
- IN, strong user authentication 25090
- IN voice peripherals 16825
- incremental protocol verification method 16506
- indust. and academic protocol testing, comparison 33250
- InfoPad project, design of wireless portable systs. 33529
- inform. superhighway, protocols, bearer technol. 33429
- integrated appl./service platform for multimedia appls. 16893
- integrated road transport/traffic environ., protocols 3456
- integrated services networks, perform. eval., iter. approach 3236
- intell. DBMS for ground proc. systs. in EOS era, telecomm. issues 17687
- inter-administrative domain data commun., policy control 8903
- interactive graphic syst., data network mgt./status visualization 24912
- Internet, multimedia services, distributed sync. protocols 3263
- Internet, security, protocols 16669
- Internet's SNMP and ISO's CMIP protocols for network mgt. 16577
- Internet e-mail, technol. develop. 24933
- Internet Mobile Host Protocol, IMHP 41506
- Internet protocol, connection-oriented networks and distributional paging 16489
- Internet public goods, funding 25023
- internetworking, user soln. 33509
- IP layer perform. diagnostics, windowed ping appl. 16746
- IP/Secure for security on datagram delivery for mobile host environ. 41784
- ISDN, transparent ATM LAN interconnection 16668
- ISDN develop. impact overview, Italy *(Italian)* 3237
- ISLAN interface, MAC/PHY layers, IEEE std. 24984
- ISO virtual terminal protocol, semi-automatic implement. 8758
- ISO/Internet mgt. integrat. 24905
- Japan Airlines' network IS 41665
- Jetstream Gb/s LAN, user-space protocols for high perform. appls. 2940
- k-resilient protocols, computing reliab. intervals 33276
- key agreement protocols based on tamper-proof hardware 15736
- key generation systs., alg. aspects 8153
- knowledge-based selector of multimedia commun. services 16902
- KryptoKnight, protocols for authentication/key distrib. 25050
- Kuperee, authentication, public keys 8952
- LABON, learning automata-based opt. network 9608
- LAMS-DLC perform., protocol for low altitude satellite networks 33940
- LAN, centrally scheduled, task distrib. 41774
- LAN/MAN interworking systs., rate control mechanism 24950
- Las Vegas protocol, commun.-randomness tradeoff for two-proc. systs. 24814
- LEO satellite systs., link mgt., throughput efficiency 3529
- lin. token passing bus/fiber distributed interface protocols 10323
- link layer protocol for high speed data bus 33261
- LOTOS specification, modularization 2956
- LSA coord. substation protection/control syst. *(English)* 44250
- mammography, dose meas. protocols comparison 18661
- managed networks, network mgt. impact 33370
- MELECON '94, conf., Antalya, Turkey (1994) 5470
- MELSECNET/10 and open networks for factory automation *(Japanese)* 33541
- message logging protocols, nonblocking and orphan-free 33278
- message optimal protocols for fault tolerant broadcasts/multicasts 24833
- mfg. message spec., protocol design/anal., Petri net-based 8873
- MHS parallel proc., implement. and eval. 24953
- microcontrollers, integrated CAN control 21346
- MLAN Multimedia Local ATM Network archit. and perform. 16760
- mobile computers, destination-sequenced dist.-vector routing 2990
- MOBITEX and mobile data systs. 41859
- model for flexible config. of appl. oriented commun. services 33273
- modeling/validation, symbolic simul., theory/appl. 2933
- modular fault tolerant protocol constr. 41536
- modular reduction algms., design methodology based on key/cryptosystem modif. 32075
- Moscow-Maribor satellite link for internetworking 41832
- MPEG video traffic, network congestion avoidance 42588
- MPPS, multiparty presentation service 8958
- MS3000/MS3100 multi-slot hub characts. *(Japanese)* 25001
- multi-channel ARQ protocols, perform. anal. 8927
- multi-exponentiation in cryptographic protocols 2899
- multi-hop radio networks, randomized broadcast protocols 3319
- multi-LAN multi-order protocol, multicasting in distributed systs. 16705
- multi-layered protocols, simul., transputers *(Japanese)* 16502
- multi-secret sharing schemes 32166
- Multicard, open hypermedia syst. 16662
- multicast forwarding unified framework 8768
- multicast protocol, round-robin ACK and selective retransmission *(Korean)* 24831
- multicopy ARQ strategies, Stutter XOR strategies 2927
- MultiG research programme, distributed multimedia appls. on gigabit networks 42040
- multimedia appl. adaptation layer (MAAL) protocol 16848
- multimedia appls., advance reservation of network resources 16843
- multimedia appls., fn.-based commun. protocols 9074
- multimedia conferencing protocols, ITU-T T.120 series 16881
- multimedia endstations, service kernel 16842
- multimedia integrated services networks, sync. mechanisms 16874
- multimedia multiparty connection, resource allocation 33621
- multimedia teleservices and high-speed archits., conf., Heidelberg, Germany (1994) 40
- multiparty commun. support 16875
- multiphase commun. protocols, constr. 2936
- multiple faults localization in protocols, test seq. generation 16491
- multiple file copies comparison, min. commun. 41520
- multiplexed ON-OFF sources, effect of multipath routing on loss perform. 41928
- multiround authentication protocol cryptanalysis 32163
- MultiSIX, multi-vendor network interoperability 24946
- mushroom, program for SCM protocol specification verification 2971

protocols continued
net-theory appl., commun. protocol develop. 8760
NetBIOS, OpenVMS 41817
Netware dyn. data exchange 16724
NetWare protocols, syst. manager's guide 41816
network mgt. appls. spec., high-level notation 41838
network mgt. protocol modelling in network archit. functional space *(English)* 3093
network mgt. syst., distributed computing 41671
network protocols, conf., San Francisco USA (1993) 35
network protocols, interoperability testing 2977
network synchronized clocks, predictable timestamp 40605
Network Time Protocol servers, survey tool for discovery 24959
networked voice messaging, MIME profile 24935
Neuman-Stubblebine authentication protocols 24069
NEURON chip, LONwork low cost control networks component *(Polish)* 41514
NIFTY-Serve, multimedia related services *(Japanese)* 42006
noninteractive zero-knowledge proofs, complexity of bounded-interact. 8177
O(1) quorum consensus protocol tailored for client/server archit. 41879
obj. oriented API for operations syst. develop. 16602
obj.-based approach, protocol software implement. 2948
obj.-oriented model for commun. protocol develop. 8746
open archit. telecomms. provisioning systs. 16481
optimal stochastic flow control in high speed virtual ccts. 16479
optimized parallel protocol implement., formalizations/algms. 2938
OSI, standardization and appl. promotion *(Japanese)* 8882
OSI environ., distributed message transfer and store appl. 33264
OSI secure commun., implement. and eval. of SCSE 8752
OSI session layer protocol, formal spec./verif. 8754
packet demultiplexing for multiple endpoints and large messages, Mach 3.0 8922
packet switched networks, fault-tolerant routing algms. 24756
PAGEIN project, networking issues 16728
parallel machines, software overhead in messaging layers 16660
patient dose protocols/trends, UK 18652
PBX-computer connection technol. *(Japanese)* 16970
PC based OSI rem. database access client syst. 8759
PC packet switching network flag detect. 8904
PCS systs., OAM&P std. 3368
plasma etch systs., automated preventive maint., SECS protocol 30088
POP3 mail client, WinSock 41731
power series algm. for anal. timed-token ring protocols 41524
power syst., distributed SCADA syst., design/archit. *(Chinese)* 43649
private computations, integers 41532
private networks signalling, develop. 41639
probabilistic conformance testing of protocols with unobservable transitions 2976
probabilistic timed protocol verification for extended state transit. model 8773
proc. group membership protocols 41535
PROTEAN, software tool for automated protocol anal. 2910
public data network, integrated mgt. syst. 24910
public data network mgt. syst., inform. model 24911
public E-mail, interoperability 33414
Q.931 call protocol, LOTOS based validation/perform. 16797
quantum bit commitment scheme provably unbreakable by both parties 8753
quantum oblivious transfer, secure against, indiv. meas. 8147
QuickRing network, perform. eval. 16704
radio LANs and MANs, IEE Colloquium, London (1995) 36864
RAIN (redundant array of inexpensive networks), multitraffic perform. 24949
RAMO telecomms. environ. equipt. mgt. network 19870
random proc. charact. in LAN 16505
random walk method for protocol testing 24817
randomised distributed agreement protocol for asynchronous networks 33279
randomness-rounds tradeoff in private computation 32183
rate-reservation protocols verification, flow theory 2966
reactive hardware, methodology and syst. for practical formal verification 24818
real-time multimedia services, sync. commun. protocols *(Korean)* 16840
real-time scheduling, precedence constraints and shared resources integrat. 8750
reduced length maximal fault coverage conformance test sequences 2968
reduced reachability anal., decidability issues 2963
register insertion bus fibre optic LAN, bandwidth balancing 33467
reliable commun., unreliable channels 33265
reliable packet delivery service interface for parallel systs. 41493
reliable router, reliable and high-perform. commun. substr. for parallel computers 24823
rem. procedure call protocol, probabilistic validation 24821
replicated data maint. in distributed environ., logical scheme improvement 24813
reservation protocols for internetworks, comparison of ST-II and RSVP 8767
rewriting syst., communicating machines with identical symmetrical/dual processes 2962
ring based multicast service, high speed deflection network 33476
ring network, scheme for improved multicast efficiency 2908
road transport and traffic mobile environ., ISO IP protocol suite 41783
rotation counter protocol, token-ring protocol for integrated services 33471
routing in ad hoc networks of mobile hosts 33568
RPC protocol for interconnecting distributed discrete event simul. syst. 33481
rural meteor burst communication protocols anal. 33974
Sanyo video meeting syst. *(Japanese)* 3243
SASC distrib. comp. protocol, info. leakage meas. 32082
SCI fairness protocol for increased throughput 3225
secret sharing, robust, dealer, honest, cheating 32094
secure addit. chain for SASC protocol appls., cryptanal. 24026
secure digital mobile commun., conf. key distrib. 25318
secure voting, part compatible homomorphisms 32184
security maint. in presence of transient faults 32185
security of distributed systems conf., San Diego, USA (1994) 5452
selectively totally ordered broadcast protocol on single channel network *(Japanese)* 16514
self-stabilizing asynchronous protocols 16488
self-stabilizing wait-free clock sync. 24836
service specific connection oriented protocol, preliminary perform. study 41935
service specs. for protocol specs. *(Japanese)* 33289

protocols continued
session layer conformance testing 8774
shallow-water acoustic LAN, store-and-forward protocol 10446
short-range commun. networks, appl. layer archit. 9161
significant event temporal logic, method for protocol spec. and verification 33287
simple Internet protocol plus (SIPP) *(Japanese)* 2952
simul. of protocol conversion in multimedia networks 16909
simul.-based scan test design rule checker 6103
single-link and time communicating finite state machines 2934
sliding-window protocol 41530
sliding-window protocol, design/test in protocol testing syst. 8755
slotted ring LAN, bandwidth allocation scheme 41906
slotted ring model, Cambridge type protocol 16472
slotted ring protocol for voice/data integrated network, perform. anal. *(Japanese)* 41512
slotted TDM throughput anal. for ARQ protocols 33253
slowly time-varying commun. channels, adaptive hybrid ARQ scheme 15782
small terminal satellite networks, IEE Colloquium, London (1994) 5478
smart batts., elec. protocol, data content 36546
SMDS network simul. 33477
SNMP manager Linenet-View, develop. *(Japanese)* 25046
SNMP-based systs. mgt., fault detect./isolation 24903
space vehicles, multiprocessor archits., engine and vehicle guidance control 4357
spec. and verification of distributed real-time protocol 41543
spec. of protocol handling syst. and perform. 33488
spec. proc., labelled transit. systs., knowledge base 8764
spec. synthesis, service specs., distributed systs., marked graph model 8761
specs., message collisions, automated synthesis 2935
specs. synthesis, service specs., parallelly executable multiple primitives 8762
speech impaired pers., public telephone network access, TINATEL syst. 43373
SPLICE/AS authentication syst. in WIDE Internet 24068
SS7 congestion control options, mass call-in situations 24899
SS 7 time response estim. in mobile cellular commun. syst. 33856
standardisation, SNMP protocol 44191
state-transit.-based incremental protocol spec. 16493
STC104 packet routing chip for parallel systs. 29290
std. field bus networks for indust. appls. 16509
Sticky conf. control protocol 41513
STM-based high speed digital FTTH syst., design concept 9098
subscriber interface, ARINC 629 current mode bus 35229
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
switching fabric control appl. connection mgt. interface 42104
synthesis based on LOTOS 8763
telecomm. config. implement. 9009
telecomm. public network power syst. mgt. 16613
telecomm. service protocol synthesis, Petri nets, validation tool 33632
telecomm. software automatic generation technol. *(Japanese)* 16512
telecomputations, telecomms. and computing convergence 3249
telephone exchange rectifier syst., ring topol. 44192
teleradiology, image ref. database, WWW 9053
test generation, multi-level approach 33251
test path selection, effective domains based 2928
test seq. generation methods, protocol conformance testing 2912
testing/emulation of EFT systs., functional appraisal *(French)* 33539
Thinternet, low bandwidth Internet connections 16739
third generation cellular radio, location mgt. 3486
third generation mobile/fixed commun. integrat. 25258
tightly-coupled fault-tolerant networks, guaranteeing idempotence 24822
TMN appl., highly reliable distributed switching node 41667
token based mutual exclusion algm. in distributed syst. 33484
token ring LAN environment supporting priorities, output process characterisation 33472
token-based fault-tolerant distributed mutual exclusion algm. 24812
tools, formal specification to implementation 3291
Totem protocol develop. environ. 2937
totem single-ring protocol, message delivery, probabilistic bounds 2914
ToTo, protocol for early delivery totally ordered multicast in asynchronous environments 33281
Transit project, reliable high speed interconnection technol. 8775
traveller inform., radio data syst. protocols 33521
tridiagonal lin. syst. and Poisson's eqn. soln., distributed memory systs. 28669
trusted multicasting elements 2926
tTP - A time-triggered protocol for fault-tolerant real-time systems 33280
UKUUG IP Workshop conf., London, UK (1994) 36909
UMTS 3rd generation systs. signalling, perform. eval. 25293
unique input output test seqs. length, lower bounds 41492
universal personal communications, conf., San Diego, USA (1994) 20233
UNK control syst. protocols 18207
unlicensed PCS band, wireless operation 25428
upper layer products, archits. and appls., conf. Barcelona (1994) 29
US census, automatic speech data collection 32232
VDT, VLF meas., user dose assess. protocols 43401
vector-valued fns., commun. complexity 24737
video mail distribution system for networked personal computers 33613
Vince, vendor independent ATM network control 16567
virtual circuit/QoS routing architecture 2994
virtual LAN services, multinetworking *(Japanese)* 33543
Virtual Permanent Connection, network computing, switch-based networks 16683
VISTAnet gigabit networking testbed, traffic meas. anal. 24749
VXI meas. and test systs. *(Slovak)* 25719
wide-area multicast routing archit. 2987
wind-solar power plant control, Petri net-based model 19575
wireless modem, high data link control protocol 9116
witness hiding protocols, partial knowledge proofs/simplified design 32168
World-Wide Web conf., Darmstadt, Germany (1995) 36872
X.25 packet protocol conformance testing 24826
X.500, heterog. implement. 25020
XTP over BERKOM B-ISDN network, perform. comparison, TCP/IP 2905
Yaksha, Kerberos augmented, public key cryptography 24059
Z39.50/SR protocol integrated into LIBERTAS, library automation 33252

proton accelerators
250 MeV proton cyclotron, central region design 34836
Accelerator Molten Salt Breeder, energy systs. 35957
ACNET control syst., smart subsystems, shell software 18231

proton accelerators continued
AGS, upgrade for RHIC 18289
AGS accelerator distributed control syst. alarm, obj.-oriented design 18192
antiproton storage ring, electron cooling 18283
beam dyn., complex accelerating elements 26039
CELSIUS electron cooler, design, constr. 34791
CERN PS accelerator, control syst. overview and status 18182
CERN PS accelerator, timing syst. 18183
CERN PS accelerator complex, data driven alarm syst. 18202
CERN PS accelerators, operator interface 18222
coil winder simul. for Superconducting Supercollider 22770
COSY, digital phase control syst. design *(German)* 43014
COSY accelerator electron cooler design and operation 34799
COSY accelerator facility, steering/timing syst. solns. 18201
COSY control syst., RT/OS environ. 18209
δf algm. for beam dyn. 26084
electron-proton colliders, linac-ring type and γp colliders 10078
Eloisatron, injector design 4100
Eloisatron, particle detect. 4231
Eloisatron beam dyn. 4101
Eloisatron dipole magnet design 4099
fast-RICH prototype with VLSI readout, beam tests 4164
Fermilab Tevatron, high field injection kicker magnet 34826
Fermilab Tevatron collider, bunched beam stochastic cooling 34777
FODO cell, diffusion, modulation effects 4086
gamma transit. jump schemes 4067
hadron colliders, scaling laws, cost optim. 4098
hadron supercolliders, wide-band transverse feedback 4108
hadronic colliders, transverse beam dyn./losses 4103
HERA, collimators, diagnostic tools 10085
HERA, large electron spin polariz. 34816
HERA, proton storage ring, internal halo targets, tests 26096
HERA status, first results 18244
HERA-B, CP violation expt. 4134
HERA/LHC, dyn. aperture, truncated Taylor maps 4085
high-power gas switches, ferroelec. electron beam triggering 36406
IUCF Cooler, cooled beam intens. limits 34806
IUCF Cooler Ring, spin motion, type-3 snake effect 4083
JINR phasotron, longit. phase motion, diagnostic foil ioniz. loss effects 18271
KEK PS magnet power supplies and beam line control 18260
KEK PS main ring, beam extraction magnets *(Japanese)* 34840
LEAR, electron cooling, variable current electron gun 34784
LEAR, stochastic cooling systs., upgrading 34789
LEAR electron cooler, servo-syst., neutralisation 34785
LF coupling impedance calc. 18216
LHC, neutron background, beam pipe geometries, transparency 4191
liner within proton collider beam pipe, many holes impedance 4102
molten-salt breeding reactor syst., Pu burning, fuel trajectory 35958
nonlin. betatronic motion, LHC/SPS appl. 34839
OMEGA project, nuc. waste transmutation, ETA/BTA accelerators 34762
perform. limitations beyond LHC/SSC 4096
Proton Synchrotron, LHC, transverse emittance conserv., low energy 4105
PSI accelerator control syst. and tools 18194
RD13 project (LHC), software engng., CASE tools 18228
spin flipping in stored polarized proton beam 4081
SPS, proton extraction, Si bent cryst. 4057
SPS proton beam extraction by bent crystal, simulation 43008
SPS/LEP commun. control network evol. 18197
SPS/LEP control syst. computers, mgt., installation 18225
SR sources, electron/proton rings 4072
SSC, emittance growth, noise 26036
SSC, high level control code, interactive simulator 18220
SSC, long. beam dyn., RF noise 4092
SSC, long. damper, design 4107
SSC, opt. fiber links, radiation effects 18206
SSC, plastic scintillator develop. 26216
SSC, transverse feedback systs. 4109
SSC accelerator proc. control syst. 18177
SSC accelerator systs. string test software archit. 18176
SSC control syst., develop. environ. 18229
SSCL, RF control, obj. oriented design approach 18277
storage ring, transverse injection oscill. dampers, requirements 4106
synchrotrons, beam control feedback loops, instabil. 4087
Test Storage Ring, intrabeam scatt. studies 34788
Tevatron collider, QCD, CDF, D0, recent results 34740
transportable supercond. cyclotron, neutron radiography 18463
TRIUMF control syst., DEC TURBOchannel, CAMAC exec. crate interface 18205
UNK control syst. protocols 18207
UNK Project, accelerator control, MMI 18279
UNK transfer line beam diagnostics control 18263
vac. syst. design, electron/proton storage rings 961
H^{-} beam prod. 4059
H^{-} injector design for SSC RFQ 4091
He cryoplants in CERN SPS, control aspects 10080
^{3}He polarized internal gas target, polarized proton scatt. 26098
^{4}He superfluid cryogenics for LHC 4048
NaI(Tl) scintillator, proton beam energy meas. 4163

proton beam effects *see proton effects*

proton beams
250 MeV proton cyclotron, central region design 34836
accelerator beam neutralisation, residual gas ionisation 4116
Eloisatron, injector design 4100
Eloisatron beam dyn. 4101
MeV proton beam transport through gas, electron density 26090
opt. stochastic cooling, transit-time method 4047
patient radiation therapy, plane flexible syst. 26456
pulsed ion beam evaporation experiments at the Naval Research Laboratory 18252
spin flipping in stored polarized proton beam 4081
SPS, proton extraction, Si bent cryst. 4057
SPS proton beam extraction by bent crystal, simulation 43008
SRAM in flight and ground based radiation testing 12531
SSC, emittance growth, computer simul. 26037
SSC, emittance growth, noise 26036
UNK transfer line beam diagnostics control 18263
NaI(Tl) scintillator, proton beam energy meas. 4163

proton detection
CR-39, electrochem. etched, crit. angle of incidence 10135
deuterated scintillator response fn. meas., ^{241}Am-Be source 18332
diamond scintillation detectors, charged particle detect. 34890
fibre optic sens. for radiation dosimetry 18678
Makrofol, electrochem. etched, crit. angle of incidence 10135
Zero Degree Calorimeter for CERN SPS NA50 expt. 26207
$p\bar{p}$ lumin. monitor, Fermilab expt. E760 34834
GaAs fast photoconductor responses, subnanosec. proton pulses 43098
^{3}He polarized internal gas target, polarized proton scatt. 26098
NaI(Tl) scintillator, proton beam energy meas. 4163
a-Si:H p-i-n detectors, charge collection procs. 43107

proton effects
AD8001 op-amp, dielec.-isolated complementary-bipolar IC, total-dose/SEU results 29066
analog IC BiCMOS-JFET radhard SOI technol., proton radiation effects 13904
CCDs, proton-induced charge transfer degrad. 13804
CMOS 16 Mbit DRAMs for mass memory appls., space radiation eval. 12527
dielec., charged particle irrad., current reversal 39036
fiber optic data links for satellite data mgt., particle-induced bit errors 17262
fused biconical taper WDM, radiation effects 17261
GTO failure mode during DC voltage blocking, cosmic-ray effects 30276
KITSAT-1/PoSAT-1 micro-satellites, radiation environ. meas., cosmic ray expts. 18714
large CCD arrays, dark current, proton-induced elastic reacts., spallation reacts. 17966
microelectronic devices, SEU and charge collection meas. 12393
proton SEU rates, CRRES satellite, DRAM chips 12532
RISC proc., single event effects/perform., space appls. 6182
SEE rates for gal. cosmic rays/solar flare protons, SRAM chip effects, satellite shielding 12533
SEU testing of modern ccts., incidence angle implications 11724
SEUs in ICs due to terrestrial cosmic rays, modelling 13867
space environ., proton irrad. effects, advanced digital/microwave III-V components 12803
spacecraft electronics, single event effect proton/HI testing 29093
SRAM in flight and ground based radiation testing 12531
SRAMs, proton induced events and charge collection, ang. depend. 12523
p^{+}-n-CdS/InP solar cells, space appl., projected efficiency 19989
GaAs PDB diode perform, proton isolation effect 29565
HgCdTe IR Earth-imaging array, total dose and proton testing 17960
InGaAs diodes, radiation effects, long wavelength sensitivity 1806
InP p^{+}n and n^{+}p structs., electrochem. anal. solar cells appl. 13107
InP solar cells, radiation resistant, space appls. 26640
InP/GaAs solar cells, proton irrad., prop. effects 19990
InP/InGaAs/GaAs solar cells, proton irrad., diffusion length 19991
LiNbO$_3$ electro-opt. devices, proton radiation effects 1728
Si detectors, neutron/proton/gamma irrad., electr. props., charge collect. efficiency 26224
Si microvolume CID sens. arrays, Monte Carlo/analytic treatments of displacement damage 17961
N-Si, proton irrad., defects 13032
Si$_3$N$_4$ thin films on n-Si, relax. polariz./charge injection 13916
SiO$_2$-GeO$_2$ glass planar struct., proton implanted, photosensitivity 39382
YBaCuO, proton implanted layers, crit. currents 1590

proton excited X-ray emission *see ion microprobe analysis*

proton gyromagnetic ratio *see gyromagnetic ratio*

proton induced X-ray emission *see ion microprobe analysis; X-ray chemical analysis*

proton magnetic resonance
brain, ^{1}H spectrosc., anom. transverse relax. 35021
donor-acceptor conjug. polyenes, polarisabilities, SHG 31580
tumors, {1-^{13}C}-glucose metabolism, NMR, heteronuclear cross polariz. 35012
^{1}H NMR, normal infant brains, perinatal hypoxia-ischemia 26346
^{1}H spectrosc. in stroke 26345

proton magnetic resonance imaging (biomedical) *see biomedical NMR*

proton polarisation
IUCF Cooler Ring, spin motion, type-3 snake effect 4083
partial Siberian Snake, preservation of proton polariz. 10091
spin flipping in stored polarized proton beam 4081
^{3}He polarized internal gas target, polarized proton scatt. 26098

proton sources
integrated ion source 4139

proton-surface impact *see ion-surface impact*

prototyping, software *see software prototyping*

proving, theorem *see theorem proving*

proximity effect (lithography)
0.35 μm I-line photolithography, automatic proximity correction, chip layout 1311
3D struct., proximity correction 38714
ASIC, direct e-beam writing, proximity correction 30188
chem. amplified pos. resists, micromachining 38738
chem. amplified resists for electron-beam top surface imaging, CMOS technol. 13524
CMOS devices, proximity SOR/deep UV PSM lithographies 13527
dense contact holes, phase-shifting masks, EDM methodology 13553
electron beam lithog., cell projection, proximity effect correction 22286
electron beam lithog., proximity effect correction, pattern-area dens. 22285
electron beam lithog., proximity effect correction, neural network 38713
electron-beam lithog., LV, surface imaging, silylation 13459
exposure-defocus forest 13546
high NA photolithography simul., scalar planewave model 1310
ion beam proximity printing, nonideal masks, contrast 13466
kinoforms, direct-write electron-beam lithog., proximity effect 23472
laser-plasma x-ray source target materials, x-ray lithog. appls. 6691
nanostructure patterning in X-ray mask making 13571
opt. lithog., 0.35-0.25 μm technols. 38764
opt. lithog., gigabit technols. 1303
opt. lithog. technols., lifetime, wavefront engng. 13547
PMMA-Ge-AZ trilayer electron resist, deep submicron patterning *(Korean)* 38747
poly-butene-sulfone resist, electron beam lithog., CD 22292
PYRAMID interior area removal method in electron beam lithog. 13455
rim phase-shifting mask, high-dens. cct. layout 13504
SR stepper, mix-and-match exposure, overlay repeatability 13565

proximity effect (lithography) continued
  stepper-lens syst., pupil-filtering 38717
  submicron struct., high aspect ratio, electron beam lithog. 30182
  X-ray lithog., 50 nm, SR 13530
  X-ray lithog., exposure window and resist profile 13545
  X-ray lithog., laser-plasma source 38755
  X-ray lithog., pos./neg. resists 38735
  X-ray lithog., subnanometer alignment syst. 13482
  X-ray lithog. beam lines, single mirror condenser 13540
  X-ray mask fab., proximity effect correction 22290
  X-ray mask fab., proximity effect correction 22291
  X-ray proximity lithog., source charactn. 22304
  X-ray refl. masks, electron scatt. 13436
  GaAlAs/GaAs 150-nm gate-length HEMTs, fab., X-ray lithog. 13800
  LiF(AlF$_3$) inorganic resist, proximity effect and exposure dose 38715
  W X-ray masks, GHOST electron beam proximity correction 13460
proximity effect (superconductivity)
  2DEG-supercond. planar junctions, proximity and Josephson effects 30794
  BH-alloy supercond. devices, multiple Andreev refl. 22734
  HTSC tunnel jns., photon detectors 39283
  normal metal-supercond. barrier contacts, proximity effect 22730
  normal metal-supercond. interfaces, electron tunneling 22729
  tunnel jn. detector, relax. times, proximity effect 18299
  BiSrCaCuO, multilayers/superlattices develop. 22744
  BiSr$_2$Ca$_7$Cu$_8$O high-T$_c$ superconductive devices, at.-layer-controlled fab. *(Japanese)* 5818
  DyBaCuO, multilayers/superlattices develop. 22744
  InAlAs/InAs/InGaAs 2DEG, supercond. three-terminal devices 39284
  InAs-AlSb-Nb electrode quantum well, induced supercond. 22733
  NbTi multifilamentary wires, proximity-induced Cu-Mn matrices, upper crit. fields 30770
  PrBa$_2$Cu$_3$O$_y$-YBa$_2$Cu$_3$O$_x$ jn., low temp. STS 22757
  YBaCuO SNS Josephson jns. with epitaxial barriers, interface/proximity effects 39275
  YBa$_2$Cu$_3$O$_7$/PrBa$_2$Cu$_3$O$_7$/Au-Ag/Pb jns., electron transport props. *(Japanese)* 7235
pseudobinary semiconductors *see II-VI semiconductors; III-V semiconductors; III-VI semiconductors; IV-VI semiconductors; semiconductor materials*
pseudonoise coded radar *see pseudonoise codes; spread spectrum radar*
pseudonoise codes
  adaptive diversity reception, prediction, smoothing, interpolation 25447
  adaptive DS-SS receiver for burst type interf. 17002
  adaptive multiuser demodulation, neural network techs. 17001
  asynchronous CDMA systs., interf. minimization 42165
  asynchronous CDMA systs., lin. adaptive transmitter-receiver 25243
  asynchronous DS-SSMB commun. syst., TWT nonlin. distortion 25252
  asynchronous DS/CDMA syst., multistage detector perform. 25240
  bandlimited DS/SS and narrowband M-ary PSK timing jitter sensitivities 40550
  broadband CDMA overlaying GSM cellular syst., capacity 3387
  burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
  carrier freq. offset-SSMA method 25254
  CDMA, CCI, spatial/temporal filtering 25234
  CDMA, chaotic Chebyshev bit seqs., even-/odd-correl. fns. 25262
  CDMA, imperfect power control, acquisition-based capacity estim. 25256
  CDMA, TU Delft research, overview 25255
  CDMA approx. synchronized syst. sig. design 24784
  CDMA cellular network, forward link perform. 25366
  CDMA coded packet cellular networks, code rate optim. 25384
  CDMA commun., CW/narrow-band sigs. interf. suppression 33749
  CDMA commun. systs., subspace-based delay estim. 42166
  CDMA for automotive area network, power-lines 3310
  CDMA multiple-cell radio syst., perform. eval. 3386
  CDMA network, mobile positioning, perform. anal. 25619
  CDMA overlay systs., adaptive interf. suppression 17037
  CDMA overlays for FDMA satellite commun. systs. 25465
  CDMA packet combining error control 25368
  CDMA PCS syst. perform., simul. results 3384
  CDMA rapid acquisition schemes in multipath delay fading environ. 33208
  CDMA receiver, near-far immunity 25228
  CDMA SS tech. for automotive multiplexing systs. 25199
  CDMA systs., multipath delay/fading 3473
  CDMA systs., multistage RAKE receiver 9242
  CDMA systs., optimum PN seqs. 25233
  CDMA systs., pre-decorrelating single user detect. 9238
  CDMA with DS-SS GMSK, perform. study 33846
  CDMA/FDMA satellite commun. systs. overlay, perform. anal. 25466
  cellular CDMA, forward-link power control law 3347
  cellular DS/CDMA systs., lin. interf. canceller 9241
  chirp SS techs., multipath interf. suppression 25250
  code diversity FH-SSMA commun. systs., optimal receivers 9179
  code interf. of SS code hopping syst. 25251
  code sync., principles/techs., review 25236
  CODIT, testbed project, DS-CDMA for UMTS/FPLMTS 3385
  CODSIM, simul. environ. for spreading codes 3325
  complex valued spreading seqs., crosscorrelation props. 32091
  conferencing SS radio 25260
  consumer commun. appls. 25237
  covert commun. employing wavelet technol. 9164
  delay locked loop, Doppler and data modulation effects 32036
  digital pulse compression radar systs., polyphase spreading codes 25570
  digital radio, spectrum phase interpolation, detect. tech. 9381
  direct seq. CDMA, GMSK modulation, perform. 33754
  direct-seq. systs. in lineal microcells, perform. eval. 25365
  distributed power SS cellular syst., perform. 25363
  DS-CDMA, Hadamard codewords, orthogonal spreading seqs. for mobile radio 33845
  DS-CDMA, integrated voice/data wireless networks, grade of service 9364
  DS-CDMA cellular syst., intra-cellular toroidal sectorisation 42276
  DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
  DS-CDMA cellular syst. perform. anal. 33910
  DS-CDMA commun., indoor mobile, code phase assignment 9206
  DS-CDMA FH-CDMA/narrow band cellular radio systs. 3452
  DS-CDMA field trial syst., down-link design 9391
  DS-CDMA low crosscorrel. seq. iterative constr. 41463
  DS-CDMA microcellular network, soft handoff 3470
  DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
  DS-CDMA mobile networks, acquisition of synchronism 33867
pseudonoise codes continued
  DS-CDMA mobile radio syst., coherent reception, channel estim. 9229
  DS-CDMA mobile radio syst. using RAKE receiver, spreading codes 25437
  DS-CDMA mobile syst., fading channel, anal./simul. 3391
  DS-CDMA mobile syst., receiver archits. for down-link 33864
  DS-CDMA networks, multi-media integrat. 25235
  DS-CDMA radio commun., low rate coding methods 25249
  DS-CDMA receivers, min. MSE, complexity reduction 3328
  DS-CDMA SS systs., noncoherent parallel acquisition 9382
  DS-CDMA SS systs., permutation modulation 17126
  DS-CDMA syst., adaptive multiuser interf. rejection algm. 42163
  DS-CDMA syst., macro diversity perform. 3389
  DS-CDMA syst., perform. of space diversity 33840
  DS-CDMA systs., hybrid acquisition schemes 9384
  DS-CDMA/TDMA for digital cellular systs. 3390
  DS-SS, directionally constrained adaptive beam forming 17003
  DS-SS, multi-h CPM, indoor mobile radio, perform. 3474
  DS-SS CDMA cellular voice/data commun. 25342
  DS-SS CDMA mobile satellite commun. syst. 25441
  DS-SS commun. multipath diversity combination 42196
  DS-SS communications, doubly selective fading channel, spreading seqs. 17016
  DS-SS digital diversity receiver for multipath fading channels 25436
  DS-SS ISM band radio LANs, receiver techs. 25261
  DS-SS packet radio syst. automatic threshold control 42151
  DS-SS receiver, digital matched filters, quantization effects 25259
  DS-SS receiver, noncoherent matched filter code acquisition 32582
  DS-SS serial search, multiple-dwell code acquisition detector rules 32092
  DS-SS sigs. radiometric detect., wavelet transform 17012
  DS-SS sigs. time division duplex transm. 9203
  DS-SS SS CDMA, MMSE interf. suppression 17017
  DS-SS systs., adaptive filters, freq. sweeping sig. rejection 17020
  DS-SS systs., narrowband interf. rejection 33750
  DS-SS systs., periodical seqs., Doppler mismatched filters 33752
  DS-SS systs. impulsive channel, narrowband interf. suppression 33751
  DS-SS transceiver, digital IF BPSK, CMOS technol. 9182
  DS-SSMA, interf. effect on narrow-band commun. systs. 33748
  DS-SSMA, unknown seq. estimator, near-far problem 25361
  DS-SSMA commun. systs., approach 42167
  DS-SSMA indoor cellular radio perform. 25370
  DS-SSMA multitone syst. in multipath Rician fading channel 16463
  DS-SSMA syst. based on $\pi/4$ DQPSK and convolutional coding 25369
  DS-SSMA systs., aperiodic cross-correl. model 16461
  DS-SSMA systs. perform., filtering effects, transmitter 33207
  DS-SSMA unslotted PRN 25257
  DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
  DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
  DS/CDMA adaptive interf. canceller, differential detect. 9240
  DS/CDMA diversity combining, convolutional encoding/Viterbi decoding 9380
  DS/CDMA prototype syst. for voice/ISDN sigs. 3320
  DS/CDMA successive interf. cancellation 25356
  DS/FFH SS commun. syst., multiple access interf. 25245
  DS/SS CDMA slotted access channel perform. anal. 9293
  DS/SS indoor wireless commun., near-perfect multi-packet capture 33869
  DS/SS systs., coherent chip-asynchronous, signature delay estim. 17014
  dyn. time-warp compensation for correl. of long seqs. 40944
  extended m-seqs. and related seqs., auto- and cross-correl. 24125
  fast freq. hopped NCMFSK, time diversity combining 25253
  FH-SSMA, band-efficient modulations, cellular radio channels 25367
  FH/SSMA systs., freq.-hopping seq. constr. 9173
  freq. hopped TDMA cellular syst., down-link capacity 9285
  GLONASS DS-SS sigs., radioastronomy impact 25620
  hierarchical TV transm., SS multiplexing 25632
  hybrid DS/FH SS syst. for mobile radio channel 3483
  hybrid DS/SFH SSMA commun., nonselective fading channels 3321
  hybrid SFH-multitone DS SSMA syst., perform. 9172
  indoor 3D cellular syst. fixed channel assignment plan 33804
  LEO satellites, PN code acquisition schemes 33951
  low power SS eqpt., peak-power meas. 25226
  M-ary wideband commun. syst., multipath channels appl., perform. 17019
  magic-sq. codes for hiding DS/SS sigs. from intercept receivers 25266
  mobile LEO channel, downlink DS CDMA perform. 25372
  mobile user satellite systs., multiple-access capacity 25302
  multihop FH-SS PRN, channel access protocol 25246
  multihypothesis testing, seq. procedure 24169
  near-far resistant DS-CDMA receivers, sensitivity anal. 9236
  noncoherent second-order delay lock loop optimal design 41389
  on-board satellite SS correlator 25469
  orthogonal convolutional codes, CCI cancellation 25242
  orthogonal multi-carrier CDMA, nonfading/nonselective fading 24783
  overlay CDMA syst., multiple BPSK interferers, perform. anal. 33747
  p-ary seqs., odd-correl. distrib. approx. 24126
  parallel combinatory SSMA systs., Rayleigh fading channel, perform. eval. 25244
  power line SSMA, error correction, IFMV9 coded overlapped PN seq. 25198
  PRN, delay capture, arrival-time distrib. 9174
  quasi-sync. CDMA, PN signature seqs. based 25265
  radiated emissions reduction, SS clock generation 15490
  radios for commercial wireless commun. 17022
  Rayleigh fading mobile channel, direct-seq. code acquisition 17103
  road vehicle-to-vehicle 2-way commun., SS 42242
  rural communication in multi-path channels, spread spectrum appl. 9189
  satellite-to-land-mobile commun. systs., perform. 9210
  SCM CDM opt. LAN, theory and expt. 16716
  self-organizing multiuser detect. 25239
  SHF/EHF mobile/indoor wireless commun., SS 3476
  shift-register seqs./SS commun. 24124
  slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
  slow freq. hopped data commun. syst., design 9287
  spread spectrum techniques, IEEE conf., Oulu, Finland (1994) 20200
  SS ranging syst. over short dist., anal. 17386
  SS-orthogonal FDM syst. combination, interfer. rejection 33746
  SS/FH multiuser radar/sonar, Welch-Costas arrays, props. 25582
  SSMA coded systs. combining FSK and PSK 33206
  sync. DS-SS multiple access, acquisition based capacity 42168
  sync. DS-SSMA systs., pseudo-noise seqs. 3326
  time domain SS proc. syst., large TBP 25216
  trellis-coded DS-SS commun. 17015
  UMTS, CDMA-based radio access design 25333

pseudonoise codes continued
vehicle-to-vehicle commun. for AVCS platooning 5354
Walkstation transceiver design 3464
wideband commun., reciprocity based channel compensation 9665
Wigner distribution of complex spreading sequences 9188
wireless LAN, interf. cancellation 8929
wireless multiservice CDMA environ., adaptive packet decoding 9360
pseudoternary semiconductors *see ternary semiconductors*
PSK *see phase shift keying*
psychological optics *see vision*
psychology
associative learning, quantitat. anal. syst., hardware interfaces 10165
auditory stimulus prod. in cognitive event-related pot. expts., PC software library 26379
cognitive psychology, med. equipt. alarm sounds design 4254
computer operators, hazards from monitors 26484
hand-drawn image class. by neural net 2704
heretical sci. concepts 28555
human expert emergency situation perform. assess. 37182
maint. of plants/equipt., learning environ., virtual reality *(Japanese)* 36486
mgt. exec. mentoring, psychological case study 11668
NPP Human Error & Behaviour Prediction Syst. develop. 19413
NPP operators, psychological confidence 35785
stress mgt. program, computerized, telephone-based 43326
teaching professional interpersonal skills via interactive video 34273
psychology computing *see psychology*
PTC thermistors *see thermistors*
PTD *see physical theory of diffraction*
PTM *see pulse time modulation*
public administration
Great Lakes states, advanced telecomms. and inform. services 8792
interactive video and computer games, human service practice 34274
LASCOM-NET (Japanese Local Authority Satellite Communications Network) 3523
multimedia and community *(Japanese)* 42021
NEC multimedia services in central administrative offices *(Japanese)* 42027
USA national inform. infrastructure initiative, public vs. private objectives 8793
public domain software
CMOS ccts., public domain high perform. portable ROM generator 28947
dose determ. for producing given amount of change, PC program 26450
gated, routing daemon 41701
genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
Internet access, MS-DOS/WINDOWS client software 3182
public information systems
see also management information systems
automatic telephone directory *(Italian)* 24929
differential GPS data format stds. and trends *(Japanese)* 17510
ELVIS multimedia inform. syst. *(Japanese)* 42010
home picture service and software prodn./supply syst. prospects *(Japanese)* 16569
mass IS, case study 33425
multimedia services for municipalities *(Japanese)* 42028
multimodal consumer inform. server, IVR menu 3131
passenger IS for Kansai International Airport *(Japanese)* 10412
TV online database, indexing and inform. retrieval of moving images 8621
public key cryptography
see also message authentication
10 km opt. fiber quantum key distrib. 24110
access control scheme, high data security 15773
benefits and limitations 15720
broadcasting, public key distrib. design 40698
CA-Browsing System, global security services support 16675
cipher syst. based on diophantine eqns. 24065
cryptographic syst., continued fraction based 40700
designated confirmer signatures and public-key encryption are equiv. 32158
digital signature scheme alternatives 24106
digital signature standard, keys generation 8161
digital signature std. modif. of key agreement protocol 32113
digital signatures, directed acyclic graphs and one-way fns. 32159
dyn. cryptographic key generation and inform. broadcasting scheme 15770
dyn. cryptographic key generation scheme for hierarchy 8118
ECPS2/ECPS3 public key encryption methods, security problem *(Chinese)* 32045
electronic document signing, public-key cryptography 32046
ElGamal type digital signature schemes based on discrete logarithm 2388
FAPKC syst., finite automata, randomized algm. 32104
flexible exponentiation with precomputation, public key cryptography 32161
four-prime RSA in bits are specified 8113
ID-based signatures, attacks, Rabin public key cryptosystem 40699
ident. schemes, short-size keys, design 32167
identity-based signature scheme, bounded life-span 32160
interferometry-based quantum random-no. generation and key sharing 17343
key agile cryptographic syst. for OC-12c rate ATM 24058
key distrib. systs., known-key attack, risk 32176
key generation systs., alg. aspects 8153
key transport of asymmetric algms. *(French)* 24105
Kuperee, authentication, public keys 8952
LUC digital signature computation, fast algms. 32188
Lucas fn. security, public key systs. 32071
mobile commun. systs., key distrib. protocol 33775
modular reduction algms., design methodology based on key/cryptosystem modif. 32075
multistage secret sharing based on one-way fn., comment 24080
one-out-of-two quantum oblivious transfer cryptography 15795
parallel RSA algm. for multiprocessors *(Korean)* 24115
PEM public key certificates, X.500 directory service 16633
protocols for authentication and key exchange 24067
quantum eavesdropping inform. gain limits 15796
quantum key distrib. channel based on opt. fibre 15794
RSA cryptography, fast modular multiplication 24081
RSA-type scheme based on sing. cubic curves 32079
secure hash fns. and public-key encryption algms. 24063
SPLICE/AS authentication syst. in WIDE Internet 24068
systems based on elliptic curves 8160
theories and stds. 32198
public key cryptography continued
unconventional cryptographic keying variable mgt. 15767
weak secret access control improvement 40703
Yaksha, Kerberos augmented, public key cryptography 24059
rem. authentication tech. 15735
public libraries
document delivery using X.400 protocol, British Library DSC 41736
public speaking
dry/technical presentation, improvement for nontechnical audience 28302
electrical engineering student communication improvement 28328
engineering class communication skills develop. 28329
nontechnical audiences, communication and audience background knowledge 28303
public utilities
see also electricity supply industry; water supply
gas company, mobile mapping syst., CD-ROM *(Japanese)* 42213
India telephone demand pot. 3103
wireless commun., GIS appls. 24850
publishing
see also electronic publishing
electronic document distrib. 15723
speaker-independent continuous speech dictation 2413
puffer circuit breakers *see gas blast circuit breakers*
pulp industry *see paper industry*
pulsars
DSP for pulsar searching 42552
radio survey sig. proc., noise suppression filter 17516
pulse amplifiers
compact amplifier using time gated beam sources 6512
cost-effective cct. for CCD pulse proc. 17701
cycloconverter drives, ASIC chip set 5322
DC-motor-chopper drive, model, robot appl. 28101
dual spectrosc. amp. 26243
ultrashort pulse amplif. in semicond. laser amps., theory and expt. 14939
pulse amplitude analysers *see pulse height analysers*
pulse amplitude modulation
ARMA syst. ident. based on second-order cyclostationarity 8424
const. modulus algm. with periodic sources, assess./guidelines 24266
cyclostationary time-series, cumulant theory devel. 8418
FIR channels blind ident. via antenna arrays 8366
hand-held GSM digital mobile telephones, near E-field magnitude 42284
HDSL equal-power coord. transm. 16924
IIR dispersive channels, min. Euclidean dist. of modulated sigs. 15709
laser printers, polygon mirror scanner motors, fluid bearings *(Japanese)* 10932
lattice seq. estimator, perform. 42169
modified duobinary PAM fast timing recovery syst. design and simul. 32039
multilevel PAM/QAM syst. jitter-reduced digital timing recovery 40563
NTT's local networks, range of baseband/passband HDSLs 25140
pulse amplit./synthesis converters, power syst. appls. 27809
recurrent ANNs, adaptive equalizers in digital commun. 32585
series-reson. AC link inverter, output current anal. 11143
single/multi-amplit. sigs. in interf. channels, neural-net based receiver 16408
TCM decoder perform., 8 PSK, 8 PAM, 16 QAM, additive mixture Gaussian/impulsive noise *(Korean)* 32195
pulse analysers
see also pulse height analysers
distortions elimination in nuc. energy spectra, pulse pile-up 10146
fast sig. proc. for NaI(Tl) detectors 26242
posn. sensitive gas-filled detectors, fast TDC. 34957
pulsed damped-sine charactn. sig. anal., PC-based 34423
random pulse sigs., param. meas., digital device 3770
pulse circuits
see also coincidence circuits; demodulators; digital circuits; driver circuits; modulators; nuclear electronics; pulse amplifiers; pulse generators; pulse shaping circuits
bal. comparator employing overdamped Josephson jns., time resoln. 6254
fast sig. proc. for NaI(Tl) detectors 26242
LCD driver, 50-V, integrated in std. 5-V CMOS proc. 29083
Miller integral-type SC multivibrator based freq. divider 21468
seq. repetition freq. band selectors, false triggerings elimination 12381
AlGaAs-GaAs MQW diode, pulse-mode neural ccts. 37914
pulse code modulation
see also delta modulation; differential pulse code modulation
digital audio data compression 32688
digital recording techs. in acoustics 9771
DS-SS cordless telephone *(Japanese)* 25149
M-ary/SS commun. syst., frame sync. method 17008
med. image data transm., compressed video teleconference codecs 18461
mobile-satellite pers. commun. syst., voice transm. quality 25322
NEC's PBX APEX1000/3000 *(Japanese)* 16963
PR-QMF banks/ wavelets, stat. optim. 32707
prog. high-rate PCM telemetry frame synchronizer *(Chinese)* 41748
residual and suppressed carrier systs., bandwidth, unwanted emission 32029
source-controlled channel decoding 40667
space opt. commun., pulse-coded multiple access 42350
speech/data integrat., real-time interactive, on LANs, multimedia in commercial indust. environ. 25066
SR 2/8 10000 QPSK digital microwave radio relay syst. 17028
T1 carrier syst. companding noise statistics 41388
T-Model neural net for PCM encoding, nonlin. ADC appl. 6193
UH-60A airloads data acquisition and proc. syst. 10313
unsynchronised opt. overlapping PPM channel coding 42357
pulse code modulation links
Indian telecom network, impact of digital switches 16962
Siemens PCM30H multiplexers for customized access 9130
SR 2/8 10000 QPSK digital microwave radio relay syst. 17028
voice band channel capacity 40555
pulse compression
see also chirp modulation; optical pulse compression
adaptive canceller and pulse compression interacts. 24325
airborne pulse Doppler radar, pulse compression proc. implement. 10368
aircraft, synthetic range profile meas. 9644
attributed relational tree approach, sig. classif. 2806
digital pulse compression radar systs., polyphase spreading codes 25570
Doppler optimised compression filters 34125
Doppler presence, pulse compression, neural nets appl. 9632

pulse compression continued
  DS-SS systs., periodical seqs., Doppler mismatched filters 33752
  look-down radars, carrier-free sig. design 35388
  lossless data compression for data transm. and storage 24881
  M-seq. pulse-compression underground survey radars *(Japanese)* 3610
  multiphase complementary pulse compression codes *(Chinese)* 9627
  planar transm. lines, ps pulse propag. 40387
  radar, range sidelobe suppression by locally weighted filter *(Japanese)* 42490
  space integrat. interferometric acousto-optic convolver 32858
  terrain-scatt. jamming suppression 25553
  ultra wideband radar, waveform generation and sig. proc. 17364
  Cu vapour laser, multistage mag. pulse compression design 14709
  YIG cascaded magnetostatic soliton waveguide, short pulses 30753
pulse control systems *see sampled data systems*
pulse Doppler radar *see Doppler radar*
pulse frequency modulation
  alg. anal. of first difference of Lyapunov quadratic fn. of nonlin. pulse syst. 2362
  analog opt. converter modules *(Japanese)* 25511
  analogue noise control syst., pulse radar syst. 42513
  chopper fed PMDC motor elec. vehicles drive, adaptive ANN rule-based controller 36721
  HF series reson. inverter, PFM/PWM control strategies 5388
  quasi-reson. HF ZVS IGBT invertor, induction heating appls. 5087
  weather radar, dual polarised, pulse repetition scheme 43506
pulse generators
  see also multivibrators; square-wave generators; time bases
  1.5 MA MAGPIE pulsed power generator, plasma prod. appls. 36380
  1.5 MV Gamble II pulsed power generator, plasma filled diode studies 36444
  1 kW X-pinch soft X-ray source, IC lithog. appls. 30169
  1 MJ transportable pulsed power source, electrothermal gun appls. 36314
  2.5 MJ DECADE pulsed power generator, plasma load appls. 36357
  2 MJ 2N Megajoule Pulser electrothermal chem. gun pulsed power supply 36315
  3-gap thyratron, turn-on simul., math. model, kicker magnet 29817
  3-level IGBT PWM inverters for traction drives 27831
  4.5 MJ Pegasus-II pulsed power capacitor bank protection fuse calcs. 36504
  5 kW laser power supply, IGBT mag. pulse compressor-based 36297
  6 MV, 2 TW pos. ion driver, induction adder 36301
  10-30 kV rail-gap pulsed power supply, compact mag. plasma switch 36403
  16.5 MW med. LINAC pulsed power supply ceramic D thyratron 34983
  50 kA coaxial orient. independent ignitron, pulsed power appls. 36413
  50 mm solid armature pulsed power EM launcher develop., USA 31749
  52 MJ railgun power supply perform. 19775
  66 J magnetron pulsed power supply, flyback convertor-based 36321
  100 kJ Kapitza pulsed power facility status, Netherlands 36258
  100 kV 1 kHz Blumlein pulsed power supply, microwave appls. 36257
  100 kV compact nanosecond Pichugin pulser 36260
  100 MJ flux compression pulse power systs., design considerations 36298
  200 MW klystron pulsed power modulator, electron LINAC appls. 34744
  200 ps high press. pulsed power gas switch studies 36414
  250 MW pulsed power thyratron, design anal. 36462
  300 keV X-ray source develop., pulsed electron beam diode-based 36270
  300 kJ ion beam accelerator, Marx generator power supply 34749
  500 kV LIA-30 radial line charging Marx generator pulsed power supply 34753
  522 MW, 310 kW pulsed power supply modulator 36463
  A/D convertors, transient and overvoltage recovery testing 12596
  ACE 4 inductive storage technol., 6 MA driver 36390
  ACE 4 plasma opening switch/plasma filled diode charactn. 36391
  air-core foil-wound pulse power transformer design concept 36358
  airborne laser syst. pulsed power supply, compulsator-based 36254
  asynchronous generators, EM launcher pulsed power supplies 31742
  back lighted thyratron pulsed power switch, anti-missile radar appls. 36408
  bal. sub-ns pulse gen., step-recovery diodes 37673
  bipolar double layer capacitors, pulsed power appls. 36501
  busgun design, operation/losses 15265
  capacitively coupled discharges, pulse generator 28204
  combined HV, high-energy pulse generator 11134
  CROSSATRON modulator switches, pulsed power supply appls. 36409
  Crossatron-based modulator for plasma discharges 12382
  DAHRT lin. induction accelerator test facility, pulsed power supply 36265
  DC elec. rly., pulsed power switch-based protection 36712
  develop./hist., AWRE 36378
  digital pulse height anal., radiation spectrosc. 18401
  DLTS spectometer, LF pulse generator 3971
  DSP96002-based software pulse generator, NMR tomography/spectrosc. appls. 42683
  E7-25 capacitor storage unit, ET/railgun launcher 31756
  e-beam gyrotron-BWO, interact. tubes effects 29798
  Earth/space obs. spacecraft, pulsed power insulation design 35257
  electro-optic Kerr relax. meas., pulse generators 1732
  electrodynamic drive, transient proc., theory 7934
  electron beam accelerator, long power pulse operation retrofit 34751
  electron beam generation, plasma pulsed power closing/opening switch-based 34859
  electron beam generation pulsed power supplies, back-lighted thyratron-based 36359
  electron beam producing cathode, pulsed power-supplied 34858
  electron source ferroelec. cathodes, pulsed power supplied 29751
  electrothermal press. pulses generation, arcs, capacitor store 31754
  electrothermal-chem. gun, digital/optoelectronic ccts. 31750
  EMG-PIRIT expt. complex, high energy plasma form. 36398
  EMP simulators, HV pulsed power generators design, Ukraine 36268
  energy capacitance integrator studies 19706
  ESRF, kicker magnet pulsed power supplies 34820
  excimer laser pulsed power supply, mag. pulse compression cct.-based 36317
  ferroelec. cathode pulsed electron emission characts. 29750
  ferroelec. cathodes, electron emission, meas. 29753
  ferromag. nonlin. impulse cct. dyn. calcs. *(Russian)* 6048
  FEUERSTELLUNG 2000, 30 MJ capacitive power supply 31744
  flux compressor ouput sharpening, exploding foil, plasma switch 36287
  flux-compression pulsed power generators 44215
  four stage RHEPP accelerator testing, power supply 36302
  free-space pulse gen./detect., THz spectrosc. syst. appl. 42905
  GIS, coaxial pulse generator, VFT generation 36487
  GTAW, sync. weld pool oscill. monitoring/control 5618
  gyrotron expts., 330 Hz PRF tunable design 12998
  hard rock fragmentation, pulsed power plasma blasting tech. 36811

pulse generators continued
  helical explosive mag. generators, explosive switches 36289
  Hercules capacitor bank pulsed power switch life test project 36459
  HERMES III electron beam pulsed power supply, radiation pulse studies 36305
  high current/energy closing switches. railgun appls. 31746
  high explosive generator, switching cct. perform. anal. 36288
  high intens. localized pulse producer, particle beams 34861
  high power microwave generation, magnetron driven Q switched cavity 29767
  high power microwave sources, pulsed power requirements 29794
  high power microwave transmitter perform., long pulse widths 29765
  HV bipolar nanosecond pulses generator 17991
  HV desk-top subnanosecond pulser, develop. and appls. 29074
  HV double pulse modulator, variable interpulse delay 5108
  HV impulse generator, radiated interf. 2254
  HV low jitter trigatron, repetitive operation, design/model 29820
  HV pulse technol., appls. 11192
  HV steep power pulses, opt. semicond. switch-generated 36432
  IEEE pulsed power conf., Albuquerque, USA (1993) 20246
  induction motor drives, duty cycle-based V/f inverter control 20059
  inductive energy storage pulsed power plasma opening switch expts. 36422
  INPIStron dense plasma pinch pulsed power switch 36464
  intense diagnostic neutral beam prod., pulsed power supply-based 36319
  Japan Linear Collider klystron modulator pulsed power supply 36402
  KAON Factory synchrotron beam chopper pulsed power supply 34743
  KrF excimer laser pulsed power amps., electron beam-pumped 36304
  L10M lin. induction accelerator 36362
  LASS based ultrawideband radar syst. 34149
  LEO spacecraft pulsed power systs., dielec. surface flashover expts. 35258
  LEP beam bumping kicker syst. high power pulse generator 34821
  LIA 30 lin. induction accelerator, sync. syst. 36453
  lin. generators, railgun pulsed power supply appls. 36309
  lin. induction accelerators, 500 kV Marx generator 36361
  lin. inductive accelerator, pulsed power supply 34817
  lin. ion accelerator FET-switched pulsed power supply, PSpice simul. 34742
  LMF triaxial MITL voltage adder syst. Marx generator 36300
  low-press. gas discharge pulsed power switches, mag. delayed 36415
  LV generators of HV nanosecond pulses 17992
  magnetocumulative pulsed power generators, 1D calc. studies 36291
  Marx generator, 60 J/600 kV, 500 ps risetime 5107
  Marx generator-based EMP simulator pulsed power supply 36264
  material testing, pulsed mag. syst. 30759
  MCT phase controlled rectifiers develop. 27833
  metal-to-metal closing switch, capacitative pulsed power supply 36455
  metallized electrode capacitors, nuc. fusion, capacitor banks 36631
  microcontroller-driven gray scale plasma receiver 34638
  microsecond Marx with plasma opening switch, barrel type ion diode load 27853
  microsecond plasma opening switch, material surface modif. 36465
  microstrip photoconductor switch ultrashort elec. pulse generator *(Chinese)* 14596
  microwave pulsed power research facility, Culham, UK 36379
  mining plasma blasting appls., 1 MJ pulsed power studies 36812
  mixed photonic/electronic cct. simul. 37603
  MMIC freq. synthesizers, phase noise reduction tech. 12816
  mobile pulsed power supply, homopolar generator, inductive storage 36255
  MOS-assisted gate triggered thyristor, pulse switching 11132
  MOS-assisted gate-triggered thyristors, pulsed power switching appls. 36431
  multistage mag. compressors, switch loss minimisation *(Russian)* 44209
  MW solid-state cct. breaker pulsed power supply, GTO-based 36461
  nanosecond semicond. opening switch develop. 36263
  narrow pulsed corona discharge, FGD appl. 19496
  neural network, analog VLSI current mode cct. 6272
  PALplus transm. test sig. prod. and eval. *(German)* 42562
  Pegasus II pulsed power capacitor bank explosive closing switch 36454
  Pegasus II pulsed power machine, plasma switch, foil implosion 36445
  phased array radar transmitter, pulsed power monitor syst. 34153
  pinching electron beam vircator, high efficiency 29768
  plasma gun launcher pulsed power supply, solid liner implosion-based 36271
  plasma opening switch, Hawk pulsed power generator appl. 36419
  plasma pulsed power opening switch, low jitter operation tests 36418
  plasma radiation source pulsed power, ultra fast foil closing valve 36269
  plasma source ion implant., pulsed power modulator totem pole drive 36804
  PLL clock generation syst. for 500-MHz RISC proc., 1.5% jitter 29337
  power supplies, photoconductive switch-triggered, perform. and appls. 36252
  power syst. dielecs., real-time surface flashover detect. 36292
  precision AM sigs. generation, binary modulation of rect. pulses 17988
  Procyon explosive pulsed power syst. review 36253
  Procyon pulsed power supply plasma flow switches, computer modeling 36423
  prog. CMOS pulse generator ASIC, US transducer array driver 29075
  pulse-repeated Marx generator, forming line props. 36266
  pulsed ion diodes, temp. controlled, beam-target interact. expts. 34854
  pulsed power, IEEE Colloquium, London (1995) 28231
  pulsed power adiabatic transformer, semicond. switched, design/perform. 36295
  pulsed power beam switch tube modulators, plasma ion implant. appls. 36404
  pulsed power ferrite line pulse sharpener develop. 36318
  pulsed power ferrite line pulse sharpeners, num. anal. 31872
  pulsed power forming line capacitors develop. 36503
  pulsed power high-Coulomb triggered vac. switch tests 36458
  pulsed power high-Q capacitor banks, long-duration arc discharge appls. 36500
  pulsed power insulator degrad., high vac. surface discharges tests 36293
  pulsed power mag. modulator, laser power supply appls. 36401
  pulsed power microwave generation, long-pulse expts. 36312
  pulsed power modulator systs., pulse forming network calcs. 36441
  pulsed power μs plasma opening switches, 2D snowplow model 36443
  pulsed power photoconductive semicond. switches, breakdown limitation 36430
  pulsed power photoconductive switch charactn., deep level spectrosc.-based 36424
  pulsed power semicond. switches, opt. controlled, filamentation models 36435
  pulsed power spark gap switches, voltage recovery expts. 36456
  pulsed power supercond. opening switch, laser pulse triggered 36262
  pulsed power supplies, ferrite materials appls. comparison 36296
  pulsed power supplies, plasma producing gas discharge studies 36310
  pulsed power supply slow capacitor banks, overcurrent protection 36313
  pulsed power vac. switch foil support struct., laser pumping appls. 36442

pulse generators continued
quartz cryst. pulsed power switches, electron-beam controlled 36450
R^{2}SPG tech., systs. upset thresholds meas. 15496
RADAN SEF-303 pulsed power source, compact accelerator appls. 36320
railgun PFN, rep-rated, capacitor thermal mgt. 31745
railgun pulsed power networks, mag. enegy storage switch-based 36405
railgun pulsed power superspeed contacts, inverse problem calcs. 36311
railguns, current pulse forming, capacitive energy storage 19778
rep-rate pulser, high-power microwave source develop. 36323
repetitive e-beam diode develop. 36285
repetitive microwave BWO, relativistic e-beam 29795
repetitive pulsed power spark gaps, breakdown recovery expts. 36457
repetitive stacked Blumlein pulse generators 36322
repetitively pulsed relativistic BWO, slow wave struct. 29797
RHEPP 1 μs mag. pulse compression pulsed power module 36316
rock fractioning, pulsed power exploding wire expts. 36813
RUSLAN e-beam accelerator, Marx generator supply 34738
Schottky varactors, sidewall-etched, sub-mm-wave sampling cct. 38028
self-excited cycle mag. flux compressor 36286
self-excited pulsed MHD generator, meatgrinder cct. 36609
SHF EM fields generation, pulsed power-based 31701
short-pulse water breakdown power technol., electrode phenom. 36259
single-phase iron-core compulsator, computer modelling 36290
small railgun, bore erosion reduction 31757
software random pulser in lab. 3732
solar cell pulse power generators/low current switches 19550
solid-state photoconductive microwave generation pulsed power source 36434
solid-state SCR switches, space laser pulsed power modulator appls. 36417
solid-state thyristor technols., pulsed power closing switch appls. 36439
STRAUS-2 electron pulsed accelerator, pulsed power supply 36363
supercond. supercollider pulsed power supply thyratron modulators 34750
switch energy loss studies 36303
terahertz spectrosc. syst., electronic generation/detect. 6324
thermal cells, tester develop. 36511
thermonuclear magnetized plasma generation, mag. implosion syst. 36267
TRAPATT diode, time domain ps-kV pulse generation 1338
UHF spark-switched L-C oscillators develop. 34225
ultrafast high press. pulsed power gas switch expts. 36416
VIRA-2P generator of pulsed braking radiation 44115
VIRA-2P pulsed power X-ray generator, electron beam size meas. 34973
VIRA-2P X-ray pulse generator, plasma opening switches 36460
vircators, ultrashort microwave pulse generation, effect on electronic devices 973
voltage amplif., coaxial mag. insulated switch 36420
voltage generators eval. 44210
voltage/current/power, stepped line conversion 36364
XRAM pulsed power supply cct., repetitive operation studies 36256
Ar modulated laser source for PMT detectors monitoring 4168
Cu vapour laser, current pulse waveform shaping cct. *(Japanese)* 39664
GaAs PLL-based clock generator, 3.2 GHz, 50 mW, 1 V supply 12612
GaAs SIT-based pulsed power switch develop. 36427
GaAs photoconductive freq. impulse device 36299
GaAs photoconductive pulsed power opening switch 36425
GaAs photoconductive pulsed power switches, Ti:sapphire laser-triggered 36440
GaAs photoconductive pulsed power switches, vac. surface flashover tests 36433
GaAs substrs., coplanar strip lines/waveguides, ultrashort elec. pulse generation 39562
GaAs:Si,Cu photoconductive pulsed power switch perform. tests 36428
H$^-$, C$^-$, F$^-$, I$^-$, Pb$^-$ high-power pulsed ion beams 34855
H$_2$ spark gap pulsed power switches, recovery characts. 36412
H-SiC pulsed power switching devices, fab., charactn. 36449
Pb-acid pulsed discharge bipolar batts., design/perform. 44270
Si photoconductive pulsed power switches, dark current characts. 36438
Si photoconductive pulsed power switches, vac. surface flashover tests 36433
Si pulsed power semicond. switches, p$^+$-n$^-$-n$^+$/n$^+$-n$^-$-n$^+$ struct. 36436
Xe lamp pulse power-pumped Nd:glass laser, crack mechanisms 31457
XeCl discharge laser, mag.-spiker elec. ccts. 31152
ZnSe pulsed power photoconductive switches, elec. field studies 36437
ZnSe pulsed power switches, electron-beam controlled 36450
pulse height analysers
AC network quantities representation, synchronoscope 10785
detector-amp. config., pulse deconvolution 10143
digital pulse height anal., radiation spectrosc. 18401
freq. deviation of pulsed sig. meas., errors anal. 42885
measuring electronics nonlin., pulse height spectra 18385
multichannel amplit. analyser, PC-based *(Bulgarian)* 26239
multichannel pulse-height analyzer, computer controlled, calib. 3745
multielement Ge detector, X-ray fluoresc. microprobe/microspectroscopy 42979
real-time pulse shaping in radiation meas., digital techs. 18383
single-channel amplit. analyzer, exact timing 10147
time interval distribution measurements in photon counting distrib. 26238
pulse modulation
see also delta modulation; demodulators; modulators; pulse amplitude modulation; pulse code modulation; pulse frequency modulation; pulse time modulation
AC/AC reson. converters, LF waveforms modulation 44201
bandlimited channel 8D 4-pulse 2-carrier signalling scheme 40547
coded partial response digitally phase modulated sigs., perform. 15714
computer-generated Fourier holograms based on pulse-dens. modulation 40127
shared transmit-receive multichannel PM MM-wave syst. 42140
solid state laser modulator loss anal. 15006
pulse motors *see stepping motors*
pulse oscillators *see pulse generators*
pulse position modulation
CDMA no.-/coherent-state opt. systs., perform. 34027
differential overlapping PPM in opt. direct-detect. channel 17269
indoor wireless IR commun., hybrid PPM-CDMA systs. 42355
intersatellite opt. preamplified PPM syst. anal. 34078
L-PPM modulation, non-directed indoor IR channels, perform. eval. 17244
opt. CDMA, lossy photon channels, no.-state/coherent-state, perform. 42349
opt. direct-detect. channel, coded multi-pulse PPM perform. 8170
opt. direct-detect. channel, differential overlapping PPM 15706
opt. fibre PPM perform., jitter implications 17245
opt. fibre PPM slot/frame spectral props., timing extraction 3576
opt. heterodyne PPM, convolutional coding 9474
pulse position modulation continued
opt. multi-pulse PPM, optimal/suboptimal frame synchronizers 40565
opt. overlapping PPM channels, capacity/cutoff rate 15704
opt. preamplified PPM receivers, laser intersatellite commun. 34036
Optical Communication Demonstrator, laser transmitter assembly 17303
overlapping multi-pulse PPM, noisy photon counting channel, perform. 40566
overlapping multipulse PPM in opt. direct-detect. channel, error perform. 8259
PPM sigs., airborne/underwater opt. commun., optimum detectors 41100
RS coded opt. PPM, PIN-FET receivers 9606
seq. detect. and equalization 15710
space opt. commun., pulse-coded multiple access 42350
stretched pulse PPM opt. channels, perform. improvement *(Chinese)* 9533
trellis coded overlapping multi-pulse PPM, opt. channel 15705
uncoded overlapping PPM perform. under commun. constraints 40556
unsynchronised opt. overlapping PPM channel coding 42357
video multiplexing, pulsed coded fiber optics 8676
GaAs transmitter/receiver chipset for opt. link 42404
Nd:YAG laser commun. syst., PPM commun. optim. 17301
pulse repetition rate modulation *see pulse frequency modulation*
pulse shaping circuits
5 kW laser power supply, IGBT mag. pulse compressor-based 36297
50 kJ railgun pulse forming unit, semicond. switched 19782
300 kJ ion beam accelerator, Marx generator power supply 34749
amplit. discriminators, variable hysteresis voltage 4238
cost-effective cct. for CCD pulse proc. 17701
elec. gun capacitive pulse forming networks 19776
electrothermal-chem. gun pulse shape requirements 19780
excimer laser pulsed power supply, mag. pulse compression cct.-based 36317
FIR filters using resistor array, simple design *(Korean)* 29386
nanosecond RF-pulse shaping, switching effect 13003
neural demodulator for ASK sigs. 29512
parametric pulse selector design and operation *(Russian)* 12383
pulsed power ferrite line pulse sharpener develop. 36318
pulsed power ferrite line pulse sharpeners, num. anal. 31872
real-time pulse shaping in radiation meas., digital techs. 18383
satellite mobile channel, FSK-DPD, pulse shaping/transmitter filter 42304
surface barrier detectors, pile-up/defective pulse rejection 10145
thyristor control pulse shaping cct. 1373
CsI(Tl) detector light output, pulse time gate effect 4174
Cu vapour laser, current pulse waveform shaping cct. *(Japanese)* 39664
pulse time modulation
see also pulse position modulation; pulse width modulation
LiNbO$_3$ US superlattice, space-time modulation of X-ray beam 14089
pulse transformers
100 kJ Kapitza pulsed power facility status, Netherlands 36258
300 keV X-ray source develop., pulsed electron beam diode-based 36270
air-core foil-wound pulse power transformer design concept 36358
arc welding forward PWM inverter power source anal. *(Chinese)* 44633
bridge cct. IGBTs, gate drive methods 6013
high power microwave transmitter perform., long pulse widths 29765
high-perform. pulse transformer design in easy stages 38057
Japan Linear Collider klystron modulator pulsed power supply 36402
PWM inverters, IGBT gate drive ccts., optimum switching 19809
rep-rate pulser, high-power microwave source develop. 36323
RUSLAN e-beam accelerator, Marx generator supply 34738
SMD high-speed modem design *(German)* 16937
supercond. supercollider pulsed power supply thyratron modulators 34750
ultrafast high press. pulsed power gas switch expts. 36416
pulse width modulated invertors *see PWM invertors*
pulse width modulated power convertors *see PWM power convertors*
pulse width modulation
see also PWM invertors; PWM power convertors
2-phase stepping motor, PWM control, power FETs, multi-chip modules 27764
AC choppers, input PF improvement, asymm. PWM tech. 36334
alg. anal. of first difference of Lyapunov quadratic fn. of nonlin. pulse syst. 2362
analog and pulse stream VLSI hardware for neural nets and fuzzy systs. 29458
automobile control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
bandwidth of time-division multipliers increase 25756
class D output stages lin. for high-perform. audio power amps. 3697
digital anemometer for air flow meas. 25907
freq. inverter induction motor drives, voltage control methods 36656
fuzzy controller design mixing analogue and digital techs. 770
induction motors, nonlin. observer-based tracking control 19622
invertor output waveforms anal. maximum entropy method 24237
MELACT-1100 Series power act. filters, IGBT-based *(Japanese)* 519
power electronics, drives and motors, conf., Taormina, Italy (1994) 28252
PWM generalised block pulse fns. 32638
semicond. press. sens., PWM output 17759
single phase AC choppers, asymm. PWM control 36246
SISO feedback control ident., lin. PWM block pulse fns. 24008
space/aircraft actuators, integrated control *(French)* 10952
spacecraft solar array, shunt switching unit act. ripple filter 26679
squirrel cage PWM drives simul., MATLAB package 5275
SRM, core losses calc., mag. flux 10983
SRM drive control, DSP based syst. archit. 11380
stepless PWM speed control of AC motors, neural network approach 4939
switched controlled systs., adaptive PWM regulation schemes 40570
thermistor anemometer for low flow rate meas. 4012
void fraction meas. in vert. gas-liq. tube flow 10065
voltage-sourced PWM-rectifier, LCL-type filter 27829
X-ray Timing Explorer Power syst. 26650
pulsed laser deposition
ablation proc. deposition, optodynamic aspect 28862
cpd. films condensation, airlock unit of electron microscope 20957
Cu/polyimide multilevel thin film struct., reliab. 11860
diamond films rough surfaces modelling, self-limiting laser ablation, polishing 37476
diamond thin-film growth, filament-assisted excimer laser ablation syst. 12178
diamond ultra-fine particles, laser-induced forward transfer deposition 28861
double-solenoid pulsed valve used in cluster beam generation for laser vaporization *(Chinese)* 12082

pulsed laser deposition continued
metal pattern deposition, laser-induced forward transfer 28859
multiple target holder design for thin film deposition 12167
PMMA thin film fab., laser ablation 20952
PTFE thin film fab., laser ablation 20952
steady state target scanning for improved plume stabil., reduced particle dens. 28817
Al-SiN-Si syst., laser CVD, TFD charact. by DLTS 13597
AlN laser ablated plumes, comp. and gas dyn. 28826
γ-Al_2O_3, form. from pulsed-laser irrad. sapphire 12037
$BaFe_{12}O_{19}$, hexaferrite films on sapphire, mag., struct. props. 14175
$Ba_2NaNb_5O_{15}$ opt. waveguide film, epitaxial growth by pulsed laser deposition 1715
$Ba_2NaNb_5O_{15}$, pulsed laser deposition epitaxial growth, waveguide props. 20905
$Ba_2NaNb_5O_{15}$, waveguiding epitaxial films, pulsed laser deposition 20806
$Ba_{0.5}Sr_{0.5}TiO_3$, epitaxial pulsed laser growth on YBCO 1554
$BaTiO_3$ ferroelec. epitaxial film, cryst. orient., thermal expansion mismatch 20865
$BaTiO_3$ films on Si, heteroepitaxial growth by pulsed laser deposition 28757
$Bi_4Ti_3O_{12}$ highly oriented thin films, growth on Al_2O_3, pulsed laser deposition 5858
$Bi_3YFe_{3.5}GaO_x$ films, pulsed laser ablation, mag. props. 30686
a-C diamond-like films, laser ablation deposition 431
CdMnTe magnetic field sensor, fibre optic laser deposited 25858
CdS epitaxial films, pulsed laser deposition 358
p-CdS films, pulsed laser deposition, p-n jn. PV effect 37483
CdS thin film p-type/n-type light emitting/LD 14978
CdSe epitaxial films, pulsed laser deposition 358
CdTe epitaxial films, pulsed laser deposition 358
CeO_2/Si(111), laser ablation deposition, growth mode 38445
Co thin films, pulsed laser deposition, opt. reflectometry 5897
Cr-Ni, excimer laser induced nonplanar metallization of Cr mask material, tactile sens. 30503
Cu thin films, pulsed laser deposition, opt. reflectometry 5897
Cu/Co multilayers, pulsed laser deposition, opt. reflectometry 5897
Cu/TiN/Si(100) heterostruct., pulsed laser deposition and charactn. 421
Cu(In,Ga)Se_2, laser ablation deposition 431
$CuIn_{0.75}Ga_{0.25}Se_2$ films, pulsed laser deposition 432
$CuInSe_2$ films, laser ablation, stress-induced Raman freq. shift 37482
$CuInSe_2$ films, pulsed laser deposition 432
GaAs-SiN, passiv. film form. by laser CVD 13370
$In_{2-x}Sn_xO_{3-y}$ films, KrF excimer laser ablation 28863
$KTiOPO_4$ films by pulsed excimer laser ablation for nonlin. opt. appl. 15149
$LiNbO_3$ epitaxial films, pulsed laser deposition, SAW props. 20863
LiZn ferrite laser-deposited films, mag./struct. props. 14190
PZT films, laser ablation on Ag coated Si substrs. 13993
PZT films on Ni alloy/SiO_2-Si, ferroelec. props. 13998
PZT, laser ablation deposition 431
PZT thin film capacitors, pulsed-laser ablation-deposited 6369
PZT thin films prod. by pulsed excimer laser deposition *(Chinese)* 5839
PZT-based heterostruct. capacitors, comp.-struct.-prop. rels. 39101
$Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$ ferroelec. thin films, pulsed laser deposition 37471
PbS/CdS superlattices, pulsed laser evap., opt. props. 13168
PbTe:Ga films, evap., nanosecond pulsed laser 28825
Pd patterned thin films, laser-induced forward transfer deposition 28860
Pt/Si(100), pulsed laser deposition, TiN buffer layer 425
$RbTiOPO_4$ films, epitaxial growth, excimer laser ablation tech. 12127
Si nanocrystalline films, laser-induced CVD 28839
Si porous films, laser ablation fab. 20964
Si:Ge epitaxial film, embedded nanocrystals, synthesis 12126
a-Si:H films, VUV laser CVD, gas phase chem./modelling 28840
SiC films, pulsed laser deposition on Si wafers 416
SiC x-ray membrane characterisation, laser ablation deposition tech. 6696
$Si_{1-x}Ge_x$ thin films, pulsed excimer laser ablation deposition 28837
SiO_2 film, deposition by XeCl laser ablation of fused silica 28836
(Sr,Ba)TiO_3 films, pulsed laser deposition, X-ray charactn. 37388
$SrTiO_3$, at. regulated layer-by-layer growth on a-axis oriented $YBa_2Cu_3O_{7-\delta}$ 20963
TaC films, pulsed-laser deposition and charactn. 28858
TiC films deposited on Si by laser reactive ablation 37498
TiC refractory material, laser ablation, cluster form. and deposition 28827
TiN films, pulsed laser deposition, epitaxial growth 322
TiNi shape memory alloy thin film, laser ablation 28854
TiO_2 opt. coating for solar cells, excimer laser sputtering deposition 28835
TiO_2/$BaTiO_3$ epitaxial film form. on Si substr. 37426
YBCO/PBCO/YBCO planar sandwich-type jns., Josephson jn. charact. 39229
YBaCuO biepitaxial Josephson jns. on SOS substrs. 22761
YBaCuO step-edge devices optim. 22719
$YBa_2Cu_3O_7$ HTS supercond. thin film fab. by high power ArF excimer laser *(Japanese)* 22713
$YBa_2Cu_3O_7$ film on mica, bolometric/struct. props. 42816
$YBa_2Cu_3O_7$ shallow step jn., Josephson radiation linewidth 39264
$YBa_2Cu_3O_{7-\delta}$ high current thick films on flexible Ni substrs. 1597
$YBa_2Cu_3O_{7-x}$ thin films, film growth, laser ablation, AFM, HRTEM, XRD *(French)* 30768
YBaCuO:Ag films on sapphire, microwave surface resist./residual losses 39236
$YBa_2Cu_3O_{7-\delta}$-based films/superlattices, laser ablation deposition 431
$Y_3Fe_5O_{12}$-$Bi_3Fe_5O_{12}$ heterostruct., pulsed laser deposition, charactn. 30698
YIG films, pulsed laser ablation, mag. props. 14176
ZnMnTe(111)/(100) on GaAs, epitaxial growth on pulsed laser deposition 28760
ZnO, film, pulsed laser deposition, charactn. 12146
ZnO thin films, pulsed laser deposition, laser wavelength and fluence effects 28834
ZnS epitaxial films, pulsed laser deposition 358
ZnSe epitaxial films, pulsed laser deposition 358
ZnSe epitaxial layers, pulsed laser deposition, struct. and opt. props. 28759
ZrN films, pulsed laser deposition, epitaxial growth 322

pulsed power supplies *see power supplies to apparatus; pulsed power technology*

pulsed power switches
0.6 caliber railgun, air-core compulsator driven 19779
1.5 MV Gamble II pulsed power generator, plasma filled diode studies 36444
2.4 MJ multi-module capacitor bank, electrothermal launcher 20049
3-gap thyratron, turn-on simul., math. model, kicker magnet 29817

pulsed power switches continued
5 kW laser power supply, IGBT mag. pulse compressor-based 36297
6 MV, 2 TW pos. ion driver, induction adder 36301
9 MJ Range Gun syst., design 15305
10-30 kV rail-gap pulsed power supply, compact mag. plasma switch 36403
16.5 MW med. LINAC pulsed power supply ceramic D thyratron 34983
50 kA coaxial orient. independent ignitron, pulsed power appls. 36413
50 kJ railgun pulse forming unit, semicond. switched 19782
100 kA, 5 kV solid state opening switch, railgun appl. 31762
100 kV compact nanosecond Pichugin pulser 36260
200 MW klystron pulsed power modulator, electron LINAC appls. 34744
200 ps high press. pulsed power gas switch studies 36414
250 MW pulsed power thyratron, design anal. 36462
500 kJ multi-module capacitor bank, electrothermal launcher 20048
522 MW, 310 kW pulsed power supply modulator 36463
ACE 4 inductive storage technol., 6 MA driver 36390
ACE 4 plasma opening switch/plasma filled diode charactn. 36391
adiabatic transformer, semicond. switched, design/perform. 36295
annular thyratron, microwave-triggered 29816
back lighted thyratron pulsed power switch, anti-missile radar appls. 36408
beam switch tube modulators, plasma ion implant. appls. 36404
bulk avalanche semicond. switch, perform./reliab. 36384
capacitor storage, programmed discharge 36630
coilgun launchers, power conditioning, thyristor appls. 31765
CROSSATRON modulator switches, pulsed power supply appls. 36409
DC elec. rly., pulsed power switch-based protection 36712
E7-25 capacitor storage unit, ET/railgun launcher 31756
electron accelerators, inductive storage, plasma injectors 36452
electron beam accelerator, long power pulse operation retrofit 34751
electron beam generation, plasma pulsed power closing/opening switch-based 34859
electron beam generation pulsed power supplies, back-lighted thyratron-based 36359
electron beam producing cathode, pulsed power-supplied 34858
EM launcher electrode/insulator degrad. studies 15332
EMG-PIRIT expt. complex, high energy plasma form. 36398
energy loss studies 36303
ESRF, kicker magnet pulsed power supplies 34820
FET-switched induction accelerator cell 36410
flux compressor ouput sharpening, exploding foil, plasma switch 36287
four stage RHEPP accelerator testing, power supply 36302
GaAs fast opening photocond. switches for pulsed power system 27852
GW pulsed power network, magneto-elec. switching-based 5048
helical explosive mag. generators, explosive switches 36289
Hercules capacitor bank pulsed power switch life test project 36459
high coulombic thyratron, feasibility test results 38222
high current pseudospark switch, pinch plasma devices 36397
high current/energy closing switches. railgun appls. 31746
high explosive generator, switching cct. perform. anal. 36288
high power e-beam induced switching in diamond 36447
high power microwave generation, magnetron driven Q switched cavity 29767
high-Coulomb triggered vac. switch tests 36458
high-power gas switches, ferroelec. electron beam triggering 36406
hollow cathode discharge, pseudospark switch 29747
HV double pulse modulator, variable interpulse delay 5108
HV low jitter trigatron, repetitive operation, design/model 29820
HV steep power pulses, opt. semicond. switch-generated 36432
IEEE pulsed power conf., Albuquerque, USA (1993) 20246
inductive energy storage pulsed power plasma opening switch expts. 36422
inductive storage, high repetition rate opening switch 36629
INPIStron dense plasma pinch pulsed power switch 36464
intense diagnostic neutral beam prod., pulsed power supply-based 36319
ISL-EMA railguns, phase controlled thyristor main switches 31758
Japan Linear Collider klystron modulator pulsed power supply 36402
LASS based ultrawideband radar syst. 34149
LEO spacecraft pulsed power systs., dielec. surface flashover expts. 35258
LEP beam bumping kicker syst. high power pulse generator 34821
LIA 30 lin. induction accelerator, sync. syst. 36453
LIA-30 lin. induction accelerator, 6 MJ capacitor bank 36633
lin. inductive accelerator, pulsed power supply 34817
lin. ion accelerator FET-switched pulsed power supply, PSpice simul. 34742
long-cond. time plasma opening switch, MHD effects 44240
low-press. gas discharge pulsed power switches, mag. delayed 36415
mag. modulator, laser power supply appls. 36401
Marx generator-based EMP simulator pulsed power supply 36264
material explosion, pulsed currents/elec. fields, simul. 30551
materials processing, microsecond plasma opening switch appl. 27851
metal-to-metal closing switch, capacitative pulsed power supply 36455
microsecond Marx with plasma opening switch, barrel type ion diode load 27853
microsecond plasma opening switch, material surface modif. 36465
microsecond plasma opening switches, flashboard plasma source 36421
modulator systs., pulse forming network calcs. 36441
MOS-assisted gate triggered thyristor, pulse switching 11132
MOS-assisted gate-triggered thyristors, pulsed power switching appls. 36431
multichannel pseudospark switches, expts. 36399
multistage mag. compressors, switch loss minimisation *(Russian)* 44209
μs plasma opening switches, 2D snowplow model 36443
MW solid-state cct. breaker pulsed power supply, GTO-based 36461
nanosecond semicond. opening switch develop. 36263
Pegasus II pulsed power capacitor bank explosive closing switch 36454
Pegasus II pulsed power machine, plasma switch, foil implosion 36445
phased array radar transmitter, pulsed power monitor syst. 34153
photoconductive semicond. switches, breakdown limitation 36430
photoconductive switch charactn., deep level spectrosc.-based 36424
plasma opening switch, Hawk pulsed power generator appl. 36419
plasma opening switch, voltage scaling, cathode rad. 44228
plasma opening switch expts., long cond. time 36389
plasma opening switch expts., plasma source variations 27850
plasma opening switches, gap form. procs. 19884
plasma pulsed power opening switch, low jitter operation tests 36418
plasma radiation source pulsed power, ultra fast foil closing valve 36269
power plant emissions control, pulsed corona discharge modulators 35998
Procyon pulsed power supply plasma flow switches, computer modeling 36423
pseudospark operation, hollow cathode phase studies 29819
pseudospark switch, metal vap. densities/excitation temps. 36407
pseudospark switch develop., appls. 29818
pseudospark switches, forward voltage drop meas. 36400

pulsed power switches continued
- pulse-repeated Marx generator, forming line props. 36266
- quartz cryst. pulsed power switches, electron-beam controlled 36450
- railgun air core compulsator, power electronics/controls 19783
- railgun meas., high accuracy 15374
- railgun pulsed power networks, mag. enegy storage switch-based 36405
- rep-rate pulser, high-power microwave source develop. 36323
- repetitive high press. gas switching 36470
- repetitive pulsed power spark gaps, breakdown recovery expts. 36457
- reson. series counterpulse, high current opening switches 19895
- rot. dielec. spark gap, high repetition rate operation 11204
- SCR millisecond switches eval., railgun launchers 31747
- semicond. switches, opt. controlled, filamentation models 36435
- SMES, energy transfer, internally induced voltage *(Japanese)* 1635
- solar cell pulse power generators/low current switches 19550
- solid-state photoconductive microwave generation pulsed power source 36434
- solid-state SCR switches, space laser pulsed power modulator appls. 36417
- solid-state thyristor technols., pulsed power closing switch appls. 36439
- spark gap pulsed power switch, electrode perform. tests 36411
- spark gap switches, voltage recovery expts. 36456
- STRAUS-2 electron pulsed accelerator, pulsed power supply 36363
- supercond. opening switch, laser pulse triggered 36262
- supercond. supercollider pulsed power supply thyratron modulators 34750
- thermally fused explosive switch, railgun appl. 31759
- UHF spark-switched L-C oscillators develop. 34225
- ultrafast high press. pulsed power gas switch expts. 36416
- vac. switch foil support struct., laser pumping appls. 36442
- VIRA-2P X-ray pulse generator, plasma opening switches 36460
- voltage amplif., coaxial mag. insulated switch 36420
- voltage/current/power, stepped line conversion 36364
- GaAs SIT-based pulsed power switch develop. 36427
- GaAs photocond. pulsed power switches, filaments 36446
- GaAs photocond. semicond. switches, AuBe, AuGe ohmic contacts 36388
- GaAs photocond. semicond. switches, opt. controlled 36387
- GaAs photoconductive pulsed power opening switch 36425
- GaAs photoconductive pulsed power switches, Ti:sapphire laser-triggered 36440
- GaAs photoconductive pulsed power switches, vac. surface flashover tests 36433
- GaAs photoconductive switches, elec. field structs. 36448
- GaAs semicond. spark gap, pulsed power appls. 36426
- GaAs switches, e-beam activated, optimisation 36429
- GaAs:Cu,Si bistable opt. controlled switch, perform. 36385
- GaAs:Cu,Si bulk opt. controlled semicond. switch, inductive energy storage 36392
- GaAs:Si(Cu) , opt. activated pulsed power switch, 2D model 39572
- GaAs:Si,Cu photoconductive pulsed power switch perform. tests 36428
- H_2 spark gap pulsed power switches, recovery characts. 36412
- H-SiC pulsed power switching devices, fab., charactn. 36449
- Hg liq. jet pulsed power supply opening switch tests 36261
- KrF excimer lasers, HV pulsed power supplies 31171
- KrF laser amp., Titania, pulsed power syst. 31189
- Si photocond. semicond. switches, pulsed power appls. 36386
- Si photoconductive pulsed power switches, dark current characts. 36438
- Si photoconductive pulsed power switches, vac. surface flashover tests 36433
- Si pulsed power semicond. switches, p^{+}-n^{-}-n^{+}/n^{+}-n^{-}-n^{+} struct. 36436
- XeCl excimer lasers, HV pulsed power supplies 31171
- XeCl laser, long-pulse, auto-pre-pulse/pre-ionization 23092
- ZnSe pulsed power photoconductive switches, elec. field studies 36437
- ZnSe pulsed power switches, electron-beam controlled 36450

pulsed power technology
- *see also pulsed power switches*
- 0.6 caliber railgun, air-core compulsator driven 19779
- 1.5 MA MAGPIE pulsed power generator, plasma prod. appls. 36380
- 1 kW X-pinch soft X-ray source, IC lithog. appls. 30169
- 1 MJ pulse power capacitor bank short-cct. current protection 11228
- 1 MJ transportable pulsed power source, electrothermal gun appls. 36314
- 2.4 MJ multi-module capacitor bank, electrothermal launcher 20049
- 2.5 MJ DECADE pulsed power generator, plasma load appls. 36357
- 2 kV 10 kA pulsed GTO bridge fusion power supply 5128
- 2 MJ 2N Megajoule Pulser electrothermal chem. gun pulsed power supply 36315
- 3 MJ railgun, expt./computer simul. studies 15281
- 4.5 MJ modular pulse power supply, electrothermal gun 31764
- 4.5 MJ Pegasus-II pulsed power capacitor bank protection fuse calcs. 36504
- 6 MV, 2 TW pos. ion driver, induction adder 36301
- 9 MJ Range Gun syst., design 15305
- 10-30 kV rail-gap pulsed power supply, compact mag. plasma switch 36403
- 15 mm sq.-bore railgun, EM field meas. 15330
- 20 MVA GTO power amp., fusion research appls. 5115
- 50 kJ railgun pulse forming unit, semicond. switched 19782
- 50 mm diam. induction coilgun launcher, design, eval. 15296
- 50 mm solid armature pulsed power EM launcher develop., USA 31749
- 52 MJ railgun power supply perform. 19775
- 66 J magnetron pulsed power supply, flyback convertor-based 36321
- 100 kJ Kapitza pulsed power facility status, Netherlands 36258
- 100 kV 1 kHz Blumlein pulsed power supply, microwave appls. 36257
- 100 MJ flux compression pulse power systs., design considerations 36298
- 300 keV X-ray source develop., pulsed electron beam diode-based 36270
- 300 kJ ion beam accelerator, Marx generator power supply 34749
- 300 kJ railgun, high efficiency, expt. characts. 15282
- 500 kJ capacitor bank, electrothermal gun appl. 31760
- 500 kJ multi-module capacitor bank, electrothermal launcher 20048
- 500 kV LIA-30 radial line charging Marx generator pulsed power supply 34753
- 500 m/s lin. induction launcher perform. studies 15376
- ACE 4 plasma opening switch/plasma filled diode charactn. 36391
- air-core foil-wound pulse power transformer design concept 36358
- airborne laser syst. pulsed power supply, compulsator-based 36254
- asynchronous generators, EM launcher pulsed power supplies 31742
- augmented railgun-based fusion reactor solid H_2 pellet accel. 15283
- bipolar double layer capacitors, pulsed power appls. 36501
- busgun design, operation/losses 15265
- cannon caliber EM launcher, rapid fire, ultra stiff 15280
- cannon caliber EM launcher syst., air core compulsator design 31740
- cannon caliber railgun, air core compulsator design 19781
- cannon calibre EM railgun, discarding armature, design 18965
- capacitively coupled discharges, pulse generator 28204
- capacitor rapid discharge ccts., param. estim. 27825

pulsed power technology continued
- cascade compulsator, YAG laser power supply 31456
- coilguns, two-step design procedure 15303
- combined HV, high-energy pulse generator 11134
- cylindrically-symm. vircator high power microwave source 29766
- DAHRT lin. induction accelerator test facility, pulsed power supply 36265
- DC convertor stations, generator shaft torsion simul. 4635
- DC/DC PWM reson. power converter topol., pulse load appls. 11172
- develop./hist., AWRE 36378
- dielecs., real-time surface flashover detect. 36292
- distributed energy fed railgun, perform. enhancement 15274
- e-beam gyrotron-BWO, interact. tubes effects 29798
- Earth/space obs. spacecraft, pulsed power insulation design 35257
- elec. drivetrain, tank propulsion/railgun power supply 20064
- elec. gun capacitive pulse forming networks 19776
- electrodynamic drive, transient proc., theory 7934
- electron beam accelerator, long power pulse operation retrofit 34751
- electron source ferroelec. cathodes, pulsed power supplied 29751
- electrothermal press. pulses generation, arcs, capacitor store 31754
- electrothermal-chem. gun, digital/optoelectronic ccts. 31750
- electrothermal-chem. gun, meas. techs. 31751
- electrothermal-chem. gun, ship defence appl. demons. 15285
- electrothermal-chem. gun pulse shape requirements 19780
- electrothermal-chem. guns, pulsed disk alternator storage 19610
- electrothermal-chem. launchers, plasma-propellant interface expts. 15368
- EMALS EM aircraft launch syst., aircraft carrier appls. 15304
- EMP simulators, HV pulsed power generators design, Ukraine 36268
- energetic light ion beams in PBFA 26021
- energy capacitance integrator studies 19706
- environmental, industrial appls. 11520
- excimer laser pulsed power supply, mag. pulse compression cct.-based 36317
- Fermilab Tevatron, high field injection kicker magnet 34826
- ferrite line pulse sharpener develop. 36318
- ferrite line pulse sharpeners, num. anal. 31872
- ferrite materials appls. comparison 36296
- ferroelec. cathode pulsed electron emission characts. 29750
- ferroelec. cathodes, electron emission, meas. 29753
- FEUERSTELLUNG 2000, 30 MJ capacitive power supply 31744
- flux-compression pulsed power generators 44215
- forming line capacitors develop. 36503
- four stage RHEPP accelerator testing, power supply 36302
- GIS, coaxial pulse generator, VFT generation 36487
- Green Farm elec. gun facility, expts. 15275
- gyrotron expts., 330 Hz PRF tunable design 12998
- hard rock fragmentation, pulsed power plasma blasting tech. 36811
- hardFET pulsed power modulators, array-type radar appls. 27820
- hazardous gas treatment, pulsed corona reactor 36814
- hazardous pollution control, pulsed power accelerator appls. 36815
- HERMES III electron beam pulsed power supply, radiation pulse studies 36305
- high av. power e-beam appls. 36294
- high intens. localized pulse producer, particle beams 34861
- high power microwave transmitter perform., long pulse widths 29765
- high-Q capacitor banks, long-duration arc discharge appls. 36500
- HV desk-top subnanosecond pulser, develop. and appls. 29074
- HV pulse low-inductive capacitors, high repetition freq. 36505
- HV pulse technol., appls. 11192
- HV subnanosecond pulses meas., probes/attenuators 3817
- HV vac. diode insulators, elec. breakdown 35659
- HV vac. surface flashover insulator technol. 30583
- hyper-cooled 6-phase sync. generator, pulsed load 36120
- ICF pulsed power cylindrical implosion loads 11111
- IEEE Colloquium, London (1995) 28231
- IEEE pulsed power conf., Albuquerque, USA (1993) 20246
- induction motor drives, duty cycle-based V/f inverter control 20059
- insulator degrad., high vac. surface discharges tests 36293
- KAON Factory synchrotron beam chopper pulsed power supply 34743
- Kirkcudbright EM launch facility, pulsed power syst. 31743
- KrF excimer laser pulsed power amps., electron beam-pumped 36304
- L10M lin. induction accelerator 36362
- LEO spacecraft pulsed power systs., dielec. surface flashover expts. 35258
- LIA 30 lin. induction accelerator, sync. syst. 36453
- LIM, rolling rotor, pulsed operation modelling 27720
- lin. generators, railgun pulsed power supply appls. 36309
- lin. induction accelerators, 500 kV Marx generator 36361
- lin. induction accelerators, relativistic microwave electronics 34752
- lin. induction launcher, multi-sect. transit. simul. 15299
- lin. inductive accelerator, pulsed power supply 34817
- LINAC, klystron modulator, energy efficient deQing cct. 36360
- LMF triaxial MITL voltage adder syst. Marx generator 36300
- mag. field facility, capacitive storage 44114
- mag. flux compression/expansion, EM launchers/power supplies 31761
- magnetocumulative pulsed power generators, 1D calc. studies 36291
- Marx generator, 60 J/600 kV, 500 ps risetime 5107
- Marx generator-based EMP simulator pulsed power supply 36264
- material testing, pulsed mag. syst. 30759
- metallized electrode capacitors, nuc. fusion, capacitor banks 36631
- microsecond Marx with plasma opening switch, barrel type ion diode load 27853
- microsecond plasma opening switch, material surface modif. 36465
- microwave generation, long-pulse expts. 36312
- microwave pulsed power research facility, Culham, UK 36379
- mining plasma blasting appls., 1 MJ pulsed power studies 36812
- mobile pulsed power supply, homopolar generator, inductive storage 36255
- muzzle-fed railgun expts., plasma armature 31752
- nanosecond semicond. opening switch develop. 36263
- narrow pulsed corona discharge, FGD appl. 19496
- Nat. Ignition Facility, ICF, laser flashlamp power conditioning syst. 5106
- Navy pulsed power guns, power syst. simul. 35408
- pancake coil for pulsed power amplif. of electrothermal load, freq. effects 36239
- pinching electron beam vircator, high efficiency 29768
- plasma arc driven railguns, MHD generator pulse power supply 20013
- plasma generator, discharge chamber operating conditions 19765
- plasma gun launcher pulsed power supply, solid liner implosion-based 36271
- plasma producing gas discharge studies 36310
- plasma source ion implant., pulsed power modulator totem pole drive 36804
- plasma source ion implanters, pulse power modulator design optim. 36803
- plasma thermal implosion 19769
- power capacitor dielec. eval., ringing conditions 36499

pulsed power technology continued
power converter dyn. characts., computer modelling 5095
power plant flue gas scrubbing, pulsed corona/electron beam technols. 35997
power plant pollution control appls. 35967
power supplies, photoconductive switch-triggered, perform. and appls. 36252
power supply technol., indust./mil. appls. 36251
Procyon explosive pulsed power syst. review 36253
pulse-repeated Marx generator, forming line props. 36266
pulsed disk alternator, flywheel struct., EM gun 20050
pulsed ion diodes, temp. controlled, beam-target interact. expts. 34854
RADAN SEF-303 pulsed power source, compact accelerator appls. 36320
railgun air core compulsator, power electronics/controls 19783
railgun metal armature contact press. studies 15358
railgun multi-tiered Cu wire solid armature studies 15354
railgun PFN, rep-rated, capacitor thermal mgt. 31745
railgun pulsed power superspeed contacts, inverse problem calcs. 36311
railgun test range develop. results, Russia 15367
railguns, current pulse forming, capacitive energy storage 19778
railguns, optim., efficiency improvement 15306
railguns, power supply mode optimisation 23526
relativistic BWO, efficiency increase 29796
repetitive e-beam diode develop. 36285
repetitive microwave BWO, relativistic e-beam 29795
repetitive stacked Blumlein pulse generators 36322
repetitively pulsed relativistic BWO, slow wave struct. 29797
RFX 4.8 MJ-7 kV toroidal capacitor bank, experience 36632
RHEPP 1 μs mag. pulse compression pulsed power module 36316
rock fractioning, pulsed power exploding wire expts. 36813
RUSLAN e-beam accelerator, Marx generator supply 34738
self-excited cycle mag. flux compressor 36286
self-excited pulsed MHD generator, meatgrinder cct. 36609
series reson. power converter, pulsed welding load appls. 5121
sheet beam planar wiggler FEL amplifier 23312
SHF EM fields generation, pulsed power-based 31701
short-pulse water breakdown power technol., electrode phenom. 36259
single-phase iron-core compulsator, computer modelling 36290
slow capacitor banks, overcurrent protection 36313
slow capacitor banks, protection systs. *(Japanese)* 11312
small railgun, bore erosion reduction 31757
solar cell pulse power generators/low current switches 19550
solid propellant electrothermal chem. launchers, pulsed power 31763
STRAUS-2 electron pulsed accelerator, pulsed power supply 36363
switch energy loss studies 36303
thermonuclear magnetized plasma generation, mag. implosion syst. 36267
thyristor power converters, nontunable pulse-phase control syst. 5102
US Army batt. needs 43567
VIRA-2P generator of pulsed braking radiation 44115
VIRA-2P pulsed power X-ray generator, electron beam size meas. 34973
VIRA-2P X-ray pulse generator, plasma opening switches 36460
voltage generators eval. 44210
XeCl laser, controllable pulse duration 7533
XRAM pulsed power supply cct., repetitive operation studies 36256
Al railgun material strength, pulsed heating conditions 15327
Cu vapour laser, current pulse waveform shaping cct. *(Japanese)* 39664
Cu vapour laser power supply, regenerative snubber topol. 36250
Fe-cored compulsator modelling, num. anal. techs. 19784
GaAs photoconductive freq. impulse device 36299
H$^-$, C$^-$, F$^-$, I$^-$, Pb$^-$ high-power pulsed ion beams 34855
KrF NIKE laser, e-beam pumped amp. 31190
Pb-PbCaSn secondary batts., pulsed current charging expts. 36524
Pb-PbSb secondary batts., pulsed current charging expts. 36524
Pb-acid pulsed discharge bipolar batts., design/perform. 44270
Xe lamp pulse power-pumped Nd:glass laser, crack mechanisms 31457

pulverised coal *see pulverised fuels*

pulverised fuels
see also coal
317 MW Milliken steam power plant clean coal project, USA 35995
600 MW Muskingham power plant low NO$_x$ burner retrofit, USA 43903
750 MW Franken II combined cycle power plant project, Germany *(German)* 43934
fossil plant operation improvement, compact simulator 43908

pumped-storage power stations
Bhumibol hydro station, pumped storage unit addit. 36050
converter-fed var. speed generator-motor *(Japanese)* 36047
converter-fed var. speed generator-motor, fault current *(Japanese)* 36048
economic viability anal. *(German)* 36051
energy storage, status, develop., competitive business practices 10879
Guangzhou Pumped Storage Power Station, operation mgt. 27617
operation, economic assess., spot pricing 27618
power syst. peak load capacity planning studies, China *(Chinese)* 35574
power syst. unit commitment methodology, computer-based *(Korean)* 27077
power systems, power electronics appls., Japan 35563
pump-generators, dyn. perform., PSS appl. *(Chinese)* 43946
Rhine-Main-Danube Canal, role of hydroelec. power 4863
static/dyn. benefit eval. *(Chinese)* 36046
surge tanks, reverse-flow throttle 36049
unit commitment *(Japanese)* 26938
XLPE 500 kV power cables, installation, terminations 43768

pumping *see pumps*

pumping (optical) *see optical pumping*

pumping plants
PV DC motor pumping syst., design optim. 19553
PV water pumping systs., optim. techs. 27628
Rhine-Main-Danube Canal, role of hydroelec. power 4863
Tyson portable hydraulic turbine, pumping/power generation appls. 43943
water pumping PV DC solar pump, simul. model 19554
water pumping windmills, continuously variable transm. simul. 20179

pumping stations *see pumping plants*

pumps
see also micropumps; vacuum pumps
60 hp brushless doubly-fed pump drive, water treatment appls. 5431
alkali metal thermoelec. convertor design, wick-pumped, vapour-fed 20032
alkali metal thermoelec. convertors, space power perform. anal. 20034
artificial heart lin. oscillatory actuator, structural anal. 35167
Bhumibol hydro station, pumped storage unit addit. 36050
brushless doubly fed machines, pump drives, pole no. combinations 5282
bulk chem. distrib. systs., impact on semicond. proc. 11715
BWR, internal recirculation pumps, reactor stabil., TRACG code 35792

pumps continued
BWR/PWR plant feed-pump vibr. reduction, diffuser redesign 43826
centrifugal submersible oil pumps, insulation failures *(Russian)* 43997
Comanche Peak NPP, pump/valve risk-based in-service testing 10840
computer-based pump testing expt. 5523
cooling pumps, DIAPO diagnostic expert syst., domain models 19585
cryogenic rocket engine, liq. H$_2$ turbine, expander bleed cycle 26692
deep draught vert. centrifugal pumps, NPP appls. 27379
EHD pump, channels, nonstationary procs., modeling 44428
elec. drives, energy consumption reduction 28077
fault diagnosis using neural nets 42719
fault isolation filter design for lin. systs. 11382
gas turbine engines, SRM fuel-lube pump drive 20053
ground test facilities, modelling, EASY/ROCETS flow simul. 35215
Hemopump, prog. control/physiological sigs. registration, integrated unit 10166
intra-aortic balloon pump, lin. pulse motor-driven 10256
irrigation pumps, induction motors, energy efficient design 5430
Kori Units 3/4, station blackout transient 27486
mach. condition monitoring, user's perspective 36181
magnetohydrodynamic blood pump for artificial heart 18604
MHD induction pumps, 3D EM field/force anal. 36610
mica-alumina insulation, dielec. props., EM pump appl. *(Japanese)* 39067
nuc. plant components, mech. anal., lifetime eval. 35736
oil field submerged electrocentrifugal pumps, reliab. 5432
PM 2-phase sync. FHPM, self starting 36678
power station auxiliaries, var. speed squirrel cage motor drives *(Polish)* 43819
pump-generators, dyn. perform., PSS appl. *(Chinese)* 43946
PV DC motor pumping syst., design optim. 19553
PV DC motor water pumping syst., characts. anal. 27638
PV water pumping, SRM drive-based, perform. anal. 10890
PV water pumping syst., environ./economic concerns, Brazil 27637
PV water pumping systs., optim. techs. 27628
PWRs, safety-related pumps, reliab. params. update *(French)* 43860
single-phase induction motors, multi-speed control studies 19621
solar heating forced water cooling syst., PV array/solar collectors 20023
SRM design considerations, aircraft engine pump appl. 10982
submersible induction motor pumps, soft starting calcs. 4954
supercond. generator brushless excitation, mag. flux pump-based *(Japanese)* 10963
surface floating PV pumping syst., experience, Khartoum 20180
switched power harmonic filters, anal., appls. 19741
Tyson portable hydraulic turbine, pumping/power generation appls. 43943
urban household water pumping, energy alternatives eval. 44433
VVER-400, main coolant pump, operating reliab. improv. 35838
water pumping PV DC solar pump, simul. model 19554
water pumping windmills, continuously variable transm. simul. 20179

purification, crystal *see crystal purification*

Purkinje effect *see vision*

push pull amplifiers *see differential amplifiers*

push pull microphones *see microphones*

PWB *see printed circuits*

PWB accessories *see printed circuit accessories*

PWB design *see printed circuit design*

PWM *see pulse width modulation*

PWM invertors
2-step PWM sinusoidal inverter, modulation switching and freq. spectra *(Japanese)* 37635
3-level IGBT PWM inverters for traction drives 27831
3-level/IGBT inverter rly. propulsion control syst. 5332
3-phase current invertor control strategy 36307
3-phase GTO PWM inverter for control, drive 11381
3-phase PWM VSI, ANN current regulator 44119
3-phase quasi-reson. DC link PWM inverter 19854
1200 W zero output impedance UPS inverter 44170
6000 hp compressor induction motor drives, harmonic torque 5255
AC drives, current trajectory tracking control, sync. PWM 5311
AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
AC machines, transducerless posn./vel. control 4910
AC motor drive invertors, circ. space vector modulation control 44481
AC motor drives, chaotic current control anal. 44480
AC/AC back-to-back power converters, capacitor minim. 5118
AC/AC PWM power converters, vector control studies 5117
act.-pass. reactance power cct. 5030
additional zero-seq. harmonics techs. 44163
arc welding forward PWM inverter power source anal. *(Chinese)* 44633
autonomous voltage inverters, μP control 5100
av./RMS currents anal. 5135
AVS method, dead time compensation *(Japanese)* 11120
batt. charger, UPS appl., fuzzy logic control 44154
brushless DC motor controller design, software package develop. 19680
brushless direct drive motor, robust speed control design 5287
buck-boost PWM inverter, PV power syst. appls. *(Japanese)* 11122
capacitor motor drive, single phase, speed control 5272
complementary transistor inverter, driving characts. *(Korean)* 36367
CSI, PM sync. machine harmonic torque rejection appls. 36354
CSI DC link notching cct., switching loss reduction 44180
current-source compensated deadbeat control 11166
cycloconverter multiple noninteger harmonics, act. filtering 5125
DC/AC switched-mode PWM inverter, stabil. anal. 11127
digital PWM-VSI inverters, nonlin. compensation 36373
double-fed induction generators, PLL controlled, stabil. anal. 44061
drivers, device current utilisation optim. 5067
drives, Kohonen self-organising ANN appl. 44447
dual induction motor vehicle drives, control methodology 11418
elec. multiple units, 3-level IGBT traction inverter 5361
elec. road vehicles, induction motor design criteria 11415
elec. vehicle drive chain power consumption model 11412
elec. vehicle drives, series reson. DC link inverter 5358
GTO inverters, PWM voltage control improvement 19750
GTO PWM three-level VSI, induction motor drive appls. 19761
hard switched/reson. link inverter output spectra comparison 44205
harmonic distortion determining factor 19855
HF reson. DC link PWM inverter 19878
HF series reson. inverter, PFM/PWM control strategies 5388
HF series reson. PWM inverters, induction heating appls. 5123
high-starting-torque load motor drives, AFC appls. 20081

PWM invertors continued
- IEEE power electronics conf., Seattle, USA (June 1993) 36843
- IGBT bridge invertors, switching strategy implement. 5055
- IGBT gate drive ccts., optimum switching 19809
- IGBT gate drive IC, eval. and appls. 5052
- IGBT invertor power supplies, case study 36353
- IGBT PWM invertors, indust. appls. 5066
- induction motor, design 5306
- induction motor, VSI, space vector modulation, harmonic anal. 4982
- induction motor, VSI-PWM inverter drive, stabil., space vector modulation 5252
- induction motor core losses meas., static power convertor-based 19620
- induction motor drive, field oriented sliding mode torque/speed control 36699
- induction motor drive, PWM inverter fed, power losses calc. 28060
- induction motor drive, rotor flux/time const., VSS observers 11325
- induction motor drive, space vector PWM control, vector space decomp. 5312
- induction motor drive field oriented control, spindle appls. 5262
- induction motor drives, current controlled PWM inverters, simul. 11363
- induction motor drives, digital control strategy 5268
- induction motor drives, PWM inverter-fed, mobile robot appls. 5266
- induction motor drives, PWM invertor-fed, instabil. sens. algm. 36681
- induction motor drives, universal field oriented control simuls. 36640
- induction motor drives, vector controlled, rotor time const. ident. 20073
- induction motor drives, VSI-fed, generalized predictive control 5248
- induction motor stator current control, neural net-based 19629
- induction motors, field oriented control 44032
- induction motors, invertor-fed, power derating studies 4963
- induction motors, PWM VSI fed, self-commissioning 44496
- induction motors, PWM VSI-fed, ASIC/microcontroller control comparison 36180
- induction motors, variable freq. drives, vector control, design/testing 44449
- induction motors drives, real-time PWM vector control studies 28100
- interior PM sync. machines, tangential vibrs. rejection 4918
- line conditioning syst., harmonics reduction, PF compensation 43659
- MA818 controller for three phase 10 kVA voltage source PWM inverter 36283
- modular 1 kW PWM inverter, high efficiency 19862
- multi-phase systs., charact. values eval. 11125
- multilevel single-phase PWM inverter, combination control *(Japanese)* 27812
- Neutral-Point-Clamped PWM inverters, voltage vector control 11141
- on-line harmonic elimination 5081
- optimal PI current control, neural net-based 19734
- optimal PWM control, harmonic levels prediction 5057
- parallel operating 3-phase PWM inverter, cross current control 11140
- petroleum terminal ASDs, power quality issues 5413
- PM hybrid stepping motor, PWM inverter-fed 11088
- PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
- PM sync. servomotor drives, PWM inverter-fed, LF torque ripple 44479
- PV array max. power extraction, fuzzy logic control 19560
- PWM rectifier/CSI motor drive, optimal design 11352
- quasi-reson. PWM DC link inverter topol. 19731
- quasi-reson. soft-switched inverter, cct. anal. 11170
- real-time alg. harmonic elimination eqns. soln. 44162
- regularly sampled sinusoidal modulation technique 19772
- reluctance generators, sensorless DC output voltage control 4927
- reson. DC link inverters, sine PWM control 5999
- reson. link inverter topologies, UPS appls. 44206
- resonant DC link invertor, PWM scheme develop. 27819
- self-excited brushless multifield induction generators 11049
- Sinewave invertor design, outdoor remote area power supply appls. 36371
- single-to-three-phase PWM soft switching power converters 19707
- single/three phase invertors, sinusoidal PWM methods 27822
- sinusoidal output current, pulse posn. selection *(Korean)* 27792
- snubberless IGBT PWM-VSI inverterbridge, design/test 19728
- soft mag. material wound cores, energetic behavior meas. 14108
- soft-switched current-fed PWM inverter, struct., appls. 19735
- soft-switched PWM current source rectifier/inverter 11145
- space vector modulation strategy, PC-based 44164
- squirrel cage ASD, speed/torque/PF control 5270
- squirrel cage drives, positioning, vector control strategy 20071
- SVC, PWM invertor-based, HF/multiple connection studies 19123
- sync. motor drives, VSI PWM inverter fed, design, params. 5283
- telecomm. power supply appls. 19801
- three-level PWM invertor, optimal design studies 19719
- three-level PWM motor inverters, harmonic loss calcs. 44175
- three-phase AC-AC power convertor, cct./control anal. *(Japanese)* 11191
- three-phase bidirectional PWM power convertor config. 5126
- three-phase four wire AC line conditioner, voltage controlled 19710
- three-phase induction machines, two/three-level PWM invertor-fed *(French)* 11032
- three-phase power convertor, quasi-reson. DC/HF transformer links 5088
- three-phase PWM GTO invertor, design, constr. 5090
- three-phase PWM inverter UPS, robust μP control 36248
- three-phase PWM inverter voltage control, μP-based *(Russian)* 11108
- three-phase PWM invertors, real-time harmonics control 19722
- three-phase PWM neutral point clamped invertors, voltage control *(Japanese)* 11121
- three-phase PWM VSI, simplex control algms. 5101
- three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
- three-phase SVC, voltage controlled CSI-based 10654
- three-phase UPS VSI, feedback control strategy 44173
- three-phase VSI, space vector simplex PWM methods perform. 44174
- three-phase VSI nondeterministic AM-PWM strategy 44161
- transient regime output params. correction *(Russian)* 44113
- Tri-Level PWM CSI, lin. controlled boost voltages 27806
- UPS CSI, DSP-based output voltage control 44172
- UPS inverter perform., computer simuls. 5077
- UPS PWM inverter, instantaneous feedback controlled 11177
- utility-grid interactive three-phase inverters 5083
- variable speed induction motor drives, peak voltage appl. 11336
- voltage fed PWM inverter, zero current clamping elimination 19744
- VSI, AC machine control appls., perform. improvement 5043
- VSI, current regulation techs. review 44178
- VSI, deadbeat control cct. 44176
- VSI, motor appls., HF leakage currents modelling *(Japanese)* 27814
- VSI, tolerance band control chaotic procs. 5065
- VSI-fed PWM motor drives, predictive fuzzy control 5273

PWM invertors continued
- ZVS PWM inverters, DC voltage notching scheme 19736

PWM power convertors
- *see also PWM invertors*
- 1.9 kW ZVS PWM phase switched DC/DC converter 44193
- 1 kW AC/DC power factor pre-regulator, ZVS-PWM topology 19874
- 1 kW two-stage batt. charger cct. design 5071
- 3-phase 5-level converter, voltage waveform synthesis 19742
- 3-phase PWM AC/DC converter, voltage unbalance, harmonics *(English)* 27811
- 3-phase PWM boost rectifiers, dual boost converter 19726
- 3-phase PWM converter, act. filter, control cct. 36356
- 3-phase PWM converters, small-sig. model, control 19760
- 3-phase PWM rectifier, line current harmonics minimisation 44147
- 3-phase ZVS-PWM rectifier, reson. DC link, digital control 5068
- 10 kW DC/DC PWM ZVS bipolar SIT-based power converter 19830
- 45 kW DC-DC PWM rly. car power converter, design optim. 11414
- 50 W DC/DC PWM soft-switched power converters 19790
- 50 W DC/DC ZVS PWM half-bridge power convertor 44194
- 100 kHz 2 kW boost ZVT-PWM converter, PF correction 19807
- 500 W DC-DC converter, power MOSFETs, 200°C operation 12322
- 1500 W single-phase rectifier, high power dens. 19865
- AC drives, on-line unity PF PWM rectifier 5305
- AC locomotive PWM rectifiers, harmonic current calcs. 36760
- AC locomotives, line-side switching harmonics compensator 20101
- AC-to-DC voltage-type convertors, current control 5062
- AC/AC back-to-back power converters, capacitor minim. 5118
- AC/AC power convertor, freq. control method 29044
- AC/AC PWM power converters, vector control studies 5117
- AC/DC power converter, current control studies 5070
- AC/DC power converter, improved PF 5059
- AC/DC PWM converters, on-line optimal control 36247
- AC/DC PWM GTO power converters, high-speed train appls. *(Korean)* 28120
- AC/DC PWM power convertor, quasi-optimal control 44165
- AC/DC PWM power convertors, common mode conducted RFI emissions 5072
- AC/DC soft switching PWM power converter, SMES appls. 11176
- AC/DC soft-switched PWM power converter struct. 36344
- AC/DC/AC PWM power converters, DC link energy storage reduction 36343
- act. clamp PWM forward sync. rectifier power converter 19822
- act.-pass. reactance power cct. 5030
- av. simul., behavioural rels. implement. 6023
- bi-directional AC/DC power converter, independ. reactive power control 36351
- bipolar PWM current controlled magnet power supply 18253
- boost PWM converter, feedback controlled, averaging theory 19770
- boost PWM power convertor anal., averaging theory extension 11151
- buck and boost DC-DC PWM convertor anal. 11184
- buck ZCS-ZVS PWM DC/DC power converter topol. 11167
- buck ZVC-ZCS HF PWM power converter studies 19716
- Cassini spacecraft power convertor unit design 26588
- Cuk PWM DC/DC soft-switching power converter 19795
- current source PWM rectifier cct. studies 44181
- current-source rectifier, input harmonic filter design 19851
- cycloconverter control, induction heating appls. *(Korean)* 36786
- DC motor drives, separately excited, tunable fuzzy logic control 20076
- DC motors, motion controllers, software switch 19662
- DC motors, pulsed μP control design 11067
- DC-DC converters, voltage control, feedforward/feedback 11117
- DC/AC PWM power convertor, quasi-optimal control 44165
- DC/DC full-bridge ZVS power converter anal. *(Chinese)* 36337
- DC/DC power converter, fuzzy logic optimal control 44121
- DC/DC PWM boost power converter, switching capacitor-based 44195
- DC/DC PWM power convertor, small-sig. modelling 11148
- DC/DC PWM push-pull power converter, robust state feedback control 27808
- DC/DC PWM reson. power converter topol., pulse load appls. 11172
- DC/DC PWM step-up power supply, SC cct.-based 27807
- DC/DC PWM switching regulators, fn. control 29022
- DC/DC PWM ZVS reson. power convertor develop. 5078
- DC/DC switching converters anal., grid-point approach 37625
- DC/DC ZVS PWM forward power converter design 5045
- DC/DC ZVS PWM full-bridge power convertor, MOSFET-based 5044
- discontinuous PWM preregulators, conducted EMI reduction 11161
- discrete-time large sig. anal. 5086
- dispersed generation syst. power conditioning technols. *(Japanese)* 35716
- DMOS analogue HV control IC for small DC motors, PWM scheme 29048
- drivers, device current utilisation optim. 5067
- DSP based controller for switching converter 6019
- elec. drive syst. adaptive control 5254
- elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
- feedforward pulse-width modulator for boost DC-DC power converters 29042
- flyback PWM power convertor, nondissipative snubber optimal design 19709
- flyback ZVS PWM power converter-nondissipative snubber calcs. 5047
- fourth-order DC/DC power converters, limited duty cycle range 19792
- full-bridge PWM DC/DC soft-switching power converter 19791
- full-bridge ZVS PWM DC/DC power converter 19852
- GTO inverters, PWM voltage control improvement 19750
- GTO PWM three-level VSI, induction motor drive appls. 19761
- half-bridge bidirectional DC-DC converters anal. 6006
- half-bridge PWM power converter, small DC link capacitor *(Japanese)* 36348
- harmonics optimal control, pulse width reduction 5996
- HF power conversion, reson. and PWM soft-switching techs. 11180
- HF switched-mode PWM power amp., perform. anal. 542
- high efficiency forward converter topologies 6001
- IEEE IECON '94 conf., Bologna, Italy (1994) 36823
- IEEE power electronics conf., Seattle, USA (June 1993) 36843
- independent inputs, large-sig. modelling 11152
- induction motor drive, rotor flux/time const., VSS observers 11325
- induction motor drives, intelligent PWM power convertor develop. 28089
- induction motor drives, PWM convertor-fed, choice and spec. 36691
- induction motors, PWM power convertor feed problem calcs. 27730
- isolated half-bridge ZVS-PWM converter 44185
- LCL reson. PWM converter, anal./simul./implement. 36245

PWM power convertors continued
Maglev, instantaneous current detect., PWM converter *(Japanese)* 44563
matrix freq. converter, PWM control techs. 5129
matrix power convertors, static induction thyristor-based 27818
microwave heating, PWM flyback converter, nondissipative snubber 11479
multi-output DC/DC PWM ZVS quasi-reson. power converter 19824
multifn. single-phase PWM power supplies, residential appls. *(Japanese)* 27813
multiphase power systs., harmonics/VAr control design 19087
multiresonant PWM converters, reson. inductor freewheeling 6021
notching current source AC/AC converters, soft switched PWM 19746
parallel-module power converter, current bal. controlled, dyn. anal. 44140
periodically switched networks modelling, Cuk converter 11164
power electronics conf., Cuernavaca, Mexico (Aug. 1993) 11564
power IGBT short-cct. protection, motor drive appls. 29026
power source voltage sensorless 3-phase PWM AC/DC converter *(Japanese)* 27793
power syst. PF controller microcct. 26987
quasi current reson. DC link AC/AC converter 11115
quasi-reson. DC link series reson. converter 12313
quasi-reson. HF PWM ZVS DC/DC power convertors 5061
quasi-reson. power converters, generalized state space averaging anal. 11150
quasi-reson. PWM converter, high efficiency 11155
quasi-reson. PWM DC link inverter topol. 19731
quasi-reson. soft-switching PWM conversion, space vector control 19757
quasiresonant power converters, small-sig. modelling 11139
quasiresonant PWM convertor, microwave heating appl. 36333
rectifier, state feedback nonlin. control 11153
rectifier/CSI motor drive, optimal design 11352
rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
regenerative sinusoidal converters, H^{∞} control 5131
reversible rectifier variable struct. control design 5054
self-commutated SVC, power syst. appls. 4511
self-excited forward DC-DC PWM ZVS power converter 36241
self-reson. DC-DC PWM power converter family 11168
self-reson. PWM forward DC/DC power converter 44225
SEPIC PWM ZVS dual power converter perform. studies 11130
single-ended SMPS, control/switching, power MCM 29014
single-phase composite PWM voltage source converter 19723
single-phase PWM power converter models *(Japanese)* 36349
single-phase PWM VSI, residential PV power syst. appls. *(Japanese)* 36346
single-to-three-phase PWM soft switching power converters 19707
SMES, const.-voltage output PWM converter develop. 36273
SMPS power converters, planar integrated filter/snubber cct. 19763
soft-switched current-fed PWM inverter, struct., appls. 19735
soft-switched PWM current source rectifier/inverter 11145
soft-switched PWM rectifiers, perform. improvement 11173
soft-switching full-bridge converter, mag. amps. 44139
soft-switching PWM boost converter, config., anal. 6000
Space Station Freedom bidirectional PWM UPS power convertor 26589
stochastic models 5998
switch-mode DC-DC power converter dyn. response, CAI 5533
telecomm. syst., on-board DC/DC PWM converters anal. 19823
three phase ASD PWM rectifier, neural net-controlled 5120
three-phase AC machine switching power converters, current control 44179
three-phase AC-AC power convertor, cct./control anal. *(Japanese)* 11191
three-phase AC/AC power converters, power quality issues 36276
three-phase AC/DC power converters, harmonics reduction 19798
three-phase AC/DC PWM ZVS power convertor develop. 5082
three-phase AC/DC ZVS power convertor topol. 19839
three-phase bidirectional PWM power convertor config. 5126
three-phase diode rectifier utility interface, harmonics reduction 19751
three-phase double diode PWM rectifier syst. *(Japanese)* 36347
three-phase four wire AC line conditioner, voltage controlled 19710
three-phase induction machines, two/three-level PWM invertor-fed *(French)* 11032
three-phase isolated PWM ZVS buck rectifier 36243
three-phase multifn. batt. energy storage syst. 43967
three-phase PWM AC/AC converters, power conditioning appls. 36277
three-phase PWM boost rectifiers 11159
three-phase PWM bridge-rectifier, harmonic minimization 19810
three-phase PWM rectifier, unity PF microcontroller 44177
three-phase PWM reson. buck converters, power control 5060
three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
three-phase regenerative power convertor design project 5119
three-phase series reson. act. power filter 19739
three-phase single-switch PWM rectifier develop. 5127
three-phase single-switch rectifier studies 19847
three-phase ZVS AC/DC act. power convertor 19840
thyristor power converters, nontunable pulse-phase control syst. 5102
TK75001/75003 five-pin PWM SMPS IC 29015
TOPSwitch three terminal offline PWM switching voltage regulator 29007
unity PF PWM rectifier, DC ripple compensation 44184
unity-PF PWM rectifier, DC ripple compensation *(Japanese)* 21098
utility-grid interactive three-phase inverters 5083
voltage-type rectifier, I-V control studies 19796
VSI AC motor drives, sync. quasi-vector control 11351
ZCS-QRC, two fully regulated outputs 19806
ZCS/ZVS saturable inductor PWM DC-DC power converter 44224
zero-current-transit. PWM boost converters 11116
ZVS PWM half-bridge power converter studies 44197
ZVS PWM power converters, saturable reson. inductor anal. 19762
ZVS-clamped voltage DC/DC PWM single-switch power convertors 11169
ZVS-PWM full bridge DC/DC converter, losses, appl. 5089
ZVS-ZCS-PWM self reson. DC-DC Sepic converter 44226

pylons *see poles and towers*

pyroelectric detectors
LB film pyroelec. heat sens. 14094
liq. cryst. SLM, pyroelec. layer 22952
modulation-type pyroelec. IR detector, piezoelec. chopper 42802
nonchemical photopyroelectric gas sens., thermal wave based, H detect. 3901
organic vaps., photopyroelectric detect. 3905
P(VDF/TrFE) copolymer pyroelec. thin film sens. and arrays 42817
photopyroelectric thermal-wave imaging instrum., probe-tip optimisation 42790
poly(vinylidene fluoride/trifluoroethylene) thin films appl. 17772
polysilicon sacrificial layer etching technol. for micromachined sens. 25785
Raman MM wave FEL meas. by pyroelec. energy meter *(Chinese)* 2009
TGS pyroelec. materials for pyroelec. vidicons 22684

pyroelectric detectors continued
tomographic photopyroelectric imaging, thermal wave multi-probes appl. 3757
$BaSrTiO_3$ hybrid uncooled IR detectors, producibility advances 17792
H-O mixtures, photopyroelectric detect. 3900
NiCr-$LiTaO_3$-NiCr pyroelec. multispectral IR detectors, pyrometer appl. 14095
PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
$PbLaTiO_3$, thin film capacitor, epitaxial growth, sens. appl. 34506
$PbTiO_3$ group pyroelec. IR sens. develop. and perform. *(Japanese)* 17968
$PbTiO_3$ thin film pyroelec. IR detector 42818
$PbTiO_3$:La pyroelec. IR sens. array for human body detect. 42805

pyroelectric devices
see also pyroelectric detectors
liq. cryst. SLM, pyroelec. layer 22952

pyroelectricity
5-n-docosylbarbituric acid pyroelec. LB film structs. 13918
electro-optical polymers, poling 13930
ferroelec. ceramic-polymer composite, piezoelec./pyroelec. 6906
ferroelec. thin films, ferroelec.-opt. memory 14082
ferroelec.-opt. memory on ferroelec. thin films 30836
LB film pyroelec. heat sens. 14094
polyurea films, pyroelec./piezoelec. 6903
PVDF film, pyroelec. imaging 1567
TGS pyroelec. materials for pyroelec. vidicons 22684
$BaTiO_3$/poly(vinylidene fluoride-trifluoroethylene) thin-film composites, pyroelec. props. 6908
Ir-stilbazole complex LB films, temp.-depend. polariz. 22636
$LiNbO_3$, domain inversion by proton exchange and rapid heat treatment 30567
$LiTaO_3$ single cryst., thermally stimulated charge and light emission 13990
PLZT, ceramic, surface layers effect on dielec. props. 39096
PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
$Pb_{1-x}La_xTiO_3$ films, CVD 37515
$Pb_{1-x}Sm_x(Zr_{0.65}Ti_{0.35})O_3$ ceramics, pyroelec. studies 22664
$(SrBa)_0.8Na0.4Nb_2O_6$, tungsten bronze ceramics, relaxor ferroelec. behaviour 30558
polymers, electro-optic props./appls. 22923

pyromagnetic effects *see magnetocaloric effects*

pyrometers
see also temperature measurement
800 MW steam power plant boiler gas temp. meas., acoustic pyrometry-based 27556
ceramic flush temp. meas., IR pyrometer, fused opt. coupler *(Japanese)* 42973
color pyrometer, effective wavelength 18133
far-IR pyrometer based radiation temp. meas. 17778
fibre-coupled pyrometer for shock-wave studies 42824
MHD convertor plasma temp. meas., spectroradiometer-based 11305
online dyn. gas pyrometry, two-thermocouple probe 42970
ripple pyrometry for wafer temp. meas. in RTA 25998
RTCVD, opt. modeling, model-based control 394
RTO/nitridation clusterable reactor, MOS gate oxides 22219
semiconds., MBE growth, substr. temp., opt. pyrometer meas. 34496
Si film growth, temp. control, pyrometric interferometry 42974
soot props. meas. by two-colour pyrometry 10054
target surface temp. meas., laser-induced plasma 10053
transverse-flux induction heater exit temp., real-time meas. by transputers 44625
HgCdTe FTIR temp. depend. emissivity, pyrometer develop. 25987
NiCr-$LiTaO_3$-NiCr pyroelec. multispectral IR detectors, pyrometer appl. 14095
PtSi IR CCD-based multi-wavelength imaging pyrometer 17956
Si FTIR temp. depend. emissivity, pyrometer develop. 25987
SiO_2-Si FTIR temp. depend. emissivity, pyrometer develop. 25987
SiO_2-Si wet oxid. by RTP, homog. 22222

Q *see Q-factor*

Q-factor
act. filters, fractional shifts of ω_0 and Q, Budak-Petrela's method 37838
act. microwave filters, nonlin. behaviour 21414
act. resonators, integrat. for UHF wireless appls. 12826
adaptive compensation of MOSFET-C filters 6217
antennas, Poynting's theorem, reactive energy, and radiated power 15617
bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
cavity, lin. condition, Q-factor/input reson. resist. 31903
centre-tapped spiral inductors for monolithic bandpass filters 37850
class E freq. multipliers with RF choke, anal./design 37905
coaxial dielec. resonator, circ. propag. mode 6289
cryst. oscillator design and spec., tutorial 39086
curved conductor surface model, cavity resonators anal. by spatial network method 21526
dielec. disk radiator, slot excitation 31929
dielec. resonator equiv. cct. 14096
dielec. resonators, microstrip tuning tech. 12713
digitally prog. differential integrator, enlarged time const. 29349
dye lasers, threshold long. pump power, spontaneous emission influence 14728
elec.-small antennas, radiative props. 15616
EM emission from PCB sig. line, peak freq. prediction 38073
EM surface-wave resonator, high order modes *(French)* 21524
external Q of reson. cavities, finite element num. computation 37963
high-power Cherenkov device, superdimens. slow wave struct., simul. 29812
high-Q piezoelec. materials and BAW/SAW resonator devices, advances 39046
HTSC strip resonators, Q-factors 12706
HTSC thin film resonators, buffer layers 39279
intense-beam klystron amps., beam-cavity interact. phys. 6481
jn. circulators, quality factor, temp. stabil. 29528
LC reson. cct. security tags, design study 12627
lin. polarized aperture array antenna *(Japanese)* 40516
liq. dye lasers, spherical, wavelength tuning, cavity Q values 14726
lossy planar microwave struct., discontinuities modeling 12701
micromachined thin film bulk acoustic resonators 30635
microstrip resonators in EHF band 12725
mixed modes dielec. resonator loaded cavity filters 12733
MM wave monolithic IC, dielec. resonators, whispering gallery mode, model 6330
MMIC narrow-band filter, ultrahigh-Q tunable act. inductors 12822
mode stirred EMC facility, develop. 2266

Q-factor continued

- multidiode waveguide oscillator, noise charact. 37984
- multilayer piezoelec. ceramic transformer for power supply 12854
- multilevel monolithic inductors in Si BiCMOS technol. 21572
- oscillator array dyn., broadband N-port coupling networks 832
- parallel-path biquad act.-RC oscillator, enhanced harmonic rejection 37665
- planar inductors charactn., 1 MHz, large excitation 6379
- planar supercond. waveguides in DC mag. field 37937
- sapphire loaded microwave resonators, enhanced quality factor 29577
- Stanford FEL wavelength shifting 39937
- stepped flexural mode quartz cryst. resonator, reson. freq. 39090
- universal filter, two current-feedback amps. 37852
- universal voltage-mode filter, current conveyors 6206
- VCO, low phase noise, analog cellular portable radio appl. 12356
- $BaO-Sm_2O_3-TiO_2$ ceramics, microwave dielec. props. *(Korean)* 22631
- $Ba_{6-3x}Sm_{8+2x}Ti_{18}O_{54}$, microwave dielec. props. 22638
- $Ba_xSr_{1-x}TiO_3$, voltage depend. dielec. losses for ferroelec. MMIC devices 39054
- Er-doped fiber amplifer chain link, polariz. scrambling improves SNR perform. 17238
- Fe-based NANOCON materials, soft mag. props. 39123
- GaAs FET power amp./high-Q magnetron, coherent transmitter 12997
- GaAs MESFET varactor tunable oscillators, noise calcs. 21565
- GaAs single-barrier varactors for MM-wave triplers 12779
- InAlAs/n^+-InP, monolithic tunable high-Q 12800
- Nd:YAG act. mode-locked pulsed laser, long ultrashort pulse train generation 14826
- Ni-Cu-Zn powder ferrite for multilayer chip inductors 14186
- Si micromechanical resonator, struct. and perform. 13912
- $SrTiO_3$, voltage depend. dielec. losses for ferroelec. MMIC devices 39054
- $YBa_2Cu_3O_{7-\delta}$ thin films, microwave surface impedance determ. 25946
- $YBa_2Cu_3O_{7-x}$ HTSC coplanar microstrip transm. lines 12693
- $YBa_2Cu_3O_{7-x}$ high T_c film dielec. resonator, MM-wave filter develop. 811
- $YBa_2Cu_3O_{7-x}$, microwave penetration depth, contactless meas. 39227
- $YBa_2Cu_3O_{7-x}$ supercond. microstrip resonators, spectral-domain anal. 21516
- $YBa_2Cu_3O_{7-x}$:Ag HTSC resonator, unbuffered sapphire substr. 30806
- $YBa_2Cu_3O_{7-x}$- $SrTiO_3$ 1 GHz tunable parallel plate dielec. resonator 37967
- YIG, magnetostatic forward-vol. wave resonator, tunable oscillator *(Japanese)* 12761

Q-factor measurement

- HF impedance analyzer up, 1.8 GHz 9828
- high-T_c supercond. resonators, automation-orientated techs. 1641
- microwave cavity tech. for n-n^+ semicond. struct. 3968
- planar transm. line atten. meas. tech. 18025
- vegetation elements placed in open resonator, extinction cross-sect. calc. 34670
- Y-Ba-Cu-O microstrip resonators on sapphire substrs., microwave losses 37995

Q-meters

- NH_3 irradiated target, ^{14}N pol. meas. using NMR 34869

Q power factor *see Q-factor*

Q-switching

- *see also lasers*
- dye laser, IR switching/mode-locking *(Chinese)* 14727
- fibre lasers appls., rare-earth-doped 23124
- half-sintered ceramic machining by Q-switched YAG laser *(Japanese)* 20421
- high power microwave generation, magnetron driven Q switched cavity 29767
- high-power ps pulse gen./meas. from Q-switched QW lasers 14906
- poly(methyl methacrylate)-doped solid-state dye laser 39687
- ruby laser, colliding shock lens, intracavity Q-switch element 23329
- ruby laser, pass. Q-switched, Cr-activated silicate crysts. 31547
- semicond. lasers, integrated optoelectronic up/down-converters 23232
- short cavity DBR lasers, narrow band Bragg mirror, dyn. charact. 14788
- CO_2 laser with saturable absorber, nonlin. dyn. 23078
- CO_2 mol., chaotic laser oscill. in seq. band 23097
- CO_2 multimode laser with a saturable absorber, multistability 7518
- CO_2-laser generation, intracavity saturable absorber 39666
- $Ca_5\,(PO_4)_3\,F:Er^{3+}$, Q-switch saturable absorber materials 1902
- $CaF_2:Er^{3+}$, Q-switch saturable absorber materials 1902
- Cr,Nd:YAG laser, self-Q-switched, transverse mode dyn. 23147
- Cr,Nd:YAG monolithic self-Q-switched laser, picosecond pulse generation 31248
- $Cr:BeAl_2O_4$, alexandrite laser, intracavity freq. doubling 7737
- $Cr:LiSrAlF_6$ Q-switched laser freq. tripling, UV region 39728
- $Cr:LiSrAlF_6$ laser syst. high-efficiency harmonic generation 23172
- Er,Yb:glass laser, opt. pumped, mech. Q-switching 31293
- Er:YAG oscillator-amp. laser syst. 14813
- $Er^{3+}:Ca_5(PO_4)_3F$, saturable absorber Q-switch materials for solid state lasers 14838
- $Er^{3+}:CaF_2$, saturable absorber Q-switch materials for solid state lasers 14838
- $Er^{3+}:YAlO_3$ upconversion laser, Q-switched 14821
- Er-doped fiber laser config., wavelength switching 14735
- Er-doped glass laser, pass. Q switching of cavity, SBS mirror 7595
- Ho:YAG 2.1μm laser for atmos. lidar research 10474
- Ho:YAG quasi-three-level laser Q-switched operation 14819
- $Ho:YLiF_4$ saturable absorber Q-switch for 2-μm $Tm,Cr:Y_3Al_5O_{12}$ laser 15055
- I Q-switched photodissociation laser, pass. shutter 39671
- InGaAsP/InP lasers, Q-switched pulses 14875
- $KTiOPO_4$, SHG of YAG laser, self-heating *(Japanese)* 7792
- $KTiOPO_4$ electro-optic laser Q switch, dispersion effects 22933
- LiF, F_2 centre, pass. Q-switch for Nd:YAG laser 31309
- $LiF:F_2^-$ cryst. Q-switch for Nd:YAG freq.-doubled laser stabil. *(Chinese)* 14794
- $LiNbO_3$, quasi-phase matching, opt. freq. doubling 40108
- Nd laser, pass. Q-switching, fund./second harmonic freqs. 1883
- Nd:YAG 3.5 W output, diode-pumped, Q-switched 532 nm laser 14816
- Nd:YAG LD pumped laser, eye-safe 1.443 μm wavelength 7587
- Nd:YAG Q-switched CW pumped laser, math. modeling 1895
- Nd:YAG Q-switched diode-pumped laser, freq. conversion 31268
- Nd:YAG Q-switched laser, Cr^{3+}:YAG saturable absorber 40064
- Nd:YAG Q-switched laser Raman conversion, backward SBS 23174
- Nd:YAG Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
- Nd:YAG TEM_{00} diode-laser-pumped Q-switched laser 31302

Q-switching continued

- Nd:YAG diode-pumped miniature slab laser 31250
- Nd:YAG flashlamp-pumped pulsed lasers, SHG 31272
- Nd:YAG laser, chromatic coupling by multiple LD pumps 31247
- Nd:YAG laser, diode-pumped, Q-switching study 31299
- Nd:YAG laser, pumped, pulsed RT operation 23167
- Nd:YAG pass. Q switched laser, double pulse operation 31305
- Nd:YAG pass. Q-switched quasicontinuously pumped laser 31274
- Nd:YAG pass. Q-switched transverse-diode-pumped laser oscillator *(Chinese)* 14797
- Nd:YAG periodical Q-switch lasers, pulse duration, output power 31271
- Nd:YAG slab laser, LD array side-pumped, output power *(Chinese)* 39724
- Nd:YLF laser, chromatic coupling by multiple LD pumps 31247
- $Nd:YVO_4$ coupled-cavity electro-opt. Q-switched microchip lasers 39743
- $Nd:YVO_4$ slab laser, diode-pumped, high-repetition-rate 1919
- Nd:phosphate glass fibre-bundle laser, Q-switching 23114
- Nd:silicate glass fiber waveguide lasers review 31223
- Nd-doped fibre switching by fast relax. of reson. nonlin. 31621
- Nd-doped lasers, nanosecond polymer pass. switch develop. 39746
- Nd-doped phosphate glass waveguide laser, pass. Q-switched 1917
- SiO_2-core fibre ring oscillator, Nd laser pumped 14999
- $SrF_2:U^{4+}$, Q-switch saturable absorber materials 1902
- Ti:S cryst. multipass laser amplifer 31286
- Ti:sapphire Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
- $U^{4+}:SrF_2$, saturable absorber Q-switch materials for solid state lasers 14838
- $Y_3Sc_2Ga_3O_{12}:Co^{2+}$ saturable absorber Q switch for IR Er lasers 23331

QAM *see quadrature amplitude modulation*

QC *see quality control*

QFP *see packaging*

QFSK *see frequency shift keying*

QMF *see quadrature mirror filters*

QPSK *see quadrature phase shift keying*

quad flat packs *see packaging*

quadratic programming

- active phased array reconfig. by biquadratic prog. 23952
- augmented neural network for solving lin. and quadratic prog. problems *(Chinese)* 28631
- branch and bound algm. for integer quadratic knapsack problems 28638
- component reel arrangement problem in PCB assembly 948
- constrained optim. based on recursive quadratic prog. 211
- convex quadratic semi-infinite prog. problems 11942
- envelope-constrained filters with uncertain input, sensitivity 32795
- extended threshold Boolean filters, min. MSE filtering 33148
- FIR channel fractionally-spaced blind equalisation and estim. 41384
- FIR digital filter design, quadratic prog. 37884
- Haystack antenna, optimal surface adjustment 23897
- linesearch method for quadratically constrained convex prog. 220
- logarithmic barrier fn. in quadratic prog., line search techs. 20565
- matched four-terminal power network, deviation defn. *(Russian)* 10601
- nonconvex quadratic prog. problem, act. set methods *(Chinese)* 5760
- nonlin. prog., quadratic fns. 11936
- power syst. security, economic dispatch coord. 19153
- power syst. state estim. by neural net 43711
- recursive differentiators, design, quadratic prog. 763
- recursive differentiators design, const. group-delay characts. 2521
- VLSI cct. testability and coverage estim. 22518
- wireless networks, resource allocation 9245
- zero-one prog.-based synthesis, appl.-specific data paths 12400

quadrature (numerical) *see integration*

quadrature amplitude modulation

- 1.8-μm CMOS 60-MBaud single-chip QAM proc. for digital radio appls. 21369
- 6 Mb/s ADSL, constellation TDM 16922
- 16 QAM modulation, OFDM in Rayleigh-fading channel 9218
- 16-DAPSK, multiple-sym. differential detect. *(Japanese)* 24010
- 200-MHz quadrature digital synthesizer/mixer in 0.8-μm CMOS 21370
- 256-QAM syst. in presence of phase jitter and CCI 24009
- adaptive modulation/TDMA scheme for high capacity pers. multimedia commun. 9043
- adaptive nonlin. predistorter, high power amp. compensation *(Korean)* 25460
- adaptive phase control, RLS phase estim. 40799
- ADSL, DSP-based prototype reverse channel transmitter/receiver 33673
- AM-VSB/64-QAM hybrid opt. transm. systs., impulse-induced bit-error impairment 9557
- AM-VSB/QAM CATV opt. transm. syst., 64-QAM sigs. 9556
- amplit. limited multitone sigs., perform. 8092
- analog lightwave link with large polariz.-mode dispersion, 64-QAM BER meas. 9560
- asymmetric DSL ideal discrete multitone signalling 42051
- ATV, digital transm. technol. *(Japanese)* 34232
- binary ECCs over Gaussian QAM channels, perform. eval. 2377
- blind adaptive array proc. methodology 9165
- blind channel estim./equalization, partial-response input sigs. 33162
- blind equalization, recursive Bayesian techs. 15943
- blind ident./equalization of MA channels for QAM 8367
- block coded modulation schemes, design/eval. 15781
- CATV systs., QAM receiver chip, hybrid fiber/coax networks 3675
- cellular capacity increase with MQAM/CDMA 33783
- CMA/Godard adaptive filter bank, blind equalization 15945
- CMOS quadrature digital synthesizer/mixer, 200 MHz 29245
- COFDM for TV broadcasting, overview 42560
- decision-feedback blind equalization based on strictly convex cost fn. *(Chinese)* 32005
- deconvolution, Bayesian decision feedback techs. 15892
- digital CATV, QAM/VSB modulation comparison 34263
- digital microwave radio symbol-rate-increased TCM scheme 42148
- digital QAM ADSL systs., adaptive sig. proc. 9096
- digital radio, spectrum phase interpolation, detect. tech. 9381
- digital radio data predistortion, neural-net-with-memory model 42149
- digital TV sig. broadcast 34204
- DMT-based ADSL systs., clipping effect anal. 9088
- DSP, QAM demodulator appls., CMOS technol. 33681
- dual-rate alg. CELP-based speech transceiver 9221
- FIR channel fractionally-spaced blind equalisation and estim. 41384
- FIR channels fractionally spaced blind equalization 8368
- fourth-power law clock recovery with prefiltering 41390

quadrature amplitude modulation continued
fractal video communicator simul. 8851
fractionally-spaced blind equalization algms., results 15946
globally convergent adaptive blind filters and blind equalisers 2863
HDSL design, computer based optim. techs. 16921
HDTV, all digital sigs., terrestrial transm. 9735
HDTV, digital transm. syst. 9736
HDTV images, noise resistant sync. 16288
hi-fi mobile DAB scheme 9695
high-speed QAM modem CAD tools 42081
hybrid analogue/digital opt. transm. systs., clipping induced errors 34096
hybrid multichannel AM/16QAM video lightwave syst., digital channel degrad. 17210
hybrid SCM AM/QAM lightwave transm., laser clipping distortion effects 42411
IIR filtering for adaptive phase jitter cancellation 32748
image seqs. coding by wavelets and subband schemes 16287
indoor radio, channel equalization, neural network techs. 17140
indoor radio channel, neural-based packet equalization 9307
joint blind equalization/phase recovery scheme for data commun. 3431
land mobile radio multicarrier coded 16QAm syst. 33780
M-QAM digital mobile radio systs., diversity/equalisation 9270
matched median filter for QAM sigs. detect. 15967
Mitsubishi Electric multi-channel access syst. *(Japanese)* 33897
mobile satellite fading channels, M/QPR-TCM perform. 17096
mobile speech, video and data transceiver 3266
modified ISI canceller for digital microwave radio 9168
multilevel PAM/QAM syst. jitter-reduced digital timing recovery 40563
multiresolution modulation/concatenated coding, decoding algms. 8683
narrowband fading channel spectral efficiency with power control 42199
nonlin. amps., intermodulation power, data modulation 560
nonselective fading, two-stage carrier sync. 25345
NTT's local networks, range of baseband/passband HDSLs 25140
OFDM for digital TV broadcasting 3646
optimal trellis-coded 8-PSK and 4-AM modulations for Rayleigh channel 8104
optimum combining in wireless systs., BER upper bounds 9170
orthogonal FDM frame sync. offset, decision-directed MLE 9432
Osman Nuri Ucan receiver, trellis coded M-QAM schemes, partial response channels 40704
P^2 codes, pragmatic trellis codes utilizing punctured convolutional codes 32114
pilot sym.-aided tech., digital sigs. in multipath environ. 9366
pilot sym.-aided transm. for satellite/terrestrial mobile systs. 25403
Radon transform based constellation ident., anal. 33683
rot. invariant nonlin. trellis codes for 2D modulation 24031
self-learning adaptive recursive equalizer 32771
short-block digital transm., adaptive MLSE for mobile radio 3427
signaling, Rician-fading diversity channels, error probab. 32040
single/multi-amplit. sigs. in interf. channels, neural-net based receiver 16408
slow fading channel bandwidth-efficient coded freq. diversity 32086
sq.-QAM adaptive modulation/TDMA/TDD syst., modulation level estim. 25272
subscriber loop, data transm., RF exposure effects 7992
systematic TCM in coded modulation 8093
systs., globally convergent blind equalization 32740
TCM, probab. dens. of ISI 15713
TCM decoder perform., 8 PSK, 8 PAM, 16 QAM, additive mixture Gaussian/impulsive noise *(Korean)* 32195
TCM-QAM for flat fading and AWGN channels, design 24118
TDMA cellular syst. with coded 16QAM and cyclical slow freq. hopping 33826
trellis coded 16 QAM/TDMA, space diversity combining, multipath fading *(Japanese)* 42172
trellis coded multi-amplit./-PM, noncoherent detect. 24281
trellis codes, error probab., dist. spectra/upper bounds 32063
trellis codes for primary rate ISDN 16791
two-level coding based on TCM and RS codes 15766
underwater high data rate acoustic commun. systs. perform. 17360
vector modulator, bal. design, C-band 12371
VSB/QAM for hybrid fiber/coax, digital transm. 42610
wavelet packet modulation, orthogonally multiplexed commun. 32038
WC-281 circ. waveguide, mode conversion, echo anal. and correction, digital radio 33760

quadrature frequency shift keying *see frequency shift keying*

quadrature mirror filters
2D digital video filters for PALplus-compatible HDTV transm. encoder 42604
Abelian groups, wavelet anal. 24163
design of QMF banks, digital allpass filters 24167
DSP-based teleconferencing syst., perform. eval. 16815
eigen design 24433
FIR QMF low-delay bank of filters appl., speech coding 24139
harmonic anal., perfect reconstruction and wavelet matrix windows 24279
image texture class., QMF bank in combination, co-occurence matrices 24541
M-band pseudo QMF banks, prototype filters design 37882
modified DFT polyphase SBC filter banks, almost perfect reconstruction 32714
MPEG audio decoder chip 37788
multirate adaptive arrays for broadband mobile commun. 33851
multirate adaptive beamforming tech. 8251
orthogonal QMF filters for smooth wavelet decomp. 24164
PR-QMF banks/ wavelets, stat. optim. 32707
space commun. adaptive arrays, 2D wavelets/filterbanks appl. 9408
systolic archit. for QMF filter bank trees 29376
two-band QMF banks, anal. 32562
VLSI, HDTV sub-band coding, GQMFs filterbanks 42597

quadrature phase shift keying
1 Gbit/s QPSK opt. microwave transmitter, SOA modulator based 9561
8PSK-TCM modem, develop. and transm. perform. 25156
60 Mb/s QPSK/OQPSK burst digital demodulator for radio appl., CMOS VLSI implement. 17006
adaptive beamformers based on cyclostationary sig. props. 8353
adaptive DFE with MLSE 41385
adaptive equalization for multipath fading environ. 3429
adaptive modulation/TDMA scheme for high capacity pers. multimedia commun. 9043
adaptive phase control, RLS phase estim. 40799

quadrature phase shift keying continued
ADSL, multi-drop in-house distrib. network 16919
AM/QPSK hybrid opt. transm. systs., BER depend. on CTB 9559
bandlimited PSK channels, transmitting power effective 9159
block-modulation codes for unequal error protection 32064
BPSK/QPSK demodulator chip-set for satellite appls. 42561
carrier freq. error estim. of π/4 DQPSK transmitter sig. 8096
carrier leakage, carrier freq. error estim. 8097
cellular telephony, analog/digital interface 33833
CMOS analog/digital interface for cellular telephony 33774
coherent detect., phase ambiguity removal for diversity combining *(Japanese)* 41040
coherent detect. mobile wireless commun., phase ambiguity resolver 33876
compressed-digital-video fiber-based transm. systs., clipping penalty 9558
covert commun. employing wavelet technol. 9164
dielec. waveguide discontinuities, freq. charact., FD-TD method *(Japanese)* 30927
differentially detected π/4-DQPSK syst. perform., AWGN/Rayleigh fading 40568
digital acoustic underwater phone 17357
digital phase recovery in presence of freq. shift 8458
digital radio, spectrum phase interpolation, detect. tech. 9381
DOQPSK, differential demodulation of filtered offset QPSK 17073
DQPSK AM-VSB/compressed-digital-video transm. syst. clipping penalty 9464
DQPSK in fading channels, unified error anal. 8090
DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
DS-CDMA 4-phase mobile radio receiver in non-Gaussian environ. 25442
DS-CDMA cellular syst. perform. anal. 33910
DS-CDMA/DQPSK sig. in indoor radio channel *(Korean)* 17046
DS-SS/QPSK systs. for multipath channel, adaptive equalizer *(Japanese)* 25212
DS-SSMA syst. based on π/4 DQPSK and convolutional coding 25369
DS/CDMA systs., coherent detect. syst., suppressed pilot channel *(Japanese)* 25279
FQPSK modem/radio for PCS/ mobile satellite commun. 25312
hybrid commun./positioning syst., two geostationary satellites 17155
hybrid DS/FH-SSMA mobile radio syst. perform. and capacity anal. 33831
hybrid FH DS-SS indoor commun. systs. 17030
indoor wireless low complexity, low delay speech coding 8193
Japan mobile telephone syst., detect. study 9273
land mobile commun., DFE, interpolation *(Japanese)* 17138
lin. power amp. for cellular telephone, envelope feedback method 12342
low-power quadrature modulator ICs for digital mobile commun. 42214
microcellular personal commun. service F-QPSK perform. 33781
mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
mobile radio channel, multiple sym. differential detect. 33874
mobile radio commun., speech/channel coding 3346
modulation for 12 GHz band integrated services digital broadcasting 9689
multidimensional coding schemes in combined satellite and terrestrial channels 3531
multipath compensation for underwater acoustic commun. 9614
NEC, quasi-microwave band QPSK direct modulator modules *(Japanese)* 37679
NEC's approach, digital cellular commun. *(Japanese)* 17077
nonlin. amps., intermodulation power, data modulation 560
nonlin. satellite channel, optimum receiver for QPSK sigs. 3507
nonredundant error correction DQPSK for aeronautical-satellite channel 33945
opt. homodyne QPSK transm. systs., receiver anal. 34044
optimal trellis-coded 8-PSK and 4-AM modulations for Rayleigh channel 8104
OQPSK in indoor environ., perform. 9301
orthogonal FDM for mobile radio 9214
π/4-DQPSK on microcellular radio channels, diversity/interf. 17101
π/4-shift QPSK baseband modulator for pers. handy phone syst., CMOS mixed-sig. IC 29078
quaternary seqs., low correl. 40608
reduced-state soft decision feedback Viterbi equaliser 3425
shared time-division duplexing for wireless speech commun. 3442
sliding multiple sym. differential detect. of trellis-coded MDPSK *(Korean)* 15725
spectral efficiency in future commun. 17116
spectrally efficient modem for land-mobile radio, perform. 9272
SR 2/8 10000 QPSK digital microwave radio relay syst. 17028
subspace-constrained SCORE algms. 8365
TDMA low-power wireless access syst., coverage/handoff tests 25412
TDMA radio link, analog FM interf. 33841
trellis coded multi-amplit./-PM, noncoherent detect. 24281
underwater acoustic commun. digital receiver 17359
vector modulator, bal. design, C-band 12371
VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938
wavelet transform for modulation class. 32515
GaAs 2-to-4 level convertor IC for SOA modulators 42403
GaAs MESFET lin. power amp., digital mobile commun. appls., 1.9 GHz, 2.7 V supply 42298
Si chip digital end-user mobile commun. syst. 42193

quadrupole lenses *see electron lenses; electrostatic lenses; magnetic lenses*

quadrupole mass analysers and filters *see mass spectrometer accessories*

quadtrees
see also octrees
adaptive finite elements point generation, domain decomp. 5793
binary images, interpolation-based bintrees 41185
block-matching motion estim., quad-tree decomp. 2812
high-resoln. image compression, visually transparent techs. 24503
image coding, quadtree-based motion compensation/classified VQ 2813
image compression, real time, feature visibility criterion 32882
image representation, quadtrees 33010
image segmentation, representation methods 41086
MCP error images, wavelet transform coding, quadtree decomp./ECVQ 41091
mesh refinement scheme, level-control fn. 20634
partial 4-trees, forbidden minor/reliab. 37202
pyramid encoding by LRAAM neural net 16187
rate-distortion optimized motion estim. archit., variable block matching 8570
rem. sens., image segmentation, knowledge based anal. *(German)* 41343

quadtrees continued
surface, discrete, continuous resoln. polygonalization 16353
video seqs., DCT/Quadtree motion compensated coding 16085

qualitative reasoning *see common-sense reasoning*

quality control
see also reliability
3-phase LV induction motors, QA 11055
3D image recogn., optimum estim. and compensation *(Japanese)* 16370
6-sigma fixturing QC program, electronics assembly environ. 37176
296-lead fine pitch thin plastic QFP package, TAB interconnect 5655
advanced semicond. manufacture, conf., Boston, USA (Oct. 1993) 36877
aluminium cold rolling mill, AC drives, control syst. 44490
analytic techs., conf. Mandelieu la Napoule, France (1994) 5494
arc welding stat. proc. monitoring/interp. 11510
assurance syst. R&D overview, Switzerland 161
AT&T Switching Systems Business Unit, TQM 11626
ATE develops. and quest for direction, 1980s-1990s 9792
automated fiber pigtailing technol. 14383
automated visual indust. QC, data visualization and num. assess. of class separability 41221
automated window size determ. for texture defect detect. 41220
automatic birefr. eval. syst. 5697
automatic electronics inspection, built-in quality 166
automatic quality diagnosis for digital image matching 41328
automotive electronics qualification tests, knowledge-based 11432
benchmarking barometers, product/proc. QC appl. 20473
BT customer networks, ensuring quality in design 16534
CDF End Plug Upgrade Project 26187
change point problem, miscellaneous procedures 28572
chest radiography, image quality assess., West Midlands 18491
chip capacitor attach, CFC solvent elimination, qualif. by comparison 38172
cold strip rolling, proc. output optim. studies 11496
commun. energy systs. control, QA 19834
company quality organisation, legal requirements 11836
computed tomography, QC, image quality criteria 18483
computed tomography, QC, Portugal, Denmark 18511
computed tomography practice, Sweden, QC, techs., patient dose 18519
concentricity tolerance meas., man, meas. error source *(German)* 10019
cond. rework tool design paradigm, PCB/SMT manufacture 38146
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
consumer electronics, conf., Hong Kong (1994) 5460
consumer product in-proc. inspection/correction facilities 11838
continuous improvement project mgt. overview 11656
conventional diagnostic radiology, QC, Greece 18502
copper rod mfg., QC syst. upgrade, USA 5677
data item description process, continuous process improvement 37001
dedicated neural network, automated visual QC, massively parallel VLSI-implement. 32949
defense technol. indust. base, preliminary forecast methodology 11644
dependability, risk control 5708
deployment, improve distrib. 165
deployment for product design 164
design-of-expts. techs., SPC of high-purity gas prod. 20397
diagnostic radiographic images, CEC quality criteria, basic concepts 18480
diagnostic radiographic images, quality criteria, 1991 CEC trial 18481
diagnostic radiology, image quality, patient dose 18490
diagnostic radiology, QA, IEC projects/achievements 18479
diagnostic radiology, QC, knowledge based approach 18492
diagnostic radiology, radiation doses reduction, IAEA-CEC research programme 18643
diagnostic radiology equipt., tube current calib., noninvasive method 18497
diagnostic radiology ionisation chambers, spatial/temporal response characts. 18472
diagnostic X-ray units, RTI DIGI-X Plus QA syst. 18508
digital cellular-PSTN interconnection quality assess. 42228
digital radiography, image quality criteria 18484
DIN ISO 9000 quality mgt. std. effectiveness *(German)* 5688
Doppler US waveform index eval., electronic injection phantom 18523
eco-balancing in quality mgt. *(German)* 160
elec. fuses; inspection, fast, using computer vision 21617
elec. utility quality mgt. case study, Cyprus 19148
electron beam collimating grid opt. inspection/QC 157
electronics indust. CAQ, real-time proc. control-based 11839
electronics mfg. technol., conf., Baltimore (1992) 11580
electronics product and proc. design eval. 28403
engineering management, conf., Dayton North, OH, USA (1994) 5503
engng. degree education, quality achievement, UK 20323
engng. education, Quality Improvement Programme 5544
engng. firm, quality mgt. 11638
engng. programs enhancement, QA review proc. 11607
environ. quality eval., reliab. anal. 11889
European power apparatus prequalification rationalisation and database constr. *(German)* 20266
European Safety & Reliab. Conf., Munich (1993) 11584
expt. designs for syst. assess. and improvement, noise factors are correl. 11831
facsimile image quality subjective eval. methods 41742
fatigue test data, Weibull distrib. anal. 5702
federal policies for mfg. technols. 20364
film interface control in integrated IC proc. systs. 20405
finepitch surface-mount solder joints, fracture surface exam. 21644
FMEA, failure modes and effective anal. design tool 28401
fn. deployment, engng. manager implement. considerations 11634
fn. deployment, experiences and appls., USA 11641
food indust., intell. gas odour sens. for QC 18139
fuzzy sensor fusion, concrete mixing plant quality monitoring 25808
fuzzy test syst. charact. 11720
gamma camera QC ES 10204
gamma camera QC ES, knowledge acquisition/representation 18493
hands, myoelec., design modif., quality fn. 4307
HDR microSelectron QA studies, well-type ion chamber 18600
health care quality, telematic syst. 33554
high power lasers, improved mfg. procs. 15194
high-integrity product mfg., SPC appls. 20389
high-power microwave tubes, lab. and online appls. 6479
high-precision opt. gauging of metal rings 18062
higher engng. education, quality improvement syst. 20320
higher engng. education QA, EPC model 20321
higher engng. education quality improvement legislation, Russia 20325

quality control continued
higher engng. education quality programme develop., Netherlands 20324
Hungarian power suppliers, service eval., QA computerisation *(French)* 35562
HV cct. breakers, design for reliab. 44233
HV power supplies, electronic modules develop. 36327
IBM Austin Electronic Card Assembly and Test, quality mgt. 28515
IC defects, proc. induced/elec. act., ident. methodology 20469
IC factory, student run, proc. capability improvement 37055
indust. quality engng. course develop. framework 11606
indust. Raman scatt. opt. materials charactn. facility 5693
inline EMI checker for small elec. appliances 23733
inspecting quality of disks 37160
inspection, economic models for various sampling plans 5691
institutions accreditation, organisational framework 5543
insulation resist. meas. 20410
integrated product develop. proc., founded on TQM principles 36948
integrated video and data commun., dyn. quality and congestion control 24738
Internet, inform. quality *(Hebrew)* 41792
IR detector selection for laser soldering proc./joint qualif. 6417
ISO9000 quality syst. std. implement. in small company 28518
ISO 9000, small businesses, problems 28507
ISO 9000 - the revisions, IEE Colloquium, London (1994) 48
ISO 9000 and small business, IEE Colloquium, London, UK (1995) 11596
ISO 9000 compliance of test/meas. equip., calib. aspects 3710
ISO 9000 global quality std., overview 11833
ISO 9000 QC Standard revision, small business perspective 11829
ISO 9000 quality mgt. std., small firm implement. 28509
ISO 9000 series QA stds. auditing 11828
ISO 9000 stds., rels., CECC and IECQ systs. 5685
ISO 9000/BS5750 quality mgt. implement./controversy 28370
ISO 9001 QC stds., accreditation objectives 28511
ITC test conference, USA (1993) 36853
J-deck VTR chassis for global prod. facilities, develop. *(Japanese)* 25681
JSOW quality tracking syst. for sigma improvement 26835
Konrad radwaste repository QA 11835
laser-induced diffraction signals, digital signal processing 25972
make-to-order products, concurrent engng. effects 20391
mammography, breast doses reduction, recommended actions, Madrid 18667
mammography, mean glandular dose estim. 18662
mammography, QA, patient dosimetry 18647
mammography, QC, exposure params. automatic acquisition 18649
mammography, QC instrum., in-field testing 18496
mammography, QC project, Greece 18510
mammography image quality, UK survey 18489
mammography image quality improvement, recommended actions 18488
mammography QC, breast screening, Bas-Rhin region 18509
MCMs, defect migration, structural test 21700
measures of performance, IEE Colloquium, London (1995) 36881
med. devices QA services 18427
med. X-ray diagnostic units, QA programme, Belgium 18506
metal-matrix composite proc., situ AE monitoring 21000
mfg. indust. product develop. mgt. experiences, Sweden 20377
mfg. proc. real-time empirical Bayes model-based monitoring 20425
mfg. quality mgt., future trends 28372
mfg. service provider selection, OEM considerations 36978
mgt., historical overview *(Croatian)* 5678
mgt., human resource aspects *(German)* 5682
mgt., OR models 28381
mgt. decision making, QC 11636
mgt. work teams, perform. experiences 11639
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
mil. electronics, environ. safe soldering/cleaning 6427
MMI design for syst. quality improvement 11837
mobile X-ray equipt., QA programme 26285
moisture meas. units, proc. control appls. *(German)* 18169
mold proc. params. and tooling variables for high quality plastic packaging 28451
MOV arresters, I-V characts. inspection tests *(Russian)* 43802
multiformat cameras image quality vars. assess. 18499
multimedia appls., distributed, commun. protocols 9077
multimedia enhanced transport service, QoS Architecture 9076
MV/HV power equipt. mfg. QC, supply quality effects *(French)* 36086
Navy air-launched missile maint. 35415
NDT probe for mag. data storage materials 3869
NEMA 7 safety enclosure design, mfg. viewpoint 91
neurophysiology lab., QA study, EMG/EEG 4281
new product engng., QC 37010
noise, diagnostic tool for electron devices 1315
nonmetallic materials/objs., QC apparatus, EM emission charact. 28921
novel X-ray detector charact. for real-time radiographic imaging 21013
nuc. med. imaging devices, inter-lab. comparison 18478
nuc. med. instrums. QC, Argentina 18515
optical instrumentation for process industries, conf., Germany (1994) 5486
ORCHARD II, ASIC CIM syst., scalable and flexible, precise quick scheduler 28433
paediatric radiology, QA evol. 18482
pass. components for aerospace appls., screening methods/data anal. 5684
patient dose meas./reduction, East Anglia (UK) 18670
PCB assembly, QC, fault anal., visual inspection, computer based 943
PCB assembly/soldering defects, inspection/SPC work stations 5696
PCB layout, concurrent design approach 21630
PCB solder joints vision inspection machine *(Italian)* 5687
PCB/SMD quality inspection by computer vision 37165
portal imaging, Philips SRI-100 syst., installation/QA 43328
powder manufacturing and industry trends, conf., Canada (1994) 28226
power subsystem prod., design/test for quality 37626
PQFP VLSI packages, quality function deployment 37076
preventive maint., IR thermography *(German)* 36983
prod. proc. control, quality assess. models 20474
product certification, testing stds. overview 5679
product design for quality mgt. survey, Sweden 37020
product design quality, economic tolerance models 37019
product introduction, vol. mfg. 28371
product reliab. testing, practical considerations 5680
project mgt. quality syst., ISO model-based 11710
public telecomm. network syst. quality and reliab. assurance 16536
QA inspection, multicriteria decision procedures 37154
qualified manufacturers list approach in electronic packaging 28450

quality control continued
- quality mgt., leadership, learning organisation, systs. engng. 11637
- radiation protection, data anal., inform. modelling 18648
- radiation protection, QA, Medical Physics Organisations European Federation 18639
- radiographers, radiation protection education/training 18640
- radiography, QA programme, constancy check level 26297
- radiological departments QC, Florence General Hospital 18507
- radiology/nuc. med., Netherlands Cancer Inst., QC 18514
- radiotherapy, LINAC calib. meas., logged/generated reports 43346
- radiotherapy, portal imaging, exit dosimetry/QC meas. 43408
- rem. visual inspection equipt. for QC 37170
- retro-reflective laser automatic inspection systs. for proc. control 37174
- robotics and vision syst. technols. 37169
- round-annealed AC-motor magnet prod. and meas. technol. *(German)* 10939
- sampling strategy eval. under two criteria 5692
- scanning electron microscope images, automated interp. 5686
- semicond. rectification devices, dyn. params. meas. 30216
- semicond. short run mfg., Kalman filtering proc. control 37166
- semicond. testing, SPC, tester capacity, productivity 104
- service organization QC syst. design, goal prog. 20470
- sig.-to-hum ratios eval., risk recognition *(German)* 159
- site decommissioning, radiological release, QA/control 19441
- six sigma design, worksheets. anal. methodologies 37013
- six sigma product quality design strategy *(German)* 167
- small businesses, QA assess., ISO 9002 requirements 28510
- small elec. motor diagnosis/QA, unsupervised classifier design *(German)* 11834
- small/medium businesses, quality mgt. syst. requirements 28508
- SMT prod., integrated process monitoring/testing 38111
- SMT solder ball connection reliab. model and crit. param. optim. 926
- SOFC component mfg., testing methods, mech. props. 44392
- SPC, nonnormal distribs., capability indices, spec. limits, dpmo and DPU 156
- steel plant noncontact rail dimens. meas., machine vision-based 42931
- stereotactic radiosurgery, linac beams checking, fluoresc. screen imaging 18599
- strategic follow-up failure costs *(German)* 158
- supplier material quality improvement 28514
- surface inspection by opt. triangulation 18069
- Taguchi methods, Goh's paradox anal. 5681
- telecomm. equipt. prod., CAT tool integrat. in factory inform. network 33341
- telecomm. power/earthing syst. connectors, QA 43787
- Texas Instruments SC business proc., product develop. proc. 37015
- time-crit. commun. archits. and quality of service 25031
- total QC on PCB assembly proc. 6433
- TPS engineering and quality assurance 42710
- TQM, role of test 28505
- TQM, stat. software *(Italian)* 37155
- TQM appl., pollution prevention in PCB manufacture 37212
- TQM continuing education, stats. role 74
- TQM implementation and planning, model 36952
- TQM in electronics indust., Hong Kong experience 5698
- TQM programme neg. impacts, case study 11642
- transputer-based visual inspection syst. 28506
- US scanners QC, simple uniformity/penetration phantoms 43237
- vision syst. for AOI of ball bonds/bonding wire profile in ICs 1463
- vision systs. for indust. QC, resoln. aspects 37171
- VLSI IC manufacture, QA methods 11827
- VLSI mfg. line mgt. and troubleshooting, ES 28415
- VLSI mfg. pilot line, SPC implementation 37164
- VLSI pilot line, proc. improvement mgt. 36958
- VlSI reliab. challenges, Japanese vs American industries 22527
- Web site, QC issues 8897
- welded pipe prod., CAQ syst., std. software *(German)* 5683
- WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
- wire bond test tech. 6446
- X ray units database, Lower Saxony, radiation protection, QC 18500
- X-ray exams., Estonia hospitals, QC, patient dose 18503
- X-ray inspection, technol. trends 28517
- X-ray tube filtration, simple test 26253
- GaAs MMIC mfg., SPC use/misuse 38017
- SF$_6$ elec. equipt. insulation, quality standardisation 5142
- Si microstrip detectors, charactn./QC using IR diode laser 26164
- perform. meas., SMT/PCB manufacture 37159

quality factor *see Q-factor*

quantisation *see quantisation (signal)*

quantisation (signal)
- *see also vector quantisation*
- 1-bit beamforming proc., clipped data stream insertion 8349
- 2-level quantised Gaussian signals, digital filtering 40783
- 8 kbit/s ACELP speech coding, CCITT standardization candidate 33691
- absol. moment block truncation coding, props. 24114
- adaptive compandor design, boundary adaptation rule 42176
- adaptive image coding based on visual activity level 24499
- adaptive subregion variable shape block motion compensated prediction 24500
- ADPCM, destabilization effects of adaptive quantization 24151
- analog sens. sig. quantisation, effective no. of bits *(German)* 17703
- analog VLSI, fault-tolerant dyn. multilevel storage 6253
- analytic research, error margin and quantization interval constraint 42750
- APC, transform domain quantization 15774
- asymmetrical filter banks, subband image coding 33132
- bandlimited sources coding, sampling/dithered quantization, perform. 24092
- CDMA overlay systs., adaptive interf. suppression 17037
- class D output stages lin. for high-perform. audio power amps. 3697
- CMAC, adaptive resoln. and appl., nonlin. sig. proc. *(Japanese)* 24336
- color image proc., luminance quantization error effects 2734
- compact disc, variable-bit-rate buried-data channel 34290
- current domain regenerative comparators 3766
- DCT coeffs., adaptive quantization, subjective redundancy removal 8613
- digital audio, wide-band and wide-dyn.-range recording and reprod. 34291
- digital cellular-PSTN interconnection quality assess. 42228
- digital demodulators using fixed point FIR interpolators, BER perform. 32037
- digital filters, multiple poles, perturb. effects 29393
- digital halftoning, 2-D carriers, noninteger period 41195
- digital VCR coding scheme for HDTV recording 9753

quantisation (signal) continued
- digitizer error extraction in nonlin. test 9837
- direct digital synthesizers, error feedback loops for lin. 563
- direct form block floating digital filters, asymptotic behaviour 32796
- distributed detect., gradient algm. for quantization levels 24328
- dither signal effects on the resolution of nonlinear quantizers 24181
- dithered quantizers, and without feedback 16000
- DMT-based ADSL systs., clipping effect anal. 9088
- double-loop sigma-delta converter with sinusoidal input, quantization noise spectrum 710
- DS-CDMA mobile syst., receiver archits. for down-link 33864
- DS-SS receiver, digital matched filters, quantization effects 25259
- dual bitstream continuous calib. CMOS D/A converter, 110 dB dyn. range, 3.4V 692
- error model, effective resolution estimation 24234
- fingerprint image compression, wavelet scalar quantization vs. JPEG 41194
- finite wordlength digital filters/controllers, optim. realisations 37883
- FIR filters, powers of two coeffs. design 32789
- FIR stat. optimum filter bank design 24261
- fixed-point digital filters, effects of overflow and quantization 2512
- flexibly digitized speech sounds compressibility on naturally sounding speech synthesis 40739
- frame integrat. perform. improvement in unknown sens. jitter 16108
- globally optimal scalar quantiser, complexity reduction 32528
- Grand Alliance syst. for US HDTV 25665
- GSM half rate speech channel, codec candidate 33685
- harmonic quantisation noise in oversampled ADC 25754
- hierarchical multiprocessor archit. for video coding 33698
- high speed adaptive equalizers, complexity reduction 33768
- high-speed measuring syst. for testing mixed-sig.-LSI 767
- human face images, quantization level, neural net 41373
- hyperspectral image compression, 3-D DCT and entropy-constrained trellis quantization 16266
- hyperspectral imagery compression, 3D DCT and hybrid DPCM/DCT 24384
- IIR real coeff. digital filters realizations sensitivity 32794
- image compression, modeling of DCT and subband data 24593
- image encoding, edge field, Laplacian operator 33002
- image proc., inform. theoretic approach, space-freq. localization 32838
- inverse halftoning/kernel estim. for error diffusion 33133
- JPEG image data compression, fuzzy logic algm. 41076
- laser rangefinder, error sources 2156
- lattice quantization noise 40882
- LHC calorimetry, digital front-end and readout microsystem 26245
- lin. phase freq. sampling FIR filters, error spectrum shaping 41044
- line extraction from image, variable Hough transform *(Japanese)* 16300
- line parameterization conditions 41067
- line spectrum pairs, scalar quantisation algm. 40740
- LMS-Newton adaptive filtering algm., variable convergence factor 40806
- low bit-rate coded video transm., radio links 8633
- low-bit-rate speech coding, 2D transform 32252
- mag. disk, analog/digital PRML read channel equalizers 30737
- mapping approach, rate-distortion computation/anal. 24044
- MLSE, dyn. threshold detect. 40881
- moving picture coding syst., MPEG2 based, quantisation control 16227
- MPEG variable bit-rate video on LANs, rate control 16646
- MSE, periodic sigs. oversampled quantization, lower bound 40878
- multichannel pulse-height analyzer, computer controlled, calib. 3745
- multidimensional high-order moments estim., amplit. quantis. 2534
- multidimensional M-band filter bank, quantization compensation 33150
- multidimensional sigs., optimum approx., quantized sample values 24347
- multirate systs., aliasing effects and non-stationary quantization noise 32720
- multisensor random sig. detect., quantization 24285
- multispectral imagery, wavelet/KLT data compression 8270
- neural network based on stochastic computation *(Korean)* 21477
- neuron chip, quantizer neuron model/neuroprocessor 12675
- noisy quantized random obs. coeff. AR time-series, estim. 40869
- nonlin. and quantisation distortion reduction, direct interpolation 21387
- optimum subband filter bank design/compensation 8279
- oversampled bandpass sigs., inphase/quadrature components extraction 2517
- oversampling A/D converters, delta-sigma modulator structures 25758
- oversampling CMOS ADC, 100 kHz bandwidth 697
- packet-based mobile radio, digital MSK receiver 3435
- piecewise-planar representation of images, bit allocation 41177
- PRML mag. read channels, high speed, CMOS analog front-end archits. 30727
- progressive perceptually transparent coder for high quality images 24498
- QR-RLS algm., stabil. anal., finite-precision arith. 8325
- radar phase noise meas., digital DP 34156
- radar spatial-Doppler coherent proc. channel, quantization noise estim. 34121
- range image segmentation, SIMD algm. 24601
- Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
- Reading Univ. electronic engng. course, DSP 36917
- RIQ-DPCM, audio sigs. compression 15775
- robust quantization of LPC params., vector and scalar codebook 32206
- SAR image reconstruction, complex no. theoretic transform *(Japanese)* 9618
- second directional derivative edge detector, sampling/quantization/noise effects 33122
- SIMD DSP for real-time MPEG video encoding/decoding 29268
- single-stage single-bit oversampling A/D converter, local feedback loops 711
- soft-decision seq. decoders perform., estim. 8175
- speech coding, neural networks in adaptive DPCM 15717
- speech coding, spectral envelope, high-order allpole modelling 32337
- speech line spectrum pair params., optimal transform coding based on spectral-weighted error criterion 2405
- speech spectral inform., segmental quantization 32334
- split gate trackers, tapped delay errors 26827
- stat. inverse DCT for image compression 16193
- subband coding and noise reduction in multiresolution anal. frames 32509
- T1 carrier syst. companding noise statistics 41388
- thermistor anemometer for low flow rate meas. 4012
- time envelope vocoder, natural sounding speech coding algm. 40748
- transform trellis coded quantization of speech 32253
- trellis-coded quantization for noisy channels 24032
- ultrasound phased-array controller for hyperthermia appls. 26316
- uncooled thermal imagers, next-generation, quantiser requirements 3890
- undersampling of small bandwidth sigs., sampling freq. determ. *(German)* 16055

quantisation (signal) continued
- video coding, entropy-constrained trellis coded quantization 24507
- video compression by coeff. compensation 16194
- video decoding algm. mapping, mixed sig. IC 8553
- visual commun. channels, inform. lossless transm. 32936
- voltage division multiplexing in commun./computer engng. 24746
- wavelet transform image coding, successive approx. quantization/generalized decoding 8604
- wideband audio sigs. coding, transform coded excitation 32257

quantised Hall effect *see quantum Hall effect*

quantitative analysis *see chemical analysis*

quantum beat spectra
- (GaIn)As/Ga(AsP) MQW, excitonic binding energies 15080

quantum boxes, semiconductor *see semiconductor quantum dots*

quantum chemistry
- principia mathematica for electronics/chem. analogies 21095
- Si(001), O_2 adsorpt./oxid., dimer reconstruction 6654

quantum confined Stark effect
- 1.55 μm semicond. laser source, gigabit/second integrated electroabsorptive modulator 1741
- Franz-Keldysh electroabsorption waveguide modulator perform. anal. 30989
- MQW electroabsorption modulator, transm. performs. and chirp param. 1740
- superlattice, -1 Stark ladder transit., electro-opt. modulator appls. 14521
- variable-strain quantum well heterostruct., design and investig. 30820
- vert. cavity surface emitting DBR lasers, voltage controlled 7622
- AlGaAs/GaAs, three-coupled-QW, Stark shift, tunable far-IR photodetectors 42803
- GaAs/AlAs quantum heterostruct., local space charge field 30816
- GaAs/AlGaAs multiquantum well vert. cavity tunable photodetector 17800
- GaAs-InAlAs tensile-strained quantum wells, polariz.-independent opt. modulation *(Japanese)* 22944
- GaInAsP/InP MQW QCSE tuning element for surface emitting laser 15014
- GaInP/AlGaInP SQW, bias and temp.-depend. photocurrent spectrosc. 38338
- (In,Ga)As/(In,Al)As, superlattice-equiv. MQW, Stark shifts 38330
- InGaAs/AlAs MQW p-i-n diodes, room-temp. charactn. 13592
- InGaAs/GaAs quantum wells on GaAs(111)A, MBE, photolum. 12125
- InGaAs/GaAs strained [111]-oriented MQW, carrier and screening dyn. 29905
- InGaAs/InP short-period superlattice, wavefunction coherence length 1739
- InGaAs-AlAs strained p-i-n modulator, ultrafast recovery time 22939
- InGaAsP/InP multi-quantum-well directional coupler, low-switching-voltage operation 30925
- InP based MQW phase modulators *(Chinese)* 7480
- InP monolithically integrated Wannier Stark modulator/strained MQW DFB 1.55-μm laser 22940
- ZnSe/ZnCdSe/ZnSe MQW device, opt. modulation and switching 25539

quantum counters *see photon counting*

quantum dots, semiconductor *see semiconductor quantum dots*

quantum electronics *see quantum optics*

quantum generators (optical) *see lasers*

quantum groups *see group theory*

quantum Hall effect
- 2DEG, quantum Hall device, photoresist. imaging 1079
- AC meas. of quantized Hall resist. 34318
- DVM for quantized Hall resist. std. 3721
- electron waveguides, transport props., Anderson localization directionality 22006
- low-dimensional electronic systems, Mauterndorf, Austria (1992) 11547
- AlGaAs/GaAs heterostruct., high-field magnetoresist., non-ohmic behavior 29879
- AlGaAs/GaAs heterostruct., percolation metal-insulator transits. in 2D electron syst. 6549
- $Al_{0.22}Ga_{0.78}As/In_{0.15}Ga_{0.85}As/GaAs$ one-side-modulation-doped QW, electronic subband studies 21996
- GaAs heterojunction, 2D electron Wigner cryst., electron diffr., photolum. 21968
- $GaAs/Al_xGa1_{-x}As$ heterostruct., integral QHE 1108
- GaAs/AlGaAs multiple bridge devices in quantizing mag. fields, pot. distrib. 38291
- GaAs/AlGaAs, narrow quantum Hall conductors, anom. magnetotransport 13129
- InAlAs/InGaAs QW struct. quantum Hall device *(Japanese)* 25791
- InAlAs/InGaAs modulation doped structs., MOCVD growth, breakdown volt. 411
- InAs/AlSb quantum wells, QHE 38366
- InAs-GaSb QWs, magnetotransport meas., hydrostatic press. appl. 38334
- InGaAs/InP at high mag. fields and low temps., quantum magnetotransport 38286
- Si MOSFET, 2DEG, cyclotron phonon emission, quantum oscill. 38887
- $Si/Si_{1-x}Ge_x/Si$ heterostruct., 2D hole gases, magnetotransport and photolumin. 21993
- Si/SiGe modulation-doped heterostruct., extremely high electron mobility 29920

quantum interference devices
- *see also electron waveguides; hot electron transistors; quantum interference phenomena; quantum point contacts; resonant tunnelling devices; single electron transistors; SQUIDs; tunnel diodes*
- absorbing boundary conditions for quantum transport eqns. 13824
- Coulomb blockade-based tunneling arrays, computation 22498
- fab., X-ray nanolithography, gap control 38758
- field-coupled quantum dot resistors, dissipation 38940
- heterostruct. quantum devices, wave fn. redislocation based 30386
- mesoscopic conductors, conductance flucts., low temps. 1109
- metallic microstruct., fab., retarding-field focused ion beams 13485
- MOS transistors, quantum effects 30288
- nanoelectronic computing technols., Japanese research 6809
- nanostructure fab., spontaneous form. mechanisms 22085
- neurocomputer, quantum device 788
- Nyquist noise in transit. from mesoscopic, macroscopic transport 22497
- physics and chem. of semicon. interfaces, conf., New York (1994) 20208
- quantum effect devices, finite capture time, num. simul. 13821
- quantum effect devices, IC technol., MBE growth 13820
- quantum interconnections, ballistic electrons and cellular archit. 13823
- quantum wave bandstop microwave filters 716
- reson. tunneling, model Hamiltonian, modern electronic devices 1456
- RLC miniature elec. filters for single electron devices 37829

quantum interference devices continued
- Si mesoscopic struct., α particle ionisation, Monte Carlo study 1457
- single electron device develop. and technol. *(Chinese)* 22499
- single-electron logic ccts., quasi-CMOS inverter simul. 37731
- surface gate struct., sharp pot. barriers in 2D electron systs. 1090
- switching nano-device based on Rabi oscills. 6565
- waveguide struct. and devices 6810
- AlGaAs/GaAs, tunable ballistic electron cavity, weak localisation 30385
- $CoSi_2/CaF_2$ reson. tunneling HET, quantum interf. 13822
- GaAs multiple-tunnel jn., single-electron memory/logic ccts. 38942
- GaAs/AlGaAs rings, quasiballistic interferometer, electron wave interf. 22502
- InAlAs/InGaAs QW struct. quantum Hall device *(Japanese)* 25791
- InGaAs heterostruct., nanostructure fab., FIB technol. 13312
- Si MOSFET, quasi-1D and Coulomb blockade devices 1401
- Si deep sub-μm MOSFETs under cryogenic conditions, quantum interf. flucts. 1389
- Si/SiGe heterostruct., ballistic cond., Aharonov-Bohm oscills. 13819

quantum interference devices, superconducting *see SQUIDs*

quantum interference phenomena
- *see also mesoscopic systems; quantum interference devices; quantum point contacts*
- ballistic cond. in 1D/2D semicond. nanostructs. 1121
- cubic cryst. quantum wells, cond., weak localization 1102
- δ-type pot. struct., electron wave propag., equiv. ccts. *(Japanese)* 22503
- double-barrier reson.-tunneling struct., quantum magnetotransport of electrons 21946
- double-barrier struct., reson. tunneling, scatt. effects 22017
- few-electron quantum dots, transport excitation spectrosc. 22002
- interferometric quantum entanglement, quantum cryptography 15793
- multi-barrier graded quantum well semicond. heterostruct., reson. tunneling 6556
- normal metal-supercond. interfaces, electron tunneling 22729
- normal/supercond./normal SET devices, Andreev refl., EM environ. 22750
- physics and chem. of semicon. interfaces, conf., New York (1994) 20208
- quantum dot, Coulomb blockade, X-ray nanolithography 13177
- quasi-1D scatt., reson. line shapes 21986
- role of contacts in mesoscopic devices 1144
- semicond. lasers, squeezing bandwidth, Coulomb blockade effects 31373
- semicond. nanostructures, ballistic cond., electronic interf. 21987
- single-electron transistor, Coulomb blockade model *(Chinese)* 1450
- small-capacitance tunnel jn., escape rate, barrier traversal time effects 29930
- solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
- split-gate wires, small mesa struct. for Coulomb blockade effects obs. 1141
- supercond. single electron transistor in high impedance environ. 22748
- transport props., Anderson localization directionality 22006
- waveguide struct. and devices 6810
- AlGaAs, double quantum dot, stochastic Coulomb blockade 29929
- AlGaAs/GaAs superlattices, THz Bloch oscills. 1112
- AlGaAs/GaAs, tunable ballistic electron cavity, weak localisation 30385
- CdSe, ultrafast exciton dyn. in direct gap semicond. 1032
- $CdSe_xS_{1-x}$, ultrafast exciton dyn. in direct gap semicond. 1032
- GaAs quantum dot with three contacts, oscills. correl. 29925
- $GaAs/Al_xGa_{1-x}As$ rings, tunneling, edge states 21985
- GaAs/AlAs double-barrier heterostruct., reson.-tunneling peak fine struct. 38285
- GaAs/AlAs double-barrier heterostruct., tunnel current oscills. 1147
- GaAs/AlGaAs, artificial lateral superlattice, transport props. 29934
- GaAs/AlGaAs phase-coherent 2D superlattice, quantum interf. obs. 21982
- GaAs/AlGaAs quantum wells, ultrafast exciton dyn. in direct gap semicond. 1032
- GaAs/AlGaAs quantum wires, electron interf., correl. field anal. 38356
- GaAs/AlGaAs rings, quasiballistic interferometer, electron wave interf. 22502
- GaAs/AlGaAs, two quantum dots in series, Coulomb blockade 29933
- InAs-coupled Josephson jns., crit. current, mesoscopic fluct. 22732
- $In_{0.77}Ga_{0.23}As/InP$ quasi-1D rings, Aharonov-Bohm effect 29880
- InGaAsP-InP strained quantum well laser struct., excess carrier spillover, photolumin. obs. 31380
- a-In_2O_3, variable range hopping region, magnetoresist. 6536
- In_2O_{3-x} films, spin and quantum interf. effects in hopping cond. 38263
- Si MOSFET, diffusive transport, resist. flucts. 1430
- Si quantum dot, single electrons, thermally enhanced co-tunneling 38355
- Si/SiGe heterostruct., ballistic cond., Aharonov-Bohm oscills. 13819
- $Si-SiO_2$ accumulated MOS thin dielec. struct., quantum effects 13235

quantum optics
- *see also nonlinear optics; optical chaos; optical squeezing; photon counting*
- (2+1)-dimens. fund. spatial dark soliton 31544
- 10 km opt. fiber quantum key distrib. 24110
- amplif. under std. quantum noise limit 15073
- bad-cavity laser, quantum-limited linewidth 15018
- cell-oriented holograms, adaptive quantisation 31635
- classical inform. reversible extraction, quantum entropy reduction 15692
- coherent opt. POLSK receivers, LO intens. noise and unmatched quantum efficiencies 25491
- confined light modulators 7400
- cryptography, Heisenberg's uncertainty principle 24109
- cryptography, photon pairs 15792
- cryptography, polariz. feedback 15791
- cryptography, polarized photons in opt. fibres 17342
- dielec. planar superlattices, quantum dimens. phenom. 39437
- dual-core fibres, soliton interacts. 14387
- feedback laser resonator, quantum nondemolition tracking 23325
- fiber-optics commun. channel, expt. realization 7275
- freq. nondegenerate parametric amps., asymmetric losses, output quantum correl. 40074
- freq. ref., two-beam cell/multibeam interferometer, self-focusing 23430
- inform. extraction from quantum states 15694
- inform. proc. and representation in quantum computers 14562
- init. overlapping soliton interact. 7798
- interferometric quantum entanglement, quantum cryptography 15793
- interferometry-based quantum random-no. generation and key sharing 17343
- IQEC quantum electronics, conf., Anaheim, CA, USA (1994) 11551
- micromaser, at. cluster pumping, thresholds fine struct. 23074
- micromaser intracavity field, random/regular act. atom injection, quantum states 1842
- multijunction single-mode laser cavity, photon-no. amplif. 23324

quantum optics continued
nonadiabatic Berry's phase for light propag. in opt. fiber 14410
nonlin. polar crysts., photonic superguiding state 15125
nonlin. waveguides, coupled soliton states dyn. 31611
nonlinear optics, conf., Port Barcares, France (1992) 11537
one-out-of-two quantum oblivious transfer cryptography 15795
oracle quantum computing, complexity 14563
oscillators, ang. momentum transfer 31133
parametrically down-converted photons, two-photon phase coherence probing 2082
photocurrent shot noise suppression in feedback loop 17777
quantum eavesdropping inform. gain limits 15796
quantum key distrib. channel based on opt. fibre 15794
reson. two-photon three-level atom syst., echoes 15040
Schrodinger-cat state opt. directional coupler 40412
secure message transm., quantum cryptography 24064
self PM with finite response time, quantum theory 31898
sexithiophene/derivative-based two-layer LEDs 23035
single photon in opt. interferometer, time-delayed self-interf. 31609
three-level medium, reson. radiation propag., nontrivial induced lenses 31610
twin-core doped opt. fiber, sub-Poissonian/super-Poissonian photon stats. 14401
two-state two-particle quantum systs., inform. transfer 15693
type-II opt. parametric down-conversion, two-photon entanglement 15027
ultrashort laser pulses, Faraday rot. 31608
Wiener/Poisson procs. functionals, coherent-state representations 5742
AlGaAs/GaAs VCSEL, internal quantum efficiency and loss meas. 39775
Er laser systs., 3 μm emission, pump quantum efficiency 31277

quantum point contacts
far-IR radiation-induced thermopower 29923
finite-pot. and gate-induced electron waveguides, discontinuities 1126
quantum dot, Coulomb blockade, X-ray nanolithography 13177
AlGaAs quantum waveguides, neg. differential cond. 6567
AlGaAs/GaAs, quantum point contact-electron waveguide struct., 1D states 13818
InAs/GaSb struct., 1D transport and gating 1101
Nb-NbN SQUID, thin-film quantum point contacts 22728
Ti/Au/$Al_{0.3}Ga_{0.7}As$/GaAs, quantum point contacts, cond. quantization broadening 22047

quantum waveguide devices *see quantum interference devices*

quantum well lasers
1.55 μm DFB lasers with strained-layer MQW act. grating, transfer-matrix dyn. model 1993
1.5 μm MQW DFB VUG laser opt. harmonic converter for MM wave radio appls. 3558
2.5 Gbit/s DFB LD/modules for long-haul opt. transm. 34002
2.5-Gbit/s CPFSK transm. expt., AMI-encoded data 9578
2D self-consistent simul. 39790
2D simul., laser design 39792
10 Gbit/s WDM 1310-nm opt. transm., 63.5-km std. single-mode fiber, opt. preamplifiers 17349
670 nm low-threshold-current multiquantum-well LD 7620
1300 nm gain-clamped MQW laser amps., reduced IMD 34006
1300 nm MQW laser amplifer for opt. commun. 9456
1550 nm QW lasers, temp. depend. loss and overflow effects 7631
amplit.-squeezed light, wavelength tuning 31371
asymmetric gain-levered quantum-well lasers, enhanced wavelength tunability 39877
bistable semicond. lasers, theoretical model, highspeed operation 2000
book, bistabilities and nonlinearities in laser diodes 58
broad area lasers, 980 nm, bandgap widened extended slab waveguides, far-field behaviour 30980
carrier energy relax./hot phonon effects 1942
carrier thermalization, ensemble Monte Carlo simul. 7654
CATV 151-channel AM-FDM transm., 1.3 μm SL-MQW-DFB laser, high opt. output power 25542
charactn. of semicond. device struct. by modulation spectrosc. 1435
colliding-pulse mode-locked QW laser dyn. response simul. 23236
colliding-pulse-modelocked quantum well laser, 15.8 Gbit/s syst. transm. expt. 25502
corrugated quantum well struct., laser appls. 31344
DBF lasers, gain compression factor determ. by harmonic anal. 23189
deep pot. well strained quantum well laser freq. response 7637
DFB laser-electroabsorption modulator monolithic integrat. 1831
DFB laser-fibre grating dispersion compensator, transm. dist. extension 39344
DFB LD/module for CATV systs. 34261
DFB MQW laser, carrier and radiation confine. 14931
DFB MQW lasers, gain-coupled, wavelength filtering 39864
DFB QW semicond. laser amplit. squeezing 1965
DFB rib waveguide LD design by spectral index method 39876
diode laser logic, smart pixels for opt. sig. proc. 7496
diode lasers, spontaneous emission, nonlin. opt. coupling and noise 31370
external cavity LD, freq.-shifted feedback 39828
FEL, biased double-well heterostruct. 7695
$Ga_{1-x}In_xSb$/InAs superlattice diode laser, demons., 3.5 μm 23230
gain-coupled MQW DFB lasers, 1.55 μm, Ti surface Bragg grating 23274
GRINSCH lasers, carrier/radiation confinement 39771
GRINSCH QW laser struct., bandgap tuning, ion implant. 13166
GRINSCH strained MQW LD, 1.5 μm, low threshold current, high output power 23269
GRINSCH VCSEL, graded heterointerfaces, modulation characts., cct. modelling 39780
heterostruct. QW bistable laser oscillators 7655
high freq. modulation, dual modal gain/pumping current control 7648
high power SW lasers, waveguiding 39770
high speed, intens. modulation, carrier transport, hot carriers 14865
high-power ps pulse gen./meas. from Q-switched QW lasers 14906
II-VI semicond. microstruct., optoelectronic appls. 14577
InGaAs/InGaAsP MQW lasers long wavelength, thermal annealing effects 14869
injection laser with a periodic confining layer, modeling 14969
injection-locked directly modulated lasers in multigigabit-per-second std.-fiber transm. 9516
injection-locked quantum-well laser, RT amplit.-squeezed light 23256
integrated DBR laser/modulator transmitter, 5.0 Gbit/s transm., 192 km 14878
integrated laser/modulator, long-dist. transm., 2.5 Gbit/s 14880
IR laser based on stimulated reson. tunneling of electrons 14841

quantum well lasers continued
LD technol., conf., Los Angeles, CA, USA (Jan. 1994) 36891
low threshold half-wave vert.-cavity QW lasers 1983
low-threshold 1.3 μm MQW LDs, high-speed modulation 31335
microdisk lasers, double-disk struct., output coupling 14886
modulation charact., appls. *(German)* 7615
monolithic integrat. of reson. tunneling diode and quantum well laser 14670
monolithic quantum-well lasers, inhomog. biased, MM freq. reson. modulation 31324
MQW corner reflector p-doped lasers, microwave charactn., monolithic integrat. 14966
MQW DBR laser with electro-opt. tuning sects., high FM bandwidth 7678
MQW DFB laser with 25 GHz modulation bandwidth, packaged, 1.55 μm 3584
MQW DFB lasers, electroabsorption modulators, monolithic integrat. 7384
MQW DFB lasers, external modulation, freq. chirp simul. 31348
MQW DFB tunable laser, enhanced plasma effect 31350
MQW gain-coupled DFB lasers, wide temp.-range singlemode operation 1938
MQW laser amp. module, 27 dB gain unidirectional 1300 nm polariz. insensitive 14860
MQW lasers, freq. chirp, quantum carrier/escape time effects 39766
MQW lasers, SiO_2 waveguides, pass. alignment 31117
MQW lasers, zero net strain struct., cryst. quality and laser charact. 23245
MQW LD mode-locking proc., transient gratings *(Chinese)* 39795
MQW opt. amps., pump probe meas. and carrier overflow effects anal. 14954
MQW polarisation insensitive 1300 nm laser amplifiers 14870
MQW ridge waveguide lasers for tunable external-cavity sources 23234
MQW semicond. lasers, nonuniform pumping 1961
MQW struct., free carrier effect on refr. index change 14956
MQW three-branch Y3-lasers, tunable, WDM opt. networks 31401
MQW VSCEL, gain-guided, transverse mode num. anal. 31469
MQW-DFB-LD modules for SCM fiber-optic transm. *(Japanese)* 42468
MQW-semicond. opt. amps., mode-locked ring lasers 31417
multielectrode lasers, microwave small-sig. equiv. cct. model 14849
multifrequency waveguide grating MQW laser fab. by selective area epitaxy 7627
nonlin. refr., quantum well no. effects 39819
optoelectronic device fab. by CBE 37417
optoelectronic device simul., conf., Los Angeles, CA, USA, Jan., 1994 36838
optoelectronic PLL freq. stabilise quantum well laser 7656
partially-corrugated-waveguide LD, low modulation distortion for SCM telecom. appls. 17194
photonic time/space switching semicond. laser amps. 3586
plasma-heating induced intens.-depend. gain 23263
quantum cascade laser, perform. charact., temp. depend. 14839
ridge-waveguide MQW DFB lasers, static and dyn. simul. 23193
SCH QW lasers, anal. of carrier transport and buildup 14856
SDH/SONET undersea fiber-optic systs. 17237
SEL for multimode data link appls. 23280
semicond. amp., polariz. insensitive, gain-saturation, wavelength conversion 14881
Si V-grooved waferboard, strained MQW semicond.-laser array coupling, fiber array 7491
squeezing bandwidth, Coulomb blockade effects 31373
SQW LD guided-wave devices, heterodyne nondegenerate pump-probe meas. 25990
SQW native-oxide defined vert.-cavity lasers, mode stabil. 1967
STM 16 syst. operation, 1.55 μm DFB laser module 34072
strained layer QW semicond. lasers for pumping Er^{3+}-doped opt. fiber amps. *(Japanese)* 3566
strained MQW lasers, photo-detect., polariz. depend. 25841
strained MQW LDs, 1.3 μm, 1 Gbit/s bias-free operation 39868
travelling-wave MQW semicond. laser amp. switches, dyn. perform. 9476
tunneling injection quantum well laser, cold device, large modulation bandwidth 7645
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
ultrafast gain dyn., gain nonlin. 31339
VCSEL, cavities microfabrication 39783
VCSEL, integrated opt. beam router, opt. interconnection 23305
vert. cavity laser arrays on patterned substr., wavelength shift 31409
vert. cavity LD, tunable, fibre coupling, threshold currents 39782
vert.-cavity lasers fabricated by selective oxid., low threshold voltage 1989
vis. high-power semicond. lasers 7607
AlAs based microcavity laser, mode behaviour, lasing charact. 39776
AlGaAs asymmetric QWs, mid-IR difference-freq. generation 15108
AlGaAs diode lasers fabricated, pulsed anodic oxides 31362
AlGaAs quantum well LD, mirror temp., photothermal deflection method 2033
$Al_xGa_{1-x}As$ depressed cladding semicond. waveguides and lasers, modal props. 14468
AlGaAs/GaAs VCSEL, linewidth/α-factor 14936
AlGaAs/GaAs, deep-oxide PBH LD 14889
AlGaAs/GaAs, photopumped vert. cavity QW, hot carrier recomb. 23264
AlGaAs/GaAs quantum well DBR laser, femtosecond upconversion, time-resolved study 31374
AlGaAs/GaAs/InGaAs QW lasers, threshold current dens., disloc. effects 14895
AlGaAs/GaAs/InGaAs struct. on nonplanar substrs., MOCVD, doping, laser appls. 20960
AlGaAs/InGaAs/GaAs QW lasers, perform., MOVPE growth interruption effect 23248
AlGaAs-AlAs DBR QW microcavity, fast coherent emission 31376
AlGaAs-GaAs-AlGaAs HEMT/quantum well laser monolithic integrat., MBE/technol. 1945
AlGaAs-GaAsP 770-nm tensile-strained QW LD 23221
AlGaInAs coaxial laser module, 1.3 μm for local-loop appls. 7681
AlGaInAs/GaInAs, tunable lasers by masked implementation enhanced intermixing 14872
AlGaInAs/InP 1.5 μm MQW DFB LD exceeding 20 GHz bandwidth, MBE/MOCVD 23229
AlGaInAs/InP strained QW high-perform. 1.3 μm lasers, OMCVD 23241
AlGaInAs-InP 1.3 μm laser design 23282
AlGaInAs-InP strained layer QW lasers in FITL 7684
AlGaInP LD, ageing simul., reliab. 7608
AlGaInP LD array at 640 nm, high-power CW operation 23219
AlGaInP LD arrays, high-power CW 690 nm operation 31343
AlGaInP QW 630-nm LD's, strain-induced polariz. mode 23220
AlGaInP QW partial top dielec. stack DFB red VCSEL arrays 14850
AlGaInP, SQW LD, OMVPE, props. 7609

quantum well lasers continued
AlGaInP dual-polariz. SQW LD struct. 14951
AlGaInP/GaInAsP MQW vis. LD, beam charact., reliab. 31351
AlGaInP/GaInP strained quantum wells, opt. gain 31377
AlInAs/GaInAs, quantum cascade laser, mid-IR source 14892
CdSe quantum wells, single-shot lasing, microscopic studies 23299
CdSe-ZnSe quantum well lasers, photopumping, spectral/spatial resoln. 39753
Er doped fiber amps., high-power 1.48 μm LD 31213
Er-doped fiber amps., MQW-LD pumping module *(Japanese)* 42464
Er^{3+}-doped opt. fiber amp., control ccts. *(Japanese)* 39711
GaAs QW lasers, thermally controlled lateral beam shift and beam steering 14968
GaAs gain-guided SEL, CW spectral width 39767
GaAs low-dimens. struct., cleaved edge overgrowth, lasing props. 1925
GaAs microcavity, reson. excited exciton, coherent light emission 31375
GaAs quantum-well laser below-threshold near-field profile broadening, photon recycling 31390
GaAs/AlGaAs, MBE, optoelectronics appl. 5850
GaAs/AlGaAs SQW laser struct., carrier lifetime, absorpt. recovery time 14918
GaAs/AlGaAs photonic ICs, plasma induced QW layer intermixing 30971
GaAs/AlGaAs quantum wire lasers fabricated by cleaved edge overgrowth 1964
GaAs/AlGaAs, quantum-well heterolasers, spectral charact. 23228
GaAs/AlGaAs:C(Zn) lasers, bandgap-tuned, C(Zn) doping 1944
GaAs/GaAlAs high-power 2D quantum wire laser arrays 14943
GaAs/InGaAs/AlGaAs strained quantum well lasers, MBE, max. output power 39794
GaAs-$\mathrm{Al_xGa_{1-x}As}$ quantum well lasers, bistable power switching 39863
GaAs-AlGaAs 0.85-μm VCSELs, reliab. studies 7677
GaAs-AlGaAs VCSEL, low-temp. charctn. 7653
GaAs-AlGaAs diode lasers, threshold current, carrier charge imbalance effect 14888
GaAs-AlGaAs monolithic optoelectronic switching network 42130
GaInAs/GaAs micro-arc ring semicond. laser, design 39866
GaInAs/GaAs quantum wire laser, gain coupling, RIE 31385
GaInAs/GaAs/GaInP laser struct., CBE growth, organometallic precursors 349
GaInAs/GaAs/GaInP single QW lasers, low threshold current 14874
GaInAs/GaInAsP/GaInP LD, barrier comp., props. 31345
GaInAs/InP quantum-wire lasers, fab. procs. 39811
GaInAs-GaAs micro-arc-ring lasers, design/lasing operation 1935
GaInAs-GaInP long wavelength lasers, strain compensated barriers, electron leakage reduction 39822
GaInAs-InP tensile strained quantum wire laser fab. 39797
GaInAsP MQW 1480-nm pump LD, life tests 9526
GaInAsP quantum-well lasers, opt. gain, growth tech. comparison 14958
GaInAsP/AlGaInP-based near-IR (780 nm) VCSEL 31404
GaInAsP/InP MQW QCSE tuning element for surface emitting laser 15014
GaInAsP/InP SL-QW lasers with narrow and circ. output beam, charact., 1.3 μm 31407
GaInAsP/InP strained-layer quantum well lasers, temp. depend. reflectivity mirror 40021
GaInAsP/InP tensile strained SQW lasers, 1.3 μm, LP-MOCVD grown 14944
GaInAsSb-AlGaAsSb 1.9 μm ridge-waveguide QW lasers 31328
GaInP strained quantum-well lasers; gain, refr. index, linewidth enhancement 31393
GaInP/AlGaInP DFB QW lasers, fab., room temp. operation 23273
GaInP/AlGaInP QW struct., Zn doping, laser appls. 14977
GaInP/AlGaInP, single stripe MQW SCH LD 39840
$\mathrm{Ga_xIn_xP/(Al_{0.5}Ga_{0.5})_{0.52}In_{0.48}P}$, strained QW LD, optimisation 39857
GaInP-AlGaInP quantum wire lasers, MBE grown 31317
GaN, wide-band-gap semicond. quantum wells, opt. gain 14957
InAlGaAs/AlGaAs strained quantum well lasers, MBE growth 39887
InAsP 1.3 μm compressively strained MQW lasers for high-temp. operation 39883
InAsP compressively-strained MQW lasers at high temps., 1.3 μm 31405
InAsP/InGaAsP QW 1.3 μm laser, MOVPE growth 12067
InAsP/InGaAsP strained MQW for 1.3 μm wavelength LD, MOMBE 23249
InGaAlP strained multiquantum-well LD, photolum. meas. 14920
InGaAs GRINSCH QW laser, gain compression, Monte Carlo simul. 1992
InGaAs MQW laser, 1.75 μm, MOVPE grown on InAsP substr. 23184
InGaAs VCSEL, gain/reflectivity, press./temp.-induced detuning 39796
InGaAs high power quantum well diode laser, MOVPE fab. *(Korean)* 39803
InGaAs quantum well LD, modulation response, self-consistent calcs. 1963
InGaAs strained layer MQW laser for opt. fibre transm. systs. 31352
InGaAs strained quantum disk laser, nanoscale act. region 23216
InGaAs vert.-cavity quantum well lasers, cavity tuning effects on transverse mode 31316
$\mathrm{In_{0.5}Ga_{0.5}As}$ self-form. quantum dots on GaAs substrs. emitting, 1.3 μm 14896
$\mathrm{In_{0.35}Ga_{0.65}As}$:Be/GaAs MWQs for high-speed lasers, MBE growth, disloc. glide 333
InGaAs/AlAs quantum wells, diode laser wavelengths, tunable mid-IR generation 14935
InGaAs/AlGaAs QW lasers, MOCVD, rot. disk reactor 23238
InGaAs/AlGaAs flared amp. monolithically integrated arrays, DBR laser driven 23262
InGaAs/AlGaAs high-power strained quantum-well lasers, vert. divergence angle of 18° 39870
InGaAs/AlGaAs strained quantum well lasers, small-divergence angles, fibre laser pump 1990
InGaAs/AlGaAs strained-layer quantum-well lasers, band-gap renormalization effects 7662
InGaAs/Au(Ni) thin p-clad SQW laser, contact reflectivity effects 14859
InGaAs/GaAlAs VCSEL, native oxide confine. struct. 31408
InGaAs/GaAlAs stripe quantum well lasers, differential resist. threshold drop 39761
InGaAs/GaAs, SQW laser, MOCVD, threshold current 39855
InGaAs/GaAs SQW laser, spectral hole burning 39758
InGaAs/GaAs VCSEL, differential gain, linewidth enhancement 31406
InGaAs/GaAs laser-mode-size convertor monolithic integrat., shadow-masked growth 22916
InGaAs/GaAs mesa-etched VCSEL, MOCVD, low threshold 39871
InGaAs/GaAs quantum wells, MBE, selective area bandgap modif. 12118
InGaAs/GaAs, quantum-well heterolasers, spectral charact. 23228
InGaAs/GaAs strained QW 980 nm pump lasers, thermal behaviour 14843

quantum well lasers continued
InGaAs/GaAs strained-layer QW, grown on (311)A GaAs, charactn. 14910
InGaAs/GaAs tapered MQW lasers, modulation doping and reduced filamentation 39873
InGaAs/GaAs-laser waveguide, radiation leakage, gain spectrum and directivity pattern 23199
InGaAs/InAlGaAs QW DFB laser facet influence on wavelength tunability and linewidth-chirp 39860
InGaAs/InAlGaAs quantum well microdisk lasers 31366
InGaAs/InGaAsP MQW modelocked LD, high spectral tuning range 7634
InGaAs/InGaAsP quantum well DFB lasers, high speed dyn., intrinsic params. 1932
InGaAs/InGaAsP strain-compensated quantum well lasers 23183
InGaAs/InGaAsP strained quantum-well lasers, threshold current dens., well width depend. 1934
InGaAs/InGaAsP/InP MQW laser, thermionic emission, tunneling 1931
InGaAs/InP QW lasers, AP-MOCVD, liq. group V sources 12069
InGaAs/InP, strained QW lasers, operating characts., 100-315 K 39854
InGaAs/InP superlattice QW lasers, MOVPE grown 39807
InGaAs/InGaAsP strained QW lasers lattice matched to GaAs, high temp. charact. 7632
InGaAs/InGaP/GaAs QW lasers, 0.98 μm, reliab. pump source 23188
$\mathrm{In_{0.2}Ga_{0.8}As}$/GaAs microcavity lasers, transient pulse response 39756
$\mathrm{In_{0.35}Ga_{0.65}As}$/GaAs strained-layer MQW LD, DC/high freq. props. 7647
$\mathrm{In_{1-x}Ga_xAs}$/InP quantum wells, cond.-band/valence-band struct. 1130
$\mathrm{In_xGa_{1-x}As}$/InGaAsP/InP SQW laser, modulation bandwidth 39859
InGaAs-AlGaAs QW laser, lateral mode anal. 23213
InGaAs-AlGaAs SQW lasers, cavity length/mirror refl. study 23271
InGaAs-GaAs MQW lasers, low growth temp., photolum. 14965
InGaAs-GaAs QW laser modulation by short opt. excitation, energy and spatial depend. effects 14967
InGaAs-GaAs low threshold CW circ.-grating surface-emitting DBR lasers 7628
InGaAs-GaAs narrow quantum wells, carrier capture and relax. 2004
InGaAs-GaAs proton-implanted vert. cavity LD, emission charact. 7650
InGaAs-GaAs quantum-well lasers, impedance charact. 14857
InGaAs-GaAs strained layer single QW ring laser, reactive ion-etched tetragonal cavity 23192
InGaAs-GaAs strained quantum well SEL 31392
InGaAs-GaAs-AlGaAs laterally-coupled DFB ridge LD, CW perform. 31318
InGaAs-GaAs-AlGaAs single mode lasers, long. modes/nonlin. mode-mode interact. 1969
InGaAs-InAlAs quantum-well lasers, TE-TM mode switching *(Japanese)* 31329
InGaAs-InAlGaAs strained/unstrained lasers, MBE grown 14975
InGaAs-InGaAsP MQW DFB LDs, 1.5 μm, MOVPE growth 7616
InGaAs-InGaAsP MQW lasers, 1.55 μm, direct bonding on Si 23270
InGaAs-InGaAsP strain-compensated MQW dielec.-bonded long wavelength vert. cavity laser 14851
InGaAs-InGaAsP-InGaAs strained QW lasers, temp. depend. of light-current charact. 7633
InGaAs-InGaAsP-InP 1.95-μm strained DFB SQW lasers 14855
InGaAs-InGaP strained QW lasers, 0.98 μm, charact. temp. 23185
InGaAs-InP, reverse bias laser struct., photodetection 17811
InGaAs-InP strained QW lasers, linewidth enhancement factor depend. on cryst. orient. 14858
$\mathrm{In_xGa_{1-x}As}$-GaAs-$\mathrm{Al_yGa_{1-y}As}$, BH QW lasers, selective area MOCVD 39853
InGaAsP MQW LD array design and fab. for opt. parallel links 31353
InGaAsP MQW LD, metalorganic VPE, entirely organic sources 23244
InGaAsP MQW laser, MOCVD growth 12068
InGaAsP, MQW lasers, high temp. perform., barrier recomb. effects 14909
InGaAsP MQW modulator/DFB laser integrated light source 30965
InGaAsP QW TM mode emitting tensile strained LD 7629
InGaAsP double-fused 1.52-μm vert.-cavity lasers 31379
InGaAsP lasers, compressive-/tensile-strained, valence band engng. 14917
InGaAsP low threshold multi-quantum well LD, MOVPE 23240
InGaAsP monolithic semicond. soliton transmitter 25530
InGaAsP quantum well laser, 2D model 14976
InGaAsP quantum well lasers, carrier transport, near-field photocond. 1968
InGaAsP quantum-well lasers, near-field scanning opt. microscopy imaging 14919
InGaAsP quantum-well quaternary lasers, gain nonlin. and temp. depend. 39798
InGaAsP strained MQW heterostruct., lasers, modulators, integrated optics 14922
InGaAsP strained layer MQW laser for opt. fibre transm. systs. 31352
InGaAsP strained quantum well, VPE, laser appl. 12130
InGaAsP strained-layer LD bars, 1.94 μm, 27 W QCW 14945
InGaAs(P) strained-layer MQW laser amps. 14904
InGaAsP/AlAs/GaAs double-fused vert.-cavity lasers, transverse-mode/polaris. characts. 39874
InGaAsP/GaAs, SCH SQW LD, characts. 39852
InGaAsP/InP 1.3 μm compressive-strained-MQW lasers, low threshold 1987
InGaAsP/InP MQW integrated DFB-DBR laser modulator, MOVPE growth 23247
InGaAsP/InP MQW laser gain-lever effect 23279
InGaAsP/InP MQW planar buried hetero-struct. lasers, MOVPE 23242
InGaAsP/InP monolithically integrated multi-wavelength MQW-DBR LD, MOVPE 23239
InGaAsP/InP quantum well lasers, watt-ampere charact. 39760
InGaAsP/InP strained quantum-well lasers, threshold current under mag. field 39823
InGaAsP/InP, strained-layer QW lasers, intrasubband scatt. rates 7661
InGaAsP/InP strained MQW laser, integrated mode size converter 31383
$\mathrm{In_xGa_{1-x}As_yP_{1-y}}$/InP, strained QW LD, nonhydride MOCVD 39856
InGaAsP-InGaAsP tensile-strained quantum well polariz.-insensitive opt. amps. 31414
InGaAsP-InP 10-element monolithic laser array in parallel interconnects 14961
InGaAsP-InP 1.55-μm quantum-well lasers, temp. sensitivity of differential gain 31320
InGaAsP-InP 1.55-μm strained quaternary QW lasers, approx. opt. gain formulas 23190
InGaAsP-InP IR strained MQW lasers, reverse-mesa ridge-waveguide struct. 14964
InGaAsP-InP MQW ridge waveguide LD 7488
InGaAsP-InP MQW-DFB lasers, multiple phase-shifts, spectral charact. 39764
InGaAsP-InP MQW-LD fabricated by LPE, opt. charact. *(Korean)* 39802

quantum well lasers continued
InGaAsP-InP modulation doped lasers, linewidth enhancement factor 14974
InGaAsP-InP multi-λ ridge waveguide gain-coupled DFB laser array 23277
InGaAsP-InP quantum well lasers, strain compensation 14871
InGaAsP-InP strained quantum well laser struct., excess carrier spillover, photolumin. obs. 31380
InGaP, LD current blocking layer, selective MOVPE regrowth 20764
InGaP strained quantum-well lasers, gain, threshold currents 23265
InGaP/GaAs/InGaAs strained MQW laser-MESFET, opt. transmitter form. 31124
InP 1.3 μm strained-quantum well laser telecomm. appls. 31360
InP monolithically integrated Wannier Stark modulator/strained MQW DFB 1.55-μm laser 22940
InP/InGaAsP, whispering-gallery-mode microdisk QW lasers 31367
InP-AlInAs type II syst., laser emission 14928
InP-based MQW lasers, integrated tapered beam expander waveguide 14854
MgZnSSe/ZnCdSe lasers/LEDs, thermal annealing 23051
MgZnSeTe alloy, blue/green diode laser 23258
MnZnSSe, material develop. for blue/green light emitters 2006
PbSe$_{0.78}$Te$_{0.22}$-EuSe quantum-well lasers, nonparabolicity effects 31369
(Zn,Cd)(Se,S) quantum well laser heterostruct., opt. waveguide confine. 14900
ZnCdSe QW LD, gain/Coulomb-correl. electron-hole pairs 31336
ZnCdSe based II-VI heterostruct. for blue-green lasers, structural props. 23293
ZnCdSe/ZnMgSSe strained layer quantum well blue-green lasers, opt. gain 39755
p-ZnCdSe/ZnSe:N, tilted substrs. effect 22155
ZnCdSe-ZnSSe-ZnMgSSe blue-green vert. cavity SCH SELs 14946
ZnMgSSe/ZnSSe/ZnCdSe blue-green diode lasers, degrad. 39884
ZnSe alloys, MBE, achieve RT CW LD 20906
ZnSe based LD with ZnMgSSe cladding layers, characts. 23292
ZnSe blue quantum-well SCH diode laser, 463 nm 7617
ZnSe blue-green LD for optoelectronics 23291
ZnSe/ZnCdSe quantum wells, coherent exciton lasing 31381
ZnSe-ZnMgSSe-ZnMgSSe blue diode lasers 1966
ZnSe-based blue-green ternary/quaternary lasers, pseudomorphic waveguides 23297
ZnSe-based laser struct., opt. pumped, exciton dyn. and gain mechanisms 23298
ZnSe-based lasers, cpd.-source MBE 20907
ZnSe-based layer struct. for blue-green LD 23294
ZnSe-based nanostructures, waveguide DFB laser appls. 23296

quantum wells, semiconductor *see semiconductor quantum wells*

quantum wires, semiconductor *see semiconductor quantum wires*

quarter-wave plates *see optical elements*

quartz
α-phase, dielec. strength, size effect. Monte Carlo anal. 13980
α-phase, facets, charging, SEM anal. 14000
α-phase, opt. second-harmonic susceptibilities, opt. activity 7762
attenuated phase shift masks, etched quartz/embedded materials 38724
bulk piezoelec. odour sens. array, coating materials 34450
capillary tubes, chem. anal. appls. 34461
cryst. accelerometers, optimal mech. perform., sensitivity *(French)* 9854
cryst. growth, temp. sens. appl. 34475
cryst. growth technol., platinum vessel 5808
cryst. mount design optim. via holographic interferometry 39073
cryst. resonator, extralow excitation, stationary acoustic vibrs. 14085
cryst. resonator stabil., electrode metallization barrier layer 39075
cryst. units, irreversible freq. vars. 30628
crystal, solid switches, electron-beam controlled 21609
etch attenuate phase-shifting mask, i-line stepper 38751
etching, phase shifting masks 38727
extremely low noise SAW oscillator 30648
fibers, forward calorimetry, fast, rad-hard 26204
high-Q piezoelec. materials and BAW/SAW resonator devices, advances 39046
HV mineral particulate-filled epoxy composite insulation tests *(Korean)* 27657
hydrothermal cryst. growth 13994
impurities conc. determ., spectrosc. IR data 34730
MIL-O-55310/MIL-C-49468 stds., quartz cryst. oscillators/resonators 43590
multicrystal lattice filter design, lattice cascade splitting 37831
oscillators, resonator selection 37663
piezoelec. langasite and quartz crysts. polishing/etching 30581
piezoelectrically operated opt. chopper, micromachining, sens. appls. 30597
pulsed power switches, electron-beam controlled 36450
α-quartz, SAW, extreme press.-sensitive cuts 30645
radiation resist., nonlin. absorpt., excimer laser wavelength 15019
rect. AT-cut quartz resonators, charge distrib. meas. and anal. 39091
reson. sens., develop., FEM 9848
resonator, beveled cylindrical edges, thickness modes 6923
resonator param. meas., IEC 444-5 direct transm. method 39077
round quartz blank sorting by Ω-scan, cryst. oscillator manufacture 39078
SAW displacements anal. in quartz and LiNbO$_3$ 30640
SAW oscillators, quartz package, dyn./static press. sensitivities 30647
selective collection by mag. reagent, HGMS 15259
self-excited chopper, quartz micromachined, opt. sens. appl. 30978
stress induced opt. activity in piezoelec. crysts. 30575
sulphide-quartz mixtures, electrostatic separation 40207
surface cleaning, laser proc. 30821
surface transverse wave device, groove gratings, modelling *(French)* 30632
thickness mode quartz transducers, mounting effect on vibr. charact. 35371
very forward calorimetry, induced radioactivity effects, methods comparis. 26203
very high freq. resonators, LD-based mode-shape meas. syst. 22679
Z-cut quartz piezoelec. microactuator, large pseudo-static displacement 13908
Ag-Ni laminated electrodes for quartz piezoelec. resonators 39076
Ce-doped gel quartz glass for opt. filters 31061
Si wafers, thermal proc., quartzglass materials influence 22208

quartz oscillators *see crystal oscillators*

quartz resonators *see crystal resonators*

quasars
superluminal motion, radio obs. *(Japanese)* 34199

quasi-cyclic codes *see cyclic codes*

quasi-one-dimensional conductors *see one-dimensional conductivity*

quasi-resonant power convertors *see resonant power convertors*

quasi-stellar objects *see quasars*

quasi-stellar sources *see quasars*

quenching (thermal)
see also melt spinning
MLC capacitors, miniaturized, normal service conditions, failure mechanisms 875
SMES 200 kA cable-in-conduit conductor, perform. tests 4691
He, liq., quench-induced breakdown charact., thermal bubbles 30536
HgCdTe, quench recrystn. growth 5805
Nd-Fe(Co)-B magnets fab., rare-earth melt-spun ribbons and hydrogen-decrepitation powders *(Japanese)* 7201
Ni$_{64}$Zr$_{36}$, fiber anodes for Ni/hydride rechargeable batts. 11250
SiFe, rapidly quenched, power losses, dyn. Preisach model 14154

query formulation
ECG diagnosis, real-time ES 10245

query languages
see also SQL
content addressable image database, appl.-independent, eval. 8483

query optimisation *see query processing*

query processing
content addressable image database, appl.-independent, eval. 8483
content based retrieval in image databases, probabilistic approach 8481
intonation spec. from context for speech synthesis 2436
large video databases, user access, indexes 9711
shape anal. for image retrieval 8482
spoken sentences, database query generation 2452
subband coded video databases, multiresolution video indexing 8486

queueing theory
see also telecommunication congestion control
2D round-robin schedulers for packet switches, multiple input queues 2875
A-M-S type fluid queue output 33232
adaptive rate control for delayed feedback sources 24745
additional space special service facility heterog. queue 20517
aggressive handover algm. for mobile networks 3396
Aloha-type protocols for multichannel networks, destination conflicts 16504
approx. algm. for tandem, split and merge queueing networks 16470
asymptotic queueing behavior of stat. multiplexers, heterog. traffic 42101
asymptotics of partition fn. in large closed BCMP networks, bottlenecks 24993
asynchronous shuffleout connectionless network switching archit. 41415
ATM, burst reduction props. of leaky bucket flow control scheme 16451
ATM, comparative eval. of output buffer mgt. schemes 8724
ATM, hitless path protection switching techs. 16420
ATM, threshold priority queueing syst., anal. 33173
ATM, VBR video transm., predictive dyn. bandwidth allocation 16419
ATM based B-ISDN, virtual spacing for traffic control 25060
ATM based embedded real-time systs., admission policies, perform. 33505
ATM bursty user traffic allowed by jitter tolerant leaky bucket 2872
ATM Clos switch under symmetric bursty geometric traffic, perform. anal. 41449
ATM connection admission control, discretised fluid-flow anal. 41451
ATM connections in B-ISDN, desirable props. of traffic descriptors 33609
ATM multicast switching, nonblocking copy network design 2871
ATM multiplexer, correl. real-time and independent non-real-time traffic 24752
ATM multiplexer, jitter/delay anal. 16439
ATM multiplexer, Markov modulated arrivals, output proc. 16785
ATM multiplexer, on-off sources, cell loss probab. 16454
ATM multiplexer loaded by CBR, queueing anal. *(Korean)* 24772
ATM multiplexer output busy/idle periods for homog. ON/OFF sources 33233
ATM multiplexer supporting bursty traffic, perform. computation 41427
ATM multiplexer traffic model for correl. periodic real-time and independ. batch Poisson traffic 41429
ATM multiplexers, dyn. transm./enqueueing priorities 8703
ATM multiplexers, Markovian arrivals, exponential upper bounds 24785
ATM multistage networks, shared queueing under correl. traffic 33240
ATM network, dyn. priority control algm. enhancement *(Korean)* 16465
ATM network, priority scheduling 24775
ATM network, reactive flow control mechanism 2869
ATM network call admission control by random neural net 33218
ATM network end-stations, perform. charact. 33175
ATM network nonstationary queue models 41477
ATM networks, burst-based bandwidth-reservation method 33165
ATM networks, cell loss minimisation, robust heuristic 24795
ATM networks, cell loss probab., state-space reduction method 16437
ATM networks, effective bandwidths for admission control 33231
ATM networks, effective bandwidths formula perform. 33227
ATM networks, end-to-end queueing delay 33216
ATM networks, indiv. VC shaping 33235
ATM networks, leaky bucket algm. for bursty sources *(Chinese)* 33163
ATM networks, multi-rate traffic shaping/perform. 2879
ATM networks, optimal estim. framework for adaptive traffic admission 41678
ATM networks, policing mechanisms based on max. throughput fns. 41446
ATM networks, resource sharing schemes in connectionless server 41438
ATM networks, simul. tech. for modelling burst scale queueing 33246
ATM networks unified congestion control strategy 16444
ATM networks with leaky buckets, buffer requirements 16446
ATM prioritized networks, congestion control schemes 8743
ATM queueing syst. perform., arrival law params. 33229
ATM queues with random order of service, delay anal. 24796
ATM shared medium multiservice protocol 41519
ATM shuffleout switch, channel grouping techs. 33199
ATM source traffic descriptor based on peak, mean and second moment of cell rate 33191
ATM stat. multiplexer, on/off sources and spacing, perform. anal. 3279
ATM stat. multiplexer multidimens. diffusion model 41431
ATM switch, minislot synchronized, output queue contents 33177
ATM switches, buffer allocation schemes 8723
ATM switches, frame-oriented queueing control policy for real/non-real-time traffic 33592
ATM switches, queue mgt., multiple delay/loss priorities 8726
ATM switching syst., bandwidth control fn. 16958
ATM tandem queues, estim. of cell loss probabilities 8718

queueing theory continued
ATM terminal adapters, interleaved/non-interleaved pipelining 33587
ATM traffic, min. ON/OFF source models 33230
ATM traffic connection admission control, stream correl. effect 41428
ATM traffic distorted by cell delay var., connection admission control 41444
ATM traffic source multiplexing 33193
ATM WAN, multimedia commun., routing problem 16892
ATM-DQDB, integrated services interworking, perform. eval. 33599
automatic call distributors, operator services staffing, heterog. posns. 41717
B-ISDN, large deviations approx. for fluid queues fed by on/off sources 41929
B-ISDN, multilevel hierarchical congestion controls 41933
B-ISDN, queues, total recall 33603
B-ISDN ATM-based priority traffic control 33180
back-press. control, adaptive, local inform. based 24790
batch service syst., perform. anal. 33224
broadband integrated voice/data networks, bandwidth assignment 16557
broadband network grade-of-service achievability conservation laws 41476
cascaded crossbar interconnected multiprocessors, cost perform. anal. 33185
CDMA cellular systs., uplink teletraffic behaviour 9257
CDMA networks, integrated voice/data traffic, code allocation 33908
cellular CDMA perform., speech bit rate, network control 9375
cellular digital packet data, perform. anal. 42271
cellular handover proc. model, limited queuing time 42208
cellular mobile commun. systs. for data transm. 25349
cellular mobile networks, dyn. modeling 3403
cellular radio syst., priority reservation handoff procedures 9326
cellular syst. traffic perform. with mixed platform types and queued handoffs 33808
client-server systs., perform. prediction, traffic dependencies effect 41828
client/server models, commun., spec./validation 2932
common store queueing syst., threshold-type foreground-background congestion control 24788
commun. networks, modelling of segmentation and reassembly procs. 33236
competitive systs. model 28579
computation of quasi-stationary distribs. in Markovian queues 11902
computer and telecommunication systems, modelling and simulation, conf., NC, USA, Jan. 1995 11567
computer network routing, perform. anal. 8779
computer networks, game-theoretic anal. of switch service disciplines 3206
controllable M/M/2 syst., warm standbys operating under triadic (0,Q,N,M) policy 16471
controllable M/M/2 syst. reliab. with warm standbys operating under triadic (0, Q, N, M) policy 11900
CRMA network real-time appls., perform. anal. 41525
CRMA protocol, anal. 33502
CSMA/CD LANs, packet starvation effect and soln. 33510
customer queue and resource queue networks 41485
cut-off priority delay-loss syst., 3 types of traffic and overload control 33228
cyclic polling syst., waiting time distribs. for different service strategies 33242
data-cyclic shared memory (DCSM) in distributed environ. 24951
delay single server queueing model with finite source, modified diffusion approx. *(Japanese)* 41480
deterministic queue modelling, leaky bucket, arrival proc. 33239
discrete time queueing model, cell delay var. in ATM network 3277
discrete-time anal., busy/idle period distribs. of ATM multiplexer 3278
discrete-time queue with gate, anal. 33225
discrete-time single-server queueing systs., general Markov-modulated arrival procs. 33226
distributed access network perform. eval. by DEVSim++ 25141
distributed neural control of commun. network traffic 24901
distributed telecomms. systs., sojourn time distrib. modeling 33237
DS-CDMA networks, multi-media integrat. 25235
$E_l/E_k/1$ queue, restricted min. lattice paths 20506
exact anal. of priority queue algm. for random variate generation 5754
existence conditions of queueing problems, Toeplitz matrices 37225
expanded delta fast packet switch 9141
fair distributed queue network priority schemes 41479
fast reservation protocol/stat. multiplexing 16438
FDDI, mean waiting time approxs. 41845
financial data broadcasting, VBI teletext 8876
finite-buffer polling syst. with exhaustive service, virtual buffering 16468
finite-buffered cellular mobile radio syst. 3493
finite-horizon stat. QoS measures for high-speed networks 33590
Fork-Join Queuing Networks, Blocking 37226
formal specification of communication protocols, perform. eval. 2975
forward air control aircraft, commun. equipt., quick-response assess. 43578
G-networks, triggered batch state-depend. movement 24791
G/G/I queueing syst., bursty traffic 194
$G/M^{a,b}/1$ queues, server vacations 37228
general renewal multi-server finite waiting room model, perform. anal. 24792
general two-server queueing loss syst. 20515
generalized multiclass Engset model, asymptotic solns. 41931
generalized periodic Markovian sources multiplexing and VBR video 8717
generalized proc. sharing scheduling discipline, stat. anal. 2896
generalized SBBP/G/1 queue and appls. 2895
GI/G/1 queue with Bernoulli service discipline, on-line derivative estim. 33241
GI/G/1 queueing syst. perform. space under percentile goal criterion 24992
GI/G/1 queueing syst. with repairable service station, reliab. 20516
GI/GI/1/r queueing syst., stationary queue length distrib. 28574
GIGAswitch control proc. 25044
guaranteed perform. service connections fault recovery 8790
handoff procedure, priority queue scheme 9346
handover requests in microcell network archits., queue study 9330
heavy traffic trunk line syst. approx. 24928
heterog. fluid queues handling general on-off sources, overflow probab. 33221
heterog. syst. routing/scheduling 11909
hierarchical queueing networks, lumpability/nearly-lumpability 37266
high speed data networks, transit. splitting for estim. of rare events 33200
high-speed network QoS, per-session end-to-end delay and call admission 33168
high-speed networks, link capacity allocation/network control 25129
high-speed packet switch, input access, perform. anal. 16794
hot jobs proc. and effect on normal orders 37018
hybrid STM-ATM switching and transport 41437
IEEE 802.5 token ring LANs for multimedia traffic, priorities effectiveness 33441

queueing theory continued
imprecision probab. computation, queueing theoretical formulation in real time systs. *(Korean)* 20514
infinite capacity N*D/D/1 queue, idle and busy period distribs. 33234
infinite SPN, matrix-geometric soln. 37265
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
input queueing packet switch with two priority classes, throughput 16452
integrated networks, single resource loss in heavy traffic 41475
integrated train access scheme under light/medium load, perform. anal. 33578
Internet, multiple service levels via precedence 33435
inverse queueing network anal., improvement on computational efficiency 11901
IP layer perform. diagnostics, windowed ping appl. 16746
ISDN, basic rate UNI, packet-switched data anal. 16793
large-scale packet switch interconnection archit. using overflow switches 41418
Leaky Bucket algm. queueing models, fast simul. methods 11906
leaky bucket network access schemes comparisons 16467
leaky bucket traffic shaper fed by bursty source, output traffic 16442
$M^b/M/C$ queueing systs., optimality conditions 11905
$M^X/G/1$ vacation models, N-policy 20507
$M^{[x]}/C_2/S/N$ queues, iter. soln. 28578
$M^{[x]}/M^{[b]}/1$ queueing syst., correl. server vacations 11911
m-MMBP charactn. of departure proc. of m-MMBP/Geo/1/K queue 33222
$M/G_2/1$ queue, Bernoulli feedback proc. 20518
$M/G_2/T$ queue sojourn times, Bernoulli feedback 5735
M/G/1 queues with neg. arrival, iter. method appl. 20512
M/G/1/K systs., vacations under random scheduling and LCFS 20511
M/K multiple priority policy in DQDB networks, perform. eval. 41843
M/M/1 fuzzy queueing syst. 2898
M/M/1 queue with heavy traffic, waiting time distrib. 37227
machine service model, queuing syst. 20497
Markov modulated Poisson stream loaded multiplexer loss probab. estim. 41483
Markov queueing network, probabilities of states 11912
Markovian queueing networks, unsteady state probabilities 16466
Markovian queueing syst. with finite capacity, removable/nonreliable server control 11849
ME-based approxs. for general discrete-time queueing models 3280
metropolitan microcellular radio environ. PRMA perform. 42194
microcellular aggressive dyn. channel assignment 3342
microelectronics manufacturer, batch prod. syst., open queueing network anal. 28423
MIMO LAN interconnection over high-speed gateway 41756
mobile satellite networks, handover queuing, dyn. channel allocation 25316
modified RESTART-method using LRE-algm., rare event simul. 33247
Monte Carlo summation and integrat. applied, multiclass queuing networks 33217
multi-channel/port traffic assignment fast algm. 8742
multi-facility blocking models, stochastic, decomp. methods for anal. 24794
multi-queue force/perform./traffic mgt., theory 41488
multi-server discrete-time queues, transient anal. 2894
multi-server model anal., non-preemptive priorities and non-renewal input 33245
multi-server threshold queues, hysteresis 20509
multiaccess scheme, implicit reservation for VSAT data commun. *(Korean)* 25459
multilayer cellular networks with classes of mobile stations, perform. anal. 33933
multiline server networks, mean-value anal. methods 16643
multimedia queueing syst. with Poisson and batch Poisson packet arrivals, traffic anal. 25107
multimedia service networks, link capacity allocation by input power spectrum 33664
multimedia terminals, syst. bus archits., perform. anal. 25153
multimedia traffic, loss/delay priorities, Markov-modulated fluid model 8694
Multinet, multistage ATM switch archit., design/perform. 9139
multipath self-routing switch fabric, perform. anal. of resequencing unit 33608
multiple call hand-off, queued hand-offs/mixed platform types 33855
multiple servers under threshold-type scheduling, resequencing delay 24789
multiplexed ATM traffic, policing/spacing 8695
multiserver queues, impatient customers 33244
multistage ATM switch fabrics, approx. model 41443
multistage ATM switching network, delay perform. 33197
nonpreemptive priority queue, SPP arrivals of high class 20510
nonpreemptive queueing syst., simul. study 28577
nonstationary Erlang loss model, modified-offered-load approx. 33405
nonstationary M/G/1 queue charactn., Bode plots 11904
oblivious packet-routing networks, queueing anal. 8714
Omega network-based ATM switch, neural network-controlled 16416
one-channel queueing syst. with alternating priorities, queue length 11913
open Markovian queueing networks with blocking, throughput upper bounds 28576
open tandem queueing network, pop. constraint and const. service times 24995
opt. ATM switching archits. 33730
opt. multi-channel network, multiple/parallel data-transm. *(Japanese)* 17188
optim. of polling policy represented by neural network 2897
optimal design of finite-buffer polling network 33426
output queueing, priority class in ATM switch 33181
packet loss rate simul., commun. networks, priorities 11907
packet switch, quick simul. of stationary tail probabilities 41433
packet switch waiting time, input/output buffer control policy *(Japanese)* 41490
packet switched networks, bursty traffic 33238
partial buffer sharing, Markov modulated Poisson inputs 33220
partially blocking finite-buffered switching networks, anal. model 2878
PC router perform. eval., single-server multi-queue syst. 8741
PCS hand-off and init. access, queueing channel assignment 25391
perturb. anal. based optim. 195
polling syst. with a dormant server, pseudo-conservation law 33243
polling systs. with dormant server, power-series algm. 41486
power series algm. for anal. timed-token ring protocols 41524
prioritized distributed queueing random access protocol 33500
priority queueing syst., RPA and harmonic gradient estimators appl. 11903
priority token-ring network, perform. modeling/anal. 8986
PRIZMA, flexible shared-buffer switch for ATM, Gb/s rates 33712

queueing theory continued
probabilities of events described by order stats. and appls., queue inference 28573
product form in discrete-time queueing networks 24793
product-form discrete-time queues in series, batch transit. 24969
Q^2, perform. anal. tool for telecomm. systs. 24918
random string evol., stabilization laws 41481
rate-control throttles, burst reduction props. 24797
rate-reservation protocols verification, flow theory 2966
repairable syst. with spares and removable repairman, reliab. 11850
RESTART method, accelerated simul., multiple thresholds 33248
rewriting syst., communicating machines with identical symmetrical/dual processes 2962
routing among different nodes, servers break down without losing jobs 41829
sample path anal. of token rings 41484
satellite commun. networks bistability issue 33972
satellite-based packet-switching networks, on-board closed-loop congestion control 33942
semicond. mfg. systs. scheduling policies 114
shared memory ATM switch, simul. study of space priorities 33720
shared-medium ATM switch under bursty arrivals, approx. anal. 2865
single server queue, discouraged arrivals 20519
single server queueing model in alternating random environ. 28575
single-line queue, finite source and repeated calls 41482
single-server queueing networks optimal control 11910
single-server queues, derivative estim., structural infinitesimal perturb. anal. 20513
single-server syst. with limited service policy 33219
single-stage output buffer packet switches, independent batch arrivals 41456
StarBurst switch with dedicated output and shared input buffering 41413
stat. multiplex perform. anal. of multimedia sources 8732
state depend. multiserver queues busy period 20508
state-depend. buffer model, large loading and output rates 41487
state-depend. queueing syst. using total hazard, variance reductions in simul. 193
stationary single server queues, approx. for perform. eval. 16469
stochastic Petri nets, automated time scale decomp. and anal. 37262
tandem servers, k-stage blocking and commun.-type flow 24786
TCP-SS versus adaptive rate-based congestion control, perform. 2965
TCP/IP local environ., integrat. of voice and data, perform. eval. 8928
TCP/IP window-based flow control, effect of high bandwidth-delay products and random loss 24804
telecomms., rate-controlled service disciplines 33167
telecomms. models anal., perform. 2861
telecomms. overload control, impact of services and control archits. 33605
telecomms. traffic charactn., fractal procs. 33189
telephony, accurate force and answer consistency algms. for operator services 33407
teletraffic model anal., num. transform inversion 41489
teletraffic syst., neural approach, perform. eval. 16789
teletraffic theory in ex-USSR, Khinchin's papers 33223
time-multiplex switches, neural scheduling algms. 16417
token bus LAN, mfg. environ., perform. models 24990
UMTS 3rd generation systs. signalling, perform. eval. 25293
vector-autoregressive inference for equally spaced, time-av., multiple queue length procs. 11908
video-on-demand systs., storage hierarchy 9744
virtual rate-based queueing, generalized discipline for high-speed networks switches 24787
window flow control, perturb. anal. 8778
wireless commun. systs., stochastic model, capture space and time dyn. 33935
wireless multiservice CDMA environ., adaptive packet decoding 9360

queuing theory *see queueing theory*

QWITT diodes *see microwave diodes; millimetre wave diodes; transit time devices*

R and D management *see research and development management*

R-DAT *see digital audio tape*

R waves *see Rayleigh waves*

race conditions *see hazards and race conditions*

raceways, cable *see electric conduits*

radar
see also adaptive radar; airborne radar; backscatter; CW radar; Doppler effect; Doppler radar; FM radar; meteorological radar; optical radar; phased array radar; radar altimetry; radar applications; radar computing; radar cross-sections; radar detection; radar equipment; radar interference; radar polarimetry; radar signal processing; radar target recognition; radar theory; radar tracking; remote sensing by radar; search radar; spaceborne radar; spread spectrum radar; synthetic aperture radar
Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
binary seqs. and arrays, optimum odd-autocorrelation *(German)* 8158
centimetric ground radars, pers. reminiscence 34148
coastal traffic control radar network proposal *(Croatian)* 3605
European permanent traffic observatory project, marine traffic radar data *(English)* 3593
fibre optic microwave delay line, meas. method 7300
freq. control devices for radar systs. 42522
IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
resource allocation, adaptive sens. 3607
scatt. field data, target location estim. 17399
sea scatt., rough surfaces, opt. backscatt. 23627
sensitivity, tropos. thermal lens effect 34122
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
targets scatt. charact. meas. 17420
telecomm. technols. innovation, hist. 33303
ultrawideband radar, tech. issues 42516
TeO_2 long time aperture acousto-optic delay line, design and charactn. 31021

radar altimeters *see radar altimetry*

radar altimetry
see also radioaltimeters
35 GHz forward looking altimeter, flight test eval. 10386
35 GHz forward looking altimeter for terrain avoidance 25612
advanced terrain data proc. 10394
altitude prediction by natural spline tracking filter *(Japanese)* 8410

radar altimetry continued
Antarctic field meas. of radar backscatt. from snow 43530
bathymetric prediction from satellite altimetry 10521
ERS-1 altimeter Fast Delivery data for topographic meas. 10431
meteorological radar, IEE Colloquium, London (1995) 28266
microwave backscatt., Antarctica 43494
multipath height-finding problem 25575
ocean surface radar altimetry, EM bias 35335
ocean surface wind speed meas., ERS-1 vs. SSM/I, Atlantic 10471
oceanic mesoscale variability, SOAP 93 prediction syst. 26765
oceanographic satellites, radar data, altimetric corrections *(French)* 35352
RA-2 satellite-borne radar altimeter for rainfall meas. 35329
sea surface, GEOSAT altimetry, geopotential scale factor 35278
sea-level, TOPEX POSEIDON altimeter mission, accuracy/appl. 43532
SEMAPHORE expt., altimeter wind speed model 26727
space-borne scientific missions, microwave scatterometry 18789
two-posn. radar, low-flying target detect. and height meas. 17377

radar antennas
see also lens antennas
33/95 GHz dual-polarised radar antenna design 25580
35 GHz forward looking altimeter, flight test eval. 10386
94 GHz integrated monopulse receiver 23968
active array radar MMIC packaging evol. 21578
airport surface enhanced surveillance radar 10424
antenna array calib. for radar appls. *(French)* 17426
array pattern estim., amplit. meas., arbitrary near-field surfaces 40519
attitude determ. using GPS, space flight tests 17502
conical TEM horn, ultrawideband, design 31946
cylindrical array antenna design and configs. 23954
dual-beam flat antenna, grating structs. on dielec. waveguide 40465
EM modeling for GPIR, 3D FDTD modeling codes 42504
EMC fig. of merit estim. *(Croatian)* 3595
four-point fed radial line planar array for monopulse tracking 23946
Gunn effect radars equipped, sig. opt. proc. 42509
H-II launch vehicle, commun. subsystem develop. *(Japanese)* 43427
LASS based ultrawideband radar syst. 34149
orbital debris radar antenna pointing Kalman filter 25581
OTH radar receiving array terrain compensation 25562
phased antenna array radar, ang. coord. meas., modelling 3608
polarimetric coherent-on-receive radar systs., calib. 42507
pulsed radar antennas, pattern meas. syst. *(Japanese)* 40500
road vehicle 24 GHz dual channel microwave front-end 11444
S-band compact point-defence phased array antenna develop. 23955
slot array radar antenna, pulse wave, transient response *(Japanese)* 17427
spaceborne SAR antenna patterns determ., distributed targets 25571
undersampled sig. freq. and DOA determ. 25617
X-band SAR subpanel active antenna demons. model 25572

radar applications
see also radar polarimetry; radar target recognition; radar tracking; remote sensing by radar
adaptive nonlin. algms. for radar tracking 17400
airborne antenna testing, Indoor Doppler Antenna Test Range 35217
aircraft, radar signature determ. 42498
aircraft, synthetic range profile meas. 9644
aircraft altitude profile estim., natural spline fn. 18710
Antarctic/Arctic sea ice, radar backscatt. comparison 42527
antenna array calib. for radar appls. *(French)* 17426
area surveillance, ambient sigs. fusion 42508
ATC radar, jet engine modulation phenom., model validation 10404
buried obj. detect., radar image reconstruction algm. 18780
CLEAN algm. for microwave images eval., NDT appl. 42901
cloud and rain, rem. sens., mm wavelengths 10484
coastline change by SAR radar, image texture class. 10512
conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
contactless velocimetry of vehicles, microwave speckles appl. 18105
digital elevation models by SAR radar, accuracy 43471
dyn. at large-scale, TOPEX/POSEIDON altimetry 18872
dyn. topography, TOPEX/POSEIDON radar altimetry 18870
dyn. topography by TOPEX/POSEIDON, global crossover study 18873
F/I band radar wake vortex meas. 17411
forest backscatt. models, cylinder-ground double bounce scatt. 26780
forested slopes, radar rem. sens., geometric optics theory 18785
forests, radar 3D backscatt. model for canopies 43540
forests, radar rem. sens., sensitivity to tree geom., model 43539
forests, repeat pass SAR interferometry method 43470
forests, SAR backscatt. & biomass rem. sens. 43538
freq. control requirements of radar 42521
GEC-Marconi quality fn. deployment PC-based tool 28394
general circ., TOPEX/POSEIDON radar altimeter method 18871
geodetic radioaltimetry, filter for unevenly spaced data 10434
geoid & ocean surface, TOPEX/POSEIDON radar obs. 18796
geoid (sea surface topography), NRCS radar altimetry product 26705
GPS, ATC radar calib., flight expts. *(Japanese)* 9680
GPS-Squitter expt. results 9419
Greenland ice sheet, satellite altimeter elevations, accuracy 35347
ground penetrating advanced radar appls. 42503
ground penetrating radar, subsurface struct. detect. 10453
ice sheet radar rem. sens., multilayer lossy dielec. 43521
Indian land & sea surfaces, radar clutter characts. 43468
ISAR/SAR radar imaging, wide-bandwidth mobile radar appl. 17410
land surface mapping, 2D FM-CW polarimetric SAR 43474
land surface topography, ERS-1 radar satellite, clock drift 43472
land surface topography, SAR rem. sens., sig. simul. 18782
land surface topography rem. sens., TOPSAT radar mission 10451
lightning radar echoes, investig. 3603
low altitude radar appls., irregular terrain modeling 17422
M-seq. pulse-compression underground survey radars *(Japanese)* 3610
marine traffic mgt., survey of current and possible future measures 25608
MM-wave radar for automobile crash avoidance systs. 42510
MM-wave radar sens. for road vehicle positioning 42512
MM-wave radar target identif. by high resoln. range profiles 42485
mm-wave radars for airport surface surveillance 10421
monopulse type subsurface radar, air void detect. 25574
mountainous terrain mapping by radar, SAR stereo restitution 43475
multisensor tracking, image-based maneuver detect. 17429
narrow-/broadband polarimetric radars, signatures/sig. proc. 42499
non-cooperative target recogn. *(Dutch)* 3613
nonuniform repetition interval pulse-Doppler radar 34137
obstacle avoidance sens., automatic Nap-of-the-Earth flight 10385

- **radar applications** continued
  - ocean circ., TOPEX/POSEIDON radar mission 18859
  - ocean circ. by radar altimetry, sea state bias 18845
  - ocean coast radar imaging, supporting obs. & ocean modelling 26743
  - ocean currents, HF radar rem. sens. from ship 26748
  - ocean currents, VHF radar-drifting transponder method 26750
  - ocean dyn., TOPEX/POSEIDON method, inverted barometer effect 18874
  - ocean dyn. by radar altimetry, Poseidon/Topex method 10551
  - ocean dyn. heights, TOPEX/POSEIDON radar altimetry 18865
  - ocean dyn. topgraphy, TOPEX/POSEIDON, covariance model 18875
  - ocean radar data assimilation, circ. models 26752
  - ocean rem. sens. by radar, French DP & archiving 10553
  - ocean surface, EM scatt., salinity/temp. effects 10526
  - ocean surface currents meas., HF ground wave radar 10556
  - ocean surface radar scatt., spatial temporal dyn. model 43524
  - ocean tides, global, TOPEX/POSEIDON altimetry method 18876
  - ocean tides by TOPEX/POSEIDON radar altimetry, inverse model 18877
  - ocean wave & wind rem. sens., Geosat altimeter results 26741
  - ocean wave directional spectra, focussed array radar method 43523
  - ocean wave heights, TOPEX-POSEIDON-Geosat radar altimetry 18848
  - ocean wave heights by radar, TOPEX, ERS-1 & Geosat 18849
  - ocean wave radar imagery, SAR distortion correction 43525
  - ocean wave satellite rem. sens., oceanic sites 10511
  - pass. ranging, image expansion 26549
  - peak-holding navig. syst., obj. coord. correction 25604
  - phased antenna array radar, ang. coord. meas., modelling 3608
  - phased array surface contour mapping, harsh environ. 42514
  - polarimetric calib., single dihedral corner reflector 34142
  - polarimetric coherent-on-receive radar systs., calib. 42507
  - QR decomp.-based least sq. tech., improve ATC radar 2579
  - RADOBS, intrusion detect. sens., environ. effects reduction 42520
  - rainfall rate, radar rem. sens. methods, review 26723
  - random nonspherical scatterer layer, S matrix theory 18784
  - Redifon intell. ground probing radar 17413
  - road vehicle Radar Speed Monitoring System 42511
  - sea ice, age & thickness, SAR tracking rem. sens. method 43522
  - sea level, TOPEX/POSEIDON radar altimetry, GPS buoy calib. 18867
  - sea level by radioaltimetry, microwave troposheric corrections 18841
  - sea level by radioaltimetry, tidal satellite orbit perturb. 18837
  - sea level by satellite radar altimetry, sea-state bias 18847
  - sea level by satellite radioaltimetry, ionos. correction 18838
  - sea level by TOPEX, radar perform., wave form tracking 18843
  - sea level by TOPEX radar, EM bias from retracked data 18844
  - sea level by TOPEX radar, ocean wave & attitude corrections 18842
  - sea level by TOPEX/POSEIDON, microwave radiometer perform. 18840
  - sea level by TOPEX/POSEIDON radar altimetry, Great Lakes obs. 18868
  - sea level meas., TOPEX radar altimetry, sea state bias 18846
  - sea level radar altimetry by satellite, ionos. correction 18839
  - sea levels by radar altimetry, TOPEX/POSEIDON accuracy 18869
  - sea levels meas. by TOPEX/POSEIDON radar, verification 18866
  - sea surface altitude rem. sens., TOPEX/POSEIDON method 43465
  - sea surface heights, satellite radar altimetry corrections *(French)* 35352
  - sea surface obs. by radar, scatt. rel., wind conditions 10481
  - sea surface radar altimetry, multiresolution stochastic proc. 10552
  - sea surface radar imaging, image texture anal. 26742
  - sens. for automatic AICC 5377
  - sens. for car appls. 5378
  - ship navig., ocean environ., chaos appl. 24173
  - ship navig., radar picture and ARPA data stabilization 25607
  - step-freq. radar imaging for NDE/GPR appls. 42904
  - surface penetrating radar for indust. and security appls. 17408
  - swell waves at coast, radar rem. sens., SAR method 26744
  - target enhancer for navig. buoys, develop. and testing 25577
  - terrain imaging by radar, dual-channel radar calib. 43469
  - terrain mapping, repeat pass SAR interferometry 43470
  - threat data base appl., radar warning receivers 43584
  - TOPEX/POSEIDON, ocean radar calib., Platform Harvest 18864
  - TOPEX/POSEIDON ocean radar, precise orbit determ. 18860
  - TOPEX/POSEIDON ocean radar altimetry, calib., Lampedusa 18865
  - TOPEX/POSEIDON ocean radar satellite, CNES orbits 18861
  - TOPEX/POSEIDON ocean radar satellite, Earth gravity models 18862
  - TOPEX/POSEIDON ocean radar satellite, GPS for precise orbit 18863
  - TOPEX/POSEIDON radar altimeter, ocean circ. 18871
  - TOPEX/POSEIDON radar altimetry, dyn. topography 18870
  - TOPEX/POSEIDON radar altimetry, global scale dyn. 18872
  - TOPEX/POSEIDON radar altimetry, global stat. study 18873
  - TOPEX/POSEIDON radar altimetry for sea level, buoy calib. 18867
  - TOPEX/POSEIDON radar altimetry for sea levels, 2 cm accuracy 18869
  - TOPEX/POSEIDON radar altimetry for sea levels, Great Lakes obs. 18868
  - TOPEX/POSEIDON radar sea levels, verification, Bass Strait 18866
  - topography, airborne interferometric SAR, motion compensation 43473
  - topography mapping by radar, SAR monopulse method 18788
  - topography of Earth surface, multibeam radar altimetry 18783
  - tropical crops, X-band dielec. consts. 26779
  - ultra-wideband or short-pulse radar, time-domain imaging 42487
  - ultrawideband polarimetric radar for study of sea scatter 10555
  - vegetation global biomass, SAR backscatt. method 43542
  - Venus cartography, radar/radiometry 3643
  - weather radar, av. wind vel. meas., mean Doppler freq. estim. 43515
  - weather radar, dual polarised, pulse repetition scheme 43506
  - wideband radar target recogn., range profiles 34150
  - wind rem. sens., SAR imagery model 35324
  - wind speed at sea, radar rem. sens., ocean wave effects 18820
  - windfields, 3D vector wind retrieval, bistatic dual-Doppler radar 10482
  - winds at sea by radar altimetry, empirical model fns. 18821
- **radar clutter**
  - 2D clutter for IR surveillance image recogn., defn. 4440
  - adaptive polaris.-space-time proc. algm. 25561
  - airborne early warning radar, clutter spectrum filtration *(Chinese)* 34109
  - airborne multisensor surveillance, data fusion IKBS 35395
  - airborne radar clutter suppression, adaptive antenna proc. 25559
  - ATR, ATLAS syst. 9648
  - CFAR proc., modified ordered-stats. in nonhomogeneous environ. 42482
  - CFAR proc., robust neural net scheme 17387
  - CFAR proc. in nonhomogeneous background 17401
  - crosspolarised bistatic clutter meas. of forested hills 34154
  - detect. of sigs. in chaos, small target in sea clutter 9630
  - EM modeling for GPIR, 3D FDTD modeling codes 42504
  - fast MM-wave imaging algm., act. guidance appl. 41156
- **radar clutter** continued
  - freq. control requirements of radar 42521
  - fully-polarimetric GLRTs for detecting scatt. centers in terrain clutter 17390
  - IMM-IPDAF for track form. on maneuvering targets in clutter 17372
  - IR imaging of mil. ground vehicles, clutter metric based on texture 10592
  - IR multispectral target/background field meas. 18974
  - K-distributed clutter, order param. estim., noise effect 25557
  - look-down radars, carrier-free sig. design 35388
  - low sig.-to-clutter ratio proc. of radar sigs. 17362
  - marine radar, wave obs./anal., land station expt. *(Japanese)* 10489
  - meteorological radar, IEE Colloquium, London (1995) 28266
  - meteorological radar rain meas., rain rate distrib. inversion 4397
  - meteorological radars, clutter removal method 35332
  - MM-wave radar target identif. by high resoln. range profiles 42485
  - multipath/terrain bounce model, real-time mil. appl. 35391
  - multiradar target detect., data fusion 34128
  - multitarget tracking, stochastic simul. Bayesian approach 42493
  - non-Gaussian coherent radar clutter models 42495
  - non-Gaussian correl. radar clutter, computer generation 34113
  - nonuniform repetition interval pulse-Doppler radar 34137
  - optimal CFAR detect. in Weibull clutter 32540
  - polariz.-space-time domain target detect. 34136
  - pulse compression radar, terrain-scatt. jamming suppression 25553
  - QR decomp.-based least sq. tech., improve ATC radar 2579
  - SAR imagery, edge features, clutter stats. 42500
  - SAR images, max. likelihood algm. for target detect. 17365
  - self-calib. methods, diffuse field presence *(French)* 17405
  - ship navig., ocean environ., chaos appl. 24173
  - sig. proc., wavelet transform, sea clutter suppression *(Japanese)* 9616
  - small target detect., long term integrat. 18975
  - spatial correl., simul. 34135
  - super noncoherent integrat. 17363
  - surveillance radar, dyn. A/D converter charactn. 3614
  - surveillance vol., clutter/noise regions mapping 9622
  - target modeling, GTD-based approach 17394
  - trimmed-mean CFAR proc., detect. perform. 25555
  - ultrawideband radar, tech. issues 42516
  - vector neural network sig. integrat. for radar appl. 18976
  - VHF radar sea scatter and propag., grazing angles less than 1° 42518
  - Weibull radar clutter background, order stats. CFAR, perform. anal. *(Chinese)* 34106
  - X-band radar, obs. of K-distributed sea clutter 34119
- **radar computing**
  - 2D radar image reconstruction, diffr. tomography 9636
  - AN/FPS-85 radar, peak power tailoring and phase nulling 34159
  - anal. experts modelling for training/aiding 20350
  - C-band dual-polariz. radar, computer error anal. of rainfall rates 10571
  - COBRA, computer code for backscatt. anal. of complex objs. 3596
  - combat aircraft, eval. of radar class. algm. by simul. 18986
  - conductive sphere, scatt. centre estim. 23636
  - mil. TMD simul., integrated radar algm. simulator 26826
  - moving objs. 2D radar imaging 9634
  - multipath/terrain bounce model, real-time mil. appl. 35391
  - QR decomp.-based least sq. tech., improve ATC radar 2579
  - radiolocation data proc., parallel space filtering 25611
  - Redifon intell. ground probing radar 17413
  - ship radar databases, organization, wavelets and struct. VQ 9625
  - spectral leakage effects on multiscatterer target model validation 26828
  - split gate trackers, tapped delay errors 26827
  - target recogn. schemes, neural networks 34157
  - tomography, 3D images generation 42494
- **radar countermeasures** *see electronic countermeasures*
- **radar cross-sections**
  - *see also backscatter*
  - 1D random rough surfaces:enhanced backscatt., stationary-phase approxs., full-wave solns. 23572
  - 2D lin. extension, super resoln. radar imagery 9626
  - 3D EM scatt. problems, fast multipole soln. 23537
  - 3D scatt. FEA absorbing boundary condition code parallelisation 23556
  - 3D vector field magnitude and direction visualisation 28288
  - act. scatterers, detect./ident./tracking 34131
  - aircraft, radar signature determ. 42498
  - anisotropic cylindrical dielec. shell, EM scatt. 2202
  - Antarctic field meas. of radar backscatt. from snow 43530
  - Antarctic/Arctic sea ice, radar backscatt. comparison 42527
  - Arctic sea ice thickness determ., polarimetric SAR appl. 43529
  - area surveillance, ambient sigs. fusion 42508
  - C-band V-polarized radar sea-echo model (from ERS-1) 43531
  - chirality and EM 40326
  - cloud ice crysts., 94 and 220 GHz polarimetric scatt. 23619
  - coated wire antennas/scatterers, anal. 31933
  - COBRA, computer code for backscatt. anal. of complex objs. 3596
  - compact antenna test range, Pretoria Univ. 40458
  - conductive sphere, scatt. centre estim. 23636
  - creeping wave on num. specified surface, ray tracing 23581
  - crosspolarised bistatic clutter meas. of forested hills 34154
  - current distrib. on convex-concave cylinder with impedance boundary, Toeplitz matrix/SOR anal. 25560
  - Doppler portrait, radar target image synthesis by math. simul. 17380
  - dyn. imaging and RCS meas. of aircraft 34146
  - dyn. RCS using the wavelet transform, time-freq. inform. 26822
  - E-polarised plane wave scatt. from coated cylindrical cavity-backed aperture 25566
  - EM plane wave scatt. by lossy dielec. prolate spheroids 40296
  - EM scatt. by dielec. circ. cylinder partially clad by PEC 2209
  - EM scatt. by impenetrable sheet with different face impedances 23543
  - EM scatt. by large open-ended cavities, iter. PO 40278
  - EM scatt. by rect. trough on perfectly conducting ground 23540
  - finite ground plane with perforated apertures, RCS charactn. 9628
  - finite metallic cone scatt. component estim., PO correction 40333
  - forest backscatt. models, cylinder-ground double bounce scatt. 26780
  - forested slopes, radar rem. sens., geometric optics theory 18785
  - forests, radar 3D backscatt. model for canopies 43540
  - forests, radar rem. sens., sensitivity to tree geom., model 43539
  - forests, SAR backscatt. & biomass rem. sens. 43538
  - fusion of radar and imaging sens. data for target tracking 16113
  - graduate level course 28287
  - Gunn effect radars equipped, sig. opt. proc. 42509
  - high range resoln. radar returns, model based ATR 17393

radar cross-sections continued
high-permittivity cube RCS computation, FDTD method 25563
hybrid FEM for EM, review 2314
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
impulse radar extracted signature features, aspect depend. in time-freq. domain 17389
Indian land & sea surfaces, radar clutter characts. 43468
infinite arrays of slots in thin conducting wedge, scatt. anal. 42479
ISAR image and RCS proc. for target support contamination removal 25547
Jauman absorbers design 25579
jet engine inlet scatt., hybrid finite element-modal anal. 42486
land surface mapping, 2D FM-CW polarimetric SAR 43474
large and complex targets, EM scatt. calc. tech. 7941
large objs., fast far field approx. 42489
large-target scatt. cross-sections, fast multipole computation 25564
laser radar signatures, enhanced backscatt. 17445
lightning radar echoes, investig. 3603
look-down radars, carrier-free sig. design 35388
lossy dielec. ellipt. cylinders, plane wave scatt. cross sects. 7958
Maxwell's eqns. soln., unstructured grid algm. 2200
meas. eqn. of invariance method, randomly rough surfaces anal. 42481
metal strip grating dihedral for polarimetric SAR calib. 42519
multilayer absorber on perfectly conducting plate, worst-case design 23547
multiple diffr. modeling, high freq. methods 2212
non-Gaussian coherent radar clutter models 42495
nonlin. RCS, higher-order spectra 42497
ocean friction vel., C/Ku-band scatterometer data appl. 10525
ocean RCS, low incidence 26735
ocean surface, EM scatt., salinity/temp. effects 10526
ocean surface, microwave radar polarimetric backscatt. 26740
ocean surface radar scatt., spatial temporal dyn. model 43524
ocean wave-atm. turbulence interact., microwave RCS meas. 10472
ocean-like surfaces, low grazing angle scatt. 7949
parallel uniformly lossy dielec. prolate spheroids, EM scatt. 42496
parallel-plate waveguide cavity with thick planar termination 25565
periodic wedge absorber, full wave anal. 2215
phased array radar, integrat. of tracking and sig. proc. 17366
plane wave scatt., loaded trough on ground plane 15388
polarimetric calib., single dihedral corner reflector 34142
polarimetric radar, discrete scatter model of vegetation 17402
polarimetric scatt. and emission props. of refl. symm. targets 7952
polarimetric signatures, target scatt. centers discrim. 3600
pulse compression radar, terrain-scatt. jamming suppression 25553
pulse wave, EM scatt. by buried obj., FDTD method 23618
rain drops & cloud, microwave pulse backscatt., extinction 40345
random nonspherical scatterer layer, S matrix theory 18784
scalar and vector wave eqns., absorbing boundary conditions 23554
scatt. by coated bodies, higher order impedance boundary conditions 25544
scattering by finite cylindrical dielec. targets with gently varying cross-sections 23560
sea surface radar backscatt., rel., wind speed 10481
sidelobe control in SAR imagery, nonlin. apodization 34118
spaceborne SAR antenna patterns determ., distributed targets 25571
spherical particles syst., modelling of EM wave scatt. 40315
spherical pass. reflector plane-wave scatt. modal anal. 23916
surface model accuracy importance 34123
target discrim., wavelet transforms 16102
target enhancer for navig. buoys, develop. and testing 25577
target HF ultrawideband radar sig. response, PO computation 34127
target ident., bispectrum 34112
target modeling, GTD-based approach 17394
tomography, 3D images generation 42494
ultra-wideband or short-pulse radar, time-domain imaging 42487
ultrawideband polarimetric radar for study of sea scatter 10555
vegetation global biomass, SAR backscatt. method 43542
vert. polarized bistatic RCS for random rough surfaces 34111
VHF radar sea scatter and propag., grazing angles less than 1° 42518
wedges, radio scatt. theory, method of iter. 42488
wideband absorber design, microwave 4-param. materials 3615
wideband RCS and impulse response of targets, transient EM field 17424

radar detection
act. scatterers, detect./ident./tracking 34131
adaptive rational fn. filter for estim./detect. 8416
area surveillance, ambient sigs. fusion 42508
ARMA modeling for radar sig. detect. 34132
bi-level MHT tracking algm. for two crossing targets in high clutter environ. 18978
borehole radar sig. ident., time-freq. distrib. 26706
buried pipe location, zero-crossed synthetic aperture 3599
CARPET computer program for radar anal. *(Dutch)* 3597
CESM, radar ECCM 26829
CFAR proc., modified ordered-stats. in nonhomogeneous environ. 42482
decentralized CFAR detect. based on order stats. 2577
Delft FM-CW radar, Doppler-polarimetric research *(English)* 3612
detect. of clustered point targets of irregular shape 17376
Doppler optimised compression filters 34125
fighter aircraft target detect., PRF set selection 4437
fully-polarimetric GLRTs for detecting scatt. centers in terrain clutter 17390
HF receiver for Doppler studies, design and fab. 42525
LDV, detect. devices 3771
LIDAR wide-band Doppler detect. tech. 42530
lightning radar echoes, investig. 3603
lin. freq. modulated waveforms detect. in dispersive channels 16066
low sig.-to-clutter ratio proc. of radar sigs. 17362
model-based multifrequency array sig. proc. 34116
monopulse type subsurface radar, air void detect. 25574
moving-target detect. efficiency, effect of ignoring broadband props. of sigs. 34126
multihypothesis testing, seq. procedure 24169
narrow-/broadband polarimetric radars, signatures/sig. proc. 42499
non-cooperative ident. of ships, electrooptical data 9650
non-cooperative target recogn. *(Dutch)* 3613
optimal CFAR detect. in Weibull clutter 32540
parametric estim. of ocean surface currents, HF radar 43526
phased array radar, integrat. of tracking and sig. proc. 17366
polariz.-space-time domain target detect. 34136
pulse radar, range sidelobe suppression by locally weighted filter *(Japanese)* 42490
pulse train deinterleaving via Hough transform 34141
pulse-Doppler radar data secondary proc. syst., false blips flux dens. 17378
RADOBS, intrusion detect. sens., environ. effects reduction 42520
RCS/polarimetric signatures, target scatt. centers discrim. 3600
road rear-end collision avoidance, 60 GHz radar 34152
SAR imagery, localized Radon transform for ship wake detect. 17391
SAR images, max. likelihood algm. for target detect. 17365
sea clutter, radar sig. detect. in chaos 9630
ship navig., ocean environ., chaos appl. 24173
small targets signal/data proc., conf., Orlando, USA (1994) 25
snow bright-band detect. by dual polaris. radar 35333
spatial-Doppler coherent proc. channel, quantization noise estim. 34121
super noncoherent integrat. 17363
surface penetrating radar for indust. and security appls. 17408
surveillance vol., clutter/noise regions mapping 9622
target detect./tracking, HF ground wave radar 9641
target ident., time-domain bispectral 34112
time series distrib. params., hypotheses testing 2540
trimmed-mean CFAR proc., detect. perform. 25555
two-posn. radar, low-flying target detect. and height meas. 17377
vector neural network sig. integrat. for radar appl. 18976
wavelet transform, weak radar sig. detect. 34130
weak radar sig. detect. based on wavelet transform 42491
Weibull radar clutter background, order stats. CFAR, perform. anal. *(Chinese)* 34106
X-band radar, obs. of K-distributed sea clutter 34119

radar displays
see also cathode-ray tube displays; fluorescent screens
ECDIS/ARPA overlay systs., display requirements 25606
ship navig., radar picture and ARPA data stabilization 25607
sig. proc., wavelet transform, sea clutter suppression *(Japanese)* 9616

radar echo areas *see radar cross-sections*

radar equipment
see also radar antennas; radar displays; radar receivers; radar transmitters
acousto-optic null steering proc. (AONSP), init. hardware results 17419
advanced SS radar, acousto-optic range-Doppler proc. 18988
automated radar terminal systs., ARTS *(Japanese)* 10407
back lighted thyratron pulsed power switch, anti-missile radar appls. 36408
bidirectional symm. radar absorbing struct. 34144
CROSSATRON modulator switches, pulsed power supply appls. 36409
DRFMs, digital RF memories, phase perform., radar and ECM equipt. 4436
embedded chip MCM technol., nondigital extensions 21752
H-II launch vehicle, commun. subsystem develop. *(Japanese)* 43427
hardFET pulsed power modulators, array-type radar appls. 27820
Ka-band mm-wave radar transceiver assembly, common waveguide cavity design *(Chinese)* 25578
knowledge-based design support syst. 9639
metal strip grating dihedral for polarimetric SAR calib. 42519
MM-wave radar for automobile crash avoidance systs. 42510
MM-wave radar sens. for road vehicle positioning 42512
MM-wave technol. in radar and fusion appls. 42502
mode stirred EMC facility, develop. 2266
ocean currents, VHF radar-drifting transponder method 26750
PSG waveguide opt. routing switch for radar phase control 14663
R^2SPG tech., systs. upset thresholds meas. 15496
Redifon intell. ground probing radar 17413
road vehicle 24 GHz dual channel microwave front-end 11444
S-band Doppler radar for tropical precip. charact. meas. 35330
SAR image form., opt. proc. 17417
semi-act. radar target, design of antenna subsystem 17430
surveillance radar, dyn. A/D converter charactn. 3614
thin film multi-MMIC MCMs for microwave appls. 21580
transmit/receive modules burn-in test 35390
ultra-low phase noise exciter 42523

radar imaging
2D clutter for IR surveillance image recogn., defn. 4440
2D lin. extension, super resoln. radar imagery 9626
2D microwave imaging, TLS-ESPRIT, matrix enhancement 42480
2D radar image reconstruction, diffr. tomography 9636
3-D laser radar range image, terrain description and obstacle detect. 17441
3D data extraction from SAR and opt. imaging combination 10449
3D ground penetrating radar imaging, multifrequency diffr. tomography 42505
3D ground penetrating radar imaging, SAR focusing 42506
aircraft-borne interferometric SAR for 3-D radar imaging 17384
airport surface enhanced surveillance radar 10424
airport surface movements radar surveillance 43460
Arctic sea ice thickness determ., polarimetric SAR appl. 43529
ATR, ATLAS syst. 9648
attributed relational tree approach, sig. classif. 2806
automatic estim. and compensation for target kinematics 17392
automatic object recognition, conf., Orlando, USA (1994). 54
buried pipe location, zero-crossed synthetic aperture 3599
CLEAN algm. for microwave images eval., NDT appl. 42901
cloud and rain, rem. sens., mm wavelengths 10484
coastline change by SAR radar, image texture class. 10512
coherent mode locked TEA CO_2 LADAR for risk reduction and phenomenology expts. 17443
compact time and space-integrat. SAR proc. 17418
conducting objs, buried in dielec. half-space, 2D act. imaging polaris. effects 25548
detect. of clustered point targets of irregular shape 17376
digital elevation models by SAR radar, accuracy 43471
Doppler portrait, radar target image synthesis by math. simul. 17380
EM modeling for GPIR, 3D FDTD modeling codes 42504
ERS-I SAR image of Thames estuary, visual interp. 26746
fast MM-wave imaging algm., act. guidance appl. 41156
fishing vessels tracking, SAR/AVHRR data 25584
FOPAIR, focused array imaging radar for ocean rem. sens. 26732
forested slopes, radar rem. sens., geometric optics theory 18785
forests, repeat pass SAR interferometry 43470
forests, SAR backscatt. & biomass rem. sens. 43538
forward-looking radar reconstruction, long-wavelength holography 17397
fused X-band radar/IR target detect. 8617
geocoding of satellite images, automation of tie pointing procedure 41278
geoid (sea surface topography), NRCS radar altimetry product 26705
Greenland ice sheet, satellite altimeter elevations, accuracy 35347

radar imaging continued
ground penetrating advanced radar appls. 42503
ground penetrating radar, subsurface struct. 10453
high resoln. radar imaging, data extrapolation 9629
hybrid SAR/ISAR imagery of ships, proc. schemes 17385
hybrid strip-map/spotlight SAR 17383
ice sheet radar rem. sens., multilayer lossy dielec. 43521
incoherent radar ship target recogn., wavelet transform approach, extraction 34143
Indian land & sea surfaces, radar clutter characts. 43468
interferometric SAR terrain elevation mapping from multiple obs. 25549
ISAR image and RCS proc. for target support contamination removal 25547
ISAR image of Boeing 747, meas. F-band meas. 17409
ISAR radar image recog. by neural net 9633
ISAR/SAR radar imaging, wide-bandwidth mobile radar appl. 17410
K-distributed clutter, order param. estim., noise effect 25557
land surface imaging by ERS-1 SAR satellite, clock drift 43472
land surface mapping, 2D FM-CW polarimetric SAR 43474
land surface topography, SAR rem. sens., sig. simul. 18782
land surface topography rem. sens., TOPSAT radar mission 10451
laser imaging radar, nonlin. of rot. mirror scanning 17446
laser radar image form., sea surface and water thickness 17454
machine vision, autonoumous land vehicle laser radar range data 17442
massively parallel sig. proc. archit. based on response of retina cells 32824
meteorological radars, clutter removal method 35332
microwave/MM-wave detectors, conf., San Diego, CA, USA (July 1994) 28243
millimetre wave radar imaging 17412
min. Renyi inform., complex sig. reconstruction 24509
model-based multi-sens. fusion 9649
mountainous terrain mapping by radar, SAR stereo restitution 43475
moving objs. 2D radar imaging 9634
multi-sens. rem. sens. imagery, parametric/neural classifier 8506
multidimensional microwave imaging 25551
multisensor image registration, contour-based approach 24699
multisensor target recogn. syst. (MUSTRS) 8558
non-cooperative ident. of ships, electrooptical data 9650
ocean, ERS-1 SAR imaging 35334
ocean coast radar imaging, supporting obs. & ocean modelling 26743
ocean dyn. by radar altimetry, Poseidon/Topex method 10551
ocean rem. sens., RADARSAT, expt. airborne SAR obs. 26739
ocean rem. sens. by radar, French DP & archiving 10553
ocean surface, microwave radar polarimetric backscatt. 26740
ocean surface radar scatt., spatial temporal dyn. model 43524
ocean wave & wind rem. sens., Geosat altimeter results 26741
ocean wave directional spectra, focussed array radar method 43523
ocean wave directional spectra, HF radar computational geom. 26737
ocean wave directions, WaMos radar syst. 26738
ocean wave radar imagery, SAR distortion correction 43525
ocean wave rem. sens., HF radar for directional spectra 10508
peak-holding navig. syst., obj. coord. correction 25604
PERCEPTRON LASAR System for 3-D robot guidance 17455
polarimetric vector diffr. tomography 40274
pulse train deinterleaving, Hough transform 34141
radar/microwave imaging, IEE Colloquium, London (1994) 5477
real-time ocean wave monitoring from space 3609
Redifon intell. ground probing radar 17413
reflective tomography for space obj. imaging, short-pulse-length laser 17434
rem. sens., digital polariz. image treatment 24558
renewal models for maneuvering targets 34114
road rear-end collision avoidance, 60 GHz radar 34152
SAR based ATD/R, speckle reduction via wavelet shrinkage 34110
SAR data quality anal. on open image proc. syst. 9615
SAR data reflectivity spectrum direct determ. 25545
SAR data space-variant proc. 34117
SAR image filtering, combined algm. 25546
SAR image form., opt. proc. 17417
SAR imagery, edge features, clutter stats. 42500
SAR imagery, localized Radon transform for ship wake detect. 17391
SAR images, max. likelihood algm. for target detect. 17365
SAR images adaptative segmentation 17431
SAR imaging, speckle reduction, iter. homomorphic tech. 42484
SAR interferometry, 3-D target reconstruction 17382
SAR param. estim., adaptive algm., texture recogn. *(Chinese)* 34108
satellite image fusion, multiresolution anal. 32886
scan-beam SAR image proc. *(Chinese)* 34107
scan-beam SAR imaging proc. 17425
sea ice, age & thickness, SAR tracking rem. sens. method 43522
sea surface altitude rem. sens., TOPEX/POSEIDON method 43465
sea surface obs. by radar, scatt. rel., wind conditions 10481
sea surface radar altimetry, multiresolution stochastic proc. 10552
sea surface radar imaging, image texture anal. 26742
ship detect. in radar images by neural net 42528
ship traffic control, radar image proc. 34145
sidelobe control in SAR imagery, nonlin. apodization 34118
sigs., wave domain proc. 3604
single-shot laser radar sigs., principal-component filtering 17440
spaceborne SAR antenna patterns determ., distributed targets 25571
strip-map SAR autofocus, approach 25550
super-resoln. range-Doppler imaging 25556
surveillance vol., clutter/noise regions mapping 9622
swell waves at coast, radar rem. sens., SAR method 26744
synthesized aperture radar sigs., digital proc. 3601
target discrim., computational vision human perception models 35393
target discrim., wavelet transforms 16102
target sensing by induced surface current 25567
terrain, recogn. for SAR imagery 41263
terrain imaging by radar, dual-channel radar calib. 43469
tomography, 3D images generation 42494
topography, airborne interferometric SAR, motion compensation 43473
topography of Earth surface, multibeam radar altimetry 18783
topography of forested terrain, repeat pass SAR interferometry 43470
transputer array based SAR processor 9643
vegetation global biomass, SAR backscatt. method 43542
wind, radar rem. sens., polar orbit satellite DP 43510
wind rem. sens., SAR imagery model 35324

radar interference
see also radar clutter
bit interleaving tech. for radar interf. canceller 33743
detect. of clustered point targets of irregular shape 17376
fighter aircraft target detect., PRF set selection 4437
ionograms, interfering HF sigs. ident. 10463
model-based multifrequency array sig. proc. 34116
monopulse proc., AM-AM and AM-PM errors compensation 17423
multicomponent radar interf., adaptive suppression 34120
phased array radar, integrat. of tracking and sig. proc. 17366
PRF radar, analogue noise control syst. 42513
sidelobe canceling, mapping QR decomp. on parallel computers 17421
spatial-Doppler coherent proc. channel, quantization noise estim. 34121
syst. EMC fig. of merit estim. *(Croatian)* 3595
target tracking, meas. selection validity improvement 17379

radar navigation *see radionavigation*

radar polarimetry
20 GHz Earth-Olympus satellite path, propag. research 42333
33/95 GHz dual-polarised radar antenna design 25580
adaptive polaris.-space-time proc. algm. 25561
Arctic sea ice thickness determ., polarimetric SAR appl. 43529
cloud and rain, rem. sens., mm wavelengths 10484
cloud ice crysts., 94 and 220 GHz polarimetric scatt. 23619
Delft FM-CW radar, Doppler-polarimetric research *(English)* 3612
forests, radar 3D backscatt. model for canopies 43540
forests, radar rem. sens., sensitivity to tree geom., model 43539
fully-polarimetric GLRTs for detecting scatt. centers in terrain clutter 17390
land surface mapping, 2D FM-CW polarimetric SAR 43474
metal strip grating dihedral for polarimetric SAR calib. 42519
narrow-/broadband polarimetric radars, signatures/sig. proc. 42499
polarimetric calib., single dihedral corner reflector 34142
polarimetric coherent-on-receive radar systs., calib. 42507
polarimetric radar, discrete scatter model of vegetation 17402
precip. meas., differential phase flucts. 18826
rain rate rem. sens., microwave radiometry and radar methods 10477
random nonspherical scatterer layer, S matrix theory 18784
rem. sens., digital polariz. image treatment 24558
sea surface, radar polarimetric backscatt., Euler vector 43528
terrain imaging by radar, dual-channel radar calib. 43469
ultrawideband polarimetric radar for study of sea scatter 10555
weather radar, dual polarised, pulse repetition scheme 43506
weather radar polarimetry, path integrated differential phase shift 43517

radar receivers
ang. coord. of complex target 3602
CESM, radar ECCM 26829
CW radar, wt. effects on periodic ambiguity fn. 34115
doubleface populated MCM in thin film technol. for HF appl. 21707
ECM baseband freq. models with IF nonlinearity describing fns. 34138
HF receiver for Doppler studies, design and fab. 42525
homodyne step freq. radar range profiles, I/Q errors correction 34129
look-down radars, carrier-free sig. design 35388
low altitude radar appls., irregular terrain modeling 17422
low sig.-to-clutter ratio proc. of radar sigs. 17362
monopulse proc., AM-AM and AM-PM errors compensation 17423
opt. delay line RF filter, SEL diode array 7421
pulsed TOF laser radar, CMOS ASIC struct. 34165
sens. for car appls. 5378
threat data base appl., radar warning receivers 43584
wavelet transform, weak radar sig. detect. 34130
GaAs(InP) quasi-opt. slot HFET mixer, integrated, 40 GHz, car radar receiver appl. 12812

radar signal processing
see also radar imaging
3-D holographic DP and wavelength readout for range-doppler-angle radar, SAR 9640
3D ground penetrating radar imaging, SAR focusing 42506
acousto-optic null steering proc. (AONSP), init. hardware results 17419
act. scatterers, detect./ident./tracking 34131
adaptive antenna proc., arrays error effects *(French)* 17404
adaptive nonlin. algms. for radar tracking 17400
adaptive polaris.-space-time proc. algm. 25561
advanced SS radar, acousto-optic range-Doppler proc. 18988
airborne early warning radar, clutter spectrum filtration *(Chinese)* 34109
aircraft, synthetic range profile meas. 9644
aircraft altitude profile estim., natural spline fn. 18710
aircraft tracking, data proc., EKF 9635
ARMA modeling for radar sig. detect. 34132
automatic object recognition, conf., Orlando, USA (1994). 54
autonomous intell. cruise control radar syst. 34151
beam-steering/jammer-nulling photorefr. phased-array radar proc. 7437
borehole radar sig. ident., time-freq. distrib. 26706
buried obj. detect., radar image reconstruction algm. 18780
CFAR proc. in nonhomogeneous background 17401
chirp sig. matched filter output for real chirp sig. input 32643
chirped laser radar, optoelectronic sig. demodulation 17448
cloud and rain, rem. sens., mm wavelengths 10484
coastline change by SAR radar, image texture class. 10512
decentralized CFAR detect. based on order stats. 2577
Delft FM-CW radar, Doppler-polarimetric research *(English)* 3612
detect. of clustered point targets of irregular shape 17376
digital pulse compression radar systs., polyphase spreading codes 25570
direction finding, large arrays/finite data, perform. anal. 32555
fighter aircraft target detect., PRF set selection 4437
freq.-stepped CW radar data, optimal sig. proc. 17374
homodyne step freq. radar range profiles, I/Q errors correction 34129
hydrol. radar DP systs. design 35353
ice sheet radar rem. sens., multilayer lossy dielec. 43521
icebergs, radar detect. 8416
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
impulse radar extracted signature features, aspect depend. in time-freq. domain 17389
Indian MST radar DP software 35312
industrial appls. of laser radar, conf., San Diego, USA (1994) 5439
ionograms, interfering HF sigs. ident. 10463
land surface topography, SAR rem. sens., sig. simul. 18782
laser radar, DSP, dyn. range *(Japanese)* 34164
LIDAR wide-band Doppler detect. tech. 42530
look-down radars, carrier-free sig. design 35388
low sig.-to-clutter ratio proc. of radar sigs. 17362

radar signal processing continued
M-seq. pulse-compression underground survey radars *(Japanese)* 3610
manoeuvring target tracking, adaptive interact. multiple model algm. 25554
microwave neural networks for sig. clustering 17403
MM-wave radar sens. for road vehicle positioning 42512
model of tracking radar, Signal Processing Worksystem 3598
monopulse proc., AM-AM and AM-PM errors compensation 17423
monopulse type subsurface radar, air void detect. 25574
mountainous terrain mapping by radar, SAR stereo restitution 43475
moving objs. 2D radar imaging 9634
moving-target detect. efficiency, effect of ignoring broadband props. of sigs. 34126
multi-mode OTHR data, model based data fusion algm. 9638
multicomponent radar interf., adaptive suppression 34120
multifunction radars, sig. proc. 34147
multipath height-finding problem 25575
multisensor target recogn. syst. (MUSTRS) 8558
narrow-/broadband polarimetric radars, signatures/sig. proc. 42499
naval electronic surveillance measures radar fn. ident., ANN appl. 35392
non-Gaussian correl. radar clutter, computer generation 34113
nonlin. RCS, higher-order spectra 42497
nonuniform repetition interval pulse-Doppler radar 34137
ocean surface radar scatt., spatial temporal dyn. model 43524
ocean wave directional spectra, HF radar computational geom. 26737
on-platform radar and opt. track fusion 9647
opt. delay line RF filter, SEL diode array 7421
OTH radar fusion, propag. mode estim. 42483
periodic discrete event procs., param. estim. 40924
phase noise meas., digital DP 34156
phased antenna array radar, ang. coord. meas., modelling 3608
phased array radar, integrat. of tracking and sig. proc. 17366
polariz.-space-time domain target detect. 34136
pulse compression radar, terrain-scatt. jamming suppression 25553
pulse radar, range sidelobe suppression by locally weighted filter *(Japanese)* 42490
pulse-Doppler radar data secondary proc. syst., false blips flux dens. 17378
QR decomp.-based least sq. tech., improve ATC radar 2579
quadrature component generation anal., narrow-band oscills., delay method 40766
radiolocation data proc., parallel space filtering 25611
random amplit. modulated harmonic retrieval, higher-order stats. 32460
renewal models for maneuvering targets 34114
road rear-end collision avoidance, 60 GHz radar 34152
SAR, fuzzy block adaptive quantizer 9623
SAR, nonuniform pulse repetition interval 34133
SAR data space-variant proc. 34117
SAR image form., opt. proc. 17417
satellite and airborne SAR simulator 9642
scanning radars, poor resoln., neighbourhood Kalman filtering 9631
scatt. field data, target location estim. 17399
sea level by TOPEX, radar perform., wave form tracking 18843
sea surface altitude rem. sens., TOPEX/POSEIDON method 43465
sea surface radar altimetry, multiresolution stochastic proc. 10552
sea surface radar imaging, image texture anal. 26742
self-calib. methods, diffuse field presence *(French)* 17405
sens. array sigs. deconvolution, time-scaling 32615
ship radar databases, organization, wavelets and struct. VQ 9625
sidelobe canceling, mapping QR decomp. on parallel computers 17421
single and full-polariz. 2-D Prony techs. 17396
small targets signal/data proc., conf., Orlando, USA (1994) 25
snow bright-band detect. by dual polaris. radar 35333
space target tracking, path params. vector determ. 17375
space/time integrat. acoustooptic archits. 7424
spatial proc. algm., priori interfering refl. inform. *(Russian)* 17407
spatial-Doppler coherent proc. channel, quantization noise estim. 34121
spatial-Doppler filter, projection method, calculate weighted coeff. vector 42492
spectral smoothing filter and EMC 25573
stepped freq. CW ground penetrating radar 42478
synthesized aperture radar sigs., digital proc. 3601
target class., extraction, wavelets *(Chinese)* 34134
target HF ultrawideband radar sig. response, PO computation 34127
target recogn. schemes, neural networks 34157
threat data base appl., radar warning receivers 43584
time series distrib. params., hypotheses testing 2540
trimmed-mean CFAR proc., detect. perform. 25555
tropos. small scale struct. study by radar super-resoln. 35325
two-posn. radar, low-flying target detect. and height meas. 17377
ultra wideband radar, waveform generation and sig. proc. 17364
vector neural network sig. integrat. for radar appl. 18976
wavelet subband decomp. in adaptive arrays 17395
wavelet transform, sea clutter suppression *(Japanese)* 9616
wavelet transform, weak radar sig. detect. 34130
weak radar sig. detect. based on wavelet transform 42491
weather radar, av. wind vel. meas., mean Doppler freq. estim. 43515
weather radar, dual polarised, pulse repetition scheme 43506
wide-band coherent laser radar sigs., optoelectronic proc. 17453
wideband radar target recogn., range profiles 34150
wind, radar rem. sens., polar orbit satellite DP 43510
X-band radar, obs. of K-distributed sea clutter 34119

radar systems *see radar*

radar target recognition
2D clutter for IR surveillance image recogn., defn. 4440
acoustic/radar data fusion 42501
act. scatterers, detect./ident./tracking 34131
airborne radar target recogn. problems 3594
aircraft-borne interferometric SAR for 3-D radar imaging 17384
area surveillance, ambient sigs. fusion 42508
ATR, ATLAS syst. 9648
ATR, Lie group parametrization for dyn. based prior 25552
attributed relational tree approach, sig. classif. 2806
automatic object recognition, conf., Orlando, USA (1994). 54
conductive sphere, scatt. centre estim. 23636
data fusion, joint detect./estim. filter 34124
detect. of clustered point targets of irregular shape 17376
Doppler portrait, radar target image synthesis by math. simul. 17380
Doppler spectra of targets with rot. parts, dyn. simul. 17398
fused X-band radar/IR target detect. 8617
Fuzzy ARTMAP, radar target recog. neural net 25583

radar target recognition continued
HF ground wave Northern Radar 9641
high range resoln. radar returns, model based ATR 17393
ident., time-domain bispectral 34112
impulse radar extracted signature features, aspect depend. in time-freq. domain 17389
IR imaging of mil. ground vehicles, clutter metric based on texture 10592
ISAR radar image recog. by neural net 9633
L^2 space optimisation for extraction of natural freqs. of radar target 9617
MM-wave radar target identif. by high resoln. range profiles 42485
model-based multi-sens. fusion 9649
multiradar target detect., data fusion 34128
multisensor target recogn. syst. (MUSTRS) 8558
neural network appl. 34157
off-board augmented fusion for target detect./tracking 9637
PRF radar, analogue noise control syst. 42513
radar data, single and full-polariz. 2-D Prony techs. 17396
RCS/polarimetric signatures, target scatt. centers discrim. 3600
SAR based ATD/R, speckle reduction via wavelet shrinkage 34110
SAR images, max. likelihood algm. for target detect. 17365
small targets signal/data proc., conf., Orlando, USA (1994) 25
target enhancer for navig. buoys, develop. and testing 25577
target tracking, meas. selection validity improvement 17379
target tracking/ident., likelihood-based approach 9621
wavelet transform approach, extraction 34143
wideband radar target recogn., range profiles 34150

radar telescopes *see radiotelescopes*

radar theory
1D random rough surfaces:enhanced backscatt., stationary-phase approxs., full-wave solns. 23572
airborne early warning radar, clutter spectrum filtration *(Chinese)* 34109
anal. model encapsulation 25569
ang. coord. of complex target 3602
buried pipe location, zero-crossed synthetic aperture 3599
CARPET computer program for radar anal. *(Dutch)* 3597
CFAR proc., modified ordered-stats. in nonhomogeneous environ. 42482
coherent laser radar, spectral matched filters 3621
coherent laser radar syst. efficiency, semi-analytic approach 3619
coherent laser radar with diffuse/aerosol targets, heterodyne efficiency 3620
coherent radar PSK sigs., complementary C-seqs. 17381
detect. of clustered point targets of irregular shape 17376
DIAL, combustion research 17438
dust cloud dens. estim., single wavelength lidar 17439
fighter aircraft target detect., PRF set selection 4437
forested slopes, radar rem. sens., geometric optics theory 18785
hybrid SAR/ISAR imagery of ships, proc. schemes 17385
ionos. refr. angle meas. allowing for incidence flucts. *(Russian)* 17406
L^2 space optimisation for extraction of natural freqs. of radar target 9617
laser radar signatures, enhanced backscatt. 17445
low altitude radar appls., irregular terrain modeling 17422
maneuver-driven tracking filters 25558
maneuvering target tracking algm. 9619
MM-wave radar backscatt. from smoke clouds, inversion 42477
moving objs. 2D radar imaging 9634
multiphase complementary pulse compression codes *(Chinese)* 9627
multistatic refr.-error compensation in radar and satellite navig. systs. 17512
OTH radar fusion, propag. mode estim. 42483
perfectly conducting sphere reson. in eccentric spherical dielec. shell 25568
polaris. vector posn., medium depolarisation effects 10462
random nonspherical scatterer layer, S matrix theory 18784
SAR, nonuniform pulse repetition interval 34133
SAR image filtering, combined algm. 25546
SAR param. estim., adaptive algm., texture recogn. *(Chinese)* 34108
scan-beam SAR image proc. *(Chinese)* 34107
synthesized aperture radar sigs., digital proc. 3601
system sensitivity, tropos. thermal lens effect 34122
ultra wideband radar, waveform generation and sig. proc. 17364
wedges,radio scatt.theory, method of iter. 42488
wide-band refl. radar sig., complex envelope intell. props. 9620

radar tracking
2nd and 3rd order digital filters 29370
acoustic/radar data fusion 42501
acousto-optic correlator for radar report-track assoc. 7423
acquisition, tracking and pointing, conf., Orlando (1993) 36889
act. scatterers, detect./ident./tracking 34131
adaptive nonlin. algms. for radar tracking 17400
airborne multisensor surveillance, data fusion IKBS 35395
aircraft tracking, data proc., EKF 9635
airport surface movements radar surveillance 43460
α-β target tracking approach, benchmark tracking problem 17415
area surveillance, ambient sigs. fusion 42508
ATR, Lie group parametrization for dyn. based prior 25552
deep-space navig., overview 17511
Doppler portrait, radar target image synthesis by math. simul. 17380
dyn. imaging and RCS meas. of aircraft 34146
ECDIS/ARPA overlay systs., display requirements 25606
fishing vessels tracking, SAR/AVHRR data 25584
fusion of radar and imaging sens. data for target tracking 16113
fuzzy radar tracking of aircraft 9624
H-II launch vehicle, commun. subsystem develop. *(Japanese)* 43427
IMM-IPDAF for track form. on maneuvering targets in clutter 17372
jump lin. model based aircraft trajectory reconstruction 17373
maneuvering target tracking algm. 9619
manoeuvring target tracking, adaptive interact. multiple model algm. 25554
manoeuvring target tracking, image enhancement algm. 17388
marine traffic mgt., survey of current and possible future measures 25608
missile guidance sig. estim., Kalman filter 26809
model of tracking radar, Signal Processing Worksystem 3598
model-based multifrequency array sig. proc. 34116
monopulse proc., AM-AM and AM-PM errors compensation 17423
moving-target detect. efficiency, effect of ignoring broadband props. of sigs. 34126
multi-mode OTHR data, model based data fusion algm. 9638
multiple hypothesis filter for track initiation, perform. eval. 17370
multiple model filters, tracks stabilization 32694
multiple target tracking, importance of resoln. 17367
multitarget tracking, stochastic simul. Bayesian approach 42493
off-board augmented fusion for target detect./tracking 9637
on-platform radar and opt. track fusion 9647

radar tracking continued
OTH radar fusion, propag. mode estim. 42483
phased array radar, adaptive beam pointing control 17416
phased array radar, integrat. of tracking and sig. proc. 17366
phased array radar, revisit control for tracking manoeuvring targets 17371
pulse-Doppler radar data secondary proc. syst., false blips flux dens. 17378
renewal models for maneuvering targets 34114
scan frame time maximization for tracking maneuvering target 17369
small target detect., long term integrat. 18975
small targets signal/data proc., conf., Orlando, USA (1994) 25
space target tracking, path params. vector determ. 17375
split gate trackers, tapped delay errors 26827
target detect./tracking, HF ground wave radar 9641
target tracking, effect of cross correl. on track-to-track fusion 18979
target tracking, meas. selection validity improvement 17379
target tracking/ident., likelihood-based approach 9621
Tomahawk Land Attack Cruise Missile, force-level anal. 43588
tracker correl. gate size optim. for maneuvering targets 18977
tracking, fused noncoincident meas. 17368
ultrawideband radar, tech. issues 42516
vector neural network sig. integrat. for radar appl. 18976
wideband RCS and impulse response of targets, transient EM field 17424

radar transmitters
AN/FPS-85 radar, peak power tailoring and phase nulling 34159
doubleface populated MCM in thin film technol. for HF appl. 21707
low altitude radar appls., irregular terrain modeling 17422
orbitron maser, test radar demonstration 23071
phased array radar transmitter, pulsed power monitor syst. 34153
ultrawide band pulse sources, picosecond photoconductive switch appl. *(Chinese)* 34158

radarscopes *see radar displays*

radial basis function networks *see feedforward neural nets*

radiance *see brightness*

radiant heat transfer *see heat radiation*

radiation biology *see biological effects of radiation*

radiation chemistry
see also photolysis; radiochemistry; radiolysis
bilayer resist, wet silylation, CARL proc. 38734
chem. amplified pos. resists, micromachining 38738
Hatzakis chem.-amplified resists, lithographic response 38740

radiation counters *see counters*

radiation damage *see radiation effects*

radiation detection
see also alpha-particle detection; beta-ray detection; coincidence techniques; electron detection; gamma-ray detection; meson detection; muon detection; neutrino detection; neutron detection; proton detection; radioactivity measurement; X-ray detection
4π detector systs. anal. by stat. modelling method 10116
axions, dark matter detectors using polarized targets 34880
CR-39 SSNTD, particle ident., pit etching method 10136
diamond, natural type IIa, HI sub-ns detect. 43090
diamond, type IIa detector, photoconductive props. 43157
flux intens. meas. of ionizing radiation 18375
L3 muon drift chambers, spatial resol./induction-crosstalk, cosmic rays 26233
photoelec. detectors, expt. spectral sensitivity 42812
real-time pulse shaping in radiation meas., digital techs. 18383
sealed water calorimeter for measuring absorbed dose 4343
semicond. detectors, radiation resist. improvement 18376
thin plastic scintillator, mirror focused HI TOF appl. 34938
time interval distribution measurements in photon counting distrib. 26238
TLD element readings, mixed field dosimetry algm. sensitivity 35197
GaAs detectors, charge collection efficiency 26205
Rn exposure, polycarbonate etched track detector calib. 18379

radiation detectors *see particle detectors*

radiation dosimetry *see dosimetry*

radiation effects
see also acoustic wave effects; alpha-particle effects; beta-ray effects; biological effects of radiation; deuteron effects; electron beam effects; gamma-ray effects; ion beam effects; irradiation induced creep; laser beam effects; neutron effects; proton effects; radiation chemistry; radiation hardening; voids (solid); X-ray effects
1960's radiation effects research on semicond. devices/materials 11558
APD, large area, failure modes in HEP environ. 23021
AT&T CBIC lin. bipolar proc., radiation effects 30446
automated detector of radiation-acoustic sigs. 28909
BESOI SRAM, 4K, transient and total dose irrad. 29236
BJTs, hot-carrier/ionizing-radiation-induced degrad. 30241
Borexino expt., counting test facility 43131
Calvert Cliffs-1 PWR, extended burnup fuel exam. 27433
Clementine RRELAX SRAM particle spectrometer, radiation belts, solar flares 12534
CMOS 177K gate array, radiation-hardened, develop. 29205
CMOS 4007 devices flown on CRRES MEP expt., total dose correl. 12482
CMOS fusible-link PROM, radiation hardened n-p-n transistor 12537
CMOS radiation tolerance data, mapping on 4-lane chart 13890
CMOS radiation-hardened 32-bit μP based commercial proc. 12567
CMOS/BiCMOS hybrid AD677 16-bit A/D converter, single event effects 29333
conference, high energy physics calorimetry, Italy (Sept. 1993) 20228
conference, optical fibre sensing/systems, Mol, Belgium (Oct. 1994) 20240
cryst. γ-ray detectors for high energy phys., design 4207
Data Workshop, Snowbird, UT, USA (1993) 36859
diacetylene-substituted polydiacetylenes, synthesis, opt. props. 23345
electron, ion, and photon beams, symp., New Orleans (1994) 5484
electronic equipt. radiation effects before 1960, review 11557
ESA BIOPAN flight expt., cosmic ray irrad. EEPROMs 12530
FPGA SEU hardening for space appls. and device charactn. 12478
FPGAs, total dose hardness 12481
fully depleted SOI CMOS SRAM cell, SEU sensit., SPICE anal. 12522
fully-depleted MOS transistors fabricated in SIMOX, radiation response 13729
high resoln. ADCs, 12-/14-bit, total ionizing dose effects 12603
highly-scaled DRAMs, radiation effects study 12535
hole trapping in MOSFET, hot carrier stressing/ionizing irrad. 30284
HV semicond. devices breakdown, model, phenomenological lifetime prediction 30282
IC components radiation suscept. meas. 1466

radiation effects continued
in-line Fresnel electron holography, max. entropy method 2182
insulating ceramics, high-radiation field elec. breakdown 4699
Intel 32 bit μP, radiation tolerance for space appls., eval. 29306
Intel μPs, total dose radiation testing 29305
IR temp. sens., effects and appls. 17807
laser dye DCM, photostability, inorganic-organic host matrices 39692
liq. scintillators, EM/hadronic, radiation damage 26213
low-dose-rate MOS device response testing 13734
memory devices, SEU rate prediction, two param. model 12521
MOS devices, 1/f noise and radiation effects 1382
MOS devices/ccts., radiation effects, meas. syst. *(Chinese)* 25729
MOSFET, recomb., radiation-induced defects 6747
MOSFET IC radiation reliab. software simulator 13898
MOSFET prediction in space environ., conversion model 13735
MOSFETs, radiation-induced leakage current, oxide isolation struct., nonuniform damage 13716
multilayer bond and etch SOI buried insulators, radiation response 13252
n-channel power MOSFETs, irrad., possible sources of 1/f noise 13717
neg. voltage regulator IC, total dose effects 12326
nonlin. fibre couplers, radiation effets on soliton dyn. 31626
npn BJTs, radiation stress and hot-carrier stress effects on current gain 13636
nuc. environments, rem. Raman fibre optic spectrosc. systs. 25869
nuclear and space radiation effects, conf., Tucson (1994) 5489
opt. fiber links, radiation effects, SSC 18206
opt. fibres, response, ionizing radiation 22839
p-MOSFETs, radiation-induced oxide-trapped charge, mobility effect 30322
particle collider, high luminos., rad. damage, interact. region 4110
particle collider materials in high radiation environ. 4044
PCS opt. fiber for dose level sens. appl. 17892
phosphor thin foil scintillating screen for TEM 7459
plastic scintillators, radiation stabil., polymer design 26215
polymer insulators, surface charging, field- and photo-effects 13937
polymeric insulation radiation effects, reliab. testing tutorial 22639
polysilicon emitter BJTs,ionizing-radiation and hot-carrier stress response, visualization 22361
power MOSFETs, low-dose-rate irrad. response 13733
power MOSFETs, single event failure, test data 30362
power MOSFETs, surface generation hump 13730
power semicond. device failure caused by cosmic radiation 30190
power VDMOSFETs, irrad. induced gate oxide charge and interface traps effects 1424
radiation-induced BJT gain degrad., dose effects 1364
scintillator-fiber syst. for calorimetry, radiation damage 26227
SEEQ 28C256 EEPROM, effect of test method on failure dose 12539
semicond. cryst. lattice defects, nonlin. microwave scatt. 38293
semicond. device/IC radiation effects R&D in 1970s, review 13021
SEU and SEL response of commercial digital ICs 29092
SEU at gigahertz freqs., digital ECL 12480
SEU in SRAMs meas. with pulsed laser, spatial depend. 12524
SEUs in monolithic ADCs, device perform. and syst. impact 12602
SIMOX BOX, O implant. effects on radiation-induced hole traps 13251
SIMOX radiation response prediction, spectrosc. ellipsometry 13299
single event effect ground test results, fiber optic data interconnect 18708
soft cleaning, vacuo UV radiation and mol. H_2 gas 13389
SOI MOSFET IC technol. 22602
SOI n-MOSFET radiation hardness improvement by Ge-implant. 13726
SOS SRAMs, Harris 64K devices, radiation perform. 29237
space power thermionic fuel elements, UO_2 swelling simul. 18744
spaceborne electronic/biological systs., cosmic rays/solar particle effects, HI model 13868
submicron SOI SRAM for radiation hardened appls. 12529
TILECAL Barrel hadron calorimeter, radiation damage effects 26229
total dose effects in conventional BJTs and lin. ICs 13637
total-dose response of modern bipolar transistors, space appls. 13635
ULSI technol., radiation hardened, 1M SRAM design 30478
UV laser cavity optics under ionizing radiation, radiation resist. 7709
workshop, Tucson, AZ, USA (Jul. 1994) 28240
a-As_2S_3-Zn bilayers, electron/photon irrad. effects 38405
a-As_xS_y-Ag bilayers, electron/photon irrad. effects 38405
Er-doped fibres, H_2 and radiation resist. 14360
F-doped silica fiber, radiation-resist. charact. 7294
GaAs MESFET model for response, high dose rate environ. 13790
Gd_2SiO_5:Ce, scintillation crysts., γ-ray detect. 4206
p-Ge, phase transform., IR irrad., impact ionisation breakdown 29843
a-$(GeS_2)_{100-x}Ga_x$ films, irreversible photoinduced changes 22189
InGaAs/InP layers, gas source MBE, atomic H irradiation 12049
In_2Se_3 heterocontacts, radiation-stable electronics 13101
$KTiOPO_4$, SHG, photochromic gray-tracking damage 2107
a-P_2Se_3-Ag bilayers, electron/photon irrad. effects 38405
SF_6, asymmetrically perturbed gap, corona studies 13983
Si detectors, microscopic effects 34949
Si detectors, polariz. voltage control, automated syst. 43058
Si, irrad. effects, reverse annealing, simplistic model 22093
Si solar cells, radiation stimulated diffusion, impurities distrib. 11290
a-Si:H TFTs, UV irrad. effects on characts. *(Korean)* 22417
a-Si:H, pulsed-light soaking 1060
Si/SiO_2 MOSFET, dispersive transport, seminumerical simul. 38892
Si-Dy_2O_3 MIS structs., UV irrad., charge accum. 22056
SiC/SiO_2 micropatterning by UV irrad., heat treatment of poly(phenylsilyne) film 38533
SiO_2 opt. fibre atten., nuc. environ., prep. 22842
a-SiO:H films, plasma CVD, solar cell appl. 5213
SiO_2:F, silica-core fibers, radiation resist. 7304
SiO_2-GeO_2 fibre, electro-optic modulation, UV-excited poling 30898

radiation embrittlement *see radiation hardening*

radiation hardening
0.25-μm fully-depleted CMOS/SOI invertor, SEUs, radiation **hardening** 13727
monomer scintillators, pentaphenyltrimethyltrisiloxane 26214
power VDMOSFETs, irrad. induced gate oxide charge and interface traps effects 1424
thin film superconds., gamma-ray and fast neutron radiation effects 14276
Er-doped fibres, H_2 and radiation resist. 14360

radiation hardening (electronics)
1 Mbit CMOS SRAMs, radiation hardness testing 12538
ART2800 DC/DC converter family, 7846 post regulator, space radiation charactn. 29051

radiation hardening (electronics) continued
bipolar IC gain degrad. at low radiation dose rates, phys. mechanisms, models 13871
bipolar lin. microcircuits total dose response depend. on applied dose rate 13873
bipolar transistor microcircuits, hot-carrier and radiation induced increases in base current 13874
bipolar transistors below 10 rad(SiO$_2$)/s, dose-rate response saturation 13639
border traps, MOS radiation response/long-term reliab. 20494
burn-in effects on radiation hardness of transistors and ICs 11725
CMOS, cryogenic analog appls., Texas Instruments 30447
CMOS 177K gate array, radiation-hardened, develop. 29205
CMOS 1 Mbit SRAM on SIMOX material 29235
CMOS DRAM sense amp. designs for improved SEU perform. 12517
CMOS fusible-link PROM, radiation hardened n-p-n transistor 12537
CMOS IR readout multiplexer radiation hardness improvement 30449
CMOS memory cells for design of SEU-tolerant VLSI ccts. 12525
CMOS radiation tolerance data, mapping on 4-lane chart 13890
CMOS radiation-hardened 32-bit μP based commercial proc. 12567
CMOS SRAM peripheral ccts., scaling effects, SEU immunity 12528
CMOS SRAMs, 64 kbit, soft-error hardness, total dose depend. 12520
CMOSFETs, channel thermal noise, 1D charge sheet model 1387
cryogenic rad-hard CMOS readout multiplexer fab. 30448
Data Workshop, Snowbird, UT, USA (1993) 36859
DRAM chips, single inline memory module 6822
DRAMs, radiation hardening, dummy cell concept 37772
ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
FPGA SEU hardening for space appls. and device charactn. 12478
FPGAs, total dose hardness 12481
fully depleted SOI CMOS SRAM cell, SEU sensit., SPICE anal. 12522
gamma-irrad. induced degrad. mechanisms in VDMOSFET 22465
generating sets, electronics, high altitude NEMP hardening 19587
high anti-radiation cables, nuc. fuel proc. facilities *(Japanese)* 19294
high-altitude CPU reliab. anal. 18724
high-temp. electronic device technols. and pot. appls. 6705
hole trapping in MOSFET, hot carrier stressing/ionizing irrad. 30284
IGFET, threshold voltage shift, oxide field depend. 30303
interplan. satellites, solar particle event models 18716
low energy X-ray radiation source calib., dosimetry 18415
Mars'94 expt., Langmuir probe electronics, radiation risk 10306
MCMs, satellite commun. appls. 29726
memory technol./design/testing, workshop, San Jose (1994) 36826
MOSFET IC radiation reliab. software simulator 13898
MOSFET prediction in space environ., conversion model 13735
n-MOSFETs, rapid thermal N$_2$O-reoxidized nitrided gate oxides 38899
neg. voltage regulator IC, total dose effects 12326
nuclear and space radiation effects, conf., Tucson (1994) 5489
opt. interconnection for mil. hostile environ. 43568
particle accelerators, radiation effects on electronics 4239
PIN diode, neutron spectrum meas., Army Pulse Radiation Facility 18371
quartz fibers, forward calorimetry, fast, rad-hard 26204
satellites, SEUs, space environ. 18717
SEEQ 28C256 EEPROM, effect of test method on failure dose 12539
SEU and SEL response of commercial digital ICs 29092
SEU in SRAMs meas. with pulsed laser, spatial depend. 12524
SEU tolerant DRAM cell technol. 12518
SEUs in ICs due to terrestrial cosmic rays, modelling 13867
SIMOX, ultrathin low energy, high dens. appls. 30062
SOI MOSFET IC technol. 22602
SOS SRAMs, Harris 64K devices, radiation perform. 29237
submicron SOI SRAM for radiation hardened appls. 12529
total dose effects in conventional BJTs and lin. ICs 13637
total-dose response of modern bipolar transistors, space appls. 13635
ULSI technol., radiation hardened, 1M SRAM design 30478
workshop, Tucson, AZ, USA (Jul. 1994) 28240
GaAs CHIGFET noninductive impedance transformer design 29351
GaAs SRAMs, total dose radiation hardening/testing 37773
GaAs fast radiation-hard CHIGFET op. amp. 29061
GaInAs solar cells, radiation response, doping effects 19992
InP solar cells, electron radiation damage, irrad. temp. depend. 44415
Si CMOS ccts., g-line exposure and deep UV hardening 22577
Si technols., radiation hardening, space appls. 29993

radiation injuries *see biological effects of radiation*

radiation monitoring
see also dosimetry
activity calc., voluminous samples, coincidence summing effects 34977
Belgium's Doel, reshufflings experience 43876
CATV unwanted sig. leakage estim. and shielding enhancement *(English)* 3677
conference, optical fibre sensing/systems, Mol, Belgium (Oct. 1994) 20240
conference, radiation meas./appls., Ann Arbor, USA (May 1994) 5488
crit. accident dosimetry, CRISIS, KBS 35196
Eberline RO-2 ion chamber, β skin dose monitor 18629
EM radiation in environ. from mobile commun. systs. *(Slovenian)* 43407
emergency protective devices, gamma ray localisation 26117
environ. TLDS, Indian nuc. programmes use, validation 43398
gamma camera, high energy, multiple hole collimator/PMT based 18406
gamma-vision camera, contamin. monitoring of γ-radioact. objs. 26230
Hanford, subsurface radionuclide assess., HPGe gamma-ray borehole syst. 4408
Harwell Instruments N93 Slab Monitor for Pu assay, characteriz. 18368
HPGe γ-ray spectrosc. syst., Rocky Flats plant, mobile syst. 4248
large-area proportional counter, situ TRU meas. 4249
lin. accelerator with asymmetric jaws, monitor units calc. 26463
monitored atmos. releases, radiological assess. codes benchmarking 4344
NBS/NIST Peltier-effect microcalorimeter 34945
neutron monitoring outside BWR biological shielding 34921
NPP, radiation monitors calib. 27373
on-line water contamination monitoring syst. 18912
PCS opt. fiber for dose level sens. appl. 17892
peninsular Malaysia west coast highway, radiation levels 4222
plastic scintillators, Y-12 plant crit. accident alarm syst. detectors, testing 4226
preventive maint., IR thermography *(German)* 36983
PWR accident, ^{134}Cs/^{85}Sr dissolution/remobilization, rainwater 26769
radiochemical plant personnel, ^{241}Am excretion, urine 35200
radiological departments QC, Florence General Hospital 18507
real-time aq. tritium monitor, liq. scintillation counting 18358

radiation monitoring continued
scintill.-fiber sens., ^{90}Sr/^{238}U det., contaminated soil surface 4407
secondary std. Rn detector 34947
UV radiation hazards, conf., Los Angeles, CA, USA (1994) 11572
video/gamma ray imaging syst., nuc. indust. robot appl. 19399
X-ray air kerma primary stds., changes (1970, 1993) 26507
Rn, meas. tool, buildings, remedial actions 18367
^{222}Rn progeny, automated gross alpha/beta activity monitor 43400
Si photodiode, X/γ-ray detector 43163
Si solid-state microdosimeter for radiation monitoring in spacecraft/avionics 18636
a-Si:H/CsI(Tl) X-ray detectors for radiation monitoring 43161
Si-Gd-Si sens., large area, thermal neutron detect. 18329
SiO$_2$ opt. fibre atten., nuc. environ., prep. 22842
U contamination characterisation, surface soils 35355

radiation monitors *see radiation monitoring*

radiation patterns, antenna *see antenna radiation patterns*

radiation protection
see also fission reactor containment; radiation monitoring
ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
Borssele PWR, radiation protection experience 27364
bottleneck opt. limiters, excited-state absorbers 2047
cardiac angiography, radiation exposure, personnel 18668
Chernobyl accident, 30-km zone, emergency countermeasures effectiveness 4339
chest radiography, effective doses, different techs. 18655
chest radiography, patient dosimetry 18669
committed effective dose equiv., US NRC guide calcs. 4338
computed tomography, Dutch hospitals, patient dose, image quality 18645
computed tomography, QC, image quality criteria 18483
computed tomography dose assess., practical approach 18656
conventional diagnostic radiology, QC, Greece 18502
coronary angiography, image quality improvement, scatt. X-rays simul. 43273
data anal., inform. modelling 18648
dental radiological equipt., radiation protection problems 18512
diagnostic radiographic images, CEC quality criteria, basic concepts 18480
diagnostic radiographic images, quality criteria, 1991 CEC trial 18481
diagnostic radiology, antiscatter grids design, computer modelling 18651
diagnostic radiology, grid design optimisation 18494
diagnostic radiology, QA, IEC projects/achievements 18479
diagnostic radiology, QC initiatives, computer appls. 18650
diagnostic radiology, radiation doses reduction, IAEA-CEC research programme 18643
diagnostic radiology equipt., tube current calib., noninvasive method 18497
diagnostic radiology optimisation programme, Madrid area 18501
discrete radioact. particles, nuc. indust. experience 43842
DOE workers safeguards, public, nuc. safety regulations 18682
electron storage rings, gas bremsstrahlung, photon-neutron shielding 26506
ELF EM radiation base limits determ. *(Slovenian)* 15455
embryo, fetus or nursing child, protection from radiation exposure 26509
emergency protective devices, gamma ray localisation 26117
energetic light ion beams in PBFA 26021
fluoroscopic imaging, automatic exposure control 26298
gas bremsstrahlung evals. for Φ-Factory, adsorbed dose 35198
health hazards of natural and radioactivity *(German)* 10294
ICRP recommendations, radiological protection, med. 18641
Indian Pt. 2 PWR, full coolant syst. decontamination eval. 27414
intensive care unit, radiological activity, patient/worker exposure 18665
inter-building fuel transfer cask, conceptual redesign 35871
internal dose, dosimetric/biokinetic models 35194
IRPA regional congress, Portsmouth, UK (1994) 11566
Kola NPP, containment shell leaks determ. 35786
lumbar spine exam., lateral lumbosacral projection, patient doses 18666
lunar surface fission power supplies, radiation protection 26515
mag. shields, living beings protection *(Croatian)* 4335
mammography, breast doses reduction, recommended actions, Madrid 18667
mammography, dose meas. protocols comparison 18661
mammography, QA, patient dosimetry 18647
mammography, QC project, Greece 18510
meas. techs., recent develop. *(German)* 26501
med. exam./treatment, ionising radiation, patient dose reduction 18638
med. radiation exposures, UNSCEAR data collections, trends/consequences 18642
med. X-ray diagnostic units, QA programme, Belgium 18506
mobile X-ray equipt., QA programme 26285
NORM, contaminated sites, cleanup criteria 18683
NPP valve hardfacing, Co reduction guidelines 27413
nuc. facilities, decontamination, decommissioning, safety 18681
paediatric radiology, QA evol. 18482
patient dose, image quality, United States experience 18644
patient dose, rational reduction, WHO activities 18637
patient dose protocols/trends, UK 18652
QA, European Federation, Medical Physics Organisations 18639
radiographers, radiation protection education/training 18640
radiographic automatic exposure control syst., perform. optimisation 26284
radiographic image quality, scientific work-up, radiologist's approach 18476
radiography, QA programme, constancy check level 26297
radiological departments QC, Florence General Hospital 18507
regulator's view of radiation risk and protection 26505
Savannah River Site D&D program status 18680
Space Station Alpha power syst., environ. control/protection 26610
sunscreen materials, pass. protection capabilities against UV solar radiation 10291
UV radiation hazards, conf., Los Angeles, CA, USA (1994) 11572
workers protection optimisation, NRPB recommendations 10296
X ray diagnosis and nuc. med. trends 18477
X ray units database, Lower Saxony, radiation protection, QC 18500
X-ray computed tomography, med. exposure source 18664
X-ray sources for angiography comparison, bremsstrahlung and monoenergetic 10199
^{37}Ar, tissue equiv. proportional counters, calib./testing 10299
^{60}Co, source-to-axis dist. teletherapy units 35142
H maser storage box, radiation resistant/reproducible coatings 39639
H$_2$, tissue equiv. proportional counter, radiation protection microdosimetry 43393
Pu prod. site cleanup, interim stabilization, recycled concrete 18918
Rn, meas. tool, buildings, remedial actions 18367
Si photodiode, X/γ-ray detector 43163

radiation therapy
see also hyperthermia; laser applications in medicine
arc therapy, patient support assembly modif., controlled rot. 35147
bioelectromagnetics in Russia, review 35028
blood, vitro opt. action methods/apparatus 26457
bone repair and adaptation, EM field effects 35143
boron neutron capture therapy, accel.-based epithermal photoneutron source 4146
brachytherapy, low-dose-rate, liq. ionization chambers props. 43410
breast cancer, hyperthermia treatment, dual-freq. US applicator 26470
cardiovascular interventions, diagnostic/therapeutic, conf., Los Angeles, CA, USA (1994) 5463
catheter antenna for percutaneous microwave therapy 35141
cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
conf., modern imaging technol. clinical appls., USA (1994) 20212
conf., therapeutic radiology/oncology, USA (1994) 36871
deep heating hyperthermia, induction applicator 26468
dermatology, laser appropriate 43334
diamond, synthetic, X-ray study, dosimeter appl. 43404
dipole-type antennas for interstitial hyperthermia, SAR distribs. 10269
Dornier HM3 extracorporeal shock wave lithotripter, modelling 4296
dyn. beam modulation, computer-controlled absorber 26460
electron beams, simple mag. spectrometer 10270
electrotherapy interf. effects 10271
embryo, fetus or nursing child, protection from radiation exposure 26509
endotracheal tube laser surgery, heat resist. safety *(German)* 26455
excimer laser angioplasty, current status/future prospects 43339
excimer laser angioplasty, technol. challenges 43338
fiber guided laser beam appls. in med. *(Japanese)* 4269
fiber optic instrumentation, conf., Los Angeles, CA, USA (1994) 5465
fiber optics for FEL med. appls. 35152
glaucoma, open angle, Er:YAG lasers in surgical treatment 43337
glaucoma filtering surgery, laser appls. 43336
HDR microSelectron QA studies, well-type ion chamber 18600
hyperthermia, intracavitary US phased array syst. 10265
ICRP recommendations, radiological protection, med. 18641
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
immune status correction of patients, MM-waves appl. 43347
interstitial hyperthermia, SAR characts. of mag. ring loaded antenna *(Japanese)* 43344
interstitial laser photocoagulation, basic optothermal diffusion theory 10266
intracardiac HF EM catheter ablatherapy, tech. aspects 10267
intraoperative radiation/US hyperthermia, simultaneous delivery syst. 18596
laser ablation bubble, fiber optic probe method, time-resolved photography 43215
laser angioplasty advantages, laser source choice 43340
laser appls., conf., St. Petersburg, Russia (1993) 11527
laser appls. in med., conf., Budapest, Hungary (1993) 20211
laser surgery, conf., Los Angeles, CA, USA (1994) 11574
laser welding, selecting necessary/sufficient params. 43329
laser-tissue interaction, conf., Lille, France (1994) 20265
leg vein treatment, laser/incoherent light source therapy comparison 43330
lin. accelerator with asymmetric jaws, monitor units calc. 26463
lin./circ. electron accelerators 4297
LINAC calib. meas., logged/generated reports 43346
med. exam./treatment, ionising radiation, patient dose reduction 18638
med. radiation exposures, UNSCEAR data collections, trends/consequences 18642
microwave appls. in medicine, colloquium, London, UK (1995) 28227
microwave forceps, tissue welding by microwave energy 35146
monochromatic X-rays in med. diagnosis and therapy 10198
multielement flexible microstrip patch heater for hyperthermia treatment 43345
multileaf collimator, commercial, dosimetric characts. 35204
multileaf collimator field prescription prep. syst. for conventional radiotherapy 4294
multislit variable width collimator for microplanar beam radiotherapy 43355
ophthalmic technols., conf., Los Angeles, CA, USA (1994) 20215
PACS design/evaluation, conf., USA (1994) 20213
peptic ulcer treatment by microwave reson. therapy 43342
Philips SL20 LINAC, automatic param. logging software syst. 43343
photodynamic therapy conf., Los Angeles, CA, USA (1994) 5464
photoneutrons from med. LINAC, spectrum/dose meas. 43409
photothermal therapy of vascular lesions and cancer 35149
pop. radiation absorbed dose, diagnostic nuc. med., Iran 43399
portal imaging, electronic devices, multipurpose phantom 26332
portal imaging, exit dosimetry/QC meas. 43408
portal imaging, Philips SRI-100 syst., installation/QA 43328
proton beam delivery to prone patient, flexible syst. 26456
radiation sens., fiber-optic-based, ionizing radiation det. 26503
radioimmunotherapy dose meas., miniature MOSFET dosimeter probe 35195
skin hemangioma radiotherapy, infancy, thyroid cancer risk 10264
solid-state dye laser for med. appls. 18598
spherical slot array applicator for microwave hyperthermia 18591
stereotactic ^{125}I seed brachytherapy, computer planning, malignant gliomas 26461
stereotactic radiosurgery, linac beams checking, fluoresc. screen imaging 18599
thermoradiotherapy syst., simultaneous microwave hyperthermia/^{60}Co irrad. 18593
urologic appls. of laser technol. 43332
US hyperthermia syst., wide appl. *(Japanese)* 18602
Varian 600C LINAC, dosimetric methods comparison 43411
Varian LINAC, dyn. wedges, beam data meas. 35148
vascular lesions in children, flashlamp pulsed dye laser therapy 43331
VISTAnet testbed, traffic meas. for Dynamic Radiation Therapy Planning 24749
VISTAnet/MICA, med. appls. leading, NCIH 10301
X-ray air kerma primary stds., changes (1970, 1993) 26507
^{60}Co, source-to-axis dist. teletherapy units 35142
Er:YAG laser clinical niches 35150
Ho:YAG coronary laser angioplasty, large clinical experience 43341
^{125}I brachytherapy sources, air kerma rate meas. 26466
^{226}Ra treatment, skin hemangiomas, children, organs absorbed dose 10292
^{90}Y bremsstrahlung quantitation, planar gamma camera imaging 10262

radiationless transitions *see nonradiative transitions*
radio *see radio applications; radiocommunication*
radio applications
see also radio direction-finding; radiocommunication; radionavigation
2.45 GHz radio syst. for automatic passenger gates 9192
2.4 GHz low power data commun. syst., develop. *(Japanese)* 42179
fault-tolerant transputer based digital commun. syst. 43461
heating load mgt., radio teleswitching 5380
hoist automation, radio signalling 11397
likelihood distributions for radio wave tomography 10456
mobile ATE for flightline and forward battle areas 34366
multitarget radial rem.-positioning syst., perform. simul. 25973
RadioGuard, RF cable sens. for security appls 42175
road pricing, RF/vision syst. 42187
traffic control systs., urban, radio synchronisation 17165
vending machine data collection syst. *(Japanese)* 42178
VICS radio beacon, in-tunnel transm. charact. 42340
radio broadcasting
see also digital audio broadcasting; direct broadcasting by satellite
Australian Broadcasting Corporation, technol. convergence implications 3652
BBC radio networks, RDS EON/travel services 34207
digital simulcast trunking syst. fine tuning 3373
European syst. for transm. of digitized TV sigs. via satellite 9694
Eurovision Network operations, computerised planning syst. appl. 42570
Fleming and Marconi, wireless transm. develop. 5720
FM multiplex broadcasting syst. DARC devel. by NHK 42264
FM radio and TV broadcasting antennas, field level reduction 3660
future broadcast technols. 3651
highway advisory inform. radio syst., speech synthesizer 42568
ionos. propag., solar/geomag. activity effect 40338
LF/MF skywave propag., daytime 40337
microwave radio syst. PV power supply, project overview 19562
mobile commun. and broadcasting systs., EMC, microwave/laser scatt. 23646
MW SSB and DSB compatible receiver, AM dual-mode design 9708
PC driven HF broadcast receiver 17554
PRN capacity, distributed media access protocol, perform. anal. 33881
Radio Television Malaysia's, computerised news centre 42577
RDS, Independent Local Radio company prospectives, present/future 34209
RTI/IVHS data distrib., virtual beacons 3459
satellite distrib., ISDN back-up syst. 42564
std. apparatus for automatic monitoring of sound-broadcasting sig. level 3658
telecomm. technols. innovation, hist. 33303
telecomms. in rural areas, human dimens. 42575
transmitter network, freq. assignment problem 3659
UK independent sector RDS, current regulations/future issues 34206
radio data systems
American Radio Broadcast Data System, outlook 34208
ATC on airport surface, VHF data link 10422
BBC radio networks, RDS EON/travel services 34207
channel, Navstar GPS correction data transm. 34192
DAB, dyn. range control and music/speech control 25641
digital traffic inform. 9185
FM multiplex broadcasting syst. DARC devel. by NHK 42264
FM subcarrier data syst., develop. *(Japanese)* 3649
GNSS transponder and self organising TDMA data link 10378
IEE Colloquium, London (1994) 5510
microwaves in aviation, commun. and control 18778
PRESENT, multimedia inform. broadcasting service 41992
R&S Radio Data Codec DMC 01, RDS transm. and FM transmitter control 9704
RDS, Independent Local Radio company prospectives, present/future 34209
receivers practical considerations 34226
RTI/IVHS data distrib., virtual beacons 3459
SS digital data link for aviation 10379
traveller inform., radio data syst. protocols 33521
UK independent sector RDS, current regulations/future issues 34206
radio direction finders *see radio direction-finding*
radio direction-finding
airborne direction-finding cross interferometer perform. 25618
aircraft tracking, data proc., EKF 9635
automobile navig. systs., immobilisers, night vision, fuzzy logic 36763
Battle of the Atlantic, radio systs. role 26812
CDMA network, mobile positioning, perform. anal. 25619
data proc., parallel space filtering 25611
HF direction finding systs., polariz. diversity contrib. 34187
HF hand-held narrow-aperture direction finder 3641
low lat. whistlers propag. mech., direction finding meas. 23644
magnetos. VLF/ELF radio waves, direction finding method 23641
multichannel direction-finding syst. using MUSIC algm. 25616
multiple source synthesis for training array neural nets. 23959
nonbiased estim. of ang. coord. 17494
oil spill tracking, Argos syst. 26774
parallel space filtering subsystem for target tracking, EKF 16030
phased antenna array with discrete phasing, direction-finding accuracy enhancement 31986
PRN, distributed media access protocol, set-up time, perform. anal. 33882
PRN capacity, distributed media access protocol, perform. anal. 33881
pulse noise generating source, direction finder develop. 23743
radar theory, ang. coord. of complex target 3602
Rohde & Schwarz Digital Direction Finder DDF 9184
simul. modeling 34191
single-channel direction finders, ang. coord. resoln. improvement 42539
super-resoln. direction-finding appls. and implement. 42544
triangulation problem soln. 15903
VLF radio waves, ground-based direction finding 23637
whistlers, causative atmos. location, one station 23640
radio equipment
see also antennas; radio receivers; radio repeaters; radio transmitters; transceivers
2.45 GHz radio syst. for automatic passenger gates 9192
60 Mb/s QPSK/OQPSK burst digital demodulator for radio appl., CMOS VLSI implement. 17006
Alcatel millimetric wave transm. equipt. 25221
Alcatel terrestrial/satellite microwave commun. products for mil. networks 26817
centralized control for fiber-optic microcell radio syst. 3450

radio equipment continued
CMOS LSIs for pers. inform. and telecom. systs., trends 22565
CMOS/PLL LV synthesizer, SIMOX technol. *(Japanese)* 21152
COMPLAB Professional, time domain functional simul. of radio-engng. devices 28936
Doherty microwave amp. for digital radio systs. 37644
electrolytic detector designs for radio reception 9187
EM pulse, param. estim. of currents induced in cylindrical conducting shell 8003
EMC conditions optimisation of radio equipt. 25219
Fresnel region microwave/MM-wave bands antenna-reflector 9197
ground to train radio, multi std. internat. syst. 42171
GSM syst., security aspects/mgt. 3351
handy phone UHF high power amp. module 42255
high power external pulse EM field effects 25218
hospital EM interf., European Union Directive 18685
household radio equipt., solar cell power supply tests 20151
household radio equipt. power supplies, solar cell-based 20150
ident., Wigner-Ville distrib. appls. *(Japanese)* 17021
INTELSAT VIII/VIIIA global commun. satellites 42310
Japan indust., scientific and med. RF apparatus, stds. 23683
low-loss splitter 3317
low-power 900-MHz mobile RF synthesizer, CMOS chip 33861
low-power wireless mobile commun. syst. 3490
ME2632A/B/C digital mobile radio test syst. for PDC/PHS phone prod. *(Japanese)* 33769
microwave radio commun. systs., DSP and VLSI technol. 25223
Mitsubishi Electric base-station modulation/demodulation eqpt. *(Japanese)* 33892
Mitsubishi Electric digital MCA syst. base station *(Japanese)* 33897
mixed-sig. commun. LSIs, design, device/crosstalk noise 12660
Molecule, Mitsubishi Electric microcell base station for United States *(Japanese)* 33894
NEC's digital cellular base station syst. *(Japanese)* 17081
nonlin. systs. ident./compensation, sampling freq. 32778
orthogonal FDM based syst. for multiaccess methods testing 9329
p-n-p-n-struct. equiv. for integrated radio-electronic devices 33756
portable radio, UHF power transistors, MOSFET IC-technol. 1408
quasi-opt. microwave cct. techs. for wireless appls. 12747
radio-electronic apparatus, probab. of failure-free operation 3318
Radon transform based constellation ident., anal. 33683
Rohde & Schwarz, RFI field-strength meas. in GTEM cell, EMI software ES-K1 8008
Rohde & Schwarz Digital Direction Finder DDF 9184
Rohde & Schwarz Digital Radiocommunication Testers CMD 54/57 9341
Rohde & Schwarz Radiomonitoring System TS9965 9183
Russia, GSM transmitter interf., airborne radio-navig. equipt. 33859
satellite equipt. packaging technols. 25452
SDH microwave transm., network appls. and Alcatel products 25222
SH7600, RISC microcomputer for pers. commun./multimedia eqpt. 12582
ship EMC requirements 2262
spectrally efficient modem for land-mobile radio, perform. 9272
syllabic companders, strict sense envelope detect. 9162
Telecom LSI series, Astro Array *(Japanese)* 13854
TETRA radio terminal design, phys. layer 42282
third generation radio archit., adaptive antennas appl. 3482
UHF-SHF marker generator 33764
ultra-broadband high perform. RF choke for commun. appls. 37996
unwanted emissions meas., radio holography 25227
VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938

radio LAN *see wireless LAN*

radio links
see also microwave links; radiocommunication
2.3 GHz TV broadcasting, mobile live reporting *(German)* 34222
1984-1994, rural telecomms. progress 3004
adaptive TDMA, link adaptation 33214
asynchronous video coding for wireless transport 32187
ATM transport archit. for multiservices wireless PCN 17087
auroral ionos. HF channel, oblique sounding 23621
cct.-mode data on wireless links, retransmission scheme 17090
CDMA cellular network, forward link perform. 25366
CDMA cellular networks, antenna arrays, downlink perform. 17093
CDMA cellular syst., forward link multipath propag. 33885
CDMA cellular systs., uplink teletraffic behaviour 9257
CDMA joint detect. mobile radio systs., interfer. suppression 33887
CDMA mobile radio systs., reverse link anal. 3392
CDMA multiple-cell radio syst., perform. eval. 3386
CDMA PCS syst. perform., simul. results 3384
CDMA radio network planning 33866
CELARN, cellular local area radio network 3484
cellular CDMA, forward-link power control law 3347
cellular systs., uplink capacity, bounds/estim. 17064
cellular TDMA networks, cochannel interf. simul. 17060
computer generation of sigs., simul. program 17025
Croatia, radiocommunications on inland waterways 42537
digital cellular syst. radio link protocol throughout perform. 33799
digital video sig. transm. via RAI analogue FM radio links *(Italian)* 9158
DS-CDMA cellular mobile radio network, down-link power control 33871
DS-CDMA field trial syst., down-link design 9391
DS-CDMA mobile syst., fading channel, anal./simul. 3391
dyn. vehicle network, inter-vehicle commun. 33757
Erlang capacity of shared resource 40540
fixed radio access for wireless subscriber connection *(German)* 33765
Fresnel knife-edge diffr. correction factors based on UTD results 2230
HF FSK radio links, optimal syst. params. choice 17018
high speed indoor wireless systs., directional antennas 3329
indust. radiotelemetry appl. possibilities and prospects *(German)* 8874
ionos. irregularities study, HF channel 35308
ITU mobile radiocommunications freq. spectrum allocation *(Japanese)* 33904
Marconi's (1901) transatlantic transm. wavelength, transmitting syst. anal. 25267
meteor-based radio systs., ellipt. polariz. antennas appl. 42341
metropolitan freeway monitoring, random access channel 3075
MM-wave fiber-optic radio syst., opt. TDM *(Japanese)* 9198
mobile radio networks, transactions via short range commun. links 9355
Multihop Packet Radio Networks, routing algm. 2993
multihop PRN, distributed routing algm. 25247

radio links continued
multipath fading countermeasures, India 7967
obstructed rural radio path at 462 MHz, seasonal propag. effects 40360
optimal freq. distrib. in group of radio links 3315
OQPSK-type modulations, mobile radio transm. modeling/perform. eval. 17122
QPSK TDMA digital radio link, analog FM interf. 33841
RF Mission Planner, warfare commun. simul. 26816
Rohde & Schwarz HF Data Modem GM 857 C4 9119
rural telecom. networks/services, Africa 42182
satellite commun., effect of atmos. phenom. 42305
slotted ALOHA for high-capacity voice cellular commun. 3340
slow freq. hopped cellular syst., radio link/syst. simul. 9286
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
TCM, probab. dens. of ISI 15713
TCP end-to-end perform. improvement, mobile internetworks 33285
TDMA indoor wireless cellular systs., punctured convolutional codes, optimal coding 33872
TDMA radio based ISDN, rural radio commun. syst. 3235
terrestrial digital radio links, reduced state seq. estim. 9190
unbalanced orbital diversity Earth-space syst. 42302
urban radiowave propag., IEE Colloquium, London (1994) 5480
vehicle-to-vehicle commun. for AVCS platooning 5354
Washington D.C. metro syst. tunnels commun. syst. 9281
wireless access commun. syst., radio link access procedure 9365
wireless commun., standardization 25358
wireless commun. overview, consumer electronics perspective 9403

radio networks
see also packet radio networks
access network, evol. trends and economical considerations 41707
adaptive array for mobile radiocommunication, EMC props. 25326
aggressive handover algm. for mobile networks 3396
Alcatel terrestrial/satellite microwave commun. products for mil. networks 26817
asymptotic capacity of multi-receiver networks 40530
ATM networks, modulation level-controlled radio syst. 3314
automatic vehicle location syst. in Hong Kong 9683
BBC radio networks, RDS EON/travel services 34207
burst error activity anal., network perform. determ. 9397
CDMA cellular networks, antenna arrays, downlink perform. 17093
CDMA cellular radio network 25357
CDMA digital cellular, field test results 3383
CDMA for terrestrial/mobile satellite commun. networks 17049
CDMA network, mobile positioning, perform. anal. 25619
CDMA networks, decorrelators for multi-sens. systs. 33761
CDMA networks, integrated voice/data traffic, code allocation 33908
CDMA overlays of narrowband waveforms, interf. suppression 25355
CDMA radio network planning 33866
cellular mobile networks, freq. assignment 25423
cellular mobile radio networks, freq. planning 33860
cellular mobile radio systs., outage probab. computation 33909
cellular network overlapping channel assignment tech. 42201
cellular network planning, radio coverage defn. methodology 42227
cellular TDMA networks, cochannel interf. simul. 17060
centralised wireless commun. network, slotted idle sig. multiple access with collision detection 42230
DAB channel and mobile reception, common-wave network meas. in Bavaria *(German)* 9692
DAB common-wave network in Bavaria, field trail results *(German)* 9693
DAB field tests in Italy 42573
DAB single freq. network project 17536
developing countries radio network design, RAP package-based 31843
digital cellular-PSTN interconnection quality assess. 42228
distributed power control 9376
DS-CDMA, integrated voice/data wireless networks, grade of service 9364
DS-CDMA microcellular network, soft handoff 3470
DS-CDMA networks, multi-media integrat. 25235
EMC effects on connectivity of radio networks 17009
Ericsson's CME 20 implement., GSM network soln. 33771
Ericsson turnkey syst. for GSM 900/DCS 1800 networks 42257
Eurovision Network operations, computerised planning syst. appl. 42570
global commun. highway, beyond Iridium 3312
GSM mobile networks, subjective speech quality 3446
GSM network, adaptive antennas for freq. re-use 9395
GSM network, Q3 network mgt. interface 9402
GSM network archit. issues for next century 3444
GSM networks, test products develop. 9201
GSM procedures for integrated cellular/satellite syst. 25319
GSM radio networks, multivendor possibilities 9399
high-power VHF single freq. network for DAB, field trials 25640
land mobile radio networks, digital video/speech transm. 17048
MEO constellation, global PCS, satellite network archit. 25398
microwave radio, optimum soln. for public and private appls. 42159
microwave radio syst. PV power supply, project overview 19562
mobile commun. networks, handover related perform. 3401
mobile commun. regulation 33928
mobile network mgt., operational perspective 9401
mobile satellite networks, handover queuing, dyn. channel allocation 25316
motorway commun., radio distrib./opt. transm. network 42157
multi-hop radio networks, randomized broadcast protocols 3319
Natel D GSM syst. for digital mobile commun. *(German)* 42299
NEC, digital video transm. technol. develop. *(Japanese)* 42617
NEC's digital cellular base station syst. *(Japanese)* 17081
output-based objective speech quality 8195
PCS, multiple hierarchical cellular overlays 25397
pers. commun. services, satellites role 25298
pers. handy phone syst., telecomm. service enhancement 3115
Philips DECT technol. for wireless local loop networks 42063
public land mobile, network mgt. 9400
R&S Signal Generator SME extensions for testing, digital networks 9968
RACE 2087/TITAN, access network alternatives *(Italian, English)* 42071
radiopaging technol./systs., wide-area 33773
RDS for digital traffic inform. 9185
road vehicle radio network technols. 42206
satellite PCN, 3rd generation, technol./networking issues 25413
satellite/cellular integrat., terminal manufacturer's perspective 25396
SDH microwave transm., network appls. and Alcatel products 25222
SDH radio, new generation, innovation 42186
short-range commun. networks, appl. layer archit. 9161

radio networks continued
spatially distributed radionets, freq. assignment algms. 25643
TCP/IP, mobility impact, simul. study 3201
TDMA digital cellular systs., PDC std. based 3441
telecomms. systs., network mgt. 9398
third generation mobile/fixed commun. integrat. 25258
third-generation mobile radio network planning propag. meas. 33787
transmitter network, freq. assignment problem 3659
TRT's MDL and DRL n×2 Mbit/s access relay systs., appls. 42156
universal pers. commun., wireline network access 33929
wide area wireless data networks, connectivity 25057
wireless cellular commun., dyn. channel assignment, parallel simul. 25291
wireless cellular network distributed dyn. channel allocation algms. 42229
wireless ISDN commun. appl. criteria and prospects *(German)* 41921
wireless network mgt., impact of site selection 41674

radio receivers
see also microwave receivers; millimetre wave receivers; submillimetre wave receivers; superheterodyne receivers
acousto-optics in electronic combat systs. 18971
adaptive algms. for flexible equaliser in mobile receiver 42270
adaptive Bayesian decision feedback equaliser, CCI compensation 15941
adaptive diversity reception, prediction, smoothing, interpolation 25447
adaptive DS-SS receiver for burst type interf. 17002
adaptive equalization for fading mountainous terrain 3426
adaptive FM IF syst., improved selectivity, top-down design methodology 34229
adjacent channel pulse interf., superheterodyne immunity estim. 23701
adjacent-channel, cochannel, and ISI suppression 15519
AM dual mode receiver for broadcasts reception 17553
antipodal Rayleigh fading sigs. detect. in severe CCI 8386
ARAKE type receiver struct. for narrow band wireless systs. 15955
asymptotic capacity of multi-receiver networks 40530
asynchronous CDMA systs., interf. minimization 42165
asynchronous CDMA systs., lin. adaptive transmitter-receiver 42145
asynchronous CDMA systs., lin. adaptive transmitter-receiver 25243
attitude determ. using GPS, space flight tests 17502
AWGN multi-user channels, soft-decision interf. cancellation 42162
Battle of the Atlantic, radio systs. role 26812
BBC radio networks, RDS EON/travel services 34207
binary FSK direct conversion receivers 3463
blind equalization based on Nakagami fading index, cost fn. 3430
BPSK modulated co-channel sigs. reception, dual sig. receiver 33886
BPSK receiver, class-A impulsive noise quadrature components 25220
buffered telemetry demodulator for Galileo mission 9420
C/A-code tracking differential GPS, category IIIB automatic landings 3638
car RDS receivers practical considerations 34226
CDMA, CCI, spatial/temporal filtering 25234
CDMA adaptive SS receivers, CCI suppression 33883
CDMA autonomous multipath diversity receiver 25440
CDMA cellular network, forward link perform. 25366
CDMA demodulator, interf. robust, spectral correl. props. 3327
CDMA for terrestrial/mobile satellite commun. networks 17049
CDMA joint detect. mobile radio systs., interfer. suppression 33887
CDMA mobile radio, joint detect./coherent receiver antenna diversity 25364
CDMA mobile systs., power control, perform. and syst. design 33868
CDMA networks, decorrelators for multi-sens. systs. 33761
CDMA receiver, near-far immunity 25228
CDMA syst., one and two branches DLL comparison 3472
CDMA systs., channel estim., interf. reduction 9235
CDMA systs., multistage RAKE receiver 9242
cell size vs. receiver complexity assess. in urban areas 9325
CMOS low-power transponder IC for identif. systs. 29397
code diversity FH-SSMA commun. systs., optimal receivers 9179
code sync., principles/techs., review 25236
coded partial response digitally phase modulated sigs., perform. 15714
combined lin.-Viterbi equalizers, comparison and design 9175
computer generation of sigs., simul. program 17025
CPFSK differential detect., LO phase noise effects 42283
CPM sigs. neural receiver 33913
DAB in Canada 42574
Decca Navigator radionavigation receiver design and DSP 42543
decision-directed SS-RAKE receiver for fast fading mobile channels 9233
DECT-type systs., non-coherent equaliser receiver struct. 8855
digital commun. receivers, time-reversed IIR filtering 33877
digital mobile commun., blind seq. detect. 17039
digital mobile radio systs., seq. detect. algms. 3437
direct conversion receiver, FSK digital phase-shifting demodulator 3359
distributed power SS cellular syst., perform. 25363
DMSK digital packet sync., preamble design 9362
Doppler radioelectronic landing syst., aircraft ang. coord. determ. 18711
DS-CDMA 4-phase mobile radio receiver in non-Gaussian environ. 25442
DS-CDMA field trial syst., down-link design 9391
DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
DS-CDMA mobile radio syst. using RAKE receiver, spreading codes 25437
DS-CDMA mobile syst., fading channel, anal./simul. 3391
DS-CDMA mobile syst., receiver archits. for down-link 33864
DS-CDMA receiver complexity reduction 17011
DS-CDMA receivers, min. MSE, complexity reduction 3328
DS-SS communications, doubly selective fading channel, spreading seqs. 17016
DS-SS digital diversity receiver for multipath fading channels 25436
DS-SS ISM band radio LANs, receiver techs. 25261
DS-SS RAKE receiver, ASIC implement. 9191
DS-SS receiver, digital matched filters, quantization effects 25259
DS-SS receiver, multiple-dwell serial-search code acquisition 15779
DS-SS receiver, noncoherent matched filter code acquisition 32582
DS-SS serial search, multiple-dwell code acquisition detector rules 32092
DS-SS sigs. radiometric detect., wavelet transform 17012
DS-SS syst., RAKE reception, multipath fading, perform. 25446
DS-SS systs., narrowband interf. rejection 33750
DS-SS systs. impulsive channel, narrowband interf. suppression 33751
DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
DS/CDMA, multilevel coded modulation, integrated receiver struct. 42144
EMI receiver syst. design 15481
Ermes pager testing, SME sig. generator *(German)* 25350
European mobile satellite commun. systs., CDMA 25470
FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
FH-SS commun., Bayesian erasure techs. 25248
FM subcarrier data syst., develop. *(Japanese)* 3649

radio receivers continued
fractional sample type max. likelihood seq. estimator *(Japanese)* 15975
GLONASS P-code, L1/L2 freqs., perform. 17505
GPS commercial receiver suscept. eval. 17498
GPS mixed-sig. receiver, MCM-L packaging 25610
GSM900/DCS1800 systs., adaptive antenna arrays 3480
GSM, M-detector, coherent receiver antenna diversity, perform. 17040
HF hand-held narrow-aperture direction finder 3641
HF rem. low-power transmitters, single station location 34193
high level DSP code synthesis, dyn. data flow/control flow 32654
hybrid DS/SFH SSMA commun., nonselective fading channels 3321
hybrid SC/MRC 2DPSK RAKE receiver BER perform. 9232
hybrid SFH-multitone DS SSMA syst., perform. 9172
IEEE MILCOM conf., Boston, USA (1993) 36897
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
incoherent freq. hopping multiple access systs., diversity combining 25311
isotropic broadband suscept. test method (appl., ARC-182 radio) 15468
Ka band satellite terminals, phase noise charact. 3534
L-band GPS receiver, digital downconversion test 9682
land mobile radio systs., receiver near range influence 3416
LEO satellites, PN code acquisition schemes 33951
LMSS, receiver 3rd order PLLs 42211
low power radio 1 chip IC, develop. 17550
low power transponder IC for identif. systs. 33744
low-power monolithic RF peak detector anal. 12374
M-ary wideband commun. syst., multipath channels appl., perform. 17019
magic-sq. codes for hiding DS/SS sigs. from intercept receivers 25266
maser-based receiver for Crimean 22-m radio telescope 17525
matchbox-sized transputer GPS for vehicles/portables 42551
mixed-sig. MCM-L design, GPS receiver appl. 21691
MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
MLSE receiver for GSM digital cellular syst. 3424
mobile commun., delay lock loop, delay path cancellation *(Japanese)* 25274
mobile radio RAKE receivers, synchronisation, BER perform. 25445
mobile satellite fading channels, M/QPR-TCM perform. 17096
MPSK (un)coded transm. on multipath fading channels 9169
MSK signals, orthogonality 8100
multi-carrier CDMA modem design 9220
multipurpose DSP ASIC for receiver implement. 683
multiuser collaborative coding schemes, complex-value receiver 24779
MW SSB and DSB compatible receiver, AM dual-mode design 9708
narrowband CPM async. CDMA syst. all-digital receiver design 42150
near-far resistant DS-CDMA receivers, sensitivity anal. 9236
NMT 900 mobile telephony syst. adaptive antenna 3481
nonlin. satellite channel, optimum receiver for QPSK sigs. 3507
nonredundant error correction DQPSK for aeronautical-satellite channel 33945
Nyquist charact. allocation, transmitter and receiver *(Japanese)* 25213
ovenized cryst. oscillators, VLF transmitter freq. synchronized 39074
packet-based mobile radio, digital MSK receiver 3435
partially coherent CPM receiver, cochannel interf. 8105
PC driven HF broadcast receiver 17554
PCS, advanced digital receiver principles and technols. 17111
PLL synthesizer, fast acquisition, using parallel N-stage cycle swallower 21134
positioning/paging syst. operating principles *(Croatian)* 3636
PSK optimum receiver, class A interf./relative freq. wt. 25217
QPR-TCM, fading mobile satellite channel, perform. anal. 9336
R&S Signal Generator SME extensions for testing, digital networks 9968
radiated emissions from automotive multiplex bus wiring 15474
radio LANs and MANs, IEE Colloquium, London (1995) 36864
radiometer receiver linearity characterization by intermodulation distortion 25795
radiotelescope continuum receiving syst. *(Korean)* 42553
RAKE receiver, mobile multipath fading channel, channel estim. 42268
Rake receiver archit., perform. 25264
RAKE receiver implement. of CDMA power control mechanism 25439
RAKE receiver over multipath fading channel, CDMA perform. anal. *(English)* 17082
Rayleigh fading channel, adaptive diversity receiver, error probab. 25263
RDS channel, Navstar GPS correction data transm. 34192
RF Mission Planner, warfare commun. simul. 26816
self-organizing multiuser detect. 25239
short-block digital transm., adaptive MLSE for mobile radio 3427
single ASIC CDMA digital receiver, space appl. 9414
slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
software demodulation, satellite/GPS/cellular receiver 42329
spread spectrum techniques, IEEE conf., Oulu, Finland (1994) 20200
SS commun. syst. without ref. sig. for freq.-selective fading channel *(Japanese)* 25206
SS radios for commercial wireless commun. 17022
SS receivers, diversity reception improvements 25444
SS sigs., freq. domain delay/multiply receivers 42154
SS systs., conducted suscept., testing techs. 3354
SS techs. for consumer commun. 25237
SS transm. quality improvement, diversity transm. 17013
sub-optimum receiver, convolutional codes optim. 42170
TCM perform. for equalised ISI channel 32084
TCM sigs., tunable complexity RSSE decoding 40673
TDMA digital mobile radio, adaptive diversity receivers 9306
TDMA mobile radio systs., CCI suppression 9393
telecomms. in rural areas, human dimens. 42575
TEM cell, sound/TV receivers radiated suscept. meas. 25646
terrestrial digital radio links, reduced state seq. estim. 9190
trellis coded diversity receivers, slowly fading Rayleigh channels 33763
tunable bandpass sigma-delta A/D conversion for mobile commun. receiver 9354
UHF receiver archit., high sensitivity/low power consumption 17000
upper sideband and lower sideband SSB sigs., ident. algm. 40900
VLF/ELF Logger Experiment (VELOX) in Antarctica 35299
wide band indoor channel sounder, high delay resoln. 9178
wideband radio channel time vars., random receiver movements 33848
WinAnalysis software, fully automatic sig. detect. and anal. 9816
GaAs MMIC LNA for wireless commun., ultralow noise 42235
Si-bipolar front-end IC for 900 MHz homodyne wireless receivers, 3 V, 28 mW 21567

radio reception
  see also atmospherics; jamming
  3D PCN, reception reliab. 17057
  adaptive diversity reception, prediction, smoothing, interpolation 25447
  antenna phased arrays in dispersed groupings, spatial selectivity 40505
  base station macro-diversity combining merge cells in mobile systs. 17104
  Bavaria DAB single freq. network, field tests results 25638
  channel stat. charact., expt. eval. *(Italian)* 9688
  coded direct-seq. systs., rake reception, multipath fading 33905
  Croatian radiocommun. primary freq. reception probab. *(Croatian)* 3311
  DAB channel and mobile reception, common-wave network meas. in Bavaria *(German)* 9692
  DAB common-wave network in Bavaria, field trail results *(German)* 9693
  digital simulcast trunking syst. fine tuning 3373
  DQPSK in fading channels, unified error anal. 8090
  DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
  DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
  DS-CDMA syst. in multipath fading mobile channel, Rake reception 9234
  DS-SS syst., RAKE reception, multipath fading, perform. 25446
  Finland DAB field trials 25639
  high-power VHF single freq. network for DAB, field trials 25640
  indoor mobile commun., CCI and multipath delay 17098
  microcellular meas. and their prediction 17143
  mobile sig. reception, stat. model 31833
  multiuser collaborative coding schemes, complex-value receiver 24779
  Nakagami fading sigs. reception, sq.-law combiner perform. 42155
  PCS, antenna arrays, co-channel digital sigs. reception 17092
  pers. handy phone syst. portable station design for hand-over operation 42218
  pulse noise generating source, direction finder develop. 23743
  radiated emissions from automotive multiplex bus wiring 15474
  rain atten. effect on satellite-ground links 9404
  SS sigs. reception, bearing estim. 32581
  TDMA selection diversity, DFE 9271
  urban microcell environ., av. power prediction 3422
radio reception quality *see radio reception*
radio relay systems *see radio links*
radio repeaters
  closed cycle vap. turbogenerators, microwave repeater appls. 19588
  DECT radio local loop appl., radio access, repeater 25434
  digital microwave LOS 42183
  freq.-energy efficiency of repeater channel in satellite commun. 42312
  hybrid PV/diesel power supply, mobile radio repeater 19563
radio spectrum management
  see also frequency allocation
  American digital cellular syst. spectral efficiency 9275
  array proc. appl., mobile commun. systs. design 17142
  bandlimited channel 8D 4-pulse 2-carrier signalling scheme 40547
  CDMA cellular radio, uplink power control/base station assignment 25376
  CDMA cellular systs., bandwidth efficiency 17085
  CDMA digital cellular, field test results 3383
  CDMA mobile radio systs., spectral efficiency 17083
  CDMA PCS, spectrum sharing feasibility 25379
  CDMA PCS syst. perform., simul. results 3384
  CDMA syst., field tests 3381
  CDMA with DS-SS GMSK, perform. study 33846
  cellular commun., CBWL schemes, hand-off anal. 25411
  cellular environ., resource auction multiple access 3348
  cellular environ., self-adaptive channel allocation strategies, PRMA 9248
  cellular mobile commun., stat. paging area selection scheme 3453
  cellular mobile networks, freq. assignment 25423
  cellular mobile radio systs., spectrum efficiency 17124
  cellular mobile syst. nominal channel allocation optim. 42203
  cellular network overlapping channel assignment tech. 42201
  cellular networks, freq. assignment 9254
  cellular radio, distributed algms. for dyn. channel allocation 25420
  cellular radio, syst. aspects 17112
  cellular radio channel assignment via power level control 9256
  cellular syst. all-channel concentric allocation algm. 42204
  cellular systs., adaptive array base station, spectral efficiency 17062
  cellular systs., phantom cell anal. of dyn. channel assignment 9247
  cellular systs., uplink capacity, bounds/estim. 17064
  coexistence etiquettes, continuous dyn. channel selection 9246
  commun. networks, handover related perform. 3401
  DECT handover and channel mgt. schemes for indoor scenarios 8849
  DECT technol. for radio in local loop 8853
  developing countries radio network design, RAP package-based 31843
  discontinuous transm. in Nakagami/Rician-Nakagami channels 17063
  distributed dyn. channnel inform. assisted reuse partitioning 25418
  DS-CDMA 4-phase mobile radio receiver in non-Gaussian environ. 25442
  DS-CDMA cellular syst., intra-cellular toroidal sectorisation 42276
  dyn. channel allocation algm., transmitter power control 9252
  EM environ. evol. in land mobile networks 25287
  EMC, conference, Sendai, Japan (1994) 11561
  EMC conditions optimisation of radio equipt. 25219
  fast FH/CDMA systs. in mobile radio environ., efficiency 17086
  FDMA cellular systs. capacity, ACI effects 3334
  future mobile telecomm. systs., handover, cell archits. 3402
  future public land mobile telecomm. and fixed services, freq. sharing feasibility 42198
  future public land mobile telecomm. systs. 3367
  global and distributed dyn. channel allocation algms., perform. comparison 9244
  Globalstar PCS, satellite-terrestrial systs. integrat. 33912
  GSM network evol. 3449
  handoff/service area determ., pattern recogn. techs. 3398
  hierarchical cellular syst., dyn. channel allocation/speed estim. 3397
  high dens. SDMA, double freq. reuse 25421
  Hopfield neural networks, dyn. channel allocation tech. 25417
  IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
  indoor pico-cell radio syst., spectrum requirements 25339
  intelligent multi-access spectrum-sharing methodology 41467
  intermediate reuse factors for capacity eval. 17058
  layered cellular struct., optimum resource mgt. strategies 25392
  micro-cellular networks, QOS provisioning for real-time traffic 25393
  microcell overlaid, umbrella cell syst. 17059
  microcellular aggressive dyn. channel assignment 3342
  microcellular radio, distributed control channel allocation 9351
radio spectrum management continued
  microcellular systs., compatibility matrix learning 9253
  MM-wave spectrum mgt., regulatory aspects 42559
  mobile networks with bursty user mobility, dyn. channel allocation 25338
  mobile satellite networks, handover queuing, dyn. channel allocation 25316
  mobile satellite systs., freq. reuse, interf. anal. 9212
  multicarrier coded 16QAm syst. 33780
  next-generation PCN multimedia traffic support 41979
  office building, propag. charact. meas./freq. reuse 9322
  PCN, client-server-based handover scheme 42247
  PCN, handoff criteria 9378
  PCN interoperable licensed/unlicensed wireless access 33842
  PCS, non-blocking channel assignment for hand-offs 25422
  PCS, spectral efficiency of multitone freq. hopping syst. 9217
  PCS hand-off and init. access, queueing channel assignment 25391
  point-to-point microwave radios/PCS spectrum sharing, propag. meas. 25378
  radiocommunication, technol. and regulations 25627
  SDMA for spectrally efficient commun. 17094
  sectorized cellular commun., channel borrowing without locking 3345
  self-organizing cellular systs., single-channel user-capacity calcs. 17105
  slow FH-GSM freq. hopping GSM 9288
  SmartZone syst., site hand off operation 3400
  spectral efficiency in future commun. 17116
  spectral efficiency of multiple access techs. 17065
  speech stat. multiplexing, resource auction multi-access excess capacity 42200
  SS-orthogonal FDM syst. combination, interfer. rejection 33746
  street microcellular syst., channel allocation, distributed control 25419
  TDMA access for third generation cellular commun., resources 25394
  TDMA/FDMA wireless access, dyn. channel assignment/power control 9243
  transmitting antenna arrays with feedback, spectrum reuse 42266
  UMTS and RACE II CODIT project 9392
  universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
  universal personal communications, conf., San Diego, USA (1994) 20233
  urban microcells, direction biased handoff algms. 3399
  USA unlicensed PCS band, coexistence/access etiquette 3370
  wireless cellular network distributed dyn. channel allocation algms. 42229
  wireless commun., network issues 17113
  wireless multi-access network multimedia service perform. requirements 41468
  wireless networks, resource allocation 9245
  wireless pers. commun., overview 17107
radio stations
  400 MHz band data transm. radio equipt., RF module *(Japanese)* 9701
  AM high power broadcast stations, EM environ. 25642
  Euroradio control centre in Geneva 42572
  LF/MF skywave propag., daytime 40337
  quasi-stationary EM waves meas. by peak level detect. in freq. domain 23740
  RDS, Independent Local Radio company prospectives, present/future 34209
  UK independent sector RDS, current regulations/future issues 34206
  workstations in studios, IEE Colloquium, London (1994) 5479
radio studios
  BBC Radio Digital Project and programme prod. efficiency 17533
  Radio Television Malaysia's, computerised news centre 42577
  workstations role in audio proc. 17605
radio transceivers *see transceivers*
radio transmitters
  6 GHz digital microwave transmitters, repair 25225
  40 GHz band 30 W space TWT, RF power amp. *(Japanese)* 6030
  400 MHz band data transm. radio equipt., RF module *(Japanese)* 9701
  900 MHz transmitter syst., highly integrated ASIC 9353
  adaptive feedforward lin., convergence behaviour 3324
  adjacent-channel, cochannel, and ISI suppression 15519
  AM high power broadcast stations, EM environ. 25642
  ASDL-I deployment, automated syst. for RFI anal. 9095
  asynchronous CDMA systs., lin. adaptive transmitter-receiver 25243
  asynchronous CDMA systs., lin. adaptive transmitter-receiver 42145
  bandlimited PSK channels, transmitting power effective 9159
  Battle of the Atlantic, radio systs. role 26812
  cellular radio systs., constrained power control 9249
  CMOS low-power transponder IC for identif. systs. 29397
  DAB channel and mobile reception, common-wave network meas. in Bavaria *(German)* 9692
  DAB common-wave network in Bavaria, field trail results *(German)* 9693
  DAB single freq. network project 17536
  DGPS correction distrib. by radio beacons *(Croatian)* 3635
  FM radio and TV broadcasting antennas, field level reduction 3660
  GPS category III precision landing, real-time flight testing, integrity beacons 3639
  GSM900/DCS1800 systs., adaptive antenna arrays 3480
  H-II launch vehicle, commun. subsystem develop. *(Japanese)* 43427
  handportable mobile satellite stations, power amp. design 37656
  handportable satellite commun., lin. transmitter archits. 42332
  HF high power SIT 38916
  HF rem. low-power transmitters, single station location 34193
  high power microwave transmitter perform., long pulse widths 29765
  high-power VHF single freq. network for DAB, field trials 25640
  IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
  Japanese Personal Handy Phone/DECT, IF modulator, DDS 3465
  kinematic GPS and ground-based pseudolite, approach integrity monitoring 3640
  LINC transmitter, combined analogue locked loop universal modulator 3322
  LINC transmitters, automatic adjustment of gain/phase imbalances 25204
  low power transponder IC for identif. systs. 33744
  Marconi's (1901) transatlantic transm. wavelength, transmitting syst. anal. 25267
  med. microcirculation monitoring, emergency radio call syst. *(German)* 10174
  medium-wave radio transmitter perform., hybrid modulation *(Japanese)* 17549
  multichannel MM wave subcarrier transm. by reson. modulation of monolithic LD 42393
  multichannel transmitters, DSP/direct conversion 3323
  network, freq. assignment problem 3659
  nonlin. amps., intermodulation power, data modulation 560
  Nyquist charact. allocation, transmitter and receiver *(Japanese)* 25213
  ovenized cryst. oscillators, VLF transmitter freq. synchronized 39074

- **radio transmitters** continued
  - pacemaker patients, risk, high power transmitters 4302
  - predistortor for high power amp. nonlin. correction *(Korean)* 12343
  - quadratic correl. archit. based single loop synthesizer and modulator 9176
  - R&S Radio Data Codec DMC 01, RDS transm. and FM transmitter control 9704
  - radiation hazards in indust./airfield environments 2271
  - RF Mission Planner, warfare commun. simul. 26816
  - satellite mobile channel, FSK-DPD, pulse shaping/transmitter filter 42304
  - satellite mobile channel, FSK-DPD/CPM-DPD, pulse shaping 25304
  - sectored antennas, indoor radio, optimum combining diversity 42281
  - shortwave transmitter environ., RF exposure 4333
  - SS low-power equipt., peak power meas. 25226
  - stirred mode reverberation chambers for EMC emission meas. 2270
  - sub-optimum receiver, convolutional codes optim. 42170
  - subscriber loop, data transm., RF exposure effects 7992
  - TDMA portable radio channel uplink power control algm. 42197
  - UHF FM transmitter, 900 MHz, 80 channels 9181
  - UHF spark-switched L-C oscillators develop. 34225
  - GaAs FET power amp./high-Q magnetron, coherent transmitter 12997
  - Si chip digital end-user mobile commun. syst. 42193
- **radioactive chemical analysis**
  - *For applications of radioactivity to chemical analysis, see chemical analysis by nuclear reactions and scattering*
  - *see also neutron activation analysis; radiochemistry*
  - well logging, elemental anal., natural gamma-ray spectrosc. 18795
  - U, high enriched, act. well coincidence counter meas. 4229
- **radioactive pollution**
  - *see also natural radioactivity hazards*
  - ^{A}Eu activities, fuel-like hot particles, Chernobyl, A=154,5 26771
  - Chernobyl, contaminated territories, dosimetric criteria, Urals 35358
  - Chernobyl fallout, external γ-dose rates, Belarus 35354
  - coal-fired power plants, radiological impact, dose assess. 4345
  - Daya Bay NPP, pot. accidents, Hong Kong risks 35777
  - fission reactor accidents, radioaerosols, volatile radionuclides 27506
  - global weapons testing fallout ^{237}Np, soil residence times 18914
  - Hanford, subsurface radionuclide assess., HPGe gamma-ray borehole syst. 4408
  - IRPA regional congress, Portsmouth, UK (1994) 11566
  - liq. waste disposal site, situ radiological charactn. 18361
  - monitored atmos. releases, radiological assess. codes benchmarking 4344
  - Nevada Test Site, air class. methods 4409
  - on-line water contamination monitoring syst. 18912
  - ORNL Research Reactors, decommissioning, decontamination 19474
  - PWR accident, ^{134}Cs/^{85}Sr dissolution/remobilization, rainwater 26769
  - radionuclide transfer fns., fresh water drainage basins 26770
  - site decommissioning, radiological release, QA/control 19441
  - spent fuel/waste mgt., reprocessing, recycling 10828
  - STORM project, severe accident conditions, aerosol generation 27505
  - ^{137}Cs radioactivity, snowfields, glaciers in situ γ-ray detector 18356
  - Pu prod. site cleanup, interim stabilization, recycled concrete 18918
  - Sn mining, smelting, pollutant characterisation, EDXRF, HpGe 18909
  - ^{90}Sr, soil, real-time in situ detect., scintillating-fiber 18355
  - ^{90}Sr/^{238}U det., contaminated soil surface, scintillating-fiber sens. 4407
  - U contamination characterisation, surface soils 35355
  - ^{238}U, soil, real-time in situ detect., scintillating-fiber 18355
- **radioactive sources**
  - electrolytic composite layers containing radioact. components 34846
  - positron lifetime spectrosc., positron sources 43040
  - stratified shielding slabs, Na-24 γ-ray source 43041
  - ^{133}Ba sources, 3D imaging, solid-state Compton camera 18349
  - ^{60}Co sources, 3D imaging, solid-state Compton camera 18349
  - ^{137}Cs sources, 3D imaging, solid-state Compton camera 18349
  - ^{125}I brachytherapy sources, air kerma rate meas. 26466
- **radioactive tracers**
  - vivo radiotracer monitoring by portable gamma spectrosc. syst. 18468
  - Cu diffusion, Cu/Al-Cu based thin film IC metallizations, comparison 38648
  - ^{99}Tc$_{m}$ cyclotron prod. feasibility 10185
- **radioactive waste**
  - *see also fission reactor materials; fusion reactor materials; materials handling; waste disposal*
  - advanced BWR, design goals *(Japanese)* 43855
  - ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
  - discrete radioact. particles, nuc. indust. experience 43842
  - extended discharge burnup optim., CASMO-3/SIMULATE-3, PSFMP 27419
  - Integral Fast Reactor waste canister, neutronics 19437
  - inter-building fuel transfer cask, conceptual redesign 35871
  - IRPA regional congress, Portsmouth, UK (1994) 11566
  - liq. radwaste desk ref. for NPPs 27375
  - LWRs, large scale MOX fuel assembly insertion, Siemens' experience 27450
  - ORNL Research Reactors, decommissioning, decontamination 19474
  - prototype fiber optic sens. 25868
  - radioisotopic decay energy, energy conversion proc. *(Chinese)* 28010
  - real-time aq. tritium monitor, liq. scintillation counting 18358
  - space nuclear power/propulsion, fuel element design 18751
  - VVER fuel develop., Finland Loviisa NPP 27428
- **radioactivity measurement**
  - *see also radioactivity measuring apparatus*
  - material surface radioactivity distrib. meas., imaging plate 18353
  - NBS/NIST Peltier-effect microcalorimeter 34945
  - PCS opt. fiber for dose level sens. appl. 17892
  - reactor core material post-operation anal. *(German)* 10816
  - secondary std. Rn detector 34947
  - stds., curie, becquerel 34326
  - ^{125}I brachytherapy sources, air kerma rate meas. 26466
  - ^{90}Sr activity meas., Cherenkov radiation in silica aerogel 18343
- **radioactivity measuring apparatus**
  - material surface radioactivity distrib. meas., imaging plate 18353
  - radiation protection meas. techs., recent develop. *(German)* 26501
- **radioactivity protection** *see radiation protection*
- **radioaltimeters**
  - *see also aircraft instrumentation; radar altimetry; radionavigation*
  - 35 GHz forward looking altimeter for terrain avoidance 25612
  - Envisat-1 satellite radar-altimeter on-board real time software testing 43421
- **radioastronomical techniques**
  - 2D direct radio imaging, spatial FFT interferometer 3644
  - 1612 MHz hydroxyl line, interf. from GLONASS satellites 25626
- **radioastronomical techniques** continued
  - astron. radio-interferometry, calib. problems *(French)* 17530
  - astron. radio-interferometry, calib./self-calib. methods *(French)* 17531
  - asymmetric parab. cylinder antenna, high aperture efficiency *(Japanese)* 40496
  - image reconstruction, strip-integrated projection 17521
  - image restoration from lunar occultations 17523
  - images, adaptive deconvolution 34198
  - meteor shower detect. by radar, correl. method 25623
  - mol. mm/submm spectrosc. in lab., French develop. 42554
  - multifreq. synthesis techs., radio interferometric imaging 9685
  - Nobeyama Radio Observatory, telescope control syst. upgrade 17515
  - pulsar survey sig. proc., noise suppression filter 17516
  - quasars, superluminal motion, radio obs. *(Japanese)* 34199
  - quasi-opt. image separation scheme for mm- and submm-waves 3961
  - radar meteor vel. meas., radiotomographic method 25624
  - reflector antenna conversion, phased array 17522
  - review, work of Nat. Radio Astronomy Observatory 34200
  - sig. complexity, fractal nature, correl. dimens. 17518
  - solar RF emission anal., spectrometer methods and obs. *(German)* 25625
  - transputer-based soft-correlator for radio-astron. 42556
  - Venus cartography, radar/radiometry 3643
  - VLBI fringe detect. methods 42557
  - VLBI obs. correction for ionos. refr. 9686
  - VLBI radioastronomy, commercial antennas 34201
  - wideband analog continuum correlator for radio astron. 17514
- **radioastronomy**
  - *see also radiofrequency cosmic radiation; radiosources (astronomical); radiotelescopes; solar radiofrequency radiation; submillimetre astronomy*
  - background radiation, ground-based obs., noise level prediction 25622
  - GLONASS DS-SS sigs., radioastronomy impact 25620
  - H, 21 cm hyperfine line, radioastronomy appls. 5514
  - microwave radiometry, rem. sens. and radioastronomy appls. *(Japanese)* 42910
  - review, work of Nat. Radio Astronomy Observatory 34200
  - space THz technol., symp., Ann Arbor, USA (May 1994) 36819
  - transputer-based soft-correlator for radio-astron. 42556
  - Venus cartography, radar/radiometry 3643
- **radiobiology** *see biological effects of ionising radiation*
- **radiochemistry**
  - *see also radioactive chemical analysis; radioactive tracers*
  - pharmaceutical ^{99m}Tc-teboroxime dilution/anal., robotic 4272
- **radiocommunication**
  - *see also digital radio; frequency hop communication; indoor radio; meteor burst communication; mobile radio; radio broadcasting; radio data systems; radio equipment; radio links; radio networks; radio reception; radio spectrum management; radio stations; radio studios; radiotelegraphy; radiotelemetry; radiotelephony; spread spectrum communication*
  - 1984-1994, rural telecomms. progress 3004
  - amat. radio service and EM-radiation hazard 25215
  - block transm. systs., channel equalization 15888
  - channel noise immunity rel., code and sig. constr. mutual effects *(Russian)* 15696
  - companion wave radio commun., superimposed mag. field 2223
  - crank-tunnel with reflectors, propag. characts. 2218
  - direct global mktg., amat. radio packet switched network 9163
  - disabled people, radio computer commun. network 41768
  - double side inform. concatenated coding for fading environ. 15751
  - fast blind equalization of wireless commun. channels 15944
  - Fessenden and early hist. of radio sci. 5721
  - finite-state Markov channel, model for radio commun. channels 24006
  - Fleming and Marconi, wireless transm. develop. 5720
  - high-speed bipolar proc. for wireless ICs 22563
  - KoREMA, conf., Zagreb, Croatia (Apr. 1993) 20203
  - KoREMA, conf., Zagreb, Croatia (APR. 1994) 20202
  - low-earth-orbit store-and-forward satellites in Amateur Radio Service 17150
  - marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
  - optimum combining in wireless systs., BER upper bounds 9170
  - propagation from vert. dipole in prescence of two or three layers 23628
  - quaternary const.-envelope modulation, 4D trellis coding 15703
  - small-base atmos. noise elec. field surface struct. 7989
  - SSB radio channels, received SNR increase, anal. sig. rooting 42147
  - TDMA radio based ISDN, rural radio commun. syst. 3235
  - unconventional cryptographic keying variable mgt. 15767
  - underground commun. techs. for cavers/potholers 9186
  - US EMC regulatory requirements, recent/pot. changes 15463
  - wireless commun. channels, blind equalization algm. 41025
  - wireless syst. appls. of SS commun. 25214
- **radiocrystallography** *see X-ray crystallography*
- **radiofrequency amplifiers**
  - *see also microwave amplifiers; millimetre wave amplifiers; UHF amplifiers; VHF amplifiers*
  - 3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
  - adaptive feedforward lin., convergence behaviour 3324
  - ASK and PSK sigs., spectrum conversion in filter-nonlin. amp. syst. 32595
  - binary FSK direct conversion receivers 3463
  - cartesian feedback RF amp. lin., gain/phase margins 33758
  - centralized control for fiber-optic microcell radio syst. 3450
  - class C RF amps. simul. 12341
  - class DE RF power amp., impedance plane anal. 551
  - differential amps., lin. techs. in IC design 12352
  - dyn. biased cartesian feedback 6041
  - even harmonic reson. class E tuned power amp. without RF choke *(Japanese)* 37646
  - feedback amp. struct. optim. 29059
  - feedforward amp. lin., adaptation behavior 25229
  - HF devices/ICs for portable cellular phones 17133
  - IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
  - lin. PMR technol., RF param. for standardisation 3466
  - LINC transmitter, combined analogue locked loop universal modulator 3322
  - LINC transmitters, automatic adjustment of gain/phase imbalances 25204
  - medium-wave radio transmitter perform., hybrid modulation *(Japanese)* 17549
  - NEC's digital cellular base station syst. *(Japanese)* 17081
  - nonlin. amplif. effect on SS sig. and receiver config. 17007
  - nonlin. systs. ident./compensation, sampling freq. 32778
  - op amp IMD determ. for PCB design 557

radiofrequency amplifiers continued
power amp., digital predistortion lin., reconstruction filters 25231
predistortor for high power amp. nonlin. correction *(Korean)* 12343
PSK systs., hard limiting transmitting amps. *(Japanese)* 24011
reed relay for antenna-transmitter power amp. matching 29642
solid-state RF power amps., bias ripple effects eval. 546
stabil., gain and noise of RF transistors 6040
time const., pass. mode randomization 42177
wideband current-feedback op amps for RF appls. 545
wideband RF power amp. input matching network param. optim. *(Croatian)* 548
radiofrequency cosmic radiation
see also radioastronomy
ground-based obs., residual noise level prediction 25622
radiofrequency discharges *see high-frequency discharges*
radiofrequency filters
see also microwave filters; millimetre wave filters; UHF filters; VHF filters
AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
centre-tapped spiral inductors for monolithic bandpass filters 37850
CMOS AMPS IF filter, integrated, low noise, cellular telephone appls. 25354
double half-bandwidth OFDM syst. for digital video broadcasting 9698
even-degree lower-sideband polylithic cryst. filters, design 12629
feedforward amp. lin., adaptation behavior 25229
FQPSK modem/radio for PCS/ mobile satellite commun. 25312
handy phone, miniaturized dielec. filter *(Japanese)* 42290
HF FSK radio links, optimal syst. params. choice 17018
integrated analogue-digital microsystems, challenges for research and education 37826
multichannel environ., direct upconversion, reconstruction filters 25230
multiple cryst. filter IF strips, spec., design, and anal. 39080
opt. delay line RF filter, SEL diode array 7421
piecewise-lin. transcoders, automatic TV tuner alignment, electronic tuning 21086
power feeder EMI/RFI filters, nonlin. load effects 19279
pulsar radio survey sig. proc., noise suppression filter 17516
rect. piezoceramic resonator, AM filter appl. *(Japanese)* 39089
RF design in mobile radio transceivers, IEE Colloquium, London (1994) 5483
RF power amp., digital predistortion lin., reconstruction filters 25231
RLC miniature elec. filters for single electron devices 37829
S-params., calc. by orthogonal expansion and finite integrat. 2168
satellite mobile channel, FSK-DPD/CPM-DPD, pulse shaping 25304
SAW resonator filters for digital radio systs., review 37832
self-tuned continuous-time notch filters, CMOS implement. 21412
sync. DS-SSMA, decorrelating decision-feedback detect. 42164
wide bandpass filter, ladder type, compact design *(Japanese)* 12626
Fe-polymer composite absorber chip for RF EMI filtering 37834
radiofrequency heaters *see radiofrequency heating*
radiofrequency heating
see also microwave heating
clinical phased array syst. for deep regional hyperthermia 18594
deep heating hyperthermia, induction applicator 26468
interstitial hyperthermia, SAR characts. of mag. ring loaded antenna *(Japanese)* 43344
med. RF ring applicator, phantom energy distribs. 10263
mulberries solar drying proc., IR heat treatment effects 20174
primary VLF/ELF currents prod. by heating lower ionos. 2201
slow-way systs. as heaters for thermal treatment of dielec., optim. 44587
soil elec. props. meas., RF treatment appls. 10562
VLF wave from dipole antenna in atmos., full-wave anal. method 31814
radiofrequency interference
see also adjacent channel interference; atmospherics; cochannel interference; electromagnetic pulse; jamming; radar interference; whistlers; white noise
60 GHz intervehicle channel model 33797
AC/DC PWM power convertors, common mode conducted RFI emissions 5072
adaptive antenna for scanning telemetry 33419
adaptive array methods 17067
adaptive blind diversity combining for antenna arrays 31978
adaptive DS-SS receiver for burst type interf. 17002
adaptive equalization for multipath fading environ. 3429
adaptive handoffs, estim. of fading params. 9367
adaptive interf. canceling equalizer 9383
adaptive multistage interf. cancel. for CDMA, perform. limits 7990
adaptive rate error control for land-mobile satellite channel 9370
adaptive reduced-state channel equalizer, T-algm. 9302
adaptive wideband opt. nulling for antenna syst. 7399
Anritsu Corporation EMI pers. measuring systs. 23726
antenna heights effect on multipath propag. occurrence 31839
array proc. appl., mobile commun. systs. design 17142
ASDL-I deployment, automated syst. for RFI anal. 9095
asynchronous CDMA systs., lin. adaptive transmitter-receiver 42145
AWGN multi-user channels, soft-decision interf. cancellation 42162
bandlimited quaternary phase FSK, error perform. 9276
base station polariz.-sensitive adaptive antenna 33879
basestation antenna array syst. for spatially selective transm. 17069
Bayesian techs. for rapidly fading channels equalization 3436
beam space adaptive array antennas, transmitting null beam forming 15665
bipolar op amp, demodulation RFI 550
blind adaptive array proc. methodology 9165
blind clustering equalizer for digital mobile radio channels 3432
blind equalization based on Nakagami fading index, cost fn. 3430
blind spatio-temporal equalizer for radio-mobile channel 33937
BPSK receiver, class-A impulsive noise quadrature components 25220
building scatter of sigs., microwave freqs. 15425
cable assemblies, screening atten. 23690
capacity evaluation of spread spectrum multiple access 8738
CATV S6 special channel, notch filter for interf. reduction 34268
CDMA, imperfect power control, acquisition-based capacity estim. 25256
CDMA, TU Delft research, overview 25255
CDMA cellular network, forward link perform. 25366
CDMA cellular radio, uplink power control/base station assignment 25376
CDMA cellular radio network 25357
CDMA cellular syst., forward link multipath propag. 33885
CDMA cellular systs., concatenated RS/convolutional coding 9358
CDMA cellular systs., design/test 3382

radiofrequency interference continued
CDMA commun., CW/narrow-band sigs. interf. suppression 33749
CDMA DA chip synchronizers for bandlimited DS/SS M-PSK sigs. 9371
CDMA for terrestrial/mobile satellite commun. networks 17049
CDMA lin. fractional spaced equalisation interf. cancellation 8740
CDMA MM wave indoor radio capacity study 9202
CDMA mobile radio, joint detect./coherent receiver antenna diversity 25364
CDMA mobile radio schemes, modeling/perform. 25373
CDMA mobile radio systs., joint detect., diversity 25343
CDMA mobile radio systs., multi-user detect. equalisers 17041
CDMA mobile radio systs., multi-user detect. equalizers 9237
CDMA mobile radio systs., reverse link anal. 3392
CDMA mobile radio systs., spectral efficiency 17083
CDMA multicarrier syst., CCI cancellation 9215
CDMA multirate radio interface implement. 42192
CDMA networks, decorrelators for multi-sens. systs. 33761
CDMA overlay systs., adaptive interf. suppression 17037
CDMA overlays for FDMA satellite commun. systs. 25465
CDMA overlays of narrowband waveforms, interf. suppression 25355
CDMA PCS, spectrum sharing feasibility 25379
CDMA PCS syst. perform., simul. results 3384
CDMA syst., field tests 3381
CDMA syst., one and two branches DLL comparison 3472
CDMA syst. design, key elements 17074
CDMA systs., channel estim., interf. reduction 9235
CDMA systs., multipath delay/fading 3473
CDMA systs., pre-decorrelating single user detect. 9238
CDMA/FDMA satellite commun. systs. overlay, perform. anal. 25466
cellular CDMA, forward-link power control law 3347
cellular CDMA perform., speech bit rate, network control 9375
cellular DS/CDMA systs., lin. interf. canceller 9241
cellular mobile radio networks, freq. planning 33860
cellular mobile radio systs., spectrum efficiency 17124
cellular mobile systs., blind combiner for space diversity 42280
cellular networks, freq. assignment 9254
cellular radio, adaptive SDMA 9350
cellular radio, distributed algms. for dyn. channel allocation 25420
cellular radio, syst. aspects 17112
cellular radio systs., downlink power control algms. 25344
cellular syst. variable C/I threshold distributed adaptive channel allocation scheme 33806
cellular systs., adaptive array base station, spectral efficiency 17062
cellular systs., packet transm., channel quality reliab. 9296
cellular TDMA networks, cochannel interf. simul. 17060
chirp SS techs., multipath interf. suppression 25250
CISPR conducted emissions meas. on telecom. leads 15494
coded direct-seq. systs., rake reception, multipath fading 33905
commercial grade EMI gaskets, devel. 23729
compact 230 kV line, corona perform. 27221
covert commun. employing wavelet technol. 9164
CPW, radiation from ang. and circ. bends 21509
D1900 micro cell indoor/outdoor appls. 25435
DECT, adaptive antenna demonstrator, develop. 33852
DECT solid state radio front end, perform. eval. 3468
digital mobile radio, adaptive arrays, fading correl. effect 3343
digital multipath wireless channels ident. in interf. 9303
DIII-D tokamak, RF wave monitor reflectometer 34678
dipole antennas for EMI meas., characts. 23898
direct seq. CDMA, GMSK modulation, perform. 33754
direct-seq. systs. in lineal microcells, perform. eval. 25365
discontinuous transm, in Nakagami/Rician-Nakagami channels 17063
discrete sig. high noise immunity receivers, input sig. proc. method 2578
distrib. network radio/TV interf. detect. experiences, USA 27186
distributed antenna syst., freq. selective fading, perform. 17091
distributed dyn. channnel inform. assisted reuse partitioning 25418
DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
DS-CDMA commun., indoor mobile, code phase assignment 9206
DS-CDMA microcellular network, soft handoff 3470
DS-CDMA mobile networks, acquisition of synchronism 33867
DS-CDMA mobile radio, sliding window decorrelation, anal. 25283
DS-CDMA mobile radio syst. using RAKE receiver, spreading codes 25437
DS-CDMA receiver complexity reduction 17011
DS-CDMA SS systs., noncoherent parallel acquisition 9382
DS-CDMA syst., adaptive multiuser interf. rejection algm. 42163
DS-CDMA syst. in multipath fading mobile channel, Rake reception 9234
DS-SS, directionally constrained adaptive beam forming 17003
DS-SS CDMA cellular voice/data commun. 25342
DS-SS overlay for satellite commun. syst. 33971
DS-SS receiver, noncoherent matched filter code acquisition 32582
DS-SS sigs. radiometric detect., wavelet transform 17012
DS-SS SS CDMA, MMSE interf. suppression 17017
DS-SS systs., adaptive filters, freq. sweeping sig. rejection 17020
DS-SS systs., narrowband interf. rejection 33750
DS-SS systs. impulsive channel, narrowband interf. suppression 33751
DS-SSMA, interf. effect on narrow-band commun. systs. 33748
DS-SSMA, unknown seq. estimator, near-far problem 25361
DS-SSMA commun. in Nakagami fading channels, path diversity 9345
DS-SSMA indoor cellular radio perform. 25370
DS-SSMA unslotted PRN 25257
DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
DS/CDMA adaptive interf. canceller, differential detect. 9240
DS/CDMA successive interf. cancellation 25356
DS/FFH SS commun. syst., multiple access interf. 25245
DS/SS systs., transm. bandwidth control schemes *(Japanese)* 25208
Earth stations/orbiting satellites, interf. simul. 15510
Earth-space propag. paths, differential rain atten. 15441
Earth-space syst., site diversity, rain atten., interf. anal. 15440
earth-station antennas, site shielding 40491
elec./electronic syst. and mobile phone equipt., EM environ. 25290
electrified rly., radio noise meas. 28129
electrified rly. radio interf. 28115
electrosurgery, EM interf. problems 10259
electrotherapy interf. effects 10271
EM environ. evol. in land mobile networks 25287
EM noise emitted from elec. vehicle 28116
EMC, conference, Dallas, TX, USA (1993) 36844
EMC conditions optimisation of radio equipt. 25219
EMC effects on connectivity of radio networks 17009
EMC estim. methods 25289

radiofrequency interference continued
EMC of urban cellular mobile radio systs. 33858
EMI filters, dyn. prediction of insertion loss 23661
EMI receiver syst. design 15481
F-TDMA/CDMA cellular systs. perform. eval. 33838
FDM-FM microwave receivers, PCS sig. interfs. 25377
FDMA cellular systs. capacity, ACI effects 3334
FFH-CDMA packet radio network, capacity 42142
FH-SS commun., Bayesian erasure techs. 25248
FH-SSMA, band-efficient modulations, cellular radio channels 25367
freq. assignment problems, genetic algm. appls. 9199
freq. hopping commun., blind adaptation algm. 9166
freq. non-selective channels seq. estim. 8384
freq.-energy efficiency of repeater channel in satellite commun. 42312
GIS RFI/transient field meas. 27867
glass, high perform. heat-reflective, TV wave reflecting characts. 23742
global and distributed dyn. channel allocation algms., perform. comparison 9244
GLONASS DS-SS sigs., radioastronomy impact 25620
GPS commercial receiver suscept. eval. 17498
ground refl. wave suppressed test sites 23670
GSM network, adaptive antennas for freq. re-use 9395
GSM-syst., interf. anal. 3492
GTEM cells, review and future research 23746
hazards in indust./airfield environments 2271
HF radio sigs., adaptive proc., receiving antennas 40773
high power external pulse EM field effects 25218
hospital EM interf., European Union Directive 18685
HVDC transm. lines, twin conductors, DC corona anal. 4634
hybrid DS/FH SS syst. for mobile radio channel 3483
hybrid DS/SFH SSMA commun., nonselective fading channels 3321
immunity test facilities, conductive sphere 23741
impulsive noise extraction, spectrum pattern anal. 25967
indoor mobile commun., CCI and multipath delay 17098
indoor radio, channel equalization, neural network techs. 17140
injection-locked hybrid discriminator, interf.-immunity 826
intell. half bridge power module, 75A/250V/75KHz, switching power amps. 6027
intell. vehicle/highway syst., packet-switched commun. 3460
intelligent multi-access spectrum-sharing methodology 41467
joint blind equalization/phase recovery scheme for data commun. 3431
Ka band satellite terminals, phase noise charact. 3534
KNM-S243/S603 radio interf. apparatus/measuring systs. 23734
LEO channel, downlink DS CDMA perform. 25372
LEO satellite systs., DLR channel meas. programme 25400
LEO/MEO/GEO global mobile satellite systs., interf./fading 25308
lin. PMR technol., RF param. for standardisation 3466
LMSS, receiver 3rd order PLLs 42211
Loran-C, GRI ranking based on cross-rate interf. 25609
Loran-C skywave delay estim., eigen-decomp. 17500
macro-/micro-cellular radio systs., throughput perform. 9295
microASIC, mixed digital and analogue chips, design 6246
microcell base station locations, simulated annealing appl. 9255
microcellular systs., compatibility matrix learning 9253
microstrip antennas, anom. mutual coupling 8080
microwave pass. discriminator, co-channel monotone interf., perform. 825
missile EMC testing, direct/indirect current injection 4431
mixed urban/suburban propag. meas. for PCS in OFS band 9266
mobile commun., slow freq. hopping, time offset effect 42272
mobile satellite systs., freq. reuse, interf. anal. 9212
mobile user satellite systs., multiple-access capacity 25302
monopulse proc., AM-AM and AM-PM errors compensation 17423
MSK transm. over dispersive radio channel, error mechanisms 17120
multi-carrier CDMA in indoor Rician fading channel 9226
multi-cell direct-seq. microcellular systs., perform. eval. 33907
multihop FH-SS PRN, channel access protocol 25246
multimedia radio commun., variable-rate FEC perform. anal. 9044
multipath interf. suppression cct. 40382
multistage CMA adaptive beamformer, real-time implement. 9227
MV transformer diagnostics, RFI meas. 5026
national broadcasting network syst., reliab. anal. 17535
near-far resistant DS-CDMA receivers, sensitivity anal. 9236
OQPSK in indoor environ., perform. 9301
overlay CDMA syst., multiple BPSK interferers, perform. anal. 33747
pacemaker patients, risk, high power transmitters 4302
packet based access mechanism, perform. params. 33863
parallel combinatory SSMA systs., Rayleigh fading channel, perform. eval. 25244
parametric pulse selector design and operation *(Russian)* 12383
pass. protection apparatus for commun. lines, phantom reson. transformer 25193
PCS, outage probab. in presence of Rice fading 17099
π/4-DQPSK on microcellular radio channels, diversity/interf. 17101
pico-cellular syst. for indoor radio, assess./propag. study 25348
pilot sym.-aided tech., digital sigs. in multipath environ. 9366
planar antenna arrays, 1-stage/2-stage optimum inform. proc. 8245
plane wave scatt. by infinite conducting ellipt. cylinder near conducting plane 23645
point-to-point microwave radios/PCS spectrum sharing, propag. meas. 25378
portable radio channel uplink power control algm. 42197
power electronic cct. design/layout, EMI reduction, perform. improvement 12312
power feeder EMI/RFI filters, nonlin. load effects 19279
PRMA, channel impairments effects 9298
PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
PSK optimum receiver, class A interf./relative freq. wt. 25217
pulse noise generating source, direction finder develop. 23743
QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
QPSK TDMA digital radio link, analog FM interf. 33841
quasi-stationary EM waves meas. by peak level detect. in freq. domain 23740
radio networks, distributed power control 9376
radioastronomy, 1612 MHz OH line, interf. from GLONASS 25626
RadioGuard, RF cable sens. for security appls 42175
RAKE receiver implement. of CDMA power control mechanism 25439
RAKE receiver over multipath fading channel, CDMA perform. anal. *(English)* 17082
Rayleigh fading environ., mobile PRN anal. 3349
RFI, noninterleaved Viterbi decoder, importance sampling anal. 15966
Rician CDMA channel fading-resistant multiuser detect. 41460

radiofrequency interference continued
road vehicle-vehicle commun., 60 GHz by TDMA/CDMA 9333
Rohde & Schwarz, RFI field-strength meas. in GTEM cell, EMI software ES-K1 8008
rural communication in multi-path channels, spread spectrum appl. 9189
Russia, GSM transmitter interf., airborne radio-navig. equipt. 33859
S-CDMA cellular radio syst., interf. calcs. 17121
satellite commun., adaptive antenna arrays and broadband sigs., EMC anal. 25449
satellite commun., optimum freq. assignment, neural networks 33948
sectorized cellular commun., channel borrowing without locking 3345
sectorized mobile microcellular radio syst., perform. anal. 3451
shadow fading dyn. channel assignment and power control capacity 42202
Shannon theory of Gaussian cellular multiple-access channel 25273
ship EMC requirements 2262
sig. quadrature proc. in bandpass non-Gaussian interf. 32566
slotted freq.-hopped PRN, random/deterministic, anal. 17010
small motor thyristor power convertors, RFI generation study 44081
speech coding for pers. commun. 8196
spring finger EM shielding gaskets in indust., perform. optim. 23714
SS digital data link for aviation 10379
SS systs., DSP appl. 25238
SS transm. quality improvement, diversity transm. 17013
SS wireless LAN, interf. cancellation 8929
SS-CDMA PCS in-building systs., distributed antenna 9231
SS-orthogonal FDM syst. combination, interfer. rejection 33746
stirred mode reverberation chambers for EMC emission meas. 2270
street microcellular syst., channel allocation, distributed control 25419
struct. intermittent interf. at demodulator, compensator efficiency 40856
subjective protection ratio tests, standardisation 9223
subscriber loop, data transm., RF exposure effects 7992
sync. DS-SSMA, decorrelating decision-feedback detect. 42164
TCM for equalized multipath fading ISI channels, perform. 25340
TDMA cellular commun. systs., sig.-to-interf. calc. 33854
TDMA digital mobile radio, adaptive diversity receivers 9306
TDMA-TDD microcell systs., common access channels design 9292
TDMA/FDMA wireless access, dyn. channel assignment/power control 9243
telecomm. equipt., CW immunity testing 16952
time domain SS proc. syst., large TBP 25216
train-to-wayside commun., multicarrier modulation 9282
transmitter network, freq. assignment problem 3659
trellis-coded DS-SS commun. 17015
tropos. scatter radio commun., space diversity and space-time sig. proc. 32690
two-wire cables, radiated emissions reduction, pair twisting effects 15536
US EMC regulatory requirements, recent/pot. changes 15463
US regulations for EMC control, update 23682
USA unlicensed PCS band, coexistence/access etiquette 3370
vehicle-to-vehicle commun. for AVCS platooning 5354
VHF 3D cellular systs. for air-land commun. 25409
wireless appls., correl. lognormal sum distribs./outages 3413
wireless LAN protocols, radio capture models 25059
wireless multimedia commun., adaptive rate multiple access 41991
wireless PCS radiowave propag. 3379
X capacitors, Siemens B81131 series, metalized paper/plastic film, safety 872
Fe-polymer composite absorber chip for RF EMI filtering 37834
radiofrequency-microwave double resonance *see magnetic double resonance*
radiofrequency-optical double resonance *see magnetic double resonance; optical double resonance*
radiofrequency oscillators
see also crystal oscillators; microwave oscillators; millimetre wave oscillators; submillimetre wave oscillators; UHF oscillators; VHF oscillators
Colpitts oscillator, chaos 576
HF two-resonator sustained oscillators, tuning bandwidth 571
low phase noise/power consumpt. oscillators, anal./optim. 37659
noise meas. techs. 582
phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
spurious audio modulation of VCOs, RF coupling 565
synchronized chaos oscillators for transmitting inform. sigs. 2358
radiofrequency spectrometers
see also microwave spectrometers; NMR spectrometers
solar RF emission anal., spectrometer methods and obs. *(German)* 25625
radiofrequency sputter deposition *see sputter deposition*
radiofrequency sputtered coatings *see sputtered coatings*
radiofrequency sputtering *see sputtering*
radiofrequency traps *see particle traps*
radiogoniometers *see goniometers*
radiography
see also diagnostic radiography; electrophotography; neutron radiography
Bayesian 3D tomographic reconstruction from radiographs, obj.-oriented methods 2840
indust. radiographic systs., detail perception 18486
microtomography, microfocus radiography syst. 28519
novel X-ray detector charact. for real-time radiographic imaging 21013
PCB X-ray inspection, neural network classifiers 37162
polymer composites, NDT techs. *(German)* 5918
quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
reconstructed images, region-of-interest fractal graphs 5937
scanned-beam laminography image, out-of-plane material contrib. 5923
SMT reflow-soldered joints, porosity form. rel., mech. props. 12920
stereoscopic radiation image perception upon coloring 21003
subst. ident., appl. of Rayleigh scatt. X-rays 12242
thickness var. determ., polychromatic X-radiography film dens. vars. 21012
radioisotope AMTEC *see radioisotope thermoelectric generators*
radioisotope imaging
see also emission tomography
assoc. particle imaging, 4D image display 18465
colloid liver scintigrams, neural network anal. 18454
computers in cardiology, conf., London, UK (1993) 11543
digital imaging, image quality anal., std. tools 18485
dual isotope imaging, crosstalk contamination meas., energy spectra 18453
embryo, fetus or nursing child, protection from radiation exposure 26509
gamma camera QC ES 10204
gamma camera QC ES, knowledge acquisition/representation 18493
gamma cameras, likelihood/energy/Bayesian windows for scatt. rejection 35038

radioisotope imaging continued
ICRP recommendations, radiological protection, med. 18641
left ventricle, telemetry, inductive link-powered implanted device *(French)* 43310
left ventricular monitoring, CsI radioisotopic ambulatory recorder 26360
med. radiation exposures, UNSCEAR data collections, trends/consequences 18642
nuc. med., conf., Orlando, FL, USA (1994) 20218
nuc. med., urinary nuclides excretion, pharmacokinetics model 18663
nuc. med. imaging devices, inter-lab. comparison 18478
nuc. med. instrums. QC, Argentina 18515
PACS design/evaluation, conf., USA (1994) 20213
pop. radiation absorbed dose, diagnostic nuc. med., Iran 43399
radiologic image compression, review 26287
radiology/nuc. med., Netherlands Cancer Inst., QC 18514
Wiener spectra meas., digital systs. 26299
X ray diagnosis and nuc. med. trends 18477
Cd$_{1-x}$Zn$_x$Te radiation detectors 43104
^{90}Y bremsstrahlung quantitation, planar gamma camera imaging 10262
radioisotope separation *see isotope separation*
radioisotope thermoelectric generators
5 V space power alkali metal thermoelec. convertor multicell 20035
AMTEC spacecraft systs., single/multiple tube designs 26632
Cassini power management and distribution 26647
Cassini RTGs, small scale module tests 26633
First Mars Outpost power systs. 26516
General Purpose Heat Source RTG program, mgt. 18757
parametric cost model 26654
Pluto East Flyby mission, power subsyst., RTG 26649
Pluto Fast Flyby mission, RTG fuel options 26630
Pluto Fast Flyby mission, RTG size/mass reduction 26631
Powerstick RTG spacecraft power source 26607
radioisotopic decay energy, energy conversion proc. *(Chinese)* 28010
rem. power generation sources for harsh environ. 35711
Russian RTG capability 26634
space dynamic radioisotope power systs. 26653
space nuc. power/propulsion, future 26555
space nuclear power/thermal propulsion requirements 18760
space vehicle radioisotope thermophotovoltaic syst. 26637
spacecraft radioisotope AMTEC power syst. 18758
thermophotovoltaic power, space mission appls. 26638
Ge-Si RTG, perform., status report 26629
radiolocation *see radio direction-finding*
radiology
see also patient diagnosis; patient treatment; radiation therapy; radiography
abdominal radiology, effective dose estim. methods 18654
antiscatter grids design optimisation, computer modelling 18651
computed tomography dose assess., practical approach 18656
conventional diagnostic radiology, QC, Greece 18502
cpd. hard tissue phantom, radiologic diagnostic optimisation 18498
data anal., inform. modelling 18648
dental radiological equipt., radiation protection problems 18512
diagnostic radiographic images, CEC quality criteria, basic concepts 18480
diagnostic radiographic images, quality criteria, 1991 CEC trial 18481
diagnostic radiology, grid design optimisation 18494
diagnostic radiology, image quality, patient dose 18490
diagnostic radiology, QA, IEC projects/achievements 18479
diagnostic radiology, QC, knowledge based approach 18492
diagnostic radiology, radiation doses reduction, IAEA-CEC research programme 18643
diagnostic radiology equipt., tube current calib., noninvasive method 18497
diagnostic radiology optimisation programme, Madrid area 18501
digital imaging, image quality anal., std. tools 18485
dose-area product, body doses 18653
Florence General Hospital, radiological departments, QC programme 18507
gastrointestinal tract, radiological exams., skin absorbed dose 18675
ICRP recommendations, radiological protection, med. 18641
image compression for radiology and telemedicine 26321
image storage and presentation 43414
intensive care unit, radiological activity, patient/worker exposure 18665
interventional radiology, occupational exposure, pers. dosimetry guidance 10297
large area image plane sens. for radiography 9937
lumbar spine radiographs, entrance surface doses comparison 18517
MARC, multimedia appl. for radiologist commun. 16910
med. exam./treatment, ionising radiation, patient dose reduction 18638
med. X-ray diagnostic units, QA programme, Belgium 18506
mobile X-ray equipt., QA programme 26285
national patient dose meas. protocols, ICRU investig. 18516
nuc. med. imaging devices, inter-lab. comparison 18478
PACS design/evaluation, conf., USA (1994) 20213
paediatric radiology, QA evol. 18482
patient dose, rational reduction, WHO activities 18637
patient dose meas./reduction, East Anglia (UK) 18670
patient dose protocols/trends, UK 18652
photographic films, dosimeters survey, interventional radiology 43402
primary dental care, radiology stds. guidelines 10219
radiographers, radiation protection education/training 18640
radiology/nuc. med., Netherlands Cancer Inst., QC 18514
spherocytosis, hereditary, mag. reson. findings 43243
teleradiology, image ref. database, WWW 9053
X ray diagnosis and nuc. med. trends 18477
X ray units database, Lower Saxony, radiation protection, QC 18500
radiolysis
chem. amplified resist films, acid generation proc. by radiation-induced react. 13516
X ray ionization radiation effects and mechanisms 6680
GaAs/CaSrF$_2$ quantum semicond. struct., high energy electron beam lithog. 13149
radiometers
see also bolometers; infrared detectors; microwave detectors
8mm total power radiometer, periodic calib. 3962
aircraft K-band radiometer for sea surface brightness temp. meas. 26731
Earth obs. from space, microwave rem. sens. *(Japanese)* 35286
frozen soils, moisture content/temp. monitoring 4380
GOES-I Imager, radiometric accuracy optim. 4382
IR flux meas., pyrgeometer charactn. method 43509
IR radiometer, FOV, temp. distrib. meas. *(Japanese)* 4007
radiometers continued
IR systs., noise equiv. temp. difference 3886
IR temp. meas. and imaging 3878
linearity characterization by intermodulation distortion 25795
microwave correl. temp. of isothermal lossy material 3966
non-grey body obj., temp. meas., variable temp. radiator *(Japanese)* 4008
perform. limitations in spherically invariant noise 32541
portable ground-based atmos. monitoring syst. 18827
solar microwave radiometer for act. regions, 18-23 GHz 9687
space solar concentrators, glass reflectors, optical eval. 26644
spectroradiometer, fast scanning high resoln. in-water appl. 26763
Spirit III radiometer, scanned image constr. via optimal interpolation 24511
thermo-resistive solar radiation sensors identification 25805
TOPEX/Poseidon microwave radiometer, antenna pattern/brightness temp. 26734
TOPEX/Poseidon Microwave Radiometer, description and calib. 26733
UHF radiometer for Earth surface rem. sens., synthetic aperture 10452
W-band monolithic HEMT LNAs for microwave scanning radiometer 21558
X/Ka band emission from leafy vegetation, modeling 43493
radiometry
see also radiometers
1-MeV equiv. neutron fluence estim. from dosimetry responses 18372
20 GHz Earth-Olympus satellite path, propag. research 42333
advanced rem. sens. simulator, geometric mapping 26530
atmos., humidity & temp., TOVS IR & microwave radiometry 43511
atmos., vapour and liq. water, SSM/I radiometry method 35320
atmos., water vap. profiling, SSM/T-2 microwave radiometry 35322
atmos. humidity, GOES IR radiometry rem. sens. 4393
atmos. humidity, SSM/I and TOVS methods 35321
atmos. rem. sens., TOVS mm & microwave radiometry 35323
atmospheric radiometric sens., radiation transport/thermal cond. eqns. 35301
bioelectromagnetics in Russia, review 35028
cloud liq. water, microwave radiometry rem. sens. 35319
coherence-induced spectral shift expts., radiometry appl. 4004
DS-SS sigs. radiometric detect., wavelet transform 17012
Earth obs. phased array antenna design 26711
end-coupled Josephson jns., microwave absorpt., wideband detect. 42773
fibre-rem. pumped Nd:YAG laser, heterodyne sens. appls. 17863
freq. hopped sigs., radiometric detect., multipath fading effects 25269
intelligent multi-access spectrum-sharing methodology 41467
IR radiometer, FOV, temp. distrib. meas. *(Japanese)* 4007
IR radiometric lens/staring FPA camera syst., design/operation 17942
IR technology, conf., San Diego, CA, USA (1994) 11575
ITS-90 implement., thermal metrology fund. 3718
land surface microwave radiometry, SSM/I image improvement 18781
land surface microwave radiometry, winter landscape signatures 35295
land surface radiometry, UHF synthetic aperture radiometer 10452
Landsat-TM scene lin. LOC segment detect. using morph., model-based approach 16257
linearity characterization by intermodulation distortion 25795
material properties meas. waveguide sample holder 25961
MHD convertor plasma temp. meas., spectroradiometer-based 11305
microwave appls. in medicine, colloquium, London, UK (1995) 28227
microwave radiometry, rem. sens. and radioastronomy appls. *(Japanese)* 42910
MM wave FPA imager 42841
MRTD GO-NO GO tester develop. and appls. 34594
multi-beam MM-wave FPA airborne imaging syst. 42842
multifrequency microwave radiometry, biological objs. temp. profiling 43248
multispectral images, radiometrically correct sharpening, panchromatic image 16270
non-grey body obj., temp. meas., variable temp. radiator *(Japanese)* 4008
ocean waves polarized microwave radiometry 10490
OLYMPUS satellite 12/20/30 GHz propag. expt. results 31818
pass. millimetre wave imaging, radiometry 42843
pass. mm-wave camera for low visibility landing 10329
polarimetric scatt. and emission props. of refl. symm. targets 7952
precip. rem. sens., microwave radiometry, retrieval algm. 35315
radiobrightness temp. of stratified medium, rough boundary 18051
rain rate rem. sens., microwave radiometry and radar methods 10477
rainfall at sea, SSM/I microwave radiometry method 35296
rainfall over the sea, imaging microwave radiometry 35317
rainfall over the sea, multichannel microwave radiometry 35316
rainfall satellite radiometry, improvement, radar data 35327
robust nonlin. regression methods, dose response rels. 28569
sea surface brightness temp., aircraft K-band radiometry 26731
snow cover & precip., satellite mm wave radiometry method 43507
soil moisture rem. sens., microwave radiometry, soil 35351
soil moisture rem. sens., UHF radiometry method 35350
space-Earth absorpt., radiometric inversion coeffs. for Italy 15430
spectral emissivity of natural surfaces, FTIR spectrometer appl. 18131
std. lamps, improved automated current control 3723
storms, microwave rem. sens., AMPR radiometry and CP-2 radar 35314
storms (precipitating), microwave rem. sens., AMPR 35313
terrain surface albedo retrieval method 43481
TOPEX/Poseidon microwave radiometer, antenna pattern/brightness temp. 26734
TOPEX/Poseidon Microwave Radiometer, description and calib. 26733
TOPEX/Poseidon microwave radiometer, wet tropos. range correction algm. 26717
TOPEX/POSEIDON sea level meas., microwave radiometer perform. 18840
W-band monolithic HEMT LNAs for microwave scanning radiometer 21558
Wolf shifts interp. under lab. conditions, comments/reply 4005
GaAs-AlGaAs 256×256 miniband transport MQW long wavelength IR FPAs 17934
PtSi IR cameras, IR CCD/IR MOS imaging radiometers 17957
Si:As scanning hybrid IR detector array, radiometric charactn. 17940
Si:Cr, carrier/thermal wave photothermal sigs. 1017
radiometry, ultraviolet *see photometry*
radionavigation
see also radio direction-finding; satellite navigation
airborne antenna testing, Indoor Doppler Antenna Test Range 35217
avionics interf., airborne pers. electronic devices 10347
Croatia, radiocommunications on inland waterways 42537
Decca Navigator radionavigation receiver design and DSP 42543
DGPS correction distrib. by radio beacons *(Croatian)* 3635
ECDIS/ARPA overlay systs., display requirements 25606

radionavigation continued
EMC of urban cellular mobile radio systs. 33858
geodetic vert. motions due to atmos. loading, GPS method 10447
GLONASS radionavigation, 1612 MHz interf., astron. 25626
GPS differential method, marine geodesy 4381
GPS-Squitter expt. results 9419
HF rem. low-power transmitters, single station location 34193
image proc. based on Parzen-Rosenblatt estim. *(Russian)* 17513
INFONAVI, in-vehicle navig. syst., radio pager 42542
Loran-C, GRI ranking based on cross-rate interf. 25609
Loran-C skywave delay estim., eigen-decomp. 17500
Loran-C waves near huge bridge, phase disturbances *(Japanese)* 42550
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
marine traffic mgt., survey of current and possible future measures 25608
MM-wave radar sens. for road vehicle positioning 42512
mm-wave radars for airport surface surveillance 10421
NELS network, Northwest European Loran C System 17497
obstacle avoidance sens., automatic Nap-of-the-Earth flight 10385
pass. ranging, image expansion 26549
photogrammetry, GPS controlled triangulation of single flight lines 42549
positioning/paging syst. operating principles *(Croatian)* 3636
Russia, GSM transmitter interf., airborne radio-navig. equipt. 33859
Satnav programme, flight safety improvement *(French)* 3637
ship navig., ocean environ., chaos appl. 24173
ship navig., radar picture and ARPA data stabilization 25607
ships, electronic navig. chart data 17495
TOPEX/POSEIDON ocean radar, precise orbit determ. 18860
TOPEX/POSEIDON ocean radar satellite, CNES orbits 18861
TOPEX/POSEIDON ocean radar satellite, GPS for precise orbit 18863
USA 1992 Federal Radionavig. Plan *(Japanese)* 17509

radiopaging *see paging communication*

radiophones *see radiotelephony*

radios *see radio receivers*

radiosity *see brightness*

radiosources (astronomical)
see also pulsars; quasars
astron. radio-interferometry, calib. problems *(French)* 17530
astron. radio-interferometry, calib./self-calib. methods *(French)* 17531

radiotelegraphy
Fleming and Marconi, wireless transm. develop. 5720
Marconi's (1901) transatlantic transm. wavelength, transmitting syst. anal. 25267

radiotelemetry
adaptive antenna for scanning telemetry 33419
buffered telemetry demodulator for Galileo mission 9420
hospital building, 2.3 GHz radiotelemetry channel, fading characts. 43413
indust. radiotelemetry appl. possibilities and prospects *(German)* 8874
ionos. Faraday effect, polaris. meas. syst. develop. 18829
obstructed rural radio path at 462 MHz, seasonal propag. effects 40360
oceanographic telemetry systs., satellites 26751
pipelined automatic meter reading scheme 35692
short-range 2D positioning by microwave cellular telemetry 3975
steel indust. wireless coke oven SCADA syst. 9824

radiotelephones *see radiotelephony*

radiotelephony
see also cellular radio; cordless telephone systems
3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
48 V/50 A telecom. switching power supply 19832
ACTS Programme, mobile/pers. commun. research 9390
Australian review, wireless pers. commun. services 3108
BiCMOS SC bandpass delta-sigma A/D modulation, 10.7 MHz 29310
carrier leakage, carrier freq. error estim. 8097
CDMA cellular networks, antenna arrays, downlink perform. 17093
CDMA mobile radio intersystem operations 3477
cellular environ., resource auction multiple access 9291
cellular mobile commun., stat. paging area selection scheme 3453
centralised wireless commun. network, slotted idle sig. multiple access with collision detection 42230
chip sets for digital cellular handsets 17036
CODIT, testbed project, DS-CDMA for UMTS/FPLMTS 3385
developing countries, fixed wireless local-loop syst. 3117
differentially detected π/4-DQPSK syst. perform., AWGN/Rayleigh fading 40568
digital-wireless commun., test equipt. selection 116
DS-CDMA FH-CDMA/narrow band cellular radio systs. 3452
elec./electronic syst. and mobile phone equipt., EM environ. 25290
Ericsson turnkey syst. for GSM 900/DCS 1800 networks 42257
global mobile satellite complement, terrestrial cellular commun. 42307
Global System for Mobile Communications (GSM) 42285
GSM900/DCS1800 systs., adaptive antenna arrays 3480
GSM, M-detector, coherent receiver antenna diversity, perform. 17040
GSM archit. 42286
GSM handsets, three-chip struct. 17034
GSM mobile networks, subjective speech quality 3446
GSM mobile telephones, type approval methods 16616
GSM network, Q3 network mgt. interface 9402
GSM radio meas. data, proc. methods 3447
GSM radio networks, multivendor possibilities 9399
GSM signalling protocol LAPD$_m$, perform. anal. 3499
GSM syst., security aspects/mgt. 3351
hand-held GSM digital mobile telephones, near E-field magnitude 42284
handoff algms., absol./relative meas., anal. 3395
handover algms., propag. depend. params. 3393
hands-free cellular phone, subband adaptive noise canceler 17115
HBT technol., CDMA chip set power increase 16928
HF devices/ICs for portable cellular phones 17133
high integrity data commun. for light rail transport syst. 36742
inflight telephony systs. *(French)* 3125
Inmarsat and pers. mobile satellite services 3363
inter-zone connection syst. for multi-channel access services *(Japanese)* 33898
IRIDIUM global commun. network, IEEE 1149.1 Standard appl. 9808
Japan digital cellular syst., field test results 3439
land mobile radio networks, digital video/speech transm. 17048
Mexico, rural telephony, mobile satellite commun. 3119
mobile telephony, strategical aspects for develop. 16618
Natel D GSM syst. for digital mobile commun. *(German)* 42299

radiotelephony continued
Nikola Telsa mobile telephone syst. NMT 450, functionality upgrading project 33857
pan-European GSM signalling for Abis interface 3448
patent infringement, lawsuits, cellular telephones appl. 36840
pers. commun. numbering 3113
pers. handy phone syst., telecomm. service enhancement 3115
pers. handy phone syst. for multimedia wireless commun. *(Japanese)* 25127
pers. handy phone syst. terminal design for home 42217
planar two-mode channel FET, MMIC, pers. handy phone 38925
portable telephone for pers. digital cellular syst. 3467
radio networks, distributed power control 9376
radio syst., PSTN network syst. interfaces/services 25383
rechargeable batts. for mobile communs. 27915
rem. telephone services, alternative power sources 3107
RTI/IVHS data distrib., virtual beacons 3459
rural cellular telephony, cost effective commun. 42191
SAR mapping within human eye, portable transceivers effect 18625
satellite-PCN, UMTS evol. 9388
sectorized mobile microcellular radio syst., perform. anal. 3451
slotted ALOHA for high-capacity voice cellular commun. 3340
slow FH-GSM freq. hopping GSM 9288
structural evol., mobile tools in professional arena *(French)* 42254
SW and satellite mobile radiotelephone characts. compared *(German)* 42318
TCXO with quartz cryst. resonators, cellular telephones appl. 39106
Telecom LSI series, Astro Array *(Japanese)* 13854
TETRA std. for private mobile radio 42219
time-domain scrambled speech security with isomorphic emphasis 32209
UMTS, migration 9387
UMTS directory services, security aspects 9209
UMTS satellite component, European activities, review 9389
UPT service in multi-operator environ. 16617
Wireless Integrated Digital Equipment syst. 42263
wireless local telephone service, effective implement. 3118
wireless networks, replacement for wireline facilities 3116
Li ion batts. for mobile telephone equipt. 19971
Ni-Cd batts. for mobile telephone equipt. 19971
Ni-MH batts. for mobile telephone equipt. 19971
Ni-Zn batts. for mobile telephone equipt. 19971

radiotelescopes
see also radioastronomy
acousto-opt. spectrum analyzer modulator/deflector, radio-astron. appls. 17529
DSP for pulsar searching 42552
H, 21 cm hyperfine line, radioastronomy appls. 5514
L-band dual feedhorn for SETI, design 8038
maser-based receiver for Crimean 22-m radio telescope 17525
millimetric telescope, antenna shape control syst. 17519
Nobeyama Radio Observatory, telescope control syst. upgrade 17515
phase-locked LO for spectral receiver 17528
phased-array obs., correl. noise effects 3642
radiotelescope continuum receiving syst. *(Korean)* 42553
RATAN-600, phased array, hybrid syst. 17522
RATAN-600, radio source displacement, anom. refr. 15433
review, work of Nat. Radio Astronomy Observatory 34200
RT-2 radio telescope for 3-mm wavelength operation 17526
short-baseline SHF interferometer, residual noise level prediction 25622
SIS open struct. receiver for submm radioastronomy 42555
solar burst automated detect./recording syst. 17524
solar microwave radiometer for act. regions, 18-23 GHz 9687
Turkey, site selection for mm & sub mm radiotelescopes 17520
Ukrainian 16-m mm wave radio telescope, RTM-16 RIAN 17527
URAN VLBI network, decametre waveband 17517
vibrs. of 22-m telescope struct., tracking error effects 42558

radiotherapy *see radiation therapy*

radiowave interferometers
airborne direction-finding cross interferometer perform. 25618
SAFIR, lightning monitoring syst., perform. in Japan 4391
short-baseline SHF, residual noise level prediction 25622
spatial FFT interferometer, 2D direct radio imaging 3644
URAN VLBI radiotelescope, decametre operation 17517

radiowave interferometry
2D direct radio imaging, spatial FFT interferometer 3644
aircraft-borne interferometric SAR for 3-D radar imaging 17384
astron. radio images, adaptive deconvolution 34198
astron. radio-interferometry, calib. problems *(French)* 17530
astron. radio-interferometry, calib./self-calib. methods *(French)* 17531
atmos., radar interferometric techs. and vol. scatter 35306
DOA estim. via extended phase interferometry 24327
earthquake prediction, VLBI/satellite laser ranging 43477
interferometric SAR terrain elevation mapping from multiple obs. 25549
ionos. scintillation obs. 23623
meteorological radars, clutter removal method 35332
multifreq. synthesis techs., radio interferometric imaging 9685
paper sheet no. meas., microwave counter 3983
RF discharge, electron conc. determ., Fabri-Perot cavity 3759
short-range 2D positioning by microwave cellular telemetry 3975
survey vessels, precision attitude meas. 17496
tropos. small scale struct. study by radar super-resoln. 35325
VLBI, crustal deform. obs., Tokyo metropolitan area *(Japanese)* 18804
VLBI for Earth environ. research 25621
VLBI fringe detect. methods 42557
VLBI obs. correction for ionos. refr. 9686

radiowave propagation
see also Earth-ionosphere waveguide; electromagnetic wave propagation; HF radio propagation; microwave propagation; millimetre wave propagation; submillimetre wave propagation; UHF radio propagation; VHF radio propagation
3D PCN, reception reliab. 17057
3D rendering, sci./engng. tool 15434
adaptive equalization for fading mountainous terrain 3426
AM high power broadcast stations, EM environ. 25642
anom. atmos. refr., radio source displacement 15433
anoms. preceding earthquakes, charged aerosols 7962
ASDL-I deployment, automated syst. for RFI anal. 9095
atmos., tweek type, Earth-ionos. waveguide 2225
atmos. profiles obtained from GPS occultations 18831
base station polaris. diversity, antenna config. 3478
Bavaria DAB single freq. network, field tests results 25638

radiowave propagation continued
Bayesian techs. for rapidly fading channels equalization 3436
BER, influence of multipath propag. *(German)* 23635
building scatter of sigs., microwave freqs. 15425
burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
CDMA cellular networks, antenna arrays, downlink perform. 17093
CDMA cellular syst., forward link multipath propag. 33885
CDMA cellular systs., design/test 3382
CDMA for terrestrial/mobile satellite commun. networks 17049
CDMA mobile radio systs., reverse link anal. 3392
CDMA receiver, near-far immunity 25228
CDMA syst., macro-/micro-cellular environ., perform. 3471
cellular mobile radio systs., spectrum efficiency 17124
cellular network planning, radio coverage defn. methodology 42227
cellular syst. models, meas. propag. data 9313
cellular systs., handoffs, adaptive averaging 25341
centimeter/decimeter radio waves absorpt., eclipse expts. 40359
companion wave radio commun., superimposed mag. field 2223
complex geom. indoor radio propag. ray-splitting model 31825
CPM perform., mobile radio diversity operations 17119
crank-tunnel with reflectors, propag. characts. 2218
DECT multibearer channels 3494
developing countries radio network design, RAP package-based 31843
digital commun. systs. degrad., multipath environ. 3412
digital FM transm., Rayleigh fading, RS codes appl. 25346
digital HDTV introduction, terrestrial networks *(Croatian)* 3669
digital LOS links, diversity considerations, review 3330
digital mobile radio systs., seq. detect. algms. 3437
digital radio, spectrum phase interpolation, detect. tech. 9381
distributed antenna syst., freq. selective fading, perform. 17091
diversity reception, vel. estim. 3454
DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
DS-CDMA cellular systs., third generation, adaptive antennas 33850
DS-CDMA microcellular network, soft handoff 3470
DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
DS-CDMA mobile syst., fading channel, anal./simul. 3391
DS-SS, multi-h CPM, indoor mobile radio, perform. 3474
DS-SS commun. syst., path-diversity based on multiple path selection *(Japanese)* 25275
DS-SS/QPSK systs. for multipath channel, adaptive equalizer *(Japanese)* 25212
E-region, high-lat. heating, stationary irreg. generation 7981
E-region irregularities, radio scintillation studies 40328
Earth space path over Shillong, rain atten. 15442
Earth-ionos. waveguide excitation, satellite altitude antennae 7984
earth-station antennas, site shielding 40491
electrified raindrops, multiple EM scatt. by lin. array 7985
ELF radiation and Ito 1993 earthquake clusters 23634
ELF/VLF emissions from earthquakes, satellite recodings 15444
ELF/VLF propag., AD 1989 Atlantic obs. 40341
EM wave propag. in laterally non-uniform atmos. duct, coupled mode anal. *(Japanese)* 7971
FFT multiple half-screen diffr. model for cellular commun. 3417
folded Fresnel zone plate antenna, design and anal. 2323
freq.-selective fading channel, differential detect. 2217
Fresnel knife-edge diffr. correction factors based on UTD results 2230
future public land mobile telecomm. and fixed services, freq. sharing feasibility 42198
geological forms., radar wave propag. 7966
GLONASS P-code, L1/L2 freqs., perform. 17505
ground station-geostationary satellite link, radio wave atten. 40357
GSM radio meas. data, proc. methods 3447
handover algms., propag. depend. params. 3393
hierarchical modulation schemes for digital broadcasting, power assignment 25630
high-lat. bottomside F region, high freq. ducting 40355
hilly terrain, theoretical investig./wideband meas. 9321
horiz. parab. eqn. soln. 23642
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
IEEE MILCOM conf., Boston, USA (1993) 36897
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
indoor mobile radio, burst-level ARQ error protection 17054
indoor pico-cell radio syst., spectrum requirements 25339
indoor radio, channel equalization, neural network techs. 17140
indoor radio LAN, channel outage, token based MAC protocol 8991
indoor radio propag., multipath charact. for shielded building *(Japanese)* 23626
indoor radio propag. model based on ray tracing and integral eqns. *(Japanese)* 23625
integrated satellite/terrestrial mobile radio, handover strategies 42277
interf. pattern, wavefront disloc., refr. index 40358
ionos., current source sheets, EM waves excitation 23639
ionos., electron beam-driven VLF waves, CHARGE-2B rocket expt. 40339
ionos., meteor shower periods, distant VHF TV sigs. 15432
ionos. & magnetos., transequatorial HF waves 40340
ionos. delay, geophys. radar altimetry method 4378
ionos. electron beam injection, assoc. radiowave absorpt. 7970
ionos. Faraday effect, polaris. meas. syst. develop. 18829
ionos. inhomogeneities, radiowave diffr. 2224
ionos. LF propag., rel., solar mag. & microwaves 2221
ionos. satellite-to-Earth commun. channel, sig. delay 2228
ionos. sig., stochastic props. of phase derivative 32594
ionos. VHF scintillation, anom. crest region 2235
ionos. with inhomogeneities, vert. radio sounding 43502
Japanese propag. studies (1990s) 2236
land mobile radio channel multipath excess delay, probab. dens. 3365
land mobile radio systs., receiver near range influence 3416
land mobile satellite commun. systs., field strength prediction *(English)* 42222
land mobile telephone systs. in Cheju, field strength prediction *(Korean)* 25351
LF long-dist. anom. propag., Sanwa-Calcutta path 7968
LF model for wedge, pyramid absorber arrays 7994
LF propag. under ground surface, Sommerfeld integrat. *(Japanese)* 7986
Loran-C skywave delay estim., eigen-decomp. 17500
low altitude radar appls., irregular terrain modeling 17422
low lat. whistlers propag. mech., direction finding meas. 23644
magnetodielectric bodies, wave scatt., discrete source method 15428

radiowave propagation continued
magnetos. VLF/ELF radio waves, direction finding method 23641
Malaysia, rain atten. for satellite commun. in tropical regions 3524
meas./modelling, ray tracing 9314
meteor-based radio systs., ellipt. polariz. antennas appl. 42341
microcell/indoor environ., propag. mechanisms 3344
microcellular modelling for base station antenna below roof tops 3418
microwave link rain atten., 11 GHz, Guwahati, India 2233
microwave links of India, rain-rate & drop-size effects 2219
microwave rain atten., Indian Earth-space paths 2234
mobile multipath channel, bit-rate selection, beam tilting effect 33878
mobile radio, freq.-selective Rayleigh fading channels 17134
mobile radio channel, measuring/simulating devices 25286
mobile radio channel, wideband propag. meas. 17031
mobile radio channel heavy time dispersion estim. by path tracing 33821
mobile radio channel modeling by echo estim. *(English)* 9338
mobile radio channels, stack algm. 9294
mobile radio microcell planning, 3D propag. models *(German)* 25336
mobile radio syst. design for mountainous terrain 33785
mobile radiocommunications medium, novel study 17117
mobile satellite commun., MFSK/DPSK sigs., cutoff rates 25301
mobile sig. reception, stat. model 31833
multi-mode OTHR data, model based data fusion algm. 9638
multipath mobile channels, simul./modelling 3410
multiple radio wave refls. in corridor 9340
Nakagami faded sigs., Gaussian noise perturbed, phase diff. distrib. 32024
nonlin. scatt. by metallic objs. 15429
nonlin. scatt. by metallic objs. 40356
nonuniform ionos., point source field calc. 2227
office building, propag. charact. meas./freq. reuse 9322
OQPSK-type modulations, mobile radio transm. modeling/perform. eval. 17122
PCS provisioning in cellular environ. 3496
personal commun. syst. design, site-specific propag. modelling 33822
plasma radiowave propag., FDTD study 7988
point source field of NB sig., atmos. spatial phase fluct. estim. 31789
polaris. vector posn., medium depolarisation effects 10462
propagated dist., multiple-diffr. components meas. *(Japanese)* 31838
radio links, computer generation of sigs., simul. program 17025
radiocommunications and mobility *(English, French)* 42188
radiopaging technol./systs., wide-area 33773
radiotelescope site selection in Turkey, mm & sub mm wave 17520
rain, atten. and phase shift calc., dielec. mixture model 23632
rain atten. effect on satellite-ground links 9404
RAKE receiver, mobile multipath fading channel, channel estim. 42268
Rake receiver archit., perform. 25264
RAKE receiver over multipath fading channel, CDMA perform. anal. *(English)* 17082
real-time in-door radio commun., antenna diversity *(Japanese)* 42180
rect. tunnels, radio propag. loss, mesh effects 31809
refl. coeff., material characterisation 7978
RF Mission Planner, warfare commun. simul. 26816
RF prediction tool selection, microcells/PCS modeling 31832
S-CDMA cellular radio syst., interf. calcs. 17121
sand and dust storms, mm wave propag. losses 2220
satellite reception, DSPN signalling in mobile dense scatterer ray tracing model 33944
satellite-Earth links, atten. prediction, low fade margins syst. 2231
satellites, terrestrial mag. field, ionos.-induced cross-polariz. 23624
scalar EM propag., parab. eqns., split-step Pade approx. 40353
SDH compatible digital radio syst. error perform. requirements 42153
sea level by satellite radioaltimetry, ionos. correction 18838
sea level radar altimetry by satellite, ionos. correction 18839
sector antenna/DFE modems for indoor radio commun. 3167
sectorized cellular commun., channel borrowing without locking 3345
shared CDMA LEOS environ., total capacity 25303
SHF/EHF mobile/indoor wireless commun., SS 3476
single-freq. GPS systs., ionos. time delay *(Korean)* 34197
slotted ALOHA for high-capacity voice cellular commun. 3340
slow flat Rician fading, covariance matrix, ML detect. 25306
small-cell environ., radio channel characts. prediction 3335
solar control sheet glass conductive coatings, radio wave transm. 7450
Space Station Freedom wireless commun. propag. theory and expt. 31816
space-Earth absorpt., radiometric inversion coeffs. for Italy 15430
TDMA digital cellular syst. time slot assignment techs. 33824
TDMA systs., unique-words perform. eval./selection/design 24780
TDOA estim., sig. selective, modified cyclic methods 2508
terrestrial land-mobile commun., propag. models *(English)* 42223
third generation radio archit., adaptive antennas appl. 3482
transparent dispersive media, regularities of radio-pulse propag. 15446
tropos. effects, TOPEX/POSEIDON sea level meas. 18840
tunnel, rect. waveguide model 23643
tweek atmos., propag. characts., lower ionos. height 23638
two-posn. radar, low-flying target detect. and height meas. 17377
UHF ionos. absorpt., A1 method, planetary flucts. 2222
universal personal communications, conf., San Diego, USA (1994) 20233
urban microcell environ., av. power prediction 3422
urban microcells, ray tracing based prediction of impulse response 3420
urban radiowave propag., IEE Colloquium, London (1994) 5480
vehicular scatt. effect on mobile commun. 9308
vertical dipole in prescence of two or three layers 23628
VLF anom. sigs. assoc., strong earthquakes 7974
VLF field transm. into seawater, theoretical and expt. results 40352
VLF ionos. propag., 30 June 1992 total solar eclipse 23620
VLF radio waves, ground-based direction finding 23637
VLF sigs., nighttime D-region heating 15443
VLF/ELF sferics, ionos. refl. height 31810
wave propag. in tropos. ducts 15439
wave/particle meas., lightning-induced precip. 23705
weather radar polarimetry, path integrated differential phase shift 43517
whistlers, causative atmos. location, one station 23640
wideband radio propag. for pers. communs., freq.-domain model 7964
wireless commun. channels, propag. meas. and models 17108
wireless LAN MAC protocol selection for indoor environ. 41818
wireless PCS radiowave propag. 3379

radiowaves
see also microwaves; millimetre waves; radiowave propagation
plane surface elec. params. meas., radio-thermal radiation 10010

radius measurement *see diameter measurement*
radius of curvature measurement *see curvature measurement*
radomes
2 to 26 GHz slant polarised omni azimuthal antenna and radome 23884
antenna radome synthesis and param. optim. 2318
aperture-coupled multiplayer microstrip antenna anal. 31942
EM coupled stacked rect. patch antennas 31927
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
multilayer radome wall synthesis criteria *(Russian)* 15676
superspheroids, family of radome shapes 31998
Radon transforms
3D location estim. of airborne targets, Radon transform *(Korean)* 24676
axisymmetric elec. field distrib., Kerr effect meas. 14535
cellular neural network chips, opt. image acquisition 29486
CMOS max. entropy coprocessor for computed tomography 29432
complex wave-field reconstruction, phase-space tomography 32890
multicomponent sigs. anal., time-freq. distrib., Radon transform. 2487
SAR imagery, localized Radon transform for ship wake detect. 17391
ship wake detect., SAR images, localized approach 26729
short pulse tomographic meas., generalized Radon transform 39373
sig. constellation ident., anal. 33683
rail traffic
see also railways; traffic control
2.45 GHz radio syst. for automatic passenger gates 9192
AC rly. syst. energy conservation, optim. train running curves 44530
ATBL, European automatic train control systs. integrat. 44544
automatic train protection syst., commun., rails 11411
automatic train protection syst. develop., formal methods appl. 36744
CARAT rly. signalling project overview, Japan 36747
DC rly. power systs., intell. traction power control 28126
EBICAB 900 train protection transponders, product series 5334
elec. locomotives, adaptive output power control studies *(Japanese)* 28112
elec. rly. real-time control/monitoring syst. integrat. *(Chinese)* 36710
EMC of microelectronic rly. traffic control systs. 28117
EUROLOOP, train control data commun. syst. 41633
high integrity data commun. for light rail transport syst. 36742
high speed elec. rly., power/control systs. *(French)* 11427
high-speed trains, GSM-based commun. syst. 9284
Manchester Metrolink, EMC and road traffic control 5330
rly. signalling equipt., condition-based maint. 44531
secondary elec. rly. lines, low cost operation, Italy 44529
signalling, solid state interlocking 28136
train control standardisation, European operational switching syst. 44532
trains computer and radio control 9283
railguns
0.6 caliber railgun, air-core compulsator driven 19779
3 MJ railgun, expt./computer simul. studies 15281
3D current distrib./EM fields soln. 15319
3D plasma armature railgun simul. 15371
9 MJ Range Gun syst., design 15305
10-30 kV rail-gap pulsed power supply, compact mag. plasma switch 36403
15 mm sq.-bore railgun, EM field meas. 15330
25 mm hypervelocity railgun, perform. characts. 15353
30/90 mm laminated high L' railguns, design/testing 15269
50 kJ railgun pulse forming unit, semicond. switched 19782
50 mm, 3 MJ nonstiff bore railgun, tech. aspects 15277
52 MJ railgun power supply perform. 19775
90 mm maintainable bore railgun barrel 15276
90 mm railgun-fired air defense projectiles 18966
100 kA, 5 kV solid state opening switch, railgun appl. 31762
300 kJ railgun, high efficiency, expt. characts. 15282
accelerator, structural response num. simul. 15322
air core compulsator, power electronics/controls 19783
armature contact load dyn. 15359
armature plasma brush electrode materials 15334
armature-rail interface, contact arcing transit. 15342
armour penetrating projectiles, armature designs 18964
augmented PM railgun, plasma armature behaviour 15356
augmented railgun, inductance gradient scaling expts. 15273
augmented railgun-based fusion reactor solid H_2 pellet accel. 15283
bore lifetime meas. expts. 15373
busgun design, operation/losses 15265
cannon caliber EM launcher, rapid fire, ultra stiff 15280
cannon caliber EM launcher syst., air core compulsator design 31740
cannon caliber railgun, air core compulsator design 19781
cannon calibre EM railgun, discarding armature, design 18965
channel segmentation, efficiency, MHD aspects 15272
compacted plasma armature railgun expts. 15267
composite electrodes, crit. current dens. 15364
design, coupled EM-hydro FEM 15311
distributed energy fed railgun, perform. enhancement 15274
distributed plasma armature, electromagnetism, lumped element description 23523
E7-25 capacitor storage unit, ET/railgun launcher 31756
elec. drivetrain, tank propulsion/railgun power supply 20064
elemental wire conductors, wear behaviour studies 15339
EM fields, static/quasi-static models 15329
EM forces calc., 3D FEM 31753
EM launch technology, conference, San Diego, USA (1994) 5490
EM launched projectiles, rail straightness effects 15343
fusion pellet EM launching, high vel. 2193
high current/energy closing switches. railgun appls. 31746
high efficiency achievement 15261
Hypervelocity High Efficiency railgun design 15262
ISL-EMA railguns, phase controlled thyristor main switches 31758
j×B railgun, rod-shaped projectile acceleration 23524
Kirkcudbright 32 MJ EM gun facility firings 31775
launch-induced static/dyn. deflection calcs. 15363
lin. DC motor-based, stabilisation study 31768
lin. generators, railgun pulsed power supply appls. 36309
magnetised coaxial plasma gun, electric propulsion appls. 31773
meas., high accuracy 15374
metal armature contact press. studies 15358
metal-to-metal closing switch, capacitative pulsed power supply 36455
mid-range integrated launch package, current maldistrib. 15348
multi-point/packed wire/monolithic solid armatures 15361
multi-tiered Cu wire solid armature studies 15354
muzzle voltage origs. 15312
muzzle-fed railgun expts., 3-D EM simul. 15279
railguns continued
muzzle-fed railgun expts., plasma armature 31752
muzzle-fed railguns, EM/thermal anal. 15345
nonarcing contact material deposition expts. 15349
operating current limit increase, EM shields 15266
optim., efficiency improvement 15306
PFN, rep-rated, capacitor thermal mgt. 31745
plasma arc driven railguns, MHD generator pulse power supply 20013
plasma armature exploding wires, vis./UV spectrosc. 15328
plasma armature railgun, secondary arc form. 23520
plasma armature railguns, foil breakdown, num. simulations 23521
plasma armature railguns, projectile vel., conductivity 23522
plasma armatures, dyn./struct. studies 15333
plasma armatures, full-bore num. simul. 15365
plasma armatures, opt. thick, temp. meas. 15325
plasma armatures, serrated bore surface effects 15360
plasma hybrid armature railguns, current/fuse thickness props. 23525
plasma-surface interfaces, energy transport, boundary layer model 31772
power supply mode optimisation 23526
projectile accel., plasma armature 15344
pulsed disk alternator, flywheel struct., EM gun 20050
pulsed power networks, mag. enegy storage switch-based 36405
railgun armature arcing voltage drop 15346
railgun pulsed power superspeed contacts, inverse problem calcs. 36311
railguns, current pulse forming, capacitive energy storage 19778
reson. series counterpulse, high current opening switches 19895
round bore railguns, rot. forces 15347
SCR millisecond switches eval., railgun launchers 31747
seq. fired, thermal loading, heat removal 15271
small body launching, plasma armature railgun 15268
small bore plasma armature rail launcher, high current densities 15263
small bore plasma armature railgun expts. 15270
small railgun, bore erosion reduction 31757
solid armature develop. programme, USA 15351
solid armature EM railgun launchers, plated Al-Cu contacts 15324
solid armature railgun, current/heat transient diffusion 15310
solid armature railguns, contact transit. anal. 15355
solid armatures, nonarcing contact studies 15362
solid ring armature transaugmented railgun studies 15350
solid-armature railgun, current/heat transport modelling 15320
test range develop. results, Russia 15367
thermally fused explosive switch, railgun appl. 31759
thermally/mech. coupled diffusion, Lagrangian formulation 15315
weapon solid armatures, instrumentation develop. 15336
Al railgun material strength, pulsed heating conditions 15327
CuCrZr EM railgun worn rails, metall. anal. 15375
Pd powder railgun projectiles, impact expts. 15357

railroads *see railways*

railways
see also traction
3 kV DC rly. power syst. harmonics, time domain anal. 44553
3 kV DC rly. traction systs., catenary harmonics ident. 20109
3-level/IGBT inverter rly. propulsion control syst. 5332
12-pulse traction rectifiers simul., Saber simul. 44554
12X elec. locomotive, develop. and perform. *(German)* 28103
45 kW DC-DC PWM rly. car power converter, design optim. 11414
130 kV rly. power syst. operation optim., Sweden 44534
220 kV power syst. protection misoperation, traction harmonics-based *(Chinese)* 43609
500 kV transm. lines/railroad crossings, EMI protection *(Chinese)* 27229
AC electrified rly., AT power supply syst., earth pot. 28114
AC locomotive PWM rectifiers, harmonic current calcs. 36760
AC locomotives, line-side switching harmonics compensator 20101
AC locomotives, slip vel. feedback torque control *(Japanese)* 11407
AC rly., autotransformer feeding cct., harmonic reson. *(Japanese)* 11408
AC rly. power syst. protection/fault meas., PC-based 44536
AC rly. syst. energy conservation, optim. train running curves 44530
airport transit syst. power distrib. design project, USA 44571
ATBL, European automatic train control systs. integrat. 44544
automatic monitoring network syst. for trains 9823
automatic train protection syst., commun., rails 11411
automatic train protection syst. develop., formal methods appl. 36744
British Rail elec. insulation experiences, UK 44569
CARAT rly. signalling project overview, Japan 36747
carriage elec. equip. availability coeff. 20110
Central Line Project 11403
Channel Tunnel rail link, engng./tech. aspects 44556
Channel Tunnel rly. and power supply equipt. *(Italian)* 11404
Channel Tunnel Safety Case, risk criteria develop. 36988
Channel Tunnel traction/auxiliary power supplies 44533
Channel Tunnel trains, British main lines, signalling safety 44550
communication networks in transportation, IEE Colloquium, London (1995) 20252
contact wires, power collection efficiency 5331
continuous external train noise meas. 10073
Croydon Tramlink light rail transit project, UK 44526
DC elec. rly., pulsed power switch-based protection 36712
DC electrified rly. traction syst., stray currents control 44546
DC rly. locomotives, induction motor-driven, computer simul. 5348
DC rly. power systs., intell. traction power control 28126
DC rly. vehicles, act. power filter appls. *(German)* 11421
DC rly. vehicles, narrow-band LF act. filters 20102
Deutsche Bahn elec. rly. operation review, 1994 *(German)* 44500
dyn. DVM, rly. reactive power compensation appl. 3947
EA 3000 rly. IGBT auxiliary power converter series *(German)* 28124
EBICAB 900 train protection transponders, product series 5334
elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
elec. locomotives, adaptive output power control studies *(Japanese)* 28112
elec. multiple units, 3-level IGBT traction inverter 5361
elec. multiple units, Metro Line 1 project, Shanghai *(German)* 11420
elec. railcars, regenerative braking, DC feeding syst. 36752
elec. rly. AC power supply syst. *(Russian)* 28131
elec. rly. real-time control/monitoring syst. integrat. *(Chinese)* 36710
elec. rly. traction syst., EMI assess. modelling 44548
elec. rolling stock, induction motor traction drive appls. 36706
elec. train fault-tree generation automation, ES-based 44551
electric railways in united Europe, IEE conf., Amsterdam (1995) 36833
electrified rly., EMC 44545

railways continued
electrified rly., radio noise meas. 28129
electrified rly. radio interf. 28115
EMI testing of high speed rail train set 15493
EURADAT, pan-European data transm. network *(German)* 8813
Eurostar Informatique control syst. software 44573
feeder overhead lines, hard-drawn stranded wire testing 36749
feeder traction substations, harmonic prediction formulae *(Chinese)* 44249
Giubiasco (Switzerland) mains-connected PV installation *(German)* 43951
ground to train radio, multi std. internat. syst. 42171
GSM-R, global rly. mobile radio commun. syst. 42253
high speed elec. rly., power/control systs. *(French)* 11427
high speed trains, AC/DC power supplies 36751
high-speed train, adaptive channel equalization 3423
high-speed trains, GSM-based commun. syst. 9284
ICE 2 series high-speed elec. locomotives *(German)* 44501
ICE elec. locomotives, energy consumption/pollution study, Germany *(German)* 44502
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
inverter control syst., HV IGBT 44507
level crossing obj. detect. algm. 33145
low freq. supply networks protection 5329
Maglev, instantaneous current detect., PWM converter *(Japanese)* 44563
Maglev, PM lin. motor 36737
Maglev multilayer ferromag. track, levitation characts. 20090
Maglev power feed ccts., impedance freq. characts. 11406
Maglev rail transport systs., develop. status, Japan 5335
Maglev rly. inverter harmonic suppression method 11423
Maglev supercond. magnet protection, discharge tube switch-based 5338
Maglev supercond. magnets, constr., perform. 5337
Maglev syst., levitation/guidance, static characts. *(Korean)* 28119
Maglev test facility vehicle design, Japan 5336
MAGLEV train coil syst., transient induced voltages study 11428
Maglev train protection/posn. detect. 5339
mass rapid transit three-phase traction motors, adhesion perform. *(German)* 28104
mass transit rly. renovation project, systs. engng. approach, UK 44528
narrow-gauge rly. line catenary systs., R&D results 36750
overhead contact lines, high-speed insulator develop. 36748
pantograph standardisation efforts, Europe *(German)* 28123
passenger carriage power supply, IGBT batt. chargers *(German)* 28125
PEM fuel cell, terrestrial/marine vehicle appls. 36741
people mover, inverter, parallel connected IGBTs 44518
persistent current switches, stabil. current perform. *(Japanese)* 7257
Philips automatic train timetable IS 3130
power consumption characts. estim. *(German)* 44503
power supply, static converter, Muldenstein *(German)* 44522
power syst. stabil./power flow limit calcs. 5341
power syst. unsymmetrical load flow, elec. locomotive caused *(Chinese)* 35423
rly., safety, quantified risk assess. 36987
safety stds. 36986
secondary elec. rly. lines, low cost operation, Italy 44529
series-209 elec. commuter train, develop. 5352
Shinkansen develop., Hitachi technols. 44505
signalling, solid state interlocking 28136
signalling equipt., condition-based maint. 44531
signalling interf. prevention, high integrity monitor 44547
signalling systs., failure anal. 44549
single sided LIM, urban transit appl., nonlin. optimisation *(Japanese)* 44560
SNCF rly. overhead power supply maint., mgt. experience *(French)* 36753
snubber ccts. for rly. traction inverter drives 11430
static neg.-phase-seq. current compensator, rly. 44537
substation load levelling, energy storage *(German)* 44523
substations, 3-phase power flow studies 20108
suburban elec. rly. link project, UK 44552
subway elec. supply, energy saving, batt. storage plant 44539
subway trains, AC supply network, load impact eval. 28108
SVC operating/maint. strategies, rly. supply, transm. support 26985
Swissmetro, high speed underground transportation syst. 36735
technols. develop., Hitachi 44504
third rail conductor inspection, video appl. *(German)* 11422
three-phase AC/DC universal traction drive syst. design 44542
traction drive, snubber energy recovery cct. 44540
traction drive readhesive control studies *(Korean)* 28121
traction power equipt. purchasing, specs. experiences, UK 44535
traction power supplies, overview 11425
traction power supply, 130 kV transm. lines *(German)* 44521
traction power supply maint. project mgt., UK 44525
traction substation transformers, unbalance modelling 44520
traction syst., public grid interconnected, load flow 28109
traction transformers, asymmetry/harmonic/fluct. loss calcs. *(Chinese)* 44564
traction vehicles, tractive factor calcs. *(German)* 28105
train control standardisation, European operational switching syst. 44532
train driving simulator, struct. software develop. 44574
train-to-wayside commun., multicarrier modulation 9282
trains computer and radio control 9283
underground rly. transformers selection, safety 44538
Universal Networker elec. multiple unit 44527
urban rly. substation systs. 44508
urban transit syst., LIM/LSM combination Maglev *(Japanese)* 11398
USA, fiber otpics deployment via non-traditional rights-of-way 3572
Washington D.C. metro syst. tunnels commun. syst. 9281
weights and measures, conf., Kansas City, USA (1993) 28260
worldwide technol. develops. overview, 1994 36711
Cu alloy rly. trolley wire develop., high-strength *(Japanese)* 28135
Cu-Mg overhead rly. contact wire, high strength *(German)* 28122

rain
3 to 300 GHz rain and snow atten. software develop. 31817
20 GHz Earth-Olympus satellite path, propag. research 42333
22 GHz DBS HDTV antenna design and rain fade compensation 31950
42 GHz anom. propag., marshland/estuaries 17029
42 GHz bistatic Doppler radar for wind/fog/precip. meas. 18835
artificial acid rain, surface impulse breakdown tests 1505
atten. and phase shift calc., dielec. mixture model 23632
C-band dual-polariz. radar, computer error anal. of rainfall rates 10571
clear air radar reflective layers, rain effects 43513
Earth space path over Shillong, rain atten. 15442

rain continued
Earth-space paths, microwave propag., 3-350 GHz, computer simul. 23647
Earth-space propag. paths, differential rain atten. 15441
Earth-space syst., site diversity, rain atten., interf. anal. 15440
electrified raindrops, EM scatt. 7945
electrified raindrops, multiple EM scatt. by lin. array 7985
hybrid neural network syst. for rainfall estim. 43518
hydroelec. power plant rainfall runoff ratio estim. neural net *(Japanese)* 4864
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
Italsat-Olympus 20-GHz orb. diversity expt. 25456
Ka-band satellite links, ice depolarisation 2229
Ka-band satellite-ground path ice depolaris characts. 33949
LOS microwave link, 11 GHz, rain atten., worst month stats. 7965
Malaysia, rain atten. for satellite commun. in tropical regions 3524
meteorological radar, IEE Colloquium, London (1995) 28266
meteorological radar rain meas., rain rate distrib. inversion 4397
microwave imaging method, sea rainfall 35317
microwave link rain atten., 11 GHz, Guwahati, India 2233
microwave links of India, rain-rate & drop-size effects 2219
microwave pulse backscatt. & extinction, water drops 40345
microwave radiometry, multichannel, rainfall, sea 35316
microwave radiometry rem. sens., SSM/I method 35320
microwave rain atten., Indian Earth-space paths 2234
MM-wave propag., raindrop size distrib. near Paris 31808
multidimensional coding schemes in combined satellite and terrestrial channels 3531
Pacific, tropical, AD 1987-1990 rainfall, SSM/I obs 35296
programmable rainfall simulator design and software develop. 35348
quasi-MM waves, rain atten. charact. *(Japanese)* 40347
RA-2 satellite-borne radar altimeter for rainfall meas. 35329
radar rem. sens., mm wavelengths 10484
radar rem. sens., window probab. matching method 4398
radar rem. sens. for rainfall rate, review 26723
radio waves atten./phase rot./cross-polaris., rain 23629
rate meas., multiparameter radar techs. 35326
rem. sens., microwave radiometry and radar methods 10477
rem. sens., snowcover & precip., mm wave radiometry 43507
rem. sens. by microwave radiometry, retrieval algm. 35315
rem. sens. of marine rainfall, SSM/I microwave radiometry 35296
S-band Doppler radar for tropical precip. charact. meas. 35330
satellite radiometry, improvement, radar data 35327
satellite-Earth links, atten. prediction, low fade margins syst. 2231
satellite-ground link, rain atten. effects 9404
space-Earth absorpt., radiometric inversion coeffs. for Italy 15430
specific rain atten. models, MM wavelengths 15436
storms, microwave rem. sens., AMPR radiometry and CP-2 radar 35314
storms (precipitating), microwave rem. sens., AMPR 35313
synthetic insulators, leakage current monitoring, coastal site 43784
Turkey, rainfall atten. climatic map, develop. 15437
Virginia Tech propag. expt. using Olympus satellite 12, 20 and 30 GHz beacons 23631
VSAT satellite commun. syst., effects of rainfall and airplanes 25463

Rainbow computers *see DEC computers*

rainfall *see rain*

RAM *see random-access storage*

Raman effect *see Raman spectra*

Raman-induced Kerr effect *see optical Kerr effect*

Raman lasers
1.3 μm Raman fibre-optic amp. 1872
622 Mbit/s self amplified Raman repeaterless fiber link 17350
book, semiconductor Raman lasers 57
dielec.-loaded Raman-type FEL, efficiency enhancement 2017
FEL, bifilar helical small-period wiggler 2018
FEL, chaotic behaviour anal. 39911
FEL, freq., phase and saturation characts. 23310
FEL, Green fn. anal., superradiance 39917
FEL, spectrum spatial evol. 40010
FEL amp., freq. chirping and phase 31438
FEL operation incl. space-charge effects, beam transport simul. 31440
FELs, bifilar helical small-period wigglers 31432
fiber Raman soliton laser for fs opt. pulse generation 1874
intracavity freq. conversion, spectral charact. 7735
intracavity opt. delay line lasers 31445
MM wave FEL meas. by pyroelec. meter *(Chinese)* 2009
opt. fiber, Raman efficiencies 7573
plasma-loaded FEL, EM wave wiggler and axial guide field 7698
SPRITE laser syst., waveguide Raman conversion simul. 31176
ultrashort-pulse submillimeter-wave lasers and appls. 39660
CO$_2$ intracavity 16 μm Raman laser 14710
D$_2$O laser, opt. pumped, computer simul., longit. mode 1867
H Raman act. media Stokes pulse duration control in SRS 31560
H two-stage Raman conversion tunable laser *(Japanese)* 7516
InSb spin-flip Raman laser, pumped, 11~16 μm tunable, sens. appl. 1941
KrF, excimer-Raman radiation source, lidar meas. 34160
Nd:YAG Q-switched laser Raman conversion, backward SBS 23174
SiO$_2$ cascaded fibre Raman amp. operating at 1.3 μm, high gain 31232

Raman scattering *see Raman spectra*

Raman spectra
see also infrared spectra; Raman spectroscopy; stimulated Raman scattering; surface enhanced Raman scattering
conjugated polymers/fullerenes, optical probes, conf., USA (1994) 20195
dark soliton interact., periodic wave 40072
diamond:B,N, elec./opt. charactn. 21891
diamond:He$^+$ film detector, Raman/photoluminesc. charactn. 43089
diamond, natural monocrystals/polycryst. films, direct laser writing 38545
diamond deposition domain from various C-H-O(-Ar)-containing gaseous mixtures, press. influence 37477
diamond films, DC plasma arc tech. 20931
diamond films, microwave plasma CVD, charactn. 6521
diamond films, plasma CVD, localized epitaxy, Si substrs. 5841
diamond films, plasma-assisted CVD, porous Si substr. 12137
diamond flame-deposited films, growth-etch cycling 420
diamond like C film, nucleation enhancement, SEM 28848
diamond MPCVD films on porous silicon, scanning microscopy obs. 6518
diamond nucleation and growth, SR studies 404
diamond particles nucleation, hot-filament CVD, a-C:H films effect 20654
diamond polycryst. films, hot filament chem. vap. deposition 429

Raman spectra continued
diamond smooth films, hot filament chem. vap. deposition 12174
diamond thin-film growth, filament-assisted excimer laser ablation syst. 12178
diamond/(C-C) composite, semicond. base 12193
donor-acceptor conjug. polyenes, polarisabilities, SHG 31580
epitaxial growth optim., opt. charactn. 319
fiber lightwave syst. nonlin. optics 34059
fibers, Raman noise and soliton squeezing 31504
fibre soliton self-freq. shift compensation, phase-sensitive parametric amps. 23358
glass fiber Raman gain spectrum meas., fs pulses 22808
indust. Raman scatt. opt. materials charactn. facility 5693
InP, ALE growth, XRD/Raman Obs. 12052
ion implanted opt. waveguides, disloc. distribs. 7348
nanostructures, optical props., conf., Japan (1994) 28236
nitroaniline based nonlin. opt. syst., cryst. growth 15066
opt. fibres, self-Raman effect, self-consistent quantum theory 14407
opt. fibres, subpicosecond soliton-like pulse propag. 22861
opt. parametric oscillators, Raman scatt., squeezing props. 15119
orthogonally polarised fs soliton self-freq. shift 3559
poly(peri-naphthalene) thin films, chem. vap. deposition, elec. cond. 12169
polydiacetylenes with chromophoric substituents, second and third order nonlin. optics 23410
polymer shock opt. microgauge, picosec. coherent Raman spectrosc. 18109
self-starting fibre ring laser for distributed sens. 17832
soliton transm./storage rings, stabil., timing maint. 14347
squeezed Raman micromaser model 1841
transient rot. SRS, gain reduction meas. 23413
two-colour dye laser syst., four-wave rot. Raman mixing 14724
ultrafast nonlin. in semicond. laser amps. 7670
WDM systs., modulation stats. effects on Raman crosstalk 17348
AlGaAs MQW, opt. channel waveguides by FIB induced compositional mixing 14452
$Al_xGa_{1-x}As$, ion implanted, Raman line asymmetry/phonon freq. 38511
AlN/diamond thin film syst., chem. vap. deposition methods 5865
$BaTiO_3$/p-Si capacitors, struct., elec. props. 39061
a-C:H films, plasma CVD, ion impact energy distribs. 402
a-C:H,N films, ion implanted, in-depth modifs. 6537
CdTe wafers, thermal annealing, Te precip., Raman scatt., cathodolum. 38466
$CuGa_xIn_{1-x}Se_2$ electrodeposited thin films, prep. and charact. 389
$CuInSe_2$ films, laser ablation, stress-induced Raman freq. shift 37482
GaAs, Ar^+ ion implant. damage, ion-induced annealing 22092
GaAs, In-implanted, RTA, Raman spectra 1197
GaAs, MBE at 250°C, growth, charactn. *(Korean)* 28782
GaAs, electronic passiv., electrodeposition of organic mols. containing reactive S 30070
GaAs epilayers, metalorganic CVD growth 37411
GaAs, ion implanted, Raman line asymmetry/phonon freq. 38511
GaAs:C MBE layers, ion-beam doping 22122
GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
GaAs:Se^+, discharge-pumped VUV F_2 mol. laser annealing 30011
GaAs/$Al_xGa_{1-x}As$, MOVPE, n-doping, 2D electron gas struct. 22152
GaAs/AlGaAs MESFET and pseudomorphic HEMT, selective RIE 38917
GaAs/AlGaAs/AlAs quantum nanostructures, mag. confined plasma RIE 13385
GaAs/InGa(Al)As(ZnSe) heterostruct., phase stabil. and mech. defects under press. 38289
GaAs/InP heterostruct., (111) A, B oriented, MOVPE growth, Raman scatt. 12107
GaAs-AlGaAs quantum wires and dots, modulation-doped, opt. emission and Raman scatt. 1143
GaAs-based p-i-n nanostructure, high-field electron transport, transient ps Raman studies 21974
GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
$Ga_{0.52}In_{0.48}P$ layers, CBE grown, opt. charactn. 12104
GaN epitaxial film on AlN-buffered Si(111), strain effects 12098
a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
Ge SQW, interface sharpness, MBE growth conditions 13190
Ge crysts./superlattices, isotopically engineered 38502
Ge/Pd/n-GaAs ohmic contact interface studied by backside Raman spectrosc. 38385
Ge/Si epilayers, MBE, charactn. 320
Ge-Si monolayer-scale heterostruct. by rapid thermal CVD 20911
GeO_2-SiO_2 glass, thin films, planar waveguide appls. 7350
H Raman act. media Stokes pulse duration control in SRS 31560
H_2-doped germanosilicate opt. fibers, thermal and photo-initiated reacts. 7308
InAs/AlSb quantum wells, structural/transport props. 1128
InAs/GaSb strained layer superlattices growth 20804
InAs/GaSb strained layer superlattices, growth 20885
InAs-InP heterostruct., ALE growth, XRD/Raman obs. 12052
InGaAs epilayers, metalorganic CVD growth 37411
$In_{0.35}Ga_{0.65}As$:Be/GaAs MWQs for high-speed lasers, MBE growth, disloc. glide 333
InGaAs-InP short-period superlattice, interface struct., XRD/Raman scatt. 22010
InP, ALE growth, charactn. 20770
InP, ion implanted, Raman line asymmetry/phonon freq. 38511
InP/GaInAs HEMT, interface props., device characteristics effect 13779
InP/InAs SQW/superlattices, ALE growth, charactn. 20770
InSb, low press. CVD, using neopentylstibine, trimethylindium 37485
$KTiOPO_4$ channel waveguide, Rb^+ exchanged, fab., micro-Raman spectrosc. 30938
Na_2O-Nb_2O_5-Al_2O_3-P_2O_5, planar ion-exchanged waveguide form. 22864
Na_2O-WO_3-Ga_2O_3-P_2O_5, planar ion-exchanged waveguide form. 22864
Nd:YAG laser radar for wide-area fire detect. 17451
PZT thin film memory materials, fatigue mechanisms 30569
a-Se, PECVD, struct., opt. props. 28828
a-Si, depth-depend. disordering 22143
Si films, Ge-incorp., lateral SPE 20861
Si films, ion beam epitaxy, UHV, sputtering-type metal ion source 37405
Si, low-temp. polycryst. films, PECVD prep., gas flow rate effect on props. 5829
Si, polycryst. films, ECR CVD, hydrogen dilution 37503
Si polycryst. films, hot wire CVD 5883
Si, polycryst. thin-film solar cells, solid phase crystn. 5214
Si, porous, layered struct., opt. props. 1022

Raman spectra continued
Si, porous, nanocrystal size, preanodization ion implant. effects 1225
Si porous struct., investig. by Raman spectrosc./SHG techs. 14587
μc-Si:H, PECVD, surface morph., crystallite size 28806
μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
Si:He, bubbles, struct./opt. props. 30050
a-Si:Kr, sputtered layers, Kr-incorporation obs. 38268
Si:P, ion-implanted, flash-lamp annealing, Raman image study 38472
Si:P,B CVD film struct./morph. 29841
Si:Sb^+, implant. induced disordering, Raman scatt. 21872
SiC CVD on 6H-SiC{0001} faces, nucleation and step motion 5890
a-SiC alloy films, hot-filament assisted chem. vap. deposition tech. 37474
SiC cubic films, struct./opt./elec. props. 21938
SiC epitaxial films, vap. phase chem. deposition form. 37453
SiC, single-crysts., sublimation growth 20661
a-SiC:H films, plasma CVD, opt. props. 20980
a-$Si_{1-x}C_x$:H films, PECVD grown, struct. props. 13407
SiGe, low temp. UV oxid., Ge nanocrystal prep. in SiO_2 22252
$Si_{1-x}Ge_x$ polycryst. film prep., excimer-laser proc. 28796
Si_mGe_n/Si(001) strained-layer superlattices, magnetron sputter epitaxy 361
SiO_2 opt. fibers, photoluminesc., Raman scatt. 22813
$Zn_{1-x}Cd_xSe$-ZnSe superlattice, reson. Raman scatt. and photolum. 38319
ZnSe/GaAs interfaces, band bending, Raman study 38283
ZnSe/ZnS_xSe superlattices, interface sharpness, MOVPE growth 20793

Raman spectroscopy
see also infrared spectroscopy; Raman lasers; Raman spectra
bipolar LSI, trench isolation along {111} gliding planes, 3D mech. stress anal. 22564
cancer and other disease diagnosis, conf., USA (1994) 11571
cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
chiral mol. solns., opt. susceptibilities, nonlin. spectrosc. 31551
diamond films, DC plasma arc tech. 20931
fibre optic sens. for nuc. waste tank environ. 18994
micromachined materials mech. props. 5926
microRaman spectrosc., polymeric and inorganic syst. appls. 31688
nuc. environments, rem. Raman fibre optic spectrosc. systs. 25869
QA of pharmaceutical vials, laser Raman spectrosc. 17928
semicond. surfaces, Raman spectrosc./STM *(Japanese)* 29822
Si:B reson. sens., fine freq. tuning 30517
diamond membrane-based X-ray lithog. masks 6687

ramp generators
scanning tunneling microscope, fast, analog ramp generator 585
semicond. press. sens., PWM output 17759

random-access storage
see also DRAM chips; SRAM chips
2-level disk cache models, non-volatile RAM *(Korean)* 658
Alpha AXP 21164 μP, testability strategy 6160
ATM switching syst., bandwidth control fn. 16958
bipolar spin transistor, novel solid state device 30257
BIST algms. for dual port memories faults 6152
built-in random testing for dual-port RAMs 37753
CAM-based single-chip shared buffer ATM switch 9142
decoded RAM storage reprogrammable interconnect archit. 22599
digital continuous media, random access, real time retrieval 41999
digital recording techs. in acoustics 9771
embedded RAM, self-diagnostic BIST memory design scheme 37754
FeRAM, ferroelec. nonvolatile memory technol. for 1T/1C cell 37777
ferroelec. thin films, ferroelec.-opt. memory 14082
France Telecom's Amarys range of telephones 25150
fully-parallel multi-megabit integrated CAM/RAM design 37760
gate array embedded RAM test, flag-scan register 6057
HyperNet RAM-based neural net archit. implements., anal. 29467
Josephson-CMOS ICs, monolithic fab., RAM appl. 21312
labeling associative memory, access by content 21337
long-term CMOS storage cell performing ADC/DAC for analogue neural net 6263
mag. HDD, adaptive RAM-DFE read channel 30730
mag. recording, RAM-DFE archit. 30739
march tests automatic generation for memories 6154
march tests for memories, automatic generation 37766
multi-port RAM generator for CMOS SOG, memory cell config. 29223
multiport RAM on 0.5 μm CMOS SOG, memory cell config. 29207
multiport RAMs, complex couplings testing , fault modelling 29217
on-chip testing 12511
ParaServe, parallel mass storage server 8907
pipelined common buffer archit. for memory based switching systs. 33716
PowerPC 603 μP, array BIST 6164
predictive read caches, alternative, on-chip second-level cache memories 12506
probabilistic RAM, hardware-based learning syst. 37915
RAID5 disk arrays with NVS cache, priority queueing 21314
seq. ccts. with embedded RAMs, test generation 12434
SEU and charge collection meas. 12393
shift memory-type RAM, flexible associative data access 29215
signature anal. for RAM BIST, aliasing-free 6148
single-order addressed memory testing, effective march algm. 21301
TRACER-fpga, router for RAM-based FPGAs 21259
transparent BIST scheme for single V-coupling fault detect. 37771
transparent memory BIST tech. for RAMs 37769
transparent memory testing for pattern sensitive faults 6153
VLSI routing via parallelized inversion no. algm. 12271
$LiNbO_3$, hologram coherent erasure and updating 31649
PZT:Er ferroelec. thin film prep. by sol-gel proc., RAM appl. *(Japanese)* 1553
PZT/YBaCuO heterostruct. capacitor, photoresponse, fast opt. readout 30595

random noise
see also 1/f noise; burst noise; flicker noise; Gaussian noise; shot noise; thermal noise; white noise
2D transform domain adaptive FIR filtering 2575
acoustic weak sinusoid with drifting phase, detect. in non-Gaussian noise 15893
act. voltage attenuator using two cascaded MOSFETs, perform. 736
AM harmonics estim., higher order spectra 8406
array proc., adaptive rational subspace estim. for non-white additive noise 32452
asynchronous chaotic neural networks, pulse propag. dyn. *(Japanese)* 37909
ATF Torsatron, microwave scatt. diagnostic 34677
binary adaptive detectors, convergence perform. 24326

random noise continued
- bispectrum anal., 1D regular fractals, additive random noise 32979
- Bode's integrals, imaginary part of antenna's admittance calc. 31936
- bootstrap mean filter for image restoration 8610
- CMOS LNA design *(Chinese)* 13877
- CMOS micromechanical resonator oscillators, design/perform. 30509
- coherent sig./random background, second-order intens. stats. 32012
- continuous level probab. fn. eval., sig. proc. method *(Japanese)* 2458
- cumulants in wavelet anal. 32451
- cyclic sig./mean estim., vibrodiagnostics 40765
- damped harmonics and polynomial phase sigs. 32463
- discrete channels capacity, additive noise, output feedback effects 32008
- DOA estim. via extended phase interferometry 24327
- EEG/MEG dipole localization bounds for head models 43312
- electromechanical transducers, sig. params. estim. 17704
- electron device reliab., noise, diagnostic tool 20496
- error probab. during sig. reception, deviation from Gaussian law 32576
- filtering time series, topol. 32468
- free-running IR FEL, submegahertz spectral resoln. 31433
- fuzzy rule-based sig. proc., image restoration appl. 16118
- high-resoln. beamforming in coherent interf./correl. noise 24263
- impulsive interf. mitigation, arbitrary IID state noise 8290
- L^2 space optimisation for extraction of natural freqs. of radar target 9617
- macroscopic/microscopic methods for noise in semicond. devices 1318
- magnetooptical recording, n/m code and modified Viterbi decoding 15724
- median filtering, fuzzy concept 8322
- modal noise suppression in white light interferometer 17913
- multiple freq. spectral estim., 2π ambiguity problem 32537
- multiple-head digital mag. recording, multichannel sig. proc. 8333
- multisensor random sig. detect., quantization 24285
- neural net filter, nonlin. fn. optim. *(Japanese)* 21434
- neural network based on stochastic computation *(Korean)* 21477
- non-Gaussian noise models, composite/class A noise 20535
- non-lin. noise filtering, piecewise lin. compression 29382
- nonlin. noise reduction based on zero-crossing representations of wavelet transform *(Japanese)* 15935
- nonzero-mean noise, Markov estim. method 16025
- partial discharges, adaptive filtering meas., noise suppression 13967
- pass. sonar optimal struct. *(Croatian)* 3631
- photodetectors, sig. detect. limits 3827
- PSK optimum receiver, class A interf./relative freq. wt. 25217
- robust detect. of random sigs. in depend. noise *(Chinese)* 8399
- robust VQ of noisy channels 2382
- sampling period effect on time/freq. stabil. meas. 2873
- SAR imagery, localized Radon transform for ship wake detect. 17391
- semicond. lasers, opt. feedback with dispersive loss, amplit. noise 1980
- sensitivity anal. of one port/two port BAW/SAW resonator 30639
- sinusoidal params. estim. in non-Gaussian ARMA noise 24219
- slave clocks in chain, random noise accumulation 42954
- SPring-8 storage ring, equilib. bunch length, RF noises 34831
- SSC, emittance growth, computer simul. 26037
- SSC, emittance growth, noise 26036
- stochastic reson. phenom., sig. proc. tool 8348
- superdirective microphone arrays for hearing aids 18607
- sustained oscillator systs., noise characts. and conversion 12354
- TACOM thermal image model, field test validation 32902
- tape noise charact., chaos appl. 14252
- thermal imaging syst., perform. model 34574
- thin film heads, inductance fluct., domain instabil. and popcorn noise 7093
- transient sigs. detect. in multipath environ. 40888
- underwater acoustics, hybrid/polarity-coincidence correl. proc. 16062
- wavelet based image proc. algms., quantitat. eval. 35003
- H masers Frequency control, high accuracy calibs. 39635
- InP/InGaAs/InP photodetector arrays, RTS noise and excess currents 17773
- Si:B(P), ion-implanted, sheet resist. and noise props. 38232
- Si:Sb low compensation impurity band photoconductors 39551

random number generation
- CMOS digital redundant random no. generator 29204
- cryptographic pseudo-random nos. in simul. 8134
- exact anal. of priority queue algm. for random variate generation 5754
- FPGA-based design, high-level synthesis techs. appl. 6109
- Gray codes for randomization procedures 2398
- LAN, unbalanced random no. generator effect 16658
- multiloop Vigenere cipher, exceptionally long component series 2390
- orders of optimal normal basis generators 24111
- overall syst. perform., summing subsystem random variables 24776
- pseudorandom permutations constr. 8150
- secure addit. chain for SASC protocol appls., cryptanal. 24026
- security maint. in presence of transient faults 32185
- shrinking generator, pseudorandom nos. for additive stream ciphers 8123
- static task allocation heuristic eval. by random acyclic diagraph generation 28617
- testability measure approx. algms. 12392

random processes
- *see also Brownian motion; chaos; fluctuations; Gaussian processes; Markov processes; probability; queueing theory; stochastic processes*
- 2-D noncausal Gaussian Markov random field model, param. estim. 33078
- act. feedback amps., multicarrier intermodulation optim. 12350
- analogue data, digital storage optimisation 3773
- arbitrarily varying channel theory, localized random/arbitrary errors 24082
- auto-/cross-trispectra, computation/interp. 40994
- automated logic synthesis, random pattern testable ccts. 6073
- axisymmetric pot. problems, floating random walk method 20531
- band limited PRBS, PSK syms. 8388
- blind equalization, ML/MMSE estim. 41021
- blind equalization based on Nakagami fading index, cost fn. 3430
- bounding fault detection probabilities in combinational circuits 37733
- branching procs., entropies, convergence results 40539
- cellular mobile commun. systs., random access model 9327
- cellular radio, correl. log-normal random variables 3406
- circularity and discrete-time random sigs. *(French)* 41036
- circularity and sig. proc. 8423
- class., priori evidence, ambiguous 16273
- computer vision, hierarchical Markov random fields, stable points 8496
- contactless velocimetry of vehicles, microwave speckles appl. 18105
- controllable multidimensional shaping filter synthesis for discrete-value Markov seqs. 29371
- cumulants in wavelet anal. 32451

random processes continued
- data fusion, random-set approach 15960
- deterministic/random binary Euclidean images, representation 41179
- deviation from rectilinearity meas., error eval. 42925
- digital meas. of random-sig. rolling mean/variance 3772
- discrete data protection, inform.-theoretic problems 15732
- discrete Wiener model, nonGaussian stochastic procs. representation 5743
- DOA max. likelihood, estim./detect. 2559
- DOF, Fisher inform. and freq.-time products 202
- DS-CDMA syst., macro diversity perform. 3389
- DS-SSMA systs., aperiodic cross-correl. model 16461
- EM multiple scatt. by dielec. spheres random distrib. 31795
- enhanced RLS tracking, parallel adaptation 32698
- event-related pot. estim. by random shifts and scalings 26380
- exact nonlin. filters, theory and appls. 12644
- expt. data approx., exponential fn. 40775
- fixed-biased pseudorandom BIST for random pattern ccts. 6096
- fluct. wavefronts, stat. props. *(French)* 16036
- freq. domain filtering for Gaussian seqs. generation 40978
- fuzzy martingales, random fuzzy sets 28614
- gambling for mnemonically impaired 40538
- global optimal search algms. 28648
- higher order moment matrices invertibility 40812
- higher-order stats. for random amplit. modulated harmonic retrieval 32460
- Hough transform, autoregression param. estim. 40857
- image motion estim., appl. of mean field theory 16310
- indirect method of nonlin. filtering, PLL synthesis appls. 32568
- instantaneous multiple access commun. system 16462
- integrated polyspectrum, non-Gaussian sigs. detect. 2485
- intens. estim. from shot-noise data 15925
- Lempel-Ziv parsing algm., av. profile/limiting distrib. 32059
- lin. accel. transducers, effect of random vibrs. 3810
- lin.-quadratic mixture of independent components, separation 40981
- LMS algm., short-time instabilities 24268
- local bandwidth adaptation, spectral dens. estim., wavelets appl. 32652
- lognormal random procs., digital simul. 32025
- low bit-rate image seq. compression method 24726
- low sig.-to-clutter ratio proc. of radar sigs. 17362
- $M/G_2/1$ queue, Bernoulli feedback proc. 20518
- Markovian networks, extreme values of random times 33194
- meas. accuracy improvement by selection of no. of meas. 3705
- microwave stadium billiard with chaotic dyn., Gaussian stats. 14312
- modified RESTART-method using LRE-algm., rare event simul. 33247
- multi-hop radio networks, randomized broadcast protocols 3319
- multialternative seq. threshold rule convergence by correl. obs. 32014
- multichannel sig. detect. in correl. non-Gaussian random noise 8286
- multimedia service networks, link capacity allocation by input power spectrum 33664
- multipath channels blind identifiability 24290
- multipath self-routing switch fabric, perform. anal. of resequencing unit 33608
- multiple scatt. of EM waves by half-space of randomly distributed dielec. spheres *(Chinese)* 31805
- multiplicative white stochastic proc., wavelet transform, stats. 32666
- multiresolution image compression, Gaussian Markov random fields 2399
- multispectral/multilayer image coding, optimal transforms 24697
- μP systs. simul. for param. meas. of thermophysical procs. 37800
- narrowband sigs. distributed detect. 32533
- non-binary correl.-immune/resilient fns., charactn. 37220
- non-Gaussian correl. radar clutter, computer generation 34113
- non-lin. wave-wave interacts. detect., tricoherent anal. 41047
- non-Markovian proc., conditional probab. dens., kinetic eqns. 20534
- noncausal nonminimum phase ARMA modeling of non-Gaussian procs. 32458
- noninvasive diagnostics, Gibbs act. EM method 35029
- nonlin. random waves in particle fluxes, turbulence 2206
- nonlin./non-Gaussian filtering and bootstrap filter 8464
- nonlocal optimisation methods, search methods, pot. theory 28641
- nonstationary random amplit. polynomial phase sigs. estim. 32557
- nonstationary random procs., second-order time-freq. synthesis 24289
- nonstationary random sigs. detect. in colored noise 41055
- nonstationary sig. sources separation networks 8389
- opt. agricultural rem. sens., spatial pattern class. 24540
- opt. fiber atten. in regeneration sects., stat. normalization 30865
- opt. fibre PPM slot/frame spectral props., timing extraction 3576
- piecewise-planar representation of images, bit allocation 41177
- probabilistic conformance testing of protocols with unobservable transitions 2976
- probabilistic multi-hypothesis tracking, max. likelihood method 15870
- pseudorandom patterns, low lin. depend./equi-distrib. 12465
- pseudorandom testing of seq. ccts., struct./tech. 21244
- pulse sigs., param. meas., digital device 3770
- quantisation error model effective resolution estimation 24234
- radio sig. model adequacy 32570
- radio sig. pseudoenvelope distribs. and their approx. 2572
- radiometer perform. limitations in spherically invariant noise 32541
- random-sig.-acoustic source characts. determ. by field meas. 16048
- reciprocal Gaussian random procs., model param. estim. 40824
- recursive waves risk param. estim. from cyclic autocorrelation matrix 40986
- RF syst., time const., pass. mode randomization 42177
- rhythmic sig. stochastic recurrence period 2551
- robust detect. of random sigs. in depend. noise *(Chinese)* 8399
- rot. mach., stat. monitoring, cumulant spectral anal. 32454
- seq., finite change-time, abrupt change detect. 24168
- seq. ccts., test generation, parallel fault simul. *(Japanese)* 12426
- shift variance of wavelet transform for sig. detect. 24256
- sig. restoration, random nos. of counts 32013
- sigs. in impulsive noise, detect./classif. 8363
- simul.-based proc. verification, automatic program generator 17663
- slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
- small target detect., long term integrat. 18975
- SNR estim. algm., fourth-order moments 40871
- software random pulser in lab. 3732
- source coding theorem for random fields 40677
- spectral anal., ML method based on correl. matrix lin. symm. 32574
- speech recogn., Markov random field based parallel proc. 32352
- speech recogn., stochastic trajectory modeling 32223
- stochastic algm. for parametric/non-parametric estim. 40859
- stochastic complexity and universal modeling 32120

random processes continued
SVD, subspace swap probab. 40815
team ROC curve in binary hypothesis testing environ. 32011
telephone/packet-switched networks, random variable seq. i.i.d. testing 41716
text-independent speaker verification, hierarchical pattern class. 32248
texture images, bispectral-based test for spatial reversibility 8561
time-domain tests for Gaussianity/time-reversibility 8422
TLM num. dispersion removal using Glimm's random choice 15554
tracking randomly time-varying channels, algms. 2466
tricoherence stats. 8419
TTL combinat. ccts., random test input generation 12450
two-channel tests for common non-Gaussian sig. detect. 8292
vector parametric model of random procs., DSP appls. 32567
vibr. control algm. 25979
water trees, network model 13975
wavelet transform. 32521
weighted random pattern generation syst. design 6086
Wiener/Poisson procs. functionals, coherent-state representations 5742
Wigner-Ville spectral estim., optimal kernels 40965
worldwide IN, dyn. routing strategies 33639

randomised algorithms
Benes-Clos networks, randomized routing 28926
const. space symm. breaking, nonexploratory self stabilization 33585
error anal. of randomized num. method 37292
finite automata public key cryptosystem 32104
Internet protocol, connection-oriented networks and distributional paging 16489
Las Vegas algms. for matrix groups 5781
lin. programs for randomized on-line algms. 5765
oblivious packet-routing networks, queueing anal. 8714
permutation fns. tests 37300
polynomial time randomised approx. schemes for Tutte polynomial of dense graphs 11923
probabilistic recurrence rels. 28581
random graphs, optimal and random partitions 208
resilient fns. and orthogonal arrays, bounds 28618
ROMM routing, class of efficient min. routing algms. 24861
sparse polynomials, randomized interpolation and approx. 37313
weighted fractional and k-matching cumulating in hypergraphs 37297

range checking, data *see data integrity*

range finding *see distance measurement*

ranging (sonar) *see sonar*

ranging, laser *see laser ranging*

rapid prototyping *see software prototyping*

rapid thermal annealing
see also incoherent light annealing
0.05 μm CMOS with ultra shallow source/drain jns., fab. 22584
conference, rapid thermal/integrated processing, San Francisco, CA, USA (1994) 5459
deep submicron CMOS devices, fab. and delay time anal., simul. models 30361
$LiMn_2O_4$ films, sputtered, charactn. for rechargeable microbatteries 11232
MOS capacitors, gate oxides, repeated N_2O RTA 22071
multivariable temp. controller for IC manufacture 13846
n-p-n transistors, thin base, lateral ion implant., enhanced diffusion 30245
patterned wafer RTA, thermal radiation absorpt. charact. 22229
permalloy-Ag multilayers, RTA giant magnetoresist./struct. study 22691
quantum well intermixing, repeated ion implant. 1213
RIE induced damage, gas mixtures $CHF_3/O_2/SF_6/O_2$ 30114
ripple pyrometry for wafer temp. meas. in RTA 25998
semicond. QW struct., bandgap tuning, ion implant. 13166
Texas Instruments MMST program, all-RTO/RTA/RTCVD 0.35 μm CMOS IC prod. 22594
Al/n-InP contacts, inhomogeneous reaction and Schottky-barrier change 13228
AlGaAs MQW, opt. channel waveguides by FIB induced compositional mixing 14452
$Al_xGa_{1-x}As$:C, MOMBE grown, annealing 28774
AlGaInAs/GaInAs, tunable lasers by masked implementation enhanced intermixing 14872
Au/n-GaAs:Ar Schottky barrier study, ion implant. damage 22035
Au-Zn-Au-GaAs ohmic contacts, As loss during RTA, Cr-collector study 22097
BPSG dielec. film fusion, steam reflow and RTA/furnace annealing 20997
CdTe/CdMgTe quantum wells, ion implant.-induced interdiffusion 13290
CdTe-In ohmic contact, elec./struct. props. 38375
Co/Ti/Si(100), thermal proc., interdiffusion, phase form. 1203
$CoSi_2$ doping source for RTA of shallow p^+-n jns. 22099
$CoSi_2$ shallow p^+n jns., reverse I-V charact. 13100
$CoSi_2$ thin film proc., thickness scalability and thermal stabil. 22274
Cu/TiN/$TiSi_2/n^+$-Si contact syst., RTN and characts. 38700
FeSiAl Sendust films, recording head cores 7108
FeSiAl, sendust films, RTA, mag. props. 6953
GaAs, In-implanted, RTA, Raman spectra 1197
GaAs, MBE at 250°C, growth, charactn. *(Korean)* 28782
GaAs MBE thin films grown on Si, biaxial compression 20837
GaAs passiv., integrated plasma clean/CVD/RTA, Si_3N_4 encapsulation 22224
GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
GaAs:Si, Si diffusion by RTO 38523
GaAs:Si, planar doped, autocompensation 22111
GaAs/AlGaAs double quantum wells, photoreflectance and photolum. 1124
GaAs/AlGaAs microwave HEMT device, MBE fab. and charactn. *(Korean)* 29571
GaAs-Si heteroepitaxial layers, ohmic contacts, RTA 22029
GaAs-WN Schottky contacts, plasma deposited, thermal stabil. 22033
GaInP/(AlGa)InP buried quantum wires, local order-disorder transition 13203
GaInP layers, P-vacancy-related deep levels 29878
GeSi:P-Si pseudomorphic MBE films, RTA vs. steady-state furnace annealing 22095
HgCdTe:B,In, multi-step RTA 6606
InGaAs/InP buried wires, selective thermal intermixing 13180
InP MIS Schottky diodes, S passiv. and RTA 13599
InP:Be annealing, e-beam evaporated borosilicate glass thin film encapsulant 13313
InP:Fe, Mg, Mg/P, Mg/Ar implants, elec./opt. charactn. 29856
InP:Si,H, gas-source MBE, H incorporation 38507

rapid thermal annealing continued
InP:Sn, ion implant, RTA, anal. meas. 38465
InP/InGaAs, rapid thermal annealing, MISFET appls. 13274
Ni-Au-Te-Au contacts on n-GaAs, microstruct./elec. props. correl. 38657
Ni-NiIn-Ge-GaAs ohmic contacts, interface microstruct./reacts. 38396
PZT films, sol-gel derived, solid phase epitaxial growth 28731
PtSi/Si, chem. clean, morph. smooth interfaces, form. 37520
Si, B implants through SiO_2 films, implant. damage/anom. diffusion 13283
Si, Er implant., solid phase epitaxial recrystn. 30015
Si TFTs fab., min. glass substr. deform., RTA control 30007
Si bipolar transistors, in-situ/rapid vap.-phase doping 30238
a-Si recrystn. by RTA/laser annealing/furnace annealing 22098
Si shallow-jn. form., RTA doped SOG films 21964
p-Si, soft sputter etch cleaning, H passiv. 38619
Si wafer temp. var. during RTA, 3D asymmetrical model 22103
Si:As RTA/furnace annealing, heating rate effects on defect distrib. 22100
Si:B epitaxial layer, heavily doped, strain relax., RTA effects 38471
Si:B, simultaneous B^+ implant./photoexcitation 22109
Si:B(P), low-energy implant., RTA/furnace annealing, XRD optimisation 22102
Si:B,C, boron elec. activation during RTA, heating rate effects 22101
Si:BF_2, high-dose BF_2 ion implanted, elec. dopant activation 1194
p-Si:Cu, RTA, OISF, deep states, Cu diffusion 13034
Si:Er cryst., Er opt. activation, excitation, conc. limits 38483
Si:H, low-temp. MBE, H-induced breakdown 28745
Si:Sb, heavily doped, elec. act. impurity diff. 13033
Si/Co syst., RTA, CoSi and $CoSi_2$ form., activation energy 22028
Si/$Ge_{0.12}Si_{0.88}$:P, metastable films, RTA vs. furnace annealing 22104
Si/SiO_2, MOS devices, prep. interface props. control 38611
Si-SiO_2 stacked-gate structs., plasma-assisted/RTP 22058
Si-on-sapphire films, SPE, recrystn. by annealing, props. 22076
Si^+-self implant induced damage, characts., annealing behavior *(Korean)* 29842
SiC x-ray membrane characterisation, laser ablation deposition tech. 6696
β-SiC:N layers grown on Si substr., ion implant. studies 38482
$Si_{1-x}Ge_x$/Co(Ti), solid state interfacial react. 38371
SiO_2, NO-nitrided, elec. props., chem. comp. effects 30076
SiO_2/amorph. As/GaAs passiv. systs., PECVD 5870
SiO_2-Si_3N_4-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
SiO_xN_y thin dielec. on Si, N_2-rich thermal growth, RTA 22255
SiO_yN_z plasma CVD, MIS devices appl./elec. eval. 20973
SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures, RTA in Ar 22218
SiO_xN_y-SiO_2-Si gate dielec. by plasma oxid./CVD and RTA 22068
$Ta_2O_5(TiO_2)$ LPCVD DRAM storage dielec. film, leakage current reduction, RTA 22094
Ti-Pt ohmic contacts to InAs emitter layer, AlGaAs-GaAs HBTs 38831
TiH_2 diffusion barrier stabil., SiO_2 substrs. 38649
TiN rapid thermal CVD for diffusion barrier appl. 20970
TiN/$TiSi_2$ bilayer form. by rapid thermal anneal at ULSI submicron contact, elec. props. *(Korean)* 30160
$TiSi_2$ SALICIDE, dual gate CMOS struct. 38682
$TiSi_2$ form. with/without TiW barrier layer, RTA, SIMS/XPS study 22276
$TiSi_2$ n^+-p diode, shallow jn. form., characts. *(Korean)* 30225
$TiSi_2$ self-aligned RTA proc., CMOS IC, response surface 22593
$TiSi_2$ silicide form. on polycryst. Si, surface morph. study 1299
$TiSi_2$ submicron CMOS technol., two-step RTA *(Chinese)* 13416
$TiSi_2$/Si BiCMOS technol., nonohmic contact resist., NFETs/PFETs/diffused resistors/NPNs 38631
$TiSi_2$-Si surface/interface roughness, RTA heating rate effects 22096
W-AuGeNi-GaAs ohmic contact metallization, RTN 38580
W-AuZn-GaAs ohmic contact metallization, RTN 38580
W-Pt ohmic contacts to InGaAs emitter layer, AlGaAs-GaAs HBTs 38831
WN_x thin films on GaAs, reactively sputtered, stabil. 38659
Zr-Si syst., in-situ TEM obs. of interfacial reacts. 38663
p-type HgCdTe, Au low resist. ohmic contacts, post-annealing *(English)* 38381

rapid thermal nitridation *see nitridation; rapid thermal processing*

rapid thermal oxidation *see oxidation; rapid thermal processing*

rapid thermal processing
see also rapid thermal annealing
3D modeling of rapid thermal proc. for design optim. 22552
absol. temp. model-based control 30401
BCB layers for MCM-D/L appls., attenuated refl. IR microscopy 12982
black silicon nanowires, sub-10-nm, natural masking, RIE 30117
capabilities/limitations of RTP systs. 28411
coal liquefaction proc., nanoscale catalyst precursor powder prep. 27328
conference, rapid thermal/integrated processing, San Francisco, CA, USA (1994) 5459
CVD/oxid. film thickness distrib. modelling 22561
fully radiative current path struct. for sub-0.1 μm emitter transistor 12753
furnace, 3D temp. uniformity model 22231
in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
integrated RTP/MOCVD technol., IC manufacture, model-based proc. control 22533
isothermal proc., photophysical/photochem. effects 22232
MCM-LD, photosensitive-BCB on laminate technol. 12978
metallized Si wafer RTP temp. meas., IR transm. techs. 22216
model-based control 13866
modelling and simul. incl. thermal stress anal. 22551
modelling/ident./control 1195
n-MOSFETs, rapid thermal N_2O-reoxidized nitrided gate oxides 38899
MOSFETs and MOS capacitors, oxide reliab., nitrogen effects 38629
MOSFETs with rapid thermally NO-nitrided SiO_2 gate dielec., hot-carrier reliab. 22429
multivariable temp. controller for IC manufacture 13846
oxide film deposition, rapid isothermal proc.-MOCVD 20846
partial state MRAC, pole placement 30402
patterned wafer RTCVD, thermal radiation absorpt. charact. 22229
pole placement adaptive control 30010
polysilicon DRAM cell capacitors, Si_3N_4 dielec. films, RTP 22069
radiative heat transfer, Monte Carlo simul. 22555
RTCVD, opt. modeling, model-based control 394
RTO proc., opt./elec./mech. charactn. 22227
RTO/nitridation clusterable reactor, MOS gate oxides 22219
semicond. RTP temp. distrib. modelling 22554
semicond. wafers, rapid diffusion furnace, temp. distrib. 1187
silicide thin film form. by RTP, ULSI appls., overview 22275

rapid thermal processing continued
single wafer proc. integrat. for submicron struct., RTP and PECVD 22088
spectral ellipsometry for semicond. proc. in situ diagnostics and control 22200
stacked nitride-oxide gate n-/p-MISFETs, hot-carrier reliab. 38856
sub-5-nm oxynitride dielecs. prepared in NO ambient using RTP, props. 6590
temp. profile reconstruction, acoustic tomography 9836
Texas Instruments MMST program, all-RTO/RTA/RTCVD 0.35 μm CMOS IC prod. 22594
ultra-thin dielec., plasma-assisted/RTP 22167
uniformity control, thermal modeling, rapid thermal procs. 30434
Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
CdTe-In ohmic contact, elec./struct. props. 38375
Cu/TiN/$TiSi_2$/n^+-Si contact syst., RTN and characts. 38700
Ge-Si monolayer-scale heterostruct. by rapid thermal CVD 20911
$LiNbO_3$, domain inversion by proton exchange and rapid heat treatment 30567
PLZT thin films, sol-gel proc. 37466
Si, RTO in N_2O, MOS capacitor testing 22220
Si RTP, optimum gas flow engng. 22230
Si RTP temp. meas., ESPI/subfeature speckle interferometry 25999
Si RTP temp. uniformity, crit. wafer/syst. param. anal. 22228
Si high-efficiency solar cells, RTP 5226
Si low temp. epitaxy in single-wafer RTP reactor, microwave heating 384
Si microtechnol., develops. and proc. tech. depend. 38950
Si nitroxides, rapid thermal, growth, struct. 1245
Si oxides, rapid thermal, growth, struct. 1245
Si, porous, passiv. by RTO 22217
Si, rapid isothermal diffusion, photoeffects, semicond. devices 1084
Si, rapid thermal CVD, O/C low thermal budget removal 28735
Si surface oxide removal by RTP, SiH_2Cl_2 and H_2 22223
Si, thermal nitridation mechanisms 38557
Si:Al,P, diffusion profiles under RTP conditions 21875
Si:B doping, proximity rapid thermal diffusion from spin-on-dopants 22144
Si:P(B)(As) VLSI submicron jns., proximity rapid thermal diffusion 6625
Si/$Si_{1-x}Ge_x$ heterostruct. charge injection transistors and logic elements 22482
Si/$Si_{1-x}Ge_x$ modulation-doped heterostruct., hole transport props. 29885
Si/SiO_2 syst., Si nucleation, rapid thermal CVD, in situ real time meas. 28831
Si/SiO_2/Al MOS capacitors, charge induced by Fowler-Nordheim tunnel injection 29974
Si/SiO_2/Al MOS structs., nitrided, reoxidised, elec. charactn. 13257
Si-SiGe-Si strained quantum wells, rapid thermal CVD, photolum. 22004
Si-SiO_2 interfaces, low-temp. plasma-assisted oxid., MOSFET appls. 6643
SiC random alloy epitaxy on Si by RTCVD, SiH_4 and C_3H_8 20848
SiGe:B(P)-Si strained heterostruct., RTP/very LPCVD growth, in-situ doping 20844
SiGe-Si RTP/VLPCVD heterostruct., Ge surface segreg., H_2 influence 22005
Si_3N_4 ultrathin capacitors for advanced DRAM cells, in-situ multiprocessing 21589
SiO_2 1.5 μm thick films, rapid nitridation in NH_3 ambient, SIMS study 13328
SiO_2 RTCVD/RTO/thermal oxide thin films, tunnelling current characterisation 22226
SiO_2 RTO 10 nm films grown at different temps., MOS capacitor breakdown 1180
SiO_2, oxide thickness, oxid. params. 1257
SiO_2 thin films, N_2O RTP/oven nitridation, elec. characterisation 13327
SiO_2 thin films, RTN in NH_3, N_2O for EEPROM appls. 13329
SiO_2:N thin films, grown/processed in N_2O, N depth profiles 38524
SiO_2-Si, stacked RTO/RTCVD oxide gate dielec., elec. props. 22637
SiO_2-Si ultrathin CMOS gate dielec., RTP growth in N_2O ambient 22221
SiO_2-Si wet oxid. by RTP, homog. 22222
SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
Ta sputtered film, compressive stress rel., thermal cycling 22266
Ti/Si, RTA, C54/C94 $TiSi_2$ form. 1158
TiS_2 diffusion barrier, RTN, CVD-Al contact plug 38686
$TiSi_2$ buried layers in Si by direct wafer bonding 30154
$TiSi_2$ n^+-p diode, shallow jn. form., characts. *(Korean)* 30225
WSi_2 buried layers in Si by direct wafer bonding 30154
p-type HgCdTe preheating, Au low resist. ohmic contacts *(English)* 38381

rapid transit systems
3-level/IGBT inverter rly. propulsion control syst. 5332
airport transit syst. power distrib. design project, USA 44571
Central Line Project 11403
Croydon Tramlink light rail transit project, UK 44526
elec. multiple units, Metro Line 1 project, Shanghai *(German)* 11420
Manchester Metrolink, EMC and road traffic control 5330
mass rapid transit three-phase traction motors, adhesion perform. *(German)* 28104
mass transit rly. renovation project, systs. engng. approach, UK 44528
people mover, inverter, parallel connected IGBTs 44518
single sided LIM, urban transit appl., nonlin. optimisation *(Japanese)* 44560
Universal Networker elec. multiple unit 44527
urban transit syst., LIM design 36754
urban transit syst., LIM/LSM combination Maglev *(Japanese)* 11398
Washington D.C. metro syst. tunnels commun. syst. 9281

rate distortion theory
CMOS VLSI adaptive high-speed VQ archit. 29273
decoder with side-inform., rate-distortion fn. 24047
entropy-constrained CELP quantization 40646
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
mapping approach, rate-distortion computation/anal. 24044
motion estim., variable block matching scheme 8570
multilevel diversity coding, distortion 32052
multiple description source coding, no excess marginal rate 32047
Shannon lower bound, asymptotic tightness 23998
variable-rate predictive residual vector quantizer 41059
wavelet-based approaches vs. subband coding techs. for still image coding 32826

ray tracing
3D illuminance anal. syst., ray tracing method *(Japanese)* 42880
60 GHz indoor wireless data systs. channel modelling, ray-tracing 8933
915 and 1900 MHz domestic RF channel charactn. 31822
antenna heights effect on multipath propag. occurrence 31839

ray tracing continued
asymmetric multimode Y-jn. splitters 34099
beamline optim. and phase space transform. 43012
cellular radio propag. models using ray theory and GTD 31827
complex geom. indoor radio propag. ray-splitting model 31825
creeping wave on num. specified surface, ray tracing 23581
cylindrical concave conducting boundary, whispering-gallery mode radiation from aperture *(Japanese)* 15397
DS-CDMA cellular systs., third generation, adaptive antennas 33850
ellipsoidal holographic grating, geometric theory 7808
EUV projection lithog., diffr. mirror optics 38722
fuzzy logic handoff algm. perform. anal. by indoor propag. simulator 33819
heart dyn., human, visualization from US echograms *(Japanese)* 35009
helicopter 3D automatic FDTD mesh generation 26528
HOE, wave front aberration minimisation 31642
holographic stereogram, distortion compensation method 31677
identical period double surface corrugated planar waveguide grating coupler anal. 30928
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
indoor radio, omnidirectional/sectored antennas, ray tracing model 33853
indoor radio channel modelling 33820
indoor radio propag. model based on ray tracing and integral eqns. *(Japanese)* 23625
indoor radio propag. prediction, ray splitting model 9258
indoor wireless transm. prediction 31823
ionos. HF channels, oblique pulses, rise time calcs. 7983
land mobile satellite commun. systs., field strength prediction *(English)* 42222
microcell/indoor environ., propag. mechanisms 3344
microwave propag. model for (sub)urban macro celluar coverage prediction 33777
millimetre wave indoor radio channels, charact. *(English)* 40348
mobile radio channel heavy time dispersion estim. by path tracing 33821
NSRL ray tracing facility for soft X-ray/VUV monochromators 10164
num. terrain model, propag. loss, uniform theory of diffr. 15435
personal commun. syst. design, site-specific propag. modelling 33822
polyhedron-approx. reflector antenna, radiation characts. anal. 23888
radio propag. meas./modelling, ray tracing 9314
reflector antennas, surface error meas. by phase retrieval holography *(Japanese)* 15647
RTCVD/RTO film thickness distrib. modelling 22561
satellite reception, DSPN signalling in mobile dense scatterer ray tracing model 33944
sector antenna/DFE modems for indoor radio commun. 3167
semicond. RTP temp. distrib. modelling 22554
single mode opt. fiber laser light coupling *(Japanese)* 1669
sonar echo from moving target in ocean waveguide, simul. 34169
SR X-ray lithog. beamline optics alignment, Hartmann method 13539
step index opt. fibre 3D ray trajectory heuristic computation 30895
superspheroids, family of radome shapes 31998
synthesized images for pattern recogn. 41191
urban microcells, ray tracing based prediction of impulse response 3420
variable rad. of concave-conducting boundary, EM fields HF anal. 7885
VLF field transm. into seawater, theoretical and expt. results 40352
water recorded holograms, precision in-air replay 7852
X-ray lithog. beam lines, single mirror condenser 13540
$BaTiO_3$ phase-conjug. mirror, mutually pumped, fish-head config. 40085
Ge X-ray lasers, target curvature, refr. compensation 39640
Ge^+ Ne-like soft-X-ray laser 1852
Si solar cells, mech. textures, light coupling, ray tracing 27939

Rayleigh channels
see also fading
16 QAM modulation, OFDM in Rayleigh-fading channel 9218
60 GHz vehicle-to-vehicle commun., time/freq. selectivity 9316
946 MHz office-complex mobile radio channel meas. and modelling 33790
adaptive diversity receiver, bit error probab. 25263
adaptive reduced-state channel equalizer, T-algm. 9302
American digital cellular syst. spectral efficiency 9275
analog coding/decoding, data transm., fading channels 8169
antipodal Rayleigh fading sigs. detect. in severe CCI 8386
AVLSI decoder archit. for TCM 9731
binary lin. block codes in Rayleigh fading channels, decoding algms. 40681
blind clustering equalizer for digital mobile radio channels 3432
burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
CDMA cellular mobile radio syst., power control/coding 17102
CDMA cellular systs., concatenated RS/convolutional coding 9358
CDMA coded packet cellular networks, code rate optim. 25384
CDMA multiple-cell radio syst., perform. eval. 3386
CDMA syst., macro-/micro-cellular environ., perform. 3471
CDMA syst. meas.-based perform. anal. in multipath fading 33791
CDMA systs., channel estim., interf. reduction 9235
CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
cellular environ., resource auction multiple access 9291
cellular environ., resource auction multiple access 3348
cellular mobile radio systs., spectrum efficiency 17124
cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
cellular systs., handoffs, adaptive averaging 25341
chirp SS techs., multipath interf. suppression 25250
circ. 16-DAPSK in fading channels, diversity recept., error anal. 2363
coded modulation, Rayleigh fading channels, error probab. 24017
coded partial response digitally phase modulated sigs., perform. 15714
coherent detect. mobile wireless commun., phase ambiguity resolver 33876
concatenated block coded modulation in Rayleigh fading channel 9171
concatenated coding and ARQ, TCM for Rayleigh fading 8102
correl. fading channels, FEC perform. 32140
CPM perform., mobile radio diversity operations 17119
decision feedback multiple-sym. differential detect., diversity 9200
differential parallel combinatory SS commun. systs. *(Japanese)* 25207
differentially detected π/4-DQPSK syst. perform., AWGN/Rayleigh fading 40568
digital FM transm., Rayleigh fading, RS codes appl. 25346
digital mobile commun., adaptive Rayleigh fading compensation for coherent GMSK sigs. 3433
digital TV for terrestrial broadcasting, modulation 17534
distributed power SS cellular syst., perform. 25363
diversity combining, correl. slowly flat-fading Rayleigh channels 8374
diversity gain of transmit diversity in Rayleigh fading systs. 9193
diversity reception, vel. estim. 3454

Rayleigh channels continued
- DOQPSK, differential demodulation of filtered offset QPSK 17073
- double half-bandwidth OFDM syst. for digital video broadcasting 9698
- DPSK differential detect. scheme, phase seq. estim. 32684
- DPSK/FSK, differential phase detect., bit/sym. error probabilities 40614
- DQPSK in fading channels, unified error anal. 8090
- DS-CDMA digital mobile radio systs., unequal error protection 9373
- DS-CDMA interf. cancellation schemes 17084
- DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
- DS-CDMA outage perform., mobile satellite channel 33906
- DS-CDMA radio commun., low rate coding methods 25249
- DS-SS sigs. time division duplex transm. 9203
- DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
- fading channel, convolutional coding, adaptive soft-decision quantizer 40696
- fading channel model, first-order Markovian assumption 31835
- fading channels, blind MLSE 40542
- fading environ., mobile PRN anal. 3349
- fast freq. hopped NCMFSK, Rayleigh fading, diversity combining 33762
- FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
- FH packet commun. syst. capability in fast Rayleigh fading environ. 41461
- FH-SSMA, band-efficient modulations, cellular radio channels 25367
- finite-state Markov channel, model for radio commun. channels 24006
- FQPSK modem/radio for PCS/ mobile satellite commun. 25312
- FQPSK modulation for wireless commun. systs. 17076
- fractal video communicator simul. 8851
- freq. hopping simulator for multipath mobile channels *(French)* 3361
- freq. non-selective channels seq. estim. 8384
- freq.-selective fading channel, differential detect. 2217
- freq.-selective Rayleigh fading channels seq. estim. 8373
- frequency-selective fading channel orthogonalising simulator 40343
- Golay-coded M-PSK, Rayleigh fading channel, decoding 32090
- handwriting proc. in indoor/outdoor environ. for multimedia 9063
- hi-fi mobile DAB scheme 9695
- hybrid DS/FH SS syst. for mobile radio channel 3483
- hybrid DS/SFH SSMA commun., nonselective fading channels 3321
- indoor radio, trellis-coded CPFSK, adaptive soft-decision feedback equalization 9357
- intell. vehicle/highway syst., packet-switched commun. 3460
- LMSS, open-loop power control error 25300
- low complexity decoder for turbo-codes 24022
- M-ary DPSK/D^{2}PSK channel capacity with time-selective Rician fading 32033
- M-DPSK in fading channels with diversity reception, error bound anal. 3355
- macro-/micro-cellular radio systs., throughput perform. 9295
- MFSK signalling for RS coded freq.-hopped multiple-access commun. 2891
- microcellular personal commun. service F-QPSK perform. 33781
- MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
- mobile channel, direct-seq. code acquisition 17103
- mobile commun., adaptive array methods 17067
- mobile fading channel 16-DAPSK perform. calc. and simul. 33798
- mobile radio, freq.-selective Rayleigh fading channels 17134
- mobile radio, interf. cancelling of DFE transversal-combining diversity 17044
- mobile radio channel, multiple sym. differential detect. 33874
- mobile radio commun., interf. canceling equalizer 9383
- mobile radio commun., speech/channel coding 3346
- mobile radio digital modulation error perform. improvement by quaternary phase transition FSK 33782
- mobile radio postdetection diversity/concatenated channel coding 3341
- mobile satellite channels, partial response coded MPSK anal. 42205
- mobile satellite commun., MFSK/DPSK sigs., cutoff rates 25301
- MPSK (un)coded transm. on multipath fading channels 9169
- multidimensional block coded modulation perform. with time-correl. fading estim. 40549
- multihop packet radio network with capture, fading effects 9180
- multilevel block codes for Rayleigh-fading channels 15768
- multiresolution modulation/concatenated coding, decoding algms. 8683
- multiuser collaborative coding schemes, complex-value receiver 24779
- nonselective Rayleigh fading channels, sym.-aided channel estim. 7975
- nonselective Rayleigh fading channels, sym.-aided channel estim. 24016
- OFDM, guard interval and sub-channel equalization for digital TV broadcasting 9699
- open-loop power control error on land mobile satellite link 25402
- optimal trellis-coded 8-PSK and 4-AM modulations for Rayleigh channel 8104
- optimum combining in wireless systs., BER upper bounds 9170
- orthogonal coherent digital MFSK systs. in Gaussian noise and Rayleigh fading 40795
- parallel combinatory SSMA systs., Rayleigh fading channel, perform. eval. 25244
- pilot sym.-aided tech., digital sigs. in multipath environ. 9366
- PRMA, Rayleigh fading effects 8739
- PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
- radiocommunications medium, novel study 17117
- RAKE receiver implement. of CDMA power control mechanism 25439
- satellite-to-land-mobile commun. systs., perform. 9210
- short-block digital transm., adaptive MLSE for mobile radio 3427
- simulated fast fading indoor radio channel characts. 33817
- slow fading channel bandwidth-efficient coded freq. diversity 32086
- slow flat Rician fading, covariance matrix, ML detect. 25306
- soft output Viterbi algm., turbo-codes decoding 40666
- spatial channel simulator for phased arrays 9318
- SS-orthogonal FDM syst. combination, interfer. rejection 33746
- state estim., nonlin. filtering 8456
- switched pattern diversity antenna comparison 33793
- TDMA radio syst., autonomous SIR-based power control 17130
- TDMA systs., unique-words perform. eval./selection/design 24780
- trellis coded diversity receivers, slowly fading Rayleigh channels 33763
- turbo-codes/high spectral efficiency modulation 15747
- VQ sigs. transm., Rayleigh fading channels 8448
- wireless commun. syst. adaptive array sig. acquisition and tracking 33792
- wireless LAN protocols, radio capture models 25059

Rayleigh law *see Rayleigh scattering*

Rayleigh-Ritz methods
- *see also Galerkin method*
- self-adjoint eigenvalue problems, comparison of errors in upper and lower bounds, eigenvalues 11992
- two-sided eigenvalue bounds of 1D Schrodinger eqn. soln., Rayleigh-Ritz method 37327

Rayleigh scattering
- CATV/FITL video-transm. DFB laser components and systs. 17193
- clear air radar reflective layers, rain effects 43513
- coherent-OTDR, reduction of stochastic amplit. fluct. 18121
- external cavity fiber grating laser, coherent opt. freq. domain reflectometry 18122
- liq. droplet microcavities, CW nonlin. optics 31507
- long-haul transm. systs., fibre amps., double Rayleigh backscatt. 33982
- low coherence reflectometry, tunable narrowband light source, symm. crossing config. 18127
- opt. fiber transm. lines, complex multiple refl. calc. *(Japanese)* 39351
- phenol/pyridinium triflate, synthesis, nonlin. optics 2121
- reflective-type interferometric systs., noise limitation 17899
- self-starting fibre ring laser for distributed sens. 17832
- subst. ident., appl. of Rayleigh scatt. X-rays 12242
- thieno[3,2-b]thiophenes, donor-acceptor substituted, SHG 40093
- Er-doped fiber amp. AM CATV syst. RIN noise 9576
- Er-doped fiber amps., Rayleigh scatt. effects 23133
- GaAs/AlGaAs QW, exciton relax., recomb. dyn. 1116
- Nd:YAG laser radar for wide-area fire detect. 17451
- P_2O_5-SiO_2 core single-mode fiber drawing, low Rayleigh-scatt. loss 7292

Rayleigh waves
- *see also surface acoustic waves*
- air-coupled US and NDE, micromachined capacitance transducers 18931
- differential fibre-optic sens. of laser-generated ultrasound 34518
- elastic consts. and mass dens., acoustic microscopy meas. 35364
- noncontacting opt. generation of focused SAWs, customised zoneplate 22682
- opp. charged electrode pair, Rayleigh wave excitation 13989
- SAW displacements anal. in quartz and $LiNbO_3$ 30640
- stone block, Rayleigh-wave surface flaw detect. 12229
- subsurface struct., SAW determ. 5936
- $Li_2B_4O_7$ substrs., leaky SAW propag. props. 30638
- $LiNbO_3$ epitaxial films, pulsed laser deposition, SAW props. 20863
- $LiNbO_3(LiTaO_3)$ SAW devices, electrode periodic syst., Green's fn. anal. 30631
- $LiTaO_3$, 36°YX, wafer characts. line-focus-beam acoustic microscopy, SH-type devices 14088

RBS *see Rutherford backscattering*

RC circuits
- A/D comparator-convertor implement. *(German)* 21388
- act. genetically derived filter ccts., preferred value components 37845
- act. RC filter, compensation tech. for HF respons, functional trimming 6211
- act. RC filters, HF compensation of FDNR *(Japanese)* 12639
- act. RC second-order filter, modes comparison 6208
- ARC-ccts. with intrinsic compensation, struct.-topol. 6209
- ARC-network design with op amp, parametric optim. subsystems 28982
- CCII+ based RC oscillators, grounded resistors and lossy capacitors, low/HF 37669
- CCII biquads, high-input impedance 727
- CCII-based multiphase sinusoidal oscillators 29068
- CMOS logic gates, RC interconnect, effective capacitance modeling 1495
- current-mode biquad based on act. RC biquad 37841
- digitally prog. differential integrator, enlarged time const. 29349
- filters, RC op amp and current conveyor types, comparison 6216
- filters, time-domain props., gain bandwidth effects 6215
- grounded capacitor oscillators, digitally prog. 12365
- infinite polygonal capacitor networks, rel., Fibonacci seq. networks 5534
- ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
- LCRG nonuniform transm. line, sig. restoration 2278
- multiport act. RC-networks, computer aided synthesis/sensitivity anal. tool 721
- parallel-path biquad act.-RC oscillator, enhanced harmonic rejection 37665
- precision freq.-independent variable-phase phase shifter 21465
- single op-amp sinusoidal RC oscillators, equiv. forms 568
- third-order Butterworth characts., insensitive current mode realization, current conveyors 12641
- uniform RC lines, resistive termination, time domain response 15545
- variable LF CR oscillator, output admittance *(Japanese)* 6047
- VCCS synthesis, lin. input range, act. RC filters *(Japanese)* 12633
- Wien-bridge oscillator, modified for chaos generation 21143

RCCB *see residual current devices*

RCD *see residual current devices*

RDS *see radio data systems*

reachability analysis
- cyclic protocols, generalized fair reachability anal. 2931
- deterministic and SPN, steady state solns. 41534
- ECFSM model for commun. protocols, verification method *(Japanese)* 41511
- frame synchronized ring bus modeling, predicate/transit. nets 25038
- incremental protocol verification method 16506
- Markov regenerative SPN, non-overlapping activity cycles 37267
- probabilistic timed protocol verification for extended state transit. model 8773
- protocols, error recovery method/tool 25008
- rem. procedure call protocol, probabilistic validation 24821
- SPN, accomplishments and open problems 37263

reactance *see electric reactance*

reactive ion etching *see sputter etching*

reactive power
- *see also power factor correction; reactive power control*
- 3-phase PWM AC/DC converter, voltage unbalance, harmonics *(English)* 27811
- 3-phase unbalanced loads, PF meas. *(Russian)* 43804
- 3-phase unbalanced loads, PF meas. 43809
- 100 MVA IGBT reson. AC/AC power converter design 5111
- 230 kV FACTS power lines, advanced series VAr compensation *(Italian)* 4695
- ASD, power quality impact reduction 5269
- bulk power system reliability, assess. methods 19019
- compensators for distrib. systs., harmonic distortion 19256
- complex admittance/power defns. 10606
- complex power/admittance notions/defn. *(Russian)* 26915
- DC power supply, two-phase induction generator-based 5110
- distrib. network, load-flow eqns., starting point 27147
- dyn. DVM, rly. reactive power compensation appl. 3947
- elec. utility generator VAr capability assess. experience, USA 35487
- harmonics ident. and power meas. in power systs. 4738

reactive power continued
- HV transm. syst. planning, SELF expert syst. 19202
- hydrothermal power syst., real/reactive power economic dispatch *(Chinese)* 10632
- induction machine reactive power, math. anal. *(Russian)* 44056
- induction motor aggregate model/expt. responses comparison 4959
- induction motor drive control, rotor time const. ident. 11369
- line conditioning syst., harmonics reduction, PF compensation 43659
- local power syst., VAr benefits optimisation *(Chinese)* 43642
- LV/MV power systs., apparent power components meas. 4747
- Mean Generalised Content 4469
- multilevel inverter-based SVC, computer simul. 19122
- multiterminal AC-DC power syst. outage contingency ranking 10669
- optimal reactive dispatch, act.-reactive coupling 4573
- power syst., MW/MVAr/MVA margins approx., energy measures 19015
- power syst., secondary voltage control, fuzzy sets 19143
- power syst., VAr planning, interactive fuzzy satisfying method 4602
- power syst. fault impedance, fast estim. 19063
- power syst. harmonic/reactive currents adaptive detecting method 27276
- power syst. harmonics meas./anal., China *(Chinese)* 43805
- power syst. harmonics/reactive power/unsymm. load compensation 4474
- power syst. Newton optimal power flow convergence studies 26848
- power syst. security anal., static on-line voltage contingency screening 4485
- power syst. short-cct. power meas., probab. estim. 19374
- power syst. static voltage stabil. studies, generator modelling 26892
- power syst. VAr allocation planning, ADAPOS package-based 27092
- power syst. VAr reserve problem simuls., Qatar 4458
- power syst. voltage collapse index, reactive power loss sensitivity *(Korean)* 26846
- power syst. voltage stabil. anal., load modelling, eigenvalue calc. 26869
- power syst. voltage stabil. limit determ. method 35468
- power syst. voltage stabil. region estim. method 35469
- power system VAr planning, enhanced quadratic interior point method 19204
- power systems computation, conf., Avignon, France (1993) 11544
- power transformers, DC bias-exposed, VAr demand meas. 11100
- power transm. equipt. reliab. IS, Canada 43722
- pseudo-inverse-based probab. power flow 35462
- self-excited brushless multifield induction generators 11049
- self-excited induction generators, circle diagram approach 19628
- series compensated power syst. protection relays, perform. studies 4709
- shunt compensated power systs., voltage stabil. boundaries 19215
- single-phase nonsinusoidal ccts., power decomp. *(Chinese)* 43647
- sync. generator voltage stabil., voltage depend. reactive power limits 36114
- thyristor AC/DC power convertor, naturally commutated, SVC appls. 43667
- traceability in power/reactive power meas., NPL approach 34655
- VAr planning, decomp. techs. 4609
- Victoria network voltage-reactive power optim. *(German)* 35552
- voltage stabil., power syst. control 35524
- VSI, shunt act. filter control, CAD 44186

reactive power control
- *see also static VAr compensators*
- 275 kV power cable systs., voltage/VAr control develop. 27031
- 500 kV power syst. series capacitor VAr compensation project, China *(Chinese)* 35510
- batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966
- bi-directional AC/DC power converter, independ. reactive power control 36351
- doubly-fed induction machines, torque/VAr control 4973
- EHV power syst. restoration voltage control, ES-based 35555
- EMC reactive power control systs. 23664
- FACTS, advanced series VAr compensator appls. 27138
- FACTS, interphase power controller, voltage injection 4520
- FACTS inter-area dynamics, nonlinear modelling 19138
- flexible AC transm. systs., steady state/dyn. perform. eval. 35613
- fuel cell power syst. conditioners, microcomputer control appls. 43968
- HV/EHV power systs., boost transformers, optimal phase angles 43663
- induction motor drive tacholess vector control, low speed perform. 5292
- induction motors, doubly fed, torque/reactive power control 44058
- indust. power systs., reactive power compensation 26940
- multiarea power syst. automatic generation control simul. 10666
- multiphase power systs., harmonics/VAr control design 19087
- multiple current-source GTO CSI, control techs. anal. 19853
- nonsinusoidal power syst. supply quality improvement 19088
- parallel inverter for energy saving, power factor regulation 19872
- parallel proc. UPS, harmonic suppression/VAr compensation 11175
- polyphase power syst. VAr compensation, computer simul. 4550
- power syst., optimal kVAr control, capacitor sizing 19150
- power syst., optimal voltage-ractive power control *(Chinese)* 43628
- power syst. automatic voltage control, math. modelling 27015
- power syst. control ES, rule modif. ease expts. 19097
- power syst. dyn. stabil. improvement, SMES-based design 27003
- power syst. emergency voltage situations control, anal. 26958
- power syst. H_∞ oscills. damping controller design 35483
- power syst. mgt., voltage/reactive power neurocontroller *(Japanese)* 4529
- power syst. modular secondary voltage fuzzy control design *(Slovenian)* 43690
- power syst. optimal VAr control, fuzzy neural net-based 35480
- power syst. oscills. damping, control design 27004
- power syst. reactive power mgt., SEGRE expert syst. 19104
- power syst. reactive reserve mgt. 19081
- power syst. real-time voltage/VAr control, optim. algms. 10630
- power syst. robust multivariable PI secondary voltage/VAr control 27016
- power syst. security control, reactive power rescheduling, V-formulation *(Chinese)* 43636
- power syst. series reactive power compensation, bidirectional switches 43654
- power syst. stabil., nonlin. SVC control studies *(Chinese)* 35527
- power syst. SVC control syst. instabil., birfurcation theory *(Japanese)* 10688
- power syst. transient stabil., SVC fuzzy control design 19101
- power syst. transient stabil. enhancement, SVC blocking effects 4558
- power syst. VAr compensation, power theories anal. 19086
- power syst. VAr compensation control planning, ES appls. 26961
- power syst. VAr compensation planning, Benders-type decomp. 26962
- power syst. VAr compensation planning, computer model-based 26960
- power syst. VAr control algms., formulation requirements 19085
- power syst. voltage distortion compensation, meas. aspects 4551
- power syst. voltage stabil., shunt VAr compensator effects *(Japanese)* 10709
- power syst. voltage stabil./security assess. methods 4516

reactive power control continued
- power syst. voltage/reactive power control, coupling-transformers *(Chinese)* 27035
- power syst. voltage/VAr control, recurrent neural net-based 4512
- power syst. voltage/VAr security enhancement control design 27017
- PSS, fuzzy controlled SVC design *(Japanese)* 26939
- PSS intell. supervisory fuzzy control design 19103
- PSS SVC fuzzy logic switching design 19102
- rural power network VAr compensation overview, China *(Chinese)* 35511
- single-phase act. power line conditioners 10673
- sinusoidal converters, high PF 19725
- substation VAr/volt supervision/control units, fault tolerant *(Chinese)* 36472
- SVC, GTO-switched, elec. welding appls. 4531
- SVC digital control, transputer appl. advantages 4530
- SVC H^∞ controller, anal. and design 10652
- three-phase unbalanced power systs., act. power filter 10655
- transformer tap changer, voltage/reactive power control 27783
- unbalanced AC voltage supplies, SVC dyn. anal./design 19124

reactive sputter deposition *see sputter deposition*

reactive sputter etching *see sputter etching*

reactive sputtering *see sputtering*

reactive voltamperes *see reactive power*

reactively sputtered coatings *see sputtered coatings*

reactivity (fission reactors)
- *see also fission reactor kinetics; fission reactor safety*
- BWR regional instabilities, harmonic perturb. theory 35814
- fast reactors, long-life, small, design 35948
- FBR, supercritical steam cooled, conceptual designs 35947
- HTR-10, secondary shutdown syst., control rods, reactivity worth *(Chinese)* 43851
- hybrid reactor perform., reactivity limitations 35945
- oscills., stabil., delayed neutrons 35819
- thermal space reactor, self-shielding shutters reactivity 18732
- Topaz-2, reactivity accident involving deep water entry, consequences 26558
- zero temp. coeff. core, dil. fuel, graphite moderator 35813
- ^{235}U thermal fission, correction method, ^{238}U fission rate *(Chinese)* 43852

reactors (electric)
- *see also capacitors; current limiting reactors; inductors; saturable core reactors*
- 3-phase TSC-TCR SVC anal., recurrences theory 19924
- 6 kV compact power capacitor syst., urban distrib. substation *(Japanese)* 27864
- controllable reactors/thyristor devices comparison 5027
- distrib. network capacitor banks, synchronised/soft switching 10722
- FACTS, line fault protection, variable reactor, phase shifter *(Japanese)* 10783
- high-power controlled reactors, EM proc. 11099
- HV equipt., gas chromatography diagnostics 11206
- interconnected systs., air-core reactors, line overloading prevention 10643
- long-dist. transm. syst., harmonic modelling 4628
- MOV series compensated transm. network, mag. pot. transformers 4624
- multimodule secondary power source CAD, params. optim. 5097
- neutral grounding reactor ratings selection 36231
- PF correction, thyristor controlled ractor compensator 19873
- power syst. element modelling, param. estim. techs. 35467
- power syst. parametric oscills., chaotic behavior anal. 26905
- power system decentralised control, neural net-based 19119
- power transformer/shunt reactor loss meas., direct method 19692
- reactive power compensators, inverter based, high freq. 5091
- rectifier converters, opposed stars connection, anal. 11124
- static neg.-phase-seq. current compensator, rly. 44537
- SVC, μP based, unbalanced load appls. 10670
- SVC, thyristor technol., components/design 44261
- SVC TCR dyn. behaviour modelling, computer-based 4532
- thyristor controlled ractor compensator 19873

reactors (nuclear) *see fission reactors*

Read diodes *see IMPATT diodes*

read-only storage
- *see also CD-ROMs; PROM; write-once storage*
- bandgap ref. temp. drift decrease, on-chip analogue ROM 12324
- BIST, zero aliasing 12512
- CMOS ccts., public domain high perform. portable ROM generator 28947
- digital tachometer, precision, vel. meas. 42948
- interrupt routines, C and child procs. 651
- LFSROM BIST, basics and appl. 21193
- mask ROM, time saving testing scheme based on struct. oriented failures 37764
- NEC's PBX APEX1000/3000 *(Japanese)* 16963
- optimal VLSI archit. for distributed arith.-based algms. 29090
- smart sens. interface, data conversion and prog. calib. 34493
- VLSI array design for DHT, cyclic convolution 29191

readout, digital *see digital readout*

readout, nondestructive *see nondestructive readout*

real time computer systems *see real-time systems*

real-time systems
- *see also online operation*
- 3D human image reproduction in virtual space teleconferencing 16823
- 3D rendering, soft breadboard 10376
- 32-bit RISC proc., embedded control systs., CMOS VLSI implement. *(English)* 37795
- 100 base-VG demand priority protocol, real-time commun. 16490
- 500 kV Central China power syst. EMS overview 19188
- A2A3 air traffic control testbed using embedded AI technology 10418
- AAMP5 μP, formal verification 29298
- AC machines, digital transient torque meas. 10951
- AC motors, four-quadrant digital control scheme 10954
- acoustoelec. memory for SS commun., Green's fn. 6930
- actuator/sens. interface instrumentation 25727
- adaptive tasks scheduling 3607
- adaptive token release mechanism for ring LAN and MAN 41529
- airborne systems, neural network technology for BIT applications 42730
- amplit. compensated joint transform correlator syst., target recogn. *(Korean)* 41167
- ANN fast prototyping, goal seeking neuron digital implement. 29465
- AOS, avionics OS for multi-level secure real-time environ. 8939
- area surveillance, ambient sigs. fusion 42508
- Ariane 5 on-board software, safety aspects 43423

real-time systems continued
asymptotic resource consumption in multicast reservation styles 2882
ATM appl., digital avionics 10389
ATM based embedded real-time systs., admission policies, perform. 33505
ATM network, priority scheduling 24775
ATM network under partial buffer sharing policy, cell loss proc. 8698
ATM networks, real-time commun. 33172
augmented priority ceiling protocol, task sync. for preemptive real-time systs. 16492
automated stereo camera mount control tasks, parallel implement. 16348
automobile traction assist real-time vehicle simulator 11439
automotive control syst. benchmark based on Time Triggered Protocol 5369
autonomous real time space mission control, event diagnosis/recovery 43422
avionic subsystem, architectural spec. 35239
avionics breakthrough in inform. sharing 10332
avionics computers, real-time, Ada 9X solns. 10370
azo-dye-doped polymers opt. storage, holographic interferometry 15155
Bayesian approach to confidence in system testing 42654
binary neural associative memory, hardware implement. 29464
bipolar winner-take-all model with a threshold, real-time pattern recogn. syst. 24428
blind pers. speech technol. develop. 4317
brushless DC servomotor, optimal DSP control 36195
built-in diagnostics for advanced power mgt. 34356
CAMAC rem. meas. syst., special computer 3752
car outline extraction by neural net 41374
CCD sensor for position and attitude sensing 25882
cct.-switched networks, real time traffic estim. 41680
cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
CIO multimedia commun. platform 16857
client-server behaviour modelling of parallel systs. via Petri nets 16730
CMOS max. entropy coprocessor for computed tomography 29432
CMOS prog. analog cellular neural net for high speed image proc. 29429
CMOS prog. digital filter proc. chip, ring topol. 29378
CMOS real time image class. proc., parallel archit. 21375
CMOS real-time obj. extraction proc. chip 29250
CMOS video sig. proc. chip, 1.5 GIPS 21373
CMOS VLSI implement. of 8192 complex point FFT 29248
CMOS VLSI predictive tree-searched vector quantizers for real-time video compression 29276
CNN image proc. for automatic class. of oranges 24733
Coast Guard differential GPS Network and GIS 33973
commun. protocols for embedded systs. 2918
computer design, VLSI aspects, conf., Cambridge, MA (1993) 36905
concurrent syst. design, MCSE methodology 28958
contactless real-time meas. of robot pose 42529
continuous speech recogn., hidden Markov methods *(Japanese)* 15811
control and monitoring single-chip microcomputers *(Croatian)* 667
controller area network, real-time commun. anal. 3177
COSY control syst., RT/OS environ. 18209
cyclic spectral anal., computational bal. 40939
data acquisition/anal. computer syst., real-time, document prep. *(Japanese)* 3754
DC arc furnace control, simul. *(German)* 44590
DC motor drive adaptive neural speed regulators 36655
DC motor drive fuzzy speed controller 36654
DC motors, motion controllers, software switch 19662
DC/DC converter, fuzzy optimal control commutation 44120
DC/DC power converter quasi-lin. controller, DSP-based 11149
deaf children's PC-based speech training environ. 4328
DECnet network, real-time file transfer module in appl. layer *(Chinese)* 2900
DESSY, Space Shuttle telemetry monitoring system with tolerance for real-time data problems 10342
DHTs, generalised running and real-time analysers 29394
Diagnostician-on-a-chip, concepts/implement. 34357
Diagnostika motor drive testing automation software 44469
digital continuous media, random access, real time retrieval 41999
digital control environ., controller develop. appls. 10674
digital video on PC, hardware accel. 16075
distrib. network real-time anal., business opportunity/experiences 19254
distrib. network real-time control tools 10731
distrib. network real-time SCADA systs., AM/FM appls. 19273
distrib. networks mgt., intell. support syst. 19275
distributed Ada, implement. 26538
distributed control syst., rem. station, real-time commun. *(Korean)* 41805
distributed real-time, multi-access protocols schedulability anal. 2911
distributed real-time protocol, spec. and verification 41543
distributed virtual simul., networking 25019
dithering, fast source-based for networked digital video 16070
DQDB network, real-time commun. services 3176
DSP algms. mapping onto multiprocessors, cost fns. 24225
DSP archits., scheduling, register constraints 12558
DSP design tool requirements for embedded systs., telecom perspective 40801
DSP OS modeling for multimedia appls. 3259
DSP real-time implement. on multiprocessors, CAD environ. 12584
DSP synthesis tools for real time systs. 40802
DSP syst. functional controllability indicators *(Russian)* 16053
duplicated telecommunication system, CTRON based operating system 33713
ECG diagnosis, real-time ES 10245
ECG proc., high-gain, real-time, beat-by-beat, freq.-band adaptive filtering, optimisation 26416
edge detect., morph., real-time, low-cost approach 8586
edge detector, Sobel operator, VLSI implement. 30473
elderly people real time speech rate converting syst. 35162
elec. generator real-time condition monitoring 44007
elec. rly. real-time control/monitoring syst. integrat. *(Chinese)* 36710
elec. vehicle fleet monitoring, batt./charger mgt. syst. 36728
electronics indust. CAQ, real-time proc. control-based 11839
embedded controller, transputer-based, eval. for high dyn. control appls. 44260
embedded flight control syst. design, integrated proc. 10333
embedded hardware-software systs. spec. and design 30417
embedded image proc. appl., top down struct. parallelisation 2810
embedded proc.-shared multiprocessor syst., bus arbitration 3290
embedded real-time syst., effective software reuse 26813
embedded systs., network mgt. fns. 3162

real-time systems continued
EMS real-time distributed archit. project, Australia 19187
Envisat-1 satellite radar-altimeter on-board real time software testing 43421
equipt. access software, distrib. UNIX-based accelerator control 18208
error-tolerating codes for A/D converting devices for dependable real-time systems 32118
Ethernet, real-time traffic support 3178
Eurostar Informatique control syst. software 44573
EW testing at flightline 43587
FDDI network perform. eval., guarantee probab. 41905
FEAL-32 encryption LSI *(Japanese)* 42093
feature/sens. selection by fuzzy neural net 40789
FlexCore custom microcontroller concept *(German)* 21365
flexible ASICs incl. embedded proc. for smart sens. appls. 6244
flight instrum. test facility, control and data acquisition 26531
flue gas metal hazardous air pollutants determ. 18913
foetal ECG anal., real-time, Windows appl. 26377
foetal ECG monitor, abdominal, real-time multichannel, using digital sig. coprocessor 43299
Formentor risk prevention DSS project 11690
forward-based portable acoustic meas. syst. 17683
fossil fuel power plant compact simulators 35982
fossil plant operation improvement, compact simulator 43908
four issue superscaler RISC μP, embedded memory design in CMOS 29280
four-quadrant bipolar power converters, computer simul. 5096
FPGA memory controller for linking embedded μP, cache enhanced DRAM 29213
frame synchronized ring bus modeling, predicate/transit. nets 25038
fuzzy intelligent hybrid system, telecom network routing appl. 8789
G_{MICRO}/400, 32-bit superscalar μP, embedded systs. 21349
German portable reading device for blind 4318
GFLOPS, real-time image proc. parallel VLSI archit. 29272
GIS data commun. 33487
global operations in affine space-time mapping, real-time sig. proc. appls. 32596
GMICRO/500 microprocessor application system, graphic primitives evaluation 29257
GMICRO/500 microprocessor performance evaluation for CTRON based kernel 29256
GPS category III precision landing, real-time flight testing, integrity beacons 3639
GRAMS distributed multimedia service syst. 16833
grayscale fn. proc. systs., matrix representation 8576
grey level co-occurrence matrix parallel array algm. 33019
groupware, spatial workspace collaboration 41987
hard real-time commun. in multiple-access networks 33211
helicopter transm. health monitoring, neural computing methods 10363
heterog. network mgt., composite perform. eval model 33546
heuristic transform. techs. for simultaneous optim. of latency/throughput 29261
high-throughput DSP appls., ASIC design strategy 29271
Hough transform chip-set, config., CMOS implement. 29269
human-motion recogn. by fuzzy associative inference 8581
HVDC converters control, microcontroller appl. 19239
HVDC real-time digital/analogue simulator interface 27142
hydraulic turbogenerators, intell. sync. control *(Chinese)* 10877
hydroelectric power syst. optimal, short-term scheduling 27613
IC yield enhancement, real time mfg. proc. monitoring 20468
IEEE 802.12, Demand Priority and multimedia 16664
image compression, perception threshold matching 32878
image compression, real time, feature visibility criterion 32882
image generation *(Chinese)* 41283
image manipulation, real-time, FPGAs 24725
image proc., SIMD-based cellular neural network 24729
image proc. issues 32880
image registration, parallel genetic algm. hardware archit. 2802
imprecise computations, scheduling algms., max. error minimization timing constraints 33277
imprecision probab. computation, queueing theoretical formulation in real time systs. *(Korean)* 20514
in-line particle holograms image proc. 33008
indoor multipath channel real-time emulation, FIR models and ACT technol. 31824
induction motor drives, digital adaptive control, transputer based 11379
induction motor drives, neural net-based param. estim. 20061
induction motor drives, sensorless speed control, neural net-based 20063
induction motor drives, sensorless vector control by Intel i860 and transputer network 44039
induction motor meas., transputter-based measurement apparatus 27718
induction motor rotor speed meas., slot harmonics-based 4941
induction motors drives, real-time PWM vector control studies 28100
induction servo drive, neural model predictive control 28066
indust. motor controllers, self-tuning digital control 20154
indust. power systs., reactive power compensation 26940
INFONAVI, in-vehicle navig. syst., radio pager 42542
integrated memory array proc., image proc. appl. *(Japanese)* 29210
interactive virtual auditory environ., real-time generation 15994
interconnected power systs., transient stabil., on-line anal. 27008
internetted acoustic sens. fusion, appls. 43554
IR seeker imaging simul. real-time model based on fractal theory 18989
ISHTAR, real-time time-varying image proc. *(Japanese)* 42754
island power syst. spinning reserve, real-time estim. 4473
kinematic GPS syst. results 3533
knowledge representation, verification and reasoning, real time systs. 3737
LANGAGE, expert system for real-time diagnosis of hydroelectric power system faults 10690
least-sq. adaptive acoustic beamforming, design study 32598
length-varying computer-controlled fibre drawing 1698
licence plate, extraction, gray level transit. characts. *(Korean)* 2827
lightning detect./location, power syst. appls. *(Chinese)* 27288
load balancing in distributed environ., ES approach 8926
logical communication designer interfaces, implementation and evaluation 33714
low-level cortical proc. in machine vision, analog VLSI massively parallel module 32947
mag. suspen. syst., real-time posn./attitude sens. 18088
matched filter derived and code-assisted bit sync. 41392
MERMAID multimedia multi-party desktop conf. syst., groupware platform 9029

real-time systems continued
MES, Manufacturing Execution Systems, real-time control of factory floor resources 37036
metropolitan freeway monitoring, random access channel 3075
mfg. execution systs. software selection guidelines 38967
mfg. proc. real-time empirical Bayes model-based monitoring 20425
mfg. product defect detect., CMOS real time image proc. systs., AOI 32940
MHEG multi- and hypermedia obj. interchange std. 41975
microcomputer-based real-time bearing monitor 34339
microcontroller, universal real-time, fast calc. 6172
micromachine PSS, real-time fuzzy control 10679
microtomography, microfocus radiography syst. 28519
milling cutter failure, power monitoring method *(Chinese)* 10916
mixed sig. testing, synchronized control/real-time DSP 6247
MM-wave radar sens. for road vehicle positioning 42512
MMOSS soft real-time OS support in multimedia commun. subsystem 25121
mobile flight test support 10316
mobile robot navig. laser range image acquisition 31692
modified 2D median filter for impulse noise suppression 37863
motion from image seqs. and recursive affine struct. 24459
MPEG audio decoder chip 37788
MPEG video codec on single-chip multiprocessor 16939
multi-user demodulation, real time, hybrid digital computer-Hopfield neural network CDMA detector 16459
multi-valued images, labelling systolic archit. 2762
multiline OCR parallel archit. 33027
multimachine power syst. generator shedding, neural net-based 19098
multimachine power syst. transient stabil., prediction/control *(Chinese)* 35513
multimedia commun., transport protocol 25120
multimedia commun. in real-time, workstation support 9062
multimedia data streams, disc scheduling 16886
multimedia networks, real=time data delivery 33642
multipath/terrain bounce model, real-time mil. appl. 35391
multiple route real-time channels in packet-switched networks 2870
multiple target sputter syst., real-time control 20967
multiple unknown objs. localisation/tracking 24665
multistage CMA adaptive beamformer, real-time implement. 9227
multitarget tracking, opt. binary joint transformer correlator *(Korean)* 16137
music, real-time issues 42653
narrowband beamforming, efficient archit. 9676
Nat. Grid power syst. anal./data mgt. rationalisation 19126
navigating the airport surface, electronic vs. paper maps 10381
NERD, Network Event Recording Device, anom. detect./notification 24966
network data anal., complementary graphical methods 41675
neural net, feedforward, Lyapunov fn. 29445
neural net emulator CMOS chip 37920
neural network based flight control, validation methodology 10362
New York power pool simul., dispatcher training appl. 4584
next-generation PCN multimedia traffic support 41979
nonBrownian sedimenting spheres, hydrodynamic self-diffusion, particle vel. flucts. 18148
nonrigid motion anal. in 3D images, vibr. modes 24461
nuclear power plant monitoring by neural nets 27341
obj. extraction, real-time syst., with seq. growing 8487
obj. tracking syst., two stage real-time 24359
ocean wave monitoring from space 3609
off-axis particle holograms image proc. 8536
omnibus fleet mgt. syst., radio links 34389
online dyn. gas pyrometry, two-thermocouple probe 42970
opt. hologram, real-time parallel-computed holography *(Japanese)* 15157
Optical Communications Demonstrator, control proc. syst. archit. 17314
OSI Directory Information Base, hash-based high-perform. name resoln. method *(Japanese)* 33438
parallel approaches for intensive computing and instrumentation upgrading 42736
parallel computing syst. for real-time synthesis of humanlike agent 41163
parallel DCT/DST lattice structs. for video commun. 29266
parallel power transm. lines, digital protection tech. 27188
parallel proc. for image segmentation 12574
particle image velocimetry, ultra-high-speed camera 3982
PC, real-time commun. protocol, contention-resolving algm. 41505
pers. shopping assistance, indoor wireless syst. 33558
pipe length online meas. by acoustic sens. *(Japanese)* 17681
polymer films for IC packaging, anisotropic thermal diffusivity meas. 18137
polynomial-shaped meas. sigs. class., BP neural network 15930
portable data acquisition and control system, multitasking/multiprocessing 34414
portable video-on-demand syst. in wireless commun. 42593
power controller, fuzzy chip-based fault classifier 11131
power network mgt. training simulator, software develop. 19125
power overhead line thermal dimensioning, stochastic real-time forecasting *(German)* 10753
power saving in embedded proc. 6159
power syst. alarm proc., OO symbolic connectionist syst. 19158
power syst. anal. digital simulator 10611
power syst. branch flow contingency anal., computer-based 4482
power syst. control, real-time LAN commun. technol. *(Chinese)* 43668
power syst. digital protection criterion values estim. 27257
power syst. dyn., real-time simul. survey 26854
power syst. emergency control, real time ES model 27041
power syst. EMS environ., AI archits. 26951
power syst. EMS/SCADA systs., mgt. IS-integrated 26954
power syst. fault ident./alarm proc., OO expert syst. 19154
power syst. freq. relaying algm., Newton-Raphson method 10612
power syst. harmonic/reactive currents adaptive detecting method 27276
power syst. load dispatching real-time computer network *(Chinese)* 35515
power syst. load freq. control, neural net-based 4542
power syst. MOV protection, series compensation capacitors, response calc. 27251
power syst. operations, loss minimization fn. 10629
power syst. optimal power flow anal., security constrained 26902
power syst. parallel simul., mutated tree archit. 4453
power syst. real-time economic dispatch design 4569
power syst. real-time harmonics/flicker meas., PC-based 19367
power syst. real-time SCADA/EMS, OOP concept 26955
power syst. real-time voltage/VAr control, optim. algms. 10630
power syst. real-time/offline fault anals., neural net appls. 19093

real-time systems continued
power syst. security assess. neural nets, perform. eval. 19134
power syst. short cct. currents, real-time estim., ANN 19191
power syst. short-term dyn., real-time parallel simul. 26880
power syst. sig. param. estim., neural nets 19170
power syst. stabilizers, real-time, fuzzy controller optim. 4913
power syst. state estim., least absol. value solns. 26879
power syst. transient stabil., optimal decentralised control *(Korean)* 35543
power syst. VAr control algms., formulation requirements 19085
power syst. voltage collapse margins computation, algms. 19042
power system meas., transputers-based data acquisition 35694
power system undervoltage load shedding, energy-based approach 19120
proc. control, sig. sampling scheme in real-time 24314
PSS, intell. variable gain control, multitransputer-based *(Chinese)* 43691
pulse shaping in radiation meas., digital techs. 18383
pulsed damped-sine charactn. sig. anal., PC-based 34423
pulsed power syst. dielecs., real-time surface flashover detect. 36292
PV array max. power neural tracking 36058
PWM inverters, real-time alg. harmonic elimination eqns. soln. 44162
PWM invertor space vector modulation strategy, PC-based 44164
QR decomp.-based least sq. tech., improve ATC radar 2579
quadrature components real-time eval., impedance meas. 25941
re-engng. test develop. proc. 34368
real-time navig., global positioning syst. 18991
Real-Time VirtualClock, network traffic control mechanism for real-time commun. 8910
recursive const. modulus algm. for real-time array proc. 8352
recursive DSP algms. mapping, multiprocessor 28953
regional substations control centre, ES appls. 27018
retro-reflective laser automatic inspection systs. for proc. control 37174
roads, cluttered scenes, real-time visual tracking 32950
robot environ., change detect. for human safety 24527
robot skills development using a laser range finder 25585
rocket engine, large, reusable, artificially intell. health monitoring 18770
RTP, absol. temp. control 30401
RTSPC, software utility for real-time SPC and tool data anal. 22211
SAFENET, fault-tolerance/timeliness, layered approach 33507
Sarnoff engine, massively parallel computer for high defn. syst. simul. 12587
satellite ground control operations, intell. C^2 26698
scalable archit. syst. for ATR 8647
SDH multirate time switching control algm. and sig. proc. DCS 41419
security constrained dispatch, LP appl. *(Chinese)* 10635
seismic sens., real-time sig. class., neural nets 2743
Semi-Active-STINGER (SCORPION) missile simul. 26811
semi-automatic road extraction by dyn. prog. 41254
semicond. device defects, image display/anal., laser scanner 32818
sensing gluten development during bread dough mixing 25806
seq. ccts. with embedded RAMs, test generation 12434
series compensated power syst. protection relays, perform. studies 4709
ship detect. in radar images by neural net 42528
SIMD DSP for real-time MPEG video encoding/decoding 29268
simultaneous spectrosc. ellipsometry/reflectance, thin-film prep. monitoring 5880
sine-wave crossings tech. for real-time target recogn. 10590
slotted ring LAN, bandwidth allocation scheme 41906
small group teleconferences, virtual environ., communicative charact. 16816
SNIF, network inform. flow surveying tool 24967
SNMP-based systs. mgt., fault detect./isolation 24903
soft-output Viterbi decoder archit. 40590
software digital filters, real-time, design 6223
SONET-based self-healing mesh network real-time bandwidth allocation and path restorations 41652
Space Shuttle main propulsion syst. propellant loading, KBS 18774
space vehicles, multiprocessor archits., engine and vehicle guidance control 4357
spectral leakage effects on multiscatterer target model validation 26828
speech training aid for aphatic children 4326
speech/data integrat., real-time interactive, on LANs, multimedia in commercial indust. environ. 25066
spoken lang., robust real-time interp. 15857
SRRC accelerator control syst. design schemes 18218
state-space digital filters using distributed arith., VLSI archit., control systs. *(Japanese)* 37875
steel mfg. integrated prod. IS, Japan *(Japanese)* 3212
steel plant noncontact rail dimens. meas., machine vision-based 42931
stereo and motion integrat. for autonomous vehicle navig. 41241
still image compression algm. based on JPEG systs. *(Korean)* 24680
submarine, perform. meas., underwater data acquisition syst. design 34419
submarine, unmanned, obj. tracking, image proc. 24724
supervisorless semicond. fab. environ., CIM productivity monitors 37052
surface plasmon biosensor develop., sensitivity and appls. *(Japanese)* 18525
SVD tracking, VLSI algm. and systolic archit. 28667
syst. for real-time video image compression appls. 41079
systolic arrays for spherical subspace tracking 6170
target detect./tracking, HF ground wave radar 9641
telecomms. networks, distributed restoration 41689
telephony network real-time control, ES 24927
temporal aspects of design 3228
test development tools framework 42689
three-phase PWM invertors, real-time harmonics control 19722
TIGER, model-based/rule-based real-time tool for monitoring and diagnosis of dyn. systs. 34393
tightly coupled dual 8098 microcomputer syst. *(Chinese)* 661
time-crit. commun. archits. and quality of service 25031
torque-speed characteristics meas. of electric machines 25718
totem single-ring protocol, message delivery, probabilistic bounds 2914
train driving simulator, struct. software develop. 44574
transm. AC/DC real-time simul. *(German)* 27133
transputer module array, computer vision embedded appls. 24484
transputer-based visual inspection syst. 28506
transverse-flux induction heater exit temp., real-time meas. by transputers 44625
TRAPPER approach for monitoring T9000 proc. 37805
tri-array VLSI archit. for higher order moment estim. comp. 29294
trunked mobile commun. syst. mgt., ES environ. appl. 9396
tTP - A time-triggered protocol for fault-tolerant real-time systems 33280
turbogenerators, adaptive control, parallel proc. 27672
TX2 microprocessor design based on TRON specifications 29258
unstructured video image seqs., automatic annotation 32883
URV ESPRIT for tracking time-varying sigs. 8420

real-time systems continued
vehicle engine misfire detect., torque monitoring 25717
VENIS real-time distributed prototype syst. 4442
very high resolution network analyser design 25746
video channels, stat. real-time, over multiaccess network 16072
video commun., low latency, over high bandwidth-delay networks, using FEC 25134
video compression, real-time, using differential VQ 24581
video link, Antarctica 42301
video proc. and video texture generation 24528
virtual instrum. for determ. of elec. power quality 4739
virtual lab., obj.-oriented framework 3744
virtual space teleconferencing, human fig. synthesis/animation 33619
visual inform. proc. syst. *(Japanese)* 2616
VLSI archit. for video real-time hierarchical encoding/decoding 33697
VLSI chip for extraction of direction vectors from binary images 6173
voice transfer, TCP/IP 33390
voltage source power convertors, current control loop simul. 5114
waveform anal. of LSI for music synthesizers 3698
wind-solar power plant control, Petri net-based model 19575
wireless coke oven SCADA syst. 9824
X-ray fan beam *z*-axis position measurement 26290
X-ray stereoscopy, real time, reverse geom. X-ray imaging 34968
Xunet 2, scheduling discipline/admission control policy 16665
HgCdTe IRFPA nonuniformity correction algm., real-time hardware prototype 17948
InSb FPA-based high sensitivity, high resoln. thermal video syst. 17938
Si range finder, realtime range finding VLSI sens. 34568

realistic images
perspective terrain visualization using rem. sens., GIS and computer graphics 18919

reasoning *see cognitive systems; inference mechanisms; planning (artificial intelligence)*

reboilers *see boilers*

receivers
see also acoustic receivers; microwave receivers; millimetre wave receivers; optical receivers; radar receivers; radio receivers; repeaters; submillimetre wave receivers; television receivers; transceivers; transponders
155.52 Mb/s data transm. on category 5 cable plant 42044
ADSL, DSP-based prototype reverse channel transmitter/receiver 33673
binary receivers, Gaussian/α-stable impulsive noise, perform. anal. 40941
CDMA decorrelating detector for antenna arrays 15954
channelized receiver appl. guide 43586
CMOS wireless vol. control receiver for hearing aids 18606
code-synchronized transm. syst., design params. 24739
Costas arrays for channel charactn./commun., decomp. 32610
deep water acoustic LAN, adaptive lin. multiuser receiver 34181
digital modems, sym. synchronizer perform. 8457
digital receivers, sampling rate, analog prefiltering, stats. 15965
discrete sig. high noise immunity receivers, input sig. proc. method 2578
DPCM image coding, correl. sources decoding 8615
DS-SS digital commun., sig. detect., hybrid syst. model 24272
impulsive stochastic transients detect., background noise 32647
MIMO transm. systs., transmitter/receiver optim. 16413
MLSE receivers, trellis codes for multipath fading ISI channels 8447
near-far resistant CDMA detectors, param. estim. errors effects 16460
noncoherent freq.-PM, BER/PSD 24014
optimal receiver design, wavelet bases 40929
Osman Nuri Ucan receiver, trellis coded M-QAM schemes, partial response channels 40704
quadrature param. estim., max. likelihood tech. 41019
satellite broadcast receiver, high T$_c$ supercond. coupling device *(Japanese)* 34228
SCI-LVDS 500 MHz CMOS differential pad drivers 22583
single/multi-amplit. sigs. in interf. channels, neural-net based receiver 16408
SSMA coded systs. combining FSK and PSK 33206
systematic TCM in coded modulation 8093
wavelet-packet-based multiple access commun. 33202
GaAs ASIC set for deep space receiver 42336

receiving antennas
see also reception
2.45 GHz power transm. rectenna perform. optim. 35610
905 MHz radio propag. in an office, metal low-partitions effect 31830
adaptive antenna array pattern synthesis, constraint selection 40513
beam space adaptive array antennas, transmitting null beam forming 15665
broadband act. microstrip antenna design, real freq. tech. 23851
CDMA joint detect. mobile radio systs., interfer. suppression 33887
DAB in Canada 42574
DBS mobile receiver, design *(Japanese)* 17144
DBS-satellites, mobile reception, adaptive antenna array 15664
dipole antenna factor meas. on ground plane by 3-antenna method 40483
direct satellite TV broadcasting, multifunctional receiving antennas 31943
DIY receiver for GPS and GLONASS satellites, quadrifilar backfire helix antenna 34194
EMI meas., std. antennas calib. 7991
GSM, M-detector, coherent receiver antenna diversity, perform. 17040
handheld transceiver planar inverted-F diversity antenna FDTD anal 25353
HF hand-held narrow-aperture direction finder 3641
HF radio sigs., adaptive proc., receiving antennas 40773
intermediate reuse factors for capacity eval. 17058
laser Doppler airflow velocimeter, receiving antenna sig. estim. 4020
low-power wireless mobile commun. syst. 3490
meteor-based radio systs., ellipt. polariz. antennas appl. 42341
microstrip planar antenna array, direct broadcast satellite receiver 8068
microwave rectenna, ISY-Microwave Energy Transm. in Space expt. 35596
mobile commun., adaptive array methods 17067
mobile commun., DSP for digital multi-beam forming antenna 17068
mobile DBS reception single-layer leaky-wave slotted waveguide array 23945
moving electrodynamic tethers, mag. antennas, fields, currents 23894
nonlin. effects in act. phased antenna arrays 23963
onboard reception antenna for broadcast/commun. satellites *(Japanese)* 9677
OTH radar receiving array terrain compensation 25562
phase correcting zonal reflector incorporating rings 40469
pulsed radar antennas, pattern meas. syst. *(Japanese)* 40500
satellite TV receiving antenna, optimal axis of rot. 2340
scatt. field data, target location estim. 17399
scatt. minimisation 40463
sens. array sig. proc. tech. 32731

receiving antennas continued
wireless LAN, 10 Mbits/s Ethernet data frames, DPSK 16711

reception
see also diversity reception; radio reception; television reception
MM-wave modulated opt. sigs., heterodyne reception, HEMT 3544
ref. sig. generator echo cancellation, ISI receiving schemes 32725

reception quality *see reception*

recombination, electron-hole *see electron-hole recombination*

recombination, ion *see ion recombination*

reconfigurable architectures
2D WDM reconfigurable opt. interconnection smart pixels 42099
bit-serial systolic array for DSP, reconfigurable arith. operators 29255
Boolean neural net, dynamically configurable combinatory logic array 29451
DFT/BIST hardware, chip-based, control strategies 9805
digital VLSI implement. of reconfigurable archit. mapping multilayer CNN paradigms 21500
distributed telecomm. systs., configurable call/service proc. 41955
embedded proc.-shared multiprocessor syst., bus arbitration 3290
fault-tolerant VLSI/WSI array proc., design and anal. 6829
fiber optic subscriber loops, reconfiguration method *(Japanese)* 16925
FPGA routing by concurrent maze method *(Korean)* 37714
FPGA-based custom computers, DSP appl. archit. 29123
FPGA-based design, high-level synthesis techs. appl. 6109
FPGA-based image coprocessor 12577
FPGAs, configurable DSP coprocessors 6177
GVIP, scalable high-perform. graphics proc. 21366
hardware struct. implement., configurable logic 29150
Hough transform on reconfigurable meshes 32911
MAC address test protocol for reconfigurable dual ring LAN *(Japanese)* 24947
medium-throughput sig. proc. on flexible instruction-set archits. 37797
monolithic photonic/optoelectronic switching technol. 9146
multistage interconnection networks, nearest-neighbour interconnections 24753
multiwavelength fiber-amp. cascades for networks 9502
nanoprocessors, stored program proc., reconfigurable, flexible archit. 21338
nearest-neighbour opt. interconnects, polaris.-controlled module 1764
neural network multiprocessors, dyn. reconfig. pipeline archit. 12677
optical staggering switch archit. growability and packet sync. 42126
RAN^{2}SOM, reconfigurable neural network archit. 29471
real time class. proc., conventional and neural techs. 16284
RRANN, run-time reconfiguration ANN 21287
run-time reconfiguration neural net archit. 29503
Shiva multiprocessor syst., neural network simul. mapping 32427
speech training aid for aphatic children 4326
survivable internat. network archit. and dimensioning 41549
Viterbi decoder implement., prog. act. memories 32088
VLSI design proc. mgt., reconfigurable distributed framework 5580
VLSI systems defect/fault tolerance, conf., Italy (1993) 36856
VLSI/WSI defect tolerant arrays, optimal group diagnosis 13837
wavelength-reusable/topol.-reconfigurable WDM opt. LAN networks, monolithic opt. equalizer array 42426

reconnaissance satellites *see artificial satellites*

recorders
see also data loggers; plotters; recording; tape recorders
digitizer, chopped impulse meas. errors *(Chinese)* 3764
foetal/maternal heart rate recorder for ambulatory 18564
ID-1 data recorder, high perform., develop. 25908
left ventricular monitoring, CsI radioisotopic ambulatory recorder 26360
mag. recording in severe environ., error stats. 14253
micro-extension meas. unit for Instron 1185 25969
stripchart recorder emulation; split screen, smooth scrolling 3924
waveform recorders digitizing, IEEE std. 25912

recording
see also audio recording; data recording; magnetic recording; traffic recording; video recording
asymptotic bounds on size of error-correcting recording codes 2384
EEG change points, max., posteriori estim. 26382
EEG predictability, adequacy of nonlin. forecasting methods 26405
EEG recordings, dissimilarity measure, nonlin. dyn. syst. approach 26381
event-related pot. estim. by random shifts and scalings 26380
foetal condition assess. and labour mgt., multicentre comparative study and intell. syst. 35137
opt. discs, land/groove recording, crosstalk suppression 39305
phase change opt. disk, mark edge recording waveform optimisation 30844

recording instruments *see recorders*

records management
see also document image processing
clinical record and integrated guidelines 33290
networked computing, transparent mistrust 16649

recovery
7.5 Gb/s monolithically integrated PLL/QW-HEMT clock recovery cct. 29341
CMOS analogue front-end for terrestrial/satellite integrated D2MAC decoder 34230
CMOS burst-mode clock recovery cct., 28.8 Mb/s PON 34104
emitter-controlled punch-through, fast switching PIN-diode soft recovery 30218
power diode, fast reverse recovery perform. characterisation 30219
power diode reverse recovery, charge anal. approach 30217
GaInAsP-InP inverted-rib LD, degrad. recovery 14847
Si power diodes, electron/He ion irrad. for local lifetime tailoring 30197
Si:B, ion implanted, defects, seq. annealing 13306

recrystallisation
see also recrystallisation annealing; zone melting recrystallisation
polysilicon TFT, ultralarge grain film, excimer laser recrystn., elec. props. 30285
SOI films prod. by ZMR, strain anal. 29977
Fe-Si steel, forsterite film form. and grain growth 14153
GaAs, Ar$^+$ ion implant. damage, ion-induced annealing 22092
GaAs:C, C activation, amorph. layer regrowth 30037
HgCdTe, quench recrystn. growth 5805
InP, Ar$^+$-sputter induced microprotrusions, struct., morph. 38547
InP:C, C activation, amorph. layer regrowth 30037
NiTi/Si thin film shape memory alloy syst., stress evol. 37533
Si layers, nanosecond laser radiation, surface morph., struct. modif. 28761
Si steel, (110) [001] grain growth 6936

recrystallisation continued
    Si:Au, mega-electron volt implant., backscatt. and electron microscopy study 6626
    Si:BF_2, high-dose BF_2 ion implanted, elec. dopant activation 1194
    Si:F, recrystn., at. redistribution, F 1s NEXAFS 38521
    a-Si:H films, recrystn. by XeCl excimer laser irrad. 28797
    a-Si:H, laser annealing, light-emitting Si prep. 23005
    Si:Sn(001), strain determ. and microstructural charact. 22150
    Si-based porous materials, anodization, etching 30085
    Si-on-sapphire films, SPE, recrystn. by annealing, props. 22076
    β-SiC layers on Si(100), ion implant., cryst./elec. props. 6623
    6H-SiC:Ge,Si, ion-beam irrad.-induced amorph./recrystn. 38504

recrystallisation annealing
    polysilicon:Ge films, ion implant. amorphized, recrystn. 13280
    Si, Er implant., solid phase epitaxial recrystn. 30015
    a-Si recrystn. by RTA/laser annealing/furnace annealing 22098
    Si:BF_2^+ amorphous ion-implanted layers, recrystn. kinetics 38464
    Si:P gate form. of MOSFETs, mech. stress simul. 38894

rectangular waveguides
    see also ridge waveguides
    2.5D scalar Helmholtz eqn., spectral Lanczos decomp. 23773
    3D EM problems, mesh generator, self-organising finite element tessellation 2170
    3D FEM soln. of Maxwell's eqns. for rect. waveguides 23795
    antenna array, RKA-driven, feeding syst. 31988
    antenna cavity, dominant mode waveguide loaded slots array 2348
    axially oriented whisker in waveguide mount, anal. for MM-wave freqs. 40397
    axially symm. four waveguide coupler design 30951
    broad wall coupler between dissimilar rect. waveguides, S-matrix 12714
    capacitive post and diaphragm anal. by method of moments 23777
    cct. design by combination of field theory and nodal anal. *(German)* 23784
    Cherenkov maser, rectangular grating, hybrid modes, dispersion relation 23070
    Cherenkov masers, rectangular gratings, and., expts. 7502
    chiral-material-filled rect. waveguide, EM wave propag. 31906
    coaxial-to-waveguide adaptor with probe/tuning post, anal. 21521
    complex waveguide ccts., low cost CAD *(German)* 23785
    crossed-slot antenna, paint-coated bar load, impedance 40477
    curved waveguides, eigenmodes and ang. propag. consts. *(Chinese)* 31909
    curved waveguides, eigenmodes and ang. propag. consts. 2300
    cylindrical microwave struct., semi-inversion method 15557
    cylindrical objs. dielec. meas. in rect. waveguide 18030
    D-fibre/buried waveguide vert. coupling, vectorial FEA 14415
    defects microwave detect. in glass reinforced polymer composites 37558
    dielec. loaded radial line slot antenna, slot coupling charact. *(Japanese)* 23854
    dielec. waveguides, scalar variational anal., Hermite-Gaussian modal approxs. 40403
    differential form of Maxwell's eqns. in rect. regions, soln. 31704
    discontinuities anal., isotropic/anisotropic obstacles 2299
    discontinuities anal. by method of lines 23794
    dispersion anal., compact FDTD tech. 23778
    edge-type scatterer in rect. waveguide, Yasuura method 8022
    EM dyadic Green fns., eigenfunction expansion 31904
    EM fields, elec. dyadic Green's fns.. 31905
    EM fields in waveguides, interactive visualization 29521
    EM scatt. by inductive discontinuities, num. anal. 8029
    EM wave scatt. by striplike resistive struct. 12689
    end- and centre-loaded slot antenna configs. 31917
    fast integral wavelet transform, waveguide mode ident. appl. 31902
    FEL, Israeli tandem electrostatic project, resonator design and characterisation 39949
    FEL with large μ_c planar undulator, waveguide appl. 39980
    ferrite loaded resonator mag. tunable filters, power handling capacity increase 29542
    ferrite-loaded multilayer planar line 2D-FDTD dispersion anal. 23811
    finite rect. array anal. with simultaneous integral eqns. 31976
    finite rect. phased arrays, mutual coupling effects 15673
    GTEM 1750, meas. field struct., anal. 15483
    H-plane jns. in rect. waveguides, scatt. props., anal. solns. 40422
    H-T pair coupled by narrow slot *(Chinese)* 37959
    hollow resonator, natural modes no. 2286
    HTS ferroelec. phase shifters, high power, config. 12707
    inductive discontinuities, finite thickness, refl./transm. phase charact. 23808
    inserted nonlin. dielec. slab, wave propag. 23807
    integrated optics, fibre coupling, mode matching techs. 39429
    Ka-band tapered gyro-TW amp., broadband operation 1002
    klystron amplifier, relativistic, at high power 21817
    long. magnetized ferrite loaded rect. waveguides 12699
    long. multilayered isotropic dielec. filled rect. waveguide 2303
    metallic waveguides, rect. boundaries, finite-difference anal. method 23791
    microstrip antennas, multi-layer dielec., reson. freq. *(Chinese)* 31951
    microstrip antennas, plasma immersion, vector Kirchhoff anal. 23885
    microstrip patch antennas, EM coupled feed struct. *(Korean)* 15638
    microstrip resonator with shear deform., FEA 29548
    microwave FEL, groove guide interact. struct. 39621
    microwave NDT, refl. props. of dominant TE_{10} mode 42914
    microwave rect. waveguide applicator for dielec. sheet materials proc. 5385
    miniature waveguide-antenna apertures, matching by air gap tuning 40499
    mitered E-plane bends in rect. waveguide, mode matching anal. 8028
    mode conversion 40423
    multimode equiv. network of inductive/capacitive multiple posts 31881
    multiple-slot narrow-wall couplers, 2D FDTD anal. 817
    mutual coupling between rect. waveguide elements, calcs. 8065
    natural modes calc. 40424
    nonorthogonal FDTD method, perfectly matched layer absorbing boundary conditions 40404
    NRD-guide/H-guide higher-order modes, phys. and nonphysical ranges 15607
    omnidirectional slot array antenna, moment method anal. 31959
    open and slit coupled T-jns., single port mode matching 31895
    opt. waveguides, effective index methods 30926
    optimal filters based on finite-thickness inductive diaphragms 12724
    partially filled rect. waveguides, external params. of offset connection 37955
    perfectly conducting corrugated surfaces, wave scatt. 40290
    profiled corrugated horns, full-wave modal-S-matrix CAD 23936
    radiating apertures, waveguide coupling, FEM/MOM tech. 40414
    radio wave atten. in rect. tunnels, mesh effects 31809

rectangular waveguides continued
    radio wave propag. in tunnel, rect. waveguide model 23643
    rapid pulsed microwave propag., time domain detect. 42915
    reflector antenna rect. hat feed for lin. polaris. and low sidelobes 23988
    relativistic electron beams, interactions with X-band microwaves 13000
    right-angle H-plane waveguide double bend 23772
    scatt. from rect. aperture in waveguide jns. 2302
    shielded CPW resonator anal. *(Korean)* 21525
    single mode fibre-rect. waveguide coupling losses, integrated optics 22837
    sizing finite cracks on metal surfaces, microwave tech. 42902
    skew rect. dielec. waveguides, transverse coupling 15594
    slot coupled narrow wall coupler, dissimilar rect. waveguides, comments and reply 12717
    slow-wave FEL with dielec. loaded guide, hybrid mode anal. 7693
    slowly evolutive waveguide reft. and transm. computation 23812
    sq./rect. core dielec. waveguide anal. by modified Fourier decomp. 31914
    sq./rect. core fibre scalar anal. by Fourier decomp. method 39325
    step-shape charact. calc. in rect. waveguide 8024
    surface cracks in metals detect., microwave method 37552
    tapered rect. transm. line, anal. 40396
    tapered waveguides, wall surface resist., charact. anal. *(Japanese)* 15584
    TLM method, appl., waveguide filter design/simul. 804
    transverse operator method for general waveguide problems 40419
    transverse slot in inhomogen. loaded rect. waveguide wall for array appls. 23771
    two-stage tapered gyro-TWTA, Ka-band, TE_{10} rect. waveguide 21846
    vector FEM, mixed-interpolation-type triangular-prism element 15566
    wideband polarizing phasing sects., charact. 12726
    WR-284 rectangular waveguide, air breakdown 21503
    X-band rect. waveguide, Maxwell's eqns., FDTD soln. 23814
    GaAs/AlGaAs hexagonal-facet laser with opt. waveguides, selective area metalorganic CVD 23214

rectification
    2.45 GHz power transm. rectenna perform. optim. 35610
    3.3 V DC/DC conversion, optimised sync. rectification 6003
    act. clamp forward converter, MOSFET sync. rectification 6002
    DAST, electro-optic crysts., opt. rectification, THz radiation scaling 22925
    diamond epitaxial Schottky diode on p^+-substr., rectifying charact. 6713
    edge type thin-film warm carrier detectors, fab. 34488
    high efficiency forward converter topologies 6001
    line current harmonic reduction, polyphase transformers 35445
    organic mol. rectification 12948
    photoconductive cryst. under spatially asymmetric illum., rectification property 22996
    polyaniline-p-styrenesulfonic acid composite, synthesis and Schottky diode appls. 28885
    telecomm. syst., on-board DC/DC PWM converters anal. 19823
    three-phase AC/DC power converters, harmonics reduction 19798
    trench VDMOST struct. with no quasi-saturation, anal. 38897
    X-ray tube filtration, simple test 26253
    AlN_3-Si, rectification following ion beam surface modif. 29980
    Co-SiC, interface microstruct., chem. and elec. props. 13213
    Ga/n-Si(111) diode, rectification obs. by STM 6717
    ITO/porous SiC blue LED, charactn. 14624
    InGaAs/InAlAs heterobarrier diodes, delta doping enhancement 30221
    InP waveguides, opt. harmonic mixers 23412
    $LiNbO_3$, electro-optic crysts., opt. rectification, THz radiation scaling 22925
    $LiTaO_3$, electro-optic crysts., opt. rectification, THz radiation scaling 22925
    6H-SiC-Ti semicond.-metal contacts, UV sensitive photodetectors 3846
    $SrTiO_3$ capacitors, leakage current, electrode contacts effect 12837

rectifier substations
    3 kV DC rly. traction systs., catenary harmonics ident. 20109
    elec. rly. traction syst., EMI assess. modelling 44548

rectifiers
    see also electrolytic rectifiers; mercury arc rectifiers; rectifying circuits; solid-state rectifiers
    1.5-7 kW HF ZVS full-bridge MOSFET-based rectifiers 19802
    2 kW series resonant converter, CO_2 gas discharge laser appl. *(Spanish)* 19877
    3.3 V DC/DC conversion, optimised sync. rectification 6003
    3 kV DC rly. traction systs., catenary harmonics ident. 20109
    3-phase act. power filter, sliding mode control 19759
    3-phase controllable bridge rectifier, μP based 5104
    3-phase DC clamped switch mode rectifier, IGBT 19747
    3-phase diode rectifier, power factor correction 19808
    3-phase PWM boost rectifiers, dual boost converter 19726
    3-phase PWM converters, small-sig. model, control 19760
    7 kW three-phase soft-switched telecom. rectifier 19799
    12-pulse traction rectifiers simul., Saber simul. 44554
    48 V, 200 A high dens. rectifier, PF correction 19864
    70 A telecom. rectifier, high efficiency 12337
    500 W-2 MW DATAPOWER UPS product family 19800
    1500 W single-phase rectifier, high power dens. 19865
    AC drives, on-line unity PF PWM rectifier 5305
    AC/AC converters, vector control, min. energy storage 19758
    AC/DC buck rectifiers, supply voltage imbalance anal. 5994
    AC/DC SCR bridge rectifier, common mode currents studies 19845
    act. clamp forward converter, MOSFET sync. rectification 6002
    act. clamp PWM forward sync. rectifier power converter 19822
    aircraft AC generators, forced power transfer, dyn. modelling 26657
    batt. charger facilities, asymm. current *(Russian)* 44160
    broadband multimedia communs., distrib. power archit. 44132
    broadband/multimedia services, power supplies 41994
    buck rectifier, unity PF, nonlin. ripple feedback 36244
    class D and class E rectifiers, efficiency comparison 5993
    class E half-wave low dν/dt rectifier, anal. 37621
    current source converter, patt. generator switching freq. minimization 19729
    DC converted power systs., energy conservation benefits 35615
    double-rectifier multilevel-voltage source diode bridge ccts. 19842
    DSP education spreadsheet package and TMS320C25 simul. 36918
    elec. railcars, regenerative braking, DC feeding syst. 36752
    electrothermal guns, capacitor charging, voltage/current control 19777
    emergency generators, rectifier supply, harmonic distortion 19536
    fan-cooled power systs., telecom appls. 19837
    fixed-freq. phase-controlled full-bridge reson. converter 19715
    flyback converters, soft switching, act. clamp cct. 6004
    force commutated three level boost type rectifier 19856
    force-commutated supply, cost-optimal control algm. 44118
    freq. inverter induction motor drives, voltage control methods 36656

rectifiers continued
- full-bridge series-reson. rectifier, telecom. appls. 19831
- full-bridge ZVS PWM DC/DC power converter 19852
- HF switching reson. power convertor, reson. rectifier appl. 44135
- high efficiency forward converter topologies 6001
- high power DC SMPS, electron gun appl. 19755
- high power FET/IGBT gate driver cct. 13701
- IEEE power electronics conf., Seattle, USA (June 1993) 36843
- induction motor ASD, design/anal., CASED simul. tool 5313
- induction motor drives, control, DC chopper 28081
- INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
- INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
- isolated high power boost topol., transformer models 19745
- LV high T_c supercond. DC transm. network 10719
- LV high-current DC rectifiers, transformer series connection 12336
- MCT phase controlled rectifiers develop. 27833
- multi-output DC/DC PWM ZVS quasi-reson. power converter 19824
- multi-reson. ZVS power convertor, rectifier deadtime controlled 44189
- multiple-output DC/DC power converters, stacked secondary anal. 19793
- notching current source AC/AC converters, soft switched PWM 19746
- parallel reson. power converter, half-cycle current control 19714
- phase-shift controlled converter input currents anal. *(Polish)* 36278
- PM rectifier motor, EM field/torque calcs. *(Russian)* 10920
- power supply, telecom. services appls. 19829
- power syst. reliab., rectifier perform. improvement 19053
- PWM current-source rectifier, input harmonic filter design 19851
- PWM rectifier, state feedback nonlin. control 11153
- PWM voltage-type rectifier, I-V control studies 19796
- PWM-rectifier, LCL-type line filter 27829
- quasi-reson. AC/DC forward power converter topol. 44145
- railgun air core compulsator, power electronics/controls 19783
- residential ASDs, simplified control scheme 5397
- single phase AC/DC converter, PF correction, reduced losses 44182
- single-phase composite PWM voltage source converter 19723
- single-phase telecom. supply PF correction cct. 41627
- slip energy recovery induction motor drives, harmonic anal. 11391
- SMPS power converters, planar integrated filter/snubber cct. 19763
- soft-switched current-fed PWM inverter, struct., appls. 19735
- soft-switched PWM current source rectifier/inverter 11145
- space power wireless power transm., microwave beam intens. calcs. 43416
- subway elec. supply, energy saving, batt. storage plant 44539
- subway trains, AC supply network, load impact eval. 28108
- switch-mode magnet power supply, modelling and control 29027
- switched power harmonic filters, anal., appls. 19741
- telecom. power supplies, digital current control 19797
- telecomm. power plant, supervision/control 19818
- telephone exchange rectifier syst., ring topol. 44192
- telephone network DC power supplies, modular, intell. 19871
- three-level rectifier/inverter, force-commutated 19733
- three-phase AC-DC low harmonic boost rectifier topol. 36275
- three-phase AC/DC power converters, harmonics reduction 19798
- three-phase AC/DC step-up power convertor anal. 36372
- three-phase AC/DC ZVS power convertor topol. 19839
- three-phase diode bridge rectifier, harmonic currents calc. 11119
- three-phase diode rectifier, PF/harmonics improvement 19850
- three-phase diode rectifier utility interface, harmonics reduction 19751
- three-phase IGBT rectifier, low harmonic pollution 19846
- three-phase isolated PWM ZVS buck rectifier 36243
- three-phase PWM boost rectifiers 11159
- three-phase PWM bridge-rectifier, harmonic minimization 19810
- three-phase PWM rectifier, unity PF microcontroller 44177
- three-phase rectifier, deadbeat neural net predictive control 11174
- three-phase series reson. act. power filter 19739
- three-phase single-switch rectifier studies 19847
- three-phase sync. generators, brushless excitation method 4928
- transient anal., diode modelling, SPICE-based 12325
- unity PF 3-phase dither rectifier, one switching device 19724
- unity PF boost converter control 19284
- urban rly. substation systs. 44508
- wind energy utilisation, fuzzy logic controller 36065
- ZVS PWM half-bridge power converter studies 44197
- ZVS PWM power converters, saturable reson. inductor anal. 19762
- GaAs power diodes, PF correction boost converter appls. 36284
- GaAs rectifier PF correction cct. tests 36324
- Pb-acid batt./rectifiers based DC bulk power plant 44190
- Pb-acid sealed batt. surveillance syst., POWCOM program 44301
- SiC-H aerospace power IC device structures 26587

rectifying circuits
- *see also battery chargers; rectification; rectifiers*
- 1.5-7 kW HF ZVS full-bridge MOSFET-based rectifiers 19802
- 1 kW third-harmonic modulated AC/DC power electronics interface 44213
- 3.3 V DC/DC conversion, optimised sync. rectification 6003
- 3-phase act. power filter, sliding mode control 19759
- 3-phase DC clamped switch mode rectifier, IGBT 19747
- 3-phase diode rectifier, input current waveform *(Korean)* 36366
- 3-phase diode rectifier, power factor correction 19808
- 3-phase PWM boost rectifiers, dual boost converter 19726
- 3-phase PWM converters, small-sig. model, control 19760
- 3-phase PWM rectifier, line current harmonics minimisation 44147
- 3-phase ZVS-PWM rectifier, reson. DC link, digital control 5068
- 7 kW three-phase soft-switched telecom. rectifier 19799
- 48 V DC reson. power converter distributed power supply 5049
- 500 W-2 MW DATAPOWER UPS product family 19800
- 1500 W single-phase rectifier, high power dens. 19865
- AC drives, on-line unity PF PWM rectifier 5305
- AC locomotive PWM rectifiers, harmonic current calcs. 36760
- AC/AC converters, vector control, min. energy storage 19758
- AC/DC buck rectifiers, supply voltage imbalance anal. 5994
- AC/DC PWM GTO power converters, high-speed train appls. *(Korean)* 28120
- AC/DC PWM power convertors, common mode conducted RFI emissions 5072
- AC/DC SCR bridge rectifier, common mode currents studies 19845
- act. clamp forward converter, MOSFET sync. rectification 6002
- act. clamp PWM forward sync. rectifier power converter 19822
- arc welding forward PWM inverter power source anal. *(Chinese)* 44633
- buck rectifier, unity PF, nonlin. ripple feedback 36244
- class D^2 DC/DC parallel reson. MOSFET power supply 44223
- class D and class E rectifiers, efficiency comparison 5993

rectifying circuits continued
- class E half-wave low dv/dt rectifier, anal. 37621
- Class E reson. rectifier with series capacitor, reson. DC/DC converter 12327
- Cockcroft-Walton rectifier cct., ripple, asymmetry 6026
- contact welding equipt., biperiodic rectifier anal. 11506
- continuous mode interleaved flyback power converter design eqns. 44214
- converter, branches current distrib., math. model 44130
- converters, opposed stars connection, anal. 11124
- current power converter transformers, short-cct. inductance calcs. 19771
- current source converter, patt. generator switching freq. minimization 19729
- current source PWM rectifier cct. studies 44181
- current-mode rectifier, improved precision 21111
- DC converted power systs., energy conservation benefits 35615
- DC motor drives, fuzzy speed/voltage control 28099
- DC/DC quasi-reson. ZCS power convertor topologies 44220
- DC/DC ZVS PWM full-bridge power convertor, MOSFET-based 5044
- double-rectifier multilevel-voltage source diode bridge ccts. 19842
- elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
- electrothermal guns, capacitor charging, voltage/current control 19777
- fixed-freq. phase-controlled full-bridge reson. converter 19715
- flyback converters, soft switching, act. clamp cct. 6004
- force commutated three level boost type rectifier 19856
- force-commutated supply, cost-optimal control algm. 44118
- full-bridge series-reson. rectifier, telecom. appls. 19831
- full-bridge ZVS PWM DC/DC power converter 19852
- Hercules capacitor bank pulsed power switch life test project 36459
- HF switching reson. power convertor, reson. rectifier appl. 44135
- high efficiency forward converter topologies 6001
- high power DC SMPS, electron gun appl. 19755
- high power FET/IGBT gate driver cct. 13701
- HV soft recovery rectifiers, motor control appls. 27802
- IEEE power electronics conf., Seattle, USA (June 1993) 36843
- input current harmonic distortion, stds. 44149
- LV high-current DC rectifiers, transformer series connection 12336
- MCT phase controlled rectifiers develop. 27833
- multi-output DC/DC PWM ZVS quasi-reson. power converter 19824
- multi-reson. ZVS power convertor, rectifier deadtime controlled 44189
- multiple-output DC/DC power converters, stacked secondary anal. 19793
- notching current source AC/AC converters, soft switched PWM 19746
- ozone-generator power source, current control 5099
- parallel reson. power converter, half-cycle current control 19714
- PM rectifier motor, EM field/torque calcs. *(Russian)* 10920
- power station auxiliaries, var. speed squirrel cage motor drives *(Polish)* 43819
- power supply, telecom. services appls. 19829
- pulsed power nanosecond semicond. opening switch develop. 36263
- PWM controlled AC/DC power converter, improved PF 5059
- PWM current-source rectifier, input harmonic filter design 19851
- PWM rectifier, state feedback nonlin. control 11153
- PWM rectifier/CSI motor drive, optimal design 11352
- PWM rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
- PWM reversible rectifier variable struct. control design 5054
- PWM voltage-type rectifier, I-V control studies 19796
- quasi-reson. AC/DC forward power converter topol. 44145
- railgun air core compulsator, power electronics/controls 19783
- regenerative DC drive, sinusoidal line current consumption 5321
- residential ASDs, simplified control scheme 5397
- reson. DC/DC power converter, Class D inverter, Class E rectifier 37627
- salient-pole sync. generator, time-stepping FEM anal. 19605
- Scott cct. in LV stabilized secondary power supply 5109
- series reson. DC/DC power convertors, perform. prediction 19708
- single phase quasi-reson. rectifier, unity PF 44146
- single-phase act. power line conditioners 10673
- single-phase composite PWM voltage source converter 19723
- single-phase IGBT switch-mode rectifier *(Japanese)* 11187
- single-phase SMPSs, PF correction, overview 6018
- single-phase switch-mode rectifier, voltage-reversal cct. 29020
- single-phase telecom. supply PF correction cct. 41627
- single-switch discontinuous-mode boost PF corrector 44211
- slip energy recovery induction motor drives, harmonic anal. 11391
- SMPS power converters, planar integrated filter/snubber cct. 19763
- soft-switched current-fed PWM inverter, struct., appls. 19735
- soft-switched PWM current source rectifier/inverter 11145
- soft-switched PWM rectifiers, perform. improvement 11173
- static power converter interactive control syst., computer simul. *(French)* 27800
- SVC develop. testing by simul. *(German)* 27879
- switch-mode magnet power supply, modelling and control 29027
- switched power harmonic filters, anal., appls. 19741
- switched-mode AC/AC voltage regulator, anal., design 5113
- telecom. power supplies, digital current control 19797
- telecomm. power plants, const. power rectifiers 44199
- telecomm. rectifiers, AC power line disturbance effects 44150
- telephone network DC power supplies, modular, intell. 19871
- temp. independ. current conveyor precision rectifier 5985
- three phase ASD PWM rectifier, neural net-controlled 5120
- three-level rectifier/inverter, force-commutated 19733
- three-phase AC-DC low harmonic boost rectifier topol. 36275
- three-phase AC/DC boost rectifier, feedforward-feedback control 36374
- three-phase AC/DC power converters, harmonics reduction 19798
- three-phase AC/DC step-up power convertor anal. 36372
- three-phase AC/DC ZVS power convertor topol. 19839
- three-phase bidirectional PWM power convertor config. 5126
- three-phase boost power convertor, interleaved switching topol. 5124
- three-phase bridge rectifier, self-excited generator appls. 11179
- three-phase bridge rectifiers, harmonic filter studies *(Polish)* 5995
- three-phase diode bridge rectifier, harmonic currents calc. 11119
- three-phase diode rectifier, PF/harmonics improvement 19850
- three-phase diode rectifier utility interface, harmonics reduction 19751
- three-phase distrib. networks, harmonic current reduction 4654
- three-phase double diode PWM rectifier syst. *(Japanese)* 36347
- three-phase four wire AC line conditioner, voltage controlled 19710
- three-phase GTO rectifier, harmonic distortion reduction *(Polish)* 27789
- three-phase IGBT rectifier, low harmonic pollution 19846
- three-phase isolated PWM ZVS buck rectifier 36243
- three-phase PWM boost rectifiers 11159
- three-phase PWM bridge-rectifier, harmonic minimization 19810
- three-phase PWM rectifier, unity PF microcontroller 44177

rectifying circuits continued
three-phase rectifier, deadbeat neural net predictive control 11174
three-phase series reson. act. power filter 19739
three-phase single-switch PWM rectifier develop. 5127
three-phase single-switch rectifier studies 19847
three-phase sync. generators, brushless excitation method 4928
thyristor AC/DC power convertor, naturally commutated, SVC appls. 43667
thyristor power converter, short-cct. current protection *(Polish)* 27790
transient anal., diode modelling, SPICE-based 12325
two-terminal large area power semicond. devices 518
unity PF 3-phase dither rectifier, one switching device 19724
unity PF boost converter control 19284
unity PF PWM rectifier, DC ripple compensation 44184
unity-PF PWM rectifier, DC ripple compensation *(Japanese)* 21098
VSI, shunt act. filter control, CAD 44186
wind power self-excited induction generators, rectifying bridge studies 36084
ZVS PWM half-bridge power converter studies 44197
ZVS PWM power converters, saturable reson. inductor anal. 19762
GaAs power diodes, PF correction boost converter appls. 36284
GaAs rectifier PF correction cct. tests 36324
SiC-H aerospace power IC device structures 26587

recurrent neural nets
see also Hopfield neural nets
Alphanet-HMM based continuous speech recogn. syst. 32262
bimodal speech recogn. expts., recurrent neural networks 32426
blind sigs. deconvolution, complex recurrent neural network 15915
cellular neural network with prog. control operator, VLSI implement. 6267
computer vision, pixel labeling, neural approach 33061
continuous speech classif., vis. mouth-shape related classes 32321
cortical amps., hybrid analogue-digital CMOS archit. 29482
digital commun. adaptive equalizers, recurrent ANNs appl. 32585
ECG, ischemic disease detect., neural nets 18545
gesture recogn., recurrent neural networks vs. competing techs. 35171
IPA, improved phone modelling, recurrent neural networks 32218
K-complex detect., multilayer perceptrons and recurrent networks 18544
knowledge-directed EEG sig. anal., recurrent context-learning neural networks 8246
long-term load forecasting, recurrent neural network 27112
Mandarin continuous speech, tone recogn., prosodic inform. 2423
Mandarin neural network-based F0 text-to-speech synthesiser 2432
monolithic speech recognizer, fully recurrent neural networks based 8242
neural network mapping, multiuser array beamforming 40907
non-lin. speech anal., recurrent radial basis fn. networks 8240
nonlin. adaptive prediction of nonstationary sigs. 32560
nonlin. speech predictors, recurrent nets 32425
nonstationary sig. sources, blind separation, neural net appl. 24351
pass. nonlin. elements for neural archit. 37912
power syst. mgt., voltage/reactive power neurocontroller *(Japanese)* 4529
power syst. voltage/VAr control, recurrent neural net-based 4512
power systs. loads, multi step ahead hourly prediction, adaptive recurrent ANN 35583
Prony sig. anal. appl. 24352
pseudo-segment based speech recogn. 32355
self-learning neuron-MOS neural networks, wt.-updating-lin. EEPROM cell 12676
speech recogn., generalized probabilistic descent method 32430
struct. detect. in rem. sens., recurrent neural net 24728
three-phase squirrel cage induction motor, adaptive vector control 36171
total least sq. problems, neural net for solns. 11970

recursive estimation
2-D noncausal Gaussian Markov random field model, param. estim. 33078
act. scatterers, detect./ident./tracking 34131
adaptive bilinear predictors 32773
adaptive phase control, RLS phase estim. 40799
adaptive road param. estim. in monocular image seqs. 41227
adaptive sig. proc., recursive algm. for lin. eqn. *(Japanese)* 24337
adaptive small-sample condition estimator for matrices, rank-one modifs. 32474
AR-modelling bispectrum estim., data segmentation 8249
asynchronous machine, params. ident., RLS method 27711
ATM multiplexer supporting bursty traffic, perform. computation 41427
ATM networks, real-time traffic estim. 41927
autoregressive spectral estimation fro NMR spectroscopy 24233
Bayesian recursive estim. of freq./timing 2553
chaotic sigs. MLE 24291
cyclic autocorrelation matrix, recursive waves risk param. estim. 40986
data compression, adaptive image sampling/interpolation 16387
DC motor, adaptive control, two stage ident. 27752
DC motor drive sensorless operation, Kalman filter-based 36674
decimation-in-time-freq. FFT algm. 32767
deconvolution, Bayesian decision feedback techs. 15892
digital mobile radio, model based adaptive channel ident. algms. 17100
discontinuous flow fields, recursive nonlin. estim. 24448
discrete cosine/sine transforms, fast recursive algms., further results 283
DSP algms. mapping onto multiprocessors, cost fns. 24225
dyn. interconnected systs., decentralized pole-assignment self-tuning controller 35560
exact nonlin. filters, theory and appls. 12644
exponentially weighted LS ident. of time-varying systs. 2463
extrapolative prediction-discrete sine transform coding, adaptive prediction *(Japanese)* 16299
forward/inverse DCT computation 15906
Gaussian AR noise, nonGaussian sig. detect., lattice struct. 40989
globally convergent adaptive blind filters and blind equalisers 2863
HDTV channel equalization, recursive Bayesian techs. 9734
HMM, on-line ident., recursive prediction error 8432
hydrogenerators, adaptive speed control, RLS ident. 43988
impulsive interf. mitigation, arbitrary IID state noise 8290
induction motor drives, digital adaptive control, transputer based 11379
land mobile commun., DFE, interpolation *(Japanese)* 17138
least sq. based subspace tracking 32470
least sq. estim., systolic array, formal derivation 28659
lin. systs. with non-Gaussian state and meas. noises, recursive estim. 40974
MA-model ident., modulated cumulants 24248
mobile radio commun., interf. canceling equalizer 9383
monocular param. estim. from intersections, planar surfaces 16117
motion field modeling for motion estim. and compensation 2842
motion from image seqs. and recursive affine struct. 24459
multichannel IIR filtering, Levinson-type algm. 8413

recursive estimation continued
multichannel subset autoregressions, seq. fitting, prewindowed case 24308
nonlin. autoregressive modeling and estim. in noise 2510
nonlin./non-Gaussian filtering and bootstrap filter 8464
nonstationary channels tracking, optimal windowed RLS algm. 17097
nonstationary MAP displacement vector field estim. algm. 33127
nonuniform image motion estim., Kalman filter formulation 2849
Northern American Digital Cellular Syst. adaptive algm. fading channel tracking props. 33825
obj. motion params. estim., Kalman filter *(Chinese)* 32805
orthogonal matching pursuit, wavelet decomp. 8272
periodic discrete event procs., param. estim. 40924
power syst. recursive load ident. method, computer-based 35427
projection approx. subspace tracking 24204
QR-RLS algm., stabil. anal., finite-precision arith. 8325
Rader's algm., recursive extensions, no.-theoretic transforms 28705
randomly time-varying channels tracking algms. 2466
reciprocal Gaussian procs., recursive filtering/smoothing 24293
reconfigurable knowledge database, nonlin. sig. proc. *(Japanese)* 24335
RLS adaptive equaliser digital commun., importance sampling 16409
RLS algm., wt. misadjustment, input sig. correl. effect 40843
RLS algms., error propag. anal. 8429
RLSL algms., comparative anal. regarding num. behavior 32480
robust recursive spectral estim., AR model excited by t-distrib. proc. 32774
rot. machine act. noise control studies *(Korean)* 27668
running bispectra computation and implement. 40849
segmentation-based predictive multiresolution image coder 16311
short-block digital transm., adaptive MLSE for mobile radio 3427
sinusoidal param. estim., real time cascade adaptive notch filter 2524
sparse systs., complexity-constrained LS estim. 42532
speech sigs., recursive formants tracking 32408
Sphinx-II recogn. search, integrat. semantic constraints 32369
spline based algorithm for spectrophotometry 25771
thermo-resistive solar radiation sensors identification 25805
time series, discontinuity location, recursive Bayesian method 41009
time-variant struct. matrices, instrumental variable method appls. 32485
time-varying channels, optimal tracking, freq. domain approach 15891
transit time estim. in multiphase flow, mixed modality scheme 25698
two scan algm. implement. on systolic array/multicomputer 12569
unequal-length multichannel δ_b-Levinson/Schur type RLS algm. 24310
uninterruptible power systems, fault diagnosis/prediction 27816
white stochastic proc., fourth-order cumulant, adaptive estim. 40861

recursive filters
2-D lin. phase IIR filter, symbolic computation routines, design 37885
2D backpropag. cascade adaptive recursive filters 6231
2D lattice filters, stabil. testing procedure *(Japanese)* 32589
2dimensional recursive orthogonal wavelet transform. 40927
act. acoustic atten., adaptive generalized recursive control syst. 32604
adaptive nonlin. recursive state-space filters 748
adaptive RLS filtering, iter. version of QR-decomp. 32479
aircraft motion estim., max., posteriori method 16358
arbitrary filter, approx., recursive implement. 15940
autoadaptive independ. component analyzer, analog CMOS implement. 21478
bal. model realization and truncations, cascaded polyphase recursive filters 21419
Bayesian recursive estim. of freq./timing 2553
bilinear filtering, adaptive algms. 32469
blind adaptive beamforming and equalization 9228
blind equalization, recursive Bayesian techs. 15943
CELP coders, backward adaptive lattice/transversal predictors 2409
chaos in signal processing, IEE Colloquium, London (1994) 19
chaotic sig. driven 16021
condition monitoring syst., multilevel knowledge base 17679
DCT, recursive struct. realization 32763
DCT realisation, recursive struct. 11897
DCT recursive filter, implement. 8412
decimation filter for sigma-delta converters, high fidelity 690
decorrelation algm. for blind DFE, lattice structs. 24264
denominator separable 2D IIR filters, design 40899
DHTs, generalised running and real-time analysers 29394
digital filter design, parallel allpass sects. and delay elements 29372
digital power syst. protection, sig. magnitude est. *(Polish)* 35671
digital recursive differentiators design, const. group-delay characts. 2521
dithered quantizers, and without feedback 16000
edge detect., relax. labelling tech. 41187
enhanced RLS tracking, parallel adaptation 32698
exact nonlin. filters, theory and appls. 12644
extended inverse QR adaptive filtering algm. 15983
FAEST, fast transversal algms., error generation and propag. 32699
fast converging low complexity adaptive filtering algm. 15987
fast transversal filter for decision feedback equalization 15942
forward digital lattice struct. for IIR digital filter synthesis 749
gamma filter for echo cancellation in subscriber loop 33674
Gaussian discrete fields in Gaussian noise, recursive filtering 41029
genetic algms. for recursive digital filters 16059
gesture inputs ident., HMM 8212
high sample rate archits. for median filters 29379
high-speed IIR digital filters, arith. designs 29375
Hurwitz polynomial, very strict, 2-variable, computationally efficient derivation tech. 28559
IIR digital filters, time-domain pipelining tech., stabil. 6225
IIR dispersive channels, min. Euclidean dist. of modulated sigs. 15709
image segmentation, Canny-Deriche filter and ANN appl. 33054
image seqs., noise reduction, motion compensation/sig. decomp. 32874
least-sq. lattice interpolation filters 32754
least-sq. lattice interpolation filters 12654
lin. time-variant digital filters synthesis 2527
lin.-phase recursive digital filters, design 29385
magnitude sq. design, Chebyshev norm, Remez algm. 24186
matched filters in IR detecting systs., simulated evol. design 29362
median/weighted median filters, convergence props. 8427
multirate filters design, operational-graph approach 12657
nonlin. recursive smoothing filters, perform. anal. 6238
nonminimum-phase syst. ident., adaptive allpass filtering 2565
opt. flow, recursive filters 16294
orthogonal block adaptive line enhancer, LMS adaptation 8354
orthogonal wavelet fn., IIR digital filters implement. *(Japanese)* 2459
parallel systolic algm. implement., RLS lattice example 37886

recursive filters continued
parallelizable adaptive least sq. algm., tracking abilities 32751
phase approx. via Remez algm. 32626
purely recursive digital filter testability 21442
QR-decomp. based adaptive bilinear lattice algms. *(Korean)* 37876
QRD-RLS/STAR-RLS adaptive filters, fixed/floating point error anal. 32700
reciprocal Gaussian procs., recursive filtering/smoothing 24293
reciprocal seqs., Kalman like filtering/smoothing 40873
RLS adaptive bilinear filters, stabil. result 8394
RLS algm. based on var. characts. of room impulse response 32749
RLS weighted algm. for speech proc. 32447
RLSL algms., comparative anal. regarding num. behavior 32480
RLSL prediction filter, a posteriori, error accumulation effects 24302
second-order digital filter sects., sum of power-of-two coeffs., low roundoff 758
semi-anal. recursive algms. for convolution calcs. 37870
separable 2D recursive digital filters, zero-phase approx. 37866
separable-denominator 2D adaptive filters, appl., noise reduction in images 41324
SHSER, algm. for adaptive IIR filters 753
sigma-delta A/D converters, VLSI decimation filter 691
speech echo cancellation, adaptive-filtering techs. 32411
stochastic discrete-time systs., optimal filtering 8404
time-freq. methods for dyn. systs. 24257
transversal filter algm. for recursive LS adaptive filtering 2531
vectorized systolic array for block constrained RLS 32752
Yau filters, finite dimens. recursive type 8442
zero-phase recursive 2-D variable filters, quadrantal symms., design 29387

recursive functions
see also recursive estimation
adaptive filtering, FFT/displacement struct., subsampled-updating RLS algm. 2552
DCT, recursive algm. 40872
DCT with regular struct., recursive algm. 5798
differentiators, design, quadratic prog. 763
discrete sine transform, regular recursive algm. 8297
discrete sinusoidal transforms 8331
dual polynomial bases 5767
edge intens. and gray-level thresholds selection, recursive algm. *(Japanese)* 2620
EM multiple scatt. by dielec. spheres random distrib. 31795
finite acyclic diagraphs training 20558
ident. algm. for unknown lin. MIMO systs. *(Korean)* 24339
multidimensional transfer fns., inversion of continued-fraction expansion 5940
multiple-way partitioning, general-purpose iter. improvement algm. 612
nonlin. cepstral equalisation method for noisy speech recogn. 2434
open circ.-cylindrical cavities, recursive aperture formulation 15392
piecewise-lin. resistive ccts., nonseparable transistor models 21092
power syst. load modelling, cumulant-based probabilistic simul. *(Chinese)* 35449
real-time array proc., recursive const. modulus algm. 8352
real-valued decimation-in-time/decimation-in-freq. algms. 8437
recurrent computations, coprocessor design 37807
seq. codes, lossless compression, OPTA fn. 32121

recycling
920 MW Hwange thermal power plant, fly ash Al extraction 35992
aq.-saponifier post-solder defluxing, waste water effluent testing 38143
batt. design, environ. factors 19926
batt. elec. vehicles, future technol. modelling 28142
cement indust., innovation advancement, public rels. role 181
cement indust., waste fuel burning, economics 5423
Ecofactory concept, ecologically conscious mfg. 37062
elec. vehicle secondary batts., recycling infrastructure, USA 44511
electrochem. methods, environ. appls. 20502
electronics indust., environ. design considerations 28547
electronics scrap recycling, OEM reclamation programmes 11886
environ. pollution prevention/reduction, elec. procs. *(German)* 44641
glass recycling, elec. heating appls. 28199
green IC fab., recycling/environ. contamination control 37208
green strategies for electronic products' energy and end of life 11887
metal recovery/water recycling, electronics mfg., integrated solns. 11885
municipal wastes ash recycling, integrated monitoring/control syst. *(Japanese)* 183
PCB recycling strategy, resource param., life cycle assess. 37209
PCB semi-aq. cleaning proc. control, closed-loop water recycling syst. 919
portable equipt. secondary batt. cycle life, waste reduction impact 44274
product design for recyclability and its appl., cost-benefit anal. model 5713
semi-aq. flux cleaning, equipt. considerations and rels. 6425
tetrachloroethylene-contaminated soil remediation by soil vap. extraction 37211
two-colour near-IR sens., recycled plastic waste sorting 25844
used power cable quality determ., field tests 4685
waste mgt., recycling/conversion technols. 20503
waste water recycling systs. for electronics defluxing procs. 6429
waste-to-energy recycling plant project, Lebanon 27572
water-in-oil emulsion separation, microwave heating-based 44595
Al scrap electrorefining, chloride melts-based 28193
Ni-Cd secondary batt. recycling, high-temp. recovery experience, USA 44273
Ni-Cd secondary batts., collection/recycling efforts, USA 44272
Pb-acid batt. manufacture, scrap Pb recycling 36535
Pb-acid batt. scrap recycling, low-temp. tech. 36536

red shift
DFB laser chirp pulse pattern dependency, modulation and transm. perform. *(Japanese)* 39801
MQW electroabsorption modulator, transm. performs. and chirp param. 1740
phthalocyanine films, MBE growth/photoelectrochemical procs. 20811
Ag_2As-As_2S_3 glasses, opt., elec. props. 38264
GaAs/AlGaAs QW wires, form., photolum. charactn. 20819
GaAsN, low-press. metalorganic CVD growth, plasma-cracked N_2 20730
GaN:Mg on GaN substr., metalorganic VPE growth, opt. props. 20754
$GaP_{1-x}N_x$, MOVPE 342
$GaP_{1-x}N_x$/GaP quantum wells, MOVPE 342
InGaAs VCSEL, gain/reflectivity, press./temp.-induced detuning 39796
InGaAs/GaAs piezoelec. MQWs, nonlin. opt. response, screening, and strain 15081

red shift continued
InGaAs/GaAs quantum wells on GaAs(111)A, MBE, photolum. 12125
$Rb(Ti_{1-2x}Ln_xNb_x)OAsO_4$, defect chem., opt. props. 7774
ZnTe:N grown by MBE, N incorporation, Ar dilution in N plasma source 1212

reduced gravity experiments *see zero gravity experiments*

reduced instruction set computing
32-bit RISC proc., embedded control systs., CMOS VLSI implement. *(English)* 37795
A2A3 air traffic control testbed using embedded AI technology 10418
Apicius project, asynchronous logic/proc. archit. research 29125
ATM LANs, protocol/interface 3192
Bulgaria, nuc. plant analyzer program 35839
CMOS 1.2 GIP general purpose digital image proc. 21374
CMOS 2.2 W, 80 MHz superscalar RISC μP 6178
CMOS array proc. for digital image compression 29247
CMOS multitask micropower μP, hardware scheduler 29304
CMOS μP, energy-efficient instruction set archit. 12566
CMOS μP, ESD protection ccts. 21348
CMOS RISC proc., 500 MHz, 32 bit, 0.4 μm design 6180
digital AC servo motor for welding robots *(Japanese)* 11078
distributed Ada, implement. 26538
DSP chip supporting RISC/DSP type instruction sets *(Japanese)* 12561
four issue superscaler RISC μP, embedded memory design in CMOS 29280
FR20 series high-perform. microcontroller for multimedia commun. *(Japanese)* 12581
GFLOPS, real-time image proc. parallel VLSI archit. 29272
gigabit router archits. comparison 24842
GMICRO/500 microprocessor application system, graphic primitives evaluation 29257
GMICRO/500 microprocessor performance evaluation for CTRON based kernel 29256
GVIP, scalable high-perform. graphics proc. 21366
hierarchical multiprocessor archit. for video coding 33698
MC68356 integrated DSP/RISC microcontroller, V.34 modem appl. 9118
MCM-L technols., myths/experiences in multiple product scenarios 21746
MicroSPARC RISC μP, scan based debug, case-study 6162
microSPARC testing and debugging, use of scan, case-study 6165
multimedia video proc., parallel archit. DSP chip 21372
multistreaming RISC proc., VLSI, pipeline execution 2846
μP, single event effects/perform., space appls. 6182
NexGen's NX586 challenges Pentium *(Chinese)* 662
parallel error-correction archit. for digital avionics 10364
pick-and-place design methodology for complex VLSI archit. 21167
PLL clock generation syst. for 500-MHz RISC proc., 1.5% jitter 29337
portable MaxiCode reader, proc. selection 25751
POWER2, fixed-point/data cache/storage units 671
POWER2, IBM RISC System/6000 series 670
POWER2 floating-point unit, archit./implement. 672
POWER2 IBM proc., perform. monitor 674
POWER2 proc. instruction cache unit 673
power system state estimation weighted least square methods 19022
PowerPC 603 μP, struct. and ad-hoc design for test 6163
PowerPC 620 μP, high perform. superscalar RISC μP 29300
realtime MPEG video via software decompression on PA-RISC proc. 33656
recurrent computations, coprocessor design 37807
RISC-pipeline conflicts verification in HOL, implement. issues 41504
service adaptive access SLIC, CMOS prog. DSP, oversampled ADC/DAC 21378
SH7600, RISC microcomputer for pers. commun./multimedia eqpt. 12582
sigma-delta codec for mobile telephone appls., design 3276
smart act. matrix LCD for Space Shuttle 10355
SOG-based RISC pro. tested for failsafe appl. 21344
space/aircraft actuators, integrated control *(French)* 10952
std. product MCMs for multiple customer usage in diverse appls. 6467
test synthesis, data transfer anal. based behavioral description 29198
UltraSPARC μP, visual instruction set 29288
V810 CMOS 32-bit RISC μP, 0.9 V, 2.5 MHz 37811
Cu/photosensitive-BCB thin-film multilayer technol. for MCMs 21714
GaAs HMESFET SBFL based F-RISC/I microproc. 37802
GaAs high perform. comput. and commun., ARPA research 38957

reduced order systems
CD player, robust multivariable controller design 17615
digital seq. reduced-state seq. estim. 40535
FIR-to-IIR filter order reduction, methods 32793
multilayer perceptrons, dimens. reduction 24055
narrow-band lin. phase FIR filter, conversion, IIR filter 24307
power syst. model reduction, Hankel-norm approx. 4493
power syst. stabilisation, variable struct. output feedback control 19090
power systs., nonlin. reduced-order observers, design theory 43683
sing. perturbed continuous time systs., discrete time observers 27692
solar collector dyns. ident., phys. model-based approach 27974
sq. root filtering in space-time estim. 16068
VLSI layout verification package, BEM for 3D capacitance and substr. resist. calcs. in inhomog. media 21023

redundancy
see also bandwidth compression; data compression; logic design
600 MW cross cpd. generator, static excitation 19601
777 Autopilot Flight Director System 10336
algm.-based fault tolerance (ABFT) 32493
Alpha AXP 21164 μP, testability strategy 6160
analog VLSI, fault-tolerant dyn. multilevel storage 6253
B-procs., universal redundancy rates nonexistence 40674
Cassini spacecraft, command and data subsystem 10367
CDMA coded packet cellular networks, code rate optim. 25384
CMOS FIR/IIR filter power minimization, architectural/computational transforms. 29373
CMOS total self-checking design 22566
combinat. ccts. redundant faults, test generation 12447
complex two-unit syst., random breakdown of repair facility 11855
concurrent error detect. in serial-parallel multipliers 37704
constrained joint source/channel coder design 15719
continuous speech recogn. via word preselection method *(Japanese)* 32442
differential image bitrate reduction by interleaving DCT coeffs. *(Korean)* 2824
digital cellular syst., channel/speech coding combination 8192
digital equipt., error correcting tech. 24024
digital microwave radio symbol-rate-increased TCM scheme 42148
digital orthogonal transform. instrumental control *(Russian)* 16052

redundancy continued
discrete interface devices 10358
distributed power systs.-benefits and challenges 10675
embedded RAM, self-diagnostic BIST memory design scheme 37754
facsimile high-speed image codec 16946
fan-cooled power systs., telecom appls. 19837
fault-detecting network membership protocols, design/anal. 41522
fault-tolerant sig. proc., redundant finite rings 29244
fault-tolerant systolic array multiplier, time redundancy 12412
fault-tolerant VLSI/WSI array proc., design and anal. 6829
FEC 2381
FPGA SEU hardening for space appls. and device charactn. 12478
fuzzy ES for hydrostatic level meas. *(German)* 18160
gradient/curvature, photom.-stereo method, local confidence estim. 2603
HDTV, adaptive coding algm., quantizer vector codebook *(Korean)* 42602
hierarchical environ. for interactive test engng. 6821
home-use digital VCR, SBC with block-adaptive quantization, image data compression *(Korean)* 34282
Hyeti defect tolerant μP, cost-effectiveness anal. 6168
image coding, directional ADPCM 24504
image proc., inform. theoretic approach, space-freq. localization 32838
instrum. fault detect., designers' decision aid 34331
instrum. fault detect. in nonlin. dyn. systs. 20472
joint source/channel coder design 40589
kinematic GPS, resolving cycle slips, redundant satellites *(Japanese)* 42538
least-sq. lattice interpolation filters 32754
Lempel-Ziv fixed-database algm., redundancy/distrib. 32021
majority voting based VLSI fault-tolerant ccts., reliab. 641
mesh-restorable network spare capacity placement strategies 41550
mobile radio channel, still image transm., unequal error protection coding *(Japanese)* 42293
modular SMPS, opt. submarine cable appls. 19836
monolithic pipelined ADCs, digital correction archit./algm. 37817
MPEG compressed video, picture-header loss, error concealment strategy 16073
MS90 digital control syst. *(Japanese)* 4839
multi-camera 3D images, data compression scheme 8649
multilevel logic optim., redundancy addit. and removal 21202
multiple-line redundant combinat. ccts., anal. 6129
multiscale image restoration by A Trous algm. *(French)* 16223
N-tuple modular redundancy systs. reliab. modelling 37185
nonredundant error correction DQPSK for aeronautical-satellite channel 33945
overcomplete pyramid image representation, error correction 32827
partitioned/parallel CRC, VLSI implement. 645
power syst. meter allocation, genetic algm. 43712
power syst. state estim., quantitat. local redundancy eval. 26885
priority standby redundant syst., different types of repair facilities, stochastic behaviour 28531
proximity sens. syst. for spatial sens. and colour perception 42776
pyramid encoding by LRAAM neural net 16187
quantitat. image assess. based on redundant, meas. and stat. reasoning 24422
RAID controller appls., nonvolatile SRAM appl. 21309
RAIN (redundant array of inexpensive networks), multitraffic perform. 24949
SAW filter matrix for satellite SS/FDMA syst. 14092
scan designed logic ccts. under logic value constraints, test pattern generation *(Korean)* 12408
seq. redundant fault ident., test generation 12442
SONET, network survivability 41562
speech pattern anal. for four south Indian langs. 32284
subscriber interface, ARINC 629 current mode bus 35229
sync. seq. ccts. testability 6104
syst./subsystem/component burn-in modelling/maximisation 28427
telecom. power convertors, MOSFET-based voltage coupling 19825
TMN appl., highly reliable distributed switching node 41667
transport aircraft systs., power electronics implement. 43451
two-unit syst. with internal/external repairs, inspection and post repair, profit eval. 11851
universal noiseless source coding, redundancy rates 40675
universal redundancy rates for class of B-procs. 32006
untestable faults ident. without search 6076
variable-redundancy hybrid ARQ, invertible convolutional codes 17055
VLSI manufacturability, component level yield/cost model, mixed technols. 28409
WSI systs. with redundancy, fig. of merit for yield eval. *(Japanese)* 30429
GaAs ACT transversal filters, yield model 39118

redundancy theory *see redundancy*

redundant number systems
16-bit CMOS divider/sq.-root cct. design 6171
CMOS 8×8 multiplier, redundant binary no. rep. 6136
CMOS chip set for pipeline and parallel pipeline FFT archits. 21357
CMOS digital redundant random no. generator 29204
CMOS VLSI array proc. for basic arith. operations, redundant no. syst. 29265
divider design, DCFL GaAs and CMOS implement. comparison 29201
high-speed arithmetic codec archits. using interval tree search 42087
multi-bit parallel adder, symmetric signed-digit nos. 6065
prescaled max.-redundant radix-4 SRT divider 615

Reed-Muller codes
1st order Reed-Muller code decoding on SIMD machines 8115
block runlength-limited error control codes, trellis decoding 2373
bounded-dist. decoding algm. for lattices 24051
combinat. S_n-modules as codes, Specht modules 40584
fixed-polarity AND/XOR canonical networks minimisation 599
FPGA logic implement., optimisation techs. based on genetic algms. 6108
generalized multiple concatenated codes based constr. 24102
Hermitian code for burst errors, decoding 40661
multilevel-coded quaternary partial-response sigs., soft-decision multistage decoding 8174

reed relays
conf., Newport Beach, CA, USA (1993) 5446
multi-reed switch, contact erosion/spatial mag. field var. 29636
power contactor armature posn. sens., rem. auxiliary contacts 29645
RF reed relay for antenna-transmitter power amp. matching 29642
Rh-plated reed switch contact, surface deactivation-induced phenom. 29634

Reed-Solomon codes
6 Mb/s ADSL, constellation TDM 16922
8PSK-TCM modem, develop. and transm. perform. 25156

Reed-Solomon codes continued
(31, 9) RS codecs, fast prototyping complex digital systs., FPGAs 6117
alg. geom. codes, generalized Berlekamp-Massey decoding 40656
binary wt. spectrum of extended $(2^m,5)$ RS code and dual code 40633
bit error probab., RS/trellis concatenated coded-modulation syst. *(Korean)* 32196
CDMA cellular systs., concatenated RS/convolutional coding 9358
CDMA systs., optimum PN seqs. 25233
complete wt. distrib. of RS codes, derivation *(Japanese)* 2367
concatenated coding syst., modified erasure declaration Viterbi decoder 8173
coord. codes based, subfield-level decoding 40616
CT2 syst. for data services, perform. 3495
decoding, fast parallel algms. 40618
digital FM transm., Rayleigh fading, RS codes appl. 25346
digital VTRs, ECC, pipelined decoder *(Japanese)* 9747
double error correcting RS decoding without Chien search 2400
DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
DS-SSMA commun. in Nakagami fading channels, path diversity 9345
DS-SSMA diversity commun. in fading channels, error perform. 3357
DS/CDMA prototype syst. for voice/ISDN sigs. 3320
DS/FH-CDMA syst., fading channels, near-far problem *(Japanese)* 25210
encoding of codes on curves 40660
EVENODD, efficient scheme for tolerating double disk failures in RAID archits. 22703
fast FH/CDMA systs. in mobile radio environ., efficiency 17086
FH packet commun. syst. capability in fast Rayleigh fading environ. 41461
freq. hopped TDMA cellular syst., down-link capacity 9285
freq.-hop commun., correl. fading 17024
geometric Goppa codes, improved 40655
Grobner bases, alg.-geometric codes decoding 40658
helical-scan digital video recorder, playback, channel investigs. 17593
Hermitian code for burst errors, decoding 40661
land mobile radio, RS coding for CELP error detect. and control 33832
land mobile satellite commun. channel, M-ary FSK perform. 25401
M-Choose-T commun., multiple-access adder channel 32098
MFSK signalling for RS coded freq.-hopped multiple-access commun. 2891
mobile radio commun., speech/channel coding 3346
mobile radio postdetection diversity/concatenated channel coding 3341
multi-D trellis decoder for 155 Mb/s concatenated codec 33684
multilevel block codes for Rayleigh-fading channels 15768
multiple file copies comparison, min. commun. 41520
multiresolution modulation/concatenated coding, decoding algms. 8683
noisy (1,7) constrained channel, concatenated coding, perform. 40652
on-the-fly error correction in hard disk data storage channels 30734
opt. direct-detect. channel, coded multi-pulse PPM perform. 8170
opt. PPM, PIN-FET receivers 9606
parallel combinatory SSMA systs., Rayleigh fading channel, perform. eval. 25244
periodic unit memory codes, max. free dist. 8143
prime no. blocklength RS code, FT algm. 40617
S-CDMA fibre optic systs., seq. designs 2892
self-checking decoding algm. 8141
slotted freq.-hopped PRN, random/deterministic, anal. 17010
slow freq. hopped TDMA cellular syst. perform. 33827
soft decision trellis decoding 2374
systolic-array, RS decoder 25159
trans-oceanic opt. systs., forward error control 42449
two-level coding based on TCM and RS codes 15766
Si chip digital end-user mobile commun. syst. 42193

reed switches *see reed relays*

reel-to-reel tape recorders *see audio tape recorders*

reeling *see winding (process)*

reentrant superconductors *see magnetic superconductors*

reference circuits
bandgap ref. temp. drift decrease, on-chip analogue ROM 12324
CMOS bandgap ref. cct. for LV appls. 29045
CMOS integrated micropower batt. monitor cct. 21112
DRAM variable precharge voltage sens. 12515
LV analog ICs for 3 V systs. 771
LV bandgap regulators using only n-p-n transistors, perform. 37622
RTD-bootstrapped MESFET current/ voltage refs., self-bootstrapped config. 530
RTD-bootstrapped MESFET I-V refs., mirror-based 531
TCXO with quartz cryst. resonators, cellular telephones appl. 39106

references (standards) *see standards*

refining, oil *see oil refining*

reflectance *see reflectivity*

reflected binary codes *see Gray codes*

reflection
see also acoustic wave reflection; electromagnetic wave reflection; reflectivity
quasi-phase-matched SHG by backward propag. interact. 31559
shape/pose recovery from shading, contour 2759
SLM, wavefront curvature control 30991
terrain surface albedo retrieval method 43481

reflection high energy electron diffraction
chem. beam etching, monolayer control, cation diffusion 13381
II-VI cpds. MBE, in-situ charact. 20908
MBE facility, two synchronized modulated beams 37390
picosecond electron gun for surface anal. 29759
semiconds., MBE, fast step-vel. oscills. 28729
AlAs, MBE, dyn. surface procs., time-resolved RHEED 20872
AlGaAs, MBE-grown, As capping 1286
$Al_xGa_{1-x}As$ layers on GaAs(001), MBE, in situ reflectance anisotropy 37442
BaF_2, epitaxial growth on GaAs(100)/(111) 37394
$BaTiO_3$ films on Pt, epitaxial growth and dielec. props. 12099
$Bi_2Sr_2Ca_{n-1}Cu_nO_x$ thin films, MBE growth mechanism and control *(Japanese)* 5817
C_{60} single cryst. films on GaAs(111) substrs., MBE epitaxial growth 376
C_{60}, thin film growth, MBE growth, film struct. 37395
C_{70}, thin film growth, MBE growth, film struct. 37395
3C-SiC epilayers fab., elec. props. *(Japanese)* 372
CaF_2/Si(111), epitaxial growth mechanisms and struct. 5836
CdMnTe(001), MBE growth, struct., opt. props. 37392
CdTe, monocrystalline films, ICB epitaxy *(Chinese)* 5813
CdTe/GaAs(100) heterojunction growth, Si interface layers 21966
CeO_2/Si(111), epitaxial oxide film, elec. props. 13229
CeO_2/Si(111), laser ablation deposition, growth mode 38445

reflection high energy electron diffraction continued
Co/CoAl mag. superlattices on GaAs 7044
Fe-silicides, depth-selective conversion electron Mossbauer spectrometry 38677
Ga(Al)As, MBE growth on (001) surface, dyn., RHEED study 37436
GaAs, CBE, tris-dimethylaminoarsenic 28738
GaAs, MBE at 250°C, growth, charactn. *(Korean)* 28782
GaAs, MBE, dyn. surface procs., time-resolved RHEED 20872
GaAs MBE growth monitoring, single photon ionization TOF mass spectrosc. 28723
GaAs MBE growth on B, RHEED intens. oscills. 20851
GaAs MBE heteroepitaxial growth on vicinal Si (110) substrs. 5843
GaAs, MBE, low temp. limit 366
GaAs, MBE, surface diffusion, adatom stoichiometry, microprobe-RHEED/SEM MBE obs. 20682
GaAs, MOMBE selective growth, GaN mask 20666
GaAs, MOMBE using triethylgallium, trisdimethylaminoarsenic 28726
GaAs, epitaxial growth, surface SHG study 37429
GaAs growth mechanism on (110) GaAs, RHEED and AFM 20858
GaAs heteroepitaxial MBE growth on GaP, growth mode transit. *(Japanese)* 37408
GaAs selective epitaxy on GaAs (111)B substrs., in-situ obs. 20874
GaAs:Si, decoration phenom. during planar doping, magnetoresist. effects 13285
GaAs/AlAs, epitaxial growth on corrugated semicond. surfaces, RHEED obs. 318
GaAs/GaP(001), MBE growth 37427
GaAs(001), Sb-terminated, Ga/As surface reacts. 21900
GaAs(001), epitaxial growth, kinetic models 28775
GaAs(001), metalorganic VPE/MBE growth, surface procs. 20722
GaN, GSMBE 2D growth, RF-radical nitrogen source 37433
GaN films, low-press. metalorganic CVD 419
GaN on Si(001), ECR plasma-assisted MBE growth 20898
GaSb MBE, at. layer depositions, time-resolved RHEED 20873
Ge (001) GSMBE, growth kinetics/surface roughening 20864
Ge (001), oxid., surface roughening 13364
Ge/Si(100), gas source MBE, RHEED oscills. 12074
HgCdTe films, growth by MBE, ellipsometry 5819
InAs nonplanar substrs., MBE, In inter-surface diffusion 20877
InGaAs surfaces, MBE growth on InP substrs. 20853
InP, migration enhanced epitaxy, charactn. 12072
InP, undoped, low temp. ALMBE growth 20746
InSb, high quality, MBE growth 12077
$LiNbO_3$ strongly proton exchanged planar waveguides, opt./RHEED study 39462
MgO on GaAs(001), integrat. thin film ferroelec., semiconds. 12123
Mn/GaAs(001), FCC Mn films, stabilization via MBE growth 13414
PbTe, MBE growth 5847
$PbTe/Pb_{1-x}Eu_xTe$ multi-quantum wells, MBE growth 5847
PbTe(111), MBE, RHEED intens. oscill. obs. 20749
Si MBE on GaAs(001), submonolayer coverages 28746
Si MBE on Si(111), RHEED/Monte Carlo anal. 20736
Si, SR-excited ALE, temp. effects 20710
Si, sub-ALE, Si_2H_6 20700
Si wafer surface cleaning/epitaxial growth in UHV ECR CVD reactor *(Korean)* 13331
Si:B(001)2×1, gas-source MBE, B-incorporation, elec. props. 38506
Si/Al_2O_3 heteroepitaxial double SOI struct., press. sens. 38433
Si/Ge abrupt interface form., at. H in Si MBE 12039
Si/Ge epitaxy from gaseous hydrides, growth dyn. studied by RHEED 5853
Si(100), carbonization, solid source MBE 20902
Si(111), surface reson., RHEED intens. oscill. 37448
SiC GSMBE, thin film growth mode, polytype form. 5812
SiC heteroepitaxial growth on Si, gas source MBE, hydrocarbon radicals 37450
β-SiC layer growth by Si surface carbonisation, RTP 20981
$Si_{1-x}Ge_x$, pseudomorphic growth on Si(001), crit. thickness 305
$SrTiO_3$, at. regulated layer-by-layer growth on a-axis oriented $YBa_2Cu_3O_{7-\delta}$ 20963
ZnO films on diamond (111), heteroepitaxial growth, magnetron sputtering 368
ZnS, MBE on GaAs(001), struct., opt. props. 20807
ZnS, epitaxial layers on (100) GaAs, ALE 28769
ZnS film MBE on arsenic passivated silicon surfaces 37451
ZnS(Se), low temp. MBE on GaAs, hot mol. beams *(Japanese)* 37413
ZnSe epitaxy on GaAs (100), ICB *(Chinese)* 37403
ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412
ZnSe/ZnMnSe MQW structs., MBE, opt. props. 28744
ZnSe-based alloys, wide-gap II-VI materials, MBE growth, charactn. 20910
ZnTe epitaxial growth mechanism on (001) CdTe 37441

reflection spectra *see reflectivity; spectra*

reflectivity
see also electroreflectance; photoreflectance
3D illuminance anal. syst., ray tracing method *(Japanese)* 42880
980 nm Bragg fibre grating coupled diode laser wavelength and intens. stabilisation 9431
1550 nm QW lasers, temp. depend. loss and overflow effects 7631
act. mode-locked LD array in the external cavity, pulse buildup dyn. 23284
antiresonant reflecting opt. waveguide polariz. splitter 22898
apodised in-fibre Bragg grating reflectors, photoimprinted 22812
asymmetric gain-levered quantum-well lasers, enhanced wavelength tunability 39877
atmos. turbulence, finite-size obj. double-passage imaging 26725
broadband compact absorber for EMC chamber appls. 15515
C-band dual-polariz. radar, computer error anal. of rainfall rates 10571
capillary-optic material characterisation, x-ray lithog. collimator 6692
color holography, wavelength selection 7837
dielec. laser mirrors, refl. opt. harmonics 7712
diffusion-driven semiconds., SBS gain profile 2059
electro-optic polymer light modulator, surface plasmon reson. based 22943
encoded opt. disks, database opt. correl. 30835
ferrite tiles, temp. behaviour of reflectivity 14198
fiber photorefr. grating ps pulse refl. 22860
fibre reflectometry wideband beam-splitter mirror 3868
fibre sens. based on multimode fiber Bragg gratings 17878
fibre-optic reflectometer with thin film a-Si interfaces, temp. meas. 34555
finitely-periodic dielec. waveguide mode reflectivity 23769
flexure-beam micromechanical SLM 7391
fluorescent opt. probes, phosphoresc. sigs. reemitted from tissues 17971

reflectivity continued
Gaussian beam SBS phase conjug., transverse charact. of reflectivity profile 23450
glass-Ag-polymer struct., light switching, ATR study 22945
graded opt. elements in solid state laser resonators 14998
gradient/curvature, photom.-stereo method, local confidence estim. 2603
grating reflector opt. fibre transversal filter sig. proc. 30918
high birefr. fibre gratings, holographically written 39350
high contrast TFEL devices on textured glass 14617
in-line semicond. laser amp. opt. repeaters, stray refl. effects 3570
injection laser-modulator combinations, time-depend. simul. 14952
interf. wedge with unequal reflectivity mirrors, laser tuning element 15007
IR coating bidirectional reflectance distrib. fn. ref. stds. 9777
laser radar signatures, enhanced backscatt. 17445
lensless in-line fibre filters 22989
milking systs., automatic, opt. teat inspection 34533
mode locked semicond. lasers; self PM, timing jitter 31418
multilayer coated reflective optics, EUV lithog. 38721
multilayer dielec. laser mirrors, etalon effects 7714
multilayer X-ray mirrors for X-ray lithog. 6689
opt. fiber transm. lines, complex multiple refl. calc. *(Japanese)* 39351
opt. phase conjug., sig. wave reflectivity 31517
opt. waveguide facets, modal reflectivity, rapid approx. methods 39390
organic waveguides, SHG in ATR expt. 14476
phase retarders, metallic grating based, laser cutting appls. 125
photom. stereo vision, arbitrary motion light source 2605
photorefr. double phase conjug. mirrors, gain-threshold, oscill. 23402
photoresist films, elec. field distribs., polariz. depend. 22294
phthalocyanine cpd. film, opt. recording 30824
planar laser microcavity modes, self-consistent calc. 39993
polyhedron shape and reflectance from inter-refls. by 2-image photom. stereo 2649
polyhedron shape recovery and reflectance estim. *(Japanese)* 32866
polymer amphiphiles LB films, fab., nonlin. optics props. 15089
polymer-dispersed cholesteric LCDs 7411
porous-clad fibres, tapered, gas sens. response time anal. 42829
portable ground-based atmos. monitoring syst. 18827
post metal deposition defects, real-time particle detect. 38697
pulsed solid state laser materials proc. *(German)* 7866
random amorph. semicond. multilayers, opt. props. 1115
real-time binary phase holograms, reflective FLC SLM 22954
recovering 3D shape of unfolded book surface from scanner image *(Japanese)* 32868
road surface conditions detect., photodetectors based prototype 42791
rough surfaces, diffuse reflectance 16178
RTO proc., opt./elec./mech. charactn. 22227
RTP syst. radiative heat transfer, Monte Carlo simul. 22555
semicond. Fabry-Perot lasers, cavity mirror imperfections and reflectivity 31458
semicond. integrated opt. routing array components, carrier diffusion effects 14479
semicond. laser, asymm. response in opt. systs. 14867
semicond. lasers, mirror imperfections/reflectivity, time-depend. approach 14937
semicond. lasers with unstable resonators, simul. 23210
semicond. multilayer struct., opt./X-ray/electron microscopy meas. 1122
shallow QW SEED in asymmetric FP etalon struct. 14530
SIMOX/ZMR/direct bond SOI struct., opt. charactn. *(Japanese)* 38430
simultaneous spectrosc. ellipsometry/reflectance, thin-film prep. monitoring 5880
SOI struct., opt. and acoustic nondestructive charactn. 38443
spectral reflectance factor scale for calib. and stds. 9776
specular lobe surfaces, roughness, shape, photom. sampling method 16179
specular reflectance, spectrophotometric meas. procedures and stds. 17631
submillimeter wavelength high-precision ellipsometric reflectometer, refr. index meas. 34711
superimposed multiple Bragg fibre gratings 1678
surface curvature segmentation by photom. invariant 2606
tea moisture meas. systs. 18168
thick film hybrid microelectronics glasses, prep., charact. 5909
TW semicond. opt. amps., facet modal reflectivity spectrum 39763
two-sect. asymmetric LD, enhanced uniform phase conjug. 23198
UV light written grating planar silica waveguides 1720
variable opt. delay line, birefr. planar opt. platform based 42443
vert. cavity surface emitting DBR lasers, voltage controlled 7622
waveguide-grating filters, plane wave and Gaussian beam illum. 30950
xerographic laser printer, vibr.-induced halftone banding 41196
Ag, reflecting surface, SHG study 23408
$AgInTe_2$-Sb-Te amorph. phase-change opt. recording films 30826
(Al,Ga)InP-oxide epitaxial DBR in vis.-wavelength opt. devices 39800
AlAs, metalorganic MBE growth, reflectance anisotropy spectra 28720
AlAsSb/GaAsSb DBR, highly reflective, MBE 15011
$Al_xGa_{1-x}As$ DBR, reflectivity spectrum 2034
$Al_xGa_{1-x}As$ layers on GaAs(001), MBE, in situ reflectance anisotropy 37442
(Al)GaAsSb/AlAsSb Bragg reflector on InP, high reflectivity 28748
AlGaInP QW 630-nm LD's, strain-induced polariz. mode 23220
AlPSb/GaPSb Bragg reflector 1.55 μm LD 7619
Au, reflecting surface, SHG study 23408
$BaCo_{0.8}Ti_{0.3}Fe_{10.4}O_{19}$ particulates, magneto-opt. props. 7036
$BaTiO_3$ cryst. in CAT config., temporal behaviour of phase conjug. wave 31521
$BaTiO_3$ phase-conjug. mirror, mutually pumped, fish-head config. 40085
$Ba(Y_{1/2}{}^{+3}Ta_{1/2}{}^{+5})O_3$, struct., dielec. props., 10^2-10^{14} Hz, 20-600 K 6890
CdTe electrodeposited films, grain boundaries, opt. meas. 28805
CdTe, metalorganic VPE, situ laser reflectometry 20726
Co films/$CoSi_2$ films, opt. props., G-line/I-line lithog. 38748
Co-Pd multilayers, stress, opt. fibre Y branch non-contact displacement detector *(Korean)* 18083
Cu, reflecting surface, SHG study 23408
Cu thin film CVD from Cu(II) metalorganic precursors, growth/microstruct. 38678
Cu vapour lasers, beam quality improvement, SBS phase conjug. 31185
Er-doped coupled-cavity fiber lasers incorporating fiber-grating reflectors 7564
GaAs:C(S), CBE and in situ etching, opt. monitoring 359
GaAs/(AlGa)As DBR, reflectivity, disordering 2035
$GaAs/Al_{0.35}Ga_{0.65}As$ MQW, refr. index, Fabry-Perot etalon meas. 34717
GaAs/AlAs four-wavelength Bragg mirror 22917
GaAs/AlAs thin film opt. filters in Fabry-Perot cavity 31063
GaAs/GaAlAs quantum wells, metalorganic VPE, laser reflectometry 20724

reflectivity continued
- GaAs/InGaAs coupled semicond. microcavities 2030
- GaAs(001), As/P precursor efficiency, reflectance anisotropy spectrosc. 20721
- GaAs(001), metalorganic VPE/MBE growth, surface procs. 20722
- GaAs(001) surface, MOVPE, monolayer growth oscills. 20854
- GaAsP, at. layer MBE, P_2 incorporation efficiency 30059
- $GaAs_{1-x}P_x$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
- GaInAs-GaAs micro-arc-ring lasers, design/lasing operation 1935
- $Ga_{1-x}In_xAs_yP_{1-y}$/InP VCSEL 14923
- H_2 micromirror opt.-fiber sens. 9960
- HgTe, metalorganic VPE, situ laser reflectometry 20726
- InAlAs-InGaAsP-InP syst., potential barrier height enhance. 22008
- InGaAs VCSEL, gain/reflectivity, press./temp.-induced detuning 39796
- $In_xGa_{1-x}As$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
- InGaAs/Au(Ni) thin p-clad SQW laser, contact reflectivity effects 14859
- InGaAs/GaAs (InGaP) MQW optical modulators, MBE growth 14509
- InGaAs/InP superlattice, low volt. electroabsorption light modulator 14511
- $In_{0.85}Ga_{0.15}As$/GaAs relax. superlattice struct., ultrafast meas. of nonequilibrium carrier lifetime 38348
- InGaAs-AlGaAs SQW lasers, cavity length/mirror refl. study 23271
- InGaAs-GaAs-AlGaAs laterally-coupled DFB ridge LD, CW perform. 31318
- InGaAs-InAlAs quantum wells, electron scatt., photoreflectance obs. 13141
- InGaAsP/InP LD facets, surface defects, modulated reflectance microscopy 1928
- InGaP/GaAs multilayer reflector, MOCVD grown, VCSEL appl. 39865
- n-InP, photoelectrochemical etching, surface texture form. 38564
- InP(001), As/P precursor efficiency, reflectance anisotropy spectrosc. 20721
- InSnO thin films, RF magnetron sputtered, fab./charact. 14317
- $KLiTaNbO_3$, self-pumped phase conjug., doping effect 15148
- $(KNa)(SrBa)Nb_2O_6$, double phase-conjug. mirror, imaging props. 31594
- $KNaSrBaNb_2O_6$:Cu cryst. bird-wing double phase-conjug. mirror 40116
- $KNbO_3$:Mn(Co) mirrorless self-pumped phase conjug. 40087
- $KTa_{1-x}Nb_xO_3$:Fe, high reflectivity self-pumped phase conjug. 31545
- $KTiOPO_4$ periodically segmented waveguides, Bragg refl. 7362
- $LiNbO_3$ elec. controlled supergaussian mirrors 14482
- Mo-Si multilayer x-ray mirror, top layer oxid. 6690
- Nb/AlON-Al/Nb, Josephson jns., tunnel barrier growth, reflectivity 22745
- Nd:YAG LD pumped laser, eye-safe 1.443 μm wavelength 7587
- Nd:YAG Q-switched laser Raman conversion, backward SBS 23174
- Nd:YAG lasers, graded reflectivity mirrors 31275
- Nd:YAG, saturable amp., pulsed phase conjug. modeling 2065
- Nd:YAG unstable multirod lasers, variable reflectivity mirrors 31267
- Nd:YVO_4 diode-pumped microchip amp., efficient DFWM 40080
- Nd:phosphate glass laser, thermal effects on lasing charact. *(Korean)* 14777
- Pd low-temp. bonding of InP structs., GaAs substrs. 30004
- Pr^{3+}:ZBLAN upconversion laser, pump scavenging 39703
- Pt/Fe(Co)(NiCo) multilayers, magnetooptical spectra 7056
- Pt-based alloys, magnetooptical spectra 7056
- Si (110) micro-opto-mech. devices, anisotropic etching 30977
- Si MBE on GaAs(001), submonolayer coverages 28746
- Si, PECVD, surface reacts., FT-IR-ATR monitoring 37502
- Si multicrystalline solar cells improvements, key technol. 27953
- Si solar cells, 23% efficient, limiting loss mechanisms 44401
- Si surface, HF treatment, F adsorpt., FT IR refl. absorpt. spectra 29838
- Si wafers, doped, modulated photothermal reflectance charactn. 13031
- Si:B, ion implant., defect prod. 6622
- a-Si:H films, recrystn. by XeCl excimer laser irrad. 28797
- a-Si:H, laser annealing, light-emitting Si prep. 23005
- Si/B_4C narrow-bandpass mirrors, EUV reflectance 1779
- Si/SiO_2 amorph. QW struct., dispersive subband-reson. nonlin. 1146
- a-Si-SiO_2-Si Fabry-Perot opt. intens. modulator by merged ELO 14647
- Si-on-insulator slab waveguide Bragg reflector, two polaris. coupling 39405
- SiC-SiN_x multilayer x-ray lithog. membranes by ECR CVD 6698
- SiGe, SPE, comp. depend., time-resolved reflectivity meas. 38270
- SiGe/Si QW, luminesc. spectral modulation 13144
- SiO_2 thin film thickness meas., Brewster angle reflectometer 34686
- Ti films/$TiSi_2$ films, opt. props., G-line/I-line lithog. 38748
- TiW thin films, sputter deposition 28829
- Tm-doped 1.9-μm fluoride fiber laser amp., 1.6-μm pumped 23136
- W CVD films, opt. props., G-line/I-line lithog. 38748
- ZnO films, spray pyrolysis prep., opt. and elec. props. 12143
- ZnS/ZnSe/GaAs(100) superlattices, photo-assisted VPE growth 38322
- ZnS-ZnSe-ZnS/GaAs(100) SQW, photo-assisted VPE growth 38322
- ZnSe, ALE, using reflectance difference spectrosc. 20695
- ZnSe films, MOVPE on GaAs, in situ opt. monitoring 12045
- ZnSe:N, photoassisted doping, ethyl azide 1224
- ZnSe/ZnS strained layer superlattices, MOVPE growth and opt. charact. 12124

reflectometers
- DIII-D tokamak, RF wave monitor reflectometer 34678
- fibre-optic reflectometer with thin film a-Si interfaces, temp. meas. 34555
- microwave heating, refl. meas., pulsed/CW sigs., 2.45 GHz 11478
- miniature portable OTDR instrum. *(German)* 42962
- precision reflectometer, HP 8504B, spurious-free enhanced sensitivity, fibre design 22825
- reflectometer/ellipsometer perform. capabilities for comp. anal., $Al_xGa_{1-x}As$ epitaxy 42959
- six-port reflectometer calib., one sliding load and short 3711
- six-port reflectometer using hybrid stripline/waveguide technology 25962
- submillimeter wavelength high-precision ellipsometric reflectometer, refr. index meas. 34711
- tea moisture meas. systs. 18168
- two-port reflectometer scatt. coeffs. meas. accuracy 459
- variable wavelength OTDR characts. and meas. 3542
- Mo/Si multilayer facilities, EUV lithog. 13508
- SiO_2 thin film thickness meas., Brewster angle reflectometer 34686

reflectometry
- *see also microwave reflectometry; reflectometers; time-domain reflectometry*
- CRT directional and diffuse refl. meas. and eval. *(German)* 18008
- edge emitting LEDs, high power, low internal refl. 23041
- external cavity fiber grating laser, coherent opt. freq. domain reflectometry 18122
- fibre reflectometry wideband beam-splitter mirror 3868
- III-V multilayer struct., dry etch monitoring, reflectance modeling 13404

reflectometry continued
- interferometric sens. syst. for security appls. 17896
- IR-sensitive film-struct., opt. diagnostics 14569
- lateral displacement sens., 4Q detector 18090
- lin. freq.-swept light source for FMCW reflectometry 18123
- low coherence reflectometry, tunable narrowband light source, symm. crossing config. 18127
- organic detect. in soil, fiber optic near IR reflectance sens. 17920
- phase-modulating opt. coherence domain reflectometry 18128
- phase-modulating opt. coherence domain reflectometry, synthesis of coherence fn. 34719
- planar opt. waveguides, diagnostic methods 30966
- refl. pulse method for material props. determ. 9829
- RTO proc., opt./elec./mech. charactn. 22227
- semicond. laser reliab. and failure anal. 39816
- AlGaAs film, epitaxial growth, laser reflectometry 28767
- AlGaAs/GaAs superlattices, epitaxial growth, laser reflectometry 28767
- Co thin films, pulsed laser deposition, opt. reflectometry 5897
- Cu thin films, pulsed laser deposition, opt. reflectometry 5897
- Cu/Co multilayers, pulsed laser deposition, opt. reflectometry 5897
- Si membranes control by refl. interferometry *(German)* 18102
- Si-SiO_2 SOI film thicknesses, reflectance meas. 13260
- SiO_2, dry etch monitoring, reflectance modeling 13404

reflector antenna feeds
- act. antenna-fed paraboloid reflector perform. 8051
- anal. gradient iter. procedures, beam shaping techs. 31931
- array-fed reconfigurable reflector for spacecraft appls. 2337
- asymmetric parab. cylinder antenna, high aperture efficiency *(Japanese)* 40496
- axial mode helix with soft corrugated ground plane 23992
- beamformers for space appls. 32002
- broadband waveguide feed for offset parab. reflectors 15641
- confocal parabolic reflector antenna design tradeoffs 23924
- contour beam single offset reflector feed array blockage anal. 23995
- dish antenna design alternatives, test beds for student investigs., DishPat and FeedPat programs 31915
- double ridged waveguide feed for parab. reflectors, broadband matching 29540
- dual-freq. corner-reflector antennas fed by parallel feed lines *(Japanese)* 8054
- dual-shaped reflector compact ranges, subreflector/feed scatt. 23905
- high perform. reflector antennas, generalized diffr. synth. 23886
- hybrid reflector antennas, adaptive nulling 23856
- L-band dual feedhorn for SETI, design 8038
- microwave radiometer Earth obs. phased array antenna design 26711
- multiple contoured beam reflector antenna, feed networks 32001
- near-zone reflector antenna modified-Gaussian-beam feed model 23996
- orthomode transducer and horn EM anal. 23990
- quad-band reflector antenna design without FSS 23923
- rectangular hat feed for lin. polaris. and low sidelobes 23988
- reson.-sized reflectors, approx. num. modeling techs. 23902
- single-reflector type wide beam-spacing multibeam antennas *(Japanese)* 15646
- ultrawideband reflector antenna with hybrid orthogonal TEM feed 23883
- USA DirecTv DBS shaped reflector design 23920
- X-band resonant cavity antenna-oscillator designs 23879

reflector antennas
- *see also offset reflector antennas; reflector antenna feeds*
- 1D zonal reflectors, anal. 40470
- 22 GHz DBS HDTV antenna design and rain fade compensation 31950
- anal. gradient iter. procedures, beam shaping techs. 31931
- aperture antenna Fresnel zone field estim. 23843
- Archimedean spiral antenna, reflector backed, second-mode operation 8071
- array-fed reconfigurable reflector for spacecraft appls. 2337
- Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
- asymmetric parab. cylinder antenna, high aperture efficiency *(Japanese)* 40496
- beam control techniques, IEE Colloquium, London, UK (1995) 11595
- beamformers for space appls. 32002
- Cassini FSS, develop. 15651
- CATR reflectors, rect. type serrations 23864
- circular reflector antenna anal., complex source approach 23927
- coord. syst./rot. transforms. 23833
- corner reflector, modal control, maximize far-field power 40503
- corrugated waveguide phase shifter, dual-reflector antenna array appl. 12712
- crosspolarization, fringe current effects 23903
- direct satellite TV broadcasting, multifunctional receiving antennas 31943
- dish antenna design alternatives, test beds for student investigs., DishPat and FeedPat programs 31915
- dual shaped reflector syst. distortion correcting plate design 23987
- dual-freq. corner-reflector antennas fed by parallel feed lines *(Japanese)* 8054
- dual-reflector antenna CAD/modelling 31958
- dual-shaped reflector compact ranges, subreflector/feed scatt. 23905
- earth-station antennas, site shielding 40491
- EM scatt. from gaps between reflecting panels, corrugated soft edge anal. 23561
- four-band FSS, double-sq.-loop patch elements 23863
- Fresnel region microwave/MM-wave bands antenna-reflector 9197
- Haystack antenna, optimal surface adjustment 23897
- high perform. reflector antennas, generalized diffr. synth. 23886
- hybrid reflector antennas, adaptive nulling 23856
- IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
- microstrip reflectarrays, modelling studies 31962
- mirror antenna, far sidelobe level reduction 31945
- MM-wave imaging optics, offset paraboloidal reflector 23904
- mobile radio, base station polariz.-sensitive adaptive antenna 33879
- modular cable-mesh deployable antenna for satellite commun. antennas 15637
- modular mesh antenna pillow distortion anal. 23919
- multiband FSS, multiring patch elements 8058
- multiband reflector antenna freq.-selective subreflector design and perform. 23873
- multibeam antennas based on modified spherical reflector, radiation 40486
- μP based precision step tracking syst. for 7.5 m antenna 17157
- μP-based motorised satellite antenna 2324
- omnidirectional dual reflector antenna struct. and characts. 23875
- on-board large mesh antenna reflector, high surface accuracy 15636
- orbital debris radar antenna pointing Kalman filter 25581

reflector antennas continued
parab. reflector antenna perform., dielec. coatings effect 31956
phase correcting zonal reflector incorporating rings 40469
polyhedron-approx. reflector antenna, radiation characts. anal. 23888
power relay satellite, wireless power transm. 36052
radiation integral eval. by predictor-corrector algm. 23820
radiation pattern determ. by equiv. edge current tech. 23821
radiation patterns, equiv. edge currents in boresight caustic region 40480
radiotelescope, reflector antenna conversion, phased array 17522
radiotelescope (mm wave), antenna shape control syst. 17519
RATAN-600 radio telescope, anom. refr. 15433
refl. echelon and echelette gratings, millimetre wave antennas 8048
reradiation antenna anal., integrodifferential-eqn. method 2316
reson.-sized reflectors, approx. num. modeling techs. 23902
RT-2 radio telescope for 3-mm wavelength operation 17526
satellite reflector antenna diffr. synthesis optim. 23874
scanning spherical tri-reflector antenna, moving flat mirror 40476
semi-act. multimatrix reflector antennas 31934
shaped dual-reflector antenna, impedance flanges, radiated fields *(Chinese)* 40444
shaped reflector antennas, contoured beam pattern design *(Japanese)* 40482
shaped reflector surfaces interpolation by cubic pseudosplines 40478
single-reflector type wide beam-spacing multibeam antennas *(Japanese)* 15646
space station antenna latching syst. *(Japanese)* 8056
spherical pass. reflector plane-wave scatt. modal anal. 23916
surface distortion compensation by diffr. synthesis 23871
surface distortion EM compensation syst. requirements 23872
surface distortion of reflector, antenna radiation pattern effects *(Chinese)* 31952
surface error meas. by phase retrieval holography *(Japanese)* 15647
tracking antenna controller, design/implement. 15677
trihedral corner reflector depolaris. 23870
two-wire Archimedean spiral antenna with parasitic loop and reflector 23869
Ukrainian 16-m mm wave radio telescope, RTM-16 RIAN 17527
ultrawideband reflector antenna with hybrid orthogonal TEM feed 23883
uniform PO diffr. coeffs. and pol. anal. 23862
USA DirecTv DBS shaped reflector design 23920
VLBI radioastronomy, commercial antennas 34201
Yagi-Uda antenna, FDTD anal. 15670
VO$_2$ 94 GHz flying spot mirror, theory and expt. 23956

reflow soldering
1024-pin plastic ball grid array for flip chip die, design, SPICE model 5652
AC elec. charactn. of solder paste 9994
ball grid array package, popcorn cracking 11812
C4, controlled collapse chip connection, enabling technol. 5647
C4/BGA comparison, MLC single chip package alternatives 5649
C4/CBGA interconnect technol., hi-dens., CMOS μP appl. 5650
card assembly detailed thermal response, IR reflow soldering 38098
card edge connector soldering, surface mount proc. 916
ceramic ball grid array, reliab. comparison of two metallurgies 21647
chip capacitor attach, CFC solvent elimination, qualif. by comparison 38172
condensation inert heating mass reflow soldering systs., challenges 38162
conformal coating stresses, SMT/fine pitch technol. 6431
controlled collapse chip connection, flip-chip attach on FR-4 IC packaging 130
convection reflow soldering oven, N$_2$ inerting, cost implications 38147
encapsulated flip chip bonding, chip replacement method, FCA technol. 133
fine pitch QFP, no-clean/water-clean mass reflow procs. 29676
fine pitch QFP in SMT, solder joint quality, optim. 37075
fine pitch solder joints, microstruct. phenom. 6424
finepitch surface-mount solder joints, fracture surface exam. 21644
flip chip proc. based on electroplated solder bumps 5620
flip COB process charactn., no-clean flux, ionic residue 38108
flip-chip, solder bump fab. by electroplating 38173
flip-chip solder bumps, Sn content meas. method 42975
fluxless soldering proc. technol. 5617
HDI based PGA package, compatibility, μP chip package 5653
MCM, COB, single/double sided, Jedec stand., low cost 38189
MCM flex lead bending during thermal cycling, finite element stress model 12944
mixed SMT/PTH component technol. and assembly 37066
N$_2$-purity selection guideline, controlled atmos. reflow soldering 38104
no-clean solder deposition, reflow technol. for fine pitch 21641
no-clean solder paste reflow, N$_2$ atmos., O$_2$ conc. influence 38149
no-clean solder pastes 12899
OMPAC assembly, no clean mass reflow 38171
on-site nitrogen supply for electronics assembly market 28412
organic protective coatings for SMT/PCB finish 12910
PCB assembly yield, design factors, stat. and ANN models 38080
PCB cooling optim., reflow soldering in N$_2$-O$_2$ atmos. 38156
PCB soldering materials trends to yr. 2000, user requirements 29665
picolitre flux dispensing for PWB assembly 12939
plastic IC package, structural integrity eval., soldering proc. 28485
plastic SM IC packages, moisture/reflow induced delaminations, IC thermal perform. 11797
post-solder proc. PCB cleaning in post-CFC world 38091
precoat soldering, fine pitch component mounting 38168
PWB flip chip rework proc. 38125
PWB soldering proc. versatility vs.stability, O$_2$ effect 12912
SMD soldering/inspection workcell, develop. 6419
SMT, prod. line, soldering, prod. procs. 128
SMT, solder paste flow, stencil aperture, computer simul. 12918
SMT assembly, reflow soldering syst., equipt. selection 12902
SMT IR reflow soldering, knowledge based decision support 29677
SMT proc., through-hole connectors, X-ray meas. 12922
SMT prod., integrated process monitoring/testing 38111
SMT reflow soldering oven perform. maximization 913
SMT reflow-soldered joints, porosity form. rel., mech. props. 12920
SMT relays, reliab., heat stress during reflow soldering *(Japanese)* 6411
SMT/FPT assemblies, reflow soldering 914
solder paste considerations for SMT 12911
solder paste/stencil interface, shear stress, SMT manufacture 12943
stencil printing for SMT assembly, solder paste flow procs. 29683
step-by-step SMT design for manufacture 38132
surface mount and fine pitch technol. advances, overview 37151
surface-mounted reflow, proc. control for high yields 12914
thermal stress anal. of soldered/bonded joints, defects 28457
through-wafer interconnecting method for hybrid WSI 950

reflow soldering continued
vapour phase reflow soldering, viability for SMT ball grid array assembly 38090
VLSI plastic packages, reflow soldering perform. improvement 6840
N$_2$/convection reflow soldering oven, input gas flow var. influence 38148
O$_2$ effects on solder surface, PCB assembly options 38153
PZT/Pt thin film decoupling capacitors, integrat. 21591
Pb-Sn flip-chip solder bonds on Cr-Cu-Au metallisation, SnCuAu ternary phase 11816
Sn-Ag(Cu) binary eutectic comp. for lead-free soldering 12928
Sn-Bi solders, microstruct. evol., mech. prop. 37529

refractive index
see also photorefractive effect
1.4-kJ solid-state power laser disc oscillator, good beam quality 23145
1.55 μm semicond. laser source, gigabit/second integrated electroabsorptive modulator 1741
1.55 μm single-polariz. hollow pit opt. fiber, zero total dispersion 7283
1.5-μm phase-sensitive opt. parametric amp. for ultrahigh-speed commun. 9604
1D refr. index struct., modal fields calc. by finite difference beam propag. method 14447
2.4 Gbit/s high perform. dispersion compensating fibre 30920
3-D brightfield microscope systs., modeling 16218
3-dB single-mode Y-jn., optimized design 1708
9BCMU grating coupled polymer waveguide, electronic nonlin. opt. behaviour 31489
absol. air refractivity meas. 10473
absorptive-grating gain-coupled DFB semicond. lasers, opt. pulse chirp 14947
act. cylindrical waveguides with step-index profiles, transverse modes 30953
adiabatic ultrashort light pulses propag. near two-photon reson. 31549
all-opt. adder based on soliton interact. props., theoretical model 14557
analog transm. syst. dispersion-compensating fiber, high fig. of merit 17205
antiresonant reflecting opt. waveguide intens. modulation 23781
antiresonant reflecting opt. waveguides, rigorous design method 15583
automated opt. main-distributing-frame FTTH syst. 9443
bacteriorhodopsin thin film interconnections, dyn. contrast reversal, self-PM 1783
bad-cavity laser, quantum-limited linewidth 15018
BH diode lasers, multimode self-consistent model 23283
bidirectional opt. waveguide propag. modelling, mode expansion/matching 15560
blood glucose conc. correl., reduced tissue scatt. coeff. in near IR 26286
Bragg opt. fibre gratings, temp.-compensating mounts 34097
bright spatial solitons in saturable nonlin. self focusing media 7753
buried channel silica-based waveguide fab., MCVD method 30960
cable fiber strain meas., photo-elastic correction factor 14397
channel opt. waveguide charactn. by photon scanning tunnelling microscope 22865
circ. dielec. waveguide anal., variational-difference method 801
circ. symmetric objs., inverse EM scatt. 7960
clear air radar reflective layers, rain effects 43513
coated tapered opt. fibre sens. 9925
colliding-pulse mode-locked QW laser dyn. response simul. 23236
command surface controlled liq. cryst. waveguide structs., opt. inform. storage 14343
composite opt. fiber-slab waveguide light coupling and propag. 23804
continuous fibre component for opt. sens., multilayer overlay 17911
corrugated fiber waveguide coupling coeff. 22854
cubic cryst. planar waveguides, photorefr. effect 39431
cylindrical objs., refr. index, image reconstruction, opt. diffr. tomography 41063
D-fibre/buried waveguide vert. coupling, vectorial FEA 14415
DFB lasers, dephased index and gain coupling 23194
DFWM pattern interferometry, refr. index vars. 31506
directly written directional coupler in planar silica waveguide 14462
dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 23801
ellipt. core cross-sect. opt. fiber, first higher-order modes 22849
elliptically cored opt. fibre, LP$_{11}$ modes comp. 7344
epoxy resins, elec. tree growth, voltage/age effects 30537
evanescent-field planar waveguide sens., mode-independent atten. 42768
Fabry-Perot resonator group effective index meas. method 10044
fiber resonators, nonlin. opt. bistability and differential amplif. 2115
fiber-compatible integrated-opt. S-bends, power splitters, and directional couplers, general design 7358
fiber-optic evanescent field absorpt. sens., theoretical eval. 3856
fiber/planar waveguide coupler thin metal layer polariz. props. 7285
fibre grating struct. fab. and appls. in systs. 7296
fibre optic channel dropping filter, LB film 17910
fibre sens. based on multimode fiber Bragg gratings 17878
film-compensated homeotropic liq.-cryst. cell for direct view display 7406
FIR opt. pumped amps., nonlin. propag. effects 14676
FLC, nonlin. optic props. *(Chinese)* 40045
fused biconical taper WDM, radiation effects 17261
Gaussian beam propag. in nonlin. saturable medium 7760
Gaussian beams and pulses, nonlin. propag. in Kerr media 23445
gelatin, dichromated, refl. hologram grating, diffr. spectrum asymmetry 31668
glucose conc. influence on light scatt. in tissue-simulating phantoms 25888
graded birefringent media, light refraction, elec. field meas. 14326
GRIN planar opt. waveguide anal. by impedance boundary method of moments 7347
H field vectorial Galerkin method 39358
HE$_{11}$ mode beam, nonlin. propag. in opt. fiber, distorted parab. refr. index profile 39348
hemispherical concentrators/spectral filters, planar sens., diffuse radiation 17776
high energy EM transducer acoustic shock field, Schlieren meas. 4029
high-Δ fiber core rad. meas. by opt. method 14386
L-histidine tetrafluoroborate soln.-grown semiorganic cryst. for nonlin. freq. conversion 23439
impurity activated solids, hole burning, zero-phonon line appls. 7791
in-line fiber amp. systs., noise evol., nonlin. refr. index 14751
in-line opt. amp. systs., num. simul. *(Japanese)* 14738
in-line opt. amp. systs., SNR degrad. *(Japanese)* 42396
integrated optic switches, electrostatic actuation of metallic membranes 7382
interf. pattern, wavefront disloc., refr. index 40358
inverse scatt., 1D problems, iter. algm. 23617

refractive index continued
  ion implanted opt. waveguides, disloc. distribs. 7348
  ion-exchanged glass waveguides, secondary ion mass spectrometry charactn. 30934
  joint finite-difference/FFT full vectorial beam propag. scheme anal. 40441
  joint transform correlators, whole-beam method anal. of photorefr. effect 16307
  kinoform lens, phase fn., surface-relief profile 31641
  large-core silica fibers for data commun. appls. 42406
  leaky/absorbing opt. waveguide/quantum well struct. modelling 40434
  long. invariant waveguide couplers, anal. by iter. method 14446
  metal clad GRIN opt. planar waveguide anal. 40399
  metal-clad waveguide polarizer integrated opt. cct. output coupling 30964
  microbend sens. perform., finite element/beam propag. methods 17858
  microbending effects in single-mode opt. fibres 14395
  MQW DBR laser with electro-opt. tuning sects., high FM bandwidth 7678
  MQW electroabsorp. modulators under digital modul., chirp control 7388
  MQW nonlin. struct., finite element characterisation 38352
  MQW struct., free carrier effect on refr. index change 14956
  MQW VSCEL, gain-guided, transverse mode num. anal. 31469
  multilayer slab waveguide nonlin. modal fields by finite difference beam propag. method 40433
  multilayered planar waveguide anal. by exact and variational FT methods 31899
  multimode fibre, plane of polariz. rot. 39322
  multiplex holographic data storage, materials props. 7839
  multiplexed holographic image storage, ang. and phase-encoding 31651
  narrow-band low sidelobe spectral commun. filter, weighted coupling 39543
  NLC film, polariz. switching by stimulated orient. scatt. 40036
  NLC panels, phase retardation meas. 31009
  nonlin. directional couplers, saturation and nonlin. asymmetrical distrib. effects 39427
  nonlin. media, bichromatic field interact., induced self- and cross-focusing study 40069
  nonlin. planar opt. waveguide MOL and FDBPM simul. 40432
  nonlin. waveguides, FEA, modal solns. stabil. 39423
  nonparaxial propag., reflecting opt. waveguide, 3D vectorial eigenmode algm. 14439
  opt. fibre temp. sens., polymer ceramic composites 34543
  opt. neural devices, thin film waveguides 39522
  opt. receivers, aperture averaging of opt. scintillations 34057
  opt. waveguides, modes, diffusion 14434
  optimal absorbing boundary conditions 23648
  organic dye-doped polymer opt. fiber amp. 23110
  pass. planar opt. waveguide geodesic lens prod. 1714
  penetrable object inverse scatt., conjugate gradient appl. 23566
  phase matching tech. for poled polymer waveguide 22866
  π-phaseshifting struct., near/far field phase images resoln. 2631
  photodelineated electro-optic polymers, GRIN profiles and loss mechanisms 14456
  photogenerated in-fiber gratings, simultaneous strain and temp. sens. 25873
  photonic IC fab., quantum well intermixing 14666
  photorefr. medium, opt. beam propag. 23435
  planar liq. cryst. opt. switch for opt. commun. 34014
  planar opt. waveguide design, inverse scatt. theory 1701
  planar opt. waveguides, refr. index profile reconstruction 22875
  planar waveguide, refr. index profile, shift formula method 802
  planar waveguide directional coupler with NLC, nonlin. effects 30957
  planar waveguides in glass, nonlin. diffusion procs., refr. index profile 1713
  PMMA waveguide, fab. procedures 22890
  polarizing rect. prism used in laser techs. 7711
  poly(1,4-phenylene-1,2-bis(4-methoxyphenyl)vinylene) opt. waveguides, prism coupling 22870
  poly(vinyl alcohol), dichromated, refl. hologram grating, diffr. spectrum asymmetry 31668
  poly-phenyl-acetone opt. waveguides, nonlin. coupling and propag. 39432
  polyceram MPEOU-based waveguides, proc., opt. props. 7356
  polydiacetylene films, synthesis and third order nonlin. opt. props. 40117
  polydiacetylene waveguides, nonlin. absorpt. 31513
  polyimide-based guest-host systs., nonlin. optics, photonic devices 31585
  polyimides, electron beam irrad., channel waveguide fab. 22891
  polyimides, low dielec. const., opt. props./orient. effects 12209
  polymer nonlin. opt. fibre devices 30914
  polymer opt. fibre, all-opt. and photomechanical devices 31584
  polymer waveguides, electro-opt. appls. 14457
  polymer-based travelling-wave electro-optic modulator, props. 14525
  polymeric thin-film waveguide coupling, single-mode fiber 22872
  polythiophene film waveguide third-order opt. nonlin. 2100
  preform deform. fabricated opt. fibers, birefr. anal. 22851
  preforms/waveguides, refr. index meas. by interf. method 4001
  pulsed power syst. dielecs., real-time surface flashover detect. 36292
  quantum confined light modulators 7400
  quantum well DFB rib waveguide LD design, spectral index method appl. 39876
  quantum-well struct., elec. field depend. refr. index, meas./appl. 39589
  radar syst. sensitivity, tropos. thermal lens effect 34122
  radiowave propag. problems, horiz. parab. eqn. soln. 23642
  randomly inhomog. medium, effective index of refr. 15420
  rect. core waveguides, integrated optics, fibre coupling, mode matching techs. 39429
  red sensitive photopolymer holographic plate grating coupler *(Chinese)* 15164
  refr. index of liqs. mes., posn.-sensitive detector 18125
  rem. ellipt.-core dual-mode fiber strain sens., coherence-tuned interrogation 17918
  scintillation counters charact., light collection characts. 18374
  segmented planar waveguides with parab. index segments, propag. charact. 23770
  self-written glass slab waveguides 30958
  semicond. doped glasses, opt. storage by laser beam written gratings 22789
  semicond. laser at low carrier densities, carrier-induced refr. index 7682
  semicond. multilayer struct., opt./X-ray/electron microscopy meas. 1122
  shaped quantum well opt. modulation, enhanced electrorefractive effects 39492
  single cryst. core fibers, second-order cascading, third-order effects orig. 22806
  single-mode fibre coupler/filters, coupling suppression by periodic index modulation 30912
  single-mode opt. fibers, chromatic dispersion modeling 7282

refractive index continued
  single-mode triangular-index fiber with a depressed cladding ring, bending-loss studies 7321
  slab waveguide liq. cryst. modulator 14540
  SOI struct., opt. and acoustic nondestructive charactn. 38443
  soot props. meas. by two-colour pyrometry 10054
  sound field tomographic reconstruction, TV holography 41231
  spherical layered atmos., EM wave path params. 15381
  spiral phaseplate prod. helical-wavefront laser beams 2043
  sq./rect. core fibre scalar anal. by Fourier decomp. method 39325
  squaraine dyes in PMMA, third-order opt. procs. 23399
  step index opt. fibre 3D ray trajectory heuristic computation 30895
  step index silica opt. fibers, bending effects on transm. props. *(Chinese)* 14368
  step twin core fibre, scalar modes down, cutoff 39327
  step-index bent single-mode fiber matching by modal equiv. slab waveguide struct. 7306
  surface-relief holograms, high diffr. efficiency, replication proc. 31643
  tensile loaded cable, photo-elastic correction factor for fiber strain meas. 25524
  three-layer waveguides, thin film influence on guiding props. 39434
  turbulent atm. wind profile estim. from laser distortion data 35311
  turbulent medium, coherent opt. fiber sens. 34527
  twin high-ellipt.-core fibre-optic polariz. beam splitter coupling charact. 30857
  twin-core opt. fibres, UV tuning of coupling 7280
  twin-core wavelength demultiplexing fibres, UV light coupling/tuning 34098
  ultrafast low-sig.-level opt. waveform digitization, induced beam deflection 7794
  ultrafast nonlin. in semicond. laser amps. 7670
  ultrashort laser pulses, focusing limits, anal. theory 2039
  UV-induced fiber Bragg gratings decay 7310
  water recorded holograms, precision in-air replay 7852
  WDM LB deposited film in-line fiber-optic components 17187
  window materials for 110 GHz and 280 GHz gyrotron 38216
  Ag halide holographic phase grating, modulation profile 40141
  Ag^+-Na^+ ion exchange double-diffused waveguides, fab. and characterisation 30929
  (Al,Ga)InP-oxide epitaxial DBR in vis.-wavelength opt. devices 39800
  AlAs, refr. index, thermal depend., multilayer opt. cavity meas. 15000
  AlAsSb/GaAsSb DBR, highly reflective, MBE 15011
  AlGaAs MQW, opt. channel waveguides by FIB induced compositional mixing 14452
  AlGaAs, act. waveguide LD, femtosecond band-edge index nonlin. 31337
  $Al_xGa_{1-x}As$ DBR, reflectivity spectrum 2034
  AlGaAs/GaAs VCSEL, linewidth/α-factor 14936
  AlGaInP dry-etched 650 nm vis.-light LD 1986
  AlN, ion plated films, opt. applicability 28850
  Al_2O_3-Si, ML-ALE grown, elec. props. 22054
  As_2S_3-based fibre, laser driven ultrafast all-opt. switch 22822
  BN thin films, plasma-enhanced CVD, structural props. 20953
  $BaTiO_3$, photocond., high light intens. 14582
  $Bi_{12}SiO_{20}$ cryst. opt. limiter, effective nonlin. 30832
  CO_2 laser, injection locking, freq. stabilisation, line narrowing 1865
  CO_2 loss modulated laser, amplit.-detuning charact. 31195
  CdS, colloidal microcrystallites, CW self-focusing/PM 31531
  Co films/$CoSi_2$ films, opt. props., G-line/I-line lithog. 38748
  Cu phthalocyanine write-once read-many recording medium 14332
  Er^{3+},Yb^{3+}-doped fibers, anom. dispersion study 22852
  Er-doped silica opt. fibre switching by ultra-fast nonlin. refr. index dyn. 30915
  Er-doped twin-peak core fiber amp., polariz. 14750
  Er^{3+}-doped fibre directional coupler, nonlin. refr. index 30873
  GaAs, (211)B orientated, surface-emitting second-harmonic generator/autocorrelator 23361
  GaAs MQW directional coupler waveguide saturable Kerr effect 15118
  GaAs QW lasers, thermally controlled lateral beam shift and beam steering 14968
  GaAs multiple gratings, anisotropic diffr. props. 31653
  GaAs nanocrystal doped glass, time resolved pump/probe Z-scan study 40067
  GaAs, refr. index, thermal depend., multilayer opt. cavity meas. 15000
  GaAs surfaces, wet/dry etched, ellipsometric model 21914
  GaAs:C CBE growth, in-situ monitoring 20880
  GaAs:C/AlAs periodic struct. CBE growth, in-situ monitoring 20880
  GaAs:C(S), CBE and in situ etching, opt. monitoring 359
  GaAs/$Al_{0.35}Ga_{0.65}As$ MQW, refr. index, Fabry-Perot etalon meas. 34717
  GaAs/$Al_{0.3}Ga_{0.7}As$ MQW waveguides, pulse squeezed light generation 1721
  GaAs/AlAs, single-wavelength all-opt. phase modulator 2106
  GaAs/AlGaAs MQW, refr. index, grating coupling tech. 22012
  GaAs/AlGaAs MQWs, nonlin. index saturation in bandtail absorpt. region 13172
  GaAs/AlGaAs heterostruct., deep impurity doped, elec. field and refr. index change 30817
  GaAs/GaAlAs quantum wells, metalorganic VPE, laser reflectometry 20724
  GaAs-AlGaAs MQW waveguides, coupling props. 14467
  GaAs-AlGaAs antiguided laser array fabricated by superlattice struct. 1988
  GaInAsP/InP MQW QCSE tuning element for surface emitting laser 15014
  GaInP strained quantum-well lasers; gain, refr. index, linewidth enhancement 31393
  $Ga_{0.52}In_{0.48}P$ layers, CBE grown, opt. charactn. 12104
  Ga_2O_3 films, electronic/optoelectronic appls. 22640
  Ge,F-codoped fiber fab. and device appls. 7338
  Ge-doped opt. fiber Bragg gratings, polariz. and temp. depend. of photosensitivity 7336
  GeO_2-SiO_2 glass, thin films, planar waveguide appls. 7350
  H_2-doped germanosilicate opt. fibers, thermal and photo-initiated reacts. 7308
  H_2-loaded germanosilicate fiber adiabatic mode-field transformer fab. 7309
  H_2-sensitized GeO_2 doped opt. fibers, refr.-index changes 7307
  (In,Ga)As/(In,Al)As, superlattice-equiv. MQW, Stark shifts 38330
  InGaAlP/GaAs hybrid-type DBR for InGaAlP LED 1819
  InGaAs/AlGaAs high-power strained quantum-well lasers, vert. divergence angle of 18° 39870
  InGaAs/GaAs SQW RW lasers, mode coupling/antiguiding 1973
  InGaAs/GaAs quantum wells, strained, absorpt. coeff. and refr. index 1136
  InGaAs/InP superlattice, electro-refractive effect, modulator appl. 14510
  InGaAs-InAlAs asymmetric coupled QWs, elec.-field-induced refr. index changes 21980

refractive index continued
InGaAs-InGaAlAs-InAlAs coupled QW chirp-free electroabsorption modulator 22937
InGaAsP, ridge waveguide lasers, strain meas., photoelastic effects 39826
InGaAsP/InP monolithically integrated multi-wavelength MQW-DBR LD, MOVPE 23239
InGaAsP-InP directional coupler based tunable opt. filter 22910
InP based MQW phase modulators *(Chinese)* 7480
InP nanocrystals in porous glass, nonlin. absorpt. and refr. 31514
InP periodically segmented waveguide based spot size transformer 39606
InP waveguide mode field determ. from intens. profiles 39468
InP/InAlAs/InGaAsP MQW fibre-coupling tapered waveguide, spot-size converter 22835
$InP-In_2S_3$, ellipsometric investig. of transit. layer heterostruct. 22774
K^+-Na^+ ion-exchanged channel waveguide profile params. by mode-index meas. 39388
$KNbO_3$, photocond., high light intens. 14582
$KTa_{1-x}Nb_xO_3$ crysts., photorefr. diffr. dyn. 31618
$KTiOPO_4$ channel waveguides, photorefr. effect 1726
$KTiOPO_4$ ion-exchanged waveguides, refr. index profiles 14437
$KTiOPO_4$ opt. waveguide fab. by $Rb^+:K^+$ ion-exchange proc. 30982
$KTiOPO_4$ opt. waveguides charact. by second harmonic spectrosc. 1712
LiB_3O_5 doubly-reson. opt. parametric oscillator mode selection 15116
LiB_3O_5, temp.-tuned 90° phase-matching props. 15113
$LiNbO_3$, ang. selectivity, multiplexed hologram cross-talk 31648
$LiNbO_3$ elec. controlled supergaussian mirrors 14482
$LiNbO_3$, integrated waveguides, refr.-index profiles anals. 14488
$LiNbO_3$ open type waveguides, refr. index var. 30947
$LiNbO_3$ photo-induced waveguide fab. 30939
$LiNbO_3$ photo-induced waveguide, opt. dyn. 3D interconnections 39523
$LiNbO_3$ planar waveguide fab., Zn diffusion 39374
$LiNbO_3$ plates, electronic image reconstruction by electrooptic tech. 2134
$LiNbO_3$ proton-exchanged channel waveguides, MgO doping effect on photorefr. index 39410
$LiNbO_3$ strongly proton exchanged planar waveguides, opt./RHEED study 39462
$LiNbO_3$ thin films. MOCVD, lithium alkoxide source 28841
$LiNbO_3$:Fe(Cu), IR holographic recording 31634
$LiNbO_3$:Ti slab waveguides, characterisation, fn. of fab. conditions 30948
$LiNbO_3$:Ti strip waveguide thermooptic coeff. determ. for phase compensated appls. 39467
$LiNbO_3$:Ti,Fe photorefr. waveguides, holographic storage 40168
$LiTaO_3$ opt. waveguides, controlling birefr., nonisovalent ion exchange 14421
$LiTaO_3$ proton-exchanged waveguide in benzonic acid, annealing property *(Chinese)* 1704
$LiTaO_3$ waveguides, proton-exchanged, cryst. struct. and opt. props. 22867
$LiTaO_3$:Ni opt. waveguides, fab., Ni diffusion 22885
Na vap., laser beam switching dyn. 40111
$Na_2O-Nb_2O_5-Al_2O_3-P_2O_5$, planar ion-exchanged waveguide form. 22864
$Na_2O-WO_3-Ga_2O_3-P_2O_5$, planar ion-exchanged waveguide form. 22864
Nd:YAG/CO_2 laser three-color opt. range finding 7863
Nd-doped fibre switching by fast relax. of reson. nonlin. 31621
Nd^{3+}-doped semicond. glasses, elastic props., lasing transit. 23290
$P_2O_5-SiO_2:Er^{3+},Yb^{3+}$ opt. fibres, transient gratings 30899
$Rb(Ti_{1-2x}Ln_xNb_x)OAsO_4$, defect chem., opt. props. 7774
$RbTiOPO_4$ cryst., flux grown, nonlin. opt. props. 2080
Si nitroxides, rapid thermal, growth, struct. 1245
Si oxides, rapid thermal, growth, struct. 1245
Si porous film, two-step chem. immersion form. 6644
Si wafer substr. clean-up, chem. contamination, Auger anal. and ellipsometric studies 30119
Si:O syst., ion implanted, oxide growth, refr. index, and comp. depth profiles 22123
a-Si/Si_3N_4 TFT, PECVD nitride gate dielec. studies 13791
Si/SiO_2, MOS structs., photoenhanced CVD, comp., elec. props. 38429
Si/SiO_2 amorph. QW struct., dispersive subband-reson. nonlin. 1146
$Si/SiO_2/Si$, high temp. annealed, near interface oxide degrad. 38477
Si-on-insulator slab waveguide Bragg reflector, two polaris. coupling 39405
a-SiC:H films, plasma CVD, opt. props. 20980
a-SiC:H,F films, plasma deposition, props. 5878
SiGe/Si QW, luminesc. spectral modulation 13144
a-SiH, film, US assisted PECVD, in situ opt. diagnostics 28832
Si_3N_4:H films, rem. ECR CVD 37472
SiO_2 PECVD, neural network based modelling 37415
SiO_2 films, UV excimer lamp annealing 30013
SiO_2 layer characterisation, Electrotech ND6210 PECVD syst. 28816
SiO_2:F low loss glass fibers from sol- gel derived preforms 7302
SiO_2:Ge Bragg reflectors, UV laser fab. 14436
SiO_2:Ge, fused silica, waveguide form. by ion implant. 39387
SiO_2-GeO_2 glass planar struct., proton implanted, photosensitivity 39382
SiO_2-GeO_2 preforms and fibres, UV photosensitivity 39334
$SiON/SiO_2/Si$ single-mode waveguides, plasma CVD prep. 39396
$SrBaNb_2O_6$:Ce illum. by nominal homog. light, refr.-index change 22776
Ta_2O_5 sputtered films, elec. and optical props. 13958
$Tb_3Ga_5O_{12}$ photorefr. phase hologram recording 31645
Ti films/$TiSi_2$ films, opt. props., G-line/I-line lithog. 38748
TiO_2-MgF_2 composite multilayer films prepared by reactive ion-assisted coevaporation 1782
TiO_2-SiO_2 sol-gel film opt.-chem. sens. 3812
TiZrO antirefl. coatings, source comp. evol. effects 14570
W CVD films, opt. props., G-line/I-line lithog. 38748
Y_2O_3 MIM capacitors, elec./dielec./opt. props. 22082
Yb^{3+}-doped fibers, anom. dispersion study 22852
(Zn,Cd)(Se,S) quantum well laser heterostruct., opt. waveguide confine. 14900
ZnCdTe, electron-hole plasma, refr. index, opt. nonlin. 15107
ZnO, ECR sputtered thin films, opt. atten., resist. 28800
ZnO, film, RF magnetron sputtering on InP, material props. 37464
ZnO films, spray pyrolysis prep., opt. and elec. props. 12143
ZnS-ZnTe/GaAs MQW on refl. at RT, picosecond opt. bistability 38353
ZnSe semicond. lasers, linewidth enhancement factor and nonlin. gain 23224
ZnSe-ZnS QW, nonlin. refr. index, nonlin. absorpt. coeff. 40030
ZnTe, electron-hole plasma, refr. index, opt. nonlin. 15107

refractive index measurement
15 GHz LOS multipath propag. expt. 31815
accurate refr. index meas. 18124
autocollimation laser refractometer, highly sensitive fiber-optic output 42961
BWO spectrometry and composite structs. appl. 42907
dielec. props. meas., organic liqs., 890 GHz 18032

refractive index measurement continued
diffused channel waveguides, Δn/index profile determ. 39417
Edlen updated eqn. for refr. index of air 17639
Fabry-Perot resonator group effective index meas. method 10044
fiber optics, nonlin. refr. index meas., cross PM *(Japanese)* 30903
hollow glassware stress meas. by photoelasticity 34722
interferometric meas. of phys. consts. of laser dye solvents 23339
magneto-opt. high resoln. meas. of small displacements 18081
micrometer/nanometer displacement and refractivity meas. by laser beam 4000
MPEOU-based polyceram planar waveguides, opt. loss study 25988
multiwavelength fiber drop analyzer for med. diagnostics 10220
non-lin. refr. index meas., fibre Sagnac interferometer *(English, Italian)* 34713
nonlin. refr. indices determ. by Z-scan/EZ-scan meas. 7780
opt. fiber, interferometric refr. index profile meas. 14378
opt. fibres, photoelastic phase differences, ray deviation angles 14362
opt. scintillometer for atm. C_n^2 and winds meas. 4396
PC-based charactn. syst. for opt. waveguides 39385
preforms/waveguides, refr. index meas. by interf. method 4001
pulsed power syst. dielecs., real-time surface flashover detect. 36292
refr. index of liqs. mes., posn.-sensitive detector 18125
single-mode fibres, equiv. step-index charactn. 39333
skin-core fibre refr. index determ. 4002
squaraine dyes in PMMA, third-order opt. procs. 23399
SQW LD guided-wave devices, heterodyne nondegenerate pump-probe meas. 25990
submillimeter wavelength high-precision ellipsometric reflectometer, refr. index meas. 34711
temp. meas. and proc. control appls. 18129
a-B:H CVD film characterisation and x-ray imaging appls. 5900
$GaAs/Al_{0.35}Ga_{0.65}As$ MQW, refr. index, Fabry-Perot etalon meas. 34717
InGaAsP-InP MQW-LD fabricated by LPE, opt. charact. *(Korean)* 39802
$InP-In_2S_3$, ellipsometric investig. of transit. layer heterostruct. 22774
K^+-ion exchanged planar waveguide refr. index meas. 39465
$LiNbO_3$, integrated waveguides, refr.-index profiles anals. 14488
$LiNbO_3$ proton-exchanged channel waveguides, MgO doping effect on photorefr. index 39410
$LiNbO_3$:Ti strip waveguide thermooptic coeff. determ. for phase compensated appls. 39467
$LiNbO_3$:Ti struct., index profile/bending loss from near-field meas. 14416
$LiTaO_3$:H proton exchanged waveguides, opt./electrooptical props. 14422
a- Si:H films, optical consts. and thickness determ., opt. transmittance 25986

refractivity *see refractive index*

refractometry *see refractive index measurement*

refractories
see also ceramics; cermets; clay
alkali metal thermoelec. convertors, micromachined evaporator component fab. 20031
metals, planarization, multi-step sputter/sputter etch proc. 6658
silicides, metal vapour vac. arc ion source synthesis 30142
space power thermionic heat pipes, work fn. tests 26623
steam power plant boiler refractories, condition assess. technols. 19520
thermal diffusivity meas. of refractory solid materials 25996
thermophotovoltaic emitter develop., refractory oxide ceramics 27997
Cu-Ta(Cr) surface erosion, launchers and fusion technology appls. 31769
$La(Sr)CrO_3$, sintered bar electrodes, MHD generator appl. 5232
Ta-46%Ir eutectic brazing filler, thermionic appls. 28023
Ti-Si thick film resistor, surge protection appl. 27270
TiC refractory material, laser ablation, cluster form. and deposition 28827

refractory materials *see refractories*

refrigeration
see also cryogenics; freezing; low-temperature production
10.6 kW air-source heat pump, defrost cycle perform. tests 20146
centrifugal chiller refrigerants, Montreal Protocol compliance 20149
Danfoss DH series filter-dryers *(German)* 11487
diaphragm defined Stirling refrigerator 28021
EHD heat transfer/fluid flow enhancement mechanism 44425
ejector expansion heat engine, refrigeration appl. design 28184
endoreversible Carnot refrigerator, specific cooling load 28182
fresh-produce refrigerated store, wt. loss/power consumption model 44638
HFC 134a refrigerator rotary compressor 44609
International Appliance Technical Conf., Madison, WI, USA (1994) 36908
large-scale cold storage, energy saving syst. 28183
Maglev on-board power supply lin. generator, math. model 36759
metropolitan power systs., supercond. cable losses simul. *(Japanese)* 27216
Mitsubishi Electric ice storage air conditioning syst. 44604
Mitsubishi Electric Y Series multisplit air conditioners 44605
multi-zone cooling systs. with storage, efficient operation 20148
R22/R142b refrigerant mixture heat pumps, capacity control expts. 20147
residential heat pumps, improper refrigerant charging expts. 28187
single-screw compressor perform., computer-based anal. tools 44611
solid-state thermoelectric refrigeration develop. progress 20144
SS-1 supercomputer cooling syst., 3D packaging config. 136
telecom. equipt. PAFC CHP syst., adsorpt. refrigerator-based cooling 41622
telecomms. syst. air conditioning, PAFC heat dissipation-based 20137
vapour compression heat pumps/refrigerators, perf. calcs. 20145
$YBa_2Cu_3O_{7-x}$, Josephson jns., SQUIDs, cryo-refrigeration 1605

refrigerators
centrifugal chiller refrigerants, Montreal Protocol compliance 20149
cond.-cooled supercond. magnet, Gifford-McMahon refrigerator *(Japanese)* 1634
diaphragm defined Stirling refrigerator 28021
endoreversible Carnot refrigerator, specific cooling load 28182
hermetic motor insulation reliab., HFC refrigerants, oils *(Japanese)* 11486
HFC 134a refrigerator rotary compressor 44609
inlet distortions, low noise fan operation *(Japanese)* 44612
Mitsubishi Electric twin-mechanism rotary refrigerator compressor 44610
residential ASDs, simplified control scheme 5397
residential size Peltier effect refrigerator 20042
single-screw compressor perform., computer-based anal. tools 44611
Space Shuttle expts., Stirling refrigerator 26521
telecom. equipt. PAFC CHP syst., adsorpt. refrigerator-based cooling 41622
telecomms. syst. air conditioning, PAFC heat dissipation-based 20137
vapour compression heat pumps/refrigerators, perf. calcs. 20145
He cryoplants in CERN SPS, control aspects 10080
$Mg_2Si_xGe_ySn_{1-x-y}$ materials for direct thermoelec. conversion 20025

refuse incineration power plants *see waste-to-energy power plants*

regenerative braking
- AC motors, four-quadrant digital control scheme 10954
- AC rly. power syst. protection/fault meas., PC-based 44536
- AMPhibian hybrid elec. vehicle, regenerative braking effects 28147
- Blue Angel hybrid petrol/elec. road vehicle *(German)* 11440
- DC rly. power systs., intell. traction power control 28126
- elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
- elec. railcars, regenerative braking, DC feeding syst. 36752
- elec. transit bus, Pb-acid batt. power conditioning develops. 36730
- elec. vehicle, flywheel, torque controlled, peak power transfer 5357
- hybrid elec. vehicles, Pb-acid batt./PEM fuel cell syst. 36725
- three-phase AC/DC universal traction drive syst. design 44542
- Westinghouse elec. vehicle, programs, induction motor 44567

regenerative receivers *see radio receivers*

regression analysis *see statistical analysis*

regular languages *see formal languages*

regulation
- *see also load regulation*
- EM levitation with permanent and electro magnets, optimal design 20091
- European power syst. interconnection status and prospects *(German)* 19180
- med. exam./treatment, ionising radiation, patient dose reduction 18638
- patient dose, rational reduction, WHO activities 18637
- patient dose protocols/trends, UK 18652

regulators *see controllers*

Rehbinder effect *see surface phenomena*

reinforcement learning *see learning (artificial intelligence)*

relational algebra
- 3D obj. recogn. by hybrid Hopfield neural net 33028

relational databases
- cable, conduit, tray schedules, computer generation 19319
- CAM design, modular VLSI scheme 21315
- CERN PS accelerator complex, data driven alarm syst. 18202
- config. database for token ring network mgt. 16581
- directory inform. tree mgt. method and entry search method *(Japanese)* 16624
- FIND2, inform. sharing syst., develop. *(Japanese)* 3211
- GANIL ion accelerator, control syst. 18184
- injection mould design, intell. support syst. 37023
- JSOW quality tracking syst. for sigma improvement 26835
- large video databases, user access, indexes 9711
- LSI manufacturing yield, integrated database syst., cond. anal. 37040
- Minerva Network Management Environment 41770
- neural network recogn. of human face images stored in database 16163
- offline power syst. planning, relational database concept 27097
- PDM product data mgt. syst. software package *(German)* 101
- SSC accelerator systs. string test software archit. 18176
- VLSI testing, online data collection/anal. syst. 6827

relative density *see density*

relative humidity *see humidity*

relativistic electron beam tubes
- antenna array, RKA-driven, feeding syst. 31988
- BWO, efficiency increase 29796
- BWO, nonlinear theory modelling 13011
- BWO, pre-bunching cavity 29799
- BWO, two-stage scheme for FEL pumping 23317
- BWO with end reflectors, EM wave excitation 13009
- Cerenkov-type microwave freq. multiplier, relativistic electron beam 21843
- Cherenkov maser, nonaxisymmetric mode, beam-wave interactions 23068
- clustered-cavity klystron, lin. theory 991
- cyclotron reson. masers, bunches, phase mixing, space charge instabil. 31135
- DISKTRON electrostatic accelerator and laser-induced photoelectrons facility 31464
- dyn. of CARM oscillator, relativistic regime 7499
- freq. up-shifted gyrodevices, cyclotron harmonics vs. CARM's 6486
- gyrotron expts., 330 Hz PRF tunable design 12998
- high current klystron amp., 500 MW, 1 μs pulse length 6482
- high-current relativistic klystron research, Physics International 29774
- high-power microwave amplifier, plasma klystron concept 21838
- high-power X-band microwave generators, LLNL expts. 34827
- inductively-loaded wide-gap designs for relativistic klystrons 29785
- intense microwave pulses, conf., Los Angeles (1994) 28206
- intense-beam klystron amps., beam-cavity interact. phys. 6481
- IREB, MM wave source, monochromatic current modulation 38212
- IREB, slow-wave struct., Pierce-type dispersion rel. 29807
- J-band relativistic klystron amp., long pulse, develop. 29780
- J-band relativistic klystron amplifiers, modelling and design 21826
- klystron, high-current L-band, output power 13002
- klystron amp., beam-gap interacts., simul. 29786
- klystron amp., develop. and optim. 6480
- klystron amp., high power microwave source, Naval Research Laboratory programme 29772
- klystron amp., MIT, 3.3 GHz, compact input cavity 29777
- klystron amplifier, relativistic, 3.3 GHz, studies 21820
- klystron amplifier, relativistic, at high power 21817
- klystron amplifiers, two-stream instability 21827
- klystron amps., intense space-charge beam phys. 992
- klystron amps., RF extraction issues 29773
- klystron amps. for microwave pulse generation 29775
- klystron oscillators, theoretical anal. 990
- klystron two-beam accelerator, RF power extraction 10090
- klystron two-beam accelerator for beam break-up suppression 34828
- L-band relativistic klystron amp., high current, three cavity 29779
- LF cavity oscill. driven by detuned current modulation 29787
- lin. induction accelerator, high current, operation with relativistic magnetron 34745
- lin. induction accelerators, relativistic microwave electronics 34752
- microwave devices, magnetized electron beam, nonlin. Faraday effect 976
- microwave generation by two-section BWO 21849
- microwave transmission, time-depend. extinction 13000
- multistage electron-beam microwave oscillators, stochastization 993
- open periodic structs., weak-relativistic electron beam diffr. radiation 40258
- open-boundary Cerenkov laser, dyn. behavior anal. 14980
- overmoded high power microwave generators, expt. 21850
- overmoded slow-wave resonators for interact. with relativistic electron beams, EM props. 1005
- radial electron flows in diodes, microwave sig. amplif., Pierce instabil. 6477

relativistic electron beam tubes continued
- refl. of electron beams by virtual cathode 29792
- repetitive microwave BWO, relativistic e-beam 29795
- repetitively pulsed relativistic BWO, slow wave struct. 29797
- repetitively pulsed relativistic klystron amp. 983
- resistive-wall klystron, nonlin. theory 29784
- space-charge limiting current, self-consistent calcs. 10100
- two-cavity klystron, microwave generation 21821
- two-stream relativistic klystron amplifier, beam modulation 21819
- two-stream relativistic klystron amps., crit. design issues 29778
- vac. BWOs using nonuniform slow wave struct., high power, efficiency enhancement 1004
- vircator, high power microwave source for accelerator 29789
- vircator, slow wave struct., microwave generation 12999
- vircators, ultrashort microwave pulse generation, effect on electronic devices 973
- X-band TWT amplifier development 21848

relativistic plasmas
- ion-ripple laser kinetic theory, beam long. momentum spread 2015

relaxation
- *for dislocation relaxation see dislocation damping*
- *see also anelastic relaxation; chemical relaxation; dielectric relaxation; magnetic relaxation; stress relaxation; ultrasonic relaxation; viscoelasticity*
- Fabry-Perot lasers, loss-modulated two-mode, antiphase dyn. 1887
- head spherical model, pot. distrib. due to dipole sources, num. calc. 26378
- liqs., electrostatic dispersion modes classif. 40211
- thin insulator p-type MOS structs., inversion charge anal. 38444
- CO_2 laser, relax. time of phase-conjug. refl. via four-wave mixing 1850
- Er-doped fibre laser, mode-locked, stabilisation 23126
- GaAs heteroepitaxial MBE growth on GaP, growth mode transit. *(Japanese)* 37408
- GeSi:P-Si pseudomorphic MBE films, RTA vs. steady-state furnace annealing 22095

relaxation oscillators
- array dyn., broadband N-port coupling networks 832
- DC SQUID magnetometer, double relax. oscill. 42765
- electronic beam scanning by coupled MESFET oscillators 23970
- multimode lightguide differential charact. expt. set-up *(Russian)* 14477
- NMOS integrated temp. sens., freq. output 9876
- periodic thresholds, chaos and bifurcation *(Japanese)* 12357
- phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
- segmentation, pattern, excitatory/inhibitory oscillator nets 8678
- three coupled relax. oscillators, chaos, torus and sync. 574
- van der Pol oscillator, coupled forced state, bifurcations 12360
- van der Pol oscillator, sing. induced bifurcation 575
- van der Pol oscillators, coupled, quasi-periodic responses, bifurcations 12359

relaxation theory
- 3D micro-electro-mech. struct., self-consistent electromechanical anal. 1502
- 3D objs., drawings, geometric characterisation 16240
- adaptive Gauss-Seidel method for lin. systs. 258
- alternating direction implicit method accel. by SOR 256
- bulk power syst. security anal. model, computer-based 26969
- contextual classifiers of multispectral image data in rem. sens. 2642
- edge detect., relax. labelling tech. 41187
- image segmentation, fuzzy probabilistic relax. 2789
- MOS hydrodynamic simul., nonlin. relax. 22326
- MOSFET ccts., relax.-based transient sensitivity computations 22604
- neural nets, partitioned, optim. dyn. 24390
- nonlin. LSI cct. simul., relax. Newton method 22530
- PCB automatic placement syst., design, GFDR algm. *(Korean)* 12884
- point relax. in multigrid, subsonic Euler-flow computations 37348
- power syst. short-term scheduling, price-based resources integrat. 10705
- semicond. testing facility, scheduling algm., Lagrangian relax. based 20403
- thermal unit commitment, Lagrangian relax.-based 27108
- variable local relax. tech. in nonlin. mag. problems 40197

relaxation time, carrier *see carrier relaxation time*

relay control
- *see also on-off control*
- distrib. network voltage control, wind power generator effects 10720
- elec. machine starters/relays output control stand *(Russian)* 10923
- power syst. phase asymmetry relay control design 27057
- solid-state relay design, aerospace appls. 26546

relay protection
- *see also circuit breakers; power system relaying*
- 3-phase induction motor, over/undervoltage/phase seq. reversal protection 36151
- 3-winding transformer, digital relaying, data skew 19704
- 220 and 380 kV line dist. protection, adaptive automatic reclosure *(German)* 27267
- 230 kV step-up substation, characts. *(Japanese)* 27861
- 500 kV power line-induced overhead telecom. line voltages study *(Chinese)* 35654
- AC rly. power syst. protection/fault meas., PC-based 44536
- CHP plant power syst. short cct. calc., simul. package 19505
- direction/dist./current differential relays, power freq. var. *(Chinese)* 43799
- dist. protection gradation, influence of network fuzziness *(German)* 19336
- dist. relaying coord., OO expert syst. *(Korean)* 27247
- distrib. double-cct. lines, dist. protection relay calcs. 19260
- distrib. line overcurrent protection settings determ., DSS-based 19259
- distrib. network automatic fault location/isolation syst. *(Japanese)* 10736
- distrib. systs., sig.-spectrum anal./diff. eqn. 35635
- elec. generator protection, digital integrated relay-based 4891
- generator-transformer unit faults, relay protection algms. 27680
- generator-transformer unit relaying scheme, PC-based 35684
- generator/transformer protection, ground differential relaying 19589
- generators, reverse power flow protection, relays 4886
- HV transm. line fault location, digital simul. *(Chinese)* 35697
- indust. power syst. reliab., Monte Carlo simul. 28189
- Kvazitron max.-current safety relays 4729
- LSA coord. substation protection/control syst. *(English)* 44250
- metering elements diagnostics *(Russian)* 35678
- MORGAT, EHV transm. digital relay protection simulator 10714
- motors, core bal. ground fault protection 4894
- multifunctional inverse time relay protection, microcomputer based *(Chinese)* 4720
- MV distrib. network protection/control integrat., reliab. design 43751
- network/generators protection coord., CIGRE survey 27664
- NPPs, protective relay maint. and appl. guide 43840

relay protection continued
  petroleum indust., MV/HV systs., protective relaying 5406
  phase differential currents, faults, relay protection *(Chinese)* 43794
  power syst., adaptive relay protection, hierarchical structs. 4723
  power syst., digital relay protection, fuzzy logic 4725
  power syst., unit protection systs. eval. 4724
  power syst. adaptive digital relaying, LMS algms. 35674
  power syst. adaptive dist. relay protection automation simul. 27259
  power syst. digital dist. relays, transient perform. study 27255
  power syst. digital impedance relay, improved perform. *(Chinese)* 27263
  power syst. digital relay protection, ANN appl. 19347
  power syst. directional overcurrent relays coord., decomp. approach 10780
  power syst. directional protection relays coord., computer-based 27258
  power syst. directional relays coord., graph theory 35676
  power syst. dist. relaying, Kalman stat. filter testing 10779
  power syst. dyn. anal., protective syst. modelling 4716
  power syst. load shedding optimal fuzzy control design *(Korean)* 35542
  power syst. MOV protection, series compensation capacitors, response calc. 27251
  power syst. num. protection relays, fault diagnosis appls. 35673
  power syst. overcurrent relay harmonic simul./testing 10613
  power syst. overdutied cct. breakers, intell. reclosing 27271
  power syst. protection, interactive software, education/training appl. 35683
  power syst. protection, probabilistic decision approach 10768
  power syst. relay protection, low ratio CTs, high fault currents 35675
  power syst. relay protection DC current sens., meas. modelling *(Russian)* 35672
  power syst. relay protection setting/coord., ES-based 27256
  power syst. relay testing simul., user interface software develop. 27246
  power syst. smart relay, AI based 19350
  power syst. transm./microwave towers, mech. design 27234
  power transformer relay protection CAD, ES-based *(Chinese)* 44094
  power transformer xx *(Korean)* 36220
  power transm. line dist. relaying algm., diff. eqn.-based *(Korean)* 27244
  power transm. line protection, ES-based relay setting 19291
  power transm. line relay protection CAD, ES-based 35571
  Reprocon LV sealed switchgear relays 36381
  rly. low freq. supply networks protection 5329
  rural distrib. network auto-reclose protection telecontrol 4665
  small power plant generators/auxiliaries, protection/monitoring concepts 27306
  solid state motor protective/control devices 4892
  SRM faults/unbalance forces studies 36132
  substation SCADA syst., relay network integrat. project, USA 10769
  sync. generators, stabil./faults, neural net class. 36123
  transm. line dist. protection, power flow/voltage phasor oscill. meas. 4743
  transm. network back-up protection, expert syst. 19351
  UHV power systs., high-speed relay protection appl. *(Chinese)* 27264
  VHV power systs., digital protection relay method 4717
relay systems (radio) *see radio links*
relay systems (satellite) *see satellite communication*
relays
  see also reed relays; semiconductor relays; switches
  AC LV EM device CAD, PC-based *(Russian)* 7913
  bonding state obs. in clad contact, US microscope 6386
  conf., Newport Beach, CA, USA (1993) 5446
  contact erosion modelling, obj.-oriented technol. 6395
  contact materials and sticking charact. study, telecomm. relay 9132
  contact surface, arc discharge damage, scanning laser microscopy 29633
  DC load contact switching eval., derating curves and life testing 29631
  digital control interface design 29641
  distrib. networks, AVC relays, sensitivity anal., PF changes 4652
  earth leakage cct. breakers, mag. nonlin. 36466
  elec. heat tracing, controls/monitoring 36783
  elec. machine starters/relays output control stand *(Russian)* 10923
  elec. vehicle propulsion batts., pos. phys. disconnect 36767
  electromechanical devices, tech. trends and motive technols. 6394
  EM relays/elec. contacts, develop. and test methods 29640
  flat EM relays, develop. status overview *(Russian)* 7932
  freq. actuated load shedding, electronic relay 10678
  HV mil. relay contact rating extension, CO$_2$ backfill gas 29638
  HV vac. relay reliab., Weibull/exponential failure distribs. 28523
  inductive load switching by electronic relays *(German)* 36236
  Micro A relay, automotive stds., rugged design for reliable switching 29646
  microrelay driving element, integrated electromagnet 21610
  Mini L, miniature power relay for vol. prod. 38065
  miniature power relay IF for 250 V/16 A load switching 891
  miniature relay matrix, multi-actuator systs., electromechanical interf. 30524
  nonlin. ferromag. materials, mag. field calc. 38067
  nuc. plants, control relays/timers, maint. guide 43839
  operate time/contact bounce, microcontroller in-proc. test cct. 29643
  power syst., emergency freq. control, fst underfreq. relay 4533
  smart relay, AI-based 6397
  SMT relays, reliab., heat stress during reflow soldering *(Japanese)* 6411
  solid-state relay design, aerospace appls. 26546
  TCMA, thermally controlled magnetis. actuator, thermosensitive mag. materials 30761
  test automation/data acquisition, PC-based 29644
  twin relay develop. for automotive appl. 29637
  World Wide Web caching relay 8894
  Ag-CdO(SnO$_2$) power print relay contact materials perform. 29632
relays (repeaters) *see repeaters*
relevance feedback
  Thinternet, low bandwidth Internet connections 16739
  WAIS, distributed inform. service for Internet access 16759
reliability
  see also circuit reliability; consecutive system reliability; fault tolerant computing; fault trees; laser reliability; power system reliability; quality control; semiconductor device reliability; software reliability; standards; telecommunication network reliability; testing
  0-1 knapsack problem, GUB struct., syst. reliab. optim. 37205
  6.6 kV solid insulated switchboard *(Japanese)* 27839
  22 kV spot network power receiving/transforming facility *(Japanese)* 27775
  25 yrs. of integrated optics/OEICs 39612
  110-500 kV metal-oxide surge arrester reliab. study, China *(Chinese)* 43801
  168 kV hybrid GIS, outdoor air insulated bus substations *(Japanese)* 27838
  500 W thermoelec. generator power supply, preliminary design 27992
  2000-4000 kW Wartsila high-speed diesel generator 36033
reliability continued
  AC drive systs. reliab. for crit. appls. 36639
  AC hoists modernisation 11396
  accelerated ageing test for resistors 6351
  accelerated degrad. tests, expt. design 105
  advanced composite materials, mil. electronics, environ. testing 5646
  aircraft secondary maint.-free batts., state-of-health tests 43443
  AP600 design, reliab., availability, maintainability 35922
  archive digital data storage device based on home video recorder 39182
  arcing contacts, concurrent testing syst. develop. 9811
  ATS 93 test conf., China (Nov. 93) 36857
  automotive engine controllers, potted, PQFP solder joint reliab. 28155
  avionic switchgear contact material durability *(German)* 35259
  avionics, conf., London, UK (Dec. 1992) 11585
  bank computing centre support syst. reliab. anal. 11871
  Bayesian approach to confidence in system testing 42654
  benchmarking barometers, product/proc. QC appl. 20473
  bi-energy boiler house operation feedback for reliab. anal. 20133
  bonding state obs. in clad contact, US microscope 6386
  Boolean reliab. polynomial qualitat./quantitat. exploitation 11873
  boundary layer fracture of copper/composite solder interfaces in electronic packaging 37131
  British Army in-service reliab. meas., BERR syst. 26831
  bulk avalanche semicond. switch, perform./reliab. 36384
  cable joints, interface insulation, elec. breakdown *(Japanese)* 10763
  capacitated-flow network, min. pathsets, reliab. eval. 37201
  car graphic CIG fluoresc. indicator panel, high brightness *(Japanese)* 3939
  cellular network, DC supply reliab., Al-air fuel cell 19976
  cement indust., clinker grinding, roller mills 36806
  CFC-free solder fluxes for electronic assembly, selection guidelines 38127
  Channel Tunnel project ventilation syst. overview 11484
  CHP plant structural reliab. optim. 19489
  combined cycle power plants, standardised modular power equipt. 36030
  complex models reliab. anal., SURE bounds-based 28536
  complex structural engng. systs. safety, logical-probab. anal. *(Russian)* 5565
  computer commun. networks, topol. design, simulated annealing 33542
  computer network expansion CAD, reliab. optim. 33575
  consecutive-weighted-k-out-of-n:F syst. reliab. algms. 20485
  consumer electronics, reliabil. and environ. stress testing 5709
  controllable M/M/2 syst., warm standbys operating under triadic (0,Q,N,M) policy 16471
  controllable M/M/2 syst. reliab. with warm standbys operating under triadic (0, Q, N, M) policy 11900
  Cu/polyimide multilevel thin film struct., reliab. 11860
  D1900 micro cell indoor/outdoor appls. 25435
  Data Encryption Standard, expt. cryptanalysis 32151
  database for telecomm. project engng. and mktg. 11877
  DC elec. rly., pulsed power switch-based protection 36712
  DC motor drive sensorless operation, neural network-based 36676
  decentralised sens. networks, routing for reliab. 15952
  dependability, risk control 5708
  dependability model automatic translation feasibility 11874
  desalination, electrodialysis systs., PV powered 11516
  design error effect anal. 11713
  design reliab., stds. develop. 20390
  diamond:B film/metal high temp. contacts, reliab. issues 22045
  Digital ILT, digital switching syst. 25187
  DIII-D tokamak, reflectometric dens. profile meas. advances 34679
  discrete interface devices 10358
  disjoint products approach, reliab. computation, survey 37203
  disk drive power mgt. in portable computers, quantitat. anal. 11331
  distributed appls., fault tolerant syst. 41881
  distributed power plants, telecom. appl. 19817
  distributed systs. reliab. conf., Princeton, USA (1993) 36876
  drum-type boiler of power plant, automatic control *(Japanese)* 4840
  DSP syst. functional controllability indicators *(Russian)* 16053
  dual-use microelectronics mfg. spec., single/multichip packaging 20453
  DYANET(C), dyn. channel assigning/routing satellite aided digital networks 3525
  economic considerations of reliab. centred maint. 19226
  EHV/UHV AC/DC overhead lines, porcelain/glass composite insulators 27241
  elec. contacts, develop. hist. overview *(French)* 6393
  elec. generator reliab. anal., retrospective data-based *(Russian)* 10917
  elec. motor drive mfg., design reliab. methodology 28076
  elec. rolling stock, induction motor traction drive appls. 36706
  electric railways in united Europe, IEE conf., Amsterdam (1995) 36833
  electrode insulation demo. life-test duration determ. 28428
  electromechanical devices, tech. trends and motive technols. 6394
  electronic components and technol., conf., Washington DC, 1994 5473
  electronic packaging, conf., Binghampton, NY, USA (1993) 20249
  EM relays/elec. contacts, develop. and test methods 29640
  emergency fuel/energy supply reliab., Russia 27319
  emergency generators, reliab. improvement anal. 27679
  engng. data anal., neural network appl. 37197
  engng. modelling, field inform.-based 5699
  engng. syst. safety anal./synthesis, fuzzy sets/evidential reasoning-based 36980
  epoxy based liq. encapsulant 20431
  European Safety & Reliab. Conf., Munich (1993) 11584
  EXAR failure rate prediction syst. 11879
  failure delay syst. reliab. assess., DYLAM-3 code 11872
  failure detect., GPS autonomous integrity monitoring appl. 33947
  fatigue test data, Weibull distrib. anal. 5702
  fault detection of gas sensor 25891
  FGD wastewater treatment plant availability assess. 19518
  fibre optic couplers, reliab. assurance 3539
  fibre-optic connectors in outside plant environ., perform./reliab. 14381
  filter based WDM, reliab., opt. fibre amp. appl. 3540
  fire/gas detector test schemes optim., reliab. model 36979
  flip chip struct., encapsulation 28453
  flip-chip interconnection, solder joint reliab. 29702
  flue gas heat recovery, direct-contact economisers 36021
  fluid catalytic cracking unit, assess. avail. simul. 37184
  force commutated three level boost type rectifier 19856
  four-level accelerated life-test plans optim., computer-based 20480
  France Telecom switching syst. component intrinsic failure rates 11870
  fused biconic coupler reliab., temp. effects 1664
  GE SPEEDTRONIC Mark V turbine control syst. 43923
  GPS, block triangulation, aerial control, reliab. 42546

reliability continued

- graph planarity eval. and network planarisation *(Croatian)* 2981
- hermetic motor insulation reliab., HFC refrigerants, oils *(Japanese)* 11486
- HFC 134a refrigerator rotary compressor 44609
- high reliab. internal capacitor of low-temp. ceramic cct. 29611
- high speed elec. rly., power/control systs. *(French)* 11427
- high-dens. opt. disc and superresoln. head develop. *(Japanese)* 17587
- high-power laser radiation damaged opt. glass elements 7707
- HTR module prim. cct. press. boundary reliab. under accident conditions 19482
- HTSC thin films, residual stresses for in-situ deposition 14274
- human reliab. assess., violations concept extension 28545
- human-machine syst. transient-state effectiveness simul. 20479
- HV cct. breakers, design for reliab. 44233
- HV cct. breakers, reliab./maint. cost data, CIGRE 13.06 WG 19894
- HV power switch reliab. and maint. cost survey *(German)* 36467
- HV substations reliab. studies, TOPASE knowledge tool 19907
- HV vac. relay reliab., Weibull/exponential failure distribs. 28523
- HVDC transm. network insulator problems *(Chinese)* 43737
- hydro power station struct., safety/reliab., inform.-anal. support 10873
- IC package assembly, organic contamination detect. 20429
- impregnated cathode, emission materials, develop., reliab. tests *(Japanese)* 6472
- induction motors, doubly fed, torque/reactive power control 44058
- inform. proc. systs. eval. centre, reliab. improvement *(Japanese)* 16737
- instrument design for reliability 9786
- instrument performance 9788
- intell. building, power receiving/transforming equipt. *(Japanese)* 28056
- intell. rem. power controller 26682
- Japanese nuc. plants, operation/maint., safety and reliab. 43832
- k-out-of-n:G systs. spares cost optim. method, computer-based 20484
- k-terminal reliab., consecutive cuts and paths, and bounds 37204
- Kiruna mine prod. syst. operational reliab. Markov model 20191
- LCC, soldered, survivability, temp. cycling 28464
- leaded chip solder joints in handy phone, fatigue life 5710
- life cycle cost and reliab. in electronic products, dyn. study *(Chinese)* 11843
- life testing, best compromise test plans 5700
- load-haul-dump mach. power supply cable life rel., operating environ. 20190
- LV ABC, XLPE insulated, reliab. 43774
- maint. engng., qualitat. probab. modelling appls. 83
- maint.-free vac. cct.-breaker 44231
- marine elec. machine bearings, operational state prediction 36709
- Markov regenerative stochastic models, soln. techs. 37274
- MCM High Density Interconnect overlay struct., reliab. 29730
- MCM low-temp. cofired ceramic technol., mil. appls. 21768
- MCM manufacture, assembly and testing guidelines 12964
- MCM-L product develop. proc. for low-cost MCMs 21749
- MCMs, LTCC, silver conductives, reliab. 29727
- mech. component reliab. anal. 11867
- medium/small-scale UPS, distrib. networks appls. *(Japanese)* 5035
- metal-to-metal oxide antifuses, reliable for VLSI appls. 22079
- metallized electrode capacitors, nuc. fusion, capacitor banks 36631
- meterials reliab. in microelectronics, conf., San Francisco (1994) 28229
- MHD, supersonic flows, purging fluid effects, optical diagnostics 20020
- micromanufacturing appls. of excimer-lasers 15190
- microprocessor based protection systems 9787
- mil. aerospace equipt., reliab. develop. testing 26832
- mil. avionics part failure-rate prediction models 35420
- miniature power relay IF for 250 V/16 A load switching 891
- MLC capacitors, failure caused by high temp./humidity environ. 12840
- modular 1 kW PWM inverter, high efficiency 19862
- monitoring reliab. estim., stat. anal. 17623
- MOV arresters, I-V characts. inspection tests *(Russian)* 43802
- MS90 digital control syst. *(Japanese)* 4839
- MT multifiber connectors, struct. and appls. 14382
- multi-faults diagnosis model, set-covering/certainty factors 3701
- multi-site ref. station differential GPS syst. *(French)* 34190
- multistate decomposed-struct. elec. device preventive maint. policy 11683
- multistate monotonic syst. reliab. anal. 11876
- MV GIS, maint. free vac. cct. breakers 44242
- MV overhead XLPE insulated Al alloy conductors, experience 43775
- network reliab./sampling, Monte Carlo/Markov chain techs. 41396
- networks with small failure sets, threshold reliab. 37200
- neural network based flight control, validation methodology 10362
- nonhermetic coatings for MCM eval. 21737
- NPP, aging standby components, time-depend. unavailability 43822
- NPP design, Toshiba integrated IS 35924
- NPP maint., risk-based optim. 19407
- NPP PSA reliab. param. requirements 19409
- NPP reliab.-centered maint. project, USA 27340
- NPP surveillance requirements, risk anal. 4762
- NPP tech. safety specs., probabilistic anal. 35938
- nuc. heating reactor core barrel, reliab. anal. method 35937
- nuc. plant piping seismic design requirements 4817
- nuc. plants, control relays/timers, maint. guide 43839
- nuc. plants, reliab.-centred maint., guidelines for implement. 27372
- nuc. power station district heating, economic/ecological effectiveness 27361
- nuc. waste salt dome repository reliab. and safety assess. 11689
- offshore field develop., life cycle availability assess. 20192
- oil field submerged electrocentrifugal pumps, reliab. 5432
- oil refinery substation alternative config. reliab. anal. 20170
- opt. connectors/splices, reliab. 1691
- opt. fiber reliab. modeling for multiple stress-time histories 39328
- opt. fibre coating design 39331
- opt. fibre coupler packaging for high undersea reliab. 17278
- opt. glass carrier reliab. test 179
- optoelectronic device reliab. 28526
- optoelectronic packages, spot-welding tech. 5645
- organic light emitting devices, reliab. and degrad. 14614
- packaging interconnect reliab., accel. environ. testing 20475
- partial 4-trees, forbidden minor/reliab. 37202
- partial-order transport service for multimedia and appls. 2920
- pass. components for aerospace appls., screening methods/data anal. 5684
- pass. opt. cpds., adhesives reliab. 1692
- PB-acid batts., sealed, small size, UPS appls. *(Japanese)* 5186
- petroleum indust. squirrel cage motor fault survey 5404
- PFBC repowering demons., RAM model 43888
- photomultiplier photocathodes, ionic mechanism for degrad. 21859
- piezoceramic resonators, microcontroller timing, LV operation 39085
- pipe/valve reliab. prediction, Bayesian routines 37196

reliability continued

- planned lifetime mgt., availability, cost reduction 11651
- plant safety and availability, integrated dyn. decision anal. 11680
- PLCC ink mark reliab. enhancement, flame treatment, tests 142
- plug connector selection criteria and reliab. *(German)* 21615
- polymeric insulation radiation effects, reliab. testing tutorial 22639
- post-decision symbol reliab. inform. generation algm. 40591
- power by wire aircraft, spec./testing 26560
- power station thermohydraulic syst. reliab. study, EXPRESS IKBS 19379
- power transformer condition monitoring, elec. utility experiences, UK 44102
- power-temp. cycle accelerated testing 28520
- press., sensitive strips/mats/bumpers, safety appls. *(Italian)* 3798
- pressure contact, nm-scale, surface layer effects 38060
- proc. variability control, PCB/SMT manufacture 37193
- product certification, testing stds. overview 5679
- product design criteria 97
- product design/prototyping, accelerated life testing 20400
- product reliab. testing, practical considerations 5680
- product storage reliab. estim. problem 37198
- proof of designed reliability, IEE Colloquium, London (1994) 5511
- PSA technol. characts., utilisation and limitations 11684
- PVC cable components, reliab. test methods 29621
- PWR, on-line fatigue monitoring, probabilistic assess. of margins 27408
- PWRs, safety-related pumps, reliab. params. update *(French)* 43860
- QC Taguchi methods, Goh's paradox anal. 5681
- QFPs, surface-mount, non-hermetic, reliab. 11773
- qualified manufacturers list approach in electronic packaging 28450
- reactors, reliab. assurance program, rel., regul. 19459
- rectifier-loaded PM-excited sync. generator operation *(German)* 10986
- referenced intens.-based opt. fibre sens. 34525
- relay contact surface, arc discharge damage, scanning laser microscopy 29633
- reliab.-centered test methods, overview 20478
- repairable systs., Weibull proc. failure intens. estim. 87
- RF connector and interconnect reliab. 18713
- rly. carriage elec. equip. availability coeff. 20110
- rly. signalling equipt., condition-based maint. 44531
- rly. signalling interf. prevention, high integrity monitor 44547
- rly. syst. technols. develop., Hitachi 44504
- rot. mach. early failure diagnosis, ROMADIS package 11681
- self-healing metallized polypropylene power capacitor testing 27877
- shared resource mgt. for integrated avionics systs. 10392
- Siemens MINISUB non-repeatered submarine cable syst. 34041
- Sizewell 'B' NPP operational experience audit 19410
- Sizewell B PSA, reliab./operational data 35765
- Sizewell B PWR control and instrumentation systs., reliab. assess. 35730
- SMART project, aircraft survivability models and simul. 26534
- SMT assembly, failure stats. and failure free time 11792
- SMT solder joints, long-term reliab. 28532
- sneak path anal. procedure and computer tool develop. 11714
- SOFC component mfg., testing methods, mech. props. 44392
- solar hydrogen demons. project *(German)* 44413
- space shuttle external tank attach ring, reliability analysis 10310
- Space Station Alpha power syst., environ. control/protection 26610
- space syst. reliab. modelling techs. 18709
- spaceborne appls., RF/microwave connector and interconnect reliab. 35232
- specialised RAM characts. derived from meas. technol. 17627
- squirrel cage motor rotor winding fault detect. ES 44059
- static elec. shielding bags, testing requirements 15212
- static power converter hybrid control modelling, reliab./safety appls. *(French)* 27799
- steel plant availability anal. 20165
- step-by-step SMT design for manufacture 38132
- submarine fibre-optic syst. technol., review and future prospects 3574
- submarine opt. cable transm. syst., and characts. *(Croatian)* 3550
- substation reliab. anal., STAREL/COMREL computer programs 36474
- substation reliab. eval., simul. 27868
- supercond. fault current limiter develop. 4689
- SVC operational/maint. experience, Tenaga Nasional Berhad 26983
- Swedish NPP component reliab. data anal. improvements 19405
- switchgear 44232
- syst. availability enhancement by fault diagnosis, ANN 19526
- syst./subsystem/component burn-in modelling/maximisation 28427
- System 80+, designer reliab. assurance program 19461
- tech. prod. reliab. dialogue syst. 11880
- telecom. equipt. air conditioning, building control/mgt. syst. 20135
- telecomm. equipt., fuel cell energy syst., field test 19975
- telecomm. power/earthing syst. connectors, QA 43787
- telecomms. syst. air conditioning, PAFC heat dissipation-based 20137
- thermal power stations, FGD scrubber myths/realities 43892
- thick/thin film resistors, built-in reliab., ageing kinetics 5706
- thin SOP, second level assembly and reliab. aspect 37134
- thin-film diode LCDs, high-quality display design 25920
- three-phase PWM boost rectifiers 11159
- transm. line towers, reliab.-based optim. 43789
- TSOP encapsulation reliab. modeling 37135
- turbomolecular pumps, high vac. semicond. appls. 13266
- TV network automation issues 3648
- two wire automatic rem. sens./eval. syst. 17686
- TWTs, space-use, reliab. *(Japanese)* 13007
- UBS, uninterruptible batt. syst., telecom. equipt. appl. 19787
- UHF power capacitors, thermal rating characteristics 6362
- underground distrib. feeder cables, failure prediction 4646
- UPS, maint. and upgrading *(Japanese)* 5041
- video coding quality eval., double-stimulus continuous-quality scale method 24578
- void forms. in aircraft LCD 10350
- watchdog timer in μP syst., reliab. eval. *(Japanese)* 12560
- weapons diagnostic performance: The need for a new metric 43599
- wiring syst. safety 26597
- World Wide Web media distrib. via hopwise reliable multicast 41864
- AlGaAs LD testing for SILEX program 17299
- AlN PGA type packages, reliable cofiring technols. 28444
- Cr-SiO$_2$ cermet-polyimide interfacial reacts., thin film resistor appls. 38045
- Cu interconnects, high-reliab., dry etching 38688
- GaAS IC reliab., next generation 37195
- GaAs:C/AlGaAs HBT, reliab. 13640
- GaInAsP/InP inverted-rib LD, interrupted life test 23252
- InGaAsP/InP DFB laser, wavelength shifts, ESD 23276
- LiF TLD, intrinsic self-dosing, long term stabil. 43396

reliability continued
Ni-Cd aircraft batts., life cycle testing 43442
Ni-Cd rechargeable batt., high capacity/reliab. *(Japanese)* 5184
Ni-MH space power batteries, preliminary FMECA 26583
Pb-Ca automobile batts., reliab. studies 36540
Pb-acid recombinant batts., neg. plate failure anal. 27901
Pb-acid secondary batts., failure modes experiences 36572
Pb-acid secondary batts., life extension designs 11251
Pb-acid valve regulated batts., modular installation 44288
Pb-acid valve regulated batts., telecom. appls. 19958
Pb-acid valve regulated/flooded batts., reliab./maint. 44295
Pb-acid valve-regulated 24 V aircraft batts., conductance testing 43445
Pb-acid valve-regulated automotive batts., operating experiences 36570
Pb-acid valve-regulated batts., operational experience 36567
Pb-acid valve-regulated batts., reliab. testing 19968
Pb-acid valve-regulated secondary batt., conductance/impedance tests 44298
Pb-acid valve-regulated telecom. batts., expert mgt. syst. 41632
Pb-acid valve-regulated telecom. batts., maint. costs reduction 36571
Pb-acid valve-regulated telecom. batts., ratiometric reliab. meas. 41631
Rh-plated reed switch contact, surface deactivation-induced phenom. 29634
SF_6 HV cct. breaker reliab., second internat. enquiry 44230
SF_6 HV switchgear reliab. monitoring automation 5153
SF_6 insulated distrib. transformer substation equipt. *(Italian)* 11215
SF_6 insulated tripolar encapsulated HV switchgear props. and advantages *(German)* 27856
Si multitechnology module OEIC packaging for computer/commun. systs. 11815
SiO_2 opt. fiber, mech. reliab. assess. 14357
SiO_xN_y oxynitrided tunnel oxide films, flash EEPROMs 38593
Sn-Bi solders, microstruct. evol., mech. prop. 37529
Ta capacitor reliab., low impedance/high surge current ccts. 5705
Ta chip capacitor reliab. in high surge/ripple current appls. 12841
Ta chip capacitors, proven reliab., high capacitance, low vol., rugged design, SMDs 29610
Ta electrolytic capacitors, life prediction 6368

reliability theory
see also consecutive system reliability; statistical analysis
accelerated life test data, threshold stress estim. *(Japanese)* 28525
adaptive computation of EM field problems, reliab. assess. of error estim. 40200
age and periodic replacement policies, nonparametric estim. 28546
Bayes estim. of reliab. in geometric case 28529
biased direct Monte Carlo simul. method 37180
CCS network SS7 protocol, software fault impact model 41517
COB encapsulation technol., stress anal., reliab., FEM 37077
complex two-unit syst., random breakdown of repair facility 11855
complexities modelling, Bayesian simul. role 169
consecutive-k-out-of-n:F syst., $O(k^3 \cdot \log(n/k))$ algm. 28539
consecutive-k-out-of-n:F systs. 20487
consecutive-k-out-of-n:F systs., reliab. calc. 28538
cutset eval. from paths, improved algm., 2-state reliab. syst. 28528
diagnostic entropy, syst. diagnosis sig. incompleteness 171
Dirichlet proc. for reliab. anal. 5744
engng.-syst. monitoring, error var. effect 11859
environ. quality eval., reliab. anal. 11889
fault anal. syst., safety index appls. *(Japanese)* 11677
fault tree uncertainty anal., coeff. of var. appl. 37186
finite range failure model, reliab. anal. 37187
FLOTOX EEPROM cells, intrinsic retention characts., model 37751
fuzzy reliab. optim. problem soln. 11848
GI/G/1 queueing syst. with repairable service station, reliab. 20516
graphs, most vital edges determ., spanning trees 20541
hazard engineering and the management of risk 5711
human expert emergency situation perform. assess. 37182
human-machine syst. transient-state effectiveness simul. 20479
in-service inspection, risk-based approach 5695
infrared detecting system, reliability 9913
inverse coeff. of var., asymptotic sampling distribs. 20481
k-out-of-m systs., nonparametric inferences on syst. availability 11854
k-out-of-n:G and k-to-l-out-of-n:G systs. reliab., $O(n \cdot (\log_2(n))^2)$ algm. 28540
k-out-of-n:G syst. reliab. anal. 175
k-out-of-n:G systs. reliab., probab. arguments 28542
k-out-of-n:G systs. reliab., simple lower bound calc. 20486
large-scale syst. reliab., phased mission anal. method 174
life cycle cost and reliab. in electronic product, dyn. study 11862
life distribs., EBELC/EWELC classes 37239
life distribs., location params. Bayesian estim. 173
life distribs. categorisation, randomly right censored data-based 20482
lithography tool, reliab. demons. test. design, Bayesian tech. 37194
M-out-of-N event probab. anal. algms. 37181
machine service model, queuing syst. 20497
majority voting based VLSI fault-tolerant ccts., reliab. 641
Markovian queueing syst. with finite capacity, removable/nonreliable server control 11849
Markovian reliab. problem reduction by component influence graph 11875
mean residual life/failure rate rels., distribs. charactn. 20483
mobile packet radio LAN idle sig. casting multiple access with failure detect. 41821
modelling, Weibull distribs., failure data anal. 37183
multifunctional syst. availability model 11866
multifunctional systs., availability 28543
multiple stress of component, reliab. estim. 11852
multiplex systs., reliab. models eval. 37192
multistate reliab. models, component relevancy, comment 28537
N-tuple modular redundancy systs. reliab. modelling 37185
national broadcasting network syst., reliab. anal. 17535
neural network based flight control, validation methodology 10362
nonindependent main unit and n-unit series subsystem, shut-off rules, availability 11847
nonparametric estim. of reliab. fn., kernel dens. estim. 11857
Pentium proc. package, thermal modelling, reliable operation 12575
priority standby redundant syst., different types of repair facilities, stochastic behaviour 28531
relative flexibility estim. of equipt. and systs. 11842
reliab. dens. fn. determ., failure rate, random variable 20498
repairable syst. with spares and removable repairman, reliab. 11850
repairable systs. interval reliab., integral eqn. approach 37178
repairable systs. reliab., time-varying failure rates 28541

reliability theory continued
Rician fading nonco-operative multiple access channel capacity 41465
robust failure detect., filtered meas. parity check 28521
series consecutive-k-out-of-n:G systs., optimal design 172
ship struct., multi-objective optimum design, reliab. theory *(Chinese)* 5703
SMT solder ball connection reliab. model and crit. param. optim. 926
space shuttle external tank attach ring, reliability analysis 10310
standby complex syst. having imperfect switch-over device, availability anal. 11853
storage syst. with high reliab., optimal inspection policy 37190
struct. reliab. estim. models, uncertain data handling 37179
syst. components importance ranking theorems 28544
syst. reliab. estim. uncertainty eval. methods 11882
telecomm. power supply/air-conditioning, reliab. modelling 19858
telecommunications software reliab. prediction, user-oriented procedure 41610
three-state device networks, reliab. eval. formulae 20499
transm. syst. with overloads, reliab. anal. 27136
two-param. Weibull distrib., percentile estim. 37191
two-unit cold standby syst. with instructions at need, probabilistic anal. 28530
two-unit syst. with internal/external repairs, inspection and post repair, profit eval. 11851
Weibull accelerated life testing, unreported early failures 28429
SiO_2 opt. fiber, Vicker's indentation modeling 14358

reluctance generators
3-phase act. power filter, sliding mode control 19759
salient reluctance generator voltage control, DSP-based *(Korean)* 36113
sensorless DC output voltage control 4927
switched reluctance starter/generator, aircraft engine 43457
three-phase bridge rectifier, self-excited generator appls. 11179

reluctance machines
see also reluctance generators; reluctance motors
lin. switched reluctance machines, high force dens. designs 36135
multiple coupled cct. modelling 10981
PM reluctance machines, dyn. characts. investig. 19609
PM reluctance machines, theoretical anal. *(Japanese)* 4923
switched reluctance machines, torque optim. design *(French)* 10990
variable reluctance machine magnetisation characts. modelling 19604
variable reluctance machines, demagnetisation control designs 36138

reluctance motor drives
4-phase variable SRM drive, elec. vehicles 28110
5 kW marine propulsion SRM/propeller drive 5340
5-phase SRM drive, phase converter, microcontroller 5317
ASD, 2-level bipolar current control 11385
axially laminated rotor, vector control 5258
brushless sync. motor drives, field weakening perform. 5250
design for flux-weakening appls. 11326
doubly-fed reluctance motor ASD, steady state perform. 11321
DSP-based sliding mode control 44493
elec. vehicle motor drive syst. design, test results 5345
faulted SRM drives modelling, evol. ANN 44448
flux weakened operation, current regulator 5303
gas turbine engines, SRM fuel-lube pump drive 20053
lin. reluctance servomotor drives, control perform. 5319
nonlin. SRM drive modelling, neural net-based 5256
optimal current angle control algm. 36684
PM reluctance motor drives, axially-laminated interior rotor design 36664
power electronics conf., Cuernavaca, Mexico (Aug. 1993) 11564
PV water pumping, SRM drive-based, perform. anal. 10890
sensorless posn. meas. 11318
SRM actuated rigid-link robot hybrid adaptive tracking control 36650
SRM drive, asymm. half bridge fed, discrete modelling 44497
SRM drive, chopper control, acoustic noise, ride through 11322
SRM drive, converter topol., efficiency, control 11372
SRM drive, nonlin. modelling, ANN 20074
SRM drive control, DSP based syst. archit. 11380
SRM drive speed/current regulation, microcontroller-based 11350
SRM drives, advanced develop. experiences 36680
SRM drives, brushless DC motor microcontroller appls. 36679
SRM drives, dual-decay converter, efficiency/perform. anal. 5304
SRM drives, dyn. simul., saturation/driver characts. 11362
SRM drives, energy recovery snubbers anal./design 20057
SRM drives, generalised simul. approach *(Chinese)* 44472
SRM drives, novel C-dump inverter develop. *(Korean)* 28085
SRM drives, sensorless rotor posn. meas./control 5257
SRM drives, sliding mode observer controller 5301
SRM drives, vibr./acoustic noise anal./control 20083
SRM drives technol. simplification, commercial appls. 20068
switched reluctance motor posn. tracking 19612
sync. reluctance drive technol., theoretical overview 44473
variable reluctance motors, indirect rotor posn. sens. 5302
variable reluctance PM motor drive, elec. vehicle appl. *(French)* 11413
variable reluctance stepping motor rotor oscill. control 11376
VSI PWM inverter fed, design, params. 5283

reluctance motor protection
SRM drives, energy recovery snubbers anal./design 20057

reluctance motors
see also reluctance motor drives; reluctance motor protection
1 MW SRM design, traction appls. 36757
3-phase, rotors comparison 36165
3-phase reluctance motor, single phase supply, bal. operation 19614
doubly salient doubly excited variable reluctance motor 19616
doubly-salient variable-reluctance machine, starting model *(French)* 10993
IEEE industry applications, conf., Denver, USA (1994) 10
lin. reluctance motor can secondaries, suspen./propulsion forces 19671
lin. variable-reluctance machine, mag. flux decoupled windings 19666
modelling/param. meas. methods *(Japanese)* 10973
motion control systs. develop., motors, drives, user interface 44440
PM vernier motor, optimum design *(Japanese)* 27685
PM vernier motors, anal. *(Japanese)* 10974
power electronics, drives and motors, conf., Taormina, Italy (1994) 28252
power electronics and variable speed drives, IEE conf., London, (1994) 37
reduction of reluctance torque in brushless PM motors 19650
rolling rotor SRM, optimal digital control design 36134
rotor posn. meas., current meas. method 4934
speed control, magnetoresistive angle sens. 44030
SRM, core losses calc., mag. flux 10983
SRM, flux linkage/inductance meas. methods 4935

reluctance motors continued
SRM, lin. unaligned posn. scaling method 19603
SRM, optimal operation, choppingless excitation *(English)* 27684
SRM, ripple/torque, stator thickness/teeth shape effects 36137
SRM, switching angle, high speed operation *(Korean)* 36112
SRM actuators, axially laminated anisotropic rotor design 27701
SRM design considerations, aircraft engine pump appl. 10982
SRM EM characts., meas. methods comparison 10998
SRM faults/unbalance forces studies 36132
SRM novel buck power converter topol. *(Korean)* 27691
SRM params., torque calc., power characts. 44022
SRM perform., end core flux effect 4915
step motors, dissymmetrical stator theory *(French)* 36136
switched reluctance motor, phase current, loss, model *(French)* 44029
switched reluctance motor, torque ripple neural control 44011
switched reluctance motor fuzzy adaptive control 10988
switched/sync. reluctance motor torque prod., unified theory 36133
sync. reluctance motors, vector control *(Japanese)* 10969
three-phase reluctance motors, single-phase-fed, transient anal. 36124
torque prod., unified theory 4930
torque ripple minimization for variable reluctance motors 11007
variable reluctance motor, voltage-fed, dyn. model *(French)* 10994

remanence
see also coercive force
ang. depend. of magnetis. in recording media 14221
complete-moving-hysteresis model, param. ident. 7100
long. thin film hard disk media, demagnetization, inverse magnetostriction 30718
long. thin film with irregular lattice, Lorentz microscopy, model 14098
metal particle oriented tapes, FMR spectra 7134
moving vector Preisach hysteresis model and δM curves 14220
nanocrystalline materials, magnetis. procs. 7012
PM struct., lightweight distortion-free access 7209
polycryst. PM, remanence angle hysteresis 14259
rare-earth/α-Fe based composite magnets, remanence enhancement, 2D/3D calc. 7007
steel, Cr-Mo, ferromag., creep damage, mag. study 14128
tapes, magnetis. reversal, seq. field pulses 7136
thick, thin and multilayered media, digital recording props. 14251
AgNiFe, interact. effects/mag. ordering, annealing effect 6982
Ba ferrite particles, substituted, high dens. mag. recording, remanence 39165
Ba-ferrite interact. mag. hard particles, mag. reversal 39169
$BaFe_{12}O_{19}$ hand spread coatings, transverse suscept. and remanence characts. 7027
$BaZn_xTi_yFe_{12-x-y}O_z$ particulate recording media, remanence states/transverse suscept. 30685
$Bi_2Sr_2Ca_2Cu_3O_x$:Pb/Ag, monofilamentary tapes, Hall sens. magnetometry 39228
Co-Ni-O metal-evaporated tapes, unidirectional exchange anisotropy 7113
Co-γ-Fe_2O_3 oriented tapes, FMR spectra 7134
CoCrTa/Cr/GaAs, microstruct. and recording props. of bicrystal disks 7116
CoPtCr thin film recording media, soft error rate 7124
CoPtCr thin films, interact. fields and media noise 7123
Cr/CoCrTa/M/CoCrTa/Cr (M=Al,Cu,Ag,Cr) thin films, mag. props., X-ray crystallography 7052
CrO_2 oriented tapes, FMR spectra 7134
$Fe_{66}M_2Nd_{20}C_{9.5}B_{0.5}$ (M=Ga,Nb,Cu,Al) ingot magnets by solid-state transform. 6969
FeNdB-based magnets, Ga and Nb addits., mag. and microstructural props. 14163
γ-Fe_2O_3 oriented tapes, FMR spectra 7134
γ-Fe_2O_3, particulate recording media, remanence states/transverse suscept. 30685
γ-Fe_2O_3:Co mag. tapes, waterborne formulation prep., dispersion quality 7133
MnAlC, MnAl, PM prod. by mech. alloying 14260
MnBiDy alloy films, PM and struct. props. 7002
MnBiDy(Sm) PM films, struct. and mag. props. 39132
Nd-Fe-B PM, magnetis. procs., torsion pendulum magnetometry 39133
Nd-Fe-B magnets, extruded, sintered, mag. props. 39199
Nd-Fe-B-Co(Ga)(Zr) anisotropic powders, HDDR treatment, mag. props. 6984
$Nd_{4.5}B_{18.5}Fe_{77}$ ribbons, melt-spun, Mossbauer and mag. study 39159
$Nd_{2-x}Dy_xFe_{14-y}Co_yB$ sintered magnets, remanence/coercivity 6973
$Nd_{15.4}Fe_{75.7}B_{6.7}Cu_{1.3}Nb_{0.9}$ sintered magnets, prep./TEM 6968
$Nd_{17-x}Pr_xFe_{75}B_8$ sintered magnets, mag. props. 39198
(Pb,La)(Zr,Ti)O_3 ferroelec. films, metalorganic CVD/elec. props. 20758
$Pr_{16}Fe_{76-x-y}Co_xAl_yB_8$ magnets, mag. props. 14161
$R_2Fe_{14}B$/Fe nanocomposite exchange coupled magnets, struct./mag. props. 7009
Sm-Fe-N/α-Fe remanence-enhanced mech. alloyed two phase magnets, coercivity 7010
$Sm_{12.5}Fe_{87.5}$ nitride, mech. alloyed, nitrogenation behaviour and thermostability 1574
$(Sm_{1-y}Pr_y)_2Fe_{17}N_x$ magnets, remanence enhancement 30678

remanent magnetism *see remanence*

remote consoles
CMOS low-power chipset for portable multimedia I/O terminal 9114
distributed control syst., rem. station, real-time commun. *(Korean)* 41805
ISOLDE isotope separator control syst. design 18391

remote control *see telecontrol*

remote metering *see telemetry*

remote procedure calls
Amoeba syst. and WAN commun. *(Chinese)* 16648
audio-visual control, message obj. transm. 17560
client/server models, commun., spec./validation 2932
distributed commun. syst. technol. 24885
distributed shared memory implement. based on DCE 25032
distributed telecomm. syst. design, ODP approach 24954
LAN, centrally scheduled, task distrib. 41774
network protocol perform. in multi-workstation parallel distributed appls. 25039
polarized target 34873
protocol, probabilistic validation 24821
protocol for interconnecting distributed discrete event simul. syst. 33481
SCIDDLE, tool for large scale distributed computing 33583
tridiagonal lin. syst. and Poisson's eqn. soln., distributed memory systs. 28669

remote sensing
see also infrared imaging; remote sensing by laser beam; remote sensing by radar
2 μm LIDAR for laser-based rem. sens. 10384
3D data extraction from SAR and opt. imaging combination 10449
8mm total power radiometer, periodic calib. 3962
acousto-optic imaging spectropolarimetry for rem. sens. 7416
acousto-optic tunable filter hyperspectral imagery, anal. 18922
adaptive window algm. for aerial image stereo 41329
advanced rem. sens. simulator, geometric mapping 26530
aerial photography restoration, MLE algm. 41339
aerospace photography, ground sampled dist. determ. 18921
agric., cartographic problem solving, geographical IS 4413
agricultural opt. rem. sens. problems 41289
airborne laser scanner meas., filtering and calib. 43484
Airborne Visible/Infrared Imaging Spectrometer, inflight calib. validation (1993) 18798
aircraft motion estim., max., posteriori method 16358
Argentina, land surface images, texture anal. 10433
atmos., humidity & temp., TOVS IR & microwave radiometry 43511
atmos., vapour and liq. water, SSM/I radiometry method 35320
atmos., water vap. profiling, SSM/T-2 microwave radiometry 35322
atmos. distorted images, high-resoln. restoration techs. 33004
atmos. humidity, GOES IR radiometry rem. sens. 4393
atmos. humidity, SSM/I and TOVS methods 35321
atmos. inhomogeneities, vel. meas., image data-handling techs. 43543
atmos. rem. sens., TOVS mm & microwave radiometry 35323
atmos. visibility meas. device 10461
atmosphere, remote sensing, high power mm wave sources 10488
atmospheric radiometric sens., radiation transport/thermal cond. eqns. 35301
AVIRIS calib. of Japanese Earth Resources Satellite-1 opt. sens. 17959
ballistic missile track initiation from satellite obs. 18982
binary division algm. for multi-spectral images clustering 8635
borehole radar sig. ident., time-freq. distrib. 26706
buried line conductors, EM modelling, integral eqn. 40256
buried obj. detect., radar image reconstruction algm. 18780
buried objs. detect., dual-band IR images fusion 8555
clear-air MM-wave scatt. 23602
cloud and rain, rem. sens., mm wavelengths 10484
cloud fraction/shadow props. retrieval from TIMS/AVIRIS 26718
cloud IR rem. sens., shape segmentation method 18834
cloud liq. water, microwave radiometry rem. sens. 35319
cloud liq. water, special sens. microwave imager meas. 18828
cloud masking, ensemble methods 18822
cloud water content, opt. & microwave rem. sens. 4392
clouds, laser rem. sens., polariz. diversity methods 10485
coastal oceanography, monitoring of environ. change 26736
coastal polynya area estim. method, satellite microwave data 43519
coastal radar imaging, support of obs. and ocean modelling 26743
coastline change by SAR radar, image texture class. 10512
commercial indust. of rem. sens., data variety 41320
composite medium composed of lossy dielec. spheres, dielec. const. 23590
conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
contextual classifiers of multispectral image data in rem. sens. 2642
counterpropagation nets, rem. sens. class. appl. 43536
crustal deform. in Tokyo metropolitan area *(Japanese)* 18804
digital demodulator for rem. sens. satellites, perform. 33969
digital elevation models, inform.-preserving surface restoration/feature extraction 43488
digital image proc. 35359
digital images anal. algms. 32850
digital polariz. image treatment 24558
disparity anal., wavelet transform approach 26701
disposable rem. chem. sens. network 9864
Earth/space obs. spacecraft, pulsed power insulation design 35257
earthquake prediction, VLBI/satellite laser ranging 43477
elevation map recovering, aerial image seq., stereo modeling 10341
EM scatt. by vegetation, wave approach and stochastic Lindenmayer syst. 40284
Eng. Channel, seasonal temp. var., IR rem. sens. 26762
epipolar images from MOMS-02 lin. scanner images 41342
fiber magnetometer, rem. hybrid heterodyne technol. 34526
fiber-optic sens. array without polariz.-induced sig. fading 34522
fibre optic chem. sens. develop., sol-gel procs. 17891
fibre-optic white light displacement sens. syst. 25872
fishing vessels tracking, SAR/AVHRR data 25584
FLIR scenes, jump-diffusion procs. for automated understanding 16285
FOPAIR, focused array imaging radar for ocean rem. sens. 26732
forest backscatt. models, cylinder-ground double bounce scatt. 26780
forest change, automated rem. sens. image method 43487
forest param. estim., TM imagery, fuzzy class. 26777
forested slopes, radar rem. sens., geometric optics theory 18785
forests, repeat pass SAR interferometry 43470
fuzzy inference, remote sensing image boundary area 9413
generalized inverses in sig. proc./rem. sens. 8344
generation of image data for Mars mission, verification for WAOSS 43441
geoid (sea surface topography), NRCS radar altimetry product 26705
GIS, latest in rem. sens. technol. 43463
GOES-I Imager, radiometric accuracy optim. 4382
Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
ground charactn., acoustic pulsed level difference tech. 18943
ground penetrating radar, subsurface struct. detect. 10453
high spectral resoln. coastal ocean imagery, stat. and empirical anal. 18879
humidity of boundary layer, rem. sens. methods 10476
hyperspectral imagery class., BP neural network 35361
hyperspectral imagery compression, 3D DCT and hybrid DPCM/DCT 24384
icebergs, radar detect. 8416
image class., neural nets 43467
image class., neural nets & expert class. 10492
image proc., num. methods *(French)* 26704
image segmentation, knowledge based image anal. *(German)* 41343
imagery, video, and assoc. data, interactive anal. tools 8489
Indian land & sea surfaces, radar clutter characts. 43468
Integrated Sounding System, TOGA COARE obs. 4390
IR cloud pattern-class., neural-network decision surfaces 2715
IR image restoration through atmos., MTF 34589
IR imaging for target acquisition, atmos. blurring effects 35396
IR multispectral target/background field meas. 18974

remote sensing continued
IR surveillance, motion estim. methods/noisy phenom. 2612
IR syst. rem. temp. meas., accuracy depend. on obj.-syst. dist. 34559
IR technology, conf., San Diego, CA, USA (1994) 11575
land cover class., rem. sens. imagery anal. 26776
land cover multi-spectral rem. sens. data classif. 35360
land surface, opt. imaging from space, radiometric corrections 43482
land surface IR imaging, thermal background model 35287
land surface microwave radiometry, winter landscape signatures 35295
land surface multispectral imaging, texture anal. 10433
land topography, ice-covered, shape-from-shading algm. 18787
landcover class., rem. sensed imagery, data fusion 43537
Landsat images, genetic algms. for terrain categorization 16256
Landsat images spatial resoln. improvement *(Korean)* 26710
Landsat Thematic Mapper data, multispectral lines of commun. extraction 16259
Landsat TM imagery, perceptual grouping, extract extended lin. 16258
Landsat-TM scene lin. LOC segment detect. using morph., model-based approach 16257
lightsat, high resoln. electro-optic rem. sens. payloads 33970
likelihood distributions for radio wave tomography 10456
lin. multiplexer designs for rem. sens. appl. 34581
mesoscale convective systs., microwave and IR emissions 35318
METEOSAT IR image proc. and MPEG animation 10467
microwave radiometry, rem. sens. and radioastronomy appls. *(Japanese)* 42910
microwave radiometry of Earth surface, SSM/I image improvement 18781
MM-wave imaging optics, offset paraboloidal reflector 23904
modular imaging spectrometer instrum. modeling/testing 34591
MOMS-02, geoscientific eval. 43483
MOMS-02/D2, first results and future appls. 10426
moving sources with complex spatial-time struct., rem. acoustic sens. 17479
MSX early midcourse algm. testbed 16111
multi-beam MM-wave FPA airborne imaging syst. 42842
multi-sens. images and digital map data fusion 43547
multiaspect acoustic imaging systs. in plane layered medium 43520
multiple neural networks, reduced input dimens. 33036
multisensor image registration, contour-based approach 24699
multispectral image compression designs, syst. considerations 16308
multispectral image data, panchromatic band sharpening 8498
multispectral image enhancement, histogram explosion 24508
multispectral imagery, transform coding 24501
multispectral images, multivariate contrast enhancement tech. 26703
multispectral images, radiometrically correct sharpening, panchromatic image 16270
neural network class. of rem.-sens. data 43544
NOAA images, class., multilayer neural network 4389
normal incidence echo-sounding, refl. and reverberation 4402
nuc. environments, rem. Raman fibre optic spectrosc. systs. 25869
ocean coastal AVHRR imagery, data acquisition & study 10504
ocean currents, HF radar rem. sens. from ship 26748
ocean currents, VHF radar-drifting transponder method 26750
ocean dyn. by radar altimetry, Poseidon/Topex method 10551
ocean friction vel., C/Ku-band scatterometer data appl. 10525
ocean radar data assimilation, circ. models 26752
ocean RCS, low incidence 26735
ocean rem. sens., RADARSAT, expt. airborne SAR obs. 26739
ocean rem. sens. by radar, French DP & archiving 10553
ocean surface, EM scatt., salinity/temp. effects 10526
ocean surface, microwave radar polarimetric backscatt. 26740
ocean surface currents meas., HF radars 35337
ocean wave & wind rem. sens., Geosat altimeter results 26741
ocean wave directional spectra, HF radar computational geom. 26737
ocean wave directions, WaMos radar syst. 26738
ocean wave radar imagery, SAR distortion correction 43525
ocean wave rem. sens., HF radar for directional spectra 10508
ocean wave satellite rem. sens., oceanic sites 10511
ocean wave-atm. turbulence interact., microwave RCS meas. 10472
ocean waves polarized microwave radiometry 10490
oceanic mesoscale variability, SOAP 93 prediction syst. 26765
opt. agricultural rem. sens., spatial pattern class. 24540
opt. imaging, principal components transform matrix 18786
optical fibre RF signal transmission 34024
organic detect. in soil, fiber optic near IR reflectance sens. 17920
orthoimages (digital), airborne line scanner imagery 43489
pass. rem. IR interferometers, analog detect. scheme 34427
perspective terrain visualization using rem. sens., GIS and computer graphics 18919
photofragment fluoresc. hygrometer for NASA ER-2/Perseus aircraft 10468
photogrammetry, GPS controlled triangulation of single flight lines 42549
plane surface elec. params. meas., radio-thermal radiation 10010
polariz. insensitive fibre-optic white-light interferometry 34521
precip. rem. sens., microwave radiometry, retrieval algm. 35315
pushbroom scanners with large lin. arrays, odd/even detector noise removal 16260
PV power systs., site/time specific simul., satellite insolation data 10892
quasi-opt. image separation scheme for mm- and submm-waves 3961
radar scatt. by random nonspherical scatters, matrix theory 18784
radially stratified cylinder probing, inverse problem, iter. scheme 31788
radiobrightness temp. of stratified medium, rough boundary 18051
rainfall at sea, SSM/I microwave radiometry method 35296
rainfall estim., satellite imagery, hybrid neural net 43518
rainfall over the sea, imaging microwave radiometry 35317
rainfall over the sea, multichannel microwave radiometry 35316
rainfall satellite radiometry, improvement, radar data 35327
random rough surface heights stat. props. via rem. sens. 32857
reflective telescope technol. for IR surveillance/rem. sens. 17798
rem. ellipt.-core dual-mode fiber strain sens., coherence-tuned interrogation 17918
Russian commercial rem. imaging systs., 1994-2000 41319
satellite image anal., terrain neural classifier 18791
satellite image fusion, multiresolution anal. 32886
satellite image segmentation, texture/context/map 26781
sea ice, age & thickness, SAR tracking rem. sens. method 43522
sea ice motion rem. sens., opt., automated method 10550
sea ice type class., Landsat TM images 10518
sea surface altitude rem. sens., TOPEX/POSEIDON method 43465
sea surface brightness temp., aircraft K-band radiometry 26731
sea surface obs. by radar, scatt. rel., wind conditions 10481
sea surface radar altimetry, multiresolution stochastic proc. 10552

remote sensing continued
sea surface radar imaging, image texture anal. 26742
sea surface slope determ., meas. by laser sens. 10554
sea surface temp., IR rem. sens. by satellite, aerosol effects 10548
sea surface thermal IR images, bi-dimens. struct. detect. 26760
seabed, nodule abundant areas, refl. sound charact. 43476
small satellite technol., conf., Orlando, USA (Apr. 1993) 20210
snow cover & precip., satellite mm wave radiometry method 43507
soil erosion anal., rem. sens., DMGIS 43546
soil moisture rem. sens., microwave radiometry, soil 35351
soil moisture rem. sens., UHF radiometry method 35350
space data compression stds. 2457
space THz technol., symp., Ann Arbor, USA (May 1994) 36819
spaceborne SAR antenna patterns determ., distributed targets 25571
spectral image class., Kohonen neural net *(Chinese)* 43478
SPOT stereopairs, orbit attitude params. 10450
SST, satellite rem. sens. time series 10510
struct. detect. in rem. sens., recurrent neural net 24728
surface orient. invariant matching of spectral signatures 43549
swell waves at coast, radar rem. sens., SAR method 26744
tactical systs. appls. for THz devices 10591
telemetry sig. reception/proc. 3160
terrain obj. dyn. and monitoring by GIS and rem. sens. 41271
terrain surface albedo retrieval method 43481
textural for rem. sens. appls. 43485
texture of images, gray level cooccurrence matrix 43466
thermovisual syst. for NDE of objs. 18920
tie pointing procedure automation, satellite image geocoding 41278
TOPEX/Poseidon microwave radiometer, antenna pattern/brightness temp. 26734
TOPEX/Poseidon Microwave Radiometer, description and calib. 26733
TOPEX/Poseidon microwave radiometer, wet tropos. range correction algm. 26717
topography of Earth surface, multibeam radar altimetry 18783
topography of forested terrain, repeat pass SAR interferometry 43470
topography of land surface, TOPSAT radar mission 10451
trophical and morph. status of water resources, airborne hyperspectral algms. 18878
tropical cyclone monitoring, satellite microwave sens. 10469
UHF radiometer for Earth surface rem. sens., synthetic aperture 10452
ultrawideband polarimetric radar for study of sea scatter 10555
underwater target detect. by lidar, modulated pulse method 10444
unmanned underwater surveillance vehicle systs. 9666
UV technology, conference, San Diego, CA, USA (July 1994) 5467
UV three axis attitude ref. sens. 9936
vegetation, microwave emission modelling 26778
vegetation opt. rem. sens., NDVI modif. 43541
vert. radio sounding of plasma layer 43502
visual data exploration conf., San Jose, USA (1994) 23
weak opt. sig. detect., opt. parametric amplif. 17320
wind over Azores-Madeira region, SEMAPHORE expt. 26727
wind/waves, ERS-1 data vs., BSH num. model forecasts 10524
windfields, 3D vector wind retrieval, bistatic dual-Doppler radar 10482
X-band data transmitter, space rem. sens. missions 4379
X/Ka band emission from leafy vegetation, modeling 43493
HgCdTe IR Earth-imaging array, total dose and proton testing 17960
O_3 in stratos., mm-wave heterodyne spectral determ. 10486
O_3 layer monitoring, RT-2 antenna syst. 17526

remote sensing by laser beam
see also measurement by laser beam
2 μm LIDAR for laser-based rem. sens. 10384
2 μm LIDAR for laser-based rem. sens. 26552
airborne laser scanner meas., filtering and calib. 43484
atmos., humidity fine vert. struct., Raman lidar obs. 43501
atmos. comp., IR NH_3-CO_2 laser method 10487
car exhaust trace gas monitoring by laser photoacoustic spectrosc. 18907
clouds, laser rem. sens., polariz. diversity methods 10485
coherent mode locked TEA CO_2 LADAR for risk reduction and phenomenology expts. 17443
conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
contrails, ground-based mobile scanning lidar appl. 26766
diffuse surface roughness, opt. rem. sens., turbulent atmos. 7877
Earth/space obs. spacecraft, pulsed power insulation design 35257
earthquake prediction, VLBI/satellite laser ranging 43477
fiber magnetometer, rem. hybrid heterodyne technol. 34526
helicopter-based lidar complex for vegetation rem. sens. 25589
high accuracy laser rangefinders for indust. appls. 15202
humidity of atmos., rem. sens., alexandrite ring laser 43512
humidity of boundary layer, rem. sens. methods 10476
image reconstruction, reflective tomography 17435
industrial appls. of laser radar, conf., San Diego, USA (1994) 5439
land surface, DP and pattern recogn. 10454
laser range gate underwater imaging systs. 18906
LIDAR inversion methods for atmos. of arbitrary opt. dens. 4411
metane, atmos., tunable LD absorpt. spectrosc. 9953
middle atmos., wind meas. comparison, DYANA campaign 26720
multichannel laser measuring systs., resolving power adaptive correction 15201
neutral rare gas lasers, atmos. comp., IR spectra 39676
ocean waves, scanning lidar method, glitter vels. 35346
oil films at water surface, rem. thickness meas. by excimer laser 7876
oils, crude and refined, rem. charactn. by laser fluorosensor syst. 35357
reflective tomography for space obj. imaging, short-pulse-length laser 17434
rough surfaces, glitter fn. for rem. sens. 16304
scintillometer for atm. C_n^2 and winds meas. 4396
sea surface slope determ., meas. by laser sens. 10554
sheared beam imaging in space-time distortions 17433
target ident., laser imaging 2160
target vel. meas. from speckled images 16197
towed laser slopemeter for ocean waves meas. 4405
trace gas rem. sens. in mid-IR/nadir geom. 43533
turbulent atm. wind profile estim. from laser distortion data 35311
underwater opt. imager, Nd:YLF laser (green) 18904
underwater target detect. by lidar, modulated pulse method 10444
unmanned underwater surveillance vehicle systs. 9666
water vapour, collocated Raman lidar profiling 18818
wind, scanning lidar method, glitter vels. 35346
wind in PBL, LDA method 10475
wind meas. by heterodyne coherent laser radar 43504

remote sensing by laser beam continued
CO_2 coherent lidars for measuring wind vel. /atmos. turbulence 3628
HgCdTe varactor photodetectors for space-borne wind lidar, heterodyne tech. 34162
InSb spin-flip Raman laser, pumped, $11 \sim 16$ μm tunable, sens. appl. 1941
KrF-laser-based O_3 lidar syst. for tropos meas. 4394
NO_2 pollution detect., DIAL perform. predictions 17438
Na narrowband wind-temp. lidar syst. sensitivity anal. 43503
Nd:YAG laser radar for wide-area fire detect. 17451
O_3 in tropos., vert. profiles, DIAL data 26724
O_3, sounding by excimer-Raman lidar syst. 34160

remote sensing by radar
see also synthetic aperture radar
3D data extraction from SAR and opt. imaging combination 10449
3D wind retrieval from single Doppler radar, variational method 26722
20 GHz Earth-Olympus satellite path, propag. research 42333
42 GHz bistatic Doppler radar for wind/fog/precip. meas. 18835
94 GHz spaceborne radar for global monitoring of ice cloud 35331
aircraft-borne interferometric SAR for 3-D radar imaging 17384
Antarctic field meas. of radar backscatt. from snow 43530
Arctic sea ice thickness determ., polarimetric SAR appl. 43529
Arctic tundra, SAR imagery, terrain effects removal 26702
atmos., radar interferometric techs. and vol. scatter 35306
atmos., vel. field by Doppler-correl. reconstruction *(Russian)* 35303
borehole radar sig. ident., time-freq. distrib. 26706
buried obj. detect., radar image reconstruction algm. 18780
C-band dual-polariz. radar, computer error anal. of rainfall rates 10571
C-band V-polarized radar sea-echo model (from ERS-1) 43531
Chilbolton radar facility for precip. meas. 35328
clear air radar reflective layers, rain effects 43513
cloud and rain, rem. sens., mm wavelengths 10484
cloud ice crysts., 94 and 220 GHz polarimetric scatt. 23619
coastline change by SAR radar, image texture class. 10512
Communications Research Laboratory radio acoustic sounding 10466
conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
Delft FM-CW radar, Doppler-polarimetric research *(English)* 3612
digital elevation models by SAR radar, accuracy 43471
Doppler sodar, atmos. wind meas. 18832
dust cloud dens. estim., single wavelength lidar 17439
dyn. at large-scale, TOPEX/POSEIDON altimetry 18872
dyn. topography, TOPEX/POSEIDON radar altimetry 18870
dyn. topography by TOPEX/POSEIDON, global crossover study 18873
Earth obs. from space, microwave rem. sens. *(Japanese)* 35286
Earth/space obs. spacecraft, pulsed power insulation design 35257
ERS-1 altimeter Fast Delivery data for topographic meas. 10431
ERS-I SAR image of Thames estuary, visual interp. 26746
fishing vessels tracking, SAR/AVHRR data 25584
FMCW weather radar for PBL study 35304
FOPAIR, focused array imaging radar for ocean rem. sens. 26732
forest backscatt. models, cylinder-ground double bounce scatt. 26780
forested slopes, radar rem. sens., geometric optics theory 18785
forests, radar 3D backscatt. model for canopies 43540
forests, radar rem. sens., sensitivity to tree geom., model 43539
forests, repeat pass SAR interferometry method 43470
forests, SAR backscatt. & biomass rem. sens. 43538
general circ., TOPEX/POSEIDON radar altimeter method 18871
geodetic radioaltimetry, filter for unevenly spaced data 10434
geoid & ocean surface, TOPEX/POSEIDON radar obs. 18796
geoid (sea surface topography), NRCS radar altimetry product 26705
geological forms., radar wave propag. 7966
geological units, backscatt. charact. prediction 25576
gravity anoms. for Earth struct., satellite altimetry method 35279
Greenland ice sheet, satellite altimeter elevations, accuracy 35347
ground penetrating radar, subsurface struct. detect. 10453
hail recogn. by radar, cloud top temp. data 18824
high-lat. bottomside F region, high freq. ducting 40355
hybrid SAR/ISAR imagery of ships, proc. schemes 17385
hybrid strip-map/spotlight SAR 17383
hydrol. radar DP systs. design 35353
ice sheet radar rem. sens., multilayer lossy dielec. 43521
ice shelves of Antarctica, GEOSAT radar altimetry method 4399
icebergs, radar detect. 8416
image anal. syst. for sea ice maps from space 18886
Indian land & sea surfaces, radar clutter characts. 43468
Indian MST radar DP software 35312
industrial appls. of laser radar, conf., San Diego, USA (1994) 5439
interferometric SAR terrain elevation mapping from multiple obs. 25549
ionograms, interfering HF sigs. ident. 10463
ionos. disturbed by nuc. explosion, VHF radar scatt. 7979
ionos. plasma line studies, coded long pulse tech. appl. 43505
ionos. tomographic reconstruction rel., radar meas. 35305
ISAR image of Boeing 747, meas. F-band meas. 17409
ISAR/SAR radar imaging, wide-bandwidth mobile radar appl. 17410
land surface imaging by ERS-1 SAR satellite, clock drift 43472
land surface mapping, 2D FM-CW polarimetric SAR 43474
laser radar image form., sea surface and water thickness 17454
LFM-CW lidar for rem. detect. of saturated hydrocarbons 17450
lightning channel, radio sounding refl. 35297
marine radar, wave obs./anal., land station expt. *(Japanese)* 10489
mesos., Chung-Li VHF radar rem. sens. method 43508
mesoscale convective systs., synthetic dual-Doppler anal. 18823
meteor shower detect. by radar, correl. method 25623
meteor velocities, goniometric radar obs. from single station 25624
meteorological doppler radar syst. for airports *(Japanese)* 10409
meteorological radar, IEE Colloquium, London (1995) 28266
meteorological radar rain meas., rain rate distrib. inversion 4397
microwave backscatt. over Antarctica, radar altimetry 43494
middle atmos., wind meas. comparison, DYANA campaign 26720
millimetre wave radar imaging 17412
MM-wave radar for automobile crash avoidance systs. 42510
mountainous terrain mapping by radar, SAR stereo restitution 43475
multi-sens. rem. sens. imagery, parametric/neural classifier 8506
multisensor image registration, contour-based approach 24699
multiyear Arctic sea ice, melt onset obs., ERS 1 SAR data 10519
ocean, ERS-1 SAR imaging 35334
ocean circ., satellite radioaltimetry, sea state bias 18845
ocean circ., TOPEX/POSEIDON radar mission, overview 18859
ocean coast radar imaging, supporting obs. & ocean modelling 26743
ocean currents, HF radar rem. sens. from ship 26748

remote sensing by radar continued
ocean currents, VHF radar-drifting transponder method 26750
ocean dyn., TOPEX/POSEIDON method, inverted barometer effect 18874
ocean dyn. by radar altimetry, Poseidon/Topex method 10551
ocean dyn. heights, TOPEX/POSEIDON radar altimetry 18865
ocean dyn. topgraphy, TOPEX/POSEIDON, covariance model 18875
ocean friction vel., C/Ku-band scatterometer data appl. 10525
ocean oil pollution detect., C-band SAR data 43545
ocean radar data assimilation, circ. models 26752
ocean RCS, low incidence 26735
ocean rem. sens., RADARSAT, expt. airborne SAR obs. 26739
ocean rem. sens. by radar, French DP & archiving 10553
ocean surface, EM scatt., salinity/temp. effects 10526
ocean surface, microwave radar polarimetric backscatt. 26740
ocean surface currents meas., HF radars 35337
ocean surface radar altimetry, EM bias 35335
ocean surface radar scatt., spatial temporal dyn. model 43524
ocean surface wind speed meas., ERS-1 vs. SSM/I, Atlantic 10471
ocean tides, global, TOPEX/POSEIDON altimetry method 18876
ocean tides by TOPEX/POSEIDON radar altimetry, inverse model 18877
ocean wave & wind rem. sens., Geosat altimeter results 26741
ocean wave directional spectra, focussed array radar method 43523
ocean wave directional spectra, HF radar computational geom. 26737
ocean wave directions, WaMos radar syst. 26738
ocean wave heights, TOPEX-POSEIDON-Geosat radar altimetry 18848
ocean wave heights by radar, TOPEX, ERS-1 & Geosat 18849
ocean wave radar imagery, SAR distortion correction 43525
ocean wave rem. sens., HF radar for directional spectra 10508
ocean wave satellite rem. sens., oceanic sites 10511
ocean wave-atm. turbulence interact., microwave RCS meas. 10472
oceanic mesoscale variability, SOAP 93 prediction syst. 26765
oceanic midlatitude cyclones, press. determ. from radar obs. 10460
oceanographic satellites, radar data, altimetric corrections *(French)* 35352
OCEANS 94, conference 60
polarimetric scatt. and emission props. of refl. symm. targets 7952
polaris. vector posn., medium depolarisation effects 10462
precip., differential phase flucts. 18826
preciptation, clutter removal strategies 35332
RA-2 satellite-borne radar altimeter for rainfall meas. 35329
radar meas. of lightning/atmos. 18825
RADARSAT, commercial radar equipped satellite 42524
radioaltimetry method, ionos. sig. delay, IRI model 4378
rain rate rem. sens., microwave radiometry and radar methods 10477
rainfall, radar meas., window probab. matching method 4398
rainfall rate, radar rem. sens. methods, review 26723
rainfall rate meas., multiparameter radar techs. 35326
rainfall satellite radiometry, improvement, radar data 35327
real-time ocean wave monitoring from space 3609
rem. sensed images segmentation by MDL-principled polygon map grammar 43548
S-band Doppler radar for tropical precip. charact. meas. 35330
SAR image filtering, combined algm. 25546
SAR images adaptative segmentation 17431
SAR interferometry, 3-D target reconstruction 17382
scan-beam SAR imaging proc. 17425
scatt. by random nonspherical scatters, matrix theory 18784
sea ice, age & thickness, SAR tracking rem. sens. method 43522
sea ice thickness determ., SAR comprehensive automated approach 26730
sea ice type class., ERS 1 SAR satellite imagery 10518
sea ice type maps, Alaska SAR Facility imagery 10520
sea level, TOPEX/POSEIDON radar altimetry, GPS buoy calib. 18867
sea level by radioaltimetry, microwave troposheric corrections 18841
sea level by radioaltimetry, tidal satellite orbit perturb. 18837
sea level by satellite radar altimetry, sea-state bias 18847
sea level by satellite radioaltimetry, ionos. correction 18838
sea level by TOPEX, radar perform., wave form tracking 18843
sea level by TOPEX radar, EM bias from retracked data 18844
sea level by TOPEX radar, ocean wave & attitude corrections 18842
sea level by TOPEX/POSEIDON, microwave radiometer perform. 18840
sea level by TOPEX/POSEIDON radar altimetry, Great Lakes obs. 18868
sea level meas., TOPEX radar altimetry, sea state bias 18846
sea level radar altimetry by satellite, ionos. correction 18839
sea levels by radar altimetry, TOPEX/POSEIDON accuracy 18869
sea levels meas. by TOPEX/POSEIDON radar, verification 18866
sea surface, radar polarimetric backscatt., Euler vector 43528
sea surface altitude rem. sens., TOPEX/POSEIDON method 43465
sea surface obs. by radar, scatt. rel., wind conditions 10481
sea surface radar altimetry, multiresolution stochastic proc. 10552
sea surface radar imaging, image texture anal. 26742
sea-level, TOPEX POSEIDON altimeter mission, accuracy/appl. 43532
sigs., wave domain proc. 3604
snow bright-band detect. by dual polaris. radar 35333
snow covered first-yr. sea ice, microwave scatt. 7973
space-borne scientific missions, microwave scatterometry 18789
spaceborne SAR antenna patterns determ., distributed targets 25571
spaced-antenna radar meas. for winds study 43514
storms, microwave rem. sens., AMPR radiometry and CP-2 radar 35314
storms (precipitating), microwave rem. sens., AMPR 35313
stratos., VHF scatterers, aspect sensitivity 31813
swell waves at coast, radar rem. sens., SAR method 26744
terrain imaging, dual-channel radar calib. 43469
terrain mapping, repeat pass SAR interferometry 43470
texture-based and fuzzy class. for regenerating tropical forest mapping, Landsat TM 43516
TOPEX/POSEIDON, ocean radar calib., Platform Harvest 18864
TOPEX/POSEIDON ocean radar, precise orbit determ. 18860
TOPEX/POSEIDON ocean radar altimetry, calib., Lampedusa 18865
TOPEX/POSEIDON ocean radar satellite, CNES orbits 18861
TOPEX/POSEIDON ocean radar satellite, Earth gravity models 18862
TOPEX/POSEIDON ocean radar satellite, GPS for precise orbit 18863
TOPEX/POSEIDON radar altimeter, ocean circ. 18871
TOPEX/POSEIDON radar altimetry, dyn. topography 18870
TOPEX/POSEIDON radar altimetry, global scale dyn. 18872
TOPEX/POSEIDON radar altimetry, global stat. study 18873
TOPEX/POSEIDON radar altimetry for sea level, buoy calib. 18867
TOPEX/POSEIDON radar altimetry for sea levels, 2 cm accuracy 18869
TOPEX/POSEIDON radar altimetry for sea levels, Great Lakes obs. 18868
TOPEX/POSEIDON radar sea levels, verification, Bass Strait 18866
topography, airborne interferometric SAR, motion compensation 43473
topography mapping by radar, SAR monopulse method 18788

remote sensing by radar continued
topography of Earth surface, multibeam radar altimetry 18783
topography of land surface, TOPSAT radar mission 10451
tropical crops, X-band dielec. consts. 26779
tropical cyclone monitoring, satellite microwave sens. 10469
tropos., VHF scatterers, aspect sensitivity 31813
tropos. small scale struct. study by radar super-resoln. 35325
ultrawideband polarimetric radar for study of sea scatter 10555
vegetation global biomass, SAR backscatt. method 43542
weather radar polarimetry, path integrated differential phase shift 43517
wedges, radio scatt. theory, method of iter. 42488
wind, 3D vector retrieval, bistatic dual-Doppler radar 10482
wind, radar rem. sens., polar orbit satellite DP 43510
wind gust front, single-Doppler meas. method 4395
wind over Azores-Madeira region, SEMAPHORE expt. 26727
wind rem. sens., SAR imagery model 35324
wind retrieval, ERS-1 scatterometer data, neural network approach 10470
wind speed at sea, radar rem. sens., ocean wave effects 18820
winds, single-transmitter bistatic dual-Doppler radar network 18819
winds at sea by radar altimetry, empirical model fns. 18821
ship wake detect., SAR images, localized Radon transform-based approach 26729
CO_2 laser for rem. sens. meas. 18830
remote working *see teleworking*
remuneration *see salaries*
rendering (computer graphics)
3D ground penetrating radar imaging, multifrequency diffr. tomography 42505
3D rendering, sci./engng. tool 15434
3D surface rendering, stereo image disparity map smoothing algm. 33025
Bezier and B-spline tensor products, computing values and derivatives 20575
brain lesions, multispectral mag. reson. images, segmentation and visualization 43238
DCT based compressed 3D scalar data, vol. rendering 32110
heart, human, dyn. electrophysiological data visualization, 3D model 26439
keystoning digital correction, caused by image translation 32813
med. appls., fast polygon scan conversion 2586
real-time 3D rendering, soft breadboard 10376
talocrural joint kinematics visualization and quantitat. anal. 18444
renewable energy sources *see energy resources*
repackaging *see packaging*
repair *see maintenance engineering*
repeaters
see also optical repeaters; radio repeaters
autonomous power supply systs. unification *(Russian)* 42141
error detector systs., analog and digital 3303
PV/VRLA batt. power supply, low temp./voltage operation 19565
submarine opt. cable transm. syst., and characts. *(Croatian)* 3550
telecomm. relay stations, PV power supply experience 19556
replica techniques
power station component testing, surface replication methods 19392
replicas
power station component testing, surface replication methods 19392
replicated databases
DIVE, multi-user virtual reality system 16762
replicated file systems *see replicated databases*
report generators
ECG mapping, ambulatory, integrated software environ. 26431
num. data sets, text generation techs. for explaining trends *(Japanese)* 28588
speech training aid for aphatic children 4326
repulsion motors *see AC motors*
requirements engineering *see formal specification; formal verification; systems analysis*
research and development management
see also research initiatives
air gaps, nonstandard lightning voltage waves, research 4877
automatic speech recogn. technol. and research directions *(Japanese)* 15814
change mgt., Philips Electronics overview 11631
chem. research, LANs and Internet 8919
co-developed knowhow assets in technology partnerships 36949
collaborative product develop., success factors overview 20376
cooperative R&D, partners' success meas. 20358
cooperative R&D venture commun., social comparison problems 28374
corporate R&D, technol. organisations, develop. 11675
corporate struct., R&D and incentives *(English, French)* 41581
cycle time reduction strategies implement. for new package introd. 36950
defence technol. develop., commercial sector interact. 4430
defense technol. indust. base, preliminary forecast methodology 11644
design engng. education, project mgt. teaching principles 37022
DoD's tri-service ATE R&D program 35381
DuPont engng. R&D, hist. 20368
elec. supply indust., R&D programme, Netherlands *(German)* 43707
elec. utility R&D technol. transfer demons. projects, USA 43710
employee empowerment, mgt. reengng. project 11667
engineering management, conf., Dayton North, OH, USA (1994) 5503
engineering R&D management education overview, South Africa 28354
EU support programs for internat. R&D projects 11645
European Fast Reactor project status (1994) and prospects *(French)* 43866
Federally Funded R&D Centers, technol. transfer 11650
fibre optic sens. at Photonetics, develop. trends 17875
foreign R&D in United States 5562
future/emerging technols. ident., R&D 36973
high technol. R&D, internat. patenting overview 36966
horiz. R&D mgt. 11649
human resource mgt., innovation strategies 20380
hyperdistributed syst. develop. *(Japanese)* 16752
indust. R&D in Israel, Internet appl. 41830
indust.-university R&D cooperation, Turkey 11615
innovation mgt., leadership effects anal. 11640
intellectual property rights mgt., Australia 36969
interfunctional product develop. project group concurrency 20355
ITRI, Industrial Technology Research Inst., optoelectronics technol. 7454
Japan, develop. of seamless inform. network, ISDN 9004
Japan's telecom, energy systs., operations 19833
load forecasting, short-term, R&D trends *(Japanese)* 10693
mfg. indust. product develop. mgt. experiences, Sweden 20377
microelectronics in today's indust. rev. 36934
research and development management continued
MUL-TECH corporations, technol. diversification 20369
multinational enterprises, R&D technol. transfer overview 36968
New Sunshine Project, PV develop., Japan 27633
offshore field develop., life cycle availability assess. 20192
personnel, career develop. surveys, UK/Japan 36945
personnel, invention incentives overview, Germany 36946
post-takeover R&D fns. integrat., empirical study 36943
powder manufacturing and industry trends, conf., Canada (1994) 28226
power syst. planning/operation, R&D trends, probab. appls. 4597
product customisation, user involvement, voice networks example 28362
product design mgt., overview 11696
product develop. change leadership procs., case study 11643
product develop. cycle time, conceptual model 28375
product develop. mgt., product and cycle-time methodology 37004
product diversification strategies, Sweden 20352
product marketability meas., holistic approach 11661
product matrix, innovation mgt. tool 20351
project prioritization model develop., Turkey 11655
project selection/scheduling model 20378
project team climate/perform. study, Korea 36944
public telecomm. network syst. quality and reliab. assurance 16536
PV generating systs./components develop., NEDO 27622
PV R&D projects, New Eng. Electric 43950
PV technol. develops. 27642
PVMaT/PV, BONUS, US PV program initiatives 27632
quality assurance syst. R&D overview, Switzerland 161
quality fn. deployment, engng. manager implement. considerations 11634
quality fn. deployment, experiences and appls., USA 11641
R&D project selection project, seq. decisions, uncertainty 20393
R&D/commercialisation, federal government policy, USA 20379
research facilities collocation, administrator's point of view 20373
sci. inform. network flexibility needs and trends *(Japanese)* 16800
scientific research institutions, scientist/manager occupational roles 36942
semicond. mfg. plants, scheduling 37029
small business innovation activity overview 28376
strategic business mgt. in competitive environ. 11662
strategic R&D project selection/resource allocation, DSS-based 11657
strategic technols. mgt., math. revelation method 20353
strategies, project selection, mktg. interface 11648
supercomputer in computer network, A.I.S.T *(Japanese)* 8885
tech. intell., R&D mgt. appl. 20356
technol. assimilation, IKBS R&D organizational visions 28359
technol. innovation, interfirm cooperation, globalisation 20360
technol. innovation strategy, dominant design anal. 20374
technol. institutes, benchmarking exercise overview 20375
technol. mgt., 40 yr. hist., future prospects 20366
technol. mgt., current trends overview 20365
technol. mgt., educational trends survey 20367
technol. mgt. economics 20354
technol. transfer, effectiveness meas., USA 28360
technol.-based firms, skilled workforce mgt. struct. 36947
telecom. equipt. indust., business/technol. strategies 33326
telecomms. R&D experiences, Indonesia 16539
telecomms. services, concept formulation techs. 33308
thermophotovoltaics, DOE's Advanced Energy Projects 36621
time to market problems, R&D mgt. aspects 11663
Tunisian national research and technol. network for technol. transfer 41779
UK renewable energy strategy, longer-term support 27326
universal pers. telecomm. trends and indust. prospects *(German)* 2995
universities, entrepreneurial approach adoption principles 28343
university-based R&D mgt. policy, USA 28358
VLSI mfg., research, min. capital cost 36955
work group research, strategies/opportunities 28361
research initiatives
ACTS Programme, mobile/pers. commun. research 9390
Australia and Asian countries, commun. and IT appl. 3011
Australian Nat. Database of Spoken Language 32233
BERKOM multimedia teleservices 16856
broadband transm. networks, multiwavelength technol. 17248
CIO multimedia commun. platform 16857
CIO multimedia commun. platform 16884
CIS countries, spectrum mgt. 23699
CMOS logic modules, ADEQUAT project 22578
CNMA, European initiative for OSI network mgt. 24921
CODIT, testbed project, DS-CDMA for UMTS/FPLMTS 3385
cooperative R&D, partners' success meas. 20358
CPn planar SOFC design, concept, verification 44329
DECT, adaptive antenna demonstrator, develop. 33852
Dutch ATM pilot project 8822
Dutch microelectronics, university research/indust. needs, overview 30398
EDUCATE project, end-user courses in inform. access, commun. technol. 20339
energy efficient building design research programmes, Europe 11314
ESPRIT MIDAS project, secure rem. mgt. 8953
Eurescom IMS1 projects (integrated multimedia services, 1 Mbit/s) 16846
European benefits of advanced commun. 41598
European permanent traffic observatory project, marine traffic radar data *(English)* 3593
European perspective on commun. security 33325
European R&D activities in mobile multimedia commun. 9041
European research program for advanced mobile systs. 25330
European satellite syst. antennas, R&D 15631
former-USSR energy syst., energy efficiency improvement 27311
GCommS project, group commun. support for distributed multimedia systs. 16858
gigabit class network research in US 41782
global store server, multimedia teleservice component 16869
high data rate satellite commun. systs., R&D *(Japanese)* 17158
high integrity data commun. for light rail transport syst. 36742
IBCN services for multimedia tourism appls. 16900
IDEA project, broadband multimedia and collaboration tools 16885
indust. R&D in Israel, Internet appl. 41830
LACE multimedia programme in Oxford 9070
low-power electronics, research program 6600
Maglev transit technol. develop., worldwide 28141
MCM-L in APACHIP, European Cooperative Program 21745
MICE project, security fns. for multimedia conferencing appls. 16854
multi-wavelength transport networks 9451

research initiatives continued
MultiG research programme, distributed multimedia appls. on gigabit networks 42040
multimedia systs., image proc., Arizona State Univ. 8655
Nat. Fuel Cell Research Center develop., USA 27652
packet based access mechanism, perform. params. 33863
pan-European telecomm. services, interacts. 3254
PCB assembly/soldering, Penn State initiatives 29671
PEACESAT program, Pan-Pacific Education and Communications Experiments by Satellite 3518
PON, ATM protocol 42069
PVMaT Project, USA, status overview 27640
radiocommunications and mobility *(English, French)* 42188
rehabilitation R&D progress reports, (1992-1993) 26477
rehabilitation robotics, VA/Stanford research/develop. program 35176
semicond. device/IC radiation effects R&D in 1970s, review 13021
SP theory and syst., computing, compression 40620
SR source, research program 18393
Swiss microsensor and mobile commun. research programme *(German)* 3778
third generation mobile systs., adaptive radio interface 25395
TINA-C archit., multi-media conferencing service 42017
TOPs opt. pattern recogn. program 18987
UMTS revisited 9386
UMTS satellite component, European activities, review 9389
UMTS/B-ISDN, satellites appl. 17149
UMTS/FPLMTS, CDMA concepts validation 3388
US census, automatic speech data collection 32232
Voice Across Japan database, Polyphone project 32231
GaAs high perform. comput. and commun., ARPA research 38957
a-Si PV technol. transfer, OASIS project, Europe 11292

research libraries
journal articles, transm. via Ariel software *(Hebrew)* 41791

reservation computer systems
see also travel industry
Amadeus's computerized reservation syst., global outsourcing 16601
Hawaii Department of Education, online media catalog and booking syst. 3060
IBCN services for multimedia tourism appls. 16900
National Park service mgt. package 28377
NEC, develop. of HyperROBOII/WINDOWSrobo *(Japanese)* 42094
speech dialogue syst., simultaneous understanding based 15847

residual current circuit breakers *see residual current devices*

residual current devices
medium power RCCB design for severe environ. conditions 36393
protective multiple earth, overhead distributors 10781

residual stresses *see internal stresses*

residue codes *see arithmetic codes*

residue number systems
2D polynomial RNS 15981
BiCMOS ADC, 500 kHz, 14-bit, multiplexed appls. 694
binary, residue transform., respect, 2^m+1 moduli 626
DCT IC chip design using RNS 21345
digital equipt., error correcting tech. 24024
fast VLSI systolic array for large modulus residue addit. 21245
fault-tolerant sig. proc., redundant finite rings 29244
FIR digital filters, bit-serial VLSI implement. 750
hybrid RNS-binary arith., digital filter implement. 15980
image coder, RNS-based for progressive transm. 32985
moduli set selection for RNS 32627
multi-rate bandpass filter bank, QRNS complex arith. 6229
neural net for residue-to-decimal conversion 29511
parallel algm., RNS, binary conversion, moduli set 29089
parallel DFE, RNS 32727
table-lookup for binary/residue and residue/binary conversions 6196

resins *see polymers*

resistance (electric) *see electric resistance*

resistance coupled amplifiers *see DC amplifiers*

resistance furnaces
filament heater for mol. beam source 20813
MOS capacitors, N_2O-oxynitridation in resist. furnace, effects on thermal oxide breakdown 30126
stationary temp. fields, digital simul. *(Polish)* 36784
substr. heater for MBE 20814

resistance heating
see also resistance furnaces
filament heater for mol. beam source 20813
heat tracing cables, safety 5386
pipelines, skin effect/impedance heat tracing, appl./control 5387

resistance noise *see thermal noise*

resistance thermometers
differential resistance measurement circuit, 3-wire 25944
ITS-90 implement., thermal metrology fund. 3718
ITS-90 realisation at IMGC, Pt resist. thermometer appl. 3719
LWR resist. temp. detectors, ageing effects on cross-calib. 42971
NPP resist. temp./press. sens., aging effects 35770
proc. instrumentation channels in NPP, calib. 35931
time-depend. resist. relax., low-temp. 9893
C, TVO resistors, low-temp. meas. appl. 3802
Pt elec. resist. up, 1 GPa 18134
Pt resist. thermometer, small mag. field correction 9866
Pt thermometer, digital 3-lead ohmmeter 34619
RuO_2-based thermometer design for millikelvin temp. range 25821
Si-based thin film monolithic uncooled IR detector arrays/resist. bolometers 17958

resistivity *see electrical conductivity*

resistors
see also photoresistors; potentiometers; thermistors; thick film resistors; thin film resistors; varistors
4.5 MJ modular pulse power supply, electrothermal gun 31764
25 mm hypervelocity railgun, perform. characts. 15353
AC immittance spectrosc. of smart components and devices 18027
AC resistors, AC-DC difference meas. method *(Japanese)* 25943
accelerated ageing test for resistors 6351
augmented railgun-based fusion reactor solid H_2 pellet accel. 15283
boost-based resistor emulators, act. inrush current limiting 44202
ceramics, sol-gel proc., elec./mag. props. 12190
charge transport and device params. from noise meas. 3970

resistors continued
diamond resistors, fabricated monolithically on diamond film substr. 6352
DuPont OOXO INVAROX resistor series for chip/network appls. 6348
field-coupled quantum dot resistors, dissipation 38940
high-power low-inductance freq.-depend. resistor 12832
inserted film resistors, future prospects 21582
lin. voltage-controlled resist. in floating form 725
magnetoresistor lin. posn. sens., automotive appls. 11434
magnetoresistors, precision meas. appls. 34459
MLC series-connected C-R chip, data bus impedance matching 6194
multielement two-terminal network resist., freq. independence study *(Russian)* 37579
nonlin. resist. ccts., polyharmonical influence anal. *(Russian)* 37618
partial capacitance calc., conductors, calculable resistor 12831
pass. components for aerospace appls., screening methods/data anal. 5684
pass. multilayer component CAD, EM field computation 6364
polysilicon biased field plates for HVIC interconnections 30155
polysilicon resistors, heavily doped, const. voltage trimming 21586
polysilicon resistors, pulse current trimming, LSI resistor tuning after fab. 38977
polysilicon resistors for large current detect. on power transistor chips *(Japanese)* 29024
power supply component temp. prediction, thermal anal. software 11112
radial basis fn. networks, bump-resistor networks implement. 29490
SiC nonlin. resistors, capacitive energy storage appls. 36502
SRM drives, dual-decay converter, efficiency/perform. anal. 5304
T700 series intell. press./differential press. transmitters *(Japanese)* 3823
third harmonic generation, shaped superconds. 22771
voltage-controlled resistor, monostable multivibrates rem. control 29358
AlGaAs n^+nn^+ devices, self-heating, noise temp. meas. 38946
C, TVO resistors, low-temp. meas. appl. 3802

resists
see also electron resists; photoresists
3D struct., proximity correction 38714
CD meas., sub-0.5-μm devices 13487
chem. amplified resist, self-solubility accel. effect 1309
chem. amplified resist films, acid generation proc. by radiation-induced react. 13516
chem. amplified resists, latent image form. 1306
electron, ion, and photon beams, symp., New Orleans (1994) 5484
ion projection lithog., wafer topography 13468
ladder silicone SOG, FIB lithog. 22301
MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
MOS diode, Na contamination free ashing, O_2+H_2O plasma downstream 22234
multi-level-patterning, ion penetration depths 38763
pattern collapse, prevention by heating, rinsing 6673
poly-(acrylic acid) overcoats in chem. amplified resists 30167
poly-(α-methyl-styrene) overcoats in chem. amplified resists 30167
secondary electron line scans, local elec. fields 13470
a-Si antifuse cct. elements, ASICs, resist strip proc. damage 21170
Si:H surfaces, nanometer scale patterning/oxid., UHV STM 13496
SiO_2, etching using C_2F_6 based ECR-RIBE, side wall roughness reduction 22238

resolving power (optical) *see optical resolving power*

resonance
see also circuit resonance; cyclotron resonance; dielectric resonance; Fermi resonance; ferroresonance; magnetic resonance; optical double resonance; subsynchronous resonance
AC rly., autotransformer feeding cct., harmonic reson. *(Japanese)* 11408
antenna reflectors, approx. num. modeling techs. 23902
artificial chiral material, approx. model 23489
cylindrical dipole arrays, two-term theory, variational-principle 40498
EM radiation from packaged ICs, anal. 21621
EM scatt. by dihedral strip grating 23544
high-power Cherenkov device, superdimens. slow wave struct., simul. 29812
HTSC microstrip travelling-wave resonators, double resons. 37971
internal resons., method soln., suppl. conditions 40292
micromechanical UV radiation dosimeter 43391
microstrip antennas, moment method, gain enhancement 40459
mode stirred EMC facility, develop. 2266
opt. fiber cladding diam. by meas. of reson. peaks in elastic-scatt. spectra 7314
oversized rippled-wall mode converters, undesired resons. 21512
patch antenna tuning stubs 23931
perfectly conducting sphere reson. in eccentric spherical dielec. shell 25568
piezoelec. motor, struct./characts., gearing *(Japanese)* 11083
poly(2,5-thienylene vinylene) film, reson. opt. Kerr effect 15085
power transformer overvoltages, no-load switching 27776
pulse electrodynamic drive, transient proc., theory 7934
radioelectronic apparatus, printed components dyn. charact. computing 38071
rect. AT-cut quartz resonators, charge distrib. meas. and anal. 39091
rect. waveguide, mode conversion 40423
semi-anechoic chambers, characts. and reson. phenom. 23675
spurious resons. meas. of cryst. units 30616
steel rolling mill two-inertia syst. control *(Japanese)* 11501
stochastic extension of synchronism time 7910
stochastic reson., noise benefits, ice ages, crayfish, SQUIDs 14292
stochastic reson. phenom., sig. proc. tool 8348
thin-wire reson. response to transient waves 23848
Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582

resonant absorption of gamma-rays *see Mossbauer effect*

resonant cavities *see cavity resonators*

resonant cavity wavemeters *see wavemeters*

resonant gamma-ray interactions in crystals *see Mossbauer effect*

resonant hot electron tunnelling transistors *see hot electron transistors; resonant tunnelling transistors*

resonant power convertors
1.5-7 kW HF ZVS full-bridge MOSFET-based rectifiers 19802
2 kW series resonant converter, CO_2 gas discharge laser appl. *(Spanish)* 19877
3-phase quasi-reson. DC link PWM inverter 19854
3-phase ZVS-PWM rectifier, reson. DC link, digital control 5068
10 kHz inductively coupled power transfer, elec. vehicle appls. 5344
12 kW/250 kHz series resonant power convertors, induction heating appls. 36787
15 kW DC/DC IGBT ZVS reson. power converter 5080

resonant power convertors continued
48 V DC reson. power converter distributed power supply 5049
75 A second generation P-MCT, characts. 22393
100 MVA IGBT reson. AC/AC power converter design 5111
150 W multi-reson. DC/DC converter, high efficiency 44138
200 V KZ-DHC32 IGBT invertor-based induction heating cooker *(Japanese)* 44588
500 W/1 MHz reson. telecom. power supply develop. 19866
1500 W single-phase rectifier, high power dens. 19865
AC/AC reson. converters, LF waveforms modulation 44201
adjustable freq. quasi-reson. inverter, characts. *(Japanese)* 11135
ATT2161/2 series reson. electronic ballast IC products 36781
buck chopper GTO thyristors, bond graph modelling 29039
buck converter design, zero-current turn-off, MCT 19748
buck ZVC-ZCS HF PWM power converter studies 19716
class D^2 DC/DC parallel reson. MOSFET power supply 44223
Class E reson. rectifier with series capacitor, reson. DC/DC converter 12327
crossing current reson. power converter CAD 44219
current-reson. type converters for switching power supplies *(Japanese)* 29023
current-source parallel-reson. DC/DC converter 36335
current-source reson. DC-DC MOSFET power converter anal. 44222
DC link IGBT ZVS invertors, optimal design 36342
DC link inverter, low-noise, high-output power 19861
DC link inverters, MCT soft-switching tests 12320
DC link invertor, PWM scheme develop. 27819
DC link VSI, soft switched, cct. perform. studies 36282
DC link ZVS VSI topol. studies 36281
DC-DC power convertors, DC reson. link-based topol. 27832
DC/AC power convertor planar integrated reson. LCT cct. design 12321
DC/DC converter, simul./testing, laser supply appl. 36279
DC/DC LCC reson. power converter, digital control models 6010
DC/DC power converter, Class D inverter, Class E rectifier 37627
DC/DC PWM reson. power converter topol., pulse load appls. 11172
DC/DC PWM ZVS reson. power convertor develop. 5078
DC/DC quasi-reson. ZCS power convertor topologies 44220
discontinuous current mode series-parallel reson. converter 37623
elec. vehicle drives, series reson. DC link inverter 5358
electronic welding, HF reson. inverter-based 36802
fixed freq. LCL series reson. converter 29001
fixed-freq. phase-controlled full-bridge reson. converter 19715
forward ZCS-QRC, distrib. power supply *(Spanish)* 12338
Fuji Electric moulded IGBTs, voltage reson. invertor appls. 27824
Fuji Electric products and appls. 21117
full-bridge series-reson. rectifier, telecom. appls. 19831
GTO based SVC anal. 5064
GTO CSI induction motor drives, harmonic reson. elimination 11375
half-bridge ZVS multi-reson. power converters, light load mode anal. *(Chinese)* 36336
hard switched/reson. link inverter output spectra comparison 44205
HEXFET/IGBT switches comparison 44208
HF power conversion, reson. and PWM soft-switching techs. 11180
HF reson. DC link PWM inverter 19878
HF reson. inverter freq. control, induction heating appls. 36789
HF series reson. inverter, PFM/PWM control strategies 5388
HF series reson. PWM inverters, induction heating appls. 5123
HF switching reson. power convertor, reson. rectifier appl. 44135
high efficiency forward converter topologies 6001
high efficiency reson. converter based on MCT 19730
hybrid/elec. vehicles, DC/DC power converters 20100
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
induction cooker coil CAD, Pascal program-based 36785
induction heating/melting, ZCS-HF inverter, bipolar-mode SITs 5384
induction kitchen range, reson. power converter-based 36788
induction motor drives, DC link soft-switching inverters 11374
induction motors, inverter fed, 4-pole interconnection, reson. freq. 11361
induction stove, hybrid reson. converter 5390
inductive tube welding reson. invertor syst. 20166
inverters anal., electronic ballast appls. 11128
LCC parallel reson. power converter, discrete time domain modelling 36249
LCC parallel reson. power converter, small sig. anal. 11129
LCC reson. inverter, design, HF AC distrib. syst. 21106
LCL reson. PWM converter, anal./simul./implement. 36245
link inverter topologies, UPS appls. 44206
microwave heating power supply, high PF mode 11185
multi-output DC/DC PWM ZVS quasi-reson. power converter 19824
multi-output reson. DC/DC space power converters 4361
multi-reson. ZVS power convertor, rectifier deadtime controlled 44189
multimodule parallel series-loaded reson. converters 29002
multiphase series-reson. power converter, novel topol. 19721
multiresonant parallel ZVS power converter, anal., design 11171
multiresonant PWM converters, reson. inductor freewheeling 6021
off-line reson. power supplies, design, anal. 37629
pacemaker power supply convertor, flat transformer-based 10277
parallel reson. CSI, cct. design/anal. 44136
parallel reson. power converter, half-cycle current control 19714
power electronics conf., Cuernavaca, Mexico (Aug. 1993) 11564
power sources, freq./phase regulation, chokes 5092
PWM cycloconverter control, induction heating appls. *(Korean)* 36786
QRC, flyback approach, power multi-chip modules 37628
quantum series reson. inverter, optimal predictive current control 11387
quasi current reson. DC link AC/AC converter 11115
quasi-reson. AC/DC forward power converter topol. 44145
quasi-reson. DC link power convertor, topol., appls. 5084
quasi-reson. DC link series reson. converter 12313
quasi-reson. dual power converter UPS 5075
quasi-reson. HF PWM ZVS DC/DC power convertors 5061
quasi-reson. HF ZVS IGBT invertor, induction heating appls. 5087
quasi-reson. power converters, generalized state space averaging anal. 11150
quasi-reson. PWM converter, high efficiency 11155
quasi-reson. PWM DC link inverter topol. 19731
quasi-reson. soft-switched inverter, cct. anal. 11170
quasi-reson. soft-switching PWM conversion, space vector control 19757
quasi-sq. parallel reson. power converter 5046
quasiresonant power converters, small-sig. modelling 11139
quasiresonant PWM convertor, microwave heating appl. 36333
resonant systems, IEE Colloquium, London (1995) 28230
self-excited forward DC-DC PWM ZVS power converter 36241
self-reson. DC-DC PWM power converter family 11168
self-reson. PWM forward DC/DC power converter 44225

resonant power convertors continued
series reson. converter, clamped capacitor voltage 11163
series reson. converter, parallel reson. cct. under parallel reson. freq. 21099
series reson. convertor with third-order commutation network 36306
series reson. DC link GTO invertor expts. 44167
series reson. DC link power converter, anal. 5058
series reson. DC/DC power converter, IP regulator-based control 44221
series reson. DC/DC power convertors, perform. prediction 19708
series reson. power converter, integrated L-C-T struct. 19717
series reson. power converter, pulsed welding load appls. 5121
series-parallel reson. converter, magamp postregulators 6020
series-parallel reson. power converter, small-sig. modelling 5122
series-reson. AC link inverter, output current anal. 11143
series-reson. DC-AC power converter, switching control *(Japanese)* 11190
single phase quasi-reson. rectifier, unity PF 44146
single-ended SMPS, control/switching, power MCM 29014
single-phase composite PWM voltage source converter 19723
single-phase PWM VSI, residential PV power syst. appls. *(Japanese)* 36346
single-phase telecom. supply PF correction cct. 41627
single-to-three-phase PWM soft switching power converters 19707
SMPS, forward ZCS-QRC, practical design 19805
soft-commutated DC/AC converter for solar energy conversion *(French)* 19766
soft-switched parallel inverter, topol. anal. 11144
soft-switching power converters, GTO/MCT characts. comparison 19849
soft-switching PWM boost converter, config., anal. 6000
space station, switching regulators, source-load interact. 26613
switching power convertors, HF mag. design 44207
three-phase power convertor, quasi-reson. DC/HF transformer links 5088
three-phase PWM reson. buck converters, power control 5060
three-phase quasi-reson. AC/DC transistor power converter 5074
three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
three-phase quasi-reson. soft switched thyristor invertor 19732
three-phase series reson. act. power filter 19739
three-phase ZVS AC/DC act. power convertor 19840
traction reson. DC link inverters, soft/hard switching methods 44568
transcutaneous elec. nerve stimulation, quasiresonant power supply 4255
unity PF ccts., boost/Cuk topologies comparison 5069
variable capacitance device appl. 19828
voltage-reson. converter, AC dyn. characts. anal. 21110
ZCS-QRC, two fully regulated outputs 19806
ZVS forward multi-reson. converter, saturable core 12331
ZVS multi-reson. clamped mode converter, telecom. appl. 12330
ZVS PWM power converters, saturable reson. inductor anal. 19762
ZVS quasiresonant IGBT power converter, PSPICE modelling 5079
ZVS-QRC, IGBT switch, design, testing 5056
ZVS-ZCS-PWM self reson. DC-DC Sepic converter 44226

resonant states
see also metastable states
dye-doped polystyrene microsphere laser emission, reson. modes 31207
H-loaded, depressed-cladding UV-written Bragg fibre gratings, cladding-mode coupling 30909
high resoln. reson. inelastic X-ray scatt. 43145
lin. ion trap based freq. std., progress report 42674
methane mol., saturated absorpt. reson., R-line 7734
reson. two-photon three-level atom syst., echoes 15040
CdS crysts. for IR imaging/detect., RT IR quenching 17794
Cu vapour-flow CW laser constr. 14701
GaAs/AlGaAs MQWs, nonlin. index saturation in bandtail absorpt. region 13172
Na reson. radiation sum-freq. generation of Nd:YAG laser beams 23364
Ti:Al_2O_3 laser cryst. conc. quenching and mechanism of reson. energy transferring *(Chinese)* 15065
Yb ion std., JPL develop. 42675
$^{171}Yb^+$ trapped ions, prototype microwave freq. std. 42670

resonant tunnelling *see quantum interference phenomena; tunnelling*

resonant tunnelling devices
see also resonant tunnelling diodes; resonant tunnelling transistors
book, Si and Si alloy based materials/devices 11540
IR laser based on stimulated reson. tunneling of electrons 14841
nanoelectronic computing technols., Japanese research 6809
NDR-SPICE cct. simul. of reson. tunneling devices 22336
noise meas. in reson. tunnelling struct. 30189
nonequilibrium time-depend. functional theory, Liouvillean quantum field dyn. 6712
nonlin. reson. tunnelling, double-barrier struct. 38292
quantum interconnections, ballistic electrons and cellular archit. 13823
quantum-mech. tunneling, FEM 6548
quasi-1D scatt., reson. line shapes 21986
AlAs/GaAs/As(001) double barrier reson. tunnelling struct., piezoelec. effects 29924
$BiSr_2Ca_7Cu_8O$ high-T_c superconductive devices, at.-layer-controlled fab. *(Japanese)* 5818
GaAs-InGaAs quantum-well reson.-tunneling switch 38328
$Ga_xIn_{1-x}As$/AlAs reson. tunneling diodes, atmos. press. metalorganic CVD 415
Si double-barrier struct., fab. 38343
Si/SiGe double barrier reson. tunneling struct., fab. 29942

resonant tunnelling diodes
ALE devices, recent advances 22496
current and voltage MESFET refs., RTD-boostrapped config. 530
double-barrier tunnelling diodes, photon-assisted transm., transfer matrix approach 13608
gated, elastic scatt. and depletion effects 38803
I-V calcs., inadequacy of 1D approx. 22355
I-V curve hysteresis, quantum hydrodynamic model 38799
I-V MESFET refs., RTD-bootstrapped, mirror-based 531
IMPATT diode integrated quantum-well reson. tunneling oscillator 12755
intrinsic relax., opt. rectification, IR FELs 39987
large-sig. DC model, PSPICE, three-state memory cct. 22344
light emitting transistor diode, base transport 39582
LV low power digital ccts., monolithic integrat. of RTD/HEMT 37691
modelling, transfer matrix/Airy fns. 30212
monolithic integrat. of reson. tunneling diode and quantum well laser 14670
monostable-bistable transit. logic elements, RTD/FET integrat. 37735
monostable-bistable transit. logic elements, RTD/FET integrat. 21234
monostable-bistable transit. logic elements, switching time 37736
nonlin. oscillator design for max. power 37667
quantum-well diodes, binary inform. storage, zero bias 1452

resonant tunnelling diodes continued
- Schottky collector RTDs, fab., electron beam lithog. 13604
- series integrated RTDs, subharmonic excitation simul. 6323
- sub-micron RTD, laterally gated, I-V characts., asymmetry 30223
- AlAs/GaAs RTD with asymmetric spacer layers, capacitance/hysteresis study 38805
- AlAs/GaAs, p-i-n double-barrier reson. tunnelling structs., electrolum. 6722
- AlAs/GaAs, triple-barrier reson. tunneling LED, fast opt. induced switching 31107
- AlAs/GaAs/AlAs RTDs, digital logic ccts. *(Korean)* 12427
- AlAs/InGaAs/AlAs RTD with InAs subwell, interface roughness scatt. 13591
- $Al_{0.5}Ga_{0.5}As/GaAs/Al_{0.5}Ga_{0.5}As$ SQW DB reson. tunneling diodes *(Korean)* 13590
- AlGaAs-GaAs-AlGaAs, reson. tunnelling diode, time depend. behaviour 38800
- GaAs microstruct., fluidic self-assembly on Si substrs. 1468
- GaAs triple-barrier reson. tunneling diode, time-resolved photolum. 1451
- $GaAs/Al_{0.4}Ga_{0.6}As$ RTDs, LF flucts. charactn. 1333
- GaAs/AlAs RTD, QW electroluminesc. 38945
- GaAs/AlAs RTD pillar arrays, resist. bistability 30213
- GaAs/AlAs, RTD with asymmetric spacer layers, microwave impedance 13606
- GaAs/AlAs RTDs, photoinduced hole tunneling 38804
- GaAs/AlAs, sub-micron p-i-n RTD, discrete electrolum. lines 14640
- GaAs/AlAs submicron light-emitting RTDs 14623
- GaAs/AlGaAs, double barrier RTDF, shot-noise suppression 30230
- $GaAs\text{-}Al_{0.3}Ga_{0.7}As$ RTDs, spacer layers, capacitance 13611
- GaAs-based integrated reson. tunneling devices, MM-wave detector appls. 10005
- GaInAs/InP reson. tunneling diodes, hot electron phase coherent length 13593
- $Ga_xIn_{1-x}As/AlAs$ heterostruct. on InP, flow modulation epitaxy for RTDs 20679
- InAs/AlSb reson.-tunneling diodes, I-V calcs. 30211
- InAs/AlSb/GaSb double barrier diodes, reson. interband/intraband tunneling 6714
- InAs/GaSb/AlSb interband tunnel diodes, AlAs hole barriers 6715
- InGaAs/AlAs RTD, double barrier, dominant photogenerated valley current 13589
- $In_{0.1}Ga_{0.9}As/GaAs/AlAs$ RTDs in triple well config., supply and escape mechanisms 6716
- $In_{0.22}Ga_{0.78}As/AlAs$ RTDs on GaAs using relax. In_xGa_{1-x} buffers, MBE growth 13600
- InGaAs-AlAs opt. switched reson. tunnelling diodes 31085

resonant tunnelling transistors
- coupled-quantum-well base, simul. 38844
- current-mode multiple-valued PLA, reson. tunnelling transistor model 623
- light emitting transistor diode, base transport 39582
- THETA transistor, high power THz freq. source 838
- AlGaAs/GaAs reson. tunneling single electron transistor 38943
- AlGaAs/GaAs superlattice-emitter reson.-tunneling bipolar transistor, double NDR 38851
- $CoSi_2/CaF_2$ reson. tunneling HET, quantum interf. 13822
- GaAs/AlAs, reson. tunneling transistors, tunneling transit time 13646
- GaAs/AlGaAs HET, quasi-ballistic electrons, reson. tunnelling 13654
- InGaAs coupled QW base transistor with graded emitter, RT operation 6735
- InGaAs/InAlAs, reson. tunneling transistors, tunneling transit time 13646

resonator filters
- *see also acoustic resonator filters*
- act. resonators, integrat. for UHF wireless appls. 12826
- ang. bandpass filters, improved design flexibility 37828
- bandpass filters, triple-mode dielec. rod resonators *(Japanese)* 21403
- C-band superconductive input multiplexer for commun. satellites 12776
- direct digital freq. synthesizer, DSP μP IIR filter appl. 29073
- ferrite loaded resonator mag. tunable filters, power handling capacity increase 29542
- finite thickness diaphragms in circ. waveguide, optimal filters 37956
- $\lambda_{g0}/4$ CPW-based bandpass filters, spurious response suppression 12721
- lin. phase freq. sampling FIR filters, error spectrum shaping 41044
- microwave dielec. ceramic filters, prep. and anal. 12723
- microwave microstrip dielec.-resonator filters, 3D FEM simul. 37947
- mixed modes dielec. resonator loaded cavity filters 12733
- MLC dielec. stripline planar filter for portable telephones 805
- MMIC narrow-band filter, ultrahigh-Q tunable act. inductors 12822
- modal anal. of waveguide filters 6287
- monolithic UHF/VHF filters on two-layer dielec. bar 37835
- noise filtering capability inductor 12847
- printed spiral resonators based bandpass filters 12623
- single-block ceramic microwave bandpass filters 820
- solid-state bandpass filters, coaxial-to-coaxial type resonators 15590
- tuning tech. for dielec. resonators 12713
- waveguide filter simul. and design, TLM method 804
- wideband bandpass filter, three parallel-coupled lines 6282
- YBaCuO, 10 GHz bandpass microstrip filter 816
- $YBa_2Cu_3O_{7-x}$ high T_c film dielec. resonator, MM-wave filter develop. 811

resonators
- *see also cavity resonators; crystal resonators; dielectric resonators; micromechanical resonators; optical resonators; resonance; resonator filters; strip line resonators; superconducting resonators*
- act. inductors for GaAs and bipolar technols. 21597
- act. resonators, integrat. for UHF wireless appls. 12826
- anisotropic monopole antenna bandwidth extension concept 2338
- biomedical RF EPR spectrosc./imaging, resonator/surface coil 18475
- bipolar transistor sustained oscillators, energy/fluct. charact., computer anal. 570
- complex dielec./mag. permeabilities meas., coaxial resonator appl. 42900
- EM wave propag. in inhomog. waveguides containing below-cutoff sects. *(Russian)* 15612
- ferrimag. tridisk-coupled resonator, modal characts. 12715
- grating free oscills. and waves, Morse crit. points 15611
- HF two-resonator sustained oscillators, tuning bandwidth 571
- MM-wave radiation source, dual grating resonator 2019
- MRI, multiloop coupled resonator coil design 35044
- MRI, shielded loop resonators theory 43209
- MRI slotted tube resonator, dielec. body loaded, num. anal. 26318
- multi freq. antenna tech., closely-coupled resonators 2322
- nonperiodic O-type TWT, coupled resonators based 995
- open slotted structs. with layered dielec. filling, calc. 40395

resonators continued
- quasioptical systs., diffr. at gratings, resonator design 37952
- radar exciter, ultra-low phase noise 42523
- semicond. struct. photomodulated diagnostics, microwave resonator transducer synthesis *(Russian)* 13098
- slotted tube resonator for MRI, 3D anal. 10209
- switchable lin./circ. pol. ferrite disk resonator antenna 23861
- vegetation elements, extinction cross-sect. meas., open resonator 34671
- vegetation elements placed in open resonator, extinction cross-sect. calc. 34670
- weakly coupled quantum-wire resonator, one-band model 13197
- YIG, magnetostatic forward-vol. wave resonator, tunable oscillator *(Japanese)* 12761

resource allocation
- Analyser genetic algm. based LAN divider 41769
- appl. partitioning for client server archits. 41893
- ATM networks supporting time-crit. traffic, optimal resource allocation 24748
- ATM node buffer allocation algm. for correl. arrivals 41478
- autonomous distrib. mutual exclusion protocol for multiple net resources *(Japanese)* 2923
- autonomous load sharing, mutual priority protocol 8747
- bandwidth assignment strategies in broadband networks 8973
- BISDN/ATM environ., resource allocation model 3232
- broadband networks, resource allocation 9017
- broadband networks, virtual path/network bandwidth assignment 8827
- cell delay var. tolerance for mapping ATM cells, phys. layer 24755
- clustered computer switch MINs, routing/resource allocation 3284
- communicating vehicles, event-driven simul., diffusive dyn. load balancing by terrain parcel swaps 43577
- competitive distributed deadlock resoln. and resource allocation, local optim. of global objectives 16686
- computer network multitype concentrator location 41755
- conf. scheduling service, multimedia, network support 16830
- CSMA/CD network all-sharing load-balancing scheme 33574
- data path synthesis for easy testability 12470
- distributed multimedia obj. services, media scaling 16844
- distributed multimedia systs., software engng. tech. 41966
- DQDB protocol erasure-nodes modif., fairness and perform. 33283
- dyn. load-balancing for PDE solvers on adaptive unstructured meshes 28682
- Ethernet LANs, low-speed appls. 8905
- GENESIS, seamless environ. for telecomms. networks 24884
- genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
- HiCon model, dyn. load proc. on computer networks *(German)* 33540
- high level synthesis based on formal methods 28959
- high-level DSP synthesis, concurrent algm. 37793
- high-level DSP synthesis using concurrent transforms., scheduling, and allocation 21363
- IN services, teletraffic perform. 33638
- integrated networks, single resource loss in heavy traffic 41475
- LAN/MAN interworking systs., rate control mechanism 24950
- load balancing in distributed environ., ES approach 8926
- load sharing based on multicasting in LANs 3172
- LSI delivery management, lot-sampling scheduling 37041
- Magic functional model, resource control and B-ISDN protocols 16592
- math. prog./resource mgt. 20562
- mesh connected parallel computers, submesh allocation 41474
- mesh-restorable network spare capacity placement strategies 41550
- missile attack, defense strategy, inform. value 43591
- mobile systs., causally ordered message delivery 33917
- Mobile-IP, transparent resource discovery for mobile computers 33563
- multimedia appls., advance reservation of network resources 16843
- multimedia endstations, service kernel 16842
- multimedia multiparty connection, resource allocation 33621
- multiplexed ON-OFF sources, effect of multipath routing on loss perform. 41928
- non-conventional power systs., scheduling and resource allocation 10656
- PCS network perform. optimisation by multilink B-ISDN routing protocol 25070
- pipeline struct. synthesis, variable data initiation intervals *(Korean)* 28934
- protocol spec. synthesis, service specs., distributed systs., marked graph 8761
- Q^2, perform. anal. tool for telecomm. systs. 24918
- real-time data delivery for multimedia networks 33642
- real-time systs., adaptive tasks scheduling 3607
- semicond. fab., syst. dyn. model 36954
- SONET-based self-healing mesh network real-time bandwidth allocation and path restorations 41652
- spare capacity assignment, path restoration 24865
- speech stat. multiplexing, resource auction multi-access excess capacity 42200
- stochastic search techs. 20362
- strategic R&D project selection/resource allocation, DSS-based 11657
- telephone network mgt., learning automata 8777
- tridiagonal lin. syst. and Poisson's eqn. soln., distributed memory systs. 28669
- VBR MPEG traffic in interactive appls., resource requirements 16879
- video on demand services, hierarchical storage dimensioning 17573
- VLSI work cell manufacturing syst. 37042
- wireless network perform., multimedia traffic mgt. principles 25132
- workstation clusters, data partitioning for networked parallel proc. 41880

restaurants *see catering industry*

restriking voltage
- *see also switchgear*
- vac. cct. breakers, switching surge voltage, travelling wave method *(Korean)* 27834

retail data processing
- *see also point of sale systems*
- multimedia services for distrib. industries *(Japanese)* 42025

retailing
- *see also retail data processing*
- instrum. specs.- customer's viewpoint 42682
- jewellery image IS *(Japanese)* 41940
- pers. shopping assistance, indoor wireless syst. 33558
- VSAT appl., extend company LAN, retail sites 16774

reticles
- 4X reticles, eval. for 250 nm DUV lithog. 38768
- 5X reticles, transmissive defect detect. 38767

reticles continued
chem. amplified AZPN114 electron beam resist for advanced photomask fab. 38773
CMOS proc., DUV lithog. 39003
defects, coincident CD and edge defects 22305
hybrid lithog., e-beam direct writing and opt. stepper 38769
lithog., nanometer-scale dimens. metrology 13486
MEBES 4500 raster scan techs., calib. and control 30184
rim phase-shifting mask, high-dens. cct. layout 13504
SEM metrology, profile anal. and isofocal threshold 38745
sub-micron 5X reticle defects, printability, defocus effect 38729
transm. defects 6675
transparent reticle defects 13442
WePrint 200, electron-beam printer, throughput 30185

retina *see eye*

retrieval, information *see information retrieval*

retrofitting *see maintenance engineering*

reverberation
see also anechoic chambers; architectural acoustics; echo
act. sonar, lin. FM waveforms detect. 9675
activated towed array sonar displays image proc. 17486
adhered struct., US NDT, reverberation cancellation, z-transform tech. 28901
auditorium, colouration in assisted reverberation systs. 32605
diffuse acoustic refl., macroscopic view 4414
electroacoustic transducer directivity indices in reverberant fields 17608
hall electroacoustic syst. response 3692
microphone array for sound pickup in teleconference systs. 3693
multiple microphone sig. mixing cct., speech quality *(Japanese)* 25685
normal incidence echo-sounding, refl. and reverberation 4402
pass. echo-canceler, single microphone 2536
room acoustics, digital equalization 9761
room acoustics, reverberant sigs., inverse filtering, diversity proc. *(Japanese)* 15896
sea bed bistatic scatt., reverberation data anal. methods 26757
self-calib. methods, diffuse field presence *(French)* 17405
speech dereverberation, cepstrum based deconvolution 32212
speech intelligibility in reverberant and/or noisy field, microphone arrays *(Japanese)* 40743
talker localisation in room, microphone array 32410
wooden loudspeakers in artificial reverberation syst., acoustical props. 18925
zero-delay convolver, block FFT implement. 40892

reverberation chambers
aircraft test appls. 15538
attenuating cover panels/shielding gaskets, leakage power meas. 15500
electronic mode stirring 7993
fields, spatial correl. fn. 31697
stirred mode reverberation chambers for EMC emission meas. 2270

reverse engineering
batt. charger, flyback converter, US/European/PF correction inputs 36328
communication protocols, reverse-engineering 2967
IGBT, punch/nonpunch through, thermal behaviour studies 1411
PCB visual inspection-diagnosis expert system, reverse engineering 29651
recurrent neural net archit., pass. nonlin. elements 37912

reversed field configurations *see reversed field pinch*

reversed field pinch
RFX 4.8 MJ-7 kV toroidal capacitor bank, experience 36632
RFX RFP, fast protection syst. 4730

reviews
see also bibliographies
4X reticles, eval. for 250 nm DUV lithog. 38768
1550 nm fiber lightwave systs., dispersion compensation 17242
act. integrated antennas 15628
all-opt. device nonlin. materials 30823
amperometric glucose biosensors in vivo monitoring 34989
Australia, document delivery services, 1980-94 overview 33434
Australian CDMA cellular radio trials 3489
automated visual inspection, survey 28512
automatic speech recogn., state-of-the-art review and future directions *(Japanese)* 15815
automotive fuel economy improvement, near-term technol. 28139
batt. research for telecomms. power supplies *(Japanese)* 19768
batt.-powered portable computers, technol. trends 37810
bioelectromagnetics in Russia, review 35028
biological EM field/health effects review 4332
biomedical technols., ANN appl. 10167
bioprocess operations and drug discovery 43178
biosensors, biotechnology-based recogn. elements 43187
biosensors, viable monitoring technol. 9943
biotechnology, issues and challenges 43177
biotechnology for biomedical engineers 43175
biotechnology for biomedical engineers, emerging discipline 43176
boundary element approxs., elec./mag. fields, iter. soln. 2177
broad area semicond. lasers, lateral modes theory, review 7643
CDMA adaptive SS receivers, CCI suppression 33883
ceramics, sol-gel proc., elec./mag. props. 12190
chem.-mech. polishing, IC interlayer dielec. planarisation 13340
Chinese commun. research and related works 3072
Chua's cct., review 12361
cochlear implant, technol. for profoundly deaf 43363
COFDM for TV broadcasting, overview 42560
cognitive psychology, med. equipt. alarm sounds design 4254
Communications Research Laboratory radio acoustic sounding 10466
composites, dielec. behaviour 6905
conducting isopolymers, prep., props. and appls. 37539
defect imaging, multifrequency digital acoustic holograms, superresolution 18951
defibrillation, external cardiac, current/energy 43359
design optimisation in theory and practice 11705
diagnostic radiology, K-edge filters efficacy 43236
diagnostic radiology optimisation programme, Madrid area 18501
n-diamond:N,P,Li,Na,S,O, doping, review 6614
diamond, electronic/sens. props., review 6520
diamond crysts./superlattices, isotopically engineered 38502
dye impregnated polymer lasers, beam control elements 7541
ECG recordings, 50 Hz interf./noise 43278
ECG sig. anal. 35109
electrocardiology, min. sampling rate 26400

reviews continued
electronic equipt. radiation effects before 1960, review 11557
electrophysiological sig. parametrisation/feature extraction, trends 26394
electroporation in cells and tissues 35188
electrostatic accelerator based FEL, material sci. in far-IR 39987
ELF fields, cellular studies and interact. mechanisms 35187
ELF mag. fields exposure meas. and risks 35185
EMC perform. of suppression components/shielding materials 2264
end-to-end interworking in voice telephony 41724
epitaxial deposition technol., overview 12041
European EMC stds., recent develop. 2263
European microwave indust., market trends 12685
European research in microwave bioelectromagnetics 43389
FEL, status in 1994, review 39986
FEL amp. based VUV and X-ray research, scientific opportunities 39988
ferroelec. ceramic-polymer composite, piezoelec./pyroelec. 6906
ferroelec. composites, polaris., poling/props. 6907
ferroelec. polymers, struct./Curie point, spectrosc. studies 6902
ferroelectric polymers, polaris., poling/props. 6907
fiber optic sens. review *(Spanish)* 9917
finite elements, distortion, degeneracy and rezoning survey 281
FLC, electro-opt. device appls., review 22957
fossil/nuc. power stations, life mgt., EDF approach 19510
fractal image compression, crit. review 41295
fractal image compression, literature review 2688
gain-switched semicond. lasers, chirp estim. in opt. pulses *(Japanese)* 7626
gas detecting fiber sens. *(Japanese)* 3860
genetic disease diagnosis, challenges and opportunities 43190
GTEM cells, review and future research 23746
HDTV systs., global research advances, Chinese research issues 3674
heart electrostimulation, aspects 43362
HF power conversion, reson. and PWM soft-switching techs. 11180
high power electron guns; welding, heat treating, and micromachining appls. 11735
high T_c superconds., conductance noise, no. and mobility noise 1610
high-tech mag. materials, recent develop. 30660
holographic storage, ideal photorefr. material quest 31646
hybrid FEM for EM, review 2314
ii-vi wide-gap semiconds., MOVPE, optoelectronic appls., review 20887
III-V cpd. semiconds., minority carrier lifetime 1041
III-V HBTs, reliab. issues 22386
III-V semiconds., liq. phase electroepitaxy 20870
image compression technol., review 24561
implantable cardioverter-defibrillator, arrhythmia recogn. strategies 26473
IN/TMN harmonisation overview and stds. 41958
integrated opt. sens. review *(Spanish)* 9851
integrated-optic waveguides charactn., review 39395
interdigitated high speed MSM photodetector/receiver design 34517
interferometry-based quantum random-no. generation and key sharing 17343
IPC-SM-782A, Surface-Mount Design and Land Pattern Standard, design document 902
ISO 9000 stds., rels., CECC and IECQ systs. 5685
Japanese propag. studies (1990s) 2236
laser safety, indust. laser use, overview 28390
laser safety, ocular hazards, stds. 28392
LB films, deposition, technol. and appls. 12947
liq. rare gas imaging detectors 4194
long dist. fibre commun., solitons 17185
low power electronics, batt. technol. 44307
low power microelectronics, develop. and prospects 38971
low-lat. whistler propag. 31812
low-power CMOS ULSI cct. techs., overview 39009
low-press. gas breakdown in combined fields 1506
LTI digital filters design, error criteria 32790
MCM-L, laminate substr. current state 38192
med. X-ray imaging evol. 35051
microbend fiber optic sens., historical review 17843
microcavity semicond. lasers 23203
microwave solid-state power amp. perform. assess. 37988
microwave tubes, develop. hist. and elec. props. *(German)* 6505
MM-wave spectrum mgt., regulatory aspects 42559
MMIC control devices 29603
mol. crysts. for nonlin. opt. appls. 31583
MOS device phys., low temp. electronics 1172
myopia treatment, excimer laser 43349
nanometer-scale whiskers, growth/opt. props. 20815
NBS/NIST Peltier-effect microcalorimeter 34945
NPP, periodic safety reviews 35755
ocean surface currents meas., HF radars 35337
ocular laser injury in China 43387
opt. heterodyne binary-DPSK systs., anal./perform. 42346
optoelectronic material appl. in Japan, review 7453
oral mucosa/skin irritation estim., elec. impedance device 43308
overhead power transm. lines, EM anal. 27233
particle accelerators, review, brief hist. 4038
patient monitoring and therapy mgt., intell. systs., research projects, survey 26447
permitt., permeab. and EMI shielding meas. 17696
photon echo, state of art and perspectives 31602
photonic fast packet switching networks 9601
photorefr. material holographic data storage systs. 31673
photosensitive opt. fibers, devices and appls. in sens. and telecomm. 30854
piezoelec. ceramic-polymer composites, HF appls. 6921
piezoelec. transducers, composite, design 6922
pigtailing and connectorization techs. for optoelectronics 39610
plane grating focusing for soft X-ray monochromators, review 26262
plasma modif. of polymer surfaces 440
PM, highly uniform field generation, review 7204
PM, materials, review 39155
polarized solid HD targets, frozen spin mode 34864
polymers, dielec. behaviour 6905
power devices, review 38775
power estim. techs. in VLSI ccts., survey 1473
power syst. interconnection develop., SE Asia 26981
primer for investig. and interp. in insulators and dielec. materials 5725
proton transfer-based mol. devices, theory/review 6442
quasi-phase-matching waveguide freq. conversion, review 15099
radioastronomy, Nat. Radio Astronomy Observatory 34200
radiologic image compression, review 26287

reviews continued
  RADIUS study and national policy on US technol. 4260
  rainfall rate meas. by radar 26723
  rare earth doped fiber laser review *(Japanese)* 1876
  rare earths in glasses for laser appls. 7594
  rehabilitation robotics, design issues review 35158
  rehabilitation robotics, VA/Stanford research/develop. program 35176
  rehabilitation robotics in Europe 35175
  reson. tunneling, model Hamiltonian, modern electronic devices 1456
  Saudi Arabia, Gulfnet, overview 41789
  SAW resonator filters for digital radio systs., review 37832
  scanning probe microscopy, principles and appls. 13017
  semicond. device struct., charactn., modulation spectrosc. 1435
  semicond. device/IC radiation effects R&D in 1970s 13021
  semicond. laser amps., absorptive/dispersive nonlin. 31494
  semicond. lasers, electron-beam pumped, operating and threshold charact. 23227
  semicond. multilayers, NDT charactn. 20998
  semiconds., nonlin. transport, nonlocal mechanism 21969
  single-phase SMPSs, PF correction, overview 6018
  SOI, high-leverage technol., mfg. impact and appls. 6841
  solid-state ring lasers, self-modulation/relax. oscills. 7579
  soliton based opt. fibre commun. systs. *(Japanese)* 3567
  speaker indiv. control/conversion, acoustic charact. 40728
  spray atomization/deposition, proc. params. monitoring, sens. 28898
  SSNTD 4233
  stochastic reson., noise benefits, ice ages, crayfish, SQUIDs 14292
  submarine fibre-optic syst. technol., review and future prospects 3574
  supercond./insulator multilayer appls., review 1600
  TAB chip on MCM-D technol. 38183
  telecomm. systs., neural networks appls. 41454
  telescopic and dispersive prism devices for laser technol. 39994
  terahertz sources 6303
  thermolum. dosimetry, med. appls., phys., materials, equipt. 43406
  thin film bonding, ion beam tech. 289
  tiny magnets, giant magnetoresist., inform. storage appl. 30717
  trunk/local access SDH transport fibre network archits. 34092
  ultrahigh-speed opt. fiber TDM transm. technols. 34088
  VDU characts. that, cause visual difficulties 43390
  VDUs, rel., health effects 4331
  video/EEG long-term monitoring and behaviour 26393
  visual neuroprosthetics, functional vision for blind 18615
  VLF/ELF sferics, research activity 31810
  VlSI reliab. challenges, Japanese vs American industries 22527
  voice proc. in telecomms. 2439
  waste water recycling systs. for electronics defluxing procs. 6429
  wet proc. surface modif. of polymers 442
  wire bonding, present and future trends 38170
  wireless commun., SS access methods 17110
  wireless PCS radiowave propag. 3379
  $\gamma\gamma$ collider principles 26026
  AlGaAs LD, MBE prod., review 7663
  C_{60}-conjug. polymer supramolecular composite, role in photoelec. devices 31081
  CO_2 lasers, freq. and power stabilised, review 23089
  CO_2 lasers, phys. and spectrosc. appls. 14691
  CO_2 transverse flow laser cavity 7527
  CdTe nanostructures, opt. studies 1793
  CdTe/CdZnTe, accelerated crucible rot. growth 5804
  CoPt multilayers SW magneto-opt. recording films 30741
  α''-$Fe_{16}N_2$, magnetisation/Mossbauer spectra/electronic struct. calcs. 6994
  GaAs crysts./superlattices, isotopically engineered 38502
  GaAs/AlGaAs, MBE, optoelectronics appl. 5850
  GaAs-Si, MBE, optoelectronics appl. 5850
  GaInP-GaAs HBT, microwave appl. 12784
  Ge crysts./superlattices, isotopically engineered 38502
  Ge:O crysts./superlattices, isotopically engineered 38502
  GeSi-Si strained layers, MODFET/HBT/photodetector appls. 29874
  HgCdTe, quench recrystn. growth 5805
  $Hg_{1-}Cd_xTe$ cryst. growth, travelling heater method 5806
  $Hg_{1-x}Cd_xTe$, accelerated crucible rot. growth 5804
  $Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
  HgI_2, cryst. growth from soln. in space/on ground 37382
  InGaAlN, competitor of ZnSe for light emitting devices 23053
  InP(As)(AlAs) self-assembling quantum dot arrays, MBE and MOCVD growth 374
  $KTiOPO_4$ broadly tunable fs opt. parametric oscillators 40059
  Nd:silicate glass fiber waveguide lasers review 31223
  $R_3(Fe,M)_{29}X$ (R=Ce,Pr,Nd,Sm,Gd; M=Ti,V,Cr,Mn; X=H,N,C), permanent mag. props. 6944
  a-Si TFT/LCD, state-of-the-art 18011
  Si ion implant., VLSI mfg. for commercial appl. 30035
  Si, low temp. MBE, review 37455
  Si scaled submicron ultra-low power CMOS technol. 39008
  Si:Er implant., Si-based optoelectronics appls. 30042
  Si:H, defect passiv./light-induced metastability 13359
  Si:P crysts./superlattices, isotopically engineered 38502
  Si/Ge heterostruct., MBE, optoelectronics appl. 5850
  ZnSe/ZnCdSe/ZnSe MQW device, opt. modulation and switching 25539

rewinding *see winding (process)*

rewriting systems
  communicating machines with identical symmetrical/dual processes 2962
  edge detector, syntactic contextual, rewriting 41122

RF amplifiers *see radiofrequency amplifiers*
RF cosmic radiation *see radiofrequency cosmic radiation*
RF discharges *see high-frequency discharges*
RF filters *see radiofrequency filters*
RF heating *see radiofrequency heating*
RF oscillators *see radiofrequency oscillators*
RF receivers *see radio receivers*
RF spectrometers *see radiofrequency spectrometers*
RF sputter deposition *see sputter deposition*
RF sputtered coatings *see sputtered coatings*
RF sputtering *see sputtering*
RF traps *see particle traps*
RFI *see radiofrequency interference*
RHEED *see reflection high energy electron diffraction*
RHET *see hot electron transistors; resonant tunnelling transistors*
rhodopsin *see proteins*
rib waveguides
  anti-reson.-reflecting-waveguide coupler, rem. coupling 39425
  DFB channel-dropping opt. filters, design and fab. 39538
  dielec. waveguides, vector mode calcs. 40427
  integrated-optic waveguides charactn., review 39395
  joint finite-difference/FFT full vectorial beam propag. scheme anal. 40441
  multilayered dielec. waveguide anal., variational treatment 2304
  multilayered planar waveguide anal. by exact and variational FT methods 31899
  nonreciprocal integrated optic couplers, magneto-optic materials, design 14413
  opt. rib waveguide anal. by wide-angle techs., convergence props. 15582
  opt. rib waveguides, grating fab., electron-beam/X-ray lithog. 14461
  parallel 3D finite difference beam propag. methods, opt. waveguide structs. 30956
  polyimide opt. waveguides fab., thin-film MCM proc. technol. 14490
  quantum well DFB rib waveguide LD design, spectral index method appl. 39876
  semicond. integrated opt. routing array components, carrier diffusion effects 14479
  semicond. ring lasers for integrated optoelectronic ccts. 14842
  SOI opt. rib waveguide, loss, mode characts., bends and y-jns. 1719
  GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
  GaAs/GaAlAs waveguide polarizer, high extinction ratio metal-clad, design 30944
  SiO_2:Ge, fused silica, waveguide form. by ion implant. 39387
  SiON rib anti-reson. reflecting opt. waveguide couplers, design/fab. 14414
  YIG:Ce, opt. waveguide isolator, nonreciprocal radiation 14549
Riccati equations
  differential Riccati eqn. soln., transm. line modelling 21402
  graded semicond. layers, electrodynamic props. 21869
  irreducible lin. diff. eqns. of prime order 37339
  lin. optimal stochastic observers, sensitivity anal. 32578
  min. sq. spectral factors 37222
  nonautonomous Riccati-type matrix diff. eqns., existence interval 37356
  PLLs, analytic struct., complex time plane 12378
  quadratic operator eqns. and periodic operator continued fractions 37328
  rational fn. matrices, factorisation via descriptor representation *(Japanese)* 37223
  recursive waves risk param. estim. from cyclic autocorrelation matrix 40986
  supercond. arrays, consts. of motion 22726
  symplectic pencil, eigenvalues computing 263
RICH detectors *see Cherenkov counters*
Richardson effect *see thermionic emission*
Rician channels
  see also fading
  60 GHz intervehicle channel model 33797
  binary CPM-DPD, diversity in Rician fading channels 32042
  BPSK with open-loop tanlock carrier recovery, perform. 24015
  CDMA channel fading-resistant multiuser detect. 41460
  CDMA syst., macro-/micro-cellular environ., perform. 3471
  CDMA syst. meas.-based perform. anal. in multipath fading 33791
  cellular systs., handoffs, adaptive averaging 25341
  chirp SS techs., multipath interf. suppression 25250
  digital transm. over degraded channels, coded modulation 8103
  direct-seq. systs. in lineal microcells, perform. eval. 25365
  discontinuous transm. in Nakagami/Rician-Nakagami channels 17063
  DPSK differential detect. scheme, phase seq. estim. 32684
  DPSK/FSK, differential phase detect., bit/sym. error probabilities 40614
  DQPSK in fading channels, unified error anal. 8090
  DS-CDMA, shadowed Rician fading land-mobile satellite channel 9268
  DS-CDMA/DQPSK sig. in indoor radio channel *(Korean)* 17046
  DS-SS CDMA mobile satellite commun. syst. 25441
  DS-SSMA diversity commun. in fading channels, error perform. 3357
  DS-SSMA multitone syst. in multipath Rician fading channel 16463
  DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
  error probabilities, tight bounds, appls. 15712
  fading, convolutional codes, finite interleaving depth effect 33911
  fading channel nonlin. carrier sync. tracking perform. 33803
  fading nonco-operative multiple access channel capacity 41465
  freq. hopping simulator for multipath mobile channels *(French)* 3361
  frequency-selective fading channel orthogonalising simulator 40343
  handwriting proc. in indoor/outdoor environ. for multimedia 9063
  hybrid SFH-multitone DS SSMA syst., perform. 9172
  incoherent freq. hopping multiple access systs., diversity combining 25311
  indoor mobile commun., CCI and multipath delay 17098
  intell. vehicle/highway syst., packet-switched commun. 3460
  land mobile satellite channel with max. ratio combining, BER and outage probab. 42259
  LEO/MEO/GEO global mobile satellite systs., interf./fading 25308
  LMSS, open-loop power control error 25300
  lognormal terrestrial/satellite channel model 31834
  M-ary DPSK on freq.-selective Ricean channels 9274
  M-ary DPSK/D^2PSK channel capacity with time-selective Rician fading 32033
  M-DPSK in fading channels with diversity reception, error bound anal. 3355
  microcellular meas. and their prediction 17143
  microcellular Ricean channels, switched diversity 3336
  mobile radio channel, multiple sym. differential detect. 33874
  mobile satellite commun., MFSK/DPSK sigs., cutoff rates 25301
  mobile satellite fading channels, M/QPR-TCM perform. 17096

Rician channels continued
multi-beam mobile satellite commun., Viterbi decoding 25307
multi-carrier CDMA in indoor Rician fading channel 9226
multi-carrier CDMA in indoor Rician fading channel, controlled equalization 9219
multi-cell direct-seq. microcellular systs., perform. eval. 33907
multidimensional block coded modulation perform. with time-correl. fading estim. 40549
multiresolution modulation/concatenated coding, decoding algms. 8683
narrowband digital FM sigs., seq. estim. 24280
OFDM, guard interval and sub-channel equalization for digital TV broadcasting 9699
open-loop power control error on land mobile satellite link 25402
outage probab., Rician sig., L Rician interferers 33920
PCS, outage probab. in presence of Rice fading 17099
pico-cellular syst. for indoor radio, assess./propag. study 25348
PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
QAM signaling, Rician-fading diversity channels, error probab. 32040
QPR-TCM, fading mobile satellite channel, perform. anal. 9336
QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
satellite-to-land-mobile commun. systs., perform. 9210
slow fading channels, iter. max. likelihood decoding/state estim. 32139
slow flat Rician fading, covariance matrix, ML detect. 25306
Space Station Freedom wireless commun. propag. theory and expt. 31816
state estim., nonlin. filtering 8456
switched pattern diversity antenna comparison 33793
TDMA systs., unique-words perform. eval./selection/design 24780
time-varying nonselective fading channels, max. likelihood data-aided symbol sync. algms. 41386
wireless LAN, 12 GHz band wave propag. meas. 8931

ridge waveguides
broadband waveguide feed for offset parab. reflectors 15641
circ. curved integrated opt. channel waveguides, source-type integral eqn. anal. 22881
conical TEM horn, ultrawideband, design 31946
curvature variable taper for waveguide-microstrip transit. *(Korean)* 12692
double or quadruple ridged waveguide anal., MFIE approach 23775
double ridged waveguide feed for parab. reflectors, broadband matching 29540
Ka-band layered ridge dielec. waveguide leaky-wave antenna develop. 23965
leaky-wave field applicator, microwaves, lin. uniform plasmas 37930
magneto-optic ridge waveguide struct., nonreciprocal mode propag. 39421
microstrip-to-waveguide transits., anal./design 15597
microwave rect. waveguide applicator for dielec. sheet materials proc. 5385
MQW DFB lasers, Green's fn.-based transfer-matrix method 23193
MQW ridge waveguide lasers for tunable external-cavity sources 23234
multimode fiber-to-waveguide coupling suitable for pass. alignment 1674
opt. waveguide facets, modal reflectivity, rapid approx. methods 39390
quadruple-ridged sq. waveguides, charact. impedance 40409
quadruple-ridged waveguides, anal. and design 15561
semicond. lasers, integrated optoelectronic up/down-converters 23232
slit-coupled ridge waveguide T-jns., struct., anal. 21515
slitted asymmetric ridge waveguides, lin. phase arrays 31961
slot-coupled waveguides, anal., GSD tech. 2292
slow wave cyclotron interact. in folded rect. waveguide, theory 13014
three layer ridge quantum well waveguide anal. by FEA 40400
triply-ridged circ. waveguides 37935
GaAs/Al$_x$Ga$_{1-x}$As, MQW, opt. transm. 15033
GaInAsP/InP tensile strained SQW lasers, 1.3 μm, LP-MOCVD grown 14944
GaInP strained quantum-well lasers; gain, refr. index, linewidth enhancement 31393
InGaAs strained quantum disk laser, nanoscale act. region 23216
InGaAs-GaAs MQW lasers, low growth temp., photolum. 14965
InGaAs-GaAs-InGaAsP graded index heterostruct. for 0.98μm lasers 12183
InGaAsP electroabsorp. modulator, low pol. depend. 22926
InGaAsP/InP diode lasers with ridge struct., HF polariz. switching 42434
InGaAsP/InP ridge waveguide struct. for polariz. insensitive opt. amp. operation 7605
InGaAsP-InP IR strained MQW lasers, reverse-mesa ridge-waveguide struct. 14964
InP-InGaAsP pol. independ. ridge waveguide digital opt. switches 9460
LiNbO$_3$ ridge proton-exchanged waveguides fabricated by wet etching 22913
LiNbO$_3$:Ti 75-GHz opt. CPW modulator 7359

RIE *see sputter etching*

Riemann-Cristoffel tensors *see tensors*

Righi-Leduc effect *see thermomagnetic effects*

rigid discs *see hard discs*

rigidity *see shear modulus*

ring imaging Cherenkov detectors *see Cherenkov counters*

ring lasers
acetylphenyl-1,4-dioxa-8-azaspiro[4.5] decane, LD pumped ring resonator, blue light emission 23429
all-opt. clock recovery syst., ring mode-locked laser 39990
Brillouin fiber laser with ring resonator, two-freq. output 31231
Brillouin fiber ring laser, freq. stabil. 14762
class-A bidirectional ring laser, cavity detuning, spontaneous phase symm. breaking 39992
Doppler-broadened act. medium in ring resonator, natural oscills. 31452
dye laser, intracavity freq. shift, self-pulsing, instabilities 39690
external-cavity acoustooptically controlled semicond. lasers, tuning fidelity 15003
externally injected sig. laser cavity eqns. 2025
Fabry-Perot polariz.-maintaining fiber interferometers, fab. and charactn. 9922
fiber laser/amp. based sens. 34551
fiber Raman soliton laser for fs opt. pulse generation 1874
fiber ring lasers, stretched-pulse additive pulse mode-locking 23137
fiber ring Raman laser, lasing threshold near group vel. zero dispersion region 7560
fibre ring laser, opt. mode-locking, cross-PM 23121
fibre ring laser, simul., split-step Fourier method 39694
fibre ring laser config. studied by collective coord. 14996
fig. of eight fibre lasers, mode locked by Sagnac interferometer 31455
fs harmonically mode-locked fiber laser, time jitter below 1 ps 23130
humidity of atmos., rem. sens., alexandrite ring laser 43512
interf. wedge with unequal reflectivity mirrors, laser tuning element 15007
Kerr-lens mode-locked ring lasers, cavity design 31453

ring lasers continued
mid-IR fiber ring SBS devices and appls. 30894
MM wave FEL at Duke storage ring, pump for X-ray inverse Compton source 39629
mode-locked, short-pulse, transverse pattern dyn. 1915
mode-locked solid-state ring laser, second harmonic intracavity generation 1886
monolithic ring lasers for low-noise opt. sig. distrib. 7498
MQW-semicond. opt. amps., mode-locked ring lasers 31417
saturable absorber laser, transverse pattern dyn. 7751
semicond. laser, tapered gain region devices 39848
semicond. ring lasers for integrated optoelectronic ccts. 14842
solid-state ring laser, self-modulated, relax. oscills. 14780
solid-state ring lasers, self-modulation/relax. oscills. 7579
traveling/standing waves, spatially resolved eigenstates 14997
travelling wave solid-state ring laser, noise spectrum 7580
two-level unidirectional ring laser, travelling waves, class-B limit 2028
CO$_2$ injection-seeded supra-atmos. laser operated below emission threshold by ring cavity 39655
Er doped fiber ring laser, mode stabil. 15002
Er doped fibre amp., single-mode, kilowatt pulses 14748
Er:SiO$_2$ planar waveguide amp. based modelocked ring laser 23132
Er-doped femtosecond mode locked all-fiber ring lasers 31241
Er-doped fiber lasers, Maxwell-Bloch mode-locking instabilities 23120
Er-doped fiber-ring laser, mode instabil. suppression 39697
Er-doped fibre ring laser, asynchronous soliton mode locking 14740
Er-doped mode-locked fiber ring laser freq. stabilisation 23119
Er^{3+}-doped fiber ring laser gyroscope appls. 3871
Er^{3+}-doped fiber ring laser, rot. sens. appl. 17829
Er^{3+}-doped unidirectional fiber ring laser without isolator 31214
GaAs-AlGaAs monolithic semicond. ring lasers, pass. mode locking 31416
GaInAs/GaAs micro-arc ring semicond. laser, design 39866
He-Ne ring laser, T violation and microhertz resoln. 23326
InGaAs-GaAs strained layer single QW ring laser, reactive ion-etched tetragonal cavity 23192
KrF, multipass excimer amp., saturable absorber, pulse compression 1854
NH$_3$ FIR lasers, Lorenz-like chaos 14692
Nd:YAG cw ring laser, intracavity freq. doubling by KTP cryst. 39726
Nd:YAG diode-pumped nonplanar ring laser, intens. noise suppression 15004
Nd:YAG monolithic laser, diode pumped, power scaling 31297
Nd:YAG ring laser, chaos, dyn. and spectral charact. 40020
Nd:YAG ring laser freq. stabil., interferometric gravit. wave detector light source appl. 31301
Nd:glass ring laser single freq. operation, acousto opt. induced 23140
SiO$_2$-Si waveguides, coupling and propag. losses 30889
SiO$_2$-core fibre ring oscillator, Nd laser pumped 14999
Ti:sapphire ring laser with four mirrors, CW freq. stabilisation *(Chinese)* 14801
XeF(C-A) long-pulse e-beam excited excited laser, single-freq. operation 14708

riometers *see ionospheric measuring apparatus*

RISC *see reduced instruction set computing*

risk analysis *see risk management; safety*

risk management
analysis communication 28323
CCS network integrity experiences and risk reduction strategies 41518
Channel Tunnel Safety Case, risk criteria develop. 36988
Comanche Peak NPP, pump/valve risk-based in-service testing 10840
communication committee establishment model 28324
conference, failure anal., Johannesburg, South Africa (1994) 20245
dependability, risk control 5708
Diablo Canyon PWR, outage risk assess. and mgt. 27368
dyn. PSA by Monte Carlo event simul. 11686
elec. control room fire protection, sprinkler syst. options 92
European Safety & Reliab. Conf., Munich (1993) 11584
Frankfurt (Main) city network control syst. *(German)* 35551
gambling, decisions under risk with incomplete knowledge 5738
hazard engineering and the management of risk 5711
hazardous waste treatment facility, technical communications, NIMBY 28325
health hazards of natural and radioactivity *(German)* 10294
Hermes space vehicle PRA pilot study 18698
in-service inspection, risk-based approach 5695
indust. safety, mgt. factors, model and tools 11679
intersystem LOCA, risk assess., methodology/results 10820
IS develop. project risk mgt., case study 36971
laser safety, quantitat. risk assess. 28391
Nat. Ignition Facility, ICF, laser flashlamp power conditioning syst. 5106
nonprobabilistic risk anal. method and results 11730
North Sea oil and gas installations, maint. risk-based optim. 20189
NPP, shutdown risk mgt. 35880
NPP maint., risk-based optim. 19407
NPP surveillance requirements, risk anal. 4762
oil refinery hydrocarbon storage risk assess. methodology 20172
pass. LWR designs, risk anal. 35810
petroleum indust. safety mgt., Norway 88
power syst. resource planning, risk mgt. eval. 35567
PRA Bayesian predictive approach inevitability 11881
predictive project proc., Monte Carlo based tech. 11712
product develop., R&D perform. goals, risks balancing 11711
product/proc. develop., project risk mgt. 28400
PSA technol. characts., utilisation and limitations 11684
PWR reflux cooling during shutdown, ORAM technol. 27430
Quick Alert technol., linking sens., alphanumeric pagers 3372
RACE 2087 TITAN project, opt. access network risk assess. and economics *(English, Italian)* 33987
rly., safety, quantified risk assess. 36987
rly. safety stds. 36986
security alarm systs., design/maint., risk based method 36994
sig.-to-hum ratios eval., risk recognition *(German)* 159
SONET DCS mesh archit. survivability with distributed control restoration 41567
SONET-based survivable interoffice network archit. selection 41548
Swedish BWR living PSA appl. 19483
switchgear risk assess., methodology/results/implications 5150
technol. risk mgt. develop. and policy 11688
tolerability determ. from social indicators 11687
US electronics indust., domestic infrastructure for advanced proc. 11674

risk management continued
world energy supply problems and imponderables *(German)* 4757
CO_2 indust. lasers, hazards, accident risks 28393
H risk, European research program 35771

rivers
see also lakes
Earth crust seasonal deform., Earth rot. params. determ. 10439
ERS-I SAR image of Thames estuary, visual interp. 26746
estuarine/coastal water harmful substs. monitoring 26775
trophical and morph. status of water resources, airborne hyperspectral algms. 18878

RNS *see residue number systems*

road traffic
Amsterdam road A10, coord. ramp-metering syst. 16640
ATM trolleybus syst., radio control develops. *(Italian)* 3537
automobile control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
automobile navig. systs. *(Japanese)* 44579
automobile navig. systs., immobilisers, night vision, fuzzy logic 36763
Belfast, integrated urban-road/motorway control/informatics 17665
car collision avoidance syst. design 44581
cluttered scenes, real-time visual tracking 32950
developing economy, telecomms. and transportation 3040
drivers' dist. keeping, simul. study 5325
expressway vehicle flow rate meas., TV picture *(Japanese)* 25726
flow meas., night scene image seq.-based *(Japanese)* 10070
goods vehicle enforcement weighing syst. 3724
high-speed vehicle convoy, control feasibility simul. *(Japanese)* 28107
highway advisory inform. radio syst., speech synthesizer 42568
highway traffic flow anal. 24786
image sens. in traffic and vehicle control 41210
infrastructure networks, fault mgt. 3458
intell. vehicle/highway systs., compressed video commun. 8682
inter-vehicle commun. network, SS MAC protocol 42241
interactive camera calib. 16138
ISHTAR, real-time time-varying image proc. *(Japanese)* 42754
Malaysia, Klang Valley, traffic control/surveillance 17664
Manchester Metrolink, EMC and road traffic control 5330
metropolitan freeway monitoring, random access channel 3075
MM-wave radar sens. for road vehicle positioning 42512
motorway toll syst., IR technol., enforcement syst. 42820
motorway traffic supervision, video camera-based *(Italian)* 3686
Nat. Motorway Communications System Mark 2, traffic mgt. 33552
noise, sound absorption coefficient meas., cepstrum techniques 8443
oil refinery hydrocarbon storage risk assess. methodology 20172
omnibus fleet mgt. syst., radio links 34389
PROMISE pan-European traveller inform. syst. 3462
radar sens. for automatic AICC 5377
radar sens. for car appls. 5378
radio synchronisation of urban traffic control systs. 17165
rear-end collision avoidance, 60 GHz radar 34152
RF/vision syst. for road pricing 42187
RTI related services, packet based data link protocol 8769
RTI/IVHS data distrib., virtual beacons 3459
RTT infrastructure/vehicle-roadside commun., perform. anal. 3457
short range radio link, propag. charact. 9224
SOCRATES, dyn. car navig., driver inform. and fleet mgt. syst. 33923
SOCRATES, European in-car radio navig. syst. 42540
SOCRATES in Europe and TANGO field trial in Gothenburg 3076
SOCRATES/RHAPIT pilot evol., commercial syst. 3077
sound level meter stochastic response anal., road traffic appl. 10074
syst.-level testability of hardware/software systs. 9794
telecomm./transportation, synergy of concepts 3455
Tokyo Metropolitan Traffic Control System, image proc. vehicle detector 42845
transport informatics systs., real-time messages multiplexing 9359
urban traffic control, dyn. queue length modelling 34388
vehicle detect. for transport telematics 17685
vehicle to roadside commun., 5.8 GHz, adaptive array antennas 15666
vehicle-to-vehicle commun. for AVCS platooning 5354
vehicular traffic control, act./pass. IR sens. 11429
vibrs., PC-based meas./anal. 34707

road vehicles
see also automobiles
24 GHz dual channel microwave Doppler-sens.-module 11444
60 GHz intervehicle channel model 33797
60 GHz vehicle-to-vehicle commun., time/freq. selectivity 9316
60 GHz vehicle-to-vehicle commun. by TDMA/CDMA 9333
900 MHz propag. modelling, scaled road tunnel microwave meas. 33789
ATM trolleybus syst., radio control develops. *(Italian)* 3537
automatic vehicle location in cellular commun. systs. 3331
automatic vehicle location subsystem interfaces 3461
automatic vehicle location syst. in Hong Kong 9683
autonomous intell. cruise control radar syst. 34151
computer syst. for autonomous vehicle, develop. *(Japanese)* 2610
DAB common-wave network in Bavaria, field trail results *(German)* 9693
DC drives, thyristor/chopper/power converters 36734
degraded vehicle no. plate images, hybrid thresholding method *(Korean)* 41169
DGPS, positioning service for land-based mobile commun. systs. 3530
diesel engines robust emissions control, oxygen sens. 34616
diesel powertrain for heavy trucks, dyn. behaviour 28137
differential positioning, single satellite 42541
Dolphin drive systs. for elec. vehicle appls. 44484
drivers' dist. keeping, simul. study 5325
elec. road vehicle drive syst. thermal behaviour *(German)* 36745
elec. vehicle batt. safety eval., SERV Project 36740
elec. vehicle speed control, PID neurocontroller 36723
engine misfire detect., torque monitoring 25717
fuel usage, dimens. anal. 27330
goods vehicle enforcement weighing syst. 3724
hazardous load road transport, radio monitoring syst. 9300
image sens. in traffic and vehicle control 41210
independent motion segmentation and collision prediction, road vehicles 24451
INFONAVI, in-vehicle navig. syst., radio pager 42542
intelligent vehicles, conf., Paris (1994) 28224
inter-vehicle commun., laser/retro-refl. 42435
interface design, vehicle-driver, conf., London (1995) 20205

road vehicles continued
MAC protocol for inter-vehicle commun. network, SS tech. *(Japanese)* 25282
MM-wave radar sens. for road vehicle positioning 42512
mobile commun., vehicular scatt. 9308
navig., built up areas, GPS 9684
navigation and information systems, conf., Japan (1994) 36825
opt. vehicle detector, range finding method 42770
optoelectronic prototype for road surface conditions detect. 42791
power electronics for elec. vehicle propulsion inverter 44485
Radar Speed Monitoring System 42511
radio network technols. 42206
registration plate image capture/ident. 41380
RTT infrastructure/vehicle-roadside commun., perform. anal. 3457
running speed estim., field image inform. *(Japanese)* 2628
semi act. suspens., electrorheological fluid dampers, HV supply unit 44131
space fed planar array, vehicle roof refl. charact. 23941
TDMA frame synch. of mobile stations, radio clock sig. 9337
urban microcells, ray tracing based prediction of impulse response 3420
vehicle-to-vehicle commun. for AVCS platooning 5354
wide dyn. range vision sens. 42846

robot dynamics
see also manipulator dynamics; robot kinematics
Aqua Explorer 1000 for inspection of underwater cables 9156
autonomous underwater vehicles for bathymetric mapping 8619
contactless real-time meas. of robot pose 42529
ground vehicle vision, ladar, obstacle detectability 7878
underwater unmanned vehicles 11410
unmanned underwater surveillance vehicle systs. 9666

robot kinematics
see also manipulator kinematics; robot dynamics
two-link collision free robot positioning, microcontroller-based 11226

robot programming
insectoid robot OS, modular 41872
knowledge based machine vision for robotic welding syst. 41247
Optotrac, opt. non-contact 3D motion tracking instrum. 17659
SKORP, robot skills development using a laser range finder 25585

robot vision
3-D obj. config. extraction 24551
3D edge location in motion based vision 32885
ALV laser radar range data 17442
analog spot position coding retina, active obstacle detect. 21457
analog stereo retina, automobile appls. 29419
ANN based PCB inspection syst. 29684
calib. of robot camera 41136
colored-obj. detect. for mobile robot 24537
controlled act. vision framework, robotic and transportation problems 8642
depalletizing robot vision, genetic labeling 8640
electrostatic US transducers with V-grooved backplates, electroacoustic model 18929
floor anoms. detect. for robot motion 41145
general learning algm. 8491
ground vehicle vision, ladar, obstacle detectability 7878
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
illuminant and surface color recovery from images based on CIE daylight 24622
intell. multisensory vision syst., vision planner 16268
intell. robotic camera syst. 34236
knowledge based machine vision for robotic welding syst. 41247
low-cost CCD video camera for machine vision and consumer 9755
MESSIE, multispecialist 3D scene anal. syst. 32893
mobile robot environ. recogn., US sens., CCD camera 43556
mobile robot outdoor navig., tree detect./dead reckoning 41109
mobile robot posn. determ., visual landmark-based 9929
model based robot vision 25881
nuc. waste mgt. mobile robots, vision posit. meas. syst. 3988
obj. recogn., model-based, fuzzy 2858
opt. flow estim. via local differential techs. 24438
panoramic line-scan imaging syst. for teleoperator control 34564
pass. depth acquisition for 3D image displays 2644
PERCEPTRON LASAR System for 3-D robot guidance 17455
PGA burn-in board loading, machine vision in robotic guidance 29668
pick and place in electronic packaging, high precision, alignment techs. 29721
polariz. CCD camera for computer vision, beam splitter 2596
polariz.-sensitive thermal imaging 16272
QC, robotics and vision syst. technols. 37169
range cameras, specular objs., ambiguities reduction 42839
robot environ., change detect. for human safety 24527
robot/computer assisted surgery, 3D anatomical surfaces matching 43252
robust stereo ranging syst. 3889
scalable, real-time, image proc. pipeline 41162
SMD soldering/inspection workcell, develop. 6419
steel struct. beams automatic painting syst. *(Japanese)* 3892
stereo head mounted onto robot arm, self calib. 24474
surface curvature segmentation by photom. invariant 2606
underwater robotics, opt./acoustic range sens. 8620
US scanning, obj. recogn./localization 18955
viewpoint-controlled displays for teleoperated robots, perform. eval. 34629

robots
see also artificial intelligence; industrial robots; manipulators; mobile robots; robot dynamics; robot kinematics; robot programming; robot vision; telerobotics
3D posn./orient. meas., US ranging *(Japanese)* 42942
AC drives, optimised DSP field oriented control 36683
AC PM servomotor digital controller, appls. 43979
act. robotic endoscopy, safety issues 18585
adaptive electrohydraulic servoactuator control synthesis 36497
ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
arm ASIC-based motor controller develop. 11227
automated opt. main-distributing-frame FTTH syst. 9443
automatic soil anal., phosphorous determ. 25714
automatic soil anal. by robotic station 25713
biomedical robotic/mechatronic systs. appl., education, therapy, training 35174
brushless DC motor/robotic load, adaptive integrator backstepping tracking controller 19655
camera motion strategy, localize uncertain 3D lines 24641

- **robots** continued
  - conference, IEEE Northeast Bioengng. Conf., Newark, New Jersey, USA (Mar. 1993) 36846
  - DC-motor-chopper drive, model, robot appl. 28101
  - direct drive robot, torque compensation 11359
  - elec. drive testing, mech. simulator control 20060
  - flexible joint single-link robot ident. and tracking control ANN 36669
  - humans detecting sensor for robot cell 25796
  - IEEE conf. on instrumentation/meas., USA (1993) 20198
  - IEEE IECON '94 conf., Bologna, Italy (1994) 36823
  - IEEE industry applications, conf., Denver, USA (1994) 10
  - IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
  - in-pipe microrobot, earthworm motion *(Japanese)* 44252
  - in-proc. 3D coord. meas., CCD camera *(German)* 17970
  - JARA Committee activities on robot EMC test methods/perform. eval. *(Japanese)* 8007
  - laparoscopic surgery, robotic cameraman 4288
  - measurement and control, conf., Torino, Italy (1993) 11587
  - mechatronics fund., meas. sci. and technol. 9850
  - med. robotics, pass. arm, dyn. constrained 26451
  - MELECON '94, conf., Antalya, Turkey (1994) 5470
  - MEMS, conf., Oiso, Japan (Jan. 1994) 28222
  - microrobot PM step servomotor drive, VSS control 11354
  - microrobot syst., distributed, electrostatic actuator 19675
  - Midwest Symp. on ccts. and systs., Detroit (1993) 33
  - motional perform. measuring systs. *(Japanese)* 10026
  - multifrequency AM-based US syst. for dist. meas. 17473
  - multimodal interface, speech and touch screen *(Japanese)* 24137
  - nanorobots, hard chem. and wave packet engng. 952
  - pharmaceutical ^{99m}Tc-teboroxime dilution/anal., robotic 4272
  - photosensor for transients tracking 34510
  - PM sync. motor drive, robust adaptive control 20054
  - proximity sens. syst. for spatial sens. and colour perception 42776
  - rehabilitation robotics, design issues review 35158
  - rehabilitation robotics, VA/Stanford research/develop. program 35176
  - rehabilitation robotics in Europe 35175
  - rehabilitation robotics research/develop., assess./eval. role 35177
  - SCARA robot, posn. accuracy meas. method *(Japanese)* 42938
  - self-tracking US inspection syst. 34395
  - sens. registration from posn., closed form soln. 3792
  - servoactuators, quasi-optimal control design 36496
  - SICE'94 conf., Japan, 1994 5455
  - software for embedded DSPs, robot appl. 19923
  - sphere joint PM stepping motor controller, robot appls. *(Chinese)* 11219
  - surgery, robot and computer assisted, 3D anatomical surfaces matching 43252
  - surgery, safe act. robotic devices 26454
  - surgery by robot, develops. 26452
  - switched reluctance motor posn. tracking 19612
  - system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
  - tactile sens. syst., piezoresistive for robots 17735
  - target class., multisensor, using unsupervised neural net 33051
  - US arrays for robot guidance 4421
  - vision-based robot calib. syst. 17658
  - walking rehabilitation robot, computer-aided 4310
  - waste water monitoring, automatic BOD test 25715
  - wrist mounted laser range finder appl. 25585
  - Si piezoelec. sens. for robots, analogue proc. 3787
- **robust control**
  - AC machines, transducerless posn./vel. control 4910
  - AC motor drive, adaptive predictive control algm. for compensation of params. 27875
  - AC motor drives, CSI-fed, exact lin. H_∞ control *(Japanese)* 28063
  - AC motor drives, six-step power convertor-fed, anal. 20082
  - AGC syst. LQG controller design 35520
  - aircraft ducted fan engine for nonlin. control expts. 18777
  - automatic landing LQG/LTR controller design 35276
  - automobile engine powertrain nonlin. sliding control design 5373
  - automotive subsystems control, electronic modules 5376
  - binocular motion stereo, MAP estim. 2784
  - brushless DC motor direct voltage vector control implement. 4990
  - brushless DC motors, fuzzy speed control design 4989
  - brushless DC motors, nonlin. tracking controllers develop. 4994
  - brushless direct drive motor, robust speed control design 5287
  - CD player, robust multivariable controller design 17615
  - CD player multivariable control, DSPs 17612
  - circuits systs., symp., Chicago, USA (May 1993) 31
  - cluttered images, robust model-based edge recogn. 2676
  - colour image, obj. location 2675
  - combined cycle power plant multivariable control 43931
  - compact disc player, QFT controller design/implement. 17614
  - composite PSS, auxiliary self-tuning/fixed param. controller design 35507
  - DC drives with flexible shafts, control config. 28068
  - DC motor drive sensorless operation, neural network-based 36676
  - DC motor drives, separately excited, tunable fuzzy logic control 20076
  - DC servo systs., integral of output error VSC 11090
  - DC servomotor, robust digital optimal model following syst. *(Korean)* 27751
  - DC servomotor fuzzy logic VSS control design *(Korean)* 27744
  - DC servomotor posn. control, fuzzy-Lyapunov fn.-based *(Korean)* 27745
  - DC/DC power convertors, democratic load-current sharing cct. 44151
  - DC/DC PWM push-pull power converter, robust state feedback control 27808
  - diesel engines robust emissions control, oxygen sens. 34616
  - digital radio open-loop max. likelihood carrier sync. 42152
  - digital transfer fns., freq. response bounding 24184
  - doubly-salient variable-reluctance motor, starting model *(French)* 10993
  - DS-SS packet radio syst. automatic threshold control 42151
  - edge-line ambiguities resoln., probabilistic relax. 2781
  - EMRAAT missile, sliding mode planar autopilot design 18957
  - flexible joint single-link robot ident. and tracking control ANN 36669
  - gas turbines, integrated robust/neural controller 27568
  - HVDC transmission links control stability, L_∞ robustness anal. 19235
  - hydrogenerators, optimal robust governor design 43989
  - IEEE IECON '94 conf., Bologna, Italy (1994) 36823
  - induction actuators, fully digital field oriented control syst. 19678
  - induction machine sensorless vector control, HF current injection 4974
  - induction motor, 3-phase inverter, robust current controller, finite state automaton 36158
  - induction motor, nonlin. posn. controller 27709
- **robust control** continued
  - induction motor drive, field oriented sliding mode torque/speed control 36699
  - induction motor drive, self-tuning control 36645
  - induction motor drive, voltage control, field weakening region *(Korean)* 28088
  - induction motor drive tacholess vector control, low speed perform. 5292
  - induction motor drives, digital control strategy 5268
  - induction motor drives, discrete-time sliding mode digital control 11390
  - induction motor drives, feedback lin. control 36696
  - induction motor drives, robust adaptive observers 11357
  - induction motor drives, speed sensorless control, flux saturation effects 11328
  - induction motor drives, speed sensorless field-oriented control 5298
  - induction motor drives, universal field oriented control simuls. 36640
  - induction motor output feedback stable controller 19633
  - induction motor servodrive, control, PI load estimator 20086
  - induction motor servodrive, robust 2DOF posn. controller 36658
  - induction motor servodrive, VSS robust control 44483
  - induction motor speed control improvement, load torque var. *(Korean)* 27723
  - induction motors, rotor flux estim., Luenberger observers 11038
  - induction motors, rotor resist., dyn. adaptation 11037
  - induction servomotors, cycloconverter-fed, sliding mode control 4983
  - lin. DC motor actuator, wire-driven syst., robust control *(Japanese)* 19667
  - mag. levitated lin. positioning syst., time-delay control 15341
  - MAGLEV systs., H_∞ control, exact lin. 40276
  - MELECON '94, conf., Antalya, Turkey (1994) 5470
  - missile autopilot, multivariable H_∞, robustness eval. 18958
  - model based robot vision 25881
  - motor drives, MRAC design, integral compensation 44434
  - multimachine power syst., optimal robust stabiliser 27022
  - multiobjective controller design, guaranteed H_∞ control perform. 44062
  - multivariable combustion control design, indiv. channel design framework 27525
  - multivariable robust filtering/open-loop control, probab. 32529
  - observer design for biomedical systs. 43198
  - parallel reson. power converter, half-cycle current control 19714
  - perform. robustness anal. of Kalman filter for lin. discrete-time systs. 21397
  - plasma deposition proc., modelling/robust control 12171
  - plasma etching control of Si/SiO_2 in SF_6/Argon 30396
  - PM DC motor drives, AI speed control strategies 5285
  - PM stepping motor robust tracking control 36203
  - PM sync. servomotor drives, optimal/VSS control 5288
  - power distrib. approach, robust control 43713
  - power plant control, state space and freq. domain predictive controller design 27524
  - power syst. load freq. optimal PID controller design *(Korean)* 26922
  - power syst. load-freq. control, H_∞ optim. 43675
  - power syst. robust multivariable PI secondary voltage/VAr control 27016
  - power syst. stabil. robustness, control perform. anal. 4576
  - power syst. stabilisation, SMES, fuzzy control 19171
  - power syst. state estim., robust Mahalanobis dists. 10607
  - power syst. transient stabil. cooperative control design *(Japanese)* 10617
  - PSS, fuzzy controlled SVC design *(Japanese)* 26939
  - PWM rectifier, state feedback nonlin. control 11153
  - PWM regenerative sinusoidal converters, H^∞ control 5131
  - PWM reversible rectifier variable struct. control design 5054
  - PWR, efficient and safe large power changes automation 4792
  - PWR NPP neural control 35738
  - reluctance generators, sensorless DC output voltage control 4927
  - rigid rotor mag. bearing syst., nonlin. control 27681
  - robots, PM sync. motor drive, robust adaptive control 20054
  - rolling rotor SRM, optimal digital control design 36134
  - saturated sync. motor drives, control modelling 5324
  - sensorless brushless DC motor drive control studies 44474
  - series reson. DC/DC power converter, IP regulator-based control 44221
  - SICE'94 conf., Japan, 1994 5455
  - Space Station Freedom power system, small-signal stability 26593
  - spacecraft pitch attitude and momentum LQG/LTR control 35238
  - SRM actuated rigid-link robot hybrid adaptive tracking control 36650
  - SRM drives, sliding mode observer controller 5301
  - steam power plant, self-tuning cascade temp. control 27549
  - steam turbine robust controller design 35968
  - stepping motor, nonlin. robust control 36200
  - SVC H^∞ controller, anal. and design 10652
  - three phase ASD PWM rectifier, neural net-controlled 5120
  - three-phase PWM inverter UPS, robust μP control 36248
  - three-phase turboalternator adaptive control, transputer-implemented 36119
  - three-phase voltage-source utility interface power convertor 19737
  - traction drive robust H_∞ control 20066
  - turbogenerator stabil., robust optimal control, PSS design 27019
  - two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638
  - unity PF boost converter control 19284
  - universal fuzzy posn. controller for motor drives 36653
  - variable impedance power syst., decentralised stabilisation scheme *(Japanese)* 43681
  - variable speed DC motor drives, fuzzy self-organising control appl. 36689
  - variable speed induction motor drive, adaptive fuzzy control 11392
  - variable speed induction motor drives, neural net-based vector control 36685
  - variable speed squirrel cage motor drives, indust. appls. 5294
  - weapons, laser pointing, observer-based adaptive control 10588
  - wind turbines, speed control in stall region 36066
  - wind-diesel hybrid power plant, robust control 10912
  - wind-diesel hybrid power plant, robust control and anal. 19574
  - wireless LAN MAC protocol selection for indoor environ. 41818
- **robust estimation** *see estimation theory*
- **rocket engines**
  - $^{241/243}$Am, ion-engine propellant 26694
  - bimodal-pellet bed reactor, space nuc. power/thermal propulsion appl. 4371
  - cryogenic rocket engine, liq. H_2 turbine, expander bleed cycle 26692
  - HDTV GEO satellite, nuclear power/propulsion appls. 18753
  - inter-orbit spacecraft flight, solar rocket engine 18766
  - large reusable rocket engine, artificially intell. health monitoring 18770
  - liq.-fuelled rocket engines, combustion instabil. anal. 10401
  - Mars transfer vehicle, dual-mode nuclear rocket power requirements 18750
  - nuc. rocket, closed-cycle gas core, thermal rad. absorp. effects 4369
  - open-cycle gas core nuc. rocket, computational model 18769
  - orb. spacecraft, nuc. power propulsion 26691

rocket engines continued
Pratt and Whitney nuc. rocket, simul. syst. for advanced control develop. 4368
small launch vehicle propulsion, high power MM-waves 35272
solid-core heat-exchanger nuc. rocket program 4372
space hybrid power/propulsion system, particle bed reactors 18754
space nuc. thermal propulsion program 4364
space nuclear power/propulsion, hybrid power system appls. 18752
Space Nuclear Thermal Propulsion develop. programme, USA 18772
space propulsion vapour core nuclear reactor rocket engine 18773
space thermionic reactors, thermal-hydraulic/neutronic design 4374
spacecraft rocket engine effects on solar cells 43455
spreadsheet approach, min. cost tolerancing of rocket engines 18767
U gas, nuc. rocket fuel, opt./thermophysical props. 4370
rocket vehicles *see rockets*
rockets
see also missiles; rocket engines; space vehicles; weapons
Ariane 5 on-board software, safety aspects 43423
charge neutralisation by neutral gas release, 3D calcs. 26524
cryogenic rocket engine, liq. H_2 turbine, expander bleed cycle 26692
microwave rectenna, ISY-Microwave Energy Transm. in Space expt. 35596
semicond. jn. igniter in 2.75 folding fin aircraft rocket, RF charact. 35398
TR-IA rocket, high temp. furnace *(Japanese)* 43419
Roentgen rays *see X-rays*
roentgenography *see radiography*
rolling
see also cold rolling; hot rolling
cement plant roller press drives, induction motor/freq. converter 5420
cement prod., hydraulic roll crushers, motor appls./selection 5421
machine tool rolling meas. syst., laser interferometer-based *(Japanese)* 42940
thick film paste dispersion procs., pass. electronic component manufacture 6439
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$ tapes, Ag-sheathed, mag. behaviour 7228
$Bi_2Sr_2Ca_2Cu_3O_x$:Pb/Ag, monofilamentary tapes, Hall sens. magnetometry 39228
Cu, electrodeposited/rolled annealed, flexible cable, fatigue 29623
rolling mills
aluminium cold rolling mill, AC drives, control syst. 44490
ASDs, torsional vibr. damping 36800
ball-bearing syst. replacement, discrete-time dyn. prog. 36981
cement indust., clinker grinding, roller mills 36806
cold strip rolling, proc. output optim. studies 11496
elec. drive harmonics, computerised meas. syst. 36801
hot rolling mill control/power equipt. modernisation project, USA 44630
iron rolling mill motor drive, random disturbance studies 11499
stainless steel rolling strip flatness meas./control syst. 10015
steel beam mill monitoring syst., PC-based 42949
steel plant power syst., harmonic meas./anal., PF correction 11502
steel rolling mill two-inertia syst. control *(Japanese)* 11501
ROM *see read-only storage*
room acoustics *see architectural acoustics*
root loci
see also poles and zeros
DC/AC switched-mode PWM inverter, stabil. anal. 11127
single-phase VSI UPS, multiple feedback loop control 11142
sync. generators, automatic voltage regulators design 36116
transimpedance opt. receivers design, root-locus techs. 3564
roots of polynomials *see polynomials*
rotary convertors
see also invertors
static neg.-phase-seq. current compensator, rly. 44537
rotating machines (electric) *see electric machines*
rotation measurement *see angular measurement*
rotational states
see also rotational-vibrational states
waveguide CO_2 laser, act. medium diagnostics 7513
HSSD, $^{r}Q_3$ branch at 656 GHz, freq.-tripled BWO 21847
rotational-vibrational states
acetylene absorpt. lines, semicond.-laser freq. locking 7642
CO_2 indust. fast-flow laser, IR luminesc. diagnostics 23086
CO_2 laser lines, hot bands in 11 μm region 23091
CO_2 lasers, freq. and power stabilised, review 23089
rotator phase in solids *see nuclear magnetic resonance*
rotatory dispersion power *see optical rotation*
rotors
2-phase brushless motor, feedback phase winding current *(Russian)* 43996
2-speed 3-phase async. lift motor, short cct. rotor 36707
3-phase self-excited double armature sync. generator 27739
3-phase sync. generators, self-excitation *(Japanese)* 11008
5 kW marine propulsion SRM/propeller drive 5340
5 kW wind turbine induction generator, expt. design 10902
9 MJ Range Gun syst., design 15305
250 kVA, 40 MVA brushless sync. machines *(German)* 10987
3600 r/min 2-pole induction motor, stiff-rotor, design/experience 4949
AC machine perform. under faulted operation 19618
AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
AC machines, smooth rotor, end-region 3D pulsation mag. field 44004
AC machines, transducerless posn./vel. control 4910
AC motor drive invertors, circ. space vector modulation control 44481
AC motor drives, six-step power convertor-fed, anal. 20082
AC motors, 3-phase, rotors comparison 36165
alternator field winding interturn fault detect., neural net-based 44014
alternators, buried PM retention, high speed, rotor laminations 4931
anti-directional twin rotary motor drive, elec. vehicle *(Japanese)* 28111
anti-directional-twin-rotary motor drive, elec. vehicle 5360
arc-stator motor taking, elec./mag. asymmetry 4903
asynchronous generators, asymmetric failure conditions studies 27729
asynchronous machines, elec./mech. params. ident., math. method 11042
asynchronous machines, piecewise-const. approx. anal. method *(Polish)* 36148
bearingless PM sync. motor characts. 4932
bearingless squirrel cage motor, no-load characts. studies 19644
brushless DC motor posn.-vel. control design 36188
brushless DC motors, computer simul. model 36184
brushless doubly fed machines, pump drives, pole no. combinations 5282
cage induction machines, online winding param. meas. 4940
rotors continued
cage induction motor, slanted stator/rotor teeth effect on torque 36170
capacitor-run induction motors, single-phase, lumped param. model 4972
car engine fan, digitally controlled induction motor 27719
cascade compulsator, YAG laser power supply 31456
cascaded doubly-fed machines, state space control 36668
civ. engng. tandem rolling-rotor actuator synchronisation 11519
condenser motor, inner rotor, 16-part tooth core *(Japanese)* 11017
cpd. turbogenerator electrodyn. props., rotor eddy current effect *(German)* 10985
DC link power converter, induction motor drive appls. 44450
deep-bar induction machine dyn. params. determ. 4964
domestic appliances, doubly salient PM motor, commutation, design/anal. 11491
domestic appliances, rotor vibr. transm. prevention *(Japanese)* 11489
double induction output generator, commutation angle anal. 19638
double-fed induction generators, PLL controlled, stabil. anal. 44061
doubly-fed brushless motor drives, pole no. model 5279
doubly-fed induction machines, torque/VAr control 4973
doubly-salient variable-reluctance motor, starting model *(French)* 10993
dual induction motor vehicle drives, control methodology 11418
dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
ducted wind energy converter develop., axial flow rotor 27648
elec. drives, high inertia, optimal control design 5277
elec. generator modelling, power syst. simulator-based method *(Russian)* 43995
elec. machine act. vibr. control, piezoelec. actuator-based, simul. 36090
elec. machine EM speed reduction, phys. proc. modelling *(Russian)* 36106
elec. machine rotor drag torque estim. algm. *(Russian)* 43974
elec. machine state eqn. inductance matrices anal. *(Russian)* 44005
elec. motor EM speed reduction, math. anal. method 43990
elec. vehicle motor drive syst. design, test results 5345
elec. vehicles, induction motor drives, posn. sensorless 20097
electret motors, EM force calc. methods 44085
electrostatic side-drive motors, design and fab. 36217
external rotor PM motor, perform., current waveforms influence 10948
field-oriented induction motor drive, nonlin. state observer 28090
flywheel energy storage program, Lawrence Livermore Nat. Lab. 28049
freq. converter asynchronous machines, integrated rotor studies *(Russian)* 11013
generators, transverse edge-cracked rotor vibr. 19579
HAWT, const. speed, LQG control 36070
HAWT, nonlin. control appl. 36069
helical rotor lin. reluctance motor 11074
high speed async. motor, solid rotor, mag. vector pot. 36166
hybrid step motor control, reconstructed mag. flux sig. 11327
hybrid stepping motor, torque harmonics correction *(Japanese)* 27763
hybrid stepping motor drives, flux linkage meas. 5318
hybrid transducer-type US motor, speed control expts. *(Japanese)* 11082
hydroelectric generator online condition monitoring methods 10875
hydroelectric power stations, press. cushion lubrication automation *(Spanish)* 4859
hysteresis machines, high T_c supercond. rotor 10976
hysteresis motor synchro drives, overinduction control method *(Russian)* 28097
induction generator dyn. anal., bifurcation theory-based 4961
induction machine behaviour anal., interactive colour graphics 11050
induction machine equiv. cct. models, comparison 27742
induction machine harmonic rotor current/loss symm. calcs. 36169
induction machine ident./control, neural net-based 44057
induction machine optim. conflict problems, univariant search method 11053
induction machine sensorless vector control, HF current injection 4974
induction machine squirrel cage disc rotor, starting torque improvement 27733
induction machine vector control, iron core loss considerations 4955
induction machines, broken bar detect., current spectrum/param. estim. 4966
induction machines, eccentric rotor mag. pull modelling 36168
induction machines, effect of skewing on cogging torque 19641
induction machines, ferromag. rotor, temp.-mech. characts. tests *(Russian)* 36150
induction machines, rotor-air gap boundary layer, equiv. ccts. design 44037
induction machines, rotor/air-gap boundary layer, equiv. ccts. *(Russian)* 44033
induction machines, saturated, deep bar effect, transient models, simul. 19634
induction motor, dyn. behaviour/param. calc. optimisation 4942
induction motor, field oriented control, H_∞ controller synthesis 11343
induction motor, rotor time const., field oriented control, param. sensitivity 4944
induction motor, rotor time const. meas. magnetizing flux 4965
induction motor, two-layer rotor, equiv. cct. params., speed control *(Russian)* 44435
induction motor ASD, fuzzy on-line efficiency optimisation control 36659
induction motor control/protection, Steinmetz model 4938
induction motor core losses meas., static power convertor-based 19620
induction motor deadbeat flux level control *(Japanese)* 27717
induction motor drive, CSI-fed, microcomputer-DSP control 20072
induction motor drive, rotor flux/time const., VSS observers 11325
induction motor drive control, rotor time const. ident. 11369
induction motor drive field oriented control, spindle appls. 5262
induction motor drive self-commissioning, param. estim. accuracy 5297
induction motor drive speed vector control, rotor speed meas. methods 44478
induction motor drive tacholess vector control, low speed perform. 5292
induction motor drive vector control, neural net flux estimator 5296
induction motor drives, digital control strategy 5268
induction motor drives, extended Luenberger observer, state/param. estim. 36657
induction motor drives, field oriented control, parallel proc. 36700
induction motor drives, freq. control *(Russian)* 36662
induction motor drives, inverter-fed, magnetising flux saturation 5261
induction motor drives, online current monitoring-based fault detect. 36704
induction motor drives, robust adaptive observers 11357
induction motor drives, rotor time const., torque anal. 20089
induction motor drives, saturated, field oriented control 20079
induction motor drives, speed sensorless field-oriented control 5298
induction motor drives, universal field oriented control simuls. 36640
induction motor drives, vector control, auto-tuning method 36682
induction motor drives, vector controlled, iron loss effects 5280
induction motor drives, vector controlled, rotor time const. ident. 20073

rotors continued
induction motor fault current simul., rotor leakage flux-caused 19647
induction motor field oriented torque control scheme 11014
induction motor modified flux orient. control scheme 11046
induction motor nonlin. control, DSP approach 11057
induction motor offline param. ident., computer-based 4956
induction motor output feedback stable controller 19633
induction motor param. est. models 4977
induction motor rotor speed meas., slot harmonics-based 4941
induction motor speed control, stator resist. estim. 36155
induction motor vehicle drives, static characts. modelling *(Russian)* 44570
induction motors, doubly fed, torque/reactive power control 44058
induction motors, doubly-fed, IP control transient stabil. anal. 27740
induction motors, dyn. perform., space harmonic fields, cpd. transform. *(Chinese)* 11015
induction motors, Forward Stall Test, rotor/stator loading verification 4947
induction motors, indirect field oriented control perform., rotor speed error 4976
induction motors, param. estim., output-error ident. method 11023
induction motors, parameter estim., dyn. anal. 19649
induction motors, rotor flux estim., Luenberger observers 11038
induction motors, rotor flux/speed ident., polar coord. method *(Korean)* 36174
induction motors, rotor resist., dyn. adaptation 11037
induction motors, sensorless vector speed control scheme 19632
induction motors, speed sensorless indirect field oriented control 11045
induction motors, transient torque anal. *(Japanese)* 11031
induction motors, two rotor ccts., reduced order models 11054
induction motors with flux obs., adaptive nonlin. control 27727
induction servomotors, cycloconverter-fed, sliding mode control 4983
induction/PM sync. motors, radial posn. control 10979
LIM, rolling rotor, pulsed operation modelling 27720
LIM, skewed ladder-type rotor, 3D FEM-based anal. *(Japanese)* 44044
lin. pulse motor actuators, principles and characts. 44256
micro electrostatic wobble motor, fabr. *(Japanese)* 11079
micromotor flange bearing monolayer coatings, perform. tests 44084
micromotors, coupled electrostatic/mech. FEA 11094
mixed airfoil wind turbine blades, design/testing 36079
mobile pulsed power supply, homopolar generator, inductive storage 36255
motors, double power supply, LF oscillatory motion 4904
multimachine power syst. generator shedding, neural net-based 19098
piezoelec. motor, long. composite vibrs. 11086
PM 2-phase sync. FHPM, self starting 36678
PM AC motors, rotor flux posn. indirect sens. method 4909
PM brushless DC motors, laminated rotor, FEM modelling 11064
PM brushless machine, induced EMF/torque waveforms 10933
PM brushless motor drives, state-of-the-art 36677
PM rectifier motor, EM field/torque calcs. *(Russian)* 10920
PM rectifier-type motor, mag. field anal. 27682
PM reluctance machines, theoretical anal. *(Japanese)* 4923
PM reluctance motor drives, axially-laminated interior rotor design 36664
PM stepping motor drives, reverse rot. studies *(Japanese)* 11394
PM stepping motors, orient. pattern/magnetisation calcs. 27765
PM sync. motor feedback lin. decoupling torque control 4933
PM sync. motors, digital controller, Park model 10992
PM sync. motors, nonlin. reduced order observer 44027
PM sync./induction mag. levitated rot. motors *(Japanese)* 44026
PM vernier motor, optimum design *(Japanese)* 27685
PM vernier motors, anal. *(Japanese)* 10974
power station turbogenerator maint., welding experiences, UK 19388
power syst. dyn., coherency ident., neural net-based 4492
power syst. static voltage stabil. studies, generator modelling 26892
power syst. transient stabil., quasi stationary phasor dyns., error anal. 26886
power syst. voltage stabil. indication, rotor heating simuls. 35432
power systems, interconnected, single line-to-ground fault transient response 35564
pulsed disk alternator, flywheel struct., EM gun 20050
reluctance generators, sensorless DC output voltage control 4927
reluctance motor, rotor posn. meas., current meas. method 4934
reluctance motor ASD, 2-level bipolar current control 11385
reluctance motor drives, axially laminated rotor, vector control 5258
reluctance motor drives, sensorless posn. meas. 11318
reluctance step motors, dissymmetrical stator theory *(French)* 36136
rigid rotor mag. bearing syst., nonlin. control 27681
rigid rotors, computer-aided static and dyn. balancing 27661
ring-type piezoelec. ceramic US motor characts. *(Korean)* 27766
robots, AC drives, optimised DSP field oriented control 36683
rolling rotor SRM, optimal digital control design 36134
rot. mach., fault prognosis, neural net 27683
rubbing fault, diagnostic methods *(Chinese)* 10926
salient reluctance generator voltage control, DSP-based *(Korean)* 36113
salient-pole brushless motors, starting method 5286
salient-pole sync. generator, time-stepping FEM anal. 19605
saturated deep bar induction machines, simul. model 4971
saturated induction motor drives, state-space modelling 28062
saturated sync. motor drives, control modelling 5324
sealed motors, sleeve losses calc. studies 10945
self-excited brushless multifield induction generators 11049
self-excited cycle mag. flux compressor 36286
sensorless brushless DC motor drive control studies 44474
shaded-pole induction motors, 2D EM field anal. *(Japanese)* 11019
ships, axial flux PM machines, counter-rot. rotors 11400
single-phase doubly salient PM sync. generator 4926
single-phase induction motors, rotor slot skew effects anal. *(Polish)* 36147
single-phase iron-core compulsator, computer modelling 36290
slip energy recovery induction motor drives, harmonic anal. 11391
slotless PM sync. motors, perform. anal. 10984
small US motor, operating principles, prototype 27768
solid rotor turbogenerator, equiv. ccts. anal. 27660
split phase induction motor drives, vector control 5295
squirrel cage motor, inverter driven, thermal model 5253
squirrel cage motor, sensorless speed detect., supply current , FFT 36167
squirrel cage motor harmonic equiv. cct. param. determ. 36161
squirrel cage motor rotor time const. ident. studies 4953
squirrel cage motor rotor winding fault detect. ES 44059
squirrel cage motor vector controllers, rotor models improvement 4975
squirrel cage motors, 3D eddy current field rotor modelling *(Chinese)* 44042
squirrel cage motors, field oriented control param. estim. 4979
squirrel cage motors, perform. prediction, power supply vars. 11051
squirrel cage motors, rotor, transverse bar-to-bar currents *(Polish)* 27702

rotors continued
squirrel cage motors, rotor/winding faults anal. 11043
squirrel cage motors, torque vector control studies 4980
SRM, lin. unaligned posn. scaling method 19603
SRM, switching angle, high speed operation *(Korean)* 36112
SRM actuators, axially laminated anisotropic rotor design 27701
SRM drives, sensorless rotor posn. meas./control 5257
SRM drives, sliding mode observer controller 5301
SRM faults/unbalance forces studies 36132
SRM perform., end core flux effect 4915
staggered-rotor async., machine harmonic torques *(German)* 11027
steam power plant turbine rotor-bore inspection techs. 27562
steam turbine rotor shaft stabil. testing 27559
steam turboalternator set, rotor syst. bearings, optim. of installation posns. *(Chinese)* 36141
stepping motors, sensorless rotor posn. control 11084
supercond. commutatorless motors, fund. design, elec. characts. 36686
supercond. generators, short-cct. rotor damper EM force calcs. 27676
switched reluctance motor, torque ripple neural control 44011
sync. generator, back-swing phenom. anal. 11000
sync. generator rotor angle calcs., zero seq. harmonic components-based 4912
sync. generator stabil. pattern class., neural net-based 11006
sync. generator voltage stabil., voltage depend. reactive power limits 36114
sync. machine, reduced models, charact. params. 10980
sync. machines, damper winding/rotor iron currents modelling 11004
sync. machines, salient pole, rotor complexity, transient responses 10995
sync. motor drives, inverter-fed, self-controlled, perform. characts. 5289
sync. motor drives, VSI PWM inverter fed, design, params. 5283
sync. motor rotor posn. and speed ident. 44459
sync. motors, CSI-fed, rotor losses estim. 44013
sync. reluctance drive technol., theoretical overview 44473
sync. salient pole/wound rotor motors, control studies 4919
sync. turbogenerator, salient-pole, saturated rotor, toothless stator 36111
sync. wind power generator, operating conditions 10907
tandem induction motor, series-delta connected, equiv. cct. model 36179
three-phase cage rotor induction motor CAD 11366
three-phase induction motor drives, online fault monitoring 20084
three-phase induction motors, math. modelling eqns. *(Polish)* 27703
three-phase sync. generators, brushless excitation method 4928
three-phase two-stator brushless sync. induction motor *(Japanese)* 19606
turboalternator third-order SSR stabil. models 44018
turboalternator winding eccentricity monitoring studies *(German)* 36126
turboalternator-exciter rotor syst., unbalance response *(Chinese)* 36129
turbogenerator FEM/state-space modelling, no-load case 43983
turbogenerator FEM/state-space modelling, short cct./load case 43984
turbogenerator insulation design, mech. stress considerations 44003
turbogenerator rotor bore, automated US inspection syst. 19599
turbogenerator rotor shorted turns, online monitoring 19598
turbogenerators, rotor hydrogen cooling, temp. distrib., clogged vents *(Chinese)* 43999
TW type US motor, design 36199
TW US motor, adaptive speed control 11089
UH-60A airloads data acquisition and proc. syst. 10313
variable reluctance machine magnetisation characts. modelling 19604
variable reluctance machines, demagnetisation control designs 36138
variable reluctance stepping motor rotor oscill. control 11376
variable speed AC motor drives, cycloconvertor current control *(Korean)* 28084
variable speed conc. winding induction motor testing 11393
variable speed squirrel cage motor drives, indust. appls. 5294
washing machine energy efficient brushless motor drive 5396
wind powered sync. generator, operating conditions improvement *(Russian)* 27650
wind turbine, wound rotor async. generator, static Kramer drive 36083
wind turbine load matching, least resist. principle errors 10900
wind turbine rotor blades, design, size/mass rels. 27649
written pole motor/generator, flywheel storage , telecom. sites 44203
NdFeB PM hysteresis motors, starting/synchronisation studies 10977
roughness measurement *see surface topography measurement*
roundoff errors
1st-order digital allpass filter sects., comparative study *(English)* 6232
arith. codes, finite-precision implement. 40629
block-float FFT, roundoff errors 25750
constrained roundoff noise minimisation in digital filters, algm. 15962
derivative computation by Chebyshev differentiation matrix, roundoff error 20594
finite wordlength digital filters/controllers, optim. realisations 37883
LMS-Newton adaptive filtering algm., variable convergence factor 40806
low roundoff noise digital filters, optimal floating point structs. 37867
periodically time-varying state-space digital filters study 8255
quadrature formulas, symmetric interpolatory, efficiency measures 20615
second-order digital filter sects., sum of power-of-two coeffs., low roundoff 758
subband adaptive digital filter with crit. sampling, perform. 745
transversal filter algm. for recursive LS adaptive filtering 2531
underwater commun./sonar, filtering, transform 8320
WDF for TI's sens. sig. proc. MSP430, CAD 738
routing *see network routing*
routing, telecommunication *see telecommunication network routing*
rovibronic levels *see rotational-vibrational states*
RPC *see remote procedure calls*
RS-232 *see peripheral interfaces*
RS codes *see Reed-Solomon codes*
RTA *see rapid thermal annealing*
RTD *see resonant tunnelling diodes*
RTG *see radioisotope thermoelectric generators*
RTP *see rapid thermal processing*
RTTY *see radiotelegraphy*
rubber
see also ethylene-propylene rubber; silicone rubber
biomedical US probe lens materials, acoustic props. 26353
ferrite EM wave absorbers, bandwidth widening by attaching rubber ferrite 2210
AlH_3 filters, particle size effect on RTV coatings performance 14050
Ni-Zn ferrite/rubber composite microwave absorber, additives effect *(Korean)* 20991
Pb-acid secondary batt. rubber separators, perform., selection 36532

rubber continued
- insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658

rubbing (abrasion) *see abrasion*

ruby
- fluoresc.-based lifetime meas. thermometer, subroom temps. 42823
- gamma-irrad. samples, photon echo spectrosc. investigs. 31602
- insulating materials, electron beam excited luminescence 14074
- integrated thin film stress sens., epitaxial regrowth 17749
- laser, colliding shock lens, intracavity Q-switch element 23329
- laser, pass. Q-switched, Cr-activated silicate crysts. 31547
- laser, thermal gratings, DFWM 23407
- oxide laser crysts., CZ growth 14828
- $Cr^{3+}:Al_2O_3$ laser, low dose electron and gamma-ray irrad. effects 23159

rule based programming *see logic programming*

rule based systems *see knowledge based systems*

Runge-Kutta methods
- adaptive space time hp-refinement algms. for 1D parab. systs. 37349
- charged particle motion, precise integrator, Runge-Kutta method 40260
- classic four-stage fourth order Runge-Kutta formula, error estim. 28654
- common store queueing syst., threshold-type foreground-background congestion control 24788
- convergence results for multistep Runge-Kutta methods on stiff mech. systs. 28690
- delay diff. eqns., stabil. 37354
- delay Volterra integral eqns., collocation and Runge-Kutta methods 12010
- differential Riccati eqn. soln., transm. line modelling 21402
- domain-wall motion, nonequilibrium dyn., chaos 7188
- EDFA modelling, num. methods efficiency 14768
- error anal. of randomized num. method 37292
- fourth order Runge-Kutta formula based on harmonic mean 268
- implicit 2-stage methods *(Japanese)* 37361
- index 2 differential alg. problems, Runge-Kutta methods 20627
- molten solder profiles for rect. pad geometries in SMT, calc. 38123
- multi-stage coilgun, design, energy distrib. *(Korean)* 23519
- nonlin. alg. eqns. in implicit R-K methods, existence and uniqueness of solns. 266
- parab. systs., integrated space-time adaptive hp-refinement methods 37344
- parallel diagonally implicit Runge-Kutta method for stiff IVP 20632
- QPO, component params. calc. 21149
- railgun armature contact load dyn. 15359
- reactor control rod drives, lin. step motors, CAD 10822
- reson. tunneling diode, C-V curve hysteresis, quantum hydrodynamic model 38799
- step-parallel iterated Runge-Kutta methods 12002
- sync. motor drive, inverter-fed, discrete time simul. 28094

runlength codes
- 2D robust run-length limited codes 15757
- (4, 20) runlength limited modulation code for high dens. storage syst. 30745
- almost block-decodable runlength-limited codes constr. 24097
- asymptotic bounds on size of error-correcting recording codes 2384
- block codes, small error propag. 40649
- block runlength-limited error control codes, trellis decoding 2373
- constrained multitrack RLL codes for mag. storage channel 39179
- (d, k) codes with multiple spacing, spectral props., mag./magnetooptic recording 7176
- (d,k)-constrained seqs., synchronising methods 15755
- error-correcting 2D modulation codes 15754
- fast Huffman decoder, high speed pattern matching 41078
- generic coder for binary sources, M-coder 32192
- graphics segmentation based coding of multimedia images 33097
- HDTV receivers, efficient 2D inverse DCT algm. 25645
- high data rate video recording, 8-12 conversion channel code *(Japanese)* 9748
- high-dens. opt. recording, variable length RLL codes 15758
- image coding, correl. fn./dist. calc. *(Japanese)* 41293
- insertion/deletion correcting runlength-limited codes 24035
- large image sets partial eigenvalue decomp. 41186
- M-ary (d,k) codes for high dens. disk recording, improved dist. 30735
- M-ary runlength limited codes for high dens. opt. recording 39313
- mag. storage, digital syst., 2D coding 7175
- magnetooptical recording, n/m code and modified Viterbi decoding 15724
- MPEG player for network karaoke *(Japanese)* 3681
- multi-level decision feedback equalization, syst. archit., mag. recording 7177
- opt. fiber channels, sliding-block line codes, dispersion limitations 40578
- recording codes based on sampled servo format, perform. comparisons 15756
- RLL (d,k) coding, struct. VQ 40653
- Schneider write equalizers for (1,k) peak detect. channel 7137
- trellis decoding tech. for block RLL/ECC codes 40651
- waiting time for runs of given length, distrib. 40676

runlength-limited codes *see runlength codes*

rupture (solid) *see fracture*

rust prevention *see corrosion protection*

Rutherford backscattering
- CMOS SRAM soft-error simul. syst. 657
- pMOS dosimeters, energy depend., package geom. effects 26497
- poly-Si/Ta_2O_5/TiN capacitors for DRAM appls., thermal stabil. 21316
- AlN, ion plated films, opt. applicability 28850
- AlN:Cu, ion implanted, impurity segreg. *(Chinese)* 13311
- Au/GaSb, interfacial reacts., ohmic contacts effects 38376
- Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
- BN, cubic thin films, growth, charactn. 5875
- BN thin films, plasma-enhanced CVD, structural props. 20953
- $BaFe_{12}O_{19}$, hexaferrite films on sapphire, mag., struct. props. 14175
- $Ba_{0.5}Sr_{0.5}TiO_3$ thin films, sputtering, electric props. 20965
- a-C:H,N films, ion implanted, in-depth modifs. 6537
- CdS, film, chem. deposition, struct., props., solar cell appl. 28798
- Co/Ti/Si(100), thermal proc., interdiffusion, phase form. 1203
- $CoSi_2$-Si heterostruct., solid state epitaxial growth from Co-Ti-Si multilayer 37419
- Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
- Cu film, ion beam assisted deposition, lower resist., higher interface adhesion 37512
- Cu-Cr bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
- Cu-Cr bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- Cu-Ti bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
- Cu-Ti bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- CuCr alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671

Rutherford backscattering continued
- CuCr alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
- $CuInSe_2$ layers, heteroepitaxial, direct growth on Si substrs. 363
- Cu_5Si passiv. layer, growth kinetics and materials props. 38577
- CuTi alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- CuTi alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
- GaAs, Ar^+ ion implant. damage, ion-induced annealing 22092
- GaAs, CBE growth on Si(001), TEG and AsH_3 *(Chinese)* 5814
- GaAs:P, ion implanted, amorph. 22118
- GaAs(100), S-passivated, absol. coverage meas. 30129
- GaAsP, As-implant. damage effects 30058
- a-Ge:H,In(Ga) films, cosputtering deposition, sputtering yield ratios 5876
- p-HgCdTe, Au ohmic contacts, low specific contact resist. *(English)* 38381
- HgCdTe MSM detector, defect mapping by nuc. microprobe 42800
- $Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
- $In_{0.35}Ga_{0.65}As$:Be/GaAs MWQs for high-speed lasers, MBE growth, disloc. glide 333
- p-InGaAs/InP/Pd/Zn/Pd/Au graded bandgap heterobarrier/ohmic contacts, resist. 38699
- In_2O_3 films, ALE growth 324
- InP, MOCVD, transit. from island to continuous layer growth on GaAs 12115
- n-InP:Fe, Fe implant., SI layer form. 1210
- InP:Sn, ion implant, RTA, anal. meas. 38465
- In_2S_3, ALE film growth, charactn. 20678
- RuO_2 reactively sputtered films, ferroelec. capacitor electrodes 20920
- Si, Er implant., solid phase epitaxial recrystn. 30015
- Si, buried silicide layers, ion beam synthesis 30025
- Si, epilayers on Si, deposited after DC H_2 cleaning, X-ray curve charactn. 38618
- Si films, ion beam epitaxy, UHV, sputtering-type metal ion source 37405
- Si low temp. epitaxy in single-wafer RTP reactor, microwave heating 384
- Si, near-surface layer defects, RIE in SF_6-CCl_4-O_2 plasma 13337
- Si:As^+, 25 keV implant., large tilt angle, damage anal. *(Chinese)* 13035
- Si:Au, mega-electron volt implant., backscatt. and electron microscopy study 6626
- Si:Co, ion implant., defect/impurity profile 30028
- Si:F, recrystn., at. redistribution, F 1s NEXAFS 38521
- Si:Ge epitaxial film, embedded nanocrystals, synthesis 12126
- Si:In, LED, porous Si device, enhanced blue light emission 1818
- Si:Ir(111), ion implant., $IrSi_3$ synthesis 30027
- Si:O syst., ion implanted, oxide growth, refr. index, and comp. depth profiles 22123
- Si/$CoSi_2$($FeSi_2$) epitaxial silicide systs., ion channeling studies 6577
- Si/SiO_x, improved SIMOX material, Si overlayer, strain reduction 22075
- Si-SiO_2 MOS surface layer defects, ECR etching in Cl_2/O_2 plasma 6631
- Si^+-self implant induced damage, characts., annealing behavior *(Korean)* 29842
- β-SiC layers on Si(100), ion implant., cryst./elec. props. 6623
- SiC on Si(100), gas source MBE growth 382
- SiC:Al(B), ion implant., SIMS/RBS/photolumin./Hall/C-V obs. 38484
- SiC:Ga^+, defect prod., annealing 22105
- 6H-SiC:Ge,Si, ion-beam irrad.-induced amorph./recrystn. 38504
- β-SiC:N layers grown on Si substr., ion implant. studies 38482
- SiGe epilayers, form. by Ge implant., RBS channeling spectrosc. 1232
- $Si_{1-x}Ge_x$/Co(Ti), solid state interfacial react. 38371
- Si_mGe_n/Si(001) strained-layer superlattices, magnetron sputter epitaxy 361
- $Si_{1-x}Ge_x$-on-insulator synthesis by $^{74}Ge^+$ ion implant. in SIMOX substr. 30055
- $Si_{1-x-y}Ge_xC_y$, heteroepitaxial films, CVD on Si(100) 369
- $TaSi_x$, plasma oxid., mechanism, kinetics 30113
- TiH_2 diffusion barrier stabil., SiO_2 substrs. 38649
- TiN films, pulsed laser deposition, epitaxial growth 322
- TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270
- TiO_2 opt. coating for solar cells, excimer laser sputtering deposition 28835
- $TiSi_2$ self-aligned RTA proc., CMOS IC, response surface 22593
- $TiSi_2$-Si surface/interface roughness, RTA heating rate effects 22096
- W-AuGeNi-GaAs ohmic contact metallization, RTN 38580
- W-AuZn-GaAs ohmic contact metallization, RTN 38580
- WSi_x CVD as-deposited/oxidized films, DCS-based, comp./struct. 38664
- WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
- ZnSe OMVPE growth, diisopropyl selenide and diethyl zinc 20838
- ZnSe epitaxial layers, pulsed laser deposition, struct. and opt. props. 28759
- ZrN films, pulsed laser deposition, epitaxial growth 322

Rydberg states
see also metastable states; resonant states
- two-level atoms, micromaser fields, mean-photon-no. and Shannon entropy decay 39631
- two-level Rydberg atoms, mesomaser, self-pulsing behaviour 31134
- Rb, Rydberg states, two-photon SHG 40065

S-DAT *see digital audio tape*

S-matrix theory
see also dispersion relations; network parameters
- 3D EM scatt., parallel computation, finite elements 2216
- 3D-SCN-TLM diakoptics for waveguide components 12729
- arbitrary antenna scatt. matrix 8032
- branch-line eight-port hybrid cct. 21518
- broad wall coupler between dissimilar rect. waveguides, S-matrix 12714
- complex dielec./mag. permeabilities meas., coaxial resonator appl. 42900
- current distrib. on convex-concave cylinder with impedance boundary, Toeplitz matrix/SOR anal. 25560
- dielec. resonator equiv. cct. 14096
- finite thickness diaphragms in circ. waveguide, optimal filters 37956
- fully-polarimetric GLRTs for detecting scatt. centers in terrain clutter 17390
- global optimal discriminant vectors under global Fisher discriminant criterion 24555
- interdigital SAW transducers, scatt. params. calc. 6927
- jet engine inlet scatt., hybrid finite element-modal anal. 42486
- land surface mapping, 2D FM-CW polarimetric SAR 43474
- large-scale microwave networks, symbolic anal. 828
- lossless multiport network theorem 28928
- microstrip-to-waveguide transits., anal./design 15597
- microwave band lin. ccts., sig. and noise charact. 12798
- microwave ccts., general topol. 12735
- microwave correl. temp. of isothermal lossy material 3966
- microwave modulator for 16-posn. amplit.-phase keyed sigs. 12373
- microwave stadium billiard with chaotic dyn., Gaussian stats. 14312
- microwave-opt. transducers, S-matrix defn. 17815

S-matrix theory continued
  miniature waveguide antennas, aperture matching, air-gap technique 23893
  mirrors in BWG, inclined phase-transforming surface representation 30924
  modified-geometry problems, full-wave EM scatt. fast algm. 23538
  multiport vector NWA calib. 17635
  narrow-/broadband polarimetric radars, signatures/sig. proc. 42499
  OTDR waveforms, pattern matching, opt. lines fault location 9454
  patch resonator soln., combined complex image and contour integral method 29538
  planar transm. lines, multilayered dielec. substrs., WH/GSMT-based full-wave anal. 15571
  planar-cct.-type 3-dB quadrature hybrids 12734
  polarimetric calib., single dihedral corner reflector 34142
  polarimetric coherent-on-receive radar systs., calib. 42507
  polarimetric radar, discrete scatter model of vegetation 17402
  profiled corrugated horns, full-wave modal-S-matrix CAD 23936
  quasi-1D scatt., reson. line shapes 21986
  radar scatt. by random nonspherical scatters, matrix theory 18784
  rect. antenna cavity, dominant mode waveguide loaded slots array 2348
  rect. waveguide, mode conversion 40423
  SAW resonator filter, reversing multistrip couplers 30643
  sea surface, radar polarimetric backscatt., Euler vector 43528
  semi-infinite screen-magnetodielectric coaxial rod struct. 15558
  slit-coupled ridge waveguide T-jns., struct., anal. 21515
  slot array design and anal., interpolation methods 31965
  slowly evolutive waveguide reft. and transm. computation 23812
  TLM and hybrid symm. condensed nodes, direct derivation 15552
  TLM mesh dispersion anal., scatt. matrix formulation 23763
  TW microwave power divider, waveguide type, design 12711
  two-port network, noise anal., recursive algm., S-wave approach 829
  unified theory of compatible impedances 21016
  waveguide open and slit coupled T-jns., single port mode matching 31895
  waveguide transfer problem, FEA, coaxial line syst. 15608
  Si n-i-n diode, hydrodynamic transport model, scatt. matrix 22327

S-parameters
  3D EM simulator, IE3-D, HF and high-speed cct. appls. 21071
  Automatic RF Techniques Group, conf., San Diego (1991) 28249
  broad wall coupler between dissimilar rect. waveguides, S-matrix 12714
  broadband matched terminations in planar structs., simul. 12746
  broadside coupled strip inset dielec. guide, directional coupler appl. 29526
  C-band monolithic vector modulator MMIC *(Chinese)* 38040
  calc. by orthogonal expansion and finite integrat. 2168
  CATV transmitting ccts., tap-off, coupled-line theory *(Korean)* 25674
  cct. anal., appl. of artificial two- and four-ports *(English)* 21531
  ceramic 3-dB directional coupler, surface mountable, dielec. E-plane waveguide 814
  CircleX program for transistor S-param. data anal. 38774
  common-collector bipolar transistor based oscillator design 830
  coplanar waveguide multistep discontinuity anal. 23776
  Delft FM-CW radar, Doppler-polarimetric research *(English)* 3612
  dielec. resonator equiv. cct. 14096
  double polysilicon self-aligned bipolar transistors, small-sig./noise model 21539
  electronic component model minimization based on log simulated annealing 12280
  em, EM simul. tool for MMIC design 29598
  EMC appls., skeletal biconical antenna charact. 7996
  EMI filters, bal./unbalanced charact. meas., S-params. 23718
  FETs, controllable couplers, comparison 6801
  GaInP/GaAs microwave HBTs, small-sig./noise model extraction tech. 21540
  HBT equiv. cct., param. extraction from S-params. 30258
  HEMT 1-50 GHz S-params. and DC drain current modelling 12757
  HEMT equiv. cct. determ. tech. 30379
  heterojunction microwave FETs, small-sig./large-sig. extraction techs. 12754
  HF analogue perform. of MOSFETs from CMOS procs. 22411
  high-speed interconnections, accurate elec. charactn. 20454
  integrated test system, small/large signal device characterisation 25957
  interchanged two-sig. S-param. meas., MESFET/S-band amp. appl. *(Chinese)* 25963
  interdigital SAW transducers, scatt. params. calc. 6927
  K_a-band phased array multilayer MCM design and fab. 23986
  large-scale microwave networks, symbolic anal. 828
  leaky NWA calib. algm. 34314
  lossy nonlin. terminated packaging interconnection, S-param. transient simul. 5636
  MCM-D interconnects, perform., process var. effect 38184
  metallic-finger step discontinuity in SAW devices, scatt., num. expts. 30630
  microstrip discontinuities, combined mode-matching/method-of-lines procedure 31912
  microstrip step discontinuity, fractional dissipated power 856
  microstrip struct. anal., simulated matched load termination 29539
  microstrip-microslot applicators, 3D modeling, FDTD method 18601
  microstrip-to-waveguide transits., anal./design 15597
  microwave correl. temp. of isothermal lossy material 3966
  microwave HBTs, param. extraction method 6310
  microwave packages, time domain meas./modeling 28460
  microwave structs., TLM anal., AR and ARMA spectral estim. 12731
  miniature waveguide-antenna apertures, matching by air gap tuning 40499
  miniaturized 180-degree ring hybrid and singly bal. mixer 6284
  MM-wave NWA, single six-port reflectometer 34424
  MMIC and hybrid planar IC discontinuities anal. method 860
  multilayer microstrip struct. anal., matched load simul. 12794
  multiport discontinuities in waveguide, pulsed FDTD anal. 15562
  multiport finline couplers, propag. characts. 12709
  multiport microwave network problems soln., port refl. coeff. method 21520
  multiport vector NWA calib. 17635
  nonlin. transistor model params. extraction program 13805
  parallel reson. transistor microwave oscillator cct., computer-aided sensitivity anal. 6308
  passive microstrip elements, full-wave space-domain moment matrix 23836
  PCB interconnections, microwave charactn. 38164
  planar circulators, boundary element anal., spurious solns. elimination 12012
  planar EM anals. validation, ultra-high precision benchmark 824
  planar microstrip ccts., FDTD anal., spectral domain Prony's method 12730
  planar microstrip config., anal., closed-form Green's fns. 23792
  planar transm. line atten. meas. tech. 18025
  rect. spiral inductor, S-param. calcs. *(Chinese)* 38056
  rect. waveguide discontinuities anal. by method of lines 23794

S-parameters continued
  RF component testing, wireless equipt. appls. 117
  S-matrix eval. of microwave ccts., general topol. 12735
  sectoral waveguide radiating slot, equiv. params. 8081
  sensitivity anal. of one port/two port BAW/SAW resonator 30639
  skewed-port device meas., vector accuracy enhancement techs. 18054
  slit-coupled ridge waveguide T-jns., struct., anal. 21515
  slot array design and anal., interpolation methods 31965
  source resist. of FET, determ. from meas. S-params. 30380
  spurious resons. meas. of cryst. units 30616
  stacked circ. microstrip antenna elements, mutual coupling 2346
  symbolic S-params. generating program 12262
  T-jn. microwave ccts., prescribed response characts., design/anal. 862
  T-jn. splitter feed, W-band microstrip antenna array appl. 40520
  terminated microwave transistors, normalizing input/output impedances 37982
  time domain network analyzer, calibration/normalisation 25745
  TLM method, appl., waveguide filter design/simul. 804
  transm. lines, efficient freq.-domain modeling and cct. simul. 5977
  transverse ground-plane slot in boxed-stripline, radiation effic. optim. 2345
  two-port reflectometer scatt. coeffs. meas. accuracy 459
  vector FEA of waveguide discontinuities involving anisotropic media 40413
  vector NWA calibs., adapter effects 3760
  VIOMAP, S-param. equiv. for weakly nonlin. RF/microwave devices 12745
  AlGaAs-GaAs HBT, elevated temp. microwave charact. 37992
  AlGaAs-GaAs HBT, large sig. equiv. cct. model, MMIC oscill. 38828
  AlGaAs-GaAs HBT small-sig. equiv. cct. param., algm. 38827
  AlInAs/GaInAs/InP HEMTs, double pulse doped, characts. 12775
  AlSb/InAs HEMTs, 5 V gate breakdown voltage 835
  Au coplanar transm. lines, eye diag., S-params. 1298
  GaAs E-mode MESFET technol. for low power/noise appls. 12780
  GaAs MMIC power amp., instabil. prediction 37606
  GaAs/AlAs, RTD with asymmetric spacer layers, microwave impedance 13606
  InGaAs switch transistors for microwave control applications 12768
  Si, Boltzmann transport eqn., band-struct. effects incorporation 1025
  $YBa_2Cu_3O_7$ coplanar transm. lines, eye diag., S-params. 1298

S-SEEDs *see SEEDs*

SAA *see open systems*

safety
  see also accidents; alarm systems; fission reactor safety; health hazards; nuclear criticality safety; protection; safety-critical software
  6.6 kV solid insulated switchboard *(Japanese)* 27839
  132 kV indoor substation earthing, pot. gradients control 36481
  138 kV power line damper repair, live-line working 10751
  220 kV power syst. protection misoperation, traction harmonics-based *(Chinese)* 43609
  500 kV power line-induced overhead telecom. line voltages study *(Chinese)* 35654
  AC hoists modernisation 11396
  act. robotic endoscopy, safety issues 18585
  ageing power plant equipt. operation, hazard eval. 27297
  aircraft safety aspects of liq. H_2 fuel 18775
  APS SR beam lines, shielding 10290
  avionic switchgear contact material durability *(German)* 35259
  avionics, certification issues for complex digital hardware 10346
  avionics, conf., London, UK (Dec. 1992) 11585
  biased direct Monte Carlo simul. method 37180
  biological EM field/health effects review 4332
  body resist. to elec. shock, review 20388
  car driver's LOS, user interface 44580
  cement plant, power distrib., IEEE std. 36808
  Channel Tunnel project ventilation syst. overview 11484
  Channel Tunnel rail link, engng./tech. aspects 44556
  Channel Tunnel Safety Case, risk criteria develop. 36988
  Channel Tunnel trains, British main lines, signalling safety 44550
  chem. indust. safety practices, IEEE 463 Standard, 1994 changes 89
  chem. syst. hazard anal. integrat. 20173
  chem./plastics plant elec. modernization project 5405
  coal mine transportation arcing, detection/suppression method 20107
  complex structural engng. systs. safety, logical-probab. anal. *(Russian)* 5565
  computer operators, hazards from monitors 26484
  condensation inert heating mass reflow soldering systs., challenges 38162
  conference, failure anal., Johannesburg, South Africa (1994) 20245
  corporate product safety overview and laser appl. focus 36982
  criminal electronic tagging, telecom.-based monitoring 28385
  defence systs. safety crit. software std. requirements 43602
  dental radiological equipt., radiation protection problems 18512
  diagnostic radiology, QA, IEC projects/achievements 18479
  discrete radioact. particles, nuc. indust. experience 43842
  distrib. overhead line assets mgt., technol. 43744
  distrib. substation earthing systs., safety design 4662
  distributed power plants, telecom. appl. 19817
  DOE workers safeguards, public, nuc. safety regulations 18682
  domestic induction cooker, halogen lamp-based *(Japanese)* 44613
  drivers' dist. keeping, simul. study 5325
  dyn. PSA by Monte Carlo event simul. 11686
  elec. accidents, Tort liability for injuries, employees 78
  elec. and mag. fields, utility customer advice aspect *(German)* 35599
  elec. area class., practical considerations, stds. 90
  elec. control room fire protection, sprinkler syst. options 92
  elec. rolling stock, induction motor traction drive appls. 36706
  elec. vehicle batt. safety eval., SERV Project 36740
  elec. vehicle propulsion batts., pos. phys. disconnect 36767
  electric railways in united Europe, IEE conf., Amsterdam (1995) 36833
  EM radiation in environ. from mobile commun. systs. *(Slovenian)* 43407
  EMC certification of products in Gost certification syst. in Russia 23672
  EMC of microelectronic rly. traffic control systs. 28117
  EMC simul. safety enhancement *(German)* 15457
  endotracheal tube laser surgery, heat resist. safety *(German)* 26455
  engng. syst. safety anal./synthesis, fuzzy sets/evidential reasoning-based 36980
  environ. test chambers, safety guidelines 94
  ESD control/safety, surface testing, simulated MOSFET damage 15223
  ESD-immunity tests eval., fault probab. fn. 23508
  European Safety & Reliab. Conf., Munich (1993) 11584
  Eurostar Informatique control syst. software 44573
  eye, pot. hazards from extended light sources 35193
  eyesafe IR aerosol lidar, stimulated Raman backscatt. appl. 9651

safety continued
fail safe logic ccts., dyn. voltage divider 6054
failure delay syst. reliab. assess., DYLAM-3 code 11872
fault anal. syst., safety index appls. *(Japanese)* 11677
fault tree anal., knowledge engng. approach 28535
flame-resistant clothing develop., elec. indust. 36984
flight safe termination probab. rel., engine failures 18776
French indust. safety approach comparison 11678
fuel cell elec. vehicles, alternative fuels comparison 36716
gas sens. for environ. monitoring 9965
hazard engineering and the management of risk 5711
hazardous location class., North America/IEC stds. 4554
human body ESD, charge/pot. control 7907
hybrid fibre/coaxial syst., power/backup power supply 44133
hybrid/elec. vehicles, DC/DC power converters 20100
hydro power station struct., safety/reliab., inform.-anal. support 10873
image proc., crowd monitoring 33109
induction motor drives, safe operating/design areas 5309
indust. electrostatic hazards investigs., UK 7906
indust. safety, mgt. factors, model and tools 11679
inform. highway power distrib. archits. 42137
INMARSAT-C commun. syst. characts. *(Croatian)* 3503
intell. building, power receiving/transforming equipt. *(Japanese)* 28056
interferometric opt. fiber HV/current sens., field test 17821
Internet safety measures 41908
Konrad radwaste repository QA 11835
Kvazitron max.-current safety relays 4729
laser safety, indust. laser use, overview 28390
laser safety, ocular hazards, stds. 28392
laser safety, quantitat. risk assess. 28391
legionella Code of Practice compliance, engng. aspects 5568
LF EM fields, health problems overview 10287
low cond. liqs., electrostatic safety modelling *(Russian)* 7897
low cost EMC testing 2251
low-press. UV source modelling, sterilisation appls. 20504
LV distrib. feeder pillars/cutouts overview 43759
LV switchgear arcing fault protection 19891
Maglev train protection/posn. detect. 5339
mammography, QC project, Greece 18510
med. robotics, pass. arm, dyn. constrained 26451
medium power RCCB design for severe environ. conditions 36393
metalclad switchgear, HV/small size design develops. 11207
mfg. indust. health and safety mgt. overview 37003
mobile X-ray equipt., QA programme 26285
multimedia workstations, elec. protection 43798
MV induction/sync. motors, design/protection/safety 5409
MV power syst. earthing, phase-to-ground fault current selection 19327
MV/HV elec. equipt., enclosure internal arcing tests 4879
Nat. Electrical Safety Code, 1994-5 interps. 27224
NEMA 7 safety enclosure design, mfg. viewpoint 91
nonprobabilistic risk anal. method and results 11730
NORM, contaminated sites, cleanup criteria 18683
NPP, digital control systs. 35742
NPP maint., risk-based optim. 19407
NPP PSA reliab. param. requirements 19409
NPP Safety Anal. & Inform. Syst. 19411
nuc. facilities, decontamination, decommissioning 18681
nuc. generation option, elec. utility requirements 27337
nuc. power station district heating, economic/ecological effectiveness 27361
nuc. power station in-service inspection methods 19414
nuc. waste salt dome repository reliab. and safety assess. 11689
off-line reson. power supplies, design, anal. 37629
office environ. opt. wireless transmitter technols. 42358
oil tanker filling, electrostatic field estim. 40214
optoelectronic feedback control for power supplies 37624
overhead distrib. line pole struct., risk-based design 43755
particle collider materials in high radiation environ. 4044
patient dose, rational reduction, WHO activities 18637
PB-acid batts., sealed, small size, UPS appls. *(Japanese)* 5186
pers. protective grounding, param. anal., software 20384
petrochemical indust. fire protection, intrinsic safety appl. *(German)* 11512
petrochemical indust. MV arc resistant metalclad switchgear, safety benefits 5416
petroleum indust. safety mgt., Norway 88
petroleum refinery/elec. utility collaboration, overview 5414
petroleum storage tank electrostatics, stream fn. distrib. 15220
phrenic nerve, long-term intramuscular elec. activation 10275
plant safety and availability, integrated dyn. decision anal. 11680
power cable fibre-optic sens. props. for quasi-intrinsic safety *(German)* 10744
power cable materials, fire safety, improvement 27203
power distrib. cables, long service life designs 43770
power freq. EM fields, pers. exposure regulations, Italy *(Italian)* 4336
power lines EM field health risks, elec. utility strategies 4507
power overhead line, conductor clearances, meas., calcs. *(Italian)* 4694
power overhead line live-line insulator washing expts. 27223
power station component structural integrity, R5/R6 assess. procedures 19390
power syst. LF EM fields, living organism health effects 4329
power syst. meas., voltage reducer breakdown studies *(French)* 35706
power syst. voltage stabil. security indices *(Chinese)* 35472
power systs., time integrated EMI safety margins 15465
probabilistic safety anal., probab. meaning 86
prod. syst. functional discrete event modelling 11729
protective multiple earth, overhead distributors 10781
protocol modeling/validation, symbolic simul., theory/appl. 2933
PSA technol. characts., utilisation and limitations 11684
PTC thermistors, overheat protection, equipt. safety 6353
PWR NPP, safety overview, Russia 27338
rare earth doped CaYAlO$_4$ for eyesafe laser appls., spectrosc. eval. 1913
renewable energy develops., ecological aspects, Switzerland *(Spanish)* 4760
resist. heat tracing cables, safety 5386
respirable coal dust meas., fire sens.-based 20187
RF radiation hazards in indust./airfield environ. 2271
risk tolerability determ. from social indicators 11687
risk-based inspection develop., USA 11841
rly. safety stds. 36986
rly. signalling interf. prevention, high integrity monitor 44547
rly. syst. technols. develop., Hitachi 44504
rot. mach. early failure diagnosis, ROMADIS package 11681

safety continued
rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658
Russian RTG capability 26634
safety, quantified risk assess. 36987
safety-crit. tech. proc. spec. toolkit 11691
secondary network protectors, IEEE std. requirements 27273
self-checking mixed-sig. ICs, analogue sect. design, safety appls. 29408
SOCRATES, European in-car radio navig. syst. 42540
solar cells, plasma etching, health/safety concerns 44406
space power syst., wiring syst. safety 26597
static power converter hybrid control modelling, reliab./safety appls. *(French)* 27799
substation safety, soil resist. meas. method 44245
surgery, safe act. robotic devices 26454
Swedish authorities' accident prevention approaches 11685
Swedish NPP component reliab. data anal. improvements 19405
Swedish NPP safety database, incident and trend catalogues 19406
Swiss NPP PSA uncertainty quantification 19412
switchgear risk assess., methodology/results/implications 5150
syst. availability enhancement by fault diagnosis, ANN 19526
technosphere danger systematic anal., ternary logic 11693
telecom. DC power supply equipt, product safety engng. 41625
thermal CHP plant leak sealing safety experiences, Germany *(German)* 4821
totally enclosed motors, hazardous locations appl. safety 19592
two wire automatic rem. sens./eval. syst. 17686
underground distrib. cable joints, PD meas. 4704
underground rly. transformers selection, safety 44538
US Navy batt. requirements, develop. efforts 43565
vehicle-driver, interface design, conf., London (1995) 20205
weights and measures, conf., Kansas City, USA (1993) 28260
weights and measures, conf., Nashville, TN, USA (1992) 11592
wheel-rot. sens., magneto-opt. 17861
X capacitors, Siemens B81131 series, metalized paper/plastic film, safety 872
ZX1 VISIO-COMPACT MV gas-insulated switchgear 11200
CO$_2$ indust. lasers, hazards, accident risks 28393
Li ion secondary batts., safety eval. *(Japanese)* 19943
Li-SOCl$_2$ batt. develop./status, Titan IV Centaur launch vehicle 26673
Li$_2$Mn$_4$O$_9$ spinel anodes for lithium-ion batts. 5190
Li$_4$Mn$_5$O$_{12}$ spinel anodes for lithium-ion batts. 5190
Li$_4$Ti$_5$O$_{12}$ spinel anodes for lithium-ion batts. 5190
Ni-MH secondary batts., safety eval. *(Japanese)* 19943
Pb-acid batt. glass fibre separators, tech. compatibility/safety 36550
SF$_6$ 145 kV distrib. substation metal oxide surge arresters 4674
SF$_6$ distrib. switchgear, personnel safety 11201
SF$_6$ power distrib. equipt. enclosures, ventilation requirement calcs. 35628
SiC thin film thermistors, gas cooking hob appls. *(Japanese)* 42968
Tm,Cr,Ho:YAG eye-safe pulsed laser and study of radiation absorpt. by mol. gases and air 14790

safety-critical software
advanced digital reactor control systs., safety policies 19456
Ariane 5 on-board software, safety aspects 43423
automatic train protection syst. develop., formal methods appl. 36744
automotive control syst. benchmark based on Time Triggered Protocol 5369
avionic subsystem, architectural spec. 35239
defence systs. safety crit. software std. requirements 43602
distributed systs. reliab. conf., Princeton, USA (1993) 36876
fission reactors, analog systs. upgrades 19457

safety systems
see also alarm systems
3D X-ray imaging techs. 34335
35 GHz forward looking altimeter for terrain avoidance 25612
406 MHz antenna for Spar deployable emergency beacon transmitters 15650
air-bag crash sens., VXIbus-aided automated test syst. 17680
aircraft guidance/decision aid for wind shear avoidance 35219
airport surface enhanced surveillance radar 10424
automatic line protection testing, SDH/opt. fibre amp. 9530
automatic train protection syst. develop., formal methods appl. 36744
automobile elec. windows, anti-trap safety syst. 5366
aviation collision avoidance, challenges of full implement. 10380
beamline front-end mock-up at APS, vac. tests 43148
CERN PS accelerator complex, data driven alarm syst. 18202
computer and communications security and protection, conf., Paris, France (June 1994) 24870
conf. on security technol., Ottawa, Canada, Oct. 1993 36875
crit. systs., failure monitoring, lifetime scales 37177
environ. test chambers, safety guidelines 94
fire/gas detector test schemes optim., reliab. model 36979
fossil power plant cycling operation, steam bypass systs. 27550
GNSS augmentation data link 10377
Hibernia offshore platform, integrated control syst. 5412
humans detecting sensor for robot cell 25796
HVSE-I power line safety monitor, μP-based *(Chinese)* 27193
hydroelectric dam surveillance, ES/mgt. IS-based 19544
ident. card mgt. syst. for Tokyo International Airport *(Japanese)* 10411
INMARSAT-C maritime appls. *(Croatian)* 3502
interferometric sens. syst. for security appls. 17896
intrusion detect. syst., rem. operated, security appl., design 40904
machine operator safety, intell. image proc. 24523
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
MM-wave radar for automobile crash avoidance systs. 42510
motorway commun., radio distrib./opt. transm. network 42157
NPP, safety systs. software, data prep./validation 43847
NPP surveillance requirements, risk anal. 4762
obstacle avoidance sens., automatic Nap-of-the-Earth flight 10385
outdoor intrusion systs., nuisance alarm reduction, enhanced signature proc. 40905
pilot situational awareness enhancement, airport surface movement area 10423
press., sensitive strips/mats/bumpers, safety appls. *(Italian)* 3798
RADOBS, intrusion detect. sens., environ. effects reduction 42520
robot environ., change detect. for human safety 24527
SAW elements in ident. systs. 1566
ship design and operation, Global Maritime Distress & Safety Syst. *(English)* 3501
Sizewell 'B' NPP operational experience audit 19410
telecomms. equipt. fire risks, safety alarm syst. 16542

safety systems continued
  train control standardisation, European operational switching syst. 44532
  VVER 440/V230 units, ECCS upgrading, thermohydraulic anal., LOCA 27494
  Westinghouse NPP and advanced PWR design *(French)* 43837
salaries
  see also personnel
  engng. graduate work/employment profile survey, India 5552
  model contract forms, overview 11629
  personnel reward systs., current trends 11627
  professional engineer career develop., education effectiveness study 20326
salt water conversion *see desalination*
sample and hold circuits
  3-winding transformer, digital relaying, data skew 19704
  4th order switched current low power lowpass/highpass Butterworth filter 29344
  BiCMOS pipelined A/D converter using current-mode sigs., LV design *(Korean)* 12590
  charge-distrib. A-D converters, capacitance recharging error minimisation 37815
  CMOS cct. for HF appls. 12673
  CMOS current S/H ccts., differential clock feedthrough atten. 12666
  current mode S/H cct. *(Japanese)* 6259
  current S/H ccts., clock feedthrough anal. and cancel. 780
  DRFMs, digital RF memories, phase perform., radar and ECM equipt. 4436
  electrothermal-chem. gun, digital/optoelectronic ccts. 31750
  exponential hold cct., fast AD convertors 29322
  exponential-hold circuit, properties and applications 29424
  high-speed switched-current ccts., trans-impedance amps. 21461
  lin. multiplexer designs for rem. sens. appl. 34581
  sampling oscilloscope front-end, HBT MMIC design 42869
  switched current cct., tunable feedthrough cancellation, modified dummy switch 29423
  switched-current ccts., clockfeedthrough compensation 37901
  TDMA-TDD syst. fast-setting freq. synthesiser 33204
  video speed ADCs, differential gain and phase meas. 12609
  video-rate 10-b triple-stage Bi-CMOS A/D converter 12591
  GaAs MESFET opt. triggered monolithic S/H cct. design 39590
  Si bipolar 156 Mb/s clock/data recovery PLL cct., S/H tech. 6052
sample preparation *see specimen preparation*
sampled data circuits
  see also sampled data filters
  BiCMOS fourth-order sigma-delta ADC, HF/resoln. 29328
  CMOS 10 bit 5 Msamples/s successive approx. ADC cell 29330
  CMOS 25 Msamples/s 8 bit full flash ADC for embedded VLSI appl. 29331
  CMOS current-memory sigma-delta modulators, discrete-time simul. 29327
  CMOS VLSI analogue sampled-data motion chip for visual motion detector 2845
  CMOS VLSI implement. of modular ANN chip for character recogn. 6273
  low-power analog sampled-data VLSI archit. for mag. recording channel 29411
  SC ccts., sampled-data sig. proc. 723
sampled data filters
  4th order switched current low power lowpass/highpass Butterworth filter 29344
  candidate target detect., likelihood interpolation for peak detect. 15879
  CMOS digital DSB-to-SSB converter, FIR Hilbert transform filter chip 12655
  freq. sampling filter banks, alias-free charact. *(Japanese)* 12651
  low-pass sampled-data/digital filters, equiripple charact. 12656
  semi-anal. recursive algms. for convolution calcs. 37870
  SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
sampled data systems
  see also discrete time systems; sampled data circuits; Z transforms
  DC motors, pulsed μP control design 11067
  DC/DC LCC reson. power converter, digital control models 6010
  elec. motor drives, single-chip microcontroller appls. 44460
  independent power systs., decentralized open-loop control 19079
  induction motor servodrive, VSS robust control 44483
  mine elec. locomotive braking, pulsed control syst. modelling 28202
  power syst. voltage measuring syst., fast sampled data, DSP 10790
  switched controlled systs., adaptive PWM regulation schemes 40570
  variable reluctance motor, voltage-fed, dyn. model *(French)* 10994
sampling circuits *see analogue-digital conversion; signal processing equipment*
sampling theory *see statistical analysis*
sand
  dielec. const. meas. and sandstorm anal., W band 42892
  EHF waves cross-polaris./atten. in sand and dust storms 15445
  frozen sandy soils, radiation charact., lab. meas. 18779
  storms, mm wave propag., theory for losses 2220
SAR *see synthetic aperture radar*
satellite antennas
  22 GHz DBS HDTV antenna design and rain fade compensation 31950
  22-GHz band satellite broadcasting multibeam antenna, breadboard model 3532
  adaptive antenna array pattern synthesis, constraint selection 40513
  Alcatel commun. satellite antennas 23895
  array-fed reconfigurable reflector for spacecraft appls. 2337
  attitude determ. using GPS, space flight tests 17502
  beam control techniques, IEE Colloquium, London, UK (1995) 11595
  beamformers for space appls. 32002
  cavity enclosed broadband circ. patch antenna for L-band MSAT 15661
  coord. syst./rot. transforms. 23833
  cylinder mounted microstrip array radiation pattern meas. and prediction 31977
  DBS mobile receiver, design *(Japanese)* 17144
  DBS-satellites, mobile reception, adaptive antenna array 15664
  direct satellite TV broadcasting, multifunctional receiving antennas 31943
  DIY receiver for GPS and GLONASS satellites, quadrifilar backfire helix antenna 34194
  earth-station antennas, site shielding 40491
  European satellite syst. antennas, R&D 15631
  Galileo syst. design for orb. operations 9407
  high perform. reflector antennas, generalized diffr. synth. 23886
  HMM monitoring, unknown states 16406
  Iridium satellite phased array antenna design 23953
satellite antennas continued
  Ku-band direct, home video broadcasting in rainy regions 3653
  Ku-band satellite-based phased-array antenna coherent opt. beam formers 9409
  L-band steerable antennas for land mobile terminals 3479
  LEO satellites, global store/forward commun. syst. 25467
  LEO/MEO/GEO global mobile satellite systs., interf./fading 25308
  Luneberg-lens antenna, update 40492
  microstrip antenna arrays, solar cells for microsatellites 15669
  mobile commun., DSP for digital multi-beam forming antenna 17068
  mobile satellite commun., channel-indiv. adaptive beamforming 25321
  modular cable-mesh deployable antenna for satellite commun. antennas 15637
  μP based precision step tracking syst. for 7.5 m antenna 17157
  μP-based motorised satellite antenna 2324
  on-board large mesh antenna reflector, high surface accuracy 15636
  onboard reception antenna for broadcast/commun. satellites *(Japanese)* 9677
  orbital debris radar antenna pointing Kalman filter 25581
  pers. satellite commun., satellite link requirements 33956
  phase correcting zonal reflector incorporating rings 40469
  planar antenna arrays design, pattern synthesis tech. 8079
  portable digital satellite news gathering (SNG) RF terminal, flat antenna 25168
  pseudomorphic HEMT MMIC LNA and power amp., EHF antennas 38035
  radial line slot antennas, rot. symm. of inner field 15672
  reflector antenna diffr. synthesis optim. 23874
  reflector antenna surface distortion EM compensation syst. requirements 23872
  rot. mode radial line slot antenna fed by cavity resonator 40518
  semi-act. multimatrix reflector antennas 31934
  shaped dual-reflector antenna, impedance flanges, radiated fields *(Chinese)* 40444
  single-reflector type wide beam-spacing multibeam antennas *(Japanese)* 15646
  space commun. adaptive arrays, 2D wavelets/filterbanks appl. 9408
  space station antenna latching syst. *(Japanese)* 8056
  TV receiving antenna, optimal axis of rot. 2340
  USA DirecTv DBS shaped reflector breadboard verification 23921
  USA DirecTv DBS shaped reflector design 23920
  VHF ground station design/constr. 42335
  wide-band radial line slot antenna 40517
  X-band SAR subpanel active antenna demons. model 25572
satellite borne radar *see spaceborne radar*
satellite broadcasting *see direct broadcasting by satellite*
satellite communication
  see also direct broadcasting by satellite; mobile satellite communication; satellite antennas; satellite ground stations; satellite links; satellite navigation; satellite telemetry; VSAT networks
  2-level SCPC syst. carrier freq. assignment, intermodulation product minimization 42334
  20 GHz Earth-Olympus satellite path, propag. research 42333
  406 MHz antenna for Spar deployable emergency beacon transmitters 15650
  A-level bandwidth-efficient CPM 8101
  adaptive antenna array pattern synthesis, constraint selection 40513
  adaptive antenna arrays, broadband sigs., EMC anal. 25449
  adaptive nonlin. predistorter, high power amp. compensation *(Korean)* 25460
  Alcatel terrestrial/satellite microwave commun. products for mil. networks 26817
  American satellite TV public broadcasting service (PBS) 42566
  Asia, update on satellite services 3521
  Asia Pacific region, thin route telecomm. networks 3517
  Asia-Pacific commun. satellites, AsiaSat I and Star TV case study 3650
  ATM exchange, develop. 17163
  B-ISDN, ATM via satellite 16781
  bistability in satellite commun. networks 33972
  CDMA overlays for FDMA satellite commun. systs. 25465
  CDMA VSAT rural commun. systs. for developing countries 3513
  CDMA/FDMA satellite commun. systs. overlay, perform. anal. 25466
  centimeter/decimeter radio waves absorpt., eclipse expts. 40359
  China's satellite policy, historical evol. 42314
  CODE mesh VSAT network, protocols eval. 16515
  CODENET, network for east/west European collaboration 16773
  colour photograph transm. via INMARSAT-A syst. *(Croatian)* 3505
  COMETS, expt. advanced mobile satellite commun. syst. *(Japanese)* 42215
  compressed digital video services 33966
  computer networking, satellite 16750
  constellation, availability, simul. algm. 3509
  contiguous band multiplexer design for satellite appls. 25457
  DAMA syst. for interactive teleteaching via satellite 33209
  data courier satellite syst. concept 33943
  DDS-based synthesizer for mil. spaceborne appls. 43581
  deep-space commun. via relay satellite, RF and opt. archits. 17285
  demand assignment packet switch for terrestrial and satellite networks 17151
  developing nation telecomms., satellite and mobile solns. 3515
  DGPS correction distrib. by radio beacons *(Croatian)* 3635
  differential positioning, single satellite 42541
  digital broadcasting, overview of emerging technols. 34203
  digital broadcasting facilities/operations *(Japanese)* 34215
  digital FIR filter for satellite appls., 240 Msample/second 37893
  digital satellite channels, adaptive DFE, multilayer neural networks 25453
  digital satellite news gathering, develop. *(Japanese)* 34213
  digital satellite news gathering syst. *(Japanese)* 42091
  digital SCPC DAMA, optimal satellite-based voice networks 3512
  DRS-Sched, data relay satellite syst. scheduler 33950
  DS-SSMA systs. perform., filtering effects, transmitter 33207
  DSPN signalling in mobile dense scatterer ray tracing model 33944
  DYANET(C), dyn. channel assigning/routing satellite aided digital networks 3525
  Earth satellite commun. systs. with low orbits, Doppler shift effects 17146
  Earth space path over Shillong, rain atten. 15442
  Earth-space propag. paths, differential rain atten. 15441
  Earth-space syst., site diversity, rain atten., interf. anal. 15440
  efficient multimedia satellite networks 41985
  embedded CMOS SRAM for ASIC implement. of transmultiplexer 9410
  ETS-V Asia-Pacific telecommun. network expts. 42319
  ETS-V satellite workshop expt. 3528
  European GEO and freq. resource allocation, economic assess. 33306

satellite communication continued
- European syst. for transm. of digitized TV sigs. via satellite 9694
- Eurovision network, satellite technol. implement. 42569
- EUTELSAT advanced telecomm. services 33961
- EUTELSAT developments, IEE Colloquium, London, UK (1995) 11598
- EUTELSAT digital TV, perspective 33965
- EUTELSAT satellites, generation 33962
- EUTELSAT tech./planning develop., overview 33959
- EUTELSAT telecomms. services 33960
- fast link assignment algm. for satellite commun. networks 17152
- FDMA systs. using multi-beam satellite, optimal carrier freq. assignment *(Japanese)* 25448
- France Telecom digital compression perspective 3506
- freq.-energy efficiency of repeater channel in satellite commun. 42312
- full-text inform. delivery, electronic, US infrastructure 16546
- future broadcast technols. 3651
- GATES, global access tele-health and education syst. 33955
- global cct.-switched satellite commun. network, perform. 9406
- global commun. highway, beyond Iridium 3312
- global pers. commun. services 3362
- ground station-geostationary satellite link, radio wave atten. 40357
- high bandwidth internat. video via fiber optic cable 3057
- high data rate satellite commun. systs., R&D *(Japanese)* 17158
- high speed satellite commun., go-back-N protocol 9416
- hybrid commun./positioning syst., two geostationary satellites 17155
- hybrid Go-Back-N ARQ scheme, repeated transms. 8689
- IEEE MILCOM conf., Boston, USA (1993) 36897
- image anal. syst. for sea ice maps from space 18886
- India, satellite systs. for global pers. commun. 33953
- India, telecomms. and space commun. programmes 3002
- inflight telephony systs. *(French)* 3125
- inform. infrastructure, space/terrestrial PCS integrat. 25056
- Inmarsat and pers. mobile satellite services 3363
- Inmarsat emergency satellite commun. 3522
- INMARSAT-C commun. syst. characts. *(Croatian)* 3503
- INMARSAT-C maritime appls. *(Croatian)* 3502
- INTELSAT VIII/VIIIA global commun. satellites 42310
- intens. modulation/direct detect. opt. commun. syst., optimum sig. detect. 34076
- inter-satellite commun. technol. *(Japanese)* 33954
- internat. freq. std., dissemination *(Japanese)* 3712
- International Telecommunications Symposium Internet multicast 16717
- Internet expansion, small-channel satellite network 3526
- INTERSPUTNIK, internat. global syst. of satellite commun. 33939
- IRIDIUM, IEEE 1149.1 backplane test bus selection criteria 9808
- Iridium and MSS constellations, effect of solar interf. on laser commun. 33941
- IRIS, going commercial, high-tech European LEO microsatellites 42323
- ITALSAT, satellite systs. and commun. characts. 42311
- Italsat-Olympus 20-GHz orb. diversity expt. 25456
- JANUS, TCP/IP VSAT network, first yr. experience 16775
- Ku band 12 channel contiguous band multiplexers, optimal design 3282
- LASCOM-NET (Japanese Local Authority Satellite Communications Network) 3523
- LEO satellite networks data link control protocol, datagram service 24835
- LEO satellite systs., link mgt., throughput efficiency 3529
- LEO satellites, global store/forward commun. syst. 25467
- LEO satellites, PN code acquisition schemes 33951
- LO for commun. satellite transponder, 2.8 GHz *(Korean)* 12763
- load-adaptive/TDMA systs. perform., satellite networks appl. 9415
- low earth orbit satellite commun. appl., distributed simul. 25464
- low-earth-orbit store-and-forward satellites in Amateur Radio Service 17150
- MCMs, satellite commun. appls. 29726
- Mexico, rural telephony, mobile satellite commun. 3119
- microsatellite, telemetry/commun. subsystem design 33968
- military satellite commun., IEE Colloquium, London (1995) 36863
- mobile satellite services and Inmarsat in rem. areas of developing countries 42313
- multi-D trellis decoder for 155 Mb/s concatenated codec 33684
- multiaccess scheme, implicit reservation for VSAT data commun. *(Korean)* 25459
- multibeam satellite prioritised nonblocking switch perform. under hotspot traffic 41412
- multicast hybrid ARQ scheme, stored error recovery 17147
- multilevel diversity coding, distortion 32052
- multimedia satellite commun. systs., preliminary study 3519
- multiservice VSAT network, multi-access protocols 9417
- narrow band satellite commun. systs., automatic freq. correction 37680
- narrow band SSMA/multi-carrier high speed sigs., staggered superposed transm. *(Japanese)* 25209
- NASA ACTS Program for commun. services 9405
- NASA real-time video link, Antarctica 42301
- NEC, develop. of HyperROBOII/WINDOWSrobo *(Japanese)* 42094
- non-geostationary satellite technols. for future commun. systs. 9411
- nonlin. satellite channel, optimum receiver for QPSK sigs. 3507
- nonredundant error correction DQPSK for aeronautical-satellite channel 33945
- on-board large mesh antenna reflector, high surface accuracy 15636
- on-board satellite SS correlator 25469
- opt. intersatellite commun., LD transmitter 17173
- optimal multicopy ALOHA packet transm. policy 41466
- optimum freq. assignment, neural networks 33948
- ORBCOMM data commun. and messaging in Pacific Rim 3514
- Pacific island nations, data services 3062
- Pacific region, value-added video services develop. 3527
- Pacific region commun. satellites, 1994 status report 3520
- packaging technols. for satellite equipt. 25452
- packet satellite commun., combined free/DAMA protocol 9418
- packet-switching networks, on-board closed-loop congestion control 33942
- PanAmSat, private global satellite service provider 3047
- payload miniaturization/standardization, transponders 25451
- PEACESAT program, Pan-Pacific Education and Communications Experiments by Satellite 3518
- phase tracking Viterbi demodulator *(Japanese)* 24176
- radio programme broadcast, satellite distrib., ISDN back-up syst. 42564
- remote sensing image boundary area, fuzzy inference 9413
- ROMANTIS, satellite services for Eastern Europe 33938
- satellite and airborne SAR simulator 9642
- satellite commun. access optim., simul. 17154
- SAW filter matrix for satellite SS/FDMA syst. 14092

satellite communication continued
- ship design and operation, Global Maritime Distress & Safety Syst. *(English)* 3501
- small earth station hardware, IEE Colloquium, London (1995) 28267
- small satellite technol., conf., Orlando, USA (Apr. 1993) 20210
- SONET rings and video distrib. 42398
- South Pacific countries, provision of dist. education by satellite 3065
- space commun., ultra-long haul transm. *(Japanese)* 3535
- SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
- Taiwan, telecomms. regulation 3031
- TCP/IP perform., satellite 25468
- TDMA binary PSK sig. demodulation without explicit carrier sync. 40553
- TDMA satellite commun. systs., transm. power control 17145
- TDMA satellite switched scheduling algm. 42309
- TDMAX and FASTCOM, Alcatel satellite systs. for domestic and corporate commun. 25450
- technol. and appls. 3508
- tele-monitoring/computer-supported repair, multimedia syst. 42042
- telecomm. satellites power systs. study, USA 26619
- telecomm. technols. innovation, hist. 33303
- telecomms. in rural areas, human dimens. 42575
- telecomms. satellites, ESD studies *(French)* 18694
- time-of-arrival prediction model for transionospheric EMP 25458
- traffic mgt., mean field annealing 42327
- Turkey, rainfall atten. climatic map, develop. 15437
- TWT lin. for future commun. satellites and ground stations *(German)* 6295
- UHF single ASIC CDMA digital receiver for space appl. 9414
- ultra-broadband high perform. RF choke for commun. appls. 37996
- unbalanced orbital diversity Earth-space syst. 42302
- unified satellite commun. network, Teleport 17156
- universal personal communications, conf., San Diego, USA (1994) 20233
- uplink multiple access protocols in meshed VSAT satellite networks 16480
- VCOs for microwave commun. equipt. *(Japanese)* 37671
- Virginia Tech propag. expt. using Olympus satellite 12, 20 and 30 GHz beacons 23631
- VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938
- VSAT, economical soln. for inform. networking 3510
- VSAT appl., extend company LAN, retail sites 16774
- VSAT commun. network, atmos. phenom. effects 42305
- VSAT interconnection for wide area diversity syst. 16776
- VSAT network design tradeoffs 3511
- VSAT satellite commun. syst., effects of rainfall and airplanes 25463
- VSAT service in Pacific region 3516
- wireless commun., SS access methods 17110
- wireless integrated multiple access protocols 16501
- InAlAs-InGaAs-InP V-band monolithic HEMT downconvertor 38019

satellite computers
- *see also coprocessors*
- local pers. commun., archit. 25382
- nonpersistent CSMA/CD quasidiffuse IR LAN throughput 41763

satellite ground stations
- *see also VSAT networks*
- aeronautical mobile satellite services, 1960s, 1990s develops. 17153
- Alcatel terrestrial/satellite microwave commun. products for mil. networks 26817
- CDMA VSAT rural commun. systs. for developing countries 3513
- Croatian coastal satellite Earth station *(Croatian)* 3504
- developing nation telecomms., satellite and mobile solns. 3515
- dual-mode dielec. resonator freq./phase discriminator 12740
- Earth stations/orbiting satellites, interf. simul. 15510
- earth-station antennas, site shielding 40491
- Eurovision voice conferencing, VSAT technol. 41951
- EUTELSAT multi-mission satellite control infrastructure 33964
- GEO satellite aircraft ranging and positioning, flight route and orbit effects 17493
- ground station-geostationary satellite link, radio wave atten. 40357
- handportable satellite commun., lin. transmitter archits. 42332
- high sensitivity satellites/voice compression, PCN 42331
- internat. digital route outer codec for satellite links 3268
- ITALSAT, satellite systs. and commun. characts. 42311
- Ka band satellite terminals, phase noise charact. 3534
- laser ranging time transfer 3714
- MARR and VSATs, simplified SACFA procedures 3353
- Mexico, rural telephony, mobile satellite commun. 3119
- microsatellite, telemetry/commun. subsystem design 33968
- multi-site ref. station differential GPS syst. *(French)* 34190
- multiphoton laser ranging, satellite signatures 3630
- μP based precision step tracking syst. for 7.5 m antenna 17157
- portable digital satellite news gathering (SNG) RF terminal, flat antenna 25168
- real-time satellite ground control operations, intell. C^2 26698
- ROMANTIS, satellite services for Eastern Europe 33938
- sig. distrib., opt. phase division multiplexed duplex transm. 17339
- small earth station hardware, IEE Colloquium, London (1995) 28267
- software demodulation, satellite/GPS/cellular receiver 42329
- TDMA satellite commun. systs., transm. power control 17145
- TDRSS-LIGHT, space commun. archit. 17295
- telephone earth station satellite commun. link, engng. design *(Chinese)* 42322
- VHF ground station design/constr. 42335
- VLBI radioastronomy, commercial antennas 34201
- VSAT, economical soln. for inform. networking 3510
- VSAT commun. network, atmos. phenom. effects 42305
- VSAT network design tradeoffs 3511
- VSAT satellite commun. syst., effects of rainfall and airplanes 25463
- VSAT service in Pacific region 3516

satellite links
- *see also artificial satellites*
- atten. prediction, low fade margins syst. 2231
- challenges of space for better world, conf., Graz, Austria (Oct. 1993) 1
- coherent opt. systs., recent trends 25480
- COST 226 project, network integrat. by satellite 42306
- Croatian coastal satellite Earth station *(Croatian)* 3504
- deep-space commun., coherent detect. opt. relay satellite 17298
- deep-space commun., direct detect. opt. relay satellite 17293
- digital demodulator for rem. sens. satellites, perform. 33969
- Euroradio control centre in Geneva 42572
- free-space laser communication, conf., Los Angeles, USA (1994) 5437

satellite links continued
GMS image data, holographic images generation *(Japanese)* 16123
high-speed tracking target simulator for fine tracking mechanisms 17305
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
inter satellite cross links, non-mech. laser beam steering/spoiling methods 17308
internat. digital route outer codec for satellite links 3268
intersatellite commun., heterodyne opt. detect./spatial tracking syst. 34077
intersatellite opt. preamplified PPM syst. anal. 34078
ionos. satellite-to-Earth commun. channel, sig. delay 2228
Ka-band satellite links, ice depolarisation 2229
Ka-band satellite-ground path ice depolaris characts. 33949
L-band propag. meas. for land mobile satellite links 17141
LAMS-DLC perform., protocol for low altitude satellite networks 33940
laser commun. links *(Japanese)* 17341
LEO satellite systs., link mgt., throughput efficiency 3529
lightsat, high resoln. electro-optic rem. sens. payloads 33970
LITE (Laser Intersatellite Transmission Experiment) model, functional testing 17288
Malaysia, rain atten. for satellite commun. in tropical regions 3524
Mid-America computerized ionos. tomography expt. (MACE '93) 33957
MOPA LD for satellite commun. 17300
Moscow-Maribor satellite link for internetworking 41832
multigigabit opt. transm. expt., free-space simulator 17286
MUSE syst., frame pulse protection *(Japanese)* 34255
OLYMPUS satellite 12/20/30 GHz propag. expt. results 31818
opt. preamplified PPM receivers, laser intersatellite commun. 34036
opt. space commun., pointing, acquisition and tracking 17148
pers. satellite commun., satellite link requirements 33956
rain atten. effect on satellite-ground links 9404
rural telecom. networks/services, Africa 42182
S-band TT&C up link transmitters, DDS 42740
small opt. user terminal, flight config. 17292
small-terminal satellite networks, protocol enhancer 17162
space data compression stds. 2457
TDMA satellite switched scheduling algm. 42309
TDRSS-LIGHT, space commun. archit. 17295
telephone earth station satellite commun. link, engng. design *(Chinese)* 42322
terrestrial mag. field, ionos.-induced cross-polariz. 23624
Virginia Tech propag. expt. using Olympus satellite 12, 20 and 30 GHz beacons 23631
VSAT commun. network, atmos. phenom. effects 42305
X-band data transmitter, space rem. sens. missions 4379
AlGaAs LD testing for SILEX program 17299
satellite navigation
see also Global Positioning System
deep-space navig., overview 17511
differential GPS data format stds. and trends *(Japanese)* 17510
differential positioning, single satellite 42541
ETS-V mobile commun. for ships/aircraft/land vehicles 42262
European ATC develops., satellites 26697
GEO satellite aircraft ranging and positioning, flight route and orbit effects 17493
geostationary satellite positioning syst. develop. *(Japanese)* 17507
geosynchronous satellite navig. co-ord. transform. *(Japanese)* 17508
GLONASS P-code, L1/L2 freqs., perform. 17505
hybrid commun./positioning syst., two geostationary satellites 17155
idle-slot broadcasting multiple access for mobile satellite commun. 9213
integrated GPS/GLONASS navig., algms. and results 17504
multistatic refr.-error compensation in radar and satellite navig. systs. 17512
onboard reception antenna for broadcast/commun. satellites *(Japanese)* 9677
positioning syst., TV broadcasting *(Japanese)* 9678
Satnav programme, flight safety improvement *(French)* 3637
small satellite technol., conf., Orlando, USA (Apr. 1993) 20210
space debris near geosync. orbit *(Japanese)* 18697
submarine navig. data integrat. 24296
systs., operating principles, introduction 17501
satellite relay systems *see satellite communication*
satellite switched time division multiple access *see time division multiple access*
satellite telemetry
ARAKS expt. telemetric sig., ionos. effects 7970
disposable rem. chem. sens. network 9864
H-II launch vehicle, commun. subsystem develop. *(Japanese)* 43427
INSAT-2 series satellites, telemetry, tracking and command transponder 35231
intell. DBMS for ground proc. systs. in EOS era, telecomm. issues 17687
inter-satellite tracking for co-location 9412
microsatellite, telemetry/commun. subsystem design 33968
oceanographic telemetry systs., satellites 26751
PV power systs., site/time specific simul., satellite insolation data 10892
S-band TT&C up link transmitters, DDS 42740
time scales, unified software -hardware syst. 17636
TOPEX/Poseidon satellite, solar array on-orbit perform. studies 26606
Ni-H_2 batts., in-orbit internal impedance determ. 26567
satellite tracking
acquisition, tracking and pointing, conf., Orlando (1993) 36889
antenna servo design for low orbits 23857
ASAT battle mgt., evol. prog. 10593
drifting buoys fine tracking from microsatellites 26761
Earth gravit. models for astrodynamics, evol. 18800
element quality anal., accuracy of ephemeris prediction from satellite orb. elements 18985
four-point fed radial line planar array for monopulse tracking 23946
ground-based differential angle tracking, relative orbit determ. expt. *(Japanese)* 26523
INSAT-2 series satellites, telemetry, tracking and command transponder 35231
inter-satellite tracking for co-location 9412
K/K_a-band antenna syst. for mobile satellite service 23866
μP based precision step tracking syst. for 7.5 m antenna 17157
oil spill tracking, Argos syst. 26774
onboard reception antenna for broadcast/commun. satellites *(Japanese)* 9677
portable digital satellite news gathering (SNG) RF terminal, flat antenna 25168
S-band TT&C up link transmitters, DDS 42740
satellite tracking continued
TDRSS-LIGHT, space commun. archit. 17295
TV receiving antenna, optimal axis of rot. 2340
satellite TV *see direct broadcasting by satellite; television broadcasting*
satellites, artificial *see artificial satellites*
Saticons *see television camera tubes*
satisfiability *see computability*
saturable absorption, optical *see optical saturable absorption*
saturable core reactors
boost converter surge suppression, act. filter 11154
coilgun launchers, power conditioning, thyristor appls. 31765
excimer laser pulsed power supply, mag. pulse compression cct.-based 36317
HF switching power supply, commutation cct. design 29038
power convertor nonlin. ccts., transm. line modelling 19720
self-excited forward DC-DC PWM ZVS power converter 36241
single-phase transformer magnetis. and inrush currents *(German)* 11102
ZCS/ZVS saturable inductor PWM DC-DC power converter 44224
saturable reactors *see saturable core reactors*
saturation control *see chemical variables control*
saturation effects, optical *see optical saturation*
saturation measurement *see chemical variables measurement*
SAW *see surface acoustic waves*
SAW convolution *see surface acoustic wave convolution*
SAW correlation *see surface acoustic wave correlation*
SAW couplers *see surface acoustic wave couplers*
SAW delay lines *see surface acoustic wave delay lines*
SAW filters *see surface acoustic wave filters*
SAW oscillators *see surface acoustic wave oscillators*
SAW resonator filters *see surface acoustic wave resonator filters*
SAW resonators *see surface acoustic wave resonators*
SAW sensors *see surface acoustic wave sensors*
SAW signal processing *see surface acoustic wave signal processing*
SAW transducers *see surface acoustic wave transducers*
SAW waveguides *see surface acoustic wave waveguides*
sawtooth generators *see waveform generators*
SBus *see system buses*
SC (sudden commencement) *see magnetic storms*
SC filters *see switched capacitor filters*
SCADA systems
11 kV distrib. network telecontrol/metering syst. 4660
66/6.6 kV power receiving/transformer facility project, Japan *(Japanese)* 35629
500 kV Central China power syst. EMS overview 19188
advanced SCADA concepts, substation appl. 19131
Alusaf project, automation mgt. 5573
cement storage/dispatch terminal automation 3731
crop canopy, evapotranspiration/photosynthesis meas., SCADA syst. 9826
distrib. mgt. syst., power anal. software integrat. 19252
distrib. network real-time SCADA systs., AM/FM appls. 19273
distrib. network SCADA syst. installation project, USA 10732
distrib. networks mgt., intell. support syst. 19275
distrib. syst., SCADA syst. spec./anal., IEEE std. 27175
distributed SCADA/EMS syst., Unix based, Johannesburg 4519
elec. utility EMS fns., user experiences survey 19185
indust. PC based energy mgt. 36797
LANGAGE, expert system for real-time diagnosis of hydroelectric power system faults 10690
local SCADA systs., intell. load shedding algm. *(Korean)* 35473
New Zealand HV power syst., communs./control systs. 26973
power network mgt. training simulator, software develop. 19125
power plant control and monitoring systs. 10642
power syst., distributed SCADA syst., design/archit. *(Chinese)* 43649
power syst. control centres, full-graphics interface appls. 26952
power syst. EMS multiserver/multiclient gateway syst. 43637
power syst. EMS/SCADA systs., mgt. IS-integrated 26954
power syst. fault ident./alarm proc., OO expert syst. 19154
power syst. intell. guidance syst. 19169
power syst. load dispatching real-time computer network *(Chinese)* 35515
power syst. online anal./data mgt., open syst. approach 19127
power syst. real-time SCADA/EMS, OOP concept 26955
power syst. SCADA/EMS, third party software packages integrat. 43638
power syst. transient stabil. control, SCADA syst.-based *(Chinese)* 43641
power system anal. software interfacing, IEE Colloquium, London (1994) 5457
power systems computation, conf., Avignon, France (1993) 11544
regional substations control centre, ES appls. 27018
SPARSE ES for alarm proc. and operator assistance 26999
SPIDER MicroSCADA distrib. network control syst. 27184
steel indust. wireless coke oven SCADA syst. 9824
substation SCADA syst., relay network integrat. project, USA 10769
telecomm. power plant, supervision/control 19818
water utility mgt. 3753
Scalable Coherent Interface *see system buses*
scalers (circuits) *see scaling circuits*
scales *see balances*
scaling circuits
see also prescalers
CMOS prescalers, asynchronous and dual-modulus configs. 29112
dual modulus prescaler IC, PHEMT struct. on Si substrs. 21296
PC-based multichannel scaler *(Bulgarian)* 26239
prescaler IC, dual modulus 29082
TFSOI complementary BiCMOS technol. for low power appls. 30482
scanners, bar code *see mark scanning equipment*
scanners, image *see image scanners*
scanners, optical *see optical scanners*
scanning acoustic microscopes *see acoustic microscopes*
scanning acoustic microscopy *see acoustic microscopy*
scanning antennas
cavity radiator infinite phased arrays, hybrid finite element/waveguide mode anal. 31971
cellular base station phased array antenna syst 33794
chirostrip dipole antenna, scanning behavior, substr. effects 8052
circ. polarized N-element circ. array, characts. 40510
coord. syst./rot. transforms. 23833

scanning antennas continued
finite scanned arrays, standing waves in scan impedance 31997
freq.-scanning narrow beam antenna, 60 GHz 40467
Ka-band layered ridge dielec. waveguide leaky-wave antenna develop. 23965
microstrip constrained lens, design and perform. 15653
MM-wave band antennas, electronic beam scanning 15620
optically fed patch array configs. and scan performs. 31970
shaped lens antennas for multibeam/scanning appls. 15648
slitted asymmetric ridge waveguides, lin. phase arrays 31961
spherical tri-reflector antenna, moving flat mirror 40476

scanning electron microscope applications *see scanning electron microscopy*

scanning electron microscopes
see also scanning electron microscopy
calib. stds. for SEM 3720
diam. determ. of SEM 3987
field-emission microcolumn 13019
microcolumns, electron-electron scatt. 15244
positron electron scanning microscope, coupling optics 21866
time-dispersive electron spectrometer, voltage contrast maps 38224

scanning electron microscopy
see also scanning electron microscopes
16 MB DRAM trench depth charactn., dome scatterometry 29225
black silicon nanowires, sub-10-nm, natural masking, RIE 30117
CD meas., sub-half micron region, ESD technol. 42929
ceramic insulators, uncoated surface, SEM, 150-500°C 4706
chem. amplified AZPN114 electron beam resist for advanced photomask fab. 38773
chem. mech. polishing abrasive slurries, IC dielec./metallization 38571
chem.-mech. polishing, IC interlayer dielec. planarisation, review 13340
CMOS ASICs, advanced inspection program 37167
CMOS gate arrays, EOS induced polysilicon migration 30466
CMOS input gate, latent ESD damage ident. and anal. 30464
CMOS input gates, latent ESD damage ident. 6847
diamond:B films, hot filament CVD, plasma etching, elec. props. 5862
diamond, natural monocrystals/polycryst. films, direct laser writing 38545
diamond, nucleation and growth on Si(100), electron spectra obs. 430
diamond, synthesis by hot-filament CVD, O-addit. effects 28844
diamond films, DC plasma arc tech. 20931
diamond films, dual-freq. plasma growth, a-C:H layer effect 5869
diamond films, hot filament CVD on sapphire 20929
diamond films, microwave plasma CVD, charactn. 6521
diamond films, plasma CVD, localized epitaxy, Si substrs. 5841
diamond films, plasma-assisted CVD, porous Si substr. 12137
diamond films rough surfaces modelling, self-limiting laser ablation, polishing 37476
diamond like C film, nucleation enhancement, SEM 28848
diamond polycryst. films, hot filament chem. vap. deposition 429
diamond smooth films, hot filament chem. vap. deposition 12174
diamond thin-film growth, filament-assisted excimer laser ablation syst. 12178
diamond/(C-C) composite, semicond. base 12193
electronic packages, thermal and sorptive effects, dyn. investig. 28500
EM gun technol., Cu/Al component protection coatings 15331
fine pitch QFP, no-clean/water-clean mass reflow procs. 29676
fluxless oxid.-free bonding technol., microelectronic packaging 12952
graphite fibre reinforced epoxy laminated panels, opt. fiber embedded, low vel. impact 12194
high gradient supercond. cavities, SEM study 4055
hot-bar soldering, 0.15 mm OLB pitch TAB components 941
HV outdoor insulation, silicone rubber insulators, surface recovery 19317
IGBT and MCT struct., 2D dopant profiles 30280
image interp., automated 5686
Josephson tunnel jn. striplines, microwave distrib. 39257
lead-on-chip packages, cracking failures 5672
lead-on-chip packages, cracking failures induced by chip backside contamination 20439
liq. photopolymers, radiation curable, diffractive optics replication 39453
lithog., nanometer-scale dimens. metrology 13486
local strain meas., electron beam moire 28911
LTCC shrinkage matched cofireable thick film resistors 11767
MCMs, LTCC, silver conductives, reliab. 29727
MESFETs and HEMTs, gate lengths, low field DC-IV data 13769
metal adlayers on diamond:B thin-film electrodes, electrodeposition 30145
microelectronic devices realized by DESS students, clean rooms, elec. characts. *(French)* 20333
microfabrication, direct write lithog., wafer inspection 13478
MOS LSI chip, electron-acoustic microscopy, nondestructive internal obs. 1497
Motorola IC yield enhancement, integrated approach 22520
multi-reed switch, contact erosion/spatial mag. field var. 29636
no-clean/water-clean PCB solder joints, plastic quad flat, failure anal. 947
opt. fiber, press. cutting, AE testing 30897
opt. fibre-glass matrix sens. based composite, fracture 437
organic electroluminescent diode stabil. 23030
painless tooth prep., Nd:LiYF$_4$ picosecond laser *(German)* 10261
photoresist holographic gratings, surface relief struct., GO 15171
photoresists, charge effect, indust. plasma proc. 13469
piezoresistive cantilevers, at. force/SEM 6899
plant material oil constituents extraction, microwave heating 28170
polycryst. semicond. ceramics, pot. mapping tech. 1054
polymeric LB and spin-coated films, light atten. 14318
polypyrrole synthesis, Cu metallization 1294
polysilicon, LPCVD, particle contaminations 20934
PWB conductive anodic filaments, x-ray microtomography/SEM serial sectioning 12881
PWBs, glass fibre reinforced epoxy laminate, interfacial debonding 11819
quantum wires, fab., etching damage, electron beam lithog. 13397
α-quartz, dielec. strength, size effect. Monte Carlo anal. 13980
α-quartz, facets, charging, SEM anal. 14000
resists, secondary electron line scans, local elec. fields 13470
reticles, SEM metrology, profile anal., isofocal threshold 38745
RIE induced damage, gas mixtures $CHF_3/O_2/SF_6/O_2$ 30114
round quartz blank sorting by Ω-scan, cryst. oscillator manufacture 39078
RTV silicone rubber insulator coatings, hydrophobicity transfer *(Chinese)* 35665
SEMATECH defect detect./reduction methodology, 0.25 micron technol. proc. equipt. 1479
semicond. device failure anal., SEM 22318
SOFC, air electrode degrad., microscopical charactn. *(Japanese)* 44341

scanning electron microscopy continued
split-gate wires, small mesa struct. for Coulomb blockade effects obs. 1141
submicron contacts using selective CVD-W plug, jn. stabil. *(Korean)* 13418
submicron ICs, rapid prototyping, FIB techs. 13835
submicron stripe patterns photoelectron imaging, soft X-rays 42978
submicron struct., 3D meas. techs. 42930
thick film hybrid microelectronics glasses, prep., charact. 5909
thin film heads, noise-after-write, electron microscopy 7109
x-ray mask absorber repair by focused ion beams, materials issues 6699
X-ray mask inspection, replicated resist patterns 13569
Ag contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
Al electrode/organic electrolum. devices, degrad. procs. 1810
Al porous anodization proc. anisotropy, VLSI planar metallization 38673
Al thin films, selective area deposition, photo-assisted OMCVD 30158
AlAs, MBE grown, wet oxid. 1276
AlAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
AlAs/GaAs DBR VCSEL diode on Si, MOCVD and struct. 39882
AlGaAs, MBE-grown, As capping 1286
(AlGa)As, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
AlGaInP vis. light LD, 650 nm, dry-etched mesa stripe 39867
AlN/diamond thin film syst., chem. vap. deposition methods 5865
Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
BN, cubic, carbonaceous surface layer by diamond CVD, electron emission *(Japanese)* 37460
$BaFe_{12}O_{19}$, hexaferrite films on sapphire, mag., struct. props. 14175
$Ba_2NaNb_5O_{15}$ opt. waveguide film, epitaxial growth by pulsed laser deposition 1715
$Ba_2NaNb_5O_{15}$ opt. waveguiding films, excimer laser ablation prep. 12168
$Ba_2NaNb_5O_{15}$, waveguiding epitaxial films, pulsed laser deposition 20806
a-$BaTiO_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
Bi-Pb-Sr-Ca-Cu-O supercond. thick films, screen printing 14272
$Bi_{1.8}Pb_{0.4}Sr_2Ca_{2.2}Cu_3O_y$-Ag tapes, crit. current dens. 30772
$Bi_2Sr_2Ca_2Cu_3O_x$:Pb/Ag, monofilamentary tapes, Hall sens. magnetometry 39228
Bi_2Te_3 thin films on Si(111) substr., cryst. growth, sticking coeff. 28716
C adherent film deposition by cathodic arc, implant. 37511
C-coated thin film head sliders, tribological perform. 7149
CdS films, electro-opt. charactn. 1039
CoNiPt-SiO_2 films, mag., structural props. 1570
$CoSi_2$ interconnection lines, writing FIB implant. 38693
$CoSi_2$ microstruct., focused ion beam synthesis 13298
Cu MOCVD thin films from pyrazolylborato-Cu(I) complexes, charactn. 38679
Cu selective CVD on diamond surfaces, self-assembled monolayers 37493
Cu/Sn(SnBi)(SnPb) solder systs., wetting tips, morph. and instabil. 28865
Cu/polyimide, adhesion strength, continuous micro-wedge scratch test, metallisation appls. 37570
Cu-Cr contacts, vac. interrupters, microparticles generation 27846
CuCrZr EM railgun worn rails, metall. anal. 15375
$CuGa_xIn_{1-x}Se_2$ electrodeposited thin films, prep. and charact. 389
$CuIn_{0.75}Ga_{0.25}Se_2$ films, pulsed laser deposition 432
$CuInSe_2$ films, pulsed laser deposition 432
$CuInSe_2$ films, surface morphology, grain boundary, parameters, etching 22215
$CuInSe_2$ polycryst. thin films, seq. proc. prep. 20978
$CuInTe_2$ polycryst. thin films growth 20979
Fe island growth on CaF_2/Si(111), selective nucleation, SEM obs. 12177
Fe_2O_3, magnetomech. reduction, struct./mag. props. 14181
FeSiAl, sendust films, RTA, mag. props. 6953
GaAlAs, metallorganic CVD, Zn-doping proc. 28843
GaAs LSI chips, back-grinding, mech. reliab. 1498
GaAs, MBE, surface diffusion, adatom stoichiometry, microprobe-RHEED/SEM MBE obs. 20682
GaAs digital FET multilevel metal interconnects, isotropic etch planarization 13322
GaAs epilayers, metalorganic CVD growth 37411
GaAs, low press. MOCVD on Si, defect reduction 20768
GaAs, metallorganic CVD, Zn-doping proc. 28843
GaAs micromechanical fracture strength 3796
GaAs ohmic/nonohmic contact form., interfacial react. effects 38392
GaAs, open-tube impurity doping, spin-on silica films *(Japanese)* 22145
GaAs, selective area CBE 28768
GaAs selective epitaxy on GaAs (111)B substrs., in-situ obs. 20874
GaAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
GaAs vert.-stacked quantum wires grown/Si substrs., MOVPE 20797
GaAs:Zn(Sn), p/n-type impurity diffusions, doped silica films 38500
GaAs/AlGaAs micro-pyramids, selective MOVPE growth 20767
GaAs/AlGaAs opt. phase modulators for microwave/photonic IC 7497
GaAs/InAs/GaAs heterostruct., MBE growth, substr. misorient. effect 20856
GaInP, selective area CBE 28768
GaP, interrupted cycle CBE on Si, photon assistance effects 28766
Ge SPE on Si(111), preferential growth 28772
Ge(100)-(1×1), S-passiv. 30092
(Hg,Cd)Te films, isothermal VPE growth, morph. orient. depend. 326
$HoBa_2Cu_3O_x$ nanobridges, critical-current studies 30791
ITO thin film, elec. and opt. props. rel. to annealing 21925
InAs cluster nucleation/epitaxial growth via electron beam lithog. 30173
InGaAs epilayers, metalorganic CVD growth 37411
InGaAs strained quantum wire/box struct. self-organized on high-index GaAs (n11)A/(n11)B substrs. 22000
InGaAs/Ga(Al)As dots, MOCVD, area dens. control 5867
InGaAsP LD, sensitivity, ESD 14926
InGaP, LP-MOCVD, temp. depend. facet develop., GaAs substrs. 20830
InN thin films, hydride vap. phase epitaxy growth 379
In_2O_3 films, ALE growth 324
InP, Ar^+-sputter induced microprotrusions, struct., morph. 38547
InP, MOCVD, transit. from island to continuous layer growth on GaAs 12115
InP Schottky barriers, minority carrier diffusion length 13210
InP films, prep. by PH_3 treatment of electrodeposited In layers 37463
InP, low press. MOCVD on Si, defect reduction 20768
n-InP, photoelectrochemical etching, surface texture form. 38564
InP, vert. facets, RIE, selective CBE regrowth 20817
InP wafers, LEC growth, flats location/control 12086
p-InP:Zn,H, near-surface carrier passiv. by H, SEM study 38565

scanning electron microscopy continued
p-InP(100), anodic passiv. in $(NH_4)_2S_x$ soln. 13387
In_2S_3, ALE film growth, charactn. 20678
InSb, low press. CVD, using neopentylstibine, trimethylindium 37485
$In_{2-x}Sn_xO_{3-\delta}$ thin films, RIE 22166
$(InSn)_2O_3$ films, activated electron beam evap., water partial press. depend. 37487
KrF excimer laser bone ablation mechanism *(Japanese)* 7720
$La_{1-x}Sr_xMnO_{3\pm\delta}$-powders prod. by drip pyrolysis 37536
$LiFe_5O_8$ ferrite powders, prep. by co-precip. *(Korean)* 5901
$LiNbO_3$ thin-film waveguides on GaAs 14478
$MmNi_5$ hydrogen storage alloys, surface treatment, metal hydride batts. 11249
Nd-Fe-B sintered magnets, Nd-Fe-O intergranular phase, coercivity effect 39190
$Nd_{14}Fe_{79}B_7$ magnets, recomb. and desorpt., HDDR proc. 6983
$Nd_2Fe_{14}B$ fine particles, spark erosion prep., struct., mag. props. 6975
Ni-H_2 secondary batts., H_2 storage microencapsulation expts. 27897
Ni-H_2 secondary cells, LEO destructive life testing 11256
$Ni(OH)_2$ rechargeable batt. electrode characts. 36521
NiOOH secondary electrodes, act. material/additive distribs. 11255
NiP/Al discs, sputter-induced random micro texturing 5885
$Ni_yZn_xFe_{3-x-y}$, ferrite films, rapid plasma MOCVD 5887
PZT/Ti/Pt interface layers, elec. and microstructural props. 39053
Pb-acid secondary batt. plates, phase comp. expts. 11254
$PbNi_{1/3}Nb_{2/3}O_3$-$PbZrTiO_3$-$PbTiO_3$, piezoelec. actuator 39093
Pd contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
Pd low-temp. bonding of InP structs., GaAs substrs. 30004
Pt/Ti electrode, PZT devices, annealing 39116
RuO_2 reactively sputtered films, ferroelec. capacitor electrodes 20920
RuO_2-$Bi_2O_3(Al_2O_3)$-NiO systs., phase equilibria 38046
Si, EFG growth in CO ambient, gettering 20647
Si, Er implant., solid phase epitaxial recrystn. 30015
Si IC, failure anal. methods, develop. and mfg. appls. 22519
Si, UV excited Cl-radical etching, SEM obs. 1247
Si anisotropic etching, hillock defects 30106
Si, electrocatalysis, opt./elec. props., solar cell appls. *(German)* 38243
Si films, microcryst./amorph., RF plasma spray/ion beam deposition 5856
Si nanocrystalline films, laser-induced CVD 28839
Si point contacts, nanofabrication, MBE growth, transport meas. 13128
Si point contacts, nanofabrication, gas-source MBE 29895
Si polycryst. films, hot wire CVD 5883
Si, porous, layered struct., opt. props. 1022
Si, porous struct. from lithographically patterned substrs., photolumin. obs. 20983
Si ultra-fine wire fabricated by SIMOX technol., quantized conductance 38354
a-Si:C,H p-i-n diode struct. for electron flux conversion 30229
p-Si:Cu, RTA, OISF, deep states, Cu diffusion 13034
Si:H, film, nanocryst., sputtered growth mechanism 12140
a-Si:H films, recrystn. by XeCl excimer laser irrad. 28797
Si:O, ion implant., precip. 30026
Si:P(B)(As) VLSI submicron jns., proximity rapid thermal diffusion 6625
Si:P,B CVD film struct./morph. 29841
Si/Co/GaAs, $CoSi_2$ thin film form. 38632
Si-SiO_2 MOS surface layer defects, ECR etching in Cl_2/O_2 plasma 6631
Si-$TaSi_2$-TiN-AlSi multilayer thin film contacts, electromigration testing 38654
Si(100), carbonization, solid source MBE 20902
SiC emitter/burner, GaSb thermophotovoltaic converter 27998
β-SiC layer growth by Si surface carbonisation, RTP 20981
β-SiC on Si, CVD epitaxial growth and elec. charact. 37434
3C-SiC on Si, heteroepitaxial growth, etch pit reduction 28781
SiC-SiN_x multilayer x-ray lithog. membranes by ECR CVD 6698
SiFe sheet insulation, elec. and phys. charact. 14002
$Si_{1-x}Ge_x$/Co(Ti), solid state interfacial react. 38371
SiO_2 micromechanical struct., electron/ion-beam irrad. 13913
SiO_2, reactive facet sputtering 1255
$Si(SiO_2)$ sputtering and RIE, particle form. mechanism 22199
Sm_2Fe_{17}, SiH_4 treatment, mag. props. 39142
Sm_2Fe_{17} powder, Nb-modified, nitriding 6947
$(Sr,Ca)TiO_3:Nb^{5+}$ capacitor-varistor ceramics, cation diffusion 436
Ta-46%Ir eutectic brazing filler, thermionic appls. 28023
TaC films, pulsed-laser deposition and charactn. 28858
TiC refractory material, laser ablation, cluster form. and deposition 28827
TiN, ECR chem. vap. deposition, 20 C 12173
TiN diffusion barriers for sub-0.5 μm planarized Al IC technol. 38653
TiN-Si CVD for sub-0.5 μm technol. 13415
$TiSi_2$-Si surface/interface roughness, RTA heating rate effects 22096
TiW, sputtered Schottky barrier, AES, SEM 29957
TiW thin films, sputter deposition 28829
$(Tl,Pb)(Ba,Sr)_2Ca_2Cu_3O_9/Ag_{0.37}$ thick c-axis textured supercond. tapes 1598
TlBaCaCuO thin film ring resonator, J_c distrib. 37953
WN_x thin films on GaAs, reactively sputtered, stabil. 38659
WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
YBaCuO HTSC, bulk mfg., XRD, SEM 20988
YBaCuO microbridge, 2D array, weak links 22763
$YBa_2Cu_3O_7$, Josephson jn. fab., bi-epitaxial grain boundary 30790
$YBa_2Cu_3O_{7-\delta}$ planar multiline struct., current distrib. 14287
$YBa_2Cu_3O_{7-x}$, microwave penetration depth, contactless meas. 39227
$YBa_2Cu_3O_7/PrBa_2Cu_3O_7$ multilayer, spatially resolved elec. charact. 22720
Y_2Fe_{17}, SiH_4 treatment, mag. props. 39142
$ZnGeP_2$/GaP multiple heterostruct. on GaP substrs. 21959
$Zn_{1-x}Hg_xSe$, electrochem. deposition, EPMA, XRD 28802
ZnO, multicomponent varistors, Cr_2O_3 effect, pre-breakdown elec. props. 12828
ZnO, multilayer-chip varistors, elec. props., moist environ. 12833
ZnO varistors, mixed multi-impulse/AC 50 Hz tests 868
ZnO varistors, positron annihil., local electron dens., defect conc. 38257
ZnO-Bi_2O_3, sintering, phase distrib., TGA, SEM, XRD 6354
ZnSe epitaxial layers, pulsed laser deposition, struct. and opt. props. 28759
ZnSe epitaxy on GaAs (100), ICB *(Chinese)* 37403
ZnSe thin films, chem.-bath deposition, material charactn. 28793
n-ZnSe/Sb Schottky barriers, I-V props./SEM/XPS/SIMS/Auger spectra 30100
diamond membrane-based X-ray lithog. masks 6687

scanning force microscopy *see atomic force microscopy*

scanning ion microscopy *see ion microscopy*

scanning optical microscopes *see optical microscopes*

scanning optical microscopy *see optical microscopy*

scanning probe microscopy
see also atomic force microscopy; magnetic force microscopy; scanning tunnelling microscopy
compact cryogenic scanner for scanning probe microscopies 39071
edge posn. meas., scanning probe microscope 18093
microstruct., FIB milling, lathe tech. 22625
nano-electronics appls. *(French)* 1302
non-invasive dielec. meas., scanning pot. microscope 3954
photoactive solids, conf., Leuven, Belgium (1993) 11530
polypyrrole lines, lateral deposition, scanning electrochem. microscopy 28879
sample and probe tilts estimation 25707
sampled waveform meas. in IC, electrostatic force microscopy 9871
scanning probe microwave microscopy, DC-SQUID 14314
semicond. devices, pot. distrib. meas., Kelvin probe force microscopy 38373
solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
submicron struct., 3D meas. techs. 42930

scanning radiography *see radiography*

scanning-transmission electron microscopes
see also scanning-transmission electron microscopy
field-emission microcolumn 13019

scanning-transmission electron microscopy
see also scanning-transmission electron microscopes
ii-vi wide-gap semiconds., MOVPE, optoelectronic appls., review 20887
max. entropy deconvolution, response fn. generation 41062
XLPE insulation, morphology, field emission STEM obs. 14067
CdSe quantum dots, electrospray OMCVD 5860
Co thin films, STEM magnetometry studies 14205
Co/Cu multilayer struct., STEM magnetometry studies 14205
GaInP/GaAs, MOVPE grown heterointerfaces, III/V exchange 20886
$In_{0.5}Ga_{0.5}P$, highly strained, wide-gap material for heterojunction FET 20769
PZT/Ti/Pt interface layers, elec. and microstructural props. 39053
Si:Ge epitaxial film, embedded nanocrystals, synthesis 12126
SiC thin films, LPCVD from hexamethyldisilane 433

scanning tunnelling microscopy
see also atomic force microscopy; magnetic force microscopy
3D interferometer, surface roughness meas. 42926
alkylthiol/alkylsiloxane monolayers, electron beam lithog. 13491
alkylthiol/alkylsiloxane monolayers, electron beam nanofabrication 30176
allylcyclopentadienyl palladium, electron-beam-induced pattern deposition 6676
analog ramp generator for fast STM 585
bipolar HV amp. for precision piezodrive 14078
channel opt. waveguide charactn. by photon scanning tunnelling microscope 22865
contact resist., contaminant films thickness, humidity effects 6385
copper phthalocyanine film, MBE growth 20809
copper phthalocyanine single mols. and islands, STM obs. 28809
doping profiling, scanning surface harmonic microscopy 38491
electron beam resist, nanofabrication, STM 13849
field-emission microcolumn 13019
high-speed opt. sampling/STM, elec. waveform meas. 9830
lightweight metals bonding adhesion layer, electronic appl. 12185
low-dimensional electronic systems, Mauterndorf, Austria (1992) 11547
low-temp., BEEM/spectrosc. 21865
MIM diode, N-shaped I-V charact., mechanism 13262
miniaturized e-beam writer, component testing 30186
MOSFET, STM lithog. damage 13740
nanoscopic struct., Josephson effect 7238
opt. disc, STM, data stampers study 14338
opt. waveguide high resoln. diagnostics, photon-STM 14474
organosilane self-assembled monolayer resists, proximal probe study 13495
pattern generation, localized CVD/STM 20921
piezoelec. tube scanners in STM/AFM, nonlin. behaviour correction 39070
piezoelec.-driven inertial slider based STM 6926
planar-type MIM diode, STM nanometer-size oxid. 38449
polymer-aligned liq.-cryst. cells, surface layer thickness 14539
PZT-5A piezoelec. tube scanner for STM 9896
quantum neurocomputer 788
rare earth-transit. metal alloy films, microstruct. and domain wall motion 14115
scanning probe microscopy, principles and appls. 13017
semicond. surfaces, Raman spectrosc./STM *(Japanese)* 29822
split-gate wires, small mesa struct. for Coulomb blockade effects obs. 1141
stage driving, design and appls. *(Korean)* 22529
stereoscopic viewing of at. struct. 34336
surface harmonic microscope, semicond. charactn. 1223
surface profile reconstruction, near-field data 41297
transm. mode near-field opt. microscope 25845
UHV-STM syst. combined, MBE 5837
ULSI microfabrication materials testing appl. *(Japanese)* 6832
VIDS, visual interp. for device simul., proc. models 22544
AlGaAs/GaAs quantum nanostructures, STM at.-scale anal. 29940
C_{60}-Si(111) multilayer growth, UHV-STM study 12156
CaF_2-based MIS struct., DOS, PES and BEEM studies 22072
CdTe polycryst. thin film solar cells, micro/nanostructs. 27940
$CoSi_2$/Si(111) epitaxial films, situ study by BEEM 22037
CrO_x lines, scanning tunneling lithog. 13494
$CuInSe_2$ polycryst. thin film solar cells, micro/nanostructs. 27940
Ga/n-Si(111) diode, rectification obs. by STM 6717
GaAs, metalorganic CVD growth, 2D nuclei, STM study 20733
GaAs/AlAs, short period superlattices, interface struct., STM 28751
GaAs(100) surface, $(NH_4)_2S_x$-treated, S at. sites 22171
GaAs(100) surface, $(NH_4)_2S_x$-treatment, STM study 38595
GaAs(110), ion sputtering, STM study 6629
Ge islands on Si(111), three-stage lattice relax., STM 28749
Ge, surfactant-mediated epitaxial growth, 2D islands 28785
Ge/Si(111) SPE, STM obs. 20707
Ge(001) multilayer epitaxial growth, surface morph. 20840
HgTe/CdTe superlattices, etching, STM study 22161
InAs/GaSb superlattices, struct., STM obs., growth condition effects 13151
InSe/GaSe heterointerfaces, Van der Waals epitaxy 20883
Pt/Co multilayer, magneto-opt. Faraday effect, STM obs. 14546
Pt/Co multilayers, high-dens. thermomag. recording method, STM 22698
Pt/Co multilayers, near-field magneto-opt. imaging in STM 31015

- **scanning tunnelling microscopy** continued
  - a-Si, SPE on Si, STM obs. 20706
  - Si porous films, laser ablation fab. 20964
  - Si surface, patterned Au deposition, STM tip-induced anodization 28804
  - a-Si:H, nanometer lithog., low-energy electrons 30177
  - Si:H surfaces, nanometer scale patterning/oxid., UHV STM 13496
  - a-Si:H,P films, elec. act. nanoscale struct., STM prep. 21929
  - Si/Ti syst., silicide form., STM crystallography on Si(100) substrs. 22027
  - Si(001), electrochem. etching in NH$_4$F soln. 30090
  - Si(100) surface, STM field induced nanomodification 30116
  - Si(100) surface, nanoscale STM-patterning, chem. modif. 30175
  - Si(100)-(2×1), at. scale etching by Cl 30087
  - Si(110), STM nanolithography 30179
  - Si(111) and (100), at. hydrogen etching, STM obs. 38542
  - Si(111), anodic etching, surface morph., NH$_4$F vs. HF etching 13375
  - Si(111)/soln. interfaces, electrochem. STM/AFM imaging 38588
  - Si(111)7×7 surfaces, regular artificial nm scale struct. fabricated, STM 38538
  - SiO$_2$, catalyzed HF vap. etching for micro-/nanolithographic masks 38556
  - SiO$_2$ layers, beam assisted STM 39039
  - YBa$_2$Cu$_3$O$_y$ jn., finite gap tunneling obs. 30778
  - ZnSe films, nucleation on GaAs(001):Se-(2×1) 20855
  - Zr/O/W Schottky emitter eval. for STM microcolumn appls. 12987
- **scanning tunnelling spectroscopy**
  - GaAs:O(S)(110), surface states, ambient/vac. STS 1244
  - PrBa$_2$Cu$_3$O$_y$-YBa$_2$Cu$_3$O$_x$ jn., low temp. STS 22757
  - a-Si:H pn-doping superlattices, cross-sectional STS 29928
  - SiO$_2$ layers, beam assisted STM 39039
  - YBa$_2$Cu$_3$O$_y$ jn., finite gap tunneling obs. 30778
- **scanning X-ray microscopy** *see X-ray microscopy*
- **scattering**
  - *see also acoustic wave scattering; backscatter; electromagnetic wave scattering*
  - microwave MESFET, noise temp. determ. 13766
  - semicond. laser light pulse propag. and charge carrier scatt. 39789
  - ZnCdSe-ZnSe superlattices, stimulated blue light emission mechanisms *(Japanese)* 38340
- **scattering matrix** *see S-matrix theory*
- **scattering parameters** *see S-parameters*
- SCC *see stress corrosion cracking*
- **scheduling**
  - *see also processor scheduling*
  - 2D round-robin schedulers for packet switches, multiple input queues 2875
  - AC motor multirate motion control algms. parallel proc. 10966
  - adaptive admission control algm. for multimedia servers 42001
  - air conditioner direct load control, multipass dyn. prog. algm. 27055
  - algorithms on dynamic priority scheduling for heterogeneous traffic in ATM 33708
  - Alusaf project, automation mgt. 5573
  - AMICAL interactive high synthesis environ. 21031
  - approx. MVA for client-server systs., nonpreemptive priority 24994
  - ASIC sig. proc. archits. with min. structural complexity, ILP synthesis 29251
  - asynchronous syst. high-level synthesis, scheduling, synchronis. 21183
  - ATM based B-ISDN, virtual spacing for traffic control 25060
  - ATM network, priority scheduling 24775
  - ATM networks, end-to-end queueing delay 33216
  - ATM networks supporting time-crit. traffic, optimal resource allocation 24748
  - ATM switch, weighted round-robin cell multiplexing 8720
  - ATM switches, queue mgt., multiple delay/loss priorities 8726
  - ATM-based network environ., media schedular for AAL 42039
  - augmented priority ceiling protocol, task sync. for preemptive real-time systs. 16492
  - autonomous spacecraft payload operations, onboard emergent scheduling 18696
  - bandwidth assignment strategies in broadband networks 8973
  - broadband network grade-of-service achievability conservation laws 41476
  - CHP plant daily operation scheduling, num. model *(English)* 27548
  - CHP power syst. long-term operations planning 27100
  - common store queueing syst., threshold-type foreground-background congestion control 24788
  - COMNET III, obj.-oriented network perform. prediction simulator 24900
  - competitive distributed deadlock resoln. and resource allocation, local optim. of global objectives 16686
  - conf. scheduling service, multimedia, network support 16830
  - conf. scheduling/voting facilities for multimedia conferencing syst. 3242
  - conflict-free WDMA networks, buffer-sharing 8745
  - continuing engng. education, 3rd Erlang formula 73
  - cryptanalytic attacks related keys 2396
  - data path synthesis, scheduling algm., Tabu search tech. 21044
  - data path synthesis for easy testability 12470
  - datapath design, mobility reduction based scheduling, allocation emphasis 28957
  - demand assignment packet switch for terrestrial and satellite networks 17151
  - diesel generators, economic utilisation, max. demand charges minimisation 10872
  - distributed real-time, multi-access protocols schedulability anal. 2911
  - distributed switching software, scheduling mechanism of general service order seq. and limited service discipline 9133
  - DQDB network, real-time commun. services 3176
  - DRS telecomm. satellite, heuristic scheduling 42320
  - DRS-Sched, data relay satellite syst. scheduler 33950
  - DSP OS modeling for multimedia appls. 3259
  - dynamic loop scheduling algm. for VHDL synthesis 21043
  - efficient routing/scheduling algms. for opt. networks 8976
  - elec. generator maint. scheduling, simulated evol.-based 19602
  - elec. utility generator VAr capability assess. experience, USA 35487
  - ETHMICS multimedia commun. testbed 41977
  - EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
  - fast convergent Jacobi algms. for VLSI sig. proc. 32597
  - fault-tolerant ASIC design, high-level synthesis 30405
  - FDDI for time crit. commun. in mfg., scheduling 41772
  - FDDI network perform. eval., guarantee probab. 41905
  - finite capacity scheduling syst. for PC manufacture 11722
  - flexible assembly lines for PCB, design and scheduling 29663
  - flip-flops configuring, BIST registers 6097
  - FPGA technol., optimal registerfile archit. synthesis 29108
  - gas turbine power plant operations scheduling 43922
  - generalized proc. sharing scheduling discipline, stat. anal. 2896
- **scheduling** continued
  - generating unit preventive maint. scheduling, energy cost method 19378
  - generator excitation syst., gain scheduling control *(Chinese)* 4881
  - generator maint. scheduling, subjective constraints relax. *(Japanese)* 27663
  - generators/boilers, overhaul scheduling, dyn. prog. *(Chinese)* 43976
  - genetic algm. for test scheduling, different objectives 1470
  - global test schedules assembling, unified method 12464
  - greedy packet scheduling 33171
  - heterog. syst. routing/scheduling 11909
  - high level architectural synthesis, precedence anal. and automatic cycle detect. in DFGs 21068
  - high level synthesis, scheduling algm. based on data modality 28966
  - high level synthesis based on formal methods 28959
  - high-level synthesis, introduction 5947
  - high-level synthesis, scheduling problem, integer lin. prog. 495
  - high-speed networks, large multimedia server, storage subsystem design 16834
  - hot jobs proc. and effect on normal orders 37018
  - hydro-power daily generation scheduling, decomp. methods 27614
  - hydroelectric generation scheduling, fuzzy LP 4858
  - hydroelectric power syst. optimal, short-term scheduling 27613
  - hydrothermal power syst., unit commitment, knowledge based dyn. prog. 19017
  - hydrothermal power syst. energy mgt., long/medium/short term *(Chinese)* 27037
  - hydrothermal power syst. prod. costing, chron. operation representation 27091
  - hydrothermal power syst. scheduling, augmented Lagrangian decomp./coord. 19028
  - hydrothermal power systs., optimal short-term scheduling 27111
  - imprecise computations, scheduling algms., max. error minimization timing constraints 33277
  - imprecision probab. computation, queueing theoretical formulation in real time systs. *(Korean)* 20514
  - integrated scheduling, allocation and module selection for design-space exploration in high-level synthesis 21061
  - integrated services network scheduling and admission control priority token bank 41916
  - integrated services networks, perform. eval., iter. approach 3236
  - integrated train access scheme under light/medium load, perform. anal. 33578
  - Intel i860, backtrack scheduler for dual operation instructions *(Japanese)* 29303
  - intell. scheduling/planning systs. for telecomms. mgt. 24914
  - Internet, multimedia services, distributed sync. protocols 3263
  - IUE astron. satellite, coarse-grained scheduling 26522
  - joint automatic generation control regulation 4580
  - LAN, centrally scheduled, task distrib. 41774
  - LANs, cct. switched, perform. under different traffic conditions 33514
  - leaky bucket regulator perform. in broadband integrated networks 8911
  - LSI delivery management, lot-sampling scheduling 37041
  - M/G/1/K systs., vacations under random scheduling and LCFS 20511
  - make-to-order products, concurrent engng. effects 20391
  - min. cost power transm., EM field considerations 35650
  - mixed 0-1 integer prog. problem, approx. method, min. conflict *(Japanese)* 28634
  - module selection and scheduling using unrestricted libraries 21049
  - multimedia appl. adaptation layer (MAAL) protocol 16848
  - multimedia data streams, disc scheduling 16886
  - multimedia server for on-demand services 16832
  - multimedia servers, scheduling and storage struct. 3061
  - multiple access scheduling for moving picture inform. *(Japanese)* 8734
  - multiple servers under threshold-type scheduling, resequencing delay 24789
  - multiple signature anal. compaction testing, quasi-optimal scheduling 21243
  - multipoint multimedia services, high perform. support 16877
  - multiprocessor DSP, task allocation/scheduling 40827
  - multirate sig. proc. algms., compact code from dataflow specs. 40770
  - net-present-value cost/time tradeoff 36976
  - network admission control policies, perform. eval. framework 24996
  - network bottlenecks in mobile computing, Coda file syst. 33555
  - network layer scaling, congestion control in multimedia commun. 16878
  - networks with small failure sets, threshold reliab. 37200
  - Nippon Airways, aircraft operational scheduling *(Japanese)* 10417
  - nonlin. time/cost tradeoff models in project mgt. 28373
  - online transaction proc., scalable net modelling 41878
  - open access power transm., anal. software 19129
  - open planning, scheduling and constraint mgt. archits. 24915
  - optical staggering switch archit. growability and packet sync. 42126
  - optim. of polling policy represented by neural network 2897
  - optimal generation scheduling, ramping costs 35708
  - optimal match-up strategies in stochastic scheduling 37275
  - optimal on-line algm. for optimisation 37251
  - optimized prod. technol. in capacity constrained flow shop 11700
  - optimum generation schedule, transm. loss formula 10796
  - packet switching syst., propag. delay, nonuniform traffic scheduling 33164
  - parallel genetic algms. for earliness-tardiness job scheduling problem 28642
  - parallel systolic algm. implement., RLS lattice example 37886
  - PCB assembly, DSS develop. 28407
  - perform. of scheduling algms. for channel reservation 3229
  - PHIDEO, high-level synthesis for high throughput appls. 41173
  - photorefr. neural-network wt. decay, gain and exposure scheduling 39519
  - power syst. act. power reserve scheduling 27088
  - power syst. dispatch switch operation planning, ES-based 4510
  - power syst. dyn. security improvement, generation rescheduling 35478
  - power syst. fuel scheduling, optim. techs. comparison 4600
  - power syst. generalised unit commitment problem, computer-based 35492
  - power syst. security assess./real power rescheduling 26968
  - power syst. security control, reactive power rescheduling, V-formulation *(Chinese)* 43636
  - power syst. short-term scheduling, price-based resources integrat. 10705
  - power syst. unit commitment problem, ES approach 35532
  - power syst. VAr compensation planning, computer model-based 26960
  - power syst. weekly thermal unit commitment scheduling method 27105
  - power systems computation, conf., Avignon, France (1993) 11544
  - pre-scheduling mechanism for multimedia presentation sync. *(Korean)* 25122
  - preventive maintenance, behaviour model/vibr. anal. 5567
  - pumped-hydro-thermal systs., unit commitment 19016
  - quantitat. methodology for rapid prototyping and high-level synthesis of sig. proc. algms. 2489

scheduling continued
- R&D project selection/scheduling model 20378
- real-time scheduling, precedence constraints and shared resources integrat. 8750
- real-time systs., adaptive tasks scheduling 3607
- Real-Time VirtualClock, network traffic control mechanism for real-time commun. 8910
- RECALS II list scheduling algm. for high level synthesis 28970
- register transfer space exploration strategy, unrestricted library scheduling/binding algm. 28963
- regularity extraction approach to scheduling and allocation 21051
- satellite broadcasting schedule optim., Hopfield neural net mean field annealing 25461
- SDL-based protocol implement. tool, proc. scheduler/compiler 41542
- Segment router, effect of queue sizes and channel scheduling policies 24855
- simul. on network of workstations, parallel independent replicated 33547
- single-server queueing networks optimal control 11910
- slotted ring LAN, bandwidth allocation scheme 41906
- spacecraft, battery mgt./scheduling integration 26565
- stabil. anal. in combinat. optim. 37283
- systolic array partitioning problem, scheduling scheme 28952
- TDMA satellite switched scheduling algm. 42309
- telecomms., rate-controlled service disciplines 33167
- test scheduling, test subsession partitioning 17661
- thermal power plant generation scheduling, SHAPES ES-based 43890
- thermal power plant maint. scheduling, Hopfield neural net appls. *(Japanese)* 43893
- thermal/pumped storage units, unit commitment *(Japanese)* 26938
- time-multiplex switches, neural scheduling algms. 16417
- transm. network, services routeing/scheduling techs. 24839
- tridiagonal lin. syst. and Poisson's eqn. soln., distributed memory systs. 28669
- unconventional power systs., scheduling/resource allocation 35496
- unit commitment problem, genetic algm. 19163
- unit commitment with fuel storage constraints 19108
- video-on-demand syst., distributed hierarchical storage manager 9743
- VLSI design, neural net for scheduling/allocation 30414
- WDM opt. network, time-wavelength assignment algms. 42375
- weekly thermal unit commitment scheduling *(Japanese)* 27522
- WMS real time algm./AIP predictive schedulers, comparison 20363
- Xunet 2, scheduling discipline/admission control policy 16665

scheduling, production *see production control*

schlieren devices *see schlieren systems*

schlieren systems
- high energy EM transducer acoustic shock field, Schlieren meas. 4029
- hologram wavefront reconstruction, quantitat. schlieren method 40130
- holographic interferometry in high temp. flows, shock tunnel 18143
- liq. cryst. light valves for schlieren opt. projection 25929
- mineral oil, leader discharges, time resolved study 30549

Schmitt trigger *see trigger circuits*

school libraries *see academic libraries*

Schottky barrier solar cells *see Schottky diodes; solar cells*

Schottky barriers
- depleted heteroepitaxial layer/substr. interface, capacitance meas. 21948
- diamond:B film/metal high temp. contacts, reliab. issues 22045
- metal-Schottky contacts on semiconds., interface index 38418
- metal-semicond. interface struct., Schottky barrier height rel. 38406
- metal-semicond. interfaces, Schottky barriers tuning, layer control 1167
- MIM struct., Schottky barriers, interface impurity states 22081
- monolithic MM wave IC, high speed opt. detectors 9534
- photovoltage, transient charact. modelling 6579
- physics and chem. of semicon. interfaces, conf., New York (1994) 20208
- poly(3-methyl thiophene)/Al Schottky barriers 13212
- quantum wells, Schottky contacts, selective electrochem. proc. 38398
- radial distrib. of charge in HI track, concentric Schottky barrier rings 13607
- semicond. cryst. lattice defects, nonlin. microwave scatt. 38293
- surface sources of piezoelec. transduction 25819
- Ag/Si(111) Schottky diodes, barrier height and interface struct. 30231
- Al/GaAs, interface annealing studies, variable energy positron beam 22041
- Al/InP:Be,P, Schottky barriers, improvement by Be/P coimplantation 13209
- Al/n-AlGaAs jns., anom. thermionic-field emission 13220
- Al/n-GaAs Schottky contacts, prep., charactn. 37522
- Al/n-InP contacts, inhomogeneous reaction and Schottky-barrier change 13228
- Al-nSi Schottky barrier diode, interface states, charging behavior 22354
- AlGaAs, patterned photon-driven cryoetching 30065
- $Al_xGa_{1-x}As$, OMVPE grown, elec. charactn. 13223
- Au/GaAs, interface annealing studies, variable energy positron beam 22041
- Au/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
- Au/PtSi/(100)Si diodes, lateral var. in Schottky barrier height 22352
- Au/ZnCdTe, electroless Au film deposition 37465
- Au/n-GaAs Schottky contacts, barrie height change, ballistic electron emission obs. 38378
- Au/n-GaAs:Ar Schottky barrier study, ion implant. damage 22035
- Au/n-ZnSe contacts, BEEM 22048
- Au/p-InP epitaxial Schottky diode, I-V/T, C-V/T data, simultaneous anal. 38816
- Au-Cr-Au-Zn-Au multilayer metallizations to InP, elec. props. 38660
- Au-GaAs Schottky diodes, cryogenic/RT, current transport 38390
- Au-GaAs diodes, lateral Schottky barrier height var./crit. length 38383
- Au-PtSi-Si diodes, lateral Schottky barrier height var./crit. length 38383
- Au-Te-Au-GaAs Schottky contact interface states capacitance, thermal effects 29950
- Bi/ZnO, interface form., model varistor grain boundary 6578
- $Bi_2Sr_2CaCu_2O_{8-x}$ porous films gas sens. response anal. 34615
- $Bi_2Sr_2CaCu_2O_{8+x}$-based sens. for CO and NO 34614
- CdTe:Cl, I-V characts., detector appl. 43087
- $CoSi_2$ patterned layer buried Schottky contacts in Si, wafer bonding 38394
- $CoSi_2$/6H-SiC, Schottky contacts 1165
- Cs/InAs(110), giant band bending, interface form. 13222
- Fe silicide contacts to n- and p-type Si, props. 1104
- GaAs MIMIC TED-oscillator, 60 GHz, perform. 29590
- n-GaAs diodes, Ni-Al based Schottky barrier enhancement, AlGaAs regrowth 38382
- GaAs, patterned photon-driven cryoetching 30065
- GaAs radiation detectors for ionizing elementary particles and X-ray radiation 4250
- GaAs:Si, Si diffusion by RTO 38523
- GaAs/Ag Schottky barrier, electroreflectance 13216

Schottky barriers continued
- n-GaAs/AlGaAs MQW struct. with Schottky and ohmic contacts, seq. tunneling 29897
- GaAs/Au buried interfaces, opt. SHG 1152
- GaAs/Ti Schottky contacts, elec. param. stabil., cleaning depend. 29959
- n-GaAs/metal Schottky contacts, interface state dens. anal. 1157
- GaAs-WN Schottky contacts, plasma deposited, thermal stabil. 22033
- GaAs-metal interfaces, interphase reacts. 6571
- GaAs(001)/Al Schottky barriers, heterovalent interface layers 22038
- GaInP/Si/Al structs., Schottky barrier height modif. 13218
- HgI_2 gamma-ray spectrometers, electronic charactn. 43078
- $In_xAl_{1-x}As$ epilayers on GaAs, Al Schottky diode barrier heights 22042
- InAlAs/InGaAs HFETs, HBr plasma RIE-induced damage 13797
- $In_{0.5}Ga_{0.5}As$ heterostruct., gateable ultrafast field-assisted photoemission 1836
- p-$In_{0.21}Ga_{0.79}As$:Zn/Au Schottky diodes, interface states, doping effects 38420
- InGaAs/InP:Fe enhancement layer Schottky contacts 1149
- InGaAsP/Au Schottky junctions, barrier height enhancement 13211
- InGaAsSb/AlGaAsSb heterojunctions, band offsets 13132
- $In_{0.5}Ga_{0.5}P$ Schottky contacts, $(NH_4)_2S_x$-treated, interface props. 29949
- InGaP/GaAs epitaxial struct., Schottky barriers 22026
- InGaP-InGaAs-InAlAs, HEMT struct. with strained Schottky layer 13815
- InP MESFET, CdO_x interfacial layers, adsorpt./oxidation prep. method 13773
- InP Schottky barriers, minority carrier diffusion length 13210
- n-InP, Schottky contacts, in situ electrochem. proc. 38399
- p-InP:Zn/Au, epitaxial Schottky diode, reverse I-V, C-V characts. 38801
- InP/AlInAs/AuGe/Au HEMT struct., thermally stable ohmic contacts 30363
- n-InP/Au(Pd) Schottky contacts, deposition, charactn. 37521
- InP/InGaAs, fully self-aligned HBT with Schottky collector 13629
- n-InP/metal systs., hydrogen plasma treatment, elec. props. 38598
- Ir/p-Si jns., Schottky barrier heights 38380
- Ir/p-$Si_{1-x}Ge_x$ jns., Schottky barrier heights 38380
- Pd/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
- Pd-InP Schottky diodes, cryogenic/RT, current transport 38390
- Pt/Si(111) interface and props. of thin Pt layers on Si 1166
- Pt-GaAs Schottky contact, defect free, electrochem. form. technol., low-dimens. structs. 22039
- PtSi IR detector, 7 μm cutoff for imaging appls. 34567
- Si, patterned surfaces, Schottky barriers, photoablation 22185
- Si porous struct., photocurrent collection, photodetector appl. 22051
- p-Si:B/Er Schottky-barrier diodes, H effects 38807
- Si/Au interface, electronic props. and Schottky barrier 22050
- Si/$CoSi_2$ vert. MSM photodetectors, buried contacts 34500
- a-SiC:H MIM struct., electronic props. 1183
- SnO_2 films, Schottky surface barrier, gas-sens. effects 42862
- SnO_2/a-SiC/Au Schottky cells, photocurrent multiplication model 44396
- SnO_2-based thick-film gas sens. 3915
- (Sr,Ca)TiO_3:Nb^{5+} capacitor-varistor ceramics, cation diffusion 436
- $SrTiO_3$ metal-semicond. Schottky diodes, field depend. permitt. 29955
- Ti/SiC, interface chem., microstruct., elec. props. 29952
- TiN/n-GaAs Schottky contact interface post-anneal perform., N role 38384
- TiW, sputtered Schottky barrier, AES, SEM 29957
- WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
- Y_2O_3 MIM capacitors, elec./dielec./opt. props. 22082
- ZnO dense non-ohmic electrode, humidity sensitive elec. props. 34457
- $ZnS_{0.07}Se_{0.93}$:Cl/Yb(Al)(Cr)(Cu)(Au)(Pd), Schottky contacts, elec. props. 38401
- p-ZnSe elec. contacts, I-V charact. 1150
- p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
- p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413
- n-ZnSe/Sb Schottky barriers, I-V props./SEM/XPS/SIMS/Auger spectra 30100
- p-ZnTe/p-ZnSe heterointerface, band offset 21941

Schottky diode mixers
- astrophys. receivers, THz source requirements 6313
- corner cube mixer, whisker antenna, embedding impedance 6316
- MM-wave meas. receiver, 42.5 GHz, oscillator/mixer config. 37986
- MM-wave monolithic mixer, 94 GHz, design method 29602
- monolithic 250 GHz Schottky-diode receiver, slot antenna based 12813
- subharmonically pumped THz mixers employing reson. metal mesh bandpass filters 37979
- submillimeter wave region, optim. of Schottky barrier mixer diode 6315
- GaAs MMIC mixer, broadband double-bal. design 850
- GaAs Schottky diodes, five port hybrid ring mixer 29554

Schottky diodes
- *see also Schottky barriers; Schottky diode mixers*
- acoustoelec. memory for SS commun., Green's fn. 6930
- barrier diodes, recomb. currents 22032
- barrier height determ. from Schottky jn. C-V meas. 38813
- barrier height meas. tech. 22351
- conf., interface control of elec., chem. and mech. props., USA (1993) 36832
- cross-strip anode Schottky diode, series resist. calc. 38811
- cryogenic RF SQUID readout, super Schottky diodes for sig. demodulation 21538
- current dens., general drift-diffusion theory 6719
- DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW 21556
- diamond:B films, hot filament CVD, plasma etching, elec. props. 5862
- diamond epitaxial Schottky diode on p^+-substr., rectifying charact. 6713
- diamond/Ti-Au(-Ag)/Al CVD diodes, high temp. stabil. 22046
- epitaxial diamond Schottky barrier diode, fab., characts. 22350
- high series resist., forward I-V method limitation 13603
- IR-bi-color Schottky-barrier IR CCD image sens. 25887
- JET divertor, mm-wave two-color interferometer appl. 34676
- LEDs using polymer act. film, characts., electroluminesc. *(French)* 1822
- microwave mixer noise temp. anal. *(Croatian)* 834
- miniature IR sens., vac.-encapsulated thermistor clinical bolometer 35037
- mm-wave Schottky diode detectors 12751
- mm-wave tripler eval. of Schottky diode varactor 21547
- Monte Carlo simul., noise reduction 1349
- nonideal metal-semicond. contacts, Schottky diode soft-breakdown, hybrid diode 1342
- nonlin. transm. line CPW MMIC, design, modelling, fab. 12808
- octave band LO doubler (output range 16-40 GHz) 37906

Schottky diodes continued
polyaniline-p-styrenesulfonic acid composite, synthesis and Schottky diode appls. 28885
prog. multifn. optoelectronic cellular neural net 14667
radial distrib. of charge in HI track, concentric Schottky barrier rings 13607
rectifier, trench sidewall, jn.-barrier-control 38796
RTDs, fab., electron-beam lithog. 13604
soft switching IGBT converters, vol. vs freq. 29629
trench MOS barrier Schottky rectifier, breakdown voltage 38810
varactors, sidewall-etched, sub-mm-wave sampling cct. 38028
Ag/Si(111) Schottky diodes, barrier height and interface struct. 30231
Al/InP:Be,P, Schottky barriers, improvement by Be/P coimplantation 13209
Al/n-InP contacts, inhomogeneous reaction and Schottky-barrier change 13228
Al-nSi Schottky barrier diode, interface states, charging behavior 22354
$Al_xIn_{1-x}As$, MBE/CVD growth, elec. props. 12060
Au/$In_yAl_{1-y}As$, intimate Schottky diodes, characts., mismatch depend. 13221
Au/PtSi/(100)Si diodes, lateral var. in Schottky barrier height 22352
Au/p-InP epitaxial Schottky diode, I-V/T, C-V/T data, simultaneous anal. 38816
Au-Cr-Au-Zn-Au multilayer metallizations to InP, elec. props. 38660
Au-GaAs Schottky diodes, cryogenic/RT, current transport 38390
Au-GaAs diodes, lateral Schottky barrier height var./crit. length 38383
Au-GaSb Schottky diodes, MBE fab., GaSb surface oxide removal 1240
Au-PtSi-Si diodes, lateral Schottky barrier height var./crit. length 38383
$C_{60/70}$-Schottky diodes, characterisation 13613
CdSe/metal low cost Schottky barrier solar cells 5219
CdTe/CdZnTe MQW SEED, RT photorefr. effect 30990
CdTe/InSb/Au Schottky diodes, bias depend. barrier heights 38797
Ga/n-Si(111) diode, rectification obs. by STM 6717
n-GaAs, MOVPE, MBE, electron irrad., schottky diode charact. 28741
GaAs, Schottky structs., elec. characts. simul. 6707
n-GaAs diodes, Ni-Al based Schottky barrier enhancement, AlGaAs regrowth 38382
GaAs subMM Schottky diodes, reliab. and micro-struct. 1340
GaAs:Te, highly doped, EL2 trap, jn. spectrosc. 13124
GaAs/Au diodes, FIB implant. damage, BEEM study 13605
GaAs-Au(In) Schottky diodes, chem. etched surfaces 13612
GaAs-based integrated reson. tunneling devices, MM-wave detector appls. 10005
GaInP/GaAs Schottky diodes, ALE growth, MESFET appl. 1337
GaInP/Si/Al structs., Schottky barrier height modif. 13218
Ge_xSi_{1-x}/Si heterostruct., IR focal arrays 42785
H-SiC pulsed power switching devices, fab., charactn. 36449
In-ZnTe Schottky diodes, RF sputtered, elec. props. 30215
$In_xAl_{1-x}As$ epilayers on GaAs, Al Schottky diode barrier heights 22042
InAlAs/AlAs/n-InAlAs struct. for InAlAs/InGaAs FET appls., low leakage current 6787
$In_{0.52}Al_{0.48}As/In_{0.53}Ga_{0.47}As$ heterostruct. FET, Schottky-barrier-gate diodes characts. 13765
InGaAs Schottky 2DEG diode 13596
$In_{0.53}Ga_{0.47}As$ MSM photodiode, transparent CTO Schottky contacts 1184
$In_{0.53}Ga_{0.47}As$, gettered LPE grown, DLTS study 20745
InGaAs:Fe/InP:Fe large area MSM photodetectors 17775
InGaAs/InP:Fe enhancement layer Schottky contacts 1149
InGaP and InGaAlP, influ. of H plasma treatment on reverse currents 38809
InP MIS Schottky diodes, S passiv. and RTA 13599
InP, S treated, MSM photodetector, high speed 17780
InP:H,Mg, passivated acceptors, reactivation kinetics during annealing 22106
p-InP:Zn/Au, epitaxial Schottky diode, reverse I-V, C-V characts. 38801
Ir/p-Si jns., Schottky barrier heights 38380
Ir/p-$Si_{1-x}Ge_x$ jns., Schottky barrier heights 38380
LaMnO films prep., RF magnetron sputtering, O_2 sens. charact. 37462
Pd-InP Schottky diodes, cryogenic/RT, current transport 38390
Pd_2Si based Schottky diodes, I-V charact., barrier heights 38815
Pt silicide Schottky barrier IR detectors, opt. response 3840
Pt/GaAs Schottky diode, urea biosensor appl. 3896
Pt/SiC/Si vert. Schottky barrier diodes 22349
Pt-Si Schottky diode CO gas sens., sensitivity 34606
PtSi IR cameras, IR CCD/IR MOS imaging radiometers 17957
PtSi hybrid FPA, CMOS multiplexer readout 17946
PtSi middle wavelength 240×320 IR staring FPA 17954
PtSi/p-Si IR Schottky barrier detector, fab. and anal. *(Chinese)* 42813
PtSi-Si-SiGe-Si Schottky diode IR detectors, tunable cutoff 17790
Sb_2S_3/metal low cost Schottky barrier solar cells 5219
Si diodes, stain-etched porous films, vis. electroluminesc. 7477
Si, doped crysts. and devices, hydrostatic press. effects 21882
Si, dry etch-induced damage, surface anal. 13390
p-Si:B/Er Schottky-barrier diodes, H effects 38807
Si-based device proc., radiation damage 22160
SiC:Al,N Schottky diode, DLTS/admittance spectrosc. 22353
6H-SiC-Ti semicond.-metal contacts, UV sensitive photodetectors 3846
SnO_2/a-SiC/Au Schottky cells, photocurrent multiplication model 44396
$SrTiO_3$ metal-semicond. Schottky diodes, field depend. permitt. 29955
$TlAsSe_2$ glassy films, photocond./impact ionisation 22343
ZnSe Schottky diode, seeded phys. vap. transport, DLTS study 13594
ZnSe:I jn. devices, thermionic behavior studies 28026

Schottky effect
see also Schottky barriers; work function
electron beam lithog., Schottky field emission source 13451
laser-cooled ion beam, anom. Schottky sigs. 18251
lateral surface superlattice, fab., ion irrad. 21976
Mg, short pulse UV/VIS laser irrad., photoemission 38204
Ni/TiO_2/p-Si heterostruct., neg. capacitance effect 1161
$(Pb_{0.72}La_{0.28})TiO_3$/Pt films, elec. props., interface effects 1159
Si porous layers, I-V charact. 21896
TiO_2 films, thermally form., semicond. props. 29866
Zr/O/W Schottky emitter eval. for STM microcolumn appls. 12987

Schottky gate field effect transistors
see also MESFET circuits; power MESFET
act. inductors for GaAs and bipolar technols. 21597
act. integrated antennas, opt. control, microwave-opt. interact. *(Japanese)* 8062
ALE devices, recent advances 22496
electronic cct. time domain anal., unsteady modes of operation 512
fast bias depend. device models for CAD of MMICs 38014
GaAs submicron MESFET devices, heat generation and transport 38921

Schottky gate field effect transistors continued
HF charact., self consistent 2D Monte Carlo simul. 13809
intrinsic small-sig. equiv. cct., Monte Carlo tech. 38910
LAr preshower detector, monolithic GaAs readout 26180
LF noise anal. 38914
LHC liq. Ar calorimetry, radiation resist. of front-end electronics 26251
MESFET, localized interface states, transconductance 38913
MESFET, p-buffer , impact ionization regime, meas. and simul. 6793
MESFET oscillator loaded slot-coupled patch antenna, anal. 40501
MESFETs, gate lengths, low field DC-IV data 13769
MESFETs, noise perform., gate leakage current 38938
microwave MESFET, noise temp. determ. 13766
mixed photonic/electronic cct. simul. 37603
monolithic integrat. of optoelectronic smart pixels 7484
nonlin. transistor model params. extraction program 13805
photolum. spectra study 38933
pulse-doped diamond p-channel MESFET, fab. and characts. 13778
reliab./quality diagnostic tool for electronic devices 1315
space environ., proton irrad. effects, advanced digital/microwave III-V components 12803
AlGaAs/GaAs wire transistor, in-plane gate, Schottky contacts 38931
Fe:InP/InGaAs MESFET, metalorganic CVD growth 38926
GaAs E-mode MESFET technol. for low power/noise appls. 12780
GaAs FET and IC for mobile radio *(German)* 21571
GaAs FETs, IMD minimisation tech. 22484
GaAs MESFET, AC small-sig. equiv. cct. model 1448
GaAs MESFET, buried channel self-aligned proc., MMIC appl. 38930
GaAs MESFET, capacitance model, microwave nonlin. cct. design appls. 855
GaAs MESFET develop. at Caswell, 1964-1985 6808
GaAs MESFET, epitaxial lift-off on InP 14654
GaAs MESFET fabricated by internal interconnection tech. 13803
GaAs MESFET, impact ionisation, drain struct./buffer layer effects 38935
GaAs MESFET, interchanged two-sig. S-param. meas. *(Chinese)* 25963
GaAs MESFET, ion implant., photolithog., SAG 38923
GaAs MESFET, lin. stat. DC model, factor anal. 13812
GaAs MESFET model for response, high dose rate environ. 13790
GaAs MESFET, piezoelec. act. defects, impact modelling 13793
GaAs MESFET, pulse doped, 2D electron transport, Monte Carlo simul. 6794
GaAs MESFET sidegating effects modeling by trapping simul. 22495
GaAs MESFET-based power module, optimum LV/high-efficiency design 11749
GaAs MESFETs, Monte Carlo simul. 1437
GaAs MESFETs and PHEMTs, 2DEG effect on noise perform. 37981
GaAs MESFETs, selectively dry-etch gate-recessed devices, LF noise 22490
GaAs MESFETs, substr.-related kink phenom., 2D anal. 6802
GaAs OPFET, ion implanted, PV effect 39575
GaAs asymmetric Schottky-ohmic MSM photodetector 17810
GaAs based FETs, high temp. operation 13807
GaAs, devices, impact ionization/light emission, Monte Carlo study 1441
GaAs photoconductors, compensated/partially compensated opt. gain 39547
GaAs short gate-length MESFETs, delay time anal. 13814
GaAs:As, implanted struct., MOCVD, charactn., appls. 22159
GaAs:Si, MESFET, ion implant., mass resoln. effects 30039
GaAs:Si MESFETs, Si ion implant., channeling phenom. 30038
GaAs/AlGaAs MESFET and pseudomorphic HEMT, selective RIE 38917
GaAs/InGaAs two step doping channel FET, symmetric normally on/normally off characts. 38937
GaAs/InP 1 μm MESFET, buffer layer thickness optimization for OEIC 14661
GaAs/InP MESFET, degrad. investig. 6792
n- GaAs-InP, CVD layers/MESFET, elec./optical charactn. 13104
GaAs-InP MESFETs and ccts. fro OEICs 39598
GaAs-based MESFET/HFET, device and cct. modeling 6781
GaInP/GaAs Schottky diodes, ALE growth, MESFET appl. 1337
$Ga_{0.5}In_{0.5}P/In_{0.15}Ga_{0.85}As$ pseudomorphic p^+-Schottky-enhanced barrier HFET 6790
$Ga_{0.51}In_{0.49}P/In_{0.2}Ga_{0.8}As$ pseudomorphic HEMTs, WSi_x gates, high temp. 13811
InAlAs/AlAs/n-InAlAs struct. for InAlAs/InGaAs FET appls., low leakage current 6787
InGaAs recessed-gate MESFETs, AlAs etch-stop layer 38934
InP MESFET, CdO_x interfacial layers, adsorpt./oxidation prep. method 13773
InP MESFET perform., drain induced barrier lowering effect 1449
InP MESFETs, Monte Carlo simul. 1437
SiC MESFETs on high resist. substrs., 10 GHz, fab., charactn. 842
WSi films on GaAs, anisotropic etching 22239

Schottky noise *see random noise*

Schrodinger equation
(2+1)-dimens. fund. spatial dark soliton 31544
ARROW nonlin. directional coupler soliton switching 40106
branch line quantum directional coupler 1454
bright spatiotemporal solitons in planar opt. waveguide 15124
computational nanoelectronics, parallel algms, QMD 6830
Crank-Nicolson method, nonlin. opt. propag., split operator method comparison 40063
dark opt. solitons, Lagrangian approach 23355
DFB MQW laser, carrier and radiation confine. 14931
dielec. media ultrashort solitary-wave propag., reson.-dominated chromatic dispersion 40112
dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 23801
dissipative nonlin. waveguides, nonclassical spatial props. of light propag. 1705
double barrier quantum struct., shot noise 13199
dual-core fibres, soliton interacts. 14387
femtosecond temporal and spatial soliton num. simul. in nonlin. optics 40055
Fermi-Dirac kink propag. in high-order nonlin. media 40031
fiber, periodically modulated core diam., multi-soliton fission 31533
fibre ring laser config. studied by collective coord. 14996
fs opt. solitary wave propag. at the zero dispersion point, nonlin. dyn. 22814
init. overlapping soliton interact. 7798
lin. quantum wires, self-consistent calcs. 21983
metal/n-InAs/interlayer/n-GaAs struct., nonalloyed ohmic contact resist. 1154
MOS device gate oxide, hot carrier transport-injection model 22433

Schrodinger equation continued
near-Kerr nonlin. media, soliton internal friction and inelastic interact. 31627
nonlin. channel waveguides, variational anal. 23805
nonlin. guide prism coupler, dyn. study *(French)* 14460
nonlin. Kerr media, beam steering, spatial PM 2057
nonlin. reson. tunnelling, double-barrier struct. 38292
nonlin. Schrodinger eqn. soln. by coupled amplit.-phase formulation 23373
normal dispersion regime, spatio-temporal coupling, NLSE approx. 22807
opt. fibres, subpicosecond soliton-like pulse propag. 22861
opt. nonlin. waveguides, coupled soliton states dyn. 31611
opt. radiation self-action in medium, cubic nonlin. 31612
opt. Schrodinger-cat states, opt. directional coupler 40412
opt. waveguides, superluminal solitons, nonlin. Klein-Gordon eqn. 15106
planar opt. waveguide design, inverse scatt. theory 1701
quantum dots, electronic props. and capacitance, simul. 38345
quantum-mech. tunneling, FEM 6548
randomly varying birefr. opt. fiber solitons 30906
short channel MOSFETs, threshold voltage, quantum correction 1428
single-mode fiber with two-photon absorpt. and bandwidth-limited opt. gain, solitary waves 31571
SOI ultrathin struct., self-consistent calcs. 6587
spatial solitons excitation by second-order Hermite-Gaussian beams 23446
SQUID, weak link, macroscopic quantum effect, flux mode 22765
storage ring solitonlike pulse stabilization, slow saturable absorber 22792
transm. line, counterpropagating waves, modulational instabil. 12306
two-sided eigenvalue bounds of 1D Schrodinger eqn. soln., Rayleigh-Ritz method 37327
ultra high bit rate soliton self-freq. shift and third-order dispersion 17268
ultrashort pulsed-beam propag. in Kerr medium 31501
vortex soliton dyn. in Kerr nonlin. materials 31509
weakly coupled quantum-wire resonator, one-band model 13197
$X^{(2)}$:$X^{(2)}$ cascaded solitary waves 7801
AlGaAs/GaAs(InGaAs/GaAs) microwave/millimetre-wave HEMTs, noise model 831
GaAs MESFET, pulse doped, 2D electron transport, Monte Carlo simul. 6794
GaAs/$Al_xGa_{1-x}As$ MQW solar-cell, barrier pot. design criteria 5218
GaAs/AlGaAs SQW laser struct., carrier lifetime, absorpt. recovery time 14918
GaAs/AlGaAs heterojunction barriers, transm. tunneling current 13127
GaAs/AlGaAs inverted MODFET, charge control/I-V model 38908
InAs/$Ga_yIn_{1-y}As$ MQW solar-cell, barrier pot. design criteria 5218
InGaAs/AlGaAs pseudomorphic V-groove quantum wires, symm. breaking 6566
InGaAsP/InP/InAlAs quantum well electron transfer struct., finite difference methods 13582
InGaAsP-InP QW electron transfer struct. for ultrafast opt. switches 38351
Nd^{3+}:ZBLAN fibre, short pulse propag./ampl. 14739
Si/$Si_{1-x}Ge_x$/Si p-MOSFET, charge distrib. modelling 22471
Si-SiGe HFETs, mobility simul. 22494

Schroedinger equation *see Schrodinger equation*

SCI *see system buses*

science education *see education*

scientific information systems
composite materials, defects/damage, 3D US imaging 5924
DELPHI distributed IS, LEP appl. 18210
network flexibility needs and trends *(Japanese)* 16800

scientific societies *see societies*

scientific visualisation *see data visualisation*

scintigraphy *see radioisotope imaging*

scintillating fibre detectors *see position sensitive particle detectors; solid scintillation detectors*

scintillation
see also phosphorescence; phosphors
free-space opt. commun. systs., pointing jitter, turbulence 9551
metal/alloy products, discontinuities detect., plastic scintillator 12236
OLYMPUS satellite 12/20/30 GHz propag. expt. results 31818
opt. receivers, aperture averaging of opt. scintillations 34057
tetraphenylbutadienes, substituted, fast scintillator solutes 10110
Ar, liq., UV scintillation light detect., CsI photocathode 26178
Ar, liq., scintillation photon, creation energy 4201
BaF_2 calorimeter, cryst. props., detector possibil. 26195
Gd_2SiO_5:Ce, scintillation crysts., γ-ray detect. 4206
Kr, liq., UV scintillation light detect., CsI photocathode 26178
PbF_2 crysts., scintillation search studies 26196
Xe, liq., UV scintillation light detect., CsI photocathode 26178
Xe, liq., ionization, scintillation, EM calorimeter 26160
Xe, liq., scintillation photon, creation energy 4201

scintillation counters
see also gas scintillation detectors; liquid scintillation detectors; photomultipliers; position sensitive particle detectors; solid scintillation detectors
AMY expt., lumin., endcap shower counter meas. 34894
Bonner sphere response matrices, perform. comparison 18679
BWR, fuel failures, flux tilting 27442
charact. vs. light collection conditions 18374
collider detectors, high energy particles, calorimetric tracking 26212
Compton spectrometer, scintillator nonlin., energy resoln. 18309
conf. on NaI(T1) detectors, calib., NY, USA, Jan. 1995 43064
conference, radiation meas./appls., Ann Arbor, USA (May 1994) 5488
Cornell high lumin. upgrade, CLEO II detector, CLEO III 4177
D0 detector, scintillating/clear fibers, stress, strain 4156
D-Zero prototype fiber tracker cosmic-ray test, D0 detector 4157
diamond microstrip detector, high energy phys. 4188
Digiray RGX syst., X-ray mini-probes 18404
directional fast neutron detector, scintillating fibers, CCD camera 18328
Eloisatron particle detectors 4231
fiber-optic neutron detector, intensified CCD camera syst. 4159
gain monitoring syst., ultra bright LEDs 26135
GEM detector, COSY, meson prod., meson nucleus interact. 43007
GEM EM calorimeter perform. 26211
HADES, proposed dilepton spectrometer, design, perform. 34959
hadron calorimeter, reradiating fibers 34908
high-energy cosmic-ray neutron detect., sea level 34905
high-resoln. PET imaging, small animal, pharmaceutical biodistributions 10177
indust. gauges, ES, β/γ/X-ray transm. 18369

scintillation counters continued
KASCADE EAS expt., trigger electronics 26240
keV-neutron expts., γ-ray detect., NaI(Tl)/Ge detectors 34891
liq. rare gas imaging detectors 4194
Moessbauer spectrometer, SEDM, RSMR 43143
neutron penumbral imaging of ICF targets 34948
new material search, appls. 26170
opt. pipeline read-out, space-time mapping 26179
particle collider tracking calorimetry detector requirements 4113
PET detector modules based on novel detector technols. 18464
photomultiplier tube solid angle fn. math. modeling, transm., diffusive plane 29813
posn. sensitive β-γ coincidence, multiplexed gamma spectrometry 18363
precision dens. meter for film dosimeters 34911
pulse shape discrim. props., intrinsic PSD 26129
Shashlyk EM calorimeter, gamma-irrad. of cast scintillators 34909
SKIF hybrid spectrometer, charmed particle generation study 34961
STAR detector design for RHIC collider 18336
TOF meas., Monte-Carlo program 26119
TOF positron imaging syst. 4265
Visible Light Photon Counter, weak scintillations 4158
B rare decay modes, CLEO II detector, CP violation 4176
$\bar{\nu}_e e^-$ scatt., detector study, nuc. reactor 43126
Ar modulated laser source for PMT detectors monitoring 4168
CF_4 scintillation, detector uses 26118
^{137}Cs radioactivity, snowfields, glaciers in situ γ-ray detector 18356
CsI/p-i-n detector based gamma ray spectrometer 43147
LiI(Eu) detector, solar neutrino detect. 43130
NaI(Tl) scintillation detectors thermal resist. improvement 34910
Rn, meas. tool, buildings, remedial actions 18367
^{222}Rn gas, low-emanating materials, sensitive effluent method 18630
^{90}Sr, soil, real-time in situ detect., scintillating-fiber 18355
^{238}U, soil, real-time in situ detect., scintillating-fiber 18355

scintillation detectors *see scintillation counters*

scintillation spectrometers *see particle spectrometers; scintillation counters*

scintillators *see scintillation; scintillation counters*

scintillometers *see scintillation counters*

SCM *see subcarrier multiplexing*

SCR *see thyristors*

screen-printed films *see thick films*

screening *see shielding*

screens (display)
see also fluorescent screens; large screen displays; touch sensitive screens
3D illuminance anal. syst., ray tracing method *(Japanese)* 42880
3D LCD on VLSI die, electrostatic anal. 42875
computer monitor screens, mag. field corruption 3933
point 3D posn. measuring syst. for detecting fixation point on screen *(Japanese)* 3930
sonar graphical display influence of ship speed *(Croatian)* 3633
stereoscopic display, eye-posn. tracking for multi-viewers 34627

screens, fluorescent *see fluorescent screens*

screens, phosphorescent *see fluorescent screens*

screw dislocations
Si, film, on SiO_2, CVD growth, defects, TEM obs. 21878

scrubbing (abrasion) *see abrasion*

SCSI *see peripheral interfaces*

scuffing *see abrasion*

SDH communication *see synchronous digital hierarchy*

SDHT *see high electron mobility transistors*

SDI *see information dissemination*

SDI (weapon systems) *see military systems; missiles; weapons*

SDL *see specification languages*

SDM *see space division multiplexing*

sea ice
acoustic array (vertical), sub-ice deployment 10513
Alaska SAR Facility imagery, sea ice type maps 10520
Antarctic/Arctic sea ice, radar backscatt. comparison 42527
Arctic sea ice thickness determ., polarimetric SAR appl. 43529
class., ERS 1 SAR imagery/Landsat TM images 10518
coastal polynya area estim. method, satellite microwave data 43519
conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
Ekstromisen ice shelf, Antarctica, satellite radar height obs. 4399
icebergs, radar detect. 8416
image anal. syst. for sea ice maps from space 18886
multiyear Arctic sea ice, melt onset obs., ERS 1 SAR data 10519
radar rem. sens. of age & thickness, SAR tracking method 43522
rem. sens. for ice motion, opt. data automated method 10550
snow covered first-yr. sea ice, microwave scatt. 7973
thickness determ., SAR data, comprehensive automated approach 26730

sea-of-gates *see logic arrays*

seafloor phenomena
acoustic backscatt. of seafloor, sediment struct. effects 10445
cable laying into seafloor, SHRIMP seismic investig. method 18817
coastal oceanography, monitoring of environ. change 26736
geotechnical and geoacoustic props., meas. tools 4404
GFDL ocean circ. model on CEDAR multicluster archit. 18888
image texture class., spatial-point proc. model 34183
laser imaging at close range, triangulation method syst. 18905
lidar for underwater targets, pulse modulated method 10444
manganese nodule areas, acoutic refl. characcts. 43476
mapping ocean sediments by RBF networks 10557
ocean acoustic scatter from mid-Atlantic ridge corners, CW and time-domain simul. 18882
ocean waveguide props., extraction, broadband pulse sigs. 18880
OCEANS 94, conference 60
opt. imager, Nd:YLF laser (green) 18904
seafloor imaging, side scan sonar, neural image class. 18809
seismic deep sea array for subbottom profiling, AUV syst. 18812
seismic exploration of phys. props., GEOSIS project 18816
seismic profiling of seafloor, PASISAR high resoln. syst. 18815
sonar, French deep water multibeam echo sounder 26716
sonar, multibeam swath bathymetry, return angle estim. 26715
sonar, sediment profiling and obj. detect. 10435
sonar, sidescan, advanced digital sidescan archit. 10436
sonar, synthetic aperture imaging, resoln. increase 18853
sonar characterisation, non-uniform ambient noise 18805

seafloor phenomena continued
sonar detect. of seafloor objs., nonlin. interact. 10442
sonar equipt., Shirshov Oceanology Inst. 10514
sonar imagery, multibeam wide swath methods 26713
sonar imaging, image proc. by tangent clusters 18810
sonar imaging, side scan, shade correction method 18808
sonar imaging, sidescan, geometric corrections 26709
sonar imaging of seafloor, French wide swath methods 26714
sonar mapping, ACID synthetic aperture sonar 18852
sonar multibeam method, mosaic computation 18807
sonar SAR/seismic streamer syst. , PASISAR 10437
sonar scatt. at 40 kHz, expts. & models 18802
sonar side scan imaging, DELPH-SONAR image proc. 18806
sealing *see seals (stoppers)*
seals (stoppers)
see also glass-metal seals
gastight SOFC stacks, soft glass ceramic sealing 44381
hermetically sealed Stirling engine batt. charger 27973
hybrid MCM, mixed interconnection considerations, wire bonding, flip chip and TAB 21709
Kori Units 3/4, station blackout transient 27486
O-ring degrad., semicond. proc. contamination source 29994
opto-electronic component assembly, soldering technols. 39609
planar SOFCs, stacking perform. expts., Denmark 44323
power syst. polymer arresters, moisture sealing testing 27272
Reprocon LV sealed switchgear relays 36381
SAW delay line packaging, manufacture and perform. anal. 39117
sealed motors, sleeve losses calc. studies 10945
SMT relays, reliab., heat stress during reflow soldering *(Japanese)* 6411
solar cells, hermetic sealing methods 11287
Stirling engine alternator operating experiences, USA 28044
thermal CHP plant leak sealing safety experiences, Germany *(German)* 4821
thermally driven liq.-vap. phase-change microactuation 34455
thermoelec. convertors, space power appl. studies 20037
thermoplastic die attach for hermetic packaging 21666
transfer-molded packaging for opt. data links 11783
Si_3N_4 plasma deposited coatings for sealed COB MCM technol. 12961
search problems
for online searching see information retrieval
see also backtracking; tree searching
2D sigs., data-depend. sampling 33123
A2A3 air traffic control testbed using embedded AI technology 10418
adaptive IIR filtering, fast convergent genetic search 32705
adaptive vector quantisation speech coding, codebook search algm. 32412
ATM network hitless line protection switching 41409
bidirectional associative memory, optimal radix, searching algms. 21483
bitonic sorters, detect. and location for single faults 16431
brain anatomical struct. recog., genetic algm. 2799
branch adaptive random search method 28652
CELP coding, speech class. embedded in adaptive codebook search 8226
CELP model, computationally efficient adaptive codebook search 40714
CELP speech coder, FS-1016, with multistage search, complexity reduction 33686
chordal graph, domination elimination orderings 37268
colored-obj. detect. for mobile robot 24537
component reel arrangement problem in PCB assembly 948
constrained contouring in polar coord. 2666
constrained optimisation, nonmonotone line search 230
continuous speech recogn., models and algms. 8209
continuous speech recogn., string hypothesization algm. 32395
cpd. sig. modified recurrent search *(Russian)* 16051
cursive script recogn., time delay neural networks and HMM 32661
data path synthesis, scheduling algm., Tabu search tech. 21044
deinterleaving pulse trains 2481
depth-from-focus/defocus, Fibonacci search/curve fitting 2754
design spec. component selection, genetic algm.-based 37024
digital parallel VLSI archit., fuzzy database mining 677
digital seq. reduced-state seq. estim. 40535
disparity detect. in stereo vision syst., cepstrum tech. 2853
distrib. network loss minimization re-config., genetic algm.-based *(Japanese)* 43746
distrib. network optimal switching planning, fuzzy inference-based 27179
distrib. network optimal switching planning, fuzzy inference appl. 19268
distrib. network restoration, ES-based heuristic methods 19244
dyn. problems, cooperative search scheme 24851
elec. motor, optimal design, genetic algms. 19580
enhanced response surface methodology algm., gradient-deflection and second-order search strategies 11941
eqn.-error adaptive IIR filters, bias removal 24201
error-correcting code design, probabilistic neural net 40711
fast seq. decoding algm. based on dyn. searching strategy 2376
fast VQ, sorted codebook *(Japanese)* 8531
fault diagnosis algms. for analog/mixed sigs. 29403
fixed L-ary seq. in random data, search duration 40543
FS1016 CELP coder, stochastic codebook, dyn. partial search 33702
fugitive-search games on graphs and related params. 37269
gate-level design diagnosis, learning-based search strategy 12462
genetic algms., nature's methods simul., design soln. 28643
global optimal search algms. 28648
graphs, degree/diam. problem 2980
GSM, M-detector, coherent receiver antenna diversity, perform. 17040
hierarchical pattern recogn. systs., efficient search strategies 24736
high-speed arithmetic codec archits. using interval tree search 42087
hybrid NN-HMM systs., model-discriminant training algm. 32435
HYPER-LP, high-level synthesis syst., appl. specific datapath intensive CMOS ccts. 12401
image VQ using ordered codebooks, props./appls. 2739
indoor radio propag. prediction, ray splitting model 9258
induction machine optim. conflict problems, univariant search method 11053
inverse queueing network anal., improvement on computational efficiency 11901
invertible binary seqs., search/constr. 40610
isolated word recogn., model topol. selection 32360
LAN, all opt., multiaccess with wavelength/code concurrency 41797
Lempel-Ziv data compression cct., content addressable memory *(Japanese)* 12664
Lempel-Ziv parsing algm., av. profile/limiting distrib. 32059
LIMSI continuous speech dictation syst., eval. 32342
search problems continued
logarithmic barrier fn. in quadratic prog., line search techs. 20565
logic synthesis and optim. of multiple-valued logic fns. 6058
max. searching method, combined global priority strategy *(Japanese)* 37287
memetic algms., formal, representation-independent 11933
mesh connected parallel computers, submesh allocation 41474
min. av. cost testing for partially ordered components 24098
minmax FIR filters design, gradient approx. method 16012
mixed 0-1 integer prog. problem, approx. method, min. conflict *(Japanese)* 28634
mixed searching and proper-path-width 20523
motion clustering, stochastic 24628
multi-viewpoint stereo meas., init. value search method, genetic algms. *(Japanese)* 2627
multilevel threshold selection for gray level images 2720
multiobjective LP, interior search directions generation, approx. gradients and anchoring points 233
multiobjective optim., interactive tradeoff cutting-plane algm. *(Chinese)* 28645
multiple view histogram representation for posn. and pose estim. *(Japanese)* 33115
multiscale phase measuring syst., param. determ. algm. 3702
multitarget tracking, quick data assoc. algm. 16056
next day peak load forecasting, ANN, modified BP learning algm. 35586
nonlocal optimisation methods, search methods, pot. theory 28641
obj. recogn., blob representation/relational voting 8550
optimal init. phase wavelet transform 24255
optimal strategies for searching in presence of errors 5741
optimal trellis-coded 8-PSK and 4-AM modulations for Rayleigh channel 8104
PCB assembly, component grouping heuristics 942
phased antenna arrays, Hopfield network based adaptation algm. 15663
phone HMM constr., model search method *(Japanese)* 32418
pitch pattern clustering, prosodic phrase segmentation 32403
plant safety and availability, integrated dyn. decision anal. 11680
point correspondences matching, simulated annealing 24600
power syst. contingency screening method, genetic algm.-based *(Japanese)* 26994
power syst. security assess., pattern recogn./fuzzy estim. ES-based 35506
precision limited analog neural networks, training method 29437
quasi-cyclic codes, computer search 32144
radial distrib. networks, optimal capacitor selection search method 19264
range arith., precise optim. 11954
resource mgt., stochastic techs. 20362
robot/computer assisted surgery, 3D anatomical surfaces matching 43252
RS codes, soft decision trellis decoding 2374
shape representation, evol. algms. 2795
SP20, computing, compression 40797
SP theory and syst., computing, compression 40620
speech coding, product code VQ 32199
speech recogn., graph search techs. 32341
speech recogn. candidates, chart parsing 32368
speech single stage spectral quantization, 20 bits 32336
spontaneous speech recogn. search algm. 32392
stochastic CFG, sentence recogn. 32367
sub-optimum receiver, convolutional codes optim. 42170
subband coded video databases, multiresolution video indexing 8486
suboptimum binary phase code search, genetic algm. 40577
successive elimination algm. for motion estim. 16317
syntactic/semantic/dialog-level constraints integrat., heuristic search 32371
target tracking/ident., likelihood-based approach 9621
TCM sigs., tunable complexity RSSE decoding 40673
TOTEM, digital proc. for neural networks and reactive Tabu search 29454
transm. network, services routeing/scheduling techs. 24839
URD cable routing, Automated Primary Router GIS 35624
word recogn., large vocab., tree-trellis search 32391
word-length determ./scaling software for sig. flow block diag. 28969
search radar
airborne multisensor surveillance, data fusion IKBS 35395
airport surface enhanced surveillance radar 10424
GPS automatic depend. surveillance of aircraft, spontaneous mode S broadcast messages 4377
microwaves in aviation, commun. and control 18778
mm-wave radars for airport surface surveillance 10421
parametric estim. of ocean surface currents, HF radar 43526
PENETRATOR, dyn. high fidelity EW encounter simul. 26830
QR decomp.-based least sq. tech., improve ATC radar 2579
scanning radars, poor resoln., neighbourhood Kalman filtering 9631
subsurface survey radar distorted pulse rectification 35280
surveillance radar, dyn. A/D converter charactn. 3614
target detect./tracking, HF ground wave radar 9641
GaAs power MMICs for X-band radar appls. 6341
search strategies *see query formulation*
seawater
colour sens. validation, scanning in-water spectroradiometer 26763
force-of-gravity power conversion systs. 27616
opt. transmissometer, 470, 565 and 670 nm operation 18903
pH meas., ISFET continuous flow method 10542
propag. of EM pulses in conducting medium, comments/reply 23586
shallow-water fishing sonar param. optim. *(Croatian)* 3632
surface EM scatt., salinity/temp. effects 10526
surface pollution detect., IR emission and refl. rel., wind ruffling *(Croatian)* 4406
CO_2 emissions disposal, deep ocean injection expts. 10848
second harmonic generation *see harmonic generation*
second harmonic generation, optical *see optical harmonic generation*
second-order optical susceptibility *see nonlinear optical susceptibility*
secondary cells
4 wheel drive elec. vehicle, integral batt. charger 5359
20 MW batt. storage syst., distrib. network stabil. appls. 35637
100 kJ Kapitza pulsed power facility status, Netherlands 36258
250 kW AC batt. syst., Pb-acid marine cell-based 36552
aircraft secondary maint.-free batts., state-of-health tests 43443
alkaline secondary batts., cellulose separator props. 36551
AMPhibian hybrid elec. vehicle, regenerative braking effects 28147
AT&T round cells, short cct. current test 19966
autonomous underwater vehicles, power systs. comparison 28106
back-up power syst. reliab. improvement, batt. monitoring 19055
batt. capacity tests, computer based eval. 19954

secondary cells continued
- batt. charging indicators, product series overview *(Japanese)* 25742
- batt. cycling automation, sinewave interface 4872
- batt. elec. vehicles, future technol. modelling 28142
- batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966
- batt. powered vehicles, batt. exchange concept 44514
- batt. preventive maint., computerised eval. 11248
- battery appls. and advances, conf., Long Beach, USA (1995) 28262
- Battery Mgt. Syst., microcomputer based *(Japanese)* 5187
- bimetallic batt. packs, overcharge/short cct. protection 5179
- Blue Angel hybrid petrol/elec. road vehicle *(German)* 11440
- broadband/multimedia services, power supplies 41994
- car batts., chemometric perform. eval., overcharge conditions 11265
- central office building power distrib., loop voltage drop optim. 43748
- chemistries, control techs. and constr. methods 19929
- computer UPS, single power convertor/batt. scheme 36272
- conducting isopolymers, prep., props. and appls. 37539
- DC telecom. power distrib. syst. overcurrent protection, batt. model 43749
- DC/DC converter, noncontact batt. charging, EM coupling 19859
- DC/DC ZVS power convertor, batt./solar cell sources 44169
- economical acquisition/use, recommendations 19957
- elec. car batt. charger, unity PF 5342
- elec. road vehicles, induction motor design criteria 11415
- elec. transit bus, Pb-acid batt. power conditioning develops. 36730
- elec. utility batt. energy storage, trends and status 35539
- elec. vehicle batt. safety eval., SERV Project 36740
- elec. vehicle drive chain power consumption model 11412
- elec. vehicle drives, time-varying adaptive μP control 36739
- elec. vehicle energy sources, current technol. review 44524
- elec. vehicle fleet monitoring, batt./charger mgt. syst. 36728
- elec. vehicle secondary batts., cost reduction efforts 44513
- elec. vehicle secondary batts., mix/demand study, USA 44512
- elec. vehicle secondary batts., recycling infrastructure, USA 44511
- elec. vehicle ultracapacitors, load levelling batt. appls. 36738
- elec.-vehicle commuter car batt. requirements 44565
- electric vehicle secondary batteries/charger technologies 20106
- electric vehicles for disabled persons, IEE Colloquium, London (1995) 28274
- energy conversion engng. conf., Monterey, CA, USA (Aug. 1994) 20201
- energy conversion engng. conf., Atlanta, GA, USA (Aug. 1993) 20225
- energy storage, status, develop., competitive business practices 10879
- fast batts. charger, voltage inflection points detect. 27908
- FITL powering, batt. reserve sizing calcs. 42066
- FTTH back-up batt. power supply monitoring 19868
- hardFET pulsed power modulators, array-type radar appls. 27820
- high perform. space power technol. options 35247
- hybrid elec. vehicle, IGBT based syst., packaging/perform. 20095
- hybrid elec. vehicles, Pb-acid batt./PEM fuel cell syst. 36725
- hybrid PV/wind/diesel power systs., computer modelling 19571
- hybrid vehicles, energy storage alternatives 28140
- hybrid/elec. vehicles, batt. chargers 20099
- INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
- INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
- Li secondary batts., gelled polymer electrolytes 19933
- life extension, charge equaliser 19964
- low power electronics, batt. technol. 44307
- low-power wireless mobile commun. syst. 3490
- maint. free UPS, advanced batt. technol. 19815
- microwave radio syst. PV power supply, project overview 19562
- mil. aircraft INS, maint.-free Pb-acid batt. develop. 43564
- multi-MW batt. storage plant, power conditioning reliab. 36081
- Ni-Cd cells, elec. vehicle appls. 5350
- Ni-Fe batt., operating conditions, perform. 5198
- $Ni-H_2$ batt. power syst., μP charger control 27921
- $Ni-H_2$ space power batteries, thermal models 26581
- Ni-MH secondary batts., develop./commercialisation 5199
- nonpolluting automobiles, energy storage, propulsion 5326
- pacemaker power supply convertor, flat transformer-based 10277
- Pb-acid automotive batts., thin pos. plate expts. 27898
- Pb-acid batt., cold-start perform. 11257
- PB-acid batts., sealed, small size, UPS appls. *(Japanese)* 5186
- Pb-acid flooded batts., high gravity, power utility appls. 44304
- Pb-acid valve regulated batt., standby telecom. appls. overview 19960
- Pb-acid valve regulated batt. condition monitoring 19953
- Pb-acid valve regulated batts., conductance testing 19967
- Pb-acid valve regulated batts., power distrib., thermal runaway 44290
- $PEO-PC-LiClO_4$ electrolyte batt., storage study 27895
- PM-excited sync. motorcar generator, design optim. 5379
- polyaniline-sulphur cpds., batt. electrode appls. 36575
- polymer electrolytes reinforced by Celgard membranes, Li batt. appls. 36517
- portable appls., rechargeable batt. types, charging methods 19764
- portable electronic equipt., trends in secondary batts. 44308
- portable equipt. power supply design, intell. batt. mgt. 36274
- portable equipt. secondary batt. cycle life, waste reduction impact 44274
- Powerstick RTG spacecraft power source 26607
- PV array max. power point tracking scheme 19559
- PV array/batt. power switch network, nonlin. SPICE model 27635
- PV DC motor pumping syst., design optim. 19553
- PV generating systs./components develop., NEDO 27622
- PV power systs., energy losses, batt. voltage regulator 36061
- PV systs., energy losses, batt. voltage regulator 10889
- PV systs. sizing, load matching, short-term energy storage 4870
- radio-nuclide initiated chemilum. fueled secondary batt. 36513
- rectifier telecom. power supplies, digital current control 19797
- rly. passenger carriage power supply, IGBT batt. chargers *(German)* 28125
- rly. substation load levelling, energy storage *(German)* 44523
- series connected batt. strings, charge equalization 44306
- series connected batt. strings, charge equalization 19932
- smart batts., elec. protocol, data content 36546
- Space Station Freedom, UPS orbital replacement unit 18762
- Space Station Freedom power syst. CAD, APSPP package-based 35251
- spacecraft, battery mgt./scheduling integration 26565
- spacecraft, battery recondition discharge cct. 26570
- spacecraft power conditioning, tri-state power converter 26677
- spacecraft solar elec. propulsion, energy storage mass impact 26608
- stand-alone PV power systs., batt. state-of-charge 19557
- standalone PV syst., concepts, economic anal. 36056
- stationary batt. UPS systs., status determ. method 36549
- stationary batts., diagnostics/perform. prediction approaches 19956
- telecom. terminal auxiliary permanent on-site generator sets 43939
- telecomm. batt. racks, earthquake resist., computer anal. 19955

secondary cells continued
- telecomm. power plant, supervision/control 19818
- telecomms. power supplies, batt. research *(Japanese)* 19768
- telephone PV power supply syst. develop., Finland 19561
- testing, VXIbus 36510
- three-phase multifn. batt. energy storage syst. 43967
- TOPEX/Poseidon elec. power syst., on-orbit perform. 26645
- TOPEX/POSEIDON satellite, secondary battery perform./management 26579
- traction batt. syst. defns. and appl. *(German)* 28132
- UBS, uninterruptible batt. syst., telecom. equipt. appl. 19787
- uninterruptible AC/DC power converter develop. 5073
- US Army batt. needs 43567
- utility batt. storage appls. 36072
- valve-regulated secondary batt. monitoring method 44299
- vehicles propulsion, develop. trends 27917
- WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
- wind power self-excited induction generators, rectifying bridge studies 36084
- XRAM pulsed power supply cct., repetitive operation studies 36256
- Ag-MH batt. syst. design/testing 19946
- Ag-Zn batt., Mars Environ. Survey Mission Pathfinder 26675
- Ag-Zn batts., electrode metal carbonate coulometric determ. 44271
- $Al-O_2$ secondary planar electrode batt. study 44268
- Al-S secondary batt., technol. overview 44275
- Al-air batts. develop., propulsion appls. 19947
- C electrode/polyacrylonitrile-based polymer electrolyte Li cells 5188
- C fibres, vap.-grown, anode perform. in secondary Li-ion batts. 44280
- $C-H_2SO_4$ secondary cell electrodes, large discharge capacity 11263
- $Fe(CN)_6$ based redox rechargeable thermocells *(Japanese)* 19945
- $[Fe(CN)_6]^{4-/3-}$ redox couple thermochargeable galvanic cell *(Japanese)* 27916
- $GaP-Co-KOH-O_2$ photorechargeable air batts. *(Japanese)* 19944
- H storage alloys, electrochem. capacity, for Ni-MH batt. 36543
- Li based batt. trends *(Japanese)* 5174
- Li batt. develops. conf., Boston, MA, USA (May 1994) 36894
- Li, electrochem. intercalation, mineral clay materials, rechargeable batts. 19934
- Li high energy batts., cathode material *(Japanese)* 19939
- Li ion batt. capacity monitoring 36547
- Li ion batts., charging, IC controller 36544
- Li ion batts. for mobile telephone equipt. 19971
- Li ion batts., high perform. neg. electrode materials *(Japanese)* 44305
- Li ion rechargeable batts. for mobile communs. 27915
- Li ion rechargeable cells, solid polymer electrolytes 36553
- Li ion secondary batts., safety eval. *(Japanese)* 19943
- Li polymer electrolyte secondary cell expts. 11247
- Li rechargeable batts., electrolytes/anodes *(Japanese)* 19940
- Li rechargeable batts., intercalation material for appl. of cathodic electrode 19935
- Li rechargeable batts., polymer gel electrolyte/electrodes *(Japanese)* 5183
- Li secondary batt. dimercaptan-polyaniline composite electrodes 27906
- Li secondary batts. *(Japanese)* 19938
- Li secondary batts. anode, electrochem. characts., graphitic struct. effect 36518
- Li secondary batts., cycling capacity determ. studies 27902
- Li secondary batts., develop. trends 36515
- Li secondary cell C electrodes, electrochem. expts. 11261
- Li secondary cells, $BC_{10}N/BC_{10}N-Li_{0.44}$ neg. electrodes, electrochem. 11245
- Li solid polymer electrolyte thin film batt., current distrib. 44283
- Li/CoO_2 secondary batt., electrochem. perform. 36555
- Li/TiS_2 secondary cells, conductive glass solid electrolyte expts. 36516
- $Li/a-V_2O_5(-P_2O_5)$ secondary cells, cathode characts. 5193
- Li/polypyrrole polymer batt., ambient-temp. rechargeable 19936
- Li-Al secondary cell electrode behaviour expts. 36554
- $Li-Li_xMn_2O_4$ secondary batts., electrochem. anal. techs. 27899
- $Li-LiMn_2O_4$ thin-film secondary batts. 36556
- $Li-MoO_3$ solid state secondary cell,, $Li_2O-V_2O_5-SiO_2$ electrolyte *(Japanese)* 19941
- $Li-SOCl_2$ thin parallel plate batteries, space power appls. 27891
- Li-Sn secondary cell electrode behaviour expts. 36554
- Li-ion rechargeable batt., high energy dens. *(Japanese)* 5182
- Li-ion rechargeable batts., devlop. 5201
- Li-polymer batts., 3D thermal modeling 5191
- Li-polymer rechargeable batt., PolyPlus 44276
- LiAl foil compressed secondary anodes, cycling perform. 11253
- LiAl-FeS batts., operation, elec. vehicle appls. 5203
- $LiCoO_2$, solid state redox reacts., secondary Li cell 5196
- $Li_2Mn_4O_9$ spinel anodes for lithium-ion batts. 5190
- $Li_4Mn_5O_{12}$ spinel anodes for lithium-ion batts. 5190
- $Li_{1-x}Ni_yCo_{1-y}O_2$ acid-delithiated insertion electrodes for batts. 5178
- $Li_{4/3}Ti_{5/3}O_4$ anode, rechargeable Li cell 11244
- $Li_4Ti_5O_{12}$ spinel anodes for lithium-ion batts. 5190
- $MmNi_5$ hydrogen storage alloys, surface treatment, metal hydride batts. 11249
- MnO_2, discharge characts., alkaline solns. 11246
- MnO_2-Zn secondary cells, operation, develop. 5200
- MoO_3 film-cathodes in Li microbatteries, electrochem. features, growth conditions 5180
- $Na-Na_xCoO_2$ batts., solid polymer electrolyte batts. 19949
- $Na-NiCl_2$ zebra batts., β-alumina electrolyte 5202
- Na-S modular batt. energy storage unit, utility appls. 19572
- $Na-SeCl_4$ molten salt batt., math. modelling 19950
- Na_xMNO_2 batts., solid polymer electrolyte batts. 19949
- Na_xMnO_2 orthorhombic cathode material for secondary Na and Li polymer batts. 5189
- $Nb_2O_5/LiCoO_2$ secondary cell electrodes, charge-discharge characts. *(Japanese)* 44278
- Ni-Cd aircraft batts., life cycle testing 43442
- Ni-Cd batt. perform. model 27920
- Ni-Cd batt. satellite power systs., orb. mgt. strategy 26609
- Ni-Cd batt. trends *(Japanese)* 5174
- Ni-Cd battery perform. modelling, neural net-based 27914
- Ni-Cd batts., Ni layered double hydroxides, electrosynthesis 11266
- Ni-Cd batts., X-ray Timing Explorer Power syst. 26650
- Ni-Cd batts., charging, IC controller 36544
- Ni-Cd batts., costs reduction, space indust. 26671
- Ni-Cd batts., electrode metal carbonate coulometric determ. 44271
- Ni-Cd batts. for mobile telephone equipt. 19971
- Ni-Cd batts. in solar cell power unit *(Japanese)* 5215
- Ni-Cd batts., life testing, ESA 26669

secondary cells continued
- Ni-Cd cells, flight/ground testing, TOPEX/Poseidon mission 26670
- Ni-Cd common vessel monoblock secondary batt., perform. testing 44277
- Ni-Cd intell. batts., charging/discharging algms., hardware 36545
- Ni-Cd pasted fibre plate batteries, LEO cycling perform. 26580
- Ni-Cd rechargeable batt., high capacity/reliab. *(Japanese)* 5184
- Ni-Cd sealed cells, fibre substrs., oxygen recomb. 5194
- Ni-Cd secondary batt. recycling, high-temp. recovery experience, USA 44273
- Ni-Cd secondary batts., collection/recycling efforts, USA 44272
- Ni-Cd space power sealed secondary cells, separator tests 43448
- Ni-Cs rechargeable batts. for mobile communs. 27915
- Ni-Fe batt. cycling expts. 36548
- Ni-H_2 3.5 inch rabbit-ear terminal batt. 27909
- Ni-H_2 80 Ah cell, perform. charactn. 27910
- Ni-H_2 Astra 1A satellite batts., perform. improvement schemes 26661
- Ni-H_2 Clementine spacecraft common press. vessel batts. 26672
- Ni-H_2 GEO spacecraft batts., 26% KOH electrolyte tests 26664
- Ni-H_2 International Space station batt. power syst. tests 26663
- Ni-H_2 LEO spacecraft batt. pulse life testing 26662
- Ni-H_2 aerospace batts., life testing 26574
- Ni-H_2 aerospace cells, capacity fading 26577
- Ni-H_2 batt LEO life test 26573
- Ni-H_2 batt. designs, spacecraft power systs. 26572
- Ni-H_2 batt. electrodes, KOH conc. interplay 27912
- Ni-H_2 batt. qualification, ARTEMIS satellite 26571
- Ni-H_2 batt. testing, Hubble Space Telescope 26575
- Ni-H_2 batt.-powered bicycles, propulsion motor options 28144
- Ni-H_2 batts., Deep Space Probe Science Expt., elec. power syst. 26646
- Ni-H_2 batts., in-orbit internal impedance determ. 26567
- Ni-H_2 cells, charge efficiency testing 27896
- Ni-H_2 cells, storage-induced capacity loss 27911
- Ni-H_2 common press. vessel cell, charging schemes 27919
- Ni-H_2 common pressure vessel batt., spacecraft, impedance 26568
- Ni-H_2 secondary batts., H_2 storage microencapsulation expts. 27897
- Ni-H_2 secondary batts., develop. trends 36515
- Ni-H_2 secondary batts., reversal react. expts. 27904
- Ni-H_2 secondary batts., terrestrial power syst. appls. 36071
- Ni-H_2 secondary cells, LEO destructive life testing 11256
- Ni-H_2 secondary cells, $MmNi_5$ Ni-Pd coated neg. electrodes 27907
- Ni-H_2 secondary cells, Ni electrode discharge FEM model 27918
- Ni-H_2 secondary cells, Zircar ZYK-15H separator fabric 27913
- Ni-H_2 single press. vessel space power batt. designs 43446
- Ni-H_2 space power battery, gas diffusion electrodes 26582
- Ni-H_2 spacecraft cells reconditioning 26576
- Ni-H_2 spacecraft secondary batteries, electrolyte expts. 26578
- Ni-H_2 spacecraft secondary batts., advanced separator expts. 26668
- Ni-H_2 spacecraft secondary batts., empirical modelling 26667
- Ni-H_2 spacecraft secondary batts., technol. develop. status 26666
- Ni-MH batt. capacity monitoring 36547
- Ni-MH batt. cycling expts. 36548
- Ni-MH batt., high capacity *(Japanese)* 5185
- Ni-MH batt. syst. design/testing 19946
- Ni-MH batt. trends *(Japanese)* 5174
- Ni-MH batts. for mobile telephone equipt. 19971
- Ni-MH intell. batts., charging/discharging algms., hardware 36545
- Ni-MH rechargeable batts. for mobile communs. 27915
- Ni-MH sealed batts. for elec. vehicles, characts. *(Japanese)* 5327
- Ni-MH secondary batts., develop. trends 36515
- Ni-MH secondary batts., safety eval. *(Japanese)* 19943
- Ni-MH space power batteries, preliminary FMECA 26583
- Ni-MH_2 bipolar batt., design, perform. 19948
- Ni-MH_x space power secondary batt. develops. 43447
- Ni-Mh_2 bipolar elec. vehicle batt., cell design/eval. 36714
- Ni-Zn alkaline batt., charge-discharge proc., additives effect *(Japanese)* 11242
- Ni-Zn batts. for mobile telephone equipt. 19971
- Ni-Zn batts., operation, devlop., problems/soln. 5351
- NiMH batts., charging, IC controller 36544
- $Ni_{1-y}Mn_yO_2O_{2-z}$, ageing interstratification, Ni-Cd cells 27905
- NiO spacecraft secondary batt. electrodes, fab. overview 26665
- α-$Ni(OH)_2$ electrode material, stabilised, Ni secondary cells 5195
- $Ni(OH)_2$ rechargeable batt. electrode characts. 36521
- NiOOH secondary electrodes, act. material/additive distribs. 11255
- $Ni_{64}Zr_{36}$, fiber anodes for Ni/hydride rechargeable batts. 11250
- PB-acid batt., $BaPbO_3$ pos. plate additive, effects 11252
- PB-acid batt. service life prediction, PV systs. 36527
- PB-acid valve regulated batts., advantages/disadvantages 11269
- Pb battery conf., Geneva, Switzerland (1994) 28213
- Pb secondary cells, rapid charging studies 5192
- Pb-Ca automobile batts., reliab. studies 36540
- Pb-Ca type car batt., high-temp. durability *(Japanese)* 5328
- Pb-PbCaSn secondary batts., pulsed current charging expts. 36524
- Pb-PbSb secondary batts., pulsed current charging expts. 36524
- Pb-Sn secondary batt. alloy pass. layers, XPS studies 11260
- Pb-acid automobile starter batt., computer model 36541
- Pb-acid automotive batt., pos. plate energetics expts. 36533
- Pb-acid automotive batts. prod., Russia/CIS 36525
- Pb-acid batt. PbSb electrodes, PbO_2 form. kinetics 27900
- Pb-acid batt., $SnSO_4$ in H_2SO_4, electrochem. behaviour 11264
- Pb-acid batt. deterioration estim., pulse discharge/charge charact. 19937
- Pb-acid batt. develop., PV syst. appl. *(French)* 19969
- Pb-acid batt. develops./market, China 36526
- Pb-acid batt. elec. buses, design/develop progress 36726
- Pb-acid batt. electrodes, citric acid effects 11259
- Pb-acid batt. energy storage systs., utility appls. 36080
- Pb-acid batt. glass fibre separators, tech. compatibility/safety 36550
- Pb-acid batt., high rate, fast charge, sealed constr. 44300
- Pb-acid batt. impedance meas., maint. tool 44297
- Pb-acid batt. impedance testing 44294
- Pb-acid batt. indust., environ. legislation impact 36537
- Pb-acid batt., low maint., rem. PV syst. appl. 36528
- Pb-acid batt. manufacture, scrap Pb recycling 36535
- Pb-acid batt. pastes, mixing proc. study 36530
- Pb-acid batt., repeater PV power supply 19565
- Pb-acid batt. scrap recycling, low-temp. tech. 36536
- Pb-acid batt., single-point-watering syst. 36534
- Pb-acid batt. state of charge modelling, dyn. conditions 11270
- Pb-acid batt. strings, impedance meas. 19965

secondary cells continued
- Pb-acid batt. systs., theory, develops. 36520
- Pb-acid batt. temp. meas., subscriber loop carrier cabinets 44293
- Pb-acid batt., tubular PbO electrodes, discharge behaviour 44281
- Pb-acid batt./rectifiers based DC bulk power plant 44190
- Pb-acid batts., Pb-Sb alloy electrochem. props. 11258
- Pb-acid batts., charging, IC controller 36544
- Pb-acid batts., condition assess., batt. monitors 44279
- Pb-acid batts., operation, develop., commercial impact 5197
- Pb-acid batts., substituted benzaldehydes, H_2 inhibitors 36542
- Pb-acid car batts., dual elec. archit. 36729
- Pb-acid compressed cell, PbO_2 electrodes, cycle life test 11267
- Pb-acid elec. vehicle batts., monitoring/control model 36539
- Pb-acid elec. vehicle onboard batt. mgt. syst. 36727
- Pb-acid flooded batts., perform. monitoring, telephone office 44198
- Pb-acid high-rate fast-charge batt. design 36522
- Pb-acid immobilised electrolyte batt., valve design 44286
- Pb-acid pulsed discharge bipolar batts., design/perform. 44270
- Pb-acid recombinant batts., neg. plate failure anal. 27901
- Pb-acid sealed batt. surveillance syst., POWCOM program 44301
- Pb-acid sealed batts., deterioration estim. 44296
- Pb-acid sealed batts. deterioration estim. method *(Japanese)* 19942
- Pb-acid sealed batts. for elec. vehicles, characts. *(Japanese)* 5327
- Pb-acid sealed maint.-free batt., Boeing 777 appl. 43444
- Pb-acid sealed valve regulated batt., impedance testing 19952
- Pb-acid secondary batt. electrode mfg., Bi refining/alloying 36563
- Pb-acid secondary batt. plates, paste mfg. proc. 36529
- Pb-acid secondary batt. plates, phase comp. expts. 11254
- Pb-acid secondary batt. rubber separators, perform., selection 36532
- Pb-acid secondary batt. separator technol. 36531
- Pb-acid secondary batt. state-of-charge, float current monitoring 44303
- Pb-acid secondary batts., PbCaSn electrode passiv./corros. 36561
- Pb-acid secondary batts., PbO_2 paste electrode behaviour 36574
- Pb-acid secondary batts., PbSb grid corros. study 36564
- Pb-acid secondary batts., PbSb:Bi grid age-hardening/corros. 36562
- Pb-acid secondary batts., PbSbSn grid precip. hardening 36560
- Pb-acid secondary batts., PbSn electrode pass. layers 36573
- Pb-acid secondary batts., distributed/bulk power design concepts 44284
- Pb-acid secondary batts., electrode reduction expts. 44282
- Pb-acid secondary batts., failure modes experiences 36572
- Pb-acid secondary batts., life extension designs 11251
- Pb-acid secondary batts., pos. post chloride corros. 36565
- Pb-acid secondary batts., state-of-charge prediction 11268
- Pb-acid secondary cells, Pb alloy grid R&D overview 36558
- Pb-acid secondary cells, grid/pos. act. mass interface studies 36557
- Pb-acid standby power batts., life testing methods 19962
- Pb-acid stationary batt., computerized test equipt. 17674
- Pb-acid stationary telecom. batts., pos. grid studies 41621
- Pb-acid stationary valve regulated batt. spec. prep. 19970
- Pb-acid submarine batts., gas evol./perform. assess. 36566
- Pb-acid telecom. power supply batts., total monitoring syst. 41630
- Pb-acid telecom. reserve batt. plant float voltage uniformity 43969
- Pb-acid tubular pos. plate secondary cells, submarine appls. 44517
- Pb-acid valve regulated batt., UPS, H_2S/SO_2 evol. 19951
- Pb-acid valve regulated batts., H_2 evol., cellular installations 44289
- Pb-acid valve regulated batts., ageing effects tests 19963
- Pb-acid valve regulated batts., modular installation 44288
- Pb-acid valve regulated batts., standby telecom. power supply appls. 19959
- Pb-acid valve regulated batts., telecom. appls. 19958
- Pb-acid valve regulated batts. testing 44291
- Pb-acid valve regulated batts., thermal runaway prevention 44287
- Pb-acid valve regulated gel batts., standby power appls. 19961
- Pb-acid valve regulated secondary cells, PbCaSn grid expts. 36559
- Pb-acid valve regulated/flooded batts., reliab./maint. 44295
- Pb-acid valve-regulated 24 V aircraft batts., conductance testing 43445
- Pb-acid valve-regulated automotive batts., operating experiences 36570
- Pb-acid valve-regulated batts., PV telecom. power supply perform. 41629
- Pb-acid valve-regulated batts., deep cycle appl. charging 44269
- Pb-acid valve-regulated batts., glass fibre separator design 36569
- Pb-acid valve-regulated batts., microfiber glass separator expts. 44285
- Pb-acid valve-regulated batts., operational experience 36567
- Pb-acid valve-regulated batts., reliab. testing 19968
- Pb-acid valve-regulated batts., telecom. UPS appls. 41628
- Pb-acid valve-regulated secondary batt., conductance/impedance tests 44298
- Pb-acid valve-regulated secondary batt., elec. vehicle appl. 36538
- Pb-acid valve-regulated secondary cells, life testing 44292
- Pb-acid valve-regulated telecom. batts., expert mgt. syst. 41632
- Pb-acid valve-regulated telecom. batts., maint. costs reduction 36571
- Pb-acid valve-regulated telecom. batts., ratiometric reliab. meas. 41631
- Pb-acid valve-regulated telecom. power supply batt. perform. 41623
- Pb-acid valve-regulated test batt., float operation perform. 36568
- Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
- PbCaSn wrought tubular Pb-acid batt. grids 36523
- Si solar cell array based transportable power supply 36598
- Ti-KOH-O_2 photorechargeable air batts. *(Japanese)* 19944
- V redox batt., polyolefin cation exchange membrane 11243
- V redox batts., C-polypropylene composite electrode expts. 27894
- V redox batts., graphite-felt electrode, overcharge expts. 11262
- V_2O_5-$LiNb_2O_5$ rechargeable coin type batt. characts. *(Japanese)* 5181
- Zn secondary batts., organic corros. inhibitor studies 27903
- Zn/Br secondary batts., solar Stirling power generation appls. 36055
- Zn/NiOOH cell, shape changes, visual obs. 36519
- Zn-Br_2 elec. vehicle secondary batts. 44516
- Zn-MnO_2 rechargeable Leclanche cells, elec. vehicle appl. 36514
- Zn-air elec. vehicle batt. 44515

secondary electron emission
- electron gun, electrical characts. 21796
- ESD anals. for spacecraft in geosynchronous orbit 35213
- fast X-ray imaging, secondary electron emission gaseous detectors 18348
- IC passiv. layer probe holes charging dyn. 13836
- insulators, secondary electron emission, Monte Carlo study 14006
- plasma source ion implant., cost estim. 22148
- plasma-anode electron gun, beam current 6474
- resists, CD meas., sub-0.5-μm devices 13487
- resists, secondary electron line scans, local elec. fields 13470
- TOF spectrometer, intrinsic efficiency model 18392
- BeO CFA tube cathodes, secondary electron emission props. 6475
- CsI, photoelec. and secondary electron emission, field enhancement 29744

secondary emission
see also secondary electron emission; secondary ion emission
long pulse electron beams from cathode 21795

secondary ion emission
see also secondary ion mass spectra
Si(100), ion beam-induced oxid., ion emission 6655

secondary ion mass spectra
diamond:B,N, elec./opt. charactn. 21891
diamond:N,P, cvd epitaxy, enhanced dopant incorporation 30046
diamond:P films, hot filament CVD, P addit. effects 28819
diamond crysts./superlattices, isotopically engineered 38502
diamond deposition domain from various C-H-O(-Ar)-containing gaseous mixtures, press. influence 37477
diamond films, plasma-assisted CVD, porous Si substr. 12137
diamond high mobility CVD films, electron-hole mobility 6517
diamond metal-semicond. and MIS structs., elec. charact. 6582
elemental and cpd. semiconds., Ga FIB implant. 30016
IGBT and MCT struct., 2D dopant profiles 30280
III-V surfaces and metal contacts, ion beam etching, SIMS obs. 13344
ion implant., neg. ion tandem high energy accelerators 30024
semicond. wafer, wet cleaning, contamination, chem. anal. 1237
sub-0.5 μm CMOS, shallow source/drain jn. technol. 1496
TFTs, low temp. fab., multi proc. reactor 13739
ultrathin dielec., microwave afterglow O_2/N_2O plasma growth 37505
Al/SiO_2/3C-SiC:Na(K) MOS capacitors, ionic contamination 13254
Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
AlGaAs p-n jns., GaAs(111)A substrs., MBE growth, Si doping 20879
AlN substr./Ti thin films, interface form. kinetics 20459
Au/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
Au-Te-Au-GaAs Schottky contact interface states capacitance, thermal effects 29950
a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
3C-SiC undoped CVD epilayer, carriers orig. *(Japanese)* 1067
CdTe:N MBE films, photolum. and p-type cond. 1038
CdTe/CdS/Au/Cu heterojunction solar cell/ohmic contacts syst., Cu effects 20001
Co/Si(SiO_2), ion-beam mixing, Monte Carlo simul. and expts. 22023
Co/Ti/Si(100), thermal proc., interdiffusion, phase form. 1203
Cr-Cu-Ni-Au film syst., electrolytic deposition, temp.-time stabil. 6659
Cu_3Ge thin films on Si(SiO_2), stabil. 1301
Cu_3Ge/n-GaAs ohmic contacts, microstruct./elec. charactn. 6573
Ga(Al)As:H,S(Se)(Te), hydrogen-group VI donor interacts., passiv. 38258
GaAs, CBE, tris-dimethylaminoarsenic 28738
GaAs crysts./superlattices, isotopically engineered 38502
GaAs, low-temp. surface cleaning, trisdimethylaminoarsine 13358
GaAs two-chamber MBE growth on Si(111), cryst. quality 337
GaAs:Be, polycryst., heavily doped, diffusion props. 1043
GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
GaAs:C, polycryst., heavily doped, diffusion props. 1043
GaAs:Si, MESFET, ion implant., mass resoln. effects 30039
GaAs:Si, Si diffusion by RTO 38523
GaAs:Si, at. layer doped, thermal stabil. 22110
GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
GaAs:Si, planar doped, autocompensation 22111
GaAs:Si, quantitat. anal., quadrupole-based SIMS *(Chinese)* 30053
GaAs:Si^+,Se^+, ion implant., struct. anal. 30031
GaAs:Si,Be, periodically δ-doped, carrier lifetime meas. 21907
GaAs:Sn, n-type doping, MBE 1207
GaAs/AlAs quantum wells, MBE growth interruption, nonradiative recomb. 332
GaAs/InGaAs, δ-doped heterostruct., hot carriers, NDR transistor 30374
GaAs-WN Schottky contacts, plasma deposited, thermal stabil. 22033
GaP, interrupted cycle CBE on Si, photon assistance effects 28766
Ge crysts./superlattices, isotopically engineered 38502
Ge ultrathin δ-layers in Si matrices, SIMS profiling 38241
Ge:O crysts./superlattices, isotopically engineered 38502
$Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
$Hg_{1-x}Cd_xTe$:I, MBE grown, n-type doping 6611
InAs/AlSb quantum wells, structural/transport props. 1128
InGaAs, O contamination, rel. to MBE growth 12131
n-InGaAs layer, thermal stabil. of ohmic contact 29953
$In_{0.53}Ga_{0.47}As$:C, metalorganic MBE, doping profiles, carrier dens. 28777
p-InGaAs/Pd-Zn(Cd)/Ge implanted shallow ohmic contacts, HBT appls. 38698
InGaAs-GaAs-InGaAsP graded index heterostruct. for 0.98μm lasers 12183
InGaAsP strained quantum well, VPE, laser appl. 12130
InP Epi-ready wafers, growth character 12071
InP regrowth by GSMBE, rel. to surface treatment 12051
InP:Be, Be distrib. control in gas-source MBE 12064
n-InP:Fe, Fe implant., SI layer form. 1210
InP:Fe, Mg, Mg/P, Mg/Ar implants, elec./opt. charactn. 29856
InP:Sn, ion implant, RTA, anal. meas. 38465
InP/InGaAs:Be HBTs, highly doped base layer/suppressed diffusion, ALE/CVD growth 6729
InP/InGaAs/InP heterostruct., highly strained, mobility enhancement 13111
Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
Pd/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
Si, epilayers on Si, deposited after DC H_2 cleaning, X-ray curve charactn. 38618
Si epitaxial layers, ECR plasma CVD, ellipsometry obs. 28721
Si, excimer-laser-induced etching 30097
Si, near-surface layer defects, RIE in SF_6-CCl_4-O_2 plasma 13337
Si, polycryst., ECR plasma etching syst. 6636
Si polycryst. films, hot wire CVD 5883
Si, polycryst., grain-boundary defects, plasma treatment effects 13321
Si, polycryst., growth from SiF_4/SiH_4/H_2 plasma 20937
Si porous layers, electron powder ribbon polycryst. plates 20662
Si surface oxide removal by RTP, SiH_2Cl_2 and H_2 22223
Si, surfaces, patterned, selectively metallized, SIMS anal. 6647
Si wafer contacts, bonding, $CoSi_2$ 1191
Si:Al,P, diffusion profiles under RTP conditions 21875
Si:B, MBE growth, elec. props., reciprocal lattice mapping 304
Si:B, MeV implant., masking effects 30040
Si:B, δ-doping, APCVD 22112
Si:B, ion implant., spreading resist. profilometry/SIMS obs. 22117

secondary ion mass spectra continued
Si:B(Al)(Ga)(As)(Sb) polycryst. films, sublimation method growth and doping 20972
Si:B(P), low-energy implant., RTA/furnace annealing, XRD optimisation 22102
Si:B,Al, doping/epitaxial regrowth 6609
Si:Er cryst., Er opt. activation, excitation, conc. limits 38483
Si:F, recrystn., at. redistribution, F 1s NEXAFS 38521
Si:H, defect passiv./light-induced metastability 13359
Si:H, microcrystalline, elec. props., degrad. kinetics 21881
μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
n-Si:Li,Au, defect complexes, DLTS/SIMS/C-V profiling 38601
Si:N, plasma ion implant., depth profiles 6615
Si:O films, low temp. CVD grown, struct. 20974
Si:P crysts./superlattices, isotopically engineered 38502
Si:P,B CVD film struct./morph. 29841
Si:Sb,B substrs., sub-PPB B contamination determ. 6522
Si:Sn(001), strain determ. and microstructural charact. 22150
Si/Ge abrupt interface form., at. H in Si MBE 12039
Si-SiO_2 MOS surface layer defects, ECR etching in Cl_2/O_2 plasma 6631
SiC random alloy epitaxy on Si by RTCVD, SiH_4 and C_3H_8 20848
SiC:Al(B), ion implant., SIMS/RBS/photolumin./Hall/C-V obs. 38484
SiC:N,Al,B, CVD, unintentional contaminants incorporation 20901
$Si_{1-x-y}Ge_xC_y$, heteroepitaxial films, CVD on Si(100) 369
SiO_2 1.5 μm thick films, rapid nitridation in NH_3 ambient, SIMS study 13328
Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
TiN/n-GaAs Schottky contact interface post-anneal perform., N role 38384
$TiSi_2$ form., UHV annealing/RTA, SIMS/XPS study 22276
TiW thin films, sputter deposition 28829
W-AuGeNi-GaAs ohmic contact metallization, RTN 38580
W-AuZn-GaAs ohmic contact metallization, RTN 38580
WSi_x CVD as-deposited/oxidized films, DCS-based, comp./struct. 38664
WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
$ZnGeP_2$/GaP multiple heterostruct. on GaP substrs. 21959
ZnS/GaAs heterostruct., H transport VPE, struct. anal. 37393
ZnS(Se), low temp. MBE on GaAs, hot mol. beams *(Japanese)* 37413
ZnSe MOVPE growth, O and Te impurities effect 20890
ZnSe:I, VPE growth, I incorporation 5848
ZnSe:N, MOVPE growth, cathodolum. charactn. 20788
p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413
n-ZnSe/Sb Schottky barriers, I-V props./SEM/XPS/SIMS/Auger spectra 30100

security locks (electronic) *see access control*

security of data
see also authorisation; computer crime; computer viruses; cryptography; data handling; data privacy; message authentication
access control scheme, high data security 15773
adaptive calib. algm. for synchronized chaos 8156
AOS, avionics OS for multi-level secure real-time environ. 8939
Asia Pacific region developing economies, computer security 3068
audio teleconferencing security 25071
automatic imposter detect. in telephone speech 32251
bidirectional star network, secure data commun. protocols 33286
binary bar codes, decode algm. 15788
broadcasting, public key distrib. design 40698
campus network traffic anal. prevention method 8940
cascade vulnerability problem solving algm. 33538
CATV data network syst. security 34264
CDMA approx. synchronized syst. sig. design 24784
chaotic based commun. tech., secure commun. environ. 2864
commun. security, terminals/access mechanisms 3049
computer and network systs., secure syst. anal. and integrat. 16650
computer network security in heterog. environ. 16651
computer networks, data security *(Slovenian)* 41856
conf. on security technol., Ottawa, Canada, Oct. 1993 36875
conference, Paris, France (June 1994) 24870
DDT, Internet tunneling technol. 16749
DDT, versatile Internet tunneling technol. 41785
dead-beat chaos sync. in discrete-time systs. 24001
distributed and network system security conf., San Diego, USA (1995) 11601
distributed systems security conf., San Diego, USA (1994) 5452
distributed systs. reliab. conf., Princeton, USA (1993) 36876
distributed virtual simul., networking 25019
EDI standardisation, eval. and certification, X.400, PEDI, X.435 and security services *(French)* 25025
EINet, secure, open network for electronic commerce on Internet 8938
electronic mail security *(Slovenian)* 41738
ESRF distrib. control syst., access control/security 18213
European perspective on commun. security 33325
FIND2, multimedia/distributed inform. sharing systs., develop. *(Japanese)* 3264
gas company, mobile mapping syst., CD-ROM *(Japanese)* 42213
global store server, multimedia teleservice component 16869
GSM syst., security aspects/mgt. 3351
inform. age, security technol. 16551
inform. obj. security, location-independent 24964
Internet, electronic payments 24965
Internet, security/legal aspects 16695
Internet Engineering Task Force, security awareness 24979
Internet privacy, voluntary guidelines 16740
Internet safety measures 41908
key generation systs., alg. aspects 8153
legislation and electronic mail 16629
microprocessor-based systems, data corruption risk 29296
mobile IP, secure short-cut routing 24845
multiple secrets, secure transm. in broadcasting networks 40697
MultiSIX, multi-vendor network interoperability 24946
NERD, Network Event Recording Device, anom. detect./notification 24966
NetWare security, guide for network managers 41687
networked computing, transparent mistrust 16649
Ohio metropolitan area, telecomms. infrastructure needs 8798
open systems security standards, Africa 33584
PC network mgt., are vendors meeting user needs 41688
perfect threshold secret sharing scheme, identify cheaters 40690

security of data continued
private commun. groups in packet-switched networks 8956
Proctor and Associates Secured System Access Line, develop. 3269
random seqs. generated by LFSR with nonlin. fn., anal. *(Korean)* 32095
RCAS external interface, secure Email gateway 8936
SNIF, network inform. flow surveying tool 24967
STU-III-multilevel secure computer interface 9082
telecomm. systs. security 33350
telecomms. fraud mgt. 3039
telecomms. indust., competitive intell. gathering 3054
telecomms. networks, security techs. 33349
telecomms. syst., security and IN 33633
trusted, untrusted network connectivity 16672
UMTS directory services, security aspects 9209
upper layer products, archits. and appls., conf. Barcelona (1994) 29
voltage division multiplexing in commun./computer engng. 24746
weak secret access control improvement 40703
World-Wide Web conf., Darmstadt, Germany (1995) 36872
security of information *see security of data*
sedimentation
see also disperse systems; sediments; water treatment
nonBrownian sedimenting spheres, hydrodynamic self-diffusion, particle vel. flucts. 18148
water-in-oil emulsion separation, microwave heating-based 44595
sediments
see also sedimentation
acoustic backscatt. of seafloor, sediment struct. effects 10445
cable laying into seafloor, SHRIMP seismic investig. method 18817
deep seafloor, multibeam echo-sounder sig. anal. 35340
ERS-I SAR image of Thames estuary, visual interp. 26746
high spectral resoln. coastal ocean imagery, stat. and empirical anal. 18879
hydroacoustical expts., Kalmarsund, Baltic Sea 35339
image texture class., spatial-point proc. model 34183
mapping ocean sediments by RBF networks 10557
normal incidence echo-sounding, refl. and reverberation 4402
SAMPLE syst., concept of benthic station 26759
seabed, nodule abundant areas, refl. sound charact. 43476
seafloor geotechnical/geoacoustic props. meas., tools 4404
seafloor imaging, side scan sonar, neural image class. 18809
seafloor imaging, sonar sig. proc., tangent clusters 18810
seafloor obj. detect. by sonar, nonlin. interact. 10442
seafloor props. investig., GEOSIS seismic project 18816
seismic deep sea array for subbottom profiling, AUV syst. 18812
shallow water HF bottom/subbottom backscatt. 4403
sonar, sidescan, advanced digital sidescan archit. 10436
sonar bottom class. methods 18814
sonar for seafloor sediment layers, obj. detect. 10435
sonar for seafloor studies, Shirshov Oceanology Inst. 10514
sonar imaging, side scan, shade correction method 18808
sonar multibeam method, mosaic computation 18807
sonar scatt. at 40 kHz, expts. & models 18802
sonar side scan imaging, DELPH-SONAR image proc. 18806
sonar sidescan imaging, geometric corrections 26709
sonar/seismic streamer deep tow syst., PASISAR 10437
Seebeck effect
3D interface elements for modelling complex pot. drops 40193
electrochem. systs. thermoelec. effects, nonconventional thermogalvanic cells 27882
power generation using thermoelec. element, anal. 20046
B-rich semiconds., high-efficiency high-temp. thermoelec. energy conversion 28012
$(Bi_xSb_{1-x})_2Te_3$ molten zones, buoyancy-driven convection 12020
$Bi_2Sr_2Ca_2Cu_3O_x$ tape, thermoelec./thermomagnetic effects 39219
Bi_2Te_3:In,Pb, intrinsic defects, elec. method studies 1068
$Cu_x(Dy_2S_3)_{1-x}$, thermoelec. props., elec. resist. 13093
n-$Hg_{1-x}Cd_xSe$, thermoelec. fig. of merit 21919
SiGe-GaP alloys, thermal cond., elec. cond., Seebeck effect 38246
YBaCuO HTSC thin films, thermopile effect, laser radiation heating 22714
SEEDs
155 Mb/s FET-SEED free-space switching network 14649
all opt. SEED switching systs., appls. 9143
analog differential SEEDs, lin. image differentiation 1743
free-space digital opt. SEED switching systs. 3301
LEOS, Lake Tahoe, NV, USA (July 1994) 39
logic syst., VCSEL array input 39788
MQW modulators in smart pixels, wavelength optimis. 22934
multistage interconnection network systs., opt. devices, design 1829
nonbiased bistable SEED in asymmetric Fabry-Perot struct. 1730
parallel opt. data links, VCSELs 42367
quantum confined light modulators 7400
S-SEED operation with noise, BER anal. 22946
S-SEED switching charact. 14520
shallow QW SEED in asymmetric FP etalon struct. 14530
VCSEL arrays, conf., Los Angeles, CA, USA (Jan. 1994) 36835
CdTe/CdZnTe MQW SEED, RT photorefr. effect 30990
GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891
GaAs/AlAs opt. differentiator, Wannier-Stark localization, space charge screening 14504
GaAs/AlAs, p-i-n photodiode superlattices, transm. intens. oscills. 14602
GaAs/AlGaAs FET-SEED, smart pixels and saturation charact. 14657
GaAs/AlGaAs smart pixels, picosecond switching 23056
GaAs-AlGaAs FET-SEED technol. based ring oscillators 23057
GaAs-AlGaAs proton-implanted MQW modulators for low-photocurrent SEEDs 14528
InGaAs/InP SEED, opt. switch/power discriminator 15112
InGaAs/InP superlattice waveguide device, opt. multistable operation 1716
segmentation, image *see image segmentation*
Seidel theory *see aberrations*
Seignettoelectric materials *see ferroelectric materials*
seismic tomography *see geophysical techniques; seismology*
seismic waves
see also seismology
event class. by ANN 35288
event class. by fuzzy logic 35290
gravit. field detector for large seismic waves, sig. proc. 43480
head waves in piezoelec. half space, model 18945
land VSP data, wave excitation proc. 43496
seismic waves continued
multiple seismic wavefronts, vel. MLE 43462
P-wave vel., HF fluct. 43490
seafloor acoustic backscatt., sediment struct. effects 10445
signal discrim. by radial basis fn. network 35289
seismographs *see seismometers*
seismology
see also earthquakes; seismic waves; seismometers
3D iterated fn. systs., discrete seqs. representation 2499
ABWR, SBWR std. plants, seismic design 35897
BUG small array data, events automated class. scheme 26699
BWR, next century, short core study, seismic design 35915
cable laying into seafloor, SHRIMP seismic investig. method 18817
computed tomography by neuro-fuzzy inversion 43500
data homomorphic deconvolution effectiveness 35291
deconvolution of marine survey data, adaptive algm. 18811
energy source and reflectivity estim. by seismic inversion 43490
event class. 35290
event class. by ANN 35288
fuzzy functional-link net for seismic trace editing 26712
Hartley transform for detect. of seismic events 43492
higher-order stats., allpass systs. ident. algm. 32648
land VSP data, multicomponent near-surface correction 43496
marine seismic profiling, F90 & PVM synthetic seismograms 18813
marine sparker source efficiency 10443
migration error in transversely isotropic media 35285
multiple seismic wavefronts, vel. MLE 43462
multisensor/knowledge fusion, seismic prospecting 43464
neural nets, real-time sig. class. from seismic sens. 2743
noise removal from surface scatt. wave sig. 4385
noisy fn. eval. and delta coding algm. 8493
NPP, seismic anal., vert. pumps/motors 35900
nuc. plant seismic eval., Unresolved Safety Issue A-46 35899
nuc. power stations, earthquake ground motion, eastern US 35896
nuc. safety related systs., components, seismic qualification 35902
param. estimator bias, finite-difference regularization operators 43491
pre-stack seismic proc. 43495
prestack waveform inversion, target-oriented 35284
quasidistributed fiber-optic interferometric pickups, seismology appl. 17867
refl. profiling, multiple suppression, nonlin. filter 35283
seafloor acoustic backscatt., sediment struct. effects 10445
seafloor class., wideband sonar method 18814
seafloor obj. detect. by sonar, nonlin. interact. 10442
seafloor props. investig., GEOSIS seismic project 18816
seafloor sediment sonar profiler, obj. detect. 10435
seafloor seismic determ. of phys. props., GEOSIS project 18816
seafloor seismic imaging, deep tow sonar/seismic array 10437
seafloor seismic profiling, PASISAR high resoln. syst. 18815
seafloor subbottom profiler, acoustic system for AUV operation 18812
seismometers on seafloor, automatic calib. syst. 10438
sens. array sigs. deconvolution, time-scaling 32615
sparker source for marine surveys, parab. reflector 18794
sparse deconvolution, Gaussian mixtures 24242
submarine cables, reuse for seismometry & geoelectricity 10441
time-domain tests for Gaussianity/time-reversibility 8422
traveltime tomography, adaptive-grid formalism 43499
traveltime tomography, min. vel. variance 10425
seismometers
see also seismology
calib. of ocean bottom stations, automatic syst. 10438
magnetoelastic seismoacoustic instrums. 10427
ocean bottom seismometers, instrum. effects minimization 35294
Seafloor Borehole Array Seismic System (SEABASS) 10432
seafloor seismic imaging, deep tow sonar/seismic array 10437
submarine cables, reuse for seismometry & geoelectricity 10441
selective dissemination of information *see information dissemination*
selectively doped heterojunction field effect transistors *see high electron mobility transistors*
self-adjusting systems
see also learning systems; model reference adaptive control systems
adaptive load freq. control with dual-rate sampling, design method 35559
adaptive PSS, turbine governor control 4564
asynchronous machines, direct self control algm. modelling 11041
composite PSS, auxiliary self-tuning/fixed param. controller design 35507
DC motor ASD, self-tuning digital controllers appl. 5316
DC motor drives, separately excited, tunable fuzzy logic control 20076
dyn. interconnected systs., decentralized pole-assignment self-tuning controller 35560
FACTS, bilinear predictive control, thyristor controlled capacitor 4582
furnace, elec., fuzzy adaptive controller, proc. control appl. *(Korean)* 5389
induction motor drive, self-tuning control 36645
induction motor drives, direct self control/field orientation 36688
induction motor drives, vector control, auto-tuning method 36682
indust. motor controllers, self-tuning digital control 20154
inform. detect., entropy 32019
long-dist. power syst. adaptive generation control *(Japanese)* 10689
opt. flow detect., real time, self-tuning syst. 24719
photorefr. grating opt. resonator, self-organized learning of purely temporal inform. 14329
piecewise toroidal recog. 24414
PM sync. motors, digital self-tuning tracking controller 11009
proc. control, torque disturbance effects 5265
PSS design, self-tuning regulator 19194
self-tuning fuzzy controller, switching control modes 27748
steam power plant, self-tuning cascade temp. control 27549
superheated steam temp. self-tuning fuzzy control 10855
sync. generators, automatic voltage regulators design 36116
sync. motor drives, inverter-fed, self-controlled, perform. characts. 5289
sync. motor drives, self-controlled, computer modelling 11337
sync. motor drives, self-controlled, steady state perform. 11389
synchronous motor, self-controlled, current fed, simul. 19613
turbogenerator, online adaptive stabilisation 4505
turbogenerators, adaptive control, parallel proc. 27672
variable reluctance motor, voltage-fed, dyn. model *(French)* 10994
variable speed DC motor drives, fuzzy self-organising control appl. 36689
VSI, digital adaptive hysteresis current control 19756
PZT films, polaris. reversal, adaptive learning metal-ferroelec.-semicond. FET appl. 39098

self-diffusion
  nonBrownian sedimenting spheres, hydrodynamic self-diffusion, particle vel. flucts. 18148
  polymers, metal diffusion study 12201
  Cu diffusion, Cu/Al-Cu based thin film IC metallizations, comparison 38648
  a-Ge/Ag layered systs., metal-mediated crystn. 38404
  InGaAlN, competitor of ZnSe for light emitting devices 23053
  Mo thin film AMTEC electrodes, lifetimes 28016
  PtW thin film AMTEC electrodes, lifetimes 28016
self-dual codes *see dual codes*
self-electro-optic effect devices *see SEEDs*
self-focusing
  see also electrostriction; optical self-focusing
  act. sonar array for underwater imaging, self calib. *(French)* 17482
  colour digital still camera, video CCD sens. 9715
  sonar beam pattern disturbance of deformable supple array *(French)* 17483
self-induced transparency
  cryst. film, SHG in VUV and X-ray region 15126
  four-wave freq. mixing, transparency induced by additional strong field 31552
  pyridyl analogues, hyperpolarizabilities, elec.-field induced SHG 15131
  reson. waveguide, self-induced transparency soliton stabil. 39378
  spherical microcavities, enhanced two-level opt. reson. 40120
  tolanes, hyperpolarizabilities, elec.-field induced SHG 15131
  Rb, EM-induced transparency, Zeeman splitting effects 40073
self inductance *see inductance*
self learning *see unsupervised learning*
self-optimising systems *see self-adjusting systems*
self-organising feature maps
  2D kohonen neural network in multimedia speech recogn. 32448
  3-phase converter, fault diagnosis, Kohonen ANN class. 36376
  3D EM problems, mesh generator, self-organising finite element tessellation 2170
  arc patterns, shape approx., dyn. neural networks 41304
  biological/computer vision, spatial freq. inform., self-organising feature map 33117
  chip implement. 29455
  cluster anal. via Kohonen self-organizing, map 41281
  CMOS analogue synapse for Kohonen, maps 29421
  color image compression, neural nets 16347
  color images anal., biol.-like neural net model 41212
  DC motor, model following nonlin. control syst., GMDH algm. *(Korean)* 27746
  digital implement. of self-organizing maps 29469
  digital movies, optimized, maps 33047
  DS/CDMA receiver, self-organizing multiuser detect. 25239
  dyn. gesture recogn., neural networks 32817
  dyn. speech recogn. tasks, connectionist approach 32428
  edge preserving VQ by self-organizing map 41371
  edge-preserving VQ, self-organizing map learning 16140
  EM field problems, self-organizing finite-element tessellation, automatic mesh generator 40199
  EMG class. by hybrid neural net 43205
  extraction and multivariate data projection via neural nets 24696
  extraction topol. preservation index 41184
  fully parallel Kohonen map, mixed analog digital approach 29440
  gated neuronal archit., spatio-temporal feature maps, invariant prop. 33037
  GIS abnormality detect., self-organizing neural net appls. 27854
  HDD spindle motor mech. testing, ANN 36210
  hierarchical analog fault diagnosis, neural net approach 42734
  Hopfield network for attributed relational graph matching 24568
  image compression, hybrid neural networks 16226
  image compression, neural based optimal VQ 33063
  image compression, neural network approaches 24397
  image seq. compression, intraframe coding, DCT-VQ 16389
  image VQ using ordered codebooks, props./appls. 2739
  induction motor, condition monitoring, unsupervised learning ANN 4943
  ISAR radar image recog. by neural net 9633
  isolated utterance recogn. associative memory scheme 32423
  isolated word recogn., hybrid neural network 32429
  isolated word recogn., SOFM-HMM/inertia *(Korean)* 24155
  Korean continuous speech, self-organization, maps and dyn. VQ *(Korean)* 2435
  L-shaped cell placement by neural nets 30416
  land cover multi-spectral rem. sens. data classif. 35360
  load forecasting, data anal., Kohonen feature maps 19207
  lofargram lines detect., unsupervised neural networks 34174
  LPC params. for noisy channels, VQ 32329
  LSI module placement method, Kohonen, maps *(Japanese)* 28979
  mammograms segmentation, multiple linked self-organising neural nets 35032
  noise robust vector quantisers, neighbourhood fns. effect 33068
  opt. systs. 31043
  pattern recogn., competitive self-organizing neural network 41364
  pattern recogn., Fuzzy Self-Organizing Map 8578
  PD recogn., neural networks appl. 1535
  power syst. fault diagnosis, AI methods perform. eval. 19030
  power syst. security assess., Kohonen classifier 27073
  power syst. security assess., systolic accelerator-based 19009
  power syst. short-term load forecasting, neural net-based 19201
  power syst. short-term load forecasting methods, computer-based 27093
  PWM inverter drives, Kohonen self-organising ANN appl. 44447
  radar target recogn. schemes, neural networks 34157
  rainfall estim., satellite imagery, hybrid neural net 43518
  range image segmentation, multilayer self-organizing, map 24389
  rem. sens. spectral image class., Kohonen neural net *(Chinese)* 43478
  SBP, hybrid neural model for pattern recogn. 24404
  segmental phoneme recogn., piecewise lin. regression 32221
  signal segmentation using self-organizing maps 10457
  small elec. motor diagnosis/QA, unsupervised classifier design *(German)* 11834
  still monochromatic images compression, VQ neural network 33069
  supervised/unsupervised hybrid opt. neural networks, JTC 31033
  surface sampling for shape representation, self-organising 41365
  target class., multisensor, using unsupervised neural net 33051
  texture generation by self-organizing neural net 33064
  texture segmentation, pyramidal Gabor fns. and self-organising, maps 24363
  through hole solder joints automatic inspection, automated inspection 42705
self-organising feature maps continued
  turbogenerator modelling, self-organizing neural net-based *(Chinese)* 27677
  VLSI cell placement, self-organizing scheme 5962
  VLSI implement. of mapping neural network 6270
  VLSI placement, optim. and neural network based design techs. 497
  VLSI rect. cell placement, force-directed self-organizing maps and delta learning rules 5965
  voiced stop consonant recogn. by block-windowed ANN 32422
  VQ, tree-struct. self-organizing, maps 16120
  wireless LAN system 33470
self-organising storage
  CMOS analogue synapse for Kohonen, maps 29421
  photorefr. grating opt. resonator, self-organized learning of purely temporal inform. 14329
self-organising systems *see self-adjusting systems*
self-phased arrays *see antenna phased arrays*
self-propagating high-temperature synthesis *see combustion synthesis*
self testing *see automatic testing*
self-trapping *see self-focusing*
self-tuning control *see adaptive control; self-adjusting systems*
self-tuning systems *see adaptive control; self-adjusting systems*
Selfoc optics *see gradient index optics*
selsyns *see synchros*
SEM *see scanning electron microscopy*
semantic networks
  automatic knowledge based extraction of objs. of real world from scanned maps 41333
  natural spoken lang. understanding via hierarchical HMMs *(German)* 40735
  syntactic/semantic/dialog-level constraints integrat., heuristic search 32371
semantics (programming languages) *see computational linguistics*
semi-insulating materials *see semiconductor materials*
semiconductor alloys *see semiconductor materials; semiconductors*
semiconductor counters
  see also germanium radiation detectors; position sensitive particle detectors; silicon radiation detectors
  4π charged-particle detector array operating charact. 18341
  ALEPH expt., LEP, slow control syst. 18304
  astronomy instrumentation, conf., San Diego, CA (July 1994) 5466
  CdTe detector syst. develop. 18314
  conference, radiation meas./appls., Ann Arbor, USA (May 1994) 5488
  conference, semiconductors for room-temp. radiation detectors, USA (1993) 28268
  contaminated wounds, Pu/Am assess., semicond. detectors 35202
  cpd. semicond. materials for nuc. detectors, review 43091
  D0 tracker upgrade, B phys. projections 4180
  diamond:He^+ film detector, Raman/photoluminesc. charactn. 43089
  diamond:Na (Rb) (P), low energy implant., detector appl. 38497
  diamond, natural IIA, elec. props., detector appl. 43088
  diamond, natural type IIa, HI sub-ns detect. 43090
  diamond, synthetic, X-ray study, dosimeter appl. 43404
  diamond, synthetic type IIa, carrier mobility/lifetime 38234
  diamond, type IIa detector, photoconductive props. 43157
  diamond CVD films, elec. props., detector appl. 38233
  diamond detector as fast neutron spectrometer, 14.6 MeV energies 10150
  diamond microstrip detector, high energy phys. 4188
  diamond MSM device, detector appl., photoresponse 38447
  dRAMs, radiation sens. appl. employing SEU 18316
  EDXRF analyzer, portable, PC based, environ. contaminants meas. 18799
  ionising radiation detect. fund. 43065
  JFET X-ray detectors 43162
  L3 silicon microvertex detector and electronics 10106
  MOS pixel readout for single-sided 2D detector 34933
  opt. fibre sens. syst., gamma irrad. effects 25870
  PET detector modules based on novel detector technols. 18464
  PIN neutron detector with thick absorber, sensitivity calc. *(Chinese)* 34922
  pixel vertex detectors for high lumin. expts. 4187
  radiation resist. improvement of semicond. detectors 18376
  room-temp. semicond. detectors for nuc. materials safeguards 43066
  RT semicond. detectors, phys.-chem. props. effects 43095
  Si X-ray detectors and pixel detectors 18302
  STAR detector design for RHIC collider 18336
  surface barrier detectors, pile-up/defective pulse rejection 10145
  tracking devices at future colliders, readout and data acquisition 4232
  ultra-low noise preamplifier for room temp. X-ray detectors 43138
  very high gain APD, radiation detect. 14601
  vis./UV photons, gaseous detectors 18339
  vivo radiotracer monitoring by portable gamma spectrosc. syst. 18468
  CdTe X-ray/gamma-ray detectors, recent progress 4208
  CdTe and $Cd_{0.8}Zn_{0.2}Te$ γ-detectors, perform., elevated temps. 4213
  CdTe detector for X-ray imaging, capacitance loading/discharging 4267
  CdTe, detector grade, crystallograph./metallurg. charact. 43102
  CdTe, detector grade, doping, compensation 43103
  CdTe detectors, afterglow effects 4211
  CdTe detectors array, X-ray security imaging 43158
  CdTe detectors, correction of incomplete charge collection 18315
  CdTe detectors, γ-ray spectra, charge trapping, ballistic deficit effects 18319
  CdTe detectors responses to pulsed X-rays, growth method effects 43083
  CdTe detectors, semi-insulat. material prep., internal field distrib. 4212
  CdTe γ-ray spectrometer, Monte Carlo simul., time/energy resol. 4246
  CdTe gamma-ray spectrometers perf. 43159
  CdTe γ-rays detector simul. 43084
  CdTe hemispherical detector response matrix generation 18317
  CdTe, planar detectors, pulse proc. 43086
  CdTe:Cl, I-V characts., detector appl. 43087
  CdTe:Cl, X-ray detector material, deep levels, PICTS study 43156
  CdTe:Cl, elec./opt. props., detector appl. 43085
  CdTe:V,Z,Cl, Bridgman/traveling heater grown, detector appl. 43101
  CdTeSe:Cl, elec./opt. props., detector appl. 43085
  CdZnTe and HgI_2 room temp. detectors, hard X-ray astrophys. appl. 4209
  CdZnTe energy selective arrays for indust. and med. radiation imaging 18407
  CdZnTe ionization detectors, single polarity charge sens., coplanar electrodes 10105
  CdZnTe pixellated gamma detector arrays 18350
  $Cd_{0.9}Zn_{0.1}Te$ single cryst. radiation detectors 18318
  $Cd_{1-x}Zn_xTe$ radiation detectors 43104
  CsI(Tl)/Si-photodiode detector, X-ray sig. pulse shape anal. 18311

semiconductor counters continued
GaAs, IR detectors, band-gap struct. 18364
GaAs detector diodes, deep-levels, impedance spectrosc. anal. 43099
GaAs detectors, act. region, charge collection efficiency 34934
GaAs detectors, act. region, charge-collection efficiency 26126
GaAs detectors, charge collection efficiency 26205
GaAs fast photoconductor responses, subnanosec. proton pulses 43098
GaAs, growth techs. effect on photon detect. capabilities 43100
GaAs radiation detectors, charge collection studies 43097
GaAs radiation detectors for ionizing elementary particles and X-ray radiation 4250
GaAs semi-insulating detectors, low energy X-ray detection 34935
GaAs:Cr, X-ray detector material, deep levels, PICTS study 43156
$HgBr_xI_{2-x}$ radiation detectors, Processing and charactn. 43096
HgI_2, X- and gamma-ray detectors for space appls. 43072
α-HgI_2, cryst. struct., topol., X-ray anal. 43081
HgI_2, crysts./detectors, PIXE/ion backscatt. spectrosc., impurity anal. 43071
HgI_2, detector etching effects 43080
HgI_2 detector systs., X-ray fluoresc. anal. capability 43073
HgI_2, elec. contact material stabil. 43079
HgI_2, electronic and opt. props. 43077
HgI_2, elemental impurity anal. by ICP/MS 43070
HgI_2, extrinsic defects incorporation, detector fab. 43076
HgI_2 gamma-ray spectrometers, electronic charactn. 43078
HgI_2 microdetectors, low-energy gamma-ray perform. 4192
HgI_2 microstrip detector, resistive charge division readout 43074
HgI_2, multielement detector systs. for X-ray/gamma-ray imaging 43068
HgI_2 sens. based robotic method for creating radiation maps 43069
α-HgI_2, surface modifs., dark currents 43082
HgI_2, variable angle spectrosc. ellipsometry 43094
HgI_2:Ag crysts., defects, rel. to X-ray/γ-ray detector perform. 43075
PbI_2 X-ray detectors, electronic noise 18320
PbI_2, crysts./detectors, PIXE/ion backscatt. spectrosc., impurity anal. 43071
PbI_2, high energy γ-ray detector appl. 43093
Si detector X-ray/γ-ray probe, backscatt. det., struct. nonuniformity meas. 4210
Si surface barrier detectors, neutron meas. in TFTR 26148
Si-GaAs, X-ray detector material, deep levels, PICTS study 43156
Th(BrI), photodetectors for scintillation spectrometers 43092

semiconductor defects *see crystal defects*

semiconductor device manufacture
use for commercial manufacture only
AC-coupled Si microstrip sens., fab. proc. 10140
aircraft avionics cooling, microchannel heat sink 26542
clean room changing room design, semicond. manufacture 37057
conference on electronics mfg. technol., Baltimore (1992) 11580
deep submicron MOSFETs, param. changes caused by mfg. flucts. 1391
defect class., fuzzy expert syst. 1192
defects, image display/anal., laser scanner 32818
design for assembly strategy in global companies 37033
diode-pumped solid-state-lasers, high-duty-factor, high-av.-power, economics 31365
dry turbo vac. pump appl., semicond. mfg. procs. 22204
economics 29998
electronics indust., national competitiveness 29821
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
electrostatic charge control, wafer prod. damage prevention 7896
fault isolation during semiconductor manufacturing using automated discovery from wafer tracking databases 6605
feedforward and adaptive feedback control 13572
FET based press. sens., fab./constr. 3785
first-wafer effect, rem. plasma proc., photoresist/polysilicon stripping 22203
FRACAS, failure reporting/corrective action, semicond. mfg. equipt. 28416
fuzzy logic model, semicond. proc. control 20414
gas delivery systs., contaminants in semicond. mfg. 6599
gas handling in semicond. manufacture, cost-purity trade-off 6598
Gunn millimetre-wave devices, fab., integral heat sink/bonding ribbon 12772
III-V PV cells, manufacture 5223
III-V wafer fab. procs., hazardous waste minimization 5716
IMPATT millimetre-wave devices, fab., integral heat sink/bonding ribbon 12772
integrated power packaging, trends, driving forces 11752
LD array economics, price/vol. market 31363
lean prod. in semicond., new process introduction 36951
material handling systs. design, semicond. mfg. 11721
metal contamination monitoring, surface photovoltage, SPC 38458
metal recovery/water recycling, electronics mfg., integrated solns. 11885
mfg. service provider selection, OEM considerations 36978
microscopic contamination, SAXPS anal. 38457
n-MOSFET with thin gate oxide, plasma-induced transconductance degrad. 30357
nonhazardous alternative chem. for semicond./PCB proc. 37213
O-ring degrad., semicond. proc. contamination source 29994
optim., simul., response surface/Taguchi methods 28404
param. var. influence of climatic factors 13574
photomask scrubbing machine, integrated motion syst. 30084
photoresist ashing, on-line diagnostic monitoring 22209
photoresist technol. for deep-UV lithog., sub-half micron linewidths 6670
power Darlington transistor fab., student lab. exercises 30255
proc. flows, automatic synthesis, planar fab. 1266
prod. planning/yield learning 20381
RTSPC, software utility for real-time SPC and tool data anal. 22211
scheduling policies, perform. anal. 114
short run mfg., Kalman filtering proc. control 37166
Soft Face thermal interface material, component coating 5585
solar cells, plasma etching, health/safety concerns 44406
spacecraft PV power technols., future trends 26685
SPC, semicond. testing, tester capacity, productivity 104
spectral ellipsometry for semicond. proc. in situ diagnostics and control 22200
TCAD for semicond. device/IC/proc. design and modelling 13861
virtual wafer fab./assembly/test facilities, operational planning 11699
AlGaAs-GaAs heterojn. solar cells, prod./props. 11285
$BaSrTiO_3$ hybrid uncooled IR detectors, producibility advances 17792
$Cu(In, Ga)(S, Se)_2$ solar cells, charactn./modeling 44403
GaAs E-mode MESFET technol. for low power/noise appls. 12780
GaAs PDB microwave diodes, ESD failure 29556
GaAs semicond. spark gap, pulsed power appls. 36426

semiconductor device manufacture continued
GaAs wafer breakage, impact on proc. facilities 38459
GaInP/GaAs tandem solar cells, high-efficiency 19998
$Ga_{0.51}In_{0.49}P$-GaAs, RIE selectivity, HBT appls. 38832
InP-based heterostruct. device/cct. proc. facility design 29996
Si devices, proc./manufacture, 0.25 μm technol., trends 6814
a-Si solar cells, recent advances 27951
Si solar cells, waste material-mfg., testing 19981
Ta_2O_5 thin film capacitor for giga-bit DRAMs, low-temp. integrated proc. 21594
ZnO varistors manufacture, seed grains/ threshold voltage rel. 29608

semiconductor device metallisation
2D simul. of oxide/silicide growth, phys. based proc. simulator 1296
allylcyclopentadienyl palladium, electron-beam-induced pattern deposition 6676
CMOSFETs with reduced jn. capacitance, $TiSi_2$ salicide, e-beam lithog., SPICE 30358
contact resist., graphical anal. 22025
deep submicron CMOS devices, fab. and delay time anal., simul. models 30361
diamond:B film/metal high temp. contacts, reliab. issues 22045
diamond/Ti-Au(-Ag)/Al CVD diodes, high temp. stabil. 22046
dual-gate FET struct., fab. 30383
III-V HBTs, reliab. issues 22386
large area concentrator buried contact solar cells 19984
microstruct., fab., retarding-field focused ion beams 13485
PEC multiple nano contacts, solar energy storage appls. 27887
UMOSFET, high-speed, double-layer W gate, selective CVD 30343
Ag MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
Al microchip bond pads, oxide layer F contamination, wafer storage 30141
Al vac. deposited thin film characterisation, SiO_2-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
AlGaAs/GaAs fully-planar HBT technol., selective CBE regrowth 844
AlGaAs-GaAs-AlGaAs HEMT/quantum well laser monolithic integrat., MBE/technol. 1945
Au MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
Au/Pd/Ti-based ohmic contact on AlGaAs/GaAs:C HBTs, elec./struct. props. 38701
Au-Cr-Au-Zn-Au multilayer metallizations to InP, elec. props. 38660
Au-GaAs Schottky diodes, cryogenic/RT, current transport 38390
Au-GaAs diodes, lateral Schottky barrier height var./crit. length 38383
Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
Au-PtSi-Si diodes, lateral Schottky barrier height var./crit. length 38383
Au-Te-Au-GaAs Schottky contact interface states capacitance, thermal effects 29950
Au-Zn-Au ohmic contacts to p-InP, elec./metall. charact. 38388
Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
$CoSi_2$ thin film proc., thickness scalability and thermal stabil. 22274
Cr-Ni, excimer laser induced nonplanar metallization of Cr mask material, tactile sens. 30503
Cu thin film dissolution in dil. $CuCl_2$, microstruct. effects 13433
$Cu/TiN/TiSi_2/n^+$-Si contact syst., RTN and characts. 38700
ErN(P)(As), electronic struct., metallization appls. 38670
$Ga_{1-x}Al_xAs$-GaAs HBT, fab. for rapid material anal. 22387
GaAs asymmetric Schottky-ohmic MSM photodetector 17810
n-GaAs diodes, Ni-Al based Schottky barrier enhancement, AlGaAs regrowth 38382
GaAs thin film, GaAs substr., eutectic bonding-induced in-plane strain 38341
GaAs thin film, Si substr., eutectic bonding-induced in-plane strain 38341
GaAs/AlGaAs HBT, InN ohmic contacts 38817
GaAs/AuGeNi/Au ohmic contact, WN diffusion barrier *(Chinese)* 22036
GaAs-AlGaAs MQW, $LiTaO_3$ substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs MQW, Si substr., eutectic bonding-induced in-plane strain 38341
GaInAs thermophotovoltaic cells, metallisation contacts studies 28005
GdN(P)(As), electronic struct., metallization appls. 38670
Ge/Pd/n-GaAs ohmic contact interface studied by backside Raman spectrosc. 38385
$Hg_{1-x}Cd_xTe$ MSM IR detectors, nuc. microprobe defect anal. 29987
p-InGaAs/InP/Pd/Zn/Pd/Au graded bandgap heterobarrier/ohmic contacts, resist. 38699
p-InGaAs/Pd-Zn(Cd)/Ge implanted shallow ohmic contacts, HBT appls. 38698
InP/AlInAs/AuGe/Au HEMT struct., thermally stable ohmic contacts 30363
InP/InGaAs JFET/pin photodiodes for optoelectronic integrat. 1439
InP-InGaAs MQW modulator waveguide devices, metallization/wet etch/passiv. 39461
Nb MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
Ni-InP syst., interfacial reacts. and phase stabil. 38391
Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
Pd-InP Schottky diodes, cryogenic/RT, current transport 38390
Pd-Zn-Pd-Au ohmic contacts to p-InGaAs-InP, optim. 38387
$Si/CoSi_2$ vert. MSM photodetectors, buried contacts 34500
Si/SiGe double barrier reson. tunneling struct., fab. 29942
Si-Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
Ta-Si-N diffusion barriers, RIE in CHF_3+O_2 30115
Ti-Pt ohmic contacts to InAs emitter layer, AlGaAs-GaAs HBTs 38831
Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
TiN/n-GaAs Schottky contact interface post-anneal perform., N role 38384
$TiSi_2$ n^+-p diode, shallow jn. form., characts. *(Korean)* 30225
$TiSi_2$-Si surface/interface roughness, RTA heating rate effects 22096
W mask, mag. confined dry etching, GaAs device technol. 38586
W-AuGeNi-GaAs ohmic contact metallization, RTN 38580
W-AuZn-GaAs ohmic contact metallization, RTN 38580
W-Pt ohmic contacts to InGaAs emitter layer, AlGaAs-GaAs HBTs 38831
WN_x thin films on GaAs, reactively sputtered, stabil. 38659
WSi films on GaAs, anisotropic etching 22239

semiconductor device models
see also integrated circuit modelling
0.6μm nMOS ESD I/O protection struct., EOS suscept. study 29978
1.55 μm DFB lasers with strained-layer MQW act. grating, transfer-matrix dyn. model 1993
1.55 μm semicond. laser source, gigabit/second integrated electroabsorptive modulator 1741
1-MW power MOSFET switch, SPICE macromodel 6756
1/f noise and wandering defects 13585
1/f noise sources, theoretical models 1320
1D semicond. diodes, Poisson-Boltzmann eqn., iter. spectral soln. 13602
2D heterostruct. device simulator, steady state/transient anal. 30193
2D mesh generation for complex device struct. 1328
2D MOSFET doping profile, extraction via inverse modeling 13703
2D MOSFET simul., local NMOS mobility model, screened minority impurity scatt. 1412
2D MOSFET simulator, mixed particle Monte Carlo method *(Korean)* 13684
2D of lateral magnetotransistor 9885
3-D semicond. device simulator on distributed-memory MIMD/SIMD machines 1317
3D semicond. device simul., adaptive mesh generation 1329
3D thermal model for ESD thermal runaway in semicond. devices 38788
77 K MOSFET simul., increment limit method *(Chinese)* 38783
600V punch-through-epilayer IGBTs for HVIC switching, cell design 30198
980-nm power LD beam instabil., expt. and anal. 15013
1310-nm DFB lasers, correl. of leakage-induced distortion, I-V charact. 7685
above supply voltage hot carrier distrib. in semicond. devices 13583
AC voltage regulator harmonic capability, SPICE anal. 540
act. mode locked semicond. lasers, ps pulse compression, model 31420
act./pass. semicond. OEIC, BPM simulator 14646
adaptive grid generation for semicond. device simul. 13584
alloyed ohmic contacts, sheet resist. determ., TLM model 38415
augmented device simul. models incorporating IV continuation and cct. element eqns. 1324
avalanche breakdown voltage simul. model *(Japanese)* 30202
barrier height determ. from Schottky jn. C-V meas. 38813
base resist. controlled thyristor, turn-off charact. 22395
BH diode lasers, multimode self-consistent model 23283
bipolar devices, emitter quantum efficiency, superposition principle 13625
bipolar power devices, materials and lifetimes 30205
bipolar SOI transistor with fully depleted collector, HV/speed device, model 22390
bipolar transistor, breakdown model, PSPICE cct. simulators appl. 6736
bipolar transistor, short-base transport, small-sig. anal. 13624
bipolar transistor degrad. under dyn. hot carrier stress 38849
bipolar transistor p-n heterojunction carrier generation-recomb. current modelling 6726
bipolar transistors, LF noise charact., emitter topography effect 38822
bipolar transistors, max. oscill. freq., base-collector time consts. 13661
bipolar transistors, transient base dyn., high injection 6739
bipolar-MOSFET monolithic cascode switch, VIPower technol. 6014
BJT, impact ionization, Boltzmann transport eqn. 22357
BJT self-heating, modeling, cct. simul. 22358
BJTs, 1/f noise coeffs. extraction 1351
BJTs, base transit time, phys. model 13622
BJTs, DC(AC) current crowding, model anal. 13619
BJTs, DC and AC current crowding effects model *(Korean)* 30251
BJTs, submicrometer, small-sig./large-sig. base resist. 30247
Boltzmann transport eqn., soln. in two real-space dimens. 22339
branch line quantum directional coupler 1454
buck chopper GTO thyristors, bond graph modelling 29039
buffer layer IGBT modelling for cct. simul. 30297
C_∞-continuous model for small-geom. MOSFETs 13745
C_∞-continuous small-sig. model for MOS transistor in normal operation, IC simul. 22401
C++ design and implement., semicond. wafer CAD 12293
carrier emission/capture kinetics in electrothermal/energy transport models 38787
carrier freeze-out effect, low temp. semicond. device props. *(Chinese)* 22340
CATV DFB LD, second-order distortions meas. 34004
cct. simulator incl. user-defined devices 21075
cct.-device mixed eqns. 22333
cct./device steady-state simul., nonlin. elimination 21025
class C RF amps. simul. 12341
CMOS ESD protection ccts., scaling/optim./design considerations 30471
CMOS transistors, high-field electron injection, threshold voltage 38881
CMOSFETs, channel thermal noise, 1D charge sheet model 1387
CMOSFETs, HI-induced single event transients in epitaxial struct. 13718
CMOSFETs, hot-carrier degrad., unified model, gate-to-drain capacitance meas. 6764
CMOSFETs with reduced jn. capacitance, $TiSi_2$ salicide, e-beam lithog., SPICE 30358
collector epilayer modelling of BJT in MEXTRAM model 13650
commun. LD FM transfer fn. modelling 1977
complementary IGBT, turnoff transient characts. 6765
computer-aided PIN-PD model *(Chinese)* 14597
current sharing in emitter-coupled BJTs, calc. 6068
DAMOCLES program, mcplotgl graphics, n-MOSFET simul. 22335
decoupled methods for semicond. device modeling, Gummel iter. 1325
deep submicrometer MOSFETs, intrinsic capacitance modeling 30290
deep submicron CMOS devices, fab. and delay time anal., simul. models 30361
deep submicron MOSFETs, 2D energy-depend. substr. current models 1415
deep submicron nMOSFETs under high current snapback conditions 22438
DFB LD above-threshold stabil. determ. 39875
DFB LD nonlin. distortions, power-depend. loss and leakage current 31355
diamond MIS integrated radiation imagers 9904
diamond power transistor perform. 13796
diffusion capacitance, space-charge-layer thickness modulation effects 1077
diode laser nonlin. study by equiv. cct. modelling 1976
diode lasers, elec. and opt. photocurrent noises correl. 1922
diodes, deep levels, charge exchange, injected minority carrier accumulation 13580
direct injection readout cct. model 34561
disordered semiconds. and devices, mobility edge concept 29823
DMOS device, quasi saturation, turn-off transient anal. 38434
DMOS transistors, drain doping anal., hump in leakage current 6758
DMOSFETs, HV, HF cell designs 30335
double gate IGBTs, forward blocking capability, high temps. 38907

semiconductor device models continued
double polysilicon self-aligned bipolar transistors, small-sig./noise model 21539
double quantum wells, reson. electron tunneling, coherent model *(Chinese)* 13173
double trench IGBT, struct. and anal. 38898
double-exponential diode model params. calc. 13578
double-gate SOI MOSFETs, subthreshold swing, scaling-param.-depend. model 1426
drift diffusion modelling, alg. microscopic approach 38785
drift-diffusion eqns., artificial diffusion *(Spanish)* 30195
dual gate MODFETs, submicrometer, 2D hydrodynamic simul. 38006
dual gate MOSFET, 2D pot. distrib./threshold voltage models *(Chinese)* 38893
dual-channel HEMTs, model 13768
dual-collector magnetotransistors in SOI technol. 25790
effective channel length in 0.1-μm MOSFETs 30351
emitter resist. extraction from floating collector meas. 13649
emitter switched thyristors, forward biased SOA 13669
energy flux eqn., discretization, temp. depend. carrier dens. 22328
epitaxial diamond Schottky barrier diode, fab., characts. 22350
ESD models anal. 13576
explicit method for resoln. of semicond. device eqns. 38779
Fabry-Perot LD modeling 31321
fast bias depend. device models for CAD of MMICs 38014
fast simul. of semicond. devices, multigrid method 38782
ferroelec. gate transistors, polariz. switching 38888
FET, extrinsic vs. intrinsic models 1445
FET, phase and baseband 1/f noise correl. study 833
FET MMIC design, low IMD 6332
FETs, controllable couplers, comparison 6801
field limiting ring struct., analytic model *(Korean)* 22341
Flotox EEPROM, charge bal. condition model 21300
flyback PWM power convertor, nondissipative snubber optimal design 19709
GaAs submicron MESFET devices, heat generation and transport 38921
GaAs/AlGaAs pnpn optoelectronic switches, transient modelling 39545
gain guided waveguide semicond. laser model 1994
GaInP/GaAs microwave HBTs, small-sig./noise model extraction tech. 21540
Gb/s intens.-modulated direct-detect. systs., laser turn-on delay and chirp noise effects 42460
GCOS, interactive device struct., proc./device simul. 22541
graded HBTs, current transport, anal. model 38850
GRINSCH lasers, carrier/radiation confinement 39771
GTO cond. characts., temp. effects studies 12318
GTO devices, failure mechanism, optim. for min. current crowding during turn-off 22391
GTO thyristor turn off, transient thermal effects simul. 30267
GTO thyristors, cct. oriented simul., bond-graphs 22396
GTO thyristors under snubberless operation, turn-off limitations and device failure 13664
GTO-thyristor, nonplanar, thermal runaway, 2D simul. 22392
GTOs, design of anode and gate ccts. 6741
guided-wave optoelectronic device model, FDTD/Fourier expansion method 14412
HBT, base push-out/base-collector capacitance model 13660
HBT, collector-base jn. capacitance, impact ionization effect 22380
HBT equiv. cct., param. extraction from S-params. 30258
HBT HF perform. calc., Fourier anal. 1363
HBT modelling, particle transport eqns. 6725
HBT SPICE model for large-sig. appls. 13615
HBTs, early-voltage degrad., interface states 13621
HBTs, heterostruct. hydrodynamic transport model *(Chinese)* 1353
HBTs, high-power, modeling, scaling approach 30246
HEMT, source, drain and channel resist. determ. 22489
HEMT 1-50 GHz S-params. and DC drain current modelling 12757
HEMT charge based gate capacitance model 38936
HEMT equiv. cct. determ. tech. 30379
HEMT gate-drain/gate-source capacitance meas. for modelling 30370
HEMT large sig. model for mixer anal./design 6320
HEMTs, threshold voltage, MOSFET model 38939
heterojunction microwave FETs, small-sig./large-sig. extraction techs. 12754
HF analogue perform. of MOSFETs from CMOS procs. 22411
HFET, microwave, temp. noise model 21542
high power SW lasers, waveguiding 39770
high temp. IGBT design, num. simul. program calib. 30315
high-perform. quantum well electron transfer modulators, self-consistent modeling 1733
high-speed high-power semicond. devices, modeling 13577
high-speed multiplier/VGA, simplified-transistor SPICE macromodel 6251
hot carrier flucts. and noise study 1321
hot-electron damaged LDD NMOSFETs, modelling 13751
HV bipolar SOI transistor, fully depleted collector 13617
HV semicond. devices breakdown, model, phenomenological lifetime prediction 30282
hydrodynamic formulation of energy bal. eqns., finite-element discretization 30196
hydrodynamic model, 2D tensor temp. 22324
hydrodynamic model, multilevel techs. 22334
I-V charact., folds and bifurcations 22330
IBM 0.1 μm MOSFET anal. by simul., lateral elec. field effects 30194
IC process/device numerical modelling, conf., Honolulu (1994) 38
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
IGBT, cct.-oriented static model *(Polish)* 1396
IGBT, latch-up effect, theoretical anal. 13614
IGBT, n' buffer layer, static characts. simul. 1410
IGBT, on-state characts. degrad., self-heating 1422
IGBT, punch/nonpunch through, thermal behaviour studies 1411
IGBT, short-cct. phenom., simul. 38839
IGBT modelling, bond graph techs. 13757
IGBT power convertors, turn on/off behaviour studies 44218
IGBT switches, electrothermal charactn. 13699
IGBT used in ZCS mode, turn-off anal. 30332
IGBTs, soft-switching converters, switching dyn. 30242
III-V FETs, pulsed semicond. param. analyser syst. 1431
III-V semicond. opt. waveguide modulator modeling 22924
IMPATT diode, W-band, pulsed, jn. temp. calc. model 37987
injection laser with a periodic confining layer, modeling 14969
injection laser-modulator combinations, time-depend. simul. 14952
InP-based HBTs, high-speed, design and fabrication 13626

semiconductor device models continued
insulated base MOS-controlled thyristor, num. anal. 1372
insulated base MOS-controlled thyristor, num. simul. 30268
integrated IR sens. design, computer-aided trade-off study 3838
integrated OEIC/device CAD design tools 39595
IR MQW phototransistor, Monte Carlo modeling 1802
IR photodetectors, MQW/superlattice, Monte Carlo simul. 13581
IR seeker imaging simul. real-time model based on fractal theory 18989
irrad. MOSFETs, punch-through characts. study 13731
irrad. power MOSFETs, surface generation hump 13730
irregular grid matrices, parallel iter. lin. solver 6710
isolated high power boost topol., transformer models 19745
JFETs, random telegraph sig. currents and LF noise 1432
Katzenelson-like algm., nonlin. resistive networks, quadratic convergence 5979
KYOKO, 2D proc. and device simul. coupling, NMOS transistors 1419
LAOS, light amplif. opt. switch, phys. model 7465
laser with weak coherent opt. feedback, equiv. cct. model 23272
laser/amp. for $1.3\mu m$-$1.5\mu m$ wavelength conversion 14844
lateral bipolar transistor, MOSFET struct., collector current 13620
lateral BJT, CMOS compatible, base current reversal phenom. 13651
lateral hot-electron phototransistor for long-wave length IR radiation, modeling 39563
lateral IGBT on SOI wafer, latch-up characts. improvement 13752
lateral power devices on SOI substrs., thermal behaviour 30334
lateral power diamond MESFETs, partial ionisation, charact. 1446
laterally coupled semicond. laser array instabilities/dyn. behaviour 1979
lattice self-heating/hot-carrier transport, influ. on device perform. 6711
LD, error-rate floors in intens.-modulated lightwave systs. 14877
LD output simul., mock eqns. 31425
LDD MOSFET, anal. model for static characts. 30350
LDD MOSFETs, interface state generation effects, simul. models 1417
LDD MOSFETs, virgin and stressed, charge-pumping charact. 38903
LDMOS RESURF devices for HVIC switching, on-resist. modelling/improvement 30313
LDMOS/LIGBT struct. modelling, high temps. 30336
LDMOSFET, dielec. isolated, high temp. perform. 30342
LED emission intens., photon recycling approach 39581
LED modulation bandwidth extension by pole cancel. 23032
LED spectral slicing, modelling of interchannel crosstalk 1828
lin. ion accelerator FET-switched pulsed power supply, PSpice simul. 34742
LOCOS parasitic MOSFETs, threshold voltage, reverse short-channel effect 22421
log simulated annealing for electronic component model minimization 12280
macroscopic/microscopic methods for noise in semicond. devices 1318
mag. vector probe, 3D num. anal. 25831
magnetotransistors, base region Hall field anal. model *(Korean)* 22342
magnetotransistors, mag. field sensit. modelling, HSPICE 38825
massively parallel semicond. device simul., irregular grids 1326
MASTAR, analog/digital CAD model for sub-halfmicron MOSFETs 22409
MCTs, turn-off failure mechanisms in large devices 30274
MESFET, intrinsic small-sig. equiv. cct., Monte Carlo determ. 38910
MESFET, localized interface states, transconductance 38913
MESFET, p-buffer , impact ionization regime, meas. and simul. 6793
MESFET, thermal and dispersion modelling 6798
MESFETs, HF charact., self consistent 2D Monte Carlo simul. 13809
MESFETs, Monte Carlo simul. 1437
MESFETs, noise perform., gate leakage current 38938
MeXeL simul. of micro-electromechanical systs., nonlin. partial differential eqns. 39032
microlaser lin. arrays, thermal modeling for mode-size estim. 1910
microscopic Monte Carlo simul. of electronic noise in semicond. devices 1319
microwave bipolar transistor, power-gain and f_{max} eqns. based on T equiv. cct. 6306
microwave FET equiv. cct. params., simulated annealing method 839
microwave HBTs, nonlin. SPICE model param. extraction 6309
microwave HBTs, transient thermal simul., TLM method appl. 37980
microwave oscillator, domain-driven, mobility-transit. freq. 13134
microwave semicond. device models, num. algms., finite difference schemes 12782
Miller's approx. in advanced bipolar transistors 6740
mixed photonic/electronic cct. simul. 37603
MMIC distributed amp. based on design-oriented FET model 21564
MODFET, extended drift-diffusion model, 2D num. anal. 38924
MODFETs, noise perform., gate leakage current 38938
monostable-bistable transit. logic elements, switching time 37736
MOS complex device structs. anal., triangular mesh generation 1420
MOS controlled power diodes, trench MCDs 38812
MOS controlled thyristor, latch-up mechanism, subthreshold currents, switch-back *(French)* 22399
MOS device gate oxide, hot carrier transport-injection model 22433
MOS devices, 1/f noise and radiation effects 1382
MOS devices, transient 2D simul., waveform overrelaxation 22332
MOS hydrodynamic simul., nonlin. relax. 22326
MOS microstruct., dielec. breakdown and reliab. 22062
MOS SPICE transient cct. simul., integrat. methods, noncontinuous first derivative devices 6868
MOS transistors, 1/f noise, mobility or no. flucts. 1380
MOS transistors, quantum effects 30288
MOS-gated power devices, phys. and subcircuit models 30206
nMOS/SOI transistors, ultrathin double-gate, inversion model 13691
p-MOSFET, bi-directional operation, hot-carrier degrad. model 38875
nMOSFET, HISREM model, IC reliab. projections 13704
MOSFET, Monte Carlo simulator, Poisson-transport iter. 22406
MOSFET, recomb., radiation-induced defects 6747
MOSFET, short-channel, threshold-voltage model 13695
MOSFET, threshold voltage model, reverse short channel effect 30287
MOSFET archit., sub 0.25 μm range, fig. of merit, anal. calcs. 1414
MOSFET C-V charact. dispersion, random channel dopant ion distrib. 1393
MOSFET carrier mobility model, phys.-based carrier screening effects 30360
MOSFET device perform., distrib. gate resist. impact 1402
MOSFET electron mobility in both weak and strong inversion regimes 22440
MOSFET hot-carrier aging, modeling, charge pumping methods 22444
MOSFET inversion layer, carrier mobility model, wide temp. range and different channel doping *(Chinese)* 6743
MOSFET lifetime cals., depth-depend. impact ionization 38895
MOSFET model, single expression, valid in all regions 30323
MOSFET prediction in space environ., conversion model 13735
MOSFET simul., coupling drift-diffusion and Monte Carlo models 38905

semiconductor device models continued
MOSFET simul. taking account of energy transport under non-isothermal conditions *(Japanese)* 30349
MOSFET subthreshold swing, short-channel effects 22428
MOSFET test struct., 2D device simul. 13687
n-MOSFET with thin gate oxide, plasma-induced transconductance degrad. 30357
MOSFETs, electron mobility, bulk-impurity/interface-charge 22424
MOSFETs, Fowler-Nordheim tunneling of carriers, gate current simul. 38896
MOSFETs, n-channel, Fowler-Nordheim electron tunneling, substr. hole current 38884
MOSFETs, non-quasi-static transient effects, model 22410
MOSFETs, profile doped elevated source/drain struct. 22422
MOSFETs, radiation-induced leakage current, oxide isolation struct., nonuniform damage 13716
MOSFETs, short channel, 2D charge sheet model 13693
MOSFETs, short-channel, subthreshold slope, drift model 38878
MOSFETs, submicron, small-sig. behaviour, non-quasi-static model 13689
n-MOSFETs, substr. current simul., nonlocal impact ionization model 30359
MOSFETs, unified capacitance modelling 1427
MOSFETs and interconnects, model for 1/f noise 22412
MOSFETs from liq.-nitrogen to RT, num. Gummel model 13678
MOSFETs in off-state, interface trap induced emission current 22408
MQW IR photodetectors, electron injection and transport model 42786
MQW IR phototransistor 14599
multiband Monte Carlo approach, Coulomb interact. for device anal. 6708
multielectrode DFB lasers, transfer matrix method based large-sig. dyn. model 1995
multilayer bond and etch SOI buried insulators, radiation response 13252
n- and p-channel IGBT structs., wider safe SOA 30340
n-channel IGBT integrated current sens. 34473
n-channel MOSFETs, hot carrier degrad. 13736
n-channel MOSFETs at low gate bias, hot-carrier degrad. eval. 13679
n-channel power MOSFETs, irrad., possible sources of 1/f noise 13717
n-p jn. devices, high-level free carrier injection, num./empirical model 30192
n-p-n transistors, thin base, lateral ion implant., enhanced diffusion 30245
NDR-SPICE cct. simul. of reson. tunneling devices 22336
Neurodevice, modelling interface for VLSI design 13865
nin diodes, hydrodynamic simul., vel. overshoot 22329
NMOS devices, deep submicron, closed-form phys. drain current model 1399
nMOS ESD I/O protection structs., EOS suscept. 6749
node-reduced multiterminal representations of semicond. devices, SPICE 12282
noise params., meas. method *(French)* 1356
non-punch-through IGBT, crit. switching condition 30327
nonequilibrium time-depend. functional theory, Liouvillean quantum field dyn. 6712
nonequilibrium transport, hierarchical PDE simul. 22331
nonfully depleted SOI MOSFETs, phys. charge-based model, floating-body effects 38858
nonideal metal-semicond. contacts, Schottky diode soft-breakdown, hybrid diode 1342
nonlin. BVP, appl., semicond. device eqns. 1322
nonlin. transistor model params. extraction program 13805
nonpunch-through-IGBTs, electromechanical crit. load simul. 30314
npn BJTs, radiation stress and hot-carrier stress effects on current gain 13636
num. elec. behaviour modelling of semicond. devices for 1990s 38784
numerical modelling of processes and devices, conf., Seattle (1992) 5499
off-state n-MOSFETs, interface trap-induced drain leakage current 38859
optoelectronic device simul., conf., Los Angeles, CA, USA, Jan., 1994 36838
oscill. transport instabilities, current filamentation 22338
p-channel MCT, static/dyn. behaviour tests 12319
p-i-n diodes, breakdown voltage, local/nonlocal calcs. 30214
parallel 3D simul. of semicond. devices 13586
passivated HBTs, currents and current gain anal. 6737
PbSnSe photodiodes, computer modeling of carrier transport 7461
PBT, semi-analytic model 1369
PBT, transport models/computer simul. 1368
phase-shifted DFB laser stabil. against hole burning 1996
Philips Microwave D07M foundry proc., MMIC switch FET models 6331
phys.-model description lang. for device simul. 1327
piecewise-lin. diode model for transient behaviour 22347
piecewise-lin. resistive ccts., nonseparable transistor models 21092
piecewise-lin. resistive ccts. containing transistor models, solns. 28993
planar busbar low inductive connections, power electronics 12868
PMOSFET degraded due to hot electrons, modelling *(Korean)* 30306
PMOSFET submicrometer devices, hot-carrier-induced off-state current leakage 1425
polysilicon emitter bipolar transistors, LF 1/f noise 38820
polysilicon emitter bipolar transistors, reduction of 1/f noise 13657
polysilicon emitter BJTs,ionizing-radiation and hot-carrier stress response, visualization 22361
polysilicon gate depletion effect on deep-submicron cct. perform. 1485
polysilicon gate reentrant of submicron LDD MOSFETs 1394
polysilicon inversion-type TFT DC/AC model, kink effect 22491
polysilicon n-p-n emitter bipolar transistor base current, 1/f noise anal. 22373
polysilicon TFT, short-channel, output characts. 30296
polysilicon TFT, trap-state dens. model *(Korean)* 30347
polysilicon TFTs, off-current, thermally generated component 38900
polysilicon TFTs, self-induced LDD devices, SiO_2 gate-insulator, passiv. layer 13748
power bipolar transistor elec. props., temp. influence 30254
power bipolar transistors, cryogenic operation 30259
power bipolar-mode FET, turn-on transient anal. 13813
power device simul., temp. depend. phys. models 30227
power devices, cct. simulators, look-up table models 38781
power diode reverse recovery, charge anal. approach 30217
power DMOS transistors, steady on-state operation model 30318
power electronics modelling, ES develop. 534
power electronics switching simul. models, PSPICE package-based 37636
power IGBT converters, overcurrent fuse studies 6016
power IGBT SPICE macromodel develop. 21108
power IGBT SPICE model, power converter design appls. 12316
power MOSFET model, power electronic ccts. simul. 13698
power MOSFET switching, behavioral study *(English, French)* 13706
power p-i-n diodes, PSpice-based modelling 5987
power semicond. 2-D simul., PAMSSEC package-based 524

semiconductor device models continued
power semicond. convertors, emergency state diagnostic calcs. 11138
power semicond. devices, phys. simul., discretisation techs. 38780
power semicond. diode modelling, SABER package-based 525
power semicond. switches, 3D thermal modelling software 543
power semicond. switches, transient inverse recovery modelling 538
power semicond. switches PSpice models, parametric sensitivity anal. 533
power semicond. syst. simul., educational tool 30200
power semiconds., low temp. modeling 30203
power SOI lateral p^{+}-n jn. diode breakdown voltage *(Korean)* 28999
power thyristor inverse recovery voltage calcs. 30265
power VDMOS transistor quasi-saturation, self-heating effects 30312
power VDMOSFETs, channel doping profile proc. design/optim. 30311
pseudomorphic double heterojunction power FET, optim. 12771
pseudomorphic HEMT small sig. equiv. cct. model scaling 6799
pseudomorphic MODFETs, charge control modelling/expt. perform. 6800
pulsed power nanosecond semicond. opening switch develop. 36263
pulsed power photoconductive semicond. switches, breakdown limitation 36430
pulsed power semicond. switches, opt. controlled, filamentation models 36435
PV energy conversion/storage semicond. solar cells struct. 36607
PWM invertor drivers, device current utilisation optim. 5067
quantum effect devices, finite capture time, num. simul. 13821
quantum electron flux switching modes in right angle and T-struct. 1453
quantum electron waveguide ccts., vol. integral eqn. for anal. 38941
quantum transport eqns., absorbing boundary conditions 13824
quantum waveguide transport in serial stub and loop struct. 1458
quantum well lasers, 2D simul. 39792
quantum well lasers, intens. modulation, carrier heating/transport 14865
quantum-mech. tunneling, FEM 6548
quantum-well diodes, harmonic and intermodul. generation 29570
QW bistable semicond. lasers, modeling and meas. 2000
radial distrib. of charge in HI track, concentric Schottky barrier rings 13607
rectifier cct. transient anal., diode modelling, SPICE-based 12325
reson. DC link IGBT ZVS invertors, optimal design 36342
reson. tunneling, model Hamiltonian, modern electronic devices 1456
reson. tunneling diode, C-V curve hysteresis, quantum hydrodynamic model 38799
reson.-tunneling-diodes, I-V calcs., inadequacy of 1D approx. 22355
RESURF LDMOS struct., breakdown props., analytic approach 30309
reverse-channel HV lateral IGBT, characts. study 30328
RTD large-sig. DC model suitable for PSPICE 22344
RTD modelling, transfer matrix/Airy fns. 30212
RTDs, gated, elastic scatt. and depletion effects 38803
RTT, coupled-quantum-well base, simul. 38844
scaled vert. power DMOSFETs, static I-V charact., bipolar turn-on 30291
SCH QW lasers, anal. of carrier transport and buildup 14856
Schottky diode, Monte Carlo simul., noise reduction 1349
Schottky diode corner cube mixer, whisker antenna, embedding impedance 6316
Schottky diodes, high series resist., forward I-V method limitation 13603
Schottky LEDs using polymer act. film, fab. and characts. *(French)* 1822
Schottky rectifier, trench sidewall, jn.-barrier-control 38796
Schottky-gate FET, LF noise anal. 38914
SEMDEM bipolar power diode/thyristor modelling program 30199
semicond. device drift-diffusion simul. reliab. model 1330
semicond. intrinsic props., nonparabolic three-band model 22337
semicond. laser amp. based switching struct., gain saturation effects on size limitations 23251
semicond. laser arrays, modeling of thermal crosstalk 23302
semicond. opt. amp. all-opt. wavelength shifting 7683
semicond. unipolar struct., electronic noise microscopic theory 1331
sensitivity anal. of IGBT static model *(Polish)* 1397
SGMOS, student-oriented program, microcomputer simul. of submicron-geom. MOSFETs 6753
short-channel MOSFETs, I-V characts. form. 6767
short-channel MOSFETs, improved quasi 2D model 38902
short-channel SOI MOSFETs, amplified GIDL, simul. 1413
short-channel SOI MOSFETs, energy bal. eqn., transverse-field-induced carrier heating 13747
shorted anode base resist. controlled thyristor, num. simul. 30283
Si mesoscopic struct., α particle ionisation, Monte Carlo study 1457
Siemens power DIMOS device, ESD gate oxide breakdown, stat. model 30307
simul., optimal moving meshes 22538
simulated diffusion algm. for global optim. of device model params. 1323
single mode LD, decay time of time-depend. transient stochastic dyn. 31331
SIT, 2D transient temp. eval. 1443
SIT, blocking gain and on-resist. 13806
SIT elec./thermal behaviour, 2D simul. 30372
small geom. MOSFETs, impact ionization simul. 22432
small-geom. MOSFETs, channel length extraction 13685
smart power CMOS IC, 2D charactn./perform. optim. 12315
smart sens. interface, data conversion and prog. calib. 34493
SMARTMOS quad low side automotive electronics switch, Saber modelling 36775
soft-switching converters, IGBT computer simul. and design optim. 29030
SOI, conf., Ponte Verdra, FL, USA (Oct. 1992) 11581
SOI MOSFET, current characts., 1D MISIS struct. soln. 22469
SOI MOSFET, short channel effect, 1D model 38872
SOI MOSFET, threshold voltage and I-V characts. study *(Korean)* 30305
SOI MOSFETs, fully depleted, carrier generation study 6763
SOI MOSFETs, short channel effects, source/drain engng. 38870
SOI MOSFETs, submicron, self-heating effects 22470
SOI MOSFETs, thin film fully-depleted, 2D mobility model 13694
SOI MOSFETs, thin-film, self-heating effects, modeling 22425
SOI power devices, forward blocking charact., high temps. 30333
SOI power MOSFET, RF amp., num. simul. 38871
solar cell, mag. moment, probab. estim. 44408
solar cell efficiency vars., atmos. conditions studies 5230
solar cells, thermophotovoltaic power appls., design/modeling 27944
solid state relay design model, thermal effects 38063
SONOS multidielectric nonvolatile memory, scaling 1404
source resist. of FET, determ. from meas. S-params. 30380
Space Station Freedom solar cell dynamics, SPICE modelling 26584
spatio-temporal spiking, bifurcation scenarios 6709
static charact. tester of IGBT *(Polish)* 1398
static MOSFET model suitable for analog IC anal. 30292
stepwise continuous soln., semicond. eqns. 38789
sub-0.1 μm MOSFETs, semiclassical device simul. 22430

semiconductor device models continued
sub-micron RTD, laterally gated, I-V characts., asymmetry 30223
submicron LDD MOSFET, subthreshold current model 6754
submicron MOSFETs, single-event-induced charge collection 13720
submicron MOST model param. extraction in lin. region 1423
submicron NMOSFET, transcond. enhancement, back bias 13746
submicron NMOSFETs, GIDL, interface trap effect 6766
submicron SOI MOSFET, self-heating, scaling constraints 30289
surface-emitting vert.-cavity QW laser, time-depend. num. simul. 1972
tail electron hydrodynamic model based on Monte Carlo results 13579
Tanh law MOSFET model for high temp. cct. simul. 22462
TCAD for semicond. device/IC/proc. design and modelling 13861
technol. independent neural network approach on device modelling interface 21072
thermal effects in integrable power semicond. devices 21121
thermal simul., 3D RC network concept 38777
thermal transients, dyn. models 30201
thermophotovoltaic cells, efficiency determ. anal. 28007
thin film SOI FET, anal. model and temp. depend. 38906
thin film SOI power MOSFET, switching charact. 38869
thin insulator p-type MOS structs., inversion charge anal. 38444
three-sect. DBR lasers, fast wavelength switching 25479
thyristors/diodes, transient thermal impedance modelling/verification 13666
TRASIM, 2D transient simulator for planar semicond. devices 38778
travelling wave semicond. laser amp. detector noise charact. 31346
travelling-wave MQW semicond. laser amp. switches, dyn. perform. 9476
trench MOS barrier Schottky rectifier, breakdown voltage 38810
trench VDMOST struct. with no quasi-saturation, anal. 38897
trench-gate SOI lateral IGBT , p^{+} cathode well 38833
trench-oxide MOS struct., quantum wire devices 38435
tri-layer transm. line model applied, alloyed ohmic contacts 38419
tunable four-sect. DBR LD, lasing charact. 14845
tunnel MIS emitter Auger transistor, anal. model 38819
Turing's instabil., failure mechanism of GTOs 30277
twin-stripe semicond. laser, three-torus bifurcation 2008
two-terminal device, generalized model, param. extraction 13575
ultra fast power diodes, GaAs/Si characts. comparison 29016
unified nonlin. microwave cct./num. solid-state device simul. 6300
unified transport model, 3D implement. 38786
VDMOS devices, LV, on-resist. model 13761
VDMOS power transistor, single event gate rupture threshold 13722
VDMOS power transistor thermal modelling, PC-based 12335
VDMOS transistor, 1D anal. modeling 13670
VDMOS transistors, self-shielding phenom. 30310
vert. DMOS power transistors for cct. simul., phys. modelling 1429
wide aperture semicond. lasers and amps., nonlin. dyn. modelling 23209
ZVS PWM power converters, saturable reson. inductor anal. 19762
ZVS quasiresonant IGBT power converter, PSPICE modelling 5079
AlAs/InGaAs/AlAs RTD with InAs subwell, interface roughness scatt. 13591
AlAs-GaAs luminesc. p-n-i-n^{+} dynistor, behaviour 23025
AlGaAs/GaAs HBT I-V charact., graded/setback layers 22368
AlGaAs/GaAs HBT, RF-charact. down, 20 K 6733
AlGaAs/GaAs HBT, surface passiv. layer struct., design considerations 6732
AlGaAs/GaAs HBTs and assoc. TLM test structs., excess noise 1352
AlGaAs/GaAs HBTs, steady-state/transient heat responses 38852
AlGaAs/GaAs HBTs, surface recomb., 2D anal. 22369
AlGaAs/GaAs HBTs, thermal avalanches 1359
AlGaAs/GaAs HEMT design, inverse modeling 38909
AlGaAs/GaAs double-quantum-well devices, quantum state transfer 6561
AlGaAs/GaAs microwave HBT, thermal design, geom. considerations 13630
AlGaAs/GaAs pnp HBT, Al graded base, 37 GHz cutoff freq. 21534
AlGaAs/GaAs power HBT, current gain collapse and avalanche breakdown 38818
AlGaAs/GaAs power HBTs, self-aligned, LF noise characts. 13648
AlGaAs/GaAs(InGaAs/GaAs) microwave/millimetre-wave HEMTs, noise model 831
AlGaAs/InGaAs heterojunction FETs, photon irrad.-induced kink effect model 6803
AlGaAs/InGaAs pseudomorphic HEMT, δ-doped, charge transfer limitations 30373
AlGaAs-GaAs HBT, elevated temp. microwave charact. 37992
AlGaAs-GaAs HBT, large sig. equiv. cct. model, MMIC oscill. 38828
AlGaAs-GaAs HBT small-sig. equiv. cct. param., algm. 38827
AlGaAs-GaAs HBTs,current gain long-term instabil., model 38847
AlGaAs-GaAs HEMT, conc.-depend. carrier mobility and lifetime 1447
AlGaAs-GaAs MODFETs, neg. photoresponse study 31088
AlGaAs-GaAs, SHBT, Gummel rel. 38821
AlGaAs-GaAs-AlGaAs, DHBT, Gummel rel. 38821
AlGaAs-GaAs-AlGaAs, reson. tunnelling diode, time depend. behaviour 38800
AlGaAs-InGaAs HJFET, freq. depend. drain cond. 6795
AlGaAs-InGaAs heterostruct. FET for high temp. IC 22493
AlInAs/GaInAs MSM photodiode, cutoff freq., responsivity 14608
Al$_{0.60}$In$_{0.40}$As/GaInAs/InP single pulse doped HEMTs for Q-band power appls. 29566
AlSb/InAs HEMTs, 5 V gate breakdown voltage 835
Au/PtSi/(100)Si diodes, lateral var. in Schottky barrier height 22352
Cd$_{x}$Hg$_{1-x}$Te, long-channel MIS transistor charact. 30302
Cu(In, Ga)(S, Se)$_{2}$ solar cells, charactn./modeling 44403
GaAlAs asymmetric two-step quantum well for cascaded second-order procs. 13189
GaAlAs/GaAs HBTs, emitter excess resist. 1357
GaAlAs/GaAs HBTs, power amp. appls. 13655
GaAs E-mode MESFET technol. for low power/noise appls. 12780
GaAs FECFET, num. simul. 38929
GaAs FETs, non-lin. and distributed modelling procedure 845
GaAs Gunn devices at 94 GHz, fund. and harmonic power generation 37998
GaAs MESFET, AC small-sig. equiv. cct. model 1448
GaAs MESFET, capacitance model, microwave nonlin. cct. design appls. 855
GaAs MESFET, lin. stat. DC model, factor anal. 13812
GaAs MESFET model for response, high dose rate environ. 13790
GaAs MESFET, piezoelec. act. defects, impact modelling 13793
GaAs MESFET sidegating effects modeling by trapping simul. 22495
GaAs MESFET-based power module, optimum LV/high-efficiency design 11749
GaAs MESFETs, substr.-related kink phenom., 2D anal. 6802

semiconductor device models continued
GaAs MM wave TEDs, CAD, thermal anal. 38791
GaAs MQW struct., semiempirical line shape model 1145
GaAs MSM photodetectors, buried layer effect, modeling 38450
GaAs SIT-based pulsed power switch develop. 36427
GaAs, Schottky structs., elec. characts. simul. 6707
GaAs based FETs, high temp. operation 13807
GaAs based HEMTs, recess depend. breakdown behavior 13777
GaAs photocond. pulsed power switches, filaments 36446
GaAs quantum-well laser below-threshold near-field profile broadening, photon recycling 31390
GaAs thin semicond. samples, EM simul., 2D TLM method, device models 30207
GaAs:Si(Cu) , opt. activated pulsed power switch, 2D model 39572
GaAs/$\mathrm{Al_{0.4}Ga_{0.6}As}$ RTDs, LF flucts. charactn. 1333
GaAs/AlAs low temp. MISFET struct. for power appl. 6752
GaAs/AlGaAs inverted MODFET, charge control/I-V model 38908
GaAs/AlGaAs multilayer p-i-n struct. multilayers, ionization 38335
GaAs/$\mathrm{Ga_{1-x}Al_xAs}$ quantum-well IR photodetector, dark current 25832
GaAs/$\mathrm{In_{0.15}Ga_{0.85}As/Al_xGa_{1-x}As}$ HEMTs, modelling 13795
GaAs-AlGaAs GRINSCH LD modelling of MBE growth 39791
GaAs-AlGaAs heterostruct. barrier varactor freq. tripler, simul. 6321
GaAs-AlGaAs-AlAs proton-implanted top-surface-emitting semicond. lasers 23206
GaAs-based MESFET/HFET, device and cct. modeling 6781
GaAs-based integrated reson. tunneling devices, MM-wave detector appls. 10005
$\mathrm{Ga_2AsSb}$/InP thermophotovoltaic cell modelling 28004
GaInAs thermophotovoltaic cells, metallisation contacts studies 28005
GaInP/GaAs hole barrier bipolar transistors 6728
GaSb thermophotovoltaic cells, tech./economic anal. 28002
Ge/Pd/n-GaAs ohmic contact interface studied by backside Raman spectrosc. 38385
$\mathrm{Ge_xSi_{1-x}}$ HBTs, graded and uniform base study 13647
HgCdTe heterojunction photodiodes, built-in elec. field 14612
HgCdTe, long-wavelength photodiodes, n^+-p vs. p-n structs. 39571
InAlAs/InGaAs HEMT, self aligned dual 50 nm gate device 13786
$\mathrm{In_{0.52}Al_{0.48}As/In_{0.53}Ga_{0.47}As}$ heterostruct. FET, Schottky-barrier-gate diodes characts. 13765
InAlAs-InGaAs strained HEMT, I-V characts., charge control model 38911
InAs/AlSb reson.-tunneling diodes, I-V calcs. 30211
InGaAs low-bandgap solar cell modelling, thermoPV appls. 27936
InGaAs monolithically integrated pin-FETs, noise characts. 14671
InGaAs switch transistors for microwave control applications 12768
$\mathrm{In_xGa_{1-x}As}$ thermophotovoltaic cells, quantum efficiency model 28003
InGaAs/AlGaAs MQW pin diodes, optoelectronic effects and field distrib. 1341
InGaAs/GaAs strained QW 980 nm pump lasers, thermal behaviour 14843
InGaAs/InP:Fe MISFET, opt. controlled characts. 23015
InGaAs-GaAs quantum-well lasers, impedance charact. 14857
InGaAsP DFB single-mode LD, small sig. cct. model 39821
InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
InGaAsP electro-absorpt. modulators, optim. 22936
InGaAsP quantum well laser, 2D model 14976
InGaAsP/InP D-band Gunn devices, heterojunction cathode injectors 13587
InGaAsP/InP strained quantum-well lasers, threshold current under mag. field 39823
InGaAsP/InP/InAlAs quantum well electron transfer struct., finite difference methods 13582
InGaAsP-InP 1.3 μm BH laser modules in fibre link 17254
InGaAsP-InP 1.55-μm strained quaternary QW lasers, approx. opt. gain formulas 23190
InGaAsP-InP electroabsorption modulators for LDs, nonlin. effects 14846
InP MESFET perform., drain induced barrier lowering effect 1449
InP MISFET, modeling for power appl. 13709
InP MM wave TEDs, CAD, thermal anal. 38791
n^+nn^+ InP diodes, submicrometer, microwave power generation, model 836
InP high-efficiency n^+p solar cell, simul., improvements 11301
InP n^+nn^+ diodes, hot carrier noise, Monte Carlo simul. 1348
InP/InGaAs APDs, SAGCM, breakdown voltage modelling, temp. depend. 23016
InP-based HBTs/heterostruct. bipolar ccts., design platform 28946
p-InSb MOS device, inversion layer subband, nonquantum limit *(Chinese)* 13259
Pd-Si tunnel MIS switching device, H-sensitive property 1336
Pt/SiC/Si vert. Schottky barrier diodes 22349
PtSi/p-Si IR Schottky barrier detector, fab. and anal. *(Chinese)* 42813
$\mathrm{Sc_2O_3}$ impregnated cathode, charactn., semicond. model 6476
Si GTO thyristors, var. of carrier lifetime with temp., device operation 30279
Si MOS transistors, surface roughness mobility model 13707
Si MOSFET, interband tunneling, 2D num. model 22407
Si MOSFET, submicron, carrier transport, electron-electron scatt. 22458
Si MOSFETs, simul. by cellular automaton method 22431
Si MOSFETs, ultra-short, heat flux effects on accuracy of hydrodynamic models 1418
a-Si PV power systs., spectral output eval. method 27623
a-Si TFT devices, anal., HFIELDS general-purpose simulator appl. 1416
Si ULSI device fab., wafer specs./design rules trends 38982
Si VLSI ESD sensitivity, thermal/dielec. breakdown 30462
Si, anisotropic band struct., isotropic band models 22325
Si, charge carrier transport, electron-hole scatt. 13027
Si, heavily doped, majority/minority mobilities, device simul. 21873
Si high efficiency solar cells, 2D num. simul. 44418
Si n-i-n diode, hydrodynamic transport model, scatt. matrix 22327
Si p-n jn. solar cells, superposition principle 20000
Si piezoresistive press. sens., electro-elastic simul. 42778
Si power devices, combined electron and ion irrad., local lifetime tailoring 30204
Si power diodes, electron/He ion irrad. for local lifetime tailoring 30197
a-Si single-barrier device, neg. resist. charact. 6811
Si solar cell perform., trap location/trap-assisted Auger recomb. effect 44395
Si solar cells, high efficiency, pilot prod. 44402
Si solar cells, num. modelling of non-ideal I-V characts. 5225
Si solar cells, short-cct. currents defn. method 19978
Si tip avalanche cathode for vac. microelectronic devices 12991
Si:As, deeply-channeled implanted profiles, Monte Carlo simul. 1220
Si:B, enhanced diffusion due to ion implant. in thin-base npn BJTs, model 38997
a-Si:C,H p-i-n diode struct. for electron flux conversion 30229

semiconductor device models continued
a-Si:H PIN solar cells, electron/hole trapping *(Chinese)* 5211
a-Si:H TFT, Chebyshev approx. of field-effect mobility *(Korean)* 13683
a-Si:H p-i-n solar cell structs., computer model 20006
Si:P gate form. of MOSFETs, mech. stress simul. 38894
$\mathrm{Si/Si_{1-x}Ge_x/Si}$ p-MOSFET, charge distrib. modelling 22471
$\mathrm{Si/SiO_2}$ MOSFET, dispersive transport, seminumerical simul. 38892
$\mathrm{Si/SiO_2}$ MOSFET interface trap generation, gate current simul. tech. 38901
$\mathrm{Si/SiO_2/Si}$ heavily doped capacitors, C-V charact. 29990
Si-SiGe HFETs, mobility simul. 22494
Si-SiGe layers, elec. charactn. techs. 6538
Si-SiGe-Si DHBTs, parasitic pot. barrier effect on base current *(Korean)* 13618
Si-$\mathrm{SiO_2}$ MOS devices, quasi-breakdown of ultrathin gate oxide under high field stress 22067
Si-$\mathrm{SiO_2}$ MOS struct. quality, $\mathrm{N_2O}$ ambient, furnace nitridation time 13237
Si-$\mathrm{SiO_2}$ accumulated MOS thin dielec. struct., quantum effects 13235
Si-$\mathrm{SiO_2}$ interface, electron 2D behaviour modelling by Monte Carlo simulator 29986
Si-based thin film monolithic uncooled IR detector arrays/resist. bolometers 17958
SiC and related materials, conf., USA (1993) 28218
SiC high-temp. JFETs, neutron damage anal. 13789
SiC single-barrier device, neg. resist. charact. 6811
SiC/Si hetero- and homo-jn. photodiodes, fab. and props. *(Japanese)* 1805
SiGe HBTs, HF noise fig., phys. model 13623
SiGe HBTs, output conductance anoms., modelling 22389
SiGe PMOS, hole dens., inversion charge modeling 13760
SiGe high speed bipolar transistors, cutoff freq., compact model 1367
$\mathrm{Si_{1-x}Ge_x/Si}$ HBT model 22382
SiGe-base HBT 2D device-level simul., transient/DC behavior, ECL buffer 13658
$\mathrm{SiO_2}$ inter-poly oxides, lifetime prediction method 6593
$\mathrm{SiO_2}$ thin oxide wearout and breakdown, high field 38776
$\mathrm{SnO_2}$/a-SiC/Au Schottky cells, photocurrent multiplication model 44396
$\mathrm{SnO_2}$-based thick-film gas sens. 3915
ZnSe:I jn. devices, thermionic behavior studies 28026

semiconductor device noise
0.2 μm gate length HEMT technol., conventional opt. lithog. 1440
1.55 μm DFB lasers with strained-layer MQW act. grating, transfer-matrix dyn. model 1993
1.5 μm MQW DFB VUG laser opt. harmonic converter for MM wave radio appls. 3558
1/f noise and wandering defects 13585
1/f noise in n- and p-MOSFETs, gate voltage dependencies 1381
1/f noise sources, theoretical models 1320
5 to 100 MHz low power commun., SIT appl. 22481
act. mode locked semicond. lasers, ps pulse compression, model 31420
act. mode-locked external-cavity semicond. laser, quasi-periodic route, chaos 31423
avalanche photodetector, double-drift struct. 9910
bipolar transistors, LF noise charact., emitter topography effect 38822
bipolar transistors 1/f noise parameters meas. and anal. 22371
BJTs, 1/f noise coeffs. extraction 1351
carrier fluct., excess noise generation 22348
charge transport and device params. from noise meas. 3970
CircleX program for transistor S-param. data anal. 38774
class C RF amps. simul. 12341
CMOS input gate, latent ESD damage ident. and anal. 30464
CMOS transistors, flicker noise study 1383
CMOSFETs, channel thermal noise, 1D charge sheet model 1387
cryogenic RF SQUID readout, super Schottky diodes for sig. demodulation 21538
current amplifying image sens., buried electrodes *(Japanese)* 3880
DFB QW semicond. laser amplit. squeezing 1965
diode laser, opt. and elec. noise spectrum 14970
diode lasers, elec. and opt. photocurrent noises correl. 1922
diode lasers, LF light flucts. meas. tech. 1923
diode lasers, noise mechanisms 1921
double polysilicon self-aligned bipolar transistors, small-sig./noise model 21539
FET, phase and baseband 1/f noise correl. study 833
field emitter, LF noise 12994
fully depleted SOI PMOSFETs, LF noise 1385
fund. quantum 1/f noise in semicond. devices 1313
gain guided waveguide semicond. laser model 1994
gain-guided semicond. microlasers, noise props. 23204
GaInP/GaAs microwave HBTs, small-sig./noise model extraction tech. 21540
HBT oscillators, bias-depend. noise up-conversion factor 6322
HFET, microwave, temp. noise model 21542
hot carrier flucts. and noise study 1321
hot electron noise in semicond. materials for high-speed devices 1314
ICs, noise immunity, heatsink, influences 20436
III-V quantum-well IR photodetectors, noise perform. 42788
IR FPA opt. interface technol. 34582
IR photodetector develop. trends 42794
IR photodetectors, 2-12 μm, high perform. near RT 17787
IR seeker imaging simul. real-time model based on fractal theory 18989
JFETs, random telegraph sig. currents and LF noise 1432
large-area multiple-transverse-mode VCSELs in multimode-opt.-fiber links, modal and intens. noise 9595
LD opt. noise meas., reliab. estim. 23287
LF noise in bipolar transistors, impact of series resist. 1350
LF noise in quantum point contacts 22031
LF noise spectrosc. tech. for electron devices 3969
low noise 150 V self-aligned double diffused lateral p-n-p transistor 30262
low-noise CCD sig. acquisition 34417
macroscopic/microscopic methods for noise in semicond. devices 1318
MESFETs, noise perform., gate leakage current 38938
microscopic Monte Carlo simul. of electronic noise in semicond. devices 1319
microwave MESFET, noise temp. determ. 13766
mixed photonic/electronic cct. simul. 37603
MODFETs, noise perform., gate leakage current 38938
MOS devices, 1/f noise and radiation effects 1382
MOS transistors, 1/f noise, mobility or no. flucts. 1380
MOS transistors, carrier multiplication noise sources, low freqs., correl. meas. 1388
MOSFET 1/f noise, plasma etching induced gate oxide degrad. effect 22419

semiconductor device noise continued
- MOSFET 1/f noise, plasma-etch-induced gate oxide degrad. effects 22441
- MOSFET device perform., distrib. gate resist. impact 1402
- MOSFET thermal noise, steady-state Nyquist theorem verification *(Korean)* 38864
- MOSFETs, current flucts., device scaling 1386
- MOSFETs and interconnects, model for 1/f noise 22412
- multilayer PBGA, perform. enhancement 20456
- multilayer single-electron tunneling devices, fab. 13825
- multimode VCSEL, noise perform. 1984
- n-channel power MOSFETs, irrad., possible sources of 1/f noise 13717
- NMOSFETs with nitrided-oxide, high-field mobility enhancement 1390
- noise params., meas. method *(French)* 1356
- Nyquist noise in transit. from mesoscopic, macroscopic transport 22497
- partially depleted n-channel SOI twin-MOSTs, LF noise overshoot 1384
- photoconductive layered solid-state imaging device, SNR anal. 17930
- planar two-mode channel FET, MMIC, pers. handy phone 38925
- pMOS pixel detector design 18344
- polysilicon emitter bipolar transistors, LF 1/f noise 38820
- polysilicon emitter bipolar transistors, reduction of 1/f noise 13657
- polysilicon n-p-n emitter bipolar transistor base current, 1/f noise anal. 22373
- power VDMOSFETs, irrad. induced gate oxide charge and interface traps effects 1424
- pseudomorphic HEMT, LF gate current noise anal. 30366
- radiation detect. front end electronics, HEMT appl. 10144
- radiation-hardened CMOS for cryogenic analog appls. 30447
- reliab. phys., noise, diagnostic tool 20496
- reliab./quality diagnostic tool for electronic devices 1315
- reson. tunnelling structs., noise meas. 30189
- RF instrum. accuracy, meas. uncertainty effects 42911
- RF transistors, stabil., gain and noise 6040
- Schottky barrier mixer diode in submillimeter wave region, optim. 6315
- Schottky diode microwave mixer noise temp. anal. *(Croatian)* 834
- Schottky-gate FET, LF noise anal. 38914
- semicond. laser; linewidth, linewidth enhancement factor α, FM and AM response meas. 39878
- semicond. laser noise, Volterra functional series expansion 2003
- semicond. lasers, opt. feedback with dispersive loss, amplit. noise 1980
- semicond. lasers using phase conjug. feedback, phase noise reduction by self-phase locking 2002
- semicond. unipolar struct., electronic noise microscopic theory 1331
- Si MIS transistors, random telegraph sig. params., substr. bias effect 13756
- SOI GAA MOSFETs, γ-irrad., noise charact. 13686
- SOI MOSFET, LF noise, gamma ray effects 22418
- SOI n-MOSFET, low freq. noise spectral dens. 1421
- submicron MOS transistors degrad., 1/f noise spectral dens. 22463
- thermal detectors, theoretically limited temp. sensitivity 17793
- ultra-low noise preamplifier for room temp. X-ray detectors 43138
- VCSEL diode under DC excitation, chaotic dyn. of mode competition 1999
- vert.-cavity semicond. laser amps., perform. predictions 1998
- VLSI power supply coupling diode design, ESD protection/noise immunity 30470
- AlGaAs n^+nn^+ devices, self-heating, noise temp. meas. 38946
- $Al_xGa_{1-x}As$ n^+nn^+ devices, Al content x, effects on hot electron noise 1433
- AlGaAs/GaAs HBTs and assoc. TLM test structs., excess noise 1352
- AlGaAs/GaAs HEMTs for MM wave appls. 37978
- AlGaAs/GaAs MODFETs, low-noise X-band transistors, MBE growth 22479
- AlGaAs/GaAs power HBTs, self-aligned, LF noise characts. 13648
- AlGaAs/GaAs superlattice avalanche region IMPATT diode 38806
- AlGaAs/GaAs(InGaAs/GaAs) microwave/millimetre-wave HEMTs, noise model 831
- AlGaAs/InGaAs pseudomorphic SQW-MODFETs, double sided modulation doping 6786
- AlGaAs-GaAs HBTs,current gain long-term instabil., model 38847
- AlGaSb/GaSb punch-through heterojunction phototransistors for lightwave commun. 7462
- AlInAs/InP low gate current HFET 13781
- GaAlAs injection LD, freq. flucts. 23301
- GaAs E-mode MESFET technol. for low power/noise appls. 12780
- GaAs JFETs, deep cryogenic readout electronics appl. 30371
- GaAs MESFET varactor tunable oscillators, noise calcs. 21565
- GaAs MESFETs and PHEMTs, 2DEG effect on noise perform. 37981
- GaAs MESFETs, selectively dry-etch gate-recessed devices, LF noise 22490
- GaAs PDB diode perform, proton isolation effect 29565
- GaAs devices, plasma-assisted passivating proc., LF noise meas. 13410
- $GaAs/Al_{0.4}Ga_{0.6}As$ RTDs, LF flucts. charactn. 1333
- $GaAs/Al_xGa_{1-x}As$ quantum-well IR photodetectors, design, perform. 9905
- GaAs/AlGaAs MQW APD, gain props. 39569
- GaAs/AlGaAs, double barrier RTDF, shot-noise suppression 30230
- GaAs/AlGaAs microwave HEMT device, MBE fab. and charactn. *(Korean)* 29571
- GaAs-AlGaAs 256×256 miniband transport MQW long wavelength IR FPAs 17934
- GaAs-AlGaAs GRINSCH LD modelling of MBE growth 39791
- GaAs-InP MESFETs and ccts. fro OEICs 39598
- HgCdTe IRFPA nonuniformity correction algm., real-time hardware prototype 17948
- HgCdTe MWIR image sens., thermoelectrically cooled 17944
- HgCdTe PV lin. FPA for Cassini IR spectrometer 17949
- HgCdTe direct injection readout hybrid FPA, background limited perform. 17945
- HgCdTe, long-wavelength photodiodes, n^+-p vs. p-n structs. 39571
- HgCdTe longwave IR scanning FPAs, CMOS readout IC, surveillance appls. 17947
- $Hg_{1-x}Cd_xTe$ MIS IR detectors, 1/f noise, temp. depend. 17768
- InAlAs/InGaAs HJFETs, high In comp. channels, low noise/high gain 6797
- InAlAs/InGaAs/InAlAs, HEMT, MBE grown, parasitic effects 13782
- InAlAs/InGaAs/InP HEMT impact ionisation characterisation 13771
- InGaAs monolithically integrated pin-FETs, noise characts. 14671
- InGaAs switch transistors for microwave control applications 12768
- InGaAs/GaAs, two mode channel FET, low noise perform., electron confine. 38927
- InGaAs/InAlGaAs QW DFB laser facet influence on wavelength tunability and linewidth-chirp 39860
- InGaAs/InP JFET, step-doped channel doping for OEIC receivers 14653
- InGaAs-GaAs heterostruct. and HFET appls. *(Chinese)* 22486
- InGaAsP DFB single-mode LD, small sig. cct. model 39821
- InGaAsP channel HFET OEIC photoreceiver 17258

semiconductor device noise continued
- InGaAsP-InP 1.3 μm BH laser modules in fibre link 17254
- InGaP/InGaAs HEMTs for MM wave appls. 37978
- InP D-band Gunn devices, second-harmonic power extraction up, 290 GHz 1332
- InP MOS tunnel diodes, elec. charactn. 38814
- InP n^+nn^+ diodes, hot carrier noise, Monte Carlo simul. 1348
- InP/InGaAs HBTs, nonstationary 1/f noise 22356
- InP/InGaAs JFET/pin photodiodes for optoelectronic integrat. 1439
- InP/InGaAs punch-through heterojunction phototransistors for lightwave commun. 7462
- InP/InGaAs/InP photodetector arrays, RTS noise and excess currents 17773
- InP/InGaAs/InP photodetector arrays, noise/current meas. 17774
- InP-based HEMT, extremely low-noise, Si_3N_4 passiv. 21552
- InSb 2D IRFPAs, uniformity and stabil. 17936
- InSb FPA-based IR camera for astron. telescope, electronic testing 17937
- Si cryogenic accumulation mode MOST, LF noise meas. 38904
- Si diode, MeV particle irrad. 13601
- Si microstrip detector readout, AVLSIRA CMOS proc. 10138
- Si multiplexers for lin. IR photodiode arrays 25875
- Si, p-channel MOSFET, random telegraph sigs., capture kinetics 22457
- Si:As scanning hybrid IR detector array, radiometric charactn. 17940
- a-Si:H nip and pin diodes, 1/f noise anal. 38798
- Si/SiGe double barrier reson. tunneling struct., fab. 29942
- Si-Gd-Si sens., large area, thermal neutron detect. 18329
- Si-SiGe self-aligned HBT, 1/f noise charactn. 22364
- Si-SiO_2 MOSFET interface, indiv. interface traps 13758
- 6H-SiC JFET, 1/f noise phenom. 1436
- SiC JFETs, LF noise anal. 38279
- SiGe HBTs, HF noise fig., phys. model 13623
- TeO_2 long time aperture acousto-optic delay line, design and charactn. 31021

semiconductor device packaging
- 2D heat transfer in semicond. device modules on PCBs, num. prediction 37070
- analog DFB laser modules, second-order IMD 7680
- Betacell microencapsulated nuc. batt., design and appls. 27961
- bonding, silicone adhesive 28473
- coaxial LD chip package for fibre in loop appls. 42427
- dil. waveguide packaging relax. semicond. lasers 14930
- diode-pumped solid-state-lasers, high-duty-factor, high-av.-power, economics 31365
- DMOSFETs/IGBTs switch HV, packaging, die sizes 1379
- double polysilicon self-aligned bipolar transistors, small-sig./noise model 21539
- encapsulating material, flow anal. 5667
- FITL semicond. laser modules, low cost, packaging 17276
- Fuji Electric power integrated modules, invertor appls. 21119
- fuzzy logic model, semicond. proc. control 20414
- GaAs submicron MESFET devices, heat generation and transport 38921
- heatsink bonding, silicone adhesive 5675
- hermetic advanced power package, solid state power controller 20458
- IGBT power modules, packaging and reliab., failure anal. 30252
- integrated DBR laser/modulator transmitter, 5.0 Gbit/s transm., 192 km 14878
- integrated power packaging, trends, driving forces 11752
- intell. power IGBT modules, motor drive appls. 532
- IR FPA opt. interface technol. 34582
- LD, asymmetric response in opt. systs. 14867
- LD technol., conf., Los Angeles, CA, USA (Jan. 1994) 36891
- LED cost effective packaging for fiber optics 31102
- micro-stack IGBT, 2.5 kV, 100 A, reliable design 30325
- microscopic contamination, SAXPS anal. 38457
- NTC thermistors for temp. compen., SMDs 38048
- open cell technol. for single chip MOSFETs, IGBTs, and MCTs, very high power appls. 6777
- plastic ball grid array packages, thermal/elec. perform. enhancements 37150
- pMOS dosimeters, energy depend., package geom. effects 26497
- SMD packages for discrete semicond. components 37144
- Sofradir flat struct. longwave IRFPA, Joule-Thomson cooler 11777
- solid state relay design model, thermal effects 38063
- thermal perform., marginal improvements 30000
- thermal transients, dyn. models 30201
- two-terminal large area power semicond. devices 518
- wafer-level burn-in technol., cost-effective technol. 21731
- AlGaAs/GaAs HEMTs for MM wave appls. 37978
- AlGaAs-GaAs power HBTs, thermal stabil. tech. *(Japanese)* 38003
- AlGaAs-GaAs thin film p-i-n photonic device integrat., micromachined movable platforms 39600
- AlGaInAs coaxial laser module, 1.3 μm for local-loop appls. 7681
- AlN ceramics for high power RF package 20457
- GaAlAs, monolithic 2D surface emitting LD arrays, CW 39837
- GaAs MESFET-based power module, optimum LV/high-efficiency design 11749
- GaAs double-Read IMPATT diodes, 140 GHz 29564
- HgCdTe IR CCD-based FPA, thermoelectrically cooled 17952
- HgCdTe MWIR image sens., thermoelectrically cooled 17944
- InGaP/InGaAs HEMTs for MM wave appls. 37978
- InP collector-up HBT, 300-400 GHz, mm and submm phased antenna array appls. 6314
- InSb FPA-based high sensitivity, high resoln. thermal video syst. 17938
- Pd thin electroplated coatings, solderability, semicond. packaging 37143
- Si enhanced optoelectronic packaging for LD 31121
- SiC/Al metal matrix composite, elec. vehicle IGBT packaging 20116
- SiC/Al metal matrix composites for GaAs power semicond. packaging 11753
- ZnO multilayer chip varistor, LV transient suppression 29607

semiconductor device reliability
- 3D thermal model for ESD thermal runaway in semicond. devices 38788
- bipolar transistor degrad. under dyn. hot carrier stress 38849
- bipolar transistors below 10 rad(SiO_2)/s, dose-rate response saturation 13639
- border traps, MOS radiation response/long-term reliab. 20494
- CMOS FET oxide reliab., plasma-induced gate oxide degrad. 20490
- deep submicron MOSFETs, 2D energy-depend. substr. current models 1415
- deep-submicron PMOSFETs, hot-carrier degrad. mechanisms 13676
- emitter switched thyristors, reversed biased SOA comparison 30273
- EOS tutorial 30191
- FRACAS, failure reporting/corrective action, semicond. mfg. equipt. 28416

semiconductor device reliability continued
gate oxide reliab. in power MOSFET, ion irrad. 22466
GTO devices, failure mechanism, optim. for min. current crowding during turn-off 22391
GTO failure mode during DC voltage blocking, cosmic-ray effects 30276
GTO thyristors under snubberless operation, turn-off limitations and device failure 13664
heatsink bonding, semicond. packages, silicone adhesive 5675
hermetic advanced power package, solid state power controller 20458
HV damper diodes, 1800 V, FMR-G5HS/FMP-G5HS series *(Japanese)* 30222
HV power MOSFETs, SCR device integrat. for ESD robustness 22436
HV semicond. devices breakdown, model, phenomenological lifetime prediction 30282
hybrid output relays, semicond. switch-based, DC/AC power control 29635
IGBT power modules, packaging and reliab., failure anal. 30252
IGBTs, turn-off failure and inhomog. operation 30326
III-V HBTs, reliab. issues 22386
laser reliab., spectral anal. 39849
LD opt. noise meas., reliab. estim. 23287
LD technol., conf., Los Angeles, CA, USA (Jan. 1994) 36891
LDD nMOS transistors, latent ESD damage recovery, hot electron treatment 6744
LDD NMOSFETs, hot carrier induced degrad. 6770
LF noise spectrosc. tech. for electron devices 3969
low-cost reliable high power CW LD arrays for solid state laser pumping 31399
mature CMOS proc., unusual HBM ESD failure mechanisms 30469
MGBT, MOS-gated power bipolar transistor, 750 V 1365
micro-stack IGBT, 2.5 kV, 100 A, reliable design 30325
microelectronic reliab., functional rels., temp. 22321
MOS capacitor ultra-thin oxide/oxynitride dielec. films, reliab. characts., surface prep. 22066
MOS capacitors with N_2O oxides, elec. and reliab. props. *(Korean)* 30299
MOS device reliab. studies under LabVIEW environ. 22320
p-MOSFET, bi-directional operation, hot-carrier degrad. model 38875
MOSFET lifetime cals., depth-depend. impact ionization 38895
n-MOSFET with thin gate oxide, plasma-induced transconductance degrad. 30357
p-MOSFETs, LDD, hot carrier reliab. 1407
p-MOSFETs, lifetime prediction methods, std. and charge-pumping lifetime criteria 13675
n-MOSFETs, rapid thermal N_2O-reoxidized nitrided gate oxides 38899
MOSFETs and MOS capacitors, oxide reliab., nitrogen effects 38629
MOSFETs with rapid thermally NO-nitrided SiO_2 gate dielec., hot-carrier reliab. 22429
n-channel IGBTs, 500 V, cell optim. 30330
n-channel MOSFETs, hot carrier degrad. 13736
n-channel MOSFETs at low gate bias, hot-carrier degrad. eval. 13679
n-MOSFETs, hot-hole-induced neg. oxide charges 22414
nMOS ESD I/O protection structs., EOS suscept. 6749
NMOSFETs, anom. hot carrier degrad., elevated temps. 30353
NMOSFETs at 77 K, double channel hot-carrier injection effects meas. 22403
noise, diagnostic tool for reliab./quality 1315
noise, diagnostic tool in reliab. phys. 20496
optoelectronic device reliab. 28526
oxides reliab., low temps. 28406
paralleled IGBT reliab., equalized jn. temp. 6750
PMOSFET submicrometer devices, hot-carrier-induced off-state current leakage 1425
poly-Si:B/Si:N multilayer gate surface channel PMOSFETs 6762
P^+-polysilicon gated FET devices, bias temp. reliab. 13750
polysilicon TFTs, self-induced LDD devices, SiO_2 gate-insulator, passiv. layer 13748
polysilicon TFTs for act. matrix LCDs, reliab. 22449
power MOSFETs, low-dose-rate irrad. response 13733
power MOSFETs, single event failure, test data 30362
power MOSFETs operated at cryogenic temps., ionizing radiation effects 13732
power semicond. device failure caused by cosmic radiation 30190
scaled vert. power DMOSFETs, static I-V charact., bipolar turn-on 30291
scaled-down MOS transistors for gigabit ccts., reliab. 22443
semicond. laser reliab. and failure anal. 39816
Siemens power DIMOS device, ESD gate oxide breakdown, stat. model 30307
soft-switching converters, IGBT computer simul. and design optim. 29030
SOI, conf., Ponte Verdra, FL, USA (Oct. 1992) 11581
SOI snapback nMOSFET, ESD protection/failure modes 22464
SOI snapback nMOSFETs, ESD protection capability, mechanisms/failure modes 30308
SOI transistors, alternating hot carrier injection anal. 22415
stacked nitride-oxide gate n-/p-MISFETs, hot-carrier reliab. 38856
submicrometer gate length MOSFET, selectively doped substr., hot electron degrad. 30324
submicron-channel MOSFETs, simulated x-ray lithog. exposure effects 6776
surface channel P-MOSFETs, gate oxide thickness hot carrier effects 13677
SW high reliab. LD for opt. data links 42430
Turing's instabil., failure mechanism of GTOs 30277
very short channel MOSFETs, hot carrier gen. mechanism 13742
Al-SiO_2-Si MOS struct., charge build-up/oxide wear-out, Fowler-Nordheim stress 13234
AlGaAs near-IR LEDs, failure anal., expt. techs. 39584
AlGaAs, single mode LD, long duration life tests 39850
AlGaAs/GaAs HEMT with Al/Ni gate, thermal stabil. 22492
AlGaAs/GaAs epitaxial lift-off MSM photodetectors,field assisted etching 34516
AlGaAs/GaAs:C,In HBTs, lattice strain control, In co-doping 22374
AlGaAs-GaAs HBT with strain-relaxed base, improved reliab. 38826
AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
GaAs Gunn devices at 94 GHz, fund. and harmonic power generation 37998
GaAs devices, reliable thermosonic wire bond, IR-microscopy 12959
GaAs subMM Schottky diodes, reliab. and micro-struct. 1340
GaAs:C/AlGaAs power HBTs, bias-stressed, failure mode 22359
GaAs/AuGeNi/Au ohmic contact, WN diffusion barrier *(Chinese)* 22036
InGaAs/InGaP/GaAs QW lasers, 0.98 μm, reliab. pump source 23188
InGaAsP-InP 10-element monolithic laser array in parallel interconnects 14961
InGaAsP-InP all-MOCVD-grown long-wavelength LD 7673

semiconductor device reliability continued
InGaP/GaAs HBTs, self-aligned fab., high reliab. 22360
$InP/Ga_{0.47}In_{0.53}As$ two-terminal tandon solar cells 19988
InP-InGaAs MQW modulator waveguide devices, metallization/wet etch/passiv. 39461
Mo field emitter, thermomechanical factors in operation and failure 21807
Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
Si enhanced optoelectronic packaging for LD 31121
a-Si in-situ doped gate MOS capacitors/transistors, elec. props. *(Korean)* 30298
Si small geom. MOSFETs, tunneling gate oxide approach, ultra-high current drive 22451
a-Si solar cells, long-term degrad. tests and charact. 19999
Si:B retrograde well barrier effect against ion-induced-charge carriers 30220
Si-SiO_2 MOS devices, quasi-breakdown of ultrathin gate oxide under high field stress 22067
SiGe HBT technol. for wireless and mixed-sig. appls. 22562
Si_3N_4 thin films, MNS capacitors, jet vap. deposition 37504
SiO_2 thin oxide wearout and breakdown, high field 38776
SiO_2-Si MOS struct., oxide layer cond., X-ray irrad. effects 13238
SiO_2-polysilicon MOSFET degrad., substr. hot electron stress 13680
SiO_2(ON)-Si device reliab., surface cleaning effects, ultrathin oxides/oxynitrides 22207
Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
$TiSi_2$-SiO_2-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775

semiconductor device testing
see also integrated circuit testing
1.2 μm CMOS-SOI technol. transistors, noise charactn., gamma ray effets 13728
1 hp ASD IGBT control device tests 28070
5 to 100 MHz low power commun., SIT appl. 22481
6 MW GTO locomotive power convertor, insulation/corros. tests 36352
670 nm low-threshold-current multiquantum-well LD 7620
1960's radiation effects research on semicond. devices/materials 11558
Advanced PV Solar Array testbed wing results 26598
air-bag crash sens., VXIbus-aided automated test syst. 17680
analog DFB laser modules, second-order IMD 7680
analog IC BiCMOS-JFET radhard SOI technol., proton radiation effects 13904
ASCR thyristor-based CSI, induction heating appls. 36790
AT&T CBIC lin. bipolar proc., radiation effects 30446
barrier height determ. from Schottky jn. C-V meas. 38813
bipolar transistors below 10 rad(SiO_2)/s, dose-rate response saturation 13639
bipolar-MOSFET monolithic cascode switch, VIPower technol. 6014
BJTs, DC and AC current crowding effects model *(Korean)* 30251
charge transport and device params. from noise meas. 3970
CMOSFET ultra-thin gate oxide thickness meas, quantum effects 22452
deep-submicron PMOSFETs, hot-carrier degrad. mechanisms 13676
defect inspection syst. *(Japanese)* 106
defects, image display/anal., laser scanner 32818
develop. trends 6818
DFT approach in electronics testing 5575
diamond tipped thermocouple for high resoln. topographical and thermal imaging 34689
digital test system extension to Gbps range 25720
diode lasers, elec. and opt. photocurrent noises correl. 1922
diode lasers, LF light flucts. meas. tech. 1923
dual gate MOS-JFET CCD test struct. 34584
dyn. IC devices, layered photoacoustic imaging 1464
EMC, SCR radiated emissions meas. 15504
emitter resist. extraction from floating collector meas. 13649
ESD control/safety, surface testing, simulated MOSFET damage 15223
failure anal., SEM 22318
field emission TEM, nanometer resoln. elemental anal. 6704
floating-field-limiting rings in power MOSFET, pot. meas. by electron beam probe 30304
fuzzy test syst. charact. 11720
GTO cond. characts., temp. effects studies 12318
GTO thyristors under snubberless operation, turn-off limitations and device failure 13664
Gunn diodes meas. using six-port reflectometer 21543
hard switching power IGBT modules, dyn. perform. tests 21102
hard switching power IGBTs, non-/punch-through technols. 12317
hermetic advanced power package, solid state power controller 20458
household radio equipt., solar cell power supply tests 20151
HV semicond. devices breakdown, model, phenomenological lifetime prediction 30282
hybrid MOS-bipolar transistors, temp. effects tests 29043
IGBT, punch/nonpunch through, thermal behaviour studies 1411
IGBT power convertors, turn on/off behaviour studies 44218
IGBT switching losses, hard switching, ZVS, ZCS 6757
IGBT switching procs., expt. studies *(Polish)* 1403
III-V FETs, pulsed semicond. param. analyser syst. 1431
implanted MOS structs., I(t) tech. for generation rate determ. 1169
in-plane gate transistor integrated with photoconductive switches, ultrafast characts. 29555
IR scene generation systs., IRFPA laser radiation response 17941
killer defects, automatic in-line meas. 6602
Lagrangian relax. based scheduling algm. 20403
laser space power beaming, PV cell pulsed laser illum. 43948
LD opt. noise meas., reliab. estim. 23287
LD technol., conf., Los Angeles, CA, USA (Jan. 1994) 36891
LDD nMOS transistors, latent ESD damage recovery, hot electron treatment 6744
LF noise spectrosc. tech. for electron devices 3969
low-dose-rate MOS device response testing 13734
memory testing, tutorial 12508
MESFET, thermal and dispersion modelling 6798
MGBT, MOS-gated power bipolar transistor, 750 V 1365
microwave HBTs, param. extraction method 6310
mixed sig. devices testing in Sony 765
MODFET multi-layers, low-mag.-field-depend. Hall-tech. 1442
MODFETs, transit time effects, direct meas. 22487
modulation spectrosc. for semicond. device anal. 22319
MOS capacitor plasma-charging damage meas. 1181

semiconductor device testing continued
MOS capacitors/FETs stress-induced current in nitride/oxidized nitride thin films 6589
MOS device reliab. studies under LabVIEW environ. 22320
MOS devices, lateral alkali-ion migration, reliab. 170
MOS devices/ccts., radiation effects, meas. syst. *(Chinese)* 25729
MOS-assisted gate-triggered thyristors, pulsed power switching appls. 36431
MOSFET interface states/trapped carriers, charge pumping/gate capacitance meas. 30301
MOSFET params. charactn., low longit. field 13749
MOSFET thermal noise, steady-state Nyquist theorem verification *(Korean)* 38864
MOSFET threshold voltage fluct., stat. var. of channel dopant no. 1392
MOSFETs, AC freq.-resolved meas. for parasitic resist. extraction 22439
multilayer bond and etch SOI buried insulators, radiation response 13252
multiple quantum barrier height meas. by LED 13186
μP based instrum. for resist. and diode testing 3755
n-channel MOSFETs at low gate bias, hot-carrier degrad. eval. 13679
NMOSFETs at 77 K, double channel hot-carrier injection effects meas. 22403
NMOSFETs with nitrided-oxide, high-field mobility enhancement 1390
noise params., meas. method *(French)* 1356
npn BJTs, radiation stress and hot-carrier stress effects on current gain 13636
nuclear and space radiation effects, conf., Tucson (1994) 5489
oxides reliab., low temps. 28406
p inverted buried channel heterostruct. FET, complementary electronics, AC characterisation 38915
p-channel MCT, static/dyn. behaviour tests 12319
p-i-n photodiode defect localization by laser scanning microscopy 40174
param. var. influence of climatic factors 13574
photodiode freq. response meas. to 40 GHz, comparison, NPE/NIST 31075
PIN diode, neutron spectrum meas., Army Pulse Radiation Facility 18371
polysilicon TFT, plasma hydrogenation effects *(Korean)* 30348
power Darlington transistors, thermal resist. meas. *(Polish)* 30232
power diode, fast reverse recovery perform. characterisation 30219
power IBGT module perform. testing, low inductance cct. 29009
power IGBT converters, overcurrent fuse studies 6016
power MOSFETs, low-dose-rate irrad. response 13733
power MOSFETs, single event failure, test data 30362
power semicond. device failure caused by cosmic radiation 30190
power semicond. fuse selection, surge current tests 6015
power semiconds., radiation effects, nuc. power indust. appl. 38890
power soft recovery diodes, design and technol. 30228
power SOI lateral p^+-n jn. diode breakdown voltage *(Korean)* 28999
pulsed laser method, single event effects testing 13573
pulsed power nanosecond semicond. opening switch develop. 36263
pulsed power photoconductive semicond. switches, breakdown limitation 36430
pulsed power photoconductive switch charactn., deep level spectrosc.-based 36424
pump LD, rapid degrad., TEM study 14866
PV energy conversion/storage semicond. solar cells struct. 36607
quartz cryst. pulsed power switches, electron-beam controlled 36450
radial distrib. of charge in HI track, concentric Schottky barrier rings 13607
radiation effects Data Workshop, Snowbird, UT, USA (1993) 36859
rectification devices, dyn. params. meas. 30216
refl. pulse method for material props. determ. 9829
reliab./quality diagnostic tool for electronic devices 1315
reson. DC link inverters, MCT soft-switching tests 12320
RF instrum. accuracy, meas. uncertainty effects 42911
rigorous diffr. theory, opt. metrology and AFM topography, nm accuracy 34721
second breakdown, power BJT/bipolar mode JFET comparison 30546
semicond. laser reliab. and failure anal. 39816
series reson. DC link GTO invertor expts. 44167
Si-SiO_2-polySi:P, $TiSi_2$ superlayer, thin film oxide injection degrad. 22059
SIMOX BOX, O implant. effects on radiation-induced hole traps 13251
single-beam photothermal anal., semicond. proc. appls. 108
soft-switching insulated gate devices, power losses, comparative investig. 30331
soft-switching power converters, GTO/MCT characts. comparison 19849
SOI MOSFETs, AC cond. tech. for self-heating meas. 22420
SOI MOSFETs, meas. of I-V curves without self-heating 30352
solar cell efficiency vars., atmos. conditions studies 5230
solar cells, screening method 19987
solid-state microwave oscillators, flucts. meas., sync. methods 37985
Space Station Freedom solar array development testing 26643
spacecraft solar cell assemblies, Teflon coverglass bonding 26684
spacecraft solar cell lifetime, space factors testing 18726
struct. photomodulated diagnostics, microwave resonator transducer synthesis *(Russian)* 13098
submicron MOS transistors degrad., 1/f noise spectral dens. 22463
submicron MOSFETs, channel length depend. of random telegraph sig. 6772
surface channel P-MOSFETs, gate oxide thickness hot carrier effects 13677
SW high reliab. LD for opt. data links 42430
thermophotovoltaic cells, expt. charactn. studies 28008
thermophotovoltaic solar cell power expts., USA 27962
TiO_2:Bi PEC electrodes, props. expts. 27880
TOPEX/Poseidon elec. power syst., on-orbit perform. 26645
ultrahigh-speed MSM photodetectors for opt. commun. 42452
vert. power MOSFETs, single-event gate rupture 13721
VSI IGBTs, on-state short-cct. behaviour expts. 44217
Al-SiN-Si syst., laser CVD, TFD charact. by DLTS 13597
AlGaAs near-IR LEDs, failure anal., expt. techs. 39584
AlGaAs, single mode LD, long duration life tests 39850
AlGaAs/GaAs HBT operating at large power densities, jn. temp. meas. 18136
AlGaAs/GaAs HBTs and assoc. TLM test structs., excess noise 1352
AlGaAs/GaAs HEMT with Al/Ni gate, thermal stabil. 22492
AlGaAs-GaAs HBT with strain-relaxed base, improved reliab. 38826
AlGaInP dry-etched 650 nm vis.-light LD 1986
Au-GaAs Schottky diodes, cryogenic/RT, current transport 38390
GaAs HV photocond. switches, electro-optic imagery 14598
GaAs SIT-based pulsed power switch develop. 36427
GaAs avalanche photoconductors, dyn. opt. probing meas. 31078
GaAs microwave FETs, deep level characterisation 38001
GaAs photoconductive pulsed power switches, Ti:sapphire laser-triggered 36440

semiconductor device testing continued
GaAs photoconductive pulsed power switches, vac. surface flashover tests 36433
GaAs power diodes, PF correction boost converter appls. 36284
GaAs rectifier PF correction cct. tests 36324
GaAs space power solar cells, satellite test data 26641
GaAs:Si,Cu photoconductive pulsed power switch perform. tests 36428
GaAs/Ge Clementine spacecraft solar cell array studies 26603
GaAs-AlGaAs 0.85-μm VCSELs, reliab. studies 7677
GaAs-P_3N_5 MISFETs, photo-CVD grown gate insulators, sulfide treated, charact. *(Korean)* 30355
GaInAs thermophotovoltaic cells, metallisation contacts studies 28005
GaInAsP MQW 1480-nm pump LD, life tests 9526
GaInAsP/InP inverted-rib LD, interrupted life test 23252
GaInAsP-InP inverted-rib LD, degrad. recovery 14847
InGaAs thermophotovoltaic cells, charactn. meas. techs. 28009
InGaAs/InP thermophotovoltaic device develop. 27979
$In_xGa_{1-x}As$/InP thermophotovoltaic cells, recomb. lifetime meas. 28006
InP D-band Gunn devices, second-harmonic power extraction up, 290 GHz 1332
InP MOS tunnel diodes, elec. charactn. 38814
InSb FPA-based IR camera for astron. telescope, electronic testing 17937
$LiTaO_3$ electro-optic probes, guided polariton generation 39478
Pd-InP Schottky diodes, cryogenic/RT, current transport 38390
Si BJTs, UHF const. output power contour predict. 38000
Si MEMS piezoelec. microactuators, nanoindentation charactn. 13914
Si devices and materials,, glow discharge opt. emission spectrosc. 29836
Si microwave varactor diodes, irrad., capacit. transients meas. 12770
Si mismatched microwave power transistors 21533
Si photoconductive pulsed power switches, dark current characts. 36438
Si photoconductive pulsed power switches, vac. surface flashover tests 36433
Si pulsed power semicond. switches, p^+-n^--n^+/n^+-n^--n^+ struct. 36436
Si single cryst. solar cell, series resist. meas. methods 36601
Si solar cells, SiO_2 AR coating tests 19979
a-Si solar cells, long-term degrad. tests and charact. 19999
Si solar cells, short-cct. currents defn. method 19978
Si solar cells, waste material-mfg., testing 19981
Si substr. integrated optoelectronic devices 7488
Si wafer mapping, lifetime/resist./oxygen precip. meas. 25945
Si:As scanning hybrid IR detector array, radiometric charactn. 17940
a-Si:H TFT, multiple stress accelerated degrad. *(Korean)* 22442
SiO_2 films, high field dyn. stress 22063
ZnSe pulsed power photoconductive switches, elec. field studies 36437
ZnSe pulsed power switches, electron-beam controlled 36450
ZnSe:I jn. devices, thermionic behavior studies 28026

semiconductor devices
see also field effect devices; integrated circuits; negative resistance devices; piezoresistive devices; power semiconductor devices; resonant tunnelling devices; semiconductor counters; semiconductor diodes; semiconductor lasers; semiconductor relays; semiconductor switches; space-charge limited devices; thermistors; transistors; transit time devices; varistors
2D semiconductors, negative differential resist., conf., Lucca, Italy (1992) 11546
2DEG, quantum Hall device, photoresist. imaging 1079
compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
conference, semiconductor interfaces, Julich, Germany (1993) 11545
diamond film semiconductors, conf., Los Angeles, CA, USA (Jan. 1994) 4
electron device science/technol., conf., South Africa (1992) 28214
ferrite-semicond. waveguide, surface MSW propag. 14263
half-bridge bidirectional DC-DC converters anal. 6006
high temp. SOI devices, W metallization technol. 22279
high temperature electronics, conf., Strasbourg, France (1994) 20219
Hong Kong electron devices meeting (July 1994) 36827
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
IEDM 1994 conf. on IC and electron devices 652
intell. differential press. transmitter develop. 3786
materials for microelectronics, conf., Barcelona, Spain (1994) 36841
metal-semicond. contacts, contact resist. anal. 22025
microelectronics for IT, conf., Stuttgart, Germany (1992) 11534
MOVPE, conf., Yokohama, Japan (1994) 11533
Nordic semicond. meeting, Iceland (Jun. 1994) 27
p-i-n photodiode defect localization by laser scanning microscopy 40174
pot. distrib. meas., Kelvin probe force microscopy 38373
radiation effects R&D in 1970s, review 13021
reliab., EOS tutorial 30191
solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
uniaxial stress/hydrostatic press. appl. 14315
GaAs/AlGaAs, independently contacted double quantum well, MBE regrowth 28732
GaAs-AlGaAs heterostruct., fab. tech., mesoscopic device appl. 12159
$InAs_{1-x}Sb_x$ RT magnetoconcentration IR photodetector 3832
$In_{0.46}Ga_{0.54}As_{0.06}P_{0.94}$ photocathode, electron longitud. energy spread 29745
InP technology, role in optical fibre communications 17189
Si component develop., telecom. equipt. protection 19844
Si devices, transit. metal impurities, book, phys. props. 20197
a-Si single-barrier device, neg. resist. charact. 6811
SiC, 6H polytype, high temp. dinistor, sublimation epitaxy 22507
SiC and related materials, conf., USA (1993) 28218
SiC single-barrier device, neg. resist. charact. 6811

semiconductor diode light emitters *see light emitting diodes*

semiconductor diodes
see also avalanche diodes; charge storage diodes; Gunn diodes; light emitting diodes; microwave diodes; millimetre wave diodes; p-i-n diodes; photodiodes; power semiconductor diodes; Schottky diodes; solid-state rectifiers; submillimetre wave diodes; tunnel diodes; varactors; Zener diodes
2D heterostruct. device simulator, steady state/transient anal. 30193
500 W DC-DC converter, power MOSFETs, 200°C operation 12322
acoustic wave/diode convolver, improved surface *(Chinese)* 14084
carrier fluct., excess noise generation 22348
charge transport and device params. from noise meas. 3970
deep levels, charge exchange, injected minority carrier accumulation 13580
diamond:B heteroepitaxial films, plasma CVD, p-n jn. diodes 20740
discrete indicator of N_2 level, Si diodes 25914
double-exponential diode model params. calc. 13578
DRAMs, boron-implanted layer, carrier suppression 22108
HV appls. of IGBT or MCT in conjunction with diode, limits 30338
IGBT switching losses, hard switching, ZVS, ZCS 6757
infinite-dimens. EM syst., chaotic dyn. 2283

semiconductor diodes continued
metal/SiH_x/Si diode struct., steady-state I-V charact. 38437
MQW injection mode diode, pulse-mode neural ccts. appl. *(Korean)* 30224
μP based instrum. for resist. and diode testing 3755
n^+-diodes, fab. by LOCOS/trench isolation, reverse breakdown characts. 6720
nin diodes, hydrodynamic simul., vel. overshoot 22329
noise, diagnostic tool in reliab. phys. 20496
piecewise-lin. diode model for transient behaviour 22347
Poisson-Boltzmann eqn., iter. spectral soln. 13602
precision/low-cost temp. transducer, develop. 17762
PV arrays, mismatch power loss anal./control 44405
sampling amp. diode bridge switches, offset voltage 37896
series reson. DC link power converter, anal. 5058
α-sexithiophene MIS diodes, charged excitations, opt. studies 13256
thin-film diode LCDs, high-quality display design 25920
three-phase PWM boost rectifiers 11159
transient thermal impedance modelling/verification 13666
two-terminal device, generalized model, param. extraction 13575
Al-SiN-Si syst., laser CVD, TFD charact. by DLTS 13597
AlGaAs-GaAs MQW diode, pulse-mode neural ccts. 37914
a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
Cu/TiN/$TiSi_2$/n^+-Si contact syst., RTN and characts. 38700
GaAs MIS diodes, at. layer passiv. 13598
GaAs detector diodes, deep-levels, impedance spectrosc. anal. 43099
GaAs pn-jn. diodes, ECR plasma-induced damage 30209
GaAs/AlGaAs diodes, electron blocking, X-valley superlattice effects 1344
$Ge_{0.3}Si_{0.7}$/Si heterostruct., minority/majority-carrier trapping 21950
InGaAs/InAlAs heterobarrier diodes, delta doping enhancement 30221
InGaP and InGaAlP, influ. of H plasma treatment on reverse currents 38809
InP n^+nn^+ diodes, hot carrier noise, Monte Carlo simul. 1348
n-InP/Ta_2O_5/Ta MIS diodes, elec. props. 13595
Si 1N4007 diode, forward charact., temp. depend. 1339
Si MOS diodes, interface-state passiv., surface pot. depend. 1182
Si diode, MeV particle irrad. 13601
Si diode temp. sens. for proc. systs. 34485
Si diodes, heavily doped, anal. of non-exponential TSCs 38808
Si low noise detector preamplifier, X-ray spectrosc. 43164
Si n^+/p diodes, charge collection and multiple-bit upset, 3D simul., CMOS SRAMs 12516
Si n-i-n diode, hydrodynamic transport model, scatt. matrix 22327
Si pn diodes, temp. depend. elec. detected mag. reson. 38793
Si porous lateral injection device struct. for LED 23054
Si:B retrograde well barrier effect against ion-induced-charge carriers 30220
Si-$Si_{1-x}Ge_x$ epitaxial devices, Ge content depend. of radiation damage 13638
a-SiC:H/a-Si:H heterostruct. diode memory devices *(Japanese)* 22416
SiC-6H, encased diffused epitaxial diode 38802
a-SiN_x:H thin film diodes, current induced drift mechanism 13588
SiO_2 films prod. by PECVD, interface and elec. props. 29969
$TiSi_2$ n^+-p diode, shallow jn. form., characts. *(Korean)* 30225
ZnMgSeTe:N,Cl, MBE, doping, diode electrolum. 22151

semiconductor doped glasses
used for semiconductor microcrystallites and quantum dots in glass matrices
see also semiconductor quantum dots
nonlin. opt. materials for switching/limiting, conf., USA (1994) 36892
quantum dot/wire struct., nonlin. optics 7738
vycor silica glass, mesoporous, fab. for nonlin. optics 30810
$Cd_{1-x}Mn_xSe$ quantum dots, magneto-opt. studies 39502
CdS quantum dot/glass filters, sol-gel method 7445
CdS, semicond. quantum dots, nonlin. opt. props. study 15143
$CdS_{1-x}Se_x$-doped glass waveguide couplers, nonlin. opt. perform. 14466
CdS_xSe_{1-x}-doped glass, energy level struct., opt. bistability 31598
CdSe-doped glass thin films, ion-beam sputtering method 37507
CdTe microcrystallites in CaF_2 thin film, nonlin. opt. prop. 40027
CuCl nanocrystals in glasses, persistent spectral hole-burning, opt. data storage 40026
CuCl, semicond. quantum dots, nonlin. opt. props. study 15143
CuInSSe-doped glass saturable absorbers for pass. mode-locking of Nd lasers 7726
GaAs nanocrystal doped glass, time resolved pump/probe Z-scan study 40067
InP nanocrystals in porous glass, nonlin. absorpt. and refr. 31514

semiconductor doping
see also doping profiles; ion implantation
0.25 μm CMOS prod., equipt./materials demands 39007
2D dopant profiling in VLSI devices, AFM study 30391
600V punch-through-epilayer IGBTs for HVIC switching, cell design 30198
BiCMOS technol., polysilicon source/drain ion implant. effects/prevention 30484
book, Si and Si alloy based materials/devices 11540
BOX layer form. by high-dose O-ion implant., Si wafers 22149
conference, vapour growth/epitaxy, Freiburg, Germany (1994) 20217
contamination in ion implant., secondary ion mass spectrometry charactn. 22137
deep-submicron MOSFET scaling study 38855
diamond:N,P, cvd epitaxy, enhanced dopant incorporation 30046
n-diamond:N,P,Li,Na,S,O, doping, review 6614
diamond:Na (Rb) (P), low energy implant., detector appl. 38497
diamond:P films, hot filament CVD, P addit. effects 28819
diamond crysts./superlattices, isotopically engineered 38502
DMOS transistors, drain doping anal., hump in leakage current 6758
effective channel length in 0.1-μm MOSFETs 30351
elemental and cpd. semiconds., Ga FIB implant. 30016
giant far action lateral phenom., ion/laser beam IC fab., reliab. 20488
GTO thyristor on basis of SDB-tech. 30278
IGBT, n′ buffer layer, static characts. simul. 1410
IGBT and MCT struct., 2D dopant profiles 30280
ion implant., neg. ion tandem high energy accelerators 30024
ion implanters for CMOS IC fab., cleanliness stds. 13282
IR photodetectors, 2-12 μm, high perform. near RT 17787
laminated semicond. struct., dopant profile control by IR spectrophotometry 38518
LDMOS RESURF devices for HVIC switching, on-resist. modelling/improvement 30313
materials synthesis/processing using ion beams, conf., USA (1993) 11594
micro-submicrometer P-MOSFETs, electron beam doping *(Chinese)* 6755
modelling of dopant diffusion, automatic mesh generation 1222
MOVPE, conf., Yokohama, Japan (1994) 11533

semiconductor doping continued
passivated HBTs, currents and current gain anal. 6737
planar p-n jn. termination, theoretical investig. 29888
poly-Si:B/Si:N multilayer gate surface channel PMOSFETs 6762
polysilicon:As microwave bipolar power transistors *(Chinese)* 21545
polysilicon emitter bipolar transistors, power appls. 22367
polysilicon emitter transistors, phosphorus doped, band struct. 30239
polysilicon TFT, plasma hydrogenation effects *(Korean)* 30348
polysilicon thin film doping, atmos. furnace 22138
power soft recovery diodes, design and technol. 30228
PPV, ion implant. doped, MISFET 38885
pseudomorphic double heterojunction power FET, optim. 12771
PV energy conversion/storage semicond. solar cells struct. 36607
quantum well struct., bandgap tuning, ion implant. 13166
radiation-hardened CMOS for cryogenic analog appls. 30447
Si:B submicron jns., doping by B layer electron beam evap. 13294
SIMOX, ultrathin low energy, high dens. appls. 30062
solar cells, radiation effects/external factors 11289
space power thermionic electrodes, CVD diamond film appls. 18745
TiO_2:Bi PEC electrodes, props. expts. 27880
Ag MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
Al vac. deposited thin film characterisation, SiO_2-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
Al/InP:Be,P, Schottky barriers, improvement by Be/P coimplantation 13209
Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
AlAs, C doping, CCl_4 and CBr_4, metalorganic MBE 1226
p-AlAs:Zn, MOCVD for low-resist. VCSEL 23246
AlAs/GaAs vert. cavity epitaxial struct., defects, X-ray obs. 14927
AlGaAs, ALE, C-incorporation mechanism 20694
AlGaAs lasers, nonplanar MOVPE, lateral p-n jns. containing p-type (311)A facets 1943
AlGaAs, p-doping, triethylamine adduct of dimethylzinc 1206
AlGaAs p-n jns., GaAs(111)A substrs., MBE growth, Si doping 20879
$Al_xGa_{1-x}As$ CBE growth, diethylsulphide doping effect 20881
$Al_xGa_{1-x}As$ DBR, reflectivity spectrum 2034
$Al_xGa_{1-x}As$, MBE from Ga_2Se_3 and Ga_2S_3 donor doping sources 37410
AlGaAs:C, C incorporation, MOVPE 22125
AlGaAs:Si, delta-doped by LP-MOVPE, HEMT appl. 22134
AlGaAs:Si, delta-doped, low-press. MOVPE 13304
$Al_{0.3}Ga_{0.7}As$:Si/GaAs heterostruct., MODFET structs., DX centers 13120
$Al_{0.35}Ga_{0.65}As$:C, thermally stable O/N implant isolation 30041
$Al_xGa_{1-x}As$:Si, MBE grown, Hall and photolum. meas. 12129
AlGaAs/GaAs HEMT design, inverse modeling 38909
(AlGa)As/GaAs:C, MOVPE, N_2 carrier gas 316
AlGaAs/GaAs:C,In HBT 1209
AlGaAs/GaAs:C,In HBTs, lattice strain control, In co-doping 22374
AlGaAs/GaAs/InGaAs struct. on nonplanar substrs., MOCVD, doping, laser appls. 20960
AlGaInP orange LEDs, misoriented p-GaAs substrs. 14642
AlGaInP:Si, metalorganic CVD, elec. and opt. props. 28778
AlGaInP:Si(Zn)/GaAs LED, low-press. metallorganic VPE 39583
AlGaInP:Zn, H-passiv. of acceptors in MOVPE layers 22129
AlGaInP/AlGaAs:C red/IR VCSEL diodes, metalorganic VPE 20823
AlGaP:N, MOVPE, doping charactn. using tertiarybutylamine as N source 22132
$Al_xGa_{1-x}Sb$, MBE from Ga_2Se_3 and Ga_2S_3 donor doping sources 37410
AlInAs:Si, MBE, doping characts., deep levels 1219
Au MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
B polyemitter form., role of point defect sources 22381
C doping in metalorganic vap. phase epitaxy 22124
$Cd_{1-x}Mg_xTe$, doping, MBE 38490
CdTe, detector grade, doping, compensation 43103
CdTe:Ga, diffusive doping, photolumin. obs. 22147
CdTe:I, doping, interact. between I in closed tube diffusion 13316
CdTe:In, MBE growth/In doping 30057
CdTe:In photolum., stoichiometry effect 38513
CdTe:Ti(V), charactn., time depend. charge meas., PICTS 30020
$Cd_{1-x}Zn_xTe$:In, pure and doped, doping induced defects, photolum. obs. 22142
Co-phthalocyanine thin films, elec. cond., O doping, IV charact. 21939
$CoSi_2$ doping source for RTA of shallow p^+-n jns. 22099
$CuInSe_2$, jn. electrolum., microscopic diode struct. 31110
$CuInSe_2$:Sb thin films, growth and props. 38275
GaAlAs, metallorganic CVD, Zn-doping proc. 28843
GaAs, ALE, C-incorporation mechanism 20694
GaAs MESFET fabricated by internal interconnection tech. 13803
GaAs based cpds., Si diffusion, doping profile control and 2DEG form. 6627
GaAs crysts./superlattices, isotopically engineered 38502
GaAs, dimethylaluminum methoxide-doped , shallow donors compensation 6617
GaAs high current power VFET, fab. proc. 30384
GaAs, low-temp. grown, delta doping, As precip. 38501
GaAs, metallorganic CVD, Zn-doping proc. 28843
GaAs, open-tube impurity doping, spin-on silica films *(Japanese)* 22145
GaAs, p-doping, triethylamine adduct of dimethylzinc 1206
GaAs p-n jns. and ohmic contact form. by laser solid-phase diffusion 30052
GaAs power MESFET, MBE growth, 4.7 V operation, 900 MHz charact. *(Korean)* 38920
GaAs:As, implanted struct., MOCVD, charactn., appls. 22159
GaAs:C, C activation, amorph. layer regrowth 30037
GaAs:C, C incorporation, MOVPE 22125
GaAs:C, C ion beam doping/MBE 28773
GaAs:C, MOCVD, doping and growth rate reduction by CCl_4 403
GaAs:C, coimplantation, energy/dose rate obs. 30049
GaAs:C films, MBE, C^+ beams, photolum. 28789
GaAs:C, heavily doped, LP-MOVPE, carrier gas effects 22133
GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
GaAs:C, solid source MBE, uniform/delta doping, at. C pairing 38488
GaAs:C/AlGaAs HBT, reliab. 13640
GaAs:C(S), CBE and in situ etching, opt. monitoring 359
GaAs:C,H, isolated H-donors, deactivation mechanism 22130
GaAs:Cr, picosecond transient gratings, expts./modelling 31491
GaAs:Er, MBE grown, struct. anal. 37440
GaAs:Er very high-speed MSM photodiodes, fab., charactn. 31076
GaAs:O, MOVPE, elec. charactn., O incorporation control 20775
GaAs:Si, Si diffusion by RTO 38523

semiconductor doping continued
GaAs:Si, at. layer doped, thermal stabil. 22110
GaAs:Si, decoration phenom. during planar doping, magnetoresist. effects 13285
GaAs:Si, delta-doped, low-press. MOVPE 13304
GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
GaAs:Si, doping in MOVPE from tertiarybutylarsine and tetraethylsilane 22128
GaAs:Si, heavily doped, MBE, elec. props. 1040
GaAs:Si, incorporation, MOVPE from tertiarybutylarsine 22126
GaAs:Si, planar doped, autocompensation 22111
GaAs:Si/Al/GaAs:Si, δ-doped superlattice, Al barrier interface roughness 38412
GaAs:Si/GaAs(111)A, p-n struct. charactn. 29876
GaAs:Si(Be), low-temp. MBE, dopant effects 21917
GaAs:Si,Be, periodically δ-doped, carrier lifetime meas. 21907
GaAs:Sn, n-type doping, MBE 1207
GaAs:Sn(Zn), LPE growth, Bi-based melts, solar cells 27949
GaAs:Zn, Zn incorporation, OMVPE growth 30019
GaAs:Zn(Sn), p/n-type impurity diffusions, doped silica films 38500
GaAs/$Al_xGa_{1-x}As$, MOVPE, n-doping, 2D electron gas struct. 22152
GaAs/AlGaAs heterostruct., deep impurity doped, elec. field and refr. index change 30817
GaAs/AlGaAs quantum wells, doping dens. and barrier lowering effect, IR detectors 23019
GaAs/AlGaAs quantum wire lasers fabricated by cleaved edge overgrowth 1964
GaAs/AlGaAs superlattices, IR detectors, MOVPE growth 37418
GaAs/AlGaAs:C(Zn) lasers, bandgap-tuned, C(Zn) doping 1944
GaAs/AlGaAs:Sb MQW, disordering, isoelectronic Sb implant effects 1217
n-GaAs/AlGaAs:Zn/AlGaAs:Se struct., Zn diffusion mechanism 21955
GaAs/InGaAs, δ-doped heterostruct., hot carriers, NDR transistor 30374
GaAs-GaAs(111)A:Si, modulated beam epitaxy 20664
GaAs-InGaAs δ-doped real-space transfer transistor 30367
GaAsP, As-implant. damage effects 30058
GaAsP, at. layer MBE, P_2 incorporation efficiency 30059
GaInAs PIN photodiode, LPE growth, Er gettering 39567
GaInAs solar cells, radiation response, doping effects 19992
GaInAs:Ti, Ti doping, $TiCl_4$ 22131
GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
GaInP:Se, Se doping by ALE 30033
GaInP/AlGaInP QW struct., Zn doping, laser appls. 14977
GaN:Mg, metalorganic CVD growth, doping memory effects 20940
GaN:Si, Si doping, disilane 38478
GaP:N layers, OMVPE using TBP, N doping 1208
GaP:N microcrystals, gas evap. doping, photolumin. study 38481
GaSb, ion implant. effects 1214
GaSb single crysts. doping, various elements 22140
GaSb:Cu single crysts., Cu doping 13302
GaSb:Se, heavily doped, extended defects, TEM 13303
Ge crysts./superlattices, isotopically engineered 38502
Ge δ-layers on Si(111), interface roughening 38522
Ge:H, isotopically engineered, neutral-impurity scatt. 21887
a-Ge:H,In(Ga) films, cosputtering deposition, sputtering yield ratios 5876
a-Ge:H,S, optoelectronic props, effects of S incorporation 39556
Ge:O crysts./superlattices, isotopically engineered 38502
Ge:Sb,Ga, nuc. transmutation doping, impurity elec. activity 13295
GeSi:P-Si pseudomorphic MBE films, RTA vs. steady-state furnace annealing 22095
HgCdTe MBE technol., chem. doping 37422
HgCdTe layers on GaAs substr., MOVPE, autodoped Ga conc. reduction 20893
$Hg_{1-x}Cd_xTe$ cryst. growth, travelling heater method 5806
$Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
HgCdTe:B,In, multi-step RTA 6606
$Hg_{1-x}Cd_xTe$:I, MBE grown, n-type doping 6611
InAlAs:Zn, MOVPE grown, doping, MQW electron transfer struct. appl. 13318
$In_{0.52}Al_{0.48}As$:Fe,Ti, compensation implants 13287
InGaAs thermophotovoltaic cells, charactn. meas. techs. 28009
p- InGaAs:C, appl. to InP/InGaAs HBTs 13072
InGaAs:Se, specular surface thermal stabil. in LP-MOVPE 22127
InGaAs:Si/GaAs strained QW, δ-doped, electronic struct. 29943
p-$In_{0.21}Ga_{0.79}As$:Zn/Au Schottky diodes, interface states, doping effects 38420
$In_{0.53}Ga_{0.47}As$:C, metalorganic MBE, doping profiles, carrier dens. 28777
InGaAs/AlGaAs/GaAs MODFETs, high breakdown, fab. 22477
InGaAs/AlInAs heterostruct., electron transport, transistor perform. 6563
InGaAs/GaAs depletion-MIS-like delta-doped HFETs 13810
InGaAs/GaAs tapered MQW lasers, modulation doping and reduced filamentation 39873
InGaAs/InAlAs heterobarrier diodes, delta doping enhancement 30221
InGaAs/InP JFET, step-doped channel doping for OEIC receivers 14653
$In_xGa_{1-x}As$/InP thermophotovoltaic cells, recomb. lifetime meas. 28006
InGaAs-GaAs-AlGaAs:Ar(He) strained SQW, disordering by ion implant. 13135
InGaAsP, $Si^+(Be^+)$ ion beam proc. 30036
InGaAsP epitaxial layers on GaAsP substrs., orange LED appl. 12128
InGaAsP/InP false MQW, MOCVD/CBE growth, As,P incorporation 12063
InGaP, LD current blocking layer, selective MOVPE regrowth 20764
InGaP/GaAs epilayers grown by low-press. MOVPE, cationic ordering 12116
In_2O_3:Sn films, phys. props., doping-induced changes 30034
InP HEMTs, ohmic contacts, cap-layer doping 1438
InP, MeV ion implantation, device appls. 13288
InP, and related materials, conf., Paris, France (April 1993) 11521
InP p^+n and n^+p structs., electrochem. anal. solar cells appl. 13107
InP thermally diffused solar cells, photo-injection annealing 19993
InP:B(O)(Fe), p^+ epilayers, elec. isolation by MeV ion implantation 13289
InP:Be, Be distrib. control in gas-source MBE 12064
InP:Be, MOVPE growth, bismethylcyclopentadienyl-beryllium 37430
InP:C, C activation, amorph. layer regrowth 30037
InP:CdTe, LEC growth and double doping, dislocations 12025
InP:Fe, Fe doping nonuniformity, mapping method charactn. 13300
n-InP:Fe, Fe implant., SI layer form. 1210
InP:Fe, LEC growth, wafer annealing controlled doping 28712
InP:Fe, Mg, Mg/P, Mg/Ar implants, elec./opt. charactn. 29856
InP:Fe epilayers, buried layers by Fe implantation 13286
InP:Fe, photolum., Fe concentration depend. 13045

semiconductor doping continued
InP:Fe,Ti, semi-insulating, codoping process, growth 13319
InP:Fe,Ti, thermally stable layer growth 20774
InP: S(Sn)(Fe) substrates, scatt. defects, laser scanning tomography 13043
InP:Si,H, gas-source MBE, H incorporation 38507
InP:Sn, ion implant, RTA, anal. meas. 38465
InP:Ti, Ti doping, $TiCl_4$ 22131
InP:Ti, compensation implants 13287
InP:Zn, LEC grown, heavily doped, struct. charactn. 13301
InP/GaInAs HBTs, ultra high base doping, high emitter effic. 30248
p-InP/n-InP/InGaAs, S-doped DH-HEMT, props. 13787
InP-based LD, TEM, strong contrast from doping vars. 13308
InSb, implant. damage reduction in mag. field, XRD meas. 38517
$In_2SnO_3:In^+$, native defects donor generation by In implant. 38485
$LiVO_3:Cr_2O_3$ ceramics, thermoelec. power meas. 27983
Nb MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
PbSe:Bi films, amphoteric doping behavior 22146
Pd-Ge-Ti-Pt ohmic contacts, p^+-GaAs:C/$Al_{0.26}Ga_{0.74}As$:C 38658
Si, B implants through SiO_2 films, implant. damage/anom. diffusion 13283
Si, BF_3 plasma immersion ion implant., dose-time rel. 37488
Si, CZ grown, equiv. element Ge doping, effects on O_2 donors *(Chinese)* 38519
Si, Er implant., solid phase epitaxial recrystn. 30015
Si TFT, H ion shower doping effect 13711
Si bipolar transistors, in-situ/rapid vap.-phase doping 30238
Si cryogenic detectors, ion-implanted charge collection contacts 38487
Si, detector grade, bulk defects, radiation damage 43105
Si devices, transit. metal impurities, book, phys. props. 20197
Si, dopant diffusion modeling, automatic grid refinement 22115
Si, doped crysts. and devices, hydrostatic press. effects 21882
Si epitaxial multilayers, auto-doping phenom. *(Chinese)* 22141
Si films, ion beam epitaxy, UHV, sputtering-type metal ion source 37405
Si, float-zone grown/NTD, positron annihilation obs. 38470
Si ion implant., VLSI mfg. for commercial appl. 30035
Si, ion-induced amorphization, model 1231
Si, n^+-p surface avalanche diodes, doping instabil. 13609
Si shallow-jn. form., RTA doped SOG films 21964
Si solar cells, high efficiency, pilot prod. 44402
Si wafer, P doping, P_xO_y conc. profile model 1215
Si:Ar(100), ion implant. transient reflecting grating study 1205
Si:As MOSFET *(Japanese)* 13681
Si:As, enhanced diffusion caused by elec. deactivation 22158
Si:As single-cryst., deeply-channeled implanted profiles simul. 30023
Si:B (100) single cryst., computationally-efficient 2-D model 30021
Si:B, MeV implant., masking effects 30040
Si:B SEG, indust. integrated cluster tool 20847
Si:B, ULSI high conc. diffusion modelling, dyn. clustering, init. conditions 38520
Si:B, δ-doping, APCVD 22112
Si:B doped by plasma source ion implant., struct. anal. 30056
Si:B doping, proximity rapid thermal diffusion from spin-on-dopants 22144
Si:B, enhanced diffusion due to ion implant. in thin-base npn BJTs, model 38997
Si:B, epitaxy, B incorporation 12101
Si:B, form./control of B buried layers, excimer laser 13291
Si:B, implant. and transient B diffusion, interstitials 1228
Si:B micromachined cantilevers, ageing, doping effects 22624
Si:B, weakly compensated, impurity band evol. 1028
$Si:B^+,N^+$, dual implant. depth distrib., radiation defects 22136
Si:B(001)2×1, gas-source MBE, B-incorporation, elec. props. 38506
Si:B(Al)(Ga)(As)(Sb) polycryst. films, sublimation method growth and doping 20972
Si:B(BF_2) p^+ poly-Si gate surface-channel PMOSFETs, boron penetration, hot carriers 30356
Si:B(P), doping by solid-phase diffusion 22139
Si:B,Al, doping/epitaxial regrowth 6609
Si:B,F(Ne), boron diffusion, ion implant. effects, proc. modeling params. 38505
Si:C,O plates with nonuniform stress distrib., mechanisms for O gettering 29833
Si:Er cryst., Er opt. activation, excitation, conc. limits 38483
Si:Er, surface segreg./trapping, MBE 30051
a-Si:H and poly-Si thin films, P ion shower doping study *(Korean)* 13284
a-Si:H, pseudodoped, vidicon target material 1057
$Si:H^+$, ion implant. deep levels, elec. field perturb. 38480
μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
a-Si:H,B n-i-n layers, current induced degrad. 38281
Si:In, MBE doping kinetics, rate eqn. model 1211
n-Si:In(Al), porous, metal deposition into pores, electrolumin. obs. 22157
Si:Li, fast Li electromigration, low temp. device creation 30047
Si:N for micromachining, cantilever/membrane structs., Monte Carlo simul. 30489
Si:O-on-insulator, implant.-induced stresses, defect pair 30044
Si:O,C,Si,P, P-diffusion, ion implant. damage effects 6523
n-Si:P amorph. CVD films, crystn., elec. props. 405
Si:P crysts./superlattices, isotopically engineered 38502
Si:P, epitaxial films grown by rem. PECVD 38509
a-Si:P/Si, shallow jn. form., diffusion from spike-doped CVD amorph. layer 38514
Si:P(B) thin film, solidif., dopant effect *(Korean)* 22156
Si:P(B)(As) VLSI submicron jns., proximity rapid thermal diffusion 6625
n-Si:P,Al, photonuclear transmutation doping, resist. uniformity 6613
Si:P,B(As), phosphorus diffusion 29844
Si:Sb low compensation impurity band photoconductors 39551
Si:Sb,B substrs., sub-PPB B contamination determ. 6522
Si:Sn(001), strain determ. and microstructural charact. 22150
Si-based device proc., radiation damage 22160
Si-on-sapphire films, SPE, recrystn. by annealing, props. 22076
$SiC:Ga^+$, defect prod., annealing 22105
β-SiC:N layers grown on Si substr., ion implant. studies 38482
α-SiC:N(Al), ion implanted dopant activation, pulsed laser annealing 30048
SiC:N,Al,B, CVD, unintentional contaminants incorporation 20901
n-SiC/Ni(Ti/Al), ohmic contact resist., reduction by heavy doping 22024
SiC-H aerospace power IC device structures 26587
SiGe HBTs, output conductance anoms., modelling 22389
SiGe thermoelec. materials optim., space power appls. 26585
$Si_{1-x}Ge_x$ films, dopant effects on resist., subsequent annealing 13089
SiGe:B(P)-Si strained heterostruct., RTP/very LPCVD growth, in-situ doping 20844

semiconductor doping continued
$Si_{1-x}Ge_x$:P, epitaxial films grown by rem. PECVD 38509
SiGe/Si QW, local Ga implant., ambipolar lateral carrier transport 1230
SiO_2, BF_3 plasma immersion ion implant., dose-time rel. 37488
SnS_2:In, elec. props./photolumin. study 30054
$Sr_{14-x}Ca_xCu_{24}O_{41}$ layers, carrier doping, elec. resist./mag. suscept. 22153
$TiSi_2$ n^+-p diode, shallow jn. form., characts. *(Korean)* 30225
$Zn_xCd_{1-x}S$:N, metalorganic vap. phase epitaxy growth, photo-assistance 20789
p-ZnCdSe/ZnSe:N, tilted substrs. effect 22155
ZnMgSe, mol. beam epitaxial doping, $ZnCl_2$ 38479
ZnMgSeTe:N,Cl, MBE, doping, diode electrolum. 22151
ZnO:Al thin films, ALE growth from organometals 20667
ZnO:Al(Ga), doping epitaxial layers, chem. transport growth 38512
ZnO:Ga varistor, grain boundary, Ga donor doping 6345
ZnSe MBE, nozzle-beam-type microwave radical source 28787
ZnSe, MOVPE from allyl selenide and trialkylphosphine selenide precursors 20784
ZnSe blue-green LD for optoelectronics 23291
ZnSe, p-type doping, Li_3N diffusion 1229
ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412
ZnSe:I, VPE growth, I incorporation 5848
p-ZnSe:N, MBE growth/opt. props. 22154
ZnSe:N, MOVPE growth, cathodolum. charactn. 20788
ZnSe:N, N-doping effects 38508
ZnSe:N p/n jn. diodes, metalorganic vap.-phase epitaxy 20787
ZnSe:N, photoassisted doping, ethyl azide 1224
ZnSe:N,C,H, plasma-stimulated low-press. metalorganic vapour phase epitaxy syst. 20791
ZnSe:N,H, metalorganic chem. vap. deposition, nitrogen source materials 20944
ZnSe:Te,N, N-doping effects 38508
p-ZnSe/ZnSe:N, tilted substrs. effect 22155
ZnSe-based LED, low-press. MOVPE 23043
ZnSe-based blue-green lasers, conf., Wurzburg, Germany (1994) 20220
ZnSe(Te):N, doping, first principles calcs. 13317
ZnTe:N grown by MBE, N incorporation, Ar dilution in N plasma source 1212

semiconductor-electrolyte boundaries
n-$CuInSe_2$/polysulphide photoelectrochem. solar cells, spray-pyrolysis 27933
GaAs, dispersed semicond. particles, doping effects *(Korean)* 13263
GaAs-based struct., electrochem. C-V profiling, electrolyte 13122
InP-based struct., electrochem. C-V profiling, electrolyte 13122
Pt/GaAs electrode/particulate syst., electrophysical phenom. *(Korean)* 13264
Si, dispersed semicond. particles, doping effects *(Korean)* 13263
Si, etching mechanism and band model in aq. KOH 13388
Si photoelectrode, efficient reductive/oxidative current flow 38453
Si wafers, photocurrent imaging, electrolyte contacts 31069
Si/electrolyte interface, impedance, deconvolution 6594
p-Si/potassium ferri-ferrocyanide electrolyte interface, FTIR-ATR 6595
n-$SrTiO_3$ photoelectrode in 0.1 M NaOH soln., impedance anal. 6597
TiO_2 films, thermally form., semicond. props. 29866

semiconductor epitaxial layers
600V punch-through-epilayer IGBTs for HVIC switching, cell design 30198
bulk II-VI substrs., improved quality for HgCdTe and HgZnTe epitaxy 37421
CMOSFETs, HI-induced single event transients in epitaxial struct. 13718
compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
config. at. ordering, stochastic adsorpt. procs. in MBE-growth 20688
copper phthalocyanine film, MBE growth 20809
crystal quality problems in epitaxial growth on InP 12065
δ-doping during MBE, impurity atom distrib. 13296
depleted heteroepitaxial layer/substr. interface, capacitance meas. 21948
diamond:B, highly oriented films on Si, growth, charact. and devices 5820
diamond:B films, homoepitaxial and polycryst., elec. props. 21890
diamond:B heteroepitaxial films, plasma CVD, p-n jn. diodes 20740
diamond:N,P, cvd epitaxy, enhanced dopant incorporation 30046
diamond, heteroepitaxial deposition on sharpened Si tips 37424
diamond, ion beam and laser-assisted micromachining 13907
diamond (001) B-doped homoepitaxially grown films, Hall mobility, carrier conc. 21883
diamond films, plasma CVD, localized epitaxy, Si substrs. 5841
diamond MOSFETs on epitaxial thin films, fab., cct. appls. 22437
diamond plasma CVD on heteroepitaxial BN on Si(100) 28818
diamond Schottky barrier diode, fab. and characts. 22350
ECL BiCMOS, sub-30 ps, proc. integrat. technol. 22616
$Ga_{1-x}In_xAs$-$InAs_yP_{1-y}$-InP, strain relax., photodiode appl. 12054
II-VI semicond. MBE layers, cond. meas., contactless microwave method 42908
II-VI semiconds. low-temp. growth, SR 28771
ii-vi wide-gap semiconds., MOVPE, optoelectronic appls., review 20887
III-V semicond., epitaxial growth on dissimilar Si substrs. 330
III-V semicond. growth params. in MBE, in-situ meas. and control 20737
III-V semiconds., pulsed-jet epitaxy, device procs. 20669
InP, ALE growth, XRD/Raman Obs. 12052
MBE facility, two synchronized modulated beams 37390
MOVPE, conf., Yokohama, Japan (1994) 11533
overview of epitaxial deposition technol. 12041
photoassisted growth of II-VI semicond. films 28762
phthalocyanine films, MBE growth/photoelectrochemical procs. 20811
power bipolar transistor perform. optimisation, high current dens. 30253
semicond. multilayers, NDT charactn. 20998
struct. photomodulated diagnostics, microwave resonator transducer synthesis *(Russian)* 13098
submilliamp tunable three-terminal vert.-cavity LD 7649
ternary III-V semiconds., epitaxial growth, dyn. model 37446
trench MOS-gated power devices 6706
AlAs ALE growth mechanism 20696
AlAs, MBE, dyn. surface procs., time-resolved RHEED 20872
AlAs, MBE grown, wet oxid. 1276
AlAs, MOMBE growth, alane precursors 20843
AlAs, device quality ALE growth 20665
AlAs epitaxial layers, hydride/chloride systs., thermodyn. aspects 377
AlAs layers, low C content, ALE growth from ethyldimethylamine alane 206[illegible]0
AlAs, metalorganic MBE growth, reflectance anisotropy spectra 28720
AlAs, metalorganic VPE growth, wide terrace form. 20732

semiconductor epitaxial layers continued
AlAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
$AlAs_ySb_{1-y}$ ternaries, comp. depend. on ratio of Sb/As fluxes/substr. temp. 37443
n-AlGaAs, DX levels, carrier conc. saturation effect 29860
AlGaAs, MBE-grown, As capping 1286
AlGaAs, MOCVD/MBE on GaAs, elastic consts., Poisson ratio 28752
AlGaAs, MOMBE growth, alane precursors 20843
AlGaAs, MOVPE from triethylgallium and dimethylethylaminealane 20777
AlGaAs, device quality ALE growth 20665
AlGaAs, epilayers, MOCVD grown, HRTEM charactn. 20772
AlGaAs film, epitaxial growth, laser reflectometry 28767
AlGaAs, high purity, methyl-based precursors, in situ alkoxide gettering 299
AlGaAs layers, liq. phase electroepitaxial growth, GaAs substrs. 20871
AlGaAs layers on GaAs(100), MOVPE, lattice relax. obs. 20747
(AlGa)As, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
$Al_{0.35}Ga_{0.65}As$, metalorganic VPE growth, wide terrace form. 20732
$Al_xGa_{1-x}As$ CBE growth, diethylsulphide doping effect 20881
$Al_xGa_{1-x}As$ epitaxy, reflectometer/ellipsometer perform. capabilities for comp. anal. 42959
$Al_xGa_{1-x}As$, OMVPE grown, elec. charactn. 13223
AlGaAs:(Si), MBE grown, positron annihilation studies 21915
AlGaAs:C, C incorporation, MOVPE 22125
AlGaAs:N,C, thermally stable C-N deep level 28742
AlGaAs:Si, delta-doped by LP-MOVPE, HEMT appl. 22134
$Al_xGa_{1-x}As$:C, MOMBE grown, annealing 28774
$Al_xGa_{1-x}As$:Si, MBE grown, Hall and photolum. meas. 12129
AlGaAs/GaAs HEMTs for MM wave appls. 37978
AlGaAs/GaAs MQW, near- and mid-IR two-photon absorpt. 31538
AlGaAs/GaAs injection lasers, electron superlattice barriers 39836
AlGaAs/GaAs integrated lin. injection laser array, emission charact., pumping appls. 39759
AlGaAs/GaAs npn HBTs, MBE fab. and charactn. *(Korean)* 30264
AlGaAs/GaAs solar cell struct., LPE etchback-regrowth 27948
AlGaAs/GaAs(InGaAs/GaAs) microwave/millimetre-wave HEMTs, noise model 831
AlGaAs/InGaAs/GaAs heteroepitaxial layers characterisation 21901
$Al_{0.43}Ga_{0.57}As/In_{0.2}GaAs$:Te modulation doped heterostruct., carrier confine. 29881
$Al_{0.5}Ga_{0.5}As$/GaAs multilayer, NaClO stain-etched, AFM 30072
AlGaAs-GaAs DH LEDs, MBE 39588
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
AlGaAs-GaAs HBT-based direct coupled feedback transimpedance amp. 29065
AlGaAs-GaAs quantum wire struct., comp. modulation studied by photolum. 38357
$Al_xGa_{1-x}As$-based systs., LPE by ultrafast cooling 37454
AlGaInAs/InP 1.5 μm MQW DFB LD exceeding 20 GHz bandwidth, MBE/MOCVD 23229
$(Al_xGa_{1-x})_{0.5}In_{0.5}P$ layers, metalorganic VPE growth, step-bunching 20734
AlGaInP:Si, metalorganic CVD, elec. and opt. props. 28778
AlGaInP:Zn, H-passiv. of acceptors in MOVPE layers 22129
p-AlGaInP:Zn, metalorganic VPE growth, alternate sources, phosphine 20752
AlGaInP/GaInAsP MQW vis. LD, beam charact., reliab. 31351
AlGaInP/GaInP, multiwafer, MOCVD growth 20959
AlGaN epitaxy on sapphire using AlN buffer layers, cryst. struct. 364
$Al_xIn_{1-x}As$, MBE/CVD growth, elec. props. 12060
AlN-GaN qtr.-wave reflector stack, gas-source MBE 14565
AlP/GaP short period superlattice, organometallic VPE growth, photolumin. obs. 20753
Bi_2Te_3 thin films on Si(111) substr., cryst. growth, sticking coeff. 28716
C doping in metalorganic vap. phase epitaxy 22124
3C-SiC CVD grown epilayer, carrier lifetime, deep levels *(Japanese)* 1066
3C-SiC epilayers fab., elec. props. *(Japanese)* 372
3C-SiC undoped CVD epilayer, carriers orig. *(Japanese)* 1067
p-$Cd_xHg_{1-x}Te$ epitaxial layers, electron mobility 13070
$Cd_xHg_{1-x}Te$ epitaxial layers, laser irrad., photoelectrical props. 14585
$Cd_xHg_{1-x}Te$/CdTe epitaxial struct., carrier recomb., microwave method 21943
CdMnTe(001), MBE growth, struct., opt. props. 37392
CdS epitaxial films, pulsed laser deposition 358
$CdS_{1-x}Se_x$ hexagonal alloy films, epitaxial growth, photolum. 20882
CdSe, MOVPE, precursor gas monitoring by photolum. 34617
CdSe epitaxial films, pulsed laser deposition 358
CdSe, metalorganic VPE/MBE growth, opt. monitoring 20725
CdTe MBE, two-zone effusion source 20812
CdTe epitaxial films, pulsed laser deposition 358
CdTe, metalorganic VPE, situ laser reflectometry 20726
CdTe, monocrystalline films, ICB epitaxy *(Chinese)* 5813
CdTe passiv. for long-wavelength HgCdTe photodiodes, elec. props. 1277
CdTe:In, MBE growth/In doping 30057
CdTe:N MBE films, photolum. and p-type cond. 1038
CdTe/GaAs(100) heterojunction growth, Si interface layers 21966
CdTe/InSb heterointerfaces, temp. gradient vap. transport deposition, interfacial layer form. 371
CdZnTe on Si, direct MBE growth for large-area HgCdTe IR FPA appl. 375
CdZnTe(100)/ZnTe(100), MBE growth on Si(100) 37423
$CuGaSe_2$ single crysts. epitaxial growth by halogen transport, $Se(CH_3)_2$ 306
$CuInSe_2$, heteroepitaxy on Si, charactn. 13087
$CuInSe_2$ layers, heteroepitaxial, direct growth on Si substrs. 363
$CuInSe_2$ single crysts. epitaxial growth by halogen transport, $Se(CH_3)_2$ 306
$CuIn_3Se_5$, heteroepitaxy on Si, charactn. 13087
Ga-In-P-As/InP, liq. phase heteroepitaxy, substr. morph. instabil. 37397
Ga(Al)As, MBE growth on (001) surface, dyn., RHEED study 37436
GaAlAs, metallorganic CVD, Zn-doping proc. 28843
$Ga_{1-x}Al_xAs$ epitaxial layers, hydride/chloride systs., thermodyn. aspects 377
$Ga_{0.9}Al_{0.1}Sb$, undoped/Ge doped, epitaxial films, elec. props. 13058
$Ga_{0.66}Al_{0.34}SbAs$, undoped/Ge doped, epitaxial films, elec. props. 13058
GaAs ALE, As desorpt., real-time in situ gravimetric monitoring 20868
GaAs, ALE, self-limiting/step-propag. nature, AFM 20684
GaAs, CBE growth, free carrier gas tech. 28717
GaAs, CBE growth on Si(001), TEG and AsH_3 *(Chinese)* 5814
GaAs, CBE growth, reduced C incorporation, H radical effect 5845
GaAs, CBE, tris-dimethylaminoarsenic 28738
GaAs, LPE on 100mm diam. GaAs substrs. 351
GaAs LPE process, cavity geometric effect 37414

semiconductor epitaxial layers continued
GaAs LPOMVPE, crystallographic orient. depend. of growth rate 28740
GaAs MBE, H-assisted 20862
GaAs, MBE at 250°C, growth, charactn. *(Korean)* 28782
GaAs, MBE, dyn. surface procs., time-resolved RHEED 20872
GaAs, MBE grown, elec. breakdown props. 21908
GaAs MBE growth on B, RHEED intens. oscills. 20851
GaAs MBE layers, dominant deep level 13054
GaAs MBE layers, low temp. grown, elec. props. 13066
GaAs MBE on Si, InGaAs/GaAs strained-layer superlattice effects 5842
GaAs MBE, step edge supersaturation, As/Ga flux depend. 20834
GaAs, MBE, struct. charactn. 37459
GaAs, MBE, surface diffusion, adatom stoichiometry, microprobe-RHEED/SEM MBE obs. 20682
GaAs MBE thin films grown on Si, biaxial compression 20837
GaAs MESFET, buried channel self-aligned proc., MMIC appl. 38930
GaAs MESFETs for HF high-temp. switched-mode power converter, MBE 30381
GaAs MISFETs, MBE-grown GaAs insulator, breakdown voltage improve. 30337
GaAs MLE 20663
GaAs, MLE growth, surface treatment, ideal SIT appl. 20668
GaAs, MOCVD on annealed Si in H_2 20771
GaAs, MOMBE selective growth, GaN mask 20666
GaAs, MOMBE using triethylgallium, trisdimethylaminoarsenic 28726
GaAs, MOS-hydride epitaxial growth, cryogenic purification of arsine 28737
n-GaAs, MOVPE, MBE, electron irrad., schottky diode charact. 28741
GaAs MOVPE, multiatomic step form., GaAs/AlGaAs QW wires 20835
GaAs TUNNETT diode oscillators above 100 GHz, diamond heat sinking and power combining 12778
GaAs VPE grown films, DTLS 20869
GaAs buffer layers, MBE grown, electronic props. 13056
GaAs, cond. of opt. excited electrons in quantizing mag. fields 38249
GaAs cpd. semicond. surfaces, stoichiometry changes 20839
n-GaAs, current oscills., self-generated/externally driven 13039
GaAs devices, plasma-assisted passivating proc., LF noise meas. 13410
GaAs, dimethylaluminum methoxide-doped , shallow donors compensation 6617
GaAs epilayers, MBE, annealing thermal stabil., As precip. 308
p-GaAs epilayers, MBE grown, deep acceptor impurities 1037
GaAs, epilayers, MOCVD grown, HRTEM charactn. 20772
GaAs epilayers, metalorganic CVD growth 37411
GaAs, epitaxial growth, surface SHG study 37429
GaAs epitaxial layers, charactn., annealing effects 13277
n-GaAs, epitaxially lifted-off film, Pd/Ge ohmic contacts 29954
GaAs films, temp. synchronized MLE 20676
GaAs, growth from trimethyl gallium 28725
GaAs in-situ maskless selective epitaxy by low-energy Ga focused ion beam, As_4 mol. beam 20875
GaAs layers on Si(001), MBE/ALE grown, defect struct. 12113
GaAs, liq. phase electroepitaxial growth, 2-D diffusion model 300
GaAs, low-press. metalorganic vap. phase epitaxy 12078
GaAs, low-temp. MBE growth, defects/As distrib., XPS, positron annihilation meas. 21916
GaAs, low-temp. MBE, nonalloyed ohmic contacts 29961
GaAs, low-temp. grown, delta doping, As precip. 38501
GaAs, metallorganic CVD, Zn-doping proc. 28843
GaAs, metalorganic CVD growth, 2D nuclei, STM study 20733
GaAs, metalorganic VPE growth, gas phase adduct form. 20731
GaAs, metalorganic VPE growth, wide terrace form. 20732
GaAs nanowhiskers, site-controlled growth 12121
GaAs, photoenhanced metalorganic CVD, substr. role 12122
GaAs, photon-assisted MOMBE growth 28765
GaAs, selective ALE growth, surface procs. 20670
GaAs, selective area CBE 28768
GaAs selective epitaxy on GaAs (111)B substrs., in-situ obs. 20874
GaAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
GaAs surfaces, wet/dry etched, ellipsometric model 21914
GaAs tapered QW, selectively contactable 2DEG, shadow masked MBE 38346
GaAs vac. ALE growth, tertiarybutylarsine 28743
GaAs:As, implanted struct., MOCVD, charactn., appls. 22159
GaAs:Be, polycryst., heavily doped, diffusion props. 1043
GaAs:C, C incorporation, MOVPE 22125
GaAs:C, C ion beam doping/MBE 28773
GaAs:C CBE growth, in-situ monitoring 20880
GaAs:C, HBT base-layers, electron lifetimes, annealing effects 1200
GaAs:C MBE layers, ion-beam doping 22122
GaAs:C, elemental Ga/As sources and CCl_4 gas source, MBE growth 28739
GaAs:C films, MBE, C^+ beams, photolum. 28789
GaAs:C films, MOCVD grown, heavily doped, elec. props. 38253
GaAs:C, heavily doped, LP-MOVPE, carrier gas effects 22133
GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
GaAs:C, polycryst., heavily doped, diffusion props. 1043
GaAs:C/AlAs periodic struct. CBE growth, in-situ monitoring 20880
GaAs:Er, MBE grown, struct. anal. 37440
GaAs:Er, ion implant./MBE, Er-related deep centres 38516
GaAs:In layers, LPE grown, charactn. 5826
GaAs:N,C, thermally stable C-N deep level 28742
GaAs:O, MOVPE, elec. charactn., O incorporation control 20775
GaAs:O, MOVPE, ultrafast photodetector materials appl. 23064
GaAs:Sb grown by LPE, electron traps, DLTS 21918
GaAs:Si, at. layer doped, thermal stabil. 22110
GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
GaAs:Si, doping in MOVPE from tertiarybutylarsine and tetraethylsilane 22128
GaAs:Si epitaxial layer, MBE grown, LSI appl. *(Korean)* 20904
GaAs:Si, incorporation, MOVPE from tertiarybutylarsine 22126
GaAs:Si, planar doped, autocompensation 22111
GaAs:Si/GaAs(111)A, p-n struct. charactn. 29876
GaAs:Si(Be), low-temp. MBE, dopant effects 21917
GaAs:Sn(Zn), LPE growth, Bi-based melts, solar cells 27949
GaAs:Zn, Zn incorporation, OMVPE growth 30019
GaAs/(Al)GaAs/GaAs at. layer growth using $GaCl_3$, $AlCl_3$ and AsH_3 20689
GaAs/$Al_xGa_{1-x}As$ growth with DEAlH-NMe_3, MEAs and DMAAs sources 20780
GaAs/AlGaAs HBT, InN ohmic contacts 38817

semiconductor epitaxial layers continued
GaAs/AlGaAs, MOCVD, regrown, interface contamination, gas etching 22242
GaAs/AlGaAs microwave HEMT device, MBE fab. and charactn. *(Korean)* 29571
GaAs/AlGaAs patterning, epitaxial InGaAs layer, Cl_2 etching mask 13181
GaAs/AlGaAs quantum well IR photodetector arrays, thermal imaging appl. 3844
GaAs/AlGaAs struct., low-press. MOVPE, growth area 20827
GaAs/GaInP(AlGaAs)-based HBTs, thermal-elec. feedback coeffs. 12783
GaAs/GaP(001), MBE growth 37427
GaAs/InAs/GaAs heterostruct., MBE growth, substr. misorient. effect 20856
GaAs/InGa(Al)As(ZnSe) heterostruct., phase stabil. and mech. defects under press. 38289
GaAs/InGaAs two step doping channel FET, symmetric normally on/normally off characts. 38937
GaAs-AlGaAs multilayers, orient. depend. MBE growth on GaAs(111),(001) 339
GaAs-AlGaAs-GaAs HEMT struct., elec./lumin. props., CF_4 plasma effect 13352
GaAs-GaAs(111)A:Si, modulated beam epitaxy 20664
GaAs-InP MESFETs and ccts. fro OEICs 39598
GaAs-Si heteroepitaxial layers, ohmic contacts, RTA 22029
GaAs(001), As/P precursor efficiency, reflectance anisotropy spectrosc. 20721
GaAs(001), epitaxial growth, kinetic models 28775
GaAs(001), metalorganic VPE/MBE growth, surface procs. 20722
GaAs(001) surface, MOVPE, monolayer growth oscills. 20854
GaAs(001), surface arsenic stoichiometric problem, in ALE growth 20690
n-GaAs(100), surface photo-emf spectra 1051
GaAs(111)B substrs., homoepitaxial growth, at. steps 20859
GaAsN, low-press. metalorganic CVD growth, plasma-cracked N_2 20730
GaAsP, at. layer MBE, P_2 incorporation efficiency 30059
$GaAs_xSb_{1-x}$ epitaxial layers, metalorganic CVD, solid-vapour comp. rel. 20727
GaInAs, MOVPE, coherency limits 315
GaInAs layers, VPE growth, compositional aspects 20741
GaInAs, migration/buried epitaxy, digital epitaxial growth 20672
$Ga_{0.46}In_{0.54}As$ epilayers, micromachining, focused ion beams 5610
$Ga_xIn_{1-x}As$/AlAs heterostruct. on InP, flow modulation epitaxy for RTDs 20679
GaInAsP, group III element incorporation in CBE 12070
$Ga_{0.2}In_{0.8}As_{0.4}P_{0.6}$ epilayers, micromachining, focused ion beams 5610
GaInAsP/GaAs, MOCVD, lattice match, photoluminesc. Hall mobility 7610
$Ga_{1-x}In_xAs_yP_{1-y}$/InP VCSEL 14923
GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
GaInP, MOVPE, coherency limits 315
GaInP layers/heterostruct. on GaAs substrs., VPE, surface photo-absorpt. charactn. 20718
GaInP, selective MOCVD epitaxial growth 20675
GaInP, selective area CBE 28768
$Ga_{0.5}In_{0.5}P$ order/disorder heterostruct., organometallic VPE growth 20750
$Ga_{0.52}In_{0.48}P$ layers, CBE grown, opt. charactn. 12104
$Ga_{0.52}In_{0.48}P$, partially ordered, excitons homog./inhomog. linewidths 1045
$Ga_xIn_{1-x}P$, selective epitaxy, LP MOCVD, comp. nonuniformity 20829
$GaInP_2$ DH, ultralow interface recomb. vel. 29889
$GaInP_2$ ordered epilayers, elec. cond. 1065
GaInP/GaAs DH interface, MOVPE growth 20805
GaN, GSMBE 2D growth, RF-radical nitrogen source 37433
GaN epitaxial film on AlN-buffered Si(111), strain effects 12098
GaN films, ECR MBE, (001)/(111) Si substr., microstruct. 5822
GaN films, metal-organic CVD growth, struct./elec./opt. props. 20897
GaN layers hydride VPE on cubic GaN/(100)GaAs and hexagonal GaN/(111)GaAs substrs. 12079
GaN, low temp MOCVD epitaxy, photolum. 365
GaN, metalorganic VPE growth, surface orient. depend. 20755
GaN on Si(001), ECR plasma-assisted MBE growth 20898
GaN, two-step-growth on AlN buffer layer 20743
GaN:Mg on GaN substr., metalorganic VPE growth, opt. props. 20754
GaN:Si metal-organic VPE, shallow/deep levels charactn. 13052
GaN-related alloys, acceptor binding energy 13068
GaP, MOMBE growth, phosphorus/antimony sources 28718
GaP, cold-wall metalorganic-chloride VPE growth 20729
GaP, epilayers, MOCVD grown, HRTEM charactn. 20772
GaP epitaxial layer, MOCVD growth on Si substr. 20671
GaP, growth from trimethyl gallium 28725
GaP, interrupted cycle CBE on Si, photon assistance effects 28766
GaP:N, metalorganic VPE, photolumin. obs. 20728
GaP/Si strained heterostruct., spectrosc. ellipsometry 29877
$GaP_{1-x}N_x$, metalorganic VPE, photolumin. obs. 20728
GaSb MBE, at. layer depositions, time-resolved RHEED 20873
GaSb, atmos. press. MOVPE on GaAs substrs. 20773
GaSb films, MBE, lattice mismatch accommodation, disloc. threading, GaAs (001) substrs. 297
p-GaSb-Au(Cr/Au)(Ti/Pt/Au), MBE growth, specific contact resistivities, surface prep. 29947
Ge (001) GSMBE, growth kinetics/surface roughening 20864
Ge ALE control in flash-heating CVD 20704
Ge δ-layers on Si(111), interface roughening 38522
Ge islands on Si(111), three-stage lattice relax., STM 28749
Ge/GaAs, heteroepitaxy, role of As 362
Ge/Si epilayers, MBE, charactn. 320
Ge/Si(100), gas source MBE, RHEED oscills. 12074
Ge/Si(111) SPE, STM obs. 20707
Ge-GaAs consecutive LPE growth, GaAs static induction thyrister appl. *(Japanese)* 37407
Ge(001) multilayer epitaxial growth, surface morph. 20840
GeSi:P-Si pseudomorphic MBE films, RTA vs. steady-state furnace annealing 22095
Ge_xSi_{1-x}/Si, dry etching, XPS study 38554
(Hg,Cd)Te LPE layers, comp. profiles 5823
(Hg,Cd)Te films, isothermal VPE growth, morph. orient. depend. 326
(Hg,Mn)Te films, MOVPE, GaAs substr. 20891
HgCdTe, LPE-grown, photovoltaic detectors charact. 34505
HgCdTe, MBE growth on CdZnTe for IRFPAs 12096
HgCdTe, MOCVD layers, excess carrier lifetimes 38254
HgCdTe VPE growth, long wavelength IR detector, zero tunnel leakage current 12097

semiconductor epitaxial layers continued
HgCdTe layers on GaAs substr., MOVPE, autodoped Ga conc. reduction 20893
$Hg_{1-x}Cd_xTe$, LPE layers, liq. temp., Hg press. effets 28780
$Hg_{1-x}Cd_xTe$ epitaxial layers, (100) CdTe substrs., CVT, normal/reduced gravity expts. 20892
$Hg_{1-x}Cd_xTe$, MOVPE, elec. props. 13053
$Hg_{1-x}Cd_xTe$:I, MBE grown, n-type doping 6611
$Hg_{1-x}Cd_xTe$:B large-area PV IR detector, fab. *(Korean)* 17771
$Hg_{1-x}Mn_xTe$/CdTe film, VPE, component interdiffusion 296
HgTe, metalorganic VPE, situ laser reflectometry 20726
InAlAs, surface chem., $(NH_4)_2S_x$ sulphidation 13409
$In_{0.52}Al_{0.48}As$ on InP(100), MBE growth, substr. temp. effects 5844
InAlAs/InP, Cl_2 radical beam ion-beam etching 13383
InAlGaAs/InP MBE grown heterostruct., charactn. 20833
InAs, MBE growth on GaAs (110) misoriented substrs. 20894
InAs, MOVPE, high mobility on GaAs 29853
InAs cluster nucleation/epitaxial growth via electron beam lithog. 30173
InAs nonplanar substrs., MBE, In inter-surface diffusion 20877
InAs on GaAs, threading disloc. in lattice mismatched heteroepitaxy 13112
InAs on GaAs(100), MBE growth/strained island form. 20857
InAs self-limited growth, 480°C 5840
InAs, surface migration-induced self-aligned islands, MBE growth 37389
InAs/GaAs mismatched heterostruct. growth, defect control 20876
InAs-InP heterostruct., ALE growth, XRD/Raman obs. 12052
InAsP/InP MQW, metalorganic VPE, interface study 12102
$InAs_{0.3}Sb_{0.7}$, MOCVD on GaAs, carrier transport 6529
$InAs_{0.91}Sb_{0.09}$, MOVPE, electronic props., photocond. 28779
$InAs_{1-x-y}Sb_xBi_y$/InSb strained heterostruct., phys. props. 21965
InGaAlP epilayers, metalorganic CVD using tertiarybutylphosphine, deep levels 20751
InGaAs, MBE on GaAs(001), in-situ X-ray topography 37456
InGaAs buried layers MOVPE grown on nanoscale InP islands, photolum. 20832
InGaAs epilayers, metalorganic CVD growth 37411
InGaAs lin. graded comp. buffer layers, strain relief 367
InGaAs, low-temp. CBE growth on GaAs(100) 37432
InGaAs surfaces, MBE growth on InP substrs. 20853
$In_{0.47}Ga_{0.53}As$, terminal junct., CBE growth 12066
$In_{0.53}Ga_{0.47}As$, gettered LPE grown, DLTS study 20745
$In_xGa_{1-x}As$ MOVPE strained layer on GaAs, AFM 20850
$In_xGa_{1-x}As$ cryst., LPE/electroepitaxy growth, internal strain, disloc. 37445
$In_xGa_{1-x}As$ strain-relax. heterostruct., 2DEG, galvanomag. props. 13119
InGaAs:Se, specular surface thermal stabil. in LP-MOVPE 22127
InGaAs:Zn HBTs, electron diffusion length 38262
p-$In_{0.21}Ga_{0.79}As$:Zn/Au Schottky diodes, interface states, doping effects 38420
InGaAs/AlGaAs high-power strained quantum-well lasers, vert. divergence angle of 18° 39870
InGaAs/GaAs mesa-etched VCSEL, MOCVD, low threshold 39871
InGaAs/InAlAs, MBE on InP, high electron mobility 13156
InGaAs/InAlAs epilayers, MBE on InP patterned substrs., TEM 5838
InGaAs/InP QW lasers, AP-MOCVD, liq. group V sources 12069
$In_{0.22}Ga_{0.78}As$/AlAs RTDs on GaAs using relax. In_xGa_{1-x} buffers, MBE growth 13600
$In_{0.35}Ga_{0.65}As$/GaAs strained-layer MQW LD, DC/high freq. props. 7647
$In_xGa_{1-x}As$/GaAs(001), epitaxial growth, 2D-3D growth mode transit. 28755
InGaAs-GaAs quantum wells, surface segreg., photolumin. study 13171
$In_{1-x}Ga_xAs$-$In_{0.53}Ga_{0.47}As$ strained superlattice, gas source MBE 12056
$In_xGa_{1-x}As$-GaAs-$Al_yGa_{1-y}As$, BH QW lasers, selective area MOCVD 39853
InGaAsP 1.3 μm DH laser heteroepitaxially grown on Si, stable CW operation 31384
InGaAsP, $Si^+(Be^+)$ ion beam proc. 30036
InGaAsP epitaxial layers on GaAsP substrs., orange LED appl. 12128
InGaAsP grown by GSMBE, As/P control 5827
InGaAsP, strained layers, LPE, spin-polarized electron sources 21798
InGaAsP/InP PBH-DFB-LD for 2.5 Gbps opt. fiber commun., fab./characts., 1.55 μm *(Korean)* 39769
InGaAs(P)/InP, lasers, HBT, monolithic integration 14651
InGaAsP/InP quantum well lasers, watt-ampere charact. 39760
InGaAsSb epilayers, GaSb lattice matched, H passiv. effects 1261
$(In_xGa_{1-x}N/GaN)^n$ layered struct., metalorganic VPE growth/In droplet reduction 20757
InGaP, LP-MOCVD, temp. depend. facet develop., GaAs substrs. 20830
InGaP, MOVPE, microstruct. obs. 37438
InGaP, deep center scatt. pot. 6532
InGaP epitaxial layer growth, yo-yo solute feeding method *(Japanese)* 20895
$In_{0.5}Ga_{0.5}P$, LPE growth, oxygen effects 20748
InGaP/GaAs epitaxial struct., Schottky barriers 22026
InGaP/GaAs heterostruct., MOCVD growth, charactn. 20825
InGaP/GaAs/InGaAs strained MQW laser-MESFET, opt. transmitter form. 31124
InGaP/InGaAs HEMTs for MM wave appls. 37978
$In_{0.5}Ga_{0.5}P$/GaAs HBTs, MOMBE growth, tertiarybutylphosphine 22375
$In_{0.5}Ga_{0.5}P_{0.99}As_{0.01}$ epilayers, doped and undoped, deep level studies 29852
InN films on GaAs(111) and GaP(111), microwave-excited metalorganic VPE 28753
InN thin films, hydride vap. phase epitaxy growth 379
In_2O_3 films, ALE growth 324
InP, (001) homoepitaxial growth, twin generation, tip struct. 5828
InP, ALE growth, charactn. 20770
InP, CBE growth, free carrier gas tech. 28717
InP Epi-ready wafers, growth character 12071
InP, MOMBE growth, phosphorus/antimony sources 28718
InP, VPE growth, reactor design/improvement 12055
InP, migration enhanced epitaxy, charactn. 12072
InP, migration/buried epitaxy, digital epitaxial growth 20672
InP, undoped, low temp. ALMBE growth 20746
InP, vert. facets, RIE, selective CBE regrowth 20817
InP:B(O)(Fe), p^+ epilayers, elec. isolation by MeV ion implantation 13289
InP:Be, Be distrib. control in gas-source MBE 12064
InP:Be, MOVPE growth, bismethylcyclopentadienyl-beryllium 37430
InP:Fe epitaxial layers, CVD growth 12053
InP:Fe, gas source MBE, optimal growth conditions 12057
InP:Fe, hydride-vap. phase epitaxial growth, FeP precip., anal. 20810
InP:Fe,Ti, thermally stable layer growth 20774
InP:Si,H, gas-source MBE, H incorporation 38507
InP:Ti,Be growth by GSMBE, high resist. material 5821
p-InP:Zn/Au, epitaxial Schottky diode, reverse I-V, C-V characts. 38801
InP:Zn(Mg), MOVPE precursor Et_2InNMe_2, photolum. and Hall study 12117
InP/$In_{0.53}Ga_{0.47}As$ HBTs, MOMBE growth, tertiarybutylphosphine 22375
InP/InAs SQW/superlattices, ALE growth, charactn. 20770
InP/InGaAs/InP quantum well, MOVPE, surface topography evol. 353
InP/InGaAsP 2-terminal monolithic tandem solar cells 27956
InP/InGaAsP, whispering-gallery-mode microdisk QW lasers 31367
InP/InGaAsP(GaAs), MOCVD growth, interface characterisation 12150
InP/Si heteroepitaxial layer, substr. effect on transport props. 21970
InP/InGaAs reson. cavity enhanced photodiode on Si, epitaxial liftoff 3839
InP(001), As/P precursor efficiency, reflectance anisotropy spectrosc. 20721
InPAsSb alloys lattice matched InAs, MOVPE 301
In_2S_3, ALE film growth, charactn. 20678
InSb, high quality, MBE growth 12077
InSb-nanocryst. on Se-terminated GaAs(001), MEE/MBE growth comparison 20681
InSe/GaSe heterointerfaces, Van der Waals epitaxy 20883
$LaSrCuO_4$-PLZT ferroelec. FET, memory retention 39087
c-MnTe, MBE growth, structural charactn. 37399
MnZnSSe, material develop. for blue/green light emitters 2006
$Pb_{1-x}Mn_xSe$, epilayer microstructures, mesoscopic phenomena 38272
PbS films, irrad., elec. props. 13091
PbSe, epilayer microstructures, mesoscopic phenomena 38272
PbSe, layer-by-layer growth, proton glancing angle scatt. 328
PbSe:Bi films, amphoteric doping behavior 22146
$PbSe/BaF_2$, MBE layers, long-term photocond. 21934
$Pb_{1-x}Sn_xTe_{1-y}Se_y$:In, epitaxial layers, photocond. 13095
PbTe, MBE growth 5847
Sb/GaSb struct., epitaxial growth 20742
Si ALE control in flash-heating CVD 20704
Si ALE using chlorine/hydrogen exchange, fund. and films 20702
Si, H-assisted ALE growth 20698
Si, LPE growth, oxide form. prevention 28733
Si LPE on SiO_2/Si, vert. stresses, X-ray double cryst. topography 37457
Si SEG, indust. integrated cluster tool 20847
a-Si, SPE on Si, STM obs. 20706
Si, SR MBE growth, perfect selectivity 28727
Si SR excited ALE/CVD, Si_2H_6 gas *(Japanese)* 12044
Si, SR induced photoepitaxy *(Japanese)* 12043
Si, SR-excited ALE growth, TOFMS 37447
Si, anisotropically etched mirrors for opt. sens. appls. 37409
Si contacts on $Si_{1-x}Ge_x$/Si quantum well, gas source MBE, electrolumin. diode appl. 28722
Si, epilayers on Si, deposited after DC H_2 cleaning, X-ray curve charactn. 38618
Si epitaxial film, carrier profile, ion bombard. effect 37425
Si, epitaxial growth, 300°C by confined PECVD 5835
Si epitaxial layers, ECR plasma CVD, ellipsometry obs. 28721
Si epitaxial multilayers, auto-doping phenom. *(Chinese)* 22141
Si epitaxial solar cells, internal quantum efficiency 36591
Si, epitaxial surface for GaAs heteroepitaxy 307
Si films, Ge-incorp., lateral SPE 20861
Si growth kinetics on Ge(100), gas-source MBE/low press. CVD 28730
Si homoepitaxy on Si(111), surface defect mediated 12087
Si, low-temp. growth, ion-assisted deposition on Si(100) 28783
Si n^+/p diodes, charge collection and multiple-bit upset, 3D simul., CMOS SRAMs 12516
Si photodetector, epitaxial wafer 42801
Si, rapid thermal CVD, O/C low thermal budget removal 28735
Si, recomb. lifetime meas. 29829
Si, sub-ALE, Si_2H_6 20700
Si substr. MOVPE grown, novel pseudomorphic struct. 20824
Si substrs., nonplanar, low temp. homoepitaxial growth 323
Si, ultrathin Ge layers, SIMS profiling 38241
Si wafers, p-n jns., leakage current, diffusion component 38297
Si:B, MBE growth, elec. props., reciprocal lattice mapping 304
Si:B epitaxial layer, heavily doped, strain relax., RTA effects 38471
Si:B(001)2×1, gas-source MBE, B-incorporation, elec. props. 38506
Si:B,Al, doping/epitaxial regrowth 6609
Si:Er cryst., Er opt. activation, excitation, conc. limits 38483
Si:Er, surface segreg./trapping, MBE 30051
Si:Ge epitaxial film, embedded nanocrystals, synthesis 12126
Si:H, low-temp. MBE, H-induced breakdown 28745
Si:Mo p/p^+ epitaxial wafers, Mo contamination 38236
Si:P, epitaxial films grown by rem. PECVD 38509
Si:Sb low compensation impurity band photoconductors 39551
Si:Sb,B substrs., sub-PPB B contamination determ. 6522
Si/Al_2O_3 heteroepitaxial double SOI struct., press. sens. 38433
Si/Ge abrupt interface form., at. H in Si MBE 12039
Si/$Ge_{0.12}Si_{0.88}$:P, metastable films, RTA vs. furnace annealing 22104
Si/$Si_{1-x}Ge_x$ strained heterostruct., thermal stabil. 37406
Si/SiGe epitaxial-base HBTs, materials, phys., and ccts. 30243
Si/SiGe:H epilayers, misfit disloc., elec./opt. props. 6628
a-Si-SiO_2-Si Fabry-Perot opt. intens. modulator by merged ELO 14647
Si(100), carbonization, solid source MBE 20902
SiC, 6H polytype, high temp. dinistor, sublimation epitaxy 22507
6H-SiC CVD layers, minority carrier lifetimes 21931
SiC GSMBE, thin film growth mode, polytype form. 5812
SiC, VPE growth, vert. LPCVD reactor 20867
SiC cubic films, struct./opt./elec. props. 21938
SiC epitaxial films, vap. phase chem. deposition form. 37453
4H-SiC epitaxial layers, CVD growth 28758
β-SiC films, CVD epitaxy, struct./electronic charact. 20903
SiC, multipolytype epilayers, device config., X-ray topography 37458
β-SiC on Si, CVD epitaxial growth and elec. charact. 37434
3C-SiC on Si, heteroepitaxial growth, etch pit reduction 28781
SiC random alloy epitaxy on Si by RTCVD, SiH_4 and C_3H_8 20848
SiC:Al,N Schottky diode, DLTS/admittance spectrosc. 22353
6H-SiC:Ge,Si, ion-beam irrad.-induced amorph./recrystn. 38504
β-SiC:N layers grown on Si substr., ion implant. studies 38482
SiC:N,Al,B, CVD, unintentional contaminants incorporation 20901
n-SiC/Ni(Ti/Al), ohmic contact resist., reduction by heavy doping 22024
SiC/Si heterojunctions, elec. props. 1096
SiC-6H, encased diffused epitaxial diode 38802
p-SiC(111) epitaxial layers, on TiC, RIE in CF_4+O_2+Ar 1285
β-SiC(111)/TiC(111) MOS capacitor, charactn. 1177
SiGe, SPE, comp. depend., time-resolved reflectivity meas. 38270
SiGe base bipolar transistor ECL ccts., super self-aligned selective growth 30443

semiconductor epitaxial layers continued
SiGe buffer layers, epitaxial growth, defect dens. 28786
SiGe epilayers, form. by Ge implant., RBS channeling spectrosc. 1232
SiGe strained layer growth from disilane/germane 370
a-$Si_{1-x}Ge_x$ MBE films, solid phase crystn. 37437
$Si_{1-x}Ge_x$ epitaxial films, opt. SHG 40041
$Si_{1-x}Ge_x$ epitaxial layers, strain relax., silicidation procs. 1073
$Si_{1-x}Ge_x$, pseudomorphic growth on Si(001), crit. thickness 305
$Si_{1-x}Ge_x$:P, epitaxial films grown by rem. PECVD 38509
$Si_{1-x}Ge_x$/Co(Ti), solid state interfacial react. 38371
$Si_{1-x}Ge_x$/Si heterostruct., adaptive temp. program ALE from Si_2H_6/Ge_2H_6 20705
$TiO_2/BaTiO_3$ epitaxial film form. on Si substr. 37426
$Zn_xCd_{1-x}S$, MOVPE, photo-assisted growth and charactn. 28764
$Zn_{1-x}Cd_xSe$/ZnSe quantum wells in p-i-n heterostruct., photocurrent study 1127
$ZnGeP_2$/GaP multiple heterostruct. on GaP substrs. 21959
ZnMgSSe MOVPE on GaAs substr. 20785
$Zn_{1-x}Mg_xTe$ layers, MOVPE growth 20786
ZnMnTe(111)/(100) on GaAs, epitaxial growth on pulsed laser deposition 28760
ZnO:Al thin films, ALE growth from organometals 20667
ZnO:Al(Ga), doping epitaxial layers, chem. transport growth 38512
ZnS, MBE on GaAs(001), struct., opt. props. 20807
ZnS epitaxial films, pulsed laser deposition 358
ZnS, epitaxial layers on (100) GaAs, ALE 28769
ZnS low temp. epitaxial deposition, (100)Si by RF magnetron sputtering/MBE 303
ZnS/GaAs epitaxial layer syst., vapour phase epitaxy, residual and thermal strain 38307
ZnS/$ZnS_{0.12}Se_{0.88}$ superlattices, MBE grown, opt. charactn. 38327
ZnS(Se), low temp. MBE on GaAs, hot mol. beams *(Japanese)* 37413
$ZnS_{0.07}Se_{0.93}$:Cl/Yb(Al)(Cr)(Cu)(Au)(Pd), Schottky contacts, elec. props. 38401
ZnSSe/ZnSe/CdZnSe LED films, substr. transfer proc. 31105
$(ZnS)_3(ZnSe)_{42}$:I, ALE grown, carrier transport props. 38259
ZnSe, ALE, using reflectance difference spectrosc. 20695
ZnSe MOVPE, ditertiarybutylselenide/methylallylselenide thermal dissoc. effect 20888
ZnSe, MOVPE from allyl selenide and trialkylphosphine selenide precursors 20784
ZnSe MOVPE growth, O and Te impurities effect 20890
ZnSe OMVPE growth, diisopropyl selenide and diethyl zinc 20838
ZnSe based struct., epitaxial lift-off tech. 28756
ZnSe epitaxial films, pulsed laser deposition 358
ZnSe epitaxial layers, low-temp. cond. in impurity band regime 1046
ZnSe epitaxial layers, material quality assess. 13362
ZnSe epitaxial layers, pulsed laser deposition, struct. and opt. props. 28759
ZnSe epitaxy on GaAs (100), ICB *(Chinese)* 37403
ZnSe films, nucleation on GaAs(001):Se-(2×1) 20855
ZnSe, metalorganic VPE/MBE growth, opt. monitoring 20725
ZnSe, p-type doping, Li_3N diffusion 1229
ZnSe, photoassisted metalorganic vap.-phase epitaxy on GaAs 28763
ZnSe:Cl epilayers, deep defect conc., after growth treatment effects 29850
p-ZnSe:N, MBE growth/opt. props. 22154
ZnSe:N, metalorganic VPE grown, p-type cond., annealing 38473
ZnSe:N, photoassisted doping, ethyl azide 1224
ZnSe:N(Cl), film, GSMBE, H-passiv. effects 28754
ZnSe/GaAs heterostruct., MBE growth, high-resoln. XRD 21960
ZnSe/GaAs heterostruct., deep level electronic struct. 38301
ZnSe-GaAs growth rate, surface state depend. 37391
ZnSe-Si(GaAs) solar batts., photosensitivity spectra, ZnSe layer effect 5222
ZnTe:Al,Cl, photo-assisted metalorganic vap. phase epitaxy, photolum. props. 20790
ZnTe:N grown by MBE, N incorporation, Ar dilution in N plasma source 1212
ZnTe-$Cd_{1-x}Mn_xTe_{1-y}Se_y$ heterojunction, prep./electroluminesc. 37398
ZnTe(100), MBE growth on Si(100) 37423

semiconductor glasses *see amorphous semiconductors; chalcogenide glasses*

semiconductor heterojunctions
see also p-n heterojunctions
2D heterostruct. device simulator, steady state/transient anal. 30193
2D semiconductors, negative differential resist., conf., Lucca, Italy (1992) 11546
abrupt heterojunctions, large injection, Poisson eqn. *(Chinese)* 1074
AC meas. of quantized Hall resist. 34318
AlGaAs-GaAs waveguide gratings, polariz.-insensitive outcoupling 7360
amorph.-cryst. Si heterojunct. switching devices, bidirectional switching charact. 13110
buried heterostruct. on InP, CBE growth 12061
conference, semiconductor interfaces, Julich, Germany (1993) 11545
depleted heteroepitaxial layer/substr. interface, capacitance meas. 21948
double-barrier reson.-tunneling struct., quantum magnetotransport of electrons 21946
elastic strain relax. in patterned heteroepitaxial struct. 21992
$Ga_{1-x}In_xAs$-$InAs_yP_{1-y}$-InP, strain relax., photodiode appl. 12054
GaInAs-InP heterostruct., elec. props./interface defects 13103
grazing incidence diffractometer, thin-film struct. anal. 38463
HBTs, heterostruct. hydrodynamic transport model *(Chinese)* 1353
heterojunction low-illum. image sens., astron. appl. 9940
human skin-semicond. heterocontacts, photosensitivity 38454
II-VI semiconductors, electronic materials, conf., Boulder, CO, USA (1994) 36873
III-V heterostructs., selective area epitaxy, XRD charactn. 38311
III-V semicond. opt. waveguide modulator modeling 22924
integrated opt. routing array components, carrier diffusion 14479
low-dimensional electronic systems, Mauterndorf, Austria (1992) 11547
multi-barrier graded quantum well semicond. heterostruct., reson. tunneling 6556
multilayer electron systs. in wide parab. wells, magnetocapacitance spectra 29909
nonlin. reson. tunnelling, double-barrier struct. 38292
nonlin. transport, nonlocal mechanism 21969
physics of semiconductors, conf., Beijing, China (1992) 11542
quantum-mech. tunneling, FEM 6548
single barrier heterostruct., band struct. modelling 13131
STM for BEEM/spectrosc. 21865
three-layered electron waveguides, equiv. network approach for multistep discontinuities 21979

semiconductor heterojunctions continued
AlAs/GaAs superlattice on GaAs(001), X-ray standing wave meas. 38367
AlGaAs cascaded nonlin. directional couplers, all-opt. switching 39411
$Al_{0.3}Ga_{0.7}As$:Si/GaAs heterostruct., MODFET structs., DX centers 13120
(AlGa)As/GaAs 2DHG struct., contacts and mobilities 21967
AlGaAs/GaAs MODFETs, low-noise X-band transistors, MBE growth 22479
AlGaAs/GaAs, heterostruct. HEMT devices, ohmic contacts 29958
AlGaAs/GaAs heterostruct., electron beam irrad. damage, annealing 21944
AlGaAs/GaAs heterostruct., electronic states, mobility 1100
AlGaAs/GaAs heterostruct., gate, ohmic and interconnect metallization 13420
AlGaAs/GaAs heterostruct., high-field magnetoresist., non-ohmic behavior 29879
AlGaAs/GaAs heterostruct., percolation metal-insulator transits. in 2D electron syst. 6549
AlGaAs/GaAs injection lasers, electron superlattice barriers 39836
AlGaAs/GaAs nanostructures, surface-gate technol. 21972
AlGaAs/GaAs quantum nanostructures, STM at.-scale anal. 29940
AlGaAs/InGaAs heterojunction FETs, photon irrad.-induced kink effect model 6803
AlGaAs/InGaAs/GaAs, δ-doped pseudomorphic structs., opt./transport props. 6550
n-AlGaAs/InGaAs/GaAs struct., hot electron ballistic transport 38358
AlGaAs/InGaAs/GaAs heterostruct., 2DEG mobility anoms. 21949
$Al_{0.43}Ga_{0.57}As/In_{0.2}GaAs$:Te modulation doped heterostruct., carrier confine. 29881
n-$Al_xGa_{1-x}As$/u-GaAs, corrugated heterojunctions, 1D quantum electron states 13099
AlGaAs-GaAs modulation-doped heterostructs., microwave I/V characts. 1075
(Al)GaInP/AlInP DH, minority carrier lifetimes 13125
$Al_{0.5}Ga_{0.5}Sb$, citric acid etching for heterostruct. device fab. 6640
AlGaSb/InAs nanostructures, CAIBE and electron-beam lithog. 13178
AlInAs:Si,F/GaInAs/InP heterostruct., thermal stabil. 29882
AlInAs/GaInAs MSM photodiode, cutoff freq., responsivity 14608
AlInAs/InGaAs HBT, edge coupled receiver OEIC 14652
$Al_{0.48}In_{0.52}As/Ga_{0.47}In_{0.53}As$ heterostruct., δ-doped, second subband pop. 29890
CdS/$CuInSe_2$(011) heterointerface, form., electronic props., XPS obs. 21951
CdTe/CdS/Au/Cu heterojunction solar cell/ohmic contacts syst., Cu effects 20001
CdTe/GaAs(100) heterojunction growth, Si interface layers 21966
Fe silicide contacts to n- and p-type Si, props. 1104
GaAlAs heterojunction, LPE growth, solid phase surface segreg. 28736
GaAlAs/GaAs, automated nondestructive meas., IR reflectance/transm. 21002
GaAs heteroepitaxial MBE growth on GaP, growth mode transit. *(Japanese)* 37408
GaAs heterojunction, 2D electron Wigner cryst., electron diffr., photolum. 21968
GaAs heterojunction p-i-n photodiode transient simul., computational methods 39564
GaAs heterojunction p-i-n photodiodes, transient simul., reson. cavity enhanced 39565
GaAs/$Al_{0.22}Ga_{0.78}As$ heterostruct., Si diffusion, doping profile, 2DEG form. 6627
GaAs/$Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., photolum. intens., sens. appls. 39558
GaAs/$Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., sens. appls. 38303
GaAs/$Al_xGa_{1-x}As$, mag. electron-focusing effect 1106
GaAs/$Al_xGa_{1-x}As$ p-i-n diodes, ballistic-electron energy distrib. 29896
GaAs/$Al_xGa_{1-x}As$ rings, tunneling, edge states 21985
GaAs/$Al_xGa_{1-x}As$ double-barriers, electron transm. 13113
GaAs/$Al_xGa_{1-x}As$ heterostruct., separately contacted electron-hole double layer 13108
GaAs/$Al_xGa_{1-x}As$ modulation-doped multilayer heterostructures, current oscillations 29886
GaAs/$Al_xGa_{1-x}As$/GaAs, electron tunneling, DX defect effects 1080
GaAs/$Al_xGa1_{-x}As$ heterostruct., integral QHE 1108
GaAs/AlAs MBE heterostruct., (311)A orient. 20860
GaAs/AlAs double barrier struct., X-states, reson. tunneling procs. 38288
GaAs/AlAs double-barrier heterostruct., reson.-tunneling peak fine struct. 38285
GaAs/AlAs double-barrier heterostruct., tunnel current oscills. 1147
GaAs/AlAs thin film opt. filters in Fabry-Perot cavity 31063
GaAs/AlGaAs, 2DEG in random mag. field, magnetoresist. 6552
GaAs/AlGaAs, H impurity near interface, binding energy effect *(Chinese)* 6542
GaAs/AlGaAs, MBE, optoelectronics appl. 5850
GaAs/AlGaAs devices, appls., opt. neural networks 22974
GaAs/AlGaAs double barrier, seq. tunnelling assisted by light 1099
GaAs/AlGaAs heterojunction barriers, transm. tunneling current 13127
GaAs/AlGaAs heterojunction, magnetothermopower, phonon drag 38298
GaAs/AlGaAs heterojunctions, deep-level defects, review 13123
GaAs/AlGaAs heterostruct., 2D electron gas, electron correls. 38312
GaAs/AlGaAs heterostruct., ballistic electron transport, magneto-opt. studies 13115
GaAs/AlGaAs heterostruct., plasma etching damage 30109
GaAs/AlGaAs micro-pyramids, selective MOVPE growth 20767
GaAs/AlGaAs multiple bridge devices in quantizing mag. fields, pot. distrib. 38291
GaAs/AlGaAs, selective dry etching, BCl_3/CHF_3 plasma 13374
GaAs/AlGaAs semicond. superlattice, ballistic electron scatt., undulator props. 38333
n-GaAs/AlGaAs:Zn/AlGaAs:Se struct., Zn diffusion mechanism 21955
GaAs/GaAlAs heterojunctions, real space transfer 13126
GaAs/GaAsP heterostruct., MOVPE grown, interface flatness 20822
GaAs/Ge MOVPE heterostruct., lattice strain relax., X-ray diffr. obs. 38308
GaAs/$In_xAl_{1-x}As$/GaAs heterojunction barriers, Γ-X transport 13117
GaAs/InAs/GaAs heterostruct., MBE growth, substr. misorient. effect 20856
GaAs/InGa(Al)As(ZnSe) heterostruct., phase stabil. and mech. defects under press. 38289
GaAs/InGaAs/GaAs double delta-doped channel, high carrier dens. and mobility 21990
GaAs/Si, heterostruct., IV charact., CV charact. 29893
n-GaAs/n-$Al_{0.4}Ga_{0.6}As$ heterostruct., laser-enhanced selectivity 1250
GaAs-$Al_{0.25}Ga_{0.75}As$/Cs-Au struct., elec. gated field-assisted photoemission 38379

semiconductor heterojunctions continued
GaAs-AlGaAs heterostruct., fab. tech., mesoscopic device appl. 12159
GaAs-AlGaAs mesoscopic single loop, persistent currents 13137
GaAs-AlGaAs modulation-doped heterostruct., interface roughness scatt. 13109
GaAs-$Ga_{0.51}In_{0.49}P$ QW heterostruct., reson. magneto-tunnelling of holes 13201
GaAs-GaAlAs heterojunction, magneto resist./Hall effect meas.. 21945
GaAs-GaAlAs multilayers, far-IR radiation nonlin. refl. 7756
GaAs-Si, MBE, optoelectronics appl. 5850
$GaAs_{1-x}Sb_x$, citric acid etching for heterostruct. device fab. 6640
$Ga_xIn_{1-x}As$/AlAs heterostruct. on InP, flow modulation epitaxy for RTDs 20679
GaInAs-InP struct., MOVPE 12048
GaInAsP heterostruct., MOMBE 12042
GaInP layers/heterostruct. on GaAs substrs., VPE, surface photo-absorpt. charactn. 20718
$GaInP_2$ DH, ultralow interface recomb. vel. 29889
GaInP/(AlGa)InP buried quantum wires, local order-disorder transition 13203
GaInP/GaAs, MOVPE grown heterointerfaces, III/V exchange 20886
GaInP/GaAs ordered heterointerface, type-II band alignment 38282
$Ga_yIn_{(1-y)}P$/GaAs, ordering probab., compositional depend. 38299
GaN/GaP heterostruct., metalorganic CVD on annealed GaN and GaP surfaces 20756
GaP/Si strained heterostruct., spectrosc. ellipsometry 29877
N-nGaSb/GaInAsSb staggered lineup heterojunction, recomb. obs. 38287
$Ga_{0.51}In_{0.49}P$/GaAs heterostruct., P-vacancy-related deep levels 29878
a-Ge:H, electron transport through Si:H barriers 21961
Ge/Si(111), SPE, interface struct., medium-energy ion scatt. 37404
Ge-GaAs(001), heterojunctions, band-offset transitivity lack 1107
Ge-Si monolayer-scale heterostruct. by rapid thermal CVD 20911
Ge-Si-Ge(100) heterostruct., low press. CVD, LEED/photoemission obs. 12153
GeSi:P-Si pseudomorphic MBE films, RTA vs. steady-state furnace annealing 22095
$Ge_{0.3}Si_{0.7}$/Si heterostruct., minority/majority-carrier trapping 21950
Ge_xSi_{1-x}/Si heterostruct., IR focal arrays 42785
HgCdTe/CdZnTe, tensile and compressive stress, misfit disloc. microstruct./kinetics 21952
$(Hg_xMn_{1-x})Te$/CdTe(CdZnTe) heterointerfaces, misfit disloc. 21953
(In,Ga)As/GaAs strained (311) heterostructs., struct. props. anisotropies 38309
InAlAs/InGaAs multichannel MSM-HEMT receiver OEIC for WDM 14650
InAlAs/InGaAs/InP HEMT impact ionisation characterisation 13771
InAlAs/InGaAs/InP HEMT, trapping mechanisms, sinusoidal/transient response 13772
InAlAs/InP, Cl_2 radical beam ion-beam etching 13383
InAlAs/n^+-InGaAs FET, breakdown physics 13770
InAlAs/n^+-InGaAs MISFET, deep levels 13696
$In_{0.52}Al_{0.48}As/In_{0.53}Ga_{0.47}As$ heterostruct. FET, Schottky-barrier-gate diodes characts. 13765
InAlGaAs/InP MBE grown heterostruct., charactn. 20833
InAs, citric acid etching for heterostruct. device fab. 6640
InAs on GaAs, threading disloc. in lattice mismatched heteroepitaxy 13112
InAs/GaAs mismatched heterostruct. growth, defect control 20876
InAs/GaAs monolayer heterostruct., thin buried layer XRD 38310
InAs/GaAs($Ga_{0.47}In_{0.53}As$) heterostructs., MBE, defect control 12046
InAs/GaSb struct., 1D transport and gating 1101
InAs/InP(In_xGa_{1-x}) heterostruct., depth profiling, MBE 13121
InAsP/InGaAsP QW 1.3 μm laser, MOVPE growth 12067
$InAs_{0.91}Sb_{0.09}$, MOVPE, electronic props., photocond. 28779
$InAs_{1-x-y}Sb_xBi_y$/InSb strained heterostruct., phys. props. 21965
InAsSbP/InAsSb/InAsSbP heterostruct., radiative recomb. 23266
InGaAs heterostruct., nanostructure fab., FIB technol. 13312
$In_{0.47}Ga_{0.53}As$, terminal junct., CBE growth 12066
$In_{0.5}Ga_{0.5}As$ heterostruct., gateable ultrafast field-assisted photoemission 1836
$In_xGa_{1-x}As$ strain-relax. heterostruct., 2DEG, galvanomag. props. 13119
InGaAs/AlGaAs HEMT hetero-interfaces, misfit disloc., diffuse X-ray scatt. 38305
InGaAs/InAlAs, MBE on InP, high electron mobility 13156
InGaAs/InAlAs epilayers, MBE on InP patterned substrs., TEM 5838
InGaAs/InAlAs/InP, heterostruct., thermal stability 13157
InGaAs/InP QW lasers, AP-MOCVD, liq. group V sources 12069
InGaAs/InP at high mag. fields and low temps., quantum magnetotransport 38286
$In_{0.30}Ga_{0.70}As/In_{0.29}Al_{0.71}As$ heterojn. grown on GaAs substr., band offsets 6546
$In_{0.3}Ga_{0.7}As/In_{0.29}Al_{0.71}As$ heterostruct., charactn. 6544
$In_{0.75}Ga_{0.25}As$/InAlAs pseudomorphic modulation-doped heterostruct., high electron mobility 21971
$In_{0.77}Ga_{0.23}As$/InP quasi-1D rings, Aharonov-Bohm effect 29880
InGaAs-GaAs heterostruct. and HFET appls. *(Chinese)* 22486
InGaAs-GaAs-InGaAsP graded index heterostruct. for 0.98μm lasers 12183
InGaAsP MQW laser, MOCVD growth 12068
InGaAsP epitaxial layers on GaAsP substrs., orange LED appl. 12128
InGaAsP/GaAs heterostruct., low press. MOCVD, charactn. 12106
InGaAsP/GaAs, selective LPE growth 12112
InGaAs(P)/In(GaAs)P abrupt heterointerfaces, GSMBE growth 20744
InGaAsP/InP D-band Gunn devices, heterojunction cathode injectors 13587
InGaAsP/InP false MQW, MOCVD/CBE growth, As,P incorporation 12063
InGaAsP-InP electroabsorption modulators for LDs, nonlin. effects model 14846
InGaAsP-InP planar photoelastic waveguide, low propag. loss 7370
InGaAsSb/AlGaAsSb heterojunctions, band offsets 13132
InGaN/AlGaN DH blue LEDs, high-power devices 23046
$(In_xGa_{1-x}N/GaN)^n$ layered struct., metalorganic VPE growth/In droplet reduction 20757
InGaN-AlGaN double heterostruct. violet LED, CVD growth 5895
InGaP/GaAs epilayers grown by low-press. MOVPE, cationic ordering 12116
InGaP/GaAs heterostruct., low press. MOCVD, charactn. 12106
InGaP/GaAs, misfit accomodation, substr. tilt 29892
In_2O_3/ZnSe/In heterostruct., I-V charact. 29883
In_2O_3-ZnSe-$(Zn_{1-x}Cd_xTe)_{1-y}(In_2Te_3)_y$ heterostruct., current transport 21963
In_2O_3-ZnSe-CdTe-In, injection-contact phenom. in sub-micron layers 38313
In_2O_3-ZnSe-In, injection-contact phenom. in sub-micron layers 38313

semiconductor heterojunctions continued
$InP_{0.69}Sb_{0.31}$/InAs heterostruct., recon. tunnelling obs. 13133
InP/$Ga_{0.47}In_{0.53}As$ tandem solar cells, electron irrad. effects 36588
InP/$Ga_{0.47}In_{0.53}As$ two-terminal tandon solar cells 19988
InP/GaAs heterostruct., H-passiv., carrier trapping by disloc. 38304
InP/GaAs solar cells, proton irrad., prop. effects 19990
InP/GaInAs HEMT, interface props., device characteristics effect 13779
InP/$In_{0.53}Ga_{0.47}As$ interface, 2DEG, quantum transport effects 21958
InP/InGaAs/InP heterostruct., highly strained, mobility enhancement 13111
InP/InGaAsP struct. on InP(001), X-ray standing wave meas. 38367
InP/InGaAsP(GaAs), MOCVD growth, interface characterisation 12150
InP/Si, bonding using InSb, Au-based eutectic alloys 13269
InP/Si heteroepitaxial layer, substr. effect on transport props. 21970
InP/Si/InP, interlayer effects in device appl. 13106
InP-In_2S_3, ellipsometric investig. of transit. layer heterostruct. 22774
InP-based HBTs/heterostruct. bipolar ccts., design platform 28946
In_2Se_3 heterocontacts, radiation-stable electronics 13101
InSe-In_4Se_3 heterojunctions, photosensitivity band 1.0-1.8 μm, IR photodetector appl. 21942
Pd/ZnO/p-Si, H_2 sens. appl. 9956
Pd-Ge-Ti-Pt ohmic contacts, p^+-GaAs:C/$Al_{0.26}Ga_{0.74}As$:C 38658
Sb/GaSb struct., epitaxial growth 20742
Si heterostruct. switch, elec. and opt. speed 6718
Si interface control layer effect in compound semicond. interfaces 13105
Si porous superlattices, type of heterostruct. 22015
a-Si:H/a-$Si_{1-x}C_x$:H barrier struct., I-V charact. 1105
Si/Ge abrupt interface form., at. H in Si MBE 12039
Si/Ge heterostruct., MBE, optoelectronics appl. 5850
Si/$Ge_{0.12}Si_{0.88}$:P, metastable films, RTA vs. furnace annealing 22104
Si/$Si_{1-x}Ge_x$ modulation-doped heterostruct., hole transport props. 29885
Si/$Si_{1-x}Ge_x$ strained heterostruct., thermal stabil. 37406
Si/$Si_{1-x}Ge_x(Si_{1-y}C_y)$ heterostruct., situ X-ray investig. 38306
Si/SiGe heterostruct., Aharonov-Bohm rings, fab. 29894
Si/SiGe heterostruct., ballistic cond., Aharonov-Bohm oscills. 13819
Si/SiGe modulation-doped heterostruct., extremely high electron mobility 29920
Si-$Si_{1\times x}Ge_x$ heterostruct., difference freq. mixing, intersubband nonlin. 23365
$Si_{1-x}Ge_x$ and Ge/Si heterostruct., thermal nitridation 22236
SiGe:B(P)-Si strained heterostruct., RTP/very LPCVD growth, in-situ doping 20844
a-SiGe:H/SnO_2 solar cell struct., interfacial reduction 38294
SiGe/Si heterojunction waveguides, Ge conc. effect on propag. charact. 39383
SiGe/Si heterostruct., segregant-assisted growth, opt. props. 37449
$Si_{1-x}Ge_x$/Si heterostruct., adaptive temp. program ALE from Si_2H_6/Ge_2H_6 20705
$Si_{1-x}Ge_x$/Si heterostruct., surface passiv., photolum. meas. 13146
$Si_{1-x}Ge_x$-Si heterostruct., chem. etching in $HF-H_2O_2-CH_3COOH$ 38560
n-SnO_2/a-SiC/Al photodetector, voltage-controlled spectral response 25850
Ti/Au/$Al_{0.3}Ga_{0.7}As$/GaAs, quantum point contacts, cond. quantization broadening 22047
$ZnGeP_2$/GaP multiple heterostruct. on GaP substrs. 21959
ZnMgSSe MOVPE on GaAs substr. 20785
ZnO/CdS interface, valence band offset, photoemission studies 6547
ZnS/GaAs epitaxial layer syst., vapour phase epitaxy, residual and thermal strain 38307
ZnS/GaAs heterostruct., H transport VPE, struct. anal. 37393
p-ZnSe, elec. contacts based on HgSe and ZnTe 29891
ZnSe, ohmic contacts optim. by parab. grading of $ZnSe_{1-x}Te_x$ comp. 21973
ZnSe/GaAs heterostruct., MBE growth, high-resoln. XRD 21960
ZnSe/GaAs heterostruct., deep level electronic struct. 38301
ZnSe/GaAs interfaces, band bending, Raman study 38283
ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, SHG generation 22908
ZnSe-GaAs(001), heterojunctions, band-offset transitivity lack 1107
ZnSe-Ge(001), heterojunctions, band-offset transitivity lack 1107
ZnSe-based alloys, wide-gap II-VI materials, MBE growth, charactn. 20910
p-ZnTe/p-ZnSe heterointerface, band offset 21941
ZnTe-$Cd_{1-x}Mn_xTe_{1-y}Se_y$ heterojunction, prep./electroluminesc. 37398

semiconductor-insulator boundaries
see also MIS structures; semiconductor-insulator-semiconductor structures; silicon-on-insulator; SIMOX
conference, semiconductor interfaces, Julich, Germany (1993) 11545
copperphthalocyanye/$SiO_2(TiO_x)$ hetero-nanostructs., mol. excitons, size effect 38423
III-V semiconds., surface passiv., Si interface control layer 38596
irrad. power MOSFETs, surface generation hump 13730
MOS complex device structs. anal., triangular mesh generation 1420
MOS device gate oxide, hot carrier transport-injection model 22433
MOS devices, 1/f noise and radiation effects 1382
MOSFETs, interface defect form. by at. H exposure 13715
MOSFETs in off-state, interface trap induced emission current 22408
NMOSFETs with nitrided-oxide, high-field mobility enhancement 1390
physics and chem. of semicon. interfaces, conf., New York (1994) 20208
polysilicon DRAM cell capacitors, Si_3N_4 dielec. films, RTP 22069
polysilicon TFTs, fab., pulsed laser annealing and plasma CVD 13743
polysilicon TFTs, self-induced LDD devices, SiO_2 gate-insulator, passiv. layer 13748
power MOSFET, single event gate rupture 13725
SOI, H annealed, surface atom migration 1175
SOI n-MOSFET, low freq. noise spectral dens. 1421
sub-5-nm oxynitride dielecs. prepared in NO ambient using RTP, props. 6590
AlN_3-Si, rectification following ion beam surface modif. 29980
Al_xO_y/GaAs VCSEL laser with high-contrast mirrors, gain switching 23231
Al_2O_3-Si, ML-ALE grown, elec. props. 22054
BaF_2, epitaxial growth on GaAs(100)/(111) 37394
$BaTiO_3$/p-Si capacitors, struct., elec. props. 39061
CaF_2/Si(111) MBE growth kinetics, X-ray photoelectron diffr. 28784
CaF_2/Si(111), epitaxial growth mechanisms and struct. 5836
CdO/CdTe thin film solar cells, prep./props. 5229
CeO_2/Si(111), epitaxial oxide film, elec. props. 13229
CeO_2/Si(111), laser ablation deposition, growth mode 38445
GaAs, electronic passiv., electrodeposition of organic mols. containing reactive S 30070
GaAs-SiN, passiv. film form. by laser CVD 13370
InP MOS tunnel diodes, elec. charactn. 38814
InP e-mode MISFETs, sulphide passiv., P_3N_5 gate insulators 30295

semiconductor-insulator boundaries continued
InSb/SiO_2 MIS structs., low interface trap dens. 29981
a-Si films, crystn., SiO_2 surface treatment effects 13393
Si interface control layer effect in compound semicond. interfaces 13105
Si nitroxides, rapid thermal dielec., growth, struct. 1245
Si oxides, rapid thermal dielec., growth, struct. 1245
a-Si:H, H bonding config., metastability 29871
Si:N, ion implanted buried SiN_x films, EXAFS and NEXAFS obs. 38440
Si:O syst., ion implanted, oxide growth, refr. index, and comp. depth profiles 22123
Si/SiN_x, automated nondestructive meas., IR reflectance/transm. 21002
Si/SiO_2 MOSFET interface trap generation, gate current simul. tech. 38901
Si/SiO_2 interface states and neutral oxide traps induced by surface microroughness 29968
Si/SiO_2, low-field charge-buildup instabil., diffusion-react. model 29972
Si/SiO_2 patterned surfaces, situ rem. H-plasma cleaning 1254
Si/SiO_2 syst., Si nucleation, rapid thermal CVD, in situ real time meas. 28831
Si/SiO_2, very thin oxide quality, wafer surface orient. depend. 38529
Si/SiO_2:N, plasma action under PECVD conditions 5882
Si/SiO_xN_y, interfacial stress and struct., thermal nitridation and reoxidation effects 22055
Si-SiO_2 interface, electron 2D behaviour modelling by Monte Carlo simulator 29986
Si-SiO_2, interface states, trapped holes 29970
Si-SiO_2 interface, thermal carrier delocalization, reservoir effect 13247
Si-SiO_2 interfaces, low-temp. plasma-assisted oxid., MOSFET appls. 6643
Si-SiO_2 porous DQW, tunneling, photoluminesc. 21995
n-Si-SiO_2 semicond.-dielec. MOS interfaces, minority carrier generation 6588
Si-SiO_2 stacked-gate structs., plasma-assisted/RTP 22058
SiC/SiO_2 micropatterning by UV irrad., heat treatment of poly(phenylsilyne) film 38533
SiC/SiO_2/Al struct., elevated temps., HF capacitance relax. features 13230
SiGe oxide prepared by RF plasma anodisation, interface quality 1243
Si_3N_4/Si struct., PECVD 424
SiO_2 on Si, E′ center charge traps, obs./electronic charact. 1176
SiO_x, growth, interface of directly bonded Si wafers 30069
SiO_2:N films on Si, N_2O-plasma oxid. tech. 1279
SiO_2:P/InP interface layers, low-temp. damage-free plasma-CVD, adhesion 37523
SiO_2/InP, direct photo-CVD using D_2 lamp, MOSFET appls. 28807
SiO_2/Si, etching in inductively coupled high-dens. plasma 6637
SiO_2/Si interface struct., reliab. charact. 13253
SiO_2/Si, low-temp. grown oxide film, X-ray reflectivity 38610
SiO_2/Si, thermal oxide, natural intrinsic EX center, ESR 29984
SiO_2/amorph. As/GaAs passiv. systs., PECVD 5870
SiO_2-Si, EX centres, ESR study 6641
SiO_2-Si barrier height, effects of controlled texturization of Si surface 6649
SiO_2-Si interface struct. modif. by Fe^+/H^+ ion implant. *(Chinese)* 22061
SnO_2-Si, conducting oxides synthesis by ML-ALE 20717

semiconductor-insulator-semiconductor devices
SONOS multidielectric nonvolatile memory, scaling 1404
Si/SiO_2/Si heavily doped capacitors, C-V charact. 29990

semiconductor-insulator-semiconductor structures
see also semiconductor-insulator-semiconductor devices
GaN-AlN-GaN strained piezoelec. struct., I-V charact. 22084
Si/SiO_2/Si heavily doped capacitors, C-V charact. 29990
Si/SiO_2/Si, high temp. annealed, near interface oxide degrad. 38477
p^+-Si-SiO_2-polysilicon STDS struct., charge carrier capture 13240
SiGe/Si/SiGe SIS struct., valence band discontinuity 6596
SiO_2 inter-poly oxides, lifetime prediction method 6593

semiconductor integrated circuits *see monolithic integrated circuits*

semiconductor junction lasers *see semiconductor lasers*

semiconductor junctions
see also p-n junctions; semiconductor heterojunctions; semiconductor quantum dots; semiconductor quantum wells; semiconductor quantum wires; semiconductor superlattices
cylindrical jns., breakdown voltage, interface charge 38316
double-barrier quantum struct., reson.-transm. coeff., elec. field effect 1098
field limiting ring struct., analytic model *(Korean)* 22341
indirect interband tunneling formulation for semiconds. 38315
nanostructures, ballistic cond., electronic interf. 21987
physics and chem. of semicon. interfaces, conf., New York (1994) 20208
waveguides based on electron drift/diffusion 23806
AlGaAs anti-reson. reflecting opt. waveguide, second harmonic surface emission 39399
$Al_xGa_{1-x}As$, MOVPE growth, intramolecular and intermolecular alane-adducts 345
AlGaAs/GaAs heterojunctions, high elec. fields, real-space transfer and current filamentation 1076
$Cd_xHg_{1-x}Te$/CdTe epitaxial struct., carrier recomb., microwave method 21943
CdTe/InSb heterointerfaces, temp. gradient vap. transport deposition, interfacial layer form. 371
$CrSi_2$/Si(111), monotype domains, SPE on vicinal surface 5832
GaAs:Te, highly doped, EL2 trap, jn. spectrosc. 13124
GaAs/$Al_xGa_{1-x}As$ multilayers, avalanche breakdown 1042
GaAs/GaAlAs, 2D hole gas, MBE, elec. props. 355
GaAs-based p-i-n nanostructure, high-field electron transport, transient ps Raman studies 21974
$GaAs_{1-x}P_x/Al_yGa_{1-y}As$ DH, minority carrier lifetime 1081
$Ga_{0.5}In_{0.5}P$ order/disorder heterostruct., organometallic VPE growth 20750
$GaInP_2$ homojunctions, ordered-disordered, 2DEG, anisotropic transport props. 21962
Ge long sample, excess carrier exclusion, current dens. depend. 38290
Ge/GaAs, heteroepitaxy, role of As 362
InGaAsP/Au Schottky junctions, barrier height enhancement 13211
InGaP homojunctions, LP MOVPE, 2DEG 21957
Si, rapid isothermal diffusion, photoeffects, semicond. devices 1084
a-Si:H,B n-i-n layers, current induced degrad. 38281
Si/Si, polysilicon small geom. contacts, P implant. induced energy transfer 38296
Si/SiGe:H epilayers, misfit disloc., elec./opt. props. 6628

semiconductor laser arrays
see also surface emitting lasers
2D surface emitting semicond. laser array, phase locking 39844
2D WDM reconfigurable opt. interconnection smart pixels 42099

semiconductor laser arrays continued
act. mode-locked LD array, tunable picosecond pulse generation, chirp compensation 7614
act. mode-locked LD array in the external cavity, pulse buildup dyn. 23284
beam steerable semicond. lasers, large steering range and resolvable spots 1985
diode array-pumped solid-state lasers, economic issues 31281
diode-pumped solid-state-lasers, high-duty-factor, high-av.-power, economics 31365
economics of LD arrays, price/vol. market 31363
free space opt. interconnects, LD array, microlenses, photodetectors 7486
free-space WDM interconnections based opt. switching nets 33726
gain guided waveguide semicond. laser model 1994
index-guided laser arrays, supermode discrim. *(Korean)* 14862
InGaAsP-InP four-wavelength DBR laser array, selective MOCVD 14960
laterally coupled semicond. laser array instabilities/dyn. behaviour 1979
LD array, solid state laser pumping perform. 39838
LD-pumped IR solid-state lasers 14789
low-cost reliable high power CW LD arrays for solid state laser pumping 31399
microlens opt. coupling of LD array, single-mode fiber array 39355
Mitsubishi semicond. laser array for opt. interconnection 31313
monolithic array LD module, small sized coupling optics 7671
multichannel fiber ferrule for stable LD array module packaging 37073
multiple LD pumps, chromatic coupling, laser materials 31247
near field holographic grating mask technol. 15187
nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
opt. delay line RF filter, SEL diode array 7421
opt. feedback, chaotic behavior 39804
opt. power monitor for two-beam LD 3999
parallel opt. data links, VCSELs 42367
parallel opt. interconnect, SEL and photodiode arrays 39601
parallel opt. interconnect modules, multifiber connectors 17277
penalty-free 2.5 Gbit/s photonic switching, opt. amp. module 33728
phase-locked LD antiguide arrays , anal. theory 23237
photonic IC, fab., phase grating masks 39456
quasi-CW LD-array pumped Nd:YAG laser, absorpt. efficiency, control method *(Japanese)* 31307
random act.-region width coupled semicond. laser arrays, lin. sensitivity anal. 31312
Si V-grooved waferboard, strained MQW semicond.-laser array coupling, fiber array 7491
submilliamp tunable three-terminal vert.-cavity LD 7649
surface-emitting vs. edge-emitting solid-state laser pumps, comparison 31364
thermal crosstalk modelling of semicond. laser arrays 23302
tilted semicond. opt. amp. arrays, flip-chip packaging 31125
tunable interconnection network, thick photorefr. cryst. 15182
twin emitter semicond. laser arrays, high-speed modulation 7659
ultrahigh-av.-brightness semicond. laser arrays 39839
VCSEL, PLA 7611
VCSEL array, SEED logic syst. input 39788
VCSEL arrays, conf., Los Angeles, CA, USA (Jan. 1994) 36835
VCSEL arrays, MBE, reliab., systs. appl. 39779
VCSEL arrays, mfg. 39784
VCSEL arrays, perform., appls. 39786
VCSEL wavelength control by nonplanar MOCVD 14963
vert. cavity laser arrays on patterned substr., wavelength shift 31409
vert. cavity LD, tunable, fibre coupling, threshold currents 39782
vert. cavity SEL array spectra, transverse anisotropy effect 1936
vert. cavity SEL arrays/micro-Fresnel lens array integrat. 23304
vert.-cavity SEL array for short dist. opt. fiber networks 14929
vert.-cavity SELs, 967 nm, integrated refr. microlenses 14898
vis. high-power semicond. lasers 7607
AlGaAs BH photonic devices, melt etching, LPE regrowth 12119
AlGaAs, tunable injection-locked high-power LD array 1926
AlGaAs/GaAs integrated lin. injection laser array, emission charact., pumping appls. 39759
AlGaInP QW partial top dielec. stack DFB red VCSEL arrays 14850
AlGaInP/GaInP two-beam lasers with low thermal interf., 680 nm band, high power 23306
GaAlAs LD bar, pumping by opt. fibre device 39323
GaAlAs, monolithic 2D surface emitting LD arrays, CW 39837
GaAlAs/GaAs surface emitting lasers, materials, performance and appls. 14868
GaAs/GaAlAs high-power 2D quantum wire laser arrays 14943
GaAs-AlAs MBE grown vert. Fabry-Perot laser cavities, periodic mode shift 31443
GaAs-AlGaAs antiguided laser array fabricated by superlattice struct. 1988
GaInAs/GaAs surface emitting lasers, materials, performance and appls. 14868
GaInAs-GaAs multiwavelength SEL arrays, MOCVD fab. 1937
GaInAsP/InP VCSEL array for 1.3 μm range parallel opt. fiber transms. 23300
GaInAsP/InP surface emitting lasers, materials, performance and appls. 14868
InGaAs/AlGaAs flared amp. monolithically integrated arrays, DBR laser driven 23262
InGaAs/AlGaAs multiple wavelength VCSEL array for opt. interconnection 31334
InGaAsP MQW LD array design and fab. for opt. parallel links 31353
InGaAsP semicond. opt. amp. array 23223
InGaAsP/InP laser amp. gate switch arrays 31400
InGaAsP-InP 10-element monolithic laser array in parallel interconnects 14961
InGaAsP-InP multi-λ ridge waveguide gain-coupled DFB laser array 23277
InGaP/GaAs heterostruct. lasers, MOCVD, 0.98 μm 7606
InP patterned substrs., multi-wavelength laser array, CBE growth 39812
InP photonic IC based light sources, WDM lightwave communication systems appls. 17190

semiconductor laser noise *see laser noise*

semiconductor lasers
see also quantum well lasers; semiconductor laser arrays; superluminescent diodes; surface emitting lasers
1.55 μm DFB-LD/modulator integrated light sources, MOVPE grown 9478
1.55 μm semicond. laser source, gigabit/second integrated electroabsorptive modulator 1741
1 Gbit/s QPSK opt. microwave transmitter, SOA modulator based 9561
2.5-Gbit/s return-to-zero integrated DBR laser/modulator transmitter 9459
2D WDM reconfigurable opt. interconnection smart pixels 42099

semiconductor lasers continued
  3.5 W diode-pumped Q-switched 532 nm laser 14816
  3D image meas. of moving objs., laser rangefinding 3627
  3D laser-based sens. for robotics 17763
  10 Gbit/s data switched semicond. laser amp. nonlin. loop mirror 17326
  10 Gbit/s opt. transmitter module, integrated electroabsorption modulator/DFB LD 9477
  10 Gbit/s sig. repeated wavelength conversion, wavelength-tunable semicond. lasers 25496
  10-Gbit/s sig. transm. following wavelength conversion, semicond. opt. amps. 9489
  70 terabit.km/sec soliton transm., packaged hybrid soliton pulse source 17351
  980 nm Bragg fibre grating coupled diode laser wavelength and intens. stabilisation 9431
  980-nm power LD beam instabil., expt. and anal. 15013
  1310-nm DFB lasers, correl. of leakage-induced distortion, I-V charact. 7685
  1550 nm dispersion-supported transm. on long spans of conventional single-mode fiber 9508
  absorptive-grating gain-coupled DFB semicond. lasers, opt. pulse chirp 14947
  absorptive/dispersive nonlin. 31494
  achromatic computer generated HOE for coupling LD, single mode fiber 40144
  achromatic diffractive optics, LD fibre optic coupling 39445
  act. cylindrical waveguides with step-index profiles, transverse modes 30953
  act. interferometer, sinusoidally modulation *(Chinese)* 2154
  act. mode locked LD, soliton-forming pulses in fibre 7789
  act. mode locked semicond. lasers, ps pulse compression, model 31420
  act. mode-locked external-cavity semicond. laser, quasi-periodic route, chaos 31423
  act. mode-locked semicond. laser injection locking 23197
  act. mode-locked telecomms. semicond. lasers, soliton generation 31415
  act. modelocked external cavity LD, ps gain dyn. 1978
  act./pass. semicond. OEIC, BPM simulator 14646
  airborne laser syst. pulsed power supply, compulsator-based 36254
  all-opt. clock recovery syst., ring mode-locked laser 39990
  all-opt. clock-recovery cct. using dual mode-locking, 5-Gbit/s 14879
  amp. laser beam stabil. 23212
  analog DFB laser modules, second-order IMD 7680
  ASK opt. transmitter, 790 nm LD for LANs 25507
  asymmetric external cavity semicond. lasers, LF resons. 31389
  asymmetric response in opt. systs. 14867
  asymmetric three-phase-shift DFB LD, design 14921
  automated fiber pigtailing technol. 14383
  beam steerable semicond. lasers, large steering range and resolvable spots 1985
  BH diode lasers, multimode self-consistent model 23283
  BH LD based on spatial hole burning model, kink anal. *(Korean)* 31330
  BH light-emission/detect. diode module for subscriber TCM transm. systs. 25472
  BH planar lasers, fab., spatial/spectral separation 39813
  BH SEL diodes, integrated vac. proc. 39810
  BiCMOS laser control chip combining power control and 622 Mbit/s modulator 31426
  BMDO/IST lasercom advanced technol. demons. status 17290
  BOD, LDs coupled, interf. filters 31554
  book, bistabilities and nonlinearities in laser diodes 58
  book, semiconductor Raman lasers 57
  BPSK homodyne detect. expt. with solitary DFB LD, 10 Gbit/s 17329
  broad act. area diode laser, lateral field instabil. and six-wave mixing 7652
  broad area semicond. lasers, lateral modes theory, review 7643
  broad-area semicond. lasers, filamentation and beam propag. 23191
  broadband CATV video systs., DFB lasers 9555
  buried heterostruct. on InP, CBE growth 12061
  carrier depletion, opt. phase conjug. 39830
  carrier fluct., excess noise generation 22348
  carrier-induced refr. index, low carrier densities 7682
  CATV DFB LD, second-order distortions meas. 34004
  CATV return path laser systs. 42620
  CD-ROM, quadruple dens. opt. disc technol. *(Japanese)* 3682
  chaotic opt. commun., LD appl. 17249
  chirped fibre Bragg grating dispersion compensator, directly modulated laser appl. 25521
  chirped laser radar, optoelectronic chirp generation and sig. demodulation 17444
  CMOS latchup detect., low cost laser scanning tech. 30450
  coaxial LD chip package for fibre in loop appls. 42427
  coherent feedback, AM noise, FM noise 14864
  coherent FSK syst. DFB lasers, thermal contrib., FM response 3585
  coherent opt. pumping 23195
  coherent opt. syst. nonuniform FM response, semicond. laser model 9471
  collimating lens syst. for LD package 3547
  colloquium, optical solitons, London, UK (Nov. 1994) 62
  commun. LD FM transfer fn. modelling 1977
  compact disc lasers, gigabit fibre optic links 42451
  complex coupled DFB laser narrowband amp. props. 39861
  complex-coupled DFB semicond. lasers, mode stabil. 14897
  components for opt. amplif./modulation/detect. 42472
  conference, laser physics, St. Petersburg, Russia (1993) 11525
  cryo-electronics opt. readout. LD appl. 29132
  dBm semicond. opt. amplifer booster module for high-bit-rate transm. systs. 17228
  DBR laser based step-like opt. freq. sweep generator 23254
  DBR laser wavelength converter, bit-rate-independent operation, 10 Gbit/s 14903
  DBR LD wavelength conversion device 23196
  DBR LD with fibre external cavity, linewidth narrowing 39762
  DBR semicond. LD, ultrafast pulse train generation *(Japanese)* 7625
  DBR unstable resonator semicond. laser, 941 nm 23320
  delay-and-multiply opt. FSK receivers, line-coding, anal. 42345
  demultiplexing, π phase shift recovery in semicond. laser amp. 25508
  detuned gain-coupled DFB laser, opt. feedback immunity 31310
  DFB 1.5-μm lasers, aging-induced wavelength shifts 7676
  DFB free-running laser modules, long-term wavelength drift 7675
  DFB laser, 1.55 μm, 185 fs pedestal-free pulse gen. 23186
  DFB laser, laterally coupled, fab., electron-beam lithog./CAIBE 14941
  DFB laser, stochastic reson. 1952
  DFB laser chirp pulse pattern dependency, modulation and transm. perform. *(Japanese)* 39801

semiconductor lasers continued
  DFB laser gain-switched pulse spectral quality improvement 7621
  DFB laser IMD anal., dyn. spatial hole burning effect 23222
  DFB laser local intens. modulation response, direct meas. 31323
  DFB laser-electroabsorption modulator integrated light source 39472
  DFB lasers, 1.55 μm, grating struct. and mirror posns. rel. to lasing characts. *(Korean)* 31413
  DFB lasers, dephased index and gain coupling 23194
  DFB lasers, long. spatial hole burning complete elimination 7679
  DFB lasers integrated with external modulators, freq. chirp anal. 14953
  DFB LD above-threshold stabil. determ. 39875
  DFB LD grating fab. by holographic method 15183
  DFB LD nonlin. distortions, power-depend. loss and leakage current 31355
  DFB LD with distributed coupling coeff., spectral charact. 23278
  DFB semicond. laser pulse generation, soliton effect pulse compression fibre 39772
  DFB semicond. laser threshold condition, local normal modes 14914
  DFB transmitter selection for broadband services 42383
  DFB-LD with side-mode light injection, bistability and waveform reshaping 23250
  diamond channel radiation X-ray laser 23201
  digital stabilization of power 39765
  diode laser, mirror temp., photothermal deflection method 2033
  diode laser, opt. and elec. noise spectrum 14970
  diode laser, opt. injected, reverse bifurcations and dyn. modif. 31340
  diode laser nonlin. study by equiv. cct. modelling 1976
  diode lasers, elec. and opt. photocurrent noises correl. 1922
  diode lasers, internal loss and quantum efficiency meas. *(Korean)* 14863
  diode lasers, LF light flucts. meas. tech. 1923
  diode lasers, noise mechanisms 1921
  diode lasers, opt. noise meas., reliab. estim. 23287
  diode lasers, tapered waveguide layer fab. 39814
  dispersive opt. bistability, dyn. props., static props. 14949
  displacement sens. with opt. feedback, LD 18097
  dist. meter, fast APD 25975
  distributed feedback lasers, phase tunable, flat FM response 14972
  distributed forward-/backward-coupling semicond. laser, wavelength tuning charact. 31322
  double QW heterostruct., DC pumped terahertz lasers, interwell transits. 1947
  DPSK receiver, opt. preamplified/demodulated, act. delay-line stabilization 17208
  dual modulation, large sig. anal. 1975
  dual-bus digital syst. semicond. opt. amplifer-based subcarrier add-drop multiplexer 17214
  electroabsorption modulator integrated laser transmitters 17225
  electron-beam-pumped lasers, operating principles, threshold charact. 23227
  equiv. cct. model of laser, weak coherent opt. feedback 23272
  external cavity chaotic opt. commun. LD, periodic oscills. 39832
  external cavity LD, freq.-shifted feedback 39828
  external cavity LD modelocked by optoelec. feedback, stabil. 23275
  external-cavity acoustooptically controlled semicond. lasers, tuning fidelity 15003
  externally modulated lasers for fibre transm., optimum prechirping 1971
  Fabry-Perot laser/fibre grating, pulse compression/mode selection 23225
  Fabry-Perot lasers, 1.3 μm, spectral perturb./mode suppress. 23233
  Fabry-Perot lasers for polarisation insensitive optical amplifiers 14973
  Fabry-Perot LD modeling 31321
  Fabry-Perot wavelength-tunable picosecond LD pulse source 34090
  FADOF filter for space borne opt. commun., Doppler shift compensation 17325
  fiber commun. systs., opt. device trends *(Japanese)* 42462
  fibre grating external cavity, soliton switching 7651
  fibre lasers, pump induced modulation by saturable absorpt. opt. switch 31238
  fibre optic laser Doppler velocimeter, coherence dependence 26014
  fibre-rem. pumped Nd:YAG laser, heterodyne sens. appls. 17863
  FIR tunable lasers/detectors 14893
  FITL semicond. laser modules, low cost, packaging 17276
  FMCW-LIDAR, tunable twin-guide LD 17449
  four-beam LD opt. heads, dyn. wavelength shifts 39317
  four-wave mixing sig. in semicond. amps., high saturation behavior 31515
  free-space opt. commun. syst., Faraday filter 9486
  freq. control, nonlin. freq. conversion *(Japanese)* 7624
  freq. doubling CW diode laser radiation in ion-implanted $KNbO_3$ waveguides 2076
  freq. locking, acetylene absorpt. lines 7642
  freq. stabilisation, Faraday effect/saturated absorpt. 14848
  freq. stabilisation/linewidth reduction, opt. feedback method *(Korean)* 14861
  freq. stabilization, 1.5-μm freq. refs., HCN saturated absorpt. 23400
  freq.-locked semicond. lasers, freq. offsets 1939
  freq.-modulated LD interferometer, selective imaging 40177
  GaAs/AlGaAs proton-implanted top-SEL, series resistence anal. 23207
  gain-guided semicond. microlasers, noise props. 23204
  gain-switched Fabry-Perot LD, spectral behaviour 14932
  gain-switched LD, femtosecond opt. pulse generation, soliton compression 7613
  gain-switched semicond. laser min. pulsewidth cavity optim. 31325
  gain-switched semicond. lasers, chirp estim. in opt. pulses *(Japanese)* 7626
  Gb/s intens.-modulated direct-detect. systs., laser turn-on delay and chirp noise effects 42460
  Gbit/s opt. transmitters, accurate opt. extinction ratio meas. 9462
  heterodyne opt. interferometry, LD power change effects 42965
  heterojunction phototransistor-LD integrated device, flip-flop and multivibrator fns. 31048
  HF charact., nonlin. gain, cct. modelling 31333
  high power SW lasers, waveguiding 39770
  high-capacity photonic space-division switching syst. for broadband networks 25533
  high-power MOPA LD 7657
  hole diam. opt. meas. instrum. develop. *(Japanese)* 42939
  holographic TV, LCD, YAG laser and camera appl. *(Japanese)* 2149
  homog. broadened SOA, injected current, gain bandwidth 7683
  hybrid IC drivers, flip chip bonded, SPICE simul. 7485
  hybrid IC waveguide facet refl. reduction 14674
  hybrid laser, high-power, narrow-linewidth, stable single-mode 7674
  IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
  II-VI blue-green emitters, failure mechanism 14630

semiconductor lasers continued
  II-VI semicond.-based electron-beam-pumped laser emitters, microrelief mirrors 1929
  II-VI semiconductors, electronic materials, conf., Boulder, CO, USA (1994) 36873
  III-V semiconds., photonic devices, clean/fine dry procs. 39809
  in-line semicond. laser amp. opt. repeaters, stray refl. effects 3570
  injection laser, acoustic matching, acoustic line 39885
  injection laser neural network, long. modes, neurons 29453
  injection laser polariz. dragging 2001
  injection laser-modulator combinations, time-depend. simul. 14952
  injection lasers, threshold condition defn. 7638
  injection LD, tunable, monolithic cct. integratable 1930
  injection-locked dispersive bistable LD, fast opt. switching 39817
  injection-locked semicond. laser, stable locking range expression *(Chinese)* 7660
  injection-modulated semicond. lasers, chirped pulse, α-param. depend. 31402
  integrated DFB LD modulator for 2.4 Gbps opt. transm. *(Japanese)* 39618
  integrated opt./optoelectronic switch for parallel opt. interconnects 31127
  integrated optoelectronic interconnect for phased-array antenna appls. 7494
  integrated optoelectronic up/down-converters 23232
  intens. modulated lightwave syst., error-rate floor prediction 14877
  interface techs. for gigahertz/gigabit lasers 39858
  inversionless laser schemes 1927
  ion-implanted, hybrid mode-locking, time-bandwidth product 1962
  IQEC quantum electronics, conf., Anaheim, CA, USA (1994) 11551
  IR coherence-collapsed multimode LD for fiber-optic gyroscope 40176
  IR extended cavity LD freq. stabilisation 39829
  IR lasers, conf., Ascona, Switzerland (1994) 5485
  IR semicond. lasers, hybrid mode-locking 31424
  Josephson jn. IC opt. input/output interface syst. 1625
  λ=1.57 μm DFB LD gas sens., overtone and combination band absorpt. 9961
  large aperture single-pass semicond. laser amps., sharply peaked sidelobes 14913
  large-aperture semicond. laser amps., sidelobes, injection current profile shape 39831
  large-area multiple-transverse-mode VCSELs in multimode-opt.-fiber links, modal and intens. noise 9595
  laser commun. terminal for LEO satellite constellations 17297
  laser doppler device for air pollution detect. 18917
  laser interferometers for lin./ang. displacement control appls. 39592
  laser/amp. for 1.3μm-1.5μm wavelength conversion, model 14844
  LASS based ultrawideband radar syst. 34149
  laterally-coupled DFB laser, EBL/CAIBE fab. 31410
  LD, freq. doubling, domain-inverted waveguide 31382
  LD, MOCVD grown, operation, power 39851
  LD, reson. opt. waveguide MOPA 39846
  LD, ridge waveguide amps., 2D scaling 39845
  LD, single mode single stripe, spatial filtered 39841
  LD direct FM, coherence fn., inform. proc. 32977
  LD technol., conf., Los Angeles, CA, USA (Jan. 1994) 36891
  LD-pumped IR solid-state lasers 14789
  LEOS, Lake Tahoe, NV, USA (July 1994) 39
  LEOS, San Jose, CA, USA (1993) 20270
  light pulse propag. and charge carrier scatt. 39789
  lin. freq.-swept light source for FMCW reflectometry 18123
  linewidth enhancement factor, FM/AM response, simultaneous meas. 39878
  linewidth-insensitive coherent analog opt. AM link receiver/transmitter 9442
  long-wavelength LD interferometer, surface flatness meas. 18068
  low power parallel transmitter/receiver LSIs for 2.4 Gb/s opt. link 34048
  low-amplit. noise semicond. laser oscillator 7672
  low-cost reliable high power CW LD arrays for solid state laser pumping 31399
  master oscillator power semicond. laser amp., mode-locked operation 31422
  metane, atmos., tunable LD absorpt. spectrosc. 9953
  micro-encoder chip, integrated opt. component fab. 30979
  micro-Fresnel lens LD collimating light sources 7443
  micro-optics focusing LD material-proc. syst. design 5609
  microcavities, sub-Poissonian photon generation 31372
  microcavity semicond. laser modulation bandwidth 7636
  microcavity semicond. lasers 23203
  microcavity semicond. lasers, nonequilibrium carrier dyn. 31338
  microcavity semicond. lasers, nonequilibrium many-body theory and mode confine. effects 23205
  microchip diode pumped solid state laser arrays, mfg. cost 31282
  microchip solid-state lasers, transverse effects 14883
  microlaser linewidths 31368
  microlens integrated coupling device for LD/opt. fiber 22911
  miniature multifiber connector appls. 30905
  mirror heating, thermal diffusivity 1958
  mirror imperfections/reflectivity, time-depend. approach 14937
  mirror temp. meas. of semicond. lasers, photothermal deflection 15012
  Mitsubishi 16-channel 622 Mbps FDM coherent opt. commun. equipt. 34003
  mixed photonic/electronic cct. simul. 37603
  MM-wave source, dual-mode DFB semicond. laser 23486
  mode locked semicond. lasers; self PM, timing jitter 31418
  modelocked semicond. laser, microwave sig. degrad., LF noise up-conversion 39869
  modulation response, carrier conc./temp. 23217
  monolithic 2D LD array pumped, 2D Er:YScGG microlaser array 1888
  monolithic grating-based components for WDM networks 9131
  monolithic ring lasers for low-noise opt. sig. distrib. 7498
  monolithically integrated master oscillator flared power amp. 39847
  MOPA LD for satellite commun. 17300
  MOVPE, conf., Yokohama, Japan (1994) 11533
  MOVPE optoelectronic device technol. 28747
  MQW-DFB-LD modules for SCM fiber-optic transm. *(Japanese)* 42468
  multi-stripe and broad-area semicond. lasers, spatio-temporal complexity 7640
  multichannel MM wave subcarrier transm. by reson. modulation of monolithic LD 42393
  multidimensional semicond. laser syst., dyn. hysteresis 31357
  multielectrode DFB laser self-pulsation charactn. 31327
  multielectrode DFB lasers, transfer matrix method based large-sig. dyn. model 1995
  multielectrode semicond. laser broadband freq. generation 7668
  multijunction single-mode laser cavity, photon-no. amplif. 23324
  multimode rate eqns. 39820
  multimode VCSEL, noise perform. 1984

semiconductor lasers continued
  multiplexed diode-laser sens. syst., gas/temp. meas. 7874
  multisegment mode-locked semicond. lasers, timing jitter mechanisms 31419
  mutual injection locking of fibre laser and DFB semicond. laser 14758
  narrow band semicond. laser, far-IR, freq. tuning 14938
  narrowband VCO at 282 THz, design and perform. 21145
  near-IR dye laser for diode-pumped operation 23106
  noise, Volterra functional series expansions 2003
  nonlin. opt. phenom., photonic appls. 1933
  nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
  nuc. phys. expts., opt. fiber links 22843
  opt. amps. with strained quantum wells, interwell transport, four-wave mixing 1950
  opt. bistability, X-shaped hysteresis 39818
  opt. broadband commun. appls. *(German)* 7644
  opt. commun. in space appls. 17164
  opt. detect. of ignition sites, semicond. LD appl. 7623
  opt. feedback with dispersive loss, amplit. noise 1980
  opt. fiber transm. bandwidth meas. systs. *(Japanese)* 33976
  opt. fibers, MM wave sig. transm. 9541
  opt. fibres for ultra-high capacity telecomm. *(Japanese)* 3545
  opt. freq. bistability, power bistability 23235
  opt. heterodyne microwave generation, spectral charactn. 6293
  opt. intersatellite commun., LD transmitter 17173
  opt. memory and blue lasers 7268
  opt. microresonators, threshold lasing characts. 2026
  opt. spectrum meas. syst., high resoln. 4003
  Optical Communication Demonstrator, laser transmitter assembly 17303
  optoelectronic devices for consumer appls. 7492
  optoelectronic integrated device, opt. multi-stable fns. 23058
  optoelectronic material appl. in Japan, review 7453
  oscill. wavelength shift in mag. field *(Japanese)* 23200
  packaging relax. semicond. lasers, dil. waveguide struct. 14930
  parallel opt. interconnect, SEL and photodiode arrays 39601
  pass. mode-locked diode laser pulse charact. 39834
  periodic/pseudorandom word modulated LD in fibre soliton transm. 42395
  phase noise reduction, self-phase locking, phase conjug. feedback 2002
  phase-shifted DFB laser stabil. against hole burning 1996
  planar hybrid optoelectronics, colloquium, London, UK (1994) 20255
  planar waveguide semicond. lasers, spatial patterns, fund. soliton 31616
  plasma-heating induced intens.-depend. gain 23263
  polariz.-insensitive amp., gain-saturation props. 14881
  polariz.-insensitive config., efficient wavelength conversion 14882
  polymer opt. fibre/high-speed LD, data transm. 34051
  pretransmisson nonlin. channel compression in SCM lightwave systs. 17212
  pseudo external cavity tunable diode laser 39773
  pump LD, rapid degrad., TEM study 14866
  push-pull modulated DFB lasers, enhanced AM bandwidth 7635
  QW mid IR lasers, above barrier transits. 7612
  QW semicond. lasers, carrier transport effects on wavelength chirp 1974
  radiation effects, LEDs, LDs, PDs, OCs 23047
  random act.-region width coupled semicond. laser arrays, lin. sensitivity anal. 31312
  receptacle LD modules, low refl. design *(Japanese)* 7666
  regenerative picosecond feedback scheme based CW semicond. lasers 31421
  reliab., failure anal. 39816
  reliab., spectral anal. 39849
  reliab./quality diagnostic tool for electronic devices 1315
  repeaterless transm., 2.4 Gbit/s, 306 km fibre, DFB LD 17231
  ridge waveguide semicond. pump laser design 39842
  ring lasers for integrated optoelectronic ccts. 14842
  SAR image form., opt. proc. 17417
  second-order/third-order nonlin. harmonic/IMD *(Korean)* 14901
  SEL, 1.55 μm, very low threshold, grating coupled 14905
  SEL mirror effects on dyn. response 31315
  self-seeded Fabry-Perot LD, single-mode form. dyn. 39799
  self-seeded gain-switched Fabry-Perot laser, low jitter single-mode pulse generation 14884
  self-seeded gain-switched LD, elec. wavelength-tunable singlemode pulses 31326
  semicond. opt. amp., short opt. pulse wave mixing 39754
  short-cavity semicond. laser, opt. pumped, transient response 39835
  shorter-wavelength LD and SHG technol. prospects *(Japanese)* 14959
  SI buried crescent laser regrowth tech. 31358
  side-injection-light-controlled bistable LD as wavelength converter, digital sig. regeneration 17344
  single mode LD, decay time of time-depend. transient stochastic dyn. 31331
  single mode opt. fiber laser light coupling *(Japanese)* 1669
  single mode semicond. lasers, opt. injection/feedback 39824
  single-mode antiresonant reflecting opt. waveguide diode lasers, above-threshold behavior 14908
  single-mode diode lasers, feedback, external light injection, switch-on time, timing jitter 31397
  single-mode fiber, self-aligning multibeam coupling 14399
  single-mode fiber/LD coupling, misalignment model 30884
  single-mode gain-switched pulses, normally dispersive fibers 1696
  single-mode injection laser with external resonator, pumping, quantum magnetometry appls. 34462
  single-mode semicond. lasers, feedback, current modulation, transient dyn. 31468
  single-transverse-mode semicond. laser, diffr.-limited super-Gaussian output 39757
  singlemode 1.3 μm Fabry-Perot lasers by mode suppression 39872
  solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
  squeezing bandwidth, Coulomb blockade effects 31373
  strain fields on facet and along cavity in semicond. diode lasers 39881
  strongly coupled external cavity semicond. lasers, opt. feedback 15001
  submillimeter range EM oscills. in p-n jn., laser gen. mechanism 39793
  subpicosecond pulse amplif. 39805
  surface emitting diode lasers 14902
  surface emitting opt. devices, 2D integrat. 7482
  surface mount type LD/photodiode module *(Japanese)* 42466
  surface-emitting vert.-cavity QW laser, time-depend. num. simul. 1972
  SW high reliab. LD for opt. data links 42430
  switching struct., gain saturation, size limitations 23251
  tapered gain region devices 39848
  tapered semicond. opt. amp., preamplifier monolithic integrat. 39611
  telecomms. LD output simul., mock eqns. 31425
  thin opt. pickup head of CD player, laser/detector/hologram unit 17613
  three-branch widely tunable semicond. laser design for WDM links 14915

semiconductor lasers continued
three-sect. DBR lasers, fast wavelength switching 25479
three-stage opt. switch, gain optim. 39879
time/polaris. multiplexed opt. fiber soliton transm. 9467
travelling wave amps., opt. multi-carrier network 25532
travelling wave semicond. laser amp. detector noise charact. 31346
travelling wave semicond. laser end facet output spectra 31398
tree-type photonic switching networks 25192
tunable diode laser, external-cavity difference-freq. source 31486
tunable four-sect. DBR LD, lasing charact. modelling 14845
tunable semicond. lasers, continuously chirped DFB gratings 1954
TW semicond. laser amps., four-wave mixing 31395
TW semicond. opt. amps., facet modal reflectivity spectrum 39763
twin-sect. LD instabil., all-opt. sync. 7667
twin-stripe semicond. laser, three-torus bifurcation 2008
two-beam LD, focusing charact., appls. to opt. head 31479
two-mode semicond. laser dyn., carrier diffusion effects 31394
two-sect. asymmetric LD, enhanced uniform phase conjug. 23198
two-sect. DBR laser freq. and power control by dual act.-/Bragg-sect. tuning 9503
two-sect. DBR laser transmitters in opt. FDMA networks 9500
two-sect. travelling-wave semicond. laser amp. optoelectronic time division demultiplexer 42100
two-sect. TW semicond. laser amp. opt. transparent TDM channel selector 9552
ultrafast all-opt. AND gate, four wave mixing in laser amp. 1758
ultrafast nonlin. in semicond. laser amps. 7670
ultrafast pump-probe gain dyn. 23261
ultralow threshold laser, zero-biased, ultralow power opt. interconnect 14672
ultrashort pulse amplif. in semicond. laser amps., theory and expt. 14939
unstable resonator semicond. laser, quantum confine. and strain effects 23211
unstable resonator semicond. lasers, simul. 23210
UV grating written planar silica waveguide semicond. external cavity laser 34034
UV light written grating planar silica waveguides 1720
UV-written grating planar silica waveguide external-cavity semicond. laser 9570
VCEL, GRINSCH struct., CW operation, temp. range 39778
VCSEL, 2D diffusion eqn. 23208
VCSEL, Bragg mirrors, thermal cond. anal. 39785
VCSEL, lateral injection, high speed modulation, act. region 39781
VCSEL, off-reson. lasing 14934
VCSEL, p-type mirrors, wall plug efficiency 39777
VCSEL, transverse modes, vortices 7639
VCSEL diode under DC excitation, chaotic dyn. of mode competition 1999
VCSEL diodes, Au-plated heat spreading layer 23268
VCSEL diodes, transverse mode competition dyn. 31356
VCSEL semicond. laser, stable states 2007
VCSEL wavelength control by nonplanar MOCVD 14963
VCSELs with strained QWs, opt. gain, cryst. orient. depend. 1948
vert. cavity SELs, 50% power conversion efficiency 23215
vert. cavity SELs, pitchfork bifurcation pol. bistabil. 14948
vert. cavity surface emitting DBR lasers, voltage controlled 7622
vert. cavity surface emitting semicond. lasers fab. 31361
vert. integrated Mach-Zehnder interferometer/tunable LD 1838
vert.-cavity SELs, self-pulsations 14992
vert.-cavity surface-emitting semicond. lasers, elec. pumped, transverse modes 7641
vis./UV lasers conf., Los Angeles, CA, USA, (Jan. 1994) 50
wavelength converters based on four wave mixing in semicond. opt. amps. 42385
WDM channel NRZ, RZ format conversion, single semicond. laser amp. 25503
WDM chirp reduction LD by injection locking 3557
WDM opt. network life-range-delimitation opt. transceiver for fast routing 9584
WDM receiver, monolithically integrated device 34075
WDM transceiver OEIC modules for local access fibre networks 17331
wide aperture semicond. lasers and amps., nonlin. dyn. modelling 23209
wide continuous tuning LDs, hybrid reson. opt. reflector 7658
WORFNET link for fibre-microwave networks 9481
Y interferometric laser technology 14971
(Al,Ga)InP-oxide epitaxial DBR in vis.-wavelength opt. devices 39800
p-AlAs:Zn, MOCVD for low-resist. VCSEL 23246
AlAs/GaAs DBR VCSEL diode on Si, MOCVD and struct. 39882
AlAs/GaAs VCSEL, cavity and reflector design 31347
AlAs/GaAs/InGaAs, VCSEL, transverse lasing mode, temp. depend. 39989
AlGaAs LD, MBE prod., review 7663
AlGaAs LD based broad beam transmitter for space commun. 17302
AlGaAs LD testing for SILEX program 17299
AlGaAs VCSEL, low-temp. operation 14962
AlGaAs, act. waveguide LD, femtosecond band-edge index nonlin. 31337
AlGaAs diode laser freq. tunable light generation/freq. conversion 23286
AlGaAs, high purity, methyl-based precursors, in situ alkoxide gettering 299
AlGaAs high-power single-stripe LD, window grown on facets *(Japanese)* 39886
AlGaAs laser-assisted deposition, Cu-Au conductors for IC interconnects 12184
AlGaAs lasers, nonplanar MOVPE, lateral p-n jns. containing p-type (311)A facets 1943
AlGaAs lasers with grown opt. facets, metalorganic CVD deposition 20961
AlGaAs, selective area MOCVD for hexagonal-facet lasers 20766
AlGaAs self-pulsating LD, stabil. enhancement by pass. external cavity 31403
AlGaAs, single mode LD, long duration life tests 39850
AlGaAs substrs., MOCVD growth 20826
Al$_x$Ga$_{1-x}$As BH LD, MOVPE 23243
AlGaAs/AlGaAs superlattice, comp. ordering, opt. props enhancement 1083
AlGaAs/GaAs VCSEL, internal quantum efficiency and loss meas. 39775
AlGaAs/GaAs, high-power injection heterostruct. lasers 14911
AlGaAs/GaAs injection laser with a periodic confining layer, modeling 14969
AlGaAs/GaAs injection lasers, electron superlattice barriers 39836
AlGaAs/GaAs micromachining, monolithic integrat. of micromechanical struct. 23065
AlGaAs/GaAs vis. lasers, degrad. related defects, DLTS study 31396
Al$_x$Ga$_{1-x}$As/GaAs:Be mirrors for VCSEL 15010
AlGaAs-GaAs-InGaAs DBR elec. pumped VCSEL 31314

semiconductor lasers continued
AlGaInAs vis. diode laser with phase-conjug. feedback, stable mode locking 39833
AlGaInP LD arrays, high-power CW 690 nm operation 31343
AlGaInP dry-etched 650 nm vis.-light LD 1986
AlGaInP laser, facet/bulk degrad., eval. method *(Japanese)* 23288
AlGaInP red-emitting LD grown by solid source MBE *(Japanese)* 39880
AlGaInP vis. light LD, 650 nm, dry-etched mesa stripe 39867
AlGaInP vis. semicond. lasers, catastrophic opt. damage *(Japanese)* 31412
AlGaInP/AlGaAs:C red/IR VCSEL diodes, metalorganic VPE 20823
AlGaInP-GaInP yellow emitting semicond. lasers, MBE grown 1991
AlGaInP-based 660-680 nm vert.-cavity SELs 23187
Al$_x$O$_y$/GaAs VCSEL laser with high-contrast mirrors, gain switching 23231
AlPSb/GaPSb Bragg reflector 1.55 μm LD 7619
β-BaB$_2$O$_4$ opt. parametric oscillator, spectrosc. light source 31573
Cd$_{1-x-y}$Mn$_x$Hg$_y$Te single cryst. opt. isolators for high power LD pumping 3556
CdS thin film p-type/n-type light emitting/LD 14978
CdS waveguide cavity microlaser, losses, spectrum crevasse appearance 39862
CdZnSe/ZnSe blue/blue-green lasers, microgun pumping 31386
Cl$_2$ ECR plasma etching of III-V semiconds., laser appls. 22188
Er-doped fiber laser config., wavelength switching 14735
Fabry-Perot lasers, cavity mirror imperfections and reflectivity 31458
GaAlAs LD feedback interferometer for displacement meas. 23479
GaAlAs LD forced TM-mode operation by annealed proton-exchanged waveguides 23257
GaAlAs LD, wavelength locked, bandpass filters, freq. doubling 31593
GaAlAs diode laser light, freq. doubling in KTiOPO$_4$ waveguide 31487
GaAlAs injection LD, freq. flucts. 23301
GaAlAs injection laser pulse detect., photodetector, AGC 42787
GaAlAs-GaAs ultrahigh finesse microcavity, DBR 2029
GaAs SEL, transparent ITO ohmic contacts 39815
GaAs cw semicond. lasers with Boltzmann kinetics, gain saturation 31354
GaAs, selective area MOCVD for hexagonal-facet lasers 20766
GaAs short period corrugations, e-beam direct exposure, chem. amplified neg.-tone resist *(Japanese)* 22311
GaAs/(AlGa)As DBR, reflectivity, disordering 2035
GaAs/AlAs vert. cavity laser, SW light generation 23281
GaAs/AlGaAs DH laser, electron-hole pair recomb. 23218
GaAs/AlGaAs LD, surface mode coupling, single laser mode emission 14916
GaAs/AlGaAs MOVPE-grown vert.-cavity top-SEL 31388
GaAs/AlGaAs, VCSEL, thermally stable elec. characts. 39768
GaAs/AlGaAs hexagonal-facet laser with opt. waveguides, selective area metalorganic CVD 23214
GaAs/AlGaAs high barrier gain offset CW VCSELs 7618
GaAs/AlGaAs microdisk lasers 23259
GaAs/GaAlAs, channelled substr. window twin stripe lasers 31332
GaAs/InGaAs coupled semicond. microcavities 2030
GaAs-AlAs MBE grown vert. Fabry-Perot laser cavities, periodic mode shift 31443
GaAs-AlAs vert. coupled-cavity microinterferometer, deformable-membrane top mirror 39991
GaAs-AlGaAs GRINSCH LD modelling of MBE growth 39791
GaAs-AlGaAs LD with opt. feedback, line narrowing and modulation bandwidth 1981
GaAs-AlGaAs, field-effect LD, picosecond, saturable absorpt. 2005
GaAs-AlGaAs laser, multiple colliding pulse mode-locked operation 1949
GaAs-AlGaAs monolithic optoelectronic switch, modulation response 23055
GaAs-AlGaAs monolithic semicond. ring lasers, pass. mode locking 31416
GaAs-AlGaAs-AlAs proton-implanted top-surface-emitting semicond. lasers 23206
GaInAs/GaAs micro-arc ring semicond. laser, design 39866
GaInAs/GaInAsP MQW tuned lasers fabricated by photoabsorption induced disordering 1957
GaInAsP BRS laser-GaAs MESFET driver for OEIC transmitter 31120
GaInAsP DFB lasers, fab., maskless FIB implant. 39825
GaInAsP, pseudo-buried heterostructure laser, GSMBE, single step epitaxy 14873
GaInAsP/GaAs, MOCVD, lattice match, photoluminesc. Hall mobility 7610
GaInAsP/InP injection laser with a periodic confining layer, modeling 14969
GaInAsP/InP inverted-rib LD, interrupted life test 23252
GaInAsP-InP 2×2 switch, monolithic integration with optical amplifiers 17191
GaInAsP-InP continuously tunable LD, mode hopping *(French)* 1924
GaInAsP-InP inverted-rib LD, degrad. recovery 14847
GaInAsSb separate-confine. laser heterostruct., threshold current dens. 14912
GaInP$_2$ ordered VCSELs, polaris. selectivity 31387
GaInP/AlGaInP DH laser, 570-590 nm 200K operation 31341
GaInP/AlGaInP vis. diode lasers, sustained oscills. 23253
GaN film, opt. pumped, UV lasing 14907
p-Ge far IR laser, dyn. model 31411
p-Ge, intervalenceband pulse FIR laser, mode fine struct. 14891
Ge p-type cyclotron reson. laser emission lines 14955
Ge, phonon-difference FIR lasers, neg.-effective-mass generators 14890
Ge$^+$, Ne-like, soft X-ray laser brightness on double pulse pumping 23084
Hg$_{1-x}$Cd$_x$Te, narrow-gap, laser emission 14894
InAs/InAs$_x$Sb$_{1-x}$ midinfrared lasers, CW operation 23202
InAsSb/AlAsSb 3.9-μm DH diode lasers, high output power 1955
InAsSb/GaSb DH high-temp. mid-IR lasers 1982
InAsSbP/InAsSb/InAsSbP heterostruct., radiative recomb. 23266
InGaASP/InP travelling wave optical amplifiers integrated with passive waveguides 14485
InGaAlN, competitor of ZnSe for light emitting devices 23053
InGaAs/AlGaAs lasers, integrated optoelectronics, grating fab. 39596
InGaAs/AlInAs vert. transit. quantum cascade laser, Bragg confined excited state 23260
InGaAs/GaAs LD, degrad., possible sources 14925
InGaAs/GaAs SQW RW lasers, mode coupling/antiguiding 1973
InGaAs/InGaAlAs gain coupled DFB lasers, masked implant. enhanced intermixing 14887
InGaAs/InGaAsP microdisk lasers, fab., resonator modes, losses 7702
In$_{0.65}$Ga$_{0.35}$As/GaAs laser, ultrafast band-edge carrier dyn. 1959
In$_x$Ga$_{1-x}$As/InGaAsP/InP SQW laser, modulation bandwidth 39859
InGaAs-AlGaAs laser oscillator surface grating output couplers 23255
InGaAs-GaAs folded/VCSEL 31391
InGaAs-GaAs-AlGaAs strained layer BH laser fab. by MOCVD 31359

semiconductor lasers continued
InGaAs-GaAs-AlGaAs strained-layer lasers with monolithically integrated photodiodes, MOCVD fab. 31319
InGaAs-GaAs-InGaAsP graded index heterostruct. for 0.98μm lasers 12183
InGaAs-InP quantum well polariz. control photonic functional devices 14480
InGaAsP 1.3 μm DH laser heteroepitaxially grown on Si, stable CW operation 31384
InGaAsP 1.5 μm DFB laser study by Gires-Tournois interferometer 1940
InGaAsP DFB single-mode LD, small sig. cct. model 39821
InGaAsP LD, sensitivity, ESD 14926
InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
InGaAsP diode laser freq. tunable light generation/freq. conversion 23286
InGaAsP gain switched DFB laser, nearly transform limited pulses, pol. dispersion effect 14885
InGaAsP monolithic semicond. soliton transmitter 7790
InGaAsP, ridge waveguide lasers, strain meas., photoelastic effects 39826
InGaAsP semicond. lasers, directly bonded InP-SiO_2-InP current-blocking struct. 14852
InGaAsP semicond. opt. amp. array 23223
InGaAsP strained-layer diode lasers, tapered gain region, $\lambda=1.3$ μm 7630
InGaAsP/GaAs LD, threshold current dens., differential efficiency, 20-105 C 14933
InGaAsP/GaAs, high power BH lasers, mode comp. control 39843
InGaAsP/InGaP/GaAs high-power 0.8 μm LD, minority carrier leakages 1956
InGaAsP/InP 1.55 μm DH laser, 0.95 μm luminous peak *(Chinese)* 14899
InGaAsP/InP DFB laser, wavelength shifts, ESD 23276
InGaAsP/InP DFB lasers, wavelength and polaris. switching 31349
InGaAsP/InP LD facets, surface defects, modulated reflectance microscopy 1928
InGaAsP/InP PBH-DFB-LD for 2.5 Gbps opt. fiber commun., fab./characts., 1.55 μm *(Korean)* 39769
InGaAsP/InP diode lasers with ridge struct., HF polariz. switching 42434
InGaAsP/InP laser heterostructs., act. region carrier leakage meas. 14950
InGaAs(P)/InP, lasers, HBT, monolithic integration 14651
InGaAsP/InP lasers, Q-switched pulses 14875
InGaAsP/InP lasers, wafer scale proc. 23226
InGaAsP/InP ridge waveguide struct. for polariz. insensitive opt. amp. operation 7605
InGaAsP/InP:Zn LD, threshold current, excess Zn effects 1960
InGaAsP/InP-AlAs/GaAs long-wavelength vert.-cavity lasers, wafer fusion 23303
InGaAsP/InP(GaAs), high-power injection heterostruct. lasers 14911
InGaAsP/InP quantum well laser, photoexcited carrier transport 1953
InGaAsP-InP 1.3 μm BH laser modules in fibre link 17254
InGaAsP-InP 1.3-μm folded-cavity SEL grown by gas-source MBE 14853
InGaAsP-InP DFB lasers, long. mode hole burning 1997
InGaAsP-InP all-MOCVD-grown long-wavelength LD 7673
InGaAsP-InP electroabsorption modulators for LDs, nonlin. effects model 14846
InGaAsP-InP tunable DFB laser freq.-drift suppression 9596
InGaAsP-InP wavelength tunable LD 7646
InGaP/GaAs heterostruct. lasers, MOCVD, 0.98 μm 7606
InGaP/GaAs multilayer reflector, MOCVD grown, VCSEL appl. 39865
InP BH lasers, full wafer proc. 39808
InP, and related materials, conf., Paris, France (April 1993) 11521
InP/GaAs, anti-phase direct bonding, 1.55 μm laser fab. 29999
InP/InGaAsP, high power BH laser, 1.15 μm 14924
InP-InGaAs light amplifying optical switch, XOR logic fn. 14675
InP-based LD, TEM, strong contrast from doping vars. 13308
InPAsSb long wavelength laser for high resolution spectroscopy 14876
InSb spin-flip Raman laser, pumped, 11∼16 μm tunable, sens. appl. 1941
Si 10 Gbit/s bipolar LD driver IC for direct modulation 29047
Si enhanced optoelectronic packaging for LD 31121
Si hybrid opto-electronic sens. syst. 31115
Si monolithic photodetector/CMOS preamplifier fiber-optic data link 9518
Si, phonon-difference FIR lasers, neg.-effective-mass generators 14890
SiN-Si X-ray mask wafer stress, contactless laser/microwave eval. 6686
TeO_2 long time aperture acousto-optic delay line, design and charactn. 31021
(Zn,Mg)(S,Se):N green/blue LD, ohmic contact/transport props. 39827
ZnCdSe/ZnSSe/ZnMgSSe LD struct., cpd.-source MBE 12081
ZnCdSe/ZnSSe/ZnMgSSe blue/green diode lasers, elec. props. 23267
ZnMgSSe blue diode lasers/optoelectronic devices, MBE growth 7664
ZnMgSSe blue-LD, MBE growth 7665
ZnMgSSe, blue-green LD, MBE, charactn. 12085
Zn(S,Se):N green/blue LD, ohmic contact/transport props. 39827
ZnSSe/ZnSe superlattices, excitonic procs. and lasing 29912
ZnSe blue-green LD for optoelectronics 23291
ZnSe semicond. lasers, linewidth enhancement factor and nonlin. gain 23224
ZnSe:N green/blue LD, ohmic contact/transport props. 39827
ZnSe:N p/n jn. diodes, metalorganic vap.-phase epitaxy 20787
ZnSe/ZnMgSSe DH blue LD, operation and dyn., room temp. 31378
ZnSe/ZnMgSSe DH laser, photopumped lasing props., MOCVD-grown, cavity length depend. 14942
ZnSe/ZnTe vis. light emitting laser, MOVPE growth 31311
ZnSe-based SQW blue-green lasers, gain charact. 1951
ZnSe-based blue-green lasers, conf., Wurzburg, Germany (1994) 20220
variable delay, dual wavelength psec. pulse generation 14840

semiconductor materials
see also amorphous semiconductors; degenerate semiconductors; elemental semiconductors; heavily doped semiconductors; II-VI semiconductors; III-V semiconductors; III-VI semiconductors; IV-VI semiconductors; liquid semiconductors; magnetic semiconductors; many-valley semiconductors; narrow band gap semiconductors; organic semiconductors; semiconductors; ternary semiconductors; wide band gap semiconductors
1960's radiation effects research on semicond. devices/materials 11558
act./pass. semicond. OEIC, BPM simulator 14646
book, Si and Si alloy based materials/devices 11540
broadband EMI shielding for electro-opt. systs. 15507
cpd. semicond. materials for nuc. detectors, review 43091
GaAs fast opening photocond. switches for pulsed power system 27852
high temperature electronics, conf., Strasbourg, France (1994) 20219
multicrystal X-ray rocking curve simul., convolution 18416
refl. pulse method for material props. determ. 9829
scanning probe microscopy, sample and probe tilts estimation 25707
semicond. device material single event effects testing by laser beam 13573
UHV-STM syst. combined, MBE 5837
AgBr nanocrystal indirect bandgap semicond., lumin. props. 20653

semiconductor materials continued
$AgGaSe_2$ noncritically phase matched mid-IR generation by opt. parametric oscillator 40060
$AgGaSe_2$ parametric oscillator, diode-pumped Ho:Tm:YLF laser 7800
Al/SiO_2/3C-SiC:Na(K) MOS capacitors, ionic contamination 13254
B, borides and related compounds, conf., Tsukuba, Japan (1993) 11553
B-rich semiconds., high-efficiency high-temp. thermoelec. energy conversion 28012
BN, cubic thin films, growth, charactn. 5875
$(Bi,Sb)_2(Te,Se)_3$ semicond. thermoelec. power modules, diffusion controlled degrad. model 28013
$(Bi_xSb_{1-x})_2Te_3$ molten zones, buoyancy-driven convection 12020
Bi_2Te_3 thin films on Si(111) substr., cryst. growth, sticking coeff. 28716
Bi_2Te_3:In,Pb, intrinsic defects, elec. method studies 1068
Bi_2Te_3-Sb_2Te_3 solid solns., thermoelec. props., excess Te/growth effects 13084
3C-SiC CVD grown epilayer, carrier lifetime, deep levels *(Japanese)* 1066
3C-SiC epilayers fab., elec. props. *(Japanese)* 372
3C-SiC undoped CVD epilayer, carriers orig. *(Japanese)* 1067
CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
$CeFe_4Sb_{12}$, filled skutterudite, low temp. props. 38277
$CoSi_2$/6H-SiC, Schottky contacts 1165
$CoWN_2$, synthesis, hexagonal struct. 20649
$CrTiO_3$, elec. cond., thermoelec. power and dielec. const. 13074
CuCl nanocrystals in glasses, persistent spectral hole-burning, opt. data storage 40026
CuCl quantum dots, electron-phonon coupling/phonon confine. 29903
CuCl, semicond. quantum dots, nonlin. opt. props. study 15143
$Cu_2S(Se)$ transparent and electroconductive chalcogenide films, deposition and props. 37467
$Er_2Cu_2O_5$, dielec. const., cond. 21923
FeSi, hopping cond. 38273
β-$FeSi_2$ thin films, photocurrent spectra 22998
GaN/SiC high-temp. HBT, high gain 22372
Ge_xSi_{1-x} PIN photodiode, RT electroabsorption 7466
Ge_xSi_{1-x} HBTs, graded and uniform base study 13647
GeSi:P-Si pseudomorphic MBE films, RTA vs. steady-state furnace annealing 22095
GeSi/Si bistable tunnel diode based SRAM cell 21311
$Ge_{0.3}Si_{0.7}$/Si heterostruct., minority/majority-carrier trapping 21950
Ge_xSi_{1-x}/Si, dry etching, XPS study 38554
GeSi-Si strained layers, MODFET/HBT/photodetector appls., review 29874
$HgBr_xI_{2-x}$ radiation detectors, Processing and charactn. 43096
HgI_2, X- and gamma-ray detectors for space appls. 43072
HgI_2, cryst. growth from soln. in space/on ground 37382
α-HgI_2, cryst. struct., topol., X-ray anal. 43081
HgI_2, crysts./detectors, PIXE/ion backscatt. spectrosc., impurity anal. 43071
HgI_2, detector etching effects 43080
HgI_2 detector systs., X-ray fluoresc. anal. capability 43073
HgI_2, elec. contact material stabil. 43079
HgI_2, electronic and opt. props. 43077
HgI_2, elemental impurity anal. by ICP/MS 43070
HgI_2, extrinsic defects incorporation, detector fab. 43076
HgI_2 gamma-ray spectrometers, electronic charactn. 43078
HgI_2 microdetectors, low-energy gamma-ray perform. 4192
HgI_2, multielement detector systs. for X-ray/gamma-ray imaging 43068
HgI_2 sens. based robotic method for creating radiation maps 43069
α-HgI_2, surface modifs., dark currents 43082
HgI_2, variable angle spectrosc. ellipsometry 43094
HgI_2:Cu,Ag X-ray spectrometers, defect traps, photoionization 4247
ITO thin film, elec. and opt. props. rel. to annealing 21925
ITO/porous SiC blue LED, charactn. 14624
In_2O_3 very thin films, struct., conductance evol. 417
In_2O_{3-x} films, spin and quantum interf. effects in hopping cond. 38263
In_2O_3:Sn films, phys. props., doping-induced changes 30034
In_xO_y:Er RF sputtered films, photolum. and elec. props. 13096
In_2O_3/ZnSe/In heterostruct., I-V charact. 29883
In_2O_3-ZnSe-$(Zn_{1-x}Cd_xTe)_{1-y}(In_2Te_3)_y$ heterostruct., current transport 21963
In_2O3-PZT(PLZT) TFT on ferroelec., operation phys. 39115
In_2S_3, ALE film growth, charactn. 20678
In_2S_3 crysts., thermoelec. power, electron/hole mobilities 1062
In_2Se_3 heterocontacts, radiation-stable electronics 13101
InSe-In_4Se_3 heterojunctions, photosensitivity band 1.0-1.8 μm, IR photodetector appl. 21942
InSnO electrodes for CdS/CdTe sintered solar cells 11295
InSnO thin film, CO_2 gas sens., alarm syst. 3912
InSnO thin films, RF magnetron sputtered, fab./charact. 14317
$In_{2-x}Sn_xO_{3-\delta}$ thin films, RIE 22166
$(InSn)_2O_{3-x}$ oriented films on ZnO films, magnetron sputter deposition 37508
InTlP, IR detector material possibilities 3843
Ir/p-$Si_{1-x}Ge_x$ jns., Schottky barrier heights 38380
MgF_2/organic layer superlattices, struct., opt. props. 29898
$MnWN_2$, synthesis, hexagonal struct. 20649
MnZnSSe, material develop. for blue/green light emitters 2006
Ni/TiO_2/p-Si heterostruct., neg. capacitance effect 1161
$NiWN_2$, synthesis, hexagonal struct. 20649
Pb_5CrO_8 films, optoelectronic props., contact-type line-image sens. appl. 42789
PbI_2, crysts./detectors, PIXE/ion backscatt. spectrosc., impurity anal. 43071
PbTe/$Pb_{1-x}Eu_xTe$ multi-quantum wells, MBE growth 5847
Pt/SiC/Si vert. Schottky barrier diodes 22349
PtSi-Si-SiGe-Si Schottky diode IR detectors, tunable cutoff 17790
SIMS and microelectronics 1465
Sb_2S_3/metal low cost Schottky barrier solar cells 5219
a-Si:H/a-SiC:H three colour detector 34502
Si/$Ge_{0.12}Si_{0.88}$:P, metastable films, RTA vs. furnace annealing 22104
Si/$Si_{0.7}Ge_{0.3}$ heterostruct., 1D electron transport 30074
Si/$Si_{1-x-y}Ge_xC_y$/Si HBTs, fab. and bandgap study 21553
Si/$Si_{1-x}Ge_x$ heterostruct. charge injection transistors and logic elements 22482
Si/$Si_{1-x}Ge_x$ modulation-doped heterostruct., hole transport props. 29885
Si/$Si_{1-x}Ge_x$ strained heterostruct., thermal stabil. 37406
Si/$Si_{1-x}Ge_x$/Si heterostruct., 2D hole gases, magnetotransport and photolumin. 21993
Si/$Si_{1-x}Ge_x$/Si p-MOSFET, charge distrib. modelling 22471
Si/$Si_{1-x}Ge_x(Si_{1-y}C_y)$ heterostruct., situ X-ray investig. 38306
Si/Si_xGe_{1-x}/Si HBT with δ-doped base, multistep charact. 38845
Si/SiGe I^2L ccts., gate delay 12414

semiconductor materials continued
Si/SiGe asymmetric quantum wells, SHG 15021
Si/SiGe double barrier reson. tunneling struct., fab. 29942
Si/SiGe epitaxial-base HBTs, materials, phys., and ccts. 30243
Si/SiGe epitaxial-base HBTs, proc. integrat. and BiCMOS analog appls. 30244
Si/SiGe heterostruct., Aharonov-Bohm rings, fab. 29894
Si/SiGe heterostruct., UHVCVD growth and appl. 312
Si/SiGe heterostruct., ballistic cond., Aharonov-Bohm oscills. 13819
Si/SiGe modulation-doped heterostruct., extremely high electron mobility 29920
Si/SiGe nanometer struct., fab. 29941
Si/SiGe:H epilayers, misfit disloc., elec./opt. props. 6628
Si/SiGe/Si DHBTs, thermal runaway tolerance 38834
Si-Ge heterojunction bipolar technol. 30444
Si-Ge-C materials, CVD prod. 12145
Si-$Si_{1-x}Ge_x$ epitaxial devices, Ge content depend. of radiation damage 13638
Si-$Si_{1\times x}Ge_x$ heterostruct., difference freq. mixing, intersubband nonlin. 23365
Si-Si_xGe_{1-x} superlattices, energy band structs. 6554
Si-SiGe HFETs, mobility simul. 22494
Si-SiGe n-MOSFETs, strain depend. of perform. enhance. 22435
Si-SiGe p-MOSFETs, optimised Ge channel profiles 22434
Si-SiGe self-aligned HBT, 1/f noise charactn. 22364
Si-SiGe-Si DHBTs, parasitic pot. barrier effect on base current *(Korean)* 13618
Si-SiO_2(SiGe) epitaxial growth, ex-situ/in-situ probing by opt. SHG 28724
SiC, 3C and 6H polytypes, thermal oxid. in N_2O 1252
SiC, 6H, CVD layers, electron effective mass/mobility 13086
p-SiC, 6H, dry oxid., oxide elec. props. 1272
SiC, 6H polytype, high temp. dinistor, sublimation epitaxy 22507
SiC, 6H polytype, high temp. stabilitrons, 4 to 50 V 22506
SiC, 6H polytype, subnanosecond PV response 14580
α-SiC, CVD growth, graphite susceptors 5892
SiC, CVD in hot wall reactor, expt. study 12149
6H-SiC CVD layers, minority carrier lifetimes 21931
SiC, CVD reactor, transport anal. 5873
SiC, CVD, transport phenom. 5874
β-SiC ECR-CVD, film struct. 12172
SiC GSMBE, thin film growth mode, polytype form. 5812
SiC, Hall mobility anisotropy 13085
6H-SiC JFET, 1/f noise phenom. 1436
SiC JFETs, LF noise anal. 38279
SiC LPCVD films, X-ray mask membranes 6695
SiC MESFETs on high resist. substrs., 10 GHz, fab., charactn. 842
SiC, MOS capacitors, surface pot. flucts. 1316
6H-SiC MOS struct., thermal oxid./computer simul. 38562
β-SiC, Ni-based ohmic contacts, anneal temp. effects on elec. characts. 38410
SiC and related materials, conf., USA (1993) 28218
SiC ceramic, excimer laser assisted chem. machining 28866
SiC crysts., growth, LETI/Lely methods 20660
SiC device proc./substr. fab., high power/temp. microwave 37990
SiC emitter/burner, GaSb thermophotovoltaic converter 27998
SiC epitaxial growth on Si(001), Si out-diffusion related defects 20900
4H-SiC epitaxial layers, CVD growth 28758
SiC films, pulsed laser deposition on Si wafers 416
SiC, heteroepitaxial growth by alternate supply of SiH_2Cl_2 and C_2H_2 20926
SiC heteroepitaxial growth on Si, gas source MBE, hydrocarbon radicals 37450
SiC high-temp. JFETs, neutron damage anal. 13789
SiC high-temp. thyristor, transient switching charact. 22398
β-SiC layer growth by Si surface carbonisation, RTP 20981
β-SiC layers on Si(100), ion implant., cryst./elec. props. 6623
SiC microcomponent growth, C_{60} react., silicon 13092
SiC, multipolytype epilayers, device config., X-ray topography 37458
β-SiC on Si, CVD epitaxial growth and elec. charact. 37434
3C-SiC on Si, heteroepitaxial growth, etch pit reduction 28781
SiC on Si(100), gas source MBE growth 382
SiC, pin diodes, emitter props., heat generation effects 1345
SiC, porous, fab./props. for power device passiv. 22505
SiC power device passiv., porous SiC 38792
SiC, props./growth, rel. to HF device appls. 1072
SiC random alloy epitaxy on Si by RTCVD, SiH_4 and C_3H_8 20848
SiC, seeded Lely growth, cryst. macro-defects 5811
SiC single-barrier device, neg. resist. charact. 6811
SiC, single-crysts., sublimation growth 20661
SiC sublimation method cryst. growth, growth zone role 292
SiC thin films, LPCVD from hexamethyldisilane 433
SiC vert. submicron TFT 13759
SiC wide gap films by rem. plasma CVD from organo-silicon source *(Japanese)* 37490
SiC:Al HV rectifiers, expts. and simul. 1346
p-SiC:Al MOS struct., fab. and C-V charact. *(Japanese)* 1178
SiC:Al(B), ion implant., SIMS/RBS/photolumin./Hall/C-V obs. 38484
SiC:Al,N Schottky diode, DLTS/admittance spectrosc. 22353
6H-SiC:Ge,Si, ion-beam irrad.-induced amorph./recrystn. 38504
a-SiC:H films, plasma CVD, opt. props. 20980
a-SiC:H, transport props., deposition condition effects 29869
β-SiC:N layers grown on Si substr., ion implant. studies 38482
β-SiC:N/Re(Pt)(Ta) contacts, contact resist. 22043
α-SiC:N(Al), ion implanted dopant activation, pulsed laser annealing 30048
SiC:N,Al,B, CVD, unintentional contaminants incorporation 20901
n-SiC:V, 6H, elec./opt. props. 6539
a-$Si_{1-x}C_x$:H p-i-n struct., electrolum. characts. 31091
SiC/Al metal matrix composite, elec. vehicle IGBT packaging 20116
n-SiC/Ni high-temp. ohmic contacts, silicide form. 38372
n-SiC/Ni(Ti/Al), ohmic contact resist., reduction by heavy doping 22024
SiC/Si hetero- and homo-jn. photodiodes, fab. and props. *(Japanese)* 1805
SiC/Si heterojunctions, elec. props. 1096
SiC/Si wafer bonding, CVD and etching 13392
SiC/SiO_2 MOS struct., radiation-tolerance *(Japanese)* 1179
SiC/SiO_2 micropatterning by UV irrad., heat treatment of poly(phenylsilyne) film 38533
SiC/SiO_2/Al struct., elevated temps., HF capacitance relax. features 13230
SiC/metal struct., 6H polytype, surface barrier height 22044
n-SiC-6H, Ohmic contacts prep. 1163
SiC-6H, encased diffused epitaxial diode 38802
SiC-SiO_2 MOS capacitor, elec. props., annealing effects 22077
6H-SiC-Ti semicond.-metal contacts, UV sensitive photodetectors 3846

semiconductor materials continued
p-SiC(111) epitaxial layers, on TiC, RIE in CF_4+O_2+Ar 1285
$(SiC)_x(AlN)_{1-x}$, MOCVD on 6H-SiC, cryst. struct. 5884
SiGe HBT technol. appls. in radio digital commun. 38999
SiGe HBT technol. for wireless and mixed-sig. appls. 22562
SiGe HBTs, HF noise fig., phys. model 13623
SiGe HBTs, output conductance anoms., modelling 22389
p-SiGe MODFET with high transcond., fab. and perform. 38002
SiGe PMOS, hole dens., inversion charge modeling 13760
SiGe, SPE, comp. depend., time-resolved reflectivity meas. 38270
SiGe SQW, MBE, luminesc. props. optimisation 20866
SiGe alloys, SEG, film props. 12103
SiGe base bipolar analog ICs for 20 Gb/s opt. receiver 9545
SiGe base bipolar transistor ECL ccts., super self-aligned selective growth 30443
SiGe buffer layers, epitaxial growth, defect dens. 28786
SiGe epilayers, form. by Ge implant., RBS channeling spectrosc. 1232
SiGe high speed bipolar transistors, cutoff freq., compact model 1367
SiGe multi emitter finger HBTs, f_{max} up, 120 GHz 21544
SiGe oxide prepared by RF plasma anodisation, interface quality 1243
SiGe technol., elec. charactn. techs. 6538
$Si_{1-x}Ge_x$ HBTs, ungraded, cut-off freqs. 22370
$Si_{1-x}Ge_x$ and Ge/Si heterostruct., thermal nitridation 22236
$Si_{1-x}Ge_x$ epilayers, compositionally graded, relax., MBE, charactn. 383
$Si_{1-x}Ge_x$ epitaxial films, opt. SHG 40041
$Si_{1-x}Ge_x$ epitaxial layers, strain relax., silicidation procs. 1073
$Si_{1-x}Ge_x$, impact ionization coeffs. 21933
$Si_{1-x}Ge_x$, pseudomorphic growth on Si(001), crit. thickness 305
p-$Si_{1-x}Ge_x$ quantum well detectors, 8-14 μm wave band absorpt. 42784
$Si_{1-x}Ge_x$ strained alloys, bandgap narrowing, simul. 21936
$Si_{1-x}Ge_x$, strained, hole transport, Monte Carlo simul. 38278
$Si_{1-x}Ge_x$ thin film, form. from heavily Ge-implanted Si, morph. 28795
$Si_{1-x}Ge_x$ thin films, plasma-enhanced very-LPCVD 37475
$Si_{1-x}Ge_x$ thin films, pulsed excimer laser ablation deposition 28837
$Si_{1-x}Ge_x$ films, dopant effects on resist., subsequent annealing 13089
Si_xGe_{1-x} strained films, MBE growth, cuspidal pit form. 12089
SiGe:B(P)-Si strained heterostruct., RTP/very LPCVD growth, in-situ doping 20844
a-SiGe:H, multijunction solar cell, microwave glow discharge deposition 20971
$Si_{1-x}Ge_x$:B(P) polycryst. films, resist. 21932
$Si_{1-x}Ge_x$:P, epitaxial films grown by rem. PECVD 38509
SiGe/Si QW, local Ga implant., ambipolar lateral carrier transport 1230
SiGe/Si QW, luminesc. spectral modulation 13144
SiGe/Si heterostruct., segregant-assisted growth, opt. props. 37449
SiGe/Si modulated quantum well/wires, luminesc. 1114
SiGe/Si quantum dots, island growth, photolum., electrolum. 28830
SiGe/Si quantum wires/dots, growth on patterned Si substrs. 28810
SiGe/Si/SiGe SIS struct., valence band discontinuity 6596
$Si_{1-x}Ge_x$/Co(Ti), solid state interfacial react. 38371
$Si_{1-x}Ge_x$/Si HBT model 22382
$Si_{1-x}Ge_x$/Si heterostruct., adaptive temp. program ALE from Si_2H_6/Ge_2H_6 20705
$Si_{1-x}Ge_x$/Si quantum well, Si contacts, gas source MBE, electrolumin. diode appl. 28722
$Si_{1-x}Ge_x$/Si heterostruct., surface passiv., photolum. meas. 13146
Si_mGe_n/Si(001) strained-layer superlattices, magnetron sputter epitaxy 361
SiGe-GaP alloys, thermal cond., elec. cond., Seebeck effect 38246
SiGe-Si RTP/VLPCVD heterostruct., Ge surface segreg., H_2 influence 22005
SiGe-Si UHV-CVD MQWs, in-situ spectrosc. ellipsometry growth control 20845
SiGe-base HBT 2D device-level simul., transient/DC behavior, ECL buffer 13658
$Si_{1-x}Ge_x$-Si heterostruct., chem. etching in HF-H_2O_2-CH_3COOH 38560
$Si_{1-x}Ge_x$-on-insulator synthesis by $^{74}Ge^+$ ion implant. in SIMOX substr. 30055
SiGeB-Si heterostruct., B thermal stabil., stress compensation 13130
$Si_{1-x-y}Ge_xC_y$, heteroepitaxial films, CVD on Si(100) 369
SnO_2 films, Schottky surface barrier, gas-sens. effects 42862
SnO_2 films growth on micromachined hotplates 28791
SnO_2 thick-film hydrogen gas sens. 3914
SnO_2 thin films deposited by spray pyrolysis, prep. and charact. 392
SnO_2 thin films, nanocrystalline, casting 13073
SnO_2 thin-film gas sens. for CO and CO_2 9958
SnO_x, semicond. gas sens., catalytic gate 3921
SnO_2:Pd thin-film micro-gas sens., CH_3SH detect. 17983
SnO_2:Sb coatings on ceramic cloths, sol-gel proc. 28792
SnO_2:Sb thin film photoemission under elec. field amplif. 29743
n-SnO_2/a-SiC/Al photodetector, voltage-controlled spectral response 25850
SnO_2/a-SiGe:H solar cell struct., interfacial reduction 38294
SnO_2-TiO_2, ultradisperse nanoheterogeneous systs., anom. photoresponse 1789
SnO_2-based thick-film gas sens. 3915
SnS_2:In, elec. props./photolumin. study 30054
α-$SnWO_4$ films, CO dual cond. response 1287
$Sr_{14-x}Ca_xCu_{24}O_{41}$ layers, carrier doping, elec. resist./mag. suscept. 22153
n-$SrTiO_3$ photoelectrode in 0.1 M NaOH soln., impedance anal. 6597
$SrTiO_3$:Nb semicond. ceramics, electrode effects 13227
Th(BrI), photodetectors for scintillation spectrometers 43092
Ti/$Cd_xPb_{1-x}S$/Ag, polarity depend. memory switching 29988
Ti/SiC, interface chem., microstruct., elec. props. 29952
TiO_2 film electrode electrolum. sens., H_2O_2 meas. 9924
TiO_2 films, thermally form., semicond. props. 29866
TiO_2, props./appls., dye sensitised solar cells 36604
TiO_2 thin film photoemission under elec. field amplif. 29743
TiO_2/$BaTiO_3$ epitaxial film form. on Si substr. 37426
$TiSi_2$, grazing incidence diffractometer, thin-film struct. anal. 38463
WO_3 gas-sens. films, microstructural effects 25896
WO_3 thin films, nanocrystalline, casting 13073
ZnCdSe/ZnSSe/ZnMgSSe LD struct., cpd.-source MBE 12081
ZnMgSSe blue-LD, MBE growth 7665
ZnO, semicond. gas sens., catalytic gate 3921
ZnO-Bi_2O_3-based varistors, multiple trapping, appls. 12829
ZnS:Mn/Cu_xS, electrolum. cells, Cu-Mn energy transfer 23023
ZnSe:N(Cl), film, GSMBE, H-passiv. effects 28754
ZnSe/ZnMgSSe DH laser, photopumped lasing props., MOCVD-grown, cavity length depend. 14942
ZnSe-ZnMgSSe-ZnMgSSe blue diode lasers 1966
$ZrSe_2$ single crysts., selenium atmos. annealing, elec. props. 38276

semiconductor-metal boundaries
- *see also Schottky barriers*
- barrier height determ. from Schottky jn. C-V meas. 38813
- conf., interface control of elec., chem. and mech. props., USA (1993) 36832
- conference, semiconductor interfaces, Julich, Germany (1993) 11545
- contact resist., graphical anal. 22025
- contact resist. meas. techs., ohmic contact assess. 29625
- devices, pot. distrib. meas., Kelvin probe force microscopy 38373
- diamond:B film/metal high temp. contacts, reliab. issues 22045
- diamond metal-semicond. and MIS structs., elec. charact. 6582
- diamond/Ti-Au(-Ag)/Al CVD diodes, high temp. stabil. 22046
- HF surface waves propag., heating nonlin. 15556
- hot electron transport, ballistic electron emission spectrosc. 13206
- III-V surfaces and metal contacts, ion beam etching, SIMS obs. 13344
- interface index of metal-Schottky contacts 38418
- metal-semicond. interface struct., Schottky barrier height rel. 38406
- metal-semicond. interfaces, Schottky barriers tuning, layer control 1167
- metal/III-V-semicond. contacts, fab./props. 1162
- metal/n-InAs/interlayer/n-GaAs struct., nonalloyed ohmic contact resist. 1154
- nonideal metal-semicond. contacts, Schottky diode soft-breakdown, hybrid diode 1342
- ohmic contacts, elec. charact., impurity bands 13208
- p-n jn., time-depend. characts. underneath TiN/Ti contact metal 1078
- physics and chem. of semicon. interfaces, conf., New York (1994) 20208
- poly(3-methyl thiophene)/Al Schottky barriers 13212
- polymers, semicond., carrier injection, Fowler-Nordheim field-emission tunneling 14644
- Schottky contacts, photovoltage, transient charact. modelling 6579
- Ag MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
- Ag/Si(111), film elec. cond. mechanisms 38400
- Al/GaAs, interface annealing studies, variable energy positron beam 22041
- Al/InP:Be,P, Schottky barriers, improvement by Be/P coimplantation 13209
- Al/Si(111), ordered Al films growth, LEED, Auger electron spectrosc. 20716
- Al/n-AlGaAs jns., anom. thermionic-field emission 13220
- Al/n-GaAs Schottky contacts, prep., charactn. 37522
- Al/n-InP contacts, inhomogeneous reaction and Schottky-barrier change 13228
- Al-nSi Schottky barrier diode, interface states, charging behavior 22354
- Al-porous Si jn., elec. behaviour 22049
- Al_3Zr/Zr/Si contact systs., solid-phase reacts., AES *(Japanese)* 29962
- a-As_2S_3-Zn bilayers, electron/photon irrad. effects 38405
- a-As_xS_y-Ag bilayers, electron/photon irrad. effects 38405
- $As_2S_3(Se_3)$ MChDS structs., photocharging characts., opt. memory appl. 22053
- Au MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
- Au/GaAs, interface annealing studies, variable energy positron beam 22041
- Au/GaSb, interfacial reacts., ohmic contacts effects 38376
- Au/$In_yAl_{1-y}As$, intimate Schottky diodes, characts., mismatch depend. 13221
- Au/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
- Au/Pd/Ti-based ohmic contact on AlGaAs/GaAs:C HBTs; elec./struct. props. 38701
- Au/Pt/Ti/Ni/p-ZnTe ohmic contacts, props. 1153
- Au/PtSi/(100)Si diodes, lateral var. in Schottky barrier height 22352
- Au/$Zn_{0.4}Cd_{0.6}Te$:In solar cell, fab./charact. *(Korean)* 19985
- Au/Zn/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
- Au/ZnCdTe, electroless Au film deposition 37465
- Au/n-GaAs:Ar Schottky barrier study, ion implant. damage 22035
- Au/n-ZnSe contacts, BEEM 22048
- Au-Cr-Au-Zn-Au multilayer metallizations to InP, elec. props. 38660
- Au-GaAs Schottky diodes, cryogenic/RT, current transport 38390
- Au-GaAs diodes, lateral Schottky barrier height var./crit. length 38383
- Au-Ge alloy/GaAs contacts, phase comp. and microstruct. under high press. 6576
- Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
- Au-PtSi-Si diodes, lateral Schottky barrier height var./crit. length 38383
- Au-Si eutectic bonding, 3D microstruct. 12951
- Au-Zn-Au ohmic contacts to p-InP, elec./metall. charact. 38388
- AuGe/GaAs ohmic contacts, ion-assisted deposition 22265
- AuGeNi, alloyed ohmic contacts, elec. modelling, charactn. 38408
- Bi/ZnO, interface form., model varistor grain boundary 6578
- CdTe/CdS/Au/Cu heterojunction solar cell/ohmic contacts syst., Cu effects 20001
- CdTe/InSb/Au Schottky diodes, bias depend. barrier heights 38797
- CdTe/Ni-P, stable ohmic contact form., P diffusion from Ni-P 13225
- CdTe-In ohmic contact, elec./struct. props. 38375
- p-$Cd_{0.95}Zn_{0.05}Te$/metal contacts, elec. props. and contact metall. 13226
- Co films/$CoSi_2$ films, opt. props., G-line/I-line lithog. 38748
- Co/Si(111), Co silicide nucleation, H passiv. effects 13204
- Co/Si(SiO_2), ion-beam mixing, Monte Carlo simul. and expts. 22023
- Co/Ti/Si(100), thermal proc., interdiffusion, phase form. 1203
- Co-SiC, interface microstruct., chem. and elec. props. 13213
- $CoSi_2$/6H-SiC, Schottky contacts 1165
- $CoSi_2$/Si(111) epitaxial films, situ study by BEEM 22037
- $CoSi_2$-Si heterostruct., solid state epitaxial growth from Co-Ti-Si multilayer 37419
- $CoSi_2$-Si interface, interfacial and surface energetics 1155
- Cr/NH_3/GaAs(100), interface form., photoemission study 38377
- $CrSi_2$ thin films on Si(111), heteroepitaxial rels. 37439
- Cs/InAs(110), giant band bending, interface form. 13222
- Cu grain growth during Cu-Cr and Cu-Ti thin film nitridation, situ TEM 38583
- Cu selective CVD on diamond surfaces, self-assembled monolayers 37493
- Cu/TiN/Si(100) heterostruct., pulsed laser deposition and charactn. 421
- Cu/TiN/$TiSi_2$/n^+-Si contact syst., RTN and characts. 38700
- Cu-Cr bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
- Cu-Ti bilayer films on SiO_2 substr., interfacial reacts./adhesion 38672
- Cu-ZnO(0001) epitaxy, CO photoinduced desorpt. 20715
- CuCr alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
- Cu_3Ge thin films on Si(SiO_2), stabil. 1301
- Cu_3Ge/n-GaAs ohmic contacts, microstruct./elec. charactn. 6573
- CuTi alloy films on SiO_2 substr., interfacial reacts./adhesion 38672
- Fe silicide contacts to n- and p-type Si, props. 1104
- Fe-Si multilayers, antiferromag. coupling/magnetoresist. 14214

semiconductor-metal boundaries continued
- Fe-silicides, depth-selective conversion electron Mossbauer spectrometry 38677
- n-GaAs diodes, Ni-Al based Schottky barrier enhancement, AlGaAs regrowth 38382
- GaAs ohmic/nonohmic contact form., interfacial react. effects 38392
- a-GaAs:As, SI, elec. charact. by I-V meas. 13050
- GaAs:Si/Al/GaAs:Si, δ-doped superlattice, Al barrier interface roughness 38412
- GaAs:Zn-Au tunnel jn., zero-bias anom. 1164
- GaAs/Ag Schottky barrier, electroreflectance 13216
- GaAs/Au buried interfaces, opt. SHG 1152
- GaAs/Ti Schottky contacts, elec. param. stabil., cleaning depend. 29959
- GaAs-$Al_{0.25}Ga_{0.75}As$/Cs-Au struct., elec. gated field-assisted photoemission 38379
- GaAs-Au(In) Schottky diodes, chem. etched surfaces 13612
- GaAs-Ge-NiIn-Ni ohmic contacts, interface charactn./reacts. 38396
- GaAs-metal interfaces, interphase reacts. 6571
- GaAs(001)/Al Schottky barriers, heterovalent interface layers 22038
- p-GaSb-Au(Cr/Au)(Ti/Pt/Au), MBE growth, specific contact resistivities, surface prep. 29947
- a-Ge/Ag layered systs., metal-mediated crystn. 38404
- In/n-$Hg_{1-x}Cd_xTe$ contacts, modified sheet resist. 38416
- In/p-$AgGaS_2$ struct., PV effect 13215
- In/p-$CuGaS_2$ surface-barrier struct., photoelec. props. 13214
- $In_xAl_{1-x}As$ epilayers on GaAs, Al Schottky diode barrier heights 22042
- p-$In_{0.21}Ga_{0.79}As$:Zn/Au Schottky diodes, interface states, doping effects 38420
- InGaAs/Au(Ni) thin p-clad SQW laser, contact reflectivity effects 14859
- InGaAsP/Au Schottky junctions, barrier height enhancement 13211
- $In_{0.5}Ga_{0.5}P$ Schottky contacts, $(NH_4)_2S_x$-treated, interface props. 29949
- InP Schottky barriers, minority carrier diffusion length 13210
- p-InP:Zn/Au, epitaxial Schottky diode, reverse I-V, C-V characts. 38801
- n-InP/Au/Ni, ultra-low resist. Ni-based contacts 38409
- n-InP/Au(Pd) Schottky contacts, deposition, charactn. 37521
- InP/InGaAs/InAlAs HEMT, ohmic contacts 13774
- n-InP/metal systs., hydrogen plasma treatment, elec. props. 38598
- Mn/GaAs(001), FCC Mn films, stabilization via MBE growth 13414
- Mo-diamond:C CVD film, solid state react. 37491
- Nb MBE nonalloyed ohmic contacts, p-GaAs:Be and n-GaAs:Si substrs. 38656
- Ni/TiO_2/p-Si heterostruct., neg. capacitance effect 1161
- Ni/Zn/Ni/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
- Ni-based ohmic contacts to β-SiC, anneal temp. effects on elec. characts. 38410
- $NiSi_2$/Si interfaces, dyn. transm. and impact ionization, hot-electron transport 22040
- a-P_2Se_3-Ag bilayers, electron/photon irrad. effects 38405
- PZT film-based metal-ferroelec.-semicond. struct., memory effect 39068
- Pd low-temp. bonding of InP structs., GaAs substrs. 30004
- Pd/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
- Pd/Mn/Sb/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
- Pd/Si interface, interface react., silicide form., XPS obs. 29960
- Pd/Si, transport props., hot electron phenom. 38407
- Pd/Zn/Pd/Au(Pd/Au), ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
- Pd-InP Schottky diodes, cryogenic/RT, current transport 38390
- Pt/Si(100), pulsed laser deposition, TiN buffer layer 425
- Pt/Si(111) interface and props. of thin Pt layers on Si 1166
- Pt-deposited p-InP photoelectrochem. cells, band gap, surface states 6572
- PtSi IR detector, 7 μm cutoff for imaging appls. 34567
- PtSi/Si, chem. clean, morph. smooth interfaces, form. 37520
- Si interface control layer effect in compound semicond. interfaces 13105
- Si, porous, diode struct., elec./PV props. 38325
- Si porous layers, I-V charact. 21896
- Si, porous, semicond.-metal struct., current flow mechanism 13205
- a-Si:H/Ni-P, electroless plated contacts 6575
- a-Si/Ag layered systs., metal-mediated crystn., TEM obs. 38403
- Si/Al, VLSI metallisation layers, charactn., Joule heating model 13430
- Si/Au interface, electronic props. and Schottky barrier 22050
- Si/Co syst., RTA, CoSi and $CoSi_2$ form., activation energy 22028
- Si/Co/GaAs, $CoSi_2$ thin film form. 38632
- Si/Co/Ti bilayer syst., epitaxial $CoSi_2$ reactive form. 12094
- Si/$CoSi_2$($FeSi_2$) epitaxial silicide systs., ion channeling studies 6577
- Si/Ni, solid state react., point defect creation 13224
- Si/Ni_xSi/Ni thin-film reacts., calorimetric anal. 1156
- n-Si/Pt colloidal particle electrode for photoelectrochemical solar cells 5221
- a-Si/Ti bilayer struct., lateral silicide growth 22034
- Si/Ti syst., $TiSi_x$ form. and resist., deposition temp. depend. 29951
- Si/Ti syst., silicide form., STM crystallography on Si(100) substrs. 22027
- Si-$NiSi_2$ microcrystalline composite thin films, struct./elec. transport 38402
- p-Si(100)/Hf interfaces, elec. charact., H-termination 38397
- β-SiC:N/Re(Pt)(Ta) contacts, contact resist. 22043
- n-SiC/Ni high-temp. ohmic contacts, silicide form. 38372
- n-SiC/Ni(Ti/Al), ohmic contact resist., reduction by heavy doping 22024
- SiC/metal struct., 6H polytype, surface barrier height 22044
- 6H-SiC-Ti semicond.-metal contacts, UV sensitive photodetectors 3846
- $Si_{1-x}Ge_x$ epitaxial layers, strain relax., silicidation procs. 1073
- $Si_{1-x}Ge_x$/Co(Ti), solid state interfacial react. 38371
- n-SnO_2/a-SiC/Al photodetector, voltage-controlled spectral response 25850
- $SrTiO_3$ metal-semicond. Schottky diodes, field depend. permitt. 29955
- $SrTiO_3$:Nb semicond. ceramics, electrode effects 13227
- Ta/Si multilayers, annealing, silicide form. 6574
- Ti films/$TiSi_2$ films, opt. props., G-line/I-line lithog. 38748
- Ti/Au/$Al_{0.3}Ga_{0.7}As$/GaAs, quantum point contacts, cond. quantization broadening 22047
- Ti/Si, RTA, C54/C94 $TiSi_2$ form. 1158
- Ti/Si:B(P)(As) syst., $TiSi_2$ form. in situ resist. meas. 13217
- Ti/SiC, interface chem., microstruct., elec. props. 29952
- Ti-Pt ohmic contacts to InAs emitter layer, AlGaAs-GaAs HBTs 38831
- TiC Ohmic contacts on n-type 6H α-SiC 29956
- TiC films deposited on Si by laser reactive ablation 37498
- TiC/β-SiC, low specific resist. ohmic contacts 1160
- TiO conductive films, reactive ion-beam sputtered, VLSI metallisation 37494
- TiPtAu nonalloyed contacts on InP/InGaAs HBTs 6724
- $TiSi_2$/Si BiCMOS technol., nonohmic contact resist., NFETs/PFETs/diffused resistors/NPNs 38631
- TiW, sputtered Schottky barrier, AES, SEM 29957

semiconductor-metal boundaries continued
$(Ti_{1-x}Zr_x)$/Si thin film syst., silicide form., local structural studies 38414
W CVD films, opt. props., G-line/I-line lithog. 38748
W/WN/Si, nitride barriers for thermally stable metallization, TEM studies 38704
W-Pt ohmic contacts to InGaAs emitter layer, AlGaAs-GaAs HBTs 38831
Zn/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
$ZnS_{0.07}Se_{0.93}$:Cl/Yb(Al)(Cr)(Cu)(Au)(Pd), Schottky contacts, elec. props. 38401
p-ZnSe elec. contacts, I-V charact. 1150
p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413

semiconductor-metal-semiconductor structures *see semiconductor-metal boundaries*

semiconductor-metal transition *see electrical conductivity transitions; metal-insulator transition*

semiconductor-on-insulator *see semiconductor-insulator boundaries*

semiconductor plasma
dual-collector magnetotransistors in SOI technol. 25790
III-V semicond. opt. waveguide modulator modeling 22924
nonlin. coupling of reciprocal mobilities, charge carrier distrib., pin power devices 13610
printed dipole antenna, opt. control *(Japanese)* 31957
submillimeter range EM oscills. in p-n jn., laser gen. mechanism 39793
$Al_xGa_{1-x}As$, disorder-induced intervalley scatt., pseudopot. calcs. 29857
GaAs CPW opt. illum. 3D full-wave anal. 23810
GaAs, carrier-carrier scatt., carrier distrib. effects 29858
GaAs, intrinsic and p-doped, highly photoexcited carriers, femtosecond relax. 1036
GaAs, modulation-doped, plasma, scaled ensemble Monte Carlo method 1035
InSb, metallically doped, extrinsic magnetoresist. 21920
Si p-n jn., secondary breakdown, pinch effect 13102
SiC:Al HV rectifiers, expts. and simul. 1346
ZnCdTe, electron-hole plasma, refr. index, opt. nonlin. 15107
ZnSe/ZnMgSSe DH blue LD, operation and dyn., room temp. 31378
ZnTe, electron-hole plasma, refr. index, opt. nonlin. 15107

semiconductor process modelling
see also integrated circuit modelling
2D simul. of oxide/silicide growth, phys. based proc. simulator 1296
3D field support in semicond. wafer representation, archit. and implement. 1483
3D semicond. proc. and device simul., solid modeling 1482
3D semicond. proc. simul. for 1990s 38996
AT&T, technol. CAD, IC fab. proc. design 38989
BiCMOS collector implants, stat. optim. 1500
BiCMOS integrated process/cct. develop. using SPR 39024
bipolar/BiCMOS cct. and technol., conf., Minneapolis (1993) 36851
CAESAR, virtual IC factory, integrated TCAD user environ. 38995
cell projection lithog., scatt. contrast 22284
cluster tools 30436
CMOS device isolation for ULSI age 22600
CMOS ESD protection ccts., scaling, optim., design 6849
computational fluid dyn. model, improved perform. in CVD reactors 22545
deep UV chem. amplified resist, modeling and simul. 38739
deep UV resists, thermal and acid-catalyzed deprotection 38737
deep X-ray lithog., masks, thermoelastic deform. 38744
deep-UV resists, neg.-tone, benzylic crosslinking 13511
dopant diffusion modelling, mesh adaption, flux discretizations 1222
drift diffusion modelling, alg. microscopic approach 38785
dual-poly CMOS, B diffusion, O_2 and N_2O gate dielecs. 22575
electron lithog., heating, simul. 38712
elemental and cpd. semiconds., Ga FIB implant. 30016
ENSERG, microelectronics practical training, proc. characterisation vs. simul. *(French)* 20334
ESD protection cct., 2D electrothermal simul. and design 30467
EUV lithog., resist pattern flucts. 22313
fault isolation during semiconductor manufacturing using automated discovery from wafer tracking databases 6605
FIB-induced gas etching 22168
flows, automatic synthesis, planar fab. 1266
gas distrib. systs. contamination, cost optimisation 38988
gas handling in semicond. manufacture, cost-purity trade-off 6598
GCOS, interactive device struct., proc./device simul. 22541
global syst. model for X-ray lithog., image form. 13525
gray-tone lithog., fab. of arbitrarily shaped surfaces, simul. and proc. design 13554
gray-tone lithog., simul. assisted design 38728
Hatzakis chem.-amplified resists, lithographic response 38740
high NA photolithography simul., scalar planewave model 1310
hybrid lithog., e-beam direct writing and opt. stepper 38769
i-line lithog., pupil filtering and dipole illum. 13559
IC process/device numerical modelling, conf., Honolulu (1994) 38
ICP etching, electron source and ion flux uniformity 13402
ICs, defect tracking and yield enhancement, SEMATECH software 13864
ICs, mound defect modeling, yield forecasts 1480
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
IGBT and MCT struct., 2D dopant profiles 30280
integrated RTP/MOCVD technol., IC manufacture, model-based proc. control 22533
interlevel dielec. thickness var., stat. metrology, IC test 22549
ion beam proximity printing, nonideal masks, contrast 13466
ion implant., Monte Carlo simul., adaptive grid 22116
ion implant., point-defects, lateral diffusion 22114
ion implant., simul., Boltzmann eqn., num. soln. 22121
Killer defects, particle map, probe map correl. 37199
KYOKO, 2D proc. and device simul. coupling, NMOS transistors 1419
large area prod. MOCVD rot. disk reactor 5896
laser-plasma x-ray source target materials, x-ray lithog. appls. 6691
lithog. simul., loop detect./removal algm. 22306
MASTER framework, virtual wafer fab, semicond. technol. CAD 38994
membrane masks, stress-induced pattern-placement errors 13464
Monte Carlo reliab. simulator, IC manufacturability 22547
MOS capacitor ultra-thin oxide/oxynitride dielec. films, reliab. characts., surface prep. 22066
MOSFETs, deep submicron/1.5 μm, comparative param. sensitivity anal. 30300
multiple target sputter syst., real-time control 20967

semiconductor process modelling continued
near-bamboo interconnects, grain struct., analytic model 6667
nitride PECVD, plasma clean cycle, cost of ownership model 38607
NOLMEX, resoln. enhancement lithog. tech. 13562
Novolak-based photoresist, dissolution, developer diffusion model 22297
numerical modelling of processes and devices, conf., Seattle (1992) 5499
OKI, technol. CAD, UNISAS syst. 38993
opt. lithog., 0.35-0.25 μm technols. 38764
opt. lithog., phase-shifting masks, optimized illum. 13501
opt. microlithography, polarized mask, image contrast 38718
oxid., stress depend., 2D num. simul. 22182
oxid. simul., quadtree based grid generator 1267
parallel 3D simul. of semicond. devices 13586
patterned wafer RTA/RTCVD, thermal radiation absorpt. charact. 22229
PCB cooling optim., reflow soldering in N_2-O_2 atmos. 38156
phase shift masks, design, SIMPHAD program 13435
phase-shift masks, contact hole printing, simul. 13434
phase-shifting masks, lens aberrations 13502
photolithography simul., 2D num. algm. 22307
photoresist films, elec. field distribs., polariz. depend. 22294
photoresist post exposure bake effects, simul. 1304
planar fab. proc. for surface micromachined devices 30511
plasma etch endpoint, interferometric imaging 13367
plasma etching, ion milling and deposition, 3D topography simul. 22180
plasma etching profiles for ion energy flux depend. etch rates 38602
plasma source ion implant., cost estim. 22148
poly-emitter complementary bipolar technol., yield enhance. 30445
polysilicon, dyn. grain-growth and static clustering effects on dopant diffusion 1221
polysilicon biased field plates for HVIC interconnections 30155
polysilicon etching profiles, side wall passiv. and ion saturation effects 1265
polysilicon resistors, pulse current trimming, LSI resistor tuning after fab. 38977
pos. chem. amplified photoresist for X-ray lithog., modeling and simul. 13519
pos. deep UV resists, acid diffusion effects 13517
power ICs, ion implant., edge struct. 29035
printability of sub-150 nm features in X-ray lithog., theory and expts. 13531
projection printing, defocus asymmetry 13500
proximity X-ray lithog., 50 nm, using SR 13530
quartz-etch attenuate phase shifting mask, i-line stepper 38751
rapid thermal proc., 3D modelling for design optim. 22552
rapid thermal procs., model-based control 13866
rapid thermal procs., uniformity control, phys. modelling 30434
resists, secondary electron line scans, local elec. fields 13470
RIE, time series modeling, neural networks 22556
rim and attenuated phase shift masks, FIB defect repair 38762
RTCVD, opt. modeling, model-based control 394
RTCVD/RTO film thickness distrib. modelling 22561
RTP furnace, 3D temp. uniformity model 22231
RTP modeling and simul. incl. thermal stress anal. 22551
RTP syst. radiative heat transfer, Monte Carlo simul. 22555
RTP temp. distrib. modelling 22554
SEMATECH defect detect./reduction methodology, 0.25 micron technol. proc. equipt. 1479
SEMATECH future factory design for wafer fabs 103
semicond. mfg. plants, scheduling 37029
shot leveling/focusing , interferometry for opt. lithog. 13561
$Si_3 N_4$, PECVD proc., monitor wafer based controller 37519
simul., optimal moving meshes 22538
snap cure ovens, upscaled models, flow patterns 30438
SOI MOSFETs, threshold voltage sensit. reduction 30294
SPC in IC mfg., nested normal/multivariate models 37156
sputter deposition, Monte Carlo simul. 20968
SR X-ray lithog. beamline optics alignment, Hartmann method 13539
Stanford Univ., technol. CAD, phys., algms., software and appls. 38990
STORM technol. CAD syst., IC fab. procs., 2D simul. 38991
sub-micron 5X reticle defects, printability, defocus effect 38729
submicron BiCMOS proc., HV NMOS devices, simple structural changes 22615
submicron-channel MOSFETs, simulated x-ray lithog. exposure effects 6776
super resoln. tech. for next-generation ULSI 13558
surface imaging, e-beam/photolithography resist proc. 38731
synchrotron lithog., slope attenuated phase-shift X-ray masks 13529
TCAD for semicond. device/IC/proc. design and modelling 13861
technol. CAD cost/yield estim., virtual IC factory 22546
Technology CAD, fields representation 22539
threshold pivoting preconditioners, nonsymmetric Jacobian matrices, optimum scaling 1484
topography/impurity profile simul., BTU algms. 22540
trenches, plasma-assisted etching, analytic models 22197
Viennese integrated syst. for technol. CAD appls. 38992
virtual IC factory, TCAD for perform./yield predictions 38983
VLSI proc. and device simul., solid models 22537
VLSI RIE systs., real-time control, plasma generation, phenomenological modeling 1264
wafer chem.-mech. polishing, combined asperity contact and fluid flow model 1263
wafer heating, rapid diffusion furnace, temp. distrib. 1187
X-ray lithog., photoelectron effect modelling 6682
X-ray mask membrane, temp. uniformity, resist baking 13543
X-ray mask optim., image form. model 13544
X-ray masks, membranes, mech. props., intrinsic stress 13532
X-ray refl. masks, electron scatt. 13436
X-ray resist-substr. interfaces, parametric modeling 13533
X-ray/opt. lithog., image shortening effects 13526
XFACT, diffusion furnace anal. and charactn. tool 22557
yield model for IC manufacture 13860
yield modelling/anal., sampled data approach 38987
Al reflow into submicron contact-holes/vias, simul. 22273
B_2O_3-P_2O_5-SiO_2 glass reflow, 3D num. model 22181
GaAs LPE process, cavity geometric effect 37414
GaAs MESFET, epitaxial lift-off on InP 14654
GaAs MMIC design and charactn., training software package *(French)* 21570
InGaAs temp. difference growth, num. anal. of soln. convection *(Japanese)* 37380
InP, LEC-growth, thermal anal. 12029
$LiF(AlF_3)$ inorganic resist, proximity effect and exposure dose 38715
Si RTP temp. uniformity, crit. wafer/syst. param. anal. 22228
Si ULSI device fab., wafer specs./design rules trends 38982

semiconductor process modelling continued
- Si, dopant diffusion modeling, automatic grid refinement 22115
- Si, thermal oxid., N_2O ambient, num. simul. 38621
- Si thermal oxid., advanced field isolation model, calibrated viscoelastic stress anal. 22560
- a-Si thin films, glass substrs., excimer crystallisation simul. 13075
- Si, vacancy-mediated dopant diffusion at high doping levels, models 1026
- Si wafer, P doping, P_xO_y conc. profile model 1215
- Si wafer temp. var. during RTA, 3D asymmetrical model 22103
- Si:B MOS ULSI, MOSFET B diffusion model incorporating disloc. loop growth 22610
- Si:B, ULSI high conc. diffusion modelling, dyn. clustering, init. conditions 38520
- Si:B, diffusion during post-implant annealing, damaged/amorphizing conditions, model 22107
- Si:B, enhanced diffusion due to ion implant. in thin-base npn BJTs, model 38997
- Si:B,F(Ne), boron diffusion, ion implant. effects, proc. modeling params. 38505
- SiGeB-Si heterostruct., B thermal stabil., stress compensation 13130
- SiN_x, PECVD, computational fluid dyn. model 37518
- SiO_2, PECVD modeling via neural nets and genetic algms. 398
- SiO_2 PECVD, neural network based modelling 37415
- SiO_2 RIE, modelling using neural networks, ICs and MCMs 6656
- SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
- Ta-SiN x-ray masks, materials selection, fab. procs. 6684
- Ti phys. vap. deposition systs., profile evol. determ., model 413
- TiN collimated PVD, EVOLVE simul. 38669
- TiO_2 epitaxial thin film MOCVD growth, neural network modelling 22548
- $TiSi_2$ self-aligned RTA proc., CMOS IC, response surface 22593

semiconductor processing *see semiconductor technology*

semiconductor quantum boxes *see semiconductor quantum dots*

semiconductor quantum dots
- *see also semiconductor doped glasses*
- antidot lattice, quantum transport, periodic-orbit theory, chaotic syst. 21981
- ballistic cond. in 1D/2D semicond. nanostructs. 1121
- Coulomb blockade, X-ray nanolithography 13177
- electronic props., capacitance, simul. 38345
- few-electron quantum dots, transport excitation spectrosc. 22002
- field-coupled quantum dot resistors, dissipation 38940
- intersubband optics for symmetric and asymmetric quantum wells, wires and dots 40046
- lateral surface superlattices, chaotic transport and fractal spectra 1110
- low-dimensional electronic systems, Mauterndorf, Austria (1992) 11547
- MOVPE, conf., Yokohama, Japan (1994) 11533
- nanostructure fab., spontaneous form. mechanisms 22085
- nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
- optical props. of nanostructures, conf., Japan (1994) 28236
- physics of semiconductors, conf., Beijing, China (1992) 11542
- quantum dot/wire struct., nonlin. optics 7738
- semicond. lasers, carrier thermalization, ensemble Monte Carlo simul. 7654
- SHG in 2D array 31592
- waveguide struct. and devices 6810
- AlGaAs, double quantum dot, stochastic Coulomb blockade 29929
- AlGaAs/GaAs heterostruct., ohmic contacts, phys./elec. study 13169
- AlGaAs/GaAs reson. tunneling single electron transistor 38943
- Au island mask-GaAs nanostruct. fab., MBE/MOVPE 385
- $Cd_{1-x}Mn_xSe$ quantum dots, magneto-opt. studies 39502
- CdS, colloidal microcrystallites, CW self-focusing/PM 31531
- CdS quantum dot/glass filters, sol-gel method 7445
- CdS quantum dots, femtosecond dephasing determined by nondegenerate four-wave mixing 31535
- CdS, semicond. quantum dots, nonlin. opt. props. study 15143
- CdSe quantum dots, electron-phonon coupling/phonon confine. 29903
- CdSe quantum dots, electrospray OMCVD 5860
- CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
- CuCl nanocrystals in glasses, persistent spectral hole-burning, opt. data storage 40026
- CuCl quantum dots, electron-phonon coupling/phonon confine. 29903
- CuCl, semicond. quantum dots, nonlin. opt. props. study 15143
- GaAs quantum dot with three contacts, oscills. correl. 29925
- GaAs/AlGaAs, artificial lateral superlattice, transport props. 29934
- GaAs/AlGaAs quantum dots, MOVPE growth, patterned GaAs substrs. 37428
- GaAs/AlGaAs, quantum dots, ballistic, conductance flucts. 13198
- GaAs/AlGaAs quantum dots, ion implant. based nanofabrication, masks 13493
- GaAs/AlGaAs quantum dots, photolum. charactn. 29926
- GaAs/AlGaAs quantum wires/dots, X-ray lithog. and Ga^+ intermixing 38344
- GaAs/AlGaAs, two quantum dots in series, Coulomb blockade 29933
- GaAs/AlGaAs, ultra-low dens. dual quantum dot, transport props. 29932
- GaAs/AlGaAs/AlAs quantum nanostructures, mag. confined plasma RIE 13385
- GaAs/$CaSrF_2$ quantum semicond. struct., high energy electron beam lithog. 13149
- GaAs/InAs/GaAs heterostruct., MBE growth, substr. misorient. effect 20856
- GaAs-AlGaAs quantum wires and dots, modulation-doped, opt. emission and Raman scatt. 1143
- GaAs-GaAlAs quantum point contact, dyn. response 6560
- GaAs-InP nanostruct. fab., MBE/MOVPE 385
- InGaAs highly uniform quantum dots, MOVPE grown on GaAs 20831
- InGaAs quantum disks self-organizing on GaAs(n11)B, AFM study 6553
- InGaAs strained quantum disk laser, nanoscale act. region 23216
- InGaAs strained quantum wire/box struct. self-organized on high-index GaAs (n11)A/(n11)B substrs. 22000
- $In_{0.5}Ga_{0.5}As$ self-form. quantum dots on GaAs substrs. emitting, 1.3 μm 14896
- InGaAs/Ga(Al)As dots, MOCVD, area dens. control 5867
- InGaAsP/InP strained quantum-well lasers, threshold current under mag. field 39823
- InP strained wires and dots, localized confine. pot. 6562
- InP/GaInAs QW dot struct., fabrication 13202
- InP/InGaAs single dots/wires, dry etched, luminesc. spectrosc. 14591
- InP(As)(AlAs) self-assembling quantum dot arrays, MBE and MOCVD growth 374
- PbS nanoparticles embedded in polymer film, gas-aerosol reactive electrostatic deposition 20951

semiconductor quantum dots continued
- Si 1D/2D nanostruct., lithographic/RIE prep., photolumin. obs. 30091
- Si MOSFET, quasi-1D and Coulomb blockade devices 1401
- Si isolated nanometer-size dot arrays, prep. studies 13148
- Si porous, quantum dots, recomb. dyn. 22022
- Si quantum dot, single electrons, thermally enhanced co-tunneling 38355
- Si single-electron transistor, transport props. 22500
- Si/SiO_2 antidot syst. MOS struct., far-IR excitations 29976
- SiGe/Si quantum dots, island growth, photolum., electrolum. 28830
- SiGe/Si quantum wires/dots, growth on patterned Si substrs. 28810
- TiO_2/PbS, nanocrystalline matrix-adsorbed cluster syst., quantum dot, photocond. 13176

semiconductor quantum well lasers *see quantum well lasers*

semiconductor quantum wells
- *see also semiconductor quantum dots; semiconductor quantum wires; semiconductor superlattices*
- 2D bi-periodic grating coupled quantum well IR photodetector, two-colour appl. 25836
- 2D electron gases in strong mag. field, tunneling 6570
- 2D semiconductors, negative differential resist., conf., Lucca, Italy (1992) 11546
- 7.5 Gb/s monolithically integrated PLL/QW-HEMT clock recovery cct. 29341
- 155 Mb/s FET-SEED free-space switching network 14649
- bandgap tuning, ion implant. 13166
- compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
- conf., lin./nonlin. integrated optics, Lindau, Germany (1994) 36839
- conf., thin film physics/appl., Shanghai, China (1994) 28235
- coupled quantum wells, reson. transport, scatt. mechanisms probe 6569
- cubic cryst. quantum wells, cond., weak localization 1102
- cylindrical geom. quantum wells and superlattice props. 38320
- δ-type pot. struct., electron wave propag., equiv. ccts. *(Japanese)* 22503
- dil. mag. semicond. QW struct., diffusion, opt. methods 39171
- diodes, binary inform. storage, zero bias 1452
- doped n-type quantum well struct., carrier and impurity profiles 13170
- double barrier quantum struct., shot noise 13199
- double quantum wells, reson. electron tunneling, coherent model *(Chinese)* 13173
- double-barrier struct., reson. tunneling, scatt. effects 22017
- double-barrier tunnelling diodes, photon-assisted transm., transfer matrix approach 13608
- elec. field depend. refr. index, meas./appl. 39589
- electron capture to quantum well, inelastic/elastic mechanisms 29914
- electron transfer waveguide, fiber coupling efficiency 22882
- energy relax., opt. rectification, IR FELs 39987
- harmonic and intermodul. generation in QW diodes 29570
- high press. semicond. physics, conf., Vancouver (Aug. 1994) 28247
- high-perform. quantum well electron transfer modulators, self-consistent modeling 1733
- II-VI cpds. MBE, in-situ charact. 20908
- II-VI quantum well struct., exciton linewidth 6564
- II-VI semiconductors, electronic materials, conf., Boulder, CO, USA (1994) 36873
- ii-vi wide-gap semiconds., MOVPE, optoelectronic appls., review 20887
- III-V interferometric electroabsorption QW modulators 1738
- III-V quantum-well IR photodetectors, noise perform. 42788
- III-V semiconds., quantum well disordering, encapsulant source 29917
- III-V semiconds., surface passiv., Si interface control layer 38596
- III-V multilayer struct., dry etch monitoring, reflectance modeling 13404
- IMPATT diode integrated quantum-well reson. tunneling oscillator 12755
- intermixing, repeated ion implant. 1213
- intersubband optics for symmetric and asymmetric quantum wells, wires and dots 40046
- intersubband quantum well opt. modulators 30996
- IR MQW phototransistor, hot electron effects 39573
- IR MQW phototransistor, Monte Carlo modeling 1802
- IR multiquantum-well photoconductor struct., emission and capture of electrons 13188
- IR photodetector, opt. output 25840
- IR photodetectors, Monte Carlo simul. 13581
- leaky/absorbing opt. waveguide/quantum well struct. modelling 40434
- LEOS, Lake Tahoe, NV, USA (July 1994) 39
- materials for microelectronics, conf., Barcelona, Spain (1994) 36841
- MM-wave Gaussian beam, electro-optic power control 39474
- monolayer flat islands in cathodolum. images of quantum wells, apparent sizes 38337
- MOVPE, conf., Yokohama, Japan (1994) 11533
- MQW, coupled, electron escape rate, coherence length, hopping effects 38364
- MQW electroabsorp. modulators under digital modul., chirp control 7388
- MQW electroabsorption modulator, efficient harmonic generation 34007
- MQW electroabsorption modulator, transm. performs. and chirp param. 1740
- MQW electroabsorption opt. modulators integrated, low-loss waveguides 22938
- MQW injection mode diode, pulse-mode neural ccts. appl. *(Korean)* 30224
- MQW IR photodetectors, electron injection and transport model 42786
- MQW IR phototransistor 14599
- MQW modulators in smart pixels, wavelength optimis. 22934
- MQW nonlin. struct., finite element characterisation 38352
- MQW photorefr. asymmetric Fabry-Perot struct. 22941
- MQW SLM, dyn. white light holography 31636
- MQW solar cells, electrolum. coupling 36590
- MQW waveguides, nonlin. TE waves, finite-element soln. *(Chinese)* 7355
- MQW-sandwich nonlin. directional coupler with nonlin. losses, all-opt. switching 31601
- multi-barrier graded quantum well semicond. heterostruct., reson. tunneling 6556
- multilayer electron systs. in wide parab. wells, magnetocapacitance spectra 29909
- multiple quantum barrier height meas. by LED 13186
- nonbiased bistable SEED in asymmetric Fabry-Perot struct. 1730
- nonlin. optoelectronics, conf., Los Angeles, CA, USA, (Jan. 1994) 5434
- Nordic semicond. meeting, Iceland (Jun. 1994) 27
- normal incidence MQW light modulator, contrast ratio 7386
- opt. amps. with strained quantum wells, interwell transport, four-wave mixing 1950
- optical props. of nanostructures, conf., Japan (1994) 28236
- p-n jn. shift eval. by C-V method 21956

semiconductor quantum wells continued
photolum. spectra study of MESFET and HEMT 38933
photonic IC, selective MOVPE 30976
photonic IC fab., quantum well intermixing 14666
photorefr. MQW materials, appls., sig. proc. 29915
physics of semiconductors, conf., Beijing, China (1992) 11542
planar microcavity LED's, design/expt. comparison 31097
polariz.-independent waveguide modulator, mass-depend. width QW 14508
PV quantum well intersubband IR detectors by internal elec. fields 3834
quantum effect devices, finite capture time, num. simul. 13821
quantum well IR photodetectors, photocond. gain/generation-recomb. noise 22013
quantum well struct., large opt. nonlin. 40107
quantum well struct., rapidly changing transm. coeff., HF cond. 13162
quasipotential barriers in electron waveguides 1455
reson. tunneling light emitting transistor, base transport 39582
RTT, coupled-quantum-well base, simul. 38844
Schottky contacts, selective electrochem. proc. 38398
shallow QW SEED in asymmetric FP etalon struct. 14530
shaped quantum well opt. modulation, enhanced electrorefractive effects 39492
spontaneous emission LEDs, photolum. 1817
submillimeter-wave generation, coherent wave-packet oscills. 6559
surface gate struct., sharp pot. barriers in 2D electron systs. 1090
switchable-logic photonic switch array monolithically integrat. MSMs, FETs, and MQW modulators 14531
switching nano-device based on Rabi oscills. 6565
TE-TM nonlin.-grating MQW polariz. switch 23427
three layer ridge quantum well waveguide anal. by FEA 40400
three-layered electron waveguides, equiv. network approach for multistep discontinuities 21979
tunnelling, p-n jn., quantum oscills., quantum wells 38360
ultra-compact quantum well waveguide electro-optic modulators 7387
ultrafast carrier capture in quantum well struct. 1117
variable-strain quantum well heterostruct., design and investig. 30820
VCSELs with strained QWs, opt. gain, cryst. orient. depend. 1948
wide bandwidth opt. transm. syst. integrated opt. receivers/transmitters 9498
AlAs$_x$Sb$_{1-x}$-InAs, modulated MBE growth 12076
AlGaAs MQW, opt. channel waveguides by FIB induced compositional mixing 14452
AlGaAs asymmetric QWs, mid-IR difference-freq. generation 15108
AlGaAs:Si-GaAs SQW, MOCVD, magnetotransport, subband struct. 22003
AlGaAs/AlGaAs superlattice, comp. ordering, opt. props enhancement 1083
AlGaAs/GaAs MQW, near- and mid-IR two-photon absorpt. 31538
AlGaAs/GaAs MQW, opt.-modulator struct., hydrogenation 1803
AlGaAs/GaAs, QW, modulator, nonlin. optics 7739
AlGaAs/GaAs SQW, plasma cleaning, photolum. studies 1139
AlGaAs/GaAs, artificial 2D-structs., charge carrier transport 29939
AlGaAs/GaAs asymmetric QW struct., quasi-phase-matched, 1.06 μm SHG 15056
AlGaAs/GaAs double-quantum-well devices, quantum state transfer 6561
AlGaAs/GaAs quantum wells, photolum., in-situ charactn. method 1137
AlGaAs/GaAs quantum wires, elec. cond., electron-phonon interact. 29913
AlGaAs/GaAs, three-coupled-QW, Stark shift, tunable far-IR photodetectors 42803
AlGaAs/GaAs:Si, QW, δ-doped, subband carrier mobilities 29863
AlGaAs/GaAs/InGaAs reson. coupled asymmetric double QW, intersubband transit. 1135
AlGaAs/GaAs/InGaAs struct. on nonplanar substrs., MOCVD, doping, laser appls. 20960
AlGaAs/In$_x$Ga$_{1-x}$As doped-channel struct., thermal stabil. 1133
AlGaAs/InGaAs pseudomorphic SQW-MODFETs, double sided modulation doping 6786
Al$_{0.22}$Ga$_{0.78}$As/In$_{0.15}$Ga$_{0.85}$As/GaAs one-side-modulation-doped QW, electronic subband studies 21996
Al$_{0.43}$Ga$_{0.57}$As/In$_{0.2}$GaAs:Te modulation doped heterostruct., carrier confine. 29881
Al$_{0.5}$Ga$_{0.5}$As/GaAs/Al$_{0.5}$Ga$_{0.5}$As SQW DB reson. tunneling diodes *(Korean)* 13590
Al$_x$Ga$_{1-x}$As/AlAs/GaAs quantum wells, reson. electron capture 22019
AlGaAs-GaAs MQW diode, pulse-mode neural ccts. 37914
AlGaAs-GaAs quantum well solar cells 27952
AlGaAs-InGaAs strained-layer quantum well three-terminal switching device 22504
AlGaInP based wide band gap quantum wells, opt. spectrosc. 13165
AlGaInP/GaInP, multiwafer, MOCVD growth 20959
AlGaInP/GaInP strained quantum wells, opt. gain 31377
AlInAs/GaInAs coupled QW 1.3 μm opt. modulator, elec. field depend. 22927
AlInAs-GaInAs quantum cascade unipolar intersubband LED 14632
Au island mask-GaAs nanostruct. fab., MBE/MOVPE 385
CdTe/Cd$_{1-x}$Mg$_x$Te quantum wires, wet chem. etched, photolum. efficiency study 38331
CdTe/CdMgTe quantum wells, ion implant.-induced interdiffusion 13290
CdTe/CdMnTe MQW, low temp. mobility limiting defects 1087
CdTe/CdMnTe QW, mag. polaron states 38363
CdTe/CdZnTe MQW SEED, RT photorefr. effect 30990
(CdTe)$_1$(ZnTe)$_2$/ZnTe short-period-superlattice MQW, above-barrier excitons 1086
Er-doped pass. mode-locked fiber laser based on polariz. rot. in MQW waveguide 23123
(GaAl)As SQW SCH superlumines. diodes, perform. 23048
GaAlAs asymmetric two-step quantum well for cascaded second-order procs. 13189
GaAlAs/GaAs QW, dielec. const., doping and mag. field effects 29908
Ga$_{1-x}$Al$_x$As/GaAs, p-n jn. incorporating quantum well, light emitting 14621
GaAs MQW directional coupler waveguide saturable Kerr effect 15118
GaAs MQW struct., semiempirical line shape model 1145
GaAs QW, femtosec. pulse distortion, pump-probe/four-wave-mixing expts. 13195
GaAs coupled quantum wells, far-IR radiation by difference freq. generation 23366
GaAs microcavity, dressed exciton oscillating emission obs. 29921
GaAs quantum well, MBE regrowth, 2DEG struct. 352
GaAs quantum wells, intersubband relax., ultrafast dyn. 13164
GaAs substr., struct., interfacial studies 302
GaAs symmetric/asymmetric QW struct., lin./quadratic electrooptic effects 21999
GaAs tapered QW, selectively contactable 2DEG, shadow masked MBE 38346

semiconductor quantum wells continued
GaAs triple-barrier reson. tunneling diode, time-resolved photolum. 1451
GaAs:Cr/AlGaAs SI MQW photorefr. device 22942
GaAs:Si QW, uniform intermixing in p-i-n modulator structs. 39605
GaAs:Si, multiple δ-layer-doped MQW, hot electrons 38365
GaAs/Al$_{0.28}$Ga$_{0.72}$As, QW IR photodetectors *(Chinese)* 9900
GaAs/Al$_{0.35}$Ga$_{0.65}$As MQW, refr. index, Fabry-Perot etalon meas. 34717
GaAs/Al$_{0.3}$Ga$_{0.7}$As MQW waveguides, pulse squeezed light generation 1721
GaAs/Al$_{0.4}$Ga$_{0.6}$As QW npn phototransistor fab. 31084
GaAs/Al$_{0.4}$Ga$_{0.6}$As RTDs, LF flucts. charactn. 1333
GaAs/Al$_x$Ga$_{1-x}$As, MQW, opt. transm. 15033
GaAs/Al$_x$Ga$_{1-x}$As MQW solar-cell, barrier pot. design criteria 5218
GaAs/Al$_x$Ga$_{1-x}$As growth with DEAlH-NMe$_3$, MEAs and DMAAs sources 20780
GaAs/Al$_x$Ga$_{1-x}$As quantum wells, IR focal arrays 42785
GaAs/Al$_x$Ga$_{1-x}$As quantum-well IR photodetectors, design, perform. 9905
GaAs/Al(Ga)As quantum wells, MOVPE/MBE growth, interface struct. 20878
GaAs/AlAs MQW Fabry-Perot transm. modulator, ON/OFF contrast ratios >7.4 30988
GaAs/AlAs QW, exciton diffusion/energy relax. in strong mag. field 29904
GaAs/AlAs RTD, QW electroluminesc. 38945
GaAs/AlAs RTDs, photoinduced hole tunneling 38804
GaAs/AlAs coupled QW struct., long-lived excitonic ground states 1113
GaAs/AlAs quantum heterostruct., local space charge field 30816
GaAs/AlAs quantum wells, MBE growth interruption, nonradiative recomb. 332
GaAs/AlAs, single-wavelength all-opt. phase modulator 2106
GaAs/AlAs submicron light-emitting RTDs 14623
n-GaAs/AlAs/Al$_{0.3}$Ga$_{0.7}$As double barrier QW, tunneling assisted thermionic emission 38326
GaAs/AlAs/AlGaAs double-barrier QW, interband/intersubband absorpt. 29907
GaAs/AlGaAS quantum wells, high mobility, electron cyclotron oscills. 21997
GaAs/AlGaAs FET-SEED, smart pixels and saturation charact. 14657
GaAs/AlGaAs, MOVPE, V-grooved GaAs substrs. 20884
GaAs/AlGaAs MQW APD, gain props. 39569
GaAs/AlGaAs, MQW IR detector, wideband response *(Chinese)* 17809
GaAs/AlGaAs MQW SLM 30993
GaAs/AlGaAs MQW, perp. over-barrier diffusion, short-period transient grating meas. 38324
GaAs/AlGaAs MQW, refr. index, grating coupling tech. 22012
n-GaAs/AlGaAs MQW struct. with Schottky and ohmic contacts, seq. tunneling 29897
GaAs/AlGaAs MQW, ultrafast nonlin. optics 2120
GaAs/AlGaAs MQW zero-gap directional coupler, disordered branching waveguides 14491
GaAs/AlGaAs MQWs, nonlin. index saturation in bandtail absorpt. region 13172
GaAs/AlGaAs QW, exciton relax., recomb. dyn. 1116
GaAs/AlGaAs, QW microcavity LED, mode-coupling 7472
GaAs/AlGaAs QW, opt. switching effects under hydrostatic press. 38251
GaAs/AlGaAs QW waveguides, all-opt. PM 23370
GaAs/AlGaAs QW wires, form., photolum. charactn. 20819
GaAs/AlGaAs QWs and quantum wires, growth and opt. props. *(Chinese)* 5815
GaAs/AlGaAs double quantum wells, photoreflectance and photolum. 1124
GaAs/AlGaAs etched arrays of QW opt. bistable microresonators 14659
GaAs/AlGaAs heterostruct., deep impurity doped, elec. field and refr. index change 30817
GaAs/AlGaAs, in-plane strained, polariz. depend. excitonic opt. nonlin. 23424
GaAs/AlGaAs, independently contacted double quantum well, MBE regrowth 28732
GaAs/AlGaAs inverted MODFET, charge control/I-V model 38908
GaAs/AlGaAs modulation-doped heterostruct., DX centers 29938
GaAs/AlGaAs multiquantum well vert. cavity tunable photodetector 17800
GaAs/AlGaAs patterning, epitaxial InGaAs layer, Cl$_2$ etching mask 13181
GaAs/AlGaAs quantum well struct., etching, photoreflectance phase shift 38532
GaAs/AlGaAs quantum wells, doping dens. and barrier lowering effect, IR detectors 23019
GaAs/AlGaAs quantum wells, four-wave mixing, biexciton effects 7807
p-GaAs/AlGaAs quantum wells, reson. absorpt. and photoresponse 38318
GaAs/AlGaAs superlattices, high-field domain form. 29922
GaAs/AlGaAs tunnelling MQW struct., picosecond opt. sig. recovery 31519
GaAs/AlGaAs waveguides with quantum well claddings, opt. modulation, beam steering 22892
GaAs/AlGaAs:Sb MQW, disordering, isoelectronic Sb implant effects 1217
GaAs/AlGaAs/AlAs quantum nanostructures, mag. confined plasma RIE 13385
GaAs/Ga$_{1-x}$Al$_x$As MQW, IR detector appls., comparison, HgCdTe 9911
GaAs/Ga$_{1-x}$Al$_x$As quantum-well IR photodetector, dark current 25832
GaAs/GaAlAs quantum wells, metalorganic VPE, laser reflectometry 20724
GaAs/GaAsP heterostruct., MOVPE grown, interface flatness 20822
GaAs/GaAsP strained-layer quantum well struct., photolum. linewidth 23002
GaAs/GaInP syst. MOVPE grown quantum-well struct., InP/GaInP barriers 20801
GaAs/InGaAs MIS-like pseudomorphic transistor, two-layer struct. 38854
GaAs/InGaAs coupled semicond. microcavities 2030
GaAs/InGaAs:Si/GaAs(AlGaAs) δ-doped quantum wells, neg. magnetoresist. 29918
GaAs/InGaAs/GaAs SQW, current transport and deep levels 21994
GaAs/InGaAs/GaAs double delta-doped channel, high carrier dens. and mobility 21990
GaAs/InGaP quantum well p-i-n diodes, blue shift obs. 14603
GaAs/InGaP/AlGaAs QW IR photodetectors 9903
GaAs-Al$_{0.3}$Ga$_{0.7}$As RTDs, spacer layers, capacitance 13611
GaAs-AlGaAs 256×256 miniband transport MQW long wavelength IR FPAs 17934
GaAs-AlGaAs FET-SEED technol. based ring oscillators 23057
GaAs-AlGaAs MQW, LiTaO$_3$ substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs MQW SLM 29946
GaAs-AlGaAs MQW, Si substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs MQW modulators integrated, Si CMOS IC 39597
GaAs-AlGaAs MQW, nonlin. opt. cross sect. 13187

semiconductor quantum wells continued
GaAs-AlGaAs MQW waveguides, coupling props. 14467
GaAs-AlGaAs coupled QW polariz.-independent waveguide opt. modulator 7394
GaAs-AlGaAs near-perfect QW on vicinal surface, MBE, photolum. obs. 22011
GaAs-AlGaAs p-i-n MQW modulators, opt. bandwidth 39476
GaAs-AlGaAs proton-implanted MQW modulators for low-photocurrent SEEDs 14528
GaAs-AlGaAs quantum well photoconductors, long-wavelength IR appls. 17785
GaAs-AlGaAs quantum wells, periodic pot., cct.-theoretical anal. 13191
GaAs-$Ga_{0.51}In_{0.49}P$ QW heterostruct., reson. magneto-tunnelling of holes 13201
GaAs-GaAlAs MQW electro optic modulator opt. data self-routing 13153
GaAs-InAlAs tensile-strained quantum wells, polariz.-independent opt. modulation *(Japanese)* 22944
GaAs-InGaAs quantum-well reson.-tunneling switch 38328
GaAs-InP nanostruct. fab., MBE/MOVPE 385
GaAs(001), Sb-terminated, Ga/As surface reacts. 21900
GaAsP/AlGaAs strained-layer quantum well, opt. props. 23001
(GaIn)As/Ga(AsP) MQW, excitonic binding energies 15080
GaInAs/InP syst. MOVPE grown quantum-well struct., InP/GaInP barriers 20801
$Ga_{0.32}In_{0.68}As/Ga_{0.61}In_{0.39}As$ MQW, strain compensated, growth optimisation 418
GaInAsP multilayer, gas source MBE, tensile/compressive strain modulation 12062
GaInAsP/GaInAsP MQW stacks, wavy layer growth elimination 20802
$Ga_xIn_{1-x}P$ strained quantum wells, MOVPE growth 20799
GaInP/AlGaInP, ECR plasma-assisted bandgap engng. 38332
GaInP/AlGaInP SQW, bias and temp.-depend. photocurrent spectrosc. 38338
GaInP/AlGaInP quantum wells, MOVPE, anom. photolum. 341
GaInP/GaAs/GaInP quantum wells, persistent photocond. 13174
GaInP/InP, quantum sized structs., MOVPE, 2D-3D growth mode transit. 12040
GaInP/InP:S QW, strained barriers, optical/struct. props. 13159
$Ga_xIn_{1-x}P$/AlGaInP quantum wells, strained, opt. investig. 1134
GaN, wide-band-gap semicond. quantum wells, opt. gain 14957
GaP/GaAsP strained-layer quantum wells grown by MOCVD 20800
GaP/InGaP strained-layer quantum wells grown by MOCVD 20800
GaSb QW struct., highly excited, opt. absorpt. and refr. spectra 13185
GaSb quantum well based IR devices 9908
Ge SQW, interface sharpness, MBE growth conditions 13190
GeSi/Si bistable tunnel diode based SRAM cell 21311
(In,Ga)As/(In,Al)As, superlattice-equiv. MQW, Stark shifts 38330
(In,Ga)As/GaAs strained MQW modulator, electro-absorpt. 39487
InAlAs:Zn, MOVPE grown, doping, MQW electron transfer struct. appl. 13318
InAlAs/InGaAs QW struct. quantum Hall device *(Japanese)* 25791
InAlAs/InGaAs SQW struct., electron traps, admittance spectrosc. 21991
InAlGaAs QW superlattice APD 9496
InAlGaAs/InP MBE grown heterostruct., charactn. 20833
InAlP/InGaP quantum wells/superlattice barrier cladding layers, metalorganic CVD growth 20939
InAs MQW photorefr. material 30814
InAs SQW buried in GaAs[001], grazing incidence XRD anal. 38362
InAs on GaAs(100), MBE growth/strained island form. 20857
InAs quantum-well FETs, electron transport props. 6805
InAs/(AlGa)Sb quantum wells, supercond. transistors fab. 22727
InAs/AlGaSb undoped quantum wells, neg. photocond. 29919
InAs/AlSb QW, ALE grown, opt. props. 20677
InAs/AlSb quantum wells, QHE 38366
InAs/AlSb quantum wells, structural/transport props. 1128
InAs/AlSb/GaSb MBE grown heterostruct., unintentional As incorporation 5825
InAs/AlSb/GaSb double barrier diodes, reson. interband/intraband tunneling 6714
InAs/$Ga_yIn_{1-y}As$ MQW solar-cell, barrier pot. design criteria 5218
InAs/GaSb/AlSb interband tunnel diodes, AlAs hole barriers 6715
InAs/InP quantum wells, 3-D island form., cathodolum. investigs. 22001
InAs/InP(In_xGa_{1-x}) heterostruct., depth profiling, MBE 13121
InAs-AlSb-Nb electrode quantum well, induced supercond. 22733
InAs-GaSb QWs, magnetotransport meas., hydrostatic press. appl. 38334
InAs-GaSb quantum wells, periodic pot., cct.-theoretical anal. 13191
InAs-InP heterostruct., ALE growth, XRD/Raman obs. 12052
InAsP 1.3 μm compressively strained MQW lasers for high-temp. operation 39883
InAsP/InP MQW, metalorganic VPE, interface study 12102
InAsP/InP MQW structs., strain studies 13142
InAsP/InP/InGaP 1.5 μm strain compensated MQWs, optoelectronic appls. 1140
InAsP-InP quantum wells/PIN diodes, growth/charactn. 12058
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 1729
InGaAlAs/InP type II MQW struct., elec. and opt. props. 1132
InGaAlAs/InAlAs MQW directional coupler waveguide switch modules 14498
InGaAlP strained multiquantum-well LD, photolum. meas. 14920
InGaAs coupled QW base transistor with graded emitter, RT operation 6735
InGaAs high power quantum well diode laser, MOVPE fab. *(Korean)* 39803
InGaAs:Si/GaAs strained QW, δ-doped, electronic struct. 29943
$In_{0.35}Ga_{0.65}As$:Be/GaAs MWQs for high-speed lasers, MBE growth, disloc. glide 333
InGaAs/AlAs MQW p-i-n diodes, room-temp. charactn. 13592
InGaAs/AlAs quantum wells, diode laser wavelengths, tunable mid-IR generation 14935
InGaAs/AlGaAs MQW pin diodes, optoelectronic effects and field distrib. 1341
InGaAs/AlGaAs SQW, recomb. procs., photolum. intens. effects 38349
InGaAs/AlInAs heterostruct., electron transport, transistor perform. 6563
InGaAs/GaAs (InGaP) MQW optical modulators, MBE growth 14509
InGaAs/GaAs MQW pin diode stained struct., leakage current mechanisms 1129
InGaAs/GaAs SQW laser, spectral hole burning 39758
InGaAs/GaAs SQW, lattice mismatched, strain relax., opt. quality 1148
InGaAs/GaAs heterostruct. field effect opt. modulator 14516
InGaAs/GaAs piezoelec. [111] MQW p-i-n photodiodes, cond.-band engng. 1804

semiconductor quantum wells continued
InGaAs/GaAs piezoelec. MQWs, nonlin. opt. response, screening, and strain 15081
InGaAs/GaAs quantum wells, MBE, selective area bandgap modif. 12118
InGaAs/GaAs quantum wells, carrier screening effect 1125
InGaAs/GaAs quantum wells on GaAs(111)A, MBE, photolum. 12125
InGaAs/GaAs quantum wells, strained, absorpt. coeff. and refr. index 1136
InGaAs/GaAs strained [111]-oriented MQW, carrier and screening dyn. 29905
InGaAs/GaAs strained MQWs, photogenerated carrier transport 39574
InGaAs/GaAs strained QW modulator perform., well/barrier ratio effect 7389
InGaAs/GaAs strained-layer QW, grown on (311)A GaAs, charactn. 14910
InGaAs/GaAs(111)B strained MQW, piezoelec. field 1085
InGaAs/GaAs[111] MQW P-I-N photodiodes, cond. band engng. 1808
InGaAs/InGaAlAs, MQW, absorpt., photolum., excitonic transitions 13158
InGaAs/InGaAlAs electron transfer waveguide weighted-coupling digital Y-branch opt. switches 9448
InGaAs/InGaAsP MQW, MOCVD grown, in-plane bandgap distrib. 20942
InGaAs/InGaAsP MQW opt. modulator, nonlin. opt. absorpt., spatial band bending 2103
InGaAs/InGaAsP MQWs, strained, thermal stability 13140
InGaAs/InGaAsP QWs, interdiffusion 13138
InGaAs/InGaAsP SQW, group V interdiffusion 13139
InGaAs/InGaAsP SQW, interdiffusion, annealing effects 22009
InGaAs/InP MQW modulators in expt. and theory 14658
InGaAs/InP MQW, selective area MOVPE, quantum energy tuning 20760
InGaAs/InP MQW, step barrier structs., reduced hole localisation 29899
InGaAs/InP layers, gas source MBE, atomic H irradiation 12049
InGaAs/InP quantum wells, electrons in-plane effective mass 38329
InGaAs/InP superlattice, electro-refractive effect, modulator appl. 14510
InGaAs/InP surface quantum wells, ion-gun hydrogenation, luminesc. 14592
InGaAs/InP strained quantum wells, stress relax., X-ray topography 21906
$In_{0.1}Ga_{0.9}As$/GaAs/AlAs RTDs in triple well config., supply and escape mechanisms 6716
$In_{0.20}Ga_{0.80}As$/GaAs MQW, strain and piezoelec. fields 29901
$In_{0.2}Ga_{0.8}As$/GaAs MQW struct., strain relax., photodetector appls. 1131
$In_{0.2}Ga_{0.8}As$/GaAs quantum wells, metalorganic VPE, multistep form./In comp. var. 20735
$In_{1-x}Ga_xAs$/InP-quantum well struct., recomb. dyn. 13163
$In_{1-x}Ga_xAs$/InP quantum wells, cond.-band/valence-band struct. 1130
$In_xGa_{1-x}As/Al_{0.45}Ga_{0.55}As$ MQWs, mid-wavelength IR detect. 17806
InGaAs-AlAs strained p-i-n modulator, ultrafast recovery time 22939
InGaAs-GaAs 111 strained layer piezoelec. QWs, electronic struct. and field screening effects 13192
InGaAs-GaAs narrow quantum wells, carrier capture and relax. 2004
InGaAs-GaAs quantum well solar cells 27952
InGaAs-GaAs quantum wells, surface segreg., photolumin. study 13171
InGaAs-GaAs strained SQWs, photoluminesc. props., cap layer thickness influ. 1123
InGaAs-GaAs-AlGaAs strained layer broad spectrum QW LED fab. 7474
InGaAs-GaAs-AlGaAs:Ar(He) strained SQW, disordering by ion implant. 13135
InGaAs-InAlAs MBE p-type strained layer quantum well IR photodetector, FPAs 17786
InGaAs-InAlAs QW electroabsorption waveguide modulators 39488
InGaAs-InAlAs asymmetric coupled QWs, elec.-field-induced refr. index changes 21980
InGaAs-InAlAs quantum wells, electron scatt., photoreflectance obs. 13141
InGaAs-InAlAs:Si quantum well, ion implant./annealing, comp. disordering 1216
InGaAs-InGaAlAs-InAlAs coupled QW chirp-free electroabsorption modulator 22937
InGaAs-InGaP MQW opt. modulators, saturation intens. 22935
InGaAs-InP 1.55μm photonic waveguide devices, quantum well struct.-based 14411
InGaAs-InP MQW tensile-strained directional coupler, polariz.-independent switching operation 14529
InGaAs-InP P-I (MQW)-N surface-normal electroabsorpt. modulator for 1.55 μm 14507
InGaAs-InP quantum well polariz. control photonic functional devices 14480
$In_{0.4}Ga_{0.6}As$-GaAs quantum well IR photodetector 9906
InGaAsP MWQ edge-emitting LED, opt. props. 14628
InGaAsP strained quantum well, VPE, laser appl. 12130
InGaAsP:Si quantum well, intermixing, spatially resolved/polaris. resolved photolumin. 38495
InGaAsP/InGaAsP multiquantum well waveguide, nonlin., bias depend. recovery time 1717
InGaAsP/InP false MQW, MOCVD/CBE growth, As,P incorporation 12063
InGaAsP/InP integrated three-port Mach-Zehnder interferometer, all-opt. wavelength conversion 30973
InGaAsP/InP multi-quantum-well directional coupler, low-switching-voltage operation 30925
InGaAsP/InP structures, MOVPE, optical device appls. 12047
InGaAsP/InP/InAlAs quantum well electron transfer struct., finite difference methods 13582
InGaAsP/InGaAsP MQW waveguide, bias-depend. recovery time of all-opt. reson. nonlin. 22874
InGaAsP-InP 1.55-μm strained quaternary QW lasers, approx. opt. gain formulas 23190
InGaAsP-InP MQW 2×2 opt. space switch struct. for 10-GHz appls. 9148
InGaAsP-InP MQW-LD fabricated by LPE, opt. charact. *(Korean)* 39802
InGaAsP-InP QW electron transfer struct. for ultrafast opt. switches 38351
InGaP and InGaAlP, influ. of H plasma treatment on reverse currents 38809
InGaP strained quantum-well lasers, gain, threshold currents 23265
InGaP-InAlGaP MQW electro optic modulator, MOVPE grown 39483
InP QW electro-optic waveguide circuits 14486
InP, and related materials, conf., Paris, France (April 1993) 11521
InP based MQW phase modulators *(Chinese)* 7480
InP wavelength converter based on integrated Mach-Zehnder interferometer 7371
InP/InAlAs/InGaAsP MQW fibre-coupling tapered waveguide, spot-size converter 22835
InP/InAs SQW/superlattices, ALE growth, charactn. 20770
InP/InGaAs/InP quantum well, MOVPE, surface topography evol. 353
InP-InGaAs MQW modulator waveguide devices, metallization/wet etch/passiv. 39461
InP-based opt. multiplexer integrated, MQW modulators 34074
Nd:YLF laser, antiresonant Fabry-Perot quantum well modulator 31243

semiconductor quantum wells continued
PbTe/$Pb_{1-x}Eu_xTe$ multi-quantum wells, MBE growth 5847
Pt-GaAs Schottky contact, defect free, electrochem. form. technol., low-dimens. structs. 22039
SIMS and microelectronics 1465
Si double-barrier struct., fab. 38343
Si, porous, diode struct., elec./PV props. 38325
Si porous wells for power devices 22508
Si surface, quantum-well p-n jn., electron-beam diagnostics 13161
Si/$Si_{1-x}Ge_x$/Si heterostruct., 2D hole gases, magnetotransport and photolumin. 21993
Si/SiGe asymmetric quantum wells, SHG 15021
Si/SiGe double barrier reson. tunneling struct., fab. 29942
Si/SiO_2 amorph. QW struct., dispersive subband-reson. nonlin. 1146
Si-$Si_{1\times x}Ge_x$ heterostruct., difference freq. mixing, intersubband nonlin. 23365
Si-SiGe-Si strained quantum wells, rapid thermal CVD, photolum. 22004
Si-SiO_2 porous DQW, tunneling, photoluminesc. 21995
SiGe SQW, MBE, luminesc. props. optimisation 20866
SiGe alloys, SEG, film props. 12103
p-$Si_{1-x}Ge_x$ quantum well detectors, 8-14 μm wave band absorpt. 42784
SiGe/Si QW, local Ga implant., ambipolar lateral carrier transport 1230
SiGe/Si QW, luminesc. spectral modulation 13144
SiGe/Si heterostruct., segregant-assisted growth, opt. props. 37449
SiGe/Si modulated quantum well/wires, luminesc. 1114
$Si_{1-x}Ge_x$/Si quantum well, Si contacts, gas source MBE, electrolumin. diode appl. 28722
$Si_{1-x}Ge_x$/Si heterostruct., surface passiv., photolum. meas. 13146
SiGe-Si UHV-CVD MQWs, in-situ spectrosc. ellipsometry growth control 20845
ZnCdSe/Zn(S)Se LEDs, emission efficiency improvement by thermal annealing 39587
ZnCdSe/ZnSe MQW, photocurrent/absorpt. spectrosc. 29910
ZnCdSe/ZnSe, QW, exciton recomb. dyn. 38321
p-ZnCdSe/ZnSe:N, tilted substrs. effect 22155
$Zn_{1-x}Cd_xSe$/ZnSe quantum wells in p-i-n heterostruct., photocurrent study 1127
$Zn_{1-x}Cd_xSe$/ZnSe quantum wells, excitons, picosecond dyn. and stimulated emission 13182
ZnCdSe-ZnSe SQW LEDs, MOCVD growth, blue-green emission 23031
ZnCdSe-ZnSe superlattices, stimulated blue light emission mechanisms *(Japanese)* 38340
ZnS-ZnSe-ZnS/GaAs(100) SQW, photo-assisted VPE growth 38322
ZnS-ZnTe/GaAs MQW on refl. at RT, picosecond opt. bistability 38353
ZnSe based struct., epitaxial lift-off tech. 28756
ZnSe/ZnCdSe/ZnSe MQW device, opt. modulation and switching 25539
ZnSe/ZnMnSe MQW structs., MBE, opt. props. 28744
ZnSe/ZnMnSe, QW, exciton recomb. dyn. 38321
p-ZnSe/ZnSe:N, tilted substrs. effect 22155
ZnSe/ZnTe double-barrier struct., time-depend. tunneling anal. 38323
ZnSe-CdZnSe MQWs, excitonic opt. nonlin., opt. bistability 40029
ZnSe-ZnS QW, nonlin. refr. index, nonlin. absorpt. coeff. 40030
ZnSe-based MOVPE and MBE grown LEDs 23050
ZnSe-based QW LEDs, MBE growth 37444
ZnSe-based alloys, wide-gap II-VI materials, MBE growth, charactn. 20910

semiconductor quantum wires
ballistic cond. in 1D/2D semicond. nanostructs. 1121
ballistic electron transport 13154
disordered quantum wires, DOS/conductance 38342
electron streaming caused by inelastic acoustic-phonon scatt. 22021
fab., etching damage, electron beam lithog. 13397
field-effect-induced superlattices, spectrosc. 1111
FIR tunable lasers/detectors 14893
GaAs:Si, deltalike impurity confine. 38256
H shaped wire and ring struct., quantum transport 13183
intersubband optics for symmetric and asymmetric quantum wells, wires and dots 40046
lin. quantum wires, self-consistent calcs. 21983
low-dimensional electronic systems, Mauterndorf, Austria (1992) 11547
MOVPE, conf., Yokohama, Japan (1994) 11533
nanostructure fab., spontaneous form. mechanisms 22085
neurocomputer, quantum device 788
optical props. of nanostructures, conf., Japan (1994) 28236
physics of semiconductors, conf., Beijing, China (1992) 11542
quantum dot/wire struct., nonlin. optics 7738
quantum electron flux switching modes in right angle and T-struct. 1453
quantum wave bandstop microwave filters 716
quasi-1D scatt., reson. line shapes 21986
semicond. lasers, carrier thermalization, ensemble Monte Carlo simul. 7654
split-gate wires, small mesa struct. for Coulomb blockade effects obs. 1141
strain and piezoelec. fields 29902
transm. charact., trapped electron effect 13155
trench-oxide MOS struct., quantum wire devices 38435
weakly coupled quantum-wire resonator, one-band model 13197
widely tunable confining pot., capacitance/IR absorpt. 13136
AlGaAs quantum waveguides, neg. differential cond. 6567
AlGaAs wires, diffusive mesoscopic conductor, reduced shot noise 29927
AlGaAs/GaAs quantum wires, flow rate modulation epitaxy on nonplanar substr. 37386
AlGaAs/GaAs superlattice, MOVPE, selective growth on (110) cleaved plane 37435
AlGaAs/GaAs wire transistor, in-plane gate, Schottky contacts 38931
n-AlGaAs/u-GaAs heterointerface, electron gas, periodic bending, device appl. 6557
AlGaAs-GaAs quantum wire struct., comp. modulation studied by photolum. 38357
AlGaSb/InAs nanostructures, CAIBE and electron-beam lithog. 13178
CdTe/$Cd_{1-x}Mg_xTe$ quantum wires, wet chem. etched, photolum. efficiency study 38331
CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
GaAs low-dimens. struct., cleaved edge overgrowth, lasing props. 1925
GaAs quantum wire, directional-coupler switch 22887
GaAs quantum wire, hot electrons ultrafast relax. 1119
GaAs quantum wire superlattices, conduct. anisotropy 1103
GaAs quantum wires, dense electron-hole plasma phase 1118
GaAs vert.-stacked quantum wires grown/Si substrs., MOVPE 20797
GaAs/(InGa)As/(AlGa)As quantum wire, 1DEG opt. emission 1142
GaAs/$Al_{0.5}Ga_{0.5}As$ quantum wire struct., in-situ gas etching/selective-area MOVPE 20798

semiconductor quantum wires continued
GaAs/$Al_xGa_{1-x}As$ quantum wires, Hall effect 22020
GaAs/AlAs, epitaxial growth on corrugated semicond. surfaces, RHEED obs. 318
GaAs/AlAs quantum wire struct., crystallographic selective growth by ALE 343
GaAs/AlAs quantum wires, MBE growth, GaAs(100) patterned substrs. 21977
GaAs/AlGaAs QW wires, form., photolum. charactn. 20819
GaAs/AlGaAs QW wires, multiatomic step form. of MOVPE GaAs 20835
GaAs/AlGaAs QWs and quantum wires, growth and opt. props. *(Chinese)* 5815
GaAs/AlGaAs buried quantum wires, situ FIB implant. 21978
GaAs/AlGaAs quantum wires, electron interf., correl. field anal. 38356
GaAs/AlGaAs quantum wires/dots, X-ray lithog. and Ga^+ intermixing 38344
GaAs/AlGaAs quasi-1D struct., holographic lithog., wet etching 21975
GaAs/AlGaAs, wire, MBE regrowth on patterned substrs. 20808
GaAs/AlGaAs-heterostruct., low-dimens., direct MBE growth 331
GaAs/GaAlAs high-power 2D quantum wire laser arrays 14943
GaAs/GaAsP, quantum wire, ALE growth mode switching 20828
GaAs/GaAsP quantum wires, MOVPE, luminesc. props. 20796
GaAs-AlGaAs nano-heterostruct., UHV MBE growth 329
GaAs-AlGaAs quantum wires and dots, modulation-doped, opt. emission and Raman scatt. 1143
GaAs-AlGaAs quantum-wire arrays on vicinal substrs., FEA of valence band struct. 21998
GaAs-based quantum wires, hot electron transient transport, Monte Carlo method 1095
GaInP/(AlGa)InP buried quantum wires, local order-disorder transition 13203
GaInP-AlGaInP quantum wire lasers, MBE grown 31317
InGaAs strained quantum wire/box struct. self-organized on high-index GaAs (n11)A/(n11)B substrs. 22000
InGaAs/AlGaAs pseudomorphic V-groove quantum wires, symm. breaking 6566
InGaAs/GaAs, buried wires, MBE overgrowth prep., opt. props. 38369
InGaAs/GaAs quantum wire fab., LV electron beam lithog. 13179
InGaAs/GaAs quantum wires, nonuniform distrib. of strain 1089
InGaAs/GaAs quantum wires, opt. props. 1094
InGaAs/GaAs wires, MBE overgrowth, opt. investig. 348
InGaAs/InAlAs diffusive quantum wires, spin-orbit scatt. 38368
InGaAs/InP QW wires, electron beam lithography fabrication 13200
InGaAs/InP buried wires, selective thermal intermixing 13180
$In_{0.53}Ga_{0.47}As$/InP quantum wires, tunable width of conducting channel 13184
$In_xGa_{1-x}As$/InGaAsP/InP SQW laser, modulation bandwidth 39859
InP strained wires and dots, localized confine. pot. 6562
InP wires on planar GaAs substrs., maskless selective growth 344
InP/InGaAs single dots/wires, dry etched, luminesc. spectrosc. 14591
Si 1D/2D nanostruct., lithographic/RIE prep., photolumin. obs. 30091
Si MOSFET, quasi-1D and Coulomb blockade devices 1401
Si nanostruct. single-electron transistor, NTT prototype device 38944
Si, porous, novel p-n jn. device electrolum. 14615
Si quantum wire surrounded by SiO_2, fab./transport props. 6669
Si quantum wires, SIMOX fab. 13147
Si ultra-fine wire fabricated by SIMOX technol., quantized conductance 38354
p-Si wires, focused ion beam implant., carrier transport 21871
Si/$Si_{0.7}Ge_{0.3}$ heterostruct., 1D electron transport 30074
Si/SiGe nanometer struct., fab. 29941
SiGe/Si modulated quantum well/wires, luminesc. 1114
SiGe/Si quantum wires/dots, growth on patterned Si substrs. 28810
ZnSe-based nanostructures, waveguide DFB laser appls. 23296

semiconductor relays
see also semiconductor switches
1500 V-20 A Photo Power Module DC solid-state relay 6396
Cassini spacecraft solid-state power switch develop. 26660
hybrid output relays, semicond. switch-based, DC/AC power control 29635
polysilicon electrostatic microrelays, MOSFET integrat. 30506
sens. and IC's for instrumentation 9899
single-phase transformer magnetis. and inrush currents *(German)* 11102
solid state relay design model, thermal effects 38063
space vehicle avionics upgrades, thermal design challenges 43429

semiconductor storage
see also integrated memory circuits
act. memory syst. for network appls., design 37762
contagion model commun. channel 23999
flash memory, indiv. bit erasure *(German)* 12499
floating-gate devices, capacitive coupling coeffs. 22423
high-speed I/O interface ccts. for memory bus appl. 12505
hybrid semicond./biomol. 3D memories and computers 12949
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
memory technol. trends and appls. *(Japanese)* 12545
memory testing, tutorial 12508
nonvolatile memories, contact mask DOF, planarization 13499
quantum-well diodes, binary inform. storage, zero bias 1452
SONOS multidielectric nonvolatile memory, scaling 1404
SS-1 supercomputer storage card design, packaging challenges 144
stochastic evol. based register allocation, multiport memories 499
unidirectional byte error locating codes, single symmetric bit error correction capability 12513
As-Te-Se glasses, neg.-resist. and memory switching 13076
$As_2S_3(Se_3)$ MChDS structs., photocharging characts., opt. memory appl. 22053
GaAs multiple-tunnel jn., single-electron memory/logic ccts. 38942
a-SiC:H/a-Si:H heterostruct. diode memory devices *(Japanese)* 22416
Ti/$Cd_xPb_{1-x}S$/Ag, polarity depend. memory switching 29988

semiconductor storage devices *see semiconductor storage*

semiconductor storage systems *see semiconductor storage*

semiconductor superlattices
see also semiconductor quantum wells
2D semiconductors, negative differential resist., conf., Lucca, Italy (1992) 11546
Bloch oscills. 38359
Bloch oscills. 6543
compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
conf., thin film physics/appl., Shanghai, China (1994) 28235
cylindrical geom. quantum wells and superlattice props. 38320

semiconductor superlattices continued
- δ-doping superlattices, plateau behavior and metal-insulator transit. 13196
- diamond crysts./superlattices, isotopically engineered 38502
- EM waves, uniform RF field effect 29906
- field-effect-induced superlattices, spectrosc. 1111
- $Ga_{1-x}In_xAs$-$InAs_yP_{1-y}$-InP, strain relax., photodiode appl. 12054
- $Ga_{1-x}In_xSb$/InAs superlattice diode laser, demons., 3.5 μm 23230
- HEMT-on-Si technol. for dual modulus prescaler IC fab. 21296
- high press. semicond. physics, conf., Vancouver (Aug. 1994) 28247
- hole transport, band mixing effect 6568
- II-VI semicond. microstruct., optoelectronic appls. 14577
- ii-vi wide-gap semiconds., MOVPE, optoelectronic appls., review 20887
- III-V heterostruct., X-ray standing wave meas. 38367
- III-V semiconds., pulsed-jet epitaxy, device procs. 20669
- IR photodetectors, Monte Carlo simul. 13581
- lateral surface superlattice, fab., ion irrad. 21976
- lateral surface superlattices, chaotic transport and fractal spectra 1110
- long. magnetoresist. 29900
- long wavelength IR nonlin. semicond. superlattice appls. 29945
- low-dimensional electronic systems, Mauterndorf, Austria (1992) 11547
- metal/n-InAs/interlayer/n-GaAs struct., nonalloyed ohmic contact resist. 1154
- MQW IR photodetectors, electron injection and transport model 42786
- MQW lasers, zero net strain struct., cryst. quality and laser charact. 23245
- multilayer struct., opt./X-ray/electron microscopy meas. 1122
- nonparabolic semicond. superlattices, Einstein rel., mag. quantization 29936
- optical props. of nanostructures, conf., Japan (1994) 28236
- physics and chem. of semicon. interfaces, conf., New York (1994) 20208
- physics of semiconductors, conf., Beijing, China (1992) 11542
- quantum well struct., doped n-type, carrier and impurity profiles 13170
- quantum well struct., large opt. nonlin. 40107
- random amorph. semicond. multilayers, opt. props. 1115
- reverse biased photoconductive detectors/switches 31086
- semicond. quantum-wire heterostruct., strain and piezoelec. fields 29902
- Stark ladder transit., electro-opt. modulator appls. 14521
- transm. spectrum, elec.-field-induced changes 29916
- vert. cond., neg. differential mobility, freq. limitations 13134
- GaAs/AlAs superlattice, interface flucts., magneto-transport 13152
- AlAs/GaAs DBR VCSEL diode on Si, MOCVD and struct. 39882
- AlAs/GaAs, p-i-n double-barrier reson. tunnelling structs., electrolum. 6722
- AlGaAs/AlGaAs superlattice, comp. ordering, opt. props enhancement 1083
- AlGaAs/GaAs injection lasers, electron superlattice barriers 39836
- AlGaAs/GaAs quantum nanostructures, STM at.-scale anal. 29940
- AlGaAs/GaAs superlattice, MOVPE, selective growth on (110) cleaved plane 37435
- AlGaAs/GaAs superlattice avalanche region IMPATT diode 38806
- AlGaAs/GaAs superlattice-emitter reson.-tunneling bipolar transistor, double NDR 38851
- AlGaAs/GaAs superlattices, THz Bloch oscills. 1112
- AlGaAs/GaAs superlattices, epitaxial growth, laser reflectometry 28767
- AlGaAs-GaAs Schottky quantum point contacts, airbridge post 1091
- AlInAs/InP type-II superlattice, elec.-field induced excitons, opt. studies 6555
- AlP/GaP monolayer superlattice, organometallic vap. phase epitaxial growth 356
- AlP/GaP short period superlattice, organometallic VPE growth, photolumin. obs. 20753
- C_{60}-Si(111) multilayer growth, UHV-STM study 12156
- $CdS_{1-x}Se_x$ hexagonal alloy films, epitaxial growth, photolum. 20882
- CdTe/CdZnTe superlattices, interdiffusion coeff. meas. 29935
- $(CdTe)_1(ZnTe)_2$/ZnTe short-period-superlattice MQW, above-barrier excitons 1086
- CdZnSe-ZnSe strained layer superlattice disordering, diffusion/ion implant. *(Japanese)* 38339
- GaAs MBE on Si, InGaAs/GaAs strained-layer superlattice effects 5842
- GaAs crysts./superlattices, isotopically engineered 38502
- GaAs, δ-doping superlattices, pot. flucts., quantum effects 13167
- GaAs lateral superlattice, Weiss oscills., small-angle scatt. effects 38350
- GaAs quantum wire superlattices, conduct. anisotropy 1103
- GaAs superlattices, miniband transport, quantized mag. field 21984
- GaAs:Si/Al/GaAs:Si, δ-doped superlattice, Al barrier interface roughness 38412
- GaAs/$Al_{0.35}Ga_{0.65}As$ MQW, refr. index, Fabry-Perot etalon meas. 34717
- GaAs/$Al_xGa_{1-x}As$, MOVPE, n-doping, 2D electron gas struct. 22152
- GaAs/$Al_xGa_{1-x}As$ MQW solar-cell, barrier pot. design criteria 5218
- GaAs/$Al_xGa_{1-x}As$ superlattice, interfacial roughness, controlled impurity incorporation 20821
- GaAs/$Al_xGa_{1-x}As$ modulation-doped multilayer heterostructures, current oscillations 29886
- GaAs/AlAs MBE heterostruct., (311)A orient. 20860
- GaAs/AlAs, disordered superlattices, IV charact. 29937
- GaAs/AlAs, lateral surface superlattices, pot. modulation 29931
- GaAs/AlAs opt. differentiator, Wannier-Stark localization, space charge screening 14504
- GaAs/AlAs, p-i-n photodiode superlattices, transm. intens. oscills. 14602
- GaAs/AlAs, short period superlattices, interface struct., STM 28751
- GaAs/AlAs superlattice, X valley minibands, neg. differential cond. 1088
- GaAs/AlAs superlattice, photolum. pol. depend. 38336
- GaAs/AlAs superlattice, random, electronic/opt. props., disorder effect 6558
- GaAs/AlAs superlattices, in-plane photocurrent spectrosc. 38317
- GaAs/AlGaAs MQW, perp. over-barrier diffusion, short-period transient grating meas. 38324
- GaAs/AlGaAs, artificial lateral superlattice, transport props. 29934
- GaAs/AlGaAs diodes, electron blocking, X-valley superlattice effects 1344
- GaAs/AlGaAs edge overgrown lateral superlattice, high field transport 13175
- GaAs/AlGaAs, in-plane strained, polariz. depend. excitonic opt. nonlin. 23424
- GaAs/AlGaAs modulation doped heterojunctions, neg. photocond. 29919
- GaAs/AlGaAs modulation-doped heterostruct., DX centers 29938
- GaAs/AlGaAs multilayer p-i-n struct. multilayers, ionization 38335
- GaAs/AlGaAs phase-coherent 2D superlattice, quantum interf. obs. 21982
- GaAs/AlGaAs semicond. superlattice, ballistic electron scatt., undulator props. 38333
- GaAs/AlGaAs superlattices, IR detectors, MOVPE growth 37418
- GaAs/AlGaAs superlattices, electro-optic detect. of Bloch oscills. 21988
- p-GaAs/AlGaAs superlattices, heavily-doped, IR photodetector appls. 3836
- GaAs/AlGaAs superlattices, high-field domain form. 29922
- GaAs/InGa(Al)As(ZnSe) heterostruct., phase stabil. and mech. defects under press. 38289

semiconductor superlattices continued
- GaAs-AlAs semicond. superlattice deep gratings, nonlin. optics 31631
- GaAs-AlGaAs VCSEL, low-temp. charctn. 7653
- GaAs-AlGaAs antiguided laser array fabricated by superlattice struct. 1988
- GaAs-AlGaAs multilayers, orient. depend. MBE growth on GaAs(111),(001) 339
- GaAs-AlGaAs superlattice Bloch oscill. higher harmonics 21989
- GaAs-AlGaAs superlattice, high pol./quantum efficiency photocathode 22007
- GaAs-InAlAs tensile-strained quantum wells, polariz.-independent opt. modulation *(Japanese)* 22944
- $GaAs_{1-x}P_x$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
- GaInAs/AlInAs superlattices, nonlin. cond., space charge wave generation 1120
- (GaIn)As/Ga(AsP) MQW, excitonic binding energies 15080
- GaInP/GaAs multilayer struct., RIE, $SiCl_4$-Cl_2-Ar plasma 13396
- GaP/AlP short period superlattices, GSMBE grown, opt. props. 20673
- GaTe semicond. superlattice, Bridgman growth, elec. anisotropy 37384
- Ge crysts./superlattices, isotopically engineered 38502
- Ge:O crysts./superlattices, isotopically engineered 38502
- Ge/Si epilayers, MBE, charactn. 320
- Ge-Si monolayer-scale heterostruct. by rapid thermal CVD 20911
- GeSi/Si bistable tunnel diode based SRAM cell 21311
- HgTe/CdTe superlattices, etching, STM study 22161
- InAlAs/InGaAs modulation doped structs., MOCVD growth, breakdown volt. 411
- InAlAs-InGaAsP-InP syst., potential barrier height enhance. 22008
- InAlGaAs QW superlattice APD 9496
- InAlP/InGaP quantum wells/superlattice barrier cladding layers, metalorganic CVD growth 20939
- InAs/$Ga_{1-x}In_xSb$ superlattices for long-wavelength IR appls. 17799
- InAs/$Ga_yIn_{1-y}As$ MQW solar-cell, barrier pot. design criteria 5218
- InAs/GaAs short period superlattices, InP substrs., low-press. MOVPE 20803
- InAs/GaSb strained layer superlattices growth 20804
- InAs/GaSb strained layer superlattices, growth 20885
- InAs/GaSb superlattices, struct., STM obs., growth condition effects 13151
- InAs/$In_xGa_{1-x}Sb$, superlattice IR detectors, temp. limits 42811
- InAs/$In_xGa_{1-x}Sb$ superlattice based IR detectors 3842
- InAs/$InAs_xSb_{1-x}$ midinfrared lasers, CW operation 23202
- InAs/InGaSb, superlattice IR detectors, temp. limits 42810
- InAs-InP heterostruct., ALE growth, XRD/Raman obs. 12052
- InAsP/InP MQW structs., strain studies 13142
- InGaAlAs/InP type II MQW struct., elec. and opt. props. 1132
- InGaAlP/GaAs hybrid-type DBR for InGaAlP LED 1819
- InGaAs strained-layer superlattices, opt. nonlin. suscept. 23405
- InGaAs superlattices, optical props., device appls. 13143
- $In_xGa_{1-x}As$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
- $In_{0.35}Ga_{0.65}As$:Be/GaAs MWQs for high-speed lasers, MBE growth, disloc. glide 333
- InGaAs/AlGaAs MQW pin diodes, optoelectronic effects and field distrib. 1341
- InGaAs/GaAs MQW pin diode stained struct., leakage current mechanisms 1129
- InGaAs/GaAs piezoelec. [111] MQW p-i-n photodiodes, cond.-band engng. 1804
- InGaAs/GaAs piezoelec. MQWs, nonlin. opt. response, screening, and strain 15081
- InGaAs/GaAs strained [111]-oriented MQW, carrier and screening dyn. 29905
- InGaAs/GaAs-on-GaAs superlattice photodetectors, ultrafast response 3835
- InGaAs/GaAs-on-GaAs superlattices, metal-semicond.-metal photodetectors, carrier trapping 22014
- InGaAs/InAlAs:Be superlattices, ultrafast opt. nonlin., MSM-PD appls. 2105
- InGaAs/InGaAs strained layer superlattices, struct., optoelectronic device appls. 13150
- InGaAs/InGaAsP MQW opt. modulator, nonlin. opt. absorpt., spatial band bending 2103
- InGaAs/InGaAsP/InP MQW laser, thermionic emission, tunneling 1931
- InGaAs/InP, short period superlattices for Wannier-Stark modulators, growth 12120
- InGaAs/InP short-period superlattice, wavefunction coherence length 1739
- InGaAs/InP superlattice QW lasers, MOVPE grown 39807
- InGaAs/InP superlattice, electro-refractive effect, modulator appl. 14510
- InGaAs/InP superlattice, low volt. electroabsorption light modulator 14511
- InGaAs/InP superlattice waveguide device, opt. multistable operation 1716
- InGaAs/InP superlattices, MOMBE, interface struct., XRD 378
- InGaAs/InP superlattices, MOVPE 20836
- InGaAs/InP superlattices, high-resoln. XRD 38361
- p-InGaAs/InP/Pd/Zn/Pd/Au graded bandgap heterobarrier/ohmic contacts, resist. 38699
- $In_{0.20}Ga_{0.80}As$/GaAs MQW, strain and piezoelec. fields 29901
- $In_{0.2}Ga_{0.8}As$/GaAs MQW struct., strain relax., photodetector appls. 1131
- $In_{0.53}Ga_{0.47}As$/$In_{0.40}Ga_{0.60}As$ superlattices, Wannier-Stark effect 1138
- $In_{0.53}Ga_{0.47}As$/$In_{0.52}Al_{0.48}As$ superlattice, electron-wave-fn. coherence length 13193
- $In_{0.85}Ga_{0.15}As$/GaAs relax. superlattice struct., ultrafast meas. of nonequilibrium carrier lifetime 38348
- InGaAs-GaAs MQW lasers, low growth temp., photolum. 14965
- InGaAs-InGaP strained QW lasers, 0.98 μm, charact. temp. 23185
- InGaAs-InP interposed superlattice, Pd-Zn-Pd-Au ohmic contacts to p-InGaAs-InP, optim. 38387
- InGaAs-InP short-period superlattice, interface struct., XRD/Raman scatt. 22010
- $In_{1-x}Ga_xAs$-$In_{0.53}Ga_{0.47}As$ strained superlattice, gas source MBE 12056
- InGaAsP/InGaAsP multiquantum well waveguide, nonlin., bias depend. recovery time 1717
- InP monolithically integrated Wannier Stark modulator/strained MQW DFB 1.55-μm laser 22940
- InP/GaAs/GaP/GaAs, short period superlattice, CBE growth 12088
- InP/InAs SQW/superlattices, ALE growth, charactn. 20770
- InP-AlInAs type II syst., laser emission 14928
- MgF_2/organic layer superlattices, struct., opt. props. 29898
- PbS/CdS superlattices, pulsed laser evap., opt. props. 13168
- Si, porous superlattices, etching 22246
- Si porous superlattices, type of heterostruct. 22015
- a-Si:H pn-doping superlattices, cross-sectional STS 29928

semiconductor superlattices continued
- Si:P crysts./superlattices, isotopically engineered 38502
- Si/SiO_2 antidot syst. MOS struct., far-IR excitations 29976
- $Si-Si_xGe_{1-x}$ superlattices, energy band structs. 6554
- SiGe strained layer growth from disilane/germane 370
- $Si_mGe_n/Si(001)$ strained-layer superlattices, magnetron sputter epitaxy 361
- SiGe-Si RTP/VLPCVD heterostruct., Ge surface segreg., H_2 influence 22005
- SiGe-Si SEG, indust. integrated cluster tool 20847
- $Zn_{1-x}Cd_xSe/ZnSe$ quantum wells, excitons, picosecond dyn. and stimulated emission 13182
- ZnCdSe-ZnSe superlattices, stimulated blue light emission mechanisms *(Japanese)* 38340
- $Zn_{1-x}Cd_xSe-ZnSe$ superlattice, reson. Raman scatt. and photolum. 38319
- $ZnS/ZnS_{0.12}Se_{0.88}$ superlattices, MBE grown, opt. charactn. 38327
- ZnS/ZnSe superlattices, opt. props., elec. struct., exciton binding 38347
- ZnS/ZnSe/GaAs(100) superlattices, photo-assisted VPE growth 38322
- ZnS-ZnSe superlattices, electronic states and binding energies 13194
- ZnS-ZnTe/GaAs MQW on refl. at RT, picosecond opt. bistability 38353
- ZnSSe/ZnSe superlattices, excitonic procs. and lasing 29912
- ZnSe/ZnS strained layer superlattices, MOVPE growth and opt. charact. 12124
- $ZnSe/ZnS_xSe$ superlattices, interface sharpness, MOVPE growth 20793
- ZnSe/ZnSSe symmetric superlattices, radiative mechanisms 29911
- ZnSe-ZnS, strained-layer superlattices, absorpt. spectra, electronic struct 38245
- ZnSe-ZnS superlattices opt. waveguide, opt. bistability 39380
- ZnTe-ZnSe, strained-layer superlattices, absorpt. spectra, electronic struct 38245

semiconductor switches
- *see also bipolar transistor switches; field effect transistor switches; photoconducting switches; power semiconductor switches; semiconductor relays; thyristors*
- 2.5-Gbit/s all-opt. clocked decision/retiming cct. bistable semicond. lasers 9517
- AC motor drives, converter-fed, side effects 11373
- amorph.-cryst. Si heterojunct. switching devices, bidirectional switching charact. 13110
- ARROW nonlin. directional coupler soliton switching 40106
- automotive engine mgt. syst., electronic ignition 36771
- BAR 63 and 80 series PIN diodes for antenna switches in mobile commun. 1334
- bulk optically controlled semicond. switches design 25498
- Cassini power management and distribution 26647
- compact amplifier using time gated beam sources 6512
- current-source parallel-reson. DC/DC converter 36335
- DBR laser ultra-fast opt. switching by electro-opt. tuning sect. 34005
- fibre lasers, pump induced modulation by saturable absorpt. opt. switch 31238
- fin line diode switch, coupled strip conductors *(Japanese)* 6318
- Fujitsu chip sets for ATM LANs, develop. *(Japanese)* 16736
- GaAs fast opening photocond. switches for pulsed power system 27852
- gain-switched semicond. laser min. pulsewidth cavity optim. 31325
- heterostruct. QW bistable laser oscillators 7655
- IEEE pulsed power conf., Albuquerque, USA (1993) 20246
- induction motor ASD, inverter/cycloconverter fed, single-phase inputs 44489
- injection-locked dispersive bistable LD, fast opt. switching 39817
- LD amps., opt. bistability and X-shaped hysteresis 39818
- long wavelength IR nonlin. semicond. superlattice appls. 29945
- microwave transm. line., photocond. switches simul. 31082
- MM-wave solid-state control devices 21532
- multielectrode DFB laser self-pulsation charactn. 31327
- nonvolatile ferroelec. thin film technol. for semicond. memory 39047
- opt. fibre monolithic wavelength demultiplexing switch arrays 42374
- photoconducting switches, 3D FDTD simulation 23012
- photonic time/space switching semicond. laser amps. 3586
- (S)SAMCTs, (super) self aligned MOS controlled thyristors, switching 20 A at 4 kV 22397
- sampling amp. diode bridge switches, offset voltage 37896
- self-seeded gain-switched LD, elec. wavelength-tunable singlemode pulses 31326
- semicond. laser amp. based switching struct., gain saturation effects on size limitations 23251
- semicond. laser amps. biased at transparency, quantum well no. effects on nonlin. refr. 39819
- semicond. lasers, opt. freq. bistability and power bistability 23235
- shorted anode base resist. controlled thyristor, num. simul. 30283
- side-injection-light-controlled bistable LD as wavelength converter, digital sig. regeneration 17344
- SIT, 2D transient temp. eval. 1443
- surface mount polymer capacitors, HF switchers 6355
- switching nano-device based on Rabi oscills. 6565
- three-stage opt. switch, gain optim. 39879
- travelling-wave MQW semicond. laser amp. switches, dyn. perform. 9476
- ZnSe polycryst., solid switches, electron-beam controlled 21609
- ZVS-QRC, IGBT switch, design, testing 5056
- AlGaAs all opt. switching waveguides, three-photon absorpt. 22912
- AlGaAs-InGaAs strained-layer quantum well three-terminal switching device 22504
- CO_2 subnanosecond multi-gigawatt laser 23099
- CdTe:In opt. switch 1550-nm sig. photonic sampler 42131
- $Cu_{0.10}As_{0.40}Se_{0.50}$, elec. switching, bulk props. 38265
- GaAs FET microwave switching/phase shifting 21575
- GaAs MMIC 2-18 GHz low loss on-chip biased PIN diode switches 21561
- GaAs broadband CPW SPDT PIN diode switch, 50 MHz-30 GHz 21557
- GaAs multiple-tunnel jn., single-electron memory/logic ccts. 38942
- GaAs opt. activated switches, Monte Carlo simul. 3299
- GaAs/AlGaAs QW, opt. switching effects under hydrostatic press. 38251
- GaAs/AlGaAs, double heterojunction, triangular barrier switch 30387
- GaAs/AlGaAs, mesoscopic electro-opt. switching element 39475
- GaAs-AlGaAs MQW SLM 29946
- GaAs-GaAlAs MQW electro optic modulator opt. data self-routing 13153
- GaAs-InGaAs quantum-well reson.-tunneling switch 38328
- InGaAs-AlAs opt. switched reson. tunnelling diodes 31085
- InGaAsP LD with external cavities, pitchfork bifurcation polariz. bistability 23285
- InGaAsP/InP diode lasers with ridge struct., HF polariz. switching 42434
- InGaAsP/InP/InAlAs quantum well electron transfer struct., finite difference methods 13582

semiconductor switches continued
- InGaAsP-InP MQW 2×2 opt. space switch struct. for 10-GHz appls. 9148
- InGaAsP-InP QW electron transfer struct. for ultrafast opt. switches 38351
- InP-InGaAsP pol. independ. ridge waveguide digital opt. switches 9460
- Si heterostruct. switch, elec. and opt. speed 6718
- a-Si/c-Si(a-SiC) based opt. controlled switching devices 38790
- 6H-SiC p-type photoconductive switches investig. 23011
- $Ti/Cd_xPb_{1-x}S/Ag$, polarity depend. memory switching 29988
- VO_2 94 GHz flying spot mirror, theory and expt. 23956

semiconductor technology
- *see also under specific device headings*
- *see also clean rooms; isolation technology; nitridation; rapid thermal processing; resists; semiconductor device metallisation; semiconductor device packaging; semiconductor doping; semiconductor process modelling; SIMOX; wafer bonding*
- 3D microstruct. assembling, Au-Si eutectic bonding 12951
- 3D microstruct. constr. by multi-face FAB/robot 30521
- 30 GHz bipolar transistors, laterally scaled, 18 ps ECL-gate delay 21548
- AFM tip rad. needed for accurate imaging of thin film surfaces 13271
- anom. solid form., exhaust systs. of LPCVD/PECVD semicond. procs. 20954
- BAW composite resonator *(Chinese)* 14083
- bipolar transistor technol. 30236
- bipolar transistors, SEG and chemo-mech. polishing 6738
- bulk chem. distrib. systs., impact on semicond. proc. 11715
- capacitive electro-chem. etch-stop tech. 30103
- chem. amplified AZPN114 electron beam resist for advanced photomask fab. 38773
- chem.-mech. polishing for planarization, forecast of future trends 13323
- cleaning procedures, surface charging of substrs. 22210
- compact ECR plasma syst., fab. and charactn. *(Korean)* 13332
- compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
- compressed gas cylinders, gas purity, effect of gas withdrawal 38460
- CONCAVE-DMOSFET, super-low on-resist. power MOSFET 38877
- conf., interface control of elec., chem. and mech. props., USA (1993) 36832
- cryogenic rad-hard CMOS readout multiplexer fab. 30448
- CVD diamond, metallization and die attach 38662
- decision making criteria in technol. adoption 11653
- diamond, natural monocrystals/polycryst. films, direct laser writing 38545
- diamond membranes for x-ray lithog. masks 6688
- diamond polycryst. films for x-ray lithog. masks 6703
- double polysilicon layer structs., plasma etching effects 13325
- downstream plasma proc., selective etch and procs. 13338
- dual-gate FET struct., fab. 30383
- ECL bipolar transistor, high-speed, low parasitic archit. 30237
- ECR CVD, electrostatic chuck, improved temp. uniformity 28847
- edge type thin-film warm carrier detectors, fab. 34488
- EHD pumps, travelling-wave driven, microfabrication 6880
- electron, ion, and photon beams, symp., New Orleans (1994) 5484
- electron device science/technol., conf., South Africa (1992) 28214
- electronic materials, plasma processing 22190
- electrostatic charge control, wafer prod. damage prevention 7896
- etch-stop layers, heavily B-doped, TEM obs. 13401
- FET based press. sens., fab./constr. 3785
- field emission diodes using sharp vert. edge struct., fab. 12995
- fluidic self-assembly of microstruct., GaAs on Si integrat. 30002
- gas delivery systs., contaminants in semicond. mfg. 6599
- gas handling in semicond. manufacture, cost-purity trade-off 6598
- gate-all-around TFT, dummy nitride pattern, SRAM cells 38876
- gigabit chips, mfg. technols. 22308
- gray-tone lithog., arbitrarily shaped surfaces fab. 30172
- grazing incidence diffractometer, thin-film struct. anal. 38463
- hard switching power IGBTs, non-/punch-through technols. 12317
- HCl gas distrib. syst., ultra-pure operation 38462
- high-purity electronic specialty gas cylinders, particle/outgassing perform. 29995
- high-temp. electronic device technols. and pot. appls. 6705
- Hong Kong electron devices meeting (July 1994) 36827
- HV bipolar technol., trench-isolated base 30260
- IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
- III-V PV cells, manufacture 5223
- in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
- integrated proc., multichamber archits. 13267
- ion implant., heavy metal/dopant contamination control 38486
- ion plasma sources based on microwave oven 38528
- ISO 9000 series stds., CFC-free bench top cleaning implications 37214
- killer defects, automatic in-line meas. 6602
- killer particle detect. on rough wafer surfaces 11826
- low-power electronics, research program 6600
- mag. enhanced RIE syst., wafer charge-up effect 22183
- materials for microelectronics, conf., Barcelona, Spain (1994) 36841
- MEMS fab., lithog. and RIE 39027
- metal contamination monitoring, surface photovoltage, SPC 38458
- metal recovery/water recycling, electronics mfg., integrated solns. 11885
- metallic contamination in ULSI, opt. monitoring techs. 29991
- meterials reliab. in microelectronics, conf., San Francisco (1994) 28229
- micro-encoder chip, integrated opt. component fab. 30979
- microcontamination 93, conf., San Jose, USA (Sep. 1993) 42
- microelectronics for IT, conf., Stuttgart, Germany (1992) 11534
- microelectronics mfg. education 36914
- microfabricated heavy metal ion sens. 42779
- micromechanisms and their charact. 30500
- MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
- microstruct. technol., advances 39035
- miniature IR sens., vac.-encapsulated thermistor clinical bolometer 35037
- MOS capacitors, gate oxides, repeated N_2O RTA 22071
- MOS diode, Na contamination free ashing, O_2+H_2O plasma downstream 22234
- MOSFET, STM lithog. damage 13740
- n-MOSFETs, rapid thermal N_2O-reoxidized nitrided gate oxides 38899
- MOSFETs, self-aligned, X-ray lithog. 13741
- MST, microsystems technol., microelectronics and sens./actuators 30493
- multichamber proc. for small semicond. labs., first results 1190
- multilayer X-ray mirrors for X-ray lithog. 6689
- multiple product/multiple proc. factory cost anal. 36960
- multiple-level dry etching, self-aligned etch masks 13324
- μP archit. and technol. *(German)* 21360
- nitride PECVD, plasma clean cycle, cost of ownership model 38607
- nonnormal proc. distribs., SPC for semicond. procs. 11718

semiconductor technology continued
nonvolatile memories, contact mask DOF, planarization 13499
Nordic semicond. meeting, Iceland (Jun. 1994) 27
Novolever cantilever for SFM, polymers 17725
O-ring degrad., semicond. proc. contamination source 29994
open software archit. for semicond. indust. 37053
oxides reliab., low temps. 28406
photomask scrubbing machine, integrated motion syst. 30084
photoresist technol. for deep-UV lithog., sub-half micron linewidths 6670
planar fab. proc. for surface micromachined devices 30511
plasma etch reactors, develop. pilot line, sens. integrat. 22205
plasma etch systs., automated preventive maint., SECS protocol 30088
PMMA-Ge-AZ trilayer electron resist, deep submicron patterning *(Korean)* 38747
polymer outgassing under thermal stress, semicond. technol. effects 29997
polysilicon emitter bipolar transistors, power appls. 22367
polysilicon gate, PMOS, B penetration, oxide gettering 38867
polysilicon outer-rotor wobble micromotors, fab./characts. 30518
polysilicon p-channel TFTs, ECR hydrogen plasma passiv. 6771
polysilicon sacrificial layer etching technol. for micromachined sens. 25785
polysilicon TFTs, hydrogen passiv. 38866
polysilicon-emitter transistors, fab., e-beam lithog. 30263
post-chem.-mech. planarization cleaning, secondary platen press. 38534
power Darlington transistor fab., student lab. exercises 30255
proc. control, quadrupole mass spectrometer 6601
proc. equipt., in-situ particle meas. 6632
proc. gas improvements, cost of ownership model 36961
proc./equipt. monitoring, quadrupole mass analyzer 22087
pyroelec. single-element/lin.-array sens., P(VDF/TrFE) films 17772
quantum dot, Coulomb blockade, X-ray nanolithography 13177
quantum-effect devices, fab., X-ray nanolithography 38758
Raman spectrosc./STM *(Japanese)* 29822
random reticle CD var., mask defects 13441
RTO/nitridation clusterable reactor, MOS gate oxides 22219
RTP systs., modelling/ident./control 1195
(S)SAMCTs, (super) self aligned MOS controlled thyristors, switching 20 A at 4 kV 22397
Schottky collector RTDs, fab., electron beam lithog. 13604
scribe line capacitors, thin oxide monitoring, nonvolatile memory devices 20489
selective plasma etch proc. monitoring, polysilicon test struct. 22206
SOI, conf., Ponte Verdra, FL, USA (Oct. 1992) 11581
SOI n-MOSFET radiation hardness improvement by Ge-implant. 13726
SOI snapback nMOSFETs, ESD protection capability, mechanisms/failure modes 30308
solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
SR lithog., 0.1-μm line-and-space-pattern 1307
submicron holographic lithog., limitations 30163
submicron ICs, rapid prototyping, FIB techs. 13835
surface anal., AES and XPS technols. *(Japanese)* 13273
TFTs, low temp. fab., multi proc. reactor 13739
thin-film charactn., surface resist. anal. 13268
turbomolecular pumps, high vac. semicond. appls. 13266
UHF FETs, T-shaped gate fab., double-layer resist 13492
UHP gas supply consistency of on-site N_2 plants 38461
UHV ECR CVD reactor, in-situ Si wafer surface cleaning *(Korean)* 13331
ultra-thin dielec., plasma-assisted/RTP 22167
ultrapure water technol., semicond. indust. 13265
US semicond. indust., cost reduction 36959
UVSC photochromic dosimeter film for x-ray lithog. source eval. 6693
vert. cavity surface emitting semicond. lasers fab. 31361
vert. power MOSFETs, low on-resist. proc. 13682
vert.-cavity lasers fabricated by selective oxid., low threshold voltage 1989
wafer fab., elec. failures, in-line inspections 6603
wafers, US cleaning tank improvement *(Japanese)* 13326
WESDA, multimedia expert system for wafer polisher maintenance 5566
wet cleaning, metallic contamination, chem. anal. 1237
X-ray sensitive chem. amplified resists, design/perform. 6681
AlCu interconnects, electromigration stressing, Al_2Cu precip. distrib. 38455
AlGaAs, MBE-grown, As capping 1286
AlGaAs/GaAs HBTs, Pt/Ti/Pt/Au base electrodes, passiv. 38837
AlGaAs/GaAs nanostructures, surface-gate technol. 21972
As-S layers, pos./neg. etching, submicron photoresists 22173
Cl_2 ECR plasma etching of III-V semiconds. 22188
GaAs E-mode MESFET technol. for low power/noise appls. 12780
GaAs JFETs, deep cryogenic readout electronics appl. 30371
GaAs MISFETs, photo-CVD P_3N_5 insulators, sulfide passiv. 38882
GaAs device proc., computer-controlled plasma etching *(Chinese)* 1235
GaAs digital FET multilevel metal interconnects, isotropic etch planarization 13322
GaAs, low-temp. dry etching 6630
GaAs micromachined mass-flow sens. 9880
GaAs pn-jn. diodes, ECR plasma-induced damage 30209
GaAs pseudomorphic HEMT, high yield, mfg. technol. 39020
GaAs, submicron self-aligned fab. technol. *(Chinese)* 1204
GaAs substr., via holes, dry etching *(Chinese)* 1234
GaAs wafer breakage, impact on proc. facilities 38459
GaAs/AlGaAs MESFET and pseudomorphic HEMT, selective RIE 38917
GaAs/AlGaAs patterning, epitaxial InGaAs layer, Cl_2 etching mask 13181
GaAs-AlGaAs FET, citric buffer etch-stop process 38865
GaInP/GaAs tandem solar cells, high-efficiency 19998
$Ga_{0.51}In_{0.49}P$-GaAs, RIE selectivity, HBT appls. 38832
GaSb thermophotovoltaic cells, tech./economic anal. 28002
InAlAs/InGaAs HFETs, HBr plasma RIE-induced damage 13797
InGaAs recessed-gate MESFETs, AlAs etch-stop layer 38934
InGaAs/AlGaAs/GaAs MODFETs, high breakdown, fab. 22477
InGaAs/GaAs quantum wire fab., LV electron beam lithog. 13179
InGaAs/InP buried wires, selective thermal intermixing 13180
InGaAsP/InP lasers, wafer scale proc. 23226
InP MIS Schottky diodes, S passiv. and RTA 13599
InP, and related materials, conf., Paris, France (April 1993) 11521
InP, gas phase polysulphide passivation, MISFET appls. 13342
InP surface degrad. during contact form., FTIR study 30006
InP technology, role in optical fibre communications 17189
InP/InGaAs HBTs, lateral scaling investig. on DC and RF performs. 22388
InP/Si, bonding using InSb, Au-based eutectic alloys 13269
InP/InGaAs reson. cavity enhanced photodiode on Si, epitaxial liftoff 3839
InP-based heterostruct. device/cct. proc. facility design 29996
Mo-Si multilayer x-ray mirror, top layer oxid. 6690
Ni thin-film bolometer 25843

semiconductor technology continued
Si CMOS addressing matrices, light-valve projection displays 25928
Si, H passiv. caused by soft sputter etch cleaning in Ar plasma 38585
Si, MOS gate fab., ECR ion stream etching 13377
Si RTP, optimum gas flow engng. 22230
Si accelerometers for inertial navig. 10318
Si anisotropic etching, hillock defects 30106
a-Si based PV solar cells 5212
Si bipolar device struct., digital appls. 30235
Si condenser microphone, bond and etch-back technol. 10580
Si field emitter arrays with LV operation, fab. 21802
Si field emitters, electron beam lithog./plasma etching 29755
Si, free standing single-cryst. microstruct. 30529
Si micro-mech., solid state sens. 34460
Si micromachined 2D galvano opt. scanner 17719
Si micromachined actuator, fiber-optic roller bearings 30491
Si micromachining/microfabrication techs. for integrated sens. and actuator systs. 13911
Si microphone fab. for 3D acoustic holography 10575
Si, patterned surfaces, Schottky barriers, photoablation 22185
Si, rapid isothermal diffusion, photoeffects, semicond. devices 1084
Si single-electron transistor, room temp. operation, fab. 13827
Si substrs., sens. 25825
Si surface deform., time-resolved X-ray diffr. meas. 38476
Si surface, effects of controlled texturization on SiO_2/Si barrier height 6649
Si surface oxide removal by RTP, SiH_2Cl_2 and H_2 22223
Si surface trace impurity anal., X-ray fluoresc. spectrosc. 42977
Si technol., future trends 13272
Si technols., radiation hardening, space appls. 29993
Si wafer cleaning, surface charge effects, surfactant solns. 30068
Si wafer substr. clean-up, chem. contamination, Auger anal. and ellipsometric studies 30119
Si wafer surface minority carrier lifetime meas. tech. 30388
Si wafer temp. monitoring by IR laser interferometry *(Korean)* 13363
Si wafers, photocurrent imaging, electrolyte contacts 31069
Si wafers, thermal proc., quartzglass materials influence 22208
Si_{O2} etching, rot. control of anisotropic micro-objs. 30107
Si:B, CZ grown, O/C effects on thermal donor form. 29827
a-Si:H inverted-staggered tri-layer TFTs, fab. proc. 38860
Si:N, isotropic etch-stop props. 13334
Si:O, intrinsic gettering, low temp. annealing *(Chinese)* 1193
Si:O near-surface/subsurface defects, opt. prod. profiling 29992
Si-SiO_2 MOS struct. quality, N_2O ambient, furnace nitridation time 13237
Si-SiO_2 stacked-gate structs., plasma-assisted/RTP 22058
Si-SiO_2-SiN_x bistable snapping microactuator, buckling cantilever 30501
Si-based dielec., UV annealing, large area deposition, Kr flashlamp appl. 30012
Si-wafer hot curing by laser gettering *(Chinese)* 6604
SiC LPCVD films, X-ray mask membranes 6695
SiC LPCVD films for x-ray masks from diethylsilane/di-t-butylsilane 6697
SiC MESFETs on high resist. substrs., 10 GHz, fab., charactn. 842
SiC-SiN_x multilayer x-ray lithog. membranes by ECR CVD 6698
SiO_2 1.5 μm thick films, rapid nitridation in NH_3 ambient, SIMS study 13328
SiO_2 films, double-plasma deposition, SiF_4 predecomposition effects 37486
SiO_2 thin film thickness meas., Brewster angle reflectometer 34686
SiO_2 thin films, N_2O RTP/oven nitridation, elec. characterisation 13327
SiO_2 thin films, RTN in NH_3, N_2O for EEPROM appls. 13329
SiO_2 ultrathin films, MOS struct., ultra-dry proc. 13248
SiO_2:N thin films, grown/processed in N_2O, N depth profiles 38524
SiO_xN_y, sidewall proc. and pattern transfer 13490
SiO_xN_y-Si ultrathin gate dielec., RTO/N in N_2O-O_2 mixtures 22218
Si(SiO_2) sputtering and RIE, particle form. mechanism 22199
SnO_2 films growth on micromachined hotplates 28791
$SrTiO_3$ film DRAM stacked capacitor technol., MOCVD fab. 21592
Ta-Si-N diffusion barriers, RIE in CHF_3+O_2 30115
Ta_2O_5 thin film capacitors for 1 Gbit DRAM 21593
UO_3 lines, 3 μm width, photoresist-free opt. litho. 6674
W sputter deposition for x-ray mask absorber, in-situ stress control 6702
ZnO-Bi_2O_3-based varistors, multiple trapping, appls. 12829
ZnO-metal oxide ceramics, sintering temp. effect on varistor props. 6346
ZnSSe/ZnSe/CdZnSe LED films, substr. transfer proc. 31105
diamond membrane-based X-ray lithog. masks 6687
flexible etched cct.-based IC interconnection, high speed/dens. 13431

semiconductor thin films
see also amorphous semiconductors; semiconductor epitaxial layers
AFM tip rad. needed for accurate imaging of thin film surfaces 13271
anisotropy in planar slow-wave struct. 13006
ballistic currents 13022
cable insulation, void discharge deterioration, semicond. layer effect *(Japanese)* 43771
conf., thin film physics/appl., Shanghai, China (1994) 28235
copper phthalocyanine single mols. and islands, STM obs. 28809
Cs_2Te film photocathode electron source for Los Alamos advanced FEL 39943
diamond:B,N, elec./opt. charactn. 21891
diamond:B film/metal high temp. contacts, reliab. issues 22045
diamond:B films, homoepitaxial and polycryst., elec. props. 21890
diamond:B films, hot filament CVD, plasma etching, elec. props. 5862
diamond:B films, ion implant., surface interacts./electronic struct. 30030
diamond:B thin-film electrodes, metal adlayers, electrodeposition 30145
diamond:H films, CVD, surface topography, AFM study 28821
diamond:P films, hot filament CVD, P addit. effects 28819
diamond, CVD films, seeding patterning, field emission props. 12988
diamond, CVD from capacitively coupled RF plasma source 20982
diamond, CVD grown, photoconductive spectrosc. 38244
diamond, electroless plating, laser-assisted selective metallisation 30157
diamond, highly oriented films on Si, growth, charact. and devices 5820
diamond, polycryst. double layers, high temp. sens. 34441
diamond, polycryst. films, direct laser writing 38545
diamond, synthesis and proc., appls. 6519
diamond, synthesis by hot-filament CVD, O-addit. effects 28844
diamond CVD film temp. sens., fab. technol. 9842
diamond CVD films, elec. props., detector appl. 38233
diamond deposition domain from various C-H-O(-Ar)-containing gaseous mixtures, press. influence 37477
diamond doped film thermal cond. meas. method 10050
diamond film, oriented, plasma CVD, carburized Si substr. 12152
diamond film, plasma CVD, surface wave discharges 28820

semiconductor thin films continued
diamond film deposition in hydrogen-oxyacetylene combustion frame 28822
diamond film semiconductors, conf., Los Angeles, CA, USA (Jan. 1994) 4
diamond films, biased hot filament CVD, nucleation, selected area deposition 20958
diamond films, compositional and spectrosc. study 5868
diamond films, DC plasma arc tech. 20931
diamond films, dual-freq. plasma growth, a-C:H layer effect 5869
diamond films, enhanced oxid. etching, annealing, Mo effect 22192
diamond films, heteroepitaxy on Si via SiC buffer layers 20849
diamond films, hot filament CVD on sapphire 20929
diamond films, plasma CVD, localized epitaxy, Si substrs. 5841
diamond films, plasma-assisted CVD, porous Si substr. 12137
diamond films, pulse modulated ECR plasma CVD 37470
diamond films adhesion on Mo/W/carburized W substrs. 37478
diamond films on stainless steel substrs., hot cathode DC discharge plasma CVD 5877
diamond films rough surfaces modelling, self-limiting laser ablation, polishing 37476
diamond flame-deposited films, growth-etch cycling 420
diamond high mobility CVD films, electron-hole mobility 6517
diamond MPCVD films on porous silicon, scanning microscopy obs. 6518
diamond nucleation and growth, SR studies 404
diamond nucleation on a-SiO_2, AC bias microwave plasma CVD 12157
diamond plasma CVD on heteroepitaxial BN on Si(100) 28818
diamond polycryst. films, hot filament chem. vap. deposition 429
diamond smooth films, hot filament chem. vap. deposition 12174
diamond thin films, indentation response 20932
diamond thin films, microwave PECVD 1019
diamond ultra-fine particles, laser-induced forward transfer deposition 28861
diamonds film form. from graphite dust 12138
dibenzotetrazaannulenes films, elec. cond. in strong elec. fields 1061
elastic props. of LPCVD SiN_x/LPCVD polysilicon 39033
elec. cond., quantizing mag. field, surface scatt. 21868
electrode and bulk impedance meas., high DC bias 34661
fibre-optic reflectometer with thin film a-Si interfaces, temp. meas. 34555
graded semicond. layers, electrodynamic props. 21869
II-VI semicond. TFEL devices, energy transfer 7469
II-VI thin film PV 22993
ion-assisted deposition, modeling, BCA computer simul. 20924
IR-sensitive film-struct., opt. diagnostics 14569
ITO layer, sputtered films, specific resist., XRD 28801
material anal., multidimensional software tool 6516
microcrystalline diamond deposition, inert-gas curtain combustion-flame method 388
opt. sens. develop. technol. overview *(Japanese)* 17802
organic LEDs, Si compatible monolithic integrat. 14664
organic PV cells, excitonic light collection, high carrier mobilities 27937
organic semiconds., cryst., OEICs, photonic devices 39616
photoassisted growth of II-VI semicond. films 28762
phthalocyanine films, MBE growth/photoelectrochemical procs. 20811
PMMA-Ge-AZ trilayer electron resist, deep submicron patterning *(Korean)* 38747
polycryst. diamond press. sens., fab., props. 34456
polysilicon:As microwave bipolar power transistors *(Chinese)* 21545
polysilicon:Ge films, ion implant. amorphized, recrystn. 13280
polysilicon films, CMOS TFTs, low temp. proc. 38879
polysilicon films, elec. params., low temp. modelling *(Chinese)* 13025
polysilicon TFT, plasma hydrogenation effects *(Korean)* 30348
polysilicon TFT, trap-state dens. model *(Korean)* 30347
PPV, ion implant. doped, MISFET 38885
α-sexithiophene MIS diodes, charged excitations, opt. studies 13256
Si film growth, temp. control, pyrometric interferometry 42974
silicate/phosphate high-ohmic glass films with electronic cond., ion-beam sputter prep. 20927
SOI, polysilicon films, zone melting, laser radiation interf. 37469
solar cells, satellite power systs. 26639
space power thermionic electrodes, CVD diamond film appls. 18745
thermal diffusivity meas. of thin films and foils 25994
three-layer media, generalized Rayleigh solns. 23591
$Al_xGa_{1-x}As$ layers on GaAs(001), MBE, in situ reflectance anisotropy 37442
$(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P$:Zn, metalorganic CVD, impurity passiv. 20938
$Al_xGa_{1-x}N$, self-nucleated layers, MOCVD 414
$Al_xIn_{1-x}As$, MBE/CVD growth, elec. props. 12060
AlN, CVD growth/surface chem. 12155
AlN, ion plated films, opt. applicability 28850
AlN laser ablated plumes, comp. and gas dyn. 28826
AlN, thin films, MBE growth 5851
AlN/diamond thin film syst., chem. vap. deposition methods 5865
Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
a-B:H CVD film characterisation and x-ray imaging appls. 5900
BN, cubic thin films, growth, charactn. 5875
BN, thin films, MBE growth 5851
BN turbostratic and cubic films, ECR plasma-assisted CVD 12181
a-C diamond-like films, laser ablation deposition 431
a-C:H films, plasma CVD, ion impact energy distribs. 402
a-C:H films, sputtering/struct./opt./elec. props. 20917
a-C:H,N films, ion implanted, in-depth modifs. 6537
C:P(B) polycryst. diamond films, electron emission, vac. microelectronics 12993
3C-SiC epilayers fab., elec. props. *(Japanese)* 372
$Cd_{1-x}Mn_xTe$, magnetis. and photomagnetic effects 1071
CdS electrophotographic discharge, surface-depletion discharge model 22997
CdS film CPW, high-refl. 30 GHz grating struct. 29529
CdS, film, chem. bath deposition, props. 28799
CdS, film, chem. deposition, struct., props., solar cell appl. 28798
CdS film, luminesc., all-opt. absorptive and dispersive bistabilities 1792
CdS films, CO dual cond. response 1287
CdS films, electro-opt. charactn. 1039
p-CdS films, pulsed laser deposition, p-n jn. PV effect 37483
CdS films, vap. deposition, flow effects 28833
CdS low-resist. thin films, chem. vapour transport method 12180
CdS passiv. layers on $Hg_xCd_{1-x}Te$, charactn. 13361
CdS sprayed thin films, opt. and elec. props. 21902
CdS thin films, chem. bath deposition, impurity phase 12135
CdS thin films, opt. bistability, luminesc., DP device archit. 40032
CdS thin-film sens., chemisorbed O_2 detect. 34611
$(CdS)_x$-$(PbS)_{1-x}$ thin-film composites, prep., props. 20913

semiconductor thin films continued
CdS(Te), environ. benign vac. deposition, air-to-vac.-to-air technol. 28824
CdSbTe RF sputtered films, struct./opt./elec. props. 38260
CdSe films, pulsed plating, photoelectrochem. behaviour 37468
CdSe nanocryst/ZnSe matrix II-VI quantum dot composites, electrospray OMCVD prep. 20946
CdSe thin film sens., chemisorbed O_2 detect. 34611
CdSe thin films, elec. props., CO_2 gas sens. appls. 3898
CdTe MBE, two-zone effusion source 20812
CdTe electrodeposited films, SCLC 29862
CdTe electrodeposited films, grain boundaries, opt. meas. 28805
CdTe, monocrystalline films, ICB epitaxy *(Chinese)* 5813
CdTe polycryst. thin film solar cells, micro/nanostructs. 27940
CdTe polycryst. thin-film solar cells 27938
CdTe thin films, trapping params., SCL cond. 29847
Co-phthalocyanine thin films, elec. cond., O doping, IV charact. 21939
$CuGa_xIn_{1-x}Se_2$ electrodeposited thin films, prep. and charact. 389
$CuGaSe_2$ thin films, elec. cond. and near-IR absorpt. 13090
$Cu(In,Ga)Se_2$ thin-film growth, mixed-phase precursor 20935
$CuIn_{0.75}Ga_{0.25}Se_2$ films, pulsed laser deposition 432
$CuIn_xGa_{1-x}Se_2$ high-efficiency thin-film solar cells by selenization 27946
$CuIn_xGa_{1-x}Se_2$ thin-film polycryst. solar cells, 1.3-1.5 eV band gap 19994
$CuInS_2$ polycryst. thin film solar cells 27954
$CuInSe_2$ films, ambipolar diffusion, carrier drift 1069
$CuInSe_2$ films, laser ablation, stress-induced Raman freq. shift 37482
$CuInSe_2$ films, pulsed laser deposition 432
$CuInSe_2$ films, surface morphology, grain boundary, parameters, etching 22215
$CuInSe_2$ polycryst. thin film solar cells 27954
$CuInSe_2$ polycryst. thin film solar cells, micro/nanostructs. 27940
$CuInSe_2$ polycryst. thin films, seq. proc. prep. 20978
$CuInSe_2$ polycryst. thin-film solar cells 27938
$CuInSe_2$:Sb thin films, growth and props. 38275
$CuInTe_2$ polycryst. thin films growth 20979
$Cu_2S(Se)$ transparent and electroconductive chalcogenide films, deposition and props. 37467
β-$FeSi_2$ thin films, photocurrent spectra 22998
GaAS sputtered films, amorphous and microcryst., elec. props. 22994
GaAlAs layers, OMCVD, characts. prediction, neural nets 13051
GaAs films, anom. PV effect/neg. photocond. 39554
a-GaAs high-temp. RF sputtering 37525
GaAs, low press. MOCVD on Si, defect reduction 20768
GaAs microcryst./AlGaAs interlayers low-press. MOCVD growth 20945
GaAs, selective area MOVPE, vert./lateral growth enhancement on (111)B substr. 20765
GaAs thin solar cell, light trapped, spacecraft appls. 26600
a-GaAs:As, SI, elec. charact. by I-V meas. 13050
GaAs:Be, polycryst., heavily doped, diffusion props. 1043
GaAs:C films, MBE, C^+ beams, photolum. 28789
GaAs:C, polycryst., heavily doped, diffusion props. 1043
GaAs:C, solid source MBE, uniform/delta doping, at. C pairing 38488
GaAs/GaN/GaAs thin-layer struct., plasma-assisted MOCVD growth 37506
GaAs/Si heteroepitaxially thin film growth *(Japanese)* 6525
GaAs-Si films, anom. PV effect/neg. photocond. 39554
GaInAs, selective area epitaxy, group III precursors 20759
GaN film, opt. pumped, UV lasing 14907
GaN films, CBE 20899
α-GaN films, OMVPE, microstruct. charactn. 28734
GaN films, metal-organic CVD growth, struct./elec./opt. props. 20897
GaN, thin films, MBE growth 5851
GaN:Mg, metalorganic CVD growth, doping memory effects 20940
GaN:Si, Si doping, disilane 38478
GaP, MOCVD on Si, etch pit obs. 13354
a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
GaSb, spiral growth on GaAs(001) by MBE 28750
GaSb, thick buffer layers on GaAs, opt., elec. charactn. 12108
Ge films, sputter deposition on Si(111), substr. amorph. 37510
Ge thin films, opt. props., thickness depend. *(Japanese)* 39303
a-Ge:H, electron transport through Si:H barriers 21961
a-Ge:H,In(Ga) films, cosputtering deposition, sputtering yield ratios 5876
a-Ge/Bi annealed bilayer, crystalliz. effect on conduct. 21926
$Ge_{20}As_{30}Se_{50-x}Te_x$ film, elec. cond. 13079
a-$(GeS_2)_{100-x}Ga_x$ films, irreversible photoinduced changes 22189
$Ge_{20}Te_{80-x}Bi_x$ amorph. thin films, opt. and electronic props. 13081
HgCdTe, film, hot wall MOCVD, Hg distrib. coeff. *(Chinese)* 6527
ITO thin film, elec. and opt. props. rel. to annealing 21925
InAs MOCVD growth from monoethyl arsine 20962
InAs cluster nucleation/epitaxial growth via electron beam lithog. 30173
InGaAs OMVPE growth/charactn.,thermophotovoltaic cells 27977
InN, film, RF sputtered, Hall mobility 6528
InN thin films, hydride vap. phase epitaxy growth 379
In_2O_3 film, electron beam deposited, charactn. 28857
In_2O_3 films, ALE growth 324
In_2O_3 very thin films, struct., conductance evol. 417
In_2O_{3-x} films, spin and quantum interf. effects in hopping cond. 38263
In_2O_3:Sn films, phys. props., doping-induced changes 30034
In_xO_y:Er RF sputtered films, photolum. and elec. props. 13096
In_2O_3(ZnO)-PZT(PLZT), TFT on ferroelec., operation phys. 39115
InP, MOVPE, surface topography, step orient. 37385
InP films, prep. by PH_3 treatment of electrodeposited In layers 37463
InP, low press. MOCVD on Si, defect reduction 20768
InP, low-temp.-grown, femtosecond carrier dyn., photolum. obs. 38248
InP quantum islands/InGaP/GaAs(001) substr., coherently strained self-assembly 20947
InP/Si heteroepitaxial layer, substr. effect on transport props. 21970
InP/Si/InP, interlayer effects in device appl. 13106
n-InSb films, neg. photocond. 13057
n-InSb films, semicond.-coupled supercond. weak-links, Andreev-refl. 14281
InSb, low press. CVD, using neopentylstibine, trimethylindium 37485
InSb thin films, vacuum evap., elec. props. 21913
$In_{46}Sb_{54}$ thin films, growth, microstruct., multiple recording appls. 28811
$InSe_x$ films, amorph., AC cond. 21927
InSe:Cd films, flash evap., XPES/XRD meas. 12154
InSnO thin film, CO_2 gas sens., alarm syst. 3912
$In_{2-x}Sn_xO_{3-\delta}$ thin films, RIE 22166
$(InSn)_2O_3$ films, activated electron beam evap., water partial press. depend. 37487
$(InSn)_2O_{3-x}$ oriented films on ZnO films, magnetron sputter deposition 37508

semiconductor thin films continued
LaMnO films prep., RF magnetron sputtering, O_2 sens. charact. 37462
Mo-diamond:C CVD film, solid state react. 37491
Pb_5CrO_8 films, optoelectronic props., contact-type line-image sens. appl. 42789
PbMgSrTe, films, hot-wall epitaxy, charactn. 12080
α-PbO film, electrochem. anodic oxid. 1273
PbS photosensitive layers, charge carrier transfer and recomb. 39548
PbSe film, intrinsic at. defect charge state 13088
PbSe:Bi films, amphoteric doping behavior 22146
$Pb_{0.5}Sn_{0.5}Te$ films, cond. activation energy, resist. thickness effects 38274
PbSrTeSe, films, hot-wall epitaxy, charactn. 12080
PbTe:Cl, excess Te films, photosensitivity 1070
PbTe:Ga films, evap., nanosecond pulsed laser 28825
Sb_2S_3, films, microcrystalline, soln. growth from thioacetamide bath 20912
a-Se, PECVD, struct., opt. props. 28828
$Se_{70}Te_{30-x}Cd_x$ film, photocond. 13077
Si, PECVD, surface reacts., FT-IR-ATR monitoring 37502
Si, SIPOS films, cond. mechanism 21885
Si cryst. thin film solar cells, develop. prospects 27950
Si, film, on SiO_2, CVD growth, defects, TEM obs. 21878
Si films, anom. PV effect/neg. photocond. 39554
a-Si films, crystn., SiO_2 surface treatment effects 13393
Si films, ion beam epitaxy, UHV, sputtering-type metal ion source 37405
Si films, microcryst./amorph., RF plasma spray/ion beam deposition 5856
Si, glow-discharge polycryst. films, grain boundary defects 20936
Si growth kinetics on Ge(100), gas-source MBE/low press. CVD 28730
Si, mesoporous, photocarrier grating tech. 22999
Si nanoparticles, photolum., surface passiv. role 38627
Si parallel multijunction solar cell 19977
Si polycryst. films, (100) oriented, UHV-CVD growth 406
Si, polycryst. films, ECR CVD, hydrogen dilution 37503
Si, polycryst. films, furnace/laser annealing 28855
Si polycryst. films, hot wire CVD 5883
Si, polycryst., growth from $SiF_4/SiH_4/H_2$ plasma 20937
Si, polycryst. thin-film solar cells, solid phase crystn. 5214
Si, porous etched layer, transport, humidity infl. 21898
Si porous film, two-step chem. immersion form. 6644
Si porous films, chem. etching, porosity/thickness meas. 38603
Si porous films, laser ablation fab. 20964
Si porous layers, I-V charact. 21896
Si porous layers, passiv., FT IR monitoring 22251
Si, porous, stain etch thin films, surface struct., sonication effects 6638
Si, porous struct. from lithographically patterned substrs., photolumin. obs. 20983
Si porous struct., photocurrent collection, photodetector appl. 22051
Si post backgrind wafer shape, thin film stresses 38605
Si rapid thermal CVD on $Si_{0.68}Ge_{0.32}$ substrs., AFM 12139
Si, selective epitaxy on SiO_2, UHV rapid thermal CVD 325
Si, self-supporting porous layer, photocond. 23000
a-Si solar cells, high efficiency 27958
Si thin film solar cells, zone melting recryst. 44404
a-Si thin films, glass substrs., excimer crystallisation simul. 13075
Si thin films mech. props. meas., holographic interferometry 18106
Si, thin layers, growth on Nb surface 37500
Si thin polycryst. films, BF_2^+ implant., shallow p^+n jn. form., Co silicidation 30032
Si:As films, low press. CVD 5861
Si:B depth profile, proton scatt. anal., alpha spectra simul. 21877
Si:B porous film, photolum., Auger spectr., annealing, solvent effects 38238
Si:B reson. sens., fine freq. tuning 30517
Si:B solar cell, low temp. PECVD/laser annealing fab. 19996
Si:B(Al)(Ga)(As)(Sb) polycryst. films, sublimation method growth and doping 20972
Si:F/SiO_2 TFT, F^+ implant. effects 38883
Si:Ge epitaxial film, embedded nanocrystals, synthesis 12126
a-Si:H, PECVD, defect annealing kinetics 13275
μc-Si:H, PECVD, surface morph., crystallite size 28806
a-Si:H and poly-Si thin films, P ion shower doping study *(Korean)* 13284
a-Si:H, film, light induced defects, spatial distrib. 29839
a-Si:H, film, light soaking effect on DC cond. 38235
Si:H, film, nanocryst., sputtered growth mechanism 12140
a-Si:H films, ECR plasma deposition 20975
a-Si:H films, VUV laser CVD, gas phase chem./modelling 28840
Si:H films, amorph./microcrystalline, selective deposition/etching 12179
a-Si:H films, annealing, Ne(C) bombard., Si-Si double bonds 1201
a-Si:H films, conc. dense radiation effects, solar cells 36597
a-Si:H films, microwave plasma CVD, control of radical species *(Japanese)* 37526
a-Si:H films, nonlin. opt. suscept., laser-induced transient grating tech. 31546
a- Si:H films, optical consts. and thickness determ., opt. transmittance 25986
a-Si:H films, plasma chem. vap. deposition, piezoelec. vibr. effects 37481
a-Si:H films, pulsed plasma CVD, deposition rate 12158
a-Si:H films, recrystn. by XeCl excimer laser irrad. 28797
a-Si:H, homog. CVD, props., prep. conditions effect 20949
a-Si:H, low-temp. recomb., elec. field depend. 29872
Si:H, microcrystalline, elec. props., degrad. kinetics 21881
Si:H, microcrystalline layer, at. H etching, spectroellipsometry 12136
a-Si:H p/i/n struct., annealing, resist. effect 1198
a-Si:H plasma CVD films, H profile, DC bias/substr. table area effects *(Japanese)* 20966
a-Si:H polycryst. thin-film solar cells 27938
a-Si:H thin film growth, mol. dyn. simul. *(Japanese)* 410
a-Si:H thin films, PECVD obs., ellipsometry 5880
a-Si:H thin films prepared by layer-by-layer deposition 427
a-Si:H, transport props., deposition condition effects 29869
μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
a-Si:H,B(P), PECVD film, opt. props., photo/dark cond. 29830
a-Si:H,P films, elec. act. nanoscale struct., STM prep. 21929
a-Si:Kr, sputtered layers, Kr-incorporation obs. 38268
Si:O films, low temp. CVD grown, struct. 20974
n-Si:P amorph. CVD films, crystn., elec. props. 405
Si:P(As)(B), heavily doped, temp. effects 1021
Si:P(B) thin film, solidif., dopant effect *(Korean)* 22156
Si/Co/GaAs(001) interfacial reacts. 13278
Si-Ge-C materials, CVD prod. 12145
Si-$NiSi_2$ microcrystalline composite thin films, struct./elec. transport 38402
Si-SiO_2 SOI film thicknesses, reflectance meas. 13260

semiconductor thin films continued
Si-based thin film monolithic uncooled IR detector arrays/resist. bolometers 17958
SiC, 6H, CVD layers, electron effective mass/mobility 13086
α-SiC, CVD growth, graphite susceptors 5892
β-SiC ECR-CVD, film struct. 12172
SiC LPCVD films, X-ray mask membranes 6695
a-SiC alloy films, hot-filament assisted chem. vap. deposition tech. 37474
SiC films, high field effects 21788
SiC films, pulsed laser deposition on Si wafers 416
β-SiC layer growth by Si surface carbonisation, RTP 20981
SiC microcomponent growth, C_{60} react., silicon 13092
SiC thermally crystallized films on sapphire, electronic transport 21937
a-SiC thin film LED, present and future *(Chinese)* 23044
SiC wide gap films by rem. plasma CVD from organo-silicon source *(Japanese)* 37490
a-SiC:H, RIE in CF_4/O_2 plasma 22243
a-SiC:H films, plasma CVD, opt. props. 20980
a-SiC:H, transport props., deposition condition effects 29869
a-SiC:H,F films, plasma deposition, props. 5878
a-$Si_{1-x}C_x$:H, plasma CVD, monolithic light-converters 3876
a-$Si_{1-x}C_x$:H films, PECVD grown, struct. props. 13407
n-SiC-6H, Ohmic contacts prep. 1163
$(SiC)_x(AlN)_{1-x}$, MOCVD on 6H-SiC, cryst. struct. 5884
$Si_{1-x}Ge_x$ polycryst. film prep., excimer-laser proc. 28796
$Si_{1-x}Ge_x$ thin film, form. from heavily Ge-implanted Si, morph. 28795
$Si_{1-x}Ge_x$ thin films, plasma-enhanced very-LPCVD 37475
$Si_{1-x}Ge_x$ thin films, pulsed excimer laser ablation deposition 28837
$Si_{1-x}Ge_x$ films, dopant effects on resist., subsequent annealing 13089
Si_xGe_{1-x} strained films, MBE growth, cuspidal pit form. 12089
a-SiGe:H films, PECVD under He dilution 5891
a-SiGe:H/SnO_2 solar cell struct., interfacial reduction 38294
$Si_{1-x}Ge_x$:B(P) polycryst. films, resist. 21932
$Si_{1-x-y}Ge_xC_y$, heteroepitaxial films, CVD on Si(100) 369
a-SiH, film, US assisted PECVD, in situ opt. diagnostics 28832
a-SiO:H films, plasma CVD, solar cell appl. 5213
SnO_2 films, Schottky surface barrier, gas-sens. effects 42862
SnO_2 films growth on micromachined hotplates 28791
SnO_2 thin film gas sens., carrier conc. change anal. 17972
SnO_2 thin films, nanocrystalline, casting 13073
SnO_2:Sb coatings on ceramic cloths, sol-gel proc. 28792
SnO_2:Sb thin film photoemission under elec. field amplif. 29743
α-$SnWO_4$ films, CO dual cond. response 1287
TiO_2 films, thermally form., semicond. props. 29866
TiO_2 thin film photoemission under elec. field amplif. 29743
$TlAsSe_2$ glassy films, photocond./impact ionisation 22343
VO_2 94 GHz flying spot mirror, theory and expt. 23956
WO_3 gas-sens. films, microstructural effects 25896
WO_3 thin films, nanocrystalline, casting 13073
$Zn_{1-x}Cd_xSe$ polycryst. thin films, electron beam evap. growth, elec. props. 1030
$Zn_{1-x}Hg_xSe$, electrochem. deposition, EPMA, XRD 28802
ZnO, ECR sputtered thin films, opt. atten., resist. 28800
ZnO, film, RF magnetron sputtering on InP, material props. 37464
ZnO, film, pulsed laser deposition, charactn. 12146
ZnO films on InP substrs., SAW device fab. 39121
ZnO films on diamond (111), heteroepitaxial growth, magnetron sputtering 368
ZnO films, spray pyrolysis prep., opt. and elec. props. 12143
ZnO films, thermal evap. 28856
ZnO thin film, spray pyrolysis, deposition variables effect 12142
ZnO thin films, nanocrystalline, casting 13073
ZnO thin films, pulsed laser deposition, laser wavelength and fluence effects 28834
ZnO thin-film gas sens., dimethylamine/trimethylamine gas detect., neural network pattern recogn. 17978
ZnO:Al transparent films, sol-gel prep., elec./opt. props. 5855
ZnS:Mn RF-magnetron sputtered films, breakdown 1507
ZnSe MBE, nozzle-beam-type microwave radical source 28787
ZnSe films, MOVPE on GaAs, in situ opt. monitoring 12045
ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412
ZnSe thin films, chem.-bath deposition, material charactn. 28793
ZnTe SR excited growth, metalorganic sources 20889

semiconductors
generalities and properties of unspecified materials only. For specific materials see semiconductor materials
see also amorphous semiconductors; degenerate semiconductors; heavily doped semiconductors; magnetic semiconductors; many-valley semiconductors; narrow band gap semiconductors; wide band gap semiconductors
2D semiconductors, negative differential resist., conf., Lucca, Italy (1992) 11546
asymmetric double charge injection 29824
diffusion-driven semiconds., SBS gain profile 2059
disordered semiconds. and devices, mobility edge concept 29823
electron device science/technol., conf., South Africa (1992) 28214
generation param. determ., lin. voltage sweep method *(Chinese)* 42920
high press. semicond. physics, conf., Vancouver (Aug. 1994) 28247
hot carrier flucts. and noise study 1321
impurity band in high elec. field, interband and impurity breakdown 1013
impurity-band-cond. semiconds., SCL current injection 13024
lattice-mismatched heteroepitaxial growth, facetting, roughening 12114
materials for microelectronics, conf., Barcelona, Spain (1994) 36841
MBE, fast step-vel. oscills. 28729
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
nonlin. optics, many-body effects 15022
nonlin. transport, nonlocal mechanism 21969
nonlinear optics, conf., Port Barcares, France (1992) 11537
Nordic semicond. meeting, Iceland (Jun. 1994) 27
photoconductive semiconds., transient photocurrents generated by step-PM 23421
physics of semiconductors, conf., Beijing, China (1992) 11542
plasma etching profiles for ion energy flux depend. etch rates 38602
polycryst., elec. cond., generalized model 1014
pump depletion, coherent energy transfer, multiwave mixing 23414
Raman spectrosc./STM *(Japanese)* 29822
solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
transistor struct., localized vol. state spectrosc. 13097

semicustom integrated circuits *see application specific integrated circuits*
semimagnetic semiconductors
dil. mag. semicond. QW struct., diffusion, opt. methods 39171
dil. mag. semiconds. for opt. sens./nonreciprocal devices 31018
III-V semimagnetic semiconds., carrier-induced magnetism, magneto-opt. device 30679
Cd$_x$Hg$_{1-x}$Te, long-channel MIS transistor charact. 30302
Cd$_{1-x}$Mg$_x$Te, doping, MBE 38490
Cd$_{1-x}$Mn$_x$S dil. mag. semicond. nanoparticles 13082
Cd$_{1-x}$Mn$_x$Se quantum dots, magneto-opt. studies 39502
Cd$_{0.6}$Mn$_{0.4}$Te, time-nonreversible lin./nonlin. opt. phenom. 23404
Cd$_{1-x}$Mn$_x$Te, magnetis. and photomagnetic effects 1071
Cd$_{1-x}$Mn$_x$Te transm. SHG, 1.064 μm 40039
CdMnTe(001), MBE growth, struct., opt. props. 37392
CdTe/CdMgTe quantum wells, ion implant.-induced interdiffusion 13290
CdTe/CdMnTe MQW, low temp. mobility limiting defects 1087
CdTe/CdMnTe QW, mag. polaron states 38363
HgCd(Mn)Te gapless semiconds., hole thermal emf, temp. depend. 1049
Hg$_{1-x}$Mn$_x$Te, travelling heater growth method 28713
Hg$_{1-x}$Mn$_x$Te/CdTe film, VPE, component interdiffusion 296
(Hg$_x$Mn$_{1-x}$)Te/CdTe(CdZnTe) heterointerfaces, misfit disloc. 21953
Hg$_{1-x}$Mn$_x$Te$_{1-y}$Se$_y$, Hall coeff. sign, field inversion 1063
Pb$_{1-x-y}$Sn$_y$Mn$_x$Te, transport and mag. props. 38271
ZnSe/ZnMnSe MQW structs., MBE, opt. props. 28744
ZnSe/ZnMnSe, QW, exciton recomb. dyn. 38321
ZnTe-Cd$_{1-x}$Mn$_x$Te$_{1-y}$Se$_y$ heterojunction, prep./electroluminesc. 37398
semimetallic thin films
Bi$_2$Te$_3$ thin films on Si(111) substr., cryst. growth, sticking coeff. 28716
Sb/GaSb struct., epitaxial growth 20742
semistandard integrated circuits *see application specific integrated circuits*
sensing devices *see sensors*
sensing devices, electric *see electric sensing devices*
sensing devices, nonelectric *see nonelectric sensing devices*
sensitisation (metallurgy) *see corrosion; heat treatment*
sensitivity
2.5-Gbit/s CPFSK transm. expt., AMI-encoded data 9578
8mm total power radiometer, periodic calib. 3962
10 Gbit/s WDM 1310-nm opt. transm., 63.5-km std. single-mode fiber, opt. preamplifiers 17349
10-Gbit/s 280-km nonrepeatered transm., suppression of modulation instabil. 9509
10-Gbit/s smart opt. terminal digital-video distrib. syst. 17222
12-Gb/s high-sensitivity monolithic p-i-n/HBT photoreceiver module 25512
15-Gbit/s high-speed monolithically integrated pin-HEMT photoreceiver 34082
16-Gbit/s TDM/polariz.-division-multiplexed syst., compensation tech. 9126
20 GHz bandwidth photonic microwave mixer/superhet receiver 34094
30-Mbit/s high-sensitivity burst-mode/packet receiver for PON appl. 17197
128×128 pn-np variable-sensitivity photodetector array artificial retina chip, edge extraction 24577
155 Mbit/s 4 km opt. free space link low noise opt. receiver 42409
900 MHz GSM integrated power amp. control cct. 33936
AGC syst. LQG controller design 35520
apposition cpd. eye opt. sens., design and anal. 34466
ARMA lattice filter, reduced no. of coeffs. 37877
autocollimation laser refractometer, highly sensitive fiber-optic output 42961
bacteriorhodopsin film based motion-sensitive posn. sens. 10012
bacteriorhodopsin thin film real-time reson. holography 40157
Bragg opt. fibre gratings, temp.-compensating mounts 34097
chromophore-incorp. polymers for nonlin. optics, two-photon absorpt. and photodegradation 15138
CMOS gate arrays, EOS induced polysilicon migration 30466
CMOS Permalloy magnetoresistive microbridge mag. field sens. syst. 34494
coherent/incoherent localization methods, sensitivity 17461
color constancy, generalized diagonal transforms 2600
color-image quantization, fast binary splitting tech. 2591
CR-39 detectors, sensitivity enhancement, etching effects 43132
DCT domain image fast progressive reconstr. 33021
disparity-space images and large occlusion stereo 24618
distrib. systs., capacitor placement, fuzzy algm. 10725
distributed opt.-fiber sens. by four-photon mixing pulse walk-off 42833
dual-tone multifrequency (DTMF) detect. improvement 33394
dye color/conc. detect. by realtime opt. sens. *(Japanese)* 18138
dye-doped biomol. thermally-activated thin film opt. switch 39535
dye-doped polymer waveguides, opt. losses/photocond. sensitivity 30961
dye-polymer randomly addressable read/write/erase holographic recording medium 30841
edge emitting LEDs, high power, low internal refl. 23041
ESA BIOPAN flight expt., cosmic ray irrad. EEPROMs 12530
evanescent field fibre-optic Cl sens. 3861
exchange biasing schemes for MR disk heads 7082
external cavity fiber grating laser, coherent opt. freq. domain reflectometry 18122
Fabry-Perot polariz.-maintaining fiber interferometers, fab. and charactn. 9922
fiber four-wave mixing opt. wavelength conversion, SBS effects 30847
fiber subsystems/devices testing by high-resoln. reflectometry techs. 7313
fiber-optic evanescent field absorpt. sens., theoretical eval. 3856
fiber-optic gyroscope polarizer pair extinction coeff. 17871
fiber-optic sens. array without polariz.-induced sig. fading 34522
field-emission-press.-gauge, sensitivity quantitat. estim. 42761
flattened-pear shaped photodiode struct. for low smear and high sensitivity CCD image sens. 22613
flux-gate sens. based on planar technol. 9846
Fourier domain opt. pattern recogn. syst. illum. sensitivity 32942
Fresnel lenses written onto SLM, fractional pixel translations 22981
full-vector waveguide modeling by iter. finite-difference method, transparent boundary conditions 40401
head sensitivity fn. calc. from 3-D mag. fields 14226
heterodyne ASK lightwave systs., IF flucts. 17253
high-sensitivity DNA anal., laser-excited confocal fluoresc. scanning 26292
L-histidine tetrafluoroborate soln.-grown semiorganic cryst. for nonlin. freq. conversion 23439
imaging plate 2D detector for SW lasers *(Japanese)* 9931
indust. thick film press. sens./transducers, develop. *(Slovenian)* 34446
integrated pH-ISFET/press. sens., SDB/SOI materials *(Chinese)* 25810
intelligent multi-access spectrum-sharing methodology 41467
IR detector perform. enhancement, Fresnel zone plate lenses 17789
sensitivity continued
ISKRA-5 facility I laser opt. syst. wavefront anal. 7539
ladder filter with dissipative LC elements, RC act. cct. simul. *(Japanese)* 37842
linecoded opt. heterodyne FSK systs., nonuniform laser FM response 42457
long-haul digital transm. opt. preamplifier receivers 34037
low sensitivity state space digital filters, Pareto optimal design 32788
M-out-of-N event probab. anal. algms. 37181
mag. reson. angiography, FT imaging, voxel sensitivity fn. 35013
metallic coatings, eddy current thickness inspection optim. 28919
microbending fiber optic sens., varying spatial freq. 34535
microbridge superconducting thin films, variable thickness, mag. field sensitivity 1603
micromechanical biosensor for photothermal spectrosc., femtojoule sensitivity 3894
micrometer/nanometer displacement and refractivity meas. by laser beam 4000
misaligned thin film meas. in Mallinson coil set 18041
multielement photodetector, sensitivity variability and noise influence 42796
multimode fiber interferometric syst., up- and down-lead fiber sensitivity 9915
narrow band opt. fibre transm. Bragg grating filters 31065
no-clean solder paste reflow, N$_2$ atmos., O$_2$ conc. influence 38149
occlusion-free monocular computer vision syst. 2719
OFDM transparent cross connect, TV channel switching 17223
opt. DPSK/heterodyne detect. scheme, two polariz. planes *(Japanese)* 17265
opt. spectrum analyzer selection, sensitivity, dyn. range, resoln. and accuracy 42747
optoelectronic packages, spot-welding tech. 5645
pass. fibre optic components/sens. systs., radiation sensitivity 22845
periodic microbend bare fibre sens., stabilization/sensitivity 17919
phase-locked phase-sensitive opt. parametric amp. soliton fibre pulse propag. 40082
phase-shifted DFB laser stabil. against hole burning 1996
photosensitive grating struct. opt. waveguide photoimprinting 30949
photosensitive opt. fibers, devices and appls. in sens. and telecomm. 30854
piezoceramic plate bending motion meas. by homodyne holographic interferometry 40153
Pirani gauge, Halas-Kaminski bridge cct. 34471
PON, clip-on OTDR for fault location 9565
quantitat. image assess. based on redundant, meas. and stat. reasoning 24422
quantum-well semicond. lasers *(German)* 7615
quartz resonator mag. sensitivity, orig. and meas. 30615
radar syst. sensitivity, tropos. thermal lens effect 34122
random act.-region width coupled semicond. laser arrays, lin. sensitivity anal. 31312
rare earth doped opt.-fiber preamplifiers for ladar detect., SNR 9653
real-time shearography, fractional fringe order by phase shifting 32856
Rheoxane photorefr. polymer holographic recording material 7858
SAL-biased MR heads, patterned PM bias 7085
SCALPEL electron resist tool optimisation 13454
Schering bridge sensitivity and convergence for AC machine anti-discharge varnish ageing tests *(French)* 9973
self-written glass slab waveguides 30958
separated drift field magnetotransistor, design, fab. *(Korean)* 25778
slanted contact MR head, 500 Mb/in^2, elec. characts. 7081
slow-scan CCD image sens., real-time plasma spectrosc. 9932
SMT package, moisture-sensitivity ratings 11750
SOI MOSFETs, threshold voltage sensit. reduction 30294
solid-state image sens. for visual spectrum *(Japanese)* 17967
std. freq. generators, environ. sensitivities 42663
superimposed multiple Bragg fibre gratings 1678
surface plasmon biosensor develop., sensitivity and appls. *(Japanese)* 18525
Talbot effect based holographic interferometer 40155
thermal detectors, theoretically limited temp. sensitivity 17793
thick film strain gauges on insulated metal substrs. 3788
thiomolybdate solns., Mo atomic spectroscopic determ. 26006
total refl. X-ray fluoresc. anal., SR appl. 34979
total-refl. X-ray fluoresc. anal., rot. anode source, Ga sensitivity 34980
two metal-coated single-mode opt. fiber interferometric lin. elec. current sens. 9916
two-color Z-scan tech., enhanced sensitivity 40023
US piezoelec. microphone charact. meas. *(Croatian)* 4419
UV light written grating planar silica waveguides 1720
UV-written grating planar silica waveguide external-cavity semicond. laser 9570
UVSC photochromic dosimeter film for x-ray lithog. source eval. 6693
visual sensitivity-weighted progressive image transm. using lapped orthogonal transform 41093
VLSI ESD sensitivity, thermal breakdown and dielec. breakdown 6844
weak RF sig. meas. by spectral analyser *(Croatian)* 3756
X ray ionization radiation effects and mechanisms 6680
X-ray FEL, perform. charact., param. sensitivities 39903
X-ray sensitive chem. amplified resists, design/perform. 6681
XY integrated opt. coupler for phase-sensitive opt.-power combining 39398
Au-Zn-Au ohmic contacts to p-InP, elec./metall. charact. 38388
Bi$_{12}$GeO$_{20}$ opt. voltage sens., opt. rotary power 17756
CdS crysts. for IR imaging/detect., RT IR quenching 17794
Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
Er-doped fiber grating laser transmitter at 5/2.5 Gb/s, long-term BER transm. 34038
Er-doped fibre amps., sensitivity, H$_2$ 14754
Er-doped opt. fibre temp. sens. by green fluoresc. intens. ratio 34552
Er-doped refl. insensitive fiber amp., isolator insertion 31215
GaAs FET SEED receiver array parallel computer opt. data interconnect links 41891
GaAs MMIC delay line/quadrature demodulator in opt. receiver 17199
GaAs MMIC/pin photodiode-based opt. receiver, 2.488 Gbit/s IM-DD systs. 17169
H$_2$-doped germanosilicate opt. fibers, thermal and photo-initiated reacts. 7308
H$_2$S determination, continuous flow instrum., 26003
HgCdTe IRFPA perform. anal., syst. adaptability 17951
InGaAs MSM photodetector charactn. by electrooptic LD sampling 23009
InGaAsP channel HFET OEIC photoreceiver 17258
InGaAsP-InP 1.55-μm quantum-well lasers, temp. sensitivity of differential gain 31320
InP monolithically integrated tunable polariz. diversity heterodyne receiver OEIC 25484
InSb FPA-based high sensitivity, high resoln. thermal video syst. 17938

sensitivity continued
LiNbO$_3$ elec. field sens., sensitivity improvement 14522
Nd^{3+}-doped opt. fibre temp. sens., absorpt. shift, 595 nm 34553
O in flames, detect. by intracavity laser spectrosc. 4010
PbTiO$_3$ group pyroelec. IR sens. develop. and perform. *(Japanese)* 17968
Pt-Si Schottky diode CO gas sens. 34606
PtSi IR detector, 7 μm cutoff for imaging appls. 34567
PtSi middle wavelength 240×320 IR staring FPA 17954
PtSi-Si-SiGe-Si Schottky diode IR detectors, tunable cutoff 17790
RuO$_2$-based thermometer design for millikelvin temp. range 25821
Si VLSI ESD sensitivity, thermal/dielec. breakdown 30462
Si-on-sapphire photoconductive probes, fab. and charactn. 7464
TiSi$_2$-Si surface/interface roughness, RTA heating rate effects 22096
YIG:Ga, Faraday effect current sens., sensitivity-bandwidth product 9853

sensitivity analysis
see also control system analysis; dynamic response; frequency response; tolerance analysis; transient response
1/2 regenerative freq. divider, input sensit., low-pass filter influ. 783
adaptive small-sample condition estimator for matrices, rank-one modifs. 32474
AT&T, technol. CAD, IC fab. proc. design 38989
automated opt. mensuration using video camera, calib. method 2613
bandlimited DS/SS and narrowband M-ary PSK timing jitter sensitivities 40550
behavioral simul. for analog syst. design verification 28943
building energy systs., fractional factorial design 11313
coherent opt. POLSK receivers, LO intens. noise and unmatched quantum efficiencies 25491
computational opt. sectioning microscopy, EM algm. 16220
computer network routing, perform. anal. 8779
contiguous band multiplexer design for satellite appls. 25457
contingency constrained generation scheduling, ANN 19380
current-mode biquad based on act. RC biquad 37841
DC small sig. symbolic anal. of large analog ICs 12281
DC-DC convertor control param. optimisation 21101
deep submicron MOSFETs, param. changes caused by mfg. flucts. 1391
digital filter design, pole/zero sensitivity minimization, sparse struct. consideration 29391
digital filters, multiple poles, perturb. effects 29393
distrib. network disturbances prediction, Kalman filter-based 10724
distrib. network outage costs/reliab. indices eval. 35625
distrib. networks, AVC relays, sensitivity anal., PF changes 4652
dual wavelength opt. fiber HDTV distrib. networks 17571
economy energy wheeling, benefits, Canada 4622
electronic systs., package cracking, probabilistic sensitivity anal. of dyn. response 5664
envelope-constrained filters with uncertain input, sensitivity 32795
equiv. cct. modeling, one port/two port SAW/BAW resonator 30639
fault detect., lin. dyn. systs., functional vector method *(Japanese)* 176
household lighting, energy resource alternatives 20120
IGBT static model *(Polish)* 1397
IIR real coeff. digital filters realizations sensitivity 32794
lateral-stereo camera model for machine vision 16233
LIM vector control algm., perform. modelling 44053
lin. antenna stat. synthesis, sensitivity and stabil. *(Russian)* 15624
lin. optimal stochastic observers, sensitivity anal. 32578
magnetotransistors, mag. field sensit. modelling, HSPICE 38825
Markov regenerative SPN, sensitivity anal. 37261
microwave band lin. ccts., sig. and noise charact. 12798
microwave radiometer Earth obs. phased array antenna design 26711
MOLP model, telecom. network modernization, sensitivity anal. 41572
MOSFET ccts., relax.-based transient sensitivity computations 22604
MOSFETs, deep submicron/1.5 μm, comparative param. sensitivity anal. 30300
multicriteria decision making, unintentional judgemental bias estim. 11658
multilayer absorber on perfectly conducting plate, worst-case design 23547
multiobjective optimal thermal power dispatch 26927
multiport act. RC-networks, computer aided synthesis/sensitivity anal. tool 721
multispectral image data, panchromatic band sharpening 8498
nonutility generation in customer delivery syst. planning 4611
NPP, aircraft crash, react.-time response 43844
parallel reson. transistor microwave oscillator cct., computer-aided sensitivity anal. 6308
PCB manufacture, defects, fault coverage, yield and cost 6413
periodically time-varying state-space digital filters study 8255
plane hologram type holographic rainbow stereograms, one-step 31654
PM film stabilised MR strips, sensit. distrib. anal. 7084
power syst. eigenvalue calc., AESOPS algm. improvement 4489
power syst. fast transient control, energy-based sensitivity method 10672
power syst. load flow solvability, computation method 35435
power syst. marginal outage costs eval. 10671
power syst. optimal load tracking, nonlin. parametric approach 27024
power syst. probabilistic constrained load flow, sensitivity anal.-based 4613
power syst. restoration, planning, local control centre, ES *(Korean)* 35541
power syst. single on-load tap changer, reverse control anal. 27028
power syst. stabil., subsystems interact. 19092
power syst. voltage stabil., shunt VAr compensator effects *(Japanese)* 10709
power syst. voltage stabil. control 35524
power system voltage collapse point estim. algm. 19034
PSS controller tuning, systematic design method 27056
PWR, on-line fatigue monitoring, probabilistic assess. of margins 27408
SAW device complex freq. charact. 6929
SENSATION framework for optimal IC design and stat. anal. *(Korean)* 13834
SI filter syst., first/second generation SI cells, comparison of sensitivity 37856
sinusoidal oscillators, single element control, current-feedback amp. 21137
solar cells, internal quantum efficiency anal., graphical eval. 44419
soot props. meas. by two-colour pyrometry 10054
sq. coaxial waveguide struct., nonorthogonal FDTD method, sensitivity anal. 23768
state digital filters, design 24187
submicron MOST model param. extraction in lin. region 1423
SVC H$^\infty$ controller, anal. and design 10652
thyristor-controlled series capacitors tuning by eigenvalue sensit. anal. 4630
transm. network contingency load transfer capability modelling 10665
transm. network expansion planning, neural net/genetic algm.-based *(Japanese)* 10716

sensitivity analysis continued
universal filter, current feedback amp. based, Mason graph deduced 21405
universal filter, two current-feedback amps. 37852
urban household water pumping, energy alternatives eval. 44433
USA DirecTv DBS shaped reflector design 23920
VLSI interconnects, high-speed, time domain sensitivity 13862
CO$_2$ power generation emissions reduction anal., Japan *(Japanese)* 10797
FeNi-SiO$_2$-Si thin-film magnetoresistive sens., param. optim. 17724
InSb 2D IRFPAs, uniformity and stabil. 17936
NO$_x$ prod., chem. kinetics, stirred reactor 35972
Na narrowband wind-temp. lidar syst. sensitivity anal. 43503
Ta capacitor reliab., low impedance/high surge current ccts. 5705

sensor array processing *see array signal processing*

sensor fusion
1D seq. sens. fusion 32800
3D data extraction from SAR and opt. imaging combination 10449
acousto-optic correlator for radar report-track assoc. 7423
advanced terrain data proc. 10394
airborne multisensor surveillance, data fusion IKBS 35395
aircraft landing tracking, multisensor integrat. 41115
area surveillance, ambient sigs. fusion 42508
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
asymptotic relative efficiency of distributed detect. schemes 8289
asymptotic relative efficiency of distributed detect. schemes 32534
ATR, act./pass. cooperative image segmentation 25588
ATR, ATLAS syst. 9648
audio-visual-audio inform., hierarchical sens. fusion *(Japanese)* 16054
auto calib. scheme for sens. fusion 32803
ballistic path estim., multisensor fusion 43563
bathymetry & sediments, multibeam sonar, mosaic computation 18807
bearings-only tracking in distributed sens. network, reduced sufficient stats. 15877
binocular motion stereo, MAP estim. 2784
building detect. by range and image data fusion 41256
buried objs. detect., dual-band IR images fusion 8555
C3, air-land syst., multitarget tracking/data fusion 35387
Canadian patrol frigate, implement. of AAW sens. fusion 18980
Canadian patrol frigate multi-sens. data fusion implement., perform. eval. 18981
cars, ProLab2 dyn. data fusion reliable syst. 36774
complex objs., multi-sens. fusion, model-based recogn. 41104
data fusion, large multi-agent networks, struct./perform. 32802
data fusion of assoc. hypotheses in distributed sens. network 15873
data fusion systs., eval. model 8296
data integrat., fuzzy logic approach 33154
decentralised sens. networks, routing for reliab. 15952
decentralized binary hypothesis testing, fund. struct. 15970
decentralized CFAR detect. based on order stats. 2577
decentralized detect. systs. design, unified approach 32538
decentralized filtering systs., optimality 8379
Dignet unsupervised-learning clustering/data fusion algm. 32854
disposable rem. chem. sens. network 9864
distributed binary hypothesis testing, feedback 8405
distributed cell-averaging CFAR detect. in depend. sens. 32532
distributed obj. recogn., fuzzy relational inference logic 16274
distributed sens., fault-tolerant integrat. framework 32588
dual baseline triangulation 32672
error criteria anal. and robust data fusion 40913
fault detection of gas sensor 25891
FLIR scenes, jump-diffusion procs. for automated understanding 16285
FUSEDATE, software package for multitarget multisensor tracking and fusion 15874
fusion of radar and imaging sens. data for target tracking 16113
fuzzy approach, multisensor instrumentation. preprocessing techs. 2681
fuzzy control, concrete mixing plant quality monitoring 25808
fuzzy neural net for feature/sens. selection 40789
head-up guidance, situation awareness systs. 10328
helicopter avionics, LAMPS MK III block II simul. 10344
hierarchical sens.-motor fusion neural nets 40790
image understanding, knowledge-based 2785
image-enhanced pass. tracking of maneuvering targets 16114
images, range/intens., fusion on connection machine CM-2 16246
indust. vision syst., range/intens. image fusion 41103
integrated chem.-sens. arrays, batch fab. 3818
integrated RTP/MOCVD technol., IC manufacture, model-based proc. control 22533
intelligent sensor fusion, conf., Las Vegas, NV, USA (1994) 28256
internetted acoustic sens. fusion, appls. 43554
IVHS, multisensor vision systs. 42840
landcover class., rem. sensed imagery, data fusion 43537
location of sens., estim. errors 41107
maneuvering target tracking by neural net 32622
maneuvering targets tracking, multiple intermittent sens. 8295
manual/automated offshore NDE, colloq., London (1994) 20259
MAVI, multi-agent syst. for visual integrat. 41114
mobile robot environ. recogn., US sens., CCD camera 43556
mobile robot outdoor navig., tree detect./dead reckoning 41109
mobile robots, observers-sens. for posture estim. 40791
mobile robots, tri-aural perception, correspondence problem, max. likelihood algm. 43555
model-based multi-sens. fusion 9649
motion field determ., multiple image sens. integrat. 41111
MRI image restoration, optim. approach, sens. fusion 8504
multi-mode OTHR data, model based data fusion algm. 9638
multi-sens. images and digital map data fusion 43547
multichannel image restoration, regularized, using cross-validation 32916
multiple-model target-oriented tracking syst. 18983
multiradar target detect., data fusion 34128
multiresolutional data fusion, filter banks 15918
multiresolutional multisensor target ident. 41105
multisensor data fusion, autonomous fuzzy archit. 40786
multisensor data fusion, fuzzy methods 24431
multisensor multitarget mixture reduction algm. for tracking 24322
multisensor multitarget tracking, fuzzy estimator 8326
multisensor noisy/fuzzy data filtering 32804
multisensor random sig. detect., quantization 24285
multisensor target recogn. syst. (MUSTRS) 8558
multisensor tracking, image-based maneuver detect. 17429

sensor fusion continued
multisensor tracking, track assoc., correction for bias and missing data 15876
multisensor/knowledge fusion, seismic prospecting 43464
multispectral image data, panchromatic band sharpening 8498
multispectral image sharpening, spatial freq. models 16264
multispectral images, radiometrically correct sharpening, panchromatic image 16270
narrowband sigs. distributed detect. 32533
neural net approach, decentralized detect. 32579
obj. recogn., distributed cooperative vision syst. 41112
off-board augmented fusion for target detect./tracking 9637
on-platform radar and opt. track fusion 9647
one-step fixed-lag IMM smoothing for alignment of asynchronous sens. 15875
Operational Avionics Smart Instrumentation System (OASIS) 10331
OTH radar fusion, propag. mode estim. 42483
parallel distributed detect. under Neyman-Pearson criterion 32535
pass. mm-wave camera for low visibility landing 10329
pass. sonar sig. proc., ocean acoustic source localisation 25597
Pitman closeness/complete linkage algm. 32801
pose estim., noisy data fusion 24419
proximity sens. syst. for spatial sens. and colour perception 42776
radar data fusion, joint detect./estim. filter 34124
radar tracking, jump lin. model based aircraft trajectory reconstruction 17373
radar/acoustic data fusion 42501
random finite set approach 15960
range views integrat., general surface approach 41287
range/vision sens. data, geometric constraints fusion, alg. framework 41102
rem. sens., digital image proc. 35359
resoln. cell based fusion 15919
roving robot, intell., multiple sens. 40792
satellite image fusion, multiresolution anal. 32886
scene interp., multiple visual sens. inform. proc. fusion 41113
ship data fusion target tracking, 21020 DSP family, multisensor SIMD archit. 10589
single and multi microphone noise cancellation, fast algm. 32484
small targets signal/data proc., conf., Orlando, USA (1994) 25
sonar contact detect. from multiple sens., data fusion 17489
sound sens., intell., audio-visual sens. fusion syst. 40787
spacecraft vehicle health mgt. systs., large-size data reduction/fusion algm. 18725
submarine navig. data integrat. 24296
survey vessels, precision attitude meas. 17496
target class., multisensor, using unsupervised neural net 33051
target recogn., self partitioning neural networks 16278
target tracking, effect of cross correl. on track-to-track fusion 18979
text depend. speaker verification, data fusion, channel detect. 32200
tomographic photopyroelectric imaging, thermal wave multi-probes appl. 3757
track, track fusion algms. 15911
track fusion, multisensor, optimal 15912
track-to-track fusion problems, scoring algms. 15920
tracking, fused noncoincident meas. 17368
two-stage approach, multi-sens. temporal data fusion 41230
underwater robotics, opt./acoustic range sens. 8620
US Navy unmanned undersea vehicle navig. 35384
vel.-based vestibular-visual act. sens. integrat. 41108
X-band radar/IR target detect. 8617

sensors
see also biosensors; chemical sensors; electric sensing devices; humidity sensors; image sensors; infrared detectors; intelligent sensors; magnetic sensors; microsensors; microwave detectors; millimetre wave detectors; nonelectric sensing devices; photodetectors; pressure sensors; strain sensors; submillimetre wave detectors; surface acoustic wave sensors; tactile sensors; temperature sensors; UHF detectors; ultraviolet detectors
advanced sens./instrums. used in aero-engines 4355
aerospace and automotive industries 9857
array pattern, resoln. improvement, neural net appl. 15916
automated detector of radiation-acoustic sigs. 28909
calibration design, optimised approach 25706
charged-particle beam param. sens. selection and design 4079
diagnosability, sens. placement 17723
digital avionics systems, conf., (Nov. 1994) 5456
Doppler detector, low-cost, automotive appls. 20112
dyn. charact. ident. of sens., discrete obs. 3708
electro-opt. sens., point source algms. for optimum acquisition range 15866
EMC testing, near-field probes appl. 2245
emitter waveform estim., array sig. proc. 41037
ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
fault detect. 25809
faults representation in fault detect. filters 9865
fire/gas detector test schemes optim., reliab. model 36979
frequency control symp., Boston, MA, USA (Jun. 1994) 28221
gas turbine engines, SRM fuel-lube pump drive 20053
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
IEEE conf. on instrumentation/meas., USA (1993) 20198
inductive sens. modelling by damping, metal *(German)* 34486
instrum. fault detect. in nonlin. dyn. systs. 20472
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
micro-domains generation in AT-cut quartz, thermal proc. 30602
moving magnet lin. DC motor, const. vel. control *(Japanese)* 44073
moving obj. detect., posn. sens.-based, meas. error probab. *(Russian)* 34701
multi-laser displacement sens. used in accurate digitizing tech. 9897
NASA spin-off technol., conf., San Diego (Jul. 1994) 36866
NPP, proc. variable est., parity space method, ANN *(Korean)* 27356
ocean electronics, conf., Cochin, India (1991) 11591
ocean electronics, conf., Cochin, India (1993) 11590
on-board large mesh antenna reflector, high surface accuracy 15636
performance assessment strategies 25803
photosynthesis meas. appl., trends 3791
plasma etch reactors, develop. pilot line, sens. integrat. 22205
proc. instrumentation, proc./syst. interfaces 9789
robot sens. registration from posn., closed form soln. 3792
robotics, conf., Torino, Italy (1993) 11587
sig. normalisation module for posn.-sensitive devices 34431
space guidance/control/tracking, conf., Orlando, FL, USA (1993) 11569
space power systs., fault detect. anal., sensor relationships 26561
status report on metrological support/certification of sens. 3804

sensors continued
strategic sens. and spy sens. 34437
structural design of general-purpose automated sens. systs. 3805
target tracking, probab. data/finite resoln. 41028
thick film technol. sens. and appls. 25830
transputers for optimal operation of sens. systs. 24317
true RMS av. power meas. of complex sig. 3950
turbine blade, faults, intell. diagnosis, neural nets/fuzzy logic 35714
universal sens. interface IC 9863
LiNbO$_3$ elec. field sens., sensitivity improvement 14522
sensors, electric *see electric sensing devices*
sensors, nonelectric *see nonelectric sensing devices*
sensory aids
see also handicapped aids; hearing aids
biofeedback cane syst., instrumentation/subj. appl. results 35180
blind, handwriting characters/drawing figs., virtual auditory screen 43384
deafness, profound, speech features tactile presentation 35161
electrocutaneous stimulus for sens. feedback, pitch/loudness independence 10278
rehabilitation R&D progress reports, (1992-1993) 26477
separated flow *see flow separation*
separating flow *see flow separation*
separation
see also desalination; distillation; drying; filtration; isotope separation; magnetic separation
additive enhanced electrostatic precip. in liqs. 7927
clean rooms, impurity ions anal. and removal syst. 22089
sulphide-quartz mixtures, electrostatic separation 40207
water-in-oil emulsion separation, microwave heating-based 44595
Ni-H$_2$ secondary cells, Zircar ZYK-15H separator fabric 27913
Pb-acid batt. glass fibre separators, tech. compatibility/safety 36550
sequences
see also binary sequences; image sequences; sequential codes; sequential decoding
2D convolutional codes, duality anal. 32136
3D iterated fn. systs., discrete seqs. representation 2499
AICE-CRT/DSP algms. 32675
almost-perfect autocorrelation seqs. 24002
AR order selection methods, comparison 15977
auto-correl. polyphase seqs. of prime length 40545
B-procs., universal redundancy rates nonexistence 40674
bal. nonbinary seqs., periodic correl. props. 32010
CDMA approx. synchronized syst. sig. design 24784
CDMA codes, coding theory 2893
cellular syst. Channel Borrowing Without Locking 33812
cellular syst. traffic perform. with mixed platform types and queued handoffs 33808
chaotic sigs. MLE 24291
coherent radar PSK sigs., complementary C-seqs. 17381
complex cyclotomic polynomials for cyclic convolution 8307
controllable multidimensional shaping filter synthesis for discrete-value Markov seqs. 29371
convolutionally encoded seq. decoding, pairwise error probab. 32115
data compression, context allocation 32125
de Bruijn graph, perfect factors 28626
DECT channel error profiles 3123
differential parallel combinatory SS commun. systs. *(Japanese)* 25207
digital seq. reduced-state seq. estim. 40535
discrete convolution algm. develop., parallel-decomp. algm. appl. 32632
discrete Gabor expansions, derivation 24321
discrete prolate spheroidal seqs. generation, algm. 2502
discrete spheres vol., upper bound 24000
DPSK differential detect. scheme, phase seq. estim. 32684
DS-CDMA 4-phase mobile radio receiver in non-Gaussian environ. 25442
DS/SS systs., transm. bandwidth control schemes *(Japanese)* 25208
feedforward convolutional encoders, expansion property 32134
fractional sample type max. likelihood seq. estimator *(Japanese)* 15975
freq. domain filtering for Gaussian seqs. generation 40978
freq. hopping seqs., small cross-correl. 32109
Galois rings, exponential sums, upper bound 40607
gambling for mnemonically impaired 40538
generalized discrete Gabor expansion, fast algms. 2535
globally convergent adaptive blind filters and blind equalisers 2863
grey-level images, entropy estim. algm. 8584
Griesmer bound, generalizations 8139
Horton's law, appl., telecomms. networks *(Japanese)* 42061
indust. and academic protocol testing, comparison 33250
inform. theory, typical seqs. 33029
L^2 deconvolution, fast seq. algm. *(French)* 41035
Lempel-Ziv algm., improved redundancy 32122
Lempel-Ziv parsing trees, noiseless data compression algms. 32651
lin. summability methods, accelerating convergence 11986
lin.-phase 2-D FIR digital filters, 2-D seqs. appl. 41045
M-ary DPSK, MLSE differential phase detect. 2563
M-ary PSK single-sample symbol sync. algms. 40562
min. presentations for irreducible sofic shifts 20537
MLSE receiver for GSM digital cellular syst. 3424
MMSE design of generalized interpolators polyphase components 32729
modified RESTART-method using LRE-algm., rare event simul. 33247
multipath mobile channels, simul./modelling 3410
multiple chaotic systs. tracking from single obs. seq. 24057
noncausal nonminimum phase ARMA modeling of non-Gaussian procs. 32458
orthogonal seq., N-multiple-of-odd-no. shift, generation *(Japanese)* 11893
p-ary seqs., odd-correl. distrib. approx. 24126
packet radio LANs, frame synchronisation codes 16676
partial-response systs., codes, quasi-catastrophic error propag. 32069
period estim., min. entropy deconvolution 24136
π-feasible seqs. of graphical invariants 28615
polyphase seqs., periodic/aperiodic autocorrelations 40531
post-decision symbol reliab. inform. generation algm. 40591
Princen-Bradley filter bank implement. 742
product estimator, Markov chain sampling 37236
protocol, test path selection, effective domains based 2928
protocol conformance testing, test generation, multi-level approach 33251
protocol test seqs., automated generation, formal specs. 2929
protocols, reduced length maximal fault coverage conformance test sequences 2968
pseudo-random seq. generator, clock-controlled *(Japanese)* 12614

sequences continued
- pseudorandom seqs., correl. property testing 32692
- quasiorthogonal codes, inverse continuation 8108
- quaternary seqs., low correl. 40608
- radar clutter, spatial correl., simul. 34135
- random seq., finite change-time, abrupt change detect. 24168
- random string evol., stabilization laws 41481
- real-valued seqs., FFT vs. fast Hartley transform algms. 2495
- reciprocal seqs., Kalman like filtering/smoothing 40873
- running bispectra computation and implement. 40849
- S-CDMA fibre optic systs., seq. designs 2892
- spectral-null codes, high-order, constr./bounds 24034
- stationary procs., sample cumulants, asymptotic results 40841
- STFT anal., quality vs. efficiency tradeoffs 40844
- subband DFT, defn./interp./extensions 40777
- symms. and struct. 40663
- sync. DS-SSMA systs., pseudo-noise seqs. 3326
- TCM sig. design for class-A impulsive noise channel 40569
- telephone/packet-switched networks, random variable seq. i.i.d. testing 41716
- three-level m-seq. generation, ternary flip-flop logic 21180
- unique input output test seqs. length, lower bounds 41492
- universal redundancy rates for class of B-procs. 32006
- unsynchronised opt. overlapping PPM channel coding 42357
- Viterbi decoding burst error statistics HMM 40592
- wavelet-based multiresolution image compression 8616
- Weil exponential sums over Galois rings, upper bound 32057
- Wigner distribution of complex spreading sequences 9188

sequential circuits
- *see also asynchronous circuits; asynchronous sequential logic*
- arbitrary valued flip-flop cct., design and appl. *(Chinese)* 29156
- asynchronous seq. logic ccts., SR-latches, scan design 6130
- ATPG, efficient fault ordering 12448
- ATPG for seq. ccts., genetic algms. 6075
- automatic design error correction 21184
- behavioral logic test generation, mixed integer nonlin. prog. 6099
- behavioural learning impact on sequential circuit test compilation 29184
- circ. self-test path tech. for real ccts. 6098
- clocked ratioed logic for sync. ccts. implement. in logic arrays 21179
- CMOS high-speed freq. divider for RF freq. synthesis 21263
- CMOS self-checking seq. ccts., bridging faults detect., DFT 617
- constrained state assignment of easily testable FSMs 21275
- control ccts. with timing coord., design verification based on theorem-proving tech. *(English)* 29106
- crit. path tracing algm. for seq. ccts. 21251
- delay fault propag. in sync. seq. ccts. 12437
- delay faults detect. starting from functional description of seq. cct. 29151
- design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
- diagnostic fault simul. for seq. ccts. 12445
- digital electronics, state machines, direct cct. implement.. 5969
- distributed ATPG 12291
- efficient procedure, two-level optim. based 12445
- embedded RAM, fault simul. algms. 12434
- fault simul. of digital designs on parallel proc., distrib. algm. 37685
- finite state machines, testable synthesis and testing 12468
- fuzzy flip-flops, logical expressions 12484
- fuzzy seq. cct., fuzzy flip-flop 621
- gate-level transient fault simulation environment 29179
- GLFSR test pattern generator for BIST 6085
- guided-probe fault location method for seq. ccts. 29105
- hazard anal. of struct. seq. systs. 37726
- hierarchy use in logic cct. fault simulation 21206
- high level testability anal. using VHDL descriptions 21189
- hybrid cellular automata for seq. cct. simul. 12493
- hybrid DFT, scan and clock line control 6080
- hybrid fault simulator for sync. seq. ccts. 6089
- HyHOPE fast fault simulator hypertrophic faults simul. 21253
- I_{DDQ} subset selection algms. for bridging faults 6084
- IC layouts comparison with HDL models, formal verif. tech. 37588
- init. of seq. ccts. 6082
- large-scale asynchronous finite state machines, synthesis procedure 6131
- low-power digital ccts. based on adiabatic-switching 636
- M-to-B arbiter for multiple bus multiprocessor systs., high speed, VLSI 642
- multiple obs. time single ref. test generation, sync. seq 21209
- multiple variable ternary seq. ccts. synthesis *(Chinese)* 29157
- NORA dyn. logic cct., technol. ,mapping algm. 21197
- observability environ., seq. test generation 12449
- partial reset DFT method 21186
- partial scan algm. based on reduced scan shift 12473
- partial scan designs for DSP appls., behavioral synthesis 29190
- permanent fault detect. in sequential ccts. 21269
- precomputation-based seq. logic optim. for low power 637
- pseudorandom testing of seq. ccts., struct./tech. 21244
- reduced scan shift, testing method for seq. ccts. 6090
- redundant fault ident., test generation appl. 12442
- redundant/undetectable faults testing in synchronous sequential ccts. 29180
- scan designed cct., test time reduction 21208
- scan testing accel. in IEEE 1149.1 archits. 6077
- scan-designed seq. ccts., test clock reduction 6079
- scanned seq. ccts., global strategy for design and test 28976
- seq. cct. state assignment for low power dissipation 21290
- seq. ccts. with embedded RAMs, test generation 12434
- SOLiT, reliable seq. ccts. automated synthesis, multilevel logic implement. 21229
- SR-latch cct. using Hopfield neural networks, design 12432
- state space decomp. based optim. 21191
- std.-cell VLSI cct. design, timing and area optim. 21256
- std.-cell VLSI cct. design, timing/area optim. 37706
- switch-level test generation, sync. and asynchronous ccts. 21242
- symbolic ATPG for large ccts. 6101
- sync. seq. cct., state assignment, genetic algms. 29134
- sync. seq. ccts., fault coverage anal. 12439
- sync. seq. ccts., fault simul. 21268
- sync. seq. ccts., multi-bit-paths for testing 21241
- sync. seq. ccts., state assignment for low power dissipation 29095
- sync. seq. ccts. testability 6104
- synchronous logic cct. restructuring, cct. decomp. tech. 21192
- synchronous sequential ccts. design and synthesis for testability 29185

sequential circuits continued
- test generation, parallel fault simul. *(Japanese)* 12426
- test synthesis, data transfer anal. based behavioral description 29198
- testing, reduced scan shift method 12430
- three-level m-seq. generation, ternary flip-flop logic 21180
- time optimized technol. mapping syst. for logic CAD *(Korean)* 12411
- untestable faults ident. without search 6076
- VERTEX program, sync. sequential cct. verification 21033
- VHDL seq. statement synthesis, RTL *(Korean)* 12388
- VLSI bipolar cct. simul. techs. based on waveform relax. 38998
- weighted random sequence synthesis, sequential cct. testing 21195

sequential codes
- *see also sequential decoding*
- recursive seq. codes, lossless compression, OPTA fn. 32121
- runlength-limited block codes, small error propag. 40649
- space opt. commun., pulse-coded multiple access 42350

sequential decoding
- *see also sequential codes*
- adaptive Viterbi decoder, respective-state channel estim. *(Japanese)* 15741
- CDMA packet combining error control 25368
- convolutional codes, connectivity based table-driven decoder 40668
- CPM sigs., backtracking seq. detect. 15956
- digital mobile radio systs., seq. detect. algms. 3437
- DS-SSMA syst. based on $\pi/4$ DQPSK and convolutional coding 25369
- expander codes 8179
- fast seq. decoding algm. based on dyn. searching strategy 2376
- input-constrained channels, encoders, small decoding look-ahead 24086
- multiple TCM reduced complexity seq. decoding 8094
- noisy channels, robust VQ 2382
- recursive seq. codes, lossless compression, OPTA fn. 32121
- soft-decision seq. decoders perform., estim. 8175
- TCM sigs., tunable complexity RSSE decoding 40673
- trellis codes, erasure-free seq. decoding 24033
- VQ sigs. transm., Rayleigh fading channels 8448

sequential estimation
- adaptive reduced-state channel equalizer, T-algm. 9302
- adaptive Viterbi decoder, respective-state channel estim. *(Japanese)* 15741
- inform. divergence, dens. estim. 32022
- lattice seq. estimator, perform. 42169
- mobile commun., adaptive equalization, DSP technol. *(Japanese)* 33903
- multichannel subset autoregressions, seq. fitting, prewindowed case 24308
- multipath fading ISI channel TCM detect. by sequential deq. estim. 40548
- narrowband digital FM sigs., seq. estim. 24280
- nearest neighbor rule estim., arbitrary sampling 32653
- noisy quantized random obs. coeff. AR time-series, estim. 40869
- opt. flow, probabilistic and seq. computation, temporal coherence 2728
- periodic discrete event procs., param. estim. 40924
- sub-optimum receiver, convolutional codes optim. 42170
- systematic TCM in coded modulation 8093
- TCM sig. detector, time-dispersive channels 15957
- TCM sigs., tunable complexity RSSE decoding 40673
- time-varying speech sig. anal., seq. param. estim. 32319
- weak/very weak Bernoulli procs., waiting time results 40537

sequential machines
- interacting finite state machine design with self-checking capability 29188
- microcontroller based binary seq. sync. machines 37794
- microcontroller based state machines, automated synthesis, BSSM code generation 6128
- permanent fault detect. in sequential ccts. 21269
- redundant/undetectable faults testing in synchronous sequential ccts. 29180
- self-testing PLM design, lin. seq. machines 12413
- self-timed ccts., self-checking combinat. logic and seq. machines 37739

sequential switching
- *see also asynchronous sequential logic; switching theory*
- flexible sequencer archit. for serial test card 21232
- optical staggering switch archit. growability and packet sync. 42126
- state assignment for low power dissipation in seq. ccts. 29095

series (mathematics)
- *see also Fourier series; Volterra series*
- 2D TW current strips, closed-form field expressions 23529
- adjustable grey model for power load forecasting 4604
- anisotropic plasma, impedance wedge diffr. 15452
- center-fed strip dipole, impedance, Poynting vector method 40475
- conducting enclosures, direct lightning strike, internal voltages 40189
- digitizer error extraction in nonlin. test 9837
- discrete sigs., multichannel spline interpolation 8265
- EM plane wave scatt. by lossy dielec. prolate spheroids 40296
- first-order convergent seqs. characterisation 20532
- Fresnel double integral, calc. method 31802
- Gaussian discrete fields in Gaussian noise, recursive filtering 41029
- H-wave scatt. from circ. curved impedance strip 15403
- isotropic Maxwellian plasma point source, electrostatic pot. 40493
- lin. axisymmetric EM field soln., series method *(Chinese)* 7886
- Maxwell's eqns., time-domain num. soln. errors 2178
- microstrip lines inside rect. cavities, full-wave anal. 31901
- morphically generated formal power series 28624
- multimachine power syst. auto-parametric reson. calcs. 26896
- non-parametric waveform estim. based on filter banks 32730
- nonlin. cct., steady state anal., power series expansion *(Japanese)* 508
- optimal receiver design, wavelet bases 40929
- polling systs. with dormant server, power-series algm. 41486
- power p-i-n diodes, PSpice-based modelling 5987
- power series algm. for anal. timed-token ring protocols 41524
- power syst. transient stabil. anal., energy fn., Taylor series *(Chinese)* 43608
- PTD, fn., removable sing. 40300
- qd-algm., multivariate homog., convergence 20592
- right-angle H-plane waveguide double bend 23772
- rot. mach., stat. monitoring, cumulant spectral anal. 32454
- slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
- small target detect., long term integrat. 18975
- steady-state heat eqn., floating random walk algm. 5633
- stressed power syst., dyn. model interactio 19014
- symplectic maps, monomial factorization, particle dyn. 4090
- truncated Kautz networks, optimality conditions 24193
- TW current filaments, homog. space 15408
- zero tracking algms. for stationary/nonstationary environ. 16058

SERS *see surface enhanced Raman scattering*
serum albumin *see proteins*
server systems *see queueing theory*
servers, file *see file servers*
servers, network *see network servers*
service bureaux *see computer facilities*
service industries
see also catering industry
Hong Kong and Asia, EDI for paperless trading 3063
Radio Television Malaysia's, computerised news centre 42577
service programs *see utility programs*
services, information *see information services*
servicing *see fault location; maintenance engineering*
servo systems *see servomechanisms*
servomechanisms
16-bit ADCs, servo loop testing 29307
actuator/servo interact. in opt. recording 30840
adaptive time optimal control of disk drive actuator, neural network 7179
camera param. determ. by visual servoing *(Japanese)* 32867
catheter, micro act., with multiple d.o.f. 4289
compressible air-space servocontroller, instantaneous blood press. monitor 18436
disk drive, min. time seek controller 39181
drive posn. control, direct channel nonlin. element 28078
electrostatic servo syst. for multi-axis accelerometers 34479
high-dens. tape and disc track-following control techs. *(Japanese)* 14249
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
LEAR electron cooler, servo-syst., neutralisation 34785
magneto-opt. disk unit, data/disk servo control chips *(Japanese)* 22962
magnetoresistive head track following method, rigid disk servo 7173
multirate controller for servo control, DSP based 8332
Newton's gravit. const. meas. 17650
NIST-7 freq. std., hybrid digital/analog servo 42667
on-orbit calib. of inductosyn error 18720
plastic hard disks, pre-embossed servo pattern, magnetis. 7174
satellite tracking, low-orbit, antenna servo design 23857
servodrives, all-digital current control loops limits 28071
ship, attitude meas., servo-type inclinometers *(Japanese)* 9791
ship attitude meas., servo-type accelerometers *(Japanese)* 25970
Si electrostatic servo-type three-axis accelerometer 17744
servomotors
see also synchros
2-axis EM translation mechanism for FPA 17311
50 MW hydro plant, oilless servomotor governor 19540
AC PM servomotor digital controller, appls. 43979
AC servomotor integrated single-output sig. rotary encoder 10934
AC servomotors, digital control, syst. dyns. *(Korean)* 36214
bang-bang fuzzy controller, time optimal/min. chatter 27769
biomimetric powered prosthetic hand, myoelectrogram controlled *(Japanese)* 26471
brushless AC motors, digital servo amp. concept 11338
brushless DC motor controller design, software package develop. 19680
brushless DC servomotor, optimal DSP control 36195
brushless DC servomotor auto-tuning, fuzzy optimal control 4988
brushless servo systs., motors/drives/posn. control, trends 28075
control syst., inertia moment ident., speed observer *(Japanese)* 36208
DC servo motor, fuzzy PID control, accelerated reasoning 5167
DC servo systs., integral of output error VSC 11090
DC servodrives, dyn. friction compensation 36644
DC servomotor, fuzzy precompensated PID controllers 11068
DC servomotor, robust digital optimal model following syst. *(Korean)* 27751
DC servomotor fuzzy logic VSS control design *(Korean)* 27744
DC servomotor machining motion control, parallel DSP 36192
DC servomotor posn. control, fuzzy precompensated PD controller 19658
DC servomotor posn. control, fuzzy-Lyapunov fn.-based *(Korean)* 27745
DC servomotor speed fuzzy control 11069
DC servomotor stochastic logic PI control 44064
digital AC servo motor for welding robots *(Japanese)* 11078
direct drive lin./torque servomotors, appls. 11341
disturbance observer implement., speed detect. improvement *(Korean)* 36216
drives, AC-flux-vector control 28074
drives, predictive posn. control design 28087
fuzzy logic controller for induction servo syst. 5002
HDD, motor-control servo power IC 36671
indirectly connected load perform. calcs. 36207
induction motor drive, decoupled preview control syst. 28083
induction motor servodrive, control, PI load estimator 20086
induction motor servodrive, robust 2DOF posn. controller 36658
induction motor servodrive, VSS robust control 44483
induction servo drive, neural model predictive control 28066
induction servodrives, field-oriented control, fixed-point DSP 11358
induction servomotor drive control studies *(French)* 11335
induction servomotor drives, LQG/LTR digital control design 36641
induction servomotors, cycloconverter-fed, sliding mode control 4983
indust. robot/CNC machine tool digital joint motion controller 11509
intell. sync. servodrive, fuzzy/digital cascaded state controllers comparison 44012
interior PM servomotors, EM props. calcs. 44080
internal model control loops, asymptotic setpoint tracking 27772
lin. DC motor posn. syst., tracking perform., neural net *(Japanese)* 44071
lin. pulse servomotor control, 2 DOF controller *(Japanese)* 44074
lin. reluctance servomotor drives, control perform. 5319
lin. servomotor, integrated lin. scale *(German)* 44078
lin. servomotor drives, fuzzy logic/PID control comparison *(German)* 5278
magnetoresistive head track profile, servo perform. 7172
MINAS servomotor stator, cell method assembly syst. *(Japanese)* 11081
moving magnet opt. scanners, scanning speed and accuracy 31057
multicriteria fuzzy control, DC servomotor posn. control 11061
Panasonic AC servo motor, MINAS series *(Japanese)* 10930
photomask scrubbing machine, integrated motion syst. 30084
planetary gear precision speed reducers 44090
PM sync. motors, stable nonlin. observer design 44023
PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
PM sync. servomotor drive, VSI-fed, field oriented control 36675
PM sync. servomotor drives, optimal/VSS control 5288
PM sync. servomotor drives, PWM inverter-fed, LF torque ripple 44479
robot adaptive electrohydraulic servoactuator control synthesis 36497
robotic servoactuators, quasi-optimal control design 36496
servomotors continued
servo induction motor adaptive speed control 19625
sheet metal bending, lin. hydraulic DC servomotor valve appls. *(Japanese)* 36493
slotless PM servomotors, design/control 19679
SmartMotor 32-bit stepping servomotor motion control syst. 5165
stepping servo motor drives, polyphase space-phasor theory 11346
sync. servomotors, LF torque pulsations control *(French)* 11010
travelling wave US servo motor, speed tracking control 19676
travelling-wave US servomotor, speed tracking control 4999
TW US motor actuated servo drive, fuzzy control 11091
VSC robust control of induction motor servodrive 19922
servos *see servomotors*
set theory
see also category theory; fuzzy set theory; group theory
2D nonequidistant antenna arrays, difference set theory 2341
binary images, interpolation-based bintrees 41185
binary images, morph. representation invertibility 2733
bit vector encoding for partially ordered sets 32102
capacitated-flow network, min. pathsets, reliab. eval. 37201
Cayley coset graph, simplicity conditions 28597
Chua's cct., time-delayed, fractal set props. 37614
class., priori evidence, ambiguous 16273
constrained-sig. sources, unique localization, alternative proofs 8435
cutset eval. from paths, improved algm., 2-state reliab. syst. 28528
data fusion, random-set approach 15960
deconvolution, bounded uncertainty 24297
deterministic/random binary Euclidean images, representation 41179
digital straightness, skeleton prop. 41070
discrete convolution algm. develop., parallel-decomp. algm. appl. 32632
discrete interval orders and semi-orders, representation 20543
freq.-rectangles, nonisomorphic complete sets, prime power dimens. 28628
image comparison, multi-resoln. tech. 2672
Jensen's coding theorem, simpler proof 2380
lower estim. of probab., distinct subsets of unit cube 40532
matroids, common bases 28600
max. sets of triangle-factors in K_{15} 37257
meas. in images, phys. significance 8634
metrics, generalized bipartite, hypercube embedding 28599
multi-faults diagnosis model, set-covering/certainty factors 3701
multiprojection algm., Bregman projections 11927
non-computationally intensive appls., algm.-based fault tolerance 32495
nonadditive measures, additive representations, and the Choquet integral 28593
nondirected graphs, pathsets, enumeration, set theoretic method 11925
nonoriented network models, loops 24844
nonsmooth quasiconvex fns., quasidifferential anal. 226
OCR, AI 8622
overlapping particle systs., mean shape/particle no. estim. 37237
pattern class., probab. measures, learning decision rules 41208
power graphs 20542
recession maps and appls. 224
self-similar set ident. in time-scale domain 32520
sig. classifiers on relatively compact sets 24227
substation reliab. eval., act. min. cut set selection 36482
translation-invariant binary filters, morph.-representation 16160
union size approx. *(Japanese)* 28625
VC-dimens. anal. for obj. recogn. 24462
vector-valued fns., commun. complexity 24737
sets (mathematics) *see set theory*
SEXAFS *see EXAFS*
sexism *see gender issues*
sexual stereotyping *see gender issues*
SF_6 insulation
24 kV ring main switchgear, thermal behaviour modelling 5147
24-38 kV LG 107 cct. breaker product range 27836
145 kV cct. breakers, develop. efforts 4669
145 kV dead tank cct. breaker develop. 5151
145 kV distrib. substation metal oxide surge arresters 4674
145 kV type F75 GIS develop. 5152
ABB ZV2 SF_6 gas-insulated/vac. switchboards 19881
AC corona discharge, decomp. product gases meas. *(Japanese)* 22656
asymmetrically perturbed gap, corona studies 13983
cct. breakers, synthetic test ccts., arc voltage 27844
circuit breaker, gas integrity and adsorbent performance 19902
distrib. switchgear, personnel safety 11201
distrib. transformer protection, develop. trends 4671
distrib. transformer substation equipt. *(Italian)* 11215
elec. equipt. insulation, quality standardisation 5142
electro-insulating props. comparison *(Polish)* 22676
Fluobloc B142 GIS, 362/420 kV transm. network appls. 27871
gas blast arcs, total radiation power *(Japanese)* 1548
GIS, breakdown mechanism of gap, small arc current 19897
GIS, urban rly. substation systs. 44508
GIS equipt., UHF tech. of PD detect. using simulator, calib. 36478
HV cct. breaker reliab., second internat. enquiry 44230
HV cct. breakers, historical develop. 27835
HV equipt., gas chromatography diagnostics 11206
HV switchgear reliab. monitoring automation 5153
leader discharges, UHF detect. 36479
MV distrib. substation switchgear develop. 5148
MV self-generating cutouts, develop./testing 5141
MV switchgear experiences, France 5149
negative corona discharges 13981
PDs, phase-resolved meas. 1550
PET films, creepage surface discharge in SF_6 gas *(English)* 30585
power distrib. equipt. enclosures, ventilation requirement calcs. 35628
puffer cct. breaker, elec. strength restoration *(Russian)* 44238
ring main distrib. switchgear, latest trends 5146
surface charge generation of insulator in SF_6 gas 19320
surface flashover voltage var., press. 19898
surface leader discharges, impulse voltage polarity *(Japanese)* 1546
transformers, decomp. by-products 5006
tripolar encapsulated HV switchgear props. and advantages *(German)* 27856
Fe-based nanometer cryst. alloy power CT core *(Chinese)* 27786
SF_6 72 kV cct. breaker, arc models, test cct. 27845
SF_6/N_2 gas mixtures, PD 1551
SF_6-N_2 auto-expansion cct. breaker studies 19890

sferics *see atmospherics*
SGEMP *see electromagnetic pulse*
SGML *see page description languages*
shaded-pole motors *see induction motors*
shaft encoders *see angular measurement; electric sensing devices*
Shannon theory *see information theory*
shape control
  aluminium cold rolling mill, AC drives, control syst. 44490
  on-board large mesh antenna reflector, high surface accuracy 15636
  radiotelescope (mm wave), antenna shape control syst. 17519
  stainless steel rolling strip flatness meas./control syst. 10015
  steel plant noncontact rail dimens. meas., machine vision-based 42931
  vision-based gauge for online weld profile metrology 3891
shape measurement
  2D, description and struct. anal. *(Japanese)* 16378
  3D obj. imaging, light plane calib. 42944
  3D profile meas., cylindrical lens and CCD 3981
  3D shape meas., computer reconstructed hologram images 10021
  3D shape meas., spot ray pointer, calib. 42749
  3D shape meas. of specular polyhedrons, light source 3980
  absol. surface shape testing, interferometric sens. 18077
  biostereometrics, noncontact, noninvasive shape meas. tech., bioengng. appls. 43206
  colour CCD image sens., moire effect surface shape meas. 10017
  contactless obj. posn. and shape meas. *(Japanese)* 18098
  curved surface meas. by 3-level checkerboard projection 16247
  discretised objs., geom. charact. determ. 41154
  DRAM wafer flatness control, stepper chucks 38966
  edge-moment-based 3D obj. recogn. 2716
  fringe projection micro-shape meas., high-sensitivity 18070
  gradient/curvature, photom.-stereo method, local confidence estim. 2603
  light strip image anal. on cutting tools, extract 3-D wear inform. 24542
  modal shapes meas. of inhomog. cantilevers, opt. deflection 25974
  modular cable-mesh deployable antenna for satellite commun. antennas 15637
  obj. with steps, profile meas. by two gratings projection 34697
  on-board large mesh antenna reflector, high surface accuracy 15636
  opt. surface profile meas. of elec. contact 892
  phase stepping in projected-fringe moire interferometry 18071
  profilometry by phase-shifted Talbot images 17727
  quadric surface reconstruction from disparity meas. 24547
  reactor deformed components profiling, ultrasonic pulse echo ranging 27416
  roundness meas., on-machine mixed method 10025
  stainless steel rolling strip flatness meas./control syst. 10015
  steel plant noncontact rail dimens. meas., machine vision-based 42931
  surfaces digital models, opt. images 2823
  Talyrond 100, precision meas. equipt. improvement *(Polish)* 34412
  vision-based gauge for online weld profile metrology 3891
  weak phase objs., struct. determ., interferometric near-field meas. 18084
shared memory systems
  see also vector processor systems
  2D eddy current problem, domain decomp., serial/parallel 40250
  3D charact.-based time-domain Maxwell eqns. solver 40180
  asynchronous packet-switched shared memory multiprocessor cache coherency scheme 2953
  asynchronous parallelism in steady-state genetic algms. 8247
  ATM shared-buffer direct-access switch archit. 8709
  ATM switch, simul. study of space priorities 33720
  celestial image proc. on symm. multi-proc. 24532
  configurable/parallel protocols, prototype experiences 3218
  conflict-free WDMA networks, buffer-sharing 8745
  CSMA/CD network all-sharing load-balancing scheme 33574
  data-cyclic shared memory (DCSM) in distributed environ. 24951
  DCE, distributed shared memory implement. 25032
  directory protocols for medium-scale shared-memory multiprocessors 33262
  distributed control syst., rem. station, real-time commun. *(Korean)* 41805
  distributed systs., program struct. 16726
  lin. alg. calcs. on virtual shared memory computer 20611
  low cost combining switch for shared memory syst. 29155
  MCM elec. design for multiprocessor syst. 21754
  multimedia internetworking, ATM connection and traffic mgt. 25123
  multistage ATM switching network, delay perform. 33197
  opt. interconnected distributed shared memory syst., memory and network archit. interact. 41491
  parallel protocol proc., multiprocessor appl. 2919
  photorefr. cryst., opt. parallel-access shared memory syst. 22975
  pipelined common buffer archit. for memory based switching systs. 33716
  power syst. optimal power flow simul., security constrained 10603
  PRIZMA, flexible shared-buffer switch for ATM, Gb/s rates 33712
  prototype opt. deflection network, design and implement. 3300
  reduced systolic engine for nonlin. dyn. systs. anal. 29243
  TreadMarks, distributed shared memory on std. workstations and OS 8920
  VLSI layout compaction and wire balancing, parallel algm. 12267
shareware *see public domain software*
shear modulus
  elastic consts. and mass dens., acoustic microscopy meas. 35364
  generators, transverse edge-cracked rotor vibr. 19579
  high-fiber-count cable, U-groove torsional rigidity 9593
  platable MLC termination materials/proc., PCB bend strength effects 6434
  Fe-Co-Si-B rapidly quenched wire, magnetostrictive/magnetoelastic props. 30666
  chem. mech. polishing, polishing pad material props. effects 38584
shear strength
  bump-pad adhesion, thermocompression bonding effects 21668
  glass fibre-reinforced epoxy resin composites, US eval. 28908
  piezoelec. vibr. pickups 3811
  plate wave velocities, field decay, acousto-US sigs. 10583
  SMT reflow-soldered joints, porosity form. rel., mech. props. 12920
  solder joints accidentally exposed to nitric acid, reliab. eval. 37188
  solder paste/stencil interface, shear stress, SMT manufacture 12943
  suspens. and aggregates, combined rheometer/image analyser 25876
  Au ball bond shear strengths, rationalisation 12953
  Au wire bondability for IC device, TEM obs. *(English)* 6444
  GaAs-Al$_2$O$_3$ flip chip modules, AuPd wire bump thermomechanical integrity 11824
  Sn-Bi solders, microstruct. evol., mech. prop. 37529
shear waves *see elastic waves*
sheathing, cable *see cable sheathing*
sheaths, plasma *see plasma sheaths*
shells, expert system *see expert system shells*
SHG *see harmonic generation*
SHG, optical *see optical harmonic generation*
shielding
  see also electromagnetic shielding; radiation protection
  ANS Winter Meeting, Washington, DC USA (Nov. 1994) 56
  APS SR beam lines, shielding 10290
  CATV unwanted sig. leakage estim. and shielding enhancement *(English)* 3677
  decontamination and decommissioning, rem. dismantlement 43870
  electron storage rings, gas bremsstrahlung, photon-neutron shielding 26506
  electronic systs. earthing, parts, perform., cabling, impact *(French)* 15521
  GAMMASPHERE, BGO Compton-suppress. shield, Ge detector 18400
  indust. control syst. lightning protection, grounding/shielding studies 20160
  instrumentation syst., interf./noise 31847
  intrinsically conducting polymers, EM radiation shielding 2275
  lunar surface fission power supplies, radiation protection 26515
  neutron monitoring outside BWR biological shielding 34921
  NPP, abandoned SCC tunnel site project, USA 27382
  power transformers, freq. response, electrostatic screen effect 5023
  power transm. line shield wires, unbalanced , modelling/simul. 4676
  proton SEU rates in space compared to rates meas. on CRRES satellite, DRAMs 12532
  RC interconnect of CMOS logic gates, effective capacitance modeling 1495
  SEE rates for gal. cosmic rays/solar flare protons, SRAM chip effects, satellite shielding 12533
  static elec. shielding bags, testing requirements 15212
  stratified shielding slabs, Na-24 γ-ray source 43041
  thermal space reactor, self-shielding shutters reactivity 18732
  transfer-molded packaging for opt. data links 11783
  urban radiowave propag., IEE Colloquium, London (1994) 5480
  VDMOS transistors, self-shielding phenom. 30310
  water flow profiles, cylindrical container, microwave heating 28169
  γ-ray spectrometers, background spectrum, cosmic muons contrib. 10158
  ^{60}Co, source-to-axis dist. teletherapy units 35142
  Ge, spectrometer, in situ gamma ray dosemeter 43397
  TiW PVD manufacturability, advanced chamber shield design 22272
shielding, magnetic *see magnetic shielding*
shift register sequences *see binary sequences*
shift registers
  see also logic circuits
  1D lin. hybrid cellular automata of degree through 500, min. cost 37742
  asynchronous seq. logic ccts., SR-latches, scan design 6130
  Berlekamp-Massey algm. modif. for two-sided shift-register synthesis 40680
  cell-based ATM phys. layer, parallel DSS implement. 8729
  clock controlled shift registers, cryptanalysis 8129
  CMOS digital redundant random no. generator 29204
  data path synthesis for easy testability 12470
  Enigma type rotor machine, shift register 8124
  FH/SSMA systs., freq.-hopping seq. constr. 9173
  Fire code, modified decoding algm., fast burst error correction 24073
  global test schedules assembling, unified method 12464
  keystream generators, shift register based, security 8126
  LFSR pattern generators, unmatched, pseudorandom testing 21194
  LFSR test pattern generators, lin. dependencies avoidance 37740
  LFSROM BIST, basics and appl. 21193
  M-seq. generation 32101
  multiple-polynomial LFSR, BIT 21266
  multistage interconnection network systs., opt. devices, design 1829
  parallel scrambling techs. for multibit-interleaved multiplexing environ. *(Korean)* 16422
  partitioned/parallel CRC, VLSI implement. 645
  polysilicon films, CMOS TFTs, low temp. proc. 38879
  polysilicon TFT proc. for CMOS, HDTV LCDs appl. *(Japanese)* 1492
  pseudo-exhaustive testing, VLSI ccts., cct. partitioning and test generation method 37573
  pseudo-random seq. generator, clock-controlled *(Japanese)* 12614
  random pattern testable floating point adders 12458
  random seqs. generated by LFSR with nonlin. fn., anal. *(Korean)* 32095
  RT-level transformations for gate-level testability 21188
  shortest signature analyzer 12418
  software stream cipher based on Fibonacci shrinking 8122
  top down ASIC design, test design compilers 42723
  two-pattern testing, test pattern generation ccts. eval. 12460
  GaAs serial dyn./static divider for solid modelling accelerator 29129
  GaAs-AlGaAs HBT, high-speed register file, F-RISC/G proc. 37801
ships
  see also navigation; radio direction-finding
  AEGIS ORTS integrated diagnostic system 42716
  amphibious landing ship, diesel-elec. propulsion 11416
  attitude meas., servo-type accelerometers *(Japanese)* 25970
  attitude meas., servo-type inclinometers *(Japanese)* 9791
  axial flux PM machines, counter-rot. rotors 11400
  Canadian patrol frigate, implement. of AAW sens. fusion 18980
  Canadian patrol frigate multi-sens. data fusion implement., perform. eval. 18981
  combat syst. effectiveness modeling, anti-air warfare tactics 43589
  Croatia, radiocommunications on inland waterways 42537
  cycloconverter drives 36755
  data fusion target tracking, Analog Devices 21020 DSP family, multisensor SIMD archit. 10589
  design and operation, Global Maritime Distress & Safety Syst. *(English)* 3501
  detect. from acoustical time series, spectral/bispectral anal. 34105
  differential GPS expt., moving condition at sea, effects *(Japanese)* 9679
  digital intercom and public address syst. *(Croatian)* 3050
  draught US meter principle *(Croatian)* 4425
  ECDIS/ARPA overlay systs., display requirements 25606
  electronic chart display and IS 17495
  electrothermal-chem. gun, ship defence appl. demons. 15285
  EM coupling, multiple antennas on ogival ground plane 23717
  EMALS EM aircraft launch syst., aircraft carrier appls. 15304
  embedded diagnostic system for submarine ship control 42728
  EMC requirements 2262
  ERS-I SAR image of Thames estuary, visual interp. 26746

ships continued
ETS-V mobile commun. for ships/aircraft/land vehicles 42262
European permanent traffic observatory project, marine traffic radar data *(English)* 3593
fire alarm syst. stds. *(Croatian)* 84
fishing vessels tracking, SAR/AVHRR data 25584
freq. hopped sigs., radiometric detect., multipath fading effects 25269
geosynchronous satellite navig. co-ord. transform. *(Japanese)* 17508
hybrid SAR/ISAR imagery of ships, proc. schemes 17385
ident. in radar images by neural nets 42528
INMARSAT-C commun. syst. characts. *(Croatian)* 3503
intell. EMC anal. and design techs. 15525
LAMPS MK III reengineering, LOS ship-to-ship teleconferencing 16808
LV power distrib. network commun. sig. transm. *(Croatian)* 3309
mag. field, meas. point arrangement design *(Chinese)* 7893
mag. protection, vectorial mag. field determ. 18043
maintainability level, control model, ship engines 28389
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
marine traffic mgt., survey of current and possible future measures 25608
MHD power generation, develop. hist., research efforts, appls. *(French)* 36615
MHD ship thrusters, supercond. windings, screening techs. *(French)* 36617
monitoring and control fibre-optic syst. *(Croatian)* 3551
MV distrib. network anal. *(Croatian)* 4648
navig., radar picture and ARPA data stabilization 25607
neural network ocean current prediction, shipping guidance 10523
non-cooperative ident. of ships, electrooptical data 9650
nuc. propulsion, state-of-the-art, future *(French)* 36731
ocean surveillance, array localization, least sq. error minimization 18993
onboard reception antenna for broadcast/commun. satellites *(Japanese)* 9677
peak-holding navig. syst., obj. coord. correction 25604
PEM fuel cell, terrestrial/marine vehicle appls. 36741
Philips SOPHO iS3000 ISPBX, internal/external commun. for cruise liners 42114
positioning syst., TV broadcasting *(Japanese)* 9678
propulsion cycloconvertors, harmonic voltages elimination 5346
propulsion motor noise generation, computer modelling 5347
propulsion syst. forced torsional vibr. meas. and anal. *(Croatian)* 4027
radar databases, organization, wavelets and struct. VQ 9625
radar detect. in ocean environ., chaos appl. 24173
rangefinder phase meas., double referent mixing *(Croatian)* 3625
region segmentation, navig. images, fractal dimens. estim. *(Japanese)* 8510
RMS Titanic survey expedition 26756
screw cavitation recording, angle sampling control *(Croatian)* 3685
sea water MHD ship thruster *(French)* 36616
SEAROADS, ship air defense computer simul. model 35402
ship traffic control harmonised, coastal protection *(French)* 35378
space locally applied noise control *(Croatian)* 4426
speaking-tube acoustics simul. *(Croatian)* 3592
speaking-tube transfer charact. *(Croatian)* 3591
struct., multi-objective optimum design, reliab. theory *(Chinese)* 5703
submersible platform rem. control and commun. syst. design *(Croatian)* 4412
supercond. DC drives, torque react. windings 11402
supercond. materials, power systs./transportation appl. possibilities 43612
survey vessels, precision attitude meas. 17496
syst. elec. meas. instrums. *(Croatian)* 3926
tapered resistively loaded monopole characts. 40490
tele-monitoring/computer-supported repair, multimedia syst. 42042
towed underwater body and mother ship navig. 17499
toxic gas anal. by photoacoustic detectors *(Croatian)* 3902
two wire automatic rem. sens./eval. syst. 17686
undersea cable systs., installation/maint. technol. 33998
underwater acoustic noise ident. 17492
wake detect., SAR images, localized Radon transform-based approach 26729
warship staying power in missile combat, salvo model 35401

shock control
automobile chassis control G-sens., develop., commercialization 5374
automobile suspen., piezoelec. actuator/sens.-based 5372
shock-absorpt., act.-pass., and gravimetric obs. 3991

shock measurement
automobile suspen., piezoelec. actuator/sens.-based 5372
head disk interface shock failure mechanism 7158
PCB component lead trimming shock meas. 29667
PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
polymer shock opt. microgauge, picosec. coherent Raman spectrosc. 18109
portable 3-axis 11-bit shock meas. cct. 34702
PVDF stress gauge, fast press./shock effects meas. 42764
standardisation of shock machines, SRS anal. 10033

shock, thermal *see thermal shock*

shock tubes
see also shock waves
combustion instabil. anal., press.-based method 10401
holographic interferometry in high temp. flows, shock tunnel 18143

shock wave effects
Dornier HM3 extracorporeal shock wave lithotripter, modelling 4296
PVDF stress gauge, fast press./shock effects meas. 42764
stress transducers, shock loading/unloading, piezoresistance gauges 34443
CO_2 gasdynamic laser with unstable resonator, radiation charact. 14698
$Sm_2Fe_{17}N_3$ magnet fabricated by shock-compaction tech. 22685

shock waves
see also detonation; explosions; plasma shock waves; shock tubes; shock wave effects
adiabatic ultrashort light pulses propag. near two-photon reson. 31549
combustion instabil. anal., press.-based method 10401
EM shock wave in transm. line, HF generation 40392
EMG-PIRIT expt. complex, high energy plasma form. 36398
fibre-coupled pyrometer for shock-wave studies 42824
helical explosive mag. generators, explosive switches 36289
high energy EM transducer acoustic shock field, Schlieren meas. 4029
holographic interferometry in high temp. flows, shock tunnel 18143
nonlin. transm. line, varicap jns., interactive waves 40388
power cable faults, capacitor discharge effects calcs. *(Russian)* 10740
sapphire, insulator props. rel. to tribology/space charge 13952
AlN, excimer laser ablation, fluence depend. 12192
CO_2 lasers, phase conjug. 15059

shock waves continued
HF pulse-periodic laser, gasdynamic perturb. on emission params. 39647
I_2 photodissociation laser, VUV radiation inversion accumulation 14720
ZnS, excimer laser ablation, blast-wave studies 30079

shocks, electric *see electric shocks*

shops *see retailing*

short-circuit currents
1 MJ pulse power capacitor bank short-cct. current protection 11228
2-speed 3-phase async. lift motor, short cct. rotor 36707
6 kV mining power networks, short-cct. protection design *(Russian)* 5433
12 kW/250 kHz series resonant power convertors, induction heating appls. 36787
110/220/400 kV power station power syst. short-ccts. eval. 19059
220-500 kV power grid control/protection planning, China *(Chinese)* 35572
330 kV substation busbar short-ccts., turbogenerator saturation modelling 19064
400 kV distrib. substations, conductor short-cct. effects simul. 19281
ANSI/IEEE C37.010-1979, IEC 909, comparison 19326
AT&T round cells, short cct. current test 19966
avionic switchgear contact material durability *(German)* 35259
bimetallic batt. packs, overcharge/short cct. protection 5179
brushless DC motors, computer simul. model 36184
building power systs., short cct. currents, design params. 19261
CHP plant power syst. short cct. calc., simul. package 19505
CMOS logic gates, short-cct. power dissipation estim. 619
CMOS logic gates testing for realistic shorts 6083
current power converter transformers, short-cct. inductance calcs. 19771
DC motors, num. anal., FEM 36194
DC power supply, overload/short-cct. current protection 27266
DC power syst. short-cct. current calcs. 19039
distrib. double-cct. lines, dist. protection relay calcs. 19260
distrib. line overcurrent protection settings determ., DSS-based 19259
distrib. network sectionalizer allocation, genetic algm.-based 10729
distrib. syst. drawings, graphic representation, computer programme 19280
double squirrel cage motor, heating, short-cct., starting *(Polish)* 27705
Egypt Power Network fault diagnosis, ES 19333
flexible overhead power conductors, reclosure mech. effects 19312
generator-transformer unit faults, relay protection algms. 27680
HV bipolar nanosecond pulses generator 17991
HV current limiting fuses, low current interruption 27842
HV substation flexible busbars, plastic impact simul. 19915
I_s-Limiter, distrib. switchboard short-cct. protection 19339
IGBT, short-cct. phenom., simul. 38839
IGBT power module gate drive considerations 37632
induction motor drives, freq. control *(Russian)* 36662
induction motor invertor synchronisation, magnetisation/vel. determ. *(German)* 36159
indust. 110 kV network intermittent earth fault limitation *(German)* 4708
intell. power IGBT modules, motor drive appls. 532
LV cct. breakers, principles and develop. 19886
LV hybrid AC cct. breaker switching params., computer simul. 19342
LV network short-cct. charact. quantities *(German)* 43734
mine elec. network protection reliab. *(Russian)* 44642
mine transportation power syst., limited short cct. current 20182
motor explosion protection switches *(German)* 11203
multiconductor bundle power lines, short-cct. mech. loads 19313
MV cable earth fault neutralisation by conductor earthing *(German)* 4707
MV mine distrib. network, ground fault simul. 20193
NEMA/IEC motor starters, protection, IEC Type 2 Coord. 4885
PCB short ccts. location, parallel short detector 12871
power control ccts., IGBT short cct. current behaviour 29025
power IGBT converters, overcurrent fuse studies 6016
power IGBT short-cct. protection, motor drive appls. 29026
power line short-cct. current mech. effects, IEC 865-1 calc. std. 19310
power line short-cct. mech. effects, IEC 865 calc. studies 19311
power station auxiliary power systs., short-cct. current calcs. 19382
power station auxiliary power systs., short-cct. current calcs. 19383
power station auxiliary switchboards, short-cct. current calcs. 19385
power station DC/AC power networks, arcing short cct. expts. 19376
power station power systs., partial short-cct. current calcs. 19384
power supply quality improvement by short-cct. current limitation on distrib. nets 27269
power syst., CT props., short cct. transients 19373
power syst., high parallel capacitance, short cct. distortion *(Japanese)* 26910
power syst., μP based protection, synthesised filtering algm. 27245
power syst., nonlin. asymm. components, short cct. calc. 19069
power syst., short cct. current, automatic calc., IEC 909 4479
power syst. enhanced capability transm. line, short cct. current calc. 19070
power syst. HTSC short-cct. current limiter studies 19341
power syst. short cct. anal., characts. current method 35446
power syst. short cct. current param. estim. 19062
power syst. short cct. currents, decaying AC contribs. 19052
power syst. short cct. currents, real-time estim., ANN 19191
power syst. short cct. currents calc., IEC 909, ES appl. 4477
power syst. short-cct. anal., charact. currents method 19057
power syst. short-cct. arcing fault effects limitation 19344
power syst. short-cct. current calc. methods *(Polish)* 4472
power syst. short-cct. current calcs., transformer modelling 19065
power syst. short-cct. current meas., transreactor-based, calcs. 19362
power syst. short-cct. power meas., probab. estim. 19374
power syst. short-ccts. calc., ANN appl. 19067
power syst. transient stabil. simul. package, teaching/research appls. 35426
power systems, conf., Liege, Belgium (1994) 5453
power transformer overvoltages, no-load switching 27776
power transformer winding short-cct. withstand capability estim. criteria 36223
pulsed power supply slow capacitor banks, overcurrent protection 36313
pumped storage plant, converter-fed var. speed generator-motor, fault current *(Japanese)* 36048
rectifier converters, opposed stars connection, anal. 11124
reluctance machines, multiple coupled cct. modelling 10981
single core cable, short cct., current distrib. *(Croatian)* 4684
snubberless IGBT PWM-VSI inverterbridge, design/test 19728
spacecraft common mode transients, short cct./fuse blowing events 4347
squirrel cage motors, rotor/winding faults anal. 11043
substation overhead conductors, equiv. static mech. load calcs. 19921
supercond. current limiter, quenching *(Japanese)* 35688
supercond. generators, short-cct. rotor damper EM force calcs. 27676

short-circuit currents continued
supercond. machine cryoresistive winding short cct. interacts. *(Russian)* 10919
supercond./conventional generators, parallel running, transient stabil. *(Japanese)* 10965
SVC operational/maint. experience, Tenaga Nasional Berhad 26983
switchgear contact systs., electrodynamic forces compensation 19885
switchgear short-cct. tests, PF determ. 19882
sync. and induction machines, transient state, faults effect 19197
sync. generator, back-swing phenom. anal. 11000
sync. machine, reduced models, charact. params. 10980
thermionic converters, photoelec. emission-based characts. tests 28030
three-phase autotransformer, short-cct. transients simul. 19682
three-phase conductively isolated busbar voltages anal. algm. 35481
three-phase power conductor arrangements, short cct. losses 35645
three-phase power transformer constr. and charactn. *(German)* 11103
three-phase power transm. line adaptive resist. relay 4715
thyristor power converter, short-cct. current protection *(Polish)* 27790
thyristor starters, operating conditions 44458
transformer substation protection, 400/110 kV transformer *(Czech)* 27860
transformer winding shape design, global optim. strategies 887
transm. network protection simul., short-cct. current eval. 19229
turbogenerator FEM/state-space modelling, short cct./load case 43984
turbogenerators, winding shorts localisation, fuzzified ANN 44021
vac. cct. breaker, transient recovery rise interruption 27843
vac. cct. breaker restrike test procedure 19883
VSI IGBTs, on-state short-cct. behaviour expts. 44217
wheeling flow, short cct. simuls. 43732
$CuInSe_2/SnO_2$, PV solar cell material 36605
Si bilateral solar cells, minority carrier diffusion length 36595
Si polycryst. ribbon solar cells 36592
Si polysrystalline PV array, optimal operation ident., ANN *(Japanese)* 5231
shot noise
asynchronous opt. chip interconnects with direct detect., crosstalk anal. 9440
coherent detect. photodiode, optimum opt. LO power levels 25847
coherent opt. POLSK receivers, LO intens. noise and unmatched quantum efficiencies 25491
coherent-OTDR, reduction of stochastic amplit. fluct. 18121
CPFSK opt. receivers with Gaussian freq. pulse shape, perform. anal. 42436
double barrier quantum struct., shot noise 13199
externally modulated analog opt. links, dyn. range 9537
intens. estim. from shot-noise data 15925
intens. modulation/direct detect. opt. commun. syst., optimum sig. detect. 34076
laser radar image form., sea surface and water thickness 17454
lightwave systs. with opt. preamplifier, perform. eval. 17186
M-ary opt. polariz. modulation detect. in commun. channel 17318
magneto-optic Kerr effect sens., field meas. 10002
multimode VCSEL, noise perform. 1984
opt. CDMA commun. syst. M-ary signalling 34058
opt. PLL, amplit. modulated commun. link 42347
photoconductive layered solid-state imaging device, SNR anal. 17930
photocurrent shot noise suppression in feedback loop 17777
real time electro-optic probing for long logic pattern anal. 34649
reliab./quality diagnostic tool for electronic devices 1315
reson. tunnelling structs., noise meas. 30189
Sagnac/Mach-Zehnder fiber-optic interferometer thermal procs. comparisons 42835
sync. opt. chip interconnects, perform. anal. 39604
waveguide-type opt.-freq. comb generator 22883
AlGaAs wires, diffusive mesoscopic conductor, reduced shot noise 29927
Er-doped fiber amp. preamplified receiver perform. eval., ISI 25527
GaAs/AlGaAs, double barrier RTDF, shot-noise suppression 30230
InGaAs MSM photodetector charactn. by electrooptic LD sampling 23009
$KTiOPO_4$ nonlin.-opt. waveguides, quadrature squeezing, ultrashort pulses 40084
PbI_2 X-ray detectors, electronic noise 18320
a-Si:H nip and pin diodes, 1/f noise anal. 38798
SiC JFETs, LF noise anal. 38279
shower counters
Blitzen array proc., second level trigger element 43123
CDF End Plug Upgrade Project 26187
liq. Ar accordion hadronic calorimeter 34925
Si/Fe(Fe+Pb) calorimeters, binding energy losses, flucts. 43117
SHS (combustion synthesis) *see combustion synthesis*
Shubnikov-de Haas effect
antidot lattice, quantum transport, periodic-orbit theory, chaotic syst. 21981
nonparabolic semicond. superlattices, Einstein rel., mag. quantization 29936
organic conductors meas., uniaxial stress method 34662
semicond. superlattices, long. magnetoresist. 29900
AlGaAs:Si-GaAs SQW, MOCVD, magnetotransport, subband struct. 22003
AlGaAs/GaAs:Si, QW, δ-doped, subband carrier mobilities 29863
$Al_{0.22}Ga_{0.78}As/In_{0.15}Ga_{0.85}As/GaAs$ one-side-modulation-doped QW, electronic subband studies 21996
$Al_{0.48}In_{0.52}As/Ga_{0.47}In_{0.53}As$ heterostruct., δ-doped, second subband pop. 29890
GaAs/AlGaAs, narrow quantum Hall conductors, anom. magnetotransport 13129
GaInP/GaAs/GaInP quantum wells, persistent photocond. 13174
InAs/AlSb quantum wells, QHE 38366
InAs-GaSb QWs, magnetotransport meas., hydrostatic press. appl. 38334
$In_xGa_{1-x}As$ strain-relax. heterostruct., 2DEG, galvanomag. props. 13119
InGaAs/InP at high mag. fields and low temps., quantum magnetotransport 38286
InGaAs/InP quantum wells, electrons in-plane effective mass 38329
InGaP homojunctions, LP MOVPE, 2DEG 21957
InGaP/GaAs heterostruct., MOCVD growth, charactn. 20825
Si MOSFET, diffusive transport, resist. flucts. 1430
$Si/Si_{1-x}Ge_x/Si$ heterostruct., 2D hole gases, magnetotransport and photolumin. 21993
shuffle exchange networks *see hypercube networks*
Si(Li) detectors *see silicon radiation detectors*
Siberian snakes *see beam handling equipment*
SIC *see monolithic integrated circuits*
side looking airborne radar *see airborne radar*
sigma-delta modulation
1-bit beamforming proc., clipped data stream insertion 8349
adaptive sig. proc. in subbands, sigma-DM tech. 32719
sigma-delta modulation continued
bal. model realization and truncations, cascaded polyphase recursive filters 21419
bandpass sigma-delta A-D converters, cascading 689
BiCMOS fourth-order sigma-delta ADC, HF/resoln. 29328
BiCMOS SC bandpass delta-sigma A/D modulation, 10.7 MHz 29310
BiCMOS second-order bandpass delta-sigma A/D modulators, 10.7 MHz 21391
BiCMOS stereo audio sigma-delta ADC for audio appls. 9770
BIST scheme for SNR/freq. response test of ADC 12597
chaotic sig. possibility, nonlin. props. 21385
CMOS analog/digital interface for cellular telephony 33774
CMOS current-memory sigma-delta modulators, discrete-time simul. 29327
CMOS low power 20 bit instrum. delta-sigma ADC 29321
codec, mobile telephone appls. 3276
Crystal CS5327 16-bit ADC, single event effects testing, HI bombard. 29334
DAC, interpolator archit. 21380
data commun., sinewave modulation, DDS/sigma delta techniques 12353
decimation filter for sigma-delta converters, high fidelity 690
delta-sigma ADC, noise shaping, distributed zeros, new archits. 6189
design prototyping, A/D mixed tester 688
double loop ΣΔ modulator, unstable filter dyn. 24013
double-loop sigma-delta converter with sinusoidal input, quantization noise spectrum 710
dyn. overload recovery in sigma delta modulators 702
ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
fourth-order SI delta-sigma modulators for HF appls. 21389
halftone, continuous-tone conversion of error-diffusion coded images 24595
high precision ADC syst. for instrumentation 3765
high-order universal sigma-delta modulator 12601
high-resoln. sigma-delta converters, nonlin. meas. 708
hybrid analog/digital VLSI sig. proc., single bit modulators 12661
look-ahead decision-feedback ΣΔ modulation 32043
LV fully differential class-AB switched-current ccts. 6248
mixed sig. device, high precision testing 766
multi band sigma delta ADC 29332
multi-channel decimator for tri-level delta-sigma modulator 29080
multi-tone sig. generator for BIST appls. 9967
oversampling A/D converters, delta-sigma modulator structures 25758
oversampling ASIC ADCs, design techs. 29314
oversampling CMOS ADC, 100 kHz bandwidth 697
parallel delta-sigma ADC, archit. and CMOS implement. 29317
power DAC, Σ-Δ modulator, controlled limit cycles 21386
precision behavioural modelling of data converters components 701
SC cascade struct. 12604
second-order Δ-Σ modulator/freq.-to-digital converter 12608
sigma delta modulators design from specs. 699
single-stage single-bit oversampling A/D converter, local feedback loops 711
tone-free ΣΔ modulators, design aspects 12598
tunable bandpass sigma-delta A/D conversion for mobile commun. receiver 9354
VLSI decimation filter, sigma-delta A/D converters 691
VLSI design of sigma-delta bitstream FIR filter 37887
zero mean stochastic inputs ΔΣ modulators, anal. 37819
signal acquisition *see signal detection*
signal coding *see encoding*
signal conditioning circuits *see analogue-digital conversion; signal processing*
signal delay lines *see delay lines*
signal detection
see also acoustic signal detection; adaptive signal detection; maximum likelihood detection; optical signal detection; radar detection; signal resolution; Viterbi detection
2D autoregressive noise model, broadband planewave detect. 40840
3D Hough param. space, clustering, circ. arc extraction 33014
12-channel fiber optic communs. equipt. *(Japanese)* 25510
16-DAPSK, multiple-sym. differential detect. *(Japanese)* 24010
acquisition, tracking and pointing, conf., Orlando (1993) 36889
act. sonar, lin. FM waveforms detect. 9675
active phased array built-in perform. monitoring, fault-isolation and correction syst. 23950
AIC/MDL, DOF 2504
alpha-stable proc., sigs. class./detect. 8363
American digital cellular syst. spectral efficiency 9275
analog autocompensators, correl. feedback and direct calc. of weighting factor 32593
antipodal Rayleigh fading sigs. detect. in severe CCI 8386
ARMA syst. ident. based on second-order cyclostationarity 8424
array sig. no. detect. for coherent/incoherent sigs. 40955
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
asymptotic relative efficiency of distributed detect. schemes 8289
asymptotic relative efficiency of distributed detect. schemes 32534
asymptotically optimum space-diversity detect. in non-Gaussian noise 15969
asynchronous DS/CDMA syst., multistage detector perform. 25240
asynchronous parallelism in steady-state genetic algms. 8247
AWGN multi-user channels, soft-decision interf. cancellation 42162
band limited PRBS, PSK syms. 8388
bandlimited channel 8D 4-pulse 2-carrier signalling scheme 40547
Bayes theory, joint discrim., detect., estim. and ident. of sigs. 15902
Bayesian predictive densities, DOA estim./detect. 2477
Bayesian predictive densities, multiple cisoids detect./estim. 41006
Bayesian recursive estim. of freq./timing 2553
binary block codes, scarce-state-transit. error-trellis decoding 40705
binary circ. harmonic fn. for rot. invariant digital pattern recogn. 24554
binary CPM-DPD, diversity in Rician fading channels 32042
binary FSK direct conversion receivers 3463
binary receivers, Gaussian/α-stable impulsive noise, perform. anal. 40941
biomedical sig. proc., pattern recogn. *(German)* 18429
blind channel ident. based on second-order stats. 24003
blind equalization, recursive Bayesian techs. 15943
blind equalization based on Nakagami fading index, cost fn. 3430
blind ident./equalization of MA channels for QAM 8367
blind syst. ident. from output autocorrel. 8085
block coded modulation schemes, design/eval. 15781
BPSK modulated co-channel sigs. reception, dual sig. receiver 33886
BPSK with open-loop tanlock carrier recovery, perform. 24015
candidate target detect., likelihood interpolation for peak detect. 15879
carrier freq. offset-SSMA method 25254
CD meas., sub-half micron region, ESD technol. 42929

signal detection continued
CDMA, imperfect power control, acquisition-based capacity estim. 25256
CDMA coherent detect. scheme for uplink channel 9230
CDMA decorrelating detector for antenna arrays 15954
CDMA joint detect. mobile radio systs., interfer. suppression 33887
CDMA lin. fractional spaced equalisation interf. cancellation 8740
CDMA mobile radio, joint detect./coherent receiver antenna diversity 25364
CDMA mobile radio syst., turbo-codes appl. 9239
CDMA mobile radio systs., joint detect., diversity 25343
CDMA mobile radio systs., multi-user detect. equalisers 17041
CDMA mobile radio systs., multi-user detect. equalizers 9237
CDMA networks, decorrelators for multi-sens. systs. 33761
CDMA rapid acquisition schemes in multipath delay fading environ. 33208
CDMA systs., pre-decorrelating single user detect. 9238
channelized receiver appl. guide 43586
closed loop carrier phase sync. techs. 8461
complex sig. detect. in white Gaussian noise and narrow-band interf. 32592
covert commun. employing wavelet technol. 9164
cpd. sig. modified recurrent search *(Russian)* 16051
CPFSK differential detect., LO phase noise effects 42283
CPM perform., mobile radio diversity operations 17119
CPM sigs., backtracking seq. detect. 15956
cross-correl. neural network models 2490
decentralized binary hypothesis testing, fund. struct. 15970
decentralized detect. systs. design, unified approach 32538
decision feedback multiple-sym. differential detect., diversity 9200
DECT-type systs., non-coherent equaliser receiver struct. 8855
deinterleaving pulse trains 2481
differential GMSK perform. eval. using K^{th} order detectors 32032
differential parallel combinatory SS commun. systs. *(Japanese)* 25207
digital mobile commun., blind seq. detect. 17039
digital mobile radio systs., seq. detect. algms. 3437
digital multipath wireless channels ident. in interf. 9303
digital phase recovery in presence of freq. shift 8458
digital radio, spectrum phase interpolation, detect. tech. 9381
digital radio systs., freq.-phase detector for carrier recovery 3316
digital transm. over degraded channels, coded modulation 8103
digital TV broadcasting, waveform transm. technol. *(Japanese)* 34214
direct detect. opt. CDMA commun. syst. Monte Carlo simul. 41464
discrete sig. high noise immunity receivers, input sig. proc. method 2578
disk recording channels with sig. depend. noise, model 30720
distrib. ident. algm. appl., sig. detect. 8294
distributed cell-averaging CFAR detect. in depend. sens. 32532
distributed detect., gradient algm. for quantization levels 24328
distributed detect., parley approach 24330
distributed detect./estim., comment 32599
distributed digital sig. transm. syst., sig. recovery, estim. method *(Japanese)* 15771
Doppler shift z 42303
DPSK differential detect. scheme, phase seq. estim. 32684
DS-SS communications, doubly selective fading channel, spreading seqs. 17016
DS-SS digital commun., sig. detect., hybrid syst. model 24272
DS-SS receiver, noncoherent matched filter code acquisition 32582
DS-SS serial search, multiple-dwell code acquisition detector rules 32092
DS-SS SS CDMA, MMSE interf. suppression 17017
DS-SSMA syst. based on $\pi/4$ DQPSK and convolutional coding 25369
DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
DS/CDMA adaptive interf. canceller for fast fading channel *(Japanese)* 25277
DS/CDMA prototype syst. for voice/ISDN sigs. 3320
DS/CDMA successive interf. cancellation 25356
DS/CDMA systs., coherent detect. syst., suppressed pilot channel *(Japanese)* 25279
DSO, 12-bit resoln. *(German)* 25916
DSO, fast sampling and display tech. *(German)* 25915
dual-tone multifrequency (DTMF) detect. improvement 33394
dyn. time-warp compensation for correl. of long seqs. 40944
ECG, P waves detect./class., Gabor wavelets 26441
ECG sigs., HF low-amplit., detect. in time seq. 26415
EEG sigs., wavelet de-noising and ident. of evoked response pot. 35070
electrolytic detector designs for radio reception 9187
electromechanical transducers, sig. params. estim. 17704
equalization, recurrent radial basis fn. networks 2555
error probab. during sig. reception, deviation from Gaussian law 32576
extended sources, resoln./detect. 2539
fast blind equalization of wireless commun. channels 15944
fast response phase detector for PLL 29081
fast transversal filter for decision feedback equalization 15942
feature matching/extraction, sig. detect. problem 32993
FIR channels blind ident. via antenna arrays 8366
FIR channels fractionally spaced blind equalization 8368
first-order PLL in noise/interf., cycle slip 2547
freq. hopped sigs., radiometric detect., multipath fading effects 25269
freq. non-selective channels seq. estim. 8384
freq.-selective Rayleigh fading channels seq. estim. 8373
Gaussian AR noise, nonGaussian sig. detect., lattice struct. 40989
generalized change detect. problem 24283
geolocation anal. by TDOA, comments/reply 32546
Gerschgorin disks, source no. estimator 40956
go-back-N ARQ scheme for variable-error-rate channels 16500
harmonics no. detect., max. eigenvalue varied rate criteria *(Chinese)* 8401
Hartley transform for detect. of seismic events 43492
hierarchically structured systems subsystems and noise signals identification 24236
high track dens. mag. recording, multichannel equalization 7194
IF sig. sampling, digital coherent detect. *(Chinese)* 8402
image seqs., dim point target detect. 16109
impulse responses ident. by wavelet transform. 8256
impulsive interf. mitigation, arbitrary IID state noise 8290
impulsive stochastic transients detect., background noise 32647
incoherent and skewness matched filter detectors, multipath environ. 24174
induction motor drives, field oriented, digital implement. 36702
integrated polyspectrum, non-Gaussian sigs. detect. 2485
intermittent sigs., effective sweep width 40768
internal combustion engine knock detect. 5353
intraventricular electrogram filtering, effect on sig. detect. 35082
IR image dim point target detect., difference method 16115
IR multi-spectral target/background field meas., anal. 16105
IR multispectral target/background field meas. 18974

signal detection continued
iterated fn. syst. model based data detect. 8382
Japan mobile telephone syst., detect. study 9273
joint detect. CDMA third-generation mobile radio syst. concept *(German)* 42207
known sigs. detect. in additive noise 8288
LDV, sig. detect./proc. optim. 4021
LEO satellites, PN code acquisition schemes 33951
lin. trajectory filters, noise rejection perform. 8439
low-power monolithic RF peak detector anal. 12374
mag. underwater transient sig. detect., wavelet transform 16061
magnetic recording, conf., San Diego (Aug. 1994) 20241
matched median filter for QAM sigs. detect. 15967
matched subspace detectors 8362
MFSK sigs., non-coherent detect., phase noise, AWGN channel 15701
microcellular systs., compatibility matrix learning 9253
mil. commun., acousto-optic ESM receiver upgrade 18972
minmax sig. design for detect. subj., lin. distortion 32536
mobile LEO channel, downlink DS CDMA perform. 25372
mobile radio commun., interf. canceling equalizer 9383
module-phase codes with noncoherent detect. 40635
multi-purpose threshold detector for mobile radio appl. 9305
multichannel Gaussian sigs., low rank detect., constrained inverse 40952
multichannel sig. detect. in correl. non-Gaussian random noise 8286
multiframe target detect. anal., pixel stats. 32855
multihypothesis testing, seq. procedure 24169
multilayer perceptrons, sig. detect. and class. perform. eval. 24341
multilinear time-freq. representations, multicomponent sigs. anal. 32743
multimode lightguide differential charact. expt. set-up *(Russian)* 14477
multipath channels blind identifiability 24290
multipath compensation for underwater acoustic commun. 9614
multipath fading ISI channel TCM detect. by sequential deq. estim. 40548
multiple periodic waveforms extraction from noisy data 32614
multiple sigs. dyn. coord. reception in correl. noise 40880
multiple TCM receivers, systolic-array struct. 15862
multiscale, multi-orient. fields, local differentiation filters *(Japanese)* 24672
multiscale difference eqn. sig. modeling/anal. techs. 32784
multisensor random sig. detect., quantization 24285
multitone sync. for fading channels 8459
multiwindow method for array spectrum estim./sinusoid detect. 2473
narrow-band beamforming in 2D domain *(Japanese)* 2460
narrowband digital FM sigs., seq. estim. 24280
narrowband sigs. distributed detect. 32533
near-far resistant CDMA detectors, param. estim. errors effects 16460
noise canceling, autoassociative memory trained by order stats. 32623
noise reduction syst., voice activity detector influence 40752
noisy phase OOK sigs., noncoherent detect. 40784
non-Gaussian environ., sig. class., universal methodology 24243
non-lin. wave-wave interacts. detect., tricoherent anal. 41047
nonGaussian data, array modeling and sig. detect. 16065
nonlin. ISI channels, improved detector 7195
nonminimum phase channel deconvolution 2475
nonredundant error correction DQPSK for aeronautical-satellite channel 33945
nonselective fading, two-stage carrier sync. 25345
nonselective Rayleigh fading channels, sym.-aided channel estim. 7975
nonstationary channels tracking, optimal windowed RLS algm. 17097
nonzero-mean noise, Markov estim. method 16025
optimal receiver design, wavelet bases 40929
optimum detect. in dual-channel Gaussian data, localized interf. 15867
orthogonal coherent digital MFSK systs. in Gaussian noise and Rayleigh fading 40795
orthogonal FDM based syst. for multiaccess methods testing 9329
OTH radar fusion, propag. mode estim. 42483
outage probab./BER estim., dual protection margins 17056
oversampled bandpass sigs., inphase/quadrature components extraction 2517
PARADE, sigs. nos. determ. in unknown noise environ. 24222
parallel distributed detect. under Neyman-Pearson criterion 32535
pass. sonar optimal struct. *(Croatian)* 3631
PDs, sig. generation, transm. and acquisition 1518
perform. calc. of lin./sq.-law detectors 32539
planar antenna arrays, 1-stage/2-stage optimum inform. proc. 8245
pseudo roots and effects of model order overestimation on ESPRIT algm. 40983
QPSK coherent detect., phase ambiguity removal for diversity combining *(Japanese)* 41040
quadratic stochastic syst., blind identifiability 24288
quadrature detect., interpolation accuracy *(Japanese)* 15936
quaternary const.-envelope modulation, 4D trellis coding 15703
quaternary full response CPM sigs., generation/coherent detect. 3434
radiometer perform. limitations in spherically invariant noise 32541
random seq., finite change-time, abrupt change detect. 24168
resoln. cell based fusion 15919
Rice/Rayleigh channels state estim., nonlin. filtering 8456
Rician CDMA channel fading-resistant multiuser detect. 41460
Rician sig. in L Rician interferers, outage probab. 33920
robust detect. of random sigs. in depend. noise *(Chinese)* 8399
robust failure detect., filtered meas. parity check 28521
satellite mobile channel, FSK-DPD/CPM-DPD, pulse shaping 25304
Schneider write equalizers for (1,k) peak detect. channel 7137
self-learning blind sig. separation of time delay narrow band sigs. *(Chinese)* 32449
shift variance of wavelet transform for sig. detect. 24256
single/multi-amplit. sigs. in interf. channels, neural-net based receiver 16408
sinusoidal sigs. in non-Gaussian noise, adaptive detect. 15900
slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
small target detect., long term integrat. 18975
small targets signal/data proc., conf., Orlando, USA (1994) 25
SNAP, bispectrum signal processing 24350
solid-state gravit. antennas, sig. detect. 15864
sparse deconvolution, Gaussian mixtures 24242
speech recogn., subband-autocorrelation anal. 32405
spherical subspace updating, asymptotic anal. 8305
SS digital data link for aviation 10379
SS sigs., freq. domain delay/multiply receivers 42154
stationary-head multi-track mag. recorder, design 34286
stochastic reson. phenom., sig. proc. tool 8348
struct. intermittent interf. at demodulator, compensator efficiency 40856
suboptimal detectors, discrim./perform. measures 24284

signal detection continued
- subspace GLRT for vector-sens. array detect. 40954
- superimposed grating for magneto-opt. disk heads 7377
- syllabic companders, strict sense envelope detect. 9162
- sync. CDMA commun. syst., adaptive interf. cancelation 25241
- systematic TCM in coded modulation 8093
- target acquisition probabilities for image motion and vibr. 32904
- target discrim., computational vision human perception models 35393
- TCM sig. design for class-A impulsive noise channel 40569
- TDMA mobile radio systs., CCI suppression 9393
- telemetry sig. reception/proc. 3160
- three-scale detect. systs., synthesis 41030
- threshold sources detect., prewhitening of colored noise fields 8293
- time series, discontinuity location, recursive Bayesian method 41009
- time-freq. plane, sigs. filtering, FM/peak detect. 32745
- tracking, variable-dimens. filter, input estim. 24329
- transient sigs. detect. in multipath environ. 40888
- trellis coded multi-amplit./-PM, noncoherent detect. 24281
- trellis coded overlapping multi-pulse PPM, opt. channel 15705
- triangular type phase detector based synchronizer, cycle slip time 8248
- two-channel tests for common non-Gaussian sig. detect. 8292
- two-track codes for mag. recording channels 39185
- UHF single ASIC CDMA digital receiver for space appl. 9414
- uncertainty modelling, in signal detection task 8441
- uncoded M-DPSK non-redundant error correction 8460
- unequalized mag. recording channels, clock recovery 7193
- universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
- upper sideband and lower sideband SSB sigs., ident. algm. 40900
- US intell. flowmeter, hydroelec. power appls. 10876
- valid sigs. in nonGaussian noise, asymptotically optimum detect. *(Russian)* 16050
- vap.-emitting sources, detect./localization 25892
- VIF/SIF/PLL, TV sets/VCRs multistandard sig. detect. 42581
- Viterbi algm. simultaneous data detect. and channel estim. 8385
- VLF tones, constrained least sq. estim. 15996
- wave field, randomly nonuniform medium perturbed, optimal obs. 15865
- wavelet based detectors 40925
- wavelet transform for modulation class. 32515
- wavelet transforms theory and appls. 16354
- wavelet-based detect. of transients in biological sigs. 35071
- wavelet-packet-based multiple access commun. 33202
- weak stochastic sigs. detect. in non-Gaussian noise 40976
- weak-sig. detect. theory 8418
- weak-sig. image proc., multichannel whitening of non-Gaussian data 16100
- wideband sens. array proc., lab. array testbed 2581
- Wiener-optimum lin. detectors for non-Gaussian channels 24246
- wireless LAN protocols, radio capture models 25059
- a-Si:H arrays, X-ray transm. scans, PET/SPECT appl. 35062

signal flow graphs
- asynchronous design methodologies, overview 6142
- clustering of ccts., stochastic flow injection method 21022
- coupled strip lines, short-duration pulses caused by unequal phase velocities 31877
- DC small sig. symbolic anal. of large analog ICs 12281
- DSP real-time implement. on multiprocessors, CAD environ. 12584
- DSP teaching aid, algorithmic engng. 36926
- dyadic Green's fn., spectral domain, planar cct. microstrip transm. lines 6291
- high-level synthesis, algm. based fault tolerance 32496
- induction motors, transient operation math. anal. methods 44047
- large-scale microwave networks, symbolic anal. 828
- lin. ccts., OTA/grounded capacitors, realization 37607
- multidimensional transfer fns., inversion of continued-fraction expansion 5940
- multisignal flow graphs, syst. testability anal./fault diagnosis 34353
- mutually coupled line propag. charact., digital anal. method 40394
- Pade approximants flow graphs, cct. anal. appls. *(Russian)* 21073
- polynomial GCD computation, finite field division, VLSI array synthesis 12570
- RLS estim., systolic array, formal derivation 28659
- spatial elec. ccts., automatic anal., graph theory 37576
- systolic multipliers/digital filters, sig. flow-graph 12485
- transformational design, formal semantic model, fit SIL 28961
- two-way partitioning, optim. by iter. improvement, expt. eval. 21021
- word-length determ./scaling software for sig. flow block diag. 28969

signal generators
- *see also function generators; noise generators; ramp generators; swept-frequency oscillators*
- bit stream generator for HDTV, SCSI hard disc 9732
- chaotic chip for nonlin. dyn. network anal. 515
- CMOS PLL-based prog. clock generator for video sig. proc. 12611
- diffr. radiation generator, open resonator, intermode oscills. 37949
- digital generator for elec. prospecting equipt., adjustment/testing 4388
- Ermes pager testing, SME sig. generator *(German)* 25350
- four-dimens. plus hysteresis chaos generator 12299
- generator employing CMOS inverter for cellular neural networks 21496
- high-speed tracking target simulator for fine tracking mechanisms 17305
- hyperchaos from cellular neural networks 21474
- optimal alarm-sig. generation algms. for gas analyzers 3909
- PDs, sig. generation, transm. and acquisition 1518
- pseudo-random seq. generator, clock-controlled *(Japanese)* 12614
- R&S Signal Generator SME extensions for testing, digital networks 9968
- radar exciter, ultra-low phase noise 42523
- radio links, computer generation of sigs., simul. program 17025
- ref. sig. generator echo cancellation, ISI receiving schemes 32725
- ship's screw cavitation recording, angle sampling control *(Croatian)* 3685
- sine/cosine ref. generator, high-perform., design 8350
- specialised measuring instrum. charact. monitoring 42684
- subcarrier comb generator, phase-locked tunable config. 9426
- synchronous sampling clock generator, meas. accuracy anal. 25763
- voltage-mode CMOS chaos generator and internal states obs. 562

signal processing
- *see also acoustic signal processing; adaptive signal processing; analogue processing circuits; array signal processing; bandwidth compression; convolution; correlation theory; data compression; deconvolution; digital signal processing chips; geophysical signal processing; image processing; medical signal processing; optical information processing; pulse compression; radar signal processing; sensor fusion; signal detection; signal processing equipment; signal reconstruction; signal representation; signal resolution; signal restoration; signal sampling; signal synthesis; video signal processing; Walsh functions*
- 1-bit beamforming proc., clipped data stream insertion 8349
- 1D RLS systolic array, folding design procedure 29278
- 2-D harmonic retrieval, subspace algm. 40997
- 2-D MUSIC/2-D MP estimators, asymptotic props. 15978
- 2-D nonseparable Malvar wavelets 32512
- 2-D wavenumber estim., param. estim. 24178
- 2-level quantised Gaussian signals, digital filtering 40783
- 2D freq. estim. algm. 8284
- 2D sig., bispectrum estim., projection method *(Japanese)* 15895
- 2D sigs., cyclic, parametric proc., solar appl. 2568
- 2dimensional recursive orthogonal wavelet transform. 40927
- 198-Mb/s recording channel, sig. proc. 9751
- ^{3}He proportional counters, DSP 18334
- *RC* calibration standards, multifreq. binary testing 25704
- A/d convertors linearisation, analog and digital dither techniques 25755
- adaptive complex radial basis fn. networks, channel equalization 15889
- adaptive nonlin. equalisation of digital commun. channels 15985
- adaptive nonlin. recursive state-space filters 748
- adaptive RLS filtering, iter. version of QR-decomp. 32479
- adaptive small-sample condition estimator for matrices, rank-one modifs. 32474
- additive unknown colored noise, max. likelihood DOA estim. 40839
- address generation coprocessor, design and VLSI implement. 29302
- admissible nonparametric estim. of probab. dens. 15901
- ADSL high speed equalizer, sig. proc. design 9086
- algm.-based fault tolerance, canonical computational model 32497
- algm.-based fault tolerance (ABFT) 32493
- algorithm mapping onto parallel processors, conf., London, UK (July 1994) 32586
- aliasing props. of circ. MISRs, comments/reply 21276
- alloys, magneto-inductive testing, sig. excitation/proc. methods 12227
- analog sig. neural proc. chip 29479
- analytic sig. generation, tips and traps 2493
- angle of arrival estim., neural network 8407
- AR order selection methods, comparison 15977
- AR sig. modelling for short seqs., efficient Bayes soln. 40973
- arith. FT, alternate realizations 8298
- ASDL wideband noise meas. and implications for sig. proc. 16923
- Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
- asymmetrically overlapped windows, lapped orthonormal transform 32715
- asymptotic MLE of chaotic sigs. in noise 40847
- AT&T voice and audio proc. for telephony appl. 3129
- ATS 93 test conf., China (Nov. 93) 36857
- bandlimited orthogonal wavelet syms. 8347
- Bayesian marginal estimator variance, lower bounds 41004
- bi-valued fn. with modulated transits., FT freq. synthesis 8258
- binary, residue transform., respect, 2^m+1 moduli 626
- binary seqs. and arrays, optimum odd-autocorrelation *(German)* 8158
- blind channel estim./equalization, partial-response input sigs. 33162
- blind equalization, ML/MMSE estim. 41021
- blind MA-syst. ident. based on higher order cumulants 32491
- blind sym. estim., deterministic approach 8398
- calibration of electroacoustic transducers, parametric technique 22681
- calorimeters, sig. proc., functional schemes 4152
- CDMA approx. synchronized syst. sig. design 24784
- CDMA commun., CW/narrow-band sigs. interf. suppression 33749
- chain-struct. sync. dataflow programs, memory requirements 32619
- channelized receiver appl. guide 43586
- chaos in signal processing, IEE Colloquium, London (1994) 19
- chaos masked messages extraction 32590
- chaotic attractors charact., fourth-order off-diagonal cumulant slices 8339
- chaotic sig. modeling, nonlin. AR model 15917
- chaotic sig. proc. via unstable cycle extraction 32780
- chaotic sigs., noise reduction, preprocessing method 24188
- chaotic time series, functional predictor, parallel implement. 24179
- circuits systs., symp., Chicago, USA (May 1993) 31
- circularity and discrete-time random sigs. *(French)* 41036
- classifiers on relatively compact sets 24227
- commun. sig. proc. by RBF nets 41027
- communication and signal processing, conf., South Africa (1993) 5502
- communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
- comparative analysis of digital sinewave generation methods 25904
- competitive/selective learning for vector quantizer design *(Japanese)* 15772
- complex exponential sigs. param. estim. 2569
- complex gradient and Hessian 2566
- concurrent error detect. in fast Fermat no. transform networks 41049
- conducting polymer sens. for electronic nose 3903
- conspiracy attacks on threshold RSA signature scheme 2391
- constellations based on hypercubes 40576
- constrained anti-Hebbian learning algo. for total least sq. estim. 2549
- consumer electronics, conf., Hong Kong (1994) 5460
- continual neurocomputer for sigs. recogn. 40902
- continuous level probab. fn. eval., sig. proc. method *(Japanese)* 2458
- continuous-time Chandrasekhar smoothers in detect. and tracking 41033
- convoluting systs. diagnosis by space-time compression 32107
- convolutional codes/time-varying errors/Kalman error correction 40664
- correl. fns. of complex sigs., inform. props. 15904
- coupling capacitor voltage transformer, perform. anal. 5008
- covariance estim. for multidimensional data 8285
- Cramer-Rao lower bound approxs. of freq. estim. 24224
- Cramer-Rao lower bounds for damped sinusoidal proc. 40833
- CRLB/HOS of polyphase sigs. in additive/multiplicative noise 24245
- cross-correl. neural network models 2490
- CW transform, integer scales, fast implement. 8428
- CW transform for sig. investig./understanding 15974
- cyclic sig./mean estim., vibrodiagnostics 40765
- cyclostationary sigs., neural network classifier 40940
- cyclostationary time-series, cumulant theory 8417
- cyclostationary time-series, cumulant theory devel. 8418

signal processing continued
- d=1 channel codes, sig. proc. tech. 32070
- damped harmonics and polynomial phase sigs. 32463
- damped sinusoidal proc., variance of LS estimators 2474
- dampled sinusoidal signals 24235
- data class., model, priori unknown params. estim. 2541
- data commun. monitoring, measuring sig. optimisation 42752
- DCT, recursive struct. realization 32763
- DCT realisation, recursive struct. 11897
- DCT recursive filter, implement. 8412
- decay of inform. sig. propag., noisy channels 8089
- Decca Navigator radionavigation receiver design and DSP 42543
- decimation FFT algm. generalisation 37375
- decimation-in-time-freq. FFT algm. 32767
- decision based neural nets, sig./image class. appl. 15899
- decomp. of quantics in sums of powers 32456
- DEFECT focal plane defect model, kill vehicle appls. 25886
- deterministic noise cancellation in chaotic signals 32641
- deterministic sig./Gaussian noise, additive mixture, exact splitting 8260
- DFT, arbitrary blocklength in finite fields 2558
- DFT of arbitrary blocklength in finite fields *(Chinese)* 32044
- DFT windows in distortion computation 24232
- diagnostic entropy, syst. diagnosis sig. incompleteness 171
- digital avionics systems, conf., (Nov. 1994) 5456
- digital commun. sig. MLS estim. by neural net 32621
- digital Doppler companding, canonical decomp. algm. 40883
- digital meas. of random-sig. rolling mean/variance 3772
- digital neural network error detect., algm.-based inner product protection 32499
- digital signal processing, conf., Yosemite, CA, USA (1994) 11548
- digital TV broadcasting, waveform transm. technol. *(Japanese)* 34214
- digitally generated signals, filtering 8444
- discrete lin. time- and freq.-variant systs., impulse and cissoid responses *(German)* 12307
- discrete multiwavelet transforms, alg. design 32665
- discrete polynomial-phase transform, co-channel FM/PM sigs. separation 24182
- discrete prolate spheroidal seqs. generation, algm. 2502
- discrete sigs., multichannel spline interpolation 8265
- discrete sine transform, prime factor decomp. algm. 2497
- discrete sine transform, regular recursive algm. 8297
- discrete sine transform, regular recursive algm. 28708
- discrete sine transform with regular struct., recursive algo. 288
- discrete spline transform, computation/effectiveness 16045
- discrete-time multichannel sigs., neural net modelling 15976
- distortion source identification in power system 27283
- distrib. systs., sig.-spectrum anal./diff. eqn. 35635
- distributed detect./estim., comment 32599
- dither signal effects on the resolution of nonlinear quantizers 24181
- dithered quantizers, and without feedback 16000
- double coupler amplified fiber-optic delay line filter 14404
- DS-SS/QPSK systs. for multipath channel, adaptive equalizer *(Japanese)* 25212
- DSP, modular courses design 36929
- DSP, teaching, computer based/dedicated hardware projects 36919
- DSP algms. mapping, multiprocessors by simulated annealing 8355
- DSP algms. mapping onto multiprocessors, cost fns. 24225
- DSP appls., FPGA-based custom computers anal. 29192
- DSP archits./compilers, appl.-driven design 32618
- DSP demons. facility, sound card/MATLAB 36920
- DSP design tool requirements for embedded systs., telecom perspective 40801
- DSP for commun. technol. *(German)* 8334
- DSP OS modeling for multimedia appls. 3259
- DSP real-time implement. on multiprocessors, CAD environ. 12584
- DSP software synthesis, Ptolemy environ. 40800
- DSP synthesis tools for real time systs. 40802
- DSP training, indust. perspective 36923
- DSPiSP software for sig. proc. 15881
- dyn. feedforward supervised neural networks, perform. 8310
- dyn. supervised neural networks, fixed pole IIR struct., perform. 8309
- eigenvalue calc. and rank filtering, analog cct. 778
- electromachine vibr. data validation/recovery, ANN 19593
- electronic inform. exchange, Signal Processing Information Base appl. 24247
- EM flowmeters, dens. determ. of slurries 3763
- EMI receiver syst. design 15481
- emitter waveform estim., array sig. proc. 41037
- encoding of codes on curves 40660
- engng. degree lab., TMS320C25 DSP chip-based course 20345
- engng. with sig. proc., introduction 20297
- error model of data acquisition systems 34415
- European DAB sig. proc. *(Croatian)* 3647
- evidencing chaos from dimens. 16023
- explicit piecewise-lin. models 12303
- exponentially damped sinusoids, param. calc., third-order stat. 40863
- exponentially weighted LS ident. of time-varying systs. 2463
- expt. data approx., exponential fn. 40775
- extended H_∞ filter, robust EKF 40942
- fast algms. for DCTs and discrete sine transforms 8371
- fast blind equalization, block-updated algm. 24349
- fast convergent Jacobi algms. for VLSI sig. proc. 32597
- fast digital oscilloscopes, averaging mode, lin. improvement 17699
- fast Hartley transform algm., radix-3/9 20642
- fast least sq. QRD-based algm. for complex data 2500
- fast min. error probab. blind equalization algm. 16028
- fast sig. proc. for NaI(Tl) detectors 26242
- fault detection of gas sensor 25891
- fault-tolerant sig. proc., redundant finite rings 29244
- Fermat no. transform, algm.-based fault tolerant array archit. 32498
- FFT bit-reversal algm. 37376
- filtering time series, topol. 32468
- finite element multiwavelets 32511
- FIR systs. blind ident., third order cumulants 2525
- focal length detect. by using Haar wavelet transform, expt. syst. *(Japanese)* 34714
- focused gamma neural network, state space, noise reduction 32657
- forward/inverse DCT computation 15906
- fourth-order stats., freq.-/time-delay of arrival estim. 8315
- FPGA-based custom computers, DSP appl. archit. 29123
- fractal fns., splines intertwining multiresolution anal. and wavelets 32514

signal processing continued
- fractals, signal and image processing appls., conf., London, UK, Jan. 1995 16067
- frame and special types of extended pseudo-biorthgonal bases 32508
- freq., max. likelihood estimator, threshold behavior 2507
- freq. offset estim. via planar EKF 8317
- freq.-selective techs. based on SVD, TLS and bandpass filtering 32489
- frequency estimation, parametric/non-parametric methods comparison 24239
- functional sig. transforms without multiplication operations 8268
- fusion devices, plasma spatial distrib., broadband reflectometry proc. 40977
- gaseous 2D detectors, PC-based fast readout electronics 18384
- Gaussian procs., phase jitter, probab. distrib. changes 16015
- Gaussian sig., analytic generating fn., autocorrelation 32640
- general Toeplitz systs., look-ahead Schur-type algm. 32482
- generalised autoregressive prediction, speech coding appl. 24160
- generalized and partial FFT 284
- generalized Cramer-Rao bound and location param. case 41005
- generalized inverses in sig. proc./rem. sens. 8344
- generalized Mobius/arith. FT 2469
- genetic algms. for recursive digital filters 16059
- globally convergent adaptive blind filters and blind equalisers 2863
- GLONASS P-code, L1/L2 freqs., perform. 17505
- gravit. field detector for large seismic waves, sig. proc. 43480
- hardware reduction, fuzzy multiple signature anal. 29168
- hardware-software complex for real time optoelectronic syst. modeling 9652
- harmonics ident. and power meas. in power systs. 4738
- harmonics in noise, cumulant-based estimators, perform. anal. 40992
- harmonics no. detect., max. eigenvalue varied rate criteria *(Chinese)* 8401
- high level DSP code synthesis, dyn. data flow/control flow 32654
- high-press. meas., white-light interferometric transducer calib. 3783
- higher order moment matrices invertibility 40812
- higher-order stat. sig. proc., freq.-domain estim. 8314
- higher-order stats., 2-D single record harmonic retrieval 8313
- HMM, joint moments, simple calc. 41054
- HMM, on-line ident., recursive prediction error 8432
- Hurwitz polynomial, very strict, 2-variable, computationally efficient derivation tech. 28559
- HV impulse test results, digital anal./proc. 11731
- hyperchaos, clustering and cooperative phenom. in CNN arrays 21492
- identification of processes with output drift, freq.-domain 25700
- IEEE conf. on instrumentation/meas., USA (1993) 20198
- IEEE ICASSP conference, Adelaide, Australia (1994) 20269
- IEEE IECON '94 conf., Bologna, Italy (1994) 36823
- IEEE MILCOM conf., Boston, USA (1993) 36897
- IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
- IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
- IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
- IIR Hilbert transform design, weighted optim. *(Japanese)* 32687
- impulsive noise removal from measurement data 25772
- induction motor drives, field oriented, digital implement. 36702
- induction motors, voltage fed, current regulated, field oriented control 19630
- inexpensive Gabor decomp. 32517
- information technologies/systs., conf., Ukraine, 1993 3
- information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
- instantaneous freq., bootstrapping confidence bands 32461
- intell. control of sig. proc. algms. in commun. 16575
- intell. DSP, stock trends determ. *(Japanese)* 24334
- intell. sig. proc., present and future *(Japanese)* 24333
- interact. multiple model tracking algm., parallel implement. 2561
- interferometric sens., birefr. polaris. maintaining fibre 17853
- interpolation, type I DCT transform 11971
- intrusion detect. syst., rem. operated, security appl., design 40904
- ionos. sig., stochastic props. of phase derivative 32594
- IR seeker, scan modulation meas./modeling 43582
- ISI nonlin. equalization, further decision prediction *(Polish)* 40794
- Jacobi algm. space, systematic exploration 32475
- Jacobi sig. proc. unit for time-adaptive SVD 32655
- Jacobi-type methods, monitoring diagonalization stage 32764
- joint distribs. for arbitrary variables 24275
- Kalman-filter-based measurand reconstruction architecture 25765
- Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
- kernel design, alias-free time-freq. distribs. 32742
- knowledge based fault diagnosing syst., sens. sig. reliab. *(Chinese)* 32637
- KoREMA, conf., Zagreb, Croatia (Apr. 1993) 20203
- lag correction in meas. systs., nonrecursive filtration 17625
- laser-induced diffraction signals, digital signal processing 25972
- LCD driver IC, high slew rate op amp 21464
- LDV, sig. detect./proc. optim. 4021
- lin. FM sigs., fast param. estim. algms. 40909
- lin. non-Gaussian sigs., multichannel ARMA models, identifiability 40993
- lin. phase FIR digital filters, max. SNR, design 15982
- lin. stationary syst. ident. and sig. recogn. 32569
- lin. systs., high throughput/low latency/low cost struct. design 28989
- linearity of fast digital oscilloscopes improvement 25753
- LMS algm. error triangle rule/misadjustment 8321
- lookup table, multidimensional sig. constellations shaping 24171
- Loran-C skywave delay estim., eigen-decomp. 17500
- loudspeaker preference rating variability reduction, digital equalisation 3695
- loudspeaker-room interact. equalisation, DSP appl. 3694
- low-dimens. sig. subspace computation 32472
- LP-MUSIC algm., consistency prop. 32564
- Lyapunov exponents calc. from time series 16020
- MA-model ident., modulated cumulants 24248
- mag. recording channel, binary/ternary DFE 7191
- mag. recording channel, neural net equalization 7106
- magnetic recording, conf., San Diego (Aug. 1994) 20241
- magnetooptic AC CT, intrinsic temp. compensation 17739
- MathCAD, expt. simul. lab for teaching sig. proc. 20294
- Matlab for teaching DSP 20295
- measurand reconstruction, unified approach 25768
- measurement system resolution improvement through optimal filtering 25766
- measuring device input sigs., reverse filtration procedure 17678
- medium-throughput sig. proc. on flexible instruction-set archits. 37797
- MELECON '94, conf., Antalya, Turkey (1994) 5470
- microsystems design, syst. concepts approach 22629
- Midwest Symp. on ccts. and systs., Detroit (1993) 33
- miniature Fabry-Perot interferometric sens., pass. sig. proc. 17851
- mixed Gaussian/non-Gaussian ARMA noises, harmonic retrieval 8433

signal processing continued
  mixed sig. ATE, data driven archit. 9813
  mixed time av., asymptotic theory, cyclic-moment/cumulant stats. 24286
  mixed-sig. ICs, testing, DSP-based techs. 21443
  model order estim. from covariance matrix eigenvectors 24251
  modulation-based time-variant filter design, Wigner distrib. 15986
  morph. filters design, genetic algms. 2798
  moving av. syst. ident. from bispectrum 2542
  MSK timing recovery algms. 9372
  multi-DSP archit., high perform. appl., expt. eval. 12588
  multichannel simultaneous digital tracking filters, vibr. control 17993
  multichannel transmitters, DSP/direct conversion 3323
  multicomponent sigs., amplit./phase params. estim. 40837
  multicomponent sigs. anal., time-freq. distrib., Radon transform. 2487
  multidimensional high-order moments estim., amplit. quantis. 2534
  multidimensional nonGaussian ARMA models, param. identifiability, cumulant matching 8340
  multidimensional sigs., optimum approx., quantized sample values 24347
  multiexponential sig. anal., data preprocessing techs. eval. 32644
  multifrequency binary measurement using frequency shift keyed symbols 25744
  multilevel digital sigs. estim., impulsive interf. presence 24208
  multiphase complementary pulse compression codes *(Chinese)* 9627
  multiple 2-D coherent sinusoids, high resoln. estim. 41001
  multiple periodic waveforms extraction from noisy data 32614
  multiple signature anal. compaction testing, quasi-optimal scheduling 21243
  multiple view time-freq. distribs. 8346
  multiple-head digital mag. recording, multichannel sig. proc. 8333
  multiplicative white stochastic proc., wavelet transform, stats. 32666
  multiplicative Zak transform 40850
  multiprocessor DSP, task allocation/scheduling 40827
  multirate controller for servo control, DSP based 8332
  multirate sig. proc. algms., compact code from dataflow specs. 40770
  multiscale phase measuring syst., param. determ. algm. 3702
  multitone signal components estim., low sidelobe time windows appl. 8445
  MUSIC estim. of real-valued sine-wave freqs. 40896
  narrowband digital FM sigs., seq. estim. 24280
  narrowband sig. extraction, neural net based scheme 2456
  NDA FF carrier synchronizer, Viterbi algm., cycle slip anal. 8455
  neural computation, phys. models and analogue VLSI implement. 6269
  neural nets, conf., Linthicum Heights, MD, USA (1993) 40865
  neural network appls., IEE Colloquium, London (1994) 5512
  neural network convergence for sig. proc., stochastic learning 40771
  neural network technols., present state/future prospects *(Japanese)* 784
  neural networks, convergence 24357
  noise cancellation/sig. separation, unsupervised competitive learning rule 8449
  noise sig. synthesis by simple chaotic syst. 15922
  noise-like sigs., HMM, params. estim. 32630
  noisy sinusoidal signal freq. estimation optimal algorithm 25764
  non-computationally intensive appls., algm.-based fault tolerance 32495
  non-Gaussian environ., sig. class., universal methodology 24243
  non-lin. systs. modelling, novel archit. 40932
  non-stationary sigs., amplit./phase estim. 8312
  non-uniform sampling theory, efficient num. methods 32689
  noncausal autoregressive systs., cumulant based param. estim. method 40918
  noncoherent freq.-PM, BER/PSD 24014
  noniterative/fast iter. methods for interpolation/extrapolation 2503
  nonlin. nondispersive media, complex sigs., self-similar evol. 16047
  nonlin. param. estimators approx. 25575
  nonlin. predictor, zero-memory nonlin., second order Volterra filter 40985
  nonlin. sig. proc., slope transforms, theory/appl. 40832
  nonlinear disturbance errors in lin. syst. identification 25701
  nonrandom interf., freq. estim. 24250
  nonstationary procs., matched generalized Gabor expansion 8343
  nonstationary random procs., second-order time-freq. synthesis 24289
  nonstationary sig. sources, blind separation, neural net appl. 24351
  nonstationary sig. sources separation networks 8389
  normalized TDM-LeRoux-Gueguen algm. for multichannel adaptive filters 21428
  NPP, proc. variable est., parity space method, ANN *(Korean)* 27356
  obj.-oriented design for adaptive filter perform. comparisons 32628
  ocean electronics, conf., Cochin, India (1991) 11591
  ocean electronics, conf., Cochin, India (1993) 11590
  odd-perfect, almost binary correl. seqs. 32545
  one- and two-level filter-bank convolvers 24300
  opt. posn. sens., source width insensitive 17782
  optimal VLSI archit. for distributed arith.-based algms. 29090
  optimal weighted median filtering, structural constraints 40804
  optimized signaling waveforms, ISI/timing jitter effects reduction 15968
  optimum DSP for radiation spectrosc. 18390
  optoelectronic devices in vac., testing, thermal effect modelling 10312
  optoelectronic signal processing for phased array antennas, conf., Los Angeles (1994) 24
  orthogonal least sq. algm., computational schemes 24226
  orthogonal sig. projections based on multirate filters 32717
  orthonormal basis, generalized, for lin. dyn. systs. 32530
  outdoor intrusion systs., nuisance alarm reduction, enhanced signature proc. 40905
  oversampled bandpass sigs., inphase/quadrature components extraction 2517
  packetized data commun., sync., DFT appl. 33201
  parallel implement. of Jacobi and Kogbetliantz algms. 255
  parallel proc. algm., mapping strategies 24647
  param. estim., improved Bellini-Tartara lower bound 40870
  parametric lin. models ident., cyclostationary inputs 40988
  parametric model output probab. laws, study and simul. *(French)* 15928
  partial response channels in mag. recording, fast timing recovery 24166
  particle detector microphonic noise reduction by digital waveform proc. 10119
  pass. fibre optic gyroscope develop. 17888
  pattern matching and metrics guided search, SP theory 40620
  PD pulse distrib. pattern anal. 22646
  PD separation from pulse-shaped noise sigs. 22649
  PD sig. generation transm. and acquisition 22643
  periodic spline wavelets, computation 24161
  pers. DSP, teaching/learning role 36927
  phase approx. via Remez algm. 32626
  phasor tracking, estimator based on fuzzy IF-THEN rules 4502
  photon counting opt. sens. develop. trends *(Japanese)* 17803
  photothermal meas., freq./time/hybrid methods 10055

signal processing continued
  photothermal microscope, sigs. anal. 17795
  piecewise-lin. radial basis fns. in sig. proc. 2518
  pipelined median filters, architectural implement. 8392
  pMOS pixel detector design 18344
  pole-zero syst. model order estim. algm. 40848
  polynomial phase param. estim.-phase unwrapping algm. 40931
  posn. detect. of multiple light beams 17781
  power distrib. fns. under multisignal conditions 32591
  power syst., intertripping relay, design/appl. 4726
  power syst. freq. meas., digital method, bandpass/orthogonal tech. 4744
  power syst. sig. param. estim., neural nets 19170
  power transformer differential current anal., neural net classifier 19696
  power transformers, insulating syst., internal defects detect. 5025
  preventive maintenance, behaviour model/vibr. anal. 5567
  prime factor DST, computation 41043
  prime-factor DCT algms. 40818
  probabilistic measured for test pattern generation algorithm acceleration 42722
  process instruments condition changes detection 26015
  Prony based methods for simultaneous ident. of transfer fns. and init. conditions 32587
  pseudorandom seqs., correl. property testing 32692
  PSK sig. carrier freq. meas., FFT 34658
  pulsar radio survey sig. proc., noise suppression filter 17516
  pulsar searching, DSP 42552
  PWM generalised block pulse fns. 32638
  QRD inverse-updates method for fast time-series adaptive filtering 32478
  QRD-based sq. root free and division free algms./archits. 28656
  quadratic B-spline interpolators, comparison 20588
  quadratic form, optimum discrete orthogonal transform *(Japanese)* 16044
  quadratic stochastic syst., blind identifiability 24288
  quadratic zero-one prog.-based synthesis of appl.-specific data paths 12400
  quadrature components real-time eval., impedance meas. 25941
  quadrature proc. in bandpass non-Gaussian interf. 32566
  quantitat. methodology for rapid prototyping and high-level synthesis of sig. proc. algms. 2489
  quantizing errors in LTI digital dyn. devices 32629
  Quasisynchronous sampling algorithm, average values meas. 24230
  quasisynchronous sampling algorithm, spectrum analysis 24231
  quick DFT 32765
  radar syst. EMC fig. of merit estim. *(Croatian)* 3595
  radial basis fn. transforms 8299
  radio sig. model adequacy 32570
  radio sig. pseudoenvelope distribs. and their approx. 2572
  radioastronomy sig. complexity, fractals, correl. dimens. 17518
  radiometer receiver linearity characterization by intermodulation distortion 25795
  RAKE receiver, mobile multipath fading channel, channel estim. 42268
  random amplit. polynomial phase sigs. estim. 32557
  random wavelet transform. 32521
  rational spectral dens. matrix ident. 32635
  Rayleigh fading mobile channel, direct-seq. code acquisition 17103
  real-time pulse shaping in radiation meas., digital techs. 18383
  real-valued seqs., FFT vs. fast Hartley transform algms. 2495
  reciprocal Gaussian random procs., model param. estim. 40824
  recurrent neural network for total least sq. problems 11970
  recurrent neural networks, Prony sig. anal. appl. 24352
  recursive computation of discrete sinusoidal transforms 8331
  recursive DSP algms. mapping, multiprocessor 28953
  recursive filters, chaotic sig. driven 16021
  recursive waves risk param. estim. from cyclic autocorrelation matrix 40986
  RF vector analyzer based on synchronous sampling 25958
  RG algm., blind equalization algm. *(Chinese)* 8403
  rhythmic sig. stochastic recurrence period 2551
  RLSL algms., comparative anal. regarding num. behavior 32480
  RNS, selecting practical moduli sets 32627
  robust approx. likelihood ratio tests for nonlin. dyn. systs. 40975
  rocket-borne downconverter, space plasma turbulence meas. 35310
  rot. cct., VLSI transform proc. appl. 29088
  run-time overhead minimisation in multi-proc. pre-emptive scheduling 32492
  sampled waveform meas. in IC, electrostatic force microscopy 9871
  scale and harmonic type sigs. 32523
  Schur method for low-rank matrix approx. 32471
  self-similar procs., increments, sig. modeling 40930
  self-similar set ident. in time-scale domain 32520
  sens. and IC's for instrumentation 9899
  sens. systs. optimal operation, transputers 24317
  sensing gluten development during bread dough mixing 25806
  separable-denominator 2D digital filters, optimal design *(Japanese)* 21432
  separable-denominator multidimensional digital lattice filter 2545
  serial-parallel multipliers 6060
  short-time FT based on nonuniform filter bank 37374
  short-time sig. anal., miogram, speech appl. 32445
  SICE'94 conf., Japan, 1994 5455
  sigma DM of chaotic time series, nonlin. props. 21385
  sigs. with exponential amplit. freq. depend., time-domain meas. *(Japanese)* 41039
  sinewave parameter estimation, improved algorithm 24238
  single proc. array for pipelining multiple SVD 32459
  single sinusoidal sig. enhance. by forward/backward difference fn. *(Japanese)* 2461
  single tone max. likelihood freq. estim., threshold effect 40828
  sinusoidal params. estim. in meas. noise by cross-spectral method 16026
  sinusoidal params. estim. in non-Gaussian ARMA noise 24219
  sinusoidal sig./params. estim., nonlin. filter *(Japanese)* 2557
  small targets signal/data proc., conf., Orlando, USA (1994) 25
  smooth nonseparable N-dimens. scaling fns. 32506
  SNR estim. algm., fourth-order moments 40871
  soft morph. filters threshold decomp. 2658
  software environ. for DSP algm. develop./testing 40796
  sources separation, analogue hardware, neural 40903
  SPC toolbox for teaching sig. proc. concepts 20293
  SPEAR (Signal Processing Environment for Analysis and Reduction) 25777
  spectral rad. of sets of matrices 32526
  speech recogn., HMM, Bayes adaptive algms. 24141
  speech sig. proc., complex database 15856
  speech sigs., fund. freq. detector based on short-time FT 8190
  spherical subspace updating, asymptotic anal. 8305
  sq.-root, reciprocal, sine/cosine, arctangent cell, design 32656

signal processing continued
SS commun. noise, chip interleaving/hard limiter 25232
stable systs. parametrization from impulse response data 40979
stack filter design, structural approach 40829
std. sig. proc. software package 8338
step motors, hybrid, posn. determ. from EMF sigs. 11095
STFT/DFT approxs., incremental refinement 24319
stochastic reson., ion channel cond. 24228
stochastic reson. phenom., sig. proc. tool 8348
stochastic sig. energy theory, meas. theory 2359
struct. rank deficient matrices, struct. total LS problem 2482
subband coding and noise reduction in multiresolution anal. frames 32509
subband DFT, accuracy/complexity/appls. 40778
subband DFT, defn./interp./extensions 40777
subband sigs. lin. prediction 15885
subspace tracking algm. based on SVD 41003
superimposed exponential sigs. estim. methods 2530
SVD, multiple tone removal from short sig. records 8301
SVD methods, subspace swap probab. 8302
SVD tracking, VLSI algm. and systolic archit. 28667
SW and matrix dilation eqns. 24299
symmetric pos. definite lin. eqns. of displacement rank 2, fast algm. 32483
synchronous sampling clock generator, meas. accuracy anal. 25763
system approach to electrical measurements 25767
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
tapered SVD, multipulse input time series estim. from noisy output 40915
teaching DSP, practical approach 36922
teaching DSP at degree level, experiences 36928
teaching DSP via sound demons. software 28339
teaching sig. proc. on Information Superhighway 20296
telecomm. channel predistorter design by neural net 41638
telemetry sig. reception/proc. 3160
Texas Instruments and Analog Devices, fixed- and floating point DSP chips *(Polish)* 37791
thyristor converters, zero crossing detect., noise reduction, digital filtering 27805
time domain network analyzer 25745
time domain SS proc. syst., large TBP 25216
time-and-freq. distrib. dens. fns., spline-approx. 32691
time-domain procedures for testing that stationary time-series, Gaussian 32490
time-freq. distrib., laser radar backscatt., FM demodulation 34166
time-freq. localization operators, asymptotic sing. value decay 32501
time-freq. representations, adaptive method 8431
time-series anal., rank determ. 40910
time-variant struct. matrices, instrumental variable method appls. 32485
time-varying modulated lapped transforms 8342
torque-speed characteristics meas. of electric machines 25718
traffic vibrs., PC-based meas./anal. 34707
transfer fns. bias estim., stochastic excitation 40916
transform adapted, polynomial phase sigs. 16016
transform coding by lateral inhibited neural nets 32087
transient signals meas., Wigner-Ville distribution appl. 24240
transputer-based measurement apparatus for induction motor meas. 27718
tricoherence stats. 8419
tropos. scatter radio commun., space diversity and space-time sig. proc. 32690
truncated Kautz networks, optimality conditions 24193
tunable fractional delay filter, finegrain delay estim. 12647
ULLV decomp. computation 32473
undergraduate sig. proc., Royal Naval Engineering College 36924
undersampling of small bandwidth sigs., sampling freq. determ. *(German)* 16055
underwater commun./sonar, filtering, transform 8320
underwater targets tracking, robust regression-based EKF 24172
unknown-multiple sig. source clustering problem, ergodic HMM *(Japanese)* 32548
updating rate of Jacobi SVD arrays and data nonstationarity 32477
valves, motor-operated, noninvasive diagnostics 19624
vector parametric model of random procs., DSP appls. 32567
vehicular traffic control, act./pass. IR sens. 11429
very high resolution network analyser design 25746
VHF/FM sigs. blind adaptive equalization by symm. tuning 17004
VLF tones, constrained least sq. estim. 15996
VLSI signal proc., conf., Napa, CA, USA (Oct. 1992) 11583
VLSI signal processing, conf., Veldhoven (Oct. 1993) 36900
Volterra syst. ident., Gaussian sigs. orthogonalization 24244
wavelet anal., theory/appls. 15927
wavelet filters, compactly supported, coeff. computations 24316
wavelet packet modulation, orthogonally multiplexed commun. 32038
wavelets and waveform coding 32510
wavelets for sig. proc. 24324
weak narrowband sigs., estim. and HMM tracking 40972
weak RF sig. meas. by spectral analyser *(Croatian)* 3756
weighted pyramid vector quantizer algm., sig. proc. appls. 40580
whiter than white noise 40990
wideband ambiguity fns./affine Wigner distribs. 40781
wideband imaging of rot. sphere, wavelet transform approach 8345
wideband sigs., time delay/Doppler stretch estim. 40836
Wigner distrib., time-freq. anal. tool 15973
windows, rapidly decaying sidelobes and steerable sidelobe dips 32797
wt.-integrat. A/D converters, high noise rejection 17698
XSPRESS detector syst. for EXAFS studies 43165
Zero Instruction Set Computer, Higgs search 41284
GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
Pb-acid batt. strings, impedance meas. 19965
Si detector, HEMT input charge preamplifier, ns sig. proc. 43136

signal processing equipment
see also image processing equipment; voice equipment
3D stackable MCM-D on C sig. proc. 21767
acoustic wave/diode convolver, improved surface *(Chinese)* 14084
acoustoelec. memory for SS commun., Green's fn. 6930
airborne pulse Doppler radar, pulse compression proc. implement. 10368
autonomously responsive syst., acoustic preprocessor 32584
bandwidth of time-division multipliers increase 25756
beam-steering/jammer-nulling photorefr. phased-array radar proc. 7437
blood pressure measuring instrument with Korotkoff sensor 26269
bolometers readout, FIR/mm-wave, astrophys. appls. 34504
broadband sampling oscilloscope, nose-to-nose calibration 25913

signal processing equipment continued
buffered direct injection multiplexer for IR cameras 34562
cable TV networks measuring data compression 42613
CCD based imaging systs., dyn. range maximisation 3893
channelized receiver appl. guide 43586
charge amplifiers for piezoelectric sensors 26790
chirped laser radar, optoelectronic chirp generation and sig. demodulation 17444
chirped laser radar, optoelectronic sig. demodulation 17448
CMOS analogue chaotic oscillator for sig. encryption 34433
CMOS charge sampling IC for capacit. detector/sens. interfaces 25774
CMOS IR readout multiplexer radiation hardness improvement 30449
correction method for single chip power meter 4740
cost-effective cct. for CCD pulse proc. 17701
current domain regenerative comparators 3766
data commun. monitoring, measuring sig. optimisation 42752
desktop audio sig. proc. methods and equipt. *(German)* 42649
digital demodulator for rem. sens. satellites, perform. 33969
digital Holter monitoring syst., noise cancelling filter 35130
digital interface for quadrature demodulation of interferometer sigs. 25773
digital recorder data detecting cct. *(Japanese)* 3762
displacement-freq. converter for μP dimens. meas./monitoring 3769
distortions elimination in nuc. energy spectra, pulse pile-up 10146
DSP syst. functional controllability indicators *(Russian)* 16053
EEG signal analysis, ill-defined processing target 26383
EM flowmeters, dens. determ. of slurries 3763
EMI receiver syst. design 15481
error model of data acquisition systems 34415
extremely small dia. thread detect., sig. proc. method 25748
flexible 8-channel data acquisition device for sig. proc. and anal. 25737
fn. generator, prog., PC-based *(Bulgarian)* 25905
food monitoring, nonmetal foreign body detection 25804
fruit tester, portable, microcomputer-based 9819
high isolation distrib. amp., 5 and 10 MHz 42756
high-resoln. opt. spectrum meas., interferometer 9831
high-speed time-to-digital converter 9841
high-throughput data compressor, CAM 21324
hybrid acoustooptic integrated-optic radio sig. proc. 17702
imaging spectrometer for proc. indust. appls. 17925
interfacing act. devices, noise spectra analyser 9834
intrinsic thermocouple monitor for laser wirebonding 29710
IR readout electronics, historical perspective 34426
Kalman-filter-based measurand reconstruction architecture 25765
laser-induced diffraction signals, digital signal processing 25972
LCDs driving efficiency improvement, overlap scanning method *(Korean)* 25934
lin. multiplexer designs for rem. sens. appl. 34581
linearity of fast digital oscilloscopes improvement 25753
long-term data acquisition/recording/storage and sig. proc. syst. 25734
low-noise CCD sig. acquisition 34417
low-pass elec. filters for cryogenic detectors 37830
M700 series intell. auxiliary instrums. *(Japanese)* 3774
mass-flow rate digital meas. 10069
microsensor with auto-zero offset compensation 25800
mixed sig. ATE, data driven archit. 9813
multichannel systs. optim. for measuring inform. transm. 42751
μP meas. IS for params. of motion 3747
navy shipboard systs., expert maint. advisor develop. 9812
nonlin. signature anal. of data converters, automatic 3767
normalisation module for posn.-sensitive devices 34431
nose, electronic, sig. proc. ASIC, BiCMOS technol. 9839
oversampling A/D converters, delta-sigma modulator structures 25758
partial discharges, adaptive filtering meas., noise suppression 13967
proc. instrumentation channels in NPP, calib. 35931
prog. digital radio common module prototype 10382
proximity sens. syst. for spatial sens. and colour perception 42776
pulse discharge pattern anal., neural network appl. 3973
pulsed IR dist. meas. sens. ccts. for weapon systs., ASIC implement. 10587
radar phase noise meas., digital DP 34156
random analogue data, optim. of digital storage 3773
random pulse sigs., param. meas., digital device 3770
readout electronics for far-IR arrays 34579
reducing electrometer time const., high-resist. samples meas. 3768
refl. topol. building blocks for adaptive microwave sig. proc. appls. 29588
RF vector analyzer based on synchronous sampling 25958
rocket-borne downconverter, space plasma turbulence meas. 35310
Rogowski transducers for high bandwidth high current meas. 34484
SAW elements in ident. systs. 1566
SCI-LVDS 500 MHz CMOS differential pad drivers 22583
SDH multirate time switching control algm. and sig. proc. DCS 41419
sens. and IC's for instrumentation 9899
sens. outputs tailoring, specialized needs 25811
sharing of measuring inform. in CATV networks 42614
sig. proc. ASIC, digital SS modem for power line commun. 21379
sig. ratio meter for laser gas analyzer 3908
sig. transformer, μP implement. via Walsh fn. *(Korean)* 34430
smart sens./transducers, sig. conditioning 3780
soap bubble flowmeter, opt. fibre sens. 42836
soundphotics, light, sound converter 17610
SPRITE-based syst., image proc. 34575
submarine, perform. meas., underwater data acquisition syst. design 34419
supercond. A/D converter for IR array readout 34428
temperature-compensated bridge circuit for resistive sensors 34448
thermocouple sig. conditioning, monolithic ICs 42781
tomographic photopyroelectric imaging, thermal wave multi-probes appl. 3757
transputer-based measurement apparatus for induction motor meas. 27718
UH-60A airloads data acquisition and proc. syst. 10313
waveform anal. of LSI for music synthesizers 3698
WDM sig. transm., crosstalk elimination cct. 3552
WinAnalysis software, fully automatic sig. detect. and anal. 9816
GaAs JFETs, deep cryogenic readout electronics appl. 30371
Si accelerometer design tradeoffs 3781
Si piezoelec. sens. for robots, analogue proc. 3787

signal reconstruction
see also image reconstruction
2D nonseparable modulated filter banks 32713
2D separable FIR Wiener filter design, iter. method 24214
array proc., polygon reconstruction from moments 24249

signal reconstruction continued
- audio sig. compression, circ. wavelet packets 32525
- Backus-Gilbert inversion method/sampled DP 40819
- band-limited sigs., reconstruction and Fourier spectra 8440
- bandpass sigs. reconstruction 32645
- Bayesian model order selection for Karhunen-Loeve transform and SVD 40982
- bioelec./mag. pot., event reconstr., neural nets 43314
- blind equalization, higher order cumulants/neural networks 2862
- calibration of electroacoustic transducers, parametric technique 22681
- cascade forms perfect-reconstruction two-channel filter banks design 32723
- chaotic sig. modelling, reconstructed dyn. 32620
- chaotic sigs., filtered and synchronized, commun. use 40851
- complex sig. reconstruction from time-freq. magnitude 24271
- cosine-modulated 2D FIR filter banks, perfect reconstruction 32712
- DCT, recursive algm. 40872
- deconvolution filter design considering channel sensitivity 2526
- digital TV, data and filter requirements of D-A conversion 41356
- discrete-time periodic sigs., wavelet transforms 40898
- discrete-time wavelet extrema representation, design/reconstruction 40810
- ECG, atrial elec. activity interpolation 43306
- ECG, filtering, simple FIR filters, post-filter reconstruction 35086
- EEG sigs., wavelet de-noising and ident. of evoked response pot. 35070
- EMP, measuring syst. deformed, reconstruction 23700
- exponential-hold circuit, properties and applications 29424
- extrapolation in multiresolutions 32507
- extrapolative prediction-discrete sine transform coding, adaptive prediction *(Japanese)* 16299
- filter bank optim. for subband coding *(Japanese)* 24338
- FIR low delay filter banks 24262
- FIR stat. optimum filter bank design 24261
- FIR unitary time-varying filter bank trees and wavelets 40809
- Gabor expansion of discrete-time sigs., frame theory 15905
- genetic algms. for min. source reconstructions 8303
- hierarchical parallel matching pursuit 15926
- IIR/FIR two-channel biorthogonal filter banks and wavelet bases 37880
- intrinsic stabilizers of planar curves 24636
- ionos. tomographic reconstruction rel., radar meas. 35305
- iter. reconstruction of moving obj. from image seqs., struct. noise 24525
- least sq. sig. reconstruction, normalized autocorrelation constraints 32735
- lin. array, shape reconstruction 42536
- M-ary wavelet transform and formulation reconstruction 8426
- M-band pseudo QMF banks, prototype filters design 37882
- M-channel biorthogonal filter banks 21426
- min. Renyi inform., complex sig. reconstruction 24509
- MMSE design of generalized interpolators polyphase components 32729
- modified DFT polyphase SBC filter banks, almost perfect reconstruction 32714
- MSE, periodic sigs. oversampled quantization, lower bound 40878
- multi band sigma delta ADC 29332
- multi-channel deconvolution, generalized sampling approach 15924
- multiband sig. reconstruction from finite samples 41046
- multichannel environ., direct upconversion, reconstruction filters 25230
- multichannel sampling theorem, finite version, extension 8438
- multichannel sig. modeling and separation 24253
- multiplicative and zero crossing representations of sigs. 32522
- multiprobe sigs., delay reconstruction 15958
- noise suppression, wavelet model 32577
- noisy channels, robust VQ 2382
- noisy sigs. estim., time-invariant wavelet packets 8271
- noncausal nonminimum phase ARMA modeling of non-Gaussian procs. 32458
- nonlin. noise reduction based on zero-crossing representations of wavelet transform *(Japanese)* 15935
- nonnegative sigs., relax. procedure for phase retrieval 2472
- nonuniformly sampled sigs., real-time reconstruction *(French)* 15929
- Nyquist rate nonuniform sampling, bandlimited sig. reconstruction 40846
- oblique projections in discrete sig. subspaces of l_2 and wavelet transform 32503
- obs. selection in sig. reconstruction 40823
- optimal recovery based FIR synthesis filters 21424
- orthogonal freq. division modulation method allowing hierarchy reconstruction *(Japanese)* 41425
- orthogonal sig. projections based on multirate filters 32717
- paraunitary matrices factorization, pairwise mirror-image symm. 40845
- perfect reconstruction filter banks design 32722
- perfect reconstruction FIR 2-channel filter banks in 3-D with FCO sampling, design 21429
- phased array error correction 23949
- PR FIR filter banks and discrete biorthogonal wavelets via block circulant matrices 32505
- random-sig.-acoustic source characts. determ. by field meas. 16048
- Reading Univ. electronic engng. course, DSP 36917
- recovery in multiresolution spaces, Backus-Gilbert inversion method 32733
- regularization approach for sig. extrapolation, wavelets 32487
- room impulse responses approx. based on wavelet decomp. 15991
- sampling rate conversion, fractional-sample delay 32734
- single-shot laser radar sigs., principal-component filtering 17440
- sparse spike time series recovery by L_1 norm deconvolution 8415
- speech dereverberation, cepstrum based deconvolution 32212
- state vector reconstruction, optimal in 2D systs. 32685
- time varying filter banks, subband proc., border recovery 32711
- time-varying FIR filter banks, novel struct. 32716
- transient sigs. separation 24258
- unevenly spaced sampled data, reconstruction, iter. methods 24304
- Unitary ESPRIT, rel., relational invariance struct. 40950
- VQ sigs. transm., Rayleigh fading channels 8448
- wavelet extrema/zero-crossings representations, props./reconstruction 32708
- wideband speech generation from narrowband speech by codebook mapping *(Japanese)* 32441

signal representation
- *see also image representation*
- 3D iterated fn. systs., discrete seqs. representation 2499
- adaptive time-varying parametric modeling 40908
- Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
- band limited PRBS, PSK syms. 8388
- bilinear time-freq./time-scale representations, reassignment method 41052
- biological sigs., non-orthogonal Gabor representation 43321

signal representation continued
- blind fractionally-spaced equalization based on cyclostationarity 8387
- circularity and sig. proc. 8423
- complex sig. reconstruction from time-freq. magnitude 24271
- cosine-modulated wavelet orthonormal bases 24312
- discrete Gabor expansion, general theory 32516
- discrete-time wavelet extrema representation, design/reconstruction 40810
- fast computation of crit. sampled time-freq. sig. representations 32464
- fractional FT and time-freq. representations 2480
- Gabor expansion of discrete-time sigs., frame theory 15905
- Gabor sampling theorem, time-bandwidth implications 32662
- gamma bases, parametric LSA 40821
- generalized discrete Gabor expansion, fast algms. 2535
- generalized Gabor expansions, biorthogonal-like fns. 40876
- generalized Wigner distrib., instantaneous freq. representation 32563
- harmonic/noise model for speech 15829
- hierarchical parallel matching pursuit 15926
- instantaneous freq. and group delay representation 15859
- legal Wigner space filtering and interp. 2528
- MLE of multiple freqs. guaranteeing unit circle roots 40825
- morph. wavelet transform 28568
- multilinear time-freq. representations, multicomponent sigs. anal. 32743
- multipath channels blind identifiability 24290
- multiple view time-freq. distribs. 8346
- multiplicative and zero crossing representations of sigs. 32522
- multirate filters design, operational-graph approach 12657
- multiscale Wiener filter, fractal sigs. restoration 2470
- noisy sigs. estim., time-invariant wavelet packets 8271
- nonGaussian data, array modeling and sig. detect. 16065
- nonideal acquisition devices, general sampling theory 2464
- nonstationary spectral estim., optimal kernels 32556
- optimal wavelet transform and translation invariance 32664
- orthogonal matching pursuit, wavelet decomp. 8272
- PC-based multi-resoln. spectrograph 2403
- point/derivative constraints, time-freq. kernel design 40967
- polynomial-shaped meas. sigs. class., BP neural network 15930
- pos. time-freq. distrib. 40966
- quadrature component generation anal., narrow-band oscills., delay method 40766
- quaternary full response CPM sigs., generation/coherent detect. 3434
- rational orthogonal sig. approx., complex interpolation 40998
- robust sig. extrapolation, wavelets 32732
- room impulse responses approx. based on wavelet decomp. 15991
- short time FT based time-freq. distrib. 24241
- speech recogn., acoustic/suprasegmental inform. combination 32225
- speech recogn., stochastic trajectory modeling 32223
- speech recogn. in noisy car environ., OSALPC representation 32382
- spline-harmonic anal. and wavelets 32502
- temporal envelope invariance, time-scale modif. 15998
- time-freq. anal., energy densities in one/many dimens. 32746
- time-freq. complexity and inform. 32741
- time-freq. conc. sigs., wavelet representation 24254
- time-freq. representations, adaptive method 8431
- tone synthesis, generalized overlap-add sinusoidal modeling 16004
- transform. of operators and scale 32488
- wavelet extrema/zero-crossings representations, props./reconstruction 32708
- Wigner-Ville spectral estim., optimal kernels 40965
- word accent patterns modelling by concatenation of mora HMMs 32226

signal resolution
- *see also image resolution*
- Abelian groups, wavelet anal. 24163
- APC, transform domain quantization 15774
- array sig. no. detect. for coherent/incoherent sigs. 40955
- Bayesian approach, direction finding, parametric array uncertainty 40923
- constrained FIR filter design for 2-band filter banks and orthonormal wavelets 21425
- convolution products, smooth refinable fns./wavelets 24165
- data-adaptive evol. spectral estim. 24209
- deconvolution regularization, SNR, stat. estim., multiscaling 40782
- digital pulse compression radar systs., polyphase spreading codes 25570
- extended sources, resoln./detect. 2539
- geophys. resoln. and covariance estim. for large matrix inversions 43497
- image coding, piecewise polynomial wavelet, IIR implement. 2654
- infinitely differentiable fns., multiresolution anal. 24162
- local bandwidth adaptation, spectral dens. estim., wavelets appl. 32652
- LS/SVD based techs. for high-resoln. freq. estim. 24203
- multiple 2-D coherent sinusoids, high resoln. estim. 41001
- multiresolution anal., wavelets, probab. dens. estim. 28706
- MUSIC, conjug. symmetric beamformers, perform. anal. 40816
- MUSIC algm., probab. of resoln. 40842
- nonstationary environ., recursive suppression algm. perform. 40798
- PC-based multi-resoln. spectrograph 2403
- PDF estim., order stat. filter bank 32799
- planar array, mutual coupling estim./modelling 41018
- power spectrum estim., wavelet thresholding techs. 2484
- PR-QMF banks/ wavelets, stat. optim. 32707
- projection approx. subspace tracking 24204
- regularization by multiscale models 24190
- spatial smoothing for arrays, arbitrary geom. 41008
- SVD, subspace swap probab. 40815

signal restoration
- *see also image restoration*
- 2D freq. domain, least sq., sig. and syst. modeling, lin. approach 8436
- band-limited sig. recovery, lin. fn. approx. 24298
- band-limited sigs. restoration from noisy obs. 40877
- banded Toeplitz lease sq. problem regularization, fast algms. 32486
- commun., chaotic masking 15687
- correl. accumulation 2522
- finite sig. Fourier spectra interpolation, num. simul. 40767
- flute music embedded in noise, sig. detect./restoration 16001
- hyperspectral imagery, appl. of Krawtchouk polynomials 15959
- LCRG nonuniform transm. line, sig. restoration 2278
- multi-channel deconvolution, generalized sampling approach 15924
- multiscale Wiener filter, fractal sigs. restoration 2470
- musical recordings, pitch var. defects, recursive restoration 34294
- musical recordings restoration, short-time spectral atten. techs. 9774
- random nos. of counts 32013
- sampling errors elimination of band-limited sig. 2355
- speech dereverberation, cepstrum based deconvolution 32212

signal sampling
- *see also image sampling*
- 1-GHz highly lin. CMOS downconversion mixer 29594
- 2D nonseparable modulated filter banks 32713
- 80 Msamples/s BiCMOS flash ADC 29325
- adaptive deconvolution method time jitter effect elimination 2354
- airborne US rangefinders, adaptive target tracking algms. 42533
- ARAKE type receiver struct. for narrow band wireless systs. 15955
- articulatory speech synthesis, fractional delay waveguide filters 32349
- ATR, Lie group parametrization for dyn. based prior 25552
- Backus-Gilbert inversion method/sampled DP 40819
- band-limited sig., sampling errors elimination 2355
- band-limited sigs., lost samples recovery, stabil. 15907
- band-limited sigs., nonuniformly sampled, spectral estim. method 15863
- bandlimited sources coding, sampling/dithered quantization, perform. 24092
- Bayesian approach, direction finding, parametric array uncertainty 40923
- binaural recording playback through loudspeakers, room impulse response 34296
- blind fractionally-spaced equalization, filter banks/lin. prediction 41024
- blind fractionally-spaced equalization based on cyclostationarity 8387
- blind sym. estim., deterministic approach 8398
- CDMA systs., robust/lossy discretization 41473
- chirp rate estim., weighting coeffs. 24223
- CMA/Godard adaptive filter bank, blind equalization 15945
- CMOS charge sampling IC for capacit. detector/sens. interfaces 25774
- complex exponentials sum, matrix pencil method, param. estim. 40894
- constraint based audio interpolators 16003
- continuous level probab. fn. eval., sig. proc. method *(Japanese)* 2458
- cosine-modulated 2D FIR filter banks, perfect reconstruction 32712
- cumulant-based MUSIC method with meas. errors, asymptotic anal. 40826
- cumulants in wavelet anal. 32451
- CW transform, phase space, arbitrary tilings 32667
- DDS-based PM and FM gen., modulating sig. sampling effects 37657
- DHTs, generalised running and real-time analysers 29394
- digital mobile commun., blind seq. detect. 17039
- digital receivers, sampling rate, analog prefiltering, stats. 15965
- digital TV, data and filter requirements of D-A conversion 41356
- diode bridge switch, offset voltage 37896
- discrete Gabor expansions, derivation 24321
- discrete instantaneous freq., discrete-time phase derivative 24311
- discrete sigs., multichannel spline interpolation 8265
- DSO, fast sampling and display tech. *(German)* 25915
- ECM baseband freq. models with IF nonlinearity describing fns. 34138
- entropy-min. spectral estim., robustness 40776
- extrapolation in multiresolutions 32507
- fast computation of crit. sampled time-freq. sig. representations 32464
- finite-discrete Gabor transform, computation/conditioning 32663
- FIR high-precision time varying multiplier-free filters 37881
- food monitoring, nonmetal foreign body detection 25804
- fractional Brownian motion, spectral exponent estim. 24287
- fractional sample type max. likelihood seq. estimator *(Japanese)* 15975
- fractional-sample delay, sampling rate conversion 32734
- fractionally spaced equalizers, adaptive sampling 33161
- Gabor sampling theorem, time-bandwidth implications 32662
- Gabor transforms for real discrete sigs. 24202
- globally optimal scalar quantiser, complexity reduction 32528
- gramophone recordings, pitch var. defects restoration 17618
- Hartley intens. spectrum reconstruction from sinusoidal crossings 24424
- high-speed opt. sampling/STM, elec. waveform meas. 9830
- IF sig. sampling, digital coherent detect. *(Chinese)* 8402
- ISO/MPEG Audio MUSICAM family 32625
- labeled/unlabeled samples, unknown mixture param., class. 40867
- lin. phase freq. sampling FIR filters, error spectrum shaping 41044
- lin.-quadratic sys. ident., freq. domain region 24213
- local bandwidth adaptation, spectral dens. estim., wavelets appl. 32652
- look-ahead decision-feedback ΣΔ modulation 32043
- M-ary PSK single-sample symbol sync. algms. 40562
- MIMO lin. time-variant syst., cyclic higher order stat. 40897
- MMSE design of generalized interpolators polyphase components 32729
- morph. wavelet transform 28568
- MSE, periodic sigs. oversampled quantization, lower bound 40878
- MSK from matched-filter, joint max.-likelihood timing/data estim. 15711
- multi band sigma delta ADC 29332
- multi-channel deconvolution, generalized sampling approach 15924
- multiband sig. reconstruction from finite samples 41046
- multichannel FIR filters, blind ident., subspace methods 32559
- multichannel sampling theorem, finite version, extension 8438
- multidimensional downsamplers/upsamplers, commutativity 8277
- multipath channels blind identifiability 24290
- multirate converters, signed-digit-based multiplier-free realizations 40807
- multirate filters design, operational-graph approach 12657
- multiscale difference eqn. sig. modeling/anal. techs. 32784
- MUSIC, conjug. symmetric beamformers, perform. anal. 40816
- musical recordings, pitch var. defects, recursive restoration 34294
- nearest neighbor rule estim., arbitrary sampling 32653
- noise suppression, wavelet model 32577
- non-uniformly sampled finite length data, Nyquist's theorem extension 32686
- nonideal acquisition devices, general sampling theory 2464
- nonlin. systs. ident./compensation, sampling freq. 32778
- nonstationary procs., matched generalized Gabor expansion 8343
- nonuniform bandpass sampling generalization 40811
- nonuniform sampling DM tech. 8155
- nonuniformly sampled sigs., power meas., discrete time method 8391
- nonuniformly sampled sigs., real-time reconstruction *(French)* 15929
- Nyquist rate nonuniform sampling, bandlimited sig. reconstruction 40846
- obs. selection in sig. reconstruction 40823
- off-line segmentation of sigs., MAP soln. 41007
- orthogonal wavelets, oversampling property 40879
- oversampled bandpass sigs., inphase/quadrature components extraction 24183
- oversampled subband acoustic echo cancelers, anal. filters, expt. 24273
- Papoulis-Gerchberg algm., sig. extrapolation in wavelet subspaces 24318
- parallel DFE, RNS 32727
- PCM voice band channel capacity 40555
- penalty factor influence in order selection criteria 8393
- perfect reconstruction FIR 2-channel filter banks in 3-D with FCO sampling, design 21429
- phased array radar, revisit control for tracking manoeuvring targets 17371
- PRML channel perform. eval., window-margin-like procedure 30728

signal sampling continued
- proc. control, sig. sampling scheme in real-time 24314
- PWM harmonics optimal control, pulse width reduction 5996
- quasi-synchronous sampling algorithm for power system meas. 35693
- Radon transform based constellation ident., anal. 33683
- Reading Univ. electronic engng. course, DSP 36917
- recovery in multiresolution spaces, Backus-Gilbert inversion method 32733
- RFI, noninterleaved Viterbi decoder, importance sampling anal. 15966
- Schottky varactors, sidewall-etched, sub-mm-wave sampling cct. 38028
- sens. array sig. proc. tech. 32731
- sig. proc., transform. of operators and scale 32488
- sonar sig. proc. syst. based on TMS320 series 17488
- spectral anal., ML method based on correl. matrix lin. symm. 32574
- spectral estimation using distorted-timebase digitizer 25735
- speech coding, nonuniform sig. sampling method 24135
- stationary procs., sample cumulants, asymptotic results 40841
- sub-band coder for low-bit rate, fixed and variable band coding 32364
- subband adaptive digital filter with crit. sampling, perform. 745
- telecomms. syst., forward error control, simul. techs. 42450
- time varying filter banks, subband proc., border recovery 32711
- time-varying FIR filter banks, novel struct. 32716
- time/freq. stabil. meas. 2873
- transient sigs. anal. equip., digital sampling techs. 3730
- transm. line, crosstalk coupling, digital noise propag. 25200
- tunable fractional delay filter, finegrain delay estim. 12647
- undersampled sig. freq. and DOA determ. 25617
- undersampling of small bandwidth sigs., sampling freq. determ. *(German)* 16055
- underwater acoustics, hybrid/polarity-coincidence correl. proc. 16062
- unequalized mag. recording channels, clock recovery 7193
- unevenly spaced sampled data, reconstruction, iter. methods 24304
- valid sigs. in nonGaussian noise, asymptotically optimum detect. *(Russian)* 16050
- vector components of elec. field meas., electrooptic sampling 34650
- video decoding algm. mapping, mixed sig. IC 8553
- wavelet-based approaches vs. subband coding techs. for still image coding 32826
- wireless commun. channels, blind equalization algm. 41025
- continuous-time/discrete-time nonlin. parametric models 32783
- GaAs ICs, voltage meas., electro-optic sampling 13850
- $LiTaO_3$ electro-optic probes, guided polariton generation 39478
- $Si/CoSi_2$ vert. MSM photodetectors, buried contacts 34500

signal sources
- *see also signal generators*
- adaptive separation of sound sources, Herault-Jutten network 26782
- ATM network perform. eval. video source models *(Croatian)* 2868
- biomag. spatiotemporal data, sig. source localization, sig. subspace method *(Japanese)* 35057
- data commun. monitoring, measuring sig. optimisation 42752
- digital arbitrary waveform generators, universal sig. sources, real world simul. 17989
- MM-wave source, dual-mode DFB semicond. laser 23486
- multiple narrowband/broadband sources, MUSIC approach for DOA estim. 8318
- nonlinearity calibration using Volterra adaptive filters 25903
- nonstationary sig. sources separation networks 8389
- opt. superheterodyne receiver elec. test sig. source *(German)* 9485
- specs. and cct. perform. 42657
- unknown-multiple sig. source clustering problem, ergodic HMM *(Japanese)* 32548

signal synthesis
- acoustic anal./synthesis methods 24252
- analytic sig. generation, tips and traps 2493
- analytic sig. generation for time-freq. distribs., efficient algm. 32718
- bandlimited orthogonal wavelet syms. 8347
- blind/visually impaired computer users, nonspeech sound synthesis 40785
- channel noise immunity rel., code and sig. constr. mutual effects *(Russian)* 15696
- DFT, bivariate orthogonal white noise series synthesis 40817
- digitally generated signals, filtering 8444
- direct digital synthesizers, modulated sigs. generation, perform. 16018
- discrete prolate spheroidal seqs. generation, algm. 2502
- discrete-time sig. design for maximizing amplit. separation 24282
- double FM synthesis, real-time implement. 9775
- generalized Gabor expansions, biorthogonal-like fns. 40876
- IIR/FIR two-channel biorthogonal filter banks and wavelet bases 37880
- inconsistent sig. feasibility problems solns. 2468
- multiscale Wiener filter, fractal sigs. restoration 2470
- noise sig. synthesis by simple chaotic syst. 15922
- nonstationary random procs., second-order time-freq. synthesis 24289
- quaternary full response CPM sigs., generation/coherent detect. 3434
- sig. transformer, μP implement. via Walsh fn. *(Korean)* 34430
- sine/cosine ref. generator, high-perform., design 8350
- solid-state actuators, periodic forces cancellation 30755
- sonar obj. location, directional PE wavefield 43560
- source/filter model for percussive sounds 16005
- spatial synthesis, head-related transfer fns. interpolation 15993
- spur-reduced digital sinusoid generation, higher-order phase dithering 8372
- suboptimal detectors, discrim./perform. measures 24284
- time-freq. projection filters/sig. expansions 8414
- tone synthesis, generalized overlap-add sinusoidal modeling 16004
- very low bit rate video coding, predictive-transform 16404

signal transformers *see high-frequency transformers; pulse transformers*

signalling
- *see also alarm systems*
- 6-380 V light-sig. equipt. develops., Russia 44585
- ATBL, European automatic train control systs. integrat. 44544
- CARAT rly. signalling project overview, Japan 36747
- Central Line Project 11403
- Channel Tunnel trains, British main lines, signalling safety 44550
- DC rly. vehicles, act. power filter appls. *(German)* 11421
- DC rly. vehicles, narrow-band LF act. filters 20102
- EBICAB 900 train protection transponders, product series 5334
- elec. rly. traction syst., EMI assess. modelling 44548
- electric railways in united Europe, IEE conf., Amsterdam (1995) 36833
- electrified rly., EMC 44545
- EMI testing of high speed rail train set 15493
- ground to train radio, multi std. internat. syst. 42171
- machining robot control, inductive power/sig. transm. 20167

- **signalling** continued
  - rly. signalling equipt., condition-based maint. 44531
  - rly. signalling interf. prevention, high integrity monitor 44547
  - rly. signalling systs., failure anal. 44549
  - signalling, solid state interlocking 28136
  - three-phase AC/DC universal traction drive syst. design 44542
  - train control standardisation, European operational switching syst. 44532
- **signalling (telecommunication networks)** *see telecommunication signalling*
- **Signalling System 7** *see telecommunication signalling*
- **signature analysers** *see logic analysers; signal processing equipment*
- **signature analysis** *see logic testing; signal processing*
- **signature verification** *see handwriting recognition*
- **silencers**
  - broadband act. room noise control, local silencing 15989
- **silicate glasses** *see glass*
- **silicon compilers** *see circuit layout CAD*
- **silicon controlled rectifiers** *see thyristors*
- **silicon integrated circuits** *see monolithic integrated circuits*
- **silicon neurons** *see neural chips*
- **silicon-on-insulator**
  - *see also SIMOX*
  - 0.1 μm MOSFET on thin-film SOI substr., self-aligned source-body contact 22456
  - 0.25-μm fully-depleted CMOS/SOI invertor, SEUs, radiation hardening 13727
  - 1.2 μm CMOS-SOI technol. transistors, noise charactn., gamma ray effets 13728
  - 68T020 HI eval. 13851
  - analog IC BiCMOS-JFET radhard SOI technol., proton radiation effects 13904
  - back gate cond. effect on 0.25 μm SOI devices 22455
  - BESOI SRAM, 4K, transient and total dose irrad. 29236
  - BESOI stress/strain investig., opt. SHG method 29963
  - bipolar IC, SOI techs., wafer bonding 1489
  - bipolar SOI transistor with fully depleted collector, HV/speed device, model 22390
  - bipolar transistor, SOI material, VHV CMOS compatible 30488
  - bipolar transistor technol. 30236
  - bonded etch-back SOI based interconnect for high speed ICs 22263
  - bonded SOI wafer, eval. and PIN photodiode characts. 14609
  - buried dielec. films, ion form. 38441
  - calorimetry at LHC, modular fault-tolerant approach 4237
  - CMOS micropower OTAs, SOI vs. bulk perform. comparison 553
  - CMOS scaling for high perform. and low power, next decade 37690
  - CMOS SOI transistors, matching props. 30475
  - CMOS VLSI, SOI materials/devices 30458
  - conference, Ponte Verdra, FL, USA (Oct. 1992) 11581
  - counter-oxid. of superficial Si 13320
  - deep-submicrometer bulk and SOI MOSFETs, current drive vs. short-channel effect 22454
  - directly bonded wafer, point defects, bonded SOI wafer 38431
  - DMOS power transistors, Si-direct-bonded, static/dyn. props. 22467
  - double-gate SOI MOSFETs, subthreshold swing, scaling-param.-depend. model 1426
  - dual-collector magnetotransistors in SOI technol. 25790
  - dyn. threshold voltage MOSFET for LV operation 6773
  - dyn. threshold voltage MOSFET for ultra-LV operation 22473
  - ESD protection mechanisms, SOI snapback nMOSFET 22464
  - European SOI technol. develop., review 38428
  - fully depleted SOI CMOS SRAM cell, SEU sensit., SPICE anal. 12522
  - fully depleted SOI PMOSFETs, LF noise 1385
  - fully depleted thin-film SOI MOSFETs, moderate kink effect 22461
  - grounded body SOI nMOSFET, fab. by wafer bonding 13702
  - high temp. CMOS devices/ccts., SOI technol. 22596
  - high temp. SOI devices, W metallization technol. 22279
  - high temperature electronics, conf., Strasbourg, France (1994) 20219
  - high-leverage SOI technol., appls., CMOS and BiCMOS designs, material/device problems 30003
  - high-speed and low-power n$^+$-p$^+$ double-gate SOI CMOS 39010
  - HV bipolar SOI transistor, fully depleted collector 13617
  - HV trench drain LDMOS-FET, SOI wafer 30341
  - integrated pH-ISFET/press. sens., SDB/SOI materials *(Chinese)* 25810
  - intell. power ICs, partial SOI struct. 39018
  - lateral IGBT, breakdown voltage rel., implant. dose 22460
  - lateral IGBT and MOS-controlled thyristor structs. in SOI 30345
  - lateral IGBT on SOI wafer, latch-up characts. improvement 13752
  - lateral magnetometer, thyristor-like operation 25789
  - lateral power devices, forward blocking charact. 30333
  - lateral power devices on SOI substrs., thermal behaviour 30334
  - LDMOS/LIGBT struct. modelling, high temps. 30336
  - low power devices, trends in IC technols. 22532
  - micro-heterostruct. semicond. devices *(Japanese)* 22416
  - mixed analog/digital ICs, substr. material effect on crosstalk 21447
  - MOS transistors, bulk-Si/SOI device self-heating effects 22474
  - nMOS/SOI transistors, ultrathin double-gate, inversion model 13691
  - MOSFET, body terminal, photon emission 22475
  - MOSFET, current characts., 1D MISIS struct. soln. 22469
  - MOSFET, fully depleted type, carrier generation study 6763
  - MOSFET, LF noise, gamma ray effects 22418
  - MOSFET, short channel effect, 1D model 38872
  - MOSFET, threshold voltage and I-V charact. study *(Korean)* 30305
  - MOSFET, threshold voltage sensitivity reduction 30294
  - MOSFET IC technol. 22602
  - MOSFETs, AC conductance tech. for self-heating meas. 22420
  - MOSFETs, GAA devices, γ-irrad., noise charact. 13686
  - MOSFETs, I-V curves meas. without self-heating 30352
  - MOSFETs, short-channel effects, source/drain engng. 38870
  - MOSFETs, submicron, self-heating effects 22470
  - MOSFETs, thin film fully-depleted, 2D mobility model 13694
  - MOSFETs/SOI, total γ irrad. dose effects, I-V meas. 13705
  - MOSTs, partially depleted, body ties, cryogenic operation 1405
  - multilayer bond and etch SOI buried insulators, radiation response 13252
  - n-MOSFETs, Ge-implant., radiation hardness 13726
  - non-Fickian microscopic diffusion, interfaces and in SOI thin films 1174
  - noncontact elec. eval., voids 38432
  - nonfully depleted SOI MOSFETs, phys. charge-based model, floating-body effects 38858
  - nonlin. Bragg reflector, two-polariz. coupling 39405
- **silicon-on-insulator** continued
  - partially depleted n-channel SOI twin-MOSTs, LF noise overshoot 1384
  - partially depleted SOI CMOS ccts., dyn. floating-body instabilities 22589
  - polysilicon films, laser radiation interf. 37469
  - polysilicon SOI struct., opt. and acoustic nondestructive charactn. 38443
  - polysilicon SOI struct., ZMR, electrophysical props. 39011
  - polysilicon SOI struct. obtained by laser zone melting, props. 38442
  - porous Si, bond-and-etch-back SOI, selective etching 38591
  - power device blocking voltage, HVIC interconnection influence 29979
  - power MOSFET, RF amp., num. simul. 38871
  - power semiconductor devices/ICs, symp., Davos, Switzerland (1994) 28219
  - power SOI lateral p$^+$-n jn. diode breakdown voltage *(Korean)* 28999
  - RT 0.1 μm CMOS technol. on SOI 6866
  - scaled CMOS technol. for LV/low power appls. 22597
  - short-channel SOI MOSFETs, amplified GIDL, simul. 1413
  - short-channel SOI MOSFETs, energy bal. eqn., transverse-field-induced carrier heating 13747
  - SIMOX/ZMR/direct bond SOI struct., opt. charactn. *(Japanese)* 38430
  - single-mode opt. phase modulator, high efficiency 30972
  - snapback nMOSFETs, ESD protection capability, mechanisms/failure modes 30308
  - SOI MOSFET, extremely thin film, inversion layer to accumulation layer tunneling characts. 22453
  - SOI technol. for high-temp. smart-power appls. 22614
  - SOI ultrathin struct., self-consistent calcs. 6587
  - solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
  - SRAM eval. under X-ray pulses, procedure 12536
  - strain anal. of SOI films prod. by ZMR 29977
  - sub-0.1 μm double-gate SOI MOSFETs, design and perform. considerations 22472
  - sub-0.1 μm MOSFETs, semiclassical device simul. 22430
  - submicron SOI MOSFET, self-heating, scaling constraints 30289
  - submicron SOI SRAM for radiation hardened appls. 12529
  - technol. for large-scale mfg. realisation and appls. 6841
  - technol. trends 22517
  - TFSOI complementary BiCMOS technol. for low power appls. 30482
  - thin bonded wafers, pH-controlled chem. mech. polishing method 22237
  - thin film SOI FET, anal. model and temp. depend. 38906
  - thin film SOI power MOSFET, switching charact. 38869
  - thin SOI IGBT leakage current and struct. for high temp. 30344
  - trench-gate SOI lateral IGBT , p$^+$ cathode well 38833
  - VDMOS-type power ICs, void-free bonded SOI substrs. 39017
  - VLSI, future technol./economic prospects 38965
  - $BaTiO_3$ films, sputtered for SOI struct. 6909
  - Si LPE on SiO_2/Si, vert. stresses, X-ray double cryst. topography 37457
  - Si SOI struct. using oxidized porous material, CMOS LSI logic appls. 39012
  - Si microtechnol., develops. and proc. tech. depend. 38950
  - Si porous lateral injection device struct. for LED 23054
  - Si scaled submicron ultra-low power CMOS technol. 39008
  - Si wafers, p-n jns., leakage current, diffusion component 38297
  - Si/Al_2O_3 heteroepitaxial double SOI struct., press. sens. 38433
  - Si/SiO_2, buckled membranes for microstruct. 30513
  - Si/SiO_2/Si MOS oxides, border traps 13249
  - Si-SiO_2 MOS interface, tunnelling emission, const. voltage DLTS 6585
  - Si-SiO_2 MOS struct., dielec. breakdown, charge stabil. 22064
  - p$^+$-Si-SiO_2-polysilicon STDS struct., charge carrier capture 13240
  - Si-on-sapphire films, SPE, recrystn. by annealing, props. 22076
  - SiO_2/Si, thermal layers, wafer bonding induced degrad. 38422

- **silicon-on-sapphire integrated circuits** *see field effect integrated circuits*

- **silicon radiation detectors**
  - AC-coupled Si microstrip sens., fab. proc. 10140
  - ADC requirements in nuc. and X-ray spectrometry 4251
  - anodically porous Si, X-ray sensitivity 18347
  - APD, SR detector 4245
  - APD detector, X-ray bunch-purity 10154
  - avalanche diode, X-ray efficiency, time response 26235
  - Broad Band X-ray Telescope calib. 43166
  - bulk defects, radiation damage 43105
  - CCD-based vertex detector design, microstrip detector 34952
  - charge-sensitive preamplifier IC for Si calorimetry at colliders 26241
  - COBEX, collider beauty expt. for LHC 4183
  - conference, semiconductors for room-temp. radiation detectors, USA (1993) 28268
  - Cornell high lumin. upgrade, CLEO II detector, CLEO III 4177
  - deep level compensated, X-ray appl. 43160
  - digital mammography, SR 43266
  - directly bonded wafer, point defects, bonded SOI wafer 38431
  - double side microstrip wafers, large scale prod. 26169
  - double-sided Si microstrip detectors, probe fixture 34940
  - double-sided Si microstripe detectors, charge sharing and resoln. 34930
  - drift detector with on-chip electronics, design 26155
  - energetic ion detect., solenoid lens and posn. sensitive counters 18342
  - fast APD detectors for SSC 43106
  - finely segmented Si microstrip telescope, beauty decays, WA92 expt. 4189
  - FINUDA, tracking device, DAΦNE, high resoln. spectrosc. 4195
  - HEMT input charge preamplifier, nanoseconds sig. proc. time 43136
  - HERA-B, CP violation expt. 4134
  - HI tracks, nonequilibrium carrier recomb. 29832
  - high-segmentation Si arrays, low-energy nuc. phys. 43111
  - hybrid gas-Si detector, cluster breakup appl. 10111
  - imaging Si pixel array based posn.-sensitive photon detector 34514
  - imaging X/γ-ray spectrosc., multiplexed readout electronics 18381
  - INDRA 4π detector, design, phys. program 34898
  - indust. X-ray computed tomography 18323
  - irrad. effects, reverse annealing, simplistic model 22093
  - large area image plane sens. for radiography 9937
  - LHC, Si-strip detectors, low-noise front-end electronics 4235
  - low energy X-ray radiation source calib., dosimetry 18415
  - low noise detector preamplifier, X-ray spectrosc. 43164
  - low noise preamplifier design for room temp. detector appls. 43139
  - low-energy cosmic ion detector syst., amplif. electronics 26137
  - mammography, μ-strip Si detector, transputer DAQ 35066
  - microstrip detector, relativistic HI cross sect. 43112
  - microstrip detector readout, AVLSIRA CMOS proc. 10138
  - microstrip detectors, charactn./QC using IR diode laser 26164
  - microstrip detectors, secondary-vertex trigger, beauty search 4236
  - microstrip Si detectors, readout syst. 10139
  - neutron irrad., Fermi level, transient charge tech. 18370
  - neutron/proton/gamma irrad., electr. props., charge collect. efficiency 26224

silicon radiation detectors continued
p^+-n-n^+ irrad. detectors, neutron fluence, DLTS, CV characts. 38794
pad detectors, radiation hardness for fast n 43116
photodetector, epitaxial wafer 42801
photodiode, X/γ-ray detector 43163
PIN diode, neutron spectrum meas., Army Pulse Radiation Facility 18371
pixel vertex detectors for high lumin. expts. 4187
pixel X-ray detector for digital mammography 35060
pMOS pixel detector design 18344
polariz. voltage control, automated syst. 43058
radiation damage, microscopic effects 34949
RD21, Si data-driven trigger proc. test 4190
rem. controlled polariser 43062
Shashlik scintillator/lead sandwich calorimeter for CMS 26181
single-sided AC-coupled silicon microstrip detectors 43059
SOI layer with voids, noncontact elec. eval. 38432
STAR detector design for RHIC collider 18336
strip detectors, binary readout, fast bipolar front-end 4172
surface barrier detector, elec. field strength 18322
surface passivated Si(Li) detectors, X-ray detector array 18321
TAGS, β^--decay intens. distribs. meas. 10153
TOPAZ forward calorimeter at TRISTAN, lumin. meas. 34895
total depletion mode Si surface-barrier telescope detectors 4218
Tracking/Imaging Gamma-Ray expt. (TIGRE) for 300 keV-100 MeV gamma-ray astron. 4204
vis. photon imaging using hybrid Si pixel detectors 34515
X-ray detector for SR digital radiology 18352
X-ray detectors, ionization stats. 26259
X-ray detectors for plasma diagnostics 26143
$p\bar{p}$ lumin. monitor, Fermilab expt. E760 34834
Cu foils, low energy γ/X-ray excitation, secondary X-rays *(Chinese)* 18423
Fe foils, low energy γ/X-ray excitation, secondary X-rays *(Chinese)* 18423
Si CCDs, X-ray polaris. sensitivity 34976
Si cryogenic detectors, ion-implanted charge collection contacts 38487
Si detectors, heavily irrad., TSC data-anal. 26165
Si drift chamber, high-resoln. X-ray spectrosc. 26254
Si strip detectors, gamma-ray telescope, GILDA mission 26138
a-Si:H arrays, X-ray transm. scans, PET/SPECT appl. 35062
a-Si:H p-i-n detectors, charge collection procs. 43107
a-Si:H/CsI(Tl) X-ray detectors for radiation monitoring 43161
Si/Fe(Fe+Pb) calorimeters, binding energy losses, flucts. 43117
Si-GaAs, X-ray detector material, deep levels, PICTS study 43156
Si-Gd-Si sens., large area, thermal neutron detect. 18329
Si-SiO$_2$ MOS transistor, ionizing radiation dosimetry 43405
Si$_{1-x}$-Ge$_x$ Li-drift detectors 10131

silicon reference diodes *see avalanche diodes; Zener diodes*

silicon software *see firmware*

silicone insulation
see also silicone rubber
20 kV plastic cable repair by silicone injection *(German)* 27214
cable joints, interface insulation, elec. breakdown *(Japanese)* 10763
flex coating reliab., high-perform. MCM-PCB interconnection 12945
oil/polymer particles suspen., electrorheological effect 39066
rubber insulators, AC clean fog test, porcelain comparison 4700
traction motors, Class 200 armature insulation syst. 11395
transformer fluid, UL class. 5010

silicone rubber
see also silicone rubber insulators
encapsulants, power transformers, thermal cond. meas. 36233
flashover voltage, wetting conditions effect 19322
human body fluids Na assay, ISFET 34603
HV outdoor insulation, silicone rubber insulators, surface recovery 19317
insulators, AC clean fog test, porcelain comparison 4700
naturally aged, wettability, TSC spectra 35666
outdoor HV insulators, breakdown strength 19318
room temperature vulcanised, TSDC obs. 14042
RTV rubber coating, silicone fluid form, due to heat 14051

silicone rubber insulators
110-275 kV composite long rod insulator monitoring experiences, Australia 43788
AC clean fog test, porcelain comparison 4700
breakdown strength, outdoor HV insulators 19318
HV outdoor insulation, silicone rubber insulators, surface recovery 19317
leakage current monitoring, coastal site 43784
RTV silicone rubber insulator coatings, hydrophobicity transfer *(Chinese)* 35665

silicones
see also silicone insulation; silicone rubber
conductive adhesive eval. as solder replacement 38107
heatsink bonding, semicond. packages, silicone adhesive 5675
ladder silicone SOG, FIB lithog. 22301
lead on chip plastic package adhesive tapes 11800
semicond. packages, bonding, silicone adhesive 28473

SIMD computers *see parallel processing*

SIMOX
accumulation-mode SIMOX MOSFETs, Si film thickness effects 38857
alternating hot carrier injection in SOI transistors 22415
BOX, radiation-induced hole traps 13251
BOX layer form. by high-dose O-ion implant., Si wafers 22149
CMOS/PLL LV synthesizer, SIMOX technol. *(Japanese)* 21152
CMOS/SIMOX gate array, 1/4-micron-gate ultra-thin, dyn. perform. and leakage current characts. 22590
CMOS/SOI technol., high-speed/low power and modeling 6851
European SOI technol. develop., review 38428
fully-depleted MOS transistors fabricated in SIMOX, radiation response 13729
material develop., CMOS appls. 30459
MOSFET, high temp. operation 22468
n-MOSFETs, Ge-implant., radiation hardness 13726
NMOSFET(PMOSFET)/SIMOX struct., hot-carrier injection 6759
opt. rib waveguides, loss, mode charact., bends, y-jns. 1719
Ostwald ripening, self-organisation, ion beam synthesis 30029
oxide buried layers in SIMOX material, radiation response 13281
radiation hardened 1-M bit SRAM on SIMOX material 29235
radiation response prediction, spectrosc. ellipsometry 13299
SIMOX/ZMR/direct bond SOI struct., opt. charactn. *(Japanese)* 38430
snapback nMOSFETs, ESD protection capability, mechanisms/failure modes 30308

SIMOX continued
SOI, conf., Ponte Verdra, FL, USA (Oct. 1992) 11581
SOI, H annealed, surface atom migration 1175
SOI materials/devices for VLSI appls. 30458
SOI MOSFET, LF noise, gamma ray effects 22418
SOI MOSFETs, thin-film, self-heating effects, modeling 22425
SOI nMOSFET, SIMOX substrs., drain current charact. 38868
SOI/bulk hybrid technol. on SIMOX wafers for ESD immune ccts. 13881
stacking faults, growth/shrinkage 22074
ultrathin low energy, low cost high dens. appls. 30062
GaAs/InGaAs/AlGaAs heterostruct., selective high-temp.-stable O implant. 1218
Si nanostruct. single-electron transistor, NTT prototype device 38944
Si on insulator, high dose O implant./microstruct./form. mechanism 38494
Si quantum wire surrounded by SiO$_2$, fab./transport props. 6669
Si quantum wires, SIMOX fab. 13147
Si single-electron transistor, room temp. operation, fab. 13827
Si ultra-fine wire fabricated by SIMOX technol., quantized conductance 38354
Si:O syst., ion implanted, oxide growth, refr. index, and comp. depth profiles 22123
Si:O-on-insulator, implant.-induced stresses, defect pair 30044
Si/SiO$_2$, SIMOX substrs., Si ion implant. for secondary defect reduction 30043
Si/SiO$_x$, improved SIMOX material, Si overlayer, strain reduction 22075
Si-SiO$_2$ SOI film thicknesses, reflectance meas. 13260
Si$_{1-x}$Ge$_x$-on-insulator synthesis by ^{74}Ge$^+$ ion implant. in SIMOX substr. 30055
Si$_3$N$_4$-Si IR detector, p-n jn.-based, SIMOX technol. fab. 34499
SiO$_2$ buried layers, H-annealing induced pos. charge, ESR/C-V anal. 38425

SIMS *see secondary ion mass spectra*

simulated annealing
1D logic arrays. gate permutation ordering 21254
2D PCAS digital filter design based on restrictive coeff. sets 37888
analog ICs, simultaneous placement/module optim. 30406
application specific syst. partitioning algm. 21198
ASIC row-based cell placement method utilizing cct. structural props. 37711
binary phase fan-out elements, opt. optim. 14558
binary phase only filter, spatial coded, simulated annealing algm. *(Korean)* 31064
binary phase only matched filter symm. breaking 31060
Boolean neural net, dynamically configurable combinatory logic array 29451
boundary-based correspondence computation, topol. constraint 41123
broadband quasi-phase-matched planar waveguide SHG, optimal design by simulated annealing 40033
cell placement method using cct. struct. props. 21039
CELP coders employing LSF vector quantizers, error protection 8194
channel router, 1-variable stochastic simulated annealing 37581
code-excited neural vector quantizers 40712
coilguns, design optimisation 15295
color-sig. separation, constrained nonlin. optim. approach 16314
combinat. optim. problems, annealing imitation method modif. 28639
combinat. optim. problems on loosely-connected parallel computer 20568
computational nanoelectronics, parallel algms, QMD 6830
computer commun. networks, topol. design, simulated annealing 33542
connectionless broadband ATM network data service design by simulated annealing 25033
Cray T3D MPP syst., optimized routing 24863
DAB freq. block allocation, aid of simulated annealing *(German)* 9691
depth/image recovery, Markov random field model 8520
diffusion algm., global optim., device model params. 1323
distrib. network power capacitor placement/replacement/control optim. 35621
distrib. network power capacitor placement/replacement/control, computer simul. 35622
DSP algms. mapping, multiprocessors by simulated annealing 8355
electronic component model minimization based on log simulated annealing 12280
EM launchers, design optimisation 15260
engng. education, obj. recogn. algm., graph matching-based 20346
evol. algm., fn. optimizer 28636
FIR filters, powers of two coeffs. design 32789
FPGA channel archit., automatic synthesis for routability 639
genetic algm. for global energy minimization in mol. binding 215
global optimal search algms. 28648
Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
graph bisection 5759
inverse queueing network anal., improvement on computational efficiency 11901
line correspondence in aerial images, stochastic relax. 41240
LSI module placement, Hopfield neural net, non-zero diagonal elements *(Japanese)* 37599
MANs, topol. design 41844
MAX telephone diagnostic ES, param. tuning 3105
mean field annealing, VLSI design appl. 38974
microcell base station locations, simulated annealing appl. 9255
microwave FET equiv. cct. params., simulated annealing method 839
microwave imaging, cost minimisation approach, simulated annealing 43277
mixed-sig. macro-cell placement in WRIGHT 29405
mixed-sig. macrocell placement in WRIGHT 29395
morph. filter optim. by learning, opt. neural net appl. 1765
multiple-obj. computer-generated holographic discriminant correl. filter design 32967
multisensor bearings-only tracking, min. description length 8287
NEUDEM, neural network based ATPG for digital ccts. 648
neural net synaptic coeffs., simul. annealing and SPICE-PAC 21471
NMR microscopy, biplanar gradient coil design 21601
noninvasive diagnostics, Gibbs act. EM method 35029
nonuniform transm. line impedance matching sects. in passband, design 15555
optim. of polling policy represented by neural network 2897
parallel recombinative simulated annealing 20561
pipelined pseudo-exhaustive testing, simulated annealing, combinat. cct. partitioning 29113
PLA optim., simulated annealing algo. 21238
PM sync. motor efficiency optim. design method *(Korean)* 27690
point correspondences matching, simulated annealing 24600
power syst., VAr planning, interactive fuzzy satisfying method 4602
power syst. optimal generation mix, CO$_2$ emissions constrained 4599

simulated annealing continued
power syst. unit commitment optim., EnerPLUS package-based 27107
quasi-static algm. for image restoration preserving discontinuity 8501
radio transmitter network, freq. assignment problem 3659
real no. trellis codes, constr. 40665
resource mgt., stochastic techs. 20362
row-based cell placement method utilizing cct. structural props., ASIC layout 21262
row-based placement, simulated annealing, hierarchical algm., MCNC benchmark ccts. 37708
row-based placement for very large ccts., simulated annealing, MCNC benchmarks 21258
satellite broadcasting schedule optim., Hopfield neural net mean field annealing 25461
satellite commun. traffic mgt., mean field annealing 42327
scene segmentation in rem. sensed image, cost minimization approach 41331
shape detect., parallel simulated annealing 24366
speech coding, multipulse algm., adaptive Boltzmann annealing 15808
SR source undulator design, simulated annealing 31731
STANZA-M multilayer channel router, simulated annealing 13845
surface reconstr., discontinuities, simulated tearing 2748
texture recogn./noise filtering, optoelectronic neural net 39526
three-phase distrib. network CAD, multiobjective optim. approach 27146
TOPS, partial scan design package based on simulated annealing 21059
transm. network, services routeing/scheduling techs. 24839
two-way partitioning, optim. by iter. improvement, expt. eval. 21021
VLSI syst. partitioning, genetic algms., implement. and eval. 28923
VQ, min. free energy, annealing control 28635
WMS real time algm./AIP predictive schedulers, comparison 20363
zero-skew clock net constr., simulated annealing, VLSI layout 29336

simulation
see also aerospace simulation; analogue simulation; brain models; hybrid simulation; modelling; physiological models; plasma simulation; semiconductor device models
0.25-μm fully-depleted CMOS/SOI invertor, SEUs, radiation hardening 13727
1.55 μm semicond. laser source, gigabit/second integrated electroabsorptive modulator 1741
1 MW grid connected PV plant, perform. anal. 27636
2 kW Solar Dynamic Ground Test, solar simul. selection 26615
3-phase sync. motor, single phase supply, operation 19617
3D obj. profilometry based on direct fringe displacement anal. 18085
4-move perfect zero knowledge interactive proof for promise problems 32080
10 Gbit/s dispersion supported transm., computer simul./practical implications 34084
AC choppers, input PF improvement, asymm. PWM tech. 36334
AC drives, decoupling control techs. 28082
AC HV insulators, elec. pot. and field comp. 19316
AC supercond. current limiters, design and modelling 4731
AC/DC converters, harmonics elimination, current injection method 44125
AC/DC converters, line current harmonics, predeterm. 44124
AC/DC/reluctance motors, torque prod., unified theory 4930
act. integrated antennas, nonlin. EM simul. 15628
aircraft AC generators, forced power transfer, dyn. modelling 26657
ANATA, autonomous network administrator, TAMPOPO learning machine appl. *(Japanese)* 16583
anisotropic waveguides, full-vectorial beam propag. method 7284
ANN for commun. systs. modeling/simul. 17246
ARES EMP simulator, EM fields radiation 7997
ATM syst. traffic anal., modelling and simul. *(German)* 24867
ATM syst. transaction-oriented simul. and source traffic modelling *(German)* 41422
automobiles, elec. distrib. syst. archits. 20115
automotive fuel economy improvement, near-term technol. 28139
blind adaptive array simul. for realistic mobile channel 33795
broadband matched terminations in planar structs., simul. 12746
brushless DC drives, math. modelling 44494
brushless DC motors, computer simul. model 36184
brushless doubly fed machines, pump drives, pole no. combinations 5282
buck converter, ANN controlled, simul. 37637
BWR power plant, abnormal conditions, operator perf. 27403
CAD conf., San Jose, CA, USA, Nov 1994 41
Canadian patrol frigate multi-sens. data fusion implement., perform. eval. 18981
capacitor discharge induction launcher model, validation 15314
cascaded Kerr birefr. fiber PM simul. 7806
cavity gyrotron oscillators, mode locking simulation 21832
CDMA mobile radio, joint detect./coherent receiver antenna diversity 25364
cellular syst. variable C/I threshold distributed adaptive channel allocation scheme 33806
cellular TDMA networks, cochannel interf. simul. 17060
centralized multihop packet radio network, simul. model 9160
Cherenkov FEL, Kerr-like medium loaded, efficiency enhancement 23319
chest radiography, effective doses, different techs. 18655
CMOS IC, effect of layout modif. on latchup triggering 13888
CO_2 laser, opt. distortion effects on focusing charact. *(Japanese)* 7515
coal-fired MHD facility, laser induced breakdown spectra 20016
coherent opt. syst. nonuniform FM response, semicond. laser model 9471
coilgun launchers, power conditioning, thyristor appls. 31765
colliding-pulse mode-locked QW laser dyn. response simul. 23236
color constancy, generalized diagonal transforms 2600
communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
complex image proc. syst. hierarchical simul. *(German)* 24673
connected ground and floating plane package design and anal. 11809
constrained anti-Hebbian learning algo. for total least sq. estim. 2549
converter transformer cores, losses modelling, failure 44108
CRMA/ATM network interconnection flow control protocol 41762
CT simul. hysteresis loop reconstr. *(German)* 19700
cylindrically-symm. vircator high power microwave source 29766
D1900 micro cell indoor/outdoor appls. 25435
data transm. SVD-based fractionally=spaced equaliser perform. 42043
DC motor, PID/fuzzy posn. controllers comparison 11070
DC power plants, seismic qualification, computer simul. 44142
DC servo systs., integral of output error VSC 11090
deep submicron nMOSFETs under high current snapback conditions 22438
deep-submicron MOSFET scaling study 38855
diffractive phase elements for beam shaping, design method 31657
diffused channel waveguides, Δn/index profile determ. 39417

simulation continued
digital opt. burst-mode receiver BER perform. in TDMA, opt. multiaccess network 25485
discrete-time multichannel sigs., neural net modelling 15976
distortion-invariant composite filter for target detect. in nonoverlapping scene noise 32869
distributed radio port controller archit., develop. 25381
double-stream cyclotron masers, 2D nonlin. theory 23069
doubly-fed brushless motor, sync. frame model/decoupled control 11378
DQDB protocol erasure-nodes modif., fairness and perform. 33283
drivers' dist. keeping, simul. study 5325
DS-CDMA mobile syst., fading channel, anal./simul. 3391
DS-CDMA syst., macro diversity perform. 3389
dual cellular syst. channel asignment methods 33814
dual-collector magnetotransistors in SOI technol. 25790
elec. drives, anal., simul., software package 20077
elec. machines, permanent state simul., electronic commutation *(French)* 10950
elec. vehicle drives, series reson. DC link inverter 5358
electronic components and technol., conf., Washington DC, 1994 5473
electrothermal-chem. gun pulse shape requirements 19780
EM launchers, plasma armatures, 2D MHD simul., secondary arcs 15309
emitter switched thyristors, forward biased SOA 13669
ESD, finite element time domain simul. 15218
ESD contact discharge simulator for equipt. testing 17695
ESPM, electrostatic precipitator model 7924
explicit method for resoln. of semicond. device eqns. 38779
failure delay syst. reliab. assess., DYLAM-3 code 11872
fast fading indoor radio channel characts. 33817
fault-detecting network membership protocols, design/anal. 41522
FDTD formulations for nonlin. opt. simul., Z transforms 31558
FEL, self-field effects, 3D anal. 23311
flash EPROM endurance simul., phys.-based models 21306
floating-inductor simulator, current-feedback amps. 21411
FOM 1 MW 200 GHz free electron maser mode purity, plasma heating appls. 39924
frame-to-frame image motion estim., image 2852
Frankfurt (Main) city network control syst. *(German)* 35551
freq. hopping simulator for multipath mobile channels *(French)* 3361
frequency-selective fading channel orthogonalising simulator 40343
fuzzy logic handoff algm. perform. anal. by indoor propag. simulator 33819
GaAs/AlGaAs pnpn optoelectronic switches, transient modelling 39545
Gb/s intens.-modulated direct-detect. systs., laser turn-on delay and chirp noise effects 42460
glass photoinduced SHG, time-depend. beam-propag. model 15115
gyro peniotron forward wave oscillators 6496
gyrotron amp., axially modulated, cusp-injected, large-orbit 6497
gyrotron BWO, long-pulse expts. 21852
gyrotrons drift region, spurious oscillns. self-excitation 6494
HF discharge lamp ballasts, white noise modulation 11457
high level DSP code synthesis, dyn. data flow/control flow 32654
high power FEL electron output scheme, time-depend. multi-dimens. simul. 39922
high-power Cherenkov device, superdimens. slow wave struct., simul. 29812
holographic NDT, neural network approach 31662
holographically exposed photoresist gratings, developed profile 31638
hot jobs proc. and effect on normal orders 37018
hybrid elec. cars, ultracapacitors, energy storage 20098
hydro turbine governor model struct./params., power syst. stabil. 4861
hydro turbine model, syst. dyn. studies 4860
hydroelectric generators, ballhead motors, mech. governor perform. 43987
IC mask multiple-pass printing, spatial freq. filtering 13456
IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
image seq. block adaptive 3D subband coding 41097
incoherent-only joint-transform correlator 32969
induction machine param. estim., standstill time-domain data 19642
induction machines, broken bar detect., current spectrum/param. estim. 4966
induction motor, single phase, torque control, controlled capacitor 27716
induction motor drive, CSI-fed, field oriented control, CASED simul. 44495
induction motor drives, speed sensorless field-oriented control 5298
induction motor param. est. models 4977
induction motor servodrive, VSS robust control 44483
induction motor starting transients, simul. algm. 19631
induction motors, CSI-fed, torque control, vector approx. 5310
induction motors, doubly fed, torque/reactive power control 44058
induction motors, sensorless field accel. method, stabil. anal. 11047
induction motors, voltage fed, current regulated, field oriented control 19630
indust. fire simul. and conseq. eval. empirical models 20171
inform. transm., control decisions *(Chinese)* 15678
integral decoupling capacitors in IC/MCM packaging, simul. 12843
integrated IR sens. design, computer-aided trade-off study 3838
integrated opt. cct. simul., num. BPM algms. 22920
integro-differential systs. with delays, modelling, simul. and control 37350
interconnect capacits. of ICs, automatic model generation 38980
internal combustion engine, homogeneously charged, piston design, flame develop. 19501
inverted cusptron devices, particle simulation code 21830
Ku band 12 channel contiguous band multiplexers, optimal design 3282
laser beam welding and straightening, FEM simul. *(German)* 5605
lateral advanced IGBT, fast turn off 30329
lateral BJT, CMOS compatible, base current reversal phenom. 13651
lateral IGBT on SOI wafer, latch-up characts. improvement 13752
lattice self-heating/hot-carrier transport, influ. on device perform. 6711
LCD, nematic, Monte Carlo simul. 39501
LD output simul., mock eqns. 31425
Leaky Bucket algm. queueing models, fast simul. methods 11906
LED emission intens., photon recycling approach 39581
lin. reluctance motor can secondaries, suspen./propulsion forces 19671
linecoded opt. heterodyne FSK systs., nonuniform laser FM response 42457
long-haul opt. fiber commun. syst. dispersion, distributed in-line group-delay equalizers 17250
low heat rejection regenerated diesel engine 19534
MAC-02 Stirling engine, indicated power, heat input trade-off 28041
magnetotransistors, mag. field sensit. modelling, HSPICE 38825
magnicon 2.4 MW CW, modeling and anal. 21823
magnicon output cavity, anal. and simulation 21815
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
material explosion, pulsed currents/elec. fields, simul. 30551
medium freq. converter with VSI, control syst. 19879

simulation continued
  metropolitan microcellular radio environ. PRMA perform. 42194
  microlens, holographic, shape fn. investig. by image proc. 2153
  microstrip antennas, design, simul., testing 40457
  microwave HBTs, transient thermal simul., TLM method appl. 37980
  mobile radio channel, measuring/simulating devices 25286
  modified PDAMA protocol for mobile satellite commun. systs. 25320
  MOS device gate oxide, hot carrier transport-injection model 22433
  MOS-controlled thyristor, AC switch and AC voltage controller appls. 22400
  moving image, coding/decoding, cellular neural network 24735
  moving target extraction and image coding based on motion inform. 32938
  multidimensional block coded modulation perform. with time-correl. fading estim. 40549
  multilayer PGA, ground plane induct. and simul. 20444
  multiple target sputter syst., real-time control 20967
  muzzle-fed railgun expts., 3-D EM simul. 15279
  N-channel power MOSFETs, single event burnout study 13723
  natural gas fired combined cycle, perform. anal. 27599
  network embedding dilations, lower bounds 457
  non-punch-through IGBT, crit. switching condition 30327
  nonlin. Fabry-Perot resonators, anal. of dyn. pattern form. 7728
  nonlin. planar opt. waveguide MOL and FDBPM simul. 40432
  nonlin. planar opt. waveguides, vectorial simul. and power-param. charactn. 31484
  nonlin. Schrodinger eqn. soln. by coupled amplit.-phase formulation 23373
  nuc. driven MHD device, nuc. induced elec. cond. 27968
  offshore field develop., life cycle availability assess. 20192
  optim. of simul. via quasi-Newton methods 239
  optoelectronic device simul., conf., Los Angeles, CA, USA, Jan., 1994 36838
  overvoltage protection meas. simul. computation comparison *(German)* 43797
  oxid. simul., quadtree based grid generator 1267
  packet loss rate simul., commun. networks, priorities 11907
  periodic waveguide wave propag., num. simul. method 40436
  PERT/CPM network params. eval. 20394
  PGA package, high speed elec. charactn./simul. 20442
  photoconducting switches, 3D FDTD simulation 23012
  photorefr. two-beam coupling optimal thresholding filter for additive sig.-depend. noise reduction 23406
  photorefr. two-beam-coupling nonlin. joint-transform correlator 2052
  planar busbar low inductive connections, power electronics 12868
  planar microcavity LED's, design/expt. comparison 31097
  plasma armature railguns, foil breakdown, num. simulations 23521
  PM sync. motor drive, flux-weakening control 20078
  polariz. vol. hologram, coupled mode anal. 23465
  pole geometries in thin film inductive heads, perform. eval. 7090
  polymer-based single-mode bus array, channel cross-coupling 14668
  power MOSFET, single event gate rupture 13725
  power syst. failures, cascade-like propag., simul. 27025
  power transformer dyn. hysteresis losses 27778
  predictive VLSI memory develop., TCAD strategy 21303
  priority queueing syst., RPA and harmonic gradient estimators appl. 11903
  PSD estim. simul., max. entropy method 2582
  pulsed corona precipitator, charged aerosols modelling 15247
  PYRAMID interior area removal method in electron beam lithog. 13455
  QPSK adaptive DFE with MLSE 41385
  quantum well lasers, 2D self-consistent simul. 39790
  quantum well lasers, 2D simul. 39792
  quasi-independence, simulate-and-reject Monte Carlo exact conditional tests 28583
  quasi-reson. soft-switching PWM conversion, space vector control 19757
  quasioptical gyroklystron expt., multimode simulation 6511
  railguns, design, coupled EM-hydro FEM 15311
  railguns, EM forces calc., 3D FEM 31753
  railguns, plasma-surface interfaces, energy transport, boundary layer model 31772
  rapid thermal proc., 3D modelling for design optim. 22552
  relativistic klystron two-beam accelerator for beam-break-up suppress. 34828
  relay, smart, AI-based 6397
  reluctance machines, multiple coupled cct. modelling 10981
  reluctance motor drive, DSP-based sliding mode control 44493
  reverse-channel HV lateral IGBT, characts. study 30328
  RF Mission Planner, warfare commun. simul. 26816
  ridge-waveguide MQW DFB lasers, static and dyn. simul. 23193
  rigid rotor mag. bearing syst., nonlin. control 27681
  robots, elec. drive testing, mech. simulator control 20060
  RTP modeling and simul. incl. thermal stress anal. 22551
  saturated deep bar induction machines, simul. model 4971
  scene params. estimating method, color histograms 2601
  SDH networks, pointer activity simul. 16425
  semicond. complex device structs., 2D mesh generation 1328
  semicond. laser amp. based switching struct., gain saturation effects on size limitations 23251
  semicond. lasers with unstable resonators, simul. 23210
  shielded Permalloy strip MR head, response simul. 7087
  shipboard speaking-tube acoustics simul. *(Croatian)* 3592
  Shiva multiprocessor syst., neural network simul. mapping 32427
  single machine infinite-bus power syst., nonlin. excitation control 27075
  single phase quasi-reson. rectifier, unity PF 44146
  single-switch discontinuous-mode boost PF corrector 44211
  slotted multichannel opt. networks, receiver collision effects 42359
  small geom. MOSFETs, impact ionization simul. 22432
  small-hole coupling, formalism for FDTD simul. 7894
  soft etch contact proc., 0.1 μm CMOS device appl. 22572
  SOI MOSFETs, fully depleted, carrier generation study 6763
  SOI MOSFETs, threshold voltage sensit. reduction 30294
  space nuc. reactor, thermionic fuel element modelling 26625
  space station solar panel terminal characts. model 26676
  space thermionic syst., radiator design 26628
  spacecraft engng. subsyst. operations, Engng. Anal. Subsyst. Environ. 26519
  SPEAR coilgun, design, tests 15294
  speech noise whitening filter for syst. ident. 40746
  split-anode magnetron interaction anal. 21824
  SPRITE laser syst., waveguide Raman conversion simul. 31176
  SPS proton beam extraction by bent crystal, simulation 43008
  sputter deposition, Monte Carlo simul. 20968
  squirrel cage motor/sync. generator, skew, 2D FEM 4929
  squirrel cage motors, computer-based design assistant 19643
  SRM design considerations, aircraft engine pump appl. 10982

simulation continued
  SRM drive, nonlin. modelling, ANN 20074
  stable soliton transm. in nonlin. nonlin. amplif. loop mirror gain syst. 42459
  state-depend. queueing syst. using total hazard, variance reductions in simul. 193
  steel calender rolls, induction heating, finite element simul. 11514
  stochastic optim., identifying policies most likely, produce desirable outcome 11921
  sub-0.1 μm MOSFETs, semiclassical device simul. 22430
  submicron MOSFETs, single-event-induced charge collection 13720
  submicron NMOSFET, transcond. enhancement, back bias 13746
  substation struct./grounding syst., lightning strike, transient anal. 44251
  surface-emitting vert.-cavity QW laser, time-depend. num. simul. 1972
  SVC develop. testing *(German)* 27879
  sync. generators, practical model 44019
  system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
  TDMA digital cellular radio unified MLSE detect. 33823
  TDMA syst. capacity enhancement by adaptive channel allocation and power control 33203
  TDMA syst. perform. in outdoor microcellular environ. 33828
  TDMA-TDD personal commun. syst. ADPCM voice transm. improvement 33830
  telecomm. batt. racks, earthquake resist., computer anal. 19955
  telecomm. power supply/air-conditioning, reliab. modelling 19858
  telecomms. syst., forward error control, simul. techs. 42450
  Terfenol-D rods, giant magnetostriction modelling by FEM 39148
  third generation mobile systs., adaptive radio interface 25395
  third-harmonic gyro-TWT amp., 1 MW, stable operation 1009
  time-domain scrambled speech security with isomorphic emphasis 32209
  time-variant multipath channel, simul. 33847
  TLM method, appl., waveguide filter design/simul. 804
  TOPAZ-2 thermionic fuel element anal., HXTOPAZ computer code 26624
  transm. AC/DC real-time simul. *(German)* 27133
  TRASIM, 2D transient simulator for planar semicond. devices 38778
  travelling wave panel electrode design, computer user interface 15248
  trench gate emitter switched thyristors 30272
  turbogenerator shaft torque amplif. prediction 36092
  turbulent atm. wind profile estim. from laser distortion data 35311
  twisted NLC panel optim. for spatial light PM 31007
  two-mode fiber equalizer ultrashort pulse transm., dispersion compensation 9472
  two-stream relativistic klystron amplifier, beam modulation 21819
  upper-limb orthosis, powered, task anal./motion simul. 4306
  US piezoelec. microphone charact. simul. and exam. *(Croatian)* 4418
  variable freq. induction motor drive, pulsating torque compensation 5290
  variable selection criteria, computationally intensive 28591
  variable speed drives, CASED educational software program 44442
  VLSI interconnect reliab. studies, computer simul. 22553
  WDM arrayed-waveguide grating multiplexer, flat spectral response 25497
  wind meas. by heterodyne coherent laser radar 43504
  WR-284 rectangular waveguide, air breakdown 21503
  XFACT, diffusion furnace anal. and charactn. tool 22557
  Al reflow into submicron contact-holes/vias, simul. 22273
  AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
  $Bi_{12}SiO_{20}$ opt. correlator/SLM, multiple distortions 32964
  CO_2 lasers, closed loop gas ccts. simul./optim. 31158
  CO_2 lasers, phase conjug. 15059
  Cr,Er:YScGG 2.79 μm laser pumped, 790 nm by Ti:sapphire laser 7593
  Er-doped birefr. fiber amp. polariz. distortion 31216
  GaAs MESFET sidegating effects modeling by trapping simul. 22495
  GaAs heterojunction p-i-n photodiode transient simul., computational methods 39564
  GaAs heterojunction p-i-n photodiodes, transient simul., reson. cavity enhanced 39565
  GaAs photocond. pulsed power switches, filaments 36446
  GaAs/AlGaAs struct., low-press. MOVPE, growth area 20827
  Ge_xSi_{1-x} HBTs, graded and uniform base study 13647
  InGaAs GRINSCH QW laser, gain compression, Monte Carlo simul. 1992
  InGaAsP channel HFET OEIC photoreceiver 17258
  InGaAsP, dual-fluid-layer struct. MOVPE reactor 20794
  InP high-efficiency n^+p solar cell, simul., improvements 11301
  N_2 excimer laser, elec. discharge excited, model 7519
  PLZT-based scanning grating lobe opt. array generators, design and simul. 14523
  Si MOSFETs, simul. by cellular automaton method 22431
  Si OEIC with built-in PIN-photodiode, fab., perform. 14648
  Si solar cells, num. modelling of non-ideal I-V characts. 5225
  Si, vacancy-mediated dopant diffusion at high doping levels, models 1026
  Si:As single-cryst., deeply-channeled implanted profiles simul. 30023
  a-Si:H p-i-n solar cell structs., computer model 20006
  Si-SiGe HFETs, mobility simul. 22494

simulation languages
  28th Simulation Symposium conf., Phoenix, USA (1995) 36829
  dependability model automatic translation feasibility 11874
  FPGA design verification, software tools 12433
  mixed mode simul., appl. in electronics design 486
  power syst. dyn. anal., simulated distributed computing tool 4454
  semicond. device simul., phys.-model description lang. 1327
  top/down analogue IC design CAD, behavioural modelling lang. 28986

simulation of computers, digital *see virtual machines*

simulators *see simulation*

Sinanoglu's theory *see atomic structure*

sinewave generators *see waveform generators*

single-board computers *see microcomputers*

single-chip microcomputers *see microprocessor chips*

single electron transistors
  Coulomb blockade model *(Chinese)* 1450
  device develop. and technol. *(Chinese)* 22499
  digital phase modulator 22501
  inverter ccts., single electron transistors, dyn. charact. 37737
  logic device, tunnel-jn. load 37738
  multilayer single-electron tunneling devices, fab. 13825
  nanoelectronic computing technols., Japanese research 6809
  normal/supercond./normal SET devices, Andreev refl., EM environ. 22750
  NSN single-electron transistor, charge transport/photon-assisted tunnelling 22735
  supercond. single electron transistor in high impedance environ. 22748

- **single electron transistors** continued
  - supercond. single electron tunnelling transistors, parity effects 22736
  - Al/AlO$_x$/Al single-electron transistors and traps, fab. 13826
  - AlGaAs/GaAs reson. tunneling single electron transistor 38943
  - InGaAs heterostruct., nanostructure fab., FIB technol. 13312
  - Si nanostruct. single-electron transistor, NTT prototype device 38944
  - Si single electron transistor at RT, conductance oscills. 22323
  - Si single-electron transistor, room temp. operation, fab. 13827
  - Si single-electron transistor, transport props. 22500
- **single phase rectifiers** *see rectifying circuits*
- **single photon emission computed tomography**
  - brain struct. localisation in SPECT 18440
  - cone-beam SPECT syst., multiple-head, geometric calib. method 10213
  - conference, medical image processing, USA (1994) 20236
  - first-pass ventricular ejection fraction, SPECT camera 10176
  - gamma camera scatt. response determ., phantom, SPECT appl. 43227
  - gamma camera syst., PRISM-XP series *(Japanese)* 18530
  - general paresis, CT, MR, and SPECT findings 18446
  - image reconstruction from truncated, 2D parallel projections 43263
  - mathematical methods in medical imaging, conf., USA (1994) 20238
  - med., left ventricular motion anal. of 4D SPECT imaging 16331
  - multiple heads cone-beam syst., geometric calib. method 43216
  - nuc. med., conf., Orlando, FL, USA (1994) 20218
  - recursive CR bounds, alg./stat. accel. 41321
  - Ge semicond. arrays, multiplexer readout for gamma-ray imaging 18351
  - a-Si:H arrays, X-ray transm. scans, PET/SPECT appl. 35062
- **singular value decomposition**
  - 2D spectrum estim. method for bearings and Doppler freq. determ. 16027
  - algm. for stereo fixation, affine transfer 41147
  - antenna syst. for multiple suppression 31992
  - bandpass sigs. reconstruction 32645
  - Bayesian model order selection for Karhunen-Loeve transform and SVD 40982
  - bidiagonal SVD, divide-and-conquer algm. 37322
  - chaos in nonlin. ccts./dyn. systs., SVD 12301
  - conformal array pattern synthesis 31966
  - cross-correl. neural network models 2490
  - data transm. SVD-based fractionally=spaced equaliser perform. 42043
  - differential method for computing local shape-from-texture 8605
  - digital multipath wireless channels ident. in interf. 9303
  - ECG, inversion techs. perform. and patient anatomy 43293
  - ellipses and circles, least-sq. fitting 20593
  - EM syst., impulse response, deconvolution/total least sq. 40389
  - freq.-selective techs. based on SVD, TLS and bandpass filtering 32489
  - heart rate, AR spectral estim. uncertainty 26424
  - heart rate variability sigs., complex dyn. assess. 26411
  - high-resoln. freq. estim. 24203
  - homogeneous dielec. cylinder inverse scatt. 23568
  - image coding, directional ADPCM 24504
  - internal resons., method soln., suppl. conditions 40292
  - Jacobi algm. space, systematic exploration 32475
  - Jacobi sig. proc. unit for time-adaptive SVD 32655
  - Lyapunov exponents calc. from time series 16020
  - mag. suscept. tomography for 3D imaging 10175
  - most nearly rank-reducing struct. matrix perturb. computing 37323
  - motion-shape anal., multi-object; SVD neural networks 8680
  - multiexponential sig. anal., data preprocessing techs. eval. 32644
  - multilayer perceptron design algm. 8450
  - multiple periodic waveforms extraction from noisy data 32614
  - multiple tone removal from short sig. records 8301
  - one-sided Jacobi algm. for SVD, parallel implement. 20601
  - orient. filters, design and implement., separable approx. methods 32881
  - parallel SVD algm. implemented on MIMD archit. 11990
  - parallel SVD updating, num. stable Jacobi array 32476
  - paraperspective factorization method for shape and motion recovery 24610
  - periodic sigs. anal./prediction 15979
  - phased array sonar, min. norm array proc. algm. 10534
  - power models fitting, two-way contingency tables 28664
  - power syst. static voltage stabil. studies, generator modelling 26892
  - printed antenna computation 23846
  - QR algm. for computing sing. values 37334
  - Schur method for low-rank matrix approx. 32471
  - shape, surface reflectance, illuminant direction and illuminant intens. from images with shading 24571
  - single proc. array for pipelining multiple SVD 32459
  - struct. rank deficient matrices, struct. total LS problem 2482
  - subspace swap probab. 8302
  - subspace swap probab. 40815
  - subspace tracking algm. based on SVD 41003
  - sync. machines, model struct. ident., SVD *(Chinese)* 4911
  - tapered SVD, AR model estimation 41000
  - tapered SVD, multipulse input time series estim. from noisy output 40915
  - test matrices for regularization methods 28674
  - texture anal. 24533
  - time-series anal., rank determ. 40910
  - ULLV decomp. computation 32473
  - updating rate of Jacobi SVD arrays and data nonstationarity 32477
  - VLSI algm. and systolic archit. for SVD tracking 28667
- **singularly perturbed systems**
  - 2D eddy current problem, domain decomp., serial/parallel 40250
  - noncoherent second-order delay lock loop optimal design 41389
  - nonlin. sing. perturbed continuous-time systs., discrete-time observers 27692
  - power syst. dyn. stabil. models develop. 26898
  - power syst. voltage stabil., sing. perturb. theory 26850
  - surface-to-air missiles optimal guidance, differential games *(Chinese)* 43583
  - sync. motor control, sing. perturbed methods 27696
  - van der Pol oscillator, sing. induced bifurcation 575
- **sinks, heat** *see heat sinks*
- **sintering**
  - *see also densification*
  - alkali metal thermoelec. convertors, WPt$_3$ electrode kinetics, mass transport 20029
  - anatase-based sens. materials, high-temp. immittance response 34609
  - borosilicate glass, cristobalite-free low-K dielec. 22632
  - fine line thick film conductors by gravure offset printing 12946
  - half-sintered ceramic machining by Q-switched YAG laser *(Japanese)* 20421
  - HTSC, workshop, Caen, France (Nov. 1993) 11536
  - low temp. cofired ceramic tape, silver via metallization 28872
- **sintering** continued
  - micro-optics focusing LD material-proc. syst. design 5609
  - n$^+$p jn., reverse-bias current, hydrogen radical sintering 38295
  - NdFeB PM, high perform., sintering expts. 7202
  - PM, powder proc., mag. alignment 7033
  - power IC package low temp. joining tech., thermomechanical stress reduction 28504
  - Si-SiO$_2$-polySi:P, TiSi$_2$ superlayer, thin film oxide injection degrad. 22059
  - SOFC, air electrode degrad., microscopical charactn. *(Japanese)* 44341
  - AlN, 3D interconnected porous composites, proc., electronic packaging 146
  - AlN PGA type packages, reliable cofiring technols. 28444
  - AlN, aerosol synthesis by nitridation of Al vap. and clusters 28867
  - AlN sintered ceramics for electronic packaging, oxygen-related defect 12191
  - 12H-AlN-polytypoid ceramics, fab. 37534
  - BaO-Sm$_2$O$_3$-TiO$_2$ ceramics, microwave dielec. props. *(Korean)* 22631
  - Ba$_{6-3x}$Sm$_{8+2x}$Ti$_{18}$O$_{54}$, microwave dielec. props. 22638
  - Ba(Zn,Ta)O$_3$-ZnO-Y$_2$O$_3$ ceramics, microwave dielec. charact. *(Korean)* 22635
  - Bi$_2$Sr$_2$CaCu$_2$O$_x$ superconds., reactive sintering 7226
  - CdS/CdTe, sintered solar cells, InSnO electrode, PV props. 11295
  - CeO$_2$ thick film buffer layers for HTSC films 22724
  - Cu/TiN/TiSi$_2$/n$^+$-Si contact syst., RTN and characts. 38700
  - Fe$_{72}$Nd$_{17}$B$_{7.5}$Ga$_{1.5}$Nb$_2$, permanent mag./microstruct. props., additive effects 39195
  - n-GaAs, epitaxially lifted-off film, Pd/Ge ohmic contacts 29954
  - a-Ge particles form., nm dimens. and their behaviour, annealing 1058
  - n-InP/Au/Ni, ultra-low resist. Ni-based contacts 38409
  - La(Sr)CrO$_3$, sintered bar electrodes, MHD generator appl. 5232
  - La$_x$Sr$_y$MnO$_3$ based SOFC cathode materials 44374
  - La$_{1-x}$Sr$_x$MnO$_{3\pm\delta}$-powders prod. by drip pyrolysis 37536
  - Li$_{0.3}$Zn$_{0.4}$Fe$_{2.3}$O$_4$, additives, material property changes 39167
  - Nb-Fe-B-type PM, proc. and props. 30749
  - Nd-Dy-Fe-B sintered PM, coercivity ang. depend. 39196
  - Nd-Fe-B magnets, extruded, sintered, mag. props. 39199
  - (NdDy)(FeCo)B-W sintered magnets, domain-wall pinning 6985
  - Nd$_{15}$Fe$_{77}$B$_8$ sintered magnets, microstruct., mag. props., Dy$_{40}$Al$_{30}$Cu$_{30}$ powder addit. *(Japanese)* 30751
  - Nd$_{15.4}$Fe$_{75.7}$B$_{6.7}$Cu$_{1.3}$Nb$_{0.9}$ sintered magnets, prep./TEM 6968
  - Nd$_2$Fe$_{14}$BH$_x$ powders, synthesis and mag. props. 39128
  - Nd$_{17-x}$Pr$_x$Fe$_{75}$B$_8$ sintered magnets, mag. props. 39198
  - Ni-Cu-Zn powder ferrite for multilayer chip inductors 14186
  - Ni-Zn ferrite, sintered, microwave absorbing props. 14179
  - NiCuZn ferrite:Bi$_2$O$_3$, low temp. fired, for chip inductors 14183
  - PZT piezoelec. actuator, fab. *(Korean)* 14076
  - PZT porous ceramics, prep. and elec. props., echo sounder transducers *(Korean)* 35365
  - Pr$_{16}$Fe$_{76-x-y}$Co$_x$Al$_y$B$_8$ magnets, mag. props. 14161
  - RFe$_{10.5}$Mo$_{1.5}$C$_x$ series (R=rare earth), synthesis, mag. props. 30669
  - Si$_3$N$_4$ ceramic, firing, US imaging 28914
  - Sm$_2$(FeAl)$_{17}$C$_x$, arc-melted, Al-effect on mag. props. 39201
  - (Sr,Ca)TiO$_3$:Nb^{5+} capacitor-varistor ceramics, cation diffusion 436
  - SrZn$_2$-W type hexagonal ferrite, CaO(SiO$_2$) additives 7019
  - TiO$_2$-V$_2$O$_5$-Nb$_2$O$_5$ humidity sens., fine-struct., fab./charact. 17752
  - W-AlN cofired multilayer substrs., low temp. sintering 11744
  - W-Ir space power thermionic convertor alloys, work fn. expts. 18747
  - YBaCuO, levitation/suspen. forces in microgravity expts. 39246
  - YIG, mag. disaccommodation spectrum, sintering temp. depend. 14185
  - α-β-YSiAlON:Sm$_2$O$_3$, densified ceramics, react. seq. 37535
  - ZnO, LV varistors, two-step fab. proc. 38047
  - ZnO dense non-ohmic electrode, humidity sensitive elec. props. 34457
  - ZnO, multicomponent varistors, Cr$_2$O$_3$ effect, pre-breakdown elec. props. 12828
  - ZnO varistors, Bi$_2$O$_3$ nonstoichiometry, nonlin. property 869
  - ZnO-Bi$_2$O$_3$, sintering, phase distrib., TGA, SEM, XRD 6354
  - ZnO-Bi$_2$O$_3$ varistors, proc. variables, grain growth, microstruct. 21584
  - ZnO-metal oxide ceramics, sintering temp. effect on varistor props. 6346
- **sinusoidal generators** *see waveform generators*
- **SIT** *see static induction transistors*
- **size control**
  - fine/ultrafine pitch printing, electroformed/laser cut/etched stencils 37152
  - wire extrusion lines, diam. gauges, control systs. 5399
- **size effect**
  - copperphthalocyanye/SiO$_2$(TiO$_x$) hetero-nanostructs., mol. excitons, size effect 38423
  - LF noise in quantum point contacts 22031
  - organic electroluminescent materials/devices 23022
  - CdS$_x$Se$_{1-x}$-doped glass, energy level struct., opt. bistability 31598
  - GaAs nanometer-scale whiskers, growth/opt. props. 20815
  - GaAs/AlGaAs quantum dots, ion implant. based nanofabrication, masks 13493
  - InAs nanometer-scale whiskers, growth/opt. props. 20815
  - InGaAsP-InP MQW-LD fabricated by LPE, opt. charact. *(Korean)* 39802
- **size measurement**
  - *see also particle size measurement*
  - bubbles, size, vel. and long. posn. opt. meas. 18156
  - fuel oils combustion atomisation, charge injection nozzle 7904
  - relativistic e-beam, rad. meas. time-resolved images 31732
  - resists, CD meas., sub-0.5-μm devices 13487
  - VIRA-2P pulsed power X-ray generator, electron beam size meas. 34973
  - weak phase objs., struct. determ., interferometric near-field meas. 18084
- **skin**
  - 60 Hz EMF effects reduction 18628
  - AC skin impedance meas., real-time direct method, ANN based 43315
  - animal models for cancer devel., mag. field effects 35189
  - cancer and other disease diagnosis, conf., USA (1994) 11571
  - chest radiography, patient dosimetry 18669
  - computer operators, hazards from monitors 26484
  - contracting muscle, skin/muscle blood flow discrim. 18522
  - cryosurgery, MRI monitored, integrated probe 35059
  - dermal lesions elimination by laser, precision enhancement 43348
  - dermatology, laser appropriate 43334
  - diagnostic radiology optimisation programme, Madrid area 18501
  - electrocutaneous stimulus for sens. feedback, pitch/loudness independence 10278
  - electroporation in cells and tissues 35188
  - fuzzy rule based adaptive nonlin. filter for myoelectric sigs. 35132
  - gastrointestinal tract, radiological exams., skin absorbed dose 18675
  - hemangioma, radiotherapy, infancy, thyroid cancer risk 10264
  - heterocontacts between semicond. and human skin, photosensitivity 38454

skin continued
human body surface, colour 3D electronic imaging 34566
laser appls. in med., conf., Budapest, Hungary (1993) 20211
laser surgery, conf., Los Angeles, CA, USA (1994) 11574
mammography, air kerma/glandular tissue dose conversion factors 18660
med. obj. detect., transputers 26336
microwave thermography antennas coupled, layered tissue regions 35047
mycoses, pulsed laser tomographic apparatus appl. 26301
patient dose, bone mass/dens., radiation measuring instrums. 35199
patient dose meas./reduction, East Anglia (UK) 18670
percutaneous absorptiometry by UV laser photoacoustic method 4263
photographic films, dosimeters survey, interventional radiology 43402
sunscreen materials, pass. protection capabilities against UV solar radiation 10291
transcutaneous diagnostics, fibre optic devices 43264
vascular lesions in children, flashlamp pulsed dye laser therapy 43331
VDUs, rel., health effects 4331
virtual space teleconferencing, human fig. synthesis/animation 33619
wrinkles meas. by biostereometrics 43206
^{226}Ra treatment, skin hemangiomas, children, organs absorbed dose 10292

skin effect
see also anomalous skin effect
2D skin effect in power foils for HF appls. 29003
3D eddy-current computation, self-adaptive refinement tech. 40234
asynchronous machines, elec./mech. params. ident., math. method 11042
bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
CT freqs., than 50 Hz *(German)* 6374
electrothermal launcher solid armatures, design optim. 15352
EM launchers, multi-fibre brush armature perform. simul. 15321
EM launchers, solid armatures, current wave/saw effect phenom. 15318
ferromag. sheets, mag. field effect, skin effect 30680
HF switching mode power transformers, optimisation of winding conductors *(Slovenian)* 21595
HF transformer windings, model, FEM tool 6377
high-power low-inductance freq.-depend. resistor 12832
highly inhomog. plasma, obliquely incident short laser pulse energy absorpt. 15454
hollow circ. conductors, skin effect, math. model 43762
induction machines, core loss/mag. saturation model 4978
induction motor drive, PWM inverter fed, power losses calc. 28060
induction motors, parameter estim., dyn. anal. 19649
mag. anisotropy sens., output voltage-excitation freq. charact. 9879
metallized capacitors, mag. field/current distrib. 882
multilayer PGA, ground plane induct. and simul. 20444
multiturn HF coaxial winding power transformers 19699
multiwire shielded cable param. computation 38059
muzzle-fed railguns, EM/thermal anal. 15345
pipelines, skin effect/impedance heat tracing, appl./control 5387
railgun plasma armatures, serrated bore surface effects 15360
railguns, armature-rail interface, contact arcing transit. 15342
self commutated sync. motor nonlin., steady state operation 10996
shell element for computing 3D eddy currents, earthing transformer appl. 44099
single sided LIM, urban transit appl., nonlin. optimisation *(Japanese)* 44560
SMPS filter inductors, low loss windings design 36326
SMPS multiwinding power transformers, computer-aided optim. 19749
solid armature railguns, contact transit. anal. 15355
solitary waves on nonlin. transm. lines, modelling 23754
sync. motors, CSI-fed, rotor losses estim. 44013
thin film transformer, EM field anal. 38055
transm. lines, efficient freq.-domain modeling and cct. simul. 5977
unbounded skin-effect problems in presence of material inhomogeneities 38043
Co-based amorph. thin wires, HF permeab. 14124
CoFeSiB amorph. wires and films, giant magneto-impedance 30667
Cu-Au interdiffusion during plating 20986
Fe powder core inductors, HF modelling 12850
Fe-based NANOCON materials, soft mag. props. 39123
Fe-based amorph. thin wires, HF permeab. 14124

skips *see hoists*

SLAR *see airborne radar*

slave computers *see satellite computers*

sliding block codes *see block codes*

sliding contacts, electrical *see electrical contacts*

sliding mode control *see variable structure systems*

slip (asynchronous machines)
2-speed 3-phase async. lift motor, short cct. rotor 36707
3-phase self-excited double armature sync. generator 27739
cage induction motor, slanted stator/rotor teeth effect on torque 36170
disc-type eddy current dynamometers, torque design formula 27659
energy recovery induction motor drives, harmonic anal. 11391
induction machine harmonic rotor current/loss symm. calcs. 36169
induction machine reactive power, math. anal. *(Russian)* 44056
induction machines, nonstd., fuzzy control 44035
induction motor, dyn. behaviour/param. calc. optimisation 4942
induction motor, terminal-impedance control, energy-saving 4981
induction motor drive, rotor flux/time const., VSS observers 11325
induction motor drive meas. technique, microprocessor-based 20058
induction motor drives, indirect field-oriented control slip gain tuning 28093
induction motor drives, vector control 44443
induction motor drives, vector control, auto-tuning method 36682
induction motor field oriented torque control scheme 11014
induction motors, param. slip depend. determ. methods 27734
induction motors, parameter estim., dyn. anal. 19649
induction motors, transient torque anal. *(Japanese)* 11031
LIM, single-sided, theoretical perform. anal. *(Japanese)* 44045
LIM perform., design params. influence 27756
micro-hydroelec. power induction generator stabilisation 4857
power syst. dyn. voltage instabil., induction motor model *(Korean)* 35461
self-excited induction generators, circle diagram approach 19628
squirrel cage motor, sensorless speed detect., supply current , FFT 36167
squirrel cage motors, rotor/winding faults anal. 11043
squirrel cage motors, torque vector control studies 4980
UPS, slip-power recovery induction generator *(Japanese)* 27797
variable speed induction motor drive, adaptive fuzzy control 11392
variable speed induction motor drives, neural net-based vector control 36685

SLM *see spatial light modulators*

slot antenna arrays
coupling jns. in waveguide-fed planar slot arrays, charactn. 15657
CP-PASS, FDTD anal. of unit-radiator 23943
DBS reception single-layer leaky-wave slotted waveguide array 23945
design and anal., interpolation methods 31965
K/K_a-band series-fed dipole and slot arrays transversely coupled to microstrip line 23944
lin. microstrip array, printed leaky-wave implement. 8066
long. slot in sectorial waveguide wall, reson. cond. 15605
MM wave imaging aperture antenna feed array design and test results *(Russian)* 17428
monofilar Archimedean spiral slot antennas 8074
omnidirectional slot array antenna, moment method anal. 31959
planar near-field meas. of low-sidelobe antennas 2350
planar slot arrays, mag. currents/MMF, anal. 23964
radar, pulse wave radiation, transient response *(Japanese)* 17427
radial line slot antennas, rot. symm. of inner field 15672
rect. antenna cavity, dominant mode waveguide loaded slots array 2348
rot. mode radial line slot antenna fed by cavity resonator 40518
sectoral waveguide radiating slot, equiv. params. 8081
stepped cavity-fed microstrip array antenna 31969
transverse ground-plane slot in boxed-stripline, radiation effic. optim. 2345
transverse slot in inhomogen. loaded rect. waveguide wall for array appls. 23771
wide-band radial line slot antenna 40517
X-band rect. waveguide, Maxwell's eqns., FDTD soln. 23814

slot antennas
see also slot antenna arrays
2.45 GHz microwave heating-based large diam. plasma generation 44596
2D ferrite-loaded cavity-backed slot antenna scatt. 31920
10 GHz Vivaldi antenna microstrip-to-slot-line transition 31941
11 GHz folded slot antenna for planar quasi-opt. mixer 23909
406 MHz antenna for Spar deployable emergency beacon transmitters 15650
aperture coupled microstrip antenna band widening bt slotted patch and multislot coupling 23930
axial slot antenna on anisotropic dielec.-coated circ. cylinder 2336
C-band linearly tapered slot antenna on Si substr. 23908
cavity-backed aperture antennas with dielec. overlay, anal. 8042
circular patch antenna with sectoral slot anf shunt element 23933
coaxial slot antenna dielec. meas. model 23906
coaxial-slot antennas for microwave interstitial hyperthermia, SAR 26469
crossed-slot antenna, paint-coated bar load, impedance 40477
cylindrical edge-slot antenna, coaxial line feed *(Korean)* 15615
cylindrical microstrip-line-fed slot antenna anal. 31955
DECT handset, low profile reson. slot antenna 23901
dielec. loaded radial line slot antenna, slot coupling charact. *(Japanese)* 23854
dielec.-covered microstrip line slot antenna anal. 2331
end- and centre-loaded slot antenna configs. 31917
ground-plane-backed planar slot antenna expt. and calc. 23911
linear tapered slot antenna with coplanar waveguide feed 23878
linearly tapered slot antenna on dielec. substrate anal. 23876
microstrip fed slot antennas, approx. model 2325
microstrip-slot cct. mixed pot. integral eqn. Green's fn. calc. 23842
MM-wave act. integrated antennas, harmonics *(Japanese)* 8060
monolithic 250 GHz Schottky-diode receiver, slot antenna based 12813
monolithic slot antenna, charactn., electro-optic sampling 8064
parallel plate-fed slot antenna, charact. mode soln. 40494
perfectly conducting slotted elliptic cylinder, near-field anal. 23830
radiation characts. in ground plane under DC magnetised ferrite slab 23826
radiation of elementary slot in ideally conducting polygon 31700
short const.-width slot antenna, radiation pattern 15644
tapered slot antennas, FDTD anal. of transient EM fields 2333
THz all-electronic planar antennas 6279
two-arm slot spiral antenna 8073
GaAs(InP) quasi-opt. slot HFET mixer, integrated, 40 GHz, car radar receiver appl. 12812
$LiNbO_3$ EO modulator, intens. modulation by free space radiation coupling 7397

slot line components
microstrip-microslot applicators, 3D modeling, FDTD method 18601
peniotron slotted third-harmonic forward-wave oscillator 29808
planar struct. impedance matrix eqn. 23752

slot lines
3D FDTD slotline anal. on limited memory PC 23789
11 GHz folded slot antenna for planar quasi-opt. mixer 23909
94 GHz integrated monopulse receiver 23968
harmonic peniotron and gyrotron interacts. in rising-sun slotted waveguide, nonlin. theory 6498
integrated rect. dielec. resonator antenna config. 23910
layered anisotropic media planar transm. lines, characts. anal. 23796
leaky coaxial cable with periodic symm. slots, propag. mode anal. *(Korean)* 33735
microstrip-slot and CPW-slot lines, optoelectronics appls. 12697
multilayered lossy planar line params. calc. method 2289
nonlayered substrs., striplines, slotlines, Green's impedance fn. 15567
open slotted structs. with layered dielec. filling, calc. 40395
passive and act. slot line ring antenna design and meas. 23913
planar transm. lines, multilayered dielec. substrs., WH/GSMT-based full-wave anal. 15571
propag. params., de-embedding method 6280
radial line slot antennas, rot. symm. of inner field 15672
slot-coupled circ. microstrip antenna with symm. radiation pattern 31940

slow wave structures
Cherenkov grating amplifier with sheet electron beam 21853
coplanar meander transm. lines, dielec. substr., slow-wave characts. 12698
crossed-field devices, small signal gain 6509
double-ridged folded waveguide, slow wave cyclotron interact. 13014
high-power Cherenkov device, superdimens. slow wave struct., simul. 29812
high-power wideband beam-plasma microwave amps./generators 974
hybrid plasma-cavity slow-wave struct. wideband power amp. 1008
IREB, slow-wave struct., Pierce-type dispersion rel. 29807
MILO configs. oscills., electron emission 13012
multi-stage PASOTRON, phase-locked BWO 21857
multiwave Cherenkov generator expts. 29805
nonperiodic O-type TWT, coupled resonators based 995
nonperiodic O-type TWT, second-harmonic excitation 996
O-type microwave oscillators, nonlin. theory 13004

slow wave structures continued
- overmoded slow-wave resonators for interact. with relativistic electron beams, EM props. 1005
- PASOTRON amplifier experiments 21822
- planar periodic slotted waveguides pair, oblique surface waves 22683
- planar spiral systs., waves of const. radial phase vel. 8013
- plasma-beam oscillator, sig. stochastization mechanism 994
- radial electron flows in diodes, microwave sig. amplif., Pierce instabil. 6477
- relativistic BWO, nonlinear theory modelling 13011
- relativistic BWO with end reflectors, EM wave excitation 13009
- semicond. film anisotropy in field of slow wave 13006
- slow-wave FEL with dielec. loaded guide, hybrid mode anal. 7693
- three-conductor equiv. line, slow-wave systs. replacement 15543
- twystrode expts., tapered/untapered helices 21844
- unmagnetized BWO high-power microwave source 1003
- vac. BWOs using nonuniform slow wave struct., high power, efficiency enhancement 1004
- vircator, slow wave struct., microwave generation 12999
- X-band structures, EM props. study 13010

Small Computer System Interface *see peripheral interfaces*

small electric machines
- *see also micromechanical devices; micromotors*
- AC motors, 3-phase, rotors comparison 36165
- DC motors, brush mechanism, vibr. damping materials *(Japanese)* 11080
- DC PM motor, electronically commutated 19663
- domestic appliances, doubly salient PM motor, commutation, design/anal. 11491
- doubly salient electrostatic motor, vac. gauge appl. 5000
- electret motors, EM force calc. methods 44085
- EM cycloid motor, EM lin. actuator *(Japanese)* 44086
- finite elements for electrostatics 36212
- gripper force control, piezoelec. actuator-based *(Japanese)* 44253
- HDD spindle motor mech. testing, ANN 36210
- magnetless voice coil motor, driving characts. *(Japanese)* 44088
- micromachine PSS, real-time fuzzy control 10679
- motor thyristor power convertors, RFI generation study 44081
- rotary US motor model, perform. prediction, distributed piezoceramics 36198
- stepping motors, sensorless rotor posn. control 11084
- surface mount PM motors, cogging torque, mag. field anal. 36215
- TW type US motor, design 36199
- two-phase direct-drive motor for camcorders zoom lens barrel 42635
- two-phase disc magnet stepping motor design *(French)* 11355
- universal motors, commutation characts. anal. 36189
- US motor, operating principles, prototype 27768
- vac. manipulators, commercial elec. devices adaptation 44439

small polaron conduction
- chalcogenide glasses, small-bipolaron hopping cond. 1059
- $CrTiO_3$, elec. cond., thermoelec. power and dielec. const. 13074
- V_2O_5-P_2O_5(Sb_2O_3)(Bi_2O_3), semicond. glasses, transport props. 13080
- V_2O_5-SnO-TeO_2 glasses, low-temp. DC cond. 38269

small-size generators *see small electric machines*

small-size motors *see small electric machines*

Smalltalk
- enterprise mgt. syst. develop., Distributed Smalltalk 8961

smart actuators *see intelligent actuators*

smart cards
- AT&T's Smart Card, secure network access for multiple appls. 15722
- card standardization in telecomms. sector *(French)* 33345
- electronic document signing, public-key cryptography 32046
- end termination ink materials for smart card MLC fab. 6363
- GPT Payphone Systems, telephone cards/technol. develop. 33665
- handicapped people, support systs., IT contribs. 18619
- ID-based non-interactive group commun. key sharing 3070
- ident. card mgt. syst. for Tokyo International Airport *(Japanese)* 10411
- MITRE security perimeter 8937
- motorway toll syst., IR technol., enforcement syst. 42820
- open systems security standards, Africa 33584
- superhighway services, digital cash payment 8829
- telecomm. services, enhanced feature interacts., impact 16634
- testing/emulation of EFT systs., functional appraisal *(French)* 33539
- universal pers. commun., security archit. 24930

smart materials *see intelligent materials*

smart pixels
- 2D WDM reconfigurable opt. interconnection smart pixels 42099
- 155 Mb/s FET-SEED free-space switching network 14649
- binary phase only matched filter symm. breaking 31060
- CMOS cellular neural net-based smart pixel chips, analog design 31130
- diode laser logic, smart pixels for opt. sig. proc. 7496
- Fresnel lenses written onto SLM, fractional pixel translations 22981
- high-resoln. liq.-cryst. gratings, grating diffr. efficiency 31012
- LEOS, Lake Tahoe, NV, USA (July 1994) 39
- LEOS, San Jose, CA, USA (1993) 20270
- monolithic integrat. of optoelectronic smart pixels 7484
- MQW modulators in smart pixels, wavelength optimis. 22934
- multi-channel non-blocking holographic switch, FLC SLM 40145
- refl. mode magneto optic SLM develop. for miniature correlators 31014
- SLM, optoelectronic neural network 22960
- time-domain computer generated holographic images 40159
- GaAs MESFET transceiver, optoelectronic VLSI cct. fab. 39599
- GaAs/AlGaAs FET-SEED, smart pixels and saturation charact. 14657
- GaAs/AlGaAs smart pixels, picosecond switching 23056

smart power *see power integrated circuits*

smart sensors *see intelligent sensors*

smart skins *see intelligent sensors*

smart structures *see intelligent structures*

smart windows *see optical windows; solar control films*

SMD *see surface mount technology*

smectic liquid crystals
- chiral liq. cryst. polymers, synthesis and electrooptical appl. 22950
- chiral SLC-on-Si SLM, HV circuitry 22961
- ferroelec. SLC host materials, optoelectronic appls. 7404
- ferroelec. smectic C^* liq. cryst. high-speed tunable filter 39539
- matrix-addressed smectic-A LCD 22953
- side chain liq. cryst. polymer, computer controlled dielec. meas. 17672
- thermo-opt. recording, smectic-isotropic liq. phase transit. 39310
- WDM high-speed wavelength tunable liq. cryst. filter 42387

smell (physiological) *see chemioception*

smoke
- *see also air pollution; dust*
- mine respirable coal dust meas., fire sens.-based 20187
- MM-wave radar backscatt. from smoke clouds, inversion 42477
- telecomms. equipt. fire risks, safety alarm syst. 16542

smoothing circuits
- *see also filters*
- freq. inverter induction motor drives, voltage control methods 36656
- nonselective fading, two-stage carrier sync. 25345
- powerline EMC filter testing, approx. worst case method 15460

smoothing methods
- 1D sig. smoothing, sieves and weightless neural nets 8327
- 2D FIR-median hybrid filters, deterministic and stat. props. 33077
- 3D surface rendering, stereo image disparity map smoothing algm. 33025
- act. control, IIR filters 32602
- adaptive beamformer, recursive modified Gram-Schmidt algm. 2520
- adaptive diversity reception, prediction, smoothing, interpolation 25447
- adaptive KL-transform coding of images based on variable block shapes 16132
- aircraft altitude profile estim., natural spline fn. 18710
- all-phoneme ergodic HMM for unsupervised speaker adaptation 32271
- blurred image restoration, layered and Hopfield neural nets *(Japanese)* 8666
- blurred images, point source localization, eigenvector based method 8557
- buffered telemetry demodulator for Galileo mission 9420
- chaotic sigs. MLE 24291
- color image coding, morph. pyramid decomp. 24592
- concealed obj. surface reconstr. using dist. metric 33026
- continuous-time Chandrasekhar smoothers in detect. and tracking 41033
- convolution products, smooth refinable fns./wavelets 24165
- convolutional codes/time-varying errors/Kalman error correction 40664
- Cramer-Rao lower bounds for biased image restoration 2843
- CW transform, phase space, arbitrary tilings 32667
- digital curve fitting, circ. arcs 11964
- discontinuous sigs. smoothing, competitive approach 24198
- edge localisation, nonparametric algm. 16400
- edge-type scatterer in rect. waveguide, Yasuura method 8022
- finite elements, distortion, degeneracy and rezoning survey 281
- freq. domain filtering for Gaussian seqs. generation 40978
- GLORIA images spatial filtering, speckle reduction/contrast enhancement 9674
- H^{∞} filters and smoothers, spectral theory 15951
- intens. estim. from shot-noise data 15925
- inverse halftoning/kernel estim. for error diffusion 33133
- lin./nonlin. filtering 24292
- low bit-rate image seq. compression method 24726
- low-bit-rate speech coding, 2D transform 32252
- LP-PSOLA synthesis, spectral smoothing/envelope modif. 32346
- mode-space spatial spectral estim. for circ. arrays 2560
- MPEG video, lossless smoothing algm. 2814
- MRI restoration, multidimensional nonlin. edge-preserving filter 26330
- multiple view time-freq. distribs. 8346
- multiscale contour approx., adaptive smoothings *(Japanese)* 2655
- noisy image nonparametric regularization 8538
- non-parametric multiscale curve smoothing 32994
- nonlin. recursive smoothing filters, perform. anal. 6238
- nonselective fading, two-stage carrier sync. 25345
- nonuniformly sampled sigs., real-time reconstruction *(French)* 15929
- oceanographic data, params. extraction 35343
- off-axis particle holograms image proc. 8536
- one-step fixed-lag IMM smoothing for alignment of asynchronous sens. 15875
- opt. fibre PPM slot/frame spectral props., timing extraction 3576
- opt. flow, recursive filters 16294
- power spectrum estim., wavelet thresholding techs. 2484
- power syst. short-term load forecasting tech. *(Korean)* 27076
- radar sig. proc., spectral smoothing filter and EMC 25573
- radar tracking, jump lin. model based aircraft trajectory reconstruction 17373
- range image segmentation, SIMD algm. 24601
- RCS of large objs., fast far-field approx. 42489
- reciprocal Gaussian procs., recursive filtering/smoothing 24293
- reciprocal procs. on tree, modeling and estim. issues 24192
- reciprocal seqs., Kalman like filtering/smoothing 40873
- recursive spline-based algorithm for spectrophotometric data correction 25771
- seal imprint verification, automatic 33012
- second directional derivative edge detector, sampling/quantization/noise effects 33122
- second/higher order stats. change detect., texture segmentation 8560
- small target detect., long term integrat. 18975
- smoothness meas. for regularization, surface reconstruction appl. *(Japanese)* 2609
- spatial smoothing, optimal subarray size 24320
- spatial smoothing for arrays, arbitrary geom. 41008
- speech sig., Fourier spectra, adaptive enhancement 8221
- sq.-root Bryson-Frazier smoothing algms. 40764
- switching systs., Markovian, 1-step fixed-lag smoothers 15910
- telephone channel adaptation, vector field smoothing tech. 2447
- texture segmentation, fractal dimens. 16295
- transient sigs. detect. in multipath environ. 40888
- visual motion detect., BP learning, internal neural struct. 41375
- Wigner-Ville spectral estim., optimal kernels 40965

SMPS *see switched mode power supplies*

SMT *see surface mount technology*

SNA *see open systems*

snap off varactors *see varactors*

Snoek-Koster relaxation *see anelastic relaxation*

snow
- 3 to 300 GHz rain and snow atten. software develop. 31817
- 42 GHz bistatic Doppler radar for wind/fog/precip. meas. 18835
- Antarctic field meas. of radar backscatt. from snow 43530
- bright-band detect., dual-polaris. techs. 35333
- Earth crust seasonal deform., Earth rot. params. determ. 10439
- first-yr. sea ice, snow-covered, microwave scatt. 7973
- meas. of snowpack wetness, hand held probe 18836
- microwave backscatt. over Antarctica, radar altimetry 43494

snow continued
multidimensional coding schemes in combined satellite and terrestrial channels 3531
PV installation operational behaviour anal. by standardised representation *(German)* 43952
rem. sens., snowcover & precip., mm wave radiometry 43507
snowflakes, fall pattern anal. *(Japanese)* 2699
wet snow, dielec. mixtures, effective permitt., scatt. losses 15389
^{137}Cs radioactivity, snowfields, glaciers in situ γ-ray detector 18356

snubbers
1-phase supply, drive appl., DC/AC outputs control, thyristor ccts. 5343
3-level GTO inverters, overvoltage clamping, cct. design 44183
3-phase DC clamped switch mode rectifier, IGBT 19747
70 A telecom. rectifier, high efficiency 12337
AC/DC soft switching PWM power converter, SMES appls. 11176
bridge cct. IGBTs, gate drive methods 6013
Darlington transistor inverter, 99.3% efficiency 19743
DC link, transient anal., converter model, series expansion 27143
elec. multiple units, 3-level IGBT traction inverter 5361
flyback PWM power convertor, nondissipative snubber optimal design 19709
flyback ZVS PWM power converter-nondissipative snubber calcs. 5047
GTO cct. snubber diodes, low temp. elec. transient tests 528
GTO invertors, energy recovery snubber cct. 5085
GTO snubber networks, diode charactn. techs. 523
GTOs, design of anode and gate ccts. 6741
HF series reson. inverter, PFM/PWM control strategies 5388
HF series reson. PWM inverters, induction heating appls. 5123
MCT converter, snubber efffect, switching loss, EMI reduction 6017
microwave heating, PWM flyback converter, nondissipative snubber 11479
nuc. plant piping seismic design requirements 4817
power convertor snubber energy recovery, pass. cct. configs. 526
power electronic cct. design/layout, EMI reduction, perform. improvement 12312
power IGBT SPICE model, power converter design appls. 12316
quasiresonant PWM convertor, microwave heating appl. 36333
rectifier cct. transient anal., diode modelling, SPICE-based 12325
rly., traction drive, snubber energy recovery cct. 44540
rly. traction inverter drives, GTO VSI 11430
SMPS power converters, planar integrated filter/snubber cct. 19763
soft-switching MOSFET-based power converter *(Japanese)* 27815
SPEAR coilgun, design, tests 15294
SRM drives, energy recovery snubbers anal./design 20057
SRM novel buck power converter topol. *(Korean)* 27691
three-phase series reson. act. power filter 19739
Cu vapour laser power supply, regenerative snubber topol. 36250

social aspects of automation
see also cryptography; data privacy
2020, future trends in technol. 41601
Australia and Asian countries, commun. and IT appl. 3011
commun. patterns in research community 41734
computer/telecomms. convergence and develop. 41585
CREAD, inter-American effort for collaboration in dist. education 3048
dist. learning and computer-mediated commun., interactivity 11620
education, orienting activities effect on achievement and behavior 42641
educational practice, local computer networks 11621
electronically mediated interpersonal commun., attitude effect 24888
handicapped people, support systs., IT contribs. 18619
health care equity, case-based telematic systs. 35206
home electronic product buyers and users, usability issues 36996
Internet, commercial services 25013
Internet connectivity, connecting Caribbean 25016
modern commun. and computers, multimedia techs., effects on society *(Chinese)* 11890
multimedia networking for inform. society 16901
multimedia prod., ethnographic issues 9068
Nat. Information Infrastructure and computer networks in Japan *(Japanese)* 3185
new telecomms. technols., social effects 3001
Pacific cultures and commun. ethics 3000
satellite offices implement., recommendations based on obs. from one site 16821
wireless sig. transm. in consumer electronics, consumer's quality of life 5726

social effects of automation *see social aspects of automation*

social sciences
see also anthropology; teaching
handicapped people, support systs., IT contribs. 18619
small group teleconferences, virtual environ., communicative charact. 16816

social sciences computing
see also educational computing
commun. systs., computer mediated, E-mail survey 33416
human service practice, computer games and interactive video 34274

social services *see public administration*

social work *see public administration*

societies
business meeting expt., video teleconferencing 33611
continuing professional develop. for engineers 36828
EDI standardization in electronics indust., global joint activities 28270
engineers and engng. societies, India 5540
high-speed self-token ring LAN, perform. eval. 9001
IEEE United States Activities Board, overview 28367
multilevel test philosophy design and implementation 42693
satellite technology, use in education 28307
scientific research institutions, scientist/manager occupational roles 36942
stds., oil spill control, IEEE Guide 36491
Technical Policy Council for US policy interpret. 28369
undergraduate elec. engng. curricula accreditation, USA 11617

socio-economic effects
see also demography; personnel; social aspects of automation
21st century energy sources, nuc. power role 10804
Asia Pacific region, thin route telecomm. networks 3517
Asia Pacific region developing economies, computer security 3068
Australia, electronic networking, social/policy aspects 16742
career development reinventing 36874
China's satellite policy, historical evol. 42314
developing countries, telecomms. deployment strategy 3109
developing economy, telecomms. and transportation 3040
developing world, role of telecomms. 3017

socio-economic effects continued
energy policy for sustainable develop. 26931
global learning network, educational alternatives for developing economies 3043
global marketplace, product design, develop. and mktg. for different cultures 41602
global marketplace for telecomms. services and networks 3038
Great Lakes states, advanced telecomms. and inform. services 8792
India, telecomms. and space commun. programmes 3002
inform. rev., socioeconomic implications 41584
inform. services and telecomms. in Brazil 41604
Japan, freight, post and telecomms. regional interrelationships 8797
Malaysia, rain atten. for satellite commun. in tropical regions 3524
NTT group's overseas activities 41587
Pacific islands develop., telecomms. and IT 3033
PTT re-regulation, coord. of tech., legal and regulatory issues 3029
risk tolerability determ. from social indicators 11687
sustainable develop., role of technol. 5469
Swiss elec. prod., ecological and social aspects *(German)* 10795
TQM implementation and planning, model 36952
Trans Europe line (TEL), fibre-optic link, Eastern/Western Europe 33977
Tusitala, Maitland report 3010
USA, public telecomms. infrastructure funding 8794
USA, telecomms. and socioeconomic trends leading, universal service 8812

sociologic effects *see socio-economic effects*

sociology *see social sciences*

sockets (electrical) *see electric connectors*

sodar *see sonar*

sofar *see sonar*

soft magnetic materials
amorph. alloy microresonator for mag. field meas., ΔE effect 42898
amorph. ribbons, flash annealed, appl. in security systs. 14268
amorph. soft mag. ribbons, stress magnetis. props. *(Japanese)* 30673
digitally based ΔE meas. syst., design 18039
domain-wall motion, nonequilibrium dyn., chaos 7188
mag. permeab. meas., errors, correl. factors 18042
moving vector Preisach hysteresis model and δM curves 14220
Permalloy/Fe soft thin film elements, MFM anal. 14119
permeab. meas. in GHz range for soft-mag. film 25956
steel, complete-moving-hysteresis model, param. ident. 14099
stripe amorph. soft mag. film, locally induced mag. anisotropy *(Japanese)* 30661
wound cores, energetic behavior meas. 14108
Co-Fe-Si-B amorph. soft ferromag. wires, magnetoimpedance, magnetostriction 30668
Co-Zr-Ta-Nb amorph. thin film deposited cores on polyimide sheets *(Japanese)* 30662
CoAl:O sputtered granular thin films, elec. resist., permeab. 14131
CoFeB:O sputtered granular thin films, elec. resist., permeab. 14131
CoFeSiB amorph. wires and films, giant magneto-impedance 30667
CoFeSiB-SiO$_2$ multilayers, HF mag. losses *(Japanese)* 30697
CoNbZr stripe films, domain structs., magnetis., high-freq. response 6935
CoNbZr-SiO$_2$ double layer films, HF mag. losses *(Japanese)* 30697
(Fe,Co)-B-Al-Nb alloys with ultrafine grain struct., mag. props. 14149
Fe/M-N (M=Fe,Cu), multilayered films, mag. props. 14211
Fe-Al-Ta-C nanocrystalline films, soft mag. props./corros. resist. 6991
Fe-B-M-Cu (M=Hf,Zr,Nb), nanocrystalline/amorph. hybrid struct., soft mag. props. 14146
Fe-FeCoZr sputtered multilayers, soft mag. props. *(Japanese)* 30696
Fe-N sputter-deposited films, stress and microstruct. 6952
Fe-Nb-B nanocrystalline ribbons, soft mag. props./microstruct. 14147
Fe-Si, magnetodynamic field, rate-depend. Preisach model 14112
Fe-based NANOCON materials, soft mag. props. 39123
FeGdN, soft mag. thin film material 14151
FeHfC/Al$_2$O$_3$ multilayers, mag. props., interlayer effects 14209
FeHfC/AlN multilayers, mag. props., interlayer effects 14209
FeHfC/Si$_3$N$_4$ multilayers, mag. props., interlayer effects 14209
FeHfC/SiO$_2$ multilayers, mag. props., interlayer effects 14209
FeNbCuSiB ribbons, fast dc Joule heating, nanostructured materials prep. 14137
FeSiAl Sendust films, recording head cores 7108
FeSiAl, sendust films, RTA, mag. props. 6953
FeSiBCuNb amorph. wires, crystn. proc. and mag. props. 14136
FeSiHfC nanocrystalline films, soft mag. props., anisotropy dispersion *(Japanese)* 30674
FeSiN films, narrow track head 7107
FeTaN films, DC magnetron sputtered, microstruct. and mag. props. 6951
FeTaN films, microstruct. and mag. props., effects of nitrogen content, heads 6950
FeXN (X=Ta,Hf,Cu,Si,Zr) high moment thin film head materials, electrochem. corros. 6942
Nd$_{4.5}$B$_{18.5}$Fe$_{77}$ ribbons, melt-spun, Mossbauer and mag. study 39159
Ni, nanocrystalline, elec., mag., mech. props. 39127
Ni-Fe-Co/Cu/Co-Pt trilayers, magnetoresist. effects 39173
NiFe/(Ni/Fe/Cu)$_n$/NiFe thin films, giant magnetoresist. 7039
Ni$_{81}$Fe$_{19}$/Co$_{67}$Cr$_{33}$ multilayers, perp. recording media, soft mag. props. 7042
Ni$_y$Zn$_x$Fe$_{3-x-y}$, ferrite films, rapid plasma MOCVD 5887
SiFe, soft mag. materials, reversible procs. 14111
Sm-Fe thin films, sputter deposition, magnetostriction 6938
Tb-Fe sputtered films, large magnetostriction, magnetomechanical device appls. 6937

softening (metallurgical)
Sn-Sb solder, room temp. tensile prop. 434

software agents
AT&T PersonaLink, public network for smart agent PICs 41996
distributed control of telephone networks, reactive software agents 41713
e-mail messages, prioritisation, intell. agent 41740
elec. distrib. mgt., cooperative & intell. systs. 27063
electronic secretary syst. *(Japanese)* 24940
flexible networks, basic concepts and archit. 25082
intell. agents in multi-media systs. *(English)* 25125
multimedia environ., interactive, artificial online community 9066

software architecture *see software engineering*

software cost estimation
router speed, implications for faster commun. 24852
TPS cost management, CASPER expert system 42711

software development *see software engineering*

software development management
ABBET component std., test inform. mismanagement reduction 34346
ABBET obj.-oriented test develop. 34408
ATE management in 90's 42690
behavioral stimulus generation for digital test programs 34358
Bell customer network mgt. software OO develop. 41653
C-17 avionics, support equipt. data acquisition/control 35226
CASS syst. software config. mgt. 34396
design projects, preserving knowledge, what designers need to know 37032
flexible software for power supply testing, design approach 19051
product develop. change leadership procs., case study 11643
re-engng. test develop. proc. 34368
technol. assimilation, IKBS R&D organizational visions 28359
test lang. std. for distributive open test environ. 34342

software engineering
see also computer aided software engineering; configuration management; formal specification; formal verification; programming environments; project support environments; software cost estimation; software development management; software libraries; software maintenance; software performance evaluation; software portability; software prototyping; software quality; software reliability; software reusability; software tools; Vienna development method
ABBET, A Broad Based Environment for Test 34345
ABBET test resource stds., obj.-oriented anal. 34348
ATE management in 90's 42690
ATLAS lang., instrums. technols. develop. 34344
automated RF/microwave testing, status and develop. 34406
avionics breakthrough in inform. sharing 10332
B-ISDN, simul. testbed, design/implement./appls. 41936
BBN advanced acoustic proc. family, overview 9664
brushless DC motor controller design, software package develop. 19680
cellular CDMA, ES approach 25347
conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
digital avionics systems, conf., (Nov. 1994) 5456
distributed connection manager, obj.-oriented interface 9057
distributed PCN server-independ. service acquisition syst. 42195
distributed visual programming environment: Applications within data-acquisition 25724
DSN controller software develop., higher order logic expt. 42339
educational software develop., collaboration, tertiary institutions 20316
embedded controller, transputer-based, eval. for high dyn. control appls. 44260
fault-detecting network membership protocols, design/anal. 41522
home picture service and software prodn./supply syst. prospects *(Japanese)* 16569
IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
intell. maint. aid software 34370
LEP2 cryogenics control syst. archit. 4036
mfg. engng. education, computing technol. teaching experiences 36937
mfg. message spec., protocol design/anal., Petri net-based 8873
MMI design for syst. quality improvement 11837
modeling test procs., automated software tool 34347
motor drive control automation R&D, Russia 44465
motor drive digital control, graphic software designer appls. 36692
multiple domain experience in systs. engng. 5577
OSI commun. protocols, obj.-oriented design approach 8749
portable notebook computers, connected/disconnected operation in distributed systs. 33564
power electronics modelling, ES develop. 534
power engng. education, OOP approach 28334
power network mgt. training simulator, software develop. 19125
power syst. control, develops., future prospects 19182
power syst. load dispatching real-time computer network *(Chinese)* 35515
power syst. operation control software, IBM PC-based *(Russian)* 10619
power syst. real-time SCADA/EMS, OOP concept 26955
power syst. relay testing simul., user interface software develop. 27246
power syst. SCADA/EMS, third party software packages integrat. 43638
protocol configuration, modules as building blocks 3222
RD13 project (LHC), software engng., CASE tools 18228
re-engng. approach, ATE 34372
SSC control syst., develop. environ. 18229
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
TPS harmonization, vert. and perform. metrics, systs. approach 34401
VHDL testbench, board-level test programs develop. 30421
VXI, std. instrum. drivers/soft front panels 34378
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
windows based test development 42695
wireless computing appl. design 33561

software fault tolerance
CCS network SS7 protocol, software fault impact model 41517
counter-based reliable broadcast protocol 33266
distributed appls., fault tolerant syst. 41881
distributed quorum attainment protocols, unified framework for eval. 8751
distributed systs. reliab. conf., Princeton, USA (1993) 36876
EWSD digital switching syst., recovery from software faults 16965
fault-detecting network membership protocols, design/anal. 41522
MMOSS soft real-time OS support in multimedia commun. subsystem 25121
O(1) quorum consensus protocol tailored for client/server archit. 41879
safety-crit. tech. proc. spec. toolkit 11691
Software Assembly Workbench, hardware-like constr. 41827
switching control multiprocessor, fault tolerant software *(Japanese)* 33187
telecomms. systs. robustness, fault insertion testing methodology 16593
telecommunications software archit. reviews 41609

software industry *see DP industry*

software integration *see integrated software*

software libraries
3D rendering, sci./engng. tool 15434
ALS, obj.-oriented software constr. 18227
auditory stimulus prod. in cognitive event-related pot. expts., PC software library 26379
COMNET III, obj.-oriented network perform. prediction simulator 24900
COMPLAB Professional, time domain functional simul. of radio-engng. devices 28936
HDTV image database syst., develop. *(Japanese)* 25671
ISO virtual terminal protocol, semi-automatic implement. 8758
metrological software, QA 17622

software libraries continued
parallel programming development, decentralised optimal power pricing 27066
TRIUMF, device access, C++ on VAX/OpenVMS 18230

software maintenance
Berne telecomms. admin., software maint. and distrib. *(German, French)* 16554
distrib. network control, obj. oriented environ. appls. 27154
elec. machine predesign ES, knowledge model *(French)* 10947
power syst. appl. ES 19005
power syst. control ES, rule modif. ease expts. 19097
power syst. operations control, ES implement. tutorial 27072
Tartan Ada develops. for DSP 21355
telephone switching support syst., software operation syst. inform. model 42113

software management
see also software development management
diagnostic and repair expert system tools, workflow management 42715
E-mail, IS mgt. view 8861
E-mail systs., market primer 8860

software packages
see also courseware; software reviews
ACSL, act. power harmonic filter simul. appls. *(Korean)* 28998
ADAPS, power syst. VAr allocation planning appls. 27092
adaptive sig. proc., teaching, algm./architect./appl. 36925
ALICE-ES, power syst. maint. appls. 19056
Ascom TCS P7 series test instrums. for telephone and data network fault finding 33391
ASPEN PLUS, gas turbine bottoming cycle SOFC appl. simul. 36020
Aspen Plus, monolithic SOFC simul. appls. 36019
ASPEN PLUS shell, combined cycle power plant simul. package 27582
ASTEC, power VDMOS transistor thermal modelling 12335
ATM network protocol develop. package 41841
ATP, three-phase autotransformer short-cct. transient simul. 19682
audio coding demons. package for telecomms. education 33314
AUTO, power syst. restoration transformer saturation simul. *(French)* 35537
BCHIPSIM, Si BJT IC chip perform. simulator 594
BLAST-3.0, building energy anal. appls. 5240
brushless DC motor controller design, software package develop. 19680
CAMAD, Computer Aided Microwave Amplifier Design, undergraduate instruction package 5519
CAMEL, thermal power plant simul. appls. 27521
CAPS, power syst. contingency eval. training appls. 4606
cct. anal. software testing 502
CDEGS, substation earthing CAD appls. 5160
CHAPS, power syst. harmonic waveform distortion simul. 4481
CHP plant power syst. short cct. calc., simul. package 19505
CLASS, AGR power station cumulative life assess. appls. 19485
COCO program for lin. circuits 493
CODSIM, simul. environ. for spreading codes 3325
commun. networks, modelling of segmentation and reassembly procs. 33236
COMPLAB Professional, time domain functional simul. of radio-engng. devices 28936
COMPLAB syst., adaptive interf. compensator simul. 28984
CORSET, AGR core life assess. appls. 19484
DAMOCLES program, mcplotgl graphics, n-MOSFET simul. 22335
DAMSAFE, hydroelectric dam surveillance ES 19544
Design Center 6.0, induction motor drive PWM control simul. 28100
Diagnostika motor drive testing automation software 44469
DIAPSON, distrib. network operator training appls. 19274
distributed multimedia computer network model 9045
DOE-21.D, building energy anal. appls. 5240
DragCAD dragline excavator drive design optim. software 44557
DSP demons. facility, sound card/MATLAB 36920
DSP education spreadsheet package and TMS320C25 simul. 36918
DSP-based integrated software environ. for filter design 5952
DYNASIM, dyn. systs. simul. package 28342
DynEAF dyn. modeling tool, integrated elec. steelmaking 44629
ECG anal. software package 43300
elec. engng. course, computer tools introduction 20278
ELISA, power syst. transient stabil. assess. appls. 26861
EM phenom., computer animation, graphics package 40195
EMRC-FEAP, avionics PCB SMC simul. 10317
EMTP, cct. simul. perform. study *(Italian)* 489
EMTP, DC power syst. short-cct. current calcs. 19039
EMTP, DC rly. traction systs. catenary harmonics simul. 20109
EMTP, distrib. feeders fault detect. simul. 4644
EMTP, distrib. network ground fault discrim. appls. *(Japanese)* 27174
EMTP, distrib. network harmonic filters anal. 4642
EMTP, distrib. substation thyristor controlled series capacitor appls. 27163
EMTP, EHV radial transm. network stress studies 4619
EMTP, flexible AC transmission control simul. 35614
EMTP, GTO CSI control techs. simul. 19853
EMTP, half-wavelength power line operations anal. 35642
EMTP, induction motor saturation modelling 4937
EMTP, induction motor vac. cct. breaker switching surge anal. *(Korean)* 27706
EMTP, LV power distrib. line lightning overvoltage anal. 10727
EMTP, multilevel inverter-based SVC simul. 19122
EMTP, multiterminal power syst. fault location algm. simul. 27281
EMTP, MV mine distrib. network ground fault simul. 20193
EMTP, MV power syst. arcing fault modelling 19032
EMTP, power syst. chaos simul. appls. 26882
EMTP, power syst. real-time/offline fault anal. simuls. 19093
EMTP, power syst. restoration transformer saturation simul. *(French)* 35537
EMTP, power syst. time-domain modelling appls. 26891
EMTP, power transm. line earth fault location appl. 43763
EMTP, power transm. line fault location appls. 27192
EMTP, pulsed power transformer design modelling appl. 36358
EMTP, sync. machine modelling appls. 36115
EMTP, three-phase CT protection modelling 19691
EMTP, three-phase transm. line EM transients simul. 19290
EMTP, transm. network protection simul. appls. 19229
EMTP, transm. network transient fault simul. appls. 27129
EMTP, transmission network distance relay macromodelling 19330
EMTP as educational tool, power syst. transients anal. 4475
EMTP MODELS lang., power syst. EM transients simul. appls. 26894
EnerPLUS, power syst. unit commitment optim. appls. 27107

software packages continued
EPRI Distrib. Engn. Workstation, appl. programmer interface 35627
equipt. access software, distrib. UNIX-based accelerator control 18208
ESACAP, cct. simul. perform. study *(Italian)* 489
ESACAP, space power battery thermal modelling 26581
ESCORT, transm. network, marginal costing appls. 27121
ESP, building energy anal. appls. 5240
ESTER, power syst. short-term load forecasting appls. 27094
ESTIMA, power syst. state estim. appls. 27103
ESTRI, elec. generator stator insulation diagnosis ES *(Russian)* 10918
ETH-CHEMRISK, emergency engng./managment ES 43875
ETH-NUKERISK, emergency engng./mgt. ES 43875
ETH-RISKMONITOR, emergency engng./mgt. ES 43875
Everywhere Access, rem. control software for Internet 8949
exercise bicycle eddy-current brake computer model 36651
FEPSS, power syst. load simul. appls. *(Chinese)* 35449
firewall installations, IpAccess Internet service access syst. 24962
FLIR image aspect angle estim., model-based vision approach 24545
FLUENT, planar SOFC stack bipolar plate/gas manifold design tool 44368
FRESCA, power syst. harmonics interf. anal. 19002
FUSEDATE, software package for multitarget multisensor tracking and fusion 15874
gaseous 2D detectors, PC-based fast readout electronics 18384
GEMINI-UK, CO_2 power plant emissions studies 4829
generic software tool kit, accelerator distributed control 18233
graphical prog., LabVIEW software *(Chinese)* 16647
ground test facilities, modelling, EASY/ROCETS flow simul. 35215
HARKAL, power syst. static voltage collapse anal. appls. 26895
help desk problem resoln., rem.-control software 16638
HSPICE/EMTP comparison, power syst./power electronics anal. 4476
HV equipt. insulation eval., intell. instrum. 19578
HYBRID1, hybrid PV/wind/diesel power syst. simul. 19571
hyperspectral data from AO tunable filter, spectral and polarimetric anal. 16267
IDAS, power electronic/elec. drive simul. tool 11347
induction motor drive, PC based perform. simul. 19648
indust. fire simul. and conseq. eval. empirical models 20171
intell. maint. aid software 34370
Internet access, MS-DOS/WINDOWS client software 3182
IP layer perform. diagnostics, windowed ping appl. 16746
ISLAM, 3 MJ railgun simul. appls. 15281
Issledovanie, IBGT static characts. simul. 1410
Lab-VIEW, biotechnology lab. proc. automation appls. *(German)* 34984
LAN-based e-mail appls. 8865
load distributor static and dyn. network anal. *(German)* 43731
LOADSYN, power syst. load modelling appls. *(Chinese)* 35424
LOSSYWIRE, lossy coupled transm. line simul. kernel 33732
Lotus 123, power syst. cct. capability assess. appls. 43657
MACH2, plasma gun launcher pulsed power supply simul. 36271
Mathematica, symbolic cct. anal. appls. 5967
MATLAB, induction motor drive CAD appls. 11366
MATLAB, repairable syst. interval reliab. simul. 37178
MCNP, cylindrical thermionic fuel elements temp. simul. 27987
MCNPBURN, thermionic space nuc. power fuel burnup anal. 26622
MCTFE, cylindrical thermionic fuel elements modelling appls. 27986
MECHANICA/Applied Struct. FEM package, engng. design 37011
MEDICI, power SOI lateral p^+-n jn. breakdown voltage simul. *(Korean)* 28999
MEGA, 3D plasma armature railgun simuls. appls. 15371
MEGA, solid ring armature transaugmented railgun simul. 15350
MISTRAL, hydroelectric dam surveillance ES 19544
MORGAT, EHV transm. digital relay protection simulator 10714
motion control syst. CAD, SOAP software tool 11222
MOTOR ES, motor/cables/control gear selection appls. 10959
MPEG, full-motion internat. video compression std. 16365
MSC/EMAS, DC motor armature reaction EM field anal. 19660
MSC/EMES, augmented railgun simul. appls. 15283
National Park service mgt. 28377
NETOMAC, batt. energy storage GTO VSI syst. dyn. model *(Slovenian)* 43966
NetWare accounting, installation and usage 16578
NISA II/HT, resist. furnace stationary temp. field simul. *(Polish)* 36784
nonlin. 2D/3D magnetostatic vol. integral formulation, GFUNET package 40225
Optical Communications Demonstrator telescope assembly, mech. design 17324
orthogonal regression models, nonlin. param. estim., algms. and appls. 28662
PAD 1.0 induction motor drive bearings CAD program 44466
PAMSSEC, 2-D power semicond. simul. appls. 524
PC-Cum-L, global power syst. planning appls. 27117
PC-SRD dyn., SRM faults/unbalance forces simul. 36132
PDCALC, cylindrical thermionic fuel elements temp. simul. 27987
PDM product data mgt. syst. software package *(German)* 101
pers. DSP, teaching/learning role 36927
pers. protective grounding, param. anal., software 20384
Philips SL20 LINAC, automatic param. logging software syst. 43343
PIC, pulsed power generator plasma filled switch simul. 36444
PINCH-I, distrib. substation short-cct. effects simul. 19281
porcelain insulators, CAD under polluted conditions 35662
Power Plant Analyser, MATLAB Toolbox package 35978
power syst. protection, interactive software, education/training appl. 35683
power syst. reliab., anal., methods, software 27006
power syst. SCADA/EMS, third party software packages integrat. 43638
power syst. stabiliser, fuzzy logic based 10641
PREDICTION, power syst. short-term load prediction appls. 27103
printed microstrip device full-wave anal., generalised Yee algm. 29537
PRO-MATLAB, LCC parallel reson. power converter modelling 36249
Projection Pursuit, optimal transforms. for multispectral change detect. 16265
PSpice, induction motor drive PWM power convertor simul. 28089
PSpice, induction motor saturation modelling 4937
PSPICE, power electronics switching simul. models 37636
PSpice, quasi-reson. dual power convertor UPS simul. 5075
PSpice, quasi-reson. soft-switched inverter cct. anal. 11170
PSPICE, ZCS quasiresonant IGBT power converter modelling 5079
RAP, developing countries radio network design appls. 31843
Rohde & Schwarz, RFI field-strength meas. in GTEM cell, EMI software ES-K1 8008
rot. mach. early failure diagnosis, ROMADIS package 11681
SABER, power semicond. diode modelling appls. 525

software packages continued
SABER, power VDMOS transistor thermal modelling 12335
Saber, series reson. power converter simul. 5121
Saber, SMARTMOS quad low side switch modelling 36775
SABER, variable speed AC drive vector control simul. 5267
SAS, avionics PCB SMC simul. 10317
satellite and airborne SAR simulator 9642
satellite attitude determ., lin. combination of models 24531
SCAN, multiresonant power converter cct. anal. 11171
SECURITY, power syst. security assess. appls. 27103
semicond. IC defect anal., yield enhancement software tools 154
SHAPES, thermal power plant generation scheduling appls. 43890
SIMSEN, power network/ASD simul. package 10608
Simulation Generator, computer simul. of phys. problem 22346
SIRIO, hydroelec. power syst. short-term scheduling optim. 27613
Slingshot 15302
Slingshot, EM induction launcher projectile simul. 15301
SMAS3, small sig. power syst. stabil. anal. appls. 26897
SOAPP software, advanced power plant design 43921
SOLIS, power syst. security assess./real power rescheduling 26968
Space Station Freedom power syst. CAD, APSPP package-based 35251
SPARSE, transm. network substation control ES 19230
SPICE, cct. schematics conversion from graphic display to netlist, appls. 5953
SPISCES, smart power CMOS IC 2D charactn./perform. optim. 12315
squirrel cage PWM drives simul., MATLAB package 5275
STANJAN, internal combustion engines power generation simul. 35970
std. sig. proc. software package 8338
stripchart recorder emulation; split screen, smooth scrolling 3924
SUBTREL, subtransmission network customer interruption costs eval. 27119
TEAMS, testability engng./maint. syst. 11708
telecomm. switching syst. develop., documentation 33711
TMN appls., software develop. approach 41657
TOPASE ES, substation reliab. anal. appls. 27869
TRANSEPT ES, point-to-point transm. network CAD appls. 27128
triple-TEM cell, FEM, optimal engng. design 20416
triple-TEM cell design, FEM 40380
TRIUMF, device access, C++ on VAX/OpenVMS 18230
TsV centrifugal fan induction motor drive selection program 44603
TTADAS, DC rly. locomotive simul. appls. 5348
Victoria network voltage-reactive power optim. *(German)* 35552
Vince, vendor independent ATM network control 16567
virtual wafer fab./assembly/test facilities, operational planning 11699
VSTAB, power system voltage collapse point estim. 19034
WASP, breakwater plant wind energy pot. eval. 10901
whispering gallery sapphire resonators, 2D finite element calc. 30625
WinAnalysis software, fully automatic sig. detect. and anal. 9816
Windows-based TCP/IP appls. 41515
ZUPESS, DC motor chopper traction syst. computer simul. *(Chinese)* 28128
GaAs MMIC design and charactn., training software package *(French)* 21570

software performance evaluation
benchmarking trade-offs 9798
broadcast channel, causal order protocol, eval. *(Japanese)* 16720
cct. anal. software testing 502
client-server systs., perform. prediction, traffic dependencies effect 41828
distributed quorum attainment protocols, unified framework for eval. 8751
efficient FFT on hierarchical multiprocessor archit. *(Korean)* 20646
exterior Helmholtz problem on IBM SP-1, FEM 23580
LEP high level control syst., ORACLE online database 18234
monitored atmos. releases, radiological assess. codes benchmarking 4344
network protocol perform. in multi-workstation parallel distributed appls. 25039
parallel systs., Petri net perform. models 24774
Si, cryst. growth simul. program, automatic parallelization 12034
telecomm. networks, high perform. parallel simul. 24898
TPS harmonization, vert. and perform. metrics, systs. approach 34401
TreadMarks, distributed shared memory on std. workstations and OS 8920
undergraduate EM education, CAEME software experiences 28285
VLSI layout compaction and wire balancing, parallel algm. 12267

software piracy *see computer crime*

software portability
3B21D BIST/Boundary-Scan syst. diagnostic test 5590
Adobe's Acrobat for electronic document exchange on Internet 24938
ATE, off-equipment integrated diagnostics 42714
CMOS ccts., public domain high perform. portable ROM generator 28947
logical communication designer interfaces, implementation and evaluation 33714
radar anal. model encapsulation 25569
reliable packet delivery service interface for parallel systs. 41493
SMART ATE software for aerospace industry 43434
SMART test standard for commercial air transport industry 43433
Tartan Ada develops. for DSP 21355

software project management *see project management; software management*

software prototyping
bit-serial systolic array for DSP, reconfigurable arith. operators 29255
DSP software synthesis, Ptolemy environ. 40800
Frankfurt (Main) city network control syst. *(German)* 35551
quantitat. methodology for rapid prototyping and high-level synthesis of sig. proc. algms. 2489
rapid cycle display software design 10357
rapid prototypes for early requirements validation 10326
rapid prototyping of appl.-specific sig. proc., architectural issues 29240
rapid syst. visual prototyping 16898
Rotorcraft Pilot's Associate cognitive decision aiding systs. develop. 10597
spoken dialogue syst., multimodal keyword-based, MultiksDial 32373
switching systs., debugging and simul. environ. 3281
syst. partitioning of MCM for low power 29734
telephony, computer-aided, user-oriented dialogue struct. 16615
US census, automatic speech data collection 32232

software quality
see also software reliability
communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
LEP machine/expts., data exchange 18212
metrological software, QA 17622
proof of designed reliability, IEE Colloquium, London (1994) 5511
switching syst. software quality improvement by root cause anal. 42105
telecommunications software archit. reviews 41609

software quality continued
  VLSI design software, QA aspects 13859
software re-engineering *see systems re-engineering*
software reliability
  see also fault tolerant computing; safety-critical software; software fault tolerance
  automated environ., software testing, reliab. estim. 8833
  CCS network integrity experiences and risk reduction strategies 41518
  cellular syst. RF prediction tools and terrain database selection 33813
  Eurostar Informatique control syst. software 44573
  EWSD digital switching syst., recovery from software faults 16965
  National Park service mgt. package 28377
  product reliab. testing, practical considerations 5680
  substation fault recovery operation support syst., knowledge reuse methods 11216
  telecommunications software reliab. prediction, user-oriented procedure 41610
  TROPICO-R switching syst., software reliab. anal. 42102
  VLSI design software, QA aspects 13859
  WWW name servers, reliab. 41863
software reusability
  ABBET obj.-oriented test develop. 34408
  AIN, reuse-driven service creation environ. 9038
  Air Vehicle Training Systems demons. project, software develop. 18699
  BBN advanced acoustic proc. family, overview 9664
  benefits of software reusability, ATE users/vendors 34371
  commun. protocols, flexible and efficient implement. 8757
  computational components for sync. cooperation on multimedia inform. 16871
  continuous-time filter compiler, specs., layout 21413
  distributed systs., teaching, Ada reusable software components 5560
  embedded real-time syst., effective software reuse 26813
  flexible software for power supply testing, design approach 19051
  mixed sig. and RF testing, obj. technol. appl. 34351
  modeling test procs., automated software tool 34347
  multimedia appls., fn.-based commun. protocols 9074
  Software Assembly Workbench, hardware-like constr. 41827
  substation fault recovery operation support syst., knowledge reuse methods 11216
  telephone company outside plant engineers' graphics-intensive OO appl. 41704
  test lang. std. for distributive open test environ. 34342
  TMN-based SDH mgt. syst. implement. in Japan 41685
  TPS develop., class library technol. appl. 34350
  TRSL std., ProgramGuide implement. 34343
software reviews
  CU-SeeMe desktop videoconferencing software 41945
  mail transport agents, integrat. products 8862
  QuickFlash network messaging program, review 24937
  telecomms. programs, Microphone Pro and Smartcom II 8950
software selection
  see also software reviews
  Croatian coastal satellite Earth station *(Croatian)* 3504
  integrated data acquisition syst. for satellite struct. testing 18707
  mfg. execution systs. software selection guidelines 38967
  network protocol perform. in multi-workstation parallel distributed appls. 25039
  World Wide Web browsers reviewed 41857
software standards
  ABBET, A Broad Based Environment for Test 34345
  ABBET obj.-oriented test develop. 34408
  analog HDL 28938
  CALS develop., military appls. 43596
  multimedia fax-MIME gateway for Internet 8943
  SMART and ABBET common architectural heritage 35237
  SMART software tools 34405
  Software Interface for Communication Media, component std. 34349
  test lang. std. for distributive open test environ. 34342
  VHDL testbench, board-level test programs develop. 30421
software testing *see program testing*
software tools
  see also authoring systems; computer aided software engineering
  AIN switch testing without service logic execution environ. 41956
  ATE software integrat. in aerospace/mil. environ. 34400
  ATM fast packet switches, simul. environ. 25172
  AXE 10 switching syst., software design support 42110
  Bell customer network mgt. software OO develop. 41653
  benefits of software reusability, ATE users/vendors 34371
  BT customer network design centre for automated design 41579
  BT customer networks, ensuring quality in design 16534
  client/server models, commun., spec./validation 2932
  commun. protocol software, FSM-based program generator 2913
  commun. protocols, flexible and efficient implement. 8757
  continuous speech recogn., HTK software toolkit 32388
  diagnostic and repair expert system tools, workflow management 42715
  distrib. network real-time control tools 10731
  distributed systs., teaching, Ada reusable software components 5560
  DS-CDMA mobile radio syst., coherent reception, channel estim. 9229
  DSP, multimedia ASSP *(Japanese)* 3261
  DSP software synthesis, Ptolemy environ. 40800
  dual-linear microstrip array element design 31967
  elec. engng. lab. expts., software tools incorporation 20311
  electronic design automation, classroom experience and student altitudes 28345
  EM field computation, conf., Grenoble, France (July 1994) 36820
  embedded flight control syst. design, integrated proc. 10333
  Estelle specifications verification, numerical Petri nets 2974
  European research project COST 239, ultra-high capacity opt. transm. network 34040
  FDDI perform. eval. based on LOTOS formal description tech. 25490
  Formentor risk prevention DSS project 11690
  generic software tool kit, accelerator distributed control 18233
  genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
  graphical tool for telecomm. network defn. and presentation 41560
  high-speed QAM modem CAD tools 42081
  IDAS, power electronic/elec. drive simul. tool 11347
  image commun., open distributed environ. 16864
software tools continued
  indust. and academic protocol testing, comparison 33250
  inform. obj. security, location-independent 24964
  Iridium and MSS constellations, effect of solar interf. on laser commun. 33941
  ISO virtual terminal protocol, semi-automatic implement. 8758
  Landsat TM imagery, lines of commun. extraction syst. 16261
  LEO satellite systs., perform. eval. 25309
  lifecycle software support for C-17 Globemaster III 35227
  MEET database tools for nuc. plant maint. 43841
  MEET/PEAT software tools for maint. effectiveness eval. 27370
  modeling test procs., automated software tool 34347
  multimedia appls., fn.-based commun. protocols 9074
  obj.-oriented user interface toolkit, adding digital video 34279
  parallel systs., Petri net perform. models 24774
  PLANITU based network planning, ITU-BDT support, Indonesia 2986
  PLD-based cct. CAD, behavioral level synthesis 37727
  power electronics design, educational strategies 29013
  power plant control and monitoring systs. 10642
  power semicond. syst. simul., educational tool 30200
  progressive image transm. 41096
  Projection Pursuit, optimal transforms. for multispectral change detect. 16265
  PROTEAN, software tool for automated protocol anal. 2910
  protocol software implement., obj.-based approach 2948
  protocol test seqs., automated generation, formal specs. 2929
  protocol tools, formal specification to implementation 3291
  Rapid-2 accelerating board, develop. environ. 28968
  RD13 project (LHC), software engng., CASE tools 18228
  safety-crit. tech. proc. spec. toolkit 11691
  SDL-based protocol implement. tool, proc. scheduler/compiler 41542
  SecuDE security toolkit, towards trustworthy commun. systs. 8955
  semicond. IC defect anal., yield enhancement software tools 154
  Si, cryst. growth simul. program, automatic parallelization 12034
  sig. proc. algms., software environ. for develop./testing 40796
  SMART and ABBET common architectural heritage 35237
  SMART software tools 34405
  SMART test standard for commercial air transport industry 43433
  sneak path anal. procedure and computer tool develop. 11714
  SNIF, network inform. flow surveying tool 24967
  SPC toolbox for teaching sig. proc. concepts 20293
  SSC control syst., develop. environ. 18229
  State Notation Language, run-time sequencer, accelerator control 18278
  surface inspection systs., software tool for developing algms. 17653
  telecomm. databases, knowledge acquisition and proc. 41559
  telecomm. service and simul. engng., integrated toolset 3080
  telecomms., case driven anal. of interacts. 3256
  telecomms. network optim., part of network planning proc. 33331
  telecomms. systs. robustness, fault insertion testing methodology 16593
  test development tools framework 42689
  test program generation using graphical tools, Navy appl. 42691
  TMN, develop. environ. 3094
  TPS for multiple test environments 38076
  transm. systs., opt. components modelling *(French)* 3569
  UAHPL lang. for ASIC design 37713
  UltraSAN, model-based environ. for large scale telecomm. systs. 16553
  undergraduate digital design courses using PLD 28346
  UNK Project, accelerator control, MMI 18279
  upper layer products, archits. and appls., conf. Barcelona (1994) 29
  user-modifiable airborne software, HLL based 10338
  virtual test tools for improved test-develop. productivity 3729
  VLSI neurochips, develop. *(Japanese)* 785
  Windows-based TCP/IP appls. 41515
  Xilinx XC4000 family of FPGA design, syst.-integrat., and develop. tools 605
software validation *see program verification*
software vendors *see DP industry*
sogicons *see semiconductor devices*
SOI *see silicon-on-insulator*
soil
  automatic soil anal. by robotic station 25713
  decontamination, actinide mag. separation, TRUclean syst. 40275
  distribution network grounding electrodes, impulsed ground impedance studies 19251
  elec. cond. & water content meas., TDR 4387
  elec. props. meas., RF treatment appls. 10562
  environ. TLDS, Indian nuc. programmes use, validation 43398
  erosion, rem. sens., GIS appls. 43546
  fiber-optic sens. for soil/groundwater contamination monitoring 18910
  frozen sandy soils, radiation charact., lab. meas. 18779
  frozen soils, moisture content/temp. monitoring 4380
  ground charactn., acoustic pulsed level difference tech. 18943
  Hanford, subsurface radionuclide assess., HPGe gamma-ray borehole syst. 4408
  HV transm. line operation, simul. lunar environ. 35641
  land surface microwave radiometry, winter landscape signatures 35295
  metal contaminants meas., EDXRF analyzer 18799
  moisture content detect. by TDR 10458
  moisture rem. sens., microwave radiometry, vegetation effects 35351
  moisture rem. sens., UHF radiometry method 35350
  organic detect. in soil, fiber optic near IR reflectance sens. 17920
  overhead power lines, pulsed plane wave EM field induction calcs. 19304
  power syst. grounding expts., lab. two-layer soil model *(Chinese)* 10767
  rem. sens. of moisture, UHF synthetic aperture radiometer 10452
  robotic soil anal. for phosphorous determ. 25714
  substation earthing systs., 3D CAD studies 5160
  substation safety, soil resist. meas. method 44245
  substation struct./grounding syst., lightning strike, transient anal. 44251
  tetrachloroethylene-contaminated soil remediation by soil vap. extraction 37211
  waste-handling monitoring, fiber-optic chem. sens. 18916
  $^{90}Sr/^{238}U$ det., contaminated soil surface, scintillating-fiber sens. 4407
sol-gel processing
  act./pass. glass waveguides, sol-gel method prep., laser props. 14810
  CMOS/ferroelec. integrated test struct. for memory appls. 37781
  conference, optical materials for energy efficiency, Freiburg, Germany (April 1994) 28209
  dye-doped sol-gel coated fibre optic LED based O_2 sens. 9926
  dye-doped sol-gel lasers, tunable laser action 14730

sol-gel processing continued
  ferroelec. ceramics piezoelec. responses, interferometric meas. 22667
  fibre optic chem. sens. develop., sol-gel procs. 17891
  glass and optical materials, conf., Honolulu (Nov. 1993) 5442
  glass ceramics, comps. and uses, review 20987
  interf. filters, porosity and composition effects 22987
  laser dye DCM, photostability, inorganic-organic host matrices 39692
  lifetime-based opt. sens. of pH 34729
  metal-oxide based gels, organically doped, nonlin. opt. props. 15091
  micro-domains generation in AT-cut quartz, thermal proc. 30602
  MPEOU-based polyceram planar waveguides, opt. loss study 25988
  organic mols. in glasses, nonlin. opt. props. study 15143
  perylimide dye doped SiO_2-PMMA glass, superradiant film laser operation 14729
  polyamideimide films containing glass, sol-gel prep., dielectric breakdown 14053
  polyamideimide glass composite films, dielec. breakdown/thermal degrad. *(Japanese)* 28875
  polyceram MPEOU-based waveguides, proc., opt. props. 7356
  polydimethylsiloxane/oxide polycerams, opt. props., proc. 7357
  pyranine doped SiO_2 sol-gel matrix, μm-size fluoresc. pH sens. 9877
  rhodamine B-doped glass planar waveguide, light amplif. 30933
  rhodamine perchlorate dye-doped sol-gel silica laser, XeCl laser-pumped, wideband tuning 31204
  silica based xerogel host matrices, efficient solid state dye lasers 14731
  single leakage-channel grating coupler, wet-chem. fab. 39412
  SiO_2 integrated opt. directional coupler, sol-gel proc., UV light imprinting 22915
  tunable fibre optic delay generator utilising gel-glass delay line 39349
  Au cluster/SiO_2-Al_2O_3-Li_2O gel, nanocomposite capacitor 6358
  Ba hexaferrite particles, sol-gel prep. 7024
  $BaTiO_3$ high dielec. ceramic thin films proc., stress develop., IC packaging 21590
  CdS quantum dot/glass filters, sol-gel method 7445
  CdS, semicond. quantum dots, nonlin. opt. props. study 15143
  Ce-doped gel quartz glass for opt. filters 31061
  CuCl, semicond. quantum dots, nonlin. opt. props. study 15143
  Fe_4N nanometer-sized particles, mag. props. 6979
  GeO_2-SiO_2 glass, thin films, planar waveguide appls. 7350
  O_2 intrinsic phase fluorimetric sens. 17985
  PLZT thin films, sol-gel proc. 37466
  PZT ferroelec. film, neurodevice, adaptive-learning 39094
  PZT ferroelec. films, cryst.-oriented, sol-gel deposition 39048
  PZT ferroelec. thin films, sol-gel deposition 1559
  PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
  PZT films, polaris. reversal, adaptive learning metal-ferroelec.-semicond. FET appl. 39098
  PZT films, sol-gel deposition, Ti buffer layer 20915
  PZT films, sol-gel derived, solid phase epitaxial growth 28731
  PZT thin films, donor doping, leakage resist. control 13992
  PZT:Er ferroelec. thin film prep. by sol-gel proc., RAM appl. *(Japanese)* 1553
  PZT/Pt ferroelec. capacitors, passiv., SOG 39100
  PZT/Pt thin film decoupling capacitors, integrat. 21591
  PZT/Pt/RuO_2 capacitor heterostruct., elec. props. 21588
  PZT/Ti/Pt interface layers, elec. and microstructural props. 39053
  PZT-based heterostruct. capacitors, comp.-struct.-prop. rels. 39101
  $PbTiO_3$ sol-gel derived ferroelec. thin films 13997
  $PbTiO_3$:Cu, film, sol-gel prep., charactn. 6912
  $Pb(Zr_{0.4}Ti_{0.6})O_3$ thin-film capacitors, depol. orig. 12838
  Pt/PZT/Pt/SiO_2/p-Si MFMIS FET, ferroelec. thin films in NDRO nonvolatile memories 37780
  $RuO_2 \cdot xH_2O$ electrochem. capacitors, charge storage mechanism 19927
  SiO_2 porous thin films, interlevel dielec. in IC packaging, sol-gel proc. 12141
  SiO_2:F low loss glass fibers from sol- gel derived preforms 7302
  SiO_2:WO_3 porous glass laser optics fab., CO_2-laser radiation effects 7710
  SiO_2-TiO_2-SiO_2-Si ARROW opt. waveguides, sol-gel multilayer struct. 14417
  SnO_2 film gas sens., sensitivity thickness depend. 42860
  SnO_2:Sb coatings on ceramic cloths, sol-gel proc. 28792
  Sr hexaferrite particles, sol-gel prep. 7024
  TiNi/PZT, smart thin film heterostruct., materials develop. 37550
  TiO_2-SiO_2 sol-gel film opt.-chem. sens. 3812
  YBaCuO high T_c supercond. current limiter, props. *(Korean)* 35687
  ZnO:Al transparent films, sol-gel prep., elec./opt. props. 5855

solar absorber-convertors
  see also solar control films
  2 kW Solar Dynamic Ground Test Demons. program 26614
  7.5 kW solar dish/gas-fired heat pipe receiver Stirling engine syst. 28045
  9 kW_e solar dish/Stirling syst., perform. anal. 27641
  air heating, const. temp., simul. 36792
  Brayton cycle dyn. solar space power syst. 43449
  Brayton engine, solar receiver, turbo-charger 28035
  chambers, concrete thermal treatment, temp. calc. 11306
  conference, optical materials for energy efficiency, Freiburg, Germany (April 1994) 28209
  distributed collector field, adaptive predictive control 10891
  DOE solar thermal elec. program 27643
  dyn. space power systs., orbit perform. effects 35243
  energy prod. methods, overview 19549
  forced water cooling syst., PV array/solar collectors 20023
  heat output, absorbing panel shadowing effect 44426
  heat supply devices efficiency, Russia 11307
  heating, heat pump assisted building *(Italian)* 11483
  high perform. space power technol. options 35247
  hot water/swimming pool heating, concrete collectors 20022
  hybrid PV/photothermal water heater syst., perform. modelling 27631
  in-bin grain drying energy systs., computer simul. 28200
  inter-orbit spacecraft flight, solar rocket engine 18766
  karakul skins dryer, combined solar/elec. air heating 44598
  kinoform lenses, solar cell light concentrator appl. 27972
  line focus solar Stirling power generation syst. 27625
  miniature CHP syst., solar heat engine-based 27627
  mulberries solar drying proc., IR heat treatment effects 20174
  multi-lamp solar simulator, collector testing appls. 11456
  parab. concentrating solar collectors, patent survey 36059
  paraboloidal dish solar conc. distribs., space power appls. 35256
  phys. model-based approach, collector dyns. ident. 27974
  power generation, aerospace technol.-based 26520

solar absorber-convertors continued
  power plant free-piston Stirling engine design calcs. 19548
  PV/solar thermal R&D projects, New Eng. Electric 43950
  salino voltaic cells, solar elec. generation, solar stills 28036
  Solar Dyn. Ground Test Demons., heat receiver fabr./testing 26616
  space solar dyn. power systs., thermal storage studies 26557
  space solar power syst. studies, USSR 35241
  space station elec. power syst. requirements/issues 35249
  space stations, solar dyn. demons. 35250
  space vehicle, solar-dyn. receivers, atten. thermal storage 35242
  spacecraft solar-heated alkali metal thermoelec. power syst. 26605
  thermal power plant, thermal fatigue failure study, Australia 36062
  thermophotovoltaic power systs., perform. testing 27935
  thermosyphon water heater, water load temp. effect 44586
  thermosyphon/elec. backup domestic hot water systs. simul. 36782
  CO_2 laser, solar pumped, opt. selectivity, efficiency 7530
  I gas laser, solar pumped, concentrator 23105
  Zn/Br secondary batts., solar Stirling power generation appls. 36055

solar absorbers *see solar absorber-convertors*

solar activity
  see also solar flares; sunspots
  ionos. propag., solar/geomag. activity effect 40338
  microwave emissions (18-23 GHz) of act. regions, fine struct. 9687

solar batteries *see solar cells*

solar cell arrays
  see also solar power
  1 MW grid connected PV plant, perform. anal. 27636
  200 W PV power syst. DC/AC power convertor control 43953
  Advanced PV Solar Array testbed wing results 26598
  buck-boost PWM inverter, PV power syst. appls. *(Japanese)* 11122
  building archit., PV systs. integrat. 11298
  commercial buildings, PV integrat., economics 10884
  composite solar power module, spacecraft appls. 10395
  desalination, electrodialysis systs., PV powered 11516
  efficiency tables, version 5 27942
  elec. vehicle, PM brushless DC motor drive 5355
  fuzzy logic controller for PV-utility interfacing 19558
  Giubiasco (Switzerland) mains-connected PV installation *(German)* 43951
  GPS Block IIR solar array power syst., historical overview 26604
  high efficiency, develops. overview 36603
  high perform. space power technol. options 35247
  Hubble Space Telescope, power syst. servicing 35245
  Hubble Space Telescope, solar array change out 35246
  HV solar cell array for electrostatic MEMS 36606
  hybrid PV/photothermal water heater syst., perform. modelling 27631
  hybrid renewable energy prod. projects, Germany *(German)* 19551
  hydrogen demons. project *(German)* 44413
  hydrogen energy systs. simul. 4868
  laser space power beaming, PV cell pulsed laser illum. 43948
  LINE BACK, utility connected PV inverter 44204
  lunar base power systs., life cycle cost 26517
  max. power operating point tracking 19982
  max. power point tracking, fuzzy control *(Japanese)* 11293
  MEMS, power supply, solar cell array 22630
  microwave radio syst. PV power supply, project overview 19562
  mismatch losses effects on max. output power 44399
  mismatch losses model 11300
  mismatch power loss anal./control 44405
  modules perform. meas., algm., facility 11297
  orbital transfer vehicle, power syst. 26652
  outdoor solar cell power unit *(Japanese)* 5215
  PASP plus arrays, arcing predictions 26569
  Pathfinder solar powered aircraft 36587
  pulse power generators/low current switches 19550
  PV array max. power extraction, fuzzy logic control 19560
  PV array max. power point tracking, power convertor-based 11296
  PV array max. power point tracking scheme 19559
  PV array/batt. power switch network, nonlin. SPICE model 27635
  PV cladding, Northumberland Building, Northumbria Univ. 11299
  PV DC motor pumping syst., design optim. 19553
  PV DC motor water pumping syst., characts. anal. 27638
  PV generating plants, lightning protection methods *(German)* 4869
  PV generating systs./components develop., NEDO 27622
  PV max. power tracking, neural networks 36589
  PV power syst. max. power tracking, fuzzy neural net-based 19552
  PV power syst. solar arrays, load matching calcs. 27626
  PV power syst. transformers, metering transducer appls. *(Russian)* 10880
  PV power systs., energy losses, batt. voltage regulator 36061
  PV power systs., EPRI R&D efforts, USA 27619
  PV systs., energy losses, batt. voltage regulator 10889
  PV water pumping, SRM drive-based, perform. anal. 10890
  PV water pumping systs., optim. techs. 27628
  PV-hydrogen energy conversion syst. studies 27624
  repeater, PV/VRLA batt. power supply, low temp./voltage operation 19565
  residential air conditioner, solar-powered, perform. eval. 28179
  residential solar-powered air conditioners 5393
  roof integrated commercial PV design 10886
  Sampex spacecraft derived power syst., stabil. anal. 26611
  satellite power systs., advanced solar cells 26639
  screening method 19987
  single-phase PWM VSI, residential PV power syst. appls. *(Japanese)* 36346
  sizing, load matching, short-term energy storage 4870
  solar heating forced water cooling syst., PV array/solar collectors 20023
  space power/propulsion synergies 35268
  space solar power syst. studies, USSR 35241
  space solar power systs., microwave power beaming 10888
  Space Station Alpha PV module thermal control syst. 35252
  Space Station Freedom, brushless DC motor, posn. control 43453
  Space Station Freedom, solar array elec. perform. environ. effects 26642
  Space Station Freedom power system, on-orbit floating potentials 26592
  Space Station Freedom solar array development testing 26643
  Space Station Freedom solar cell dynamics, SPICE modelling 26584
  space station solar panel terminal characts. model 26676
  spacecraft line-focus refr. concentrator solar arrays 26602
  spacecraft power conditioning, tri-state power converter 26677
  spacecraft PV power technols., future trends 26685
  spacecraft solar array, shunt switching unit act. ripple filter 26679
  spacecraft solar array size optim. efforts, UK 26686
  spacecraft solar arrays, on-orbit output power mgt. 26601

solar cell arrays continued
spacecraft solar cell lifetime, space factors testing 18726
SUNPAC, PV installations, rem. monitoring 20004
telecomm. equipt., solar generator perform., high temp. 20005
telephone PV power supply syst. develop., Finland 19561
thermophotovoltaic power systs., perform. testing 27935
TOPEX/Poseidon satellite, solar array on-orbit perform. studies 26606
TOPEX/Poseidon solar array on-orbit performance 26599
West Beacon Power Farm, PV implement. 10887
GaAs space power solar cells, satellite test data 26641
GaAs/Ge Clementine spacecraft solar cell array studies 26603
GaAs/Ge solar cells, Deep Space Probe Science Expt., elec. power syst. 26646
GaInP/GaAs tandem solar cells, high efficiency 27960
GaInP/GaAs tandem solar cells, high-efficiency 19998
$Ga_{0.51}In_{0.49}P$/GaAs PV converter, opt. power/data transm. 27943
a-Si PV cells in large scale utilization, energy pay-back time *(Japanese)* 27629
a-Si PV power systs., spectral output eval. method 27623
a-Si PV technol. transfer, OASIS project, Europe 11292
Si based PV systs., life cycle anal. 43949
Si polysrystalline PV array, optimal operation ident., ANN *(Japanese)* 5231
Si solar array, X-ray Timing Explorer Power syst. 26650
Si solar cell array based transportable power supply 36598

solar cells
see also solar cell arrays
3D illuminance anal. syst., ray tracing method *(Japanese)* 42880
200 W PV power syst. DC/AC power convertor control 43953
Advanced PV Solar Array testbed wing results 26598
Betacell microencapsulated nuc. batt., design and appls. 27961
bilateral solar cell bearing struct. configs., spacecraft 35255
book, Si and Si alloy based materials/devices 11540
conference, optical materials for energy efficiency, Freiburg, Germany (April 1994) 28209
DC/DC ZVS power convertor, batt./solar cell sources 44169
efficiency tables, version 5 27942
efficiency vars., atmos. conditions studies 5230
elec. vehicle energy sources, current technol. review 44524
energy prod. methods, overview 19549
existing/future trends, PV power generation *(Japanese)* 4867
fuzzy logic controller for PV-utility interfacing 19558
GPS Block IIR solar array power syst., historical overview 26604
hermetic sealing methods 11287
high efficiency, develops. overview 36603
high injection effects on solar cell perform. 44414
high perform. space power technol. options 35247
household radio equipt., solar cell power supply tests 20151
household radio equipt. power supplies, solar cell-based 20150
HV solar cell array for electrostatic MEMS 36606
II-VI thin film PV 22993
III-V PV cells, manufacture 5223
internal quantum efficiency anal., graphical eval. scheme 44419
IV curve, two diode model 5228
large area concentrator buried contact solar cells 19984
laser space power beaming, PV cell pulsed laser illum. 43948
LINE BACK, utility connected PV inverter 44204
low-bandgap thermophotovoltaic system design 20003
lunar base power systs., life cycle cost 26517
mag. moment, probab. estim. 44408
max. power point tracking control, chopper *(Korean)* 36608
microstrip antenna arrays, solar cells for microsatellites 15669
microwave radio syst. PV power supply, project overview 19562
modules perform. meas., algm., facility 11297
MOVPE optoelectronic device technol. 28747
MQW solar cells, electrolum. coupling 36590
orbital transfer vehicle, power syst. 26652
organic PV cells, excitonic light collection, high carrier mobilities 27937
PASP plus arrays, arcing predictions 26569
Pathfinder solar powered aircraft 36587
phosphate glass based protective coating 36596
plasma etching, health/safety concerns 44406
pulse power generators/low current switches 19550
PV array max. power extraction, fuzzy logic control 19560
PV array max. power point tracking, power convertor-based 11296
PV array max. power point tracking scheme 19559
PV array/batt. power switch network, nonlin. SPICE model 27635
PV DC motor water pumping syst., characts. anal. 27638
PV energy conversion/storage semicond. solar cells struct. 36607
PV generating systs./components develop., NEDO 27622
PV max. power neural networks 36589
PV power systs., EPRI R&D efforts, USA 27619
PVMaT Project, USA, status overview 27640
radiation effects/external factors 11289
reliab./quality diagnostic tool for electronic devices 1315
space power generation, develops., economic incentives overview 43417
space power solar cells, develop. prospects workshop 43450
space solar energy systs., develop. projects overview 43418
Space Station Alpha PV module thermal control syst. 35252
Space Station Freedom, brushless DC motor, posn. control 43453
Space Station Freedom solar array development testing 26643
Space Station Freedom solar cell dynamics, SPICE modelling 26584
space station solar panel terminal characts. model 26676
spacecraft power conditioning, tri-state power converter 26677
spacecraft PV power technols., future trends 26685
spacecraft rocket engine effects on solar cells 43455
spacecraft solar array, shunt switching unit act. ripple filter 26679
spacecraft solar array size optim. efforts, UK 26686
spacecraft solar arrays, on-orbit output power mgt. 26601
spacecraft solar cell assemblies, Teflon coverglass bonding 26684
spacecraft solar cell lifetime, space factors testing 18726
spatial collection efficiency 27932
standalone PV syst., concepts, economic anal. 36056
SUNPAC, PV installations, rem. monitoring 20004
telecomm. equipt., solar generator perform., high temp. 20005
telephone PV power supply syst. develop., Finland 19561
thermophotovoltaic cells, Am isotope mixture-based 36622
thermophotovoltaic cells, perform. charactn. 27945
thermophotovoltaic electricity generation, conf., USA (1994) 20206
thermophotovoltaic power appls., design/modeling 27944

solar cells continued
thermophotovoltaic solar cell power expts., USA 27962
TOPEX/Poseidon elec. power syst., on-orbit perform. 26645
TOPEX/Poseidon satellite, solar array on-orbit perform. studies 26606
TOPEX/Poseidon solar array on-orbit performance 26599
V-I characts., max. likelihood principle 36594
AlGaAs/GaAs solar cell struct., LPE etchback-regrowth 27948
$Al_xGa_{1-x}As$/Si, tandem solar cells, MOCVD, charactn. 19995
AlGaAs-GaAs heterojn. solar cells, prod./props. 11285
AlGaAs-GaAs quantum well solar cells 27952
Au/$Zn_{0.4}Cd_{0.6}Te$:In solar cell, fab./charact. *(Korean)* 19985
CdO/CdTe thin film solar cells, prep./props. 5229
CdS, film, chem. deposition, struct., props., solar cell appl. 28798
CdS/CdTe, sintered solar cells, InSnO electrode, PV props. 11295
p^+-n-CdS/InP solar cells, space appl., projected efficiency 19989
CdSe/metal low cost Schottky barrier solar cells 5219
CdTe polycryst. thin film solar cells, micro/nanostructs. 27940
CdTe polycryst. thin-film solar cells 27938
CdTe/CdS/Au/Cu heterojunction solar cell/ohmic contacts syst., Cu effects 20001
Cu(In, Ga)$(S, Se)_2$ solar cells, charactn./modeling 44403
$CuIn_xGa_{1-x}Se_2$ high-efficiency thin-film solar cells by selenization 27946
$CuIn_xGa_{1-x}Se_2$ thin-film polycryst. solar cells, 1.3-1.5 eV band gap 19994
$CuInS_2$ polycryst. thin film solar cells 27954
$CuInSe_2$ polycryst. thin film solar cells 27954
$CuInSe_2$ polycryst. thin film solar cells, micro/nanostructs. 27940
$CuInSe_2$ polycryst. thin-film solar cells 27938
$CuInSe_2/SnO_2$, PV solar cell material 36605
n-$CuInSe_2$/polysulphide photoelectrochem. solar cells, spray-pyrolysis 27933
GaAlAs layers, OMCVD, characts. prediction, neural nets 13051
GaAlAs/GaAs thin-emitter solar cells, photolumin. study 20002
GaAlAs/GaAs/Ge thin-emitter solar cells, photolumin. study 20002
GaAs solar cells, OCV, bandgap narrowing 19986
GaAs solar cells, gamma ray/electron displacement damage 13062
GaAs thin solar cell, light trapped, spacecraft appls. 26600
GaAs:Sn(Zn), LPE growth, Bi-based melts, solar cells 27949
GaAs/$Al_xGa_{1-x}As$ MQW solar-cell, barrier pot. design criteria 5218
GaAs/$Al_xGa_{1-x}As$, multiwafer prod. for solar cells on 4″ substrs. 5224
GaAs/Ge Clementine spacecraft solar cell array studies 26603
GaAs/Ge solar cells, Deep Space Probe Science Expt., elec. power syst. 26646
GaAs-AlGaAs conc. photoconverter, wide-band GAP substr. 36593
GaAs-AlGaAs heterojn. 3-cascade solar cells, monolithic struct. 11288
GaAsP-Si 2 terminal tandem solar cells 20008
GaInAs solar cells, radiation response, doping effects 19992
$Ga_{0.84}In_{0.16}As_{0.68}P_{0.32}$ large area solar cells, space appls. 10396
$Ga_{0.51}In_{0.49}P$ large area solar cells, space appls. 10396
GaInP/GaAs tandem solar cells, high efficiency 27960
$Ga_{0.5}In_{0.5}P$/GaAs monolithic 2-terminal tandem conc. solar cell 27941
$Ga_{0.51}In_{0.49}P$/GaAs PV converter, opt. power/data transm. 27943
H_2 prod., Fresnel lens PEC-based 11302
$Hg_{1-x}Cd_xTe$/GaAs two-jn. monolithic cascade solar cell 20009
InAs/$Ga_yIn_{1-y}As$ MQW solar-cell, barrier pot. design criteria 5218
InGaAs low-bandgap solar cell modelling, thermoPV appls. 27936
InGaAs-GaAs quantum well solar cells 27952
InGaP-Si 2 terminal tandem solar cells 20008
In_2O_3/CdS/$CuInS_2$ thin-film solar cell, 9.7% efficiency 19997
InP, and related materials, conf., Paris, France (April 1993) 11521
InP high-efficiency n^+p solar cell, simul., improvements 11301
InP p^+n and n^+p structs., electrochem. anal. solar cells appl. 13107
p-InP, photoelectrochem. solar cells, charge transfer, open-cct. impedance 36599
InP solar cells, OCV, bandgap narrowing 19986
InP solar cells, electron radiation damage, irrad. temp. depend. 44415
InP solar cells, gamma ray/electron displacement damage 13062
InP solar cells, radiation resistant, space appls. 26640
InP thermally diffused solar cells, photo-injection annealing 19993
InP/$Ga_{0.47}In_{0.53}As$ tandem solar cells, electron irrad. effects 36588
InP/$Ga_{0.47}In_{0.53}As$ two-terminal tandon solar cells 19988
InP/GaAs solar cells, proton irrad., prop. effects 19990
InP/InGaAs/GaAs solar cells, proton irrad., diffusion length 19991
InP/InGaAsP 2-terminal monolithic tandem solar cells 27956
InP/Si, bonding using InSb, Au-based eutectic alloys 13269
α-PbO film, electrochem. anodic oxid. 1273
Sb_2S_3/metal low cost Schottky barrier solar cells 5219
Si, EFG growth in CO ambient, gettering 20647
Si HV solar cells, GaAs cell, hybrid syst. component 44410
Si HV solar cells, bilateral sensitivity 44412
a-Si PV power systs., spectral output eval. method 27623
a-Si PV technol. transfer, OASIS project, Europe 11292
Si absorpt. edge from solar cell spectral response 20007
a-Si alloy tandem solar cell suboptimal design 20010
a-Si based PV solar cells 5212
Si based PV systs., life cycle anal. 43949
Si bilateral solar cells, minority carrier diffusion length 36595
Si cryst. thin film solar cells, develop. prospects 27950
Si, electrocatalysis, opt./elec. props., solar cell appls. *(German)* 38243
Si epitaxial solar cells, internal quantum efficiency 36591
Si high efficiency solar cells, 2D num. simul. 44418
Si high efficiency solar cells, plasma CVD 5216
Si high-efficiency solar cells, RTP 5226
Si monocrystalline solar cells, portable power supply appls. 19980
Si multicrystalline solar cells, gettering, passiv. 27955
Si multicrystalline solar cells improvements, key technol. 27953
Si p-n jn. solar cells, superposition principle 20000
Si parallel multijunction solar cell 19977
Si, patterned surfaces, Schottky barriers, photoablation 22185
p-Si, photoelectrochemical diffusion length, PV appls. 29834
Si polycryst. ribbon solar cells 36592
Si polycryst. solar cells, hydrogen passivated 44407
Si polycryst. solar cells, ionising radiation protection 44411
Si, polycryst. thin-film solar cells, solid phase crystn. 5214
Si single cryst. solar cell, series resist. meas. methods 36601
Si solar cell array based transportable power supply 36598
Si solar cell degrad., e-beam direction influence 36602
Si solar cell, efficiency limits, light trapping technol. *(Chinese)* 44417
Si solar cell perform., trap location/trap-assisted Auger recomb. effect 44395
Si solar cells, 23% efficient, limiting loss mechanisms 44401
Si solar cells, OCV, bandgap narrowing 19986
Si solar cells, PV power generation prospects 36060

- **solar cells** continued
  - Si solar cells, SiO_2 AR coating tests 19979
  - Si solar cells, charged defect conc. profile, C-V meas. 27947
  - Si solar cells, efficiency improvement, conc. radiation 11286
  - Si solar cells fab., low cost/high efficiency *(Korean)* 27959
  - a-Si solar cells, high efficiency 27958
  - Si solar cells, high efficiency, pilot prod. 44402
  - a-Si solar cells, long-term degrad. tests and charact. 19999
  - Si solar cells, mech. textures, light coupling, ray tracing 27939
  - Si solar cells, modulated free-carrier absorpt., high-resoln. lifetime mapping 44400
  - Si solar cells, num. modelling of non-ideal I-V characts. 5225
  - Si, solar cells, optoelectronic charactn. by photothermal deflection 44398
  - Si solar cells, radiation stimulated diffusion, impurities distrib. 11290
  - a-Si solar cells, recent advances 27951
  - Si solar cells, short-cct. currents defn. method 19978
  - Si solar cells, thickness/resist. optimisation 44409
  - Si solar cells, waste material-mfg., testing 19981
  - Si thin film solar cells, zone melting recryst. 44404
  - Si:Al solar cells, minority carrier diffusion length, Al gettering 44416
  - Si:B solar cell, low temp. PECVD/laser annealing fab. 19996
  - a-Si:H PIN solar cells, electron/hole trapping *(Chinese)* 5211
  - a-Si:H diodes, recomb. regime under double injection, electrolum. obs. 31079
  - a-Si:H films, conc. dense radiation effects, solar cells 36597
  - a-Si:H, multijunction solar cell, microwave glow discharge deposition 20971
  - a-Si:H p/i/n struct., annealing, resist. effect 1198
  - a-Si:H p-i-n solar cell structs., computer model 20006
  - a-Si:H polycryst. thin-film solar cells 27938
  - a-Si:H, pulsed-light soaking 1060
  - a-Si:H solar cell, Hg-sensitized photochem. vap. deposition, H_2 dilution tech. 5217
  - a-Si:H solar cells, insulating interfacial layer effect 36600
  - a-Si:H solar cells, novel technols. 27957
  - a-Si:H solar cells, reverse biased annealing studies 11291
  - a-Si:H,B n-i-n layers, current induced degrad. 38281
  - a-Si:H,O solar cells, intrinsic layer, O impurity effects 5227
  - Si:P, enhanced P diffusion, grain boundaries 19983
  - n-Si/LB layer photoelectrochemical solar cells 5220
  - n-Si/Pt colloidal particle electrode for photoelectrochemical solar cells 5221
  - a-Si/poly-Si tandem solar cell, high efficiency 11294
  - a-SiGe:H, multijunction solar cell, microwave glow discharge deposition 20971
  - a-SiGe:H/SnO_2 solar cell struct., interfacial reduction 38294
  - a-SiO:H films, plasma CVD, solar cell appl. 5213
  - SiO_2/SiN coatings on Si, defect passiv. by PECVD 1270
  - SnO_2/a-SiC/Au Schottky cells, photocurrent multiplication model 44396
  - TiO_2, microporous electrode, PV study 28803
  - TiO_2 opt. coating for solar cells, excimer laser sputtering deposition 28835
  - TiO_2, props./appls., dye sensitised solar cells 36604
  - ZnO/n-Si jn. solar cells, spray-pyrolysis method 44397
  - ZnSe-Si(GaAs) solar batts., photosensitivity spectra, ZnSe layer effect 5222
- **solar collectors** *see solar absorber-convertors*
- **solar control films**
  - *see also solar absorber-convertors*
  - conference, optical materials for energy efficiency, Freiburg, Germany (April 1994) 28209
  - glass conductive coatings, radio wave transm. 7450
- **solar disturbances** *see solar activity*
- **solar-electric power stations** *see solar power stations*
- **solar energy concentrators**
  - 2 kW Solar Dynamic Ground Test, solar simul. selection 26615
  - 2 kW Solar Dynamic Ground Test Demons. program 26614
  - 7.5 kW solar dish/gas-fired heat pipe receiver Stirling engine syst. 28045
  - 9 kW$_e$ solar dish/Stirling syst., perform. anal. 27641
  - composite solar power module, spacecraft appls. 10395
  - DOE solar thermal elec. program 27643
  - energy prod. methods, overview 19549
  - inter-orbit spacecraft flight, solar rocket engine 18766
  - large area concentrator buried contact solar cells 19984
  - line focus solar Stirling power generation syst. 27625
  - parab. concentrating solar collectors, patent survey 36059
  - paraboloidal dish solar conc. distribs., space power appls. 35256
  - power plant free-piston Stirling engine design calcs. 19548
  - PVMaT Project, USA, status overview 27640
  - receiver/reactor laser diagnostics syst. 10058
  - solar cells, high efficiency, develops. overview 36603
  - solar cells, thermophotovoltaic power appls., design/modeling 27944
  - space power transm., liq. space optics appls. 43415
  - space solar concentrators, glass reflectors, optical eval. 26644
  - spacecraft line-focus refr. concentrator solar arrays 26602
  - spacecraft solar-heated alkali metal thermoelec. power syst. 26605
  - Stirling engine, operation control 44427
  - thermophotovoltaic power systs., perform. testing 27935
  - thermophotovoltaic solar cell power expts., USA 27962
  - GaAs-AlGaAs conc. photoconverter, wide-band GAP substr. 36593
  - H_2 prod., Fresnel lens PEC-based 11302
  - I gas laser, solar pumped, concentrator 23105
  - a-Si PV cells in large scale utilization, energy pay-back time *(Japanese)* 27629
  - Zn/Br secondary batts., solar Stirling power generation appls. 36055
- **solar energy conversion**
  - *see also solar absorber-convertors; solar cells; solar heating*
  - Burgdorf (Switzerland) Engng. School 60 kWp PV test centre *(German)* 10881
  - energy conversion engng. conf., Atlanta, GA, USA (Aug. 1993) 20225
  - hydrogen energy systs. simul. 4868
  - soft-commutated DC/AC converter for solar energy conversion *(French)* 19766
  - GaSb PV cells, extended IR response 27934
- **solar energy power stations** *see solar power stations*
- **solar flares**
  - 1991 March geomag./interplan. disturbances, solar activity 40324
  - Clementine RRELAX SRAM particle spectrometer, radiation belts, solar flares 12534
- **solar furnaces** *see furnaces; solar energy concentrators; solar heating*
- **solar heating**
  - air heating, const. temp., simul. 36792
  - Brayton cycle dyn. solar space power syst. 43449
- **solar heating** continued
  - chambers, concrete thermal treatment, temp. calc. 11306
  - dyn. space power systs., orbit perform. effects 35243
  - forced water cooling syst., PV array/solar collectors 20023
  - gas-fired heating boilers for solar H_2 facility 19564
  - group geyser consumption patterns, single water heater and PC-based meas. and control syst. 4538
  - heat pump assisted building *(Italian)* 11483
  - hot water/swimming pool heating, concrete collectors 20022
  - hybrid PV/photothermal water heater syst., perform. modelling 27631
  - in-bin grain drying energy systs., computer simul. 28200
  - inter-orbit spacecraft flight, solar rocket engine 18766
  - karakul skins dryer, combined solar/elec. air heating 44598
  - line focus solar Stirling power generation syst. 27625
  - mulberries solar drying proc., IR heat treatment effects 20174
  - phys. model-based approach, collector dyns. ident. 27974
  - space heating without heat pump utilizing naturally-cold water 28173
  - space solar dyn. power systs., thermal storage studies 26557
  - spacecraft solar-heated alkali metal thermoelec. power syst. 26605
  - supply devices efficiency, Russia 11307
  - thermosyphon water heater, water load temp. effect 44586
  - thermosyphon/elec. backup domestic hot water systs. simul. 36782
  - water-heating plant, PC-based DA syst. 42744
  - XLPE insulated 230 kV cable syst., pre-qualification testing 27200
- **solar noise** *see noise; solar radiofrequency radiation*
- **solar power**
  - *see also solar energy concentrators*
  - air temp./wind speed prediction, electronic syst. 19396
  - Bahrain, renewable energy resources 27321
  - Botswana, alternative energy resources 35723
  - Brayton engine, solar receiver, turbo-charger 28035
  - elec. vehicle, PM brushless DC motor drive 5355
  - energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
  - energy prod. methods, overview 19549
  - PEC multiple nano contacts, solar energy storage appls. 27887
  - power generation, aerospace technol.-based 26520
  - regenerative energy storage possibilities *(German)* 11310
  - renewable energy power generation, status, prospects, economics 35721
  - renewable energy resource develop. prospects, former USSR 27309
  - renewable energy resources, power syst., Jordan 10798
  - salino voltaic cells, solar elec. generation, solar stills 28036
  - space power liq. metal thermoelec. generator thermodyn. 26554
  - space power transm., liq. space optics appls. 43415
  - space stations, solar dyn. demons. 35250
  - UK and IEA PV programmes 10883
  - I gas laser, solar pumped, concentrator 23105
- **solar power satellites**
  - atmos. ozone layer restoration, microwave SPS 36054
  - life-cycle energy recovery study 35210
  - microwave power transm. *(Japanese)* 19228
  - nonlin. interact. of intense microwaves with space plasmas, computer simul. *(Japanese)* 40362
  - power generation, aerospace technol.-based 26520
  - power relay satellite, wireless power transm. 36052
  - projects, computer inform./anal. syst. 36053
  - self-reproducing mfg. facilities, overview 35209
  - space mfg. facilities develop., self-reproducing 26514
  - space power wireless power transm., microwave beam intens. calcs. 43416
  - space solar energy systs., develop. projects overview 43418
  - space solar power syst. studies, USSR 35241
  - space solar power systs., microwave power beaming 10888
  - space solar thermodyn. power generation, energy flux, efficiency 26513
  - world energy syst., space power role/influence 26512
- **solar power stations**
  - *see also photovoltaic power systems; solar power satellites*
  - 1 MW grid connected PV plant, perform. anal. 27636
  - 9 kW$_e$ solar dish/Stirling syst., perform. anal. 27641
  - 10-100 kW hybrid diesel/renewable power systs., developing country appls. 36032
  - CO_2 emissions mitigation technols., Japan *(Japanese)* 4755
  - dispersed PV power systs., islanding phenom. 43947
  - distributed collector field, adaptive predictive control 10891
  - DOE solar thermal elec. program 27643
  - energy prod. methods, overview 19549
  - free-piston Stirling engine design calcs. 19548
  - gas-fired heating boilers for solar H_2 facility 19564
  - irreversible heat transfer, exchange equipt. allocation 19555
  - large scale PV plants, experience 10885
  - line focus solar Stirling power generation syst. 27625
  - miniature CHP syst., solar heat engine-based 27627
  - needs/prospects, European perspective 27621
  - parab. concentrating solar collectors, patent survey 36059
  - predictive control, generalized, solar power plant 19566
  - PV generating plants, lightning protection methods *(German)* 4869
  - renewable energy develops., ecological aspects, Switzerland *(Spanish)* 4760
  - renewable energy power generation, status, prospects, economics 35721
  - satellites, life-cycle energy recovery study 35210
  - thermal power plant, thermal fatigue failure study, Australia 36062
  - wind-solar power plant control, Petri net-based model 19575
  - Si solar cells, PV power generation prospects 36060
  - Zn/Br secondary batts., solar Stirling power generation appls. 36055
- **solar radio emission** *see solar radiofrequency radiation*
- **solar radiobursts** *see solar radiofrequency radiation*
- **solar radiofrequency radiation**
  - bursts, automated detect./recording syst. 17524
  - emission anal., spectrometer methods and obs. *(German)* 25625
  - microwave emissions (18-23 GHz) of act. regions, fine struct. 9687
- **solar radiowaves** *see solar radiofrequency radiation*
- **solar spectra**
  - *see also solar activity*
  - RF emission anal., spectrometer methods and obs. *(German)* 25625
- **solar stills** *see distillation; solar absorber-convertors*
- **soldering**
  - *see also reflow soldering; wave soldering*
  - 0.35-mm-pitch QFP lead and assembly technol. 5654
  - 3D models of solder joints, generation, X-ray laminography 29674
  - 3D X-ray inspection of fine pitch PCBs, automatic testing 29673

soldering continued
25 mil pitch SMT mount assembly, conductive adhesives/Pb-free solder 38152
1995 forecast for solid-state technol. 30389
alcohol-based semi-aq. cleaning in electronics assembly 930
AOI, detect. of enclosed shape boundaries 24522
aq. rosin flux cleaning, PCB manufacture, thermodyn./kinetics 38142
aq.-saponifier post-solder defluxing, waste water effluent testing 38143
area array interconnection, Cu-PI thin films on multi-layer glass-ceramic substr. 139
area array solder joints, comp. effects on fatigue crack growth rates 37113
automated fine pitch solder paste dispensing, SMT PCB manufacture 38137
automated pick-place laser soldering for electronics assembly 12933
automotive engine controllers, potted, PQFP solder joint reliab. 28155
ball grid array ceramic packages 20449
ball grid array packages 11776
ball grid array soldering proc. meas., X-ray techs. 37142
ball grid arrays tech. 12938
boundary layer fracture of copper/composite solder interfaces in electronic packaging 37131
carrier bump build, molten solder injection 29707
cct. board torsion anal., elec. resist. meas. 29657
ceramic ball-grid-array packages, reliab./mfg. vars. 20450
ceramic BGA package mfg. vars., effects on solder joint reliab. 11856
CFC elimination of no-clean fluxes, Northern Telecom RTP 5718
CFC-free solder fluxes for electronic assembly, selection guidelines 38127
COB technol. for low cost MCM 21750
cond. rework tool design paradigm, PCB/SMT manufacture 38146
condensation inert heating for difficult proc. heating jobs 28437
conductive adhesive eval. as solder replacement 38107
conductive adhesives and solders for SMT, environ. comparison 38110
conductive adhesives for assembly of SMT, fine pitch, MCMs and flip-chip bonding 37116
conductive polymer solders for Pb-free SMT/PCB/fine-pitch assembly 38130
continuum damage mech. model, cyclic creep fracture anal. of solder joints 28489
cost effective ceramic surface mount packaging 20448
crown ether-enhanced nonpolar solvent-based PCB defluxing 38141
design for manufacture philosophy, PCB design appl. 38078
diebond thermal fatigue model, damage integral based anal. 11746
DIP solder joint failure under tensile-compressive stress 37130
direct, board interconnect technol. 38133
elec. contacts, hard/reactive intermetallic cpds. 20424
electronic assemblies, non-Pb bearing solder alloys 936
electronic components and technol., conf., Washington DC, 1994 5473
electronic packages, life enhancement, design optim. 28497
electronic packaging, conf., Binghampton, NY, USA (1993) 20249
fatigue life of solder joints, FEM study of factors 11756
film redistribution layer technol., fine grid SM components 917
fine pitch solder deposition/dispensing, productivity enhancement 38150
fine pitch surface mount IC package solder joints, exam./testing 37117
fine-pitch SMT, automated soldering inspection 163
fine/ultrafine pitch solder printing, electroformed/laser cut/etched stencils 37152
flat pack flux-free soldering proc. for PCBs 12937
flip chip interconnect systs., micromechanical and accelerated testing 11822
flip chip packages, damage and life prediction of solder joints under thermal cycling 11747
flip chip solder joints, surface cracks, fatigue life 29708
flip-chip bonding of holographic opt. interconnects, alignment 38177
flip-chip interconnection, solder joint reliab. 29702
flip-chip package, high-power, cooling 28498
flip-chip packages, low thermal expansion encapsulants, props. 132
flux reliab. assess., electromigration and SIR 177
flux selection, PCB component and wire tinning appls. 38140
fluxless oxid.-free bonding technol., microelectronic packaging 12952
FR-4 boards, flip-chip interconnections 21653
hand-soldering equipt., PCB manufacture, modern requirements 12913
HDI, laser soldering 12936
high dens. rigid flex PWB mfg. 911
hot-bar soldering, 0.15 mm OLB pitch TAB components 941
hybrid IC drivers, flip chip bonded, SPICE simul. 7485
hybrid MCM, mixed interconnection considerations, wire bonding, flip chip and TAB 21709
interconnect resist., reliab. tool in electronic packaging leaded connections 11790
interconnection technol., colloquium, London, Nov. 1994 5482
IR detector selection for laser soldering proc./joint qualif. 6417
isotropic conductive adhesives, solder replacements 21654
joint fatigue testing, elec. resist. spectrosc. 28477
joint reliab., rework/repair techs. and procedures 12904
joint reliab. prediction, computer aided syst. 37206
joint shape prediction by computer modeling 11738
joints, thermal cycling fatigue, crit. accumulated strain energy 120
joints reliab. after accidentally exposure to nitric acid, eval. 37188
laser-cut stencils, no-clean solder cream printing 12898
LCC, soldered, survivability, temp. cycling 28464
leaded chip solder joints in handy phone, fatigue life 5710
leaded SM devices, creep strain response of solder joints, temp. profile params. 38163
leaded SM devices and solder joints in thermal cycling environ., 3D FEA 37132
loaded board test philosophies, PCB/SMT testing 38158
low-temp. solder alloys in insertion mount assembly, thermal fatigue 37111
LSI, HDI, bare chip technol. 30151
maskless flip-chip solder bumping tech. 954
masks, PCB manufacture, cost reduction/quality improvement 38099
MCM-D open repair technols. 21724
MCMs, flip chip solder bumps, thermomechanical charactn. 29717
memory, solder ball connection module 20430
middle gull-wing joint, thermal fatigue life, FEM 28502
mil. electronics, environ. safe soldering/cleaning 6427
MLC MCMs and SCMs, surface-mount arrays 29735
molten axisymmetric solder interconnection joints, heuristic force-height eqn. 141
molten solder profiles for rect. pad geometries in SMT, calc. 38123
no-clean flux eval., SIR testing 927
no-clean fluxes and solder pastes technol. 21649
no-clean low residue solder paste for fine pitch appls. 939

soldering continued
no-clean solder pastes 12899
no-clean/water-clean PCB solder joints, plastic quad flat, failure anal. 947
nonhazardous alternative chem. for semicond./PCB proc. 37213
nonrosin solder flux residue corrosivity testing, PCB manufacture 12941
OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
OMPAC package-to-board attach reliab. 28534
opt. glass fiber soldered into ferrule, thermally induced stresses 39366
opto-electronic component assembly, soldering technols. 39609
OSEE inspection for flux residue on PCB-based electronics assemblies 38114
pad designs in flip-chip soldering procs. 11736
paste printer vision systs., SMT/PCB manufacture 38106
paste screen-printing proc. in SMT mfg., SPC 38134
PCB assembly reliab., call rate level reduction 5701
PCB assembly/soldering, Penn State initiatives 29671
PCB assembly/soldering defects, inspection/SPC work stations 5696
PCB cleaning and treatment technol., syst. approach 929
PCB flux residue influence, electronic assembly quality 937
PCB manufacture, defects, fault coverage, yield and cost 6413
PCB resin/resin-glass composite insulation, moisture absorpt. effects 12942
PCB solder joints vision inspection machine *(Italian)* 5687
PCB thermally loaded solder joints, fatigue life prediction methods, finite element study 38121
PCB X-ray inspection, neural network classifiers 37162
plastic QFP, 256-pin, failure anal. of solder joints 37129
PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
profile model for solder joints and expt. verification 37065
PTHs in multilayer PWBs, effects of solder joint rework 38116
PWA cleanliness testing, ionic contamination meas. variables 6426
PWB dielec. systs., SIR profile, elec. perform. 901
PWB plated holes deform., soldering thermal cycle 29685
PWB solder masking proc. warpage, FEA 918
reduced oxide soldering activation, prod. compat. eval. 38115
reduced oxide soldering activation solderability enhancement technol. 6428
semi-aq. cleaning agent selection 932
semi-aq. flux cleaning, equipt. considerations and rels. 6425
single lap shear layers, stresses, FEA 29647
SM leadless solder connection, comparative compliance of commercial lead designs 5662
SMC solderability testing, microwetting bal. 6422
SMDs, solder life predict. under thermal cycling and vibr. 37115
SMT, laser soldering, thermal modelling 28436
SMT, solder alternatives eval. 145
SMT, solder paste thickness effects 6416
SMT assembly, failure stats. and failure free time 11792
SMT assembly, solder paste flow, computer simul. 12917
SMT assembly, stress anal., influence fn. 28494
SMT attach, thermally stable water soluble solder paste 920
SMT cct. wave soldering technol. *(English)* 922
SMT chip resistors/capacitors, insulated metal substrs., solder joint reliab. 12931
SMT PCB solder replacement technol. testing 5607
SMT rework, conductive/convective hand tools 38161
SMT rework, meet ISO9001 38093
SMT solder ball connection reliab. model and crit. param. optim. 926
SMT solder joint reliab., voids and void interacts. 178
SMT solder joints, fatigue life, mech. fatigue test 28501
SMT solder joints, long-term reliab. 28532
SMT solder joints, stress anal. model for fatigue prediction 37114
SMT solder paste reflow, soldering proc. interact., obs. phenomenology 938
SMT solders, thermal cycling, premature failure *(Korean)* 129
SnPb-soldered joint reliab., interstitial PGA packages 940
solderability and impact of surface coatings 6421
station selection, modern through-hole/SMA 38144
surface metall., solder flip chip, wirebond and TAB interconnections 21783
surface mount connector design, respect, solder creep 28503
surface mount lead/solder joint, random vibr. response 29686
TAB outer lead contact reliab., degrad. study 5642
TAB-outer lead bonding, reliab. of different tape metallizations 6447
tape ball grid array package technol. 5641
terpene cleaning agents, defluxing appls., review 38160
thermocompression hot bar soldering tech. 21646
thick film hybrid ccts., high reliab., for automotive appls. 29697
thick film multilayer material systs. for thermal cycle appls. 21660
thin SOP with Cu gull-wing leads, SMT advantages 37133
through hole solder joints automatic inspection, automated inspection 42705
TSOP encapsulation reliab. modeling 37135
TSOP solder joint crack initiation and propag. 37110
TSOP solder joint reliab. enhancement, encapsulation 131
underfill encapsulants for flip chip assembly, characterisation and eval. 37137
visual solder inspection, neural network *(Japanese)* 38117
waste water recycling systs. for electronics defluxing procs. 6429
water soluble fluxes, SIR/electrochem. migration testing 28438
water soluble organic acid solder flux, ozone depleting subst. elimination 6423
water soluble solder paste printability, rheological charactn. 11739
water soluble/no-clean selection guidelines, PCB/SMT/fine pitch soldering 38151
wettability of immersion coated PWBs, temp. and humidity effects 29681
wetting bal. meas. of components, dissimilar surfaces 37063
AgSn intermetallic phase, Mossbauer params., Sn-based Pb-free solder 11745
AlN stacked MCM using hot pressed, co-fired material, fab. 21739
Cu, electrodeposited/electroless for PCBs, mech. props. 12940
Cu gull-wing leads for thin SOP 150
Cu thick film conductor, inorganic binders 6440
Cu/Sn(SnBi)(SnPb) solder systs., wetting tips, morph. and instabil. 28865
Cu-Sn intermetallic form. at solder-Cu interface, in-situ TEM 12188
Cu-Sn multilayer composite solder, fluxless proc. 11737
Cu_9Sn_3Ni intermetallic phase, Mossbauer params., SnPb eutectic solder 11745
$FeSi_2/MnSi_x$, single couple thermoelec. generators, fab., meas. 20024
GaAs thin film, GaAs substr., eutectic bonding-induced in-plane strain 38341
GaAs thin film, Si substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs MQW, $LiTaO_3$ substr., eutectic bonding-induced in-plane strain 38341

soldering continued
GaAs-AlGaAs MQW, Si substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs MQW modulators integrated, Si CMOS IC 39597
In-Sn based VLSI interconnections, solder joint reliab. 30146
In-Sn eutectic solder, substr. effects, microstruct./mech. behavior 11743
Na vap. fed AMTEC cells, β''-alumina electrolyte 28019
Nb supercond. film, supercond. wire contact, soldering prep. 30763
Ni/Cu electroless plating, bump metallization 22280
Pb and Pb-free solder joints, thermomech. and fatigue behavior 37557
Pb-Sn eutectic solder spheres, compressive melting 37064
Pb-Sn, eutectic solders, creep strength, microelectronic appl. *(Korean)* 20428
Pb-Sn solder interconnects, creep deform. under bending/twisting 12186
Pb-based solder alternatives develop. 127
Pd thin electroplated coatings, solderability, semicond. packaging 37143
Sn immersion coatings, PWB surface finishes 12934
Sn/Pb eutectic solder-bumped flip chip test die and organic PCB substrs. 37136
Sn-Ag solder, Pb-free, appl. in no-clean thick film electronic modules 6451
Sn-Ag solder interconnects, creep deform. under bending/twisting 12186
Sn-Bi(Ag) soldering alternatives for fine-pitched electronics packaging 29675
Sn-Cu(Pb) solder joints, thermal cyclic shear stress/strain hysteresis 11742
Sn-Pb SMT solder joint reliab. prediction, model validation 925
Sn-Pb solder, J-integral (theoretical) values, fracture props. 37531
Sn-Pb solder thin layers, testing in pure shear 37568
Sn-Pb-Ag solder interconnects, creep study 37128
Sn-Pb-Ag solder joints, reliab. anal. and thermal fatigue disloc. substructure *(Chinese)* 11844
Sn-Pb-Ag solder joints, thermal fatigue/isothermal mech. fatigue damage 37112
Sn-Pb-CeLa solder props. rel., rare earth components 11741
Sn-Sb solder, adhesion, evaporated multilayer *(Japanese)* 5616
Sn-Sb solder, room temp. tensile prop. 434
SnPb lap shear solder joints, fatigue investig., resist. spectrosc. 12246
SnSb solder/evaporated Al-Cr-Ni-Ag multilayer, bonding mechanism, IC packaging 11814

solenoids
see also coils; electromagnets
automobile two-state adaptive suspen., rule-based condition monitoring 5365
broadband mag. field sens., CAE modeling 3775
fast mag. actuator for diesel engine injection syst., FEM modeling 15252
HGMS, high T_c superconds. appls. 23527
high-speed solenoid valve develop., diesel engine appls. 27873
LIA-30 lin. induction accelerator, 6 MJ capacitor bank 36633
lin. axisymmetric EM field soln., series method *(Chinese)* 7886
micromechanical actuator syst., mag. fluid-based *(Japanese)* 44087
multiphase feed power source, voltage control characts. *(Russian)* 11107
plunger type solenoids, dyn. model of deenergizing state 40272
pulsed mag. field facility, capacitive storage 44114
pulsed solenoid valve, 10 μs FWHM gas pulse generation 7931
repetitive microwave BWO, relativistic e-beam 29795
rot. mag. field, inductive reactance calc. 11098
spin flipping in stored polarized proton beam 4081
SR X-ray diffr., magnets for arbitrarily directed fields 39298
supercond. coil, forced flow cooled, quench propag. *(Japanese)* 7252
torque on drill detect., magnetostrictive effect 17716

solenoids, superconducting *see superconducting magnets*

solid electrolytes
see also superionic conductivity
0.5 kW portable alkali metal thermoelec. convertor develop. 20036
alkali metal thermoelec. converter, B-alumina electrolytes 20026
alkali metal thermoelec. convertor components, emissivities/thermal charactn. 20028
alkali metal thermoelec. convertors, high efficiency, remote condensing 20033
alkali metal thermoelec. convertors, Na recirculation wick design 20030
β-alumina-tube electrolyte, Na-$NiCl_2$ zebra batts. 5202
anti-ESD polymer, internal space charge distrib. meas. 30586
Ballard mark IV solid polymer electrolyte fuel cell, mechanistic model develop. 19972
Ballard mark IV solid polymer electrolyte fuel cell, empirical model develop. 19973
conducting isopolymers, prep., props. and appls. 37539
fuel cells, solid oxide, ceramic materials *(Slovenian)* 27922
gas turbine power plants, monolithic SOFC appl. studies 36019
hybrid elec. vehicles, AMTEC auxiliary power unit 28145
Li secondary batts., gelled polymer electrolytes 19933
PEM fuel cells, commercialization status 44394
PEO-PC-$LiClO_4$ electrolyte batt., storage study 27895
planar SOFC, thick film prod. methods 44312
polyacryl amide-$AgNO_3$ electrolyte batt., prep./charactn. 19928
polyaniline electrolytic capacitor 29615
polymer electrolyte composite fuel cells, ion-exchange proc. 36584
polymer electrolyte composite fuel cells, precip. proc. 36585
polymer electrolyte fuel cells, develops. and appls. 5209
polymer electrolyte PEM fuel cell expts. 27929
polymer electrolytes, design concepts, materials 36508
polymer electrolytes reinforced by Celgard membranes, Li batt. appls. 36517
polymer solid electrolyte electrochromic device 22947
polymer-ceramic composite batt. electrolyte develops. 27884
SOFC, high temp., electrolyte materials 44373
SOFC, high temp., metals/alloys appl. 44382
SOFC, reduced temp., tape calendering 44313
SOFC ceramic materials, state-of-the-art 44372
SOFC component mfg., testing methods, mech. props. 44392
SOFC develop., planar stacks, testing, Daimler-Benz/Dornier 44331
SOFC perform. eval., lab. techs. 11276
SOFC power generation facility research project, Russia 44336
submarines, underwater perform. enhancement, fuel cells 11424
Ag-based fast ionic conducting glassy electrolytes, batts. 11238
AgI-AgCl-Ag_2O-B_2O_3, Ag^+ ion conducting glass, solid state batt. appls. 5173
$BaCe_{0.8}Gd_{0.2}O_{3-\alpha}$ perovskite ceramic electolyte, SOFC *(Japanese)* 5205
C electrode/polyacrylonitrile-based polymer electrolyte Li cells 5188
CO sens., polymer-electrolyte lamination, life-elongation 3916
H_2-O_2 SOFC-solid oxide reformer combined syst. 44335
K-$\beta''Al_2O_3$-K-Mo AMTEC, accelerated life testing 28018

solid electrolytes continued
$La_{0.7}Ca_{0.3}Cr\ O_3$/YSZ anodes, CH_4 oxid., SOFC 44358
$La_xSr_yMnO_3$ based SOFC cathode materials 44374
Li ion rechargeable cells, solid polymer electrolytes 36553
Li polymer electrolyte secondary cell expts. 11247
Li solid polymer electrolyte thin film batt., current distrib. 44283
Li/TiS_2 secondary cells, conductive glass solid electrolyte expts. 36516
Li/a-V_2O_5(-P_2O_5) secondary cells, cathode characts. 5193
Li-$Li_xMn_2O_4$ secondary batts., electrochem. anal. techs. 27899
Li-polymer rechargeable batt., PolyPlus 44276
Li_2O-V_2O_5-SiO_2 electrolyte, Li-MoO_3 secondary cell *(Japanese)* 19941
Li_2SO_4-Al_2O_3 electrolytes, intermediate temp. fuel cells 27926
Na-Na_xCoO_2 batts., solid polymer electrolyte batts. 19949
Na_xMNO_2 batts., solid polymer electrolyte batts. 19949
Na_xMnO_2 orthorhombic cathode material for secondary Na and Li polymer batts. 5189
$NaYF_4$ solid electrolyte based solid state batt. 36509
Ni-YSZ anode, $LaSrMnO_3$ cathode, SOFC 44380
Ni-YSZ cermet SOFC electrodes, kinetics expts. 44356
Ni-YSZ cermet internal reforming SOFC electrodes, catalytic study 44357
PB-acid valve regulated batts., advantages/disadvantages 11269
Pb-acid valve regulated batts., ageing effects tests 19963
Pb-acid valve regulated gel batts., standby power appls. 19961
$RbNO_3$-Al_2O_3 electrolytes, intermediate temp. fuel cells 27926
Ta capacitors, HF impedance reduction *(Japanese)* 880
Y_2O_3-ZrO_2 electrolyte, tape cast, fracture toughness, SOFC 44389
Y_2O_3-ZrO_2 thin film electrolyte, SOFC, tensile test 27927
Y_2O_3-ZrO_2-Al_2O_3 composite planar SOFC electrolytes 27923
ZrO_2 electrolyte, SOFC, mech. testing, microstruct. 44390
ZrO_2:Y_2O_3 SOFC electrolytes, high temp. ageing expts. 44321
ZrO_2-Sc_2O_3-Al_2O_3 syst. electrolyte, SOFC, low temp. operation 11278
ZrO_2-Y_2O_3 electrochem. cell, energy conversion, gas sens. 42863
β''-alumina electrolyte, Na vap. fed AMTEC cells 28019

solid lasers
see also colour centre lasers; fibre lasers; gamma-ray lasers; Raman lasers; semiconductor lasers; waveguide lasers
1.4-kJ solid-state power laser disc oscillator, good beam quality 23145
2 μm diode pumped miniature lasers 14834
acetylphenyl-1,4-dioxa-8-azaspiro[4.5] decane, LD pumped ring resonator, blue light emission 23429
act./pass. glass waveguides, sol-gel method prep., laser props. 14810
alexandrite laser imaging, target ident. 2160
automotive parts cutting, Nd:YAG lasers and robots appl. 15197
beam control, Brillouin/photorefr. nonlin. 31478
Beamlet laser for Nat. Ignition Facility 1906
broadly-tunable single-freq. opt. parametric freq. conversion syst. *(Danish)* 7742
cascade compulsator, YAG laser power supply 31456
Ce:$LiCaAlF_6$, UV laser props. 1901
chip solid-state laser, cavity mode/inversion profile correl. 23161
coal-fired MHD facility, laser induced breakdown spectra 20016
coaxial laser module for Gb/s transm.-speed range 17275
compact holographic solid-state DFB laser 7581
conference, laser optics, St. Petersburg, Russia (1993) 55
conference, laser physics, St. Petersburg, Russia (1993) 11525
conference, materials for advanced solid state lasers, Boston, MA, USA (1993) 11552
continuously operating solid-state lasers, SHG mode locking 7582
diode array-pumped solid-state lasers, economic issues 31281
diode laser side-pumped rod lasers, materials proc. appls. *(German)* 7585
diode pumped solid state laser, reson. pump cavity, CW theory 39733
diode pumped solid-state lasers, freq. tuning, pump-power modulation 1893
diode-pumped solid-state lasers in fiberoptic systs. 31283
diode-pumped solid-state-lasers, high-duty-factor, high-av.-power, economics 31365
dye activated polymeric lasers, photophysical props., thermooptical props. 7540
dye impregnated polymer lasers, beam control elements 7541
Fabry-Perot lasers, loss-modulated two-mode, antiphase dyn. 1887
fluoride laser crysts., growth atmos. contamination effects on opt. quality 14327
fusion reactor driver, LD pumped solid-state laser 31694
gain-induced coupling of solid-state lasers 1916
glaucoma, open angle, Er:YAG lasers in surgical treatment 43337
glaucoma filtering surgery, laser appls. 43336
graded opt. elements in solid state laser resonators 14998
GRIN rod lens focusing-collimating optics in Nd:YAG laser delivery syst. 1777
high power laser beam charactn. 31470
high power solid state laser, params. optimisation 31265
high storage dens. opt. disk, SHG *(Japanese)* 7269
high-power gas/solid state lasers, conf., Vienna, Austria (1994) 20263
high-power Nd:YAG amps. 9603
holographic TV, LCD, YAG laser and camera appl. *(Japanese)* 2149
humidity of atmos., rem. sens., alexandrite ring laser 43512
indust. cutting, YAG laser power transm., opt. fiber *(Japanese)* 124
intracavity opt. delay line lasers 31445
intracavity polariz. element, PM, birefr. 14811
IQEC quantum electronics, conf., Anaheim, CA, USA (1994) 11551
IR lasers, conf., Ascona, Switzerland (1994) 5485
LD-pumped IR solid-state lasers 14789
LEOS, San Jose, CA, USA (1993) 20270
liq. cooling agents, opt. filters 14825
low pulse energy optical parametric oscillators, solid laser pumped 15082
low-cost reliable high power CW LD arrays for solid state laser pumping 31399
microchip diode pumped solid state laser arrays, mfg. cost 31282
microlaser lin. arrays, thermal modeling for mode-size estim. 1910
mode locking with nonlin. mirror, analytic study 39720
mode-locked solid-state ring laser, second harmonic intracavity generation 1886
modular laser, temporal multiplexing method, fiber optic beam delivery syst. 31292
multicolour dye laser, resonator constr. 7701
multistable single-mode emitting solid-state lasers 14807
multistage laser facility, small-sig. gain meas. 23332
multistage laser syst., effective aperture optimisation 31463
NMR laser with delayed feedback, locking and Arnold tongues 7590
OMEGA laser, upgrade 1907

solid lasers continued
otolaryngology, solid state laser 43333
oxide cryst. lasers, act. ion oxid. states 39749
oxide laser crysts., CZ growth 14828
perylimide dye doped SiO_2-PMMA glass, superradiant film laser operation 14729
phosphate laser glasses, platinum-inclusion dens., proc. gas environ. effects *(German)* 37543
poly(methyl methacrylate)-doped solid-state dye laser 39687
polyacrylamide gel, dye doped, laser host 7544
pulsed lasers, self-focusing, self-mode locking 31291
pulsed solid state laser materials proc. *(German)* 7866
pulsed solid-state coherent laser radar aircraft wake vortex detect. 3624
pyrromethene-BF_2 complex dye, polymer host, lasing perform. 7543
rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
rare earths in glasses for laser appls., review 7594
rare-earth-ion-based act. waveguide lasers 39722
red perylimide dye lasers, photostability, loss mechanism 39691
rhodamine perchlorate dye-doped sol-gel silica laser, XeCl laser-pumped, wideband tuning 31204
ring laser, mode-locked, short-pulse, transverse pattern dyn. 1915
ring lasers, self-modulation/relax. oscills. 7579
ruby laser, colliding shock lens, intracavity Q-switch element 23329
ruby laser, pass. Q-switched, Cr-activated silicate crysts. 31547
ruby laser, thermal gratings, DFWM 23407
self-limited additive pulse mode-locking laser models 31249
self-modulated solid-state ring laser, relax. oscill. 14780
single-mode laser, loop SBS mirror 31290
slab solid-state geom. lasers, astigmatic compensation *(Chinese)* 14800
sol-gel matrix solid state dye lasers 14731
solid state laser modulator loss anal. 15006
solid-state dye laser for med. appls. 18598
Stark anom. dispersion opt. filter for doubled Nd:YLF lasers 14575
surface treatment appls. of solid-state lasers *(German)* 23478
surface-emitting vs. edge-emitting solid-state laser pumps, comparison 31364
synchronized chaotic laser digital commun. 25488
travelling wave solid-state ring laser, noise spectrum 7580
tunable solid-state laser gain media, phys. and perform. 23156
TW femtosecond parametric lasers 31289
vis. emitting fluoresc. dye solid state tunable lasers 14804
vis./UV lasers conf., Los Angeles, CA, USA, (Jan. 1994) 50
VUV/XUV lasing and wavelength tuning techs. 31172
Yb:YAG diode-pumped thin disk laser continuously tunable, 1018/1053 nm 39742
AuPdTi-GaAs ohmic contact prep., Nd:YAG laser appl. 38370
$CaYAlO_4$:Er(Tm)(Yb)(Ho) eyesafe laser, spectrosc. eval. 1913
Ce:$LiSrAlF_6$, UV laser props. 1901
Ce^{3+}:$LuLiF_4$, broadband UV amplif. medium 23444
Ce^{3+}:$LuLiF_4$ laser, self-injection-seeded UV, sub-ns pulse train generation 39737
Cr,Er:YScGG 2.79 μm laser pumped, 790 nm by Ti:sapphire laser 7593
Cr,Nd:GdScGG parallel amp. 8.2 J phase-conjug. solid-state laser 1909
Cr,Nd:YAG laser, self-Q-switched, transverse mode dyn. 23147
Cr,Nd:YAG monolithic self-Q-switched laser, picosecond pulse generation 31248
Cr:$BeAl_2O_4$, alexandrite laser, intracavity freq. doubling 7737
Cr:$BeAl_2O_4$, alexandrite laser syst., lin. scanning THG 7583
Cr:LiSAF laser, multi-TW femtosecond pulse generation 23165
Cr:$LiSAF_6$ slab laser perform. 31294
Cr:LiSrAlF diode-pumped single-freq. coupled-cavity microchip laser 14814
Cr:$LiSrAlF_6$ Q-switched laser freq. tripling, UV region 39728
Cr:$LiSrAlF_6$ fs diode-pumped all-solid-state regenerative amps., Ar ion-pumped 23170
Cr:$LiSrAlF_6$ high power cw diode-pumped laser 14830
Cr:$LiSrAlF_6$ laser, develop., perform. 1900
Cr:$LiSrAlF_6$ laser syst. high-efficiency harmonic generation 23172
Cr:$LiSrAlF_6$ multiterawatt femtosecond laser 31259
Cr:$LiSrAlF_6$ pass. mode-locked laser, antiresonant Fabry-Perot saturable absorber 23142
Cr:$LiSrAlF_6$ self-mode-locked diode-pumped laser 14785
Cr:$LiSrAlF_6$, self-modelocked femtosecond solid-state lasers 14815
Cr:$ZnWO_4$ cryst. lasing, lasing efficiency improvement by Nd^{3+} codoping *(Chinese)* 14799
Cr:forsterite 100-fs pulse freq. doubling by reson. enhancement cavity 14781
Cr^{3+}:Al_2O_3 laser, low dose electron and gamma-ray irrad. effects 23159
Cr^{3+}:$LiCaAlF_6$ laser, flash-lamp pumped 31295
Cr^{3+}:forsterite IR tunable laser, energy level struct. 7591
Cr^{4+}:Mg_2SiO_4 laser cavity, cubic phase distortion minimisation 31288
Cr^{4+}:Mg_2SiO_4 solid-state tunable laser 1882
Cr^{4+}:YAG laser, sync. pumped self-mode-locked, fs pulse generation 31306
Cr^{4+}:YAG self-mode-locked laser, fs pulses near 1.5 μm 14786
Cr^{4+}:doped laser host lattices, tunable output 39729
Cr^{4+}:forsterite laser, CW operation, output power, thermal problems 39734
Cu^{+}:CaO-P_2O_5 glasses for lasers 5910
Er,Yb:glass disc laser mode locking 23146
Er,Yb:glass laser, harmonic modelocking 23177
Er,Yb:glass laser, opt. pumped, mech. Q-switching 31293
Er,Yb:glass laser, third-order-harmonic mode locking 14784
Er doped phosphate glass laser, thermal perform. 39747
Er laser systs., 3 μm emission, pump quantum efficiency 31277
Er^{3+},Yb^{3+}:SiO_2 planar waveguide amps., pair induced energy transfer 31246
Er:SiO_2, integrated planar-waveguide amp., WDM coupler 14787
Er:YAG laser clinical niches 35150
Er:YAG laser dyn., upconversion characts. 1904
Er:YAG laser in dentistry 43335
Er:YAG oscillator-amp. laser syst. 14813
Er:YSGG laser, 300 K 7584
Er:YVO_4, laser host crysts., growth, optical props. 1905
Er:glass laser, Q-switch saturable absorber materials 1902
Er^{3+}:$Ca_5(PO_4)_3F$, saturable absorber Q-switch materials for solid state lasers 14838
Er^{3+}:CaF_2, saturable absorber Q-switch materials for solid state lasers 14838
Er^{3+}:Y_2SiO_5, excited state, diagnostics, tunable colour centre lasers 15200
Er^{3+}:$YAlO_3$ laser, photon avalanche upconversion pumping 23164
Er^{3+}:$YAlO_3$ upconversion laser, Q-switched 14821
Er-doped 1.5-μm borophosphate/fluoroborate glass lasers 7599
Er-doped PbF_2-SrF_2 epitaxial layers on GaAs(111)B for upconversion waveguide lasers 14832

solid lasers continued
Er-doped glass laser, pass. Q switching of cavity, SBS mirror 7595
Er-doped integrated glass laser, modeling and optim. 22921
Er-doped planar opt. amp. design, background loss, proc. control 39750
Er-doped planar waveguide lasers, theoretical modeling of relax. oscills. 14818
GaAs photoconductive freq. impulse device 36299
GaAs photoconductive pulsed power switches, Ti:sapphire laser-triggered 36440
GaAs photoconductive switches, elec. field structs. 36448
GaAs:O, ion implant., waveguide material fab. 39402
Ho,Tm:YLF laser pumping, $AgGaSe_2$ parametric oscillator 7800
Ho doped laser syst., CW 3 μm laser action 7588
Ho:YAG 2.1μm laser for atmos. lidar research 10474
Ho:YAG coronary laser angioplasty, large clinical experience 43341
Ho:YAG quasi-three-level laser Q-switched operation 14819
Ho:YVO_4, laser host crysts., growth, optical props. 1905
InPt-GaAs ohmic contact prep., Nd:YAG laser appl. 38370
$LiNbO_3$:Nd^{3+}, elec.-field-induced periodic domain inversion, act. device appls. 7586
$LiNbO_3$:Ti,Er integrated opt. DBR waveguide laser, 1531 nm 31304
$LiNd(PO_3)_4$ laser, intracavity SHG, homoclinic chaos 31255
$LiNd(PO_3)_4$ multimode laser, antiphase dyn., Shil'nikov chaos 14812
Mn^{5+}:$Sr_5(VO_4)_3F$, spectrosc. and laser props. 14836
Nd,Ce:YAG laser resonator, SBS methane gas phase conjugating mirror *(Chinese)* 14993
Nd laser hosts, fluoro-apatite struct. 14829
Nd laser, pass. Q-switching, fund./second harmonic freqs. 1883
Nd^{3+} doped fluoride glass, spectrosc. and laser props. 14809
Nd^{3+} ion doped insulating crysts., laser appls. 23175
Nd:$Ca_2Al_2SiO_7$ cryst. diode pumped lasers, opt. props. 1914
Nd:$Ca_5(PO_4)_3F$ laser, quasi-CW LD-pumping, output/input charact. *(Chinese)* 39725
Nd:$KGd(WO_4)_2$ laser diode pumping/FM mode locking 23157
Nd:$LaMgAl_{11}O_{19}$, excited-state-absorpt./upconversion 23154
Nd:MgO:$LiNbO_3$ self-freq.-doubled laser, diode pumped 23390
Nd:$Y_3Al_5O_{12}$, excited-state-absorpt./upconversion 23154
Nd:YAG 1.4kW slab laser, diffusive closed-coupled pump cavity 23181
Nd:YAG 3.5 W output, diode-pumped, Q-switched 532 nm laser 14816
Nd:YAG CW self-starting mode locked laser, cascaded second-order nonlin. 39745
Nd:YAG CW slave laser, phase locking by Nd:YAG master oscillator 31278
Nd:YAG LD pumped laser, eye-safe 1.443 μm wavelength 7587
Nd:YAG, LD-pumped microchip, sens. appls. 17863
Nd:YAG LTN-404-1A laser, radiation beam positional stabil. 39718
Nd:YAG Q-switched CW pumped laser, math. modeling 1895
Nd:YAG Q-switched diode-pumped laser, freq. conversion 31268
Nd:YAG Q-switched laser, Cr^{3+}:YAG saturable absorber 40064
Nd:YAG Q-switched laser Raman conversion, backward SBS 23174
Nd:YAG Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
Nd:YAG TEM_{00} diode-laser-pumped Q-switched laser 31302
Nd:YAG TEM_{00}-mode diode-laser-pumped CW miniature-slab laser 31300
Nd:YAG act. mode-locked pulsed laser, long ultrashort pulse train generation 14826
Nd:YAG birefr. microchip laser used in heterodyne vibrometry 23481
Nd:YAG cw ring laser, intracavity freq. doubling by KTP cryst. 39726
Nd:YAG diode pumped regenerative amp. for picosecond pulses 1896
Nd:YAG diode-pumped laser driver for X-ray projection lithog. 31270
Nd:YAG diode-pumped laser single-mode operation by pump-beam focusing 14820
Nd:YAG diode-pumped miniature slab laser 31250
Nd:YAG diode-pumped nonplanar ring laser, intens. noise suppression 15004
Nd:YAG diode-pumped solid-state lasers, kilowatt av. power 31269
Nd:YAG double-pass laser amp., NLC phase-conjug. mirror 7600
Nd:YAG doubled laser stabilisation, I_2 transit. absol. freq. meas. 25984
Nd:YAG flashlamp-pumped pulsed lasers, SHG 31272
Nd:YAG four-pass laser amp., phase conjug. NLC mirror 23160
Nd:YAG freq.-doubled laser stabil. *(Chinese)* 14794
Nd:YAG high-power solid state lasers, improved beam quality 31262
Nd:YAG injection-locked solid-state laser, freq. and intens. noise 31245
Nd:YAG lamp-pumped laser, opt.-Kerr-enhanced mode locking 23179
Nd:YAG laser, 3.35 μm intracavity difference freq. generator 40054
Nd:YAG laser beam, self-pumped phase conjug. in NLC, feedback 31548
Nd:YAG laser cavity decay rate and relax. oscill. freq. 23166
Nd:YAG laser, chromatic coupling by multiple LD pumps 31247
Nd:YAG laser commun. syst., PPM commun. optim. 17301
Nd:YAG laser cryst., parametric pass. phase conjug. 2118
Nd:YAG laser, diffractive-optic graded-phase resonator, modal props. meas. 39740
Nd:YAG laser, diode-pumped, Q-switching study 31299
Nd:YAG laser, diode-pumped nonlin. mirror mode-locked 1897
Nd:YAG laser, eye-safe compact Mie scatt. lidar 18908
Nd:YAG laser, intracavity freq. doubling, KTP cryst. 7598
Nd:YAG laser, pumped, LiF:F_2 pass. opt. Q-switches 31309
Nd:YAG laser, pumped, pulsed RT operation 23167
Nd:YAG laser, quasi-CW LD array pumped, absorpt. efficiency control method *(Japanese)* 31307
Nd:YAG laser radar for wide-area fire detect. 17451
Nd:YAG laser resonator with internal phase gratings, high modal discrim. 14783
Nd:YAG laser welder beam charact. meas. 7722
Nd:YAG lasers, all-solid-state single-mode sum-freq. generation 23364
Nd:YAG lasers, automated resistor trimming *(German)* 6438
Nd:YAG lasers, graded reflectivity mirrors 31275
Nd:YAG lasers, transm. props. in fibers, beam and output params. 30853
Nd:YAG mode-locked diode end-pumped laser, spatial hole burning effects 23150
Nd:YAG mode-locked laser antiresonant Fabry-Perot saturable semicond. absorbers 31244
Nd:YAG monolithic laser, diode pumped, power scaling 31297
Nd:YAG pass. Q switched laser, double pulse operation 31305
Nd:YAG pass. Q-switched quasicontinuously pumped laser 31274
Nd:YAG pass. Q-switched transverse-diode-pumped laser oscillator *(Chinese)* 14797
Nd:YAG periodical Q-switch lasers, pulse duration, output power 31271
Nd:YAG pulsed kilowatt lasers, fibre optic beam delivery syst. 31263
Nd:YAG ring laser, chaos, dyn. and spectral charact. 40020

solid lasers continued
Nd:YAG ring laser freq. stabil., interferometric gravit. wave detector light source appl. 31301
Nd:YAG, saturable amp., pulsed phase conjug. modeling 2065
Nd:YAG slab laser, LD array side-pumped, output power *(Chinese)* 39724
Nd:YAG tunable laser, diode end-pumped 7578
Nd:YAG, ultrashort pulsed laser, emission dyn. control 1884
Nd:YAG unstable multirod lasers, variable reflectivity mirrors 31267
Nd:YAG/CO_2 laser three-color opt. range finding 7863
Nd:YAG($YAlO_3$), efficient high-power laser operation 31264
Nd:YAG. UV laser commun. syst., short range appls. 3582
Nd:$YAl_3(BO_3)_4$ self-doubling lasers, LD pumped *(Chinese)* 1885
Nd:$YAlO_3$ 125 W laser, SBS phase conjugation 31266
Nd:$YAlO_3$(YAG) laser, pass. mode-locking, CuInSSe-doped glass saturable absorbers 7726
Nd:YLF, additive-pulse mode-locked laser, diode pumped, pulse compression 31298
Nd:YLF all-solid-state self-mode locking laser 23141
Nd:YLF laser, antiresonant Fabry-Perot quantum well modulator 31243
Nd:YLF laser, chromatic coupling by multiple LD pumps 31247
Nd:YLF laser pumped by LD for 1.3/μm opt. fiber amp. *(Japanese)* 42465
Nd:YLF long. end-diode-pumped regenerative amp. 23168
Nd:$YLiF_4$, excited-state-absorpt./upconversion 23154
Nd:YVO_4 all-solid-state intracavity freq. doubled laser *(Chinese)* 7602
Nd:YVO_4 coupled-cavity electro-opt. Q-switched microchip lasers 39743
Nd:YVO_4 cryst. laser charact., LD pumping *(Chinese)* 14795
Nd:YVO_4 diode-pumped microchip amp., efficient DFWM 40080
Nd:YVO_4 high-efficiency TEM_{00} laser long. pumped by high-power array 23169
Nd:YVO_4 laser, diode laser end pumped *(Chinese)* 7603
Nd:YVO_4, laser host crysts., growth, opt. props. 1905
Nd:YVO_4 miniature microchip laser modes *(Japanese)* 14823
Nd:YVO_4 slab laser, diode-pumped, high-repetition-rate 1919
Nd:YVO_4 solid-state laser, Ti:sapphire laser pumped *(Chinese)* 14796
Nd:glass Nova laser for inertial fusion expts. 1899
Nd:glass all-solid-state laser syst. pulses, tunable by down conversion 14779
Nd:glass amps., sub-100-TW femtosecond pulse amplif. 31252
Nd:glass burst laser, output power 23162
Nd:glass compact X-ray lasers 23143
Nd:glass diffr.-limited laser amp., SBS wavefront correction 23144
Nd:glass fiber laser, cladding-pumping 23128
Nd:glass high power laser reasearch 31261
Nd:glass high-power laser, composite aperture/phase-conjug. mirrors 7597
Nd:glass laser amps. using electro-polished Al reflectors, gain enhancement 1894
Nd:glass laser higher-order harmonic generation, phase matching effects 15102
Nd:glass laser pulse duration meas. 31465
Nd:glass laser pulse shortening by gain reshaping and soliton form. 23153
Nd:glass laser pulses, KDP freq. doubling 31511
Nd:glass lasers, thermal gratings, DFWM 23407
Nd:glass ring laser single freq. operation, acousto opt. induced 23140
Nd:glass ultraintense laser pulses, highly efficient SHG 31498
Nd:glass($LiNbO_3$) waveguide lasers 31303
Nd:phosphate glass laser, thermal effects on lasing charact. *(Korean)* 14777
Nd^{3+}:$KY(MoO_4)_2$ ribbon and sheet miniature cryst. lasers 23158
Nd^{3+}:$La_3Ga_5SiO_{14}$, broadband luminesc. material, ps laser pulse generation 14805
Nd^{3+}:YAG DFB lasers, modulation bandwidth, nonlin. effects influence 23341
Nd^{3+}:YAG laser, intracavity adaptive opt. syst. 31276
Nd^{3+}:YAG laser, low dose electron and gamma-ray irrad. effects 23159
Nd^{3+}:YAG pulsed laser beam materials proc. *(Japanese)* 7870
Nd^{3+}:YAG pulsed laser, design and charact. *(Chinese)* 14802
Nd^{3+}:YLF laser, chirp diagnosis, nonlin. Kerr coeff. 23338
Nd-doped high birefr. Bragg grating single-polariz. fiber lasers 39693
Nd-doped lasers, nanosecond polymer pass. switch develop. 39746
Nd-doped phosphate glass waveguide laser, pass. Q-switched 1917
Nd-doped silica planar waveguide lasers fabricated by flame hydrolysis deposition/RIE 31260
Nd-glass laser, polariz. collapse of radiation 14824
Ni^{2+}:$Gd_3Ga_5O_{12}$ pulsed laser operation 23155
Pb salt tunable IR lasers, spectroscopy appls. 14791
Pr^{3+}:$LaCl_3$ IR laser emissions on Tm:YAG pumping 14822
Pr^{3+}:$LiYF_4$, IR-blue wavelength upconversion 7589
Pr^{3+}:YIG, IR-blue wavelength upconversion 7589
$SrGdGa_3O_7$:Nd laser, diode-laser pumping 23139
Ti,Er:$LiNbO_3$ harmonically mode-locked waveguide laser 39736
Ti doped sapphire laser, femtosecond pulses generation 1911
Ti:Al_2O_3, Kerr-lens mode-locked femtosecond lasers, dispersion-compensation 1889
Ti:Al_2O_3 high av. power chirped pulse amplif. systs. 31284
Ti:Al_2O_3 laser cryst. conc. quenching and mechanism of reson. energy transferring *(Chinese)* 15065
Ti:Al_2O_3 laser, flash-lamp-pumped, hybrid mode locking 1918
Ti:Al_2O_3, self-modelocked femtosecond solid-state lasers 14815
Ti:S cryst. multipass laser amplifer 31286
Ti:sapphire CW laser perform., high fig. of merit 1908
Ti:sapphire CW mode-locked laser, tunable UV light pulse prod. 23148
Ti:sapphire Los Alamos short-pulse/high-intens. lasers 1898
Ti:sapphire Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
Ti:sapphire amp. syst., midinfrared femtosecond pulses 15049
Ti:sapphire chirped pulse amplif. beyond 1 μm 31258
Ti:sapphire chirped-pulse amplif. beyond 1 μm 23178
Ti:sapphire compact 24-kHz laser, Cu-laser-pumped 39735
Ti:sapphire compact multiterawatt ultrashort pulse laser oscillator/amplifer syst. 31285
Ti:sapphire compact tunable laser design 23180
Ti:sapphire dual-cavity-type pulsed laser oscillator, self-seeding 39741
Ti:sapphire flashlamp pumped laser, two-wavelength pulsed operation 31242
Ti:sapphire fs laser amp., tuning range extension 14808
Ti:sapphire fs laser pulse SHG 23173
Ti:sapphire fs laser pulse parametric conversion, 1 kHz 14782
Ti:sapphire fs laser pulse space-time focusing 23182
Ti:sapphire high intens. femtosecond laser syst. *(French)* 1891
Ti:sapphire laser 20 fs chirped pulse amplif. 31257
Ti:sapphire laser, FM operation 31254
Ti:sapphire laser amplifer/pulse compressor, gain-narrowing limit 23151
Ti:sapphire laser, femtosecond modelocked, FEL sync. 31280

solid lasers continued
Ti:sapphire laser, femtosecond pulse phase and intens. characterisation 31477
Ti:sapphire laser freq.-doubled femtosecond pulses for parametric light generation 23419
Ti:sapphire laser, high-repetition-rate femtosecond mid-IR pulse generation 31574
Ti:sapphire laser, low-threshold, self-modelocked 31253
Ti:sapphire laser modulation procs. and radiation charact. 7601
Ti:sapphire laser, self-mode-locked 1920
Ti:sapphire laser, self-starting, femtosecond pulse generation 1890
Ti:sapphire laser syst., single long. mode Littman config. *(Chinese)* 14798
Ti:sapphire laser, tunable, laser pumped, time charact. *(Chinese)* 39723
Ti:sapphire laser wavelengths, nonlin. conversion 40061
Ti:sapphire mode-locked laser, dye intracavity saturable absorpt. 23352
Ti:sapphire pulse stretcher-compressor in chirped pulse amplif. 31287
Ti:sapphire pulsed laser, high-efficiency SHG in β-BaB_2O_4 cryst. 40034
Ti:sapphire regenerative amp. for ultrashort high-power multi-kHz pulses 31251
Ti:sapphire regenerative amp., tunable 30-fs pulses 39739
Ti:sapphire regenerative amp., tunable femtosecond opt. parametric amp. 2130
Ti:sapphire ring laser with four mirrors, CW freq. stabilisation *(Chinese)* 14801
Ti:sapphire self mode locked laser ultrashort opt. waveform meas. by FROG 39744
Ti:sapphire self-mode-locked laser *(Chinese)* 14803
Ti:sapphire self-mode-locking laser description by iter. map 39752
Ti:sapphire self-starting soliton modelocked laser, semicond. saturable absorber 23176
Ti:sapphire sub-10-fs mirror-dispersion-controlled laser 39738
Ti:sapphire tunable laser, $KNbO_3$ in external cavity, freq. doubling 1892
Ti:sapphire ultrashort laser pulse compression, single shot meas. 23152
Ti:sapphire ultrashort laser pulse intens./phase meas. 14778
Ti:sapphire ultrashort pulse lasers, cubic phase compensation 31279
Ti:sapphire/DDI ps cw pass. mode-locked laser starting dyn. 23171
Ti:sapphire/Nd mixed glass laser, 250-fs pulse generation 31256
Ti:sapphire/Nd:YAG laser syst., high power tunable femtosecond light prod. 23149
Ti^{3+}:Al_2O_3 mode-locked lasers, fs pulse phase meas. *(Japanese)* 14776
Tm,Cr:$Y_3Al_5O_{12}$ laser, Ho:$YLiF_4$ saturable absorber Q-switch 15055
Tm,Cr,Ho:YAG eye-safe pulsed laser and study of radiation absorpt. by mol. gases and air 14790
Tm,Ho mid-IR lasers, LD pumped, for med. appls. 31308
Tm^{3+},Cr^{4+},Ca^{2+}:YAG 2 μm laser, luminesc. sensitisation 14806
Tm^{3+},Fe^{3+}:garnet 2 μm laser, Fe sensitization 31273
Tm:$YAlO_3$ 1.94-μm laser, biomedical appls. 39731
Tm:YVO_4 microchip laser pumping schemes 39721
Tm^{3+}:$Sr_2Y_8(SiO_4)_6O_2$, RT CW laser efficiency , spectrosc. charact. 14837
Tm^{3+}:Y_2SiO_5, RT CW laser efficiency , spectrosc. charact. 14837
U^{4+}:SrF_2, saturable absorber Q-switch materials for solid state lasers 14838
Xe lamp pulse power-pumped Nd:glass laser, crack mechanisms 31457
Yb,Er:phosphate glass, pop. dyn., Nd laser pumping 23163
Yb^{3+},Er^{3+}:$Sr_2Y_8(SiO_4)_6O_2$, RT CW laser efficiency , spectrosc. charact. 14837
Yb^{3+},Er^{3+}:Y_2SiO_5, RT CW laser efficiency , spectrosc. charact. 14837
Yb:Er:$Y_3Al_5O_{12}$ waveguide laser, low threshold, RT 1.64 μm operation 7604
Yb:$LiNbO_3$, waveguide laser, energy levels and spectra 14835
Yb:$Sr_5(PO_4)_3F$ 1.047-μm energy storage opt. amp. 39730
Yb:YAG waveguide laser, diode pumped, fab. and characterisation 31296
Yb:YAG waveguide laser, epitaxially grown, diode pumped, high slope efficiency and low threshold 14833
Yb^{3+}:YAG laser, CW tunable, Ti:sapphire pump 39751

solid modelling
3D illuminance anal. syst., ray tracing method *(Japanese)* 42880
3D semicond. proc. and device simul., solid modeling 1482
algms. for intersecting parametric and alg. curves, multiple intersections 37332
biological body internal field matrix perturb. computation 26367
brain blood vessel catheter, teleoperation 10255
CAD-based vision, conf., Champion, IL, USA (Feb 1994) 36878
diaphragms, electrostatically deformed, self-consistent simul. and modelling 30499
electronic chassis, rapid prototyping pilot 28499
evidential reasoning approach for recognizing shape 32962
finite elements devel. 280
heart, human, dyn. electrophysiological data visualization, 3D model 26439
helicopter 3D automatic FDTD mesh generation 26528
mobile radio microcell planning, 3D propag. models *(German)* 25336
model based 3-D obj. recogn., intens. and range images 16275
semicond. wafer CAD, C++ design and implement. 12293
tetrahedral mesh generation by Delaunay triangulation 20635
topol. reconstruction, smooth manifold solid from occluding contour 24437
true 3-D digital video effects proc., real-time computer graphics 41201
VLSI proc. and device simul., solid models 22537
GaAs serial dyn./static divider for solid modelling accelerator 29129
GaAs/BiCMOS/CMOS technol. memory archit., solid modelling accelerator 29214

solid phase epitaxial growth
silicide thin film form. by RTP, ULSI appls., overview 22275
γ-Al_2O_3, form. from pulsed-laser irrad. sapphire 12037
$BaTiO_3$ films on Si, heteroepitaxial growth by pulsed laser deposition 28757
$CoSi_2$-Si heterostruct., solid state epitaxial growth from Co-Ti-Si multilayer 37419
$CrSi_2$/Si(111), monotype domains, SPE on vicinal surface 5832
Ge SPE on Si(111), preferential growth 28772
Ge δ-layers on Si(111), interface roughening 38522
Ge/Si(111) SPE, STM obs. 20707
Ge/Si(111), SPE, interface struct., medium-energy ion scatt. 37404
InAsP-InP quantum wells/PIN diodes, growth/charactn. 12058
$In_xGa_{1-x}As$/GaAs(001), epitaxial growth, 2D-3D growth mode transit. 28755
InP:Fe epilayers, buried layers by Fe implantation 13286
PZT films, sol-gel derived, solid phase epitaxial growth 28731
Si, Er implant., solid phase epitaxial recrystn. 30015
a-Si, SPE on Si, STM obs. 20706
Si films, Ge-incorp., lateral SPE 20861
Si layers, nanosecond laser radiation, surface morph., struct. modif. 28761
Si, polycryst. thin-film solar cells, solid phase crystn. 5214

solid phase epitaxial growth continued
Si:As RTA/furnace annealing, heating rate effects on defect distrib. 22100
Si:B, δ-doping, APCVD 22112
Si:Sn(001), strain determ. and microstructural charact. 22150
Si/Co/Ti bilayer syst., epitaxial $CoSi_2$ reactive form. 12094
Si-on-sapphire films, SPE, recrystn. by annealing, props. 22076
SiGe, SPE, comp. depend., time-resolved reflectivity meas. 38270
a-$Si_{1-x}Ge_x$ MBE films, solid phase crystn. 37437

solid phase epitaxy *see solid phase epitaxial growth*

solid scintillation detectors
4π charged-particle detector array operating charact. 18341
1024-channel scintillation hodoscope, setup and control software 4221
asymmetric Compton suppression spectrometer, Monte Carlo simul. 34975
BGO detector, $^{16}O(n,n'\gamma x)$, act. oxygen target 18360
BGO detector, on-line capture γ-ray spectrometer, explosive detect. 34971
blue scintillating fibres, radiation damage induced by thermal neutrons 26220
BNL scintillation detector, unique geom. 43121
CDF End Plug Upgrade Project 26187
charge-coupled X-ray detectors, efficiency, point-spread fn. 18396
CHORUS detector for neutrino oscills., scintillating fiber trackers 10121
Compton suppression shield in low-level γ-spectrosc., background changes 10152
conference, high energy physics calorimetry, Italy (Sept. 1993) 20228
coord. charact. of modular gamma detector, 75-mm cell 4220
crit. alarm syst. for Fernald Environmental Management Project 4225
cryst. EM calorimeter for future colliders 26197
cryst. γ-ray detectors for high energy phys., design 4207
cylindrical detectors, large, pulse risetime 26134
D0 tracker upgrade, B phys. projections 4180
D0 upgrade, scintillating fiber detectors 4155
deuterated scintillator response fn. meas., ^{241}Am-Be source 18332
diamond scintillation detectors, charged particle detect. 34890
doped scintillating-fiber bundle particle detectors, cross talk 43108
double beta decay meas., prototype tracking detector, NEMO 26124
fast sig. proc. for NaI(Tl) detectors 26242
fast-RICH prototype with VLSI readout, beam tests 4164
FERMI neutron and gamma detector for cold fusion expts. 34943
fiber detectors, relativistic HI cross sect. 43112
fiber for ZEUS barrel calorimeter shower max. detector 26120
fiber neutron detector for fusion reactor plasma diagnostics 26146
fiber sampling calorimeter, high resol. for CHORUS expt. 26201
fiber scintillating detectors appls. 4197
fiber scintillating imaging detector for ICF neutrons 4198
fiber sens., ^{90}Sr and ^{238}U det., contaminated soil surface 4407
fiber-to-fiber connectors for scintillating tile/fiber calorimeters 43118
fibers, scintill., wavelength-shifting, clear fibers, fluores. yield, γ-irrad. 26223
fibre calorimetry, energy resol., response uniformity 26200
fibre calorimetry, H1 backward EM calorimeter, HERA 26183
fibre neutron detector for TFTR, DT operation 26147
fine mesh photomultipliers, perform. tests, 1.2 T 21860
fully projective lead and scintillating fibre calorimeter 26199
gamma camera, high energy, multiple hole collimator/PMT based 18406
gamma-ray spectrometer, data acquisition syst. 34969
gamma-vision camera, contamin. monitoring of γ-radioact. objs. 26230
GAMMASPHERE, BGO Compton-suppress. shield, Ge detector 18400
gas photomultipliers, scintillators/Cherenkov detector readout 26175
GEM detector syst., COSY accelerator, Ge wall 43113
GSO scintillator, neutron detect., thermal neutron capture 18330
H1 detector, lead scintillating fiber calorimeter 26182
high perform. scintillators, radiation resistant materials 26217
high precision cathode strip chamber, plastic streamer tubes 26128
HPC second level trigger, DELPHI 26191
ICF implosions, MEDUSA large scintillator arrays 26168
imaging plate X-ray detectors, BaF(Br,I):Eu phosphors 26257
imaging Si pixel array based posn.-sensitive photon detector 34514
INDRA 4π detector, design, phys. program 34898
ITER tokamak reactor, α-particle spectrometer, scintillation detector 4228
KEDR tagging syst. for two-photon phys., VEPP-4M 34924
KLOE detector, lead-scintillating fiber calorimeter prototypes 26125
KLOE EM calorimeter, blue scintillating fibres tests 26185
L3 TEC track resoln. improvement, vertex *(Chinese)* 4223
LAGRANGE detector, ESRF 34917
Large Acceptance Detector System, pion absorpt. studies 34912
LHC detectors and calorimeters 34902
low activity scintillators, dark matter search 34915
multi-bundle shashlik calorimeter prototypes beam-test results 26123
multidetector photon intens. interferometry 10113
neutral meson spectrometer at LAMPF, perform. checks 34963
particle colliders, tracking and pattern recogn. 4112
Phenix EM calorimeter, main 26189
Phoswich detector test, HI beams, PILOT-U, NE115 *(Chinese)* 26111
plastic scintill. counters for multichannel TOF syst., time resol. 18303
plastic scintillating opt. fibers, high energy CT imaging 4259
plastic scintillating opt. fibers, small animal whole body imaging 4162
plastic scintillation detector, γ-spectra, unfolding anal. *(Korean)* 18301
plastic scintillator plates, wavelength shifting fibers, low dose rate tests 26219
plastic scintillator/Cerenkov radiator detector atten. 26115
plastic scintillators, radiation stabil., polymer design 26215
plastic scintillators, Y-12 plant crit. accident alarm syst. detectors, testing 4226
radiative muon capture spectrometer, TRIUMF 34964
Reconfigurable-Stack Calorimeter, compensation, low-Z cladding layers 26184
scintillating fiber arrays, posn.-sensitive photomultiplier readout 43119
scintillating fiber detector, energy resoln. 4161
scintillating fibers as particle detectors, MOON project 34920
scintillating tile hodoscope with WLS fibre readout 34928
scintillating-fiber hodoscope, multi-anode photomultiplier readout 43120
scintillator-fiber syst. for calorimetry, radiation damage 26227
SDC barrel/endcap calorimeters, decay time, light yield, rad. damage 26226
SDC Level-1 calorimeter trigger 26192
Shashlik calorimeter, radiation hardness 26228
Shashlik calorimeter, WLS fibres readout by photodiode matrix 26176
Shashlik scintillator/lead sandwich calorimeter for CMS 26181
SIS, beam profile monitor for HI beams 4052
SPAKEBAB project, high resoln. EM calorimeter studies 26210
SPHERE spectrometer, calorimetry develop. for relativistic nuclei 26206

solid scintillation detectors continued
SSC, plastic scintillator develop. 26216
STIC, DELPHI lumin. monitor 26093
stilbene scintillator detector, calib., Be(d,n) neutron spectra 18365
TAGS, β^--decay intens. distribs. meas. 10153
thin plastic scintillator, mirror focused HI TOF appl. 34938
thin plastic scintillator foils, prod., thickness determ. 34923
TIGRE, Tracking/Imaging Gamma Ray Experiment (1, 100 MeV) 18412
tile/fiber scintillator calorimeter, electron irrad. damage *(Chinese)* 10129
tile/fiber syst., CDF plug upgrade EM calorimeter 26162
TILECAL Barrel hadron calorimeter, radiation damage effects 26229
TOPAZ forward calorimeter at TRISTAN, lumin. meas. 34895
tracking devices at future colliders, readout and data acquisition 4232
VEPP T_{20} expt., detector setup 34919
very high gain APD, radiation detect. 14601
video/gamma ray imaging syst., nuc. indust. robot appl. 19399
vis. light photon counters, high quantum efficiency photodetectors 4160
wavelength shifter, scintillator, dose rate 26218
well logging, elemental anal., natural gamma-ray spectrosc. 18795
ZEUS calorimeter, perform. 26186
ZEUS expt., forward neutron calorimeter test 26132
γ/π^0 shower separation, tile-scintillator shower max. detector 26127
Ar solid scintillator, CsI photocathode 18313
BGO block detectors, 144-/256-cryst., testing, PET appl. 43225
BaF_2 calorimeter, cryst. props., detector possibil. 26195
BaF_2 cryst., slow component suppression, SrF_2/MgF_2 crysts. 18308
BaF_2 scintillator, spillover quantification, $\alpha/\beta(\gamma)$ discrim. 18307
BaF_2-TMAE detector for PET, perform. 10211
CaF_2, scintillator, dark matter search 4224
Ce-doped scintillating-glass-fiber neutron sens. 18327
CeF_3 scintillator for high speed dyn. PET imaging, perform. 10212
CsI photodiode detectors for gamma rays and their clinical appls. 18469
CsI pure crysts., APD, fast low noise readout 26177
CsI:Tl, struct. film, med. radiation imaging appl. 43231
CsI(Tl) detector light output, pulse time gate effect 4174
CsI(Tl) photon detector for KEK E246 expt. 34918
CsI(Tl) pixellated arrays, posn.-sensitive PMT readout 18354
CsI(Tl)/Si-photodiode detector, X-ray sig. pulse shape anal. 18311
Fe/scintillating tiles hadron calorimeter, preliminary results 26190
GaGe CompuScope 1012 computer-based oscilloscope for spectrosc. 18402
Gd_2SiO_5:Ce, scintillation crysts., γ-ray detect. 4206
HgI_2 photodetectors combined, scintillators for gamma-ray spectrosc. 18312
Kr solid scintillator, CsI photocathode 18313
Li-glass detector, calib. for neutron energies above 50 keV 10123
(^{7}Li,^{7}Be), γ-ray coincidence timing, BGO detector array 18306
LiF:Mg,Ti (DTG-4), thermoluminesc. dosimetric characts. 10293
NaI PET detectors, correction of distortions in discontinuous image 18467
NaI(Tl) detector, 0.66 MeV γ-detect., photomultipliers with MCP 38221
NaI(Tl) γ-spectrometer, 9″×9″ well-type, low level perform. 10151
NaI(Tl) scintillation detector, radiation levels 4222
NaI(Tl) scintillator, combined full energy peaks 34901
NaI(Tl) scintillator, proton beam energy meas. 4163
NaI(Tl)/plastic detectors, liq. waste disposal site 18361
NaI(Tl)-detector, γ-ray spectrometers, background spectrum, cosmic muons contrib. 10158
Pb scintillating fiber calorimetry, 20 MeV-1.2 GeV range 26209
Pb scintillating fibers, gamma-ray telescope, GILDA mission 26138
Pb scintillating fibre calorimeter, radiation resist. 26222
Pb/scintillating fiber calorimeters, projective, electron-pion discrimin. 26188
Pb-scintillating fiber calorimeters, electron irrad. damage 26221
$PbWO_4$ cryst. calorimeter for CMS, LHC 26198
$PbWO_4$-based EM calorimeter, electron beam tests 26194
Rn low level detect., Lucas scintillation cell, efficiency 18362
a-Si:H/CsI(Tl) X-ray detectors for radiation monitoring 43161
Th(BrI), photodetectors for scintillation spectrometers 43092
$TlBr_xI_{1-x}$ photodetectors for scintillation spectrosc., eval., prep. 10128
Xe solid scintillator, CsI photocathode 18313

solid solution hardening
BiPbSrCaCuO/Ag tape, microstruct./supercond. props., Ag sheath alloying effect 39239

solid-state microwave circuits *see microwave circuits*

solid-state microwave devices *see microwave devices*

solid-state nuclear track detectors
CR-39, electrochem. etched, crit. angle of incidence 10135
CR-39, particle ident., pit etching method 10136
CR-39 detector, etch-pit rad. growth curve 10137
CR-39 detector, sensitivity, elec. field effects 43133
CR-39 detector, sensitivity study, background track reduct., α detect. 43134
Cr-39 detectors, alpha/fission track radiation effects 26232
Cr-39 detectors, energetic ^{132}Xe ion track lengths 26231
CR-39 detectors, sensitivity enhancement, etching effects 43132
CR-39 dosemeter, wide-range neutron dose determ. 43395
CR-39 track detector, multi-field eval., pass. pers. dosemeter 10134
etch detectors 4233
Hiroshima/Nagasaki, posteriori track recorder neutron dosimetry 10295
LR-115 detector, calibr., secondary std. Rn detector 34947
MACRO, upward-going muons 43135
Makrofol, electrochem. etched, crit. angle of incidence 10135
neutron dosimeter develop., CR-39 detector 26495
neutron monitoring outside BWR biological shielding 34921
TIGRE, Tracking/Imaging Gamma Ray Experiment (1, 100 MeV) 18412
ventilation rate, equilib. factor meas., Rn study 10126
PbI_2, high energy γ-ray detector appl. 43093
Rn exposure, polycarbonate etched track detector calib. 18379

solid-state plasma
see also helicons; plasmons; semiconductor plasma
semiconductor structures, oscill. transport instabilities, current filamentation 22338
Si mesoscopic struct., α particle ionisation, Monte Carlo study 1457
GaSb QW struct., highly excited, opt. absorpt. and refr. spectra 13185
$In_{0.53}Ga_{0.47}As$-InP reson. plasma waveguide modulator for mid IR 1734
InGaAsP/InGaAsP multiquantum well waveguide, nonlin., bias depend. recovery time 1717
ZnCdSe-ZnSe superlattices, stimulated blue light emission mechanisms *(Japanese)* 38340

solid-state rectifiers
see also thyristors
50 Hz supercond. rectifier, transformer and switch charact. 1637
DC motor, HV input, rectifier-chopper control 27753

solid-state rectifiers continued
epitaxial diamond Schottky barrier diode, fab., characts. 22350
intell. building, electro-mag. interf. 8004
pulsed power nanosecond semicond. opening switch develop. 36263
Schottky rectifier, trench sidewall, jn.-barrier-control 38796
semicond. rectification devices, dyn. params. meas. 30216
trench MOS barrier Schottky rectifier, breakdown voltage 38810
InGaAs/InAlAs heterobarrier diodes, delta doping enhancement 30221
SiC p-n struct., power rectifiers 30226
SiC:Al HV rectifiers, expts. and simul. 1346

solid-state relays *see semiconductor relays*

solions *see transducers*

solitons
see also optical solitons
chem. waveguide theory, dispersion characts. 8016
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
Josephson jn., fluxon chain, deform.-wave excitation 14305
long Josephson jn. maser, microwave radiation stimulated emission 39632
nonlin. lossless transm. lines and equiv. ccts. anal. 31879
nonlin. transm. lines, solitary waves modelling 23754
transm. on opt. fibres *(English, French)* 42342
YIG cascaded magnetostatic soliton waveguide, short pulses 30753

sols
see also colloids; sedimentation; sol-gel processing
organically-modified sol-gels, opt. limiting study 31588

solvability *see computability*

somatosensory phenomena
see also mechanoception
discrim. task, evoked spatio-temporal cortical patterns 43309

sonar
see also bioacoustics; navigation; sonar arrays; sonar signal processing; sonar target recognition; sonar tracking; underwater sound
acoustic flucts. reduction, astron. adaptive optics *(English)* 25590
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
autonomous underwater vehicle for geophys. study 10528
autonomous underwater vehicle navig., sparse ref. points 34171
AUVs, very-long baseline acoustic positioning syst. 25603
broadband sonar, simple rels., freq. and range av. 25599
conference, underwater acoustics, Luxembourg (Sept. 1992) 5500
continuous transm. FM sonar, synthetic aperture proc. *(French)* 25591
dairy cow oestrus detect., intell. syst. 9820
deep tow multibeam echo-sounder, first results 26758
directional PE wavefield method, obj. location 43560
Doppler sodar, atmos. wind meas. 18832
Doppler sonar navig., matrix algm. 34170
future sonar transducers, transduction materials modeling 9662
graphical display influence of ship speed *(Croatian)* 3633
integrated positioning syst. for underwater autonomous vehicle MT-88 25600
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
marine pollution monitoring, acoustic methods 10507
mine counter measures, ocean bottom acoustic interacts. 18992
mobile robot navig., sonar range data segmentation 43561
mobile robot outdoor navig., tree detect./dead reckoning 41109
multifrequency AM-based US syst. for dist. meas. 17473
normal incidence echo-sounding, refl. and reverberation 4402
ocean acoustic scatter from mid-Atlantic ridge corners, CW and time-domain simul. 18882
ocean currents by acoustic doppler method, freq. domain 10503
ocean electronics, conf., Cochin, India (1991) 11591
ocean electronics, conf., Cochin, India (1993) 11590
ocean waveguide props., extraction, broadband pulse sigs. 18880
pass. sonar optimal struct. *(Croatian)* 3631
quantitat. seafloor charactn., bathymetric sidescan sonar 10558
ribbed cylindrical shells, ident. by acoustic Bragg diffr. patterns 17475
RMS Titanic survey expedition, towed sonar appl. 26756
seafloor exploration, deep tow sonar SAR/seismic streamer syst. 10437
seafloor sediment sonar profiler, obj. detect. 10435
seafloor sonar imaging, sidescan method 10493
seismic deep sea array for subbottom profiling, AUV syst. 18812
shallow-water fishing sonar param. optim. *(Croatian)* 3632
SS/FH multiuser radar/sonar, Welch-Costas arrays, props. 25582
submarine sonar dome, corrosivity meas., Dome Water Monitoring Instrumentation System 17676
surface relay buoys, underwater navig. techs. 25602
turbulent press. flucts. meas., buoyant vehicle, thin elastomer layer 17458
unmanned underwater surveillance vehicle systs. 9666
US Navy unmanned undersea vehicle navig. 35384
Pb(MgNbTi)O_3, relaxor ferroelec. for large strain sonar appl. 9670

sonar arrays
120° segmented circ. array for multibeam multifrequency bathymetry 17474
act. multi-static sonar acquisition/proc. syst. 9660
act. sonar, adaptive beamformer delay compensation 34168
act. sonar array for underwater imaging, self calib. *(French)* 17482
beam pattern disturbance of deformable supple array *(French)* 17483
beamformed towed array data, noise normalization tech. 40890
circ. sonar arrays, high-resoln. beamforming techs. 9667
contact detect. from multiple sens., data fusion 17489
deformable towed arrays, high freq. imaging calib. 9669
digital focused sonar beamformer, imaging syst. 9668
focused beamforming for underwater imaging 9661
focused underwater imaging, noncoherent approach 9671
holographic anal. of structural dyn. 17478
holographic array proc. algm., perform. eval. 34185
matched field proc. in shallow ocean, EM algm. 34179
matched field source localization, horiz. line array 17471
min. norm array proc. algm., phased array sonar 10534
multibeam sounder systs., multiplicative array techs. 17456
multiple acoustic sources, stabilized resoln., sector-focused proc. 42535
MVDR beamforming perform. improvement *(Chinese)* 17457
planar sonar arrays, beam-pattern design method 9654
seafloor sonar, French deep water multibeam echo sounder 26716
steered freq. source arrays, bistatic scatt. coeffs. 26757
submarines detect./location, sonar array studies 4438
torpedo transducer, automated calib. facility 10594
towed array, shape estim., dyn. model *(French)* 16035
underwater acoustics, source detect./localization, perform. *(French)* 16034
underwater moving sig. adaptive detect., hydroacoustic data 34175

sonar imaging
3D acoustic holography imaging syst., Walsh fn. modulation *(Japanese)* 17484
act. sonar array for underwater imaging, self calib. *(French)* 17482
activated towed array sonar displays image proc. 17486
attributed relational tree approach, sig. classif. 2806
autonomous underwater vehicles, sonar image reconstruction 8618
bathymetric simul. based on Kirchhoff scatt. and seafloor modeling 35345
bathymetry & sediments, multibeam sonar, mosaic computation 18807
bathymetry data postprocessing/corrections, sidescan sonar syst. 10560
beam pattern disturbance of deformable supple array *(French)* 17483
continuous transm. FM sonar, synthetic aperture proc. *(French)* 25591
digital focused sonar beamformer, imaging syst. 9668
fish shoal & plankton, sonar ident., MOVIES-B software 18889
focused beamforming for underwater imaging 9661
focused underwater imaging, noncoherent approach 9671
GLORIA images spatial filtering, speckle reduction/contrast enhancement 9674
multiaspect acoustic imaging systs. in plane layered medium 43520
ocean, biological deep scatt. layer by multibeam sonar 35338
pulse ident., auditory neuron simul. network 26747
robots, opt./acoustic range sens. 8620
seabed, nodule abundant areas, refl. sound charact. 43476
seafloor, sidescan sonar imaging, geometric corrections 26709
seafloor & fish acoustic backscatt., reverberation obs. 26745
seafloor class., wideband sonar method 18814
seafloor exploration, deep tow sonar SAR/seismic streamer syst. 10437
seafloor imaging, sonar sig. proc., tangent clusters 18810
seafloor imaging by side scan sonar, DELPH-SONAR proc. 18806
seafloor imaging by side scan sonar, shade correction 18808
seafloor imaging by sonar, azimuth resoln. increase 18853
seafloor imaging sonar, digital sidescan archit. 10436
seafloor mapping, ACID synthetic aperture sonar 18852
seafloor obj. detect. by sonar, nonlin. interact. 10442
seafloor sonar, French deep water multibeam echo sounder 26716
seafloor sonar, multibeam wide swath imaging, coverage 26713
seafloor sonar equipt., Shirshov Oceanology Inst. 10514
seafloor sonar imagery, wide swath, return angle estim. 26715
seafloor sonar imaging, French wide swath systs. 26714
seafloor sonar scatt. at 40 kHz, monostatic & bistatic 18802
sector-scan sonar image seqs., robust class. 17491
seismic deep sea array for subbottom profiling, AUV syst. 18812
side scan sonar, deformable towed arrays, calib. methods 9669
side-scan sonar images classif. via parametric modeling 17487
spatial-point proc. model, texture class. 34183
synthetic images of proud targets 17485
towed ocean bottom instrum. image proc. 26728
underwater tubular struct. posn. determ. 10533
US 3D camera, obj. recogn. tech. 10530

sonar signal processing
see also sonar imaging
acoustical scatt. from fish, reson. signature charact. 17476
act. multi-static sonar acquisition/proc. syst. 9660
act. sonar, adaptive beamformer delay compensation 34168
act. sonar, adaptive waveform selection 34173
act. sonar, lin. FM waveforms detect. 9675
act. sonar class., bearing meas. 34184
adaptive beamforming, systolic spatial proc. tech. 25598
airborne US rangefinders, adaptive target tracking algms. 42533
automatic object recognition, conf., Orlando, USA (1994). 54
bathymetry & sediments, multibeam sonar, mosaic computation 18807
bathymetry data postprocessing/corrections, sidescan sonar syst. 10560
BBN advanced acoustic proc. family, overview 9664
beamformed towed array data, noise normalization tech. 40890
beamforming techs. for circ. sonar arrays 9667
contact detect. from multiple sens., data fusion 17489
detect. algms. improvement for hydroacoustic sigs. 42531
direction finding, large arrays/finite data, perform. anal. 32555
fast beamforming algm. 8375
filtering, transform 8320
fish & seafloor characterisation, non-uniform ambient noise 18805
fish shoal & plankton, sonar ident., MOVIES-B software 18889
focused underwater imaging, noncoherent approach 9671
global inversion, genetic algms. 17468
high resoln. space-time anal. by act. array *(French)* 41034
holographic array proc. algm., perform. eval. 34185
incoherent and skewness matched filter detectors, multipath environ. 24174
lin. freq. modulated waveforms detect. in dispersive channels 16066
lofargram lines detect., unsupervised neural networks 34174
maneuvering target, underwater tracking, time delay meas. 25594
maneuvering target motion anal., HMM 34177
matched field proc., sector focusing 17465
matched field proc. benchmark problems 17464
matched field proc. in shallow ocean, EM algm. 34179
matched field source localization, horiz. line array 17471
matched mode proc., parab. eqn. 17467
matched-field proc., effect of internal waves 3634
min. robust matched field proc. perform. 17469
model-based sig. enhancement for Hudson Canyon expt. 17472
moving target in ocean waveguide, sonar echo simul. 34169
multibeam echo-sounder sig. anal., deep seafloor appl. 35340
multibeam sounder systs., multiplicative array techs. 17456
multiple acoustic sources, stabilized resoln., sector-focused proc. 42535
multiple constraint matched field proc. advantages 17466
MVDR beamforming perform. improvement *(Chinese)* 17457
ocean, biological deep scatt. layer by multibeam sonar 35338
ocean acoustic DP, Thalassa II ocean research vessel 10494
pass. sonar sig. proc., ocean acoustic source localisation 25597
pass. sonar sig. proc., probab. modeling and Bayesian inversion 25596
pass. sonar time delay estim. 9655
pass. target class., integrated approach 34176
phase-only multidimensional spatio-temporal anal. for moving sources 40995
planar sonar arrays, beam-pattern design method 9654
pulse ident., auditory neuron simul. network 26747
real-time narrowband beamforming, efficient archit. 9676
seafloor class., wideband sonar method 18814
seafloor imaging, side scan sonar, neural image class. 18809
seafloor imaging, sonar sig. proc., tangent clusters 18810
seafloor imaging by side scan sonar, DELPH-SONAR proc. 18806

sonar signal processing continued
seafloor imaging by side scan sonar, shade correction 18808
seafloor imaging sonar, digital sidescan archit. 10436
seismic profiling of seafloor, PASISAR high resoln. syst. 18815
sens. array sigs. deconvolution, time-scaling 32615
spherical acoustic objs. in motion, ident. 34167
spherical acoustic objs. in motion, seq. class. 17490
submarines detect./location, sonar array studies 4438
synthetic aperture array sonar, expts. 17463
time-freq. representations, adaptive data extrapolations 9672
TMS320 series based syst. 17488
towed array, shape estim., dyn. model *(French)* 16035
transient sonar sig. class., HMM/neural net 34178
uncertain ocean environ., sonar matched field proc. 17470
underwater acoustic noise ident. 17492
underwater acoustics, source detect./localization, perform. *(French)* 16034
underwater commun., self-optimized adaptive algm., equalization *(French)* 25592
vehicles, intell., map generation, quantitat. eval. 34182

sonar target recognition
3D target recogn. via sonar, neural net model 25593
acoustical scatt. from fish, reson. signature charact. 17476
act. airborne sonar target tracking 34172
attributed relational tree approach, sig. classif. 2806
class., integrated approach 34176
fish shoal & plankton, sonar ident., MOVIES-B software 18889
mine counter measures, ocean bottom acoustic interacts. 18992
objs. near ocean surface, pulse scatt. and target ident. 17477
sector-scan sonar image seqs., robust class. 17491
sonar transducer arrays, holographic anal. of dyn. and struct. 17478
spherical acoustic objs. in motion, ident. 34167

sonar tracking
act. airborne sonar target tracking 34172
act. sonar, adaptive waveform selection 34173
airborne US rangefinders, adaptive target tracking algms. 42533
AUV positioning/guidance, acoustic differential delay/Doppler tracking 25601
directional PE wavefield method 43560
maneuvering target, underwater tracking, time delay meas. 25594
maneuvering target motion anal., HMM 34177
ship trajectory tracking by acoustics, small displacement meas. precision 25595
spherical acoustic objs. in motion, seq. class. 17490
TMS320 series based sonar sig. proc. syst. 17488
underwater moving sig. adaptive detect., hydroacoustic data 34175

SONET
2.5 Gb/s SDH/SONET analyzer, jitter option develop. *(Japanese)* 33975
all-opt. fiber ATM/SONET WDM network 9511
ASDL links maint. approach and fns. 16916
ATM techs. for high speed networks 33534
Bellcore Research Network opt. SONET/ATM layer implement. 9512
bidirectional line-switched rings for video distrib. 42398
bidirectional ring, capacity anal. 17243
broadband networks/services, distributed interactive simul. 9020
Chinese commun. research and related works 3072
CMOS 625 Mb/s data recovery cct. 29340
CMOS clock-frame regeneration chip, ECL-compatible I/O 21446
customer-usable all-opt. networks, develop. 9084
DCS mesh archit. survivability with distributed control restoration 41567
digital network sync. 42379
distributed control SONET DCS self-healing network service restoration time 42361
dual-bus digital syst. semicond. opt. amplifer-based subcarrier add-drop multiplexer 17214
fiber network survivability, emerging technols. 34056
gateways and payload mgt. 34022
GTE and Northern Telecoms' survivable SONET network 42399
HEMT 20 Gb/s 2:1 data selector IC for commun. appl. 29339
hierarchical self-healing ring networks, design 16522
high-speed internet, stream behavior anal. *(Japanese)* 3215
HIPPI-ATM-SONET terminal adapters, archit./perform. 41798
lightwave transm., low-rate parallel scrambling techs. 42380
logical rings, interoffice telecomms. clustering 25536
maint. and mgt., intell. opt. service unit 33363
microwave radio commun. systs., DSP and VLSI technol. 25223
multivendor ATE, test software generation 3727
multiwavelength interoffice commun., SONET/WDM ring networks 42424
national toll networks, design techs. 41573
NCIH, integrated network/service mgt. 8837
network survivability 41562
networking fund. and acronyms in opt. fiber commun. 9507
North Carolina inform. highway 9547
North Carolina Information Highway, network mgt. 8836
North Carolina Information Highway, services/archit. 9011
OC-12/STS-3c/ATM transm. interface for AURORA Gigabit Testbed 41766
operations support syst. 25493
opt. drop interface 25492
opt. receivers, recent advances 42473
optim. problem, balancing loads 9553
payload jitter simul., SDH network 17354
photonic fiber ring video delivery and SONET protection 17224
photonic SONET fund. frame structs. 42362
reconfigurable virtual path network mgt. 41676
residential video broadband switching network archit. 41554
SDH/SONET undersea fiber-optic systs. 17237
self-healing mesh network real-time bandwidth allocation and path restorations 41652
simul., testing and design 34023
slave clocks in chain, random noise accumulation 42954
SONET/SDH ring types 42360
stds., develop./deployment 17273
survivable interoffice network archit. selection 41548
survivable interoffice networks, video/inform. transport 9099
Toolkit, DSS for robust network design 42378
USA, microwave radio market 25224
VISTAnet/MICA, med. appls. leading, NCIH 10301
wavelength-routing network switching theory 9522
wideband all-opt. FDDI LAN networks 9521

SONET continued
Er-doped fiber amp. DCS 17203
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046

sonic boom *see shock waves*

sonic propagation *see acoustic wave propagation*

Soret effect *see thermal diffusion*

sorption
see also adsorption; chemisorption; desorption; surface diffusion
electronic packages, thermal and sorptive effects, dyn. investig. 28500
MCM-D metal/polymer interface durability, chem./water uptake 11817
polyimide LB films, MIM element voltage generation, atmos. effects *(Japanese)* 38452
silica glass polishing, diamond abrasive, water incorporation effects 38568
GaAs, kinetic study of at. H etching 30071
$Sm_{1-x}Tb_x(Fe_{0.2}Co_{0.8})_2$, hydrogen-induced mag. anisotropy, cryst. lattice distortions 39164

sorting
see also merging
analogue syst., eigenvalue computation and sorting, matrix flow 12669
approx. rank-order filters, VLSI implement. 29377
bitonic sorting optoelectronic recirculating archit. 22971
CMOS expandable sorting engine, rebound sorting algm., pipelining scheme 12559
colour-mapped image compression by DPCM 41098
concurrent checking sorting networks design 32119
digital parallel VLSI archit., fuzzy database mining 677
fast sort, priority queue and convex hull on entropy bounded inputs 5752
HDL-based design productivity, expt. comparison 28973
high sample rate archits. for median filters 29379
packet routing algms. on mesh-connected computer 41403
power syst. post fault operation anal., computer-based *(Russian)* 10600
Prolog program, prog. fast colour recogn. hardware by symbolic reasoning 24546
rank order filters, sorting network-based archits. 754
real-time multiline OCR parallel archit. 33027

sorting programs *see sorting; utility programs*

SOS integrated circuits *see field effect integrated circuits*

sound *see acoustic waves; acoustics*

sound boards (computer peripherals) *see acoustic generators; electronic music*

sound broadcasting *see radio broadcasting*

sound field *see acoustic field*

sound generators *see acoustic generators*

sound intensity *see acoustic intensity*

sound-level meters
see also acoustic intensity measurement
neutrally buoyant sens. for direct meas. of particle vel./intens. in water 43527
time consts. of ideal/actual meters, high order equival. rel. 42994

sound measurement *see acoustic variables measurement*

sound propagation *see acoustic wave propagation*

sound pulses *see acoustic pulses*

sound ranging *see sonar*

sound reproduction
see also audio acoustics; audio recording; pick-ups
cinema audio quality improvement *(German)* 25689
digital audio, wide-band and wide-dyn.-range recording and reprod. 34291
formant-based audio synthesis, nonlin. distortion 34297
hearing, hierarchic models, sound separation/reconstruction 16002
LF equalisation, adaptive digital filters 24295
lin.-phase equalizer in digital audio sig. proc., design and implement. 34292
timbre perception, small room, loudspeaker posn. effect 25690
woven knit acoustically transparent screen 25687

sound sources *see acoustic generators; acoustic radiators*

sound waves *see acoustic waves*

source coding
authentication code with arbitration, lower bound 32165
CDMA fibre optic LAN, opt. orthogonal and codes generation 41897
coding theorem, convergence rates, quantizer design 24028
constrained joint source/channel coder design 15719
data compression, context allocation 32125
decoder with side-inform., rate-distortion fn. 24047
DECT syst., mobile audio-visual terminal 17118
DECT unequal error protected p×8 kbit/s video transm. 8850
digital TV coding/decoding chipset, spec. and develop. 34248
digital TV for terrestrial broadcasting, modulation 17534
discrete data protection, inform.-theoretic problems 15732
entropy-constrained CELP quantization 40646
generalized periodic Markovian sources multiplexing and VBR video 8717
generic coder for binary sources, M-coder 32192
HDTV, parallel divide-and-conquer video decompression 42599
hi-fi mobile DAB scheme 9695
hierarchical video coding scheme, mean separated normalized VQ 33100
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
joint source-channel separation theorem 24085
joint source/channel coder design 40589
K-out-of-M multiple-access channel, source correl. 32007
land mobile radio networks, digital video/speech transm. 17048
Lempel-Ziv algm., improved redundancy 32122
Lempel-Ziv algm. for unifilar Markov source, exact anal. 32126
Lempel-Ziv fixed-database algm., redundancy/distrib. 32021
lossless data compressors, fixed dictionary, adaptive update algms. 32127
LPC params. for noisy channels, VQ 32329
match-length fns. for data compression 32123
min. av. cost testing for partially ordered components 24098
mobile radio channel, still image transm., unequal error protection coding *(Japanese)* 42293
modified Viterbi algm., source-controlled channel decoding 40667
multilevel diversity coding, distortion 32052
multiple description source coding, no excess marginal rate 32047
multiresolution modulation/concatenated coding, decoding algms. 8683
multispectral/multilayer image coding, optimal transforms 24697
nonstationary procs., matched generalized Gabor expansion 8343
pyramidal multiresolution source coding for progressive seqs. 16225
random coding, optimal noisy channel quantization, asymptotic bounds 24043

source coding continued
random fields source coding theorem 40677
recursive seq. codes, lossless compression, OPTA fn. 32121
speech lin. predictive coeffs., variable dimens. VQ 32331
stationary nonergodic sources, variable-rate source coding theorems 24042
transform trellis coded quantization of speech 32253
universal coding, param. estimators, convergence rates bounds 32143
universal data compression algms. 32124
universal noiseless source coding, redundancy rates 40675
video multiplexing, pulsed coded fiber optics 8676
VQ, tree-struct. self-organizing, maps 16120
VQ sigs. transm., Rayleigh fading channels 8448
wireless access systs., low bit-rate video transm. 17088

source region electromagnetic pulse *see electromagnetic pulse*

space-based radar *see spaceborne radar*

space charge
see also space-charge-limited conduction; space-charge limited devices; space charge waves
3-layer insulation syst., discharge, dielec. characts. 22668
3-phase power transm. lines, corona losses 19307
abrupt heterojunctions, large injection, Poisson eqn. *(Chinese)* 1074
AC power line corona loss, charge simul. calc. method 19289
air gap flashover, charged droplets, lightning impulse voltage *(Japanese)* 35685
anti-ESD polymer, internal space charge distrib. meas. 30586
barbed plate-to-plate precipitator, elec. field/space charge, 3-D model 15249
barrier height determ. from Schottky jn. C-V meas. 38813
bipolar transistors, transient base dyn., high injection 6739
boundary biased-probe method, I_p/I_{po}-V_b nonlin. 7918
boundary charge method 31719
CEBAF FEL injector, space charge dominated perform. modelling 39974
charge mobility modelling in high elec. fields 7899
Cherenkov maser, nonaxisymmetric mode, beam-wave interactions 23068
cloud elec. struct. determ., space charge model-based *(Russian)* 10459
clustered-cavity klystron, lin. theory 991
collector epilayer modelling of BJT in MEXTRAM model 13650
cross-field amplifier end-hat effects, 3D electron density meas. 6510
cubic cryst. planar waveguides, photorefr. effect 39431
cyclotron reson. masers, bunches, phase mixing, space charge instabil. 31135
dielec., discharges, tree-shaped breakdown struct. 1529
dielec. liq. with unipolar injection, EHD convection 40206
dielectrics, space charge relaxation induced breakdown, energy release 13951
diffusion capacitance, space-charge-layer thickness modulation effects 1077
double barrier quantum struct., shot noise 13199
DRAM prod., ion projector, crit. design params. 38760
electrode surface flashover, space charge 13950
electron bunched beams in mag. field, emittance growth in bends 34764
electron source ferroelec. cathodes, pulsed power supplied 29751
electrostatic fields computation, IEE Colloquium, London, UK (1995) 11600
Eloisatron, injector design 4100
EM pumped FEL, space charge and axial-guide mag. fields effects on gain 14984
ESP, particle charging, unipolar ionic bombard., AC elec. field 7925
FEL betatron oscills., undulator acceptance, beam conditioning 39967
FEL operation incl. space-charge effects, beam transport simul. 31440
FEL oscillators, space charge effects, self-oscills. and chaos 39971
FEL simul., beam quality and space charge effects 14987
FEM computation of electrostatic fields/space charge effects 31705
FOM 1 MW 200 GHz free electron maser mode purity, plasma heating appls. 39924
free electron masers, long. modes, fusion appls. 39625
fuel oils combustion atomisation, charge injection nozzle 7904
gamma-irrad. polyethylene insulation, space charge accumulation meas. *(Japanese)* 43793
gyrotron, magnetron injection gun, electron opt. design 21800
HBT, base push-out/base-collector capacitance model 13660
heavy ion ICF driver beams, charge neutralisation 26052
helical electron beams in gyrotron type, space charge oscillns. 12996
high power klystron develop. 29781
HV wire conductor, corona discharge, lumin., CT obs. *(Japanese)* 963
HVDC transm. line, monopolar ionized field, ion diffusion 43736
insulating liq. flow electrification, physicochem. explanation 15219
insulating materials, electron beam excited luminescence 14074
insulator damages related to charge detrapping 13970
insulators, secondary electron emission, Monte Carlo study 14006
insulators, space charge meas. 9996
ion flow in 3D elec. field, charge dens. distrib. 31737
ion projection lithog., stochastic space charge effects 13465
joint transform correlators, whole-beam method anal. of photorefr. effect 16307
laser-cooled ion beam, anom. Schottky sigs. 18251
layered dielec., discharge develop. *(Russian)* 6892
LDPE, space charge form., additive/polarisation temp. effects 14033
LDPE, space charge form., suppression layer effect 14032
linac, bunched beam, space charge distribs., emittance growth 18267
line conductors, elec. field meas., oscill. transients, static probe 4693
linear beam tubes, high power, depressed collector designs 6507
magnetron injection guns, electron beams, vel. spread 29764
magnetron oscillator, dyn. flucts. of freq. 978
microwave FEL, space-charge field meas. 2010
MOSFET, recomb., radiation-induced defects 6747
neg.-mass instabil., nonsymmetrical perturb. 7911
PD induced ageing, pulse-seq. anal. 22653
PE/polymer laminates, charge formation 14035
planar photorefr. waveguides, hologram form., lock-in detect. 39379
poly(p-phenylene sulfide), thermally stimulated currents 13931
poly-(para-phenylene-vinylene) films and photodiodes, photoinduced current, ESR 14600
poly-p-phenylene sulfide films, space charge, elec. breakdown 14031
polyethylene, cond., preapplied voltage effect 14027
polyethylene, oxidized, elec. breakdown, DC current pre-stress effect 22641
polyethylene, space charge form., B_aTiO_3 additive effects 14028
polyethylene, treeing under AC voltage, space charge buildup, power cables 30584
polyethylene/ionomer blends, space charge, TSC meas., dielec. strength 30547
polymers, polaris. distrib., stabil., nonlin. optics 31586
power p-i-n diodes, PSpice-based modelling 5987
pulsed corona precipitator, charged aerosols modelling 15247

space charge continued
α-quartz, dielec. strength, size effect. Monte Carlo anal. 13980
Raman FEL, chaotic behaviour anal. 39911
relativistic charged beams, particle simul., using integral kernel method 31427
relativistic klystron amps., intense space-charge beam phys. 992
relativistic klystrons, inductively-loaded wide-gap designs 29785
RF sputtered glass films, elec. induced second-order opt. nonlin. 23389
sapphire, insulator props. rel. to tribology/space charge 13952
single-beam plasma wave tube, high-power microwave/MM-wave source 986
SOI power device blocking voltage, HVIC interconnection influence 29979
solar cell perform., high injection effects 44414
Symetrix Y-1 ferroelec., memory cell, C-V characts. 39056
synchrotrons, space charge dominated cooled bunched beam investig. 34810
synchrotrons, transverse instabilities, space charge effects 10097
thermionic converters, photoelec. emission-based characts. tests 28030
thiapyrylium dye sensitized photorefr. polymeric composite 22782
thin insulator p-type MOS structs., inversion charge anal. 38444
time-depend. space charge profiles in XLPE cable under high elec. fields 19299
transformer oil, double layer heterogeneity 14023
triode gun, standing wave electron linac beam dyn. 26040
TW interact. re-exam. 1000
TW interact. scaling laws 39979
two-freq. undulator FEL, space-charge effects 14985
vac. diodes, breakdown 29762
very-short air gaps in plane-parallel electrodes, discharges 13979
vircator, electron beam behaviour, high-power microwave generation 6502
vircator, slow wave struct., microwave generation 12999
vircator, triode type, space-charge dyn. 21842
water mist form. in vap.-mist dielec. 1545
wire-plate electrostatic precipitator, prebreakdown VI charact. 15251
XLPE constituent effects on form. of space charge 14020
Y_2O_3-La_2O_3, space charge form., free energy variation 13928
$BaTiO_3$, intens. depend. two-wave mixing 31524
$BaTiO_3$ photorefr. crysts./waveguides, anom. photorefr. response in two-beam coupling 15088
$BaTiO_3$:Co, light-induced dark decay and sublinear intens. depend. 31483
$Bi_4Ti_3O_{12}$, photorefr., large contrast interf., space-charge field 7266
CdS electrophotographic discharge, surface-depletion discharge model 22997
$Cu(In, Ga)(S, Se)_2$ solar cells, charactn./modeling 44403
EuF_3 thin films, dielec., cond. and breakdown studies 1544
GaAs, δ-doped, impact-ionization-breakdown simul. 38261
GaAs, dispersed semicond. particles, doping effects *(Korean)* 13263
GaAs/AlAs opt. differentiator, Wannier-Stark localization, space charge screening 14504
GaAs/AlAs quantum heterostruct., local space charge field 30816
GaAs-GaAlAs waveguide saturable absorber, carrier heating dyn. 2109
GaInAs/AlInAs superlattices, nonlin. cond., space charge wave generation 1120
InAlAs/InGaAs SQW struct., electron traps, admittance spectrosc. 21991
InGaAs/GaAs strained [111]-oriented MQW, carrier and screening dyn. 29905
InGaAsP electro-absorpt. modulators, optim. 22936
InGaAsP-InP QW electron transfer struct. for ultrafast opt. switches 38351
InGaAsP-InP electroabsorption modulators for LDs, nonlin. effects model 14846
Li liq. film on W(011) tip, field electron emission patterns 43046
Li-$SOCl_2$ primary batts., delay effect expts. 11231
SF_6, negative corona discharges 13981
Si detector, neutron irrad., Fermi level, TChT tech. 18370
Si, dispersed semicond. particles, doping effects *(Korean)* 13263
a-Si:H PIN solar cells, electron/hole trapping *(Chinese)* 5211
Si/electrolyte interface, impedance, deconvolution 6594
p-Si/potassium ferri-ferrocyanide electrolyte interface, FTIR-ATR 6595
Si-SiGe-Si DHBTs, parasitic pot. barrier effect on base current *(Korean)* 13618
Si-SiO_2 MOS struct., dielec. breakdown, charge stabil. 22064
Si-based device proc., radiation damage 22160
$(SrPb)(CaMg)TiO_3$-$Bi_2O_3\cdot3TiO_2$ ceramic charged particles, elec. props. *(Korean)* 22665
TiO_2 films, thermally form., semicond. props. 29866

space-charge-limited conduction
bandwidth enhanced MSM photodetectors 3841
bipolar IC gain degrad. at low radiation dose rates, phys. mechanisms, models 13871
impurity-band-cond. semiconds., SCL current injection 13024
insulators/semiconds., asymmetric double charge injection 29824
passivated HBTs, currents and current gain anal. 6737
PEEK films, DC cond., ionic behavior 30588
PPV, carrier deep-trapping mobility-lifetime products 1813
PVDF films, gas emissions, poling conditions influence 14039
relativistic electron beam, space-charge limiting current, self-consistent calcs. 10100
semicond. thin films, ballistic currents 13022
XLPE films, electron irradiated, high field AC cond. 14029
$BaTiO_3$, photocond., high light intens. 14582
CdTe electrodeposited films, SCLC 29862
CdTe, planar detectors, pulse proc. 43086
CdTe thin films, trapping params., SCL cond. 29847
Co-phthalocyanine thin films, elec. cond., O doping, IV charact. 21939
n-GaAs/AlAs/$Al_{0.3}Ga_{0.7}As$ double barrier QW, tunneling assisted thermionic emission 38326
GaAs-AlGaAs superlattice, high pol./quantum efficiency photocathode 22007
p-Ge, current-generated spatially periodic pot. 38227
$KNbO_3$, photocond., high light intens. 14582
a-Si:H, pseudodoped, vidicon target material 1057
SiC/SiO_2/Al struct., elevated temps., HF capacitance relax. features 13230

space-charge limited devices
a-Si:H, p-i-n diodes, forward current transients 1343

space-charge limited solid state diodes *see space-charge limited devices*

space-charge limited solid state triodes *see space-charge limited devices*

space charge waves
2D semiconductors, negative differential resist., conf., Lucca, Italy (1992) 11546
dielec.-loaded Raman-type FEL, efficiency enhancement 2017

space charge waves continued
FEL, collective regime, 3D coupled-mode theory 39928
ion-ripple laser, effects of long. momentum spread 7696
open-boundary Cerenkov laser, dyn. behavior anal. 14980
photorefr. crysts., speckle beam self-bending, space charge 2049
quasiperiodic disk-loaded waveguide, EM, space charge waves, propag. 29802
quasiperiodic struct., coupling, asymmetric output arm 15568
resistive-wall klystron, nonlin. theory 29784
vacuum electronics and displays, conf., Garmish-Partenkirchen (1992) 20196
$Bi_{12}SiO_{20}$, photorefr. response LF peculiarities 14322

space communication links
see also satellite links; space vehicles
2-axis EM translation mechanism for FPA 17311
autonomous visibility meas. for atmos. transm. model 15450
BMDO/IST lasercom advanced technol. demons. status 17290
buffered telemetry demodulator for Galileo mission 9420
Cassini spacecraft, command and data subsystem 10367
Cedervall-Johannesson algm. for computing dist. spectrum of convolutional codes *(Japanese)* 40623
CEMERLL (compensated Earth-Moon-Earth laser link) expt. 17287
Deep Sace Network, microwave controller software, higher order logic 42338
Deep Space Network, HMM monitoring, unknown states 16406
deep-space commun., coherent detect. opt. relay satellite 17298
deep-space commun., direct detect. opt. relay satellite 17293
deep-space commun. via relay satellite, RF and opt. archits. 17285
deep-space navig., overview 17511
deep-space opt. commun., 10 meter-class ground-based receiver 17322
digital avionics systems, conf., (Nov. 1994) 5456
DSN controller software develop., higher order logic expt. 42339
Earth stations/orbiting satellites, interf. simul. 15510
Earth-space commun., opt. networks 17294
FADOF filter for space borne opt. commun., Doppler shift compensation 17325
free space laser commun., demons. of jitter rejection tech. 17313
Galileo entry probe tracking, Jupiter wind profiles determ. 42337
high-speed tracking target simulator for fine tracking mechanisms 17305
high-T_c supercond. microwave ccts. appls., future outlook 39254
intens. modulation/direct detect. opt. commun. syst., optimum sig. detect. 34076
inter satellite cross links, non-mech. laser beam steering/spoiling methods 17308
Jet Propulsion Laboratory, opt. commun. program 17283
laser binary FSK communication, integrated heterodyne receiver/spatial tracker 17296
laser commun., Fabry-Perot interferometer for freq./spatial tracking 17312
laser space commun., adaptive opt. multi-aperture receiver antenna 17321
LITE (Laser Intersatellite Transmission Experiment) model, functional testing 17288
MOPA LD for satellite commun. 17300
multigigabit opt. transm. expt., free-space simulator 17286
NASDA, opt. intersatellite commun. research 17282
opt. commun., pulse-coded multiple access 42350
opt. commun. in space appls. 17164
opt. intersatellite commun., LD transmitter 17173
opt. space commun., pointing, acquisition and tracking 17148
Optical Communications Demonstrator, control proc. syst. archit. 17314
Rome Laboratory, overview of laser commun. technols. 17284
small opt. user terminal, flight config. 17292
SOUT opt. intersatellite commun. terminal 3536
Stark anom. dispersion opt. filter for doubled Nd:YLF lasers 14575
TDRSS-LIGHT, space commun. archit. 17295
ultra-long haul transm. *(Japanese)* 3535
weak opt. sig. detect., opt. parametric amplif. 17320
AlGaAs LD based broad beam transmitter for space commun. 17302
AlGaAs LD testing for SILEX program 17299
GaAs ASIC set for deep space receiver 42336
Nd:YAG laser commun. syst., PPM commun. optim. 17301

space complexity *see computational complexity*

space division multiplexing
high-speed MCM using Cu/polyimide multilayer substr., B-ISDN 37080
TDM/WDM/SDM opt. computer 1763

space groups
nitroaniline based nonlin. opt. syst., cryst. growth 15066
$ErFe_{8.5}Co_2Mo_{1.5}D_y$, struct./mag. props., deuteration effects 39162

space heating
see also building management systems; district heating; HVAC
20 kW Vuilleumier heat pump, test programme results 28175
air curtain, anal. design 28174
automatic OS for central heating equipt. *(Japanese)* 41643
bi-energy boiler house operation feedback for reliab. anal. 20133
building cogen. systs., design methodology 4827
combustion heated thermionic syst., domestic heating 20039
domestic heating syst. thermionic converter design 28176
elec. heat pump, future prospects, domestic use 11482
fuel cell cogen., commercial/residential appls. 36791
fuel cells, building CHP appls., perform./cost requirements 36077
group geyser consumption patterns, single water heater and PC-based meas. and control syst. 4538
Heat Pac PCM thermal storage, telecom. equipt. rooms 44430
HX-SE3h eat storage elec. fan heater *(Japanese)* 5392
in-bin grain drying energy systs., computer simul. 28200
indust. energy/exergy anals., Turkey 20153
offshore watersource heat pump appls. 28197
pass. solar heating, naturally-cold water utilization 28173
residential load aggregation, max. likelihood duty cycle forecast validation 36793
residential pass. energy technol., simul./eval. 44600
solar air heating, const. temp., simul. 36792
solar heating, heat pump assisted building *(Italian)* 11483
solar hot water/swimming pool heating, concrete collectors 20022
TECTEM central heating facility, thermionic conversion 20040

space power generation
see also solar power satellites; space vehicle power plants
develops., economic incentives overview 43417
First Mars Outpost power systs. 26516
Lunar Energy Park, nuc. power, laser beam transm. to Earth 26511
lunar remote/mobile free piston Stirling engine power syst. 26518

space power generation continued
lunar surface fission power supplies, radiation protection 26515
microwave power transm. *(Japanese)* 19228
robotic/human exploration mission power requirements 18761
self-reproducing mfg. facilities, overview 35209
solar energy systs., develop. projects overview 43418
solar power generation, aerospace technol.-based 26520
solar space power transm., liq. space optics appls. 43415
solar thermodyn. power generation, energy flux, efficiency 26513
wireless power transm., microwave beam intens. calcs. 43416
world energy syst., space power role/influence 26512

space research
see also artificial satellites; space vehicles
Cassini spacecraft power convertor unit design 26588
challenges of space for better world, conf., Graz, Austria (Oct. 1993) 1
data compression stds. 2457
General Purpose Heat Source RTG program, mgt. 18757
Hubble Space Telescope via World Wide Web 8917
laser, power beaming, conf., Los Angeles, CA, USA (1994) 11554
mfg. facilities develop., self-reproducing 26514
Mossbauer spectrometer appl. 43167
NASA space power program 18759
nuclear electric propulsion, NASA research programme 18771
robotic/human exploration mission power requirements 18761
self-reproducing mfg. facilities, overview 35209
THz technol., symp., Ann Arbor, USA (May 1994) 36819

space telemetry
see also satellite telemetry
buffered telemetry demodulator for Galileo mission 9420
Cassini spacecraft, command and data subsystem 10367
deep-space navig., overview 17511
DESSY, Space Shuttle telemetry monitoring system with tolerance for real-time data problems 10342
residual and suppressed carrier systs., bandwidth, unwanted emission 32029

space vehicle electronics
see also avionics
3-phase PM step motor simul. 35230
ART2800 DC/DC converter family, 7846 post regulator, space radiation charactn. 29051
bipolar IC gain degrad. at low radiation dose rates, phys. mechanisms, models 13871
C-band superconductive input multiplexer for commun. satellites 12776
Clementine RRELAX SRAM particle spectrometer, radiation belts, solar flares 12534
CMOS 16 Mbit DRAMs for mass memory appls., space radiation eval. 12527
CMOS DRAM sense amp. designs for improved SEU perform. 12517
CMOS/BiCMOS hybrid AD677 16-bit A/D converter, single event effects 29333
conference on avionics, London, UK (Dec. 1992) 11585
DIP solder joint failure under tensile-compressive stress 37130
ESD anals. for spacecraft in geosynchronous orbit 35213
flux-gate magnetometers on spinning spacecraft, calib. 35220
GLONASS on-board time/freq. std. 42677
gray-scale act. matrix LCD for flight decks 10354
interplan. satellites, solar particle event models 18716
KITSAT-1/PoSAT-1 micro-satellites, radiation environ. meas., cosmic ray expts. 18714
low noise space borne freq. multipliers 29426
Mars'94 expt., Langmuir probe electronics, radiation risk 10306
MCMs, satellite commun. appls. 29726
MCMs with ASICs global optim., concurrent engng. approach 21743
microbial contamination, anal. and protection 4353
Navstar on-orbit clocks, space vehicle temp. effect 42678
power electronics evol., Europe 37620
proton irrad. effects, advanced digital/microwave III-V components 12803
proton SEU rates in space compared to rates meas. on CRRES satellite, DRAMs 12532
RF connector and interconnect reliab. 18713
satellite TWTAs, microwave power modules, radiation cooled collectors 26553
satellites, SEUs, space environ. 18717
SEE rates for gal. cosmic rays/solar flare protons, SRAM chip effects, satellite shielding 12533
SEU at gigahertz freqs., digital ECL 12480
single event effect proton/HI testing 29093
smart act. matrix LCD for Space Shuttle 10355
Space Station Freedom PMAD syst., thermal anal. 18763
switching, reversible energy management 26596
thermal design challenges, space vehicle avionics upgrades 43429
time transfer, spaceborne H maser/laser pulse timing 42668
total-dose response of modern bipolar transistors, space appls. 13635
TWTs, space-use, reliab. *(Japanese)* 13007
Cs at. freq. stds., second harmonic level monitors 42676
GaAs MMICs for space-borne systs., status and pot. 21554
H maser for long-term operation in space 43439
Hg^+ freq. stds., space flyable 42673
Rb freq. stds., Neuchatel Observatory 42669
Si n^+/p diodes, charge collection and multiple-bit upset, 3D simul., CMOS SRAMs 12516
Si technols., radiation hardening, space appls. 29993

space vehicle power plants
2.5 kW NASA spacecraft ion thruster/power proc., develop. status 35267
2 kW Solar Dynamic Ground Test, solar simul. selection 26615
2 kW Solar Dynamic Ground Test Demons. program 26614
5 V space power alkali metal thermoelec. convertor multicell 20035
5-40 kW S-PRIME space nuclear thermionic power system 18734
alkali metal thermoelec. convertors, space power perform. anal. 20034
alkali metal thermoelec. convertors, WPt_3 electrode kinetics, mass transport 20029
AMTEC, prototype cell develop./testing 26689
AMTEC cell, high efficiency, testing/charactn. 26626
AMTEC spacecraft systs., single/multiple tube designs 26632
AXAF space observatory, power syst., CLIPS troubleshooting ES 26658
battery appls. and advances, conf., Long Beach, USA (1995) 28262
battery mgt./scheduling integration 26565
battery recondition discharge cct. 26570
bilateral solar cell bearing struct. configs., spacecraft 35255
bimodal thermionic reactors, sonic cesium supply 26627

space vehicle power plants continued
bimodal-pellet bed reactor, space nuc. power/thermal propulsion appl. 4371
Brayton cycle appl. to space power 26655
Brayton cycle dyn. solar space power syst. 43449
Buran flight-model fuel cell, test programme 10398
Cassini power management and distribution 26647
Cassini RTGs, small scale module tests 26633
Cassini spacecraft power convertor unit design 26588
Cassini spacecraft solid-state power switch develop. 26660
composite solar power module, spacecraft appls. 10395
cost-effectiveness issues in space PV 18728
DC power systs., series arcing detect. 26564
Deep Space Probe Science Expt., elec. power syst. 26646
distributed power systs. design 26595
dynamic radioisotope power systs. 26653
Earth to space laser power beaming, FEL 35595
Earth/space obs. spacecraft, pulsed power insulation design 35257
elec. propulsion, NASA R&D programme 35264
electrochem. DC generator, fuel cells, Buran space syst. 10399
electronic switching, reversible energy mgt. 26596
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
energy conversion engng. conf., Atlanta, GA, USA (Aug. 1993) 20225
fault detect. anal., sensor relationships 26561
fault detection and diagnosis, model-based reasoning 10397
fault-tolerant power distrib. module 26563
FEL syst. for energy transm. 18729
First Mars Outpost power systs. 26516
functional models for space power electronic ccts. 35244
General Purpose Heat Source RTG program, mgt. 18757
GPS Block IIR solar array power syst., historical overview 26604
HDTV GEO satellite, nuclear power/propulsion appls. 18753
high perform. space power technol. options 35247
Hubble Space Telescope, power syst. servicing 35245
Hubble Space Telescope, solar array change out 35246
Huygens power system, power control/distrib. 26648
hybrid power/propulsion system, particle bed reactors 18754
hybrid space nuclear power/propulsion syst., hot hydrogen test facility 18755
incore thermionic space nuc. power, Monte Carlo fuel burnup simul. 26622
laser space power beaming, PV cell pulsed laser illum. 43948
LEO spacecraft pulsed power systs., dielec. surface flashover expts. 35258
Li-$SOCl_2$ space power batteries, thermal models 26581
liq. metal PBR for Moon base 35262
liq. metal thermoelec. generator thermodyn. 26554
lunar base power systs., life cycle cost 26517
Mars transfer vehicle, dual-mode nuclear rocket power requirements 18750
multi-output reson. DC/DC space power converters 4361
multi-tank cryogenic storage syst. anal., space appls. 35253
NASA space power program 18759
NEPSTP (TOPAZ II) space reactor, safety 35260
Ni-H_2 space power batteries, thermal models 26581
nuc. power, thermionic heat pipe module testing 26621
nuc. power/propulsion, future 26555
nuc. reactor, thermionic fuel element modelling 26625
Nuclear Elec. Propulsion Space Test Program satellite, TOPAZ-II 26693
nuclear electric propulsion, NASA research programme 18771
nuclear power sources, UN standards anal. 18733
nuclear power/propulsion, fuel element design 18751
nuclear power/propulsion, hybrid power system appls. 18752
nuclear power/thermal propulsion requirements 18760
paraboloidal dish solar conc. distribs., space power appls. 35256
parametric cost model 26654
PASP plus arrays, arcing predictions 26569
pellet-bed reactors, neutronics anal. for bimodal appls. 4359
planar thermionic convertor, UO fuel testing 18741
plasma MHD thrusters, solar elec. propulsion system 26590
Pluto East Flyby mission, power subsyst., RTG 26649
Pluto Fast Flyby mission, RTG fuel options 26630
Pluto Fast Flyby mission, RTG size/mass reduction 26631
power control syst., automated fault diagnostics 26681
power distrib., model-based diagnostics 18765
power syst. automation knowledge develop. 26562
power syst. control/protection integrat. 26680
power syst. modelling/diagnosis 26566
power/propulsion synergies 35268
Powerstick RTG spacecraft power source 26607
radioisotope AMTEC power syst. 18758
radioisotope thermophotovoltaic power, space mission appls. 26638
radioisotope thermophotovoltaic syst. 26637
rare-earth PM motor, optimal design *(Chinese)* 44092
robotic/human exploration mission power requirements 18761
Russian RTG capability 26634
S-PRIME space power thermionic convertors, emitter design 18743
S-PRIME thermionic space power system, Cs reservoir modelling 18737
Sampex spacecraft derived power syst., stabil. anal. 26611
satellite power systs., advanced solar cells 26639
sci. mission power requirements/issues 35248
skutterudite thermoelec. materials, terrestrial/space appl. prospects 27991
Small External Fueled Heat Pipe Thermionic Reactor fuel element 18756
solar cell lifetime, space factors testing 18726
solar cells, develop. prospects workshop 43450
solar concentrators, glass reflectors, optical eval. 26644
Solar Dyn. Ground Test Demons., heat receiver fabr./testing 26616
Solar Dyn. Ground Test Demons., radiator design/testing 26617
solar dyn. power systs., thermal storage studies 26557
solar dyn. space power systs., orbit perform. effects 35243
solar dyn. test demonstrator space power syst., heat receiver 26656
solar elec. orbital transfer vehicle, power syst. 26652
solar panel terminal characts. model 26676
solar power syst. studies, USSR 35241
solar-dyn. receivers, atten. thermal storage 35242
solar-heated alkali metal thermoelec. power syst. 26605
solid-state SCR switches, space laser pulsed power modulator appls. 36417
SP-100 nuclear space power reactor, testing 18764
SP-100 thermoelec. cell testing, JPL 26635
Space Nuclear Thermal Propulsion develop. programme, USA 18772
Space Shuttle rem. power controllers, AlN metalization/joining 26688
Space Station Alpha power syst., environ. control/protection 26610
Space Station Alpha PV module thermal control syst. 35252
space station elec. power syst. requirements/issues 35249
Space Station Freedom, brushless DC motor, posn. control 43453

space vehicle power plants continued
Space Station Freedom, solar array elec. perform. environ. effects 26642
Space Station Freedom, UPS orbital replacement unit 18762
Space Station Freedom bidirectional PWM UPS power convertor 26589
Space Station Freedom PMAD syst., thermal anal. 18763
Space Station Freedom power syst. CAD, APSPP package-based 35251
Space Station Freedom power system, on-orbit floating potentials 26592
Space Station Freedom power system, small-signal stability 26593
Space Station Freedom solar array development testing 26643
Space Station Freedom solar cell dynamics, SPICE modelling 26584
Space Station Furnace Facility, sliding mode thermal control syst. 26690
space station power mgt./distrib., intell. load controller 26659
Space Station power requirements, US/Russian cooperation 18727
space station secondary elec. power syst. modeling/simul. 26612
space stations, solar dyn. demons. 35250
spacecraft elec. propulsion missions, power syst. technol. anal. 35266
spacecraft line-focus refr. concentrator solar arrays 26602
spacecraft power conditioning, tri-state power converter 26677
spacecraft power syst., multivariate nonlin. design optim. 26678
spacecraft PV power technols., future trends 26685
spacecraft rocket engine effects on solar cells 43455
spacecraft solar array, shunt switching unit act. ripple filter 26679
spacecraft solar array size optim. efforts, UK 26686
spacecraft solar arrays, on-orbit output power mgt. 26601
spacecraft solar cell assemblies, Teflon coverglass bonding 26684
spacecraft solar elec. propulsion, energy storage mass impact 26608
SPECTRA-L lunar base reactor, nat. circ. anal. 35261
STRV-1 spacecraft power conditioning syst., in-orbit perform. 26683
switching regulators, source-load interact. 26613
telecomm. satellites power systs. study, USA 26619
thermal space reactor, self-shielding shutters reactivity 18732
thermionic conversion, particle strengthened Mo appls. 18746
thermionic convertors, close-spaced, demonstration tests 18748
thermionic convertors, Cs circulation system testing 18739
thermionic convertors, thermal modelling 18740
thermionic electrodes, CVD diamond film appls. 18745
thermionic fuel elements, 2D transient anal. 18735
thermionic fuel elements, fission gas pressure anal. 18736
thermionic fuel elements, UO_2 swelling simul. 18744
thermionic heat pipes, work fn. tests 26623
thermionic nuc. power, biphase inversion calcs. 26620
thermionic nuclear power/propulsion, future prospects 18749
thermionic reactors, thermal-hydraulic/neutronic design 4374
thermionic syst., radiator design 26628
thermoelec. convertors, space power appl. studies 20037
thermophotovoltaic nuc. energy conversion, space appls. 35240
Topaz-2, reactivity accident involving deep water entry, consequences 26558
TOPAZ-2 space reactor, NEPSTP spacecraft integrat. 26618
TOPAZ-2 thermionic fuel element anal., HXTOPAZ computer code 26624
Topaz-II, model develop./exptl. data comparis. 18730
Topaz-II, reactor control unit develop. 4358
TOPAZ-II EM pump, integrated model 18731
Topaz-II single-cell thermionic fuel element design/testing 5235
TOPAZ-II space nuclear thermionic reactor, computer simul. 18742
TOPEX/Poseidon elec. power syst., on-orbit perform. 26645
TOPEX/POSEIDON satellite, secondary battery perform./management 26579
TOPEX/Poseidon satellite, solar array on-orbit perform. studies 26606
TOPEX/Poseidon solar array on-orbit performance 26599
vapour core nuclear reactor rocket engine 18773
wiring syst. safety 26597
X-ray timing Explorer Power Syst., stabil. anal. 26651
Ag-Zn batt., Mars Environ. Survey Mission Pathfinder 26675
C-C heat pipe testing/eval., space vehicle appl. 35254
Cs thermionic generators, low pressure self-extinguishing discharges 26591
Cs-N_2 space power thermionics convertor, relaxation characts. 18738
GaAs space power solar cells, satellite test data 26641
GaAs thin solar cell, light trapped, spacecraft appls. 26600
GaAs/Ge Clementine spacecraft solar cell array studies 26603
$Ga_{0.84}In_{0.16}As_{0.68}P_{0.32}$ large area solar cells, space appls. 10396
$Ga_{0.51}In_{0.49}P$ large area solar cells, space appls. 10396
GaInP/GaAs tandem solar cells, high-efficiency 19998
Ge-Si RTG, perform., status report 26629
H_2/O_2 fuel cell, impregnated KOH matrix, H_2O mgt. 26556
InP solar cells, radiation resistant, space appls. 26640
Li-$SOCl_2$ batt. develop. 26674
Li-$SOCl_2$ batt. develop./status, Titan IV Centaur launch vehicle 26673
Li-$SOCl_2$ thin parallel plate batteries, space power appls. 27891
Ni-Cd batt. perform. model 27920
Ni-Cd batt. satellite power systs., orb. mgt. strategy 26609
Ni-Cd batts., X-ray Tining Explorer Power syst. 26650
Ni-Cd batts., costs reduction, space indust. 26671
Ni-Cd batts., life testing, ESA 26669
Ni-Cd cells, flight/ground testing, TOPEX/Poseidon mission 26670
Ni-Cd pasted fibre plate batteries, LEO cycling perform. 26580
Ni-Cd space power sealed secondary cells, separator tests 43448
Ni-H_2 80 Ah cell, perform. charactn. 27910
Ni-H_2 Astra 1A satellite batts., perform. improvement schemes 26661
Ni-H_2 Clementine spacecraft common press. vessel batts. 26672
Ni-H_2 GEO spacecraft batts., 26% KOH electrolyte tests 26664
Ni-H_2 International Space station batt. power syst. tests 26663
Ni-H_2 LEO spacecraft batt. pulse life testing 26662
Ni-H_2 aerospace batts., life testing 26574
Ni-H_2 aerospace cells, capacity fading 26577
Ni-H_2 batt LEO life test 26573
Ni-H_2 batt. designs, spacecraft power systs. 26572
Ni-H_2 batt. electrodes, KOH conc. interplay 27912
Ni-H_2 batt. qualification, ARTEMIS satellite 26571
Ni-H_2 batt. testing, Hubble Space Telescope 26575
Ni-H_2 batts., in-orbit internal impedance determ. 26567
Ni-H_2 common pressure vessel batt., spacecraft, impedance 26568
Ni-H_2 secondary cells, LEO destructive life testing 11256
Ni-H_2 single press. vessel space power batt. designs 43446
Ni-H_2 space power battery, gas diffusion electrodes 26582
Ni-H_2 spacecraft cells reconditioning 26576
Ni-H_2 spacecraft secondary batteries, electrolyte expts. 26578
Ni-H_2 spacecraft secondary batts., advanced separator expts. 26668
Ni-H_2 spacecraft secondary batts., empirical modelling 26667
Ni-H_2 spacecraft secondary batts., technol. develop. status 26666
Ni-MH space power batteries, preliminary FMECA 26583

space vehicle power plants continued
Ni-MH$_x$ space power secondary batt. develops. 43447
NiO spacecraft secondary batt. electrodes, fab. overview 26665
Si solar array, X-ray Timing Explorer Power syst. 26650
SiC-H aerospace power IC device structures 26587
p-SiGe space power thermoelec. materials, nanophase inclusion expts. 26636
SiGe thermoelec. materials optim., space power appls. 26585
Si$_{0.3}$Ge$_{0.2}$ thermoelec. space power alloys, large-scale prod. 26586
W-Ir space power thermionic convertor alloys, work fn. expts. 18747

space vehicles
see also artificial satellites; rockets; space vehicle electronics; space vehicle power plants; spacecraft charging
aerodynamical config., complex flow fields, num. methods 10307
antimatter thermonuclear microexplosion ignition 4363
attitude determ., stochastic star ident. 26548
buffered telemetry demodulator for Galileo mission 9420
Cassini spacecraft power convertor unit design 26588
charge neutralisation by neutral gas release, 3D calcs. 26524
common mode transients, short cct./fuse blowing events 4347
control and data acquisition, flight instrum. test facility 26531
deep-space navig., overview 17511
EKF sensitivity, soln. accuracy for single space based observer 29343
EKF sensitivity, var. in observer no. and obs. type 29342
engng. subsyst. operations, Engng. Anal. Subsyst. Environ. 26519
ESD anals. for spacecraft in geosynchronous orbit 35213
external tank attach ring, reliability analysis 10310
First Material Processing Test microgravity expts., image furnace and egg rack *(Japanese)* 12027
Galileo entry probe tracking, Jupiter wind profiles determ. 42337
Gravity Probe-B Spacecraft dewar tank, sloshing modulated fluid force 35269
guidance/control/tracking, conf., Orlando, FL, USA (1993) 11569
H-2/Ariane-5 launch vehicles 35211
Hermes space vehicle PRA pilot study 18698
large spacecraft, environment critical vel. ionisation 10308
large spacecraft, environmental charging 10309
main engine data residue ident. and constrained least squares model 35271
miniaturisation, perform. enhancement *(Japanese)* 10303
MOMS-02 sens., combined stereoscopic along-track and multispectral data 41270
NASA ground operations, hybrid neural network systs. 26696
NASA planetary missions, laser transmitter/receiver systs. 42408
nuc. thermal propulsion program 4364
nuc. thermal propulsion systs., heat transfer 4367
orb. spacecraft, nuc. power propulsion 26691
piezoceramic lin. motor, flexible space struct. control 4995
pulse fission drive and antiproton-initiated ICF syst. 4365
qualitat. model-based diagnosis, possibilistic approach 18695
RF/microwave connectors, spaceborne appls., interconnect reliab. 35232
rotating spacecraft, solar radiation, thermal anal. 18692
small launch vehicle propulsion, high power MM-waves 35272
small satellite technol., conf., Orlando, USA (Apr. 1993) 20210
SOHO solar spacecraft, operations & ground systs. 35277
solid-core heat-exchanger nuc. rocket program 4372
Space Nuclear Thermal Propulsion develop. programme, USA 18772
Space Shuttle expts., Stirling refrigerator 26521
Space Shuttle main propulsion syst. propellant loading, KBS 18774
spinning spacecraft, coning motion stabil., Lyapunov anal. 10305
star-field ident. for autonomous attitude determ. 33076
supercond. technol., space appls. *(Japanese)* 35212
tethers on satellites, ionos. current collection 35302
thermionic nuclear power/propulsion, future prospects 18749
Ulysses space mission, helios., 3 dimens. modelling 43420
US Space Nuclear Thermal Propulsion Program 4373
Si solid-state microdosimeter for radiation monitoring in spacecraft/avionics 18636

spaceborne radar
94 GHz spaceborne radar for global monitoring of ice cloud 35331
ERS-1, radar rem. sens. satellite, internal clock drift 43472
forests, radar rem. sens., sensitivity to tree geom., model 43539
LIDAR wide-band Doppler detect. tech. 42530
meteorological radar, IEE Colloquium, London (1995) 28266
ocean oil pollution detect., C-band SAR data 43545
RA-2 satellite-borne radar altimeter for rainfall meas. 35329
RADARSAT, commercial radar equipped satellite 42524
SAR antenna patterns determ., distributed targets 25571
SCANSAR imaging, spectrum anal. algm. *(Chinese)* 42515
sea ice, age & thickness, SAR tracking rem. sens. method 43522
spaced-antenna radar meas. for winds study 43514
HgCdTe varactor photodetectors for space-borne wind lidar, heterodyne tech. 34162

spacecraft *see space vehicles*

spacecraft charging
charge neutralisation by neutral gas release, 3D calcs. 26524
ESD anals. for spacecraft in geosynchronous orbit 35213
large spacecraft, environment critical vel. ionisation 10308
large spacecraft, environmental charging 10309
nuclear and space radiation effects, conf., Tucson (1994) 5489
opt. solar reflectors, low absorptivity, environ. stabil., spacecraft charging 18690
solar cell lifetime, space factors testing 18726
Space Station Alpha power syst., environ. control/protection 26610
Space Station Freedom power system, on-orbit floating potentials 26592
telecomms. satellites, ESD studies *(French)* 18694
tethers on satellites, ionos. current collection 35302

spark erosion machining *see spark machining*

spark-gap voltmeters *see voltmeters*

spark gaps
see also air gaps
6 MV, 2 TW pos. ion driver, induction adder 36301
100 kV compact nanosecond Pichugin pulser 36260
capacitor storage, programmed discharge 36630
cutout restriking behaviour model *(German)* 11202
DC elec. rly., pulsed power switch-based protection 36712
electro-optic Kerr relax. meas., pulse generators 1732
electron beam accelerator, long power pulse operation retrofit 34751
EM launcher electrode/insulator degrad. studies 15332
gas lasers, spark-gap design 15009

spark gaps continued
high current pseudospark switch, pinch plasma devices 36397
high current/energy closing switches. railgun appls. 31746
high electron current dens., plasma edge cathode 29752
high-power gas switches, ferroelec. electron beam triggering 36406
hollow cathode discharge, pseudospark switch 29747
HV desk-top subnanosecond pulser, develop. and appls. 29074
HV double pulse modulator, variable interpulse delay 5108
HV low jitter trigatron, repetitive operation, design/model 29820
inductive storage, high repetition rate opening switch 36629
LEO spacecraft pulsed power systs., dielec. surface flashover expts. 35258
Marx generator, 60 J/600 kV, 500 ps risetime 5107
Marx generator-based EMP simulator pulsed power supply 36264
multichannel pseudospark switches, expts. 36399
PD, dielec. ageing 22645
PD and their effects on materials 22642
power syst. lightning control, UV laser triggering expts. 27262
pseudospark switch, metal vap. densities/excitation temps. 36407
pseudospark switch develop., appls. 29818
pseudospark switches, forward voltage drop meas. 36400
pulsed power high-Q capacitor banks, long-duration arc discharge appls. 36500
pulsed power spark gap switches, voltage recovery expts. 36456
pulsed power switch, electrode perform. tests 36411
repetitive high press. gas switching 36470
repetitive pulsed power spark gaps, breakdown recovery expts. 36457
rot. dielec. spark gap, high repetition rate operation 11204
RUSLAN e-beam accelerator, Marx generator supply 34738
STRAUS-2 electron pulsed accelerator, pulsed power supply 36363
triggered gap switch, LV operation *(Japanese)* 5137
UHF spark-switched L-C oscillators develop. 34225
Walkie Edgar spark gap, mag. field, arc velocities 19338
GaAs semicond. spark gap, pulsed power appls. 36426
H$_2$ spark gap pulsed power switches, recovery characts. 36412

spark machining
electro-discharge machined surfaces modif., CO$_2$ laser *(Japanese)* 5613
five-axis EDM machine tool, CAD/CAM syst. develop. *(Japanese)* 11511
metal injection molding, microstruct. proc. 20427
plastic components, molding, micro-EDM tools 28877

sparks
aircraft external fuel tank, simulated lightning tests 18706
DC machine online spark detect. syst. develop. 4991
GIS charged conducting particles, motion meas. 11205
high-power gas switches, ferroelec. electron beam triggering 36406
IEEE pulsed power conf., Albuquerque, USA (1993) 20246
internal combustion engine knock detect. 5353
mag. parametrons, chaotic oscills. studies *(Polish)* 577
material explosion, pulsed currents/elec. fields, simul. 30551
power syst. lightning protection, laser-generated plasma-based 27261
pseudospark discharge, ion beam prod. 26087
pseudospark operation, hollow cathode phase studies 29819
pulsed gas laser, external cct. effects on spark-gap arc-discharge 23100
skipping-sparks in discharges, dielec. surface 6897
spark ignition engines, flame initiation/stretch, heat transfer 19532
XeF gas-discharge (B→X) laser, high specific output energy 1846

sparse matrices
2.5D scalar Helmholtz eqn., spectral Lanczos decomp. 23773
2D leaky opt. waveguides, vectorial FEM modelling 39406
3D scatt. FEA absorbing boundary condition code parallelisation 23556
absorbing boundary condition for EM scatt. 40307
algms. for sparse matrices and lin. systs., comparison 20600
canonical-grid method for scatt. by many scatterers 31794
computer aided cct. anal., matrix manipulation 12264
DCT domain image fast progressive reconstr. 33021
differential form of Maxwell's eqns. in rect. regions, soln. 31704
digital filter design, sparse struct., pole/zero sensitivity minimization 29391
EM scatt. from conducting objs., hybrid wavelet expansion and BEM 31781
FFT algos., implement. on transputer computational structs. 5799
graph param. approx. 28620
hybrid CG methods, lin. nonsymmetric systs. 11989
impedance matric localisation, CFIE soln. 31919
ISOMOM method for moment-method solns. in EM 31710
meas. eqn. of invariance method, randomly rough surfaces anal. 42481
measured eqn. of invariance, computational savings 23605
microwave band lin. ccts., sig. and noise charact. 12798
multiconductor transm. lines in multilayered dielec. media, anal. 31875
multiprocessor sparse matrix eqn. solver for SPICE 12275
nonrectangular cavity=backed patch antenna anal. 23850
operational space mass matrix and inverse, Schur complement and factorisations 187
orthogonal regression models, nonlin. param. estim., algms. and appls. 28662
parallel partitioning of sparse matrices 28675
parallel sparse Cholesky factorizations evals. 11985
partially adaptive lin. constrained arrays, sparse approach 41015
power syst., small sig. stabil. anal., eigenvalue clusters calc. 35437
power syst. computations, vectorisation algms. 35439
power syst. load flow calcs., modified incomplete Cholesky method 26864
power syst. optimal power flow anal., security constrained 26902
power syst. state estim:, robust Mahalanobis dists. 10607
power system load flow anal., computer-based methods 19021
power system state estimation weighted least square methods 19022
preconditioned conjug. gradient method, distributed memory systs. 11969
rot. symmetric coaxial waveguides, efficient FEM formulation 23793
shielding enclosures, hybrid finite element-anal. solns. 7999
surface interpolation, fast, using multi-resoln. wavelet transform 28655
symmetric matrix decomp. parallel structs. 28670
systolic array for finite elements 12404
Toeplitz systs., asymptotically ill-conditioned block, preconditioning strategies 20610
waveguide mode computation using wave-like basis fns. 31893

spatial data structures
closed surfaces, parametrization, 3D shape description 32906
disparity-space images and large occlusion stereo 24618
GPS ref. stations, national spatial data syst. framework 42325
hierarchical image representation by subband decomp. 32847
med. appls., fast polygon scan conversion 2586
pyramid data structs. for online image progressive transm. 2837

spatial databases *see visual databases*
spatial filters
see also spatial light modulators
128×128 pn-np variable-sensitivity photodetector array artificial retina chip, edge extraction 24577
acousto-optic pupil-plane filtering, incoherent image proc. 22967
adaptive beamforming, spatial filter designed blocking matrix 8408
adaptive detect. of subpixel targets, unknown spectral charact. 16103
adaptive pattern recogn. with rot., scale, and shift invariance 41237
amplit.-modulated circ.-harmonic filter for pattern recogn. 24655
analog apodizers, binary ang. sectors 22986
aspherical mirror testing, zone plate CGH common path interferometry 40122
atmos. distorted images, high-resoln. restoration techs. 33004
bathymetry data postprocessing/corrections, sidescan sonar syst. 10560
binary phase only filter, spatial coded, simulated annealing algm. *(Korean)* 31064
binary phase only matched filter symm. breaking 31060
blind adaptive beamforming and equalization 9228
broadband adaptive beamforming by 2D spatial filters 23972
CCD holographic image sens., first-arriving light spatial filtering 34588
charact. meas. for 3D surfaces based on multiple filtering *(Japanese)* 2622
composite harmonic filters, scale-, projection-, and shift-invariant pattern recogn. 24490
correl. filter, noise adaptive discrim. 39544
cuneiform inscription anal., holographic image proc. techs. 23466
diffractive opt. element design for opt. sig. proc. 32944
digital images, visual appearance/fidelity eval. 2611
discrete Fourier preprocessing transforms for binary phase-only filter 32966
distortion-invariant composite filter for target detect. in nonoverlapping scene noise 32869
distortion-invariant phase-only filters, iter. design 7451
double-passage coherent imaging through random-phase screen, complex-valued obj. reconstruction 41233
fiber-optic array alg. opt. computer proc. archits. 22978
filter SDF, opt. correlator perform. 8470
fractional Fourier domains, convolution and filtering 32978
freq.-phase optoelectronic speed-measuring devices 42947
Gaussian mode forming phase opt. elements, iter. algm. 7447
GLORIA images spatial filtering, speckle reduction/contrast enhancement 9674
harmonic filter, limited rot. invariant joint transform correl. 41300
hearing aid microphone array data, robust adaptive proc. 18608
holographic image reconstruction, spatial freq. filtering 23459
Hough-transform filter for plural element shape parallel detect. 33080
i-line lithog., pupil filtering and dipole illum. 13559
IC mask multiple-pass printing, spatial freq. filtering 13456
image seqs., noise reduction, motion compensation/sig. decomp. 32874
image vel./opt. flow meas. by augmented generalized gradient scheme 2592
incoherent opt. syst. depth of field extension by wave-front coding 41234
incoherent-type pupil filter for opt. lithog. 13560
IR cloud pattern-class., neural-network decision surfaces 2715
IR detect., spatial sig. proc. 16101
IR imager continuous syst. transfer fns. from sampled pulse response data 9941
joint wavelet-transform correlator for image, extraction 24492
lateral shear interf. imagery, holographic grating 2138
lateral-shear holographic interferograms, spatial filtering 7823
LD, single mode single stripe, spatial filtered 39841
legal Wigner space filtering and interp. 2528
matched spatial filtering, correl. diags. for shape invariant pattern recogn. 32980
microphone array for sound pickup in teleconference systs. 3693
min.-MSE filters for spatially nonoverlapping target and input-scene noise 22982
mobile commun., high-resoln. array proc. 33880
morph. filter optim. by learning, opt. neural net appl. 1765
motion extraction by spatiotemporal filtering 8525
motion segmentation and vel. integrat., filter selection model 8659
movement charactn., low-light-level image spatiotemporal FT 41232
multicovariance matched filter for target detect. and background recogn. 16107
multiple-obj. computer-generated holographic discriminant correl. filter design 32967
narrow-band beamforming in 2D domain *(Japanese)* 2460
noncontact vel. meter based on spatial filtering method 3990
obj. tracking novelty filters, resoln. theory 41298
opt. fiber sens., 2-mode ellipt. core 34708
opt. flow, multi-orient. filters 16166
opt. pattern recogn., random PM techs. 32943
opt. spatial filter sens. for ground speed meas. 42760
optimal trade-off distortion-tolerant constrained-modulation correl. filters 24362
optoelectronic proc., image detail morph. enhancement, rank-order 24487
orient. filters, design and implement., separable approx. methods 32881
particle image velocimetry, image labelling, flow meas. 18154
particle image velocimetry, real time LCD syst. 4011
phase-matched filters in pattern recogn., symm. measure 7448
photon echo based simultaneous opt. image proc. 32933
photon-limited images, low-pass filtering, histogram spec. 33144
photorefr. device opt. inform. proc. 32945
photorefr. polymer four wave mixing opt. correlator/computer 24425
photorefr. two-beam coupling optimal thresholding filter for additive sig.-depend. noise reduction 23406
photorefr. two-beam-coupling nonlin. joint-transform correlator 2052
prog. blind adaptive spatial filtering 40917
prog. canonical correl. anal. for blind adaptive spatial filtering 9167
prog. opt. pattern recogn. image proc. 2829
projection algm. for adaptive spatial filtering 2538
radar sig. spatial proc. algm., priori interfering refl. inform. *(Russian)* 17407
real-time digital single-exposure speckle photography for vel./flow fields study 41299
refr. surface flow visualization, image proc. 42988
Richardson-Lucy blind deconvolution algm. 24361
robust nonlin. filter for noise-smoothing and edge-enhancement 2847
robust real-time constrained hearing aid arrays 18609
rot.-invariant filter, opt. wavelet transform, pattern recogn. 33084
SAR imaging, speckle reduction, iter. homomorphic tech. 42484
scale-invariant opt. correlators using FLC SLM, road sign recogn. 41236

spatial filters continued
SDF design by multiresolution wavelet anal. 24654
single-mode fibre, polaris. mode dispersion, pulse distortion meas. limitations 30862
singlemode fibre digitally tunable wavelength filter, opt. transparent 17330
spatial envelop-free nonlin. joint transform correl. 24391
spatially disjoint sig./scene noise opt. pattern recogn. 32946
spiral zone plates, focal point central dark spot 22985
stepper-lens syst., pupil-filtering 38717
subsea acoustic rem. commun., adaptive receiving beamformer 9613
texture segmentation, pyramidal Gabor fns. and self-organising, maps 24363
transparent motions separation, filtering 16167
tunable photorefr. spatial filters, noise robustness 8654
two-pulse photon echo opt. DP 41060
ultrafast photonic ATM switch based on parallel sig. proc. 33727
VCSEL diode under DC excitation, chaotic dyn. of mode competition 1999
visual motion estim., spatiotemporal computation 32952
Wiener spatial filter SDF for opt. correl. 41153
$BaTiO_3$ photorefr. opt. novelty filter, design and perform. 31059
$BaTiO_3$ photorefr. opt. shift- and rot.-invariant associative memory 1657
GaAs-AlGaAs MQW SLM 29946
$KTiOPO_4$, parametric image amplif., spatial freqs. transfer fn. 23353
$LiNbO_3$:Fe cryst., real-time LF spatial filtering 7449
Nd:YAG laser, diffractive-optic graded-phase resonator, modal props. meas. 39740

spatial light modulators
see also spatial filters
2-D opt. BFN 8077
acousto-optic correlator for radar report-track assoc. 7423
acoustooptic spatial control of light, probabilistic anal. 22968
act. mode-locked LD array, tunable picosecond pulse generation, chirp compensation 7614
act.-matrix LC SLMs, parallel opt. proc. 7414
addressable SLM, image readout 31008
analog distorted helix FLC-on-silicon SLM 31013
antenna phased arrays, time delay transmit/receive opt. beamforming syst. 8076
antiferroelec. liq. crysts., displays, SLM 22951
apodized pixel lenses in compact shadow-casting correlators 41238
bacteriorhodopsin SLM, opt. proc. 31672
bacteriorhodopsin thin film photoanisotropic incoherent-to-coherent image converter 22990
binary opt. elements, SLM 39479
binary phase fan-out elements, opt. optim. 14558
binary phase only matched filter symm. breaking 31060
bipolar winner-take-all model with a threshold, real-time pattern recogn. syst. 24428
Bode transform, opt. implement. 24652
cathodoluminescent screens, partially coherent radiation, recording and inform. proc. 34645
chiral SLC-on-Si SLM, HV circuitry 22961
diffractive opt. element design for opt. sig. proc. 32944
diffractive/holographic optics, conf., Los Angeles, CA, USA (Jan. 1994) 36836
digital associative memory neural network, opt. learning capability 14559
digital micromirror device, projection display 18007
digital opt. cellular image proc. parallel archit. 1772
digital opt. computing, magneto-optic SLM 7428
digital opt. matrix-vector multiplication realization 22976
double-layer cell FLC polariz.-control devices 22958
dyn. fiber specklegram sens. 25864
dyn. white light holography, opt. addressed MQW SLM 31636
electron-beam thermomagnetic recording in multilayer mag. struct. 39312
Fabry-Perot modulators, correctable partial antirefl. coatings 30992
fibre sens., CDM, SLM 34549
FLC light valve, pixellated metal reflector *(Chinese)* 1745
flexure-beam micromechanical SLM 7391
fluid flow partical image velocimetry data anal. 42987
free-space matrix multiplier, diffractive/refr. micro-optics 7489
free-space opt. interconnection prog. opt. logic systs. 39517
Fresnel lens written magneto opt. SLM 22963
Fresnel lenses written onto SLM, fractional pixel translations 22981
glass-Ag-polymer struct., light switching, ATR study 22945
gray level image filtering, Q-state mean field annealing algm. 8508
harmonic filter, limited rot. invariant joint transform correl. 41300
high-speed SLM, photosensitive polymer layer 31005
hybrid opt. syst. for freq.-domain texture class. of imagery 16271
incoherent-only joint-transform correlator 32969
joint transform correlator, posn. encoding appl. 32968
lateral-alignment-free opt. neural network, pattern assoc. 16141
LCTV image reconstruction of holograms 40151
LCTV-SLM for real-time holography *(Japanese)* 2146
liq. cryst. SLM, pyroelec. layer 22952
low-cost colour SLM develop. from liq. cryst. TV 42753
multi-channel non-blocking holographic switch, FLC SLM 40145
multichannel joint-transform correlator, multiobject recogn. 24426
multichannel liq.-cryst. opt. switch DCS 17204
multiple target detect., fringe-adjusted joint transform correlator 16277
multiplex video display 9988
multitarget tracking syst. based on opt. BJTC and neural networks *(Korean)* 14561
neural network, temporally multiplexed grey-scale wts., SLM 29452
oligothiophenes, conjug., transistors and SLM 22931
opt. archit., parallel arith. operations, iter. techs. 31037
opt. correlators for space computers 7436
opt. pattern recogn., random PM techs. 32943
optimal trade-off distortion-tolerant constrained-modulation correl. filters 24362
parallel opt. inform. proc., appl. *(Japanese)* 32853
particle image velocimetry, opt. real time fluid flow mapping 23487
particle image velocimetry, ultra-high-speed camera 3982
phased-array antennas, liq. cryst.-based opt. controllers 7398
photoconductor jelly SLM manufacture 7393
photorefr. material holographic data storage systs. 31673
photorefr. neural-network wt. decay, gain and exposure scheduling 39519
polyvinyl alcohol film, methyl-red doped, SLM 22930
prog. Dammann grating, interconnections, FT lens, SLM 39450
prog. joint fractional Talbot CGH 23462
projection displays, metallized viscoelastic control layers 25923

spatial light modulators continued
real-time nonlin. joint transform LCLV CCD sens. correlator 2713
refl. mode magneto optic SLM develop. for miniature correlators 31014
reflective FLC SLM, real-time binary phase holograms 22954
road sign recogn., opt. joint transform correlator 33003
scale-invariant opt. correlators using FLC SLM, road sign recogn. 41236
selectively erasable LCD, opt. storage appls. 7409
semicond.-liq. cryst. interfaced opt. addressed SLM 14536
singlemode fibre digitally tunable wavelength filter, opt. transparent 17330
smart-pixel liq. cryst.-on-Si SLM for optoelectronic neural network 22960
speckle methodology, liq. cryst. TV and posn. sensitive device 39499
thiophene oligomer thin film SLM *(French)* 2086
TOPS multifilter solid optic correlator 16255
TOPs opt. pattern recogn. program 18987
twisted NLC panel optim. for spatial light PM 31007
twisted NLC panels, PM capability, double-pass config. 39495
twisted NLC SLM, ternary phase-AM 22955
VanderLugt folded opt. module correlator design geom. 24651
wavefront curvature control 30991
$Bi_{12}SiO_{20}$ SLM, 2D lock-in detector array 31001
$Bi_{12}SiO_{20}$ SLM-laser scanner hybrid joint transform correlator 33082
$Bi_{12}SiO_{20}$ opt. correlator/SLM, multiple distortions 32964
GaAs/AlAs MQW Fabry-Perot transm. modulator, ON/OFF contrast ratios >7.4 30988
GaAs/AlGaAs MQW SLM 30993
GaAs-AlGaAs MQW SLM 29946
Si CMOS addressing matrices, light-valve projection displays 25928
Si/FLC light modulator, stochastic reson. 22928
polymers, electro-optic props./appls. 22923

spatial orientation control *see attitude control*

spatial reasoning
see also spatial data structures; temporal reasoning; visual databases
image seq. interp., qualitat. predicting rels. 16405
occlusion reasoning for robust multiple car tracking 24455
spatio-temporal proc., high-resoln., fast algm. 8263

spatial variables control
see also attitude control; displacement control; motion control; position control; shape control; size control; thickness control
ferroelec./semicond. struct. capacitance disk memory, noncontact eval. 1565
scanning laser vibrometers, directing meas. point 31693

spatial variables measurement
see also angular measurement; area measurement; curvature measurement; diameter measurement; displacement measurement; distance measurement; height measurement; length measurement; level measurement; position measurement; shape measurement; size measurement; surface topography measurement; thermal expansion measurement; thickness measurement; volume measurement
3D coord. meas. machine, self-calib./error correction 18086
3D profiles noncontact meas., opt. sens. *(Japanese)* 42943
3D stereo depth determ. by photom. ratios 2604
acoustic bubble capacitor, gas bubbles in liqs. sizing 25780
adaptive whole-field opt. profilometry 18089
CD meas., sub-half micron region, ESD technol. 42929
close range dimens. meas., grating techs. 18078
CMM, control input shaping against vibr. 17675
CMM, interf. probe head 17729
concentricity tolerance meas., man, meas. error source *(German)* 10019
contactless lin.-dimens. monitoring, lin. and ang. 3986
depth extraction by time disparity, real image seqs. *(Japanese)* 2617
deviation from rectilinearity meas., error eval. 42925
discretised objs., geom. charact. determ. 41154
edge angles meas. of knives, light sectioning tech. 3978
ESPI for spatial variables meas. 31681
heterodyne interferometry-laser microscopy hybrid meas. syst., acousto-opt. deflectors 31023
hot strip mills, real time flatness sens. 42934
IC wire bond, automated visual inspection, auto-focusing 37163
in-proc. 3D coord. meas., CCD camera *(German)* 17970
integrat. fiber optic sens., scaling/antenna gain 17895
laser alignment meas. syst. based on opt. activity, adaptive noise cancelling 31691
laser range-finding CMM calib. 2159
machine tool rolling meas. syst., laser interferometer-based *(Japanese)* 42940
machine vision syst. appl., surface texture anal. 10023
mag. head/tape spacing, 2D interferometric meas. 7169
ocean CTD equipt., depth from press. sens. data, corrections 18892
opt. disk mech. characts., meas. syst. 10018
opt. fiber cladding diam. by meas. of reson. peaks in elastic-scatt. spectra 7314
opt. fibres in pulsed TOF laser rangefinder 22853
optical instrumentation for process industries, conf., Germany (1994) 5486
railgun bore lifetime meas. expts. 15373
reticles, SEM metrology, profile anal., isofocal threshold 38745
robot guidance, US arrays 4421
ship, attitude meas., servo-type inclinometers *(Japanese)* 9791
ship attitude meas., servo-type accelerometers *(Japanese)* 25970
soft objs. dimens. inspection, laser/CMM syst. 34332
space guidance/control/tracking, conf., Orlando, FL, USA (1993) 11569
spatial intens. distrib. meas. of laser beam 7721
star-field ident. for autonomous attitude determ. 33076
submicron struct., 3D meas. techs. 42930
suspens. and aggregates, combined rheometer/image analyser 25876
underwater robot vehicles, 3D US localisation syst. 26785
wood grain angle meas., microwaves 18080
workpiece contactless 3D-geom. meas. *(German)* 10020
Nd:YAG laser welder beam charact. meas. 7722

SPE *see solid phase epitaxial growth*

speaker identification *see speaker recognition*

speaker recognition
see also biometrics (access control)
additive Gaussian noise, cepstral 32377
automatic imposter detect. in telephone speech 32251
automatic lang. ident., syllabic spectral 32277
automatic speech recogn., coding algms. influence 32358
cepstrum-based speaker ident. 32216
channel normalization, pole-filtered cepstral mean subtraction 32203
discrim. semi-continuous HMM 32281
discrimination in a conversation 8232

speaker recognition continued
distributed decision approach 32244
double-talk detect. method, detecting echo path fluct. *(Japanese)* 40719
hybrid HMM-MLP speaker verification algm. for telephone speech 32247
identification bt time delay neural net 32421
identification/inspection of humans conf., San Diego, USA (1994) 20264
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
indiv. speaker adaptive recogn., tree-struct. algm. *(Japanese)* 32417
interactive voice technology for telecommunications, conf., Kyoto, Japan (1994) 11
large pop. speaker ident., clean and telephone speech 40715
large pop. speaker recogn., wideband and telephone speech 32204
large-vocab. speaker recogn. technol., recogn. accuracy *(Japanese)* 15813
lin. predictive anal. techs. 32201
LVQ learning schedules for ANN speaker ident. 8199
microphone arrays and neural networks, speaker/speech recogn. 32205
min. error discriminative training 32286
min. error discriminative training for speaker recogn. 15826
multi-expert/hybrid connectionist method 2429
multimodal consumer inform. server, IVR menu 3131
multipulse excited LPC vocal tract model for speaker ident. *(Japanese)* 32208
neural tree network/VQ probab. estimators 8236
neural tree networks appl. 32250
NTT speech proc. technol. and telecommun. appl. 2441
Orphee syst. techs., speaker charactn. 32246
phoneme recog., contin. dens. HMM, unsupervised speaker adapt. 40755
phonemes, relative speaker discrim. props. 32242
phonemic segmentation syst., Eng. continuous speech, static/dyn. params. *(Japanese)* 40718
pitch mode modulation model based speech enhancement 8208
robust cepstral for speaker ident. 32241
robust lin. predictive anal. methods for speaker ident. 24150
segmentation and clustering problem, multiple N sig. source model 8200
segmentation of speech, speaker ident. 32249
speech independent speaker recogn., HMM/VQ comparison 8229
stat. pattern matching method 32202
tactical commun. 32287
talker clustering/ident., model dist. measure 32282
telephone network speaker verification service 3135
Texas Instruments multiserve enhanced voice services 3133
text depend. speaker verification, data fusion, channel detect. 32200
text depend./independent/prompted speaker recogn. technol. *(Japanese)* 15818
text independent speaker ident., robust segmental method 32245
text-depend. speaker recogn., higher freq. band inform. 32243
text-independent speaker ident., Gaussian mixture speaker models 8225
text-independent speaker recogn., dist. measures 32280
text-independent speaker recogn. from vowel extraction *(Korean)* 40731
text-independent speaker verification, hierarchical pattern class. 32248
text-prompted speaker recogn., tied-mixture-based phoneme models 32240
unknown-multiple sig. source clustering problem, ergodic HMM *(Japanese)* 32548
voice ident., nearest-neighbor dist. measure 32285
voice proc. in telecomms. 2439

speaker verification *see speaker recognition*

speakers *see loudspeakers*

special libraries
see also academic libraries; research libraries
Australia, document delivery services, 1980-94 overview 33434
internet for medical libraries conf., San Antonio, USA (1994) 36834
MIDAS, med. library's database access syst. 41803

special purpose computers
see also aircraft computers; database machines; digital differential analysers; process computers
CAMAC rem. meas. syst., special computer 3752
Cassini spacecraft, command and data subsystem 10367
digital logic simul., special purpose array proc. 38960
DWP, Digital Wave Processor, dependable space instrum. 26539
fast front-end computer design 18232
Galileo syst. design for orb. operations 9407
Intel 32 bit μP, radiation tolerance for space appls., eval. 29306
KITSAT Korean satellite, on-board computer syst. 10324
multiprocessor archits., real-time engine/vehicle guidance control 4357
multiresolution image proc., VLSI 128-proc. chip 6167
opt. correlators for space computers 7436
parallel error-correction archit. for digital avionics 10364
parallel proc. for image segmentation 12574
RISC proc., single event effects/perform., space appls. 6182
smart act. matrix LCD for Space Shuttle 10355

specific gravity *see density*

specific gravity measurement *see density measurement*

specific heat
see also Debye temperature
capacitor energy storage, nonlin. tervit resistor appls. *(Russian)* 44429
classical superconds., props. *(Polish)* 39220
hot disk sens., thermal cond./diffusivity/sp. ht. meas. 9895
molding cpds. for plastic packaging, thermal anal. 5670
nonsteady state probe for thermal/humidity meas. 42757
particulate-loaded polymer molding cpds. for plastic packaging, thermal cond. 5625
regenerative gas turbine cycle, water enhanced, perform. calcs. 19524
thin rect. plates, eddy current loss calc., cryogenic temps. 7908
Y_2O_3-La_2O_3, space charge form., free energy variation 13928
$Ge_{27}Te_{62}Se_{11}$ chalcogenide glass, I-V characts., switching behaviour 29870
U gas, nuc. rocket fuel, opt./thermophysical props. 4370

specific heat at constant pressure *see specific heat*

specific heat at constant volume *see specific heat*

specific volume *see density*

specification languages
see also hardware description languages
abstr. test suites validation, SDL 24828
algms. for deriving protocol specs. from service specs. written in LOTOS 2906
ATM network modeling, obj. oriented simul. 24768
authentication protocols verification, methodology/example 2954
client/server models, commun., spec./validation 2932
CMOS cell library for formal high level synthesis, design 12497

specification languages continued
  commun. protocols, timed communicating state machine 33267
  commun. service specs., stepwise refinement 25085
  conformance tests for nondeterministic protocol machines 2951
  deterministic FSM model, fault detect. and diagnosis capabilities of test seq. selection methods 33274
  distributed commun. syst. technol. 24885
  DSP appl.-specific chip design, behavioral silicon compiler 680
  Estelle, automatic test case generation 2969
  Estelle formal spec. described protocol, validation tech. 2902
  Estelle interpreter for incremental protocol verification 2973
  Estelle specifications verification, numerical Petri nets 2974
  FDDI perform. eval. based on LOTOS formal description tech. 25490
  formal specification of communication protocols, perform. eval. 2975
  formalisation of user view of network and services for interact. detect. 3255
  FTP MAIL,e-mail automatic file transfer syst. *(Spanish)* 3152
  GSM signalling protocol LAPD$_m$, perform. anal. 3499
  high level synthesis and proof systs. amalgamation 21069
  incremental protocol verification method 16506
  ISO FTAM basic file protocol, LOTOS specified, anal. 41538
  ISO virtual terminal protocol, semi-automatic implement. 8758
  LOTOS environ., specifying, and anal. their interacts. 3143
  LOTOS specification, modularization 2956
  multiple domain experience in systs. engng. 5577
  obj.-oriented design for distributed systs., OSI directory example 33433
  optimized parallel protocol implement., formalizations/algms. 2938
  PCB test requirements in generic formats 29655
  protocol tools, formal specification to implementation 3291
  Q.931 call protocol, LOTOS based validation/perform. 16797
  QoS and media sync., formal description tech. 16873
  real-time MAP, modelling/formal spec. 16771
  SDL methodology for specifying radio protocols in CDMA syst. 2979
  SDL-based protocol implement. tool, proc. scheduler/compiler 41542
  stepwise telecomm. software generation, service specs. 3122
  telecomms. distributed maint. systs., abstr. design method 41655
  telephone, set formal spec. 24924

specimen preparation
  see also metallography; replica techniques
  automatic sample prep./anal. syst. 34409
  focused ion beam micromachining appls. 13906
  load-lock and manipulation syst., heating capacity 20842
  low-temp. sample manipulator for surface studies 38536
  microelectronic packaging, specimen prep. tech., cross-sectional TEM 28480
  pump LD, rapid degrad., TEM study 14866
  Au electrodeposited thin films, X-ray masks, stress/structural change 6701

speckle
  see also electronic speckle pattern interferometry
  astron. small bodies imaging, bispectral techs. 33140
  astron. speckle interferometry, phase problem soln. *(Russian)* 16251
  B-mode US imaging, stat. charact. of speckle 26293
  bispectral speckle near-diffr.-limited imaging, unknown aberrations 24653
  coastline change by SAR radar, image texture class. 10512
  compensated Earth-Moon-Earth laser link (CEMERLL) expt., intens. flucts. 17315
  conference, interferometry, photomechanics, Poland (1994) 28210
  contactless velocimetry of vehicles, microwave speckles appl. 18105
  deconvolution from wavefront sens., lin. and speckle image reconstruction 16212
  diffr. limited slit-spectrography 16213
  diffuse surface roughness, opt. rem. sens., turbulent atmos. 7877
  distant objs., focused-image holographic recording 31687
  dyn. fiber specklegram sens. 25864
  GLORIA images spatial filtering, speckle reduction/contrast enhancement 9674
  high resoln. motion sens., ASIC implement. 37808
  image reconstruction/restoration, conf., San Diego, USA (1994) 26
  in-line particle holograms image proc. 33008
  in-line recording off-axis viewing holographic particle velocimetry 40148
  Lee filter for speckle suppression in SAR images, alternative form 32917
  lin. displacement transducers based on speckle interferometry, error avoidance tech. 9889
  liq. cryst. TV and posn. sensitive device methodolgy 39499
  med. US imaging, elevational spatial compounding 10193
  motion params. meas. by speckle-optics methods 18076
  moving objs. embedded within scatt. media, detect. by speckle methods 34604
  multimode fiber-optic bundle emitted speckle-fields *(Chinese)* 1666
  obj. beam expander noise monitoring in speckle correl. interferometry 33143
  opt. analog computing appls. 7439
  particle image velocimetry FT lens, off-axis holographic tech. 23475
  phase diversity imaging, atmos. turbulence 33089
  phase shifting interferometry, ref. phase shift determ. 33072
  phase-diverse speckle reconstruction of solar data 16211
  photorefr. crysts., speckle beam self-bending, space charge 2049
  real-time digital single-exposure speckle photography for vel./flow fields study 41299
  reinforcement fibres, strain rates meas. 37569
  rough surface transversal displacement/rot., speckle movement 3977
  SAR based ATD/R, speckle reduction via wavelet shrinkage 34110
  SAR image filtering, combined algm. 25546
  SAR imaging, speckle reduction, iter. homomorphic tech. 42484
  shear beam imaging of laser illum. space targets, heuristic model 16196
  sheared beam imaging in space-time distortions 17433
  single-shot laser radar sigs., principal-component filtering 17440
  solar image, segmentation, parallel blind deconvolution methods 33087
  spatial opt. CDMA 42351
  stellar image reconstruction, triple correl. and Knox-Thompson method 24496
  target vel. meas. from speckled images 16197
  thermoplastic photographic plate, holographic opt. image proc. 7854
  tomograms, US, restoration based on Wiener proc. 43246
  towed ocean bottom instrum. image proc. 26728
  vibration meas. by laser techniques, conf., Ancona, Italy (Oct. 1994) 36868
  vibrs., speckle referenceless config., adaptive photodetectors 34704
  wavefront reconstruction from phase differences, correl. noise propag. 16201
  Si RTP temp. meas., ESPI/subfeature speckle interferometry 25999
  SrBaNb$_2$O$_6$ four-wave phase conjug. of time-depend. spatial struct. sig. 40102

speckle photography *see photographic applications; speckle*
SPECT *see single photon emission computed tomography*
spectra
  for specific spectra, see narrow terms as appropriate, e.g. "electron spectra", "multiphoton spectra", "X-ray spectra"
  size selected clusters, opt. parametric oscillator IR spectrosc. 15058
  tetraphenylbutadienes, substituted, fast scintillator solutes 10110
spectral analysers
  see also spectral analysis; transient analysers; wave analysers
  acousto-opt. spectrum analyzer modulator/deflector, radio-astron. appls. 17529
  arcing contacts, concurrent testing syst. develop. 9811
  ARMA parametric spectrum estim., order selection 15909
  CATV networks, spectrum analyzer in-service meas. 42623
  CATV perform. testing, spectrum analyzers 25673
  CATV spectrum analyzer level meter 25911
  CDMA sigs., charactn., spectrum analyzer 18019
  computerised waveform anal. of LSI for music synthesizers 3698
  dielec. props. meas., freqs. 5-100 Hz 9997
  digital analyzers for dyn. spectral anal. 3761
  distortion meas., spectrum analyzer 42919
  EMI environ. meas. syst. employing freq. level selective proc. *(Japanese)* 8001
  graphic software syst. for PC spectral analyser *(Chinese)* 34420
  HF iron loss measur., vector spectrum method 3958
  high-resoln. opt. spectrum meas., interferometer 9831
  high-speed digital systs., jitter anal. 33985
  HP 8590EM spectrum analyzer for EMC testing 42748
  IEC555 parts 2 and 3, digital power analyser 34656
  impulsive noise extraction, spectrum pattern anal. 25967
  interfacing act. devices, noise spectra analyser 9834
  logarithmic error measure, pole-zero approxs. design 2494
  microwave dielec. resonator oscillator charact. meas. *(Croatian)* 569
  multitone AF testing of telecomms equipt. 3758
  opt. spectrum analyzer selection, sensitivity, dyn. range, resoln. and accuracy 42747
  opt. spectrum meas. syst., high resoln. 4003
  permitt., permeab. and EMI shielding meas. 17696
  RF spectrum analyzer, PC-based 17692
  second- and higher-order cyclostationary proc., acousto-optics 32455
  semicond. laser; linewidth, linewidth enhancement factor α, FM and AM response meas. 39878
  sig. transformer, μP implement. via Walsh fn. *(Korean)* 34430
  SS low-power equipt., peak power meas. 25226
  synthesised LO for DB1NV spectrum analyser 34425
  vector spectrum analyzer freq. domain least-sq. syst. ident. 25743
  weak RF sig. meas. *(Croatian)* 3756
  Er-doped fiber amp. test syst. 31211
spectral analysis
  see also cepstral analysis; maximum entropy methods; minimum entropy methods; spectral analysers
  1/f noise universality in high-technol. appls. 34313
  2-D harmonic retrieval, subspace algm. 40997
  2-step PWM sinusoidal inverter, modulation switching and freq. spectra *(Japanese)* 37635
  2D sig., bispectrum estim., projection method *(Japanese)* 15895
  2D spectrum estim. method for bearings and Doppler freq. determ. 16027
  A-level bandwidth-efficient CPM 8101
  A/D convertors, transient and overvoltage recovery testing 12596
  acoustic event localization, crosspower-spectrum phase based tech. 32606
  adaptive time-varying parametric modeling 40908
  adaptive-neighborhood image deblurring 16323
  almost-periodic ccts., time-freq. transform for spectral bal. method 28992
  ANN-based speech recogn., generalized min. distortion segmentation 24152
  APC, transform domain quantization 15774
  AR sig. modelling for short seqs., efficient Bayes soln. 40973
  AR-modelling bispectrum estim., data segmentation 8249
  artificial and natural lighting, fluct. meas. *(Japanese)* 18126
  ASK and PSK sigs., spectrum conversion in filter-nonlin. amp. syst. 32595
  astron. small bodies imaging, bispectral techs. 33140
  auto-/cross-trispectra, computation/interp. 40994
  autonomous intell. cruise control radar syst. 34151
  autoregressive freq. estim., asymptotic stat. anal. 2533
  autoregressive spectral estimation fro NMR spectroscopy 24233
  AVIRIS calib. of Japanese Earth Resources Satellite-1 opt. sens. 17959
  band-limited fn., sig. reconstruction, Fourier spectra determ. 8440
  band-limited sigs., nonuniformly sampled, spectral estim. method 15863
  beamspace noise eigenvectors, multirate proc. 40906
  bilinear time-freq./time-scale representations, reassignment method 41052
  bipolar transistors, LF noise charact., emitter topography effect 38822
  bipolar transistors 1/f noise parameters meas. and anal. 22371
  bispectrum, invariant image averaging, practical issues 16159
  bispectrum anal., 1D regular fractals, additive random noise 32979
  blind fractionally-spaced equalization based on cyclostationarity 8387
  block-float FFT, roundoff errors 25750
  breast cancer detect., neural net spectral anal. 18455
  brushless DC motors, tooth forces, coil winding pattern infl. 19651
  burst error activity anal., network perform. determ. 9397
  car engine diagnosis, cyclostationary/time-freq. sig. anal. appl. 40936
  cardiography, signal processing colloquium, London, UK (1995) 28228
  cardiovascular syst. variability anal., multichannel power spectrum dens. 26282
  cardiovascular variabilities assess., multivariate ARMA spectral decomp. 34987
  cardiovascular variability sigs. anal., Akaike Information Criterion 26281
  cct. output probabilities, spectral coeff. calc. 2513
  CDMA demodulator, interf. robust, spectral correl. props. 3327
  CDMA opt. systs., bipolar codes 42352
  CDMA opt. systs. based on spectral encoding of noncoherent sources 41470
  chirp sig. matched filter output for real chirp sig. input 32643
  circularity and sig. proc. 8423
  clipped DMT ADSL sig., SNR/spectral props. 9097
  collocation methods stabil. for 2D Burgers eqn., Fourier case 20645
  color separation, moire patterns, spectral anal./minimization 2641
  composite frames, spectral characts./motion-compensated restoration 16315
  computerised waveform anal. of LSI for music synthesizers 3698
  condition monitoring syst., multilevel knowledge base 17679
  continuous Doppler ultrasound, parametric/nonparametric spectral estim. 26319

- **spectral analysis** continued
  - continuous speech recogn. in noise, spectral subtraction/HMM adaptation 32307
  - cooled beams phys. 34775
  - cross-PM for opt. A/D converter, high resoln. spectra 7793
  - CW transform for sig. investig./understanding 15974
  - cyclostationary sigs., neural network classifier 40940
  - cyclostationary time-series, cumulant theory 8417
  - cyclostationary time-series, cumulant theory devel. 8418
  - data-adaptive evol. spectral estim. 24209
  - deconvolution regularization, SNR, stat. estim., multiscaling 40782
  - DFT, bivariate orthogonal white noise series synthesis 40817
  - DHTs, generalised running and real-time analysers 29394
  - digital analyzers for dyn. spectral anal. 3761
  - digital ccts. EMC, waveforms spectral dens. 2509
  - digital modems, sym. synchronizer perform. 8457
  - direct digital freq. synthesizers, computer simul. 37658
  - discrete/continuous spectra, separable estim. 8463
  - distorted-timebase digitizer appl. 25735
  - distrib. systs., sig.-spectrum anal./diff. eqn. 35635
  - distributed temp. sens., Brillouin gain spectrum anal. based 17836
  - double FM synthesis, real-time implement. 9775
  - dual-channel iter. speech enhancement, auditory-based spectrum 8220
  - dyadic Green's fns., radially multilayered chiral media 40291
  - dynamic performance of ultrahigh speed ADCs testing 25761
  - ECG, 1/f spectrum slope, heart rate variability 26444
  - ECG, beats, selective sig. averaging, intervals spectral anal. 18559
  - ECG, heart rate variability spectra quality improvement 35077
  - ECG, myocardial infarction, heart rate variability anal. 26375
  - ECG, sig.-av., spectral turbulence anal. reproducibility 26422
  - ECG, spectral params. extraction, heart rate variability 35073
  - ECG, spectral turbulence anal. reproducibility 26419
  - ECG, spectrum estim., FFT/max. entropy methods 35101
  - ECG, ventricular tachycardia patients, phase/group-delay characts. 18540
  - ECG anal., heart rate variability oscills. 26423
  - EEG, autoregressive spectral array for graphical display 18572
  - EEG change points, max., posteriori estim. 26382
  - EEG DP, chaos and fractal props. *(Japanese)* 26402
  - electrocortical generators posn. estim. via subspace techs. 43320
  - EM beam diffr. by planar periodic metal-strip grating 40295
  - EM emission from PCB sig. line, peak freq. prediction 38073
  - embedded analogue to digital converters, characterisation, model 707
  - entropy min., spectral estim., inform. theory 40772
  - entropy-min. spectral estim., robustness 40776
  - evol. max. entropy spectral anal. 40963
  - exponentially damped sinusoids, param. calc., third-order stat. 40863
  - FDTD waveforms, spectral estim. by AR methods 2169
  - FEL oscillator spectral anal., Green fn. anal. 39977
  - FET, phase and baseband 1/f noise correl. study 833
  - filter banks, wavelet transforms 2455
  - finite sig. Fourier spectra interpolation, num. simul. 40767
  - flexible 8-channel data acquisition device for sig. proc. and anal. 25737
  - focused gamma neural network, state space, noise reduction 32657
  - formant freq./spectrum tilt, piecewise lin. voice conversion rules 40727
  - fractional Brownian motion, spectral exponent estim. 24287
  - freq. domain filtering for Gaussian seqs. generation 40978
  - FS1016 CELP coder, stochastic codebook, dyn. partial search 33702
  - Gaussian procs., generalized spectral-centroid estimator 24170
  - H_∞ criteria, robust sig. estim. 41012
  - H^∞ filters and smoothers, spectral theory 15951
  - haemodynamics, noninvasive monitoring, impedance cardiography/cardiointervalography 35098
  - harmonizable time series, generalized spectrum/spectral coherence 2511
  - HDD spindle motor mech. testing, ANN 36210
  - hearing loss compensation, neural network based objective measures 18612
  - heart arrhythmia detect. by digital spectral anal. of ECGs 10238
  - heart rate, AR spectral estim. uncertainty 26424
  - heart rate, spectral anal. without resampling 35099
  - heart rate variability, unevenly-spaced, spectral anal. 10247
  - heart rate variability indices, short term reproducibility 26429
  - heart rate variability spectral anal., methods comparison 34990
  - Heaviside operator based unified theory of lumped ccts./diff. systs. 461
  - high NA photolithography simul., scalar planewave model 1310
  - high-resoln. opt. spectrum meas., interferometer 9831
  - higher order moments, channel adaptive coding techs. 32141
  - Hindi vowels in consonantal context, acoustic/perceptual study 15851
  - HMM speech recogn., duration/spectral based stress token generation 32308
  - holographic points patterns, image space/spectral anal. 40128
  - hyperspectral air-to-air seeker 18990
  - hyperspectral data from AO tunable filter, spectral and polarimetric anal. 16267
  - IEEE ICASSP conference, Adelaide, Australia (1994) 20269
  - impulsive noise extraction, spectrum pattern anal. 25967
  - impulsively loaded equipment, mechanical condition monitoring, neural networks appl. 11212
  - induction motor, integrated on-line protection syst. 4969
  - induction motor bearing damage detect., stator current monitoring 4968
  - integrated opt. spectrometer, polaris. independent 14552
  - integrated polyspectrum, non-Gaussian sigs. detect. 2485
  - interfacing act. devices, noise spectra analyser 9834
  - interferometric sens., birefr. polaris. maintaining fibre 17853
  - interpolation anal., frame energy depend. weighting 32325
  - invertor output waveforms anal. maximum entropy method 24237
  - Landsat TM imagery, lines of commun. extraction syst. 16261
  - laser materials charactn., spectral anal. of relax. oscills. by intracavity method 34716
  - lin. phase freq. sampling FIR filters, error spectrum shaping 41044
  - local bandwidth adaptation, spectral dens. estim., wavelets appl. 32652
  - lofargram lines detect., unsupervised neural networks 34174
  - long-term data acquisition/recording/storage and sig. proc. syst. 25734
  - low bit rate coded speech quality eval., ref. sig. 8218
  - low residual noise speech enhancement utilizing time-freq. filtering 32211
  - LP-PSOLA synthesis, spectral smoothing/envelope modif. 32346
  - LPC params. for noisy channels, VQ 32329
  - mag. thin film media, transit. noise spectral meas. 7119
  - mammography, cumulant slices for 2-D autoregressive sig. modelling 32820
  - mammography, higher order spectral estim., AR modelling 10195
  - marine radar, wave obs./anal., land station expt. *(Japanese)* 10489
  - microwave imaging in inhomog. media 42916
  - MIMO lin. time-variant syst., cyclic higher order stat. 40897
- **spectral analysis** continued
  - min. bias multiple taper spectral estim. 24207
  - min. sq. spectral factors 37222
  - ML method based on correl. matrix lin. symm. 32574
  - MLP based nonlin. spectral estimators for noise reduction 32378
  - MMSE design of generalized interpolators polyphase components 32729
  - mode-space spatial spectral estim. for circ. arrays 2560
  - moving av. syst. ident. from bispectrum 2542
  - multi-codebook HMM speech recogn. systs., learning 32263
  - multichannel rational syst. ident. 8282
  - multichannel sig. modeling and separation 24253
  - multichannel simultaneous digital tracking filters, vibr. control 17993
  - multichannel time series, coherence anal. 40980
  - multicomponent exponential transients, time-domain method anal. 25749
  - multifractal entropy and dimens. spectrum 15691
  - multiphase systolic algms. for spectral decomp., comments/reply 32565
  - multiple freq. spectral estim., 2π ambiguity problem 32537
  - multiple view time-freq. distribs. 8346
  - multiple window spectrogram/time-freq. distribs. 40964
  - multispectral image compression designs, syst. considerations 16308
  - multispectral imagery, practical transform coding 16309
  - multispectral imagery, wavelet/KLT data compression 8270
  - multispectral images, radiometrically correct sharpening, panchromatic image 16270
  - multitone signal components estim., low sidelobe time windows appl. 8445
  - multiwindow method for array spectrum estim./sinusoid detect. 2473
  - MUSIC, conjug. symmetric beamformers, perform. anal. 40816
  - musical pitch tracking, principal decomp. anal. 32601
  - musical recordings restoration, short-time spectral atten. techs. 9774
  - noise reduction syst., voice activity detector influence 40752
  - non-lin. wave-wave interacts. detect., tricoherent anal. 41047
  - noncoherent freq.-PM, BER/PSD 24014
  - nonlin. FM sigs., spectral-correl. charact. 2573
  - nonlin. RCS, higher-order spectra 42497
  - nonsinusoidal 3-phase systs., real/imaginary power defn./meas. *(Italian)* 4733
  - nonstationary random procs., second-order time-freq. synthesis 24289
  - nonstationary sigs., instantaneous spectral estim. 41053
  - nonstationary sigs., time-varying spectral anal., combined wavelet/FT 32679
  - nonstationary spectral estim., optimal kernels 32556
  - obj. beam expander noise monitoring in speckle correl. interferometry 33143
  - one-sided/two-sided lin. prediction 24218
  - opt. fibre PPM slot/frame spectral props., timing extraction 3576
  - opt. heterodyne microwave generation, spectral charactn. 6293
  - optimum sounding sig. for time-delay measuring syst. 16063
  - orthonormal discriminant vector method for pattern recogn. 15897
  - otoacoustic emissions, cumulant-based cubic difference tone detectors 32453
  - p-adic stationary proc., max. Ch-entropy estim./fast algm. 32768
  - pass. sonar time delay estim. 9655
  - PCB, sig. line EM emission, spectral profile simul. 23669
  - periodic phenom., spectral anal., uncertainty 40969
  - photogrammetric tech. integrat., conf., Orlando (1993) 36888
  - planar microwave applicator, current line fed grounded dielec. layer 10268
  - plethysmography elec. field sigs., time-freq. spectral anal. 43307
  - power spectral estim. problem with gaps, max. entropy algm. 40996
  - power spectrum estim., wavelet thresholding techs. 2484
  - power syst. state control optim. algm. 19078
  - projections onto convex sets, damaged block transform coded images 33131
  - PSD estim. simul., max. entropy method 2582
  - quadrature component generation anal., narrow-band oscills., delay method 40766
  - quantitat. seafloor charactn., bathymetric sidescan sonar 10558
  - quasioptical Josephson detectors for MM-wave spectrum anal. 42759
  - quasisynchronous sampling algorithm, spectrum analysis 24231
  - radar sig. proc., spectral smoothing filter and EMC 25573
  - radar target ident., bispectrum 34112
  - radial basis fn. network, speech spectrum conversion 40726
  - radix-12 FFT building block 8300
  - random amplit. modulated harmonic retrieval, higher-order stats. 32460
  - Raphael paintings, spectral and spatial stats. 24530
  - rational spectral dens. matrix ident. 32635
  - real-time cyclic spectral anal., computational bal. 40939
  - recursive time-freq. methods for dyn. systs. 24257
  - reinforcement fibres, strain rates meas. 37569
  - rem. sens., digital image proc. 35359
  - rem. sensed digital images anal. algms. 32850
  - robust recursive spectral estim., AR model excited by t-distrib. proc. 32774
  - rot. mach., stat. monitoring, cumulant spectral anal. 32454
  - running bispectra computation and implement. 40849
  - SAW resonator filter, reversing multistrip couplers 30643
  - scan-beam SAR image proc. *(Chinese)* 34107
  - scan-beam SAR imaging proc. 17425
  - segmental SNR weighting, degraded word recogn. 32311
  - self coupled harmonics, stationary/cyclostationary approaches 40937
  - semicond. laser reliab., spectral anal. 39849
  - semicond. laser reliab. and failure anal. 39816
  - shielded waveguide spectrum, complex waves mechanism 12688
  - ship detect. from acoustic time series, spectral/bispectral anal. 34105
  - short time FT based time-freq. distrib. 24241
  - sidelobe control in SAR imagery, nonlin. apodization 34118
  - sig. constellations based on hypercubes 40576
  - sig. transformer, μP implement. via Walsh fn. *(Korean)* 34430
  - sinoatrial node dysfunction patients, heart rate variability anal. 26425
  - sinusoidal params. estim. in meas. noise by cross-spectral method 16026
  - sleep vegetative background, heart rate variability spectral anal. 26385
  - source bearing estim., propagator method 40895
  - source separation with noisy obs., noise cancellation 40862
  - spaceborne wide swath SAR scansar sig. proc. *(Chinese)* 42515
  - speaker indiv. control/conversion, acoustic charact. 40728
  - speaker verification, distributed decision approach 32244
  - spectrometric data correction, Kalman-filter-based algm. 15931
  - speech, spectral, extraction, Poisson moments 8234
  - speech coding, spectral envelope, high-order allpole modelling 32337
  - speech enhancement, constrained iter., HMM-based phoneme class partitioning 8227
  - speech enhancement, higher order AR modelling, parameterized Wiener filtering 15836
  - speech lin. predictive coeffs., variable dimens. VQ 32331
  - speech line spectrum pair params., optimal transform coding based on spectral-weighted error criterion 2405

spectral analysis continued
speech LPC params., interblock noiseless coding 32330
speech recogn., acoustic/suprasegmental inform. combination 32225
speech recogn., RASTA-PLP integrat. 32310
speech recogn., subband-autocorrelation anal. 32405
speech recogn. non-uniform unit HMMs 2445
speech segment class., rate allocation, spectral entropy 32259
speech sig., Fourier spectra, adaptive enhancement 8221
speech single stage spectral quantization, 20 bits 32336
speech spectral inform., segmental quantization 32334
static power converter supply, local spectral approx. methods 36355
stationary time series, innovation variance, multitaper estim. 24206
stochastic sig. dyn. description, momentary power/freq. estim. 10168
substraction/HMM-based speech enhancement, hearing aid design 32213
suspen. striplines, proper values/vectors calc. 37933
symmetric coupled transm. line on suspen. substr., spectrum calc. 37932
texture images, bispectral-based test for spatial reversibility 8561
threshold sources detect., prewhitening of colored noise fields 8293
time delay estim., integrated polyspectrum 32617
time envelope vocoder, natural sounding speech coding algm. 40748
time-depend. hydrophysical procs./fields, acoustical meas. 18165
time-freq. dens. fns. approx. 8396
time-freq. distrib. series 32668
time-varying higher-order cumulant spectra, noise, composite FM sigs. anal. 40970
transitory evol. spectrum 40984
trellis shaping schemes bandlimited PSK-sig. envelope control 8095
trispectrum, higher order spectra 24189
two source max. likelihood fn. 8397
two-channel tests for common non-Gaussian sig. detect. 8292
underwater target, causal impulse response estim. 34180
variable-rate natural-quality parametric speech coder 8204
vector-autoregressive inference for equally spaced, time-av., multiple queue length procs. 11908
ventricular late pot. detect., bispectral anal. 26418
ventricular repolarisation duration in Holter monitoring 26426
voice conversion based on piecewise lin. conversion rules 32322
voice quality conversion, supervised/unsupervised spectral mapping *(Japanese)* 2424
Volterra filtering, spectral constraints 40933
waves in nonstationary media 2242
wideband fields/coherence fns., spectral transforms. 40774
wideband multiple target tracking 41010
Wigner-Ville spectral estim., optimal kernels 40965
wind induction generators, harmonics prediction/ident. 43960
zero-crossing-based spectrum anal. and image reconstruction, detect. accuracy 8467
InGaAsP quantum-well lasers, near-field scanning opt. microscopy imaging 14919
La$_3$Ga$_5$SiO$_{14}$ acoustic wave atten. meas., HBAR tech. 35362
LiNbO$_3$ waveguide Mach-Zehnder modulator, white light spectral anal. 14499

spectral-domain analysis
aperture-coupled printed wire antenna full-wave anal. 23840
bianisotropic and inhomog. multilayer and waveguide anal. 23774
cavity-backed aperture antennas with dielec. overlay, anal. 8042
chirostrip dipole antenna, scanning behavior, substr. effects 8052
coaxial slot antenna dielec. meas. model 23906
conducting strip, line source EM wave diffr./scatt. 23575
dielec. substr. backed by nonperfect conductor, surface boundary condition 40287
discontinuous expansion and testing fns. in method of moments 23817
dyadic Green's fn., spectral domain, planar cct. microstrip transm. lines 6291
EM dyadic Green's fn. in spherically multilayered media 15382
enclosed rect. microstrip patch degenerate mode coupling, EFIE soln. 29535
finite thickness transm. lines above periodically perforated ground plane, packaging 23757
freq.-selective screens, complementary elements, num. simul. 2313
ground-plane-backed planar slot antenna expt. and calc. 23911
higher order impedance boundary conditions, chiral coatings appl. 2214
horizontal and vert. elec. and mag. dipoles in multilayer media 23753
lin. polarized aperture array antenna *(Japanese)* 40516
lossy planar microwave struct., discontinuities modeling 12701
metal grating polarizers, quasi-opt. power combining 29531
microstrip discontinuities anal., spectral domain moment method 15595
microstrip gap discontinuity in spectral domain 2308
microstrip line energy fluxes for ferrite substr., mag. biasing 12694
microstrip line syst. spectral domain quasistatic anal. 31874
microstrip transit. geom. for planar technol. 12690
microstrip-slot and CPW-slot lines, optoelectronics appls. 12697
multiconductor CPW transm. lines, [C] and [L] matrices computation 12791
multiconductor interconnects, VHSICs, capacitance matrix computation 12795
multidomain spectral approx. of ellipt. problems 37360
multilayered lossy planar line params. calc. method 2289
multilayered media electrostatic pot., complex image calc. 23502
nonlayered substrs., striplines, slotlines, Green's impedance fn. 15567
offset dual-patch microstrip antenna anal. 2335
open asymmetrical multiconductor transm. lines, spectral-domain anal. 40390
open dielec. waveguide anal., quasi-wavelet expansion 31894
optically fed patch array configs. and scan performs. 31970
orthonormal wavelet expansions anal. of integrated mm-wave/sub-mm-wave waveguides 12809
packaged CPW ccts., single mode operation 6278
patch microstrip resonator array on anisotropic substr., anal. 21522
planar cct. microstrip line, edge boundary conditions, specific modes, 2D anal. 40420
planar freq. selective screens, nonrectangular patch geometries *(German)* 23832
planar lines and antennas, 3D full-wave anal. 2280
planar microstrip ccts., FDTD anal., spectral domain Prony's method 12730
planar transm. lines, ps pulse propag. 40387
polarimetric microstrip antenna, spectral domain anal. *(Japanese)* 40481
printed antenna cross-polaris. suppression by strip grating 23859
printed dipole antenna, opt. control *(Japanese)* 31957
rect. microstrip antennas with multi-layer dielec., reson. freq. *(Chinese)* 31951

spectral-domain analysis continued
rect. microstrip patch antennas, EM coupled feed struct. *(Korean)* 15638
rectangular microstrip patch radiation and loss anal. 23838
rectangular patch antenna feed microstrip line gap discontinuity anal. 32000
short const.-width slot antenna, radiation pattern 15644
slot-coupled waveguides, anal., GSD tech. 2292
spatial microstrip dyadic Green's fn., asymptotic closed-form 31991
spatial microstrip dyadic Green's fn., radial and asymptotic closed form representation 40450
T-jn. microwave ccts., prescribed response characts., design/anal. 862
tapered resistive strip grating, E-polarized refl. coeff. *(Korean)* 15394
transient EM modeling, generalized k-space method 15396
transverse operator method for general waveguide problems 40419
unilateral fin line resonate on biaxial substrates 21527
LiNbO$_3$ opt. waveguide modulator in fin line, optimum design 39443
YBa$_2$Cu$_3$O$_{7-x}$ supercond. microstrip resonators 21516

spectral filters *see optical filters*

spectral hole burning *see optical hole burning*

spectral line breadth
see also chemical shift; spectral line broadening; spectral line narrowing; Stark effect; Zeeman effect
AM-SCM lightwave syst., simultaneous scatt./interf. suppression 17175
asynchronous opt. chip interconnects with direct detect., crosstalk anal. 9440
autonomous/injection-locked flux-flow oscillators, spectral linewidth 38015
complex coupled DFB laser narrowband amp. props. 39861
CPFSK opt. receivers with Gaussian freq. pulse shape, perform. anal. 42436
DBR LD with fibre external cavity, linewidth narrowing 39762
diamond:B,N, elec./opt. charactn. 21891
diamond films, plasma-assisted CVD, porous Si substr. 12137
Fabry-Perot single-cavity demultiplexer OFDM networks, finite laser linewidth 25529
filtering lidar light possessing non-Gaussian stats. 3616
heterodyne ASK lightwave systs., IF flucts. 17253
hybrid laser, high-power, narrow-linewidth, stable single-mode 7674
II-VI quantum well struct., exciton linewidth 6564
$\lambda=1.57$ μm DFB LD gas sens., overtone and combination band absorpt. 9961
linewidth-insensitive coherent analog opt. AM link receiver/transmitter 9442
MM-wave source, dual-mode DFB semicond. laser 23486
mol. adsorbates, steady-state sum-freq. generation 15028
narrow band semicond. laser, far-IR, freq. tuning 14938
opt. microresonators, threshold lasing characts. 2026
planar laser microcavity modes, self-consistent calc. 39993
ridge-waveguide MQW DFB lasers, static and dyn. simul. 23193
semicond. laser; linewidth, linewidth enhancement factor α, FM and AM response meas. 39878
semicond. laser noise, Volterra functional series expansion 2003
semicond. laser reliab. and failure anal. 39816
semicond. lasers, multimode rate eqns. 39820
semicond. lasers, opt. feedback with dispersive loss, amplit. noise 1980
semicond. opt. amp. all-opt. wavelength shifting 7683
semicond.-microlaser linewidths 31368
solid-state laser modelocking, birefr. and PM 14811
superimposed multiple Bragg fibre gratings 1678
sync. opt. chip interconnects, perform. anal. 39604
tunable four-sect. DBR LD, lasing charact. modelling 14845
two-colour dye laser syst., four-wave rot. Raman mixing 14724
ultra-high speed soliton transm. timing jitter, LD carrier linewidth 40109
waveguide-grating filters, plane wave and Gaussian beam illum. 30950
Yb:YAG diode-pumped thin disk laser continuously tunable, 1018/1053 nm 39742
AlGaAs, tunable injection-locked high-power LD array 1926
Al$_x$Ga$_{1-x}$As, ion implanted, Raman line asymmetry/phonon freq. 38511
[B-]BaB$_2$O$_4$ opt. parametric oscillator noncollinear phase matching 15114
β-BaB$_2$O$_4$ opt. parametric oscillator, spectrosc. light source 31573
β-BaB$_2$O$_4$ ps opt. parametric amplif. 2117
BaB$_2$O$_4$ type I opt. parametric oscillator, noncollinear phase matching 2125
CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
Cr:LiSrAlF diode-pumped single-freq. coupled-cavity microchip laser 14814
Er-doped single-mode fiber lasers, all-fiber subresonator 7571
Fe$_3$Si films, MBE, conversion electron Mossbauer spectrosc. 380
GaAlAs-GaAs ultrahigh finesse microcavity, DBR 2029
GaAs MQW struct., semiempirical line shape model 1145
GaAs gain-guided SEL, CW spectral width 39767
GaAs, ion implanted, Raman line asymmetry/phonon freq. 38511
GaAs symmetric/asymmetric QW struct., lin./quadratic electrooptic effects 21999
GaAs/Al$_x$Ga$_{1-x}$As, LP-MOVPE, DEAIH-NMe$_3$, Al source 346
GaAs-AlGaAs LD with opt. feedback, line narrowing and modulation bandwidth 1981
GaAs-AlGaAs proton-implanted MQW modulators for low-photocurrent SEEDs 14528
GaInAsP-InP continuously tunable LD, mode hopping *(French)* 1924
GaInP strained quantum-well lasers; gain, refr. index, linewidth enhancement 31393
GaSe travelling-wave opt. parametric generator, 2.8 μm laser pumped 23354
GeO$_2$-Na$_2$O:Pr^{3+} glass, alkali ion role on persistent hole burning 31563
HCN saturated absorpt., 1.5-μm freq. refs. for LD freq. stabilization 23400
InGaAs superlattices, optical props., device appls. 13143
InGaAs/InAlGaAs QW DFB laser facet influence on wavelength tunability and linewidth-chirp 39860
InGaAs-InP strained QW lasers, linewidth enhancement factor depend. on cryst. orient. 14858
InGaAsP-InP MQW-DFB lasers, multiple phase-shifts, spectral charact. 39764
InP, ion implanted, Raman line asymmetry/phonon freq. 38511
KH$_2$PO$_4$ cryst. SHG, const. temp. gradient influences on spectral-bandwidth 15087
KNbO$_3$ tunable narrow-band mid-IR type I opt. parametric oscillator 40113
KTiOPO$_4$ sum freq. generation in opt. parametric oscillator 15047
Na reson. radiation sum-freq. generation of Nd:YAG laser beams 23364
Na vap., laser beam switching dyn. 40111
Nd^{3+} doped silica based fiber laser, Bragg grating 39713
Nd:YAG LD pumped laser, eye-safe 1.443 μm wavelength 7587
Nd:YAG diode pumped regenerative amp. for picosecond pulses 1896
Nd:YAG mode-locked diode end-pumped laser, spatial hole burning effects 23150
Si:Er light emitters in integrated opt. interconnects 23060
Si:P, ion-implanted, flash-lamp annealing, Raman image study 38472

spectral line breadth continued
- XeCl tunable laser syst., Pb vap. SRS cell 14721
- Yb ion std., JPL develop. 42675
- Yb^{3+}:SiO_2 fiber lasers, sources 1, 1.2 μm 39699
- ZnSe semicond. lasers, linewidth enhancement factor and nonlin. gain 23224

spectral line broadening
- *see also Doppler broadening; spectral line narrowing*
- acousto-optic imaging spectropolarimetry for rem. sens. 7416
- ASE lasers, collisional-cross-relax. effects 1844
- brain, Fe levels, MRI, 3 tesla 26349
- cross-PM for opt. A/D converter, high resoln. spectra 7793
- four-wave mixing mirror response, spectrally broadened sig. beam 40088
- IR coherence-collapsed multimode LD for fiber-optic gyroscope 40176
- single-mode opt. fiber, single-pulse degenerate-cross-PM 40078
- whistler-mode sigs. from LF Decca transmitter, propag. charact. *(Japanese)* 40346
- GaAs quantum-well laser below-threshold near-field profile broadening, photon recycling 31390
- $In_{0.2}Ga_{0.8}As$/GaAs quantum wells, metalorganic VPE, multistep form./In comp. var. 20735

spectral line narrowing
- *see also spectral line broadening*
- act./pass. glass waveguides, sol-gel method prep., laser props. 14810
- ASE lasers, collisional-cross-relax. effects 1844
- detuned gain-coupled DFB laser, opt. feedback immunity 31310
- mutual injection locking of fibre laser and DFB semicond. laser 14758
- AlInAs/GaInAs, quantum cascade laser, mid-IR source 14892
- CO_2 laser, injection locking, freq. stabilisation, line narrowing 1865
- D_2O laser, spectral narrowing, oscill.-amp. 23102
- XeF(C-A) long-pulse e-beam excited excited laser, single-freq. operation 14708

spectral line profiles *see spectral line breadth*

spectral line shape *see spectral line breadth*

spectral line shift
- *see also chemical shift; Doppler shift; isomer shift; isotope shifts; Lamb shift; red shift; Stark effect; Zeeman effect*
- coherence-induced spectral shift expts., radiometry appl. 4004
- poly(p-phenylene vinylene), color changes in photolum., doping/conversion time effects 1794
- quantum wires, fab., etching damage, electron beam lithog. 13397
- suspen.-single-droplet dye laser, wavelength shifts, pumping 1871
- travelling wave semicond. laser end facet output spectra 31398
- Wolf shifts interp. under lab. conditions, comments/reply 4005
- AgBr nanocrystal indirect bandgap semicond., lumin. props. 20653
- AlInAs-GaInAs quantum cascade unipolar intersubband LED 14632
- CdTe/CdMgTe quantum wells, ion implant.-induced interdiffusion 13290
- GaAs MQW struct., semiempirical line shape model 1145
- GaAs/AlGaAs high barrier gain offset CW VCSELs 7618
- GaAs/AlGaAs, in-plane strained, polariz. depend. excitonic opt. nonlin. 23424
- GaAs/AlGaAs quantum well struct., etching, photoreflectance phase shift 38532
- GaAs/InGaP quantum well p-i-n diodes, blue shift obs. 14603
- GaInP/(AlGa)InP buried quantum wires, local order-disorder transition 13203
- GaInP/GaAs ordered heterointerface, type-II band alignment 38282
- GeO_2-SiO_2 opt. fibre preforms, X-ray photoelectron imaging 30886
- InGaAs:Dy on InP, LPE growth, photolum., double-cryst. X-ray study 37400
- InGaAs/GaAs piezoelec. MQWs, nonlin. opt. response, screening, and strain 15081
- InGaAs/GaAs quantum wells, carrier screening effect 1125
- InGaAs/InGaAsP MQWs, strained, thermal stability 13140
- InGaAs/InGaAsP SQW, group V interdiffusion 13139
- InGaAs/InP layers, gas source MBE, atomic H irradiation 12049
- InGaAsP:Si quantum well, intermixing, spatially resolved/polaris. resolved photolumin. 38495
- InGaAsP/InP structures, MOVPE, optical device appls. 12047
- KrF excimer laser fs VUV pulse meas. by field-ionization dyn. 23103
- Si, porous/HF treated, photolumin., oxid. effects 22249
- Si:H, porous, lumin., surface modif. effect 1246
- SiO_2 opt. fibers, photoluminesc., Raman scatt. 22813
- p-ZnCdSe/ZnSe:N, tilted substrs. effect 22155
- p-ZnSe/ZnSe:N, tilted substrs. effect 22155
- ZnSe-ZnS superlattices opt. waveguide, opt. bistability 39380

spectral linewidths *see spectral line breadth*

spectral methods of temperature measurement
- *see also pyrometers*
- color pyrometer, effective wavelength 18133
- distributed opt. fibre network strain/temp. meas. by Brillouin OTDR 34544
- distributed-Brillouin-gain spectrum meas. in opt. fibers by single laser source 7315
- Fabry-Perot opt. fibre temp. sens. employing low coherence interferometry 34554
- far-IR pyrometer based radiation temp. meas. 17778
- fibre-optic reflectometer with thin film a-Si interfaces, temp. meas. 34555
- fluoresc.-based lifetime meas. thermometer, subroom temps. 42823
- FT dispersive opt. fiber spectrometer/interferometer, temp./strain meas. 25857
- fusion-spliced birefr. fibre Fabry-Perot interferometric temp. sens. 34556
- glow discharge plasma temp. meas. by fast two-wavelength CARS thermometry 2050
- high-temp. digital fiber-optic thermometer 17848
- interferometric birefr. opt. fiber transducer 17870
- IR spectrometer for thermal profiles/temp. differences recording 25992
- IR syst. rem. temp. meas., accuracy depend. on obj.-syst. dist. 34559
- MHD convertor plasma temp. meas., spectroradiometer-based 11305
- mid-IR temp. meas., effective emissivity determ. 34723
- moulded case cct. breakers, hot gas ejection studies 19892
- multiplexed diode-laser sens. syst., gas/temp. meas. 7874
- non-grey body obj., temp. meas., variable temp. radiator *(Japanese)* 4008
- nonincremental interferometric fiber-optic simultaneous temp./strain detect. 25856
- photogenerated in-fiber gratings, simultaneous strain and temp. sens. 25873
- populated computer PCBs, IR meas. and anal. predictions 38097
- railgun plasma armatures, opt. thick, temp. meas. 15325
- Si film growth, temp. control, pyrometric interferometry 42974
- solar receiver/reactor laser diagnostics syst. 10058

spectral methods of temperature measurement continued
- spectral emissivity of natural surfaces, FTIR spectrometer appl. 18131
- transverse-flux induction heater exit temp., real-time meas. by transputers 44625
- two-phase high-temp. media, radiation transfer 10049
- X-ray mask for SR lithog., temp. rise and thermal distortions 13542
- Er-doped opt. fibre temp. sens. by green fluoresc. intens. ratio 34552
- Er-doped silica fibre high-temp. point sens. 17873
- Nd^{3+}-doped opt. fibre temp. sens., absorpt. shift, 595 nm 34553
- OH LIF temp. meas. using thermally dissociated H_2O, calib. 10048
- Si, surface temp./pot. meas., photoreflectance spectrosc. 42972
- Si wafer noncontact temp. meas., real-time image proc. techs. 2718
- Si wafer temp. monitoring by IR laser interferometry *(Korean)* 13363

spectrochemical analysis
- *see also atomic absorption spectroscopy; atomic emission spectroscopy; X-ray fluorescence analysis*
- anal. instrums. trends, Hitachi's technol. overview 10059
- bacteriorhodopsin thin film real-time reson. holography 40157
- blood glucose conc. correl., reduced tissue scatt. coeff. in near IR 26286
- car exhaust trace gas monitoring by laser photoacoustic spectrosc. 18907
- dye color/conc. detect. by realtime opt. sens. *(Japanese)* 18138
- dye-doped sol-gel coated fibre optic LED based O_2 sens. 9926
- evanescent field fibre-optic Cl sens. 3861
- evanescent-field planar waveguide sens., mode-independent atten. 42768
- fibre optic sens. for nuc. waste tank environ. 18994
- fluoresc. Tm^{3+}-doped fluoride fibre, H_2O detect. 18163
- gas/hydrocarbon transformer oil, furfuraldehyde anal. 14045
- glucose conc. influence on light scatt. in tissue-simulating phantoms 25888
- n-heptane/iso-octane vap. opt. detect. by polyimide lightguides 34731
- intell. sens. for metal ions, fluoresc. reson. based 25782
- IR lasers, conf., Ascona, Switzerland (1994) 5485
- $\lambda=1.57$ μm DFB LD gas sens., overtone and combination band absorpt. 9961
- low-solids flux conc. analyser, automated 42976
- metane, atmos., tunable LD absorpt. spectrosc. 9953
- monitoring of total organic carbon, opt. methods 9888
- multi-reed switch, contact erosion/spatial mag. field var. 29636
- near-IR spectrosc., calib. fn. transfer 42661
- neutral rare gas lasers, atmos. comp., IR spectra 39676
- oceanographic fluorimeter sens., BIST 18891
- organic detect. in soil, fiber optic near IR reflectance sens. 17920
- oxide dusts, environ. materials, SNMS anal. 26004
- photoacoustic Stark cell and power supply 26008
- PLCC ink mark reliab. enhancement, flame treatment, tests 142
- polyimide thin-layers, curing, photoacoustic IR spectrosc. 20996
- polyimide-metal interfaces, curing chem. and hydrolytic stabil. 12211
- polypyrrole synthesis, Cu metallization 1294
- preencapsulation cleaning methods and control for microelectronics packaging 5627
- pyranine doped SiO_2 sol-gel matrix, μm-size fluoresc. pH sens. 9877
- QA of pharmaceutical vials, laser Raman spectrosc. 17928
- quartz crysts. impurities conc. determ., IR spectrosc. 34730
- reflectometer/ellipsometer perform. capabilities for comp. anal., $Al_xGa_{1-x}As$ epitaxy 42959
- semicond. mfg. environ., microscopic contamination, SAXPS 38457
- semicond. surface anal., AES and XPS technols. *(Japanese)* 13273
- SIMOX/ZMR/direct bond SOI struct., opt. charactn. *(Japanese)* 38430
- waste-handling monitoring, fiber-optic chem. sens. 18916
- Al porous anodization proc. anisotropy, VLSI planar metallization 38673
- Al vac. deposited thin film characterisation, SiO_2-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
- a-As_2S_3-Zn bilayers, electron/photon irrad. effects 38405
- a-As_xS_y-Ag bilayers, electron/photon irrad. effects 38405
- CO_2 laser for rem. sens. meas. 18830
- CdSe, MOVPE, precursor gas monitoring by photolum. 34617
- Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
- Cr-SiO_2 cermet-polyimide interfacial reacts., thin film resistor appls. 38045
- Cu-Cr bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- Cu-Ti bilayer metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- CuCr alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- CuTi alloy film metallization, enhanced adhesion, SiO_2/PSG/BPSG 38671
- Fe/Ga, bimetallic thin films, MOCVD, stoichiometry control 28842
- H_2S determination, continuous flow instrum., 26003
- NiO electrochromic films, sputtering atm. H_2 content effects *(Japanese)* 37489
- O in flames, detect. by intracavity laser spectrosc. 4010
- O_2 intrinsic phase fluorimetric sens. 17985
- a-P_2Se_3-Ag bilayers, electron/photon irrad. effects 38405
- SO_2, absorpt. cross sects., differential absorpt. laser spectrosc. 26009
- Si, ECR Cl_2 plasma etching, mass spectra, OES and AFM 22169
- Si devices and materials,, glow discharge opt. emission spectrosc. 29836
- TiN_x, CVD, organometallic precursors, surface spectrosc. study 37495
- ZnSe, phys. vap. transport, mass flux 20659

spectrography *see spectroscopy*

spectrometer accessories
- *see also mass spectrometer accessories; spectroscopic light sources*
- ADC requirements in nuc. and X-ray spectrometry 4251
- Compton suppression shield in low-level γ-spectrosc., background changes 10152
- DLTS spectometer, LF pulse generator 3971
- fiber FT spectrometer, Bragg grating sens. decoding 17840
- hemispherical electron spectrometer, electrostatic transfer lens 13020
- loop-gap cavities for pulsed X-ray ESR spectrometers 37946
- XPS spectrometer, 2D charged-particle sens. ASICs, high resoln. 10155

spectrometers
- *see also Fourier transform spectrometers; infrared spectrometers; interference spectrometers; mass spectrometers; particle spectrometers; radiofrequency spectrometers; spectrometer accessories; ultraviolet spectrometers; visible spectrometers; X-ray spectrometers*
- acousto-opt. spectrometer, quasi-tangent interact. modulator 31019
- astron. TV spectrometer, slit monitoring/star guiding ability 42643
- imaging spectrometer for proc. indust. appls. 17925
- integrated opt. spectrometer, polaris. independent 14552
- miniature spectrometer, integrated acousto-optic tunable filter 7425
- multichord spectrometer, 8×8 anode photomultiplier 29814
- PC-based multi-resoln. spectrograph 2403
- vert. cavity waveguide spectrometer, WDM commun. 34063
- $^{36}Ar(^{58}Ni,X)$, OSIRIS array, directional correl. 34892

spectrophotometers
see also spectrophotometry
low-solids flux conc. analyser, automated 42976
portable photometer, amniotic fluid, bilirubin conc. determ. 26307

spectrophotometry
see also colorimetry; spectrophotometers
arc column meas., spatial distrib. of spectrosc. intens. 6387
at. absorpt. spectrophotometric syst. for environ. water anal. 10564
cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
chem. amplified resist films, acid generation proc. by radiation-induced react. 13516
gas/hydrocarbon transformer oil, furfuraldehyde anal. 14045
Kalman filter algorithms 25770
Kalman-filter-based algm. for spectrometric data correction 15931
laminated semicond. struct., dopant profile control by IR spectrophotometry 38518
microorganisms, pulsed HV discharge, chem. species form. 6891
multiwavelength fiber drop analyzer for med. diagnostics 10220
photoresists, opt. params., meas. syst. *(Japanese)* 13437
pos. chem. amplified photoresist for X-ray lithog., modeling and simul. 13519
pos. deep UV resists, acid diffusion effects 13517
recursive spline-based algorithm for spectrophotometric data correction 25771
spectral reflectance factor scale for calib. and stds. 9776
specular reflectance, spectrophotometric meas. procedures and stds. 17631
std. lamps, improved automated current control 3723
Ge thin films, opt. props., thickness depend. *(Japanese)* 39303
NH_3 atmos. determ., diffusive sampling, wind effects 26002
Tm,Cr,Ho:YAG eye-safe pulsed laser and study of radiation absorpt. by mol. gases and air 14790
ZrF_4-BaF_2:Er glass thin film opt. element 22877

spectroscopes *see spectrometers*

spectroscopic light sources
fluoresc. Tm^{3+}-doped fluoride fibre, H_2O detect. 18163
long pulse dye laser develop., high resoln. spectrosc. appls. *(Japanese)* 7549
VUV/XUV-soft X-ray radiation source and appls. 31613
β-BaB_2O_4 opt. parametric oscillator, spectrosc. light source 31573
CO_2 lasers, phys. and spectrosc. appls. 14691
$KTiOPO_4$ broadly tunable fs opt. parametric oscillators 40059
Pb salt tunable IR lasers, spectroscopy appls. 14791

spectroscopy
for specific spectroscopic techniques, see narrow terms as appropriate; for spectroscopic studies of specific substances, see spectra or narrow terms to spectra as appropriate
AC immittance spectrosc. of smart components and devices 18027
acousto-opt. spectrometer, quasi-tangent interact. modulator 31019
automated null ellipsometer, rot. analyzer 10047
biochemical diagnostic instrumentation, conf., USA (1994) 11573
cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
coal-fired MHD facility, laser induced breakdown spectra 20016
conference, laser optics, St. Petersburg, Russia (1993) 55
DLTS meas., computerized digitizing tech. 18055
femtosecond laser spectrosc., near-field optics 39477
insulation lab. charactn., microscopy/spectrosc. 13919
IQEC quantum electronics, conf., Anaheim, CA, USA (1994) 11551
J-aggregates nonlin. opt. props., oriented films prep. 15062
Kalman-filter-based algm. for spectrometric data correction 15931
Kalman-filter-based measurand reconstruction architecture 25765
laser materials charactn., spectral anal. of relax. oscills. by intracavity method 34716
LF noise spectrosc. tech. for electron devices 3969
living tissues monitoring by elec. impedance spectrosc. 4276
metane, atmos., tunable LD absorpt. spectrosc. 9953
microorganisms, pulsed HV discharge, chem. species form. 6891
moulded case cct. breakers, hot gas ejection studies 19892
pulsed power high-Q capacitor banks, long-duration arc discharge appls. 36500
saturated absorpt. spectrosc., diode-laser phase noise 2084
simultaneous spectrosc. ellipsometry/reflectance, thin-film prep. monitoring 5880
SMC target, NMR polariz. meas., on-line syst. 34873
solder joint fatigue testing, elec. resist. spectrosc. 28477
source/receiver relative posn. determ., time delay spectrometry 18167
Ag break arc, two wavelength spectra simultaneous meas. 6388
$KTiOPO_4$ broadly tunable fs opt. parametric oscillators 40059
$La_{0.6}Sr_{0.4}Fe_{0.8}M_{0.2}O_{3-\delta}$ cathode cones, impedance spectrosc. 44387
$LiCoO_2$ MCFC porous cathode studies 11280
$LiFeO_2$ MCFC porous cathode studies 11280
NiO(Li) MCFC porous cathode studies 11280
SO_2, absorpt. cross sects., differential absorpt. laser spectrosc. 26009

spectroscopy applications of computers *see spectroscopy computing*

spectroscopy computing
autoregressive spectral estimation fro NMR spectroscopy 24233
DLTS meas., computerized digitizing tech. 18055
DSP96002-based software pulse generator, NMR tomography/spectrosc. appls. 42683
energy dispersive EXAFS, data acquisition, obj. oriented methods 42746
gamma-ray spectrometer, data acquisition syst. 34969
gamma-ray spectrosc. counting syst. automation for NAA 17657
imaging spectrometer for proc. indust. appls. 17925
multielement Ge detector, X-ray fluoresc. microprobe/microspectroscopy 42979
near-IR spectrosc., calib. fn. transfer 42661
QA of pharmaceutical vials, laser Raman spectrosc. 17928
recursive spline-based algorithm for spectrophotometric data correction 25771
relax. spectrosc. tech. for solid interfaces 25711
spectral line emission measuring syst., calib. 17629
spectrometric data correction, Kalman-filter-based algm. 15931
spectrophotometric data correction, Kalman filter algorithms 25770
vivo radiotracer monitoring by portable gamma spectrosc. syst. 18468

spectrum *see spectra*

spectrum analysers *see spectral analysers*

speech
see also hearing
accent training for new arrivals 28294
amplit. perturb. computation, period determ. effect minimisation 40742
ASA 128th meeting, Austen, USA (Nov.-Dec. 1994) 6

speech continued
belief reconstruction theory, commun. appl. 15843
collaborative model of dialogue, preliminaries 15844
conference on acoustics, Toulouse, France (May 1994) 5443
deaf children, computer aided speech training 35182
deaf pers., intonation teaching, intonation meter effectiveness 43371
electrolarynx with pitch freq. control fn., eval. *(Japanese)* 35166
fund. freq. contours, quantitat. description/differentiation 2407
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
managing problems in speaking 15842
multiple microphone sig. mixing cct., speech quality *(Japanese)* 25685
physiological models for speech anal. and synthesis 8206
stuttering, digital speech aid 4309
vocal tract filter params. for speech coding 32273

speech amplifiers *see audio-frequency amplifiers*

speech codecs
5.0 kb/s coder for vehicular appl., acoustic echo/noise canceller 9123
5.0 kb/s finite state VQ CELP coder for vehicles 9122
5.6 kbits/s PSI-CELP of half-rate PDC speech coding std. 8191
8 kbit/s ACELP speech coding, CCITT standardization candidate 33691
8 kbit/s short/medium delay speech codecs based on CELP coding 3274
32 kb/s ADPCM, frame erasures, perform. 8210
CELP codecs, multi-band residual coding, 8 kb/s 33695
CELP coder, real-time wideband, for videophone appl. 33696
CELP coder/decoder for indoor wireless systs. 3469
CELP model, computationally efficient adaptive codebook search 40714
channel codec LSI for digital cordless telephones 25161
digital acoustic underwater phone 17357
digital cellular phones, speech proc. technol. *(Japanese)* 42289
digital cellular systs., multi-rate speech coding, network fns. 3440
DS-SS cordless telephone *(Japanese)* 25149
DSP core for speech coding appls. 33701
dual-rate alg. CELP-based speech transceiver 9221
GSM half rate speech channel, codec candidate 33685
lin. prediction vocoder using time envelope, 1.6 kbit/s 33703
mixed-sig. codec for GSM voice/RF interface 42089
mobile radio commun., speech/channel coding 3346
mobile speech, video and data transceiver 3266
MPEG stds., audio/video codecs, LSI chips 16944
output-based objective speech quality 8195
PDC half-rate speech coding std., real time operating prototype 25163
pitch sync. innovation CELP coder for 2-4 kbit/s 33694
PSTN, secure speech/data commun. 33397
SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
sigma-delta codec for mobile telephone appls., design 3276
TDMA half rate digital cellular channel, speech and channel codec 33687
VR-CELP codec implement. for CDMA mobile commun. 33689
VSELP coders LSP vector quantizers in noisy channels 2425

speech coders *see vocoders*

speech coding
see also codecs; vocoders
3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
4.8 kbit/s wavelet transform CELP coder 33692
5.0 kb/s coder for vehicular appl., acoustic echo/noise canceller 9123
5.0 kb/s finite state VQ CELP coder for vehicles 9122
5.6 kb/s speech codec, pulse codebook/improved Viterbi decoding 32274
5.6 kbits/s PSI-CELP of half-rate PDC speech coding std. 8191
8 kbit/s ACELP speech coding, CCITT standardization candidate 33691
8 kbit/s short/medium delay speech codecs based on CELP coding 3274
8-kbit/s conjug. struct. CELP speech coder, perform. 33690
32 kb/s ADPCM, frame erasures, perform. 8210
acoustic proc. for speech recogn., vectors and phoneme models *(Japanese)* 15816
adaptive postfiltering for quality enhancement 8224
adaptive vector quantisation speech coding, codebook search algm. 32412
ADPCM, destabilization effects of adaptive quantization 24151
ADPCM speech coding based on adaptive mel-cepstral anal. *(Japanese)* 15812
analogue speech channel spectrum scrambling encryption with isomorphic emphasis 33802
ARMA modelling methods for low bit rate speech coding 32273
audio description on TV, speech compression 15853
automatic speech recogn., coding algms. influence 32358
blind pers. speech technol. develop. 4317
cellular CDMA perform., speech bit rate, network control 9375
cellular commun. noise suppression 3500
CELP codecs, multi-band residual coding, 8 kb/s 33695
CELP coder, real-time wideband, for videophone appl. 33696
CELP coder for mobile commun., design 17038
CELP coder/decoder for indoor wireless systs. 3469
CELP coders, backward adaptive lattice/transversal predictors 2409
CELP coders employing LSF vector quantizers, error protection 8194
CELP coding, speech class. embedded in adaptive codebook search 8226
CELP coding, variable rate 2428
CELP coding of speech, phonetic classif. 2427
CELP model, computationally efficient adaptive codebook search 40714
CELP speech coder, FS-1016, with multistage search, complexity reduction 33686
CELP speech coders, perceptual enhancement 33693
CELP speech coding, almost no codebook search 32387
cepstral coeffs., spectral quantization 32332
channel coding, source criteria 15821
chaotic cryptology, speech encoding/decoding 24113
CMOS bit-serial fixed-point two's complement multiplier for neural network algms. 12486
CMOS VLSI predictive tree-searched vector quantizers for real-time video compression 29276
co-channel speaker separation, max.-likelihood deconvolution 32215
coding, adaptive mel-cepstral anal. 32258
compression, ARMA model/wavelet transform 32261
connected digit recogn., telephone network based, VQ HMM appl. 32235
continuous speech recogn., large vocab., fast match acoustic models 32396
continuous speech recognizer, context-depend., and models 32338
digital cellular syst., channel/speech coding combination 8192
digital cellular systs., multi-rate speech coding, network fns. 3440
digital special broadcasting, evol. and appl. 8244
discrim. semi-continuous HMM 32281

speech coding continued
distant sample prediction, speech coders 8205
DPCM for diversity systs., packetized speech appl. 8223
DSP core for speech coding appls. 33701
dual-rate alg. CELP-based speech transceiver 9221
echo path modelling, chaotic-driven, coding strategy 33398
embedded ADPCM coder for speech 40747
fingertip tactile vocoder for profoundly hearing impaired, sweeping display, speech spectrum *(Japanese)* 43382
FIR QMF low-delay bank of filters appl., speech coding 24139
frame class. multimode variable rate CELP coder 40721
frame correl. constrained phoneme HMM 15805
FS1016 CELP coder, stochastic codebook, dyn. partial search 33702
full search vector quantisation algm., massively parallel implement. 15837
fuzzy VQ based HMM 32362
generalized autoregressive prediction 24160
globally optimal scalar quantiser, complexity reduction 32528
glottal models far digital speech proc., historical survey 24132
glottal source modeling for voice conversion 40725
GSM full-rate vocoder chip design 42086
GSM half rate speech channel, codec candidate 33685
GSM syst., speech and channel coding for half-rate channel 33927
hierarchical stochastic modelling 40919
high-quality harmonic coding, low bit rates 32254
human vocal-tract dyn. geom., formant trajectories determ. 32324
IBM Tangora speech recogn. syst., adaptation techs. 32214
IEE telecommunications conf., Brighton, UK (1995) 36830
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
IEEE vehicular technology, conf., Stockholm, Sweden (1994) 9
indoor wireless low complexity, low delay speech coding 8193
isolated word recogn., LVQ codebook/prosodic param. transform. 2412
isolated word recogn., Viterbi decoding and HMMs 32354
Japanese/Eng. digit recogn., comparative anal. 32234
land mobile radio, RS coding for CELP error detect. and control 33832
lin. prediction, L_1 norm in orthogonal vector space 32415
lin. prediction vocoder using time envelope, 1.6 kbit/s 33703
lin. predictive coeffs., variable dimens. VQ 32331
lin. predictive speech compression, trellis codes 8198
line spectral freq. params. coding 32335
line spectrum pair params., optimal transform coding based on spectral-weighted error criterion 2405
line spectrum pairs, scalar quantisation algm. 40740
load-adaptive/TDMA systs. perform., satellite networks appl. 9415
low bit rate, adaptive dens. pulse excitation 24158
low bit rate coded speech quality eval., ref. sig. 8218
low bit rate speech coding, split residual VQ 32328
low-bit-rate speech coding, 2D transform 32252
low-delay vector excitation speech coding with adaptive interframe pitch tracking 40722
low-rate, pitch/LPC params. encoding 3273
LP-PSOLA synthesis, spectral smoothing/envelope modif. 32346
LPC coeffs., VQ-lattice VQ 32333
LPC params., interblock noiseless coding 32330
LPC params. for noisy channels, VQ 32329
LPC speech coding, fast LSP VQ algms. 15855
LVQ-codebooksr with HMM, appl. 32305
M-LCELP speech coding, 4 kb/s, multi-mode and multi-codebook 9120
M-LCELP speech coding, 4 kbps 33688
mobile commun., digital voice compression technol. *(Japanese)* 33902
mobile commun., variable rate speech/channel coding 9222
mobile multimedia commun. network prospects *(Japanese)* 16906
mobile radio commun., speech/channel coding 3346
mobile-satellite pers. commun. syst., voice transm. quality 25322
multi-ANN syst. for speech coding, design 24146
multi-codebook HMM speech recogn. systs., learning 32263
multiband excitation coder, anal./synthesis methods 15833
multiple access wireless networks, variable rate speech coding 15830
multiple VQ and semicontinuous HMM 32224
multipulse algm., adaptive Boltzmann annealing 15808
multipulse excited LPC vocal tract model for speaker ident. *(Japanese)* 32208
narrowband microcellular speech transm. schemes 3332
non-lin. prototype waveform interpolation for voiced speech encoding 40749
nonlin. neural net prediction filters, adaptive DPCM 15717
nonlin. short-term prediction 32255
nonlin. speech predictors, recurrent nets 32425
nonuniform sig. sampling method 24135
parallel formant synthesizer control param. coding 4315
param. extraction, noisy environ., masking model 32384
parametric/non-parametric representations 15835
PDC half-rate speech coding std., real time operating prototype 25163
pers. commun., radio interf. noise 8196
phoneme dictionary automatic training based on mutual inform. criterion 32269
phonemes, relative speaker discrim. props. 32242
pitch sync. innovation CELP (PSI-CELP) speech coding, basic algm. 24149
pitch sync. innovation CELP coder for 2-4 kbit/s 33694
predictive vector quantizers for speech coding 2404
product code VQ appl. 32199
PSI-CELP speech coding for digital cellular mobile radio 25324
QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
rate allocation, spectral entropy 32259
RCELP speech-coding algm. 2426
recogn., Gaussian mixture modeling 32356
recursive/adaptive AR proc. ident. 24138
robust backward adaptive pitch prediction for speech coder 32439
robust quantization of LPC params., vector and scalar codebook 32206
RPE-LTP coding algm., objective speech quality assess. 15824
secure digital audio teleconferencing 25071
segmental SNR weighting, degraded word recogn. 32311
semicontinuous HMM speech recogn., multiple VQ 2433
shared time division duplexing for wireless digital speech commun. 3333
shared time-division duplexing for wireless speech commun. 3442
single stage spectral quantization, 20 bits 32336
single-stimulus voice coder perform., listener opinion scores 42074
speaker recogn. in tactical commun. 32287
spectral envelope, high-order allpole modelling 32337
spectral inform., segmental quantization 32334
spectral interpolation anal., frame energy depend. weighting 32325
speech independent speaker recogn., HMM/VQ comparison 8229

speech coding continued
Sphinx-II recogn. search, integrat. semantic constraints 32369
SPHINX-II speech recogn. syst., VQ codebooks and adaptive lang. models 32340
sub-band coder for low-bit rate, fixed and variable band coding 32364
subband sigs. lin. prediction 15885
talker clustering/ident., model dist. measure 32282
TDMA-TDD personal commun. syst. ADPCM voice transm. improvement 33830
text-to-speech synthesis, algms. comparison 32344
time envelope vocoder, LP based coding 25162
time envelope vocoder, natural sounding speech coding algm. 40748
time-scale modif., nonlin. oscillator model 32318
transform trellis coded quantization of speech 32253
USA HDTV standardisation status and specs. *(Japanese)* 17568
variable bit rate ADPCM, arith. coding 32256
variable-rate natural-quality parametric speech coder 8204
very large speech corpora, develop. of file formats 32237
voice based human interface, speech coding, synthesis and recogn. *(Japanese)* 40754
voice conversion, formants transform., ANN 40730
voice proc. in telecomms. 2439
voice proc. technols. and appls., develops. 8214
voice sig. proc. *(English, French)* 40713
voiced speech coding, forward-backward waveform prediction 8222
voiced speech/perceptual cost fns., mixed-phase AR models 32260
VQ, hyper-columnar clusters 32327
VR-CELP codec implement. for CDMA mobile commun. 33689
VSELP coders LSP vector quantizers in noisy channels 2425
warped lin. prediction 32446
wideband audio sigs. coding, transform coded excitation 32257

speech compression *see data compression; speech coding*

speech enhancement
adaptive eigenfiltering 24140
adaptive noise cancelling, speech enhancement *(Korean)* 24156
auditory constrained params., speech enhancement 32210
auditory model inversion for sound separation 32383
cellular commun. noise suppression 3500
cepstrum-based speaker ident. 32216
co-channel speaker separation, max.-likelihood deconvolution 32215
coding, adaptive postfiltering for quality enhancement 8224
constrained iter., HMM-based phoneme class partitioning 8227
dereverberation, cepstrum based deconvolution 32212
directional microphones in computer simulated/real rooms 17607
dual-channel iter. speech enhancement, auditory-based spectrum 8220
echo cancellation, adaptive-filtering 32411
elderly people real time speech rate converting syst. 35162
formant freq. modif. algm. dealing, pole interact. *(Japanese)* 40717
Fourier spectra, adaptive enhancement 8221
hierarchical LPNN network for noise reduction/speech recogn. 32386
higher order AR modelling, parameterized Wiener filtering 15836
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
iter. speech enhancement, min. cost based phoneme class detect. 32376
iterated fn. syst. model based data detect. 8382
low residual noise speech enhancement utilizing time-freq. filtering 32211
microphone array, talker radiation pattern meas. 34283
MLP based nonlin. spectral estimators for noise reduction 32378
pitch mode modulation model based speech enhancement 8208
speaker independent speech proc. method 8213
spectral substraction/HMM-based speech enhancement, hearing aid design 32213
He environ., speech intelligibility assess. 15825

speech intelligibility
see also hearing
4.8 kbit/s wavelet transform CELP coder 33692
8 kbit/s ACELP speech coding, CCITT standardization candidate 33691
32 kb/s ADPCM, frame erasures, perform. 8210
acoustic echo-canceler for teleconferencing syst. 16912
airport large electroacoustic syst. speech intelligibility meas. and optim. *(Croatian)* 2411
articulatory speech synthesis, fractional delay waveguide filters 32349
auditory constrained params., speech enhancement 32210
cellular CDMA perform., speech bit rate, network control 9375
CELP coders, backward adaptive lattice/transversal predictors 2409
CELP speech coders, perceptual enhancement 33693
channel coding, source criteria 15821
co-channel speaker separation, max.-likelihood deconvolution 32215
coding, adaptive mel-cepstral anal. 32258
compression, ARMA model/wavelet transform 32261
decision making, visualization effect, AHP 16903
DPCM for diversity systs., packetized speech appl. 8223
DS-CDMA cellular syst. perform. anal. 33910
dual-channel iter. speech enhancement, auditory-based spectrum 8220
elderly people real time speech rate converting syst. 35162
formant freq./spectrum tilt, piecewise lin. voice conversion rules 40727
German, prosodically marked phrase boundaries, automatic class. 32400
GSM mobile networks, subjective speech quality 3446
haptic display for deaf/blind individuals, speech perception 15852
hearing impaired, integrated speech training syst. 10285
hearing loss compensation, neural network based objective measures 18612
high-quality speech corpus, telephone acoustic models constr. 32230
Hindi vowels in consonantal context, acoustic/perceptual study 15851
knowledge based speech synthesis by concatenation of phoneme samples 15831
lin. predictive coeffs., variable dimens. VQ 32331
low bit rate coded speech quality eval., ref. sig. 8218
microphone arrays, speech intelligibility in reverberant and/or noisy field *(Japanese)* 40743
mobile radio commun., speech/channel coding 3346
modulation spectra of speech transm. index 15828
multichannel spatial auditory display 2437
noise adaptive speech recogn., HMM representation 40741
output-based objective speech quality 8195
perceptually-based objective quality, phoneme-level segmentation 8243
pers. synthetic voice creation 4325
real time voice speed converting syst., small impairments *(Japanese)* 4304
robust real-time constrained hearing aid arrays 18609
RPE-LTP coding algm., objective speech quality assess. 15824
shipboard speaking-tube transfer charact. *(Croatian)* 3591

speech intelligibility continued
speaker independent speech proc. method 8213
speaker indiv. control/conversion, acoustic charact. 40728
speech coders, quality assess., subjective SNR measure 25160
spoken lang., robust real-time interp. 15857
superdirective microphone arrays for hearing aids 18607
teleconferencing, round-trip audio path/technols. 3241
telephone network, speech recogn. degrad. sources 32236
text-to-speech synthesis, algms. comparison 32344
text-to-speech syst. for Japanese, waveform splicing, develop. 32345
time envelope vocoder, LP based coding 25162
time-domain scrambled speech security with isomorphic emphasis 32209
two-microphone adaptive beamforming speech proc. for cochlear implant patients 43366
voiced speech coding, forward-backward waveform prediction 8222
voiced speech/perceptual cost fns., mixed-phase AR models 32260
wave collation visual speech display design and eval. 24148
whispered short-vowels, formants *(Japanese)* 2408
He environ., speech intelligibility assess. 15825

speech processing
see also speech coding; speech enhancement
3D iterated fn. systs., discrete seqs. representation 2499
acoustic echo cancellers, exponentially weighted step-size projection *(Japanese)* 42096
acoustic echo-canceler for teleconferencing syst. 16912
acoustic proc. for speech recogn., vectors and phoneme models *(Japanese)* 15816
adaptive algms. for speech sig. proc., comparative study 2430
adaptive echo canceler, time varying normalized LMS algm. 24348
adaptive time-varying parametric modeling 40908
additive Gaussian noise, cepstral 32377
amplit. perturb. computation, period determ. effect minimisation 40742
AT&T voice and audio proc. for telephony appl. 3129
auditory scenes, computational anal. 2406
autistic patients' facilitated voice output commun. 4324
autoadaptive independ. component analyzer, analog CMOS implement. 21478
automatic formant tracking, paradigm 32407
automatic language recogn., pitch contours discriminating features 8228
automatic speech recogn., state-of-the-art review and future directions *(Japanese)* 15815
Bangla speech over telephone channel, on-off charact. anal. 40756
Bayesian belief networks stochastic parsing 24131
bimodal speech recogn. expts., recurrent neural networks 32426
BT's speech appls. platform, telephone network-based speech syst. 41727
channel normalization, pole-filtered cepstral mean subtraction 32203
Chinese speech recog., syllable segmentation 32420
cochlear-implant research, DSP appls. 4305
communication and signal processing, conf., South Africa (1993) 5502
Computer assisted Speech Eval. & Rehabilitation ES 4312
continuous speech classif., vis. mouth-shape related classes 32321
continuous speech segmentation for recogn., PSTN 32222
conversation as collaboration, syntactic evidence 15841
conversational misunderstandings/non-understandings repair 15840
conversational speech, on-off patterns generation 2402
conversational speech, on-off patterns modelling 8211
conversational speech with short pauses, modified on-off model 32424
cryptology, error control, speech compression conf., Moscow (1993) 43
database query generation from spoken sentences 2452
deaf children's PC-based speech training environ. 4328
deaf pers., intonation teaching, intonation meter effectiveness 43371
deaf pers. tactile display method of speech sigs. 10282
deafness, profound, speech features tactile presentation 35161
dialogue stat. modeling, next utterance speech act type 15838
digital cellular phones, speech proc. technol. *(Japanese)* 42289
digital special broadcasting, evol. and appl. 8244
discriminative feature extraction, filter bank design 32326
distributed database for speech sig. proc. 15856
double-talk detect. for adaptive noise canceller 8182
Eng., spoken, understanding, context 2453
Eng. consonants prod., second-lang. learning effects 24127
Eng. intonation, rise/fall/connection model 2422
European langs., poly- and mono-phonemes ident., data-driven clustering 32239
EVAM, eigenvector-based algm., multichannel blind deconvolution 24301
expt. dialogues, prosodic cues, discourse boundaries 2416
flexibly digitized speech sounds compressibility on naturally sounding speech synthesis 40739
formant extraction, zero tracking algm. 8185
formant freq./spectrum tilt, piecewise lin. voice conversion rules 40727
formant-based audio synthesis, nonlin. distortion 34297
French, metrical patterns/lexical parsing 2420
fund. freq. contours, quantitat. description/differentiation 2407
fund. freq. detector based on short-time FT 8190
gradient-based algms. for echo compensation 15988
handicapped children's prod-oriented teaching/training syst. 4327
harmonic/noise model for speech 15829
hearing loss compensation, neural network based objective measures 18612
higher-order stats., allpass systs. ident. algm. 32648
Hindi vowels in consonantal context, acoustic/perceptual study 15851
HMM, variable frame anal. method 8215
human speech detect. in struct. noise 32409
human vocal-tract dyn. geom., formant trajectories determ. 32324
hybrid model decomp. of speech in noisy environ. 32431
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
infinite response filtering for speech proc. 8197
interactive voice technology for telecommunications, conf., Kyoto, Japan (1994) 11
invariant geom. measures for speech sigs. 15822
ISDN speech recogn. syst., vowels extraction 41919
isolated word recogn., hybrid neural network 32429
Korean, part-of-speech tagging, HMM *(Korean)* 24154
lang. ident., phone-based acoustic likelihoods 32276
lang. ident., phoneme-based, anal. 32275
lang. proc. for speech recogn. *(Japanese)* 15817
large-vocab. speaker recogn. technol., recogn. accuracy *(Japanese)* 15813
live speech network assess., digital adaptive filter 40750
LMS adaptive FIR filter dimens., learning rate 32756

speech processing continued
LPC speech coding, fast LSP VQ algms. 15855
Macintosh-based environ. appl. 2438
max. integrated phone device for analogue telephone set 42076
MELECON '94, conf., Antalya, Turkey (1994) 5470
midsagittal profiles/formant freq., vocal-tract area fns. 24128
Midwest Symp. on ccts. and systs., Detroit (1993) 33
modulation spectra of speech transm. index 15828
multiband excitation coder, anal./synthesis methods 15833
noise reduction syst., voice activity detector influence 40752
noise whitening filter for syst. ident. 40746
non-lin. speech anal., recurrent radial basis fn. networks 8240
non-Markovian proc., conditional probab. dens., kinetic eqns. 20534
nonlin. adaptive prediction of nonstationary sigs. 32560
nonlin. cepstral equalisation method for noisy speech recogn. 2434
nonstationary sigs., instantaneous spectral estim. 41053
NTT speech proc. technol. and telecommun. appl. 2441
NTT voice message summary for voice services 3151
Orphee syst. techs., speaker charactn. 32246
output-based objective speech quality 8195
PASS, parallel speech understanding system 8202
pattern anal. for four south Indian langs. 32284
PC-based multi-resoln. spectrograph 2403
perceptually-based objective quality, phoneme-level segmentation 8243
period estim., min. entropy deconvolution 24136
phoneme recogn., restricting training sect. in concatenated HMM training 32272
phonemic segmentation of fluent speech 32227
phonemic segmentation syst., Eng. continuous speech, static/dyn. params. *(Japanese)* 40718
physiological models for speech anal. and synthesis 8206
pitch detect. of speech sigs., combined algm. 15823
pitch detect. of speech sigs., segmented autocorrelation 32438
pitch pattern clustering, prosodic phrase segmentation 32403
pitch-/time-scale modif., non-parametric techs. 40729
polyphase quadrature filters fast algm. 6235
POLYPHONE corpus, Dutch for appl. develop. 3137
profoundly deaf people hearing aids based on parametric concept 18611
prosodic phrase segmentation, pitch-pattern clustering based 15807
prosody, Lund Univ. research 2415
radial basis fn. network, speech spectrum conversion 40726
rate allocation, spectral entropy 32259
real time speech rate conversion syst. for elderly listeners 43368
recogn., RASTA-PLP integrat. 32310
recogn., vocab.-independent, phoneme-level HMM modelling 32339
recursive formants tracking 32408
ref. model optimisation in DP based speech recognizers *(German)* 40738
RLS weighted algm. for speech proc. 32447
robust lin. predictive anal. methods for speaker ident. 24150
robust speech recogn. using direct cepstral comparison, environ. normalization 32380
segmental SNR weighting, degraded word recogn. 32311
segmentation and clustering problem, multiple N sig. source model 8200
segmentation of speech, speaker ident. 32249
sex and dialect rels., speech reduction 2414
short-time sig. anal., miogram, speech appl. 32445
speaker discrimination in a conversation 8232
speaker ident., robust cepstral 32241
speaker indiv. control/conversion, acoustic charact. 40728
spectral, extraction, Poisson moments 8234
spectral interpolation anal., frame energy depend. weighting 32325
spectrum transform. by speaker interpolation 32320
spoken dialogue, utterance units/topic struct., temporal charact. 32444
spoken dialogue syst. for CD-ROM inform. retrieval 15850
spoken lang., robust real-time interp. 15857
spoken lang. systs., research directions 8219
spontaneous monologues, discourse finality, prosodic predictors 2417
spontaneous speech, correcting complex false starts 32292
SSB radio channels, received SNR increase, anal. sig. rooting 42147
statistical multiplexing, resource auction multi-access excess capacity 42200
std. British/ToBI prosodic transcription systs., conversion 2418
stress shift, category ambiguities resoln. 2419
stuttering, digital speech aid 4309
subband-autocorrelation anal. 32405
syllabic companders, strict sense envelope detect. 9162
talker localisation in room, microphone array 32410
telephone speech recogn., vocab. independent 32238
Texas Instruments multiserve enhanced voice services 3133
text depend./independent/prompted speaker recogn. technol. *(Japanese)* 15818
text-depend. speaker recogn., higher freq. band inform. 32243
text-independent speaker ident., Gaussian mixture speaker models 8225
text-independent speaker recogn. from vowel extraction *(Korean)* 40731
text-prompted speaker recogn., tied-mixture-based phoneme models 32240
text-to-speech conversion syst. for Basque lang. 15834
time envelope vocoder, LP based coding 25162
time-scale modif., nonlin. oscillator model 32318
time-varying speech sig. anal., seq. param. estim. 32319
topic ident. on switchboard corpus 32301
TOSBURG II, spontaneous speech dialogue syst., eval. 15849
traffic guiding syst., speech based, and speech database 24145
two-microphone adaptive beamforming speech proc. for cochlear implant patients 43366
upper sideband and lower sideband SSB sigs., ident. algm. 40900
vector parametric model of random procs., DSP appls. 32567
video proc., lip sync. 41702
vocal tract aerodynamics in /aCa/ utterances, meas. 24129
vocal tract aerodynamics in /aCa/ utterances, simul. 24130
voice conversion, formants transform., ANN 40730
voice conversion based on piecewise lin. conversion rules 32322
voice fund. wave filtering method, fine pitch contour extraction 32404
voice quality conversion, supervised/unsupervised spectral mapping *(Japanese)* 2424
voice sig. proc. *(English, French)* 40713
voice supported multimedia service on data commun. 9047
voiced speech, robust time-varying parametric modelling 40758
voiced speech synthesis, two-phase unwrapping criteria 32207
voiced-speech anal., residual interfering sig. canceler algm. 32323
voiced/unvoiced/silent transit. regions detect. in speech sigs. 8186
Walsh transform. for speech echo interf. suppression 24159

speech processing continued
wave collation visual speech display design and eval. 24148
waveform restoration, MLE *(Japanese)* 15804
wideband speech generation from narrowband speech by codebook mapping *(Japanese)* 32441

speech recognition
see also speaker recognition; speech recognition equipment
2D kohonen neural network in multimedia speech recogn. 32448
acoustic modeling, phonetic units spotting 32217
acoustic proc. for speech recogn., vectors and phoneme models *(Japanese)* 15816
acoustic/suprasegmental inform. combination 32225
all-phoneme ergodic HMM for unsupervised speaker adaptation 32271
Alphanet-HMM based continuous speech recogn. syst. 32262
ambiguous vowels recogn., oscillator neural nets 40760
ANN-based speech recogn., generalized min. distortion segmentation 24152
ARPA spoken lang. technol. demons. and appls. 32289
AT&T's IN, service proc. systs. 16824
AT&T 800 speech recogn. service, network call routing 3140
ATR research activities on speech translation 2444
Australian Nat. Database of Spoken Language 32233
automatic generation of hidden Markov networks by successive state splitting algm. 32440
automatic intonation tone contour labelling/class. algm. 32402
automatic lang. ident., sub-word models 32278
automatic lang. ident., syllabic spectral 32277
automatic language recogn., pitch contours discriminating features 8228
automatic speech recogn., coding algms. influence 32358
automatic speech recogn., state-of-the-art review and future directions *(Japanese)* 15815
automatic speech recogn. technol. and research directions *(Japanese)* 15814
automatic telephone directory *(Italian)* 24929
automatic telephone operator based on client-server syst. archit. 3132
automatic voice call-response syst., speech interface *(Japanese)* 24926
Bayesian belief networks stochastic parsing 24131
Bell Canada directory assistance automation 3127
bimodal speech recogn. expts., recurrent neural networks 32426
bunsetsu, provisional boundaries, 2nd-order Markov model 8188
candidates, chart parsing method 32368
car, microphone posn. importance 32312
cellular commun. noise suppression 3500
cepstral-time, matrices and HMMs 32353
cepstrum-based speaker ident. 32216
channel-bank-based phone detect. strategy 32397
character-sync. integrated speech and lang. model, joint learning 32372
Chinese speech recog., syllable segmentation 32420
clipped cepstrum, robust, speech recog. *(English)* 40716
coding, recursive/adaptive AR proc. ident. 24138
competitive learning neural network, dyn. output neuron generation, speech data appl. *(Korean)* 32443
connected digit recogn., GPD segmental discrim., rejection method 32303
connected digit recogn., telephone network based, VQ HMM appl. 32235
connected-word recogn. in noise, extraction 32385
connectionist parsing of spoken lang., complex output representation 32296
consonant recogn., knowledge based approach 32228
context-free large-vocab. connected speech recogn. 32393
continuous Mandarin speech recogn., segmental probab. model 32390
continuous speech classif., vis. mouth-shape related classes 32321
continuous speech phoneme recogn., large inhomog. HMM 32219
continuous speech recogn., expert-TDNNs/HMMs hybrid syst. 32398
continuous speech recogn., hidden Markov methods *(Japanese)* 15811
continuous speech recogn., HTK software toolkit 32388
continuous speech recogn., large vocab., fast match acoustic models 32396
continuous speech recogn., models and algms. 8209
continuous speech recogn., prosodic inform., generalised model 32399
continuous speech recogn., string hypothesization algm. 32395
continuous speech recogn., suprasegmental 32401
continuous speech recogn. algm., telephone directory appl. 15845
continuous speech recogn. in noise, spectral subtraction/HMM adaptation 32307
continuous speech recogn. of Wall Street Journal data 32389
continuous speech recogn. syst., practical appl. 8230
continuous speech recogn. via word preselection method *(Japanese)* 32442
continuous speech recognizer, context-depend., and models 32338
continuous speech segmentation for recogn., PSTN 32222
conversational misunderstandings/non-understandings repair 15840
corpus-based local context anal. for spoken dialogues 15839
cross-lang. adaptation for rapid HMM devel. in lang. 32268
degraded word recogn., double autocorrelation anal., weighted DP matching *(Japanese)* 15809
dereverberation, cepstrum based deconvolution 32212
dialog design for speech-interactive telephone automation syst. 2449
dialogue stat. modeling, next utterance speech act type 15838
directory assistance, speech recogn. issues 3128
discrete HMM, contextual VQ 40732
discriminative feature extraction, filter bank design 32326
discriminative HMMs, non-lin. input transforms. 32265
discriminative training, neural prediction systs. 32267
discriminative training of high perform. speech recognizer 32359
dyn. speech recogn. tasks, connectionist approach 32428
dynamic vowels recogn. using 2D feature space trajectories 8233
Eigenlips for robust speech recogn. 32433
Eng., spoken, understanding, context 2453
ergodic HMM and polygrams for lang. modeling 32294
European langs., poly- and mono-phonemes ident., data-driven clustering 32239
frame correl. constrained phoneme HMM 15805
French, metrical patterns/lexical parsing 2420
French telecommun. services, CNET speech technol. appl. 3081
full search vector quantisation algm., massively parallel implement. 15837
fuzzy VQ based HMM 32362
Gaussian mixture modeling 32356
genones, large vocab. HMM based speech recognizer 32363
German, prosodically marked phrase boundaries, automatic class. 32400
glottal source param. anal. method 8183
graph search techs. 32341
handicapped students' speech recogn. syst. 43381
haptic display for deaf/blind individuals, speech perception 15852
hierarchical LPNN network for noise reduction/speech recogn. 32386

speech recognition continued
hierarchical pattern recogn. systs., efficient search strategies 24736
high-quality speech corpus, telephone acoustic models constr. 32230
Hindi vowel recog., neural net 32419
HMM, Bayes adaptive algms. 24141
HMM, model search method *(Japanese)* 32418
HMM, state duration modelling 24134
HMM, variable frame anal. method 8215
HMM based on visual/auditory inform. fusion 15820
HMM param. estim., fuzzy VQ 15819
HMM speech recogn., duration/spectral based stress token generation 32308
HMM speech recogn. perform., MAP estim. params. 32266
HMM with duration modelling, parallel implement. 40745
HMMs, LQV, transform. 8238
hybrid HMM/MLP speech recognizer, linguistic, incorporation 32434
hybrid HMM/neural networks combination 2431
hybrid model decomp. of speech in noisy environ. 32431
hybrid neural nets/HMM, speech recogn. *(Chinese)* 8217
hybrid NN-HMM systs., model-discriminant training algm. 32435
hypothetical reasoning for automatic recogn. of continuous speech 32283
IBM Tangora speech recogn. syst., adaptation techs. 32214
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
indiv. speaker adaptive recogn., tree-struct. algm. *(Japanese)* 32417
intell. terminal for commun. network resources mgt. 24923
interactive voice technology for telecommunications, conf., Kyoto, Japan (1994) 11
internat. interpreting telephony *(Japanese)* 3101
IPA, improved phone modelling, recurrent neural networks 32218
ISDN speech recogn. syst., vowels extraction 41919
isolated Mandarin syllable recogn., segmental 32413
isolated utterance recogn. associative memory scheme 32423
isolated word recogn., hybrid neural network 32429
isolated word recogn., interframe depend. HMM 8216
isolated word recogn., LVQ codebook/prosodic param. transform. 2412
isolated word recogn., model topol. selection 32360
isolated word recogn., SOFM-HMM/inertia *(Korean)* 24155
isolated word recogn., Viterbi decoding and HMMs 32354
Italian telephone network, interactive voice technol. 2442
JANUS 93, towards spontaneous speech translation 32291
Japanese/Eng. digit recogn., comparative anal. 32234
Korean, part-of-speech tagging, HMM *(Korean)* 24154
Korean continuous speech, self-organization, maps and dyn. VQ *(Korean)* 2435
Korean speech recogn., synthesis, and cryptography 32017
KT-STOCK large vocab. speaker independent recogn. syst. 2440
lang. ident., automatic, perceptual benchmarks 32288
lang. ident., phone-based acoustic likelihoods 32276
lang. proc. for speech recogn. *(Japanese)* 15817
large vocab. speech recogn., comparative expts. 32343
large vocab. speech recogn., connectionist model combination 8235
large-scale analog neural computer, archit./appl. 29481
learning consistent semantics from training data 32374
LIMSI continuous speech dictation syst., eval. 32342
local/global constraints, stochastic lang. model 32366
LVQ-codebooksr with HMM, appl. 32305
Macrophone, American Eng. telephone speech corpus 32229
Mandarin Chinese, dictation syst., R&D 24144
Mandarin consonants recogn., large phonemic time-delay neural net 8189
Mandarin continuous speech, tone recogn., prosodic inform. 2423
Mandarin speech recogn. syst., large vocab. 24142
Markov random field-based parallel proc. algm. 32352
matching probab. in HMM, integer algm. *(Korean)* 24157
microphone array, talker radiation pattern meas. 34283
microphone arrays and neural networks, speaker/speech recogn. 32205
microphones adaptation, tied-mixture normalization 32313
min. class. error, time-freq. masking filters optim. 32406
misrecognitions and out-of-vocab. words, detect. 32370
MLP probab. estimators, parallel training 8237
modified HMM *(Chinese)* 40720
monolithic speech recognizer, fully recurrent neural networks based 8242
multi-codebook HMM speech recogn. systs., learning 32263
multimodal consumer inform. server, IVR menu 3131
multimodal interface, speech and touch screen *(Japanese)* 24137
multiple VQ and semicontinuous HMM 32224
natural spoken lang. understanding via hierarchical HMMs *(German)* 40735
NEC recogn. technol. *(Japanese)* 42037
noise adaptive speech recogn., HMM representation 40741
noise immunization, neural network 32437
noise independent speech recogn. for variety of noise types 32314
noise reduction, adaptive microphone array appl. 15827
noisy car environ., OSALPC representation 32382
noisy speech recogn., cepstral-time, and spectral-time filters 32381
noisy speech recogn., Markov model based noise modeling 32379
nonlin. cepstral equalisation method for noisy speech recogn. 2434
nonlin. syst., neural nets 40733
nonuniform unit HMMs for speech recogn. 2445
NTT speech proc. technol. and telecommun. appl. 2441
NYNEX interactive speech/lang. systs., telecommun. appl 2443
office use of speech recogn., technol. support for dictation 32414
operator services automation, speech recogn. appl. 3141
parallel distributed binary mapping models 32306
parallel opt. inform. proc., appl. *(Japanese)* 32853
parallel proc. algm., Markov random fields 8201
parallel proc. for speech recogn., lin. predictive HMM 8184
param. extraction, noisy environ., masking model 32384
parametric/non-parametric representations 15835
parsing word graphs, linguistic grammar and stat. lang. model 32375
pers. shopping assistance, indoor wireless syst. 33558
Philips automatic train timetable IS 3130
phoneme dictionary automatic training based on mutual inform. criterion 32269
phoneme recogn., restricting training sect. in concatenated HMM training 32272
phoneme recogn. in continuous speech based on mutual inform. criterion *(Japanese)* 15810
phonemic segmentation of fluent speech 32227
phonetic class./recogn., HMM 32220
phonetic segmentation, parallel algm., mean field annealing 15802
pitch detect. of speech sigs., combined algm. 15823
pitch pattern clustering, prosodic phrase segmentation 32403

speech recognition continued
- power syst. control, natural lang. speech interfaces 4559
- probab. distrib. type of speech packet network residence time, effect on speech legibility 15801
- probabilistic lang. models, weakness anal. *(English)* 40736
- problem solving *(Japanese)* 16046
- pronunciation lexicon in automatic speech recogn. *(English)* 40734
- prosodic phrase segmentation, pitch-pattern clustering based 15807
- pseudo-segment based speech recogn. 32355
- RASTA-PLP integrat. 32310
- recurrent neural network based speech recogn. 32430
- ref. model optimisation in DP based speech recognizers *(German)* 40738
- robust lang. model, substring parser and extended n-grams 32295
- robust speech recogn., probabilistic optimum filtering 32309
- robust speech recogn., telephone line equalization 8231
- robust speech recogn. using direct cepstral comparison, environ. normalization 32380
- root adaptive homomorphic deconvolution schemes for speech recogn. in noise 32315
- roving robot, intell., multiple sens. 40792
- SCHMM params., Bayesian adaptive learning 32264
- segmental phoneme recogn., piecewise lin. regression 32221
- segmental SNR weighting, degraded word recogn. 32311
- semicontinuous HMM speech recogn., multiple VQ 2433
- sentence recogn. syst., finite state automaton, perform. prediction 32304
- sentence spotting applied, partial sentences and unknown words 32297
- sex and dialect rels., speech reduction 2414
- smart vehicles, voice recogn. digital cipher lock 643
- speaker independent phoneme recogn., autoassociator-based modular archit. 8239
- speaker independent speech proc. method 8213
- speaker indiv. control/conversion, acoustic charact. 40728
- speaker-independent continuous speech dictation 2413
- speaker-independent Mandarin plosive recogn. 24147
- speaker-independent speech recogn., normal distrib. supposition *(Chinese)* 24143
- speaker-independent spoken word recogn., parallel phoneme labeling 40757
- speech dialogue syst., simultaneous understanding based 15847
- Sphinx-II recogn. search, integrat. semantic constraints 32369
- SPHINX-II speech recogn. syst., VQ codebooks and adaptive lang. models 32340
- spoken dialogue syst., multimodal keyword-based, MultiksDial 32373
- spoken dialogue syst. design, stochastic modeling 15846
- spoken digit recogn., URAN VLSI chip 8203
- spoken lang. ident. by ergodic HMMs 15806
- spoken lang. systs., research directions 8219
- spontaneous speech, correcting complex false starts 32292
- spontaneous speech recogn. search algm. 32392
- spontaneous speech task, unanswerable queries 32290
- spotting events in continuous speech 32300
- SSS-LR continuous speech recogn., non-uniform unit parsing 32394
- state-depend. time warping in trended HMM 2410
- stochastic CFG, sentence recogn. 32367
- stochastic CFG rules learning from example text 32293
- stochastic trajectory model/discriminative, extractor 32436
- stochastic trajectory modeling 32223
- subband-autocorrelation anal. 32405
- syllable-final nasals preceded by /ε/, automatic recogn. 32416
- syntactic/semantic/dialog-level constraints integrat., heuristic search 32371
- systs., HMM, finite-state automata 32361
- telephone based speech recogn., in adverse environ., sig. bias removal 32316
- telephone channel adaptation, vector field smoothing tech. 2447
- telephone intermediary syst., voice activated 2451
- telephone network, speech recogn. degrad. sources 32236
- telephone network automatic call routing 3136
- telephone service, speech recogn. based 3139
- telephone speech, extraction/classif. methods 2446
- telephone speech data corpus, speaker independent recogn. 3134
- telephone speech messages automatic lang. ident. 32279
- telephone speech recogn., vocab. independent 32238
- telephone voice interfaces on the cheap, Zap & Zoom 41720
- telephony, computer-aided, user-oriented dialogue struct. 16615
- template matching, subspace approach 15854
- tone recogn. of continuous Mandarin speech based on neural networks 24153
- topic ident. on switchboard corpus 32301
- tree-struct. speaker clustering for fast speaker adaptation 32270
- US census, automatic speech data collection 32232
- user interface for handicapped 43376
- very large speech corpora, develop. of file formats 32237
- vocab. independent wordspotting, fast lattice-based approach 32299
- vocab.-independent, phoneme decision tree/context adaptive phone approaches 32339
- Voice Across Japan database, Polyphone project 32231
- voice activated automated telephone call routing 8848
- voice based human interface, speech coding, synthesis and recogn. *(Japanese)* 40754
- voice proc. in telecomms. 2439
- voice sig. proc. *(English, French)* 40713
- voice-activated telephone exchange syst. 3292
- voiced stop consonant recogn. by block-windowed ANN 32422
- voiced/unvoiced/silent transit. regions detect. in speech sigs. 8186
- VoiceDialing, speech recogn. based telephone service 3138
- VoiceMap spoken lang. syst. assess. 2450
- vowel and consonant recogn. in Turkish, neural networks 15832
- vowel class. using neural predictive HMM, discriminative training 32432
- warped lin. prediction 32446
- wave collation visual speech display design and eval. 24148
- whispered short-vowels, formants *(Japanese)* 2408
- word accent patterns modelling by concatenation of mora HMMs 32226
- word recogn., large vocab., tree-trellis search 32391
- word recogn., neural network and phonetically based DTW 8241
- word recogn., task independent and depend. training 32357
- word recogn. algm., part of speech tagging 2657
- word spotting, adaptive noise immunity learning 32317
- wordspotter training, fig.-of-merit back propag. 32302
- wordspotting systs., recogn./rejection perform. 32298

speech recognition equipment
- continuous speech recogn., hidden Markov methods *(Japanese)* 15811
- DSP synthesis tools for real time systs. 40802

speech recognition equipment continued
- Eigenlips for robust speech recogn. 32433
- HMM with duration modeling, parallel implement. 24133
- human interface technol. for handicapped people 18620
- hybrid HMM/MLP speech recognizer, linguistic, incorporation 32434
- hybrid neural nets/HMM, speech recogn. *(Chinese)* 8217
- large vocab. speech recogn., comparative expts. 32343
- LIMSI continuous speech dictation syst., eval. 32342
- multichannel spatial auditory display 2437
- noise reduction, adaptive microphone array appl. 15827
- PEGASUS, spoken dialogue interface for on-line air travel 15848
- pers. shopping assistance, indoor wireless syst. 33558
- smart vehicles, voice recogn. digital cipher lock 643
- spoken dialogue syst. for CD-ROM inform. retrieval 15850
- SSS-LR continuous speech recogn., non-uniform unit parsing 32394
- TOSBURG II, spontaneous speech dialogue syst., eval. 15849
- training aid for aphatic children 4326
- voice-activated telephone exchange syst. 3292
- voice-controlled telecomm. terminal for phys. handicapped 4313
- word spotting, adaptive noise immunity learning 32317

speech synthesis
- articulatory movements based speech prod. model *(Japanese)* 40744
- articulatory speech synthesis, fractional delay waveguide filters 32349
- ATR research activities on speech translation 2444
- automatic telephone directory *(Italian)* 24929
- automatic text-to-speech synthesis, develops. 8207
- blind people globe inform. syst., TV camera/speech synthesis *(Japanese)* 26476
- blind pers. speech technol. develop. 4317
- blind pers. tactile-audio user interface 43379
- BLISSVOX, voice output commun. syst. for teaching disabled children 40724
- CELP coding, speech class. embedded in adaptive codebook search 8226
- CELP model, computationally efficient adaptive codebook search 40714
- computer corpora, overlapping speech 8187
- continuous pitch tremor synthesis, all-pass-filters *(Japanese)* 8181
- continuous speech recogn., prosodic inform., generalised model 32399
- conversation, computer aided for phys. impaired nonspeaking people 40759
- deaf children, computer aided speech training 35182
- Eng. intonation, rise/fall/connection model 2422
- FIR QMF low-delay bank of filters appl., speech coding 24139
- flexibly digitized speech sounds compressibility on naturally sounding speech synthesis 40739
- formant freq. modif. algm. dealing, pole interact. *(Japanese)* 40717
- formant-based audio synthesis, nonlin. distortion 34297
- French telecommun. services, CNET speech technol. appl. 3081
- German portable reading device for blind 4318
- glottal models far digital speech proc., historical survey 24132
- glottal source modeling for voice conversion 40725
- glottal source param. anal. method 8183
- grapheme-to-phoneme conversion, heuristical and stat. methods *(English)* 40723
- Greek reading machine for visually impaired 4320
- harmonic/noise model for speech 15829
- high-quality harmonic coding, low bit rates 32254
- highway advisory inform. radio syst., speech synthesizer 42568
- human interface technol. for handicapped people 18620
- human vocal-tract dyn. geom., formant trajectories determ. 32324
- hybrid time-/freq.-domain speech synthesis, glottal source generation 32348
- IEEE ICASSP conference, Adelaide, Australia (1994) 20269
- image input microphone, nonacoustic speech commun. syst. 17604
- interactive voice technology for telecommunications, conf., Kyoto, Japan (1994) 11
- intonation spec. from context for speech synthesis 2436
- Italian telephone network, interactive voice technol. 2442
- knowledge based speech synthesis by concatenation of phoneme samples 15831
- Korean speech recogn., synthesis, and cryptography 32017
- letter-to-sound/sound-to-letter generation, phonological parsing 32365
- lin. prediction vocoder using time envelope, 1.6 kbit/s 33703
- LP-PSOLA synthesis, spectral smoothing/envelope modif. 32346
- M-LCELP speech coding, 4 kbps 33688
- Mandarin neural network-based F0 text-to-speech synthesiser 2432
- MC68HC11 microcontroller based talking thermometer 3749
- mentally retarded children's speech rehabilitation programme 4323
- multi-band excitation and LPC-based speech coder 9121
- multiband excitation coder, anal./synthesis methods 15833
- NEC multimedia VAN services *(Japanese)* 42030
- Netherlands blind listeners' electronic newspaper eval. 4319
- neural network simul. on reconfigurable multiprocessor 32427
- NTT speech proc. technol. and telecommun. appl. 2441
- NYNEX interactive speech/lang. systs., telecommun. appl 2443
- parallel formant synthesizer control param. coding 4315
- pers. synthetic voice creation 4325
- phonology-phonetic-coupling in constraint-based gestural model *(German)* 40737
- physiological models for speech anal. and synthesis 8206
- pitch-/time-scale modif., non-parametric techs. 40729
- profoundly deaf people hearing aids based on parametric concept 18611
- prosodic rules for speech synthesis, automatic generation 32351
- radial basis fn. network, speech spectrum conversion 40726
- Spanish text to speech conversion, data-driven f_0/duration modeling 32350
- Spanish text-to-speech syst. blind user acceptance tests 4321
- spectrum transform. by speaker interpolation 32320
- speech impaired pers., public telephone network access, TINATEL syst. 43373
- spoken lang. systs., research directions 8219
- spontaneous monologues, discourse finality, prosodic predictors 2417
- text-to-speech conversion syst. for Basque lang. 15834
- text-to-speech synthesis, algms. comparison 32344
- text-to-speech synthesis, rhythmic patterns characterisation 2421
- text-to-speech syst., listener demands, class. 40751
- text-to-speech syst. for Japanese, waveform splicing, develop. 32345
- time envelope vocoder, LP based coding 25162
- time envelope vocoder, natural sounding speech coding algm. 40748
- traffic guiding syst., speech based, and speech database 24145
- variable-rate natural-quality parametric speech coder 8204
- voice based human interface, speech coding, synthesis and recogn. *(Japanese)* 40754

speech synthesis continued
voice commun. prosthesis enhancement, speaker emotion 4316
voice conversion, formants transform., ANN 40730
voice proc. in telecomms. 2439
voice proc. technols. and appls., develops. 8214
voice sig. proc. *(English, French)* 40713
voice transaction proc. appl., Spanish text-speech conversion 2448
voiced speech synthesis, two-phase unwrapping criteria 32207
voiced-speech anal., residual interfering sig. canceler algm. 32323
VSELP coders LSP vector quantizers in noisy channels 2425
waveform compilation techs., Chinese text-to-speech syst. *(Chinese)* 15803
waveform speech synthesis, COC speech spectrum based 32347
wideband speech generation from narrowband speech by codebook mapping *(Japanese)* 32441

speech transmission *see voice communication*

speed control *see velocity control*

speed indicating instruments *see velocity measurement*

speed measurement *see velocity measurement*

spelling aids
Greek reading machine for visually impaired 4320

spherical aberration *see aberrations*

SPICE
1-MW power MOSFET switch, SPICE macromodel 6756
3D EM simulator, IE3-D, HF and high-speed cct. appls. 21071
1024-pin plastic ball grid array for flip chip die, design, SPICE model 5652
AC voltage regulator harmonic capability anal. 540
act. compensated filters, HF appls., design/optim. 29352
analog IC BiCMOS-JFET radhard SOI technol., proton radiation effects 13904
analog testability anal., fault diagnosis, behavioral modeling 28942
analogue ICs, SETIPIC electrothermal simul. 30439
analogue syst., eigenvalue computation and sorting, matrix flow 12669
ART1 memories, mixed analog/digital implement. 29404
ATE environ., ±30 ps accuracy 9803
B^2CMOS, bootstrapped BiCMOS gate for LV appls., HSPICE simul. 12477
ball grid array packaging, IC design, SPICE-compatible modeling 37139
benchmark ccts. for mixed-mode SPICE simulators 29401
BEST integrated syst. for macromodel develop. *(Korean)* 38978
BiCMOS integrated process/cct. develop. using SPR 39024
BiCMOS logic ccts., fault anal. and DFT *(Korean)* 39023
BiCMOS pipelined A/D converter using current-mode sigs., LV design *(Korean)* 12590
bidirectional current-controlled PTAT current source 12328
bipolar static freq. dividers, T-type flip-flops 12475
bipolar technols., stat. cct. simul. 39001
bipolar transistor, breakdown model, PSPICE cct. simulators appl. 6736
BJT self-heating, modeling, cct. simul. 22358
BJTs, DC(AC) current crowding, model anal. 13619
broadband sampling oscilloscope, nose-to-nose calibration 25913
buck and boost DC-DC PWM convertor anal. 11184
buck ZVS power converters, anal./design 44134
buffered direct injection multiplexer for IR cameras 34562
built-in-input filter forward converter 6005
C_∞-continuous small-sig. model for MOS transistor in normal operation, IC simul. 22401
categorization-based diagnostic systems in VLSI design 5959
cct. anal. software testing 502
chip model library for integrated package/chip simul. 37081
Chua's oscillator, anal. of chaos, SPICE simulator *(Slovenian)* 37664
class C RF amps. simul. 12341
CMOS cascode current mirror, HF response 12351
CMOS cct. timing, device resist. estim. tech. 30457
CMOS continuous-time analog defuzzifier 29417
CMOS IC, coupling characterisation, meas. techs. 15491
CMOS implement. of current conveyors *(Polish)* 724
CMOS latches, metastability rel.to loading, power supply and scaling 13887
CMOS logic gates, short-cct. power dissipation estim. 619
CMOS OTA-C act. filter simul., OTA macromodel 21404
CMOS VLSI predictive tree-searched vector quantizers for real-time video compression 29276
CMOS-type temp.-sens. cct. *(Japanese)* 34489
CMOSFETs with reduced jn. capacitance, $TiSi_2$ salicide, e-beam lithog., SPICE 30358
Colpitts oscillator, chaos 576
Colpitts oscillator, resistive nonlin. charact., phase/oscill. freq. *(Slovenian)* 12366
coupled transient simul. of ccts. and 3D packaging, algms. 11808
coupled transient simul. of ccts. and 3D packaging, algos. 21070
current domain regenerative comparators 3766
current mode S/H cct. *(Japanese)* 6259
current S/H ccts., clock feedthrough anal. and cancel. 780
current-mode multiple-valued PLA, reson. tunnelling transistor model 623
data-driven subthreshold analog MOS neural net cct., principal components computation 798
dc operating point anal., unstable operating points, IC design 37586
DC unstable operating points ident. using SPICE, IC design 22525
DC-DC power converter cross regulation charactn., SPICE-based 19794
discontinuous current mode series-parallel reson. converter 37623
EEPROM CAD model for low power cct. design/simul. 21304
elec. engng. course, computer tools introduction 20278
electronic syst. design automation 21077
electronics, computer-aided lab. 20319
electronics packaging interacts., equiv. cct. models 11764
EM emission from PCB sig. line, peak freq. prediction 38073
EMC-disturbances on coupled microstrip lines, LF SPICE model 12695
ESD protection cct., 2D electrothermal simul. and design 30467
feedforward neural networks, analogue CMOS implement. 29445
fixed freq. LCL series reson. converter 29001
fluoresc. lamp current var., electronic ballast tolerances, PSPICE 11460
fully depleted SOI CMOS SRAM cell, SEU sensit., SPICE anal. 12522
fully differential feedback amp. ccts., return ratio simul. 21131
gate array chip, HF DSP appls. 12576
Getreu comparator macromodel, anal. and design algms. 6257
ground bounce effect on noise margin modelling 6857
GTO thyristors, cct. simuls., math. model 5063
GTO thyristors, turn-off characts. modelling 11113
HBT SPICE model for large-sig. appls. 13615
high speed CBiCMOS digital cct., LV appls. 22617

SPICE continued
high speed digital design using Spice controlled sources, accurate I/O models 20451
high-speed high-power semicond. devices, modeling 13577
high-speed multiplier/VGA, simplified-transistor SPICE macromodel 6251
hippocampus, nonlin. syst. model, CMOS implement. 29434
HSPICE/EMTP comparison, power syst./power electronics anal. 4476
HTSC planar transm. lines, propag. params. calc. 40415
HV substations, EMI anal., switch arc restrikes 5159
hybrid IC drivers, flip chip bonded, SPICE simul. 7485
I_{DDQ} BIT cct. for CMOS ICs 13884
IC photomicrographs, cct. extraction 6833
insensitive second-order filters, high input impedance, current conveyors 12640
integrat., TEK LV511 ASIC design verification 1477
integrated OEIC/device CAD design tools 39595
Intel i486 μP PGA package, RAPHAEL program L and C modelling *(Korean)* 38984
introductory elec. engng. course, cct. simul. software 5530
ladder filter CAD/anal. 12617
laterally coupled semicond. laser array instabilities/dyn. behaviour 1979
LAYIN, CAD tool for IC parasitic coupling modeling 30437
LCC parallel reson. power converter, discrete time domain modelling 36249
LCL reson. PWM converter, anal./simul./implement. 36245
load-independent cell library macromodeling, waveform simul., CMOS logic 29143
locally-adaptive wave proc. for predetection of point targets 17924
looped MOS inverters, chaotic behavior and bifurcation 37613
lossy coupled transm. lines simul., window partitioning, waveform relax. 13422
lossy nonlin. terminated packaging interconnection, S-param. transient simul. 5636
LV full-swing noncomplementary BiCMOS buffers 12489
macromodelling series-reson. convertor ccts. 21469
magnetotransistors, mag. field sensit. modelling, HSPICE 38825
MeXeL simul. of micro-electromechanical systs., nonlin. partial differential eqns. 39032
micropower batt.-operated CMOS cryst. oscillator, anal. 6045
microwave HBTs, nonlin. SPICE model param. extraction 6309
mixed mode simul., appl. in electronics design 486
mixed-sig. simul., Alfa simul. backplane 487
monolithic variable integrator design, appl., filters 12634
MOS micropower analogue second-order continuous-time filter, SPICE simul. 37846
MOS SPICE transient cct. simul., integrat. methods, noncontinuous first derivative devices 6868
MOS-gated power devices, phys. and subcircuit models 30206
nMOSFET, HISREM model, IC reliab. projections 13704
MOSFET IC radiation reliab. software simulator 13898
MOSFETs, non-quasi-static transient effects, model 22410
MOSFETs, unified capacitance modelling 1427
multiconductor transm. lines, EM field excited 8010
multiconductor transm. lines, field coupling, exact SPICE model 25201
multilayer PCB, power bus decoupling, modeling 15534
multiple coupled planes, inductance modeling, PCBs, MCMs and packages 20455
multiprocessor sparse matrix eqn. solver for SPICE 12275
NDR-SPICE cct. simul. of reson. tunneling devices 22336
neg. voltage regulator IC, total dose effects 12326
neural net synaptic coeffs., simul. annealing and SPICE-PAC 21471
node-reduced multiterminal representations of semicond. devices, SPICE 12282
noise reduction transformer, perform. and noise atten. mechanism 19681
nonfully depleted SOI MOSFETs, phys. charge-based model, floating-body effects 38858
nonuniform freq.-depend. interconnections, PSPICE simul. 23755
Nyquist data converters, verif., behavioral simul. 37816
ONYX-CS software modules for microstrip components design 12708
op amp power supply current sens., SPICE macromodel 552
op amp SPICE noise macromodel 37638
op amps, HF current feedback macro models, enhanced perform. characts. 6033
OTA, SPICE macromodel 37844
parallel proc., direct method *(Japanese)* 471
partially depleted SOI CMOS ccts., dyn. floating-body instabilities 22589
PCB refl. and crosstalk effects simul. 908
power electronics switching simul. models, PSPICE package-based 37636
power IGBT SPICE model, power converter design appls. 12316
power MOSFET transistors, design methodology, simul. *(French)* 6751
PSPICE, cct. simul. perform. study *(Italian)* 489
PSpice, DC current amp. noise characts. anal. *(Japanese)* 6029
PSpice, induction motor saturation modelling 4937
PSpice, lin. ion accelerator FET pulsed power supply simul. 34742
PSpice, power electronics education appls. 5532
PSpice, power p-i-n diode modelling appl. 5987
PSpice, quasi-reson. soft-switched inverter cct. anal. 11170
PSpice, switched power harmonic filter simul. 19741
PSpice for Laplace transform eqn. solving, undergraduate course 28351
PV array/batt. power switch network, nonlin. SPICE model 27635
PWM converters av. simul., behavioural rels. implement. 6023
quartz cryst. oscillators CAD 39103
radial basis fn. neural networks, CMOS archits. 29498
RC act. filter time-domain props., effect of gain bandwidth 6215
rectifier cct. transient anal., diode modelling, SPICE-based 12325
replica-amp gain enhanced op amp, settling time anal. 37648
reson. DC link inverters, sine PWM control 5999
reson. inverters anal., electronic ballast appls. 11128
RF design, nonlin. cct. anal. methods 37609
RTD large-sig. DC model suitable for PSPICE 22344
RTD-bootstrapped MESFET I-V refs., mirror-based 531
S/H cct. for high freq. appls. 12673
schematics, conversion from graphic display, netlist, appls. 5953
Schmitt trigger ccts., adjustable hysteresis 29128
SCI-LVDS 500 MHz CMOS differential pad drivers 22583
SECSPICE cct. simulator for submicron MOS designs *(Korean)* 39016
semicond. lasers with weak coherent opt. feedback, equiv. cct. 23272
series-reson. AC link inverter, output current anal. 11143
SG7915 voltage regulator, temp. depend. SPICE macromodel 5997
simultaneous driver/wire sizing for perform./power optim. 494
single-sided AC-coupled silicon microstrip detectors 43059

SPICE continued
Space Station Freedom solar cell dynamics, SPICE modelling 26584
SpiceAge for Windows, DC modelling 5972
stacked-gate flash memory cell, operation mode 29209
switch-mode DC-DC power converter dyn. response, CAI 5533
switching power supply, PSpice simul. *(Japanese)* 37631
T-Model neural net for PCM encoding, nonlin. ADC appl. 6193
telecomm. DC distrib. networks, overcurrent fuse simul. model 19276
thyristors and coupled-transistor struct., chaos 38853
thyristors/diodes, transient thermal impedance modelling/verification 13666
TiCa, timing capture tool for design/test generation of digital ICs 37683
transm. lines, efficient freq.-domain modeling and cct. simul. 5977
triode/pentode audio amps., SPICE models 37655
VCCS synthesis, lin. input range, act. RC filters *(Japanese)* 12633
VHDL-A for modelling 485
X-ray timing Explorer Power Syst., stabil. anal. 26651
AlGaAs-InGaAs MODFET based broadband dyn. freq. divider 38016
GaAs MESFET, lin. stat. DC model, factor anal. 13812
GaAs-based MESFET/HFET, device and cct. modeling 6781
InGaAs monolithically integrated pin-FETs, noise characts. 14671

spin arrangements *see magnetic structure*

spin flop phase *see antiferromagnetic materials*

spin-spin relaxation
Co/Zr multilayers, Co-phase transits., mag. props. effect 30708

spin wave resonance *see ferromagnetic resonance*

spin waves
see also magnetostatic waves; magnons
goniometer for mag. light scatt. studies 34669
Co/Al superlattices, mag. props., interlayer coupling 30706
Fe/Cu, multilayers, interlayer coupling, FMR meas. 30700
Fe-Si-B ferromag. amorph. alloy, high-field magnetis. meas. 14134
FeCo/Cu, multilayers, interlayer coupling, FMR meas. 30700
FeCoNi/Cu, multilayers, interlayer coupling, FMR meas. 30700
YIG film, EM wave crit. scatt. under acoustic pump 7034
YIG films, backward vol. MSW 1575

spinor groups *see group theory*

spinors *see vectors*

spiral antennas
Archimedean spiral antenna, reflector backed, second-mode operation 8071
Archimedean spiral antenna anal. 23880
broadband CPW-coplanar strip-fed spiral antenna 15643
low profile broadband balun feed 23991
monofilar Archimedean spiral slot antennas 8074
multi-arm multi-mode spiral antennas, design 8069
performance over tightly spaced ground plane 23881
planar and wide-angle logarithmic spirals, ground 8040
planar spiral antenna above double-dielec. loaded ground plane 23868
planar spiral systs., waves of const. radial phase vel. 8013
plane supercond. logarithmic spiral, radiation fields 40464
polariz. props., tutorial 8039
printed 2-arm spiral antenna, 90 GHz-band *(Japanese)* 8059
printed spiral antennas, resistively loaded, anal. 8072
rot. mode radial line slot antenna fed by cavity resonator 40518
sinuous spiral antenna geom. model 23831
sq. Archimedean spiral antennas, conductor-backed, anal./design 8070
two-arm slot spiral antenna 8073
two-wire Archimedean spiral antenna with parasitic loop and reflector 23869

splines (mathematics)
see also curve fitting; function approximation; interpolation
2D MOSFET doping profile, extraction via inverse modeling 13703
3D motion estim., obj. tracking, B-spline curve modelling 16172
airborne laser scanner meas., filtering and calib. 43484
aircraft altitude profile estim., natural spline fn. 18710
altitude prediction by natural spline tracking filter *(Japanese)* 8410
B-spline surface interpolation, parallel implement. 20583
Bezier and B-spline tensor products, computing values and derivatives 20575
Bode's integrals, imaginary part of antenna's admittance calc. 31936
C^2 interpolating curve, local min. conditions *(Japanese)* 5770
chain of blossoms computing, appl., products of splines 11973
COBRA, computer code for backscatt. anal. of complex objs. 3596
curvature anal. and visualization for fns. defined on Euclidean spaces, surfaces 11975
curve matching, geometric hashing 2671
CW transform, integer scales, fast implement. 8428
digital images, enlargement, reduction, min. loss of inform. 32872
discrete binomial splines 37315
discrete sigs., multichannel spline interpolation 8265
discrete spline transform, computation/effectiveness 16045
dual polynomial bases 5767
ECG sigs., computer aided interp. 10244
edge detect., regularized cubic B-spline fitting 32919
efficient segmentation of cancer cell nuclei in different color spaces 26274
electrostatic pot., symm., modified slice-method 31721
EM scatt. for oblique incidence on impedance bodies of rev. 23574
fast algms. for running wavelet anals. 32519
finite element multiwavelets 32511
finite thickness transm. lines above periodically perforated ground plane, packaging 23757
FIR optimal least sq. multiband filter design 24259
fractal fns., splines intertwining multiresolution anal. and wavelets 32514
G^2 continuous β-spline curves defined on interval (0,1) 37317
Hermite bicubic collocation, matrix decomp. methods 28661
hybrid double-sided lin. pulse motor, static thrust calc. *(Korean)* 27757
insulator string overvoltages, lightning stroke inclination 35668
matrix diff. eqns., continuous num. solns. 12001
microscopic displacement pattern, holographic, 3D graphic image representation using cubic spline fn. 15152
multi-channel deconvolution, generalized sampling approach 15924
multiband least sq. FIR filter design 29369
multiplicative and zero crossing representations of sigs. 32522
noisy curve shape restoration 32828
nonautonomous Riccati-type matrix diff. eqns., existence interval 37356
nonideal acquisition devices, general sampling theory 2464
occlusion reasoning for robust multiple car tracking 24455
ODE, B-spline solns. 37340
optimal order collocation method for first kind boundary integral eqns. on polygons 37364
orthogonal spline collocation, matrix decomp. 28671

splines (mathematics) continued
partial least sq. regression via additive splines 28663
perform. modeling of analog ccts. using additive regression splines, SC filter bank 30433
piecewise Hermite bicubic orthogonal spline collocation 11968
power syst. half-hour data-based load forecasting method 27095
progressive piecewise registration, orthophotos and airborne scanner images 41244
quadratic B-spline interpolators, comparison 20588
quadratic Bezier curves approx. by arc splines 20591
RCS surface model accuracy importance 34123
recursive spline-based algorithm for spectrophotometric data correction 25771
regularization theory extended for multivalued fns. *(Japanese)* 33111
robot/computer assisted surgery, 3D anatomical surfaces matching 43252
shaped reflector surfaces interpolation by cubic pseudosplines 40478
sig. time-freq. distrib. dens. fns., spline-approx. 32691
SRM drives, dyn. simul., saturation/driver characts. 11362
steady-state heat eqn., floating random walk algm. 5633
thin plate splines, discontinuities and fast algms. for their computation 244
time series, discontinuity location, recursive Bayesian method 41009
traveltime tomography, adaptive-grid formalism 43499
two-point BVP soln. of deficient quartic splines 37342
two-sided eigenvalue bounds of 1D Schrodinger eqn. soln., Rayleigh-Ritz method 37327
wavelets and spline-harmonic anal. 32502

split phase motors *see induction motors*

sponges *see porous materials*

sponginess *see porosity*

spontaneous emission
act. mode-locked LD array in the external cavity, pulse buildup dyn. 23284
amplif. under std. quantum noise limit 15073
Beijing FEL saturation on undulator replacement 39938
complex coupled DFB laser narrowband amp. props. 39861
Cu vapour laser, unstable resonators, time-resolved beam divergence 23090
DBR laser microcavities, spontaneous emission 23323
DFB QW semicond. laser amplit. squeezing 1965
diode laser, opt. and elec. noise spectrum 14970
diode lasers, spontaneous emission, nonlin. opt. coupling and noise 31370
dye lasers, threshold long. pump power, spontaneous emission influence 14728
dye-doped polystyrene microsphere laser emission, reson. modes 31207
Er-doped fibre amp., polaris. hole burning, time dyn. 14755
excimer lamps, UV/VUV, barrier discharge pumping 11450
Fabry-Perot DFB lasers, mode nonorthogonality study 23342
FEL, far-IR range, emission charact. meas. 39894
FEL, high-gain single-pass amps., UV/X-ray radiation generation 39896
FEL, spectra and intens. spatial profile visualisation 40015
FEL, step-tapered undulator, self-ASE 40012
FEL oscillator, radiation build-up simul., electron beam micropulse shape effect 40008
FEL radiation generated by short electron bunches, coherence effects 40006
FEL spontaneous emission in wiggler, mag. field independent of axial coord. *(Chinese)* 14983
FELIX laser, coherent spontaneous emission 40005
fibre link, interact. soliton Gordon-Haus distrib. 23443
fibre link systs. 4000 km long, perform. comparison 42377
gain guided waveguide semicond. laser model 1994
gain-switched Fabry-Perot LD, spectral behaviour 14932
II-VI semicond. TFEL devices, energy transfer 7469
laser materials charactn., spectral anal. of relax. oscills. by intracavity method 34716
LED emission intens., photon recycling approach 39581
microcavity SEL, spectral linewidth 7703
microcavity semicond. laser modulation bandwidth 7636
microcavity semicond. lasers, nonequilibrium many-body theory and mode confine. effects 23205
nonlin. opt. loop mirror noise filtering 25526
opt. microresonators, threshold lasing characts. 2026
opt. phase conjug., sig. wave reflectivity 31517
organic electroluminescent materials/devices 23022
preamplifier ASK syst. perform., incomplete ASK modulation, influence of ASE/laser phase noise 25531
quantum well lasers, 2D simul. 39792
rare earth doped fibres, metallic coated, fluoresc. decay-time vars. 39359
semicond. laser second-order/third-order nonlin. harmonic/IMD *(Korean)* 14901
semicond. laser/amp. for $1.3\mu m$-$1.5\mu m$ wavelength conversion, model 14844
semicond. lasers, multimode rate eqns. 39820
semicond. microcavities, sub-Poissonian photon generation 31372
semicond. multilayer struct., opt./X-ray/electron microscopy meas. 1122
semicond. opt. amp. switch gain optim. 39879
semicond. QW microcavity light emitters, combined quantum effects 1817
single mode semicond. lasers, opt. injection/feedback 39824
travelling wave semicond. laser amp. detector noise charact. 31346
travelling wave semicond. laser end facet output spectra 31398
tris(8-hydroxyquinoline)aluminum photo- and electro-luminesc. devices, double mirrors 39576
tunable four-sect. DBR LD, lasing charact. modelling 14845
TW semicond. opt. amps., facet modal reflectivity spectrum 39763
ultra-long dist. soliton transm., fiber nonlin. 39353
UV/X-ray FELs, single-pass, milestone expts. 39901
VCSEL, off-reson. lasing 14934
VCSELs, 3D microcavities, spontaneous emission factor *(Japanese)* 23289
X-ray FEL, perform. charact., param. sensitivities 39903
AlGaAs/GaAs, photopumped vert. cavity QW, hot carrier recomb. 23264
Ba, single trapped ion, nonlin. electro-optic switch 7392
CO_2 injection-seeded supra-atmos. laser operated below emission threshold by ring cavity 39655
CdSe quantum wells, single-shot lasing, microscopic studies 23299
Cu vapour laser, output divergence, unstable resonator alignment 14687
Er^{3+} doped ZBLA laser, upconversion lasing 39717
Er-doped fibre amps., polaris. hole burning, computer modelling 14757
Er^{3+}-doped phosphate fibers, Nd:YAG laser pulses upconversion 31528
GaAs microcavity, reson. excited exciton, coherent light emission 31375
GaAs/AlGaAs semicond. superlattice, ballistic electron scatt., undulator props. 38333
GaInP strained quantum-well lasers; gain, refr. index, linewidth enhancement 31393

spontaneous emission continued
InGaAsP, MQW lasers, high temp. perform., barrier recomb. effects 14909
InGaAsP quantum well laser, 2D model 14976
InGaAsP quantum-well quaternary lasers, gain nonlin. and temp. depend. 39798
$LiNbO_3$:Er,Ti waveguides, fab. and perform. eval. 39438
Si Li-like recomb. X-ray laser gain determ. 14684

spontaneous emission, amplified *see superradiance*

spontaneous magnetisation
$Bi_xTb_{3-x}Fe_5O_{12}$ garnet, Faraday rot., spontaneous magnetis. 14171
Co/X multilayer films, (X=Pt,Au,Ag,Ni), temp. depend. of mag. anisotropy 30699
Co-Ni, ferromag. precip., giant magnetoresist., comp. depend. 39134
Fe-Co, ferromag. precip., giant magnetoresist., comp. depend. 39134
Ni-Cu, ferromag. precip., giant magnetoresist., comp. depend. 39134
Ni-Pt multilayers, magnetoresist., in-plane magnetis. 30713
$(Sm_{1-y}Pr_y)_2Fe_{17}N_x$ magnets, remanence enhancement 30678

spooling *see winding (process)*

sport
see also entertainment; leisure industry
ang. veloc./accel. meas., accelerometers *(Japanese)* 26267

spray coating techniques
see also plasma arc spraying
diamond flame-deposited films, growth-etch cycling 420
electrostatic assisted atomiser, nonwetting, catalytic melt spraying 7921
electrostatic powder coating, microstruct. surface props. 7902
electrostatic powder painting, particle trajectories, math. model 7903
IR coating bidirectional reflectance distrib. fn. ref. stds. 9777
PCB conformal coating methods, review 12909
PCB conformal coating proc., Nordson Selective Coating System 6430
portable electrostatic sprayer 7920
Pulse Shooter solid-state conformal coating proc., PCB mask elimination 38139
n-$CuInSe_2$/polysulphide photoelectrochem. solar cells, spray-pyrolysis 27933
Si solar cells fab., low cost/high efficiency *(Korean)* 27959
SiO_2/ZnS:Mn, AC electrolum. devices, prep. 20948
ZnO films, spray pyrolysis prep., opt. and elec. props. 12143
ZnO thin film, spray pyrolysis, deposition variables effect 12142
ZnO/n-Si jn. solar cells, spray-pyrolysis method 44397

spray coatings
see also plasma arc sprayed coatings
electrostatic powder coating, microstruct. surface props. 7902
Nd:SiO_2 planar silica waveguide laser, aerosol doping method 14817
powder flow syst., pulse charge injection modelling 28887
smart high temp. composites, opt. fibres, thermal spray/adhesive bonding 3853
CdS sprayed thin films, opt. and elec. props. 21902
SnO_2 thin films deposited by spray pyrolysis, prep. and charact. 392
ZnO thin film, spray pyrolysis, deposition variables effect 12142

sprays
see also aerosols; jets
double pulse holography, digital image proc. 18142
electrostatic assisted atomiser, nonwetting, catalytic melt spraying 7921
fuel oils combustion atomisation, charge injection nozzle 7904
liqs., electrostatic dispersion modes classif. 40211
portable electrostatic sprayer 7920
semi-aq. flux cleaning, equipt. considerations and rels. 6425
US atomizing device, coupled-mode vibr. 4428

spread spectrum communication
see also frequency hop communication
1.9 and 4 GHz exterior wall refl. coeff. meas. 31820
1-GHz highly lin. CMOS downconversion mixer 29594
2.4 GHz low power data commun. syst., develop. *(Japanese)* 42179
40 GHz indoor opt. fibre SS PCN/LAN expt. 33818
acoustoelec. memory for SS commun., Green's fn. 6930
adaptive diversity reception, prediction, smoothing, interpolation 25447
adaptive DS-SS receiver for burst type interf. 17002
adaptive multiuser demodulation, neural network techs. 17001
ALOHA syst. using unified SS code, transm. efficiency *(Japanese)* 25211
asynchronous CDMA syst. perform. improvement by orthogonal seq. spreading 41462
asynchronous CDMA systs., interf. minimization 42165
asynchronous CDMA systs., lin. adaptive transmitter-receiver 42145
asynchronous CDMA systs., lin. adaptive transmitter-receiver 25243
asynchronous DS-SSMB commun. syst., TWT nonlin. distortion 25252
asynchronous DS/CDMA syst., multistage detector perform. 25240
bandlimited DS/SS and narrowband M-ary PSK timing jitter sensitivities 40550
broadband CDMA overlaying GSM cellular syst., capacity 3387
broadband channel modelling and perform. anal. 33849
burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
burst noise reduction, chip interleaving/hard limiter 25232
capacity evaluation of spread spectrum multiple access 8738
carrier freq. offset-SSMA method 25254
CDMA, CCI, spatial/temporal filtering 25234
CDMA, chaotic Chebyshev bit seqs., even-/odd-correl. fns. 25262
CDMA, imperfect power control, acquisition-based capacity estim. 25256
CDMA, TU Delft research, overview 25255
CDMA adaptive SS receivers, CCI suppression 33883
CDMA approx. synchronized syst. sig. design 24784
CDMA cellular network, forward link perform. 25366
CDMA cellular syst., forward link multipath propag. 33885
CDMA cellular time division duplex syst. capacity 3356
CDMA coded packet cellular networks, code rate optim. 25384
CDMA commun., CW/narrow-band sigs. interf. suppression 33749
CDMA commun. systs., subspace-based delay estim. 42166
CDMA for automotive area network, power-lines 3310
CDMA gap-free fit channel access protocol 41494
CDMA mobile systs., power control, perform. and syst. design 33868
CDMA multiple-cell radio syst., perform. eval. 3386
CDMA multirate radio interface implement. 42192
CDMA network, mobile positioning, perform. anal. 25619
CDMA networks, integrated voice/data traffic, code allocation 33908
CDMA opt. sync. systs., CCI cancellation 34028
CDMA overlay systs., adaptive interf. suppression 17037
CDMA overlays for FDMA satellite commun. systs. 25465
CDMA packet combining error control 25368
CDMA PCS syst. perform., simul. results 3384

spread spectrum communication continued
CDMA rapid acquisition schemes in multipath delay fading environ. 33208
CDMA receiver, near-far immunity 25228
CDMA SS tech. for automotive multiplexing systs. 25199
CDMA syst. meas.-based perform. anal. in multipath fading 33791
CDMA systs., error-correcting coding 24782
CDMA systs., multipath delay/fading 3473
CDMA systs., multistage RAKE receiver 9242
CDMA systs., optimum PN seqs. 25233
CDMA systs., pre-decorrelating single user detect. 9238
CDMA with DS-SS GMSK, perform. study 33846
CDMA/FDMA satellite commun. systs. overlay, perform. anal. 25466
CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
cellular CDMA, ES approach 25347
cellular CDMA, forward-link power control law 3347
cellular DS/CDMA systs., lin. interf. canceller 9241
cellular multichannel video/data commun. optoelectronic components 34080
chirp SS techs., multipath interf. suppression 25250
code diversity FH-SSMA commun. systs., optimal receivers 9179
code interf. of SS code hopping syst. 25251
code sync., principles/techs., review 25236
coded direct-seq. systs., rake reception, multipath fading 33905
CODIT, testbed project, DS-CDMA for UMTS/FPLMTS 3385
CODSIM, simul. environ. for spreading codes 3325
coherent FH-SS commun. syst. capacity 40551
coherent opt. CDMA, laser phase drift effects 42348
commun. sig. proc., complex arith. proc. archit. 29239
complex valued spreading seqs., crosscorrelation props. 32091
conducted suscept., testing techs. 3354
conferencing SS radio 25260
constrained spreading code *(Japanese)* 25205
constrained spreading code syst. 24742
consumer commun. appls. 25237
covert commun. employing wavelet technol. 9164
d-form seqs., families, low correl. values/large lin. spans 32053
decision-directed SS-RAKE receiver for fast fading mobile channels 9233
delay locked loop, Doppler and data modulation effects 32036
differential parallel combinatory SS commun. systs. *(Japanese)* 25207
digital data link, aviation 10379
digital pulse compression radar systs., polyphase spreading codes 25570
digital radio, spectrum phase interpolation, detect. tech. 9381
direct seq. CDMA, GMSK modulation, perform. 33754
direct seq. SS receivers, diversity reception improvements 25444
direct-seq. systs. in lineal microcells, perform. eval. 25365
dispersive fading channel, high-speed data transm., SR-chirp PSK 9356
distributed power SS cellular syst., perform. 25363
Doppler shift z 42303
DS-CDMA, Hadamard codewords, orthogonal spreading seqs. for mobile radio 33845
DS-CDMA, integrated CCI cancellation and decoding, fading multipath channel *(Japanese)* 25276
DS-CDMA, integrated voice/data wireless networks, grade of service 9364
DS-CDMA cellular syst., intra-cellular toroidal sectorisation 42276
DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
DS-CDMA cellular syst. perform. anal. 33910
DS-CDMA cellular systs., third generation, adaptive antennas 33850
DS-CDMA commun., indoor mobile, code phase assignment 9206
DS-CDMA FH-CDMA/narrow band cellular radio systs. 3452
DS-CDMA field trial syst., down-link design 9391
DS-CDMA low crosscorrel. seq. iterative constr. 41463
DS-CDMA microcellular network, soft handoff 3470
DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
DS-CDMA mobile networks, acquisition of synchronism 33867
DS-CDMA mobile radio, sliding window decorrelation, anal. 25283
DS-CDMA mobile radio syst., coherent reception, channel estim. 9229
DS-CDMA mobile radio syst. using RAKE receiver, spreading codes 25437
DS-CDMA mobile syst., fading channel, anal./simul. 3391
DS-CDMA mobile syst., receiver archits. for down-link 33864
DS-CDMA networks, multi-media integrat. 25235
DS-CDMA outage perform., mobile satellite channel 33906
DS-CDMA radio commun., low rate coding methods 25249
DS-CDMA receivers, min. MSE, complexity reduction 3328
DS-CDMA SS systs., noncoherent parallel acquisition 9382
DS-CDMA SS systs., permutation modulation 17126
DS-CDMA syst., adaptive multiuser interf. rejection algm. 42163
DS-CDMA syst., macro diversity perform. 3389
DS-CDMA syst., perform. of space diversity 33840
DS-CDMA syst. in multipath fading mobile channel, Rake reception 9234
DS-CDMA systs., code period effects 33213
DS-CDMA systs., hybrid acquisition schemes 9384
DS-CDMA/DQPSK sig. in indoor radio channel *(Korean)* 17046
DS-CDMA/TDMA for digital cellular systs. 3390
DS-SS, directionally constrained adaptive beam forming 17003
DS-SS, multi-h CPM, indoor mobile radio, perform. 3474
DS-SS CDMA cellular voice/data commun. 25342
DS-SS CDMA mobile satellite commun. syst. 25441
DS-SS commun. multipath diversity combination 42196
DS-SS commun. syst., path-diversity based on multiple path selection *(Japanese)* 25275
DS-SS communications, doubly selective fading channel, spreading seqs. 17016
DS-SS cordless telephone *(Japanese)* 25149
DS-SS digital commun., sig. detect., hybrid syst. model 24272
DS-SS digital diversity receiver for multipath fading channels 25436
DS-SS ISM band radio LANs, receiver techs. 25261
DS-SS overlay for satellite commun. syst. 33971
DS-SS packet radio syst. automatic threshold control 42151
DS-SS RAKE receiver, ASIC implement. 9191
DS-SS receiver, digital matched filters, quantization effects 25259
DS-SS receiver, multiple-dwell serial-search code acquisition 15779
DS-SS receiver, noncoherent matched filter code acquisition 32582
DS-SS serial search, multiple-dwell code acquisition detector rules 32092
DS-SS sigs. radiometric detect., wavelet transform 17012
DS-SS sigs. time division duplex transm. 9203
DS-SS SS CDMA, MMSE interf. suppression 17017
DS-SS syst., RAKE reception, multipath fading, perform. 25446
DS-SS systs., adaptive filters, freq. sweeping sig. rejection 17020
DS-SS systs., narrowband interf. rejection 33750
DS-SS systs., periodical seqs., Doppler mismatched filters 33752
DS-SS systs. impulsive channel, narrowband interf. suppression 33751

spread spectrum communication continued
DS-SS transceiver, digital IF BPSK, CMOS technol. 9182
DS-SS/QPSK systs. for multipath channel, adaptive equalizer *(Japanese)* 25212
DS-SSMA, interf. effect on narrow-band commun. systs. 33748
DS-SSMA, unknown seq. estimator, near-far problem 25361
DS-SSMA commun. in Nakagami fading channels, path diversity 9345
DS-SSMA commun. systs., approach 42167
DS-SSMA commun. systs., signature pairs 42181
DS-SSMA diversity commun. in fading channels, error perform. 3357
DS-SSMA error probabilities calc., Gaussian approx. 33215
DS-SSMA indoor cellular radio perform. 25370
DS-SSMA multitone syst. in multipath Rician fading channel 16463
DS-SSMA syst. based on $\pi/4$ DQPSK and convolutional coding 25369
DS-SSMA systs., aperiodic cross-correl. model 16461
DS-SSMA systs. perform., filtering effects, transmitter 33207
DS-SSMA unslotted PRN 25257
DS-SSMA/MPSK, coherent detector, satellite mobile channel, BEP 25305
DS/CDMA, error-correcting codes, co-channel interf. cancellation 25362
DS/CDMA, multilevel coded modulation, integrated receiver struct. 42144
DS/CDMA adaptive interf. canceller, differential detect. 9240
DS/CDMA adaptive interf. canceller for fast fading channel *(Japanese)* 25277
DS/CDMA diversity combining, convolutional encoding/Viterbi decoding 9380
DS/CDMA prototype syst. for voice/ISDN sigs. 3320
DS/CDMA successive interf. cancellation 25356
DS/CDMA systs., coherent detect. syst., suppressed pilot channel *(Japanese)* 25279
DS/CDMA systs., eval. of handover perform. *(Japanese)* 25281
DS/FFH SS commun. syst., multiple access interf. 25245
DS/FH-CDMA syst., fading channels, near-far problem *(Japanese)* 25210
DS/SS CDMA slotted access channel perform. anal. 9293
DS/SS indoor wireless commun., near-perfect multi-packet capture 33869
DS/SS systs., coherent chip-asynchronous, signature delay estim. 17014
DS/SS systs., transm. bandwidth control schemes *(Japanese)* 25208
DSP appl. 25238
dyn. time-warp compensation for correl. of long seqs. 40944
dyn. vehicle network, inter-vehicle commun. 33757
EHV lines fault location simul., DS-SS techs. 19356
fast freq. hopped NCMFSK, Rayleigh fading, diversity combining 33762
fast freq. hopped NCMFSK, time diversity combining 25253
FH packet commun. syst. capability in fast Rayleigh fading environ. 41461
FH-SS commun., Bayesian erasure techs. 25248
FH-SS commun., PLL demodulator response 12377
FH-SS PRN, channel access protocol perform. 8756
FH-SS transceiver, 900 MHz, low-power CMOS chip 33745
FH-SSMA, adaptive retransmission control 16434
FH-SSMA, band-efficient modulations, cellular radio channels 25367
FH/CPFSK syst. with partial-band jamming, perform. anal. *(Korean)* 17005
FH/SSMA systs., freq.-hopping seq. constr. 9173
freq. hopped TDMA cellular syst., down-link capacity 9285
freq. hopping simulator for multipath mobile channels *(French)* 3361
freq.-selective fading channel without ref. sig. *(Japanese)* 25206
GLONASS DS-SS sigs., radioastronomy impact 25620
hierarchical digital broadcasting, adaptively weighted CDM 25628
hierarchical TV transm. 25634
hierarchical TV transm., SS multiplexing 25632
hybrid CCMA/SSMA coding scheme 8733
hybrid commun./positioning syst., two geostationary satellites 17155
hybrid DS/FH SS syst. for mobile radio channel 3483
hybrid DS/FH-SSMA mobile radio syst. perform. and capacity anal. 33831
hybrid DS/SFH SSMA commun., nonselective fading channels 3321
hybrid SC/MRC 2DPSK RAKE receiver BER perform. 9232
hybrid SFH-multitone DS SSMA syst., perform. 9172
IEEE conf., Oulu, Finland (1994) 20200
IEEE MILCOM conf., Boston, USA (1993) 36897
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
indoor multipath channel real-time emulation, FIR models and ACT technol. 31824
inform. theory aspects 24007
integrated voice/data network, cellular packet CDMA, perform. 17131
inter-vehicle commun. network, SS MAC protocol 42241
inter-vehicle networking method, laser media 3078
interferometric opt. fibre sens. network, CDMA/WDM multiplexing 17906
invertor control/status sigs., fault resistant opt. fibres 5134
ionos. HF channels, oblique pulses, rise time calcs. 7983
IRIS, going commercial, high-tech European LEO microsatellites 42323
jamming, general model 42185
L-band GPS receiver, digital downconversion test 9682
LEO satellites, PN code acquisition schemes 33951
low power SS eqpt., peak-power meas. 25226
low-power RF ICs for portable commun., all-CMOS radio 42295
M-ary wideband commun. syst., multipath channels appl., perform. 17019
M-ary/SS commun. syst., frame sync. method 17008
MAC protocol for inter-vehicle commun. network, SS tech. *(Japanese)* 25282
magic-sq. codes for hiding DS/SS sigs. from intercept receivers 25266
McEliece's open problem on min. aperiodic correl. 40611
mixed urban/suburban propag. meas. for PCS in OFS band 9266
mobile commun., delay lock loop, delay path cancellation *(Japanese)* 25274
mobile LEO channel, downlink DS CDMA perform. 25372
mobile user satellite systs., multiple-access capacity 25302
modulated sigs., freq. domain delay/multiply receivers 42154
multi-carrier CDMA in indoor Rician fading channel 9226
multi-carrier CDMA modem design 9220
multi-cell direct-seq. microcellular systs., perform. eval. 33907
multi-rate bandpass filter bank, QRNS complex arith. 6229
multihop FH-SS PRN, channel access protocol 25246
Multihop Packet Radio Networks, routing algm. 2993
multihypothesis testing, seq. procedure 24169
multimedia satellite commun. systs., preliminary study 3519
multiple-access commun., evol. 24781
narrow band SSMA/multi-carrier high speed sigs., staggered superposed transm. *(Japanese)* 25209
narrowband CPM async. CDMA syst. all-digital receiver design 42150
near-far resistant DS-CDMA receivers, sensitivity anal. 9236

spread spectrum communication continued
noncoherent second-order delay lock loop optimal design 41389
nonlin. amplif. effect on SS sig. and receiver config. 17007
on-board satellite SS correlator 25469
orthogonal code SS syst. in antijamming *(Chinese)* 10595
orthogonal convolutional codes, CCI cancellation 25242
orthogonal multi-carrier CDMA, nonfading/nonselective fading 24783
orthogonal multi-carrier FH-CDMA schemes for freq. selective fading *(Japanese)* 25280
overlay CDMA syst., multiple BPSK interferers, perform. anal. 33747
parallel combinatory SSMA systs., Rayleigh fading channel, perform. eval. 25244
PCS, advanced digital receiver principles and technols. 17111
PCS, spectral efficiency of multitone freq. hopping syst. 9217
PCS CDMA syst. overview 33870
phase modulated FCMA syst. convolutional coding 25462
power line SSMA, error correction, IFMV9 coded overlapped PN seq. 25198
PRN, delay capture, arrival-time distrib. 9174
prog. canonical correl. anal. for blind adaptive spatial filtering 9167
q-ary interleaved seqs., theory/appls. 32051
QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
quasi-sync. CDMA, PN signature seqs. based 25265
radiated emissions reduction, SS clock generation 15490
radio LANs and MANs, IEE Colloquium, London (1995) 36864
radiocommunication, technol. and regulations 25627
radios for commercial wireless commun. 17022
RAKE receiver, mobile multipath fading channel, channel estim. 42268
Rake receiver archit., perform. 25264
RAKE receiver for cellular CDMA systs., perform. eval. 8735
Rayleigh fading mobile channel, direct-seq. code acquisition 17103
Rician CDMA channel fading-resistant multiuser detect. 41460
road vehicle-to-vehicle 2-way commun., SS 42242
RS coding, freq.-hop commun., correl. fading 17024
rural communication in multi-path channels, spread spectrum appl. 9189
satellite reception, DSPN signalling in mobile dense scatterer ray tracing model 33944
satellite-to-land-mobile commun. systs., perform. 9210
SCM CDM opt. LAN, theory and expt. 16716
secure commun. using chaos, security testing 15728
self-organizing multiuser detect. 25239
sens. array sig. proc. tech. 32731
SHF/EHF mobile/indoor wireless commun., SS 3476
shift-register seqs./SS commun. 24124
sig. proc. ASIC, digital SS modem for power line commun. 21379
sigs. reception, bearing estim. 32581
slotted ALOHA CDMA for land-mobile satellite pers. commun. 25314
slow fading channel bandwidth-efficient coded freq. diversity 32086
slow FH/MFSK acquisition scheme in random partial band noise jamming 2562
slow freq. hopped data commun. syst., design 9287
SS-CDMA PCS in-building systs., distributed antenna 9231
SS-orthogonal FDM syst. combination, interfer. rejection 33746
SS/FH multiuser radar/sonar, Welch-Costas arrays, props. 25582
SSMA coded systs. combining FSK and PSK 33206
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
sync. DS-SS multiple access, acquisition based capacity 42168
sync. DS-SSMA, decorrelating decision-feedback detect. 42164
sync. DS-SSMA systs., pseudo-noise seqs. 3326
TDM/SS packet radio, modulation/coding 33753
time domain SS proc. syst., large TBP 25216
traffic control systs., urban, radio synchronisation 17165
transm. quality improvement, diversity transm. 17013
trellis-coded DS-SS commun. 17015
UHF single ASIC CDMA digital receiver for space appl. 9414
UMTS, CDMA-based radio access design 25333
vehicle-to-vehicle commun. for AVCS platooning 5354
vehicle-to-vehicle commun. ranging, SS radar 42244
Walkstation transceiver design 3464
wideband commun., reciprocity based channel compensation 9665
Wigner distribution of complex spreading sequences 9188
wireless commun., SS access methods 17110
wireless LAN, interf. cancellation 8929
wireless LAN, intra-office commun. 41858
wireless LANs appls. 41754
wireless multiservice CDMA environ., adaptive packet decoding 9360
wireless pers. commun., TDMA methods 17109
wireless syst. appls. of SS commun. 25214
GaAs IC for portable commun., needs 42231
GaAs MMIC LNA for wireless commun., ultralow noise 42235

spread spectrum radar
35 GHz forward looking altimeter, flight test eval. 10386
35 GHz forward looking altimeter for terrain avoidance 25612
advanced SS radar, acousto-optic range-Doppler proc. 18988
ARMA modeling for radar sig. detect. 34132
CODSIM, simul. environ. for spreading codes 3325
Doppler optimised compression filters 34125
DS-SS systs., periodical seqs., Doppler mismatched filters 33752
multipath/terrain bounce model, real-time mil. appl. 35391
short dist. ranging syst., waveform responses, anal. 17386
SS/FH multiuser radar/sonar, Welch-Costas arrays, props. 25582
vehicle-to-vehicle commun. ranging, SS radar 42244

spreading *see wetting*

spreadsheet programs
analogue IC CAD, spreadsheets 28945
crossing current reson. power converter CAD 44219
dairy barn environ. for arctic climates, computer anal. 11515
digital ccts., arith. units simul. 5968
DSP education spreadsheet package and TMS320C25 simul. 36918
dual gas turbine combined cycles, thermodynamics modelling 19525
elec. ccts., energy, computer assisted learning/teaching 37589
FLIR subsystem perform. anal., PC based scientific spreadsheet 34593
hyperb. 1D wave eqn. soln., spreadsheet program 5525
PCB cooling optim., reflow soldering in N_2-O_2 atmos. 38156
power syst. cct. capability assess., rating sheets prepn. 43657
power syst. short cct. anal., characts. current method 35446
radial distrib. syst., value based reliab. assess. 27168
rocket engines, min. cost tolerancing, spreadsheet approach 18767
Space Station Freedom power syst. CAD, APSPP package-based 35251
SysCalc program for cascaded chain anal. 12618

SPS *see solar power satellites*

sputter deposited coatings *see sputtered coatings*

sputter deposition
3D polymer substrs., sputtered thin film metallization 12170
256Mb/1Gb DRAM develop. implications, Japanese semicond. indust. 11717
antirefl.-coated diffractive opt. elements, thin-film deposition 7374
BAW composite resonator *(Chinese)* 14083
FIB syst., post-objective lens retarding/accel. mode 13297
flip chip proc. based on electroplated solder bumps 5620
focused ion beams for etching and deposition of materials 30128
IC yield enhancement, real time mfg. proc. monitoring 20468
ITO layer, sputtered films, specific resist., XRD 28801
laser cryst. growth techs. 12132
lin. magnetron sputtering systs., operating and plasma charact. 28808
LSI via-hole shape optim. by quasi-3D topography simul. 13863
metallic films, sputtering targets, NDT 5881
MMICs and ICs, interconnect lines, metal-dielec. adhesion 13426
Monte Carlo simul. 20968
multiple target sputter syst., real-time control 20967
piezoelec. thin films, DC bias RF plasma CVD 1558
refractory metals, planarization, multi-step sputter/sputter etch proc. 6658
RF-magnetron sputtering of piezoelec. PZT actuator films 28851
silicate/phosphate high-ohmic glass films with electronic cond., ion-beam sputter prep. 20927
thin film bonding, ion beam tech., review 289
thin film sputter deposition, transport proc. simul. 28864
VLSI metallization by coherent magnetron sputtering 38668
x-ray mask absorber repair by focused ion beams, materials issues 6699
Al/n-GaAs Schottky contacts, prep., charactn. 37522
Al-Ge-Cu alloy reflow sputtering, electromigration charact. 22269
Al-Ge-Cu multilevel damascene metallisation proc. 22259
AlCu dual damascene interconnect struct., ionized magnetron deposition 30132
Au-NiCr metallization, CVD diamond substrs., MCM appls. 12981
Au-Ti metallization, CVD diamond substrs., MCM appls. 12981
BN, deposition proc., HRTEM, nanocrystalline struct. 28849
$BaFe_{12}O_{19}$ ferrite films, c-axis orient., mag. props. 7031
$Ba_{0.5}Sr_{0.5}TiO_3$ thin films, sputtering, electric props. 20965
$Ba_{0.5}Sr_{0.5}TiO_3$ thin films, structural and elec. props., thickness depend. 20984
$Ba_{1-x}Sr_xTiO_3$ tunable capacitors with $Tl_2Ba_2Ca_1Cu_2O_x$ electrodes, fab. 6356
$BaTiO_3$/p-Si capacitors, struct., elec. props. 39061
$BiDy(FeGa)_5O_{12}$ garnet films, sputter deposition and struct. props. 7037
a-C:H films, sputtering/struct./opt./elec. props. 20917
CdSe-doped glass thin films, ion-beam sputtering method 37507
$CeO_2/YBa_2Cu_3O_{7-\delta}$, supercond. FET, prep., charactn. 14301
CoCr films on Ti, perp. recording, low temp. sputter-deposition, high coercivity 6959
CoCr(CoCrTa) mag. recording media, compositional separation rel., film thickness 6956
CoCrPt-MgO bicrystalline long. recording medium, mag. charact. 6957
CoCrTa/Cr long. recording media, proc., mag. props. 14247
CoCrTa/Cr sputtered thin-film media, mag. and recording props. 14250
CoCrTa/NiAl(Cr) mag. thin film media for disk storage, in-plane coercivity 7223
$Co_9Fe-Cu-Co_9Fe$ struct., giant magnetoresist./mag. anisotropy *(Japanese)* 30695
Cu dual damascene interconnect struct., ionized magnetron deposition 30132
Cu metallisation/low k dielec. IC interconnect materials technol. 38635
Fe-BN films, deposition conditions and mag. props. 5889
Fe-N films, RF sputter deposition, He gas 5886
$Fe_{16}N_2$ films, reactive sputtering synthesis 5888
FeTaN films, DC magnetron sputtered, microstruct. and mag. props. 6951
FeTaN films, microstruct. and mag. props., effects of nitrogen content, heads 6950
FeTaN nanocrystalline films, mag. anisotropy, mag. heads appl. *(Japanese)* 28815
GaAS sputtered films, amorphous and microcryst., elec. props. 22994
n-GaAs diodes, Ni-Al based Schottky barrier enhancement, AlGaAs regrowth 38382
a-GaAs high-temp. RF sputtering 37525
GaN epitaxial film on AlN-buffered Si(111), strain effects 12098
Ge films, sputter deposition on Si(111), substr. amorph. 37510
a-Ge:H,In(Ga) films, cosputtering deposition, sputtering yield ratios 5876
InSnO thin films, RF magnetron sputtered, fab./charact. 14317
$(InSn)_2O_{3-x}$ oriented films on ZnO films, magnetron sputter deposition 37508
MnAl thin films, cryst. struct., mag. props. 6992
Mo electrodes, sputter deposition, sodium modulated, AMTEC 28015
Mo-Si multilayer charactn. by high-resoln. TEM *(Chinese)* 1643
NbC_xN_{1-x} supercond. thin films, reactive sputter deposition *(Japanese)* 397
Nb_3Sn films, RF sputter deposition, pulsed magnet appls. 1592
NiCoMnO sputtered thin film thermistor IR detectors/bolometers 17791
NiFe/Co/Cu/Co/NiFe NiCoO exchange biased spin-valve struct., MR heads 7078
$Ni_{80}Fe_{20}$/Cu multilayers, magnetoresist. 7055
NiO electrochromic films, sputtering atm. H_2 content effects *(Japanese)* 37489
NiP/Al discs, sputter-induced random micro texturing 5885
PZT films, reactive co-sputtering/elec. props. 39059
PZT piezoelec. thin films deposited on Si 6914
PZT thin ferroelec. films, dyn. deform. sens. 25794
PZT-based heterostruct. capacitors, comp.-struct.-prop. rels. 39101
$Pb(Mg_{1/3}Nb_{2/3})_xTi_{1-x}O_3$ thin films, deposition, charactn. 400
$PbTiO_3$:La pyroelec. IR sens. array for human body detect. 42805
Pt/Co multilayers, Ar-sputtered, anisotropy energy and coercivity, magneto-opt. recording 14545
Pt/PZT/Pt/SiO_2/p-Si MFMIS FET, ferroelec. thin films in NDRO nonvolatile memories 37780
PtSi/Si, chem. clean, morph. smooth interfaces, form. 37520
Si films, ion beam epitaxy, UHV, sputtering-type metal ion source 37405
Si, thin layers, growth on Nb surface 37500
μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
Si/B_4C narrow-bandpass mirrors, EUV reflectance 1779
SiGe oxide prepared by RF plasma anodisation, interface quality 1243
Si_mGe_n/Si(001) strained-layer superlattices, magnetron sputter epitaxy 361
SiN films, plasma-enhanced reactive sputtering, self-multilayered struct. 12176
SiO_2:H ECR oxides, stress-temp. behavior, hydrogenous species conc. 37513
$Si(SiO_2)$ sputtering and RIE, particle form. mechanism 22199

sputter deposition continued
Sm-Fe thin films, sputter deposition, magnetostriction 6938
Sm_xFe_{1-x}, amorph. magnetostrictive films, prep. 7003
$SrTiO_3$ thin film capacitors, MMIC process technol. 38030
$SrTiO_3$ thin films, r.f. sputtering proc., X-ray diffr./opt. charactn. 37499
Ta fibrous-struct. low-stress films for X-ray masks, sputtering 13536
$(Tb_yDy_{1-y})_xFe_{1-x}$, amorph. magnetostrictive films, prep. 7003
Ti films, $TiSi_2$ self-aligned RTA proc., CMOS IC, response surface 22593
Ti phys. vap. deposition systs., profile evol. determ., model 413
Ti thin films for $TiSi_2$ form., $TiSi_2$-Si surface/interface roughness, RTA heating rate effects 22096
TiN collimated PVD, EVOLVE simul. 38669
TiN diffusion barriers for sub-0.5 μm planarized Al IC technol. 38653
TiN electrodes, sputter deposition, sodium modulated, AMTEC 28015
TiO conductive films, reactive ion-beam sputtered, VLSI metallisation 37494
TiO_2 opt. coating for solar cells, excimer laser sputtering deposition 28835
TiO_2:Nb(Cr) thin films, RF reactive sputtered, optoelectronic/gas sens. appls. 39546
TiW PVD manufacturability, advanced chamber shield design 22272
TiW, sputtered Schottky barrier, AES, SEM 29957
W X-ray mask membranes, uniform-stress, He-backside temp. homogenization 13541
W sputter deposition for x-ray mask absorber, in-situ stress control 6702
W sputtered thin films, x-ray masks, intragranular microstruct./stress 6700
WN_x thin films on GaAs, reactively sputtered, stabil. 38659
$Y_2O_3-SiO_2$ thin film phosphors, for color display, rare earth doping 23008
ZnO, ECR sputtered thin films, opt. atten., resist. 28800
ZnO films on InP substrs., SAW device fab. 39121
ZnO films on diamond (111), heteroepitaxial growth, magnetron sputtering 368
ZnO thin film US transducer array, 100-MHz, fab., integrated devices, NDT appls. 35367
ZnO waveguiding piezoelec. films, microstructural and opt. charact. 39435
ZnS low temp. epitaxial deposition, (100)Si by RF magnetron sputtering/MBE 303
$\gamma-Fe_2O_3$:Co,Zn thin films, fab. and mag. studies, disk media 6964

sputter etching
0.2 μm gate length HEMT technol., conventional opt. lithog. 1440
3D microfabrication of single-cryst. Si, plasma etching 22244
3D microstruct. constr. by multi-face FAB/robot 30521
256Mb/1Gb DRAM develop. implications, Japanese semicond. indust. 11717
Al interconnect film etching, stat. optimisation 38696
AZ 5214 resist, wet silylation, O_2 plasma develop. 38733
binary/multilevel diffractive lenses, submicrometer, sizes 7373
black silicon nanowires, sub-10-nm, natural masking, RIE 30117
buried heterostruct. on InP, CBE growth 12061
chem. amplified AZPN114 electron beam resist for advanced photomask fab. 38773
chem. amplified pos. resists, micromachining 38738
chem. beam etching, monolayer control, cation diffusion 13381
chem. modified photoresists, I-line/deep UV/e-beam resists, plasma resist. 30174
CMOS FET oxide reliab., plasma-induced gate oxide degrad. 20490
conc.-depth profiling, total-refl. X-ray fluoresc. spectrometry 26007
contamination in submicron contact holes, anal. by TDS 30112
DFB laser, laterally coupled, fab., electron-beam lithog./CAIBE 14941
diamond:B films, hot filament CVD, plasma etching, elec. props. 5862
diamond, CVD films, seeding patterning, field emission props. 12988
diffractive coupling lenses, 3D profiling, e-beam lithog./RIE 14568
double polysilicon layer structs., plasma etching effects 13325
double-surface corrugated grating waveguides, opt. input coupling 22888
downstream plasma proc., selective etch and procs. 13338
dry etching damage, overview 30108
ECR plasma etching, high dens., profile distortions 13380
edge type thin-film warm carrier detectors, fab. 34488
electro-optic polymer, nonlin. optics, single-mode waveguide fab. 15063
electron, ion, and photon beams, symp., New Orleans (1994) 5484
electron beam nanolithography, image reversal by ECR plasma oxid. 30180
electronic materials, plasma processing 22190
electrostatic lenses, miniaturized electron column, microfabrication 40269
Fabry-Perot lasers, 1.3 μm, spectral perturb./mode suppress. 23233
FIB-induced gas etching 22168
fine pattern GTO thyristor, self-aligned proc. 1377
first-wafer effect, rem. plasma proc., photoresist/polysilicon stripping 22203
fluxless soldering proc. technol. 5617
focused ion beam micromachining appls. 13906
focused ion beams for etching and deposition of materials 30128
HF monolithic cryst. filters, 30-150 MHz 30622
high dens., plasma etching syst., dipole ring magnet 38606
high temp. SOI devices, W metallization technol. 22279
ICP etching, electron source and ion flux uniformity 13402
III-V semiconds., photonic devices, clean/fine dry procs. 39809
III-V surfaces and metal contacts, ion beam etching, SIMS obs. 13344
III-V multilayer struct., dry etch monitoring, reflectance modeling 13404
ion plasma sources based on microwave oven 38528
ion-beam etching facility for high-T_c struct. 1601
laterally-coupled DFB laser, EBL/CAIBE fab. 31410
LSI via-hole shape optim. by quasi-3D topography simul. 13863
mag. enhanced RIE syst., wafer charge-up effect 22183
materials synthesis/processing using ion beams, conf., USA (1993) 11594
MCPs, high aspect ratio dry etching 13015
MEMS fab., lithog. and RIE 39027
microlens arrays, coherent refr., dry etching 7440
monolithic ring lasers for low-noise opt. sig. distrib. 7498
MOSFET 1/f noise, plasma etching induced gate oxide degrad. effect 22419
MOSFET 1/f noise, plasma-etch-induced gate oxide degrad. effects 22441
multilevel high dens. ASIC defect isolation, electron beam probing RIE 21169
multiple-level dry etching, self-aligned etch masks 13324
nanostructure patterning in X-ray mask making 13571
Nd:SiO_2 planar silica waveguide laser, aerosol doping method 14817
nonhazardous alternative chem. for semicond./PCB proc. 37213
nonvolatile memory devices, plasma-induced in-line charging and damage, CMOS 21313
oxide etching, plasma-induced damage in planar inductively coupled etch reactor 1260
oxide etching, surface wave coupled plasma 22163
perfluorinated cpds. as dry etchants, environ. impact 37207

sputter etching continued
phase gratings, fab., FIB milling/e-beam lithog. 14496
phase-shifting masks, LSI technol. 13503
pHEMT Ka-Band 3-stage amps. for phased-array appls. 38010
photonic IC, fab., phase grating masks 39456
photoresist dry stripping, plasma-enhanced, IC manufacture 38543
photoresists, charge effect, indust. plasma proc. 13469
plasma assisted chem. etching, surface shaping/smoothing 13379
plasma etch endpoint, interferometric imaging 13367
plasma etch procs., discharge impedance meas. 22202
plasma etch reactors, develop. pilot line, sens. integrat. 22205
plasma etch systs., automated preventive maint., SECS protocol 30088
plasma etching, chamber wall effects, UV spectrosc. 22186
plasma etching, helicon/ECR sources, Langmuir probe diagnostics 22194
plasma etching, helicon/multiple ECR plasma sources 22193
plasma etching, helicon/multiple ECR sources, ion flux 22195
plasma etching, I-line, deep UV and E-beam resists 13447
plasma etching, ion milling and deposition, 3D topography simul. 22180
plasma etching control of Si/SiO$_2$ in SF$_6$/Argon 30396
plasma gate etch, neural network control 38567
plasma polymerized all-dry resist proc. for 0.25 μm photolithography 13521
plasma polymerized films as electron resist, prep./etching *(Korean)* 22303
plasma-assisted etching, surface-sci. aspects, IC appls. 1241
plasmochemical etching, react. vessels, precip. 22179
PMMA waveguide, fab. procedures 22890
polyimide dielec. films for electronics packaging, plasma etching 20462
polysilicon etching profiles, side wall passiv. and ion saturation effects 1265
polysilicon-emitter transistors, fab., e-beam lithog. 30263
PRIME proc., PLASMASK 302U, SPC 13446
proximity X-ray lithog., 50 nm, using SR 13530
quartz etching, phase shifting masks 38727
reactive ion etcher, nonlin. ident. and control 13368
refractory metals, planarization, multi-step sputter/sputter etch proc. 6658
resists, high aspect ratio struct., e-beam overexposure 38743
RF hollow cathode etching reactor, multipolar confine. 22212
RIE, time series modeling, neural networks 22556
RIE induced damage, gas mixtures CHF$_3$/O$_2$/SF$_6$/O$_2$ 30114
RTSPC, software utility for real-time SPC and tool data anal. 22211
Schottky varactors, sidewall-etched, sub-mm-wave sampling cct. 38028
selective plasma etch proc. monitoring, polysilicon test struct. 22206
semicond. mfg., photoresist ashing, on-line diagnostic monitoring 22209
semicond. ring lasers for integrated optoelectronic ccts. 14842
semicond. trenches, plasma-assisted etching, analytic models 22197
semicond. wafers, plasma etching profiles for ion energy flux depend. etch rates 38602
silicon-containing polymers, pos./neg. resists 38732
singlemode 1.3 μm Fabry-Perot lasers by mode suppression 39872
soft etch contact proc., 0.1 μm CMOS device appl. 22572
soft X-ray projection imaging, multilayer refl. masks 38753
solar cells, plasma etching, health/safety concerns 44406
spectral ellipsometry for semicond. proc. in situ diagnostics and control 22200
submicrometer feature etched IC fab. proc. control, UV-vis. ellipsometry 30078
submilliamp tunable three-terminal vert.-cavity LD 7649
TFTs, low temp. fab., multi proc. reactor 13739
unshielded dual-element horiz. MR heads, design and fab. 7086
US Nat. X-Ray Lithography Program, materials issues 6678
VLSI plasma charging induced damage, transient and electrode edge effect meas. 22191
VLSI RIE systs., real-time control, plasma generation, phenomenological modeling 1264
x-ray mask absorber repair by focused ion beams, materials issues 6699
Al single wafer etcher, total productive maint. 22201
Al single-cryst. nanostructures, fab. 30159
Al-polysilicon-SiO$_2$-Si struct., HF plasma proc. effects 13239
AlGaAs, RIE 38563
AlGaAs/InGaAs pseudomorphic SQW-MODFETs, double sided modulation doping 6786
AlGaAs-GaAs-AlGaAs HEMT/quantum well laser monolithic integrat., MBE/technol. 1945
AlGaAs-InGaAs E/D-HJFET LSI technol., 0.6 V 39022
AlGaInP vis. light LD, 650 nm, dry-etched mesa stripe 39867
AlGaSb/InAs nanostructures, CAIBE and electron-beam lithog. 13178
AlN, ECR plasma etching, HI, HBr chemistries 1242
AlN, high temp. ECR etching 38540
Au-NiCr metallization, CVD diamond substrs., MCM appls. 12981
Au-SiN mask technol. for x-ray nanolithography 6683
Au-Ti metallization, CVD diamond substrs., MCM appls. 12981
BN films, PECVD, RIE, high selectivity 6639
a-C:H films, diamond-like lithographic appls. 22310
CF polymer film deposition, high-aspect-ratio SiO$_2$ holes 13357
CdTe-CdZnTe wires/dots, anodic oxid. etching fab., opt. props. 38526
Cl$_2$ ECR plasma etching of III-V semiconds., laser appls. 22188
Co films, submicron patterning, mag. storage 14241
Cu interconnects, high-reliab., dry etching 38688
Cu interconnects, subquarter-micron, dry etching 30144
Cu metallization, Cl$_2$ plasma etching, IR light irrad. 38579
Cu metallization technol. for deep submicron ULSIs 30140
GaAs, ECR plasma etching, surface damage 13384
GaAs MESFET, ion implant., photolithog., SAG 38923
GaAs, RIE 38563
GaAs, RIE, hydrogen plasma pretreatment 30064
GaAs device proc., computer-controlled plasma etching *(Chinese)* 1235
GaAs digital etching, Se mol. beam 1275
GaAs, ion beam/RIE mechanisms, parametric investigs. 13398
GaAs, kinetic study of at. H etching 30071
GaAs, low-temp. dry etching 6630
GaAs, modulated RF plasma etching, Langmuir probes 13406
GaAs pn-jn. diodes, ECR plasma-induced damage 30209
GaAs substr., via holes, dry etching *(Chinese)* 1234
GaAs surfaces, wet/dry etched, ellipsometric model 21914
GaAs, trench etch rates/aspect ratio/feature width/ substr. temp. 30067
GaAs/AlGaAs MESFET and pseudomorphic HEMT, selective RIE 38917
GaAs/AlGaAs, column fab., RIE using Au island etching mask 30162
GaAs/AlGaAs heterostruct., plasma etching damage 30109
GaAs/AlGaAs patterning, epitaxial InGaAs layer, Cl$_2$ etching mask 13181
GaAs/AlGaAs quantum dots, photolum. charactn. 29926
GaAs/AlGaAs, selective dry etching, BCl$_3$/CHF$_3$ plasma 13374

sputter etching continued
GaAs/AlGaAs:Si HEMT/Si, selective dry etching, V$_{th}$ uniformities and f$_T$ 6791
GaAs/AlGaAs/AlAs quantum nanostructures, mag. confined plasma RIE 13385
GaAs/AlGaAs-heterostruct., low-dimens., direct MBE growth 331
GaAs/GaAlAs waveguide, TE/TM mode splitter fab. 22893
GaAs-AlGaAs heterostruct., fab. tech., mesoscopic device appl. 12159
GaAs-AlGaAs-GaAs HEMT struct., elec./lumin. props., CF$_4$ plasma effect 13352
GaInAs/GaAs quantum wire laser, gain coupling, RIE 31385
GaInAs-GaAs micro-arc-ring lasers, design/lasing operation 1935
GaInAsP, pseudo-buried heterostructure laser, GSMBE, single step epitaxy 14873
Ga$_{1-x}$In$_x$As$_y$P$_{1-y}$/InP VCSEL 14923
GaInP, RIE 38563
GaInP/GaAs multilayer struct., RIE, SiCl$_4$-Cl$_2$-Ar plasma 13396
Ga$_{0.51}$In$_{0.49}$P-GaAs, RIE selectivity, HBT appls. 38832
GaN, ECR plasma etching, HI, HBr chemistries 1242
GaN, high temp. ECR etching 38540
GeO$_2$-SiO$_2$ opt. fibre preforms, X-ray photoelectron imaging 30886
Ge$_x$Si$_{1-x}$/Si, dry etching, XPS study 38554
HgTe/CdTe superlattices, etching, STM study 22161
InAlAs/InGaAs HFETs, HBr plasma RIE-induced damage 13797
InAlAs/InP, Cl$_2$ radical beam ion-beam etching 13383
InGaAs/AlGaAs lasers, integrated optoelectronics, grating fab. 39596
InGaAs/AlGaAs/GaAs MODFETs, high breakdown, fab. 22477
InGaAs/GaAs quantum wires, opt. props. 1094
InGaAs/InAlAs MODFETs, InP substrs., proc. technol. 13798
InGaAs-AlInAs HEMTs, dopant passiv., dry etching 30364
InGaAs-GaAs strained layer single QW ring laser, reactive ion-etched tetragonal cavity 23192
InGaAs-GaAs-AlGaAs single mode lasers, long. modes/nonlin. mode-mode interact. 1969
InGaAs-InAlAs, selective etching in HBr plasma 13411
InGaAsP/InP lasers, wafer scale proc. 23226
InGaAsP-InP 1.3-μm folded-cavity SEL grown by gas-source MBE 14853
InGaP-InGaAs-InAlAs, HEMT struct. with strained Schottky layer 13815
InN, ECR plasma etching, HI, HBr chemistries 1242
InN, high temp. ECR etching 38540
InP, CAIBE 13405
InP, RIBE, chlorine-hydrogen mixture 13382
InP, in-situ dry etching and CBE growth 13343
InP, reactive ion beam etched, sidewall roughness 13355
InP sidewalls, reactive ion beam etched, 3D electron probe roughness anal 13371
InP, smooth facets, selective sidewall CBE growth 20674
InP smooth surfaces/vertical sidewalls, etching 13412
InP substrs., Ti masks, dry etching, SFM meas. 30063
InP, vert. facets, RIE, selective CBE regrowth 20817
p-InP:Zn,H, near-surface carrier passiv. by H, SEM study 38565
InP/GaInAs QW dot struct., fabrication 13202
InP/InGaAs single dots/wires, dry etched, luminesc. spectrosc. 14591
InP/InGaAsP, whispering-gallery-mode microdisk QW lasers 31367
InSb(100) surface, Ar ion bombard. and electron stimulated oxid. 30101
In$_{2-x}$Sn$_x$O$_{3-\delta}$ thin films, RIE 22166
MoSi based attenuated phase-shift masks 13498
Nb/Al-oxide/Nb SIS jns. fab. 12758
Nd-doped silica planar waveguide lasers fabricated by flame hydrolysis deposition/RIE 31260
PZT/Pt/TiN struct., high-temp. ECR plasma etching 39049
RuO$_2$ thin films, RIE in O$_2$/CF$_3$CFH$_2$ gas mixture 13376
SIMS and microelectronics 1465
Si 1D/2D nanostruct., lithographic/RIE prep., photolumin. obs. 30091
Si, BF$_3$ plasma immersion ion implant., dose-time rel. 37488
Si CMOS ccts., g-line exposure and deep UV hardening 22577
Si, ECR Cl$_2$ plasma etching, mass spectra, OES and AFM 22169
Si, H passiv. caused by soft sputter etch cleaning in Ar plasma 38585
Si, MOS gate fab., ECR ion stream etching 13377
Si, anisotropic sub-half-micron RIE, fluorine containing gases 38549
Si, deep trench etching, selectivity and load 38551
Si, deep trenches, RIE, Black Silicon Method 38553
Si, dry etch-induced damage, surface anal. 13390
Si, dry etching, VUV light and XeF$_2$/buffer gas 22184
Si, etching study in compact ECR plasma syst. *(Korean)* 13332
Si field emitters, electron beam lithog./plasma etching 29755
Si, hard X-ray lenses, SF$_6$/C$_2$Cl$_3$F$_3$ plasma RIE 38552
Si, hydrogen plasma etching, substr. temp. and bias pot. 22196
Si, ion-assisted etching, F, low temp. 6651
Si isolated nanometer-size dot arrays, prep. studies 13148
Si, low temp. etching, high dens. SF$_6$/O$_2$ plasma 38550
Si micromachining, directional deep dry etching 30530
Si nanostructures by anodic oxid., ECR etching 38537
Si, near-surface layer defects, RIE in SF$_6$-CCl$_4$-O$_2$ plasma 13337
Si, plasma etching edge-type exposures effects 1258
Si, polycryst., ECR plasma etching syst. 6636
Si, polycryst., pulse-time modulated ECR plasma etching 13403
Si, porous/light emitting, opt. response, photoacoustic spectrosc. 1238
Si quantum wire surrounded by SiO$_2$, fab./transport props. 6669
Si, self-limited at.-layer etching, Cl adsorpt., low-energy Ar$^+$ irrad. 22178
p-Si, soft sputter etch cleaning, H passiv. 38619
Si, substr. surface treatment 38535
Si surface, RIE, Nd:YAG laser image transfer 22172
Si surface, effects of controlled texturization on SiO$_2$/Si barrier height 6649
Si thermooptical micromodulator, 700-kHz -3-dB bandwidth 39490
Si, trench etch rates/aspect ratio/feature width/ substr. temp. 30067
Si wafer temp. monitoring by IR laser interferometry *(Korean)* 13363
Si$_{O2}$ etching, rot. control of anisotropic micro-objs. 30107
Si:B porous film, photolum., Auger spectr., annealing, solvent effects 38238
Si:F layers, chem./phys. sputtering 38530
a-Si:H TFT, fast-switching light valves 25644
Si:H, microcrystalline layer, at. H etching, spectroellipsometry 12136
Si/Si$_{0.7}$Ge$_{0.3}$ heterostruct., 1D electron transport 30074
a-Si/Si$_3$N$_4$ TFT, PECVD nitride gate dielec. studies 13791
Si/SiGe double barrier reson. tunneling struct., fab. 29942
Si/SiGe heterostruct., Aharonov-Bohm rings, fab. 29894
Si/SiGe nanometer struct., fab. 29941
Si/SiO$_2$ patterned surfaces, situ rem. H-plasma cleaning 1254
Si/XeF$_2$ syst., etching react., SHG 22165
Si-SiO$_2$ MOS surface layer defects, ECR etching in Cl$_2$/O$_2$ plasma 6631

sputter etching continued
Si(100), XeF_2 spontaneous etching 6634
Si(111), anodic etching, surface morph., NH_4F vs. HF etching 13375
Si(111)-C surface, H ion bombard., LEED, AES 30118
6H-SiC, residue-free RIE in fluorinated plasmas 13394
SiC, seeded Lely growth, cryst. macro-defects 5811
a-SiC:H, RIE in CF_4/O_2 plasma 22243
a-$Si_{1-x}C_x$:H films, PECVD grown, struct. props. 13407
p-SiC(111) epitaxial layers, on TiC, RIE in CF_4+O_2+Ar 1285
SiN_x, ECR plasma CVD and etching on GaSb, optoelectronic appls. 12166
SiN_x mask, mag. confined dry etching, GaAs device technol. 38586
a-$Si_{1-x}N_x$:H surface, hydrogen radical treatment 38590
SiO_2, BF_3 plasma immersion ion implant., dose-time rel. 37488
SiO_2 RIE, modelling using neural networks, ICs and MCMs 6656
SiO_2 anisotropic mask, EB lithog./SF_6 RIE/Al lift-off 22312
SiO_2 contact hole, selective ICP etching, microloading effect 22164
SiO_2 core low temp. low loss PECVD channel waveguide fab. 30984
SiO_2, dry etch monitoring, reflectance modeling 13404
SiO_2, etching using C_2F_6 based ECR-RIBE, side wall roughness reduction 22238
SiO_2, fused, microlens arrays, RIE 14493
SiO_2 layers, beam assisted STM 39039
SiO_2 mask, mag. confined dry etching, GaAs device technol. 38586
SiO_2 nanometer cracks prod. by plasma-chem. etching, IC memory elements 30127
SiO_2, reactive facet sputtering 1255
SiO_2, submicron parallelogramic-shaped gratings fab. proc. 7345
SiO_2/Si, etching in inductively coupled high-dens. plasma 6637
Si(SiO_2) sputtering and RIE, particle form. mechanism 22199
$SrTiO_3$ film DRAM stacked capacitor technol., MOCVD fab. 21592
Ta-Si-N diffusion barriers, RIE 22198
Ta-Si-N diffusion barriers, RIE in CHF_3+O_2 30115
Ta-SiN x-ray masks, materials selection, fab. procs. 6684
Ta(110)/Ta(110)-suboxide etch selectivity, Cl_2 mol. beams 30130
$Ta_{36}Si_{14}N_{50}$ diffusion barrier RIE in CF_4/O_2 gas mixtures 38675
W etchback proc., bipolar electrostatic wafer clamp 6635
W etching, SF_6-based ECR RIE 13378
W mask, mag. confined dry etching, GaAs device technol. 38586
W, selective LPCVD, pretreatment technol. 20918
WSi films on GaAs, anisotropic etching 22239
YBaCuO HTSC bi-epitaxial DC SQUIDs, FIB etching from single jns. 39276
YBaCuO step-edge devices optim. 22719
YBaCuO, sub-micron structs., SEG 22755
YBaCuO thin films, planarized patterns 39230
$YBa_2Cu_3O_7$ microbolometers, free-standing, on Si substrs. 3825
$YBa_2Cu_3O_7$ shallow step jn., Josephson radiation linewidth 39264
n-ZnSe/Sb Schottky barriers, I-V props./SEM/XPS/SIMS/Auger spectra 30100

sputtered coatings
antirefl.-coated diffractive opt. elements, thin-film deposition 7374
conjug. polymer LED on Si substrs. 1826
fluorocarbon films for MEMS appls., materials anal. 28852
gas-assisted etching, FIB milling enhancement, IC design modif. 38681
interfacial energy calc., interconnect-metal/barrier-metal interfaces 38633
$LiMn_2O_4$ films, sputtered, charactn. for rechargeable microbatteries 11232
mag. domain struct., Young's modulus meas. 14208
multilayer coated reflective optics, EUV lithog. 38721
Nb sputter-coated Cu Quarter Wave resonators 4050
permalloy-Ag multilayers, RTA giant magnetoresist./struct. study 22691
poly-Si/Ta_2O_5/TiN capacitors for DRAM appls., thermal stabil. 21316
thin film metallization of 3D molded polymer substrs. 12170
VLSI metallization by coherent magnetron sputtering 38668
Ag/Co, multilayers, mag. states in different fields 7059
$AgInTe_2$-Sb-Te amorph. phase-change opt. recording films 30826
Al-Si resistors, electromigration noise depend. on characts. 865
AlN waveguide, phase-matched freq. doubling, tunable laser source 31543
Au/$BaTiO_3$/p-Si metal-ferroelec.-semicond. struct., charge polarity 22052
(Ba,Pb)(Zr,Ti)O_3 films, sputtered, dielec. props. 6913
Ba ferrite, doped thin films, mag. props. 7022
Ba ferrite films, perp. anisotropy *(Japanese)* 14193
Ba ferrite, sputtered thin films, saturation magnetis. 7023
Ba ferrite/C rigid disk, long. recording 7130
$BaCoTiFe_{10}O_{19}$ films, sputtered, struct., mag. props., heat treatment effects 14194
$Ba_{1-x}Ga_2S_4:Ce_x$, electrolum., photolum., TFEL devices 1811
$BaTiO_3$ films, sputtered for SOI struct. 6909
C-coated thin film head sliders, tribological perform. 7149
$Ca_{1-x}Ga_2S_4:Ce_x$, electrolum., photolum., TFEL devices 1811
$Cd_{1-x}Mn_xTe$, magnetis. and photomagnetic effects 1071
CdSbTe RF sputtered films, struct./opt./elec. props. 38260
Co films/$CoSi_2$ films, opt. props., G-line/I-line lithog. 38748
Co/Ag multilayers, struct./mag. props., annealing effects 30715
Co/Cr(100) multilayers, seeded epitaxy by sputter deposition 12073
Co/Cu multilayers, magnetoresist., prep. conditions/annealing depend. 7054
Co/Cu(100) multilayers, seeded epitaxy by sputter deposition 12073
Co/Ni multilayer, sputtered, anisotropy and magneto-opt. props. 14203
Co/Ru(10$\bar{1}$3) multilayers, seeded epitaxy by sputter deposition 12073
Co-Cr films, micromagnetic domains, neutron scatt. 6961
Co-Cr sputtered mag. films, comp. inhomog., APFIM obs. 39131
Co-Pd multilayers, stress, opt. fibre Y branch non-contact displacement detector *(Korean)* 18083
CoAl:O sputtered granular thin films, elec. resist., permeab. 14131
$Co_{78}Cr_{22}$ films,sputter-deposited, chem./structural anisotropy, EXAFS studies 6958
CoCr-NiP_3($TiSi_2$)(Cr)(C)-soda lime glass recording media, high coercivity and low noise 7115
CoCrPt/Cr thin films, CoCrPt thickness effect on props. 6943
CoCrTa/Cr bi-layered thin-film media, long. recording 7117
CoCrTa/Cr thin-film media, underlayer effects on mag. and recording props. 6989
CoFeB:O sputtered granular thin films, elec. resist., permeab. 14131
CoFeSiB-SiO_2 multilayers, HF mag. losses *(Japanese)* 30697
CoNbZr-SiO_2 double layer films, HF mag. losses *(Japanese)* 30697
CoNi, multilayers, magneto-optics, opt. props. influence 14202
CoNiPt-SiO_2 films, mag., structural props. 1570
CoPt binary thin films, perp. recording, microstruct. and mag. props. 6960
CoPt thin film media, microstruct., mag. props. and noise perform. 6990
CoPt/Cu/NiFeCo/Cu multilayers, spin-valve effect/magnetoresist. 14213

sputtered coatings continued
$CoSi_2$ doping source for RTA of shallow p^+-n jns. 22099
CoSm/X (X=Ti,V,Cu,Cr) sputtered thin films, mag. props. 6963
Cr/Au microstrip lines, HF/high dens. packaging 21511
Cr-SiO_2 cermet-polyimide interfacial reacts., thin film resistor appls. 38045
Cu coating, plasma sputtered, characts., Al contacts 29626
Cu, surface inspection by opt. triangulation 18069
Cu/Co, multilayers, mag. states in different fields 7059
Cu/NiFe, multilayers, mag. states in different fields 7059
Cu/polyimide, adhesion strength, continuous micro-wedge scratch test, metallisation appls. 37570
Fe films on Si substrs., epitaxial growth, magnetocrystalline anisotropy 14144
Fe:Cr-Cr multilayers, enhanced magnetoresist. 7062
Fe/Ag granular alloy films, Fe cluster dispersed, GMR 30705
Fe/Ag multilayers, sputtered, oscillatory GMR 30704
Fe/Gd multilayers, magnetostriction, ferromag. reson. meas. 30691
Fe/M-N (M=Fe,Cu), multilayered films, mag. props. 14211
Fe-Al-Ta-C nanocrystalline films, soft mag. props./corros. resist. 6991
Fe-FeCoZr sputtered multilayers, soft mag. props. *(Japanese)* 30696
Fe-N sputter-deposited films, stress and microstruct. 6952
FeAlSi/FeAlSiO multilayers, nanostruct. controlled, mag. props. 14210
FeCoNi/Cu giant magnetoresist. multilayers, sputtered, growth induced in-plane anisotropy 30702
FeN sputtered laminated narrow gap write heads, perform. 7088
γ-Fe_2O_3 thin films, coercivity, stress effect 39166
FeSiAl Sendust films, recording head cores 7108
FeSiAl, sendust films, RTA, mag. props. 6953
a-FeSiBC films, mag./magnetoelastic props. 14139
FeSiN films, narrow track head 7107
FeSmN thin films, long. mag. recording 7127
FeTaN films, DC magnetron sputtered, microstruct. and mag. props. 6951
GaAs, MOS struct., double oxide layer, RTA 29982
GdDyFeCo sputtered films, trilayer struct., thermal stabil. 14201
Ge thin films, opt. props., thickness depend. *(Japanese)* 39303
InN, film, RF sputtered, Hall mobility 6528
In_xO_y:Er RF sputtered films, photolum. and elec. props. 13096
In_2O_3-ZnSe-CdTe-In, injection-contact phenom. in sub-micron layers 38313
In_2O_3-ZnSe-In, injection-contact phenom. in sub-micron layers 38313
InP:Fe/InGaAs:Fe fully passivated AR coated MSM photodetectors 9907
InSnO thin films, RF magnetron sputtered, fab./charact. 14317
$LiNbO_3$ thin-film waveguides on GaAs 14478
MnSbPt films, giant mag. Kerr rot. 14100
Mo electrodes, sputter deposition, sodium modulated, AMTEC 28015
Mo/Si multilayer facilities, EUV lithog. 13508
Mo-Si multilayer x-ray mirror, top layer oxid. 6690
MoSi based attenuated phase-shift masks 13498
Nb coated 1.5 GHz accelerating cavities, supercond. props. 4049
$Ni_{80}Fe_{20}$, sputtered film on Si, struct., mag. props. correl. 14150
NiFe/$(Ni/Fe/Cu)_n$/NiFe thin films, giant magnetoresist. 7039
NiFe/oxide/Co jns., magnetoresist., mag. props. 6592
$Ni_{81}Fe_{19}/Co_{67}Cr_{33}$ multilayers, perp. recording media, soft mag. props. 7042
NiFeCo/Cu multilayers, giant magnetoresist. 7058
PZT, film, sputtered, poling effect on dielec. props. 39043
PZT film-based metal-ferroelec.-semicond. struct., memory effect 39068
PZT piezoelec. thin films deposited on Si 6914
PZT sputtered films, thickness scaling, memory appl. 14079
PZT/Ti/Pt interface layers, elec. and microstructural props. 39053
Pd/Co multilayers for perp. mag. recording 7041
Pd/Pd-Fe/Pd multilayers, Heisenberg/XY model comparisons 7066
Pt/Co multilayers, Ar-sputtered, anisotropy energy and coercivity, magneto-opt. recording 14545
Pt/Co multilayers, interface struct., perp. mag. anisotropy 39175
Pt/Fe(Co)(NiCo) multilayers, magnetooptical spectra 7056
Pt/Pd/Co multilayers, interface struct., perp. mag. anisotropy 39175
Pt-based alloys, magnetooptical spectra 7056
RuO_2 reactively sputtered films, ferroelec. capacitor electrodes 20920
Si:H, film, nanocryst., sputtered growth mechanism 12140
a-Si:Kr, sputtered layers, Kr-incorporation obs. 38268
Si/B_4C narrow-bandpass mirrors, EUV reflectance 1779
Si-$TaSi_2$-TiN-AlSi multilayer thin film contacts, electromigration testing 38654
SiC vert. submicron TFT 13759
n-SiC-6H, Ohmic contacts prep. 1163
Sm-Co/Cr thin films, Cr underlayer microstruct., mag. props. 39154
Sm-Co/Cr thin films, nanostructures 6962
$Sr_{1-x}Ga_2S_4:Ce_x$, electrolum., photolum., TFEL devices 1811
$SrTiO_3$ capacitors, leakage current, electrode contacts effect 12837
Ta fibrous-struct. low-stress films for X-ray masks, sputtering 13536
Ta sputtered film, compressive stress rel., thermal cycling 22266
Ta_2O_5 sputtered films, elec. and optical props. 13958
$Ta_{36}Si_{14}N_{50}$ diffusion barrier RIE in CF_4/O_2 gas mixtures 38675
Tb/Fe multilayer stacks, exchange coupled double layer films 30742
Tb-Fe sputtered films, large magnetostriction, magnetomechanical device appls. 6937
TbCo, multilayers, magneto-optics, opt. props. influence 14202
TbFe magneto-opt. films, nanostructure and chem. inhomog. 14113
TbFeCo/Ta multilayers, mag. and magneto-opt. props. 14200
Ti films/$TiSi_2$ films, opt. props., G-line/I-line lithog. 38748
Ti thin films/AlN substr., interface form. kinetics 20459
Ti-Ni sputter-deposited thin films, shape memory effect 28853
TiN electrodes, sputter deposition, sodium modulated, AMTEC 28015
TiN/$TiSi_2$ form., TiN_x layer, ULSI technol. 38684
TiNi/PZT, smart thin film heterostruct., materials develop. 37550
TiW thin films, sputter deposition 28829
TlBaCaCuO microstrip ring resonator, double reson. behavior 12727
TlBaCaCuO thin film ring resonator, J_c distrib. 37953
WO_3 gas-sens. films, microstructural effects 25896
WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
YBaCuO bolometers at 10.6 μm wavelength, implement. 42814
$YBa_2Cu_3O_{7-x}$ HTSC coplanar microstrip transm. lines 12693
Y_2O_3-SiO_2 thin film phosphors, for color display, rare earth doping 23008
ZnO, film, RF magnetron sputtering on InP, material props. 37464
ZnO thin-film gas sens., dimethylamine/trimethylamine gas detect., neural network pattern recogn. 17978
ZnO waveguiding piezoelec. films, microstructural and opt. charact. 39435
ZnS low temp. epitaxial deposition, (100)Si by RF magnetron sputtering/MBE 303
ZnS:Mn RF-magnetron sputtered films, breakdown 1507

sputtered coatings continued
ZnS:Mn/Si_3N_4/$BaTiO_3$ AC TFEL device, insulating thin film props. and fab. *(Korean)* 31095
γ-Fe_2O_3:Co,Zn thin films, fab. and mag. studies, disk media 6964
sputtered layers *see sputtered coatings*
sputtering
see also sputter deposition; sputter etching
field-emitter array, glow discharge proc. 21805
large area MCM proc., cost implications 21682
microstruct., FIB milling, lathe tech. 22625
rim and attenuated phase shift masks, FIB defect repair 38762
vias, in situ sputter cleaning, getter electrode 22233
Au electrodeposition/electroless deposition, porous Si 20916
CdS passiv. layers on $Hg_xCd_{1-x}Te$, charactn. 13361
Cu electrodeposition/electroless deposition, porous Si 20916
GaAs, light-induced dry etching, desorpt. 30099
GaAs:C films, MBE, C^+ beams, photolum. 28789
GaAs(110), ion sputtering, STM study 6629
InP, Ar^+-sputter induced microprotrusions, struct., morph. 38547
LaMnO films prep., RF magnetron sputtering, O_2 sens. charact. 37462
Ni electrodeposition/electroless deposition, porous Si 20916
Si 3D struct., FIB lithog., AFM probe charactn. 13471
a-Si, SPE on Si, STM obs. 20706
Si depth profiling, marker layers, ion beam sputtering anal., depth resoln. 21876
Si:F layers, chem./phys. sputtering 38530
SiO_2 micromechanical struct., electron/ion-beam irrad. 13913
SQL
educational electronic brainstorming syst. in Eng. teaching 9031
square-wave generators
soft mag. material wound cores, energetic behavior meas. 14108
squeezed light *see optical squeezing*
squeezed states, optical *see optical squeezing*
SQUID magnetometers
axial SQUID gradiometer, direct-feedback 9894
biomag. spatiotemporal data, sig. source localization, sig. subspace method *(Japanese)* 35057
biomagnetometer, human thorax, mag. suscept. mapping 10179
biomedical 64-channel DC-SQUID magnetometer syst. 35041
clover-leaf SQUID, design, fab. 22752
CMOS preamplifier, 4.2 K operation, human biomag. field meas. 34994
DC squid base mag. microscope 39282
DC SQUID magnetometer, double relax. oscill. 42765
high T_c DC SQUID magnetometers, closed-cycle gas flow cooling syst. 34435
high temp. supercond. rf-SQUID for Al NDT 37564
high-T_c SQUID magnetometer for geophys. appls. 10455
HTSC develop. 30789
mag. hysteresis, init.-vortex-entry-related, thin-film SQUID magnetometers 9999
mag. shield with mag. shaking, modulation effect 15458
med. appls., weak biomag. field meas. *(German)* 18538
multiloop DC SQUID magnetometer, theory and expt. verification 39286
neuromagnetic fields meas., multichannel magnetometer 4266
neuromagnetic source localisation, SQUID syst. and MRI 35061
scanning SQUID microscope, mag. field imaging 30788
SQUID-magnetostrictor syst., small length change detect. 17734
thin ferromag. film growth, situ SQUID magnetometry 14290
Nb/Er_3Ni SQUID magnetometer, Gifford-McMahon cryocooling, biomagnetism appls. 34436
YBaCuO DC SQUID magnetometer, low noise, direct sig. injection 39255
YBaCuO film dc SQUIDs, film quality effect on props. 39281
YBaCuO thick film RF-SQUID for detect. of weak mag. field sigs. 39277
$YBa_2Cu_3O_7$ RF SQUID magnetometer, direct-coupled pickup coils, flip-chip flux transformers 17728
$YBa_2Cu_3O_{7-x}$ integrated high-T_c multiloop magnetometer 30799
$YBa_2Cu_3O_{7-x}$/$SrTiO_3$/$YBa_2Cu_3O_{7-x}$, low noise multilayers, supercond. magnetometers 22740
SQUIDs
see also SQUID magnetometers
1/f noise universality in high-technol. appls. 34313
additional pos. feedback, noise charact. 14291
bicrystal HTSC DC SQUID, operation in portable microcooler 1620
clover-leaf SQUID, design, fab. 22752
cryogenic RF SQUID readout, super Schottky diodes for sig. demodulation 21538
DC integrated SQUID, local vortex gen./detect. 22758
DC SQUID, indiv. weak links, crit. currents 1604
double loop SQUID, nonlin. phenom. anal. 1614
dual channel digital SQUID, DC-powered Josephson MUX readout 39256
high sensitivity double relax. oscill. SQUIDs 1622
HTSC RF SQUIDs made by O-ion irrad., LF noise 39272
HTSC SQUID, charactn., optim. and modeling 22741
inhomog. superconds., mag.-flux dyn., low-field aspects 39278
low noise JFET cooled amp. for DC SQUID 6031
macroscopic quantum spectrosc. of Josephson jns. 14288
macroscopically quantum mech. rings, reactive probing 22749
magnetic flux in supercond. circuits, quantum mechanics 30798
magnetometry, modulation effect in mag. shield, mag. shaking 15458
matching with capacitive transducer, coreless transformers design 39290
mesoscopic 2DEG coupled to superconds., quasiparticle interf. 22747
noise props., inductance depend. 14302
RF field imaging, scanning SQUID microscope 34668
RF pumped double SQUID,output charact. models 22746
s-wave/d(x^2-y^2)-wave supercond., Josephson effect, phase depend. 39266
scanning probe microwave microscopy, DC-SQUID 14314
space appls. *(Japanese)* 35212
SQUID magnetometer syst., 19-channel, med. appl. 4266
stochastic reson., noise benefits, ice ages, crayfish, SQUIDs 14292
stochastic SQUID, flux amplif. 14295
subquantum limit DC Josephson parametric amp. 1607
supercond. A/D converter for IR array readout 34428
supercond. loop with Josephson jn., stochastic reson. 39260
sync. Josephson struct. operating on single mag.-flux quanta 14279
transport current, crit. current, mag. flux 39261
voltage swing, additional pos. feedback params. 7236
weak link ring, macroscopic quantum phenomena 22765
Nb-NbN SQUID, thin-film quantum point contacts 22728
SQUIDs continued
Si/YBaCuO reactive patterning tech., step-edge jn. fab. 1611
YBaCuO DC-SQUIDs, step edge junctns., anom. voltage modulation 39267
YBaCuO HTSC bi-epitaxial DC SQUIDs, FIB etching from single jns. 39276
YBaCuO biepitaxial Josephson jns. on SOS substrs. 22761
YBaCuO thin film DC SQUID, mag. microscope 3956
$YBa_2Cu_3O_7$ nanobridge based DC SQUIDs 1621
$YBa_2Cu_3O_7$ thick-film flux transformers 1608
$YBa_2Cu_3O_{7-\delta}$ grain boundary jn. SQUID, modulation voltage/thermal noise 39271
$YBa_2Cu_3O_{7-\delta}$ planar multiline struct., current distrib. 14287
$YBa_2Cu_3O_{7-x}$, Josephson jns., SQUIDs, cryo-refrigeration 1605
$YBa_2Cu_3O_{7-x}$ SQUID, RF props. 30786
$YBa_2Cu_3O_{7-x}$ SQUID, picovoltmeter 22739
$YBa_2Cu_3O_{7-x}$ asymmetric DC SQUID, three terminal device, current gain, 77 K 22756
$YBa_2Cu_3O_{7-\delta}$ step Josephson jn. thin-film RF SQUID 14282
$YBa_2Cu_3O_{6.9}$/Nb, unconventional supercond., SQUID obs. 30765
$YBa_2Cu_3O_7$-Josephson jns., mech. induced growth disorder 39273
$YBa_2Cu_3O_7$-$PrBa_2Cu_3O_7$ Josephson edge type jns. 22754
$Y_{1-x}Pr_xBa_2Cu_3O_{7-\delta}$ SNS jns., resistively shunted I-V characts. 7233
squirrel cage motors
3-phase, rotors comparison 36165
3-phase, torque control, secondary current feedback *(Japanese)* 27708
3-phase self-excited double armature sync. generator 27739
3-phase squirrel cage motor drive, thyristor controlled 11364
3D eddy current field rotor modelling *(Chinese)* 44042
ASD, speed/torque/PF control 5270
bearingless squirrel cage motor, no-load characts. studies 19644
brushless doubly fed machines, pump drives, pole no. combinations 5282
car engine fan, digitally controlled induction motor 27719
cement plant, roller presses economy, drive impact 5418
cement prod., hydraulic roll crushers, motor appls./selection 5421
computer-based design assistant 19643
double squirrel cage motor, heating, short-cct., starting *(Polish)* 27705
doubly-fed brushless motor, sync. frame model/decoupled control 11378
drive, inverter-fed, computer modelling 11386
drives, adaptive sliding mode speed control 36666
drives, decoupling control techs. 28082
field oriented control param. estim. 4979
field oriented control strategy 19637
harmonic equiv. cct. param. determ. 36161
IGBT inverters, audible noise, losses 5308
impedance loci, slot-type effect studies *(Japanese)* 11056
induction motor drives, rotor time const., torque anal. 20089
inverter driven, thermal model 5253
inverter-fed, 2D FEM, freq. domain 36164
LCI fed, starting, low speed operation 36176
nonpolluting automobiles, energy storage, propulsion 5326
perform. characts. calc., nameplate data-derived *(Russian)* 11011
perform. prediction, power supply vars. 11051
petroleum indust. squirrel cage motor fault survey 5404
positioning, vector control strategy 20071
power station auxiliaries, var. speed squirrel cage motor drives *(Polish)* 43819
PWM drives simul., MATLAB package 5275
rotor, transverse bar-to-bar currents *(Polish)* 27702
rotor time const. ident. studies 4953
rotor winding fault detect. ES 44059
rotor/winding faults anal. 11043
self-commissioning scheme 5300
sensorless speed detect., supply current , FFT 36167
sensorless vector control by Intel i860 connected, transputer network 44039
shaded-pole motor model and equiv. cct. *(German)* 11025
single phase squirrel cage motor, variable speed optimal control *(French)* 11040
skew, 2D FEM 4929
skewing effect on cogging torque 19641
slanted stator/rotor teeth effect on torque 36170
sync. parasitic torque calc. *(Polish)* 44060
tandem induction motor, series-delta connected, equiv. cct. model 36179
three-phase inverter-fed squirrel cage motors, audible noise study 36163
three-phase squirrel cage induction motor, adaptive vector control 36171
three-phase squirrel cage motors, acoustic noise level scatt. 11033
torque vector control studies 4980
variable speed squirrel cage motor drives, indust. appls. 5294
vector controllers, rotor models improvement 4975
wind turbine, self-excited induction generator 10911
solid state starter, low harmonic generation 36146
SRAM chips
1 Mbit CMOS SRAMs, radiation hardness testing 12538
17 ns 1 Mbit CMOS SRAM, 100 nA stand-by current 29234
128 K×8 bit SRAM multichip package, fab. *(Korean)* 12504
BESOI SRAM, 4K, transient and total dose irrad. 29236
BiCMOS high-vol. mfg. line, optimisation 39025
BiCMOS megabit SRAM chip package modelling and perform. anal. 37755
BiCMOS quadruple well, quadruple polysilicon proc. for fast 16 Mb SRAMs 6156
BiCMOS RAM ASIC, optimized bipolar arrays 12503
BiCMOS SRAMs, PLL timing design techs. 29220
bond pads, lead on chip TSOP assembly 29218
Clementine RRELAX SRAM particle spectrometer, radiation belts, solar flares 12534
CMOS cell embedded SRAM technol. 21297
CMOS digital video delay line, embedded ADC/DAC/SRAM 34434
CMOS neural chip, 70 input, 20 ns pattern classifier 29483
CMOS RAM test complexity reduction, I_{DDQ} and voltage testing 37776
CMOS SRAM chip failure anal., external elec. testing, internal contactless laser beam testing 37758
CMOS SRAM macro with current sens. scheme, 400 MHz, 300 mW, 8 kb 29222
CMOS SRAM peripheral ccts., scaling effects, SEU immunity 12528
CMOS SRAM soft-error simul. syst. 657
CMOS SRAM technol., ESD design methodology 29224
CMOS SRAMs, 64 kbit, soft-error hardness, total dose depend. 12520
COB sealed memory ccts., environ. perform. 21328
crit./noncritical stepper mixing, lithog., IC manufacture 13440
decoded RAM storage reprogrammable interconnect archit. 22599

SRAM chips continued
die-level-burn-in, temporary carriers comparison 21672
DSP appls., FPGA-based custom computers anal. 29192
dual polycide gate and buried contact technols. for CMOS SRAM cell 21333
EDRAM test methods, verification 6146
embedded cache design, nonintrusive BIST 37759
embedded CMOS SRAM for ASIC implement. of transmultiplexer 9410
embedded RAM, self-diagnostic BIST memory design scheme 37754
fully depleted SOI CMOS SRAM cell, SEU sensit., SPICE anal. 12522
gate-all-around TFT, dummy nitride pattern, SRAM cells 38876
GOS defects, fault modeling, testing 37763
Harris 6504RH SRAM, ion irrad., multiple upsets, bit reversals, 1s resol. meas. 6158
interplan. satellites, solar particle event models 18716
ion beam effects, aerospace testing 12531
ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
layout and technol.-related testing 12510
layout-based extraction of IC elec. behavior models 22542
low-power RAM cct. technol. trends 37779
LV low power digital ccts., monolithic integrat. of RTD/HEMT 37691
MATRA DEFENSE develops., DSP fn., MCM technol. 21741
MCM-D cache SRAM products for workstation/PCs 21327
MCM-D fast prototyping of superSPARC chipset 21756
multilayer PBGA, perform. enhancement 20456
multiport SRAM cell, design methodology 655
on-chip test scheme 37756
packaged SRAM reliab., comparison of HAST, THB testing 12540
partially depleted SOI CMOS ccts., dyn. floating-body instabilities 22589
proton induced events and charge collection, ang. depend. 12523
radiation hardened 1-M bit SRAM on SIMOX material 29235
radiation hardened ULSI technol. and 1M SRAM design 30478
RAID controller appls., nonvolatile SRAM appl. 21309
ring-address SRAM-type FIFOs, BIST tech. 37770
SARAM, dual ported memory, random access and seq. access 21308
scaled BJT in 0.35 μm high-dens. BiCMOS SRAM technol. 30486
SEE rates for gal. cosmic rays/solar flare protons, SRAM chip effects, satellite shielding 12533
self-resetting SRAM, room temp. 0.1 μm CMOS on SOI 6866
semiconds., killer defects, automatic in-line meas. 6602
SEU environ. for avionics at high lat., SRAM tests 18715
SEU in SRAMs meas. with pulsed laser, spatial depend. 12524
short-channel vert. NMOSFETs for high dens. fast SRAMs 21332
single hard errors from single ion, charactn. 12526
single-order addressed memories, testing, march algms. 12509
SOS SRAMs, Harris 64K devices, radiation perform. 29237
spacecraft electronics, single event effect proton/HI testing 29093
SS-1 supercomputer storage card design, packaging challenges 144
submicron BiCMOS memories, high-speed technols. 29208
submicron SOI SRAM for radiation hardened appls. 12529
symmetric Vss cross-under bitcell technol. for 64 Mb SRAMs 21319
sync. pipelined burst SRAMs for fast cache designs 21307
sync. SRAM, Pentium proc. 29212
testing, sinusoidal stimuli and Fourier anals. 37767
X-ray pulse irrad., SRAM eval. procedure 12536
AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
GaAs MESFET SRAM, current mirror memory cell 37774
GaAs SRAMs, total dose radiation hardening/testing 37773
GaAs Schmitt trigger memory cell design 37775
GeSi/Si bistable tunnel diode based SRAM cell 21311
a-Si antifuse cct. elements, ASICs, resist strip proc. damage 21170
Si n^+/p diodes, charge collection and multiple-bit upset, 3D simul., CMOS SRAMs 12516
SREMP *see electromagnetic pulse*
SRM drives *see reluctance motor drives*
SS-TDMA *see time division multiple access*
SSNTD *see solid-state nuclear track detectors*
stabilisation *see stability*
stabilisers *see controllers*
stability
see also absolute stability; asymptotic stability; Bode diagrams; circuit stability; flow instability; frequency stability; input-output stability; laser stability; limit cycles; Lyapunov methods; mechanical stability; numerical stability; Nyquist diagrams; Nyquist stability; particle beam stability; plasma instability; power system stability; robust control; thermal stability
2D lattice filters, stabil. testing procedure *(Japanese)* 32589
16 THz beat freqs. generated via modulation instabil. in birefr. fibres 30881
200 MW klystron pulsed power modulator, electron LINAC appls. 34744
AC generator nonlin. excitation control *(Chinese)* 36088
AC/AC back-to-back power converters, capacitor minim. 5118
act. mag. suspen. systs., PLL appl. *(Japanese)* 39215
adaptive bilinear predictors 32773
adaptive IIR filters, time-varying perform. surfaces 24200
adaptive road param. estim. in monocular image seqs. 41227
ADPCM, destabilization effects of adaptive quantization 24151
alkali halide cryst. based opt. inform. recording 30831
bichromic holographic media vol. diffr. grating two-beam amplif. 7813
bidirectional boost converter, nonlinear continuous time control 19803
binary procs. of self-assembling, vol. interacts. 40533
bispectrum, invariant image averaging, practical issues 16159
bright/dark solitons, cascaded second-order effects 31619
brushless DC machines, multiple equilibria 27747
brushless DC motor, posn.-vel. tracking control, obs. integrator backstepping approach 27750
brushless DC motor posn.-vel. control design 36188
brushless doubly-fed induction motor drives, speed control 20055
car batts., chemometric perform. eval., overcharge conditions 11265
cement indust., clinker grinding, roller mills 36806
chaotic element network, inform. cascade, marginal stabil. 2357
chaotic sig. proc. via unstable cycle extraction 32780
chaotic syst. nonlin. observers, commun. appl. 15685
CircleX program for transistor S-param. data anal. 38774
closed loop syst., anal., static converter, steady state stabil. *(Russian)* 27823
combinat. optim., stabil. anal. 37283
commun. protocol, stabilization, modified distributed snapshots algm. 3208
condensation inert heating for difficult proc. heating jobs 28437
condition monitoring syst., multilevel knowledge base 17679
conoscopic holography, 3D opaque obj. reconstructions 32965
constrained dyn. systs. stabil., appl. 19091
stability continued
current-mode controlled converters, instabil. predictions 11182
cylindrical cavity gyrotrons, mode competition and startup 6491
DC drive, neural net adaptive control 44446
DC motor speed control, binary rate modulation 27749
DC servomotor speed fuzzy control 11069
DC/AC switched-mode PWM inverter, stabil. anal. 11127
dexterous motions, nonlin. cct. theory for robot control problems 21090
dielec.-loaded wideband gyro-TWTA 29810
distant sample prediction, speech coders 8205
double-fed induction generators, PLL controlled, stabil. anal. 44061
doubly-fed brushless motor, sync. frame model/decoupled control 11378
DS/SS CDMA slotted access channel perform. anal. 9293
dyn. response of nonlin. meas. systs. 3700
dyn. routing in computer commun. networks, stabil. *(Chinese)* 8946
edge-tenacious networks 28616
elec. machine act. vibr. control, piezoelec. actuator-based, simul. 36090
elec. machine mag. bearing-based vibr. control simul. 36091
elec. power model syst., stabil. anal. of fuzzy decentralized control 19173
electroconductive plastic composite, C fiber filler, resist. 5906
environ. databases, stabil. test profiles 111
exchange biasing schemes for MR disk heads 7082
extrusion proc. DC motor drive cascaded control design *(Russian)* 11497
failure detect./accommodation, stable neural learning 5712
FDDI, mean waiting time approxs. 41845
fibre optic sens. and Bragg gratings, mining appls. 17839
fibre ring long-term soliton bit stream storage by phase-sensitive amplif. 22786
field stabilization of supercond. magnet, He press. control 22767
flexible shaft sync. motor, control techs. 27689
fuzzy logic handoff algm. perform. anal. by indoor propag. simulator 33819
gas turbine engine, aerospace, control/stabil. 4362
generalized proc. sharing networks, exponentially bounded burstiness arrivals 33591
genetic algms. for recursive digital filters 16059
gyro peniotron forward wave oscillators 6496
gyrotron TWA, stabilization of absol. instabilities 21855
high-dens. opt. subscriber cable, helically single-grooved small units 9592
Hurwitz polynomial, very strict, 2-variable, computationally efficient derivation tech. 28559
hybrid transducer-type US motor, speed control expts. *(Japanese)* 11082
III-V HBTs, reliab. issues 22386
IIR/FIR two-channel biorthogonal filter banks and wavelet bases 37880
image quantisation error diffusion and min. av. error algms. 16306
image seq. low-level proc. verification, interp. stabil. 2678
induction machine low speed region control method 44051
induction machines, flux observer design 27710
induction motor, VSI-PWM inverter drive, stabil., space vector modulation 5252
induction motor drive speed vector control, rotor speed meas. methods 44478
induction motor drives, PWM invertor-fed, instabil. sens. algm. 36681
induction motor modified flux orient. control scheme 11046
induction motor stator current control, trained ANN, syst. ident. 11059
induction motors, sensorless field accel. method, stabil. anal. 11047
induction motors, stable nonlin. dyn. feedback control 4936
induction motors with flux obs., adaptive nonlin. control 27727
indust. elec. heater, discrete optimal tracking controller 44589
integro-differential systs. with delays, modelling, simul. and control 37350
interf. cancelling, hyperstability theory 16019
interval matrices, eigenvalue bounds 5731
interval matrices, stabil. 37224
ion-ripple laser kinetic theory, beam long. momentum spread 2015
isolated half-bridge ZVS-PWM converter 44185
jn. circulators, quality factor, temp. stabil. 29528
Josephson voltage std., internat. comparison 34321
Ka-band tapered gyro-TW amp., broadband operation 1002
Karhunen-Loeve expansion stabil. in pattern recogn. problems 2692
Kerr-like ordered liq. instabilities, stochastic procs. 7727
laterally coupled semicond. laser array instabilities/dyn. behaviour 1979
line segment of polynomials, stabil. 12256
m-FETs, LV SIPMOS transistors, lower drain-source on resist. 1395
magnetron, leakage flux transformer, HV power supply *(French)* 29616
micro-hydroelec. power induction generator stabilisation 4857
microwave devices, magnetized electron beam, nonlin. Faraday effect 976
mobile radio slotted Aloha, retransmission control 9379
mobile robot navig. laser range image acquisition 31692
motion detect. in security appls., tracking and hierarchy 24539
multi-strand supercond. cable stabil., partial current distrib. *(Japanese)* 27215
multichannel WDM opt. filters, birefr. planar opt. platforms 42386
multiple-error and block LMS adaptive algms., anal. 24342
NAMAS approach, instrum. specs. 42681
NDRE-AUV flight control syst. 10599
noncontacting current meas. in underground pipelines, geom. instabil. 42883
nonlin. channel waveguides, variational anal. 23805
nonlin. Fabry-Perot resonators, anal. of dyn. pattern form. 7728
nonstrictly hyperb. conservation laws 28686
num. soln. of $y'=f(x,y)$ by class of nonlin. trapezoidal formulas 271
opt. disc tracking adaptive learning control *(Japanese)* 14344
opt. fibre coupler packaging for high undersea reliab. 17278
opt. heterodyne receivers, noise perform. of AFC loops 42407
optimal order collocation method for first kind boundary integral eqns. on polygons 37364
optoelectronic fuzzy syst., inference methods, stabil. eval. 31045
orthogonal polariz. fiber gyroscope, stabil., resoln. 17817
parallel act. power filter, control stabil. study 5112
parallel turbogenerators, phase shifts, SSR, incipient stabil. 43978
perfect reconstruction subband coding stable IIR filter banks 15938
periodic microbend bare fibre sens., stabilization/sensitivity 17919
periodically amplified syst. dark soliton sideband form. and stabil. 23360
Permalloy films, stable encapsulation structs., annealing effects 7101
PF preregulators, Sepic/Cuk converter based 19753
phase locking of two long-pulse high-power magnetrons 987
phase-locked phase-sensitive opt. parametric amp. soliton fibre pulse propag. 40082
piezoelec. transformers and structs., controller design 30621
plastic encapsulated multichip technol. for high vol. MCM prod. 12974
PM biased SAL/MR device, stabil., bias characts. 7083
PM reluctance machines, dyn. characts. investig. 19609
PM sync. machines, stabil., cage bar effects 36125

stability continued
PM sync. motor drive, digital current control, state observers 44475
PM sync. motors, stable nonlin. observer design 44023
PM sync. servomotor drive, VSI-fed, field oriented control 36675
polymer insulation PD stabil., energy characts. *(Russian)* 6894
polymeric materials for SHG and electro-optic appls. 23386
polysilicon TFTs, ECR plasma oxid. effects on perform./stabil. 22450
power network dyn. transient phenom. simul. program *(German)* 10717
PRMA perform. study, Markov anal. 8737
PWB soldering proc. versatility vs.stability, O_2 effect 12912
quasiresonant power converters, small-sig. modelling 11139
random string evol., stabilization laws 41481
rectifier converters, opposed stars connection, anal. 11124
recursive differentiators, design, quadratic prog. 763
reluctance motor drives, flux weakened operation, current regulator 5303
rem. ellipt.-core dual-mode fiber strain sens., coherence-tuned interrogation 17918
resistive-wall klystron, nonlin. theory 29784
RLS adaptive bilinear filters, stabil. result 8394
rly. substation load levelling, energy storage *(German)* 44523
robot adaptive electrohydraulic servoactuator control synthesis 36497
salient pole sync. generator, transient stabil. anal. 4920
satellite commun. networks bistability issue 33972
SAW delay line packaging, manufacture and perform. anal. 39117
scalar sig. separation, decorrelation 32697
separable-denominator 2D adaptive filters, appl., noise reduction in images 41324
servomotor control syst., inertia moment ident., speed observer *(Japanese)* 36208
ship navig., radar picture and ARPA data stabilization 25607
single mode birefr. fibers, different freq. opt. wave cross-PM 22804
single-cryst. parametric oscillator-amp. of short ns pulses tunable in vis. range 7785
single-mode fiber systs., random mode coupling effects on polariz. mode dispersion and power penalty 30855
single-phase VSI UPS, multiple feedback loop control 11142
slab nonlin. directional coupler multidimensional bisoliton states, stabil. and switching 23368
slave clock internal noise impact on Allan variance 8700
sliding-freq. guiding filters, stabil. of soliton propag. 22802
slotted ALOHA for high-capacity voice cellular commun. 3340
smart sens. interface, data conversion and prog. calib. 34493
solar water-heating plant, PC-based DA syst. 42744
soliton transm., nonlin. amplif. loop mirrors 42459
space integrat. interferometric acousto-optic convolver 32858
SPC program anal., Hughes Aircraft MCM Operations 37039
split phase overhead wires, aerodyn. instabil. 27226
stabiliser RMS nonsinusoidal voltage/current *(Polish)* 5992
stripe amorph. soft mag. film, locally induced mag. anisotropy *(Japanese)* 30661
Sturm seq. and no. of zeros of real params. polynomial in unit disk 20578
supercond./conventional generators, parallel running, transient stabil. *(Japanese)* 10965
switch-mode power convertor predictive control, current prog. tech. 44152
switching regulator, freq. bandwidth widening, 2 DOF syst *(Japanese)* 5990
sync. generator rotor angle calcs., zero seq. harmonic components-based 4912
sync. machine modelling, freq. response data-based 36115
sync. machines, salient pole, rotor complexity, transient responses 10995
sync. machines, transient stabil. teaching 11001
thick film/tape capacitor dielec., capacitance densities up, 3 nF/mm^2 6359
thin film heads, inductance fluct., domain instabil. and popcorn noise 7093
thin-film narrow-bandpass filters prod. by ion-assisted deposition, temp. stabil. 22988
third-harmonic gyro-TWT amp., 1 MW, stable operation 1009
third-order 2-D filters, explicit coeff. condition 737
three-phase PWM neutral point clamped invertors, voltage control *(Japanese)* 11121
three-scale detect. systs., synthesis 41030
threshold-based dyn. routing algm., perform. anal. 41576
tilt-sens. using mag. fluids, indication stabil. 42777
tracks stabilization, multiple model filters 32694
TW interact. re-exam. 1000
ultrashort pulsed-beam propag. in Kerr medium 31501
variable reluctance motors, indirect rotor posn. sens. 5302
variable reluctance stepping motor rotor oscill. control 11376
VTR head lin. scanning design and eval. *(Japanese)* 17589
windfarm turbine wakes, atmos. stabil. effects 10898
X ray ionization radiation effects and mechanisms 6680
XSH alacrite based mass stds. stabil., cleaning influence 34317
zero-admittance switch-mode power converter synthesis 36242
AlGaAs-GaAs HBTs,current gain long-term instabil., model 38847
AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
AlGaAs-GaAs modulation-doped heterostructs., microwave I/V characts. 1075
$BaTiO_3$ cryst. in CAT config., temporal behaviour of phase conjug. wave 31521
$Bi_{12}SiO_{20}$ photorefr. cryst., coupled wave anal. of spatial subharmonics 7740
Cs-graphite simulated reservoir, cylindrical thermionic diode 20044
Cu CVD precursor chem./mol. struct., IC metallization 28812
Cu polymer metallization, adhesion mechanisms, theoretical modelling 12212
GaInP/GaAs, MOVPE grown heterointerfaces, III/V exchange 20886
InP e-mode MISFETs, sulphide passiv., P_3N_5 gate insulators 30295
$(KNa)(SrBa)Nb_2O_2$:Cu, self-pumped phase conjug. mirror, dyn. instabil. 23441
$KTiOPO_4$ sum freq. generation in opt. parametric oscillator 15047
Li polymer electrolyte secondary cell expts. 11247
LiF TLD, intrinsic self-dosing, long term stabil. 43396
Ni-InP syst., interfacial reacts. and phase stabil. 38391
O_2 effects on solder surface, PCB assembly options 38153
Pt-Ir ref. masses stabil., Hg contamination effect 34319
PtSi IR cameras, IR CCD/IR MOS imaging radiometers 17957
Si solar cells, thickness/resist. optimisation 44409
$TiSi_2$-SiO_2-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775
W CVD proc., silane-rich, develop. 37496
W ultrasharp cold field emitters, emission charact. 13018
ZnO multilayer chip varistor, LV transient suppression 29607

stability continued
Zr/O/W Schottky emitter eval. for STM microcolumn appls. 12987

stability criteria
see also Nyquist criterion
bilinear filtering, adaptive algms. 32469
constrained dyn. systs. stabil., appl. 19091
DC motor speed control, binary rate modulation 27749
equilib. equivalence theorem, stabil. anal. 35459
FDTD method in general curvilinear coord. 5801
finite-dimens. continuous-time dyn. systs., nonlin. ccts. appls. 514
linear active dipole array loading by neg. resist. devices 23980
multimedia playout sync., buffer level control 16850
sample path anal. of token rings 41484
slender axisymmetric liq. column EHD, 1D models 15208
spinning spacecraft, coning motion stabil., Lyapunov anal. 10305
thin wire FDTD stabil. anal. 15553
transient energy and stabil., interactive program 28335

stability of numerical methods *see numerical stability*

stacking faults
etch-stop layers, heavily B-doped, TEM obs. 13401
metal/n-InAs/interlayer/n-GaAs struct., nonalloyed ohmic contact resist. 1154
SIMOX, stacking fault growth/shrinkage 22074
Ag/Si(111) Schottky diodes, barrier height and interface struct. 30231
AlGaN epitaxy on sapphire using AlN buffer layers, cryst. struct. 364
CdTe/InSb heterointerfaces, temp. gradient vap. transport deposition, interfacial layer form. 371
Co/CoAl mag. superlattices on GaAs 7044
$Co_{78}Cr_{22}$ films,sputter-deposited, chem./structural anisotropy, EXAFS studies 6958
Fe_3O_4/NiO superlattices, cryst. and mag. ordering 7045
GaAs, CBE growth on Si(001), TEG and AsH_3 *(Chinese)* 5814
GaAs layers on Si(001), MBE/ALE grown, defect struct. 12113
GaAs/AlGaAs, wire, MBE regrowth on patterned substrs. 20808
GaAs/Ge MOVPE heterostruct., lattice strain relax., X-ray diffr. obs. 38308
GaN films, ECR MBE, (001)/(111) Si substr., microstruct. 5822
GaSb:Se, heavily doped, extended defects, TEM 13303
GaTe semicond. superlattice, Bridgman growth, elec. anisotropy 37384
InP, (001) homoepitaxial growth, twin generation, tip struct. 5828
Si ULSI device fab., wafer specs./design rules trends 38982
Si amorph. film, grain growth/defects obs. *(Korean)* 21930
Si, film, on SiO_2, CVD growth, defects, TEM obs. 21878
Si, metal contamination defects, Cr-free etch anal. 1282
Si on insulator, high dose O implant./microstruct./form. mechanism 38494
p-Si:Cu, RTA, OISF, deep states, Cu diffusion 13034
Si:Fe, LEC grown, Fe contamination influence on LSI-yield related cryst. quality 29828
Si:O, CZ-grown, lattice strain and oxygen precip. 20648
Si:O films, low temp. CVD grown, struct. 20974
$Si_{1-x-y}Ge_xC_y$, heteroepitaxial films, CVD on Si(100) 369
ZnCdSe based II-VI heterostruct. for blue-green lasers, structural props. 23293
ZnMgSSe blue LED, current injection, defects 31098
ZnMgSSe/ZnSSe/ZnCdSe blue-green diode lasers, degrad. 39884

Staebler-Wronski effect
a-Si:H, H bonding config., metastability 29871
a-Si:H, Staebler-Wronski effect, trapping and recomb. procs. 39555
Si:H, defect passiv./light-induced metastability 13359
a-Si:H, film, light induced defects, spatial distrib. 29839
a-Si:H films, conc. dense radiation effects, solar cells 36597

staff *see personnel*

standard cells *see cellular arrays*

standard microphones *see microphones*

standard voltage generators *see signal generators*

standardisation
2.2-1500 kW SIMOVERT MASTER DRIVE power convertors, AC drive appls. 44216
2 Mbps interface module, PLL tech. *(Japanese)* 42050
8 kbit/s ACELP speech coding, CCITT standardization candidate 33691
ABBET component std., test inform. mismanagement reduction 34346
ALWR NPP, certification overview 27365
analog HDLs for ASIC design, standardisation 28938
ASN.1, efficient packed encoding rules *(Japanese)* 40695
ATE standardisation for army industrial environment 43573
ATM, connectionless multicast service 42124
ATM switch, integrated control/mgt. model 8844
audiovisual commun., perform. assess. 17602
AUTOTESCON 93, (Sept. 1993) 36845
avionics, certification issues for complex digital hardware 10346
B-ISDN standardization, tech. issues in data commun. services deployment 33601
boundary scan optimisation in proprietary environ. 5598
broadband network services, distributed multimedia support-environ. 16870
card standardization in telecomms. sector *(French)* 33345
CARS thermometer measuring environ. 10057
CCS No.7 mgt., TMN operation support syst. develop. 33367
combined cycle power plants, standardised modular power equipt. 36030
commun. service specs., stepwise refinement 25085
compressed video, high-end appls. 33623
danger warning syst. technol. aspects *(German)* 20386
defn. of instrum. perform., contract and metrological purposes 42659
digital broadcasting, overview of emerging technols. 34203
distrib. substation automation develop. 11214
distributed telecomm. syst. design, ODP approach 24954
EDI and inter-firm rels., coord. proc. standardization 33482
EDI standardisation, eval. and certification, X.400, PEDI, X.435 and security services *(French)* 25025
EDI standardization in electronics indust., global joint activities 28270
elec. engng. education, European stds. assess. project, Netherlands 20322
elec. rly. pantograph standardisation efforts, Europe *(German)* 28123
elec. supply, internat. standardisation *(French)* 35561
electronic component insertion/mounting, robotic *(Japanese)* 5603
electronic text inform. accessibility for reading-impaired pers. 35178
energy mgt. standardisation, SNMP protocol 44191
European digital TV, stds. develop. 34210
European perspective on commun. security 33325
FDDI, ATM and fast Ethernet, eval. 3199
flash storage standardization in PCMCIA cards 29206

standardisation continued
flexible archits., key, low cost FBL 10388
GSM syst., speech and channel coding for half-rate channel 33927
helicopter aging support equipment, maintenance alternatives 43574
high-perform. MCM, low cost design 11775
IEC EMC terminology 23680
integrated diagnostics for aircraft propulsion systems 43454
internat. organizations for quantities and units standardization 34309
Internet Engineering Task Force, security awareness 24979
intra board opt. interconnects, high bit rate modules 17279
ITU, regional standardization and developing countries 3025
ITU-T, pers. commun. services and teletraffic standardization 33930
lin. PMR technol., RF param. for standardisation 3466
localized technol. change and evol. of stds., economic institutions 33319
low-rate multi-channel audio coding, standardization 15778
LSA coord. substation protection/control syst. *(English)* 44250
magnetographic inspection standardization 28918
MCM-D cache SRAM products for workstation/PCs 21327
missile joint service testing, Navy/Air Force CASS 35412
mobile telephony, strategical aspects for develop. 16618
MPEG, digital audio coding, standardization 15777
MPEG digital storage media control command 41607
multimedia conferencing services in open distributed environ. 16862
multinational enterprise networks, mgt. services and stds. *(German)* 33579
Navy and joint service missile testing—A management update 43597
NEC's contrib., video coding standardization *(Japanese)* 41158
network control syst. nonredundant rational data input *(German)* 43693
North American elec. motor market, German expert guidelines *(German)* 10940
NPP, standardization, licensing 35908
opt. fiber atten. in regeneration sects., stat. normalization 30865
pers. handy phone syst., telecomm. service enhancement 3115
photodiode freq. response meas. to 40 GHz, comparison, NPE/NIST 31075
power syst. telecontrol commun., develop. trends 19189
power utility telecomm. network mgt. 26974
proc. indust. fieldbus technol., standardisation efforts 41795
product certification, testing stds. overview 5679
PV installation operational behaviour anal. by standardised representation *(German)* 43952
radiocommunications and mobility *(English, French)* 42188
satellite payload miniaturization/standardization, transponders 25451
shock machines standardisation, SRS anal. 10033
specs. for fibre optic instrumentation 39346
subjective protection ratio tests 9223
sync. SRAM, Pentium proc. 29212
technol. innovation strategy, dominant design anal. 20374
telecomm. networks, compatibility std. and competition economics 33320
telecomm. switching syst. develop., documentation 33711
telecomm. technol. in Europe 33317
telecomms. equipt. earthing/bonding, prETS 300253 European draft std. 15522
telecomputations, telecomms. and computing convergence 3249
three-wire DC distrib. telecom. power supply 41624
time domain network analyzer, calibration/normalisation 25745
time-crit. commun. archits. and quality of service 25031
TPS engineering and quality assurance 42710
train control standardisation, European operational switching syst. 44532
UMTS, migration 9387
urban power networks, develop. prospects, China *(Chinese)* 35575
windows based test development 42695
wireless commun., standardization 25358
worldwide IN, dyn. routing strategies 33639
SF_6 elec. equipt. insulation, quality standardisation 5142

standards
see also ANSI standards; CAMAC; code standards; constants; IEEE standards; ISO standards; measurement standards; military standards; software standards; telecommunication standards; television standards; units (measurement)
50 to 300 kVA UPS installation guide 19875
275-345 kV porcelain surge arresters, contamination withstand characts. *(Japanese)* 43800
400 kV power syst. quadrature boosters planning, UK 4601
500 kV power line-induced overhead telecom. line voltages study *(Chinese)* 35654
AC/DC HV power cable develops., CIGRE study Committee 21 activities 27195
ACAS, airborne collision avoidance syst. *(French)* 35221
Air Force ATE enabling technols. 34363
air ionizer perform., periodic verification, EOS/ESD Ionization Standard 34421
algms. for deriving protocol specs. from service specs. written in LOTOS 2906
ALWR NPP, certification overview 27365
AT&T's open cooperative computing archit. 41801
ATE, develop. trends 34399
ATE technology trends and appls. 42713
avionics, conf., London, UK (Dec. 1992) 11585
avionics backbone interconnection for busing in backplane 10322
benchmarking barometers, product/proc. QC appl. 20473
benchmarking trade-offs 9798
building constr. regulations w.r.t fuel cells, technol. transfer 36581
building EMC directives, Europe, overview 27181
casting proc. product inform. model, STEP-based 11740
centrifugal chiller refrigerants, Montreal Protocol compliance 20149
Channel Tunnel project ventilation syst. overview 11484
CIGRE HVDC power line control Benchmark model *(French, English)* 35616
client server archit. migration, security soln. *(French)* 25027
clinical record and integrated guidelines 33290
cogen. practice, options and design stds. *(Italian)* 19504
compact diagnostic chamber, testing, EMC stds. 2246
company quality organisation, legal requirements 11836
conformance testing of protocols 24829
corporate product safety overview and laser appl. focus 36982
cryptosystem, operation modes 8128
DC power syst. short-cct. current calcs. 19039
deep sub-micron modelling tools 628
design reliab., stds. develop. 20390
develop. of Video-CD players *(Japanese)* 25682

standards continued
diode laser freq. tunable light generation/freq. conversion 23286
EDAC focuses on stds. collaboration, develop. proc. 12893
EDIF's emerging PCB and MCM std. 11779
EHV substation, lightning voltage surge calc. *(French)* 36484
elec. drive certification testing lab. develop., Russia 44463
elec. power quality improvement/monitoring *(Chinese)* 27130
elec. utility customer service improvement, distrib. automation-based, UK 43684
elec. utility power supply quality improvement efforts 43709
elec. vehicle propulsion batts., pos. phys. disconnect 36767
electrical systems, cards, standards and recommended practices 20169
electronic equipt. hardening, lightning surges 864
electronics indust. CAQ, real-time proc. control-based 11839
ELF EM radiation base limits determ. *(Slovenian)* 15455
EM anechoic chamber, field strength uniformity eval. 23674
EMC certification of products in Gost certification syst. in Russia 23672
EMC perform. of suppression components/shielding materials 2264
EMI modeling problems 15526
enterprise LAN standards and guidelines case study 33458
European EMC stds., recent develop. 2263
European energy efficiency policies overview 43695
European power apparatus prequalification rationalisation and database constr. *(German)* 20266
European Union EMC rules for IT equipt. 40366
eye, pot. hazards from extended light sources 35193
fast motion estim. algm. for MPEG video coder 16195
fDDI-2 packet services and latency adjustment buffers 33454
Federal organizations and commercialization of technol. 11633
Fibre Channel, simulation design for verification and development 33461
Fibre Channel switch, performance improvement using camp-on 33255
fibre channel technol., interoperable high speed connections 41793
fingerprint image compression, wavelet scalar quantization vs. JPEG 41194
flame-resistant clothing develop., elec. indust. 36984
foundation earthing devices, DIN 18014 std. spec. *(German)* 10775
generalises DQDB protocol for improved medium access control 33447
Germany EMC regulations, update 23681
GPS automatic depend. surveillance of aircraft, spontaneous mode S broadcast messages 4377
guaranteed bandwidth protocol, connection-oriented data service in DQDB simul. 2909
harsh automotive elec. environ., IC design considerations 36764
hazardous location class., North America/IEC stds. 4554
HBM ESD testers/specs. anal., 4th order lumped element model 34422
health care, ACOSTA accompanying measure A2106 3052
high reliab. cct. board repair, PCB/SMT manufacture 38145
hospital EM interf., European Union Directive 18685
ID-1 data recorder, high perform., develop. 25908
IEC555, harmonics and legislation 31865
IEC801/1000-4 series and immunity testing 23730
IEC 1000-4-3, radiated immunity test 40367
induction motors, design/spec., laws/regulations/stds. impact 4948
input filter design optimisation for low loss matrix converter 893
insulation resist. meas. 20410
internat. LF EMC stds. *(German)* 23735
International Appliance Technical Conf., Madison, WI, USA (1994) 36908
IR FPA non-uniformity meas., proposed std. 34571
ISO9000 quality syst. std. implement. in small company 28518
ISO 9001 QC stds., accreditation objectives 28511
IT and networking in Baltic countries, current develop. 16663
Japan indust., scientific and med. RF apparatus, stds. 23683
JARA Committee activities on robot EMC test methods/perform. eval. *(Japanese)* 8007
KKF push buttons, prod. overview, Russia 38064
known good die prod. techs. 21728
Korean nuc. indust., codes/stds. develop. 43829
laser safety, indust. laser use, overview 28390
laser safety, ocular hazards, stds. 28392
laser safety, quantitat. risk assess. 28391
learning automata in inform. flow control *(Croatian)* 3267
LED devices, std. colour code for device states *(German)* 34648
legionella Code of Practice compliance, engng. aspects 5568
liq.-immersed power transformers, high temp. insulation 5007
LV analog ICs for 3 V systs. 771
LV distrib. feeder pillars/cutouts overview 43759
MCM, COB, single/double sided, Jedec stand., low cost 38189
measures of performance, IEE Colloquium, London (1995) 36881
MELSECNET/10 and open networks for factory automation *(Japanese)* 33541
metalclad switchgear, HV/small size design develops. 11207
mfg. indust. health and safety mgt. overview 37003
mil. autotest cost growth, commercial std. equipt. archits. 34364
motion JPEG digital video storage, retrieval, and edit 16357
MPEG decoder, high-perform. cross-platform 16089
MPEG-2 systs. 16091
MPR2 test methods for VDUs 40368
multilayer registration control, PCMCIA card materials 38129
multilingual appl. develop., Unicode std. 24075
multimedia, stds., Open Information Interchange 9058
multimedia workstations, elec. protection 43798
MV distrib. switchgear, internal fault withstand tests 19887
MV/LV secondary cubicle thermal behaviour *(Italian)* 19905
NEMA 7 safety enclosure design, mfg. viewpoint 91
NEMA/IEC motor starters, protection, IEC Type 2 Coord. 4885
noise injection clamps charact. 23747
nonrosin solder flux residue corrosivity testing, PCB manufacture 12941
NPP tech. safety specs., probabilistic anal. 35938
obj. based archit. for digital compression camera 33620
open archit. for digital commun. systs. 8945
open stds. appl., board-level testing 29654
opt. disk stds., overview 22787
PCB design, meet EMC stds. 38085
PCB ESD protection material selection, shielding effectiveness meter 28456
PCMCIA standardization for PCB design, manufacture and assembling 12927
PCMCIA std. for high-dens. PCB design 6407
PCMCIA-style PCBs, depaneling proc. selection considerations 12926
petrochemical indust. MV arc resistant metalclad switchgear, safety benefits 5416
petroleum indust. safety mgt., Norway 88

standards continued
PF preregulator power convertors, EMI emission studies 10653
photographic image coding, methods and appls. *(Italian)* 2804
plug-in PC board testing, EMC Directive 21643
power distrib. cables, long service life designs 43770
power freq. EM fields, pers. exposure regulations, Italy *(Italian)* 4336
power line short-cct. current mech. effects, IEC 865-1 calc. std. 19310
power line short-cct. mech. effects, IEC 865 calc. studies 19311
power lines EM field health risks, elec. utility strategies 4507
power overhead line, conductor clearances, meas., calcs. *(Italian)* 4694
power station auxiliary power systs., short-cct. current calcs. 19382
power syst., short cct. current, automatic calc., IEC 909 4479
power syst. insulation altitude effects, IEC 71 std. *(French)* 35582
power syst. insulation co-ordination, IEC 71 std. *(French)* 35581
power syst. SCADA/EMS, third party software packages integrat. 43638
power syst. short cct. currents, decaying AC contribs. 19052
power syst. short cct. currents calc., IEC 909, ES appl. 4477
power syst. short-cct. anal., charact. currents method 19057
power syst. short-cct. current calc. methods *(Polish)* 4472
press., sensitive strips/mats/bumpers, safety appls. *(Italian)* 3798
primary dental care, radiology stds. guidelines 10219
probabilistic safety anal., probab. meaning 86
proc. indust. fieldbus technol., standardisation efforts 41795
product certification, testing stds. overview 5679
product life-cycle costs reduction 28395
proof of designed reliability, IEE Colloquium, London (1994) 5511
quality mgt., historical overview *(Croatian)* 5678
quartz resonator param. meas., IEC 444-5 direct transm. method 39077
RACE NETMAN project, functional descriptions of network mgt. 16584
radiation-induced errors, SIL memory module 6822
rectifier input current harmonic distortion, stds. 44149
risk-based inspection develop., USA 11841
rly. safety stds. 36986
ROSICUM, data network archit. 16549
rot. machine explosion protection, European Stds. *(German)* 10943
salient pole alternators, automated testing, param. determ. 4914
SEMI equipt. commun. std., automation guidelines 11716
sens., interoperability 17706
session layer conformance testing 8774
SHINE, strategic health informatics networks for Europe 3187
ship EMC requirements 2262
shipboard fire alarm syst. stds. *(Croatian)* 84
shuttle car cable reels, ampacity calc., thermal characts. 20183
single core power cables, trefoil form. installation guidelines 19298
SMPS, power syst. harmonic compatibility design 5031
SMT package, moisture-sensitivity ratings 11750
soft switching, power converter design, EMC Directive 21097
space nuclear power sources, UN standards anal. 18733
static control footwear, perform.-oriented design and test procedures 31715
std. field bus networks for indust. appls. 16509
still video compression, DCT-based 8601
student career counselling via HTML and MOSAIC on Internet 25014
substation earthing systs., 3D CAD studies 5160
telecom. DC power supply equipt, product safety engng. 41625
telecomms. equipt. environ. conditions conformance testing 16540
test development tools framework 42689
thermal power plant continuous emissions monitoring, software-based 27537
thermal power plant emissions control, cost-effective techs. 43887
three-phase IGBT rectifier, low harmonic pollution 19846
three-phase power syst. earth fault factor determ. 19066
three-wire DC distrib. telecom. power supply 41624
totally enclosed motors, hazardous locations appl. safety 19592
transformer substation protection, 400/110 kV transformer *(Czech)* 27860
transputer-based soft-correlator for radio-astron. 42556
Unix and open systems conf., Brussels, Belgium (1992) 11541
unpackaged die for MCMs, die info. exchange format 21776
US electronics indust., domestic infrastructure for advanced proc. 11674
US regulations for EMC control, update 23682
video transm./reception syst., simul. 3664
VXI, std. instrum. drivers/soft front panels 34378
VXI based test systems develop. 42726
Z39.50/SR protocol integrated into LIBERTAS, library automation 33252
Pb-acid batt. systs., theory, develops. 36520
Pb-acid stationary valve regulated batt. spec. prep. 19970
Pb-based solder alternatives develop. 127
SF$_6$ elec. equipt. insulation, quality standardisation 5142
SF$_6$ power distrib. equipt. enclosures, ventilation requirement calcs. 35628

standby generators
AC standby generators, grounding/ground fault protection 43992
CHP syst. condition monitoring/predictive maint. 19539
distrib. network mobile power plants, maint./emergency appls. 10730
emergency generators, rectifier supply, harmonic distortion 19536
emergency generators, reliab. improvement anal. 27679
telecom. terminal auxiliary permanent on-site generator sets 43939
telecomm. power supply/air-conditioning, reliab. modelling 19858
telecommunication systs., turbo-alternator back-up power supply 19611
telephone network power supply fault-tolerance, reliab. improvements 19821
TZ standby UPS/diesel generating set 19786

standby power supply *see emergency power supply*

standing wave detectors *see standing wave meters*

standing wave indicators *see standing wave meters*

standing wave meters
power overhead line mech. self-damping meas. methods *(German)* 10754

star phase rectifiers *see rectifying circuits*

Stark broadening *see Stark effect*

Stark effect
see also quantum confined Stark effect
conjug. polymers with large opt. nonlin., ultrafast relax. 2092
intersubband quantum well opt. modulators 30996
normal incidence MQW light modulator, contrast ratio 7386
SIRENS electrothermal launcher plasma, mol./at. meas. 15369
Stark anom. dispersion opt. filter for doubled Nd:YLF lasers 14575
three-level medium, reson. radiation propag., nontrivial induced lenses 31610
ultrafast nonlin. in semicond. laser amps. 7670
AlGaAs/GaAs, QW, modulator, nonlin. optics 7739
AlInAs/GaInAs coupled QW 1.3 μm opt. modulator, elec. field depend. 22927
AlInAs-GaInAs quantum cascade unipolar intersubband LED 14632

Stark effect continued
CO$_2$ laser welding, laser induced plasma, spectrosc. meas. 15199
GaAs/AlAs opt. differentiator, Wannier-Stark localization, space charge screening 14504
GaAs/AlAs, p-i-n photodiode superlattices, transm. intens. oscills. 14602
InGaAs/InP SEED, opt. switch/power discriminator 15112
InGaAs/InP superlattice waveguide device, opt. multistable operation 1716
In$_{0.53}$Ga$_{0.47}$As/In$_{0.52}$Al$_{0.48}$As superlattice, electron-wave-fn. coherence length 13193
Rb 532 nm Stark anom. dispersion opt. filter 39540

stars
see also stellar ......
see also pulsars
spacecraft attitude determ., stochastic star ident. 26548

starters *see starting*

starting
see also actuators; exciters; ignition
1A$_4$ supersonic coal-fired MHD channel, test progress 20015
20 kW Vuilleumier heat pump, test programme results 28175
60 hp brushless doubly-fed pump drive, water treatment appls. 5431
AC ASD, DSP technol. appl. 44486
AC drive systs. reliab. for crit. appls. 36639
AC drives, on-line unity PF PWM rectifier 5305
AC LV EM device CAD, PC-based *(Russian)* 7913
asynchronous machines, elec./mech. params. ident., math. method 11042
asynchronous motor drives, thyristor starters, operating conditions 44458
capacitor motor drive, single phase, speed control 5272
cement plant, roll crusher, variable speed DC drive 5419
combined cycle power plants, standardised modular power equipt. 36030
commercial airplane auxiliary power unit starting drive 4360
contactless AC starters, 44040
cylindrical cavity gyrotrons, mode competition and startup 6491
DC motor drives, fuzzy speed/voltage control 28099
deep-bar induction machine dyn. params. determ. 4964
diesel engines, gas turbine plant start-up 10862
double squirrel cage motor, heating, short-cct., starting *(Polish)* 27705
doubly-salient variable-reluctance motor, starting model *(French)* 10993
elec. drives, high inertia, optimal control design 5277
elec. machine starters/relays output control stand *(Russian)* 10923
electronic lamp starter driver IC *(German)* 28160
gas turbine packaging proc., installation/startup benefits 27570
gas turbine/combined cycle units, reliab./availability guarantees 19523
high power 140 GHz gyrotron, expts./num. simul. 6492
high-press. discharge lamps, electronic starters *(German)* 28163
high-starting-torque load motor drives, AFC appls. 20081
hydraulic turbogenerators, intell. sync. control *(Chinese)* 10877
induction machine squirrel cage disc rotor, starting torque improvement 27733
induction machines, multiple coupled cct. modelling 36160
induction machines, saturated, deep bar effect, transient models, simul. 19634
induction motor, single phase, torque control, controlled capacitor 27716
induction motor control/protection, Steinmetz model 4938
induction motor drives, direct torque control method 11339
induction motor param. determ., genetic algms. appl. 4962
induction motor saturation modelling, computer-based 4937
induction motor starting transients, simul. algm. 19631
induction motors, single phase, starting transients calc. 11039
induction motors, stall protection 4946
indust. power systs., electromech. response 20186
inverter, parallel capacitor compensated, transients, stroboscopic anal. 5391
LIM, init. conditions, dyns. form./anal. 11075
MV induction/sync. motors, design/protection/safety 5409
NEMA/IEC motor starters, protection, IEC Type 2 Coord. 4885
North American elec. motor market, German expert guidelines *(German)* 10940
PM 2-phase sync. FHPM, self starting 36678
PM sync. motors, single-phase, line started, FEM 10978
PPC scanner motor, power brushless type *(Japanese)* 10931
reluctance machines, multiple coupled cct. modelling 10981
salient-pole brushless motors, starting method 5286
saturated deep bar induction machines, simul. model 4971
solid state motor protective/control devices 4892
space power thermionic convertors, thermal modelling 18740
squirrel cage induction motor, solid state starter, low harmonic generation 36146
squirrel cage motors, LCI fed, starting, low speed operation 36176
steam turbine prewarming fuzzy control 10854
submersible induction motor pumps, soft starting calcs. 4954
switched reluctance starter/generator, aircraft engine 43457
syst. availability enhancement by fault diagnosis, ANN 19526
three-phase induction machines, dynamic starting perform. models 19626
three-phase sync. motors, single-phase supply starting transients 44017
three-phase two-stator brushless sync. induction motor *(Japanese)* 19606
vehicular air conditioning, rotary stepping motor, missed step detect. *(French)* 11485
NdFeB PM hysteresis motors, starting/synchronisation studies 10977
Pb-acid automobile starter batt., computer model 36541
Pb-acid car batts., dual elec. archit. 36729

startup *see starting*

state assignment
asynchronous ccts., state assignment problem for event-based specs. 12259
asynchronous finite state machine, extended burst-mode spec. 21211
CMOS IC state assignment for low-power FSM synthesis, genetic local search 21079
extended lock graph theory, optim. 21210
FPGA logic implement., optimisation techs. based on genetic algms. 6108
genetic algms. for state assignment problem 29134
interacting finite state machine design with self-checking capability 29188
large-scale asynchronous finite state machines, synthesis procedure 6131
multiple variable ternary seq. ccts. synthesis *(Chinese)* 29157
Petri-net-based algms. for parallel-controller synthesis 601
seq. cct. state assignment for low power dissipation 21290
sequential ccts., automatic design error correction 21184
sync. seq. ccts., state assignment for low power dissipation 29095

state estimation
see also observers; phase estimation; power system state estimation
AC servomotors, digital control, syst. dyns. *(Korean)* 36214
acoustic state estim., transit. probab. digital filter 40885

state estimation continued
  adaptive HMM filters for sigs. in noisy fading channels 32736
  aircraft guidance/decision aid for wind shear avoidance 35219
  ballistic missile track initiation from satellite obs. 18982
  Canadian patrol frigate, implement. of AAW sens. fusion 18980
  candidate target detect., likelihood interpolation for peak detect. 15879
  cantilever beam state meas., distributed PVDF film sens. 42775
  cct. breaker status ident., least absol. value state estim.-based 19896
  data fusion of assoc. hypotheses in distributed sens. network 15873
  decentralised sens. networks, routing for reliab. 15952
  dyn. space resection, straight lines 41280
  failure detect., GPS autonomous integrity monitoring appl. 33947
  flute music embedded in noise, sig. detect./restoration 16001
  general decentralized Kalman filters 15953
  H^∞ filtering and model matching 40866
  H^∞ filters and smoothers, spectral theory 15951
  hidden nearly completely decomposable Markov chains, adaptive estim. 40971
  image-enhanced pass. tracking of maneuvering targets 16114
  induction machine sensorless vector control, HF current injection 4974
  induction motor offline param. ident., computer-based 4956
  LF sound meas., wind noise compensation by digital filter 26018
  maneuvering target, underwater tracking, time delay meas. 25594
  maneuvering target tracking algm. 9619
  manoeuvring targets tracking, H_∞ filters 15947
  multitarget tracking, stochastic simul. Bayesian approach 42493
  nonGaussian stochastic syst. state estim. based on time transits. of moment and probab. fn. 2544
  optimal state vector reconstruction in 2D systs. 32685
  phased array radar, adaptive beam pointing control 17416
  Rice/Rayleigh channels state estim., nonlin. filtering 8456
  robust Kalman filtering, QQ-plot approach 32681
  robust Kalman filtering insensitive, continuous outlier *(Chinese)* 2454
  slow fading channels, iter. max. likelihood decoding/state estim. 32139
  speech recogn. algm., Markov random fields 8201
  state reconstruct. filter for lin. discrete-time stochastic syst. *(Korean)* 24340
  target tracking, neural network maneuver modeling 32671
  target tracking, probab. data/finite resoln. 41028
  traction drive submicrometer control 20067
  underwater targets tracking, robust regression-based EKF 24172
  wind turbines, speed control in stall region 36066

state feedback
  AC motor drives, CSI-fed, exact lin. H_∞ control *(Japanese)* 28063
  act. mag. bearings, unbalancing estim. 30758
  brushless DC motors, nonlin. tracking controllers develop. 4994
  cantilever beam state meas., distributed PVDF film sens. 42775
  cct.-mode data on wireless links, retransmission scheme 17090
  Cuk convertor, nonlin. control methods 27801
  DC-DC power converters, fuzzy control based on quasilinear modelling 36369
  DC/DC PWM push-pull power converter, robust state feedback control 27808
  HF switched-mode PWM power amp., perform. anal. 542
  induction motor adaptive tracking control 36152
  LCC parallel reson. power converter, small sig. anal. 11129
  MAGLEV systs., H_∞ control, exact lin. 40276
  PSS design method/algm. 4560
  PWM AC-to-DC voltage-type convertors, current control 5062
  PWM AC/DC power converter, current control studies 5070
  PWM rectifier, state feedback nonlin. control 11153
  PWM voltage-type rectifier, I-V control studies 19796
  PWM VSI, current regulation techs. review 44178
  rapid thermal proces partial state MRAC 30402
  rigid rotor mag. bearing syst., nonlin. control 27681
  switched reluctance motor posn. tracking 19612
  sync. generator nonlin. adaptive control, neural net-based 19607
  sync. generator oscill. damping, state feedback controller 4594
  traction drive submicrometer control 20067
  two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638

state of the art studies *see reviews*

state-space methods
  2D digital filters, Lyapunov approach, stabil. anal. 743
  2D scaled state space filters, fixed point arith. 12648
  3-phase sync. motor, single phase supply, operation 19617
  adaptive DS-SS receiver for burst type interf. 17002
  adaptive nonlin. recursive state-space filters 748
  ADC compensation, phase-plane/state-space error table coverage 703
  aircraft AC generators, forced power transfer, dyn. modelling 26657
  ATM networks, cell loss probab., state-space reduction method 16437
  boost PWM power convertor anal., averaging theory extension 11151
  buck ZVC-ZCS HF PWM power converter studies 19716
  cascaded doubly-fed machines, state space control 36668
  CDMA commun. systs., subspace-based delay estim. 42166
  chaotic sig. modeling, nonlin. AR model 15917
  chaotic sigs., noise reduction, preprocessing method 24188
  constrained dyn. systs. stabil., appl. 19091
  cpd. sig. modified recurrent search *(Russian)* 16051
  CPM decoder optim. by state-space partition 40588
  current-mode controlled converters, instabil. predictions 11182
  DC/AC switched-mode PWM inverter, stabil. anal. 11127
  DC/DC power convertor switching ripples, averaging anal. method *(Japanese)* 27795
  DC/DC PWM step-up power supply, SC cct.-based 27807
  digital filters, noise reduction, error feedback *(Japanese)* 739
  digital filters, VLSI archit., distributed arith., digital control *(Japanese)* 37875
  digital filters free of overflow oscills. 2498
  direction finding, state-space approach 2492
  direction finding of wide-band emitters 2554
  discontinuity detect. in noisy and textured images, weak continuity constraints 2841
  discontinuous current mode series-parallel reson. converter 37623
  discrete type shock semi-Markov decision procs., Borel state space 199
  dispersive media, wave propag. anal., FDTD formulation 40316
  DS-SS digital commun., sig. detect., hybrid syst. model 24272
  extended inverse QR adaptive filtering algm. 15983
  fault detect. for nonlin. state-space systs. 11840
  finite wordlength digital filters/controllers, optim. realisations 37883

state-space methods continued
  FIR-to-IIR filter order reduction, methods 32793
  first-order lossless digital two-pair realisation 21423
  fixed-point digital filters, effects of overflow and quantization 2512
  focused gamma neural network, state space, noise reduction 32657
  freq.-selective techs. based on SVD, TLS and bandpass filtering 32489
  genetic algms. for state assignment problem 29134
  half-wave voltage converter with backward diode, stabil. estim. 539
  heuristic transform. techs. for simultaneous optim. of latency/throughput 29261
  HF inductors modelling 6380
  HF switched-mode PWM power amp., perform. anal. 542
  image restoration in freq. domain, EM algm. 16391
  impulsive interf. mitigation, arbitrary IID state noise 8290
  indust. power systs., electromech. response 20186
  Kalman filter for telephone revenue prediction 41718
  LCC parallel reson. power converter, small sig. anal. 11129
  lin. variable-reluctance machine, mag. flux decoupled windings 19666
  lin./nonlin. filtering 24292
  lossy transm. line cct. anal. via approximated state-space models 505
  low sensitivity state space digital filters, Pareto optimal design 32788
  model-based proc. for large aperture array 9673
  multiple 2-D coherent sinusoids, high resoln. estim. 41001
  multitarget tracking, quick data assoc. algm. 16056
  multitarget tracking, stochastic simul. Bayesian approach 42493
  multizone HVAC syst. optimal control, aggregation/disaggregation method 28180
  noisy phase or freq. modulated sigs., demodulation, Kalman filters 40574
  nonlin. autoregressive modeling and estim. in noise 2510
  nonuniform image motion estim., Kalman filter formulation 2849
  nonzero-sum stochastic games, discounted/av. cost 11919
  parallel-module power converter, current bal. controlled, dyn. anal. 44140
  perfect reconstruction subband coding stable IIR filter banks 15938
  periodically time-varying state-space digital filters study 8255
  power plant control, state space and freq. domain predictive controller design 27524
  power syst., two-area load-frequency control with neural nets 19113
  power syst. short-term load forecasting, state-space model 27094
  power syst. transfer fn. ident. methods. comparison 4595
  power syst. transient security assess., ANN tangent hypersurfaces 26928
  power system inter-area dynamics, linearised modelling approach 19137
  PV power syst. invertors, instantaneous current tracking control *(Korean)* 27620
  PWM power converters, discrete-time large sig. anal. 5086
  quality assess. models for init. prod. proc. control 20474
  quasi-reson. power converters, generalized state space averaging anal. 11150
  quasiresonant power converters, small-sig. modelling 11139
  RLCT pass. network synthesis, neural net approach 500
  robust Kalman filtering, QQ-plot approach 32681
  saturated induction motor drives, state-space modelling 28062
  second-order digital filter sects., sum of power-of-two coeffs., low roundoff 758
  sequential logic, state space decomp. based optim. 21191
  series reson. convertor with third-order commutation network 36306
  single-phase switch-mode rectifier, voltage-reversal cct. 29020
  single-phase VSI UPS, multiple feedback loop control 11142
  soft-commutated DC/AC converter for solar energy conversion *(French)* 19766
  speech sig. invariant geom. measures 15822
  speech time-scale modif. based on nonlin. oscillator model 32318
  symbolic ATPG for large ccts. 6101
  sync. generator oscill. damping, state feedback controller 4594
  telecomm. traffic, modified adaptive seq. projection algm. 41679
  three-phase regenerative power convertor design project 5119
  three-phase reluctance motors, single-phase-fed, transient anal. 36124
  three-phase sync. motors, single-phase supply starting transients 44017
  three-phase voltage-source utility interface power convertor 19737
  time-varying 2D state-space struct. 37869
  time-varying filter banks, time-reversed inversion 8275
  turbogenerator FEM/state-space modelling, no-load case 43983
  turbogenerator FEM/state-space modelling, short cct./load case 43984
  variable speed drive inverse nonlin. speed controller design 11349
  voltage-reson. converter, AC dyn. characts. anal. 21110
  X-ray timing Explorer Power Syst., stabil. anal. 26651
  Yau filters, finite dimens. recursive type 8442

static (atmospherics) *see atmospherics*

static analysis (programs) *see system monitoring*

static electricity *see electrostatics*

static electrification
  see also surface charging; triboelectricity
  cart grounding chain effectiveness, unexpected insulating wheels behaviour 31714
  dielectric liquids, cond., breakdown, conf., Switzerland (1993) 5444
  electrostatic charge control, wafer prod. damage prevention 7896
  ESD hazard minimization, IC test handlers and automatic trim/form machines 30412
  flow electrification boundary conditions, DC voltage appls. 15224
  footwear, static control, perform.-oriented design and test procedures 31715
  gate oxide proc.-induced damage, low/high temp. anneal effect 1202
  insulating liq. flow electrification, physicochem. explanation 15219
  PD detect., electrostatic induction 1516
  PD detect., theoretical/practical aspects 22644
  phthalocyanine, organic photoreceptor, spectral sensitization 2189
  power transformer oil flow, static electrification and PD 36227
  protective shrink wrap film for JEDEC tray packaging 28454
  pumped dielectric fluids, electrokinetic effects 13926
  shielding bags, testing requirements 15212
  spacecraft solar cell lifetime, space factors testing 18726
  streaming electrification, polymeric material effects 14022
  transformer oils, static charging behaviour 14041
  transient contact of small particles, charge transfer 15225

static induction transistors
  2D transient temp. eval. 1443
  5 to 100 MHz low power commun., SIT appl. 22481
  10 kW DC/DC PWM ZVS bipolar SIT-based power converter 19830
  AC drivers, power semicond. devices *(Slovenian)* 20052
  blocking gain and on-resist. 13806
  elec./thermal behaviour, 2D simul. 30372
  HF high power SIT 38916

- **static induction transistors** continued
  - HF series reson. inverter, PFM/PWM control strategies 5388
  - HF series reson. PWM inverters, induction heating appls. 5123
  - induction heating/melting, ZCS-HF inverter, bipolar-mode SITs 5384
  - MLE growth 22478
  - power semicond. switches, device characts. comparison 537
  - PWM VSI, deadbeat control cct. 44176
  - AlGaAs/GaAs heterosource bipolar mode SIT 30261
  - GaAs, MLE growth, surface treatment, ideal SIT appl. 20668
  - GaAs SIT-based pulsed power switch develop. 36427
  - SiC device proc./substr. fab., high power/temp. microwave 37990
- **static RAM** *see SRAM chips*
- **static reactive power compensators** *see static VAr compensators*
- **static VAr compensators**
  - 3-phase TSC-TCR SVC anal., recurrences theory 19924
  - 300 MW submarine power syst. link project, South Korea 19238
  - bulk transm. syst. interconnection develop. projects, Japan *(Japanese)* 10715
  - control strategy, sliding mode, nonlin. load 10676
  - controllable reactors/thyristor devices comparison 5027
  - develop. testing by simul. *(German)* 27879
  - digital control, transputer appl. advantages 4530
  - FACTS, advanced series VAr compensator appls. 27138
  - FACTS SVC appl. planning projects, USA 27139
  - field testing/commissioning, IEEE std. 27878
  - flexible AC transm. systs., steady state/dyn. perform. eval. 35613
  - fuzzy logic applied, voltage regulation 19172
  - GTO based SVC anal. 5064
  - GTO-switched, elec. welding appls. 4531
  - H^{∞} controller, anal. and design 10652
  - improved power syst. perform., conf., Australia (1993) 5472
  - inverter based, high freq. 5091
  - long radial supply syst., SVC, operational aspects 26984
  - long-dist. transm. syst., harmonic modelling 4628
  - multilevel inverter-based SVC, computer simul. 19122
  - μP based, unbalanced load appls. 10670
  - nonlin. control design 10651
  - nonsinusoidal periodic real voltage source, optim. 35499
  - operating/maint. strategies, rly. supply, transm. support 26985
  - operational/maint. experience, Tenaga Nasional Berhad 26983
  - partitioned power syst. networks, optimal power flow 4618
  - power syst. stabil., nonlin. SVC control studies *(Chinese)* 35527
  - power syst. SVC control syst. instabil., birfurcation theory *(Japanese)* 10688
  - power syst. SVC design, math. modelling 4561
  - power syst. transient stabil., SVC fuzzy control design 19101
  - power syst. transient stabil. enhancement, SVC blocking effects 4558
  - power syst. VAr compensation, power theories anal. 19086
  - power syst. VAr compensation planning, computer model-based 26960
  - power syst. VAr control algms., formulation requirements 19085
  - power syst. voltage stabil., shunt VAr compensator effects *(Japanese)* 10709
  - power systems, power electronics appls., Japan 35563
  - power systs. education, distrib. feeder power quality calcs. 20348
  - power transm. equipt. reliab. IS, Canada 43722
  - power transm. systs., power electronics growth overview 35594
  - PSS, fuzzy controlled SVC design *(Japanese)* 26939
  - PSS intell. supervisory fuzzy control design 19103
  - PSS SVC fuzzy logic switching design 19102
  - PWM invertor-based, HF/multiple connection studies 19123
  - PWM self-commutated SVC, power syst. appls. 4511
  - Queensland-NSW power syst. interconnection, tech. aspects 26977
  - rly. power syst. stabil./power flow limit calcs. 5341
  - Southern African grid, SVC 43655
  - substation, filter coil overheat fault diagnosis, 7th harmonic *(Chinese)* 44243
  - supply-side loading minimisation, intelligent SVC control 43656
  - switched power harmonic filters, anal., appls. 19741
  - TCR dyn. behaviour modelling, computer-based 4532
  - three-level invertor-based, expt. investig. 43665
  - three-phase SVC, voltage controlled CSI-based 10654
  - thyristor AC/DC power convertor, naturally commutated, SVC appls. 43667
  - thyristor technol., components/design 44261
  - transm. network automatic SC, dyn. perform. 4620
  - transm. network voltage flicker studies, AC/DC furnace-generated 27124
  - unbalanced AC voltage supplies, SVC dyn. anal./design 19124
- **stations, power** *see power stations*
- **stations, radio** *see radio stations*
- **stations, television** *see television stations*
- **statistical analysis**
  - *see also binomial distribution; covariance analysis; demography; design of experiments; exponential distribution; gamma distribution; Gaussian distribution; higher order statistics; log normal distribution; maximum likelihood estimation; measurement errors; normal distribution; Poisson distribution; probability; random processes; statistical databases; Weibull distribution; Wigner distribution*
  - 2D FIR-median hybrid filters, deterministic and stat. props. 33077
  - 2D image data modelin, robust M-estim. 16341
  - 3-D morph. algm. for obj. recogn., automated training 16269
  - 3D obj. recog., probabilistic techs. 32923
  - 3D reconstr. from image seq., Bayesian/Kalman, comparison 2854
  - 220/69/13.8 kV three-phase transformers, EM transients *(Spanish)* 5028
  - 230 kV level load behaviour params., stat. anal. 35690
  - acoustic sig. proc., regression anal., reduced inform. loss 40884
  - acoustical matched-phase noise reduction 15894
  - activated towed array sonar displays image proc. 17486
  - adaptive ARIES, improved halftone method, dot adaptation *(English)* 33074
  - adaptive IIR filtering, composite prefiltered regressor method 32775
  - adaptive image coding based on visual activity level 24499
  - adaptive neighborhood mean and median image filtering 16322
  - adaptive optics telescope image proc. 2708
  - adaptive sig. proc. algms., efficacy 40875
  - adaptive small-sample condition estimator for matrices, rank-one modifs. 32474
  - advanced access network archits. and service demand forecasting 42064
  - aircraft motion estim., max., posteriori method 16358
  - analogue IC mismatch simul., stat. modeling techs. 30441
  - antenna modelling and testing, combined facility 28289
  - archive digital data storage device based on home video recorder 39182
  - AT&T, technol. CAD, IC fab. proc. design 38989
  - ATM networks, neural network traffic description 3240
  - ATM networks, real-time traffic estim. 41927
- **statistical analysis** continued
  - ATM switch, minislot synchronized, output queue contents 33177
  - ATM-based network environ., media schedular for AAL 42039
  - autoregressive freq. estim., asymptotic stat. anal. 2533
  - av. run lengths of control chart based on sum of sq. errors 5745
  - averaging entropy, probab. n-tuples distrib. 24004
  - avionics PCB SMC, reliable design 10317
  - B-ISDN, large deviations approx. for fluid queues fed by on/off sources 41929
  - B-ISDN, queues, total recall 33603
  - B-ISDN, source model for connectionless traffic 25062
  - B-mode US imaging, stat. charact. of speckle 26293
  - backscatt. of HF sound from objs./sea-bottom 42534
  - bathymetry data postprocessing/corrections, sidescan sonar syst. 10560
  - Bayes theory, joint discrim., detect., estim. and ident. of sigs. 15902
  - bearings-only tracking in distributed sens. network, reduced sufficient stats. 15877
  - bilinear time-freq./time-scale representations, reassignment method 41052
  - binary modulation proc. 32028
  - bispectral speckle near-diffr.-limited imaging, unknown aberrations 24653
  - blind adaptive array proc. methodology 9165
  - blind fractionally-spaced equalization, filter banks/lin. prediction 41024
  - BPSK receiver, class-A impulsive noise quadrature components 25220
  - broadcast-quality compressed video, subjective testing 25633
  - building energy systs., fractional factorial design 11313
  - Burr type X distrib., predict. with outliers, Bayesian approach 20533
  - C-band dual-polariz. radar, computer error anal. of rainfall rates 10571
  - C-band overwater LOS links in mid-Atlantic coast 9194
  - candidate target detect., likelihood interpolation for peak detect. 15879
  - canonical variate anal., bootstrap confidence regions 28571
  - cct. tolerance design, orthogonal array optim. 5942
  - cellular mobile commun., stat. paging area selection scheme 3453
  - CFAR proc., modified ordered-stats. in nonhomogeneous environ. 42482
  - change point problem, miscellaneous procedures 28572
  - charge amplifiers for piezoelectric sensors 26790
  - chi-sq. stats. for goodness-of-fit tests for stationary time-series 32462
  - chirp rate estim., weighting coeffs. 24223
  - CHP plant structural reliab. optim. 19489
  - closed obj. boundaries ident., stat. approach 24493
  - CMOS digital combinat. ccts., stat. delay charactn. 13891
  - CMOS submicron mismatch model for practical IC design 30454
  - coherent sig./random background, second-order intens. stats. 32012
  - color holography, wavelength selection 7837
  - colour texture anal., colour histogram 2807
  - commercial building cooling energy use, ANN modelling 36635
  - complex exponential sigs. param. estim. 2569
  - complex logic products, stat. design for perform., practical methodology 29137
  - computed tomography practice, Sweden, QC, techs., patient dose 18519
  - computer vision, hierarchical Markov random fields, stable points 8496
  - connected-word recogn. in noise, extraction 32385
  - contactless velocimetry of vehicles, microwave speckles appl. 18105
  - continuous level probab. fn. eval., sig. proc. method *(Japanese)* 2458
  - continuous speech recogn., prosodic inform., generalised model 32399
  - CPFSK opt. receivers with Gaussian freq. pulse shape, perform. anal. 42436
  - Cramer-Rao inequality, large deviation, quantum analogues 40534
  - cross-correl. neural network models 2490
  - cruise missile tests, perform. anal., ES 35404
  - cryptographic pseudo-random nos. in simul. 8134
  - customer preference for data and voice mail services, conjoint anal. *(Japanese)* 8817
  - customer queue and resource queue networks 41485
  - cyclic polling syst., waiting time distribs. for different service strategies 33242
  - DAB channel and mobile reception, common-wave network meas. in Bavaria *(German)* 9692
  - daily load forecasting, multilayer ANN *(Japanese)* 10707
  - data fusion, random-set approach 15960
  - decision making, visualization effect, AHP 16903
  - deconvolution regularization, SNR, stat. estim., multiscaling 40782
  - detect. perform. of lin./sq.-law detectors 32539
  - deterministic/random binary Euclidean images, representation 41179
  - dialogue stat. modeling, next utterance speech act type 15838
  - diamond films adhesion on Mo/W/carburized W substrs. 37478
  - digital AC panel meter, design algms. 3734
  - digital receivers, sampling rate, analog prefiltering, stats. 15965
  - discharge lamp, num. simul. study 11455
  - discharge pattern recogn. in HV equipt. 22647
  - discrete instantaneous freq., discrete-time phase derivative 24311
  - discrete-time anal., busy/idle period distribs. of ATM multiplexer 3278
  - discrete-time single-server queueing systs., general Markov-modulated arrival procs. 33226
  - discrim. task, evoked spatio-temporal cortical patterns 43309
  - distrib. ident. algm. appl., sig. detect. 8294
  - distributed binary hypothesis testing, feedback 8405
  - distributed telecomms. systs., sojourn time distrib. modeling 33237
  - DS-CDMA/DQPSK sig. in indoor radio channel *(Korean)* 17046
  - Earth-space propag. paths, differential rain atten. 15441
  - Earth-space syst., site diversity, rain atten., interf. anal. 15440
  - edge detect., probabilistic and dictionary-based relax. techs. 8503
  - edge detector, Laplacian-of-Gaussian, noise removal 24382
  - EHV substation, lightning voltage surge calc. *(French)* 36484
  - elec. rly. power consumption characts. estim. *(German)* 44503
  - elec. utility sales/revenues link, DSM, stat. recoupling 4514
  - electomigration induced failures in Al/Cu thin-film interconnects 21616
  - electrochem. sens. calib., genetic algms. *(German)* 17760
  - electrohydraulic testing units for vibr. expts. on instrums. 118
  - element quality anal., accuracy of ephemeris prediction from satellite orb. elements 18985
  - EM for multi-channel image ident. and restoration 24524
  - EM waves scatt. by weakly roughened boundary 15380
  - EMC of microelectronic rly. traffic control systs. 28117
  - EMC of urban cellular mobile radio systs. 33858
  - engng. programme student success prediction 11608
  - environ. stress screening, Taguchi method 11727
  - error probab. during sig. reception, deviation from Gaussian law 32576
  - error-correcting codes, orthogonal arrays/expts. design 40641
  - evol. algms., selection methods, empirical comparison 11953
  - fault detect. for nonlin. state-space systs. 11840
  - fault detect./isolation in dyn. systs., robust method 11858

statistical analysis continued
- fiber bundle imagery of wavelength multiplexing, stat. eval. 16222
- fiber connectors, stat. anal. of connection characts. 14351
- fiber optic current sens. syst., birefr. exam. 9923
- fibre link, interact. soliton Gordon-Haus distrib. 23443
- fine pitch ball bonding optim., RSM, 3D/contour charts 38169
- fine pitch QFP in SMT, solder joint quality, optim. 37075
- finite-horizon stat. QoS measures for high-speed networks 33590
- finite-state Markov channel, model for radio commun. channels 24006
- first order stat., noise-intens. estim. stabil. 40364
- first-order PLL in noise/interf., cycle slip 2547
- first-pass ventricular ejection fraction, SPECT camera 10176
- fitting the exogenous model to measured data 25762
- FLIR scenes, jump-diffusion procs. for automated understanding 16285
- FRACAS, failure reporting/corrective action, semicond. mfg. equipt. 28416
- freq. stabil. in time domain 34329
- freq.-selective fading mobile radio channel, capacity eval. 17066
- full-motion digital video in Ethernet, perform. eval. 9049
- fusion devices, plasma spatial distrib., broadband reflectometry proc. 40977
- gamma bases, parametric LSA 40821
- generalised autoregressive prediction, speech coding appl. 24160
- generalized change detect. problem 24283
- generalized proc. sharing scheduling discipline 2896
- geolocation anal. by TDOA, comments/reply 32546
- geometric meas. based on photom. inform. 2685
- German, prosodically marked phrase boundaries, automatic class. 32400
- German telephone network, impulsive noise survey for stat. modeling 16913
- global optimal search algms. 28648
- granular TV camera noise, stat. characts. 9716
- grapheme-to-phoneme conversion, heuristical and stat. methods *(English)* 40723
- ground station-geostationary satellite link, radio wave atten. 40357
- ground vehicle vision, ladar, obstacle detectability 7878
- gyrotron collective Thomson scatt. diagnostic, antenna decoupling requirements 29793
- heterog. fluid queues handling general on-off sources, overflow probab. 33221
- HF range M-seq. meas., interleaved sampling method 26017
- hierarchical clustering, neural archit. 33042
- high dens. DRAM, automatic failure anal. 6151
- high spectral resoln. coastal ocean imagery, stat. and empirical anal. 18879
- high speed networks, bandwidth and buffer reservation schemes 33388
- high speed VLSI interconnects, stat. anal., moment method 28442
- high-dimens. obs. vector sample comparison 28570
- high-speed measuring syst. for testing mixed-sig.-LSI 767
- high-speed network QoS, per-session end-to-end delay and call admission 33168
- holographic memory diffr. interf. 22784
- Horton's and Strahler's laws for subscriber networks 42065
- Horton's law, appl., telecomms. networks *(Japanese)* 42061
- human resource mgt., innovation strategies 20380
- human speech detect. in struct. noise 32409
- IC yield optim., Monte Carlo method *(Chinese)* 13829
- ID-codes and measures separated in L_1 metrics 40630
- IEEE Symposium, Trondheim, Norway (1994) 28250
- image recog./restoration, genetic algms. 2801
- image reconstruction/synthesis from nonuniform data and zero/threshold crossings 2712
- image recovery of missing segments/lines 2711
- image texture class., QMF bank in combination, co-occurence matrices 24541
- induction motor param. est. models 4977
- induction motors, freq.-depend. model 11048
- induction motors drives, av. params. field oriented control 5281
- infinite capacity N*D/D/1 queue, idle and busy period distribs. 33234
- innovation mgt., leadership effects anal. 11640
- installed opt. submarine cable, long-term polariz.-mode-dispersion meas. 17207
- integrated networks, single resource loss in heavy traffic 41475
- intens. modulation/direct detect. opt. commun. syst., optimum sig. detect. 34076
- interlaced digital HDTV image coding field/frame mode selection *(Korean)* 25672
- intermittent sigs., effective sweep width 40768
- IR imaging sens., unified perform. model of detect. and tracking 16112
- isolated word recogn., interframe depend. HMM 8216
- joint distribs. for arbitrary variables 24275
- joint PDF, stat. param. space 40544
- K-distributed clutter, order param. estim., noise effect 25557
- k-out-of-n:G systs. reliab., simple lower bound calc. 20486
- kernel design, alias-free time-freq. distribs. 32742
- kinematic GPS, resolving cycle slips, redundant satellites *(Japanese)* 42538
- lang. ident., automatic, perceptual benchmarks 32288
- lean prod. in semicond., new process introduction 36951
- life distribs. categorisation, randomly right censored data-based 20482
- lin. accel. transducers, effect of random vibrs. 3810
- lin. pulse motor mag. reluctance distrib., structural depend. anal. *(Japanese)* 44072
- long-term data acquisition/recording/storage and sig. proc. syst. 25734
- low-degree tests of polynomials 5771
- lung pathologies diagnosis by two-channel proc. of breathing sounds 43199
- LV network, arcing faults detect./anal. 19366
- LV network short-cct. charact. quantities *(German)* 43734
- M/M/1 queue with heavy traffic, waiting time distrib. 37227
- machining, monitoring/supervising by neural net 34384
- macrocellular PCS propag. channels, 1850-1990 MHz band 31836
- magnetos. VLF/ELF radio waves, direction finding method 23641
- maint. activities mgt., optim./priorities/planning integrat. 28387
- maintainability level, control model, ship engines 28389
- MAP image super-resoln. algm. improvements, constraining inform. 16205
- mean residual life/failure rate rels., distribs. charactn. 20483
- mean-field theory and multitarget tracking 15869
- mfg. optim., simul., response surface/Taguchi methods 28404
- microcells, 912/1920/5990 MHz radio propag., buildings 31829
- microcellular systs., compatibility matrix learning 9253
- min. complexity criteria, asymptotically optimal fn. estim. 32023
- min.-MSE filters for spatially nonoverlapping target and input-scene noise 22982
- missing inform. principle in computer vision 24358
- mobile radio channels, non-stationary simul. model 33770
- mobile sig. reception, stat. model 31833

statistical analysis continued
- model-based adaptive histogram equalization 2653
- monitoring reliab. estim., stat. anal. 17623
- monopulse type subsurface radar, air void detect. 25574
- motion vector estim. in video coding, stochastic approach 8497
- moving obj. segmentation by robust motion param. estim., multiple frames 24627
- MPEG video, lossless smoothing algm. 2814
- multi-sens. rem. sens. imagery, parametric/neural classifier 8506
- multi-server model anal., non-preemptive priorities and non-renewal input 33245
- multibeam propag. in random medium, phase screens method 2237
- multibit DAC, intersample distortion/sample jitter sensitivity 9762
- multichord spectrometer, 8×8 anode photomultiplier 29814
- multicollinearity, nonoptimal estim. 28586
- multicovariance matched filter for target detect. and background recogn. 16107
- multiframe target detect. anal., pixel stats. 32855
- multilayer adaptive filters, BP trained, stat. approach 2556
- multilayer cellular networks with classes of mobile stations, perform. anal. 33933
- multiposition incoherent sigs., simple method of invariant reception 40858
- multiradar target detect., data fusion 34128
- multiresolution edge detect. techs. 24599
- multiscale error-diffusion digital halftoning, local intens. quality measure 24517
- multistage ATM switching network, delay perform. 33197
- multivariate complex normal distrib., generalization 28584
- multivariate model fit checking, generalized Wishart-stat. variance 3707
- MUSIC algm., probab. of resoln. 40842
- MUSIC estim. of real-valued sine-wave freqs. 40896
- narrowband sig. extraction, neural net based scheme 2456
- near-IR spectrosc., calib. fn. transfer 42661
- network traffic mgt., neural tech. 41682
- neural networks, two-pattern class./feature selection 33038
- noise stats. estimators, adaptive filters *(Chinese)* 24278
- non-Gaussian correl. radar clutter, computer generation 34113
- non-uniform sampling theory, efficient num. methods 32689
- nonlin. syst. ident., nonparametric deconvolution 40874
- nonminimum phase channel deconvolution 2475
- nonnormal proc. distribs., SPC for semicond. procs. 11718
- nonparametric estim., neural networks 41207
- nonparametric estim. of reliab. fn., kernel dens. estim. 11857
- nonstationary Erlang loss model, modified-offered-load approx. 33405
- nonuniform fault coverage and fault probab. 5707
- Norcross Project, manual/robotic wafer handling, degraded cleanroom 22086
- normalized images, phase and magnitude, distortion anal. 2736
- nuc. reactor coolant syst. lin. regression leak rate calcs. 27398
- num. data sets, text generation techs. for explaining trends *(Japanese)* 28588
- obj. rapid recogn., noisy range images/tripod operators 2677
- ocean altimetric data mapping, stat. multiscale approach 10014
- odour absorpt. films selection, sens. qty. eval. *(Japanese)* 42783
- OLYMPUS satellite 12/20/30 GHz propag. expt. results 31818
- opt. commun. syst., characts. anal. 9455
- opt. fiber atten. in regeneration sects., stat. normalization 30865
- opt. glass carrier reliab. test 179
- optimal fuzzy filter synthesis, local stats. based *(Japanese)* 21433
- optimal mean-sq.-error batch sizes 37238
- optimal sens. location, multiple hypotheses testing 41020
- optimal stat. cct. design, computer-aided approach 5956
- optimum event rate for CCD detector 43061
- orthogonal least sq. algm., computational requirement 32782
- orthogonal regression models, nonlin. param. estim., algms. and appls. 28662
- orthogonal transforms for image compression 32973
- outlier-resistant methods for estim. and model fitting 14364
- outlying obs. in exponential sample, detect. method *(Chinese)* 28589
- oversampling A/D converters, delta-sigma modulator structures 25758
- packetized data commun., sync., DFT appl. 33201
- parsing word graphs, linguistic grammar and stat. lang. model 32375
- partial least sq. regression via additive splines 28663
- pass. acoustic param. estim., PWVD optimal window length 40968
- PCB assembly yield, design factors, stat. and ANN models 38080
- PD pattern recogn., neural network 22650
- PD pulse distrib. pattern anal. 22646
- PD pulse distrib. pattern anal. 1520
- PDF estim., order stat. filter bank 32799
- peak load forecasting, regression based, transform. tech. 4610
- penalty factor influence in order selection criteria 8393
- periodically time-varying state-space digital filters study 8255
- pers. commun. systs., propag. channel model 3415
- phonetic class./recogn., HMM 32220
- pipe/valve reliab. prediction, Bayesian routines 37196
- plane surface elec. params. meas., radio-thermal radiation 10010
- polariz. depend. opt. fibre loss stats. 30848
- poly-emitter complementary bipolar technol., yield enhance. 30445
- polyethermide films, multistress aging statical anal. 14049
- polynomial phase param. estim.-phase unwrapping algm. 40931
- pos. time-freq. distrib. 40966
- power demand modelling considering meteorological factors 4608
- power estim. techs. in VLSI ccts., survey 1473
- power overhead line survival anal., stat. method-based 43780
- power station power systs., partial short-cct. current calcs. 19384
- power syst. daily load forecasting, neural net/regression anal.-based 19200
- power syst. load forecasting, ANN based, EMS 4616
- power syst. planning, reliab. eval. 35569
- power syst. protection, probabilistic decision approach 10768
- power syst. relay protection DC current sens., meas. modelling *(Russian)* 35672
- power syst. security assess., multicontingency preprocessing ES 35505
- power syst. short-term load forecasting methods, computer-based 27093
- power syst. simul. support, nonparametric stat. procedures 4483
- PR-QMF banks/ wavelets, stat. optim. 32707
- predictive sensitivity based fault detection 38119
- principal points for univariate distribs., asymptotic result 191
- proc./chem. indust. SPC, correl. obs.-based 36998
- product estimator, Markov chain sampling 37236
- profile/frontal face recogn. syst. comparison 32841
- pseudolinear regression IIR adaptive algm., filter design 24185
- PSK, complex non-Gaussian fading channels 32041

statistical analysis continued
quadrature component generation anal., narrow-band oscills., delay method 40766
quadric surface reconstruction from disparity meas. 24547
quantitat. image assess. based on redundant, meas. and stat. reasoning 24422
quantitat. seafloor charactn., bathymetric sidescan sonar 10558
radar syst. EMC fig. of merit estim. *(Croatian)* 3595
radio channel stat. charact., expt. eval. *(Italian)* 9688
radio sig. model adequacy 32570
raindrop size distrib. near Paris 31808
random rough surface heights stat. props. via rem. sens. 32857
Raphael paintings, spectral and spatial stats. 24530
Rayleigh fading environ., mobile PRN anal. 3349
recurrent time series, measuring spatial spreading 11898
recursive CR bounds, alg./stat. accel. 41321
regularization theory extended for multivalued fns. *(Japanese)* 33111
rem. area power supply systs. load forecasting, neural nets 35570
repairable syst. failure data anal., graphical model ident. 11865
RF instrum. accuracy, meas. uncertainty effects 42911
rigid rotors, computer-aided static and dyn. balancing 27661
RLS adaptive equaliser digital commun., importance sampling 16409
rly. carriage elec. equip. availability coeff. 20110
robust Kalman filtering, QQ-plot approach 32681
robust nonlin. filter for noise-smoothing and edge-enhancement 2847
robust nonlin. regression methods, dose response rels. 28569
rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658
SAR imagery, edge features, clutter stats. 42500
SAR images, max. likelihood algm. for target detect. 17365
satellite-based packet-switching networks, on-board closed-loop congestion control 33942
SAW device complex freq. charact., sensitivity anal. 6929
second- and higher-order cyclostationary proc., acousto-optics 32455
secret key cryptosystems, stat. attack 40707
segmental phoneme recogn., piecewise lin. regression 32221
seismogenic EM emission, radiation/transm., stat. anal. 23578
self-similar Ethernet LAN traffic, stat. anal. and stochastic modeling 33586
self-similar VBR video traffic, anal., modeling and generation 2883
sens. irrelevancy testing, backward elimination/stepwise regression 11409
SENSATION framework for optimal IC design and stat. anal. *(Korean)* 13834
short run SPC, dyn. control chart 5746
Siemens power DIMOS device, ESD gate oxide breakdown, stat. model 30307
sig. anal., power distrib. fns. under multisignal conditions 32591
sig. detect., time series distrib. params., hypotheses testing 2540
sig. time-freq. distrib. dens. fns., spline-approx. 32691
simply connected moving objs., static scene, segmentation algm. 8524
small elec. motor diagnosis/QA, unsupervised classifier design *(German)* 11834
SMT assembly, failure stats. and failure free time 11792
solder joint rework, effect on PTHs in multilayer PWBs 38116
source localization, lower bounds, sens. posn. uncertainties *(French)* 16037
source-channel separation theorem 24085
spacecraft attitude determ., stochastic star ident. 26548
spacecraft vehicle health mgt. systs., large-size data reduction/fusion algm. 18725
spatial sig. proc. by adaptive antenna arrays 16049
SPC, nonnormal distribs., capability indices, spec. limits, dpmo and DPU 156
speaker verification, distributed decision approach 32244
spectral filtering lidar light possessing non-Gaussian stats. 3616
spectral reflectance factor scale for calib. and stds. 9776
speech recogn., HMM, Bayes adaptive algms. 24141
SS PRN, delay capture, arrival-time distrib. 9174
stat. multiplexer with generalized periodic sources, anal. 24750
state-depend. buffer model, large loading and output rates 41487
std. sig. proc. software package 8338
stereo imaging effectiveness testing 34632
stochastic discrete-time systs., optimal filtering 8404
suboptimal detectors, discrim./perform. measures 24284
substation reliab. eval., TOPASE project 36475
Swedish NPP component reliab. data anal. improvements 19405
switching systs. carrying multi-channel traffic streams, combinat. anal. 41930
sync. syst., stat. method of noise estim. 5638
syst. reliab. estim. uncertainty eval. methods 11882
target discrim., computational vision human perception models 35393
target tracking, probab. data/finite resoln. 41028
tech. prod. reliab. dialogue syst. 11880
telecomm. networks, perform., ES 3194
telecomms., correl. arrival procs. in switching systs. 33192
telecomms., rate-controlled service disciplines 33167
teleconference traffic from VBR video coders, modeling 16818
telephone cct. holding time distribs. 33404
telephone exchange alarm traffic charactn., methodology and case study 33406
telephone/packet-switched networks, random variable seq. i.i.d. testing 41716
teletraffic model anal., num. transform inversion 41489
TEM defocus series, exit wave reconstruction 24430
text-to-speech syst. for Japanese, waveform splicing, develop. 32345
texture anal., SVD 24533
texture class., stat. geom. 41188
texture structural change detect., stat. 33091
thermal diffusivities meas., IR images proc. 25995
thermal power plant siting, gray layer anal. *(Chinese)* 43885
time-depend. hydrophysical procs./fields, acoustical meas. 18165
time-domain tests for Gaussianity/time-reversibility 8422
time-freq. anal., energy densities in one/many dimens. 32746
time-freq. distrib., laser radar backscatt., FM demodulation 34166
topographic labels assignment 41203
touch/step voltages meas. method/instrum. 4710
tracking and motion class., switchable model Kalman filter 41144
traction power supply maint. project mgt., UK 44525
transducer errors estim., operation 3808
transient signals meas., Wigner-Ville distribution appl. 24240
turbogenerators, rotor hydrogen cooling, temp. distrib., clogged vents *(Chinese)* 43999
TV image stat. model, color distrib. probab. 8539

statistical analysis continued
TV on B-ISDN, VBR coder generated traffic, stat. model 9014
two-channel tests for common non-Gaussian sig. detect. 8292
understanding statistics, tool for research interpret. 28305
updating rate of Jacobi SVD arrays and data nonstationarity 32477
urban traffic control, dyn. queue length modelling 34388
VBR MPEG traffic in interactive appls., resource requirements 16879
vector-autoregressive inference for equally spaced, time-av., multiple queue length procs. 11908
vehicle-to-vehicle commun. for AVCS platooning 5354
VHF channels, digital fading mobile, Markov charactn. 3337
video channels, stat. real-time, over multiaccess network 16072
VLF radio waves, ground-based direction finding 23637
VLSI semicond. mfg. proc. noise/learning 37037
voice recogn., robust matching method 32202
vol. holographic memory storage capacity, cross-talk noise 40163
VQ, hyper-columnar clusters 32327
wafer chem.-mech. polishing, combined asperity contact and fluid flow model 1263
wavefront simul. for atmos. turbulence 15448
wavelet transform for modulation class. 32515
WDM systs., modulation stats. effects on Raman crosstalk 17348
weak/very weak Bernoulli procs., waiting time results 40537
weighted expectations 11899
weighted median filters anal./design, fast algms. 33013
wide-area traffic, inadequacy of Poisson modeling 3207
wireless commun. channels, blind equalization algm. 41025
X ray units database, Lower Saxony, radiation protection, QC 18500
X-band radar, obs. of K-distributed sea clutter 34119
yield modelling/anal., sampled data approach 38987
Au ball bond shear strengths, rationalisation 12953
Fe, cast ductile, US detectable flaw size 5938
GaAs analogue MMIC, high yield, spray etch recess proc. 38029
N_2-filled tube, formative time determ., stat. methods 38201
Pb-acid valve-regulated telecom. power supply batt. perform. 41623

statistical databases
multicast routing based on predicted traffic stats. 16529
space-Earth absorpt., radiometric inversion coeffs. for Italy 15430
voltage security, machine learning, neural networks, stat. pattern recogn. 10663

statistical design of experiments *see design of experiments*

statistical distributions *see statistical analysis; statistics*

statistical linguistics *see computational linguistics*

statistical methods *see statistical analysis*

statistical multiplexers *see multiplexing equipment*

statistical process control
8 inch wafer pilot line in Taiwan, total prod maint. 37054
arc welding stat. proc. monitoring/interp. 11510
chemical-mechanical planarisation, Run by Run controller 38566
CMOS proc. appl., wafer level reliab. SPC program 20493
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
copper rod mfg., QC syst. upgrade, USA 5677
design-of-expts. techs., SPC of high-purity gas prod. 20397
eddy current testing, SPC *(German)* 5919
electronics indust. CAQ, real-time proc. control-based 11839
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
element quality anal., accuracy of ephemeris prediction from satellite orb. elements 18985
expt. designs for syst. assess. and improvement, noise factors are correl. 11831
fine pitch ball bonding optim., RSM, 3D/contour charts 38169
fine pitch QFP in SMT, solder joint quality, optim. 37075
first-wafer effect, rem. plasma proc., photoresist/polysilicon stripping 22203
high-integrity product mfg., SPC appls. 20389
IC indust., mfg. control, stat. metrology 20406
IC mfg. SPC, nested normal/multivariate model 37156
inert gas wavesoldering, proc. variables, PBA KBS appls. 12935
ion implantation, advanced SPC methods 38496
ITC test conference, USA (1993) 36853
lithography tool, reliab. demons. test. design, Bayesian tech. 37194
metal contamination monitoring, surface photovoltage, SPC 38458
mfg. lead time anal., simul./design of expts. 37060
nonnormal distribs., capability indices, spec. limits, dpmo and DPU 156
nonnormal proc. distribs., SPC for semicond. procs. 11718
PCB, controlled impedance boards prod. 21624
PCB assembly/soldering defects, inspection/SPC work stations 5696
PCB mfg. proc. control, SPC 12907
PRIME proc., PLASMASK 302U, SPC 13446
proc./chem. indust. SPC, correl. obs.-based 36998
program anal., Hughes Aircraft MCM Operations 37039
QC methodologies in data item description process 37001
QFP IC, mold void, SPC 5635
RIE, time series modeling, neural networks 22556
RTSPC, software utility for real-time SPC and tool data anal. 22211
run by run proc. control combining SPC and feedback control 20412
semicond. mfg., photoresist ashing, on-line diagnostic monitoring 22209
semicond. testing, SPC, tester capacity, productivity 104
short run SPC, dyn. control chart 5746
SMT prod., integrated process monitoring/testing 38111
solder paste screen printing proc. in SMT mfg., SPC 38134
TQM, role of test 28505
TQM, stat. software *(Italian)* 37155
VLSI IC manufacture, QA methods 11827
VLSI mfg. pilot line, SPC implementation 37164
wafer dicing process optim. 38956
GaAs MMIC mfg., SPC use/misuse 38017

statistical tests *see statistical analysis*

statistical theory *see statistical analysis*

statistics
see also decision theory; error statistics; game theory; Monte Carlo methods; nonparametric statistics; probability; queueing theory; statistical analysis; time series
array proc., neural nets appl. 24315
biological cell profiles, self-similar, digital image anal. 4264
cochannel interf. modelling for sig. strength based handoff anal. 2273
coherent laser radar with diffuse/aerosol targets, heterodyne efficiency 3620
commun. network simul. 16559
decentralized CFAR detect. based on order stats. 2577

statistics continued
- DES S-boxes, pairs and triplets 40625
- dose determ. for producing given amount of change, PC program 26450
- fuzzy filtering for mixed noise removal, image proc. 2791
- grey-level images, entropy estim. algm. 8584
- image registration, multi-scale texture moments 41125
- image segmentation, stat. model based, automatic param. estim. *(Japanese)* 32865
- Ka-band satellite links, ice depolarisation 2229
- kappa distribs., symmetric, MRPP rank tests, empirical powers 28592
- LOS microwave link, 11 GHz, rain atten., worst month stats. 7965
- metrology, math. software class. 17621
- noise canceling, autoassociative memory trained by order stats. 32623
- non-interactive ID-base key sharing schemes and perform. 32081
- normalised order stat. LMS adaptive filtering 8329
- obj. recogn., higher-order stats. 2673
- parallel bodies, vol., probabilistic Steiner formula 37242
- patient treatment effects, growing subjs., PC program, randomized parallel groups design 4287
- probabilistic methods, continuing engng. education 71
- randomization procedures, Gray codes 2398
- range data, agglomerative clustering 16401
- sig.-subspace param. estimators, resoln. thresholds, defn./eval. 40945
- SNIF, network inform. flow surveying tool 24967
- structural eqn. models, non-recursive, equivalence 28630
- T1 carrier syst. companding noise statistics 41388
- text independent speaker ident., robust segmental method 32245
- TQM continuing education, stats. role 74
- variable selection criteria, computationally intensive 28591

stators
- 3-phase asymm. induction motors, anal. 36154
- 3-phase self-excited double armature sync. generator 27739
- 3-phase sync. generators, self-excitation *(Japanese)* 11008
- 6-phase induction motor, split coil, EM proc. simul. 11021
- 9 MJ Range Gun syst., design 15305
- 250 kVA, 40 MVA brushless sync. machines *(German)* 10987
- AC machine perform. under faulted operation 19618
- AC machines, smooth rotor, end-region 3D pulsation mag. field 44004
- AC machines sealed insulation syst. thermal eval., IEEE std. 27670
- AC motor drives, direct torque control 36649
- AC motor drives, six-step power convertor-fed, anal. 20082
- AC motor failure, steep fronted switching surges 19590
- air conditioning, controllable induction micromotor 5395
- aircraft AC generators, forced power transfer, dyn. modelling 26657
- alternator field winding interturn fault detect., neural net-based 44014
- anti-directional-twin-rotary motor drive, elec. vehicle 5360
- arc-stator motor taking, elec./mag. asymmetry 4903
- artificial heart lin. oscillatory actuator, structural anal. 35167
- asynchronous generators, asymmetric failure conditions studies 27729
- asynchronous machine, two stator windings, EM torque 36144
- asynchronous machine vibroacoustic optim. by FEA *(German)* 11028
- asynchronous machines, piecewise-const. approx. anal. method *(Polish)* 36148
- bearingless PM sync. motor characts. 4932
- bearingless squirrel cage motor, no-load characts. studies 19644
- brushless DC motors, tooth forces, coil winding pattern infl. 19651
- brushless doubly fed machines, pump drives, pole no. combinations 5282
- cage induction machines, online winding param. meas. 4940
- cage induction motor, slanted stator/rotor teeth effect on torque 36170
- capacitor discharge induction launcher model, validation 15314
- capacitor motor, ferrite mag. wedge in stator slot openings, power loss reduct. 27735
- capacitor-run induction motors, single-phase, lumped param. model 4972
- car engine fan, digitally controlled induction motor 27719
- cascade compulsator, YAG laser power supply 31456
- coil insulation, multifactor ageing, test parameter correlation 14007
- condenser motor, inner rotor, 16-part tooth core *(Japanese)* 11017
- current-invertor-fed polyphase induction motor harmonics *(German)* 11026
- DC motor, separately excited, vel. control without meas. 19653
- DC motor drives, optimal speed control method *(Polish)* 36647
- double squirrel cage motor, heating, short-cct., starting *(Polish)* 27705
- double-fed induction generators, PLL controlled, stabil. anal. 44061
- doubly-fed brushless motor drives, pole no. model 5279
- doubly-salient variable-reluctance motor, starting model *(French)* 10993
- dual induction motor vehicle drives, control methodology 11418
- dyn. torque-speed meas., advanced intell. instrums. 44038
- elastic force motors, speed control of integrated piezoelec. sens. 36206
- elec. drives, high inertia, optimal control design 5277
- elec. generator stator insulation diagnosis, ES-based *(Russian)* 10918
- elec. generators, stator diagnostics, thermal monitoring 10955
- elec. machine, malfunction diagnostics 10953
- elec. machine EM speed reduction, phys. proc. modelling *(Russian)* 36106
- elec. machine stator insulation, corona activity studies 19586
- elec. motor EM speed reduction, math. anal. method 43990
- elec. vehicle motor drive syst. design, test results 5345
- electret motors, EM force calc. methods 44085
- electric machines condition monitoring, IEE Colloquium, London, UK (1995) 11599
- EM barrel finishing machine, induction motor-based 28194
- EM bearings using generalized bias current lin., fault tolerance 40271
- generator-transformer unit, ground-fault protection, 3rd harmonic voltage 19584
- generators, neutral grounding *(Chinese)* 27678
- HV machine stator insulation, discharge monitoring 19600
- HV motors insulation, dielectric diagnosis 14008
- HV rot. machines, PD detect. 4900
- HV rot. machines, slot discharges 4901
- HV stator winding insulation, on-line discharge monitoring 36108
- hybrid step motors, feedback-lin. control design *(Korean)* 27767
- hydroelectric generator online condition monitoring methods 10875
- hydroelectric generator stator insulation, PD detect. techs. 43942
- induction machine sensorless vector control, HF current injection 4974
- induction machine squirrel cage disc rotor, starting torque improvement 27733
- induction machines, core loss/mag. saturation model 4978
- induction machines, eccentric rotor mag. pull modelling 36168
- induction machines, stator flux oriented digital control scheme 4951
- induction motor, rotor time const. meas. magnetizing flux 4965
- induction motor, single phase, stator-yoke deform. *(Polish)* 27704

stators continued
- induction motor, stator tooth zone, vibroacoustic proc. 4957
- induction motor bearing damage detect., stator current monitoring 4968
- induction motor control/protection, Steinmetz model 4938
- induction motor core losses meas., static power convertor-based 19620
- induction motor deadbeat flux level control *(Japanese)* 27717
- induction motor drive, rotor flux/time const., VSS observers 11325
- induction motor drive control, rotor time const. ident. 11369
- induction motor drive meas. technique, microprocessor-based 20058
- induction motor drive phase model based on TLM method 19646
- induction motor drive tacholess vector control, low speed perform. 5292
- induction motor drives, closed-loop phase angle control 5260
- induction motor drives, digital control strategy 5268
- induction motor drives, field oriented control, parallel proc. 36700
- induction motor drives, saturated, field oriented control 20079
- induction motor drives, speed sensorless control, flux saturation effects 11328
- induction motor drives, stator voltage 3rd harmonic direct field oriented control 5299
- induction motor drives, universal field oriented control simuls. 36640
- induction motor drives, vector controlled, iron loss effects 5280
- induction motor drives, VSI-fed, generalized predictive control 5248
- induction motor drives, VSI-fed, predictive vector current control 44492
- induction motor field oriented torque control scheme 11014
- induction motor incipient fault diagnosis, fuzzy neural net-based 36157
- induction motor nonlin. control, DSP approach 11057
- induction motor output feedback stable controller 19633
- induction motor speed control, stator resist. estim. 36155
- induction motor stator current control, neural net-based 19629
- induction motor stator current control, trained ANN, syst. ident. 11059
- induction motor vehicle drives, static characts. modelling *(Russian)* 44570
- induction motors, artificial loading condition impedance calcs. *(Russian)* 44034
- induction motors, CSI-fed, torque control, vector approx. 5310
- induction motors, cut lamination stators, core anal. 11022
- induction motors, dyn. loading, AM 36149
- induction motors, dyn. perform., space harmonic fields, cpd. transform. *(Chinese)* 11015
- induction motors, Forward Stall Test, rotor/stator loading verification 4947
- induction motors, inverter-fed, computer-based torque simul. 27713
- induction motors, on-line fault detect., stator current monitoring 4967
- induction motors, parameter estim., dyn. anal. 19649
- induction motors, stator insulation testing/eval. 19645
- induction motors, torque oscills. reduction, supply switching 19636
- induction motors, two rotor ccts., reduced order models 11054
- induction motors, voltage fed, field orient. control 19639
- induction motors with flux obs., adaptive nonlin. control 27727
- induction servodrives, field-oriented control, fixed-point DSP 11358
- induction/PM sync. motors, radial posn. control 10979
- inductive coilguns, driving field/projectile motion synchronisation 15300
- indust. power systs., electromech. response 20186
- invertor output waveforms anal. maximum entropy method 24237
- lifts, PM lin. sync. motor, transient current, thrust 36736
- LIM, skewed ladder-type rotor, 3D FEM-based anal. *(Japanese)* 44044
- LIM perform., design params. influence 27756
- lin. pulse motor, mag. suspen., contactless direct drive *(Japanese)* 44077
- lin. pulse motor actuators, principles and characts. 44256
- lin. step motors nuc. reactor control rod drives, dyn. characts. 20075
- machine stator winding varnish ageing, TSC anal. *(French)* 10937
- Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
- Maglev supercond. lin. sync. drives, stator irreg. calcs. 36761
- magnetless voice coil motor, driving characts. *(Japanese)* 44088
- micro electrostatic wobble motor, fabr. *(Japanese)* 11079
- MINAS servomotor stator, cell method assembly syst. *(Japanese)* 11081
- motor stator interturn short-cct. detect./location 10962
- motor/generator stator winding maint., PD testing 4893
- motor/generator stator windings, in-service PD tests 36101
- nonsalient pole DC motor, stator reconstr., elec. steel use 36183
- PD calib., transfer fn. 4898
- PD-meas. 4899
- piezoelec. motor, long. composite vibrs. 11086
- PM AC motors, rotor flux posn. indirect sens. method 4909
- PM brushless DC motors, field weakening, control 11360
- PM brushless DC motors design, mag. ccts. 36191
- PM brushless machine, induced EMF/torque waveforms 10933
- PM brushless motor drives, state-of-the-art 36677
- PM hybrid stepping motor, PWM inverter-fed 11088
- PM machine, acoustic model, modal shapes, mag. forces 19594
- PM machines, energy optimising control techs. 44000
- PM rectifier motor, EM field/torque calcs. *(Russian)* 10920
- PM rectifier-type motor, mag. field anal. 27682
- PM reluctance motor drives, axially-laminated interior rotor design 36664
- PM sync. machines, stabil., cage bar effects 36125
- PM sync. motors, digital controller, Park model 10992
- PM sync. motors, vector control, stator iron loss *(Japanese)* 27687
- PM sync. servomotor drives, optimal/VSS control 5288
- PM sync./induction mag. levitated rot. motors *(Japanese)* 44026
- PM vernier motor, optimum design *(Japanese)* 27685
- power syst. static voltage stabil. studies, generator modelling 26892
- pulsed coilguns, two-step design procedure 15303
- PWM CSI, PM sync. machine harmonic torque rejection appls. 36354
- PWM inverter drive syst. adaptive control 5254
- PWM invertor AC motor drives, chaotic current control anal. 44480
- PWM VSI, motor appls., HF leakage currents modelling *(Japanese)* 27814
- PWM VSI, tolerance band control chaotic procs. 5065
- reduction of reluctance torque in brushless PM motors 19650
- reluctance generators, sensorless DC output voltage control 4927
- reluctance machines, multiple coupled cct. modelling 10981
- reluctance motors, modelling/param. meas. methods *(Japanese)* 10973
- reluctance step motors, dissymmetrical stator theory *(French)* 36136
- ring-type piezoelec. ceramic US motor characts. *(Korean)* 27766
- rolling rotor SRM, optimal digital control design 36134
- rot. machine stator, PD pulse meas. 4896
- rotary transformers, ferrite, charact., FEA 14256
- sealed motors, sleeve losses calc. studies 10945
- self-excited brushless multifield induction generators 11049
- self-excited cycle mag. flux compressor 36286
- ship propulsion motor noise generation, computer modelling 5347
- ships, axial flux PM machines, counter-rot. rotors 11400
- single-phase doubly salient PM sync. generator 4926

stators continued
single-phase induction motors, rotor slot skew effects anal. *(Polish)* 36147
single-phase iron-core compulsator, computer modelling 36290
slip energy recovery induction motor drives, harmonic anal. 11391
small US motor, operating principles, prototype 27768
SPEAR coilgun, design, tests 15294
split phase induction motor drives, vector control 5295
squirrel cage motor, inverter driven, thermal model 5253
SRM, core losses calc., mag. flux 10983
SRM, lin. unaligned posn. scaling method 19603
SRM, ripple/torque, stator thickness/teeth shape effects 36137
SRM, speed control, magnetoresistive angle sens. 44030
SRM drives, vibr./acoustic noise anal./control 20083
stator winding insulation, on-line monitoring 36110
steam turbines, generators, on-line monitoring 36005
stepping surface motor, approx. 3D anal. *(Japanese)* 27762
supercond. commutatorless motors, fund. design, elec. characts. 36686
switched reluctance motor, torque ripple neural control 44011
sync. generator asphalt-mica stator insulation, service life tests 11003
sync. generator voltage stabil., voltage depend. reactive power limits 36114
sync. impact generators, stator EM field calcs. *(Russian)* 27699
sync. machine, reduced models, charact. params. 10980
sync. machine stator cct., transient effects on power syst. stabil. 4922
sync. machine stator fault anal., transform. method *(Chinese)* 10971
sync. motor drives, self-controlled, computer modelling 11337
sync. motors, cycloconverter-fed, computer simul. 10999
sync. PM motor vector control, stator iron loss considerations *(Japanese)* 10968
sync. salient pole/wound rotor motors, control studies 4919
sync. turbogenerator, salient-pole, saturated rotor, toothless stator 36111
tandem induction motor, series-delta connected, equiv. cct. model 36179
three-phase induction machines, dynamic starting perform. models 19626
three-phase induction motors, math. modelling eqns. *(Polish)* 27703
three-phase sync. generators, brushless excitation method 4928
three-phase two-stator brushless sync. induction motor *(Japanese)* 19606
turboalternator third-order SSR stabil. models 44018
turboalternator winding eccentricity monitoring studies *(German)* 36126
turbogenerator FEM/state-space modelling, short cct./load case 43984
turbogenerator insulation design, mech. stress considerations 44003
turbogenerator stator dissipation factor testing 44008
turbogenerator stator end core zone, EM procs. anal. *(Russian)* 36107
turbogenerators, stator bar water cooling, fault diagnosis, model-based 27671
turbogenerators, stator insulation, PD monitoring sens. 4888
two-speed elevator async. motor, 3-phase stator 36708
US acoustic diagnostic tech., elec. machine insulation, comment with reply 14004
variable reluctance machine magnetisation characts. modelling 19604
variable speed sync. motor drives, stator flux-oriented control 36667
wind induction generators, harmonics prediction/ident. 43960
wind turbine, self-excited induction generator 10911
Fe-cored compulsator modelling, num. anal. techs. 19784
Si rect. plate, quasi-TW, US motors, single phase drive 19674
SiC dispersion varnish VLF capacitive props. *(French)* 10935

STD bus *see system buses*

steady-state theory *see cosmology*

steam boilers *see boilers*

steam generators *see boilers*

steam plants
see also boilers; condensers (steam plant)
boiler, steam temp. MRAC for power generation *(Japanese)* 43905
NPP, steam turbine plant cycle arrangement model 35739
power plant piping networks, press. and flow transient response prediction 4844

steam power stations
30 MW Lieksa CFBC cogen. project, Finland 19513
47.7 MW waste-to-energy power plant project, Germany 19516
160 MWe Shawnee AFBC Unit, petroleum coke cofiring 27563
200-660 MW steam power plant FGD scrubbers design 27545
317 MW Milliken steam power plant clean coal project, USA 35995
443 MW steam power plant scrubber renewal project, USA 27544
500 MW Boxberg brown-coal power station rehabilitation *(German)* 4842
600 MW Muskingham power plant low NO_x burner retrofit, USA 43903
680 MW Hemweg Unit no. 8 thermal power plant project, Netherlands 19509
732 MW supercritical steam power plant project, Germany 27551
800 MW steam power plant boiler gas temp. meas., acoustic pyrometry-based 27556
927 MW CHP plant AFBC boiler retrofit, Czech Republic 19515
biomass-fired steam CHP plants, theoretical study 27542
biomass/coal co-firing power plant technol. demons., USA 43904
boiler furnace designs NO_x form. prediction 19521
boiler life, thermal transients effects 19519
boiler online water chem. monitoring 4843
boiler refractories, condition assess. technols. 19520
boiler steam-water syst. diagnosis/monitoring, ES 19511
CHP double reheat steam power plant projects, Denmark 43900
CHP plant daily operation scheduling, num. model *(English)* 27548
CO_2 emissions control, chem. solvents appl. 27543
coal fired power plants, high temp. technol. concept 10857
coal-fired power plant FGD scrubber designs 27546
coal-fired power plant reverse air fabric filter designs 43902
coal-fired power plant simul., genetic algm.-based 36004
coal-fired power plants, radiological impact, dose assess. 4345
Comanche Peak station, 50% load rejection transient, plant data comparis. 4797
component ageing, replacement optimisation, inspection decisions 19517
cylindrical small steam generators, power generation appls., Russia 27554
destructive distillation waste-to-energy power plant technol. 27564
distributed control, commissioning perform. audit, USA 27561
district heating syst. operational optim. simul., PC-based 43906
elec. generation, real cost eval. method 35558
emissions control, pulsed corona discharge modulators 35998
equipt. repowering study project, Romania 27541
flue gas cleaning syst. corros. protection *(German)* 43912
flue gas scrubbing, pulsed corona/electron beam technols. 35997
fluidized bed utility boiler, computerised control 10856
forestry waste biomass-based energy prod. possibilities 27555
fossil plant operation improvement, compact simulator 43908

steam power stations continued
fossil power plant, drum-type boiler syst., fuzzy ES for fault diagnosis *(Korean)* 43907
fossil power plant cycling operation, steam bypass systs. 27550
gas-fired CHP plants, fuel compression study 35994
GE SPEEDTRONIC Mark V turbine control syst. 43923
imported coal combustion, Germany *(German)* 43914
indust. cogen. plants, NO_x emissions control 27560
islands of automation integrat., distrib. control 10853
life mgt., EDF approach 19510
lignite fired circulating fluidised bed steam generators, operation *(German)* 43913
lignite fired power station technol. develop. *(German)* 43911
Lippendorf lignite fired power station develop. *(German)* 43910
NO_x control, staged solid-fuel combustion 27558
Orimulsion fired power station, NO_x emissions control 10852
Paiton coal-fired power station, Indonesia 27553
pressurized CFBC gasification reactor expts. 27565
refuse-fired power generation prospects, UK 43915
repowering, CCGT plants 43935
repowering projects design, Italy 10870
self-tuning cascade temp. control 27549
Shajiao C coal fired plant, constr., project mgt. 10858
superheated steam temp. self-tuning fuzzy control 10855
technol. improvements *(German)* 4824
turbine power plants, steam param. improvements 27557
turbine rotor-bore inspection techs. 27562
VESTA std. CFBC steam power plant turnkey projects 19514
waste wood-fired power plants projects, USA 35996
water treatment optim., economic benefits 43901
zebra mussels control project, USA 27547
NO_x emissions reduction, supercritical steam generators 27552
NO_x/SO_2 emissions reduction, thermal plant, Kansk-Achinsk coal 36003
SO_2 emission compliance, optimal planning 4846

steam turbine-gas turbine power stations *see combined cycle power stations*

steam turbines
see also turbogenerators
42.5 MW paper mill combined cycle CHP project, UK 4852
360 MW Karita PFBC combined cycle power project, Japan 36026
680 MW Hemweg Unit no. 8 thermal power plant project, Netherlands 19509
732 MW supercritical steam power plant project, Germany 27551
750 MW Franken II combined cycle power plant project, Germany *(German)* 43934
1320 MW NPP auxiliary power syst. hist., UK 19415
1800 MWe combined cycle CHP district heating project, Russia 27593
2500 MW Black Point power plant distributed control project 19528
air-blown fluidized bed GCC 10866
ASPEN PLUS shell, combined cycle power plant simul. package 27582
biomass-fired steam CHP plants, theoretical study 27542
blade design, detailed, KBS 19512
blade vibr. meas. experiences, Switzerland 10929
CHP double reheat steam power plant projects, Denmark 43900
CHP steam turbines, efficiency, steam flow rates 36002
coal fired power plants, high temp. technol. concept 10857
coal-fired 27583
cogen. desalination plant, desalter, fuel cost 35984
cogen. practice, options and design stds. *(Italian)* 19504
combined cycle bottoming cycles, Kalina/steam cycle comparison 36022
combined cycle gas turbine systs., math. modelling studies 36023
combined cycle power plant CO_2 flue gas clean-up projects, Russia 27592
combined cycle power plants, freq. regulating duty dyn. response characts. 43932
combined cycle power plants, standardised modular power equipt. 36030
combined cycle power plants, steam cycle develop. prospects overview 10869
combined cycle power turbines, clean combustion technol. review 43930
combined cycle three-press. steam turbine installations 36027
condition monitoring, IEE Colloquium, London, UK (1995) 11599
design, combined cycle recovery units 35999
Ferndale 245 MW combined cycle plant, location, environ. aspects 10867
GE SPEEDTRONIC Mark V turbine control syst. 43923
geothermal power plant noncondensible gas removal, turbine-driven compressor 27609
Mitte district heating power plant, Berlin 27597
moving blades, laser clad *(Chinese)* 2155
natural gas fired combined cycle, perform. anal. 27599
natural gas fired combined cycle plant, efficiency improvement 10871
natural-gas-fired combined cycle CHP plant, NO_x emissions control 10868
NPP, steam turbine plant cycle arrangement model 35739
NPP steam turbine low-press. cylinder hood designs 35740
OC-OTEC syst., sea water temp./press. effects anal. *(Japanese)* 10893
on-line monitoring 36005
optimal load cycling 4845
power apparatus heat shielding improvement efforts *(Russian)* 4880
power plant equipt. repowering study project, Romania 27541
power plant turbine rotor-bore inspection techs. 27562
power plants, steam param. improvements 27557
pressurised CFBC combined cycle power plant simul. 27587
prewarming automation, fuzzy control 10854
robust controller, lin. feedback 35968
rotor shaft stabil. testing 27559
Rye House combined cycle gas turbine power plant 36024
Schwabisch Hall (Germany) combined cycle power station and network control technol. *(German)* 19527
SOFC/combined cycle power generation proc. studies 27653
specs., improvement 36001
Suomenoja combined cycle CHP plant control upgrade, Finland 43936
T-150-7.6 steam turbine plants, low pot. sect. 36000
turboalternator freq. control governor design 43909
turboalternator set, rotor syst., bearing installation posn. optim. *(Chinese)* 36141
turbogenerator exciter shaft torsional vibrs. anal. 43738
turbogenerator rotor shorted turns, online monitoring 19598
VESTA std. CFBC steam power plant turnkey projects 19514

STEbus *see system buses*

steel industry
AC steel melting arc furnace, elec. characts. modelling *(Russian)* 11498
AC tube mill, drive control syst. 20162
arc furnaces, elec. characts. calcs. *(Russian)* 36798

steel industry continued
- beam mill monitoring syst., PC-based 42949
- CCD near — IR temp imaging in steel industry 25879
- hot strip mills, real time flatness sens. 42934
- induction motor drives, VSI-IGBT, vector control 36805
- integrated prod. IS, Japan *(Japanese)* 3212
- molten metal flow control by LIM 20161
- noncontact rail dimens. meas., machine vision-based 42931
- plant availability anal. 20165
- power syst., harmonic meas./anal., PF correction 11502
- rolling mill two-inertia syst. control *(Japanese)* 11501
- stainless steel rolling strip flatness meas./control syst. 10015
- Ward-Leonard drive, digital control, roughing mill appl. 44624
- wireless coke oven SCADA syst. 9824

steel manufacture
- DynEAF dyn. modeling tool, integrated elec. steelmaking 44629
- sintering cake magnetic suspen., electromagnets *(Japanese)* 44626

stellar binaries *see binary stars*

stellarators
- mismatches, emittance growth control, stellarator transport 26041
- Wendelstein 7-X, advanced modular stellarator, supercond. coil syst. 7244

STEM *see scanning-transmission electron microscopy*

step motors *see stepping motors*

step-recovery diodes *see charge storage diodes*

step response
- *see also transient response*
- DC/AC switched-mode PWM inverter, stabil. anal. 11127
- FIR lin. phase digital filter, unit step response, design *(Polish)* 747
- III-V electronic device step response meas. on ps time scale by electro optic sampling 42963
- mag. recording channel, binary/ternary DFE 7191
- micro-moving stage positioning, accel. feedback-based *(Japanese)* 11224
- piezoelec. actuator, precise positioning, open-loop control *(Japanese)* 39072
- RC act. filter time-domain props., effect of gain bandwidth 6215
- sync. generator predictive voltage control *(Japanese)* 44010
- unequalized mag. recording channels, clock recovery 7193

Stepanov method *see crystal growth from melt*

stepped motors *see stepping motors*

stepping motors
- 2-phase stepping motor, PWM control, power FETs, multi-chip modules 27764
- 3-phase stepping motors positon control *(German)* 44089
- CAMAC controller 4998
- claw-pole type stepping motors, dyn. behaviour simul. 4997
- closed-loop fuzzy control, stepping driving systs. *(Chinese)* 11384
- closed-loop posn. feedback control 19672
- drive, real-time mech. params. estim. *(French)* 11324
- drives, PC-based control syst. 44468
- elec. vehicle drives, time-varying adaptive μP control 36739
- EM spiral lin. step motor, thrust anal. 11073
- five-phase hybrid stepping motor command seqs. *(French)* 11085
- hybrid double-sided lin. pulse motor, static thrust calc. *(Korean)* 27757
- hybrid step motor control, reconstructed mag. flux sig. 11327
- hybrid step motor control, torque ripples minimisation *(Korean)* 27761
- hybrid step motors, feedback-lin. control design *(Korean)* 27767
- hybrid step motors, posn. determ. from EMF sigs. 11095
- hybrid stepping motor, torque harmonics correction *(Japanese)* 27763
- hybrid stepping motor drives, flux linkage meas. 5318
- installation in hostile indust. environs. 36202
- intell. controller, actuator, design 19677
- intra-aortic balloon pump, lin. pulse motor-driven 10256
- lin. PM motors, design/anal. 11072
- lin. pulse motor, mag. suspen., contactless direct drive *(Japanese)* 44077
- lin. pulse motor actuators, principles and characts. 44256
- lin. pulse motor mag. reluctance distrib., structural depend. anal. *(Japanese)* 44072
- lin. pulse motors, vibr. suppression design 4996
- lin. pulse servomotor control, 2 DOF controller *(Japanese)* 44074
- lin. step motors, FEM for nonlin. mag. fields, nuc. reactor appl. 19673
- lin. step motors, static charact., control rod drives, nuc. reactors 44438
- lin. step motors nuc. reactor control rod drives, dyn. characts. 20075
- lin. tubular induction drive, DSP posn. controller 11342
- microcomputer control 27760
- microrobot PM step servomotor drive, VSS control 11354
- miniaturized e-beam writer, component testing 30186
- μP-based motorised satellite antenna 2324
- nonlin. robust control 36200
- Optra Series laser printer, brushless DC/stepper motor-based 44258
- perform. improvements, develops. 44082
- PM hybrid stepping motor, PWM inverter-fed 11088
- PM stepper motor, global exponential posn. tracking controller 36201
- PM stepping motor drives, reverse rot. studies *(Japanese)* 11394
- PM stepping motor robust tracking control 36203
- PM stepping motors, orient. pattern/magnetisation calcs. 27765
- positioning, closed loop optimal operation 11087
- reactor control rod drives, lin. step motors, CAD 10822
- rehabilitation robotic feeder design 35181
- reluctance step motors, dissymmetrical stator theory *(French)* 36136
- rotary US motor model, perform. prediction, distributed piezoceramics 36198
- sensorless rotor posn. control 11084
- servo motor drives, polyphase space-phasor theory 11346
- SmartMotor 32-bit stepping servomotor motion control syst. 5165
- spacecraft, 3-phase PM step motor simul.. 35230
- sphere joint PM stepping motor controller, robot appls. *(Chinese)* 11219
- surface motor, approx. 3D anal. *(Japanese)* 27762
- sync. reduction motor design, step/rot. regimes *(Russian)* 36118
- three-phase motor motion control, sinusoidal commutation-based 27665
- three-phase stepping motor, novel struct. *(Japanese)* 36209
- torque-speed characts., computer aided testing *(Chinese)* 44093
- two-phase disc magnet stepping motor design *(French)* 11355
- variable reluctance motors, indirect rotor posn. sens. 5302
- variable reluctance stepping motor rotor oscill. control 11376
- vehicular air conditioning, rotary stepping motor, missed step detect. *(French)* 11485

stereo amplifiers *see audio-frequency amplifiers*

stereo displays *see three-dimensional displays*

stereo equipment *see Hi-Fi equipment*

stereo image processing
- 2D phase-based ground plane obstacle detect. 8645
- 3-D obj. config. extraction 24551
- 3D archit. for high resoln. imaging 34583
- 3D attitude determ., curvature fns. 2660
- 3D computer-based imaging 16116
- 3D cueing, flight displays decluttering 35218
- 3D data extraction from SAR and opt. imaging combination 10449
- 3D digitized curves optimal length estim. 41182
- 3D dyn. stereovision, stereo/motion matching without local constraints 16330
- 3D edge location in motion based vision 32885
- 3D fully parallel thinning algm. 24377
- 3D image feature extraction, diff. geom. 2664
- 3D indust. obj. recogn., vision based profiling method 41117
- 3D laparoscopic syst., single-camera 34998
- 3D motion/struct. recursive estim. 2780
- 3D obj. recog., probabilistic techs. 32923
- 3D obj. reconstruction, vol. intersection 2778
- 3D obj. reconstruction from stereoscopic images 41268
- 3D planar quadrantal and diagonal symm. based Winograd FT algm. 33024
- 3D reconstruction, artificial points removal 41080
- 3D reconstruction of objs., large depth vars. 17929
- 3D shape determ. from perspective image view 2775
- 3D shape reconstruct. by genetic algm. *(Japanese)* 16388
- 3D shape recovery from contour 24413
- 3D shape recovery from image focus 32924
- 3D stereo depth determ. by photom. ratios 2604
- 3D stereoscopic imaging technol. 34630
- 3D surface reconstruction, polariz. state anal. 41290
- 3D surface rendering, stereo image disparity map smoothing algm. 33025
- 3D X-ray imaging techs. 34335
- act. vision, depth cues comparison 2768
- adaptive window algm. for aerial image stereo 41329
- algm. for stereo fixation, affine transfer 41147
- analog stereo retina, automobile appls. 29419
- aperture-array dyn. sens. systs., high resoln. imaging 8556
- automated stereo camera mount control tasks, parallel implement. 16348
- autostereoscopic 3D image, data compression 32814
- autostereoscopic display, high brightness/power efficiency 34621
- axial stereovision, 3-D reconstruction of natural objs. *(French)* 41350
- binocular imaging geom. 32809
- binocular motion stereo, MAP estim. 2784
- binocular stereo vision, cellular neural net state eqns. 32956
- camera arrangement, stereoscopic picture effect *(Japanese)* 16154
- camera/obj. translation estim., camera rot. 32935
- cockpit situation awareness autostereoscopic avionics display 10352
- compression factors, WorldLine correl. 32816
- computer vision, conf., Stockholm, May 1994 11549
- computer vision, correspondence problem, Hopfield net approach 33062
- computer vision, optimisation approaches, CSP 41217
- computer vision, pixel labeling, neural approach 33061
- computer vision conf., Berlin, Germany, 1993 20268
- correl. chip for stereo vision 41224
- corrugated refr. interface, obj. localization 24513
- crosstalk reduction, stereoscopic views 32812
- cut-plane procedure, depth planes elimination 32810
- depth painting, images interactive transform., stereoscopic 3D 32811
- digital photogrammetric assembly point determ. 41272
- digital stereo image matching, wavelet transform appl. 8674
- disease focus posn. determ. in gamma knife operation, 3-D image reconstruction 26273
- disparity anal., wavelet transform approach 26701
- disparity detect. in stereo vision syst., cepstrum tech. 2853
- disparity-space images and large occlusion stereo 24618
- effectiveness testing, comparison, mono images 34632
- elec. fuses; inspection, fast, using computer vision 21617
- elevation map recovering, aerial image seq., stereo modeling 10341
- endoscopy, telepresence syst. 4291
- epipolar geom., robust recovery for uncalibrated stereo rig 24479
- feature correspondence, bipartite matching 24372
- feature-based approach, 3D obj. reconstruction 41262
- feature-based stereo matching algm. 16338
- fixating binocular vision syst., local surface shape estim. 24469
- floor anoms. detect. for robot motion 41145
- gradient/curvature, photom.-stereo method, local confidence estim. 2603
- ground vehicle vision, ladar, obstacle detectability 7878
- HDTV single camera 3D syst., microsurgery appl. 34996
- head tracking autostereoscopic display, syst. perform. requirements 34622
- head-mounted displays, interactive stereoscopy optim. 34633
- hierarchical stereo matching algm., wavelet representation *(Korean)* 24688
- high-resoln. immersion viewer 34626
- holographic stereogram, distortion compensation method 31677
- human factor requirements, stereoscopic TV service 34231
- ICVision, VLSI-based diffractive display, holographic stereograms 9987
- IIMS, integrated imagery mgt. syst., struct. quality assess., photogrammetry 24482
- image reconstr. from photom. stereo/silhouette 41213
- implement. on computer monitor 34624
- interactive stereoscopic image display syst. for PC 34623
- keystoning digital correction, caused by image translation 32813
- knowledge-based image understanding 2785
- Lambertian model generalization and implications for machine vision 41292
- lateral-stereo camera model for machine vision 16233
- line segment based axial motion stereo 41189
- machine vision camera calib., genetic algm. 2803
- matching point detect., optim. *(Japanese)* 16128
- med. diagnosis via visualization techs. in facial surgery 41246
- MOMS-02 sens., combined stereoscopic along-track and multispectral data 41270
- motion anal., unified for stereo image seq. 16145
- mountainous terrain mapping by radar, SAR stereo restitution 43475
- multi-view 3-D image, interpolation/data compression *(Japanese)* 16127
- multi-viewpoint stereo meas., init. value search method, genetic algms. *(Japanese)* 2627
- multicolour surface shape determ., photom. 16180

- **stereo image processing** continued
  - multilevel stereo local/global matching 2777
  - multimedia image commun. systs. *(Japanese)* 33647
  - multiocular image seqs. for 3D TV, motion/depth estim. 32808
  - multiplane stereotelevision 2832
  - neurosurgery, on-line stereoscopic image-guidance 43322
  - NMR image obj. recog., genetic algm. 2800
  - noisy images, point reconstruction 32937
  - nonlin. diffusion; discontinuous disparity/half-occlusions 2749
  - nonrigid motion recovery from stereo images 16176
  - obj. space based surface reconstruction, discontinuities 41273
  - occlusions and binocular stereo 41291
  - opt. flow and discontinuities, determ., nonlin. diffusion 24625
  - optimum estim. and compensation *(Japanese)* 16370
  - orient. cues derived from stereo images 24470
  - parallax field, intens.-based estim., smoothness constraint 33124
  - parallel stereo matching 8624
  - parameterized Gaussian-like filters, synthesis by approx. 32646
  - partial pixel diffractive display archit. 25917
  - particle trajectories meas., underwater model 34732
  - pass. depth acquisition for 3D image displays 2644
  - patch matching in stereo images 41326
  - photogrammetric tech. integrat., conf., Orlando (1993) 36888
  - photogrammetry, Digital Video Plotter, new features 42870
  - photogrammetry, facets stereo vision method for terrain 41341
  - photogrammetry, stereo image matching by wavelet decomp. 41344
  - photogrammetry, stereo image proc., FAST Vision 41340
  - photogrammetry inverse problem, soln. 41279
  - photom. ratios for 3D stereo 24623
  - photom. stereo vision, arbitrary motion light source 2605
  - point 3D posn. measuring syst. for detecting fixation point on screen *(Japanese)* 3930
  - point correspondences matching, simulated annealing 24600
  - polyhedron shape and reflectance from inter-refls. by 2-image photom. stereo 2649
  - polyhedron shape recovery and reflectance estim. *(Japanese)* 32866
  - PRISM-3 real time image matching syst. 8549
  - psychedelic autostereogram prod. and appl. *(German)* 24667
  - quadric surface reconstruction from disparity meas. 24547
  - range recovery, virtual multicamera stereo 32912
  - real-time motion stereo 2761
  - real-time stereo and motion integrat. for autonomous vehicle navig. 41241
  - reconstruction tasks, increasing precision and reducing computational complexity 2691
  - refl. holographic screen, stereographic displays 31676
  - robust segment grouping-and-matching algm. 2636
  - robust stereo ranging syst. 3889
  - scanning electron microscope images, automated interp. 5686
  - scene interp., multiple visual sens. inform. proc. fusion 41113
  - scene reconstruct. multiple viewed scatt. data 2779
  - self calib. of stereo head on robot arm 24474
  - self tracking of human motion, virtual reality systs. 34685
  - shape anal., integrat. of stereo, shading, algms. 2679
  - shape reconstruction by combining stereo and photom. ratio 24510
  - shape-from-texture, diff. method 2776
  - single-camera computational stereo, rot. mirror 41148
  - size distortion/pick-up conditions *(Japanese)* 16131
  - SPOT stereopairs, orbit attitude params. 10450
  - stereopsis for verging systs. 2752
  - stereoscopic display, eye-posn. tracking for multi-viewers 34627
  - stereoscopic displays and virtual reality, conf., San Jose (1994) 20239
  - stereoscopic LCD, time-parallel 34628
  - stereoscopic radiation image perception upon coloring 21003
  - STM, stereoscopic viewing of at. struct. 34336
  - stochastic geometry, conf., Valencia, Spain (1993) 28241
  - struct. recovery and motion estim. from stereo motion 16329
  - subthreshold analog, matching ccts., large output voltages 8626
  - surfaces digital models, opt. images 2823
  - symbolic representation for 3D obj. modeling 32928
  - synthetic display, stereoscopic fusion charact. *(Japanese)* 16804
  - time-parallel stereoscopic syst. for endoscope 34997
  - time-seq. range thermal images 16165
  - TV prod. technols. *(Japanese)* 34242
  - TV watching/listening studies *(Japanese)* 34251
  - TV-Trackmeter, underwater stereoscopy, hostile environ. appls. 24483
  - underwater rem. operated vehicle, field trials 32815
  - video coding for virtual reality appls. 8687
  - virtual endoscope 34565
  - virtual/real environments, video see-through design 17591
  - visual data exploration conf., San Jose, USA (1994) 23
  - wide-screen autostereoscopic display syst., head-posn. tracking 9985
- **stereo vision** *see stereo image processing; visual perception*
- **stereopsis** *see visual perception*
- **stereoscopy** *see stereo image processing; visual perception*
- **stiffness constants** *see elastic constants*
- **stimulated Brillouin scattering**
  - act. SBS fibre amp./filter opt. clock recovery 39363
  - AM-SCM lightwave syst., simultaneous scatt./interf. suppression 17175
  - book, semiconductor Raman lasers 57
  - Brillouin amp. response, spectrally broadened sig. beam 40088
  - Brillouin fiber laser with ring resonator, two-freq. output 31231
  - Brillouin-enhanced four-wave-mixing phase conjugator, FOV optim. 15050
  - broadband pumped opt. fiber link, SBS suppression 9475
  - depolarized source, rem. waveguide modulator high-power operation 14512
  - diffusion-driven semiconds., SBS gain profile 2059
  - distributed fibre sens. 17901
  - distributed strain/temp. meas. in branched opt. fiber network 14372
  - distributed temp. sens., Brillouin gain spectrum anal. based 17836
  - fiber amp., spectral gain hole burning, modulation instabil. 23122
  - fiber Brillouin ring laser gyro 17830
  - fiber cabling, SBS suppression *(Japanese)* 22801
  - fiber four-wave mixing opt. wavelength conversion, SBS effects 30847
  - fiber lightwave syst. nonlin. optics 34059
  - fibre SBS suppression by mid span spectral inversion 34085
  - fibres with feedback, dyn. SBS 14406
  - Gaussian beam SBS phase conjug., transverse charact. of reflectivity profile 23450
- **stimulated Brillouin scattering** continued
  - interferometric fiber optic gyros and appls. *(Japanese)* 3858
  - laser external SBS mirror, mode size increase 39997
  - liq. cryst. cored fibres, nonlin. propag., opt. limiting, stimulated scatt. 30887
  - long-span 2.5-Gbit/s CPFSK coherent opt. transm., power EDFA boosters 34000
  - microdroplets, SBS/SRS, phonon/photon-retention effects 31508
  - microwave modulated fibre-optic link efficiency improvement by SBS 3560
  - mid-IR fiber ring SBS devices and appls. 30894
  - nonlin. distortion of SCM systs., SBS caused 17172
  - opt. fiber guided acoustic-wave Brillouin scatt., LF line shapes 1684
  - opt. fiber ring-resonator, Brillouin fiber-optic gyro 42822
  - opt. phase conjug., sig. wave reflectivity 31517
  - real-time atmos. compensation, SBS phase conjug. 31576
  - repeaterless transm., 622-Mbit/s and 2.5-Gbit/s, self PM 15051
  - single-mode fiber, opt. phase-conjug. waves and compensation for pulse shape distortion 17259
  - single-mode fibre, opt. phase conjug., chromatic dispersion, self-PM 30856
  - single-mode opt. fibers with Brillouin freq. shift, SBS threshold power 7316
  - solid-state single-mode laser, loop SBS mirror 31290
  - stationary SBS fiber amps., coherent approach 14733
  - Stockholm 10 Gb/s opt. fiber network 25517
  - suppression of SBS in fibre by changing core rad. 39371
  - Cu vapour lasers, beam quality improvement, SBS phase conjug. 31185
  - Er,Yb-doped fiber amp. source of multigigahertz soliton pulse train 7566
  - Er-doped glass laser, pass. Q switching of cavity, SBS mirror 7595
  - I_2 high-power photodissociation laser, high-quality phase conjug. 7521
  - Nd,Ce:YAG laser resonator, SBS methane gas phase conjugating mirror *(Chinese)* 14993
  - Nd:YAG Q-switched laser Raman conversion, backward SBS 23174
  - Nd:YAG laser beam control, Brillouin and photorefr. nonlin. 31478
  - Nd:$YAlO_3$ 125 W laser, SBS phase conjugation 31266
  - Nd:glass diffr.-limited laser amp., SBS wavefront correction 23144
  - SiO2, multimode fibre, SBS phase conjug., distortions compensation 1671
  - XeCl laser amplifier, SBS phase-conjug. cavity 1853
- **stimulated combination scattering** *see stimulated Raman scattering*
- **stimulated dielectric relaxation currents** *see thermally stimulated currents*
- **stimulated emission**
  - *see also laser theory; lasers; population inversion*
  - 10-Gbit/s sig. transm. following wavelength conversion, semicond. opt. amps. 9489
  - crossed-field devices, small signal gain 6509
  - DFB lasers, long. spatial hole burning complete elimination 7679
  - dye lasers, threshold long. pump power, spontaneous emission influence 14728
  - electron beam crossing inhomog. EM wave, stimulated radiation emission 40267
  - electron beam in inhomog. EM wave, stimulated radiation 40268
  - FIR tunable lasers/detectors 14893
  - ii-vi wide-gap semiconds., MOVPE, optoelectronic appls., review 20887
  - microcavity semicond. lasers, nonequilibrium many-body theory and mode confine. effects 23205
  - phonon-difference FIR lasers, neg.-effective-mass generators 14890
  - QW lasers/opt. amps., ultrafast gain dyn. 31339
  - Rhodamine 640 dye in strongly scatt. media, spectral/temporal meas. of laser action 14725
  - short-cavity semicond. laser, opt. pumped, transient response 39835
  - AlGaAs/GaAs intracavity laser coupled VCSEL syst., opt. gain control 39774
  - AlGaAs-AlAs DBR QW microcavity, fast coherent emission 31376
  - AlGaInP-GaInP yellow emitting semicond. lasers, MBE grown 1991
  - AlGaN/GaN doubleheterojunction, UV/blue LEDs 7476
  - AlGaN/GaN/GaInN, stacked heterostruct. LED, MOVPE 23049
  - CO_2 lasers, phys. and spectrosc. appls. 14691
  - CdSe quantum wells, single-shot lasing, microscopic studies 23299
  - CdSe-ZnSe quantum well lasers, photopumping, spectral/spatial resoln. 39753
  - Cr^{3+}:Al_2O_3 laser, low dose electron and gamma-ray irrad. effects 23159
  - Cu^+:CaO-P_2O_5 glasses for lasers 5910
  - GaAs low-dimens. struct., cleaved edge overgrowth, lasing props. 1925
  - GaInP/AlGaInP DH laser, 570-590 nm 200K operation 31341
  - GaN p-n homojunction, UV/blue LEDs 7476
  - Ge p-type cyclotron reson. laser emission lines 14955
  - Ge-Ga-S:Pr^{3+}, radiative props., opt. fiber amps. 31240
  - InAs/$InAs_xSb_{1-x}$ midinfrared lasers, CW operation 23202
  - InGaAs GRINSCH QW laser, gain compression, Monte Carlo simul. 1992
  - $In_{0.2}Ga_{0.8}As$/GaAs microcavity lasers, transient pulse response 39756
  - InGaAs-InAlAs quantum-well lasers, TE-TM mode switching *(Japanese)* 31329
  - InGaAs-InGaAsP-InP 1.95-μm strained DFB SQW lasers 14855
  - N_2 TE UV lasers, additives, ionizing elements 7507
  - Nd^{3+} doped fluoride glass, spectrosc. and laser props. 14809
  - Nd^{3+} ion doped insulating crysts., laser appls. 23175
  - Nd:$LaMgAl_{11}O_{19}$, excited-state-absorpt./upconversion 23154
  - Nd:$Y_3Al_5O_{12}$, excited-state-absorpt./upconversion 23154
  - Nd:YAG Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
  - Nd:$YLiF_4$, excited-state-absorpt./upconversion 23154
  - Nd:phosphate glass laser, thermal effects on lasing charact. *(Korean)* 14777
  - Nd^{3+}:YAG laser, low dose electron and gamma-ray irrad. effects 23159
  - Pr^{3+}-doped fiber amps., temp. effects on amplif. charact. 31221
  - Pr(3+):ZBLAN fiber amplifer, emission cross-sect. spectrum of pump transit. 14772
  - $Sr_5(VO_4)_3F$:Mn^{5+}, spectrosc. and laser props. 14836
  - Ti:sapphire Q-switched/cavity-dumped lasers, diode-pumped, interactive num. model 39719
  - Ti:sapphire chirped pulse amplif. beyond 1 μm 31258
  - Ti:sapphire chirped-pulse amplif. beyond 1 μm 23178
  - Tm:$YAlO_3$ 1.94-μm laser, biomedical appls. 39731
  - Yb:$Sr_5(PO_4)_3F$ 1.047-μm energy storage opt. amp. 39730
  - $Zn_{1-x}Cd_xSe$/ZnSe quantum wells, excitons, picosecond dyn. and stimulated emission 13182
  - ZnCdSe-ZnSe superlattices, stimulated blue light emission mechanisms *(Japanese)* 38340
  - ZnSSe/ZnSe superlattices, excitonic procs. and lasing 29912
  - ZnSe/ZnMgSSe DH blue LD, operation and dyn., room temp. 31378

stimulated Mandelstam-Brillouin scattering *see stimulated Brillouin scattering*
stimulated Raman scattering
see also coherent antiStokes Raman scattering
1550 nm high-energy fiber SRS pulse transm. 25525
distributed fiber-optic temp. sens. *(Japanese)* 1681
distributed fibre optic temp. sens. in Raman OTDR 42821
eyesafe IR aerosol lidar, stimulated Raman backscatt. appl. 9651
fiber lightwave syst. nonlin. optics 34059
fiber ring Raman laser, lasing threshold near group vel. zero dispersion region 7560
fibre soliton self-freq. shift, mol. oscill. period 23356
inhomog. broadened media, SRS, soliton propag. 40075
liq. droplet microcavities, CW nonlin. optics 31507
microdroplets, SBS/SRS, phonon/photon-retention effects 31508
opt. fiber stimulated Raman gain spectrum meas. by short pulses 22821
opt. fibres, SRS, threshold growth rate 14371
parametric oscillators, Raman scatt., squeezing props. 15119
Raman fiber amp. cross talk bandwidth 14752
Raman-act. medium, femtosecond pulse propag., higher harmonics generation 40025
single-mode silica fibers, Raman amplif. of coherent Stokes wave on biharmonic laser pumping 15084
SiO$_2$ fused fibre, pulsed UV laser radiation, photodegradation and nonlin. effects 39362
slowly decreasing dispersion opt. fibers, soliton-effect generation of Raman pulses *(Chinese)* 1667
transient rot. SRS, gain reduction meas. 23413
variable wavelength OTDR characts. and meas. 3542
WDM systs., modulation stats. effects on Raman crosstalk 17348
D$_2$, SRS of KrF laser radiation 31550
Er-doped fibre amp., rem. all-opt. nanosecond gain switching 39695
H Raman act. media Stokes pulse duration control in SRS 31560
H two-stage Raman conversion tunable laser *(Japanese)* 7516
KrF-laser-based O$_3$ lidar syst. for tropos meas. 4394
SiO$_2$ opt. fibres, multiwavelength SRS, picosecond pulses 7301
XeCl tunable laser syst., Pb vap. SRS cell 14721
stimulated Rayleigh scattering *see Rayleigh scattering; stimulated scattering*
stimulated scattering
see also stimulated Brillouin scattering; stimulated Raman scattering
liq. cryst. cored fibres, nonlin. propag., opt. limiting, stimulated scatt. 30887
NLC, self-starting phase conjug. 40053
NLC film, polariz. switching by stimulated orient. scatt. 40036
Raman-act. medium, femtosecond pulse propag., higher harmonics generation 40025
spatially nonuniform opt. beams, nonlin. nonparametric interacts. 40040
thieno[3,2-b]thiophenes, donor-acceptor substituted, SHG 40093
KTa$_{1-x}$Nb$_x$O$_3$:Fe cryst. self-pumped phase conjug. 7732
Nd:YAG four-pass laser amp., phase conjug. NLC mirror 23160
Nd:YAG laser beam, self-pumped phase conjug. in NLC, feedback 31548
SiO$_2$-based single-mode fibre, pumped, stimulated four-photon mixing 39347
Stirling engines
0.5 kW domestic CHP Stirling engine, thermodyn./detail design 27531
2-stage Stirling cycle cryogenic cooler, IR detector cooling 28037
7.5 kW solar dish/gas-fired heat pipe receiver Stirling engine syst. 28045
9 kW$_e$ solar dish/Stirling syst., perform. anal. 27641
10 kW hermetic Stirling engine CHP alternator, operating experiences 27539
10 W second generation Stirling engine generator set perform. 28043
alternator operating experiences, USA 28044
closed piston-cylinder Stirling engine, heat transfer meas. 28042
diaphragm defined Stirling refrigerator 28021
DOE solar thermal elec. program 27643
dual-piston Stirling cryocoolers for IR imaging systs. 34577
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
free piston Stirling engine/alternator syst., nonlin. anal. 28038
free-piston Stirling engine/lin. alternator, electrodyn. anal. 28039
Harwell thermomech. generator, electrodyn. anal. 28040
hermetically sealed Stirling engine batt. charger 27973
line focus solar Stirling power generation syst. 27625
lunar remote/mobile free piston Stirling engine power syst. 26518
MAC-02 Stirling engine, indicated power, heat input trade-off 28041
miniature split-Stirling cryocooler, noncontact displacer motion meas. 42923
solar power plant free-piston Stirling engine design calcs. 19548
solar Stirling engine, operation control 44427
space dynamic radioisotope power systs. 26653
Space Shuttle expts., Stirling refrigerator 26521
village power supply, coal-fired Stirling engine-based 27540
Zn/Br secondary batts., solar Stirling power generation appls. 36055
stochastic automata
learning automata in inform. flow control *(Croatian)* 3267
stochastic processes
see also autoregressive processes; Gaussian processes; Markov processes; moving average processes; random processes
2-area power syst. prod. cost, cumulant method *(Chinese)* 27034
2D adaptive filter, Laguerre fn. 32759
2D block adaptive FIR filtering algm. 33152
3-D light microscopy, simultaneous image and point spread fn. reconstruction 16219
adaptive algms. for speech sig. proc., comparative study 2430
adaptive detect. of subpixel targets, unknown spectral charact. 16103
adaptive modular Laguerre nonlin. model 21427
adaptive multiresolution struct. for parallel image proc. 8514
adaptive rate control for delayed feedback sources 24745
ageing component optimum revision interval determ. 11878
alg. independence, stochastic independence and abstr. connectedness 261
antenna syst. for multiple suppression 31992
approx. algm., normalized, time-shift param. *(Japanese)* 11960
AR(1)+IPP model for video cell traffic approx. *(Japanese)* 24747
array sig. proc. algos., nonasymptotic perform. anals. 2550
ATM multiplexer, correl. real-time and independent non-real-time traffic 24752
ATM multiplexer traffic model for correl. periodic real-time and independ. batch Poisson traffic 41429
ATM networks, cell loss probab., state-space reduction method 16437
ATM networks, end-to-end queueing delay 33216
ATM networks, indiv. VC shaping 33235
ATM prioritized networks, congestion control schemes 8743
auditorium, colouration in assisted reverberation systs. 32605

stochastic processes continued
axisymmetric pot. problems, floating random walk method 20531
Bayesian belief networks stochastic parsing 24131
bidirectional estim. and confidence regions for TES procs. 20528
bilinear filtering, adaptive algms. 32469
cardiac rhythm, testing for chaoticity 26412
CDMA cellular mobile networks, analytic traffic models 33931
cellular handover proc. model, limited queuing time 42208
cellular radio handoff algm. level crossing anal. 42226
CFG, sentence recogn. 32367
CFG rules from example text 32293
channel equalization with perceptrons, inform.-theoretic approach 32027
CHP plant, stochastic heat storage, progressive hedging algm. 19499
codes, stochastic complexity and universal modeling 32120
coherent-OTDR, reduction of stochastic amplit. fluct. 18121
complex structural el. fatigue lifetime eval. 11868
consecutive-k-out-of-n:F systs., reliab. calc. 28538
correl. control in parallel Monte Carlo 20526
coupled sustained oscillators each with own time const., order-chaos transit. 21141
cycloconverter EMC problems, stochastic anal. appls. 5076
cyclotron maser, bifurcations leading, stochasticity 7501
data transm. SVD-based fractionally=spaced equaliser perform. 42043
database query generation from spoken sentences 2452
delta-sigma modulators with zero mean stochastic inputs, anal. 37819
dielec., discharges, tree-shaped breakdown struct. 1529
digital PM, carrier tracking and sym. detect., nonlin. filtering 8107
discrète Wiener model, nonGaussian stochastic procs. representation 5743
distributed telecomms. systs., sojourn time distrib. modeling 33237
Doppler radar IF spectrum, range correl. and LO phase noise effects 34140
EEG/MEG dipole localization bounds for head models 43312
elec. generator maint. scheduling, simulated evol.-based 19602
electrohydraulic testing units for vibr. expts. on instrums. 118
electrons, opt.. stochastic cooling, transit-time method 4047
element quality anal., accuracy of ephemeris prediction from satellite orb. elements 18985
EM scatt. by vegetation, wave approach and stochastic Lindenmayer syst. 40284
eqn.-error adaptive IIR filters, bias removal 24201
Erlang capacity of shared resource 40540
ESR storage ring, GSI, fragment beam stochastic precooling 34779
exponentially weighted LS ident. of time-varying systs. 2463
fault-tolerant adaptive FIR filters, variable detect. threshold 29364
Fermilab Tevatron collider, bunched beam stochastic cooling 34777
fig. segreg. model, stochastic relax. method 33099
fitting the exogenous model to measured data 25762
fractal renewal procs., multiscale synthesis/anal. 20527
frame-to-frame image motion estim., image 2852
FS1016 CELP coder, stochastic codebook, dyn. partial search 33702
Gamma and Laguerre filters equivalence 37892
Gaussian procs., phase jitter, probab. distrib. changes 16015
generalized change detect. problem 24283
generalized proc. sharing networks, exponentially bounded burstiness arrivals 33591
generalized proc. sharing scheduling discipline, stat. anal. 2896
genetic algms. applied, Bayesian image restoration *(Japanese)* 2625
German, prosodically marked phrase boundaries, automatic class. 32400
GI/G/1 queue with Bernoulli service discipline, on-line derivative estim. 33241
gradient adaptive filters, partial updating 24267
guided wave scatt. in slightly rough boundary waveguide, stochastic functional approach 14441
HI, opt. stochastic cooling, transit-time method 4047
high-power wideband beam-plasma microwave amps./generators 974
histogram thresholding, k-means clustering 24371
HVDC transm. line, bipolar ionised field, FEM 43735
HVDC transm. line, monopolar ionized field, ion diffusion 43736
hydrothermal power syst. prod. costing, chron. operation representation 27091
hydrothermal syst. reliab. assess. 36035
image seq. compression, intraframe coding, DCT-VQ 16389
impulsive interf. mitigation, arbitrary IID state noise 8290
impulsive stochastic transients detect., background noise 32647
independent components ident., cumulants and coherences 16064
infinite SPN, matrix-geometric soln. 37265
integrated networks, single resource loss in heavy traffic 41475
intens. estim. from shot-noise data 15925
Internet, multiple service levels via precedence 33435
invariant submersion method, min. filtration problem appls. 32573
ion projection lithog., stochastic space charge effects 13465
ionos. sig., stochastic props. of phase derivative 32594
isolated/multi-area systs., spinning reserve, probab. assess. 27060
iterated random maps convergence 201
joint replacement, orthopaedic biomechanics computational problems 18618
Kerr-like ordered liq. instabilities, stochastic procs. 7727
key distrib. patterns, Minkowski planes 40693
Kullback dist. based nonlin. phase estimators 41011
LAN/B-ISDN interworking unit, congestion control, perform. eval. 25053
LD, error-rate floors in intens.-modulated lightwave systs. 14877
LF sound meas., wind noise compensation by digital filter 26018
lin. stochastic functional evol. eqns. in Hilbert spaces, estim./control duality 37305
line correspondence in aerial images, stochastic relax. 41240
LMS adaptive algms., DC offset effects, comparison 40852
LMS algm. error triangle rule/misadjustment 8321
LMS-like target tracking, robust adaptive beamforming 40958
M$^{[x]}$/M$^{[b]}$/1 queueing syst., correl. server vacations 11911
maneuvering target, tracking, jump filters 15949
Markov modulated Poisson stream loaded multiplexer loss probab. estim. 41483
microscopic Monte Carlo simul. of electronic noise in semicond. devices 1319
microwave imaging, Tikhonov regularisation param. 3967
modelling, continuing engng. education approaches 68
monocular param. estim. from intersections, planar surfaces 16117
MOSFET archit., sub 0.25 μm range, fig. of merit, anal. calcs. 1414
motion boundary detect. in image seqs. by local stochastic tests 24626
motion vector estim. in video coding, stochastic approach 8497
multi-facility blocking models, stochastic, decomp. methods for anal. 24794
multichannel space-time sig. proc. providing local interf. suppression 32572
multilevel digital sigs. estim., impulsive interf. presence 24208

stochastic processes continued
- multimedia queueing syst. with Poisson and batch Poisson packet arrivals, traffic anal. 25107
- multipath self-routing switch fabric, perform. anal. of resequencing unit 33608
- multiple-error/block LMS adaptive algms., mean-sq. anal. 32761
- multiplicative white stochastic proc., wavelet transform, stats. 32666
- multirate systs., aliasing effects and non-stationary quantization noise 32720
- multiscale stochastic models likelihood calc., appl., texture discrim. 24594
- multiserver queues, impatient customers 33244
- multistage electron-beam microwave oscillators, stochastization 993
- multistage microwave two-port networks, IMD anal. *(Korean)* 12738
- multitarget tracking, stochastic simul. Bayesian approach 42493
- muon collider, stochastic cooling 34781
- muon colliders, stochastic cooling 34780
- national broadcasting network syst., reliab. anal. 17535
- neural network convergence for sig. proc., stochastic learning 40771
- noisy fn. eval. and delta coding algm. 8493
- nonbinary irreducible polynomials 5730
- nonGaussian data, array modeling and sig. detect. 16065
- nonlin. sig. proc. and adaptive filtering, orthonormal fns. 32777
- nonlin. stochastic phenom., sig. proc. tool 8348
- nonlin. syst. ident., nonparametric deconvolution 40874
- nonlin./non-Gaussian filtering and bootstrap filter 8464
- nonstationary Erlang loss model, modified-offered-load approx. 33405
- nonzero-sum stochastic games, discounted/av. cost 11919
- obj. ident., stochastic local fractal variables *(Japanese)* 30392
- opt. commun. syst., characts. anal. 9455
- optim., identifying policies most likely, produce desirable outcome 11921
- optim. algm., gradient approxs. based on fn. meas. 11940
- oscills. of two coupled self-excited oscillators 583
- overlapping particle systs., mean shape/particle no. estim. 37237
- p-adic stationary proc., max. Ch-entropy estim./fast algm. 32768
- packet switch, quick simul. of stationary tail probabilities 41433
- packet switched networks, bursty traffic 33238
- parsing word graphs, linguistic grammar and stat. lang. model 32375
- particle beam interacts., Monte Carlo simul. 13461
- particle beams, stochastic cooling, theory, technol., and tech. 34770
- particle method for Kolmogorov eqn., rate of convergence 275
- pass. sonar optimal struct. *(Croatian)* 3631
- pass. stochastic approx. with averaging along trajectory, optimal algm. 37240
- PD, dielec. ageing 22645
- PD pulse distrib. pattern anal. 22646
- Petri nets, automated time scale decomp. and anal. 37262
- Petri nets, Markov regenerative SPN 20530
- Petri nets, stochastic; accomplishments and open problems 37263
- Petri nets, stochastic; structural perform. anal. 37264
- phonetic segmentation, parallel algm., mean field annealing 15802
- planar antenna arrays, 1-stage/2-stage optimum inform. proc. 8245
- plasma-beam oscillator, sig. stochastization mechanism 994
- power electronic converters, stochastic models 5998
- power estimation for high level synthesis 21163
- power overhead line thermal dimensioning, stochastic real-time forecasting *(German)* 10753
- power syst. dyn. stabil., fast anal., patt. recogn. appl. 10638
- power syst. expansion planning optim., CO_2 emissions constrained *(Japanese)* 43719
- power syst. expansion planning under uncertainty 27098
- power syst. modelling and control 27074
- power syst. stochastic prod. cost simul. method 27061
- power systs., indiv. efficiency control theory *(Russian)* 43635
- priority standby redundant syst., different types of repair facilities, stochastic behaviour 28531
- projection systs., stochastic interacts., anal. model 13462
- protons, opt. stochastic cooling, transit-time method 4047
- quadrature component generation anal., narrow-band oscills., delay method 40766
- quality assess. models for init. prod. proc. control 20474
- queueing syst., perturb. anal., optim. 195
- random fuzzy sets and fuzzy martingales 28614
- random wavelet transform. 32521
- rational spectral dens. matrix ident. 32635
- regularization by multiscale models 24190
- residential load aggregation, max. likelihood duty cycle forecast validation 36793
- resource mgt., stochastic techs. 20362
- RHIC, stochastic cooling, intra-beam scatt. 34778
- RLS adaptive equaliser digital commun., importance sampling 16409
- segmental phoneme recogn., piecewise lin. regression 32221
- self-similar Ethernet LAN traffic, stat. anal. and stochastic modeling 33586
- semicoercive variational inequalities, approx., error estim. 11955
- semicond. DFB laser, stochastic reson. 1952
- sens. systs. optimal operation, transputers 24317
- shell problems, ill-posedness elimination 40209
- sig. proc., evidencing chaos from dimens. 16023
- sig. proc., neural networks, convergence 24357
- sig. proc., stochastic reson., ion channel cond. 24228
- single server queueing model in alternating random environ. 28575
- single-server queueing networks optimal control 11910
- sound level meter stochastic response anal., road traffic appl. 10074
- space-periodic phase screens, ray propag. dyn. 15419
- SPC systs. with high peak traffic, call-proc. and overload control 33604
- speech, spectral, extraction, Poisson moments 8234
- speech recogn., local/global constraints, stochastic lang. model 32366
- Sphinx-II recogn. search, integrat. semantic constraints 32369
- spoken dialogue syst. design, stochastic modeling 15846
- SSC, long. beam dyn., RF noise 4092
- stationary random fields, entropy/recurrence rates 40536
- stochastic extension of synchronism time 7910
- sync. image restoration 24620
- target tracking/ident., likelihood-based approach 9621
- TDMA digital cellular syst. time slot assignment techs. 33824
- teaching, comments 70
- text-to-speech synthesis, algms. comparison 32344
- texture anal., SVD 24533
- thinned arrays, element placement, genetic algms. 16060
- transfer fns. bias estim., stochastic excitation 40916
- UltraSAN, model-based environ. for large scale telecomm. systs. 16553
- underwater acoustic commun. syst. perform., stochastic model 16639
- vector parametric model of random procs., DSP appls. 32567

stochastic processes continued
- waveform estimation with jitter noise, stochastic methods 25752
- white stochastic proc., fourth-order cumulant, adaptive estim. 40861
- wideband radio channel time vars., random receiver movements 33848
- Wiener/Poisson procs. functionals, coherent-state representations 5742
- wireless commun. systs., stochastic model, capture space and time dyn. 33935
- Er-doped fiber amp. preamplified receiver perform. eval., ISI 25527
- Si/FLC light modulator, stochastic reson. 22928

stochastic programming
- ball-bearing syst. replacement, discrete-time dyn. prog. 36981
- optimal match-up strategies in stochastic scheduling 37275
- preprocessing in stochastic prog., capacitated networks case 28637

stochastic systems
- *see also random processes*
- 1/f noise universality in high-technol. appls. 34313
- discrete-time systs., optimal filtering 8404
- DS-SS digital commun., sig. detect., hybrid syst. model 24272
- FEL efficiency enhancement with incoherent pump wave or stochastic undulator, chaotic particle deceleration 39923
- Gb/s intens.-modulated direct-detect. systs., laser turn-on delay and chirp noise effects 42460
- lin. accel. transducers, effect of random vibrs. 3810
- microsensor with auto-zero offset compensation 25800
- multi output systs., online fault diagnosis, Kalman filter/neural net appl. 11830
- neural network based on stochastic computation *(Korean)* 21477
- nonGaussian stochastic syst. state estim. based on time transits. of moment and probab. fn. 2544
- quadratic stochastic syst., blind identifiability 24288
- reson., noise benefits, ice ages, crayfish, SQUIDs 14292
- single machine infinite-bus power syst., nonlin. excitation control 27075
- single mode LD, decay time of time-depend. transient stochastic dyn. 31331
- state reconstruct. filter for lin. discrete-time stochastic syst. *(Korean)* 24340
- Volterra models, stochastic, Kalman-Bucy filtering 20505
- weak stochastic sigs. detect. in non-Gaussian noise 40976

stock control
- *see also production control; stock control data processing*
- Energy Systems product delivery project 28402
- JIT, electronics instrumentation manufacturer 11723
- manual Kanban inventory control syst., JIT 37051
- microelectronics manufacturer, batch prod. syst., open queueing network anal. 28423
- optimized prod. technol. in capacity constrained flow shop 11700
- quality fn. deployment, improve distrib. 165
- single server queueing model in alternating random environ. 28575

stock control data processing
- intell. DSP, stock trends determ. *(Japanese)* 24334

stock markets
- KT-STOCK large vocab. speaker independent recogn. syst. 2440
- venture capital, IEE Colloquium, London (1995) 36860
- wireless LANs appls. 41754

Stockbarger method *see crystal growth from melt*

stoichiometry
- HTSC eptiaxial films/multilayers, growth *(French)* 28728
- pulsed trimethylgallium scatt. from As-/Ga-stabilized surfaces 20693
- $Al_xGa_{1-x}As/GaAs:Be$ mirrors for VCSEL 15010
- BN thin films, plasma-enhanced CVD, structural props. 20953
- $Ba_2NaNb_5O_{15}$ opt. waveguide film, epitaxial growth by pulsed laser deposition 1715
- $BiDy(FeGa)_5O_{12}$ garnet films, sputter deposition and struct. props. 7037
- Bi_2Te_3 thin films on Si(111) substr., cryst. growth, sticking coeff. 28716
- Bi_2Te_3:In,Pb, intrinsic defects, elec. method studies 1068
- CaF_2/Si(111) MBE growth kinetics, X-ray photoelectron diffr. 28784
- p-CdS films, pulsed laser deposition, p-n jn. PV effect 37483
- CdTe, surface reactivity, H 22241
- CdTe:In photolum., stoichiometry effect 38513
- CdTe/InSb heterointerfaces, temp. gradient vap. transport deposition, interfacial layer form. 371
- $CuIn_{0.75}Ga_{0.25}Se_2$ films, pulsed laser deposition 432
- $CuInSe_2$ films, pulsed laser deposition 432
- $Cu_2S(Se)$ transparent and electroconductive chalcogenide films, deposition and props. 37467
- Fe/Ga, bimetallic thin films, MOCVD, stoichiometry control 28842
- (Fe-Co)/Ag films, magnetoresist. study 7049
- Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
- $Fe_{66}M_2Nd_{20}C_{9.5}B_{0.5}$ (M=Ga,Nb,Cu,Al) ingot magnets by solid-state transform. 6969
- Fe_4N nanometer-sized particles, mag. props. 6979
- $Fe_{3(1-\delta)}O_4$, epitaxial thin films, stoichiometry var. 14103
- GaAs, ALE, surface stoichiometry and role of adsorbates 20686
- GaAs, MBE, surface diffusion, adatom stoichiometry, microprobe-RHEED/SEM MBE obs. 20682
- GaAs cpd. semicond. surfaces, stoichiometry changes 20839
- GaAs epilayers, metalorganic CVD growth 37411
- a-GaAs high-temp. RF sputtering 37525
- GaAs, low-temp. MBE growth, defects/As distrib., XPS, positron annihilation meas. 21916
- GaAs, surface reactivity, H 22241
- GaAs:C, coimplantation, energy/dose rate obs. 30049
- GaAs:Si^+,Se^+, ion implant., struct. anal. 30031
- GaAs(001), surface arsenic stoichiometric problem, in ALE growth 20690
- $GaAs_{1-x}P_x$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
- $GaAs_xSb_{1-x}$ epitaxial layers, metalorganic CVD, solid-vapour comp. rel. 20727
- GaInAsP multilayer, gas source MBE, tensile/compressive strain modulation 12062
- a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
- GaSb single crysts. doping, various elements 22140
- GaSb:Se, heavily doped, extended defects, TEM 13303
- a-$(GeS_2)_{100-x}Ga_x$ films, irreversible photoinduced changes 22189
- $Hg_{0.85}Zn_{0.15}Te$, surface comp., chem. treatment effects 13360
- InAs/GaAs($Ga_{0.47}In_{0.53}As$) heterostructs., MBE, defect control 12046
- $InAs_{1-x-y}Sb_xBi_y$/InSb strained heterostruct., phys. props. 21965
- InGaAs epilayers, metalorganic CVD growth 37411
- $In_{0.65}Ga_{0.35}As$ epilayers, MBE growth on InAlAs/InP heterostruct. 12091

stoichiometry continued
  $In_xGa_{1-x}As$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
  $In_{0.2}Ga_{0.8}As$/GaAs quantum wells, metalorganic VPE, multistep form./In comp. var. 20735
  InGaAs-InAlAs:Si quantum well, ion implant./annealing, comp. disordering 1216
  n-InP/Au(Pd) Schottky contacts, deposition, charactn. 37521
  Nb_3Sn fiber-reinforced superconds., thin film prep. *(Japanese)* 22721
  Nd-Fe-B, hydrogenation/disproportionation/desorpt./recomb. study 6970
  Nd-Fe-Co-B die-upset magnets from dissimilar ribbon blends 6965
  $Nd_3Fe_{29-x}Ti_x$, mag. and cryst. struct. 6945
  PZT films, laser ablation on Ag coated Si substrs. 13993
  PZT films, reactive co-sputtering/elec. props. 39059
  PZT:Nb transducers, sound wave vel. and Tawfik percentage 26786
  R-Fe-M systs., (M=Ti,V), struct., high mag. anisotropy 39163
  $RbTiOPO_4$ films, epitaxial growth, excimer laser ablation tech. 12127
  Si polycryst. films, hot wire CVD 5883
  Si:In, LED, porous Si device, enhanced blue light emission 1818
  Si(100), ion beam-induced oxid., ion emission 6655
  a-SiC alloy films, hot-filament assisted chem. vap. deposition tech. 37474
  a-$Si_{1-x}C_x$:H films, PECVD grown, struct. props. 13407
  $Si_{1-x}Ge_x$ epitaxial films, opt. SHG 40041
  $Si_{1-x}Ge_x$-on-insulator synthesis by $^{74}Ge^+$ ion implant. in SIMOX substr. 30055
  Si_3N_4:H films, rem. ECR CVD 37472
  SiO_2 film, deposition by XeCl laser ablation of fused silica 28836
  $Ta_{36}Si_{14}N_{50}$ diffusion barrier RIE in CF_4/O_2 gas mixtures 38675
  TiC films deposited on Si by laser reactive ablation 37498
  TiN, ECR chem. vap. deposition, 20 C 12173
  WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
  $Zn_{1-x}Hg_xSe$, electrochem. deposition, EPMA, XRD 28802
  ZnO varistors, Bi_2O_3 nonstoichiometry, nonlin. property 869
  ZnSe/GaAs heterostruct., deep level electronic struct. 38301
Stokes law (optical) *see luminescence*
Stokes lines *see spectra*
Stokes optical law *see luminescence*
Stoneley waves *see surface acoustic waves*
storage allocation
  see also data handling; file organisation
  ADSTAR Distributed Storage Manager, user experience 24957
  ATM networks, credit-based flow control 2881
  ATM node buffer allocation algm. for correl. arrivals 41478
  CIDR deployment on Internet 41833
  holographic associative memory, addressing accuracy improvement 7271
  image segmentation, divided K-means algm. *(Japanese)* 32860
  MIMO LAN interconnection over high-speed gateway 41756
  multi-window full-motion video and graphics, memory archits. 17579
  video server, cost-effective 9757
  X.500 cache partitioning for faster name resoln. in X.400 8959
storage, analogue *see analogue storage*
storage devices *see digital storage*
storage, digital *see digital storage*
storage management
  see also buffer storage; file organisation; interleaved storage; memory protocols; virtual storage
  ACNET control syst., smart subsystems, shell software 18231
  ADSM, multi-platform, scalable, backup and archive mass storage syst. 33533
  ADSTAR Distributed Storage Manager, user experience 24957
  ATM socket family implement., experience and results 8921
  data-cyclic shared memory (DCSM) in distributed environ. 24951
  distributed systs., program struct. 16726
  DTM gigabit network, fast connection establishment 24805
  facsimile high-speed image codec 16946
  high perform. transparent bridge modular archit. 41404
  image filtering, fast implement. 41360
  image segmentation, divided K-means algm. *(Japanese)* 32860
  information superhighway technologies, conf., San Francisco, USA, March 1995 28233
  multi-purpose interface for still/moving image retrieval 24520
  multimedia data streams, disc scheduling 16886
  multimedia storage server design 16831
  ParaServe, parallel mass storage server 8907
  POWER2, fixed-point/data cache/storage units 671
  power syst. dyn. anal., simulated distributed computing tool 4454
  pre-scheduling mechanism for multimedia presentation sync. *(Korean)* 25122
  random access on real time retrieval of digital continuous media 41999
  struct. TCP in std. ML lang. 2942
  video-on-demand syst., distributed hierarchical storage manager 9743
  video-on-demand systs., storage hierarchy 9744
storage management chips
  FPGA memory controller for linking embedded μP, cache enhanced DRAM 29213
  on-the-fly error correction in hard disk data storage channels 30734
  RAID controller appls., nonvolatile SRAM appl. 21309
storage media
  see also CD-ROMs; floppy discs; hard discs; magnetic tapes
  complete-moving-hysteresis model, param. ident. 7100
  general defective channel, informed encoder, constrained memories 24037
  single-pass flaw detector for mag. media 6934
storage modulus *see elastic moduli*
storage organisation *see file organisation*
storage rings
  100 TeV storage ring, transverse feedback 4104
  Aarhus dual purpose storage ring for pos./neg. ions/electrons 18419
  accelerating cavity, EM field, wire effect 26079
  ADRIA HI accelerator, beam cooling syst. 34790
  AGS accelerator distributed control syst. alarm, obj.-oriented design 18192
  ALS, obj.-oriented software constr. 18227
  ALS accelerator control syst. status 18187
  AmPS magnet control syst. 18276
  APS, control displays, rule-based ES 18219
  APS, hardware supported by control syst. 18203
  APS accelerator and control syst. 18173
  APS SR beam lines, shielding 10290
storage rings continued
  ASTRID storage ring, bunched $^{24}Mg^+$ beam cooling by laser 34802
  ASTRID storage ring, laser cooling of $^{24}Mg^+$ 34801
  beam injection methods 4120
  BEPC accelerator control syst. design 18195
  CELSIUS, electron cooling/heating meas. 34786
  CELSIUS electron cooler, design, constr. 34791
  CELSIUS electron cooling syst., collector efficiency 34793
  chromaticity and circ. accelerators 4063
  circ. accelerators, const. voltage damping syst. 10084
  coherent bremsstrahlung, SLAC PEP-II and KEK Tristan-B B factories 40262
  coil winder simul. for Superconducting Supercollider 22770
  conference, e^+e^- colliders, Benalmadena, Spain (Oct./Nov. 1992) 5505
  conference on accelerator physics, Dallas, USA (1992-1993) 36886
  cooler storage ring, ion beam ordering 10095
  Cornell high lumin. upgrade, CLEO II detector, CLEO III 4177
  coronary angiography, double beam bent Laue monochromator 43270
  COSY, digital phase control syst. design *(German)* 43014
  COSY, meson prod., meson nucleus interact. 43007
  COSY accelerator electron cooler design and operation 34799
  COSY accelerator facility, steering/timing syst. solns. 18201
  COSY control syst., RT/OS environ. 18209
  CRYRING ion accelerator, electron cooling 34800
  cryst. ion beam, computer simul. 34795
  DAΦNE, bunch length control, higher harmonic cavity 26061
  DAΦNE, DANTE control syst., Macintosh/LabVIEW based 18236
  DAΦNE, RF cavities, broadband waveguide, coaxial transit., HOM damping 18287
  DAΦNE accelerator, status 34747
  DELPHI distributed IS, LEP appl. 18210
  double RF syst., transverse mode coupling instabil. 18288
  Duke storage ring UV FEL, dyn., 3D code 39957
  elctron storage ring SR facility constr. 10092
  electron cooling, medium/high energy 34774
  electron cooling, mol. dyn. simul. 34792
  electron cooling in storage rings 34771
  electron cooling in storage rings 18283
  electron positron storage rings, spin dyn. 18243
  electron storage rings, gas bremsstrahlung, photon-neutron shielding 26506
  electron-positron collider, lumin. meas./calcs. 4062
  electron/proton storage rings, vac. syst. design 961
  ELETTRA, high energy resoln. photoemission beam line 10096
  ELETTRA insertion devices, init. operation 43011
  Eloisatron, beam-beam/SR considerations 4097
  Eloisatron, injector design 4100
  Eloisatron, particle detect. 4231
  Eloisatron beam dyn. 4101
  Eloisatron dipole magnet design 4099
  ESR ion storage ring, electron cooling of highly charged HI 34809
  ESR ion storage ring , electron cooling appl. 34797
  ESR storage ring, GSI, fragment beam stochastic precooling 34779
  ESRF, kicker magnet pulsed power supplies 34820
  ESRF, SR source, pot. 18290
  ESRF accelerator, VME image acquisition/proc., TV CCD cameras 18272
  ESRF beam line, scanning X-ray microprobe test 26261
  ESRF distrib. control syst., access control/security 18213
  ESRF source, target specs., SR source 18245
  ESRF wiggler beamline, water-cooled monochromator 10088
  FEL, electron beam long. dyn. 39951
  FEL, mirror degrad. and heating 39961
  FEL, opt. field chaos 14990
  FEL, radiation power stabilisation 7687
  FEL, spectra and intens. spatial profile visualisation 40015
  FEL at UVSOR, micro-macro temporal struct. and saturation mechanism 39956
  FEL conf., Stanford, CA, USA (1994) 36818
  FELINA VUV FEL, perform. study 39954
  Fermilab Tevatron, high field injection kicker magnet 34826
  free-ion lasers, radiative ion cooling 7694
  gas bremsstrahlung evals. for Φ-Factory, adsorbed dose 35198
  GEM detector syst., COSY accelerator, Ge wall 43113
  hadron colliders, scaling laws, cost optim. 4098
  hadron supercolliders, wide-band transverse feedback 4108
  hadronic colliders, transverse beam dyn./losses 4103
  HERA, collimators, diagnostic tools 10085
  HERA, HERMES, long. electron polariz., spin rotators 43039
  HERA, large electron spin polariz. 34816
  HERA, long. spin polariz. 26043
  HERA, proton storage ring, internal halo targets, tests 26096
  HERA status, first results 18244
  HERA-B, CP violation expt. 4134
  HERA/LHC, dyn. aperture, truncated Taylor maps 4085
  high-power gas switches, ferroelec. electron beam triggering 36406
  internal mol.-beam target 26102
  ion beam crystn., dedicated storage ring 34805
  ion beams, laser cooling 34772
  ion beams, transverse laser cooling in storage ring 18266
  ion storage rings, intermediate energy electron cooling technol. 34808
  isochronous storage ring FEL 23318
  IUCF Cooler, cooled beam intens. limits 34806
  IUCF Cooler experience of electron cooling, injection aid 34807
  K4-K10 storage ring, bus controller for MIL-1553B/Multibus II 18211
  KEKB bunch feedback systs., 2-tap digital filters 43015
  LEAR, electron cooling, variable current electron gun 34784
  LEAR, stochastic cooling systs., upgrading 34789
  LEAR electron cooler, servo-syst., neutralisation 34785
  LEP2 at CERN, cryoplants 4037
  LEP2 cryogenics, large indust. control syst. appl. 18239
  LEP2 cryogenics control syst. archit. 4036
  LEP, large electron spin polariz. 34816
  LEP accelerator beam dump control syst. 18198
  LEP accelerator pretzel separators, control syst. 18261
  LEP beam bumping kicker syst. high power pulse generator 34821
  LEP high level control syst., ORACLE online database 18234
  LEP machine/expts., data exchange 18212
  LEP operation, high level appl. software 18223
  lepton/hadron colliders, beam-beam effects 4115
  LF coupling impedance calc. 18216
  LHC, neutron background, beam pipe geometries, transparency 4191

storage rings continued
  - LHC accelerator, Pb ion accumulation scheme 34811
  - liner within proton collider beam pipe, many holes impedance 4102
  - long. coupled-bunch instabil. suppression 4088
  - MM wave FEL at Duke storage ring, pump for X-ray inverse Compton source 39629
  - MM-wave isochronous FEL, Duke storage ring 39630
  - NE1B beamline, zone plate soft X-ray microscope 43172
  - next generation synchrotron sources, undulators and wigglers 18247
  - NIJI-IV FEL storage ring, opt. klystron effect on electron beam 39959
  - NIJI-IV storage ring FEL, dielec.-coated cavity mirror degrad. and restoration 39962
  - NIJI-IV storage-ring FEL, UV lasing study 39953
  - nonlin. betatronic motion, LHC/SPS appl. 34839
  - NSLS accelerator control syst. upgrade 18188
  - NSLS rings, transverse orbit stabilization, digital feedback syst. 18274
  - Photon Factory e^+ storage ring, longit. bunch struct., photon counting 26060
  - planar permanent mag. multipoles for accelerator/storage ring appls. 10089
  - polarized hydrogen gas target for storage rings 26101
  - positron high intens. beam gen. by SR 43050
  - proton accelerators, gamma transit. jump schemes 4067
  - RF-cavity, coupled, energy storage cavity, heavy beam loading accelerators 26035
  - RHIC, stochastic cooling, intra-beam scatt. 34778
  - RHIC accelerator control syst. design 18172
  - RHIC siberian snakes, layout 18289
  - SIBERIA SR source control syst. 18262
  - single-beam lifetime 4071
  - SLAC, BABAR detector, PEP-II, CP-violating asymmetries 4178
  - SOLEIL project, 2.15 GeV positron storage ring, tech. aspects 18281
  - Sortec Corp. SR ring, stored current upgrade *(Japanese)* 4060
  - spin flipping in stored polarized proton beam 4081
  - spin tune shifts 43026
  - SPring-8 storage ring, equilib. bunch length, RF noises 34831
  - SPS, proton extraction, Si bent cryst. 4057
  - SPS proton beam extraction by bent crystal, simulation 43008
  - SPS/LEP commun. control network evol. 18197
  - SR complex ISI-800 18418
  - SR rings, figs. of merit 18248
  - SR source, research program 18393
  - SR sources, electron/proton rings 4072
  - SR sources in Japan, overview, appls. 18295
  - SRRC accelerator control syst. design schemes 18218
  - SRRC storage ring, computer control and instrumentation syst. 18174
  - SSC, emittance growth, computer simul. 26037
  - SSC, emittance growth, noise 26036
  - SSC, high level control code, interactive simulator 18220
  - SSC, long. beam dyn., RF noise 4092
  - SSC, long. damper, design 4107
  - SSC, opt. fiber links, radiation effects 18206
  - SSC, plastic scintillator develop. 26216
  - SSC, transverse feedback systs. 4109
  - SSC accelerator proc. control syst. 18177
  - SSC accelerator systs. string test software archit. 18176
  - sub-Angstrom X-ray source, compact storage ring 43217
  - super-ACO UV FEL, time resolved fluoresc. appls. 14988
  - supercond. compact storage ring, injection syst. 26059
  - synchrotron rad. source, low emittance, betatron oscills. coupling 18268
  - synchrotron-based X-ray lithog. syst. integrat. 38765
  - TARN II ion storage ring, electron cooling 34798
  - Test Storage Ring, intrabeam scatt. studies 34788
  - three-cavity syst., coupled-bunch instabil. 18286
  - transverse injection oscill. dampers, requirements 4106
  - trapped secondary particle motion 43025
  - TREBLe two ring exotic beam lab. 34813
  - TRISTAN accelerator control syst., rejuvenation status 18190
  - TRISTAN accelerator tune, workstations, digitalised sigs. 18275
  - TRISTAN MR status 34769
  - TSR accelerator, charge depend. of electron cooling force for HI 34812
  - TSR operation, close, transit. energy, strong cooling 34843
  - TSR storage ring, $^7Li^+$ beam laser cooling by opt. adiabatic excitation 34804
  - TSR storage ring, $^7Li^+$ ion cooling, laser bunching 34794
  - TSR storage ring, laser cooled $^9Be^+$ beam, interbeam scatt. 34803
  - TUE cyclotron building, particle accelerators *(Dutch)* 43003
  - ultra-short X-ray pulses generation in electron storage ring 43168
  - UNK control syst. protocols 18207
  - UNK Project, accelerator control, MMI 18279
  - UV FEL, giant laser pulse generation 39950
  - UV FEL, opt. cavities 39960
  - UVSC photochromic dosimeter film for x-ray lithog. source eval. 6693
  - UVSOR SR source, gracefully-degraded operationable control syst. 18196
  - VEPP-3, storage cell for polarized gas internal targ. 4132
  - H^- beam prod. 4059
  - H^- beams chopping, Penning surface-plasma source 34838
  - ^3He polarized internal gas target, polarized proton scatt. 26098

storage units
  - fast DDS-2 DAT drive 14242
  - multimedia storage server design 16831

store and forward switching *see telecommunication switching*

stored program control *see electronic switching systems*

stores (computer) *see digital storage*

storms
  - *see also thunderstorms*
  - EHF waves cross-polaris./atten. in sand and dust storms 15445
  - ELDORA/ASTRAIA airborne Doppler weather radar appl. 10483
  - microwave rem. sens., AMPR radiometry and CP-2 radar 35314
  - microwave rem. sens. of precipitating storms, AMPR 35313
  - oceanic midlatitude cyclones, press. determ. from radar obs. 10460
  - PBL study, FMCW radar 35304
  - power overhead line tornado loading effects study 27222
  - sand and dust storms, mm wave propag. losses 2220
  - sandstorms, analogical anal., W band 42892
  - tropical cyclone monitoring, satellite microwave sens. 10469

strain ageing
  - polymers/composites, prediction of long term perform. 439

strain gauges
  - *see also strain measurement; strain sensors*
  - analog sens. sig. quantisation, effective no. of bits *(German)* 17703
  - colour TV tubes, high temp. stress meas., exhaust oven *(Chinese)* 9712

strain gauges continued
  - epoxy resin photoelastic fiber-optic strain gage 42834
  - indust. thick film press. sens./transducers, develop. *(Slovenian)* 34446
  - integrated press. transducers, 0.04, 30 MPa 17737
  - pass. demodulated Michelson/polarimetric coupled fiber strain sens. 17866
  - PCB/MLC capacitor bending stress, surface strain measuring method 6412
  - photogenerated in-fiber gratings, simultaneous strain and temp. sens. 25873
  - piezoresistive strain gauges, integrated instrumentation amp. 17732
  - polycryst. diamond press. sens., fab., props. 34456
  - reinforced concrete strain meas., opt. fiber sens. 34547
  - sapphire fiber strain gage for static/fatigue meas. 17860
  - ship's propulsion syst. forced torsional vibr. meas. and anal. *(Croatian)* 4027
  - simultaneous temp./strain meas., four connecting wires 42780
  - surface-mounted fibre grating bending gauge, thermally-compensated 3867
  - thick film strain gauges on insulated metal substrs. 3788
  - thick-film strain gauges on stainless steel substrs., co-firing effect 3779
  - Si low temp. sacrificial wafer bonding for planarization, deep etching 30502
  - Si piezoresistive stress sens., thermally induced errors 34472
  - Si rect. diaphragm press. sens. 17753
  - Si:Mn,Ni dyn. strain gage 3800

strain hardening *see work hardening*

strain measurement
  - *see also strain gauges; strain sensors*
  - absol. and simultaneous strain/temp. measur., fibre sens. 17846
  - autocalibration of fibre optic strain sensor 25860
  - automatic birefr. eval. syst. 5697
  - Bragg grating fiber optic sens. for C fiber prestressed concrete highway bridge 34545
  - Bragg grating sens., temp. and strain meas. 42826
  - cable fiber strain meas., photo-elastic correction factor 14397
  - circ. shaft, dyn. response, piezoelec. sens. 9890
  - compact holographic apparatus for stomatology 23457
  - conference, interferometry, photomechanics, Poland (1994) 28210
  - conformal coatings, dyn. thermal mech. anal. 451
  - direct meas. by electronic shearography 18107
  - displacement meas. laser interferometer 25971
  - distributed opt. fibre network strain/temp. meas. by Brillouin OTDR 34544
  - distributed sens., grating Fabry-Perot interferometers 17740
  - distributed strain/temp. meas. in branched opt. fiber network 14372
  - distributed-Brillouin-gain spectrum meas. in opt. fibers by single laser source 7315
  - dyn. structural response, vibr. wire opt. fiber sens. 9927
  - fiber laser/amp. based sens. 34551
  - fiber optic interferometer, ferroelec. relaxor strain response charactn. 39051
  - fiber optic sens. for smart materials and struct. 17841
  - fibre Fabry-Perot sens., absol. strain meas. 17904
  - fibre grating sens., high temp. capabilities/limitations 17876
  - four-element fiber grating sens. array, phase-sensitive detect. 17816
  - Fourier anal. of strain meas., birefr. opt. fibers 3862
  - FT dispersive opt. fiber spectrometer/interferometer, temp./strain meas. 25857
  - glass reinforced polymer, low cost dyn. opt. strain meas. 10035
  - grating interferometer, parallel receiver for fibre sens. 17842
  - in-line mode splitter, dual polarimeter in fibre 14374
  - induced strain-actuated struct., FEA 6915
  - interferometric meas. of strain, grating-coupled LED sources 18113
  - interferometric sens., birefr. polaris. maintaining fibre 17853
  - local strain meas., electron beam moire 28911
  - MCM HTSC thin film interconnects, fracture strain meas. 12249
  - MLC actuators, intell. proc. monitoring, fiber sens. 10030
  - Moiré interferometry anal. of laser weld induced thermal strain 2161
  - nondestructive inspection using shearography, indust. appls. 18108
  - nonincremental interferometric fiber-optic simultaneous temp./strain detect. 25856
  - opt. cables, fibre strain meas. 1661
  - opt. fiber sens., 2-mode ellipt. core 34708
  - opt. fiber strain distrib. meas., Brillouin tech. 7320
  - opto-mech. Raman strain sens. for C composites 3814
  - OTDR tech. for reflective markers monitoring 17837
  - outdoor HV substations, short-cct. mech. tests 19914
  - package, transient strain response, scanning laser vibrometry 34706
  - panoramic holointerferometry 40169
  - pass. demodulated Michelson/polarimetric coupled fiber strain sens. 17866
  - PCB/MLC capacitor bending stress, surface strain measuring method 6412
  - phase shifting interferometry, ref. phase shift determ. 33072
  - photogenerated in-fiber gratings, simultaneous strain and temp. sens. 25873
  - polymer films, ion implanted, piezoresistivity, sens. appls. 28878
  - polypropylene, graphite filled, strain sensitivity 28894
  - radial collimator, strain meas. by neutron diffr. 21007
  - reinforced concrete strain meas., opt. fiber sens. 34547
  - reinforcement fibres, strain rates meas. 37569
  - sapphire fiber strain gage for static/fatigue meas. 17860
  - sens. based on permanent bends in fibers 17844
  - shipboard monitoring and control fibre-optic syst. *(Croatian)* 3551
  - simultaneous meas. of strain/temp., fibre grating sens. 17845
  - simultaneous temp./strain meas., four connecting wires 42780
  - smart structural monitoring develops. 12247
  - SOI films prod. by ZMR, strain anal. 29977
  - speckle methodology, liq. cryst. TV and posn. sensitive device 39499
  - strain meas. on plates/discs surface, shearographic method *(German)* 18116
  - tensile loaded cable, photo-elastic correction factor for fiber strain meas. 25524
  - turbine blades, reson. vibr., strain meas., electro-optic holography 31669
  - US contactless measurement with micromembranes 26289
  - Cu gull-wing leads for thin SOP 150
  - PZT sens.-actuator, truss struct. integrity ident. 34467
  - Si integrated beam strain gauges 9868
  - Si, porous, passiv. by RTO 22217
  - Si:B(P), low-energy implant., RTA/furnace annealing, XRD optimisation 22102
  - Si:Mn,Ni dyn. strain gage 3800
  - Ti-Ni sputter-deposited thin films, shape memory effect 28853

strain-optical coefficients *see piezo-optical effects*

strain sensors
  - *see also strain gauges*
  - Bragg grating temp. and strain sens. 17902
  - embedded Fabry-Perot interferometric strain sens. 17894
  - fibre Fabry-Perot sens., absol. strain meas. 17904
  - fibre grating sens., high temp. capabilities/limitations 17876

strain sensors continued
- fibre optic sensors, conf., Glasgow, Scotland (Oct. 1994) 11524
- fibre-optic sens. for smart struct. 3851
- highly overcoupled fibre couplers to detect shifts in Bragg wavelength, strain sens. 34532
- interferometric fiber strain sens., chirped Bragg grating element 17879
- Mach-Zehnder interferometric opt. fiber sens., act. homodyne demodulation 34531
- nonincremental interferometric fiber-optic simultaneous temp./strain detect. 25856
- opt. fiber sens., 2-mode ellipt. core 34708
- opt. fibre Bragg grating sens. for aerospace smart struct. 42825
- short fiber composite strain sens., elec. resist. change 28896

strategic planning
- advanced mfg. technols., planning/implement. 28383
- ATM network virtual path restoration, multiring approach 41760
- business mgt. in competitive environ. 11662
- co-developed knowhow assets in technology partnerships 36949
- corporate R&D, technol. organisations, develop. 11675
- cycle time reduction strategies implement. for new package introd. 36950
- DSEG product develop. proc., systs. engng. approach 36974
- ELECTRABEL, long term planning 27000
- lean prod. in semicond., new process introduction 36951
- mobile telephony, strategical aspects for develop. 16618
- PCB recycling strategy, resource param., life cycle assess. 37209
- telecomms. infrastructure, geographical planning support syst. 33292
- Texas Instruments Semiconductor Group product develop. proc. improvement 37014
- yield model for IC manufacture 13860

strays (atmospherics) *see atmospherics*

streak cameras
- subfemtosecond laser pulse meas. 31471
- ultrahigh-speed photography, conf., San Diego (1993) 36890
- X-ray streak camera operation, VUV wavelengths 21797

streak photography
- *see also streak cameras*
- CCD electronic camera systs. measure high-speed events 9933
- four-beam LD opt. heads, dyn. wavelength shifts 39317
- long pulse electron beams from cathode 21795
- mineral oil, leader discharges, time resolved study 30549
- spacer surface discharges in gaseous insulation, nanosecond streak photography 30553
- subfemtosecond laser pulse meas. 31471
- AlGaAs-AlAs DBR QW microcavity, fast coherent emission 31376

streamer chambers
- ARGO RPC carpet, small EAS detect. 34906
- Large Volume Detector, Gran Sasso Laboratory, status 34913
- MACRO, upward-going muons 43135
- NA35 streamer chamber, image data anal. 26234
- profile-based detectors with external pick-up strips, spatial resoln. 10133
- resistive plate chamber, low gas amplif., efficiency/time resolution 26161
- resistive plate chamber, photon and neutron irrad. 34932
- SKIF hybrid spectrometer, charmed particle generation study 34961
- two-coord. drift minichamber, self-quenching streamer mode 18380

streamers *see discharges (electric)*

street lighting
- CAD programs, visibility level/index 20126
- power overhead line survival anal., stat. method-based 43780
- urban lighting, lighting fixtures *(Japanese)* 11467

strength (mechanical) *see mechanical strength*

stress *see internal stresses; stress effects; stress-strain relations; yield stress*

stress analysis
- *see also bending; photoelasticity; strain gauges; thermal stresses; yield strength; yield stress*
- 50 mm diam. induction coilgun launcher, design, eval. 15296
- ASMAT known good die microbump interconnection syst., anal. 37148
- bimaterial beams, elastic plastic anal., packaging appls. 28482
- boiler superheater headers, crack growth/stress prediction 19507
- BWR, operating data monitoring, fatigue eval. systs. 27406
- cct. board torsion anal., elec. resist. meas. 29657
- COB encapsulation technol., stress anal., reliab., FEM 37077
- composite suspen. insulators, rods, long term mech. strength 4701
- conformal coating stresses, SMT/fine pitch technol. 6431
- cylinder, 1-3 composite, hydrostatic press. response 14081
- dual-coated opt. fibre, interfacial shearing stress anal. 30896
- EHV transformer insulation, transients, nonlin. core characts. model 5009
- electronic packaging, conf., Binghampton, NY, USA (1993) 20249
- fibre optic smart struct., coating props. optimisation, FEA 34541
- fluid filled taped cables, dissolved gas anal. 27205
- General Electric HDI modules, MCM-D, reliab. 12980
- HL-1 Tokamak TF magnets, stress anal. 40270
- HTSC thin films, residual stresses for in-situ deposition 14274
- HVDC converter transformers/smoothing reactors, service stresses *(French, English)* 36228
- induced strain-actuated struct., FEA 6915
- internal crack in half-plane solid, clamped boundary 28693
- mag.-noise struct. anal., inverse problem model constr. 28920
- MCM flex lead bending during thermal cycling, finite element stress model 12944
- micromachined materials mech. props. 5926
- modular armor attachment modeling and anal. 26810
- multilevel metallization struct., failure mechanisms, finite-element stress anal. 38694
- no-clean/water-clean PCB solder joints, plastic quad flat, failure anal. 947
- OMPAC package-to-board attach reliab. 28534
- opt. fibers, residual stress, optimal design 1688
- PCB deformation anal. holographic pattern meas. 21619
- PCB/MLC capacitor bending stress, surface strain measuring method 6412
- piezoelec. devices, axisymmetric, numer. simul. 14077
- piezoresistive humidity sens., design, simul. and metrological charact. 3795
- plastic IC package, structural integrity eval., soldering proc. 28485
- polymers/composites, prediction of long term perform. 439
- PWR, fatigue monitoring systs., load-stress rels. 27405
- railgun accelerator, structural response num. simul. 15322
- railguns, mid-range integrated launch package, current maldistrib. 15348
- ribbon opt.-fiber cable, polariz. OTDR and PMD meas. correl. for stress anal. 14353
- RTP modeling and simul. incl. thermal stress anal. 22551

stress analysis continued
- SAW delay line packaging, manufacture and perform. anal. 39117
- SAW oscillators for low vibr. sensitivity 30646
- ship's propulsion syst. forced torsional vibr. meas. and anal. *(Croatian)* 4027
- single chip ceramic package stress states, reliab. terms 11755
- single lap shear layers, stresses, FEA 29647
- SMT assembly, stress anal., influence fn. 28494
- SMT solder joint reliab., voids and void interacts. 178
- SMT solder joints, stress anal. model for fatigue prediction 37114
- SMT stress sing. allowing for local plastic deform. 29660
- thermal stress anal. of soldered/bonded joints, defects 28457
- transformer winding deform. probab., external fault *(Russian)* 36229
- TSOP solder joint crack initiation and propag. 37110
- wirebond geom. and die setting, effect on wire sweep 20445
- Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417
- Au electrodeposited thin films, X-ray masks, stress/structural change 6701
- Cu gull-wing leads for thin SOP 150
- In-Sn eutectic solder, substr. effects, microstruct./mech. behavior 11743
- Ni-Mh_2 bipolar elec. vehicle batt., cell design/eval. 36714
- Si, porous, passiv. by RTO 22217
- Si post backgrind wafer shape, thin film stresses 38605
- Si:P gate form. of MOSFETs, mech. stress simul. 38894
- SiGeB-Si heterostruct., B thermal stabil., stress compensation 13130
- SiN-Si X-ray mask wafer stress, contactless laser/microwave eval. 6686
- SiO_2 charge/mobile ion conc. meas., MOS struct. 29964
- SiO_2-Si, stacked RTO/RTCVD oxide gate dielec., elec. props. 22637
- W sputtered thin films, x-ray masks, intragranular microstruct./stress 6700

stress birefringence *see mechanical birefringence*

stress control
- superimposed holographic interferometer, welding control appl. 15156
- US Nat. X-Ray Lithography Program, materials issues 6678
- Ta-SiN x-ray masks, materials selection, fab. procs. 6684
- W sputter deposition for x-ray mask absorber, in-situ stress control 6702

stress corrosion cracking
- *see also corrosion fatigue*
- Dukovany VVER licensing, cladding corros. and water chem. 27449
- NDT, AE/elec. resist. var. meas. 21006
- Onagawa Unit 1 BWR fuel channel perform./localized corros. 35753
- steam generator corros. prevention, chem. cleaning, PVNGS 19466
- structural materials, laser surface modif. *(Japanese)* 20419
- SiO_2 opt. fiber, mech. reliab. assess. 14357

stress effects
- *see also cavitation; deformation; elastic waves; heat treatment; magnetomechanical effects; materials testing; mechanical testing; piezo-optical effects; piezoelectricity; piezoresistance; shock wave effects; stress analysis; stress measurement; stress-strain relations; tribology*
- adhesive-based IC interconnects, materials/reliab. considerations 13432
- amorph. soft mag. ribbons, stress magnetis. props. *(Japanese)* 30673
- D0 detector, scintillating/clear fibers, stress, strain 4156
- dielec. resonators, stress induced freq. shift 30658
- electromechanical switches degradation obs. due to mechanical vibration 21608
- electromigration mechanisms, nondestructive elec. anal. techs. 38667
- embedded opt. fibre data bus, inpact survivability 3864
- ferromag. mech. stressed thin films, magneto-opt. meas. 30682
- HVDC submarine cables, overvoltages, testing 27198
- insulating materials, mech. stress effect on elec. perform. 39063
- mechanical influence on insulation perform., IEE Colloquium, London (1995) 36861
- membrane masks, stress-induced pattern-placement errors 13464
- organic conductors, magnetoresist./supercond. meas. 34662
- oxid., stress depend., 2D num. simul. 22182
- porcelain insulators, mech. stress test methods 43791
- semicond./HTSC devices, uniaxial stress/hydrostatic press. appl. 14315
- steel, 2% Mn, pipeline, isofield uniaxial cyclic stress, magnetisation behaviour 14107
- substation column structs., seismic protection prediction 19903
- turbogenerator insulation design, mech. stress considerations 44003
- twisted fibre package, birefr. study 30845
- AlGaAs-GaAs:C HBT, bias stress tests, current gain deterioration 13642
- Co-Pd multilayers, stress, opt. fibre Y branch non-contact displacement detector *(Korean)* 18083
- GaAs-metal interfaces, interphase reacts. 6571
- HgCdTe/CdZnTe, tensile and compressive stress, misfit disloc. microstruct./kinetics 21952
- $LiNbO_3$ electro-optic modulators, cryogenic temp. characterisation 14506
- Mo field emitter, thermomechanical factors in operation and failure 21807
- Si surface layer elastic deform., photoelectron emission meas. 21005
- SiO_2 films, high field dyn. stress 22063
- $SiO_2(ON)$-Si device reliab., surface cleaning effects, ultrathin oxides/oxynitrides 22207

stress measurement
- ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
- automatic birefr. eval. syst. 5697
- colour TV tubes, high temp. stress meas., exhaust oven *(Chinese)* 9712
- compact holographic apparatus for stomatology 23457
- concrete stress meas. fiber optic sens., polarimetric/white-light interferom.-based 25978
- conference, interferometry, photomechanics, Poland (1994) 28210
- conformal coatings, dyn. thermal mech. anal. 451
- Doppler anemometer for turbulent Reynolds stresses meas. 10032
- dual-coated opt. fiber specimens, interfacial shearing stress, double lap shear joint 14384
- fibre-rem. pumped Nd:YAG laser, heterodyne sens. appls. 17863
- glass plates, stress measuring method, polarized laser and photo-elastic modulator 34705
- interferometric birefr. opt. fiber transducer 17870
- mag. anisotropy sens., output voltage-excitation freq. charact. 9879
- mag.-noise struct. anal., inverse problem model constr. 28920
- multidielectric coatings, thermal stress, holographic interferometry 40140
- opt. fibres, photoelastic phase differences, ray deviation angles 14362
- PCB/MLC capacitor bending stress, surface strain measuring method 6412
- photoelasticity, conf., London (Nov. 1993) 11588
- piezoresistance gauges, stress transducers, shock loading-unloading 34443
- post-buckling of micromachined beams 30512
- PVDF stress gauge, fast press./shock effects meas. 42764
- RTO proc., opt./elec./mech. charactn. 22227
- ruby on sapphire, integrated thin film stress sens., epitaxial regrowth 17749
- solder paste/stencil interface, shear stress, SMT manufacture 12943

stress measurement continued
- TV-holography in artwork nondestructive diagnostics 31679
- wafer-level calib. of stress sens. test chips 17748
- water soluble solder paste printability, rheological charactn. 11739
- HgCdTe detector, multi-element lin. arrays, SR topography *(Chinese)* 17796
- Si piezoresistive stress sens., thermally induced errors 34472
- Si wafer stress test chip, piezoresistive sens. rosettes 18111
- Si:B reson. sens., fine freq. tuning 30517
- SiC LPCVD films, X-ray mask membranes 6695
- SiC x-ray membrane characterisation, laser ablation deposition tech. 6696
- Ti-Ni sputter-deposited thin films, shape memory effect 28853
- W sputter deposition for x-ray mask absorber, in-situ stress control 6702

stress-optical effects *see piezo-optical effects*

stress relaxation
- *see also anelastic relaxation; creep; viscoelasticity*
- adhesive-based IC interconnects, materials/reliab. considerations 13432
- elastic strain relax. in patterned heteroepitaxial struct. 21992
- elec. connectors, metall. considerations in FEM modeling 12869
- fission reactor live-loading valve design syst. 35867
- micromechanical testing of electronic packaging components and materials 11821
- Permalloy films, stable encapsulation structs., annealing effects 7101
- polyimide thin film, time-depend. inelastic deform. 28881
- polyimide thin-film on ceramic struct., MCM appls., thermomechanical stress anal. 20441
- z-axis anisotropic polymer-matrix composite conducting film, SMT/PWC connectors 12196
- AlCu-TiN VLSI interconnect systs., design and building-in reliab. 38645
- AlGaAs layers on GaAs(100), MOVPE, lattice relax. obs. 20747
- GaAs/Ge MOVPE heterostruct., lattice strain relax., X-ray diffr. obs. 38308
- InGaAs lin. graded comp. buffer layers, strain relief 367
- $In_{0.35}Ga_{0.65}As$:Be/GaAs MWQs for high-speed lasers, MBE growth, disloc. glide 333
- InGaAs/GaAs SQW, lattice mismatched, strain relax., opt. quality 1148
- InGaAs/InP strained quantum wells, stress relax., X-ray topography 21906
- $In_{0.2}Ga_{0.8}As$/GaAs MQW struct., strain relax., photodetector appls. 1131
- LiF(AlF_3) inorganic resist, proximity effect and exposure dose 38715
- Pb and Pb-free solder joints, thermomech. and fatigue behavior 37557
- Si, oxid., VLSI gate dielec. appls. 30086
- Si/$Si_{1-x}Ge_x$($Si_{1-y}C_y$) heterostruct., situ X-ray investig. 38306
- SiGe buffer layers, epitaxial growth, defect dens. 28786
- $Si_{1-x}Ge_x$ epitaxial layers, strain relax., silicidation procs. 1073
- SiO_2 films, HI irrad., densification and plastic flow 1312
- SiO_2/Si interface struct., reliab. charact. 13253
- Y-based HTSC, relax. US proc., mech. stabil. 39242
- ZnS(Se), low temp. MBE on GaAs, hot mol. beams *(Japanese)* 37413

stress-strain curves *see stress-strain relations*

stress-strain diagrams *see stress-strain relations*

stress-strain relations
- *see also elastic constants; yield point; yield stress*
- BESOI stress/strain investig., opt. SHG method 29963
- bimaterial beams, elastic plastic anal., packaging appls. 28482
- BPDA-PDA polyimide thin films, thermomechanical props., curing effects 12208
- buckled membranes for microstruct. 30513
- Moonie piezoceramic actuator, geom. nonlin. anal. 14075
- opt. fiber reliab. modeling for multiple stress-time histories 39328
- opt. fibers, residual stress, optimal design 1688
- opt. fibre-glass matrix sens. based composite, fracture 437
- polyimide film, water immersion effects on mech. behavior 12202
- polyimide thin film, time-depend. inelastic deform. 28881
- porous metal closed-die compression test, Gurson-type behavioural model 28886
- railgun accelerator, structural response num. simul. 15322
- smartness in biological struct. 37547
- solder joint reliab. prediction, computer-aided syst. develop. 37206
- surface mount connector design, respect, solder creep 28503
- surface mount joint, thermal stress under uniform temp. change 28481
- In-Sn eutectic solder, substr. effects, microstruct./mech. behavior 11743
- PLZT, ferroelec. ceramics, non-lin. behavior, micromechanical theory 37551
- Pb and Pb-free solder joints, thermomech. and fatigue behavior 37557
- $Sm_2Fe_{17}N_x$ with discontinuous nitrogen profiles, mag. props. 39203
- Sn-Cu(Pb) solder joints, thermal cyclic shear stress/strain hysteresis 11742
- Sn-Pb solder thin layers, testing in pure shear 37568
- Sn-Pb-Ag solder interconnects, creep study 37128
- Sn-Pb-Ag solder joints, thermal fatigue/isothermal mech. fatigue damage 37112
- Sn-Sb solder, room temp. tensile prop. 434

stress wave emission testing *see ultrasonic materials testing*

stresses, internal *see internal stresses*

stretch receptors *see mechanoception*

striations *see discharges (electric)*

string matching
- CMOS multi-channel data compression chip, parallel archit. 21376
- compressed data, efficient Huffman decoding 8159
- Hangul cursive handwriting, on-line continuous recogn. syst. *(Korean)* 33120

strip line circuits
- *see also microstrip circuits*
- 2 to 10GHz multilayer stripline Butler matrix beamforming network 23993
- coupled strip lines, short-duration pulses caused by unequal phase velocities 31877

strip line components
- *see also microstrip components; strip line circuits; strip line couplers; strip line filters; strip line resonators*
- diplexers, crossover loss, singly terminated filters design 16953
- high-T_c supercond. elec. small strip antenna 8043
- jn. circulator, fringing field effect, design 21513
- long. multilayered isotropic dielec. filled rect. waveguide 2303
- matched-line directional two-way power divider design 821
- octave-band qtr.-wave coupled semi-tracking stripline jn. circulators 29546
- pulsed EM field meas., strip transm. line 3948
- six-port reflectometer using hybrid stripline/waveguide technology 25962
- transverse ground-plane slot in boxed-stripline, radiation effic. optim. 2345
- H_2O in hydrocarbon/water solns., microwave acoustic sens. 10009

strip line couplers
- *see also microstrip couplers*
- aperture coupling, adjacent layers, stripline geom. 6288
- branch-line eight-port hybrid cct. 21518
- broadside suspen. stripline coupler design 37962
- ONYX-CS software modules for microstrip components design 12708
- SAW resonator filter, reversing multistrip couplers 30643
- SAW ring filters, insertion loss of 1 dB 30642

strip line discontinuities
- *see also microstrip discontinuities*
- cylindrical microwave struct., semi-inversion method 15557
- multilayered board, via-hole, excess capacitance, connecting striplines 12882
- nonlayered substrs., striplines, slotlines, Green's impedance fn. 15567
- suspen. striplines, proper values/vectors calc. 37933

strip line filters
- *see also microstrip filters*
- MLC dielec. stripline planar filter for portable telephones 805
- multilayer Teflon microwave PWBs, isolation techs. 37974
- ONYX-CS software modules for microstrip components design 12708
- SAW ring filters, insertion loss of 1 dB 30642
- surface mount RF/microwave filters, high dielec. const. ceramics 21401
- TLM anal., AR and ARMA spectral estim. 12731
- YBaCuO HTSC microwave resonators and filters 37969

strip line resonators
- *see also microstrip resonators*
- act. antenna element design 31980
- HTSC strip resonators, Q-factors 12706
- low temp. co-fireable ceramics, wideband elec. charactn. 34673
- shielded CPW resonator anal. *(Korean)* 21525
- $YBa_2Cu_3O_7$ microwave coplanar resonators, power-induced switching 37970
- $YBa_2Cu_3O_{7-x}$, microwave penetration depth, contactless meas. 39227

strip lines
- *see also microstrip lines; strip line discontinuities*
- aperture coupling, adjacent layers, stripline geom. 6288
- array probe card, micromachined, charactn. 20409
- complex cross-sect. stripline calc. by half-inversion method 15587
- coplanar strips, anal. considering finite strip metal. thickness 2295
- coplanar strips on finitely thick substr., quasistatic params. calc. 23798
- coplanar transm. lines on low permit. substrs., THz bandwidth characts. 12696
- coupled striplines, higher order modes 799
- distributed field emitter array MM-wave power amp. 38213
- ellipt. cone, stripline, microstrip line and coaxial line *(Chinese)* 31908
- FD-TD method, strip dipole with window, stripline fed, anal. *(Japanese)* 31981
- HTS/metal/polymer dielec. interconnect struct. for packaging appls. 11785
- interconnections for VLSI chip/modules , design database 28446
- Josephson tunnel jn. striplines, microwave distrib. 39257
- layered anisotropic media planar transm. lines, characts. anal. 23796
- multilayered lossy planar line params. calc. method 2289
- opt. controlled phased array antenna 15668
- optim. tech. for time domain appls. 12700
- PCB with center traces, crosstalk reduction 21627
- planar EM anals. validation, ultra-high precision benchmark 824
- quartz cryst., solid switches, electron-beam controlled 21609
- quasi-TEM coupled transm. lines, modal charact. impedance 23787
- shielded suspen. substr. strip transm. line anal. *(Korean)* 15546
- supercond. RF parametric transducer for gravit. wave antennae 25812
- suspen. striplines, proper values/vectors calc. 37933
- symmetric coupled transm. line on suspen. substr., spectrum calc. 37932
- ZnSe polycryst., solid switches, electron-beam controlled 21609
- GaAs substrs., coplanar strip lines/waveguides, ultrashort elec. pulse generation 39562
- YBaCuO/Ag coplanar lines, charactn. and EM modeling 37936

structural acoustics
- *see also architectural acoustics*
- Airbus aircraft acoustic fatigue certification 26537
- ASA 128th meeting, Austen, USA (Nov.-Dec. 1994) 6
- conference on acoustics, Toulouse, France (May 1994) 5443
- drill strings, sound wave propag. 43562
- far-field sound radiation, act. control 10576
- pipes, propag. acoustic press. meas. by piezofilm sens. 4024
- sonar transducer arrays, holographic anal. of dyn. and struct. 17478
- vibro-acoustical props., lab. meas., theoretical basis 42995

structural engineering
- *see also structural engineering computing*
- Bragg grating fiber optic sens. for C fiber prestressed concrete highway bridge 34545
- cannon calibre EM railgun, discarding armature, design 18965
- complex structural engng. systs. safety, logical-probab. anal. *(Russian)* 5565
- domestic heating syst. thermionic converter design 28176
- EM launchers, 3D structural/EM anal. calcs. 15366
- IIMS, integrated imagery mgt. syst., struct. quality assess., photogrammetry 24482
- lin. pulse motor mag. reluctance distrib., structural depend. anal. *(Japanese)* 44072
- nuc. heating reactor core barrel, reliab. anal. method 35937
- offshore wind turbogenerators, foundations design optim. 10895
- opt. sens. systs. for smart civ. infrastructure 34548
- pass. structural damping, shape memory wires 28895
- power station component structural integrity, R5/R6 assess. procedures 19390
- PVDF piezoelectric sensors, structural engineering appls. 25799
- railgun accelerator, structural response num. simul. 15322
- reliab. estim. models, uncertain data handling 37179

structural engineering computing
- aerodynamics and aeroelasticity, aerospace indust. progress 10302
- complex structural el. fatigue lifetime eval. 11868
- elec.-structural engng. finite element modelling education rels. 5535
- guyed transm. towers, anal./design, Kuwait case study 43790
- hydroelectric dam surveillance, ES/mgt. IS-based 19544
- mech. component reliab. anal. 11867
- NPP, aircraft crash, react.-time response 43844
- offshore wind turbines, nonlin. integrated computer modelling 10899
- radioelectronic apparatus, printed components dyn. charact. computing 38071
- semicoercive variational inequalities, approx., error estim. 11955
- ship struct., multi-objective optimum design, reliab. theory *(Chinese)* 5703
- transm. line towers, reliab.-based optim. 43789

structural engineering computing continued
- US NDT of adherent area, metal/nonmetal surfaces 453

structure (chemical) *see chemical structure*

structured programming
- microcomputer syst. for controlling classical conditioning expts. 17691
- obj.-oriented design for adaptive filter perform. comparisons 32628
- train driving simulator, struct. software develop. 44574
- voice-controlled telecomm. terminal for phys. handicapped 4313

Structured Query Language *see SQL*

stuck-at faults *see fault location; logic testing*

stuck-open faults *see fault location; logic testing*

student experiments
- 3-phase transformer no-load characts. anal. 36221
- BNC-to-microstrip transit., EM undergraduate lab. appls. 20281
- computer sci. education, modern microelectronics appls. 28330
- computer-based pump testing expt. 5523
- concurrent engng. design, student lab. project 36940
- developments, courses conf., Washington, DC, USA (Nov. 1993) 36901
- elec. engng. course, EM field visualisation software 20312
- elec. engng. education, interactive CBT syst. 20344
- elec. power engng., intell. tutoring syst. 20302
- elec. undergraduate lab sessions, interactive multimedia syst. 20305
- electrical/electronic engng. education, experience-based learning approach 28353
- electronics, computer-aided lab. 20319
- engng. degree lab., TMS320C25 DSP chip-based course 20345
- engng. education, computer-aided lab. expt. interfaces 36939
- engng. undergraduates, expt. skills develop. 5538
- H, 21 cm hyperfine line, radioastronomy appls. 5514
- intell. materials, materials education appl. 28889
- MathCAD, expt. simul. lab for teaching sig. proc. 20294
- network anal., student lab. course, knowledge validation 20279
- power Darlington transistor fab., student lab. exercises 30255
- power electronics undergraduate/graduate education survey, USA 5532
- power systs. bifurcations/chaos education, student lab. 20349
- react. time expts., CAI support syst. develop. *(Japanese)* 36930
- rect. Hall devices, pot. distrib. determ. software 30208
- teaching real-time DSP, Univ. of Leicester 36921
- undergraduate lab. data acquisition, digital oscilloscope appls. 20285
- Verilog-based computer engng. course and lab. 5517

student modelling *see user modelling*

studios
- *see also radio studios; television studios*
- multi-track digital recording facility, acoustic/audio design 3689
- multicast software develop. 25158
- Solid State Logic and workstations for professional audio 17616
- surround sound prog. computer environ. 17617

sub-MM wave devices *see submillimetre wave devices*

sub-mm wave propagation *see submillimetre wave propagation*

sub-mm wave spectroscopy *see submillimetre wave spectroscopy*

subcarrier multiplexing
- 1550 nm opt. AM-SCM systs., self-PM induced second order distortion 34095
- AM-SCM lightwave syst., simultaneous scatt./interf. suppression 17175
- analog lightwave link with large polariz.-mode dispersion, 64-QAM BER meas. 9560
- BER estim. of opt. transm., monitoring 25481
- CATV 151-channel AM-FDM transm., 1.3 μm SL-MQW-DFB laser, high opt. output power 25542
- CATV DFB source laser lin. limits 25528
- CATV near-future archit., broadcast channels capacity 42616
- commun. technol. *(Japanese)* 42038
- dual-bus digital syst. semicond. opt. amplifer-based subcarrier add-drop multiplexer 17214
- externally modulated opt. AM-SCM systs., 1550 nm, distortion 9423
- hybrid SCM AM/QAM lightwave transm., laser clipping distortion effects 42411
- LAN, SCM CDM/FDMA 16716
- MM-wave/fiber-optic subcarrier transm. links, HBT photodetectors *(Japanese)* 9548
- MQW-DFB-LD modules for SCM fiber-optic transm. *(Japanese)* 42468
- MSK multichannel coherent SCM lightwave syst. 17340
- multiaccess star network archit., WDM/SCM 42437
- multiple access PON, adjacent channels 42392
- nonlin. distortion of SCM systs., SBS caused 17172
- opt. CATV SCM receivers, IMD reduction 9738
- optoelectronic switch for SCM networks 17211
- parametric receiver design, modelling techs. 12744
- partially-corrugated-waveguide LD, low modulation distortion for SCM telecom. appls. 17194
- pass. broadband WDM/TDM/SCMA opt. network syst. 9493
- pass. WDM opt. network, cost-shared components 9463
- phase-locked tunable subcarrier comb generator 9426
- pretransmisson nonlin. channel compression in SCM lightwave systs. 17212
- push-pull opt. frontends for SCM CATV appls. 42458
- video distrib. coherent lightwave syst. aspects *(Croatian)* 3549
- wavelength-routing network switching theory 9522
- Er-doped fiber amplified low-distortion WDM AM SCM 4×50-channel CATV transm. 9572
- Pr^{3+}:ZBLAN fibre amp. AM-VSB video link 3583

subcontracting *see outsourcing*

subcooling *see undercooling*

subject headings *see vocabulary*

subject index terms *see vocabulary*

submarine cables
- *see also cable laying*
- 10 Gb/s single-channel high-capacity soliton syst. design 17352
- 10 Gb/s transm., 5800 km opt. amplified testbed 42447
- 300 MW submarine power syst. link project, South Korea 19238
- AC/DC HV power cable develops., CIGRE study Committee 21 activities 27195
- ADRIA 1, opt. fibre submarine cable syst. 33736
- Aqua Explorer 1000 for inspection of underwater cables 9156
- AT&T's undersea commun. technol. 33737
- cable procurement in 2000 and beyond 3034
- CPFSK coherent opt. transm. for repeaterless submarine syst. *(Japanese)* 16994

submarine cables continued
- developing economies, cost effective installation and maint. of subsea links 3308
- developing nations, submarine fiber-optic systs., economic building block 3307
- dielec. mouldings, microscopy 9155
- elec./telecom. infrastructure develop. projects, Estonia 43639
- fiber-optic syst. technol., review and future prospects 3574
- FSA submarine opt. amp. syst., rem. supervision *(Japanese)* 16993
- FSA submarine opt. amp. transm. syst. *(Japanese)* 16992
- high bandwidth internat. video via fiber optic cable 3057
- HVDC submarine cables, overvoltages, testing 27198
- installed opt. submarine cable, long-term polariz.-mode-dispersion meas. 17207
- internat. video transm. network and cable conditions and trends *(Japanese)* 17574
- long span submarine opt. fiber transm. systs., evol. *(Japanese)* 16991
- modular SMPS, opt. submarine cable appls. 19836
- neutrally buoyant electrooptic tether cables 19301
- New Zealand HVDC link upgrade 27141
- opt. cable systs., cost-effective backhaul routes 3306
- opt. cable systs., networking trends 3305
- opt. cable transm. syst., and characts. *(Croatian)* 3550
- opt. fibre coupler packaging for high undersea reliab. 17278
- opt. fibres for ultra-high capacity telecomm. *(Japanese)* 3545
- opt. repeater unit 25537
- opt. submarine cable systs., future prospects 3035
- opt. submarine cables, EDFA repeaters, data transm. 33981
- power transm. systs., power electronics growth overview 35594
- SDH/SONET undersea fiber-optic systs. 17237
- seafloor cable laying, SHRIMP seismic investig. tool 18817
- seismometry & geoelectric for cables 10441
- Siemens MINISUB non-repeatered submarine cable syst. 34041
- soliton transm. on opt. fibres *(English, French)* 42342
- stable soliton transm. in nonlin. nonlin. amplif. loop mirror gain syst. 42459
- submarine opt. amp. systs., fault location, coherent OTDR *(Japanese)* 16995
- telecomms. syst., forward error control, simul. techs. 42450
- transoceanic amplified submarine systs., NRZ-zero chromatic dispersion/soliton based designs 42365
- undersea cable systs., design requirements 33995
- undersea cable systs., installation/maint. technol. 33998
- undersea cable systs., opt. amplified, design and deployment 33738
- undersea cable systs. in global networking 33994
- undersea commun., future directions 33739
- undersea commun. systs., network planning/operation/maint. 33999
- undersea non-repeatered technols., challenges, and products 33997
- undersea opt. amplified repeatered technol./products 33996
- used power cable quality determ., field tests 4685
- Venezuela, RED Costera opt. submarine cable syst. 3575
- Er-doped fiber amp. long-haul undersea syst. monitoring 17239
- Er-doped fiber amplifer chromatic dispersion eval. 34060
- Er-doped fibre amps., sensitivity, H_2 14754

submarines *see marine systems*

submillimetre astronomy
- MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
- SIS open struct. receiver for submm radioastronomy 42555
- Turkey, site selection for mm & sub mm radiotelescopes 17520

submillimetre conductivity *see high-frequency effects*

submillimetre telescopes *see radiotelescopes*

submillimetre wave antennas
- free-space pulse gen./detect., THz spectrosc. syst. appl. 42905
- Schottky diode corner cube mixer, whisker antenna, embedding impedance 6316
- GaAs, epitaxial layer, opt. mixer, heterodyne generation 6311
- InP collector-up HBT, 300-400 GHz, mm and submm phased antenna array appls. 6314
- YBaCuO antenna microbolometers on sapphire, stabil. and noise 17751

submillimetre wave couplers
- *see also millimetre wave couplers*
- metal mesh couplers, evanescent waves 29550

submillimetre wave detectors
- *see also infrared detectors; millimetre wave detectors; submillimetre wave receivers*
- free-space pulse gen./detect., THz spectrosc. syst. appl. 42905
- HTSC tunnel jns., photon detectors 39283
- space THz technol., symp., Ann Arbor, USA (May 1994) 36819
- tactical systs. appls. for THz devices 10591
- terahertz spectrosc. syst., electronic generation/detect. 6324
- YBaCuO HTSC bolometer, submillimeter wavelengths 39300
- YBaCuO antenna microbolometers on sapphire, stabil. and noise 17751

submillimetre wave devices
- *see also millimetre wave devices; submillimetre wave antennas; submillimetre wave couplers; submillimetre wave detectors; submillimetre wave diodes; submillimetre wave lasers; submillimetre wave mixers; submillimetre wave oscillators; submillimetre wave receivers; submillimetre wave transistors; submillimetre wave tubes*
- circ. groove guide for short mm- and submm-waves 21508
- free electron masers, microwave syst. based on open quasioptical waveguide 1840
- high-precision reflectometer, specular reflectance 34711
- mirrors in BWG, inclined phase-transforming surface representation 30924
- MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
- noncontacting waveguide backshort, subMM wave freqs. 29533
- PLA of Josephson jns., GHz/THz oscillators 39280
- quasi-opt. Doppler freq. shift device 37951
- RLC miniature elec. filters for single electron devices 37829
- SQ well submillimeter-wave generation and amplif. by coherent wave-packet oscills. 6559
- terahertz sources 6303

submillimetre wave diodes
- *see also millimetre wave diodes*
- DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW 21556
- Schottky barrier mixer diode in submillimeter wave region, optim. 6315
- Schottky collector RTDs, fab., electron beam lithog. 13604
- Schottky varactors, sidewall-etched, sub-mm-wave sampling cct. 38028
- GaAs subMM Schottky diodes, reliab. and micro-struct. 1340

submillimetre wave imaging
see also infrared imaging; millimetre wave imaging
quasi-opt. image separation scheme for mm- and submm-waves 3961
submillimetre wave integrated circuits
see also millimetre wave integrated circuits
autonomous/injection-locked flux-flow oscillators, spectral linewidth 38015
DC-725 GHz sampling ccts./subps nonlin. transm. lines, elevated CPW 21556
free-space pulse gen./detect., THz spectrosc. syst. appl. 42905
orthonormal wavelet expansions anal. of integrated mm-wave/sub-mm-wave waveguides 12809
Schottky varactors, sidewall-etched, sub-mm-wave sampling cct. 38028
terahertz spectrosc. syst., electronic generation/detect. 6324
submillimetre wave lasers
see also millimetre wave lasers
CARM, electron-opt. syst. 39915
DISKTRON electrostatic accelerator and laser-induced photoelectrons facility 31464
divergence study of far IR laser 40004
far-IR grating FEL, tunable, compact, high power 7689
FEL conf., Stanford, CA, USA (1994) 36818
FEL spectral dyn., modulation of electron beam energy 31428
FEL with large μ_c planar undulator, waveguide appl. 39980
FIR lasers, CW opt. pumped, efficiency 14689
FIR opt. pumped amps., nonlin. propag. effects 14676
interface techs. for gigahertz/gigabit lasers 39858
interferometer-polarimeter, laser-based for plasma diagnostics 40173
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
p-n jn., laser gen. mechanism of submm. EM oscills. 39793
phonon-difference FIR lasers, neg.-effective-mass generators 14890
TEU-FEL project 14981
ultrashort-pulse submillimeter-wave lasers and appls. 39660
waveguide FEL amp., low- and HF waves 39981
p-Ge, intervalenceband pulse FIR laser, mode fine struct. 14891
submillimetre wave measurement
see also millimetre wave measurement
BWO spectrometry and composite structs. appl. 42907
dielec. props. meas., organic liqs., 890 GHz 18032
free-space pulse gen./detect., THz spectrosc. syst. appl. 42905
interferometer-polarimeter, laser-based for plasma diagnostics 40173
Josephson microstrip resonators, dielec. const./surface resist. meas. 18047
neutron focusing optic for submillimeter materials anal. 5933
polariz. refl. matrix meas., quasi-opt. tech. 42906
submillimetre wave mixers
see also millimetre wave mixers
astrophys. receivers, THz source requirements 6313
quasi-opt. image separation scheme for mm- and submm-waves 3961
Schottky diode corner cube mixer, whisker antenna, embedding impedance 6316
SIS open struct. receiver for submm radioastronomy 42555
subharmonically pumped THz mixers employing reson. metal mesh bandpass filters 37979
GaAs, epitaxial layer, opt. mixer, heterodyne generation 6311
Nb supercond. resonator ccts., freq. response 22762
Nb/Al-oxide/Nb SIS jns. fab. 12758
submillimetre wave oscillators
see also millimetre wave oscillators
astrophys. receivers, THz source requirements 6313
autonomous/injection-locked flux-flow oscillators, spectral linewidth 38015
CW phase locked opt. parametric oscillator, terahertz source 7763
freq.-tripled BWO, HSSD $^{r}Q_3$ branch 21847
Josephson jn. HTSC oscillator array, phase locking 38004
NASA missions, submillimeter source needs 6312
PLA of Josephson jns., GHz/THz oscillators 39280
solid-state oscillator, open quasioptical metal-dielec. resonator 37977
space THz technol., symp., Ann Arbor, USA (May 1994) 36819
HCN laser, output radiation depolarisation 7510
submillimetre wave propagation
plasma scatt. meas., submillimeter wave gyrotron appl. 2239
turbulent atmos. radiochannel, underlying terrestrial cover refls., mm/submm waves 40344
submillimetre wave range *see submillimetre wave devices*
submillimetre wave receivers
see also millimetre wave receivers; radio receivers; submillimetre wave detectors
astrophys. receivers, THz source requirements 6313
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
SIS open struct. receiver for submm radioastronomy 42555
space THz technol., symp., Ann Arbor, USA (May 1994) 36819
Nb/AlO_x/Nb tuned SIS jn. 850 GHz waveguide receiver on Si_3N_4 membranes 29569
submillimetre wave spectrometers *see submillimetre wave spectroscopy*
submillimetre wave spectroscopy
see also infrared spectroscopy; millimetre wave spectroscopy
BWO spectrometry and composite structs. appl. 42907
free-space pulse gen./detect., THz spectrosc. syst. appl. 42905
interstel. mols., lab. spectrometry, French develop. 42554
MM-/sub-MM waves, conf., San Diego (Jan. 1994) 28234
terahertz spectrosc. syst., electronic generation/detect. 6324
submillimetre wave transistors
see also millimetre wave transistors
THETA transistor, high power THz freq. source 838
InP collector-up HBT, 300-400 GHz, mm and submm phased antenna array appls. 6314
submillimetre wave tubes
see also millimetre wave tubes
cyclotron autoresonance klystron operating, Doppler-shifted harmonics 29790
terahertz sources 6303
suboptimal control
heat/power syst., suboptimal control, modal decoupling *(Chinese)* 43886
multiobjective controller design, guaranteed H_∞ control perform. 44062
PWR NPP neural control 35738
real-time power syst. operations, loss minimization fn. 10629
subroutines
see also software libraries
automatic differentiation on distributed memory MIMD systs. 11996
cct. simulator incl. user-defined devices 21075
subroutines continued
ROM based interrupt routines, C and child procs. 651
travelling cameraman problem, PC inspection 28516
subscriber lines *see subscriber loops*
subscriber loops
see also optical fibre subscriber loops
2 GHz radio propag. for local loop appls. 33844
6 Mb/s ADSL, constellation TDM 16922
access network, wireless technols. integrat. 25148
access network evol., market and regulatory issues *(English, Italian)* 33668
ADSL, DSP-based prototype reverse channel transmitter/receiver 33673
ADSL, multi-drop in-house distrib. network 16919
ADSL, noise environ./syst. perform. 16918
ADSL, twisted-pair access, inform. highway 42058
ADSL config., perform. simul. 9106
ADSL high speed equalizer, sig. proc. design 9086
ADSL systs., introduction 9103
advanced access network archits. and service demand forecasting 42064
ASDL links maint. approach and fns. 16916
ASDL wideband noise meas. and implications for sig. proc. 16923
ASDL-I deployment, automated syst. for RFI anal. 9095
ASIANET for Cable TV and commun. 3676
asymmetric DSL ideal discrete multitone signalling 42051
asymmetrical DSL, echo cancellation 9089
AT&T's ACCU-Ring network access service 42059
ATM cross-connect archit., expandability and non-blocking 3295
ATM switching network, asymmetric broadcast, concentrators 16971
ATM technol. for CPN *(Japanese)* 25147
BellSouth Telecommunications, pers. services, AIN 24931
British Telecom's video on demand technol. 42580
broadband distrib. networking, changes/progress 33672
clipped DMT ADSL sig., SNR/spectral props. 9097
connection line multiplexer appl. *(German)* 16955
coord. digital transm. 15861
customer-centered interfaces, service subscription inform. 24922
data transm., RF exposure effects 7992
DECT, rural/urban wireless local loop access 42273
DECT for wireless local loop 42274
DECT in radio local loop appl. 8852
DECT radio local loop appl., radio access, repeater 25434
DECT technol. for radio in local loop 8853
digital data transm., unshielded copper wire emission 15478
digital network access to low demand areas, develop. strategies 3016
digital QAM ADSL systs., adaptive sig. proc. 9096
distributed access network perform. eval. by DEVSim++ 25141
DMT-based ADSL, concept, archit., and perform. 9105
DMT-based ADSL systs., clipping effect anal. 9088
DMT/DWMT systs. and digital filter banks 9091
DSL discrete multitone modulation, high-speed full-duplex echo cancellation 40560
echo-cancelled discrete multitone systs., timing recovery 9090
element mgt. requirements for evolving access networks 16594
enterprise network (in yr. 2000) 41640
European Union, infrastructure competition strategy 8808
FITL couplers, reliab. assurance 3539
fixed radio access for wireless subscriber connection *(German)* 33765
four-wire loop systs., correl. AR subscriber sigs., echo canceler perform. 25144
FSE/DFE-based HDSL equalizer, adaptive algms. 9087
future telecomm. services, carrier's network strategies 9085
gamma filter for echo cancellation in subscriber loop 33674
German telephone network, impulsive noise survey for stat. modeling 16913
GSM syst., security aspects/mgt. 3351
HDSL, discrete multitone transceiver soln. 9083
HDSL archit./perform., practical implement. 9104
HDSL chipset for high-speed transm., copper 16920
HDSL design, computer based optim. techs. 16921
HDSL equal-power coord. transm. 16924
Hermite wavelets for multicarrier data transmission 9092
high speed access technology, IEE Colloquium, London (1994) 13
high-speed copper access transm. systs. 16915
Horton's and Strahler's laws 42065
Horton's law, appl., telecomms. networks *(Japanese)* 42061
hybrid fiber/coaxial network technol. 9421
inform. highway, low-cost access, ADSL technol. 16914
ISDN technol. for local loop special services transm. syst. 41924
leased cct., low speed data/analogue voice band subscriber equipt. *(Japanese)* 25143
LF suppression of baseband coded sequences 8164
Mitsubishi ATM subscriber-line transm. equipt. 33669
MOLP model, telecom. network modernization, sensitivity anal. 41572
multipair symm. cables at 1 kHz-2 MHz, crosstalk/transm. 16927
multirate systs., aliasing effects and non-stationary quantization noise 32720
multiservice ATM networks, bandwidth mgt. 24906
NTT's local networks, HDSLs/ADSLs range 16917
NTT's local networks, range of baseband/passband HDSLs 25140
pass. protection apparatus for commun. lines, phantom reson. transformer 25193
PC rem. control of appliances by telephone lines 41746
PCN interoperable licensed/unlicensed wireless access 33842
Philips DECT technol. for wireless local loop networks 42063
Proctor and Associates Secured System Access Line, develop. 3269
prog. analogue CMOS transm. cct., electronic telephone sets 33678
RACE 2087/TITAN, access network alternatives *(Italian, English)* 42071
radio in the local loop, economics and operation 42068
ref. sig. generator echo cancellation, ISI receiving schemes 32725
rem. switching unit, MAX-L exchange 25189
SDH technol. for access network services delivery 9100
service adaptive access SLIC, CMOS prog. DSP, oversampled ADC/DAC 21378
SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
Siemens PCM30H multiplexers for customized access 9130
Taiwan, opt. network constr. 3573
TDMA low-power wireless access syst., coverage/handoff tests 25412
telecom. network line interface overvoltage/overcurrent protection 16573
telecomm. equipt., lightning-surge test method 25146
telecomms. networks, access link systs. 25145
telephone loop plant, technol./appls. 25138

subscriber loops continued
trellis codes for primary rate ISDN 16791
UMTS, fixed network issues and design options 25331
US WEST's broadband residential access archit. 42057
video on demand services, hierarchical storage dimensioning 17573
wireless access systs., low bit-rate video transm. 17088
Pb-acid batt. temp. meas., subscriber loop carrier cabinets 44293
Si integrated adaptive LMS echo canceller, variable step size 16926
subscriber networks *see subscriber loops*
subscription fulfilment *see publishing*
subsets (mathematics) *see set theory*
substation insulation
see also gas insulated substations
170 kV rated containerized substations, perform. and appls. 11213
equipt. condition monitoring, fuzzy sets/neural net-based 19908
GIS, coaxial pulse generator, VFT generation 36487
GIS insulation diagnostics, UHF techs. 19910
power syst. insulation co-ordination, IEC 71 std. *(French)* 35581
substations
see also rectifier substations; substation insulation; switching substations; transformer substations
3 kV DC rly. power syst. harmonics, time domain anal. 44553
3-phase multiconductor busbar systs., model validation 19904
6 kV compact power capacitor syst., urban distrib. substation *(Japanese)* 27864
12/36/145 kV distrib. cct. breakers, utility experiences 4668
22 kV spot network power receiving/transforming facility *(Japanese)* 27775
66/6 kV distrib. substation develop. project, Japan *(Japanese)* 35630
77 kV substation fault sect. localizer *(Japanese)* 27865
132 kV indoor substation earthing, pot. gradients control 36481
138 kV power line damper repair, live-line working 10751
168 kV hybrid GIS, outdoor air insulated bus substations *(Japanese)* 27838
225/42 kV substation lightning protection *(French)* 36485
230 kV step-up substation, characts. *(Japanese)* 27861
330 kV substation busbar short-ccts., turbogenerator saturation modelling 19064
400 kV distrib. substations, conductor short-cct. effects simul. 19281
400 kV EHV transm. syst. planning/develop., Singapore 27122
500 kV Central China power syst. EMS overview 19188
500 kV power interchange transm. line project, USA 27065
advanced SCADA concepts, substation appl. 19131
air insulated substations, EM field calcs., computer-based 5161
bulk substations, seq. of events eval., neural networks 44244
cables, induced transients meas./models 5157
column structs., seismic protection prediction 19903
control/protection integrat., μP-based *(English)* 36476
Croatian power syst., war consequences overview *(Croatian)* 10624
DC convertor stations, generator shaft torsion simul. 4635
DC electrified rly. traction syst., stray currents control 44546
DC power syst. short-cct. current calcs. 19039
DC rly. power systs., intell. traction power control 28126
design, OO knowledge based tool 19906
designated distrib. area, short range planning, computerized procedure 10699
distrib. line overcurrent protection settings determ., DSS-based 19259
distrib. network, load forecasting, decision making, hybrid ES 19270
distrib. network automatic fault location/isolation syst. *(Japanese)* 10736
distrib. network revitalisation project overview, Bahrain 19283
distrib. network SCADA syst. installation project, USA 10732
distrib. networks, interconnected, relay protection coord. 4639
distrib. substation automation develop. 11214
distrib. substation earthing systs., safety design 4662
distrib. substations, thyristor controlled series capacitor appls. 27163
earthing systs., 3D CAD studies 5160
EHV radial transm. networks, transient recovery voltage stresses 4619
EHV substation, lightning voltage surge calc. *(French)* 36484
elec. load, on-line modelling *(Chinese)* 35421
elec. locomotives, adaptive output power control studies *(Japanese)* 28112
elec. utility target mktg., GIS 27045
equipt. vibr./noise reduction *(Japanese)* 36477
fault recovery operation support syst., knowledge reuse methods 11216
filter coil overheat fault diagnosis, 7th harmonic *(Chinese)* 44243
fire protection design/equipt., IEEE Guide 36490
flexible overhead busbars, mech. calc. algm. 19916
house emergency supply modelling, computer-based 27859
HV overhead line earth fault compensation coeff. modelling 19328
HV power capacitor technol. in Japan, develop. 27876
HV substation cct. breakers, simul.-aided short cct. risk eval. 44247
HV substation flexible busbars, plastic impact simul. 19915
HV substation reliab. centered maint. project, France 44248
HV substations reliab. studies, TOPASE knowledge tool 19907
HV substations/MV networks operation, diagnostic ES 19909
HVDC harmonic filter design trends 4633
I$_s$-Limiter, distrib. switchboard short-cct. protection 19339
intell. control, fault diagnosis/proc. *(Chinese)* 36471
intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
lightning/surge protection 19918
lightning/surge protection, comments/reply 19919
lightning/surge protection, reply, comments 19920
LSA coord. substation protection/control syst. *(English)* 44250
LV cct., gas insulated switchgear, surge voltage meas. 27870
mobile substations, elec. utility requirements survey, USA 11217
Nat. Electrical Safety Code, 1994-5 interps. 27224
New Zealand HVDC link upgrade 27141
oil refinery substation alternative config. reliab. anal. 20170
oil spill control, IEEE Guide 36491
outdoor HV substations, short-cct. mech. tests 19914
overhead conductors, equiv. static mech. load calcs. 19921
petroleum indust., substation, 5th/7th harmonic filters appl. 5407
planar SOFC, EPRI R&D efforts overview 44347
power syst. geomag. induced currents, directional sensitivity 4449
power syst. state estim., topol. proc.-based method 26878
power systems computation, conf., Avignon, France (1993) 11544
primary substn. operation support, multiple inference engines *(Japanese)* 19913
protection/control coord., μP ES-based 44246
radial distrib. syst., fixed/SC, optimal choice 19240
radial syst. struct. determ., chaotic neural net *(Japanese)* 4495
substations continued
regional substations control centre, ES appls. 27018
reliab. , AI-based simul. 5164
reliab. anal., STAREL/COMREL computer programs 36474
reliab. eval., act. min. cut set selection 36482
reliab. eval., TOPASE project 36475
ring main substation protection, HV HRC fuse appls. 4663
rly. overhead contact lines, high-speed insulator develop. 36748
rly. substation load levelling, energy storage *(German)* 44523
rly. substations, 3-phase power flow studies 20108
Russia-Finland HVDC interconnection, third harmonic 4632
safety, soil resist. meas. method 44245
SCADA syst., relay network integrat. project, USA 10769
seq. control ccts. with timing coord., design verification based on theorem-proving tech. *(English)* 29106
SPIDER MicroSCADA distrib. network control syst. 27184
struct./grounding syst., lightning strike, transient anal. 44251
subway elec. supply, energy saving, batt. storage plant 44539
TOPASE ES, substation reliab. anal. appls. 27869
transformer substations, EM transients anal. 36480
transm. network optimal fault location, μP-based 4623
transm. network reliab. anal syst., primary substations 26904
transm. network substation control centers, SPARSE ES appls. 19230
transm. network switching transient I-V calcs. 4621
transmission and distrib. equip. reliability, IEE conf., Warwick, UK (1995) 36831
urban rly. substation systs. 44508
VAr/volt supervision/control units, fault tolerant *(Chinese)* 36472
Vietnam 500 kV North-South transm. line project 26980
waste heat recovery syst., heat pump-based 36473
WZB5-III series computer-based control unit for substations *(Chinese)* 19911
SF$_6$ 145 kV dead tank cct. breaker develop. 5151
SF$_6$ 145 kV type F75 GIS develop. 5152
SF$_6$ MV distrib. substation switchgear develop. 5148
substrates
see also semiconductor device manufacture
0.1 μm MOSFET on thin-film SOI substr., self-aligned source-body contact 22456
3D polymer substrs., sputtered thin film metallization 12170
(100) GaAs, (HgMn)Te films MOVPE 20891
1500 W freq. converter, direct bond Cu substr. 37068
adsorbed gases, surface conductance meas. 11774
alumina ceramic substrs., MCM appls. 29732
antirefl. coatings, ion implant. effects *(German)* 7446
aperture-coupled multiplayer microstrip antenna anal. 31942
ASEM MCM foundry, test methodology 6460
bulk II-VI substrs., improved quality for HgCdTe and HgZnTe epitaxy 37421
C-band linearly tapered slot antenna on Si substr. 23908
carburized W substrs., diamond films adhesion 37478
cavity-backed printed dipole arrays with substr. mode control 23966
chirostrip dipole antenna, scanning behavior, substr. effects 8052
coaxially-fed rect. patch antenna input impedance rel. to substr. thickness 31939
COB technol. for low cost MCM 21750
coplanar strips on finitely thick substr., quasistatic params. calc. 23798
coplanar transm. lines on low permit. substrs., THz bandwidth characts. 12696
cubic GaN/(100)GaAs substrs., GaN hydride VPE 12079
CVD diamond, edge-cooled MCM, cooling archit. study 21770
CVD diamond, metallization and die attach 38662
diamond:B thin-film electrodes, metal adlayers, electrodeposition 30145
diamond, homoepitaxial thin film, plasma CVD grown *(Chinese)* 5849
diamond packaging, CVD, tech. cost modelling, scale-up factors 37527
diamond/(C-C) composite, semicond. base 12193
dielec. substr. backed by nonperfect conductor, surface boundary condition 40287
electronics mfg., excimer laser proc. syst. appls. *(Japanese)* 107
GaAs (111)B substrs., GaAs selective epitaxy, in-situ obs. 20874
glass-Si substr. for hybrid optoelectronic packaging 31118
hexagonal GaN/(111)GaAs substrs., GaN hydride VPE 12079
high power substrs. for thick film ccts. 21658
high reliab. internal capacitor of low-temp. ceramic cct. 29611
high-speed interconnect, laminate subst., dual C40 MCM 38186
hybrid IC, anisotropic test substr., thermal field simul. 6842
infinite line currents on cylindrical bianisotropic substrates 23819
infinite printed-dipole array input impedance rel. to random posn. errors 23977
interconnection technol., colloquium, London, Nov. 1994 5482
isotropic thin film texture for hard disc substrs. 7147
lin. and nonlin. MMICs, design strategies 29597
linearly tapered slot antenna on dielec. substrate anal. 23876
MBE, substr. heater 20814
MCM interconnect considerations 38199
MCM manufacture, assembly and testing guidelines 12964
MCM substr. manufacture, cost-competitive appls. 21695
MCM testing strategy 6468
MCM-D, Cu/polyimid TFML bare substr., MCM 21742
MCM-D fast prototyping of superSPARC chipset 21756
MCM-L, laminate substr. current state 38192
MCM-L layout approach for high-speed problems 38187
MCMs, packaging technols. 29713
metallic substr. tubular SOFC, flame coated 44328
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
micromachined materials mech. props. 5926
microstrip antenna surface wave efficiency comparison 23839
microstrip antennas, anom. mutual coupling 8080
microstrip Green's fns. in magneto-dielec. substr. 40406
microstrip line energy fluxes for ferrite substr., mag. biasing 12694
microwave boards, elec. perform. 21530
microwave cct. boards, elec. perform. 12741
mil. MCM packaging design and manufacture 29714
mixed analog/digital ICs, substr. material effect on crosstalk 21447
mixed-sig. macrocell placement in WRIGHT 29395
MLC substrs. and packages, telecomm. appls. 29652
MMIC multilayer packaging technols. 21730
monolithic phased array cross-polaris. from substr.-supported metal strip antennas 23967

substrates continued
opt. disk substr. vert. birefr. measuring method 15192
Parylene conformal coating economies 933
patch microstrip resonator array on anisotropic substr., anal. 21522
PCB substr. cond. effects, electronic components, convective cooling 909
PCBs, organic substrs., low cost miniaturisation 12879
perfluorocyclobutane containing aromatic ether polymers, mag. media substrs. 7139
planar microcavity LED's, design/expt. comparison 31097
polycarbonate opt. disk substrs., birefr., wavelength depend. meas. 7267
PTFE, cct. fab. methods 6436
α-quartz, SAW, extreme press.-sensitive cuts 30645
rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
RF sputtered glass films, elec. induced second-order opt. nonlin. 23389
SAW oscillators for low vibr. sensitivity 30646
SAW resonator filters for digital radio systs., review 37832
Si, vert.-stacked GaAs quantum wires, MOVPE 20797
silica glass substr., impedance spectrosc. 3918
smart substr. MCM, feasibility study 6457
SOFC, substr. planar type, develop., Fuji Elec. 44330
steel, stainless for thick-film strain gauges, co-firing effect 3779
substr.-mode grating struct. opt. switches 7754
thermal anal. of IC chips, thermographic imaging 13832
thick film resistors on Al_2O_3 and dielec. substrs. 6347
thick film strain gauges on insulated metal substrs. 3788
thin film capacitor, MCM substr. 21690
thin film microstrip line dielec. thickness var. by TDR 38180
thin-film narrow-bandpass filters prod. by ion-assisted deposition, temp. stabil. 22988
transm. line struct. on PCBs and dielec. substrs. 21622
transverse surface wave propag. on piezoelec. substr., modelling 30608
two-conductor multilayer microstrip line coupling 31873
unilateral fin line resonate on biaxial substrates, spectral-domain anal. 21527
vac. epitaxial growth systs., vis. laser interferometry 28788
VDMOS-type power ICs, void-free bonded SOI substrs. 39017
(111)/(001) Si substrs., ECR assisted-MBE 5822
Al contacts, plasma sputtered Cu coating, contact resist. 29626
AlGaAs substrs., MOCVD growth 20826
AlN, Cr/Au microstrip lines, HF/high dens. packaging 21511
AlN ceramics, Space Shuttle rem. power controllers 26688
AlN, edge-cooled MCM, cooling archit. 21770
AlN substr./Ti thin films, interface form. kinetics 20459
AlN-Al_2O_3, Cr/Au microstrip lines, HF/high dens. packaging 21511
Al_2O_3, Cr/Au microstrip lines, HF/high dens. packaging 21511
Al_2O_3, edge-cooled MCM, cooling archit. study 21770
Be foils for devices and phys. expts. 37528
CdTe bulk substrs., intrinsic defects, vacancies, dangling bonds 38255
CoCr-$NiP_3(TiSi_2)$(Cr)(C)-soda lime glass recording media, high coercivity and low noise 7115
Cu-clad polyimide laminate, BCB layers for MCM-D/L appls., attenuated refl. IR microscopy 12982
GaAs (001) substr., GaSb films, MBE, lattice mismatch accomodation, disloc. threading 297
GaAs (100) substr., ZnTe SR excited growth, metalorganic sources 20889
GaAs, (211)B orientated, surface-emitting second-harmonic generator/autocorrelator 23361
GaAs CPW opt. illum. 3D full-wave anal. 23810
GaAs high index (n11)A/(n11)B substrs., strained InGaAs quantum wire/box struct. 22000
GaAs, patterned substrs., LP MOCVD InGaP 20830
GaAs substr., ZnSe/$Cd_xZn_{1-x}Se$/ZnSe quantum well pseudomorph, struct., interfacial studies 302
GaAs substr., micromachining, focused ion beams 5610
GaAs substrs., GaInAsP, GaInP solar cells 10396
GaAs substrs., SiN_x films, surface passiv. 30131
GaAs substrs., automated nondestructive meas., IR reflectance/transm. 21002
GaAs substrs., thin-film $LiNbO_3$ waveguides fab. 14478
GaAs, substrs., vapour press. controlled CZ growth 12028
GaAs thin film, GaAs substr., eutectic bonding-induced in-plane strain 38341
GaAs thin film, Si substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs MQW, $LiTaO_3$ substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs MQW, Si substr., eutectic bonding-induced in-plane strain 38341
GaAs-AlGaAs quantum-wire arrays on vicinal substrs., FEA of valence band struct. 21998
GaAs(001) for AlAs/GaAs superlattice, X-ray standing wave meas. 38367
GaAs(111)B substrs., homoepitaxial growth, at. steps 20859
GaP substr., GaAs-AlGaAs heterojn. solar cells 11285
GaP wind-band substr., GaAs-AlGaAs conc. photoconverter 36593
H annealed wafer, ULSI substr. 22091
In-Sn eutectic solder, substr. effects, microstruct./mech. behavior 11743
$InAs_{0.08}P_{0.92}$ ternary substr., charactn. for InGaAs MQW laser 23184
InGaP-GaAs(001) substr./InP quantum islands, coherently strained self-assembly 20947
InP nanoscale island substrs., buried InGaAs layers, MOVPE, photolum. 20832
InP substr., micromachining, focused ion beams 5610
InP substrates, VGF growth process 12021
InP, substrs., vapour press. controlled CZ growth 12028
InP:Fe wafers, SI, prep., annealing 13279
InP: S(Sn)(Fe) substrates, scatt. defects, laser scanning tomography 13043
InP(001) for InP/InGaAsP struct., X-ray standing wave meas. 38367
InSb, SiN_x films, surface passiv. 30131
$KTiOPO_4$ opt. waveguide fab. by Rb^+:K^+ ion-exchange proc. 30982
$La_{0.7}Sr_{0.3}MnO_3$ porous cathode substrs., SOFC 11274
$Li_2B_4O_7$ substr. SAW devices 30637
$Li_2B_4O_7$ substrs., leaky SAW propag. props. 30638
$LiNbO_3$, SAW phase vel. detect., laser probing syst. 10071
$LiNbO_3$ chip assembly on silica-based waveguide on terraced Si substr. 31128
$LiNbO_3$ substr., opt. polariz. splitter 14430
LiNbO3 low-loss SAW dispersive filters, low sidelobe level in compressed sig. 39542
Mo, diamond films adhesion 37478
Mo-Cu layered foil conductors, power hybrids, ceramic substrs. 21663
$NdGaO_3$ bicrystalline substr. for YBaCuO Josephson jns. 22764
Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389

substrates continued
Ni-Cd sealed cells, fibre substrs., oxygen recomb. 5194
NiP/Al discs, sputter-induced random micro texturing 5885
Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
Si, BCB layers for MCM-D/L appls., attenuated refl. IR microscopy 12982
Si, PZT piezoelec. thin films deposited on Si 6914
Si, RTO in N_2O, MOS capacitor testing 22220
Si TFTs fab., min. glass substr. deform., RTA control 30007
Si cryogenic detectors, ion-implanted charge collection contacts 38487
Si, epitaxial surface for GaAs heteroepitaxy 307
Si, fluidic self-assembly of GaAs microstruct. 1468
Si multicrystalline solar cells improvements, key technol. 27953
Si, porous substrs., plasma CVD diamond 12137
Si substr. MCM technol., sens. sig. proc./control 21769
Si substr. MOVPE grown, novel pseudomorphic struct. 20824
Si substr., carburised, plasma CVD diamond films 12152
Si substr. integrated optoelectronic devices 7488
Si substr., micromachining, focused ion beams 5610
Si substr., thin-film waveguide, grating coupler optimisation 14442
Si substrs., 2D pseudomorphic $Si_{1-x}Ge_x$ layer growth 305
Si substrs., pretreatment for CVD diamond deposition, AFM obs. 20977
Si substrs., sens. 25825
Si thin film solar cells, zone melting recryst. 44404
Si:Sb,B substrs., sub-PPB B contamination determ. 6522
Si/SiO_2, SIMOX substrs., Si ion implant. for secondary defect reduction 30043
Si(111) substr., Bi_2Te_3 thin films, cryst. growth, sticking coeff. 28716
Si(111) substrs., amorph., Ge film sputter deposition-induced 37510
SiC device proc./substr. fab., high power/temp. microwave 37990
$Si_{0.68}Ge_{0.32}$ substr., Si rapid thermal CVD, tapping-mode AFM 12139
SiO_2, electroless metal deposits, enhanced adherence 30156
SiO_2 films, thermal CVD, microdefects 407
SiO_2-on-Si NIR channel waveguides form. by electron-beam irrad. 14450
SiO_2-polysilicon MOSFET degrad., substr. hot electron stress 13680
$SrCaTiO_3$ microwave ceramics, metal conductors, adhesion strength 28870
W, diamond films adhesion 37478
W-AlN cofired multilayer substrs., low temp. sintering 11744
$YBa_2Cu_3O_{7-\delta}$, a-axis oriented, $SrTiO_3$ layer-by-layer growth 20963
subsynchronous reluctance motors *see reluctance motors*
subsynchronous resonance
500 kV power syst. series capacitor VAr compensation project, China *(Chinese)* 35510
AC/DC multi-machine power syst., SSR, shaft torsional vibr. *(Chinese)* 35470
FACTS, advanced series VAr compensator appls. 27138
multigenerator power systs., damping anal. program 4486
parallel turbogenerators, phase shifts, SSR, incipient stabil. 43978
power syst. SSR damping, SMES-based 10681
power syst. stabil., subsystems interact. 19092
sync. machine modelling, freq. response data-based 36115
turboalternator third-order SSR stabil. models 44018
turbogenerator shaft torque amplif. prediction 36092
sudden commencement *see magnetic storms*
sum frequency generation (optical) *see optical frequency conversion*
summing circuits
see also adders
feedforward amp. incorporating parallel output summing 12346
gradient projection network, analog solver for lin. constrained nonlin. prog. *(Japanese)* 37281
shift-invariant continuous time cellular ANNs, dense CMOS design 29494
Sun
see also solar .....
SOHO solar spacecraft, operations & ground systs. 35277
sunlight
see also atmospheric optics
multi-lamp solar simulator, collector testing appls. 11456
photometer, LED-op amp design 35309
PV power systs., site/time specific simul., satellite insolation data 10892
PV syst. arrays, max. power operating point tracking 19982
solar cell efficiency vars., atmos. conditions studies 5230
UV technology, conference, San Diego, CA, USA (July 1994) 5467
Si PV cells, solar radiation resource assess. 42792
a-Si PV power systs., spectral output eval. method 27623
sunshine *see sunlight*
sunspots
see also solar activity
2D sigs., cyclic, parametric proc., appl. 2568
supercomputers *see mainframes; parallel machines*
superconducting cables
6 kV/170 A supercond. power transm., PROMISE project *(Japanese)* 4626
110 kV forcibly cooled and HTS power cable comparison *(German)* 27211
current leads develop., high T_c supercond., Ag addit. *(Japanese)* 19302
EPR, treeing in cryogenic temp. region, supercond. cable appl. 14060
fully supercond. power syst. 4690
high power underground cables, constr./installation 35644
high T_c supercond. wires, elec. power appls. 27218
high T_c superconds., power indust. appl. prospects 27068
LV high T_c supercond. DC transm. network 10719
magnet wire, normal-zone propag. vel. *(Korean)* 30805
metropolitan power systs., supercond. cable losses simul. *(Japanese)* 27216
multi-strand supercond. cable stabil., partial current distrib. *(Japanese)* 27215
noninductive reactor type supercond. fault current limiter 4718
normal zone propag. in Rutherford-type supercond. cables 27217
persistent current switches, stabil. current perform. *(Japanese)* 7257
power systs./transportation appl. possibilities 43612
SMES 200 kA cable-in-conduit conductor, perform. tests 4691
state-of-the-art supercond. material appls. 43972
supercond. fault current limiter develop. 4689
$Bi_2Sr_2Ca_2Cu_3O_x$ ceramics, current leads, high transport currents 14277
Nb_3Sn supercond. wire/generator R&D, Japan *(Japanese)* 19303
superconducting cavity resonators
CEBAF UV/IR FEL materials proc. subsystem testing 39920
decimeter wave range HTSC surface resist. 14285
high gradient supercond. cavities, SEM study 4055
high power pulsed RF supercond. accelerator cavities 4054
high resoln. thermometry for 1.5 GHz supercond. cavities 10056
HTSC lin. resonator, EM field determ. *(French)* 30807

superconducting cavity resonators continued
- HTSC surface impedance, microwave meas., cavity 3965
- Josephson tunnel jns., microwave standing wave patterns 822
- LEP2 at CERN, cryoplants 4037
- LEP2 cryogenics control syst. archit. 4036
- LISA supercond. linac, operation and perspectives 43023
- microwave stadium billiard with chaotic dyn., Gaussian stats. 14312
- Nb sputter-coated Cu Quarter Wave resonators 4050
- particle accelerators, RF supercond. 4123
- standing wave accel. cavities, transient state 18270
- BiPbSrCaCuO microwave HTSC-resonator-stabilized oscillator 14283
- GaAs MESFET CPW oscillators, supercond. resonator stabilization *(Chinese)* 37968
- He cryoplants in CERN SPS, control aspects 10080
- Nb coated 1.5 GHz accelerating cavities, supercond. props. 4049
- Nb_3Sn Rf cavities for charactn. of supercond. materials 1586
- $TlBa_2Ca_2Cu_3O_x$, microwave cavity resonators 14284
- $YBa_2Cu_3O_7$ bulk/films, surface resist., 10 GHz cylindrical cavity resonator 14269
- $YBa_2Cu_3O_{7-x}$ supercond. microstrip resonators, spectral-domain anal. 21516

superconducting coils
- AC supercond. current limiters, design and modelling 4731
- air-core power transformers, characts. anal. 27785
- Bean's model, homogenization in three dimens., transverse cond., coil quenching 39293
- DC power lines, SMES, input cct. 10718
- force-bal. supercond. coil studies, SMES appls. *(Japanese)* 11311
- forced flow cooled, quench propag. *(Japanese)* 7252
- high T_c supercond. wires, elec. power appls. 27218
- internal supercond. holding-coil, frozen spin targets 34878
- laminate-based supercond. magnet materials, thermal contraction 14308
- Maglev on-board power supply lin. generator, math. model 36759
- Maglev supercond. magnets, constr., perform. 5337
- MHD ship thrusters, supercond. windings, screening techs. *(French)* 36617
- module-type SMES syst., perform. studies *(Japanese)* 28046
- MRI, RF coil/cryogenic preamplifier, high temp. supercond. 35069
- multicoil adiabatic supercond. magnets, AC loss induced quenching 22769
- noninductive supercond. fault current limiter, simul. *(Korean)* 27274
- normal-zone propag. vel. calcs. *(Korean)* 22768
- protected, loss of supercond. state *(Polish)* 22766
- resistive zone propag. in supercond. magnet winding 39295
- SMES coil design optim. 20047
- sphere-in-sphere superconductive inductive mag. energy storage syst. 28047
- toric storage, semi-anal. calc. of mag. values 39291
- Bi-Sr-Ca-Cu-O HTSC 2212 coils, proc. and props. 39296
- $Bi_{1.8}Pb_{0.4}Sr_2Ca_{2.2}Cu_3O_x$-Ag tapes/test magnets, prep./charact. 7248
- BiSrCaCuO supercond. coils, design, fab. and test 1630
- BiSrCaCuO/Ag supercond. coils, develop. and test 1629
- Nb_3Sn fiber-reinforced superconds., pulsed magnet appls. 1631
- Nb_3Sn supercond. wire/generator R&D, Japan *(Japanese)* 19303
- NbTi Demo Poloidal Coil with uniform current distrib., stabilized operation 7251
- YBaCuO, pick-up coil with granular supercond. core, voltage waveform anal. 39292
- $YBa_2Cu_3O_7$ flux-transformers, input coils 1613
- $YBa_2Cu_3O_{7-x}$ thin film multiturn coil, laser scanning imaging 1632

superconducting critical currents *see critical currents*

superconducting critical field
- BiPbSrCaCuO mag. shield, trapping props., grains priority orient. effect 39248
- NbTi multifilamentary wires, proximity-induced Cu-Mn matrices, upper crit. fields 30770
- $Tl_2Ba_2Ca_2Cu_3O_{10}$, mag. shields 39247
- $Tl_2Sr_2Ca_2Cu_3O_x$, cylindrical shield, thermal cycling effect 39249

superconducting critical temperature *see superconducting transition temperature*

superconducting device noise
- axial SQUID gradiometer, direct-feedback 9894
- DC SQUIDs, additional pos. feedback, noise charact. 14291
- double loop SQUID, nonlin. phenom. anal. 1614
- dual channel digital SQUID, DC-powered Josephson MUX readout 39256
- HF charact. of supercond. wire 22772
- high T_c superconds., conductance noise, no. and mobility noise 1610
- high-T_c SQUID magnetometer for geophys. appls. 10455
- HTSC SQUID, charactn., optim. and modeling 22741
- multilayered Josephson jn. logic and memory devices 1624
- multiloop DC SQUID magnetometer, theory and expt. verification 39286
- phase-locked Josephson jn. oscillator array, noise 21139
- quasioptical Josephson detectors for MM-wave spectrum anal. 42759
- SQUID, voltage swing, additional pos. feedback params. 7236
- supercond. loop with Josephson jn., stochastic reson. 39260
- Nb/Er_3Ni SQUID magnetometer, Gifford-McMahon cryocooling, biomagnetism appls. 34436
- Nb-NbN SNS QW devices, quasiparticle characts., noise 39285
- Nb-NbN SQUID, thin-film quantum point contacts 22728
- Y-Ba-Cu-O thin films near transit. temp., thermal flucts. 1593
- YBaCuO DC SQUID magnetometer, low noise, direct sig. injection 39255
- YBaCuO antenna microbolometers on sapphire, stabil. and noise 17751
- YBaCuO, step-edge/bicrystal grain-boundary jns., excess noise 1612
- YBaCuO supercond. thin-films with differing axes of orient., elec. noise 1594
- YBaCuO thin film DC SQUID, mag. microscope 3956
- $YBa_2Cu_3O_7$ film on mica, bolometric/struct. props. 42816
- $YBa_2Cu_3O_{7-\delta}$ Josephson jns., microwave noise 39259
- $YBa_2Cu_3O_{7-x}$, Josephson jns., SQUIDs, cryo-refrigeration 1605
- $YBa_2Cu_3O_{7-x}$ SQUID, picovoltmeter 22739
- $YBa_2Cu_3O_{7-x}$ asymmetric DC SQUID, three terminal device, current gain, 77 K 22756
- $YBa_2Cu_3O_{7-x}$ integrated high-T_c multiloop magnetometer 30799
- $YBa_2Cu_3O_{7-x}/SrTiO_3/YBa_2Cu_3O_{7-x}$, low noise multilayers, supercond. magnetometers 22740

superconducting device testing
- HF charact. of supercond. wire 22772
- HTSC-based mag. levitated transport syst. in vac. 30808
- Josephson jn. IC opt. input/output interface syst. 1625
- RSFQ pseudo random generator, possible appls. 602
- SMES 200 kA cable-in-conduit conductor, perform. tests 4691

superconducting devices
- *see also cryotrons; superconducting cables; superconducting coils; superconducting device noise; superconducting device testing; superconducting junction devices; superconducting machines; superconducting magnets; superconducting microwave devices; superconducting particle detectors; superconducting resonators; superconducting switches; superconducting transformers*
- anisotropic supercond. planar waveguides 1640
- arrays, consts. of motion 22726
- CEBAF FEL injector, space charge dominated perform. modelling 39974
- circ. two-wire transm. line, AC resist. and internal inductance 40391
- compact storage ring, injection syst. 26059
- conference, HTSC materials/mechanisms, Grenoble, France (1994) 11559
- current limiter, quenching *(Japanese)* 35688
- fault current limiters, spec. *(Japanese)* 4732
- fully supercond. power syst. 4690
- high T_c supercond. fault current limiters, mag. shield *(Japanese)* 10782
- HTSC develop. 30789
- HTSC inductive current limiter for power systs. 4719
- HTSC patterned films, opt. sens. 22773
- HTSC-based mag. levitated transport syst. in vac. 30808
- levitation force between oxide supercond./PM, anal. *(Japanese)* 7232
- LV high T_c supercond. DC transm. network 10719
- mag. bearing, appls. *(Japanese)* 22711
- mag. levitated vehicle syst., damping charact. *(Japanese)* 28130
- mag.-shield type supercond. fault current limiter *(Japanese)* 7254
- MAGLEV, pass. mag. bearings, superconductors, PM *(French)* 7258
- plane supercond. logarithmic spiral, radiation fields 40464
- PM arrangements for supercond. pass. bearings 14310
- power syst. HTSC short-cct. current limiter studies 19341
- SERSE supercond. ECR ion source, project upgrading 43049
- supercond. floating flywheel *(Japanese)* 36634
- supercond. radiation detectors, thermal/nonequilibrium responses 17769
- third harmonic generation, shaped superconds. 22771
- transm. systs., quenching current level coord. 10777
- uniaxial stress/hydrostatic press. appl. 14315
- Univ. of Sao Paulo linac, beam optics, transport, target areas 26058
- VHF HTS thick-film loop antenna/two-element array 40495
- $Bi_{2-x}Pb_xSr_2Ca_2Cu_3O_x$, current leads, power device appl. 14316
- $Bi_2Sr_2CaCu_2O_x$, current leads, power device appl. 14316
- $Tl_2Ba_2Ca_1Cu_2O_x$ electrode based $Ba_{1-x}Sr_xTiO_3$ tunable capacitors 6356
- YBaCuO HTSC thin films, thermopile effect, laser radiation heating 22714
- YBaCuO bolometers at 10.6 μm wavelength, implement. 42814
- YBaCuO high T_c supercond. current limiter, props. *(Korean)* 35687
- $YBa_2Cu_3O_7$ HTSC bolometer films, response time 42815
- $YBa_2Cu_3O_7$, current leads, power device appl. 14316
- $YBa_2Cu_3O_7$ sens. based magnetometer for weak mag. fields 34442
- $YBa_2Cu_3O_{7-x}$ parallel connected elements, current distrib. 7229
- $YBa_2Cu_3O_{7-y}$ high T_c current limiting element 10776
- $YBa_2Cu_3O_7SrTiO_3$ CPW, elec. controlled 803

superconducting energy gap
- classical superconds., props. *(Polish)* 39220
- Josephson jns., I-V charact., EM field flucts., single electron tunnelling 30784
- InSb:Sm-coupled supercond. weak-links, multiple Andreev-refl. 30779
- Nb supercond. resonator ccts., freq. response 22762
- Pb-InSb-Pb weak-links, Andreev-refl. 14281
- $PrBa_2Cu_3O_y$-$YBa_2Cu_3O_x$ jn., low temp. STS 22757
- $YBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795
- $YBa_2Cu_3O_y$ jn., finite gap tunneling obs. 30778
- $YBa_2Cu_3O_7/CeO_2/YBa_2Cu_3O_7$ ramp-type jns., quasipart. tunnell. 30777
- $YBa_2Cu_3O_7/PrBa_2Cu_3O_7$/Au-Ag/Pb jns., electron transport props. *(Japanese)* 7235
- $YbBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795

superconducting epitaxial layers
- *see also superconducting superlattices*
- HTSC eptiaxial films/multilayers, growth *(French)* 28728
- overview of epitaxial deposition technol. 12041
- BiSrCaCuO, multilayers/superlattices develop. 22744
- $Bi_2Sr_2Ca_2Cu_3O_x$ epitaxial thin films, crit. current dens., vortex-glass transit. *(Japanese)* 7225
- $Bi_2Sr_2Ca_{n-1}Cu_nO_x$ thin films, MBE growth mechanism and control *(Japanese)* 5817
- $BiSr_2Ca_7Cu_8O$ high-T_c superconductive devices, at.-layer-controlled fab. *(Japanese)* 5818
- DyBaCuO, multilayers/superlattices develop. 22744
- $YBCO/CeO_2/YSZ/MgO$ bi-epitaxial grain boundary jns. 22753
- YBCO/MgO bi-epitaxial grain boundary jns. 22753
- YBCO/PBCO/YBCO planar sandwich-type jns., Josephson jn. charact. 39229
- YBaCuO, 10 GHz bandpass microstrip filter 816
- YBaCuO HTSC thin films, thermopile effect, laser radiation heating 22714
- YBaCuO biepitaxial Josephson jns. on SOS substrs. 22761
- YBaCuO, sub-micron structs., SEG 22755
- $YBa_2Cu_3O_7$ Josephson jn.-based digital ccts., nanoscale patterning 14298
- $YBa_2Cu_3O_7$ microbolometers, free-standing, on Si substrs. 3825
- $YBa_2Cu_3O_{7-\delta}$ films synthesized from amorph. precursors, orient. texture 5824
- $YBa_2Cu_3O_{7-\delta}$ normal state films, fast thermoelec. response, detector appls. 42793
- $YBa_2Cu_3O_{7-x}$ HTSC coplanar microstrip transm. lines 12693
- $YBa_2Cu_3O_{7-x}$ epitaxial ultrathin films, photoresponse 3826
- $YBa_2Cu_3O_{7-x}$ film parallel-plate microwave reson., freq. modulation 7253
- $YBa_2Cu_3O_{7-x}$ inhomog. superconds., mag.-flux dyn., low-field aspects 39278
- $YBa_2Cu_3O_{7-x}$ thin film bridges on bicrystal substrs., detect. props. 39265
- $YBa_2Cu_3O_x$ thin films, at. layer-by-layer MOCVD, opt. reflectance meas. *(Japanese)* 5816
- YBaCuO:Ag films on sapphire, microwave surface resist./residual losses 39236
- $YBa_2Cu_3O_7$-$PrBa_2Cu_3O_7$ Josephson edge type jns. 22754

superconducting integrated circuits
- *see also superconducting logic circuits; superconducting memory circuits*
- autonomous/injection-locked flux-flow oscillators, spectral linewidth 38015
- cryogenic RF SQUID readout, super Schottky diodes for sig. demodulation 21538
- edge-coupled microstrip loop resonators, capacitive loading 21576
- Josephson jn. IC opt. input/output interface syst. 1625
- Q-state neuron for Q-state associative memories 29444
- quasioptical Josephson detectors for MM-wave spectrum anal. 42759
- statics of mag. vortices 14296

superconducting integrated circuits continued
- $Bi_2Sr_2Ca_1Cu_2O_{8+x}$ thin films, micropatterning, Nb lift-off 30764
- Nb/Al-oxide/Nb SIS jns. fab. 12758
- $YBa_2Cu_3O_7$ Josephson jn.-based digital ccts., nanoscale patterning 14298

superconducting interconnections
- FDTD anal. 14297
- MCM HTSC thin film interconnects, fracture strain meas. 12249
- normal/supercond. multiconductor lines for interconnects/MICs 29578
- $YBa_2Cu_3O_7$ coplanar transm. lines, eye diag., S-params. 1298
- $YBa_2Cu_3O_7$ multilayers for MCMs, surface resist. simul. 38195

superconducting junction devices
- *see also SQUIDs; superconducting integrated circuits; superconducting interconnections; superconducting microbridges; superconducting transistors; superconductor-insulator-superconductor devices; superconductor-semiconductor boundaries*
- 2DEG quasiparticle interferometer, phase-depend. resist. 22751
- 2DEG-supercond. planar junctions, proximity and Josephson effects 30794
- AC biased supercond. flux transformer 30783
- bal. comparator employing overdamped Josephson jns., time resoln. 6254
- BH-alloy supercond. devices, multiple Andreev refl. 22734
- bridge jn. in supercond. film, ballistic resist. 7239
- coupled Josephson transm. lines, local defects, fluxon dyn. 1618
- cuprate supercond. jns., crit. current theory 30792
- electronic microrefrigerator based on normal-insulator-supercond. tunnel junct. 14289
- end-coupled Josephson jns., microwave absorpt., wideband detect. 42773
- Goto pair of tunnel Josephson jns., switching dyn. 14280
- high T_c superconds., conductance noise, no. and mobility noise 1610
- high-energy astronomy instrumentation conf., San Diego (July 1994) 5466
- HTSC, conf., Tsukuba, Japan (Dec. 1993) *(Japanese)* 2
- HTSC, grain boundary jn., voltage steps 30796
- HTSC develop. 30789
- HTSC single-cryst. supercond. crossotron switching element 1623
- JAWS supercond. logic gate, voltage-state study 622
- Josephson contacts, nonlin. vortices dyn. 30797
- Josephson jn., fluct.-dyn. stabil./resistive state 14304
- Josephson jn., fluxon chain, deform.-wave excitation 14305
- Josephson jn. array, resistively shunted, shielding 39269
- Josephson jn. arrays, adiabatic chaos 7240
- Josephson jn. arrays, coherent states, phase-locking behaviour 22760
- Josephson jn. cct., inductively coupled, bifurcation 14293
- Josephson jn. series arrays, av. eqns. 30774
- Josephson microstrip resonators, dielec. const./surface resist. meas. 18047
- Josephson tunnel jns., microwave standing wave patterns 822
- Josephson tunnel junctn. with trapped Abrikosov vortices, rad. detect. appl. 4154
- Josephson-jn. ladders, random mag. fields, phase roughening transit. 1626
- long Josephson jn. maser, microwave radiation stimulated emission 39632
- mesoscopic superconductivity, conf., Karlsruhe, Germany (1994) 11578
- nanoscopic struct., Josephson effect 7238
- normal metal-supercond. barrier contacts, proximity effect 22730
- opt. detector principles and characts. *(Japanese)* 17805
- overdamped Josephson jns., devil staircase dyn. 30785
- phase-locked Josephson jn. oscillator array, noise 21139
- satellite broadcast receiver, high T_c supercond. coupling device *(Japanese)* 34228
- series-connected Josephson jns., I-V charact., switching pulse effects *(Japanese)* 30782
- stacked Josephson tunnel jn. arrays under microwave irrad. 22743
- supercond.-normal-metal-supercond. jns., interface scatt. 22738
- sync. Josephson struct. operating on single mag.-flux quanta 14279
- tunnel jn. detector, relax. times, proximity effect 18299
- weak links syst., Josephson behavior, freq. modulated microwave field anal. 30781
- weak-link Josephson jns., nonlin. mixer gain calcs. 14286
- window Josephson tunnel jns., dyn. props., idle region influence 30775
- X-ray detectors, quasiparticle diffusion 30800
- Au-Pb N-I-S jn., temp. depend. of Andreev refl. current 14294
- BiSrCaCuO, multilayers/superlattices develop. 22744
- $BiSr_2Ca_7Cu_8O$ high-T_c superconductive devices, at.-layer-controlled fab. *(Japanese)* 5818
- DyBaCuO, multilayers/superlattices develop. 22744
- InAlAs/InAs/InGaAs 2DEG, supercond. three-terminal devices 39284
- InAs-coupled Josephson jns., crit. current, mesoscopic fluct. 22732
- InSb supercond. tunnel jn. β spectrometer, ^{63}Ni β spectrum 43125
- InSb:Sm-coupled supercond. weak-links, multiple Andreev-refl. 30779
- Nb underdamped discrete supercond. vortex flow devices, Eck peak 7241
- Nb/Al-AlO_x/Nb Josephson tunnel jns., vert. stacked 1606
- Nb/Al-AlO_x-Al/Nb jns., fab. by simple proc. 1609
- Nb/AlON-Al/Nb, Josephson jns., tunnel barrier growth, reflectivity 22745
- Nb-NbN SNS QW devices, quasiparticle characts., noise 39285
- Nb-based multilayered supercond. tunnel jns., X-ray detect. 4253
- Nb-based supercond. tunnel jns., 6 keV X-ray det. 4244
- PZT/YBaCuO heterostruct. capacitor, photoresponse, fast opt. readout 30595
- Pb-InSb-Pb weak-links, Andreev-refl. 14281
- $PrBa_2Cu_3O_y$-$YBa_2Cu_3O_x$ jn., low temp. STS 22757
- TlBaCaCuO microstrip ring resonator, double reson. behavior 12727
- Y-Ba-Cu-O 124 phase single crysts., tunnel jns. 30780
- YBCO/CeO_2/YSZ/MgO bi-epitaxial grain boundary jns. 22753
- YBCO/MgO bi-epitaxial grain boundary jns. 22753
- YBaCuO SNS Josephson jns. with epitaxial barriers, interface/proximity effects 39275
- YBaCuO film dc SQUIDs, film quality effect on props. 39281
- YBaCuO step-edge devices optim. 22719
- YBaCuO, step-edge/bicrystal grain-boundary jns., excess noise 1612
- YBaCuO thin-film Josephson jns., MM wave mixing *(Japanese)* 12762
- $YBa_2Cu_3O_7$, Josephson jn. fab., bi-epitaxial grain boundary 30790
- $YBa_2Cu_3O_7$ bridges, crit. current, mag. field depend. 30793
- $YBa_2Cu_3O_7$, single flux quantum converter, microwave testing 7237
- $YBa_2Cu_3O_{7-\delta}$, 3 mm waveband Gunn oscillator, phase locking 21537
- $YBa_2Cu_3O_{7-\delta}$ Josephson jns., microwave noise 39259
- $YBa_2Cu_3O_{7-x}$ grain boundary, CPW microwave mixer 6317
- $YBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795
- $YBa_2Cu_3O_y$ jn., finite gap tunneling obs. 30778
- $YBa_2Cu_3O_7$/$PrBa_2Cu_3O_7$/Au-Ag/Pb jns., electron transport props. *(Japanese)* 7235
- $YBa_2Cu_3O_{7-\delta}$/polypyrrole sandwich struct., reversible supercond. modulation 1616

superconducting junction devices continued
- $YBa_2Cu_3O_x$/$SrTiO_3$/$YBa_2Cu_3O_x$ tunnel jn., TEM study 22759
- YBaCuO-YPrBaCuO-YBaCuO ramp jns./multilayers, prep., comparator appl. 39274
- $YBa_2Cu_3O_7$-$PrBa_2Cu_3O_7$ Josephson edge type jns. 22754
- $YbBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795

superconducting lenses *see magnetic lenses*

superconducting logic circuits
- cryo-electronics opt. readout. LD appl. 29132
- dual channel digital SQUID, DC-powered Josephson MUX readout 39256
- JAWS supercond. logic gate, voltage-state study 622
- low-power A/D converter for IR array 34428
- multilayered Josephson jn. logic and memory devices 1624
- RSFQ pseudo random generator, possible appls. 602
- Nb/AlO_x/Nb Josephson jn. tech., high-speed single flux quantum cct. 21249

superconducting machines
- 6 kV/170 A supercond. power transm., PROMISE project *(Japanese)* 4626
- brushless excitation, mag. flux pump-based *(Japanese)* 10963
- commutatorless motors, fund. design, elec. characts. 36686
- conventional/supercond. generators, parallel running, transient stabil. *(Japanese)* 10965
- cryoresistive winding short cct. interacts. *(Russian)* 10919
- DC motors, high T_c supercond. field winding, slotless armature 4986
- flywheel energy storage, high T_c supercond. mag. bearing appl. 28050
- generators, short-cct. rotor damper EM force calcs. 27676
- high T_c superconds., power indust. appl. prospects 27068
- hysteresis machines, high T_c supercond. rotor 10976
- Maglev supercond. lin. sync. drives, stator irreg. calcs. 36761
- MRI, Shimadzu MAGNEX Alpha supercond. syst. *(Japanese)* 18527
- power systs./transportation appl. possibilities 43612
- ship propulsion, supercond. DC drives, torque react. windings 11402
- state-of-the-art supercond. material appls. 43972
- Nb_3Sn supercond. wire/generator R&D, Japan *(Japanese)* 19303

superconducting magnet energy storage
- 6 kV/170 A supercond. power transm., PROMISE project *(Japanese)* 4626
- 8 MWh flywheel-SMES power storage syst., feasibility study 28048
- AC/DC soft switching PWM power converter, SMES appls. 11176
- bulk transm. syst. interconnection develop. projects, Japan *(Japanese)* 10715
- cable-in-conduit conductor, 200 kA, perform. tests 4691
- coil design optim. 20047
- complementary energy storage, modern power conversion options 5237
- const.-voltage output PWM converter develop. 36273
- DC power line appls., input/output cct. studies *(Japanese)* 11309
- DC power lines, SMES, input cct. 10718
- dispersed generation syst. power conditioning technols. *(Japanese)* 35716
- dispersed power generation systs., develop. and appls. *(Japanese)* 35715
- energy transfer, internally induced voltage *(Japanese)* 1635
- force-bal. supercond. coil studies, SMES appls. *(Japanese)* 11311
- hybrid wind/diesel power syst. stabilisation, SMES controller design *(Japanese)* 27645
- interconnected power syst. control design, SMES-based 27002
- module-type SMES syst., perform. studies *(Japanese)* 28046
- partial energy fn. for fast transient control of power systs. 4567
- power syst. dyn. stabil. improvement, SMES-based design 27003
- power syst. SSR damping, SMES-based 10681
- power syst. stabilisation, SMES, fuzzy control 19171
- power syst. stabilisation, SMES appl. 4562
- power syst. sync. generator damping, SMES-based 10680
- power syst. transient stabil. improvement, SMES 27001
- power systs./transportation appl. possibilities 43612
- PSS, SMES-based, neural network-controlled 27030
- pulsed power supercond. opening switch, laser pulse triggered 36262
- rly. substation load levelling, energy storage *(German)* 44523
- self-supported SMES systs. assess. 5238
- self-supporting supercond. mag. energy syst. concept 5236
- soft-switched current-fed PWM inverter, struct., appls. 19735
- sphere-in-sphere superconductive inductive mag. energy storage syst. 28047
- state-of-the-art supercond. material appls. 43972
- toric storage, semi-anal. calc. of mag. values 39291
- YBaCuO high speed supercond. flywheel syst. for energy storage 44431

superconducting magnets
- *see also superconducting coils; superconducting machines*
- 8 MWh flywheel-SMES power storage syst., feasibility study 28048
- 200 MWe MHD generator channel, supercond. magnet optim. 4871
- accelerator magnet design 4122
- accelerator magnets, mag. field distrib. 39289
- actinide mag. separation, soil decontamination, TRUclean syst. 40275
- annular MHD submarine propulsion syst., field/current calcs. *(French)* 27967
- coil winder simul. for Superconducting Supercollider 22770
- cond.-cooled supercond. magnet, Gifford-McMahon refrigerator *(Japanese)* 1634
- conductor cryostability, winding struct. depend. 7250
- cryostat for beam test, 1.3 GHz SC-cavity, 1.8 K 1627
- D0 tracker upgrade, B phys. projections 4180
- Eloisatron dipole magnet design 4099
- FEL, harmonic generation, end fields 39966
- FEL supercond. undulator, harmonic generation, mag. field meas. 39965
- field stabilization of supercond. magnet, He press. control 22767
- force-bal. supercond. coil studies, SMES appls. *(Japanese)* 11311
- frictional heating/quenching 12189
- gyrotron expts., 330 Hz PRF tunable design 12998
- hadron colliders, scaling laws, cost optim. 4098
- helicoidal magnet syst., supercond. state, dyn. stabil. 14306
- HGMS, high T_c superconds. appls. 23527
- high T_c supercond. wires, elec. power appls. 27218
- homog. mag. field syst. for bacterial cultivation 14307
- HTSC supercond. magnets, composite conductors stabil. 1628
- internal supercond. holding-coil, frozen spin targets 34878
- ITER fusion tokamak, magnet design 7247
- ITER magnet cryogenic research facilities, computer-aided syst. 11719
- JET divertor assembly and early operation 7242
- laminate-based supercond. magnet materials, thermal contraction 14308
- LHD magnet syst. design and constr. 7243
- Maglev, instantaneous current detect., PWM converter *(Japanese)* 44563
- Maglev supercond. lin. sync. drives, stator irreg. calcs. 36761
- Maglev supercond. magnet protection, discharge tube switch-based 5338
- Maglev supercond. magnets, constr., perform. 5337

superconducting magnets continued
maglev supercond. magnets, power dissipation, vibr.-induced disturbances 1636
Maglev syst., levitation/guidance, static characts. *(Korean)* 28119
Maglev test facility vehicle design, Japan 5336
magnetised spheroid supercond. levitation, equilib. calcs. 2172
multicoil adiabatic supercond. magnets, AC loss induced quenching 22769
neutron spin-flipper, supercond. 18280
normal-zone propag. vel. *(Korean)* 30805
persistent current switches, stabil. current perform. *(Japanese)* 7257
power supply convertor, current control studies *(Japanese)* 11188
quenching detect. syst., EM calorimeter-based 26203
relativistic klystron amp. from MIT, 3.3 GHz, compact input cavity 29777
resistive zone propag. in supercond. magnet winding 39295
space appls. *(Japanese)* 35212
SR X-ray diffr., magnets for arbitrarily directed fields 39298
steelmaking, sintering cake magnetic suspen., electromagnets *(Japanese)* 44626
Tesla linac test facility controls status and future plans 18258
Tokamak-15 supercond. TF coil (STFC) heating under quench 7245
TPX tokamak supercond. magnet syst. 7246
trapped field magnet and stable levitation region of HTSC, anal. 39294
Wendelstein 7-X, advanced modular stellarator, supercond. coil syst. 7244
wiggler magnet at SRS Daresbury, research stations 43174
Bi-Sr-Ca-Cu-O HTSC 2212 coils, proc. and props. 39296
Bi-Sr-Ca-Cu-O/Ag 2212 supercond. magnet, RT bore of 45 mm diam., 20 K 30803
$(BiPb)_2Sr_2Ca_2Cu_2O_{10}$/Ag multifilamentary tapes and solenoids 1633
^{4}He superfluid cryogenics for LHC 4048
Nb-Ti multifilamentary wires, artificial Nb pins, high field AC supercond. magnet 30804
Nb_3Sn dipole magnet for future particle accelerators 4114
Nb_3Sn fiber-reinforced superconds., pulsed magnet appls. 1631
Nb_3Sn fiber-reinforced superconds., thin film prep. *(Japanese)* 22721
Nb_3Sn films, RF sputter deposition, pulsed magnet appls. 1592
Nb_3Sn supercond. wire/generator R&D, Japan *(Japanese)* 19303
YBaCuO, levitation/suspen. forces in microgravity expts. 39246
YBaCuO melt-textured materials for trapped field magnets, levitating bearings 39245
YBaCuO pellets, mag, textured, permanent mag. config., mag. bearings appl. 39244
YBaCuO supercond. magnets in DC motor, constr. 39297
$YBa_2Cu_3O_x$, $Nd_{1+x}Ba_{2-x}Cu_3O_y$ seeded melt growth, levitation appl. 7249

superconducting materials
see also composite superconductors; dirty superconductors; high-temperature superconductors; magnetic superconductors; organic superconductors; superconducting tapes; superconducting thin films; type I superconductors; type II superconductors
ceramics, sol-gel proc., elec./mag. props. 12190
power systs./transportation appl. possibilities 43612
Nb_3Sn fiber-reinforced superconds., pulsed magnet appls. 1631

superconducting memory circuits
DC integrated SQUID, local vortex gen./detect. 22758
Josephson-CMOS ICs, monolithic fab., RAM appl. 21312
multilayered Josephson jn. logic and memory devices 1624

superconducting microbridges
cuprate supercond. jns., crit. current theory 30792
HTSC, grain boundary jn., voltage steps 30796
HTSC air-bridge microbolometers, silicon micromachining 39262
mesoscopic SNS jns., dissipative charge transport 22731
$HoBa_2Cu_3O_x$ nanobridges, critical-current studies 30791
YBaCuO biepitaxial Josephson jns. on SOS substrs. 22761
YBaCuO microbridge, 2D array, weak links 22763
YBaCuO, sub-micron structs., SEG 22755
$YBa_2Cu_3O_7$ Josephson jn.-based digital ccts., nanoscale patterning 14298
$YBa_2Cu_3O_7$ bridges, crit. current, mag. field depend. 30793
$YBa_2Cu_3O_{7-\delta}$ nanobridges, coherent cortex motion 14303
$YBa_2Cu_3O_{7-\delta}$, thin-film microbridges, normal state, 1/f noise 22737
$YBa_2Cu_3O_{7-x}$ films, vortex-glass crit. regime, correl. length 30801
$YBa_2Cu_3O_{7-x}$ thin film bridges on bicrystal substrs., detect. props. 39265
$YBa_2Cu_3O_y$ granular bridges, I-V charact. and Josephson ac effects 30769
YBaCuO/BaF_2/Sn device, thin film microbridge, zero mag. field dissipation 30776
$YBa_2Cu_3O_7/La_2CuO_4$ microbridge radiation detectors 39288

superconducting microstrips *see microstrip lines; superconducting microwave devices*

superconducting microwave devices
see also superconducting cavity resonators
autonomous/injection-locked flux-flow oscillators, spectral linewidth 38015
broadband matching to capacitive devices, limits, SIS mixer design 12792
C-band superconductive input multiplexer for commun. satellites 12776
cryogenic RF SQUID readout, super Schottky diodes for sig. demodulation 21538
dielec.-loaded high T_c supercond. thin film, surface resist., microwave transm. 18052
edge-coupled microstrip loop resonators, capacitive loading 21576
end-coupled Josephson jns., microwave absorpt., wideband detect. 42773
ferrite-supercond. microwave phase shifters 12718
high-T_c supercond. elec. small strip antenna 8043
high-T_c supercond. microwave ccts. appls., future outlook 39254
HTS ferroelec. phase shifters, high power, config. 12707
HTSC circ. waveguides, Meissner boundaries 29523
HTSC microstrip travelling-wave resonators, double resons. 37971
HTSC planar transm. lines, propag. params. calc. 40415
HTSC tunnel jns., photon detectors 39283
interconnects, FDTD anal. 14297
Josephson jn. HTSC oscillator array, phase locking 38004
Josephson microstrip resonators, dielec. const./surface resist. meas. 18047
Josephson tunnel jn. striplines, microwave distrib. 39257
long Josephson jn. maser, microwave radiation stimulated emission 39632
microstripline atten. and propag. const. calc. 31896
multilayer high-T_c supercond. CPW, anal. 12691
on-board satellite SS correlator 25469
PLA of Josephson jns., GHz/THz oscillators 39280
planar supercond. waveguides in DC mag. field 37937
quasioptical Josephson detectors for MM-wave spectrum anal. 42759
rectangular microstrip patch radiation and loss anal. 23838
RF parametric transducer for gravit. wave antennae 25812
stacked Josephson tunnel jn. arrays under microwave irrad. 22743

superconducting microwave devices continued
thick film HTSC supergain printed dipole arrays 31960
$Bi_2Sr_2CaCu_2O_y$ single cryst., intrinsic Josephson juncts., flux flow 39268
Nb supercond. microstrip resonators, nonlin. microwave props. 39270
Nb supercond. resonator ccts., freq. response 22762
Nb/Al-oxide/Nb SIS jns. fab. 12758
Nb/AlO_x/Nb Josephson jn. tech., high-speed single flux quantum cct. 21249
Nb/AlO_x/Nb tuned SIS jn. 850 GHz waveguide receiver on Si_3N_4 membranes 29569
TlBaCaCuO microstrip ring resonator, double reson. behavior 12727
TlBaCaCuO thin film ring resonator, J_c distrib. 37953
TlCaBaCuO/GaAs, thin film supercond./MESFET semicond. hybrid phase shifter 29559
Y-Ba-Cu-O HTSC film microstrip, elec. instabilities, ultra-fast SN switching 37940
Y-Ba-Cu-O HTSC thin films, K-band microstrip filters 39299
Y-Ba-Cu-O microstrip resonators on sapphire substrs., microwave losses 37995
YBCO high-T_c supercond. film microstrip microwave opening switch 6281
YBaCuO, 10 GHz bandpass microstrip filter 816
YBaCuO HTSC bolometer, submillimeter wavelengths 39300
YBaCuO HTSC microwave resonators and filters 37969
YBaCuO antenna microbolometers on sapphire, stabil. and noise 17751
YBaCuO thin-film Josephson jns., MM wave mixing *(Japanese)* 12762
$YBa_2Cu_3O_7$ HTSC delay line, kinetic inductance, elec. tuning 14313
$YBa_2Cu_3O_7$ HTSC thin films, microwave pass. devices 30766
$YBa_2Cu_3O_7$ coplanar transm. lines, eye diag., S-params. 1298
$YBa_2Cu_3O_7$ microwave coplanar resonators, power-induced switching 37970
$YBa_2Cu_3O_7$, single flux quantum converter, microwave testing 7237
$YBa_2Cu_3O_{7-\delta}$, 3 mm waveband Gunn oscillator, phase locking 21537
$YBa_2Cu_3O_{7-\delta}$ thin films, microwave surface impedance determ. 25946
$YBa_2Cu_3O_{7-x}$ HTSC coplanar microstrip transm. lines 12693
$YBa_2Cu_3O_{7-x}$ film parallel-plate microwave reson., freq. modulation 7253
$YBa_2Cu_3O_{7-x}$ high T_c film dielec. resonator, MM-wave filter develop. 811
$YBa_2Cu_3O_{7-x}$, microwave EM field-induced dielec. reson. 30809
$YBa_2Cu_3O_{7-x}$ thin film bridges on bicrystal substrs., detect. props. 39265
$YBa_2Cu_3O_{7-x}$ grain boundary, CPW microwave mixer 6317
$YBa_2Cu_3O_y$ grain boundary jns. on (100)MgO, Josephson effects 30787
YBaCuO:Ag films on sapphire, microwave surface resist./residual losses 39236
$YBa_2Cu_3O_{7-x}$:Ag HTSC resonator, unbuffered sapphire substr. 30806
YBaCuO/Ag coplanar lines, charactn. and EM modeling 37936
YBaCuO-YPrBaCuO-YBaCuO ramp jns./multilayers, prep., comparator appl. 39274
$YBa_2Cu_3O_{7-x}$- $SrTiO_3$ 1 GHz tunable parallel plate dielec. resonator 37967

superconducting particle detectors
ATLAS detector B phys. 4181
Josephson tunnel junctn. with trapped Abrikosov vortices, rad. detect. appl. 4154
low-energy X-ray detect. in cryogenic detectors 26258
tunnel jn. detector, relax. times, proximity effect 18299
tunnel jn. X-ray detectors, quasiparticle diffusion 30800
InSb supercond. tunnel jn. β spectrometer, ^{63}Ni β spectrum 43125
Nb/Al-AlO_x-Al/Ta/Nb Josephson jns. for X-ray detect. 34972
Nb-based supercond. tunnel jns., 6 keV X-ray det. 4244
NbVN film, high energy particle detect. 4153
Ta supercond. strip α detector, current-biased, posit. sensitive 43060
$YBa_2Cu_3O_7/La_2CuO_4$ microbridge radiation detectors 39288

superconducting quantum interference devices *see SQUIDs*

superconducting resonators
see also superconducting cavity resonators
edge-coupled microstrip loop resonators, capacitive loading 21576
high-temp. supercond. resonator for high-field imaging 39253
HTSC microstrip travelling-wave resonators, double resons. 37971
HTSC strip resonators, Q-factors 12706
HTSC thin film resonators, buffer layers 39279
Josephson microstrip resonators, dielec. const./surface resist. meas. 18047
patch resonator soln., combined complex image and contour integral method 29538
Q-factor meas. of high-T_c supercond. resonators 1641
Nb supercond. resonator ccts., freq. response 22762
TlBaCaCuO microstrip ring resonator, double reson. behavior 12727
TlBaCaCuO thin film ring resonator, J_c distrib. 37953
Y-Ba-Cu-O microstrip resonators on sapphire substrs., microwave losses 37995
YBaCuO HTSC microwave resonators and filters 37969
$YBa_2Cu_3O_7$ microwave coplanar resonators, power-induced switching 37970
$YBa_2Cu_3O_{7-\delta}$ thin films, microwave surface impedance determ. 25946
$YBa_2Cu_3O_{7-x}$ HTSC coplanar microstrip transm. lines 12693
$YBa_2Cu_3O_{7-x}$, microwave penetration depth, contactless meas. 39227
$YBa_2Cu_3O_{7-x}$:Ag HTSC resonator, unbuffered sapphire substr. 30806
$YBa_2Cu_3O_{7-x}$- $SrTiO_3$ 1 GHz tunable parallel plate dielec. resonator 37967

superconducting striplines *see strip lines; superconducting microwave devices*

superconducting superlattices
HTSC eptiaxial films/multilayers, growth *(French)* 28728
multilayered Josephson jn. logic and memory devices 1624
supercond./insulator multilayer appls., review 1600
BiSrCaCuO, multilayers/superlattices develop. 22744
DyBaCuO, multilayers/superlattices develop. 22744
Nb-NbN SNS QW devices, quasiparticle characts., noise 39285
Nb-based multilayered supercond. tunnel jns., X-ray detect. 4253
PZT/$YBa_2Cu_3O_{7-\delta}$ heterostruct., laser ablation deposition 431
$YBa_2Cu_3O_7$ multilayers for MCMs, surface resist. simul. 38195
YBaCuO/$LaAlO_3$/YBaCuO multilayered films for microwave appls. 1599
$YBa_2Cu_3O_7/PrBa_2Cu_3O_7$ multilayer, spatially resolved elec. charact. 22720
$YBa_2Cu_3O_{7-\delta}/PrBa_2O_{7-\delta}$ superlattices, laser ablation deposition 431
YBaCuO-YPrBaCuO-YBaCuO ramp jns./multilayers, prep., comparator appl. 39274

superconducting switches
50 Hz supercond. rectifier, transformer and switch charact. 1637
pulsed power supercond. opening switch, laser pulse triggered 36262
YBaCuO films, subnanosecond switching, supercond./normal states 39301
$YBa_2Cu_3O_7$ HTSC film fault current limiter 7255

superconducting tapes
see also multifilamentary superconductors
supercond./insulator multilayer appls., review 1600
Ag/BiSrCaCuO supercond. tapes, joining technol. 30771
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+\delta}$Ag tapes, crit. current dens., columnar defects 1596
$(Bi,Pb)_2Sr_2Ca_2Cu_3O_{10+y}$-Ag tapes with 2212 phase, flux pinning 39226

superconducting tapes continued
- $(Bi,Pb)_2Sr_2Ca_2Cu_3O_X$-Ag, crit. current dens., rolling 22717
- $(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$ multifilamentary tapes, Ag-sheathed, AC losses 39217
- $(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$ tapes, Ag-sheathed, mag. behaviour 7228
- $(Bi,Pb)_2Sr_2Ca_2Cu_3O_x$-Ag tapes, crit. curr. dens. 39223
- (Bi,Pb)-Sr-Ca-Cu-O/Ag supercond. composite wires and tapes 14271
- Bi-Sr-Ca-Cu-O HTSC 2212 coils, proc. and props. 39296
- Bi-Sr-Ca-Cu-O/Ag 2212 supercond. magnet, RT bore of 45 mm diam., 20 K 30803
- BiPbSrCaCuO/Ag tape, microstruct./supercond. props., Ag sheath alloying effect 39239
- $Bi_{1.8}Pb_{0.4}Sr_2Ca_{2.2}Cu_3O_x$-Ag tapes/test magnets, prep./charact. 7248
- $Bi_{1.8}Pb_{0.4}Sr_2Ca_{2.2}Cu_3O_y$-Ag tapes, crit. current dens. 30772
- BiSrCaCuO 2212 tape, Ag-sheathed, I-V characts. 39218
- $Bi_2Sr_2Ca_2Cu_3O_x$ tape, thermoelec./thermomagnetic effects 39219
- $Bi_2Sr_2CaCu_2O_x$ superconds., reactive sintering 7226
- $Bi_2Sr_2Ca_2Cu_3O_x$:Pb/Ag, monofilamentary tapes, Hall sens. magnetometry 39228
- BiSrCaCuO/Ag 2212 ribbons, crit. currents 39224
- BiSrCaCuO/Ag tapes, 2223 phase, flux pinning, crit. currents 39225
- BiSrCaCuO/Ag tapes, 2223 phase, mag./transport studies 39222
- $Bi_2Sr_2CaCu_2O_{10}$/Ag HTSC ribbons, crit. current dens., field/temp./angle depend. 39234
- $Bi_2Sr_2CaCu_2O_y$/Ag tapes, electrophoretic deposition, high J_c 14278
- BiSrCaCuO-Ag tapes, 2223 phase, crit. currents 39221
- $(Tl,Pb)(Ba,Sr)_2Ca_2Cu_3O_9/Ag_{0.37}$ thick c-axis textured supercond. tapes 1598
- TlBaCaCuO tape, Ag-sheathed, flux pinning and motion 22723
- $(Tl_{0.6}Pb_{0.2}Bi_{0.2})(Sr_{1.8}Ba_{0.2})Ca_2Cu_3O_{9+x}$ powder/Ag-sheathed tape, synthesis/charact. 39251
- $Y_1Ba_2Cu_3O_{7-x}$ tapes, in-plane aligned on metallic substr. by CVD 399
- $YBa_2Cu_3O_{7-x}$/Ag composites, melt growth, domain struct. 20992

superconducting thin films
- *see also superconducting epitaxial layers; superconducting superlattices*
- AC biased supercond. flux transformer 30783
- bridge jn. in supercond. film, ballistic resist. 7239
- C-band superconductive input multiplexer for commun. satellites 12776
- conf., thin film physics/appl., Shanghai, China (1994) 28235
- cpd. films condensation, airlock unit of electron microscope 20957
- dielec.-loaded high T_c supercond. thin film, surface resist., microwave transm. 18052
- high T_c superconds., conductance noise, no. and mobility noise 1610
- HTS/metal/polymer dielec. interconnect struct. for packaging appls. 11785
- HTSC, conf., Tsukuba, Japan (Dec. 1993) *(Japanese)* 2
- HTSC, depend. of J_c on microstruct. and proc. 7227
- HTSC, workshop, Caen, France (Nov. 1993) 11536
- HTSC develop. 30789
- HTSC microstrip travelling-wave resonators, double resons. 37971
- HTSC patterned films, opt. sens. 22773
- HTSC thin film resonators, buffer layers 39279
- HTSC thin films, microwave surface resist., calorimetric/perturb. methods 39232
- HTSC thin films, residual stresses for in-situ deposition 14274
- intense ion beam thin film deposition 12151
- Josephson jn. IC opt. input/output interface syst. 1625
- Josephson tunnel junctn. with trapped Abrikosov vortices, rad. detect. appl. 4154
- low-temp. two-axis goniometer, accurate temp. control 9874
- MCM HTSC thin film interconnects, fracture strain meas. 12249
- metal oxide films, MOCVD for supercond. electronics 20950
- microbridge superconducting thin films, variable thickness, mag. field sensitivity 1603
- non-Josephson oscill. bolometric detectors 17779
- planar supercond. waveguides in DC mag. field 37937
- pulsed ion beam evaporation experiments at the Naval Research Laboratory 18252
- pulsed power supercond. opening switch, laser pulse triggered 36262
- satellite broadcast receiver, high T_c supercond. coupling device *(Japanese)* 34228
- third harmonic generation, shaped superconds. 22771
- $Bi_2Sr_2Ca_1Cu_2O_{8+x}$ thin films, micropatterning, Nb lift-off 30764
- $Bi_2Sr_2CaCu_2O_y$/Ag tapes, electrophoretic deposition, high J_c 14278
- $Bi_2Sr_2CaCu_2O_{8+x}$-based sens. for CO and NO 34614
- a-C:Cu cluster superconds., crit. temp. meas., mm-wave interf. method 39235
- CeO_2 thick film buffer layers for HTSC films 22724
- $CeO_2/YBa_2Cu_3O_{7-\delta}$, supercond. FET, prep., charactn. 14301
- Er-Ba-Cu-O, high-T_c, thin film/substr. thermal boundary resist. 14275
- Nb coated 1.5 GHz accelerating cavities, supercond. props. 4049
- Nb, mm/submm dielec. const./surface resist. meas. 18047
- Nb, supercond. disks, field depend. crit. currents 22716
- Nb supercond. film, supercond. wire contact, soldering prep. 30763
- Nb supercond. microstrip resonators, nonlin. microwave props. 39270
- Nb/AlON-Al/Nb, Josephson jns., tunnel barrier growth, reflectivity 22745
- Nb-Al-AlO_x-Nb tunnel jn. photon detectors, TEM/AFM anal. 39287
- NbC_xN_{1-x} supercond. thin films, reactive sputter deposition *(Japanese)* 397
- Nb_3Sn fiber-reinforced superconds., thin film prep. *(Japanese)* 22721
- Nb_3Sn films, RF sputter deposition, pulsed magnet appls. 1592
- NbVN film, high energy particle detect. 4153
- $PrBa_2Cu_3O_y$-$YBa_2Cu_3O_x$ jn., low temp. STS 22757
- Si/YBaCuO reactive patterning tech., step-edge jn. fab. 1611
- TlBaCaCuO microstrip ring resonator, double reson. behavior 12727
- TlBaCaCuO thin film ring resonator, J_c distrib. 37953
- $Tl_2Ba_2Ca_2Cu_3O_{10+x}$ thin film superconds., gamma-ray and fast neutron radiation effects 14276
- $Tl_2Ba_2CaCu_2O_{8+x}$ thin film superconds., gamma-ray and fast neutron radiation effects 14276
- TlCaBaCuO/GaAs, thin film supercond./MESFET semicond. hybrid phase shifter 29559
- Y-Ba-Cu-O HTSC film microstrip, elec. instabilities, ultra-fast SN switching 37940
- Y-Ba-Cu-O HTSC thin films, K-band microstrip filters 39299
- Y-Ba-Cu-O thin films near transit. temp., thermal flucts. 1593
- YBCO high T_c superconds., elec.-field effects, mechanism and device prospects *(Japanese)* 7234
- YBCO high-T_c supercond. film microstrip microwave opening switch 6281
- YBaCuO HTSC bolometer, submillimeter wavelengths 39300
- YBaCuO HTSC microwave resonators and filters 37969
- YBaCuO bolometers at 10.6 μm wavelength, implement. 42814

superconducting thin films continued
- YBaCuO film dc SQUIDs, film quality effect on props. 39281
- YBaCuO films, high-freq. modulated laser radiation, nonequilib./bolometric response 39233
- YBaCuO films, subnanosecond switching, supercond./normal states 39301
- YBaCuO high-T_c supercond. films, four-photon ps spectrosc. of phase transits. 7230
- YBaCuO step-edge devices optim. 22719
- YBaCuO supercond. thin-films with differing axes of orient., elec. noise 1594
- YBaCuO thin film DC SQUID, mag. microscope 3956
- YBaCuO thin film sputter deposition, transport proc. simul. 28864
- YBaCuO thin films, complex cond., surf. resist. *(French)* 30767
- YBaCuO thin films, planarized patterns 39230
- YBaCuO thin-film Josephson jns., MM wave mixing *(Japanese)* 12762
- $YBa_2Cu_3O_7$ HTS supercond. thin film fab. by high power ArF excimer laser *(Japanese)* 22713
- $YBa_2Cu_3O_7$ HTSC bolometer films, response time 42815
- $YBa_2Cu_3O_7$ HTSC delay line, kinetic inductance, elec. tuning 14313
- $YBa_2Cu_3O_7$ HTSC film fault current limiter 7255
- $YBa_2Cu_3O_7$ HTSC thin films, microwave pass. devices 30766
- $YBa_2Cu_3O_7$ bulk/films, surface resist., 10 GHz cylindrical cavity resonator 14269
- $YBa_2Cu_3O_7$ film on mica, bolometric/struct. props. 42816
- $YBa_2Cu_3O_7$ flux-transformers, input coils 1613
- $YBa_2Cu_3O_7$ high Tc epitaxial thin films, opt. SHG detect. 7745
- $YBa_2Cu_3O_7$ microwave coplanar resonators, power-induced switching 37970
- $YBa_2Cu_3O_7$ nanobridge based DC SQUIDs 1621
- $YBa_2Cu_3O_{7-\delta}$ film bicrystal grain boundary jn., field effect device 1615
- $YBa_2Cu_3O_{7-\delta}$ film structs., transport props., elec. field effects 39231
- $YBa_2Cu_3O_{7-\delta}$ films, laser ablation deposition 431
- $YBa_2Cu_3O_{7-\delta}$ high current thick films on flexible Ni substrs. 1597
- $YBa_2Cu_3O_{7-\delta}$ nanobridges, coherent cortex motion 14303
- $YBa_2Cu_3O_{7-\delta}$ thin films, microwave surface impedance determ. 25946
- $YBa_2Cu_3O_{7-x}$ HTSC coplanar microstrip transm. lines 12693
- $YBa_2Cu_3O_{7-x}$ SQUID, RF props. 30786
- $YBa_2Cu_3O_{7-x}$ films, vortex-glass crit. regime, correl. length 30801
- $YBa_2Cu_3O_{7-x}$ high T_c film dielec. resonator, MM-wave filter develop. 811
- $YBa_2Cu_3O_{7-x}$, microwave penetration depth, contactless meas. 39227
- $YBa_2Cu_3O_{7-x}$ thin film superconds., gamma-ray and fast neutron radiation effects 14276
- $YBa_2Cu_3O_{7-x}$ thin film, surface smoothing, MCM fab. 39252
- $YBa_2Cu_3O_{7-x}$ thin films, film growth, laser ablation, AFM, HRTEM, XRD *(French)* 30768
- $YBa_2Cu_3O_{7-x}$ grain boundary, CPW microwave mixer 6317
- YBaCuO:Ag films on sapphire, microwave surface resist./residual losses 39236
- $YBa_2Cu_3O_{7-x}$:Ag HTSC resonator, unbuffered sapphire substr. 30806
- YBaCuO/BaF_2/Sn device, thin film microbridge, zero mag. field dissipation 30776
- YBaCuO/$LaAlO_3$/YBaCuO multilayered films for microwave appls. 1599
- $YBa_2Cu_3O_7/PrBa_2Cu_3O_7$ multilayer, spatially resolved elec. charact. 22720
- $YBa_2Cu_3O_7/PrBa_2Cu_3O_7$/Au-Ag/Pb jns., electron transport props. *(Japanese)* 7235
- $YBa_2Cu_3O_{7-x}/SrTiO_3/YBa_2Cu_3O_{7-x}$, low noise multilayers, supercond. magnetometers 22740
- $YBa_2Cu_3O_7$-Josephson jns., mech. induced growth disorder 39273
- $YBa_2Cu_3O_7SrTiO_3$ CPW, elec. controlled 803

superconducting transformers
- 50 Hz supercond. rectifier, transformer and switch charact. 1637
- AC biased supercond. flux transformer 30783
- AC supercond. current limiters, design and modelling 4731
- coreless supercond. transformers, high coupling factor 39290
- layered supercond. dc flux transformer with Josephson coupling, modelling 30802
- thick film HTSC paste, microelectronics technol. appl. 22725
- $YBa_2Cu_3O_7$ RF SQUID magnetometer, direct-coupled pickup coils, flip-chip flux transformers 17728
- $YBa_2Cu_3O_7$ flux-transformers, input coils 1613
- $YBa_2Cu_3O_{7-\delta}$ planar multiline struct., current distrib. 14287

superconducting transistors
- MISFET, 3-terminal device *(Japanese)* 30354
- normal metal-supercond. interfaces, electron tunneling 22729
- normal/supercond./normal SET devices, Andreev refl., EM environ. 22750
- NSN single-electron transistor, charge transport/photon-assisted tunnelling 22735
- Q-state neuron for Q-state associative memories 29444
- single electron transistor, high impedance environ. 22748
- supercond. single electron tunnelling transistors, parity effects 22736
- $CeO_2/YBa_2Cu_3O_{7-\delta}$, supercond. FET, prep., charactn. 14301
- InAs/(AlGa)Sb quantum wells, supercond. transistors fab. 22727
- YBCO high T_c superconds., elec.-field effects, mechanism and device prospects *(Japanese)* 7234
- $YBa_2Cu_3O_{7-\delta}$ film structs., transport props., elec. field effects 39231

superconducting transition temperature
- 110 kV forcibly cooled and HTS power cable comparison *(German)* 27211
- high T_c superconds., conductance noise, no. and mobility noise 1610
- high-T_c supercond. meas., interf. reduction 34653
- HTSC eptiaxial films/multilayers, growth *(French)* 28728
- HTSC thin films, residual stresses for in-situ deposition 14274
- organic conductors meas., uniaxial stress method 34662
- refl. pulse method for material props. determ. 9829
- $Bi_2Sr_2Ca_1Cu_2O_{8+x}$ thin films, micropatterning, Nb lift-off 30764
- $Bi_2Sr_2CaCu_2O_x$ superconds., reactive sintering 7226
- a-C:Cu cluster superconds., crit. temp. meas., mm-wave interf. method 39235
- Nb coated 1.5 GHz accelerating cavities, supercond. props. 4049
- Nb_3Sn fiber-reinforced superconds., thin film prep. *(Japanese)* 22721
- NbTiN supercond., surface resist. meas. method, dielec. resonator struct. 39237
- NbVN film, high energy particle detect. 4153
- $(Tl,Pb)(Ba,Sr)_2Ca_2Cu_3O_9/Ag_{0.37}$ thick c-axis textured supercond. tapes 1598
- TlBaCaCuO microstrip ring resonator, double reson. behavior 12727
- Y-Ba-Cu-O thin films near transit. temp., thermal flucts. 1593
- YBaCuO high-T_c supercond. films, four-photon ps spectrosc. of phase transits. 7230
- YBaCuO supercond. thin-films with differing axes of orient., elec. noise 1594
- $Y_1Ba_2Cu_3O_{7-x}$ tapes, in-plane aligned on metallic substr. by CVD 399

superconducting transition temperature continued
$YBa_2Cu_3O_7$ HTS supercond. thin film fab. by high power ArF excimer laser *(Japanese)* 22713
$YBa_2Cu_3O_7$ flux-transformers, input coils 1613
$YBa_2Cu_3O_7$ microwave coplanar resonators, power-induced switching 37970
$YBa_2Cu_3O_7$ thick-film flux transformers 1608
$YBa_2Cu_3O_{7-\delta}$ film structs., transport props., elec. field effects 39231
$YBa_2Cu_3O_{7-x}$ films, vortex-glass crit. regime, correl. length 30801
$YBa_2Cu_3O_{7-x}$, microwave penetration depth, contactless meas. 39227
$YBa_2Cu_3O_{7-x}$ thin film multiturn coil, laser scanning imaging 1632
YBaCuO:Ag films on sapphire, microwave surface resist./residual losses 39236
YBaCuO/$LaAlO_3$/YBaCuO multilayered films for microwave appls. 1599
$YBa_2Cu_3O_{7-\delta}$/polypyrrole sandwich struct., reversible supercond. modulation 1616

superconductive tunnelling
see also Josephson effect; proximity effect (superconductivity); superconducting junction devices; tunnelling spectra; tunnelling spectroscopy
electronic microrefrigerator based on normal-insulator-supercond. tunnel junct. 14289
HTSC tunnel jns., photon detectors 39283
magnetic flux in supercond. circuits, quantum mechanics 30798
mesoscopic 2DEG coupled to superconds., quasiparticle interf. 22747
mesoscopic SNS jns., dissipative charge transport 22731
mesoscopic superconductivity, conf., Karlsruhe, Germany (1994) 11578
normal metal-supercond. interfaces, electron tunneling 22729
NSN single-electron transistor, charge transport/photon-assisted tunnelling 22735
supercond. single electron transistor in high impedance environ. 22748
supercond. single electron tunnelling transistors, parity effects 22736
X-ray detectors, quasiparticle diffusion 30800
BiSrCaCuO, multilayers/superlattices develop. 22744
DyBaCuO, multilayers/superlattices develop. 22744
InAs-coupled Josephson jns., crit. current, mesoscopic fluct. 22732
Nb supercond. resonator ccts., freq. response 22762
Nb/AlON-Al/Nb, Josephson jns., tunnel barrier growth, reflectivity 22745
Nb-Al-AlO_x-Nb tunnel jn. photon detectors, TEM/AFM anal. 39287
$YBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795
$YBa_2Cu_3O_y$ jn., finite gap tunneling obs. 30778
$YBa_2Cu_3O_{6.9}$/Nb, unconventional supercond., SQUID obs. 30765
$YBa_2Cu_3O_7/CeO_2/YBa_2Cu_3O_7$ ramp-type jns., quasipart. tunnell. 30777
$YbBa_2Cu_3O_{7-x}$, single particle tunneling, single cryst. break jn. 30795

superconductivity
see also BCS theory; coherence length; composite superconductors; Cooper pairs; critical currents; dirty superconductors; high-temperature superconductors; Meissner effect; organic superconductors; penetration depth (superconductivity); superconducting critical field; superconducting devices; superconducting energy gap; superconducting materials; superconducting transition temperature; superconductive tunnelling; type I superconductors; type II superconductors
conference, HTSC materials/mechanisms, Grenoble, France (1994) 11559
Intermag, conf., Albuquerque, NM, USA (Jun. 1994) 5441
mesoscopic superconductivity, conf., Karlsruhe, Germany (1994) 11578
solid-state devices/materials, conf., Karagawa, Japan (1994) 28271

superconductor-insulator-superconductor devices
see also superconductor-insulator-superconductor mixers
multilayered Josephson jn. logic and memory devices 1624
quasioptical Josephson detectors for MM-wave spectrum anal. 42759
supercond./insulator multilayer appls., review 1600
$BiSr_2Ca_7Cu_8O$ high-T_c superconductive devices, at.-layer-controlled fab. *(Japanese)* 5818
Nb supercond. resonator ccts., freq. response 22762
Nb-Al-AlO_x-Nb tunnel jn. photon detectors, TEM/AFM anal. 39287
$YBa_2Cu_3O_7$ flux-transformers, input coils 1613
$YBa_2Cu_3O_y$ jn., finite gap tunneling obs. 30778
$YBa_2Cu_3O_7/CeO_2/YBa_2Cu_3O_7$ ramp-type jns., quasipart. tunnell. 30777

superconductor-insulator-superconductor mixers
astrophys. receivers, THz source requirements 6313
broadband matching to capacitive devices, limits, SIS mixer design 12792
HTSC tunnel jns., photon detectors 39283
open struct. SIS receiver for submm radioastronomy 42555
Nb supercond. resonator ccts., freq. response 22762
Nb/AlO_x/Nb tuned SIS jn. 850 GHz waveguide receiver on Si_3N_4 membranes 29569

superconductor-semiconductor boundaries
see also superconducting junction devices
2DEG quasiparticle interferometer, supercond., phase-depend. resist. 22751
mesoscopic superconductivity, conf., Karlsruhe, Germany (1994) 11578
InAlAs/InAs/InGaAs 2DEG, supercond. three-terminal devices 39284
InAs/(AlGa)Sb quantum wells, supercond. transistors fab. 22727
InAs-AlSb-Nb electrode quantum well, induced supercond. 22733
InSb:Sm-coupled supercond. weak-links, multiple Andreev-refl. 30779
Pb-InSb-Pb weak-links, Andreev-refl. 14281
Si/YBaCuO reactive patterning tech., step-edge jn. fab. 1611
TlCaBaCuO/GaAs, thin film supercond./MESFET semicond. hybrid phase shifter 29559

superconductors *see superconducting materials; superconductivity*

supercooling
(Hg,Cd)Te LPE layers, comp. profiles 5823
a-Si thin films, glass substrs., excimer crystallisation simul. 13075
Si:P(B) thin film, solidif., dopant effect *(Korean)* 22156

superfluorescence *see superradiance*

superheating *see heat transfer*

superheterodyne receivers
20 GHz bandwidth photonic microwave mixer/superhet receiver 34094
94 GHz integrated monopulse receiver 23968
adjacent channel pulse interf., superheterodyne immunity estim. 23701
opt. superheterodyne receiver elec. test sig. source *(German)* 9485
wide band indoor channel sounder, high delay resoln. 9178
InP OEIC for photonic networks *(German)* 7490

superionic conductivity
see also solid electrolytes
polymer electrolytes reinforced by Celgard membranes, Li batt. appls. 36517
AgI-AgCl-Ag_2O-B_2O_3, Ag^+ ion conducting glass, solid state batt. appls. 5173
$NaYF_4$ solid electrolyte based solid state batt. 36509
WO_3/lithium-polymer electrolyte/V_2O_5 struct., electrochromic devices 1742

superlattices
see also metallic superlattices; semiconductor superlattices; superconducting superlattices
amorph. superlattice films, quadratic opt. nonlin. 7787
dielec. planar superlattices, quantum dimens. phenom. 39437
nonlin. opt. superlattices, light transm. dyn., bistable behaviour 15031
$LiNbO_3$ US superlattice, space-time modulation of X-ray beam 14089
Si MOS struct., lateral n-i-p-i superlattices 29985

superluminescence *see superradiance*

superluminescent diodes
fibre optic sens. technol. evol. and commercialisation 17818
heterodyne opt. interferometry, LD power change effects 42965
high-perform., fibre optic sens. appl. 14639
(GaAl)As SQW SCH superlumines. diodes, perform. 23048
GaInAsP/InP superluminescent diode, FIB modif. 39586
InGaAs-InP quantum well polariz. control photonic functional devices 14480

superparamagnetism
see also magnetic particles
Co ultrafine clusters, NMR spin echo meas. 6978
Co-Ag granular films, giant magnetoresist. 6981
$Cu_{1-x}Co_xFe_2O_4$ spinel ferrites, mag. domain behavior 14188
Fe/Ag multilayers, sputtered, oscillatory GMR 30704
Fe-Ag granular films, giant magnetoresist. 6981
(Fe-Co)/Ag films, magnetoresist. study 7049
Fe_4N nanometer-sized particles, mag. props. 6979
Si micromachined particle manipulator/separator 31748

superradiance
1.55 μm WDM fiber freq. shifter 9461
1300 nm MQW laser amplifer for opt. commun. 9456
ASE lasers, collisional-cross-relax. effects 1844
Er-doped fibre amp., polaris. hole burning, time dyn. 14755
external cavity LD, freq.-shifted feedback 39828
Fabry-Perot wavelength-tunable picosecond LD pulse source 34090
FEL, SW, SLAC linac 31434
FEL oscillator, mode-locked, super-radiant radiation study 40007
free electron maser, prebunched electron beams 39908
lightwave systs. with opt. preamplifier, perform. eval. 17186
opt. amps., sig. jitter, ASE 14769
opt. fiber networks, WDM, amp. custom-coded simul. 25540
opt. fibres, subpicosecond soliton-like pulse propag. 22861
perylimide dye doped SiO_2-PMMA glass, superradiant film laser operation 14729
quantum limited OOK, opt. amplif., perform./cutoff rates 40546
Raman FEL, Green fn. anal. 39917
rhodamine B-doped glass planar waveguide, light amplif. 30933
semicond. superlattices, Bloch oscills. 38359
soliton transm. on opt. fibres *(English, French)* 42342
tapered semicond. opt. amp., preamplifier monolithic integrat. 39611
travelling wave solid-state ring laser, noise spectrum 7580
TW femtosecond parametric lasers 31289
ultrashort-pulse submillimeter-wave lasers and appls. 39660
Cu vap. laser, ASE output form. 39658
Er doped fibre amps., gain peaking, undersea appls. 14746
Er-doped 980-nm single-pump recycled fibre amplifer optim. 31226
Er-doped fiber amp. AM CATV syst. RIN noise 9576
Er-doped fiber amp. cascade, WDM syst. perform. optimisation 42416
Er-doped fiber amp. preamplified receiver perform. eval., ISI 25527
Er-doped fiber amp. propag./switching 34061
Er-doped fiber amp., transient anal. 14737
Er-doped fiber amplifer, counterpumped first stage suitable for long-haul soliton systs. 9567
Er-doped fiber amplifer noise meas. 7574
Er-doped fiber amplifer ultralong commun. systs., polariz.-depend. gain and loss 17240
Er-doped fiber amps./opt. isolator 23134
Er-doped fiber laser based fiber sens. 9920
Er-doped fibre amp., LD pumped, gain and bandwidth charact. of 1480 nm *(Chinese)* 14759
Er-doped fibre amp. noise characterizes high-speed photoreceivers 15191
Er-doped fibre amplifer high power broadband ASE sources for spectrum-sliced WDM systs. 34066
Er-doped fibre amps., ASE effect on gain 7557
Er-doped fibre amps., polaris. hole burning, computer modelling 14757
Er-doped in-line fiber amp. Kerr nonlin./noise 9444
Er-doped opt. fiber amplifer coherent AM analog opt. links 17213
Er-doped superfluorescent fiber sources for fibre optic gyroscopes 17831
Er^{3+}-doped fiber laser ASE green light 1878
Ho:fluoride glass fiber, superfluorescent mid-IR source 30846
InGaAsP-InGaAsP tensile-strained quantum well polariz.-insensitive opt. amps. 31414
n-InSb doped crysts., parametric amplif. and oscill. 40115
Nd:silicate glass fiber waveguide lasers review 31223
$O_2(^1\Delta_g)$ dimer, laser oscill. 31173
Ti:sapphire laser amplifer/pulse compressor, gain-narrowing limit 23151
Tm-doped 1.9-μm fluoride fiber laser amp., 1.6-μm pumped 23136
XeCl discharge-pumped lasers, preionisation and discharge stabil. study 31180

supersaturation control *see chemical variables control*

supersaturation measurement *see chemical variables measurement*

supervised learning *see learning (artificial intelligence)*

supervisory circuits *see reference circuits*

supervisory control and data acquisition systems *see SCADA systems*

supply systems (electric) *see power systems*

supports
see also poles and towers
eccentric coaxial line, inner conductor, dielec. support effect 33733
hard-surface microwave blockage-reducing struts 23989
modular cable-mesh deployable antenna for satellite commun. antennas 15637
pulsed power vac. switch foil support struct., laser pumping appls. 36442
telephone central office cable tray support failures 43786

suppression wavemeters *see wavemeters*

suppressors (surge) *see surge protection*

surface acoustic wave convolution
acoustoelec. memory for SS commun., Green's fn. 6930
BGO-Si convolver with broad-band transducers, sig. filtration 39119
$LiNbO_3$ planar waveguides, multifrequency acoustooptic interact., modeling 14551

- **surface acoustic wave correlation**
  - acoustoelec. memory for SS commun., Green's fn. 6930
  - $LiNbO_3$ planar waveguides, multifrequency acoustooptic interact., modeling 14551
- **surface acoustic wave couplers**
  - filters, high stopband rejection, cascade connection design 29347
  - micro-directional couplers for freq. selection 30644
  - $LiNbO_3$ integrated acousto-opt. mode converters/tapered couplers , Tapered acoustical directional couplers 39506
- **surface acoustic wave delay lines**
  - ferrite magnetoacoustic variable delay lines, surface wedge wave propag. 7221
  - MM-wave elec. field radiopulses, electroacoustic sens. 42758
  - packaging, manufacture and perform. anal. 39117
  - tapped delay line diode convolver, real-time proc. *(Chinese)* 14084
  - transverse wave device, groove gratings, modelling *(French)* 30632
  - UHF receiver archit., high sensitivity/low power consumption 17000
  - GaAs ACT transversal filters, yield model 39118
- **surface acoustic wave devices**
  - *see also acoustic charge transport devices; acoustic microwave devices; acoustic parametric devices; bulk acoustic wave devices; surface acoustic wave couplers; surface acoustic wave delay lines; surface acoustic wave filters; surface acoustic wave oscillators; surface acoustic wave resonators; surface acoustic wave sensors; surface acoustic wave signal processing; surface acoustic wave transducers; surface acoustic wave waveguides*
  - backward biased diode convolver, real-time proc. *(Chinese)* 14084
  - chirp SS techs., multipath interf. suppression 25250
  - complex freq. charact., sensitivity anal. 6929
  - disposable rem. chem. sens. network 9864
  - energy distrib. study by X-ray topography 30640
  - frequency control symp., Boston, MA, USA (Jun. 1994) 28221
  - head waves in piezoelec. half space, model 18945
  - ident. of significant objs., SAW tags 1566
  - IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
  - light-emission jn. MIM tunneling in SAW field 7467
  - noncontacting opt. generation of focused SAWs, customised zoneplate 22682
  - polymer-coated, CCl_4 monitoring in steam reforming reactor 3920
  - press. sens., design/params. optimisation 3794
  - submicron fab. technol. GHz unidirectional SAW transducers 30636
  - thermal freq. behavior obs. and improvement 30641
  - time domain SS proc. syst., large TBP 25216
  - transverse wave device, groove gratings, modelling *(French)* 30632
  - $Li_2B_4O_7$, Bridgman grown, defects and SAW appl. 30634
  - $Li_2B_4O_7$, long. leaky surface waves with high phase vel., SAW devices 14091
  - $Li_2B_4O_7$ substrs., leaky SAW propag. props. 30638
  - $LiNbO_3$ US superlattice, space-time modulation of X-ray beam 14089
  - $LiNbO_3$ integrated acousto-optic devices, SAW phase vel. meas. *(Chinese)* 14090
  - $LiNbO_3(LiTaO_3)$ SAW devices, electrode periodic syst., Green's fn. anal. 30631
  - $LiTaO_3$, 36°YX, wafer characts. line-focus-beam acoustic microscopy, SH-type devices 14088
  - $LiTaO_3$ single crysts. for SAW device appls. 14093
  - ZnO films on InP substrs., SAW device fab. 39121
- **surface acoustic wave filters**
  - *see also surface acoustic wave resonator filters*
  - 622 MHz voltage controlled SAW oscillator *(Japanese)* 37670
  - apodized acousto-optic WDM switch/filter 7419
  - bandpass filters, tunable rejection 12624
  - carrier freq. offset-SSMA method 25254
  - electronic device trends in commun. systs. *(Japanese)* 41603
  - high stopband rejection, cascade connection design 29347
  - IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
  - impedance element SAW filters 30649
  - interdigital SAW transducers, scatt. params. calc. 6927
  - planar periodic slotted waveguides pair, oblique surface waves 22683
  - resonator filter, reversing multistrip couplers 30643
  - RF SAW filters for mobile telephones 37836
  - ring filters, insertion loss 30642
  - satellite SS/FDMA syst., filter matrix 14092
  - small low loss SAW filter appls. *(Japanese)* 39122
  - submicron fab. technol. GHz unidirectional SAW transducers 30636
  - withdrawal weighted fan-shaped SAW transducers 30629
  - BGO-Si convolver with broad-band transducers, sig. filtration 39119
  - GaAs ACT transversal filters, yield model 39118
  - LiNbO3 low-loss SAW dispersive filters, low sidelobe level in compressed sig. 39542
- **surface acoustic wave oscillators**
  - 1 GHz surface transverse wave power oscillators 30650
  - extremely low noise SAW oscillator 30648
  - IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
  - odorant sens., SAW oscillator and neural network 17982
  - press. sens., design/params. optimisation 3794
  - quartz package, dyn./static press. sensitivities 30647
  - quartz package, low vibr. sensitivity 30646
  - STW fixed-freq. oscillators, low g-sensitivity 37989
- **surface acoustic wave resonator filters**
  - contiguous filter bank, m-derived ladder *(Japanese)* 717
  - digital radio systs. appls., review 37832
  - high-power type in cellular radio portable phones 718
  - radar exciter, ultra-low phase noise 42523
  - $Li_2B_4O_7$ substr. SAW devices 30637
- **surface acoustic wave resonators**
  - *see also surface acoustic wave resonator filters*
  - 1/f noise in SAW resonators 30653
  - BAW/SAW quartz resonators, noise charact. 37660
  - high-Q piezoelec. materials and BAW/SAW resonator devices, advances 39046
  - α-quartz, SAW, extreme press.-sensitive cuts 30645
  - sensitive SAW sens. 30651
  - sensitivity anal. of one port/two port BAW/SAW resonator 30639
  - STW chem./biological contaminant detector 34605
  - STW fixed-freq. oscillators, low g-sensitivity 37989
  - PZT ceramic substr., BGS wave resonators 14087
- **surface acoustic wave sensors**
  - *see also surface acoustic wave transducers*
  - IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
  - liq. sample ident. by shear horiz. SAW sens. *(Japanese)* 34445
- **surface acoustic wave sensors** continued
  - MM-wave elec. field radiopulses, electroacoustic sens. 42758
  - odorant sens., SAW oscillator and neural network 17982
  - portable SAW sens. for airborne organic gases meas. 25895
  - α-quartz, SAW, extreme press.-sensitive cuts 30645
  - SAW oscillators, quartz package, dyn./static press. sensitivities 30647
  - sensitive SAW sens. 30651
  - STW chem./biological contaminant detector 34605
  - Cu phthalocyanine based chem. sens. 9886
- **surface acoustic wave signal processing**
  - *see also surface acoustic wave convolution; surface acoustic wave correlation*
  - 3D ICs for super-high freqs. and extremely-high freqs. 22526
  - transverse wave device, groove gratings, modelling *(French)* 30632
- **surface acoustic wave transducers**
  - *see also interdigital transducers; surface acoustic wave sensors; ultrasonic transducers*
  - MM-wave elec. field radiopulses, electroacoustic sens. 42758
  - withdrawal weighted fan-shaped SAW transducers 30629
  - $Li_2B_4O_7$ natural single phase unidirectional SAW transducer, cryst. orient. 6928
  - $LiNbO_3$ integrated AO space-division opt. crossbar 7426
  - $LiNbO_3$:Ti waveguide acousto-optic Bragg cells 7380
- **surface acoustic wave waveguides**
  - fiber-reinforced plastic struct., AE monitoring, surface waveguides 4424
  - four-channel integrated photonic wavelength router 16981
  - metallic-finger step discontinuity in SAW devices, scatt., num. expts. 30630
  - planar periodic slotted waveguides pair, oblique surface waves 22683
  - $LiNbO_3$ integrated AO space-division opt. crossbar 7426
- **surface acoustic waves**
  - *see also acoustic waves; Rayleigh waves; surface acoustic wave devices; surface phenomena*
  - air-coupled US and NDE, micromachined capacitance transducers 18931
  - composite plates, delaminations, Lamb wave eval. 28915
  - differential fibre-optic sens. of laser-generated ultrasound 34518
  - dual-probe interferometers for accurate surface wave meas. 9870
  - elastic consts. and mass dens., acoustic microscopy meas. 35364
  - energy distrib. study by X-ray topography 30640
  - head waves in piezoelec. half space, model 18945
  - IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
  - line-focus-beam acoustic microscopy syst., precision mech.-translation stages meas. *(Japanese)* 43551
  - nonmetals, laser generated Lamb waves, capacitance transducers detect. 10586
  - plates, Lamb waves, mode propag., laser-based techs. 10582
  - α-quartz, SAW, extreme press.-sensitive cuts 30645
  - subsurface struct., SAW determ. 5936
  - transverse surface wave propag. on piezoelec. substr., modelling 30608
  - transverse wave device, groove gratings, modelling *(French)* 30632
  - US eval. of adhesive fillet, neural nets appl. 12245
  - US NDT, lamb waves induced long./transverse waves 452
  - a-FeB mulilayer magneto-SAW devices, phase controllability 14264
  - $Li_2B_4O_7$, long. leaky surface waves with high phase vel., SAW devices 14091
  - $LiNbO_3$, SAW phase vel. detect., laser probing syst. 10071
  - $LiNbO_3$ epitaxial films, pulsed laser deposition, SAW props. 20863
  - $LiNbO_3$ integrated acousto-optic devices, SAW phase vel. meas. *(Chinese)* 14090
  - $LiTaO_3$ single crysts. for SAW device appls. 14093
  - PZT, surface-acoustic-wave atten., mech./dielec. losses 39052
  - $PbTiO_3$, surface-acoustic-wave atten., mech./dielec. losses 39052
  - Si, dust particles, cleaning, laser-generated nonlin. SAW 1239
  - Si:Ar(100), ion implant. transient reflecting grating study 1205
  - YIG film, EM wave crit. scatt. under acoustic pump 7034
- **surface activity** *see surface energy*
- **surface charging**
  - 3-phase power transm. lines, corona losses 19307
  - bulk dielectric wall charged void, dipole moment 13939
  - ceramic insulators, uncoated surface, SEM, 150-500°C 4706
  - dielectrics, space charge relaxation induced breakdown, energy release 13951
  - ESD anals. for spacecraft in geosynchronous orbit 35213
  - indust. electrostatic hazards investigs., UK 7906
  - mag. enhanced RIE syst., wafer charge-up effect 22183
  - permitt. meas. using unguarded disc electrodes, capacitance correction 1504
  - PET films, creepage surface discharge in SF_6 gas *(English)* 30585
  - polymer insulators, surface charging, field- and photo-effects 13937
  - PTFE surface electrification, sliding ultrapure water 7900
  - α-quartz, facets, charging, SEM anal. 14000
  - semicond. wafer cleaning procedure, effects on surface charging of substrs. 22210
  - telecomms. satellites, ESD studies *(French)* 18694
  - thin charged insulator foil, delayed radiation induced cond. 1560
  - transient contact of small particles, charge transfer 15225
  - ULSI devices, static charge removal, IPA soln. 1236
  - wafer charge neutralization, high current ion implants 30022
  - $Bi_{12}SiO_{20}$, surface charge distrib., Pockels effect. meas. 18059
  - CO_2 jet spray cleaning, surface charging mechanism 38600
  - $GaAs/Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., photolum. intens., sens. appls. 39558
  - SF_6 gas, surface charge generation on insulator 19320
  - Si wafer cleaning, surface charge effects, surfactant solns. 30068
  - Si wafer surface minority carrier lifetime meas. tech. 30388
  - $Si/SiO_2/Al$ MOS capacitors, charge induced by Fowler-Nordheim tunnel injection 29974
  - SiO_2 thin films, wearout and breakdown studies 39040
- **surface chemistry**
  - *see also chemisorption; corrosion; oxidation*
  - ALE, conf., Sendai, Japan (May 1994) 5491
  - aq. rosin flux cleaning, PCB manufacture, thermodyn./kinetics 38142
  - borophosphosilicate-based glass, selective etching, low press. vap. HF 12214
  - conf., interface control of elec., chem. and mech. props., USA (1993) 36832
  - conference, laser techniques for surface science, Los Angeles, CA, USA (Jan. 1994) 28208
  - copper dicyanoanthraquinone diimine thin film electrodes, H sens. 17976
  - diamond nucleation and growth, SR studies 404
  - diamond thin-film growth, filament-assisted excimer laser ablation syst. 12178
  - fluorenone bisazo pigment/α-phenylstilbene derivative interface, extrinsic photocarrier generation 14581
  - focused ion beam micromachining appls. 13906

surface chemistry continued
- interlayer dielec. films, postchemical-mech. planarization cleanup 13391
- MCM-D metal/polymer interface durability, chem./water uptake 11817
- microcantilever reson., adsorpt.-induced surface stress, sens. appl. 39034
- MPEOU-based polyceram planar waveguides, opt. loss study 25988
- 1,2-naphthoquinone diazide-4-sulfonate photoacid generators, chem. amplified resists 1308
- O-ring degrad., semicond. proc. contamination source 29994
- oxide film deposition, rapid isothermal proc.-MOCVD 20846
- PD and their effects on materials 22642
- phthalocyanine LB films, RT toluene gas sens. 17986
- plasma-assisted etching, surface-sci. aspects, IC appls. 1241
- polyethyleneterephthalate/Mg interface, X-ray PES 37540
- polyimide-metal interfaces, curing chem. and hydrolytic stabil. 12211
- redox batts., graphite-felt electrode, overcharge expts. 11262
- sample manipulator, azimuthal/flip rot., 16 to 1100 K 38536
- silica glass polishing, diamond abrasive, water incorporation effects 38568
- soft cleaning, vacuo UV radiation and mol. H_2 gas 13389
- thin-film CdSe and CdS oxygen sens., surface spectrosc. 34611
- Al/n-InP contacts, inhomogeneous reaction and Schottky-barrier change 13228
- AlGaAs, MBE-grown, As capping 1286
- $Al_xGa_{1-x}As$, in-situ etching and selective epitaxy, metalorganic vap. phase growth 20762
- AlN, CVD growth/surface chem. 12155
- AlN, high temp. ECR etching 38540
- Al_2O_3, at. layer controlled deposition, binary react. seq. chem. 20712
- Au/GaSb, interfacial reacts., ohmic contacts effects 38376
- BaF_2, epitaxial growth on GaAs(100)/(111) 37394
- CdSe, MOMBE-ALE, growth kinetics, opt. probing method 20909
- CdSe, MOMBE-ALE, surface react., opt. probing method 20697
- CdTe, surface reactivity, H 22241
- CdTe/Ni-P, stable ohmic contact form., P diffusion from Ni-P 13225
- $Co/Si(SiO_2)$, ion-beam mixing, Monte Carlo simul. and expts. 22023
- Co-Pt alloys, ordered/disordered, PAFC, corros. test 5207
- Cu MOCVD, Cu-betadiketonate precursors, surface effects 37492
- Cu films, rem. PECVD 12161
- Cu polymer metallization, adhesion mechanisms, theoretical modelling 12212
- Cu selective CVD on diamond surfaces, self-assembled monolayers 37493
- Cu thin films, chem. mech. polishing, surface layer form. 38572
- $Cu/Al(Ti)/SiO_2$ interface, ultrathin sacrificial diffusion barrier anal. 38702
- GaAs MBE growth monitoring, single photon ionization TOF mass spectrosc. 28723
- GaAs, MOMBE, TMGa/TEGa interacts. 20739
- GaAs, MOMBE growth, surface chem., mass spectrometric anal. 37431
- GaAs, ion beam/RIE mechanisms, parametric investigs. 13398
- GaAs, metalorganic CVD, plasma-generated hydrogen radical effects 37480
- GaAs, surface reactivity, H 22241
- GaAs:Si, incorporation, MOVPE from tertiarybutylarsine 22126
- GaAs/Ti Schottky contacts, elec. param. stabil., cleaning depend. 29959
- GaAs-metal interfaces, interphase reacts. 6571
- GaAs(001), Sb-terminated, Ga/As surface reacts. 21900
- GaAs(100) surfaces, sulfide passivated, stabil. 38622
- GaN, high temp. ECR etching 38540
- InAlAs, surface chem., $(NH_4)_2S_x$ sulphidation 13409
- InGaAs:Se, specular surface thermal stabil. in LP-MOVPE 22127
- InN, high temp. ECR etching 38540
- n-InP/Au/Ni, ultra-low resist. Ni-based contacts 38409
- p-InP(100), anodic passiv. in $(NH_4)_2S_x$ soln. 13387
- $MmNi_5$ hydrogen storage alloys, surface treatment, metal hydride batts. 11249
- Mo-Si multilayer x-ray mirror, top layer oxid. 6690
- Mo-diamond:C CVD film, solid state react. 37491
- Ni-InP syst., interfacial reacts. and phase stabil. 38391
- Pd/Si interface, interface react., silicide form., XPS obs. 29960
- RuO_2 thin films, RIE in O_2/CF_3CFH_2 gas mixture 13376
- Si (110) and (111), oxid. rates, crossover phenom. 30080
- Si, PECVD, surface reacts., FT-IR-ATR monitoring 37502
- Si, SR-excited ALE growth, TOFMS 37447
- Si, UV excited Cl-radical etching, SEM obs. 1247
- Si epitaxial growth, gas-phase/surface kinetics model 12100
- Si, etching mechanism and band model in aq. KOH 13388
- Si, flow pattern defects, nonagitated Secco etching 1023
- Si, oxid., VLSI gate dielec. appls. 30086
- Si oxid. proc., fractal aspects 30125
- Si, porous, radical-beam-induced surface react. 22170
- Si, self-limited at.-layer etching, Cl adsorpt., low-energy Ar^+ irrad. 22178
- Si surface, hydrofluoric acid cleaning effects prior, wafer bonding 38561
- Si surface trace impurity anal., X-ray fluoresc. spectrosc. 42977
- Si surfaces, chem. vap. cleaning 38624
- Si:B(P), heavily doped, HF-treated surface behaviour 13353
- a-Si/Ag layered systs., metal-mediated crystn., TEM obs. 38403
- Si/Co/GaAs(001) interfacial reacts. 13278
- Si/Co/Ti bilayer syst., epitaxial $CoSi_2$ reactive form. 12094
- Si/Ni, solid state react., point defect creation 13224
- $a-Si/Si_3N_4$ TFT, PECVD nitride gate dielec. studies 13791
- Si(100), XeF_2 spontaneous etching 6634
- Si(100), passiv. and microroughness in aq. hydrogen halide 38531
- Si(100) surface, nanoscale STM-patterning, chem. modif. 30175
- Si(111) and (100), at. hydrogen etching, STM obs. 38542
- SiC, 3C and 6H polytypes, thermal oxid. in N_2O 1252
- SiC, heteroepitaxial growth by alternate supply of SiH_2Cl_2 and C_2H_2 20926
- SiC heteroepitaxial growth on Si, gas source MBE, hydrocarbon radicals 37450
- SiC microcomponent growth, C_{60} react., silicon 13092
- $a-SiGe:H/SnO_2$ solar cell struct., interfacial reduction 38294
- SiO_2, at. layer controlled deposition, binary react. seq. chem. 20712
- SiO_2, etching mechanisms in hydrofluoric acid 1249
- SiO_2:P/InP interface layers, low-temp. damage-free plasma-CVD, adhesion 37523
- $SiO_2-Si_3N_4-SiO_2-Si$ gate dielec. by plasma oxid./CVD and RTA 22068
- $SiO_xN_y-SiO_2-Si$ gate dielec. by plasma oxid./CVD and RTA 22068
- Ta(110)/Ta(110)-suboxide etch selectivity, Cl_2 mol. beams 30130
- Ti/Si:B(P)(As) syst., $TiSi_2$ form. in situ resist. meas. 13217
- Ti/SiC, interface chem., microstruct., elec. props. 29952
- TiN_x, CVD, organometallic precursors, surface spectrosc. study 37495
- ZnSe, MOMBE-ALE, growth kinetics, opt. probing method 20909
- ZnSe, MOMBE-ALE, surface react., opt. probing method 20697
- ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412

surface cleaning
- *see also ultrasonic cleaning*
- aircraft corros. monitoring and control 5935
- aq. rosin flux cleaning, PCB manufacture, thermodyn./kinetics 38142
- aq.-saponifier post-solder defluxing, waste water effluent testing 38143
- CFC alternatives, materials compatibility study 5719
- CFC elimination of no-clean fluxes, Northern Telecom RTP 5718
- CFC-free solder fluxes for electronic assembly, selection guidelines 38127
- chem. beam etching, monolayer control, cation diffusion 13381
- chem. mech. polishing abrasive slurries, IC dielec./metallization 38571
- chem.-mech. polishing, IC interlayer dielec. planarisation, review 13340
- conf., interface control of elec., chem. and mech. props., USA (1993) 36832
- cooker rangehood oil-dirt removal, polymer paint/fuzzy air flow control *(Japanese)* 44615
- crown ether-enhanced nonpolar solvent-based PCB defluxing 38141
- DI water filters, microcontamination prevention, IC fab. 38544
- EEPROM ultrathin thermal oxide, elec. and reliab. props., surface prep. 1278
- excimer laser-based cleaning tool, surface contaminants 6648
- film interface control in integrated IC proc. systs. 20405
- fine pitch QFP, no-clean/water-clean mass reflow procs. 29676
- fluxless soldering proc. technol. 5617
- green IC fab., recycling/environ. contamination control 37208
- high-purity electronic specialty gas cylinders, particle/outgassing perform. 29995
- hybrid packages, cleaning, CFC-free technol. 28548
- IC package assembly, organic contamination detect. 20429
- IC reliab. improvement, alkali metal ion contamination reduction 20492
- in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
- integrated membrane purification, water reuse in electronics mfg. 11888
- interlayer dielec. films, postchemical-mech. planarization cleanup 13391
- ISO 9000 series stds., CFC-free bench top cleaning implications 37214
- LB-film Si MIS interface, substr. surface treatment 38535
- mass stds., stainless steel wts. cleaning, ellipsometry appl. 9779
- microelectronics packaging, preencapsulation cleaning 5666
- mil. electronics, environ. safe soldering/cleaning 6427
- MOS capacitor ultra-thin oxide/oxynitride dielec. films, reliab. characts., surface prep. 22066
- native oxides on Si surfaces of deep-submicron contact-hole bottoms 38617
- nitride PECVD, plasma clean cycle, cost of ownership model 38607
- nonhazardous alternative chem. for semicond./PCB proc. 37213
- nonrosin solder flux residue corrosivity testing, PCB manufacture 12941
- opt. surfaces, laser cleaning 30821
- PCB assembly, cleaning technols. 29682
- PCB manufacture, saponified aq. syst. 946
- PCB mfg. proc. control, SPC 12907
- PCB semi-aq. cleaning proc. control, closed-loop water recycling syst. 919
- photomask scrubbing machine, integrated motion syst. 30084
- photoresist stripping, semiquantitative method, sensitive light scatt. 13474
- polysilicide CMOS devices, low-level current leakage reduction 22580
- polysilicon LPCVD tubes, NF_3 in situ cleaning 13339
- post-chem.-mech. planarization cleaning, secondary platen press. 38534
- post-solder proc. PCB cleaning in post-CFC world 38091
- power overhead line live-line insulator washing expts. 27223
- preencapsulation cleaning methods and control for microelectronics packaging 5627
- PWA cleanliness testing, ionic contamination meas. variables 6426
- reduced oxide soldering activation solderability enhancement technol. 6428
- sample manipulator, azimuthal/flip rot., 16 to 1100 K 38536
- semi-aq. flux cleaning, equipt. considerations and rels. 6425
- semicond. wafer, wet cleaning, contamination, chem. anal. 1237
- semicond. wafer cleaning procedure, effects on surface charging of substrs. 22210
- soft cleaning, vacuo UV radiation and mol. H_2 gas 13389
- solder masks, PCB manufacture, cost reduction/quality improvement 38099
- solid surface high speed cleaning by high-repetition rated TEA CO_2 laser pulses *(Japanese)* 7871
- steam generator corros. prevention, chem. cleaning 19466
- terpene cleaning agents, defluxing appls., review 38160
- TFTs, low temp. fab., multi proc. reactor 13739
- thick film ceramic capacitive sensor, embedded in polymer 25797
- thin-oxide dielec. strength improvement by adding phosphonic acid chelating agent 1280
- TQM appl., pollution prevention in PCB manufacture 37212
- ULSI devices, static charge removal, IPA soln. 1236
- underwater cleaning robot, power station inlet channel appls. *(Japanese)* 4754
- vac. systs. in electronics mfg. 37059
- vias, in situ sputter cleaning, getter electrode 22233
- water soluble/no-clean selection guidelines, PCB/SMT/fine pitch soldering 38151
- water-based precision cleaning procs., implement. 11733
- XSH alacrite based mass stds. stabil., cleaning influence 34317
- Ag rivet contact perform., SiO_2, Al_2O_3 deburring media effects 29624
- AlGaAs/GaAs SQW, plasma cleaning, photolum. studies 1139
- CO_2 jet spray cleaning of mol. contaminants 30111
- CO_2 jet spray cleaning, surface charging mechanism 38600
- Cu electroless deposition troubleshooting, PCB manufacture 38100
- GaAs, low-temp. surface cleaning, trisdimethylaminoarsine 13358
- GaAs passiv., integrated plasma clean/CVD/RTA, Si_3N_4 encapsulation 22224
- GaAs surface cleaning by H ECR plasma, opt. refl. spectra 13348
- GaAs technol., mag. confined dry etching of metallization/dielecs. 38586
- GaAs:Be, surface cleaning in situ chem. beam etching 13350
- $GaAs/Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., sens. appls. 38303
- GaAs/InGaAs/AlGaAs heterostruct., selective high-temp.-stable O implant. 1218
- GaAs/Ti Schottky contacts, elec. param. stabil., cleaning depend. 29959
- GaAs(001), oxide removal by H plasma, surface SHG 38599
- GaAs(100), cleaning, XPS/AFM study 30066
- GaN on Si(001), ECR plasma-assisted MBE growth 20898
- InSb(100) surface, Ar ion bombard. and electron stimulated oxid. 30101
- LaB_6 FEL photocathode photoemission studies by ns KrF excimer laser 38207
- M^2CMOS twin-well yield enhancement, wet oxide strip proc. modif. 22579
- Ni-InP syst., interfacial reacts. and phase stabil. 38391
- O_3 depleting substs. in electronic cleaning 30102
- Si, dust particles, cleaning, laser-generated nonlin. SAW 1239

surface cleaning continued
Si, epilayers on Si, deposited after DC H_2 cleaning, X-ray curve charactn. 38618
Si, native oxide, in-situ removal using HF 38626
p-Si, soft sputter etch cleaning, H passiv. 38619
Si, surface cleaning for VPE by photoexcited F_2 gas 38625
Si, surface cleaning in buffered HF, microroughness prevention 1251
Si surface, hydrofluoric acid cleaning effects prior, wafer bonding 38561
Si, surface microroughness, oxide breakdown, SC1 proc. effects 38546
Si surface oxide removal by RTP, SiH_2Cl_2 and H_2 22223
Si surface roughening, gate oxide integrity, H_2O_2 decomp. 38589
Si surfaces, chem. vap. cleaning 38624
Si technol., future trends 13272
Si wafer cleaning, surface charge effects, surfactant solns. 30068
Si wafer less crit. cleaning procedure, dil. HF dip/isopropyl alcohol boiling 30081
Si wafer substr. clean-up, chem. contamination, Auger anal. and ellipsometric studies 30119
Si wafer surface cleaning/epitaxial growth in UHV ECR CVD reactor *(Korean)* 13331
Si wafer surface, ultrafine Au metallic particles effect 30082
Si wafers, SC-1 cleaning, total refl. X-ray fluoresc. anal. 38559
Si:H, H passiv., multiple internal refl. IR spectrosc. 1253
Si:O wafers, deep levels under posthydrogen-plasma thermal anneal 38467
Si/SiO_2 patterned surfaces, situ rem. H-plasma cleaning 1254
Si-SiO_2 stacked-gate structs., plasma-assisted/RTP 22058
Si-based dielec., UV annealing, large area deposition, Kr flashlamp appl. 30012
Si(100), passiv. and microroughness in aq. hydrogen halide 38531
Si(100), wet cleaned, thin oxides, Auger spectra, angle-resolved XPS 38613
Si(111)/soln. interfaces, electrochem. STM/AFM imaging 38588
Si_3N_4 LPCVD tubes, NF_3 in situ cleaning 13339
SiO_2, RF oxygen plasma oxide, Si surface dry cleaning 38620
SiO_2:P/InP interface layers, low-temp. damage-free plasma-CVD, adhesion 37523
SiO_2(ON)-Si device reliab., surface cleaning effects, ultrathin oxides/oxynitrides 22207
SrF_2/InP(100) epitaxial diodes, elec. cond. 22065
W, selective LPCVD, pretreatment technol. 20918

surface composition *see surface structure*

surface conductivity
see also surface recombination; surface scattering
conference, laser techniques for surface science, Los Angeles, CA, USA (Jan. 1994) 28208
cylinders with anisotropic cond., surface impedance 15591
decimeter wave range HTSC surface resist. 14285
epoxy, cast, partial discharge induced aging, surface resist. 14043
glass, high perform. heat-reflective, TV wave reflecting characts. 23742
graded semicond. layers, electrodynamic props. 21869
HBT, passiv. procs. 1361
high-resist. semiconds. inhomogeneities visualisation, glow intens. obs. 42888
HTSC surface impedance, microwave meas., cavity 3965
HTSC thin films, microwave surface resist., calorimetric/perturb. methods 39232
HV solid dielec., gas inclusion surface charge deposition 22669
HV solid dielec., gaseous cavity, surface charge *(Russian)* 6917
insulation resist. meas. 20410
Josephson microstrip resonators, dielec. const./surface resist. meas. 18047
PD, dielec. ageing 22645
phthalocyanine LB films, RT toluene gas sens. 17986
silicate/phosphate high-ohmic glass films with electronic cond., ion-beam sputter prep. 20927
solid dielectric deterioration, partial discharges, ageing 13972
tapered waveguides, wall surface resist., charact. anal. *(Japanese)* 15584
thin-film charactn., surface resist. anal. 13268
transformer oil, voltage controlled double layer 14026
GaAs, sulfidated surface, electron work fn. 13372
n-GaAs(100), surface photo-emf spectra 1051
InAs, MOVPE, high mobility on GaAs 29853
$InAs_{0.3}Sb_{0.7}$, MOCVD on GaAs, carrier transport 6529
InP MISFET, near-surface electron transport 13697
InP Schottky barriers, minority carrier diffusion length 13210
n-InP, photoelectrochemical etching, surface texture form. 38564
Nb supercond. microstrip resonators, nonlin. microwave props. 39270
NbTiN supercond., surface resist. meas. method, dielec. resonator struct. 39237
Si, porous, resist., surface effect 21897
Si, single crysts., metal impurities, opt. detect. techs. 38242
n-Si, surface recomb. vel., Schockley-Read Hall model 21892
Si:B, weakly compensated, impurity band evol. 1028
a-Si:H,P films, elec. act. nanoscale struct., STM prep. 21929
n-Si(111), electrolytic hydrogenation, FT IR spectrosc. 38558
SiFe sheet insulation, elec. and phys. charact. 14002
SnO_2 films, Schottky surface barrier, gas-sens. effects 42862
YBaCuO thin films, complex cond., surf. resist. *(French)* 30767
$YBa_2Cu_3O_7$ HTSC thin films, microwave pass. devices 30766
$YBa_2Cu_3O_7$ bulk/films, surface resist., 10 GHz cylindrical cavity resonator 14269
$YBa_2Cu_3O_7$ multilayers for MCMs, surface resist. simul. 38195
$YBa_2Cu_3O_7$ step edge jns. on $LaAlO_3$, Fiske resons. 39258
YBaCuO:Ag films on sapphire, microwave surface resist./residual losses 39236

surface contamination
adhesive bond, acousto-US eval., pattern recogn. anal. 5921
aq. rosin flux cleaning, PCB manufacture, thermodyn./kinetics 38142
aq.-saponifier post-solder defluxing, waste water effluent testing 38143
chem. amplified resist, organic base, KrF lithog. 22299
clean room, laminar flow, flow vel. meas. 112
CMOS proc. appl., wafer level reliab. SPC program 20493
DI water filters, microcontamination prevention, IC fab. 38544
electronics manuf. technol., conf., Santa Clara, USA (1993) 36847
excimer laser-based cleaning tool, surface contaminants 6648
flip COB process charactn., no-clean flux, ionic residue 38108
gas delivery systs., contaminants in semicond. mfg. 6599
gas distrib. systs. contamination, cost optimisation 38988
high-purity electronic specialty gas cylinders, particle/outgassing perform. 29995
IC package assembly, organic contamination detect. 20429
IC reliab. improvement, alkali metal ion contamination reduction 20492

surface contamination continued
IC yield enhancement, real time mfg. proc. monitoring 20468
interlayer dielec. films, postchemical-mech. planarization cleanup 13391
ion implant., heavy metal/dopant contamination control 38486
MCM-D, interlevel shorts, mechanisms and reduction 12963
metal contamination monitoring, surface photovoltage, SPC 38458
metallic contamination in ULSI, opt. monitoring techs. 29991
MOS diode, Na contamination free ashing, O_2+H_2O plasma downstream 22234
MOS ICs, lateral alkali-ion migration, reliab. implications 170
Motorola IC yield enhancement, integrated approach 22520
nitride PECVD, plasma clean cycle, cost of ownership model 38607
Norcross project, degraded clean room, wafer contamination and ergonomics 38456
Norcross Project, manual/robotic wafer handling, degraded cleanroom 22086
O-ring degrad., semicond. proc. contamination source 29994
photoplotter/printer image contamination, PCB mfg. cleanliness 38101
photoresist stripping, semiquantitative method, sensitive light scatt. 13474
polyhydroxystyrene, chem. amplified monodispersal pos. resist 22298
polysilicide CMOS devices, low-level current leakage reduction 22580
post metal deposition defects, real-time particle detect. 38697
post-chem.-mech. planarization cleaning, secondary platen press. 38534
pressure contact, nm-scale, surface layer effects 38060
PWA cleanliness testing, ionic contamination meas. variables 6426
relay contact surface, arc discharge damage, scanning laser microscopy 29633
resists, CD meas., sub-0.5-μm devices 13487
SAW delay line packaging, manufacture and perform. anal. 39117
semicond. mfg. environ., microscopic contamination, SAXPS anal. 38457
semicond. proc. equipt., in-situ particle meas. 6632
semicond. wafer, wet cleaning, contamination, chem. anal. 1237
snap cure ovens, upscaled models, flow patterns 30438
Sony total particle control syst., IC yield enhancement, defect reduction 20467
space hardware, microbial contamination, anal. and protection 4353
ULSI devices, static charge removal, IPA soln. 1236
Ag contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
Ag rivet contact perform., SiO_2, Al_2O_3 deburring media effects 29624
Al microchip bond pads, oxide layer F contamination, wafer storage 30141
Be foils for devices and phys. expts. 37528
GaAs:Be, surface cleaning in situ chem. beam etching 13350
GaAs-Au(In) Schottky diodes, chem. etched surfaces 13612
Pd contacts, O_2 conc. effect on contact resist. in DC breaking arcs 6389
Si, ion implant. proc. problems, surface photovoltage detect. 30017
Si, near-surface layer defects, RIE in SF_6-CCl_4-O_2 plasma 13337
Si, polycryst., ECR plasma etching syst. 6636
Si wafer cleaning, surface charge effects, surfactant solns. 30068
Si wafer substr. clean-up, chem. contamination, Auger anal. and ellipsometric studies 30119
Si wafer surface minority carrier lifetime meas. tech. 30388
Si wafers, SC-1 cleaning, total refl. X-ray fluoresc. anal. 38559
Si wafers, photocurrent imaging, electrolyte contacts 31069
Si:Mo p/p^+ epitaxial wafers, Mo contamination 38236
TiW PVD manufacturability, advanced chamber shield design 22272
WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676

surface diffusion
see also sorption
3D simul. of impurity diffusion in thin-film diffusion barriers 13424
ceramic insulators, uncoated surface, SEM, 150-500°C 4706
chem. beam etching, monolayer control, cation diffusion 13381
conf., interface control of elec., chem. and mech. props., USA (1993) 36832
diamond crysts./superlattices, isotopically engineered 38502
dispenser cathodes, Ba transport modelling 6473
HV outdoor insulation, silicone rubber insulators, surface recovery 19317
III-V HBTs, reliab. issues 22386
polymers, metal diffusion study 12201
quantum well intermixing, repeated ion implant. 1213
SOI, H annealed, surface atom migration 1175
submicron contacts using selective CVD-W plug, jn. stabil. *(Korean)* 13418
Al/GaAs, interface annealing studies, variable energy positron beam 22041
AlGaAs on GaAs(001), adatom migration, Monte Carlo simul. 21899
$Al_xGa_{1-x}As$, facet growth, HCl gas by metalorganic vap. phase epitaxy 20763
Au/GaAs, interface annealing studies, variable energy positron beam 22041
Au/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
Au/LaB_6/Au/Ni/Ge contacts on n-GaAs, SNMS study 13421
B_2O_3-P_2O_5-SiO_2 glass reflow, 3D num. model 22181
$BaTiO_3$ films on Si, heteroepitaxial growth by pulsed laser deposition 28757
$(Bi,Sb)_2(Te,Se)_3$ semicond. thermoelec. power modules, diffusion controlled degrad. model 28013
$Bi_2Sr_2Ca_{n-1}Cu_nO_x$ thin films, MBE growth mechanism and control *(Japanese)* 5817
CdTe:Ga, diffusive doping, photolumin. obs. 22147
CdTe/CdMgTe quantum wells, ion implant.-induced interdiffusion 13290
Cu, selective copper chem. vap. deposition, proc. windows 12162
Fe/Cu multilayers, mag. props. 30703
FeHfC/Al_2O_3 multilayers, mag. props., interlayer effects 14209
FeHfC/AlN multilayers, mag. props., interlayer effects 14209
FeHfC/Si_3N_4 multilayers, mag. props., interlayer effects 14209
FeHfC/SiO_2 multilayers, mag. props., interlayer effects 14209
GaAs, MBE, surface diffusion, adatom stoichiometry, microprobe-RHEED/SEM MBE obs. 20682
GaAs crysts./superlattices, isotopically engineered 38502
GaAs growth mechanism on (110) GaAs, RHEED and AFM 20858
GaAs, metalorganic CVD growth, 2D nuclei, STM study 20733
GaAs/AlGaAs quantum dots, MOVPE growth, patterned GaAs substrs. 37428
GaAs/InAs, GaAs capping layer growth, island induced strain driven adatom migration 354
GaAs-AlGaAs multilayers, orient. depend. MBE growth on GaAs(111),(001) 339
GaAs-metal interfaces, interphase reacts. 6571
GaInP/GaAs HBT, base dopant out-diffusion prevention, heterostruc. emitter 30250
GaN, metalorganic VPE growth, surface orient. depend. 20755
GaSb, diffusion limited chem. etching 13341
Ge crysts./superlattices, isotopically engineered 38502
Ge:O crysts./superlattices, isotopically engineered 38502

surface diffusion continued
  p-HgCdTe, Au ohmic contacts, low specific contact resist. *(English)* 38381
  $Hg_{1-x}Mn_xTe$/CdTe film, VPE, component interdiffusion 296
  InAs nonplanar substrs., MBE, In inter-surface diffusion 20877
  InAs, surface migration-induced self-aligned islands, MBE growth 37389
  InAsP/InP MQW, metalorganic VPE, interface study 12102
  $In_{0.2}Ga_{0.8}As$/GaAs quantum wells, metalorganic VPE, multistep form./In comp. var. 20735
  InGaAs-InAlAs:Si quantum well, ion implant./annealing, comp. disordering 1216
  InGaAsP:Si quantum well, intermixing, spatially resolved/polaris. resolved photolumin. 38495
  InGaAsP/InP structures, MOVPE, optical device appls. 12047
  InP metallisation by transit. metals 1300
  InP:H,Mg, passivated acceptors, reactivation kinetics during annealing 22106
  InSb-nanocryst. on Se-terminated GaAs(001), MEE/MBE growth comparison 20681
  $La_{0.8}Sr_{0.2}MnO_3$/YSZ interface, O_2 reduction, SOFC air electrode 44385
  $LiTaO_3$ proton-exchanged waveguide in benzonic acid, annealing property *(Chinese)* 1704
  PZT films, laser ablation on Ag coated Si substrs. 13993
  Pd/InP Schottky contacts, photolum./Auger/SIMS/ESCA study 13219
  Pt/Co multilayers, interface struct., perp. mag. anisotropy 39175
  Pt/Pd/Co multilayers, interface struct., perp. mag. anisotropy 39175
  Si, etching mechanism and band model in aq. KOH 13388
  Si, glow-discharge polycryst. films, grain boundary defects 20936
  Si homoepitaxy on Si(111), surface defect mediated 12087
  Si, low energy ion beam deposition procs., mol. dyn. methods 20923
  Si rapid thermal CVD on $Si_{0.68}Ge_{0.32}$ substrs., AFM 12139
  Si surface, quantum-well p-n jn., electron-beam diagnostics 13161
  Si, thermal oxid. mech., form. and diffusion of volatile SiO mols. 6642
  Si, thermal oxid., ultrathin oxide film growth mechanism 38609
  Si wafer contacts, bonding, $CoSi_2$ 1191
  Si:B(P), doping by solid-phase diffusion 22139
  Si:H, ion implanted defects, thermal evol., slow positron study 38492
  Si:Ir(111), ion implant., $IrSi_3$ synthesis 30027
  Si:P crysts./superlattices, isotopically engineered 38502
  SiC CVD on 6H-SiC{0001} faces, nucleation and step motion 5890
  SiC epitaxial growth on Si(001), Si out-diffusion related defects 20900
  a-SiC/Si:P structs., P diffusion and interface segreg., HBT appls. 13118
  Si_xGe_{1-x} strained films, MBE growth, cuspidal pit form. 12089
  SiGe/Si quantum wires/dots, growth on patterned Si substrs. 28810
  W film on Si, self-limiting growth by WF_6 reduction, doping atom effect 38636
  ZnSe, p-type doping, Li_3N diffusion 1229
  p-ZnSe/Ag, elec. contacts, reverse bias breakdown voltage/resist. 38413
  p-ZnSe/Au, elec. contacts, reverse bias breakdown voltage/resist. 38413

surface discharges
  see also corona
  100 kV compact nanosecond Pichugin pulser 36260
  Al_2O_3, insulators, HV stress, light emission from surface flashover 13954
  alumina/vac. interface, pre-flashover lumin. 13948
  electrode surface flashover, space charge 13950
  EM launcher electrode/insulator degrad. studies 15332
  epoxy resin surfaces, PD stressing 1542
  extraction magnetically insulated diode study on Gamble II accelerator 26094
  gamma-irrad. polyethylene insulation, space charge accumulation meas. *(Japanese)* 43793
  gaseous organic cpds., low temp. discharge plasma proc. 13941
  high current pseudospark switch, pinch plasma devices 36397
  HV mineral particulate-filled epoxy composite insulation tests *(Korean)* 27657
  HV solid dielec., gas inclusion surface charge deposition 22669
  HV vac. surface flashover insulator technol. 30583
  pattern recogn. in HV equipt. 22647
  PET films, creepage surface discharge in SF_6 gas *(English)* 30585
  polymer film ESD in vac., light emission and outgases *(Japanese)* 30538
  polymer insulation dielec. strength under PD stress 22675
  pulsed ion diodes, temp. controlled, beam-target interact. expts. 34854
  pulsed mag. field facility, capacitive storage 44114
  pulsed power insulator degrad., high vac. surface discharges tests 36293
  pulsed power syst. dielecs., real-time surface flashover detect. 36292
  short-pulse water breakdown power technol., electrode phenom. 36259
  spacer surface discharges in gaseous insulation, nanosecond streak photography 30553
  telecomms. satellites, ESD studies *(French)* 18694
  triggered flash, EM field and step voltage obs. *(German)* 35681
  Al_2O_3, chemically etched, surface flashover performance 13956
  $Bi_{12}SiO_{20}$, surface charge distrib., Pockels effect. meas. 18059
  GaAs photoconductive pulsed power switches, vac. surface flashover tests 36433
  SF_6 gas, surface leader discharges, impulse voltage polarity *(Japanese)* 1546
  Si photoconductive pulsed power switches, dark current characts. 36438
  Si photoconductive pulsed power switches, vac. surface flashover tests 36433
  Si pulsed power semicond. switches, p^+-n^--n^+/n^+-n^--n^+ struct. 36436
  SiC dispersion varnish VLF capacitive props. *(French)* 10935
  SiC films, high field effects 21788
  SiC, insulators, HV stress, light emission from surface flashover 13954

surface electromagnetic waves
  see also magnetostatic surface waves
  ARES EMP simulator, EM fields radiation 7997
  conducting shallow water, radio wave propag. 15431
  mag. medium, guided nonlin. EM surface waves 39152
  microstrip antenna, surface-mode suppression by parasitic elements 23889
  microstrip antenna space-domain Green's fn. series form 23841
  microstrip antenna surface wave efficiency comparison 23839
  microstrip-slot cct. mixed pot. integral eqn. Green's fn. calc. 23842
  PC transm. lines, criterion of leakage, comments 12883
  phase retarders, metallic grating based, laser cutting appls. 125
  plane surface elec. params. meas., radio-thermal radiation 10010
  Q-factor calc. of microstrip resonators in EHF band 12725
  resonator, EM surface wave, high order modes *(French)* 21524
  target sensing by induced surface current 25567
  TE EM waves in nonlin. film, closed dispersion curves 40302
  thin-wire reson. response to transient waves 23848
  topol. inversion, conducting bodies imaging appl. 40305

surface electron states *see surface states*

surface emitting lasers
  2D integrat., surface emitting opt. devices 7482
  2D WDM reconfigurable opt. interconnection smart pixels 42099
  act. cylindrical waveguides with step-index profiles, transverse modes 30953
  BH SEL diodes, integrated vac. proc. 39810
  circ. gratings, lithographic fab. 14940
  fast amplif. opt. switch, opt. pumped VCSEL appl. 14994
  free space opt. interconnects, LD array, microlenses, photodetectors 7486
  free-space WDM interconnections based opt. switching nets 33726
  GRINSCH VCSEL, graded heterointerfaces, modulation characts., cct. modelling 39780
  integrated opt./optoelectronic switch for parallel opt. interconnects 31127
  large-area multiple-transverse-mode VCSELs in multimode-opt.-fiber links, modal and intens. noise 9595
  LEOS, Lake Tahoe, NV, USA (July 1994) 39
  low threshold half-wave vert.-cavity QW lasers 1983
  microcavity SEL, spectral linewidth 7703
  mirror effects, dyn. response 31315
  MQW laser, plasma-heating induced intens.-depend. gain 23263
  MQW VSCEL, gain-guided, transverse mode num. anal. 31469
  multimode data link appls. 23280
  multimode VCSEL, noise perform. 1984
  opt. delay line RF filter, SEL diode array 7421
  opt. devices, low threshold 39787
  opt. transm. systs. employing VCSEL and monolithically integrated photoreceivers 14656
  optoelectronic device simul., conf., Los Angeles, CA, USA, Jan., 1994 36838
  optoelectronic EX-OR, phototransistors and VCSELs 39512
  parallel opt. data links, VCSELs 42367
  parallel opt. interconnect, SEL and photodiode arrays 39601
  quasi-Cherenkov surface emitting FEL, linac 39982
  single-mode fiber, self-aligning multibeam coupling 14399
  solid-state laser pumps, surface-emitting/edge-emitting array comparison 31364
  SQW native-oxide defined vert.-cavity lasers, mode stabil. 1967
  surface emitting diode lasers 14902
  transverse mode competition dyn. in VCSEL diodes 31356
  VCEL, GRINSCH struct., CW operation, temp. range 39778
  VCSEL, 2D diffusion eqn. 23208
  VCSEL, Bragg mirrors, thermal cond. anal. 39785
  VCSEL, cavities microfabrication 39783
  VCSEL, Gaussian-beam-induced vortices 23321
  VCSEL, integrated opt. beam router, opt. interconnection 23305
  VCSEL, lateral injection, high speed modulation, act. region 39781
  VCSEL, off-reson. lasing 14934
  VCSEL, opt. switching and logic gates 15048
  VCSEL, p-type mirrors, wall plug efficiency 39777
  VCSEL, PLA 7611
  VCSEL, spectrally/temporally resolved emission 31450
  VCSEL, transverse modes, vortices 7639
  VCSEL array, SEED logic syst. input 39788
  VCSEL arrays, conf., Los Angeles, CA, USA (Jan. 1994) 36835
  VCSEL arrays, MBE, reliab., systs. appl. 39779
  VCSEL arrays, mfg. 39784
  VCSEL arrays, perform., appls. 39786
  VCSEL diode under DC excitation, chaotic dyn. of mode competition 1999
  VCSEL diodes, Au-plated heat spreading layer 23268
  VCSEL diodes, MOVPE 5852
  VCSEL semicond. laser, stable states 2007
  VCSEL wavelength control by nonplanar MOCVD 14963
  VCSEL-based logic, optoelectronic look-up table 31042
  VCSELs, 3D microcavities, spontaneous emission factor *(Japanese)* 23289
  VCSELs, multiple transverse mode, high speed data commun. 39806
  vert. cavity laser arrays on patterned substr., wavelength shift 31409
  vert. cavity SEL array spectra, transverse anisotropy effect 1936
  vert. cavity SEL arrays/micro-Fresnel lens array integrat. 23304
  vert. cavity SELs, 50% power conversion efficiency 23215
  vert. cavity surface emitting DBR lasers, voltage controlled 7622
  vert. cavity surface emitting semicond. lasers fab. 31361
  vert.-cavity lasers fabricated by selective oxid., low threshold voltage 1989
  vert.-cavity SEL array for short dist. opt. fiber networks 14929
  vert.-cavity SELs, self-pulsations 14992
  vert.-cavity semicond. laser amps., perform. predictions 1998
  vert.-cavity surface-emitting semicond. lasers, elec. pumped, transverse modes 7641
  very low threshold SEL, 1.55 μm, grating coupled 14905
  AlAs based microcavity laser, mode behaviour, lasing charact. 39776
  p-AlAs:Zn, MOCVD for low-resist. VCSEL 23246
  AlAs/GaAs DBR VCSEL diode on Si, MOCVD and struct. 39882
  AlAs/GaAs VCSEL, cavity and reflector design 31347
  AlAs/GaAs vert. cavity epitaxial struct., defects, X-ray obs. 14927
  AlAs/GaAs/InGaAs, VCSEL, transverse lasing mode, temp. depend. 39989
  AlGaAs VCSEL, low-temp. operation 14962
  AlGaAs/AlAs-TiO_2/SiO_2 hybrid DBR VCSEL 31342
  AlGaAs/GaAs VCSEL, internal quantum efficiency and loss meas. 39775
  AlGaAs/GaAs intracavity laser coupled VCSEL syst., opt. gain control 39774
  AlGaAs/GaAs quantum well DBR laser, femtosecond upconversion, time-resolved study 31374
  AlGaAs-GaAs-InGaAs DBR elec. pumped VCSEL 31314
  AlGaInP QW partial top dielec. stack DFB red VCSEL arrays 14850
  AlGaInP/AlGaAs:C red/IR VCSEL diodes, metalorganic VPE 20823
  AlGaInP-based 660-680 nm vert.-cavity SELs 23187
  Al_xO_y/GaAs VCSEL laser with high-contrast mirrors, gain switching 23231
  AlPSb/GaPSb Bragg reflector 1.55 μm LD 7619
  Cl_2 ECR plasma etching of III-V semiconds., laser appls. 22188
  GaAlAs, monolithic 2D surface emitting LD arrays, CW 39837
  GaAlAs/GaAs surface emitting lasers, materials, performance and appls. 14868
  GaAs SEL, transparent ITO ohmic contacts 39815
  GaAs gain-guided SEL, CW spectral width 39767
  GaAs/AlAs vert. cavity laser, SW light generation 23281
  GaAs/AlAs:C, LV VCSEL, low resist. C-doped mirrors 1946
  GaAs/AlGaAs MOVPE-grown vert.-cavity top-SEL 31388
  GaAs/AlGaAs, VCSEL, thermally stable elec. characts. 39768
  GaAs/AlGaAs high barrier gain offset CW VCSELs 7618
  GaAs-AlAs vert. coupled-cavity microinterferometer, deformable-membrane top mirror 39991

surface emitting lasers continued
GaAs-AlGaAs 0.85-μm VCSELs, reliab. studies 7677
GaAs-AlGaAs QW DFB VCSEL, temp. depend. of transverse mode evol. 7669
GaAs-AlGaAs VCSEL, low-temp. charctn. 7653
GaAs-AlGaAs monolithic optoelectronic switching network 42130
GaAs-AlGaAs-AlAs proton-implanted top-surface-emitting semicond. lasers 23206
GaInAs/GaAs surface emitting lasers, materials, performance and appls. 14868
GaInAs-GaAs multiwavelength SEL arrays, MOCVD fab. 1937
GaInAs-GaInP long wavelength lasers, strain compensated barriers, electron leakage reduction 39822
GaInAsP/AlGaInP-based near-IR (780 nm) VCSEL 31404
GaInAsP/InP MQW QCSE tuning element for surface emitting laser 15014
GaInAsP/InP VCSEL array for 1.3 μm range parallel opt. fiber transms. 23300
GaInAsP/InP surface emitting lasers, materials, performance and appls. 14868
$Ga_{1-x}In_xAs_yP_{1-y}$/InP VCSEL 14923
$GaInP_2$ ordered VCSELs, polaris. selectivity 31387
InGaAs VCSEL, gain/reflectivity, press./temp.-induced detuning 39796
InGaAs vert.-cavity quantum well lasers, cavity tuning effects on transverse mode 31316
InGaAs/AlGaAs multiple wavelength VCSEL array for opt. interconnection 31334
InGaAs/AlGaAs strained quantum well lasers, small-divergence angles, fibre laser pump 1990
InGaAs/GaAlAs VCSEL, native oxide confine. struct. 31408
InGaAs/GaAs VCSEL, differential gain, linewidth enhancement 31406
InGaAs/GaAs mesa-etched VCSEL, MOCVD, low threshold 39871
InGaAs-GaAs folded/VCSEL 31391
InGaAs-GaAs low threshold CW circ.-grating surface-emitting DBR lasers 7628
InGaAs-GaAs strained quantum well SEL 31392
InGaAs-InGaAsP strain-compensated MQW dielec.-bonded long wavelength vert. cavity laser 14851
InGaAsP/AlAs/GaAs double-fused vert.-cavity lasers, transverse-mode/polaris. characts. 39874
InGaAsP/InP-AlAs/GaAs long-wavelength vert.-cavity lasers, wafer fusion 23303
InGaAsP-InP 1.3-μm folded-cavity SEL grown by gas-source MBE 14853
InGaAsP-InP tunable DFB laser freq.-drift suppression 9596
InGaP/GaAs multilayer reflector, MOCVD grown, VCSEL appl. 39865
Si monolithic photodetector/CMOS preamplifier fiber-optic data link 9518
ZnSe-based vert.-cavity surf. emitting lasers, blue emission 23295

surface energy
see also surface energy measurement; surface states
ceramic packages, die attach polymer bleedout 153
classical superconds., props. *(Polish)* 39220
diamond CVD growth, surface free energies 37484
diamond films, heteroepitaxy on Si via SiC buffer layers 20849
interfacial energy calc., interconnect-metal/barrier-metal interfaces 38633
mag. disk, lubricant bonding, hydrogen bond network 7154
modif., atmos.-press. pulsed-corona plasma 38616
SOI, H annealed, surface atom migration 1175
$CoSi_2$-Si interface, interfacial and surface energetics 1155
Fe-Si steel, forsterite film form. and grain growth 14153
GaAs MBE, H-assisted 20862
GaAs low temp. fusion bonding 1196
PZT thin film capacitors, domain behavior 39058

surface energy measurement
atmos.-press. pulsed-corona plasma appls. 38616

surface enhanced Raman scattering
3D data storage appl. 14330
Si, porous/electrochem. etched, enhanced Raman scatt. 22162

surface fitting
3-D laser radar range image, terrain description and obstacle detect. 17441
3D obj. shape, pose, and deform. estim. 2758
closed surfaces, parametrization, 3D shape description 32906
cumulants in wavelet anal. 32451
extrema curvature evol., scale-space 24444
feature extraction, 3D image partial derivatives 32907
mag. head/tape spacing, 2D interferometric meas. 7169
reconstruction, adaptive mesh generation 2756
sampling for shape representation, self-organising 41365
simulated tearing, surface reconstr., discontinuities 2748
stat. model-based approach, topographic labels assignment 41203
surface representation, 3D, based on invariant charact. *(Japanese)* 32864

surface hardening
see also laser hardening
EM launcher plasma pulse-based metal surface treatment 15337
hard-surface microwave blockage-reducing struts 23989
ion-plasma-electron technol. source TAMEK, materials modif. 34889

surface-ion beam collisions *see ion-surface impact*

surface ionisation
aq. rosin flux cleaning, PCB manufacture, thermodyn./kinetics 38142
EHD pump, channels, nonstationary procs., modeling 44428
GaAs/AlGaAs multilayer p-i-n struct. multilayers, ionization 38335

surface magnetism
see also interface magnetism; magnetostatic surface waves
conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
guided nonlin. EM surface waves 39152
steel, ferromag., surface imaging using Barkhausen effect 14122
surface electron microscope for mag. imaging 13016
Fe, surface domains, lancet shape 39137
MnZn ferrites, polycryst., microstruct., mag. props., heat treatment effect 14182

surface mount technology
see also tape automated bonding
3D functional modules, SMD miniaturisation for portable telephones 5621
3D X-ray inspection of fine pitch PCBs, automatic testing 29673
25 mil pitch SMT mount assembly, conductive adhesives/Pb-free solder 38152
296-lead fine pitch thin plastic QFP package, TAB interconnect 5655
adhesive dispensing 12900
AOI, detect. of enclosed shape boundaries 24522
aq. cleaning, closed-loop water treatment 928

surface mount technology continued
area array solder joints, comp. effects on fatigue crack growth rates 37113
assembly, solder paste flow, computer simul. 12917
assembly failure stats. and failure free time 11792
AT&T μSurface Mount Assembly, large vol. fab. of flip-chip MCMs 21705
automated fine pitch solder paste dispensing, SMT PCB manufacture 38137
automated pick-place laser soldering for electronics assembly 12933
avionics PCB SMC, reliable design 10317
ball grid array packages 11776
ball grid arrays, ceramic thin-film technol. 5651
bare board ATE, std. mirror board enhancement 38157
bonded joints, thermal stress under uniform temp. change 28481
boundary-scan in SMT, design, mfg. and syst. test 38113
C4/CBGA interconnect technol., hi-dens., CMOS μP appl. 5650
C4/surface-mount-array interconnect technols. 11786
C4/surface-mount-array interconnect technols., thermal mgt. 28472
card edge connector soldering, surface mount proc. 916
cct. board torsion anal., elec. resist. meas. 29657
cct. wave soldering technol. *(English)* 922
ceramic 3-dB directional coupler, surface mountable, dielec. E-plane waveguide 814
ceramic ball grid array, reliab. comparison of two metallurgies 21647
ceramic ball grid array, sphere metallurgies reliab. comparison 20500
ceramic BGA package mfg. vars., effects on solder joint reliab. 11856
ceramic capacitor failure test, board bending 29653
ceramic QFP, epoxy encapsulation, SM appls. 11765
ceramic QFP, epoxy encapsulation, SMT appls. 5629
chip capacitor attach, CFC solvent elimination, qualif. by comparison 38172
chip mounting technol. meets fine pitch demands 152
CIMID, electronic systs., high dens. integrat. 28458
coaxial SMD module connector for high-speed MCMs 6399
COB, SMT and TAB packaging technols., design tradeoffs 28449
COB encapsulation technol., stress anal., reliab., FEM 37077
component solderability testing, microwetting bal. 6422
component/proc. selection guidelines, SMT/PCB/fine pitch manufacture 38131
cond. rework tool design paradigm, PCB/SMT manufacture 38146
conducting adhesives for HDI 11813
conductive adhesive eval. as solder replacement 38107
conductive adhesives and solders for SMT, environ. comparison 38110
conductive adhesives for assembly of SMT, fine pitch, MCMs and flip-chip bonding 37116
conductive polymer solders for Pb-free SMT/PCB/fine-pitch assembly 38130
conformal coating stresses, SMT/fine pitch technol. 6431
connector design, high dens./small size, PCB/backplane appls. 38069
connector design, respect, solder creep 28503
connectors, lead/hold-down redesign, auto-placement 905
connectors and assembly procs. develop. 894
controlled collapse chip connection, flip-chip attach on FR-4 IC packaging 130
controlling solder ball form., wave soldering 944
core materials for SMT appls., engng. props. 21645
cost effective ceramic surface mount packaging 20448
cost reduction in electronics indust. 5589
DC/DC HF SMPS, solid Ta power capacitor appls. 19826
DC/DC power convertors, SMT MOSFETs, VDMOS technol.-based 36345
decal library constr., PCB/SMT design 38079
DFM, automated tools, manufacturable data 903
die mount methods for memory chip testing 38166
diebond thermal fatigue model, damage integral based anal. 11746
DIP switches, Otax product series 12860
discrete event simul., computer based learning, hypertext 20407
discrete semicond. components, SMD packages 37144
elec. verification, value to proc., SMA 38105
electromechanical devices, tech. trends and motive technols. 6394
electronic packaging, future develop. 28478
epoxy resin, printing encapsulation syst., MCMs, PLCC, BGA, PGA, TAB, COB, flip-chips 20433
fatigue life of solder joints, FEM study of factors 11756
film redistribution layer technol., fine grid SM components 917
fine pitch and SMT advances, overview 37151
fine pitch QFP in SMT, solder joint quality, optim. 37075
fine pitch solder deposition/dispensing, productivity enhancement 38150
fine pitch surface mount IC package solder joints, exam./testing 37117
fine-pitch SMT, automated soldering inspection 163
fine/ultrafine pitch printing, electroformed/laser cut/etched stencils 37152
finepitch surface-mount solder joints, fracture surface exam. 21644
flat pack flux-free soldering proc. for PCBs 12937
flexible prod. systs. 12901
flexible SMD connector for high-speed data bus 38068
flip COB assemblies, material selection 12930
hand-soldering equipt., PCB manufacture, modern requirements 12913
HF high perform. power supplies, SMT 12332
high pin count QFP packages, carrier and socket technol. 11802
high pin count QFP packages, carrier/socket technol. 28476
high reliab. cct. board repair, PCB/SMT manufacture 38145
high-dens. high-pin-count flexible SMD connector 6398
high-speed modem design *(German)* 16937
hybrid ICs, high-dens. SMTs 6441
hybrid MCM, mixed interconnection considerations, wire bonding, flip chip and TAB 21709
IBM high perform. carrier technol. for PCB packaging/interconnects 37153
IBM RISC System 6000 workstation ceramic ball grid array package conversion 37149
interconnect technols., strategic implications, knowledge base 12889
Interleaf technol. mfg. syst. for SMT/leaded film capacitors 6361
IPC-SM-782A, Surface-Mount Design and Land Pattern Standard spec., review 902
IR reflow soldering, knowledge based decision support 29677
isotropic conductive adhesives, solder replacements 21654
J-leaded solder joints, stress anal. model for fatigue predict. 37114
laminated elements, thermal stress, component size effect 29705
laser soldering, thermal modelling 28436
laser-cut stencils, no-clean solder cream printing 12898
LD/photodiode module *(Japanese)* 42466
lead scanning, coplanarity/shape control 915
lead-on-chip packages, cracking failures 5672
lead-on-chip packages, cracking failures induced by chip backside contamination 20439

surface mount technology continued
lead/solder joint, random vibr. anal. 29686
leaded chip solder joints in handy phone, fatigue life 5710
leaded SM devices, creep strain response of solder joints, temp. profile params. 38163
leaded SM devices and solder joints in thermal cycling environ., 3D FEA 37132
leadless solder connection, compliant leads, commercial lead designs 5662
LGA, low temp. co-fired ceramic, high speed digital appls. 20443
loaded board test philosophies, PCB/SMT testing 38158
low-pass elec. filters for cryogenic detectors 37830
low-profile ferrite cores for planar transformers on PCBs 39189
LSI packages for ultra high-speed opt. fiber transm. systs. *(Japanese)* 42470
maskless flip-chip solder bumping tech. 954
MCM, COB, single/double sided, Jedec stand., low cost 38189
MCM defects testing, IEEE 1149.1 boundary scan test 38196
MCM/ball grid array technol., assembly proc. considerations 38178
MCMs, interactive design aid 21773
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
middle gull-wing joint, thermal fatigue life, FEM 28502
Mini-Smart SIPMOS switches in SOT-223 SMD packages 522
mixed SMT/PTH component technol. and assembly 37066
MLC capacitors, nondestructive defect detect. tech. 6371
MLC MCMs and SCMs, surface-mount arrays 29735
MLC series-connected C-R chip, data bus impedance matching 6194
molding cpds., copper leadframes 5668
molten axisymmetric solder interconnection joints, heuristic force-height eqn. 141
molten solder profiles for rect. pad geometries in SMT, calc. 38123
multichannel biomedical data acquisition, analog opt. link in SMT 17690
multifunctional piezoceramic resonators, design and size reduction 39084
multilayer PCB prototyping, engng. lab environ. 38089
multilayer SMT varistors, transient surge protection, automotive indust. 11437
multiple batch surface mount PCB placement seq. problem, soln. 12915
multiple fns., discrete component reduction 6403
N_2-purity selection guideline, controlled atmos. reflow soldering 38104
new product introduction teams, SMT/PCBs, design for manufacturability 37030
no-clean fluxes and solder pastes technol. 21649
no-clean low residue solder paste for fine pitch appls. 939
no-clean wave solder defect reduction, N_2 atmos. effects 38155
no-clean/water-clean PCB solder joints, plastic quad flat, failure anal. 947
nonohmic piezoelec. resonator contacts obs./anal. 6920
NTC thermistors for temp. compen., SMDs 38048
OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
organic protective coatings for SMT/PCB finish 12910
package cracking, molding cpd. and die attach adhesive 5665
pass. demodulated Michelson/polarimetric coupled fiber strain sens. 17866
PCB, displacement meas., shadow moire 29656
PCB assembly line, placement machine, multi-criteria DSS 28424
PCB assembly proc. perform. meas., multiple defects 38095
PCB assembly rework cell controller, software modelling 115
PCB assembly yield, design factors, stat. and ANN models 38080
PCB assembly/soldering, Penn State initiatives 29671
PCB manufacture, conductive adhesives 12925
PCB manufacture, defects, fault coverage, yield and cost 6413
PCB mounted ceramic SMDs, capacit. monitoring while flex testing 12878
PCB placement seq., multiple batch, soln. methodology 29689
PCB SMA, DFM, Integrated Expert System Environment 29670
PCB solder replacement technol. testing 5607
PCB X-ray inspection, neural network classifiers 37162
PCB/SMD quality inspection by computer vision 37165
PCMCIA std. for high-dens. PCB design 6407
photoimageable liq. dielec. for seq. PWB fab. 38124
plastic ball-grid arrays 28441
plastic SM IC packages, moisture/reflow induced delaminations, IC thermal perform. 11797
plastic thermally enhanced QFP packages, moisture sensit./reliab. 11803
platable MLC termination materials/proc., PCB bend strength effects 6434
PLD, prog. and testing 37699
PM motors, cogging torque, mag. field anal. 36215
PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
polymer capacitors, HF switchers 6355
PQFP surface mount plastic packages, heat sinks for thermal enhancement 20463
precoat soldering, fine pitch component mounting 38168
proc. control for high yields, surface-mounted reflow 12914
proc. variability control, PCB/SMT manufacture 37193
prod. line, soldering, prod. procs. 128
production, integrated process monitoring/testing 38111
PWB, thermal expansion, copper-invar-copper foil 12876
QFPs, surface-mount, non-hermetic, reliab. 11773
quality perform. meas., SMT/PCB manufacture 37159
reflow soldering oven perform. maximization 913
reflow soldering syst., equipt. selection 12902
reflow-soldered joints, mech. props., porosity form. 12920
relays, reliab., heat stress, reflow soldering *(Japanese)* 6411
rework, conductive/convective hand tools 38161
rework proc., ISO9001 38093
reworking area array components 945
reworking of SMT components on PCBs, proc. control 12903
RF A universal probing syst. for PCBs 12908
RF/microwave filters, high dielec. const. ceramics 21401
robotic electronic component insertion/mounting *(Japanese)* 5603
S-bend lead design for SM components, clip-leads appl., compliance metric 140
SC59 surface mount package, autoclave reliab., benchmark study 11823
screen printing, low defect proc. 12897
screen printing technol., on-line monitor, print QC 912
semicond. devices, marginal thermal improvements 30000
Siemens SMT-TOP-LEDs for large-area matrix displays 3932
SMT package, moisture-sensitivity ratings 11750
SMT/FPT assemblies, reflow soldering 914
solder alternatives eval. 145
solder ball connection module, memory appls. 20430
solder ball connection reliab., crit. param. optim. 926
solder joint reliab., insulated metal substrs., ceramic chip components 12931
solder joint reliab., rework/repair techs. and procedures 12904

surface mount technology continued
solder joint reliab., voids and void interacts. 178
solder joints, fatigue life, mech. fatigue test 28501
solder joints, long-term reliab. 28532
solder joints accidentally exposed to nitric acid, reliab. eval. 37188
solder joints of 256-pin plastic QFP, failure anal. 37129
solder life predict. for SMDs under thermal cycling/vibr. 37115
solder paste, water soluble, electronic card assembly 920
solder paste considerations for SMT reflow soldering 12911
solder paste flow, stencil aperture, computer simul. 12918
solder paste printer vision systs., SMT/PCB manufacture 38106
solder paste screen printing proc. in SMT mfg., SPC 38134
solder paste thickness effects 6416
solder paste-soldering proc. interact., obs. phenomenology 938
solder paste/stencil interface, shear stress, SMT manufacture 12943
soldering station selection, modern through-hole/SMA 38144
soldering/inspection workcell for SMDs, develop. 6419
solders, thermal cycling, premature failure *(Korean)* 129
stencil printing for SMT assembly, solder paste flow procs. 29683
step-by-step SMT design for manufacture 38132
stress anal., influence fn. 28494
stress sing., local plastic deform. 29660
subpixel alignment, inspection, fuzzy morph., automatic systs. *(Korean)* 29691
TAB inner lead gang bonding on Ni-Au bumps 12960
tape carrier package, thermal charactn., PCB enhancements 11798
TCC/MCM, μBGA on laminated substr. 21692
thermocompression hot bar soldering tech. 21646
thin SOP delamination, moulding cpd./polyimide interface chem. 37078
thin SOP with Cu gull-wing leads, SMT advantages 37133
thin-film ceramic package for microwave appls. 11766
through-hole connectors, X-ray meas. 12922
through-substr. cooling of high power IC packages for avionics 37091
total QC on PCB assembly proc. 6433
TQFP package, high perform., Olin MQUAD technol. 5656
transferred ball bump technol. for tape carrier packages 21673
TSOP solder joint reliab. enhancement, encapsulation 131
UV curable urethane encapsulant for ceramic chip carriers 5669
UV curable urethane encapsulant for ceramic chip carriers 5628
vapour phase reflow soldering, viability for SMT ball grid array assembly 38090
VLSI plastic packages, reflow soldering perform. improvement 6840
water soluble solder paste printability, rheological charactn. 11739
water soluble/no-clean selection guidelines, PCB/SMT/fine pitch soldering 38151
wave soldering in SMT assembly 6418
wave-soldered SM solder joints, size/shape prediction, model 38122
wettability of immersion coated PWBs, temp. and humidity effects 29681
z-axis anisotropic polymer-matrix composite conducting film, SMT/PWC connectors 12196
$BaTiO_3$ Y5V 0603 ceramic chip capacitor 12839
GaAs MMIC LNA for wireless commun., ultralow noise 42235
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
N_2/convection reflow soldering oven, input gas flow var. influence 38148
Ni-Zn-Cu ferrite, inner stress, grain boundary Cu precip. 14195
Sn-Bi(Ag) soldering alternatives for fine-pitched electronics packaging 29675
Sn-Pb SMT solder joint reliab. prediction, model validation 925
Sn-Pb-Ag solder joints, reliab. anal. and thermal fatigue disloc. substructure *(Chinese)* 11844
Sn-Pb-Ag solder joints, thermal fatigue/isothermal mech. fatigue damage 37112
Ta SpeedPower SMD capacitors, B45197 series 873
Ta capacitor miniaturization *(Japanese)* 877
Ta chip capacitor reliab. in high surge/ripple current appls. 12841
Ta chip capacitors, proven reliab., high capacitance, low vol., rugged design, SMDs 29610
Ta coated chip capacitor, SMT reduced board height requirements 6360
ZnO multilayer chip varistor, LV transient suppression 29607
board testing, method selection 38102
flexible etched cct.-based IC interconnection, high speed/dens. 13431

surface mounted devices *see surface mount technology*

surface phenomena
see also surface......
see also capillarity; crazing; interface phenomena; sorption
fibre optic sens., monomolecular films surface press. meas. *(German)* 17922
gyrotropic planar opt. waveguides, Bragg diffr. of light by ultrasound 1707
microscopic displacement pattern, holographic, 3D graphic image representation using cubic spline fn. 15152
p-nitroaniline centrosymmetric single cryst., surface opt. SHG 40118
planar opt. waveguides, highly directional surface emission from concentric-circle gratings 23766
pressure contact, nm-scale, surface layer effects 38060
propag. surface waves sustained microwave discharge, electron energy distrib. fn. 966
pulsed power systems, environmental, industrial appls. 11520
reson. cascaded surface-emitting SHG struct. self-PM 31485
spectral emissivity of natural surfaces, FTIR spectrometer appl. 18131
Ag and Ag-Pd contacts, material transfer and arc erosion characts. 6390
InP:Fe/InGaAs:Fe fully passivated AR coated MSM photodetectors 9907
$LiTaO_3$ surface emitting FIR by difference freq. mixing 7802
ZnO layers, anodically grown, surface photocond. 1785

surface phonons
see also interface phonons
mol. adsorbates, steady-state sum-freq. generation 15028
semiconductors, Raman spectrosc./STM *(Japanese)* 29822
n-GaAs(100), surface photo-emf spectra 1051
Si surface, HF treatment, F adsorpt., FT IR refl. absorpt. spectra 29838

surface plasmons
biosensor, particle-enhanced sensitivity, fractal-cluster model 34602
biosensor develop., sensitivity and appls. *(Japanese)* 18525
corrugated waveguide, SHG, light diffr. 14459
electro-optic polymer light modulator, surface plasmon reson. based 22943
glass-Ag-polymer struct., light switching, ATR study 22945
mode selective fibre coupling, long-range surface-plasmons 30893
organic waveguides, SHG in ATR expt. 14476
waveguide-coupled surface-plasmon sens. for aq. environ. 3822
Au/Co/Au multilayer systs., magneto-opt. effects, surface plasmon depend. 7067

surface plasmons continued
Si/SiO_2/Al MOS, tunnel jns., light-emission mechanism 22078
Si/SiO_2/Au MOS, tunnel jns., light-emission mechanism 22078
Si(111), surface SHG, wavelength depend., laser induced props. 15037
SiON integrated optic intens. modulator based on mode coupling 1731

surface potential
2DEG, quantum Hall device, photoresist. imaging 1079
body surface pot. mapping, percutaneous transluminal coronary angioplasty 2[illegible]376
body surface pot. maps, epicardial breakthrough phenom. detectability 26384
C_∞-continuous model for small-geom. MOSFETs 13745
charged dielec./metal thin films, peeling ESD 7901
dielec. surfaces, pot. meas., pulse method 25950
EKGs, digitally stored, PC based surface pot. generator 26442
elec. pot. sens., vibr. shutter 34439
electro-optical polymers, poling 13930
EM wave scatt. from penetrable cylinder 15401
insulator charging simulation 14005
MOS capacitors, surface pot. determ. 1170
MOSFET C-V charact. dispersion, random channel dopant ion distrib. 1393
planar p-n jn. termination, theoretical investig. 29888
polysilicon biased field plates for HVIC interconnections 30155
α-quartz, dielec. strength, size effect. Monte Carlo anal. 13980
RESURF LDMOS struct., breakdown props., analytic approach 30309
SOI MOSFET, current characts., 1D MISIS struct. soln. 22469
SOI power device blocking voltage, HVIC interconnection influence 29979
thin film SOI FET, anal. model and temp. depend. 38906
transformer oil, voltage controlled double layer 14026
transient contact of small particles, charge transfer 15225
CdS electrophotographic discharge, surface-depletion discharge model 22997
n-GaAs, surface photovoltage, photoemission spectrosc. 14586
GaAs/$Al_xGa_{1-x}As$ double-barriers, electron transm. 13113
GaAs/AlGaAs multiple bridge devices in quantizing mag. fields, pot. distrib. 38291
InGaAs/InP:Fe MISFET, opt. controlled characts. 23015
Si MOS diodes, interface-state passiv., surface pot. depend. 1182
Si, surface temp./pot. meas., photoreflectance spectrosc. 42972
Si/Si p-n jns., pot. distrib., off-axis electron holography 1093
Si(001), O_2 adsorpt./oxid., dimer reconstruction 6654
SiC, MOS capacitors, surface pot. flucts. 1316
SiO_2 charge/mobile ion conc. meas., MOS struct. 29964

surface recombination
bipolar power transistor switches, collector current/current gain rels. 38824
quantum well IR photodetectors, photocond. gain/generation-recomb. noise 22013
solar cell, spatial collection efficiency 27932
solar cells, internal quantum efficiency anal., graphical eval. 44419
AlGaAs/GaAs HBT, surface passiv. layer struct., design considerations 6732
AlGaAs/GaAs HBTs, surface recomb., 2D anal. 22369
AlGaAs/GaAs power HBTs, self-aligned, LF noise characts. 13648
AlGaAs-GaAs HBTs,current gain long-term instabil., model 38847
$Cd_xHg_{1-x}Te$/CdTe epitaxial struct., carrier recomb., microwave method 21943
GaAlAs/GaAs thin-emitter solar cells, photolumin. study 20002
GaAlAs/GaAs/Ge thin-emitter solar cells, photolumin. study 20002
GaAs, electronic passiv., electrodeposition of organic mols. containing reactive S 30070
GaAs passiv., integrated plasma clean/CVD/RTA, Si_3N_4 encapsulation 22224
GaAs, photoenhanced metalorganic CVD, substr. role 12122
GaAs, sulfidated surface, electron work fn. 13372
GaAs/AlGaAs microdisk lasers 23259
GaAs(100) modified with octadecylthiol monolayers, near-surface electronic struct. 38539
$Hg_{1-x}Cd_xTe$/GaAs two-jn. monolithic cascade solar cell 20009
In-ZnTe Schottky diodes, RF sputtered, elec. props. 30215
n-InAs:Si, carrier mobility across surface depletion zones 13055
InGaAlP strained multiquantum-well LD, photolum. meas. 14920
$In_xGa_{1-x}As$ thermophotovoltaic cells, quantum efficiency model 28003
InGaAs/GaAs, buried wires, MBE overgrowth prep., opt. props. 38369
InGaAs-GaAs quantum wells, surface segreg., photolumin. study 13171
PbS photosensitive layers, charge carrier transfer and recomb. 39548
n-Si, bulk/surface transport, injection dose effect 1029
Si multicrystalline solar cells, gettering, passiv. 27955
Si, porous, diode struct., elec./PV props. 38325
Si solar cells, 23% efficient, limiting loss mechanisms 44401
Si, solar cells, optoelectronic charactn. by photothermal deflection 44398
n-Si, surface recomb. vel., Schockley-Read Hall model 21892
Si wafers, doped, modulated photothermal reflectance charactn. 13031
Si wafers, thermal proc., quartzglass materials influence 22208
a-Si:H solar cells, insulating interfacial layer effect 36600
$Si_{1-x}Ge_x$/Si heterostruct., surface passiv., photolum. meas. 13146

surface reconstruction
3D copying, surface-reconstruction from tomography-slices 24562
3D indust. obj. recogn., vision based profiling method 41117
3D surface reconstruction, polariz. state anal. 41290
concealed obj. surface reconstr. using dist. metric 33026
multi image shape from shading for surface reconstruction 41259
multiaxial triangulation, surface reconstruction 2587
near-field scanning tunnelling microscopy data 41297
polygonal slices, piecewise-lin. interpolation 20584
quadric surface reconstruction from disparity meas. 24547
relative 3D regularized B-spline surface reconstruction, image seqs. 24635
shading flow anal., surface recovery 32892
shape reconstruction by combining stereo and photom. ratio 24510
Ag/Si(111) Schottky diodes, barrier height and interface struct. 30231
AlGaAs, MBE-grown, As capping 1286
GaAs, ALE, surface stoichiometry and role of adsorbates 20686
GaAs, MOCVD on annealed Si in H_2 20771
GaAs:C,H, MOMBE, C-H complexes, orient. rels. 327
GaAs:III-VI gallium chalcogenides(100), passiv. 30077
GaAs(001), surface arsenic stoichiometric problem, in ALE growth 20690
GaAs(100) surface, $(NH_4)_2S_x$-treated, S at. sites 22171
GaAs(111)B substrs., homoepitaxial growth, at. steps 20859
GaN on Si(001), ECR plasma-assisted MBE growth 20898
Ge/Si(111) SPE, STM obs. 20707

surface reconstruction continued
Si MBE on GaAs(001), submonolayer coverages 28746
Si layer-by-layer growth, photoelectron intens. oscills. 20699
Si, porous, layered struct., opt. props. 1022
Si(100)-(2×1), at. scale etching by Cl 30087
n-Si(111), electrolytic hydrogenation, FT IR spectrosc. 38558
SiC GSMBE, thin film growth mode, polytype form. 5812
ZnS, MBE on GaAs(001), struct., opt. props. 20807
ZnTe epitaxial growth mechanism on (001) CdTe 37441

surface roughness *see surface topography*

surface scattering
used for carrier scattering by surfaces
see also surface conductivity
laser radar signatures, enhanced backscatt. 17445
Model TB400G EXA TB surface scatt.-light turbidity meter 10043
p-MOSFETs, radiation-induced oxide-trapped charge, mobility effect 30322
polysilicon films, elec. params., low temp. modelling *(Chinese)* 13025
semicond. thin film in quantizing mag. field, elec. cond., surface scatt. 21868
GaAs-AlGaAs modulation-doped heterostruct., interface roughness scatt. 13109
$In_{0.75}Ga_{0.25}As$/InAlAs pseudomorphic modulation-doped heterostruct., high electron mobility 21971
InGaAs-InAlAs quantum wells, electron scatt., photoreflectance obs. 13141
InP MISFET, near-surface electron transport 13697
Si MOSFETs, inversion layer mobility, substr. impurity conc. 6760
Si MOSFETs, inversion layer mobility, surface orient. 6761
Si-SiGe HFETs, mobility simul. 22494

surface segregation
polysilicon films, elec. params., low temp. modelling *(Chinese)* 13025
Ag patterns on Ag-rich Ag-Ge-S films, reversible photowriting, thermal erasing 13419
Cu-Ti(Cr) self-encapsulated metallization, TiN(CrN) diffusion barriers 38651
GaAlAs heterojunction, LPE growth, solid phase surface segreg. 28736
GaAs ohmic/nonohmic contact form., interfacial react. effects 38392
GaAs:Sn, n-type doping, MBE 1207
$Ga_xIn_{1-x}As$/GaAs syst., In segreg. in MBE 12092
Ge heteroepitaxy on Si(111), surfactant effects 317
Ge/GaAs, heteroepitaxy, As segreg., passiv. 37396
Ge/GaAs, heteroepitaxy, role of As 362
$Hg_{0.85}Zn_{0.15}Te$, surface comp., chem. treatment effects 13360
InAs/GaAs monolayer heterostruct., thin buried layer XRD 38310
InAs/GaAs, quantum wells, MBE, ALE growth, In segreg. 12111
InAs/InP(In_xGa_{1-x}) heterostruct., depth profiling, MBE 13121
InGaAs-GaAs quantum wells, surface segreg., photolumin. study 13171
Si:Er, surface segreg./trapping, MBE 30051
Si:In, MBE doping kinetics, rate eqn. model 1211
a-Si:P/Si, shallow jn. form., diffusion from spike-doped CVD amorph. layer 38514
Si/Ge abrupt interface form., at. H in Si MBE 12039
Si/Ge epitaxy from gaseous hydrides, growth dyn. studied by RHEED 5853
a-SiC/Si:P structs., P diffusion and interface segreg., HBT appls. 13118
SiGe/Si heterostruct., segregant-assisted growth, opt. props. 37449
SiGe/Si modulated quantum well/wires, luminesc. 1114
$Si_{1-x}Ge_x$/Co(Ti), solid state interfacial react. 38371
$Si_{1-x}Ge_x$/Si heterostruct., adaptive temp. program ALE from Si_2H_6/Ge_2H_6 20705
SiGe-Si RTP/VLPCVD heterostruct., Ge surface segreg., H_2 influence 22005
Ta(110)/Ta(110)-suboxide etch selectivity, Cl_2 mol. beams 30130

surface states
see also core levels; interface states; surface plasmons
copper dicyanoanthraquinone diimine thin film electrodes, H sens. 17976
diamond:B films, ion implant., surface interacts./electronic struct. 30030
diamond nucleation and growth, SR studies 404
GaAs:Se(100), passivated, oxid. 13373
III-V semiconds., surface passiv., Si interface control layer 38596
MOS struct., slow surface levels, elec. props. 29967
MOS transistor degrad., charge pumping method 22404
MOS transistors, nonuniform degrad., charge pumping 22405
physics and chem. of semicon. interfaces, conf., New York (1994) 20208
physics of semiconductors, conf., Beijing, China (1992) 11542
quartz outgassing meas., mass spectrometer 30601
semicond., generation param., lin. voltage sweep determ. *(Chinese)* 42920
semiconductor interfaces, conf., Julich, Germany (1993) 11545
surface-channel CCD, charge transfer inefficiency *(French)* 30369
Al vac. deposited thin film characterisation, SiO_2-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
AlGaAs/GaAs HBT, surface passiv. layer struct., design considerations 6732
AlGaAs/GaAs HBTs, surface recomb., 2D anal. 22369
AlGaAs/InGaAs pseudomorphic HEMT, δ-doped, charge transfer limitations 30373
AlGaInP:Zn, H-passiv. of acceptors in MOVPE layers 22129
CdS, optoelectronic charactn. by photothermal deflection 38229
$CoSi_2$/Si(111) epitaxial films, situ study by BEEM 22037
$CuInSe_2$ films, surface morphology, grain boundary, parameters, etching 22215
$CuInSe_2$, heteroepitaxy on Si, charactn. 13087
$CuIn_3Se_5$, heteroepitaxy on Si, charactn. 13087
GaAs, dispersed semicond. particles, doping effects *(Korean)* 13263
GaAs, electronic passiv., electrodeposition of organic mols. containing reactive S 30070
GaAs, sulfur treatment and hydrogen plasma treatment 38597
GaAs:III-VI gallium chalcogenides(100), passiv. 30077
GaAs:O(S)(110), surface states, ambient/vac. STS 1244
GaAs/$Al_{0.3}Ga_{0.7}As$ heterostruct., SO_2 chemisorpt., sens. appls. 38303
GaAs(001), water treated, SR PES 1269
GaAs(100) modified with octadecylthiol monolayers, near-surface electronic struct. 38539
GaAs(100) surfaces, sulfide passivated, stabil. 38622
GaP surfaces, $(NH_4)_2S_x$ treated, high resoln. XPS *(Japanese)* 38548
p-HgCdTe, Au ohmic contacts, low specific contact resist. *(English)* 38381
HgI_2 gamma-ray spectrometers, electronic charactn. 43078
InGaAs/InP surface quantum wells, ion-gun hydrogenation, luminesc. 14592
InP/GaAs heterostruct., H-passiv., carrier trapping by disloc. 38304
n-InP/metal systs., hydrogen plasma treatment, elec. props. 38598
InP(110), nitridation/oxid., core-level/valence-band photoemission obs. 13335

surface states continued
PbSe/BaF_2, MBE layers, long-term photocond. 21934
Pt-deposited p-InP photoelectrochem. cells, band gap, surface states 6572
Si, dispersed semicond. particles, doping effects *(Korean)* 13263
Si, etching mechanism and band model in aq. KOH 13388
Si, irrad. detectors, neutron fluence, DLTS, CV characts. 38794
Si, optoelectronic charactn. by photothermal deflection 38229
Si, porous, resist., surface effect 21897
Si tip avalanche cathode for vac. microelectronic devices 12991
Si wafer cleaning, surface charge effects, surfactant solns. 30068
Si wafer surface minority carrier lifetime meas. tech. 30388
Si-Dy_2O_3 MIS structs., UV irrad., charge accum. 22056
Si-SiO_2 MOS surface layer defects, ECR etching in Cl_2/O_2 plasma 6631
Si(001), O_2 adsorpt./oxid., dimer reconstruction 6654
Si(111), H terminated, surface electronic props. 6524
SiC/metal struct., 6H polytype, surface barrier height 22044
SiN-Si X-ray mask wafer stress, contactless laser/microwave eval. 6686
Ti silicidation, effect on type II end-of-range disloc. loops 38581
ZnSe-GaAs growth rate, surface state depend. 37391

surface structure
see also surface contamination; surface reconstruction; surface segregation; surface topography
Al_2O_3, insulators, HV stress, light emission from surface flashover 13954
ALE, conf., Sendai, Japan (May 1994) 5491
config. at. ordering, stochastic adsorpt. procs. in MBE-growth 20688
copper phthalocyanine single mols. and islands, STM obs. 28809
diamond, nucleation and growth on Si(100), electron spectra obs. 430
diamond CVD growth, surface free energies 37484
diamond films, compositional and spectrosc. study 5868
diamond nucleation and growth, SR studies 404
diamond thin films, microwave PECVD 1019
diamond thin-film growth, filament-assisted excimer laser ablation syst. 12178
electro-discharge machined surfaces modif., CO_2 laser *(Japanese)* 5613
electrostatic powder coating, microstruct. surface props. 7902
fiber Bragg reflectors with KrF excimer laser pulse, cladding surface struct. 1685
GaInAs-InP heterostruct., elec. props./interface defects 13103
giant far action lateral phenom., ion/laser beam IC fab., reliab. 20488
glass:Nd, excimer laser ablation, thresholds 30120
laser-induced holographic surface relief gratings on nonlin. opt. polymer films 31640
lead-on-chip package, temp. cycle-induced chip surface damage 20435
oxide etching, plasma-induced damage in planar inductively coupled etch reactor 1260
oxide film deposition, rapid isothermal proc.-MOCVD 20846
physics and chem. of semicon. interfaces, conf., New York (1994) 20208
plasma-assisted etching, surface-sci. aspects, IC appls. 1241
polypyrrole synthesis, Cu metallization 1294
semicond. surface anal., AES and XPS technols. *(Japanese)* 13273
semiconductor interfaces, conf., Julich, Germany (1993) 11545
semiconductors, Raman spectrosc./STM *(Japanese)* 29822
solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
steel, ferromag., surface imaging using Barkhausen effect 14122
steel, unalloyed sheet, surface condition, ferromag. monitoring 12224
stereoscopic viewing of at. struct. 34336
thin film photon-/ion-beam-assisted deposition/characterisation 28846
undulator beamline, advanced light source 43171
Al ultrathin films for Cu oxid. prevention *(Korean)* 38638
AlGaAs on GaAs(001), adatom migration, Monte Carlo simul. 21899
AlGaAs/GaAs solar cell struct., LPE etchback-regrowth 27948
AlN, high temp. ECR etching 38540
Al_2O_3, chemically etched, surface flashover performance 13956
Au, rough surface quartz cryst. oscill. damping 30600
BN thin films, plasma-enhanced CVD, structural props. 20953
$BaTiO_3$ films on Pt, epitaxial growth and dielec. props. 12099
$BaTiO_3$ thin film capacitor dielec. props., Pt bottom electrode 38050
$BaTiO_3$ thin film capacitor dielec. props., W_2N-W bottom electrode 38050
Be foils for devices and phys. expts. 37528
BeO CFA tube cathodes, secondary electron emission props. 6475
$Bi_4Ti_3O_{12}$ films, MOCVD, memory device appls. 37514
$Cd_xHg_{1-x}Te$ epitaxial layers, laser irrad., photoelectrical props. 14585
CdTe on GaAs and Si substrs., OMVPE 37452
CdTe:I, doping, interact. between I in closed tube diffusion 13316
$CrSi_2$/Si(111), monotype domains, SPE on vicinal surface 5832
Cu MOCVD thin films from pyrazolylborato-Cu(I) complexes, charactn. 38679
Cu surface/interface modif. for IC appls. 38647
Cu/Sn(SnBi)(SnPb) solder systs., wetting tips, morph. and instabil. 28865
$CuInSe_2$ films, surface morphology, grain boundary, parameters, etching 22215
Fe island growth on CaF_2/Si(111), selective nucleation, SEM obs. 12177
Ga(Al)As, MBE growth on (001) surface, dyn., RHEED study 37436
GaAlAs, metallorganic CVD, Zn-doping proc. 28843
Ga(Al)Sb mesa photodiodes, dark current improvement, $(NH_4)_2S$ treatment 14604
GaAs, ALE, surface stoichiometry and role of adsorbates 20686
GaAs MBE heteroepitaxial growth on vicinal Si (110) substrs. 5843
GaAs, MBE, low temp. limit 366
GaAs, MOCVD on annealed Si in H_2 20771
GaAs, MOMBE selective growth, GaN mask 20666
GaAs digital FET multilevel metal interconnects, isotropic etch planarization 13322
GaAs heteroepitaxial MBE growth on GaP, growth mode transit. *(Japanese)* 37408
GaAs, metallorganic CVD, Zn-doping proc. 28843
GaAs surfaces, wet/dry etched, ellipsometric model 21914
GaAs two-chamber MBE growth on Si(111), cryst. quality 337
GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
GaAs/AlGaAs, MOVPE, V-grooved GaAs substrs. 20884
GaAs/InP heterostruct., (111) A, B oriented, MOVPE growth, Raman scatt. 12107
GaAs(001), metalorganic CVD, surface photoabsorpt. obs. 20720
GaAs(001) surface, MOVPE, monolayer growth oscills. 20854
GaAs(100), S-passivated, absol. coverage meas. 30129
GaAs(110), ion sputtering, STM study 6629
GaInAs, MOVPE, coherency limits 315
GaInP, MOVPE, coherency limits 315
GaN, high temp. ECR etching 38540

surface structure continued
GaSb, spiral growth on GaAs(001) by MBE 28750
Ge SPE on Si(111), preferential growth 28772
Ge islands on Si(111), three-stage lattice relax., STM 28749
Ge, surfactant-mediated epitaxial growth, 2D islands 28785
Ge-Si monolayer-scale heterostruct. by rapid thermal CVD 20911
Ge(100)-(1×1), S-passiv. 30092
$Hg_{0.85}Zn_{0.15}Te$, surface comp., chem. treatment effects 13360
InAlAs, surface chem., $(NH_4)_2S_x$ sulphidation 13409
InAs/GaAs($Ga_{0.47}In_{0.53}As$) heterostructs., MBE, defect control 12046
InGaAs surfaces, MBE growth on InP substrs. 20853
$In_{0.65}Ga_{0.35}As$ epilayers, MBE growth on InAlAs/InP heterostruct. 12091
InGaAs/GaAs wires, MBE overgrowth, opt. investig. 348
InGaP/GaAs, misfit accomodation, substr. tilt 29892
InN, high temp. ECR etching 38540
InN thin films, hydride vap. phase epitaxy growth 379
InP, Ar^+-sputter induced microprotrusions, struct., morph. 38547
InP, in-situ dry etching and CBE growth 13343
InP quantum islands/InGaP/GaAs(001) substr., coherently strained self-assembly 20947
InP surface degrad. during contact form., FTIR study 30006
$In_{2-x}Sn_xO_{3-y}$ films, KrF excimer laser ablation 28863
$LiTaO_3$ proton-exchanged opt. waveguides, electrooptic consts. 14471
NiO electrochromic films, sputtering atm. H_2 content effects *(Japanese)* 37489
PbTe(111), MBE, RHEED intens. oscill. obs. 20749
Si MBE on Si(111), RHEED/Monte Carlo anal. 20736
Si, SR MBE growth, perfect selectivity 28727
Si SR excited ALE/CVD, Si_2H_6 gas *(Japanese)* 12044
Si, UV excited Cl-radical etching, SEM obs. 1247
Si anisotropic etching, hillock defects 30106
Si, dry etch-induced damage, surface anal. 13390
Si, excimer-laser-induced etching 30097
Si layers, nanosecond laser radiation, surface morph., struct. modif. 28761
Si, near-surface layer defects, RIE in SF_6-CCl_4-O_2 plasma 13337
Si, oxid., VLSI gate dielec. appls. 30086
Si, polycryst., ECR plasma etching syst. 6636
Si, porous, passiv. by RTO 22217
Si, porous, surface struct., EPR/XPS study 22247
Si, self-limited at.-layer etching, Cl adsorpt., low-energy Ar^+ irrad. 22178
Si, single-cryst. surfaces, diamond turned, cross-sect. TEM 1274
Si surfaces, monolayer nitridation, dry chem. proc. 38525
Si, surfaces, patterned, selectively metallized, SIMS anal. 6647
Si:B, δ-doping, APCVD 22112
Si:B doped by plasma source ion implant., struct. anal. 30056
a-Si:H, laser annealing, light-emitting Si prep. 23005
a-Si:H,P films, elec. act. nanoscale struct., STM prep. 21929
Si:O near-surface/subsurface defects, opt. prod. profiling 29992
Si/Ti syst., silicide form., STM crystallography on Si(100) substrs. 22027
Si-SiO_2 MOS surface layer defects, ECR etching in Cl_2/O_2 plasma 6631
Si(001), electrochem. etching in NH_4F soln. 30090
Si(100) surface, thermal nitridation, Si 2p core-level shifts 13366
Si(111) substrs., amorph., Ge film sputter deposition-induced 37510
Si(111) wafers, surface anal., opt. SHG 2078
Si(111)-H, oxid., ultrathin oxides, struct. imperfections 38608
Si(111)7×7 surfaces, regular artificial nm scale struct. fabricated, STM 38538
SiC, insulators, HV stress, light emission from surface flashover 13954
3C-SiC on Si, heteroepitaxial growth, etch pit reduction 28781
6H-SiC, residue-free RIE in fluorinated plasmas 13394
$Si_{1-x}Ge_x$ epilayers, compositionally graded, relax., MBE, charactn. 383
SiGe-Si RTP/VLPCVD heterostruct., Ge surface segreg., H_2 influence 22005
SiGe-Si UHV-CVD MQWs, in-situ spectrosc. ellipsometry growth control 20845
SiO_2, reactive facet sputtering 1255
SiO_2/amorph. As/GaAs passiv. systs., PECVD 5870
SiO_xN_y nanometer thin films, nitridation, phys. charact. 30073
TiC films deposited on Si by laser reactive ablation 37498
TiN-Si CVD for sub-0.5 μm technol. 13415
TiO_2, microporous electrode, PV study 28803
TiZrO antirefl. coatings, source comp. evol. effects 14570
WN diffusion barrier for n-GaAs/AuGeNi/Au ohmic contact *(Chinese)* 22036
WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
YAG:Nd, excimer laser ablation, thresholds 30120
YBaCuO thin films, planarized patterns 39230
$YBa_2Cu_3O_x$ thin films, at. layer-by-layer MOCVD, opt. reflectance meas. *(Japanese)* 5816
ZnO thin films, pulsed laser deposition, laser wavelength and fluence effects 28834
ZnS, epitaxial layers on (100) GaAs, ALE 28769
ZnS film MBE on arsenic passivated silicon surfaces 37451
ZnSe epitaxy on GaAs (100), ICB *(Chinese)* 37403
ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412

surface tension
aq. rosin flux cleaning, PCB manufacture, thermodyn./kinetics 38142
dyn. effects in LMIS 43045
flip-chip bonding of holographic opt. interconnects, alignment 38177
Gravity Probe-B Spacecraft dewar tank, sloshing modulated fluid force 35269
lipid bilayers, elec. field induced breakdown dyns. 6896
molten axisymmetric solder interconnection joints, heuristic force-height eqn. 141
no-clean wave solder defect reduction, N_2 atmos. effects 38155
Pulse Shooter solid-state conformal coating proc., PCB mask elimination 38139
PWB soldering proc. versatility vs.stability, O_2 effect 12912
SMT cct. wave soldering technol. *(English)* 922
Al film planarization for ULSI metallisation, mol. beam deposition/annealing 22267
Al reflow into submicron contact-holes/vias, simul. 22273
B_2O_3-P_2O_5-SiO_2 glass reflow, 3D num. model 22181
Co-Pd multilayers, stress, opt. fibre Y branch non-contact displacement detector *(Korean)* 18083
O_2 effects on solder surface, PCB assembly options 38153
Pb-acid secondary batts., PbO_2 paste electrode behaviour 36574
Si, molten, surface tension var. meas. by ring method 28709

surface topography
see also surface contamination
1D random rough surfaces:enhanced backscatt., stationary-phase approxs., full-wave solns. 23572
16 MB DRAM trench depth charactn., dome scatterometry 29225
alkali halide surfaces, opt. sens. 32981
chem.-mech. polishing, IC interlayer dielec. planarisation, review 13340
CMOS SRAM soft-error simul. syst. 657
concealed obj. surface reconstr. using dist. metric 33026
contact surface roughness, US thickness gauge readings 18092
copper phthalocyanine film, MBE growth 20809
crysts. and resonators study, X-ray topography 30577
diamond:H films, CVD, surface topography, AFM study 28821
diamond, electroless plating, laser-assisted selective metallisation 30157
diamond film, plasma CVD, surface wave discharges 28820
diamond membranes for x-ray lithog. masks 6688
diamond MPCVD films on porous silicon, scanning microscopy obs. 6518
diamond polycryst. films for x-ray lithog. masks 6703
diamond smooth films, hot filament chem. vap. deposition 12174
die attach proc., mfg. stresses in die, electronic packages 6453
ECR CVD, electrostatic chuck, improved temp. uniformity 28847
electronic systs., enhanced convective cooling, surface roughness 37085
fine line thin dielec. cct. board, charactn. 12877
fused biconic fibre coupler back-reflexion 30911
Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
interlevel dielec. thickness var., stat. metrology, IC test 22549
inversion layer carriers, saturation vel. and overshoot 22445
ion projection lithog., wafer topography 13468
isotropic thin film texture for hard disc substrs. 7147
killer particle detect. on rough wafer surfaces 11826
kinoform lens, phase fn., surface-relief profile 31641
laser-induced holographic surface relief gratings on nonlin. opt. polymer films 31640
light-emission jn. MIM tunneling in SAW field 7467
logic IC interconnection technol., syst. engng., manufacturability 37723
low threshold voltage CMOS devices for 1 V appls., fab. 22585
LSI via-hole shape optim. by quasi-3D topography simul. 13863
metal injection molding, microstruct. proc. 20427
microelectronic packaging, cross-sectional TEM, specimen prep. tech. 28480
microwave complex permitt. meas. using coaxial probe, error estim. 18036
MIM light-emitting tunneling jns., surface topography anal. *(Chinese)* 38451
mirror-type laser dew-point hygrometer 26020
MIS capacitors on cleaved GaAs(110), interface props. 13258
MOSFET electron mobility in both weak and strong inversion regimes 22440
MOSFET inversion layer, carrier mobility model, wide temp. range and different channel doping *(Chinese)* 6743
MPEOU-based polyceram planar waveguides, opt. loss study 25988
multilayer-coated optics, guided-wave coupling and scatt. by interface random roughness 39391
natural terrain modelling, fractal surface reconstruction 2783
particulate/ME mag. tapes sliding against Mn-Zn ferrite head in lin. mode, friction/wear 7165
pavement-rubber interface contact area, skid resist. study, machine vision meas. 8631
photoresist holographic gratings, surface relief struct., GO 15171
plasma assisted chem. etching, surface shaping/smoothing 13379
plasma etching, ion milling and deposition, 3D topography simul. 22180
PLCC chip and package design, plastic assembling, simple test chip 5632
polymer surface modif., wet proc., adhesion, metallis., review 442
polymer surface morph. tailoring, improved adhesion 441
polyolefins, homog. ac aging field, electrolum., surface roughness 30548
polysilicon DRAM cell capacitors, Si_3N_4 dielec. films, RTP 22069
polysilicon TFTs, ECR plasma oxid. effects on perform./stabil. 22450
relief type surface topographies, semitransparent mask 38723
rot.-slide contacts, power line noise 25966
rough surface transversal displacement/rot., speckle movement 3977
rough surface wave scatt. comparisons by holographic interferometry 2142
rough surfaces, diffuse reflectance 16178
scene params. estimating method, color histograms 2601
semicond. thin film in quantizing mag. field, elec. cond., surface scatt. 21868
semiconds., lattice-mismatched heteroepitaxial growth, roughening/facetting 12114
SIMOX/ZMR/direct bond SOI struct., opt. charactn. *(Japanese)* 38430
slider-disk flying height meas., monochromatic/phase demodulated laser interferometry 7164
solder profile model and expt. verification 37065
specular lobe surfaces, roughness, shape, photom. sampling method 16179
thin film rigid disks, dot array texture on C overcoats, tribol. 7146
topol. reconstruction, smooth manifold solid from occluding contour 24437
x-ray lithog., materials and image form. 6679
Ag patterns on Ag-rich Ag-Ge-S films, reversible photowriting, thermal erasing 13419
Ag/Si(111), film elec. cond. mechanisms 38400
Al electrode/organic electrolum. devices, degrad. procs. 1810
Al reflow into submicron contact-holes/vias, simul. 22273
$Al-Si/Al_2O_3/SiO_2$ metallization, thermal and electromigration effects 38703
Al(100), heteroepitaxy on Si(111), thermal evap. growth 12038
AlAs, metalorganic VPE growth, wide terrace form. 20732
$AlAs_xSb_{1-x}$-InAs, modulated MBE growth 12076
$Al_{0.35}Ga_{0.65}As$, metalorganic VPE growth, wide terrace form. 20732
$(Al_xGa_{1-x})_{0.5}In_{0.5}P$ layers, metalorganic VPE growth, step-bunching 20734
p-AlGaInP:Zn, metalorganic VPE growth, alternate sources, phosphine 20752
$Ba_2NaNb_5O_{15}$ opt. waveguide film, epitaxial growth by pulsed laser deposition 1715
a-$BaTiO_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
$BaTiO_3$ films on Si, heteroepitaxial growth by pulsed laser deposition 28757
$Bi_4Ti_3O_{12}$ films, spin-coating pyrolysis, surface morph., O_2 effect 13988
C_{60}, film growth on Si, amorph. and cryst. growth 37461
C:H diamond-like films, excimer laser etching, spalling effect 30122
CdS epitaxial films, pulsed laser deposition 358
CdS, film, chem. bath deposition, props. 28799
CdS, film, chem. deposition, struct., props., solar cell appl. 28798
CdSe epitaxial films, pulsed laser deposition 358
CdTe electrodeposited films, grain boundaries, opt. meas. 28805
CdTe epitaxial films, pulsed laser deposition 358
CdTe polycryst. thin film solar cells, micro/nanostructs. 27940
CdZnTe(100)/ZnTe(100), MBE growth on Si(100) 37423
CoCrPt/Cr thin films, CoCrPt thickness effect on props. 6943

surface topography continued
$CoSi_2$ interconnection lines, writing FIB implant. 38693
CrO_2 video tapes, macro-/micro-tribological studies 20990
Cu thin film CVD from Cu(II) metalorganic precursors, growth/microstruct. 38678
Cu thin films, chem. mech. polishing, surface layer form. 38572
Cu-AlN, electroless-plated substr., hybrid IC metallisation tech. 951
$CuInSe_2$ polycryst. thin film solar cells, micro/nanostructs. 27940
Ga(Al)As, MBE growth on (001) surface, dyn., RHEED study 37436
GaAs LSI chips, back-grinding, mech. reliab. 1498
GaAs, RIE, hydrogen plasma pretreatment 30064
GaAs, metalorganic VPE growth, wide terrace form. 20732
GaAs, n-type, NiGe- and InAs-based ohmic contact metallizations 38655
GaAs, photon-assisted MOMBE growth 28765
GaAs short period corrugations, e-beam direct exposure, chem. amplified neg.-tone resist *(Japanese)* 22311
GaAs surfaces, wet/dry etched, ellipsometric model 21914
GaAs:Be, surface cleaning in situ chem. beam etching 13350
GaAs:O(S)(110), surface states, ambient/vac. STS 1244
GaAs:Si/Al/GaAs:Si, δ-doped superlattice, Al barrier interface roughness 38412
$GaAs/Al_xGa_{1-x}As$ superlattice, interfacial roughness, controlled impurity incorporation 20821
GaAs/AlAs, epitaxial growth on corrugated semicond. surfaces, RHEED obs. 318
GaAs/AlGaAs HBT, InN ohmic contacts 38817
GaAs-AlGaAs multilayers, orient. depend. MBE growth on GaAs(111),(001) 339
GaAs(001), metalorganic VPE/MBE growth, surface procs. 20722
GaAs(100), cleaning, XPS/AFM study 30066
GaAs(100) surface, $(NH_4)_2S_x$-treatment, STM study 38595
GaInAsSb:Gd LPE epilayers on InAs substrs., opt. props. *(Japanese)* 39302
GaP, interrupted cycle CBE on Si, photon assistance effects 28766
Ge (001) GSMBE, growth kinetics/surface roughening 20864
Ge (001), oxid., surface roughening 13364
Ge δ-layers on Si(111), interface roughening 38522
Ge heteroepitaxy on Si(111), surfactant effects 317
Ge, surfactant-mediated growth on Si(001), strain relief by microroughness 386
Ge/Si(100), gas source MBE, RHEED oscills. 12074
Ge(001) multilayer epitaxial growth, surface morph. 20840
HgCdTe films, growth by MBE, ellipsometry 5819
α-HgI_2, cryst. struct., topol., X-ray anal. 43081
α-HgI_2, surface modifs., dark currents 43082
(In,Ga)As/GaAs strained (311) heterostructs., struct. props. anisotropies 38309
InAs, surface migration-induced self-aligned islands, MBE growth 37389
InAsP/InP MQW, metalorganic VPE, interface study 12102
InGaAs/InP quantum wells, electrons in-plane effective mass 38329
$In_{0.2}Ga_{0.8}As/GaAs$ quantum wells, metalorganic VPE, multistep form./In comp. var. 20735
InGaAs-InAlAs quantum wells, electron scatt., photoreflectance obs. 13141
$InGaP/In_{0.2}Ga_{0.8}As$:Si HEMTs, heavily Si-doped, MOVPE growth 5830
InP, CAIBE 13405
InP, MOVPE, surface topography, step orient. 37385
n-InP, photoelectrochemical etching, surface texture form. 38564
InP, reactive ion beam etched, sidewall roughness 13355
InP sidewalls, reactive ion beam etched, 3D electron probe roughness anal 13371
InP substrs., Ti masks, dry etching, SFM meas. 30063
InP wafers, LEC growth, flats location/control 12086
InP, wet electrochemical etching, via hole form. 13413
InP/InGaAs/InP quantum well, MOVPE, surface topography evol. 353
InP/InGaAsP(GaAs), MOCVD growth, interface characterisation 12150
$LiNbO_3$ thin-film waveguides on GaAs 14478
$LiNbO_3$:Fe cryst., phase conjugating mirror, scatt. light enhancement 31529
$LiNbO_3$-$LiTaO_3$, direct heterobonding 30932
Mo electrodes for vac. breakdown phenom. in TWTs, optim. of surface roughness *(Japanese)* 6513
Nd-FeCoNi-B-AlTi melt-spun ribbons, corros./mag. props. 30681
NiP/Al discs, sputter-induced random micro texturing 5885
PLZT, ceramic, surface layers effect on dielec. props. 39096
Pt/Co multilayers, near-field magneto-opt. imaging in STM 31015
Si, KOH etched, etching defects, packaging technol. implement. 13369
Si MOS transistors, surface roughness mobility model 13707
a-Si, SPE on Si, STM obs. 20706
Si, SR-excited ALE, temp. effects 20710
Si crysts., anisotropic KOH soln. etching 13395
Si, epitaxial surface for GaAs heteroepitaxy 307
Si, excimer-laser-induced etching 30097
Si homoepitaxy on Si(111), surface defect mediated 12087
Si, low temp. MBE, review 37455
Si porous films, chem. etching, porosity/thickness meas. 38603
Si, porous, stain etch thin films, surface struct., sonication effects 6638
Si, porous superlattices, etching 22246
Si single-cryst. spheres, fab./sphericity meas. 18100
Si substrs., pretreatment for CVD diamond deposition, AFM obs. 20977
Si, surface cleaning in buffered HF, microroughness prevention 1251
Si surface, effects of controlled texturization on SiO_2/Si barrier height 6649
Si surface, hydrofluoric acid cleaning effects prior, wafer bonding 38561
Si, surface microroughness, oxide breakdown, SC1 proc. effects 38546
Si surface roughening, gate oxide integrity, H_2O_2 decomp. 38589
Si wafer mapping, lifetime/resist./oxygen precip. meas. 25945
Si wafer surface, ultrafine Au metallic particles effect 30082
μc-Si:H, PECVD, surface morph., crystallite size 28806
a- Si:H films, optical consts. and thickness determ., opt. transmittance 25986
Si:H(111), low temp. nitridation *(French)* 13336
a-Si:P/Si, shallow jn. form., diffusion from spike-doped CVD amorph. layer 38514
Si/Ge epitaxy from gaseous hydrides, growth dyn. studied by RHEED 5853
Si/SiO_2, very thin oxide quality, wafer surface orient. depend. 38529
Si-SiGe HFETs, mobility simul. 22494
Si(001), O_2 adsorpt./oxid., dimer reconstruction 6654
Si(001), electrochem. etching in NH_4F soln. 30090
Si(100), passiv. and microroughness in aq. hydrogen halide 38531
Si(100)-(2×1), at. scale etching by Cl 30087
Si(111), anodic etching, surface morph., NH_4F vs. HF etching 13375
n-Si(111), electrolytic hydrogenation, FT IR spectrosc. 38558
Si(111)/soln. interfaces, electrochem. STM/AFM imaging 38588

surface topography continued
SiC ceramic material surface conditions on excimer laser irrad. *(German)* 23477
β-SiC layer growth by Si surface carbonisation, RTP 20981
SiC/Si wafer bonding, CVD and etching 13392
SiFe sheet insulation, elec. and phys. charact. 14002
$Si_{1-x}Ge_x$ thin films, plasma-enhanced very-LPCVD 37475
Si_xGe_{1-x} strained films, MBE growth, cuspidal pit form. 12089
SiN_x films, ECR plasma synthesis 30131
SiO_2 advanced planarization by SiO_x PECVD/SiH_4-H_2O_2 CVD combination 37479
SiO_2, etching using C_2F_6 based ECR-RIBE, side wall roughness reduction 22238
SiO_2 fiber coatings, fatigue behavior 14355
SiO_2 films, chem. mech. polishing, planarization ability 38575
SiO_2 surface damage, chem. mech. polishing on IC-60 pads 38576
SiO_2/Si, low-temp. grown oxide film, X-ray reflectivity 38610
SiO_2(ON)-Si device reliab., surface cleaning effects, ultrathin oxides/oxynitrides 22207
Ta-SiN x-ray masks, materials selection, fab. procs. 6684
Ti-Pt-Au-InN nonalloyed ohmic contacts, thermal stabil./contact resist. 38393
TiCN, CVD contact barrier metallization for submicron devices 1297
TiO conductive films, reactive ion-beam sputtered, VLSI metallisation 37494
$TiSi_2$ silicide form. on polycryst. Si, surface morph. study 1299
$TiSi_2$-Si surface/interface roughness, RTA heating rate effects 22096
WO_3 gas-sens. films, microstructural effects 25896
WSi_x CVD as-deposited/oxidized films, DCS-based, comp./struct. 38664
$YBa_2Cu_3O_{7-x}$ thin films, film growth, laser ablation, AFM, HRTEM, XRD *(French)* 30768
ZnMnTe(111)/(100) on GaAs, epitaxial growth on pulsed laser deposition 28760
ZnS epitaxial films, pulsed laser deposition 358
ZnSe epitaxial films, pulsed laser deposition 358
ZnTe(100), MBE growth on Si(100) 37423
chem. mech. polishing, polishing pad material props. effects 38584
diamond membrane-based X-ray lithog. masks 6687

surface topography measurement
3-D contouring by opt. radar syst. (ORAS) 17447
3-D laser radar range image, terrain description and obstacle detect. 17441
3D free-form surface noncontact opt. profile sens. *(Japanese)* 42941
3D obj. profilometry based on direct fringe displacement anal. 18085
3D profile meas., cylindrical lens and CCD 3981
absol. surface shape testing, interferometric sens. 18077
AFM tip rad. needed for accurate imaging of thin film surfaces 13271
air-coupled US and NDE, micromachined capacitance transducers 18931
arcing contacts, concurrent testing syst. develop. 9811
aspherical surface shape interferometry meas., HOE 31678
azo-dye-doped polymers opt. storage, holographic interferometry 15155
brightness meas. of rough surfaces, confocal microscopy/image anal. 18065
colour CCD image sens., moire effect surface shape meas. 10017
contact resist., contaminant films thickness, humidity effects 6385
contouring, interferometric digital proc., Hough transform 12238
diamond tipped thermocouple for high resoln. topographical and thermal imaging 34689
diffuse surface roughness, opt. rem. sens., turbulent atmos. 7877
direct wafer bonding technol. charactn. by AFM 13400
DRAM wafer flatness control, stepper chucks 38966
ferroelec./semicond. struct. capacitance disk memory, noncontact eval. 1565
Fizeau interferometer, phase-map extraction by moire tech. 17697
floppy disk surface struct. imaging, SFM/MFM 7196
freq.-domain anal. of white light interferograms 18066
Haystack antenna, optimal surface adjustment 23897
high accuracy laser rangefinders for indust. appls. 15202
high precision opt. meas. methods 18061
holographic interferometer for flatness testing, common-path design 18067
holographic proc., surface topograms, meas. accuracy study 23463
human body surface, colour 3D electronic imaging 34566
killer particle detect. on rough wafer surfaces 11826
laser range-finding CMM calib. 2159
laser scatt. for online roughness monitoring *(Japanese)* 34700
long-wavelength LD interferometer, surface flatness meas. 18068
machine vision syst. appl., surface texture anal. 10023
mag. disk surface roughness meas. via opto-heterodyne interferometer *(Chinese)* 34698
melted microlens shapes, modelling/meas. 1724
metal, plastic deformed, surface contouring by microlens array 34695
microlens, holographic, shape fn. investig. by image proc. 2153
MLC capacitors, nondestructive defect detect. tech. 6371
near field opt. microscope, piezoelec. tip-sample dist. control 39088
noncontact profiling of machined surfaces, fibre optic interferometry 18064
opt. fibers, ellipt., single-filament, interferometric meas. during continuous drawing 39367
opt. polishing monitoring, computerised microscopy 17600
opt. profilometer, multiple virtual styli, IC packaging/interconnects 34337
opt. surface profile meas. of elec. contact 892
optical instrumentation for process industries, conf., Germany (1994) 5486
periodic struct. with macroscopic surface defects, moire and holographic visualisation 34690
phase stepping in projected-fringe moire interferometry 18071
phase-measuring profilometry digital image-acquisition device, MTF effects 24408
photorefr. phase-conjug. tech. for surface granularity meas. 10013
PLL interferometric profilometry 3984
post-chem.-mech. planarization cleaning, secondary platen press. 38534
profile imagery, flat eddy-current proximity sens. 10027
profiling aspherical surfaces, moire deflectometry 17926
projected fringe surface topography meas. 18063
refr. microlens fab., preshaping photoresist 7441
relay contact surface, arc discharge damage, scanning laser microscopy 29633
rem. sens., surface heights, stat. props. 32857
rigorous diffr. theory, opt. metrology and AFM topography, nm accuracy 34721
rough surface, inverse scatt., Gaussian beam illum. 7959
rough surface, refl. step edges 3974
roughness meas. instrum. for nanometer range *(German)* 18103
round quartz blank sorting by Ω-scan, cryst. oscillator manufacture 39078
RTO proc., opt./elec./mech. charactn. 22227

surface topography measurement continued
scanning electron microscope images, automated interp. 5686
scanning microellipsometry for topography meas. 25976
scanning probe microscopy, sample and probe tilts estimation 25707
semicond. wafer defects discrim. by laser-based systs. 13833
spherical surface, holographic exam. by in-LOS displacement 15189
stainless steel rolling strip flatness meas./control syst. 10015
STM with 3D interferometer, surface roughness meas. 42926
surface inspection by opt. triangulation 18069
surface inspection systs., software tool for developing algms. 17653
thin film photon-/ion-beam-assisted deposition/characterisation 28846
two source phase shifting speckle interferometer, obj. surface meas. 31671
US opt. sens. for monitoring indust. surfaces 18944
videokeratoscope, SUN SK-2000 computer-assisted, clinical trial 43262
white-light phase-stepping interferometry for surface profiling 3976
Cu CVD thin films, direct liq. coinjection, ULSI device metallisation appls. 30133
Si single-cryst. spheres, fab./sphericity meas. 18100
Si surface deform., time-resolved X-ray diffr. meas. 38476
Si-SiO_2(SiGe) epitaxial growth, ex-situ/in-situ probing by opt. SHG 28724
SiO_2, fused, microlens arrays, RIE 14493

surface transverse wave devices *see surface acoustic wave devices*

surface treatment
see also anodisation; etching; nitridation; oxidation; passivation; polishing; surface cleaning; surface hardening
0.5 μm CMOS logic IC, SOG planarization/AlSiCu multilayer interconnect 38646
Al_2O_3, insulators, HV stress, light emission from surface flashover 13954
alcohol-based semi-aq. cleaning in electronics assembly 930
aq. US cleaning in electronics 931
ceramic packages, die attach polymer bleedout 153
diamond, single-cryst. chem.-vap.-deposited, electron affinity 1018
FIR tunable lasers/detectors 14893
giant far action lateral phenom., ion/laser beam IC fab., reliab. 20488
glass fiber reinforced composite insulator, plasma surface treatment *(Korean)* 28874
high av. power e-beam appls. 36294
interlevel dielec. thickness var., stat. metrology, IC test 22549
ion beam surface treatment, ion diode design 13346
killer particle detect. on rough wafer surfaces 11826
LB-film Si MIS interface, substr. surface treatment 38535
local treatment of solid surfaces, dense ion beams 22174
MCM-D metal/polymer interface durability, chem./water uptake 11817
metal, laser surface proc. *(Japanese)* 7873
metallic substr. tubular SOFC, flame coated 44328
microcontamination 93, conf., San Jose, USA (Sep. 1993) 42
organic film removal, atmos.-press. pulsed-corona plasma 38616
PCB cleaning and treatment technol., syst. approach 929
plasma technol. in surface proc., symp., London (Mar. 1995) 36884
polyimide, adhesion of Cu and Cr films 11820
polymer surface, plasma modif., adhesion, review 440
polymer surface modif., wet proc., adhesion, metallis., review 442
polymer surface morph. tailoring, improved adhesion 441
polymer surface transformations luminesc. obs. 12204
post metal deposition defects, real-time particle detect. 38697
pulsed, intense ion beams for thermal surface treatment 13345
pulsed power systems, environmental, industrial appls. 11520
real time galvanizing plant temp. control 28191
semi-aq. cleaning agent selection 932
single wafer proc. integrat. for submicron struct., RTP and PECVD 22088
SMT, aq. cleaning, closed-loop water treatment 928
solid-state devices/materials, conf., Karagawa, Japan (1994) 28271
solid-state laser appls. *(German)* 23478
steel struct. beams automatic painting syst. *(Japanese)* 3892
structural materials, laser surface modif. *(Japanese)* 20419
submicron ICs, rapid prototyping, FIB techs. 13835
Teflon film high-speed through-hole drilling, vis. laser *(Japanese)* 20420
thin film bonding, ion beam tech., review 289
YAG laser high power proc. appls. in heavy industries *(Japanese)* 20418
Al electrolytic capacitor failure, impact of halogenated fluids 6367
Al film planarization for ULSI metallisation, mol. beam deposition/annealing 22267
Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
Al-reflow proc., surface modif. by ECR plasma treatment 22261
AlAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
(AlGa)As, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
AlN PGA type packages, reliable cofiring technols. 28444
Co films/$CoSi_2$ films, opt. props., G-line/I-line lithog. 38748
$CoSi_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
FeN foils, magnetron discharge nitridation, saturation magnetis. *(Japanese)* 30676
Ga(Al)Sb mesa photodiodes, dark current improvement, $(NH_4)_2S$ treatment 14604
GaAs, MLE growth, surface treatment, ideal SIT appl. 20668
GaAs, RIE, hydrogen plasma pretreatment 30064
GaAs planar gate power MESFETs, gate-drain breakdown volt. 13801
GaAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
GaAs, sulfur treatment and hydrogen plasma treatment 38597
GaAs, surface, NH_3-plasma treatment in rem./direct plasma reactor 38628
GaAs(001), water treated, SR PES 1269
GaAs(100) surface, $(NH_4)_2S_x$-treated, S at. sites 22171
GaAs(100) surface, $(NH_4)_2S_x$-treatment, STM study 38595
GaP surfaces, $(NH_4)_2S_x$ treated, high resoln. XPS *(Japanese)* 38548
GaSb surface, oxide removal, photodiodes/Schottky diodes fab. 1240
p-GaSb-Au(Cr/Au)(Ti/Pt/Au), MBE growth, specific contact resistivities, surface prep. 29947
$Gd_3Ga_5O_{12}$/InP(/GaInSb) integrated semicond./magnetooptic devices, direct bonding 31112
α-HgI_2, surface modifs., dark currents 43082
InAlAs, surface chem., $(NH_4)_2S_x$ sulphidation 13409
InGaAsP/Au Schottky junctions, barrier height enhancement 13211
InGaP/GaAs epitaxial struct., Schottky barriers 22026
InN films on GaAs(111) and GaP(111), microwave-excited metalorganic VPE 28753
InP regrowth by GSMBE, rel. to surface treatment 12051

- **surface treatment** continued
  - n-InP/metal systs., hydrogen plasma treatment, elec. props. 38598
  - $MmNi_5$ hydrogen storage alloys, surface treatment, metal hydride batts. 11249
  - Pb-Ca type car batt., high-temp. durability *(Japanese)* 5328
  - Rh-plated reed switch contact, surface deactivation-induced phenom. 29634
  - Si RTP, optimum gas flow engng. 22230
  - a-Si films, crystn., SiO_2 surface treatment effects 13393
  - Si, patterned surfaces, Schottky barriers, photoablation 22185
  - Si, polycryst., grain-boundary defects, plasma treatment effects 13321
  - Si post backgrind wafer shape, thin film stresses 38605
  - Si, single-cryst. surfaces, diamond turned, cross-sect. TEM 1274
  - Si substr., carburised, plasma CVD diamond films 12152
  - Si surface, HF treatment, F adsorpt., FT IR refl. absorpt. spectra 29838
  - Si, surface mech./pulsed photon proc., DLTS 13351
  - Si surfaces, monolayer nitridation, dry chem. proc. 38525
  - Si, surfaces, patterned, selectively metallized, SIMS anal. 6647
  - Si wafer oblique angle inspection, contaminant/cryst. particle differentiation 11825
  - Si, wafer surface, metal contamination, deposition mech. from HF soln. 38623
  - Si wafers, particle contamination minimization, wet proc. 30083
  - a-Si:H TFT, fab., props. 6774
  - a-Si:H, glow discharge deposition, chem. annealing, at. H role 30008
  - Si/SiO_2 interface states and neutral oxide traps induced by surface microroughness 29968
  - Si(110), thermal nitridization in ammonia atmos. 38615
  - n-Si(111), electrolytic hydrogenation, FT IR spectrosc. 38558
  - Si(111), surface oxide layer, dissolving in hot water, vert. dihydrides 38541
  - SiC ceramic material surface conditions on excimer laser irrad. *(German)* 23477
  - SiC heteroepitaxial growth on Si, gas source MBE, hydrocarbon radicals 37450
  - SiC, insulators, HV stress, light emission from surface flashover 13954
  - Sn immersion coatings, PWB surface finishes 12934
  - Ti films/$TiSi_2$ films, opt. props., G-line/I-line lithog. 38748
  - Ti silicidation, effect on type II end-of-range disloc. loops 38581
  - TiC containing layers, high wear resist. on steel surfaces by laser melting *(German)* 7868
  - $TiSi_2$-polycide interconnects, conventional/accelerated reliab. tests 38665
  - W CVD films, opt. props., G-line/I-line lithog. 38748
  - XeCl excimer laser, 1 kW, specific appls. 31141
  - ZnSe based struct., epitaxial lift-off tech. 28756
  - ZnSe-GaAs growth rate, surface state depend. 37391
- **surface vibrations** *see surface phonons*
- **surge absorbers** *see surge protection*
- **surge arresters** *see arresters*
- **surge protection**
  - *see also arresters; divertors; surges*
  - AC motor failure, steep fronted switching surges 19590
  - boost converter surge suppression, act. filter 11154
  - central office integrated power plant 44159
  - distrib. syst., SCADA syst. spec./anal., IEEE std. 27175
  - EHV transformer insulation level for lightning strikes *(French)* 36232
  - elec. connectors, surge/noise suppression 6400
  - electronic equipt. hardening, lightning surges 864
  - I_s-Limiter, distrib. switchboard short-cct. protection 19339
  - indust. control syst. lightning protection, grounding/shielding studies 20160
  - lightning distrib., earthing systs. 19349
  - lightning surge protective multi-cell semicond. device 27253
  - motor winding insulation, surge protection 4883
  - multilayer SMT varistors, transient surge protection, automotive indust. 11437
  - power lines, surge protection 19348
  - power semicond. fuse selection, surge current tests 6015
  - substation lightning/surge protection, comments/reply 19919
  - substation lightning/surge protection, reply, comments 19920
  - substations, lightning/surge protection 19918
  - substations, transient EMI meas. 5158
  - telecomm. equipt., global grounding topolgy, interface specs. 44148
  - telecomm. equipt./computers, surge protection 24875
  - three-phase AC/DC power converters, harmonics reduction 19798
  - UHV transm. lines, arc jet control, slit arc horns 10774
  - NiCr thick film resistors, sheet resist. and TCR 6349
  - Si power IC transient voltage suppressors 29019
  - Ti-Si thick film resistor, surge protection appl. 27270
  - ZnO UHV surge arresters, breakdown perform., computer simul. 19345
  - ZnO multilayer chip varistor, LV transient suppression 29607
- **surge suppressors** *see surge protection*
- **surgery**
  - *see also laser applications in medicine*
  - 3D microstruct. appl. 26453
  - act. robotic endoscopy, safety issues 18585
  - antitachycardia surgery, endocardial pots. mapping, time-space anal. 18562
  - biomedical microrobots driven by miniature cybernetic actuator 35139
  - brain blood vessel catheter, teleoperation 10255
  - cardiovascular interventions, diagnostic/therapeutic, conf., Los Angeles, CA, USA (1994) 5463
  - cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
  - conf., modern imaging technol. clinical appls., USA (1994) 20212
  - coronary angioplasty of infarct-related artery suppresses ST-segment elevation on exercise 26440
  - corpus callosum surgery, intraoperative EEG recording 4275
  - cryosurgery, high-perform. multiprobe device develop. 26448
  - dentistry, laser 43335
  - dermal lesions elimination by laser, precision enhancement 43348
  - dermatology, laser appropriate 43334
  - disease focus posn. determ. in gamma knife operation, 3-D image reconstruction 26273
  - electrosurgery, EM interf. problems 10259
  - electrosurgical units, elec. field strength creation 18686
  - EMI in hospitals, IEE Colloquium, London (1994) 17
  - endoscopy, telepresence syst. 4291
  - excimer laser angioplasty, current status/future prospects 43339
  - excimer laser angioplasty, technol. challenges 43338
  - fiber optic instrumentation, conf., Los Angeles, CA, USA (1994) 5465
  - fiber optics, delivery of 3 and 10.6 μm energy for laser surgery 35151
  - fiber optics for FEL med. appls. 35152
  - glaucoma, open angle, Er:YAG lasers in surgical treatment 43337
- **surgery** continued
  - glaucoma filtering surgery, laser appls. 43336
  - HDTV single camera 3D syst., microsurgery appl. 34996
  - heart, human, dyn. electrophysiological data visualization, 3D model 26439
  - image capture, formatting and display, conf., USA (1994) 11570
  - intraoperative radiation/US hyperthermia, simultaneous delivery syst. 18596
  - iridectomy using diode, Ar and Nd:YAG lasers 4295
  - knee arthroplasty, soft tissue imbalance meas., electronic instrumentation 4257
  - laparoscopic surgery, robotic cameraman 4288
  - laser ablation bubble, fiber optic probe method, time-resolved photography 43215
  - laser angioplasty advantages, laser source choice 43340
  - laser appls., conf., St. Petersburg, Russia (1993) 11527
  - laser appls. in med., conf., Budapest, Hungary (1993) 20211
  - laser scalpels, energy transfer procs. modelling 4293
  - laser surgery, conf., Los Angeles, CA, USA (1994) 11574
  - laser-tissue interaction, conf., Lille, France (1994) 20265
  - med. surgical/stomatological luminaires 26300
  - microsurgery, force-reflecting motion-scale telerobot 4290
  - microwave forceps, tissue welding by microwave energy 35146
  - min. invasive surgery, computer animation approach 34999
  - neurosurgery, on-line stereoscopic image-guidance 43322
  - neurosurgery, stereophotogrammetric-controlled pointing device 43323
  - neurosurgery, video-as-data, ethnographic studt 43324
  - neurosurgical navig., computer-assisted syst. *(Japanese)* 18589
  - ophthalmic technols., conf., Los Angeles, CA, USA (1994) 20215
  - orthognathic surgery, video-imaging, computer simul. 10254
  - orthopaedic surgical planning, computer assistance 18443
  - otolaryngology, solid state laser 43333
  - painless tooth prep., $Nd:LiYF_4$ picosecond laser *(German)* 10261
  - percutaneous transluminal coronary angioplasty, body surface pot. mapping 26376
  - refr. eye microsurgery, laser tracking 17452
  - renal transplant success prognosis, neural net appls. *(Italian)* 4292
  - robot/computer assisted surgery, 3D anatomical surfaces matching 43252
  - robotic devices, safe and act. for surgery 26454
  - robotic surgery, develops. 26452
  - robotics, pass. arm, dynamically constrained 26451
  - skin cryosurgery, MRI monitored, integrated probe 35059
  - stereoscopic LCD, biomedical appl. 34997
  - stereotactic radiosurgery, linac beams checking, fluoresc. screen imaging 18599
  - tissues segmentation from MR images *(Japanese)* 18537
  - urologic appls. of laser technol. 43332
  - ArF excimer laser keratoplastic surgery on animal eyes *(Chinese)* 18462
  - Er:YAG laser clinical niches 35150
  - Ho:YAG coronary laser angioplasty, large clinical experience 43341
- **surges**
  - *see also overvoltage; transients*
  - 77 kV overhead line-underground cable lightning surge anal. 19306
  - 77 kV overhead line-underground cable lightning surge anal. 10713
  - 330 kV compact transm. line, phase conductor configs. *(Chinese)* 35652
  - air gaps, impulse strength, nonstand. lightning surges 4722
  - boost converter surge suppression, act. filter 11154
  - building columns/girders, equiv. imped. for lightning surges 20385
  - bundle conductors, phase-to-ground/phase air gaps, flashover voltage 27219
  - double cct. 500 kV transm. tower, lightning surge anal., EMTP 4703
  - EHV substation, lightning voltage surge calc. *(French)* 36484
  - EHV transformer insulation level for lightning strikes *(French)* 36232
  - elec. motor winding interturn switching transient voltage studies 43985
  - freq.-independent cct. model of conductor under surge conditions 31878
  - home appliances, effect of overvoltages in power distrib. syst. 11492
  - HV induction motors, overvoltage simul., pole closure 11052
  - HV transm. line, wide bandwidth corona model 27189
  - induction motor vac. cct. breaker switching surge anal. *(Korean)* 27706
  - induction motors, stator insulation testing/eval. 19645
  - lightning current meas. in building columns and girders, Rogowski coil 20123
  - lightning disturbances of power overhead lines 43772
  - LV cct., gas insulated switchgear, surge voltage meas. 27870
  - LV elec. power device, switching noise meas. 27858
  - mains network surge transients, EM immunity testing 19050
  - multiconductor telecomm. cables, lightning overvoltages 25202
  - overhead line-underground coaxial cable syst., lightning surge anal. 10755
  - overhead lines, earth-return effects, freq.-independ. cct. model 43728
  - power syst. voltage surge eval. 35454
  - power transformer winding inner short-cct. fault diagnosis 19689
  - shunt inductance coil isolation, voltage surges *(French)* 29619
  - substation struct./grounding syst., lightning strike, transient anal. 44251
  - telecomm. rectifiers, AC power line disturbance effects 44150
  - telecomm. systs., BER estim. for transverse lightning surge *(Japanese)* 15690
  - telecomms. building, simulated direct lightning surge current 24876
  - transformer substations, EM transients anal. 36480
  - transm. line tower lightning surge response calc. 19314
  - transm. tower model, simul. upward lightning current path *(Japanese)* 10764
  - UHV tower model, lightning surge anal. 27238
  - vac. cct. breakers, switching surge voltage, travelling wave method *(Korean)* 27834
  - variable speed induction motor drives, peak voltage appl. 11336
  - Ta capacitor reliab., low impedance/high surge current ccts. 5705
  - Ta chip capacitor reliab. in high surge/ripple current appls. 12841
- **surgical operations** *see surgery*
- **surveillance**
  - 2D clutter for IR surveillance image recogn., defn. 4440
  - aeronautical mobile satellite services, 1960s, 1990s develops. 17153
  - airborne multisensor surveillance, data fusion IKBS 35395
  - airport surface movements radar surveillance 43460
  - area surveillance, ambient sigs. fusion 42508
  - ATC on airport surface, VHF data link 10422
  - ATRAS air traffic surveillance, Nippon Airways *(Japanese)* 10416
  - automated stereo camera mount control tasks, parallel implement. 16348
  - building security, pass. IR presence detectors 42807
  - conf. on security technol., Ottawa, Canada, Oct. 1993 36875
  - criminal electronic tagging, telecom.-based monitoring 28385
  - ΔT metric defn., mil. target/background charactn. 4439
  - electronic security syst. 36989

surveillance continued
  electronic tagging 9342
  EMC of surveillance devices, rem. deactivation 23663
  European ATC develops., satellites 26697
  external intrusion detectors, harsh environ., installation 36991
  fishing vessels tracking, SAR/AVHRR data 25584
  GNSS augmentation data link 10377
  GPS automatic depend. surveillance of aircraft, spontaneous mode S broadcast messages 4377
  GPS-Squitter expt. results 9419
  home automation, rem. security system 9760
  home security syst., pass. IR detectors 9759
  Hunter Unmanned Aerial Vehicle, near-term targeting tool 4434
  image reconstruction, reflective tomography 17435
  interactive camera calib. 16138
  internetted acoustic sens. fusion, appls. 43554
  intrusion detect. syst., rem. operated, security appl., design 40904
  IR image restoration, atmos. MTF 34589
  IR imaging for target acquisition, atmos. blurring effects 35396
  IR surveillance, motion estim. methods/noisy phenom. 2612
  IR technology, conf., San Diego, CA, USA (1994) 11575
  mm-wave radars for airport surface surveillance 10421
  MSX early midcourse algm. testbed 16111
  multiple FM-video sig. transm., opt. fiber in security 9529
  multiple obj. localization in real scenes, change-detect. method 41120
  multiple unknown objs. localisation/tracking 24665
  naval nuc. submarine propulsion, IKBS surveillance 35782
  naval nuc. submarine propulsion, surveillance, IKBS 35855
  NPP surveillance requirements, risk anal. 4762
  ocean surveillance, array localization, least sq. error minimization 18993
  off-board augmented fusion for target detect./tracking 9637
  on-orbit calib. of inductosyn error 18720
  outdoor intrusion sens. testing 42772
  outdoor intrusion systs., nuisance alarm reduction, enhanced signature proc. 40905
  perimeter intruder detect. syst. 36990
  radar surveillance vol., clutter/noise regions mapping 9622
  RadioGuard, RF cable sens. for security appls 42175
  RADOBS, intrusion detect. sens., environ. effects reduction 42520
  reflective telescope technol. for IR surveillance/rem. sens. 17798
  robot environ., change detect. for human safety 24527
  security alarm systs., design/maint., risk based method 36994
  ship traffic control harmonised, coastal protection *(French)* 35378
  SONET maint. and mgt., intell. opt. service unit 33363
  texture based clutter metrics, mil. ground vehicles 10592
  track, track fusion algms. 15911
  ultralong-span trunk lines/subscriber lines, 1.65-μm opt. surveillance and test syst. 9574
  unmanned underwater surveillance vehicle systs. 9666
  visual surveillance by depth-from-focus 42686
  HgCdTe longwave IR scanning FPAs, CMOS readout IC, surveillance appls. 17947
surveillance radar *see search radar*
surveying
  subsurface survey radar distorted pulse rectification 35280
survivability *see reliability*
susceptance, electric *see electric admittance*
susceptance, electric, measurement *see electric admittance measurement*
susceptibility, dielectric *see optical susceptibility*
susceptibility, magnetic *see magnetic susceptibility*
susceptibility, optical *see optical susceptibility*
suspensions
  electroacoustic charactn. of particulates, conf., Gaithersburg (1993) 28261
  flow velocimetry, opt. flow techs. appl. 18146
  glucose conc. influence on light scatt. in tissue-simulating phantoms 25888
  image anal., concentric cylinder const. stress rheometer 25876
  nonBrownian sedimenting spheres, hydrodynamic self-diffusion, particle vel. flucts. 18148
  PBZT particle/suspension in mineral oil, electrorheological responses 13933
  silicone oil/polymer particles suspen., electrorheological effect 39066
  SMT, solder paste flow, stencil aperture, computer simul. 12918
  SMT assembly, solder paste flow, computer simul. 12917
SVD *see singular value decomposition*
swept-frequency oscillators
  multichannel simultaneous digital tracking filters, vibr. control 17993
swept-frequency reflectometry
  DIII-D tokamak, reflectometric dens. profile meas. advances 34679
  sizing finite cracks on metal surfaces, microwave tech. 42902
switchboxes *see switchgear*
switched capacitor filters
  biquad high-order SC filters, multiplexing tech. 6220
  clock synthesis for SC filters, microcontrollers 12638
  CMOS analogue synapse for Kohonen, maps 29421
  CMOS LV SC filters by switched-opamp tech. 29360
  FIR filter, design 6221
  FIR/IIR SC decimation filters, parallel cyclic-type cct. 12650
  harmonic distortion in filters, weakly nonlin. capacitors 729
  mag. disk PRML read channels, A/D interface 7144
  multiplex realization of low-pass filters, switchable capacitors 516
  nonlin. in SC/SI filter networks, piecewise-lin. models 37855
  p-z transform, minimize charact. deform. effect 28996
  perform. modeling of analog ccts. using additive regression splines, SC filter bank 30433
  silicon-level design, num. optim. techs. 6214
  switched power harmonic filters, anal., appls. 19741
  voltage controlled sine-wave oscillator, SC-based 29070
  GaAs MESFET IC SC band-pass filter, VHF 37843
  GaAs MESFET SC third order ellipt. lowpass ladder filter *(Korean)* 734
switched capacitor networks
  see also switched capacitor filters
  anal. of SC networks, charact. 12310
  bibliog. of SC networks/techs., 1981-1992 period 12635
  BiCMOS fourth-order sigma-delta ADC, HF/resoln. 29328
  BiCMOS SC bandpass delta-sigma A/D modulation, 10.7 MHz 29310
  BiCMOS second-order bandpass delta-sigma A/D modulators, 10.7 MHz 21391
  BiCMOS stereo audio sigma-delta ADC for audio appls. 9770
switched capacitor networks continued
  chaotic chip for nonlin. dyn. network anal. 515
  charge-distrib. A-D converters, capacitance recharging error minimisation 37815
  CMOS 10 b, 20 MS/s, 35 mW pipeline A/D converter 29308
  CMOS A/D converters, SC vs. SI techs. 21384
  DC/DC PWM boost power converter, switching capacitor-based 44195
  DC/DC PWM power convertor, small-sig. modelling 11148
  DC/DC PWM step-up power supply, SC cct.-based 27807
  differential comparator, SC differencing cct. 6256
  driven oscillator dyn., piecewise-lin. charact. 578
  electroluminescent lamp, power supply, SC AC-AC converter *(Japanese)* 20124
  ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
  flash-based prog. nonlin. capacitor for SC neural nets 21473
  freq. divider, current mirror type astable multivibrator *(Japanese)* 29428
  gain-compensated SC integrator, four-input opamp based 6250
  higher-order immittance simul. ccts., synthesis 12308
  looped MOS inverters, chaotic behavior and bifurcation 37613
  lossless SC AC/DC converter 6007
  microcontroller, fuzzy, singleton, SC based 684
  Miller integral-type SC multivibrator based freq. divider 21468
  mixed-mode archit. for analog neural network implement. 37924
  nodal anal., linked-capacitance cct. model 5982
  nonlin. SC network anal./synthesis for image proc. 5981
  num. time domain anal. 29350
  pipelined charge-balancing A/D converter 25757
  sampled-data sig. proc. 723
  sigma-delta converters, switched capacitor cascade cct. 12604
  triangular connection Hopfield neural network, A/D conversion 12595
  VLSI SC ccts. for realization of neuron-like binary Hamming classifier 13838
switched current circuits
  4th order switched current low power lowpass/highpass Butterworth filter 29344
  bilinear integrator cct. 12670
  bilinear transform. design of switched-current ladder filters *(Chinese)* 5983
  clock feedthrough anal./cancellation in current S/H ccts. 780
  clockfeedthrough compensation scheme 37901
  CMOS A/D converters, SC vs. SI techs. 21384
  CMOS prog. switched-current filters 29359
  fourth-order SI delta-sigma modulators for HF appls. 21389
  glitch reduction in second-generation SI ccts. 37849
  high-speed switched-current ccts., trans-impedance amps. 21461
  LV current mode S/H cct. *(Japanese)* 6259
  LV fully differential class-AB switched-current ccts. 6248
  nonlin. in SC/SI filter networks, piecewise-lin. models 37855
  opt. addressable current-mode cellular neural network 29517
  OTA-based current-switching DAC 12593
  oversampling converters, mixed analog/digital ccts. 12606
  SI filter syst., first/second generation SI cells, comparison of sensitivity 37856
  silicon cochlea, switched current 29420
  tunable feedthrough cancellation, modified dummy switch 29423
switched filters
  see also switched capacitor filters
  4th order switched current low power lowpass/highpass Butterworth filter 29344
  adaptive nonlin. filters, switched coeff. types 6199
  bilinear transform. design of switched-current ladder filters *(Chinese)* 5983
  CMOS prog. switched-current filters 29359
  hybrid notch filters 12621
  indust. power supply harmonic control, switched filter-based 4456
  multilayer Teflon microwave PWBs, isolation techs. 37974
switched mode power supplies
  3-phase DC clamped switch mode rectifier, IGBT 19747
  48 V/50 A telecom. switching power supply 19832
  70 A telecom. rectifier, high efficiency 12337
  AC/AC voltage regulator, anal., design 5113
  bipolar PWM current controlled magnet power supply 18253
  board mounted power supply module for switching systs. *(Japanese)* 37630
  broadband/multimedia services, power supplies 41994
  building power syst./alternators, SMPS harmonic currents effect 43756
  capacitive isolation *(Japanese)* 5991
  Cuk convertor, nonlin. control methods 27801
  current-reson. type converters for switching power supplies *(Japanese)* 29023
  DC-DC converter with current injected control, current runaway anal. *(Japanese)* 5989
  DC-DC convertor optimum control 36308
  DC-DC power converter dyn. response, CAI 5533
  DC/AC switched-mode PWM inverter, stabil. anal. 11127
  DC/DC HF SMPS, solid Ta power capacitor appls. 19826
  DC/DC SMPS, MOSFET-based, capacitive isolation method *(Japanese)* 6025
  diagnostic testing, ATE 29005
  electroluminescent lamp, power supply, SC AC-AC converter *(Japanese)* 20124
  EMC filter testing, approx. worst case method 15460
  emergency generators, rectifier supply, harmonic distortion 19536
  energy recirculation/storage converters, PF correction 11160
  feedforward pulse-width modulator for boost DC-DC power converters 29042
  filter inductors, low loss windings design 36326
  forward ZCS-QRC, practical design 19805
  Fuji Electric moulded IGBTs, voltage reson. invertor appls. 27824
  gate controlled, conducted emissions reduction 5050
  HF switched-mode PWM power amp., perform. anal. 542
  HF switching DC-DC convertors using canonical switching cell 19773
  HF switching mode power transformers, optimisation of winding conductors *(Slovenian)* 21595
  HF switching power supply, commutation cct. design 29038
  high PF convertor, single-switch single-stage 29041
  high power DC SMPS, electron gun appl. 19755
  ICs, ion implant., edge struct. 29035
  IEEE IECON '94 conf., Bologna, Italy (1994) 36823
  indust. distrib. networks, harmonic reson. studies 20155
  linac with integrated power source, RF energy compression 43002
  microwave heating power supply, high PF mode 11185

switched mode power supplies continued
- miniature SMPS, domestic appliance appls. *(Japanese)* 44618
- modular SMPS, opt. submarine cable appls. 19836
- multi-output DC/DC PWM ZVS quasi-reson. power converter 19824
- multi-output SMPS EMI filter anal./design 44156
- multilayer piezoelec. ceramic transformer for power supply 12854
- multiwinding power transformers, computer-aided optim. 19749
- PF correction, microcontroller 44116
- planar inductors, design/fab. study 44109
- power converters, digital current mode control charactn. 5116
- power converters, planar integrated filter/snubber cct. 19763
- power convertor predictive control, current prog. tech. 44152
- power syst. harmonic compatibility design 5031
- pre-regulator IC, lateral IGBT and current mode sens. 29037
- PSpice simul. *(Japanese)* 37631
- PWM DC/DC full-bridge ZVS power converter anal. *(Chinese)* 36337
- quasi-reson. DC link power convertor, topol., appls. 5084
- quasiresonant PWM convertor, microwave heating appl. 36333
- simul. of networks, ideal switches 6022
- single-ended SMPS, control/switching, power MCM 29014
- single-phase AC/DC low-harmonic power convertor 44168
- single-phase SMPSs, PF correction, overview 6018
- static power convertor filter capacitor fault detect. methods 19827
- supercond. supercollider pulsed power supply thyratron modulators 34750
- switch-mode magnet power supply, modelling and control 29027
- three-phase AC/DC ZVS power convertor topol. 19839
- three-phase four wire AC line conditioner, voltage controlled 19710
- three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
- TK75001/75003 five-pin PWM SMPS IC 29015
- transformer design, ES 44122
- unity PF ccts., boost/Cuk topologies comparison 5069
- zero-admittance switch-mode power converter synthesis 36242
- ZVS quasiresonant IGBT power converter, PSPICE modelling 5079
- GaAs MESFETs for HF high-temp. switched-mode power converter, MBE 30381
- MnZn ferrites for high freq. power supplies, mag. props. 30684
- NiCd batt. charger HV IC for rectified mains operation 29049

switched networks
- *see also switched capacitor networks; switched current circuits; switched filters*
- asynchronous excitation phenom. in oscillator,periodically operating analog switch *(Japanese)* 12358
- ATM networks, fuzzy neural control of voice cells 16418
- Chua's cct. control by resistor switching 12309
- limit-cycle oscillators, switching-mode, fund. struct. 6043
- lin. ccts., sinusoidal inputs, time domain soln. 21081
- lin. hybrid syst. anal./charactn., bond-graphs 21094
- multi-commodity flow problem, computational complexity *(Japanese)* 12254
- oscillators, integrated analog switches 6044
- parallel switched cct. simul. on networked workstations 5984
- periodically switched networks modelling, Cuk converter 11164
- periodically-operated switch ccts., stabil. 5980
- SMDS technol. test results and issues 41764
- tunable feedthrough cancellation in switched-current ccts. 774
- Xunet 2, scheduling discipline/admission control policy 16665

switches
- *see also circuit breakers; contactors; cryotrons; interrupters; optical switches; plasma switches; pulsed power switches; relays; semiconductor switches; superconducting switches; time switches; vacuum switches*
- 4 wheel drive elec. vehicle, integral batt. charger 5359
- array/batt. power switch network, nonlin. SPICE model 27635
- bond graphs and variable causality 20546
- bonding state obs. in clad contact, US microscope 6386
- computer-controlled power switch 12867
- contact elements wear in electromechanical switches 38066
- DIP switches, Nihon Kaiheiki products 12859
- DIP switches, Otax product series 12860
- electromechanical devices, tech. trends and motive technols. 6394
- electromechanical switches degradation obs. due to mechanical vibration 21608
- KKF push buttons, prod. overview, Russia 38064
- microwave T/R switches, elec. field enhance./power absorpt. 21529
- motor explosion protection switches *(German)* 11203
- neg. resist. oscillatory cct., async. simultaneous oscills. 21140
- opt. surface profile meas. of elec. contact 892
- persistent current switches, stabil. current perform. *(Japanese)* 7257
- plasma opening switch, throughput jitter operation 21861
- plasma opening switch investig. using gas discharge plasma source 21862
- plasma opening switches, electron/ion MHD effects 21863
- quartz cryst., solid switches, electron-beam controlled 21609
- repetitive discharge-excited laser, discharge triggered switch 23076
- short stroke push and paper slide switches 12858
- SPEAR coilgun, design, tests 15294
- three-terminal switching device, prog. fusible link 29630

switches, high voltage *see switchgear*

switchgear
- *see also busbars; circuit breakers; interrupters; switches; switchgear insulation; vacuum switches*
- 2.5 MJ DECADE pulsed power generator, plasma load appls. 36357
- 6.6 kV solid insulated switchboard *(Japanese)* 27839
- 6 kV spot-network switchgear *(Japanese)* 27837
- 11 kV distrib. network telecontrol/metering syst. 4660
- 11 kV distrib. switchgear innovation prospects, UK 4673
- 22 kV spot network power receiving/transforming facility *(Japanese)* 27775
- 35 kV transformer substation fuses, protection characts. optim. *(Russian)* 5162
- 100 kJ Kapitza pulsed power facility status, Netherlands 36258
- 600 V current limiting fuses spec., AC switchboard appl. 19900
- auto-reclosers/sectionalisers operation 43796
- avionic switchgear contact material durability *(German)* 35259
- contact systs., electrodynamic forces compensation 19885
- design, ANSI/IEC stds. differences 27848
- distrib. network automatic multiple-cct. switchgear develop. 4659
- distrib. network fault current reson. grounding project, Australia 19258
- distrib. network protection, overhead auto-recloser automation 4664
- distrib. network radio/TV interf. detect. experiences, USA 27186
- distrib. network restoration operations planner, IKBS-based 19243
- distrib. overhead switchgear develops., South Africa 4666
- distrib. substations, switchgear internal arc fault protection design 4661

switchgear continued
- distrib. switchgear, design overview 4670
- electrical systems, cards, standards and recommended practices 20169
- gas insulated substations, technol., design 11218
- HV power switch reliab. and maint. cost survey *(German)* 36467
- HV switchboard busbars, travelling disturbance arc tests 19888
- HV switchgear seismic withstand capability 36451
- I$_s$-Limiter, distrib. switchboard short-cct. protection 19339
- interferometric opt. fiber HV/current sens., field test 17821
- LV distrib. feeder pillars/cutouts overview 43759
- LV switchgear arcing fault protection 19891
- LV switchgear arcing fault protection concept 19893
- LV switchgear made-to-measure commun. 44241
- Maglev supercond. magnet protection, discharge tube switch-based 5338
- Marx generator-based EMP simulator pulsed power supply 36264
- mech. reliab., insulation integrity 44232
- metalclad switchgear, HV/small size design develops. 11207
- MV distrib. switchgear, internal fault withstand tests 19887
- MV enclosed switchgear, size reduction innovations 27849
- petrochemical indust. MV arc resistant metalclad switchgear, safety benefits 5416
- plasma radiation source pulsed power, ultra fast foil closing valve 36269
- power overhead line overcurrent protection devices, recent develops. 43778
- power station auxiliary switchboards, short-cct. current calcs. 19385
- power syst. relay protection, low ratio CTs, high fault currents 35675
- power syst. short-cct. arcing fault effects limitation 19344
- power transm. line adaptive resist. relay params. 4714
- PSCN 3020 distrib. network integrated protection/control syst. 27157
- PSS SVC fuzzy logic switching design 19102
- pulsed power nanosecond semicond. opening switch develop. 36263
- pulsed power supercond. opening switch, laser pulse triggered 36262
- reduced emission control wires, fire testing 12857
- Reprocon LV sealed switchgear relays 36381
- ring main substation protection, HV HRC fuse appls. 4663
- risk assess., methodology/results/implications 5150
- rot. arc switchgear, low current/reactive switching expts. 11199
- rural distrib. network auto-reclose protection telecontrol 4665
- SPIDER MicroSCADA distrib. network control syst. 27184
- substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
- transm./distrib. switchgear, historical overview 5139
- transmission and distrib. equip. reliability, IEE conf., Warwick, UK (1995) 36831
- triggered gap switch, LV operation *(Japanese)* 5137
- underground distrib. syst., overvoltage protection, pad mounted switchgear 27164
- SF$_6$ distrib. switchgear, personnel safety 11201
- SF$_6$, short cct. conditions in substations *(Czech)* 27860
- ZnO UHV surge arresters, breakdown perform., computer simul. 19345

switchgear insulation
- *see also gas insulated switchgear*
- British Rail elec. insulation experiences, UK 44569
- capacitive voltage indication syst. operational experience *(German)* 19901
- mech. reliab., insulation integrity 44232
- vac. switchgear technol., μP appls. 5145
- SF$_6$ insulated HV equipt., gas chromatography diagnostics 11206

switchgear protection
- GIS arc detect. by optoelectronic systs. *(German)* 27855
- LV switchgear, fault arcs protection 5138
- LV switchgear arcing fault protection concept 19893
- power syst. short-cct. arcing fault effects limitation 19344

switchgear testing
- 1.5 MV Gamble II pulsed power generator, plasma filled diode studies 36444
- 200 ps high press. pulsed power gas switch studies 36414
- 522 MW, 310 kW pulsed power supply modulator 36463
- building pressurisation, interior switchgear arcing *(German)* 19899
- capacitive voltage indication syst. operational experience *(German)* 19901
- cct. breakers, condition-based monitoring develops. 5154
- commutation test labs., ident. method for certain procs. 5140
- electron beam generation, plasma pulsed power closing/opening switch-based 34859
- GIS, fast transient overvoltage meas. device *(Korean)* 36383
- GIS abnormality detect., self-organizing neural net appls. 27854
- GIS charged conducting particles, motion meas. 11205
- GIS epoxy insulating spacers, AC/impulse voltage deterioration characts. *(Japanese)* 27240
- GIS incomplete contact detect., mag. sens.-based 27841
- GIS PD detect. automation method 36468
- GIS spacer model, surface insulation characts., impulse voltage *(Japanese)* 36396
- GIS very fast transient overvoltage meas., capacitive voltage sens. 36469
- Hercules capacitor bank pulsed power switch life test project 36459
- HV fuses/switches, design tests, IEEE Std. 44236
- HV plant, PD monitor, transient earth voltage tech. 1537
- HV switchboard busbars, travelling disturbance arc tests 19888
- inductive energy storage pulsed power plasma opening switch expts. 36422
- intense diagnostic neutral beam prod., pulsed power supply-based 36319
- low-press. gas discharge pulsed power switches, mag. delayed 36415
- LV elec. power device, switching noise meas. 27858
- LV switchgear arcing fault protection concept 19893
- moulded case cct. breakers, hot gas ejection studies 19892
- MV distrib. switchgear, internal fault withstand tests 19887
- PD diagnosis and pattern recogn. 22652
- petrochemical indust. MV arc resistant metalclad switchgear; safety benefits 5416
- plasma pulsed power opening switch, low jitter operation tests 36418
- power syst. HTSC short-cct. current limiter studies 19341
- power syst. overload current interrupter verification studies *(Russian)* 36395
- pulsed power high-Coulomb triggered vac. switch tests 36458
- pulsed power spark gap switches, voltage recovery expts. 36456
- repetitive pulsed power spark gaps, breakdown recovery expts. 36457
- rot. arc switchgear, low current/reactive switching expts. 11199
- short-cct. tests, PF determ. 19882
- spark gap pulsed power switch, electrode perform. tests 36411
- substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
- switchroom internal arc-based press. rise studies 19889
- ultrafast high press. pulsed power gas switch expts. 36416
- vac. cct. breaker, transient recovery rise interruption 27843
- vac. cct. breaker restrike test procedure 19883

switchgear testing continued
vac. interrupter contacts, switching endurance improvement *(Russian)* 44239
vac. interrupters, arc conditioning effect *(Chinese)* 5136
vac. switchgear technol., μP appls. 5145
H_2 spark gap pulsed power switches, recovery characts. 36412
Hg liq. jet pulsed power supply opening switch tests 36261
SF_6 72 kV cct. breaker, arc models, test cct. 27845
SF_6 HV switchgear reliab. monitoring automation 5153
SF_6 MV self-generating cutouts, develop./testing 5141
SF_6 cct. breakers, synthetic test ccts., arc voltage 27844
SF_6 circuit breaker, gas integrity and adsorbent performance 19902
SF_6-N_2 auto-expansion cct. breaker studies 19890
ZnO surge arrester leakage current, external field effects 4728
ZnO surge arresters, sudden voltage reversal transient response 4727

switching
see also combinational switching; electrical conductivity transitions; ferroelectric switching; magnetic switching; Q-switching; sequential switching; switches; telecommunication switching
adiabatic CMOS, reversible logic issues 6862
AISMAN, subtransm. network switching operations planning tool 27089
arc-contact material mutual interact. *(Polish)* 11197
autonomous voltage inverters, μP control 5100
boost converter, control, dyn. response *(Chinese)* 11186
bundle conductors, phase-to-ground/phase air gaps, flashover voltage 27219
capacitor motor drive, single phase, speed control 5272
DC load contact switching eval., derating curves and life testing 29631
DC motors, motion controllers, software switch 19662
DC servo systs., integral of output error VSC 11090
distrib. network, real time service restoration 4647
distrib. network capacitor banks, synchronised/soft switching 10722
distrib. network load restoration planning algm., ES-based 19245
distrib. network loss reduction, syst. reconfig. 10728
distrib. network optimal switching planning, fuzzy inference appl. 19268
distrib. network restoration, ES-based heuristic methods 19244
distrib. network restoration operations planner, IKBS-based 19243
distrib. networks, vac. cct. breakers *(French)* 35636
distrib. syst., automation/DSM/AMR study 43761
double trench IGBT, struct. and anal. 38898
EHV power syst. restoration voltage control, ES-based 35555
elec. locomotive DC traction motor drives, electromech. proc. modelling *(Russian)* 36719
electron wave directional couplers, coupled mode theory 13828
failsafe contactors, electronic coil power economizers 29639
frequently operated vac. cct. breakers, plant insulation failures 4650
GIS, fast transient overvoltage *(Chinese)* 5155
GIS spacer model, surface insulation characts., impulse voltage *(Japanese)* 36396
Goto pair of tunnel Josephson jns., switching dyn. 14280
GTO gate-drive, power supply optimisation 11109
GTO switching under external cct. influence, 2D simul. 1374
heating load mgt., radio teleswitching 5380
HF discharge lamp ballasts, white noise modulation 11457
high-impedance fault detect. algms. long-term trials 10770
high-speed solenoid valve develop., diesel engine appls. 27873
HV induction motors, overvoltage simul., pole closure 11052
HV pulse technol., appls. 11192
HV transm. line, wide bandwidth corona model 27189
IGBT switching procs., expt. studies *(Polish)* 1403
induction motor drive, PWM inverter fed, power losses calc. 28060
induction motor drives, direct self control/field orientation 36688
induction motor servodrive, VSS robust control 44483
induction motor speed control improvement, load torque var. *(Korean)* 27723
induction motor vac. cct. breaker switching surge anal. *(Korean)* 27706
induction motors, param. estim., output-error ident. method 11023
induction motors, PWM power convertor feed problem calcs. 27730
induction motors, speed control, low-noise compact inverter *(Japanese)* 11016
induction motors, torque oscills. reduction, supply switching 19636
inductive load switching by electronic relays *(German)* 36236
infinite line, EM fields, steady-state/transient DC *(French)* 31711
inverter perform. of 0.10 μm CMOS operating, room temp. 6865
LIA 30 lin. induction accelerator, sync. syst. 36453
low-power digital ccts. based on adiabatic-switching 636
LV hybrid AC cct. breaker switching params., computer simul. 19342
Maglev supercond. magnet protection, discharge tube switch-based 5338
medium power RCCB design for severe environ. conditions 36393
mode switching syst. modelling 21093
motor winding insulation, surge protection 4883
MOV series compensated transm. network, mag. pot. transformers 4624
MRI, fast projection-reconstruction, gradient reorientation switching unit 26352
non-punch-through IGBT, crit. switching condition 30327
noninductive supercond. fault current limiter, simul. *(Korean)* 27274
oil-paper insulation, breakdown characts., impulse voltages 1561
operator training, Kytken multimedia training syst. 19164
power convertor design, soft switching, EMC Directive 21097
power syst. dispatch switch operation planning, ES-based 4510
power syst. dyn. anal., protective syst. modelling 4716
power syst. optimal power flow anal., security constrained 26902
power syst. overload control, line switching selection 26950
power syst. peak switching overvoltage calc., neural net-based 10703
power syst. restoration, planning, local control centre, ES *(Korean)* 35541
power syst. short-cct. power control, ES-based 19136
power syst. state estim., topol. proc.-based method 26878
power syst. transient stabil. 26949
power transformer impulse testing, IEEE std. 27780
power transm. line, radiated transient EM field calc. 4678
PSS SVC fuzzy logic switching design 19102
PWM inverters, harmonic distortion determining factor 19855
PWM inverters, optimal PWM control, harmonic levels prediction 5057
reluctance motor, rotor posn. meas., current meas. method 4934
reverse-channel HV lateral IGBT, characts. study 30328
RF reed relay for antenna-transmitter power amp. matching 29642
rot. arc switchgear, low current/reactive switching expts. 11199
shunt inductance coil isolation, voltage surges *(French)* 29619
SMPS, forward ZCS-QRC, practical design 19805
SRM, speed control, magnetoresistive angle sens. 44030

switching continued
SRM, switching angle, high speed operation *(Korean)* 36112
substation cables, induced transients meas./models 5157
substation intell. control, fault diagnosis/proc. *(Chinese)* 36471
switchable lin./circ. pol. ferrite disk resonator antenna 23861
switched reluctance starter/generator, aircraft engine 43457
telecomm. rectifiers, AC power line disturbance effects 44150
transm. network automatic SC, dyn. perform. 4620
transm. network reliab. anal syst., primary substations 26904
transm. network switching transient I-V calcs. 4621
UPS, IGBT/intell. power module based *(Japanese)* 5040
vac. cct. breakers, switching surge voltage, travelling wave method *(Korean)* 27834
Ag rivet contact perform., SiO_2, Al_2O_3 deburring media effects 29624
SF_6 puffer cct. breaker, elec. strength restoration *(Russian)* 44238
$YBa_2Cu_3O_7$ HTSC bolometer films, response time 42815
$YBa_2Cu_3O_7$ microwave coplanar resonators, power-induced switching 37970

switching circuits
see also choppers (circuits); switching networks; trigger circuits
1.5-7 kW HF ZVS full-bridge MOSFET-based rectifiers 19802
1.9 kW ZVS PWM phase switched DC/DC converter 44193
1 hp ASD IGBT control device tests 28070
1 kW AC/DC power factor pre-regulator, ZVS-PWM topology 19874
1 kW two-stage batt. charger cct. design 5071
1 MW SRM design, traction appls. 36757
2.5 kW NASA spacecraft ion thruster/power proc., develop. status 35267
2-switch current regulated DC/AC converter 44212
2D skin effect in power foils for HF appls. 29003
3.3 V DC/DC conversion, optimised sync. rectification 6003
3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
3 phase multi-step CSI syst., harmonics reduction *(Korean)* 36365
3-level GTO inverters, overvoltage clamping, cct. design 44183
3-phase act. power filter, sliding mode control 19759
3-phase converter, fault diagnosis, Kohonen ANN class. 36376
3-phase DC clamped switch mode rectifier, IGBT 19747
3-phase diode rectifier, input current waveform *(Korean)* 36366
3-phase induction motor, single phase supply, phase converter 11377
3-phase PWM boost rectifiers, dual boost converter 19726
3-phase PWM converters, small-sig. model, control 19760
3-phase PWM rectifier, line current harmonics minimisation 44147
3-phase PWM VSI, ANN current regulator 44119
3-phase quasi-reson. DC link PWM inverter 19854
3-phase TSC-TCR SVC anal., recurrences theory 19924
3-phase ZVS-PWM rectifier, reson. DC link, digital control 5068
4-phase variable SRM drive, elec. vehicles 28110
5-phase SRM drive, phase converter, microcontroller 5317
7 kW three-phase soft-switched telecom. rectifier 19799
10 kW DC/DC PWM ZVS bipolar SIT-based power converter 19830
15 kW DC/DC IGBT ZVS reson. power converter 5080
18-step VSI, divided DC voltage sources *(Japanese)* 27796
30 to 450 MHz multifeed passive antennas 23948
45 kW DC-DC PWM rly. car power converter, design optim. 11414
48 V/50 A telecom. switching power supply 19832
50 kJ railgun pulse forming unit, semicond. switched 19782
50 W DC/DC PWM soft-switched power converters 19790
50 W DC/DC ZVS PWM half-bridge power convertor 44194
70 A telecom. rectifier, high efficiency 12337
75 A second generation P-MCT, characts. 22393
100 kHz 2 kW boost ZVT-PWM converter, PF correction 19807
100 kV 1 kHz Blumlein pulsed power supply, microwave appls. 36257
150 W multi-reson. DC/DC converter, high efficiency 44138
200 V KZ-DHC32 IGBT invertor-based induction heating cooker *(Japanese)* 44588
230 kV FACTS power lines, advanced series VAr compensation *(Italian)* 4695
400 V/10 A matrix power converter, induction motor drive appls. 19811
500 W DC-DC converter, power MOSFETs, 200°C operation 12322
1200 kW HF IGBT invertor, induction heating appls. *(Japanese)* 28166
1200 W zero output impedance UPS inverter 44170
AC locomotives, line-side switching harmonics compensator 20101
AC standby generators, grounding/ground fault protection 43992
AC/AC reson. converters, LF waveforms modulation 44201
AC/DC PWM converters, on-line optimal control 36247
AC/DC PWM power convertors, common mode conducted RFI emissions 5072
AC/DC soft switching PWM power converter, SMES appls. 11176
AC/DC soft-switched PWM power converter struct. 36344
act. mag. suspen. systs., PLL appl. *(Japanese)* 39215
adjustable freq. quasi-reson. inverter, characts. *(Japanese)* 11135
aircraft power conversion systs., soft switching appls. 43452
automotive high side power switches, intell. diagnostics 20114
bipolar-MOSFET monolithic cascode switch, VIPower technol. 6014
boost converter, current programmed, large sig. model 12314
boost converter, PF correction cct. simul. 11162
boost converter surge suppression, act. filter 11154
boost-based resistor emulators, act. inrush current limiting 44202
bridge cct. IGBTs, gate drive methods 6013
brushless DC motor direct voltage vector control implement. 4990
brushless PM DC motor drives, torque ripple reduction 44477
buck chopper GTO thyristors, bond graph modelling 29039
buck converter design, zero-current turn-off, MCT 19748
buck ZCS-ZVS PWM DC/DC power converter topol. 11167
buck ZVC-ZCS HF PWM power converter studies 19716
buck ZVS power converters, anal./design 44134
clamped ZVS DC/DC converters, topol., operation and calc. *(Chinese)* 28997
class D^2 DC/DC parallel reson. MOSFET power supply 44223
class DE RF power amp., impedance plane anal. 551
class E amps., parasitic nonlin. capacitors 12347
class E freq. multipliers with RF choke, anal./design 37905
class E power amps./freq. multipliers, RF choke reactance 21130
Class E tuned power amp., computer-aided anal. *(Chinese)* 5988
closed-loop switching cct., convolution integral, steady state anal. 12674
coal mine transportation arcing, detection/suppression method 20107
complementary transistor inverter, driving characts. *(Korean)* 36367
converter-machine bond graph models, digital simul. 27821
crossing current reson. power converter CAD 44219
Cuk PWM DC/DC soft-switching power convertor 19795

switching circuits continued
- current source converter, patt. generator switching freq. minimization 19729
- current-source drive cct., ZVS converters 11388
- cycloconverter multiple noninteger harmonics, act. filtering 5125
- DC link power converter, induction motor drive appls. 44450
- DC switch converters, transfer fn. determ. 5103
- DC-DC converters, control, educational workbench *(Spanish)* 19876
- DC-DC converters, switched-mode types for high-power appls. 11181
- DC-to-DC power converters, sliding mode control design 520
- DC/DC capacitive idling converters, input current shaping 19789
- DC/DC converter, noncontact batt. charging, EM coupling 19859
- DC/DC HF SMPS, solid Ta power capacitor appls. 19826
- DC/DC LCC reson. power converter, digital control models 6010
- DC/DC power converter two-port lossless switching cct. design algm. *(Polish)* 36280
- DC/DC power convertor random switching control, LF noise studies 44155
- DC/DC power convertor switching ripples, averaging anal. method *(Japanese)* 27795
- DC/DC PWM boost power converter, switching capacitor-based 44195
- DC/DC PWM reson. power converter topol., pulse load appls. 11172
- DC/DC PWM switching regulators, fn. control 29022
- DC/DC PWM ZVS reson. power convertor develop. 5078
- DC/DC quasi-reson. ZCS power convertor topologies 44220
- DC/DC SMPS, MOSFET-based, capacitive isolation method *(Japanese)* 6025
- DC/DC switching converters anal., grid-point approach 37625
- DC/DC ZVS power convertor, batt./solar cell sources 44169
- DC/DC ZVS PWM forward power converter design 5045
- DC/DC ZVS PWM full-bridge power convertor, MOSFET-based 5044
- discontinuous current mode series-parallel reson. converter 37623
- discontinuous PWM preregulators, conducted EMI reduction 11161
- DSP based controller for switching converter 6019
- elec. motor drives, single-chip microcontroller appls. 44460
- elec. vehicle propulsion batts., pos. phys. disconnect 36767
- elec. vehicle propulsion inverter, power electronics design 44485
- elec. vehicles, 40 kHz, 1.5 kW DC/DC converter 20117
- elec. vehicles, high current power modules, SiCAl packaging 20116
- electronic welding, HF reson. inverter-based 36802
- embedded chip MCM technol., nondigital extensions 21752
- even harmonic reson. class E tuned power amp. without RF choke *(Japanese)* 37646
- fixed-freq. phase-controlled full-bridge reson. converter 19715
- flyback converters, soft switching, act. clamp cct. 6004
- flyback ZVS PWM power converter-nondissipative snubber calcs. 5047
- forward ZCS-QRC, distrib. power supply *(Spanish)* 12338
- full-bridge DC/DC power converter, extreme conditions operation 44137
- full-bridge MOSFET inverter, US transducer power supply appls. 44166
- full-bridge PWM DC/DC soft-switching power converter 19791
- full-bridge series-reson. rectifier, telecom. appls. 19831
- full-bridge ZVS PWM DC/DC power converter 19852
- ground bounce effect on noise margin modelling 6857
- GTO invertors, energy recovery snubber cct. 5085
- GTO PWM three-level VSI, induction motor drive appls. 19761
- GW pulsed power network, magneto-elec. switching-based 5048
- half-bridge ZVS multi-reson. power converters, light load mode anal. *(Chinese)* 36336
- hard switched/reson. link inverter output spectra comparison 44205
- hard switching power IGBT modules, dyn. perform. tests 21102
- hard switching power IGBTs, non-/punch-through technols. 12317
- harmonic-free 3-phase inverters, synthesis/anal. 11114
- HF power conversion, reson. and PWM soft-switching techs. 11180
- HF reson. DC link PWM inverter 19878
- HF series reson. inverter, PFM/PWM control strategies 5388
- HF series reson. PWM inverters, induction heating appls. 5123
- HF switching DC-DC convertors using canonical switching cell 19773
- HF switching reson. power convertor, reson. rectifier appl. 44135
- high current IGBT switching modules, dyn. perform. eval. 30316
- high efficiency forward converter topologies 6001
- high efficiency reson. converter based on MCT 19730
- high explosive generator, switching cct. perform. anal. 36288
- high power DC-to-DC soft-switched converter topologies 19754
- high power FET/IGBT gate driver cct. 13701
- high-speed freq.-switching synthesizer, fractional N PLL 561
- HIP2030 power gate driver IC, MCT module appls. 29006
- HV soft recovery rectifiers, motor control appls. 27802
- hybrid MOS-bipolar transistor switching, profiled drive sig. 521
- hybrid MOS-bipolar transistors, temp. effects tests 29043
- hybrid/elec. vehicles, DC/DC power converters 20100
- hysteresis current controlled VSI, switching freq. control 11137
- ICs boost of video perform. 25663
- IEEE power electronics conf., Seattle, USA (June 1993) 36843
- IGBT power convertors, turn on/off behaviour studies 44218
- IGBT power module gate drive considerations 37632
- IGBT PWM invertors, indust. appls. 5066
- IGBT switching losses, hard switching, ZVS, ZCS 6757
- induction heating/melting, ZCS-HF inverter, bipolar-mode SITs 5384
- induction motor core losses meas., static power convertor-based 19620
- induction motor drive, SCR based, modulation strategies 20080
- induction motor drive freq. converters, IGBT-based 44456
- induction motor drives, DC link soft-switching inverters 11374
- induction motor drives, duty cycle-based V/f inverter control 20059
- induction motor drives, thyristor switched, control algm. studies 44461
- induction motor drives, vector control 44443
- induction motor drives, VSI-fed, predictive vector current control 44492
- induction motors, dyn. loading, AM 36149
- induction motors, speed control, VSS, load torque observer *(English)* 36175
- induction stove, hybrid reson. converter 5390
- inductive tube welding reson. invertor syst. 20166
- indust. power supply harmonic control, switched filter-based 4456
- integrated ATE amp., switch mode design 29054
- intell. half bridge power module, 75A/250V/75KHz, switching power amps. 6027
- internal overload control perform. in large switches, simul. 37724
- inverters, av./RMS currents anal. 5135
- inverters, on-line harmonic elimination 5081
- isolated DC-DC converter, ZCS IGBTs, symm. topol. 6008
- isolated half-bridge ZVS-PWM converter 44185
- isolated high power boost topol., transformer models 19745
- isolated PF correctors, fast output voltage control 11156
- LCC reson. inverter, design, HF AC distrib. syst. 21106

switching circuits continued
- lin. switched reluctance machines, high force dens. designs 36135
- low cost combining switch for shared memory syst. 29155
- LV analog ICs for 3 V systs. 771
- matrix converter, low loss, input filter design 5132
- matrix freq. converter, PWM control techs. 5129
- matrix power converter, switching freq. harmonics studies 5051
- MCT converter, snubber efffect, switching loss, EMI reduction 6017
- miniature SMPS, domestic appliance appls. *(Japanese)* 44618
- Mitsubishi MD004H hybrid antenna switch for 23 cm band 32003
- modular 1 kW PWM inverter, high efficiency 19862
- motor drives, inverter design, optocouplers 28073
- multi-output DC/DC PWM ZVS quasi-reson. power converter 19824
- multi-output reson. DC/DC space power converters 4361
- multi-reson. ZVS power convertor, rectifier deadtime controlled 44189
- multilevel inverter-based SVC, computer simul. 19122
- multilevel single-phase PWM inverter, combination control *(Japanese)* 27812
- multiphase series-reson. power converter, novel topol. 19721
- multiresonant parallel ZVS power converter, anal., design 11171
- notching current source AC/AC converters, soft switched PWM 19746
- parallel reson. power converter, half-cycle current control 19714
- periodically switched networks modelling, Cuk converter 11164
- planar busbar low inductive connections, power electronics 12868
- PM commutator motor drives, const. power speed range 36724
- PM sync. motor drives, sliding mode current control 5264
- power converters, transient anal., envelope following method 6009
- power convertor nonlin. ccts., transm. line modelling 19720
- power convertor snubber energy recovery, pass. cct. configs. 526
- power electronic converters, stochastic models 5998
- power electronics conf., Cuernavaca, Mexico (Aug. 1993) 11564
- power electronics current sens., Rogowski coil-based 21107
- power IGBT SPICE model, power converter design appls. 12316
- power line switching transients immunity control spec. 19041
- power MOSFET, integrated protection ccts. 38861
- power MOSFET switching, transformer-isolated gate drive cct. 535
- power syst. PF correction trends, topologies *(Spanish)* 19192
- power syst. series reactive power compensation, bidirectional switches 43654
- pulsed power, slow capacitor banks, protection systs. *(Japanese)* 11312
- pulsed power nanosecond semicond. opening switch develop. 36263
- PV water pumping, SRM drive-based, perform. anal. 10890
- PWM controlled AC/DC power converter, improved PF 5059
- PWM CSI DC link notching cct., switching loss reduction 44180
- PWM DC/DC full-bridge ZVS power converter anal. *(Chinese)* 36337
- PWM IGBT bridge invertors, switching strategy implement. 5055
- PWM IGBT invertor power supplies, case study 36353
- PWM inverter act.-pass. reactance power cct. 5030
- PWM inverters, IGBT gate drive ccts., optimum switching 19809
- PWM invertor IGBT gate drive IC, eval. and appls. 5052
- PWM invertors, telecomm. power supply appls. 19801
- PWM matrix power convertors, static induction thyristor-based 27818
- PWM power converters, discrete-time large sig. anal. 5086
- PWM power convertors, independent inputs, large-sig. modelling 11152
- PWM self-commutated SVC, power syst. appls. 4511
- PWM VSI, deadbeat control cct. 44176
- quasi-reson. AC/DC forward power converter topol. 44145
- quasi-reson. DC link power convertor, topol., appls. 5084
- quasi-reson. DC link series reson. converter 12313
- quasi-reson. HF PWM ZVS DC/DC power convertors 5061
- quasi-reson. HF ZVS IGBT invertor, induction heating appls. 5087
- quasi-reson. power converters, generalized state space averaging anal. 11150
- quasi-reson. PWM converter, high efficiency 11155
- quasi-reson. PWM DC link inverter topol. 19731
- quasi-reson. soft-switched inverter, cct. anal. 11170
- quasi-reson. soft-switching PWM conversion, space vector control 19757
- quasi-sq. parallel reson. power converter 5046
- quasiresonant PWM convertor, microwave heating appl. 36333
- railgun air core compulsator, power electronics/controls 19783
- reconfigurable ASIC analogue front end, intell. sens., software drivers 6243
- rectifier cct. transient anal., diode modelling, SPICE-based 12325
- regenerative DC drive, sinusoidal line current consumption 5321
- regulator, freq. bandwidth widening, 2 DOF syst *(Japanese)* 5990
- regulators, general computer algm. for anal. *(Japanese)* 12279
- reson. DC link IGBT ZVS invertors, optimal design 36342
- reson. DC link inverters, MCT soft-switching tests 12320
- reson. DC link inverters, sine PWM control 5999
- reson. DC link VSI, soft switched, cct. perform. studies 36282
- reson. DC link ZVS VSI topol. studies 36281
- reson. DC/DC power converter, Class D inverter, Class E rectifier 37627
- reson. link inverter topologies, UPS appls. 44206
- reson. power converters, HEXFET/IGBT switches comparison 44208
- reson. power sources, freq./phase regulation, chokes 5092
- reson. switching power convertors, HF mag. design 44207
- resonant DC link invertor, PWM scheme develop. 27819
- resonant systems, IEE Colloquium, London (1995) 28230
- restaurant induction heating rice cookers, invertor-based *(Japanese)* 44640
- rly. passenger carriage power supply, IGBT batt. chargers *(German)* 28125
- rolling rotor SRM, optimal digital control design 36134
- second generation P-MCT, characts./operation 30269
- self-excited forward DC-DC PWM ZVS power converter 36241
- self-reson. DC-DC PWM power converter family 11168
- self-reson. PWM forward DC/DC power converter 44225
- SEPIC PWM ZVS dual power converter perform. studies 11130
- series reson. convertor with third-order commutation network 36306
- series reson. DC link GTO invertor expts. 44167
- series reson. power converter, pulsed welding load appls. 5121
- series-reson. DC-AC power converter, switching control *(Japanese)* 11190
- single phase AC choppers, asymm. PWM control 36246
- single phase quasi-reson. rectifier, unity PF 44146
- single-phase 12-step VSI, output voltage harmonics reduction *(Korean)* 36238
- single-phase AC/DC low-harmonic power convertor 44168
- single-phase IGBT switch-mode rectifier *(Japanese)* 11187
- single-phase multilevel power converter, control method 11136
- single-phase switch-mode rectifier, voltage-reversal cct. 29020
- single-phase telecom. supply PF correction cct. 41627
- single-switch discontinuous-mode boost PF corrector 44211
- single-to-three-phase PWM soft switching power converters 19707
- sinusoidal converters, high PF 19725
- SMES, const.-voltage output PWM converter develop. 36273

switching circuits continued
  SMES, DC power line appls., input/output cct. studies *(Japanese)* 11309
  SMPS filter inductors, low loss windings design 36326
  snubberless IGBT PWM-VSI inverterbridge, design/test 19728
  soft switching DC converter, PF correction 19752
  soft-switched current-fed PWM inverter, struct., appls. 19735
  soft-switched parallel inverter, topol. anal. 11144
  soft-switched PWM current source rectifier/inverter 11145
  soft-switched PWM rectifiers, perform. improvement 11173
  soft-switching full-bridge converter, mag. amps. 44139
  soft-switching MOSFET-based power converter *(Japanese)* 27815
  soft-switching power converters, GTO/MCT characts. comparison 19849
  soft-switching PWM boost converter, config., anal. 6000
  space station, switching regulators, source-load interact. 26613
  Space Station Freedom bidirectional PWM UPS power convertor 26589
  space station secondary elec. power syst. modeling/simul. 26612
  spacecraft, electronic switching, reversible energy mgt. 26596
  spacecraft solar array, shunt switching unit act. ripple filter 26679
  squirrel cage drives, IGBT inverters, audible noise, losses 5308
  SRM, core losses calc., mag. flux 10983
  SRM, lin. unaligned posn. scaling method 19603
  SRM, optimal operation, choppingless excitation *(English)* 27684
  SRM, switching angle, high speed operation *(Korean)* 36112
  SRM actuators, axially laminated anisotropic rotor design 27701
  SRM design considerations, aircraft engine pump appl. 10982
  SRM drive, asymm. half bridge fed, discrete modelling 44497
  SRM drive, converter topol., efficiency, control 11372
  SRM drive, nonlin. modelling, ANN 20074
  SRM drive speed/current regulation, microcontroller-based 11350
  SRM drives, advanced develop. experiences 36680
  SRM drives, brushless DC motor microcontroller appls. 36679
  SRM drives, dual-decay converter, efficiency/perform. anal. 5304
  SRM drives, energy recovery snubbers anal./design 20057
  SRM drives, generalised simul. approach *(Chinese)* 44472
  SRM drives, novel C-dump inverter develop. *(Korean)* 28085
  SRM drives, sliding mode observer controller 5301
  SRM drives, vibr./acoustic noise anal./control 20083
  SRM EM characts., meas. methods comparison 10998
  SRM faults/unbalance forces studies 36132
  SRM novel buck power converter topol. *(Korean)* 27691
  STC104 packet routing chip for parallel systs. 29290
  SVC, PWM invertor-based, HF/multiple connection studies 19123
  switch-controlled drive ccts., EMTP compatible algm. 5244
  switched power harmonic filters, anal., appls. 19741
  switched reluctance machines, torque optim. design *(French)* 10990
  switched/sync. reluctance motor torque prod., unified theory 36133
  sync. servomotor, space voltage vector PWM control *(Korean)* 27694
  three-level PWM invertor, optimal design studies 19719
  three-phase AC machine switching power converters, current control 44179
  three-phase AC-DC low harmonic boost rectifier topol. 36275
  three-phase AC/DC power converters, harmonics reduction 19798
  three-phase AC/DC PWM ZVS power convertor develop. 5082
  three-phase AC/DC ZVS power convertor topol. 19839
  three-phase boost power convertor, interleaved switching topol. 5124
  three-phase isolated PWM ZVS buck rectifier 36243
  three-phase PWM boost rectifiers 11159
  three-phase PWM bridge-rectifier, harmonic minimization 19810
  three-phase PWM GTO invertor, design, constr. 5090
  three-phase PWM invertors, real-time harmonics control 19722
  three-phase PWM rectifier, unity PF microcontroller 44177
  three-phase PWM reson. buck converters, power control 5060
  three-phase PWM VSI, simplex control algms. 5101
  three-phase quasi-reson. AC/DC transistor power converter 5074
  three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
  three-phase quasi-reson. soft switched thyristor invertor 19732
  three-phase series reson. act. power filter 19739
  three-phase single-switch AC/DC buck-boost power converter 19841
  three-phase single-switch rectifier studies 19847
  three-phase step up/down AC/DC power convertor 19711
  three-phase UPS VSI, feedback control strategy 44173
  three-phase VSI nondeterministic AM-PWM strategy 44161
  three-phase ZVS AC/DC act. power convertor 19840
  thyristor controlled ractor compensator 19873
  thyristor inverters, freq./voltage optimal control design 5098
  TOPSwitch three terminal offline PWM switching voltage regulator 29007
  traction reson. DC link inverters, soft/hard switching methods 44568
  unity PF 3-phase dither rectifier, one switching device 19724
  unity PF ccts., boost/Cuk topologies comparison 5069
  unity PF PWM rectifier, DC ripple compensation 44184
  UPS, maint. and upgrading *(Japanese)* 5041
  UPS modelling/simul./anal., software-based 44171
  voltage fed PWM inverter, zero current clamping elimination 19744
  voltage-reson. converter, AC dyn. characts. anal. 21110
  VSI IGBTs, on-state short-cct. behaviour expts. 44217
  wind power converter/inverter syst., 600 A/1200 V intell. IGBT module 19567
  wormhole router, cost of adaptivity and virtual lanes 29291
  XRAM pulsed power supply cct., repetitive operation studies 36256
  ZCS HF inverter/converter, overlapping commutation 19788
  ZCS-QRC, two fully regulated outputs 19806
  ZCS/ZVS saturable inductor PWM DC-DC power converter 44224
  zero-current-transit. PWM boost converters 11116
  ZVS forward multi-reson. converter, saturable core 12331
  ZVS multi-reson. clamped mode converter, telecom. appl. 12330
  ZVS PWM half-bridge power converter studies 44197
  ZVS PWM inverters, DC voltage notching scheme 19736
  ZVS PWM power converters, saturable reson. inductor anal. 19762
  ZVS quasiresonant IGBT power converter, PSPICE modelling 5079
  ZVS-clamped voltage DC/DC PWM single-switch power convertors 11169
  ZVS-PWM full bridge DC/DC converter, losses, appl. 5089
  ZVS-QRC, IGBT switch, design, testing 5056
  ZVS-ZCS-PWM self reson. DC-DC Sepic converter 44226

switching functions
  see also Boolean functions; state assignment
  prime implicants generation of logic fn., multilevel synthesis 5957
  unate cct. fns., input encoding 12420

switching networks
  see also minimisation of switching nets; multiprocessor interconnection networks
  22 kV spot network power receiving/transforming facility *(Japanese)* 27775
  area graphs for locally striking disasters, connectivity problems, direct NA-connection 41547
  array opt. switching syst.-level VLSI platform for opt. interconnection insertion 42129
  AT&T ATM switching-network products 16950
  ATM multicast switching, nonblocking copy network design 2871
  ATM network hitless line protection switching 41409
  ATM networks, leaky bucket algm. for bursty sources *(Chinese)* 33163
  ATM node, syst./perform. design 16701
  ATM shuffleout switch, multicast services provision 16440
  ATM switch, minislot synchronized, output queue contents 33177
  ATM switching network, asymmetric broadcast, concentrators 16971
  B-ISDN, ATM tech./switches 25069
  banyan-based B-ISDN switches, priority perform. 9006
  Benes-based self-routing/nonblocking permutation network *(Chinese)* 8785
  bitonic sorters, detect. and location for single faults 16431
  bitonic sorters, single faults diagnosis 2876
  campus inform. network syst., LAN based, switching syst. *(Japanese)* 16697
  campus inform. network syst., LAN/FDDI based *(Japanese)* 16696
  cascaded crossbar switches network, connections establishment 8727
  central servers, high-bandwidth network evol. 41786
  Digital ILT, digital switching syst. 25187
  distributed telecomms. systs., sojourn time distrib. modeling 33237
  free-space WDM interconnections based opt. switching nets 33726
  high-capacity photonic space-division switching syst. for broadband networks 25533
  I-NET, Packet Switched Public Data Network, India 24893
  juggling networks, TDM implement. 24758
  large scale switched telecomm. networks, traffic design method *(Japanese)* 24838
  local area ATM network, medium speed access 41904
  logical communication designer interfaces, implementation and evaluation 33714
  message switching network, value added message services 3147
  multi-channel traffic streams, combinat. anal. 41930
  multicast ATM switch copy network shared-buffer archit. 41417
  multicast ATM switching, design requirements and archits. 25190
  multidimensional switching networks, universality 8704
  nonblocking single-substr. directional coupler opt. space switching networks 24761
  opt. cluster-based shuffle network, conflict-free channel assignment 3578
  packet switch, quick simul. of stationary tail probabilities 41433
  partially blocking finite-buffered switching networks, anal. model 2878
  photonic ATM switching systs. 33731
  radio syst., PSTN network syst. interfaces/services 25383
  residential video broadband switching network archit. 41554
  routing, cct.-switched network with wireless subscribers, optimal FCL table *(Korean)* 41566
  self-routing switch element for photonic generalized shuffle networks 16530
  shortest-path first routing algms. 24847
  SMDS networks, congestion notification technique 3223
  stat. data forks, packet flow control 16436
  TDX-1B ISDN switching syst., D-channel config. *(Korean)* 25068
  telecomms., aspects of future network planning 33310
  three-level hierarchical telecomm. networks, link no. minimization 33166
  three-stage networks, strictly non-blocking condition 33198
  Virtual Permanent Connection, network computing, switch-based networks 16683
switching stations *see switching substations*
switching substations
  110 kV switchyard PYRAMID digital control syst. installation project 36483
  HV substations, EMI anal., switch arc restrikes 5159
  power syst. reliab., generating unit operating reserve assess. 26856
switching systems *see telecommunication switching*
switching theory
  see also automata theory; sequential switching; switching functions
  2D round-robin schedulers for packet switches, multiple input queues 2875
  ATM switch bursty and correl. mean delay and cell loss probab. 41410
  fault tolerant software for switching control multiprocessor *(Japanese)* 33187
  fault-tolerant switches for photonic networks 16976
  greedy packet scheduling 33171
  hybrid STM-ATM switching and transport 41437
  multi-facility blocking models, stochastic, decomp. methods for anal. 24794
  overall syst. perform., summing subsystem random variables 24776
  packet switches, shared buffer memory 24759
  Reed-Muller variable-entered vectors and maps 21055
  SDH, pointer conversion method *(Japanese)* 8693
  torus networks, struct. commun. 16449
  wavelength-routing network switching theory 9522
switching transitions *see electrical conductivity transitions*
syllabic compandors *see compandors*
symbol manipulation
  2-D lin. phase IIR filter, symbolic computation routines, design 37885
  3D obj. modeling, symbolic representation 32928
  alg. invariants, symbolic computation 5728
  algms. for sparse matrices and lin. systs., comparison 20600
  algorithmic work, orthogonal polynomials and special fns. 20580
  analog syst.-level fault diagnosis, symbolic method 12269
  architectural-level fault simulation using symbolic data 21207
  cct. anal., Mathematica package-based 5967
  cct. description lang., appl., symbolic network anal. *(Japanese)* 12288
  circ. self-test path tech. for real ccts. 6098
  engng. instruction via computer alg. 36910
  general differential alg. eqns. solvability 28685
  Groebner basis calc. 37319
  IC tester diagnosis, Bayesian network appl. 30428
  lin. antenna, symbolic approach, inverse problems in moment method 2312
  lin. systs., high throughput/low latency/low cost struct. design 28989
  monic factors of univariate polynomial, alg. no. field 20577
  network data anal., complementary graphical methods 41675
  ODE, B-spline solns. 37340
  ordering constraints on trees 20540
  p-adic nos. complexity theory 5739

symbol manipulation continued
power syst. alarm proc., OO symbolic connectionist syst. 19158
power syst. alarm proc. syst., symbolic-ANN syst. 26867
power syst. reactive reserve mgt. 19081
prime decomp. of radicals in polynomial rings 37298
Prolog program, prog. fast colour recogn. hardware by symbolic reasoning 24546
roads, cluttered scenes, real-time visual tracking 32950
simple diff. eqns., simple exact solns. 20619
symbolic solns. for class of PDE 20620
test generation for path delay faults, binary decision diags. 29171
unsynchronised opt. overlapping PPM channel coding 42357

symbolic substitution
1-bit symbolic substitution adder, opt. implement. *(Korean)* 31028
ATPG for large seq. ccts. 6101
band limited PRBS, PSK syms. 8388
bit-slice archit. verification, time-space modal model 12467
digital opt. computing, symbolic substitution implement. 39525
higher-order opt. quaternary signed-digit arith. 1760

symbols *see nomenclature*

symmetric self-electro-optic effect devices *see SEEDs*

synchrocyclotrons
JINR phasotron, longit. phase motion, diagnostic foil ioniz. loss effects 18271
KAON Factory synchrotron beam chopper pulsed power supply 34743

synchronisation
2D chaotic cellular neural network sync. phenom. 21493
2D fiber optic bundle image associative memory sync. problem 1656
2D robust run-length limited codes 15757
3D-DCT pipe coding, video seq. coding 24506
4-CPSK, carrier recovery scheme 8099
60 hp brushless doubly-fed pump drive, water treatment appls. 5431
AC/AC converters, vector control, min. energy storage 19758
AC/AC PWM power converters, vector control studies 5117
accuracy improvement of time intervals meas., pulse counting 3995
adaptive algms. for flexible equaliser in mobile receiver 42270
adaptive calib. algm. for synchronized chaos 8156
adaptive phase control, RLS phase estim. 40799
algm. for computer time synchronisation, universal time 25980
algms. for deriving protocol specs. from service specs. written in LOTOS 2906
all-opt. clock recovery syst., ring mode-locked laser 39990
AM dual mode receiver for broadcasts reception 17553
archive digital data storage device based on home video recorder 39182
asynchronous packet transm. optimum frame sync. 41418
asynchronous syst. high-level synthesis, scheduling, synchronis. 21183
ATM framing, CRC byte 8712
ATM LAN, full-color real-time video broadcasting 16681
ATM opt. switch, cell synchronisation *(English, Italian)* 33725
ATM switch, minislot synchronized, output queue contents 33177
ATM/PVC-based video retrieval network, path reservation protocol 41526
ATV, digital transm. technol. *(Japanese)* 34232
augmented priority ceiling protocol, task sync. for preemptive real-time systs. 16492
BiNMOS fast resolving synchronizer for parallel proc. interconnect 21395
bit-stuffing procedure, sync./error control coding 40599
bit/packet opt. sync., fiber switching node inputs 25482
bitonic sorting optoelectronic recirculating archit. 22971
buffered telemetry demodulator for Galileo mission 9420
burst mode DS/SS packet radio, on-off keying assisted acquisition 3475
cardiac physiological/US data, simultaneous acquisition/proc. syst. 35031
CDMA, TU Delft research, overview 25255
CDMA commun. systs., adaptive interf. cancelation 25241
CDMA DA chip synchronizers for bandlimited DS/SS M-PSK sigs. 9371
CDMA opt. fiber networks, syst. and sync. perform. anal. 17270
CDMA overlays for FDMA satellite commun. systs. 25465
CDMA systs., robust/lossy discretization 41473
cell-based ATM phys. layer, parallel DSS implement. 8729
CERN PS accelerator, timing syst. 18183
channel residual damping depend. on carrier freq. separation *(Russian)* 15695
chaos masked messages extraction 32590
chaotic element network, inform. cascade, marginal stabil. 2357
chaotic sigs., filtered and synchronized, commun. use 40851
character-sync. integrated speech and lang. model, joint learning 32372
civ. engng. tandem rolling-rotor actuator synchronisation 11519
clock distrib. networks, topol. design 715
closed loop carrier phase sync. techs. 8461
CMOS 2.4 Gbps 16×16 ATM switch chip set 16960
CMOS analogue chaotic oscillator for sig. encryption 34433
CMOS clock-frame regeneration chip, ECL-compatible I/O 21446
CMOS current S/H ccts., differential clock feedthrough atten. 12666
CMOS delay-locked loop for 18 Mbit, 500 Mbyte/s DRAM 6155
CMOS latches, metastability rel.to loading, power supply and scaling 13887
CMOS low-power chipset for portable multimedia I/O terminal 9114
CMOS RISC proc., 500 MHz, 32 bit, 0.4 μm design 6180
code sync., principles/techs., review 25236
code-synchronized transm. syst., design params. 24739
coilgun perform., timing errors effect 31755
commun. protocol design methodology 2947
communication protocols, hierarchy-based incremental anal. 2972
computational components for sync. cooperation on multimedia inform. 16871
computer network clocks, improved sync. algms. 2949
conferencing SS radio 25260
connection mgt. protocols, trade-offs, message delivery and quiesce times 16516
constrained codes for synchronisation/additive errors correction 8165
constrained multitrack RLL codes for mag. storage channel 39179
coupled digital oscillators class, dyn. 6049
coupled oscillators, modulated sigs. sync. 12367
cpd. sig. modified recurrent search *(Russian)* 16051
CPN, fiber channel interfaces 33489
Croatian radiocommun. primary freq. reception probab. *(Croatian)* 3311
(d,k)-constrained seqs., synchronising methods 15755
dead-beat chaos sync. in discrete-time systs. 24001
Decca Navigator radionavigation receiver design and DSP 42543
demodulator for CPM 40567
differential overlapping PPM in opt. direct-detect. channel 17269

synchronisation continued
digital acoustic underwater phone 17357
digital data transm., optimum stuff threshold modulation schemes 40573
digital modems, sym. synchronizer perform. 8457
digital radio open-loop max. likelihood carrier sync. 42152
digital recording techs. in acoustics 9771
digital seq. cct. retiming algm. 473
digital terrestrial TV broadcasting, transm. techs. 34221
digital TV image wavelet transform coding and sync. loss recovery 42584
digital VTRs, ECC, pipelined decoder *(Japanese)* 9747
direct-carrier-modulation, low data-rates, sync. perform. 40613
directionally coupled chaotic systs., chaos synchronisation 28990
distrib. network capacitor banks, synchronised/soft switching 10722
distributed logic simul., test environ. 12496
DMSK digital packet sync., preamble design 9362
DS-CDMA digital mobile radio systs., unequal error protection 9373
DS-CDMA mobile networks, acquisition of synchronism 33867
DS-CDMA mobile syst., receiver archits. for down-link 33864
DS-SS, directionally constrained adaptive beam forming 17003
DS-SS multiple access, acquisition based capacity 42168
DS-SS receiver, noncoherent matched filter code acquisition 32582
DS-SS serial search, multiple-dwell code acquisition detector rules 32092
DS-SSMA commun. systs., approach 42167
DS-SSMA commun. systs., signature pairs 42181
DS-SSMAsystems, pseudo-noise seqs. 3326
DS/SS systs., coherent chip-asynchronous, signature delay estim. 17014
DSP real-time implement. on multiprocessors, CAD environ. 12584
dual wavelength opt. fiber HDTV distrib. networks 17571
dyn. syst. sync. and control 12297
E7-25 capacitor storage unit, ET/railgun launcher 31756
EDTV-II, vert.-temporal/high helper sig. multiplexing scheme 9724
EDTV-II black bar helper sig. multiplexing scheme *(Japanese)* 17555
elec. machine EM speed reduction, phys. proc. modelling *(Russian)* 36106
elec. motor EM speed reduction, math. anal. method 43990
electronic beam scanning by coupled MESFET oscillators 23970
error correcting decoder implemented, digital neural net 8152
FEL, 2D DFB, dyn. 2011
FELIX FEL user facility 14982
FH-SS commun., PLL demodulator response 12377
FIR filters using pipelined multipliers, FPGA implement. 21441
fixed L-ary seq. in random data, search duration 40543
fourth-power law clock recovery with prefiltering 41390
fractionally spaced equalizers, adaptive sampling 33161
frame broadcasting by IR impulses, transmitters sync. 33478
frame-sync. for satellite video sig. transm. 34233
free-space holographic parallel optoelectronic computer, 300-MHz optoelectronic counter 7429
fully digital demodulator, combined interpolator filter for timing recovery 15707
generic software tool kit, accelerator distributed control 18233
GPS sigs. monitoring for precise time comparison 34709
GPS synchronized power syst. phase angle meas. 19369
handover during mobile data commun., error reduction 16635
HDTV images, noise resistant sync. 16288
HDTV transm. on SDH network, stuff sync. cct. design 25666
hierarchical and modular local ATM switch, design and anal. 33169
hierarchical multiprocessor archit. for video coding 33698
high performance networking, conf., Grenoble, France (1994) 5496
hydraulic turbogenerators, intell. sync. control *(Chinese)* 10877
IEEE MILCOM conf., Boston, USA (1993) 36897
image synthesis based on estim. of camera params. from image seq. 2646
induction motor invertor synchronisation, magnetisation/vel. determ. *(German)* 36159
inductive coilguns, driving field/projectile motion synchronisation 15300
information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
insertions/deletions bursts correcting codes 40600
instantaneous multiple access commun. system 16462
inter base station synch. via common broadcast control channel 9279
inter media sync. schemes 9054
inter-media sync. in distributed and heterog. multimedia systs. 33641
Internet, multimedia services, distributed sync. protocols 3263
Japan mobile telephone syst., detect. study 9273
Kullback dist. based nonlin. phase estimators 41011
L10M lin. induction accelerator 36362
large VLSI systs., sync. clocking schemes 6195
LIA 30 lin. induction accelerator, sync. syst. 36453
lin. induction accelerators, 500 kV Marx generator 36361
LMSS, receiver 3rd order PLLs 42211
local networks, novel sync. procedure 16547
M-ary PSK non-decision-aided feedforward carrier sync. asymptotic cycle slip probab. 40554
M-ary PSK single-sample symbol sync. algms. 40562
M-ary wideband commun. syst., multipath channels appl., perform. 17019
M-ary/SS commun. syst., frame sync. method 17008
M-Choose-T commun., multiple-access adder channel 32098
many coupled oscillators, self-sync. 37823
MARC, multimedia appl. for radiologist commun. 16910
matched filter derived and code-assisted bit sync. 41392
media sync. protocols for packet audio-video syst. on multimedia inform. networks 16497
MHEG multi- and hypermedia obj. interchange std. 41975
micro-hydroelec. power induction generator stabilisation 4857
miniature SMPS, domestic appliance appls. *(Japanese)* 44618
mobile commun., delay lock loop, delay path cancellation *(Japanese)* 25274
mobile radio RAKE receivers, synchronisation, BER perform. 25445
modified duobinary PAM fast timing recovery syst. design and simul. 32039
modular 1 kW PWM inverter, high efficiency 19862
MPEG-2 std. flexible digital data transm. *(German)* 17539
MSK from matched-filter, joint max.-likelihood timing/data estim. 15711
MSK timing recovery algms. 9372
multi-freq., multi-phase scan chain 6078
multi-purpose threshold detector for mobile radio appl. 9305
multicast ATM switching, design requirements and archits. 25190
multichannel video transm., sync. digital fiber-optic networks 34021
multidimensional 6PSK trellis code design 40585
multilevel PAM/QAM syst. jitter-reduced digital timing recovery 40563
multimachine power syst. resync., optimal variable aim control *(Chinese)* 10634
multimedia and hypermedia sync., unified framework 16849
multimedia commun., intra-stream sync. by conditional dependency 25098

synchronisation continued
multimedia integrated services networks, sync. mechanisms 16874
multimedia playout sync., buffer level control 16850
multimedia sync. model, appls. 41969
multimedia sync. scenario method for sync. anom. *(Korean)* 33663
multimedia teleservices and high-speed archits., conf., Heidelberg, Germany (1994) 40
multimedia transport and teleservices, conf., Vienna, Austria (1994) 44
multimedia/hypermedia sync. scheme 16883
multiphase AC power converters, modular interface/algm. 19880
multiple obs. time single ref. test generation, sync. seq 21209
multiple-access channels, multiple-rate codes, capacity region 40597
multiterminal power transm. lines fault location algm. 27281
multitone sync. for fading channels 8459
narrowband CPM async. CDMA syst. all-digital receiver design 42150
narrowband PSK data transm. via opt. fiber, encoding/decoding ccts. 9527
NDA FF carrier synchronizer, Viterbi algm., cycle slip anal. 8455
Network Time Protocol, clock sync. 41545
Network Time Protocol servers, survey tool for discovery 24959
NIM ADC, fast VMEbus interface 26237
non-binary sync. ECC, bounds/constr. 40598
noncoherent second-order delay lock loop optimal design 41389
nonselective fading, two-stage carrier sync. 25345
OFDM systs. for freq. selective fading channels, freq. sync. algms. 8091
one-step fixed-lag IMM smoothing for alignment of asynchronous sens. 15875
open-boundary Cerenkov laser, dyn. behavior anal. 14980
opt. direct-detect. channel, coded multi-pulse PPM perform. 8170
opt. fibre PPM perform., jitter implications 17245
opt. fibre PPM slot/frame spectral props., timing extraction 3576
opt. heterodyne microwave generation, spectral charactn. 6293
opt. multi-pulse PPM, optimal/suboptimal frame synchronizers 40565
optical staggering switch archit. growability and packet sync. 42126
orthogonal FDM based syst. for multiaccess methods testing 9329
orthogonal FDM frame sync. offset, decision-directed MLE 9432
oscillator array dyn., broadband N-port coupling networks 832
oscillators coupled by resistor, sync. phenom. 21147
ovenized cryst. oscillators, VLF transmitter freq. synchronized 39074
packet radio LANs, frame synchronisation codes 16676
packet-based mobile radio, digital MSK receiver 3435
packetized data commun., sync., DFT appl. 33201
partial response channels in mag. recording, fast timing recovery 24166
periodic-sig. synthesizer 17990
pers. commun. services, satellites role 25298
phase tracking Viterbi demodulator *(Japanese)* 24176
phase/freq. detectors for opt. transm. systs. clock sync. 3568
photonic networks, pulsed lightwave freq. supply module 9605
pitch sync. innovation CELP (PSI-CELP) speech coding, basic algm. 24149
pitch sync. innovation CELP coder for 2-4 kbit/s 33694
PLLs, sig. injection, sync. systs., anal./optim. 16014
POWER2, fixed-point/data cache/storage units 671
power syst. dyn. anal., simulated distributed computing tool 4454
power system dynamic equivalents, synchrony concept 19037
power transm. line harmonics measuring instrum., μP-based *(Chinese)* 43806
preamble-less packets surrounded by noise, optimum frame sync. 8715
prog. high-rate PCM telemetry frame synchronizer *(Chinese)* 41748
protocol handling syst. spec. and perform. 33488
protocol spec. synthesis, service specs., distributed systs., marked graph 8761
QoS and media sync., formal description tech. 16873
quasi-sync. CDMA, PN signature seqs. based 25265
Quasisynchronous sampling algorithm, average values meas. 24230
quasisynchronous sampling algorithm, spectrum analysis 24231
quaternary partial response CPM digital transm. syst. 40557
radio LANs and MANs, IEE Colloquium, London (1995) 36864
real-time multimedia services, sync. commun. protocols *(Korean)* 16840
real-time sync. control, multimedia segment delivery 16895
rem. time scales comparison by satellite commun. channel 17636
reson. DC link inverters, sine PWM control 5999
resonant DC link invertor, PWM scheme develop. 27819
Rician fading channel nonlin. carrier sync. tracking perform. 33803
safety-crit. tech. proc. spec. toolkit 11691
salient-pole saturated alternators, damping/synchronising torque calc. 44015
sampling period effect on time/freq. stabil. meas. 2873
satellite digital broadcasting using sync.-CDMA, multipath channels 33952
satellite laser ranging time transfer 3714
SDH, independent/synchronized clocks, freq. stabil. measures 8721
SDH slave clock chain RMS time interval error accumulation 41391
secure commun. by chaotic encryption 15686
secure commun. systs., chaotic chips/Chua's ccts. 8690
secure commun. systs. via chaotic sync. and modulations 41381
secure commun. using small time continuous feedback 24740
secure digital audio teleconferencing 25071
self-stabilizing wait-free clock sync. 24836
shallow water commun. syst. for autonomous underwater vehicle 9663
ship's screw cavitation recording, angle sampling control *(Croatian)* 3685
slow freq. hopped data commun. syst., design 9287
solid-state microwave oscillators, flucts. meas., sync. methods 37985
SONET simul., testing and design 34023
spatial opt. CDMA 42351
speech-assisted video proc., lip sync. 41702
spread spectrum techniques, IEEE conf., Oulu, Finland (1994) 20200
sq. synchroniser jitter on direct detect. opt. commun., white cct. noise 3577
squirrel cage motors, perform. prediction, power supply vars. 11051
SS constrained spreading code syst. characts. 24742
SS techs. for consumer commun. 25237
static converter/machine set, digital control, emulator 36375
stationary-head multi-track mag. recorder, design 34286
stepping motors, closed-loop posn. feedback control 19672
stochastic extension of synchronism time 7910
stored program opt. computer, develop. 7432
STRAUS-2 electron pulsed accelerator, pulsed power supply 36363
street microcellular syst., channel allocation, distributed control 25419
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
suppressed carrier coherent fiber optic transm. PSK modem 3590
sync. DS-SSMA, decorrelating decision-feedback detect. 42164
sync. seq. ccts. testability 6104
synchronized chaos oscillators for transmitting inform. sigs. 2358
synchronized chaotic laser digital commun. 25488
TDMA frame synch. of mobile stations, radio clock sig. 9337

synchronisation continued
TDMA satellite commun. systs., transm. power control 17145
TDMA-TDD commun. syst. semiautonomous frame sync. 33829
tele-cooperation framework 16809
telecom. network sync., phase noise eval., time domain meas. 24887
telecomm. service interacts., conflict detect., automatic state acquisition 41645
telemetry sig. reception/proc. 3160
three coupled relax. oscillators, chaos, torus and sync. 574
three-phase GTO rectifier, harmonic distortion reduction *(Polish)* 27789
three-phase two-stator brushless sync. induction motor *(Japanese)* 19606
thyristor converters, zero crossing detect., noise reduction, digital filtering 27805
time stream Petri nets, model for multimedia streams sync. 9056
time-varying nonselective fading channels, max. likelihood data-aided symbol sync. algms. 41386
token based mutual exclusion algm. in distributed syst. 33484
train-to-wayside commun., multicarrier modulation 9282
trellis assisted block synchronisation 40602
trellis coded 16 QAM/TDMA, space diversity combining, multipath fading *(Japanese)* 42172
trellis codes, erasure-free seq. decoding 24033
triangular type phase detector based synchronizer, cycle slip time 8248
tTP - A time-triggered protocol for fault-tolerant real-time systems 33280
twin-sect. LD instabil., all-opt. sync. 7667
underwater acoustic commun. digital receiver 17359
unsynchronised opt. overlapping PPM channel coding 42357
UPS CSI, DSP-based output voltage control 44172
van der Pol oscillator, coupled forced state, bifurcations 12360
van der Pol oscillators, coupled, quasi-periodic responses, bifurcations 12359
video decoding algm. mapping, mixed sig. IC 8553
VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938
voice-controlled telecomm. terminal for phys. handicapped 4313
VSAT general topol. networks, adaptive access protocol 17161
wavelet anal. for sync. and timekeeping 42679
XTP multicast for high quality video distrib. 16484
Nd:YLF laser, antiresonant Fabry-Perot quantum well modulator 31243
NdFeB PM hysteresis motors, starting/synchronisation studies 10977
Si bipolar 156 Mb/s clock/data recovery PLL cct., S/H tech. 6052
Si bipolar 4:1-multiplexer IC, 12 Gb/s, SDH syst. appl. 25177
Ti:sapphire laser, femtosecond modelocked, FEL sync. 31280

synchronising reactors *see current limiting reactors*

synchronism *see synchronisation*

synchronous digital hierarchy
2.5 Gb/s SDH/SONET analyzer, jitter option develop. *(Japanese)* 33975
10 Gbit/s-259 km transm., SIL amp. 34083
access network services delivery 9100
Alcatel, customer SDH network optim. 41556
ATM network hitless line protection switching 41409
ATM/SDH interworking 16780
automatic line protection testing, SDH/opt. fibre amp. 9530
B-ISDN internetworking unit, VLSI implement. 16798
BT SDH network, inauguration 8839
byte pointer justification vs. VC-12 payload bit justification 33179
CMOS SDH termination chip for 622 Mbps STM-4c B-ISDN 16932
compatible digital radio syst. error perform. requirements 42153
Croatian telecomm. network, modernization 33357
EUTELSAT advanced telecomm. services 33961
fast packet switching, intell. user entities 8697
fibre-optic transm. systs., forward ECC 42455
HDTV transm. on SDH network, stuff sync. cct. design 25666
HEMT 20 Gb/s 2:1 data selector IC for commun. appl. 29339
high-speed internet, stream behavior anal. *(Japanese)* 3215
independent/synchronized clocks, freq. stabil. measures 8721
jitter testing of Synchronous Digital Hierarchy equipt. 8819
lightwave transm., low-rate parallel scrambling techs. 42380
lin. repeatered terrestrial SDH transm. systs., bit-interleaved Hamming code 42440
meshed networks with protected transm. paths, lower bound based design 41574
metropolitan SDH networks, full/partial access solns. 42448
microwave radio commun. systs., DSP and VLSI technol. 25223
microwave transm., network appls. and Alcatel products 25222
Mitsubishi LSI devices for SDH interfaces 33332
multi-wavelength transport networks 9451
multiplex line terminals, CMOS LSI for SOH proc. 42097
multiplexing/mgt./monitoring 16421
multirate time switching control algm. and sig. proc. DCS 41419
national toll networks, design techs. 41573
network config. for leased ccts. in metropolitan areas 33359
network design 33291
network element mgt., optimised archit. 16589
network evol. in Japan 33376
network mgt. 16587
network mgt. *(German)* 8832
networks, pointer adjustment jitter cancellation 16453
NTT's trunk link systs., phase II SDH transm. syst. 24891
NTT SDH network/SDH 52/156 Mbps (VC-3/4) DCS 8841
payload jitter simul., SDH network 17354
phase deviations on SDH and SDH/PDH interface 8705
photonic networks pot. 9450
pointer activity simul. in SDH networks 16425
pointer conversion method *(Japanese)* 8693
radio, access network appl. 42186
reconfigurable virtual path network mgt. 41676
route diversity, hitless protection switching scheme 3298
sampling period effect on time/freq. stabil. meas. 2873
SDH, concept for large urban networks 41423
SDH 600 Mbps line termination and multiplexing equipt. 25179
SDH/ATM mgt. and services, IEE Colloquium, London (1994) 63
SDH/SONET undersea fiber-optic systs. 17237
self-healing ring element load under different traffic demands *(Polish)* 41555
Siemens MINISUB non-repeatered submarine cable syst. 34041
Siemens PCM30H multiplexers for customized access 9130
sig. transfer method based on ATM techs. 2886
slave clock chain RMS time interval error accumulation 41391
slave clock internal noise impact on Allan variance 8700
slave clocks in chain, random noise accumulation 42954

synchronous digital hierarchy continued
SONET/SDH ring types 42360
TCML-1 terminating/converting module for local area *(Japanese)* 25170
telecom. network sync., phase noise eval., time domain meas. 24887
telecomms. networks, distributed restoration 41689
telecomms. networks, distributed restoration methods 16433
TMN interfaces for network mgt. 41662
TMN-based SDH mgt. syst. implement. in Japan 41685
transport networks, distributed control 16588
trunk/local access SDH transport fibre network archits. 34092
undersea cable systs., design requirements 33995
virtual broadband network, customer control of services and bandwidth 41654
WDM unidirectional ring network, wavelength reuse scheme, fibre grating add/drop multiplexer 34054
Si bipolar 4:1-multiplexer IC, 12 Gb/s, SDH syst. appl. 25177
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046

synchronous generators
see also alternators; reluctance generators
1.4 GW Bieudron hydroelec. power plant project, Switzerland 19541
3-phase self-excited double armature sync. generator 27739
3-phase sync. generators, self-excitation *(Japanese)* 11008
330 kV substation busbar short-ccts., turbogenerator saturation modelling 19064
asphalt-mica stator insulation, service life tests 11003
asynchronized sync. machines, self-contained power systs. 44028
automatic voltage regulator design 36116
back-swing phenom. anal. 11000
commercial airplane auxiliary power unit starting drive 4360
cpd. turbogenerator electrodyn. props., rotor eddy current effect *(German)* 10985
damper winding, block diag. transfer fn. 4917
DC convertor stations, generator shaft torsion simul. 4635
dispersed storage/generation pole slipping protection algm. 27250
dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
hyper-cooled 6-phase sync. generator, pulsed load 36120
impact generators, stator EM field calcs. *(Russian)* 27699
multimachine power syst., param. adaptive control 19156
neural network nonlin. adaptive controller *(Japanese)* 4924
nonlin. adaptive control, neural net-based 19607
PM-excited sync. motorcar generator, design optim. 5379
power syst. stabilizers, real-time, fuzzy controller optim. 4913
power syst. static voltage stabil. studies, generator modelling 26892
power syst. sync. generator damping, SMES-based 10680
power syst. sync. generator dyn. stabil. control enhancement 43706
power systs., nonlin. reduced-order observers, design theory 43683
practical model 44019
PSS, design, μ synthesis 43671
PSS, H_∞ optimisation-based 43662
rectifier-loaded PM-excited sync. generator operation *(German)* 10986
rotor angle calcs., zero seq. harmonic components-based 4912
salient pole sync. generator, transient stabil. anal. 4920
salient-pole sync. generator, time-stepping FEM anal. 19605
skew, 2D FEM 4929
stabil. pattern class., neural net-based 11006
stabil./faults, neural net class. 36123
stability, global detect., ANN 19608
state feedback controller, generator oscills., damping 4594
static exciter, LCI 36142
SVC control strategy, sliding mode, nonlin. load 10676
tendering documentation prod. software, computerised design proc. 27693
three-phase sync. generators, brushless excitation method 4928
transient stabil. teaching 11001
transm. line energisation, simul., black start studies 19196
turbo-alternator excitation predictive control 44006
turbo-alternator predictive excitation control 36131
turbogenerator, salient-pole, saturated rotor, toothless stator 36111
turbogenerators, winding shorts localisation, fuzzified ANN 44021
voltage regulation, predictive control *(Japanese)* 44010
voltage stabil., voltage depend. reactive power limits 36114
wind generators, operating conditions 10907
wind powered sync. generator, operating conditions improvement *(Russian)* 27650

synchronous machines
see also reluctance machines; synchronous generators; synchronous motors
2×3-phase sync. machine, extended Park's transform. 44020
250 kVA, 40 MVA brushless sync. machines *(German)* 10987
air gap EM field calcs., boundary elements method *(Russian)* 36130
complex admittance/power defns. 10606
complex power/admittance notions/defn. *(Russian)* 26915
damper winding/rotor iron currents modelling 11004
emergency generators, rectifier supply, harmonic distortion 19536
equiv. cct. time domain anal. approach 11005
excitation control by neural net 36117
harmonic phasor rels. modelling *(Chinese)* 44025
HSPICE/EMTP comparison, power syst./power electronics anal. 4476
interior PM sync. machines, tangential vibrs. rejection 4918
model struct. ident., SVD *(Chinese)* 4911
modelling, freq. response data-based 36115
multi-machine syst. learning coord. control 36121
multi-time scale modelling of elec. machine 36122
multimachine interconnected power syst., transient perform. model 19149
multimachine power syst. coord. control, reinforcement learning 4539
perform. under faulted operation 19618
PM machines, vibrs. of mag. orig., feeding currents 44024
PM sync. machines, act. vibr. compensation scheme *(French)* 10997
PM sync. machines, stabil., cage bar effects 36125
power converter-fed, harmonic conditions anal. 27698
power convertor-fed, PC-based simul. 4921
power electronics conf., Cuernavaca, Mexico (Aug. 1993) 11564
power syst. dyn. stabil., optimal control modelling 4515
power syst. lin. optimal regulator, fuzzy neural net-based 19094
power syst. protection, interactive software, education/training appl. 35683
power systems, interconnected, single line-to-ground fault transient response 35564
PSS design, self-tuning regulator 19194
PWM CSI, PM sync. machine harmonic torque rejection appls. 36354

synchronous machines continued
reduced model error anal. 10975
reduced models, charact. params. 10980
rotary PM sync. machine, FEA 19669
salient pole, rotor complexity, transient responses 10995
stator cct., transient effects on power syst. stabil. 4922
stator fault anal., transform. method *(Chinese)* 10971
three-phase salient pole sync. machines, param. estim. algm. 44016
time consts., transients, reactance, steady-state operation *(French)* 27700

synchronous motor drives
see also hysteresis motor drives; reluctance motor drives
3.5 MW sync. motor drive, cycloconvertor-fed, modelling 5323
axial flux interior PM sync. elec. vehicle motor drives 36756
brushless DC motor drives, variable speed control design 5243
brushless PM sync. motor drive, predictive control 20087
brushless sync. motor drives, field weakening perform. 5250
commercial airplane auxiliary power unit starting drive 4360
decoupling control techs. 28082
design for flux-weakening appls. 11326
double sided PM sync. motor, vert. movement *(Japanese)* 11071
elec. vehicle drive chain power consumption model 11412
freq. control algms. formulation 28079
high-order systs., model ref. adaptive fuzzy control 5245
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
IEEE power electronics conf., Seattle, USA (June 1993) 36843
intell. sync. servodrive, fuzzy/digital cascaded state controllers comparison 44012
inverter-fed, discrete time simul. 28094
inverter-fed, self-controlled, perform. characts. 5289
lifts, PM lin. sync. motor, transient current, thrust 36736
Maglev supercond. lin. sync. drives, stator irreg. calcs. 36761
marine propulsion cycloconvertors, harmonic voltages elimination 5346
mine hoist cycloconvertor sync. motor drives 44643
MLI inverters, sync. motor elec. vehicle appls. *(French)* 11194
offshore gas pipeline compressors, sync. motor ASD 11518
PM 2-phase sync. FHPM, self starting 36678
PM brushless motor drives, state-of-the-art 36677
PM sync. elec. vehicle motor drive, design, testing 11417
PM sync. motor drive, digital current control, state observers 44475
PM sync. motor drive, flux-weakening control 20078
PM sync. motor drive, posn. observer 44444
PM sync. motor drives, high-efficiency, PF control 36642
PM sync. motor drives, nonsinusoidal field distrib. 5263
PM sync. motor drives, sliding mode current control 5264
PM sync. servomotor drive, VSI-fed, field oriented control 36675
PM sync. servomotor drives, optimal/VSS control 5288
PM sync. servomotor drives, PWM inverter-fed, LF torque ripple 44479
posn. VSI fed, control laws, POSTMSYNC simul. program 36673
reluctance/PM motors, VSI PWM inverter fed, design, params. 5283
robots, PM sync. motor drive, robust adaptive control 20054
rotor posn. and speed ident. 44459
saturated sync. motor drives, control modelling 5324
self-controlled, computer modelling 11337
self-controlled, steady state perform. 11389
ships, axial flux PM machines, counter-rot. rotors 11400
supercond. commutatorless motors, fund. design, elec. characts. 36686
universal fuzzy posn. controller for motor drives 36653
urban transit syst., LIM/LSM combination Maglev *(Japanese)* 11398
variable speed sync. motor drives, stator flux-oriented control 36667

synchronous motor protection
see also reluctance motor protection
MV induction/sync. motors, design/protection/safety 5409

synchronous motors
see also hysteresis motors; linear synchronous motors; reluctance motors; synchronous motor drives; synchronous motor protection
3-phase, rotors comparison 36165
3-phase sync. motor, single phase supply, operation 19617
bearingless PM sync. motor characts. 4932
control, sing. perturbed methods 27696
CSI-fed, rotor losses estim. 44013
cycloconverter-fed, computer simul. 10999
DC motors, nonlin. control 27754
elec. road vehicle drive syst. thermal behaviour *(German)* 36745
elec. vehicle, flywheel, torque controlled, peak power transfer 5357
flexible shaft sync. motor, control techs. 27689
IEEE industry applications, conf., Denver, USA (1994) 10
nonlin. digital controls comparison 27697
PM mag. levitated rot. motors *(Japanese)* 44026
PM motor params. determ., digital torque angle meas. 11002
PM motor vector control, stator iron loss considerations *(Japanese)* 10968
PM sync. motor, adaptive nonlin. control 27688
PM sync. motor, back EMF estim., torque harmonics minimisation 4916
PM sync. motor, radial posn. control 10979
PM sync. motor ASD, EM params. determ. *(French)* 11334
PM sync. motor efficiency optim. design method *(Korean)* 27690
PM sync. motor feedback lin. decoupling torque control 4933
PM sync. motors, digital controller, Park model 10992
PM sync. motors, digital self-tuning tracking controller 11009
PM sync. motors, nonlin. reduced order observer 44027
PM sync. motors, observer-based control syst. 27692
PM sync. motors, single-phase, line started, FEM 10978
PM sync. motors, sliding mode control *(French)* 10991
PM sync. motors, stable nonlin. observer design 44023
PM sync. motors, vector control, stator iron loss *(Japanese)* 27687
PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
power electronics, drives and motors, conf., Taormina, Italy (1994) 28252
power network dyn. transient phenom. simul. program *(German)* 10717
power syst. nodes, dyn. loads, transient anal. 19068
reduction motor design, step/rot. regimes *(Russian)* 36118
salient pole/wound rotor motors, control studies 4919
self commutated sync. motor nonlin., steady state operation 10996
self-commutated, low-power, control device *(French)* 10989
self-controlled, current fed, simul. 19613
servomotors, LF torque pulsations control *(French)* 11010
slotless PM sync. motors, perform. anal. 10984
three-phase sync. motors, single-phase supply starting transients 44017
three-phase two-stator brushless sync. induction motor *(Japanese)* 19606
transient stabil. teaching 11001
written pole motor/generator, flywheel storage , telecom. sites 44203

synchronous motors continued
NdFeB PM motor torque prod./efficiency, temp. effects 36102
synchronous optical network *see SONET*
synchros
hysteresis motor synchro drives, overinduction control method *(Russian)* 28097
synchroscopes *see cathode-ray oscilloscopes*
synchrotron radiation
2D detector systs., distortions calib. and correction 43151
Aarhus dual purpose storage ring for pos./neg. ions/electrons 18419
accelerator X-ray SR sources 4129
advanced microstruct. products by SR lithog. 13475
beam viewer, EM actuator, UHV 34825
beamline front-end mock-up at APS, vac. tests 43148
beamline optim. and phase space transform. 43012
Catalonia synchrotron lab. 18417
challenges of generation of synchrotron light sources 18420
charge-coupled X-ray detectors, efficiency, point-spread fn. 18396
coronary angiography, double beam bent Laue monochromator 43270
coronary angiography, image quality improvement, scatt. X-rays simul. 43273
digital mammography, SR 43266
digital/conventional screen-film image comparison, SYRMEP program *(Italian)* 26366
double-cryst. SR monochromators, exit beam distortions 43150
elctron storage ring SR facility constr. 10092
electron bunches, longit. asymm., synchrotron/transit. radiation 18254
electron storage rings, gas bremsstrahlung, photon-neutron shielding 26506
Eloisatron, beam-beam/SR considerations 4097
Eloisatron beam dyn. 4101
Eloisatron dipole magnet design 4099
energy dispersive EXAFS, data acquisition, obj. oriented methods 42746
ESRF source, target specs., SR source 18245
ESRF undulator, double-focusing X-ray scatt. camera 34981
FEL amp. based VUV and X-ray research, scientific opportunities 39988
FEL oscillator, mode-locked, super-radiant radiation study 40007
FODO syst., sync. radiation props. 4033
free-ion lasers, radiative ion cooling 7694
grazing incidence diffractometer, thin-film struct. anal. 38463
hadron colliders, scaling laws, cost optim. 4098
Helios undulator in ESFR, polaris. prod. 18394
high contrast computed tomography, CCD detector 43271
high heat load optics, historical overview 39998
II-VI semiconds. low-temp. growth, SR 28771
imaging plate X-ray detectors, BaF(Br,I):Eu phosphors 26257
imaging plates in X-ray crystallographic data collection 10157
instrumentation, conf., NY, USA (1994) 28248
Kurchatov SR source 18422
lithog., SR steppers, compatibility 38754
lithog. beamline, electron beam orbit distortion 13564
mag. quantum struct., macroscopic consequences 14212
mammography, digital, using SR 26317
microcomponents/microsystems fabr. techs. 6887
microdiffraction instrumentation/expts., microfocus beamline, ESRF 43170
multielement Ge detector, X-ray fluoresc. microprobe/microspectroscopy 42979
multiple energy computed tomography at NSLS, status report 43268
multiwire gas proportional counters, perform., X-rays 18297
nanostructure patterning in X-ray mask making 13571
nonlin. Thomson scatt., laser SR source 4252
NSLS beamline X8C, perform. and optics 26265
positron high intens. beam gen. by SR 43050
printability of sub-150 nm features in X-ray lithog., theory and expts. 13531
proteins and nucleic acids, high resoln. struct. studies 43169
proximity X-ray lithog., 50 nm, using SR 13530
pure insertion device synchrotron light source utilizing MBA-optics 18421
quantum excitation, equilib. beam props. 4074
radiation source, research program, 5 eV-100 keV photon energy 18393
SAW displacements anal. in quartz and LiNbO$_3$ 30640
soft X-ray detectors, calibr., SUPER ACO synchrotron rad. 4227
soft X-ray monochromators, ALS 18395
soft X-ray projection lithog., resist perform., 5 nm 13570
Sortec Corp. SR ring, stored current upgrade *(Japanese)* 4060
SR complex ISI-800 18418
SR sources, electron/proton rings 4072
SR sources in Japan, overview, appls. 18295
stepper, mix-and-match exposure, overlay repeatability 13565
stepper, overlay accuracy, two-mask double exposure 13481
storage ring UV FEL, giant laser pulse generation 39950
super-ACO UV FEL, time resolved fluoresc. appls. 14988
super-ACO X-ray lithog., overview 13476
total refl. X-ray fluoresc. anal., SR appl. 34979
transvenous coronary angiography images, spatial resoln./spectral purity 43267
ultra-short high-power pulse prebunched FEL 31439
undulator beamline, advanced light source 43171
undulator design, SR sources, simulated annealing 31731
undulator generating irrational higher harmonics in SR 34970
UVSC photochromic dosimeter film for x-ray lithog. source eval. 6693
VUV detector stds. establishment *(Japanese)* 17640
X-ray diffr. expts., arbitrarily directed mag. fields 39298
X-ray lithog., electron storage ring 38765
X-ray mask for SR lithog., temp. rise and thermal distortions 13542
X-ray microtomography, NDE of mm-scale struct. 5932
X-ray sources, innovative of types 18290
HgCdTe detector, multi-element lin. arrays, SR topography *(Chinese)* 17796
Si APD, SR detector 4245
Si APD detector, X-ray bunch-purity 10154
Si, SR induced photoepitaxy *(Japanese)* 12043
Si, SR-stimulated etching *(Japanese)* 13333
Si adaptive monochromators for high-power insertion devices 26255
Si fixed-exit monochromators for high-energy SR 26256
Si(111) for APS, bending magnet/insertion device, FEA 43149
SiC X-ray mask membrane, accelerated radiation damage studies of antirefl. materials 13535
SiN$_x$ films, X-ray lithog. mask membrane, plasma chem. vap. deposition 13568
SiO$_2$, SR-stimulated etching *(Japanese)* 13333
synchrotron radiation continued
TiSi$_2$-SiO$_2$-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775
ZnTe SR excited growth, metalorganic sources 20889
diamond membrane-based X-ray lithog. masks 6687
synchrotrons
3-gap thyratron, turn-on simul., math. model, kicker magnet 29817
ACNET control syst., smart subsystems, shell software 18231
adaptive cooled first cryst. design for X-ray monochromator 18398
ADRIA HI accelerator, beam cooling syst. 34790
AGS, upgrade for RHIC 18289
AGS accelerator distributed control syst. alarm, obj.-oriented design 18192
beam injection methods 4120
CERN PS accelerator, control syst. overview and status 18182
CERN PS accelerator, timing syst. 18183
CERN PS accelerator complex, data driven alarm syst. 18202
CERN PS accelerators, operator interface 18222
coil winder simul. for Superconducting Supercollider 22770
conference on accelerator physics, Dallas, USA (1992-1993) 36886
COSY, digital phase control syst. design *(German)* 43014
COSY accelerator electron cooler design and operation 34799
COSY accelerator facility, steering/timing syst. solns. 18201
COSY control syst., RT/OS environ. 18209
CRYRING ion accelerator, electron cooling 34800
δf algm. for beam dyn. 26084
electron cooling, medium/high energy 34774
electron synchrotron, 400 MeV, bending magnets power supply syst. *(Dutch)* 44117
Eloisatron, particle detect. 4231
equilib. orbit transforms., injection/extract. 10098
fast-RICH prototype with VLSI readout, beam tests 4164
Fermilab Tevatron, high field injection kicker magnet 34826
Fermilab Tevatron collider, bunched beam stochastic cooling 34777
FODO cell, diffusion, modulation effects 4086
FODO syst., sync. radiation props. 4033
GEM detector syst., COSY accelerator, Ge wall 43113
hadron supercolliders study 4043
HERA/LHC, dyn. aperture, truncated Taylor maps 4085
high heat load optics, historical overview 39998
high-power gas switches, ferroelec. electron beam triggering 36406
HIMAC synchrotron control syst. 18175
HV DC power supplies for HERA accelerator transmitters 27828
IUCF Cooler experience of electron cooling, injection aid 34807
IUCF Cooler Ring, spin motion, type-3 snake effect 4083
KAON Factory synchrotron beam chopper pulsed power supply 34743
KEK PS magnet power supplies and beam line control 18260
KEK PS main ring, beam extraction magnets *(Japanese)* 34840
LEP2 cryogenics, large indust. control syst. appl. 18239
LEP accelerator beam dump control syst. 18198
LEP accelerator pretzel separators, control syst. 18261
LEP beam bumping kicker syst. high power pulse generator 34821
LEP operation, high level appl. software 18223
LEP/SPS control syst. computers, installation, mgt. 18225
LHC, neutron background, beam pipe geometries, transparency 4191
LHC accelerator, Pb ion accumulation scheme 34811
liner within proton collider beam pipe, many holes impedance 4102
local dispersion insert, focusing element for accelerators 4082
local dispersion insert for particle accelerators 43017
long. beam dyn., circ. accelerators 4066
nonlin. betatronic motion, LHC/SPS appl. 34839
parametric X-radiation, beam divergence meas. appl. 4056
perform. limitations beyond LHC/SSC 4096
power supply safeguard, NO BREAK KS parallel UPS *(French)* 11126
proton accelerators, gamma transit. jump schemes 4067
Proton Synchrotron, LHC, transverse emittance conserv., low energy 4105
PS, beam control feedback loops, instabil. 4087
rapid cycling, ferrite garnet-tuned rf cavities, mag. losses/instabil. 18269
RD13 project (LHC), software engng., CASE tools 18228
RHIC, stochastic cooling, intra-beam scatt. 34778
RHIC accelerator control syst. design 18172
SIS, beam profile monitor for HI beams 4052
space charge dominated cooled bunched beams investig. 34810
SPS, proton extraction, Si bent cryst. 4057
SPS proton beam extraction by bent crystal, simulation 43008
SPS/LEP commun. control network evol. 18197
SSC, emittance growth, computer simul. 26037
SSC, emittance growth, noise 26036
SSC, high level control code, interactive simulator 18220
SSC, long. beam dyn., RF noise 4092
SSC, long. damper, design 4107
SSC, opt. fiber links, radiation effects 18206
SSC, plastic scintillator develop. 26216
SSC, transverse feedback systs. 4109
SSC accelerator proc. control syst. 18177
SSC accelerator systs. string test software archit. 18176
SSC control syst., develop. environ. 18229
SSCL, RF control, obj. oriented design approach 18277
Tevatron collider, QCD, CDF, D0, recent results 34740
transverse instabilities, space charge effects 10097
TRIUMF control syst., DEC TURBOchannel, CAMAC exec. crate interface 18205
UNIX based syst. tools, control room level, integrated set 18221
UNK control syst. protocols 18207
UNK Project, accelerator control, MMI 18279
H$^-$ injector design for SSC RFQ 4091
He cryoplants in CERN SPS, control aspects 10080
^{4}He superfluid cryogenics for LHC 4048
Nb$_3$Sn dipole magnet for future particle accelerators 4114
syntax (programming languages) *see computational linguistics*
synthetic aperture radar
2D lin. extension, super resoln. radar imagery 9626
3-D holographic DP and wavelength readout for range-doppler-angle radar, SAR 9640
3D data extraction from SAR and opt. imaging combination 10449
3D ground penetrating radar imaging, multifrequency diffr. tomography 42505
3D ground penetrating radar imaging, SAR focusing 42506
act. contour model, opt.-to-SAR image registration 8608
aircraft, synthetic range profile meas. 9644

synthetic aperture radar continued
aircraft-borne interferometric SAR for 3-D radar imaging 17384
Arctic sea ice thickness determ., polarimetric SAR appl. 43529
Arctic tundra, SAR imagery, terrain effects removal 26702
ATD/R, speckle reduction via wavelet shrinkage 34110
buried pipe location, zero-crossed synthetic aperture 3599
CLEAN algm. for microwave images eval., NDT appl. 42901
coastline change by SAR radar, image texture class. 10512
communication and signal processing, conf., South Africa (1993) 5502
compact acousto-optic proc. for SAR image form. 2830
compact time and space-integrat. SAR proc. 17418
conference, IGARSS'94, Pasadena, California (Aug. 1994) 36902
data quality anal. on open image proc. syst. 9615
digital elevation models by SAR radar, accuracy 43471
digital proc. of synthesized aperture radar sigs. 3601
dyn. imaging and RCS meas. of aircraft 34146
Earth obs. from space, microwave rem. sens. *(Japanese)* 35286
ERS-I SAR image of Thames estuary, visual interp. 26746
FOPAIR, focused array imaging radar for ocean rem. sens. 26732
forests, radar 3D backscatt. model for canopies 43540
forests, repeat pass SAR interferometry method 43470
forests, SAR backscatt. & biomass rem. sens. 43538
forward-looking radar reconstruction, long-wavelength holography 17397
fuzzy block adaptive quantizer for SAR 9623
ground penetrating advanced radar appls. 42503
hybrid SAR/ISAR imagery of ships, proc. schemes 17385
hybrid strip-map/spotlight SAR 17383
image anal. syst. for sea ice maps from space 18886
image filtering, combined algm. 25546
image form., opt. proc. 17417
image quality improvement, ideal filter concept 42526
image reconstruction, complex no. theoretic transform *(Japanese)* 9618
imagery, edge features, clutter stats. 42500
images, adaptative segmentation 17431
imaging, speckle reduction, iter. homomorphic tech. 42484
interferometric SAR terrain elevation mapping from multiple obs. 25549
interferometry, 3-D target reconstruction 17382
inverse synthetic-aperture imaging radar, gradient-search phase-retrieval algm. 3629
IR interferometric SAR act. coherent imaging *(Japanese)* 9645
ISAR image and RCS proc. for target support contamination removal 25547
ISAR image of Boeing 747, meas. F-band meas. 17409
ISAR radar image recog. by neural net 9633
ISAR/SAR radar imaging, wide-bandwidth mobile radar appl. 17410
land surface mapping, 2D FM-CW polarimetric SAR 43474
land surface topography, ERS-1 radar satellite, clock drift 43472
land surface topography, SAR rem. sens., sig. simul. 18782
land surface topography rem. sens., TOPSAT radar mission 10451
Lee filter for speckle suppression in SAR images, alternative form 32917
localized Radon transform for ship wake detect. 17391
max. likelihood algm. for target detect. 17365
metal strip grating dihedral for polarimetric SAR calib. 42519
meteorological radars, clutter removal method 35332
min. Renyi inform., complex sig. reconstruction 24509
mountainous terrain mapping by radar, SAR stereo restitution 43475
moving objs. 2D radar imaging 9634
multi-sens. rem. sens. imagery, parametric/neural classifier 8506
multicovariance matched filter for target detect. and background recogn. 16107
multidimensional microwave imaging 25551
multisensor image registration, contour-based approach 24699
multiyear Arctic sea ice, melt onset obs., ERS 1 SAR data 10519
nonuniform pulse repetition interval SAR 34133
ocean, ERS-1 SAR imaging 35334
ocean coast radar imaging, supporting obs. & ocean modelling 26743
ocean oil pollution detect., C-band SAR data 43545
ocean rem. sens., RADARSAT, expt. airborne SAR obs. 26739
ocean wave radar imagery, SAR distortion correction 43525
ocean wave satellite rem. sens., oceanic sites 10511
optical processor systems, conf., Orlando, USA (1994) 5435
param. estim., adaptive algm., texture recogn. *(Chinese)* 34108
polarimetric radar, discrete scatter model of vegetation 17402
radar/microwave imaging, IEE Colloquium, London (1994) 5477
RADARSAT, commercial radar equipped satellite 42524
real-time ocean wave monitoring from space 3609
reflectivity spectrum, direct determ. 25545
rem. sens., digital polariz. image treatment 24558
satellite and airborne SAR simulator 9642
scan-beam SAR image proc. *(Chinese)* 34107
scan-beam SAR imaging proc. 17425
sea ice, age & thickness, SAR tracking rem. sens. method 43522
sea ice thickness determ., SAR comprehensive automated approach 26730
sea ice type class., ERS 1 SAR satellite imagery 10518
sea ice type maps, Alaska SAR Facility imagery 10520
sea surface radar imaging, image texture anal. 26742
ship radar databases, organization, wavelets and struct. VQ 9625
ship wake detect., localized Radon transform-based approach 26729
sidelobe control in SAR imagery, nonlin. apodization 34118
sigs., wave domain proc. 3604
space-borne scientific missions, microwave scatterometry 18789
space-variant proc. of SAR data 34117
spaceborne SAR antenna patterns determ., distributed targets 25571
spaceborne wide swath SAR scansar sig. proc. *(Chinese)* 42515
spectral leakage effects on multiscatterer target model validation 26828
strip-map SAR autofocus, approach 25550
swell waves at coast, radar rem. sens., SAR method 26744
target discrim., computational vision human perception models 35393
terrain, recogn. for SAR imagery 41263
terrain mapping, repeat pass SAR interferometry 43470
topography, airborne interferometric SAR, motion compensation 43473
topography mapping by radar, SAR monopulse method 18788
transition of opt. processors into systs., conf., Orlando (1993) 28242
transputer array based SAR processor 9643
tropical cyclone monitoring, satellite microwave sens. 10469
vegetation global biomass, SAR backscatt. method 43542
Venus cartography, radar/radiometry 3643
wind rem. sens., SAR imagery model 35324
X-band SAR subpanel active antenna demons. model 25572

synthetic aperture sonar *see sonar*

synthetic metals
used for chemical compounds, having metallic properties, that are distinguishable from naturally occurring metals and alloys
see also conducting polymers; molecular electronics; one-dimensional conductivity
organic materials for electronic/photonics, conf., Japan (1993) 11532

synthetic rubber *see rubber*

system buses
see also Fastbus
32 ns 64 Mb DRAM, extended second metal line archit. 29233
777 Maintenance Access Terminal and Side Displays 10335
ALS accelerator control syst. status 18187
anal. modelling device for distributed multiaccess protocols 41471
audio control protocol verification 34288
automobile distributed onboard systs. and cruise control 8935
avionics backbone interconnection for busing in backplane 10322
batt.-operated ultra-high data rate ULSIs, low power bus archit. 37812
Canadian patrol frigate, implement. of AAW sens. fusion 18980
cascadable neural network VME-module, Intel 80170NX chips 10141
cct. modelling, VHDL and Statecharts-based approaches 21056
CERN accelerator control, VME std. analogue fn. generator 18193
chaotic time series, functional predictor, parallel implement. 24179
connector design, high dens./small size, PCB/backplane appls. 38069
Controller Area Network controller class. *(German)* 24832
COSY accelerator facility, steering/timing syst. solns. 18201
DRAMs characterisation, 500 MHz interface 6150
dual-bus digital syst. semicond. opt. amplifer-based subcarrier add-drop multiplexer 17214
embedded proc.-shared multiprocessor syst., bus arbitration 3290
EMC device for telecomms. equipt. *(Japanese)* 31861
extension cct. logic of ON/OFF type input, multi- and super-multi-lines *(Chinese)* 8948
FDDI commun., proc. control, fieldbuses connection 33497
fiber optic LAN, RIB interface, soliton-dragging gates 41823
flexible SMD connector for high-speed data bus 38068
frame synchronized ring bus modeling, predicate/transit. nets 25038
Futurebus+ cache coherence protocol verification 41811
Futurebus+ machine-executable spec., interoperability improvement 9000
gas turbine digital control syst. develop. 36012
generic test/maint. node for embedded syst. test 9795
hardware implications of virtual channels, bus interface appl. 41888
high-speed fibre optic local area bus networks, perform. eval. 41898
high-speed I/O interface ccts. for memory bus appl. 12505
Home Net, user interface design 17601
IEEE 1149.1 backplane test bus selection criteria 9808
IEEE 1149.1 scan control transport levels 9809
IEEE 1149.31 protocol addressable, multi-drop, backplane test bus 9782
IEEE P1149.5 bus standard VHDL synthesis approach 42701
IEEE P1149.5 MTM-Bus, backplane test/init. interface 9807
IEEE P1149.5 standard module test and maintenance bus 42702
image proc., parallel DSP archits. 29242
JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
KEK e^-/e^+ linac control syst., VME and workstations 18191
lightsat, high resoln. electro-optic rem. sens. payloads 33970
link layer protocol for high speed data bus 33261
local networks, novel sync. procedure 16547
LV switchgear made-to-measure commun. 44241
mesh-connected opt. multiple-access bus interconnects 1770
MLC series-connected C-R chip, data bus impedance matching 6194
modular multirate video distrib. syst., design/dimensioning 9717
multimedia terminals, syst. bus archits., perform. anal. 25153
NEC's PBX APEX1000/3000 *(Japanese)* 16963
NET32K high speed image understanding syst. 34429
NIM ADC, fast VMEbus interface 26237
OPTOBUS parallel opt. links, data transm., 3 Gbits/s 3563
optoelectronic buses for high-perform. computing 1771
optoelectronics technol. consortium (OETC)- opt. data link/optoelectronic components 33485
P1394 serial bus std. specs. 41751
PCI-based systs., cct. boards, design 12890
PL CEBUS with/without acknowledgment, perform. 16692
plastic LAN fibre optic links 41851
polymer-based single-mode bus array, channel cross-coupling 14668
POWER2, fixed-point/data cache/storage units 671
power syst., HWL-01 excitation regulator, STD bus *(Chinese)* 35529
proc. indust. fieldbus technol., standardisation efforts 41795
profibus, light waveguide interlinking *(German)* 42446
prototype opt. deflection network, design and implement. 3300
real-time MAP, modelling/formal spec. 16771
register insertion bus fibre optic LAN, bandwidth balancing 33467
Register Insertion Bus network, optoelectronic technol. 41824
serial low-cost control/data bus for airframes 10334
smart batts., elec. protocol, data content 36546
spanning tree and source routing LAN interconnection schemes 41810
spec. modeling with VHDL, Futurebus+ model 8999
triggering bus controlled test and meas. system 34341
turbogenerators, adaptive control, parallel proc. 27672
unidirectional-bus networks, slot occupancy, Bernoulli approx. 8988
VME-based detector syst. for subsecond energy dispersive EXAFS 43155

system description languages *see specification languages*

system documentation
see also decision tables; user manuals
elec. supply tech. documentation DP *(German)* 35553
multimedia digital IS, futuristic paperless syst. 34403
network control syst. nonredundant rational data input *(German)* 43693
PCB test requirements in generic formats 29655
safety-crit. tech. proc. spec. toolkit 11691
switching syst. software OO design 42103

system failure and recovery *see system recovery*

system generated electromagnetic pulse *see electromagnetic pulse*

system monitoring
see also program diagnostics
Internet, windowed ping, IP layer perform. diagnostic 41836
pong, flexible network services monitoring syst. 41787

system recovery
checkpointing recovery in distributed syst. on CSMA/CD network 41472
client-server networks, recovery 3181
commun. protocol, stabilization, modified distributed snapshots algm. 3208
cryptographic systs. failure 24060
DESSY, Space Shuttle telemetry monitoring system with tolerance for real-time data problems 10342
distributed appls., fault tolerant syst. 41881
EWSD digital switching syst., recovery from software faults 16965
message optimal protocols for fault tolerant broadcasts/multicasts 24833
protocols, error recovery method/tool 25008
switching control multiprocessor, fault tolerant software *(Japanese)* 33187

system theory
see also artificial intelligence; identification; information theory; modelling; pattern recognition; simulation
biomedical multi-oscillator systs., nonlin. filtering tech. 16029
electrodynamic vibrators, computational aspects 19925
Heaviside operator based unified theory of lumped ccts./diff. systs. 461
IEEE conf. on instrumentation/meas., USA (1993) 20198
IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
min. presentations for irreducible sofic shifts 20537
reliab. estim. uncertainty eval. methods 11882

systems analysis
see also object-oriented methods; software prototyping; system documentation; systems re-engineering; task analysis; user centred design
behavioural level mixed A/D syst. exploration 768
design enhancement, human factored fn. allocation 5570
discrete event systs., rapid learning techs. and appls., traffic smoothing 41568
dual use mil. technol., computer systs. design 10596
expt. designs for syst. assess. and improvement, noise factors are correl. 11831
inquiry based requirements anal. for Internet service 33551
media richness theory-based anal. of e-mail, voice mail 24941
reliab. estim. and software testing, automated environ. 8833
scenario-based design representation 5581
struct. TCP in std. ML lang. 2942
CO_2 power generation emissions reduction anal., Japan *(Japanese)* 10797

Systems Application Architecture *see open systems*

systems design *see systems analysis*

systems engineering
see also systems analysis
availability enhancement by fault diagnosis, ANN 19526
building syst. technol. automation struct. and tasks *(German)* 28058
Central Line Project 11403
common channel signalling network survivability using DCS 41648
design enhancement, human factored fn. allocation 5570
DSEG product develop. proc., systs. engng. approach 36974
European Safety & Reliab. Conf., Munich (1993) 11584
IEE Colloquium, London (1995) 36862
mass transit rly. renovation project, systs. engng. approach, UK 44528
multiple domain experience in systs. engng. 5577
PC program in teaching ccts./systs. 5528
power network systematic planning principles *(German)* 19221
power syst. transient stabil. improvement, SMES 27001
quality mgt., leadership, learning organisation, systs. engng. 11637
reengineering, systs. engng. and mgt. 11695
test development tools framework 42689

Systems Network Architecture *see open systems*

systems programming *see systems analysis*

systems re-engineering
business proc. re-engng. concept, overview 36970
company downsizing, organisational change, Newtonian metaphor 20371
Energy Systems product delivery project 28402
horiz. R&D mgt. 11649
mgt. and engng. for reengineering 11695
mil. systs., redesign, VHDL board-level modeling 18960
PCB assembly, DSS develop. 28407
proc. planning of network operations, simul. 16560
ship-to-ship teleconferencing, reengineering LAMPS MK III 16808

systolic algorithms *see parallel algorithms; systolic arrays*

systolic arrays
1-D and 2-D DCTs, high-throughput VLSI archits. 24582
1D discrete sine transform, systolic array design 8569
1D RLS systolic array, folding design procedure 29278
2D DCT systolic archits. based on CORDIC techs. 12573
2D systolic array proc. design alg. path problem, VLSI oriented *(Korean)* 681
2D systolic arrays for DCT/DST/DHT hardware implement. *(Korean)* 37796
adaptive beamforming, systolic spatial proc. tech. 25598
adaptive sig. proc., fault tolerant QR decomp. 32494
algm. implement., RLS lattice example 37886
application-specific array processors, conf., Venice (Oct. 1993) 36903
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
bit-serial systolic array for DSP, reconfigurable arith. operators 29255
bit-slice archit. verification, time-space modal model 12467
Booth multiplier, area and time efficient implement. 6135
C-testable design techs. for iter. logic arrays 29138
CMOS VLSI predictive tree-searched vector quantizers for real-time video compression 29276
CMOS VLSI trellis-coded partial response channel codec 29249
CORDIC array struct. for implement. of DCT 21359
digit pipelined discrete wavelet transform 29381
digital image filtering, systolic algms. 24380
discrete orthogonal fns., systolic archit. 8324
discrete/CW transforms, single chip/SIMD computers 37799
edge detector, Sobel operator, VLSI implement. 30473
fast convergent Jacobi algms. for VLSI sig. proc. 32597
fast VLSI systolic array for large modulus residue addit. 21245
fault-tolerant systolic array multiplier, time redundancy 12412
Fermat no. transform, algm.-based fault tolerant array archit. 32498
FIR decimators and interpolators, systolic implement. 6226
FIR decimators and interpolators, systolic implement. 751
floating-point systolic array PE, serial commun./BIST 21356
freq. dividers/counters, systolic cct. implement. 620
fuzzy clustering neural net/systolic array mapping 791

systolic arrays continued
high-speed staged decoder VLSI systolic archit. 40586
image reconstruction from divergent-ray projections 8575
Iterative matrix inversion on systolic array 257
low cost combining switch for shared memory syst. 29155
micropipeline asynchronous digital logic design, systolic arrays, DSP appls. 29124
multi-model neural network, systolic modular VLSI archit. 29459
multi-valued images, labelling systolic archit. 2762
multiple TCM receivers, systolic-array struct. 15862
multipliers/digital filters, sig. flow-graph 12485
neural net hardware perform., structural design 29499
opt. carry chain fast adder 31025
parallel SVD updating, num. stable Jacobi array 32476
polynomial GCD computation, finite field division, VLSI array synthesis 12570
power syst. security assess., systolic accelerator-based 19009
QMF filter bank trees, systolic archit. 29376
QR decomp.-based least sq. tech., improve ATC radar 2579
QR-RLS algm., stabil. anal., finite-precision arith. 8325
QRD-based sq. root free and division free algms./archits. 28656
QRD-RLS/STAR-RLS adaptive filters, fixed/floating point error anal. 32700
radar sidelobe canceling, mapping QR decomp. on parallel computers 17421
range/image sens., FPGA archits. 3881
recurrent computations, coprocessor design 37807
reduced systolic engine for nonlin. dyn. systs. anal. 29243
regular arrays for matrix multiplication by two-step regularization 20604
regular VLSI archit. synthesis for 1-D discrete wavelet transform 32518
regularized param. estimator, systolic implement. 29279
RITE algm., pipelined regular array proc. implement. 8370
RLS estim., systolic array, formal derivation 28659
RS codes, decoding, fast parallel algms. 40618
RS decoder, systolic-array struct. 25159
running bispectra computation and implement. 40849
scheduling scheme for systolic array partitioning problem 28952
Schur complement computing, finite elements method 12404
self-routing algm. for systolic interconnection network 16537
single proc. array for pipelining multiple SVD 32459
space-time modeller for systolic algms. 21024
spherical subspace tracking, systolic arrays 6170
sq.-root info. Kalman filter, Jacobi-type systolic array implement. 21358
SRIF DSP algo., VLSI systolic array implement. 665
staged decoder for BCM sigs., CMOS VLSI implement. 29270
subspace tracking algm. based on SVD 41003
SVD tracking, VLSI algm. and systolic archit. 28667
symmetric matrix decomp. parallel structs. 28670
time-delay neural networks, systolic computation scheme 6268
tree-to-tree dist. computation algm. on VLSI archit. 12498
two scan algm. implement. on systolic array/multicomputer 12569
two-stage fast block matching algm., integral projections *(Korean)* 24684
variable precision IEEE floating point simul. using C++, DSP design 6175
vectorized systolic array for block constrained RLS 32752
VLSI archit. for video real-time hierarchical encoding/decoding 33697
VLSI array design for DHT, cyclic convolution 29191
VLSI implementation of Galois field arith. algm. 22569
VLSI regular arrays, test strategy 37686
GaAs implement., systolic floating point proc. element 29253

Szilard-Chalmers reactions *see radiochemistry*

T_1 relaxation (magnetic resonance) *see nuclear spin-lattice relaxation*

T_2 relaxation (magnetic resonance) *see spin-spin relaxation*

T1 communications *see digital communication*

TAB *see tape automated bonding*

table lookup
see also data handling
adaptive nonlin. equalisation of digital commun. channels 15985
almost block-decodable runlength-limited codes constr. 24097
binary morph. image proc. implement. 8597
binary/residue and residue/binary conversions 6196
capacitive displacement transduction method for press. meas. 18141
comparative analysis of digital sinewave generation methods 25904
direct digital synthesizers, error feedback loops for lin. 563
disk drive, min. time seek controller 39181
FPGA, lookup table-based, technol. mapping, genetic algm. 21224
FPGA synthesis, look-up table and multiplexor based archits. 12487
FPGAs, technol. mapping, placement and global routing algm. 12431
FPGAs, top-down technol. mapping algm., gate decomp. *(Korean)* 12409
GMSK modulation, expt. investig. 15715
gradient/curvature, photom.-stereo method, local confidence estim. 2603
head-eye syst. for act. vision, camera calib. 24606
hierarchical video coding scheme, mean separated normalized VQ 33100
high-speed Hough transform lookup table constitution *(Japanese)* 16376
hyperspectral image compression, 3-D DCT and entropy-constrained trellis quantization 16266
image background detect. by reusable ANN 33018
k-bounded combinat. ccts., fault detect. method *(Korean)* 12410
LUT-based FPGA technol. mapping, nominal delay minimization 12422
M-LCELP speech coding, 4 kb/s, multi-mode and multi-codebook 9120
mag. suspen. syst., real-time posn./attitude sens. 18088
metal coating elec. cond./thickness, eddy current data rapid inversion 42890
microcontroller based state machines, automated synthesis, BSSM code generation 6128
multidimensional sig. constellations shaping 24171
neural nets, analog, simul./training tech. 29500
neural network simulations, educational environment, DSP based acceleration 21472
nonlin. echo cancelling, look-up tables/Volterra systs. 2564
Panda-Map, optimal perform.-directed logic mapping algm. for TLU-based FPGA *(Chinese)* 12397
pitch sync. innovation CELP (PSI-CELP) speech coding, basic algm. 24149
power devices, cct. simulators, look-up table models 38781
rate buffer control strategy for image coding 8648
recursive waves risk param. estim. from cyclic autocorrelation matrix 40986
RNS FIR digital filters, bit-serial VLSI implement. 750
safe-point thinning algm. 24383
sig. conditioning for smart sens./transducers 3780
slow freq. hopped cellular syst., radio link/syst. simul. 9286
spectral props. of direct digital freq. synthesizers, simul. 37658
spur-reduced digital sinusoid generation, higher-order phase dithering 8372

table lookup continued
ultrafast photonic ATM switch based on parallel sig. proc. 33727
VCSEL-based logic, optoelectronic look-up table 31042
wormhole router, VLSI implement., virtual channels 5966
table-top computers *see microcomputers*
tables (data) *see collections of physical data*
tables (decision) *see decision tables*
tachometers
see also angular velocity measurement
digital tachometer, precision, vel. meas. 42948
induction motor drive elec./shaft torque indirect two-speed meas. method 36661
Josephson and Von Klitzing constants evaluation 25709
tackiness *see adhesion*
tactical communication *see military communication*
tactile sense *see mechanoception*
tactile sensors
charge amplifiers for piezoelectric sensors 26790
feeble grasping rubber opt. fiber sens. *(Japanese)* 18438
finger-shaped, opt. waveguide 25874
high sampling resolution tactile sensor for object recognition 25807
material props. discrim., mono-structural thin plate touch sens. 42767
MCM technol., elementary autonomous cells 25827
med. tissue stiffness estim., fuzzy reasoning/telerobot 34992
model-based tactile obj. recogn. 2684
piezoresistive tactile sens. syst., robots 17735
recogn. of solid objs., tactile 24666
tactile sens. syst., piezoresistive for robots 17735
US emission tactile sens. 25820
Cr-Ni, excimer laser induced nonplanar metallization of Cr mask material, tactile sens. 30503
TADMR *see microwave-optical double resonance*
tandem accelerators
high intens. accelerator, commercial appls. 18214
ion implant., neg. ion tandem high energy accelerators 30024
Tritron tandem control syst. status report 18181
tantalum electrolytic capacitors *see electrolytic capacitors*
tantalum rectifiers *see electrolytic rectifiers*
tape automated bonding
296-lead fine pitch thin plastic QFP package, TAB interconnect 5655
ATM switching syst. hardware based on Cu-polyimide MCM, 320 Gb/s 16973
bump-pad adhesion, thermocompression bonding effects 21668
chip on MCM-D technol., review 38183
CMOS VLSI single chip package, TAB technol. 28452
COB, SMT and TAB packaging technols., design tradeoffs 28449
demountable TAB package, area array press. contacts reliab. 37079
demountable TAB path for TAB technol., PCB design, reliab. testing 5640
die mount methods for memory chip testing 38166
epoxy resin, printing encapsulation syst., MCMs, PLCC, BGA, PGA, TAB, COB, flip-chips 20433
fine pitch, laser syst. 21670
generic tolerance anal. model 38174
high dens. multilayer substr. for Si on Si high speed module 29719
high-speed MCM ATM switching syst. hardware technols. 25191
hot-bar soldering, 0.15 mm OLB pitch TAB components 941
hybrid MCM, mixed interconnection considerations, wire bonding, flip chip and TAB 21709
inner lead fatigue, thermal cycle environ. 28474
inner lead fatigue, thermal cycle environ. 11791
inner lead gang bonding on Ni-Au bumps 12960
known good die, universal membrane probe, MCM manufacture 21702
known good die method, multichip electronic syst. 21678
laser bumping for flip chip and TAB appls. 12957
laser inner lead bonding proc., optim. and reliab. eval. 6448
MCM, 3-D, liq. cooling, miniature heat sink 29733
MCM, peripheral/area array bonding tradeoff, partitioning advisor 38182
MCM-L in APACHIP, European Cooperative Program 21745
MCM/ball grid array technol., assembly proc. considerations 38178
microsystems, packaging and interconnection techs. 22628
μBGA packages, fine pitch wire bonding 21675
OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
opt. profilometer, multiple virtual styli, IC packaging/interconnects 34337
outer lead bonding, tape metallizations, reliab. aspect 6447
outer lead contact reliab., degrad. study 5642
pick and place in electronic packaging, high precision, alignment techs. 29721
precoat soldering, fine pitch component mounting 38168
ribbon/wire automatic bonding for hybrid and MCM assembly 38176
single point inner lead bonding, narrow pitch 6450
surface metall., solder flip chip, wirebond and TAB interconnections 21783
TBGA, tape ball grid array package technol. 5641
TFT-LCD module, outer lead bonding 34644
thermal printing head, line type, convex struct. 29704
thin-film MCM, advanced micro-interconnection implement. 21681
transferred ball bump technol. for tape carrier packages 21673
VLSI TAB packaging, elasto-plastic behavior of epoxy rel.to thermal stresses 28484
wire bonding, present and future trends 38170
AlN stacked MCM using hot pressed, co-fired material, fab. 21739
Au-to-Au TAB inner lead bonding, laser 6449
Cu TAB conductors, lead frame materials, wrought and electrodeposited foils 29701
GaAs buffered DCFL gate array, differential push-pull I/O 37720
Ni/Cu electroless plating, bump metallization 22280
tape recorders
see also audio tape recorders; magnetic heads; magnetic recording; video tape recorders
opt. tape recording syst., rot. head optics 39319
parametric mag. tape recorder, short-term reprod. *(Japanese)* 22705
qtr.-inch tape drives for secondary storage 25909
stationary-head multi-track mag. recorder, design 34286
target tracking
see also radar tracking; sonar tracking
3D location estim. of airborne targets, Radon transform *(Korean)* 24676
acquisition, tracking and pointing, conf., Orlando (1993) 36889
acquisition modeling, atmos. blurring effects 31844

target tracking continued
acquisition probabilities, image motion and vibr. 32904
adaptive correl. based tracking algm. 16281
adaptive nonlin. algms. for radar tracking 17400
adaptive waveform selective probabilistic data assoc. algm., tracking in clutter 15948
airborne US rangefinders, adaptive target tracking algms. 42533
α-β target tracking approach, benchmark tracking problem 17415
amplit. compensated joint transform correlator syst., target recogn. *(Korean)* 41167
area surveillance, ambient sigs. fusion 42508
ATR, Lie group parametrization for dyn. based prior 25552
ATR, sens. motion and vibr. 16276
automated stereo camera mount control tasks, parallel implement. 16348
ballistic missile track initiation from satellite obs. 18982
bearings-only tracking in distributed sens. network, reduced sufficient stats. 15877
bi-level MHT tracking algm. for two crossing targets in high clutter environ. 18978
C3, air-land syst., multitarget tracking/data fusion 35387
Canadian patrol frigate, implement. of AAW sens. fusion 18980
Canadian patrol frigate multi-sens. data fusion implement., perform. eval. 18981
candidate target detect., likelihood interpolation for peak detect. 15879
CFAR proc., robust neural net scheme 17387
colour, energy for target extraction *(Japanese)* 8532
correl. gate size optim. for maneuvering targets 18977
cpd. Markov chain anal. of false track generation 15868
data assoc. in multitarget tracking, efficient algm. 24331
data assoc./nearest neighbour combinations 15914
data fusion, random-set approach 15960
data fusion of assoc. hypotheses in distributed sens. network 15873
discrim., computational vision human perception models 35393
distributed obj. recogn., fuzzy relational inference logic 16274
dyn. RCS using the wavelet transform, time-freq. inform. 26822
effect of cross-correl. on track-to-track fusion 18979
FLIR scenes, jump-diffusion procs. for automated understanding 16285
fused noncoincident meas. 17368
FUSEDATE, software package for multitarget multisensor tracking and fusion 15874
fusion of radar and imaging sens. data for target tracking 16113
gate size seq. most probable hypothesis tracking 15880
generalized proportional navig., maneuvering/nonmaneuvering targets 26824
hardware neural network implement. 8454
hardware-in-the-loop simul., point targets, error anal. 26837
Hunter Unmanned Aerial Vehicle, near-term targeting tool 4434
image seqs., sens. & image motion estim. 41334
image-enhanced pass. tracking of maneuvering targets 16114
IMM-IPDAF for track form. on maneuvering targets in clutter 17372
integrated target acquisition/fire control systs., conf. (1991) 28259
interact. multiple model tracking algm., parallel implement. 2561
internetted acoustic sens. fusion, appls. 43554
IR image dim point target detect., difference method 16115
IR image seqs., stat. anal. 41335
IR imaging, ΔT metric eval., mil. target and background under various stats. 4439
IR imaging sens., unified perform. model of detect. and tracking 16112
IR imaging systs., conf., Orlando, FL, USA (Apr. 1994) 20261
IR seeker, scan modulation meas./modeling 43582
IR seeker imaging simul. real-time model based on fractal theory 18989
IR target simul. environ., pattern recogn. appls. 34578
maneuvering target, tracking, jump filters 15949
maneuvering target, underwater tracking, time delay meas. 25594
maneuvering target tracking, adaptive interact. multiple model algm. 15921
maneuvering target tracking, single Kalman filtering algm. 32724
maneuvering target tracking algm. 9619
maneuvering target tracking by neural net 32622
maneuvering targets tracking, multiple intermittent sens. 8295
manoeuvring target tracking, image enhancement algm. 17388
manoeuvring target tracking, multi-model adaptive Kalman filter 15964
manoeuvring targets tracking, accel. modelling, turn-rate distribs. 40788
manoeuvring targets tracking, H_∞ filters 15947
mean-field theory and multitarget tracking 15869
meas. selection validity improvement 17379
metallic body covered with insulators, detect. by microwave pass. sens. *(Japanese)* 43585
Midcourse Space Experiment for tracking, image proc. 2696
mil. tracker perform., eval. 18984
model-based multifrequency array sig. proc. 34116
model-based vision, aspect angle target estim. in forward-looking IR images 2714
moving emitter, tracking algm., dist. difference *(Chinese)* 32450
multiframe target detect. anal., pixel stats. 32855
multiple hypothesis filter for track initiation, perform. eval. 17370
multiple hypothesis tracker algm., maneuvering acoustic source 2583
multiple model adaptive estimator target tracker, accel. models 32542
multiple target tracking, importance of resoln. 17367
multiple target tracking syst., analog VLSI neuromorphic proc. 32954
multiple-model target-oriented tracking syst. 18983
multiresolutional target tracking 15878
multisensor bearings-only tracking, min. description length 8287
multisensor multitarget mixture reduction algms. 24322
multisensor multitarget tracking, fuzzy estimator 8326
multisensor tracking, track assoc., correction for bias and missing data 15876
multitarget radial rem.-positioning syst., perform. simul. 25973
multitarget tracking, dominant probab. data assoc. 15913
multitarget tracking, opt. binary joint transformer correlator *(Korean)* 16137
multitarget tracking, quick data assoc. algm. 16056
multitarget tracking, stochastic simul. Bayesian approach 42493
multitarget tracking and motion correspondence, ranked assignments 32544
multitarget tracking syst. based on opt. BJTC and neural networks *(Korean)* 14561
nearest neighbour type multi-sens. tracking and ident. algo. 2580
neural network maneuver modeling 32671
ocean surveillance, array localization, least sq. error minimization 18993
one-step fixed-lag IMM smoothing for alignment of asynchronous sens. 15875
optimal CFAR detect. in Weibull clutter 32540

target tracking continued
OptoNeural target tracking syst. 41306
parallel SME filter for 3-D tracking of multiple targets 15871
parallel space filtering subsystem for target tracking, EKF 16030
parallel transputer network Kalman filters appls. 24191
pass. Doppler-bearing tracking, pseudo-lin. estimator 40887
passive target tracking observability requirements 34139
perform. prediction of tracking in clutter, nearest neighbor filters 15872
phased array radar, adaptive beam pointing control 17416
phased array radar, manoeuvring targets, beam pointing control 17414
phased array radar, revisit control for tracking manoeuvring targets 17371
probabilistic data assoc./finite resoln. 41028
probabilistic multi-hypothesis tracking, max. likelihood method 15870
radar scan frame time maximization for tracking maneuvering target 17369
radar tracking, jump lin. model based aircraft trajectory reconstruction 17373
radiolocation data proc., parallel space filtering 25611
renewal models for maneuvering targets 34114
ship data fusion target tracking, 21020 DSP family, multisensor SIMD archit. 10589
sine-wave crossings tech. for real-time target recogn. 10590
small target detect., long term integrat. 18975
space target tracking, path params. vector determ. 17375
spaceborne UV/vis. imager simul. 42850
staring IR seekers, target thermal struct. effects modeling 35394
surface-to-air missiles optimal guidance, differential games *(Chinese)* 43583
target ident./sens. perform., imagery-based targeting trainer 35233
thermal imaging perform. eval., min. findable temp. difference 34572
TOPs opt. pattern recogn. program 18987
track, track fusion algms. 15911
two-posn. radar, low-flying target detect. and height meas. 17377
ultrawideband radar, tech. issues 42516
underwater targets tracking, robust regression-based EKF 24172
variable-dimens. filter, input estim. 24329
wideband multiple target tracking 41010
wideband RCS and impulse response of targets, transient EM field 17424

tariffs
96-hour power meas. experiences *(German)* 35704
agricultural elec. demand, pricing effects model, USA 36809
CHP plant daily operation scheduling, num. model *(English)* 27548
CO_2 power plant emissions, UK energy policy 4829
cogen. planning optim., time-of-use rates-based 10846
cogen. power stations, cost sharing calc. methods 27534
elec. interchange pricing, probabilistic prod. simul. *(Chinese)* 27039
elec. power market overview *(Chinese)* 43700
elec. power tariff-fixing, cost orient. basis *(German)* 27051
elec. pricing, discounting methods discussion 35531
elec. pricing, Sweden 4513
elec. tariff syst. principles, Croatia *(Croatian)* 10625
elec. transm. pricing, spot price calcs. 26959
elec. utility DSM planning, elec. cooking implications, Nepal 35475
elec. utility energy services/DSM, objectives overview 10660
elec. utility harmonics reduction efforts, tariff-based 26993
elec. utility load mgt., tariff-based, UK experiences 4506
elec. utility reliab. concepts integrat., New Zealand 27062
elec. utility-cogenerator elec. market, game model 4577
embedded ATM networks, distributed pricing 41677
Eng. & Wales elec. power syst. tariff develop. *(German)* 35549
German cost-reflective power supply pricing investig. *(German)* 19177
Hall effect direct field sens. counters *(German)* 10787
heat generation, shadow prices, time depend./dyn. energy systs. 4835
indust. elec. contract prices anal., UK 35536
indust. elec. pricing, voluntary TOU tariff 44622
internat. virtual private networks, background/tariff survey 41728
Kalman filter for telephone revenue prediction 41718
motorway toll syst., IR technol., enforcement syst. 42820
multi-level/period elec. tariff, unit cost calc. *(Italian)* 4565
multiservice networks, call admission control 33190
multiservice networks, flexible call admission control 41455
multiservice networks, tariffs and effective bandwidths 33356
multizone HVAC syst. optimal control, aggregation/disaggregation method 28180
New Zealand telecomms. regulation, Clear Communications vs. Telecom Corporation 33307
operator services automation, speech recogn. appl. 3141
petroleum pipeline service, peak shaving generator appl. 5408
power syst., dispersed generation/time of pricing effects *(Japanese)* 26937
power syst. control, min. generation reserve/transm. constraint 26978
power syst. mgt. agreement, former USSR 19073
power syst. short-term scheduling, price-based resources integrat. 10705
road pricing, RF/vision syst. 42187
Singapore Telecom, privatisation/regulation 3009
space power generation, develops., economic incentives overview 43417
supply company tariff calc. and contract data acquisition *(German)* 43689
surprise calls, proposed, telephone service for residential customers 33403
Swiss elec. economy approach, legislation *(French, German)* 4522
telecomm. networks, routing, economic regulation 33299
telecomms., cost reductions by coalitions in internat. network 33300
telephony, network service pricing in competitive environ. 41719
thermal cogen. with wheeling, model anal. *(Japanese)* 10850
thermal power syst. short-term operation planning calcs. 27106
transm. network use charging, marginal cost methods 27121
Union of Swiss Elec. Power Stations, 4th annual report *(French, German)* 4525
USA, public telecomms. infrastructure funding 8794
USA LEC, productivity meas. and price cap regulation 41594
VPN's and business commun. solns. 41953
wireless local telephone service, pricing, planning and regulation issues 42210

task analysis
radar anal. experts modelling for training/aiding 20350
telecomm. syst. user-friendliness eval., ITG test method *(German)* 25137
upper-limb orthosis, powered, task anal./motion simul. 4306

taste *see chemioception*
taxation *see financial data processing; government data processing*
Taylor instability *see flow instability*
TBDF *see data privacy; EFTS; government policies*
Tchebyscheff filters *see Chebyshev filters*
TCM *see trellis coded modulation*
TCP/IP *see transport protocols*
TDM *see time division multiplexing*
TDMA *see time division multiple access*
TDRSS *see satellite tracking*

teacher training
curriculum, technol. and staff develop., college-school partnership 20272
HyperCard based interactive video simul., teaching preservice teachers 34270
TEAMSS Project, multi-level staff training, interactive videodisc use 25676
telematics, creative 2998

teaching
see also education; student experiments; training
3-phase induction motor simul. for teaching purposes 66
ADAMLAB educational agency designs voice output commun. aid 41582
adaptive sig. proc., teaching, algm./architect./appl. 36925
asynchronous machine eqns. syst., theory education appls. *(Russian)* 36931
continuing engng. education, workplace-based, India 5547
Danish VLSI teaching programs, bal. engng. education 20286
deformable ccts., EM induction 23510
design engng. education, project mgt. teaching principles 37022
dist. learning and computer-mediated commun., interactivity 11620
dist. teaching of informatics, motivations, means, and alternatives 24934
DSP, practical approach 36922
DSP, teaching, computer based/dedicated hardware projects 36919
DSP at, degree level 36928
DSP teaching via sound demons. software 28339
dual field modelling, tubes and slices 28331
elec./electronic engng. education, lecturer self-eval. 20338
electronic design, multiple media 20317
EM wave propag., Brewster's angle teaching approach 20347
Eng. teaching, electronic brainstorming syst. appl. 9031
engng. degree education, quality achievement, UK 20323
engng. education, mgt. develop. requirements 11624
engng. education, Prof. James R. Melcher contribs. 36932
engng. education courses, foreign lang. learning incorporation 28283
engng. instruction via computer alg. 36910
engng. manpower education and economic develop., India 5550
engng. mgt., organizational learning proc. 11625
engng. mgt. masters course develop., South Africa 11623
engng. with sig. proc., introduction 20297
ENSERG, IC design training for electronic engineers *(French)* 20332
Eurochip and chip designing, Polytechnic Enschede 22515
Eurochip Workshop on VLSI Design Training, conf., Grenoble (Sept./Oct. 1992) 20226
excellence promotion 28340
high energy cyclic accelerators, introductory course 76
HyperCard based interactive video simul., teaching preservice teachers 34270
hypermedia learning appls., extended, using full motion video 42638
infinite polygonal capacitor networks, rel., Fibonacci seq. networks 5534
intell. materials, materials education appl. 28889
Internet for IS education 16764
lang. learning hypermedia syst., grammar implement. 34281
LPTT linear programming teaching software tool 11609
Matlab for teaching DSP 20295
mfg. engng. education, computing technol. teaching experiences 36937
microelectronic devices realized by DESS students, clean rooms, elec. characts. *(French)* 20333
Mosaic, WWW and networked multimedia, learning tools 20342
MOSIS designed CMOS/BiCMOS arrays, teaching VLSI courses 5529
multimedia computer-based teaching, case study 20315
multimedia messages, Chilean network for primary schools 41982
multimedia teleteaching syst. 5516
network training, self-help materials need 11622
nuc. med. instrums. QC, Argentina 18515
origami, learner control in multimedia instruction 9752
parallel plate capacitor for electrostatic studies 5515
PC program in teaching ccts./systs. 5528
pers. DSP, teaching/learning role 36927
power syst. control education, general-purpose software-based 26972
power syst. elements, EM anal. using finite difference method, software tool 40182
power syst. security computer anal., educational interactive program 20284
power systs. education, distrib. feeder power quality calcs. 20348
real-time DSP, Univ. of Leicester 36921
sci. teaching improved, electronic mail 36912
sig. proc. on Information Superhighway 20296
skeletal anatomy teaching, multimedia CD-ROM 43182
SPC toolbox for teaching sig. proc. concepts 20293
stochastic procs. teaching, comments 70
student perform. eval/follow-up, graphical software tool 11616
switch-mode DC-DC power converter dyn. response, CAI 5533
TEAMSS Project, multi-level staff training, interactive videodisc use 25676
technical and business communic. course, teaching to foreign language audience 28301
tele-teaching over-dist. education, ISDN-based 20283
teleconferencing for student learning, current practice 25074
teleteaching syst. in university environ., expt. monitoring *(Italian)* 28344
thermostatics/electrostatics analogy, engng. education appls. 36938
time series education, graduate engng. student courses 72
TLINE software package for sinusoidal steady-state anal. of transm. lines 31867
TQM continuing education, stats. role 74
transformer eqns. syst., theory education appls. *(Russian)* 36931
universities, entrepreneurial approach adoption principles 28343
university engng. course, professional skills education, UK 28281
university engng. degree courses overview, UK 28280
university teaching profession, multimedia in context 20273
VLSI design, Technical Univ. of Madrid 20289
VLSI testing teaching, Univ. of Paris *(French)* 20331
World-Wide Web, advanced educational uses 41869

teaching approaches to particular topics *see teaching*
teaching demonstrations *see student experiments*
teaching machines *see computer aided instruction*
technical information centres *see information services*
technical office protocol *see local area networks; office automation; protocols*
technical presentation
- audience anal., engineering education appl. 28292
- co-workers/subject matter experts, communication improvement 28553
- collaboration, technical communicator appl. 28554
- collaborative writing 28326
- communication, balancing self-reinforced perspectives 28313
- communication skills 28314
- computer industry, technical communication curriculum 28565
- conference, New Face of Technical Communications, Philadelphia, PA, USA (Oct. 1993) 28216
- course, teaching to foreign language audience 28301
- cross-site writing, shared responsibilities 33410
- document selling strengthening 28550
- dry/technical presentation, improvement for nontechnical audience 28302
- educational teleconferencing for writing/research skills in computing 3247
- hazardous waste treatment facility, technical communications, NIMBY 28325
- information mapping the PCS constitution and bylaws 28321
- information presentation, visual/verbal modes, diagnostic tools 28320
- international audiences, technical messages from business professionals 28299
- International English, technical text prep. for translation 28293
- international readers, editors, good English 28295
- MERMAID groupware platform, multimedia and multi-party desktop conferencing syst. *(Japanese)* 41947
- MERMAID multimedia multi-party desktop conf. syst., groupware platform 9029
- nontechnical audience, concept study 28304
- nontechnical audiences, communication and audience background knowledge 28303
- nontechnical writer problems/opportunities 28296
- portable power-quality demo. board 10733
- questions-and-answers, technical writing 28311
- risk analysis communication 28323
- risk communication committee establishment model 28324
- Russia, implic. of market economy 28300
- science fiction for technical communicators 28298
- Statoil, experience transfer 28297
- Technical Communications Group study 28364
- technological innovation, role in audience definition 28310
- typography, human factors approach 28549
- understanding statistics, tool for research interpret. 28305
- video production in technical education 28306
- writing 28315
- writing 28312
- writing, reader attraction, skimmers 28322
- writing course evol. 28291

technical support services
- help desk problem resoln., rem.-control software 16638
- Network Software Associates, server on Internet 16693

technicians *see personnel*
technological forecasting
- *see also research and development management*
- 3D semicond. proc. simul. for 1990s 38996
- 64 Mbit DRAM mfr. *(German)* 29229
- 1978-1989 nuc. energy policy committee scenarios and reality *(German)* 27114
- 1995 forecast for solid-state technol. 30389
- 2020, future trends in technol. 41601
- active array radar MMIC packaging evol. 21578
- advanced IC mfg., future prospects 37049
- AIN archit. expectations *(Japanese)* 16827
- air navig. perform. requirements and trends *(Japanese)* 18723
- ATM network traffic profile generation *(German)* 24868
- automatic speech recogn., state-of-the-art review and future directions *(Japanese)* 15815
- automatic speech recogn. technol. and research directions *(Japanese)* 15814
- automotive electronics, develop. 11431
- AUTOTESTCON, conf., Anaheim, CA, USA (Sept. 1994) 20248
- batt. elec. vehicles, future technol. modelling 28142
- broadband demand and network traffic, multi-faceted approach 33346
- broadband satellite digital video transm. technol. *(Japanese)* 17542
- broadband switching equipt. market needs and vendor offerings 41758
- BT and MCIs' global managed platform, unified managed transport network 41696
- cellular TDMA evol. for personal commun. 42225
- chem.-mech. polishing for planarization, forecast of future trends 13323
- cinema audio quality improvement *(German)* 25689
- client-server network technol. and OS trends *(Japanese)* 16753
- CMOS LSIs for pers. inform. and telecom. systs., trends 22565
- CMOS scaling for high perform. and low power, next decade 37690
- communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
- compact overhead power line polymer insulators, develop. prospects *(Japanese)* 27239
- Croatia, telecomms. syst. prod. 33316
- Croatian telecomms. network, charact. and future trends 33315
- CRT driver stage, IC introduction 42876
- CRT markets 9975
- danger warning syst. technol. aspects *(German)* 20386
- Deutsche Telekom network evol. prospects *(German)* 41636
- differential GPS data format stds. and trends *(Japanese)* 17510
- digital video recorders, future 17595
- digital video services, technols. and network archits. *(German)* 42626
- display-based subscriber service trials and prospects 42078
- domestic appliance uprating trends *(German)* 11490
- elec. power indust. reshaping 27304
- electronic packaging, future develop. 28478
- enterprise network (in yr. 2000) 41640
- enterprise network develop. and mgt. prospects *(Japanese)* 16751
- EURESCOM project P306, European access network evol. *(English, Italian)* 33988
- European energy economy prospects w.r.t. fixed carriers *(German)* 4527

technological forecasting continued
- European Fast Reactor project status (1994) and prospects *(French)* 43866
- European image media trends *(Japanese)* 17544
- European microwave indust., market trends 12685
- European mobile commun., future trends 17123
- European power syst. interconnection status and prospects *(German)* 19180
- European research program for advanced mobile systs. 25330
- European Union EMC rules for IT equipt. 40366
- evol. of computer commun. and networks 16725
- fibre-optic subscriber network archit. and constr. *(Japanese)* 17337
- flexible facility and network engng. technols. *(Japanese)* 16608
- flexible network and telecomm. policy trends *(Japanese)* 16571
- flexible network characts. and develop. prospects *(Japanese)* 16570
- flexible network technol. prospects *(Japanese)* 16572
- Formentor risk prevention DSS project 11690
- fuel cell CHP difficulties and prospects *(German)* 43961
- future broadcast technols. 3651
- future commun., trends 2997
- future mgt. 20382
- future public land mobile telecomm. and fixed services, freq. sharing feasibility 42198
- future/emerging technols. ident., R&D 36973
- gigabit network develop. and prospects *(Japanese)* 16756
- gigascale integrat., future opportunities 38964
- GSM network archit. issues for next century 3444
- GTEM cells, review and future research 23746
- healthcare commun., future needs and present solns. 41875
- heat-shrink MV cable transit. sleeves *(German)* 27242
- heterog. mobile environ. supporting adaptive services 33567
- high-dens. opt. disc and superresoln. head develop. *(Japanese)* 17587
- high-level synthesis, tutorial 28980
- high-speed deep submicron VLSI, technols./interconnect modeling 22558
- home picture service and software prodn./supply syst. prospects *(Japanese)* 16569
- HSLAN prospects of UTP telephone cable *(Dutch)* 16997
- hydrogen energy economy, fossil fuel role 27327
- IC manufacture, minienvironment fab facility 20398
- image and video storage media prospects *(Japanese)* 17584
- image shrinking, zooming, scaling and compression techs. *(German)* 8513
- imaging technol. develop. for gigabit transm. *(Japanese)* 16568
- inform. network archit. consortium and tech. trends *(Japanese)* 16535
- inserted film resistors, future prospects 21582
- interactive EDI, IT and commerce in 21st century 41642
- internat. LF EMC stds. *(German)* 23735
- internat. video transm. network and cable conditions and trends *(Japanese)* 17574
- Internet multicasting, future prospects 16717
- IR CCD detector develop. *(Japanese)* 17969
- joint detect. CDMA third-generation mobile radio syst. concept *(German)* 42207
- LAN/WAN aspects of enterprise computing 33479
- large precision masks for flat panels 3942
- long-term energy modeling, current techs. 26924
- low earth orbit satellite commun. 33967
- LV installation divertor coord. principle *(German)* 35689
- Mexico, rural telephony, mobile satellite commun. 3119
- mfg. quality mgt., future trends 28372
- mixed technology RF ICs for UHF portable commun., projected develop. 21579
- mobile commun., trends and future prospects *(Japanese)* 33888
- mobile multimedia commun. network prospects *(Japanese)* 16906
- mobile telephony, present status and future trends 42209
- Modicon Micro compact automation equipt. and appls. *(German)* 11220
- MOMS-02, geoscientific eval. 43483
- multimedia ATM broadband AIN control station testbed 41990
- multimedia commun. technol. groupware appls. and trends *(Japanese)* 16907
- multimedia commun. terminal and human interface develop. trends *(Japanese)* 16936
- multimedia technol. significance for users/providers *(German)* 25126
- multinational enterprise networks, mgt. services and stds. *(German)* 33579
- μP technol. trends 21347
- narrow-gauge rly. line catenary systs., R&D results 36750
- network OAM technol. and standardisation trends *(Japanese)* 16609
- news on demand for business, Nynex/Dow Jones 16828
- next-generation PCN multimedia traffic support 41979
- North American public broadband network service evol. 41651
- opt. correlators for space computers 7436
- PCB assembly, cleaning technols. 29682
- PCB EDA tools, evol. 12888
- PCB/electronics indust. trends 21642
- photon counting opt. sens. develop. trends *(Japanese)* 17803
- photonic SONET fund. frame structs. 42362
- plug connector selection criteria and reliab. *(German)* 21615
- point-to-multipoint wireless telephone syst. trends *(German)* 33400
- power station mgt., proc. visualisation and multimedia technol. *(German)* 19381
- power syst. control, develops., future prospects 19182
- prod. mgt. syst., multimedia environ. 25095
- product design mgt., overview 11696
- PWB laminate indust., future trends 29664
- risk mgt. develop. and policy 11688
- satellite commun. technol. and appls. 3508
- satellite laser commun. links *(Japanese)* 17341
- satellite payload miniaturization/standardization, transponders 25451
- sci. inform. network flexibility needs and trends *(Japanese)* 16800
- semicond. memory technol. trends and appls. *(Japanese)* 12545
- semicond. mfg., economics 29998
- sens. for photosynthesis meas., trends 3791
- ship design and operation, Global Maritime Distress & Safety Syst. *(English)* 3501
- ship syst. elec. meas. instrums. *(Croatian)* 3926
- shipboard fire alarm syst. stds. *(Croatian)* 84
- shorter-wavelength LD and SHG technol. prospects *(Japanese)* 14959
- solid-state image sens. for visual spectrum *(Japanese)* 17967
- space thermionic nuclear power/propulsion, future prospects 18749
- spacecraft PV power technols., future trends 26685
- submarine fibre-optic syst. technol., review and future prospects 3574
- submicron fab technol., future prospects 37050
- Swiss elec. prod., ecological and social aspects *(German)* 10795

technological forecasting continued
  Swiss energy economy prospects in federalist Europe *(German)* 4524
  Swiss microsensor and mobile commun. research programme *(German)* 3778
  telecomm. network distributed proc. technol. *(Japanese)* 16754
  telecomm. services in residential market, long-term demand 33347
  telecomms. networks, access link systs. 25145
  telecomms. power supplies, technol. evol. impact forecast 19785
  TV broadcasting service characts. and enhancement needs *(Japanese)* 17543
  TV broadcasting service trends and tech. problems *(Japanese)* 17541
  ultra-high-dens. recording technol. principles and prospects *(Japanese)* 17585
  UMTS, targets/syst. concept/standardization in global framework 25295
  UMTS, vision for 21st century 42279
  universal pers. telecomm. trends and indust. prospects *(German)* 2995
  universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
  USA, future prospects of pers. commun. 3112
  USA Nat. Inform. Infrastruct. project and video services *(Japanese)* 17575
  variable area flowmeters *(Italian)* 4017
  visual commun. media trends and prospects *(Japanese)* 16905
  VLSI, future technol./economic prospects 38965
  VSAT systs. role in broadband networks and IN 42308
  wire bonding, present and future trends 38170
  wireless ISDN commun. appl. criteria and prospects *(German)* 41921
  wireless LAN, intra-office commun. 41858
  world energy supply problems and imponderables *(German)* 4757
  InP OEIC for photonic networks *(German)* 7490
  Si IC technol., assess. of future dominance 38955
  Si VLSI technol. trends 30461
  Si bipolar device struct., digital appls. 30235
  Si micromachined module platform for multiple opt. fibre I/O 23066
  Si technol., future trends 13272

technology transfer
  autonomous nuc. power syst., rem. location appls. 35768
  building constr. regulations w.r.t fuel cells, technol. transfer 36581
  building services projects CAD, STEP technol. 11315
  co-developed knowhow assets in technology partnerships 36949
  collaborative product develop., success factors overview 20376
  cooperative R&D venture commun., social comparison problems 28374
  cross-cultural commun. barriers 11560
  cycle time reduction strategies implement. for new package introd. 36950
  defence technol. develop., commercial sector interact. 4430
  design for assembly strategy in global companies 37033
  developing economies, cost effective installation and maint. of subsea links 3308
  dual use mil. technol., computer systs. design 10596
  elec. utility R&D technol. transfer demons. projects, USA 43710
  elec./electronic engng., CBT products 20307
  engineering management, conf., Dayton North, OH, USA (1994) 5503
  engng. education, indust.-university cooperation, India 5546
  Federally Funded R&D Centers, technol. transfer 11650
  formula lightning elec. race car, develop. 20094
  high technol. R&D, internat. patenting overview 36966
  high-performance computing and communications, applications development and technology transfer to industry 28556
  indust.-university R&D cooperation, Turkey 11615
  intellectual property protection survey, Africa 36967
  intellectual property rights mgt., Australia 36969
  interfunctional product develop. project group concurrency 20355
  LandcareNET, lateral inform. transfer for sustainable agric. in Australia 8980
  laser safety, indust. laser use, overview 28390
  Latin America telecomms. privatization, macroeconomic policies/strategies 3008
  libraries, Third World, inform. access improved by utilizing advanced IT 41743
  MUL-TECH corporations, technol. diversification 20369
  multimedia satellite commun. systs., preliminary study 3519
  multinational enterprises, R&D technol. transfer overview 36968
  NASA's advanced space transportation program 35263
  NASA spin-off technol., conf., San Diego (Jul. 1994) 36866
  nuc. power, introduction, developing countries 27357
  perimeter intruder detect. syst. 36990
  post-takeover R&D fns. integrat., empirical study 36943
  power plant component life assess., technol. transfer in Europe 10696
  R&D product matrix, innovation mgt. tool 20351
  R&D technol. transfer, effectiveness meas., USA 28360
  renewable energy resource develop. prospects, former USSR 27309
  rural datafication, multiple-network collaboration, extend Internet access, underserved communities 25010
  Russian telecomm. modernisation strategies *(German)* 24880
  sci. teaching improved, electronic mail 36912
  small/medium size enterprises, technol. transfer, training 11612
  SOFC R&D activities, Japan 44350
  space solar energy systs., develop. projects overview 43418
  sustainable develop., role of technol. 5469
  Switzerland, technol. flows 20359
  tech. intell., R&D mgt. appl. 20356
  telecomms. R&D experiences, Indonesia 16539
  Tunisian national research and technol. network for technol. transfer 41779
  UNESCO-Supported Internat. Centre for Engng. Education 5520
  university-based R&D mgt. policy, USA 28358
  US housing indust., energy efficiency barriers 28203
  Pb-acid batt. energy storage systs., utility appls. 36080
  a-Si PV technol. transfer, OASIS project, Europe 11292

tectonics
  vert. motion due to atmos. loading, GPS determ. 10447

TEGFET *see high electron mobility transistors*

telecommunication
  see also automatic repeat request; bandwidth compression; business communication; carrier transmission on power lines; data communication; digital communication; military communication; mobile communication; multimedia communication; optical communication; PACS; radiocommunication; satellite communication; spread spectrum communication; telecommunication channels; telecommunication computing; telecommunication control; telecommunication engineering education; telecommunication equipment; telecommunication links; telecommunication networks; telecommunication services; telecommunication signalling; telecommunication standards; telecommunication switching; telecommunication traffic; visual communication; voice communication
  2020, future trends in technol. 41601
  access network evol., market and regulatory issues *(English, Italian)* 33668
  AFRICON '92, conf., Swaziland, South Africa (Sept. 1992) 28272
  Asia, telecomms. sector reform 3013
  Asia-Pacific countries, operator privatization vs. alternative restructuring methods 3007
  Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
  AT&T Switching Systems Business Unit, customer-focused mfg. 16538
  Australia's deregulated telecomms. indust. and Telecom 2999
  Australia and Asian countries, commun. and IT appl. 3011
  automatic OS for central heating equipt. *(Japanese)* 41643
  BT, user-friendliness in products and services 16544
  BT's architectural approach to develop. of products, systs. and services 16543
  chaos in signal processing, IEE Colloquium, London (1994) 19
  chaotic syst. nonlin. observers, commun. appl. 15685
  China, telecomm. network develop. 3020
  competitive intell. gathering 3054
  computer/telecomms. convergence and develop. 41585
  connecting geographical inform. syst., telecom. inform. syst. database 33342
  consumer electronics, conf., Hong Kong (1994) 5460
  CREAD, inter-American effort for collaboration in dist. education 3048
  Croatia, telecomms. syst. prod. 33316
  Croatian internat. telecomms. and regulatory environ. 33318
  developing countries, impact of accounting rates upon telecomms. carriers 3006
  developing countries, investment in telecomms. infrastructure 3015
  developing countries, regulatory, investment and personnel issues 3028
  developing countries, telecomms. business legal issues 3014
  developing countries, telecomms. deployment strategy 3109
  developing economies and internat. deregulation 3019
  developing economy, telecomms. and transportation 3040
  developing world, role of telecomms. 3017
  digital network access to low demand areas, develop. strategies 3016
  distortionless underwater commun. using parametric array, conditions 42475
  Eastern and Western Europe, telecomms. engineers 16545
  EC's STAR programme, relevance, Pacific Rim countries 3024
  environ. preservation, telecomm. services role 2996
  environmental engng. concerns 33329
  EOCC project, approach, internat. telecomms. develop. projects 41583
  European Commission's mobile green paper 33305
  European telecomms., towards more dyn. *(German)* 33322
  European telecomms. strategy 24874
  European Union, infrastructure competition strategy 8808
  European Union's telecomms. policy, infrastructure competition 8807
  evol. of computer commun. and networks 16725
  Federal organizations and commercialization of technol. 11633
  foreign ownership in telecomms., policy perspective 33328
  France Telecom power syst. lightning protection 19332
  fraud mgt. 3039
  future commun., trends 2997
  global marketplace, product design, develop. and mktg. for different cultures 41602
  HDTV and East Asian newly indust. economies 3673
  Hong Kong, telecomms. hub and bridge, Chinese market 3045
  IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
  IEEE SOUTHEASTCON, conf., Charlotte, NC, USA (1993) 36895
  India, telecomms. and space commun. programmes 3002
  India, telecomms. liberalisation 3022
  inform. and commun. technol., impact on business organization 8796
  inform. infrastructure strategic issues 8806
  inform. rev., socioeconomic implications 41584
  inform. services and telecomms. in Brazil 41604
  inform. superhighway and regulatory proc. 8805
  internat. cooperation 3027
  ITU, regional standardization and developing countries 3025
  Japan, freight, post and telecomms. regional interrelationships 8797
  Japan's telecomms. indust., competition and regulatory reform 8811
  Japanese telecomms. indust. in 21st century, indust. struct. 8795
  Latin America telecomms. privatization, macroeconomic policies/strategies 3008
  localized technol. change and evol. of stds., economic institutions 33319
  Maitland report, commun. and develop. ten yrs. 3003
  Maitland Report, telecomms. and develop. 3036
  MELECON '94, conf., Antalya, Turkey (1994) 5470
  Mexico, drive toward 1st world telecomms. infrastructure and education 3046
  microelectronics, impact on telecom. and IT 33321
  microelectronics in today's indust. rev. 36934
  Midwest Symp. on ccts. and systs., Detroit (1993) 33
  NAFTA and telecomm. opportunities in Mexico 3021
  network evol. in competitive environ. 33312
  New Zealand, telecomms. and broadcasting deregulation 3037
  New Zealand telecomms. regulation, Clear Communications vs. Telecom Corporation 33307
  NTT, customer globalization trends 41590
  NTT's maint. service concept and strategy 24871
  NTT's overseas carrier business 41589
  NTT group's overseas activities 41587
  NTT internat. cooperation activities, present status 41588
  Ohio metropolitan area, telecomms. infrastructure needs 8798
  opt. fibre test syst. integrat., network mgt. *(German)* 8830
  Pacific cultures and commun. ethics 3000
  Pacific islands develop., telecomms. and IT 3033
  Pacific Rim, financing telecomms. infrastructure develop. 3012
  Pacific Rim's trade in telecomms. equipt., Chinese case study 3018
  PTT re-regulation, coord. of tech., legal and regulatory issues 3029

telecommunication continued
PTT Telecom BV, IT investment eval., policy and practice 41595
R&D experiences, Indonesia 16539
Russian telecomm. modernisation strategies *(German)* 24880
secure commun. by chaotic encryption 15686
secure commun. systs., chaotic chips/Chua's ccts. 8690
secure commun. using small time continuous feedback 24740
security and protection, conf., Paris, France (June 1994) 24870
security technols. in telecomms. 16550
self-recovering commun. buffer based on cellular automaton concept 8801
Silicon Glen, Scottish electronics indust. 37215
Singapore Telecom, privatisation/regulation 3009
Southeast Asia, educational telecomms. 3042
submarine cable network procurement in 2000 and beyond 3034
submarine opt. cable systs., future prospects 3035
Sweden, strategy for IT infrastructure 8810
Taiwan, telecomms. regulation 3031
telematics, creative 2998
Tusitala, Maitland report 3010
universal service reform 33304
US telecom. indust., firm level efficiency 33324
US-Japan telecomms. trade, Japanese inform. infrastructure develop. 8799
USA, public telecomms. infrastructure funding 8794
USA, regulatory climate for foreign investment in telecomms. 3030
USA, telecomms. and socioeconomic trends leading, universal service 8812
USA emergency telecomms. requirements, Nat. Communications System 3041
USA LEC, productivity meas. and price cap regulation 41594
Venezuela, telecomms. develop. 3023
Venezuelan telecomms., network planning 2985
Vietnam, telecomms. regulatory struct. and foreign investment 3026
worldwide telecomms. networks, investment in transitional economies 3005

telecommunication cables
see also coaxial cables; optical cables; submarine cables; telephone lines; twisted pair cables; underground cables
Aqua Explorer 1000 for inspection of underwater cables 9156
bonding config. in telecomm. centers, EFT field tests 23707
cable bundles, per-unit-length params., MoM 15531
elec./telecom. infrastructure develop. projects, Estonia 43639
EM induction shielding methods, theoretical anal. *(Japanese)* 2277
flexible RF cable stress response, perform. tests 38058
high temp. XLPE flame retardant cable insulation, bromide free *(Japanese)* 19293
hospital commun. and signalling syst. *(Italian)* 10300
inform. infrastruct. develop. in USA 3304
lightning currents interf., computer model 15539
long-term influences of three-phase power cables *(German)* 16999
metallic sheath, shielding factor 25194
mfg., resist. var./imbalance improvement 42134
microwave commun. towers, lightning stroke-generated EMI expts. *(Chinese)* 42174
Mitsubishi Cable Industries LAN products *(Japanese)* 25045
modern commun. technol. advancement, problems *(Chinese)* 3234
multiconductor telecomm. cables, lightning overvoltages 25202
nontrenching power/telecom. cable conduit installation method *(Japanese)* 20383
omni-directional sensitivity mag. field sens. 3790
overhead line lightning-induced underground telecom. cable overvoltages 19305
pass. protection apparatus for commun. lines, phantom reson. transformer 25193
Taiwan, telecomms. regulation 3031
transient plane wave coupling, bare/insulated cables in lossy half-space 31869
underground commun. techs. for cavers/potholers 9186

telecommunication channels
see also channel capacity; Gaussian channels; multipath channels; partial response channels; Rayleigh channels; Rician channels; time-varying channels
1.8 GHz mobile radio channels, wideband characterisation 9315
1.8 GHz personal commun. radio channel polaris. dyn. charactn. 33788
3D PCN, reception reliab. 17057
8PSK-TCM modem, develop. and transm. perform. 25156
60 GHz indoor wireless data systs. channel modelling, ray-tracing 8933
60 GHz mobile-to-mobile radio channel, meas. 9262
915 and 1900 MHz domestic RF channel charactn. 31822
adaptive blind equalization, weighted cumulant slices 41026
adaptive channel equaliser, functional-link models 32737
adaptive channel equalisers, off-line modulus restoral algm. 33159
adaptive complex radial basis fn. networks, channel equalization 15889
adaptive diversity reception, prediction, smoothing, interpolation 25447
adaptive MLSE, fading environ., equalization/decoding 15887
adaptive multiuser detect., survey 24353
adaptive nonlin. equalisation of digital commun. channels 15985
ADSL, DSP-based prototype reverse channel transmitter/receiver 33673
aggressive handover algm. for mobile networks 3396
ALOHA syst. using unified SS code, transm. efficiency *(Japanese)* 25211
analogue speech channel spectrum scrambling encryption with isomorphic emphasis 33802
anchored const. modulus algm. for blind equalization 16410
antenna array, multiple co-channel digital sigs., blind estim. 8306
ARMA syst. ident. based on second-order cyclostationarity 8424
ATM networks, burst-based bandwidth-reservation method 33165
ATM networks, effective bandwidths for admission control 33231
ATM networks, flow controlled virtual channels 2889
ATM networks, indiv. VC shaping 33235
ATM networks, modulation level-controlled radio syst. 3314
ATM networks, real-time commun. 33172
ATM shared-buffer direct-access switch archit. 8709
ATM shuffleout switch, channel grouping techs. 33199
ATM switch CMOS LSIs, self-timed queue archit. 16961
automatic retransmission rather than ARQ 3364
B-ISDN, hyperdistributed switching syst. archit. 33588
B-ISDN, tree computation for reserved bandwidth traffic 33593
bandlimited channel 8D 4-pulse 2-carrier signalling scheme 40547
bandlimited PSK channels, transmitting power effective 9159
Bangla speech over telephone channel, on-off charact. anal. 40756
binary block codes, scarce-state-transit. error-trellis decoding 40705
binary commun. channel equalisation, feedforward neural net 15680

telecommunication channels continued
binary symmetric channel, zero-temp. error-correcting code 15737
blind channel ident. based on second-order stats. 24003
blind equalization, deterministic approach 8086
blind equalization, higher order cumulants/neural networks 2862
blind equalization, ML/MMSE estim. 41021
blind equalization, recursive Bayesian techs. 15943
blind fractionally-spaced equalization, filter banks/lin. prediction 41024
blind fractionally-spaced equalization based on cyclostationarity 8387
blind ident./equalization of MA channels for QAM 8367
block demodulation, overview 24019
broadcast channel, causal order protocol, eval. *(Japanese)* 16720
CDMA cellular radio link, prioritized channel control 25410
CDMA cellular radio network 25357
CDMA coherent detect. scheme for uplink channel 9230
CDMA gap-free fit channel access protocol 41494
CDMA mobile radio systs., spectral efficiency 17083
cell size vs. receiver complexity assess. in urban areas 9325
cellular commun., CBWL schemes, hand-off anal. 25411
cellular commun., cyclic sigs. adaptive beamforming 3371
cellular environ., self-adaptive channel allocation strategies, PRMA 9248
cellular handover proc. model, limited queuing time 42208
cellular mobile commun. channel assignment by neural net 42269
cellular mobile radio networks, freq. planning 33860
cellular mobile syst., additional channel assignment by graph theoretic model 33932
cellular network overlapping channel assignment tech. 42201
cellular radio channel assignment, channel borrowing 25323
cellular syst. variable C/I threshold distributed adaptive channel allocation scheme 33806
cellular systs., packet transm., channel quality reliab. 9296
cellular systs., phantom cell anal. of dyn. channel assignment 9247
cellular-ISDN systs., accessing protocols/network reconfigurations 9377
CELP coders, backward adaptive lattice/transversal predictors 2409
centralised wireless commun. network, slotted idle sig. multiple access with collision detection 42230
channel errors, VQ adaptation 24056
channel-bank-based phone detect. strategy 32397
chaotic masking commun. 15687
code-synchronized transm. syst., design params. 24739
CODIT, testbed project, DS-CDMA for UMTS/FPLMTS 3385
common channel signalling network survivability using DCS 41648
complex geom. indoor radio propag. ray-splitting model 31825
const. modulus algm., local min. escape transients 32670
convolutionally encoded seq. decoding, pairwise error probab. 32115
Costas arrays for channel charactn./commun., decomp. 32610
DAB channel and mobile reception, common-wave network meas. in Bavaria *(German)* 9692
DAB field tests in Italy 42573
data storage channels, nonlin. equalization 7141
deconvolution, Bayesian decision feedback techs. 15892
deconvolution filter design considering channel sensitivity 2526
DECT multibearer channels 3494
DECT systs., low time-dispersive channels, adaptive equalization 3498
delta network, expanded middle stages for large ATM cross-connects 24751
digital commun. channel equalizer, Kalman-trained neural network 33156
digital land mobile radio, commun. channel simulator *(Japanese)* 17137
digital mag. recording, anal. 30743
digital mobile commun., blind seq. detect. 17039
digital mobile radio systs., seq. detect. algms. 3437
digital satellite channels, adaptive DFE, multilayer neural networks 25453
digital SCPC DAMA, optimal satellite-based voice networks 3512
digital seq. reduced-state seq. estim. 40535
digital sigs. with ISI, demodulation 40571
digital storage channels, knowledge-based adaptive channel estim. 7192
discrete Gabor expansions, derivation 24321
discrete sigs., multichannel spline interpolation 8265
discrete-time sig. design for maximizing amplit. separation 24282
dispersive fading channel, high-speed data transm., SR-chirp PSK 9356
distributed control appls., home power ccts. 9039
distributed dyn. channel inform. assisted reuse partitioning 25418
DMT-based ADSL, concept, archit., and perform. 9105
DQDB MAN, isochronous channels reuse 8983
DS-CDMA, Hadamard codewords, orthogonal spreading seqs. for mobile radio 33845
DS-CDMA field trial syst., down-link design 9391
DS-CDMA mobile syst., fading channel, anal./simul. 3391
DS-SS cordless telephone *(Japanese)* 25149
DS-SS systs. impulsive channel, narrowband interf. suppression 33751
DS/CDMA, multilevel coded modulation, integrated receiver struct. 42144
DS/CDMA adaptive interf. canceller, differential detect. 9240
DTM gigabit network, fast connection establishment 24805
dual cellular syst. channel asignment methods 33814
DYANET(C), dyn. channel assigning/routing satellite aided digital networks 3525
equalization, recurrent radial basis fn. networks 2555
Erlang capacity of shared resource 40540
error probab. during sig. reception, deviation from Gaussian law 32576
error-correcting codes, Gilbert channel, perform. eval. 15749
ETSI V5 interface globalisation 41917
fading dispersive WSSUS channel, analytic discrete-time model 3414
fast blind equalization of wireless commun. channels 15944
fast transversal filter for decision feedback equalization 15942
FDDI networks connected through ATM, video traffic mgt. perform. 24916
FDDI-II networks, method for isochronous bandwidth allocation 24955
FDMA cellular systs. capacity, ACI effects 3334
Fibre Channel Standard, rapid protocol develop. 33494
FIR channel fractionally-spaced blind equalisation and estim. 41384
FIR channels blind ident. via antenna arrays 8366
FIR channels fractionally spaced blind equalization 8368
first-order PLL in noise/interf., cycle slip 2547
fractal modulation commun. syst., implement./simul. 15708
freq. channel doubly-reused cellular systs. 17043
freq.-energy efficiency of repeater channel in satellite commun. 42312
general defective channel, informed encoder, constrained memories 24037
generalised differential coherent detect., equalisation 15459
generalized product codes and their perform. 32194
global cct.-switched satellite commun. network, perform. 9406
globally convergent adaptive blind filters and blind equalisers 2863
GSM, M-detector, coherent receiver antenna diversity, perform. 17040

telecommunication channels continued
GSM network evol. 3449
GSM syst., speech and channel coding for half-rate channel 33927
GSM/DCS1800 syst., base station, diversity reception 3497
HDSL equal-power coord. transm. 16924
HDTV channel equalization, recursive Bayesian techs. 9734
HDTV systs., channel equalization techs. 17566
hierarchical cellular syst., dyn. channel allocation/speed estim. 3397
high track dens. mag. recording, multichannel equalization 7194
high-rate orthogonalizable convolutional codes 40632
high-speed channel, selective total-ordering group commun. 2939
high-speed train, adaptive channel equalization 3423
higher-order stats., allpass systs. ident. algm. 32648
highway cellular radio dyn. channel assignment failure rate 33805
HMM for blind channel charactn. and data detect. 40943
hybrid SC/MRC 2DPSK RAKE receiver BER perform. 9232
hydroacoustic commun. channel, Doppler scatt. adapted reception 42476
ID-codes and measures separated in L_1 metrics 40630
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
IEEE Symposium, Trondheim, Norway (1994) 28250
images, block encoded, channel noise detect., mask 8688
impulse response meas. using sliding correl., dyn. range, self-noise 33155
indoor 3D cellular syst. fixed channel assignment plan 33804
indoor mobile radio syst. planning with channel modelling 33816
indoor radio channel modelling by ray tracing 33820
indoor radio LAN, channel outage, token based MAC protocol 8991
inform. transm., control decisions *(Chinese)* 15678
input-constrained channels, encoders, decoding delay 40648
input-constrained channels, encoders, small decoding look-ahead 24086
intelligent multi-access spectrum-sharing methodology 41467
inter base station synch. via common broadcast control channel 9279
inter-zone connection syst. for multi-channel access services *(Japanese)* 33898
Internet, multimedia services, distributed sync. protocols 3263
ionos. satellite-to-Earth commun. channel, sig. delay 2228
IR wireless indoor channel, freq. response 17247
joint blind equalization/phase recovery scheme for data commun. 3431
K-out-of-M multiple-access channel, source correl. 32007
Ka band land mobile satellite channel meas. 9263
Lakes environ. for teleconferencing, connection mgt. 16803
land mobile radio channel multipath excess delay, probab. dens. 3365
LEO satellite systs., DLR channel meas. programme 25400
LEO/ICO-satellite commun. networks, syst. params. 25313
lin. block codes, optimal inform. bit decoding 24091
lin. code, threshold probab. 32058
lin. non-Gaussian sigs., multichannel ARMA models, identifiability 40993
linear block codes, channels with memory, undetected error probability 8167
low-rate multi-channel audio coding, standardization 15778
LPC params. for noisy channels, VQ 32329
M-ary opt. polariz. modulation detect. in commun. channel 17318
M-ary PSK single-sample symbol sync. algms. 40562
M-ary runlength limited codes for high dens. opt. recording 39313
mag. recording channel, binary/ternary DFE 7191
matched filter derived and code-assisted bit sync. 41392
microcellular aggressive dyn. channel assignment 3342
millimetre wave indoor radio channels, charact. *(English)* 40348
MIMO transm. systs., transmitter/receiver optim. 16413
MM-wave turbulent tropos. radio channel freq. response 31819
MMSE seqs. for channel estim. 8083
mobile commun., variable rate speech/channel coding 9222
mobile LEO channel, downlink DS CDMA perform. 25372
mobile radio channel, still image transm., unequal error protection coding *(Japanese)* 42293
mobile radio channel, wideband micro-/macro-diversity meas. 3411
mobile radio channel, wideband propag. meas. 17031
mobile radio channel heavy time dispersion estim. by path tracing 33821
mobile radio channels, non-stationary simul. model 33770
mobile radio channels, stack algm. 9294
mobile-satellite propag. channel wide band charactn. 9264
multi-address encoding for multicast commun. 24858
multi-channel FIR systs., blind ident., deterministic approach 41023
multi-user inform. theory, std. convexity argument 40529
multicast forwarding unified framework 8768
multicast-specific security threats, counter-measures 24961
multichannel environ., direct upconversion, reconstruction filters 25230
multidimensional BCM on fading channel, BER improvement *(Japanese)* 2368
multidimensional coding schemes in combined satellite and terrestrial channels 3531
multidimensional switching networks, universality 8704
multilevel PAM/QAM syst. jitter-reduced digital timing recovery 40563
multiparty commun. support 16875
multiple sigs. dyn. coord. reception in correl. noise 40880
multiple-access adder channel with/without idle users, coding 32190
MUSE decoder, video noise reduction *(Japanese)* 34258
narrow band SSMA/multi-carrier high speed sigs., staggered superposed transm. *(Japanese)* 25209
narrowband fading channel spectral efficiency with power control 42199
native ATM-multicast and IP-multicast, comparison/mapping 33272
near-far resistant DS-CDMA receivers, sensitivity anal. 9236
NEC's digital cellular base station syst. *(Japanese)* 17081
noise immunity rel., code and sig. constr. mutual effects *(Russian)* 15696
noisy (1,7) constrained channel, concatenated coding, perform. 40652
noisy channels, robust VQ 2382
non-lin. adaptive filters for time-variant equalization 29363
non-lin. systs. modelling, novel archit. 40932
nonlin. channel, amplit. estim. for pulse sig. transfer 32026
nonlin. commun. channel equalization by wavelet neural nets 41397
nonlin. ISI channels, improved detector 7195
nonlin. satellite channel, optimum receiver for QPSK sigs. 3507
nonminimum phase channel deconvolution 2475
Northern American Digital Cellular Syst. adaptive algm. fading channel tracking props. 33825
OFDM in amplit. limiting channel 8106
OFDM systs. for freq. selective fading channels, freq. sync. algms. 8091
opt. direct-detect. channel, coded multi-pulse PPM perform. 8170
opt. direct-detect. channel, differential overlapping PPM 15706
opt. fiber channels, sliding-block line codes, dispersion limitations 40578
opt. fibre FDM FSK syst., channel spacing, crosstalk *(Chinese)* 42354

telecommunication channels continued
optical network interface unit for multichannel ring networks 3227
optimal reception, error probab. in channel, variable param. under ISI 32018
orthogonal FDM based syst. for multiaccess methods testing 9329
orthogonal multi-carrier CDMA, nonfading/nonselective fading 24783
overlapping multi-pulse PPM, noisy photon counting channel, perform. 40566
packetized data commun., sync., DFT appl. 33201
partitioned Markov model, non-binary error correcting codes eval. 8168
PCS, advanced digital receiver principles and technols. 17111
PEACESAT program, Pan-Pacific Education and Communications Experiments by Satellite 3518
perform. of scheduling algms. for channel reservation 3229
periodically disturbed data channels, error correcting codes 32142
pers. handy phone syst. portable station design for hand-over operation 42218
portable computing, cellular digital packet data (CDPD) air interface 25352
predistorter design by complex neural net 41638
PRMA, channel impairments effects 9298
PRMA-ISA protocol for multiple access of voice/data traffic 9297
PSK optimum receiver, class A interf./relative freq. wt. 25217
PSK systs., hard limiting transmitting amps. *(Japanese)* 24011
pulse-Doppler radar data secondary proc. syst., false blips flux dens. 17378
QPSK block-modulation codes for unequal error protection 32064
QPSK coherent detect., phase ambiguity removal for diversity combining *(Japanese)* 41040
radar interf. canceller, bit interleaving tech. 33743
radio networks, distributed power control 9376
radio systs., coexistence etiquettes, continuous dyn. channel selection 9246
radiocommunications and mobility *(English, French)* 42188
RAIN (redundant array of inexpensive networks), multitraffic perform. 24949
random coding, optimal noisy channel quantization, asymptotic bounds 24043
RDS channel, Navstar GPS correction data transm. 34192
RDS for digital traffic inform. 9185
ref. sig. generator echo cancellation, ISI receiving schemes 32725
reliable commun., unreliable channels 33265
residual damping depend. on carrier freq. separation *(Russian)* 15695
rewriting syst., communicating machines with identical symmetrical/dual processes 2962
RLS algm., wt. misadjustment, input sig. correl. effect 40843
RLS bilinear filter for channel equalization 32728
RS coding, freq.-hop commun., correl. fading 17024
rural meteor burst communication protocols anal. 33974
rural telecomm. networks, integrated cordless access 9208
satellite mobile channel, FSK-DPD, pulse shaping/transmitter filter 42304
satellite mobile channel, FSK-DPD/CPM-DPD, pulse shaping 25304
SAW filter matrix for satellite SS/FDMA syst. 14092
secure commun. systs. via chaotic sync. and modulations 41381
selectively totally ordered broadcast protocol on single channel network *(Japanese)* 16514
shallow water channel estim. methods, comparison 17460
shallow water commun. syst. for autonomous underwater vehicle 9663
shallow water hydroacoustical commun. channel, data protection codes perform. 32015
Siemens DECT-prototype Gigaset 95x perform. indoors 9108
signal proc. in mag. recording, conf., San Diego (Aug. 1994) 20241
single/multi-amplit. sigs. in interf. channels, neural-net based receiver 16408
slotted ALOHA, channel access probabilities, maximize throughput 41516
small-cell environ., radio channel characts. prediction 3335
soft-decision seq. decoders perform., estim. 8175
space opt. commun., visibility meas. for atmos. transm. model 15450
sparse systs., complexity-constrained LS estim. 42532
spatially distributed radionets, freq. assignment algms. 25643
spread spectrum techniques, IEEE conf., Oulu, Finland (1994) 20200
SS commun. syst. without ref. sig. for freq.-selective fading channel *(Japanese)* 25206
stat. data forks, packet flow control 16436
std. apparatus for automatic monitoring of sound-broadcasting sig. level 3658
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
superimposed codes for Euclidean channel, constr. 40708
switching systs. carrying multi-channel traffic streams, combinat. anal. 41930
T-user q-ary multiple access permutation channel, transm. 40526
TCM, probab. dens. of ISI 15713
TDMA digital cellular syst. time slot assignment techs. 33824
TDMA digital mobile radio, adaptive diversity receivers 9306
TDMA radio based ISDN, rural radio commun. syst. 3235
TDMA satellite commun. systs., transm. power control 17145
TDMA-TDD microcell systs., common access channels design 9292
telecomm. systs., neural networks appls. 41454
telephone channel adaptation, vector field smoothing tech. 2447
telephone channels, discrete algms. for compensating elec. echo 2571
telephone earth station satellite commun. link, engng. design *(Chinese)* 42322
telephone network, speech recogn. degrad. sources 32236
text-independent speaker verification, hierarchical pattern class. 32248
three-stage networks, strictly non-blocking condition 33198
trellis coded overlapping multi-pulse PPM, opt. channel 15705
tropos. scatter radio commun., space diversity and space-time sig. proc. 32690
trusted multicasting elements 2926
tunable bandpass sigma-delta A/D conversion for mobile commun. receiver 9354
unequal-length multichannel δ_b-Levinson/Schur type RLS algm. 24310
unequalized mag. recording channels, clock recovery 7193
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
USA unlicensed PCS band, coexistence/access etiquette 3370
vehicular scatt. effect on mobile commun. 9308
video streams, encoded, efficient transm. on high-speed networks, frame-induced packet discarding 16911
visual commun. channels, inform. lossless transm. 32936
WDM channel sharing scheme for multihop lightwave networks 8696
wideband radio propag. for pers. communs., freq.-domain model 7964
wireless access commun. syst., radio link access procedure 9365
wireless access systs., low bit-rate video transm. 17088
wireless cellular network distributed dyn. channel allocation algms. 42229
wireless commun. channels, blind equalization algm. 41025

telecommunication channels continued
wireless commun. channels, propag. meas. and models 17108
wireless LAN's, collision detect. algm. 41846
wireless multiservice CDMA environ., adaptive packet decoding 9360
wireless networks, resource allocation 9245

telecommunication computer control *see telecommunication control*

telecommunication computing
2-level SCPC syst. carrier freq. assignment, intermodulation product minimization 42334
3 to 300 GHz rain and snow atten. software develop. 31817
34 Mbps digital microwave syst., perform. monitoring 25268
800 MHz PCS, IN technol. appl. 25433
adaptive echo canceller, finite wordlength effects, modelling 16626
adaptive nonlin. predistorter, high power amp. compensation *(Korean)* 25460
ADSL, DSP-based prototype reverse channel transmitter/receiver 33673
advanced telecomms. services, distributed control archit. 25084
Ahmedabad Telecom District, automation, computerisation 3102
AIN, reuse-driven service creation environ. 9038
Alcatel 1000 S12 exchange, ALAMOS generic alarm correl. syst. 3288
Analyser genetic algm. based LAN divider 41769
ANN for optimal message routing 41546
ANS project network, fine-grain simul. 33522
AT&T's 5ESS-2000 switch 16949
AT&T 800 speech recogn. service, network call routing 3140
AT&T PersonaLink, public network for smart agent PICs 41996
ATM Clos switch under symmetric bursty geometric traffic, perform. anal. 41449
ATM computer network concurrent access, discrete event simul. modelling 24997
ATM exchange, parallel computer architect., perform. modelling 42125
ATM fast packet switches, simul. environ. 25172
ATM multiplexer supporting bursty traffic, perform. computation 41427
ATM network protocol develop. package 41841
ATM networks, multimedia appls., QoS selector 9075
ATM networks, neural network traffic description 3240
ATM networks, real-time traffic estim. 41927
ATM networks, simul. tech. for modelling burst scale queueing 33246
ATM syst. traffic anal., modelling and simul. *(German)* 24867
audio-IC technols., single vs multimedia solns. 25688
audio-visual control, message obj. transm. 17560
authentication protocols verification, methodology/example 2954
automatic telephone operator based on client-server syst. archit. 3132
automobile control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
AWK simul. of Petri nets for signalling protocol validation 41509
AXE 10 switching syst., software design support 42110
axisymmetrical radiating struct., simul./optim. software 15626
B-ISDN, simul. testbed, design/implement./appls. 41936
B-ISDN signalling, obj.-oriented implement. 9022
Bavaria DAB single freq. network, field tests results 25638
BBC Radio Digital Project and programme prod. efficiency 17533
BBN advanced acoustic proc. family, overview 9664
Bell customer network mgt. software OO develop. 41653
Berne telecomms. admin., software maint. and distrib. *(German, French)* 16554
binary code struct. anal. based on combinat. presentations *(Russian)* 15798
bit stream generator for HDTV, SCSI hard disc 9732
blind sigs. deconvolution, complex recurrent neural network 15915
block-based simul. tool for TCP/UDP protocol enhancement 16513
broadband networks/services, distributed interactive simul. 9020
broadband transm. networks, multiwavelength technol. 17248
BT customer network design centre for automated design 41579
BT customer networks, ensuring quality in design 16534
cabinets, thermo-hydraulic simul. 16541
cable TV networks measuring data compression 42613
card standardization in telecomms. sector *(French)* 33345
CARPET computer program for radar anal. *(Dutch)* 3597
case driven anal. of interacts. 3256
cct.-switched networks, real time traffic estim. 41680
CDMA mobile radio systs., reverse link anal. 3392
cellular CDMA, ES approach 25347
cellular DS/CDMA systs., lin. interf. canceller 9241
cellular mobile commun. channel assignment by neural net 42269
cellular network mgt., intell. integrated systs. 17127
cellular networks simulator MONSTER 9328
cellular radio, wide area coverage, freq. planning 42190
cellular technol., network mgt. 9398
CHIP lang. impl., large computer network optimal mgt. 24985
CMIP-based OpS-WS interface supporting GUI 41673
CMOS VLSI implement. of 8192 complex point FFT 29248
Coast Guard differential GPS Network and GIS 33973
coding syst. perform. assess., simul. tech. 2378
CODSIM, simul. environ. for spreading codes 3325
COMNET III, obj.-oriented network perform. prediction simulator 24900
COMNET III, obj.-oriented network perform. prediction 16586
computer and telecommunication systems, modelling and simulation, conf., NC, USA, Jan. 1995 11567
computer-telecomms. integrat., overview 41884
computerised commercial office mgt. syst. 3091
conf. scheduling service, multimedia, network support 16830
conf. syst., integrat. of existing appls. 16811
consumer VCR, moving coil actuators, dyn. tracking syst. 17581
contract mgt. using document imaging 41721
corporate commun. requirements, computer assisted anal. *(German)* 16520
criminal electronic tagging, telecom.-based monitoring 28385
Croatian approach, business commun. services 33337
Croatian ISDN, init. experience 41918
Croatian telecomm. mgt. network 41659
CT2Plus based wireless PABX, traffic capacity perform. 9205
DAB common-wave network in Bavaria, field trail results *(German)* 9693
Data Encryption Standard, expt. cryptanalysis 32151
DDS-based synthesizer for mil. spaceborne appls. 43581
Deep Sace Network, microwave controller software, higher order logic 42338
desktop appl. program interfaces 33395
develop. environ. for TMN 3094
developing countries radio network design, RAP package-based 31843
dialog design for speech-interactive telephone automation syst. 2449
differential-lin. cryptanalysis of 8-round DES 32153

telecommunication computing continued
digital audio/video, network and OS support, conf., Lancaster, UK (Nov. 1993) 5450
digital commun. education course, senior undergraduate project 20282
digital microwave LOS 42183
digital multiplexer, diagnosis/repair, ES 9128
digital storage channels, knowledge-based adaptive channel estim. 7192
digital TV control syst., LAN appl. *(Japanese)* 34240
directory assistance, speech recogn. issues 3128
disabled people, radio computer commun. network 41768
dist. tutoring via integrated desks and ISDN 9021
distributed call proc. archit., design/implement. 9010
distributed commun. syst. technol. 24885
distributed connection manager, obj.-oriented interface 9057
distributed control of telephone networks, reactive software agents 41713
distributed network mgt. syst., formal design 33296
distributed restoration methods 16433
distributed switching software, scheduling mechanism of general service order seq. and limited service discipline 9133
distributed systs., teaching, Ada reusable software components 5560
DQDB behavioural simul., data and multimedia traffic 2917
DRS telecomm. satellite, heuristic scheduling 42320
DRS-Sched, data relay satellite syst. scheduler 33950
DS-CDMA mobile radio syst., coherent reception, channel estim. 9229
DSN controller software develop., higher order logic expt. 42339
DSP design tool requirements for embedded systs., telecom perspective 40801
DSP synthesis tools for real time systs. 40802
dual-reflector antenna CAD/modelling 31958
DUALQUEST, real-time bifocal telecomm. network visualization syst. 41672
duplicated telecommunication system, CTRON based operating system 33713
Earth stations/orbiting satellites, interf. simul. 15510
Earth-space paths, microwave propag., 3-350 GHz, computer simul. 23647
ECFSM model for commun. protocols, verification method *(Japanese)* 41511
echo suppression in digital commun. 16620
ECXpert, event correl. in telecomms. 24917
elec. power commun. network monitoring/mgt. *(Chinese)* 33428
electronically mediated interpersonal commun., attitude effect 24888
EM simul. of antenna propag. 15614
embedded image proc. appl., top down struct. parallelisation 2810
embedded real-time syst., effective software reuse 26813
ES, adaptive for network monitoring 3097
ES/interactive multimedia technols. 3262
Estelle interpreter for incremental protocol verification 2973
ETHMICS multimedia commun. testbed 41977
European research project COST 239, ultra-high capacity opt. transm. network 34040
Eurovision Network operations, computerised planning syst. appl. 42570
EWSD digital switching syst., recovery from software faults 16965
expt. design, improved quality protocol testing 16786
expt. virtual creature syst. *(Japanese)* 42005
facsimile, neural network error-correcting 8872
facsimile apparatus, OCR fn. *(Japanese)* 24942
FAMAP generic fault mgt. package for telecom networks 16604
Fast Data Encipherment Algorithm, lin. cryptanalysis 32152
fast LMS-based algm., real-time echo cancellation 33408
fax broadcasting syst., high dens., develop. 33417
feature interacts., building block approach, detect. 3084
FFT, 8192 complex points, single-chip implement. 21377
fiber-optic networks, fault-tolerant layered approach 16687
FM subcarrier data syst., develop. *(Japanese)* 3649
FOCS, toolkit for flexible telecomm. systs. 24896
formal specification of communication protocols, perform. eval. 2975
forward cell planning networks for UMTS 9334
frame relay service and switching syst. constr. technols. 41808
FSM-based program generator for commun. protocol software 2913
fully shared networks, anal. and design 41571
future global multi-service networks, distributed mgt. 16607
future mobile telecomm. systs., handover, cell archits. 3402
fuzzy intelligent hybrid system, telecom network routing appl. 8789
Galileo, real-time networks simulation/anal. tool 3074
GateDaemon Internet routing software 16741
GENESIS, seamless environ. for telecomms. networks 24884
genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
GI/G/1 queue with Bernoulli service discipline, on-line derivative estim. 33241
gigabit router archits. comparison 24842
GIS implement. in commun. companies 24879
graphic presentation and anal. of telecomms. networks 33340
graphical tool for telecomm. network defn. and presentation 41560
ground station-geostationary satellite link, radio wave atten. 40357
GSM data services for the mobile office, field trial 42250
GSM radio meas. data, proc. methods 3447
GSM random access procedure, perform. 9289
GSM signalling protocol LAPD$_m$, perform. anal. 3499
hands-free telephony acoustic echo cancellation 8858
HDTV format convertor, design/test, Forth appl. 3672
Hermite wavelets for multicarrier data transmission 9092
heterog. multiserver network, job depend. dispatching scheme 24952
heterog. networks supervisor, intell. fault mgt. *(French)* 16603
HF band handheld radio param. effects of operator's body 33862
high level DSP code synthesis, dyn. data flow/control flow 32654
high speed network protocol eval., transputer based network simulator 41527
home automation syst., data link layer design issues 3095
home inform. control syst., develop. *(Japanese)* 3683
I^{2}NMA, intell. integrated network mgt. archit. 16580
IN, AXE concept for designing software products 33629
IN, detecting, interacts. 3258
INDIA project, IN mgt. distributed database 25088
inform.-based approach, telecomm. networks engng. 42256
INFOSTEL, IS for telecomms. networks 41658
infrastructure networks, fault mgt. 3458
integrated rural subscriber access systs. for developing countries 25429
intell. agents in multi-media systs. *(English)* 25125
intell. Chinese pen-based screen phone 9110
intell. control of sig. proc. algms. in commun. 16575

telecommunication computing continued
intell. terminal for commun. network resources mgt. 24923
interactive LCD projector, multimedia presentation syst. *(Japanese)* 3260
interconnected LANs, desktop video conferencing syst. 33618
Iridium and MSS constellations, effect of solar interf. on laser commun. 33941
ISDN, network based video storage, inform. retrieval 25111
ISDN develop. impact overview, Italy *(Italian)* 3237
ISDN PC card, design *(Japanese)* 16933
Italian telephone network, interactive voice technol. 2442
ITAPAC, Italian packet switching data network, planning 16565
kernel of distributed proc. platform for telecom network software *(Japanese)* 33437
knowledge acquisition and proc. in telecomm. databases 41559
knowledge-based selector of multimedia commun. services 16902
KView II, network mgt. platform, appl. 33372
L-band GPS receiver, digital downconversion test 9682
land mobile satellite commun. systs., field strength prediction *(English)* 42222
large-scale telecomm. network, multi-fisheye distortion map 41618
LEO satellite systs., perform. eval. 25309
logical communication designer interfaces, implementation and evaluation 33714
LOTOS specification, modularization 2956
MAX telephone diagnostic ES, param. tuning 3105
message router, formal spec. and design 41578
MHS parallel proc., implement. and eval. 24953
Microphone Pro and Smartcom II, telecomms. programs 8950
microwave propag. model for (sub)urban macro celluar coverage prediction 33777
mil. TMD simul., integrated radar algm. simulator 26826
mil. vehicles, communicating, event-driven simul., diffusive dyn. load balancing by terrain parcel swaps 43577
Minerva Network Management Environment 41770
mobile computing, security related issues 33919
mobile computing environ., anonymity 33918
mobile distributed telecomputing archit. requirements 16770
mobile radio, freq.-selective Rayleigh fading channels 17134
mobile radio channels, non-stationary simul. model 33770
mobile radio microcell planning, 3D propag. models *(German)* 25336
mobile service control point for intell. and multimedia mobile commun. 9042
Mobisaic IS for mobile wireless computing environ. 33571
modern commun. technol. advancement, problems *(Chinese)* 3234
modified RESTART-method using LRE-algm., rare event simul. 33247
MPEG video in software, representation, transm., and playback 17578
multi-layered protocols, simul., transputers *(Japanese)* 16502
multi-user demodulation, real time, hybrid digital computer-Hopfield neural network CDMA detector 16459
multicast software develop. 25158
multimedia, business style creation *(Japanese)* 42022
multimedia integrated commun. possibilities *(English)* 3233
multipoint multimedia services, high perform. support 16877
multiprocessor syst., distributed data, overload control 42119
multipurpose Internet mail extension protocol 33646
multivendor integrat. archit. (MIA) 3196
multivendor telecomm. equipt. ATE, test software generation 3728
μP based precision step tracking syst. for 7.5 m antenna 17157
NCIH, integrated network/service mgt. 8837
NEC, develop. of HyperROBOII/WINDOWSrobo *(Japanese)* 42094
NEC's digital cellular base station syst. *(Japanese)* 17081
NEC's digital cellular center, syst. archit. *(Japanese)* 17080
NEC multimedia VAN services *(Japanese)* 42030
negotiative dialogue design for computer aided telephony 41705
network infrastructure, geographical planning support syst. 33292
network integrat., mgt. technols. *(Japanese)* 33378
Network Integration Consultation Environment *(Japanese)* 33379
network interconnection, impact on network integrity 41695
network karaoke syst., develop. *(Japanese)* 42648
network mgt. systs., advanced inform. proc. techs. 3096
network planning and design, simul. appl. 3088
network reliab./sampling, Monte Carlo/Markov chain techs. 41396
network simul. 16559
neural network based parallel algm. *(Chinese)* 8783
NIFTY-Serve, multimedia related services *(Japanese)* 42006
non-stop software extensible syst., dyn. program modif. 16558
nonlin. commun. channel equalization by wavelet neural nets 41397
NTT's trunk link systs., phase II SDH transm. syst. 24891
on-the-fly perform. models for conservative asynchronous protocols 16496
online machine learning, knowledge acquisition appl. 16611
open planning, scheduling and constraint mgt. archits. 24915
operating, supervision and maint. of telecomm. systs. 33368
operation and maint. workstation model, ES module 33369
operator services automation, speech recogn. appl. 3141
opt. cable network database syst., obj.-oriented design 9102
Optical Communications Demonstrator, control proc. syst. archit. 17314
OSI, interconnectability testing syst. design/implement. 41903
OSI commun. protocols, obj.-oriented design approach 8749
OSI Directory Information Base, hash-based high-perform. name resoln. method *(Japanese)* 33438
overall syst. perform., summing subsystem random variables 24776
packet radio network, distributed adaptive routing, simul. *(Chinese)* 42143
packet switching commun. network, Petri net perform. models 24774
packet-switched networks mgt., perform. trending 3087
packet-switched WAN, distributed adaptive routing, perform. 3189
patient recruitment, improved efficiency, automated telephone screening syst. 43327
payload jitter simul., SDH network 17354
PC driven HF broadcast receiver 17554
PC-controlled multiple window display card for TV 17552
perceptual audio coder, neural network based 8148
pers. handy phone syst. for multimedia wireless commun. *(Japanese)* 25127
phased antenna arrays, Hopfield network based adaptation algm. 15663
phased array radar, manoeuvring targets, beam pointing control 17414
PHIDEO, high-level synthesis for high throughput appls. 41173
pipelined common buffer archit. for memory based switching systs. 33716
PLANET, NTT's telecomm. network planning syst. 33293
PLANITU based network planning, ITU-BDT support, Indonesia 2986
POLYPHONE corpus, Dutch for appl. develop. 3137
portable telephone for pers. digital cellular syst. 3467
porting telecomm. appls., transputer networks 41614

telecommunication computing continued
power supply systs., μP control appls. 41626
predictive vector quantizers for speech coding 2404
private data network design, concentrator positioning optimisation 24986
proc. planning of network operations, simul. 16560
prog. DSP, scheduling/instruction selection 6184
protocol specs., message collisions, automated synthesis 2935
protocol tools, formal specification to implementation 3291
PTT Telecom BV, IT investment eval., policy and practice 41595
public data network mgt. syst., inform. model 24911
public data network mgt. syst., monitoring subsystem 24913
public land mobile, network mgt. 9400
public network power syst. mgt. 16613
Q.931 call protocol, LOTOS based validation/perform. 16797
Q^2, perform. anal. tool for telecomm. systs. 24918
radar anal. model encapsulation 25569
radio direction finding results, simul. modeling 34191
radio links, computer generation of sigs., simul. program 17025
radio studios and workstations 17605
Radio Television Malaysia's, computerised news centre 42577
RAMO telecomms. environ. equipt. mgt. network 19870
random access on real time retrieval of digital continuous media 41999
reliab. database for telecomm. project engng. and mktg. 11877
reliab. estim. and software testing, automated environ. 8833
rem. proc., universal monitoring syst. 16606
research community, commun. pattern anal. 41734
RESTART method, accelerated simul., multiple thresholds 33248
Rohde & Schwarz, RFI field-strength meas. in GTEM cell, EMI software ES-K1 8008
RPC protocol for interconnecting distributed discrete event simul. syst. 33481
rule-based control, blackboard model 16614
Sanyo video meeting syst. *(Japanese)* 3243
satellite and airborne SAR simulator 9642
satellite broadcasting schedule optim., Hopfield neural net mean field annealing 25461
satellite commun., effect of atmos. phenom. 42305
satellite commun. access optim., simul. 17154
satellite commun. traffic mgt., mean field annealing 42327
satellite constellation, availability, simul. algm. 3509
SDH multiplex line terminal, CMOS LSI for SOH proc. 42097
SDH transport networks, distributed control 16588
SDL-based protocol implement. tool, proc. scheduler/compiler 41542
segmentation and reassembly procs. modelling in networks 33236
self-recovering commun. buffer based on cellular automaton concept 8801
service and simul. engng., integrated toolset 3080
service config., blackboard-based DSS 8834
service interact. detect. method *(Japanese)* 33634
service interacts., conflict detect., automatic state acquisition 41645
shallow water hydroacoustical commun. channel, data protection codes perform. 32015
shared memory ATM switch, simul. study of space priorities 33720
sharing of measuring inform. in CATV networks 42614
simul. comparison of broadband networking, MAN config. 16761
simul. of protocol conversion in multimedia networks 16909
slow freq. hopped cellular syst., radio link/syst. simul. 9286
SmartZone syst., site hand off operation 3400
SMDS network simul. 33477
software archit. reviews 41609
software automatic generation technol. *(Japanese)* 16512
software demodulation, satellite/GPS/cellular receiver 42329
software develop. complexity of TMN appls. 33361
software evol., design method 3071
software fault insertion testing methodology, syst. robustness 16593
software reliab. prediction, user-oriented procedure 41610
Solid State Logic and workstations for professional audio 17616
SONET Toolkit, DSS for robust network design 42378
speaker testing via neural network based syst. 9768
spec. description for telecom. mgt., inform. and proc. models 41669
speech impaired pers., public telephone network access, TINATEL syst. 43373
SS wireless LAN, interf. cancellation 8929
stepwise refinement of commun. service specs. 25085
stepwise telecomm. software generation, service specs. 3122
STU-III-multilevel secure computer interface 9082
surround sound prog. computer environ. 17617
survey via E-mail for studying computer mediated commun. systs. 33416
switching systs., debugging and simul. environ. 3281
syst. controller for mobile audio visual terminal 42275
syst. user-friendliness eval., ITG test method *(German)* 25137
TCML-1 terminating/converting module for local area *(Japanese)* 25170
TCML-2 terminating/converting module for local area *(Japanese)* 25171
telecom network fault management 8835
telecomm. config. implement. 9009
telecomm. network line quality inform. proc. syst. *(Japanese)* 24920
telecomm. networks, high perform. parallel simul. 24898
telecomm. service protocol synthesis, Petri nets, validation tool 33632
telecomm. service software archit. for next-generation networks 25083
telecomm. services, rem. operations in test appl. 33480
telecomms. in Canada, GIS appls. 24877
telecomms. network optim., part of network planning proc. 33331
telecomms. networks, distributed restoration 41689
telecomputations, telecomms. and computing convergence 3249
telephone, set formal spec. 24924
telephone company customer service operation simul. 16622
telephone network automatic call routing 3136
telephone network CAD grammar 41703
telephone network mgt., learning automata 8777
telephone speech scrambler echo cancellation 41722
telephone switching support syst., software operation syst. inform. model 42113
telephony, computer-aided, user-oriented dialogue struct. 16615
telephony network real-time control, ES 24927
teleworking and telelearning, multimedia commun. 3064
Telsat 28812 high speed modem 42083
TINA expt., PLATyPus tools 8831
TINA-C archit., multi-media conferencing service 42017
TMN appl., highly reliable distributed switching node 41667
TMN appls., software develop. approach 41657

telecommunication computing continued
TMN-based service control, Personal Communication Support System 41691
To-be-IN, obj.-oriented telecomms. services testbed syst. 25086
Totem protocol develop. environ. 2937
tracking antenna controller, design/implement. 15677
traffic anal./modeling, ES 3053
transm. systs., opt. components modelling *(French)* 3569
transputer array based SAR processor 9643
transputer based concepts for decentralized time crit. commun. systs. 41849
TROPICO-R switching syst., software reliab. anal. 42102
trunked mobile commun. syst. mgt., ES environ. appl. 9396
TV broadcasting equipt., mgt. syst., VME based LAN appl. *(Japanese)* 3655
TV network automation issues 3648
TV news prod. workstations, ITN 17559
TV prod., general purpose platforms 17558
TV prod. technols. *(Japanese)* 34242
UltraSAN, model-based environ. for large scale telecomm. systs. 16553
UMTS directory services, security aspects 9209
underwater acoustic network node, design/perform. 16684
V.34 modem built, MC68356 integrated DSP 9118
Venezuelan telecomms., network planning 2985
video streams, multiple access method *(Japanese)* 34280
video transm./reception syst., simul. 3664
video-on-demand syst., distributed hierarchical storage manager 9743
video-on-demand systs., storage hierarchy 9744
Vince, vendor independent ATM network control 16567
virtual space teleconferencing, human fig. synthesis/animation 33619
voice activated automated telephone call routing 8848
voice activated telephone intermediary syst. 2451
voice mail syst., value added services 3150
WDM opt. network, time-wavelength assignment algms. 42375
wideband radio propag. for pers. communs., freq.-domain model 7964
WinAnalysis software, fully automatic sig. detect. and anal. 9816
wireless cellular commun., dyn. channel assignment, parallel simul. 25291
wireless commun., GIS appls. 24850
WISE CAD software for indoor wireless systs. design 42189
xpress transfer protocol, obj.-oriented implement. 16485
Zap & Zoom, telephone voice interface 41720
Pb-acid telecom. power supply batts., total monitoring syst. 41630
Pb-acid valve-regulated telecom. batts., expert mgt. syst. 41632

telecommunication congestion control
adaptive rate control for delayed feedback sources 24745
adaptive routing for equitable load balancing 41575
admission control policies, perform. eval. framework 24996
algorithms on dynamic priority scheduling for heterogeneous traffic in ATM 33708
asynchronous transfer mode LANs, switches, and congestion control 17216
ATM, burst reduction props. of leaky bucket flow control scheme 16451
ATM, comparative eval. of output buffer mgt. schemes 8724
ATM based B-ISDN, virtual spacing for traffic control 25060
ATM broadband networks, multiple push-out congestion mgt. scheme 41681
ATM call admission neural control 41450
ATM computer network concurrent access, discrete event simul. modelling 24997
ATM connection admission control, discretised fluid-flow anal. 41451
ATM connections in B-ISDN, desirable props. of traffic descriptors 33609
ATM enhanced exponentially weighted moving av. method 8731
ATM flow control, rate and credit schemes integrat. 41401
ATM LANs, exposed buffering/sub-datagram flow control 33516
ATM multiplexer, on-off sources, cell loss probab. 16454
ATM network, dyn. priority control algm. enhancement *(Korean)* 16465
ATM network, flow control, hysteresis effect *(Korean)* 33188
ATM network, priority scheduling 24775
ATM network, video frames temporal placement control 24494
ATM network, video services, preventive flow control 41938
ATM network call admission control by random neural net 33218
ATM network congestion control algms., validation/perform. anal. by Petri net 41448
ATM network end-stations, perform. charact. 33175
ATM network perform. 33383
ATM network policing mechanism with state-depend. control 41430
ATM network routing, congestion tolerant commun., perform. 8728
ATM network source traffic priority shaping fn. 41551
ATM network traffic control schemes for no resource reservation data commun. 41440
ATM networks, adaptive call admission control 41436
ATM networks, burst-based bandwidth-reservation method 33165
ATM networks, bursty traffic, call admission control 8707
ATM networks, cell loss minimisation, robust heuristic 24795
ATM networks, cell loss probab., state-space reduction method 16437
ATM networks, congestion control based dyn. routing 2991
ATM networks, credit-based flow control 41400
ATM networks, effective bandwidths for admission control 33231
ATM networks, fast reactive congestion control method 41441
ATM networks, high-speed data commun., VP dimensioning 24907
ATM networks, leaky bucket algm. for bursty sources *(Chinese)* 33163
ATM networks, modified flow enforcement tech. 24744
ATM networks, multiple traffic classes, hierarchical dyn. control 16423
ATM networks, neural network traffic enforcement 16790
ATM networks, optimal estim. framework for adaptive traffic admission 41678
ATM networks, optimal traffic regulation, Markov decision approach 2877
ATM networks, perform. modelling of adaptive connection admission control 41435
ATM networks, policing mechanisms based on max. throughput fns. 41446
ATM networks, real-time commun. 33172
ATM networks, traffic contract params. and CAC guaranteeing cell-loss ratio 41942
ATM networks, two-level congestion control schemes 2884
ATM networks, worst deterministic pattern allocation strategy 33196
ATM networks unified congestion control strategy 16444
ATM networks with leaky buckets, buffer requirements 16446
ATM node buffer allocation algm. for correl. arrivals 41478
ATM peak cell rate monitor algm. dimensioning, discrete time anal. 41447
ATM preventive congestion control based routing 16443
ATM prioritized networks, congestion control schemes 8743
ATM rate-based feedback traffic controller 16445

telecommunication congestion control continued
ATM shuffle-based switch, perform. anal. 8730
ATM source traffic descriptor based on peak, mean and second moment of cell rate 33191
ATM switches, queue mgt., multiple delay/loss priorities 8726
ATM traffic connection admission control, stream correl. effect 41428
ATM traffic distorted by cell delay var., connection admission control 41444
ATM traffic mgt., LAN internetworks 3086
ATM virtual private network design alternatives 16458
ATM virtual private networks 24771
ATM WAN, multimedia commun., routing problem 16892
ATM worst deterministic pattern allocation 8710
ATM-oriented multimedia LAN archit. 41806
available bit rate ATM service, rate-based flow control framework 41399
B-ISDN 9005
B-ISDN, deterministic rule based traffic descriptors 33607
B-ISDN, multilevel hierarchical congestion controls 41933
B-ISDN, queues, total recall 33603
B-ISDN ATM network congestion control framework 3239
B-ISDN connection admission control/routing, neural networks appl. 16788
back-press. control, adaptive, local inform. based 24790
BATS, transport syst. for broadband appls. 33374
broadband network fair-efficient call admission control policies 41426
broadband network grade-of-service achievability conservation laws 41476
buffer control strategy for image data compression 16229
CCS network integrity experiences and risk reduction strategies 41518
CCS networks, congestion control issues 33637
CCS networks, release message avalanche prevention 33158
CDMA cellular radio link, prioritized channel control 25410
cellular mobile networks, dyn. modeling 3403
common store queueing syst., threshold-type foreground-background congestion control 24788
computer networks, game-theoretic anal. of switch service disciplines 3206
conflict-free WDMA networks, buffer-sharing 8745
congestion avoidance networks, congestion estim. feedback 9016
correl. arrival procs. in switching systs. 33192
CRMA/ATM network interconnection flow control protocol 41762
CSMA/CD LANs, packet starvation effect and soln. 33510
cut-off priority delay-loss syst., 3 types of traffic and overload control 33228
data compression, network link congestion control appls. 40793
digital movie systs., perform. bottlenecks 16841
discrete event systs., rapid learning techs. and appls., traffic smoothing 41568
Distributed multicast contention resoln., content addressable FIFOs 16964
distributed neural control of commun. network traffic 24901
DQDB/B-ISDN gateway, UPC mechanisms comparison 33503
dynamic congestion control schemes in high-speed multimedia networks 33594
Erlang capacity of shared resource 40540
Ethernet switches extending 10BaseT lifetime 3163
failure and congestion propag., signaling controls 33389
FDDI for time crit. commun. in mfg., scheduling 41772
FH-SSMA, adaptive retransmission control 16434
frame relay networks, congestion control 25040
general renewal multi-server finite waiting room model, perform. anal. 24792
heavily loaded cct.-switched network, congestion relief 24757
high speed networks, bandwidth and buffer reservation schemes 33388
high speed networks, transport layer protocols, rate control 8993
high-speed cell-based network congestion mgt. techs. 33382
high-speed network QoS, per-session end-to-end delay and call admission 33168
high-speed networks, link capacity allocation/network control 25129
HIPPI-ATM-SONET terminal adapters, archit./perform. 41798
HMR, ATM-based medium access protocol for gigabit ring networks 24800
IEE telecommunications conf., Brighton, UK (1995) 36830
IN services, teletraffic perform. 33638
Indian telecom network, impact of digital switches 16962
integrated services network scheduling and admission control priority token bank 41916
integrated video and data commun., dyn. quality and congestion control 24738
Internet, multiple service levels via precedence 33435
IP networks, congestion avoidance for video 16680
ISDN PABXs, overload control 33723
LAN switch traffic overflow 16722
LAN/B-ISDN interworking unit, congestion control, perform. eval. 25053
LAN/MAN interworking systs., rate control mechanism 24950
Leaky Bucket algm. queueing models, fast simul. methods 11906
leaky bucket network access schemes comparisons 16467
leaky bucket traffic shaper fed by bursty source, output traffic 16442
leaky window, flow and congestion control tech. for HS-WANs 33536
metropolitan microcellular radio environ. PRMA perform. 42194
micro-cellular networks, QOS provisioning for real-time traffic 25393
MIMO LAN interconnection over high-speed gateway 41756
mixed X.25/frame relay networks congestion control 16447
MPEG variable bit-rate video on LANs, rate control 16646
MPEG video traffic, network congestion avoidance 42588
multi-channel/port traffic assignment fast algm. 8742
multi-service networks, mean-value anal. of call admission control thresholds 41394
multimedia conferencing network centralised and distributed control designs 41973
multiservice ATM networks, bandwidth mgt. 24906
multiservice networks, call admission control 33190
multiservice networks, flexible call admission control 41455
multiservice networks, tariffs and effective bandwidths 33356
multistage nonblocking ATM switches, connection-level design 16967
network layer scaling, congestion control in multimedia commun. 16878
network resource mgt., adaptive cct. access control 41700
network traffic mgt., neural tech. 41682
North American public broadband network service evol. 41651
opt. fiber LANs, high speed, WDM multiple access protocols *(Korean)* 16476
optimal virtual path bandwidth mgt. assuring network reliab. 41650
overload control, impact of services and control archits. 33605
packet loss rate simul., commun. networks, priorities 11907
packet switch, quick simul. of stationary tail probabilities 41433
packet switching networks congestion control 16426
QoS adaptation and flow filtering in ATM networks 16852
rate based flow control scheme for time-varying traffic, perform. eval. *(Japanese)* 41458

telecommunication congestion control continued
rate-control throttles, burst reduction props. 24797
rate-controlled service disciplines 33167
real-time traffic switching element, imprecise-computation for congestion control 16779
Real-Time VirtualClock, network traffic control mechanism for real-time commun. 8910
rearrangeable Clos network control, neural net 2983
router speed, implications for faster commun. 24852
satellite-based packet-switching networks, on-board closed-loop congestion control 33942
SDMA protocol, collision resoln. algm. 33269
service specific connection oriented protocol, preliminary perform. study 41935
share-based congestion control scheme for systs. of interconnected networks 33535
SMDS networks, congestion notification technique 3223
SPC systs. with high peak traffic, call-proc. and overload control 33604
SS7 congestion control options, mass call-in situations 24899
stat. data forks, packet flow control 16436
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
TCP Vegas, techs. for congestion detect. and avoidance 2941
TCP-SS versus adaptive rate-based congestion control, perform. 2965
TCP/IP window-based flow control, effect of high bandwidth-delay products and random loss 24804
TDMA radio syst., autonomous SIR-based power control 17130
telecomm. systs., neural networks appls. 41454
universal pers. commun., wireline network access 33929
VISTAnet gigabit networking testbed, traffic meas. anal. 24749
WAN, TCP/IP, perform. 33508
wireless LAN's, collision detect. algm. 41846

telecommunication control
see also telecommunication congestion control
250-Gb/s self-clocked opt. TDM, polariz.-multiplexed clock 42376
ADSL, DSP-based prototype reverse channel transmitter/receiver 33673
advanced telecomms. services, distributed control archit. 25084
Alcatel 1000 E10 digital switching syst. 42106
ARQ protocols for high speed hardware implement. 41541
AT&T's IN, service proc. systs. 16824
ATM cell contention resoln. by multiwavelength fiber loop memory *(English, Italian)* 33989
ATM cell loss priority tagging leaky-bucket usage param. control perform. 41411
ATM cross-connect archit., expandability and non-blocking 3295
ATM multiplexer, Markov modulated arrivals, output proc. 16785
ATM network, reactive flow control mechanism 2869
ATM network LAN/MAN interconnection, simul. study 41902
ATM networks, autonomous provisioning algm. for rem. operation *(Japanese)* 24837
ATM networks, cell conformance and QoS guarantees 41445
ATM networks, cell loss ratio commitments 8711
ATM networks, credit-based flow control 2881
ATM networks, distributed routing/access control 8706
ATM networks, dyn. virtual path bandwidth control, perform. anal. 24908
ATM networks, end-to-end queueing delay 33216
ATM networks, flow controlled virtual channels 2889
ATM networks, fuzzy neural control of voice cells 16418
ATM networks, modulation level-controlled radio syst. 3314
ATM networks, multi-rate traffic shaping/perform. 2879
ATM networks, real-time traffic estim. 41927
ATM networks, routing/congestion control 2890
ATM networks, virtual path bandwidth control perform. 16796
ATM networks supporting time-crit. traffic, optimal resource allocation 24748
ATM subnetwork syst. fns., timer-related perform. issues 24766
ATM switch, DQDB interconnections, cell-based flow control 8966
ATM switch, integrated control/mgt. model 8844
ATM switches, frame-oriented queueing control policy for real/non-real-time traffic 33592
ATM switching syst., bandwidth control fn. 16958
ATM systs., tech. for measuring rare cell losses 41434
ATM virtual private networks, perform. comparisons 16591
audio-visual control, message obj. transm. 17560
automated detect. of interacts. in telephone services 3142
AXE IN service script concept, suppl. subscriber services 33628
B-ISDN, hyperdistributed switching syst. archit. 33588
B-ISDN hierarchical control approach 41925
Bayerische Rundfunk TV prod. studio refurbishment *(German)* 25655
broadband networks, virtual path/network bandwidth assignment 8827
broadband transm. networks, multiwavelength technol. 17248
BT's Network Administration Implementation Programme 41694
burst admission-control protocols, perform. anal. 33263
CBC's Toronto Broadcast Centre master control room 42595
CDMA cellular radio, uplink power control/base station assignment 25376
CDMA mobile systs., power control, perform. and syst. design 33868
CDMA systs., multistage RAKE receiver 9242
cell delay var. tolerance for mapping ATM cells, phys. layer 24755
cellular CDMA, forward-link power control law 3347
cellular CDMA perform., speech bit rate, network control 9375
cellular DS/CDMA systs., lin. interf. canceller 9241
cellular multipath and shadow fading channels, real-time power meas. error statistics 33796
cellular radio, distributed algms. for dyn. channel allocation 25420
cellular radio channel assignment via power level control 9256
cellular radio systs., constrained power control 9249
cellular radio systs., downlink power control algms. 25344
cellular syst. all-channel concentric allocation algm. 42204
centralized control for fiber-optic microcell radio syst. 3450
colour TV receiver, microcomputer control syst. 9709
commun. network control archit., integrate service control and mgt. 25063
consumer electronics human controlled devices prog. 17580
consumer VCR, moving coil actuators, dyn. tracking syst. 17581
Croatian telecomm. network, traffic forecasting 33630
D1900 micro cell indoor/outdoor appls. 25435
DAB, dyn. range control and music/speech control 25641
data-cyclic shared memory (DCSM) in distributed environ. 24951
decentralized routing control, overlapping decomp. 16531
Deep Sace Network, microwave controller software, higher order logic 42338
deterministic queue modelling, leaky bucket, arrival proc. 33239

telecommunication control continued
digital cellular systs., multi-rate speech coding, network fns. 3440
digital portable phone transmitting amp., converter-control IC 25284
digital radio data predistortion, neural-net-with-memory model 42149
digital TV control syst., LAN appl. *(Japanese)* 34240
distrib. network based on controlled switching elements 24773
distributed commun. syst. technol. 24885
distributed connection manager, obj.-oriented interface 9057
distributed control of telephone networks, reactive software agents 41713
distributed control SONET DCS self-healing network service restoration time 42361
distributed multimedia obj. services, media scaling 16844
distributed network mgt. syst., formal design 33296
distributed power balancing, sparse inform. link 9250
distributed radio port controller archit., develop. 25381
DRS telecomm. satellite, heuristic scheduling 42320
DS-CDMA cellular mobile radio network, down-link power control 33871
DS-CDMA cellular slotted syst., throughput/delay anal. 25438
DS-CDMA cellular syst., power controlled, hybrid ARQ 17052
DS-CDMA outage perform., mobile satellite channel 33906
DS-CDMA syst., macro diversity perform. 3389
DS-SS CDMA cellular voice/data commun. 25342
DS-SS packet radio syst. automatic threshold control 42151
DS-SS sigs. time division duplex transm. 9203
DS-SSMA, unknown seq. estimator, near-far problem 25361
DS/CDMA systs., eval. of handover perform. *(Japanese)* 25281
DS/SS systs., transm. bandwidth control schemes *(Japanese)* 25208
DSN controller software develop., higher order logic expt. 42339
DTM gigabit network, fast connection establishment 24805
dual-tone multifrequency (DTMF) detect. improvement 33394
DYANET(C), dyn. channel assigning/routing satellite aided digital networks 3525
dyn. channel allocation algm., transmitter power control 9252
dyn. network call distrib., periodic updates 33635
dyn. network control strategies in competitive environ. 33313
EUTELSAT multi-mission satellite control infrastructure 33964
expanded delta fast packet switch 9141
fast reservation shaper, novel approach for fast resource mgt. 41683
FDDI-II networks, method for isochronous bandwidth allocation 24955
fiber-optic networks, fault-tolerant layered approach 16687
FM subcarrier data syst., develop. *(Japanese)* 3649
freq. hopped TDMA cellular syst., down-link capacity 9285
fuzzy logic handoff algm. perform. anal. by indoor propag. simulator 33819
gated, routing daemon 41701
general-mesh packet flow networks, controlled alternate routing scheme 2989
generalized proc. sharing networks, exponentially bounded burstiness arrivals 33591
generic flow control protocol, perform. assessment 2961
GENESIS, seamless environ. for telecomms. networks 24884
GIGAswitch control proc. 25044
GSM radio meas. data, proc. methods 3447
GSM random access procedure, perform. 9289
Gx-2001 microcontroller, multi-fn. TV technol. appl. 6176
handover during mobile data commun., error reduction 16635
high speed networks, two-level flow control scheme 8902
high-speed channel, selective total-ordering group commun. 2939
high-speed transport protocols, local workstation environ., flow control 33492
hoist automation, radio signalling 11397
home inform. control syst., develop. *(Japanese)* 3683
IEEE MILCOM conf., Boston, USA (1993) 36897
IN archit., call proc. and signalling 33627
integrated services digital broadcasting, transport struct. 24886
integrated services networks, perform. eval., iter. approach 3236
intell. control of sig. proc. algms. in commun. 16575
intell. robust private networks, call proc. structural concepts 33631
intell. video camera, serial control interface 9754
inter-administrative domain data commun., policy control 8903
interactive LCD projector, multimedia presentation syst. *(Japanese)* 3260
interconnected LANs, desktop video conferencing syst. 33618
interlaced digital HDTV image coding field/frame mode selection *(Korean)* 25672
Italian IN, service control point testing/eval. *(Italian, English)* 41962
JVTOS, platform for multimedia telecooperation bridging endsystem heterog. 16882
KView II, network mgt. platform, appl. 33372
LABON, learning automata-based opt. network 9608
LAMS-DLC perform., protocol for low altitude satellite networks 33940
large scale switched telecomm. networks, traffic design method *(Japanese)* 24838
leased cct. subnetwork in digital transm. network 33295
LEO satellite commun., nonuniform traffic, integrated voice/data syst. 25454
LEO satellite networks data link control protocol, datagram service 24835
LEO satellite systs., handover control 9211
line quality inform. proc. syst. *(Japanese)* 24920
LMSS, open-loop power control error 25300
local networks, novel sync. procedure 16547
local/metropolitan ring networks, high perform. protocol 33506
logical communication designer interfaces, implementation and evaluation 33714
M/K multiple priority policy in DQDB networks, perform. eval. 41843
Magic functional model, resource control and B-ISDN protocols 16592
magneto-opt. disk unit, data/disk servo control chips *(Japanese)* 22962
Metaring gigabit/s network under multipriority traffic 24802
microcell overlaid, umbrella cell syst. 17059
microcellular radio, distributed control channel allocation 9351
microcellullar systs., distributed adaptive channel assignment 42297
microsatellite, telemetry/commun. subsystem design 33968
mobile commun., hand-off channel decentralized control 42245
mobile radio slotted Aloha, retransmission control 9379
mobile service control point for intell. and multimedia mobile commun. 9042
moving picture coding syst., MPEG2 based, quantisation control 16227
MPEG digital storage media control command 41607
MPEG encoders bit-rate control 41090
multi-queue force/perform./traffic mgt., theory 41488
multi-user channel, capacity constraints 40524
multicast video distrib. in the Internet, scalable feedback control 3245
multimedia appl. adaptation layer (MAAL) protocol 16848
multimedia appls., advance reservation of network resources 16843
multimedia appls., multipeer transport services 25097

telecommunication control continued
multimedia ATM broadband AIN control station testbed 41990
multimedia conferencing audio bridge 16896
multimedia playout sync., buffer level control 16850
multimedia service creation/activation model 16894
multimedia teleservices, impact of pers. commun. 16866
multimedia traffic, loss/delay priorities, Markov-modulated fluid model 8694
multiplexed ATM traffic, policing/spacing 8695
multiprocessor syst., distributed data, overload control 42119
multirate traffic in various network implement., perform. models 41395
μP based precision step tracking syst. for 7.5 m antenna 17157
narrowband fading channel spectral efficiency with power control 42199
NCIH, integrated network/service mgt. 8837
NEC's digital cellular center, syst. archit. *(Japanese)* 17080
NEC's PBX APEX1000/3000 *(Japanese)* 16963
network integrat., concept/service *(Japanese)* 33377
network mgt. syst., distributed computing 41671
neural network appls. in telecomm. network mgt. 3099
NTT's CUSTOM, hardware and network config. 25005
Omega network-based ATM switch, neural network-controlled 16416
open-loop power control error on land mobile satellite link 25402
operating, supervision and maint. of telecomm. systs. 33368
optimal freq. distrib. in group of radio links 3315
packet switch waiting time, input/output buffer control policy *(Japanese)* 41490
packet switching network routing mgt. 41649
PC rem. control of appliances by telephone lines 41746
PC-controlled multiple window display card for TV 17552
pers. commun. service, distributed commun. control archit. 25380
pers. handy phone syst. portable station design for hand-over operation 42218
phased antenna arrays, Hopfield network based adaptation algm. 15663
pipelined common buffer archit. for memory based switching systs. 33716
power control in cellular syst. 9251
protocol conformance testing, test generation, multi-level approach 33251
radar sens. for automatic AICC 5377
radar sens. for car appls. 5378
radio networks, distributed power control 9376
RAKE receiver implement. of CDMA power control mechanism 25439
real-time sync. control, multimedia segment delivery 16895
real-time traffic in packet-switched networks, routing and admission control eval. 24840
reliable and efficient hop-by-hop flow control 2880
residential video broadband switching network archit. 41554
RS coded slow freq. hopped TDMA cellular syst. perform. 33827
rule-based control, blackboard model 16614
sample path anal. of token rings 41484
SCI fairness protocol for increased throughput 3225
SCP, overload protection methods 41641
SDH multirate time switching control algm. and sig. proc. DCS 41419
SDH transport networks, distributed control 16588
sens. array sig. proc. tech. 32731
shadow fading dyn. channel assignment and power control capacity 42202
slotted multichannel opt. networks, receiver collision effects 42359
slow FH-GSM freq. hopping GSM 9288
slow freq. hopped cellular syst., radio link/syst. simul. 9286
SONET DCS mesh archit. survivability with distributed control restoration 41567
SS 7 time response estim. in mobile cellular commun. syst. 33856
SS receivers, diversity reception improvements 25444
stepwise refinement of commun. service specs. 25085
street microcellular syst., channel allocation, distributed control 25419
surround sound prog. computer environ. 17617
sync. tele-cooperation framework 16809
syst. controller for mobile audio visual terminal 42275
syst. testing archit. for distributed switching syst. 16957
TDMA cellular commun. systs., sig.-to-interf. calc. 33854
TDMA low-power wireless access syst., coverage/handoff tests 25412
TDMA portable radio channel uplink power control algm. 42197
TDMA syst. capacity enhancement by adaptive channel allocation and power control 33203
TDMA/FDMA wireless access, dyn. channel assignment/power control 9243
TDMAX and FASTCOM, Alcatel satellite systs. for domestic and corporate commun. 25450
telecomm. service software archit. for next-generation networks 25083
telephone network automatic call routing 3136
telephone switching support syst., software operation syst. inform. model 42113
telephony network real-time control, ES 24927
third generation mobile systs., adaptive radio interface 25395
TMN-based service control, Personal Communication Support System 41691
tracking antenna controller, design/implement. 15677
TX-2000 multimedia multiplexer, digital network *(Japanese)* 25176
UMTS, advanced TDMA mobile access syst. 25332
usage param. control, tagging method 8692
V.34 modem built, MC68356 integrated DSP 9118
video-on-demand syst., distributed hierarchical storage manager 9743
Vince, vendor independent ATM network control 16567
virtual broadband network, customer control of services and bandwidth 41654
virtual LAN services, multinetworking *(Japanese)* 33543
virtual rate-based queueing, generalized discipline for high-speed networks switches 24787
voltage division multiplexing in commun./computer engng. 24746
VSAT interconnection for wide area diversity syst. 16776
wide-area digital mobile wireless syst. *(Japanese)* 33899
wireless commun., network issues 17113
workstation, intell. LAN-PBX interface 33339
XTP multicast for high quality video distrib. 16484

telecommunication engineering education
audio coding demons. package for telecomms. education 33314
continuing professional develop. 33311
digital commun. education course, senior undergraduate project 20282
mobile IP, secure short-cut routing 24845
VHF ground station design/constr. 42335

telecommunication equipment
see also codecs; compandors; data communication equipment; demultiplexing equipment; facsimile equipment; multiplexing equipment; optical communication equipment; radio equipment; repeaters; telecommunication cables; telecommunication equipment testing; telecommunication exchanges; telecommunication power supplies; telecommunication terminals; telecommunication transmission lines; telephone equipment; television equipment; video equipment
2-step ohmic distrib. syst., printed board assemblies 19838
5 to 100 MHz low power commun., SIT appl. 22481
air conditioning, building control/mgt. syst. 20135
air conditioning, PAFC heat dissipation-based 20137
air conditioning installations overview 20143
AT&T's IN, service proc. systs. 16824
B-ISDN, IN mgt. syst. 8843
cabinets, thermo-hydraulic simul. 16541
CAT tool integrat. for factory automation 33341
consumer electronics, conf., Hong Kong (1994) 5460
custom IC, conf., San Diego, CA, USA (May 1994) 20247
develop. overview, Europe 16563
digital transm. syst. unavailability, component failure rate calc. 42135
earthing/bonding, prETS 300253 European draft std. 15522
EM disturbance, telecomms. equipt., maint./support *(Japanese)* 31864
EM disturbances charactn. meas. 16574
EM protection/estim. for telecomms. buildings *(Japanese)* 31863
EMC countermeasures, R&D *(Japanese)* 31860
EMI bonding topol. studies 15523
ESSCIRC 94, conf., Ulm, Germany (Sept. 1994) 36880
fire risks, safety alarm syst. 16542
fuel cell energy syst., field test 19975
Heat Pac PCM thermal storage, telecom. equipt. rooms 44430
Hi-PAS, EMC design for high-dens. packaging syst. *(Japanese)* 31862
home inform. control syst., develop. *(Japanese)* 3683
indust., business/technol. strategies 33326
jitter testing of Synchronous Digital Hierarchy equipt. 8819
line interface overvoltage/overcurrent protection 16573
max. integrated phone device for analogue telephone set 42076
MCM, miniaturization in telecomms. and workstations 38179
MCM-L cost model and appl. case study 25180
medium-throughput sig. proc. on flexible instruction-set archits. 37797
mountaintop stations installations, lightning protection 23688
multimedia commun., seamless acoustic environ. *(Japanese)* 42013
multimedia conferencing audio bridge 16896
multitone AF testing of telecomms equipt. 3758
network sync., phase noise eval., time domain meas. 24887
Pacific Rim's trade in telecomms. equipt., Chinese case study 3018
pass. protection apparatus for commun. lines, phantom reson. transformer 25193
PCB design, implement. of EMC criteria 29658
SDH technol. for access network services delivery 9100
security, terminals/access mechanisms 3049
stepwise telecomm. software generation, service specs. 3122
surge protection 24875
switch room cooling, natural convection-based 20140
switching syst. develop., documentation 33711
telephone exchange air conditioning units, air flow studies 20141
telephone exchange energy efficiency, EE2000 study project 19820
water-absorbent polymer ground-resist. reducing material, characts. 37541
Pb-acid batt. temp. meas., subscriber loop carrier cabinets 44293
Si component develop., telecom. equipt. protection 19844

telecommunication equipment testing
ADSL, noise environ./syst. perform. 16918
Advanced Intelligent Network service maint. and testing strategy 25089
AIN switch testing without service logic execution environ. 41956
ATE environ., ±30 ps accuracy 9803
ATM environ., broadband commun., lab. plant 16783
ATM switches, stress test results 42116
bal. multiple-pair telecomm. sig. ports disturbances meas. 23744
bonding config. in telecomm. centers, EFT field tests 23707
boundary scan testing 3742
CCS network integrity experiences and risk reduction strategies 41518
central office, simulated direct lightning surge current meas. 24876
CODIT, testbed project, DS-CDMA for UMTS/FPLMTS 3385
commun. satellites, EMC *(French)* 18693
composite noise generator, noise immunity tests for dig. systs. and TV pictures 40371
connectors, vibr. testing methodology 12870
CW immunity test conditions 16952
DARC encoder for mobile commun. appls. 25631
DECT prod. test requirements and strategies *(German)* 42216
diagnostics implementation in standard ATE environment 42699
digital demodulator for rem. sens. satellites, perform. 33969
digital video sig. transm. via RAI analogue FM radio links *(Italian)* 9158
DSP implement./perform. eval. of stereo echo canceller 34287
envelope delay test time meas. methods, modem design 42085
environ. conditions conformance testing 16540
Ermes pager testing, SME sig. generator *(German)* 25350
ET10071, LAN coaxial transceivers *(Japanese)* 25169
facsimile image quality subjective eval. methods 41742
full-band acoustic echo cancellers, steady-state perform. 33676
GPS commercial receiver suscept. eval. 17498
isotropic broadband suscept. test method (appl., ARC-182 radio) 15468
Italian IN, service control point testing/eval. *(Italian, English)* 41962
jitter testing of Synchronous Digital Hierarchy equipt. 8819
ME2632A/B/C digital mobile radio test syst. for PDC/PHS phone prod. *(Japanese)* 33769
MT2607A/B/C PDC handyphone tester used service shops *(Japanese)* 34334
multi-DSP archit., high perform. appl., expt. eval. 12588
multimedia ATM broadband AIN control station testbed 41990
multivendor telecomm. equipt. ATE, test software generation 3728
off-chip IDDq current meas., telecomm. ASICs appl. 6853
R^2SPG tech., systs. upset thresholds meas. 15496
radar T/R module burn-in method 35390
Rohde & Schwarz TV Inserter/Regenerator VIR, TV broadcast monitoring 9697
Rohde & Schwarz TV Network Analyzer SOKF, integral digital oscilloscope 9832
Rohde & Schwarz TV test transmitter SFM 9703

telecommunication equipment testing continued
rural telecommunication syst., optical fibre based, perform. 9094
Siemens K3000 for ISDN quality testing 9013
SMDS technol. test results and issues 41764
SS systs., conducted suscept., testing techs. 3354
subscriber telecomm. equipt., lightning-surge test method 42046
subscriber telecomm. equipt., lightning-surge test method 25146
syst. testing archit. for distributed switching syst. 16957
thermal anal. of IC chips, thermographic imaging 13832
transfer charact., test sig. appl. 16562

telecommunication exchanges
see also telephone exchanges
64 kbps switched internat. ISDN, transm. perform. 16795
AT&T's 4ESS switch, evol. 16956
ATM exchange, parallel computer architect., perform. modelling 42125
AXE 10 syst., operator subsystem fn. testing 33393
Croatian telecomms. network, AXE syst. develop. plan 42108
EWSD digital switching syst., recovery from software faults 16965
IN, AXE concept for designing software products 33629
lab. expt. broadband switching syst., field trial 16784
network traffic mgt., neural tech. 41682
Philips Sopho ISPBX, VPN design/develop. 16972
satellite based ATM switch 17163

telecommunication industry *see telecommunication; telecommunication services*

telecommunication links
see also optical links; pulse code modulation links; radio links; satellite links; space communication links
ATC, Ada computer commun. interfacing 41773
ATM bursty user traffic allowed by jitter tolerant leaky bucket 2872
Berlin-Bonn inform. link BRAVO project *(German)* 8915
computer network expansion CAD, reliab. optim. 33575
computer-power converter commun. link, syst./alarm mgt. 41826
cost reductions by coalitions in internat. network 33300
EMI bonding topol. studies 15523
fast ATM rerouting algm. for networks, unreliable links 8708
global grounding topolgy, interface specs. 44148
high-speed networks, link capacity allocation/network control 25129
home automation syst., data link layer design issues 3095
multicast-specific security threats, counter-measures 24961
PSK optimum receiver, class A interf./relative freq. wt. 25217
Radio Television Malaysia's, computerised news centre 42577
teletutoring, BETEL network 25115
three-level hierarchical telecomm. networks, link no. minimization 33166
underwater acoustic data commun. link adaptive equaliser 9612
virtual paths, syst. optimisation 8702

telecommunication network management
see also computer network management; telecommunication congestion control
advanced IN, OAM&P 25087
advanced inform. proc. techs. 3096
Alcatel 1000E10 switch and IN principles 42107
ANATA, autonomous network administrator, TAMPOPO learning machine appl. *(Japanese)* 16583
appl. develop. 33366
appl. distributed constraint satisfaction, commun. network path assignments 33384
ASDL links maint. approach and fns. 16916
AT&T's 5ESS-2000 switch 16949
AT&T's IN, service proc. systs. 16824
AT&T ATM switching-network products 16950
AT&T voice and audio proc. for telephony appl. 3129
ATM, comparative eval. of output buffer mgt. schemes 8724
ATM, evol., broadband services 8804
ATM bandwidth-on-demand based on TINA archit. mgt. 16590
ATM broadband network mgt., TMN-based 41684
ATM broadband networks, multiple push-out congestion mgt. scheme 41681
ATM connection admission control, discretised fluid-flow anal. 41451
ATM connections in B-ISDN, desirable props. of traffic descriptors 33609
ATM flow control, rate and credit schemes integrat. 41401
ATM internetwork, cost-effective migration strategy 41883
ATM multiplexer, on-off sources, cell loss probab. 16454
ATM multiplexers, dyn. transm./enqueueing priorities 8703
ATM network perform. 33383
ATM network policing mechanism with state-depend. control 41430
ATM network under partial buffer sharing policy, cell loss proc. 8698
ATM networks, adaptive bandwidth mgt. 24909
ATM networks, autonomous provisioning algm. for rem. operation *(Japanese)* 24837
ATM networks, credit-based flow control 41400
ATM networks, dyn. virtual path bandwidth control, perform. anal. 24908
ATM networks, high-speed data commun., VP dimensioning 24907
ATM networks, multimedia appls., QoS selector 9075
ATM networks, optimal estim. framework for adaptive traffic admission 41678
ATM networks, optimal traffic regulation, Markov decision approach 2877
ATM networks, traffic management schemes 33710
ATM switch, integrated control/mgt. model 8844
ATM switches, queue mgt., multiple delay/loss priorities 8726
ATM transport networks, virtual path test fn. 16576
ATM transport networks supporting multimedia traffic, optimal resource mgt. 16853
ATM virtual private networks 24771
ATM virtual private networks, perform. comparisons 16591
ATMXC01, 155 Mbit/s asynchronous cross-connect 25184
B-ISDN, IN mgt. syst. 8843
B-ISDN/ATM customer network mgt. archit. 41913
back-press. control, adaptive, local inform. based 24790
BATS, transport syst. for broadband appls. 33374
Bell customer network mgt. software OO develop. 41653
BMW network mgt. service 8838
broadband network termination syst., perform. monitoring, inform. model 9111
broadband transm. networks, multiwavelength technol. 17248
BT's Network Administration Implementation Programme 41694
BT and MCIs' global managed platform, unified managed transport network 41696
BT SDH network, inauguration 8839
case-based reasoning for telecom network fault management 8835

telecommunication network management continued
CATV status monitoring syst. using HDLC protocol, implement. *(Korean)* 42624
CCS#7 network mgt., evol. approach 33360
CCS No.7 mgt., TMN operation support syst. develop. 33367
cct.-switched networks, real time traffic estim. 41680
cellular mobile telephone syst., service areas assignment 9349
cellular network mgt., intell. integrated systs. 17127
cellular technol. 9398
Centrex, benefits and UK market 16959
CMIP-based OpS-WS interface supporting GUI 41673
common channel signalling network mgt. model 41660
common channel signalling network survivability using DCS 41648
commun. network control archit., integrate service control and mgt. 25063
Compac's LMX 506 router-concentrator 25175
computerised commercial office mgt. syst. 3091
CRMA network real-time appls., perform. anal. 41525
Croatian national MHS, config. model 33336
Croatian telecomm. mgt. network 41659
Croatian telecomm. network, modernization 33357
Croatian telecomms. network archit., QoS planning 33294
cryptographic algms., conventional 24062
customer network management services for broadband data services 33364
customer-centered interfaces, service subscription inform. 24922
data anal., complementary graphical methods 41675
decentralised sens. networks, routing for reliab. 15952
detailed traffic data for network cct. optim. 41570
deterministic queue modelling, leaky bucket, arrival proc. 33239
develop. environ. for TMN 3094
distributed connection manager, obj.-oriented interface 9057
distributed maint. systs., abstr. design method 41655
distributed multimedia obj. services, media scaling 16844
distributed multimedia syst. for commun. 41971
distributed network mgt. syst., formal design 33296
distributed network restoration 41689
distributed telecomm. systs., configurable call/service proc. 41955
DS-CDMA, integrated voice/data wireless networks, grade of service 9364
DTM gigabit network, fast connection establishment 24805
DUALQUEST, real-time bifocal telecomm. network visualization syst. 41672
dyn. bandwidth allocation scheme for ATM networks 3092
dyn. network call distrib., periodic updates 33635
dyn. network control strategies in competitive environ. 33313
ECXpert, event correl. in telecomms, 24917
element mgt. requirements for evolving access networks 16594
embedded ATM networks, distributed pricing 41677
energy mgt. standardisation, SNMP protocol 44191
enterprise network ATM switching paradigm 41408
Ericsson turnkey syst. for GSM 900/DCS 1800 networks 42257
Eurovision network mgt. syst., ENMS 41686
failure and congestion propag., signaling controls 33389
FAMAP generic fault mgt. package for telecom networks 16604
fast distributed network restoration algm. 3548
fast reservation shaper, novel approach for fast resource mgt. 41683
FDDI networks connected through ATM, video traffic mgt. perform. 24916
FDDI-II networks, method for isochronous bandwidth allocation 24955
flexible commun. mgt. for multimedia multipoint commun. 25104
flexible network technol. prospects *(Japanese)* 16572
flow mgt. in quality of service archit. 25099
frame relay networks 41663
France Telecom's Regina syst. for collecting, managing/broadcasting alarms 24919
French terrestrial network:architecture and capacity 9589
freq. channel doubly-reused cellular systs. 17043
FTTH trial network in Bastia, Corsica 25142
future global multi-service networks, distributed mgt. 16607
future telecomm. services, carrier's network strategies 9085
GIGAswitch control proc. 25044
global network mgt. for 90s 8842
global store server, multimedia teleservice component 16869
GlobeView-2000, AT&T's ATM products 9138
GSM network, Q3 network mgt. interface 9402
GSM network, TMN appl. 42260
GSM radio meas. data, proc. methods 3447
GSM radio networks, multivendor possibilities 9399
GSM syst., security aspects/mgt. 3351
health care, secure multimedia appls. and teleservices 16855
heterog. networks, generic mgt. syst. 16579
heterog. networks supervisor, intell. fault mgt. *(French)* 16603
high speed networks, bandwidth and buffer reservation schemes 33388
high-speed cell-based network congestion mgt. techs. 33382
high-speed copper access transm. systs. 16915
human/machine integrat., telecomms. mgt. integrat. network 41666
I^{2}NMA, intell. integrated network mgt. archit. 16580
IEEE telecommunications conf., Brighton, UK (1995) 36830
IEEE MILCOM conf., Boston, USA (1993) 36897
IN, cooperative service mgt. 33626
IN, detecting, interacts. 3258
IN directory service extension *(Croatian)* 3248
IN services, interact. benchmark 3253
IN voice peripherals 16825
IN/TMN harmonisation overview and stds. 41958
incremental service spec. and interact. mgt. support, formal model 3100
INDIA project, IN mgt. distributed database 25088
Indian telecom network, impact of digital switches 16962
indoor mobile commun., CCI and multipath delay 17098
inform. and proc. models, spec. description 41669
inform.-based approach, telecomm. networks engng. 42256
INFOSTEL, IS for telecomms. networks 41658
infrastructure networks, fault mgt. 3458
integrated appl./service platform for multimedia appls. 16893
integrated road transport/traffic environ., protocols 3456
integrated services engng. 41693
intell. control of sig. proc. algms. in commun. 16575
intell. scheduling/planning systs. for telecomms. mgt. 24914
intell. terminal for commun. network resources mgt. 24923
intell. trouble mgt. based on operation scenario and fault simul. 41668
interactive TV services, systs. integrat. issues 17572
Internet's SNMP and ISO's CMIP protocols for network mgt. 16577
IS 54C digital control channel, PCS support 33843

telecommunication network management continued
Italian IN, service control point testing/eval. *(Italian, English)* 41962
John Wiley and Sons telecomm. network devel. 33380
JVTOS, platform for multimedia telecooperation bridging endsystem heterog. 16882
LEO satellite systs., link mgt., throughput efficiency 3529
line quality inform. proc. syst. *(Japanese)* 24920
Magic functional model, resource control and B-ISDN protocols 16592
managed appl. services 16600
Matracom 6400, mgt. syst. for business commun. networks 25185
MBR appl. 41647
MEO constellation, global PCS, satellite network archit. 25398
microcellular systs., handover initiation approach 9324
microcellullar systs., distributed adaptive channel assignment 42297
military satellite commun., IEE Colloquium, London (1995) 36863
mobile and pers. commun., teletraffic challenges 25292
mobile commun. mgt. and digital cash replacement 8845
mobile network mgt., operational perspective 9401
Mobile Transit Network Traffic Monitoring System 25406
modern networks, archit., elements and mgt. 33358
modified adaptive seq. projection algm. 41679
monitoring, task-based human-machine interface 33365
multi-provider environ., multi-service mgt. 41692
multi-queue force/perform./traffic mgt., theory 41488
multi-technol. networks, unified models of survivability 33298
multi-wavelength transport networks 9451
multilevel network mgt. of syst. ident. 41670
multimedia appls., multipeer transport services 25097
multimedia conferencing services in open distributed environ. 16862
multimedia networks, design issues and challenges 41998
multimedia service creation/activation model 16894
multimedia systs., distributed, network mgt. archit. 3270
multimedia teleservices, impact of pers. commun. 16866
multimedia traffic, loss/delay priorities, Markov-modulated fluid model 8694
multipoint multimedia services, high perform. support 16877
multiservice ATM networks, bandwidth mgt. 24906
Nat. Motorway Communications System Mark 2, traffic mgt. 33552
NCIH, integrated network/service mgt. 8837
network config. for leased ccts. in metropolitan areas 33359
network integrat., concept/service *(Japanese)* 33377
Network Integration Consultation Environment *(Japanese)* 33379
network interconnection, impact on network integrity 41695
network mgt. syst. based on ES 3098
network planning and design, simul. appl. 3088
network resource mgt., adaptive cct. access control 41700
network traffic mgt., neural tech. 41682
networked syst. mgt. integrat. archit. 41646
neural network appls. in telecomm. network mgt. 3099
North American public broadband network service evol. 41651
North Carolina Information Highway, network mgt. 8836
NTT Japanese next-generation enhanced transport network services 9590
NTT SDH network/SDH 52/156 Mbps (VC-3/4) DCS 8841
OAM technol. and standardisation trends *(Japanese)* 16609
obj. oriented API for operations syst. develop. 16602
OMNIPoint, service mgt. challenge 3090
online machine learning, knowledge acquisition appl. 16611
OO TMN based operations systs. develop. platform 16605
open distributed environ. perform. considerations 41957
operating, supervision and maint. of telecomm. systs. 33368
operation and maint. workstation model, ES module 33369
operational support systs. for telecomms. services 42621
operations and mgt. (O&M) technol. for telecomms. 41664
opt. cable network database syst., obj.-oriented design 9102
opt. fibre test syst. integrat., network mgt. *(German)* 8830
opt. transport network layer, concept/ demonstrator 42439
optimal virtual path bandwidth mgt. assuring network reliab. 41650
packet switching network routing mgt. 41649
packet-switched networks mgt., perform. trending 3087
PCN, accounting mgt. and AIN 25431
PCS OAM&P stds. 25426
PCS systs., OAM&P std. 3368
pers. commun. service, distributed commun. control archit. 25380
personal and mobile systems, IEE Colloquium, London (1994) 18
phone-ins, impact and mgt. 41726
PON, private/authentic commun. 42072
power supply interface planning project, Sweden 19819
power utility telecomm. network mgt. 26974
protocol modeling/validation, symbolic simul., theory/appl. 2933
protocol modelling in network archit. functional space *(English)* 3093
PTT re-regulation, coord. of tech., legal and regulatory issues 3029
public data network, integrated mgt. syst. 24910
public data network mgt. syst., inform. model 24911
public data network mgt. syst., monitoring subsystem 24913
public land mobile, network mgt. 9400
public network 16599
public network power syst. mgt. 16613
public telecomm. network syst. quality and reliab. assurance 16536
public telecomms. infrastructure, hybrid fiber/coax archit. 42619
Q^2, perform. anal. tool for telecomm. systs. 24918
QoS, end-to-end mgt. scheme 16585
QoS adaptation and flow filtering in ATM networks 16852
RACE 2087/TITAN, access network alternatives *(Italian, English)* 42071
RACE II project, TMN bandwidth mgt. for ATM demonstrated 33362
RACE II project PREPARE, mgt. of heterog. broadband testbed 33386
RACE NETMAN project, functional descriptions of network mgt. 16584
RAMO telecomms. environ. equipt. mgt. network 19870
reconfigurable virtual path network mgt. 41676
reliab. estim. and software testing, automated environ. 8833
rem. centralized DC-3 testing 33387
rem. proc., universal monitoring syst. 16606
routing, economic regulation 33299
routing/flow control, neural networks approach 33297
rule-based control, blackboard model 16614
scalable lightwave network 9452
SDH microwave transm., network appls. and Alcatel products 25222
SDH multiplexing and multiplexers 16421
SDH network design 33291
SDH network element mgt., optimised archit. 16589
SDH network evol. in Japan 33376
SDH network mgt. 16587

telecommunication network management continued
SDH network mgt. *(German)* 8832
SDH radio, new generation, innovation 42186
SDH transport networks, distributed control 16588
SDH/ATM mgt. and services, IEE Colloquium, London (1994) 63
SDL methodology for specifying radio protocols in CDMA syst. 2979
security problems and solns *(Japanese)* 16610
service config., blackboard-based DSS 8834
service mgt. ref. platform in shared business environ. 16596
service specific connection oriented protocol, preliminary perform. study 41935
shared ephemeral teleconferencing state mgt. 16810
short-range commun. networks, appl. layer archit. 9161
SMDS customer network management by 3M and US West 33443
SMDS networks, congestion notification technique 3223
software develop. complexity of TMN appls. 33361
software fault insertion testing methodology, syst. robustness 16593
SONET maint. and mgt., intell. opt. service unit 33363
SONNET gateways and payload mgt. 34022
spare capacity assignment, path restoration 24865
spec. interacts. detect. in telecommun. services 16595
SS7 network mgt., stds. aspects 24902
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
sync. tele-cooperation framework 16809
syst. controller for mobile audio visual terminal 42275
telecomms., aspects of future network planning 33310
telecomms. network design, time-series traffic data *(Japanese)* 41564
telephone exchange alarm traffic charactn., methodology and case study 33406
Telsat 28812 high speed modem 42083
third generation cellular radio, location mgt. 3486
TINA expt., PLATyPus tools 8831
TINA-C archit., multi-media conferencing service 42017
TINA-C archit., rels., IN and TMN *(Italian, English)* 41964
TMN, objectives and first appls. *(Italian, English)* 41697
TMN, platform support environ. constr. 16597
TMN appl., highly reliable distributed switching node 41667
TMN appls., software develop. approach 41657
TMN-based service control, Personal Communication Support System 41691
traffic mgt., neural approach, perform. eval. 16789
transm. network planning/restructuring *(German)* 8781
transparent opt. fiber networks, costs 9588
trunked mobile commun. syst. mgt., ES environ. appl. 9396
UMTS, targets/syst. concept/standardization in global framework 25295
undersea commun. systs., network planning/operation/maint. 33999
universal pers. commun., indust. paradigm shift 17128
video on demand services, hierarchical storage dimensioning 17573
virtual broadband network, customer control of services and bandwidth 41654
virtual paths, syst. optimisation 8702
VSAT networks, integrat., user network environ. 17159
wireless commun., network issues 17113
wireless network mgt., impact of site selection 41674
wireless network perform., multimedia traffic mgt. principles 25132
X.500 directory, basic model for public telecomm. networks representation 41656

telecommunication network reliability
see also computer network reliability
3D PCN, reception reliab. 17057
Alcatel 4400, DP and telecomms. syst. integrat. 41611
all-dielec. self-supporting opt. cables for Australian power lines 34103
ASDL links maint. approach and fns. 16916
AT&T's ACCU-Ring network access service 42059
ATM cross-connect networks, guided restoration 16432
ATM fast packet switch archits., reliab. models 2888
ATM network hitless line protection switching 41409
ATM networks, AAL and group commun. server for reliable multipoint services 16482
bitonic sorters, single faults diagnosis 2876
broadband networks, power supply reliab. 24894
cable TV, structural reliab., open syst. for data commun. 34267
capacity assignments of telecomm. network paths, reliab. eval. *(Japanese)* 16519
CBC's Toronto Broadcast Centre master control room 42595
CCS network integrity experiences and risk reduction strategies 41518
CCS network SS7 protocol, software fault impact model 41517
CCS networks, congestion control issues 33637
CCS signaling networks, traffic forecasting 8722
cellular systs., packet transm., channel quality reliab. 9296
common channel signalling network survivability using DCS 41648
complementary media packet switched networks, survivable commun. 17023
Cox Communications Inc., fiber ring-in-ring archit. 42381
Croatian telecomms. network archit., QoS planning 33294
Croatian transm. network evol. towards broadband 33334
digital CATV, QAM/VSB modulation comparison 34263
digital LOS links, diversity considerations, review 3330
digital transm. syst. unavailability, component failure rate calc. 42135
distributed commun. syst. technol. 24885
distributed control SONET DCS self-healing network service restoration time 42361
distributed proc. technol. *(Japanese)* 16754
distributed restoration methods 16433
DUALCAST, reliable multicasting scheme 2925
European research project COST 239, ultra-high capacity opt. transm. network 34040
fast ATM rerouting algm. for networks, unreliable links 8708
fault-tolerant lin. broadcasting 24764
fault-tolerant switches for photonic networks 16976
fiber network survivability, emerging technols. 34056
fiber optic subscriber loops, reconfiguration method *(Japanese)* 16925
frame relay, internat. service reliab. 41617
fully shared networks, anal. and design 41571
generic math. prog. model 41442
global cct.-switched satellite commun. network, perform. 9406
GTE and Northern Telecoms' survivable SONET network 42399
guaranteed perform. service connections fault recovery 8790
hierarchical self-healing ring networks, design 16522
HMM monitoring, unknown states 16406

telecommunication network reliability continued
home commun. syst., PLC commun. reliab. 9157
hybrid tree-loop networks reliab. anal. 8776
in-service fiber line ident. based on high-resoln. fiber length meas. 17332
India, satellite systs. for global pers. commun. 33953
indoor mobile commun., CCI and multipath delay 17098
internetwork interface, reliab. and performability anal., fault models *(Chinese)* 33427
ISDN technol. for local loop special services transm. syst. 41924
label swapping routing, self-termination mechanism 2984
LAMS-DLC perform., protocol for low altitude satellite networks 33940
LEO satellite systs., link mgt., throughput efficiency 3529
line quality inform. proc. syst. *(Japanese)* 24920
mesh-restorable network spare capacity placement strategies 41550
mesh/arc networking, survivable self-healing networks archit. 16521
modelling, environ. considerations 16625
multi-technol. networks, unified models of survivability 33298
multihop PRN, distributed routing algm. 25247
multiwavelength European opt. transport network 42368
national broadcasting network syst., reliab. anal. 17535
national toll networks, design techs. 41573
network interconnection, impact on network integrity 41695
Ohio metropolitan area, telecomms. infrastructure needs 8798
operating, supervision and maint. of telecomm. systs. 33368
optimal virtual path bandwidth mgt. assuring network reliab. 41650
Q^2, perform. anal. tool for telecomm. systs. 24918
radio programme broadcast, satellite distrib., ISDN back-up syst. 42564
RAPID transport protocol, design and implement. 16486
really IN 41960
reliable and efficient hop-by-hop flow control 2880
ribbon-slotted-core opt. fibre subscriber loop cable 34102
Rician fading nonco-operative multiple access channel capacity 41465
road vehicle-vehicle commun., 60 GHz by TDMA/CDMA 9333
satellite constellation, availability, simul. algm. 3509
SDH self-healing ring element load under different traffic demands *(Polish)* 41555
SDH/SONET undersea fiber-optic systs. 17237
self-healing FITL archits. 9491
slowly time-varying commun. channels, adaptive hybrid ARQ scheme 15782
SONET, network survivability 41562
SONET DCS mesh archit. survivability with distributed control restoration 41567
SONET rings, interoffice telecomms. clustering 25536
SONET rings and video distrib. 42398
SONET Toolkit, DSS for robust network design 42378
SONET-based self-healing mesh network real-time bandwidth allocation and path restorations 41652
SONET-based survivable interoffice network archit. selection 41548
strained layer QW semicond. lasers for pumping Er^{3+}-doped opt. fiber amps. *(Japanese)* 3566
survivable internat. network archit. and dimensioning 41549
survivable interoffice networks, video/inform. transport 9099
switching center, cellular and PCS digital-mobile services 17042
telecomms. networks, distributed restoration 41689
telephone exchange, equipt. enclosures, thermal control 16969
telephone network power supply fault-tolerance, reliab. improvements 19821
telephone/ISDN switching syst. availability objective 42123
three-level hierarchical telecomm. networks, link no. minimization 33166
TMN appl., highly reliable distributed switching node 41667
TMN appls., software develop. approach 41657
Totem protocol develop. environ. 2937
transparent opt. fiber networks, costs 9588
trunk/local access SDH transport fibre network archits. 34092
TX-2000 multimedia multiplexer, digital network *(Japanese)* 25176
USA, microwave radio market 25224
vehicle-to-vehicle commun. for AVCS platooning 5354
wide area commun. networks, traffic restoration timing anal. 41577

telecommunication network routing
see also telecommunication congestion control
250-Gb/s self-clocked opt. TDM, polariz.-multiplexed clock 42376
ad hoc network of mobile hosts, routing 33568
adaptive router on worst case permutations, perform. anal. 24854
adaptive routing for equitable load balancing 41575
ADRIA 1, opt. fibre submarine cable syst. 33736
Alcatel 4400, DP and telecomms. syst. integrat. 41611
all-opt. formatted photonic packet switches archit. 3302
all-opt. network using dyn. wavelength routers, crosstalk penalty 9585
American Cancer Soc. VSAT enterprise network 8889
ANN for optimal message routing 41546
area graphs for locally striking disasters, connectivity problems, direct NA-connection 41547
Asia Pacific region, thin route telecomm. networks 3517
asymptotic resource consumption in multicast reservation styles 2882
asynchronous shuffleout connectionless network switching archit. 41415
AT&T 800 speech recogn. service, network call routing 3140
ATM, hitless path protection switching techs. 16420
ATM cell contention resoln. by multiwavelength fiber loop memory *(English, Italian)* 33989
ATM LAN switch 3289
ATM multicast switching, nonblocking copy network design 2871
ATM NAP archit., routing design 24980
ATM network LAN/MAN interconnection, simul. study 41902
ATM network perform. 33383
ATM network routing, congestion tolerant commun., perform. 8728
ATM networks, autonomous provisioning algm. for rem. operation *(Japanese)* 24837
ATM networks, burst-based bandwidth-reservation method 33165
ATM networks, congestion control based dyn. routing 2991
ATM networks, distributed routing/access control 8706
ATM networks, nonblocking multi-channel switching 8713
ATM networks, routing/congestion control 2890
ATM networks, traffic shaping mechanism 24754
ATM networks, virtual path bandwidth control perform. 16796
ATM node, syst./perform. design 16701
ATM opt. switching, high-speed module for wavelength encoding switching 16982
ATM preventive congestion control based routing 16443
ATM self-routing bridged shuffle-exchange network 41414
ATM shuffle-based switch, perform. anal. 8730

telecommunication network routing continued
ATM shuffleout switch, channel grouping techs. 33199
ATM shuffleout switch, multicast services provision 16440
ATM switch archit. for high-speed switching, barrel switch 16975
ATM technol. for link syst. develop. 24849
ATM three stage switch, cell-level path allocation 8725
ATM transport networks, virtual path test fn. 16576
ATM transport networks supporting multimedia traffic, optimal resource mgt. 16853
ATM ultrafast switching, opt. CDMA by spectral encoding of LED 9609
ATM WAN, multimedia commun., routing problem 16892
ATM-Internet, class D service archit. 8992
ATM-NAPs routing in presence of special ANS/NSFNET attachment 24944
ATM/PVC-based video retrieval network, path reservation protocol 41526
automatic network clustering for fast path selection 24843
B-ISDN, hyperdistributed switching syst. archit. 33588
B-ISDN, transit. models of no. of broadcast viewers *(Japanese)* 25061
B-ISDN connection admission control/routing, neural networks appl. 16788
B-ISDN high-speed-retry banyan switch archit. for gigabit rates 3293
back-press. control, adaptive, local inform. based 24790
banyan-based B-ISDN switches, priority perform. 9006
BanyanNet—bidirectional equiv. of ShuffleNet fiber link 9447
BellSouth Telecommunications, pers. services, AIN 24931
Benes-based self-routing/nonblocking permutation network *(Chinese)* 8785
bidirectional ring, capacity anal. 17243
broadband networks, resource allocation 9017
broadband networks, virtual path/network bandwidth assignment 8827
C-alg., interconnection network anal. appl. 8780
call centres for business commun. 33401
campus inform. network syst., LAN based, switching syst. *(Japanese)* 16697
campus network traffic anal. prevention method 8940
capacity assignments of telecomm. network paths, reliab. eval. *(Japanese)* 16519
cascaded crossbar switches network, connections establishment 8727
cct.-switched network with wireless subscribers, optimal FCL table *(Korean)* 41566
CIDR deployment on Internet 41833
cluster-based network, desirable fault-tolerant topol. 8962
clustered computer switch MINs, routing/resource allocation 3284
CM-5 data router, congestion-free routing 24860
CODE mesh VSAT network, protocols eval. 16515
common channel signalling network survivability using DCS 41648
commun. speed implications of faster routers 24852
Compac's LMX 506 router-concentrator 25175
computer network routing, perform. anal. 8779
connectionless-mode network protocol for mobile end syst. 2957
CONVERGE, circ.-assignment-based switchbox router, via reduction 21062
cooperative search scheme appl. 24851
cost reductions by coalitions in internat. network 33300
CPFSK wavelength-switched systs., coherent/noncoherent detect. 9501
Cray T3D MPP syst., optimized routing 24863
Croatian telecomm. network, traffic forecasting 33630
DDT, Internet tunneling technol. 16749
decentralized routing control, overlapping decomp. 16531
deflection-routing transparent opt. networks, min.-loss node struct. 9564
delta network, expanded middle stages for large ATM cross-connects 24751
design using restricted message routing 41553
digital SCPC DAMA, optimal satellite-based voice networks 3512
distrib. network based on controlled switching elements 24773
distributed commun. networks with semi-shortest routing, loss probab. *(Japanese)* 16455
distributed neural control of commun. network traffic 24901
distributed restoration methods 16433
distributed scalable routing based on link-state vectors 2988
DUALCAST, reliable multicasting scheme 2925
DYANET(C), dyn. channel assigning/routing satellite aided digital networks 3525
dyn. network call distrib., periodic updates 33635
dyn. nonhierarchical routing network design graphic tool *(Croatian)* 2982
dyn. routing in computer commun. networks, stabil. *(Chinese)* 8946
enterprise network ATM switching paradigm 41408
fault-tolerant convergence routing 3203
fault-tolerant switches for photonic networks 16976
FDDI networks connected through ATM, video traffic mgt. perform. 24916
fiber optic subscriber loops, reconfiguration method *(Japanese)* 16925
flexible facility and network engng. technols. *(Japanese)* 16608
flow control/routing, neural networks approach 33297
frame relay networks 41663
French WDM WAN wavelength-routed archit. 34039
FRONTIERNET freq.-routing-type time-division interconnection network, FDM output buffers 9150
fully shared networks, anal. and design 41571
fuzzy intelligent hybrid system, telecom network routing appl. 8789
fuzzy set delay representation, WAN routing algorithms 8963
gated, routing daemon 41701
GateDaemon Internet routing software 16741
general-mesh packet flow networks, controlled alternate routing scheme 2989
generalized proc. sharing networks, exponentially bounded burstiness arrivals 33591
genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
geographical/provider-rooted Internet addressing, comparison 16745
gigabit router archits. comparison 24842
guaranteed perform. service connections fault recovery 8790
heavy traffic trunk line syst. approx. 24928
heterog. data networks, addressing/routing 24841
hierarchical commun. networks, message routing, polynomial-time algm. 8784
hierarchical inter-domain routing, on-demand TOS/policy resoln. 2958
hierarchical self-healing ring networks, design 16522
hierarchical star-controlled rings for multiprocessors 16723
high performance networking, conf., Grenoble, France (1994) 5496
hypercube fault-tolerant multicasting 8691
IBM SP1 multicomputer, routing algms. 24859
IMHP, mobile host protocol for Internet 16748
integrated services networks, perform. eval., iter. approach 3236
inter-administrative domain data commun., policy control 8903
inter-LAN security, trusted routers 16671
Internet, multiple service levels via precedence 33435

telecommunication network routing continued
Internet protocol, next generation flexible routing/addressing 2944
Internet public goods, funding 25023
IP multigigabit router design 8901
ISDN networks with partial sharing, optim. 41932
ISDN routers and LAN traffic 8899
ITAPAC, Italian packet switching data network, planning 16565
JANUS, TCP/IP VSAT network, first yr. experience 16775
juggling networks, TDM implement. 24758
k-ary n-cubes, perform. eval. of adaptive routing algms. 24853
label swapping routing, self-termination mechanism 2984
large scale switched telecomm. networks, traffic design method *(Japanese)* 24838
large-scale LANs, interconnection via two-stage switching hub for multimedia appls. 33513
LARnet, local access router network 25515
London's PSTN, structural optim. 16628
m-route flows in network 8786
Manhattan Street Network, binary addressing/routing 24869
mesh/arc networking, survivable self-healing networks archit. 16521
message router, formal spec. and design 41578
min. adaptive router, perform. anal. 25028
mobile computers, destination-sequenced dist.-vector routing 2990
mobile IP, secure short-cut routing 24845
multi-address encoding for multicast commun. 24858
multi-class non-hierarchical networks, dyn. routing 8791
multi-Gb/s opt. WDM LAN/MAN/WAN networks 42422
multi-hour hierarchical commun. networks design 8787
multi-single-stage shuffling switch, design/perform. 16430
multi-technol. networks, unified models of survivability 33298
multicast forwarding unified framework 8768
multicast route finding algms. in WAN *(Korean)* 8913
multicast routing based on predicted traffic stats. 16529
multichannel acousto opt. tunable filter switches, reduced channel-to-channel interact. 39507
multicomputer routers, support for multiple classes of traffic 24856
multidestination message passing mechanism conforming, base wormhole routing scheme 24857
multidimensional switching networks, universality 8704
multidimensional torus, hop dist. and multihop lightwave network 16525
multihop 2×2 all-opt. photonic packet switch 9152
multihop packet radio network with capture, fading effects 9180
Multihop Packet Radio Networks, routing algm. 2993
multihop PRN, distributed routing algm. 25247
multimedia appls., multipeer transport services 25097
multimedia queueing syst. with Poisson and batch Poisson packet arrivals, traffic anal. 25107
Multinet, multistage ATM switch archit., design/perform. 9139
multipath self-routing switch fabric, perform. anal. of resequencing unit 33608
multiplexed ON-OFF sources, effect of multipath routing on loss perform. 41928
multipoint routing, RS Steiner tree heuristic 16523
multiport mobile internet-router 16679
multistage ATM switching network, delay perform. 33197
multistage nonblocking ATM switches, connection-level design 16967
network protocols, conf., San Francisco USA (1993) 35
neural network based parallel algm. *(Chinese)* 8783
NSFNET routing arbiter archit. 24846
offset cube, optoelectronic interconnection network 24644
Omega network-based ATM switch, neural network-controlled 16416
opt. ATM switching archits. 33730
opt. mesh networks, hot potato/single buffer deflection routing 16528
opt. packet add/drop, wavelength-coded header 25514
opt. packet LAN, collision-free reception 8964
opt. path cross-connect syst. utilizing delivery and coupling matrix switch 16985
opt. path networks, no. of wavelengths required *(Japanese)* 25487
optical network interface unit for multichannel ring networks 3227
optimal alternative routing algms. 41552
packet radio network, distributed adaptive routing, simul. *(Chinese)* 42143
packet routing schedule, O(congestion+dilation) algms. 16526
packet switched networks, fault-tolerant routing algms. 24756
packet switching commun. network, Petri net perform. models 24774
packet switching network routing mgt. 41649
packet-switched WAN, distributed adaptive routing, perform. 3189
pass. WDM opt. network, cost-shared components 9463
PCS, no. mobility techs. 25386
PCS network perform. optimisation by multilink B-ISDN routing protocol 25070
pers. commun. numbering 3113
photonic transport networks, opt. path cross-connect node archit. 16983
photonics for broadband switching 16977
pipeline banyan, fast packet switch design/anal. 25188
power system control, packet radio network appls. 33766
private network-to-network interface (PNNI) for heterog. ATM networks 16699
PRIZMA, flexible shared-buffer switch for ATM, Gb/s rates 33712
public data network mgt. syst., inform. model 24911
R2, damped adaptive router design 24864
real-time traffic in packet-switched networks, routing and admission control eval. 24840
rearrangeable Clos network control, neural net 2983
reconfigurable virtual path network mgt. 41676
rem. prog. all-opt. routing device, clock division 9531
rem. prog. opt. TDM clock division routing device 16987
ROMM routing, class of efficient min. routing algms. 24861
router for fault-tolerant networks 24862
RSVP resource reservation protocol 24808
SAW filter matrix for satellite SS/FDMA syst. 14092
scalable approach, routing in ATM networks 41421
scalable lightwave network 9452
scheduling, genetic algm. appl. 2992
SDH, pointer conversion method *(Japanese)* 8693
SDH, route diversity, hitless path switching 3298
SDH network design 33291
SDH self-healing ring element load under different traffic demands *(Polish)* 41555
Segment router, effect of queue sizes and channel scheduling policies 24855
self-clocked self-routing photonic bit switching archit. 42127

telecommunication network routing continued
self-routing switch element for photonic generalized shuffle networks 16530
shortest-path first routing algms. 24847
simple Internet protocol plus (SIPP) *(Japanese)* 2952
SMDS networks, link set capacity augmentation algms. 16435
SMDS support network minimax open shortest path first routing algms. 41765
SONET, network survivability 41562
stat. data forks, packet flow control 16436
static wavelength router all-opt. network crosstalk penalty 42425
submarine opt. cable systs., cost-effective backhaul routes 3306
submarine opt. cable systs., networking trends 3305
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
supra-high-speed packet switching networks, deflection routing strategy 2887
systolic interconnection network 16537
telecomm. networks, routing, economic regulation 33299
telecomm. systs., neural networks appls. 41454
telephone network automatic call routing 3136
telephone network mgt., learning automata 8777
threshold-based dyn. routing algm., perform. anal. 41576
traffic pattern based mobile routing scheme 16734
transm. network, services routeing/scheduling techs. 24839
two-level hierarchical networks for opt. commun. 16524
ultra-fast self-routing networks 16532
ultrafast photonic ATM switch based on parallel sig. proc. 33727
universal pers. commun., wireline network access 33929
virtual circuit/QoS routing architecture 2994
virtual paths, syst. optimisation 8702
VSAT appl., extend company LAN, retail sites 16774
VSAT interconnection for wide area diversity syst. 16776
WAN, wavelength requirements of all-opt. networks 16712
wavelength division multiple access networks, archit. 16527
wavelength routing fiber LAN network throughput 42417
wavelength-reusable/topol.-reconfigurable WDM opt. LAN networks, monolithic opt. equalizer array 42426
wavelength-routing opt. networks 41580
WDM opt. network life-range-delimitation opt. transceiver for fast routing 9584
wide area commun. networks, traffic restoration timing anal. 41577
wide-area ATM dyn. multipoint routing, geographic spread 41452
wide-area multicast routing archit. 2987
worldwide IN, dyn. routing strategies 33639
worldwide IN dyn. routing, models and results for evol. planning 33640
wormhole router, cost of adaptivity and virtual lanes 29291
X.500 cache partitioning for faster name resoln. in X.400 8959
TeO_2 acoustooptic tunable filters in multiwavelength opt. add-drop multiplexing appls. 17215

telecommunication networks
see also broadband networks; computer networks; intelligent networks; ISDN; personal communication networks; radio networks; switching networks; telecommunication network management; telecommunication network reliability; telecommunication network routing; telephone networks; television networks; VSAT networks
-48 V DC reserve systs., telecom. indust. 19857
adaptive rate control for delayed feedback sources 24745
air conditioning, PAFC heat dissipation-based 20137
Amsterdam road A10, coord. ramp-metering syst. 16640
Asia Pacific region, thin route telecomm. networks 3517
Asia Pacific region developing economies, computer security 3068
AT&T PersonaLink, public network for smart agent PICs 41996
ATM, future in deregulated markets 16552
ATM, technol. develop. *(English, French)* 41398
ATM network, priority scheduling 24775
ATM network end-stations, perform. charact. 33175
ATM network goals and challenges 24770
ATM network traffic profile generation *(German)* 24868
ATM networks, cell loss probab., state-space reduction method 16437
ATM networks, flow controlled virtual channels 2889
ATM networks, modified flow enforcement tech. 24744
ATM networks, multiple traffic classes, hierarchical dyn. control 16423
ATM networks, traffic shaping, implemention 33174
ATM subnetwork syst. fns., timer-related perform. issues 24766
ATM technol., transit., advanced telecomm. networks 8824
Bell Atlantic, centralization/automation in telecom. network testing 33355
BOXER network, design and implement. 18973
broadcasting, public key distrib. design 40698
broadcasting, universal lists 16411
broadcasting in n-grid, given neighborhood template 16412
BT customer network design centre for automated design 41579
BT customer networks, ensuring quality in design 16534
cable TV networks measuring data compression 42613
cellular network overlapping channel assignment tech. 42201
certified electronic mail 16631
China, telecomm. network develop. 3020
China's economic develop., fiber optic networks 3044
circuits systs., symp., Chicago, USA (May 1993) 31
commun. network constr., online algms. 16517
commun. security equipt., anal and selection 41637
communication networks in transportation, IEE Colloquium, London (1995) 20252
COMNET III, obj.-oriented network perform. prediction simulator 24900
competitive distributed deadlock resoln. and resource allocation, local optim. of global objectives 16686
Concert packet services network, planning 16533
corporate networks investments, goals and strategies *(German)* 25048
criminal electronic tagging, telecom.-based monitoring 28385
Croatian telecomms. network, charact. and future trends 33315
data commun. systs., design and anal. 16518
DC distrib. network grounding, EMC aspects 19269
Deutsche Telekom network evol. prospects *(German)* 41636
develop. overview, Europe 16563
developing countries telecomms. networks, operator and inform. services 3067
digital network access to low demand areas, develop. strategies 3016
disjoint products approach, reliab. computation, survey 37203
distributed access network perform. eval. by DEVSim++ 25141
DSP training, indust. perspective 36923
Eastern Europe, telecomms. network planning 33301
Eastern Germany's telecomm. networks, develop. strategies 33302

telecommunication networks continued
economics of compatibility stds. and competition 33320
edge-tenacious networks 28616
EDUCATE project, end-user courses in inform. access, commun. technol. 20339
EM disturbances charactn. meas. 16574
energy mgt., Alenia distributed soln. 19835
EURADAT, pan-European data transm. network *(German)* 8813
European leased lines, harmonisation 33352
European perspective on commun. security 33325
EWSD based systs. for rural commun. 9135
flexible ATM syst. archit. for worldwide field trials 41407
flexible network and telecomm. policy trends *(Japanese)* 16571
fraud mgt. 3039
future telecomm. services, carrier's network strategies 9085
fuzzy dyn. prog. for capacity expansion problems *(Japanese)* 41565
Galileo, real-time networks simulation/anal. tool 3074
GENESIS, seamless environ. for telecomms. networks 24884
global commun. highway, beyond Iridium 3312
global learning network, educational alternatives for developing economies 3043
global marketplace for telecomms. services and networks 3038
global networks, emerging inform. technols. 33309
global power architect. 19813
graph planarity eval. and network planarisation *(Croatian)* 2981
graphic presentation and anal. 33340
graphical tool for telecomm. network defn. and presentation 41560
Hawaii, developing virtual learning environ. 3058
healthcare commun., future needs and present solns. 41875
high data rate satellite commun. systs., R&D *(Japanese)* 17158
high perform. parallel simul. 24898
high speed networks, multicast transport protocols 2924
high speed networks, two-level flow control scheme 8902
high-performance computing and communications, applications development and technology transfer to industry 28556
high-speed ATM backbones 24763
high-speed networks, link capacity allocation/network control 25129
high-speed public transport for enterprise networks 8825
Horton's law, appl., telecomms. networks *(Japanese)* 42061
hybrid fibre/coaxial syst., power/backup power supply 44133
IEE telecommunications conf., Brighton, UK (1995) 36830
image seqs., temporal filtering, short-kernel filter pairs appl. 41077
inform. infrastruct. develop. in USA 3304
infrastructure develop., exploiting technol. convergence 3056
ISDN fn. introduction in real telecomm. network 33596
LAN, WAN, VAN, inform. related technol. *(Japanese)* 3186
large-scale telecomm. network, multi-fisheye distortion map 41618
LASCOM-NET (Japanese Local Authority Satellite Communications Network) 3523
Lebanese telecom. network, diesel generator power plants 19537
lightning response charactn. 16566
line interface overvoltage/overcurrent protection 16573
link syst. constr. 24872
Markovian networks, extreme values of random times 33194
Markovian queueing networks, unsteady state probabilities 16466
meshed networks with protected transm. paths, lower bound based design 41574
Mexico, drive toward 1st world telecomms. infrastructure and education 3046
min. broadcast time problem 24897
min. cost isolated failure immune networks 8788
mixed media open networks for dist. learning 3069
Mobitex data networks 42252
modelling of segmentation and reassembly procs. 33236
MOLP model, telecom. network modernization, sensitivity anal. 41572
MPEG digital storage media control command 41607
multi-technol. networks, unified models of survivability 33298
multimedia packet switching network, capacity assignment algm. 9040
multiple secrets, secure transm. in broadcasting networks 40697
multiservice networks, perform. of single resource loss systs. 33157
multiservice networks, tariffs and effective bandwidths 33356
NEC multimedia VAN services *(Japanese)* 42030
network infrastructure, geographical planning support syst. 33292
network karaoke syst., develop. *(Japanese)* 42648
network opportunities eval. on geographic basis 24878
network protocols, interoperability testing 2977
network reliab./sampling, Monte Carlo/Markov chain techs. 41396
NTT's trunk link systs., phase II SDH transm. syst. 24891
opt. fibre and ATM appl. *(German)* 8815
opt. multi-channel network, multiple/parallel data-transm. *(Japanese)* 17188
optim. 3073
optim., part of network planning proc. 33331
overall syst. perform., summing subsystem random variables 24776
phase deviations on SDH and SDH/PDH interface 8705
PLANET, NTT's telecomm. network planning syst. 33293
PLANITU based network planning, ITU-BDT support, Indonesia 2986
power indust. fibre optic network project, Poland 10683
power syst. develop. projects, Hungary 19049
power syst. telecontrol commun., develop. trends 19189
proc. planning of network operations, simul. 16560
public E-mail, interoperability 33414
regular min. broadcast digraphs constr. *(Korean)* 24866
regulation, tech. aspects 41600
RESTART method, accelerated simul., multiple thresholds 33248
rural communications, design/planning requirements 33330
Russian far east, internat. telecomm. services 3055
Russian Federation, business service network develop. strategy 41558
satellite commun. networks bistability issue 33972
scalable approach, routing in ATM networks 41421
SDH, concept for large urban networks 41423
SDH, independent/synchronized clocks, freq. stabil. measures 8721
SDH network design 33291
SDH networks, pointer adjustment jitter cancelation 16453
security in telecommunication networks, IEE Colloquium, London (1995) 20253
security techs. 33349
services security 33350
simul. of commun. networks 16559
slave clocks in chain, random noise accumulation 42954

telecommunication networks continued
software evol., design method 3071
South Pacific countries, provision of dist. education by satellite 3065
strategic (military) commun. networks, HiFiNS simulator 26819
submarine opt. cable systs., networking trends 3305
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
superhighway services, digital cash payment 8829
system theory, IEEE Symposium, Tuscaloosa, AL, USA (1993) 28239
telecomm. traffic anal./modeling, ES 3053
telecomms., aspects of future network planning 33310
televirtuality, telecomms./VR merging 8828
terminal assignment, genetic algms. 16556
three-level hierarchical telecomm. networks, link no. minimization 33166
throughput-competitive on-line routing 8818
topologies, degree/diam. problem 2980
Trans-European commun., overview *(Dutch)* 16689
transit network trends 41557
transportation appl. 36743
US multinational corporations, telecomm. technol. use/investment patterns 3051
USA emergency telecomms. requirements, Nat. Communications System 3041
usage param. control, tagging method 8692
Venezuela, telecomms. develop. 3023
video streams, encoded, efficient transm. on high-speed networks, frame-induced packet discarding 16911
video-based services, coding 33354
Videotex commun. network, latest develop. 24892
Vietnam, telecomms. regulatory struct. and foreign investment 3026
voice sig. proc. *(English, French)* 40713
VSAT network design tradeoffs 3511
VSAT service in Pacific region 3516
VXI-based systs. for telecom. network perform. monitoring 24882
wireless commun., GIS appls. 24850
Si component develop., telecom. equipt. protection 19844

telecommunication power supplies
2-step ohmic distrib. syst., printed board assemblies 19838
3 MHz DC-DC power converter/amp., cordless/cellular telephone appls. 36329
3-phase PWM rectifier, line current harmonics minimisation 44147
7 kW three-phase soft-switched telecom. rectifier 19799
-48 V DC reserve systs., telecom. indust. 19857
22 kV spot network power receiving/transforming facility *(Japanese)* 27775
48 V, 200 A high dens. rectifier, PF correction 19864
48 V/50 A telecom. switching power supply 19832
70 A telecom. rectifier, high efficiency 12337
150 W multi-reson. DC/DC converter, high efficiency 44138
500 W/1 MHz reson. telecom. power supply develop. 19866
act. clamp PWM forward sync. rectifier power converter 19822
air conditioning, power supply 44602
ALCATEL 1000 S12 switching syst. decentralized DC power supply 19869
batt. racks, earthquake resist., computer anal. 19955
batt. research for telecomms. power supplies *(Japanese)* 19768
broadband networks, power supply reliab. 24894
broadband/multimedia services, power supplies 41994
cellular network, DC supply reliab., Al-air fuel cell 19976
central office building power distrib., loop voltage drop optim. 43748
central office integrated power plant 44159
closed cycle vap. turbogenerators, microwave repeater appls. 19588
const. power rectifiers 44199
DC distrib. network grounding, EMC aspects 19269
DC distrib. networks, overcurrent fuse simul. model 19276
DC power supply equipt, product safety engng. 41625
DC telecom. power distrib. syst. overcurrent protection, batt. model 43749
DC/DC board-mounted telecom. power supply modules 44196
digital telecom. systs., UPS, config., elec. characts. 19863
distributed power modules, decentralized systs., telecom. appl. 19816
distributed power plants, telecom. appl. 19817
electronic device trends in commun. systs. *(Japanese)* 41603
energy mgt. standardisation, SNMP protocol 44191
energy systs. control, QA 19834
fan-cooled power systs., telecom appls. 19837
FITL, commercial AC power quality issues 19227
FITL powering, batt. reserve sizing calcs. 42066
FITL syst. rem. power source, alarm commun. 19867
France Telecom power syst. lightning protection 19332
FTTH back-up batt. power supply monitoring 19868
fuel cell, DC interconnection converter, input current control 44345
fuel cell energy syst., field test 19975
full-bridge series-reson. rectifier, telecom. appls. 19831
global grounding topolgy, interface specs. 44148
handy phone UHF high power amp. module 42255
HF AC power distrib., telecom. power supply appls. 44143
hybrid fiber/coaxial CATV network power distrib. systs. 42627
hybrid fibre/coaxial syst., power/backup power supply 44133
hybrid opt./coaxial telecom. power distrib. options 42138
hybrid PV/diesel power supply, mobile radio repeater 19563
inform. highway power distrib. archits. 42137
INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
Japan's telecom, energy systs., operations 19833
Lebanese telecom. network, diesel generator power plants 19537
local telephone network centralized powering recommendation 42067
LV cct. breakers, DC power syst. appl. guidelines 19346
maint. free UPS, advanced batt. technol. 19815
microwave radio syst. PV power supply, project overview 19562
modular SMPS, opt. submarine cable appls. 19836
network energy mgt., Alenia distributed soln. 19835
network power supply interface planning project, Sweden 19819
on-board DC/DC PWM converters anal. 19823
opt. subscriber syst., UPS *(Japanese)* 42070
PAFC CHP syst., adsorpt. refrigerator-based cooling 41622
Pb-acid valve regulated batt., standby telecom. appls. overview 19960
power alarms, intell. power plants 44158
power convertors, MOSFET-based voltage coupling 19825
power equipt., preventive maint. overview 44157
power plant, supervision/control 19818
power plants, diesel-elec. CHP systs., Japan 19535
power supply systs., µP control appls. 41626

telecommunication power supplies continued
power supply/air-conditioning, reliab. modelling 19858
power syst. develop. projects, Hungary 19049
power systs., IN 19147
power/earthing syst. connectors, QA 43787
public network power syst. mgt. 16613
PWM invertors, telecomm. power supply appls. 19801
RAMO telecomms. environ. equipt. mgt. network 19870
rectifier power supply, telecom. services appls. 19829
rectifier telecom. power supplies, digital current control 19797
rectifiers, AC power line disturbance effects 44150
relay stations, PV power supply experience 19556
rem. telecom. site, engine-generator power supply 19538
repeater, PV/VRLA batt. power supply, low temp./voltage operation 19565
retransmitters, autonomous power supply systs. unification *(Russian)* 42141
single-phase telecom. supply PF correction cct. 41627
solar generator perform., high temp. 20005
supercapacitors, telecom. power supply appls. 12845
SvSig92 rem. monitoring syst., central telecom. power plants 19573
switches, free-standing air conditioning units *(French)* 20138
technol. evol. impact forecast 19785
telephone DC distrib. networks, arc detect. 19277
telephone exchange, primary protection, monolithic Si structs. 19843
telephone exchange energy efficiency, EE2000 study project 19820
telephone exchange rectifier syst., ring topol. 44192
telephone network DC power supplies, modular, intell. 19871
telephone network power supply fault-tolerance, reliab. improvements 19821
telephone PV power supply syst. develop., Finland 19561
TENOR, telecom./computer power supply, distrib. energy storage 12334
terminal auxiliary permanent on-site generator sets 43939
three-wire DC distrib. telecom. power supply 41624
turbo-alternator back-up power supply 19611
UBS, uninterruptible batt. syst., telecom. equipt. appl. 19787
UPS, static power inverter, high perform. 19860
video dial tone powering issues 19814
wireless/data/fiber commun., global power architect. 19813
written pole motor/generator, flywheel storage , telecom. sites 44203
ZVS multi-reson. clamped mode converter, telecom. appl. 12330
Li ion batts. for mobile telephone equipt. 19971
Ni-Cd batts. for mobile telephone equipt. 19971
Ni-MH batts. for mobile telephone equipt. 19971
Ni-Zn batts. for mobile telephone equipt. 19971
Pb-acid batt. deterioration estim., pulse discharge/charge charact. 19937
Pb-acid batt. strings, impedance meas. 19965
Pb-acid flooded batts., perform. monitoring, telephone office 44198
Pb-acid sealed batt. surveillance syst., POWCOM program 44301
Pb-acid stationary telecom. batts., pos. grid studies 41621
Pb-acid telecom. power supply batts., total monitoring syst. 41630
Pb-acid telecom. reserve batt. plant float voltage uniformity 43969
Pb-acid valve regulated batts., H_2 evol., cellular installations 44289
Pb-acid valve regulated batts., modular installation 44288
Pb-acid valve regulated batts., standby telecom. power supply appls. 19959
Pb-acid valve regulated batts., telecom. appls. 19958
Pb-acid valve-regulated batts., PV telecom. power supply perform. 41629
Pb-acid valve-regulated batts., telecom. UPS appls. 41628
Pb-acid valve-regulated telecom. batts., expert mgt. syst. 41632
Pb-acid valve-regulated telecom. batts., maint. costs reduction 36571
Pb-acid valve-regulated telecom. batts., ratiometric reliab. meas. 41631
Pb-acid valve-regulated telecom. power supply batt. perform. 41623
Si component develop., telecom. equipt. protection 19844

telecommunication services
see also electronic mail; facsimile; teleconferencing; telegraphy; telemetry; telephony; teletext; television; viewdata; voice mail
800 MHz PCS, IN technol. appl. 25433
1984-1994, rural telecomms. progress 3004
access link systs. 25145
access network, wireless technols. integrat. 25148
access network upgrades, dyn. eval. method 42073
ADSL, twisted-pair access, inform. highway 42058
ADSL systs., introduction 9103
advanced access network archits. and service demand forecasting 42064
advanced IN services, computer platforms 9036
advanced telecomms. services, distributed control archit. 25084
AIN, pers. mobility services trial 25092
AIN, reuse-driven service creation environ. 9038
AIN service creation and issues 25094
Alcatel 1000E10 switch and IN principles 42107
archit., prevent, interact. 3082
ASDL-I deployment, automated syst. for RFI anal. 9095
Asia, telecomms. sector reform 3013
Asia, update on satellite services 3521
Asia Pacific region, thin route telecomm. networks 3517
aspects of future network planning 33310
AT&T's ACCU-Ring network access service 42059
AT&T's IN, service proc. systs. 16824
AT&T's InterSpan ATM service for enterprise networking 41802
AT&T's InView service for insurance agents 41616
AT&T ATM switching-network products 16950
AT&T voice and audio proc. for telephony appl. 3129
ATM, connectionless multicast service 42124
ATM, evol., broadband services 8804
ATM, technol. develop. *(English, French)* 41398
ATM adaptation layer, service specific connection oriented protocol 2960
ATM and frame relay switching technol. 41424
ATM appl. in LAN 16685
ATM bandwidth-on-demand based on TINA archit. mgt. 16590
ATM campus backbone, constr. 41753
ATM highspeed multiservice broadband integrated network, evol. 33597
ATM multimedia protocols, simplified QoS model 25101
ATM multiplexer output busy/idle periods for homog. ON/OFF sources 33233
ATM network, service provision 16427
ATM network perform. 33383
ATM network perform. for 64 kbit/s-based services 41941
ATM networks, AAL and group commun. server for reliable multipoint services 16482
ATM networks, adaptive call admission control 41436
ATM networks, cell conformance and QoS guarantees 41445
ATM networks, cell loss ratio commitments 8711

telecommunication services continued
ATM networks, end-to-end queueing delay 33216
ATM networks, modified flow enforcement tech. 24744
ATM networks, multimedia appls., QoS selector 9075
ATM networks, routing/congestion control 2890
ATM networks, traffic shaping, implemention 33174
ATM networks supporting time-crit. traffic, optimal resource allocation 24748
ATM technol. for link syst. develop. 24849
ATM traffic distorted by cell delay var., connection admission control 41444
ATM virtual private networks, perform. comparisons 16591
Austel telephone no. plan 16619
Australia's deregulated telecomms. indust. and Telecom 2999
Australian Broadcasting Corporation, technol. convergence implications 3652
automated detect. of interacts. in telephone services 3142
automated internat. telecomm. charge card service, "89" service 3120
AXE IN service script concept, suppl. subscriber services 33628
B-ISDN, source model for connectionless traffic 25062
B-ISDN, tree computation for reserved bandwidth traffic 33593
B-ISDN standardization, tech. issues in data commun. services deployment 33601
B-ISDN VBR video traffic, modelling and verification 41934
batch service syst., perform. anal. 33224
BATS, transport syst. for broadband appls. 33374
BellSouth Telecommunications, pers. services, AIN 24931
BERKOM multimedia teleservices 16856
British Telecom's video on demand technol. 42580
broadband multipoint multimedia telecom. and computer supported collaborative work 42018
broadband network evol. 8821
broadband network services, archit. for high speed multimedia networking 25102
broadband network services, distributed multimedia support-environ. 16870
broadband networks, virtual path/network bandwidth assignment 8827
BT, user-friendliness in products and services 16544
BT's architectural approach to develop. of products, systs. and services 16543
BT and MCIs' global managed platform, unified managed transport network 41696
BT screenphone services in UK 42077
BT SDH network, inauguration 8839
BTnet, BT Internet service archit. 41909
carrier's network strategies 9085
case driven anal. of interacts. 3256
cause-effect validation of service requirements 3079
cell buffer implement. realizing CLP and appl. 16966
cellular digital packet data, perform. anal. 42271
cellular mobile radio, multiple service provision 3375
Centrex services in AXE 10 42122
China's economic develop., fiber optic networks 3044
CIO multimedia commun. platform 16857
CIO multimedia commun. platform 16884
commun. network control archit., integrate service control and mgt. 25063
competition promotion, UK 41605
compressed digital video services 33966
concept formulation techs., telecomms. services 33308
Concert packet services network, planning 16533
config., blackboard-based DSS 8834
conflict detect., automatic state acquisition 41645
Corporate IP services for Internet 24809
corporate mobile commun. solns. 41725
corporate struct., R&D and incentives *(English, French)* 41581
corporate telecomm. networks, trends and integrat. issues 41937
CRMA network real-time appls., perform. anal. 41525
Croatia, telecomms. syst. prod. 33316
Croatian approach, business commun. services 33337
Croatian ISDN, init. experience 41918
Croatian telecomms., struct. and develop. of services 41612
Croatian telecomms. network, AXE syst. develop. plan 42108
Croatian telecomms. network, charact. and future trends 33315
Croatian telecomms. network archit., QoS planning 33294
Croatian transm. network evol. towards broadband 33334
CT2 syst. for data services, perform. 3495
CTA project, infrastructure for flexible dist. learning in Europe 16859
customer-centered interfaces, service subscription inform. 24922
DATAVIDEO service, tech. and operational charact. *(Italian)* 8814
DECT data services 42251
DECT technol. for radio in local loop 8853
deregulated free market telecomms. indust. 8800
developing countries telecomms. networks, operator and inform. services 3067
developing economies and internat. deregulation 3019
DFR std. for multimedia archiving teleservice 16865
digital music services delivered via cable syst. 33343
digital services, broadband delivery 42054
digital video services, technols. and network archits. *(German)* 42626
disabled people, commun./IT, Canadian Nat. Strategy 43369
distributed commun. networks with semi-shortest routing, loss probab. *(Japanese)* 16455
distributed multimedia obj. services, media scaling 16844
distributed radio port controller archit., develop. 25381
DQDB MAN service integrat. and impact on ATM interworking perform. 41847
DQDB network, real-time commun. services 3176
DSP training, indust. perspective 36923
DYANET(C), dyn. channel assigning/routing satellite aided digital networks 3525
Eastern Germany's telecomm. networks, develop. strategies 33302
EC's STAR programme, relevance, Pacific Rim countries 3024
economics of compatibility stds. and competition 33320
electronically mediated interpersonal commun., attitude effect 24888
enterprise network (in yr. 2000) 41640
environ. preservation, telecomm. services role 2996
Ericsson's broadband concept 41613
Eurescom IMS1 projects (integrated multimedia services, 1 Mbit/s) 16846
EURESCOM project 230, combined pers. and terminal mobility in IN environ. *(Italian, English)* 42291
European benefits of advanced commun. 41598
European Commission's mobile green paper 33305
European leased lines, harmonisation 33352

telecommunication services continued
European R&D activities in mobile multimedia commun. 9041
European research project COST 239, ultra-high capacity opt. transm. network 34040
European telecomms. strategy 24874
European Union's telecomms. policy, infrastructure competition 8807
Eurovision network services 42571
EUTELSAT developments, IEE Colloquium, London, UK (1995) 11598
EUTELSAT satellites, generation 33962
EUTELSAT tech./planning develop., overview 33959
EUTELSAT telecomms. services 33960
FASTPAC for frame relay 16555
feature interacts., building block approach, detect. 3084
finite-horizon stat. QoS measures for high-speed networks 33590
FITL deployment in BT network 42056
FITL syst., opto-electronic IC impact 42052
flexible access network, technols. appl. 33978
flexible commun. mgt. for multimedia multipoint commun. 25104
flow mgt. in quality of service archit. 25099
FOCS, toolkit for flexible telecomm. systs. 24896
forecasting broadband demand, geographic areas 33348
forecasting broadband demand and traffic, multi-faceted approach 33346
forecasting long-term demand for services in residential market 33347
formalisation of user view of network and services for interact. detect. 3255
frame relay, internat. service reliab. 41617
frame relay computer commun. service for high-speed data 41807
frame relay service and switching syst. constr. technols. 41808
France Telecom's fibre optic access networks 25499
France Telecom's Regina syst. for collecting, managing/broadcasting alarms 24919
France Telecom power syst. lightning protection 19332
fraud mgt. 3039
French telecommun. services, CNET speech technol. appl. 3081
FTTH trial network in Bastia, Corsica 25142
full-text inform. delivery, electronic, US infrastructure 16546
future global multi-service networks, distributed mgt. 16607
GCommS project, group commun. support for distributed multimedia systs. 16858
general-mesh packet flow networks, controlled alternate routing scheme 2989
generalized proc. sharing networks, exponentially bounded burstiness arrivals 33591
GIS appls., Canada 24877
GIS implement. in commun. companies 24879
global marketplace, product design, develop. and mktg. for different cultures 41602
global marketplace for telecomms. services and networks 3038
global networks, emerging inform. technols. 33309
global pers. commun. services 3362
GRAMS distributed multimedia service syst. 16833
Great Lakes states, advanced telecomms. and inform. services 8792
GSM data services for the mobile office, field trial 42250
GSM home location register, advantages/challenges 25385
GSM network archit. issues for next century 3444
GTE advanced intell. peripheral config. 25091
Hawaii, national and internat. network services for dist. education 3197
Hawaii Department of Education, online media catalog and booking syst. 3060
health care, ACOSTA accompanying measure A2106 3052
health care, secure multimedia appls. and teleservices 16855
heterog. mobile environ. supporting adaptive services 33567
heterog. multiserver network, job depend. dispatching scheme 24952
high bandwidth internat. video via fiber optic cable 3057
high dens. SDMA, double freq. reuse 25421
high-speed network QoS, per-session end-to-end delay and call admission 33168
high-speed public transport for enterprise networks 8825
Hong Kong, telecomms. hub and bridge, Chinese market 3045
hybrid fiber/coaxial archits., analog services 42384
hybrid fiber/coaxial technol. for broadband service delivery 33670
hybrid STM-ATM switching and transport 41437
IBCN services for multimedia tourism appls. 16900
IDEA project, broadband multimedia and collaboration tools 16885
IDUN, broadcast multimedia syst. 25106
IN, AXE concept for designing software products 33629
IN, cooperative service mgt. 33626
IN, detecting, interacts. 3258
IN, service creation environ. 33625
IN, strong user authentication 25090
IN archit., call proc. and signalling 33627
IN planning, customer expectation 33636
IN revenue, service creation 25093
IN services, European telcos maintaining competitive edge 16826
IN services, interact. benchmark 3253
IN services, teletraffic perform. 33638
IN voice peripherals 16825
IN-based approach for PCS service provision, PSTN infrastructures *(Italian, English)* 41963
incremental service spec. and interact. mgt. support, formal model 3100
indust. changes, competitive environ. 41597
inform. infrastruct. develop. in USA 3304
inform. rev., socioeconomic implications 41584
inform. superhighway and regulatory proc. 8805
infrastructure develop., exploiting technol. convergence 3056
infrastructure develop. projects, Estonia 43639
Inmarsat and pers. mobile satellite services 3363
Inmarsat emergency satellite commun. 3522
integrated appl./service platform for multimedia appls. 16893
integrated ATM networks, dimensioning and design methods 41569
integrated services engng. 41693
integrated video and data commun., dyn. quality and congestion control 24738
intell. robust private networks, call proc. structural concepts 33631
intell. scheduling/planning systs. for telecomms. mgt. 24914
intell. terminal for commun. network resources mgt. 24923
intell. trouble mgt. based on operation scenario and fault simul. 41668
interact. detect., logical approach 3085
interactive TV services, systs. integrat. issues 17572
interacts. class., detect. and resoln. 3083
internat. virtual private networks, background/tariff survey 41728
INTERSPUTNIK, internat. global syst. of satellite commun. 33939

telecommunication services continued
ISDN, present status and future *(Japanese)* 9003
ISDN, transparent ATM LAN interconnection 16668
ISDN networks with partial sharing, optim. 41932
ISDN technol. for local loop special services transm. syst. 41924
Italian IN, service control point testing/eval. *(Italian, English)* 41962
JVTOS, platform for multimedia telecooperation bridging endsystem heterog. 16882
LAMS-DLC perform., protocol for low altitude satellite networks 33940
Latin American telecom privatizations 41599
leased cct. subnetwork in digital transm. network 33295
LEO satellite networks data link control protocol, datagram service 24835
LEO satellite systs., partial coverage, perform. eval. 25399
link syst. constr. 24872
load-adaptive/TDMA systs. perform., satellite networks appl. 9415
local pers. commun., archit. 25382
macrocellular PCS propag. channels, 1850-1990 MHz band 31836
Magic functional model, resource control and B-ISDN protocols 16592
Maitland report, commun. and develop. ten yrs. 3003
managed appl. services 16600
message seq. chart specs. for services, variant proc. struct. *(Japanese)* 24883
message switching network, value added message services 3147
mixed media open networks for dist. learning 3069
mobile commun., nonspeech services overview *(German)* 3376
mobile commun. mgt. and digital cash replacement 8845
mobile commun. regulation 33928
mobile data network services 3377
mobile service control point for intell. and multimedia mobile commun. 9042
mobile users of telecomm. services, security 25388
Mobitex data networks 42252
model for flexible config. of appl. oriented commun. services 33273
MOLP model, telecom. network modernization, sensitivity anal. 41572
motorway commun., radio distrib./opt. transm. network 42157
MPEG2 appl. transm., ATM networks 16880
multi-provider environ., multi-service mgt. 41692
multi-service networks, mean-value anal. of call admission control thresholds 41394
multicast routing based on predicted traffic stats. 16529
multimedia, impact on indust. 33659
multimedia, marketplace pot. 25110
multimedia appls., advance reservation of network resources 16843
multimedia appls., multipeer transport services 25097
multimedia appls. in interactive CATV networks 16845
multimedia commun., seamless acoustic environ. *(Japanese)* 42013
multimedia conferencing services in open distributed environ. 16862
multimedia endstations, service kernel 16842
multimedia service creation/activation model 16894
multimedia services for distrib. industries *(Japanese)* 42025
multimedia teleservices and high-speed archits., conf., Heidelberg, Germany (1994) 40
multimedia traffic, loss/delay priorities, Markov-modulated fluid model 8694
multimedia transport and teleservices, conf., Vienna, Austria (1994) 44
multimedia/hypermedia sync. scheme 16883
multiparty commun. support 16875
multipoint multimedia services, high perform. support 16877
multirate traffic in various network implement., perform. models 41395
multiservice ATM networks, bandwidth mgt. 24906
multiservice networks, call admission control 33190
multiservice networks, perform. of single resource loss systs. 33157
multiservice VSAT network, multi-access protocols 9417
multistage nonblocking ATM switches, connection-level design 16967
NAFTA and telecomm. opportunities in Mexico 3021
narrowband and video distrib. services, syst.-sharing config. 25139
NASA ACTS Program for commun. services 9405
national toll networks, design techs. 41573
NEC, develop. of HyperROBOII/WINDOWSrobo *(Japanese)* 42094
NEC's pers. digital cellular telecomm. syst., develop. *(Japanese)* 17079
NEC multimedia services, CATV network *(Japanese)* 42029
NEC multimedia VAN services *(Japanese)* 42030
NECM multimedia services in mfg. industries *(Japanese)* 42024
network config. for leased ccts. in metropolitan areas 33359
network infrastructure, geographical planning support syst. 33292
network integrat., concept/service *(Japanese)* 33377
network integrat., mgt. technols. *(Japanese)* 33378
Network Integration Consultation Environment *(Japanese)* 33379
network interconnection, impact on network integrity 41695
network opportunities eval. on geographic basis 24878
network optim. 3073
new telecomms. technols., social effects 3001
news on demand for business, Nynex/Dow Jones 16828
non-stop software extensible syst., dyn. program modif. 16558
North America mobile satellite commun. systs. *(Japanese)* 33900
North American public broadband network service evol. 41651
NTT, customer globalization trends 41590
NTT's HDTV opt. fiber transm. syst. 42603
NTT's INS-Net service, ISDN service commercialization 41923
NTT's maint. service concept and strategy 24871
Ohio metropolitan area, telecomms. infrastructure needs 8798
operational support systs. for telecomms. services 42621
operations and mgt. (O&M) technol. for telecomms. 41664
operator services automation, speech recogn. appl. 3141
opt. fiber access networks, rem. node placement method *(Japanese)* 42060
optoelectronics, market outlook 7452
OSI environ., distributed message transfer and store appl. 33264
outsourcing of services, high technol. orient. 33582
overload control, impact of services and control archits. 33605
Pacific island nations, data services 3062
Pacific region commun. satellites, 1994 status report 3520
Pan-European broadband high speed networks, develop. 16564
pan-European services via interconnection of IN-platforms *(Italian, English)* 41961
pan-European telecomm. services, interacts. 3254
PanAmSat, private global satellite service provider 3047
PARADISE project, transit. strategy towards global X.500 directory 33335
partial-order transport service for multimedia and appls. 2920
PCN, data services 42249
PCS, LEO satellite network, delivery time anal. 25315
PCS, non-blocking channel assignment for hand-offs 25422
PCS, pers. mobility 3366
PCS air interface stds., develop. 3369

telecommunication services continued
PCS provisioning in cellular environ. 3496
PCS retailers, network infrastructure wholesale opportunities 25430
PCS stds. develop., Committee T1 work 25425
PCS systs., OAM&P std. 3368
PCS technol., air-interface stds. competition 33772
PCS traffic perform. stds. 25427
pers. commun., CW meas. in residential environ. 31831
pers. commun. service, distributed commun. control archit. 25380
pers. commun. services, perspective 17132
pers. commun. services on distributed proc. environ. 41690
point-to-point telecomms. services for small/medium sized businesses 41615
power syst. telecontrol commun., develop. trends 19189
power/telecomm. sector competition comparison, Germany *(German, English)* 35501
private commun. groups in packet-switched networks 8956
private networks signalling, develop. 41639
project mgt., telecomms. 37016
protocol configuration, modules as building blocks 3222
protocol specs., message collisions, automated synthesis 2935
protocol synthesis, Petri nets, validation tool 33632
PTT Telecom's, billing syst. *(German, French)* 24873
public network 16599
public service providers, future service provision 41739
QoS, end-to-end mgt. scheme 16585
QoS adaptation and flow filtering in ATM networks 16852
QoS and media sync., formal description tech. 16873
QoS negotiation for multicast commun. 16876
QoS negotiation for orchestrated, distributed multimedia presentation 25100
RACE II project, TMN bandwidth mgt. for ATM demonstrated 33362
RACE II project Combine, broadband network interworking 33353
RACE II project PREPARE, mgt. of heterog. broadband testbed 33386
radio syst., PSTN network syst. interfaces/services 25383
RAPID transport protocol, design and implement. 16486
rate-controlled service disciplines 33167
real-time multimedia services, sync. commun. protocols *(Korean)* 16840
real-time sync. control, multimedia segment delivery 16895
real-time traffic in packet-switched networks, routing and admission control eval. 24840
really IN 41960
regulation, tech. aspects 41600
rem. operations in test appl. 33480
Rice-lognormal terrestrial/satellite channel model 31834
ROMANTIS, satellite services for Eastern Europe 33938
router speed, implications for faster commun. 24852
RSVP resource reservation protocol 24808
RTI related services, packet based data link protocol 8769
runtime feature interact. resoln., negotiating agents approach 3257
rural telecom. networks/services, Africa 42182
Russian far east, internat. telecomm. services 3055
Russian Federation, business service network develop. strategy 41558
SAFENET, fault-tolerance/timeliness, layered approach 33507
satellite PCN, 3rd generation, technol./networking issues 25413
satellite/cellular integrat., terminal manufacturer's perspective 25396
SCP, overload protection methods 41641
SDH technol. for access network services delivery 9100
SDH/ATM mgt. and services, IEE Colloquium, London (1994) 63
security and IN 33633
security in telecomms., subscriber perspective 33351
security issues 33350
service interact. detect. method *(Japanese)* 33634
service platform oriented fiber access network, archit./config. 9101
shared business environ., service mgt. concepts 16596
shared CDMA LEOS environ., total capacity 25303
simul. engng., integrated toolset 3080
SMDS networks, congestion notification technique 3223
software archit. for next-generation networks 25083
software evol., design method 3071
South Pacific countries, provision of dist. education by satellite 3065
Spain, telecomm. network facilities in competitive environ. 8809
spec. interacts. detect. in telecommun. services 16595
speech recogn. based telephone service perform. 3139
Sri Lanka's telecomms. infrastructure, private sector contrib. 3032
stepwise refinement of commun. service specs. 25085
stepwise telecomm. software generation, service specs. 3122
Swiss Telecom PTT, radio paging service *(German)* 42300
switching center, cellular and PCS digital-mobile services 17042
technol. innovation, hist. 33303
technols., recent progress *(Chinese)* 5723
telecomms. traffic charactn., fractal procs. 33189
telephone company customer service operation simul. 16622
Texas Instruments multiserve enhanced voice services 3133
third generation mobile systs., satellite services integrat. 3443
TINA-C archit., multi-media conferencing service 42017
TIP, transport and internetworking package for ATM 16483
To-be-IN, obj.-oriented telecomms. services testbed syst. 25086
Trans Europe line (TEL), fibre-optic link, Eastern/Western Europe 33977
transit network trends 41557
transm. network, services routeing/scheduling techs. 24839
trusted multicasting elements 2926
UK market growth 41596
UMTS, fixed network issues and design options 25331
UMTS, targets/syst. concept/standardization in global framework 25295
UMTS, vision for 21st century 42279
UMTS and RACE II CODIT project 9392
United States PCS policy and rural develop. 3114
universal pers. commun., indust. paradigm shift 17128
universal pers. commun., wireline network access 33929
universal pers. telecomms. syst., interact. restructuring 3145
universal service and innovation, regulatory policy 33327
universal service reform 33304
unlicensed PCS band, wireless operation 25428
US corporations, telecomms. initiative adopters 33323
US WEST's broadband residential access archit. 42057
USA, ATM and frame relay services 8816
USA, public telecomms. infrastructure funding 8794
USA, regulatory climate for foreign investment in telecomms. 3030
USA emergency telecomms. requirements, Nat. Communications System 3041
USA local telecomms., competitive self policing 41593

telecommunication services continued
Valora 81 terminal, calling line ident. for residential users 42075
Venezuela, telecomms. develop. 3023
Venezuelan telecomms., network planning 2985
video on demand server, design outline 42629
video on demand services, hierarchical storage dimensioning 17573
video-based services, coding 33354
video-on-demand, trends 42589
Videotex commun. network, latest develop. 24892
virtual broadband network, customer control of services and bandwidth 41654
virtual circuit/QoS routing architecture 2994
virtual LAN services, multinetworking *(Japanese)* 33543
virtual private networks via IN 41954
virtual rate-based queueing, generalized discipline for high-speed networks switches 24787
voice mail, enhanced, interacts., impact 16634
voice proc. in telecomms. 2439
VoiceDialing, speech recogn. based telephone service 3138
VPN's and business commun. solns. 41953
VSAT service in Pacific region 3516
wireless commun., standardization 25358
wireless digital data commun. 25325
workstation, intell. LAN-PBX interface 33339
worldwide IN dyn. routing, models and results for evol. planning 33640
worldwide telecomms. networks, investment in transitional economies 3005
X.500 directory syst. in Croatian public telecomm. network 41706

telecommunication signalling
100VG-AnyLAN, network operation/real-time capabilities 33504
ADSL, multi-drop in-house distrib. network 16919
Advanced Intelligent Network service maint. and testing strategy 25089
ALCATEL 1000 S12 switching syst. decentralized DC power supply 19869
asymmetric DSL ideal discrete multitone signalling 42051
AT&T ATM switching-network products 16950
ATM adaptation layer, service specific connection oriented protocol 2960
ATM switch, integrated control/mgt. model 8844
Australian ESI, commun. develops. 26975
AWK simul. of Petri nets for signalling protocol validation 41509
B-ISDN interworking, data services and signalling 25064
B-ISDN signalling, obj.-oriented implement. 9022
B-ISDN signalling network, perform. params. 16787
bandlimited channel 8D 4-pulse 2-carrier signalling scheme 40547
bidirectional parallel peripheral interface, signalling method 24983
BT screenphone services in UK 42077
CCS network integrity experiences and risk reduction strategies 41518
CCS network SS7 protocol, software fault impact model 41517
CCS networks, congestion control issues 33637
CCS networks, release message avalanche prevention 33158
CCS No.7 mgt., TMN operation support syst. develop. 33367
CCS signaling networks, traffic forecasting 8722
cellular-ISDN systs., accessing protocols/network reconfigurations 9377
common channel signalling network mgt. model 41660
common channel signalling network survivability using DCS 41648
connection oriented protocols, ATM 16473
Croatia, business commun. syst. MD110 in private networks 33338
Croatian ISDN, init. experience 41918
Croatian telecomms. network, AXE syst. develop. plan 42108
distributed multimedia syst. for commun. 41971
diversity combining, correl. slowly flat-fading Rayleigh channels 8374
DMT/DWMT systs. and digital filter banks 9091
dual-tone multifrequency (DTMF) detect. improvement 33394
DYANET(C), dyn. channel assigning/routing satellite aided digital networks 3525
EDTV-II telecine image conversion and signalling *(Japanese)* 17569
ETSI V5 interface globalisation 41917
failure and congestion propag., signaling controls 33389
fast FH/CDMA systs. in mobile radio environ., efficiency 17086
GSM signalling protocol LAPD$_m$, perform. anal. 3499
handover init. in cellular mobile radio networks 9335
handportable satellite commun., lin. transmitter archits. 42332
hi-fi mobile DAB scheme 9695
hospital commun. and signalling syst. *(Italian)* 10300
IN archit., call proc. and signalling 33627
IN planning, customer expectation 33636
M-ary orthogonal signalling, near-max.-likelihood demodulation 32030
Magic functional model, resource control and B-ISDN protocols 16592
max. integrated phone device for analogue telephone set 42076
mobile satellite channels, partial response coded MPSK anal. 42205
mobile satellite fading channels, M/QPR-TCM perform. 17096
multichannel combined R2MFC/DTMF/CCT receiver, single-chip DSP *(Korean)* 42112
multihop 2×2 all-opt. photonic packet switch 9152
multimedia appls., advance reservation of network resources 16843
multimedia conferencing audio bridge 16896
Nakagami fading sigs. reception, sq.-law combiner perform. 42155
native-mode ATM appls., signaling and OS support 2945
network mgt., evol. approach 33360
network mgt. protocol modelling in network archit. functional space *(English)* 3093
Nikola Telsa mobile telephone syst. NMT 450, functionality upgrading project 33857
noiseless photon commun. channel model and coding anal. *(Croatian)* 2353
non-lin. adaptive filters for time-variant equalization 29363
nonlin. multi-h phase codes, full response and partial response CPFSK 8171
opt. CDMA commun. syst. M-ary signalling 34058
optimized signaling waveforms, ISI/timing jitter effects reduction 15968
orthogonal FDM for mobile radio 9214
pan-European GSM signalling for Abis interface 3448
phase/FM combined, multilevel block codes 24012
private networks signalling, develop. 41639
prog. canonical correl. anal. for blind adaptive spatial filtering 9167
Q.931 call protocol, LOTOS based validation/perform. 16797
QAM signaling, Rician-fading diversity channels, error probab. 32040
QPR-TCM, fading mobile satellite channel, perform. anal. 9336
QPSK coherent detect., phase ambiguity removal for diversity combining *(Japanese)* 41040
Russian Federation, business service network develop. strategy 41558
satellite reception, DSPN signalling in mobile dense scatterer ray tracing model 33944

telecommunication signalling continued
SCP, overload protection methods 41641
software develop. complexity of TMN appls. 33361
spatial opt. CDMA 42351
SS7 congestion control options, mass call-in situations 24899
SS7 network infrastructure, connection-less packet data transm. 25414
SS7 network mgt., stds. aspects 24902
SS 7 time response estim. in mobile cellular commun. syst. 33856
switching syst. MD110, specific appl. develop. 33715
telecomputations, telecomms. and computing convergence 3249
third generation cellular radio, location mgt. 3486
UMTS, fixed network issues and design options 25331
UMTS 3rd generation systs. signalling, perform. eval. 25293
underground commun. techs. for cavers/potholers 9186
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
universal personal communications, conf., San Diego, USA (1994) 20233
wavelet packet modulation, orthogonally multiplexed commun. 32038
WDM quasi-all-opt. broadband networks, packet headers encoding 16448
wide-area digital mobile wireless syst. *(Japanese)* 33899
worldwide IN, dyn. routing strategies 33639

telecommunication standards
see also FDDI; SONET; television standards
5.6 kbits/s PSI-CELP of half-rate PDC speech coding std. 8191
32 kb/s ADPCM, frame erasures, perform. 8210
100VG-AnyLAN fast Ethernet std. 41815
adaptive token release mechanism for ring LAN and MAN 41529
Alcatel 1000E10 switch and IN principles 42107
Alcatel millimetric wave transm. equipt. 25221
ATM campus backbone, constr. 41753
ATM for voice, video and data commun. 41620
ATM fund. 33182
ATM LAN emulation 16758
ATM networks, cell conformance testing, respect, peak cell rate 41457
ATM networks, cell loss ratio commitments 8711
ATM networks, flow controlled virtual channels 2889
authentication protocol, design, verification and implement. 2930
automatic vehicle location subsystem interfaces 3461
AXSIA module in PREVISIA, distributed IS *(French)* 16661
B-ISDN, CCITT Recommendations 3231
B-ISDN standardization, tech. issues in data commun. services deployment 33601
broadband network services, archit. for high speed multimedia networking 25102
BT screenphone services in UK 42077
cable long-term influences of three-phase power cables *(German)* 16999
card standardization in telecomms. sector *(French)* 33345
cascaded crossbar switches network, connections establishment 8727
CCS No.7 mgt., TMN operation support syst. develop. 33367
CDMA digital cellular, field test results 3383
cellular mobile telephone systs., optimal paging 33934
cellular TDMA evol. for personal commun. 42225
chip sets for digital cellular handsets 17036
CIO RACE-2060 initiative, multimedia mail services 25103
communication and signal processing, conf., South Africa (1993) 5502
compressed video, high-end appls. 33623
computer-telecomms. integrat., overview 41884
Croatian internat. telecomms. and regulatory environ. 33318
Croatian national MHS, config. model 33336
CT2 syst. for data services, perform. 3495
CT2Plus based wireless PABX, traffic capacity perform. 9205
CTA project, infrastructure for flexible dist. learning in Europe 16859
DCT based codec for mobile video coding, simul. 17125
DECT multibearer channels 3494
DECT systs., low time-dispersive channels, adaptive equalization 3498
DECT technols. and pot. markets 41714
Demand Priority MAC protocol for 100 Mb/s LANs 25043
desktop videoconferencing syst. *(Japanese)* 25079
DFR std. for multimedia archiving teleservice 16865
dial-up X.400, APS alliance 25018
differential GPS data format stds. and trends *(Japanese)* 17510
digital audio storage/transm., data reduction 17547
digital cellular phones, speech proc. technol. *(Japanese)* 42289
digital signature standard, keys generation 8161
DMT-based ADSL, concept, archit., and perform. 9105
DMT/DWMT systs. and digital filter banks 9091
Document Transfer & Manipulation std. 41499
DS-CDMA/TDMA for digital cellular systs. 3390
EAN directory service, support for transactions and replication 8960
economics of compatibility stds. and competition 33320
EDI and inter-firm rels., coord. proc. standardization 33482
EDI standardisation, eval. and certification, X.400, PEDI, X.435 and security services *(French)* 25025
EMI bonding topol. studies 15523
Ericsson's CME 20 implement., GSM network soln. 33771
Ericsson turnkey syst. for GSM 900/DCS 1800 networks 42257
Ermes pager testing, SME sig. generator *(German)* 25350
ETSI V5 interface globalisation 41917
EURADAT, pan-European data transm. network *(German)* 8813
Europe, standardization and technols. 33317
European leased lines, harmonisation 33352
European mobile commun., future trends 17123
fiber network survivability, emerging technols. 34056
Fibre Channel Standard, rapid protocol develop. 33494
flexible ATM syst. archit. for worldwide field trials 41407
flexible network characts. and develop. prospects *(Japanese)* 16570
future public land mobile telecomm. systs. 3367
Future Public Land Mobile Telecommunication Systems 25424
generic flow control protocol, perform. assessment 2961
GIS data commun. 33487
global network mgt. for 90s 8842
Global System for Mobile Communications (GSM) 42285
GSM archit. 42286
GSM internat. standardisation *(German)* 9225
GSM network, Q3 network mgt. interface 9402
GSM network, TMN appl. 42260
GSM network archit. issues for next century 3444
GSM networks, test products develop. 9201
GSM procedures for integrated cellular/satellite syst. 25319
GSM syst., security aspects/mgt. 3351

telecommunication standards continued
GSM syst., speech and channel coding for half-rate channel 33927
half-pel precision motion estim. proc. for NTSC-resoln. video 16156
hand-held GSM digital mobile telephones, near E-field magnitude 42284
handshake level requirement for establishing connection 41501
HDTV decoders testing, boundary scan test impact 9725
hierarchical video coding scheme, mean separated normalized VQ 33100
high-speed B-ISDN data terminal adaptor design 41915
HIPERLAN, high perform. radio LAN std. 16653
HIPPI interconnection syst., camp-on strategy, perform. eval. 33493
HIPPI-ATM-SONET terminal adapters, archit./perform. 41798
HSSI for broadband appls. bandwidth allocation 16656
IDUN, broadcast multimedia syst. 25106
IEEE 802.12, Demand Priority and multimedia 16664
IEEE 802.6 based PCN, distributed paths migration 9363
image commun., open distributed environ. 16864
IN/TMN harmonisation overview and stds. 41958
integrated road transport/traffic environ., protocols 3456
intermediate reuse factors for capacity eval. 17058
Internet Engineering Task Force, security awareness 24979
internetworking archit. for integrated voice and data commun. 9007
IR commun. protocols, automatic protocol recogn. *(Japanese)* 42471
IS 54C digital control channel, PCS support 33843
IS-54-B portable digital cellular phone *(Japanese)* 42288
ISDN PC card, design *(Japanese)* 16933
ISO-MPEG-1 audio, high-quality digital audio generic coding std. 2392
ISO/Internet mgt. integrat. 24905
ITU mobile radiocommunications freq. spectrum allocation *(Japanese)* 33904
ITU-T, pers. commun. services and teletraffic standardization 33930
ITU-T recommendation V.34 for high speed modems 42082
JAGUAR, pipelined VLSI archit. for JPEG image compression 21341
Japan digital cellular syst., field test results 3439
Japanese digital cellular std., IN archit. 42258
Japanese std. based digital cellular syst. perform 33807
JPEG image data compression, fuzzy logic algm. 41076
key transport of asymmetric algms. *(French)* 24105
KView II, network mgt. platform, appl. 33372
low-rate multi-channel audio coding, standardization 15778
MANs, topol. design 41844
MHEG coded representation for hypermedia IRS 16847
MHEG in std. messaging systs., complete multimedia mail 16867
MHEG multi- and hypermedia obj. interchange std. 41975
MIDI and ZIPI, comparison 25696
Mitsubishi Electric base-station modulation/demodulation eqpt. *(Japanese)* 33892
mobile telephony, present status and future trends 42209
MOBITEX and mobile data systs. 41859
MPEG2 appl. transm., ATM networks 16880
MPEG, digital audio coding, standardization 15777
MPEG, full-motion internat. video compression std. 16365
MPEG 2 appls. 32877
MPEG integrated audiovisual coding std., develop. 24393
MPEG-1 audio std., guide 15963
MPEG-2, IEE Colloquium, London, UK (1995) 11597
MPEG-2 video data stream, real-time decompression chip 42047
multi-std. video codec data flow proc. 25130
multimedia conferencing protocols, ITU-T T.120 series 16881
multimedia fax-MIME gateway for Internet 8943
multimedia markets, network evol. and stds. 25113
multimedia systs., develop. 9064
multimedia teleservices, impact of pers. commun. 16866
multivendor integrat. archit. (MIA) 3196
Nat. Information Infrastructure, stds. and interoperability 24978
NEC, digital video transm. technol. develop. *(Japanese)* 42617
NEC's contrib., video coding standardization *(Japanese)* 41158
NEC's pers. digital cellular telecomm. syst., develop. *(Japanese)* 17079
NEC video compression technol. *(Japanese)* 41352
net-theory appl., commun. protocol develop. 8760
network OAM technol. and standardisation trends *(Japanese)* 16609
network security problems and solns *(Japanese)* 16610
no slot wasting bandwidth balancing of TAR bit 8985
office environ. opt. wireless transmitter technols. 42358
open archit. provisioning systs., total systs. mgt. 33371
open distributed proc. trader federation, X.500 directory approach 41761
open systems security standards, Africa 33584
pan-European GSM signalling for Abis interface 3448
PBX-computer connection technol. *(Japanese)* 16970
PC rem. control of appliances by telephone lines 41746
PCN, data services 42249
PCNs, merger of American and European mobile systs. 25432
PCS air interface stds., develop. 3369
PCS CDMA syst. overview 33870
PCS OAM&P stds. 25426
PCS stds. develop., Committee T1 work 25425
PCS systs., OAM&P std. 3368
PCS technol., air-interface stds. competition 33772
PCS traffic perform. stds. 25427
PDC half-rate speech coding std., real time operating prototype 25163
perceptual audio coder, neural network based 8148
pers. handy phone syst., telecomm. service enhancement 3115
phase deviations on SDH and SDH/PDH interface 8705
Philips Sopho ISPBX, VPN design/develop. 16972
pixel size and compression effect on digital aerial image metric quality 41264
point-to-multipoint wireless telephone syst. trends *(German)* 33400
power series algm. for anal. timed-token ring protocols 41524
power utility telecomm. network mgt. 26974
private mobile radio systs., power utility appl. suitability 25285
prog. commun. interface implement. for EuroISDN 16799
PSI-CELP speech coding for digital cellular mobile radio 25324
PSTN, secure speech/data commun. 33397
Russia, GSM transmitter interf., airborne radio-navig. equipt. 33859
satellite-PCN, UMTS evol. 9388
SCI fairness protocol for increased throughput 3225
SDH, concept for large urban networks 41423
SDH, pointer conversion method *(Japanese)* 8693
SDH byte pointer justification vs. VC-12 payload bit justification 33179
security in telecommunication networks, IEE Colloquium, London (1995) 20253

telecommunication standards continued
- SICOFI-4 4 channel codec filter for analogue telephone subscriber lines 33705
- simul. comparison of broadband networking, MAN config. 16761
- SONET, digital network sync. 42379
- SONET develop./deployment 17273
- space data compression stds. 2457
- SS7 network mgt., stds. aspects 24902
- Swiss Telecom PTT, radio paging service *(German)* 42300
- TDMA digital cellular radio unified MLSE detect. 33823
- TDMA digital cellular systs., PDC std. based 3441
- TDMA syst. capacity enhancement by adaptive channel allocation and power control 33203
- TDMA syst. perform. in outdoor microcellular environ. 33828
- telecomms. equipt. earthing/bonding, prETS 300253 European draft std. 15522
- telephone loop plant, technol./appls. 25138
- terrestrial flight telephone syst. (TFTS), air-to-ground commun. syst. 25294
- TETRA radio terminal design, phys. layer 42282
- TETRA std. for private mobile radio 42219
- time-crit. commun. archits. and quality of service 25031
- TMN, objectives and first appls. *(Italian, English)* 41697
- TMN interfaces for network mgt. 41662
- TMN-based broadband ATM network mgt. 41684
- TMN-based SDH mgt. syst. implement. in Japan 41685
- token ring protocols, dyn. 3204
- UMTS, targets/syst. concept/standardization in global framework 25295
- UMTS directory services, security aspects 9209
- United States PCS policy and rural develop. 3114
- universal pers. commun., indust. paradigm shift 17128
- universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
- universal personal communications, conf., San Diego, USA (1994) 20233
- unlicensed PCS band, wireless operation 25428
- US EMC regulatory requirements, recent/pot. changes 15463
- US-Japan telecomms. trade, Japanese inform. infrastructure develop. 8799
- USA, stds. develop. proc. and national inform. infrastructure 8802
- UTP cable categories, stds. and advantages *(Dutch)* 16998
- V.34 modem std. 9115
- V.34 modem std., appl. 33682
- video coding 33354
- video coding stds., ref. model methodology 24392
- VXI-based systs. for telecom. network perform. monitoring 24882
- wireless commun., standardization 25358
- wireless LAN, intra-office commun. 41858
- wireless pers. commun., overview 17107
- X.500 directory services support for EDI 41896

telecommunication switching
- *see also demultiplexing; electronic switching systems; multiplexing; photonic switching systems; switching networks*
- AT&T's 5ESS-2000 switch 16949
- AT&T Switching Systems Business Unit, customer-focused mfg. 16538
- ATM, hitless path protection switching techs. 16420
- ATM Clos switch under symmetric bursty geometric traffic, perform. anal. 41449
- ATM network hitless line protection switching 41409
- B-ISDN switching syst. subsyst. opt. interconnections 41914
- bonding config. in telecomm. centers, EFT field tests 23707
- broadband switching equipt. market needs and vendor offerings 41758
- burst admission-control protocols, perform. anal. 33263
- clustered computer switch MINs, routing/resource allocation 3284
- computer-telecomms. integrat., overview 41884
- debugging and simul. environ. 3281
- delay-insensitive codes, power-efficient, for data transm. 15759
- developing countries telecomms. networks, operator and inform. services 3067
- distributed switching archit., trends and concepts 16948
- Fast Ethernet for boosting WAN throughput 33580
- future telecomm. services, carrier's network strategies 9085
- GIGAswitch control proc. 25044
- high-speed MCM using Cu/polyimide multilayer substr., B-ISDN 37080
- integrated rural subscriber access systs. for developing countries 25429
- integrated voice/data mobile radio, design/perform. 17106
- internetworking archit. for integrated voice and data commun. 9007
- MCM-L cost model and appl. case study 25180
- microcellular Ricean channels, switched diversity 3336
- modular multirate video switch design and dimensioning 42585
- multi-channel/port traffic assignment fast algm. 8742
- multibeam satellite prioritised nonblocking switch perform. under hotspot traffic 41412
- Multinet, multistage ATM switch archit., design/perform. 9139
- multipoint cell buffering in ATM, perform. eval. 33178
- non-stop software extensible syst., dyn. program modif. 16558
- opt. backplane for broadband switching syst. 25174
- OSI Directory Information Base, hash-based high-perform. name resoln. method *(Japanese)* 33438
- PCS, LEO satellite network, delivery time anal. 25315
- rearrangeable Clos network control, neural net 2983
- routing, cct.-switched network with wireless subscribers, optimal FCL table *(Korean)* 41566
- SmartZone syst., site hand off operation 3400
- SMDS networks, congestion notification technique 3223
- StarBurst switch with dedicated output and shared input buffering 41413
- SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448
- switch room cooling, natural convection-based 20140
- switching control multiprocessor, fault tolerant software *(Japanese)* 33187
- syst. develop., documentation 33711
- telephone, set formal spec. 24924
- telephone/ISDN switching syst. availability objective 42123
- time-multiplex switches, neural scheduling algms. 16417
- TROPICO-R switching syst., software reliab. anal. 42102
- universal multimedia switching archits., anal. 16837
- Xunet 2, scheduling discipline/admission control policy 16665

telecommunication systems *see telecommunication*

telecommunication terminals
- 1/5-inch 270000 pixels color image sens. *(Japanese)* 3271
- 3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
- 4-Mbit sync. DRAM for multimedia eqpt. *(Japanese)* 21298
- AD8600 series multimedia TDM *(Japanese)* 25155

telecommunication terminals continued
- Ascotel bcs 8 digital commun. syst., ISDN for small enterprises *(German, French)* 25154
- ATM terminal adapters, interleaved/non-interleaved pipelining 33587
- audio-visual control, message obj. transm. 17560
- auxiliary permanent on-site generator sets 43939
- AXE 10 syst., operator subsystem fn. testing 33393
- BMDO/IST lasercom advanced technol. demons. status 17290
- broadband network termination syst., perform. monitoring, inform. model 9111
- BT screenphone services in UK 42077
- business environ. cell-based switching node archit. and lab. model 41757
- Croatian videotex syst., terminal/external computer min. param. requirements 33421
- DECT syst., mobile audio-visual terminal 17118
- deep-space opt. commun., 10 meter-class ground-based receiver 17322
- DS-CDMA for portable multimedia commun. appl. 25443
- Earth-space commun., opt. networks 17294
- EURESCOM project 230, combined pers. and terminal mobility in IN environ. *(Italian, English)* 42291
- flexible commun. mgt. for multimedia multipoint commun. 25104
- France Telecom's Amarys range of telephones 25150
- Fujitsu CATV infrastructure for multimedia *(Japanese)* 42003
- Fujitsu chip sets for ATM LANs, develop. *(Japanese)* 16736
- Fujitsu multimedia teleconferencing syst. (VS-700SV) *(Japanese)* 42079
- high-speed B-ISDN data terminal adaptor design 41915
- HIPPI-ATM-SONET terminal adapters, archit./perform. 41798
- intell. terminal for commun. network resources mgt. 24923
- ISDN PC card, design *(Japanese)* 16933
- Ka band satellite terminals, phase noise charact. 3534
- laser commun. terminal for LEO satellite constellations 17297
- LEO satellites, global store/forward commun. syst. 25467
- military satellite commun., IEE Colloquium, London (1995) 36863
- Mitsubishi ATM subscriber-line transm. equipt. 33669
- mobile data services, IEE Colloquium, London (1995) 28232
- mobile speech, video and data transceiver 3266
- multimedia commun. terminal and human interface develop. trends *(Japanese)* 16936
- multimedia equipt., electronic devices *(Japanese)* 16935
- multimedia terminals, syst. bus archits., perform. anal. 25153
- multimedia workstations, elec. protection 43798
- multipoint control units for videoconferencing 33617
- natural-image proc. syst. *(Japanese)* 25776
- NEC, develop. of HyperROBOII/WINDOWSrobo *(Japanese)* 42094
- NEC's High-Tech Koban syst. for police commun. *(Japanese)* 41708
- opt. space commun., second generation opt. terminals 34045
- opt. subscriber syst., UPS *(Japanese)* 42070
- pers. handy phone syst. terminal design for home 42217
- portable digital satellite news gathering (SNG) RF terminal, flat antenna 25168
- PROMISE pan-European traveller inform. syst. 3462
- SDH multiplex line terminal, CMOS LSI for SOH proc. 42097
- Siemens MINISUB non-repeatered submarine cable syst. 34041
- small earth station hardware, IEE Colloquium, London (1995) 28267
- small opt. user terminal, flight config. 17292
- SOUT opt. intersatellite commun. terminal 3536
- standardization and technols. in Europe 33317
- stepwise refinement of commun. service specs. 25085
- SwissNet, NTE, integrated a/b interfaces *(German, French)* 33679
- SwissNet terminal equipt. for business and pers. *(German, French)* 9081
- syst. controller for mobile audio visual terminal 42275
- TCP/IP perform., satellite 25468
- TDMAX and FASTCOM, Alcatel satellite systs. for domestic and corporate commun. 25450
- TDRSS-LIGHT, space commun. archit. 17295
- universal personal communications, conf., San Diego, USA (1994) 20233
- video dial tone, operation, set-top boxes and server 16930
- videotelephony, blazed half-transparent mirror for eye contact 42098
- Videotex commun. network, latest develop. 24892

telecommunication theory *see information theory*

telecommunication traffic
- *see also telecommunication congestion control; telecommunication traffic recording; telephone traffic*
- 34 Mbps digital microwave syst., perform. monitoring 25268
- adaptive rate control for delayed feedback sources 24745
- adaptive routing for equitable load balancing 41575
- adaptive traffic prediction algm. for cellular radio 3404
- ALOHA syst. using unified SS code, transm. efficiency *(Japanese)* 25211
- Aloha-type protocols for multichannel networks, destination conflicts 16504
- AR(1)+IPP model for video cell traffic approx. *(Japanese)* 24747
- asymmetrical DSL, echo cancellation 9089
- asymptotic queueing behavior of stat. multiplexers, heterog. traffic 42101
- asynchronous video coding for wireless transport 32187
- ATM, comparative eval. of output buffer mgt. schemes 8724
- ATM, connectionless multicast service 42124
- ATM, connectionless service support 16782
- ATM, threshold priority queueing syst., anal. 33173
- ATM, VBR video transm., predictive dyn. bandwidth allocation 16419
- ATM backbone, frame-relay traffic 41439
- ATM based B-ISDN, virtual spacing for traffic control 25060
- ATM based embedded real-time systs., admission policies, perform. 33505
- ATM bursty user traffic allowed by jitter tolerant leaky bucket 2872
- ATM Clos switch under symmetric bursty geometric traffic, perform. anal. 41449
- ATM connections in B-ISDN, desirable props. of traffic descriptors 33609
- ATM enhanced exponentially weighted moving av. method 8731
- ATM multiplexer, correl. real-time and independent non-real-time traffic 24752
- ATM multiplexer, jitter/delay anal. 16439
- ATM multiplexer, Markov modulated arrivals, output proc. 16785
- ATM multiplexer traffic model for correl. periodic real-time and independ. batch Poisson traffic 41429
- ATM multiplexers, dyn. transm./enqueueing priorities 8703
- ATM multiplexers, Markovian arrivals, exponential upper bounds 24785
- ATM multistage networks, shared queueing under correl. traffic 33240
- ATM network, dyn. priority control algm. enhancement *(Korean)* 16465
- ATM network, flow control, hysteresis effect *(Korean)* 33188
- ATM network, LAN/MAN interworking, bandwidth allocation 8996
- ATM network, priority scheduling 24775

telecommunication traffic continued
- ATM network, video frames temporal placement control 24494
- ATM network, video services, preventive flow control 41938
- ATM network call admission control by random neural net 33218
- ATM network end-stations, perform. charact. 33175
- ATM network goals and challenges 24770
- ATM network LAN/MAN interconnection, simul. study 41902
- ATM network nonstationary queue models 41477
- ATM network source traffic priority shaping fn. 41551
- ATM network traffic control schemes for no resource reservation data commun. 41440
- ATM network traffic profile generation *(German)* 24868
- ATM network under partial buffer sharing policy, cell loss proc. 8698
- ATM networks, adaptive bandwidth mgt. 24909
- ATM networks, adaptive call admission control 41436
- ATM networks, anal. model for self-similar traffic 16667
- ATM networks, burst-based bandwidth-reservation method 33165
- ATM networks, burstiness fn. for substream output from buffered multiplexing node 41453
- ATM networks, bursty traffic, call admission control 8707
- ATM networks, cell conformance and QoS guarantees 41445
- ATM networks, cell conformance testing, respect, peak cell rate 41457
- ATM networks, cell loss ratio commitments 8711
- ATM networks, congestion control based dyn. routing 2991
- ATM networks, distributed routing/access control 8706
- ATM networks, dyn. virtual path bandwidth control, perform. anal. 24908
- ATM networks, effective bandwidths formula perform. 33227
- ATM networks, end-to-end perform. 9023
- ATM networks, equiv. bandwidth for heterog. sources 8719
- ATM networks, fast reactive congestion control method 41441
- ATM networks, flow controlled virtual channels 2889
- ATM networks, high-speed data commun., VP dimensioning 24907
- ATM networks, leaky bucket algm. for bursty sources *(Chinese)* 33163
- ATM networks, modulation level-controlled radio syst. 3314
- ATM networks, multi-rate traffic shaping/perform. 2879
- ATM networks, multiple traffic classes, hierarchical dyn. control 16423
- ATM networks, neural network traffic description 3240
- ATM networks, neural network traffic enforcement 16790
- ATM networks, optimal estim. framework for adaptive traffic admission 41678
- ATM networks, optimal traffic regulation, Markov decision approach 2877
- ATM networks, perform. modelling of adaptive connection admission control 41435
- ATM networks, policing mechanisms based on max. throughput fns. 41446
- ATM networks, real-time commun. 33172
- ATM networks, real-time traffic estim. 41927
- ATM networks, resource sharing schemes in connectionless server 41438
- ATM networks, traffic contract params. and CAC guaranteeing cell-loss ratio 41942
- ATM networks, traffic management schemes 33710
- ATM networks, traffic shaping, implemention 33174
- ATM networks, traffic shaping mechanism 24754
- ATM networks, two-level congestion control schemes 2884
- ATM networks, worst deterministic pattern allocation strategy 33196
- ATM networks supporting time-crit. traffic, optimal resource allocation 24748
- ATM networks unified congestion control strategy 16444
- ATM networks with leaky buckets, buffer requirements 16446
- ATM node, syst./perform. design 16701
- ATM peak cell rate monitor algm. dimensioning, discrete time anal. 41447
- ATM preventive congestion control based routing 16443
- ATM prioritized networks, congestion control schemes 8743
- ATM rate-based feedback traffic controller 16445
- ATM self-routing bridged shuffle-exchange network 41414
- ATM shared-buffer direct-access switch archit. 8709
- ATM shuffleout switch, multicast services provision 16440
- ATM source traffic descriptor based on peak, mean and second moment of cell rate 33191
- ATM source worst case anal., broadband multiservice network appls. 33195
- ATM switch, DQDB interconnections, cell-based flow control 8966
- ATM switch, weighted round-robin cell multiplexing 8720
- ATM switch archit. for high-speed switching, barrel switch 16975
- ATM switch bursty and correl. mean delay and cell loss probab. 41410
- ATM switches, buffer allocation schemes 8723
- ATM switches, frame-oriented queueing control policy for real/non-real-time traffic 33592
- ATM switches, queue mgt., multiple delay/loss priorities 8726
- ATM switches, stress test results 42116
- ATM switches with single hot spot traffic, buffer occupancy 16450
- ATM syst. traffic anal., modelling and simul. *(German)* 24867
- ATM syst. transaction-oriented simul. and source traffic modelling *(German)* 41422
- ATM systs., admission and equiv. bandwidth 2874
- ATM systs., tech. for measuring rare cell losses 41434
- ATM tandem queues, estim. of cell loss probabilities 8718
- ATM technol. for CPN *(Japanese)* 25147
- ATM terminal adapters, interleaved/non-interleaved pipelining 33587
- ATM three stage switch, cell-level path allocation 8725
- ATM traffic, min. ON/OFF source models 33230
- ATM traffic distorted by cell delay var., connection admission control 41444
- ATM traffic mgt., LAN internetworks 3086
- ATM traffic source multiplexing 33193
- ATM transport networks supporting multimedia traffic, optimal resource mgt. 16853
- ATM video, performs. and error control 8612
- ATM virtual private networks 24771
- ATM virtual private networks, perform. comparisons 16591
- ATM worst deterministic pattern allocation 8710
- ATM-based LANs, bandwidth mgt. 33517
- ATM-based network environ., media schedular for AAL 42039
- ATM/PVC-based video retrieval network, path reservation protocol 41526
- B-ISDN, deterministic rule based traffic descriptors 33607
- B-ISDN, multilevel hierarchical congestion controls 41933
- B-ISDN, simul. testbed, design/implement./appls. 41936
- B-ISDN, source model for connectionless traffic 25062
- B-ISDN, tree computation for reserved bandwidth traffic 33593
- B-ISDN, variable bit-rate video modelling 25065
- B-ISDN ATM-based priority traffic control 33180
- B-ISDN connection admission control/routing, neural networks appl. 16788
- B-ISDN high-speed-retry banyan switch archit. for gigabit rates 3293

telecommunication traffic continued
- B-ISDN VBR video traffic, modelling and verification 41934
- back-press. control, adaptive, local inform. based 24790
- banyan-based B-ISDN switches, priority perform. 9006
- branch network strategies and protocols 8890
- broadband integrated voice/data networks, bandwidth assignment 16557
- broadband networks, resource allocation 9017
- buffered delta networks under nonuniform traffic, perform. anal. 33183
- campus network traffic anal. prevention method 8940
- capacity assignments of telecomm. network paths, reliab. eval. *(Japanese)* 16519
- CCS networks, congestion control issues 33637
- CCS signaling networks, traffic forecasting 8722
- cct.-switched networks, real time traffic estim. 41680
- CDMA cellular mobile networks, analytic traffic models 33931
- CDMA cellular radio link, prioritized channel control 25410
- CDMA cellular systs., uplink teletraffic behaviour 9257
- CDMA integrated voice/data cellular packet network 17095
- CDMA networks, integrated voice/data traffic, code allocation 33908
- cell delay var. tolerance for mapping ATM cells, phys. layer 24755
- cellular CDMA perform., speech bit rate, network control 9375
- cellular digital packet data, perform. anal. 42271
- cellular handover proc. model, limited queuing time 42208
- cellular mobile commun., stat. paging area selection scheme 3453
- cellular mobile commun. systs. for data transm. 25349
- cellular mobile networks, dyn. modeling 3403
- cellular mobile networks, freq. assignment 25423
- cellular mobile radio systs., spectrum efficiency 17124
- cellular mobile syst. nominal channel allocation optim. 42203
- cellular network planning, radio coverage defn. methodology 42227
- cellular networks simulator MONSTER 9328
- cellular networks with dyn. channel allocation, perform. 9344
- cellular radio, distributed algms. for dyn. channel allocation 25420
- cellular syst. all-channel concentric allocation algm. 42204
- cellular syst. Channel Borrowing Without Locking 33812
- cellular syst. traffic perform. with mixed platform types and queued handoffs 33808
- central servers, high-bandwidth network evol. 41786
- client-server systs., perform. prediction, traffic dependencies effect 41828
- CODENET, network for east/west European collaboration 16773
- combined token/random access protocol for LAN/MAN ring networks 16708
- commun. networks, routing/flow control, neural networks approach 33297
- computer network traffic requirements, generation algms. 3188
- continuing engng. education, 3rd Erlang formula 73
- corporate commun. requirements, computer assisted anal. *(German)* 16520
- correl. arrival procs. in switching systs. 33192
- CRMA protocol, anal. 33502
- Croatian coastal satellite Earth station *(Croatian)* 3504
- Croatian internat. telecomms. and regulatory environ. 33318
- Croatian national MHS, config. model 33336
- Croatian telecomm. network, traffic forecasting 33630
- Croatian telecomms. network, charact. and future trends 33315
- cut-off priority delay-loss syst., 3 types of traffic and overload control 33228
- decentralised sens. networks, routing for reliab. 15952
- decentralized routing control, overlapping decomp. 16531
- DECT handover and channel mgt. schemes for indoor scenarios 8849
- DECT multibearer channels 3494
- DECT technol. for radio in local loop 8853
- delta network, expanded middle stages for large ATM cross-connects 24751
- deterministic queue modelling, leaky bucket, arrival proc. 33239
- direct global mktg., amat. radio packet switched network 9163
- discrete event systs., rapid learning techs. and appls., traffic smoothing 41568
- discrete-time single-server queueing systs., general Markov-modulated arrival procs. 33226
- distributed neural control of commun. network traffic 24901
- DQDB behavioural simul., data and multimedia traffic 2917
- DQDB MAN, isochronous channels reuse 8983
- DQDB MAN service integrat. and impact on ATM interworking perform. 41847
- DQDB MANs, dyn. 3-tier protocol, unfairness control 33501
- DQDB network, real-time commun. services 3176
- DQDB networks perform., gateway location effect 8984
- DQDB subnetworks, hierarchical commun. syst., perform. 8987
- DQDB/B-ISDN gateway, UPC mechanisms comparison 33503
- DS-CDMA networks, multi-media integrat. 25235
- DS/CDMA systs., eval. of handover perform. *(Japanese)* 25281
- dual cellular syst. channel asignment methods 33814
- DUALCAST, reliable multicasting scheme 2925
- dyn. network call distrib., periodic updates 33635
- dyn. scaled multimedia data streams, network support 9078
- Eastern Europe, telecomms. network planning 33301
- efficient multimedia satellite networks 41985
- embedded ATM networks, distributed pricing 41677
- Erlang capacity of shared resource 40540
- Erlang capacity/uniform approx. for shared unbuffered resources 8088
- ES for traffic anal./modeling 3053
- European research project COST 239, ultra-high capacity opt. transm. network 34040
- ex-USSR teletraffic papers 33223
- expanded delta fast packet switch 9141
- F-TDMA/CDMA cellular systs. perform. eval. 33838
- fast reservation protocol/stat. multiplexing 16438
- fast reservation shaper, novel approach for fast resource mgt. 41683
- FDDI, mean waiting time approxs. 41845
- FDDI commun., proc. control, fieldbuses connection 33497
- FDDI networks connected through ATM, video traffic mgt. perform. 24916
- finite-buffer polling syst. with exhaustive service, virtual buffering 16468
- finite-horizon stat. QoS measures for high-speed networks 33590
- fixed/hybrid dyn. channel allocation schemes perform. 9331
- forecasting broadband demand and traffic, multi-faceted approach 33346
- forward cell planning networks for UMTS 9334
- fractal procs. in traffic charactn. 33189
- FTP traffic, non-optimality estim. 16655
- FTP traffic on Internet, optimisation 41834
- fully shared networks, anal. and design 41571
- future mobile telecomm. systs., handover, cell archits. 3402
- generalized periodic Markovian sources multiplexing and VBR video 8717
- generalized proc. sharing networks, exponentially bounded burstiness arrivals 33591

telecommunication traffic continued
generalized proc. sharing scheduling discipline, stat. anal. 2896
generic flow control protocol, perform. assessment 2961
global and distributed dyn. channel allocation algms., perform. comparison 9244
global cct.-switched satellite commun. network, perform. 9406
GSM adaptive type-II hybrid ARQ/FEC protocol 3445
GSM random access procedure, perform. 9289
GSM syst. multipoint-to-point link improvement 25270
GSM-syst., interf. anal. 3492
guaranteed perform. service connections fault recovery 8790
handover init. in cellular mobile radio networks 9335
handover requests in microcell network archits., queue study 9330
hazardous load road transport, radio monitoring syst. 9300
heavily loaded cct.-switched network, congestion relief 24757
high performance networking, conf., Grenoble, France (1994) 5496
high speed inform. network planning, stochastic optim. 25109
high speed networks, bandwidth and buffer reservation schemes 33388
high speed networks, multicast transport protocols 2924
high speed networks, transport layer protocols, rate control 8993
high-capacity broadband packet switch archit., multilink approach 41912
high-speed network QoS, per-session end-to-end delay and call admission 33168
high-speed networks, inter-proc. commun. perform. 8967
high-speed networks, link capacity allocation/network control 25129
high-speed packet switch, input access, perform. anal. 16794
high-speed transport protocols, local workstation environ., flow control 33492
highway cellular radio dyn. channel assignment failure rate 33805
HIPPI interconnection syst., camp-on strategy, perform. eval. 33493
hybrid fiber/coaxial and CATV networks, planning and design 41563
hybrid Go-Back-N ARQ scheme, repeated transms. 8689
hybrid STM-ATM switching and transport 41437
idle-slot broadcasting multiple access for mobile satellite commun. 9213
IEEE 802.6 DQDB MAN protocol, perform. anal. 3180
IN planning, customer expectation 33636
IN services, teletraffic perform. 33638
indoor cordless commun., teletraffic perform. 3488
integrated ATM networks, dimensioning and design methods 41569
integrated bandwidth and congestion management in ATM networks 33709
integrated networks, single resource loss in heavy traffic 41475
integrated train access scheme under light/medium load, perform. anal. 33578
integrated voice/data mobile radio, design/perform. 17106
interconnected LANs, desktop video conferencing syst. 33618
Internet, multiple service levels via precedence 33435
IP over ATM, cell traffic efficiency 25067
ISDN, transparent ATM LAN interconnection 16668
ISDN networks, chaotic maps, models of packet traffic 33606
ISDN networks with partial sharing, optim. 41932
ISDN PABXs, overload control 33723
ISDN routers and LAN traffic 8899
ITAPAC, Italian packet switching data network, planning 16565
ITU-T, pers. commun. services and teletraffic standardization 33930
Jetstream Gb/s LAN, user-space protocols for high perform. appls. 2940
LAN for multimedia traffic, priority commun. schemes 33651
LAN switches, traffic monitoring problems 42118
LAN/MAN interworking systs., rate control mechanism 24950
LANs, cct. switched, perform. under different traffic conditions 33514
large scale switched telecomm. networks, traffic design method *(Japanese)* 24838
layered cellular struct., optimum resource mgt. strategies 25392
leaky bucket network access schemes comparisons 16467
leaky bucket regulator perform. in broadband integrated networks 8911
leaky bucket traffic shaper fed by bursty source, output traffic 16442
LEO satellite commun., nonuniform traffic, integrated voice/data syst. 25454
LEO satellite networks data link control protocol, datagram service 24835
LEO/ICO-satellite commun. networks, syst. params. 25313
load modelling for commun. systs., Petri net-based model 25042
local computer networks, conf., Minneapolis, USA (1994) 20231
local/metropolitan ring networks, high perform. protocol 33506
managed networks, network mgt. impact 33370
media access protocols for Gbit/s networks, perform. comparison 16498
Metaring gigabit/s network under multipriority traffic 24802
MFSK signalling for RS coded freq.-hopped multiple-access commun. 2891
micro-cellular mobile commun. systs., handoff strategies 17061
microcell size and archit. anal. 3421
microcellular mobile commun. systs., perform. anal. 3405
microcellular radio, distributed control channel allocation 9351
microcellular systs., handover initiation approach 9324
microcelllular systs., distributed adaptive channel assignment 42297
mixed X.25/frame relay networks congestion control 16447
mobile and pers. commun., teletraffic challenges 25292
mobile commun., slow freq. hopping, time offset effect 42272
mobile networks with bursty user mobility, dyn. channel allocation 25338
mobile radio channels, stack algm. 9294
mobile satellite networks, handover queuing, dyn. channel allocation 25316
Mobile Transit Network Traffic Monitoring System 25406
models anal., perform. measures 2861
modified adaptive seq. projection algm. 41679
MPEG variable bit-rate video on LANs, rate control 16646
MPEG video, lossless smoothing algm. 2814
MPEG video traffic, network congestion avoidance 42588
multi single-stage-shuffling for fast packet switching 9134
multi-channel/port traffic assignment fast algm. 8742
multi-hour hierarchical commun. networks design 8787
multi-queue force/perform./traffic mgt., theory 41488
multi-server model anal., non-preemptive priorities and non-renewal input 33245
multi-technol. networks, unified models of survivability 33298
multibeam satellite prioritised nonblocking switch perform. under hotspot traffic 41412
multicast routing based on predicted traffic stats. 16529
multicomputer routers, support for multiple classes of traffic 24856
multicopy ALOHA, enhancements 16508
multilayer cellular networks with classes of mobile stations, perform. anal. 33933
multimedia appl. adaptation layer (MAAL) protocol 16848
multimedia packet switching network, capacity assignment algm. 9040
multimedia PCN medium access control in mixed traffic environ. 41972

telecommunication traffic continued
multimedia queueing syst. with Poisson and batch Poisson packet arrivals, traffic anal. 25107
multimedia service networks, link capacity allocation by input power spectrum 33664
multimedia traffic, loss/delay priorities, Markov-modulated fluid model 8694
multiple call hand-off, queued hand-offs/mixed platform types 33855
multiplexed ATM traffic, policing/spacing 8695
multiplexed ON-OFF sources, effect of multipath routing on loss perform. 41928
multiplexing voice with data, hybrid transm. algms. 16415
multirate traffic in various network implement., perform. models 41395
multiservice ATM networks, bandwidth mgt. 24906
multiservice networks, call admission control 33190
multiservice networks, flexible call admission control 41455
multiservice networks, perform. of single resource loss systs. 33157
multiservice networks, tariffs and effective bandwidths 33356
multiservice struct. Markovian traffic source model 8989
multiservice VSAT network, multi-access protocols 9417
multiservice VSAT networks, multiple access protocols, perform. 42328
multistage ATM switch fabrics, approx. model 41443
network layer scaling, congestion control in multimedia commun. 16878
network protocols, conf., San Francisco USA (1993) 35
network resource mgt., adaptive cct. access control 41700
network traffic, encryption 8908
network traffic mgt., neural tech. 41682
next-generation PCN multimedia traffic support 41979
nonblocking space-division packet switch, 2 correl. input call types 41459
North American dual-mode cellular syst. traffic advantages 33815
NSFNET backbone traffic, long-term, time series model 8995
num. transform inversion for teletraffic model anal. 41489
Omega network-based ATM switch, neural network-controlled 16416
opt. LAN technols. 8891
opt. multi-channel network, multiple/parallel data-transm. *(Japanese)* 17188
optimal inform. dispersal for reliable commun. in computer networks 8998
optimal multicopy ALOHA packet transm. policy 41466
packet switch, output buffering/imbalanced correl. traffic, anal. 8716
packet switch, quick simul. of stationary tail probabilities 41433
packet switched networks, bursty traffic 33238
packet switching network routing mgt. 41649
packet switching networks congestion control 16426
packet switching syst., propag. delay, nonuniform traffic scheduling 33164
party line, teletraffic model 16407
PCN, teletraffic perform. of GSM900/DCS1800 in street microcells 42261
PCS, multiple hierarchical cellular overlays 25317
PCS, multiple hierarchical cellular overlays 25397
PCS, non-blocking channel assignment for hand-offs 25422
PCS implicit deregistration 9347
PCS network, implicit deregistration 3339
PCS optimum multi-layered cell archit. 3485
PCS traffic perform. stds. 25427
picocellular network, protocol for seamless commun. 9348
priority token-ring network, perform. modeling/anal. 8986
PRMA integrated voice/data syst., data steal, voice 17089
PRMA-ISA protocol for multiple access of voice/data traffic 9297
queueing anal. of partial buffer sharing, Markov modulated Poisson inputs 33220
R2, damped adaptive router design 24864
RAIN (redundant array of inexpensive networks), multitraffic perform. 24949
rate based flow control scheme for time-varying traffic, perform. eval. *(Japanese)* 41458
rate-control throttles, burst reduction props. 24797
real-time traffic in packet-switched networks, routing and admission control eval. 24840
real-time traffic switching element, imprecise-computation for congestion control 16779
Real-Time VirtualClock, network traffic control mechanism for real-time commun. 8910
reconfigurable virtual path network mgt. 41676
road vehicle-vehicle commun., 60 GHz by TDMA/CDMA 9333
RPC protocol for interconnecting distributed discrete event simul. syst. 33481
sample path anal. of token rings 41484
satellite commun. traffic mgt., mean field annealing 42327
satellite-based packet-switching networks, on-board closed-loop congestion control 33942
SDH network design 33291
SDH self-healing ring element load under different traffic demands *(Polish)* 41555
SDMA protocol, collision resoln. algm. 33269
sectorized cellular commun., channel borrowing without locking 3345
sectorized mobile microcellular radio syst., perform. anal. 3451
self-organizing cellular systs., single-channel user-capacity calcs. 17105
self-similar Ethernet LAN traffic, stat. anal. and stochastic modeling 33586
self-similar traffic modeling for high-speed networks 24981
self-similar VBR video traffic, anal., modeling and generation 2883
semidynamic/dyn. transm. algms. for voice/data multiplexing 41420
shared channel lightwave networks, virtual topol. design 41561
shared memory ATM switch, simul. study of space priorities 33720
shared time-division duplexing for wireless speech commun. 3442
shared-medium ATM switch under bursty arrivals, approx. anal. 2865
shortest-path first routing algms. 24847
single-line queue, finite source and repeated calls 41482
single-stage output buffer packet switches, independent batch arrivals 41456
slow FH-GSM freq. hopping GSM 9288
SMDS network simul. 33477
SNMP local bridge ET1053C devel. *(Japanese)* 25002
SONET rings, optim. problem, balancing loads 9553
SPC systs. with high peak traffic, call-proc. and overload control 33604
split-buffered multistage interconnection network nonuniform traffic anal. 41406
SS7 congestion control options, mass call-in situations 24899
stat. multiplexer with generalized periodic sources, anal. 24750
state-depend. buffer model, large loading and output rates 41487
stationary single server queues, approx. for perform. eval. 16469
street microcellular syst., channel allocation, distributed control 25419
submarine opt. cable systs., cost-effective backhaul routes 3306
SUPERCOMM/ICC '94 conf., New Orleans, USA (1994) 5448

telecommunication traffic continued
supra-high-speed packet switching networks, deflection routing strategy 2887
switching syst. MD110, specific appl. develop. 33715
switching systs. carrying multi-channel traffic streams, combinat. anal. 41930
TCP traffic dyn., ATM networks 2943
TCP-SS versus adaptive rate-based congestion control, perform. 2965
TCP/IP window-based flow control, effect of high bandwidth-delay products and random loss 24804
TDMA cellular commun. systs., sig.-to-interf. calc. 33854
TDMA digital cellular networks, voice/data channel access 3338
TDMA digital cellular syst. time slot assignment techs. 33824
TDMA in-building wireless systs., interf. charact. 33873
TDMA radio syst., autonomous SIR-based power control 17130
telecomm./transportation, synergy of concepts 3455
telecomms. network cct. optim. 41570
telecomms. network design, time-series traffic data *(Japanese)* 41564
teleconference traffic from VBR video coders, modeling 16818
telephone/packet-switched networks, random variable seq. i.i.d. testing 41716
token protocols for high-speed multiple-ring networks 3226
token ring LANs, multimedia support, multiple priorities, perform. 33653
token ring protocol for single/dual ring LAN systs. 2916
traffic mgt., neural approach, perform. eval. 16789
traffic pattern based mobile routing scheme 16734
trusted multicasting elements 2926
TV on B-ISDN, VBR coder generated traffic, stat. model 9014
UHF digital cellular syst., network archit. 25407
UMTS 3rd generation systs. signalling, perform. eval. 25293
universal multimedia switching archits., anal. 16837
universal pers. commun., wireline network access 33929
usage param. control, tagging method 8692
VBR MPEG traffic in interactive appls., resource requirements 16879
virtual cellular network, wireless commun. archit. 9280
VISTAnet gigabit networking testbed, traffic meas. anal. 24749
WAN, TCP/IP, perform. 33508
WDM opt. network, time-wavelength assignment algms. 42375
wide area commun. networks, traffic restoration timing anal. 41577
wide-area traffic, inadequacy of Poisson modeling 3207
wireless commun., network issues 17113
wireless commun. systs., stochastic model, capture space and time dyn. 33935
wireless LAN's, collision detect. algm. 41846
wireless LAN TDD channel contention-based reservation protocol 41820
wireless multiservice CDMA environ., adaptive packet decoding 9360
wireless network perform., multimedia traffic mgt. principles 25132
wireless networks, resource allocation 9245
wireless pers. commun., tree-search resource auction multiple access 9290
World Wide Web network traffic patterns 33655
worldwide IN dyn. routing, models and results for evol. planning 33640
Xunet 2, scheduling discipline/admission control policy 16665

telecommunication traffic recording
university discless workstation network traffic charactn. 28347

telecommunication transmission lines
see also telecommunication cables; telephone lines
500 kV power line-induced overhead telecom. line voltages study *(Chinese)* 35654
CATV transmitting ccts., tap-off, coupled-line theory *(Korean)* 25674
dial up leased lines, ISDN alternative 33602
digital transm. syst. unavailability, component failure rate calc. 42135
EMC device for telecomms. equipt. *(Japanese)* 31861
EMI field emitted from telecomms. line, estim. 40373
European leased lines, harmonisation 33352
homogenous transm. line, heterogenous telegraphic eqns. *(Russian)* 43733
indoor telecomm. line noise voltage due to AC supply lines, estim. 16988
integrated power/opt. overhead cabling, utility experiences, UK 35651
JWOTS, fibre optic commun. network, power utility 25494
Nat. Electrical Safety Code, 1994-5 interps. 27224
party line, teletraffic model 16407
pass. protection apparatus for commun. lines, phantom reson. transformer 25193
power overhead line telecom. cables integrat., UK 35649
power syst. transm./microwave towers, mech. design 27234
power utilities, opt. fibre commun. technol./trends 26976
Siemens self-supporting fiber-optic aerial cables 9550
subscriber telecomm. equipt., lightning-surge test method 25146

telecommuting *see home working*

teleconferencing
3D human image reproduction in virtual space teleconferencing 16823
acoustic echo-canceler for teleconferencing syst. 16912
acoustic freq.-independent beamforming 15990
adaptive subregion variable shape block motion compensated prediction 24500
ATM network variable bit rate MPEG video encoder characts. 41974
ATM video commun., implement. issues 41950
audio support for sync. cooperative work 9072
Bay Area broadband network testbeds and technol. 41995
BiCMOS ULSI video sig. proc. for single chip teleconferencing syst. 34432
block-based simul. tool for TCP/UDP protocol enhancement 16513
broadband multipoint multimedia telecom. and computer supported collaborative work 42018
co-operative software develop., distributed support environ. 25072
collaborative appls., multimedia framework experience 9033
commun. media role in telework environ. 16897
commun. patterns in research community 41734
compressed video, high-end appls. 33623
computer-mediated commun., literacy, playfulness/gaming 41948
conf. scheduling service, multimedia, network support 16830
conf. syst., integrat. of existing appls. 16811
conference, New Face of Technical Communications, Philadelphia, PA, USA (Oct. 1993) 28216
conferencing SS radio 25260
conferencing syst. and shared whiteboard, distributed multimedia appl. testbed 9071
cooperative work, obj.-oriented/hypermedia approach 33649
CoReview, interactive document and data retrieval tool for Internet 41867
cross-site writing, shared responsibilities 33410
CU-SeeMe desktop videoconferencing software 41945
delayed conferencing, act. multimedia syst. 16802

teleconferencing continued
desktop CSCW syst. 16691
desktop videoconferencing codec, adaptive Motion-JPEG design 16814
desktop videoconferencing syst. *(Japanese)* 25079
directional microphones in computer simulated/real rooms 17607
dist. education, multimedia environ., computer-supported collaborative learning 11619
dist. learning and computer-mediated commun., interactivity 11620
DSP-based teleconferencing syst., perform. eval. 16815
educational computer conferencing, professional recommendations 25074
educational electronic brainstorming syst. in Eng. teaching 9031
educational teleconferencing for writing/research skills in computing 3247
educational use, compressed digital videoconferencing 25075
efficient multimedia satellite networks 41985
electrical engineering student communication improvement 28328
electronic network conferencing for M.Sc. education 16820
ELPIDA, archit. for med. imaging supporting telemedicine appls. 43195
error concealment algms. for ATM videoconferencing syst. 9030
ETS-V Asia-Pacific telecommun. network expts. 42319
Eurovision voice conferencing, VSAT technol. 41951
flexible network human interface roles and services *(Japanese)* 16755
Fujitsu multimedia teleconferencing syst. (VS-700SV) *(Japanese)* 42079
groupware, spatial workspace collaboration 41987
GT-1000 image transm. device, develop. *(Japanese)* 33610
HDCC, software based compression algm. for video conferencing 16813
high-speed multi-group commun. syst. *(Japanese)* 3246
IEEE business meeting expt., video teleconferencing 33611
image coding, quadtree-based motion compensation/classified VQ 2813
image compression for radiology and telemedicine 26321
INRIA Videoconferencing System software 25073
intell. video camera, serial control interface 9754
interconnected LANs, desktop video conferencing syst. 33618
International Telecommunications Symposium Internet multicast 16717
ISABEL, expt. distributed cooperative work appl., broadband networks 16863
Japan, virtual communities 3195
Lakes environ. for teleconferencing, connection mgt. 16803
LAN environ., audiovisual appls. 8941
large screen teleconferencing prototype display 41944
load balancing multicast tree approach for group-based multimedia applications 33645
MARC, multimedia appl. for radiologist commun. 16910
MBONE, Internet multicast backbone 25004
med., distributed multimedia patient data, Bermed Project 8942
med. image data transm., compressed video teleconference codecs 18461
media space collaborative work, multiple views 41952
MediaSpaces for cooperation and commun. *(French)* 16807
MERMAID groupware platform, multimedia and multi-party desktop conferencing syst. *(Japanese)* 41947
MERMAID multimedia groupware platform, desktop conf. syst. 16805
MERMAID multimedia multi-party desktop conf. syst., groupware platform 9029
mgt. student education, role of videoconferencing 33622
MICE project, security fns. for multimedia conferencing appls. 16854
microphone array for sound pickup in teleconference systs. 3693
MPPS, multiparty presentation service 8958
multi-point video-conf. bridge, ATM switch 16817
multicast software develop. 25158
multicast video distrib. in the Internet, scalable feedback control 3245
MultiG research programme, distributed multimedia appls. on gigabit networks 42040
multimedia, networked 33661
Multimedia Chatting System on Ethernet LAN 16835
multimedia conf. syst. design and perform., FDDI sync. services 16812
multimedia conf. syst. on FDDI, TCP/UDP 16819
multimedia conference system on broadcast networks, design and implement. 33614
multimedia conferencing audio bridge 16896
multimedia conferencing network centralised and distributed control designs 41973
multimedia conferencing on packet switched networks 9027
multimedia conferencing protocols, ITU-T T.120 series 16881
multimedia conferencing services in open distributed environ. 16862
multimedia conferencing syst., scheduling algm. and voting facilities 3242
multimedia integrated services networks, sync. mechanisms 16874
multimedia multiparty connection, resource allocation 33621
multimedia teleservices and high-speed archits., conf., Heidelberg, Germany (1994) 40
multimedia teleteaching syst. 5516
multimedia teletutoring, trans-European ATM network 16861
multimedia transfer protocol, service primitives 9055
MultimETH, conferencing and joint editing syst. 9065
multiparty commun. support 16875
multipoint control units for videoconferencing 33617
native ATM-multicast and IP-multicast, comparison/mapping 33272
NEC's VisuaLinks AD-EX series teleconferencing syst. *(Japanese)* 41946
networked ATM-video products 9026
newspaper, electronic publishing on Internet, network tools 16769
obj. based archit. for digital compression camera 33620
OPENet, collaborative learning environ. for education and training 3244
PEACESAT program, Pan-Pacific Education and Communications Experiments by Satellite 3518
Personal Telepresence, interactive multimedia workstation 16931
policy-free distributed general-purpose shared window syst. 25051
queue monitoring, delay jitter mgt. policy on audio/video computer based confs. 9034
rem. multimedia presentation syst., pointing stick 9028
rem. seminars, multimedia conferencing, MICE project 25118
round-trip audio path/technols. 3241
Sanyo video meeting syst. *(Japanese)* 3243
satellite offices implement., recommendations based on obs. from one site 16821
Screencall PC videophone for desktop videoconferencing 24925
secure digital audio teleconferencing 25071
SEPIA, cooperative hypermedia authoring environ. 16806
shared ephemeral teleconferencing state mgt. 16810
ship-to-ship teleconferencing, reengineering LAMPS MK III 16808
small group teleconferences, virtual environ., communicative charact. 16816
speech-assisted video proc., lip sync. 41702
Sticky conf. control protocol 41513

teleconferencing continued
sync. tele-cooperation framework 16809
synthetic display, stereoscopic fusion charact. *(Japanese)* 16804
tele-monitoring/computer-supported repair, multimedia syst. 42042
tele-teaching over-dist. education, ISDN-based 20283
Telemeet 100/50, TV conf. syst., develop. *(Japanese)* 25080
teletutoring, BETEL network 25115
transputer-based implement. of video codec interface 33616
transputers in multimedia teleconferencing syst. 25076
two-way dual-view teleteaching syst., gestures/chalkboard 16890
US multinational corporations, telecomm. technol. use/investment patterns 3051
user interact. with multimedia, multiuser systs., conferencing tools 41980
variable resoln. image compression 33615
VBR MPEG video, charact., modeling and multiplexing 33147
VBR video coder teleconference traffic modeling 16818
video codec, picture quality improvement tech. *(Japanese)* 25164
video mail distribution system for networked personal computers 33613
video teleconference use among geographically dispersed work groups, usage patterns and user preferences 33624
video teleconferencing, communication systems integration 33612
videoconferences on Xunet II fast ATM WAN 25078
videoconferencing in the supercomputing environment 25081
virtual space teleconferencing, 3D human images reprod. 41949
virtual space teleconferencing, human fig. synthesis/animation 33619
visual commun. media trends and prospects *(Japanese)* 16905
VLSI archit. for video real-time hierarchical encoding/decoding 33697
Weaver SSB subband acoustic echo canceller 16822
wide-screen autostereoscopic display syst., head-posn. tracking 9985
wired warp and woof, ethnographic study of networking class 9032
wireless access systs., low bit-rate video transm. 17088
WWW, platform independent virtual reality 25077

telecontrol
see also alarm systems; telerobotics
11 kV distrib. network telecontrol/metering syst. 4660
500 kV Central China power syst. EMS overview 19188
aircraft intell. rem. power controller 26682
Amsterdam road A10, coord. ramp-metering syst. 16640
AN/FPS-85 radar, peak power tailoring and phase nulling 34159
ATM trolleybus syst., radio control develops. *(Italian)* 3537
augmented audio reality, telepresence/virtual reality 9764
auto-reclosers/sectionalisers operation 43796
biomedical microrobots driven by miniature cybernetic actuator 35139
brain blood vessel catheter, teleoperation 10255
CARAT rly. signalling project overview, Japan 36747
central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
CHP plant intell. control/monitoring, μP-based 35993
CMOS wireless vol. control receiver for hearing aids 18606
cogen. practice, options and design stds. *(Italian)* 19504
colour TV receiver, microcomputer control syst. 9709
combined cycle CHP power plant telecontrol projects, Denmark *(German)* 4850
consumer electronics human controlled devices prog. 17580
Croatian telemetry network requirements 41747
distrib. network automatic multiple-cct. switchgear develop. 4659
distrib. network protection, overhead auto-recloser automation 4664
distrib. network quality/reliab. improvement options 43760
distrib. network rem. monitoring/control syst. develop. 4667
distrib. syst., SCADA syst. spec./anal., IEEE std. 27175
distrib. syst. post-outage restoration, infrastructure enhancement 10726
distributed control appls., home power ccts. 9039
distributed rem. data terminals, develop. *(Chinese)* 19130
distributed SCADA/EMS syst., Unix based, Johannesburg 4519
EBICAB 900 train protection transponders, product series 5334
elec. rly. real-time control/monitoring syst. integrat. *(Chinese)* 36710
elec. utility DSM, customer commun. appls. 10659
FITL syst. rem. power source, alarm commun. 19867
heating load mgt., radio teleswitching 5380
help desk problem resoln., rem.-control software 16638
hoist automation, radio signalling 11397
home security syst., pass. IR detectors 9759
LEP2 cryogenics control syst. archit. 4036
long. vehicle dist. control, meas. error effects *(Japanese)* 10028
LSA coord. substation protection/control syst. *(English)* 44250
LV switchgear made-to-measure commun. 44241
machining robot control, inductive power/sig. transm. 20167
manipulator based rem. collaboration support syst. *(Japanese)* 33420
mfg. message spec., protocol design/anal., Petri net-based 8873
multimodulation acoustic commun. syst. 9658
NASA real-time video link, Antarctica 42301
New Wireless LinguControl 43370
New Zealand HV power syst., communs./control systs. 26973
PC rem. control of appliances by telephone lines 41746
power indust. fibre optic network project, Poland 10683
power station automation, rem. operation 43941
power syst., distributed SCADA syst., design/archit. *(Chinese)* 43649
power syst., intertripping relay, design/appl. 4726
power syst. control, develops., future prospects 19182
power syst. control, real-time LAN commun. technol. *(Chinese)* 43668
power syst. EMS multiserver/multiclient gateway syst. 43637
power syst. intell. guidance syst. 19169
power syst. telecontrol commun., develop. trends 19189
power system control, packet radio network appls. 33766
proc. indust. fieldbus technol., standardisation efforts 41795
PSCN 3020 distrib. network integrated protection/control syst. 27157
R&S Radio Data Codec DMC 01, RDS transm. and FM transmitter control 9704
RAMO telecomms. environ. equipt. mgt. network 19870
realistic sensations transmission, virtual dome 16641
residential lighting fixtures, rem. control *(Japanese)* 11463
run-of-river hydro power station, rem. control syst. 43944
rural distrib. network auto-reclose protection telecontrol 4665
smart DTMF telecontroller for home automation systs. 8875
solid state motor protective/control devices 4892
space platforms, power syst. control/protection integrat. 26680
Space Shuttle rem. power controllers, AlN metalization/joining 26688
space station power mgt./distrib., intell. load controller 26659
spacecraft DC power systs., series arcing detect. 26564
SPIDER MicroSCADA distrib. network control syst. 27184

telecontrol continued
SS techs. for consumer commun. 25237
steel indust. wireless coke oven SCADA syst. 9824
stereoscopic video, underwater rem. operated vehicle 32815
submersible platform rem. control and commun. syst. design *(Croatian)* 4412
substation SCADA syst., relay network integrat. project, USA 10769
telecom. equipt. air conditioning, building control/mgt. syst. 20135
telecomm. energy mgt., Alenia distributed soln. 19835
telecomm. power plant, supervision/control 19818
telecomm. public network power syst. mgt. 16613
telecomm. services, enhanced feature interacts., impact 16634
traffic control systs., urban, radio synchronisation 17165
train control standardisation, European operational switching syst. 44532
virtual endoscope 34565
voltage-controlled resistor, monostable multivibrates rem. control 29358
Er-doped fibre amp., rem. all-opt. nanosecond gain switching 39695
He cryoplants in CERN SPS, control aspects 10080

telefilming
EDTV-II telecine image conversion and signalling *(Japanese)* 17569

telegraph poles *see poles and towers*

telegraphy
see also radiotelegraphy
auditory telegraphy signs recogn., dichotic presentation, Morse code 41729
message switching network, value added message services 3147
Morse decoders, electronic, noise-masked telegraphy decoding perform. 41730
rural telegraphy over telephone lines, voice mail concept 24932
telecomm. technols. innovation, hist. 33303

telemarketing *see marketing*

telemetry
see also biomedical telemetry; optical fibre telemetry; radiotelemetry; space telemetry
11 kV distrib. network telecontrol/metering syst. 4660
77 kV substation fault sect. localizer *(Japanese)* 27865
acoustic commun. syst. perform., stochastic model 16639
atmos. & ocean data, buoy for Antractic deployment 18858
brushless variable speed drive network, diagnostic ES 11370
buried distrib. cable syst., rem. absol. phase meas. 27158
CAMAC rem. meas. syst., special computer 3752
central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
cogen. practice, options and design stds. *(Italian)* 19504
Croatian telemetry network requirements 41747
current-loop transmitter, 4-20 mA, for telemeasuring 3158
dam displacements meas., inductive transducer-based 9847
deep water acoustic LAN, adaptive lin. multiuser receiver 34181
disposable rem. chem. sens. network 9864
distrib. network rem. monitoring/control syst. develop. 4667
distrib. syst., automation/DSM/AMR study 43761
distributed rem. data terminals, develop. *(Chinese)* 19130
EBICAB 900 train protection transponders, product series 5334
elec. rly. real-time control/monitoring syst. integrat. *(Chinese)* 36710
elec. utilities, involvement in inform. superhighway develop. 43658
elec. utility DSM, customer commun. appls. 10659
far-field antenna measurement, automated system 23891
FITL syst. rem. power source, alarm commun. 19867
FTTH back-up batt. power supply monitoring 19868
Hall effect direct field sens. counters *(German)* 10787
information technologies/systs., conf., Ukraine, 1993 3
load profile data retrieval, cellular commun. 10793
long. vehicle dist. control, meas. error effects *(Japanese)* 10028
LV switchgear made-to-measure commun. 44241
maint. free UPS, advanced batt. technol. 19815
manual/automated offshore NDE, colloq., London (1994) 20259
marine telemetry (underwater), LAN protocol 10446
mobile flight test support 10316
mobile robots, neural archits. for environ. rebuilding 34413
multipath compensation for underwater acoustic commun. 9614
New Wireless LinguControl 43370
non-Markovian proc., conditional probab. dens., kinetic eqns. 20534
NTT, explosion-proof liq.-level meter for underground light-oil tanks 42739
power syst. AMR, design considerations 27278
power syst. dispatcher training simulator, GUI-based 19157
power syst. insulation monitoring, fibre optic sens. appls. 19359
power syst. transm./microwave towers, mech. design 27234
power system control, packet radio network appls. 33766
proc. indust. fieldbus technol., standardisation efforts 41795
proc. plant digital image archives, rem. meas. syst. 25732
prog. high-rate PCM telemetry frame synchronizer *(Chinese)* 41748
PSCN 3020 distrib. network integrated protection/control syst. 27157
rem. meter reading and proc. technol. *(German)* 35703
rly., automatic monitoring network syst. 9823
road vehicle detect. for transport telematics 17685
robotic wrist, underwater acoustic array tracking 9822
ROMANSE, road mgt. syst., Southampton project 17684
rough surface scatt. effects 17356
sig. reception/proc. 3160
solid state motor protective/control devices 4892
sparse systs., complexity-constrained LS estim. 42532
subsea acoustic rem. commun., adaptive receiving beamformer 9613
SUNPAC, PV installations, rem. monitoring 20004
SvSig92 rem. monitoring syst., central telecom. power plants 19573
telecomm. power plant, supervision/control 19818
transm. network optimal fault location, μP-based 4623
two wire automatic rem. sens./eval. syst. 17686
two-way customer commun. systs. for utilities 41586
UH-60A airloads data acquisition and proc. syst. 10313
VHF ground station design/constr. 42335
visual commun. media trends and prospects *(Japanese)* 16905
water distrib. systs., model based fault diagnosis 3159
writing speed to hard disk improvement, alternate buffering 3733
Pb-acid wet-cell secondary batt. noninvasive monitoring 44302

telephone equipment
see also automatic telephone systems; compandors; cordless telephone systems; telephone exchanges; telephone lines; telephone sets; vocoders
alarm syst., solid state technol. 8859
cablephone, technol. issues 41710
cellular telephony, analog/digital interface 33833
CMOS prog. on-chip anticlipping cct. for digital telephones 33706

- **telephone equipment** continued
  - echo cancellation, voice commun., sig. proc. methods *(German)* 42048
  - echo cancellation, voice commun., sig. proc. methods *(German)* 42049
  - GPT Payphone Systems, telephone cards/technol. develop. 33665
  - ME2632A/B/C digital mobile radio test syst. for PDC/PHS phone prod. *(Japanese)* 33769
  - Mexico, rural telephony, mobile satellite commun. 3119
  - rural communications, TDM/TDMA techniques 8857
  - speech impaired pers., public telephone network access, TINATEL syst. 43373
  - SwissNet terminal equipt. for business and pers. *(German, French)* 9081
  - switching support syst., software operation syst. inform. model 42113
  - thermal anal. of IC chips, thermographic imaging 13832
  - voice-controlled telecomm. terminal for phys. handicapped 4313
- **telephone exchanges**
  - *see also private telephone exchanges*
  - air conditioning units, air flow studies 20141
  - alarm traffic charactn., methodology and case study 33406
  - Alcatel 1000 S12 exchange, ALAMOS generic alarm correl. syst. 3288
  - ALCATEL 1000 S12 switching syst. decentralized DC power supply 19869
  - automatic switches, free-standing air conditioning units *(French)* 20138
  - AXE syst. for CIS market *(Croatian)* 3286
  - Centrex services in AXE 10 42122
  - electronic switching telephone exchange air flow meas., France 20142
  - energy efficiency, EE2000 study project 19820
  - equipt. enclosures, thermal control 16969
  - line interface overvoltage/overcurrent protection 16573
  - MILT-64 in rural Indian network 3285
  - multiprocessor syst., distributed data, overload control 42119
  - primary protection, monolithic Si structs. 19843
  - rectifier syst., ring topol. 44192
  - rem. switching unit, MAX-L exchange 25189
  - rural telecommunication using optical fibre 9093
  - subscriber connection line multiplexer appl. *(German)* 16955
- **telephone interference**
  - *see also crosstalk*
  - ASDL wideband noise meas. and implications for sig. proc. 16923
  - channel, discrete algms. for compensating elec. echo 2571
  - double-talk detect. for adaptive noise canceller 8182
  - dual-tone multifrequency (DTMF) detect. improvement 33394
  - echo control, Kalman filter algm. 42045
  - echo path modelling, chaotic-driven, coding strategy 33398
  - four-wire loop systs., correl. AR subscriber sigs., echo canceler perform. 25144
  - German telephone network, impulsive noise survey for stat. modeling 16913
  - HDSL, discrete multitone transceiver soln. 9083
  - robust speech recogn., adverse environ., sig. bias removal 32316
  - speech echo cancellation, adaptive-filtering techs. 32411
- **telephone lines**
  - *see also subscriber loops*
  - advanced broadcast video service (ABVS) 25667
  - fax broadcasting syst., high dens., develop. 33417
  - NEC's VoicePoint AEC-50 acoustic conferencing syst. *(Japanese)* 42646
  - NTT's overseas carrier business 41589
  - robust speech recogn., telephone line equalization 8231
  - rural telegraphy over telephone lines, voice mail concept 24932
  - speech recogn. degrad. sources 32236
  - speech scrambler echo cancellation 41722
  - thermal anal. of IC chips, thermographic imaging 13832
  - Voice Across Japan database, Polyphone project 32231
  - voice sig. proc. *(English, French)* 40713
- **telephone networks**
  - *see also subscriber loops*
  - adaptive echo canceller, finite wordlength effects, modelling 16626
  - AIN switch testing without service logic execution environ. 41956
  - alarm traffic charactn., methodology and case study 33406
  - Arcachon fiber optic distrib. network 25500
  - Ascom TCS P7 series test instrums. for telephone and data network fault finding 33391
  - AT&T 800 speech recogn. service, network call routing 3140
  - AT&T voice and audio proc. for telephony appl. 3129
  - ATM technol., switching success 8856
  - ATM technol., transit., advanced telecomm. networks 8824
  - automated call routing 3136
  - AXE IN service script concept, suppl. subscriber services 33628
  - AXE-10 switch in Iskra-2 network 33392
  - BT's speech appls. platform, telephone network-based speech syst. 41727
  - BT's video-on-demand technol. trial 9741
  - CAD grammar 41703
  - caller identity verification 3135
  - connected digit recogn., telephone network based, VQ HMM appl. 32235
  - corporate networks, European legal framework *(German)* 8847
  - Croatian telecomms. network, AXE syst. develop. plan 42108
  - DC power supplies, modular, intell. 19871
  - dial-up X.400, APS alliance 25018
  - digital cellular-PSTN interconnection quality assess. 42228
  - ETSI V5 interface globalisation 41917
  - exchange rectifier syst., ring topol. 44192
  - fast LMS-based algm., real-time echo cancellation 33408
  - four-wire loop systs., correl. AR subscriber sigs., echo canceler perform. 25144
  - heavy traffic trunk line syst. approx. 24928
  - hybrid HMM-MLP speaker verification algm. for telephone speech 32247
  - IN-based approach for PCS service provision, PSTN infrastructures *(Italian, English)* 41963
  - intell. private telecomm. networks *(German)* 9037
  - internat. virtual private networks, background/tariff survey 41728
  - ISDN develop. impact overview, Italy *(Italian)* 3237
  - Italian telephone network, interactive voice technol. 2442
  - ITU-T recommendation V.34 for high speed modems 42082
  - KT-STOCK large vocab. speaker independent recogn. syst. 2440
  - large pop. speaker recogn., wideband and telephone speech 32204
  - local telephone network centralized powering recommendation 42067
  - London's PSTN, structural optim. 16628
  - Mexico, rural telephony, mobile satellite commun. 3119
  - microcellular aggressive dyn. channel assignment 3342
  - MILT-64 in rural Indian network 3285
  - operator services automation, speech recogn. appl. 3141
  - optimal resource allocation, learning automata 8777
- **telephone networks** continued
  - pass. WDM opt. network, cost-shared components 9463
  - Philips voice module for voice commun., data networks 41715
  - POTS network value addit. for developing nations 3110
  - power supply fault-tolerance, reliab. improvements 19821
  - PSTN, secure speech/data commun. 33397
  - radio syst., PSTN network syst. interfaces/services 25383
  - real-time control, ES 24927
  - routing, economic regulation 33299
  - rule-based control, blackboard model 16614
  - SDH network design 33291
  - service pricing in competitive environ. 41719
  - speech recogn. degrad. sources 32236
  - SS receivers, diversity reception improvements 25444
  - switching syst. availability objective 42123
  - telecom market develop. 9737
  - telephone/packet-switched networks, random variable seq. i.i.d. testing 41716
  - three-level hierarchical telecomm. networks, link no. minimization 33166
  - TRT's Sematrans 256 modem, 32 kbit/s transm. on telephone network 42084
  - voice supported multimedia service on data commun. 9047
  - VoiceDialing, speech recogn. based telephone service 3138
  - wireless local telephone service, effective implement. 3118
  - workstation, intell. LAN-PBX interface 33339
  - worldwide IN, dyn. routing strategies 33639
  - Pb-acid flooded batts., perform. monitoring, telephone office 44198
- **telephone receivers** *see telephone sets*
- **telephone sets**
  - 3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
  - 3D functional modules, SMD miniaturisation for portable telephones 5621
  - 7 KHz handfree telephony CMOS ASIC chip set 21371
  - BT screenphone services in UK 42077
  - cellular hand-held phone, reduced EM field in human head 35184
  - chip sets for digital cellular handsets 17036
  - cordless telephones, sound quality eval., three-way scaling *(Japanese)* 42993
  - DECT handset, low profile reson. slot antenna 23901
  - digital acoustic underwater phone 17357
  - digital cellular phones, speech proc. technol. *(Japanese)* 42289
  - digital cordless telephone terminals 25151
  - digital portable phone transmitting amp., converter-control IC 25284
  - display-based subscriber service trials and prospects 42078
  - DS-CDMA FH-CDMA/narrow band cellular radio systs. 3452
  - DS-SS cordless telephone *(Japanese)* 25149
  - dual mode GSM/DECT handset 25152
  - European GSM and PCN portable phone develop. *(Japanese)* 17078
  - France Telecom's Amarys range of telephones 25150
  - full-band acoustic echo cancellers, steady-state perform. 33676
  - full-duplex speaker phone based on adaptive predictor 9109
  - GSM handsets, three-chip struct. 17034
  - hand-held GSM digital mobile telephones, near E-field magnitude 42284
  - hand-held telephones with low absorpt., integrated antennas 15640
  - handheld cellular phones, antenna design *(Japanese)* 33901
  - hands-free telephony acoustic echo cancellation 8858
  - handy phone, miniaturized dielec. filter *(Japanese)* 42290
  - hard-of-hearing people, multimedia telephone 35179
  - HBT technol., CDMA chip set power increase 16928
  - HF devices/ICs for portable cellular phones 17133
  - intell. Chinese pen-based screen phone 9110
  - IS-54-B portable digital cellular phone *(Japanese)* 42288
  - ITU mobile radiocommunications freq. spectrum allocation *(Japanese)* 33904
  - leaded chip solder joints in handy phone, fatigue life 5710
  - max. integrated phone device for analogue telephone set 42076
  - mobile commun., digital voice compression technol. *(Japanese)* 33902
  - NEC's portable phone for pers. digital cellular syst. *(Japanese)* 16929
  - PC rem. control of appliances by telephone lines 41746
  - PCN handset antennas 25329
  - piezoelec. telephone handset, acoustic param. estim. by Monte Carlo method *(Japanese)* 33675
  - planar two-mode channel FET, MMIC, pers. handy phone 38925
  - portable cellular telephone for 1.5-GHz band digital mobile syst. *(Japanese)* 42287
  - portable telephone for pers. digital cellular syst. 3467
  - prog. analogue CMOS transm. cct., electronic telephone sets 33678
  - RF design in mobile radio transceivers, IEE Colloquium, London (1994) 5483
  - Siemens DECT-prototype Gigaset 95x perform. indoors 9108
  - single-stimulus voice coder perform., listener opinion scores 42074
  - Valora 81 terminal, calling line ident. for residential users 42075
  - GaAs IC for portable commun., needs 42231
  - GaAs MMIC LNA for wireless commun., ultralow noise 42235
  - GaAs MMIC power amp. and T/R switch, pers. commun. 42232
  - Li ion batts. for mobile telephone equipt. 19971
  - Ni-Cd batts. for mobile telephone equipt. 19971
  - Ni-MH batts. for mobile telephone equipt. 19971
  - Ni-Zn batts. for mobile telephone equipt. 19971
- **telephone subscriber loops** *see subscriber loops*
- **telephone traffic**
  - alarm traffic charactn., methodology and case study 33406
  - cct. holding time distribs. 33404
  - CT2Plus based wireless PABX, traffic capacity perform. 9205
  - DECT technol. for radio in local loop 8853
  - heavy traffic trunk line syst. approx. 24928
  - inter-regional telephone call flows anal. *(Japanese)* 3106
  - microcellular aggressive dyn. channel assignment 3342
  - modified adaptive seq. projection algm. 41679
  - nonstationary Erlang loss model, modified-offered-load approx. 33405
  - rural communications, TDM/TDMA techniques 8857
  - shared time division duplexing for wireless digital speech commun. 3333
  - telephony network real-time control, ES 24927
- **telephone transmitters** *see telephone sets*
- **telephones** *see telephone sets*
- **telephony**
  - *see also radiotelephony; telephone equipment; telephone interference; telephone networks; telephone traffic; videotelephony*
  - 7 KHz handfree telephony CMOS ASIC chip set 21371
  - accurate force and answer algms. for operator services 33407
  - advanced access network archits. and service demand forecasting 42064

telephony continued
archit. for defining, and exploring interacts. 3146
ASDL wideband noise meas. and implications for sig. proc. 16923
Asia-Pacific region, integrated voice inform. services 3121
AT&T's PassageWay Solutions family of computer telephone integrat. products 41800
AT&T 800 speech recogn. service, network call routing 3140
AT&T voice and audio proc. for telephony appl. 3129
audio inform. services, electronic media environ. 33399
Austel telephone no. plan 16619
Australian ESI, commun. develops. 26975
autodialer, programmed control 17580
automated call routing 3136
automated detect. of interacts. in telephone services 3142
automated internat. telecomm. charge card service, "89" service 3120
automatic call distributors, operator services staffing, heterog. posns. 41717
automatic imposter detect. in telephone speech 32251
automatic lang. ident. of speech messages 32279
automatic telephone operator based on client-server syst. archit. 3132
automatic voice call-response syst., speech interface *(Japanese)* 24926
AXE 10 syst., operator subsystem fn. testing 33393
AXE syst. for CIS market *(Croatian)* 3286
AXE-10 switch in Iskra-2 network 33392
Bangla speech over telephone channel, on-off charact. anal. 40756
Bell Canada directory assistance automation 3127
broadband multimedia services, high speed access 42016
BT, user-friendliness in products and services 16544
cablephone, technol. issues 41710
Caller ID and meaning of privacy 3124
caller identity verification 3135
CATV companies, telephone service delivery 34262
CATV network, digital telephone service *(Japanese)* 41709
CCS networks, congestion control issues 33637
channel adaptation, vector field smoothing tech. 2447
Chile, telephone services market 3111
collaborative model of dialogue, preliminaries 15844
commun. networks, perform./reliab. design 41442
company outside plant engineers' graphics-intensive OO appl. 41704
computer-aided telephony, user-oriented dialogue struct. 16615
connected digit recogn., telephone network based, VQ HMM appl. 32235
continuous speech recogn. algm., telephone directory appl. 15845
continuous speech segmentation for recogn., PSTN 32222
contract mgt. using document imaging 41721
convergence of telephony and cable, vital step for inform. superhighway 1662[illegible]
CT2Plus based wireless PABX, traffic capacity perform. 9205
customer service operation simul., telephone companies 16622
DC distrib. networks, arc detect. 19277
DC power supplies, modular, intell. 19871
DECT, multibearer connections syst., ARQ protocols perform. 17051
DECT in radio local loop appl. 8852
DECT technol. for radio in local loop 8853
DECT-PCS implement., archit. and perform. 8854
DECT-type systs., non-coherent equaliser receiver struct. 8855
Denmark, telephone numbering plan 33402
desktop appl. program interfaces 33395
developing countries, telecomms. deployment strategy 3109
dialog design for speech-interactive telephone automation syst. 2449
differentially detected $\pi/4$-DQPSK syst. perform., AWGN/Rayleigh fading 40568
digital acoustic underwater phone 17357
digital SCPC DAMA, optimal satellite-based voice networks 3512
directory assistance, speech recogn. issues 3128
distributed control of telephone networks, reactive software agents 41713
earth station satellite commun. link, engng. design *(Chinese)* 42322
end-to-end interworking in voice telephony 41724
European Union's telecomms. policy, infrastructure competition 8807
FITL, commercial AC power quality issues 19227
formal spec. of telephone, sets 24924
French telecommun. services, CNET speech technol. appl. 3081
full service broadband networks, power requirements 42622
full-band acoustic echo cancellers, steady-state perform. 33676
graphical interp. of telephone syst. manhole drawings 41606
hands-free telephone sig. proc. methods *(German)* 8846
hands-free telephony acoustic echo cancellation 8858
high-quality speech corpus, telephone acoustic models constr. 32230
hospital commun. and signalling syst. *(Italian)* 10300
hybrid fiber/coaxial and CATV networks, planning and design 41563
hybrid HMM-MLP speaker verification algm. for telephone speech 32247
hybrid opt./coaxial telecom. power distrib. options 42138
IN planning, customer expectation 33636
India telephone demand pot. 3103
interactive voice technology for telecommunications, conf., Kyoto, Japan (1994) 11
internat. interpreting telephony *(Japanese)* 3101
ISDN and ISO/MPEG layer III audio coding, broadcast audio prod. 3238
ISDN fn. introduction in real telecomm. network 33596
Italian telephone network, interactive voice technol. 2442
Japanese/Eng. digit recogn., comparative anal. 32234
Kalman filter for telephone revenue prediction 41718
KT-STOCK large vocab. speaker independent recogn. syst. 2440
large pop. speaker ident., clean and telephone speech 40715
live speech network assess., digital adaptive filter 40750
London's PSTN, structural optim. 16628
LOTOS environ., specifying, and anal. their interacts. 3143
Macrophone, American Eng. telephone speech corpus 32229
max. integrated phone device for analogue telephone set 42076
MAX telephone diagnostic ES, param. tuning 3105
microcellular aggressive dyn. channel assignment 3342
multimodal consumer inform. server, IVR menu 3131
narrowband microcellular speech transm. schemes 3332
NEC multimedia services, CATV network *(Japanese)* 42029
negotiative dialogue design for computer aided telephony 41705
network power supply fault-tolerance, reliab. improvements 19821
NTT's mass calling service 3250
NTT speech proc. technol. and telecommun. appl. 2441
NYNEX interactive speech/lang. systs., telecommun. appl 2443
operator services automation, speech recogn. appl. 3141
PARADISE project, transit. strategy towards global X.500 directory 33335
PC rem. control of appliances by telephone lines 41746

telephony continued
Philips automatic train timetable IS 3130
Philips SOPHO iS3000 ISPBX, internal/external commun. for cruise liners 42114
phone-ins, impact and mgt. 41726
POLYPHONE corpus, Dutch for appl. develop. 3137
PSTN, secure speech/data commun. 33397
public telecomms. infrastructure, hybrid fiber/coax archit. 42619
PV power supply syst. develop., Finland 19561
RDBMS, directory inform. tree mgt. method and entry search method *(Japanese)* 16624
rectifier power supply, telecom. services appls. 19829
residential shared tenant services for cable operators 41711
robust speech recogn., adverse environ., sig. bias removal 32316
robust speech recogn., telephone line equalization 8231
ROMANTIS, satellite services for Eastern Europe 33938
rural cellular telephony, cost effective commun. 42191
rural communications, TDM/TDMA techniques 8857
rural telecomm. networks, integrated cordless access 9208
service pricing in competitive environ. 41719
Siemens DECT-prototype Gigaset 95x perform. indoors 9108
single-stimulus voice coder perform., listener opinion scores 42074
speaker ident., text-independent, Gaussian mixture speaker models 8225
speech, extraction/class. methods 2446
speech data corpus, speech recogn. syst. 3134
speech echo cancellation, adaptive-filtering techs. 32411
speech noise whitening filter for syst. ident. 40746
speech recogn., vocab. independent 32238
speech recogn. based telephone service perform. 3139
speech recogn. degrad. sources 32236
speech scrambler echo cancellation 41722
spontaneous speech recogn. search algm. 32392
Sri Lanka's telecomms. infrastructure, private sector contrib. 3032
stress mgt. program, computerized, telephone-based 43326
STU-III-multilevel secure computer interface 9082
surprise calls, proposed, telephone service for residential customers 33403
SwissNet, NTE, integrated a/b interfaces *(German, French)* 33679
TCXO with quartz cryst. resonators, cellular telephones appl. 39106
TDMAX and FASTCOM, Alcatel satellite systs. for domestic and corporate commun. 25450
telecomm. equipt., fuel cell energy syst., field test 19975
telecomm. network evol. in competitive environ. 33312
telecomm. services, universal service and innovation, regulatory policy 33327
telecomm. technols. innovation, hist. 33303
telecomms. in Canada, GIS appls. 24877
telephone exchange, equipt. enclosures, thermal control 16969
telephone exchange, primary protection, monolithic Si structs. 19843
telephone exchange air conditioning units, air flow studies 20141
telephone services, temporal logic for modular spec. 3144
Texas Instruments multiserve enhanced voice services 3133
text independent speaker ident., robust segmental method 32245
text-depend. speaker recogn., higher freq. band inform. 32243
TIME T, global numbering syst. expansion 41723
UMTS directory services, security aspects 9209
underground commun. techs. for cavers/potholers 9186
US census, automatic speech data collection 32232
Voice Across Japan database, Polyphone project 32231
voice activated automated telephone call routing 8848
voice activated telephone intermediary syst. 2451
voice transfer, TCP/IP 33390
voice-activated telephone exchange syst. 3292
VoiceDialing, speech recogn. based telephone service 3138
Walsh transform. for speech echo interf. suppression 24159
Zap & Zoom, telephone voice interface 41720
GaAs power MMIC for 1.9 GHz digital cordless phones 12823
Li ion batts. for mobile telephone equipt. 19971
Ni-Cd batts. for mobile telephone equipt. 19971
Ni-MH batts. for mobile telephone equipt. 19971
Ni-Zn batts. for mobile telephone equipt. 19971

telepoint systems *see cordless telephone systems*

telepresence *see telecontrol; virtual reality*

telerecording *see video recording*

telerobotics
biomedical microrobots driven by miniature cybernetic actuator 35139
control enhancements in commercial mobile telerobot 4768
endoscopy, telepresence syst. 4291
machining robot control, inductive power/sig. transm. 20167
med. tissue stiffness estim., fuzzy reasoning/telerobot 34992
microsurgery, force-reflecting motion-scale telerobot 4290
multimedia endstations, service kernel 16842
panoramic line-scan imaging syst. for teleoperator control 34564
rehabilitation robotic feeder design 35181
rehabilitation robotics, design issues review 35158
tele-micro-handling/machining, inform. transform.-based 30522
underwater cleaning robot, power station inlet channel appls. *(Japanese)* 4754
viewpoint-controlled displays for teleoperated robots, perform. eval. 34629

telescopes
see also astronomical telescopes
astigmatic telescope for lasers, annular gain medium cross sect. 31461
coning scan imager, point detect. 2608
deep-space commun., coherent detect. opt. relay satellite 17298
deep-space commun. via relay satellite, RF and opt. archits. 17285
deep-space opt. commun., 10 meter-class ground-based receiver 17322
expts. on laser-plasma triggered lightning 23485
Hubble Space Telescope, power syst. servicing 35245
IR syst. design, coherent IR fiber bundles 17869
laser, power beaming, conf., Los Angeles, CA, USA (1994) 11554
laser space commun., adaptive opt. multi-aperture receiver antenna 17321
modular imaging spectrometer instrum. modeling/testing 34591
multilayer coated reflective optics, EUV lithog. 38721
nonlin. optics appl. for large astron. telescopes 31577
Optical Communications Demonstrator telescope assembly, mech. design 17324
perfect shuffle opt. interconnect module 39513
prism devices for laser technol. 39994
reflective telescope technol. for IR surveillance/rem. sens. 17798
small opt. user terminal, flight config. 17292
solar space power transm., liq. space optics appls. 43415

telescopes continued
tele-microscope for meas. of polished curved surfaces *(Japanese)* 2741
wedge plate interferometric laser beam tester 31476
Ni-H_2 80 Ah cell, perform. charactn. 27910
Ni-H_2 batt. testing, Hubble Space Telescope 26575

telesoftware
multicast software develop. 25158

teletex *see electronic mail*

teletext
Chinese teletext systs., CCST and Videoinfo 8877
DRAM based CMOS TV ccts. for advanced services/features 9706
financial data broadcasting, VBI teletext 8876
full-text inform. delivery, electronic, US infrastructure 16546
Gx-2001 microcontroller, multi-fn. TV technol. appl. 6176
Integrated Service Data Broadcasting 8878
MEGATEXT, teletext IC, graphics for color TV 41750
MEGATEXT in Metz color TVs, teletext access and menu control 33422
onboard reception antenna for broadcast/commun. satellites *(Japanese)* 9677
oracle media server framework 33423
TV microcontrollers, on-board teletext decoder 41749

teletraffic *see telecommunication traffic*

teletypes *see interactive terminals*

television
see also cable television; closed circuit television; community antenna television; digital television; electronic news gathering; high definition television; interactive television; television applications; television broadcasting; television equipment; television interference; television networks; television production; television reception; television standards; television stations; television studios; three-dimensional television
audio description on TV, speech compression 15853
complex image proc. syst. hierarchical simul. *(German)* 24673
const.-luminance colour TV principle and appl. *(German)* 42563
consumer electronics, conf., Hong Kong (1994) 5460
cost-effective video server 9757
deinterlacing, motion-compensation method *(Japanese)* 32997
digital TV image wavelet transform coding and sync. loss recovery 42584
extended obj. coord., image proc. algm. 16157
holographic movie, picture quality, holographic TV 7831
inform. retrieval and indexing of moving images, TV online database 8621
observer fatigue caused by TV viewing, meas. and anal. *(Japanese)* 18623
picture sig. conversion for progressive reprod. *(German)* 25656
selective color tone adjustment for ATV systs. 16230
super-wide-angle imaging by synthesizing images *(Japanese)* 16125

television antennas
22 GHz DBS HDTV antenna design and rain fade compensation 31950
amps. tuning, robot fingers, fuzzy logic 37654
FM radio and TV broadcasting antennas, field level reduction 3660
mobile DBS reception single-layer leaky-wave slotted waveguide array 23945
satellite TV receiving antenna, optimal axis of rot. 2340
USA DirecTv DBS shaped reflector breadboard verification 23921
USA DirecTv DBS shaped reflector design 23920

television applications
see also videotelephony
additive stroboscopic fibre optic TV holography, vibr. anal. 15153
aircraft parking posn. display and guidance syst. *(Japanese)* 10410
astron. TV spectrometer, slit monitoring/star guiding ability 42643
automobile navig. syst., visibility meas./eval. syst. *(Japanese)* 25684
binary phase fan-out elements, opt. optim. 14558
blind people globe inform. syst., TV camera/speech synthesis *(Japanese)* 26476
body segments inertial props. estim., video-based syst. 26356
CCTV, operator perform., syst. design 42632
CCTV, video entry phones, surveillance cameras 42633
code-sens. commun. syst., introduction 24895
color TV subcarrier based freq. calib. device 17634
conf. on security technol., Ottawa, Canada, Oct. 1993 36875
digital associative memory neural network, opt. learning capability 14559
distance training syst., design 5559
education, orienting activities effect on achievement and behavior 42641
electrical engng. education, learning technology appls. 28357
EMC of code-sens. commun. syst. 24889
expressway vehicle flow rate meas., TV picture *(Japanese)* 25726
external intrusion detectors, harsh environ., installation 36991
fast response CCTV image recall and motion detect. 42634
fluoroscopy, FAXIL threshold contrast detail detect. test objs. 26337
geostationary satellite positioning syst. develop. *(Japanese)* 17507
HDTV appl. *(Japanese)* 34252
high integrity data commun. for light rail transport syst. 36742
home automation, rem. security system 9760
home security syst., pass. IR detectors 9759
image, motion detect. for security 42642
image proc., crowd monitoring 33109
intell. vehicle/highway systs., compressed video commun. 8682
lateral-stereo camera model for machine vision 16233
LCTV image reconstruction of holograms 40151
med., video/EEG long-term monitoring and behaviour 26393
multimedia IS for airports *(Japanese)* 10413
ocular motility disorders, video loop MRI 43220
opt. polishing monitoring, computerised microscopy 17600
radiation-stable TV transm. device for wide-angle static survey 42640
realistic sensations transmission, virtual dome 16641
rly., third rail conductor inspection, video appl. *(German)* 11422
satellite technology, use in education 28307
see-through head mounted display, electrochromic mirror *(Japanese)* 34646
speckle methodology, liq. cryst. TV and posn. sensitive device 39499
stereoscopic video, underwater rem. operated vehicle 32815
stereoscopic viewing of at. struct. 34336
tele-teaching over-dist. education, ISDN-based 20283
Telemeet 100/50, TV conf. syst., develop. *(Japanese)* 25080
TV-holography in artwork nondestructive diagnostics 31679
TV-Trackmeter, underwater stereoscopy, hostile environ. appls. 24483

television broadcasting
see also direct broadcasting by satellite
1/2 inch composite digital VTR for broadcast 25675
2.3 GHz TV broadcasting, mobile live reporting *(German)* 34222
22 GHz DBS HDTV antenna design and rain fade compensation 31950

television broadcasting continued
22-GHz band satellite broadcasting multibeam antenna, breadboard model 3532
advanced broadcast video service (ABVS) 25667
American satellite TV public broadcasting service (PBS) 42566
analogue TV, digital techs. 3666
Asia, satellite TV deregulation 42567
Asia-Pacific commun. satellites, AsiaSat I and Star TV case study 3650
ATM network perform. eval. video source models *(Croatian)* 2868
ATM network variable bit rate MPEG video encoder characts. 41974
Australian Broadcasting Corporation, technol. convergence implications 3652
BPSK/QPSK demodulator chip-set for satellite appls. 42561
broadcast multipath environ., multicarrier modulation perform. 34224
broadcast-quality compressed video, subjective testing 25633
CATV near-future archit., broadcast channels capacity 42616
COFDM for TV broadcasting, overview 42560
compressed digital video services 33966
DBS-satellites, mobile reception, adaptive antenna array 15664
digital broadcasting, overview of emerging technols. 34203
digital broadcasting facilities/operations *(Japanese)* 34215
digital control syst., LAN appl. *(Japanese)* 34240
digital field pick-up unit, future develop. *(Japanese)* 34239
digital master equipt., develop. *(Japanese)* 34238
digital MMDS, wide area service alternative, satellite DBS 3654
digital terrestrial TV broadcasting, transm. techs. 34221
digital TV broadcast sig. error correction techs. *(Japanese)* 17546
digital TV broadcasting *(Japanese)* 34216
digital TV broadcasting, modulation/demodulation *(Japanese)* 34217
digital TV broadcasting, waveform transm. technol. *(Japanese)* 34214
digital TV broadcasting stations, develop. *(Japanese)* 34212
digital TV broadcasting syst. requirements *(Japanese)* 17540
digital TV for terrestrial broadcasting, modulation 17534
digitally encoded pictures for broadcast, objective picture quality scales 24400
direct satellite TV broadcasting, multifunctional receiving antennas 31943
double half-bandwidth OFDM syst. for digital video broadcasting 9698
DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
EDTV, 2nd generation, policy and digitalisation *(Japanese)* 34249
equipt. mgt. syst., VME based LAN appl. *(Japanese)* 3655
European digital TV, stds. develop. 34210
European image media trends *(Japanese)* 17544
European syst. for transm. of digitized TV sigs. via satellite 9694
Eurovision network, satellite technol. implement. 42569
Eurovision Network operations, computerised planning syst. appl. 42570
Eurovision network services 42571
Eurovision voice conferencing, VSAT technol. 41951
EUTELSAT digital TV, perspective 33965
Eutelsat HOT BIRD 2 payload 33963
EUTELSAT satellites, generation 33962
FITL CATV syst. for broadcast/interactive services 42628
FM radio and TV broadcasting antennas, field level reduction 3660
frame-sync. for satellite video sig. transm. 34233
future generation TV broadcasting *(Japanese)* 34250
GCR sig., appl. 17551
ghost cancellation ref. sig. for TV broadcasting syst. 9696
Grand Alliance syst. for US HDTV 25665
HDTV, all digital sigs., terrestrial transm. 9735
HDTV channel equalization, recursive Bayesian techs. 9734
HDTV GEO satellite, nuclear power/propulsion appls. 18753
HDTV systs., channel equalization techs. 17566
HDTV systs., global research advances, Chinese research issues 3674
Hi-Fi audio coding technol. and standardisation *(Japanese)* 17545
hierarchical digital broadcasting, adaptively weighted CDM 25628
hierarchical modulation schemes for digital broadcasting, power assignment 25630
hierarchical TV transm., SS multiplexing 25632
high quality video codecs *(Japanese)* 42092
image seqs. coding by wavelets and subband schemes 16287
intell. Image Media, technol. *(Japanese)* 34243
interactive LCD projector, multimedia presentation syst. *(Japanese)* 3260
internat. video transm. network and cable conditions and trends *(Japanese)* 17574
ITU generic coding for digital TV broadcasting *(Japanese)* 34211
Ku-band direct, home video broadcasting in rainy regions 3653
letterbox EDTV, 3D noise charact. *(Japanese)* 34256
LSI technol. impact on systs. develops. 17532
mobile commun. and broadcasting systs., EMC, microwave/laser scatt. 23646
modular multirate video distrib. syst., design/dimensioning 9717
modular multirate video switch design and dimensioning 42585
modulation for 12 GHz band integrated services digital broadcasting 9689
MPEG 2 programme switching 34220
MPEG-2 for DVB and cable 34219
MPEG-2 systs. layer, tutorial introduction 34218
multimedia and opportunities for broadcasters 34205
multiplane stereotelevision 2832
NASA real-time video link, Antarctica 42301
network automation issues 3648
OFDM, guard interval and sub-channel equalization for digital TV broadcasting 9699
OFDM for digital TV broadcasting 3646
OFDM transparent cross connect, TV channel switching 17223
onboard reception antenna for broadcast/commun. satellites *(Japanese)* 9677
Pacific region, value-added video services develop. 3527
PALplus transm. test sig. prod. and eval. *(German)* 42562
partially covered areas, TV baseband params. 17537
picture monitor class. and appl. *(Croatian)* 3679
positioning syst., TV broadcasting *(Japanese)* 9678
radio channel stat. charact., expt. eval. *(Italian)* 9688
Radio Television Malaysia's, computerised news centre 42577
receiver network echo-sig. protection 3667
Rohde & Schwarz TV Inserter/Regenerator VIR, TV broadcast monitoring 9697
satellite broadcasting schedule optim., Hopfield neural net mean field annealing 25461
service characts. and enhancement needs *(Japanese)* 17543
service trends and tech. problems *(Japanese)* 17541

television broadcasting continued
sig. transm. struct. of digital broadcasting 9700
SS multiplexing, hierarchical TV transm. 25634
SS techs. for consumer commun. 25237
sub-control room video effect equipt. *(Japanese)* 34237
superhighway , digital TV transm. 3656
TBS Broadcast Center in Tokyo, full-digital transm. syst. 42576
telecomm. technols. innovation, hist. 33303
Telemeet 100/50, TV conf. syst., develop. *(Japanese)* 25080
TEM cell, sound/TV receivers radiated suscept. meas. 25646
traitor tracing, cryptographic schemes 32173
USA DirecTv DBS shaped reflector breadboard verification 23921
USA DirecTv DBS shaped reflector design 23920
VBR MPEG video, charact., modeling and multiplexing 33147
television camera tubes
digital broadcasting facilities/operations *(Japanese)* 34215
sens., R and D activities and trends *(Japanese)* 34585
TGS pyroelec. materials for pyroelec. vidicons 22684
a-Si:H, pseudodoped, vidicon target material 1057
television cameras
see also television camera tubes
525-line progressive scanning TV camera, 16:9 aspect ratio 34235
autostereoscopic 3-D TV, eight TV cameras *(Japanese)* 17563
blind people globe inform. syst., TV camera/speech synthesis *(Japanese)* 2647
camera arrangement, stereoscopic picture effect *(Japanese)* 16154
CCD camera, 3D inform. extraction, holographic method *(Japanese)* 16129
CCD TV camera test set *(Croatian)* 3665
CCTV, video entry phones, surveillance cameras 42633
digital still camera, visual optim. proc. for color correction 9714
electro-holography, develop. *(Japanese)* 2145
electronic-zooming DSP syst. for 1M-pixel-CCD camera 9713
full frame transfer CCD camera, high resoln. 42587
granular TV camera noise, stat. characts. 9716
HDTV CCD image sens., 1 in, 2 Mpixel, W photo-shield 17562
HDTV CCD imagers, photoelec. conversion charact. under knee control operation 9730
HDTV compact digital camera, CCD image sens. 42598
HDTV progressive and interlace scanning, camera SNR and bit rate reduction 25668
holographic TV, LCD, YAG laser and camera appl. *(Japanese)* 2149
intell. robotic camera syst. 34236
lateral-stereo camera model for machine vision 16233
multiformat cameras image quality vars. assess. 18499
obj. extraction, real-time syst., with seq. growing 8487
snowflakes, fall pattern anal. *(Japanese)* 2699
stereoscopic TV service, human factor requirements 34231
TV/IR camera tracking syst. control *(Croatian)* 3684
underwater camera systs., sens. develop. 10531
wireless HDTV camera, 42 GHz-band transmitter/receiver develop. 25670
a-Se Amplified MOS Imager, high speed TV camera 42851
television equipment
see also television antennas; television cameras; television picture tubes; television receivers; television transmitters; video discs; video equipment; video tape recorders
act. matrix liq.-cryst. panel, polysilicon TFT addressed *(Japanese)* 25659
AVLSI decoder archit. for TCM 9731
CATV, evol., digital technol. 9739
composite compatible component coding 8686
digital control syst., LAN appl. *(Japanese)* 34240
digital field pick-up unit, future develop. *(Japanese)* 34239
digital master equipt., develop. *(Japanese)* 34238
digital TV coding/decoding chipset, spec. and develop. 34248
HDTV decoders testing, boundary scan test impact 9725
HDTV stds. converter, develop. 9723
IBM POWER Visualization System, digital post-prod. suite 42594
IQTV multipurpose scanning rate converter IC 25664
LCTV-SLM for real-time holography *(Japanese)* 2146
mgt. syst., VME based LAN appl. *(Japanese)* 3655
microlens arrays for projection LCD, efficiency study 18005
radiation-stable TV transm. device for wide-angle static survey 42640
RF cable assemblies, screening atten. meas. 23690
television holography *see electronic speckle pattern interferometry*
television interference
ATV, digital transm. technol. *(Japanese)* 34232
broadband CATV distrib. network IMD meas. *(German)* 34269
broadband satellite digital video transm. technol. *(Japanese)* 17542
CATV unwanted sig. leakage estim. and shielding enhancement *(English)* 3677
color TV set, effect of brightness sig. interf. on picture edgings 34244
compact 230 kV line, corona perform. 27221
composite noise generator, noise immunity tests for dig. systs. and TV pictures 40371
composite triple beats impairment reduction 42612
digital TV sig. broadcast 34204
distrib. network radio/TV interf. detect. experiences, USA 27186
DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
EMC, conference, Sendai, Japan (1994) 11561
GCR sig., appl. 17551
ghost cancellation ref. sig. for TV broadcasting syst. 9696
ghost cancelling method, multiplicationless adaptive ident., multipath channel *(Korean)* 3657
glass, high perform. heat-reflective, TV wave reflecting characts. 23742
granular TV camera noise, stat. characts. 9716
HVDC transm. lines, twin conductors, DC corona anal. 4634
letterbox EDTV, 3D noise charact. *(Japanese)* 34256
multipath interf. suppression cct. 40382
MUSE decoder, video noise reduction *(Japanese)* 34258
near-future CATV archit., broadcast channels capacity 42616
picture degrad., non-Gaussian burst noise 25636
picture degrad., non-Gaussian noise, subjective eval. 25635
picture degrad. by EM noise, opinion tests on still and motion pictures 42565
pulse noise generating source, direction finder develop. 23743
radio waves propagated dist., multiple-diffr. components meas. *(Japanese)* 31838
receiver network echo-sig. protection 3667
reception interfs., ghost analyzer develop. 25651
RF cable assemblies, screening atten. meas. 23690
television interference continued
scan conversion methods, subjective assess. 42582
sig.-to-thermal noise ratio, automatic assess. 42611
stat. image model, color distrib. probab. 8539
TV sets, fly back transformer-AC power cable coupling 25647
television networks
10-Gbit/s smart opt. terminal digital-video distrib. syst. 17222
155 Mb/s FET-SEED free-space switching network 14649
AM/QPSK hybrid opt. transm. systs., BER depend. on CTB 9559
ASIANET for Cable TV and commun. 3676
ATM network perform. eval. video source models *(Croatian)* 2868
broadband CATV distrib. network IMD meas. *(German)* 34269
broadband CATV video systs., DFB lasers 9555
CATV technol. studies *(Japanese)* 34265
CATV videocommun. networks, AM-VSB TV sig. opt. transm. 17570
CATV/FITL video-transm. DFB laser components and systs. 17193
CBC's Toronto Broadcast Centre master control room 42595
cellular multichannel video/data commun. optoelectronic components 34080
compressed-digital-video fiber-based transm. systs., clipping penalty 9558
digital audio/video, network and OS support, conf., Lancaster, UK (Nov. 1993) 5450
digital HDTV introduction, terrestrial networks *(Croatian)* 3669
digital video services, technols. and network archits. *(German)* 42626
ETS-V Asia-Pacific telecommun. network expts. 42319
Eurovision network, satellite technol. implement. 42569
Eurovision network mgt. syst., ENMS 41686
Eurovision Network operations, computerised planning syst. appl. 42570
Eurovision network services 42571
fiber access systs., archits. and technol. 9492
frame-induced packet discarding, strategy for video networking 8677
full-motion digital video in Ethernet, perform. eval. 9049
high-capacity photonic space-division switching syst. for broadband networks 25533
hybrid multichannel AM/16QAM video lightwave syst., digital channel degrad. 17210
Korea Telecom's business strategy, CATV indust. in Korea 3678
NEC multimedia services, CATV network *(Japanese)* 42029
network automation issues 3648
pass. WDM opt. network, cost-shared components 9463
photonic fiber ring video delivery and SONET protection 17224
RACE 2001 transparent opt. networks, European progress 9524
receiver network echo-sig. protection 3667
ROV 6000 advanced data mgt. 16772
Scientific-Atlanta interactive video services 42590
spatially distributed radionets, freq. assignment algms. 25643
Er-doped fiber amps., optimized noise perform. for AM-VSB distrib. systs. 7555
Pr^{3+}:ZBLAN fibre amp. AM-VSB video link 3583
television picture tubes
see also cathode-ray tubes; fluorescent screens
32W-CZ 6, widescreen TV, built-in MUSE-NTSC converter *(Japanese)* 25649
color CRT discoloration, correction syst., L-shaped mag. material *(Japanese)* 42592
colour TV tubes, high temp. stress meas., exhaust oven *(Chinese)* 9712
device technol. *(Japanese)* 34642
LVP 2000×3R high-precision video projector *(Japanese)* 25658
shadow mask thermal deform. FEA *(Korean)* 25662
VS 4571 tabletop projection TV *(Japanese)* 25650
television post-production *see television production*
television production
for individual pieces of equipment see more specific headings e.g. video equipment, TV equipment
Bayerische Rundfunk TV prod. studio refurbishment *(German)* 25655
broadcasting service trends and tech. problems *(Japanese)* 17541
CBC's Toronto Broadcast Centre master control room 42595
composite compatible component coding (Com) 42596
general purpose platforms 17558
HDTV progressive and interlace scanning, camera SNR and bit rate reduction 25668
IBM POWER Visualization System, digital post-prod. suite 42594
image prod. technols. *(Japanese)* 34242
intell. Image Media, technol. *(Japanese)* 34243
NDR's, TV prod. and broadcasting centre *(German)* 25654
news prod. workstations, ITN 17559
nonstandard platforms in digital era 17557
Stuttgart TV prod. centre digital island planning and implement. *(German)* 17538
Super-16 recording for 16:9 TV prod. *(German)* 9726
TBS Broadcast Center in Tokyo, full-digital transm. syst. 42576
USA HDTV standardisation status and specs. *(Japanese)* 17568
television receivers
3E-L1 liq. cryst. TV, fast recharge *(Japanese)* 3661
32W-CZ 6, widescreen TV, built-in MUSE-NTSC converter *(Japanese)* 25649
8051 based TV microcontrollers, on-board teletext decoder 41749
CATV perform. testing, spectrum analyzers 25673
CATV pictures, composite triple beats impairment reduction 42612
CATV technol. studies *(Japanese)* 34265
CMOS analogue front-end for terrestrial/satellite integrated D2MAC decoder 34230
CMOS VLSI implement. of 8192 complex point FFT 29248
color TV set, effect of brightness sig. interf. on picture edgings 34244
colour TV projection, fast-switching reflective light valves 25644
colour TV receiver, microcomputer control syst. 9709
defn. improvement techs. for color TV receiver 9707
digital TV, hierarchical channel coding, turbo-codes 8684
displays, device technol. *(Japanese)* 34642
double field rate scanning, interpolation methods for TV picture quality improvement 8651
DRAM based CMOS TV ccts. for advanced services/features 9706
EDTV-II black bar helper sig. multiplexing scheme *(Japanese)* 17555
EDTV-II motion-adaptive vert.-temporal helper sig. *(Japanese)* 17556
fly back transformer-AC power cable coupling 25647
full digital HDTV syst., develop. 9728
Gx-2001 microcontroller, multi-fn. TV technol. appl. 6176
HDTV, digital transm. syst. 9736
HDTV receivers, efficient 2D inverse DCT algm. 25645
Hi-Vision 32C-HD3 MUSE decoder, design *(Japanese)* 3668

television receivers continued
HV damper diodes, 1800 V, FMR-G5HS/FMP-G5HS series *(Japanese)* 30222
MEGATEXT, teletext IC, graphics for color TV 41750
MEGATEXT in Metz color TVs, teletext access and menu control 33422
MPEG2, TV receiver appl. 34227
MPEG-2 std. digital TV receiver IC *(German)* 25648
MPEG-2 std. flexible digital data transm. *(German)* 17539
multipath interf. suppression cct. 40382
opt. CATV SCM receivers, IMD reduction 9738
PAL decoding technol. 9710
PC-controlled multiple window display card for TV 17552
picture monitor class. and appl. *(Croatian)* 3679
picture proc., VLSI frame memory 8650
piecewise-lin. transcoders, automatic TV tuner alignment, electronic tuning 21086
piecewise-lin. transcoders, weighted min. approx. and decomp., TV tuner 21085
polygonal scanners for TV/HDTV laser projectors 3662
polysilicon TFT proc. for CMOS, HDTV LCDs appl. *(Japanese)* 1492
QAM receiver IC, 500-channel CATV systs. 3675
scan conversion methods, subjective assess. 42582
SDA 9189X proc. chip for picture-in-picture systs. 42583
SECAM syst., color defn. loss minimization 34234
TEM cell, sound/TV receivers radiated suscept. meas. 25646
TMC22090 video encoder for computer graphics in TV format 29267
VIF/SIF/PLL, TV sets/VCRs multistandard sig. detect. 42581
VS 4571 tabletop projection TV *(Japanese)* 25650
wide-aspect rear projection TV, 39″, depth of 39 cm 9705
wireless HDTV camera, 42 GHz-band transmitter/receiver develop. 25670
InP monolithically integrated tunable polariz. diversity heterodyne receiver OEIC 25484

television reception
ATV, digital transm. technol. *(Japanese)* 34232
cable TV images, sig.-to-thermal noise ratio, automatic assess. 42611
DBS-satellites, mobile reception, adaptive antenna array 15664
double field rate scanning, interpolation methods for TV picture quality improvement 8651
DQPSK-OFDM for terrestrial digital broadcasting systs., transm. charact. 25629
GCR sig., appl. 17551
ghost analyzer develop. 25651
HDTV picture quality eval, modified EBU method 42605
HDTV transm. on SDH network, stuff sync. cct. design 25666
high-resoln. digital satellite commun. syst. *(Japanese)* 25637
partially covered areas, TV baseband params. 17537
picture degrad., non-Gaussian burst noise 25636
picture proc., VLSI frame memory 8650
pulse noise generating source, direction finder develop. 23743
radio channel stat. charact., expt. eval. *(Italian)* 9688
receiver network echo-sig. protection 3667
Rohde & Schwarz TV Inserter/Regenerator VIR, TV broadcast monitoring 9697
SS multiplexing, hierarchical TV transm. 25634
TV picture degrad., non-Gaussian noise, subjective eval. 25635
video transm./reception syst., simul. 3664
wide-aspect rear projection TV, 39″, depth of 39 cm 9705

television reception quality *see television reception*

television signals *see video signals*

television standards
32W-CZ 6, widescreen TV, built-in MUSE-NTSC converter *(Japanese)* 25649
analogue TV, digital techs. 3666
broadcast systs. characts. *(Japanese)* 34250
Clean PAL, IEE Colloquium, London (1994) 15
Clean PAL concept and hist. 9722
CMOS analogue front-end for terrestrial/satellite integrated D2MAC decoder 34230
composite compatible component coding (Com) 42596
digital TV, introduction 42579
digital TV broadcasting *(Japanese)* 34216
digital TV broadcasting syst. requirements *(Japanese)* 17540
EDTV-II helper sig., correl.-based visibility reduction method *(Japanese)* 34259
ETV syst. common stds. *(Croatian)* 3670
European digital TV, stds. develop. 34210
European image media trends *(Japanese)* 17544
European syst. for transm. of digitized TV sigs. via satellite 9694
field rate conversion in HDTV, interpolation methods 9729
ghost cancellation ref. sig. for TV broadcasting syst. 9696
HDTV decoders testing, boundary scan test impact 9725
HDTV image compression, MPEG/autosophy comparison 42606
HDTV stds. converter, develop. 9723
HDTV systs. video coding 3671
ITU and ISO/MPEG4 video coding stds. 16092
Japan/America next-generation TV systs. *(Japanese)* 25669
med. image data transm., compressed video teleconference codecs 18461
MPEG2, TV receiver appl. 34227
MPEG 1 video compression std., rem. delivery of broadcast-quality video 42625
MPEG 2 programme switching 34220
MPEG-2, ATM 33598
MPEG-2, digital sig. compression std., develop. 32958
MPEG-2 for DVB and cable 34219
MPEG-2 std. flexible digital data transm. *(German)* 17539
MPEG-2 systs. layer, tutorial introduction 34218
MPEG-2 video compression tutorial 32959
PAL decoding technol. 9710
piecewise-lin. transcoders, automatic TV tuner alignment, electronic tuning 21086
Rohde & Schwarz TV test transmitter SFM 9703
USA HDTV standardisation status and specs. *(Japanese)* 17568
video transm./reception syst., simul. 3664
VIF/SIF/PLL, TV sets/VCRs multistandard sig. detect. 42581

television stations
digital control syst., LAN appl. *(Japanese)* 34240
digital master equipt., develop. *(Japanese)* 34238
digital TV broadcasting stations, develop. *(Japanese)* 34212
digital VTR, standalone equipt., operation *(Japanese)* 34275

television studios
AVIP computer graphics syst., audio/video inform. proc. *(Japanese)* 25661
Bayerische Rundfunk TV prod. studio refurbishment *(German)* 25655
composite compatible component coding 8686
composite compatible component coding (Com) 42596
digital HDTV studio mag-tape-recording hardware codec *(German)* 9727
digital TV broadcasting syst. requirements *(Japanese)* 17540
digital video equipt., meas. *(Japanese)* 34241
ITU generic coding for digital TV broadcasting *(Japanese)* 34211
NDR's, TV prod. and broadcasting centre *(German)* 25654
news prod. workstations, ITN 17559
picture monitor class. and appl. *(Croatian)* 3679
protective conductor currents in studios and DP buildings *(German)* 27265
Radio Television Malaysia's, computerised news centre 42577
sub-control room video effect equipt. *(Japanese)* 34237
TV prod., general purpose platforms 17558
workstations in studios, IEE Colloquium, London (1994) 5479

television transmitters
2D digital video filters for PALplus-compatible HDTV transm. encoder 42604
CATV technol. studies *(Japanese)* 34265
FM radio and TV broadcasting antennas, field level reduction 3660
full digital HDTV syst., develop. 9728
HDTV, digital transm. syst. 9736
positioning syst., TV broadcasting *(Japanese)* 9678
Rohde & Schwarz transistorized 10-kW VHF TV transmitter NM 145 E 9702
Rohde & Schwarz TV Network Analyzer SOKF, integral digital oscilloscope 9832
Rohde & Schwarz TV test transmitter SFM 9703
spatially distributed radionets, freq. assignment algms. 25643
STEL-1103, low cost return path CATV transmitter ASIC 42609
wireless HDTV camera, 42 GHz-band transmitter/receiver develop. 25670

teleworking
see also home working
agro-biotechnological teleworking commun. platform 41886
commun. media role in telework environ. 16897
enterprise network (in yr. 2000) 41640
mobile environ., file access design 33556
Multiplexed Network for Distributive & Interactive Services project *(German)* 42062
satellite offices implement., recommendations based on obs. from one site 16821
user interact. with multimedia, multiuser systs., conferencing tools 41980

telex *see telegraphy*

TEM *see transmission electron microscopy*

temper brittleness *see brittleness*

temperature
see also atmospheric temperature; Debye temperature; ferroelectric Curie temperature; magnetic transition temperature; melting point; superconducting transition temperature; temperature scales
jn. circulators, quality factor, temp. stabil. 29528
lightning surge protective multi-cell semicond. device 27253
metal halide lamps, electrode temp. 28162
power plants, steam param. improvements 27557
VDMOS transistor, 1D anal. modeling 13670
Sr-Ba ferrite magnets, sheet, addits. effect on mag. props. 7220

temperature compensation *see compensation*

temperature control
BTPFL-C2 immersion-cooled electronic clamshell module, aircraft avionics 4432
building HVAC nonlin. heater batt., neural net control 5239
condensation inert heating for difficult proc. heating jobs 28437
dielec. meas., high press. 17672
distrib. transformer oil drying controller 19705
ECR CVD, electrostatic chuck, improved temp. uniformity 28847
elec. heat tracing, controls/monitoring 36783
elec. proc. heating, thermal/control considerations 5382
generic plant control, global optim. method 4985
group geyser consumption patterns, single water heater and PC-based meas. and control syst. 4538
hand-soldering equipt., PCB manufacture, modern requirements 12913
hot strip mill load bal. control ES 44627
in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
induction motor ASD, speed/temp./torque meas./control 36697
indust. elec. heater, discrete optimal tracking controller 44589
injection molding proc., plastic variables meas. 18135
integrated pH-ISFET/press. sens., SDB/SOI materials *(Chinese)* 25810
low-temp. two-axis goniometer, accurate temp. control 9874
MCFC power plant, gas recycling, perform. 10909
microwave oscillators, high-Q temp. stabilized sapphire resonators 30623
Mitsubishi Electric Y Series multisplit air conditioners 44605
photon counting opt. sens. develop. trends *(Japanese)* 17803
physiochemical expt. dyn. controller develop. 34727
power generation boiler, steam temp. MRAC *(Japanese)* 43905
rapid thermal proc., 3D modelling for design optim. 22552
rapid thermal proces partial state MRAC 30402
rapid thermal procs., uniformity control, phys. modelling 30434
real time galvanizing plant temp. control 28191
residential heat pump air conditioning technols. 44608
RGBW fluoresc. lamps, color temp. control *(Japanese)* 11454
RTCVD, opt. modeling, model-based control 394
RTP, absol. temp. control 30401
RTP, multivariable temp. controller develop. 13846
RTP systs., capabilities and limitations 28411
sensing gluten development during bread dough mixing 25806
Si film growth, temp. control, pyrometric interferometry 42974
single-phase submerged-jet impingement cooling for electronic components 151
Space Station Furnace Facility, sliding mode thermal control syst. 26690
steam power plant, self-tuning cascade temp. control 27549
substr. heater for MBE 20814
superconds. transport crit. current dens. meas. probe 17746
superheated steam temp. self-tuning fuzzy control 10855
TIPACS temp.-initiated pass. cooling syst., perform., appls. 28181
VENUS vertex chamber, temp. DDC 10115
AlN PGA type packages, reliable cofiring technols. 28444

temperature control continued
Li ion batts., charging, IC controller 36544
Ni-Cd batts., charging, IC controller 36544
NiMH batts., charging, IC controller 36544
Pb-acid batts., charging, IC controller 36544
Si RTP, optimum gas flow engng. 22230

temperature distribution
800 MW steam power plant boiler gas temp. meas., acoustic pyrometry-based 27556
anisotropic crysts., beam propag., coupled thermal/nonlin. effects 7764
atmospheric radiometric sens., radiation transport/thermal cond. eqns. 35301
automatic cct. breaker stabil., heat distrib. effects *(Russian)* 11196
axisymmetric pot. problems, floating random walk method 20531
batt. module heat generation, temp. rise modelling 44263
bimetallic riveted contacts, thermal modelling studies *(Russian)* 6382
busbars, joints, preliminary CAD 19325
card assembly detailed thermal response, IR reflow soldering 38098
CARS thermometer measuring environ. 10057
condensation inert heating mass reflow soldering systs., challenges 38162
cylindrical thermionic fuel elements modelling, MCTFE code 27986
deep X-ray lithog., masks, thermoelastic deform. 38744
distributed fiber-optic temp. sens. *(Japanese)* 1681
ECR CVD, electrostatic chuck, improved temp. uniformity 28847
ESD protection cct., 2D electrothermal simul. and design 30467
GTO thyristor turn off, transient thermal effects simul. 30267
HV power cable thermovisual monitoring studies 35643
IGBT, on-state characts. degrad., self-heating 1422
IMPATT diode, W-band, pulsed, jn. temp. calc. model 37987
inclined high heat monochromator, temp. distrib./X-ray diffr. 10163
induction heating of long workpieces, num. modelling 11473
IR opt. fiber, absorpt./scatt. loss meas. method 14402
IR radiometer, FOV, temp. distrib. meas. *(Japanese)* 4007
kerosene burner configs., thermophotovoltaic appls. 27999
MCM, heat cond. anal., global-local procedure 37121
MHD, supersonic flows, purging fluid effects, optical diagnostics 20020
microstrip patch applicator for microwave hyperthermia 26459
microstrip-microslot applicators, 3D modeling, FDTD method 18601
microwave HBT perform., impact of thermal distrib./emitter length 38005
microwave oscillator with dielec. disk resonator, thermal AFC 37983
muzzle-fed railguns, EM/thermal anal. 15345
nMOS ESD I/O protection structs., EOS suscept. 6749
no-clean solder paste reflow, N_2 atmos., O_2 conc. influence 38149
nonequilibrium disk plasma MHD generator, conceptual design 27966
Panorama Eye room air conditioner body posn. sens. 44606
patterned wafer RTA/RTCVD, thermal radiation absorpt. charact. 22229
PCB substr. cond. effects, electronic components, convective cooling 909
planar SOFC, 2D distributed param. perform. model 44362
PLR pump shaft-casing cover annulus gap, temp. flucts. 35869
power bipolar transistor elec. props., temp. influence 30254
power cable ampacity, thermal effects studies 4680
power transformer cyclic loading thermal response, noniterative soln. 5003
power VDMOS transistor quasi-saturation, self-heating effects 30312
PWBs, current carrying capacity of Cu conductors 906
PWR, on-line fatigue monitoring, probabilistic assess. of margins 27408
radiometric image proc. based on Parzen-Rosenblatt estim. *(Russian)* 17513
railgun metal armature contact press. studies 15358
reactor bottom head dissolution, melt pool 35834
resist. furnace stationary temp. fields, digital simul. *(Polish)* 36784
RF window, thermal stress fracture 29791
RTCVD/RTO film thickness distrib. modelling 22561
RTP furnace, 3D temp. uniformity model 22231
RTP modeling and simul. incl. thermal stress anal. 22551
RTP syst. radiative heat transfer, Monte Carlo simul. 22555
RTP temp. profile reconstruction, acoustic tomography 9836
semicond. RTP temp. distrib. modelling 22554
semicond. wafers, rapid diffusion furnace, temp. distrib. 1187
shuttle car cable reels, ampacity calc., thermal characts. 20183
single cryst. fibres, temp. gradients, laser heated pedestal grown 30858
SOFC geometries 3D num. simul., computer-based 44367
SOFC monolith, reversed flow operation modelling/simul. 44366
solid targets for radioisotope prod., thermal perform. 34886
space power thermionic convertors, thermal modelling 18740
spindle motor heat generation, thermal anal. studies *(Japanese)* 10924
steady-state heat eqn., floating random walk algm. 5633
submicron SOI MOSFET, self-heating, scaling constraints 30289
thermoelec. diff. eqn., lin. approx. *(Japanese)* 28689
thermoelec. power generation using thermoelec. element, anal. 20046
thin rect. plates, eddy current loss calc., cryogenic temps. 7908
trench VDMOST struct. with no quasi-saturation, anal. 38897
turbogenerators, rotor hydrogen cooling, temp. distrib., clogged vents *(Chinese)* 43999
underground power cable fault location, fiber optic sens.-based 27277
US hyperthermia, theoretical thermal model 43265
vert. channel, protruding heat sources, 3D convective cooling 37126
VLSI ESD sensitivity, thermal breakdown and dielec. breakdown 6844
water flow profiles, cylindrical container, microwave heating 28169
XFACT, diffusion furnace anal. and charactn. tool 22557
AlGaAs n^+nn^+ devices, self-heating, noise temp. meas. 38946
InGaAs temp. difference growth, num. anal. of soln. convection *(Japanese)* 37380
$In_{2-x}Sn_xO_{3-y}$ films, KrF excimer laser ablation 28863
$KTiOPO_4$ nonlin. devices, temp. dispersion 15121
Li-polymer batts., 3D thermal modeling 5191
LiB_3O_5/BaB_2O_4 crysts., opt. parameteric oscills., thermal loading 7771
LiF, F_2 centre, pass. Q-switch for Nd:YAG laser 31309
$LiNbO_3$ elec. controlled supergaussian mirrors 14482
PtSi IR CCD-based multi-wavelength imaging pyrometer 17956
Si APD, elec. breakdown, thermo-optic investig. 1801
Si RTP temp. meas., ESPI/subfeature speckle interferometry 25999
Si RTP temp. uniformity, crit. wafer/syst. param. anal. 22228
Si, surface temp./pot. meas., photoreflectance spectrosc. 42972
Si wafer temp. var. during RTA, 3D asymmetrical model 22103

temperature measurement
see also pyrometers; spectral methods of temperature measurement; temperature scales; temperature sensors; thermocouples; thermometers
1.55 μm long-span fiber-optic distributed temp. sens. 17835
800 MW steam power plant boiler gas temp. meas., acoustic pyrometry-based 27556

temperature measurement continued
absol. and simultaneous strain/temp. measur., fibre sens. 17846
acoustothermography, spatial inverse problem 10584
alkali metal thermoelec. convertor components, emissivities/thermal charactn. 20028
Antarctic predators, heart rate/body temp., implantable logger 43191
APS, hardware supported by control syst. 18203
arc furnace graphite electrodes, electron detachment studies *(German)* 11481
AT-cut quartz crysts., high-temp. acoustic loss 34476
Battery Mgt. Syst., microcomputer based *(Japanese)* 5187
Bragg grating sens., temp. and strain meas. 42826
cable fault location, fibre optic distrib. temp. sens. 10746
CARS thermometer measuring environ. 10057
CCD near — IR temp imaging in steel industry 25879
ceramic flush temp. meas., IR pyrometer, fused opt. coupler *(Japanese)* 42973
CMOS transponder microchip, low power biomedical telemetry appls. 34995
composite frames, spectral characts./motion-compensated restoration 16315
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
DC motors, CAMAC-PC based automatic expt. investig. syst. 36185
dielec. meas., high press. 17672
distrib. transformer oil drying controller 19705
distributed fibre optic temp. sens. in Raman OTDR 42821
distributed sens., grating Fabry-Perot interferometers 17740
distributed strain/temp. meas. in branched opt. fiber network 14372
Dome Water Monitoring Instrumentation System, submarine sonar dome corrosivity meas. 17676
domestic appliances, μP fuzzy logic control technol. *(Japanese)* 44616
double-loop separate-type heat pipe, heat transfer perform. meas. 18132
drops, temp. meas., liquid cryst. thermometry appl. 42982
edge-cooled MCM, heat removal, substrs. comparison 21770
elec. generators, stator diagnostics, thermal monitoring 10955
elec. heat tracing, controls/monitoring 36783
environ. sens. 9898
falling raindrop, nonintrusive temp./size meas. 42935
Faraday-effect magnetometry, Verdet const. compensation 10001
femtojoule calorimeter, micromechanical sens. 9891
fiber laser/amp. based sens. 34551
fibre optic press./temp. sens., min. invasive diagnostics 18432
frozen soils, moisture content/temp. monitoring 4380
fruit tester, portable, microcomputer-based 9819
gas flow temps. meas., steady-state/slowly changing 42967
Grohnde PWR, on-line pipe monitoring syst., stress and temp. meas. 27409
high resoln. thermometry for 1.5 GHz supercond. cavities 10056
IC electromigration tests, thermal effects 30134
in-line mode splitter, dual polarimeter in fibre 14374
induction machines, ferromag. rotor, temp.-mech. characts. tests *(Russian)* 36150
induction motor ASD, speed/temp./torque meas./control 36697
induction motors, invertor-fed, power derating studies 4963
injection molding proc., plastic variables meas. 18135
interferometric sens., birefr. polaris. maintaining fibre 17853
IR radiometer, FOV, temp. distrib. meas. *(Japanese)* 4007
IR temp. meas. and imaging 3878
IR-bi-color Schottky-barrier IR CCD image sens. 25887
ITS-90 implement., thermal metrology fund. 3718
ITS-90 temp. of Ga m.p./Hg freezing point 34322
magnetooptic AC CT, intrinsic temp. compensation 17739
MESFET, thermal and dispersion modelling 6798
metal halide lamps, electrode temp. 28162
metallized Si wafer RTP temp. meas., IR transm. techs. 22216
microwave heating syst. permitt. meas. correction procedures 44593
miniature fibre-optic interferometric med. press./temp. sens. 18433
modulation-type pyroelec. IR detector, piezoelec. chopper 42802
MOS-controlled devices thermo characts. 22322
multichannel biotelemeter, custom IC/syst. manufacture *(Korean)* 26280
multifrequency microwave radiometry, biological objs. temp. profiling 43248
multifunctional thin-film transducer of phys. quantities 9867
multiple core mag. assemblies, temp., fn. of freq. 12852
multipurpose sens., thermosensitive quartz resonator 25814
natural convection from vert. parallel plates array 20432
natural gas powered automobiles, fuel level sens. develop. 5363
NMOS integrated temp. sens., freq. output 9876
noncontact IR based temp. sens. 10051
noncontact temp. meas. 4006
ocean CTD profiling, autonomous profiling vehicle 10535
ocean high perform. micro-power CTD sens. 10495
ocean temp. profile collection syst. on vessels underway 10497
online dyn. gas pyrometry, two-thermocouple probe 42970
opt. fiber sens., 2-mode ellipt. core 34708
optical instrumentation for process industries, conf., Germany (1994) 5486
p-n junction temperature sensor with switched current excitation 25802
Pb-acid valve regulated batt. condition monitoring 19953
PFBC thermal power plant fibre optic temp. sens. 35977
photoresist glass transit. temp., wafer curvature meas. 38741
power IC packages, transient thermal impedance tester 137
product temp. profile meas., IR linescanning 3879
pulsed power high-Q capacitor banks, long-duration arc discharge appls. 36500
quartz cryst. growth, temp. sens. appl. 34475
railgun, seq. fired, thermal loading, heat removal 15271
real-time bearing monitor, microcomputer-based 34339
rect. quartz plates vibrs. characts. meas. 30614
refr. index determ., temp. meas. and proc. control 18129
residential heat pump air conditioning technols. 44608
respiratory condition/body temp. meas., thermopile 43196
RF fluoresc. lamps, inductively-coupled, lumen props. meas. 11461
RTP temp. profile reconstruction, acoustic tomography 9836
scanning thermal imaging microscopy, composite cantilever probes 34724
sea surface brightness temp., aircraft K-band radiometry 26731
sea surface temp., IR rem. sens. by satellite, aerosol effects 10548
simultaneous meas. of strain/temp., fibre grating sens. 17845
simultaneous temp./hydrostatic pressure meas. 25859
simultaneous temp./strain meas., four connecting wires 42780
simultaneous thermal cond./diffusivity meas. studies 25993
single-beam photothermal anal., semicond. proc. appls. 108
solar water-heating plant, PC-based DA syst. 42744
soot props. meas. by two-colour pyrometry 10054
steel calender rolls, induction heating, finite element simul. 11514

temperature measurement continued
surge arrester, ZnO, electro-thermal model params. ident., autoregressive techs. 27275
tapered monomode fibre, temp. meas. appl. 18130
target surface temp. meas., laser-induced plasma 10053
thermionic CHP convertors, optimal perform. tests 28029
thermocouple sig. conditioning, monolithic ICs 42781
thermometry by arrays of tunnel jns. 4009
thermophotovoltaic solar cell power expts., USA 27962
thick/thin film resistors, built-in reliab., ageing kinetics 5706
transfer and develop. of metrology stds., Japan/Asia 34327
transformer windings, thermal capability assess. 44101
two wire thermocouple, freq. response in const. flow 3793
underground power cable fault location, fiber optic sens.-based 27277
US contactless measurement with micromembranes 26289
US hyperthermia thermometry, manganin-constantan thermocouples 18597
vac. epitaxial growth systs., vis. laser interferometry 28788
wrapped screen wick Cu/H_2O heat pipe, capillary limit, long. vibr. 34703
AlGaAs/GaAs HBT operating at large power densities, jn. temp. meas. 18136
a-C:Cu cluster superconds., crit. temp. meas., mm-wave interf. method 39235
Cu, molten, US vel., temp./impurity depend. 5930
HgCdTe FTIR temp. depend. emissivity, pyrometer develop. 25987
Na narrowband wind-temp. lidar syst. sensitivity anal. 43503
Ni-Cd intell. batts., charging/discharging algms., hardware 36545
Ni-H_2 common press. vessel cell, charging schemes 27919
Ni-MH intell. batts., charging/discharging algms., hardware 36545
Ni-based sens. for laser heated surface temp. meas. 10052
NiCoMnO sputtered thin film thermistor IR detectors/bolometers 17791
Pb-acid batt. temp. meas., subscriber loop carrier cabinets 44293
Pb-acid telecom. power supply batts., total monitoring syst. 41630
Pb-acid valve regulated batts. testing 44291
Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
RuO_2-based thermometer design for millikelvin temp. range 25821
Si FTIR temp. depend. emissivity, pyrometer develop. 25987
Si RTP temp. meas., ESPI/subfeature speckle interferometry 25999
SiC thin film thermistors, gas cooking hob appls. *(Japanese)* 42968
SiO_2-Si FTIR temp. depend. emissivity, pyrometer develop. 25987
WO_x thermionic energy converter collector electrode expts. 28027

temperature scales
ITS-90, temp.-EMF ref. fns., thermocouple types 20224
ITS-90 implement., thermal metrology fund. 3718
ITS-90 realisation at IMGC, Pt resist. thermometer appl. 3719
ITS-90 temp. of Ga m.p./Hg freezing point 34322

temperature sensors
see also thermocouples; thermometers; thermopiles
AT-cut quartz crysts., high-temp. acoustic loss 34476
$BaTiO_3$ ceramic multifunctional cryogenic sens. 34444
Bragg grating temp. and strain sens. 17902
CMOS-type temp.-sens. cct. *(Japanese)* 34489
diamond, polycryst. double layers, high temp. sens. 34441
diamond CVD film temp. sens., fab. technol. 9842
distributed fibre optic temp. sens. in Raman OTDR 42821
distributed temp. sens., Brillouin gain spectrum anal. based 17836
fibre optic sens., commercially available, 1985-95 develops. 17877
fibre optic sensors, conf., Glasgow, Scotland (Oct. 1994) 11524
fibre-optic large area av. temp. sens. 17872
fibre-optic sens. for smart struct. 3851
fibre-rem. pumped Nd:YAG laser, heterodyne sens. appls. 17863
IR temp. meas. and imaging 3878
Mini-Smart SIPMOS switches in SOT-223 SMD packages 522
multipurpose sens., thermosensitive quartz resonator 25814
opt. fiber sens., 2-mode ellipt. core 34708
opt. fibre temp. sens., polymer ceramic composites 34543
PFBC thermal power plant fibre optic temp. sens. 35977
polymer/metal/$BaTiO_3$ multi-component composites, dielec. props. 12195
PTC thermistors, sens. appls. 34469
quartz cryst. growth, temp. sens. appl. 34475
Rayleigh backscatt. in opt. fibres, noise/sens. 17899
ripple pyrometry for wafer temp. meas. in RTA 25998
solar water-heating plant, PC-based DA syst. 42744
thermochromic props. of bis(β-diimino-tetracyano-pyrrolizinido)Nickel(II) 42774
thermophotovoltaic solar cell power expts., USA 27962
underground power cable fault location, fiber optic sens.-based 27277
Er-doped silica fibre high-temp. point sens. 17873
Ni-based sens. for laser heated surface temp. meas. 10052
Si diode temp. sens. for proc. systs. 34485
YAG:Sm garnet films, soln. deposition, press.-temp. sens. appls. 5854
diamond temp. microsensors, B-doped, vap.-deposited 9881

tempering
α''-$Fe_{16}N_2$, synthesis/struct./charactn. 7032
SiC amorphous material appl. in Si micromachining 428

temporal logic
formal cct. synthesis from behavioural spec. in interval temporal logic 28960
formalisation of user view of network and services for interact. detect. 3255
Futurebus+ cache coherence protocol verification 41811
interval-semantic component models and efficient verification of transaction-level cct. behavior 37583
QoS and media sync., formal description tech. 16873
significant event temporal logic, method for protocol spec. and verification 33287
telephone services, temporal logic for modular spec. 3144

temporal reasoning
see also spatial reasoning
optoelectronic neural network, temporally multiplexed grey-scale wts. 29452
parallel neural network emulator based on appl.-specific VLSI commun. chips 29472
QoS negotiation for orchestrated, distributed multimedia presentation 25100
spatio-temporal proc., high-resoln., fast algm. 8263
speaker ident. bt time delay neural net 32421
transm. network substation control centers, SPARSE ES appls. 19230

tenacity *see tensile strength*

tensile strength
see also fracture; yield strength
arc fusion splices, improved strength approaching that of opt. fibre 22824
fluid filled taped cables, dissolved gas anal. 27205
IBM MCM-D, polyimide dielec. material appls. 37542

tensile strength continued
MCM, ceramic-conductors, stresses 21689
organic insulators, mechanical properties/electrical treeing behaviour correlation 13971
US NDT of adherent area, metal/nonmetal surfaces 453
AlN particle filled Al, low CTE thermal conductor 12199
Au ball bond shear strengths, rationalisation 12953
Cu TAB conductors, lead frame materials, wrought and electrodeposited foils 29701
In-Sn based VLSI interconnections, solder joint reliab. 30146
Si, low temp. wafer bonding, kinetics study 1188
SiO_2 fiber coatings, fatigue behavior 14355
Sn-Sb solder, room temp. tensile prop. 434
Y_2O_3-ZrO_2 thin film electrolyte, SOFC, tensile test 27927

tensile testing
adhesives, cohesive mech. props., tensile testing 28912
DIP solder joint failure under tensile-compressive stress 37130
electroconductive plastic composite, C fiber filler, resist. 5906
local strain meas., electron beam moire 28911
micromechanical testing of electronic packaging components and materials 11821
opt. fibre, proof test, power law assumptions 1659
PWR reactor internals, irrad. embrittlement 35863
Y_2O_3-ZrO_2 thin film electrolyte, SOFC, tensile test 27927

tensimeters *see vapour pressure measurement*

tensors
brushless DC motors, tooth forces, coil winding pattern infl. 19651
front-end/early vision syst., lin. scale-space 16238
hydrodynamic model, 2D tensor temp. 22324
induction motor EM procs. calcs., tensor methodology *(Russian)* 44055
preform deform. fabricated opt. fibers, birefr. anal. 22851
scattering amplitude tensor characts. from Lippmann-Schwinger integro-diff. eqn. 23615
sig. proc., decomp. of quantics in sums of powers 32456
GaAlAs asymmetric two-step quantum well for cascaded second-order procs. 13189
GaAs/AlGaAs heterojunction, magnetothermopower, phonon drag 38298
InGaAs-GaAs strained quantum well SEL 31392
Si(001) wafer, cubic centrosymmetric media, anisotropic SHG 31572

term rewriting systems *see rewriting systems*

terminal emulation
Internet access, MS-DOS/WINDOWS client software 3182

terminals, interactive *see interactive terminals*

ternary logic
cellular arrays, ternary, design, ternary decision diags. 37732
compiled logic simul. of complex logic networks 37725
fuzzy flip-flops, logical expressions 12484
hybrid fault simulator for sync. seq. ccts. 6089
multiple variable ternary seq. ccts. synthesis *(Chinese)* 29157
multiple-valued logic fns., logic synthesis and optim. 6058
self-timed ccts., self-checking combinat. logic and seq. machines 37739
sync. seq. ccts., fault simul. 21268
technosphere danger systematic anal. 11693
ternary cellular arrays fault isolation, decision diags. appl. 12457
three-level m-seq. generation, ternary flip-flop logic 21180

ternary semiconductors
for pseudobinary semiconductors, see II-VI semiconductors, III-V semiconductors, III-VI semiconductors, IV-VI semiconductors and semiconductor materials
see also chalcogenide glasses
$AgGaS_2$, CW difference freq. generation 7766
$AgGaS_2$, compact tunable difference freq. sources, laser pumping 7767
$AgGaS_2$, external difference freq. source 31486
$AgGaS_2$ opt. parametric generated IR Ti:sapphire solid-state laser pulses 15049
$AgGaSe_2$ cryst. second harmonic conversion of pulse-periodic CO_2 laser radiation 40103
$AgGaSe_2$, mid-IR opt. parametric oscillator, 2.54 μm-pumped type II 31527
$AgGaSe_2$ noncritically phase matched mid-IR generation by opt. parametric oscillator 40060
$AgGaSe_2$, thermal lensing modeling, laser beam aberration 7765
$AgInSe_2$, elec. cond., thermoelec. power, solid and liq. state 21935
$AgSbTe_2$, solid and liq. states, elec. props. 38266
CdS/$CuInSe_2$(011) heterointerface, form., electronic props., XPS obs. 21951
Cu-Al-S syst. sensitized with rare-earth elements, blue-to-green phosphor 23007
$CuCr_2Se_4$:As, mag. props., doping effects 14157
$(CuFe)_{2.2}Te_2$, synthesis/charactn. 20650
$CuGa_xIn_{1-x}Se_2$ electrodeposited thin films, prep. and charact. 389
$CuGaS_2$, travelling heater growth, CuI solvent 5810
$CuGaSe_2$ single crysts. epitaxial growth by halogen transport, $Se(CH_3)_2$ 306
$CuGaSe_2$ thin films, elec. cond. and near-IR absorpt. 13090
Cu(In, Ga)(S, Se)$_2$ solar cells, charactn./modeling 44403
Cu(In,Ga)Se_2, laser ablation deposition 431
Cu(In,Ga)Se_2 thin-film growth, mixed-phase precursor 20935
$CuIn_{0.75}Ga_{0.25}Se_2$ films, pulsed laser deposition 432
$CuIn_xGa_{1-x}Se_2$ high-efficiency thin-film solar cells by selenization 27946
$CuIn_xGa_{1-x}Se_2$ thin-film polycryst. solar cells, 1.3-1.5 eV band gap 19994
n-$CuInS_2$, minority carrier diffusion length, EBIC meas. 29873
$CuInS_2$ polycryst. thin film solar cells 27954
CuInSSe-doped glass saturable absorbers for pass. mode-locking of Nd lasers 7726
$CuInSe_2$ films, ambipolar diffusion, carrier drift 1069
$CuInSe_2$ films, laser ablation, stress-induced Raman freq. shift 37482
$CuInSe_2$ films, pulsed laser deposition 432
$CuInSe_2$ films, surface morphology, grain boundary, parameters, etching 22215
$CuInSe_2$, heteroepitaxy on Si, charactn. 13087
$CuInSe_2$, jn. electrolum., microscopic diode struct. 31110
$CuInSe_2$ layers, heteroepitaxial, direct growth on Si substrs. 363
$CuInSe_2$ polycryst. thin film solar cells 27954
$CuInSe_2$ polycryst. thin film solar cells, micro/nanostructs. 27940
$CuInSe_2$ polycryst. thin films, seq. proc. prep. 20978
$CuInSe_2$ polycryst. thin-film solar cells 27938
$CuInSe_2$ single crysts. epitaxial growth by halogen transport, $Se(CH_3)_2$ 306
$CuIn_3Se_5$, heteroepitaxy on Si, charactn. 13087
$CuInSe_2$:Sb thin films, growth and props. 38275
$CuInSe_2$/SnO_2, PV solar cell material 36605

ternary semiconductors continued
n-$CuInSe_2$/polysulphide photoelectrochem. solar cells, spray-pyrolysis 27933
$CuInTe_2$ polycryst. thin films growth 20979
$GaInP_2$ DH, ultralow interface recomb. vel. 29889
$GaInP_2$ homojunctions, ordered-disordered, 2DEG, anisotropic transport props. 21962
$GaInP_2$ ordered VCSELs, polaris. selectivity 31387
$GaInP_2$ ordered epilayers, elec. cond. 1065
$Ga_{0.51}In_{0.49}P$-GaAs, RIE selectivity, HBT appls. 38832
In/p-$AgGaS_2$ struct., PV effect 13215
In/p-$CuGaS_2$ surface-barrier struct., photoelec. props. 13214
In_2O_3/CdS/$CuInS_2$ thin-film solar cell, 9.7% efficiency 19997
$TlBr_xI_{1-x}$ photodetectors for scintillation spectrosc., eval., prep. 10128
$ZnGeP_2$, thermal lensing modeling, laser beam aberration 7765
$ZnGeP_2$/GaP multiple heterostruct. on GaP substrs. 21959
$ZnIn_2S_4$:$Zn_2In_2S_5$, layered semicond., cond. anisotropy 6540

terrestrial electricity
buried obj. detect., radar image reconstruction algm. 18780
charged aerosols preceding earthquakes, radiowave propag. anoms. 7962
concentrically layered region, source EM response 40204
earthquakes effect on upper atm. 7974
electromech. syst. description 20011
EM field, LF propag. under ground surface *(Japanese)* 7986
EM geotomography, GUI develop. 18797
finite elec. dipole, Hankel transform computations 4384
ground resist. meas., metal box 37541
induced polariz. prospecting, 3 inversion methods 35282
induction logs for oil prospecting, inversion algms. 35281
ocean high perform. micro-power CTD sens. 10495
radar, subsurface struct. by ground penetrating radar 10453
resist., inverse fn., neural net approx. 35293
soil, elec. cond./water content, TDR 4387
submarine cables, reuse for seismometry & geoelectricity 10441
transient procs. method, differential transforms. 10428
XCTD perform. eval., design improvements 10498

terrestrial magnetic field *see geomagnetism*

terrestrial magnetism *see geomagnetism*

test equipment
see also automatic test equipment; battery testers
air ionizer perform., periodic verification, EOS/ESD Ionization Standard 34421
array probe card, micromachined, charactn. 20409
array probe card, micromachined, fab. proc. 20408
ATC04 assembly test chip for encapsulant and mech. stress meas. 18112
atten. meas. in opt. cable 30868
automotive alternator/generator regulator testing, DSP-based syst. 20119
bal. probe, coaxial type for 1-500 MHz CRO meas. 3925
bare-chip probe for high I/O, high speed IC testing 6839
board-level mixed-sig. test support, IC archit. 12663
CCD TV camera test set *(Croatian)* 3665
DC meas. and test systs., config. for min. errors 3946
design prototyping, A/D mixed tester 688
digital-wireless commun., test equipt. selection 116
elec. actuator drives, mass neutralisation test equipt. appls. *(Russian)* 36492
electro-holographic TV syst. develop., eval. *(Japanese)* 2151
EMC equipt. for avionics syst. components testing 4354
ESD contact discharge simulator for equipt. testing 17695
ESD testing 40212
fast transient overvoltage meas. device *(Korean)* 36383
fixturing in PCB prod. testing 12906
fluoroscopy, FAXIL threshold contrast detail detect. test objs. 26337
flyable fiber-optic radar target generator 43428
genetic disease diagnosis, challenges and opportunities 43190
GIS charged conducting particles, motion meas. 11205
GTEM cells, review and future research 23746
HBM ESD testers/specs. anal., 4th order lumped element model 34422
Hewlett-Packard low-cost RF NWA 25739
home lab. advantages 25710
hydroelectric generator stator insulation, PD detect. techs. 43942
IC components radiation suscept. meas. 1466
IC tester diagnosis, Bayesian network appl. 30428
impedance loci, slot-type effect studies *(Japanese)* 11056
impedance stabilization networks for telecommun. eqpt. testing 23744
induction motor core losses meas., static power convertor-based 19620
ion sources energy spread/ion current meas. 17693
ISO 9000 compliance of test/meas. equip., calib. aspects 3710
laser commun., opt. commun. demonstrator 17289
leaky NWA calib. algm. 34314
loaded board test philosophies, PCB/SMT testing 38158
low-level meas. techs. for noisy environ. 17651
mag. recording, flying height tester calib. std. 7151
microtomography, microfocus radiography syst. 28519
microwave/RF test configs., scalar meas. error 42909
MRTD GO-NO GO tester develop. and appls. 34594
multi-lamp solar simulator, collector testing appls. 11456
NAMAS approach, instrum. specs. 42681
nano-indenters, high-accuracy, using electrostatic force 12244
noise injection clamps charact. 23747
p-channel MCT, static/dyn. behaviour tests 12319
power transformer insulating oil test syringes, gas-tightness studies 36224
probe cards, manufacture and Si LSI/VLSI IC R&D/prod. testing *(Slovenian)* 30393
radiated emission testing by ground currents meas. 2247
relay operate time/contact bounce, microcontroller in-proc. test cct. 29643
reliab.-centered test methods, overview 20478
Rohde & Schwarz, RFI field-strength meas. in GTEM cell, EMI software ES-K1 8008
Rohde & Schwarz Audio Analyzer UPD, controlled by DUT via external sweep 9766
second breakdown, power BJT/bipolar mode JFET comparison 30546
SOFC perform. eval., lab. techs. 11276
solar receiver/reactor laser diagnostics syst. 10058
static charact. tester of IGBT *(Polish)* 1398
stub resonator for planar transm. line atten. meas. 18025
thermionic converters, photoelec. emission-based characts. tests 28030
thermophotovoltaic cells, expt. charactn. studies 28008
transverse flux EM vibrator, test equipt. appl. anal. 7935
UHF-SHF marker generator 33764
vac. actuated hot mockup PCB test stations 38159

test equipment continued
variable speed AC motor drive testing, dynamometer control 5293

test facilities
see also aerospace test facilities; anechoic chambers; reverberation chambers
0.5 MW batt. test facility, microcomputer-controlled 27883
3 m site atten. above earth ground 23704
150 MW 13E2 gas turbine research project, Japan 4848
ACSR power overhead lines, high-temp. operation tests 27235
ANAs, ANA, quality comparison assess. of network meas. 25741
asymmetric TEM cell, characteristic impedance, septum thickness effect 20417
ATM environ., broadband commun., lab. plant 16783
board-to-board connector shielding, transfer impedance meas. 15533
Burgdorf (Switzerland) Engng. School 60 kWp PV test centre *(German)* 10881
Canadian patrol frigate multi-sens. data fusion implement., perform. eval. 18981
combined cycle power plant circulating bed granular dust filter develop. 27590
commutation test labs., ident. method for certain procs. 5140
compact antenna test range, Pretoria Univ. 40458
compact diagnostic chamber, testing, EMC stds. 2246
DAHRT lin. induction accelerator test facility, pulsed power supply 36265
DC elec. fields/ions, human perception, exposure chamber 4330
dual TEM cell, elec./mag. field shielding effectiveness 15501
elec. drive certification testing lab. develop., Russia 44463
EMC, conference, Dallas, TX, USA (1993) 36844
EMC conference, Chicago, USA (1994) 5471
environ. test chambers, safety guidelines 94
ETHMICS multimedia commun. testbed 41977
fossil fuel power plant NO_x controls, burner testing overview 19503
gasket shielding perform. meas., test techs. 15499
ground refl. wave suppressed test sites 23670
GSM mobile telephones, type approval methods 16616
GTEM, OATS radiated emissions correl. from 1-5 GHz 15512
GTEM cell, appl. example 23721
GTEM for EM emission meas., test result correl. 15524
High Energy Power Syst. Facility, Li batt. syst. eval. 28425
inform. proc. systs. eval. centre, reliab. improvement *(Japanese)* 16737
insulator wetting action, fog test facility 4702
ITER magnet cryogenic research facilities, computer-aided syst. 11719
lighting syst. assess. facility *(Japanese)* 11469
Lockheed phase diversity test facility, expt. results 16215
Maglev rail transport systs., develop. status, Japan 5335
Maglev test facility vehicle design, Japan 5336
mil. commun., acousto-optic ESM receiver upgrade 18972
mode stirred EMC facility, develop. 2266
mode-stirred chamber meas. repeatability 15537
MSX early midcourse algm. testbed 16111
multimedia ATM broadband AIN control station testbed 41990
Nikola Telsa mobile telephone syst. NMT 450, functionality upgrading project 33857
nonair-breathing diesel engine research facility 19533
OC-12/STS-3c/ATM transm. interface for AURORA Gigabit Testbed 41766
on-platform radar and opt. track fusion 9647
PCB test requirements in generic formats 29655
power overhead lines, lightning-induced voltage expts. *(Japanese)* 4696
PV modules perform. meas., algm., facility 11297
PWR, stratified flow visualisation, horiz. pipework, stratification 27410
quick EMI emissions tests, precompliance test set 2276
RACE II project PREPARE, mgt. of heterog. broadband testbed 33386
railgun bore lifetime meas. expts. 15373
railgun test range develop. results, Russia 15367
railguns, solid armature develop. programme, USA 15351
ref. auditorium and audio std. strategy *(German)* 9765
Rohde & Schwarz Industrial Controller PSM, automated prod. testing and control 5604
screened antenna-enclosure combinations, RFI emissions 2269
semiconductor testing facility, reactive scheduling 37044
site atten. anoms., effect on antenna factors meas. 23937
SMDS technol. test results and issues 41764
SOFC perform. eval., lab. techs. 11276
spaceborne IR sens. testing, verification/validation/accreditation issues 35216
TEM cell, field strength meters calib./antenna factors 25937
Tesla linac test facility controls status and future plans 18258
thermal laser mirror distortion test facility 40000
thermal power plant pollutant emissions, well stirred reactor expts. 35971
thermophotovoltaic solar cell power expts., USA 27962
To-be-IN, obj.-oriented telecomms. services testbed syst. 25086
torpedo transducer, automated calib. facility 10594
triple-TEM cell, FEM, optimal engng. design 20416
turbine blade vibr. meas. experiences, Switzerland 10929
turbocharger develop., lab. tests 27604
VCCI EMI activity in Japan 23684
virtual wafer fab./assembly/test facilities, operational planning 11699
VISTAnet gigabit networking testbed, traffic meas. anal. 24749
GaAs MMIC, CSIRO prototyping facility 29581

testers *see test equipment*

testing
see also aerospace testing; antenna testing; automatic testing; boundary scan testing; built-in self test; cable testing; computer testing; conformance testing; electron beam testing; electron device testing; electronic equipment testing; environmental testing; fault diagnosis; impulse testing; inspection; insulation testing; life testing; logic testing; machine testing; materials testing; mechanical testing; nondestructive testing; optical testing; production testing; program testing; switchgear testing; transformer testing
0.6 caliber railgun, air-core compulsator driven 19779
1 kW planar SOFC stack develop., Japan 44333
$1A_4$ supersonic coal-fired MHD channel, test progress 20015
10.6 kW air-source heat pump, defrost cycle perform. tests 20146
10-100 W PEM fuel cells, develop., testing 27930
20 kW Vuilleumier heat pump, test programme results 28175
25 mm hypervelocity railgun, perform. characts. 15353
30/90 mm laminated high L′ railguns, design/testing 15269
50 mm diam. induction coilgun launcher, design, eval. 15296

testing continued
  50 mm solid armature pulsed power EM launcher develop., USA 31749
  90 mm maintainable bore railgun barrel 15276
  90 mm railgun-fired air defense projectiles 18966
  150 MW 13E2 gas turbine research project, Japan 4848
  250 kW AC batt. syst., Pb-acid marine cell-based 36552
  ACSR power overhead lines, high-temp. operation tests 27235
  act. matrix LCDs, test and laser-based repair 3927
  air conditioning equipt. perform. eval. 20134
  Aqua Explorer 1000 for inspection of underwater cables 9156
  AT&T round cells, short cct. current test 19966
  ATM transport networks, virtual path test fn. 16576
  AXE 10 syst., operator subsystem fn. testing 33393
  beamline front-end mock-up at APS, vac. tests 43148
  benchmarking barometers, product/proc. QC appl. 20473
  cannon caliber EM launcher, rapid fire, ultra stiff 15280
  Comanche Peak NPP, pump/valve risk-based in-service testing 10840
  CPn planar SOFC design, concept, verification 44329
  Croatian videotex syst., terminal/external computer min. param. requirements 33421
  D2 hypervelocity projectile program, air defence elec. launchers 18962
  DAB field tests in Italy 42573
  data commun. monitoring, measuring sig. optimisation 42752
  diagnostic entropy, syst. diagnosis sig. incompleteness 171
  digital TV sig. broadcast 34204
  digital video quality, computer-based testing 16083
  direct carbonate fuel cell power plant, stack engng. efforts 27651
  direct methanol fuel cell, H_2 ref. electrode test method 11282
  distribution network grounding electrodes, impulsed ground impedance studies 19251
  electronic components and technol., conf., Washington DC, 1994 5473
  electrothermal-chem. gun, ship defence appl. demons. 15285
  electrothermal-chem. launchers, plasma-propellant interface expts. 15368
  EMC certification of products in Gost certification syst. in Russia 23672
  ESD diagnostics, HV calib. 30542
  fiber optic module interconnection, parallel data bus 42474
  fire support test syst., distributed C^2 simul. 26815
  fire/gas detector test schemes optim., reliab. model 36979
  flexible overhead power conductors, reclosure mech. effects 19312
  flexible software for power supply testing, design approach 19051
  fossil fuel power plant NO_x controls, burner testing overview 19503
  four stage RHEPP accelerator testing, power supply 36302
  gasket shielding perform. meas., test techs. 15499
  GPS-Squitter expt. results 9419
  GTEM cell, appl. example 23721
  GTEM cells, review and future research 23746
  hard rock fragmentation, pulsed power plasma blasting tech. 36811
  Heat Pac PCM thermal storage, telecom. equipt. rooms 44430
  High Energy Power Syst. Facility, Li batt. syst. eval. 28425
  HV current limiting fuses, low current interruption 27842
  inductive coilguns, driving field/projectile motion synchronisation 15300
  lin. induction launcher, projectile balloting/spinning/nutation 15298
  load shedding, freq. relay, testing 4535
  macromodel fault generator for cellular neural networks 21499
  mag. core loss charactn., practical approach 30746
  Maglev rail transport systs., develop. status, Japan 5335
  measures of performance, IEE Colloquium, London (1995) 36881
  MHD generators, disk-type closed-cycle, enthalpy extraction improvement 44421
  missile EMC testing, direct/indirect current injection 4431
  mixed airfoil wind turbine blades, design/testing 36079
  mobile pulsed power supply, homopolar generator, inductive storage 36255
  motor-operated valve testing program, Monticello plant, PRA study 4789
  multi-lamp solar simulator, collector testing appls. 11456
  multihypothesis testing, seq. procedure 24169
  MV/HV elec. equipt., enclosure internal arcing tests 4879
  nano-meter technol., testing, diffractive struct. 38746
  NDRE-AUV flight control syst. 10599
  NEMA 7 safety enclosure design, mfg. viewpoint 91
  noise injection clamps charact. 23747
  nonair-breathing diesel engine research facility 19533
  nonlinear disturbance errors in lin. syst. identification 25701
  NPP steam turbine low-press. cylinder hood designs 35740
  NPPs, protective relay maint. and appl. guide 43840
  PAFC plant, test operation 10914
  Pb-acid flooded batts., high gravity, power utility appls. 44304
  Pb-acid valve regulated batts., conductance testing 19967
  PFBC power plant particulate control, FIBROSIC filter tests 27600
  pipe/valve reliab. prediction, Bayesian routines 37196
  planar SOFCs, stacking perform. expts., Denmark 44323
  power syst. grounding expts., lab. two-layer soil model *(Chinese)* 10767
  power syst. polymer arresters, moisture sealing testing 27272
  product certification, testing stds. overview 5679
  product radiated EM emission, VCCI members meas. facilities 23728
  product reliab. testing, practical considerations 5680
  PV-hydrogen energy conversion syst. studies 27624
  radio channel stat. charact., expt. eval. *(Italian)* 9688
  railgun armour penetrating projectiles, armature designs 18964
  railgun metal armature contact press. studies 15358
  railgun plasma armatures, serrated bore surface effects 15360
  railgun solid armatures, nonarcing contact studies 15362
  railgun test range develop. results, Russia 15367
  railguns, nonarcing contact material deposition expts. 15349
  railguns, solid armature develop. programme, USA 15351
  real-time on-the-fly kinematic GPS syst. results 3533
  reliab.-centered test methods, overview 20478
  rem. centralized DC-3 testing 33387
  residential heat pumps, improper refrigerant charging expts. 28187
  reverberation chambers, electronic mode stirring 7993
  self-healing metallized polypropylene power capacitor testing 27877
  shallow water hydroacoustical commun. channel, data protection codes perform. 32015
  shielded enclosure, EM leakage, slots 15498
  single-cell thermionic fuel element convertors, fab., testing 27988
  SOFC, Statoil's program, stack testing, reforming 44327
  SOFC, substr. planar type, develop., Fuji Elec. 44330
  SOFC develop., planar stacks, testing, Daimler-Benz/Dornier 44331
  SOFC perform. eval., lab. techs. 11276
  solar thermophotovoltaic power systs., perform. testing 27935
  solid armature EM railgun launchers, plated Al-Cu contacts 15324

testing continued
  solid ring armature transaugmented railgun studies 15350
  SS systs., conducted suscept., testing techs. 3354
  static elec. shielding bags, testing requirements 15212
  SVC field testing/commissioning, IEEE std. 27878
  telecomm. equipt., fuel cell energy syst., field test 19975
  telecomms. systs. robustness, fault insertion testing methodology 16593
  TEM cell, field strength meters calib./antenna factors 25937
  TEM cell with inner terminator, improvement and design concept 23745
  thermal power plant pollutant emissions, well stirred reactor expts. 35971
  thermionic CHP convertors, optimal perform. tests 28029
  thermionic converters, photoelec. emission-based characts. tests 28030
  thermionic fission reactors, design studies 27985
  third generation mobile commun. syst., realtime testbed 9352
  transducer errors estim., operation 3808
  triple-TEM cell, FEM, optimal engng. design 20416
  Triple-TEM cell, simple device for immunity testing 23748
  UCPTE power syst. parallel trial project, Europe *(Croatian, English)* 10623
  ultra-broadband high perform. RF choke for commun. appls. 37996
  unique input output test seqs. length, lower bounds 41492
  valve-regulated secondary batt. monitoring method 44299
  VENIS real-time distributed prototype syst. 4442
  Washington D.C. metro syst. tunnels commun. syst. 9281
  Westinghouse SOFC develop. program 44326
  Wright Laboratory thermionic conversion programs 28022
  XCTD perform. eval., design improvements 10498
  Ag-Zn batt., Mars Environ. Survey Mission Pathfinder 26675
  Li secondary batts., cycling capacity determ. studies 27902
  Li-$SOCl_2$ batt. develop. 26674
  Li-$SOCl_2$ batt. develop./status, Titan IV Centaur launch vehicle 26673
  Li-$SOCl_2$ thin parallel plate batteries, space power appls. 27891
  Ni-Cd common vessel monoblock secondary batt., perform. testing 44277
  Ni-Cd space power sealed secondary cells, separator tests 43448
  Ni-H_2 80 Ah cell, perform. charactn. 27910
  Ni-H_2 aerospace cells, capacity fading 26577
  Ni-H_2 cells, charge efficiency testing 27896
  Ni-H_2 common press. vessel cell, charging schemes 27919
  Ni-H_2 secondary cells, Zircar ZYK-15H separator fabric 27913
  Ni-H_2 spacecraft cells reconditioning 26576
  Ni-Mh_2 bipolar elec. vehicle batt., cell design/eval. 36714
  Pb-acid batt. impedance meas., maint. tool 44297
  Pb-acid batt. impedance testing 44294
  Pb-acid batt. systs., theory, develops. 36520
  Pb-acid sealed batts., deterioration estim. 44296
  Pb-acid sealed valve regulated batt., impedance testing 19952
  Pb-acid standby power batts., life testing methods 19962
  Pb-acid telecom. reserve batt. plant float voltage uniformity 43969
  Pb-acid tubular pos. plate secondary cells, submarine appls. 44517
  Pb-acid valve regulated batts., standby telecom. power supply appls. 19959
  Pb-acid valve regulated batts. testing 44291
  Pb-acid valve-regulated batts., PV telecom. power supply perform. 41629
  Pb-acid valve-regulated batts., microfiber glass separator expts. 44285
  Pb-acid valve-regulated batts., reliab. testing 19968
  Pb-acid valve-regulated secondary batt., conductance/impedance tests 44298
  Pb-acid valve-regulated telecom. power supply batt. perform. 41623
  Pb-acid valve-regulated test batt., float operation perform. 36568
  Si microgimbals for super-compact rigid disk drives 30490
  TeO_2 long time aperture acousto-optic delay line, design and charactn. 31021
  Zn-air batts., design/develop./testing 19931

testing apparatus *see test equipment*

testing equipment *see test equipment*

testing machines *see test equipment*

tetrodes
  distributed-gain amps., component param. spread effects 559

text editing
  see also word processing
  desktop CSCW syst. 16691
  international readers, editors, good English 28295
  Multicard, open hypermedia syst. 16662
  multimedia integrated commun. possibilities *(English)* 3233

text processing *see word processing*

text scanners *see image scanners*

text-to-speech synthesis *see speech synthesis*

textfax *see electronic mail; facsimile*

textile fibres *see fibres*

textile industry
  energy/exergy anals., Turkey 20153
  internat. work flow, proc. mgt. syst. support 24956
  rocking mirror laser cutting machine, opt. design *(Japanese)* 5612
  VQ for Jacquard looms textile patterns 16337

texture, graphics *see computer graphics; image texture*

texture, image *see image texture*

TGA *see thermal analysis*

theorem proving
  algorithmic register transfer lang. for generating designs, formal semantics 37702
  formal modeling and verification of μP 21353
  high level synthesis and proof systs. amalgamation 21069
  interval-semantic component models and efficient verification of transaction-level cct. behavior 37583
  RISC-pipeline conflicts verification in HOL, implement. issues 41504
  seq. control ccts. with timing coord., design verification based on theorem-proving tech. *(English)* 29106
  symbolic trajectory eval. and BDDs, theorem prover, VLSI design 37587
  symbolic trajectory eval. results comp. 21064
  witness hiding protocols, partial knowledge proofs/simplified design 32168

thermal analysis
  0.6μm nMOS ESD I/O protection struct., EOS suscept. study 29978
  20 MW gas turbine CHP plant, thermoeconomic anal. 27571
  340 MW CHP plant condition monitoring project, Netherlands 4832
  AC machines sealed insulation syst. thermal eval., IEEE std. 27670
  ACSR power overhead lines, high-temp. operation tests 27235
  advanced composite materials, mil. electronics, environ. testing 5646
  air conditioning, thermoelec. conversion-based designs *(Japanese)* 44601
  alkali metal thermoelec. convertor components, emissivities/thermal charactn. 20028
  alkali metal thermoelec. convertor design, wick-pumped, vapour-fed 20032

thermal analysis continued
alkali metal thermoelec. convertors, Na recirculation wick design 20030
arc furnace graphite electrodes, electron detachment studies *(German)* 11481
ASMAT known good die microbump interconnection syst., anal. 37148
automatic cct. breaker stabil., heat distrib. effects *(Russian)* 11196
batt. module heat generation, temp. rise modelling 44263
bimetallic riveted contacts, thermal modelling studies *(Russian)* 6382
binary fluid mixtures, pool boiling crit. heat flux on surface 37127
bio-mass under microwave hyperthermia, thermal profiles 26467
BTPFL-C2 immersion-cooled electronic clamshell module, aircraft avionics 4432
C4/surface-mount-array interconnect technols. 11786
cannon caliber EM launcher, rapid fire, ultra stiff 15280
closed-cycle gas turbines, combined pinch/exergy anal. 36009
CMOS ESD protection ccts., scaling, optim., design 6849
CMOS ESD protection ccts., scaling/optim./design considerations 30471
coal-fired 27583
colour facsimile, thermal rheography recording, direct ink heating 16636
combat vehicle EM weapon syst. integrat. design 18961
combined cycle bottoming cycles, Kalina/steam cycle comparison 36022
combined cycle gas turbine systs., math. modelling studies 36023
combined cycle power plant Kalina heat engine appls., thermal anal. 27598
combined cycle three-press. steam turbine installations 36027
computational fluid dyn. thermal modelling for workstation design 11702
cond. rework tool design paradigm, PCB/SMT manufacture 38146
conformal coatings, dyn. thermal mech. anal. 451
convective heat transfer from PCBs, num. anal. interface, GUI appls. 12891
cylindrical thermionic fuel elements modelling, MCTFE code 27986
deep submicron nMOSFETs under high current snapback conditions 22438
diebond thermal fatigue model, damage integral based anal. 11746
diesel/closed cycle gas turbine power plant thermodyn., LNG-fired 27605
double squirrel cage motor, heating, short-cct., starting *(Polish)* 27705
double-loop separate-type heat pipe, heat transfer perform. meas. 18132
dual gas turbine combined cycles, thermodynamics modelling 19525
EHD augmented condensation heat transfer expts. 20021
elec. device heat testing automation, PC-based *(Russian)* 5584
elec. proc. heating, thermal/control considerations 5382
electronic packaging, conf., Binghampton, NY, USA (1993) 20249
EM launchers, 3D structural/EM anal. calcs. 15366
EM separators, magnetising coils, thermal state 2192
endoreversible Carnot refrigerator, specific cooling load 28182
endoreversible power plants, thermoeconomics optim. 27293
ferroelec. polymers, struct./Curie point, spectrosc. studies 6902
flex coating reliab., high-perform. MCM-PCB interconnection 12945
four ASIC MCM-C, design for manufacturability 21712
geothermal double stage flash syst. optim., computer-based 36034
GTO cct. snubber diodes, low temp. elec. transient tests 528
GTO cond. characts., temp. effects studies 12318
GTO thyristor turn off, transient thermal effects simul. 30267
Harwell thermomech. generator, electrodyn. anal. 28040
heat pipe heat sink thermal resist., fn. of length 37145
heat sinks, flat plate heat pipe effective length calcs. 28479
high dens. multi chip modules, direct num. simul. 21786
high power substrs. for thick film ccts. 21658
HV power cable thermovisual monitoring studies 35643
hybrid IC, anisotropic test substr., thermal field simul. 6842
IGBT, hybrid power modules, thermosensitive params. anal. 13700
IGBT, on-state characts. degrad., self-heating 1422
IGBT, parallel operation, thermal coupling effect 30317
IGBT, punch/nonpunch through, thermal behaviour studies 1411
IGBT switches, electrothermal charactn. 13699
IMPATT diode, W-band, pulsed, jn. temp. calc. model 37987
induction machines, ferromag. rotor, temp.-mech. characts. tests *(Russian)* 36150
induction motor, integrated on-line protection syst. 4969
induction motors, dyn. thermal model develop. 27715
insulating materials, thermal endurance, thermogravimetric point slope procedure 14018
integrated IR sens. design, computer-aided trade-off study 3838
internal combustion engine power generation, O_2 enrichment simuls. 35970
IR detector selection for laser soldering proc./joint qualif. 6417
lattice self-heating/hot-carrier transport, influ. on device perform. 6711
Li-$SOCl_2$ space power batteries, thermal models 26581
lightning surge protective multi-cell semicond. device 27253
LIM, skewed ladder-type rotor, 3D FEM-based anal. *(Japanese)* 44044
long. focus solar Stirling power generation syst. 27625
long. fin heat sink perform., flow bypass effect 148
low-temp. waste energy utilisation, gas turbine/LNG syst. 27580
manifold cooling, supercritical H_2, flowdown 11782
MCFC, indirect internal reforming, math. modelling 11281
MCM, immersion cooling by pool boiling of FC-86 38193
MCM, intell. analyzer, thermal design tool 21785
MCM automated 3D model constr., adaptive finite element global /local anal. 29723
MCM technol. selection for thermal perform., FEA 21761
MCMs, interactive design aid 21773
metal-to-metal oxide antifuses, reliable for VLSI appls. 22079
MHD generator, kerosene oil-heavy oil fuelled, optimum perform. design 44420
MHD generators, disk-type closed-cycle, enthalpy extraction improvement 44421
microelectronic packages, automated design 11757
microwave HBT perform., impact of thermal distrib./emitter length 38005
microwave HBTs, transient thermal simul., TLM method appl. 37980
microwave heating syst. permitt. meas. correction procedures 44593
mini ball grid array MCM technol. 21780
molding cpds. for plastic packaging, thermal anal. 5670
MOS-controlled devices thermo characts. 22322
MOSFET 1/f noise, plasma-etch-induced gate oxide degrad. effects 22441
MOSFETs, deep submicron/1.5 μm, comparative param. sensitivity anal. 30300
multi-tank cryogenic storage syst. anal., space appls. 35253
muzzle-fed railguns, EM/thermal anal. 15345
MV distrib. switchgear, internal fault withstand tests 19887
Ni-H_2 space power batteries, thermal models 26581
nitroaniline based nonlin. opt. syst., cryst. growth 15066
no-clean solder paste reflow, N_2 atmos., O_2 conc. influence 38149
non-punch-through IGBT, crit. switching condition 30327
nonequilibrium disk plasma MHD generator, conceptual design 27966

thermal analysis continued
ocean thermal anal. syst., OTIS Version 4.0, FNMOC 26753
on-chip interconnect reliab., electromigration resist. prediction 38674
Optical Communications Demonstrator telescope assembly, mech. design 17324
package/module interconnect test syst., transient thermal sigs. 28440
patterned wafer RTA/RTCVD, thermal radiation absorpt. charact. 22229
PCB, thermal deform. anal., holographic tech. 21623
PCB layout, concurrent design approach 21630
phenol/pyridinium triflate, synthesis, nonlin. optics 2121
planar SOFC, 2D distributed param. perform. model 44362
planar SOFC field distribs., 3D math. model 44365
plastic ball grid array packages, thermal/elec. perform. enhancements 37150
PM brushless drives, integrated CAD syst. 11344
PM brushless motors, EM/thermal design 36104
poly(aniline) film, glucose biosensor 3895
poly(p-phenylene) polymer, TSDC spectra 14037
poly(p-phenylene sulfide), thermally stimulated currents 13931
polymeric insulators, thermal anal. techs. 6918
polyurea films, pyroelec./piezoelec. 6903
power bipolar transistor elec. props., temp. influence 30254
power cable ampacity, thermal effects studies 4680
power cable insulating materials, lab. charactn. thermal anal. 19292
power CT, thermal short-cct. strength determ. 19690
power IGBT converters, overcurrent fuse studies 6016
power IGBTs, parallel operation guidelines 21103
power overhead line short-term loading capacity assess., ES-based 19308
power semicond. switches, 3D thermal modelling software 543
power semicond. switches, device characts. comparison 537
power supply component temp. prediction, thermal anal. software 11112
power syst. busbars, steady-state/transient ampacity calcs. 4448
power syst. overload current interrupter verification studies *(Russian)* 36395
power syst. voltage stabil. indication, rotor heating simuls. 35432
power transformer cyclic loading evals., computer-based 27774
power transformer cyclic loading thermal response, noniterative soln. 5003
power transformer insulating oils, pulsating laminar flow studies 44103
pressurised CFBC combined cycle power plant simul. 27587
PVDF copolymers, ferroelec. behaviour/phys. props. 6904
railgun metal armature contact press. studies 15358
railgun plasma armatures, opt. thick, temp. meas. 15325
rapid isothermal proc., photophysical/photochem. effects 22232
rapid thermal proc., 3D modelling for design optim. 22552
regenerative gas turbine cycle, water enhanced, perform. calcs. 19524
resist. furnace stationary temp. fields, digital simul. *(Polish)* 36784
rotating spacecraft, solar radiation, thermal anal. 18692
RTO/nitridation clusterable reactor, MOS gate oxides 22219
RTP furnace, 3D temp. uniformity model 22231
RTP modeling and simul. incl. thermal stress anal. 22551
S-PRIME thermionic space power system, Cs reservoir modelling 18737
semicond. device, thermal simul., 3D RC network concept 38777
semicond. RTP temp. distrib. modelling 22554
SESES, micro electro mech. systs. CAD modelling syst. 30498
shadow mask thermal deform. FEA *(Korean)* 25662
shallow QW SEED in asymmetric FP etalon struct. 14530
shuttle car cable reels, ampacity calc., thermal characts. 20183
single-screw compressor perform., computer-based anal. tools 44611
SIT, 2D transient temp. eval. 1443
SIT elec./thermal behaviour, 2D simul. 30372
SMT solder joint reliab., voids and void interacts. 178
SOFC, substr. planar type, develop., Fuji Elec. 44330
SOFC exergy anal. methods 44355
SOFC monolith, reversed flow operation modelling/simul. 44366
SOFCs, methane-fuelled, fuel quality/coking suppression 44360
solar thermal power plant, thermal fatigue failure study, Australia 36062
solder paste considerations for SMT reflow soldering 12911
solid dielec. strength calc., kinetic theory-based 22655
solid state relay design model, thermal effects 38063
solid targets for radioisotope prod., thermal perform. 34886
solid-armature railgun, current/heat transport modelling 15320
space nuc. power, thermionic heat pipe module testing 26621
space power thermionic convertors, thermal modelling 18740
space solar dyn. power systs., thermal storage studies 26557
Space Station Freedom PMAD syst., thermal anal. 18763
spindle motor heat generation, thermal anal. studies *(Japanese)* 10924
squirrel cage motor, inverter driven, thermal model 5253
steam power plant boiler life, thermal transients effects 19519
steam power plant pressurized CFBC gasification reactor expts. 27565
steam/organic Rankine SMR cycle elec. generation 35980
stochastic ANNs, CMOS analog implement., temp. effects modelling 29463
supercond. coil normal-zone propag. vel. calcs. *(Korean)* 22768
telecomm. cabinets, thermo-hydraulic simul. 16541
thermal detectors, theoretically limited temp. sensitivity 17793
thermionic CHP convertors, optimal perform. tests 28029
thermionic fuel element temps., nonuniform power dens. effects 27987
thermionic fuel elements, 2D transient anal. 18735
thermoelec. generator perform., irreversible heat engine model 27971
thermophotovoltaic cells, efficiency determ. anal. 28007
thermophotovoltaic cells, expt. charactn. studies 28008
thermostatics/electrostatics analogy, engng. education appls. 36938
thyristors/diodes, transient thermal impedance modelling/verification 13666
TIPACS temp.-initiated pass. cooling syst., perform., appls. 28181
totally enclosed motors, hazardous locations appl. safety 19592
transformer temp. rise anal., harmonic voltage propag./penetration 5020
transformer windings, thermal capability assess. 44101
trench VDMOST struct. with no quasi-saturation, anal. 38897
turbogenerator stator end core zone, EM procs. anal. *(Russian)* 36107
two-phase electronic cooling, mini-channel/micro-channel heat sinks 11758
two-stage endoreversible combined cycle, max. specific power output 36028
vapour compression heat pumps/refrigerators, perf. calcs. 20145
VLSI interconnects/packaging, integrated design auto. syst. 6845
VLSI metallization by coherent magnetron sputtering 38668
waste incinerator power plants, wall temp. scale effects 27538
XFACT, diffusion furnace anal. and charactn. tool 22557
XLPE cable insulation, DSC meas. 14069
Ag-Zn batts., electrode metal carbonate coulometric determ. 44271
AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
Au-Te-Au-GaAs Schottky contact interface states capacitance, thermal effects 29950
Bi-Pb-Sr-Ca-Cu-O supercond. thick films, screen printing 14272

thermal analysis continued
$Bi_2Sr_2CaCu_2O_x$, melt proc., DTA, XRD, texture 30773
C films, plasma deposited, ellipsometric params., sample temp. 34715
Co films/$CoSi_2$ films, opt. props., G-line/I-line lithog. 38748
Cr/Au microstrip lines, HF/high dens. packaging 21511
Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
$Fe_{80-x}M_xB_{20}$, (M=Ni,Co,Mn,Cr,V,Ti), amorph., mag. props. 14110
GaAs MM wave TEDs, CAD, thermal anal. 38791
$Gd_2(Ti_{1-}Ru_x)_2O_{7-\delta}$, mixed cond., SOFC 44376
a-Ge/Ag layered systs., metal-mediated crystn. 38404
HgCdTe IRFPA perform. anal., syst. adaptability 17951
HgCdTe MWIR image sens., thermoelectrically cooled 17944
HgCdTe longwave IR scanning FPAs, CMOS readout IC, surveillance appls. 17947
InGaAs/GaAs strained QW 980 nm pump lasers, thermal behaviour 14843
InP, LEC-growth, thermal anal. 12029
InP MM wave TEDs, CAD, thermal anal. 38791
Li secondary cell C electrodes, electrochem. expts. 11261
$LiNbO_3$ elec. controlled supergaussian mirrors 14482
MnO_2, chem. activated, batt. cathode 11233
MnO_2 primary batt. electrodes, chem./phase comp. 11239
Nd-Fe-Co-B die-upset magnets from dissimilar ribbon blends 6965
NdFeB PM motor torque prod./efficiency, temp. effects 36102
Ni-Cd batts., electrode metal carbonate coulometric determ. 44271
Ni-Cd common vessel monoblock secondary batt., perform. testing 44277
$Ni-H_2$ secondary batts., reversal react. expts. 27904
$Ni(OH)_2$ rechargeable batt. electrode characts. 36521
PLZT thin films, sol-gel proc. 37466
Pb-acid secondary batts., distributed/bulk power design concepts 44284
Pb-acid valve regulated gel batts., standby power appls. 19961
PtSi IR cameras, IR CCD/IR MOS imaging radiometers 17957
$R_2Fe_{14}B$/Fe nanocomposite exchange coupled magnets, struct./mag. props. 7009
$RuO_2-Bi_2O_3(Al_2O_3)$-NiO systs., phase equilibria 38046
SF_6 24 kV ring main switchgear, thermal behaviour modelling 5147
Si RTP temp. uniformity, crit. wafer/syst. param. anal. 22228
Si bipolar transistors, optimized base design for low temp. operation *(Chinese)* 22378
Si chip cooling, dielec. binary mixtures 37109
a-Si recrystn. by RTA/laser annealing/furnace annealing 22098
Si surface oxide removal by RTP, SiH_2Cl_2 and H_2 22223
a-Si thin films, glass substrs., excimer crystallisation simul. 13075
Si wafer temp. var. during RTA, 3D asymmetrical model 22103
Si:As RTA/furnace annealing, heating rate effects on defect distrib. 22100
Si:B doping, proximity rapid thermal diffusion from spin-on-dopants 22144
a-Si/Ag layered systs., metal-mediated crystn., TEM obs. 38403
$Si/Ni_xSi/Ni$ thin-film reacts., calorimetric anal. 1156
Si-based thin film monolithic uncooled IR detector arrays/resist. bolometers 17958
SiO_2-Si, stacked RTO/RTCVD oxide gate dielec., elec. props. 22637
SiO_2-Si wet oxid. by RTP, homog. 22222
$Sm_2Fe_{14-x}Co_xSi_2$-based quasiternary syst., mag./struct. props. 6946
Tb-Dy-Fe, Terfenol-D, mag. props., hydrogenation effects 7015
Ti films/$TiSi_2$ films, opt. props., G-line/I-line lithog. 38748
TiN MOCVD films, IC diffusion barriers/adhesion layers, TEM study 37420
TiN rapid thermal CVD for diffusion barrier appl. 20970
TiN_x, CVD, organometallic precursors, surface spectrosc. study 37495
TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270
W CVD films, opt. props., G-line/I-line lithog. 38748
WO_x thermionic energy converter collector electrode expts. 28027
YBaCuO bolometers at 10.6 μm wavelength, implement. 42814
$YBa_2Cu_3O_7$ microwave coplanar resonators, power-induced switching 37970
$ZnO-Bi_2O_3$, sintering, phase distrib., TGA, SEM, XRD 6354
ZrO_2 electrolyte, SOFC, mech. testing, microstruct. 44390

thermal blooming
aq. solns., temp. lens and grating study 15057
extended thermal lens resonator cavity fund. mode calc. 14995
nuc. pumped lasers, combined wall and vol. pumping, thermal blooming 2110
opt. parametric amps./oscillators, av. power effects, thermally induced lensing depend. 15079
three-level medium, reson. radiation propag., nontrivial induced lenses 31610
transient ultrafast Kerr lens in soln. detected by dual-beam thermal-lens method 23380
water aerosol, transient clearing, opt. beam thermal blooming 40101
$AgGaSe_2$ noncritically phase matched mid-IR generation by opt. parametric oscillator 40060
$BaTiO_3$, photorefr. two wave mixing detect. of weak sig. beams 31570
$Bi_{12}SiO_{20}$ cryst. opt. limiter, effective nonlin. 30832
Na vap., nonlin. laser beam propag., phase sing. 31526

thermal capacity *see specific heat*

thermal cells *see primary cells*

thermal conduction *see heat conduction*

thermal conductivity
see also Lorenz number; thermal diffusivity; thermal insulating materials
1500 W freq. converter, direct bond Cu substr. 37068
alkali metal thermoelec. convertor components, emissivities/thermal charactn. 20028
anisotropic thermoelec. cooler, generalized theory 44422
atmospheric radiometric sens., radiation transport/thermal cond. eqns. 35301
concentric cylinders, heat cond., electronic package appl. 149
CVD diamond, metallization and die attach 38662
diamond, electronic/sens. props., review 6520
diamond crysts./superlattices, isotopically engineered 38502
diamond metal matrix composites, electronic packaging material 28465
diamond thin films, indentation response 20932
diamond/(C-C) composite, semicond. base 12193
DMOS power transistors, Si-direct-bonded, static/dyn. props. 22467
high cond. copper 6344
hydrodynamic formulation of energy bal. eqns., finite-element discretization 30196
lattice defects induced by ion implant., photo-acoustic displacement meas. 6616
MCM, thermally conducting adhesives, thermo-mech. study 28496
metal-to-metal oxide antifuses, reliable for VLSI appls. 22079
molding cpds. for plastic packaging, thermal anal. 5670
particulate-loaded polymer molding cpds. for plastic packaging, thermal cond. 5625

thermal conductivity continued
PCB substr. cond. effects, electronic components, convective cooling 909
plastic ball grid array packages, thermal/elec. perform. enhancements 37150
polypropylene, graphite filled, strain sensitivity 28894
poorly conducting wires, thermal param. determ. techs. 21605
porous Si, thermal cond. 37544
railgun plasma armatures, opt. thick, temp. meas. 15325
SOFC, high temp., metals/alloys appl. 44382
US hyperthermia, theoretical thermal model 43265
VCSEL, Bragg mirrors, thermal cond. anal. 39785
$Al_xGa_{1-x}As$/GaAs:Be mirrors for VCSEL 15010
AlN, 3D interconnected porous composites, proc., electronic packaging 146
AlN particle filled Al, low CTE thermal conductor 12199
AlN, reliable thin film metallization, microelectronics packaging 37118
AlN sintered ceramics for electronic packaging, oxygen-related defect 12191
Au-NiCr metallization, CVD diamond substrs., MCM appls. 12981
Au-Ti metallization, CVD diamond substrs., MCM appls. 12981
B-rich semiconds., high-efficiency high-temp. thermoelec. energy conversion 28012
$Bi_2Sr_2Ca_2Cu_3O_x$ ceramics, current leads, high transport currents 14277
C-C composites, thermally conductive/CTE tailorable, MCM/PCB packaging 37146
$CeFe_4Sb_{12}$, filled skutterudite, low temp. props. 38277
$Cu_x(Dy_2S_3)_{1-x}$, thermoelec. props., elec. resist. 13093
GaAs crysts./superlattices, isotopically engineered 38502
Ge crysts./superlattices, isotopically engineered 38502
Ge:O crysts./superlattices, isotopically engineered 38502
n-$Hg_{1-x}Cd_xSe$, thermoelec. fig. of merit 21919
Li-polymer batts., 3D thermal modeling 5191
Nd:phosphate glass laser, thermal effects on lasing charact. *(Korean)* 14777
Si:P crysts./superlattices, isotopically engineered 38502
Si-based thin film monolithic uncooled IR detector arrays/resist. bolometers 17958
SiC/Al metal matrix composites, SEM-E cores and MCMs 29736
p-SiGe space power thermoelec. materials, nanophase inclusion expts. 26636
SiGe-GaP alloys, thermal cond., elec. cond., Seebeck effect 38246
Ta supercond. strip α detector, current-biased, posit. sensitive 43060
$Y_2O_3-ZrO_2-Al_2O_3$ composite planar SOFC electrolytes 27923

thermal conductivity measurement
advanced composite materials, mil. electronics, environ. testing 5646
calorimeter for US total power meas. 10072
diamond doped film thermal cond. meas. method 10050
hot disk sens., thermal cond./diffusivity/sp. ht. meas. 9895
non-rigid materials, thermal conductivity meas., heat probe 3815
nonsteady state probe for thermal/humidity meas. 42757
param. estim. based thermal diffusivity/cond. determ. 42969
poorly conducting wires, thermal param. determ. techs. 21605
porous Si, thermal cond. 37544
silicone-rubber encapsulants, power transformers, thermal cond. meas. 36233
simultaneous meas. of thermal cond./thermoelec. power 25997
simultaneous thermal cond./diffusivity meas. studies 25993
SiN thin films, thermal cond./diffusivity determ 34726
W-AlN cofired multilayer substrs., low temp. sintering 11744

thermal convection *see convection*

thermal diffusion
fully radiative current path struct. for sub-0.1 μm emitter transistor 12753
light-shift grating, phase-conjug. sig. dyn. 40066
polysilicon thin film doping, atmos. furnace 22138
railguns, thermally/mech. coupled diffusion, Lagrangian formulation 15315
Si:B submicron jns., doping by B layer electron beam evap. 13294
solid armature railgun, current/heat transient diffusion 15310
sub-micron hole machining, femtosecond laser, 800 nm 23484
surface-channel CCD, charge transfer inefficiency *(French)* 30369
two-phase electronic cooling, mini-channel/micro-channel heat sinks 11758
XFACT, diffusion furnace anal. and charactn. tool 22557
AlInAs:Si,F/GaInAs/InP heterostruct., thermal stabil. 29882
$(Bi,Sb)_2(Te,Se)_3$ semicond. thermoelec. power modules, diffusion controlled degrad. model 28013
C doping in metalorganic vap. phase epitaxy 22124
InP p^+n and n^+p structs., electrochem. anal. solar cells appl. 13107
$LiNbO_3$:Yb, thermal diffusion, spectra and energy levels 14835
Pb-Sn flip-chip solder bonds on Cr-Cu-Au metallisation, SnCuAu ternary phase 11816
Si, Er implant., solid phase epitaxial recrystn. 30015
Si bipolar transistors, in-situ/rapid vap.-phase doping 30238
Si shallow-jn. form., RTA doped SOG films 21964
Si:Al,P, diffusion profiles under RTP conditions 21875
Si:B, CZ grown, O/C effects on thermal donor form. 29827
Si:B doping, proximity rapid thermal diffusion from spin-on-dopants 22144
SiGeB-Si heterostruct., B thermal stabil., stress compensation 13130
$(Sr,Ca)TiO_3:Nb^{5+}$ capacitor-varistor chips, cation diffusion 436
$TiSi_2$ n^+-p diode, shallow jn. form., characts. *(Korean)* 30225

thermal diffusivity
data reduction in thermal diffusivity meas., flash method 9840
flash method, meas. noise 42966
hot disk sens., thermal cond./diffusivity/sp. ht. meas. 9895
LD mirror heating, thermal diffusivity 1958
meas., IR images proc. 25995
meas. of refractory solid materials, periodic stationary method 25996
meas. of thin films and foils 25994
mirror temp. meas. of semicond. lasers, photothermal deflection 15012
param. estim. based thermal diffusivity/cond. determ. 42969
photothermal meas., freq./time/hybrid methods 10055
polymer films for IC packaging, anisotropic thermal diffusivity meas. 18137
poorly conducting wires, thermal param. determ. techs. 21605
simultaneous thermal cond./diffusivity meas. studies 25993
SiN thin films, thermal cond./diffusivity determ 34726

thermal effects in magnetism *see magnetocaloric effects*

thermal energy storage
2 kW Solar Dynamic Ground Test Demons. program 26614
bottoming cycle CHP operating strategy, variable steam/elec. ratio *(Korean)* 27527
CHP plant, stochastic heat storage, progressive hedging algm. 19499
CHP plant daily operation scheduling, num. model *(English)* 27548
CHP plant short-term operation, num. modelling *(Korean)* 27520
combustion heated thermionic syst., domestic heating 20039
gas turbine CHP/heat pump facility perform. optim. 36006
Heat Pac PCM thermal storage, telecom. equipt. rooms 44430
HX-SE3h eat storage elec. fan heater *(Japanese)* 5392

thermal energy storage continued

- INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
- inter-orbit spacecraft flight, solar rocket engine 18766
- Mitsubishi Electric ice storage air conditioning syst. 44604
- multi-tank cryogenic storage syst. anal., space appls. 35253
- multizone HVAC syst. optimal control, aggregation/disaggregation method 28180
- nonpolluting automobiles, energy storage, propulsion 5326
- power plants, irreversible heat transfer, exchange equipt. allocation 19555
- regenerative energy storage possibilities *(German)* 11310
- solar air heating, const. temp., simul. 36792
- Solar Dyn. Ground Test Demons., heat receiver fabr./testing 26616
- solar dyn. space power systs., orbit perform. effects 35243
- solar dyn. test demonstrator space power syst., heat receiver 26656
- solar heating forced water cooling syst., PV array/solar collectors 20023
- space solar dyn. power systs., thermal storage studies 26557
- space vehicle, solar-dyn. receivers, atten. thermal storage 35242
- spacecraft solar-heated alkali metal thermoelec. power syst. 26605
- status, develop., competitive business practices 10879
- telephone exchange, equipt. enclosures, thermal control 16969
- vapour compression heat pumps/refrigerators, perf. calcs. 20145
- $NaOH-H_2O-NH_3$ syst., gas turbine/generator syst., thermal storage 27579

thermal expansion

- adhesive-based IC interconnects, materials/reliab. considerations 13432
- bending bilayer, polymer film viscoelasticity effects, packaging 147
- bloom effect on magneto-optic read channel modeling 14233
- borosilicate glass, cristobalite-free low-K dielec. 22632
- BPDA-PDA polyimide thin films, thermomechanical props., curing effects 12208
- BPDA/PDA/6FDAm photosensitive polyimide copolymer, low stress/high sensitivity 12205
- Bragg opt. fibre gratings, temp.-compensating mounts 34097
- controlled collapse chip connection, flip-chip attach on FR-4 IC packaging 130
- core materials for SMT appls., engng. props. 21645
- CVD diamond, metallization and die attach 38662
- diamond metal matrix composites, electronic packaging material 28465
- die attach proc., mfg. stresses in die, electronic packages 6453
- die-attach proc., mfg. stresses in die, package reliab. 29709
- diebond thermal fatigue model, damage integral based anal. 11746
- encapsulated flip chip bonding, chip replacement method, FCA technol. 133
- flip chip interconnect systs., micromechanical and accelerated testing 11822
- flip-chip packages, low thermal expansion encapsulants, props. 132
- furnace black-polyethylene composite, resist./dielec. props. 14073
- heatsink bonding, semicond. packages, silicone adhesive 5675
- high-dens. laser linking of metal interconnect 6661
- HTSC thin films, residual stresses for in-situ deposition 14274
- HV insulation, crack resist. epoxy resin, testing *(Japanese)* 14012
- IBM high perform. carrier technol. for PCB packaging/interconnects 37153
- IC ohmic contacts, interfs. of Peltier thermal waves 1151
- IR opt. fiber, absorpt./scatt. loss meas. method 14402
- laminate-based supercond. magnet materials, thermal contraction 14308
- MCM, ceramic-conductors, stresses 21689
- MCM ceramic substr., high capacitance 21715
- metal/ceramic laminates for electronic packaging, thermomechanical failure 12197
- micro-Fresnel lens LD collimating light sources 7443
- micro-mobile mechanisms, thermal expansion 36494
- molding cpd. materials for IC plastic packaging, fracture props. 5626
- molding cpds. for IC plastic packaging, fracture props. 5671
- molding cpds. for plastic packaging, thermal anal. 5670
- multiple station beamline, undulator X-ray source 18408
- particulate-loaded polymer molding cpds. for plastic packaging, thermal cond. 5625
- planar SOFCs, stacking perform. expts., Denmark 44323
- PolyHIC package, pre-molded, solder joint attachment reliab., failure anal. 143
- polyimide thin-film on ceramic struct., MCM appls., thermomechanical stress anal. 20441
- polyimides, thermomechanical props. and interfacial fracture 12210
- polyimides used in MCM HDI, charactn. 11748
- polyimides/copolyimides for IC interlayer dielec., props. 39037
- PVDF copolymers, ferroelec. behaviour/phys. props. 6904
- PWB, thermal expansion, copper-invar-copper foil 12876
- PWBs, glass fibre reinforced epoxy laminate, interfacial debonding 11819
- rainbow devices, ferroelec. electromechanical actuators, reson. props. 39114
- sapphire resonator for ultra-stable oscillator capability 29574
- scanning thermal imaging microscopy, composite cantilever probes 34724
- SMT chip resistors/capacitors, insulated metal substrs., solder joint reliab. 12931
- SMT rework, conductive/convective hand tools 38161
- SMT solder joints, long-term reliab. 28532
- SMT solder joints, stress anal. model for fatigue prediction 37114
- SOFC thin tape-cast YSZ, thermal expansion coeff. studies 44393
- solder ball form. in PCB wave soldering 38135
- TAB inner lead fatigue anal. in thermal cycle environ. 28474
- TAB inner lead fatigue in thermal cycle environ. 11791
- thin film capacitor, MCM substr. 21690
- TSOP encapsulation reliab. modeling 37135
- TSOP solder joint reliab. enhancement, encapsulation 131
- zirconia alignment sleeve, opt. connectors, charact. and static fatigue reliab. 9473
- AlN particle filled Al, low CTE thermal conductor 12199
- AlN sintered ceramics for electronic packaging, oxygen-related defect 12191
- $BaTiO_3$ ferroelec. epitaxial film, cryst. orient., thermal expansion mismatch 20865
- C fibre reinforced Cu, foil casting 5903
- C-C composites, thermally conductive/CTE tailorable, MCM/PCB packaging 37146
- CsD_2PO_4, thermal expansion meas. 1552
- CsH_2PO_4, thermal expansion meas. 1552
- Cu TAB conductors, lead frame materials, wrought and electrodeposited foils 29701
- Cu, electrodeposited/electroless for PCBs, mech. props. 12940
- Cu gull-wing leads for thin SOP 150
- Cu-matrix Mo particle composite low thermal expansion conductor 12198
- Cu_5Si passiv. layer, growth kinetics and materials props. 38577
- GaAs MBE thin films grown on Si, biaxial compression 20837

thermal expansion continued

- GaAs thin film, GaAs substr., eutectic bonding-induced in-plane strain 38341
- GaAs thin film, Si substr., eutectic bonding-induced in-plane strain 38341
- GaAs-AlGaAs MQW, $LiTaO_3$ substr., eutectic bonding-induced in-plane strain 38341
- GaAs-AlGaAs MQW, Si substr., eutectic bonding-induced in-plane strain 38341
- GaP, interrupted cycle CBE on Si, photon assistance effects 28766
- α-HgI_2, cryst. struct., topol., X-ray anal. 43081
- InGaAsP quantum-well lasers, near-field scanning opt. microscopy imaging 14919
- $InP/In_{0.53}Ga_{0.47}As/InP$, Zn area-selective diffusion for lateral pn photodiodes 29855
- $KTiOPO_4$ nonlin. devices, temp. dispersion 15121
- NaI(Tl) scintillation detectors thermal resist. improvement 34910
- NiTi/Si thin film shape memory alloy syst., stress evol. 37533
- RbD_2PO_4, thermal expansion meas. 1552
- Si wafer noncontact temp. meas., real-time image proc. techs. 2718
- SiC/Al metal matrix composite baseplate, high current power modules 28466
- SiC/Al metal matrix composites, SEM-E cores and MCMs 29736
- Y_2O_3-ZrO_2 thin film electrolyte, SOFC, tensile test 27927
- Y_2O_3-ZrO_2-Al_2O_3 composite planar SOFC electrolytes 27923
- ZnO-Al_2O_3-B_2O_3-SiO_2-PbO glasses, crystallizable, opt., polarizable and MOS props. 12213
- ZnO-B_2O_3-Al_2O_3-SiO_2-P_2O_5 glasses, crystallizable, opt., polarizable and MOS props. 12213
- ZnS/GaAs epitaxial layer syst., vapour phase epitaxy, residual and thermal strain 38307
- ZnS/GaAs heterostruct., H transport VPE, struct. anal. 37393

thermal expansion measurement

- displacement meas. laser interferometer 25971
- reinforcement fibres, strain rates meas. 37569
- SOFC thin tape-cast YSZ, thermal expansion coeff. studies 44393
- through-plane thermal props. meas. of dielec. films 21738

thermal fatigue *see thermal stress cracking*

thermal imaging *see infrared imaging*

thermal insulating materials

see also thermal conductivity

- LDPE/ethylene vinyl acetate copolymer blends, cable insulants 1563
- multi-tank cryogenic storage syst. anal., space appls. 35253
- polymer film ESD in vac., light emission and outgases *(Japanese)* 30538
- residential pass. energy technol., simul./eval. 44600

thermal insulation

- 10 W second generation Stirling engine generator set perform. 28043
- ESD hazard minimization, IC test handlers and automatic trim/form machines 30412
- persistent current switches, stabil. current perform. *(Japanese)* 7257
- power apparatus heat shielding improvement efforts *(Russian)* 4880
- supercond. magnet winding struct., conductor cryostability 7250

thermal noise

- 5 to 100 MHz low power commun., SIT appl. 22481
- asynchronous opt. chip interconnects with direct detect., crosstalk anal. 9440
- autonomous/injection-locked flux-flow oscillators, spectral linewidth 38015
- CATV pictures, composite triple beats impairment reduction 42612
- CMOSFETs, channel thermal noise, 1D charge sheet model 1387
- coherent opt. POLSK receivers, LO intens. noise and unmatched quantum efficiencies 25491
- cryogenic RF SQUID readout, super Schottky diodes for sig. demodulation 21538
- DC current amp., noise anal. simul., PSpice-based *(Japanese)* 6029
- double loop SQUID, nonlin. phenom. anal. 1614
- externally modulated analog opt. links, dyn. range 9537
- FH/CPFSK syst. with partial-band jamming, perform. anal. *(Korean)* 17005
- fiber interferometers, Michelson vs Sagnac design 17914
- fibre optic sens., Mach-Zehnder vs. Sagnac interferometers 17912
- high-temp. supercond. resonator for high-field imaging 39253
- intens. modulation/direct detect. opt. commun. syst., optimum sig. detect. 34076
- IR photodetectors, 2-12 μm, high perform. near RT 17787
- lightwave systs. with opt. preamplifier, perform. eval. 17186
- low-level meas. techs. for noisy environ. 17651
- microwave correl. temp. of isothermal lossy material 3966
- microwave radiometry, rem. sens. and radioastronomy appls. *(Japanese)* 42910
- mid-IR fiber ring SBS devices and appls. 30894
- mobile LEO channel, downlink DS CDMA perform. 25372
- MOSFET device perform., distrib. gate resist. impact 1402
- MOSFET thermal noise, steady-state Nyquist theorem verification *(Korean)* 38864
- Nyquist noise in transit. from mesoscopic, macroscopic transport 22497
- opt. CDMA commun. syst. M-ary signalling 34058
- preamplified opt. direct detect. systs., receiver noise effects 17178
- PRF radar, analogue noise control syst. 42513
- reliab./quality diagnostic tool for electronic devices 1315
- road vehicle-vehicle commun., 60 GHz by TDMA/CDMA 9333
- Sagnac/Mach-Zehnder fiber-optic interferometer thermal procs. comparisons 42835
- SQUID, voltage swing, additional pos. feedback params. 7236
- SQUIDs, noise props., inductance depend. 14302
- supercond. RF parametric transducer for gravit. wave antennae 25812
- sync. opt. chip interconnects, perform. anal. 39604
- terrestrial digital radio links, reduced state seq. estim. 9190
- travelling wave semicond. laser amp. detector noise charact. 31346
- TV images, sig.-to-thermal noise ratio, automatic assess. 42611
- PbI_2 X-ray detectors, electronic noise 18320
- SiC JFETs, LF noise anal. 38279
- Y-Ba-Cu-O thin films near transit. temp., thermal flucts. 1593
- $YBa_2Cu_3O_{7-\delta}$ grain boundary jn. SQUID, modulation voltage/thermal noise 39271

thermal power stations

see also combined cycle power stations; diesel-electric power stations; gas turbine power stations; geothermal power stations; hydrothermal power systems; steam power stations

- 10 kW hermetic Stirling engine CHP alternator, operating experiences 27539
- 10 MW fluidised bed coal combustion plant, exit gas, model 19498

thermal power stations continued
- 75 MW oil shale FBC power plant project, Israel 4831
- 340 MW CHP plant condition monitoring project, Netherlands 4832
- 908 MW thermal power plant control/monitoring integrat., Australia 19508
- 920 MW Hwange thermal power plant, fly ash Al extraction 35992
- adaptive predictive control 27526
- Austrian power station component hardening for efficiency *(German)* 4825
- Austrian power syst., heat pump technol. success *(German)* 4826
- automatic optimal fuel mgt. syst. *(Chinese)* 19497
- building cogen. systs., design methodology 4827
- carbide-acetylene combustion technol. economics 27530
- CHP generation, oil-free screw compressor appls. 35962
- CHP generation, oil-injected screw compressor appls. 35963
- CHP plant intell. control/monitoring, μP-based 35993
- CHP plant leak sealing safety experiences, Germany *(German)* 4821
- CHP plant short-term operation, num. modelling *(Korean)* 27520
- CHP power syst. long-term operations planning 27100
- CO_2 emissions, energy indust. environ. impact 35986
- CO_2 power plant emissions, UK energy policy 4829
- cogen. develop./modernisation, former USSR, natural gas-based 19487
- cogen. district heating develop. overview, Russia 27533
- cogen. planning optim., time-of-use rates-based 10846
- cogen. power stations, cost sharing calc. methods 27534
- cogen. projects, economic attractiveness study 43895
- cogen. with wheeling, model anal. *(Japanese)* 10850
- combined cycle CHP plant step swirl combustor perform. optim. 36025
- combined cycle power plant, coal usage, combustor 27602
- combustion proc. investigs. 35969
- computer simul., CAMEL package-based 27521
- continuous emissions monitoring, software-based 27537
- control syst. design, ES-based interpolation methods 19494
- controls upgrade projects, USA 43651
- corona discharge-electron beam combustion FGD 19495
- dispersed generation, optimal planning, economics *(Japanese)* 27087
- Dresden energy model and Nossener Brucke CHP station *(German)* 19502
- drum-type boiler of power plant, automatic control *(Japanese)* 4840
- dyn. dispatch, neural network appl., multiproc. 4571
- elec. utility DSM, air pollution impact 19492
- elec. utility energy conservation programmes, EPA protocols, USA 26923
- elec. utility operation/maintainance, business strategies adoption 10637
- emissions control, cost-effective techs. 43887
- environ. concerns, India 43897
- environ. constrained economic dispatch method 4837
- environ. damage, economics 4836
- exhaust stacks, noise suppression systs. 4828
- FGD, ammonia-based technols. develop. 27529
- FGD ESP, corros. wear testing *(German)* 4822
- FGD scrubber myths/realities 43892
- flexible operation design options 43899
- fluidized bed coal combustion, N_2O emissions *(Chinese)* 4838
- fossil fuel NO_x emissions, form./control studies 35975
- fossil fuel power plant compact simulators 35982
- fossil fuel power plant NO_x controls, burner testing overview 19503
- fuel gas reciprocating compressors, power generation appls. 35964
- gas turbine power plant operations scheduling 43922
- gas turbine/combined cycle units, reliab./availability guarantees 19523
- generating unit diagnostic monitoring 35991
- generation capacity improvement proposals, Russia 27532
- generation scheduling, SHAPES ES-based 43890
- global issue in power indust. develop. 27535
- heat pump power plants, thermophysical proc. modelling 19490
- hydro HVDC/thermal HVAC power options comparison, Africa 35602
- hydrothermal power syst. energy mgt., long/medium/short term *(Chinese)* 27037
- indust. elec. consumers, competition-led CHP markets 43640
- internal combustion engine power generation, O_2 enrichment simuls. 35970
- Kalina cycle thermal power stations develop., NZ 35979
- load control syst., adaptive neural model *(Chinese)* 35983
- maint. scheduling, Hopfield neural net appls. *(Japanese)* 43893
- MS90 digital control syst. *(Japanese)* 4839
- narrow pulsed corona discharge, FGD appl. 19496
- natural gas-fired, future prospects 35965
- OCDOPUS zero emissions plant, exergonomics 4753
- optimal generation mix, CO_2 emissions constrained 4599
- optimisation, init. inform. uncertainty 19491
- PFBC boiler operation, Aachen Heating Power Plant *(German)* 43896
- PFBC repowering demons., RAM model 43888
- PFBC thermal power plant fibre optic temp. sens. 35977
- pollutant emissions, well stirred reactor expts. 35971
- pollution meas. and control, portable analyser *(Czech)* 26768
- power generation commitment, genetic algorithms anal. 35523
- Power Plant Analyser, MATLAB Toolbox package 35978
- power syst. emissions-constrained optimal power flow calcs. 10610
- power syst. expansion planning optim., CO_2 emissions constrained *(Japanese)* 43719
- power syst. short-term operation planning calcs. 27106
- power syst. unit commitment methodology, computer-based *(Korean)* 27077
- power syst. weekly thermal unit commitment scheduling method 27105
- pulsed power technol., power plant pollution control appls. 35967
- siting, gray layer anal. *(Chinese)* 43885
- solar thermal power plant, thermal fatigue failure study, Australia 36062
- start-up/shut-down proc. automation 4823
- steam turbine robust controller design 35968
- steam turbines, specs., improvement 36001
- steam/organic Rankine SMR cycle elec. generation 35980
- thermoelectrical power plant operation, CAI 35966
- third order composite generation prod. cost fn. 10847
- transformer tap changer, voltage/reactive power control 27783
- unit commitment *(Japanese)* 26938
- unit commitment, Lagrangian relax.-based 27108
- unit commitment, spinning reserve effects 19107
- unit commitment with fuel storage constraints 19108
- unit commitment/economic dispatch, equiv. incremental cost 19106
- village power supply, coal-fired Stirling engine-based 27540
- waste incinerator power plants, wall temp. scale effects 27538
- weekly thermal unit commitment scheduling *(Japanese)* 27522
- zero discharge wastewater treatment, power plant design 27536
- CO, SO_2, NO_x, N_2O emissions, CAFBC burning Greek lignite 43891
- CO_2 emissions disposal, deep ocean injection expts. 10848

thermal power stations continued
- CO_2 power generation emissions reduction anal., Japan *(Japanese)* 10797
- NO emission reduction, thermal power plants, economics 35989
- NO_x emissions reduction, solid fuel combustion 35988
- SO_2 emissions reduction, fossil fuel combustion 35987

thermal printers
- colour facsimile, thermal rheography recording, direct ink heating 16636
- line type thermal printing head, convex struct. 29704
- physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230

thermal properties
- *see also magnetocaloric effects; specific heat; thermal conductivity; thermal diffusivity; thermal expansion; thermal stability; thermal variables measurement*
- two-pole arc model for elec. fuses *(German)* 29649
- B, borides and related compounds, conf., Tsukuba, Japan (1993) 11553
- SiC/SiO_2 micropatterning by UV irrad., heat treatment of poly(phenylsilyne) film 38533

thermal quenching *see quenching (thermal)*

thermal radiation *see heat radiation*

thermal resistance
- ATM switching MCMs, heat-pipe cooling technol. 25183
- C4/surface-mount-array interconnect technols., thermal mgt. 28472
- concentric cylinders, heat cond., electronic package appl. 149
- ECR CVD, electrostatic chuck, improved temp. uniformity 28847
- exposed silicon plastic package, thermal enhancement 5658
- extruded heat sinks, natural-convection cooling, convective thermal resist. 37104
- finned LSI packages, thermal resist., num. simul. 37106
- heat pipe heat sink thermal resist., fn. of length 37145
- HF transformers/inductors, naturally cooled, design, noniterative method 12851
- high-power devices, flexible-heat-pipe cooling 11781
- high-power flip-chip multi-chip modules, backside cooling soln. 11789
- LSI packages with long. fins in free air stream, heat transfer 37096
- MCM, 3-D, liq. cooling, miniature heat sink 29733
- mica-alumina insulation, dielec. props., EM pump appl. *(Japanese)* 39067
- MOS-controlled devices thermo characts. 22322
- nonstationary thermistor problem, soln. regularity 38044
- parallel plate stack, free stream cooling 11754
- PCB substr. cond. effects, electronic components, convective cooling 909
- planar spreaders with finned heat sinks, optimal sizing 37105
- plastic IC package, thermo-structural behavior, encapsulant delamination 28483
- plastic SM IC packages, moisture/reflow induced delaminations, IC thermal perform. 11797
- plastic tape covered winding wire, transformers, characts. *(Japanese)* 12853
- polyimide/borosiloxane insulated ceramic wires *(Japanese)* 12855
- power IC packages, transient thermal impedance tester 137
- PQFP surface mount plastic packages, heat sinks for thermal enhancement 20463
- PWBs, current carrying capacity of Cu conductors 906
- QFP PowerQuad2, 28×28 mm, thermal perform. 11788
- railguns, composite electrodes, crit. current dens. 15364
- semicond. devices, marginal thermal improvements 30000
- semicond. devices, thermal transients, dyn. models 30201
- SOI MOSFETs, thin-film, self-heating effects, modeling 22425
- solid state relay design model, thermal effects 38063
- tape carrier package, thermal charactn. 28471
- tape carrier package, thermal charactn., PCB enhancements 11798
- through-substr. cooling of high power IC packages for avionics 37091
- two-phase electronic cooling, mini-channel/micro-channel heat sinks 11758
- two-phase electronic cooling using mini-channel/micro-channel heat sinks, design 37089
- unshrouded pin fin heat sinks, pin fin dens. effect on thermal perform. 11760
- UV curable urethane encapsulant for ceramic chip carriers 5628
- VCSEL diodes, Au-plated heat spreading layer 23268
- AlGaAs/GaAs HBT, thermal effects/instabilities 6731
- AlGaAs-GaAs HBT, large sig. equiv. cct. model, MMIC oscill. 38828
- AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
- Er-Ba-Cu-O, high-T_c, thin film/substr. thermal boundary resist. 14275
- GaAlAs/GaAs HBTs, power amp. appls. 13655
- GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805
- GaAs power devices, heat transfer, flip chip technol. 30378
- NaI(Tl) scintillation detectors thermal resist. improvement 34910
- SiC thin film thermistors, gas cooking hob appls. *(Japanese)* 42968
- Sn-Sb solder, adhesion, evaporated multilayer *(Japanese)* 5616
- YBaCuO antenna microbolometers on sapphire, stabil. and noise 17751
- Y_2O_3-ZrO_2-Al_2O_3 composite planar SOFC electrolytes 27923

thermal resistance measurement
- advanced composite materials, mil. electronics, environ. testing 5646
- HF transformers/inductors, naturally cooled, design, noniterative method 12851
- package/module interconnect test syst., transient thermal sigs. 28440
- power Darlington transistors, thermal resist. meas. *(Polish)* 30232
- power IC packages, transient thermal impedance tester 137

thermal resistivity *see thermal conductivity*

thermal shock
- flip COB process charactn., no-clean flux, ionic residue 38108
- General Electric HDI modules, MCM-D, reliab. 12980
- leaded chip solder joints in handy phone, fatigue life 5710
- LWRs, PTS event, WPS effect verification 35865
- MCM, ceramic-conductors, stresses 21689
- miniaturized MLC capacitors, thermal shock resist. 12844
- MLC capacitors, miniaturized, normal service conditions, failure mechanisms 875
- MLC capacitors, nondestructive defect detect. tech. 6371
- organic protective coatings for SMT/PCB finish 12910
- plastic IC package params., effect on temp. cycling failures 5674
- AlN, reliable thin film metallization, microelectronics packaging 37118
- $BaTiO_3$-based PTC thermistors, delamination fracture 28869
- CO_2 jet spray cleaning of mol. contaminants 30111
- GaAs-Al_2O_3 flip chip modules, AuPd wire bump thermomechanical integrity 11824
- Si substrs., Cyclotene 3022 coating adhesion, silane coupling agents 11818
- Y_2O_3-ZrO_2-Al_2O_3 composite planar SOFC electrolytes 27923
- Yb_2O_3-Al_2O_3 thermal-opt. energy converter, characts. meas. 36619

thermal shock failure *see thermal stress cracking*

thermal spikes *see crystal defects; radiation effects*

thermal stability
- 900 MHz GSM integrated power amp. control cct. 33936
- buried metallic layers in Si, wafer fusion bonding 13270
- chromophore-incorp. polymers for nonlin. optics, two-photon absorpt. and photodegradation 15138
- CMOS Permalloy magnetoresistive microbridge mag. field sens. syst. 34494
- CVD diamond, metallization and die attach 38662
- diamond/(C-C) composite, semicond. base 12193
- GTO devices, failure mechanism, optim. for min. current crowding during turn-off 22391
- IBM MCM-D, polyimide dielec. material appls. 37542
- Iridium satellite phased array antenna design 23953
- LED based opt. sens., referencing, wavelength selection strategies 1816
- low stress polymer die attach adhesive for plastic packages 11801
- maglev supercond. magnets, power dissipation, vibr.-induced disturbances 1636
- magnetoresist. charact., metallic multilayers *(Japanese)* 30694
- n-channel IGBT integrated current sens. 34473
- oligophenylene thin films, vac.-deposited, elec. props. 13923
- plastic encapsulated multichip technol. for high vol. prod. 21721
- poly-Si/Ta_2O_5/TiN capacitors for DRAM appls., thermal stabil. 21316
- polyesterimide magnet wire, thermal degradation mechanism 14047
- polyimide nanofoams, high temp., for interlayer dielec. appls. 12207
- polyimide-metal interfaces, curing chem. and hydrolytic stabil. 12211
- polymeric insulators, thermal anal. techs. 6918
- silicide thin film form. by RTP, ULSI appls., overview 22275
- sol-gel nonlin. opt. polymers, improved poling, thermal stabil. 2108
- solid dielectrics, high field conductivity implications 13968
- starburst mols., thermally stable multilayered organic EL devices 7471
- submicron contacts using selective CVD-W plug, jn. stabil. *(Korean)* 13418
- thick/thin film resistors, built-in reliab., ageing kinetics 5706
- wettability of immersion coated PWBs, temp. and humidity effects 29681
- Al-polysilicon-SiO_2-Si struct., HF plasma proc. effects 13239
- AlGaAs-GaAs power HBTs, thermal stabil. tech. *(Japanese)* 38003
- AlN, thermodyn. and cryst. growth, high N_2 press. 37381
- Au/Zn/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
- BPSG dielec. film fusion, steam reflow and RTA/furnace annealing 20997
- $CoSi_2$ thin film proc., thickness scalability and thermal stabil. 22274
- Cr-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
- Cu IC interconnections, materials issues 30137
- Cu thin film CVD from Cu(II) metalorganic precursors, growth/microstruct. 38678
- Cu/Co/Cu/NiFe multilayers, magnetoresist., thermal stabil. 7053
- Cu/TiN/$TiSi_2$/n^+-Si contact syst., RTN and characts. 38700
- Cu-SiO_2 IC metallisation, refractory metal encapsulation/barrier layer 38650
- Cu-Ti(Cr) self-encapsulated metallization, TiN(CrN) diffusion barriers 38651
- Cu-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
- Cu_3Ge thin films on Si(SiO_2), stabil. 1301
- Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
- GaAs epilayers, MBE, annealing thermal stabil., As precip. 308
- GaAs, n- and p-type, effect of ion energy on H diffusion 29861
- GaAs, n-type, NiGe- and InAs-based ohmic contact metallizations 38655
- GaAs:Si, at. layer doped, thermal stabil. 22110
- GaAs-WN Schottky contacts, plasma deposited, thermal stabil. 22033
- GaN, thermodyn. and cryst. growth, high N_2 press. 37381
- n-InGaAs layer, thermal stabil. of ohmic contact 29953
- InGaAs:Se, specular surface thermal stabil. in LP-MOVPE 22127
- InGaAs/InAlAs/InP, heterostruct., thermal stability 13157
- InGaAs/InGaAsP MQWs, strained, thermal stability 13140
- InN, thermodyn. and cryst. growth, high N_2 press. 37381
- n-InP/Ta_2O_5/Ta MIS diodes, elec. props. 13595
- InSb 2D IRFPAs, uniformity and stabil. 17936
- $Nd_2Fe_{14}BH_x$ powders, synthesis and mag. props. 39128
- Ni/Zn/Ni/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
- Ni-Fe-Co/Cu/Co-Pt trilayers, magnetoresist. effects 39173
- Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
- Pd/Mn/Sb/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
- Pd/Zn/Pd/Au(Pd/Au), ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
- Pd-Zn-Pd-Au ohmic contacts to p-InGaAs-InP, optim. 38387
- Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
- Si:B, δ-doping, ultra-shallow/abrupt profiles 38499
- Si/$Si_{1-x}Ge_x$ strained heterostruct., thermal stabil. 37406
- Si/SiGe/Si DHBTs, thermal runaway tolerance 38834
- Sn immersion coatings, PWB surface finishes 12934
- Ta_2O_5 thin film capacitors for 1 Gbit DRAM 21593
- Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
- Ti-Pt-Au-InN nonalloyed ohmic contacts, thermal stabil./contact resist. 38393
- TiH_2 diffusion barrier stabil., SiO_2 substrs. 38649
- TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270
- $TiSi_2$ SALICIDE, dual gate CMOS struct. 38682
- $TiSi_2$ buried layers in Si by direct wafer bonding 30154
- WN_x thin films on GaAs, reactively sputtered, stabil. 38659
- WSi_2 buried layers in Si by direct wafer bonding 30154
- YBaCuO antenna microbolometers on sapphire, stabil. and noise 17751
- Zn/Pd/Au, ohmic contact to p-InGaAs/InP, elec. charact., thermal stabil. 38411
- Zr-Si syst., in-situ TEM obs. of interfacial reacts. 38663

thermal stress cracking
- area array solder joints, comp. effects on fatigue crack growth rates 37113
- automotive engine controllers, potted, PQFP solder joint reliab. 28155
- ball grid array package, popcorn cracking 11812
- continuum damage mech. model, cyclic creep fracture anal. of solder joints 28489
- diebond thermal fatigue model, damage integral based anal. 11746
- EPR-insulated cables, thermal life testing/charactn. 14011

thermal stress cracking continued
- flip chip packages, damage and life prediction of solder joints under thermal cycling 11747
- flip-chip interconnection, solder joint reliab. 29702
- header plate with 51-pin elec. feed-thru, electronic package thermal stress anals. 28486
- high-dens. laser linking of metal interconnect 6661
- IC thin film cracking detect., test chip design 11861
- lead-on-chip package, temp. cycle-induced chip surface damage 20435
- leaded chip solder joints in handy phone, fatigue life 5710
- low-temp. solder alloys in insertion mount assembly, thermal fatigue 37111
- MCMs, flip chip solder bumps, thermomechanical charactn. 29717
- metal/ceramic laminates for electronic packaging, thermomechanical failure 12197
- middle gull-wing joint, thermal fatigue life, FEM 28502
- MLC capacitors, miniaturized, normal service conditions, failure mechanisms 875
- MLC capacitors, nondestructive defect detect. tech. 6371
- multilayer thin film package, 3D fracture mech. anal. 28490
- no-clean/water-clean PCB solder joints, plastic quad flat, failure anal. 947
- plastic IC package params., effect on temp. cycling failures 5674
- plastic moulded LSI package, interface edge/interface crack tip, thermal stresses 28488
- PLCC temp. cycling failures, die coatings, mold cpds., and test conditions effects 28469
- PLR pump shaft-casing cover annulus gap, temp. flucts. 35869
- RF window, thermal stress fracture 29791
- semicond. packages, bonding, silicone adhesive 28473
- SMDs, solder life predict. under thermal cycling and vibr. 37115
- SMT rework, conductive/convective hand tools 38161
- SMT solder joints, fatigue life, mech. fatigue test 28501
- solar thermal power plant, thermal fatigue failure study, Australia 36062
- solder joint failure, thermal cycling fatigue, crit. accumulated strain energy 120
- solder joint reliab. prediction, computer-aided syst. develop. 37206
- solder joints of 256-pin plastic QFP, failure anal. 37129
- surface mount connector design, respect, solder creep 28503
- TAB inner lead gang bonding on Ni-Au bumps 12960
- thick film hybrid ccts., high reliab., for automotive appls. 29697
- TSOP solder joint crack initiation and propag. 37110
- VLSI plastic packages, reflow soldering perform. improvement 6840
- Al IC interconnection failure, stress migration-induced voiding 38666
- $BaTiO_3$ high dielec. ceramic thin films proc., stress develop., IC packaging 21590
- $BaTiO_3$-based PTC thermistors, delamination fracture 28869
- Cu, electrodeposited/electroless for PCBs, mech. props. 12940
- Cu-Sn multilayer composite solder, fluxless proc. 11737
- Mo-Cu layered foil conductors, power hybrids, ceramic substrs. 21663
- Pb and Pb-free solder joints, thermomech. and fatigue behavior 37557
- Sn-Cu(Pb) solder joints, thermal cyclic shear stress/strain hysteresis 11742
- Sn-Pb solder, J-integral (theoretical) values, fracture props. 37531
- Sn-Pb-Ag solder joints, reliab. anal. and thermal fatigue disloc. substructure *(Chinese)* 11844
- Sn-Pb-Ag solder joints, thermal fatigue/isothermal mech. fatigue damage 37112
- Sn-Sb solder, adhesion, evaporated multilayer *(Japanese)* 5616
- Ta sputtered film, compressive stress rel., thermal cycling 22266
- WSi_x CVD as-deposited/oxidized films, DCS-based, comp./struct. 38664
- ZrO_2 failure criteria, SOFC, math. model 44388

thermal stresses
- *see also thermal stress cracking*
- bending bilayer, polymer film viscoelasticity effects, packaging 147
- bimaterial beams, elastic plastic anal., packaging appls. 28482
- bipolar transistor microcircuits, hot-carrier and radiation induced increases in base current 13874
- Bragg opt. fibre gratings, temp.-compensating mounts 34097
- burn-in effects on radiation hardness of transistors and ICs 11725
- ceramic ball grid array, sphere metallurgies reliab. comparison 20500
- COB encapsulation technol., stress anal., reliab., FEM 37077
- deform. meas. of PCB by holography 6404
- diamond:B film/metal high temp. contacts, reliab. issues 22045
- electronic packages, thermal strain, size effects 28492
- encapsulated flip chip bonding, chip replacement method, FCA technol. 133
- flip chip interconnect systs., micromechanical and accelerated testing 11822
- flip chip packages, damage and life prediction of solder joints under thermal cycling 11747
- flip chip struct., encapsulation 28453
- General Electric HDI modules, MCM-D, reliab. 12980
- GTO thyristor snubberless turn-off, avalanche proc., gate drive influence 30266
- high-dens. laser linking of metal interconnect 6661
- HTSC thin films, residual stresses for in-situ deposition 14274
- III-V HBTs, reliab. issues 22386
- laminated elements, thermal stress, component size effect 29705
- laser mirror distortion test facility 40000
- MCM flex lead bending during thermal cycling, finite element stress model 12944
- MCM-D metal/polymer interface durability, chem./water uptake 11817
- micro-opt. components, laser forming, phys. fund. 7376
- microscopic displacement pattern, holographic, 3D graphic image representation using cubic spline fn. 15152
- MMICs and ICs, interconnect lines, metal-dielec. adhesion 13426
- Moiré interferometry anal. of laser weld induced thermal strain 2161
- molding cpds. for IC plastic packaging, fracture props. 5671
- MRTD GO-NO GO tester develop. and appls. 34594
- multidielectric coatings, thermal stress, holographic interferometry 40140
- Navstar on-orbit clocks, space vehicle temp. effect 42678
- normal incidence MQW light modulator, contrast ratio 7386
- OMPAC package-to-board attach reliab. 28534
- opt. glass fiber soldered into ferrule, thermally induced stresses 39366
- PCB deformation anal. holographic pattern meas. 21619
- polyethermide films, multistress aging statical anal. 14049
- polyimide film, fracture, hygrothermal effects 28882
- polyimide thin-film on ceramic struct., MCM appls., thermomechanical stress anal. 20441
- populated computer PCBs, IR meas. and anal. predictions 38097
- power CT, thermal short-cct. strength determ. 19690
- PWBs, glass fibre reinforced epoxy laminate, interfacial debonding 11819
- quartz cryst. mount design optim. via holographic interferometry 39073

thermal stresses continued
radar T/R module burn-in method 35390
RF window, thermal stress fracture 29791
RTP modeling and simul. incl. thermal stress anal. 22551
SAW delay line packaging, manufacture and perform. anal. 39117
SAW device, thermal freq. behavior obs. and improvement 30641
shadow mask thermal deform. FEA *(Korean)* 25662
shape-birefr. fibre sens. systs. employing photogenerated polaris. couplers 42827
single chip ceramic package stress states, reliab. terms 11755
SMT solder joints, stress anal. model for fatigue prediction 37114
SOFC thin tape-cast YSZ, thermal expansion coeff. studies 44393
solder joint rework, effect on PTHs in multilayer PWBs 38116
soldered/bonded joints with defects, thermal stress anal. 28457
steam turbines, generators, on-line monitoring 36005
stress-voiding/electromigration in multilevel interconnect metallizations 38986
surface mount joint, thermal stress under uniform temp. change 28481
thick film multilayer material systs. for thermal cycle appls. 21660
tightly jacketed double-coated opt. fibers at low temp., thermal stresses 14377
transverse surface wave propag. on piezoelec. substr., modelling 30608
turbogenerator insulation design, mech. stress considerations 44003
urban transit syst., LIM design 36754
UV curable urethane encapsulant for ceramic chip carriers 5669
VLSI TAB packaging, elasto-plastic behavior of epoxy rel.to thermal stresses 28484
wafer burn-in strategies for MCM die, BIST for KGD 21703
Al LSI interconnects, elastoplastic creep anal., thermal stress/strain 13417
Al thin-film interconnects, thermal stresses, cryst. plasticity simul. 22264
Al-Si-V-Pd microstruct., IC interconnect reliab., Al-Si-Cu comparison 38652
AlGaAs-GaAs microwave/MM-wave power HBTs, regrown extrinsic base layers 21536
AlN ceramics for high power RF package 20457
$BaTiO_3$-based PTC thermistors, delamination fracture 28869
$Bi_2Ru_2O_7$ thick resistive films, temp.-induced phys. failure mechanisms 949
Cu TAB conductors, lead frame materials, wrought and electrodeposited foils 29701
Cu, electrodeposited/electroless for PCBs, mech. props. 12940
Cu_5Si passiv. layer, growth kinetics and materials props. 38577
GaAs-Al_2O_3 flip chip modules, AuPd wire bump thermomechanical integrity 11824
InGaP-InGaAs-InAlAs, HEMT struct. with strained Schottky layer 13815
InP, LEC growth, thermal stresses, disloc. form. 12030
Si VLSI ESD sensitivity, thermal/dielec. breakdown 30462
Si floating zone 4-in. cryst., RF field/heat transfer/thermal stress num. anal. 28711
Si:P gate form. of MOSFETs, mech. stress simul. 38894
Y_2O_3-ZrO_2 thin film electrolyte, SOFC, tensile test 27927
ZnS/GaAs epitaxial layer syst., vapour phase epitaxy, residual and thermal strain 38307

thermal variables control
see also temperature control
fluidised bed combustion procs., modelling/simul./control 4833
I/V converter, thermally regulated, using Peltier heat pumps 18023
metall. indust., thermal proc., optimal control software 44628
nonequilibrium MHD generator/line commutated inverter, power control *(Japanese)* 36613
pipelines, skin effect/impedance heat tracing, appl./control 5387
solar Stirling engine, operation control 44427
Space Station Alpha PV module thermal control syst. 35252
Space Station Freedom Maint. Workstation, thermal control syst. 18691
telephone exchange, equipt. enclosures, thermal control 16969
TOPEX/Poseidon solar array on-orbit performance 26599

thermal variables measurement
see also bolometers; calorimeters; calorimetry; heat measurement; temperature measurement; thermal conductivity measurement; thermal resistance measurement; thermocouples; thermometers
closed piston-cylinder Stirling engine, heat transfer meas. 28042
data reduction in thermal diffusivity meas., flash method 9840
diffusivities meas., IR images proc. 25995
diffusivity ident. and meas. noise 42966
diffusivity meas. of refractory solid materials 25996
diffusivity of thin films and foils 25994
displacement meas. laser interferometer 25971
elec. device heat testing automation, PC-based *(Russian)* 5584
enzyme-labelled antigen-antibody complexes detect. 9946
fibre optic probe for thermal meas. in turbomachinery 17850
FLIR imaging systs. charactn. requirements/algms. 34592
gas flow, thermal radiation flux meas., Cuernavaca instrum. 34725
hot disk sens., thermal cond./diffusivity/sp. ht. meas. 9895
IC ohmic contacts, interfs. of Peltier thermal waves 1151
IR sens. testing, automated MRT 34508
mirror temp. meas. of semicond. lasers, photothermal deflection 15012
multifunctional thin-film transducer of phys. quantities 9867
nonsteady-state probe meas. of solid/bulk materials 42757
param. estim. based thermal diffusivity/cond. determ. 42969
photothermal meas., freq./time/hybrid methods 10055
polymer films for IC packaging, anisotropic thermal diffusivity meas. 18137
simultaneous meas. of thermal cond./thermoelec. power 25997
thin-film microsensor, Ni/NiCr thermopile 9883
through-plane thermal props. meas. of dielec. films 21738
turbogenerator thermal monitoring, fiber optic sens. network 17849
SiN thin films, thermal cond./diffusivity determ 34726

thermal wave imaging *see photothermal effects*

thermally stimulated capacitor discharge *see thermally stimulated currents*

thermally stimulated currents
amorph. semiconds., TSC 29868
bipolar IC gain degrad. at low radiation dose rates, phys. mechanisms, models 13871
border traps, MOS radiation response/long-term reliab. 20494
electro-optical polymers, poling 13930
EPR dielec. relax., clay effect, TSDC meas. 14057
LDPE, AC aged, liq. electrodes, dielec. polarisation/relax. 13940
machine stator winding varnish ageing, TSC anal. *(French)* 10937
PEEK films, DC cond., ionic behavior 30588
poly(p-phenylene) polymer, TSDC spectra 14037
poly(p-phenylene sulfide), thermally stimulated currents 13931

thermally stimulated currents continued
polyesterimide magnet wire, thermal degradation mechanism 14047
polyethylene/ionomer blends, space charge, TSC meas., dielec. strength 30547
polymers for second-order nonlin. optics, elec.-field induced orient. and relax. 2095
silicon rubber, room temperature vulcanised, TSDC obs. 14042
silicone insulators, naturally aged, wettability, TSC spectra 35666
solid dielec., quantized thermal depolarization, relax. model 30533
Teflon-Af films, spin-coated, electret props. 13932
water-treed additive-free LDPE, TSDC spectra, power cable insulation 14021
XLPE cable insulation, TSDC meas. 14064
XLPE thermally aged cable models, relax. processes 14066
Al/SiO_2/3C-SiC:Na(K) MOS capacitors, ionic contamination 13254
Al-polysilicon-SiO_2-Si struct., HF plasma proc. effects 13239
$BaTiO_3$ multilayer capacitors, defective, TSC meas. 22677
CdTe detectors, afterglow effects 4211
CdTe:V,Z,Cl, Bridgman/traveling heater grown, detector appl. 43101
GaAs, SI, EL2 metastability, temp. depend. 6533
GaAs/$Al_{0.4}Ga_{0.6}As$ QW npn phototransistor fab. 31084
a-Ge:H,S, optoelectronic props, effects of S incorporation 39556
HgI_2:Ag crysts., defects, rel. to X-ray/γ-ray detector perform. 43075
$LiTaO_3$ single cryst., thermally stimulated charge and light emission 13990
Si detectors, heavily irrad., TSC data-anal. 26165
Si diodes, heavily doped, anal. of non-exponential TSCs 38808
Si-$NiSi_2$ microcrystalline composite thin films, struct./elec. transport 38402
SiO_xN_y oxynitrides, N_2O grown, radiation effects 13386
(SrPb)(CaMg)TiO_3-$Bi_2O_3 \cdot 3TiO_2$ ceramic charged particles, elec. props. *(Korean)* 22665
Ta_2O_5 films, DRAMs, leakage currents and defect states 39038

thermally stimulated depolarisation *see thermally stimulated currents*

thermally stimulated desorption
via holes, corrosive outgasses, TDS 38690
Al_2O_3, at. layer controlled deposition, binary react. seq. chem. 20712
Ge (001) GSMBE, growth kinetics/surface roughening 20864
Si, SR-excited ALE, temp. effects 20710
Si surface oxide removal by RTP, SiH_2Cl_2 and H_2 22223
Si_3N_4:H films, rem. ECR CVD 37472
SiO_2, at. layer controlled deposition, binary react. seq. chem. 20712
ZnSe photoassisted MBE growth on GaAs substrs. *(Japanese)* 37412

thermally stimulated discharge *see thermally stimulated currents*

thermally stimulated exoelectron emission *see exoelectron emission*

thermally stimulated ionic currents *see thermally stimulated currents*

thermally stimulated polarisation *see thermally stimulated currents*

thermally stimulated relaxation currents *see thermally stimulated currents*

thermionic cathodes
high brightness cathodes, appls. 21793
impregnated cathode, degrad. mechanism *(Japanese)* 12984
long pulse electron beams from cathode 21795
TWTs, space-use, reliab. *(Japanese)* 13007
work fn. meas., thermionic projection microscope 9818
Mo-La_2O_3 thermionic electron-emission material, mech. and emission props. 38203

thermionic conversion
1D universal TOR model 28032
5-40 kW S-PRIME space nuclear thermionic power system 18734
5/220 V thermionic generator power convertor design 28031
CHP convertors, optimal perform. tests 28029
closed spaced thermionic converter, isothermic electrodes 27989
combustion heated thermionic syst., domestic heating 20039
cylindrical thermionic fuel elements modelling, MCTFE code 27986
diamond covered Mo emitter 20045
domestic heating syst. thermionic converter design 28176
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
energy conversion engng. conf., Atlanta, GA, USA (Aug. 1993) 20225
fission reactors, design studies 27985
fuel element temps., nonuniform power dens. effects 27987
General Purpose Heat Source RTG program, mgt. 18757
hybrid space nuclear power/propulsion syst., hot hydrogen test facility 18755
incore thermionic space nuc. power, Monte Carlo fuel burnup simul. 26622
interelectrode gap neg. resist. 28025
Lunar Energy Park, nuc. power, laser beam transm. to Earth 26511
multi-diode thermionic converter, feasibility expts. 28028
NEPSTP (TOPAZ II) space reactor, safety 35260
photoelec. emission-based characts. tests 28030
recuperative burner develop. 20041
residential size Peltier effect refrigerator 20042
S-PRIME space power thermionic convertors, emitter design 18743
single-cell thermionic fuel element convertors, fab., testing 27988
Small External Fueled Heat Pipe Thermionic Reactor fuel element 18756
space bimodal thermionic reactors, sonic cesium supply 26627
space nuc. power, thermionic heat pipe module testing 26621
space nuc. reactor, thermionic fuel element modelling 26625
space power planar thermionic convertor, UO fuel testing 18741
space power thermionic conversion, particle strengthened Mo appls. 18746
space power thermionic convertors, close-spaced, demonstration tests 18748
space power thermionic convertors, Cs circulation system testing 18739
space power thermionic convertors, thermal modelling 18740
space power thermionic electrodes, CVD diamond film appls. 18745
space power thermionic fuel elements, fission gas pressure anal. 18736
space power thermionic fuel elements, UO_2 swelling simul. 18744
space power thermionic heat pipes, work fn. tests 26623
space thermionic nuclear power/propulsion, future prospects 18749
space thermionic reactors, thermal-hydraulic/neutronic design 4374
space thermionic syst., radiator design 26628
spacecraft thermionic nuc. power, biphase inversion calcs. 26620
TECTEM central heating facility, thermionic conversion 20040
ternary sources of working-body vaps. for thermionic converters 11308
thermionic fuel elements, 2D transient anal. 18735
TOPAZ-2 space reactor, NEPSTP spacecraft integrat. 26618
TOPAZ-2 thermionic fuel element anal., HXTOPAZ computer code 26624
Topaz-II, model develop./exptl. data comparis. 18730
TOPAZ-II EM pump, integrated model 18731
Topaz-II single-cell thermionic fuel element design/testing 5235
TOPAZ-II space nuclear thermionic reactor, computer simul. 18742
Wright Laboratory thermionic conversion programs 28022
Cs thermionic generators, low pressure self-extinguishing discharges 26591

thermionic conversion continued
Cs vapour pressure control, thermionic fuel elements 20043
Cs-N$_2$ space power thermionics convertor, relaxation characts. 18738
Cs-graphite simulated reservoir, cylindrical thermionic diode 20044
Ta-46%Ir eutectic brazing filler, thermionic appls. 28023
UO$_2$ thermionic fuel elements simul., thermocycling 28024
W-Ir space power thermionic convertor alloys, work fn. expts. 18747
WO$_x$ thermionic energy converter collector electrode expts. 28027
ZnSe:I jn. devices, thermionic behavior studies 28026
thermionic electron emission
see also Schottky effect; thermionic cathodes
heated ceramics, electron and ion emission 13936
long pulse electron beams from cathode 21795
MOS EPROM writing charact., hot electron injection model, transient simul. 12546
MQW IR phototransistor 14599
off-state n-MOSFETs, interface trap-induced drain leakage current 38859
work fn. meas., thermionic projection microscope 9818
Ag-O-Cs photocathode, long-wave current sensitivity, thermionic current 6471
AlGaInAs-InP 1.3 μm laser design 23282
Al$_2$O$_3$, heated ceramics, electron and ion emission 13936
Fe silicide contacts to n- and p-type Si, props. 1104
GaAs/AlGaAs heterojunction barriers, transm. tunneling current 13127
InAlAs/In$_x$Ga$_{1-x}$As/InP HEMT, breakdown behaviour 6788
InAlAs/InGaAs MODFETs, off-state breakdown study 13764
InAlAs/n$^+$-InGaAs heterostruct. FET, breakdown phys. 6804
InGaAs/InGaAsP/InP MQW laser, thermionic emission, tunneling 1931
InGaAs/InP:Fe enhancement layer Schottky contacts 1149
InGaAs-InP, reverse bias laser struct., photodetection 17811
InGaAsP/InP laser heterostructs., act. region carrier leakage meas. 14950
Mo-La$_2$O$_3$ thermionic electron-emission material, mech. and emission props. 38203
Pt-GaAs Schottky contact, defect free, electrochem. form. technol., low-dimens. structs. 22039
ZrO$_2$, heated ceramics, electron and ion emission 13936
thermionic emission
see also thermionic electron emission; thermionic ion emission
MOSFETs, n-channel, Fowler-Nordheim electron tunneling, substr. hole current 38884
MOSFETs in off-state, interface trap induced emission current 22408
polysilicon TFT, short-channel, output characts. 30296
Schottky contacts, photovoltage, transient charact. modelling 6579
Al/n-AlGaAs jns., anom. thermionic-field emission 13220
Au/p-InP epitaxial Schottky diode, I-V/T, C-V/T data, simultaneous anal. 38816
Au-GaAs Schottky diodes, cryogenic/RT, current transport 38390
Ga$_{1-x}$Al$_x$As/GaAs, p-n jn. incorporating quantum well, light emitting 14621
n-GaAs/AlAs/Al$_{0.3}$Ga$_{0.7}$As double barrier QW, tunneling assisted thermionic emission 38326
InAlAs/In$_x$Ga$_{1-x}$As HEMT, off-state/breakdown mechanism 22488
InGaAsP quantum-well quaternary lasers, gain nonlin. and temp. depend. 39798
p-InP:Zn/Au, epitaxial Schottky diode, reverse I-V, C-V characts. 38801
Pd-InP Schottky diodes, cryogenic/RT, current transport 38390
ZnS$_{0.07}$Se$_{0.93}$:Cl/Yb(Al)(Cr)(Cu)(Au)(Pd), Schottky contacts, elec. props. 38401
Zr/O/W Schottky emitter eval. for STM microcolumn appls. 12987
thermionic generators *see thermionic conversion*
thermionic ion emission
heated ceramics, electron and ion emission 13936
Al$_2$O$_3$, heated ceramics, electron and ion emission 13936
ZrO$_2$, heated ceramics, electron and ion emission 13936
thermionic power generation *see thermionic conversion*
thermionic tubes
see also cathode-ray tubes; gas-discharge tubes; thyratrons; vacuum tubes; X-ray tubes
microminiature thermionic vac. tube, micron-scale dimens., fab. 21806
thermionic valves *see thermionic tubes*
thermistors
capacitor energy storage, nonlin. tervit resistor appls. *(Russian)* 44429
ceramics, sol-gel proc., elec./mag. props. 12190
diamond, polycryst. double layers, high temp. sens. 34441
diamond CVD film temp. sens., fab. technol. 9842
diamond film thermistors, fab. and charactn. 9892
digital anemometer, low flow rate meas. 4012
digital anemometer for air flow meas. 25907
distrib. network protection, pos. temp. coeff. thermistors 4643
electrolytic detector designs for radio reception 9187
environ. sens. 9898
indust. thick film press. sens./transducers, develop. *(Slovenian)* 34446
miniature IR sens., vac.-encapsulated thermistor clinical bolometer 35037
nonstationary thermistor problem, soln. regularity 38044
NTC thermistors for temp. compen., SMDs 38048
PTC thermistors, overheat protection, equipt. safety 6353
PTC thermistors, sens. appls. 34469
sealed water calorimeter for measuring absorbed dose 4343
thermal response of CMOS-micromachined thermistor sens. 9872
transfer thermistor transducers in HF AC voltage stds. 42655
waveguide thermistor sens. for microwave multimeter 9869
BaTiO$_3$-based PTC thermistors, delamination fracture 28869
NiCoMnO sputtered thin film thermistor IR detectors/bolometers 17791
SiC thin film thermistors, gas cooking hob appls. *(Japanese)* 42968
diamond temp. microsensors, B-doped, vap.-deposited 9881
thermo-EMF *see thermoelectricity*
thermo-optical effects
anisotropic crysts., beam propag., coupled thermal/nonlin. effects 7764
drops, temp. meas., liquid cryst. thermometry appl. 42982
dye activated polymeric lasers, photophysical props., thermooptical props. 7540
dye-doped biomol. thermally-activated thin film opt. switch 39535
matrix-addressed smectic-A LCD 22953
PMMA-EVA blend, nonlin. scatt. 2064
rearrangeable nonblocking polymer waveguide thermo-optic switching matrix 30962
ridge-shaped polymer liq. cryst., LC cell resoln. 14544
silica-based thermo-optic switches *(Japanese)* 17181
switchable Polaroid holograms appl. 40131
thermo-optical effects continued
thermo-opt. recording, smectic-isotropic liq. phase transit. 39310
thermochromic props. of bis(β-diimino-tetracyano-pyrrolizinido)Nickel(II) 42774
waveguides, thermo-optic, temp. profiles, FEM 1710
AgGaSe$_2$, thermal lensing modeling, laser beam aberration 7765
CdS, colloidal microcrystallites, CW self-focusing/PM 31531
Cr:BeAl$_2$O$_4$, alexandrite laser syst., lin. scanning THG 7583
KTiOPO$_4$ nonlin. devices, temp. dispersion 15121
LiB$_3$O$_5$/BaB$_2$O$_4$ crysts., opt. parameteric oscills., thermal loading 7771
LiNbO$_3$ elec. controlled supergaussian mirrors 14482
LiNbO$_3$ waveguides, electro-optic/thermo-optic meas. of birefr. 22886
LiNbO$_3$:Ti strip waveguide thermooptic coeff. determ. for phase compensated appls. 39467
Nd:YAG TEM$_{00}$-mode diode-laser-pumped CW miniature-slab laser 31300
Nd:YAG high-power solid state lasers, improved beam quality 31262
Si APD, elec. breakdown, thermo-optic investig. 1801
Si thermooptical micromodulator, 700-kHz -3-dB bandwidth 39490
SiO2/Si, planar lightwave ccts., opt. sig. proc. 14487
Yb$_2$O$_3$-Al$_2$O$_3$ thermal-opt. energy converter, characts. meas. 36619
ZnGeP$_2$, thermal lensing modeling, laser beam aberration 7765
thermoacoustics
ASA 128th meeting, Austen, USA (Nov.-Dec. 1994) 6
magnetocaloric effect meas., noncontact thermoacoustic method 26803
ultrasound phased-array controller for hyperthermia appls. 26316
thermochemical energy conversion *see chemical energy conversion*
thermochemistry
see also heat of adsorption
internal combustion engine power generation, O$_2$ enrichment simuls. 35970
Cr5Fe1Y$_2$O^3 SOFC interconnectors, Cr vaporisation expts. 44324
Pb-acid batt. manufacture, scrap Pb recycling 36535
SiGe alloys, SEG, film props. 12103
thermochromism *see thermo-optical effects*
thermoclines *see temperature distribution*
thermocompression bonding *see lead bonding; tape automated bonding*
thermocouples
see also thermopiles
automatic cct. breaker stabil., heat distrib. effects *(Russian)* 11196
cable fault location, fibre optic distrib. temp. sens. 10746
core exit thermocouples for PWR, charact. responses, SBLOCA 35793
diamond tipped thermocouple for high resoln. topographical and thermal imaging 34689
dyn. calib., multipoint sampling data, param. estim. *(Chinese)* 3777
elec. generators, stator diagnostics, thermal monitoring 10955
intrinsic thermocouple monitor for laser wirebonding 29710
IR temp. sens., effects and appls. 17807
ITS-90, temp.-EMF ref. fns., thermocouple types 20224
multijunction thermal converters by commerical CMOS fabrication 25801
nonsteady state probe for thermal/humidity meas. 42757
online dyn. gas pyrometry, two-thermocouple probe 42970
physiochemical expt. dyn. controller develop. 34727
proc. instrumentation channels in NPP, calib. 35931
ripple pyrometry for wafer temp. meas. in RTA 25998
sig. conditioning, monolithic ICs 42781
simultaneous temp./strain meas., four connecting wires 42780
substr. heater for MBE 20814
thermophotovoltaic solar cell power expts., USA 27962
two wire thermocouple, freq. response in const. flow 3793
US hyperthermia thermometry, manganin-constantan thermocouples 18597
vac. epitaxial growth systs., vis. laser interferometry 28788
SiO$_2$-Si wet oxid. by RTP, homog. 22222
WO$_x$ thermionic energy converter collector electrode expts. 28027
thermocurrents *see thermally stimulated currents*
thermodiffusion *see thermal diffusion*
thermodynamic cooling *see cooling*
thermodynamic equations of state *see equations of state*
thermoelectric conversion
see also radioisotope thermoelectric generators; thermoelectric devices
0.5 kW portable alkali metal thermoelec. convertor develop. 20036
500 W thermoelec. generator power supply, preliminary design 27992
air conditioning, thermoelec. conversion-based designs *(Japanese)* 44601
alkali metal thermoelec. converter, B-alumina electrolytes 20026
alkali metal thermoelec. convertor, ceramic electrode characts. 20027
alkali metal thermoelec. convertor components, emissivities/thermal charactn. 20028
alkali metal thermoelec. convertor design, wick-pumped, vapour-fed 20032
alkali metal thermoelec. convertors, high efficiency, remote condensing 20033
alkali metal thermoelec. convertors, micromachined evaporator component fab. 20031
alkali metal thermoelec. convertors, Na recirculation wick design 20030
alkali metal thermoelec. convertors, space power appl. studies 20037
alkali metal thermoelec. convertors, space power perform. anal. 20034
alkali metal thermoelec. convertors, WPt$_3$ electrode kinetics, mass transport 20029
AMTEC cell, high efficiency, testing/charactn. 26626
electrochem. systs. thermoelec. effects, nonconventional thermogalvanic cells 27882
energy conversion engng, conf., Monterey, CA, USA (Aug. 1994) 20201
energy conversion engng. conf., Atlanta, GA, USA (Aug. 1993) 20225
fusion reactor, radiation energy direct conversion 36626
generator perform., irreversible heat engine model 27971
heat pump perform., multi-stage cascade expts. 20038
HV terrestrial AMTEC, design, appls. 28020
hybrid elec. vehicles, AMTEC auxiliary power unit 28145
Lunar Energy Park, nuc. power, laser beam transm. to Earth 26511
microcalorimeter, mm-band power converters 18050
orb. spacecraft, nuc. power propulsion 26691
Peltier thermoelement, thermoelec. anal., nonequilibrium thermodyn. model *(French)* 28014
power generation using thermoelec. element, anal. 20046
skutterudite thermoelec. materials, terrestrial/space appl. prospects 27991
solid-state thermoelectric refrigeration develop. progress 20144
SP-100 nuclear space power reactor, testing 18764
SP-100 thermoelec. cell testing, JPL 26635
space power, AMTEC, prototype cell develop./testing 26689
space power liq. metal thermoelec. generator thermodyn. 26554
spacecraft solar-heated alkali metal thermoelec. power syst. 26605

thermoelectric conversion continued
subsea wellhead, semicond. thermoelec. generator 36816
thermophotovoltaics, appls., cost, GRI research 27995
wick return AMTEC cell, micromachined condenser 28017
B-rich semiconds., high-efficiency high-temp. thermoelec. energy conversion 28012
$(Bi,Sb)_2(Te,Se)_3$ semicond. thermoelec. power modules, diffusion controlled degrad. model 28013
CoSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
$FeSi_2/MnSi_x$, single couple thermoelec. generators, fab., meas. 20024
IrSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
K-$\beta''Al_2O_3$-K-Mo AMTEC, accelerated life testing 28018
$LiVO_3:Cr_2O_3$ ceramics, thermoelec. power meas. 27983
$Mg_2Si_xGe_ySn_{1-x-y}$ materials for direct thermoelec. conversion 20025
Mo electrodes, sputter deposition, sodium modulated, AMTEC 28015
Mo thin film AMTEC electrodes, lifetimes 28016
Na vap. fed AMTEC cells, β''-alumina electrolyte 28019
PtW thin film AMTEC electrodes, lifetimes 28016
RhSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
Si-Ge thermoelec. generators, exhaust gas heat-based 5234
p-SiGe space power thermoelec. materials, nanophase inclusion expts. 26636
SiGe thermoelec. materials optim., space power appls. 26585
a-Si(Ge) thermopower behaviour modelling 27990
$Si_{0.3}Ge_{0.2}$ thermoelec. space power alloys, large-scale prod. 26586
SiGe-GaP alloys, thermal cond., elec. cond., Seebeck effect 38246
TiN electrodes, sputter deposition, sodium modulated, AMTEC 28015

thermoelectric devices
see also radioisotope thermoelectric generators; thermocouples; thermoelectric conversion; thermopiles
0.5 kW portable alkali metal thermoelec. convertor develop. 20036
alkali metal thermoelec. converter, B-alumina electrolytes 20026
alkali metal thermoelec. convertor, ceramic electrode characts. 20027
alkali metal thermoelec. convertor components, emissivities/thermal charactn. 20028
alkali metal thermoelec. convertor design, wick-pumped, vapour-fed 20032
alkali metal thermoelec. convertors, high efficiency, remote condensing 20033
alkali metal thermoelec. convertors, micromachined evaporator component fab. 20031
alkali metal thermoelec. convertors, Na recirculation wick design 20030
alkali metal thermoelec. convertors, space power appl. studies 20037
alkali metal thermoelec. convertors, space power perform. anal. 20034
alkali metal thermoelec. convertors, WPt_3 electrode kinetics, mass transport 20029
AMTEC cell, high efficiency, testing/charactn. 26626
anemometer sens. based on whiskers 3799
anisotropic thermoelec. cooler, generalized theory 44422
CMOS membrane IR sens., fab. and improved etchant 25846
diff. eqn., lin.-approx. *(Japanese)* 28689
heat pump perform., multi-stage cascade expts. 20038
HV terrestrial AMTEC, design, appls. 28020
intrinsic thermocouple monitor for laser wirebonding 29710
Lunar Energy Park, nuc. power, laser beam transm. to Earth 26511
microcalorimeter, mm-band power converters 18050
microwave oscillators, high-Q temp. stabilized sapphire resonators 30623
Peltier thermoelement, thermoelec. anal., nonequilibrium thermodyn. model *(French)* 28014
power generation using thermoelec. element, anal. 20046
solid-state thermoelectric refrigeration develop. progress 20144
SP-100 nuclear space power reactor, testing 18764
SP-100 thermoelec. cell testing, JPL 26635
space power, AMTEC, prototype cell develop./testing 26689
subsea wellhead, semicond. thermoelec. generator 36816
thermo-resistive solar radiation sensors identification 25805
wick return AMTEC cell, micromachined condenser 28017
$FeSi_2/MnSi_x$, single couple thermoelec. generators, fab., meas. 20024
HgCdTe IR CCD-based FPA, thermoelectrically cooled 17952
HgCdTe MWIR image sens., thermoelectrically cooled 17944
K-$\beta''Al_2O_3$-K-Mo AMTEC, accelerated life testing 28018
$Mg_2Si_xGe_ySn_{1-x-y}$ materials for direct thermoelec. conversion 20025
Mo electrodes, sputter deposition, sodium modulated, AMTEC 28015
Mo thin film AMTEC electrodes, lifetimes 28016
Na vap. fed AMTEC cells, β''-alumina electrolyte 28019
PtW thin film AMTEC electrodes, lifetimes 28016
TiN electrodes, sputter deposition, sodium modulated, AMTEC 28015

thermoelectric effect *see thermoelectricity*

thermoelectric generators *see thermoelectric conversion*

thermoelectric power
0.5 kW portable alkali metal thermoelec. convertor develop. 20036
5 V space power alkali metal thermoelec. convertor multicell 20035
alkali metal thermoelec. convertor, ceramic electrode characts. 20027
alkali metal thermoelec. convertor components, emissivities/thermal charactn. 20028
alkali metal thermoelec. convertor design, wick-pumped, vapour-fed 20032
alkali metal thermoelec. convertors, high efficiency, remote condensing 20033
alkali metal thermoelec. convertors, micromachined evaporator component fab. 20031
alkali metal thermoelec. convertors, Na recirculation wick design 20030
alkali metal thermoelec. convertors, space power appl. studies 20037
alkali metal thermoelec. convertors, space power perform. anal. 20034
alkali metal thermoelec. convertors, WPt_3 electrode kinetics, mass transport 20029
amorph. semiconds., electronic props., hopping transport mechanisms *(French)* 6535
generation using thermoelec. element, anal. 20046
heat pump perform., multi-stage cascade expts. 20038
quantum point contact, far-IR radiation-induced thermopower 29923
simultaneous meas. of thermal cond./thermoelec. power 25997
skutterudite thermoelec. materials, terrestrial/space appl. prospects 27991
solid-state thermoelectric refrigeration develop. progress 20144
$AgInSe_2$, elec. cond., thermoelec. power, solid and liq. state 21935
$AgSbTe_2$, solid and liq. states, elec. props. 38266
CdTe, elec. cond., thermo-EMF, high press. effects 13059
$CeFe_4Sb_{12}$, filled skutterudite, low temp. props. 38277
$CrTiO_3$, elec. cond., thermoelec. power and dielec. const. 13074
$Cu_x(Dy_2S_3)_{1-x}$, thermoelec. props., elec. resist. 13093
GaAs/AlGaAs heterojunction, magnetothermopower, phonon drag 38298

thermoelectric power continued
$Gd_2(Ti_{1-}Ru_x)_2O_{7-\delta}$, mixed cond., SOFC 44376
Ge, hole-doped, hot carriers, thermoelec. power 21894
$Ge_{20}Te_{80-x}Bi_x$ amorph. thin films, opt. and electronic props. 13081
n-$Hg_{1-x}Cd_xSe$, thermoelec. fig. of merit 21919
In_2S_3 crysts., thermoelec. power, electron/hole mobilities 1062
$LiVO_3:Cr_2O_3$ ceramics, thermoelec. power meas. 27983
p-SiGe space power thermoelec. materials, nanophase inclusion expts. 26636
a-Si(Ge) thermopower behaviour modelling 27990
SiGe-GaP alloys, thermal cond., elec. cond., Seebeck effect 38246
SnS_2:In, elec. props./photolumin. study 30054
$YBa_2Cu_3O_{7-\delta}$ normal state films, fast thermoelec. response, detector appls. 42793
$Zn_{41}Sb_{59}$, amorph. semicond., elec. props. 1056
ZnTe, elec. cond., thermo-EMF, high press. effects 13059

thermoelectricity
see also Peltier effect; Seebeck effect; thermocouples; thermoelectric power; thermomagnetic effects; thermopiles; Thomson effect
dielectrics, space charge relaxation induced breakdown, energy release 13951
vibrs. of piezoelec. body, thermal dissipation effect 30609
$Bi_2Sr_2Ca_2Cu_3O_x$ tape, thermoelec./thermomagnetic effects 39219
Bi_2Te_3-Sb_2Te_3 solid solns., thermoelec. props., excess Te/growth effects 13084
CoSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
GaTe semicond. superlattice, Bridgman growth, elec. anisotropy 37384
HgCd(Mn)Te gapless semiconds., hole thermal emf, temp. depend. 1049
IrSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
RhSb thermoelectric materials, Jet Propulsion Laboratory expts. 27984
SiGe thermoelec. materials optim., space power appls. 26585
ZnSe:Cu, kinetic coeffs., high-temp. anoms. 1050

thermography *see infrared imaging*

thermogravimetry *see thermal analysis*

thermoluminescence
diamonds, annealed synthetic, photoinduced absorpt. lines related to Ni impurity 38230
dosimetry, med. appls., phys., materials, equipt. 43406
XLPE, light and tree inception characts., elevated temps. 14058
In_2O_3-ZnSe-$(Zn_{1-x}Cd_xTe)_{1-y}(In_2Te_3)_y$ heterostruct., current transport 21963
LiF:Mg,Ti (DTG-4), thermoluminesc. dosimetric characts. 10293
Nd doped phosphate/silicate glass, surface luminesc., ion exchange effects 14419
Y_2SiO_5:Ce,Tb,Zr, X-ray storage phosphors 7458

thermoluminescent dosimeters
2D thermoluminescent syst., uniformity, reproducibility, calib. 4340
2nd order sig., irrad., storage, thermal excitation 4337
abdominal radiology, effective dose estim. methods 18654
cardiac angiography, radiation exposure, personnel 18668
chest radiography, children, dose distrib. 18673
computed tomography, dose profile/index anal. 18658
element readings, mixed field dosimetry algm. 35197
environ. dosemeters, ninth internat. miniintercomparison 43392
environ. TLDS, Indian nuc. programmes use, validation 43398
multiscan/fast ring CT systs., image quality, dose 18646
neutron-gamma mixed-field dosimetry syst., TLD-based 18635
patient dose meas./reduction, East Anglia (UK) 18670
planchet heating, params. effects on glow curves 18634
TLD readers, precalibrated, thermolumines. props. 18633
CaF_2:Mn TLDs, comparis., Al and Si X-ray calorimeters, Hermes III environ. 26500
$CaSO_4$:Dy, TLD, pers. dose equiv. assess. 18676
LiF TLD, intrinsic self-dosing, long term stabil. 43396
LiF thermolum. dosemeters, radiological exams. 18675
LiF:Mg,Ti (DTG-4), thermoluminesc. dosimetric characts. 10293

thermomagnetic effects
Nernst effect, energy prod. in neutron-lean fusion reactors 35959
$Bi_2Sr_2Ca_2Cu_3O_x$ tape, thermoelec./thermomagnetic effects 39219
(Fe-Co)/Ag films, magnetoresist. study 7049
$Fe_{80-x}M_xB_{20}$, (M=Ni,Co,Mn,Cr,V,Ti), amorph., mag. props. 14110
GaAs/AlGaAs heterojunction, magnetothermopower, phonon drag 38298
HgSe:Fe crysts., inelastic electron scatt. 1047
$Nd_2(Fe_{1-x}Co_x)_{23}B_3$ $(0 \leqslant x \leqslant 1.0)$, struct., mag. props. 6980
Sm_2Fe_{17} powder, Nb-modified, nitriding 6947

thermomagnetic recording
see also magneto-optical recording
photothermally modulated playback from mag. tape 1580
NdTbDyFeCo/DyFeCo-ultrathin bilayer, thermomagnetic recording behavior 14231
Pt/Co multilayers, high-dens. thermomag. recording method, STM 22698

thermomechanical processing *see thermomechanical treatment*

thermomechanical treatment
see also hot pressing; hot working
PLCC chip and package design, plastic assembling, simple test chip 5632

thermometers
see also pyrometers; resistance thermometers; temperature measurement; thermocouples; thermopiles
CARS thermometer measuring environ. 10057
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
Fabry-Perot opt. fibre temp. sens. employing low coherence interferometry 34554
fluoresc.-based lifetime meas. thermometer, subroom temps. 42823
fusion-spliced birefr. fibre Fabry-Perot interferometric temp. sens. 34556
high resoln. thermometry for 1.5 GHz supercond. cavities 10056
high-temp. digital fiber-optic thermometer 17848
interferometric birefr. opt. fiber transducer 17870
low-energy X-ray detect. in cryogenic detectors 26258
MC68HC11 microcontroller based talking thermometer 3749
noncontact temp. meas. 4006
nonincremental interferometric fiber-optic simultaneous temp./strain detect. 25856
ocean high perform. micro-power CTD sens. 10495
product temp. profile meas., IR linescanning 3879
tunnel jn. arrays, thermometry 4009
tunneling thermometer, std. appl. 9882
XCTD perform. eval., design improvements 10498
Er-doped opt. fibre temp. sens. by green fluoresc. intens. ratio 34552
Nd^{3+}-doped opt. fibre temp. sens., absorpt. shift, 595 nm 34553
Si diode temp. sens. for proc. systs. 34485

thermometric conductivity *see thermal diffusivity*
thermonuclear devices *see fusion reactors; plasma devices*
thermooptical effects *see thermo-optical effects*
thermopiles
CMOS membrane IR sens., fab. and improved etchant 25846
integrated IR sens. design, computer-aided trade-off study 3838
Powerstick RTG spacecraft power source 26607
respiratory condition/body temp. meas., thermopile 43196
solid-state thermoelectric refrigeration develop. progress 20144
Ni/NiCr, thermal thin-film microsensor 9883
Si PV cells, solar radiation resource assess. 42792
Si flow sens., air flow detect. *(Korean)* 17722
Si/Al thermopile humidity sens., fab. and characts. *(Korean)* 17721
YBaCuO HTSC thin films, thermopile effect, laser radiation heating 22714
thermopower *see thermoelectric power*
thermosonic bonding *see lead bonding; tape automated bonding*
theta pinch *see pinch effect*
THG *see harmonic generation*
THG, optical *see optical harmonic generation*
thick film capacitors
capacitor dielec., thick film/tape, capacitance densities up, 3 nF/mm^2 6359
ceramic capacitive sensor, embedded in polymer 25797
ceramic multicomponent modules, miniaturisation approach 5622
paste dispersion procs., pass. electronic component manufacture 6439
UHF power capacitors, thermal rating characteristics 6362
thick film circuits
data transm. filter, thick film hybrid implement. 6218
end termination ink materials for smart card MLC fab. 6363
fine line thick film conductors by gravure offset printing 12946
HF miniature planar thick film transformers 36225
high power substrs. for thick film ccts. 21658
high reliab. hybrid ccts. for automotive appls. 29697
hybrid IC materials systs. and technol. 38165
indust. thick film press. sens./transducers, develop. *(Slovenian)* 34446
integrated chem.-sens. arrays, batch fab. 3818
LCC, soldered, survivability, temp. cycling 28464
MCM-C package 3D interconnections by electron beam machining 958
MCMs, thick-film technol., diffusion patterning vias 956
MCMs with ASICs global optim., concurrent engng. approach 21743
microstrip components for mobile commun. systs., evol. 33836
multilayer material systs. for thermal cycle appls. 21660
perform.-driven routing for thick film MCMs 29722
screen printing, low defect proc. 12897
thick film strain gauges on insulated metal substrs. 3788
Ag multilayer ccts., environ. durability 21659
Ag-Au interconnects, transit. via fill material 30152
Sn-Ag solder, Pb-free, appl. in no-clean thick film electronic modules 6451
thick film devices
CD3D constraint-driven 3D router thick film MCMs 21762
gas sens., selectivity improvement methods 25898
hermetic advanced power package, solid state power controller 20458
HF planar thick-film transformers 21602
high-T_c superconds., supergain printed dipole arrays 31960
hybrid humidity sens., PTF sens. elements 25829
indust. thick film press. sens./transducers, develop. *(Slovenian)* 34446
MCM-C develop., twenty-seven chip 20452
microengineered fluid devices 6633
mobile radio systs., microstrip networks for multibeam/reconfigurable operation *(English, Italian)* 42292
PVDF piezoelectric sensors, structural engineering appls. 25799
sens. technol. and appls. 25830
strain gauges on insulated metal substrs. 3788
VHF HTS thick-film loop antenna/two-element array 40495
$Bi_2Sr_2CaCu_2O_{8-x}$ porous films gas sens. response anal. 34615
Cu thick film conductor, inorganic binders 6440
Li_2SnO_3 thick film humidity sensitive material, elec. cond. 3782
Pd thick-film H_2 sens., Wheatstone bridge config. 25902
SnO_2 gas sens., effect of electrode material 9959
SnO_2 thick-film hydrogen gas sens. 3914
SnO_2:ZnO(ZnO-Sb_2O_3) thick film gas sens. 3904
SnO_2-based thick-film gas sens. 3915
$YBa_2Cu_3O_7$ thick-film flux transformers 1608
thick film resistors
ANN techs. for fired thick-film resistor values estim. 21585
built-in reliab., ageing kinetics 5706
ceramic multicomponent modules, miniaturisation approach 5622
excimer laser radiation, high precision trimming *(German)* 6438
generator brake, thick film resistor 4906
hybrid microelectronics glasses, prep., charact. 5909
ITME thick film resistors on Al_2O_3 and dielec. substrs. 6347
LTCC shrinkage matched cofireable thick film resistors 11767
paste dispersion procs., pass. electronic component manufacture 6439
$Bi_2Ru_2O_7$ thick resistive films, temp.-induced phys. failure mechanisms 949
$CoMoO_4$ based thick-film resistors for HV voltage dividers 38049
NiCr thick film resistors, sheet resist. and TCR 6349
RuO_2/B_2O_3-SiO_2-PbO glass composite thick resistive films, metal-insulator transit. 21657
RuO_2-Bi_2O_3(Al_2O_3)-NiO systs., phase equilibria 38046
RuO_2-PbO-NiO(TiO_2) systs., phase equil., thick film resist. 435
RuO_2-based thermometer design for millikelvin temp. range 25821
SnO_2 thick-film planar resistor, humidity effect 870
Ti-Si thick film resistor, surge protection appl. 27270
thick films
alkali metal thermoelec. convertor, ceramic electrode characts. 20027
HTSC paste, microelectronics technol. appl. 22725
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
photoimageable thick films for MCM 21726
planar SOFC, thick film prod. methods 44312
polymer/metal/$BaTiO_3$ multi-component composites, dielec. props. 12195
PV energy conversion/storage semicond. solar cells struct. 36607
Ag/Pd thick-film conductors 29695
Bi-Pb-Sr-Ca-Cu-O supercond. thick films, screen printing 14272
$(BiPb)_2Sr_2Ca_2Cu_3O_{10+x}$, HTSC form., high-temp. XRD 39250
$Bi_2Sr_2CaCu_2O_x$, melt proc., DTA, XRD, texture 30773
CeO_2 thick film buffer layers for HTSC films 22724
Fe garnet thick film Faraday effect sens., domain effects 25818
Ni-InP syst., interfacial reacts. and phase stabil. 38391
Si solar cells fab., low cost/high efficiency *(Korean)* 27959
thick films continued
SnO_2 thick film, calcination, CO sens. props. 17979
$SrCaTiO_3$ microwave ceramics, metal conductors, adhesion strength 28870
thickness control
aluminium cold rolling mill, AC drives, control syst. 44490
diamond membranes for x-ray lithog. masks 6688
hot strip mill load bal. control ES 44627
plasma gate etch, neural network control 38567
Si membranes control by refl. interferometry *(German)* 18102
$Si_{1-x}Ge_x$/Si heterostruct., adaptive temp. program ALE from Si_2H_6/Ge_2H_6 20705
SiGe-Si UHV-CVD MQWs, in-situ spectrosc. ellipsometry growth control 20845
thickness measurement
3D X-ray inspection of fine pitch PCBs, automatic testing 29673
CMOSFET ultra-thin gate oxide thickness meas, quantum effects 22452
Compton scatter pipe wall imaging syst. 18094
contact resist., contaminant films thickness, humidity effects 6385
contact surface roughness, US thickness gauge readings 18092
dielec. HF characterisation, open resonators 42894
dielec. thin films in Si photodetectors 18079
discretised objs., geom. charact. determ. 41154
ferromag. materials, eddy current NDT sens. 12217
interlevel dielec. thickness var., stat. metrology, IC test 22549
knowledge based monitoring/control of plasma, chromaticity meas. 12147
magnetoacoustic emission, mag. induction/specimen thickness depend. 12218
metal coating, cond./thickness monitoring, electrothermal method 18028
metal coating elec. cond./thickness, eddy current data rapid inversion 42890
metallic coatings, eddy current thickness inspection optim. 28919
microwave cavity tech. for n-n^+ semicond. struct. 3968
mm-wave meas. of sub-wavelength thickness 42936
non-contact μP-based digital He-Ne laser scanning micrometer 18099
noncontact thickness meas. of dielec. coatings 42937
nonmetals, laser generated Lamb waves, capacitance transducers detect. 10586
oil films at water surface, rem. thickness meas. by excimer laser 7876
paper insulation, HV testing, μP based 30590
paper sheet no. meas., microwave counter 3983
plate materials meas. by IR scanning 42927
polychromatic X-radiography, film dens. vars. 21012
RTO proc., opt./elec./mech. charactn. 22227
sea ice, age & thickness, SAR tracking rem. sens. method 43522
sea ice thickness determ., SAR comprehensive automated approach 26730
semicond. struct. photomodulated diagnostics, microwave resonator transducer synthesis *(Russian)* 13098
single-beam photothermal anal., semicond. proc. appls. 108
SOI struct., opt. and acoustic nondestructive charactn. 38443
spectral ellipsometry for semicond. proc. in situ diagnostics and control 22200
submicrometer feature etched IC fab. proc. control, UV-vis. ellipsometry 30078
surface inspection by opt. triangulation 18069
thin film microstrip line dielec. thickness var. by TDR 38180
thin plastic scintillator foils, prod., thickness determ. 34923
three-channel homodyne interferometry, opt. thickness meas. 18074
through-plane thermal props. meas. of dielec. films 21738
US NDT, lamb waves induced long./transverse waves 452
vac. epitaxial growth systs., vis. laser interferometry 28788
vector reflectometer, portable, appl. for thickness and permitt. dielec. meas. 18048
weak phase objs., struct. determ., interferometric near-field meas. 18084
Co thin films, pulsed laser deposition, opt. reflectometry 5897
Cu thin films, pulsed laser deposition, opt. reflectometry 5897
Cu/Co multilayers, pulsed laser deposition, opt. reflectometry 5897
Ni-H_2 secondary cells, LEO destructive life testing 11256
Si diaphragm thickness opt. monitoring, wet etching 30104
Si diaphragm thickness, wet etching, opt. monitoring 30124
Si membranes control by refl. interferometry *(German)* 18102
a- Si:H films, optical consts. and thickness determ., opt. transmittance 25986
Si-SiO_2 SOI film thicknesses, reflectance meas. 13260
SiO_2 films, chem. mech. polishing, planarization ability 38575
SiO_2 thin film thickness meas., Brewster angle reflectometer 34686
SnPb thickness meas., X-ray fluoresc. systs., PCB manufacture 38094
$TiSi_2$ self-aligned RTA proc., CMOS IC, response surface 22593
thin film capacitors
ceramic multicomponent modules, miniaturisation approach 5622
impedance spectrosc. on dielec. gas sens. 3918
MCM ceramic substr., high capacitance 21715
MCM substr. 21690
polysilicon DRAM cell capacitors, Si_3N_4 dielec. films, RTP 22069
UHF power capacitors, thermal rating characteristics 6362
Al/$Fe(OH)_3$/Al, thin film capacitors, dielec. props. 22080
Al-EuF_3-Al, breakdown, cond., dielec. studies 1544
$Ba_{1-x}Sr_xTiO_3$ tunable capacitors with $Tl_2Ba_2Ca_1Cu_2O_x$ electrodes, fab. 6356
$BaTiO_3$ high dielec. ceramic thin films proc., stress develop., IC packaging 21590
$BaTiO_3$ thin film capacitor dielec. props., Pt bottom electrode 38050
$BaTiO_3$ thin film capacitor dielec. props., W_2N-W bottom electrode 38050
$BaTiO_3$/p-Si capacitors, struct., elec. props. 39061
Eu_2O_3, thin film capacitors, elec. props. 38446
NO dielec. film, low press. CVD/nitridation 13942
PLZT ferroelec. thin film capacitors, DRAMs, polariz. loss, elec. stress params. 37752
PLZT thin film capacitors, CMOS ULSI DRAM appls., post proc. damage 21310
PLZT thin-film decoupling capacitors for MCMs and ICs 12842
PLZT thin-film decoupling capacitors for MCMs 29737
PZT ferroelec. thin film capacitors, fatigue and photoresponse 39102
PZT ferroelec. thin films, sol-gel deposition 1559
PZT thin film capacitors, domain behavior 39058
PZT thin film capacitors, pulsed-laser ablation-deposited 6369
PZT thin-film capacitors, nonvolatile memory appls. 30594
PZT/Pt ferroelec. capacitors, passiv., SOG 39100
PZT/Pt thin film decoupling capacitors, integrat. 21591
PZT/Pt/RuO_2 capacitor heterostruct., elec. props. 21588
$PbLaTiO_3$, thin film capacitor, epitaxial growth, sens. appl. 34506
$PbTiO_3$:La pyroelec. IR sens. array for human body detect. 42805
$Pb(Zr_{0.4}Ti_{0.6})O_3$ thin-film capacitors, depol. orig. 12838

thin film capacitors continued
$Pb(Zr_{0.53}Ti_{0.47})O_3$ thin film capacitors, electrodes, microstruct., elec. props. 881
Si:As films, low press. CVD 5861
Si-SiGe layers, elec. charactn. techs. 6538
Si_3N_4 ultrathin capacitors for advanced DRAM cells, in-situ multiprocessing 21589
$SrTiO_3$ film DRAM stacked capacitor technol., MOCVD fab. 21592
$SrTiO_3$ thin film capacitors, MMIC process technol. 38030
Ta_2N anodized thin film capacitors, heat-proof props. *(Japanese)* 29614
Ta_2O_5 MIM-CROWN cell and proc. technols. for 1 Gbit DRAMs 21335
Ta_2O_5 thin film capacitor for giga-bit DRAMs, low-temp. integrated proc. 21594
Ta_2O_5 thin film capacitors for 1 Gbit DRAM 21593
Y_2O_3 MIM capacitors, elec./dielec./opt. props. 22082
thin film circuits
doubleface populated MCM in thin film technol. for HF appl. 21707
ES9000 multi-chip hybrid package, proc. modelling/design techs. 29716
fine line cct. mfg. technol., electroless Cu plating 29680
hydrogenated amorph. silicon phototransistor cellular neural network 21497
laser via ablation technol. for MCM thin film packaging 21772
MCM materials for high-speed appls., eval. 29715
multi-MMIC MCM for microwave appls. 21580
photocond.-electroluminescent systs., opt. sig. delays 39603
polyimide charring on thin film line deletes 12962
Cu/photosensitive-BCB thin-film multilayer technol. for MCMs 21714
GaAs MESFET varactor tunable oscillators, noise calcs. 21565
thin film devices
see also magnetic thin film devices
0.1 μm MOSFET on thin-film SOI substr., self-aligned source-body contact 22456
3D simul. of impurity diffusion in thin-film diffusion barriers 13424
diamine doped MgF_2 thin film, EL devices 31093
dye-doped biomol. thermally-activated thin film opt. switch 39535
edge type thin-film warm carrier detectors, fab. 34488
electroluminescent indicators, composite liq. dielec. 1812
fibre optic probe for thermal meas. in turbomachinery 17850
gas sens., response and thickness *(Chinese)* 3899
HF thin film transformer, EM field anal. 38055
high power e-beam induced switching in diamond 36447
high-quality thin-film diode LCDs, design 25920
hybrid humidity sens., PTF sens. elements 25829
laser mirror group-delay meas. by spectrally resolved white-light interferometry 39996
MCM-D technol. for data commun. appl. 21744
MCM-D thin-profile packaging, small form factor appls. 21751
micromachined thin film bulk acoustic resonators 30635
MRI, RF coil/cryogenic preamplifier, high temp. supercond. 35069
MRI RF coils, thin film high temp. supercond. 10196
multifunctional thin-film transducer of phys. quantities 9867
opt. neural devices, thin film waveguides 39522
pyroelec. single-element/lin.-array sens., P(VDF/TrFE) films 17772
stick-on hot-wire anemometers, foil/filament sens. 18150
thermal printing head, line type, convex struct. 29704
thermal thin-film microsensor, ambient temp. influence 9883
AlGaAs-GaAs thin film p-i-n photonic device integrat., micromachined movable platforms 39600
$CaS_{1-x}Se_x$:Eu thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
CdS thin-film sens., chemisorbed O_2 detect. 34611
CdSe thin film sens., chemisorbed O_2 detect. 34611
$KNbO_3$ thin film act. opt. waveguide devices, fab. 39464
Li-$LiMn_2O_4$ thin-film secondary batts. 36556
$LiNbO_3$ thin film hybrid integrated opt. devices 39608
Ni thin-film bolometer 25843
$PbTiO_3$ group pyroelec. IR sens. develop. and perform. *(Japanese)* 17968
a-Si:H thin film posn. sensitive detector 9912
SiO_2/ZnS:Mn, AC electrolum. devices, prep. 20948
SnO_2:Pd thin-film micro-gas sens., CH_3SH detect. 17983
SnO_2:ZrO_2,PdO thin films, PH_3 detect. 3913
$SrGa_2S_4$:Ce , blue electroluminescent thin films, MBE 37402
$SrS_{1-x}Se_x$:Ce thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
TiO_2:Nb(Cr) thin films, RF reactive sputtered, optoelectronic/gas sens. appls. 39546
YBaCuO thin film DC SQUID, mag. microscope 3956
ZnO thin-film gas sens., dimethylamine/trimethylamine gas detect., neural network pattern recogn. 17978
ZnS:Mn, evaporated ACTFEL devices, band-to-band impact ionization 39577
ZnS:Mn/Cu_xS, electrolum. cells, Cu-Mn energy transfer 23023
thin film electroluminescent displays *see electroluminescent displays*
thin film resistors
built-in reliab., ageing kinetics 5706
ceramic multicomponent modules, miniaturisation approach 5622
MCM-D with embedded thin film resistors, ECL gate array packaging 21706
miniature IR sens., vac.-encapsulated thermistor clinical bolometer 35037
Philips MPC01 metal-film precision chip resistor 6350
Space Shuttle rem. power controllers, AlN metalization/joining 26688
Al-Si resistors, electromigration noise depend. on characts. 865
Cr-SiO_2 cermet-polyimide interfacial reacts., thin film resistor appls. 38045
InGaAs thin resistors, pot. distrib. meas., Kelvin probe force microscopy 38373
NiCoMnO sputtered thin film thermistor IR detectors/bolometers 17791
SiC thin film thermistors, gas cooking hob appls. *(Japanese)* 42968
W-Ti thin film resistors, elec. props., nitridation effects 866
thin film transistors
0.25-μm fully-depleted CMOS/SOI invertor, SEUs, radiation hardening 13727
1.2 μm CMOS-SOI technol. transistors, noise charactn., gamma ray effets 13728
act. matrix, color LCDs, second stage mfg. lines *(Japanese)* 3935
act. matrix liq.-cryst. panel, polysilicon TFT addressed *(Japanese)* 25659
book, Si and Si alloy based materials/devices 11540
cct. simulator incl. user-defined devices 21075
colour TV projection, fast-switching reflective light valves 25644
diamond MOSFETs on epitaxial thin films, fab., cct. appls. 22437
display technol. *(Japanese)* 42879

thin film transistors continued
fab., shower implanter, RIPE ion source 13738
fully depleted thin-film SOI MOSFETs, moderate kink effect 22461
gate-all-around TFT, dummy nitride pattern, SRAM cells 38876
IR3Y18 video sig. proc. IC for TFT LCD *(Japanese)* 664
low temp. fab., multi-proc. reactor 13739
low-dimens. organic TFTs, characts. and appls. 22448
NEC 24 cm TFT color LCD module, develop. *(Japanese)* 3937
NEC 24 cm TFT full-color LCD module, develop. *(Japanese)* 3936
NEC TFT LCDs, wide-viewing-angle improvements *(Japanese)* 1749
oligothiophenes, conjug., transistors and SLM 22931
poly(2,5-thienylenevinylene), TFT, charactn. 22402
poly(3-alkylthiophenes)/O_2, reversible charge transfer complexes 20995
poly-Si TFT, neg.-bias temp. instabil. 13755
polymer transistor archit. 6443
polysilicon bottom gate TFTs, excimer laser crystn. 38880
polysilicon CMOS TFT LCD driving ccts. *(Korean)* 17999
polysilicon films, CMOS TFTs, low temp. proc. 38879
polysilicon films, N implanted, effect on TFT elec. characts. 22447
polysilicon inversion-type TFT DC/AC model, kink effect 22491
polysilicon p-channel TFTs, ECR hydrogen plasma passiv. 6771
polysilicon TFT, double-act.-layer struct., elec. characts. 30286
polysilicon TFT, plasma hydrogenation effects *(Korean)* 30348
polysilicon TFT, short-channel, output characts. 30296
polysilicon TFT, trap-state dens. model *(Korean)* 30347
polysilicon TFT, ultralarge grain film, excimer laser recrystn., elec. props. 30285
polysilicon TFT and driver integrat. technol. for LCDs 25919
polysilicon TFT LCD, storage-capacitance arrangement 9984
polysilicon TFT proc. for CMOS, HDTV LCDs appl. *(Japanese)* 1492
polysilicon TFTs, ECR plasma oxid. effects on perform./stabil. 22450
polysilicon TFTs, fab., pulsed laser annealing and plasma CVD 13743
polysilicon TFTs, hydrogen passiv. 38866
polysilicon TFTs, leakage current, NH_3 annealing 38874
polysilicon TFTs, off-current, thermally generated component 38900
polysilicon TFTs, self-induced LDD devices, SiO_2 gate-insulator, passiv. layer 13748
polysilicon TFTs for act. matrix LCDs, reliab. 22449
Sanyo multi-gray-scale proc. LSI for TFT-LCD *(Japanese)* 669
SOI FET, anal. model and temp. depend. 38906
SOI IGBT leakage current and struct. for high temp. 30344
SOI MOSFET, current characts., 1D MISIS struct. soln. 22469
SOI MOSFET, extremely thin film, inversion layer to accumulation layer tunneling characts. 22453
SOI MOSFET, threshold voltage and I-V characts. study *(Korean)* 30305
SOI MOSFETs, thin film fully-depleted, 2D mobility model 13694
SOI MOSFETs, thin-film, self-heating effects, modeling 22425
SOI power MOSFET, switching charact. 38869
SOI thin film MOSFET with body terminal, photon emission 22475
SOI transistors, alternating hot carrier injection anal. 22415
switched diffusion analog memory for ANN chip 29412
TFT-LCD, viewing angle improvements 34641
TFT-LCD module, outer lead bonding 34644
US Display Consortium, flat panel display mfg. initiative 17996
$BaTiO_3$ films, sputtered for SOI struct. 6909
In_2O_3(ZnO)-PZT(PLZT), TFT on ferroelec., operation phys. 39115
a-Si TFT, 2D current transient, trap-state filling 6748
Si TFT, H ion shower doping effect 13711
a-Si TFT devices, anal., HFIELDS general-purpose simulator appl. 1416
a-Si TFT/LCD, state-of-the-art 18011
Si TFTs fab., min. glass substr. deform., RTA control 30007
a-Si act. gate for polysilicon TFT 13713
a-Si thin film optoelectronic cellular neural networks 22980
Si:F/SiO_2 TFT, F^+ implant. effects 38883
a-Si:H TFT, Chebyshev approx. of field-effect mobility *(Korean)* 13683
a-Si:H, TFT LCD, photolithographic pattern transform., backside exposure 34635
a-Si:H TFT, drain current reduction by source electrode overlap 13754
a-Si:H TFT, fab., props. 6774
a-Si:H TFT, hysteresis characts., modelling *(Korean)* 22483
a-Si:H TFT, multiple stress accelerated degrad. *(Korean)* 22442
a-Si:H TFTs, UV irrad. effects on characts. *(Korean)* 22417
a-Si:H inverted-staggered tri-layer TFTs, fab. proc. 38860
a-Si/Si_3N_4 TFT, PECVD nitride gate dielec. studies 13791
SiC vert. submicron TFT 13759
SiO_2 film, low temp. PECVD for TFT gate insulator *(Japanese)* 37524
thin film triodes *see thin film transistors*
thin films
see also coatings; dielectric thin films; epitaxial layers; insulating thin films; magnetic thin films; metallic thin films; semiconductor thin films; semimetallic thin films; sputtered coatings; substrates; superconducting thin films; vapour deposited coatings
bacteriorhodopsin thin films, autocorrelating femtosecond pulse charact. 40070
bonding, ion beam tech., review 289
buried C_{60} layer materials prod. by direct wafer bonding 390
Cu/polyimide multilevel thin film struct., reliab. 11860
deposition, ion-beam/photon-beam-assisted 28846
diamond, free-standing thin films, blue-green electrolum. 7468
diamond, homoepitaxial thin film, plasma CVD grown *(Chinese)* 5849
diamond films, lift-off synthesis, microcomponent fab. 11732
diamond thin film, adhesive strength, US NDE 28913
fullerenes, sens. material appls. 17980
isotropic thin film texture for hard disc substrs. 7147
lubricant depletion on a mag. storage disk, Monte Carlo simul. 1581
microelectronics, conf., Boston, MA, USA (Nov. 1994) 20232
nano-indenters, high-accuracy, using electrostatic force 12244
nonlin. refr. indices determ. by Z-scan/EZ-scan meas. 7780
oil films at water surface, rem. thickness meas. by excimer laser 7876
organic electroluminescent diode stabil. 23030
organic macrocycles, third-order opt. nonlin. 23422
photoconductive layers, nonsteady-state photo-EMF 1791
post-buckling of micromachined beams 30512
sheet resist. meas., microwave freqs. 42889
SOFC, reduced temp., tape calendering 44313
surface resist. anal. 13268
surfaces and films, transient optics, photon echos 31603
tris(8-hydroxyquinoline)aluminum photo- and electro-luminesc. devices, double mirrors 39576

thin films continued
two-level atoms, bistable, spatial-temporal light struct. 7750
X-ray streak camera operation, VUV wavelengths 21797
Au, rough surface, quartz cryst. oscillators, porous layers, damping effect 30600
C adherent film deposition by cathodic arc, implant. 37511
C, microporous and mesoporous films, quartz cryst. oscillators, porous layers, damping effect 30600
C_{60}, film growth on Si, amorph. and cryst. growth 37461
C_{60}, thin films, SHG 40035
C:H diamond-like films, excimer laser etching, spalling effect 30122
InP:Be annealing, e-beam evaporated borosilicate glass thin film encapsulant 13313
K_xC_{60}, thin films, photocond., absorpt. spectra 39550
$Li_2O-V_2O_5-SiO_2$ electrolyte, Li-MoO_3 secondary cell *(Japanese)* 19941
MoO_3 film-cathodes in Li microbatteries, electrochem. features, growth conditions 5180
PZT:Er ferroelec. thin film prep. by sol-gel proc., RAM appl. *(Japanese)* 1553
RuO_2 thin films, RIE in O_2/CF_3CFH_2 gas mixture 13376
SnO_2 thin film gas sens., N group element oxides addit. effect *(Japanese)* 34607
TiO_2, microporous electrode, PV study 28803
UO_3 lines, 3 μm width, photoresist-free opt. litho. 6674
W film on Si, self-limiting growth by WF_6 reduction, doping atom effect 38636
$Y_2O_3-ZrO_2$ thin film electrolyte, SOFC, tensile test 27927
third harmonic generation *see harmonic generation*
third harmonic generation, optical *see optical harmonic generation*
third-order optical susceptibility *see nonlinear optical susceptibility*
Thomson effect
Peltier thermoelement, thermoelec. anal., nonequilibrium thermodyn. model *(French)* 28014
power generation using thermoelec. element, anal. 20046
solid-state thermoelectric refrigeration develop. progress 20144
three-dimensional displays
40 inch liq. cryst. rear projection stereo colour display *(Japanese)* 3663
acoustic display systs., environ. sounds synthesis *(Japanese)* 34647
animated color 3D image display, LCD kinoforms *(Japanese)* 15158
autostereoscopic back-projection and flat screens *(German)* 9983
autostereoscopic display, high brightness/power efficiency 34621
binocular imaging geom. 32809
camera arrangement, stereoscopic picture effect *(Japanese)* 16154
cockpit display generator for electronic battlefield 10375
cockpit situation awareness autostereoscopic avionics display 10352
counterbalanced CRT-based stereoscopic displays for virtual environ. 34634
depth painting, images interactive transform., stereoscopic 3D 32811
device technol. *(Japanese)* 34642
eval. in terms of human visual fn. *(Japanese)* 17998
fish tank virtual reality 42881
HDTV single camera 3D syst., microsurgery appl. 34996
head tracking autostereoscopic display, syst. perform. requirements 34622
head-mounted displays, interactive stereoscopy optim. 34633
head-mounted high-resolution field-sequential display for virtual reality 18017
human image reproduction in virtual space teleconferencing 16823
interactive stereoscopic image display syst. for PC 34623
multidimensional MR image segmentation, fuzzy neural network 26322
partial pixel diffractive display archit. 25917
psychedelic autostereogram prod. and appl. *(German)* 24667
real-time 3D rendering, soft breadboard 10376
realistic sensations transmission, virtual dome 16641
single-camera 3D laparoscopic syst. 34998
stereoptic 3D cueing, complex flight displays decluttering 35218
stereoscopic display, eye-posn. tracking for multi-viewers 34627
stereoscopic displays and virtual reality, conf., San Jose (1994) 20239
stereoscopic imaging, μPol technol. 34630
stereoscopic imaging in window on computer monitor 34624
stereoscopic LCD, biomedical appl. 34997
stereoscopic LCD, time-parallel 34628
stereoscopic viewing systems using active and passive glasses, performance limits 18018
vector field magnitude and direction visualisation 28288
viewing model for stereoscopic head-mounted displays 34625
virtual endoscope 34565
virtual reality display interfaces 18013
virtual space teleconferencing, 3D human images reprod. 41949
vol. scanning display, reciprocating luminous panel *(Japanese)* 17997
voxel based spatial display 34631
wide-screen autostereoscopic display syst., head-posn. tracking 9985
three-dimensional television
40 inch liq. cryst. rear projection stereo colour display *(Japanese)* 3663
autostereoscopic 3-D TV, eight TV cameras *(Japanese)* 17563
autostereoscopic 3D image, data compression 32814
electro-holographic TV syst. develop., eval. *(Japanese)* 2151
HDTV single camera 3D syst., microsurgery appl. 34996
multiocular image seqs. for 3D TV, motion/depth estim. 32808
multiplane stereotelevision 2832
psychedelic autostereogram prod. and appl. *(German)* 24667
stereoscopic images, matching point detect. optim. *(Japanese)* 16128
stereoscopic imaging in window on computer monitor 34624
stereoscopic TV program, accomodation responses *(Japanese)* 17564
stereoscopic TV service, human factor requirements 34231
video player (based on MPEG 1) *(Japanese)* 3680
three phase rectifiers *see rectifying circuits*
three-term control
aerospace motion simulator, dyn. controller design 18700
aircraft ducted fan engine for nonlin. control expts. 18777
brushless DC motor controller design, software package develop. 19680
DC motor, PID/fuzzy posn. controllers comparison 11070
DC motor control based on ANN *(Korean)* 44069
DC servo motor, fuzzy PID control, accelerated reasoning 5167
DC servomotor, fuzzy precompensated PID controllers 11068
elec. road vehicle speed control, PID neurocontroller 36723
elec. vehicle PID speed neurocontroller 44575
fuzzy logic based engine idle-speed controllers 11441
lin. servomotor drives, fuzzy logic/PID control comparison *(German)* 5278
long. vehicle dist. control, meas. error effects *(Japanese)* 10028
three-term control continued
NDRE-AUV flight control syst. 10599
power generation boiler, steam temp. MRAC *(Japanese)* 43905
power syst. load freq. optimal PID controller design *(Korean)* 26922
power syst. SSR damping, SMES-based 10681
three-phase bidirectional PWM power convertor config. 5126
traction drive submicrometer control 20067
two-inertia motor syst., closed-loop PID speed control design *(Japanese)* 27669
weighing feeder retrofits/upgrades 3996
three-valued logic *see ternary logic*
three wave mixing (optical) *see multiwave mixing*
threshold elements
homog. threshold networks, dyn. props. 12298
oscillator neural networks for image proc. 12678
switching fn. systematic synthesis algm. 29187
threshold logic
2D discrete image representation in threshold basis 2816
complex polynomials and cct. lower bounds for modular counting 21280
DS-SS packet radio syst. automatic threshold control 42151
multiple-valued associative VLSI proc. 6174
neural nets, node complexity of threshold ccts. 6276
perceptrons, PP, and polynomial hierarchy 21281
systematic synthesis algm. 29187
voltage-mode CMOS multiple-valued logic memory cct. 29228
voltage-mode CMOS quaternary threshold logic latch cct. 616
when do extra majority gates help, Polylog(n) majority gates are equiv., one 21279
throat microphones *see microphones*
thunderstorms
see also lightning
electic field meas. by aircraft, calib. 10479
global activity, ELF Schumann resons. 31811
thyratrons
3-gap thyratron, turn-on simul., math. model, kicker magnet 29817
10-30 kV rail-gap pulsed power supply, compact mag. plasma switch 36403
16.5 MW med. LINAC pulsed power supply ceramic D thyratron 34983
100 kV 1 kHz Blumlein pulsed power supply, microwave appls. 36257
250 MW pulsed power thyratron, design anal. 36462
annular thyratron, microwave-triggered 29816
back lighted thyratron pulsed power switch, anti-missile radar appls. 36408
electron beam generation pulsed power supplies, back-lighted thyratron-based 36359
electron beam producing cathode, pulsed power-supplied 34858
ESRF, kicker magnet pulsed power supplies 34820
high coulombic thyratron, feasibility test results 38222
high power microwave transmitter perform., long pulse widths 29765
pseudospark operation, hollow cathode phase studies 29819
pseudospark switch develop., appls. 29818
pulsed power, IEEE Colloquium, London (1995) 28231
repetitive stacked Blumlein pulse generators 36322
supercond. supercollider pulsed power supply thyratron modulators 34750
KrF excimer lasers, HV pulsed power supplies 31171
XeCl excimer lasers, HV pulsed power supplies 31171
thyristor applications
see also thyristor circuits; thyristor motor drives
0.6 caliber railgun, air-core compulsator driven 19779
1 MW SRM design, traction appls. 36757
50 kJ railgun pulse forming unit, semicond. switched 19782
75 A second generation P-MCT, characts. 22393
230 kV FACTS power lines, advanced series VAr compensation *(Italian)* 4695
600 MW cross cpd. generator, static excitation 19601
airport lighting power lines, light failure reporting syst. 25197
asynchronous motor drives, thyristor starters, operating conditions 44458
controllable reactors/thyristor devices comparison 5027
distrib. network capacitor banks, synchronised/soft switching 10722
elec. railcars, regenerative braking, DC feeding syst. 36752
emergency generators, rectifier supply, harmonic distortion 19536
FACTS, bilinear predictive control, thyristor controlled capacitor 4582
GTO gate-drive, power supply optimisation 11109
GTO thyristors, gate drive cct., high speed operation 29021
GTO thyristors, turn-off characts. modelling 11113
HSPICE/EMTP comparison, power syst./power electronics anal. 4476
HV DC power supplies for HERA accelerator transmitters 27828
independent power generation protection, tie bus cct. breaker 10771
induction motor ASD, speed/temp./torque meas./control 36697
induction motors, dyn. loading, AM 36149
ISL-EMA railguns, phase controlled thyristor main switches 31758
JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
lightning surge protective multi-cell semicond. device 27253
long-dist. transm. syst., harmonic modelling 4628
MOS-assisted gate-triggered thyristors, pulsed power switching appls. 36431
power electronics and variable speed drives, IEE conf., London, (1994) 37
power syst., shock loads investig., digital-analogue-phys. complex 10605
power syst. H_∞ oscills. damping controller design 35483
PSS SVC fuzzy logic switching design 19102
Queensland-NSW power syst. interconnection, tech. aspects 26977
railgun air core compulsator, power electronics/controls 19783
reactive power compensators, inverter based, high freq. 5091
RUSLAN e-beam accelerator, Marx generator supply 34738
SCR millisecond switches eval., railgun launchers 31747
self protected light triggered thyristor, HVDC valve appls. 6742
single phase squirrel cage motor, variable speed optimal control *(French)* 11040
SOI lateral thyristive magnetometer, low power design 25789
solid-state SCR switches, space laser pulsed power modulator appls. 36417
solid-state thyristor technols., pulsed power closing switch appls. 36439
static neg.-phase-seq. current compensator, rly. 44537
supply-side loading minimisation, intelligent SVC control 43656
SVC, GTO-switched, elec. welding appls. 4531
SVC, μP based, unbalanced load appls. 10670
SVC, thyristor technol., components/design 44261
SVC TCR dyn. behaviour modelling, computer-based 4532
transm. line, thyristor controlled series capacitor compensation 27187
tuning of thyristor-controlled series capacitors 4630
ultrafast high press. pulsed power gas switch expts. 36416

thyristor applications continued
H-SiC pulsed power switching devices, fab., charactn. 36449
thyristor circuits
see also thyristor convertors
2 kV 10 kA pulsed GTO bridge fusion power supply 5128
3-phase TSC-TCR SVC anal., recurrences theory 19924
100 kA, 5 kV solid state opening switch, railgun appl. 31762
BiMOS high power devices appl. in intell. snubberless power conditioning ccts. 29031
coal mine transportation arcing, detection/suppression method 20107
coilgun launchers, power conditioning, thyristor appls. 31765
DC motor, HV input, rectifier-chopper control 27753
distrib. substations, thyristor controlled series capacitor appls. 27163
GTO cct. snubber diodes, low temp. elec. transient tests 528
GTO snubber networks, diode charactn. techs. 523
induction motor drives, thyristor switched, control algm. studies 44461
indust. automation systs., thyristor-based logic microcircuits 21223
PM magnetisation, thyristor-based, calib. appls. 536
single-phase transformer magnetis. and inrush currents *(German)* 11102
three-phase PWM GTO invertor, design, constr. 5090
SiC-H aerospace power IC device structures 26587
thyristor convertors
1-phase supply, drive appl., DC/AC outputs control, thyristor ccts. 5343
3 kV DC rly. power syst. harmonics, time domain anal. 44553
3-level GTO inverters, overvoltage clamping, cct. design 44183
6 MW GTO locomotive power convertor, insulation/corros. tests 36352
20 MVA GTO power amp., fusion research appls. 5115
AC motor drives, asynchronous μP control design 36637
AC motor drives, state-of-the-art, overview 44453
AC/DC power convertor, naturally commutated, SVC appls. 43667
AC/DC PWM GTO power converters, high-speed train appls. *(Korean)* 28120
AC/DC SCR bridge rectifier, common mode currents studies 19845
AC/DC soft-switched PWM power converter struct. 36344
aircraft power conversion systs., soft switching appls. 43452
ASCR thyristor-based CSI, induction heating appls. 36790
batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966
buck chopper GTO thyristors, bond graph modelling 29039
cycloconverter, math. model *(Chinese)* 36338
DC drives, thyristor/chopper/power converters 36734
DC link, transient anal., converter model, series expansion 27143
dispersed generation syst. power conditioning technols. *(Japanese)* 35716
distrib. network thyristor-based nonlin. loads, harmonic effects 19266
elec. drives energy conservation, energy efficient options 28098
EMC, SCR radiated emissions meas. 15504
forced commutated converters, voltage balancing, learning controller *(German)* 36368
GTO based SVC anal. 5064
GTO CSI induction motor drives, harmonic reson. elimination 11375
GTO inverters, PWM voltage control improvement 19750
GTO invertors, energy recovery snubber cct. 5085
GTO PWM three-level VSI, induction motor drive appls. 19761
GTO thyristors, cct. simuls., math. model 5063
HVDC converters control, microcontroller appl. 19239
HVDC thyristor valves, water cooling 5032
induction motor drives, sync. space vector modulation 36701
induction motor drives, thyristor converter-fed, μP control 44457
inductive tube welding reson. invertor syst. 20166
inverters, freq./voltage optimal control design 5098
Jones DC-DC converter, traction drive appls., av. modeling 19812
LV high-current DC rectifiers, transformer series connection 12336
MCT converter, snubber efffect, switching loss, EMI reduction 6017
MCT phase controlled rectifiers develop. 27833
metal induction heating, MF parallel power converter appls. 20163
mine elec. locomotive braking, pulsed control syst. modelling 28202
mine hoist winder drive control upgrade project, South Africa 44644
module-type SMES syst., perform. studies *(Japanese)* 28046
motor drives, thyristor convertor-fed, math. modelling 11367
multiphase series-reson. power converter, novel topol. 19721
multiple current-source GTO CSI, control techs. anal. 19853
MW solid-state cct. breaker pulsed power supply, GTO-based 36461
New Zealand HVDC link upgrade 27141
nontunable pulse-phase control syst. 5102
power converter, short-cct. current protection *(Polish)* 27790
power electronics conf., Cuernavaca, Mexico (Aug. 1993) 11564
power syst. sync. generator damping, SMES-based 10680
PV power syst. max. power tracking, fuzzy neural net-based 19552
PWM matrix power convertors, static induction thyristor-based 27818
PWM self-commutated SVC, power syst. appls. 4511
rly. power supply, static converter, Muldenstein *(German)* 44522
rly. traction drive readhesive control studies *(Korean)* 28121
SCR, EMI conducted noise emission, EMC study 36240
series reson. DC link GTO invertor expts. 44167
single-phase induction motors, multi-speed control studies 19621
small motor thyristor power convertors, RFI generation study 44081
snubber ccts. for rly. traction inverter drives 11430
soft-switching power converters, GTO/MCT characts. comparison 19849
squirrel cage ASD, speed/torque/PF control 5270
squirrel-cage motor drive, inverter-fed, computer modelling 11386
SRM novel buck power converter topol. *(Korean)* 27691
SVC, PWM invertor-based, HF/multiple connection studies 19123
switched power harmonic filters, anal., appls. 19741
sync. motor drives, self-controlled, steady state perform. 11389
sync. motors, cycloconverter-fed, computer simul. 10999
synchronous motor, self-controlled, current fed, simul. 19613
three-level PWM invertor, optimal design studies 19719
three-phase GTO rectifier, harmonic distortion reduction *(Polish)* 27789
three-phase PWM neutral point clamped invertors, voltage control *(Japanese)* 11121
three-phase quasi-reson. soft switched thyristor invertor 19732
thyristor controlled ractor compensator 19873
transm. network series power flow control, GTO VSI-based 27125
urban rly. substation systs. 44508
variable speed squirrel cage motor drives, indust. appls. 5294
XRAM pulsed power supply cct., repetitive operation studies 36256
zero crossing detect., noise reduction, digital filtering 27805
thyristor motor drives
3-phase cycloconverter control, space-vector method 11365
3-phase squirrel cage motor drive, thyristor controlled 11364
thyristor motor drives continued
AC drivers, power semicond. devices *(Slovenian)* 20052
DC drives, thyristor/chopper/power converters 36734
GTO CSI induction motor drives, harmonic reson. elimination 11375
induction motor drive, SCR based, modulation strategies 20080
ships, cycloconverter drives 36755
Ward-Leonard drive, digital control, roughing mill appl. 44624
thyristor valves *see thyristor applications*
thyristors
see also MOS-controlled thyristors; photothyristors
AC/DC SCR bridge rectifier, common mode currents studies 19845
ASCR thyristor-based CSI, induction heating appls. 36790
BiMOS MCT/IGBT VHV devices, gate oxide integrity improvement, external gettering 30275
buck chopper GTO thyristors, bond graph modelling 29039
chaos, coupled-transistor struct. 38853
control pulse shaping cct. 1373
cycloconverter drives, ASIC chip set 5322
emitter switched thyristors, forward biased SOA 13669
emitter switched thyristors, reversed biased SOA comparison 30273
fine pattern GTO thyristor, self-aligned proc. 1377
fuzzy logic applied, voltage regulation 19172
GTO cond. characts., temp. effects studies 12318
GTO devices, failure mechanism, optim. for min. current crowding during turn-off 22391
GTO failure mode during DC voltage blocking, cosmic-ray effects 30276
GTO snubber networks, diode charactn. techs. 523
GTO switching under external cct. influence, 2D simul. 1374
GTO thyristor failure mechanisms 1378
GTO thyristor on basis of SDB-tech. 30278
GTO thyristor snubberless turn-off, avalanche proc., gate drive influence 30266
GTO thyristor turn off, transient thermal effects simul. 30267
GTO thyristors, cct. oriented simul., bond-graphs 22396
GTO thyristors under snubberless operation, turn-off limitations and device failure 13664
GTO-thyristor, nonplanar, thermal runaway, 2D simul. 22392
GTOs, design of anode and gate ccts. 6741
HV appls. of IGBT or MCT in conjunction with diode, limits 30338
HV power MOSFETs, SCR device integrat. for ESD robustness 22436
HV semicond. devices breakdown, model, phenomenological lifetime prediction 30282
lateral IGBT and MOS-controlled thyristor structs. in SOI 30345
MCT, active cooling, Venturi flow 13668
MCT, gate drive cct., overcurrent protection 12323
MCT converter, snubber efffect, switching loss, EMI reduction 6017
MCTs, turn-off failure mechanisms in large devices 30274
MOS controlled thyristors, buffer layer/anode short struct., 4.5 kV 30271
power device simul., temp. depend. phys. models 30227
power semicond. switches, transient inverse recovery modelling 538
power semiconductor devices/ICs, symp., Davos, Switzerland (1994) 28219
power supply quality improvement by short-cct. current limitation on distrib. nets 27269
power thyristor inverse recovery voltage calcs. 30265
PWM matrix power convertors, static induction thyristor-based 27818
radiation effects rel., nucl. power indust. appls. 38890
SEMDEM bipolar power diode/thyristor modelling program 30199
series reson. DC link GTO invertor expts. 44167
shorted anode base resist. controlled thyristor, num. simul. 30283
soft-switching insulated gate devices, power losses, comparative investig. 30331
solid-state thyristor technols., pulsed power closing switch appls. 36439
transient thermal impedance modelling/verification 13666
trench gate emitter switched thyristors 30272
Turing's instabil., failure mechanism of GTOs 30277
Cu vapour laser, multistage mag. pulse compression design 14709
Ge-GaAs consecutive LPE growth, GaAs static induction thyrister appl. *(Japanese)* 37407
Si GTO thyristors, var. of carrier lifetime with temp., device operation 30279
Si thyristor, period-adding chaos 13665
SiC high-temp. thyristor, transient switching charact. 22398
tidal power stations
Bahrain, renewable energy resources 27321
integrated tidal barrage network, power supply reliab./economics 10878
optimal control model 43945
tides
ERS-I SAR image of Thames estuary, visual interp. 26746
ocean dyn. topgraphy, TOPEX/POSEIDON, covariance model 18875
ocean tides by TOPEX/POSEIDON radar altimetry, inverse model 18877
ocean tides on global scale, TOPEX/POSEIDON altimetry 18876
radar altimetry method for tides, satellite orbit perturb. 18837
satellite orbit perturb. by ocean tides 18837
tight-binding calculations
diamond:B films, ion implant., surface interacts./electronic struct. 30030
tilt (Earth) *see geodesy*
tilting control *see attitude control*
timber *see wood*
time and latitude *see Earth rotation*
time bases
BiCMOS video sig. proc. IC for laser disk player 9756
digital commun. syst. on-site freq. calibs., freq. counter appl. 25910
sampling oscilloscope calibration IEEE-1057 draft standards 25702
time complexity *see computational complexity*
time delay circuits *see delay circuits*
time delays *see delays*
time division multiple access
2 GHz radio propag. for local loop appls. 33844
60 Mb/s QPSK/OQPSK burst digital demodulator for radio appl., CMOS VLSI implement. 17006
622 Mbit/s TDMA PON, novel burst mode opt. transmitter *(English, Italian)* 33991
adaptive equalization for multipath fading environ. 3429
adaptive modulation/TDMA scheme for high capacity pers. multimedia commun. 9043
adaptive reduced-state channel equalizer, T-algm. 9302
adaptive TDMA, link adaptation 33214
American digital cellular syst. spectral efficiency 9275
ANN for commun. systs. modeling/simul. 17246

time division multiple access continued
- AT&T's ACCU-Ring network access service 42059
- capacity enhancement by adaptive channel allocation and power control 33203
- CATV network, digital telephone service *(Japanese)* 41709
- cct.-mode data on wireless links, retransmission scheme 17090
- cellular commun. systs., sig.-to-interf. calc. 33854
- cellular syst. with coded 16QAM and cyclical slow freq. hopping 33826
- cellular systs., uplink capacity, bounds/estim. 17064
- cellular TDMA evol. for personal commun. 42225
- cellular TDMA networks, cochannel interf. simul. 17060
- channel codec LSI for digital cordless telephones 25161
- conferencing SS radio 25260
- COST 226 project, network integrat. by satellite 42306
- differentially detected π/4-DQPSK syst. perform., AWGN/Rayleigh fading 40568
- digital cellular commun., adaptive channel equalization 42267
- digital cellular radio unified MLSE detect. 33823
- digital cellular syst. time slot assignment techs. 33824
- digital cellular systs., PDC std. based 3441
- digital commun. syst. on-site freq. calibs., freq. counter appl. 25910
- digital mobile radio, adaptive diversity receivers 9306
- digital opt. burst-mode receiver BER perform. in TDMA, opt. multiaccess network 25485
- digital radio, spectrum phase interpolation, detect. tech. 9381
- digital satellite channels, adaptive DFE, multilayer neural networks 25453
- DS-CDMA/TDMA for digital cellular systs. 3390
- dual wavelength opt. fiber HDTV distrib. networks 17571
- F-TDMA/CDMA cellular systs. perform. eval. 33838
- FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
- fourth-power law clock recovery with prefiltering 41390
- freq. hopped systs. for PCS 25360
- freq. hopped TDMA cellular syst., down-link capacity 9285
- GNSS transponder and self organising TDMA data link 10378
- GSM network archit. issues for next century 3444
- GSM syst. MLE receiver space diversity techs. *(German)* 25335
- GSM/DCS air interface enhancement for high speed data appl. 25408
- half rate digital cellular channel, speech and channel codec 33687
- high-speed train, adaptive channel equalization 3423
- idle-slot broadcasting multiple access for mobile satellite commun. 9213
- IEEE vehicular technol., conf., Secaucus, NJ, USA (1993) 28215
- in-building wireless systs., interf. charact. 33873
- indoor cordless commun., teletraffic perform. 3488
- indoor radio channel, neural-based packet equalization 9307
- indoor wireless cellular systs., punctured convolutional codes, optimal coding 33872
- indoor wireless low complexity, low delay speech coding 8193
- integrated rural subscriber access systs. for developing countries 25429
- inter base station synch. via common broadcast control channel 9279
- ITALSAT, satellite systs. and commun. characts. 42311
- Japan mobile telephone syst., detect. study 9273
- Japanese std. based digital cellular syst. perform 33807
- land mobile commun., DFE, interpolation *(Japanese)* 17138
- load-adaptive/TDMA systs. perform., satellite networks appl. 9415
- low-power wireless access syst., coverage/handoff tests 25412
- M-QAM digital mobile radio systs., diversity/equalisation 9270
- microcell systs., common access channels design 9292
- microcellular aggressive dyn. channel assignment 3342
- Mitsubishi Electric digital cell phones for Europe/North America *(Japanese)* 33891
- Mitsubishi Electric multi-channel access syst. *(Japanese)* 33897
- MMSE seqs. for channel estim. 8083
- mobile communications, IEE Colloquium, London (1994) 16
- mobile radio systs., CCI suppression 9393
- mobile user satellite systs., multiple-access capacity 25302
- multi-purpose threshold detector for mobile radio appl. 9305
- multichannel FIR filters, blind ident., subspace methods 41022
- NEC's approach, digital cellular commun. *(Japanese)* 17077
- next-generation PCN multimedia traffic support 41979
- nonlin. phase precoding for pers. commun. 2385
- nonstationary channels tracking, optimal windowed RLS algm. 17097
- North American dual-mode cellular syst. traffic advantages 33815
- Northern American Digital Cellular Syst. adaptive algm. fading channel tracking props. 33825
- opt. TDM 42128
- packet based access mechanism, perform. params. 33863
- pan-European GSM signalling for Abis interface 3448
- PCN interoperable licensed/unlicensed wireless access 33842
- pers. commun. services, satellites role 25298
- pers. commun. systs., packet transm. 25415
- pers. digital cordless telephone syst. *(Japanese)* 17136
- pers. handy phone syst. terminal design for home 42217
- personal commun. service dyn. time slot assignment strategies 42224
- portable radio channel uplink power control algm. 42197
- PRN, distributed media access protocol, set-up time, perform. anal. 33882
- PRN capacity, distributed media access protocol, perform. anal. 33881
- QPSK TDMA digital radio link, analog FM interf. 33841
- quadratic correl. archit. based single loop synthesizer and modulator 9176
- radio syst., autonomous SIR-based power control 17130
- rain atten. effect on satellite-ground links 9404
- reduced-state soft decision feedback Viterbi equaliser 3425
- RF syst., diversity combining, sectored antennas 33755
- road vehicle-vehicle commun., 60 GHz by TDMA/CDMA 9333
- Rohde & Schwarz HF Data Modem GM 857 C4 9119
- RS coded slow freq. hopped TDMA cellular syst. perform. 33827
- rural communications, TDM/TDMA techniques 8857
- rural radio commun. syst., TDMA radio based ISDN 3235
- S-CDMA fibre optic systs., seq. designs 2892
- satellite commun. systs., transm. power control 17145
- satellite PCN, 3rd generation, technol./networking issues 25413
- satellite TDMA binary PSK sig. demodulation without explicit carrier sync. 40553
- sectored antennas, indoor radio, optimum combining diversity 42281
- selection diversity, DFE 9271
- Shannon theory of Gaussian cellular multiple-access channel 25273
- shared time division duplexing for wireless digital speech commun. 3333
- shared time-division duplexing for wireless speech commun. 3442
- shared-channel multihop lightwave networks, perform. eval. 17255
- short range commun., mobile stations, TDMA frame synch. 9337
- Siemens DECT-prototype Gigaset 95x perform. indoors 9108

time division multiple access continued
- spectrally efficient modem for land-mobile radio, perform. 9272
- sq.-QAM adaptive modulation/TDMA/TDD syst., modulation level estim. 25272
- SS-TDMA scheduling algm. 42309
- stat. multiplexing mechanism for advanced TDMA 9277
- street microcellular syst., channel allocation, distributed control 25419
- system perform. in outdoor microcellular environ. 33828
- systs., unique-word perform. eval./selection/design 24780
- TDMA struct. DECT syst., data services 16621
- TDMA-TDD commun. syst. semiautonomous frame sync. 33829
- TDMA-TDD personal commun. syst. ADPCM voice transm. improvement 33830
- TDMA-TDD syst. fast-setting freq. synthesiser 33204
- third generation cellular commun., resources 25394
- third generation mobile commun. syst., realtime testbed 9352
- third generation mobile systs., adaptive radio interface 25395
- tree APONs access, distributed FIFO spacer/multiplexer 9015
- trellis coded 16 QAM/TDMA, space diversity combining, multipath fading *(Japanese)* 42172
- UMTS, advanced TDMA mobile access syst. 25332
- universal personal communications, conf., San Diego, USA (1994) 20233
- vehicle-to-vehicle commun. for AVCS platooning 5354
- video streams, multiple access method *(Japanese)* 34280
- VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938
- voice/data channel access in TDMA digital cellular networks 3338
- VSAT networks, integrat., user network environ. 17159
- wavelength-routing network switching theory 9522
- WDM channel sharing scheme for multihop lightwave networks 8696
- wireless access, dyn. channel assignment 9243
- wireless access commun. syst., radio link access procedure 9365
- wireless multi-access network multimedia service perform. requirements 41468
- wireless pers. commun., TDMA methods 17109

time division multiplexing
- *see also asynchronous transfer mode; circuit switching; message switching; packet switching; synchronous digital hierarchy*
- 3D TDM LDA 18151
- 6 Mb/s ADSL, constellation TDM 16922
- 10 Gbit/s transm. expt., direct modulation, 8:1 TDM setup 42454
- 10-GHz timing extraction from 20-Gbit/s data stream by opt. fiber PLL 9127
- 16-Gbit/s TDM/polariz.-division-multiplexed syst., compensation tech. 9126
- 40 Gbit/s transm., 202 km of fibre, midspan spectral inversion 25504
- 100 Gbit/s multichannel TDM demultiplexer by multiwave mixing 3297
- 100-Gbit/s TDM opt. transm., two tunable Er-doped fiber lasers 9490
- AD8600 series multimedia TDM *(Japanese)* 25155
- all-opt. WDM/TDM transmultiplexers 34086
- B-ISDN for video and high-speed sigs., modeling/optim. 9024
- bandwidth of time-division multipliers increase 25756
- Bus-Mesh wavelength multiplexed LAN, dyn. time slot allocation 34101
- CDMA cellular time division duplex syst. capacity 3356
- CDMA commun., CW/narrow-band sigs. interf. suppression 33749
- central vac. cleaner telecontrol, power line commun. syst. *(Japanese)* 44617
- colliding-pulse-modelocked quantum well laser, 15.8 Gbit/s syst. transm. expt. 25502
- COMETS, expt. advanced mobile satellite commun. syst. *(Japanese)* 42215
- DS-SS cordless telephone *(Japanese)* 25149
- DS-SS sigs. time division duplex transm. 9203
- fibre networks, directly modulated, seq. depend. of phase-induced intens. noise 34015
- fibre photorefr. gratings, appls., high capacity transm. systs. 39343
- fibre-optic interferometric sens., TDM/FDM comparison 17903
- fibre-optic sens. array, polariz.-induced sig. fading 17900
- four-element fiber grating sens. array, phase-sensitive detect. 17816
- French terrestrial network:architecture and capacity 9589
- high speed data communications for rural areas 8826
- IM/DD TDM high bit rate opt. systs., modelling and anal. 34067
- inform. coding, neural net hardware realisation 29515
- integrated voice/data mobile radio, design/perform. 17106
- inter base station synch. via common broadcast control channel 9279
- isochronous LANs and systems, perform. anal. of voice/video services 33440
- juggling networks, TDM implement. 24758
- LARnet, local access router network 25515
- LEOS, Lake Tahoe, NV, USA (July 1994) 39
- long-dist. soliton transm., 20 Gbit/s, alternating-amplit. solitons and opt. TDM 34018
- Mitsubishi Electric multi-channel access syst. *(Japanese)* 33897
- mixed urban/suburban propag. meas. for PCS in OFS band 9266
- MM-wave fiber-optic radio syst., opt. TDM *(Japanese)* 9198
- modular multirate video distrib. syst., design/dimensioning 9717
- modular multirate video switch design and dimensioning 42585
- multi-tone sig. generator for BIST appls. 9967
- multichannel video transm., sync. digital fiber-optic networks 34021
- multiple-access networks, opt. TDM 42128
- multiplexing/demultiplexing techs., ultrafast transm. 17226
- NEC, digital video transm. technol. develop. *(Japanese)* 42617
- nonlin. fiber Sagnac opt. TDM switch 17336
- normalized TDM-LeRoux-Gueguen algm. for multichannel adaptive filters 21428
- Omega network-based ATM switch, neural network-controlled 16416
- opt. cluster-based shuffle network, conflict-free channel assignment 3578
- opt. TDM, systs./networks 9453
- opt. TDM switching networks, interchannel cross talk, noise degrad. 9147
- pass. broadband WDM/TDM/SCMA opt. network syst. 9493
- PCN interoperable licensed/unlicensed wireless access 33842
- penalty-free 100 Gbit/s opt. transm. of transform-limited pulses 25471
- pers. digital cordless telephone syst. *(Japanese)* 17136
- pers. handy phone syst. terminal design for home 42217
- photonic time/space switching semicond. laser amps. 3586
- RACE 2001 transparent opt. networks, European progress 9524
- rem. prog. all-opt. routing device, clock division 9531
- rem. prog. opt. TDM clock division routing device 16987
- road transport informatics systs., real-time messages multiplexing 9359
- rural communications, TDM/TDMA techniques 8857
- shared time-division duplexing for wireless speech commun. 3442
- slotted TDM throughput anal. for ARQ protocols 33253

time division multiplexing continued
soliton data transm. over 200 km, polaris./time-domain multiplexing, 160 Gbit/s 34070
soliton transm. syst., 20 Gbit/s, 100 km spacing, 1000 km, robustness 42456
SS packet radio, modulation/coding 33753
switches, neural scheduling algms. 16417
TDM/WDM/SDM opt. computer 1763
third generation mobile systs., adaptive radio interface 25395
time/polaris. multiplexed opt. fiber soliton transm. 9467
transmit antenna selection diversity, prediction 9304
two-sect. travelling-wave semicond. laser amp. optoelectronic time division demultiplexer 42100
two-sect. TW semicond. laser amp. opt. transparent TDM channel selector 9552
ultrahigh-speed opt. fiber TDM transm. technols. 34088
video streams, multiple access method *(Japanese)* 34280
WDM opt. network, time-wavelength assignment algms. 42375
wireless access commun. syst., radio link access procedure 9365
wireless LAN TDD channel contention-based reservation protocol 41820
AlGaAs/GaAs HBT IC technol. for 4:1 TDM multiplexer 1487
InP technology, role in optical fibre communications 17189
InP/InGaAs HBT IC technol. for 4:1 TDM multiplexer 1487
InP-based opt. multiplexer integrated, MQW modulators 34074
time-domain analysis
see also finite difference time-domain analysis; time-frequency analysis
1D TEM wave time domain soln., Maxwell eqns.-based *(German)* 31806
2D and 3D conducting wedge problems, transient image theory 7953
3 kV DC rly. power syst. harmonics, time domain anal. 44553
3 kV DC rly. traction systs., catenary harmonics ident. 20109
3D charact.-based time-domain Maxwell eqns. solver 40180
3D ground penetrating radar imaging, SAR focusing 42506
AC PM servomotor digital controller, appls. 43979
acoustic ARMA sig. modeling, iter. Prony method 24221
act. antenna element design 31980
adjacent vias in multilayered digital ICs, coupled noise anal. 12394
aircraft AC generators, forced power transfer, dyn. modelling 26657
anistropic media, Maxwell eqn. soln. using characts. theory 23559
audio sigs., perceptual meas. schemes, filter banks constraints 40891
behavioral simul. for analog syst. design verification 28943
boost converter, current programmed, large sig. model 12314
boost converter, PF correction cct. simul. 11162
borehole radar sig. ident., time-freq. distrib. 26706
BPDA-PDA polyimide in multilayer thin-film packages, dielec. anisotropy meas. 6464
causal lin. systs., transient anal., microwave freqs. 21082
central node in polar meshes, TLM approach 23756
CFH, complex freq. hopping anal. of interconnect networks 21083
chi-sq. stats. for goodness-of-fit tests for stationary time-series 32462
chiral shields, transient anal. 23709
chiral slabs, shielding props. anal. 40378
COMPLAB Professional, time domain functional simul. of radio-engng. devices 28936
complex sig. reconstruction from time-freq. magnitude 24271
condition monitoring syst., multilevel knowledge base 17679
conductive sphere, scatt. centre estim. 23636
DC rly. vehicles, narrow-band LF act. filters 20102
dielec. coated wire scatterers/antennas, time domain anal. 15654
dielec. interface, transient scatt. responses *(Japanese)* 40325
dielec. meas. in microwave range, indust., scientific and med. appls. 34663
direct injection readout cct. model 34561
discrete lin.-quadratic filtering 8361
drill strings, sound wave propag. 43562
ECG, sig.-av., spectral turbulence anal. reproducibility 26422
EFIE, num. soln., transient antenna impedance determ. 15622
electronic cct. time domain anal., unsteady modes of operation 512
EM, time-domain modeling 2174
EM plane waves in static and dyn. conducting media 31784
EM suscept. testing in time/freq. domains 15470
EMC problems, PEEC cct. models, stable time domain solns. 15511
EMC testing syst. 23671
EMP illum. impedance wedge, current eval. 23657
equiv. transm. line model for EM penetration, reinforced concrete 40377
ESD, finite element time domain simul. 15218
FEL, 2D DFB, dyn. 2011
FEL with 2D DFB, time domain anal. 39926
field-excited transm. line systs., time domain anal. 15495
field-to-wire coupling, anal., FE-TD method 40191
FIR stat. optimum filter bank design 24261
freq. stabil. in time domain 34329
Gaussianity/time-reversibility 8422
generalised load modelling in presence of harmonics and distortion 35607
H_∞ criteria, robust sig. estim. 41012
Heaviside operator based unified theory of lumped ccts./diff. systs. 461
high power microwave aperture antennas, TD-FE anal. 40489
high-speed VLSI interconnects, freq./time domain simul. 12287
IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
IEEE conf. on instrumentation/meas., USA (1993) 20198
impedance-loss profile of interconnection struct. 22559
impulse responses ident. by wavelet transform. 8256
induction machine param. estim., standstill time-domain data 19642
induction motor starting transients, simul. algm. 19631
induction motors, inverter fed, 4-pole interconnection, reson. freq. 11361
Laplace domain FEM, diffusion/propag. problems in elec. engng. 278
layered nonlin. sheets, shielding props., prediction 15466
LCC parallel reson. power converter, discrete time domain modelling 36249
LCC parallel reson. power converter, small sig. anal. 11129
lin. ccts., sinusoidal inputs, time domain soln. 21081
line conditioning syst., harmonics reduction, PF compensation 43659
lossy transm. line cct. anal. via approximated state-space models 505
lossy transm. line simulator in PCB layout package 21638
lossy VLSI interconnect, sig. transients, propag., crosstalk 30426
LOSSYWIRE, lossy coupled transm. line simul. kernel 33732
low temp. cofired ceramics, pass. elements, RF-design 28463
Maglev on-board power supply lin. generator, math. model 36759
Maxwell eqns., soln., FE-TD algm. 37369
MIC2D software for microwave planar cct. anal., time domain FEM 38038
MIC package EM modelling 21577
time-domain analysis continued
microwave heating, multimode applicator, finite element time domain anal. 28171
microwave imaging in inhomog. media 42916
microwave structs., TLM anal., AR and ARMA spectral estim. 12731
MLC package, time-domain charactn. 28462
MMP-CG-PET, param. estim., MMP code, conjug. gradients 15211
multicarrier modulation syst. equaliser training algms. 40559
multicomponent exponential transients, time-domain method anal. 25749
multiconductor lossy transm. lines, causal time domain anal. 23765
multiconductor transm. lines, field coupling, exact SPICE model 25201
multiscale Wiener filter, fractal sigs. restoration 2470
mutually coupled line propag. charact., digital anal. method 40394
nonlin. mag. transit. shift, algm. for real time meas. 14235
nonlin. time-domain formulation of method of moments, EM field distribs. 40186
nonstationary sigs., time-varying spectral anal., combined wavelet/FT 32679
ocean acoustic scatter from mid-Atlantic ridge corners, CW and time-domain simul. 18882
optim. tech. for time domain appls. 12700
optimum sounding sig. for time-delay measuring syst. 16063
oscilloscope waveforms and their representation 5945
overhead power lines, pulsed plane wave EM field induction calcs. 19304
parallel adaptive IIR digital filters, Kalman filters *(Japanese)* 12652
partially adaptive beamforming for correl. interf. rejection 32558
PD sig. generation transm. and acquisition 22643
perfect reconstruction filter banks design 32722
phased array packages, interconnects, HF charactn. 28461
photothermal meas., freq./time/hybrid methods 10055
planar wire-mesh EM shields loaded by general stratified struct. 40379
planar wire-mesh shields loaded by chiral slabs, transient anal. 23710
power converter, SCR, EMI conducted noise emission, EMC study 36240
power syst., dynamic security assess. 19018
power syst. digital dist. relays, transient perform. study 27255
power syst. dyn. anal., num. efficient algos. 4499
power syst. harmonic waveform distortion, computer simul. 4481
power syst. harmonics meas./calc. 35691
power syst. hybrid transient stabil. anal., struct. preserving model 26858
power syst. interarea/local generator reson. modes ident. 35486
power syst. SSR damping, SMES-based 10681
power syst. switching transients simul., multiport equivalencing 26872
power syst. time-domain modelling, EMTP-based 26891
power syst. transient stabil. anal., shifted-Picard iters. method 19004
power systs., time integrated EMI safety margins 15465
power transformer time-domain K-factor computation methods 36222
power transm. line fault location algm., computer-based 27192
PSS, design, μ synthesis 43671
PSS controller tuning, systematic design method 27056
pulsed power ferrite line pulse sharpeners, num. anal. 31872
radar target ident., bispectrum 34112
rapid pulsed microwave propag., time domain detect. 42915
RC act. filter time-domain props., effect of gain bandwidth 6215
reactive power, Mean Generalised Content 4469
real SC networks 29350
recursive time-freq. methods for dyn. systs. 24257
relativistic klystrons, inductively-loaded wide-gap designs 29785
RF design, nonlin. cct. anal. methods 37609
Rohde & Schwarz TV Network Analyzer SOKF, integral digital oscilloscope 9832
room impulse responses approx. based on wavelet decomp. 15991
saturated induction motor drives, state-space modelling 28062
SC networks, charact. 12310
scalar sig. separation, decorrelation 32697
scatt. by pass. freq. depend. wedge 15405
scatt. sig. extraction, BP neural net *(Chinese)* 8657
scattering from metal or dielec. (coated) bodies of revolution 23558
scrambled speech security with isomorphic emphasis 32209
self-similar set ident. in time-scale domain 32520
semi-anal. recursive algms. for convolution calcs. 37870
sens. array sigs., multi-scale deconvolution, higher order spectra appl. 40987
ship propulsion motor noise generation, computer modelling 5347
ships, cycloconverter drives 36755
short time FT based time-freq. distrib. 24241
sig. constellations based on hypercubes 40576
single-phase nonsinusoidal ccts., power decomp. *(Chinese)* 43647
sonar anal., adaptive data extrapolations in time-freq. representations 9672
spaceborne wide swath SAR scansar sig. proc. *(Chinese)* 42515
spatial sig. distrib., reliable sig. transm. 24741
speech pitch-/time-scale modif., non-parametric techs. 40729
SPICE model for multiconductor transm. lines, EM field excited 8010
SRM drives, vibr./acoustic noise anal./control 20083
SS proc. syst., large TBP 25216
STFT anal., frame-adaptive techs. for quality vs. efficiency tradeoffs 32766
substation struct./grounding syst., lightning strike, transient anal. 44251
sync. machine equiv. cct. time domain anal. approach 11005
target HF ultrawideband radar sig. response, PO computation 34127
telecom. network sync., phase noise eval., time domain meas. 24887
telecomm. cables lightning currents interf., computer model 15539
TEM cell with inner terminator, improvement and design concept 23745
testing that stationary time-series, Gaussian 32490
thin film media, permeable keeper layer, transit. shifts 7118
three-phase diode bridge rectifier, harmonic currents calc. 11119
three-phase power systs., time/freq. domain decomp. 4467
three-phase power transm. lines, EM transients simul. 19290
time-varying filter banks and wavelets 2471
TLM anal., wideband absorbing boundary conditions 15613
TLM mesh of symm. condensed nodes with stubs, dispersion anal. 23758
transformer substations, EM transients anal. 36480
transient EM modeling, generalized k-space method 15396
transient sigs. separation 24258
transm. line, crosstalk coupling, digital noise propag. 25200
transm. line method, radiation losses 15550
transm. lines, arbitrary nonlin. loads 40393
transm. network protection simul., short-cct. current eval. 19229
transm. network transient fault simul., EMTP-based 27129
tunnels, radiowave retransm., radiating cable 9267
turbogenerator shaft torque amplif. prediction 36092
turbogenerator shaft torque/fatigue life expenditure prediction 10958
turbogenerator shaft torques/fatigue life, freq./time domain anal. 4887
ultra-wideband or short-pulse radar, time-domain imaging 42487

- **time-domain analysis** continued
  - uniform RC lines, resistive termination, time domain response 15545
  - variable speed cycloconvertor AC drives, vector control simul. 5267
  - VLSI interconnects, high-speed, time domain sensitivity 13862
  - VLSI nonuniform freq.-depend. high-speed interconnects, Laplace transform anal. 1291
  - wavelet representations of time-freq. conc. sigs. 24254
  - Whitney's edge/face elements for FETD soln. of Maxwell's eqns. 2175
  - wide band indoor channel sounder, high delay resoln. 9178
  - wideband audio sigs. coding, transform coded excitation 32257
  - Wigner distrib., time-freq. anal. tool 15973
  - AlGaAs nonlin. directional coupler, time-domain all-opt. demultiplexing 39377
  - Au coplanar transm. lines, eye diag., S-params. 1298
  - GaAs CPW opt. illum. 3D full-wave anal. 23810
  - GaAs MESFET varactor tunable oscillators, noise calcs. 21565
  - GaAs heterojunction p-i-n photodiode transient simul., computational methods 39564
  - GaAs-based integrated reson. tunneling devices, MM-wave detector appls. 10005
  - $YBa_2Cu_3O_7$ coplanar transm. lines, eye diag., S-params. 1298
- **time domain networks** *see time-varying networks*
- **time-domain reflectometers** *see reflectometers; time-domain reflectometry*
- **time-domain reflectometry**
  - *see also optical time-domain reflectometry*
  - broad-band time-domain spectrosc. for biological effects of EM waves 26482
  - controlled impedance boards testing 21624
  - EMC, TDR 23727
  - iterative frequency domain deconvolution, microstrip line appl. 24229
  - liq. cryst. polymer composite films, elec. characterisation 12200
  - low loss dielec., sig. deconvolution tech. 42895
  - microwave packages, time domain meas./modeling 28460
  - PGA package, high speed elec. charactn./simul. 20442
  - soil, elec. cond./water content, TDR 4387
  - soil moisture content detect. by TDR 10458
  - thin film microstrip line dielec. thickness var. by TDR 38180
  - time domain network analyzer 25745
- **time-domain synthesis**
  - EMP, measuring syst. deformed, reconstruction 23700
  - FIR digital filter design by interconnected neural net *(Japanese)* 15937
  - hybrid time-/freq.-domain speech synthesis, glottal source generation 32348
  - IEEE Antennas & Propag. Soc. Int. Symposium, Ann Arbor, MI, USA (1993) 11582
  - IIR Hilbert transformers, optimal design *(Japanese)* 740
  - lin. time-variant digital filters synthesis 2527
  - network time domain synthesis tech. 12257
  - nonsinusoidal power syst. supply quality improvement 19088
  - nonstationary random procs., second-order time-freq. synthesis 24289
  - perfect reconstruction filter banks design 32722
  - power syst. VAr control algms., formulation requirements 19085
  - speech high-quality harmonic coding, low bit rates 32254
  - text-to-speech synthesis, algms. comparison 32344
- **time-frequency analysis**
  - almost-periodic ccts., time-freq. transform for spectral bal. method 28992
  - analytic sig. generation, tips and traps 2493
  - analytic sig. generation for time-freq. distribs., efficient algm. 32718
  - Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
  - atrial late pots. anal., paroxysmal fibrillation risk assess. 18554
  - autocorrelation method for high-quality time/pitch-scaling 15999
  - Bayesian recursive estim. of freq./timing 2553
  - bilinear time-freq./time-scale representations, reassignment method 41052
  - biological sigs., non-orthogonal Gabor representation 43321
  - borehole radar sig. ident., time-freq. distrib. 26706
  - car engine diagnosis, cyclostationary/time-freq. sig. anal. appl. 40936
  - complex sig. reconstruction from time-freq. magnitude 24271
  - constrained neural network, complex activation fn. 32660
  - CW transform, integer scales, fast implement. 8428
  - decimation-in-time-freq. FFT algm. 32767
  - digital signal processing, conf., Yosemite, CA, USA (1994) 11548
  - discrete Gabor expansion, general theory 32516
  - discrete instantaneous freq., discrete-time phase derivative 24311
  - distribs., laser radar backscatt., FM demodulation 34166
  - dyn. RCS using the wavelet transform, time-freq. inform. 26822
  - ECG, ventricular fibrillation detect., time-freq. distrib. 43283
  - EEG series, time-freq. anal. 43296
  - energy densities in one/many dimens. 32746
  - epilepsy, time-freq. anal. of electrophysiology sigs. 43282
  - fast algms. for running wavelet anals. 32519
  - fast computation of crit. sampled time-freq. sig. representations 32464
  - filter banks, wavelet transforms 2455
  - fractional FT and time-freq. representations 2480
  - Gabor decomp. method for biological sigs. anal. 2576
  - Gabor expansion of discrete-time sigs., frame theory 15905
  - Gabor sampling theorem, time-bandwidth implications 32662
  - generalized Gabor expansions, biorthogonal-like fns. 40876
  - generalized marginals domain, adaptive kernel design 32744
  - generalized Wigner distrib., instantaneous freq. representation 32563
  - harmonic/noise model for speech 15829
  - hearing perception, time-freq. neutral network layered model 15997
  - higher-order cumulant spectra, noise, composite FM sigs. anal. 40970
  - hydrophysical procs., time-freq. distribs. 18165
  - IEEE audio/acoustics sig. proc. workshop, New Paltz, USA (1993) 5445
  - IEEE ICASSP conference, Adelaide, Australia (1994) 20269
  - impedance cardiography, advanced sig. proc. tech. 18570
  - impulse radar extracted signature features, aspect depend. in time-freq. domain 17389
  - inexpensive Gabor decomp. 32517
  - instantaneous freq. and group delay representation 15859
  - internal combustion engine knock detect. 5353
  - kernel design, alias-free time-freq. distribs. 32742
  - kernel design, lin. constrained minimization approach 8341
  - legal Wigner space filtering and interp. 2528
  - localization operators, asymptotic sing. value decay 32501
  - low residual noise speech enhancement utilizing time-freq. filtering 32211
  - matched wavelets design issues 16008
  - min. class. error, time-freq. masking filters optim. 32406
  - mixed sig. testing, joint time-freq. anal. 6826
  - modulation-based time-variant filter design, Wigner distrib. 15986
- **time-frequency analysis** continued
  - multicomponent sigs. anal., time-freq. distrib., Radon transform. 2487
  - multilinear time-freq. representations, multicomponent sigs. anal. 32743
  - multiple view time-freq. distribs. 8346
  - multiple window spectrogram/time-freq. distribs. 40964
  - multiplicative Zak transform 40850
  - multirate systs., aliasing effects and non-stationary quantization noise 32720
  - musical pitch tracking, principal decomp. anal. 32601
  - nonstationary procs., matched generalized Gabor expansion 8343
  - nonstationary spectral estim., optimal kernels 32556
  - optimal wavelet transform and translation invariance 32664
  - plethysmography elec. field sigs., time-freq. spectral anal. 43307
  - point/derivative constraints, time-freq. kernel design 40967
  - pos. time-freq. distrib. 40966
  - projection filters and sig. expansions 8414
  - random proc., DOF, Fisher inform. and freq.-time products 202
  - recursive time-freq. methods for dyn. systs. 24257
  - room impulse responses approx. based on wavelet decomp. 15991
  - scan-beam SAR image proc. *(Chinese)* 34107
  - short time FT based time-freq. distrib. 24241
  - sig. anal., power distrib. fns. under multisignal conditions 32591
  - sig. class., local discriminant bases 32500
  - sig. inform. content/time-freq. complexity 32741
  - sig. representations, adaptive method 8431
  - sig. time-freq. distrib. dens. fns., spline-approx. 32691
  - sigs. filtering, FM/peak detect. 32745
  - simultaneous real-time cryst. filter alignment in freq./time domains 39081
  - spectrograms, time-freq. dens. fns. approx. 8396
  - temporal envelope invariance, time-scale modif. 15998
  - three-phase power systs., time-freq. representations 4468
  - time-varying modulated lapped transforms 8342
  - tone synthesis, generalized overlap-add sinusoidal modeling 16004
  - transient sigs. separation 24258
  - VLSI interconnect struct., mixed freq.-time domain anal. 22512
  - wavelet representations of time-freq. conc. sigs. 24254
  - wavelet transform, weak radar sig. detect. 34130
  - weak radar sig. detect. based on wavelet transform 42491
  - wideband ambiguity fns./affine Wigner distribs. 40781
  - Wigner distrib., time-freq. anal. tool 15973
  - Wigner distribution of complex spreading sequences 9188
  - Wigner-Ville distrib. decomp. 32668
  - Wigner-Ville spectral estim., optimal kernels 40965
- **time interval measurement** *see time measurement*
- **time lag** *see delays*
- **time management**
  - e-mail messages, prioritisation, intell. agent 41740
- **time measurement**
  - *see also clocks; frequency measurement; streak photography; time resolved spectroscopy*
  - accuracy improvement of time intervals meas., pulse counting 3995
  - at. time scales 34324
  - automatic line protection testing, SDH/opt. fibre amp. 9530
  - calibs. by comparison 17632
  - computer network clocks, improved sync. algms. 2949
  - envelope delay test time meas. methods, modem design 42085
  - fiber optic sens. develops., two-photon spectrosc. 17819
  - GLONASS on-board time/freq. std. 42677
  - GPS based autonomous event time-tagging syst., EAS array 25455
  - GPS sigs. monitoring for precise time comparison 34709
  - high-speed time-to-digital converter 9841
  - induction motor, rotor time const. meas. magnetizing flux 4965
  - laser rangefinder, time interval meas. chip 10039
  - mobile radio channel, wideband micro-/macro-diversity meas. 3411
  - periodic sigs. design, FM sweeps/AM 10559
  - photon counting distrib., time interval meas. 26238
  - power IBGT module perform. testing, low inductance cct. 29009
  - pulsed TOF laser radar, CMOS ASIC struct. 34165
  - relay operate time/contact bounce, microcontroller in-proc. test cct. 29643
  - rem. time scales comparison by satellite commun. channel 17636
  - satellite laser ranging time transfer 3714
  - SDH, independent/synchronized clocks, freq. stabil. measures 8721
  - slave clock internal noise impact on Allan variance 8700
  - std. freq. generators, environ. sensitivities 42663
  - transfer, spaceborne H maser/laser pulse timing 42668
  - universal time scale reprod., astro-opt./satellite data 9783
  - urban microcellular environ., time dispersion meas. 3408
  - visual load estim. spontaneous blink opening duration *(Japanese)* 18574
  - CdTe γ-ray spectrometer, Monte Carlo simul., time/energy resol. 4246
- **time of flight mass spectra**
  - CsI(Tl) detector light output, pulse time gate effect 4174
  - Si, SR-excited ALE growth, TOFMS 37447
- **time of flight mass spectroscopy**
  - PLCC ink mark reliab. enhancement, flame treatment, tests 142
  - xerographic toner triboelectrification mechanism 7916
  - GaAs MBE growth monitoring, single photon ionization TOF mass spectrosc. 28723
- **time of flight spectra**
  - *see also time of flight mass spectra*
  - NE213 liq. scintillator neutron detector 26131
  - GaAs:Si, multiple δ-layer-doped MQW, hot electrons 38365
- **time of flight spectrometers**
  - intrinsic efficiency model 18392
  - time-dispersive electron spectrometer, voltage contrast maps 38224
- **time of flight spectroscopy**
  - *see also time of flight mass spectroscopy*
  - illicit subst. detect., fast-neutron transm. spectrosc. 12241
  - pulse delay/area, simul. determ., TOF method 10142
  - thin plastic scintillator, mirror focused HI TOF appl. 34938
- **time optimal control**
  - adaptive time optimal control of disk drive actuator, neural network 7179
  - disk drive, min. time seek controller 39181
- **time projection chambers**
  - EOS TPC, HI collisions 10122
  - FINUDA, tracking device, DAΦNE, high resoln. spectrosc. 4195
  - ICARUS detector, data reduction techs., phys. param. extraction 10125
  - ICARUS liq. Ar TPC, tetra-methyl-Ge doping effects 34944
  - liq. rare gas imaging detectors 4194
  - liq. Xe-TPC, MeV γ-ray calorimetry/imaging 4203

time projection chambers continued
  NA35/NA49 expts., TPC 4193
  STAR detector design for RHIC collider 18336
  Xe TPC, radiative pion decay detect. 4205
time resolved spectra
  Al_2O_3, insulators, HV stress, light emission from surface flashover 13954
  conference, laser techniques for surface science, Los Angeles, CA, USA (Jan. 1994) 28208
  cyanine dyes, ultrafast procs., time-resolved DFWM tech. 15140
  FELIX FEL, electron energy spectral meas. in large-slippage regime 40013
  J-aggregates nonlin. opt. props., oriented films prep. 15062
  metal pattern deposition, laser-induced forward transfer 28859
  poly(1,6-N-carbazolyl-2,4-hexadiyne), third-order opt. props. 15095
  polyimide thin-layers, curing, photoacoustic IR spectrosc. 20996
  polymer shock opt. microgauge, picosec. coherent Raman spectrosc. 18109
  PPV conjug. polymer based electroluminescent devices, quantum efficiency 23024
  quantum dot/wire struct., nonlin. optics 7738
  railguns plasma armature exploding wires, vis./UV spectrosc. 15328
  Rhodamine 640 dye in strongly scatt. media, spectral/temporal meas. of laser action 14725
  semicond. superlattices, Bloch oscills. 38359
  short-cavity semicond. laser, opt. pumped, transient response 39835
  ultrafast carrier capture in quantum well struct. 1117
  VCSEL, spectrally/temporally resolved emission 31450
  AlAs/GaAs, triple-barrier reson. tunneling LED, fast opt. induced switching 31107
  AlGaAs/GaAs quantum well DBR laser, femtosecond upconversion, time-resolved study 31374
  AlGaAs/GaAs superlattices, THz Bloch oscills. 1112
  $Al_xGa_{1-x}As$/AlAs/GaAs quantum wells, reson. electron capture 22019
  AlInAs/InP type-II superlattice, elec.-field induced excitons, opt. studies 6555
  AlN laser ablated plumes, comp. and gas dyn. 28826
  $Cd_{1-x}Mn_xSe$ quantum dots, magneto-opt. studies 39502
  CdSe, ultrafast exciton dyn. in direct gap semicond. 1032
  CdSe-ZnSe quantum well lasers, photopumping, spectral/spatial resoln. 39753
  $CdSe_xS_{1-x}$, ultrafast exciton dyn. in direct gap semicond. 1032
  Cu_2O ultrafine particles in organosols, diffusion and carrier recomb. 40028
  Er fiber loop lasers, ultrashort pulse solitons 31229
  GaAs QW, femtosec. pulse distortion, pump-probe/four-wave-mixing expts. 13195
  GaAs quantum wells, intersubband relax., ultrafast dyn. 13164
  GaAs quantum wires, dense electron-hole plasma phase 1118
  GaAs triple-barrier reson. tunneling diode, time-resolved photolum. 1451
  GaAs:Be, electron thermalization, picosecond time-scale 1033
  GaAs:C, HBT base-layers, electron lifetimes, annealing effects 1200
  GaAs/AlAs QW, exciton diffusion/energy relax. in strong mag. field 29904
  GaAs/AlGaAs quantum wells, ultrafast exciton dyn. in direct gap semicond. 1032
  GaAs-based p-i-n nanostructure, high-field electron transport, transient ps Raman studies 21974
  GaAs(001), metalorganic VPE/MBE growth, surface procs. 20722
  $GaAs_{1-x}P_x$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
  $GaAs_{1-x}P_x/Al_yGa_{1-y}As$ DH, minority carrier lifetime 1081
  $Ga_xIn_{1-x}P$/AlGaInP quantum wells, strained, opt. investig. 1134
  GaSe, layered cpd., time-resolved DFWM 15098
  InGaAs superlattices, optical props., device appls. 13143
  $In_xGa_{1-x}As$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
  InGaAs/GaAs SQW laser, spectral hole burning 39758
  InGaAs/GaAs strained [111]-oriented MQW, carrier and screening dyn. 29905
  InGaAs/GaAs strained-layer QW, grown on (311)A GaAs, charactn. 14910
  InGaAs/GaAs-on-GaAs superlattices, metal-semicond.-metal photodetectors, carrier trapping 22014
  $In_{1-x}Ga_xAs$/InP-quantum well struct., recomb. dyn. 13163
  $In_{1-x}Ga_xAs-In_{0.53}Ga_{0.47}As$ strained superlattice, gas source MBE 12056
  InGaAsP/InP quantum well laser, photoexcited carrier transport 1953
  InP, low-temp.-grown, femtosecond carrier dyn., photolum. obs. 38248
  Si porous, quantum dots, recomb. dyn. 22022
  a-Si:H films, recrystn. by XeCl excimer laser irrad. 28797
  a-Si:H, laser annealing, light-emitting Si prep. 23005
  a-Si:H, low-temp. recomb., elec. field depend. 29872
  SiC, insulators, HV stress, light emission from surface flashover 13954
  SiGe, SPE, comp. depend., time-resolved reflectivity meas. 38270
  YBaCuO high-T_c supercond. films, four-photon ps spectrosc. of phase transits. 7230
  $Zn_{1-x}Cd_xSe$/ZnSe quantum wells, excitons, picosecond dyn. and stimulated emission 13182
  ZnSSe/ZnSe superlattices, excitonic procs. and lasing 29912
time resolved spectroscopy
  see also streak photography
  plasma absorpt. spectra obs. of pulsed gas lasers 40001
  positron imaging, BaF_2 scintillator 4265
  railguns plasma armature exploding wires, vis./UV spectrosc. 15328
  spectral line emission measuring syst., calib. 17629
  stopped-flow time-resolved EXAFS, soln. react. dyn. 26263
  subsecond energy dispersive EXAFS, high perform. VME-based detector syst. 43155
  super-ACO UV FEL, time resolved fluoresc. appls. 14988
  waste-handling monitoring, fiber-optic chem. sens. 18916
  X-ray sources based on subpicosecond-laser-prod. plasmas 10162
time series
  acoustic state estim., transit. probab. digital filter 40885
  acoustical matched-phase noise reduction 15894
  adaptive bilinear predictors 32773
  adaptive blind equalization, weighted cumulant slices 41026
  autoregressive spectral estimation fro NMR spectroscopy 24233
  bidirectional estim. and confidence regions for TES procs. 20528
  biomag. spatiotemporal data, sig. source localization, sig. subspace method *(Japanese)* 35057
  biomedical multi-oscillator systs., nonlin. filtering tech. 16029
  chaos in nonlin. ccts./dyn. systs., SVD 12301
  chaos in signal processing, IEE Colloquium, London (1994) 19
  chaotic attractors charact., fourth-order off-diagonal cumulant slices 8339
  chaotic chip for nonlin. dyn. network anal. 515
time series continued
  chaotic sig. modelling, reconstructed dyn. 32620
  chaotic sig. proc. via unstable cycle extraction 32780
  chaotic syst. nonlin. observers, commun. appl. 15685
  chaotic time series, functional predictor, parallel implement. 24179
  chaotic time series, noise reduction 15684
  chaotic time series filtering 32466
  chaotic time series prediction, outliers *(Japanese)* 15934
  chi-sq. stats. for goodness-of-fit tests for stationary time-series 32462
  Chua's cct., strange attractors, discrete reconstruction 12296
  Chua's cct. online ident., chaos control 5949
  coronary artery ident. from time series of angiogram 26324
  Croatian telecomm. network, traffic forecasting 33630
  cyclostationary time-series, cumulant theory 8417
  cyclostationary time-series, cumulant theory devel. 8418
  DFT, bivariate orthogonal white noise series synthesis 40817
  discontinuity location, recursive Bayesian method 41009
  dyn. economic dispatch, short-term load prediction algm. 19210
  education, graduate engng. student courses 72
  elec. consumption forecasting, temp. inputs 19174
  filtering time series, topol. 32468
  FIR channel fractionally-spaced blind equalisation and estim. 41384
  Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
  harmonizable time series, generalized spectrum/spectral coherence 2511
  heart rate, AR spectral estim. uncertainty 26424
  heart rate variability, unevenly-spaced, spectral anal. 10247
  higher-order stat. sig. proc., freq.-domain estim. 8314
  Hough transform, autoregression param. estim. 40857
  human-motion recogn. by fuzzy associative inference 8581
  load forecasting, long-term max. demand, modified ANN approach 19209
  load forecasting, neural net prediction syst. 19218
  Lyapunov exponents calc. from time series 16020
  MIMO lin. time-variant syst., cyclic higher order stat. 40897
  min. bias multiple taper spectral estim. 24207
  mixed time av., asymptotic theory, cyclic-moment/cumulant stats. 24286
  model based filter design, median of sq. of residuals 2585
  motion field modeling for motion estim. and compensation 2842
  multichannel time series, coherence anal. 40980
  multipath channels blind identifiability 24290
  multiprobe sigs., delay reconstruction 15958
  noisy quantized random obs. coeff. AR time-series, estim. 40869
  nonGaussian stochastic syst. state estim. based on time transits. of moment and probab. fn. 2544
  nonlin. RCS, higher-order spectra 42497
  nonlin. syst. ident., nonparametric deconvolution 40874
  nonstationary procs., matched generalized Gabor expansion 8343
  NSFNET backbone traffic, long-term, time series model 8995
  one-sided/two-sided lin. prediction 24218
  optimal mean-sq.-error batch sizes 37238
  optimum detect. in dual-channel Gaussian data, localized interf. 15867
  piecewise-lin. radial basis fns. in sig. proc. 2518
  power overhead line thermal dimensioning, stochastic real-time forecasting *(German)* 10753
  power syst. interarea/local generator reson. modes ident. 35486
  power syst. short-term load forecasting, time series methods 10702
  Prony algm. modified for exponential fn. fitting 20586
  QRD inverse-updates method for fast time-series adaptive filtering 32478
  radar detect. of sigs. in chaos, small target in sea clutter 9630
  random amplit. modulated harmonic retrieval, higher-order stats. 32460
  rank determ. in time-series anal. 40910
  recurrent time series, measuring spatial spreading 11898
  recursive filters, chaotic sig. driven 16021
  RIE, time series modeling, neural networks 22556
  rot. mach., fault prognosis, neural net 27683
  seismic event class. by fuzzy logic 35290
  self-tuning deconvolution filter, ARMA sigs. 8337
  sig. detect., AIC/MDL, DOF 2504
  sig. detect., time series distrib. params., hypotheses testing 2540
  sigma DM of chaotic time series, nonlin. props. 21385
  sound modelling, chaos 16022
  sparse spike time series recovery by L_1 norm deconvolution 8415
  speech sig. invariant geom. measures 15822
  spherical acoustic objs. in motion, ident. 34167
  stationary time series, innovation variance, multitaper estim. 24206
  surge arrester, ZnO, electro-thermal model params. ident., autoregressive techs. 27275
  SVD, periodic sigs. anal./prediction 15979
  tape noise charact., chaos appl. 14252
  tapered SVD, multipulse input time series estim. from noisy output 40915
  telecomms. network design, time-series traffic data *(Japanese)* 41564
  time-domain procedures for testing that stationary time-series, Gaussian 32490
  vector parametric model of random procs., DSP appls. 32567
  wavelet anal. for sync. and timekeeping 42679
  Wigner distrib., time-freq. anal. tool 15973
  wind-diesel syst., probabilistic/time series model 10915
  GaAs, current oscills., nonlin. dyn., time series anal. 29865
time sharing computer systems *see time-sharing systems*
time-sharing systems
  image filtering, fast implement. 41360
time switches
  SDH multirate time switching control algm. and sig. proc. DCS 41419
time-varying channels
  1.5 GHz land mobile satellite commun., propag. characts. 9265
  2 GHz radio propag. for local loop appls. 33844
  adaptive equalization for fading mountainous terrain 3426
  adaptive handoffs, estim. of fading params. 9367
  adaptive HMM filters for sigs. in noisy fading channels 32736
  adaptive MLSE, fading environ., equalization/decoding 15887
  adaptive rate error control for land-mobile satellite channel 9370
  adaptive reduced-state channel equalizer, T-algm. 9302
  American digital cellular syst. spectral efficiency 9275
  antipodal Rayleigh fading sigs. detect. in severe CCI 8386
  arbitrarily varying channel theory, localized random/arbitrary errors 24082
  asymptotically optimum space-diversity detect. in non-Gaussian noise 15969
  Bayesian techs. for rapidly fading channels equalization 3436
  binary transm. in slow four params. fading channels, errors *(Polish)* 33742
  blind clustering equalizer for digital mobile radio channels 3432
  block transm. systs., channel equalization 15888

time-varying channels continued
broadband channel modelling and perform. anal. 33849
C-band overwater LOS links, meteorol. aspects 9195
C-band overwater LOS links in mid-Atlantic coast 9194
cct.-mode data on wireless links, retransmission scheme 17090
CDMA cellular mobile radio syst., power control/coding 17102
CDMA indoor microcellular mobile syst. 9204
CDMA microcellular systs., channel models 3419
CDMA mobile radio systs., multi-user detect. equalizers 9237
CDMA multicarrier syst., CCI cancellation 9215
CDMA multiple-cell radio syst., perform. eval. 3386
CDMA networks, decorrelators for multi-sens. systs. 33761
CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
concatenated block coded modulation in Rayleigh fading channel 9171
concatenated coding and ARQ, TCM for Rayleigh fading 8102
concatenated coding syst., modified erasure declaration Viterbi decoder 8173
convolutional coded ARQ scheme for moderately time-varying channels 40583
convolutional codes/time-varying errors/Kalman error correction 40664
decision-directed SS-RAKE receiver for fast fading mobile channels 9233
decision-feedback max.-likelihood decoder for finite-state Markov channels 15750
DECT-type systs., non-coherent equaliser receiver struct. 8855
digital mobile radio, model based adaptive channel ident. algms. 17100
digital multipath wireless channels ident. in interf. 9303
digital transm. over degraded channels, coded modulation 8103
diversity combining, correl. slowly flat-fading Rayleigh channels 8374
diversity gain of transmit diversity in Rayleigh fading systs. 9193
double half-bandwidth OFDM syst. for digital video broadcasting 9698
double side inform. concatenated coding for fading environ. 15751
DS-CDMA interf. cancellation schemes 17084
DS-CDMA syst. in multipath fading mobile channel, Rake reception 9234
DS-SS sigs. time division duplex transm. 9203
DS-SSMA commun. in Nakagami fading channels, path diversity 9345
DS-SSMA multitone syst. in multipath Rician fading channel 16463
DS-SSMA syst. based on $\pi/4$ DQPSK and convolutional coding 25369
DS/CDMA, M-ary orthogonal modulation in multipath fading channels 8736
DS/CDMA digital cellular systs., error control algms. 9361
error probab. on M-PSK/M-DPSK/fading diversity channels 2360
FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
FH-SS commun., Bayesian erasure techs. 25248
fractal video communicator simul. 8851
freq. non-selective channels seq. estim. 8384
freq.-selective Rayleigh fading channels seq. estim. 8373
go-back-N ARQ scheme for variable-error-rate channels 16500
GSM-syst., interf. anal. 3492
handwriting proc. in indoor/outdoor environ. for multimedia 9063
hi-fi mobile DAB scheme 9695
IIR dispersive channels, min. Euclidean dist. of modulated sigs. 15709
indoor mobile commun., CCI and multipath delay 17098
indoor radio propag. channels phase modelling 9177
indoor wireless low complexity, low delay speech coding 8193
ionos. irregularities study, HF channel 35308
Japan mobile telephone syst., detect. study 9273
M-ary DPSK on freq.-selective Ricean channels 9274
M-QAM digital mobile radio systs., diversity/equalisation 9270
MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
MLSE receivers, trellis codes for multipath fading ISI channels 8447
mobile radio channel, measuring/simulating devices 25286
mobile satellite fading channels, M/QPR-TCM perform. 17096
MPSK (un)coded transm. on multipath fading channels 9169
multi-purpose threshold detector for mobile radio appl. 9305
multicarrier transm. tech. in cellular systs. 9216
multilevel block codes for Rayleigh-fading channels 15768
multipath channel, simul. 33847
multipath compensation for underwater acoustic commun. 9614
multipath fading channels simul., Monte-Carlo method 15683
multiple TCM reduced complexity seq. decoding 8094
multiple-access arbitrarily varying channel, capacity region 24778
multiple-access arbitrarily varying channel, capacity region nonconvexity 41469
multitone sync. for fading channels 8459
nonstationary channels tracking, optimal windowed RLS algm. 17097
optimal tracking, freq. domain approach 15891
optimal trellis-coded 8-PSK and 4-AM modulations for Rayleigh channel 8104
optimum combining in wireless systs., BER upper bounds 9170
OQPSK in indoor environ., perform. 9301
orthogonal FDM for mobile radio 9214
PCS, outage probab. in presence of Rice fading 17099
$\pi/4$-DQPSK on microcellular radio channels, diversity/interf. 17101
pilot sym.-aided tech., digital sigs. in multipath environ. 9366
prog. canonical correl. anal. for blind adaptive spatial filtering 9167
PSK M-ary modulated sigs., CCI estim. 33884
QPSK hybrid slow FH DS-SS indoor commun. systs. 17030
random access model for cellular mobile commun. systs. 9327
randomly time-varying channels tracking algms. 2466
Rayleigh fading channel model, first-order Markovian assumption 31835
reduced-state soft decision feedback Viterbi equaliser 3425
Rice/Rayleigh channels state estim., nonlin. filtering 8456
simulated fast fading indoor radio channel characts. 33817
slotted TDM throughput anal. for ARQ protocols 33253
slowly time-varying commun. channels, adaptive hybrid ARQ scheme 15782
SS-orthogonal FDM syst. combination, interfer. rejection 33746
systematic TCM in coded modulation 8093
TDMA systs., unique-words perform. eval./selection/design 24780
transmit antenna selection diversity, prediction 9304
trellis-coding for partial-response channels, Viterbi detectors 30733
unconventional cryptographic keying variable mgt. 15767
underwater acoustic commun., rough surface scatt. effects 17356
underwater high data rate transm. equalizer 9611
urban microcells, ray tracing based prediction of impulse response 3420
VQ sigs. transm., Rayleigh fading channels 8448
wideband radio channel time vars., random receiver movements 33848
wireless PCS radiowave propag. 3379
X-band LOS multipath fading and vert. drift vel. 17027

time-varying circuits *see time-varying networks*

time-varying filters
adaptive IIR filters, time-varying perform. surfaces 24200
anal./synthesis filter bank, time-reversed inversion 8275
blind spatio-temporal equalizer for radio-mobile channel 33937
boundary filters for finite-length sigs. and time-varying filter banks 24343
filter banks, subband proc., border recovery 32711
filter banks and wavelets 2471
filter banks/wavelets, factorization 32706
FIR filter banks, novel struct. 32716
FIR high-precision time varying multiplier-free filters 37881
FIR unitary time-varying filter bank trees and wavelets 40809
FIR variable fractional-sample delay filters eval. 32798
IIR adaptive filter, globally convergent, output error formulation *(Japanese)* 21437
IIR digital filters, time-domain pipelining tech., stabil. 6225
legal Wigner space filtering and interp. 2528
lin. time-variant digital filters synthesis 2527
modulation-based time-variant filter design, Wigner distrib. 15986
moving objs. extraction by digital time-varying image proc. *(Japanese)* 24604
multiwavelets and time-varying filter banks 24260
nonstationary spectral estim., optimal kernels 32556
one- and two-level filter-bank convolvers 24300
optimum convergence factor for adaptive filters *(Korean)* 21439
output error method IIR ADF, stabil./globally convergence 32704
perfect reconstructional multidimensional filter banks 8274
periodically time-varying state-space digital filters study 8255
prog. blind adaptive spatial filtering 40917
RLS weighted algm. for speech proc. 32447
sens. array proc., adaptive subspace selection 40962
time-freq. projection filters/sig. expansions 8414
time-varying modulated lapped transforms 8342
transient sigs. separation 24258

time-varying networks
see also time-varying filters
2D state-space struct., periodically time-varying matrices 37869
class E amp., anal. by alternor tech. 12345
delayed cellular neural network stabil. 21490
opt. TDM switching fabrics 16979

time varying parameters *see time-varying systems*

time-varying systems
see also periodic control; stochastic systems; time-varying networks
1D input sigs. recovery in discrete time-varying lin. and bilinear systs. 2537
act. mag. bearings, unbalancing estim. 30758
adaptive param. estim., QR methods of O(N) complexity 40814
adaptive time-varying parametric modeling 40908
almost periodic sigs., extraction, cyclostationarity 40934
arrays, direction finding 40838
automobile dyn. spark ignition engine control modelling 11438
biorhythm diagnostic problems and solns. *(Japanese)* 18437
discrete lin. time- and freq.-variant systs., impulse and cissoid responses *(German)* 12307
elec. vehicle drives, time-varying adaptive μP control 36739
exponentially weighted LS ident. of time-varying systs. 2463
fault detect., uncertain nonlin. systs., diagnostic observers 28522
fuzzy rule based adaptive nonlin. filter for myoelectric sigs. 35132
hydrogenerators, adaptive speed control, RLS ident. 43988
induction motor speed control improvement, load torque var. *(Korean)* 27723
instrumental variable method appls. of time-variant struct. matrices 32485
isolated word recogn., Viterbi decoding and HMMs 32354
MIMO lin. time-variant syst., cyclic higher order stat. 40897
modified CLOS guidance law via right inversion 26825
multimachine syst. transient stabil. anal. *(Chinese)* 35425
neural estimators for multisensors, design 32658
non-Gaussian time-varying AR models, cumulant-based approaches 2523
non-lin. adaptive filters for time-variant equalization 29363
nonselective fading channels, max. likelihood data-aided symbol sync. algms. 41386
periodic phenom., spectral anal., uncertainty 40969
random amplit. polynomial phase sigs. estim. 32557
rate based flow control scheme for time-varying traffic, perform. eval. *(Japanese)* 41458
robust $\mathcal{H}_\infty$ filtering for continuous time varying uncertain syst. 40813
rot.-field machine control value fn. computation for single-sided grooving *(German)* 10938
SISO feedback control ident., lin. PWM block pulse fns. 24008
speech recogn., nonlin. syst., neural nets 40733
speech sig. anal., seq. param. estim. 32319
steam power plant, self-tuning cascade temp. control 27549
tracking, fused noncoincident meas. 17368
transitory evol. spectrum 40984
URV ESPRIT for tracking time-varying sigs. 8420
whiter than white noise 40990
Wigner-Ville spectral estim., optimal kernels 40965
zero tracking algms. for stationary/nonstationary environ. 16058

time warp simulation
distributed simul., transputer version of time warp OS 37803

timing
see also clocks; time measurement; timing circuits
1.8-μm CMOS 60-MBaud single-chip QAM proc. for digital radio appls. 21369
7.5 Gb/s monolithically integrated PLL/QW-HEMT clock recovery cct. 29341
10-GHz timing extraction from 20-Gbit/s data stream by opt. fiber PLL 9127
adiabatic dyn. logic, CMOS logic family 29111
asynchronous cct. design, space and timing factor quantification 29119
ATE environ., ±30 ps accuracy 9803
Bayesian recursive estim. of freq./timing 2553
BiCMOS SRAMs, PLL timing design techs. 29220
board-level simul., IC design/testing develop. 13869
CAD conf., San Jose, CA, USA, Nov 1994 41
candidate paths method for perform. optim. 21048
CHAN, CPA algm. for timing anal. 21046
circuit delay optim., multiple choice lin. knapsack problem 21045
CMOS cct. timing, device resist. estim. tech. 30457
coilgun perform., timing errors effect 31755

- **timing** continued
  - complex PLDs, archit. and design issues 29159
  - constrained multitrack RLL codes for mag. storage channel 39179
  - crosstalk driven routing advice for PCB interconnects 12892
  - DCVS logic, std. CMOS cell design for testable self-timed systs. 29203
  - design automation, conf., Dallas, TX, USA (Jun. 1993) 36904
  - digital mag. recording systs., adaptive nonlin. DFE 40854
  - DMSK digital packet sync., preamble design 9362
  - DS/CDMA systs., coherent detect. syst., suppressed pilot channel *(Japanese)* 25279
  - envelope delay test time meas. methods, modem design 42085
  - fully digital demodulator, combined interpolator filter for timing recovery 15707
  - functional timing analysis using ATPG 21166
  - Gordon-Haus effect reduction on dark solitons of nonlin. gain 30876
  - hazard anal. of struct. seq. systs. 37726
  - high level synthesis based on formal methods 28959
  - His-bundle sig., timing meas. improvement, bioelec. model 10242
  - logic ccts. simul., network of transputers 37734
  - LSI logic, LP based cell selection, timing, area, and power consumption constraints 37700
  - MCM interconnect considerations 38199
  - media sync. protocols for packet audio-video syst. on multimedia inform. networks 16497
  - micropipeline asynchronous digital logic design, systolic arrays, DSP appls. 29124
  - MSK from matched-filter, joint max.-likelihood timing/data estim. 15711
  - multimedia data streams, disc scheduling 16886
  - multiple cyclostationary sigs., power/timing param. estim. 40864
  - multiple route real-time channels in packet-switched networks 2870
  - piezoceramic resonators, microcontroller timing, LV operation 39085
  - power converters, transient anal., envelope following method 6009
  - RC interconnect of CMOS logic gates, effective capacitance modeling 1495
  - real-time syst. design, temporal aspects 3228
  - relay operate time/contact bounce, microcontroller in-proc. test cct. 29643
  - relays, digital control interface design 29641
  - RESIST, recursive test pattern generation algm., path delay faults, test classes 613
  - row-based cell placement method utilizing cct. structural props., ASIC layout 21262
  - row-based placement for very large ccts., simulated annealing, MCNC benchmarks 21258
  - Rsim switch-level simulator, piecewise lin., timing anal. 1481
  - SC voltage controlled sine-wave oscillator 29070
  - scan-based test-access ports, in-syst. timing extraction 6081
  - self-timed ripple-carry adders, compiler changes for efficient operation 29121
  - seq. control ccts. with timing coord., design verification based on theorem-proving tech. *(English)* 29106
  - skew assumption logic simul. for pot. spike detect. 21164
  - slave clock internal noise impact on Allan variance 8700
  - special purpose array proc. for digital logic simul. 38960
  - split gate trackers, tapped delay errors 26827
  - static timing analyzers, sensitizable path anal., reconvergence method 28931
  - std.-cell VLSI cct. design, timing and area optim. 21256
  - std.-cell VLSI cct. design, timing/area optim. 37706
  - switched-current ccts., clockfeedthrough compensation 37901
  - TiCa, timing capture tool for design/test generation of digital ICs 37683
  - verification of timed ccts., automatic 21066
  - VLSI interconnect struct., mixed freq.-time domain anal. 22512
  - VLSI timing optim. by gate resizing and crit. path ident. 21176
  - VLSI timing perform. hierarchical approach 21047
  - wave-domino logic, theory and appls. 21278
  - GaAs DCFL logic gates, timing macromodel 37717
  - GaAs ASIC set for deep space receiver 42336
  - GaAs DCFL ccts., timing macromodels 37710
  - GaAs implement., systolic floating point proc. element 29253
- **timing circuits**
  - 2.5-Gbit/s all-opt. clocked decision/retiming cct. bistable semicond. lasers 9517
  - 622 MHz voltage controlled SAW oscillator *(Japanese)* 37670
  - 900 MHz transmitter syst., highly integrated ASIC 9353
  - automotive ICs, dedicated protective fns. 36765
  - automotive low dropout regulator, HV DMOS pass element 20113
  - CERN PS accelerator, timing syst. 18183
  - clock distrib. networks, topol. design 715
  - CMOS PLL-based prog. clock generator for video sig. proc. 12611
  - COSY accelerator facility, steering/timing syst. solns. 18201
  - custom IC, conf., San Diego, USA (1993) 36842
  - digital seq. cct. retiming algm. 473
  - handshaking control cct. for self-timed systs. 614
  - induction motor drives, duty cycle-based V/f inverter control 20059
  - MOS digital ccts., fast timing simulator, feedback proc. 592
  - partial response channels in mag. recording, fast timing recovery 24166
  - phase/freq. detectors for opt. transm. systs. clock sync. 3568
  - single-channel amplit. analyzer, exact timing 10147
  - switched current cct., tunable feedthrough cancellation, modified dummy switch 29423
  - sync. clocking schemes for large VLSI systs. 6195
  - VHDL description based timing synthesis *(Korean)* 21273
  - watchdog timer in μP syst., reliab. eval. *(Japanese)* 12560
  - GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
  - GaAs PLL-based clock generator, 3.2 GHz, 50 mW, 1 V supply 12612
  - GaAs digital foundry, process, perform., reliab. charactn. 38958
- **timing jitter** *see jitter*
- **TJS lasers** *see semiconductor lasers*
- **TLD** *see thermoluminescent dosimeters*
- **TLM methods** *see transmission line matrix methods*
- **Toeplitz matrices**
  - adaptive filtering, FFT/displacement struct., subsampled-updating RLS algm. 2552
  - banded Toeplitz lease sq. problem regularization, fast algms. 32486
  - Bareiss and related Toeplitz factorization algms. stabil. 37321
  - covariance estim. for multidimensional data 8285
  - current distrib. on convex-concave cylinder with impedance boundary, Toeplitz matrix/SOR anal. 25560
  - eigenproblem of banded symmetric Toeplitz matrices soln. on multicomputers 20603
  - equi-ripple higher-order differentiators, weighted least-sq. design 32634
  - factorization, fast algm. 40860
- **Toeplitz matrices** continued
  - finite rect. array anal. with simultaneous integral eqns. 31976
  - finite rect. phased arrays, mutual coupling effects 15673
  - finite-discrete Gabor transform, computation/conditioning 32663
  - general Toeplitz systs., formally biorthogonal polynomials, look-ahead Levinson algm. 262
  - general Toeplitz systs., look-ahead Schur-type algm. 32482
  - lin. summability methods, accelerating convergence 11986
  - LMS acoustic echo cancelers, slow asymptotic convergence 24313
  - multichannel Gaussian sigs., low-rank detect., matrix approx. 24212
  - multichannel IIR filtering, Levinson-type algm. 8413
  - multivariate autoregressive model, max. likelihood estim. 2478
  - optimal two-block and four-block H^{∞} norm, Sarason approach 37217
  - product rules for displacement of near-Toeplitz matrices 264
  - queueing problems modelled by Toeplitz matrices 37225
  - RITE algm., pipelined regular array proc. implement. 8370
  - single and multi microphone noise cancellation, fast algm. 32484
  - Strang's preconditioner generalization, iter. deconvolution appls. 32821
  - symmetric pos. definite lin. eqns. of displacement rank 2, fast algm. 32483
  - thin plate splines, discontinuities and fast algms. for their computation 244
  - time-series anal., rank determ. 40910
  - Toeplitz systs., asymptotically ill-conditioned block, preconditioning strategies 20610
  - tropos. scatter radio commun., space diversity and space-time sig. proc. 32690
  - VLF tones, constrained least sq. estim. 15996
- **Tokamak devices**
  - 20 MVA GTO power amp., fusion research appls. 5115
  - conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
  - DIII-D tokamak, inside launch reflectometer systs. 34680
  - DIII-D tokamak, reflectometric dens. profile meas. advances 34679
  - DIII-D tokamak, RF wave monitor reflectometer 34678
  - FFHR, waste transmutation 35943
  - HL-1 Tokamak TF magnets, stress anal. 40270
  - ITER fusion tokamak, magnet design 7247
  - JET divertor, mm-wave two-color interferometer appl. 34676
  - JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
  - microwave reflectometry in tokamaks, dens. meas., turbulent flucts. 34681
  - multichord spectrometer, 8×8 anode photomultiplier 29814
  - pellet injection, electrothermal accelerator 15290
  - time-varying mag. field, conductive plate, induced eddy currents, Tokamak fusion reactor 31725
  - TPX tokamak supercond. magnet syst. 7246
  - triggered gap switch, LV operation *(Japanese)* 5137
  - winding, truncated coil, resist. meas. 2191
- **token networks**
  - 18th conf., on local computer networks, Minneapolis, MN, USA, 1993 28220
  - 100VG-AnyLAN, Ethernet/token ring frame inform., IEEE 802.12 technol. 41882
  - 100VG-AnyLAN fast Ethernet std. 41815
  - adaptive token release mechanism for ring LAN and MAN 41529
  - ATM, burst reduction props. of leaky bucket flow control scheme 16451
  - ATM LAN/LAN bridging, connectionless methods, perform. anal. 41911
  - auto-switched hybrid MAC, anal. and research *(Chinese)* 16474
  - AXE 10 syst., operator subsystem fn. testing 33393
  - cableless LANs, emerging technol. 41900
  - client server multimedia on token ring 33439
  - combined token/random access protocol for LAN/MAN ring networks 16708
  - const. space symm. breaking, nonexploratory self stabilization 33585
  - cyclic polling syst., waiting time distribs. for different service strategies 33242
  - evol. of token ring networks 3164
  - FDDI, mean waiting time approxs. 41845
  - FDDI concentrator tree topology with loopback 33451
  - FDDI dual homing networks, reliability anal. 33450
  - FDDI networks with real-time traffic, non-real-time communication 33452
  - fDDI-2 packet services and latency adjustment buffers 33454
  - FDDI-II for isochronous, synchronous and asynchronous traffic, bandwidth allocation 33456
  - FDDI-M, scheme, double FDDI's ability of supporting sync. traffic 16487
  - high-speed self-token ring LAN, perform. eval. 9001
  - HMR, ATM-based medium access protocol for gigabit ring networks 24800
  - IEEE 802.5 token ring LANs for multimedia traffic, priorities effectiveness 33441
  - indoor radio LAN, channel outage, token based MAC protocol 8991
  - integrated services network scheduling and admission control priority token bank 41916
  - integrated train access scheme under light/medium load, perform. anal. 33578
  - LAN, dual-ring, wrapback and merging reconfiguration algm. *(English)* 41877
  - LAN, mfg. automation, perform. models 24990
  - LAN, ring protocols, dyn. 3204
  - LAN, time complexity of exchanging messages, internetwork proc. *(Japanese)* 16719
  - LAN environment supporting priorities, output process characterisation 33472
  - LANs, internetworking and multimedia, present and future *(Japanese)* 8881
  - link layer protocol for high speed data bus 33261
  - MAC-layer hybrid protocol for real-time bus networks 2915
  - message terminating algms. for anonymous rings of unknown size 41895
  - Metaring high speed LAN, fairness anal. 33464
  - mgt., problem determ. 3169
  - multicast ATM switch copy network shared-buffer archit. 41417
  - new contention control mechanisms for FDDI 33453
  - power series algm. for anal. timed-token ring protocols 41524
  - power syst., distributed SCADA syst., design/archit. *(Chinese)* 43649
  - priority token-ring network, perform. modeling/anal. 8986
  - protocols for high-speed multiple-ring networks 3226
  - RACE II project PREPARE, mgt. of heterog. broadband testbed 33386
  - RAIN (redundant array of inexpensive networks), multitraffic perform. 24949
  - real-time MAP, modelling/formal spec. 16771
  - reliab. improvement of token ring network 8924
  - ring LANs, multimedia support, multiple priorities, perform. 33653
  - ring network, perform. mgt. 33381

token networks continued
ring network, scheme for improved multicast efficiency 2908
ring network mgt., change mgt. 33545
ring network mgt., config. mgt. 16581
rotation counter protocol, token-ring protocol for integrated services 33471
RT1612F, opt. repeater for token-ring LAN *(Japanese)* 25535
sample path anal. of token rings 41484
single-link and time communicating finite state machines 2934
single/dual ring LAN systs., token ring protocol 2916
slotted ring model, Cambridge type protocol 16472
SPS/LEP commun. control network evol. 18197
substation VAr/volt supervision/control units, fault tolerant *(Chinese)* 36472
switched LAN and full-duplex operation 33512
switches for LAN backbone upgrading 42115
synchronous messages with arbitary deadline constraints in a FDDI network 33455
token passing MAC protocols, quality of service estim. 16499
token-cycle time characteristics of FDDI networks with multiple classes of traffic 33474
train control standardisation, European operational switching syst. 44532
TRISTAN accelerator control syst., rejuvenation status 18190
wireless LAN MAC protocol archit. 41819
ZIPI network for musical instrums. 24977
token passing *see protocols*
tolerance analysis
see also sensitivity analysis
5X reticles, transmissive defect detect. 38767
arc welding stat. proc. monitoring/interp. 11510
ASIC, direct e-beam writing, proximity correction 30188
cct. tolerance design, orthogonal array optim. 5942
electronic ccts., post-fab. tuning 37575
low sidelobe lin. array tolerance optim. design 23978
low-sidelobe array degrad. rel. to element VSWR 23979
MCM-D interconnects, perform., process var. effect 38184
rocket engines, min. cost tolerancing, spreadsheet approach 18767
soft competitive learning, analogue CMOS implement., hardware tolerance 29433
TAB, generic tolerance anal. model 38174
transm. line impedance, driver impedance effect 15548
tomography
see also acoustic tomography; computerised tomography; optical tomography
2D elec. cond., two-step lin. inversion 40280
2D inhomog. dielec. objs., permitt. profiles reconstruction *(Korean)* 16136
3D mag. fields, refl. electron tomography, reconstruction *(Japanese)* 34667
3D microtomography, microfocus X-ray sources 18405
Bayesian 3D tomographic reconstruction from radiographs, obj.-oriented methods 2840
communication and signal processing, conf., South Africa (1993) 5502
conference, radiation meas./appls., Ann Arbor, USA (May 1994) 5488
cross borehole tomography, improved inversion/iter. scheme *(Korean)* 18790
digital tomosynthesis for X-ray inspection of flip chip attach 37172
elec. capacitance tomography, pattern assoc., neural network 3952
elec. impedance tomography, resistor network model 3951
energy coupling of points of inhomog. medium 15610
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
ionos. radio tomography, max. entropy 43479
ionos. tomographic reconstruction rel., radar meas. 35305
mag. suscept. tomography for 3D imaging 10175
microwave diffr. tomography, adaptive imaging algm. 16349
photopyroelectric thermal wave detect., high-speed imaging 3757
photopyroelectric thermal-wave imaging instrum., probe-tip optimisation 42790
polarimetric vector diffr. tomography 40274
PWB conductive anodic filaments, x-ray microtomography/SEM serial sectioning 12881
scanned-beam laminography image, out-of-plane material contrib. 5923
telephone exchange air conditioning units, air flow studies 20141
thermal neutron imaging detector, composite foil convertor/electron multipliers 4170
US tomograms, restoration based on Wiener proc. 43246
X-ray microtomography, NDE of mm-scale struct. 5932
tomography, seismic *see geophysical techniques; seismology*
tone generators (computer peripherals) *see acoustic generators; electronic music*
tools
see also hand tools; machine tools
CANDU, steam generator tube relaxing, sludge sampling 10826
TOP *see local area networks; office automation; protocols*
topography, surface *see surface topography*
topology
see also catastrophe theory; graph theory; network topology
2D digital images, obj. extraction, topol. contour closure requirement 24723
3D objs., drawings, geometric characterisation 16240
cct. breaker status ident., least absol. value state estim.-based 19896
computer commun. networks, topol. design, simulated annealing 33542
digital multicolor well-composed pictures 41071
digital topol. framework 28596
extraction topol. preservation index 41184
HF scatt. field data, topol. inversion 40305
Josephson jn. arrays, adiabatic chaos 7240
map topol. clustering by genetic algm. 24378
nondifferentiable optim. in Banach space 225
nonmanifold domains, octree-based automatic mesh generation 12016
parallel thinning, boundary noise tolerance 16149
proper-path tree decomp. 28602
GaAs/BiCMOS/CMOS technol. memory archit., solid modelling accelerator 29214
toroidal confinement (plasma) *see plasma toroidal confinement*
torque
3-phase reluctance motor, single phase supply, bal. operation 19614
3D electrostatic fields/forces, capacitance/torque calc. 36211
6000 hp compressor induction motor drives, harmonic torque 5255
AC/DC multi-machine power syst., SSR, shaft torsional vibr. *(Chinese)* 35470
AC/DC/reluctance motors, torque prod., unified theory 4930
asynchronous machine, two stator windings, EM torque 36144
torque continued
automotive EM particle clutch, design anal. 11435
brushless DC motors, design/selection 19656
brushless PM DC motor drives, torque ripple reduction 44477
brushless PM sync. motor drive, predictive control 20087
cage induction motor, slanted stator/rotor teeth effect on torque 36170
capacitor-run induction motors, single-phase, lumped param. model 4972
DC motor armature reaction EM field, FEM-based anal. 19660
DC motors, num. anal., FEM 36194
disc-type eddy current dynamometers, torque design formula 27659
disk drives, PM spindle motor modelling 19581
domestic appliances, doubly salient PM motor, commutation, design/anal. 11491
double squirrel cage motor, heating, short-cct., starting *(Polish)* 27705
elec. machine rotor drag torque estim. algm. *(Russian)* 43974
elec. machines, FEA, post-proc. methods 19669
elec. motor speed estim., shaft encoder meas.-based 44001
electrostatic micromotors, torque computation, 3D mesh generation 36213
EM cycloid motor, EM lin. actuator *(Japanese)* 44086
exercise bicycle eddy-current brake computer model 36651
external rotor PM motor, perform., current waveforms influence 10948
fixed pitch WEC syst., induction generator, EMTP simul. 10910
high speed async. motor, solid rotor, mag. vector pot. 36166
high-starting-torque load motor drives, AFC appls. 20081
hybrid stepping motor, torque harmonics correction *(Japanese)* 27763
induction machine reactive power, math. anal. *(Russian)* 44056
induction machine squirrel cage disc rotor, starting torque improvement 27733
induction machines, effect of skewing on cogging torque 19641
induction machines, ferromag. rotor, temp.-mech. characts. tests *(Russian)* 36150
induction motor, rotor time const. meas. magnetizing flux 4965
induction motor, trajectory learning method, neuro-fuzzy network *(Korean)* 36172
induction motor ASD, fuzzy on-line efficiency optimisation control 36659
induction motor ASD, inverter/cycloconverter fed, single-phase inputs 44489
induction motor drive, CSI-fed, microcomputer-DSP control 20072
induction motor drive, voltage control, field weakening region *(Korean)* 28088
induction motor drive, VSI fed, DSP based variable struct. control 44049
induction motor drives, direct self control/field orientation 36688
induction motor param. determ., genetic algms. appl. 4962
induction motor servodrive, control, PI load estimator 20086
induction motor speed control improvement, load torque var. *(Korean)* 27723
induction motors, choice method, torque calc. *(Russian)* 27736
induction motors, field accel. controlled, energetic efficiency 11036
induction motors, indirect vector control, ang. vel. calc. *(Korean)* 36173
induction motors, inverter-fed, computer-based torque simul. 27713
induction motors, power convertor-fed, torque pulsation calcs. 27731
induction motors, PWM power convertor feed problem calcs. 27730
induction motors, speed control, low-noise compact inverter *(Japanese)* 11016
induction motors, torque oscills. reduction, supply switching 19636
induction motors, transient torque anal. *(Japanese)* 11031
induction motors, two rotor ccts., reduced order models 11054
induction/PM sync. motors, radial posn. control 10979
interior PM servomotors, EM props. calcs. 44080
LIM, skewed ladder-type rotor, 3D FEM-based anal. *(Japanese)* 44044
LIM end-pole pitch AC EM field calcs. 36197
mag. skew gear using PM, car appls. 14267
micromotor flange bearing monolayer coatings, perform. tests 44084
motion control selection, torque determ. 27666
North American elec. motor market, German expert guidelines *(German)* 10940
opt. telescope, direct drive, low cogging torque PM brushless motors 11320
PM brushless machine, induced EMF/torque waveforms 10933
PM rectifier motor, EM field/torque calcs. *(Russian)* 10920
PM rectifier-type motor, mag. field anal. 27682
PM reluctance machines, theoretical anal. *(Japanese)* 4923
PM sync. motor, back EMF estim., torque harmonics minimisation 4916
PM sync. motors, nonlin. reduced order observer 44027
PM sync. servomotor drives, PWM inverter-fed, LF torque ripple 44479
PM vernier motor, optimum design *(Japanese)* 27685
power syst. dyn. stabil. assess., Rayleigh's quotient *(Japanese)* 35453
power systems, interconnected, single line-to-ground fault transient response 35564
PWM CSI, PM sync. machine harmonic torque rejection appls. 36354
ring-type piezoelec. ceramic US motor characts. *(Korean)* 27766
salient-pole saturated alternators, damping/synchronising torque calc. 44015
SAMCO-i high-perform. general-purpose inverters for induction motor drive *(Japanese)* 36340
servodrives, all-digital current control loops limits 28071
servomotors, indirectly connected load perform. calcs. 36207
ship propulsion, supercond. DC drives, torque react. windings 11402
ships, cycloconverter drives 36755
small US motor, operating principles, prototype 27768
spacecraft, 3-phase PM step motor simul. 35230
spacecraft pitch attitude and momentum LQG/LTR control 35238
squirrel cage motor, inverter driven, thermal model 5253
squirrel cage motor, sync. parasitic torque calc. *(Polish)* 44060
squirrel cage motors, rotor, transverse bar-to-bar currents *(Polish)* 27702
squirrel-cage motor drive, inverter-fed, computer modelling 11386
SRM, optimal operation, choppingless excitation *(English)* 27684
SRM, ripple/torque, stator thickness/teeth shape effects 36137
SRM, switching angle, high speed operation *(Korean)* 36112
SRM design considerations, aircraft engine pump appl. 10982
SRM drives, novel C-dump inverter develop. *(Korean)* 28085
SRM params., torque calc., power characts. 44022
SRM perform., end core flux effect 4915
staggered-rotor async., machine harmonic torques *(German)* 11027
steam turbogenerator exciter shaft torsional vibrs. anal. 43738
stepping motors, microcomputer control 27760
stepping motors, perform. improvements, develops. 44082
surface mount PM motors, cogging torque, mag. field anal. 36215
switched reluctance machines, torque optim. design *(French)* 10990
switched reluctance motor, phase current, loss, model *(French)* 44029
switched/sync. reluctance motor torque prod., unified theory 36133
sync. generator, back-swing phenom. anal. 11000
sync. machines, power converter-fed, harmonic conditions anal. 27698

torque continued
- three-level PWM motor inverters, harmonic loss calcs. 44175
- turboalternators, shaft torsional vibr., PSS effects *(Chinese)* 36140
- turbogenerator adaptive reclosing, shaft torsional torque effects 4905
- turbogenerator shaft torque amplif. prediction 36092
- turbogenerator shaft torque/fatigue life expenditure prediction 10958
- turbogenerator shaft torques/fatigue life, freq./time domain anal. 4887
- variable reluctance PM motor drive, elec. vehicle appl. *(French)* 11413
- variable speed drive three-phase induction motor control *(Italian)* 11330
- NdFeB PM motor torque prod./efficiency, temp. effects 36102

torque control
- AC ASD, torque/speed/posn. control, trends 20065
- AC drives, current trajectory tracking control, sync. PWM 5311
- AC locomotives, slip vel. feedback torque control *(Japanese)* 11407
- AC motor drives, direct torque control 36649
- AC motors, four-quadrant digital control scheme 10954
- anti-directional twin rotary motor drive, elec. vehicle *(Japanese)* 28111
- anti-directional-twin-rotary motor drive, elec. vehicle 5360
- asynchronous machines, direct self control algm. modelling 11041
- brushless AC motors, digital servo amp. concept 11338
- brushless DC motors, nonlin. tracking controllers develop. 4994
- brushless DC motors, torque control 11368
- brushless PM motors, cogging torque minimisation design 10946
- DC motor, adaptive speed control, torque estim./compensation 4993
- direct drive robot, torque compensation 11359
- doubly-fed induction machines, torque/VAr control 4973
- drives, computer controlled dynamometer test syst. 36695
- dual induction motor vehicle drives, control methodology 11418
- elec. vehicle, flywheel, torque controlled, peak power transfer 5357
- elec. vehicle drives, time-varying adaptive μP control 36739
- elec. vehicle induction motor neuro-fuzzy control 36722
- five-phase hybrid stepping motor command seqs. *(French)* 11085
- fuzzy logic controller for induction servo syst. 5002
- harmonic drive DC motor torque control 44445
- helical rotor lin. reluctance motor 11074
- high speed drives, energy/material savings 36672
- hybrid step motor control, torque ripples minimisation *(Korean)* 27761
- hybrid step motors, feedback-lin. control design *(Korean)* 27767
- induction motor, field oriented control, H_∞ controller synthesis 11343
- induction motor, single phase, torque control, controlled capacitor 27716
- induction motor control, min. energy approach 27726
- induction motor drive, control methods, high dyn. perform. 11356
- induction motor drive, field oriented sliding mode torque/speed control 36699
- induction motor drive flux/torque MRAC design 11348
- induction motor drive vector control, neural net-based 5291
- induction motor drives, CSI fed, adaptive params. compensator 36698
- induction motor drives, CSI-fed, torque angle control algm. 28091
- induction motor drives, digital adaptive control, transputer based 11379
- induction motor drives, direct torque control method 11339
- induction motor drives, discrete-time sliding mode digital control 11390
- induction motor drives, field oriented control, parallel proc. 36700
- induction motor drives, μP-based, vector control algm. 36643
- induction motor drives, rotor time const., torque anal. 20089
- induction motor drives, saturated, field oriented control 20079
- induction motor drives, stator voltage 3rd harmonic direct field oriented control 5299
- induction motor drives, torque control, digital meas. accuracy 20056
- induction motor drives, vector control, auto-tuning method 36682
- induction motor drives, VSI-IGBT, vector control, paper/steel industries 36805
- induction motor field oriented torque control scheme 11014
- induction motor modified flux orient. control scheme 11046
- induction motor output feedback stable controller 19633
- induction motor starting, optimal control anal. *(Russian)* 11012
- induction motors, CSI-fed, torque control, vector approx. 5310
- induction motors, doubly fed, torque/reactive power control 44058
- induction motors, field oriented controller, iron losses influence 44054
- induction motors, indirect field oriented control perform., rotor speed error 4976
- induction motors, single/3-phase, speed control, AC regulators, freq. division 11034
- induction motors, speed control, VSS, load torque observer *(English)* 36175
- induction motors, stable nonlin. dyn. feedback control 4936
- induction servomotors, cycloconverter-fed, sliding mode control 4983
- joint torque disturbance observer for robotic PCB assembly 6415
- multi-motor uncompensated elec. drive, copper treatment line appls. 36636
- PM sync. motor feedback lin. decoupling torque control 4933
- PM sync. motors, digital controller, Park model 10992
- pole changing induction motors, pole AM studies *(Japanese)* 11020
- proc. control, torque disturbance effects 5265
- reluctance generators, sensorless DC output voltage control 4927
- reluctance motor drives, flux weakened operation, current regulator 5303
- robot, PM sync. motor drive, robust adaptive control 20054
- rolling mill ASDs, torsional vibr. damping 36800
- saturated sync. motor drives, control modelling 5324
- servo induction motor adaptive speed control 19625
- servomotor drives, AC-flux-vector control 28074
- single phase squirrel cage motor, variable speed optimal control *(French)* 11040
- six-phase salient-pole PM motors, optimal control studies 27675
- squirrel cage ASD, speed/torque/PF control 5270
- squirrel cage motor, 3-phase, torque control, secondary current feedback *(Japanese)* 27708
- squirrel cage motor rotor time const. ident. studies 4953
- squirrel cage motors, torque vector control studies 4980
- switched reluctance motor, torque ripple neural control 44011
- switched reluctance motor fuzzy adaptive control 10988
- sync. servomotors, LF torque pulsations control *(French)* 11010
- variable freq. induction motor drive, pulsating torque compensation 5290
- variable reluctance machines, demagnetisation control designs 36138
- variable reluctance motors, torque ripple minimization 11007
- variable speed wind turbine, test-rig, controller design 36068
- water pumping windmills, continuously variable transm. simul. 20179
- wind turbine, self-excited induction generator 10911
- wind turbine, wound rotor async. generator, static Kramer drive 36083

torque measurement
- *see also dynamometers*
- AC machines, digital transient torque meas. 10951
- amorph. materials in sens. appls. 34480
- asynchronous machines, standstill freq. response studies *(French)* 11044
- automobiles, elec. power steering, present/future 5370
- brushless DC drives, control strategies comparison 44476
- DC motors, CAMAC-PC based automatic expt. investig. syst. 36185
- drill torque in-proc. detect., magnetostrictive effect 17716
- dyn. torque-speed meas., advanced intell. instrums. 44038
- EM plant monitoring/mgt. instrumentation 19597
- induction motor ASD, speed/temp./torque meas./control 36697
- induction motor drive elec./shaft torque indirect two-speed meas. method 36661
- induction motors, param. slip depend. determ. methods 27734
- machines torque-speed characteristics meas., computerised 25718
- mechatronic appls. of eddy-current sens. 17750
- micro-torque sens., differential force meas. based 34478
- PM motor params. determ., digital torque angle meas. 11002
- squirrel cage motor vector controllers, rotor models improvement 4975
- SRM EM characts., meas. methods comparison 10998
- steel beam mill monitoring syst., PC-based 42949
- transducer, opp. polarized rings 17715
- valves, motor-operated, noninvasive diagnostics 19624
- vehicle engine misfire detect., torque monitoring 25717
- water pumping windmills, continuously variable transm. simul. 20179

torque meters *see torquemeters*

torque motors
- direct drive lin./torque servomotors, appls. 11341

torquemeters
- micro-torque sens., differential force meas. based 34478

torsional waves *see elastic waves*

total energy systems
- *see also building management systems*
- building HVAC retrofits, postponement economics overview 44432
- gas turbine PM generator cycloconverter, digital control 10859

total quality management *see management; quality control*

touch *see mechanoception*

touch sensitive screens
- *see also cathode-ray tube displays*
- home inform. control syst., develop. *(Japanese)* 3683
- multimedia computer-based teaching, case study 20315
- multimodal interface, speech and touch screen *(Japanese)* 24137
- PCB assembly, QC, fault anal., visual inspection, computer based 943

touch sensors *see tactile sensors*

towers *see poles and towers*

town and country planning
- building detect. by range and image data fusion 41256
- oil refinery hydrocarbon storage risk assess. methodology 20172
- road extraction from aerial images, semi-automatic 41258
- semi-automatic road extraction by dyn. prog. 41254
- urban lighting, lighting fixtures *(Japanese)* 11467
- wireless commun., GIS appls. 24850

Townsend coefficient *see Townsend discharge*

Townsend discharge
- high-press. AC gas discharge, dielec. coated electrodes near breakdown threshold 38202
- IR-vis. converter, wave pattern 3873
- resistive plate chamber, low gas amplif., efficiency/time resolution 26161
- TMAE-He mixture in avalanche chamber, first Townsend coeff., E-field depend. 10127
- very-short air gaps in plane-parallel electrodes, discharges 13979
- Ar gas electron avalanches, pulsed Townsend meas. 30552
- Ar, gaseous and liq., onset voltage for corona pulses high press. gas breakdown 30554

track and hold circuits *see sample and hold circuits*

trackballs *see interactive devices*

tracking
- *see also optical tracking; position control; radar; radar tracking; satellite tracking; sonar tracking; target tracking; tracking filters*
- 3-D model-data correspondence and nonrigid deform. 16175
- 3D shape meas., spot ray pointer, calib. 42749
- AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
- acquisition, tracking and pointing, conf., Orlando (1993) 36889
- actuator/servo interact. in opt. recording 30840
- adaptive DOA tracking, QR updating/exponential sliding windows 32726
- adaptive moving method of search region *(Korean)* 24692
- adaptive obj. extraction/tracking in complex image seqs. *(Chinese)* 8658
- adaptive phase control, RLS phase estim. 40799
- AGC syst. LQG controller design 35520
- airborne laser commun. syst., adaptive jitter rejection tech. 17310
- almost periodic sigs., extraction, cyclostationarity 40934
- array proc. appl., mobile commun. systs. design 17142
- arrhythmia detect., adaptive recurrent filter 43304
- automatic formant tracking, paradigm 32407
- automatic syst. for monitoring fish passage, dams 24534
- bandlimited DS/SS and narrowband M-ary PSK timing jitter sensitivities 40550
- brushless DC motor, posn.-vel. tracking control, obs. integrator backstepping approach 27750
- brushless DC motor posn.-vel. control design 36188
- brushless DC motor/robotic load, adaptive integrator backstepping tracking controller 19655
- brushless DC motors, nonlin. tracking controllers develop. 4994
- C/A-code tracking differential GPS, category IIIB automatic landings 3638
- CCD-based tracker for laser commmunication pointing acquisition and tracking control 17304
- CCD-based tracking loop for precision beam pointing, digital control design 17307
- CDMA DA chip synchronizers for bandlimited DS/SS M-PSK sigs. 9371
- cellular base station phased array antenna syst 33794
- code sync., principles/techs., review 25236
- coherent FH-SS commun. syst. capacity 40551
- computational opt.-sectioning microscopy for 3-D quantification of cell motion 18430
- digital modems, sym. synchronizer perform. 8457
- digital PM, carrier tracking and sym. detect., nonlin. filtering 8107

tracking continued
DOA estim., optimal spatial instrum. var. method 40886
doubly-fed variable speed wind generator adaptive control 4876
DS-CDMA mobile syst., receiver archits. for down-link 33864
DS/CDMA adaptive interf. canceller for fast fading channel *(Japanese)* 25277
DS/SS systs., coherent chip-asynchronous, signature delay estim. 17014
DVCR, channel code, embedded pilot tracking tones 42636
electro-opt. tracking syst. struct. for moving obj. kinematic soln. *(Croatian)* 3626
electronic tagging 9342
flexible joint single-link robot ident. and tracking control ANN 36669
Galileo entry probe tracking, Jupiter wind profiles determ. 42337
generalized URV subspace tracking LMS algm. 32757
head mounted display, eye movement tracking 9981
hierarchical aspect graph generation, multiple range data *(Japanese)* 16303
high-dens. tape and disc track-following control techs. *(Japanese)* 14249
high-speed tracking target simulator for fine tracking mechanisms 17305
human motion tracking in real scenes, robust approach 2820
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
image seqs., dim point target detect. 16109
induction motor adaptive tracking control 36152
induction motor drives, adaptive control, param. estim. 28064
induction motors, nonlin. observer-based tracking control 19622
indust. elec. heater, discrete optimal tracking controller 44589
inter satellite cross links, non-mech. laser beam steering/spoiling methods 17308
interactive camera calib. 16138
IVHS, multisensor vision systs. 42840
large-volume position and orientation tracking 18104
laser binary FSK communication, integrated heterodyne receiver/spatial tracker 17296
laser commun., acquisition and tracking, CCD 17306
laser commun., Fabry-Perot interferometer for freq./spatial tracking 17312
laser commun., opt. commun. demonstrator 17289
laser commun. terminal for LEO satellite constellations 17297
LITE (Laser Intersatellite Transmission Experiment) model, functional testing 17288
LMS-like target tracking, robust adaptive beamforming 40958
LMSS, receiver 3rd order PLLs 42211
locally-adaptive wave proc. for predetection of point targets 17924
low-delay vector excitation speech coding with adaptive interframe pitch tracking 40722
LS based, gradient type adaptive algm. 32758
mag. sens. for tracking devices 34438
maneuvering target tracking by neural net 32622
manoeuvring targets tracking, accel. modelling, turn-rate distribs. 40788
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
mobile commun., delay lock loop, delay path cancellation *(Japanese)* 25274
motion detect. in security appls., tracking and hierarchy 24539
motion estim. guided by feedback inform. 16170
MSX early midcourse algm. testbed 16111
multigigabit opt. transm. expt., free-space simulator 17286
multipath fading ISI channel TCM detect. by sequential deq. estim. 40548
multiple chaotic systs. tracking from single obs. seq. 24057
multisensor track fusion, optimal 15912
multisensor tracking, image-based maneuver detect. 17429
musical pitch tracking, principal decomp. anal. 32601
narrowband CPM async. CDMA syst. all-digital receiver design 42150
opt. disc tracking adaptive learning control *(Japanese)* 14344
Optical Communications Demonstrator, control proc. syst. archit. 17314
OptoNeural target tracking syst. 41306
Optotrac, opt. non-contact 3D motion tracking instrum. 17659
periodic phenom., spectral anal., uncertainty 40969
phase tracking Viterbi demodulator *(Japanese)* 24176
photolithographic mask aligner based on moire interf. tech. 38709
plasma arc welding robot, TGZ-LNG membrane sheet appls. *(Japanese)* 28195
PLLs, sig. injection, sync. systs., anal./optim. 16014
PM brush DC motors, tracking control studies 36190
PM stepping motor robust tracking control 36203
PM sync. motors, digital self-tuning tracking controller 11009
portable radio channel uplink power control algm. 42197
power syst. optimal load tracking, nonlin. parametric approach 27024
PRISM-3 real time image matching syst. 8549
projection approx. subspace tracking 24204
PV array max. power neural tracking 36058
PV array max. power point tracking, power convertor-based 11296
PV array max. power point tracking scheme 19559
PV installation operational behaviour anal. by standardised representation *(German)* 43952
PV power syst. invertors, instantaneous current tracking control *(Korean)* 27620
PV power syst. max. power tracking, fuzzy neural net-based 19552
randomly time-varying channels tracking algms. 2466
rank and subspace tracking, lin. computational complexity, adaptive algm. 40912
RLS based subspace tracking 32470
robot vision, general learning algm. 8491
robotic servoactuators, quasi-optimal control design 36496
robotic wrist, underwater acoustic array tracking 9822
Rome Laboratory, overview of laser commun. technols. 17284
self-tracking US inspection syst. 34395
sens. fusion, sens. location estim. errors 41107
small opt. user terminal, flight config. 17292
small targets signal/data proc., conf., Orlando, USA (1994) 25
space guidance/control/tracking, conf., Orlando, FL, USA (1993) 11569
spacecraft pitch attitude and momentum LQG/LTR control 35238
speech sigs., recursive formants tracking 32408
sphere joint PM stepping motor controller, robot appls. *(Chinese)* 11219
SRM actuated rigid-link robot hybrid adaptive tracking control 36650
submarine, unmanned, obj. tracking, image proc. 24724
subspace tracking algm. based on SVD 41003
switched reluctance motor posn. tracking 19612
systolic arrays for spherical subspace tracking 6170
target tracking, neural network maneuver modeling 32671
time-seq. sampled imagery based motion estim. 16312
time-varying nonselective fading channels, max. likelihood data-aided symbol sync. algms. 41386

tracking continued
time-varying speech sig. anal., seq. param. estim. 32319
track-to-track fusion problems, scoring algms. 15920
tracking antenna controller, design/implement. 15677
traction drive submicrometer control 20067
TV-Trackmeter, underwater stereoscopy, hostile environ. appls. 24483
TV/IR camera tracking syst. control *(Croatian)* 3684
ULLV decomp. computation 32473
updating rate of Jacobi SVD arrays and data nonstationarity 32477
URV ESPRIT for tracking time-varying sigs. 8420
uterine EMG anal., instantaneous burst freq. tracking 43281
variable speed induction motor drives, controller synthesis 11353
virtual reality, transputer based US tracking syst. 18947
vision-based vehicle tracking, camera movement errors anal. 16293
visual human hand tracking 24607
voiced-speech anal., residual interfering sig. canceler algm. 32323
weak narrowband sigs., estim. and HMM tracking 40972
wideband multiple target tracking 41010
wireless commun. syst. adaptive array sig. acquisition and tracking 33792
zero tracking algms. for stationary/nonstationary environ. 16058

tracking (insulation) *see surface discharges*

Tracking and Data Relay Satellite System *see satellite tracking*

tracking filters
adaptive algms. for time delay estim./IIR filtering 40830
adaptive correl. based tracking algm. 16281
adaptive FM IF syst., improved selectivity, top-down design methodology 34229
adaptive lattice notch filter, tracking anal. 40853
adaptive sinusoid detect., IIR notch filters and multirate techs. 2548
adaptive waveform selective probabilistic data assoc. algm., tracking in clutter 15948
airborne multisensor surveillance, data fusion IKBS 35395
airborne US rangefinders, adaptive target tracking algms. 42533
altitude prediction by natural spline tracking filter *(Japanese)* 8410
coherent opt. CDMA, laser phase drift effects 42348
correl. gate size optim. for maneuvering targets 18977
data assoc. in multitarget tracking, efficient algm. 24331
dim objs., detect. and tracking, fuzzy evidential filter 41031
discrete-time/continuous-time const. modulus algm. anal. 29383
EKF freq. tracker, design 32781
EKF sensitivity, soln. accuracy for single space based observer 29343
EKF sensitivity, var. in observer no. and obs. type 29342
enhanced RLS tracking, parallel adaptation 32698
fusion of radar and imaging sens. data for target tracking 16113
Kullback dist. based nonlin. phase estimators 41011
maneuver-driven tracking filters 25558
maneuvering target tracking by neural net 32622
manoeuvring objs., motion estim., rot. representations 33138
modified duobinary PAM fast timing recovery syst. design and simul. 32039
multichannel simultaneous digital tracking filters, vibr. control 17993
multiple model adaptive estimator target tracker, accel. models 32542
multiple model filters, tracks stabilization 32694
multiple unknown objs. localisation/tracking 24665
multiple-model target-oriented tracking syst. 18983
nonlin./non-Gaussian filtering and bootstrap filter 8464
Northern American Digital Cellular Syst. adaptive algm. fading channel tracking props. 33825
one-step fixed-lag IMM smoothing for alignment of asynchronous sens. 15875
parallel transputer network Kalman filters 24191
parallelizable adaptive least sq. algm., tracking abilities 32751
power syst. harmonics, dyn. filter, least absol. value algm. 19001
radar scan frame time maximization for tracking maneuvering target 17369
radiolocation data proc., parallel space filtering 25611
Rician fading channel nonlin. carrier sync. tracking perform. 33803
RLS weighted algm. for speech proc. 32447
sparse-tap adaptive FIR filters, multiple echoes, fast convergence algm. 32693
time-varying channels, optimal tracking, freq. domain approach 15891
underwater targets tracking, robust regression-based EKF 24172
variable-dimens. filter, input estim. 24329
wideband all-digital PLL design with multirate digital filter banks 37674
zero tracking algms. for stationary/nonstationary environ. 16058

tracking systems *see tracking*

tracks, particle *see particle tracks*

traction
see also traction motors
3 kV DC rly. power syst. harmonics, time domain anal. 44553
12-pulse traction rectifiers simul., Saber simul. 44554
12X elec. locomotive, develop. and perform. *(German)* 28103
220 kV power syst. protection misoperation, traction harmonics-based *(Chinese)* 43609
AC locomotives, line-side switching harmonics compensator 20101
AC traction load, 3-phase equiv. cct. model *(Chinese)* 44499
automobile traction assist real-time vehicle simulator 11439
batt. syst. defns. and appl. *(German)* 28132
Channel Tunnel traction/auxiliary power supplies 44533
DC electrified rly. traction syst., stray currents control 44546
DC rly. locomotives, induction motor-driven, computer simul. 5348
DC rly. power systs., intell. traction power control 28126
DC rly. vehicles, act. power filter appls. *(German)* 11421
Deutsche Bahn elec. rly. operation review, 1994 *(German)* 44500
EA 3000 rly. IGBT auxiliary power converter series *(German)* 28124
EHV traction power networks, harmonic generation calcs. *(Italian)* 5349
elec. locomotives, adaptive output power control studies *(Japanese)* 28112
elec. railcars, regenerative braking, DC feeding syst. 36752
elec. rly. real-time control/monitoring syst. integrat. *(Chinese)* 36710
elec. rly. traction syst., EMI assess. modelling 44548
electric railways in united Europe, IEE conf., Amsterdam (1995) 36833
electrified rly., EMC 44545
Maglev rly. inverter harmonic suppression method 11423
mechatronics fund., meas. sci. and technol. 9850
PM brushless DC motors, field weakening, control 11360
power supply maint. project mgt., UK 44525
reson. DC link inverters, soft/hard switching methods 44568
rly. feeder traction substations, harmonic prediction formulae *(Chinese)* 44249
rly. substations, 3-phase power flow studies 20108
rly. traction power equipt. purchasing, specs. experiences, UK 44535

traction continued
rly. traction power supplies, overview 11425
rly. traction power supply, 130 kV transm. lines *(German)* 44521
rly. traction substation transformers, unbalance modelling 44520
rly. traction syst., public grid interconnected, load flow 28109
rly. traction transformers, asymmetry/harmonic/fluct. loss calcs. *(Chinese)* 44564
suburban elec. rly. link project, UK 44552
two freq. elec. locomotives, act. DC link filter 44541
traction current collection
see also pantographs
contact wires, power collection efficiency 5331
narrow-gauge rly. line catenary systs., R&D results 36750
rly. overhead contact lines, high-speed insulator develop. 36748
third rail conductor inspection, video appl. *(German)* 11422
traction diesel electric engines *see diesel-electric locomotives*
traction motor drives
1-phase supply, drive appl., DC/AC outputs control, thyristor ccts. 5343
3 kV DC rly. traction systs., catenary harmonics ident. 20109
3-level IGBT PWM inverters for traction drives 27831
axial flux interior PM sync. elec. vehicle motor drives 36756
DC drives, thyristor/chopper/power converters 36734
dual induction motor vehicle drives, control methodology 11418
elec. locomotive DC motor drives, PWM rectifier retrofit project, Australia 44543
elec. locomotive DC traction motor drives, electromech. proc. modelling *(Russian)* 36719
elec. multiple units, 3-level IGBT traction inverter 5361
elec. road vehicles, induction motor design criteria 11415
elec. rolling stock, induction motor traction drive appls. 36706
elec. vehicles, high current power modules, SiCAl packaging 20116
hybrid elec. cars, ultracapacitors, energy storage 20098
hybrid elec. vehicle, IGBT based syst., packaging/perform. 20095
induction motor drive phase model based on TLM method 19646
Jones DC-DC converter, traction drive appls., av. modeling 19812
lin. PM motor traction drives, basic considerations 11419
locomotive motor wheel set drives, adhesion utilization improvement 36758
Maglev PM wheels, basic characts. 5356
mine elec. locomotive braking, pulsed control syst. modelling 28202
PM commutator motor drives, const. power speed range 36724
PM sync. elec. vehicle motor drive, design, testing 11417
power electronics evol., Europe 37620
rly., traction drive, snubber energy recovery cct. 44540
rly. traction drive readhesive control studies *(Korean)* 28121
rly. traction vehicles, tractive factor calcs. *(German)* 28105
snubber ccts. for rly. traction inverter drives 11430
solar elec. vehicle, PM brushless DC motor drive 5355
submicrometer control of traction drive 20067
three-phase AC/DC universal traction drive syst. design 44542
traction motors
see also traction motor drives
1 MW SRM design, traction appls. 36757
4 wheel drive elec. vehicle, integral batt. charger 5359
AC locomotives, slip vel. feedback torque control *(Japanese)* 11407
AC/DC 4000 kW dual mode inverter controlled locomotive 44506
bogie, traction motor drive 5333
Class 200 armature insulation syst. 11395
DC motor chopper traction systs., computer simul. *(Chinese)* 28128
elec. locomotives, total systs. simul., SIMULINK 44555
elec. road vehicle drive syst. thermal behaviour *(German)* 36745
EMI testing of high speed rail train set 15493
mass rapid transit three-phase traction motors, adhesion perform. *(German)* 28104
people mover, inverter, parallel connected IGBTs 44518
robust H_∞ control of traction drive 20066
Shinkansen develop., Hitachi technols. 44505
urban transit syst., LIM design 36754
tractive effort *see traction*
trade *see commerce*
trade fairs *see exhibitions*
trade shows *see exhibitions*
traffic
see also air traffic; rail traffic; road traffic; telecommunication traffic
ATM technol., switching success 8856
European permanent traffic observatory project, marine traffic radar data *(English)* 3593
traffic control
see also air traffic control; automated highways
Amsterdam road A10, coord. ramp-metering syst. 16640
ATBL, European automatic train control systs. integrat. 44544
ATM trolleybus syst., radio control develops. *(Italian)* 3537
automatic train protection syst., commun., rails 11411
automobile control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
automobile distributed onboard systs. and cruise control 8935
automobile navig. systs., immobilisers, night vision, fuzzy logic 36763
automotive control syst. benchmark based on Time Triggered Protocol 5369
Belfast, integrated urban-road/motorway control/informatics 17665
car collision avoidance syst. design 44581
car safety crit. fns., commun. protocols design 8934
CARAT rly. signalling project overview, Japan 36747
coastal traffic control radar network proposal *(Croatian)* 3605
commun. networks in transportation 36743
communication networks in transportation, IEE Colloquium, London (1995) 20252
DC rly. power systs., intell. traction power control 28126
decentralized routing control, overlapping decomp. 16531
EBICAB 900 train protection transponders, product series 5334
Ecdis marine chart display IS navig. syst. 9681
elec. locomotives, adaptive output power control studies *(Japanese)* 28112
elec. rly. real-time control/monitoring syst. integrat. *(Chinese)* 36710
EMC of microelectronic rly. traffic control systs. 28117
EUROLOOP, train control data commun. syst. 41633
flexible network technol. prospects *(Japanese)* 16572
ground to train radio, multi std. internat. syst. 42171
high speed elec. rly., power/control systs. *(French)* 11427
high-speed trains, GSM-based commun. syst. 9284
highway advisory inform. radio syst., speech synthesizer 42568
traffic control continued
image sens. in traffic and vehicle control 41210
infrastructure networks, fault mgt. 3458
interface design, vehicle-driver, conf., London (1995) 20205
long. vehicle dist. control, meas. error effects *(Japanese)* 10028
Malaysia, Klang Valley, traffic control/surveillance 17664
Manchester Metrolink, EMC and road traffic control 5330
marine traffic mgt., survey of current and possible future measures 25608
MM-wave radar sens. for road vehicle positioning 42512
motorway commun., radio distrib./opt. transm. network 42157
motorway traffic supervision, video camera-based *(Italian)* 3686
Nat. Motorway Communications System Mark 2, traffic mgt. 33552
NDRE-AUV flight control syst. 10599
noise meas. and param. estim. methods *(Croatian)* 4026
omnibus fleet mgt. syst., radio links 34389
radar image proc. for ship traffic control 34145
radar sens. for automatic AICC 5377
radar sens. for car appls. 5378
radio synchronisation of urban traffic control systs. 17165
rly. signalling equipt., condition-based maint. 44531
secondary elec. rly. lines, low cost operation, Italy 44529
ship traffic control harmonised, coastal protection *(French)* 35378
signalling, solid state interlocking 28136
SOCRATES, European in-car radio navig. syst. 42540
syst.-level testability of hardware/software systs. 9794
Tokyo Metropolitan Traffic Control System, image proc. vehicle detector 42845
train control standardisation, European operational switching syst. 44532
trains computer and radio control 9283
urban traffic control, dyn. queue length modelling 34388
vehicle to roadside commun., 5.8 GHz, adaptive array antennas 15666
vehicle-to-vehicle commun. for AVCS platooning 5354
vehicular traffic control, act./pass. IR sens. 11429
worldwide technol. develops. overview, 1994 36711
traffic control (telecommunication) *see telecommunication congestion control*
traffic control systems *see traffic control*
traffic engineering computing
see also automated highways; traffic information systems
AC rly. syst. energy conservation, optim. train running curves 44530
car driver behavior evol. detect., fuzzy diagnosis proc. 34387
cluttered scenes, real-time visual tracking 32950
contour extraction of moving objs. in complex outdoor scenes 24576
fault-tolerant data network, transputer based, for ATC *(Italian)* 8912
high-speed vehicle convoy, control feasibility simul. *(Japanese)* 28107
level crossing obj. detect. algm. 33145
long. vehicle dist. control, meas. error effects *(Japanese)* 10028
occlusion reasoning for robust multiple car tracking 24455
pose refinement of act. models, forces in 3D 24467
rly. signalling equipt., condition-based maint. 44531
road rear-end collision avoidance, 60 GHz radar 34152
see-through head mounted display, electrochromic mirror *(Japanese)* 34646
urban traffic control, dyn. queue length modelling 34388
traffic information systems
see also driver information systems
Belfast, integrated urban-road/motorway control/informatics 17665
differential GPS data format stds. and trends *(Japanese)* 17510
PROMISE pan-European traveller inform. syst. 3462
radio data syst. protocols 33521
RDS for digital traffic inform. 9185
roads, beacons/protocols for fee collection/route guidance 41521
ROMANSE, road mgt. syst., Southampton project 17684
speech guiding syst. and speech database for automatic traffic mgt. 24145
vehicle navigation and information systems, conf., Japan (1994) 36825
traffic recording
see also telecommunication traffic recording
intell. vehicle/highway systs., compressed video commun. 8682
speech guiding syst. and speech database for automatic traffic mgt. 24145
urban traffic control, dyn. queue length modelling 34388
traffic restrictions *see traffic control*
training
see also computer based training; education; teacher training; teaching
accent training for new arrivals 28294
advanced CMOS analogue design, training 21460
ASIC VLSI design projects, microelectronic CAD lab 22516
audience anal., engineering education appl. 28292
avionics maint. training, equipt. simul. 35236
biomedical engineers training in developing countries 43181
biomedical robotic/mechatronic systs. appl., education, therapy, training 35174
Bulgaria, nuc. plant analyzer program 35839
BWR power plant, abnormal conditions, operator perf. 27403
centimetric ground radars, pers. reminiscence 34148
Channel Tunnel rail link, engng./tech. aspects 44556
colloquium, education for biomedical science/engineering, London, UK (1995) 20235
commun. training for elec. engineers 28349
computer industry, technical communication curriculum 28565
cycle time reduction strategies implement. for new package introd. 36950
deaf children, computer aided speech training 35182
deaf children's PC-based speech training environ. 4328
design-mfg. practice, USA/Sweden 28398
developing country engng. education policies, Africa 28356
distance training syst., design 5559
DSP training, indust. perspective 36923
EDUCATE project, end-user courses in inform. access, commun. technol. 20339
elec. engng. training programmes, overview 36935
elec. utility quality mgt. case study, Cyprus 19148
engng. careers mentoring, case study, Canada 11664
engng. curricula, indust. perception, India 5554
engng. education, indust.-university collaboration, India 5555
engng. education, indust.-university cooperation, India 5546
engng. education courses, foreign lang. learning incorporation 28283
engng. education institution placement services, India 5551
engng. entrepreneurship develop., academia role, India 5557
engng. personnel mentoring, career guidance benefits 28341
ENSERG, microelectronics practical training, proc. characterisation vs. simul. *(French)* 20334
ESD control program support, auditing/awareness training aspects 30544

training continued
EUROCHIP initiative, VLSI design training, Univ. College London 22514
fossil plant operation improvement, compact simulator 43908
GPU Nuclear, personnel qualification/training 4782
healthcare std. education group, education/training design 43180
hydroelectric power plant operator training simulator develops. *(German)* 4862
induction machine behaviour anal., interactive colour graphics 11050
induction motor drive, PC based perform. simul. 19648
indust. quality engng. course develop. framework 11606
indust. relevance of VLSI undergraduate training 20287
integrated product develop. proc., founded on TQM principles 36948
KSG/GfS, nuc. training centre 43863
library, multi-fn. LANs and workstations for present and future 16768
LMFBR coolant filling, human errors ident., intell. CAI syst. 28350
manager selection/training/employment in Russian market economy 82
mfg. systs. engineers/managers, training 5522
mgt. exec. mentoring, psychological case study 11668
mgt. work teams, perform. experiences 11639
mgt./skilled worker qualification and training, former East Germany 81
multimedia, marketplace pot. 25110
NERC reliab. forecast, 2003 43718
network training, perceived need for self-help materials 20340
network training in Hawaii 20341
NPP operators, psychological confidence 35785
NTT internat. cooperation activities, present status 41588
phys. scientists in health care, training scheme 43179
postgraduate training on MMIC technol. *(French)* 20337
Power Plant Analyser, MATLAB Toolbox package 35978
power station operator training, techs. and perform. 28279
power syst. control, intell. data, expert systs. 19166
power syst. dyn. stabil., fast anal., patt. recogn. appl. 10638
power syst. operator training simulator, workstation based 4581
power syst. protection, interactive software, education/training appl. 35683
professional engng. careers develop., education-based 11666
project-oriented power engng. curriculum 28278
radar anal. experts modelling for training/aiding 20350
radiographers, radiation protection education/training 18640
small/medium size enterprises, technol. transfer, training 11612
speech handicapped children's prod-oriented teaching/training syst. 4327
speech training aid for aphatic children 4326
submarine, perform. meas., underwater data acquisition syst. design 34419
tech. develop., systs. approach 20357
technician centered test concepts 34367
The Year In Industry engng. training scheme, UK 36933
videoconferencing in the supercomputing environment 25081
VLSI component test vectors, automatic generation, student training *(French)* 20329
VLSI design training, Univ. of Twente, student design teams 20290
voice-controlled telecomm. terminal for phys. handicapped 4313
wheelchair-bound children's robotic training aid 26478
GaAs MMIC design and charactn., training software package *(French)* 21570
GaAs MMIC design and test, high level training, ENSEA *(French)* 20336
GaAs MMIC design by engng. students of ENSERG/INPG *(French)* 20335
training (neural nets) *see learning (artificial intelligence)*
trajectory control *see position control*
tramcars *see road vehicles*
transaction processing
ATM syst. transaction-oriented simul. and source traffic modelling *(German)* 41422
file allocation policy in networked DBMS 16582
highly available/reliable commun. protocols for heterog. systs. 41508
Internet, electronic payments 24965
online transaction proc., scalable net modelling 41878
open archit. telecomms. provisioning systs. 16481
telephone company outside plant engineers' graphics-intensive OO appl. 41704
voice transaction proc. appl., Spanish text-speech conversion 2448
transborder data flow *see data privacy; EFTS; government policies*
transceivers
1.9 GHz-band RF IC chip-set for pers. commun. 863
adaptive antennas array transceivers, lin. requirement 40514
ADSL, multi-drop in-house distrib. network 16919
amat. radio, hand-held transceivers, elec. field distrib. 25288
cellular hand-held phone, reduced EM field in human head 35184
cellular network, DC supply reliab., Al-air fuel cell 19976
cellular pers. commun., handset antenna/human EM interact. 9343
conflict-free WDMA networks, buffer-sharing 8745
differential amps., lin. techs. in IC design 12352
digital QAM ADSL systs., adaptive sig. proc. 9096
DMT-based ADSL, concept, archit., and perform. 9105
DMT-based ADSL systs., clipping effect anal. 9088
DPSK microwave link for indoor wireless LANs, perform. 33759
DS-CDMA for portable multimedia commun. appl. 25443
DS-SS transceiver, digital IF BPSK, CMOS technol. 9182
dual-rate alg. CELP-based speech transceiver 9221
dyn. vehicle network, inter-vehicle commun. 33757
echo-cancelled discrete multitone systs., timing recovery 9090
electroabsorption modulator integrated laser transmitters 17225
ET10071, LAN coaxial transceivers *(Japanese)* 25169
fast link assignment algm. for satellite commun. networks 17152
FH-SS transceiver, 900 MHz, low-power CMOS chip 33745
fiber optic module interconnection, parallel data bus 42474
fractal modulation commun. syst., implement./simul. 15708
fractal video communicator simul. 8851
handheld transceiver planar inverted-F diversity antenna FDTD anal 25353
handportable satellite commun., lin. transmitter archits. 42332
HDSL, discrete multitone transceiver soln. 9083
high-power VHF single freq. network for DAB, field trials 25640
high-speed tracking target simulator for fine tracking mechanisms 17305
hybrid multichip transceiver module micropackaging, pass. fibre interfacing 31114
invertor control/status sigs., fault resistant opt. fibres 5134
ISDN U-transceiver adaptive filters, DSP based real time simul. 29260
Ka-band mm-wave radar transceiver assembly, common waveguide cavity design *(Chinese)* 25578
load profile data retrieval, cellular commun. 10793
transceivers continued
low-power RF ICs for portable commun., all-CMOS radio 42295
low-power wireless mobile commun. syst. 3490
microstrip components for mobile commun. systs., evol. 33836
Mitsubishi Cable Industries LAN products *(Japanese)* 25045
Mitsubishi Electric 800 MHz PDC spec. cellular phone *(Japanese)* 33890
Mitsubishi Electric digital cell phones for Europe/North America *(Japanese)* 33891
Mitsubishi Electric multi-channel access syst. *(Japanese)* 33897
Mitsubishi Electric pers. handy-phone syst. PT-MDP *(Japanese)* 33896
mobile speech, video and data transceiver 3266
Mova D II, Mitsubishi Electric compact cellular telephone *(Japanese)* 33889
MT2607A/B/C PDC handyphone tester used service shops *(Japanese)* 34334
narrowband microcellular speech transm. schemes 3332
OPTOBUS parallel opt. links, data transm., 3 Gbits/s 3563
PCS, advanced digital receiver principles and technols. 17111
pers. handy phone syst. for public services network *(Japanese)* 33895
pers. wireless commun., antennas charactn. 17129
PHEMT mfg. technol. for multifunctional Ka-band MMIC appls. 21562
prog. digital radio common module prototype 10382
RF design in mobile radio transceivers, IEE Colloquium, London (1994) 5483
SAR mapping within human eye, portable transceivers effect 18625
small earth station hardware, IEE Colloquium, London (1995) 28267
spacecraft electronics, single event effect proton/HI testing 29093
STARNET opt. WDM network, high-speed interface 9514
TDMA low-power wireless access syst., coverage/handoff tests 25412
Walkstation transceiver design 3464
WDM opt. network life-range-delimitation opt. transceiver for fast routing 9584
WDM opt. transceiver module for pass. double star subscriber systs. 42371
wireless modem, data transm. tech. 9117
GaAs MESFET transceiver, optoelectronic VLSI cct. fab. 39599
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
GaAs radio front-ends, PCN 25328
InP photonic integrated transceiver chip for WDM transm. 9458
Si radio front-ends, PCN 25328
SiGe HBT technol. appls. in radio digital commun. 38999
transducers
see also accelerometers; acoustic transducers; actuators; extensometers; Hall effect transducers; pick-ups; piezoelectric transducers; pressure transducers; strain gauges
AC machine, alternating to direct voltage conversion, transducer *(Polish)* 43977
ang. transducers, autocalibration *(Italian)* 9855
Casimir force detect., tunneling electromechanical transducer 42950
control syst. aspects of digital transducer design 34452
dam displacements meas., inductive transducer-based 9847
digital heavy-current meas. transducer technol. *(German)* 18024
dyn. response of nonlin. meas. systs. 3700
eddy current transducer appl. in fault diagnosis *(Chinese)* 34487
electromechanical, effect on solid-state gravit. antennas 15864
electromechanical transducers, sig. params. estim. 17704
EM plant monitoring/mgt. instrumentation 19597
errors estim., operation 3808
F2 force transducer calib., WECC audit 42660
ferroimpedance transducer, mag. field meas. 25793
fibre optic accelerometer based on compliant cylinder design 17859
fine-wire bolometer, nonlin. of transduction of laser pulse 3847
FM transducers in measuring, monitoring, and control 3807
force transducer, dyn. repeatability, lin. and perform. 3789
freq. charact. determ. of measuring transducers 42763
fruit tester, portable, microcomputer-based 9819
gas flow temps. meas., steady-state/slowly changing 42967
geometric nonlin. in design of force transducers 34458
heterodyne transducer for laser velocimeter, metrological charact. 3809
high-press. meas., white-light interferometric transducer calib. 3783
HV power syst., overvoltage monitoring syst. *(Chinese)* 35696
HV power system metering/protection transducers 19364
HVDC converters control, microcontroller appl. 19239
hybrid transducer-type US motor, speed control expts. *(Japanese)* 11082
IEEE conf. on instrumentation/meas., USA (1993) 20198
indust. power systs., harmonics meas. 19370
indust. two-phase flow conc., capacitance transducer meas. *(Chinese)* 34734
ISO9000 quality syst. std. implement. in small company 28518
machine wear debris monitoring, transducer design 25779
mag. induction-transducers for charged particle beams meas. 18265
magnetic materials for sensor/transducer appls., colloq., London (1994) 20256
magnetostrictive fibre-optic sens., transducer self-noise 17883
MEMS force transducer, cardiac muscle cells appl. 34988
microwave multimeter, four-probe microwave transm.-power transducer 10008
microwave-opt. transducers, S-matrix defn. 17815
miniature split-Stirling cryocooler, noncontact displacer motion meas. 42923
mol. wires/transducers/devices 28891
motor stator interturn short-cct. detect./location 10962
orthomode transducer and horn EM anal. 23990
point, distributed, and gradient transducers for oceanographic research 10522
power syst. harmonics meas./calc. 35691
power syst. impulse voltage/current meas. correction 4749
precision/low-cost temp. transducer, develop. 17762
primary measuring transducers based on retardation systs. 42762
pulsed EM field meas., strip transm. line 3948
PV power syst. transformers, metering transducer appls. *(Russian)* 10880
PZM microphone characts., boundary surface *(Croatian)* 26791
radiated emission testing by ground currents meas. 2247
rare earth-iron cpds. for actuators and sens. 34481
Rogowski transducers for high bandwidth high current meas. 34484
rot. effects of force transducers 17730
sapphire dielec. resonator transducer, whispering gallery modes 30656
selection of transducer inspection methods 3806
semicond. struct. photomodulated diagnostics, microwave resonator transducer synthesis *(Russian)* 13098
sig. conditioning for smart sens./transducers 3780
slider-disc clearance meas. in magnetic disc drives 22702

transducers continued
solar water-heating plant, PC-based DA syst. 42744
speckle interferometry based lin. displacement transducers, error avoidance techs. 9889
sub-microvolt LF fiber optic voltage sens. 17826
supercond. RF parametric transducer for gravit. wave antennae 25812
surface sources of piezoelec. transduction 25819
SVC, μP based, unbalanced load appls. 10670
TEM horn based meas. transducers 17738
torque transducer, opp. polarized rings 17715
transfer thermistor transducers in HF AC voltage stds. 42655
tunnelling current/dist. charact. determ. unit *(German)* 6541
variable reluctance transducer, ang. meas., FEM 10024
video path params. of analog dissection of astrotransducers 8266
visual motion transducers using gratings 24718
$BaFe_xO_x$, mini transducer magnets, Moessbauer spectrosc., transducers 43144
C-bearing composite materials, surface cracks determ. 28904
a-Fe-based toroidal transducer core, local flux dens. vars. 14255
FeNi-SiO_2-Si thin-film magnetoresistive sens., param. optim. 17724
Pd/Co multilayers for perp. mag. recording 7041
$SmCo_5$, micro transducer magnets, Moessbauer spectrosc., transducers 43144
YIG, magnetostatic forward-vol. wave resonator, tunable oscillator *(Japanese)* 12761

transductors *see saturable core reactors*

transfer function matrices
1.55 μm DFB lasers with strained-layer MQW act. grating, transfer-matrix dyn. model 1993
asymmetric three-phase-shift DFB LD, design 14921
CCII-based analog sig. filtering ccts., synthesis 722
coprime matrix fraction description via Sylvester's resultant matrix 186
DFB semicond. laser threshold condition, local normal modes 14914
digital commun. sigs. separation, joint space-time decorrelation 40935
electrostatic quadrupole lens fringing field, fifth-order particle motion 7914
fiber resonators, nonlin. opt. bistability and differential amplif. 2115
fiber-optic delay line filter topologies, comment and reply 7287
FIR-to-IIR filter order reduction, methods 32793
in-line semicond. laser amp. opt. repeaters, stray refl. effects 3570
lossy VLSI interconnect, sig. transients, propag., crosstalk 30426
multielectrode DFB lasers, transfer matrix method based large-sig. dyn. model 1995
multimachine power syst. stabilizers, location/design 26926
multiple-phase-shift-controlled DFB wavelength tunable opt. filters 31062
power syst. automatic voltage control, math. modelling 27015
power syst. eigenvalue calc., AESOPS algm. improvement 4489
RTD modelling, transfer matrix/Airy fns. 30212
SC networks, charact. 12310
time-varying filter banks, time-reversed inversion 8275
TLM algm., alg. anal. method, charact. eqns. 12258
two-port coherent lattice-form opt. delay-line cct. synthesis 14669

transfer functions
see also optical transfer function; transfer function matrices
2-D lin. phase IIR filter, symbolic computation routines, design 37885
2D digital filters, design techs. 6230
2D digital filters, nonseparable transfer fns. generated from all-pass networks 757
3-phase PWM converters, small-sig. model, control 19760
acoustic display systs., environ. sounds synthesis *(Japanese)* 34647
act. band pass higher order element filters, cct. anal. *(Russian)* 6204
act. filters, fractional shifts of ω_0 and Q, Budak-Petrela's method 37838
act. genetically derived filter ccts., preferred value components 37845
act. RC filter, compensation tech. for HF respons, functional trimming 6211
ADPCM speech coding based on adaptive mel-cepstral anal. *(Japanese)* 15812
aircraft shielding, swept freq. single point excitation tech. 18704
allpass transfer fns., prescribed group delay 32792
analog syst.-level fault diagnosis, symbolic method 12269
auditorium, colouration in assisted reverberation systs. 32605
bias, stochastic excitation 40916
bipolar transistor ccts., lin. method, polynomial representation 21091
biquad high-order SC filters, multiplexing tech. 6220
blind channel ident. based on second-order stats. 24003
boost converter, current programmed, large sig. model 12314
broadband channel modelling and perform. anal. 33849
buck and boost DC-DC PWM convertor anal. 11184
calibration of electroacoustic transducers, parametric technique 22681
cascaded VQ by non-lin. PCA network layers 2372
CCII-K ccts., variable gain, optimal design for HF appls. 21418
CCIIs, current followers, biquadratic current transfer fn. *(Japanese)* 6207
CFH, complex freq. hopping anal. of interconnect networks 21083
chip model library for integrated package/chip simul. 37081
closed-loop switching cct., convolution integral, steady state anal. 12674
combined act. filter, high pass filter/current source converter 37861
complex band-pass filter, design based on freq. transform. *(Japanese)* 12619
complex coeff. ref. networks for WDF, transm. zeros on imaginary axis *(Japanese)* 37872
coord. digital transm. 15861
current-mode quotient cct., nonideal act. elements 21406
current-source reson. DC-DC MOSFET power converter anal. 44222
DC small sig. symbolic anal. of large analog ICs 12281
DC switch converters, transfer fn. determ. 5103
DC/DC LCC reson. power converter, digital control models 6010
DC/DC PWM step-up power supply, SC cct.-based 27807
delta-sigma ADC, noise shaping, distributed zeros, new archits. 6189
digital demodulators using fixed point FIR interpolators, BER perform. 32037
digital filters made, sum of two allpass fns. 37864
distributed-gain amps., component param. spread effects 559
double-fed induction generators, PLL controlled, stabil. anal. 44061
dual-input current-mode ratio fn. generation, CCIIs 772
dyn. response of nonlin. meas. systs. 3700
echo cancellers, acoustic transfer fns. modelling 32633
EHV transm. network oscillatory param. ident. 4625
electroacoustic transducer directivity indices in reverberant fields 17608
electronic cct. network fns., matrix proper values 28983
EM coupled isolation op amp without input buffer 6035
EVAM, eigenvector-based algm., multichannel blind deconvolution 24301
exponential-hold circuit, properties and applications 29424

transfer functions continued
feedback amp. nonlin. distortion anal., Volterra series *(Croatian)* 549
feedback amp. struct. optim. 29059
feedforward neural networks and rejection of spurious patterns 32849
first-order lossless digital two-pair realisation 21423
head-related transfer fns., multidimensional scaling anal. 15992
high speed current-conveyor, accuracy in I-V transfer fns. 37847
high-resoln. ADCs, test methods 37822
high-speed tracking target simulator for fine tracking mechanisms 17305
high-speed vehicle convoy, control feasibility simul. *(Japanese)* 28107
high-speed VLSI interconnects, freq./time domain simul. 12287
HV test facilities, transformer testing 5012
HVDC convertor, waveform distortion, freq. domain anal. 19234
hydro turbine model, syst. dyn. studies 4860
IIR Powell and Chau lin. phase filters design 29390
IIR wavelets, lin. phase, perfect reconstruction subband coding 32089
IIR/FIR two-channel biorthogonal filter banks and wavelet bases 37880
induction machine param. estim., standstill time-domain data 19642
internal model control loops, asymptotic setpoint tracking 27772
Jones DC-DC converter, traction drive appls., av. modeling 19812
Kerwin-Huelsman-Newcomb biquad cct., current conveyors 731
lattice WDF, three-port adaptors 37889
LCC parallel reson. power converter, small sig. anal. 11129
LIM, control obj., math. model *(Russian)* 27759
lin. ccts., OTA/grounded capacitors, realization 37607
lin. DC motor actuator, wire-driven syst., robust control *(Japanese)* 19667
lin. stationary syst. ident. and sig. recogn. 32569
lin.-quadratic sys. ident., freq. domain region 24213
line conditioning syst., harmonics reduction, PF compensation 43659
long. vehicle dist. control, meas. error effects *(Japanese)* 10028
low-pass sampled-data/digital filters, equiripple charact. 12656
mag. gas spring, vert./horiz. transfer fn. meas. 25813
microwave ccts., pole-zero computation, multipoint Pade approx. 21528
MM wave harmonic oscillator anal. based on Volterra series method *(Chinese)* 29563
mobile radio channel, wideband propag. meas. 17031
modulated-freq. boost AC-DC preregulator, model 19804
multi band sigma delta ADC 29332
multicrystal lattice filter design, lattice cascade splitting 37831
multidimensional transfer fns., inversion of continued-fraction expansion 5940
multiple auditory template matching, expansion 8381
multiple-output buck-type power converter, dyn. characts. 44153
non-separable multidimensional perfect reconstruction filter 8273
nonlin. filter struct., act. sound and vibr. control, genetic algm. 32776
nonminimum-phase syst. ident., adaptive allpass filtering 2565
open area test site effects in finite modelling techs. 2265
opt. disk, write compensation, thermal transfer fn. 22795
opt. posn. sens., source width insensitive 17782
orthonormal basis, generalized, for lin. dyn. systs. 32530
OTA-based multifunction act. filter, prog., microcontroller appl. 12636
parallel reson. CSI, cct. design/anal. 44136
partial-response systs., codes, quasi-catastrophic error propag. 32069
pattern class., optimal matching-score network 33035
PF preregulators, Sepic/Cuk converter based 19753
piecewise-lin. transcoders, automatic TV tuner alignment, electronic tuning 21086
pipelined IIR digital filters, design/implement. 37879
PLL syst. equiv. diag. 37677
power syst. fault quantities on-line meas. 19372
power syst. interarea/local generator reson. modes ident. 35486
power syst. transfer fn. ident. methods. comparison 4595
Prony based methods for simultaneous ident. of transfer fns. and init. conditions 32587
PWM power convertors, independent inputs, large-sig. modelling 11152
radionuclide transfer fns., fresh water drainage basins 26770
RC act. filter design, input/output impedance effects 21417
RC op amp and RC current conveyor filters, comparison 6216
readout sig. in magneto-optic readout proc. 14550
regular 2-D nonseparable wavelets/filter banks, transforms. of variables design 32513
relay protection/control devices, metering elements diagnostics *(Russian)* 35678
rot. machine act. noise control studies *(Korean)* 27668
SAR data space-variant proc. 34117
SC filters with weakly nonlin. capacitors, harmonic distort. 729
SCFL inverters, anal. delay expression 37696
sens. outputs tailoring, specialized needs 25811
separable-denominator 2D digital filters, optimal design *(Japanese)* 21432
separable-denominator multidimensional digital lattice filter 2545
SEPIC PWM ZVS dual power converter perform. studies 11130
shipboard speaking-tube transfer charact. *(Croatian)* 3591
solar collector dyns. ident., phys. model-based approach 27974
spatial synthesis, head-related transfer fns. interpolation 15993
speech coding, adaptive mel-cepstral anal. 32258
speech commun., multichannel spatial auditory display 2437
speech recogn. syst., microphones adaptation, tied-mixture normalization 32313
spherical acoustic objs. in motion, ident. 34167
SPICE macromodel for OTA 37844
stable systs. parametrization from impulse response data 40979
state digital filters, design 24187
stator windings, PD calib., transfer fn. 4898
switching regulators, general algm. for anal. *(Japanese)* 12279
symbolic anal. of large analog IC 29060
symbolic anal. of networks with nullors, cct. level decomp. 460
sync. generator, damper winding, block diag. transfer fn. 4917
T-matrix vs. ABCD-matrix, cct. anal. 503
telecomm. systs., transfer charact., test sig. appl. 16562
three-phase AC-AC power convertor, cct./control anal. *(Japanese)* 11191
three-phase voltage-source utility interface power convertor 19737
tone-free $\Sigma\Delta$ modulators, design aspects 12598
traction drive robust H_∞ control 20066
transformer fault/ageing detect., transfer fns. 27777
transimpedance opt. receivers design, root-locus techs. 3564
trellis coded diversity receivers, slowly fading Rayleigh channels 33763
tunable bandpass sigma-delta A/D conversion for mobile commun. receiver 9354
twin-counter digital-loop preset freq. synthesizer 12615

transfer functions continued
- two-inertia motor syst., closed-loop PID speed control design *(Japanese)* 27669
- uncertain continuous-time systs., freq. response envelopes, ellipt. filters 37837
- uniform RC lines, resistive termination, time domain response 15545
- universal filter, current feedback amp. based, Mason graph deduced 21405
- universal filter, two current-feedback amps. 37852
- US sens. perform. enhancement, driving sig. optim. 43553
- variable speed wind turbine, test-rig, controller design 36068
- vector spectrum analyzer freq. domain least-sq. syst. ident. 25743
- zero-admittance switch-mode power converter synthesis 36242
- PZT phase modulators in opt. fiber sens., transfer fns. 34523

transferred electron devices *see Gunn devices*

transferred electron effects *see Gunn effect*

transferred electron oscillators *see Gunn oscillators*

transfluxors *see magnetic cores*

transform coding
- 2-D nonseparable Malvar wavelets 32512
- 2D orthogonal image transform coding 24663
- 3D adaptive transform coding techs. for moving images 41089
- adaptive KL-transform coding of images based on variable block shapes 16132
- APC, transform domain quantization 15774
- cosine-modulated wavelet orthonormal bases 24312
- DCT asymmetrical perform. 2370
- DCT based image coding, error concealment tech. 33151
- decompressed image enhancement, low bit rates 32829
- digital image compression, wavelets and wavelet packets 32830
- distributed digital sig. transm. syst., sig. recovery, estim. method *(Japanese)* 15771
- extrapolative prediction-discrete sine transform coding, adaptive prediction *(Japanese)* 16299
- generalized Chen transform, fast transform for image compression 16319
- HDTV, adaptive coding algm., quantizer vector codebook *(Korean)* 42602
- hybrid transform coding, videotelephony on PC 16093
- image seq. compression, intraframe coding, DCT-VQ 16389
- image transform coding, integer cosine transform-based error minim. 41073
- image transform coding based on fractal functional set *(Japanese)* 24671
- lateral inhibited neural nets, transform coding 32087
- lin. phase lapped orthogonal transform, prefilter approach *(Korean)* 24121
- low bit rate appls., transform coding 16094
- MCP error images, wavelet transform coding, quadtree decomp./ECVQ 41091
- med. image combined coding scheme, transform/neural net approaches 43207
- modulated lapped transforms in image coding 16084
- moving image coding syst., wavelet transforms 16095
- multispectral imagery 24501
- multispectral imagery, practical transform coding 16309
- multispectral imagery, wavelet/KLT data compression 8270
- multispectral/multilayer image coding, optimal transforms 24697
- orthogonal transforms for image compression 32973
- progressive image transm., LOT, two-channel conjug. VQ 16382
- projections onto convex sets, damaged block transform coded images 33131
- region-based segmentation for images/image seqs. compression 32972
- speech coding, spectral envelope, high-order allpole modelling 32337
- speech line spectrum pair params., optimal transform coding based on spectral-weighted error criterion 2405
- still-image region-oriented orthogonal transform coding *(Japanese)* 16374
- subimage class., adaptive image data compression, fuzzy syst. *(Korean)* 24560
- trellis coded quantization of speech 32253
- vector transform coding for image and video compression 41095
- very low bit rate video coding, predictive-transform 16404
- video segmentation coding applied, H.261, low/low bitrates *(Italian, English)* 41353
- weighted pyramid vector quantizer algm., sig. proc. appls. 40580
- wideband audio sigs. coding, transform coded excitation 32257

transformer cores
- 0.5-5 kW power convertor PCB distributed mag. components 11105
- 3-phase transformer transients prediction 19694
- 30 W HF foil-type air-core power convertor transformer 6381
- 120 kW coaxial winding transformer, elec. vehicle appls. 20103
- 120/5 A CT model, mag. nonlin. 5011
- 500 kVA distrib. transformers, swept freq. response tests 36237
- air-core foil-wound pulse power transformer design concept 36358
- arc welding forward PWM inverter power source anal. *(Chinese)* 44633
- continuous mode interleaved flyback power converter design eqns. 44214
- converter transformer cores, losses modelling, failure 44108
- DC/AC power CT, operating principle 19701
- design, 503-line Basic program 27787
- earth leakage cct. breakers, mag. nonlin. 36466
- EHV transformer insulation, transients, nonlin. core characts. model 5009
- HF power transformer CAD optim., scant modelling 19685
- HF power transformer core geom. CAD, fuzzy ES-based 44110
- HF switching mode power transformers, optimisation of winding conductors *(Slovenian)* 21595
- HF transformer edge effect anal., 2D FEM-based 6376
- HF transformers, core geom. selection, experto-fuzzy approach 36226
- HF transformers/inductors, naturally cooled, design, noniterative method 12851
- low-profile ferrite cores for planar transformers on PCBs 39189
- MF power transformers, amorph. metal core studies 5015
- multiple core mag. assemblies, temp., fn. of freq. 12852
- multiturn HF coaxial winding power transformers 19699
- orthogonal core, optimum design based on mag. cct. 7197
- pacemaker power supply convertor, flat transformer-based 10277
- pot core transformers, coupling coeffs., num. study 38053
- power syst. fault quantities on-line meas. 19372
- power syst. protective CT, transient perform. calcs. 19340
- power syst. short-cct. current meas., transreactor-based, calcs. 19362
- power transformer protection, iron core nonlin. *(Chinese)* 36219
- power voltage transformers, external compensation 5018
- rotary transformers, ferrite, charact., FEA 14256
- SMPS multiwinding power transformers, computer-aided optim. 19749
- steel sheet, oriented, mag. field anal. by FEM 39147
- supercond. air-core power transformers, characts. anal. 27785
- temp. rise anal., harmonic voltage propag./penetration 5020

transformer cores continued
- three-phase autotransformer, short-cct. transients simul. 19682
- three-phase CT protection, computer simul. 19691
- Fe-based nanometer cryst. alloy power CT core *(Chinese)* 27786

transformer insulation
- *see also gas insulated transformers; power transformer insulation; transformer oil*
- power transformer aramid paper insulation, elec. strength tests *(Japanese)* 11106

transformer magnetic circuits
- capacitor voltage transformers, ferroresonant oscills. 27788
- current power transformer time-impulse diff. protection selection *(Russian)* 44106
- DC/AC power CT, operating principle 19701
- helical-scan recording, lumped modeling of rotary transformers and heads 34272
- high-perform. pulse transformer design in easy stages 38057
- orthogonal core, optimum design based on mag. cct. 7197
- power transformer excitation under geomag. induced currents 11101
- quasi-reson. dual power converter UPS 5075

transformer oil
- AC breakdown, thermal/flow effects 14040
- characterisation 6919
- dissolved gas anal., ANN appl. 19683
- distrib. transformer oil drying controller 19705
- distribution substation transformer cold load pickup modelling 19265
- double layer heterogeneity 14023
- elec. breakdown, dyn. barrier effect *(Russian)* 44105
- fault detect., oil gas discrim. method 29620
- flow electrification boundary conditions, DC voltage appls. 15224
- gas/hydrocarbon transformer oil, furfuraldehyde anal. 14045
- liq.-immersed power transformers, high temp. insulation 5007
- Midel 7131 liq. ester substitution *(German)* 19697
- mineral oil, leader discharges, time resolved study 30549
- nonpolar liqs., EHD motion and cond., effects of ionic impurities 14017
- PD anal. syst., HV test lab 1536
- power transformer composite paper-oil insulation monitoring 19686
- power transformer insulating oil test syringes, gas-tightness studies 36224
- power transformer insulating oils, pulsating laminar flow studies 44103
- power transformer life extension, insulation preservation expts. 19698
- power transformer oil flow, static electrification and PD 36227
- power transformers, oil-filled, paper degrad. by-products anal. 44097
- pre-treatment and charactn. of transformer elec. insulating oils 22670
- pumped dielectric fluids, electrokinetic effects 13926
- silicone transformer fluid, UL class. 5010
- static charging behaviour 14041
- streaming electrification, polymeric material effects 14022
- voltage controlled double layer 14026

transformer protection
- *see also power transformer protection*
- 35 kV transformer substation fuses, protection characts. optim. *(Russian)* 5162
- generator-transformer set protection, microcomputer-based *(Chinese)* 36089
- generator-transformer unit faults, relay protection algms. 27680
- power transformer xx *(Korean)* 36220
- single-phase transformer magnetis. and inrush currents *(German)* 11102
- substation, 400/110 kV transformer *(Czech)* 27860

transformer substations
- 35 kV transformer substation fuses, protection characts. optim. *(Russian)* 5162
- 110/10 kV substation planning and reliab. anal. *(German)* 19220
- 110/20(10) kV transformer substation ripple control filter protection *(Croatian)* 10765
- 110/20/10 kV transformer station in historic building *(German)* 5156
- Cologne transfer station control technol. *(German)* 36488
- distrib. network automatic multiple-cct. switchgear develop. 4659
- distrib. substations, switchgear internal arc fault protection design 4661
- distrib. syst. post-outage restoration, infrastructure enhancement 10726
- distribution network fault detection/protection, neural net-based 19249
- distribution substation transformer cold load pickup modelling 19265
- EM transients anal. 36480
- equipt. condition monitoring, fuzzy sets/neural net-based 19908
- farmhouse power consumption limiters, methods and advantages *(Russian)* 4589
- GIS, VFTO studies, transformer model 5163
- GIS technol., design 11218
- high-power controlled reactors, EM proc. 11099
- HV equipt. maint., experience/feedback *(French)* 36489
- LV cct., gas insulated switchgear, surge voltage meas. 27870
- MV/LV secondary cubicle thermal behaviour *(Italian)* 19905
- protection against short ccts., 400/110 kV transformer effect *(Czech)* 27860
- rly. feeder traction substations, harmonic prediction formulae *(Chinese)* 44249
- rly. traction power supply, 130 kV transm. lines *(German)* 44521
- rly. traction substation transformers, unbalance modelling 44520
- three-phase autotransformer, short-cct. transients simul. 19682
- SF_6 insulated distrib. transformer substation equipt. *(Italian)* 11215

transformer testing
- *see also power transformer testing*
- 220/69/13.8 kV three-phase transformers, EM transients *(Spanish)* 5028
- CT freqs., than 50 Hz *(German)* 6374
- educational transformer testing lab., graphic user interface software 20309
- power transformer winding inner short-cct. fault diagnosis 19689
- substation equipt. condition monitoring, fuzzy sets/neural net-based 19908
- two-winding transformers, stray capacitance studies 12849
- Fe-based nanometer cryst. alloy power CT core *(Chinese)* 27786

transformer windings
- 0.5-5 kW power convertor PCB distributed mag. components 11105
- 2D FEM-based eddy current loss calcs. 888
- 3-phase transformer transients prediction 19694
- 3-winding transformer, digital relaying, data skew 19704
- 10 W thin DC/DC converter, coreless wire transformer-based 6011
- 30 W HF foil-type air-core power convertor transformer 6381
- 120 kW coaxial winding transformer, elec. vehicle appls. 20103
- 150 W multi-reson. DC/DC converter, high efficiency 44138
- 400 kV power syst. quadrature boosters planning, UK 4601
- 500 kVA distrib. transformers, swept freq. response tests 36237
- air-core foil-wound pulse power transformer design concept 36358
- autotransformer shorted turn location, fuzzy neural net-based 19687

transformer windings continued
- autotransformer tertiary winding voltage regulation study *(Russian)* 44107
- bundles of conductors, macroscopic elec. charactn. 38042
- contactless power delivery syst., mining appls. 20188
- current power converter transformers, short-cct. inductance calcs. 19771
- DC/AC power CT, operating principle 19701
- deform. probab., external fault *(Russian)* 36229
- distrib. transformer oil drying controller 19705
- distribution substation transformer cold load pickup modelling 19265
- fault/ageing detect., transfer fns. 27777
- full-bridge MOSFET inverter, US transducer power supply appls. 44166
- full-bridge ZVS PWM DC/DC power converter 19852
- generator power transformers, tapchanger diverter monitor 5019
- HF power transformer CAD optim., scant modelling 19685
- HF switching mode power transformers, optimisation of winding conductors *(Slovenian)* 21595
- HF transformer edge effect anal., 2D FEM-based 6376
- HF transformer windings, model, FEM tool 6377
- HF transformers, centre-tapped, loss eval., unbalanced loads 29618
- HF transformers/inductors, naturally cooled, design, noniterative method 12851
- high explosive generator, switching cct. perform. anal. 36288
- high-power controlled reactors, EM proc. 11099
- HV transformer winding voltage distrib., computer model validation 5005
- K factor power transformers, orig., design, develop. 19693
- LV high-current DC rectifiers, transformer series connection 12336
- Maglev rly. inverter harmonic suppression method 11423
- multi-output reson. DC/DC space power converters 4361
- multiple winding transformer, model, mag. leakage 6378
- multiturn HF coaxial winding power transformers 19699
- pacemaker power supply convertor, flat transformer-based 10277
- plastic tape covered winding wire, transformers, characts. *(Japanese)* 12853
- pot core transformers, coupling coeffs., num. study 38053
- power convertor transformer windings, current harmonics calcs. 27791
- power CT, thermal short-cct. strength determ. 19690
- power open-phasing, self-generated overvoltage studies 27779
- power syst. short-cct. current calcs., transformer modelling 19065
- power transformer, online stray inductance meas. 5013
- power transformer magnet wire, selection/perform. overview 5004
- power transformer relay protection CAD, ES-based *(Chinese)* 44094
- power transformer resonance freqs. prediction, neural net-based 19684
- power transformer secondary winding DC currents, effects eval. 5017
- power transformer winding short-cct. withstand capability estim. criteria 36223
- power transformer windings, reduced modal models 5016
- power transformers, freq. response, electrostatic screen effect 5023
- quasi-reson. dual power converter UPS 5075
- reson. switching power convertors, HF mag. design 44207
- rly. traction substation transformers, unbalance modelling 44520
- series connected batt. strings, charge equalization 19932
- series reson. power converter, integrated L-C-T struct. 19717
- shape design, global optim. strategies 887
- SMPS multiwinding power transformers, computer-aided optim. 19749
- state-of-the-art supercond. material appls. 43972
- stretched power transformer windings, short-cct. perform. calcs. 19688
- substations, EM transients anal. 36480
- supercond. air-core power transformers, characts. anal. 27785
- SVC, PWM invertor-based, HF/multiple connection studies 19123
- thermal capability assess. 44101
- three-phase autotransformer, short-cct. transients simul. 19682
- three-phase CT protection, computer simul. 19691
- three-phase invertor-based act. power harmonic filter 19740
- three-phase power transformer constr. and charactn. *(German)* 11103
- two-winding transformers, stray capacitance studies 12849

transformers
- *see also autotransformers; current transformers; DC transformers; high-frequency transformers; instrument transformers; potential transformers; power transformers; pulse transformers; superconducting transformers*
- 2 kW series resonant converter, CO_2 gas discharge laser appl. *(Spanish)* 19877
- 2D FEM-based eddy current loss calcs. 888
- 3-phase act. power filter, sliding mode control 19759
- 150 W multi-reson. DC/DC converter, high efficiency 44138
- 500 W DC-DC converter, power MOSFETs, 200°C operation 12322
- built-in-input filter forward converter 6005
- coupled bridge, capacitance meas. errors 25940
- electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
- electrostatic fields computation, IEE Colloquium, London, UK (1995) 11600
- EMC, conference, Sendai, Japan (1994) 11561
- eqns. syst., theory education appls. *(Russian)* 36931
- evanescent-field sens., cross-sectional transformers 34534
- fault detect., oil gas discrim. method 29620
- FEM, design/anal. 36235
- helical-scan recording, lumped modeling of rotary transformers and heads 34272
- HF planar thick-film transformers 21602
- high efficiency forward converter topologies 6001
- high power DC SMPS, electron gun appl. 19755
- isolated high power boost topol., transformer models 19745
- leaky-wave field applicator, microwaves, lin. uniform plasmas 37930
- low-loss splitter 3317
- magnetron, leakage flux transformer, HV power supply *(French)* 29616
- miniature split-Stirling cryocooler, noncontact displacer motion meas. 42923
- multiphase transformers, rot. mag. field, inductive impedance calcs. *(Russian)* 21603
- multiple winding transformer, model, mag. leakage 6378
- pass. protection apparatus for commun. lines, phantom reson. transformer 25193
- piezoelec. transformers and structs., controller design 30621
- planar mag. components, inductance calcs. 886
- plastic tape covered winding wire, transformers, characts. *(Japanese)* 12853
- power MOSFET switching, transformer-isolated gate drive cct. 535
- ratios calib., straddling method 36230
- rectifier converter, branches current distrib., math. model 44130
- rotary transformers, ferrite, charact., FEA 14256
- series connected batt. strings, charge equalization 44306
- series connected batt. strings, charge equalization 19932
- transm. line based transformer, matrix of topologies 21084

transformers continued
- TV sets, fly back transformer-AC power cable coupling 25647
- twisted noise cutout transformer, line noise prevention 21599
- two-winding transformers, stray capacitance studies 12849

transforms
- *see also discrete cosine transforms; Fourier transforms; Hadamard transforms; Hankel transforms; Hartley transforms; Hilbert transforms; Hough transforms; Laplace transforms; Radon transforms; wavelet transforms; Z transforms*
- 2-D circ. convolutions/no. theoretic transforms, fast algms. 40803
- 2D orthogonal image transform coding 24663
- 2D shape signature based on fractal meas. 2809
- 2D θ-image encoding by Boltzmann machine 33066
- 2D transform domain adaptive FIR filtering 2575
- AC traction load, 3-phase equiv. cct. model *(Chinese)* 44499
- adaptive param. estim., QR methods of O(N) complexity 40814
- AICE-CRT/DSP algms. 32675
- almost-periodic ccts., time-freq. transform for spectral bal. method 28992
- asymmetrically overlapped windows, lapped orthonormal transform 32715
- bacterial colony counting, dist. transform 26315
- Bayesian model order selection for Karhunen-Loeve transform and SVD 40982
- colour texture anal., colour histogram 2807
- complementary-ref. joint transform correlator, opt. pattern recogn. 8468
- conducting enclosures, direct lightning strike, internal voltages 40189
- conformal mapping-based image proc., theory/appls. 41176
- cylindrical wave diffr. by ideally conducting wedge 23594
- depth-from-defocus, camera aperture change, spatial domain 2753
- differential method for computing local shape-from-texture 8605
- digit pipelined discrete wavelet transform 29381
- digital images, visual appearance/fidelity eval. 2611
- discrete multiwavelet transforms, alg. design 32665
- discrete polynomial-phase transform, co-channel FM/PM sigs. separation 24182
- discrete sine transform, regular recursive algm. 8297
- discrete sine transform, regular recursive algm. 28708
- discrete sine transform with regular struct., recursive algo. 288
- discrete spline transform, computation/effectiveness 16045
- discrete Walsh transforms, neural net cct. 12680
- dyn. syst. failure detect., nonlin. uncertain models 20471
- eccentric coaxial line, inner conductor, dielec. support effect 33733
- ECM baseband freq. models with IF nonlinearity describing fns. 34138
- EEG series, time-freq. anal. 43296
- elec. demand forecasting Rostovenergo power syst. *(Russian)* 35578
- energy meter testing based on Walsh transform algms. 3949
- fast approx. Karhunen-Loeve transform for data compression 16379
- fast computation of crit. sampled time-freq. sig. representations 32464
- fast real-valued transforms, complexity-based timing anal. 5800
- Fermat no. transform, algm.-based fault tolerant array archit. 32498
- finite-discrete Gabor transform, computation/conditioning 32663
- FIR transform-domain split-path adaptive filter, convergence optimality 32760
- fish-eye lens model, variable resoln. transform 41072
- fractional Brownian motion, extended self-similarity 8430
- Fresnel approx., spectral transforms of broadband fields and correl. charact. 41200
- functional sig. transforms without multiplication operations 8268
- Gabor transforms for real discrete sigs. 24202
- generalized discrete Gabor expansion, fast algms. 2535
- genetic algm. problems, nonbinary transforms 11952
- hierarchic Voronoi skeletons 41181
- hit-or-miss transform binary/gray-tone image proc. archit. 2717
- image anal., recursive erosion/dilation/opening/closing transforms 24700
- image compression, neural network approaches 24397
- image enhancement, logarithmic image proc. model 33136
- image matching under affine deform. 8551
- inexpensive Gabor decomp. 32517
- invariant opt. pattern recogn., calculus descriptors 8670
- joint transform correlators, whole-beam method anal. of photorefr. effect 16307
- joint transformer correlator for multitarget tracking *(Korean)* 16137
- Karhunen-Loeve expansion stabil. in pattern recogn. problems 2692
- least sq. sig. reconstruction, normalized autocorrelation constraints 32735
- lin. eqn. iter. method, convergence and accel. *(Chinese)* 5778
- lin. phase lapped orthogonal transform, prefilter approach *(Korean)* 24121
- logarithmic image proc., range enhancement/stabilization 33015
- mid-level vision techs. for video data compression/manipulation 16087
- Midwest Symp. on ccts. and systs., Detroit (1993) 33
- modulated lapped transforms in image coding 16084
- moving obj., vel. field estim. algm. *(Chinese)* 8530
- multichannel joint-transform correlator, multiobject recogn. 24426
- multiresolution approx. of fractal transforms 32624
- multiscale image struct. detect. algm. 16393
- multispectral imagery, practical transform coding 16309
- multispectral/multilayer image coding, optimal transforms 24697
- musical pitch tracking, principal decomp. anal. 32601
- near-optimal MST-based shape description, genetic algm. 41190
- neural recogn. of diagnostic test data transforms 34359
- nonlin. resistive cct. anal., variable transform. methods *(Russian)* 5978
- nonstationary procs., matched generalized Gabor expansion 8343
- opt. parallel rank order hit-miss transform 41296
- optimal receiver design, wavelet bases 40929
- optimal zone coding, slant transform 24123
- orthogonal freq. division modulation method allowing hierarchy reconstruction *(Japanese)* 41425
- paired Haar based transform, algos. and logic design/test appls. 5734
- photorefr. two-beam-coupling nonlin. joint-transform correlator 2052
- power syst. economic distrib. planning, computer-based *(Russian)* 10691
- power syst. load voltage dyn., state variable description *(Japanese)* 10615
- Projection Pursuit, optimal transforms. for multispectral change detect. 16265
- Q^2, perform. anal. tool for telecomm. systs. 24918
- Rader's algm., recursive extensions, no.-theoretic transforms 28705
- real-time morph. transforms opt. proc. *(Chinese)* 16335
- real-time nonlin. joint transform LCLV CCD sens. correlator 2713
- real-time parallel DCT/DST lattice structs. for video commun. 29266
- recursive computation of discrete sinusoidal transforms 8331
- reverse dist. transform. and skeletons based on Euclidean metric for n-dimens. digital binary pictures 2648

transforms continued
SAR image reconstruction, complex no. theoretic transform *(Japanese)* 9618
SC-filters, p-z transform, minimize charact. deform. 28996
self-similar procs., increments, sig. modeling 40930
separable transform for image proc. 32974
servomotors, indirectly connected load perform. calcs. 36207
sig. proc., radial basis fn. transforms 8299
sig. quadratic form, optimum discrete orthogonal transform *(Japanese)* 16044
skeletonization algm. by max. tracking 41180
spatial sig. distrib., reliable sig. transm. 24741
speaker-independent Mandarin plosive recogn. 24147
speech coding, product code VQ 32199
speech lin. prediction, L_1 norm in orthogonal vector space 32415
symplectic maps, monomial factorization, particle dyn. 4090
symplectic maps in $\mathbf{R}^4$, Birkhoff normal forms, ARES code 43020
sync. machine stator fault anal., transform. method *(Chinese)* 10971
tanh transform., sing./infinite integrals eval. 2163
telecomms. models anal., perform. 2861
teletraffic model anal., num. transform inversion 41489
underwater commun./sonar, filtering, transform 8320
viewing model for stereoscopic head-mounted displays 34625
visual sensitivity-weighted progressive image transm. using lapped orthogonal transform 41093
VLSI archit. for video real-time hierarchical encoding/decoding 33697
Walsh transform. for speech echo interf. suppression 24159
wideband fields/coherence fns., spectral transforms. 40774
zero-phase FIR filters, freq. domain design 24276

transient analysers
see also spectral analysers; wave analysers
data acquisition, ADC, noise filtering 34418
power IC packages, transient thermal impedance tester 137
pulsed damped-sine charactn. sig. anal., PC-based 34423

transient analysis
see also time-domain analysis; transient analysers; transient response
2D eddy current problem, domain decomp. 23511
2D heterostruct. device simulator, steady state/transient anal. 30193
2D MOSFET simulator, mixed particle Monte Carlo method *(Korean)* 13684
3-phase sync. motor, single phase supply, operation 19617
3-phase transformer transients prediction 19694
3D eddy currents in nonlin. media, calc. 40236
3D transient eddy current calc., hybrid FE-BE method, mag. field intens. 40245
15 kV URD syst., transients, above ground detect./interp. 27159
AC drives, on-line unity PF PWM rectifier 5305
air gaps, impulse strength, nonstand. lightning surges 4722
anti-directional-twin-rotary motor drive, elec. vehicle 5360
asymptotic waveform eval. macromodels for nonlin. ccts. 513
asynchronized sync. machines, self-contained power systs. 44028
Auburn Univ., power engng. curriculum and GUI software 28337
axial-field actuators for controllable bidirectional rot. 15255
B^2CMOS, bootstrapped BiCMOS gate for LV appls., HSPICE simul. 12477
BC Hydro's on-line transient stabil. assess. model 35434
BiCMOS dyn. logic cct., LV deep submicrometer VLSI, transient model 29097
BiMOS high power devices appl. in intell. snubberless power conditioning ccts. 29031
bio-mass under microwave hyperthermia, thermal profiles 26467
BiPMOS pull-down device struct., LV dyn. BiCMOS VLSI, device-level anal. 21285
bipolar transistors, transient base dyn., high injection 6739
boost converter, PF correction cct. simul. 11162
brushless DC motors, modelling, 120° commutation seq. *(French)* 11065
Buran flight-model fuel cell, test programme 10398
capacitor storage, programmed discharge 36630
causal lin. systs., transient anal., microwave freqs. 21082
cct. simulator incl. user-defined devices 21075
ccts., charact. eqns. develop., principal variables method 37593
chiral shields, transient anal. 23709
chiral slabs, shielding props. anal. 40378
CMOS continuous-time analog defuzzifier 29417
color TV set, effect of brightness sig. interf. on picture edgings 34244
complex planar struct., static study *(French)* 12702
computer-aided PIN-PD model *(Chinese)* 14597
coupled transient simul. of ccts. and 3D packaging, algms. 11808
coupled transient simul. of ccts. and 3D packaging, algos. 21070
D-type flip-flop, fast-transient suscept. 29098
damped harmonics and polynomial phase sigs. 32463
DC current distribs. in solid conductors and mag. fields 40229
DC link, transient anal., converter model, series expansion 27143
DC PM motor, electronically commutated 19663
delay line waveforms, graphical anal. 21089
distrib. syst., transient anal., equiv. homog. line model *(Japanese)* 10738
DMOS device, quasi saturation, turn-off transient anal. 38434
double squirrel cage motor, heating, short-cct., starting *(Polish)* 27705
earthing syst. transient behaviour, computer models 19352
eddy current problems, symmetric undifferentiated fully gauged T,Ψ-A-Ψ formulation 40241
edge element anal. of magnetostatic and transient eddy current fields 40223
EEPROM CAD model for low power cct. design/simul. 21304
EHV transformer insulation, transients, nonlin. core characts. model 5009
EM field computation, conf., Grenoble, France (July 1994) 36820
EM modeling, generalized k-space method 15396
EM syst., impulse response, deconvolution/total least sq. 40389
epoxy resin, neutron induced changes, dielec. response 14046
faulted SRM drives modelling, evol. ANN 44448
ferromag. shields, EM transients anal. procedure 15486
field-to-wire coupling, anal., FE-TD method 40191
fine line thin dielec. cct. board, charactn. 12877
finite-horizon stat. QoS measures for high-speed networks 33590
freq.-independent cct. model of conductor under surge conditions 31878
fuel cell, DC interconnection converter, input current control 44345
generator brake, thick film resistor 4906
generator transient/subtransient params. ident. 4907
GIS, fast transient overvoltage meas. device *(Korean)* 36383
GIS RFI/transient field meas. 27867

transient analysis continued
GTO thyristor snubberless turn-off, avalanche proc., gate drive influence 30266
GTO thyristor turn off, transient thermal effects simul. 30267
heat exchanger dyn. modelling, integral-power Volterra series 19375
high speed CBiCMOS digital cct., LV appls. 22617
high-speed multiplier/VGA, simplified-transistor SPICE macromodel 6251
homog. threshold networks, dyn. props. 12298
hydro turbine model, syst. dyn. studies 4860
IMPATT diode, W-band, pulsed, jn. temp. calc. model 37987
IMPATT diode integrated quantum-well reson. tunneling oscillator 12755
induction generator dyn. anal., bifurcation theory-based 4961
induction machines, saturated, deep bar effect, transient models, simul. 19634
induction motor aggregate model/expt. responses comparison 4959
induction motor param. determ., genetic algms. appl. 4962
induction motor starting transients, simul. algm. 19631
induction motors, doubly-fed, IP control transient stabil. anal. 27740
induction motors, transient operation math. anal. methods 44047
induction motors, transient torque anal. *(Japanese)* 11031
induction motors, two rotor ccts., reduced order models 11054
indust. power systs., electromech. response 20186
injection-locked oscillating freq.-converters in dyn. phasor-domain, perturb. 6261
insulated base MOS-controlled thyristor, num. simul. 30268
interconnected power syst., transient response, single line-to-ground faults 4593
Laguna Verde load rejection transient anal., TRAC-BF1 35801
LDD MOSFETs, virgin and stressed, charge-pumping charact. 38903
lifts, PM lin. sync. motor, transient current, thrust 36736
light water research reactors, CRTA, fast reactivity transient anal. 10825
lightning distrib., earthing systs. 19349
lin. ccts., sinusoidal inputs, time domain soln. 21081
lin. step motors nuc. reactor control rod drives, dyn. characts. 20075
load-independent cell library macromodeling, waveform simul., CMOS logic 29143
lossy coupled transm. lines in lossy medium, transient anal 31876
lossy distributed networks, successive asymptotic waveform eval. 1467
lossy nonlin. terminated packaging interconnection, S-param. transient simul. 5636
lossy VLSI interconnect, sig. transients, propag., crosstalk 30426
LOSSYWIRE, lossy coupled transm. line simul. kernel 33732
M/K multiple priority policy in DQDB networks, perform. eval. 41843
macromodelling series-reson. convertor ccts. 21469
microwave ccts., pole-zero computation, multipoint Pade approx. 21528
microwave HBTs, transient thermal simul., TLM method appl. 37980
microwave semicond. device models, num. algms., finite difference schemes 12782
model for transient surface impedance boundary condition 40192
MOS capacitor, lin. voltage sweep method, generation param. determ. *(Chinese)* 42920
MOS devices, transient 2D simul., waveform overrelaxation 22332
MOS EPROM writing charact., hot electron injection model, transient simul. 12546
MOS SPICE transient cct. simul., integrat. methods, noncontinuous first derivative devices 6868
MOSFET ccts., relax.-based transient sensitivity computations 22604
MOSFETs, non-quasi-static transient effects, model 22410
multi-server discrete-time queues, transient anal. 2894
multimachine syst. transient stabil. anal. *(Chinese)* 35425
multipath environ., transient sigs. detect. 40888
multiple transients, param. estim., SDMP method 40949
multiterminal power systs. anal., reduced ccts. methods 26899
NDR-SPICE cct. simul. of reson. tunneling devices 22336
network resource mgt., adaptive cct. access control 41700
nonlin. mag. device modelling, IDAS simul. syst. 12305
nonlin. tapered opt. waveguide, beam propag. anal. 22873
nonuniform freq.-depend. interconnections, PSPICE simul. 23755
NPP, transient diagnostics by neural net 35741
optoelectronic integrated devices, transient behaviour 39591
overhead lines, earth-return effects, freq.-independ. cct. model 43728
parallel operating 3-phase PWM inverter, cross current control 11140
patterned wafer RTA/RTCVD, thermal radiation absorpt. charact. 22229
permanent magnet DC motor, computer modelling 19661
photosensor for transients tracking 34510
piezocomposite US transducers, transient acoustic fields, opt. imaging 18932
piezoelec. rotary US motor, perform. prediction 36198
planar wire-mesh EM shields loaded by general stratified struct. 40379
planar wire-mesh shields loaded by chiral slabs, transient anal. 23710
plane wave coupling, bare and insulated cables in lossy half-space 31869
PM DC machines, mag. field anal., FEM 44067
PM sync. machines, stabil., cage bar effects 36125
populated computer PCBs, IR meas. and anal. predictions 38097
power bipolar-mode FET, turn-on transient anal. 13813
power converters, transient anal., envelope following method 6009
power diode reverse recovery, charge anal. approach 30217
power line switching transients immunity control spec. 19041
power syst., nonlin. asymm. components, short cct. calc. 19069
power syst. EM transients simul. programs, GUI appls. 19026
power syst. grounding syst. anal., EMTP based model 4721
power syst. nodes, dyn. loads, transient anal. 19068
power syst. switching transients simul., multiport equivalencing 26872
power syst. sync. generator damping, SMES-based 10680
power syst. transient stabil., transient energy fn. anal. *(Chinese)* 43645
power transformer dyn. hysteresis losses 27778
power transm. lines transient anal., method of charact. 27191
pulsed damped-sine charactn. sig. anal., PC-based 34423
pumped storage plant, converter-fed var. speed generator-motor *(Japanese)* 36047
pumped storage plant, converter-fed var. speed generator-motor, fault current *(Japanese)* 36048
PV power syst. solar arrays, load matching calcs. 27626
PWM converters av. simul., behavioural rels. implement. 6023
PWR low press. natural circ., AC power loss 35800
railguns, 3D current distrib./EM fields soln. 15319
railguns, design, coupled EM-hydro FEM 15311
railguns, EM forces calc., 3D FEM 31753
reactor bottom head dissolution, melt pool 35834
rectifier cct. transient anal., diode modelling, SPICE-based 12325
RLC cct. transient anal., matrix topol. methods *(Russian)* 6205

transient analysis continued
semicond. devices, thermal transients, dyn. models 30201
short gap discharges, fast transient elec. fields meas. 23507
SiC nonlin. resistors, capacitive energy storage appls. 36502
sigs. separation 24258
simultaneous real-time cryst. filter alignment in freq./time domains 39081
sing. expansion method, transient coupling anal. 7998
single-electron logic ccts., quasi-CMOS inverter simul. 37731
single-phase doubly salient PM sync. generator 4926
solid armature railgun, current/heat transient diffusion 15310
space nuc. reactor, thermionic fuel element modelling 26625
speech dereverberation, cepstrum based deconvolution 32212
stabil./faults, neural net class. 36123
substation cables, induced transients meas./models 5157
substation struct./grounding syst., lightning strike, transient anal. 44251
supercond. generators, short-cct. rotor damper EM force calcs. 27676
sync. and induction machines, transient state, faults effect 19197
sync. generator stabil. pattern class., neural net-based 11006
sync. generator voltage stabil., voltage depend. reactive power limits 36114
sync. machine, reduced models, charact. params. 10980
sync. machine equiv. cct. time domain anal. approach 11005
sync. machine modelling, freq. response data-based 36115
sync. machine modelling, time consts., transients, reactance, steady-state operation *(French)* 27700
sync. machines, salient pole, rotor complexity, transient responses 10995
teletraffic model anal., num. transform inversion 41489
thermionic fuel elements, 2D transient anal. 18735
three-phase power transm. lines, EM transients simul. 19290
three-phase reluctance motors, single-phase-fed, transient anal. 36124
three-phase sync. motors, single-phase supply starting transients 44017
thyristors/diodes, transient thermal impedance modelling/verification 13666
time depend. Maxwell's curl eqns., hybrid finite element solns. 40184
time-domain EM plane waves in static and dyn. conducting media 31784
TRAC plant/safety anal. code, interactive model generator 19431
transformer substations, EM transients anal. 36480
transm. line EM transients anal. 35603
transm. line energisation, simul., black start studies 19196
transm. lines, efficient freq.-domain modeling and cct. simul. 5977
TRASIM, 2D transient simulator for planar semicond. devices 38778
twin-counter digital-loop preset freq. synthesizer 12615
UHV tower model, lightning surge anal. 27238
ultra-short pulse propag. on complex planar structs., anal. 37961
VLSI RIE systs., real-time control, plasma generation, phenomenological modeling 1264
wavelet-based detect. of transients in biological sigs. 35071
Whitney elements time domain methods for solving EM Maxwell eqn. problems 40183
wind induction generators, harmonics prediction/ident. 43960
AlInAs-GaInAs HBTs, ultrafast photocarrier transport 23014
Er-doped fiber amp., transient anal. 14737
Si MOS devices, transient impact ionization in bulk semicond. 1173
Si detector, neutron irrad., Fermi level, TChT tech. 18370
Si micromachined air-coupled capacitance US transducers, design and charactn. 18930
SiGe-base HBT 2D device-level simul., transient/DC behavior, ECL buffer 13658

transient capacitance spectroscopy *see deep level transient spectroscopy*

transient response
see also step response; transient analysis
1.8 GHz mobile radio channels, wideband characterisation 9315
5.6 kb/s speech codec, pulse codebook/improved Viterbi decoding 32274
8-kbit/s conjug. struct. CELP speech coder, perform. 33690
500 kV transm. line, 3-ground-wires, impulse response *(Japanese)* 4697
900 MHz complex impulse responses and topographical map data 9323
1800 MHz radio propag., time dispersion meas. syst. 9319
1890 MHz delay spread meas. in Melbourne 3407
AC drives, on-line unity PF PWM rectifier 5305
AC/AC back-to-back power converters, capacitor minim. 5118
adaptive algms. for flexible equaliser in mobile receiver 42270
adaptive channel equalisers, off-line modulus restoral algm. 33159
adaptive equalization for fading mountainous terrain 3426
adaptive equalization for multipath fading environ. 3429
affine phase complex FIR filters, design/charactn. 8359
anti-directional-twin-rotary motor drive, elec. vehicle 5360
approx. shift-invariance by warping shift-variant systs. 16206
BESOI SRAM, 4K, transient and total dose irrad. 29236
BiCMOS buffer ccts., delay modelling and optim. 647
binaural recording playback through loudspeakers, room impulse response 34296
blind channel ident. based on second-order stats. 24003
broadband act. room noise control, local silencing 15989
broadband channel modelling and perform. anal. 33849
causal lin. systs., transient anal., microwave freqs. 21082
CDMA cellular radio, freq./time division duplex techs. 25371
CDMA cellular syst., forward link multipath propag. 33885
CDMA microcellular systs., channel models 3419
closed loop syst., anal., static converter, steady state stabil. *(Russian)* 27823
combined cycle power plant multivariable control 43931
complex geom. indoor radio propag. ray-splitting model 31825
current source PWM rectifier cct. studies 44181
decision-directed SS-RAKE receiver for fast fading mobile channels 9233
dielec. interface, transient scatt. responses *(Japanese)* 40325
digital filter with arbitrary piecewise-lin. freq. response, impulse response 24305
digitizer, chopped impulse meas. errors *(Chinese)* 3764
direct detect. opt. systs., zero-forcing elec. filters 41099
direct form block floating digital filters, asymptotic behaviour 32796
directional microphones in computer simulated/real rooms 17607
discrete lin. time- and freq.-variant systs., impulse and cissoid responses *(German)* 12307
discrete-time sig. design for maximizing amplit. separation 24282
DS-CDMA cellular systs., third generation, adaptive antennas 33850
DSP implement./perform. eval. of stereo echo canceller 34287
echo cancellers, acoustic transfer fns. modelling 32633
EFIE, num. soln., transient antenna impedance determ. 15622
EM syst., impulse response, deconvolution/total least sq. 40389
error probab. on M-PSK/M-DPSK/fading diversity channels 2360
fast min. error probab. blind equalization algm. 16028
fibre-optic delay line filter synthesis, modified Pade method 30875

transient response continued
finite cylindrical dielec. targets with gently varying cross-sections 23560
FIR channels fractionally spaced blind equalization 8368
FIR filter design, complex Chebyshev approx. 40855
FIR syst. ident., third- and fourth-order cumulants 40541
frame of wavelets for edge detect. 32825
full-band acoustic echo cancellers, steady-state perform. 33676
fuzzy logic power supply protection cct. for severe transients 44188
GaAs submicron MESFET devices, heat generation and transport 38921
generalized multidelay adaptive filter, struct./convergence anal. 24199
generator brake, thick film resistor 4906
German telephone network, impulsive noise survey for stat. modeling 16913
hall electroacoustic syst. response 3692
high speed indoor wireless systs., directional antennas 3329
high speed interconnects, simul., packaging simulator 20438
homog. filled waveguides, transient field expressions 2294
HOS for blind channel estim. and deconvolution in colored noise 32457
hybrid transducer-type US motor, speed control expts. *(Japanese)* 11082
identification of processes with output drift, freq.-domain 25700
IIR filtering for adaptive phase jitter cancellation 32748
image proc. neuro chips, analogue, spatial/temporal dyns. 42755
impulse response estim., subband adaptive digital filter 8390
impulse response meas. using sliding correl., dyn. range, self-noise 33155
impulse responses ident. by wavelet transform. 8256
induction motor ASD, fuzzy on-line efficiency optimisation control 36659
induction motor drives, CSI-fed, torque angle control algm. 28091
induction motor drives, vector control, auto-tuning method 36682
induction motors, doubly-fed, IP control transient stabil. anal. 27740
interconnected power syst., transient response, single line-to-ground faults 4593
lin. ccts., sinusoidal inputs, time domain soln. 21081
lossy coupled transm. lines simul., window partitioning, waveform relax. 13422
low sensitivity state space digital filters, Pareto optimal design 32788
macrocellular PCS propag. channels, 1850-1990 MHz band 31836
MCFC power generation systs., dyn. perform. modelling 27644
microcell/indoor environ., propag. mechanisms 3344
microcellular modelling for base station antenna below roof tops 3418
microcellular urban propag. characts. 9339
microwave ccts., pole-zero computation, multipoint Pade approx. 21528
microwave transversal fiber-optic tunable filter 25513
millimetre wave indoor radio channels, charact. *(English)* 40348
mobile radio channel, measuring/simulating devices 25286
mobile radio channel, wideband micro-/macro-diversity meas. 3411
mobile radio channel, wideband propag. meas. 17031
mobile radio channels, non-stationary simul. model 33770
mobile radio RAKE receivers, synchronisation, BER perform. 25445
model based filter design, median of sq. of residuals 2585
model for transient surface impedance boundary condition 40192
MOSFET device perform., distrib. gate resist. impact 1402
moving av. syst. ident. from bispectrum 2542
multi-channel decimator for tri-level delta-sigma modulator 29080
multi-channel deconvolution, generalized sampling approach 15924
multicomponent radar interf., adaptive suppression 34120
multipath channel Viterbi algm. multitrellis decomp. 40558
multiple radio wave refls. in corridor 9340
nonexponential transient response, const. phase element 11277
nonlin. ceramic capacitors, C-V responses 29612
op amp power supply current sens., SPICE macromodel 552
opt. intersatellite commun., LD transmitter 17173
opt. receivers using APD with dead space, BER 17264
optoelectronic integrated devices, transient behaviour 39591
orthogonal FDM for mobile radio 9214
package, transient strain response, scanning laser vibrometry 34706
parallel operating 3-phase PWM inverter, cross current control 11140
perfect reconstruction FIR 2-channel filter banks in 3-D with FCO sampling, design 21429
piecewise-lin. diode model for transient behaviour 22347
power IC packages, transient thermal impedance tester 137
power network dyn. transient phenom. simul. program *(German)* 10717
power plant piping networks, press. and flow transient response prediction 4844
power syst. dyn. security assess., ELISA ES-based 26861
power syst. fast transient control, energy-based sensitivity method 10672
power syst. transient stabil., turbogenerator torsional vibr., fast valving *(Chinese)* 35456
power system dynamic response anal., nonlinear terms significance 19020
power systems, interconnected, single line-to-ground fault transient response 35564
PWM voltage-type rectifier, I-V control studies 19796
QPSK TDMA digital radio link, analog FM interf. 33841
railguns, design, coupled EM-hydro FEM 15311
reduced-state soft decision feedback Viterbi equaliser 3425
reluctance motor drive, optimal current angle control algm. 36684
reson. power converters, variable capacitance device appl. 19828
RLS algm. based on var. characts. of room impulse response 32749
room impulse responses approx. based on wavelet decomp. 15991
rot. mach., stat. monitoring, cumulant spectral anal. 32454
SAR image quality improvement, ideal filter concept 42526
short-cavity semicond. laser, opt. pumped, transient response 39835
sing. expansion method, transient coupling anal. 7998
slot array radar antenna, pulse wave, transient response *(Japanese)* 17427
solar cell perform., high injection effects 44414
sparse spike time series recovery by L_1 norm deconvolution 8415
speech dereverberation, cepstrum based deconvolution 32212
SS commun. syst. without ref. sig. for freq.-selective fading channel *(Japanese)* 25206
stable systs. parametrization from impulse response data 40979
stationary procs., sample cumulants, asymptotic results 40841
struct. rank deficient matrices, struct. total LS problem 2482
subband adaptive digital filter, convergence speed, multirate repeating method *(Japanese)* 21435
subband adaptive filtering algo., intersubband tap-assign. 2516
super-resolving image restoration in Karhunen-Loeve basis 16210
switching power supply, PSpice simul. *(Japanese)* 37631
sync. generator, back-swing phenom. anal. 11000
sync. machines, salient pole, rotor complexity, transient responses 10995
target HF ultrawideband radar sig. response, PO computation 34127
TEM horn based meas. transducers 17738
thin-wire reson. response to transient waves 23848

transient response continued
time varying step size normalized LMS echo canceler algm. 32603
time-variant multipath channel, simul. 33847
transm. line EM transients anal. 35603
transm. lines, efficient freq.-domain modeling and cct. simul. 5977
transm. lines with arbitrary nonlin. loads, time-domain anal. 40393
ultra-wideband or short-pulse radar, time-domain imaging 42487
underwater commun./sonar, filtering, transform 8320
underwater high data rate transm. equalizer 9611
underwater target, causal impulse response estim. 34180
urban microcells, ray tracing based prediction of impulse response 3420
urban microcellular environ., time dispersion meas. 3408
variable reluctance stepping motor rotor oscill. control 11376
VLSI nonuniform freq.-depend. high-speed interconnects, Laplace transform anal. 1291
VLSI RIE systs., real-time control, plasma generation, phenomenological modeling 1264
wave propag., hilly terrain, theoretical investig./wideband meas. 9321
Whitney elements time domain methods for solving EM Maxwell eqn. problems 40183
wideband all-digital PLL design with multirate digital filter banks 37674
wideband photonic array antenna, syst. design and perform. 7326
wideband RCS and impulse response of targets, transient EM field 17424
Yagi-Uda antenna, FDTD anal. 15670
AlGaAs/GaAs HBTs, steady-state/transient heat responses 38852
Er-doped fiber amp., transient anal. 14737
GaAs MSM photodetectors, buried layer effect, modeling 38450
GaAs heterojunction p-i-n photodiodes, transient simul., reson. cavity enhanced 39565
GaAs high-power high-speed photoconductive switching devices, temp.-depend. delay time 14532
GaAs:Er very high-speed MSM photodiodes, fab., charactn. 31076
InAlAs/InGaAs/InP HEMT, trapping mechanisms, sinusoidal/transient response 13772
$In_{0.2}Ga_{0.8}As/GaAs$ microcavity lasers, transient pulse response 39756
Si micromachined air-coupled capacitance US transducers, design and charactn. 18930
Si microwave varactor diodes, irrad., capacit. transients meas. 12770
SiC, 6H polytype, subnanosecond PV response 14580
ZnO surge arresters, sudden voltage reversal transient response 4727

transient stability *see stability*

transient voltages *see transients*

transients
see also power system transients; surges; transient analysis
3D eddy currents in nonlin. media, calc. 40236
120/5 A CT model, mag. nonlin. 5011
AC machines, digital transient torque meas. 10951
act. modelocked external cavity LD, ps gain dyn. 1978
air gaps, impulse strength, nonstand. lightning surges 4722
air gaps, nonstandard lightning voltage waves, bibliog. 4878
air gaps, nonstandard lightning voltage waves, research 4877
anti-directional twin rotary motor drive, elec. vehicle *(Japanese)* 28111
asynchronous motor, speed control, variable struct. control 27738
automotive microcontroller, on-chip voltage regulator 44577
brushless PM motor/induction motor drives comparison 5274
BWR, natural circ., LF dyn. 27465
capacitor energy storage, nonlin. tervit resistor appls. *(Russian)* 44429
cct. steady state eqns. formulation, main vars. methods *(Russian)* 37582
CMOS twin-well inverter with load capacitance, AC and transient latchup 30463
CMOS VLSI ccts., transient power supply current monitoring 21240
Comanche Peak station, 50% load rejection transient, plant data comparis. 47[illegible]7
complementary IGBT, turnoff transient characts. 6765
const. modulus algm., local min. escape transients 32670
convolutional codes/time-varying errors/Kalman error correction 40664
DC motors, num. anal., FEM 36194
distrib. network capacitor banks, synchronised/soft switching 10722
distributed const. syst., gap discharge, voltage transients meas. 25936
elec. ccts., complex, nonlin., num. simul. 510
elec. connectors, surge/noise suppression 6400
electromechanical switches degradation obs. due to mechanical vibration 21608
electronic equipt. hardening, lightning surges 864
ELF-microwave radiation dosimetry num. methods 35186
EM noise emitted from elec. vehicle 28116
EMC, conference, Dallas, TX, USA (1993) 36844
ferromag. shields, EM transients anal. procedure 15486
field-excited transm. line systs., time domain anal. 15495
fuzzy ES for hydrostatic level meas. *(German)* 18160
fuzzy logic power supply protection cct. for severe transients 44188
GIS, coaxial pulse generator, VFT generation 36487
GIS, fast transient overvoltage *(Chinese)* 5155
GTO cct. snubber diodes, low temp. elec. transient tests 528
hard switching power IGBT modules, dyn. perform. tests 21102
HI induced transients in lin. ICs, obs. 30431
HV substations, EMI anal., switch arc restrikes 5159
IFF appl., transient control by software 23677
IGBT power module gate drive considerations 37632
implanted MOS structs., I(t) tech. for generation rate determ. 1169
impulsive stochastic transients detect., background noise 32647
induction motor control/protection, Steinmetz model 4938
induction motor drive, voltage control, field weakening region *(Korean)* 280[illegible]8
induction motor drives, extended Luenberger observer, state/param. estim. 36657
induction motor drives, field oriented, digital implement. 36702
induction motor fault current simul., rotor leakage flux-caused 19647
induction motor vac. cct. breaker switching surge anal. *(Korean)* 27706
induction motors, rotor resist., dyn. adaptation 11037
induction motors, single phase, starting transients calc. 11039
inertial elec. drives, monotonous ang. vel. control model *(Russian)* 44487
infinite line, EM fields, steady-state/transient DC *(French)* 31711
intell. building, electro-mag. interf. 8004
intell. building, lightning induced voltages 8005
intell. DSP, stock trends determ. *(Japanese)* 24334
inverter, parallel capacitor compensated, transients, stroboscopic anal. 5391
LIM, init. conditions, dyns. form./anal. 11075
LIM drives, transvector control syst. computer simul. *(Russian)* 44437

transients continued
lin. pulse servomotor control, 2 DOF controller *(Japanese)* 44074
low rate audio coder, hierarchical filterbanks/lattice VQ 32106
mag. underwater transient sig. detect., wavelet transform 16061
MAGLEV train coil syst., transient induced voltages study 11428
metal/oil interface, adsorpt., charge injection 14025
micromotor dyn., lubricating fluids 11092
mixed photonic/electronic cct. simul. 37603
MOS transistors, bulk-Si/SOI device self-heating effects 22474
MOS-controlled devices thermo characts. 22322
motor drives, inverter design, optocouplers 28073
motor winding insulation, surge protection 4883
multichannel Gaussian sigs., low rank detect., constrained inverse 40952
multicomponent exponential transients, time-domain method anal. 25749
multilayer SMT varistors, transient surge protection, automotive indust. 11437
neuromuscular stimulation electrodes, elec. transients/corros. responses 18603
non-parametric waveform estim. based on filter banks 32730
package/module interconnect test syst., transient thermal sigs. 28440
photoconductive semiconds., transient photocurrents generated by step-PM 23421
planar dielec. waveguides, time and space transients, spectral techs. 22896
planar SOFC, syst. dyns. simul. 44369
PM sync. motors, sliding mode control *(French)* 10991
power diode, fast reverse recovery perform. characterisation 30219
power transformers, freq. response, electrostatic screen effect 5023
pulse electrodynamic drive, transient proc., theory 7934
PWM AC-to-DC voltage-type convertors, current control 5062
PWR, on-line fatigue monitoring, probabilistic assess. of margins 27408
rectifier converters, opposed stars connection, anal. 11124
salient pole sync. generator, transient stabil. anal. 4920
semicond. device reliab., EOS tutorial 30191
series-reson. DC-AC power converter, switching control *(Japanese)* 11190
servodrives, all-digital current control loops limits 28071
single mode LD, decay time of time-depend. transient stochastic dyn. 31331
single-phase switch-mode rectifier, voltage-reversal cct. 29020
SMES, energy transfer, internally induced voltage *(Japanese)* 1635
SMPS PF correction, microcontroller 44116
solid armature railgun, current/heat transient diffusion 15310
sonar sig. class., HMM/neural net 34178
spacecraft common mode transients, short cct./fuse blowing events 4347
squirrel cage motor, inverter driven, thermal model 5253
supercond./conventional generators, parallel running, transient stabil. *(Japanese)* 10965
sync. machine stator cct., transient effects on power syst. stabil. 4922
sync. machines, transient stabil. teaching 11001
sync. motors, CSI-fed, rotor losses estim. 44013
tapered slot antennas, FDTD anal. of transient EM fields 2333
telecomm. equipt., global grounding topolgy, interface specs. 44148
telecomm. equipt./computers, surge protection 24875
thin oxide MOS capacitor, current spike obs. 6583
two-terminal large area power semicond. devices 518
variable speed induction motor drives, expt. perform. anal. 5247
VDMOS power transistor, single event gate rupture threshold 13722
vehicle electronic systs., vibr. design/testing 44584
Wigner-Ville distribution for transient signals meas. 24240
wind turbine, wound rotor async. generator, static Kramer drive 36083
XLPE/EP insulated power cables, low temp. ageing 27202
ESD meas. techs. for IC design/manufacture 18057
Er-doped self starting fiber based soliton laser 14761
GaAs heterojunction p-i-n photodiode transient simul., computational methods 39564
GaAs, impact ionisation transients, lucky drift model 13071
GaAs substrs., coplanar strip lines/waveguides, ultrashort elec. pulse generation 39562
$In_{0.5}Ga_{0.5}P_{0.99}As_{0.01}$ epilayers, doped and undoped, deep level studies 29852
InP:Fe, nonlinear behaviour under high elec. field 13046
Pb-acid secondary batts., state-of-charge prediction 11268
SF_6 gas, surface leader discharges, impulse voltage polarity *(Japanese)* 1546
a-Si TFT, 2D current transient, trap-state filling 6748
a-Si:H diodes for act. matrix addressing 1798
a-Si:H, p-i-n diodes, forward current transients 1343
SiO_2 films, high field dyn. stress 22063
SrS phosphor thin-film electrolum. devices, rare-earth-ion-activated, transient emission 31090
Ta chip capacitor reliab. in high surge/ripple current appls. 12841
ZnO, multicomponent varistors, Cr_2O_3 effect, pre-breakdown elec. props. 12828
ZnO multilayer chip varistor, LV transient suppression 29607
ZnO surge arresters, sudden voltage reversal transient response 4727

transistor circuits
Used for general papers and papers where the use of transistors is significant
see also bipolar transistor circuits; field effect transistor circuits
Crossatron-based modulator for plasma discharges 12382
inverter ccts., single electron transistors, dyn. charact. 37737
piecewise-lin. resistive ccts. containing transistor models, solns. 28993
GaAs MMIC technol./manufacture, MIC comparisons, status review 29580

transistor-transistor logic
see also logic circuits
combinat. ccts., supply current testing, random test input 12450
D-type flip-flop, fast-transient suscept. 29098
high-speed I/O interface ccts. for memory bus appl. 12505
low power TTL-to-CMOS converter design *(Korean)* 29103
submicron BiCMOS memories, high-speed technols. 29208
GaAs ASIC set for deep space receiver 42336

transistorised circuits *see transistor circuits*

transistors
see also bipolar transistors; field effect transistors; hot electron transistors; insulated gate bipolar transistors; microwave transistors; millimetre wave transistors; phototransistors; power transistors; single electron transistors; submillimetre wave transistors; superconducting transistors; thin film transistors; tunnel transistors
burn-in effects on radiation hardness of transistors and ICs 11725
CircleX program for transistor S-param. data anal. 38774
ferromag.-nonmagnetic-ferromag. metal bipolar spin transistor 30760
magnetotransistors, base region Hall field anal. model *(Korean)* 22342
noise, diagnostic tool in reliab. phys. 20496

transistors continued
- RF transistors, stabil., gain and noise 6040
- separated drift field magnetotransistor, design, fab. *(Korean)* 25778
- GaAs/AlAs, single-wavelength all-opt. phase modulator 2106
- GaAs-AlGaAs heterostruct., fab. tech., mesoscopic device appl. 12159
- InP-InGaAs light amplifying optical switch, XOR logic fn. 14675
- Si-wafer hot curing by laser gettering *(Chinese)* 6604

transit time devices
- *see also IMPATT diodes; TRAPATT diodes*
- MODFETs, transit time effects, direct meas. 22487
- US intell. flowmeter, hydroelec. power appls. 10876
- GaAs TUNNETT diode oscillators above 100 GHz, diamond heat sinking and power combining 12778
- GaAs TUNNETT diodes above 100 GHz, efficiency, RF power levels, free running oscillator appl. 37976
- GaAs TUNNETT diodes on diamond heat sinks for 100 GHz and above 12756
- GaAs/AlAs, reson. tunneling transistors, tunneling transit time 13646
- InGaAs/InAlAs, reson. tunneling transistors, tunneling transit time 13646

transition moments
- squaraines, neg. third-order opt. responses 15134

transition radiation
- electron bunches, longit. asymm., synchrotron/transit. radiation 18254
- electrons, finite trajectory, Cerenkov radiation 10093
- homog. filled waveguides, transient field expressions 2294
- positron ident., transit. radiation detector, neural net 4173

transition radiation detectors
- DΦ detector, control, monitoring 18305

translation (language) *see language translation*

translators (program) *see program interpreters*

transmission electron microscopes
- *see also transmission electron microscopy*
- electron opt. benches, aberrations/LEEM appls. 1011
- field emission TEM, nanometer resoln. elemental anal. 6704

transmission electron microscopy
- *see also transmission electron microscopes*
- acetylene black, pretreatment, electrochem., fuel cells 11284
- activated C fibers, pore struct., fractal anal. 5913
- C black-filled semicond. materials, props., HV power cable appls. 13974
- chem. mech. polishing abrasive slurries, IC dielec./metallization 38571
- defocus series, exit wave reconstruction 24430
- diamond films, hot filament CVD on sapphire 20929
- diamond films, microwave plasma CVD, charactn. 6521
- diamond/Si(001), heteroepitaxial films, interface study 21940
- EM gun technol., Cu/Al component protection coatings 15331
- etch-stop layers, heavily B-doped, TEM obs. 13401
- focused ion beam micromachining appls. 13906
- heteroepitaxial III-V struct. charactn. 21901
- high-sensitivity CCD syst., parallel EELS 9930
- IC proc. control/failure anal., FIB appl. *(French)* 1490
- II-VI blue-green emitters, failure mechanism 14630
- lattice defects induced by ion implant., photo-acoustic displacement meas. 6616
- magnetoresist. charact., metallic multilayers *(Japanese)* 30694
- metal/n-InAs/interlayer/n-GaAs struct., nonalloyed ohmic contact resist. 1154
- microelectronic packaging, specimen prep. tech., cross-sectional TEM 28480
- MOS I/O device degrad., ESD-induced disloc. 22605
- native oxides on Si surfaces of deep-submicron contact-hole bottoms 38617
- Permalloy elements, domain struct., TEM coherent mag. imaging 14120
- phase-change opt. disk, high-dens. recording 14334
- phosphor thin foil scintillating screen for TEM 7459
- phthalocyanine, organic photoreceptor, spectral sensitization 2189
- polamide/$BaTiO_3$ ceramic composite grain boundary capacitors, prep. 6370
- polysilicon:Ge films, ion implant. amorphized, recrystn. 13280
- pump LD, rapid degrad., TEM study 14866
- SOFC, air electrode degrad., microscopical charactn. *(Japanese)* 44341
- submicron struct., 3D meas. techs. 42930
- Al CVD on SiO_2, situ obs by environ. TEM 38634
- Al thin films, electromigration, hillock form. 30143
- Al/SiO_2 interfaces, buried thin reacted layer direct obs. 38695
- Al/W-Ti metallization, electron microscopy 22256
- Al/n-GaAs Schottky contacts, prep., charactn. 37522
- Al-Ge-Cu alloy reflow sputtering, electromigration charact. 22269
- Al-Si-Cu/TiN/Ti/Si systs., solid-phase reacts., TEM obs. 38685
- Al-Si-V-Pd microstruct., IC interconnect reliab., Al-Si-Cu comparison 38652
- Al(100), heteroepitaxy on Si(111), thermal evap. growth 12038
- AlAs/GaAs DBR VCSEL diode on Si, MOCVD and struct. 39882
- AlAsSb/GaAsSb DBR, highly reflective, MBE 15011
- AlGaAs, epilayers, MOCVD grown, HRTEM charactn. 20772
- AlGaAs:Si lateral jns., MBE growth on patterned substrs. 21947
- AlGaAs/AlGaAs superlattice, comp. ordering, opt. props enhancement 1083
- AlGaAs/GaAs heterostruct., ohmic contacts, phys./elec. study 13169
- AlGaAs/InGaAs/GaAs HEMT, photolum. spectrosc. 6780
- $Al_{0.22}Ga_{0.78}As/In_{0.15}Ga_{0.85}As$/GaAs one-side-modulation-doped QW, electronic subband studies 21996
- AlGaN epitaxy on sapphire using AlN buffer layers, cryst. struct. 364
- AlN, ion plated films, opt. applicability 28850
- γ-Al_2O_3, form. from pulsed-laser irrad. sapphire 12037
- Au wire bondability for IC device, TEM obs. *(English)* 6444
- Au/GaSb, interfacial reacts., ohmic contacts effects 38376
- Au/$In_yAl_{1-y}As$, intimate Schottky diodes, characts., mismatch depend. 13221
- Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
- BN, cubic thin films, growth, charactn. 5875
- BN, deposition proc., HRTEM, nanocrystalline struct. 28849
- a-$BaTiO_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
- $BaTiO_3$ films on Pt, epitaxial growth and dielec. props. 12099
- C adherent film deposition by cathodic arc, implant. 37511
- C_{60}, thin film growth, MBE growth, film struct. 37395
- C_{70}, thin film growth, MBE growth, film struct. 37395
- CaF_2/Si(111), epitaxial growth mechanisms and struct. 5836
- $Cd_{1-x}Mn_xS$ dil. mag. semicond. nanoparticles 13082
- CdMnTe(001), MBE growth, struct., opt. props. 37392
- CdSe nanocryst/ZnSe matrix II-VI quantum dot composites, electrospray OMCVD prep. 20946

transmission electron microscopy continued
- CdSe quantum dots, electrospray OMCVD 5860
- CdSe thin films, elec. props., CO_2 gas sens. appls. 3898
- CeO_2/Si(111), epitaxial oxide film, elec. props. 13229
- CeO_2/Si(111), laser ablation deposition, growth mode 38445
- Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
- Co/Si(SiO_2), ion-beam mixing, Monte Carlo simul. and expts. 22023
- Co-Cr films, micromagnetic domains, neutron scatt. 6961
- Co-SiC, interface microstruct., chem. and elec. props. 13213
- $Co_{78}Cr_{22}$ films,sputter-deposited, chem./structural anisotropy, EXAFS studies 6958
- CoCr-$NiP_3(TiSi_2)$(Cr)(C)-soda lime glass recording media, high coercivity and low noise 7115
- CoCrPt-MgO bicrystalline long. recording medium, mag. charact. 6957
- CoCrTa thin film, long. recording media, grain boundary, intergranular exchange coupling 6955
- CoNiPt-SiO_2 films, mag., structural props. 1570
- $CoSi_2$-Si heterostruct., solid state epitaxial growth from Co-Ti-Si multilayer 37419
- CoSm/X (X=Ti,V,Cu,Cr) sputtered thin films, mag. props. 6963
- Cr-SiO_2 cermet-polyimide interfacial reacts., thin film resistor appls. 38045
- Cu electroless deposition on metals/metal silicides, ULSI interconnects 28790
- Cu grain growth during Cu-Cr and Cu-Ti thin film nitridation, situ TEM 38583
- Cu thin films, electromigration, hillock form. 30143
- Cu/TiN/Si(100) heterostruct., pulsed laser deposition and charactn. 421
- Cu/TiN/$TiSi_2$/n^+-Si contact syst., RTN and characts. 38700
- Cu-Sn intermetallic form. at solder-Cu interface, in-situ TEM 12188
- Cu_3Ge/n-GaAs ohmic contacts, microstruct./elec. charactn. 6573
- (Fe-Co)/Ag films, magnetoresist. study 7049
- a-$Fe_{73.5}CuNb_3Si_{13.5}B_9$ ribbons, mag. domain struct., crystn. effect 14142
- α''-$Fe_{16}N_2$, synthesis/struct./charactn. 7032
- FeNdBGaNb PM, microstruct., mag. props. 22687
- GaAs, CBE growth on Si(001), TEG and AsH_3 *(Chinese)* 5814
- GaAs, ECR plasma etching, surface damage 13384
- GaAs MBE thin films grown on Si, biaxial compression 20837
- GaAs MOVPE, multiatomic step form., GaAs/AlGaAs QW wires 20835
- n-GaAs diodes, Ni-Al based Schottky barrier enhancement, AlGaAs regrowth 38382
- GaAs epilayers, MBE, annealing thermal stabil., As precip. 308
- GaAs, epilayers, MOCVD grown, HRTEM charactn. 20772
- GaAs layers on Si(001), MBE/ALE grown, defect struct. 12113
- GaAs, low press. MOCVD on Si, defect reduction 20768
- GaAs, low-temp. MBE, substr. orient. depend. 12093
- GaAs nanometer-scale whiskers, growth/opt. props. 20815
- GaAs substr., struct., interfacial studies 302
- GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
- GaAs:Er, MBE grown, struct. anal. 37440
- GaAs:Fe(Ni), ion implant./annealing, precip. 6610
- GaAs:III-VI gallium chalcogenides(100), passiv. 30077
- GaAs:Si, MESFET, ion implant., mass resoln. effects 30039
- GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
- GaAs:Si lateral jns., MBE growth on patterned substrs. 21947
- GaAs:Si^+,Se^+, ion implant., struct. anal. 30031
- GaAs:Si(Be), low-temp. MBE, dopant effects 21917
- GaAs/AlAs MBE heterostruct., (311)A orient. 20860
- GaAs/AlGaAs QW wires, form., photolum. charactn. 20819
- GaAs/AlGaAs QWs and quantum wires, growth and opt. props. *(Chinese)* 5815
- GaAs/AlGaAs, wire, MBE regrowth on patterned substrs. 20808
- GaAs/InAs, GaAs capping layer growth, island induced strain driven adatom migration 354
- GaAs/InAs/GaAs heterostruct., MBE growth, substr. misorient. effect 20856
- GaAs-WN Schottky contacts, plasma deposited, thermal stabil. 22033
- GaInAsP multilayer, gas source MBE, tensile/compressive strain modulation 12062
- GaInP layers/heterostruct. on GaAs substrs., VPE, surface photo-absorpt. charactn. 20718
- $Ga_{0.5}In_{0.5}P$ order/disorder heterostruct., organometallic VPE growth 20750
- $GaInP_2$ homojunctions, ordered-disordered, 2DEG, anisotropic transport props. 21962
- GaInP/AlGaInP quantum wells, MOVPE, anom. photolum. 341
- GaInP-AlGaInP quantum wire lasers, MBE grown 31317
- α-GaN films, OMVPE, microstruct. charactn. 28734
- GaN films, low-press. metalorganic CVD 419
- GaN on Si(001), ECR plasma-assisted MBE growth 20898
- GaN-based LED, high efficiency, high disloc. densities 31099
- GaP, epilayers, MOCVD grown, HRTEM charactn. 20772
- GaP, interrupted cycle CBE on Si, photon assistance effects 28766
- GaP/GaAsP strained-layer quantum wells grown by MOCVD 20800
- GaP/InGaP strained-layer quantum wells grown by MOCVD 20800
- GaSb films, MBE, lattice mismatch accommodation, disloc. threading, GaAs (001) substrs. 297
- GaSb:Se, heavily doped, extended defects, TEM 13303
- GaTe semicond. superlattice, Bridgman growth, elec. anisotropy 37384
- Ge (001) GSMBE, growth kinetics/surface roughening 20864
- Ge SQW, interface sharpness, MBE growth conditions 13190
- a-Ge/Ag layered systs., metal-mediated crystn. 38404
- Ge/Si epilayers, MBE, charactn. 320
- $(Hg_xMn_{1-x})Te$/CdTe(CdZnTe) heterointerfaces, misfit disloc. 21953
- InAs, MBE growth on GaAs (110) misoriented substrs. 20894
- InAs nanometer-scale whiskers, growth/opt. props. 20815
- InAs on GaAs, threading disloc. in lattice mismatched heteroepitaxy 13112
- InAs on GaAs(100), MBE growth/strained island form. 20857
- InAs/GaAs mismatched heterostruct. growth, defect control 20876
- InAs/GaSb strained layer superlattices growth 20804
- InAsP/InGaAsP strained MQW for 1.3 μm wavelength LD, MOMBE 23249
- InGaAs lin. graded comp. buffer layers, strain relief 367
- InGaAs surfaces, MBE growth on InP substrs. 20853
- InGaAs/AlGaAs HEMT hetero-interfaces, misfit disloc., diffuse X-ray scatt. 38305
- InGaAs/GaAs LD, degrad., possible sources 14925
- InGaAs/GaAs MQW pin diode stained struct., leakage current mechanisms 1129
- InGaAs/InAlAs epilayers, MBE on InP patterned substrs., TEM 5838
- $In_{0.2}Ga_{0.8}As$/GaAs quantum wells, metalorganic VPE, multistep form./In comp. var. 20735

transmission electron microscopy continued
$In_{0.21}Ga_{0.79}As$/(AlGa)As HEMT, misfit disloc. role 30375
$In_{0.3}Ga_{0.7}As/In_{0.29}Al_{0.71}As$ heterostruct., charactn. 6544
InGaAs-GaAs-InGaAsP graded index heterostruct. for 0.98μm lasers 12183
$In_{1-x}Ga_xAs$-$In_{0.53}Ga_{0.47}As$ strained superlattice, gas source MBE 12056
InGaAsP MQW LD, metalorganic VPE, entirely organic sources 23244
InGaAsP/InP false MQW, MOCVD/CBE growth, As,P incorporation 12063
InGaAsP/InP:Zn LD, threshold current, excess Zn effects 1960
InGaP, MOVPE, microstruct. obs. 37438
InGaP/GaAs heterostruct., MOCVD growth, charactn. 20825
InP, ALE growth, charactn. 20770
InP, Ar^+-sputter induced microprotrusions, struct., morph. 38547
InP, MOCVD, transit. from island to continuous layer growth on GaAs 12115
InP, low press. MOCVD on Si, defect reduction 20768
InP quantum islands/InGaP/GaAs(001) substr., coherently strained self-assembly 20947
InP wires on planar GaAs substrs., maskless selective growth 344
n-InP:Fe, Fe implant., SI layer form. 1210
InP:Fe, hydride-vap. phase epitaxial growth, FeP precip., anal. 20810
InP:Sn, ion implant, RTA, anal. meas. 38465
InP/GaAs, anti-phase direct bonding, 1.55 μm laser fab. 29999
InP/InAs SQW/superlattices, ALE growth, charactn. 20770
InP-based LD, TEM, strong contrast from doping vars. 13308
InP(As)(AlAs) self-assembling quantum dot arrays, MBE and MOCVD growth 374
InPAsSb alloys lattice matched InAs, MOVPE 301
$In_{46}Sb_{54}$ thin films, growth, microstruct., multiple recording appls. 28811
In_3SbTe_2 phase-change opt. disks, crystn. 22798
$La_2Zr_2O_7$/YSZ interface, SOFC, react. products morph. 44375
$MmNi_5$ hydrogen storage alloys, surface treatment, metal hydride batts. 11249
Mo/Al_2O_3 (0001) interfaces, high-resoln. electron microscopic studies 28823
Mo-Si multilayer charactn. by high-resoln. TEM *(Chinese)* 1643
Nb-Al-AlO_x-Nb tunnel jn. photon detectors, TEM/AFM anal. 39287
Nd-Fe-B, anisotropic, microstruct./mag. props. 6967
Nd-Fe-B sintered magnets, Nd-Fe-O intergranular phase, coercivity effect 39190
$Nd_2Fe_{14}B$ fine particles, spark erosion prep., struct., mag. props. 6975
$Nd_{15.4}Fe_{75.7}B_{6.7}Cu_{1.3}Nb_{0.9}$ sintered magnets, prep./TEM 6968
Ni-Au-Te-Au contacts on n-GaAs, microstruct./elec. props. correl. 38657
Ni-NiIn-Ge-GaAs ohmic contacts, interface microstruct./reacts. 38396
$Ni_{80}Fe_{20}$, sputtered film on Si, struct., mag. props. correl. 14150
$(Ni_xFe_{1-x})_yAg_{1-y}$/Ag multilayers, low field giant magnetoresist. 7064
NiTi/Si thin film shape memory alloy syst., stress evol. 37533
PZT, spatially uniform thin films, MOCVD 37517
PZT/Pt/TiN struct., high-temp. ECR plasma etching 39049
PZT/Ti/Pt interface layers, elec. and microstructural props. 39053
Pb-Sn flip-chip solder bonds on Cr-Cu-Au metallisation, SnCuAu ternary phase 11816
Pd-Ge-Ti-Pt ohmic contacts, p^+-GaAs:C/$Al_{0.26}Ga_{0.74}As$:C 38658
Pt/Co multilayers, Ar-sputtered, anisotropy energy and coercivity, magneto-opt. recording 14545
Pt/Co multilayers, interface struct., perp. mag. anisotropy 39175
Pt/Pd/Co multilayers, interface struct., perp. mag. anisotropy 39175
Pt/Si(100), pulsed laser deposition, TiN buffer layer 425
Pt/Ti electrode, PZT devices, annealing 39116
Sb-Ge amorph. films, crystn. kinetics, in situ studies 20914
Si, EFG growth in CO ambient, gettering 20647
Si RT oxid. catalyzed by Cu_3Si 38578
Si, SR-excited ALE, temp. effects 20710
Si amorph. film, grain growth/defects obs. *(Korean)* 21930
Si, buried silicide layers, ion beam synthesis 30025
Si, dry etch-induced damage, surface anal. 13390
Si, epilayers on Si, deposited after DC H_2 cleaning, X-ray curve charactn. 38618
Si epitaxial layers, ECR plasma CVD, ellipsometry obs. 28721
Si, excimer-laser-induced etching 30097
Si, film, on SiO_2, CVD growth, defects, TEM obs. 21878
Si low temp. epitaxy in single-wafer RTP reactor, microwave heating 384
Si, low temp. wafer bonding, kinetics study 1188
Si nanocrystalline films, laser-induced CVD 28839
Si, near-surface layer defects, RIE in SF_6-CCl_4-O_2 plasma 13337
Si, oxide precip. morph. change, two-step annealing 6607
Si point contacts, nanofabrication, MBE growth, transport meas. 13128
Si point contacts, nanofabrication, gas-source MBE 29895
Si, polycryst. films, ECR CVD, hydrogen dilution 37503
Si polycryst. films, hot wire CVD 5883
Si, porous, layered struct., opt. props. 1022
Si, porous, nanocrystal size, preanodization ion implant. effects 1225
Si, porous, struct., EXAFS/photolumin. study 22248
Si, porous struct. from lithographically patterned substrs., photolumin. obs. 20983
Si, porous superlattices, etching 22246
Si porous superlattices, type of heterostruct. 22015
a-Si recrystn. by RTA/laser annealing/furnace annealing 22098
Si ultra-fine wire fabricated by SIMOX technol., quantized conductance 38354
Si wafer surface cleaning/epitaxial growth in UHV ECR CVD reactor *(Korean)* 13331
Si wafers, direct bonding, interfacial props. 30001
Si:As RTA/furnace annealing, heating rate effects on defect distrib. 22100
Si:Au, mega-electron volt implant., backscatt. and electron microscopy study 6626
Si:B, implant. and transient B diffusion, interstitials 1228
Si:B, ion implanted, defects, seq. annealing 13306
Si:B(001)2×1, gas-source MBE, B-incorporation, elec. props. 38506
Si:B(P), low-energy implant., RTA/furnace annealing, XRD optimisation 22102
Si:C, phase form. by high-dose C implant., IR spectra 38503
Si:Co, ion implant., defect/impurity profile 30028
μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
Si:He, bubbles, struct./opt. props. 30050
Si:Ir(111), ion implant., $IrSi_3$ synthesis 30027
Si:O films, low temp. CVD grown, struct. 20974
Si:O, ion implant., precip. 30026
Si:O-on-insulator, implant.-induced stresses, defect pair 30044
Si:P, ion-implanted, flash-lamp annealing, Raman image study 38472
Si:Sn(001), strain determ. and microstructural charact. 22150

transmission electron microscopy continued
a-Si/Ag layered systs., metal-mediated crystn., TEM obs. 38403
Si/Al_2O_3 heteroepitaxial double SOI struct., press. sens. 38433
Si/Co/GaAs(001) interfacial reacts. 13278
$Si/In_xSn_yO_z$, Si oxid. by interfacial react. 38614
Si/Ni, solid state react., point defect creation 13224
$Si/Ni_xSi/Ni$ thin-film reacts., calorimetric anal. 1156
Si-Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
Si-SiO_2 MOS surface layer defects, ECR etching in Cl_2/O_2 plasma 6631
Si^+-self implant induced damage, characts., annealing behavior *(Korean)* 29842
SiC GSMBE, thin film growth mode, polytype form. 5812
SiC cubic films, struct./opt./elec. props. 21938
SiC epitaxial growth on Si(001), Si out-diffusion related defects 20900
SiC nanometer ceramic powder, pulsed CO_2 laser assisted synthesis *(Chinese)* 443
SiC random alloy epitaxy on Si by RTCVD, SiH_4 and C_3H_8 20848
SiC:Ga^+, defect prod., annealing 22105
6H-SiC:Ge,Si, ion-beam irrad.-induced amorph./recrystn. 38504
β-SiC:N layers grown on Si substr., ion implant. studies 38482
SiC/Si wafer bonding, CVD and etching 13392
$(SiC)_x(AlN)_{1-x}$, MOCVD on 6H-SiC, cryst. struct. 5884
SiGe, low temp. UV oxid., Ge nanocrystal prep. in SiO_2 22252
a-$Si_{1-x}Ge_x$ MBE films, solid phase crystn. 37437
$Si_{1-x}Ge_x$ polycryst. film prep., excimer-laser proc. 28796
$Si_{1-x}Ge_x$, pseudomorphic growth on Si(001), crit. thickness 305
$Si_{1-x}Ge_x$ thin film, form. from heavily Ge-implanted Si, morph. 28795
SiGe/Si quantum wires/dots, growth on patterned Si substrs. 28810
$Si_{1-x}Ge_x$/Si heterostruct., adaptive temp. program ALE from Si_2H_6/Ge_2H_6 20705
$Si_{1-x}Ge_x$-on-insulator synthesis by $^{74}Ge^+$ ion implant. in SIMOX substr. 30055
SiO_x, growth, interface of directly bonded Si wafers 30069
Sm-Co/Cr thin films, Cr underlayer microstruct., mag. props. 39154
Sm-Co/Cr thin films, nanostructures 6962
Sn-Pb-Ag solder joints, reliab. anal. and thermal fatigue disloc. substructure *(Chinese)* 11844
$(Sr,Ca)TiO_3:Nb^{5+}$ capacitor-varistor ceramics, cation diffusion 436
Ta/Si multilayers, annealing, silicide form. 6574
Ti silicidation, effect on type II end-of-range disloc. loops 38581
Ti/SiC, interface chem., microstruct., elec. props. 29952
TiC refractory material, laser ablation, cluster form. and deposition 28827
TiN MOCVD films, IC diffusion barriers/adhesion layers, TEM study 37420
TiN-AlCu-TiN interconnect electromigration, heat treatment effects 22270
TiO_2 opt. coating for solar cells, excimer laser sputtering deposition 28835
$TiSi_2$(NiSi)-polysilicon salicided films, resist. behavior, CMOS ULSI 6665
TiW thin films, sputter deposition 28829
W/WN/Si, nitride barriers for thermally stable metallization, TEM studies 38704
W-AuGeNi-GaAs ohmic contact metallization, RTN 38580
W-AuZn-GaAs ohmic contact metallization, RTN 38580
$YBa_2Cu_3O_{7-x}$ thin films, film growth, laser ablation, AFM, HRTEM, XRD *(French)* 30768
YBaCuO/$LaAlO_3$/YBaCuO multilayered films for microwave appls. 1599
$YBa_2Cu_3O_x/SrTiO_3/YBa_2Cu_3O_x$ tunnel jn., TEM study 22759
$YBa_2Cu_3O_7$-$PrBa_2Cu_3O_7$ Josephson edge type jns. 22754
ZnCdSe based II-VI heterostruct. for blue-green lasers, structural props. 23293
$ZnGeP_2$/GaP multiple heterostruct. on GaP substrs. 21959
ZnMgSSe blue LED, current injection, defects 31098
ZnSe thin films, chem.-bath deposition, material charactn. 28793
ZnTe epitaxial growth mechanism on (001) CdTe 37441
Zr-Si syst., in-situ TEM obs. of interfacial reacts. 38663

transmission line matrix methods
2D EM field propag. problem, TLM model, fourth-order in space and second-order in time 23588
3D distrib. node TLM mesh, cells of arbitrary aspect ratio 15596
alg. anal., network dyn. behaviour, charact. eqns. 12258
alloyed ohmic contacts, sheet resist. determ., TLM model 38415
cable bundles, per-unit-length params., MoM 15531
cable harnesses, capacitance calcs., method of moments 33741
central node in polar meshes, TLM approach 23756
curved conductor surface model, cavity resonators anal. by spatial network method 21526
cylindrical-circ. microstrip antennas, generalized transm. line model 31938
dielec. loaded T-septum waveguide props. anal. 21510
dispersion anal., scatt. matrix formulation 23763
dispersion anal. of TLM symm. supercondensed node 8009
EM syst., impulse response, deconvolution/total least sq. 40389
finite difference TLM method, first-order absorbing and dispersive boundary conditions 23764
finline band-pass filter design, TLM method 37945
finlines, semicond. substr., high precision anal. 31885
HF EM modelling techniques, IEE Colloquium, London (1995) 36883
IC elements, delay time, strips metallization effect 853
IC interconnections, quasistatic anal., method of lines 854
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
induction motor drive phase model based on TLM method 19646
leakage modeling, finite apertures, TLM 15471
lin. and nonlin. MMICs, design strategies 29597
MCM interchip radiative interconnection syst. 29724
MCM logic modules, leaky wave antenna radiative interconnects 12970
mesh of symm. condensed nodes with stubs, dispersion anal. 23758
microwave EM field simul., TLM method, computer graphic visualisation 10006
microwave HBTs, transient thermal simul., TLM method appl. 37980
microwave structs., TLM anal., AR and ARMA spectral estim. 12731
microwave-opt. transducers, S-matrix defn. 17815
nondistorting transm. line 23760
numerical dispersion removal using Glimm's random choice 15554
PCBs design, refl. and crosstalk effects simul. 907
plane-wave illum., partial Huygen's surface 2282
spherical-annular microstrip antenna generalised transm. line model 23928
symm. condensed node, derivation from Maxwell eqns. 15552
T-matrix vs. ABCD-matrix, cct. anal. 503
time-domain TLM anal., wideband absorbing boundary conditions 15613
transformer matrix of transm. lines topologies 21084
waveguide filter simul. and design, TLM method 804

transmission line matrix methods continued
- wire antenna, currents due to incident EM wave, meas. using mag. field 15649
- GaAs thin semicond. samples, EM simul., 2D TLM method, device models 30207
- GaInAs/InP, regrown ohmic contacts, interface resist., TLM meas. 38417

transmission line theory
- *see also transmission line matrix methods*
- 3D objs. embedded in multilayered media, scatt. 40303
- 500 kV split conductor transm. lines, EM wave transm. mode calcs. *(Chinese)* 43765
- adjacent vias in multilayered digital ICs, coupled noise anal. 12394
- anisotropic lossy materials, transient propag. 7943
- automotive EMC, cables coupling, practical approach 23687
- cable coupling, arbitrary environ., meas./computation 15462
- cable harnesses, capacitance calcs., method of moments 33741
- capacitance of transm. line of parallel cylinders, dielec. coatings 31883
- CATV transmitting ccts., tap-off, coupled-line theory *(Korean)* 25674
- common-mode current radiation anal. by moment method 23703
- complex cross-sect. stripline calc. by half-inversion method 15587
- complex planar struct., static study *(French)* 12702
- complex systs. containing thin wires, behaviour modelling 2267
- coplanar meander transm. lines, dielec. substr., slow-wave characts. 12698
- coplanar transm. line types 31868
- coupled noise predictors for lossy interconnects 5639
- coupled strip lines, short-duration pulses caused by unequal phase velocities 31877
- crosstalk coupling, digital noise propag. 25200
- crosstalk modeling for automotive harnesses 15532
- cylindrical-rect. microstrip antennas theory 8049
- delay line waveforms, graphical anal. 21089
- differential Riccati eqn. soln., transm. line modelling 21402
- elec. ccts., EM fields coupling for EMC 15535
- elec. motor winding interturn switching transient voltage studies 43985
- elec. multiconductor line systs., internal/external interfs. 23685
- electronics packaging interacts., equiv. cct. models 11764
- EM coupled microstrip-patch antennas/antenna arrays, design 40512
- EM environ., struct., lightning stroke 23761
- EM shock wave in transm. line, HF generation 40392
- EMC-disturbances on coupled microstrip lines, LF SPICE model 12695
- equiv. transm. line model for EM penetration, reinforced concrete 40377
- field-excited transm. line systs., time domain anal. 15495
- field-to-wire coupling, anal., FE-TD method 40191
- finite length multiconductor power line, impedance/line params. 4675
- finite thickness transm. lines above periodically perforated ground plane, packaging 23757
- flat waveguide splitters, transm. lines, waveguide props., electrodynamic model 8021
- freq.-domain modeling, cct. simul. 5977
- freq.-independent cct. model of conductor under surge conditions 31878
- GTEM cell, elec./mag. fields calc. 8011
- high speed digital sig. transm. line, crosstalk *(Korean)* 31871
- high-speed digital sigs., effects, radiation problems, interf. 12384
- high-speed VLSI interconnects, freq./time domain simul. 12287
- homogenous transm. line, heterogenous telegraphic eqns. *(Russian)* 43733
- HTSC planar transm. lines, propag. params. calc. 40415
- HV current meas., slow-wave Rogowski coil studies 4742
- HVDC transm. line, bipolar ionised field, FEM 43735
- HVDC transm. line, monopolar ionized field, ion diffusion 43736
- impedance, driver impedance effect 15548
- incomplete Lipschitz-Hankel integrals in EM 23835
- infinite-dimens. EM syst., chaotic dyn. 2283
- layered nonlin. sheets, shielding props., prediction 15466
- LCRG nonuniform transm. line, sig. restoration 2278
- LEMP effects on subtransmission line, MOM 15480
- lin.-antenna theory, transm. line eqns. determ. 23762
- liq. complex permitt. meas., transm. line 34664
- lossy coupled transm. lines in lossy medium, transient anal 31876
- lossy coupled transm. lines simul., window partitioning, waveform relax. 13422
- lossy distributed networks, successive asymptotic waveform eval. 1467
- lossy planar microwave struct., discontinuities modeling 12701
- lossy transm. line simulator in PCB layout package 21638
- low-pass filters, nonuniform/uniform transm. lines 21399
- LV elec. power device, switching noise meas. 27858
- mag. core hysteresis losses modelling, computer-based 14254
- mag. hysteresis modelling, transm. line theory-based 7892
- microstrip transm. lines, crosstalk prediction 6277
- microwave transm. line., photocond. switches simul. 31082
- miniaturised MMIC amps., thin dielec. layers 29586
- multi-conductor transm. lines, pulse responses, partitioning tech. 15547
- multibranching point of transm. line, EM wave radiation 2284
- multiconductor lossy transm. lines, causal time domain anal. 23765
- multiconductor telecomm. cables, lightning overvoltages 25202
- multiconductor transm. lines, field coupling, exact SPICE model 25201
- multiconductor transm. lines in multilayered dielec. media, anal. 31875
- multidimensional syst., topol. attributes, modal estim. 15473
- multilayer-multiconductor transm. line network, pulse propag. *(Korean)* 37931
- multilayered transm. lines, gyrotropic lossy media 2279
- multimachine power syst. auto-parametric reson. calcs. 26896
- multiple grid transm.-line modeling, EM field problems soln. 23749
- multiplexer, qtr. wave distributed lines, high dielec. ceramics 16951
- mutual impedance, overhead/buried line, earth return 2253
- mutually coupled line propag. charact., digital anal. method 40394
- nonlin. lossless transm. lines and equiv. ccts. anal. 31879
- nonlin. transm. line, varicap jns., interactive waves 40388
- nonuniform freq.-depend. interconnections, PSPICE simul. 23755
- nonuniform multiconductor transm. lines, pseudo-3D FEA 15549
- nonuniform ramified microstrip line, anal. 15586
- nonuniform transm. line impedance matching sects. in passband, design 15555
- normal/supercond. multiconductor lines for interconnects/MICs 29578
- open asymmetrical multiconductor transm. lines, spectral-domain anal. 40390
- optim. tech. for time domain appls. 12700
- organic liqs., microwave freq. permitt. meas. 18034
- p-i-n photodiodes, broadband matching approach 31089
- PC transm. lines, criterion of leakage, comments 12883

transmission line theory continued
- PCB, transm. charact. 21620
- PCB interconnections, microwave charactn. 38164
- PCB refl. and crosstalk effects simul. 908
- PCBs, anisotropic substrs., sig. line models 21628
- PCI-based systs., cct. boards, design 12890
- piezoelec. plate resonator, transm.-line analogs 30612
- planar lines and antennas, 3D full-wave anal. 2280
- planar transm. lines, ps pulse propag. 40387
- posn. detect. of multiple light beams 17781
- power convertor nonlin. ccts., transm. line modelling 19720
- power overhead line tower impulse characts., simul. theory *(Chinese)* 35656
- power syst. grounding syst. anal., EMTP based model 4721
- propag. const., phase inform., standing waves 15551
- PTH of PCBs, suitable conditions for connections 29692
- pulsed power ferrite line pulse sharpeners, num. anal. 31872
- qtr.-wave stub, operation 2281
- quadrature coupler, planar ellipt. shaped, theoretical anal. 21514
- radiating planar ccts., broadband anal., moment methods anal. 15506
- radiation from finite-length printed-pattern, cct.-concept 21626
- rect. top horn offset coaxial transm. line, sphere-TEM mode 9154
- RF absorptive cables, characts. calc. and meas. 890
- RLCG transm. line, LQ control synthesis 43730
- round conductor/parallel plane slit, charact. impedance 31870
- shielded suspen. substr. strip transm. line anal. *(Korean)* 15546
- shielding effectiveness calc., wave impedance concept 2257
- slot-coupled cylindrical-rect. microstrip antenna anal. 40479
- Smith chart CAL method 28290
- solitary waves on nonlin. transm. lines, modelling 23754
- SPICE model for multiconductor transm. lines, EM field excited 8010
- static anal. using measured eqn. of invariance 23751
- stepped transm. line matching cct. design by optim. methods 15544
- stripline PCB with center traces, crosstalk reduction 21627
- struct. parameterisation on PCBs 21622
- superconductive circ. two-wire transm. line, AC resist. and internal inductance 40391
- superconductive interconnects, FDTD anal. 14297
- symmetric coupled transm. line on suspen. substr., spectrum calc. 37932
- sync. motor drive, inverter-fed, discrete time simul. 28094
- tapered rect. transm. line, anal. 40396
- thin wire FDTD stabil. anal. 15553
- three-conductor equiv. line, slow-wave systs. replacement 15543
- THz all-electronic planar antennas 6279
- time domain network synthesis tech. 12257
- time domain transm. line method, radiation losses 15550
- time-domain anal. for arbitrary nonlin. loads 40393
- TLINE software package for sinusoidal steady-state anal. of transm. lines 31867
- transient plane wave coupling, bare/insulated cables in lossy half-space 31869
- transm. line method, validity 2256
- transm. lines, corona, transients simul., method of characts. 19231
- tri-layer transm. line model applied, alloyed ohmic contacts 38419
- triple-TEM cell, FEA 8012
- twisted-pair transm. line anal. by method of moments 23750
- two-wire transm. line, nonuniform media, pulsed EM field 2285
- ultra-short pulse propag. on complex planar structs., anal. 37961
- unbounded skin-effect problems in presence of material inhomogeneities 38043
- underground conductors, conductive coupling, earth effect 23759
- uniform RC lines, resistive termination, time domain response 15545
- uniplanar CPW hybrid-ring couplers and magic-T's 12732
- unshielded twisted-pair transm. line, method-of-moments soln. 33740
- AlGaAs/GaAs HBTs and assoc. TLM test structs., excess noise 1352
- GaAs photoconductive switches, illum. uniformity effects 14610
- Ni-Fe Alloy 42 leadframe, freq.-depend. complex permeab. determ. 11810

transmission lines
- *see also cables (electric); high-frequency transmission lines; power transmission lines; telecommunication transmission lines; waveguides*
- counterpropagating waves, modulational instabil. 12306
- coupled Josephson transm. lines, local defects, fluxon dyn. 1618
- crosstalk modeling for automotive harnesses 15532
- current transient proc. meas. 23686
- full period quadrature phase shifters, low losses 12739
- LOSSYWIRE, lossy coupled transm. line simul. kernel 33732
- low-pass filters, nonuniform/uniform transm. lines 21399
- magnetically insulated transmission line, electron flow diagnostic 26022
- magnetically insulated transmission lines, power flow study 26023
- MM wave monolithic IC, dielec. resonators, whispering gallery mode, model 6330
- MM-wave band antennas, electronic beam scanning 15620
- multiconductor transm. lines, field coupling, exact SPICE model 25201
- multidimensional syst., topol. attributes, modal estim. 15473
- multiplexer, qtr. wave distributed lines, high dielec. ceramics 16951
- normal/supercond. multiconductor lines for interconnects/MICs 29578
- PCB design for radiated emission reduction 12895
- permitt., permeab. and EMI shielding meas. 17696
- printed spiral resonators based bandpass filters 12623
- propag. const., phase inform., standing waves 15551
- stepped transm. line matching cct. design by optim. methods 15544
- virtual instrums., RF transm. line testing addit. 35397

transmission network calculations
- 110/10 kV substation planning and reliab. anal. *(German)* 19220
- AC/DC multi-machine power syst., SSR, shaft torsional vibr. *(Chinese)* 35470
- connectivity tracking, topol. based algm. 35489
- DC power network, steady state calc., iter. calc. 27144
- dyn. transient phenom. simul. program *(German)* 10717
- elec. load flow problem, ES appl. 4627
- EM transients anal. 35603
- fast decoupled load flow calc., parallel algm. *(Chinese)* 35608
- long-dist. transm. syst., harmonic modelling 4628
- multiterminal DC-AC syst. power flow anal. 27145
- overhead lines, earth-return effects, freq.-independ. cct. model 43728
- power line load flow violations security assess., ES-based 19285
- power line loss eval., load unbalance 43729
- power syst. dyn. stabil., optimal control modelling 4515
- power syst. network back-up *(Russian)* 26916
- power syst. transient stabil. 26949

transmission network calculations continued
power transm. line shield wires, unbalanced , modelling/simul. 4676
public power supply network impedance and harmonics calc. *(German)* 35609
reliab. anal., data determ., Jordan 43615
single/multiple lightning overvoltages simul. 4459
system model reliab. anal., freq. and duration method 35604
system model reliab. anal., probab. method 35605
systematic planning principles *(German)* 19221
wheeling flow, short cct. simuls. 43732

transmission networks
see also DC transmission networks; telecommunication networks; underground transmission systems
6 kV/170 A supercond. power transm., PROMISE project *(Japanese)* 4626
10-110 kV power overhead lines, current dens. estim. *(Russian)* 27230
77 kV overhead line-underground cable lightning surge anal. 10713
230 kV FACTS power lines, advanced series VAr compensation *(Italian)* 4695
345 kV porcelain suspen. insulators, replacement experience 10757
400 kV EHV transm. syst. planning/develop., Singapore 27122
400 kV transm. line earth fault location algm. 43763
500 kV power interchange transm. line project, USA 27065
500 kV transm. syst., Thailand 43723
1000 kV power line maint. IS, meas.-based 27126
AC transm. line disturbances, adaptive feedforward control 10711
access and wheeling 43724
automatic SC, dyn. perform. 4620
autotransformer tertiary winding voltage regulation study *(Russian)* 44107
bulk transm. syst. interconnection develop. projects, Japan *(Japanese)* 10715
bulk transmission security assess., nonutility generation representation 19224
composite power syst. demand-side reliab. eval. 27029
contingency load transfer capability modelling 10665
control proc. data transm., IEC 870-6 OSI protocols *(German)* 19179
Croatian power syst., war consequences overview *(Croatian)* 10624
distance relay macromodel, EMTP-based 19330
dual-excited sync. generators control, PSS improvements *(Chinese)* 10972
EHV radial transm. networks, transient recovery voltage stresses 4619
elec. supply restoration training, Netherlands 19089
elec. transm. pricing, spot price calcs. 26959
elec. utility distributed resources planning, optimum location 10692
elec. utility reliab. assess./maint./life cycle costing, UK 43686
equipt. condition monitoring, fibre optic sens.-based 43616
equipt. reliab. assess., data concepts 43613
equipt. reliab. assess. approach, Canada 43614
equipt. reliab. IS, Canada 43722
expansion planning, computer software appl. 10712
expansion planning, neural net/genetic algm.-based *(Japanese)* 10716
FACTS, advanced series VAr compensator appls. 27138
FACTS, develop., perform., appls. 27137
flexible overhead power conductors, reclosure mech. effects 19312
global uncertain planning methodology, computer-based 27117
half-wavelength power lines, operational problems anal. 35642
HV transm. line reliab./maint. practices, Australasia 43764
HVDC transm. network insulator problems *(Chinese)* 43737
hydro HVDC/thermal HVAC power options comparison, Africa 35602
independent power generation protection, tie bus cct. breaker 10771
intelligent system appl. to power systems, conf., Montpellier, France (1994) 5474
intercontinental elec. connections, rational use/efficiency anal. 26934
island power syst. restoration, ES-based 4543
LF EM fields, living organism health effects 4329
local transm./distrib. planning, load research appls. 27079
long radial supply syst., SVC, operational aspects 26984
LV network short-cct. charact. quantities *(German)* 43734
Maglev rly. inverter harmonic suppression method 11423
maint./fault diagnosis experiences, Hungary *(French)* 35601
metropolitan power systs., supercond. cable losses simul. *(Japanese)* 27216
mgt. by KBS and distributed problem solving 10650
MORGAT, EHV transm. digital relay protection simulator 10714
MOV series compensated transm. network, mag. pot. transformers 4624
Nat. Grid power syst. anal./data mgt. rationalisation 19126
optimal fault location, μP-based 4623
power electronics growth overview 35594
power generation/transm. syst. planning, reliab. criteria *(Japanese)* 10706
power indust. fibre optic network project, Poland 10683
power line load flow violations security assess., ES-based 19285
power overhead line tornado loading effects study 27222
power syst. disturbance stabilisation, phasor meas.-based 35488
power syst. marginal outage costs eval. 10671
power syst. online anal./data mgt., open syst. approach 19127
power syst. peak load capacity planning studies, China *(Chinese)* 35574
power syst. reliab., generating unit operating reserve assess. 26856
power syst. reliab. assess., concepts/hist. review 26917
power syst. reliab. planning, customer outage costs-based 27078
power syst. reliab. worth assess., Monte Carlo simul.-based 26945
power syst. reliab. worth eval. tech. 27058
power syst. security assess., systolic accelerator-based 19009
power system inter-area dynamics, linearised modelling approach 19137
power transm. line protection, ES-based relay setting 19291
power transm. line shield wires, unbalanced , modelling/simul. 4676
probabilistic prod. costing simul. 27120
protection simul., short-cct. current eval. 19229
PSS SVC fuzzy logic switching design 19102
reconstruction simul. for control room staff *(German)* 19178
reliab. centred maint. projects, South Africa 43725
restoration support syst. for large-scale bulk power networks 10664
rly. traction power supplies, overview 11425
series power flow control, GTO VSI-based 27125
single/multiple lightning overvoltages simul. 4459
static voltage stability indices, numerical comparison 19225
strategic planning, PLAER methodology 27127
substation control centers, SPARSE ES appls. 19230
substation house emergency supply modelling, computer-based 27859
subtransmission network reliability, customer interruption costs eval. 27119
supercond. air-core power transformers, characts. anal. 27785
SVC operating/maint. strategies, rly. supply, transm. support 26985
switchgear, historical overview 5139
switching transient I-V calcs. 4621

transmission networks continued
Three Gorges hydroelec. power station interconnection project, China *(Chinese)* 43699
TRANSEPT ES, point-to-point transm. network CAD appls. 27128
transient fault simul., EMTP-based 27129
transmission and distrib. equip. reliability, IEE conf., Warwick, UK (1995) 36831
UHV power transm. develop. overview, China *(Chinese)* 43726
Union of Swiss Elec. Power Stations, 4th annual report *(French, German)* 4525
use charging, marginal cost methods 27121
voltage flicker studies, AC/DC furnace-generated 27124
voltage quality monitoring *(German)* 27135
voltage stabil., automatic control, ES pattern recogn. 10661
SF$_6$ Fluobloc B142 GIS, 362/420 kV transm. network appls. 27871

transmission wavemeters *see wavemeters*

transmitters
see also optical transmitters; radar transmitters; radio transmitters; repeaters; television transmitters; transceivers; transponders
200 W FM-band high-efficiency power amp. develop. *(Japanese)* 17548
ADSL, DSP-based prototype reverse channel transmitter/receiver 33673
current-loop transmitter, 4-20 mA, for telemeasuring 3158
digital acoustic underwater phone 17357
HV DC power supplies for HERA accelerator transmitters 27828
MIMO transm. systs., transmitter/receiver optim. 16413
RF transmitters, HV power supplies, engng. overview 36330
SCI-LVDS 500 MHz CMOS differential pad drivers 22583
X-band data transmitter, space rem. sens. missions 4379

transmitting antennas
see also broadcast antennas
905 MHz radio propag. in an office, metal low-partitions effect 31830
AM high power broadcast stations, EM environ. 25642
antenna arrays with feedback, spectrum reuse 42266
beam space adaptive array antennas, transmitting null beam forming 15665
biconical antennas, antenna factor eval. for EMC meas. 40484
broadband act. microstrip antenna design, real freq. tech. 23851
dipole antenna factor meas. on ground plane by 3-antenna method 40483
HF loop antenna, practical design and constr. 31953
HF rem. low-power transmitters, single station location 34193
Marconi's (1901) transatlantic transm. wavelength, transmitting syst. anal. 25267
meteor-based radio systs., ellipt. polariz. antennas appl. 42341
simulated fast fading indoor radio channel characts. 33817
spherical dipole antenna 23900

transmultiplexing
all-opt. WDM/TDM transmultiplexers 34086
DMT/DWMT systs. and digital filter banks 9091
embedded CMOS SRAM for ASIC implement. of transmultiplexer 9410
modified DFT polyphase SBC filter banks, almost perfect reconstruction 32714
multichannel transmitters, DSP/direct conversion 3323

transparence *see transparency*

transparency
see also light transmission; optical constants; self-induced transparency
BPDA/PDA/6FDAm photosensitive polyimide copolymer, low stress/high sensitivity 12205
bright spatial solitons in saturable nonlin. self focusing media 7753
chem. amplif. resist syst., dissolution inhibitor, mol. design 30164
chem. amplified resists, transparent, ArF laser lithog. 22300
finite-element beam-propag. method, transparent boundary 15451
full-vector waveguide modeling by iter. finite-difference method, transparent boundary conditions 40401
glass-ceramic, laser-stimulated opt. props., local change 7259
L-histidine tetrafluoroborate soln.-grown semiorganic cryst. for nonlin. freq. conversion 23439
noncritical vectorial phase matching freq. up-conversion 7733
nontransparent waveguides, bound and leaky eigenmode techs. 39393
opt. fiber transparent networks 9588
optimal absorbing boundary conditions 23648
plane wave diffr. anal. of complex interferograms 40124
polyimide opt. waveguides fab., thin-film MCM proc. technol. 14490
polymer dispersed chiral liq. crysts., lin. light modulation 7410
refl. holographic screen, stereographic displays 31676
scalable lightwave network self-regulating WDM amp. module 9457
transparent opt. networks scaling limitations, low-level crosstalk 17345
two-sect. TW semicond. laser amp. opt. transparent TDM channel selector 9552
vycor silica glass, mesoporous, fab. for nonlin. optics 30810
a-BaTiO$_3$, MOCVD film, elec./opt. props. on ITO-coated substr. 14618
CdS crysts. for IR imaging/detect., RT IR quenching 17794
CdS sprayed thin films, opt. and elec. props. 21902
Cu$_2$S(Se) transparent and electroconductive chalcogenide films, deposition and props. 37467
GaAs SEL, transparent ITO ohmic contacts 39815
InP-In$_2$S$_3$, ellipsometric investig. of transit. layer heterostruct. 22774
LiNbO$_3$:Fe, forward phase conjug. wave generation by two-wave mixing 40071
SiC LPCVD films, X-ray mask membranes 6695
SiC X-ray mask membrane, accelerated radiation damage studies of antirefl. materials 13535
a-SiGe:H/SnO$_2$ solar cell struct., interfacial reduction 38294
Sr$_2$Be$_2$B$_2$O$_7$ UV-transparent nonlin. opt. cryst., design and synthesis 15123
Ta-SiN x-ray masks, materials selection, fab. procs. 6684
ZnO films, thermal evap. 28856
ZnSe transparent IR opt. elements, photothermal meas. 2037
diamond membrane-based X-ray lithog. masks 6687

transponders
American satellite TV public broadcasting service (PBS) 42566
CMOS low-power transponder IC for identif. systs. 29397
CMOS transponder microchip, low power biomedical telemetry appls. 34995
COMETS, expt. advanced mobile satellite commun. syst. *(Japanese)* 42215
contiguous band multiplexer design for satellite appls. 25457
EBICAB 900 train protection transponders, product series 5334
FDMA systs. using multi-beam satellite, optimal carrier freq. assignment *(Japanese)* 25448
GNSS transponder and self organising TDMA data link 10378
H-II launch vehicle, commun. subsystem develop. *(Japanese)* 43427
high data rate satellite commun. systs., R&D *(Japanese)* 17158

transponders continued
- INSAT-2 series satellites, telemetry, tracking and command transponder 35231
- Ka band satellite terminals, phase noise charact. 3534
- LO for commun. satellite transponder, 2.8 GHz *(Korean)* 12763
- low power transponder IC for identif. systs. 33744
- multi-D trellis decoder for 155 Mb/s concatenated codec 33684
- multimedia satellite commun. systs., preliminary study 3519
- orthogonal CDMA for mobile satellite commun., perform. 25310
- quasi-opt. microwave cct. techs. for wireless appls. 12747
- satellite payload miniaturization/standardization 25451
- two wire automatic rem. sens./eval. syst. 17686

transport *see transportation*

transport control
- *see also aerospace control; computerised navigation; traffic control*
- AC locomotives, slip vel. feedback torque control *(Japanese)* 11407
- AC/DC 4000 kW dual mode inverter controlled locomotive 44506
- act. suspen. syst., automotive appl. 11433
- car, VITA II, collision avoidance in traffic, vision 36769
- car driver's LOS, user interface 44580
- cars, intell. cruise control, dist./speed class. 36770
- elec. locomotives, total systs. simul., SIMULINK 44555
- electronically controlled suspen., load sens. 5371
- EM levitation syst. for rapid transit and high speed transportation 20092
- Eurostar Informatique control syst. software 44573
- JR Freight prototype elec./diesel-elec. locomotives 11399
- Maglev train protection/posn. detect. 5339
- railcar inverter control syst., HV IGBT 44507
- rly. syst. technols. develop., Hitachi 44504
- Shinkansen develop., Hitachi technols. 44505
- VENIS real-time distributed prototype syst. 4442

Transport Control Protocol/Internet Protocol *see transport protocols*

transport equation *see Boltzmann equation*

transport phenomena *see transport processes*

transport processes
- *for specific types of transport see narrow terms as appropriate, e.g. diffusion, electrical conductivity, thermal conductivity*
- Diablo Canyon, condensate dissolved O_2 control, corros. transport 35868
- quantum transport eqns., absorbing boundary conditions 13824
- travelling wave particle transport modes, appls. 40218

transport properties *see transport processes*

transport protocols
- AAL5, ATM Adaptation Layer 5 for gigabit LAN 3191
- adaptive DQDB bandwidth balancing, blocking probab. and convergence 3175
- all-opt. formatted photonic packet switches archit. 3302
- all-opt. multihop photonic packet-switched networks, bandwidth limits 9579
- APS accelerator and control syst. 18173
- ARPANET, early yrs. 41907
- ARQ protocols for high speed hardware implement. 41541
- ATM and multimedia appls. 33515
- ATM concepts, archits., and protocols 24769
- ATM LANs, exposed buffering/sub-datagram flow control 33516
- ATM network goals and challenges 24770
- ATM networks, high speed multimedia commun. archit. 25105
- ATM networks, multimedia appls., QoS selector 9075
- ATM networks, TCP traffic dyn. 2943
- ATM shuffle-based switch, perform. anal. 8730
- ATM-oriented multimedia LAN archit. 41806
- automatic retransmission rather than ARQ 3364
- B-ISDN interworking, data services and signalling 25064
- BAfirewall, Bell Atlantic internal TCP/IP WAN 16673
- BATS, transport syst. for broadband appls. 33374
- BERKOM MultiMedia Transport System 16888
- block-based simul. tool for TCP/UDP protocol enhancement 16513
- branch network strategies and protocols 8890
- BT screenphone services in UK 42077
- bulletin-board subsystems for exchanging obj. inform., operation protocols, formal description 33288
- Bus-Mesh wavelength multiplexed LAN, dyn. time slot allocation 34101
- cache-based transport protocols, modulo-N incarnation numbers 2955
- car safety crit. fns., commun. protocols design 8934
- cct.-mode data on wireless links, retransmission scheme 17090
- Chameleon 4.0, TCP/IP for windows 16657
- CIO multimedia commun. platform 16884
- CIO multimedia commun. platform 16857
- CLNS networks, authority and routing registration 41781
- CODE mesh VSAT network, protocols eval. 16515
- commun. protocols, flexible and efficient implement. 8757
- communication transmission tools, use and technology, conf., Bad Nauheim, Germany (Nov. 1994) *(German)* 16718
- COMNET III, obj.-oriented network perform. prediction simulator 24900
- conf. scheduling service, multimedia, network support 16830
- conferencing syst. and shared whiteboard, distributed multimedia appl. testbed 9071
- connection oriented protocols, ATM 16473
- Corporate IP services for Internet 24809
- COST 226 project, network integrat. by satellite 42306
- customer network mgt. in SMDS, subscriber's viewpoint 16706
- DECnet network, real-time file transfer module in appl. layer *(Chinese)* 2900
- DECT, multibearer connections syst., ARQ protocols perform. 17051
- digital video display, Ethernet TCP-IP 16078
- distributed computing systs., adaptive protocols, simul. model 41528
- distributed ISDN test syst., monitoring/modelling 24824
- distributed multimedia systs., software engng. tech. 41966
- DIVE, multi-user virtual reality system 16762
- Document Transfer & Manipulation std. 41499
- DUALCAST, reliable multicasting scheme 2925
- ECFSM model for commun. protocols, verification method *(Japanese)* 41511
- efficient multimedia satellite networks 41985
- Ethernet, real-time traffic support 3178
- Ethernet capture effect, anal. and soln. 33511
- facsimile commun. time in analog/digital cellular systs. 8871
- fast ATM rerouting algm. for networks, unreliable links 8708
- FDDI workstation cluster, meas. 33496
- File Transfer Protocol, Internet services 24976

transport protocols continued
- file transfer protocol mgt. scheme 41839
- firewall installations, IpAccess Internet service access syst. 24962
- flexible high-speed transport MultiStream Protocol 41497
- FM multiplex broadcasting syst. DARC devel. by NHK 42264
- FTP traffic, non-optimality estim. 16655
- FTP traffic on Internet, optimisation 41834
- gated, routing daemon 41701
- GateDaemon Internet routing software 16741
- group commun. protocol, causally ordered, using seq. nos. of messages *(Japanese)* 41533
- GSM adaptive type-II hybrid ARQ/FEC protocol 3445
- handshake level requirement for establishing connection 41501
- heterog. data networks, addressing/routing 24841
- high speed network protocol eval., transputer based network simulator 41527
- high speed networks, multicast transport protocols 2924
- high speed networks, transport layer protocols, rate control 8993
- high speed networks, two-level flow control scheme 8902
- high speed satellite commun., go-back-N protocol 9416
- high-speed ATM networks, TCP perform. improvements 25041
- high-speed B-ISDN data terminal adaptor design 41915
- high-speed fibre optic local area bus networks, perform. eval. 41898
- high-speed networks, hardware meas. techs. 676
- high-speed transport protocols, local workstation environ., flow control 33492
- Indiana Cooperative Extension Service, Internet links, field offices 8982
- interconnected LANs, desktop video conferencing syst. 33618
- Internet, Kerberos complete secure transport service 16670
- Internet, multiple service levels via precedence 33435
- Internet access, MS-DOS/WINDOWS client software 3182
- Internet addressing, provider-rooted and geographical 41780
- Internet Engineering Task Force, security awareness 24979
- Internet for educators, user's guide 24982
- Internet protocol, next generation flexible routing/addressing 2944
- internetworking and computer networks, current status and future *(Japanese)* 8880
- internetworking software technol. *(Japanese)* 3213
- IP multigigabit router design 8901
- IP networks, congestion avoidance for video 16680
- IP over ATM, cell traffic efficiency 25067
- ISDN, Internet access, TCP/IP 41943
- JANUS, TCP/IP VSAT network, first yr. experience 16775
- KEK e^-/e^+ linac control syst., VME and workstations 18191
- key transport of asymmetric algms. *(French)* 24105
- KView II, network mgt. platform, appl. 33372
- LAN, network mgt., capacity planning 33373
- LAN environ. mobile computing 8990
- LAN internetworking, VSAT systs. 25055
- latency anal. of TCP on ATM network 8923
- LEO satellite networks data link control protocol, datagram service 24835
- local ATM network, Internet protocol, design 8994
- local computer networks, conf., Minneapolis, USA (1994) 20231
- M-based clients and servers in TCP/IP environ. 16644
- MARC, multimedia appl. for radiologist commun. 16910
- MeV ion microbeam anal., transputers in data collection syst. 24991
- mobile computing, group commun. approach 33562
- mobile electronic mail, replication strategies 33413
- mobile IP, secure short-cut routing 24845
- mobile radio protocols, simul. and formal spec. 3487
- Mobile-IP, transparent resource discovery for mobile computers 33563
- multicast and multidestination transport protocol 8772
- multimedia appls., distributed, commun. protocols 9077
- multimedia capable network, ATM/IEEE 802.9a isochronous Ethernet transport technols. 42015
- multimedia commun. distributed co-operative multiagent IN syst. 41976
- multimedia conf. syst. on FDDI, TCP/UDP 16819
- multimedia conference system on broadcast networks, design and implement. 33614
- multimedia conferencing on packet switched networks 9027
- multimedia data transm. *(Korean)* 9051
- multimedia transfer protocol, service primitives 9055
- multimedia transport protocol, high-level error control 9079
- MultimETH, conferencing and joint editing syst. 9065
- multiprocessor implement. of protocols, locking effects 2919
- multiprotocol transport networking, internetworking soln. 3219
- multipurpose Internet mail extension protocol 33646
- native ATM-multicast and IP-multicast, comparison/mapping 33272
- native-mode ATM appls., signaling and OS support 2945
- network control proc. data transm., IEC 870-6 OSI protocols *(German)* 19179
- network protocol perform. in multi-workstation parallel distributed appls. 25039
- Network Time Protocol, clock sync. 41545
- observer concept for formal online validation of distributed systs. 16690
- on-the-fly perform. models for conservative asynchronous protocols 16496
- open archit. provisioning systs., total systs. mgt. 33371
- opt. commun., ARQ schemes, perform. eval. 17184
- OSI commun. protocols, obj.-oriented design approach 8749
- packet-switching protocol, frame relay vs. X.25 *(Chinese)* 33600
- partial-order transport service for multimedia and appls. 2920
- PCS network perform. optimisation by multilink B-ISDN routing protocol 25070
- Philips voice module for voice commun., data networks 41715
- primary schools, Chilean network, multimedia messaging 41982
- public-access PCs, Mosaic Internet client 41804
- RAPID transport protocol, design and implement. 16486
- real-time multiline OCR parallel archit. 33027
- real-time multimedia commun., transport protocol 25120
- rel/REL, reliable multicast protocols for distributed systs. 24798
- residential video broadband switching network archit. 41554
- RFC 1327 mapping rules and INFNet gateway syst., distrib. via Internet DNS 41837
- RFC 1327 mapping rules distrib. via Internet DNS 16747
- RSVP resource reservation protocol 24808
- SAFENET, fault-tolerance/timeliness, layered approach 33507
- sci. inform. network flexibility needs and trends *(Japanese)* 16800
- SDL-based protocol implement. tool, proc. scheduler/compiler 41542
- selective repeat ARQ for data commun. 17053
- SINA, Super-highway Information Networking Architecture 25054
- SkyNet, multicasting multimedia appls. of Internet 42041
- small-terminal satellite networks, protocol enhancer 17162

transport protocols continued
- SMDS support network minimax open shortest path first routing algms. 41765
- SNMP protocol, merits/demerits, overview 33271
- SNMP-based network mgt. appls. 41796
- SNR high-speed transport protocol, spec./anal. 2922
- SOCRATES, driver inform. and fleet mgt. syst., appls. and archit. 33924
- specs., structural anal. and max. fault coverage conformance test seq. generation 2921
- ST-II connection-oriented internetworking protocol for Heidelberg Transport System 2901
- star opt. network, distributed channel controllers 9446
- struct. TCP in std. ML lang. 2942
- TCP end-to-end perform. improvement, mobile internetworks 33285
- TCP implement., act. probing 24807
- TCP Vegas, techs. for congestion detect. and avoidance 2941
- TCP-SS versus adaptive rate-based congestion control, perform. 2965
- TCP/IP, mobility impact, simul. study 3201
- TCP/IP, open networking 24806
- TCP/IP and SNA, interoperability issues 8744
- TCP/IP behavior in high-speed local ATM network environ. 33268
- TCP/IP LAN interconnection *(Chinese)* 33275
- TCP/IP local environ., integrat. of voice and data, perform. eval. 8928
- TCP/IP perform., satellite 25468
- TCP/IP window-based flow control, effect of high bandwidth-delay products and random loss 24804
- tele-monitoring/computer-supported repair, multimedia syst. 42042
- TIP, transport and internetworking package for ATM 16483
- trusted, untrusted network connectivity 16672
- voice transfer, TCP/IP 33390
- VSAT interconnection for wide area diversity syst. 16776
- VSAT networks, integrat., user network environ. 17159
- WAN, TCP/IP, perform. 33508
- wide area wireless data networks, connectivity 25057
- wide-area traffic, inadequacy of Poisson modeling 3207
- wideband all-opt. FDDI LAN networks 9521
- Windows-based TCP/IP appls. 41515
- workstation-clusters, transfer systs. efficiency *(German)* 24825
- World Wide Web browsers reviewed 41857
- World Wide Web media distrib. via hopwise reliable multicast 41864
- World-Wide Web, servers work 41853
- xpress transfer protocol, obj.-oriented implement. 16485
- XTP multicast for high quality video distrib. 16484
- XTP protocol flow and rate control algm. 41498
- ZIPI network for musical instrums. 24977

transport theory *see transport processes*

transport theory of neutrons *see neutron transport theory*

transport through biomembranes *see biomembrane transport*

transportation
- *see also aircraft; goods distribution; lifts; marine systems; rail traffic; railways; rapid transit systems; road traffic*
- alternative transportation fuels, biomass-derived 35718
- AMPhibian hybrid elec. vehicle, regenerative braking effects 28147
- coal mine transportation arcing, detection/suppression method 20107
- combined Maglev levitation, propulsion, guidance syst., anal. 28134
- commun. networks in transportation 36743
- communication networks in transportation, IEE Colloquium, London (1995) 20252
- controlled act. vision framework, robotic and transportation problems 8642
- design for assembly strategy in global companies 37033
- developing economy, telecomms. and transportation 3040
- discrete infinite transportation problems 37276
- edge-tenacious networks 28616
- fuel cell elec. vehicles, alternative fuels comparison 36716
- fuel cell elec. vehicles, H_2 storage infrastructure 36718
- gas turbine transportation engine, throttle valve control 28143
- high integrity data commun. for light rail transport syst. 36742
- hybrid elec. vehicles, Pb-acid batt./PEM fuel cell syst. 36725
- hydrogen energy appl., develop./accomplishments, 1974-94 10799
- indust. energy/exergy anals., Turkey 20153
- inertial propulsion, concept and expt. 28149
- infrastructure networks, fault mgt. 3458
- intell. vehicle/highway syst., packet-switched commun. 3460
- light duty fuel cell vehicles, fuel/emissions reductions 28146
- light-duty alternative fuel vehicles, operational experiences, USA 36717
- Maglev rail transport systs., develop. status, Japan 5335
- Maglev transit technol. develop., worldwide 28141
- mine transportation power syst., limited short cct. current 20182
- Monge property for d-dimens. transportation problem 37282
- omnibus fleet mgt. syst., radio links 34389
- opt. flow for autonomous navig. of moving vehicles 24449
- passenger terminal buildings, elevator equipt. *(Japanese)* 11426
- PEM fuel cells, transportation elec. drives 36720
- RTT infrastructure/vehicle-roadside commun., perform. anal. 3457
- SOFC power sources, liq. fuelled, transportation appls. 44519
- supercond. materials, power systs./transportation appl. possibilities 43612
- Swedish authorities' accident prevention approaches 11685
- telecomm./transportation, synergy of concepts 3455
- worldwide technol. develops. overview, 1994 36711
- Cu alloy rly. trolley wire develop., high-strength *(Japanese)* 28135
- Ni-H_2 batt.-powered bicycles, propulsion motor options 28144
- O_2 proton exchange membrane fuel cell electrodes, transportation appls. 44309

transputer systems
- concurrent VLSI archits., partitioning and prog. lin. alg. algms. 37792
- data acquisition syst., transputer-based for IR camera 42743
- decentralized time crit. commun. systs. 41849
- dyn. repartitioning of parallel logic simulator 481
- edge maps, neural network arbitration 41322
- EM wave scatt., transputer supernode syst. appl. 40319
- embedded controller, transputer-based, eval. for high dyn. control appls. 44260
- excimer lasers, indust.-scale, automated control 31155
- fast simul. of semicond. devices, multigrid method 38782
- fault-tolerant transputer based digital commun. syst. 43461
- generation expansion planning, parallel GA, parallel proc. *(Japanese)* 27086
- hardware implications of virtual channels, bus interface appl. 41888
- high speed network protocol eval., transputer based network simulator 41527
- high-speed protocol proc., parallel approach 41537

transputer systems continued
- host interface designs for transputer based LANs 41848
- induction motor, transputer based digital controller 44050
- induction motor ASD, design/anal., CASED simul. tool 5313
- induction motor drive, CSI-fed, field oriented control, CASED simul. 44495
- induction motor drives, digital adaptive control, transputer based 11379
- induction motor drives, sensorless vector control by Intel i860 and transputer network 44039
- induction motor servodrive, VSS robust control 44483
- induction servo drive, neural model predictive control 28066
- input/output technol. of transputers 21368
- logic ccts. simul., network of transputers 37734
- massively parallel machine based on T9000 and C104 37804
- matchbox-sized transputer GPS for vehicles/portables 42551
- med. obj. detect., transputers 26336
- MeV ion microbeam anal., transputers in data collection syst. 24991
- multimedia teleconferencing syst., transputer 25076
- num. solns. of diff. eqns., transputers 37353
- parallel 3D finite difference beam propag. methods, opt. waveguide structs. 30956
- parallel space filtering subsystem for target tracking, EKF 16030
- ParaServe, parallel mass storage server 8907
- porting telecomm. appls., transputer networks 41614
- power syst., fast decoupled load flow calc., parallel algm. *(Chinese)* 35608
- radiolocation data proc., parallel space filtering 25611
- real-time adaptive acoustic beamforming, design study 32598
- real-time synthesis of humanlike agent in response, user's moving image 41163
- SEDITRON, transputer based automated urine analyser 43197
- sens. systs. optimal operation, transputers 24317
- splitting methods implement. for solving block tridiagonal lin. systs. on transputers 20602
- tracking appls. of parallel transputer network Kalman filters 24191
- transputer-based soft-correlator for radio-astron. 42556
- transverse-flux induction heater exit temp., real-time meas. by transputers 44625
- TRED, parallel detailed router for VLSI 21067
- video distrib. syst., fibre based LAN appl. 41850
- videoconferencing, transputer-based implement. of video codec interface 33616
- virtual reality, transputer based US tracking syst. 18947
- vision appls. via specialised transputer modules 24484

transputers
- adaptive power syst. stabiliser, freq. domain design 27043
- distributed simul., transputer version of time warp OS 37803
- dyn. dispatch, neural network appl., multiproc. 4571
- fast response CCTV image recall and motion detect. 42634
- fault-tolerant data network, transputer based, for ATC *(Italian)* 8912
- FFT algos., implement. on transputer computational structs. 5799
- focus of attention in image understanding systems 8675
- global link adapter, VHDL, FPGA, synthesis 6111
- implicit matrix multiplication on various transputer networks 5777
- induction motor, transputer based digital controller 44050
- induction motor drive, CSI-fed, field oriented control, CASED simul. 44495
- induction motor drives, digital adaptive control, transputer based 11379
- induction motor meas., transputter-based measurement apparatus 27718
- induction motor servodrive, control, PI load estimator 20086
- induction motor servodrive, VSS robust control 44483
- induction motor stator current control, neural net-based 19629
- induction motors, voltage fed, current regulated, field oriented control 19630
- induction servo drive, neural model predictive control 28066
- input/output technol. of transputers 21368
- interact. multiple model tracking algm., parallel implement. 2561
- inverters, on-line harmonic elimination 5081
- link interface on Canton ATM switch 42120
- mammography, μ-strip Si detector, transputer DAQ 35066
- microelectronic devices, documentation, hypermedia approach 12589
- multi-layered protocols, simul., transputers *(Japanese)* 16502
- ParaServe, parallel mass storage server 8907
- pipeline transputer array based SAR processor 9643
- power syst. EMS multiserver/multiclient gateway syst. 43637
- power syst. fault diagnosis, parallel proc. ES-based 19029
- power syst. generation expansion planning, parallel genetic algm.-based 19206
- power system meas., transputers-based data acquisition 35694
- PSS, intell. variable gain control, multitransputer-based *(Chinese)* 43691
- PSS, rule-based, variable-gain 19082
- real time class. proc., conventional and neural techs. 16284
- SVC digital control, transputer appl. advantages 4530
- T9000 virtual channel proc., model checking via CAD 28950
- telecomm. systs., appl. of transputer links and routers 3179
- three-phase turboalternator adaptive control, transputer-implemented 36119
- tracking appls. of parallel transputer network Kalman filters 24191
- TRAPPER approach for monitoring T9000 proc. 37805
- turbogenerators, adaptive control, parallel proc. 27672

transverse junction stripe lasers *see semiconductor lasers*

transverse rupture strength *see bending strength*

TRAPATT diodes
- pulse generation, time domain operation 1338

trapped plasma avalanche transit-time diodes *see TRAPATT diodes*

traps (ion) *see particle traps*

traps (neutron) *see particle traps*

traps, electron *see electron traps*

traps, hole *see hole traps*

travel industry
- digital network access to low demand areas, develop. strategies 3016
- IBCN services for multimedia tourism appls. 16900
- PEGASUS, spoken dialogue interface for on-line air travel 15848
- spoken dialogue syst. for CD-ROM inform. retrieval 15850
- spoken lang., robust real-time interp. 15857

travelling salesman problems
- dists., traveling salesman tours 37256
- genetic algms., multi-parent recomb. 37288
- memetic algms., formal, representation-independent 11933
- operators, correl. anal. 37273
- optimisation of genetic algms., Taguchi method 223
- simulated annealing on loosely-connected parallel computer 20568
- stabil. anal. in combinat. optim. 37283

travelling salesman problems continued
  stat. phys. approach, optim. problems 11939

travelling wave amplifiers
  8PSK-TCM modem, develop. and transm. perform. 25156
  40 GHz band 30 W space TWT, RF power amp. *(Japanese)* 6030
  asynchronous DS-SSMB commun. syst., TWT nonlin. distortion 25252
  dielec.-loaded wideband gyro-TWTA 29810
  folded waveguide gyrotron TWTA 29803
  gyrotron TWA, stabilization of absol. instabilities 21855
  Ka-band tapered gyro-TW amp., broadband operation 1002
  lin. for future commun. satellites and ground stations *(German)* 6295
  low group vel. TWTA 1001
  low-noise TW front-end for coherent opt. receiver 9577
  opt. TW femtosecond parametric lasers 31289
  satellite TWTAs, microwave power modules, radiation cooled collectors 26553
  semicond. amps., four-wave mixing 31395
  semicond. opt. amp. photonic switching multi-carrier opt. network 25532
  semicond. TWA, facet modal reflectivity spectrum 39763
  semicond. TWAs, wavelength conversion, four-wave mixing 40057
  SHF TWTA for broadcasting satellites, 12 GHz, 110-170 W 13008
  slotted third-harmonic gyro-TWT amp., 95 GHz, tests 29811
  TE_{01} gyro-TWTA, stable, high power 1007
  third-harmonic gyro-TWT amp., 1 MW, stable operation 1009
  two-sect. travelling-wave semicond. laser amp. optoelectronic time division demultiplexer 42100
  two-stage tapered gyrotron TWTA, gain broadening 29809
  X-band TWT amplifier development 21848
  GaAs MESFET TWA MMIC, 2-12 GHz *(Chinese)* 38039
  GaAs-AlGaAs, field-effect LD, picosecond, saturable absorpt. 2005
  InGaASP/InP travelling wave optical amplifiers integrated with passive waveguides 14485

travelling wave tubes
  see also slow wave structures; travelling wave amplifiers
  40 GHz band 30 W space TWT, RF power amp. *(Japanese)* 6030
  asynchronous DS-SSMB commun. syst., TWT nonlin. distortion 25252
  automated RF/microwave testing, status and develop. 34406
  autophase TWT, azimuthally asymmetric field, nonlin. theory 997
  CARM amps., effective bandwidth and Kompfner dip 14677
  Cassini mission Ka-band TWT, 32 GHz, CAD 21856
  collective effects, theoretical anal. 6515
  deflection microwave amp., field-emitter arrays 6302
  dielec.-loaded wideband gyro-TWTA 29810
  folded-waveguide high-power MM-wave TWTs 21858
  gyrotron TWA, stabilization of absol. instabilities 21855
  gyrotron TWT, launching loss, Weibel instabil. 29800
  helix, TW interacts. anal. 1000
  helix tube design, linear field anal. 21854
  high-power X-band microwave generators, LLNL expts. 34827
  HV power supplies, engng. overview 36330
  Ka-band tapered gyro-TW amp., broadband operation 1002
  linear beam tubes, high power, depressed collector designs 6507
  low group vel. TWTA 1001
  multistage electron-beam microwave oscillators, stochastization 993
  peniotron slotted third-harmonic forward-wave oscillator 29808
  quasi-periodic struct. high power microwave sources, output sect. 29804
  quasiperiodic disk-loaded waveguide, EM, space charge waves, propag. 29802
  scaling laws, broad bandwidth interacts. 39979
  self-phased TWT, azimuthally asymmetrical field 998
  self-phased TWT, nonlin. theory 13005
  SHF TWTA for broadcasting satellites, 12 GHz, 110-170 W 13008
  slotted third-harmonic gyro-TWT amp., 95 GHz, tests 29811
  space-use TWTs, reliab. *(Japanese)* 13007
  technician centered test concepts 34367
  third-harmonic gyro-TWT amp., 1 MW, stable operation 1009
  two-stage tapered gyro-TWTA, Ka-band, TE_{10} rect. waveguide 21846
  two-stage tapered gyrotron TWTA, gain broadening 29809
  weak warm beam instabil. meas. 29801
  D-^{3}He fusion reactor, direct energy conversion syst. 44423
  Mo electrodes for vac. breakdown phenom. in TWTs, optim. of surface roughness *(Japanese)* 6513
  Sc_2O_3 impregnated cathode, charactn., semicond. model 6476

treasury automation *see financial data processing*

treatment, heat *see heat treatment*

treatment, patient *see patient treatment*

treatment, surface *see surface treatment*

treatment, water *see water treatment*

tree data structures
  see also octrees; quadtrees; trees (mathematics)
  B-ISDN, tree computation for reserved bandwidth traffic 33593
  bit vector encoding for partially ordered sets 32102
  Booth encoding in parallel multipliers, compressors 6127
  compressed data, efficient Huffman decoding 8159
  connectionist parsing of spoken lang., complex output representation 32296
  delayed conferencing, act. multimedia syst. 16802
  edge-based heuristic for Steiner routing of VLSI and PCBs 456
  fast speaker adaptation, tree-struct. speaker clustering 32270
  general framework for min. search in game trees 5737
  high range resoln. radar returns, model based ATR 17393
  hypercube machine, image partitioning 24548
  min. av. cost testing for partially ordered components 24098
  network traffic mgt., neural tech. 41682
  obj. recogn., dominance tree generated from line segmentation 41118
  power radial network, economically justified modif. 35519
  progressive image transm., pyramid struct., projection 16381
  prosodic rules for speech synthesis, automatic generation 32351
  RDBMS, directory inform. tree mgt. method and entry search method *(Japanese)* 16624
  secret sharing schemes and graph decomp. 40627
  segmentation-based predictive multiresolution image coder 16311
  ship radar databases, organization, wavelets and struct. VQ 9625
  sig. quadratic form, optimum discrete orthogonal transform *(Japanese)* 16044
  speech line spectral freq. params. coding 32335
  telephone speech data corpus, speaker independent recogn. 3134
  wide-area multicast routing archit. 2987

tree data structures continued
  X.500 directory, basic model for public telecomm. networks representation 41656

tree searching
  best convolutional codes search on basis of wt. distrib. 8114
  Chinese online characters recogn., knowledge model based approach 16119
  CMOS ccts., max. no. of switching gates, eval. *(Japanese)* 28978
  continuous speech recogn., string hypothesization algm. 32395
  deinterleaving pulse trains 2481
  digital curves, optimal polygonal approx. 41183
  digital mag. recording channels, different detect. techs., comparison 30731
  discrete coeff. FIR digital filters, design 24306
  ECG data compression, VQ, k-dimens. tree for fast search 26437
  high-speed arithmetic codec archits. using interval tree search 42087
  IPA model using hierarchical recogn. algm., opt. implement. *(Korean)* 22979
  Lempel-Ziv parsing algm., av. profile/limiting distrib. 32059
  mag. recording, adaptive continuous-time equalization and FDTS/DF seq. detect. 30725
  min. av. cost testing for partially ordered components 24098
  multi-hour hierarchical commun. networks design 8787
  multi-level decision feedback equalization realization of FDTS/DF for hard disks 30729
  multiprocessor DSP, task allocation/scheduling 40827
  multiresolution tree search, iterated transform. based coding *(Japanese)* 24119
  optimal init. phase wavelet transform 24255
  real-time video variable length decoding cct. using adaptive tree search, 162 Mbit/s 25131
  reconfigurable knowledge database, nonlin. sig. proc. *(Japanese)* 24335
  rem. procedure call protocol, probabilistic validation 24821
  SMDS support network minimax open shortest path first routing algms. 41765
  speech line spectral freq. params. coding 32335
  speech single stage spectral quantization, 20 bits 32336
  structural model bases, large, organisation 41285
  undirected weighted graphs, spanning trees enumeration 37259
  word recogn., large vocab., tree-trellis search 32391

trees (electrical)
  15/35 kV EPR insulated cables, field aging assess. 27201
  binary lin. polyethylene blends, water treeing, mech. aspect 14013
  bow-tie water trees in EPR/XLPE cable insulation 14055
  bulk dielectrics, partial discharge related stresses 13966
  cable insulation, void discharge deterioration, semicond. layer effect *(Japanese)* 43771
  dielec., discharges, tree-shaped breakdown struct. 1529
  dielectric phenomene and elec. insulation, conf., Pocono Manor, PA, USA (Oct. 1993) 11586
  epoxy resins, elec. tree growth, voltage/age effects 30537
  EPR, treeing in cryogenic temp. region 14060
  ethylene based copolymers, elec. treeing, degassing/low temp. effect 14059
  insulation, elec. treeing, mech. aspects 39064
  LDPE, elec. treeing, PD pattern recogn. 1531
  LDPE, water treeing 13973
  LDPE, water treeing progress, oxidation role 14061
  mechanical influence on insulation perform., IEE Colloquium, London (1995) 36861
  network model 13975
  organic insulation, water treeing, mech. aspects 39065
  organic insulators, mechanical properties/electrical treeing behaviour correlation 13971
  PD induced ageing, pulse-seq. anal. 22653
  polyethylene, discharges, pulse-seq.-anal. 1525
  polyethylene, electrical treeing, in-situ photoelastic monitoring 14068
  polyethylene, treeing under AC voltage, space charge buildup, power cables 30584
  polymer morph., influence on water treeing 13943
  polymer-insulated MV cable ageing diagnosis from post-discharge meas. *(German)* 10743
  polymeric insulating materials, elec. treeing 1510
  polymeric materials, water treeing, computer simulation 14062
  power cable insulation PD pulse shape recogn., neural net-based 27207
  resin based composite insulation, discharge barriers 1514
  resin insulators, PD, light emission detect. 1528
  solid insulators, breakdown precursors 35660
  solid polymeric insulators, elec. treeing studies 35657
  water-treed additive-free LDPE, TSDC spectra, power cable insulation 14021
  XLPE, field-aged, water trees conversion 14063
  XLPE, light and tree inception characts., elevated temps. 14058
  XLPE cable, water trees, DC component current evol. *(Japanese)* 10749
  XLPE cable insulation, TSDC meas. 14064
  XLPE cable insulation, water tree DC component generation *(Japanese)* 19296
  XLPE power cable insulation, degradation characts. 14072
  XLPE power cable insulation characts., defects/moisture effects 4679

trees (mathematics)
  see also fault trees; network topology; octrees; quadtrees
  2D systolic array proc. design *(Korean)* 681
  3-D morph. algm. for obj. recogn., automated training 16269
  alg. decision trees and Euler charact. 28582
  area graphs for locally striking disasters, connectivity problems, direct NA-connection 41547
  attributed relational tree approach, sig. classif. 2806
  Bayesian belief networks stochastic parsing 24131
  bit vector encoding for partially ordered sets 32102
  block codes, decoding for transm. without sync. 40601
  border detect., obj. segmented by pyramid linking method 8665
  buffer distrib. algm. for high-perform. MCM/VLSI clock net optim. 29335
  C^2 systs., game theory/tree lookahead archit. appl. 26814
  cocomparability graphs treewidth and order-theoretic param. 28612
  dist.-based coding for binary trees 40678
  double tree network, routing and perform. 33184
  DUALCAST, reliable multicasting scheme 2925
  edge-based heuristic for Steiner routing of VLSI and PCBs 456
  Elmore delay model for optimal wiresizing, VLSI interconnect delay 22277
  error-diffused image compression, decoder/VQ 2735
  FIR unitary time-varying filter bank trees and wavelets 40809
  fish tank virtual reality 42881

trees (mathematics) continued
  floorplan rising and enum., optimal, integrated algm. 21029
  global router, weighted Steiner tree-based, simultaneous length and dens. minimization 610
  global router for analog LSI based on branch-and-bound algm. 38949
  graph param. approx. 28620
  graph planarity eval. and network planarisation *(Croatian)* 2981
  harmonious colouring for trees complexity 37243
  hierarchical commun. networks, message routing, polynomial-time algm. 8784
  hybrid tree-loop networks reliab. anal. 8776
  isomorphic factorization of trees of max. degree three 11931
  k-coteries availability 5751
  LAN protocol, modelling/perform. eval. 16707
  Lempel-Ziv algm. for unifilar Markov source, exact anal. 32126
  Lempel-Ziv parsing algm., av. profile/limiting distrib. 32059
  Lempel-Ziv parsing trees, noiseless data compression algms. 32651
  lossless image compression, block scans codebook 15886
  lower bounds of network embedding dilations 457
  LUT-based FPGA technol. mapping, nominal delay minimization 12422
  march tests automatic generation for memories 6154
  Markov random field models for texture-based segmentation 8495
  Markov random fields, tree approxs. 41289
  min. cost isolated failure immune networks 8788
  model based 3D scene reconstruction from perspective images 41257
  multipoint routing, RS Steiner tree heuristic 16523
  multiresolution tree search, iterated transform. based coding *(Japanese)* 24119
  ordering constraints on trees 20540
  partially condensed 1D index space data, compression, tree constr. *(Japanese)* 8533
  polygonal slices, piecewise-lin. interpolation 20584
  power network, parallel soln., clustering/factorisation tree techs. 4462
  power syst. parallel simul., automatic partitioning, factorisation tree 19044
  prefix codes, equiprobable words and unequal letter costs 24108
  proper-path tree decomp. 28602
  random branching procs., entropies, convergence results 40539
  reciprocal procs. on tree, modeling and estim. issues 24192
  rectilinear Steiner min. trees, constr. 37248
  representable tree series 205
  small diam. spanning tree maint. 25052
  speaker ident., neural tree networks 32250
  speech recog., adaptive method for indiv. speaker *(Japanese)* 32417
  Steiner min. trees in grid graphs, appl., VLSI routing 28925
  Steiner tree problem, partitioning algm., expt. eval. 5748
  struct. recogn. of various kinds of table-form documents 8526
  symbolic computation of approximated small-sig. charact. of analogue ICs 28955
  technology decomposition using optimal alphabetic trees 21213
  TRACER-fpga, router for RAM-based FPGAs 21259
  TRACER-fpga, router for RAM-based FPGAs 37709
  tree-cotree gauge for mag. field computation in magnetostatic problems 40219
  tree-to-tree dist. computation algm. on VLSI archit. 12498
  undirected weighted graphs, spanning trees enumeration 37259
  uniformly growing backtrack trees, av. wts. 28623
  VLSI, optimal wiresizing under Elmore delay model 37572
  zero-skew clock net constr., simulated annealing, VLSI layout 29336
trellis coded modulation
  6-D rect. constellations, extended Wei method 15697
  8PSK-TCM modem, develop. and transm. perform. 25156
  16 QAM/TDMA, space diversity combining, multipath fading *(Japanese)* 42172
  adaptive TCM sig. detector, time-dispersive channels 15957
  American digital cellular syst. spectral efficiency 9275
  AVLSI decoder archit. for TCM 9731
  bandlimited PSK-sig., envelope control 8095
  bandlimited PSK-sig., envelope control 15702
  block encoding, CPM 15764
  CDMA systs., error-correcting coding 24782
  coherent FH-SS commun. syst. capacity 40551
  concatenated coding and ARQ, TCM for Rayleigh fading 8102
  concatenated coding syst., modified erasure declaration Viterbi decoder 8173
  consecutive full-response 4-CPFSK trellis coding 40587
  coset codes on fading channel matched constellations 32138
  CPFSK, coherent detect., phase jitter channels *(Korean)* 33922
  CPFSK sigs., nonlin. multi-pulse block coding 8172
  CPM decoder optim. by state-space partition 40588
  decoder perform., 8 PSK, 8 PAM, 16 QAM, additive mixture Gaussian/impulsive noise *(Korean)* 32195
  digital microwave radio symbol-rate-increased TCM scheme 42148
  digital transm. over degraded channels, coded modulation 8103
  equalised ISI channel TCM perform. 32084
  equalized multipath fading ISI channels, TCM perform. 25340
  FDMA/TDMA slow freq. hopping trellis coded adaptive receiver 9269
  fully phase transparent multidimensional trellis-coded MPSK 15700
  geom. uniform trellis codes, decoding algm. 15752
  IIR dispersive channels, min. Euclidean dist. of modulated sigs. 15709
  indoor radio, trellis-coded CPFSK, adaptive soft-decision feedback equalization 9357
  information theory, IEEE Symposium, Trondheim, Norway (1994) 28250
  ISI, PDF 15713
  mag. storage, digital syst., 2D coding 7175
  MDPSK, sliding multiple sym. detect. *(Korean)* 24120
  mobile satellite fading channels, M/QPR-TCM perform. 17096
  multi-amplit./-phase sigs., noncoherent detect. 24281
  multidimensional 6PSK trellis code design 40585
  multidimensional block coded modulation perform. with time-correl. fading estim. 40549
  multipath fading ISI channel TCM detect. by sequential deq. estim. 40548
  multiple multiamplitude MSK trellis codes, AWGN/fading mobile satellite channels 33958
  multiple TCM reduced complexity seq. decoding 8094
  nonlin. asymmetrical multi-h phase codes combined, CPM 15699
  nonlin. ISI channels, TCM, decoding 8145
  nonlin. multi-h phase codes, full response and partial response CPFSK 8171
  nonselective Rayleigh fading channels, sym.-aided channel estim. 7975
  nonselective Rayleigh fading channels, sym.-aided channel estim. 24016
trellis coded modulation continued
  optimal trellis-coded 8-PSK and 4-AM modulations for Rayleigh channel 8104
  Osman Nuri Ucan receiver, trellis coded M-QAM schemes, partial response channels 40704
  overlapping multipulse PPM, opt. channel 15705
  overlapping multipulse PPM in opt. direct-detect. channel, error perform. 8259
  QPR-TCM, fading mobile satellite channel, perform. anal. 9336
  quantization for noisy channels 24032
  quaternary const.-envelope modulation, 4D trellis coding 15703
  Rayleigh fading channels, error probab. 24017
  RS/trellis concatenated coded-modulation syst., bit error probab. *(Korean)* 32196
  sig. design for class-A impulsive noise channel 40569
  sigs., tunable complexity RSSE decoding 40673
  sliding multiple sym. differential detect. of trellis-coded MDPSK *(Korean)* 15725
  slow fading channel bandwidth-efficient coded freq. diversity 32086
  spectrally efficient modem for land-mobile radio, perform. 9272
  stretched pulse PPM opt. channels, perform. improvement *(Chinese)* 9533
  systematic TCM in coded modulation 8093
  systolic-array struct. for MTCM receivers 15862
  TCM-QAM for flat fading and AWGN channels, design 24118
  TCM/M-PSK, trellis-coded M-ary PSK for digital land mobile commun. *(Korean)* 17045
  terrestrial digital radio links, reduced state seq. estim. 9190
  transform trellis coded quantization of speech 32253
  two-level coding based on TCM and RS codes 15766
  wireless LAN MAC protocol selection for indoor environ. 41818
trellis codes
  see also trellis coded modulation
  bal. ECCs, max.-likelihood trellis decoding 32112
  binary partial-response channels, concatenated coding 15753
  block runlength-limited error control codes, trellis decoding 2373
  CMOS VLSI trellis-coded partial response channel codec 29249
  digital seq. reduced-state seq. estim. 40535
  diversity receivers, slowly fading Rayleigh channels 33763
  DS-SS commun. 17015
  erasure-free seq. decoding 24033
  error correction, trellis assisted block synchronisation 40602
  error probab., dist. spectra/upper bounds 32063
  error-correcting 2D modulation codes 15754
  high-speed staged decoder VLSI systolic archit. 40586
  hyperspectral image compression, 3-D DCT and entropy-constrained trellis quantization 16266
  hyperspectral imagery compression, 3D DCT and hybrid DPCM/DCT 24384
  lin. predictive speech compression, trellis codes 8198
  MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
  MLSE receivers, trellis codes for multipath fading ISI channels 8447
  MPSK (un)coded transm. on multipath fading channels 9169
  multi-D trellis decoder for 155 Mb/s concatenated codec 33684
  nonlin. asymmetrical multi-h phase codes combined, CPM 15699
  P^2 codes, pragmatic trellis codes utilizing punctured convolutional codes 32114
  parallel concatenated recursive systematic (turbo) codes 32105
  partial-response channels, trellis-coding, Viterbi detector archits. 30733
  primary rate ISDN, trellis codes perform. 16791
  rate-compatible punctured convolutional codes for Viterbi decoding 15765
  real no. trellis codes, constr. 40665
  rot. invariant nonlin. trellis codes for 2D modulation 24031
  RS codes, soft decision trellis decoding 2374
  scarce state transit. Viterbi decoder, nonsystematic convolutional codes *(Japanese)* 32072
  symms. and struct. 40663
  trellis path uniqueness codes, digital data commun. appl. 15797
  turbo-codes interleaver for trellis termination in same state 15762
  V.34 modem std. 9115
  video coding, entropy-constrained trellis coded quantization 24507
  Viterbi algm. simultaneous data detect. and channel estim. 8385
trench isolation technology *see isolation technology*
triacs *see semiconductor switches; thyristors*
triangular wave generators *see waveform generators*
triboelectric emission *see electron emission*
triboelectricity
  see also static electrification; surface charging
  electrostatic charge control, wafer prod. damage prevention 7896
  ESD hazard minimization, IC test handlers and automatic trim/form machines 30412
  plastics separation, tribo-electrification syst. 7919
  xerographic toner triboelectrification mechanism 7916
tribology
  see also friction; wear
  sapphire, insulator props. rel. to tribology/space charge 13952
  space syst. reliab. modelling techs. 18709
  US motor, contact type, perform., rotor/stator interface 27770
  NiP/Al discs, sputter-induced random micro texturing 5885
trigatrons *see gas-discharge tubes*
trigger circuits
  see also flip-flops; multivibrators
  bit-serial first-level calorimeter trigger for LHC detectors 26250
  calorimeters, sig. proc., functional schemes 4152
  CMOS neural network IC for high-energy phys. 29476
  coilgun perform., timing errors effect 31755
  Doppler detector, low-cost, automotive appls. 20112
  fast muon trigger for FNAL E771 34956
  KASCADE EAS expt., trigger electronics 26240
  level-1 calorimeter trigger syst. for LHC 26249
  LHC expts., level-1 triggers 18387
  MCT, gate drive cct., overcurrent protection 12323
  opt. receiver chip, stabil. improve., FIB 33984
  rot. dielec. spark gap, high repetition rate operation 11204
  Schmitt trigger, CMOS mixed-mode implement., equiv. cct. 21159
  Schmitt trigger ccts., adjustable hysteresis 29128
  second level trigger element, Blitzen array proc. 43123
  single chip neural network photon trigger 29483
  superimposed power line voltage disturbances detect., analog method 19360

trigger circuits continued
triangular connection Hopfield neural network, A/D conversion 12595
GaAs Schmitt trigger memory cell design 37775
triode sputter deposition *see sputter deposition*
triode sputtered coatings *see sputtered coatings*
triode sputtering *see sputtering*
triodes
audio amps., SPICE models 37655
coaxial triodes with virtual cathode, axially unsymm. EM wave emission 38220
comb-shaped field emitter array for vac. microdevices *(Japanese)* 21803
cylindrically-symm. vircator high power microwave source 29766
ferroelectric cathodes investig. 21794
field-emission triodes, fab., emitter-gate separation of 0.18 μm 21804
RF hollow cathode etching reactor, multipolar confine. 22212
triode gun, standing wave electron linac beam dyn. 26040
vircator, triode type, space-charge dyn. 21842
PLZT ferroelec. ceramic cathode technol., electron emission from bulk material 21791
triplet absorption detection of magnetic resonance *see microwave-optical double resonance*
triplet state
see also metastable states; resonant states
metallophthalocyanine doped polymers, opt. limiting study 31588
organically-modified sol-gels, opt. limiting study 31588
pyrromethene-BF$_2$ laser dyes, pumping, perform. 7547
terrylene single mol. in hexadecane, emission rate, saturation intens. 23375
Trojan horses *see computer viruses*
trolleybuses *see road vehicles*
tropospheric electromagnetic wave propagation
15 GHz LOS multipath propag. expt. 31815
20 GHz Earth-Olympus satellite path, propag. research 42333
22 GHz DBS HDTV antenna design and rain fade compensation 31950
42 GHz anom. propag., marshland/estuaries 17029
42 GHz bistatic Doppler radar for wind/fog/precip. meas. 18835
BER, influence of multipath propag. *(German)* 23635
C-band overwater LOS links, meteorol. aspects 9195
clear-air MM-wave scatt. 23602
Earth space path over Shillong, rain atten. 15442
Earth-space paths, microwave propag., 3-350 GHz, computer simul. 23647
Earth-space propag. paths, differential rain atten. 15441
Earth-space syst., site diversity, rain atten., interf. anal. 15440
EHF waves cross-polaris./atten. in sand and dust storms 15445
electrified raindrops, multiple EM scatt. by lin. array 7985
EM wave propag. in laterally non-uniform atmos. duct, coupled mode anal. *(Japanese)* 7971
GPS geodesy, tropos. propag. effects 7972
ground station-geostationary satellite link, radio wave atten. 40357
hierarchical modulation schemes for digital broadcasting, power assignment 25630
IEE antennas and propag. conf., Eindhoven, Netherlands (1995) 36865
interf. pattern, wavefront disloc., refr. index 40358
IR images, high-resoln. real-time restoration of atmos. distortions 16199
IR laser beams, simultaneous 1.06, 1.315, 10.6 propag. 15449
Italsat-Olympus 20-GHz orb. diversity expt. 25456
Japanese propag. studies (1990s) 2236
Ka-band satellite links, ice depolarisation 2229
Ka-band satellite-ground path ice depolaris characts. 33949
Ku-band direct, home video broadcasting in rainy regions 3653
land mobile satellite commun. systs., field strength prediction *(English)* 42222
light propag. in turbulent atmos., opt. link transm. 17256
LOS microwave link, 11 GHz, rain atten., worst month stats. 7965
Malaysia, rain atten. for satellite commun. in tropical regions 3524
meteorological radar rain meas., rain rate distrib. inversion 4397
microwave corrections, TOPEX radar altimetry method 18841
microwave link rain atten., 11 GHz, Guwahati, India 2233
microwave links of India, rain-rate & drop-size effects 2219
microwave pulse backscatt. & extinction, water drops 40345
microwave rain atten., Indian Earth-space paths 2234
mm & sub mm waves, turbulence & terrain factors 40344
mm waves in sand and dust storms, propag. losses 2220
MM-wave propag., raindrop size distrib. near Paris 31808
MM-wave turbulent tropos. radio channel freq. response 31819
mobile radio channel modeling by echo estim. *(English)* 9338
multidimensional coding schemes in combined satellite and terrestrial channels 3531
multipath fading countermeasures, India 7967
obstructed rural radio path at 462 MHz, seasonal propag. effects 40360
OLYMPUS satellite 12/20/30 GHz propag. expt. results 31818
parab. eqn. for propag., soln., box method 40350
point source field of NB sig., atmos. spatial phase fluct. estim. 31789
polaris. vector posn., medium depolarisation effects 10462
quasi-MM microwave access systs., transm. power control effects *(Japanese)* 42158
quasi-MM waves, rain atten. charact. *(Japanese)* 40347
radar syst. sensitivity, tropos. thermal lens effect 34122
radio channel stat. charact., expt. eval. *(Italian)* 9688
radio waves atten./phase rot./cross-polaris., rain 23629
radiotelescope site selection in Turkey, mm & sub mm wave 17520
radiowave propag. anoms. preceding earthquakes, charged aerosols 7962
radiowave propag. problems, horiz. parab. eqn. soln. 23642
rain atten. effect on satellite-ground links 9404
rain drops, electrified, EM scatt. study 7945
sand-powders permitt. meas. and sandstorm anal., W band 42892
satellite-Earth links, atten. prediction, low fade margins syst. 2231
sea level radioaltimetry, TOPEX/POSEIDON, atmos. correction 18840
SHF interferometry, residual noise level prediction 25622
space diversity and space-time sig. proc. for tropos. scatter radio commun. 32690
space-Earth absorpt., radiometric inversion coeffs. for Italy 15430
specific rain atten. models, MM wavelengths 15436
TDMA satellite commun. systs., transm. power control 17145
terrestrial land-mobile commun., propag. models *(English)* 42223
Turkey, rainfall atten. climatic map, develop. 15437
VHF scatterers, aspect sensitivity, off-vert. beams 31813
Virginia Tech propag. expt. using Olympus satellite 12, 20 and 30 GHz beacons 23631
tropospheric electromagnetic wave propagation continued
VSAT satellite commun. syst., effects of rainfall and airplanes 25463
wave propag. in tropos. ducts 15439
truth tables *see logic design*
TSC *see thermally stimulated currents*
TSCD *see thermally stimulated currents*
TSD *see thermally stimulated currents*
TTL *see transistor-transistor logic*
tubes (electronic) *see electron tubes*
tubes, cable *see electric conduits*
tuners *see tuning*
tuning
see also circuit tuning; laser tuning; receivers; resonance
1.55 μm WDM fiber freq. shifter 9461
acousto-optic tunable filters, electro-optic tuning and sidelobe control 22966
act. integrated antennas, opt. control, microwave-opt. interact. *(Japanese)* 8062
asymmetrical grating assisted coupler calc. by eigenmode expansion/coupled mode theory 39419
bacteriorhodopsin thin film real-time reson. holography 40157
bipolar ring oscillators using inverters, freq. tuning 567
Bus-Mesh wavelength multiplexed LAN, dyn. time slot allocation 34101
circular patch antenna with sectoral slot anf shunt element 23933
coaxial-to-waveguide adaptor with probe/tuning post, anal. 21521
codirectional Bragg WDM tunable acousto-optic-filter design 39534
colour TV receiver, microcomputer control syst. 9709
continuous fibre component for opt. sens., multilayer overlay 17911
DFB channel-dropping opt. filters, design and fab. 39538
diffr. radiation generator, open resonator, intermode oscills. 37949
dipole antenna bandwidth extension by parasitic elements and varactors 23915
double colour-pumped oscillator, high-power beam steering by Brillouin four-wave mixing 15104
dyn. wavelength allocation opt. LAN network 34100
elec. vehicle PID speed neurocontroller 44575
EM acoustic transducers, bulk wave, tuning, lift-off 10585
Fabry-Perot tunable polariz.-maintaining fiber filters 22803
FDM-channel selection filter, arrayed-waveguide grating multiplexer 9433
feedforward act. filter for output ripple cancellation 6024
fibre Bragg grating, tunable chirping, cantilever beam 7279
FIR digital filters, subband decomp., tuning algm. 8311
Franz-Keldysh electroabsorption waveguide modulator perform. anal. 30989
GaAs/AlGaAs HBTs with ITO emitter contacts, opt. microwave oscillators 6292
gain-distributed DFB opt. filters 22899
high-order systs., model ref. adaptive fuzzy control 5245
hybrid sparse-wavelength angle-multiplexed opt. data storage syst. 22794
in-fibre wideband Fabry-Perot filter/resonator fab. 31066
incoherent filtration of complex sigs. 8267
low-noise TW front-end for coherent opt. receiver 9577
Mach-Zehnder modulator output, soliton pulse compression, 40-GHz pulse train generation 14533
metal-semicond. interfaces, Schottky barriers tuning, layer control 1167
micromachined thin film bulk acoustic resonators 30635
microstrip-patch antennas, tuning stubs 23858
microwave transversal fiber-optic tunable filter 25513
miniature waveguide-antenna apertures, matching by air gap tuning 40499
multichannel acousto opt. tunable filter switches, reduced channel-to-channel interact. 39507
multiple-phase-shift-controlled DFB wavelength tunable opt. filters 31062
noncritical vectorial phase matching freq. up-conversion 7733
opt. CDMA, spectral encoding by acoust. tunable opt. filters 33983
opt. tuned microwave DRO, cct. and design method 840
patch antenna tuning stubs 23931
periodic nonlin. multilayers, intens.-induced stopband bending 2116
photodetectors and LEDs for WDM appls. 39617
photorefr. device opt. inform. proc. 32945
piecewise-lin. transcoders, automatic TV tuner alignment, electronic tuning 21086
piecewise-lin. transcoders, weighted min. approx. and decomp., TV tuner 21085
plasma dens. flucts. diagnostics, freq.-tunable MM-wave sources 31846
PM sync. motors, digital self-tuning tracking controller 11009
polyaniline, ellipsometric sens., spectral response 3819
relativistic klystron two-beam accelerator for beam-break-up suppress. 34828
rem. ellipt.-core dual-mode fiber strain sens., coherence-tuned interrogation 17918
rot. wave resonator tuning 21523
sapphire dielec. resonator transducer, whispering gallery modes 30656
self-tuning deconvolution filter, ARMA sigs. 8337
semicond. microwave generator 29561
sigma-delta A/D conversion, tunable bandpass, mobile commun. receiver appl. 9354
single-cryst. parametric oscillator-amp. of short ns pulses tunable in vis. range 7785
solid-state power combiner, dielec. tuned, optim. 29553
split cavity oscillator, broad band freq. tuning 21816
split-beam Fourier filter, mid-stage filter in EDFA fibre link 31068
subcarrier comb generator, phase-locked tunable config. 9426
supercontinuum generation, pulse-width tunable self-freq. conversion of short opt. pulses 2077
sync. generator predictive voltage control *(Japanese)* 44010
tapered single-mode fiber low-power acousto-optic devices 7420
tapered strain-gradient chirped fibre Bragg gratings, fab. 22847
three-cavity gyroklystron amp. perform. study 29763
thyristor-controlled series capacitors tuning by eigenvalue sensit. anal. 4630
tunable channel multi-access network adaptive-cycle protocol 41495
tunable continuous-fibre-optic bandpass filter, sens. appls. 14390
twin-core opt. fibres, UV tuning of coupling 7280
twin-core wavelength demultiplexing fibres, UV light coupling/tuning 34098
ultrahigh-efficiency, narrow-passband tunable opt. filter design 22983
VHF HTS thick-film loop antenna/two-element array 40495
VHF/FM sigs. blind adaptive equalization by symm. tuning 17004
waveguide-grating filters, plane wave and Gaussian beam illum. 30950
WDM cross connector electro-opt. controlled multiwavelength switch 34008
WDM high-speed wavelength tunable liq. cryst. filter 42387

tuning continued
- $AgGaSe_2$ noncritically phase matched mid-IR generation by opt. parametric oscillator 40060
- [B-]BaB_2O_4 opt. parametric oscillator noncollinear phase matching 15114
- BaB_2O_4 type I opt. parametric oscillator, noncollinear phase matching 2125
- CsB_3O_5, tunable UV generation, 0.185 μm 23371
- Er-doped fibre amp. gain equalization by tunable coherent opt. transversal filter 39709
- GaAs micromachined widely tunable Fabry-Perot filters 22984
- GaSe travelling-wave opt. parametric generator, 2.8 μm laser pumped 23354
- InGaAsP/InP grating-assisted directional coupler, act. filter *(Japanese)* 7365
- InGaAsP-InP directional coupler based tunable opt. filter 22910
- InP tunable phased-array wavelength demultiplexer 17257
- n-InSb, freq. tuning prop. of HF nonlin. acoustoelec. oscills. 30566
- KH_2PO_4 cryst. SHG, const. temp. gradient influences on spectral-bandwidth 15087
- $KNbO_3$ tunable narrow-band mid-IR type I opt. parametric oscillator 40113
- $KTiOAsO_4$ tunable near IR opt. parametric oscillators 15067
- $KTiOPO_4$ broadly tunable fs opt. parametric oscillators 40059
- $KTiOPO_4$ difference freq. mixing, tunable near-IR generation 40104
- $KTiOPO_4$ opt. parametric oscillator in fs time domain 31578
- $KTiOPO_4$, tunable near IR source by difference freq. mixing 31490
- LiB_3O_5 all-solid-state ps opt. parametric generator 23418
- LiB_3O_5 doubly reson. opt. parametric oscillator cavity mirror crysts. 40091
- LiB_3O_5 doubly-reson. opt. parametric oscillator mode selection 15116
- LiB_3O_5 ps Ti:sapphire-pumped opt. parametric oscillator 23420
- $LiNbO_3$ optical channel waveguides, direct meas. of cascaded nonlin. 14429
- $LiNbO_3$ passband-flattened guided wave acousto-optic filter 34009
- $LiNbO_3$, periodically poled, 1.064-μm-pumped opt. parametric oscillator 23382
- $LiNbO_3$ waveguide QPM-SHG device, tuning bandwidth *(Japanese)* 7746
- PtSi-Si-SiGe-Si Schottky diode IR detectors, tunable cutoff 17790
- Rb 532 nm Stark anom. dispersion opt. filter 39540
- $RbTiOAsO_4$ noncritically phase-matched Ti:sapphire pumped fs opt. parametric oscillator 23383
- Si:B reson. sens., fine freq. tuning 30517
- $YBa_2Cu_3O_7$ HTSC delay line, kinetic inductance, elec. tuning 14313
- $YBa_2Cu_3O_{7-x}$ high T_c film dielec. resonator, MM-wave filter develop. 811

tunnel diode oscillators
- synchronized chaos oscillators for transmitting inform. sigs. 2358
- GaAs TUNNETT diode oscillators above 100 GHz, diamond heat sinking and power combining 12778
- GaAs TUNNETT diodes above 100 GHz, efficiency, RF power levels, free running oscillator appl. 37976

tunnel diodes
- *see also resonant tunnelling diodes; tunnel diode oscillators; tunnelling*
- ALE devices, recent advances 22496
- LDD nMOS transistors, latent ESD damage recovery, hot electron treatment 6744
- polymers, semicond., carrier injection, Fowler-Nordheim field-emission tunneling 14644
- ultrafast optoelectronic charactn. 6304
- GaAs TUNNETT diodes above 100 GHz, efficiency, RF power levels, free running oscillator appl. 37976
- GaAs TUNNETT diodes on diamond heat sinks for 100 GHz and above 12756
- $Ga_xIn_{1-x}As/AlAs$ reson. tunneling diodes, atmos. press. metalorganic CVD 415
- GeSi/Si bistable tunnel diode based SRAM cell 21311
- InP, MIS tunnel diodes, elec. props., oxid. temp. effects 1335
- InP MOS tunnel diodes, elec. charactn. 38814
- InP/InGaAsP 2-terminal monolithic tandem solar cells 27956
- InP-oxide-metal tunnel diodes, elec. charact./nature of interfacial oxides 38918
- Pd-Si tunnel MIS switching device, H-sensitive property 1336

tunnel effect *see tunnelling*

tunnel transistors
- *see also resonant tunnelling transistors; single electron transistors*
- MIS emitter Auger transistor, anal. model 38819
- off-state n-MOSFETs, interface trap-induced drain leakage current 38859
- short-channel SOI MOSFETs, amplified GIDL, simul. 1413
- Si single electron transistor at RT, conductance oscills. 22323
- Si small geom. MOSFETs, tunneling gate oxide approach, ultra-high current drive 22451

tunnelling
- *see also resonant tunnelling devices; scanning tunnelling microscopy; superconductive tunnelling; tunnel transistors; tunnelling spectra; tunnelling spectroscopy*
- 0.1 μm MOSFET on thin-film SOI substr., self-aligned source-body contact 22456
- 2D electron gases in strong mag. field, tunneling 6570
- artificial electret material, EEPROM technol. 3797
- block-erasing methods for flash memory 654
- chalcogenide glasses, small-bipolaron hopping cond. 1059
- conference on magnetism, Warsaw, Poland (Aug. 1994) 28212
- Coulomb blockade-based tunneling arrays, computation 22498
- coupled quantum wells, reson. transport, scatt. mechanisms probe 6569
- current/dist. charact. determ. unit *(German)* 6541
- double barrier quantum struct., shot noise 13199
- double quantum wells, reson. electron tunneling, coherent model *(Chinese)* 13173
- double-barrier reson.-tunneling struct., quantum magnetotransport of electrons 21946
- double-barrier struct., reson. tunneling, scatt. effects 22017
- double-barrier tunnelling diodes, photon-assisted transm., transfer matrix approach 13608
- EEPROM CAD model for low power cct. design/simul. 21304
- FEL, biased double-well heterostruct. 7695
- flash EEPROM erase, tunneling induced converg. mechanism 12548
- flash EPROM endurance simul., phys.-based models 21306
- flash EPROM struct., ultra-short pulse erasing, characterisation 12502
- flash memories, write/erase method 12550
- FLOTOX EEPROM, program operations, simul. 656
- HBT SPICE model for large-sig. appls. 13615
- heterostruct. quantum devices, wave fn. redislocation based 30386
- indirect interband tunneling formulation for semiconds. 38315
- injection quantum well laser, cold device, large modulation bandwidth 7645
- light-emission jn. MIM tunneling in SAW field 7467

tunnelling continued
- metal-semicond. ohmic contacts, impurity bands 13208
- metal/n-InAs/interlayer/n-GaAs struct., nonalloyed ohmic contact resist. 1154
- MIM diode, N-shaped I-V charact., mechanism 13262
- MIM light-emitting tunneling jns., surface topography anal. *(Chinese)* 38451
- MIM thin-film devices, NDR characts. rel., film resist. 29989
- MIS electron tunneling cone-shaped cathode, fab. 21790
- MOS capacitor ultra-thin oxide/oxynitride dielec. films, reliab. characts., surface prep. 22066
- MOS capacitors, Fowler-Nordheim tunnelling current, strong inversion, HF capacitance 38438
- MOS EPROM writing charact., hot electron injection model, transient simul. 12546
- MOS struct., reliab., X-ray irrad.-induced damage 13241
- p-MOSFET, Fowler-Nordheim limited band-to-band tunneling 13690
- MOSFETs, Fowler-Nordheim tunneling of carriers, gate current simul. 38896
- p-MOSFETs, LDD, hot carrier reliab. 1407
- MOSFETs, n-channel, Fowler-Nordheim electron tunneling, substr. hole current 38884
- MOSFETs in off-state, interface trap induced emission current 22408
- multi-barrier graded quantum well semicond. heterostruct., reson. tunneling 6556
- nonideal metal-semicond. contacts, Schottky diode soft-breakdown, hybrid diode 1342
- nonlin. reson. tunnelling, double-barrier struct. 38292
- off-state n-MOSFETs, interface trap-induced drain leakage current 38859
- opt. fiber jn., opt. soliton tunnelling 7328
- p-n jn., quantum oscills., quantum wells 38360
- poly(phenylene acetylene) elec. symmetric diodes 23039
- polymer LED, carrier tunnelling/device characts. 14626
- polymer LED at LV, I-V characts. 23040
- polymers, semicond., carrier injection, Fowler-Nordheim field-emission tunneling 14644
- polysilicon DRAM cell capacitors, Si_3N_4 dielec. films, RTP 22069
- polysilicon films, elec. params., low temp. modelling *(Chinese)* 13025
- quantum effect devices, finite capture time, num. simul. 13821
- quantum well struct., rapidly changing transm. coeff., HF cond. 13162
- quantum-mech. tunneling, FEM 6548
- reson. tunneling, model Hamiltonian, modern electronic devices 1456
- scanning probe microscopy, principles and appls. 13017
- Schottky contacts, photovoltage, transient charact. modelling 6579
- semicond. superlattice, hole transport, band mixing effect 6568
- short-channel SOI MOSFETs, amplified GIDL, simul. 1413
- single-electron logic, tunnel-jn. load 37738
- single-electron logic ccts., quasi-CMOS inverter simul. 37731
- small-capacitance tunnel jn., escape rate, barrier traversal time effects 29930
- SOI MOSFET, extremely thin film, inversion layer to accumulation layer tunneling characts. 22453
- Spindt-type emitter, elec. field and current anal. 38210
- submicron NMOSFETs, GIDL, interface trap effect 6766
- switched diffusion analog memory for ANN chip 29412
- switching nano-device based on Rabi oscills. 6565
- thermometer, temp. stds. appl. 9882
- thermometry by arrays of tunnel jns. 4009
- thin insulator p-type MOS structs., inversion charge anal. 38444
- tunnel systs. in automated electronics mfg. 1186
- ultrathin dielec., microwave afterglow O_2/N_2O plasma growth 37505
- weakly coupled quantum-wire resonator, one-band model 13197
- Al/n-AlGaAs jns., anom. thermionic-field emission 13220
- AlGaAs-GaAs-AlGaAs, reson. tunnelling diode, time depend. behaviour 38800
- $Al_xIn_{1-x}As$, MBE/CVD growth, elec. props. 12060
- $Au/In_yAl_{1-y}As$, intimate Schottky diodes, characts., mismatch depend. 13221
- a-C/c-Si n-p heterojunction diodes, (photo)electronic props. 38795
- Cu_3Ge/n-GaAs ohmic contacts, microstruct./elec. charactn. 6573
- $Ga_{1-x}Al_xAs/GaAs$, p-n jn. incorporating quantum well, light emitting 14621
- GaAs multiple-tunnel jn., single-electron memory/logic ccts. 38942
- GaAs triple-barrier reson. tunneling diode, time-resolved photolum. 1451
- GaAs:C/AlGaAs power HBTs, bias-stressed, failure mode 22359
- $GaAs/Al_xGa_{1-x}As$ p-i-n diodes, ballistic-electron energy distrib. 29896
- $GaAs/Al_xGa_{1-x}As$ rings, tunneling, edge states 21985
- $GaAs/Al_xGa_{1-x}As$ double-barriers, electron transm. 13113
- $GaAs/Al_xGa_{1-x}As/GaAs$, electron tunneling, DX defect effects 1080
- GaAs/AlAs double barrier struct., X-states, reson. tunneling procs. 38288
- GaAs/AlAs double-barrier heterostruct., tunnel current oscills. 1147
- n-$GaAs/AlAs/Al_{0.3}Ga_{0.7}As$ double barrier QW, tunneling assisted thermionic emission 38326
- n-GaAs/AlGaAs MQW struct. with Schottky and ohmic contacts, seq. tunneling 29897
- GaAs/AlGaAs double barrier, seq. tunnelling assisted by light 1099
- GaAs/AlGaAs heterojunction barriers, transm. tunneling current 13127
- GaAs/AlGaAs heterostruct., ballistic electron transport, magneto-opt. studies 13115
- GaAs/AlGaAs tunnelling MQW struct., picosecond opt. sig. recovery 31519
- GaAs/InGaAs/GaAs SQW, current transport and deep levels 21994
- GaAs/Si, heterostruct., IV charact., CV charact. 29893
- $GaAs\text{-}Ga_{0.51}In_{0.49}P$ QW heterostruct., reson. magneto-tunnelling of holes 13201
- HgCdTe VPE growth, long wavelength IR detector, zero tunnel leakage current 12097
- HgCdTe photodiodes, long-wavelength IR appls. 17785
- $Hg_{1-x}Cd_xTe$ MIS IR detectors, 1/f noise, temp. depend. 17768
- $InAlAs/In_xGa_{1-x}As/InP$ HEMT, breakdown behaviour 6788
- InAlAs-InGaAsP-InP syst., potential barrier height enhance. 22008
- InGaAs/InGaAsP/InP MQW laser, thermionic emission, tunneling 1931
- InGaAs/InP:Fe enhancement layer Schottky contacts 1149
- InGaAs-InP, reverse bias laser struct., photodetection 17811
- InGaAsP/InP D-band Gunn devices, heterojunction cathode injectors 13587
- $InP_{0.69}Sb_{0.31}/InAs$ heterostruct., recon. tunnelling obs. 13133
- p-InP, defect-assisted ohmic contacts 29948
- InP/GaInAs HBTs, ultra high base doping, high emitter effic. 30248
- InP/InGaAs/InP photodetector arrays, RTS noise and excess currents 17773
- Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
- Ni/TiO_2/p-Si heterostruct., neg. capacitance effect 1161
- NiFe/oxide/Co jns., magnetoresist., mag. props. 6592

tunnelling continued
$(Pb_{0.72}La_{0.28})TiO_3$/Pt films, elec. props., interface effects 1159
Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
Pt/SiO, ultrasmall double tunnel jns., two level current flucts. 29875
Si MOSFET, interband tunneling, 2D num. model 22407
Si MOSFETs, drain leakage current 22427
Si epitaxial p^+-n struct., tunneling-oxide-metal contact, photoelec. effect 29884
Si flash EPROM device reliab., erase source bias effects 12500
Si, porous, photoconduction effects and luminesc. props. 39552
Si quantum dot, single electrons, thermally enhanced co-tunneling 38355
Si single-electron transistor, room temp. operation, fab. 13827
Si single-electron transistor, transport props. 22500
a-Si:H/a-$Si_{1-x}C_x$:H barrier struct., I-V charact. 1105
Si/SiO_2/Al MOS, tunnel jns., light-emission mechanism 22078
Si/SiO_2/Au MOS, tunnel jns., light-emission mechanism 22078
Si-SiO_2 MOS devices, quasi-breakdown of ultrathin gate oxide under high field stress 22067
Si-SiO_2 MOS interface, tunnelling emission, const. voltage DLTS 6585
Si-SiO_2 accumulated MOS thin dielec. struct., quantum effects 13235
Si-SiO_2 porous DQW, tunneling, photoluminesc. 21995
Si(100), ion beam-induced oxid., ion emission 6655
SiC thermally crystallized films on sapphire, electronic transport 21937
SiO_2 RTCVD/RTO/thermal oxide thin films, tunnelling current characterisation 22226
SiO_2 films, high field dyn. stress 22063
SiO_2 thin film reliab. at direct-tunneling voltages, MOS VLSI technol. 22607
SiO_2N_x ultrathin N_2O-oxynitrided films, charge trapping, Fowler-Nordheim stress effects 22073
SiO_xN_y oxynitrided tunnel oxide films, flash EEPROMs 38593
SnO_2/a-SiC/Au Schottky cells, photocurrent multiplication model 44396
$Zn_{1-x}Cd_xSe$/ZnSe quantum wells, excitons, picosecond dyn. and stimulated emission 13182
p-ZnSe elec. contacts, I-V charact. 1150
ZnSe/ZnTe double-barrier struct., time-depend. tunneling anal. 38323
tunnelling spectra
SiO_2/Si interface struct., reliab. charact. 13253
tunnelling spectroscopy
see also scanning tunnelling spectroscopy
few-electron quantum dots, transport excitation spectrosc. 22002
high resoln. neutron spectrosc. methods 4243
GaAs:Zn-Au tunnel jn., zero-bias anom. 1164
GaAs/AlGaAs heterostruct., 2D electron gas, electron correls. 38312
tunnels, wind *see wind tunnels*
TUNNETT diodes *see transit time devices; tunnel diodes*
turbidimeters *see turbidimetry*
turbidimetry
cell/biotissue optics, laser diagnostics/therapy, conf., Moscow (1993) 20214
Model TB400G EXA TB surface scatt.-light turbidity meter 10043
turbine generators *see turbogenerators*
turbines
see also compressors; gas turbines; hydraulic turbines; steam turbines; turbogenerators; wind turbines
adaptive PSS, turbine governor control 4564
ageing component optimum revision interval determ. 11878
blade, faults, intell. diagnosis, neural nets/fuzzy logic 35714
cryogenic rocket engine, liq. H_2 turbine, expander bleed cycle 26692
expert diagnostic syst. for turbine engine 34394
gas-fired CHP plants, fuel compression study 35994
intell. adaptive controller 43816
pumped storage plant, converter-fed var. speed generator-motor *(Japanese)* 36047
thermal power units, load control syst., adaptive neural model *(Chinese)* 35983
wind turbine load matching, least resist. principle errors 10900
turboalternators *see turbogenerators*
turbogenerators
see also hydroelectric generators
1.4 GW Bieudron hydroelec. power plant project, Switzerland 19541
330 kV substation busbar short-ccts., turbogenerator saturation modelling 19064
500 kW ultra-high-speed gas turbine CHP syst. 10861
600 MW cross cpd. generator, static excitation 19601
732 MW supercritical steam power plant project, Germany 27551
908 MW thermal power plant control/monitoring integrat., Australia 19508
1320 MW NPP auxiliary power syst. hist., UK 19415
adaptive control, parallel proc. 27672
adaptive reclosing, shaft torsional torque effects 4905
automatic recogn., vibr. of turboalternators *(Chinese)* 36139
Bieudron (Switzerland) power station 465 MVA turboalternators *(French, German)* 36043
closed cycle vap. turbogenerators, microwave repeater appls. 19588
combined cycle gas turbine systs., math. modelling studies 36023
cpd. turbogenerator electrodyn. props., rotor eddy current effect *(German)* 10985
cross cpd. turbine generator, PSS design *(Japanese)* 10616
cylindrical small steam generators, power generation appls., Russia 27554
DC convertor stations, generator shaft torsion simul. 4635
decentralized pole-assignment self-tuning controller 35560
DIVA diagnostic expert syst., domain models 19585
eddy current transducer appl. in fault diagnosis *(Chinese)* 34487
EHV transm. network oscillatory param. ident. 4625
excitation predictive control 44006
expert diagnostic syst. for turbine engine 34394
fault diagnosis, consultative ES-based 19595
FEM/state-space modelling, no-load case 43983
FEM/state-space modelling, short cct./load case 43984
fibre optic probe for thermal meas. in turbomachinery 17850
gas turbine PM generator cycloconverter, digital control 10859
gas turbogenerator cascade flow, 3D compressible Euler solver 36016
gas turbogenerator dyn. model 27569
Gulf Stream-based hydroelec. generation, project overview 19542
HV rot. machines, PD detect. 4900
hydraulic turbogenerators, intell. sync. control *(Chinese)* 10877
hydroturbine generator sets, nonlin. governor control 10944
insulation design, mech. stress considerations 44003
intell. adaptive controller 43816
turbogenerators continued
knowledge base mgt. syst. for turboalternator diagnosis *(Chinese)* 36127
liq. metal PBR for Moon base 35262
modelling, self-organizing neural net-based *(Chinese)* 27677
multimachine power syst., param. adaptive control 19156
offshore wind turbogenerators, foundations design optim. 10895
on-line monitoring 36005
online adaptive stabilization 4505
online vibr. monitoring, neural net-based 19596
parallel turbogenerators, phase shifts, SSR, incipient stabil. 43978
power station turbogenerator maint., welding experiences, UK 19388
power syst. SSR damping, SMES-based 10681
power syst. transient stabil., turbogenerator torsional vibr., fast valving *(Chinese)* 35456
rectifier-loaded PM-excited sync. generator operation *(German)* 10986
rot. mach., fault prognosis, neural net 27683
rotor bore, automated US inspection syst. 19599
rotor hydrogen cooling, temp. distrib., clogged vents *(Chinese)* 43999
rotor shorted turns, online monitoring 19598
shaft torque amplif. prediction 36092
shaft torque/fatigue life expenditure prediction 10958
shaft torques/fatigue life, freq./time domain anal. 4887
shorted turn location, fuzzy neural net-based 19687
Sloy hydroelectric power station refurbishment project, UK 19545
solid rotor turbogenerator, equiv. ccts. anal. 27660
stabil., robust optimal control, PSS design 27019
stator bar water cooling, fault diagnosis, model-based 27671
stator dissipation factor testing 44008
stator end core zone, EM procs. anal. *(Russian)* 36107
stator insulation, PD monitoring sens. 4888
stator winding maint., PD testing 4893
steam power plant equipt. repowering study project, Romania 27541
steam turboalternator freq. control governor design 43909
steam turboalternator set, rotor syst. bearings, optim. of installation posns. *(Chinese)* 36141
steam turbogenerator exciter shaft torsional vibrs. anal. 43738
sync. turbogenerator, salient-pole, saturated rotor, toothless stator 36111
telecommunication systs., turbo-alternator back-up power supply 19611
thermal monitoring, fiber optic sens. network 17849
three-phase turboalternator adaptive control, transputer-implemented 36119
turbine blade vibr. meas. experiences, Switzerland 10929
turbo-alternator predictive excitation control 36131
turboalternator set, shaft torsional vibr. model for elec./mech. syst. interact. *(Chinese)* 36128
turboalternator third-order SSR stabil. models 44018
turboalternator winding eccentricity monitoring studies *(German)* 36126
turboalternator-exciter rotor syst., unbalance response *(Chinese)* 36129
turboalternators, shaft torsional vibr., PSS effects *(Chinese)* 36140
twin-shaft governor/gas turbine model, computer-based 36014
Tyson portable hydraulic turbine, pumping/power generation appls. 43943
VESTA std. CFBC steam power plant turnkey projects 19514
wave power generation, oscillating water column-type caisson 19547
winding shorts localisation, fuzzified ANN 44021
Turing machines
see also automata theory
4-move perfect zero knowledge interactive proof for promise problems 32080
neural syst. like Turing machine, animat 12679
TV *see television*
TVRO *see television antennas; television receivers*
twin boundaries
diamond films, microwave plasma CVD, charactn. 6521
ferroelec. ceramics, twinning-induced stress, elec. field conc. 37537
$Ba_2NaNb_5O_{15}$ opt. waveguiding films, excimer laser ablation prep. 12168
Si-sapphire, porous, photolumin., microstruct. effects 6618
a-$Si_{1-x}Ge_x$ MBE films, solid phase crystn. 37437
Tb-Dy-Fe twinned terfenol-D crysts., anisotropy 7013
$YBa_2Cu_3O_{7-\delta}$ nanobridges, coherent cortex motion 14303
twinning
see also twin boundaries
diamond, vap.-grown films, morph. develop., role of penetration twins 5864
ferroelec. ceramics, twinning-induced stress, elec. field conc. 37537
$CuInSe_2$ layers, heteroepitaxial, direct growth on Si substrs. 363
GaAs layers on Si(001), MBE/ALE grown, defect struct. 12113
GaAs, low press. MOCVD on Si, defect reduction 20768
$Hg_{1-x}Cd_xTe$ ($x\sim0.2$) grown by THM in (111) direction, twinning effects 37383
InP, (001) homoepitaxial growth, twin generation, tip struct. 5828
InP, low press. MOCVD on Si, defect reduction 20768
InP substrates, VGF growth process 12021
Si, film, on SiO_2, CVD growth, defects, TEM obs. 21878
Si, polycryst. films, furnace/laser annealing 28855
ZnSe crysts., melt growth, twin reduced 291
ZnSe single crysts., photolum. meas. *(Japanese)* 39560
twisted pair cables
100VG-AnyLAN, Ethernet/token ring frame inform., IEEE 802.12 technol. 41882
100VG-AnyLAN, network operation/real-time capabilities 33504
155.52 Mb/s data transm. on category 5 cable plant 42044
ADSL, DSP-based prototype reverse channel transmitter/receiver 33673
ADSL, enabling network for VOD 9107
ADSL, multi-drop in-house distrib. network 16919
ADSL, twisted-pair access, inform. highway 42058
ADSL systs., introduction 9103
AES/EBU digital audio sigs., twisted-pair cables 42139
asymmetrical DSL, echo cancellation 9089
broadband multi-twisted pair cable develop. 21604
broadband multimedia services, high speed access 42016
campus inform. network syst., LAN/FDDI based *(Japanese)* 16696
capacity calc. for NEXT+AWGN channel 40523
CISPR conducted emissions meas. on telecom. leads 15494
copper shielded cabling systs., advantages 16996
Demand Priority MAC protocol for 100 Mb/s LANs 25043
digital data transm., unshielded copper wire emission 15478
HDSL chipset for high-speed transm., copper 16920
HSLAN prospects of UTP telephone cable *(Dutch)* 16997
ISLAN interface, MAC/PHY layers, IEEE std. 24984
LAN syst. using category 5 cables, wiring syst./installation *(Japanese)* 25047
multicarrier modulation impulse noise mitigation strategies 40561

twisted pair cables continued
- multipair symm. cables at 1 kHz-2 MHz, crosstalk/transm. 16927
- mutually coupled line propag. charact., digital anal. method 40394
- NTT's local networks, HDSLs/ADSLs range 16917
- radiated emissions from automotive multiplex bus wiring 15474
- telephone loop plant, technol./appls. 25138
- transm. line, crosstalk coupling, digital noise propag. 25200
- transmission line anal. by method of moments 23750
- tunnels commun. syst. *(Japanese)* 25196
- two-wire cables, radiated emissions reduction, pair twisting effects 15536
- unshielded twisted pair cables for HSLAN *(Japanese)* 25203
- unshielded twisted-pair transm. line, method-of-moments soln. 33740
- UTP cable categories, stds. and advantages *(Dutch)* 16998

twistors *see magnetic storage*

two-dimensional digital filters
- adaptive filter, Laguerre fns. 32759
- block adaptive FIR filtering algm. 33152
- BP cascade adaptive recursive filters 6231
- center weighted median filters, anal. 33125
- cosine-modulated 2D FIR filter banks, perfect reconstruction 32712
- denominator separable 2D IIR filters, design 40899
- diamond shaped half band FIR filter, design *(Japanese)* 8409
- digital/analogue filters, symp., London, UK (Nov. 1994) 28264
- error spectrum shaping *(Japanese)* 15933
- FIR adaptive filtering, 2D transform domain type 2575
- FIR digital filters, weighted least sq. design 15858
- FIR digital filters, weighted LMS design 2488
- FIR digital filters, weighted LMS design 8364
- FIR filters, freq. sampling, Hermite interpolation 752
- FIR filters iter. reweighted least-sq. design 2465
- FIR separable Wiener filters design, iter. method 24214
- FIR-median hybrid filters, deterministic and stat. props. 33077
- generalised filter design, freq. transforms. 6230
- high sample rate archits. for median filters 29379
- IIR filters with lin. phase, design 24346
- IIR/FIR two-channel biorthogonal filter banks and wavelet bases 37880
- image data, fast median filtering, coarse-to-fine algm. 2650
- image filtering by scaled MSE filter, vector proc. algm. 32986
- image proc., line preserving adaptive median filter 24526
- lattice filters, image compression 16339
- lattice filters, stabil. testing procedure *(Japanese)* 32589
- lin. phase IIR filter, symbolic computation routines, design 37885
- lin.-phase 2-D FIR digital filters, 2-D seqs. appl. 41045
- mammograms, detect. of microcalcifications, wavelets 35001
- modified 2D median filter for impulse noise suppression 37863
- MUSE sig. decoding, integrated image DP *(Japanese)* 34257
- non-separable multidimensional perfect reconstruction filter 8273
- nonseparable modulated filter banks 32713
- nonseparable transfer fns., all-pass networks 757
- optimal filters for multiresolution seqs. generation 2652
- PCAS digital filter design based on restrictive coeff. sets 37888
- rank-conditioned median filter 24704
- recursive orthogonal wavelet transform. 40927
- regular 2-D nonseparable wavelets/filter banks, transforms. of variables design 32513
- scaled state space filters, fixed point arith. 12648
- separable 2D recursive digital filters, zero-phase approx. 37866
- spatially varying 2D filter banks 8276
- stabil. anal., Lyapunov approach 743
- third-order 2-D filters, explicit coeff. condition 737
- time-varying 2D state-space struct. 37869
- variable FIR filters, design, 3D prototype filters 746
- video filters for PALplus-compatible HDTV transm. encoder 42604
- zero phase 2D filters CAD, multiplicative autoregressive models 759
- zero-phase FIR filters, least-sq. design problem, closed-form soln. 6236
- zero-phase recursive 2-D variable filters, quadrantal symms., design 29387

two-dimensional electron gas
- BH-alloy supercond. devices, multiple Andreev refl. 22734
- cubic cryst. quantum wells, cond., weak localization 1102
- finite-pot. and gate-induced electron waveguides, discontinuities 1126
- HEMT charge based gate capacitance model 38936
- heterostruct. quantum devices, wave fn. redislocation based 30386
- lateral HET, HF operation 13616
- lateral surface superlattice, fab., ion irrad. 21976
- lin. quantum wires, self-consistent calcs. 21983
- mesoscopic 2DEG coupled to superconds., quasiparticle interf. 22747
- microwave MESFET, noise temp. determ. 13766
- MIS struct., quantized accumulation layer, model 13242
- multi-layer conducting samples, low-mag.-field-depend. Hall-tech. 1442
- multilayer electron systs. in wide parab. wells, magnetocapacitance spectra 29909
- p-n jn. of quantum wells, tunnelling, quantum oscills. 38360
- quantum Hall device, photoresist. imaging 1079
- quasipotential barriers in electron waveguides 1455
- reson. tunneling light emitting transistor, base transport 39582
- semicond. device struct., charactn., modulation spectrosc. 1435
- supercond. 2DEG quasiparticle interferometer, phase-depend. resist. 22751
- supercond.-2DEG planar jn., Josephson effect, proximity effect 30794
- surface gate struct., sharp pot. barriers in 2D electron systs. 1090
- tunneling in strong mag. field 6570
- AlGaAs/GaAs 2DEG, ballistic electron transport 29944
- (AlGa)As/GaAs 2DHG struct., contacts and mobilities 21967
- AlGaAs/GaAs heterojunctions, high elec. fields, real-space transfer and current filamentation 1076
- AlGaAs/GaAs heterostruct., electron beam irrad. damage, annealing 21944
- AlGaAs/GaAs heterostruct., electronic states, mobility 1100
- AlGaAs/GaAs heterostruct., ohmic contacts, phys./elec. study 13169
- AlGaAs/GaAs heterostruct., percolation metal-insulator transits. in 2D electron syst. 6549
- AlGaAs/GaAs nanostructures, surface-gate technol. 21972
- AlGaAs/InGaAs/GaAs HEMT, photolum. spectrosc. 6780
- AlGaAs/InGaAs/GaAs heterostruct., 2DEG mobility anoms. 21949
- n-AlGaAs/u-GaAs heterointerface, electron gas, periodic bending, device appl. 6557
- $Al_{0.22}Ga_{0.78}As/In_{0.15}Ga_{0.85}As/GaAs$ one-side-modulation-doped QW, electronic subband studies 21996
- $Al_{0.43}Ga_{0.57}As/In_{0.2}GaAs$:Te modulation doped heterostruct., carrier confine. 29881
- AlGaAs-GaAs MODFETs, neg. photoresponse study 31088

two-dimensional electron gas continued
- $Al_xGa_{1-x}As$-$In_yGa_{1-y}As$-GaAs, modulation doped HEMT, photolumin. linewidth 13145
- AlInAs/GaInAs/AlInAs HEMT struct., double modulation-doped strained-channel 6782
- $Al_{0.48}In_{0.52}As/Ga_{0.47}In_{0.53}As$ heterostruct., δ-doped, second subband pop. 29890
- Au/Nb/AuGeNi, low resist. ohmic contact for GaAs, heterostruct. HEMT 29958
- GaAlAs/GaAs accum. mode bipolar transistor, 2DHG base *(English)* 22362
- GaAs MESFET, pulse doped, 2D electron transport, Monte Carlo simul. 6794
- GaAs MESFETs and PHEMTs, 2DEG effect on noise perform. 37981
- GaAs based cpds., Si diffusion, doping profile control and 2DEG form. 6627
- GaAs heterojunction, 2D electron Wigner cryst., electron diffr., photolum. 21968
- GaAs heterostruct. FET, gate currents, warm electron contrib. 13794
- GaAs lateral superlattice, Weiss oscills., small-angle scatt. effects 38350
- GaAs quantum well, MBE regrowth, 2DEG struct. 352
- GaAs tapered QW, selectively contactable 2DEG, shadow masked MBE 38346
- $GaAs/Al_xGa_{1-x}As$, MOVPE, n-doping, 2D electron gas struct. 22152
- $GaAs/Al_xGa_{1-x}As$ heterostruct., separately contacted electron-hole double layer 13108
- GaAs/AlGaAs, 2DEG in random mag. field, magnetoresist. 6552
- p-GaAs/AlGaAs HFET, output characts., high press. effects 38919
- GaAs/AlGaAs buried quantum wires, situ FIB implant. 21978
- GaAs/AlGaAs edge overgrown lateral superlattice, high field transport 13175
- GaAs/AlGaAs heterojunction, magnetothermopower, phonon drag 38298
- GaAs/AlGaAs heterostruct., 2D electron gas, electron correls. 38312
- GaAs/AlGaAs heterostruct., plasma etching damage 30109
- GaAs/AlGaAs, independently contacted double quantum well, MBE regrowth 28732
- GaAs/AlGaAs inverted MODFET, charge control/I-V model 38908
- GaAs/AlGaAs modulation-doped heterostruct., DX centers 29938
- GaAs/AlGaAs, narrow quantum Hall conductors, anom. magnetotransport 13129
- $GaAs/In_{0.15}Ga_{0.85}As/Al_xGa_{1-x}As$ HEMTs, modelling 13795
- GaAs/InGaAs/AlGaAs heterostruct., selective high-temp.-stable O implant. 1218
- GaAs-AlGaAs modulation-doped heterostruct., interface roughness scatt. 13109
- GaAs-GaAlAs quantum point contact, dyn. response 6560
- $GaInP_2$ homojunctions, ordered-disordered, 2DEG, anisotropic transport props. 21962
- GaInP/GaAs/GaInP quantum wells, persistent photocond. 13174
- InAlAs/AlAs/n-InAlAs struct. for InAlAs/InGaAs FET appls., low leakage current 6787
- InAlAs/InAs/InGaAs 2DEG, supercond. three-terminal devices 39284
- InAlAs/InGaAs modulation doped structs., MOCVD growth, breakdown volt. 411
- $In_{0.52}Al_{0.48}As/In_{0.53}(Al_xGa_{1-x})_{0.47}As$, NPN DHBT, DC characteristics 13634
- InAlAs-InGaAs MODFET, channel struct. design 13816
- InAlAs-InGaAs strained HEMT, I-V characts., charge control model 38911
- InAs/AlSb quantum wells, QHE 38366
- InGaAs Schottky 2DEG diode 13596
- InGaAs heterostruct., nanostructure fab., FIB technol. 13312
- $In_xGa_{1-x}As$ strain-relax. heterostruct., 2DEG, galvanomag. props. 13119
- InGaAs/InAlAs, MBE on InP, high electron mobility 13156
- InGaAs/InP at high mag. fields and low temps., quantum magnetotransport 38286
- InGaP homojunctions, LP MOVPE, 2DEG 21957
- InGaP/GaAs heterostruct., MOCVD growth, charactn. 20825
- InP heterostruct. FET, gate currents, warm electron contrib. 13794
- $InP/In_{0.53}Ga_{0.47}As$ interface, 2DEG, quantum transport effects 21958
- InP/InAlAs IG-MODFET, power appl. 13708
- Pt-GaAs Schottky contact, defect free, electrochem. form. technol., low-dimens. structs. 22039
- Si MOSFET, 2D electron gas, ballistic transport 38862
- Si MOSFET, 2DEG, cyclotron phonon emission, quantum oscill. 38887
- Si MOSFETs, inversion layer mobility, surface orient. 6761
- Si/SiO_2 antidot syst. MOS struct., far-IR excitations 29976
- Si-SiGe HFETs, mobility simul. 22494
- Si-SiO_2 interface, electron 2D behaviour modelling by Monte Carlo simulator 29986
- $Ti/Au/Al_{0.3}Ga_{0.7}As/GaAs$, quantum point contacts, cond. quantization broadening 22047

two dimensional electron gas field effect transistors *see high electron mobility transistors*

two-dimensional systems *see multidimensional systems*

two-photon spectra
- organic waveguide couplers, 2-photon absorpt.-induced luminesc. 30940
- polydiacetylenes, nonlin. opt. props. 15053
- polyphenyl, didecyloxy substituted, third- and fifth-order opt. nonlin. 2111
- PTS, multi-photon absorpt./nonlin. refr., 800 to 1600 nm 23395
- thiophene, bisbenzethiozole-substituted, third- and fifth-order opt. nonlin. 2111
- AlGaAs/GaAs MQW, near- and mid-IR two-photon absorpt. 31538
- Er^{3+}:GeO_2-Al_2O_3-SiO_2 opt. fibres, two photon reson. SHG 2070
- Er^{3+}-doped phosphate fibers, Nd:YAG laser pulses upconversion 31528

two-photon spectroscopy
- fiber optic sens. develops., two-photon spectrosc. 17819
- multidetector photon intens. interferometry 10113
- $NH_4H_2PO_4$ cryst., opt. parametric oscill./amp., spectrosc. appl. 7772

two-port networks
- built-in random testing for dual-port RAMs 37753
- class E amp., anal. by alternor tech. 12345
- DC/DC power converter two-port lossless switching cct. design algm. *(Polish)* 36280
- electronic cct. network fns., matrix proper values 28983
- floating-inductor simulator, current-feedback amps. 21411
- microstrip step discontinuity, fractional dissipated power 856
- microwave correl. temp. of isothermal lossy material 3966
- multielement two-terminal network resist., freq. independence study *(Russian)* 37579
- multistage microwave two-port networks, IMD anal. *(Korean)* 12738

two-port networks continued
noise anal., recursive algm., S-wave approach 829
power p-i-n diodes, PSpice-based modelling 5987
reflectometer scatt. coeffs. meas. accuracy 459
S-param. cct. anal., appl. of artificial two- and four-ports *(English)* 21531
sensitivity anal. of one port/two port BAW/SAW resonator 30639
skewed-port device meas., vector accuracy enhancement techs. 18054
unified theory of compatible impedances 21016
VIOMAP, S-param. equiv. for weakly nonlin. RF/microwave devices 12745

two-term control
AC drives, current trajectory tracking control, sync. PWM 5311
AC PM servomotor digital controller, appls. 43979
act. mag. suspen. systs., PLL appl. *(Japanese)* 39215
AGC syst. LQG controller design 35520
brushless DC motors, fuzzy speed control design 4989
brushless DC servomotor auto-tuning, fuzzy optimal control 4988
DC arc furnace control, simul. *(German)* 44590
DC motor drive fuzzy speed controller 36654
DC servomotor stochastic logic PI control 44064
fuzzy logic based engine idle-speed controllers 11441
fuzzy logic controller for induction servo syst. 5002
fuzzy precompensated PD controller 19658
gripper force control, piezoelec. actuator-based *(Japanese)* 44253
high-order systs., model ref. adaptive fuzzy control 5245
hybrid wind/diesel power syst. stabilisation, SMES controller design *(Japanese)* 27645
induction machines, nonstd., fuzzy control 44035
induction motor drives, feedback lin. control 36696
induction motor servodrive, control, PI load estimator 20086
induction motor speed control, neural fuzzy controller design 44052
induction motors, doubly-fed, IP control transient stabil. anal. 27740
indust. robot/CNC machine tool digital joint motion controller 11509
motor syst. act. vibr. control by H_∞ control 44259
motors, act. vibr., H_∞ control theory 10942
packet switching networks congestion control 16426
PF preregulators, Sepic/Cuk converter based 19753
PM DC motor control, fuzzy proportional-derivative tech. 19665
PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
power syst. anticipatory fuzzy control, neural net-based 43666
power syst. robust multivariable PI secondary voltage/VAr control 27016
PWM invertor optimal PI current control, neural net-based 19734
PWM VSI, current regulation techs. review 44178
series reson. DC/DC power converter, IP regulator-based control 44221
servo induction motor adaptive speed control 19625
sync. DC motors, nonlin. control 27754
sync. motor, nonlin. digital controls comparison 27697
three-phase regenerative power convertor design project 5119
transient stabil. assess., excitation control considerations 26941
travelling wave US servo motor, speed tracking control 19676

two wave mixing (optical) *see multiwave mixing*

TWT *see travelling wave tubes*

TWTA *see travelling wave amplifiers*

Tyndallometry *see turbidimetry*

type fonts *see character sets*

type I superconductors
neutron spin-flipper, supercond. 18280
Nb-Al-AlO$_x$-Nb tunnel jn. photon detectors, TEM/AFM anal. 39287
Pb-InSb-Pb weak-links, Andreev-refl. 14281

type II superconductors
see also composite superconductors; high-temperature superconductors; magnetic superconductors; mixed state; organic superconductors
planar supercond. waveguides in DC mag. field 37937
Nb coated 1.5 GHz accelerating cavities, supercond. props. 4049
Nb supercond. film, supercond. wire contact, soldering prep. 30763
Nb supercond. microstrip resonators, nonlin. microwave props. 39270
Nb tunnel jns., AC Josephson effect above gap freq. 14300
Nb underdamped discrete supercond. vortex flow devices, Eck peak 7241
Nb/Al-AlO$_x$/Nb Josephson tunnel jns., vert. stacked 1606
Nb/AlO$_x$/Nb Josephson jn. tech., high-speed single flux quantum cct. 21249
Nb/AlO$_x$/Nb tuned SIS jn. 850 GHz waveguide receiver on Si$_3$N$_4$ membranes 29569
Nb-Al-AlO$_x$-Nb tunnel jn. photon detectors, TEM/AFM anal. 39287
Nb-NbN SNS QW devices, quasiparticle characts., noise 39285
Nb-Ti multifilamentary wires, artificial Nb pins, high field AC supercond. magnet 30804
NbC$_x$N$_{1-x}$ supercond. thin films, reactive sputter deposition *(Japanese)* 397
Nb$_3$Sn Rf cavities for charactn. of supercond. materials 1586
Nb$_3$Sn films, RF sputter deposition, pulsed magnet appls. 1592
NbTi multi-filamentary wire, crit. current dens. meas. 17746
NbTiN supercond., surface resist. meas. method, dielec. resonator struct. 39237
NbVN film, high energy particle detect. 4153

UART *see computer interfaces; data communication equipment*

ubitrons *see microwave tubes*

UHF amplifiers
see also microwave amplifiers; UHF power amplifiers; VHF amplifiers
1.9 GHz-band RF IC chip-set for pers. commun. 863
900 MHz transmitter syst., highly integrated ASIC 9353
klystron amplifier, relativistic, at high power 21817
L-band relativistic klystron amp., high current, three cavity 29779
multigigawatt microwave amplifier, electron beam powered, research 21818
multistage microwave two-port networks, IMD anal. *(Korean)* 12738
relativistic klystron, high-current L-band, output power 13002
transimpedance amps. with cascode struct., anal., MMIC amp. appl. 12807
TV amps. tuning, robot fingers, fuzzy logic 37654
wideband RF power amp. input matching network param. optim. *(Croatian)* 548
AlGaAs/GaAs directly connected HBT UHF MMIC amp., high gain, portable cellular appl. 6326
GaAs L-band ultralow power LNA for mobile commun. 42234
GaAs MMIC LNA for wireless commun., ultralow noise 42235
GaAs MMIC downconvertor for portable commun. 42233
GaAs MMIC process technol., SrTiO$_3$ film capacitors 38030
GaAs image rejecting downconvertor, single chip, 2.44 GHz 42161
Si MMIC broadband amps., Siemens devices for mobile radio 852
Si RF MMICs, LNAs and downconvertor for 1 V pager appls. 851
Si-bipolar front-end IC for 900 MHz homodyne wireless receivers, 3 V, 28 mW 21567

UHF bipolar transistors
see also microwave bipolar transistors
bump heat sink technol. for power HBT and MMIC 38829
low noise 150 V self-aligned double diffused lateral p-n-p transistor 30262
AlGaAs/GaAs HBTs, collector launcher struct., 1 W, 3.5 V 21535
AlGaAs-GaAs power HBTs, thermal stabil. tech. *(Japanese)* 38003
Si BJTs, UHF const. output power contour predict. 38000
SiGe HBT technol. appls. in radio digital commun. 38999

UHF circuits
see also microwave circuits; UHF amplifiers; UHF filters; UHF frequency convertors; UHF integrated circuits; UHF mixers; UHF oscillators; UHF phase shifters; VHF circuits
FM transmitter, 900 MHz, 80 channel design 9181
GPS mixed-sig. receiver, MCM-L packaging 25610
low noise space borne freq. multipliers 29426
multistage microwave two-port networks, IMD anal. *(Korean)* 12738
receiver archit., high-sensitivity/low power consumption 17000
reson. meas. in capacitors 29613
UHF-SHF marker generator 33764

UHF couplers
GIS equipt., UHF tech. of PD detect. using simulator, calib. 36478
ring hybrid, miniaturized 3-dB design 12710
SF$_6$, leader discharges, UHF detect. 36479

UHF detectors
see also microwave detectors
land surface radiometry, UHF synthetic aperture radiometer 10452
RF field imaging, scanning SQUID microscope 34668
SF$_6$, leader discharges, UHF detect. 36479

UHF devices
see also microwave devices; UHF amplifiers; UHF circuits; UHF couplers; UHF detectors; UHF filters; UHF frequency convertors; UHF mixers; UHF oscillators; UHF phase shifters; UHF tubes; VHF devices
400 MHz band data transm. radio equipt., RF module *(Japanese)* 9701
Anritsu Corporation EMI pers. measuring systs. 23726
dielec. disk resonator, azimuthal waves interfer. and interact. 12705
low temp. cofired ceramics, pass. elements, RF-design 28463
Mitsubishi Electric base-station antenna systs. *(Japanese)* 33893
semicond. jn. igniter in 2.75 folding fin aircraft rocket, RF charact. 35398
ultra-broadband high perform. RF choke for commun. appls. 37996
Ni-Zn ferrite/rubber composite microwave absorber, additives effect *(Korean)* 20991

UHF field effect transistors
see also microwave field effect transistors
phase and baseband 1/f noise correl. study 833
portable radio, UHF power transistors, MOSFET IC-technol. 1408
pseudomorphic power HEMT, 2 V, cellular phone appl. 21551
SOI power MOSFET, RF amp., num. simul. 38871
T-shaped gate fab., double-layer resist 13492
GaAs FETs, IMD minimisation tech. 22484
GaAs MESFET, high V$_{BD}$, planar gate, power MMIC 38922
GaAs MESFET switch IC for handy phone 38024
GaAs power multichip IC for cellular radio 42236
GaAs pseudomorphic HEMT, high power, large periphery 37993
Si MOSFET with internal matching cct., 1.5 GHz, 35 W 29562
p-SiGe MODFET with high transcond., fab. and perform. 38002

UHF filters
see also microwave filters; VHF filters
act. resonators, integrat. for UHF wireless appls. 12826
coplanar MMIC act. bandpass filters, neg. resist. ccts. 12819
$\lambda_{g0}/4$ CPW-based bandpass filters, spurious response suppression 12721
mixed modes dielec. resonator loaded cavity filters 12733
MLC dielec. stripline planar filter for portable telephones 805
MMIC narrow-band filter, ultrahigh-Q tunable act. inductors 12822
monolithic UHF/VHF filters on two-layer dielec. bar 37835
SAW filters for high-power in cellular radio portable phones 718
SAW filters for mobile telephone appl. 37836
semicond. jn. igniter in 2.75 folding fin aircraft rocket, RF charact. 35398
single-block ceramic microwave bandpass filters 820
Fe-polymer composite absorber chip for RF EMI filtering 37834

UHF frequency convertors
see also microwave frequency convertors
1-GHz highly lin. CMOS downconversion mixer 29594
low-power technol. for GaAs front-end ICs and hybrid ICs, mobile commun. 38041
punch-through varactor diode freq. multipliers, design 782
GaAs MMIC downconvertor for portable commun. 42233
GaAs image rejecting downconvertor, single chip, 2.44 GHz 42161
Si RF MMICs, LNAs and downconvertor for 1 V pager appls. 851

UHF generation
see also microwave generation; UHF oscillators
cusptron amplifier, helix-loaded, broadband microwave source 21831
L-band relativistic klystron amp., high current, three cavity 29779
magnicon 2.4 MW CW, modeling and anal. 21823
Reltron/Super-Reltron high power microwave source develop. 29788
two-cavity klystron, microwave generation 21821

UHF integrated circuits
see also microwave integrated circuits
1.9 GHz-band RF IC chip-set for pers. commun. 863
1-GHz highly lin. CMOS downconversion mixer 29594
900 MHz GSM integrated power amp. control cct. 33936
900 MHz transmitter syst., highly integrated ASIC 9353
act. resonators, integrat. for UHF wireless appls. 12826
ASIC design, CAD syst., error-checking 37590
bipolar LC VCO, 1.6 GHz, on-chip inductor/varactor 21568
bump heat sink technol. for power HBT and MMIC 38829
CDMA digital receiver for space appl. 9414
CMOS/PLL LV synthesizer, SIMOX technol. *(Japanese)* 21152
coplanar MMIC act. bandpass filters, neg. resist. ccts. 12819
FH-SS transceiver, 900 MHz, low-power CMOS chip 33745
handy phone UHF high power amp. module 42255
lin. power amp. for cellular telephone, envelope feedback method 12342
low-power 900-MHz mobile RF synthesizer, CMOS chip 33861
low-power technol. for GaAs front-end ICs and hybrid ICs, mobile commun. 38041
mixed technology RF ICs for UHF portable commun., projected develop. 21579
multilevel monolithic inductors in Si BiCMOS technol. 21572
multistage FET amp., harmonic terminating design tech. 12796

UHF integrated circuits continued
phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
portable radio, UHF power transistors, MOSFET IC-technol. 1408
AlGaAs/GaAs directly connected HBT UHF MMIC amp., high gain, portable cellular appl. 6326
GaAs IC for portable commun., needs 42231
GaAs L-band ultralow power LNA for mobile commun. 42234
GaAs MESFET, high V_{BD}, planar gate, power MMIC 38922
GaAs MESFET switch IC for handy phone 38024
GaAs MMIC LNA for wireless commun., ultralow noise 42235
GaAs MMIC downconvertor for portable commun. 42233
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
GaAs MMIC process technol., $SrTiO_3$ film capacitors 38030
GaAs image rejecting downconvertor, single chip, 2.44 GHz 42161
GaAs power MMIC for 1.9 GHz digital cordless phones 12823
GaAs power multichip IC for cellular radio 42236
Si IC technols. for RF/microwave appls. 847
Si MMIC broadband amps., Siemens devices for mobile radio 852
Si RF MMICs, LNAs and downconvertor for 1 V pager appls. 851
Si-bipolar front-end IC for 900 MHz homodyne wireless receivers, 3 V, 28 mW 21567
SiGe HBT technol. appls. in radio digital commun. 38999
SiGe HBT technol. for wireless and mixed-sig. appls. 22562

UHF measurement
see also microwave measurement
1.8 GHz mobile radio channels, wideband characterisation 9315
1.8 GHz mobile radio propag. meas. in mountainous areas 33784
1.8 GHz personal commun. radio channel polaris. dyn. charactn. 33788
1.9 and 4 GHz exterior wall refl. coeff. meas. 31820
2.45 GHz microwave irrad. to monkey's eyes, expt. 26494
900 and 1800 MHz microcell radiowave propag. comparison 31826
946 MHz office-complex mobile radio channel meas. and modelling 33790
1800 MHz radio propag., time dispersion meas. syst. 9319
Anritsu Corporation EMI pers. measuring systs. 23726
bal. probe, coaxial type for 1-500 MHz CRO meas. 3925
dielec. materials props. determ., coaxial cavity syst. 18029
gasket shielding perform. meas., test techs. 15499
GIS equipt., UHF tech. of PD detect. using simulator, calib. 36478
glass, high perform. heat-reflective, TV wave reflecting characts. 23742
GSM coverage estim., 900 MHz multipath meas. 9320
land surface radiometry, UHF synthetic aperture radiometer 10452
LEO satellite systs., DLR channel meas. programme 25400
office building, propag. charact. meas./freq. reuse 9322
permeab. meas. in GHz range for soft-mag. film 25956
plates, permitt./tan δ meas., dielec. loaded cavity resonator in UHF band *(Japanese)* 25951
spectrum analyser for distortion meas. 42919
wide band indoor channel sounder, high delay resoln. 9178
SF_6, leader discharges, UHF detect. 36479

UHF mixers
see also microwave mixers
1.9 GHz-band RF IC chip-set for pers. commun. 863
1-GHz highly lin. CMOS downconversion mixer 29594
GaAs MMIC downconvertor for portable commun. 42233
GaAs image rejecting downconvertor, single chip, 2.44 GHz 42161
Si-bipolar front-end IC for 900 MHz homodyne wireless receivers, 3 V, 28 mW 21567

UHF oscillators
see also microwave oscillators; VHF oscillators
622 MHz voltage controlled SAW oscillator *(Japanese)* 37670
900 MHz transmitter syst., highly integrated ASIC 9353
act. resonators, integrat. for UHF wireless appls. 12826
bipolar LC VCO, 1.6 GHz, on-chip inductor/varactor 21568
ceramic DRO aging 29575
common-collector bipolar transistor based oscillator design 830
LO for commun. satellite transponder, 2.8 GHz *(Korean)* 12763
magnetron oscillator, dyn. flucts. of freq. 978
phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
series reson. oscillator design tech. for VHF/UHF ccts. 21136
spark-switched L-C oscillators develop. 34225
synthesised LO for DB1NV spectrum analyser 34425
VCO, low phase noise, analog cellular portable radio appl. 12356
GaAs IC for portable commun., needs 42231
GaAs image rejecting downconvertor, single chip, 2.44 GHz 42161

UHF phase shifters
see also microwave phase shifters
2 to 10GHz multilayer stripline Butler matrix beamforming network 23993
microstrip components for mobile commun. systs., evol. 33836

UHF power amplifiers
see also microwave power amplifiers
1.9 GHz-band RF IC chip-set for pers. commun. 863
900 MHz GSM integrated power amp. control cct. 33936
bump heat sink technol. for power HBT and MMIC 38829
class E amps., parasitic nonlin. capacitors 12347
cusptron amplifier, helix-loaded, broadband microwave source 21831
handportable mobile satellite stations, power amp. design 37656
handy phone UHF high power amp. module 42255
high current klystron amp., 500 MW, 1 μs pulse length 6482
Lange coupler power-distributed amp., high-perform. design 12814
lin. power amp. for cellular telephone, envelope feedback method 12342
magnicon 2.4 MW CW, modeling and anal. 21823
Mitsubishi MD004H hybrid antenna switch for 23 cm band 32003
multistage FET amp., harmonic terminating design tech. 12796
relativistic klystron amp., beam-gap interacts., simul. 29786
SOI power MOSFET, RF amp., num. simul. 38871
uniform-field magnicon archit. for high-perveance beams 6484
vircator with long. mag. field, EM waves amplif. 38218
GaAs FET power amp. for digital cellular portable telephones, phase charact. 3358
GaAs IC for portable commun., needs 42231
GaAs MESFET lin. power amp., digital mobile commun. appls., 1.9 GHz, 2.7 V supply 42298
GaAs MMIC power amp. and T/R switch, pers. commun. 42232
Si BJTs, UHF const. output power contour predict. 38000
Si power MOSFET, UHF-band RF power amp. appl. 837

UHF propagation *see UHF radio propagation*

UHF radio propagation
1.5 GHz land mobile satellite commun., propag. characts. 9265
1.8 GHz mobile radio channels, wideband characterisation 9315

UHF radio propagation continued
1.8 GHz mobile radio propag. meas. in mountainous areas 33784
1.8 GHz personal commun. radio channel polaris. dyn. charactn. 33788
1.8 GHz ray optics modelling for indoor propag. 7977
1.9 and 4 GHz exterior wall refl. coeff. meas. 31820
1.9 GHz band indoor radio propag. meas. and empirical models 33786
2.3 GHz TV broadcasting, mobile live reporting *(German)* 34222
2.4 GHz low power data commun. syst., develop. *(Japanese)* 42179
2.4/2.6 GHz transm. and refl. props. of interior walls 31828
2 GHz radio propag. for local loop appls. 33844
864 to 868 MHz portable telephone indoor propag. loss anal. 33776
880 and 1922 MHz radiowave building penetration obs. 31821
900 and 1800 MHz microcell radiowave propag. comparison 31826
900 MHz buildings penetration loss 31841
900 MHz complex impulse responses and topographical map data 9323
900 MHz propag. modelling, scaled road tunnel microwave meas. 33789
905 MHz radio propag. in an office, metal low-partitions effect 31830
915 and 1900 MHz domestic RF channel charactn. 31822
946 MHz office-complex mobile radio channel meas. and modelling 33790
1800 MHz radio propag., time dispersion meas. syst. 9319
1890 MHz delay spread meas. in Melbourne 3407
atten./phase rot./cross-polariz., rain 23629
building walls, UHF refl./scatt. meas. 15426
CDMA PCS syst. perform., simul. results 3384
CDMA syst., field tests 3381
cellular radio propag. models using ray theory and GTD 31827
cellular syst. RF prediction tools and terrain database selection 33813
diffr. propag., telecomm. appl. *(Chinese)* 33767
DOA inside/outside buildings 9312
ETS-V mobile commun. for ships/aircraft/land vehicles 42262
freq. hopping simulator for multipath mobile channels *(French)* 3361
Future Public Land Mobile Telecommunication Systems 25424
GSM900/DCS1800 systs., adaptive antenna arrays 3480
GSM coverage estim., 900 MHz multipath meas. 9320
GSM/DCS1800 syst., base station, diversity reception 3497
GTD based UHF propag. prediction model 15447
hospital building, 2.3 GHz radiotelemetry channel, fading characts. 43413
indoor 900 MHz-18 GHz penetration loss 9310
indoor radio propag. prediction approach 9309
ionos. scintillation, radio interferometric meas. 23623
L-band multipath fading for land mobile satellite 25299
LEO satellite systs., DLR channel meas. programme 25400
LF model for wedge, pyramid absorber arrays 7994
LF model for wedge or pyramid absorber arrays, meas. results 7995
lightning radar echoes, investig. 3603
macrocellular PCS propag. channels, 1850-1990 MHz band 31836
microcell size and archit. anal. 3421
microcells, 912/1920/5990 MHz radio propag., buildings 31829
microcellular commun. in corridor complex, model/path loss meas. 2232
microcellular meas. and their prediction 17143
microcellular propag. for PCN networks, review 31837
microcellular urban propag. characts. 9339
mixed urban/suburban propag. meas. for PCS in OFS band 9266
mobile-satellite propag. channel wide band charactn. 9264
multibeam diffractive propag. 2226
multipath fading countermeasures, India 7967
num. terrain model, propag. loss, uniform theory of diffr. 15435
obstructed rural radio path at 462 MHz, seasonal propag. effects 40360
PCN, teletraffic perform. of GSM900/DCS1800 in street microcells 42261
pers. commun., CW meas. in residential environ. 31831
pers. commun. systs., propag. channel model 3415
pico-cellular syst. for indoor radio, assess./propag. study 25348
PO and terrain diffr. 7963
radio channel stat. charact., expt. eval. *(Italian)* 9688
rural area terrain-based UHF/VHF propag. model 23630
SHF/UHF indoor radiowave propag. meas. 7976
small cells/microcells, radio wave penetration, urban buildings 9260
TDMA low-power wireless access syst., coverage/handoff tests 25412
time-variant multipath channel, simul. 33847
urban microcellular environ., time dispersion meas. 3408
VLBI obs. correction for ionos. refr. 9686
wide band indoor channel sounder, high delay resoln. 9178
wideband microcellular environ., multipath propag. 3409
wireless LAN, 10 Mbits/s Ethernet data frames, DPSK 16711

UHF range *see UHF devices*

UHF tubes
see also microwave tubes
helical electron beams in gyrotron type, space charge oscillns. 12996
high current klystron amp., 500 MW, 1 μs pulse length 6482
klystron amplifier, relativistic, at high power 21817
L-band relativistic klystron amp., high current, three cavity 29779
magnicon 2.4 MW CW, modeling and anal. 21823
multigigawatt microwave amplifier, electron beam powered, research 21818
relativistic klystron, high-current L-band, output power 13002
relativistic klystron amp., beam-gap interacts., simul. 29786
Reltron/Super-Reltron high power microwave source develop. 29788
two-cavity klystron, microwave generation 21821

UIMS *see user interface management systems*

ULA *see logic arrays*

ULSI
0.1 μm CMOS technol., tilt-implanted punchthrough stopper 13895
batt.-operated ultra-high data rate ULSIs, low power bus archit. 37812
BiCMOS ULSI video sig. proc. for single chip teleconferencing syst. 34432
CMOS device isolation for ULSI age 22600
CMOS FET oxide reliab., plasma-induced gate oxide degrad. 20490
CMOS ULSI IC design, high perform. metallization issues 38642
deep UV phase shifted-single layer halftone reticles, 256 Mbit DRAM cell patterns 13556
electromigration-induced integrat. limits, model 38976
electron beam lithog., cell projection, proximity effect correction 22286
electron-beam cell projection lithog., accuracy and throughput 13449
future technol./economic prospects 38965
gigascale integrat., future opportunities 38964
high-speed p-n-p technol. for low-power complementary bipolar ULSIs 39000
in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
integrated memory array proc., image proc. appl. *(Japanese)* 29210
interlayer dielec. film planarization, silica slurry CMP 38962

ULSI continued
  ion implantation, advanced SPC methods 38496
  low power microelectronics, develop. and prospects 38971
  low-power CMOS ULSI cct. techs., overview 39009
  mask defect inspection, database comparison 22302
  metallic contamination in ULSI, opt. monitoring techs. 29991
  multi-level interconnect technol. for VLSI/ULSI, materials, thermal alternatives 13423
  nanostructure patterning in X-ray mask making 13571
  novolak resin, chem. amplif. neg. resist systs., nanometer-scale imaging charact. 13518
  opt. interconnection network scaling 1832
  phase-shifting lithog., duty ratio of line and space, DRAM chips 30161
  photolithography, 0.13 μm pattern delineation using KrF excimer laser light, ULSI fab. 13555
  radiation hardened ULSI technol. and 1M SRAM design 30478
  scaling and reliab. 13900
  scanning capacitance microscope, stage driving, design/appls. *(Korean)* 22529
  self-planarizing CVD oxide for interlayer dielec. appls. 22262
  silicide thin film form. by RTP, ULSI appls., overview 22275
  soft X-ray projection lithog., resist perform., 5 nm 13570
  SOI MOSFETs, submicron, self-heating effects 22470
  static charge removal, IPA soln. 1236
  stress-voiding/electromigration in multilevel interconnect metallizations 38986
  submicrometer feature etched IC fab. proc. control, UV-vis. ellipsometry 30078
  super resoln. tech. for next-generation ULSI 13558
  superthin ONO stacked dielec. high-dens. memory devices 1503
  systolic parallel Booth multiplier, area/time efficient 6135
  thin-film DRAMs, electrode-dielec. interface 29227
  Al film planarization for ULSI metallisation, mol. beam deposition/annealing 22267
  Al plug technol. for sub-0.5 μm contact/via geometries 22260
  Al-Cu, simultaneous doping/CVD, interconnection form. 6831
  Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
  Cu CVD thin films, direct liq. coinjection, ULSI device metallisation appls. 30133
  Cu electroless deposition on metals/metal silicides, ULSI interconnects 28790
  Cu metallization technol. for deep submicron ULSIs 30140
  Cu planarized copper multilevel ULSI interconnections, damascene proc. 30139
  Cu-Cr bilayer metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
  Cu-Ti bilayer metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
  Cu-based metallization, ULSI struct., IC interconnects 30136
  CuCr alloy film metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
  CuTi alloy film metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
  H annealed wafer, ULSI substr. 22091
  PLZT ferroelec. thin film capacitors, DRAMs, polariz. loss, elec. stress params. 37752
  PLZT thin film capacitors, CMOS ULSI DRAM appls., post proc. damage 21310
  Si SEG, indust. integrated cluster tool 20847
  Si ULSI device fab., wafer specs./design rules trends 38982
  Si technol., future trends 13272
  Si:B MOS ULSI, MOSFET B diffusion model incorporating disloc. loop growth 22610
  Si:B, ULSI high conc. diffusion modelling, dyn. clustering, init. conditions 38520
  Si:Fe, LEC grown, Fe contamination influence on LSI-yield related cryst. quality 29828
  SiN$_x$ films, X-ray lithog. mask membrane, plasma chem. vap. deposition 13568
  SiO$_2$, scaled, polarity depend. of dielec. breakdown in MOS ULSI capacitors 22608
  TiCN, CVD contact barrier metallization for submicron devices 1297
  TiN rapid thermal CVD for diffusion barrier appl. 20970
  TiN/TiSi$_2$ bilayer form. by rapid thermal anneal at ULSI submicron contact, elec. props. *(Korean)* 30160
  TiN/TiSi$_2$ form., TiN$_x$ layer, ULSI technol. 38684
  TiSi$_2$ selective CVD, indust. integrated cluster tool 20847
  TiSi$_2$(NiSi)-polysilicon salicided films, resist. behavior, CMOS ULSI 6665
  W X-ray mask membranes, uniform-stress, He-backside temp. homogenization 13541
  W film on Si, self-limiting growth by WF$_6$ reduction, doping atom effect 38636
  ZnO-Al$_2$O$_3$-B$_2$O$_3$-SiO$_2$-PbO glasses, crystallizable, opt., polarizable and MOS props. 12213
  ZnO-B$_2$O$_3$-Al$_2$O$_3$-SiO$_2$-P$_2$O$_5$ glasses, crystallizable, opt., polarizable and MOS props. 12213
  multilevel interconnects, proc. integrat./manufacturability 38641
ultimate tensile strength *see tensile strength*
ultra-high-frequency amplifiers *see UHF amplifiers*
ultra-high-frequency devices *see UHF devices*
ultra-high-frequency tubes *see UHF tubes*
ultra-large scale integration *see ULSI*
ultracentrifuges *see centrifuges*
ultrafast optical techniques *see high-speed optical techniques*
ultrafiltration *see filtration*
ultrashort light pulse techniques *see high-speed optical techniques*
ultrasonic absorption
  steel, US atten., grain size, EM acoustic reson. *(Japanese)* 448
  PbHPO$_4$, dielec./acoustic props. near ferroelec. phase transit. 30562
ultrasonic applications
  see also biomedical ultrasonics; ultrasonic cleaning; ultrasonic machining; ultrasonic materials testing; ultrasonic welding
  3D position estimation, robot control model 25880
  acoustic birefr. in particle dispersions, time-resolved meas. 31022
  airborne US rangefinders, adaptive target tracking algms. 42533
  all-weather/terrain intell. vehicle for law enforcement 34586
  aq. US cleaning in electronics 931
  bonding state obs. in clad contact, US microscope 6386
  bulk produce conveyors, drop dists., manual/electronic control 3803
  contactless measurement with micromembranes 26289
  document inform., projective display by parametric sound beam 43372
  elastic consts. meas., automated US device 4031
ultrasonic applications continued
  fast-reponse ultrasonic distance sensors, neural nets appl. 26800
  fluid density meas. by US techniques 25982
  IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
  liq. dens. meas., ultrasound 18117
  oblique grating, US control of geometric params. 26801
  ocean cavitation nuclei & biol., meas. equipt. 18893
  ocean current meas., acoustic current profilers 10502
  ocean current vert. profiling, lowered acoustic instrum. 10516
  ocean currents, towed ADCP, ENDECO CPV-FIN towed body tests 10501
  opt. US sens., indust. surfaces monitoring appl. 18944
  proximity sens. syst. for spatial sens. and colour perception 42776
  Pulse Shooter solid-state conformal coating proc., PCB mask elimination 38139
  reactor deformed components profiling, ultrasonic pulse echo ranging 27416
  self-tracking US inspection syst. 34395
  space hardware, microbial contamination, anal. and protection 4353
  underwater obj. recogn. tech. 10530
  virtual reality, transputer based US tracking syst. 18947
  GaAs devices, reliable thermosonic wire bond, IR-microscopy 12959
  a-SiH, film, US assisted PECVD, in situ opt. diagnostics 28832
  Y-based HTSC, relax. US proc., mech. stabil. 39242
ultrasonic arrays
  see also ultrasonic transducer arrays
  IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
ultrasonic attenuation *see ultrasonic absorption*
ultrasonic cleaning
  PCB manufacture, induced damage/fatigue reduction 38092
  semicond. wafers, US cleaning tank improvement *(Japanese)* 13326
  Teflon film high-speed through-hole drilling, vis. laser *(Japanese)* 20420
ultrasonic devices
  see also ultrasonic motors; ultrasonic transducers
  atomizing device, coupled-mode vibr. 4428
  dual freq. US probe for med. appls. 35007
  electroacoustic deflector, ferroelec. ceramics 26784
  harsh mortar compaction, US vibr. *(Japanese)* 4416
  underwater robot vehicles, 3D US localisation syst. 26785
  LiNbO$_3$ US superlattice, space-time modulation of X-ray beam 14089
ultrasonic diffraction
  insertion mode estim. of US group vel., diffr. effects 34735
ultrasonic dispersion
  plate wave velocities, field decay, acousto-US sigs. 10583
  LiNbO$_3$(LiTaO$_3$) SAW devices, electrode periodic syst., Green's fn. anal. 30631
ultrasonic effects
  beam levitator/positioner, acoustic radiation forces 43552
  crysts. deform. obs., quartz piezoelec. transducer 35376
  digital light modulator based on coupled acoustooptical states 39508
  Dornier HM3 extracorporeal shock wave lithotripter, modelling 4296
  injection laser, acoustic matching, acoustic line 39885
  oblique grating, US control of geometric params. 26801
  Si, porous, stain etch thin films, surface struct., sonication effects 6638
ultrasonic equipment
  see also ultrasonic arrays; ultrasonic devices
  beam levitator/positioner, acoustic radiation forces 43552
  med. diagnostic syst., SDU-400, develop. *(Japanese)* 18535
  med. scanners QC, simple uniformity/penetration phantoms 43237
ultrasonic focusing
  noncontacting opt. generation of focused SAWs, customised zoneplate 22682
  turbid media imaging by CW US modulation of scatt. laser light 43254
ultrasonic holography *see acoustic holography*
ultrasonic imaging
  for biomedical ultrasonic imaging, use "biomedical ultrasonics"
  see also biomedical ultrasonics
  ASICs, ultrasound imaging, multi-element array transducer 6245
  B-mode US imaging, stat. charact. of speckle 26293
  biomedical US probe lens materials, acoustic props. 26353
  blind deconvolution 35000
  composite materials, defects/damage, 3D US imaging 5924
  fibre reinforced plastics, automatic eval. of US images *(German)* 12248
  fuel ID nos., automatic recogn., high speed imaging, US probes *(Japanese)* 4772
  med. ultrasound imaging, vivo pulse estim. 10194
  med. US imaging, elevational spatial compounding 10193
  NDT, adaptive imaging algms. 26799
  noncontacting opt. generation of focused SAWs, customised zoneplate 22682
  obj. recogn./localization, US scanning 18955
  ocean electronics, conf., Cochin, India (1991) 11591
  ocean electronics, conf., Cochin, India (1993) 11590
  piezoelec. array transducer elements, 2D model 35366
  real time US vol. imaging, 2D random arrays 10191
  underwater obj. recogn. tech., US 3D camera 10530
  Si$_3$N$_4$ ceramic, firing, US imaging 28914
  ZnO thin film US transducer array, 100-MHz, fab., integrated devices, NDT appls. 35367
ultrasonic machining
  conference, materials processing, Singapore (1994) 20244
  crysts. deform. obs., quartz piezoelec. transducer 35376
  opens defects repair in MCM, diffusion bonding 21729
ultrasonic materials testing
  acousto-US NDE, wave mech. 5920
  adhered struct., US NDT, reverberation cancellation, z-transform tech. 28901
  adhesive bond, acousto-US eval., pattern recogn. anal. 5921
  adhesive fillet size NDE 12245
  air-coupled US and NDE, micromachined capacitance transducers 18931
  automated US inspection, sig. discretization 18950
  CANDU reactors, flaws US NDE, sparse spike time series 8415
  capacitance transducer, std. US source in solids 35372
  colloquium, NDT data collection/interpret., London, UK (1994) 5507
  composite materials, defects/damage, 3D US imaging 5924
  composite plates, delaminations, Lamb wave eval. 28915
  contact surface roughness, US thickness gauge readings 18092
  cylindrical testpieces, transducer acoustic channel, theoretical study 18949
  cylindrical testpieces, US inspection, amplit.-dist.-diam. diags. 12228
  defects, ultrasound scatt. 28906
  diamond thin film, adhesive strength, US NDE 28913
  differential fibre-optic sens. of laser-generated ultrasound 34518

ultrasonic materials testing continued
echo sigs., time delay, averaging method 35377
elec. machine insulation, acoustic diagnostic tech. 14003
elec. machine insulation, acoustic diagnostic tech., comment and reply 14004
EM acoustic transducers, bulk wave, tuning, lift-off 10585
embedded fiber-optic acoustic sens. for NDE 34540
error criteria anal. and robust data fusion 40913
fabricated parts, US test equipt. 5925
fiber-reinforced composite struct., form-fn. anal. 5931
fibre reinforced plastics, automatic eval. of US images *(German)* 12248
glass fibre-reinforced epoxy resin composites, US eval. 28908
head waves in piezoelec. half space, model 18945
high loss materials, US NDE of pseudo random binary seq. techs. 28900
HV ceramic capacitors, mech. flaws, nondestructive detect. 29609
IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
imperfectly bonded fibers, leaky guided wave propag. 12240
inclined transducer, directivity, contact region dimens. influence 21004
insulation, defects/degrad., US NDT 6916
insulation condition monitoring, acoustic/US techs. 18948
laser-generated US elastic waves, rem. NDE, neural net *(Japanese)* 21008
metal power-generating equipt., discontinuities orient., acoustic inspection 12235
metal specimens, US toneburst inspections, backscattered microstructural noise 12239
NDT, adaptive imaging algms. 26799
NDT, pulse Lamb wave induced transverse/long. waves 452
NDT syst. automatic class. algm. 28905
noncontacting opt. generation of focused SAWs, customised zoneplate 22682
nonmetals, laser generated Lamb waves, capacitance transducers detect. 10586
nuc. power station in-service inspection methods 19414
nuc. reactor vessel component profiling, US 43854
Palisades PWR, fuel inspection-fuel shuffle integrat. 27448
PHWRs in India, solns., channel problems 27394
piezoelec. ceramic-polymer composites, HF appls. 6921
piezoelec. polymer transducers, indust. appls. 34453
plate wave velocities, field decay, acousto-US sigs. 10583
plates, Lamb waves, mode propag., laser-based techs. 10582
polymer composites, NDT techs. *(German)* 5918
pulsed piezoelec. disk with damper, directivity patterns calc. 35373
PWR, automated US inspections, data collection/interp. software 35374
quantitative NDE, annual review, Brunswick, ME, USA (Aug. 1993) 46
self-tracking US inspection syst. 34395
simple modeling of US testing 4423
solids, through-thickness charactn. by wideband air-coupled ultrasound 26798
steel, stainless, US NDT random phase transducer 18954
steel, US atten., grain size, EM acoustic reson. *(Japanese)* 448
stone block, Rayleigh-wave surface flaw detect. 12229
strip-like crack, US scatt. expts., syst. model 18952
subsurface struct., SAW determ. 5936
thermoset hardening, elec. impedance meas., piezoelec. sens. 5929
turbogenerator rotor bore, automated US inspection syst. 19599
US NDT of adherent area, metal/nonmetal surfaces 453
C fibre composites, delamination cracks, SAM image anal. 20999
C fibre reinforced epoxy, degrad., acousto-US class. 5922
Cu, molten, US vel., temp./impurity depend. 5930
Fe, cast ductile, US detectable flaw size 5938
Fe, cast, microstruct. changes, US detect. 37554
Si_3N_4 ceramic, firing, US imaging 28914
Si_3N_4, react. bonding, US monitoring sig. proc. 18953
ZnO thin film US transducer array, 100-MHz, fab., integrated devices, NDT appls. 35367

ultrasonic measurement
see also ultrasonic velocity measurement
bonding state obs. in clad contact, US microscope 6386
calorimeter for US total power meas. 10072
fiber optic planar US microphone 18938
HF range M-seq. meas., interleaved sampling method 26017
intell. flowmeter, hydroelec. power appls. 10876
large-area US gap profile meas., 2D PVDF blanket array transducers 18946
large-volume position and orientation tracking 18104
multifrequency AM-based US syst. for dist. meas. 17473
ocean current meas., acoustic current profilers 10502
ocean currents by acoustic doppler method, freq. domain 10503
robot 3D posn./orient. meas., US ranging *(Japanese)* 42942
ship's draught US meter principle *(Croatian)* 4425
solid surface US pulse opt. detect., confocal Fabry-Perot interferometer *(Chinese)* 10075
turbid media imaging by CW US modulation of scatt. laser light 43254
underwater displacement meas., acoustic reson. freq. 42922

ultrasonic microscopes *see acoustic microscopes*

ultrasonic microscopy *see acoustic microscopy*

ultrasonic motors
actuated valve, direct drive fuzzy motion control 5284
adaptive speed control by phase control *(Japanese)* 11077
dyn. contact charact., perform., rotor/stator interface 27770
elastic force motors, speed control of integrated piezoelec. sens. 36206
hybrid transducer-type US motor, speed control expts. *(Japanese)* 11082
IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
multi DOF spherical US motor 39092
piezoelec. US motors 30596
ring-type piezoelec. ceramic US motor characts. *(Korean)* 27766
rotary US motor model, perform. prediction, distributed piezoceramics 36198
small US motor, operating principles, prototype 27768
travelling wave US servo motor, speed tracking control 19676
travelling-wave US servomotor, speed tracking control 4999
TW type US motor, design 36199
TW US motor, adaptive speed control 11089
TW US motor actuated servo drive, fuzzy control 11091
Si rect. plate, quasi-TW, US motors, single phase drive 19674

ultrasonic propagation
see also ultrasonic diffraction; ultrasonic dispersion; ultrasonic reflection; ultrasonic relaxation; ultrasonic scattering; ultrasonic transmission
acousto-US NDE, wave mech. 5920
liq. dens. meas., ultrasound 18117
num. simul. and visualization of ultrasounds propag. in carotidean region 4273

ultrasonic propagation continued
plates, Lamb waves, mode propag., laser-based techs. 10582
underwater sound, high-freq. propag. modelling 17480

ultrasonic radiation *see ultrasonic waves*

ultrasonic reflection
liq. dens. meas., ultrasound 18117
US NDT of adherent area, metal/nonmetal surfaces 453
$Li_2B_4O_7$ natural single phase unidirectional SAW transducer, cryst. orient. 6928

ultrasonic relaxation
Y-based HTSC, relax. US proc., mech. stabil. 39242

ultrasonic scattering
defects, ultrasound scatt. 28906
IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
seafloor acoustic backscatt., sediment struct. effects 10445
steel, stainless, US NDT random phase transducer 18954
syst. model, 2D transducer model 18952

ultrasonic tomography *see acoustic tomography; ultrasonic imaging*

ultrasonic transducer arrays
breast cancer, hyperthermia treatment, dual-freq. US applicator 26470
diagnostic US imaging, 2D blocked element compensation 10192
integrated array, CMOS proc. 10577
large-area US gap profile meas., 2D PVDF blanket array transducers 18946
mobile robot navig., sonar range data segmentation 43561
piezoelec. array transducer elements, 2D model 35366
prog. CMOS pulse generator ASIC, US transducer array driver 29075
proximity sens. syst. for spatial sens. and colour perception 42776
Pulse Shooter solid-state conformal coating proc., PCB mask elimination 38139
real time US vol. imaging, 2D random arrays 10191
robot guidance, US arrays 4421
ZnO thin film US transducer array, 100-MHz, fab., integrated devices, NDT appls. 35367

ultrasonic transducers
see also interdigital transducers; surface acoustic wave transducers; ultrasonic transducer arrays
3D position estimation, robot control model 25880
AE transducers, absol. calib. by reciprocity method *(Japanese)* 18928
air-coupled US and NDE, micromachined capacitance transducers 18931
ASICs, ultrasound imaging, multi-element array transducer 6245
broadband electrostatic transducers 18940
capacitance transducer, std. US source in solids 35372
capacitive US air transducer, uniformly V-grooved backplate 10579
complex torsional angle transformers based on hyperb. secant taper *(Chinese)* 18926
composite vol. acoustic wave resonators, freq. control 39120
cylindrical testpieces, transducer acoustic channel, theoretical study 18949
elastic consts. meas., automated US device 4031
electrolum. coupled opt. fibre chem. sens. 17889
electrostatic US transducer, bandwidth control 10581
electrostatic US transducers with V-grooved backplates, electroacoustic model 18929
EM acoustic transducers, bulk wave, tuning, lift-off 10585
embedded fiber-optic acoustic sens. for NDE 34540
fabricated parts, US test equipt. 5925
fast-reponse ultrasonic distance sensors, neural nets appl. 26800
fiber optic planar US microphone 18938
flat coaxial US transducers, near zone size 26792
full-bridge MOSFET inverter, US transducer power supply appls. 44166
high loss materials, US NDE of pseudo random binary seq. techs. 28900
IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
inclined transducer, directivity, contact region dimens. influence 21004
insertion mode estim. of US group vel., diffr. effects 34735
large scale sewer US flow vel. meas. 42992
long. vibrator and flexural plate, US transduction 26788
magnetostrictive shaker, broadband perform. 30754
med. US transducers, optoelectronic transmitters 35005
mobile robot environ. recogn., US sens., CCD camera 43556
mobile robot obstacle avoidance, error eliminating rapid US firing 35375
mobile robots, tri-aural perception, correspondence problem, max. likelihood algm. 43555
multifrequency AM-based US syst. for dist. meas. 17473
nonmetals, laser generated Lamb waves, capacitance transducers detect. 10586
num. simul. and visualization of ultrasounds propag. in carotidean region 4273
obj. recogn./localization, US scanning 18955
piezocomposite US transducers, transient acoustic fields, opt. imaging 18932
piezoelec. microphone charact. meas. *(Croatian)* 4419
piezoelec. microphone charact. simul. and exam. *(Croatian)* 4418
piezoelec. sandwich US transducers with large cross-sect., design 43558
pulsed piezoelec. disk with damper, directivity patterns calc. 35373
sens. perform. optim., driving sig. optim. 43553
smart US sens., meas. principle 25824
steel, stainless, US NDT random phase transducer 18954
tactile sens. 25820
temp. effects on US sens. 4420
thickness mode quartz transducers, mounting effect on vibr. charact. 35371
two-link collision free robot positioning, microcontroller-based 11226
US NDT of adherent area, metal/nonmetal surfaces 453
PZT:Nb transducers, sound wave vel. and Tawfik percentage 26786
Si membrane resonators realized with bipolar IC technol., US transducer appls. 35369
Si micromachined air-coupled capacitance US transducers, design and charactn. 18930

ultrasonic transmission
robot 3D posn./orient. meas., US ranging *(Japanese)* 42942

ultrasonic velocity
see also ultrasonic dispersion
piezoceramic polymer composite, 2-2 connectivity, dyn. modelling 6900
plate wave velocities, field decay, acousto-US sigs. 10583
Cu, molten, US vel., temp./impurity depend. 5930
$LiTaO_3$, 36°YX, wafer characts. line-focus-beam acoustic microscopy, SH-type devices 14088
Nd^{3+}-doped semicond. glasses, elastic props., lasing transit. 23290
PZT:Nb transducers, sound wave vel. and Tawfik percentage 26786
$PbHPO_4$, dielec./acoustic props. near ferroelec. phase transit. 30562
$PbZr_{0.53}Ti_{0.47}O_3$:Ca transducers, acoustic props. 30633

- **ultrasonic velocity measurement**
  - Doppler US blood vel. meas. syst. beyond Nyquist limit 35006
  - Doppler US sigs., predictive ADC 35004
  - elastic consts. meas., automated US device 4031
  - insertion mode estim. of US group vel., diffr. effects 34735
  - line-focus-beam acoustic microscopy syst., precision mech.-translation stages meas. *(Japanese)* 43551
- **ultrasonic wave propagation** *see ultrasonic propagation*
- **ultrasonic waves**
  - *see also surface acoustic waves; ultrasonic propagation*
  - air-coupled US and NDE, micromachined capacitance transducers 18931
  - gyrotropic planar opt. waveguides, Bragg diffr. of light by ultrasound 1707
  - head waves in piezoelec. half space, model 18945
  - laser-generated US elastic waves, rem. NDE, neural net *(Japanese)* 21008
  - Si rect. plate, quasi-TW, US motors, single phase drive 19674
- **ultrasonic welding**
  - Al heavy wire bonding, US techs. 21667
- **ultrasonics**
  - *see also acousto-optical effects; ultrasonic applications; ultrasonic equipment; ultrasonic waves*
  - conference on acoustics, Toulouse, France (May 1994) 5443
  - IEEE Ultrasonics Symp., Cannes, France (Nov. 1994) 36854
- **ultrasonography** *see biomedical ultrasonics*
- **ultraviolet astronomy**
  - instrumentation, conf., San Diego, CA (July 1994) 5466
  - SOHO solar spacecraft, operations & ground systs. 35277
  - spectroscopy and polarimetry, conf., San Diego (July 1994) 5468
  - TRACE, Transition Region And Coronal Explorer 35214
- **ultraviolet communication** *see optical communication*
- **ultraviolet detectors**
  - *see also photodetectors*
  - astronomy instrumentation, conf., San Diego, CA (July 1994) 5466
  - conference, San Diego, CA, USA (July 1994) 5467
  - Conference, San Diego (July 1994) 5468
  - diamond MIS integrated radiation imagers 9904
  - forward collider B expt., LHC 4185
  - low-solids flux conc. analyser, automated 42976
  - micromechanical UV radiation dosimeter 43391
  - microstrip gas counter for single VUV photons 10118
  - photoelec. sens. and peripheral combinations *(Japanese)* 17804
  - UV three axis attitude ref. sens. 9936
  - VUV detector stds. establishment *(Japanese)* 17640
  - Ar, liq., UV scintillation light detect., CsI photocathode 26178
  - GaN/AlGaN HFET based gated photodetector 34498
  - Kr, liq., UV scintillation light detect., CsI photocathode 26178
  - 6H-SiC-Ti semicond.-metal contacts, UV sensitive photodetectors 3846
  - Xe, liq., UV scintillation light detect., CsI photocathode 26178
  - $YBa_2Cu_3O_{7-\delta}$ normal state films, fast thermoelec. response, detector appls. 42793
- **ultraviolet lamps** *see lamps*
- **ultraviolet laser effects** *see laser beam effects*
- **ultraviolet lithography** *see photolithography*
- **ultraviolet photoelectron spectra**
  - diamond, single-cryst. chem.-vap.-deposited, electron affinity 1018
  - diamond films (111), H exposure, XPS/UV PES 13365
  - semicond. surface anal., AES and XPS technols. *(Japanese)* 13273
  - Bi/ZnO, interface form., model varistor grain boundary 6578
  - Ge-Si-Ge(100) heterostruct., low press. CVD, LEED/photoemission obs. 12153
  - InSb, low press. CVD, using neopentylstibine, trimethylindium 37485
  - Si layer-by-layer growth, photoelectron intens. oscills. 20699
  - Si, thermal oxid. mech., form. and diffusion of volatile SiO mols. 6642
  - ZnO/CdS interface, valence band offset, photoemission studies 6547
- **ultraviolet radiation effects** *see radiation effects*
- **ultraviolet radiation effects, biological** *see biological effects of ultraviolet radiation*
- **ultraviolet radiometry** *see photometry*
- **ultraviolet sources** *see light sources*
- **ultraviolet spectra**
  - chem. amplified resist, self-solubility accel. effect 1309
  - Cs_2Te film photocathode electron source for Los Alamos advanced FEL 39943
  - diamonds, annealed synthetic, photoinduced absorpt. lines related to Ni impurity 38230
  - metallophthalocyanines, third order nonlinear opt. props. 23426
  - oligothiophenes, conjug., transistors and SLM 22931
  - plasma etching, chamber wall effects, UV spectrosc. 22186
  - poly(3-alkylthiophenes)/O_2, reversible charge transfer complexes 20995
  - poly(aniline) film, glucose biosensor 3895
  - poly(thiophene-3-acetic acid), ultrathin film fab., opt. props. 23351
  - poly(vinyl alcohol)polyaniline interpenetrating polymer network, nonlin.-opt. props. 40081
  - polyaniline-p-styrenesulfonic acid composite, synthesis and Schottky diode appls. 28885
  - polymer amphiphiles LB films, fab., nonlin. optics props. 15089
  - railguns plasma armature exploding wires, vis./UV spectrosc. 15328
  - SiO_2 fused fibre, pulsed UV laser radiation, photodegradation and nonlin. effects 39362
  - Ag-containing metallic nanostructure waveguiding systs., ion exchanged fab., nonlin. opt. charactn. 39416
  - CdS films, electro-opt. charactn. 1039
  - CdS_xSe_{1-x}-doped glass, energy level struct., opt. bistability 31598
  - CdSe quantum dots, electrospray OMCVD 5860
  - CdSe-doped glass thin films, ion-beam sputtering method 37507
  - GaN films, low-press. metalorganic CVD 419
  - KCl:Eu photostimulated phosphor storage material photolum. 30830
  - $Kr^+Li(Cs)(Rb)$ excimers, VUV transits., e-beam pumping 31175
  - $LuLiF_4:Ce^{3+}$, broadband UV amplif. medium 23444
  - OH radical, tropos. detection, pulsed tunable laser source 7864
  - SO_2, absorpt. cross sects., differential absorpt. laser spectrosc. 26009
  - SiO_2 opt. fibre atten., nuc. environ., prep. 22842
  - XeF excimer laser, temporal vars. in spectral output 39657
  - $Xe^+Li(Rb)(Cs)$ excimers, VUV transits., e-beam pumping 31175
  - ZnO films, spray pyrolysis prep., opt. and elec. props. 12143
  - ZnSe epitaxial layers, pulsed laser deposition, struct. and opt. props. 28759
- **ultraviolet spectrometers**
  - *see also ultraviolet spectroscopy*
  - Conference, San Diego (July 1994) 5468
  - continuum-source at. absorpt. spectrometer 10567
  - EUV spectrograph, back-illum. ion-implanted CCD 9934
  - soft X-ray transm. props. of thin polyimide windows 43146
  - spectroradiometer, fast scanning high resoln. in-water appl. 26763
- **ultraviolet spectroscopy**
  - *see also ultraviolet spectrometers*
  - Conference, San Diego (July 1994) 5468
  - monitoring of total organic carbon, opt. methods 9888
  - railguns plasma armature exploding wires, vis./UV spectrosc. 15328
- **umbrella antennas** *see reflector antennas*
- **uncertain systems**
  - *see also fuzzy systems*
  - ASTRA knowledge based syst., transformer assess./diagnosis 19695
  - continuous-time systs., freq. response envelopes 37837
  - dyn. syst. failure detect., nonlin. uncertain models 20471
  - fault detect., uncertain nonlin. systs., diagnostic observers 28522
  - nuc. attack C^2 sigs., Bayesian interp. 43576
  - power syst. reinforcement planning, fuzzy optimal power flow 19213
  - power syst. resource planning, risk mgt. eval. 35567
  - pseudo-inverse-based probab. power flow 35462
  - PSS, design, μ synthesis 43671
  - PSS, H_∞ optimisation-based 43662
  - robust $\mathcal{H}_\infty$ filtering for continuous time varying uncertain syst. 40813
  - steam power plant, self-tuning cascade temp. control 27549
  - uncertainty and decision-making problems in fuzzy expts. 37233
- **uncertainty handling**
  - battle-suitable, electronically provided inform. 10598
  - complex structural el. fatigue lifetime eval. 11868
  - DC servo motor, fuzzy PID control, accelerated reasoning 5167
  - egomotion estim. from affine motion parallax 24457
  - fault tree anal., knowledge engng. approach 28535
  - fault tree uncertainty anal., coeff. of var. appl. 37186
  - fuzzy intelligent hybrid system, telecom network routing appl. 8789
  - fuzzy set delay representation, WAN routing algorithms 8963
  - fuzzy uncertain computer-aided meas. systs. 3739
  - gambling, decisions under risk with incomplete knowledge 5738
  - hazard engineering and the management of risk 5711
  - human-motion recogn. by fuzzy associative inference 8581
  - imprecise probab., expert forecasting, elec. utility 4544
  - induction motor adaptive tracking control 36152
  - M-out-of-N event probab. anal. algms. 37181
  - manufacture, coord. referencing, uncertainty anal. 34694
  - multisensor data fusion, fuzzy methods 24431
  - odor discrim., fuzzy reasoning and neural networks 9955
  - power syst. anal. ES, evidence theory-based 26919
  - power syst. reliab., fuzzy logic appl. 26889
  - remote sensing image boundary area, fuzzy inference 9413
  - sens. sig. reliab. for knowledge based fault diagnosing syst. *(Chinese)* 32637
  - signal detection task, uncertainty modelling 8441
  - spacecraft vehicle health mgt. systs., large-size data reduction/fusion algm. 18725
  - struct. reliab. estim. models, uncertain data handling 37179
  - Swiss NPP PSA uncertainty quantification 19412
  - tracking in clutter with nearest neighbour filters, perform. prediction 15872
- **uncommitted logic arrays** *see logic arrays*
- **undercooling**
  - Si chip cooling, dielec. binary mixtures 37109
- **undercooling (reactor accidents)** *see accidents; fission reactor safety*
- **underground cables**
  - *see also cable laying*
  - 3-phase underground pipe cable, above ground mag. field prediction 27206
  - 24.94 kV underground distrib. systs., switching transients meas. 27173
  - 69 kV HPFF pipe-type cable ccts., ampacity upgrade 27199
  - 77 kV overhead line-underground cable lightning surge anal. 19306
  - 77 kV overhead line-underground cable lightning surge anal. 10713
  - 400 kV EHV transm. syst. planning/develop., Singapore 27122
  - 500 kV oil-filled cable installation, Honshu-Shikoku transm. line *(Japanese)* 19295
  - 500 kV XLPE underground power cables, insulation tests 4681
  - AC/DC HV power cable develops., CIGRE study Committee 21 activities 27195
  - buried distrib. cable syst., rem. absol. phase meas. 27158
  - conductive coupling, underground conductors by earth effect 23759
  - distrib. feeder cables, failure prediction 4646
  - EM response of buried line conductors 40256
  - fluid filled taped cables, dissolved gas anal. 27205
  - high power underground cables, constr./installation 35644
  - HV underground cables, termite attack prevention *(French, English)* 35646
  - HV underground power cable, termite attack prevention 27197
  - joints, PD meas. 4704
  - metal wires for tunnel commun. syst. *(Japanese)* 25196
  - mutual impedance, overhead/buried line, earth return 2253
  - Nat. Electrical Safety Code, 1994-5 interps. 27224
  - nontrenching power/telecom. cable conduit installation method *(Japanese)* 20383
  - overhead line lightning-induced underground telecom. cable overvoltages 19305
  - power cable fault location, fiber optic sens.-based 27277
  - power cables, mag. field shielding studies 10747
  - secondary distrib. directly buried T-branch power cable joint *(Japanese)* 27183
  - transient plane wave coupling, bare/insulated cables in lossy half-space 31869
  - URD, primary cable routing, intell. syst. 19247
  - URD cable routing, Automated Primary Router GIS 35624
  - vac./tube method, opt. fiber laying alongside power cable 25520
- **underground distribution systems**
  - *see also distribution networks; underground residential distribution systems*
  - 13.2 kV underground feeder project, USA 27185
  - 24.94 kV underground distrib. systs., switching transients meas. 27173
  - buried distrib. cable syst., rem. absol. phase meas. 27158
  - distrib. network planning, economic/environ. considerations 43742
  - feeder cables, failure prediction 4646
  - overvoltage protection, pad mounted switchgear 27164

underground distribution systems continued
revitalisation project overview, Bahrain 19283
secondary distrib. directly buried T-branch power cable joint *(Japanese)* 27183
underground power transmission systems *see underground transmission systems*
underground residential distribution systems
15 kV URD syst., transients, above ground detect./interp. 27159
cable routing, Automated Primary Router GIS 35624
primary cable routing, intell. syst. 19247
underground transmission systems
69 kV HPFF pipe-type cable ccts., ampacity upgrade 27199
77 kV overhead line-underground cable lightning surge anal. 19306
77 kV overhead line-underground cable lightning surge anal. 10713
500 kV oil-filled cable installation, Honshu-Shikoku transm. line *(Japanese)* 19295
fluid filled taped cables, dissolved gas anal. 27205
monitoring of power transm. lines *(Japanese)* 25196
overhead line-underground coaxial cable syst., lightning surge anal. 10755
surge arresters, overvoltage anal. *(Korean)* 35686
underwater acoustics *see underwater sound*
underwater cables *see submarine cables*
underwater sound
see also hydrophones; oceanography; sonar
120° segmented circ. array for multibeam multifrequency bathymetry 17474
acoustic commun. syst. perform., stochastic model 16639
acoustic data-commun., bandwidth efficient modulation 9657
acoustic field extrapolation, vert. ref. arrays 9656
acoustic flucts. reduction, astron. adaptive optics *(English)* 25590
acoustic network node, design/perform. 16684
acoustical scatt. from fish, reson. signature charact. 17476
act. sonar class., bearing meas. 34184
adaptive beamforming, systolic spatial proc. tech. 25598
adaptive separation of sound sources, Herault-Jutten network 26782
array deform., source detect./localization *(French)* 16034
arrays in real environ., charact. meas. 18166
ASA 128th meeting, Austen, USA (Nov.-Dec. 1994) 6
autonomous underwater vehicles, acoustic tracking/navig. 17361
AUV positioning/guidance, acoustic differential delay/Doppler tracking 25601
AUVs, very-long baseline acoustic positioning syst. 25603
Bayesian time delay estim. for ocean acoustic tomography 35344
beamformed towed array data, noise normalization tech. 40890
beamformer for underwater acoustic commun., hardware efficient 26783
broadband acoustic propag. and scatt. in waveguide, scatt. 18923
broadband sonar, simple rels., freq. and range av. 25599
broadband underwater acoustic commun. sigs., spatial proc. 8319
buoy drifter, for wave, sound, wind & temp. meas. 26749
channel simul. for mobile commun. 17358
coherent/incoherent localization methods, sensitivity 17461
commun., self-optimized adaptive algms., equalization *(French)* 25592
conference, underwater acoustics, Luxembourg (Sept. 1992) 5500
conference on acoustics, Toulouse, France (May 1994) 5443
data commun. link adaptive equaliser 9612
deep scatt. layer, multibeam sonar detect. 35338
deep seafloor, multibeam echo-sounder sig. anal. 35340
deep water acoustic LAN, adaptive lin. multiuser receiver 34181
digital acoustic receiver 17359
digital acoustic underwater phone 17357
digital underwater commun., adaptive beamformer perform. 9659
direction finding, large arrays/finite data, perform. anal. 32555
displacement meas., acoustic reson. freq. 42922
distortionless underwater commun. using parametric array, conditions 42475
Doppler estimators perform. losses, noise/equivocation effects 10561
energy coupling of points of inhomog. medium 15610
far field array proc., neural networks 32608
fiber optic hydrophones, demodulator optim. 18941
field extrapolation, vert. ref. arrays 9656
fish & seafloor characterisation, non-uniform ambient noise 18805
fish and seafloor backscatt., shallow water, reverberation obs. 26745
forward-based portable acoustic meas. syst. 17683
GASTOM 90 tomography expt. data inversion 35341
Goff-Jordan seafloor microroughness stats., Bayesian estim. 4401
high data rate acoustic underwater commun. systs. 17360
high data rate transm., equalization problem 9611
hybrid/polarity-coincidence correl. proc. 16062
hydroacoustic commun. channel, Doppler scatt. adapted reception 42476
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
integrated positioning syst. for underwater autonomous vehicle MT-88 25600
Janus-Helmholtz projector, LF acoustic source for oceanography 18884
lin. array, shape reconstruction 42536
lin. underwater acoustic array, random deform., gain degrad. *(French)* 18942
localization (passive) of underwater acoustic sources 26821
maneuvering target, underwater tracking, time delay meas. 25594
marine pollution monitoring, acoustic methods 10507
marine telemetry (underwater), LAN protocol 10446
matched field proc. in shallow ocean, EM algm. 34179
matched-field proc., effect of internal waves 3634
matched-field source localisation by reduced-rank sig. proc. 34186
meas. oriented underwater acoustic receiving array 18924
metal EM transducer, theoretical study, underwater appl. *(Japanese)* 18935
min. robust matched field proc. perform. 17469
mine counter measures, ocean bottom acoustic interacts. 18992
model-based proc. for large aperture array 9673
modelling of high-freq. propag. 17480
multiaspect acoustic imaging systs. in plane layered medium 43520
multimodulation acoustic commun. syst. 9658
multipath compensation for underwater acoustic commun. 9614
multipath propag., parametric separation 32607
multiple window spectrogram/time-freq. distribs. 40964
multivalued Bartlett proc., source tracking 15971
normal incidence echo-sounding, refl. and reverberation 4402
objs. near ocean surface, pulse scatt. and target ident. 17477
ocean acoustic diffr. tomography 18887
ocean acoustic DP, Thalassa II ocean research vessel 10494
ocean acoustic propag. in SOFAR, high-freq. modelling 18898
ocean acoustic scatter from mid-Atlantic ridge corners, CW and time-domain simul. 18882

underwater sound continued
ocean acoustic tomography, arrival angle & time determ. 18899
ocean acoustic tomography, probabilistic ray ident. 35342
ocean acoustic tomography, shore station equipt. 18901
ocean acoustic tomography, universal wave approach 18897
ocean acoustic tomography barrel stave transducer 10573
ocean current meas., acoustic current profilers 10502
ocean current meas, surface acoustic scatt. 18896
ocean current vert. profiling, lowered acoustic instrum. 10516
ocean currents, towed ADCP, ENDECO CPV-FIN towed body tests 10501
ocean currents, vel. sens. mounting design 10515
ocean currents by acoustic doppler method, freq. domain 10503
ocean electronics, conf., Cochin, India (1991) 11591
ocean electronics, conf., Cochin, India (1993) 11590
ocean inhomogeneities, acoustic parametric detect. 10547
ocean mesoscale eddy probing, acoustic tomography method 10506
ocean tomographic systs. sound transducer source 10574
ocean tomography, channel time response, array proc. 18902
ocean tomography, record line up by robust method 10549
ocean tomography & sig. proc., close arrival separation 10546
ocean waveguide props., extraction, broadband pulse sigs. 18880
oceanic mesoscale variability, SOAP 93 prediction syst. 26765
oceanic waveguide spatially-localized inhomogeneities, sound scatt. 18881
oceanographic acoustic instrums., high level control 10538
OCEANS 94, conference 60
pass. array shape calib. 8376
pass. sonar sig. proc., ocean acoustic source localisation 25597
pass. sonar sig. proc., probab. modeling and Bayesian inversion 25596
pass. sonar time delay estim. 9655
periodic sigs. design, FM sweeps/AM 10559
phase-only multidimensional spatio-temporal anal. for moving sources 40995
piezoelec. transducer, undersea use, cooling 18885
planar sonar arrays, beam-pattern design method 9654
portable underwater acoustic meas., anal., and tracking systs. 17459
quiet source acoustic meas. syst. 17682
random AM harmonics estim., higher order spectra 8406
real-time narrowband beamforming, efficient archit. 9676
refl. coeff. control, piezoelec. materials 26795
robotic wrist, underwater acoustic array tracking 9822
rough surface scatt. effects 17356
seabed, nodule abundant areas, refl. sound charact. 43476
seafloor geotechnical/geoacoustic props. meas., tools 4404
seafloor sonar equipt., Shirshov Oceanology Inst. 10514
seafloor sonar scatt. at 40 kHz, monostatic & bistatic 18802
sediment param. determ., hydroacoustical expts. 35339
seismic sources, marine sparkers, efficiency 10443
shallow water acoustic channel, multicarrier transm. syst. design 17462
shallow water acoustics, matched-field tracking 15932
shallow water channel estim. methods, comparison 17460
shallow water commun. syst. for autonomous underwater vehicle 9663
shallow water HF bottom/subbottom backscatt. 4403
shallow water hydroacoustical commun. channel, data protection codes perform. 32015
shallow-water acoustic LAN, store-and-forward protocol 10446
shallow-water fishing sonar param. optim. *(Croatian)* 3632
ship detect. from acoustic time series, spectral/bispectral anal. 34105
ship radiated sigs. detect. in non-Gaussian noise, HOS appls. 8378
ship trajectory tracking by acoustics, small displacement meas. precision 25595
sig. correl. matrix, array receivers phase delays estim. 32611
sig. flucts. in coastal areas 17481
sonar, global inversion by genetic algm. 17468
sonar, model-based sig. enhancement for Hudson Canyon expt. 17472
sonar anal., adaptive data extrapolations in time-freq. representations 9672
sonar echo from moving target in ocean waveguide, simul. 34169
sonar holographic array proc. algm., perform. anal. 34185
sonar matched field proc., sector focusing 17465
sonar matched field source localization, horiz. line array 17471
sonar matched mode proc., parab. eqn. 17467
sonar multiple constraint matched field proc. advantages 17466
sound levels in ocean, std. defns. 43000
source/receiver relative posn. determ., time delay spectrometry .18167
sparse systs., complexity-constrained LS estim. 42532
sub-ice deployed, seafloor tethered vert. array 10513
submersible platform rem. control and commun. syst. design *(Croatian)* 4412
subsea acoustic rem. commun., adaptive receiving beamformer 9613
surface relay buoys, underwater navig. techs. 25602
Swallow floats, acoustic intens. meas. 35349
synthetic images of proud targets 17485
target, causal impulse response estim. 34180
towed ocean bottom instrum. image proc. 26728
turbulent press. flucts. meas., buoyant vehicle, thin elastomer layer 17458
uncertain ocean environ., sonar matched field proc. 17470
underwater image compression, wavelet transform 15800
unmanned autonomous underwater vehicles characts. 10529
unmanned underwater vehicles characts. 11410
US 3D camera, obj. recogn. tech. 10530
wideband commun., reciprocity based channel compensation 9665
PZT:Nb transducers, sound wave vel. and Tawfik percentage 26786
undulators *see wigglers*
uniform geometrical theory of diffraction *see geometrical theory of diffraction*
uninterruptible power supplies
50 to 300 kVA UPS installation guide 19875
400 Hz solid-state power supply for aircraft *(Japanese)* 10400
500 W-2 MW DATAPOWER UPS product family 19800
1200 W zero output impedance UPS inverter 44170
AC/DC power converter develop. 5073
batt. life extension, charge equaliser 19964
Cassini spacecraft solid-state power switch develop. 26660
computer installation appls. technol. *(Japanese)* 5034
computer UPS, single power convertor/batt. scheme 36272
computer/telecom. UPS, static power inverter, high perform. 19860
CSI, DSP-based output voltage control 44172
digital telecom. systs., UPS, config., elec. characts. 19863
fault diagnosis/prediction 27816
FBK-SDU series of digitally controlled uninterruptible power systs. *(Japanese)* 36339

uninterruptible power supplies continued
- FITL powering, batt. reserve sizing calcs. 42066
- half-bridge inverter/converter cct. 44200
- hospital elec. mains supplies, ups and downs 4346
- IGBT/intell. power module based *(Japanese)* 5040
- IGBT/intell. power module based, future prospects *(Japanese)* 5033
- INTELEC '93, telecom. energy conf., Paris, France (1993) 5501
- INTELEC '94, telecom. energy conf., Vancouver (1994) 28254
- LV cct. breakers, DC power syst. appl. guidelines 19346
- maint. and upgrading *(Japanese)* 5041
- maint. free UPS, advanced batt. technol. 19815
- medium/small-scale UPS, distrib. networks appls. *(Japanese)* 5035
- MELUPS 8400H, NC-U UPS systs., instrum. supplies *(Japanese)* 5039
- MELUPS 8400N small-capacity UPS, distributed computing appl. *(Japanese)* 5038
- MELUPS 8400V medium-capacity UPS *(Japanese)* 5037
- MELUPS 9200 UPS series, IGBT based *(Japanese)* 5036
- modelling/simul./anal., software-based 44171
- off-line/line interactive/online, factors, choice 44127
- online UPS, PF correction, low harmonic distortion 36332
- opt. subscriber systs. *(Japanese)* 42070
- parallel proc. UPS, harmonic suppression/VAr compensation 11175
- PB-acid batts., sealed, small size, UPS appls. *(Japanese)* 5186
- power electronics evol., Europe 37620
- PWM inverter, instantaneous feedback controlled 11177
- PWM invertor batt. charger, UPS appl., fuzzy logic control 44154
- PWM invertor IGBT gate drive IC, eval. and appls. 5052
- PWM UPS inverter perform., computer simuls. 5077
- quasi-reson. DC link power convertor, topol., appls. 5084
- quasi-reson. dual power converter UPS 5075
- RAMO telecomms. environ. equipt. mgt. network 19870
- reson. DC link inverter, low-noise, high-output power 19861
- reson. link inverter topologies, UPS appls. 44206
- series-reson. DC-AC power converter, switching control *(Japanese)* 11190
- SGE-630 smart compact fail-safe power supply 27804
- single-phase VSI UPS, multiple feedback loop control 11142
- slip-power recovery induction generator *(Japanese)* 27797
- Space Station Freedom, UPS orbital replacement unit 18762
- Space Station Freedom bidirectional PWM UPS power convertor 26589
- stationary batt. UPS systs., status determ. method 36549
- supercapacitors, telecom. power supply appls. 12845
- switched power harmonic filters, anal., appls. 19741
- synchrotron power supply safeguard, NO BREAK KS parallel UPS *(French)* 11126
- three-phase AC/AC power converters, power quality issues 36276
- three-phase multifn. batt. energy storage syst. 43967
- three-phase PWM inverter UPS, robust μP control 36248
- three-phase quasi-reson. DC link ZVS PWM inverter studies 5133
- three-phase UPS VSI, feedback control strategy 44173
- TZ standby UPS/diesel generating set 19786
- UBS, uninterruptible batt. syst., telecom. equipt. appl. 19787
- Pb-acid valve regulated batt., UPS, H_2S/SO_2 evol. 19951
- Pb-acid valve-regulated batts., telecom. UPS appls. 41628

unit commitment *see load dispatching; load distribution*

unitors *see active networks*

units (measurement)
- *see also constants; dimensions; measurement; nomenclature*
- amount of subst. and mole 34330
- Avogadro const. determ. from elec. meas. 17645
- dissemination of units in Europe, traceability/assurance 34306
- elec. units develop., 1960s, 1990s 34308
- elec. units hist., 1964 34307
- internat. organizations for quantities and units standardization 34309
- Japanese elec. and mass stds. 34325
- kilogram national prototypes, third periodic verification 17628
- magnetism, units, a call for consistency 34304
- mass stds., stainless steel wts. cleaning, ellipsometry appl. 9779
- N_A role in SI, at. path, kilogram 17644
- qty. calculus and internat. syst. 34305
- radioactivity meas., curie, becquerel 34326
- review and develops. 34311
- Si ref. materials certified for isotope abund. ratios 3709
- SI units accuracy, dissemination and internat. traceability 34310
- sound levels in ocean, std. defns. 43000
- transfer thermistor transducers in HF AC voltage stds. 42655
- Si growth, highly pure crysts. 12035

universal asynchronous receiver/transmitter *see computer interfaces; data communication equipment*

Universe *see cosmology*

university libraries *see academic libraries; research libraries*

Unix
- assoc. particle imaging, 4D image display 18465
- ATM socket family implement., experience and results 8921
- CERN PS accelerator, control syst. overview and status 18182
- computer network clocks, improved sync. algms. 2949
- COSY control syst., RT/OS environ. 18209
- desktop CSCW syst. 16691
- distributed SCADA/EMS syst., Unix based, Johannesburg 4519
- DIVE, multi-user virtual reality system 16762
- EMS real-time distributed archit. project, Australia 19187
- equipt. access software, distrib. UNIX-based accelerator control 18208
- fully distributed proc. strategy for Unix LAN 25037
- gated, routing daemon 41701
- group admin. shell, GASH network computing environ. 41788
- HDTV image database syst., develop. *(Japanese)* 25671
- High-speed Distributed File System for multimedia commun. 9046
- high-speed networks, hardware meas. techs. 676
- Internet, Kerberos complete secure transport service 16670
- MEGUMI groupware platform, multimedia E-mail 16839
- MELUPS 8400N small-capacity UPS, distributed computing appl. *(Japanese)* 5038
- multimedia commun. in real-time, workstation support 9062
- multimedia sync. model, appls. 41969
- MultimETH, conferencing and joint editing syst. 9065
- native-mode ATM appls., signaling and OS support 2945
- NEC Videomix, appl. *(Japanese)* 42591
- Nobeyama Radio Observatory, telescope control syst. upgrade 17515
- open archit. telecomms. provisioning systs. 16481
- open systems and Unix conf., Brussels, Belgium (1992) 11541

Unix continued
- ORCHARD II, ASIC CIM syst., scalable and flexible, precise quick scheduler 28433
- packet demultiplexing for multiple endpoints and large messages, Mach 3.0 8922
- particle accelerator devices, persistent software objs. 18199
- policy-free distributed general-purpose shared window syst. 25051
- power syst. alarm proc., OO symbolic connectionist syst. 19158
- power syst. alarm proc. syst., symbolic-ANN syst. 26867
- primary/secondary batts., testing, VXIbus 36510
- protocol configuration, modules as building blocks 3222
- RHIC accelerator control syst. design 18172
- rightsizing, distributed LANs, UNIX appl. servers 41771
- SCIDDLE, tool for large scale distributed computing 33583
- SINA, Super-highway Information Networking Architecture 25054
- SNMP manager Linenet-View, develop. *(Japanese)* 25046
- substation design, OO knowledge based tool 19906
- synchrotron control room, UNIX based syst. tools, integrated set 18221
- tele-monitoring/computer-supported repair, multimedia syst. 42042
- transputer-based data acquisition syst. for 256×256 pixel IR camera 42743
- TreadMarks, distributed shared memory on std. workstations and OS 8920
- UKUUG IP Workshop conf., London, UK (1994) 36909
- wavelet transforms, PVM computing 24406

unsupervised learning
- adaptive compandor design, boundary adaptation rule 42176
- adaptive conscientious competitive learning, appls. 15743
- all-phoneme ergodic HMM for unsupervised speaker adaptation 32271
- auditory evoked pot. class., ART 2-A/fuzzy ARTMAP comparison 43316
- autocalibration of fibre optic strain sensor 25860
- automatic face recogn. syst., adaptive clustering network 2697
- CMOS analog neural networks, Gilbert multipliers, in-cct. learning 6271
- color images anal., biol.-like neural net model 41212
- competitive learning neural network, dyn. output neuron generation, speech data appl. *(Korean)* 32443
- competitive/selective learning for vector quantizer design *(Japanese)* 15772
- digital movies, optimized, maps 33047
- Dignet unsupervised-learning clustering/data fusion algm. 32854
- dyn. speech recogn. tasks, connectionist approach 32428
- ergodic HMM and polygrams for lang. modeling 32294
- feature-extracting cells in the neocognitron, thresholds 8527
- gated neuronal archit., spatio-temporal feature maps, invariant prop. 33037
- gearbox acoustic condition monitoring by neural net 34390
- hierarchical clustering, neural archit. 33042
- hybrid opt. neural networks, supervised/unsupervised, JTC 31033
- induction motor, condition monitoring, unsupervised learning ANN 4943
- isolated word recogn., SOFM-HMM/inertia *(Korean)* 24155
- lofargram lines detect., unsupervised neural networks 34174
- multidimensional MR image segmentation, fuzzy neural network 26322
- multiple neural networks, reduced input dimens. 33036
- myoelectric sig. recogn., fuzzy clustering and ANNs 35108
- neural network convergence for sig. proc., stochastic learning 40771
- neuron-MOS neural networks, hardware-learning algm. 37916
- noise cancellation/sig. separation, unsupervised competitive learning rule 8449
- opt. adaptive device, competitive learning cct. 39518
- packet switching network routing mgt. 41649
- power syst. security assess., Kohonen classifier 27073
- PWM inverter drives, Kohonen self-organising ANN appl. 44447
- QAM, self-learning adaptive recursive equalizer 32771
- radar target discrim., wavelet transforms 16102
- SAR images, max. likelihood algm. for target detect. 17365
- self-learning blind sig. separation of time delay narrow band sigs. *(Chinese)* 32449
- self-learning neuron-MOS neural networks, wt.-updating-lin. EEPROM cell 12676
- sig. proc., neural networks, convergence 24357
- small elec. motor diagnosis/QA, unsupervised classifier design *(German)* 11834
- soft competitive learning, analogue CMOS implement., hardware tolerance 29433
- spatio-temporal invariances learning 41226
- target class., multisensor, using unsupervised neural net 33051
- texture segmentation and class., neural network technol. 16190
- VLSI neural learning, robustness against cct. limitations 29489
- VQ, competitive learning algm. 33031
- VQ, fast competitive learning, classified learning rates 41087

untuned power amplifiers *see power amplifiers*

unwinding *see winding (process)*

UPS (spectra) *see ultraviolet photoelectron spectra*

UPS, power supplies *see uninterruptible power supplies*

urban planning *see town and country planning*

user centred design
- conference, New Face of Technical Communications, Philadelphia, PA, USA (Oct. 1993) 28216
- user-centered design, evolutive trends *(Italian)* 37012

user friendliness *see user interfaces*

user interface development systems *see user interface management systems*

user interface management systems
- ATE management in 90's 42690
- civ. aviation flight decks and ATC, interface mgt. 26536
- handicapped students' speech recogn. syst. 43381
- human interface technol. for handicapped people 18620
- ident. card mgt. syst. for Tokyo International Airport *(Japanese)* 10411
- integrated depot environ. for avionics support (IDEAS) 35228
- ManageWORKS, user interface framework 41698
- obj.-oriented user interface toolkit, adding digital video 34279
- small group teleconferences, virtual environ., communicative charact. 16816
- telecomms. mgt. integrat. network 41666
- test development tools framework 42689
- Video Viewer interface design prototype for sharing video across, network 41997
- Visual Designer software,data acquisition/anal./control 9827

user interfaces
- *see also graphical user interfaces; natural language interfaces; user interface management systems; user modelling*
- 777 Maintenance Access Terminal and Side Displays 10335
- 2500 MW Black Point power plant distributed control project 19528
- Alcatel 1000 S12 exchange, ALAMOS generic alarm correl. syst. 3288

user interfaces continued
ALWR plants, integrated digital instrumentation and control *(Japanese)* 4771
ASCOT airport terminal for Nippon Airways *(Japanese)* 10415
ATBL, European automatic train control systs. integrat. 44544
ATE enabling technols. for Air Force 18718
audio display and virtual auditory environ. 34284
audio support for sync. cooperative work 9072
blind pers. audio-tactile graphics equipt. 43380
blind pers. tactile-audio user interface 43379
blind/visually impaired computer users, nonspeech sound synthesis 40785
broadband multipoint multimedia telecom. and computer supported collaborative work 42018
BWR NPP, ecological interface for supervisory control 27417
BWR power plant, abnormal conditions, operator perf. 27403
CAL, network-based, multimedia inform. mgt. syst. 8972
car driver's LOS, user interface 44580
cars, ProLab2 driver support syst., user interface 36772
CERN PS accelerators, operator interface 18222
CGH, 3D video display develop. *(Japanese)* 2147
Chameleon 4.0, TCP/IP for windows 16657
Chinese characters, modified simplex input method 24074
co-operative software develop., distributed support environ. 25072
commun. patterns in research community 41734
commun. security equipt., anal and selection 41637
communication transmission tools, use and technology, conf., Bad Nauheim, Germany (Nov. 1994) *(German)* 16718
computer/telecomms. convergence and develop. 41585
conference, large expt. physics control systems, Berlin (Oct. 1993) 5487
conferencing syst. and shared whiteboard, distributed multimedia appl. testbed 9071
constr. indust., multimedia product selector, X.500 directory service 9073
cooperative working for end-users, MMTCA 41993
customer network mgt. in SMDS, subscriber's viewpoint 16706
customer-centered interfaces, service subscription inform. 24922
data acquisition tutor and prog. interface 65
DELPHI distributed IS, LEP appl. 18210
design, integrated maint. IS 34373
digital avionics systems, conf., (Nov. 1994) 5456
distrib. network planning, fuzzy math. prog.-based 27155
distrib. networks mgt., intell. support syst. 19275
document access/ref. environ., PC based interactive syst. 35413
earcons in auditory human computer interfaces 42652
EEG, feature selection, VQ/genetic algms. 43313
elec. utility EMS fns., user experiences survey 19185
electronic technical manual for US Army 43572
Enel power plant automation, user interface *(Italian)* 43929
Ericsson's broadband concept 41613
eye-gaze detect. 2 light sources, image differences 10284
face posn./gesture for computer input 35172
facial expression, emotion dyn. recogn. 8563
force feedback system, surface display 18015
frame relay protocols and user interface 41809
GEC-Marconi quality fn. deployment PC-based tool 28394
gesture recogn., recurrent neural networks vs. competing techs. 35171
gesture translation, musical instrums. 34302
group overview displays, nuc. plant operators 3945
health care quality, telematic syst. 33554
home electronic product buyers and users, usability issues 36996
Home Net, user interface design 17601
human interface technol. for handicapped people 18620
human/machine-based demand forecasts combination 27081
HyperStation, distributed multimedia appls. platform 16889
IC mfg. productivity improv., DVI-based perform. support syst. 30404
interactive education, CD-ROMs and WWW 8895
Internet, today and tomorrow *(Japanese)* 8883
Internet for educators, user's guide 24982
Internet in the home environ., Homelink and home cyberspace 24988
IP layer perform. diagnostics, windowed ping appl. 16746
ISDN, basic rate UNI, packet-switched data anal. 16793
IVS, integrated vol. visualization syst. for electronic package cooling 37092
Landsat TM imagery, lines of commun. extraction syst. 16261
large video databases, user access, indexes 9711
large-picture technol. for workstations and monitoring *(German)* 42697
learner control in multimedia instruction in origami 9752
learning appls. via extended hypermedia and full motion video 42638
learning user interfaces by exploration 41733
MARC, multimedia appl. for radiologist commun. 16910
med. digital X-ray archive accessed, Internet 8484
media space collaborative work, multiple views 41952
MediaSpaces for cooperation and commun. *(French)* 16807
MMI design for syst. quality improvement 11837
motion control systs. develop., motors, drives, user interface 44440
multi-purpose interface for still/moving image retrieval 24520
multi-window full-motion video and graphics, memory archits. 17579
multimedia, multiuser systs., conferencing syst., user interface design 41980
multimedia appl. on client server public network 16645
Multimedia Chatting System on Ethernet LAN 16835
multimedia commun. terminal and human interface develop. trends *(Japanese)* 16936
multimedia networking for inform. society 16901
multimodal interface, speech and touch screen *(Japanese)* 24137
multiple inform. bases, flexible and dyn. integrat. 33550
MV05A/B/C test syst. for ATM syst. R&D *(Japanese)* 33707
NCMS network mgt. syst. upgrade 16778
negotiative dialogue design for computer aided telephony 41705
network planning, online data provision *(German)* 35588
neural engng. utility, adaptive algms. 34379
NPP operation, intell. human-machine syst. 43823
NTT, customer globalization trends 41590
Operational Avionics Smart Instrumentation System (OASIS) 10331
Palo Verde NPP, safety param. display syst., ES 10806
pers. communicators, batt.-powered, trends 42296
pers. protective grounding, param. anal., software 20384
phonology-phonetic-coupling in constraint-based gestural model *(German)* 40737
physicians, Mosaic and World Wide Web guide 41799
plant power/control syst., obj.-oriented simul. 20159
point 3D posn. measuring syst. for detecting fixation point on screen *(Japanese)* 3930

user interfaces continued
portable telephone for pers. digital cellular syst. 3467
power distrib. fault diagnosis, obj.-oriented ES 27131
power syst. complete model state estimator, computer-based 27101
power syst. control room DSS, user interface 4563
power syst. emergency control, real time ES model 27041
power syst. interactive DSS, obj.-oriented framework 19095
power syst. monitoring, expert syst. 19162
power syst. obj.-oriented anal. methods 35428
power syst. online dyn. security assess., EMS ES-based 19099
power syst. protection/control, μP technol. *(English)* 43648
power syst. relay testing simul., user interface software develop. 27246
programmable rainfall simulator design and software develop. 35348
PWB layout CAD technol. trends *(Japanese)* 476
radar syst. CAD, knowledge based support 9639
real-time digital control environ., controller develop. appls. 10674
real-time power syst. anal. digital simulator 10611
regional substations control centre, ES appls. 27018
rem. multimedia presentation syst., pointing stick 9028
retrieving images by 2D shape, computation methods and human perception 8477
robotic arm ASIC-based motor controller develop. 11227
scenario-based design representation 5581
short-term elec. load forecasting syst. *(Chinese)* 35580
Software Interface for Communication Media, component std. 34349
sonification tools, suppl. dataflow visualization 3699
spectral estimation using distorted-timebase digitizer 25735
speech impaired pers., public telephone network access, TINATEL syst. 43373
speech sig. proc., Macintosh based environ. 2438
speech-only-input user interface for handicapped 43376
SPIDER MicroSCADA distrib. network control syst. 27184
stripchart recorder emulation; split screen, smooth scrolling 3924
submarine propulsion nuc. reactors, digital control *(French)* 36732
surface inspection systs., software tool for developing algms. 17653
symbolic trajectory eval. results comp. 21064
SysCalc program for cascaded chain anal. 12618
TACOM thermal image model, PC version 35409
Talyrond 100, precision meas. equipt. improvement *(Polish)* 34412
tele-monitoring/computer-supported repair, multimedia syst. 42042
telecomm. syst. user-friendliness eval., ITG test method *(German)* 25137
Tomahawk Cruise Missiles, MVS/RLS register level simul. 26535
transm. network substation control centers, SPARSE ES appls. 19230
travelling wave panel electrode design, computer user interface 15248
TRT's Sematrans 256 modem, 32 kbit/s transm. on telephone network 42084
two-link collision free robot positioning, microcontroller-based 11226
vehicle-driver, interface design, conf., London (1995) 20205
Viennese integrated syst. for technol. CAD appls. 38992
virtual instruments in VXI 42704
virtual reality system, distributed, aural renderer 17609
VoiceDialing, speech recogn. based telephone service 3138
wheelchair, motor, sens. aids for partially-sighted 10281
Windows-based control syst. for electron microscope 9817
Windows-based TCP/IP appls. 41515

user manuals
cross-site writing, shared responsibilities 33410
intelligent computer manual syst. creation, software tool *(Japanese)* 95
interactive electronic technical manual for US Army 43572
Internet resource guides, stories for Net 25012

user modelling
elec. cct. anal. teaching, intell. computer tutor 5527
load modelling for commun. systs., Petri net-based model 25042
video authoring, user models for intell. multimedia 41989

user ports *see computer interfaces*

user support *see technical support services*

utility programs
see also application program interfaces; help systems
NetWare accounting, installation and usage 16578

UTS *see tensile strength*

UV astronomy *see ultraviolet astronomy*

UV detectors *see ultraviolet detectors*

UV lithography *see photolithography*

UV photoelectron spectra *see ultraviolet photoelectron spectra*

UV spectra *see ultraviolet spectra*

UV spectroscopy *see ultraviolet spectroscopy*

V.24 bus *see peripheral interfaces*

V_k-centres *see colour centres*

V/F converters *see voltage-frequency convertors*

V/F convertors *see voltage-frequency convertors*

V-VI semiconductors *see semiconductor materials*

vacancies (crystal)
see also Frenkel defects
diamond:He^+ film detector, Raman/photoluminesc. charactn. 43089
elec. resist. meas. apparatus for high temp. 25947
finite conductor with single blocking boundary, electromigration failure 6666
giant far action lateral phenom., ion/laser beam IC fab., reliab. 20488
insulating materials, electron beam excited luminescence 14074
silicide thin film form. by RTP, ULSI appls., overview 22275
Al-Cu (4 wt.%) thin-film interconnects, precip. phase 13425
Al_2O_3 insulator, DC/pulsed electro-opt. props., vac. 30550
$(Ba,Pb)(Zr,Ti)O_3$ films, sputtered, dielec. props. 6913
$Ba_{6-3x}Sm_{8+2x}Ti_{18}O_{54}$, microwave dielec. props. 22638
$BaTiO_3$ perovskite ceramics, ferroelec. fatigue, compositional control 1556
CdTe bulk substrs., intrinsic defects, vacancies, dangling bonds 38255
CdTe:In photolum., stoichiometry effect 38513
CdTe/CdZnTe superlattices, interdiffusion coeff. meas. 29935
GaAs, Ar^+ ion implant. damage, ion-induced annealing 22092
GaAs, low-temp. MBE growth, defects/As distrib., XPS, positron annihilation meas. 21916
GaAs, radiation induced order effect, mobility study 13061
GaAs:C, hyperthermal subimplantation doping, Raman spectra 30061
GaAs:Si QW, uniform intermixing in p-i-n modulator structs. 39605
GaAs/AlGaAs MQW zero-gap directional coupler, disordered branching waveguides 14491
GaAs/AlGaAs heterojunctions, deep-level defects, review 13123
GaAs/AlGaAs:C(Zn) lasers, bandgap-tuned, C(Zn) doping 1944

vacancies (crystal) continued
n- GaAs-InP, CVD layers/MESFET, elec./optical charactn. 13104
a-Ge/Ag layered systs., metal-mediated crystn. 38404
(Hg,Cd)Te:In, diffusion and elec. activity 6621
HgCdTe, MOCVD layers, excess carrier lifetimes 38254
HgCdTe/CdZnTe, tensile and compressive stress, misfit disloc. microstruct./kinetics 21952
InN, film, RF sputtered, Hall mobility 6528
p-InP, defect-assisted ohmic contacts 29948
InP:S, charge carrier conc./mobility, vacancy conc., positron annihilation meas. 38250
InP/InGaAs HBT, MOCVD, Zn diffusion, growth temp. depend. 22385
In_2Se_3 heterocontacts, radiation-stable electronics 13101
$In_2SnO_3:In^+$, native defects donor generation by In implant. 38485
$La_{1-x}Ca_xCrO_3$ separators, elec. cond., planar SOFC 44378
$LaCr_{1-x}Mg_xO_3$ separators, elec. cond., planar SOFC 44378
$La_{1-x}Sr_xCrO_3$ separators, elec. cond., planar SOFC 44378
$La_{0.9}Sr_{0.1}MnO_3$-YSZ cathodes, microstruct./resist., SOFC 44384
PLZT thin films, voltage offsets 30572
PZT thin films, donor doping, leakage resist. control 13992
PZT thin films, ferroelec. fatigue, compositional control 1556
PZT:Nb transducers, sound wave vel. and Tawfik percentage 26786
$(Pb,La)(Zr,Ti)O_3$ thin-film capacitors, imprint/O deficiency 30619
PbSe:Bi films, amphoteric doping behavior 22146
Si, amorph./cryst., exoelectron emission point defect anal. 21884
Si disloc.-free crysts., electrophysical/microdefects correl. 21870
Si, thermal oxid. mech., form. and diffusion of volatile SiO mols. 6642
Si:Au, Au diffusion, carrier conc. profile, preannealing effects 29831
Si:H, neutron irrad., defect anneal., H infl. 38469
Si:Sb, heavily doped, elec. act. impurity diff. 13033
Si:Sb,B, heavily doped wafers, annealing, fluoresc. EXAFS anal. 38475
$Si/SiO_2/Si$ MOS oxides, border traps 13249
$Si/SiO_2/Si$, high temp. annealed, near interface oxide degrad. 38477
Si/SiO_x, improved SIMOX material, Si overlayer, strain reduction 22075
Si-sapphire, porous, photolumin., microstruct. effects 6618
Si(001), epitaxial growth, Monte Carlo simul. 20896
Si(100)-(2×1), at. scale etching by Cl 30087
SiO_2 films, ion irrad. damage, UV annealing effects 30014
SiO_2:H ECR oxides, stress-temp. behavior, hydrogenous species conc. 37513
SiO_2-Si, EX centres, ESR study 6641
SnO_2 films, Schottky surface barrier, gas-sens. effects 42862
SnO_2 thin film gas sens., carrier conc. change anal. 17972
Ti silicidation, effect on type II end-of-range disloc. loops 38581
$YBa_2Cu_3O_7$ Josephson jn.-based digital ccts., nanoscale patterning 14298
$YBa_2Cu_3O_{7-\delta}$, thin-film microbridges, normal state, 1/f noise 22737
YIG films, low energy ion bombard., surface spin pinning 14177
ZnO, multicomponent varistors, Cr_2O_3 effect, pre-breakdown elec. props. 12828
ZnO varistors, Bi_2O_3 nonstoichiometry, nonlin. property 869
ZnSe/GaAs heterostruct., deep level electronic struct. 38301
$ZrSe_2$ single crysts., selenium atmos. annealing, elec. props. 38276

vacuum apparatus
includes apparatus for producing, maintaining and handling vacuum per se
see also vacuum gauges; vacuum pumps; vacuum techniques
electron/proton storage rings, vac. syst. design 961
hot mockup PCB test stations, vac. actuated 38159
multipin vac. input 20956
Sortec Corp. SR ring, stored current upgrade *(Japanese)* 4060
vac. systs. in electronics mfg. 37059

vacuum arcs
cct. breaker restrike test procedure 19883
diodes, breakdown 29762
hollow cathode discharge, pseudospark switch 29747
low-press. arc-discharge plasma, ion extraction 4140
metal ion vacuum arc plasma source, ion implantation appls. 26107
Raduga, metal vap. vac. arc ion sources 4135
switch, arc voltage, charact. values 36394
TAMEK, vac. arc ion sources 4136
TITAN ion source 4145

vacuum breakdown
see also vacuum arcs
alumina/vac. interface, pre-flashover lumin. 13948
cct. breaker restrike test procedure 19883
diodes, breakdown 29762
high current klystron amp., 500 MW, 1 μs pulse length 6482
material explosion, pulsed currents/elec. fields, simul. 30551
Mo electrodes for vac. breakdown phenom. in TWTs, optim. of surface roughness *(Japanese)* 6513

vacuum circuit breakers
ABB ZV2 SF_6 gas-insulated/vac. switchboards 19881
distrib. networks, vac. cct. breakers *(French)* 35636
frequently operated vac. cct. breakers, plant insulation failures 4650
induction motor vac. cct. breaker switching surge anal. *(Korean)* 27706
maint.-free vac. cct.-breaker 44231
MV GIS, maint. free vac. cct. breakers 44242
perform. and appls. 27857
restrike test procedure 19883
switchgear technol., μP appls. 5145
switching surge voltage, travelling wave method *(Korean)* 27834
transient overvoltages, stat. model 27847
transient recovery rise interruption 27843
vac. interrupter contacts, switching endurance improvement *(Russian)* 44239

vacuum contactors
power contactor armature posn. sens., rem. auxiliary contacts 29645
trends/future develops. 11198

vacuum control
APS, hardware supported by control syst. 18203

vacuum deposited coatings
fluorocarbon films for MEMS appls., materials anal. 28852
oligophenylene thin films, vac.-deposited, elec. props. 13923
organic semiconds., cryst., OEICs, photonic devices 39616
organic TFEL device, white light emission 31111
Parylene conformal coatings compatibility with no-clean flux residue 38109
poly(di-methyl silane) film, highly oriented, electron beam irrad. 38708
polyurea films, pyroelec./piezoelec. 6903
thin ferromag. film growth, situ SQUID magnetometry 14290

vacuum deposited coatings continued
Al vac. deposited thin film characterisation, SiO_2-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
As-S layers, pos./neg. etching, submicron photoresists 22173
Ba-Y-Yb-F:Tm^{3+} glass thin film upconverting waveguides for vis. and UV light sources 30936
$CrSi_2$ thin films on Si(111), heteroepitaxial rels. 37439
Cu/Co/Cu/NiFe multilayers, magnetoresist., thermal stabil. 7053
Cu-Sn intermetallic form. at solder-Cu interface, in-situ TEM 12188
$CuInSe_2$ films, surface morphology, grain boundary, parameters, etching 22215
$CuInSe_2$ polycryst. thin films, seq. proc. prep. 20978
EuF_3 thin films, dielec., cond. and breakdown studies 1544
GaAs vac. ALE growth, tertiarybutylarsine 28743
a-Ge/Bi annealed bilayer, crystalliz. effect on conduct. 21926
$Ge_{20}Te_{80-x}Bi_x$ amorph. thin films, opt. and electronic props. 13081
In_2O_3 film, electron beam deposited, charactn. 28857
InSb thin films, vacuum evap., elec. props. 21913
InSnO thin film, CO_2 gas sens., alarm syst. 3912
PZT ferroelec. film, neurodevice, adaptive-learning 39094
PbSe film, intrinsic at. defect charge state 13088
$Pb_{0.5}Sn_{0.5}Te$ films, cond. activation energy, resist. thickness effects 38274
Pt-Co multilayer thin films, interface nitridation/mag. props. *(Japanese)* 30693
Ta_2O_5 film, electron beam deposited, electroluminescent device appl. 5894
WO_x thermionic energy converter collector electrode expts. 28027
$Zn_{1-x}Cd_xSe$ polycryst. thin films, electron beam evap. growth, elec. props. 1030
ZnTe SR excited growth, metalorganic sources 20889

vacuum deposited thin films *see vacuum deposited coatings*

vacuum deposition
used for EVAPORATED layer production in vacuum
see also electron beam deposition
air-to-vac.-to-air technol., environ. benign deposition 28824
copper phthalocyanine single mols. and islands, STM obs. 28809
double-surface corrugated grating waveguides, opt. input coupling 22888
intermetallic complex cpds. prep., high-purity 28714
multipin vac. input 20956
multiple-substr. holder for high vac., cryogenically cooled 5898
organic PV cells, excitonic light collection, high carrier mobilities 27937
Parylene conformal coating economies 933
PCB conformal coating methods, review 12909
thin film photon-/ion-beam-assisted deposition/characterisation 28846
Al vac. deposited thin film characterisation, SiO_2-Si/Si:B/Si:P substrs. *(Slovenian)* 28814
Al/Si(111), ordered Al films growth, LEED, Auger electron spectrosc. 20716
Al-SiO_2-Si:B MOSFET multilayer epitaxial struct. by rapid thermal CVD 20969
$Au/Zn_{0.4}Cd_{0.6}Te$:In solar cell, fab./charact. *(Korean)* 19985
Au-GaAs Schottky diodes, cryogenic/RT, current transport 38390
Au-SiO_x-Au sandwich structure, AC elec. cond. 22083
C_{60}-Si(111) multilayer growth, UHV-STM study 12156
$CuInSe_2$ polycryst. thin films, seq. proc. prep. 20978
GaAs vac. ALE growth, tertiarybutylarsine 28743
ITO thin film, elec. and opt. props. rel. to annealing 21925
n-InP/Au(Pd) Schottky contacts, deposition, charactn. 37521
$In_{46}Sb_{54}$ thin films, growth, microstruct., multiple recording appls. 28811
Mo-diamond:C CVD film, solid state react. 37491
Pd-InP Schottky diodes, cryogenic/RT, current transport 38390
Si:B(Al)(Ga)(As)(Sb) polycryst. films, sublimation method growth and doping 20972
WO_x thermionic energy converter collector electrode expts. 28027
ZnO films, thermal evap. 28856
ZnTe SR excited growth, metalorganic sources 20889

vacuum fluorescent displays *see display instrumentation*

vacuum gauges
see also ionisation gauges; manometers; vacuum measurement
doubly salient electrostatic motor, vac. gauge appl. 5000
Pirani gauge, Halas-Kaminski bridge cct. 34471

vacuum insulation
see also vacuum switches
alumina/vac. interface, pre-flashover lumin. 13948
Earth/space obs. spacecraft, pulsed power insulation design 35257
electro-insulating props. comparison *(Polish)* 22676
HV vac. surface flashover insulator technol. 30583
lin. inductive accelerator, pulsed power supply 34817
switchgear, perform. and appls. 27857

vacuum interrupters
arc conditioning effect *(Chinese)* 5136
contacts, switching endurance improvement *(Russian)* 44239
elec. strength, contact material arc conditioning 5144
HV high-capacity fuses, develops., appls. *(Chinese)* 44229
maint.-free vac. cct.-breaker 44231
perform. and appls. 27857
trends/future develops. 11198
Cu-Cr contacts, vac. interrupters, microparticles generation 27846

vacuum measurement
see also vacuum gauges
conference on meas. sci., Anaheim, USA (Jan. 1992) 5498
ionization gauge, large-angle ion deflector, press. meas. in extreme high vac. 10060

vacuum microelectronics
comb-shaped field emitter array for vac. microdevices *(Japanese)* 21803
deflection microwave amp., field-emitter arrays 6302
displays and vac. electronics, conf., Garmish-Partenkirchen (1992) 20196
distributed field emitter array MM-wave power amp. 38213
field emission diodes using sharp vert. edge struct., fab. 12995
field emitter arrays, cross-edge-struct. vert., fab. 21801
field-emission cathode arrays, elec. field gradients 29749
field-emission flat panel displays, beam focusing 18009
field-emission triodes, fab., emitter-gate separation of 0.18 μm 21804
field-emitter array, glow discharge proc. 21805
flat panel displays, AMLCDs and field emission displays 9986
free electron micro-lasers, microscopic gated field emitter arrays 39892
high-temp. electronic device technols. and pot. appls. 6705
IEDM, conf., San Francisco, CA, USA (Dec. 1994) 11589
low-power displays, act.-matrix LCD and field emission technols. 25925

vacuum microelectronics continued
MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
MIS electron tunneling cone-shaped cathode, fab. 21790
semicond. field emitter, LF noise 12994
Spindt-type emitter, elec. field and current anal. 38210
thermionic vac. tube devices, micron-scale dimens., fab. 21806
C:P(B) polycryst. diamond films, electron emission, vac. microelectronics 12993
GaAs-AlGaAs heterostruct., fab. tech., mesoscopic device appl. 12159
Mo field emitter, thermomechanical factors in operation and failure 21807
Si column-based field emitter arrays, enhanced perform. 29742
Si, conical field emitters, fab., elec. characts. 38211
Si field emitter arrays with LV operation, fab. 21802
Si field emitters, electron beam lithog./plasma etching 29755
n-Si porous field emitter arrays, enhanced electron emission 29748
Si tip avalanche cathode for vac. microelectronic devices 12991
Si(100), self-sharpening {338} tips, etching 30123

vacuum pumps
see also ion pumps
APS, hardware supported by control syst. 18203
beamline front-end mock-up at APS, vac. tests 43148
dry turbo vac. pump appl., semicond. mfg. procs. 22204
solar cells, plasma etching, health/safety concerns 44406
turbomolecular pumps, high vac. semicond. appls. 13266

vacuum sintering *see sintering*

vacuum switches
see also vacuum circuit breakers; vacuum contactors; vacuum interrupters
arc voltage, charact. values 36394
displays and vac. electronics, conf., Garmish-Partenkirchen (1992) 20196
E7-25 capacitor storage unit, ET/railgun launcher 31756
electron beam generation, plasma pulsed power closing/opening switch-based 34859
HV vac. relay reliab., Weibull/exponential failure distribs. 28523
plasma opening switch expts., long cond. time 36389
pulsed power high-Coulomb triggered vac. switch tests 36458
pulsed power vac. switch foil support struct., laser pumping appls. 36442
trends/future develops. 11198
triggered gap switch, LV operation *(Japanese)* 5137

vacuum techniques
includes techniques for producing, maintaining and handling vacuum per se
see also getters
beamline front-end mock-up at APS, vac. tests 43148
HTSC-based mag. levitated transport syst. in vac. 30808
load-lock and manipulation syst., heating capacity 20842
manipulators, commercial devices adaptation 44439
multiple-substr. holder for high vac., cryogenically cooled 5898
sample manipulator, azimuthal/flip rot., 16 to 1100 K 38536
SOFC anode layers, vac. plasma spraying prod. method 44317
SOFC components prod., vac. plasma spraying appls. 44316
SOFC element fab., vac. plasma spraying proc. 44315
SR beam viewer, EM actuator, UHV 34825
UHV-STM syst. combined, MBE 5837

vacuum tubes
see also diodes; tetrodes; triodes; vacuum microelectronics
BWOs, high power, two-stage nonuniform amplit. slow wave struct. 1004
Cassini mission Ka-band TWT, 32 GHz, CAD 21856
diode, Bursian instabil., (η,ε) diags. 12992
low energy X-ray radiation source calib., dosimetry 18415
repetitive e-beam diode develop. 36285
triode/pentode audio amps., SPICE models 37655

valence bands
copper dicyanoanthraquinone diimine thin film electrodes, H sens. 17976
diamond nucleation and growth, SR studies 404
GaAs:Se(100), passivated, oxid. 13373
graded HBTs, current transport, anal. model 38850
indirect interband tunneling formulation for semiconds. 38315
VCSELs with strained QWs, opt. gain, cryst. orient. depend. 1948
AlGaAs/GaAs HBT I-V charact., graded/setback layers 22368
AlGaInP based wide band gap quantum wells, opt. spectrosc. 13165
AlGaInP/GaInP strained quantum wells, opt. gain 31377
Bi/ZnO, interface form., model varistor grain boundary 6578
C_{60}-conjug. polymer supramolecular composite, role in photoelec. devices 31081
$CaS_{1-x}Se_x$:Eu thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
CdS/$CuInSe_2$(011) heterointerface, form., electronic props., XPS obs. 21951
$Cd_{1-x}Zn_xTe$:In, pure and doped, doping induced defects, photolum. obs. 22142
$CuInSe_2$, heteroepitaxy on Si, charactn. 13087
$CuIn_3Se_5$, heteroepitaxy on Si, charactn. 13087
GaAlAs asymmetric two-step quantum well for cascaded second-order procs. 13189
GaAs, impact ionization, ensemble Monte Carlo simul. 21879
GaAs:Be, electron thermalization, picosecond time-scale 1033
p-GaAs/AlGaAs HFET, output characts., high press. effects 38919
GaAs/Si, heterostruct., IV charact., CV charact. 29893
GaInP/Si/Al structs., Schottky barrier height modif. 13218
$Ga_xIn_xP/(Al_{0.5}Ga_{0.5})_{0.52}In_{0.48}P$, strained QW LD, optimisation 39857
GaP/GaAsP strained-layer quantum wells grown by MOCVD 20800
GaP/InGaP strained-layer quantum wells grown by MOCVD 20800
Ge-GaAs(001), heterojunctions, band-offset transitivity lack 1107
$In_{0.53}Al_{0.22}Ga_{0.25}As$/InP, HBT 13644
InAsP/InP MQW structs., strain studies 13142
InGaAs/InGaAsP MQW opt. modulator, nonlin. opt. absorpt., spatial band bending 2103
$In_{1-x}Ga_xAs$/InP quantum wells, cond.-band/valence-band struct. 1130
InGaAs-GaAs strained quantum well SEL 31392
InGaAsP lasers, compressive-/tensile-strained, valence band engng. 14917
InGaAsP, strained layers, LPE, spin-polarized electron sources 21798
InGaAsP/InP, strained-layer QW lasers, intrasubband scatt. rates 7661
InGaAsP-InP 1.55-μm quantum-well lasers, temp. sensitivity of differential gain 31320
$In_{0.5}Ga_{0.5}P$, highly strained, wide-gap material for heterojunction FET 20769
InP strained wires and dots, localized confine. pot. 6562
InP(110), nitridation/oxid., core-level/valence-band photoemission obs. 13335
Pd/Si interface, interface react., silicide form., XPS obs. 29960

valence bands continued
PtSi-Si-SiGe-Si Schottky diode IR detectors, tunable cutoff 17790
Si, impact ionization, ensemble Monte Carlo simul. 21879
Si/SiO_2 amorph. QW struct., dispersive subband-reson. nonlin. 1146
Si/SiO_2/Pt MOS diodes, surface state energy distrib., XPS meas. 29973
Si-Si_xGe_{1-x} superlattices, energy band structs. 6554
Si(100), ion beam-induced oxid., ion emission 6655
SiGe/Si/SiGe SIS struct., valence band discontinuity 6596
a-SiH, film, US assisted PECVD, in situ opt. diagnostics 28832
$SrS_{1-x}Se_x$:Ce thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
ZnO/CdS interface, valence band offset, photoemission studies 6547
ZnS-ZnSe superlattices, electronic states and binding energies 13194
ZnSe, ohmic contacts optim. by parab. grading of $ZnSe_{1-x}Te_x$ comp. 21973
ZnSe/GaAs heterostruct., deep level electronic struct. 38301
ZnSe-GaAs(001), heterojunctions, band-offset transitivity lack 1107
ZnSe-Ge(001), heterojunctions, band-offset transitivity lack 1107
ZnSe-ZnS, strained-layer superlattices, absorpt. spectra, electronic struct 38245
p-ZnTe/p-ZnSe heterointerface, band offset 21941
ZnTe-ZnSe, strained-layer superlattices, absorpt. spectra, electronic struct 38245

valence fluctuations *see mixed valence compounds*

value added networks *see telecommunication networks*

value analysis *see value engineering*

value engineering
see also operations research; optimisation; quality control
multiline server networks, mean-value anal. methods 16643
power syst. value based planning, probab. tech. 4617

valve voltmeters *see voltmeters*

valves
see also diaphragms
automobile two-state adaptive suspen., rule-based condition monitoring 5365
bulk produce conveyors, drop dists., manual/electronic control 3803
cardiac valve prosthetic, algm. for regurgitant vol. eval. *(Italian)* 26475
Comanche Peak NPP, pump/valve risk-based in-service testing 10840
diaphragm valves, normally-closed, elec. activation 6879
electrorheological valves, elec. response, press. coupling 444
electrostatic particulate materials bulk transport valve 7917
electrostatically-driven gas valve, high-press. conditions 30516
EM gas valve, fast acting 31741
HBC Limitorque valve gear operators, repair guidelines 27874
high-speed solenoid valve develop., diesel engine appls. 27873
lin. DC motors, high response, mag. materials *(Japanese)* 44075
microactuator, electrostatically actuated gas valve 6878
microflow devices and systs. 6877
motor-operated valve testing program, Monticello plant, PRA study 4789
motor-operated valves, noninvasive diagnostics 19624
multimachine power syst. resync., optimal variable aim control *(Chinese)* 10634
nested microvalve for integrated microflow controller 30495
NPP, valves with elec. actuator drives, actuating power reserve *(German)* 27360
NPP feedwater valves retrofitting, vibr. reduction 27339
NPP valve hardfacing, Co reduction guidelines 27413
nuc. gas turbine transportation engine, throttle valve control 28143
pipe/valve reliab. prediction, Bayesian routines 37196
power generation costs reduction, valve develops. 19391
power plant piping networks, press. and flow transient response prediction 4844
power station control valve/actuator develops. 35709
sheet metal bending, lin. hydraulic DC servomotor valve appls. *(Japanese)* 36493
steam turboalternator freq. control governor design 43909
thermally driven microvalve, buckling type, pneumatic appls. 30496
US motor actuated valve, direct drive fuzzy motion control 5284
Pb-acid immobilised electrolyte batt., valve design 44286

valves (electronic) *see electron tubes*

Van der Pol oscillators *see relaxation oscillators*

vanadium phosphate semiconductor glasses *see amorphous semiconductors*

VANs *see telecommunication networks*

vapour density *see density*

vapour deposited coatings
see also CVD coatings; plasma deposited coatings; sputtered coatings; vacuum deposited coatings
diamond, vap.-grown films, morph. develop., role of penetration twins 5864
ferromag. mech. stressed thin films, magneto-opt. meas. 30682
HTSC thin films, residual stresses for in-situ deposition 14274
rigid thin film disks, vap. lubrication 7156
simultaneous spectrosc. ellipsometry/reflectance, thin-film prep. monitoring 5880
Al conductors, thermionic deposition, electromigration stabil. 22257
CdO/CdTe thin film solar cells, prep./props. 5229
Cu film, ion beam assisted deposition, lower resist., higher interface adhesion 37512
$CuInTe_2$ polycryst. thin films growth 20979
PLZT thin films, voltage offsets 30572
Si films, microcryst./amorph., RF plasma spray/ion beam deposition 5856

vapour deposited thin films *see vapour deposited coatings*

vapour deposition
see also chemical vapour deposition; crystal growth from vapour; electron beam deposition; ion plating; ionised cluster beam deposition; laser deposition; plasma deposition; sputter deposition; vacuum deposition
buck converter design, zero-current turn-off, MCT 19748
intense ion beam thin film deposition 12151
jet vap. deposition of organic guest-inorganic host thin films 5872
materials synthesis/processing using ion beams, conf., USA (1993) 11594
MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
plasma etching, ion milling and deposition, 3D topography simul. 22180
polyurea films, vap. deposition polymerization, photoresist characts. 13444
proc./equipt. monitoring, quadrupole mass analyzer 22087
thin-film narrow-bandpass filters prod. by ion-assisted deposition, temp. stabil. 22988
Al film planarization for ULSI metallisation, mol. beam deposition/annealing 22267
Al(100), heteroepitaxy on Si(111), thermal evap. growth 12038
Cr-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680

vapour deposition continued
Cu-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
Cu(In,Ga)Se_2 thin-film growth, mixed-phase precursor 20935
$CuInTe_2$ polycryst. thin films growth 20979
In_2O_3 very thin films, struct., conductance evol. 417
InSe:Cd films, flash evap., XPES/XRD meas. 12154
Pd ultra-narrow metallic wires, cryogenic shadowed evap. tech. 426
TiO_2-MgF_2 composite multilayer films prepared by reactive ion-assisted coevaporation 1782
$YBa_2Cu_3O_{7-\delta}$ high current thick films on flexible Ni substrs. 1597

vapour phase epitaxial growth
see also atomic layer epitaxial growth; chemical beam epitaxial growth; molecular beam epitaxial growth
1.55 μm DFB-LD/modulator integrated light sources, MOVPE grown 9478
bipolar transistors, SEG and chemo-mech. polishing 6738
book, Si and Si alloy based materials/devices 11540
compound semiconductor expert evaluation, conf., Parma, Italy (1994) 5493
conf., interface control of elec., chem. and mech. props., USA (1993) 36832
conf., thin film physics/appl., Shanghai, China (1994) 28235
conference, rapid thermal/integrated processing, San Francisco, CA, USA (1994) 5459
conference, vapour growth/epitaxy, Freiburg, Germany (1994) 20217
crystal quality problems in epitaxial growth on InP 12065
diamond:B heteroepitaxial films, plasma CVD, p-n jn. diodes 20740
diamond, CVD on cubic BN, carbonaceous layer form. *(Japanese)* 37460
diamond, heteroepitaxial deposition on sharpened Si tips 37424
diamond, highly oriented films on Si, growth, charact. and devices 5820
diamond, homoepitaxial thin film, plasma CVD grown *(Chinese)* 5849
diamond (001) B-doped homoepitaxially grown films, Hall mobility, carrier conc. 21883
diamond films, heteroepitaxy on Si via SiC buffer layers 20849
diamond films, plasma CVD, localized epitaxy, Si substrs. 5841
diamond MOSFETs on epitaxial thin films, fab., cct. appls. 22437
diamond Schottky barrier diode, fab. and characts. 22350
diamond/Si(001), heteroepitaxial films, interface study 21940
diode lasers, tapered waveguide layer fab. 39814
epitaxial growth optim., opt. charactn. 319
$Ga_{1-x}In_xAs$-$InAs_yP_{1-y}$-InP, strain relax., photodiode appl. 12054
GaAs:C/AlGaAs HBT wafers, MOVPE, AsH_3/trimethylarsenic for base layer growth, perform. comparison 22376
group VI dialkyls/alkylhydrides, decomp., MOVPE appl. 20783
HEMT-on-Si technol. for dual modulus prescaler IC fab. 21296
II-VI semiconds. low-temp. growth, SR 28771
ii-vi wide-gap semiconds., MOVPE, optoelectronic appls., review 20887
III-V heterostructs., selective area epitaxy, XRD charactn. 38311
III-V layers, MOCVD SEG, math. model 20761
InGaAsP-InP four-wavelength DBR laser array, selective MOCVD 14960
integrated DFB LD modulator for 2.4 Gbps opt. transm. *(Japanese)* 39618
integrated laser/modulator, long-dist. transm., 2.5 Gbit/s 14880
integrated RTP/MOCVD technol., IC manufacture, model-based proc. control 22533
LD, MOCVD grown, operation, power 39851
LEOS, Lake Tahoe, NV, USA (July 1994) 39
load-lock and manipulation syst., heating capacity 20842
materials synthesis/processing using ion beams, conf., USA (1993) 11594
metalorganic precursors for vapour phase epitaxy 20781
metalorganic vap. phase epitaxy, organic group V precursors 20776
MOVPE, conf., Yokohama, Japan (1994) 11533
MOVPE optoelectronic device technol. 28747
MOVPE rot. disk reactor, design, operating charact. 20816
overview of epitaxial deposition technol. 12041
oxide film deposition, rapid isothermal proc.-MOCVD 20846
p-n jn. shift eval. by C-V method 21956
photoassisted growth of II-VI semicond. films 28762
polysilicon TFTs, fab., pulsed laser annealing and plasma CVD 13743
run by run proc. control combining SPC and feedback control 20412
selective epitaxy, enhanced growth rate model 310
semicond. photonic IC, selective MOVPE growth 30976
VCSEL diodes, MOVPE 5852
Al/Si(111), ordered Al films growth, LEED, Auger electron spectrosc. 20716
Al(100), heteroepitaxy on Si(111), thermal evap. growth 12038
AlAs epitaxial layers, hydride/chloride systs., thermodyn. aspects 377
AlAs, metalorganic VPE growth, wide terrace form. 20732
AlAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
p-AlAs:Zn, MOCVD for low-resist. VCSEL 23246
AlAs/GaAs DBR VCSEL diode on Si, MOCVD and struct. 39882
AlGaAs, MOCVD/MBE on GaAs, elastic consts., Poisson ratio 28752
AlGaAs, MOVPE from triethylgallium and dimethylethylaminealane 20777
AlGaAs, epilayers, MOCVD grown, HRTEM charactn. 20772
AlGaAs, high purity, methyl-based precursors, in situ alkoxide gettering 299
AlGaAs lasers, nonplanar MOVPE, lateral p-n jns. containing p-type (311)A facets 1943
AlGaAs layers on GaAs(100), MOVPE, lattice relax. obs. 20747
(AlGa)As, low press. metalorganic vap. phase epitaxy, N_2 carrier 311
AlGaAs, multiwafer MOVPE reactor growth modelling 20795
AlGaAs, p-doping, triethylamine adduct of dimethylzinc 1206
AlGaAs, selective area MOCVD for hexagonal-facet lasers 20766
(AlGa)As, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
AlGaAs substrs., MOCVD growth 20826
$Al_{0.35}Ga_{0.65}As$, metalorganic VPE growth, wide terrace form. 20732
$Al_xGa_{1-x}As$ BH LD, MOVPE 23243
$Al_xGa_{1-x}As$, MOVPE growth, intramolecular and intermolecular alane-adducts 345
$Al_xGa_{1-x}As$, facet growth, HCl gas by metalorganic vap. phase epitaxy 20763
$Al_xGa_{1-x}As$, in-situ etching and selective epitaxy, metalorganic vap. phase growth 20762
AlGaAs:C, C incorporation, MOVPE 22125
AlGaAs:N,C, thermally stable C-N deep level 28742
AlGaAs:Si, delta-doped by LP-MOVPE, HEMT appl. 22134
AlGaAs:Si, delta-doped, low-press. MOVPE 13304
AlGaAs:Si-GaAs SQW, MOCVD, magnetotransport, subband struct. 22003
AlGaAs/GaAs micromachining, monolithic integrat. of micromechanical struct. 23065
AlGaAs/GaAs quantum wires, flow rate modulation epitaxy on nonplanar substr. 37386

vapour phase epitaxial growth continued
AlGaAs/GaAs superlattice, MOVPE, selective growth on (110) cleaved plane 37435
(AlGa)As/GaAs:C, MOVPE, N_2 carrier gas 316
AlGaAs/GaAs:C,In HBT 1209
AlGaAs/InGaAs/GaAs QW lasers, perform., MOVPE growth interruption effect 23248
AlGaAs-GaAs ARROW waveguides, atten. meas. 30931
AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
AlGaInAs/InP 1.5 μm MQW DFB LD exceeding 20 GHz bandwidth, MBE/MOCVD 23229
AlGaInP QW partial top dielec. stack DFB red VCSEL arrays 14850
AlGaInP, SQW LD, OMVFE, props. 7609
$(Al_xGa_{1-x})_{0.5}In_{0.5}P$ layers, metalorganic VPE growth, step-bunching 20734
AlGaInP:Si, metalorganic CVD, elec. and opt. props. 28778
AlGaInP:Si(Zn)/GaAs LED, low-press. metallorganic VPE 39583
AlGaInP:Zn, H-passiv. of acceptors in MOVPE layers 22129
p-AlGaInP:Zn, metalorganic VPE growth, alternate sources, phosphine 20752
AlGaInP/AlGaAs:C red/IR VCSEL diodes, metalorganic VPE 20823
AlGaInP/GaInAsP MQW vis. LD, beam charact., reliab. 31351
AlGaInP/GaInP, multiwafer, MOCVD growth 20959
$(Al_{0.7}Ga_{0.3})_{0.5}In_{0.5}P/In_{0.15}Ga_{0.85}A$ s/GaAs HFET, characts. 12752
$Al_xGa_{0.52-x}In_{0.48}P$/GaAs, HBT, MOVPE, charactn. 13652
AlGaN epitaxy on sapphire using AlN buffer layers, cryst. struct. 364
$Al_xGa_{1-x}N$, selective VPE growth on GaN/sapphire substrs. 5846
AlGaN/GaN/GaInN, stacked heterostruct. LED, MOVPE 23049
AlGaP:N, MOVPE, doping charactn. using tertiarybutylamine as N source 22132
AlP/GaP monolayer superlattice, organometallic vap. phase epitaxial growth 356
AlP/GaP short period superlattice, organometallic VPE growth, photolumin. obs. 20753
Au island mask-GaAs nanostruct. fab., MBE/MOVPE 385
Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
BaF_2, epitaxial growth on GaAs(100)/(111) 37394
$Ba_2NaNb_5O_{15}$ opt. waveguide film, epitaxial growth by pulsed laser deposition 1715
$BaTiO_3$ films on Pt, epitaxial growth and dielec. props. 12099
C doping in metalorganic vap. phase epitaxy 22124
3C-SiC epilayers fab., elec. props. *(Japanese)* 372
$CdS_{1-x}Se_x$ hexagonal alloy films, epitaxial growth, photolum. 20882
CdSe, MOVPE, precursor gas monitoring by photolum. 34617
CdTe, metalorganic VPE, situ laser reflectometry 20726
CdTe, monocrystalline films, ICB epitaxy *(Chinese)* 5813
CdTe on GaAs and Si substrs., OMVPE 37452
CdTe passiv. for long-wavelength HgCdTe photodiodes, elec. props. 1277
CdTe/InSb heterointerfaces, temp. gradient vap. transport deposition, interfacial layer form. 371
CdTe/ZnTe/GaAs, hot wall epitaxy, elastic strain effects 20841
CoCr films on Ti, perp. recording, low temp. sputter-deposition, high coercivity 6959
CoCrPt-MgO bicrystalline long. recording medium, mag. charact. 6957
Cu MOCVD thin films from pyrazolylborato-Cu(I) complexes, charactn. 38679
Cu/TiN/Si(100) heterostruct., pulsed laser deposition and charactn. 421
$CuGaSe_2$ single crysts. epitaxial growth by halogen transport, $Se(CH_3)_2$ 306
$CuInSe_2$ single crysts. epitaxial growth by halogen transport, $Se(CH_3)_2$ 306
$Ga_{1-x}Al_xAs$ epitaxial layers, hydride/chloride systs., thermodyn. aspects 377
GaAs LPOMVPE, crystallographic orient. depend. of growth rate 28740
GaAs, MOCVD on annealed Si in H_2 20771
GaAs, MOS-hydride epitaxial growth, cryogenic purification of arsine 28737
n-GaAs, MOVPE, MBE, electron irrad., schottky diode charact. 28741
GaAs MOVPE, multiatomic step form., GaAs/AlGaAs QW wires 20835
GaAs, MOVPE, trialkyl-group-V-precursors 314
GaAs VPE grown films, DTLS 20869
GaAs, dimethylaluminum methoxide-doped , shallow donors compensation 6617
GaAs, epilayers, MOCVD grown, HRTEM charactn. 20772
GaAs epilayers, metalorganic CVD growth 37411
GaAs, growth from trimethyl gallium 28725
GaAs heteroepitaxy, spherical epitaxial-Si substr. 307
GaAs high current power VFET, fab. proc. 30384
GaAs, low press. MOCVD on Si, defect reduction 20768
GaAs, low-press. metalorganic vap. phase epitaxy 12078
GaAs, metalorganic VPE growth, gas phase adduct form. 20731
GaAs, metalorganic VPE growth, wide terrace form. 20732
GaAs monocrystalline substrs., gas etching in VPE 1233
GaAs, multiwafer MOVPE reactor growth modelling 20795
GaAs nanometer-scale whiskers, growth/opt. props. 20815
GaAs nanowhiskers, site-controlled growth 12121
GaAs, p-doping, triethylamine adduct of dimethylzinc 1206
GaAs, photoenhanced metalorganic CVD, substr. role 12122
GaAs, selective area MOCVD for hexagonal-facet lasers 20766
GaAs, selective area MOVPE, vert./lateral growth enhancement on (111)B substr. 20765
GaAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
GaAs surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
GaAs vert.-stacked quantum wires grown/Si substrs., MOVPE 20797
GaAs:As, implanted struct., MOCVD, charactn., appls. 22159
GaAs:C, C incorporation, MOVPE 22125
GaAs:C, heavily doped, LP-MOVPE, carrier gas effects 22133
GaAs:C, organometallic VPE growth, tris-dimethylaminoarsenic/CCl_4 298
GaAs:N,C, thermally stable C-N deep level 28742
GaAs:O, MOVPE, elec. charactn., O incorporation control 20775
GaAs:O, MOVPE, ultrafast photodetector materials appl. 23064
GaAs:Si, delta-doped, low-press. MOVPE 13304
GaAs:Si, doping in MOVPE from tertiarybutylarsine and tetraethylsilane 22128
GaAs:Si, incorporation, MOVPE from tertiarybutylarsine 22126
GaAs:Zn, Zn incorporation, OMVPE growth 30019
GaAs/$Al_{0.5}Ga_{0.5}As$ quantum wire struct., in-situ gas etching/selective-area MOVPE 20798
GaAs/$Al_xGa_{1-x}As$, LP-MOVPE, DEAlH-NMe_3, Al source 346
GaAs/$Al_xGa_{1-x}As$, MOVPE, n-doping, 2D electron gas struct. 22152
GaAs/$Al_xGa_{1-x}As$ growth with DEAlH-NMe_3, MEAs and DMAAs sources 20780

vapour phase epitaxial growth continued

- GaAs/Al$_x$Ga$_{1-x}$As, multiwafer prod. for solar cells on 4″ substrs. 5224
- GaAs/Al$_x$Ga$_{1-x}$As superlattice, interfacial roughness, controlled impurity incorporation 20821
- GaAs/Al(Ga)As quantum wells, MOVPE/MBE growth, interface struct. 20878
- GaAs/AlGaAs, MOCVD, regrown, interface contamination, gas etching 22242
- GaAs/AlGaAs, MOVPE, V-grooved GaAs substrs. 20884
- GaAs/AlGaAs MOVPE-grown vert.-cavity top-SEL 31388
- GaAs/AlGaAs QW wires, form., photolum. charactn. 20819
- GaAs/AlGaAs QWs and quantum wires, growth and opt. props. *(Chinese)* 5815
- GaAs/AlGaAs micro-pyramids, selective MOVPE growth 20767
- GaAs/AlGaAs quantum dots, MOVPE growth, patterned GaAs substrs. 37428
- GaAs/AlGaAs struct., low-press. MOVPE, growth area 20827
- GaAs/AlGaAs superlattices, IR detectors, MOVPE growth 37418
- GaAs/GaAlAs quantum wells, metalorganic VPE, laser reflectometry 20724
- GaAs/GaAsP heterostruct., MOVPE grown, interface flatness 20822
- GaAs/GaAsP quantum wires, MOVPE, luminesc. props. 20796
- GaAs/GaInP syst. MOVPE grown quantum-well struct., InP/GaInP barriers 20801
- GaAs/InGaAs two step doping channel FET, symmetric normally on/normally off characts. 38937
- GaAs/InP heterostruct., (111) A, B oriented, MOVPE growth, Raman scatt. 12107
- GaAs-InGaAs δ-doped real-space transfer transistor 30367
- GaAs-InP MESFETs and ccts. fro OEICs 39598
- GaAs-InP nanostruct. fab., MBE/MOVPE 385
- GaAs(001), As/P precursor efficiency, reflectance anisotropy spectrosc. 20721
- GaAs(001) surface, MOVPE, monolayer growth oscills. 20854
- GaAs$_{1-x}$P$_x$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
- GaAsP/AlGaAs strained-layer quantum well, opt. props. 23001
- GaInAS/InP, high power HJFET, MOCVD, performance 13775
- GaInAs, MOVPE, coherency limits 315
- GaInAs PIN/HEMT receiver OEICs for Gb/s opt. systs., fab. 25495
- GaInAs layers, VPE growth, compositional aspects 20741
- GaInAs, selective area epitaxy, group III precursors 20759
- GaInAs thermophotovoltaic cells, growth/fabr. 27978
- GaInAs:Ti, Ti doping, TiCl$_4$ 22131
- GaInAs/GaInAsP MQW tuned lasers fabricated by photoabsorption induced disordering 1957
- GaInAs/InP OMVPE regrowth, ultrafine BH 20820
- GaInAs/InP quantum-wire lasers, fab. procs. 39811
- GaInAs/InP syst. MOVPE grown quantum-well struct., InP/GaInP barriers 20801
- Ga$_x$In$_{1-x}$As/AlAs heterostruct. on InP, flow modulation epitaxy for RTDs 20679
- GaInAs-GaAs multiwavelength SEL arrays, MOCVD fab. 1937
- GaInAs-InP struct., MOVPE 12048
- GaInAs-InP tensile strained quantum wire laser fab. 39797
- GaInAsP/GaAs, MOCVD, lattice match, photoluminesc. Hall mobility 7610
- GaInAsP/GaInAsP MQW stacks, wavy layer growth elimination 20802
- GaInAsP/InP tensile strained SQW lasers, 1.3 μm, LP-MOCVD grown 14944
- Ga$_{1-x}$In$_x$As$_y$P$_{1-y}$/InP VCSEL 14923
- GaInAsSb growth, tertiarybutylarsine, arsenic source 20779
- GaInP, MOVPE, coherency limits 315
- GaInP layers/heterostruct. on GaAs substrs., VPE, surface photo-absorpt. charactn. 20718
- GaInP, selective MOCVD epitaxial growth 20675
- GaInP, selective epitaxy, low press. MOCVD 360
- Ga$_{0.5}$In$_{0.5}$P order/disorder heterostruct., organometallic VPE growth 20750
- Ga$_{0.52}$In$_{0.48}$P, partially ordered, excitons homog./inhomog. linewidths 1045
- Ga$_x$In$_{1-x}$P, selective epitaxy, LP MOCVD, comp. nonuniformity 20829
- Ga$_x$In$_{1-x}$P strained quantum wells, MOVPE growth 20799
- GaInP/AlGaInP quantum wells, MOVPE, anom. photolum. 341
- GaInP/GaAs DH interface, MOVPE growth 20805
- GaInP/GaAs HBT, MMIC power amps., MOCVD growth 12165
- GaInP/GaAs LP-MOCVD grown HBTs for VCOs and power amp. MMICs 22377
- GaInP/GaAs, MOVPE grown heterointerfaces, III/V exchange 20886
- GaInP/GaAs tandem solar cells, high efficiency 27960
- GaInP/InP, quantum sized structs., MOVPE, 2D-3D growth mode transit. 12040
- Ga$_y$In$_{(1-y)}$P/GaAs, ordering probab., compositional depend. 38299
- α-GaN films, OMVPE, microstruct. charactn. 28734
- GaN films, metal-organic CVD growth, struct./elec./opt. props. 20897
- GaN layers hydride VPE on cubic GaN/(100)GaAs and hexagonal GaN/(111)GaAs substrs. 12079
- GaN, low temp MOCVD epitaxy, photolum. 365
- GaN, metalorganic VPE growth, surface orient. depend. 20755
- GaN, selective VPE growth on GaN/sapphire substrs. 5846
- GaN, two-step-growth on AlN buffer layer 20743
- GaN:Mg on GaN substr., metalorganic VPE growth, opt. props. 20754
- GaN:Si, Si doping, disilane 38478
- GaN:Si metal-organic VPE, shallow/deep levels charactn. 13052
- GaN/GaP heterostruct., metalorganic CVD on annealed GaN and GaP surfaces 20756
- GaP, cold-wall metalorganic-chloride VPE growth 20729
- GaP, epilayers, MOCVD grown, HRTEM charactn. 20772
- GaP epitaxial layer, MOCVD growth on Si substr. 20671
- GaP, growth from trimethyl gallium 28725
- GaP surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
- GaP:N layers, OMVPE using TBP, N doping 1208
- GaP:N, metalorganic VPE, photolumin. obs. 20728
- GaP/GaAsP strained-layer quantum wells grown by MOCVD 20800
- GaP/InGaP strained-layer quantum wells grown by MOCVD 20800
- GaP$_{1-x}$N$_x$, MOVPE 342
- GaP$_{1-x}$N$_x$, metalorganic VPE, photolumin. obs. 20728
- GaP$_{1-x}$N$_x$/GaP quantum wells, MOVPE 342
- GaSb, atmos. press. MOVPE on GaAs substrs. 20773
- GaSb, thick buffer layers on GaAs, opt., elec. charactn. 12108
- Ge heteroepitaxy on Si(001), init. stage, Auger electron diffr. 20709

vapour phase epitaxial growth continued

- Ge, surfactant-mediated growth on Si(001), strain relief by microroughness 386
- Ge/GaAs, heteroepitaxy, As segreg., passiv. 37396
- Ge/GaAs, heteroepitaxy, role of As 362
- Ge-Si monolayer-scale heterostruct. by rapid thermal CVD 20911
- (Hg,Cd)Te films, isothermal VPE growth, morph. orient. depend. 326
- (Hg,Cd)Te, metalorganic VPE, methyl(allyl)telluride Te precursor 20792
- (Hg,Mn)Te films, MOVPE, GaAs substr. 20891
- HgCdTe, MOCVD layers, excess carrier lifetimes 38254
- HgCdTe VPE growth, long wavelength IR detector, zero tunnel leakage current 12097
- HgCdTe layers on GaAs substr., MOVPE, autodoped Ga conc. reduction 20893
- Hg$_{1-x}$Cd$_x$Te MSM IR detectors, nuc. microprobe defect anal. 29987
- Hg$_{1-x}$Cd$_x$Te epitaxial layers, (100) CdTe substrs., CVT, normal/reduced gravity expts. 20892
- Hg$_{1-x}$Cd$_x$Te, MOVPE, elec. props. 13053
- Hg$_{1-x}$Mn$_x$Te/CdTe film, VPE, component interdiffusion 296
- HgTe, metalorganic VPE, situ laser reflectometry 20726
- InAlAs:Zn, MOVPE grown, doping, MQW electron transfer struct. appl. 13318
- InAlAs/GaInP/InGaAs, HFET, GaInP barrier growth, MOVPE 350
- InAlAs/InGaAs HEMTs, InGaAs buffer layers, MOCVD growth 22476
- InAlAs/InGaAs MODFET, 0.15 μm gatelength, OMVPE growth 13780
- InAs, MOVPE, high mobility on GaAs 29853
- InAs cluster nucleation/epitaxial growth via electron beam lithog. 30173
- InAs, low temp. epitaxial growth, V/III supply ratio effects 334
- InAs nanometer-scale whiskers, growth/opt. props. 20815
- InAs surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
- InAs/GaAs short period superlattices, InP substrs., low-press. MOVPE 20803
- InAs/GaSb strained layer superlattices growth 20804
- InAs/GaSb strained layer superlattices, growth 20885
- InAsP/InGaAsP QW 1.3 μm laser, MOVPE growth 12067
- InAsP/InP MQW, metalorganic VPE, interface study 12102
- InAsP/InP/InGaP 1.5 μm strain compensated MQWs, optoelectronic appls. 1140
- InAs$_{0.91}$Sb$_{0.09}$, MOVPE, electronic props., photocond. 28779
- InGaASP/InP travelling wave optical amplifiers integrated with passive waveguides 14485
- InGaAlP epilayers, metalorganic CVD using tertiarybutylphosphine, deep levels 20751
- InGaAs MQW laser, 1.75 μm, MOVPE grown on InAsP substr. 23184
- InGaAs OMVPE growth/charactn.,thermophotovoltaic cells 27977
- InGaAs buried layers MOVPE grown on nanoscale InP islands, photolum. 20832
- InGaAs epilayers, metalorganic CVD growth 37411
- InGaAs high power quantum well diode laser, MOVPE fab. *(Korean)* 39803
- InGaAs highly uniform quantum dots, MOVPE grown on GaAs 20831
- InGaAs quantum disks self-organizing on GaAs(n11)B, AFM study 6553
- InGaAs strained quantum disk laser, nanoscale act. region 23216
- InGaAs strained quantum wire/box struct. self-organized on high-index GaAs (n11)A/(n11)B substrs. 22000
- In$_x$Ga$_{1-x}$As MOVPE strained layer on GaAs, AFM 20850
- In$_x$Ga$_{1-x}$As surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
- InGaAs:Se, specular surface thermal stabil. in LP-MOVPE 22127
- InGaAs/AlGaAs QW lasers, MOCVD, rot. disk reactor 23238
- InGaAs/GaAs LD, degrad., possible sources 14925
- InGaAs/GaAs, SQW laser, MOCVD, threshold current 39855
- InGaAs/GaAs laser-mode-size convertor monolithic integrat., shadow-masked growth 22916
- InGaAs/GaAs mesa-etched VCSEL, MOCVD, low threshold 39871
- InGaAs/InP MQW, selective area MOVPE, quantum energy tuning 20760
- InGaAs/InP QW lasers, AP-MOCVD, liq. group V sources 12069
- InGaAs/InP QW wires, electron beam lithography fabrication 13200
- InGaAs/InP superlattice QW lasers, MOVPE grown 39807
- InGaAs/InP superlattices, MOVPE 20836
- InGaAs/InP transimpedance opt. receiver OEIC 1834
- InGaAs/InP waveguide photodetector, saturation intens. 34512
- InGaAs/InP:Fe enhancement layer Schottky contacts 1149
- In$_{0.2}$Ga$_{0.8}$As/GaAs quantum wells, metalorganic VPE, multistep form./In comp. var. 20735
- InGaAs-InGaAsP MQW DFB LDs, 1.5 μm, MOVPE growth 7616
- In$_{0.53}$Ga$_{0.47}$As-InP, heterostruct. emitter bipolar transistors, LP-MOCVD grown 38848
- In$_x$Ga$_{1-x}$As-GaAs-Al$_y$Ga$_{1-y}$As, BH QW lasers, selective area MOCVD 39853
- InGaAsP 1.3 μm DH laser heteroepitaxially grown on Si, stable CW operation 31384
- InGaAsP MQW LD, metalorganic VPE, entirely organic sources 23244
- InGaAsP MQW laser, MOCVD growth 12068
- InGaAsP, dual-fluid-layer struct. MOVPE reactor 20794
- InGaAsP low threshold multi-quantum well LD, MOVPE 23240
- InGaAsP strained quantum well, VPE, laser appl. 12130
- InGaAsP/GaAs heterostruct., low press. MOCVD, charactn. 12106
- InGaAsP/InP MQW integrated DFB-DBR laser modulator, MOVPE growth 23247
- InGaAsP/InP MQW planar buried hetero-struct. lasers, MOVPE 23242
- InGaAsP/InP false MQW, MOCVD/CBE growth, As,P incorporation 12063
- InGaAs(P)/InP, lasers, HBT, monolithic integration 14651
- InGaAsP/InP monolithically integrated multi-wavelength MQW-DBR LD, MOVPE 23239
- InGaAsP/InP structures, MOVPE, optical device appls. 12047
- In$_x$Ga$_{1-x}$As$_y$P$_{1-y}$/InP, strained QW LD, nonhydride MOCVD 39856
- (In$_x$Ga$_{1-x}$N/GaN)^n layered struct., metalorganic VPE growth/In droplet reduction 20757
- InGaP, LD current blocking layer, selective MOVPE regrowth 20764
- InGaP, LP-MOCVD, temp. depend. facet develop., GaAs substrs. 20830
- InGaP, MOVPE, microstruct. obs. 37438
- InGaP homojunctions, LP MOVPE, 2DEG 21957
- In$_{0.5}$Ga$_{0.5}$P, highly strained, wide-gap material for heterojunction FET 20769
- InGaP/GaAs epilayers grown by low-press. MOVPE, cationic ordering 12116
- InGaP/GaAs heterostruct., MOCVD growth, charactn. 20825
- InGaP/GaAs heterostruct. lasers, MOCVD, 0.98 μm 7606
- InGaP/GaAs heterostruct., low press. MOCVD, charactn. 12106
- InGaP/GaAs, misfit accomodation, substr. tilt 29892

vapour phase epitaxial growth continued
- InGaP/$In_{0.2}Ga_{0.8}As$:Si HEMTs, heavily Si-doped, MOVPE growth 5830
- n-InGaP/InGaAs/GaAs pseudomorphic HEMTs, mobility, device perform. 22485
- InGaP-InAlGaP MQW electro optic modulator, MOVPE grown 39483
- InN films on GaAs(111) and GaP(111), microwave-excited metalorganic VPE 28753
- InN thin films, hydride vap. phase epitaxy growth 379
- InP BH lasers, full wafer proc. 39808
- InP, CVD growth by phosphine modulation 12059
- InP, MOCVD, transit. from island to continuous layer growth on GaAs 12115
- InP, MOVPE from monoalkylphosphine precursors 20778
- InP, MOVPE, surface topography, step orient. 37385
- InP, VPE growth, reactor design/improvement 12055
- InP, low press. MOCVD on Si, defect reduction 20768
- InP, planarizing regrowth using low press. hydride VPE system 12050
- InP, selective growth, cylindrical/parallelepiped mesas 12110
- InP, selective-area MOVPE, optoelectronic appls. 381
- InP surface, metalorganic VPE, desorpt./gas decomp., surface photoabsorpt. obs. 20719
- InP wires on planar GaAs substrs., maskless selective growth 344
- InP:Be, MOVPE growth, bismethylcyclopentadienyl-beryllium 37430
- InP:Fe epitaxial layers, CVD growth 12053
- InP:Fe, hydride-vap. phase epitaxial growth, FeP precip., anal. 20810
- InP:Fe,Ti, semi-insulating, codoping process, growth 13319
- InP:Ti, Ti doping, $TiCl_4$ 22131
- InP:Zn(Mg), MOVPE precursor Et_2InNMe_2, photolum. and Hall study 12117
- InP/GaInAs HEMT, interface props., device characteristics effect 13779
- InP/GaInAs QW dot struct., fabrication 13202
- InP/InGaAs HBT, MOCVD, Zn diffusion, growth temp. depend. 22385
- InP/InGaAs HBTs, highly Be-doped base layer, fab./characts. 21541
- InP/InGaAs/InP quantum well, MOVPE, surface topography evol. 353
- InP/InGaAsP, whispering-gallery-mode microdisk QW lasers 31367
- InP/InGaAsP(GaAs), MOCVD growth, interface characterisation 12150
- p-InP/n-InP/InGaAs, S-doped DH-HEMT, props. 13787
- InP(001), As/P precursor efficiency, reflectance anisotropy spectrosc. 20721
- InPAsSb alloys lattice matched InAs, MOVPE 301
- $(InSn)_2O_{3-x}$ oriented films on ZnO films, magnetron sputter deposition 37508
- InTlSb photocond., MOCVD, IR detect. 9902
- Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
- $(Pb,La)(Zr,Ti)O_3$ ferroelec. films, metalorganic CVD/elec. props. 20758
- PbMgSrTe, films, hot-wall epitaxy, charactn. 12080
- PbSrTeSe, films, hot-wall epitaxy, charactn. 12080
- $PbTiO_3$:La pyroelec. IR sens. array for human body detect. 42805
- Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
- $RbTiOPO_4$ films, epitaxial growth, excimer laser ablation tech. 12127
- Si SEG, integrated cluster tool 20847
- Si SR excited ALE/CVD, Si_2H_6 gas *(Japanese)* 12044
- Si, epitaxial growth, 300°C by confined PECVD 5835
- Si epitaxial growth, gas-phase/surface kinetics model 12100
- Si epitaxial layers, ECR plasma CVD, ellipsometry obs. 28721
- Si films, ion beam epitaxy, UHV, sputtering-type metal ion source 37405
- Si homoepitaxy on Si(111), surface defect mediated 12087
- Si low temp. epitaxy in single-wafer RTP reactor, microwave heating 384
- Si, low-temp. polycryst. films, PECVD prep., gas flow rate effect on props. 5829
- Si, rapid thermal CVD, O/C low thermal budget removal 28735
- Si, selective epitaxy on SiO_2, UHV rapid thermal CVD 325
- Si substr. MOVPE grown, novel pseudomorphic struct. 20824
- Si, surface cleaning for VPE by photoexcited F_2 gas 38625
- Si wafer surface cleaning/epitaxial growth in UHV ECR CVD reactor *(Korean)* 13331
- Si:B, epitaxy, B incorporation 12101
- Si:B lightly doped epitaxial layers, direct growth 357
- Si:P, epitaxial films grown by rem. PECVD 38509
- Si/Al_2O_3 heteroepitaxial double SOI struct., press. sens. 38433
- Si/$Si_{1-x-y}Ge_xC_y$/Si HBTs, fab. and bandgap study 21553
- Si/$Si_{1-x}Ge_x$ heterostruct. charge injection transistors and logic elements 22482
- Si/SiGe epitaxial-base HBTs, materials, phys., and ccts. 30243
- Si/SiGe heterostruct., UHVCVD growth and appl. 312
- Si-SiGe-Si strained quantum wells, rapid thermal CVD, photolum. 22004
- Si-SiO_2(SiGe) epitaxial growth, ex-situ/in-situ probing by opt. SHG 28724
- SiC, 6H polytype, high temp. dinistor, sublimation epitaxy 22507
- SiC, VPE growth, vert. LPCVD reactor 20867
- SiC and related materials, conf., USA (1993) 28218
- SiC epitaxial films, vap. phase chem. deposition form. 37453
- SiC epitaxial growth on Si(001), Si out-diffusion related defects 20900
- 4H-SiC epitaxial layers, CVD growth 28758
- β-SiC films, CVD epitaxy, struct./electronic charact. 20903
- SiC, heteroepitaxial growth by alternate supply of SiH_2Cl_2 and C_2H_2 20926
- SiC, multipolytype epilayers, device config., X-ray topography 37458
- β-SiC on Si, CVD epitaxial growth and elec. charact. 37434
- 3C-SiC on Si, heteroepitaxial growth, etch pit reduction 28781
- SiC, props./growth, rel. to HF device appls. 1072
- SiC random alloy epitaxy on Si by RTCVD, SiH_4 and C_3H_8 20848
- SiC:N,Al,B, CVD, unintentional contaminants incorporation 20901
- SiGe HBT technol. for wireless and mixed-sig. appls. 22562
- p-SiGe MODFET with high transcond., fab. and perform. 38002
- SiGe alloys, SEG, film props. 12103
- SiGe base bipolar transistor ECL ccts., super self-aligned selective growth 30443
- SiGe strained layer growth from disilane/germane 370
- SiGe:B(P)-Si strained heterostruct., RTP/very LPCVD growth, in-situ doping 20844
- $Si_{1-x}Ge_x$:P, epitaxial films grown by rem. PECVD 38509
- SiGe/Si/SiGe SIS struct., valence band discontinuity 6596
- SiGe-Si RTP/VLPCVD heterostruct., Ge surface segreg., H_2 influence 22005
- SiGe-Si UHV-CVD MQWs, in-situ spectrosc. ellipsometry growth control 20845
- $Si_{1-x-y}Ge_xC_y$, heteroepitaxial films, CVD on Si(100) 369
- $(Sr,Ba)TiO_3$ films, pulsed laser deposition, X-ray charactn. 37388
- TiN MOCVD films, IC diffusion barriers/adhesion layers, TEM study 37420
- TiN films, pulsed laser deposition, epitaxial growth 322
- TiO_2 epitaxial thin film MOCVD growth, neural network modelling 22548
- YBaCuO biepitaxial Josephson jns. on SOS substrs. 22761

vapour phase epitaxial growth continued
- $YBa_2Cu_3O_{7-\delta}$ films synthesized from amorph. precursors, orient. texture 5824
- $YBa_2Cu_3O_{7-x}$ thin films, film growth, laser ablation, AFM, HRTEM, XRD *(French)* 30768
- $Zn_xCd_{1-x}S$, MOVPE, photo-assisted growth and charactn. 28764
- $Zn_xCd_{1-x}S$:N, metalorganic vap. phase epitaxy growth, photo-assistance 20789
- ZnCdSe-ZnSe SQW LEDs, MOCVD growth, blue-green emission 23031
- ZnCdSe-ZnSe superlattices, stimulated blue light emission mechanisms *(Japanese)* 38340
- $ZnGeP_2$/GaP multiple heterostruct. on GaP substrs. 21959
- ZnMgSSe MOVPE on GaAs substr. 20785
- $Zn_{1-x}Mg_xTe$ layers, MOVPE growth 20786
- ZnO films on diamond (111), heteroepitaxial growth, magnetron sputtering 368
- ZnO:Al(Ga), doping epitaxial layers, chem. transport growth 38512
- ZnS/GaAs epitaxial layer syst., vapour phase epitaxy, residual and thermal strain 38307
- ZnS/GaAs heterostruct., H transport VPE, struct. anal. 37393
- ZnS/ZnSe/GaAs(100) superlattices, photo-assisted VPE growth 38322
- ZnS-ZnSe-ZnS/GaAs(100) SQW, photo-assisted VPE growth 38322
- ZnSe MOVPE, ditertiarybutylselenide/methylallylselenide thermal dissoc. effect 20888
- ZnSe, MOVPE from allyl selenide and trialkylphosphine selenide precursors 20784
- ZnSe MOVPE growth, O and Te impurities effect 20890
- ZnSe OMVPE growth, diisopropyl selenide and diethyl zinc 20838
- ZnSe epitaxial layers, pulsed laser deposition, struct. and opt. props. 28759
- ZnSe films, MOVPE on GaAs, in situ opt. monitoring 12045
- ZnSe, photoassisted metalorganic vap.-phase epitaxy on GaAs 28763
- ZnSe:I, VPE growth, I incorporation 5848
- ZnSe:N, MOVPE growth, cathodolum. charactn. 20788
- ZnSe:N p/n jn. diodes, metalorganic vap.-phase epitaxy 20787
- ZnSe:N, photoassisted doping, ethyl azide 1224
- ZnSe:N,C,H, plasma-stimulated low-press. metalorganic vapour phase epitaxy syst. 20791
- ZnSe/InP, HJFET, MOCVD fab., characts. 13776
- ZnSe/ZnMgSSe DH laser, photopumped lasing props., MOCVD-grown, cavity length depend. 14942
- ZnSe/ZnS strained layer superlattices, MOVPE growth and opt. charact. 12124
- ZnSe/ZnS_xSe superlattices, interface sharpness, MOVPE growth 20793
- ZnSe/ZnTe vis. light emitting laser, MOVPE growth 31311
- ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, SHG generation 22908
- ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, phase matched SHG 39442
- ZnSe-Si(GaAs) solar batts., photosensitivity spectra, ZnSe layer effect 5222
- ZnSe-based LED, low-press. MOVPE 23043
- ZnSe-based MOVPE and MBE grown LEDs 23050
- ZnTe SR excited growth, metalorganic sources 20889
- ZnTe:Al,Cl, photo-assisted metalorganic vap. phase epitaxy, photolum. props. 20790
- ZnTe-$Cd_{1-x}Mn_xTe_{1-y}Se_y$ heterojunction, prep./electroluminesc. 37398
- ZrN films, pulsed laser deposition, epitaxial growth 322

vapour phase reflow soldering *see reflow soldering*

vapour pressure measurement
- RF fluoresc. lamps, inductively-coupled, lumen props. meas. 11461

varactors
- 8 mm freq. quadrupler, GaAs varactor *(Chinese)* 37907
- dipole antenna bandwidth extension by parasitic elements and varactors 23915
- full period quadrature phase shifters, low losses 12739
- HF two-resonator sustained oscillators, tuning bandwidth 571
- MM band IMPATTs wideband oscillators, modulation characts. 37997
- mm-wave tripler eval. of Schottky diode varactor 21547
- nonlin. transm. line, varicap jns., interactive waves 40388
- opt. tuned microwave DRO, cct. and design method 840
- punch-through varactor diode freq. multipliers, design 782
- reson. power converters, variable capacitance device appl. 19828
- Schottky varactors, sidewall-etched, sub-mm-wave sampling cct. 38028
- tuned semicond. microwave generator 29561
- UHF bipolar-transistor self-excited oscillators, wideband electronic tuning 584
- UHF VCO, 1.6 GHz, on-chip inductor and varactor 21568
- X-band MMIC varactor-tuned VCOs, modelling and design 6342
- GaAs MESFET varactor tunable oscillators, noise calcs. 21565
- GaAs single-barrier varactors for MM-wave triplers 12779
- GaAs-AlGaAs heterostruct. barrier varactor freq. tripler, simul. 6321
- HgCdTe varactor photodetectors for space-borne wind lidar, heterodyne tech. 34162
- InGaAs-InAlAs single barrier varactor quintupler, 170 GHz 29560
- InP, MeV ion implantation, device appls. 13288
- Si microwave varactor diodes, irrad., capacit. transients meas. 12770
- Si varactor struct., DLTS study of deep traps 38052

variable bit rate codes *see variable rate codes*

variable-frequency oscillators
- *see also swept-frequency oscillators; voltage-controlled oscillators*
- canonic RC-act. oscillators using CCII, synthesis 579
- coupled phase systs., locking response 12380
- cryst. oscillator, temp. compen., two-port cryst. resonator 37666
- current-conveyor-based single-element-controlled oscillator 37668
- interpolating ring VCO, V-to-f lin. compensation 581
- LF CR oscillator, output admittance *(Japanese)* 6047
- low phase noise/power consumpt. oscillators, anal./optim. 37659
- mode-locked arrays of automatic level control oscillators, anal. 12773
- multi-tone sig. generator for BIST appls. 9967
- phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
- sine wave generators, oscillators, low noise and stable amplit. 12369
- GaAs MESFET varactor tunable oscillators, noise calcs. 21565
- $In_{0.53}Ga_{0.47}As/In_{0.52}Al_{0.48}As$ MODFET MMIC oscillators, opt. tuning 12788
- Si mag. field detector, CMOS oscillator config. 34449

variable length codes
- 3D adaptive transform coding techs. for moving images 41089
- block-coded image recovery from channel errors 41094
- concurrent lossless coder for video compression 32939
- (d,k)-constrained seqs., synchronising methods 15755
- decomp. w.r t. coding efficiency *(Chinese)* 8157
- digital HDTV studio mag-tape-recording hardware codec *(German)* 9727
- digital TV image wavelet transform coding and sync. loss recovery 42584

variable length codes continued
digital VCR for consumer use, develop. 34271
fast Huffman decoder, high speed pattern matching 41078
high-dens. opt. recording, variable length RLL codes 15758
Jong-Nang variable length code for image data compression 8180
min. av. cost testing for partially ordered components 24098
multilevel block codes for Rayleigh-fading channels 15768
prefix-/suffix-free codes, constr. 32197
progressive image transm. of variable block-size coding 16228
real-time video variable length decoding cct. using adaptive tree search, 162 Mbit/s 25131
speech lin. predictive coeffs., variable dimens. VQ 32331
sync./error control coding 40599
universal noiseless source coding, redundancy rates 40675

variable rate codes
adaptive rate error control for land-mobile satellite channel 9370
ATM network variable bit rate MPEG video encoder characts. 41974
CDMA packet combining error control 25368
cellular CDMA perform., speech bit rate, network control 9375
CELP codec implement. for CDMA mobile commun. 33689
CELP coding of speech, phonetic classif. 2427
coded modulation, error probab., upper bounds calc. 15748
frame class. multimode variable rate CELP coder 40721
generalized periodic Markovian sources multiplexing and VBR video 8717
indoor wireless low complexity, low delay speech coding 8193
JPEG image coding algm. Huffman codec *(Japanese)* 16943
load-adaptive/TDMA systs. perform., satellite networks appl. 9415
mobile commun., variable rate speech/channel coding 9222
multiple access wireless networks, variable rate speech coding 15830
natural-quality parametric speech coder 8204
predictive residual vector quantizer 41059
speech CELP coding, variable rate 2428
speech coding, variable bit rate ADPCM via arith. coding 32256
stationary nonergodic sources, variable-rate source coding theorems 24042
sub-band coder for low-bit rate, fixed and variable band coding 32364
teleconference traffic from VBR video coders, modeling 16818
TV on B-ISDN, VBR coder generated traffic, stat. model 9014

variable rate speech coding *see speech coding; variable rate codes*

variable speed drives
1 hp ASD IGBT control device tests 28070
2.2-1500 kW SIMOVERT MASTER DRIVE power convertors, AC drive appls. 44216
3-phase induction motor, single phase supply, phase converter 11377
6000 hp compressor induction motor drives, harmonic torque 5255
15000 hp 6000 r/min ASD, petrochemical compressor appl. 5415
AC ASD, DSP technol. appl. 44486
AC ASD, torque/speed/posn. control, trends 20065
AC drives, decoupling control techs. 28082
AC motor drive testing, dynamometer control 5293
AC motor drives, cycloconvertor current control *(Korean)* 28084
AC motor drives, direct torque control 36649
AC motor variable speed drives, design specs. 20062
ASD perform. eval. by PC-based meas. 36652
brushless DC motor drives, variable speed control design 5243
brushless doubly-fed induction motor drives, speed control 20055
brushless variable speed drive network, diagnostic ES 11370
capacitor motor drive, single phase, speed control 5272
cascaded doubly-fed machines, state space control 36668
CASED educational software program 44442
cement plant, roll crusher, variable speed DC drive 5419
cement plant, roller presses economy, drive impact 5418
cement prod., hydraulic roll crushers, motor appls./selection 5421
conc. winding induction motor testing 11393
cycloconvertor AC drives, vector control simul. 5267
DC drives, fuzzy control 5315
DC drives with flexible shafts, control config. 28068
DC motor ASD, self-tuning digital controllers appl. 5316
DC motor drive sensorless operation, neural network-based 36676
DC motor drives, fuzzy self-organising control appl. 36689
Dolphin drive systs. for elec. vehicle appls. 44484
doubly-fed brushless motor, sync. frame model/decoupled control 11378
doubly-fed reluctance motor ASD, steady state perform. 11321
harmonics mitigation, IEEE 519-1992 stds. 5307
high-order systs., model ref. adaptive fuzzy control 5245
IEE conf., London, (1994) 37
induction motor, nonlin. control, DSP 28067
induction motor ASD, adaptive speed control, ANN 28080
induction motor ASD, design/anal., CASED simul. tool 5313
induction motor ASD, freq. converter driven, acoustic noise 5251
induction motor ASD, fuzzy on-line efficiency optimisation control 36659
induction motor ASD, integrated power stage 28072
induction motor ASD, inverter/cycloconverter fed, single-phase inputs 44489
induction motor ASD, speed/temp./torque meas./control 36697
induction motor ASD, VVVF inverter-based control *(Korean)* 28061
induction motor drive, adaptive fuzzy control 11392
induction motor drive, PC based perform. simul. 19648
induction motor drive retrofits, centrifugal load appls. 36690
induction motor drive speed vector control, rotor speed meas. methods 44478
induction motor drives, controller synthesis 11353
induction motor drives, expt. perform. anal. 5247
induction motor drives, intelligent PWM power convertor develop. 28089
induction motor drives, inverter-fed, magnetising flux saturation 5261
induction motor drives, neural net-based vector control 36685
induction motor drives, peak voltage appl. 11336
induction motor drives, pole no. selection 36663
induction motor drives, vibro-acoustics anal. 28092
induction motor drives, VSI-fed, generalized predictive control 5248
induction motors, inverter fed, 4-pole interconnection, reson. freq. 11361
indust. distrib. networks, harmonic reson. studies 20155
inverse nonlin. speed controller design 11349
MHR gas filtration, variable speed induction motor drive appls. 10823
motor drives, inverter design, optocouplers 28073
offshore gas pipeline compressors, sync. motor ASD 11518
petroleum terminal ASDs, power quality issues 5413
PM sync. motor ASD, EM params. determ. *(French)* 11334
PM sync. motor drives, nonsinusoidal field distrib. 5263
power quality impact reduction 5269
power station auxiliaries, var. speed squirrel cage motor drives *(Polish)* 43819

variable speed drives continued
power systems, power electronics appls., Japan 35563
proc. control, torque disturbance effects 5265
reluctance motor ASD, 2-level bipolar current control 11385
residential ASDs, simplified control scheme 5397
rolling mill ASDs, torsional vibr. damping 36800
rolling shutter, tubular motor ASD, control *(French)* 11333
SEC 51C803/804 three-phase microcontrollers for variable-speed drives 5246
SEC 51C803/804 three-phase microcontrollers for variable-speed asynchronous motor drives 29263
SIMSEN, power network/ASD simul. package 10608
squirrel cage ASD, speed/torque/PF control 5270
squirrel cage drives, adaptive sliding mode speed control 36666
squirrel cage drives, IGBT inverters, audible noise, losses 5308
squirrel cage motor drives, indust. appls. 5294
supercond. commutatorless motors, fund. design, elec. characts. 36686
switched power harmonic filters, anal., appls. 19741
sync. motor drives, self-controlled, steady state perform. 11389
sync. motor drives, stator flux-oriented control 36667
three phase ASD PWM rectifier, neural net-controlled 5120
three-phase induction motor control *(Italian)* 11330
three-phase induction-motor variable-speed drive regulation *(Italian)* 19619
totally enclosed motors, hazardous locations appl. safety 19592
TW US motor, adaptive speed control 11089
wastewater plant, var. freq. drive. parallel act. harmonic filter 36810
wind turbine, wound rotor async. generator, static Kramer drive 36083

variable speed gear
see also variable speed drives
direct AC-AC matrix power convertor, AC motor appls. 19738
doubly-fed induction machines, torque/VAr control 4973
doubly-fed variable speed wind generator adaptive control 4876
elec. heat pumps, harmonic eval. tests 5394
electric generator adaptive fuzzy speed control, rule-based 19582
fan motors, chopper control syst. *(Japanese)* 4884
GE SPEEDTRONIC Mark V turbine control syst. 43923
pumped storage plant, converter-fed var. speed generator-motor *(Japanese)* 36047
pumped storage plant, converter-fed var. speed generator-motor, fault current *(Japanese)* 36048
self-excited brushless multifield induction generators 11049
single-phase induction motors, multi-speed control studies 19621
universal motor cycloconverter control, microcontroller-based 44002
wind turbine load matching, least resist. principle errors 10900

variable structure systems
see also multivariable systems
3-phase act. power filter, sliding mode control 19759
AC ASD, torque/speed/posn. control, trends 20065
AC/AC reson. converters, LF waveforms modulation 44201
asynchronous motor, speed control, variable struct. control 27738
automobile dyn. spark ignition engine control modelling 11438
automobile engine powertrain nonlin. sliding control design 5373
brushless DC motor direct voltage vector control implement. 4990
brushless direct drive motor, robust speed control design 5287
current-mode controlled converters, instabil. predictions 11182
DC drives, nonlin. controller, bi-orthogonal decomp. 5314
DC drives with flexible shafts, control config. 28068
DC servo systs., integral of output error VSC 11090
DC servomotor fuzzy logic VSS control design *(Korean)* 27744
DC-to-DC power converters, sliding mode control design 520
EM levitation syst. for rapid transit and high speed transportation 20092
EMRAAT missile, sliding mode planar autopilot design 18957
IEEE IECON '94 conf., Bologna, Italy (1994) 36823
independent power systs., decentralized open-loop control 19079
induction machines, field-oriented sliding mode digital control 4952
induction motor drive, field oriented sliding mode torque/speed control 36699
induction motor drive, parametric oscill. speed sens. 44451
induction motor drive, rotor flux/time const., VSS observers 11325
induction motor drive, VSI fed, DSP based variable struct. control 44049
induction motor drive flux/torque MRAC design 11348
induction motor drives, discrete-time sliding mode digital control 11390
induction motor drives, feedback lin. control 36696
induction motor servodrive, VSS robust control 44483
induction motor speed control improvement, load torque var. *(Korean)* 27723
induction motors, posn. control, fuzzy sliding mode control 44048
induction motors, speed control, VSS, load torque observer *(English)* 36175
induction servomotors, cycloconverter-fed, sliding mode control 4983
learning automata in inform. flow control *(Croatian)* 3267
microrobot PM step servomotor drive, VSS control 11354
mode switching syst. modelling 21093
PM brushless DC drive, var. struct. speed control 36665
PM sync. motor drives, sliding mode current control 5264
PM sync. motors, sliding mode control *(French)* 10991
PM sync. servomotor drives, optimal/VSS control 5288
power syst. sliding mode control, phase shifter-based design *(Japanese)* 26996
PSS, fuzzy controlled SVC design *(Japanese)* 26939
PWM reversible rectifier variable struct. control design 5054
reluctance motor drive, DSP-based sliding mode control 44493
rigid rotor mag. bearing syst., nonlin. control 27681
robust control of induction motor servodrive 19922
robust observer design for biomedical systs. 43198
Space Station Furnace Facility, sliding mode thermal control syst. 26690
squirrel cage drives, adaptive sliding mode speed control 36666
squirrel cage motor, field oriented control strategy 19637
SRM drives, sliding mode observer controller 5301
SVC control strategy, sliding mode, nonlin. load 10676
switching systs., Markovian, 1-step fixed-lag smoothers 15910
three-phase AC machine switching power converters, current control 44179
unity PF boost converter control 19284
variable speed induction motor drives, controller synthesis 11353

variational calculus *see variational techniques*

variational techniques
see also Rayleigh-Ritz methods
2D Laplace problems, regular boundary integral soln., variational formulations 31709

variational techniques continued
auxiliary vector fn./adjoint methods in solving anisotropic media EM problems 15230
C^2 interpolating curve, local min. conditions *(Japanese)* 5770
cavity radiator infinite phased arrays, hybrid finite element/waveguide mode anal. 31971
circ. dielec. waveguide anal., variational-difference method 801
complex anisotropic media, auxiliary vector fn. method 23562
coupled CPW, modal capacitances anal. 31888
cylindrical dipole arrays, two-term theory, variational-principle 40498
dark opt. solitons, Lagrangian approach 23355
dielec. waveguide anal., transverse vector wave eqn. 30935
dyn. PSA by Monte Carlo event simul. 11686
engng. instruction via computer alg. 36910
FEL gain, alternating-gradient focusing, scaling fn. 14991
Gaussian beam propag. in nonlin. saturable medium 7760
global convergence of descent procs. for solving nonstrictly monotone variational inequalities 28649
hypersonic vehicle image resoln. rel. to turbulence random phase var. 33017
image segmentation, variational vs. Markov random field methods 8492
infinite periodic arrays, radiation/scatt., 3D hybrid FEM/BEM 31780
intranodal neutron flux shapes, variational nodal method 10836
LIM field control perform. improvement 11035
lin. variational inequalities on domains, nonlin. boundaries 37306
locking and robustness in FEM for circ. arch problem 28700
mapping approach, rate-distortion computation/anal. 24044
MCM, heat cond. anal., global-local procedure 37121
MCMs, thermoelastic anal., global-local procedure 28487
method of moments, react., variational aspects 23490
molten solder profiles for rect. pad geometries in SMT, calc. 38123
MRI slotted tube resonator, dielec. body loaded, num. anal. 26318
multi-conductor transm. lines, pulse responses, partitioning tech. 15547
multilayered dielec. waveguide anal., variational treatment 2304
multilayered lossy planar line params. calc. method 2289
multilayered planar waveguide anal. by exact and variational FT methods 31899
multilayered transm. lines, gyrotropic lossy media 2279
multiple-core fibre, light focusing, ground-based interferometry appls. 30861
multiple-core fibre, light focusing, variational scalar-field treatment 30880
NLC phase device modelling 39497
nonconvex variational problem, constraints 28564
nonlin. waveguide arrays, spatially solitary wave evol. 39426
num. differentiation, variational method 37336
opt. nonlin. couplers, soliton switching, variational approx. 31495
opt. planar waveguides, spatial solitons polaris. interact. 14475
phase-locked LD antiguide arrays , anal. theory 23237
PLL false lock breaking bifurcation 29079
power supply undertakings, tech. and cost anal. integrat. *(German)* 19176
pupillary light response model w.r.t. smooth muscle morph. *(Japanese)* 18524
rect. dielec. waveguide scalar variational anal. by Hermite-Gaussian modal approxs. 40403
rect. microstrip patch antenna, reson. freq. calc., cavity model 2330
semicoercive variational inequalities, approx., error estim. 11955
shielded suspen. substr. strip transm. line anal. *(Korean)* 15546
short channel MOSFETs, threshold voltage, quantum correction 1428
solid finite elements devel. 280
spatial solitons excitation by second-order Hermite-Gaussian beams 23446
superlattice, -1 Stark ladder transit., electro-opt. modulator appls. 14521
symmetric duality 228
transverse surface wave propag. on piezoelec. substr., modelling 30608
uniformly magnetized ellipsoids/spheroids, external fields 15231
variable nonlin. coupler, soliton switching 14454
variational cct. anal. techs., introduction 28924
waveguide devices, microwave and opt., FEM 15604
GaAs-AlGaAs quantum-wire arrays on vicinal substrs., FEA of valence band struct. 21998
InAlAs-InGaAs strained HEMT, I-V characts., charge control model 38911

varicaps *see varactors*

variometers *see inductors*

varistors
ceramics, sol-gel proc., elec./mag. props. 12190
electronic equipt. hardening, lightning surges 864
half-wavelength power lines, operational problems anal. 35642
LV hybrid AC cct. breaker switching params., computer simul. 19342
MOV arresters, I-V characts. inspection tests *(Russian)* 43802
MOV series compensated transm. network, mag. pot. transformers 4624
multilayer SMT varistors, transient surge protection, automotive indust. 11437
multilayer varistors, ESD suppression 12830
plunger type solenoids, dyn. model of deenergizing state 40272
power syst. MOV protection, series compensation capacitors, response calc. 27251
power syst. nonlin. elements simul. techs. 26883
Bi/ZnO, interface form., model varistor grain boundary 6578
(Sr,Ca)TiO_3:Nb^{5+} capacitor-varistor ceramics, cation diffusion 436
TiO_2:Ba,Bi,Nb ceramic varistors, Nb_2O_5 effect 21583
ZnO, LV varistors, two-step fab. proc. 38047
ZnO UHV surge arresters, breakdown perform., computer simul. 19345
ZnO, multicomponent varistors, Cr_2O_3 effect, pre-breakdown elec. props. 12828
ZnO multilayer chip varistor, LV transient suppression 29607
ZnO, multilayer-chip varistors, elec. props., moist environ. 12833
ZnO varistor/air gap surge arresters comparison, LV syst. 19354
ZnO varistors, Bi_2O_3 nonstoichiometry, nonlin. property 869
ZnO varistors, degradation, dielec. relax. 12834
ZnO varistors, dielec. charactn./equiv. cct. studies 867
ZnO varistors manufacture, seed grains/ threshold voltage rel. 29608
ZnO varistors, mixed multi-impulse/AC 50 Hz tests 868
ZnO varistors, polariz. currents 6812
ZnO varistors, positron annihil., local electron dens., defect conc. 38257
ZnO:Al_2O_3(AgO) varistors, DLTS 6813
ZnO:Ga varistor, grain boundary, Ga donor doping 6345
ZnO/gas tube surge suppressors comparison 19353
ZnO-Bi_2O_3, sintering, phase distrib., TGA, SEM, XRD 6354
ZnO-Bi_2O_3 varistors, proc. variables, grain growth, microstruct. 21584
ZnO-Bi_2O_3-based varistors, multiple trapping, appls. 12829
ZnO-metal oxide ceramics, sintering temp. effect on varistor props. 6346

varnish
machine stator winding varnish ageing, TSC anal. *(French)* 10937
Schering bridge sensitivity and convergence for AC machine anti-discharge varnish ageing tests *(French)* 9973
SiC dispersion varnish VLF capacitive props. *(French)* 10935
SiC dispersion varnish nonlin. resist. and capacitance *(French)* 10936

Vavilov-Cherenkov radiation *see Cherenkov radiation*

VAX computers *see DEC computers*

VBR codes *see variable rate codes*

VCCS *see active networks*

VCO *see voltage-controlled oscillators*

VCR *see video tape recorders*

VCSEL *see surface emitting lasers*

VCVS *see active networks*

VDM (software engineering) *see Vienna development method*

VDU *see computer displays*

vector diagrams *see vectors*

vector processor systems
32-bit RISC proc., embedded control systs., CMOS VLSI implement. *(English)* 37795
acoustic echo-canceler for teleconferencing syst. 16912
CMOS neural network IC for high-energy phys. 29476
fast vectorized maze routing algm. for supercomputer implement. 12270
image filtering by scaled MSE filter, vector proc. algm. 32986
power syst. dist. protection, microcomputer Kalman filter algm.-based *(Chinese)* 43795
power syst. security assess./real power rescheduling 26968
power system state estimation weighted least square methods 19022
self-sorting in-place FFT algm. suitable for vector and parallel proc. 286
sparse power syst. computations, vectorisation algms. 35439
video DSP, pipeline archit., MPEG2 CODEC 8664
GaAs buffered DCFL gate array, differential push-pull I/O 37720
GaAs/BiCMOS/CMOS technol. memory archit., solid modelling accelerator 29214

vector quantisation
1D seq. sens. fusion 32800
3D subband coding of video 24590
5.0 kb/s finite state VQ CELP coder for vehicles 9122
8-kbit/s conjug. struct. CELP speech coder, perform. 33690
64 kbit/s image seq. coding, wavelet vector quantisation scheme 16367
adaptive vector quantisation speech coding, codebook search algm. 32412
Alphanet-HMM based continuous speech recogn. syst. 32262
associative memory with ODE, appls. 15744
audio CD, high-rate buried-data channel 34289
block-based image coding, inform. loss recovery, fuzzy logic approach 32873
cascaded VQ by non-lin. PCA network layers 2372
CELP coders employing LSF vector quantizers, error protection 8194
channel errors, VQ adaptation 24056
class., optimum-size learning, neural net training 32583
classified VQ, block wavelet transform image coding 24587
CMOS VLSI adaptive high-speed VQ archit. 29273
CMOS VLSI predictive tree-searched vector quantizers for real-time video compression 29276
code-excited neural vector quantizers 40712
codebook generation for vector quantisation 32189
competitive, optimised neural vector network 793
competitive learning, classified learning rates 41087
competitive learning algm. 33031
competitive/selective learning for vector quantizer design *(Japanese)* 15772
connected digit recogn., telephone network based, VQ HMM appl. 32235
continuous speech recogn., large vocab., fast match acoustic models 32396
data compression, image quality effects 2590
DCT-pyramid VQ video coding scheme 24698
digital straightness, skeleton prop. 41070
ECG data compression, VQ, k-dimens. tree for fast search 26437
edge preserving VQ by self-organizing map 41371
edge-preserving VQ, self-organizing map learning 16140
EEG, feature selection, VQ/genetic algms. 43313
entropy-constrained CELP quantization 40646
error-diffused image compression, decoder/VQ 2735
Euclidean Voronoi labelling on grid 41069
fast motion estim. algm. for MPEG video coder 16195
fixed-rate entropy-coded VQ algms. 8151
fractal-based image coder, complexity reduction 24405
Fresnel holograms, computer-generated image quantization, error diffusion algm. 23455
FT VQ, sig. compression 16011
full search vector quantisation algm., massively parallel implement. 15837
fuzzy VQ algms., efficiency 2401
fuzzy VQ based HMM 32362
genetic algm. for codebook design in VQ 15789
hand-written kanji recogn., HoneycombNET *(Japanese)* 2618
handwritten signature images verification, wavelet anal. 8542
HDTV, adaptive coding algm., quantizer vector codebook *(Korean)* 42602
hierarchical video coding scheme, mean separated normalized VQ 33100
hierarchical VQ for image compression 2835
high range resoln. radar returns, model based ATR 17393
HMMs, LQV, transform. 8238
hybrid predictive/VQ lossless image coding 32984
IBM Tangora speech recogn. syst., adaptation techs. 32214
IEEE Symposium, Trondheim, Norway (1994) 28250
image coding, adaptive hierarchical VQ 15786
image coding, adaptive hierarchical VQ 15787
image coding, interpolative VQ by dominant points 33090
image coding, quadtree-based motion compensation/classified VQ 2813
image coding, uniform/piecewise-uniform VQ 24591
image coding, VQ of wavelet coeffs. 24659
image compression, neural based optimal VQ 33063
image compression, neural network approaches 24397
image compression, VQ, codebook generation 2694
image seq. compression, intraframe coding, DCT-VQ 16389
image VQ, modified LBG algm., approximated centroids 24379
image VQ using ordered codebooks, props./appls. 2739
image/video compression 24399
images, block encoded, channel noise detect., mask 8688
interlaced video sig. encoding, hybrid side match VQ 8653
isolated word recogn., LVQ codebook/prosodic param. transform. 2412
isolated word recogn., SOFM-HMM/inertia *(Korean)* 24155

vector quantisation continued
Jacquard looms textile patterns, spatial resoln. 16337
Korean continuous speech, self-organization, maps and dyn. VQ *(Korean)* 2435
land cover multi-spectral rem. sens. data classif. 35360
low bit rate speech coding, split residual VQ 32328
low rate audio coder, hierarchical filterbanks/lattice VQ 32106
LPC params. for noisy channels, VQ 32329
LPC speech coding, fast LSP VQ algms. 15855
LVQ learning schedules for ANN speaker ident. 8199
LVQ-codebooksr with HMM, appl. 32305
M-LCELP speech coding, 4 kb/s, multi-mode and multi-codebook 9120
M-LCELP speech coding, 4 kbps 33688
MCP error images, wavelet transform coding, quadtree decomp./ECVQ 41091
min. free energy, annealing control 28635
motion field segmentation, VQ based, entropy criterion 16384
multi-resoln. multi-rate progressive image transm. 8546
multilayer perceptrons, dimens. reduction 24055
multimedia appls., high quality image compression 41970
neural network, kanji character-recogn. appl. *(Japanese)* 786
noise robust vector quantisers, neighbourhood fns. effect 33068
noisy channels, robust VQ 2382
non-lin. prototype waveform interpolation for voiced speech encoding 40749
NPP, transient diagnostics by neural net 35741
odour absorpt. films selection, sens. qty. eval. *(Japanese)* 42783
PD pulse shape discrim., neural network paradigms 13944
PD recogn., neural networks appl. 1535
phoneme dictionary automatic training based on mutual inform. criterion 32269
phonemes, relative speaker discrim. props. 32242
portable video-on-demand syst. in wireless commun. 42593
predictive vector quantizers for speech coding 2404
progressive image transm., LOT, two-channel conjug. VQ 16382
radar target recogn. schemes, neural networks 34157
rainfall estim., satellite imagery, hybrid neural net 43518
random coding, optimal noisy channel quantization, asymptotic bounds 24043
range image segmentation, multilayer self-organizing, map 24389
real time video, differential vector quantisation, entropy biased ANN codebooks 32953
residual VQ, multilayer competitive neural network 15718
RLL (d,k) coding, struct. VQ 40653
RNS-based image coder for progressive transm. 32985
robust lin. predictive anal. methods for speaker ident. 24150
room acoustics, digital equalization 9761
sampling point localization for interpolative VQ of images 8588
segmentation-based predictive multiresolution image coder 16311
semicontinuous HMM speech recogn., multiple VQ 2433
seq. reconstruction of vector quantized sigs. 8448
ship radar databases, organization, wavelets and struct. VQ 9625
sorted codebook for fast VQ *(Japanese)* 8531
source coding theorem, convergence rates, quantizer design 24028
speaker ident., lin. predictive anal. techs. 32201
speaker recogn., neural tree network/VQ probab. estimators 8236
speech, spectral quantization of cepstral coeffs. 32332
speech coders, low-rate, pitch/LPC params. encoding 3273
speech coding, product code VQ 32199
speech coding, spectral envelope, high-order allpole modelling 32337
speech independent speaker recogn., HMM/VQ comparison 8229
speech lin. predictive coeffs., variable dimens. VQ 32331
speech line spectral freq. params. coding 32335
speech LPC coeffs., VQ-lattice VQ 32333
speech LPC params., interblock noiseless coding 32330
speech recogn., frame correl. constrained phoneme HMM 15805
speech recogn., Gaussian mixture modeling 32356
speech recogn., HMM param. estim., fuzzy VQ 15819
speech recogn., multiple VQ and semicontinuous HMM 32224
speech recogn. in noisy car environ., OSALPC representation 32382
speech recogn. with discrete HMM, contextual VQ 40732
speech sigs., hyper-columnar clusters 32327
speech single stage spectral quantization, 20 bits 32336
SPHINX-II speech recogn. syst., VQ codebooks and adaptive lang. models 32340
STFT anal., frame-adaptive techs. for quality vs. efficiency tradeoffs 32766
still monochromatic images compression, VQ neural network 33069
talker clustering/ident., model dist. measure 32282
target class., multisensor, using unsupervised neural net 33051
telecomms. network video coding 33354
transform coding by lateral inhibited neural nets 32087
transform domain VQ for image and video compression 41095
tree-struct. self-organizing, maps appl. 16120
tree-struct. vector quantizer for image compression on MasPar MP-1 parallel machine 16189
two-stage VQ-lattice VQ 24093
underwater image compression, wavelet transform 15800
variable-rate predictive residual vector quantizer 41059
video coding, entropy-constrained trellis coded quantization 24507
video coding, motion VQ 32876
video compression, real-time, using differential VQ 24581
video data compression, adaptive speed VQ 8652
videophone, H.261-compatible fuzzy coder 3104
VLSI archit. for video real-time hierarchical encoding/decoding 33697
VSELP coders LSP vector quantizers in noisy channels 2425
weighted pyramid vector quantizer algm., sig. proc. appls. 40580

vectors
2D partial shape recogn., interrelation vector *(Korean)* 24682
3D moving vector Preisach hysteresis model 39186
3D opt. waveguide struct., vectorial FD-BPM anal. 40428
3D vector field magnitude and direction visualisation 28288
addition theorem computation 23549
analog autocompensators, correl. feedback and direct calc. of weighting factor 32593
ang.-meas. systs., directional vectors estim. 18060
boundary element lin. systs., soln., iter. methods 37302
circularity and sig. proc. 8423
complex anisotropic media, auxiliary vector fn. method 23562
complex opt. matrix-vector multiplication, neg. binary inner products 1756
constrained min. problem for vector-valued fn. 11943

vectors continued
continuous speech recognizer, context-depend., and models 32338
cylindrical wire kernel, uniform current vector pot. eval. 8034
dielec. waveguides, vector mode calcs. 40427
electrostatic field comp., 3D vector pot. formulation 40216
ellipt. core cross-sect. opt. fiber, first higher-order modes 22849
EM field/matter interact., general theory 7890
estim. cyclic correl. matrices, asymptotic moments 24205
FEM, vector shape fns. *(Japanese)* 5796
fibre transm. systs., polaris. domain solitons 31624
flow field visualization and real-time vectorization, laser-opt. method *(German)* 10063
fns., commun. complexity 24737
full-vector waveguide modeling by iter. finite-difference method, transparent boundary conditions 40401
geometric vector optim., vector approx. 227
global optimal discriminant vectors under global Fisher discriminant criterion 24555
GO in dissipative media, uniform plane wave approx. *(Japanese)* 23535
high-dimens. obs. vector sample comparison 28570
isotropic fibers, rot. vector solitary waves 23437
joint finite-difference/FFT full vectorial beam propag. scheme anal. 40441
La-Salle inequality 28560
lattice quantization noise 40882
Lee sparse valued reconstruction computer generated holographic storage 31661
low-dimens. sig. subspace computation 32472
matrix multiplier, vector unit design 31029
matrix-vector opt. proc., multiple-error-correcting codes 39521
motion vector estim. in video coding, stochastic approach 8497
multi-purpose interface for still/moving image retrieval 24520
multimodule secondary power source CAD, params. optim. 5097
multispectral images segmentation, classified algm. 41355
non-interactive ID-base key sharing schemes and perform. 32081
nonlin. magnetostatics calc., vol. integral eqn. method 40226
nonlin. planar opt. waveguides, vectorial simul. and power-param. charactn. 31484
parallel SVD updating, num. stable Jacobi array 32476
param. estim., improved Bellini-Tartara lower bound 40870
parametric model of random procs., DSP appls. 32567
partially filled rect. waveguides, external params. of offset connection 37955
pitch sync. innovation CELP (PSI-CELP) speech coding, basic algm. 24149
Rayleigh-Sommerfield integral eqns. in wave propag. 14398
Reed-Muller variable-entered vectors and maps 21055
robust speech recogn. using direct cepstral comparison, environ. normalization 32380
sea surface, radar polarimetric backscatt., Euler vector 43528
sig. extrapolation with wavelets, regularization approach 32487
single-mode triangular-index fiber with a depressed cladding ring, bending-loss studies 7321
spatial-Doppler filter, projection method, calculate weighted coeff. vector 42492
suspen. striplines, proper values/vectors calc. 37933
symmetric pos. definite lin. eqns. of displacement rank 2, fast algm. 32483
tapered fibre nonlin. Kerr self-PM effects anal. 30885
tapered opt. waveguides, slant-propag. charact. anal. 14433
three layer ridge quantum well waveguide anal. by FEA 40400
three-phase PWM neutral point clamped invertors, voltage control *(Japanese)* 11121
tropos. scatter radio commun., space diversity and space-time sig. proc. 32690
vector FEM, propag. wave num. dispersion 8018
VLSI regular arrays, test strategy 37686
weakly fused fiber-optic couplers, rigorous anal. of form birefr. 39372
$LiNbO_3$ optical channel waveguides, direct meas. of cascaded nonlin. 14429

vehicles
see also aircraft; automatic guided vehicles; electric vehicles; road vehicles; space vehicles
air conditioning, rotary stepping motor, missed step detect. *(French)* 11485
all-weather/terrain intell. vehicle for law enforcement 34586
armored vehicle vulnerability, simul. methods 35400
cart grounding chain effectiveness, unexpected insulating wheels behaviour 31714
communicating vehicles, event-driven simul., diffusive dyn. load balancing by terrain parcel swaps 43577
DEFECT focal plane defect model, kill vehicle appls. 25886
gas turbine PM generator cycloconverter, digital control 10859
ground vehicle vision, ladar, obstacle detectability 7878
intell. vehicles, map generation, quantitat. eval. 34182
long. vehicle dist. control, meas. error effects *(Japanese)* 10028
mechatronics fund., meas. sci. and technol. 9850
mil. high mobility trailers, computer-based perform. anal. 35419
modular armor attachment modeling and anal. 26810
real-time stereo and motion integrat. for autonomous vehicle navig. 41241
resource mgt., stochastic techs. 20362
spatio-temporal image anal., automatic vehicle image extraction *(Japanese)* 2619
supercond. mag. levitated vehicle syst., damping charact. *(Japanese)* 28130
target ident./sens. perform., imagery-based targeting trainer 35233

velocimeters
see also anemometers; laser velocimeters; velocity measurement
fluid flow visualisation, recent trend *(Japanese)* 34733

velocity analyzers *see particle separators; particle velocity analysis*

velocity control
see also angular velocity control; motion control
3-phase squirrel cage motor drive, thyristor controlled 11364
5-phase SRM drive, phase converter, microcontroller 5317
60 hp brushless doubly-fed pump drive, water treatment appls. 5431
AC ASD, torque/speed/posn. control, trends 20065
AC machines, PWM invertor-fed, transducerless posn./vel. estim. 36100
AC machines, transducerless posn./vel. control 4910
AC motor drives, asynchronous μP control design 36637
AC motor drives, direct torque control 36649
AC motors, four-quadrant digital control scheme 10954
AC PM servomotor digital controller, appls. 43979
asynchronous motor, speed control, variable struct. control 27738
automatic train protection syst., commun., rails 11411
brushless AC motors, digital servo amp. concept 11338

velocity control continued
- brushless DC motor, posn.-vel. tracking control, obs. integrator backstepping approach 27750
- brushless DC motor direct voltage vector control implement. 4990
- brushless DC motor drives, variable speed control design 5243
- brushless DC motor posn.-vel. control design 36188
- brushless DC motor/robotic load, adaptive integrator backstepping tracking controller 19655
- brushless DC motors, fuzzy speed control design 4989
- brushless DC servomotor auto-tuning, fuzzy optimal control 4988
- brushless direct drive motor, robust speed control design 5287
- brushless doubly fed machines, pump drives, pole no. combinations 5282
- brushless doubly-fed induction motor drives, speed control 20055
- brushless motor drives, high power, intell. interface 5271
- capacitor motor drive, single phase, speed control 5272
- chopper fed PMDC motor elec. vehicles drive, adaptive ANN rule-based controller 36721
- DC drives, fuzzy control 5315
- DC elec. drive, current compensator/vel. control 28065
- DC elec. motors, ASICs for monitoring/controlling 11329
- DC motor, adaptive speed control, torque estim./compensation 4993
- DC motor, separately excited, vel. control without meas. 19653
- DC motor, speed control, self-tuning fuzzy controller 27748
- DC motor ASD, self-tuning digital controllers appl. 5316
- DC motor drive adaptive neural speed regulators 36655
- DC motor drive fuzzy logic control, neural net implement. 11316
- DC motor drive fuzzy speed controller 36654
- DC motor drive sensorless operation, neural network-based 36676
- DC motor drives, fuzzy speed/voltage control 28099
- DC motor drives, optimal speed control method *(Polish)* 36647
- DC motor speed control, binary rate modulation 27749
- DC servodrives, dyn. friction compensation 36644
- DC servomotor, robust digital optimal model following syst. *(Korean)* 27751
- DC servomotor speed fuzzy control 11069
- double-mass induction motor drive, vibr. control design *(Russian)* 28096
- doubly-fed induction machines, torque/VAr control 4973
- drives, computer controlled dynamometer test syst. 36695
- elec. drives, digital control systs. design 11383
- elec. road vehicle speed control, PID neurocontroller 36723
- elec. vehicle induction motor neuro-fuzzy control 36722
- electric generator adaptive fuzzy speed control, rule-based 19582
- FACTS, bilinear predictive control, thyristor controlled capacitor 4582
- five-phase hybrid stepping motor command seqs. *(French)* 11085
- fuzzy logic based engine idle-speed controllers 11441
- fuzzy logic controller for induction servo syst. 5002
- GE SPEEDTRONIC Mark V turbine control syst. 43923
- generic plant control, global optim. method 4985
- hard disk slider vibrs., ramp-suspen. interact., ramp loading proc. 7163
- HDD, motor-control servo power IC 36671
- high speed drives, energy/material savings 36672
- high-speed trains, GSM-based commun. syst. 9284
- hybrid transducer-type US motor, speed control expts. *(Japanese)* 11082
- hydrogenerators, adaptive speed control, RLS ident. 43988
- hydrogenerators, optimal robust governor design 43989
- induction machine ident./control, neural net-based 44057
- induction machine low speed region control method 44051
- induction motor, two-layer rotor, equiv. cct. params., speed control *(Russian)* 44435
- induction motor ASD, adaptive speed control, ANN 28080
- induction motor ASD, fuzzy on-line efficiency optimisation control 36659
- induction motor ASD, speed/temp./torque meas./control 36697
- induction motor ASD, VVVF inverter-based control *(Korean)* 28061
- induction motor drive, control methods, high dyn. perform. 11356
- induction motor drive, CSI-fed, field oriented control, CASED simul. 44495
- induction motor drive, field oriented sliding mode torque/speed control 36699
- induction motor drive, fuzzy 2-DOF speed controller 36660
- induction motor drive control, rotor time const. ident. 11369
- induction motor drive speed vector control, rotor speed meas. methods 44478
- induction motor drive tacholess vector control, low speed perform. 5292
- induction motor drive vector control, neural net-based 5291
- induction motor drives, control, DC chopper 28081
- induction motor drives, current controlled PWM inverters, simul. 11363
- induction motor drives, digital adaptive control, transputer based 11379
- induction motor drives, duty cycle-based V/f inverter control 20059
- induction motor drives, fuzzy logic controller 20085
- induction motor drives, neural net-based param. estim. 20061
- induction motor drives, position/speed dyn. control, DSP 20069
- induction motor drives, saturated, field oriented control 20079
- induction motor drives, sensorless speed control, neural net-based 20063
- induction motor drives, speed sensorless field-oriented control 5298
- induction motor drives, vector controlled, rotor time const. ident. 20073
- induction motor drives, VSI-fed, generalized predictive control 5248
- induction motor drives, VSI-IGBT, vector control, paper/steel industries 36805
- induction motor nonlin. control, DSP approach 11057
- induction motor speed control, neural fuzzy controller design 44052
- induction motor speed control, stator resist. estim. 36155
- induction motor speed control improvement, load torque var. *(Korean)* 27723
- induction motor speed controller, line voltage feedforward-based 27712
- induction motors, doubly-fed, IP control transient stabil. anal. 27740
- induction motors, nonlin. observer-based tracking control 19622
- induction motors, sensorless vector speed control scheme 19632
- induction motors, single/3-phase, speed control, AC regulators, freq. division 11034
- induction motors, speed control, low-noise compact inverter *(Japanese)* 11016
- induction motors, speed control, VSS, load torque observer *(English)* 36175
- induction motors, speed sensorless indirect field oriented control 11045
- induction servodrives, field-oriented control, fixed-point DSP 11358
- indust. robot/CNC machine tool digital joint motion controller 11509
- interior PM sync. machines, tangential vibrs. rejection 4918
- internal model control loops, asymptotic setpoint tracking 27772
- lin. reluctance servomotor drives, control perform. 5319
- locomotive motor wheel set drives, adhesion utilization improvement 36758
- long. vehicle dist. control, meas. error effects *(Japanese)* 10028
- Maglev PM lin. sync. motor drives, trajectory control simul. *(Japanese)* 44559
- microcontroller-based real-time speed meas. for motor drive systs. 36648

velocity control continued
- mine elec. locomotive braking, pulsed control syst. modelling 28202
- moving magnet lin. DC motor, const. vel. control *(Japanese)* 44073
- NDRE-AUV flight control syst. 10599
- PM brushless DC drive, var. struct. speed control 36665
- PM DC motor drives, AI speed control strategies 5285
- PM sync. motor drives, nonsinusoidal field distrib. 5263
- PM sync. servomotor, space voltage vector PWM control *(Korean)* 27694
- PM sync. servomotor drives, optimal/VSS control 5288
- power station auxiliaries, var. speed squirrel cage motor drives *(Polish)* 43819
- PWM inverter-mounted induction motor, design 5306
- regenerative DC drive, sinusoidal line current consumption 5321
- residential ASDs, simplified control scheme 5397
- robots, PM sync. motor drive, robust adaptive control 20054
- rolling shutter, tubular motor ASD, control *(French)* 11333
- salient-pole brushless motors, starting method 5286
- SAMCO-i high-perform. general-purpose inverters for induction motor drive *(Japanese)* 36340
- SEC 51C803/804 three-phase microcontrollers for variable-speed drives 5246
- sensorless brushless DC motor drive control studies 44474
- servomotor planetary gear precision speed reducers 44090
- single phase squirrel cage motor, variable speed optimal control *(French)* 11040
- single-phase induction motors, multi-speed control studies 19621
- space/aircraft actuators, integrated control *(French)* 10952
- squirrel cage ASD, speed/torque/PF control 5270
- squirrel cage drives, adaptive sliding mode speed control 36666
- squirrel cage motor rotor time const. ident. studies 4953
- SRM, speed control, magnetoresistive angle sens. 44030
- SRM, switching angle, high speed operation *(Korean)* 36112
- SRM drive speed/current regulation, microcontroller-based 11350
- stepless PWM speed control of AC motors, neural network approach 4939
- sync. generators, static exciter, LCI 36142
- sync. motor drives, self-controlled, computer modelling 11337
- sync. motor drives, self-controlled, steady state perform. 11389
- sync. PM motor vector control, stator iron loss considerations *(Japanese)* 10968
- three-phase squirrel cage induction motor, adaptive vector control 36171
- trains computer and radio control 9283
- travelling wave US servo motor, speed tracking control 19676
- travelling-wave US servomotor, speed tracking control 4999
- turbines, intell. adaptive controller 43816
- TW US motor, adaptive speed control 11089
- two-inertia motor syst., closed-loop PID speed control design *(Japanese)* 27669
- two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638
- underground hoist, digital controlled cycloconverter induction motor drive 11323
- US motors, adaptive speed control by phase control *(Japanese)* 11077
- variable speed cycloconvertor AC drives, vector control simul. 5267
- variable speed DC motor drives, fuzzy self-organising control appl. 36689
- variable speed induction motor drive retrofits, centrifugal load appls. 36690
- variable speed induction motor drives, controller synthesis 11353
- variable speed squirrel cage motor drives, indust. appls. 5294
- variable speed sync. motor drives, stator flux-oriented control 36667
- wind turbine, self-excited induction generator 10911
- wind turbine, wound rotor async. generator, static Kramer drive 36083
- wind turbines, speed control in stall region 36066

velocity measurement
- *see also acoustic wave velocity measurement; anemometry; angular velocity measurement; flow measurement; flowmeters; laser velocimetry; particle velocity analysis; velocimeters*
- 2 μm LIDAR for laser-based rem. sens. 10384
- 3D image meas. of moving objs., laser rangefinding 3627
- absol. dist./vel. meas., double integrated heterodyne interferometer 18073
- air/He mixtures, vel./conc. meas., thermo-anemometry 26011
- amorph. materials in sens. appls. 34480
- augmented railgun, inductance gradient scaling expts. 15273
- autonomous underwater vehicle navig., sparse ref. points 34171
- bubbles, size, vel. and long. posn. opt. meas. 18156
- contactless velocimetry of vehicles, microwave speckles appl. 18105
- DC motors, CAMAC-PC based automatic expt. investig. syst. 36185
- deep-bar induction machine dyn. params. determ. 4964
- digital tachometer, precision, vel. meas. 42948
- Doppler sonar navig., matrix algm. 34170
- double pulse holography, digital image proc. 18142
- dyn. torque-speed meas., advanced intell. instrums. 44038
- electrothermal launchers, phys. proc., param. studies 15291
- EM launcher hypervelocity projectile passage sens. design 15335
- EM plant monitoring/mgt. instrumentation 19597
- EM vel. probe wall effect on sensitivity prediction 42989
- ESP gas flow modif. by charged particles 7923
- fast timing coincidence syst., gamma speed meas. 34958
- fibre optic sens., hot-gas driven projectile motion 34524
- flow velocimetry, opt. flow techs. appl. 18146
- freq.-phase optoelectronic speed-measuring devices 42947
- granular particle, lin. flow vel. meas., image sens. 3993
- Hall IC sens., contactless posn./speed detect. 34468
- high-speed vehicle convoy, control feasibility simul. *(Japanese)* 28107
- holographic particle velocimetry, 2D wavelet transform 23460
- hot-wire anemometer, low vel. calib., pendulum method 42983
- imaged clouds, precise vel. meas., image data-handling techs. 43543
- induction machine low speed region control method 44051
- induction motor ASD, speed/temp./torque meas./control 36697
- induction motor drive, parametric oscill. speed sens. 44451
- induction motor drive, rotor flux/time const., VSS observers 11325
- induction motor drive elec./shaft torque indirect two-speed meas. method 36661
- induction motor drive meas. technique, microprocessor-based 20058
- induction motor drive speed vector control, rotor speed meas. methods 44478
- induction motor drives, speed sensorless field-oriented control 5298
- induction motor rotor speed meas., slot harmonics-based 4941
- induction motors, param. slip depend. determ. methods 27734
- IR surveillance, motion estim. methods/noisy phenom. 2612
- large scale sewer US flow vel. meas. 42992
- long. vehicle dist. control, meas. error effects *(Japanese)* 10028

velocity measurement continued
microcontroller-based real-time speed meas. for motor drive systs. 36648
microwave front end for automotive true ground speed meas. 28152
MICSOS, shear probe for microstruct. measuring systs. 10500
motor speed monitoring syst., PC based, noncontact 10961
movement charactn., low-light-level image spatiotemporal FT 41232
moving magnet lin. DC motor, const. vel. control *(Japanese)* 44073
moving obj. detect., posn. sens.-based, meas. error probab. *(Russian)* 34701
multichord spectrometer, 8×8 anode photomultiplier 29814
muscular cond. vel. meas. syst., surface EMG 10232
natural convection from vert. parallel plates array 20432
non-polar liqs., electrokinetic study, LDA 42985
nonBrownian sedimenting spheres, hydrodynamic self-diffusion, particle vel. flucts. 18148
noncontact vel. meter based on spatial filtering method 3990
nonuniform sparse meas., forced structural responses interpolation 18115
ocean friction vel., C/Ku-band scatterometer data appl. 10525
ocean surface currents meas., HF radars 35337
ocean surface wind speed meas., ERS-1 vs. SSM/I, Atlantic 10471
omnidirectional airspeed sens. 10383
opt. analog computing appls. 7439
opt. spatial filter sens. for ground speed meas. 42760
parallel SME filter for 3-D tracking of multiple targets 15871
planar dist. and vel. sens. 3992
projectile vel. meas., flash shadowgraph syst. 3989
railgun plasma armatures, dyn./struct. studies 15333
real-time digital single-exposure speckle photography for vel./flow fields study 41299
road traffic and vehicle control, image sens. appl. 41210
road vehicle 24 GHz dual channel microwave front-end 11444
road vehicle Radar Speed Monitoring System 42511
road vehicles, running speed estim., field image inform. *(Japanese)* 2628
shock-absorpt., act.-pass., and gravimetric obs. 3991
simultaneous particle size/3D posn./vel. meas. 18075
slider, take-off/touch-down vel. meas. 7161
squirrel cage motor, sensorless speed detect., supply current , FFT 36167
squirrel cage motor rotor time const. ident. studies 4953
submarine navig. data integrat. 24296
superposed flow between contrarotating discs, LDA 18145
target vel. meas. from speckled images 16197
Tokyo Metropolitan Traffic Control System, image proc. vehicle detector 42845
turbulent liq. channel flow, LDV 18144
turbulent pipe flow, press. and vel. meas. 42986
unstable vortex ring, flow field, holographic particle velocimetry meas. 18147
vestibular-visual act. sens. integrat., vel.-based 41108
vortex breakdown location flucts., vel. meas., flow visualisation 18149
weather radar, av. wind vel. meas., mean Doppler freq. estim. 43515
CO_2 coherent lidars for measuring wind vel. /atmos. turbulence 3628
Nd:YAG birefr. microchip laser used in heterodyne vibrometry 23481

velocity microphones *see microphones*

velocity spectrometers *see mass spectrometers*

ventilating *see ventilation*

ventilation
see also air conditioning; building management systems; HVAC
50 to 300 kVA UPS installation guide 19875
Channel Tunnel project ventilation syst. overview 11484
elec. drives, energy consumption reduction 28077
metals indust., elec. equipt. rooms ventilation 20164
Mitsubishi Electric ventilation syst., airtight dwellings appls. 44607
motor-driven external-injection fans, noise/power reduction tests 28178
steam power plant flue gas cleaning syst. corros. protection *(German)* 43912
TIPACS temp.-initiated pass. cooling syst., perform., appls. 28181
TsV centrifugal fan induction motor drive selection program 44603
turbogenerators, rotor hydrogen cooling, temp. distrib., clogged vents *(Chinese)* 43999
SF_6 power distrib. equipt. enclosures, ventilation requirement calcs. 35628

ventilators *see ventilation*

Venus
cartography, radar/radiometry 3643

Verdet constant *see Faraday effect*

verification, formal *see formal verification*

verification, program *see program verification*

Verneuil process *see crystal growth from melt*

version control *see configuration management*

vertical cavity surface emitting lasers *see surface emitting lasers*

Verwey transition *see metal-insulator transition*

very-high-frequency devices *see VHF devices*

very high speed integrated circuits
3D ICs for super-high freqs. and extremely-high freqs. 22526
analog neural network bipolar LSI 37926
bipolar proc. for wireless ICs 22563
bipolar static freq. dividers, T-type flip-flops 12475
CMOS devices testing, transm. line effects reduction 6091
CMOS LSI archit., ultra-high speed error correction, majority decoding 29200
CMOS neural chip, 70 input, 20 ns pattern classifier 29483
CMOS neural network IC for high-energy phys. 29476
deep submicron VLSI, interconnect modeling 22558
DRAM, test strategy 6145
electro-optic probing of ultra-high-speed IC's 13839
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
high speed testing, double opt. pulses 6825
high-throughput data compressor, CAM 21324
interconnect struct., mixed freq.-time domain anal. 22512
local bypass capacitors, high-speed-syst. demands 21113
LSIs, self-aligned complementary bipolar technol. 30442
MCM interchip radiative interconnection syst. 29724
multiconductor interconnects, VHSICs, capacitance matrix computation 12795
μP test, meas. error calc. 9804
scaled-down MOS transistors for gigabit ccts., reliab. 22443
SNUFEC ultra-high-speed CMOS VLSI Viterbi decoder 12557
sync. DRAM testing 6147
systolic freq. dividers/counters, cct. implement. 620
ultrahigh-speed IC diagnosis, electro-optic probing 6835
VHDL, commercial design tool 22524

very high speed integrated circuits continued
VHDL testbench, board-level test programs develop. 30421
AlGaAs-GaAs HBT gate array for 5 GHz ASIC, cell libr. 37719
AlGaAs-GaAs HMESFET technol., SRAM, gate array, stand. cell 39021
AlGaAs-InGaAs E/D-HJFET LSI technol., 0.6 V 39022
GaAs IC technol. for 10 Gbit/s transm. syst. with EDFA 42400
GaAs IC, ultrahigh speed pin-electronics and test station 6861
GaAs MESFET high speed adder, multiple-output domino logic 29127
GaAs SAG-MESFET for supercomputers, proc., implement. 37721
GaAs VLSI IC, current status, future prospects 30481
GaAs high speed cct. design/perform. estim., normally-off logic 29126
GaAs self-aligned complementary heterostruct. FET process 39019
GaAs tri-state driver flip flop, HFET LSI 37718

very large databases
appl. partitioning, client server develop. 41892
CERN NA48 simul. program, parallelisation 18377
large video databases, user access, indexes 9711
National Park service mgt. package 28377
voltage security, machine learning, neural networks, stat. pattern recogn. 10663

very large scale integration *see VLSI*

very long instruction word machines *see instruction sets; multiprocessing systems; parallel architectures; parallel machines*

very small aperture terminals *see satellite ground stations*

VHDL *see hardware description languages*

VHF amplifiers
see also HF amplifiers; UHF amplifiers
200 W FM-band high-efficiency power amp. develop. *(Japanese)* 17548
feedforward amp. incorporating parallel output summing 12346
MOSFET power amp., CAD 556
RF amp. lin., continuous-time adaptive control 12349
TV amps. tuning, robot fingers, fuzzy logic 37654
Si RF MMICs, LNAs and downconvertor for 1 V pager appls. 851

VHF circuits
see also UHF circuits; VHF amplifiers; VHF filters; VHF oscillators
reson. meas. in capacitors 29613
Si RF MMICs, LNAs and downconvertor for 1 V pager appls. 851

VHF devices
see also UHF devices; VHF amplifiers; VHF circuits; VHF filters; VHF oscillators
Anritsu Corporation EMI pers. measuring systs. 23726
HTS thick-film loop antenna/two-element array 40495
quartz, very high freq. resonators, LD-based mode-shape meas. syst. 22679
RF field imaging, scanning SQUID microscope 34668
ring hybrid, miniaturized 3-dB design 12710
ultra-broadband high perform. RF choke for commun. appls. 37996

VHF filters
see also UHF filters
HF fully integrated OTA-C filters, 7.2 GHz bipolar OTA 6210
monolithic UHF/VHF filters on two-layer dielec. bar 37835
printed spiral resonators based bandpass filters 12623
Fe-polymer composite absorber chip for RF EMI filtering 37834
GaAs MESFET IC SC band-pass filter, VHF 37843

VHF oscillators
see also UHF oscillators
Ermes pager testing, SME sig. generator *(German)* 25350
hollow-cathode discharge, high-power RF generation 29739
phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
series reson. oscillator design tech. for VHF/UHF ccts. 21136

VHF propagation *see VHF radio propagation*

VHF radio propagation
see also HF radio propagation
cellular radio, wide area coverage, freq. planning 42190
cellular syst. RF prediction tools and terrain database selection 33813
DAB, dyn. range control and music/speech control 25641
digital fading mobile, Markov charactn. 3337
Finland DAB field trials 25639
freq. hopping simulator for multipath mobile channels *(French)* 3361
Fresnel knife-edge diffr. correction factors based on UTD results 2230
ground refl. wave suppressed test sites 23670
high-power VHF single freq. network for DAB, field trials 25640
ionos. disturbed by nuc. explosion, VHF radar scatt. 7979
ionos. Faraday effect, polaris. meas. syst. develop. 18829
ionos. scintillation, radio interferometric meas. 23623
L-band propag. meas. for land mobile satellite links 17141
LF model for wedge, pyramid absorber arrays 7994
LF model for wedge or pyramid absorber arrays, meas. results 7995
num. terrain model, propag. loss, uniform theory of diffr. 15435
PO and terrain diffr. 7963
rural area terrain-based UHF/VHF propag. model 23630
scintillation obs., anom. crest region, Nagpur 7969
solar eclipse effects 31842
stratos., radar backscatt. power, aspect sensitivity 31813
time-of-arrival prediction model for transionospheric EMP 25458
time-variant multipath channel, simul. 33847
tropos., radar backscatt. power, aspect sensitivity 31813

VHF range *see VHF devices*

VHSIC *see very high speed integrated circuits*

VI & P communication *see intelligent networks; personal communication networks; visual communication*

vibration control
see also damping
act. control, IIR filters 32602
adaptive beam with embedded devices, dyn. response 37548
airborne laser commun. syst., adaptive jitter rejection tech. 17310
automobile two-state adaptive suspen., rule-based condition monitoring 5365
beam, bending wave structural intens., adaptive control 2543
civ. engng. tandem rolling-rotor actuator synchronisation 11519
CMM, optimal posn./vibr. control design 3738
consumer camcorder image stabilisation, digital and opt. methods *(German)* 42637
cylindrical shell vibr. control 34333
domestic appliances, rotor vibr. transm. prevention *(Japanese)* 11489
double-mass induction motor drive, vibr. control design *(Russian)* 28096
elec. machine act. vibr. control, piezoelec. actuator-based, simul. 36090
elec. machine mag. bearing-based vibr. control simul. 36091
electrodynamic vibrators, computational aspects 19925

vibration control continued
First Material Processing Test microgravity expts., image furnace and egg rack *(Japanese)* 12027
free space laser commun., demons. of jitter rejection tech. 17313
hybrid neuro-fuzzy power syst. stabilizer 27069
hybrid transducer-type US motor, speed control expts. *(Japanese)* 11082
interior PM sync. machines, tangential vibrs. rejection 4918
internal combustion engine knock detect. 5353
lin. pulse motors, vibr. suppression design 4996
lin. pulse servomotor control, 2 DOF controller *(Japanese)* 44074
lin. spring for PM levitation syst., EM control 44509
mech. vibr. damping by $YBa_2Cu_3O_{7-x}$ in mag. field 22722
milling, cutting vibr. control, impact damper *(Japanese)* 42952
modal shapes meas. of inhomog. cantilevers, opt. deflection 25974
motor syst. act. vibr. control by H_∞ control 44259
motors, act. vibr., H_∞ control theory 10942
multichannel simultaneous digital tracking filters, vibr. control 17993
noncontact permanent mag. levitation table, vibr. isolation 17654
nonlin. filter struct., act. sound and vibr. control, genetic algm. 32776
NPP feedwater valves retrofitting, vibr. reduction 27339
overhead transm. lines, spacer dampers energy dissipation 27232
photosensor for transients tracking 34510
piezoceramic lin. motor, flexible space struct. control 4995
piezoelec. transformers and structs., controller design 30621
PM sync. machines, act. vibr. compensation scheme *(French)* 10997
PVDF, piezoelec. bimorph actuators, force improvement 39109
random vibr. control algm. 25979
semi act. suspens., electrorheological fluid dampers, HV supply unit 44131
semiactive control for vibr. atten. 5916
Shinkansen develop., Hitachi technols. 44505
Sofradir flat struct. longwave IRFPA, Joule-Thomson cooler 11777
solid-state actuators, periodic forces cancellation 30755
SRM drives, vibr./acoustic noise anal./control 20083
steel rolling mill two-inertia syst. control *(Japanese)* 11501
substation equipt. vibr./noise reduction *(Japanese)* 36477
Terfenol-D actuators, control under load 7222
turbomolecular pumps, high vac. semicond. appls. 13266
two-mass AC motor drive, vibr./speed state feedback control *(Korean)* 36638
wire rope type vibro-actuator, travelling wave expts. 27872

vibration measurement
see also seismometers
additive stroboscopic fibre optic TV holography, vibr. anal. 15153
amorph. materials in sens. appls. 34480
beam, cantilever, init. modal testing 42951
bearings, fault recogn., monitoring by neural nets 34391
bio-mech. movements obs., magnetometer sens. appl. 34986
condition monitoring syst., multilevel knowledge base 17679
conference, interferometry, photomechanics, Poland (1994) 28210
digital double-pulsed holographic interferometry for vibr. anal. 31633
double-pulse electronic speckle interferometry for vibr. anal. 15161
dyn. structural response, vibr. wire opt. fiber sens. 9927
elec. machine, malfunction diagnostics 10953
electrohydraulic testing units for vibr. expts. on instrums. 118
electromachine vibr. data validation/recovery, ANN 19593
fiber optic non-contact accelerometer 34530
fibre optic sens., vibr. wires 17874
hard disk slider vibrs., ramp-suspen. interact., ramp loading proc. 7163
hearing aids, bone cond., objective perform. meas. 43356
helicopter transm. health monitoring, neural computing methods 10363
heterodyne fibre-optic vibrometer, pass. instrum. head 17864
impulsively loaded equipment, mechanical condition monitoring, neural networks appl. 11212
induction motor bearing damage detect., stator current monitoring 4968
internal combustion engine knock detect. 5353
laser techniques, conf., Ancona, Italy (Oct. 1994) 36868
mach. fault detect., vibr. anal. techs. 26807
machine fault detect. and diagnostics, vibr. anal. 26804
milling, cutting vibr. control, impact damper *(Japanese)* 42952
modal shapes meas. of inhomog. cantilevers, opt. deflection 25974
nonuniform sparse meas., forced structural responses interpolation 18115
optical instrumentation for process industries, conf., Germany (1994) 5486
optimal sens. location, multiple hypotheses testing 41020
overhead power lines, TRIVAI aeolian vibr. indicator 43779
package, transient strain response, scanning laser vibrometry 34706
photosensor for transients tracking 34510
piezoceramic plate bending motion meas. by homodyne holographic interferometry 40153
power overhead line mech. self-damping meas. methods *(German)* 10754
PWR, ex-core neutron noise signature anal., neural networks 43859
quasidistributed fiber-optic interferometric pickups, seismology appl. 17867
random vibr. control algm. 25979
rect. quartz plates vibrs. characts. meas. 30614
rolling element bearing fault diagnosis by vibrs. and neural networks 26805
rot. machines, condition diagnosis, monitoring syst. *(Japanese)* 36087
scanning laser vibrometers, directing meas. point 31693
semi near-field meas., errors, 4-channel method *(Japanese)* 3994
sens. irrelevancy testing, backward elimination/stepwise regression 11409
shear piezoelec. vibr. pickups 3811
ship's propulsion syst. forced torsional vibr. meas. and anal. *(Croatian)* 4027
six-DOF laser vibrometer, expt. validation 10037
six-DOF laser vibrometer, theoretical develop. 10036
solid-state actuators, periodic forces cancellation 30755
speckle contrast ratio fiber vibr. sens. 34536
speckle referenceless config. using adaptive photodetectors, vibr. meas. 34704
SRM drives, vibr./acoustic noise anal./control 20083
stroboscopically-illum. ESPI 15154
time-freq. distrib., laser radar backscatt., FM demodulation 34166
torsional deflection shape meas. 10034
traffic vibrs., PC-based meas./anal. 34707
turbine blade, faults, intell. diagnosis, neural nets/fuzzy logic 35714
turbine blade vibr. meas. experiences, Switzerland 10929
turbogenerator online vibr. monitoring, neural net-based 19596
turbulent press. flucts. meas., buoyant vehicle, thin elastomer layer 17458
vibro-acoustical props., lab. meas., theoretical basis 42995
violin tonal quality, holographic pattern anal./test 7855
white light interferometric fibre optic meas. systs. 17813
wrapped screen wick Cu/H_2O heat pipe, capillary limit, long. vibr. 34703
$Bi_{12}SiO_{20}$ SLM, 2D lock-in detector array 31001

vibration measurement continued
Nd:YAG birefr. microchip laser used in heterodyne vibrometry 23481

vibration testing *see dynamic testing*

vibrational modes
see also localised modes; phonon spectra; phonons
asynchronous machine vibroacoustic optim. by FEA *(German)* 11028
complex cct. board struct., holographic interferometry 5927
mol. adsorbates, steady-state sum-freq. generation 15028
$Al_xGa_{1-x}As$, ion implanted, Raman line asymmetry/phonon freq. 38511
GaAs, ion implanted, Raman line asymmetry/phonon freq. 38511
InP, ion implanted, Raman line asymmetry/phonon freq. 38511
a-Si:H, selective laser ablation 1027
$W(CO)_6$ in organic glass, vibr. photon echo, FEL 40110

vibrational states
see also Fermi resonance; rotational-vibrational states; vibrational modes
methanol-d_2, opt. pumped, far IR laser lines and assignment 14711
pseudoisocyanine J-aggregates, wavelength depend. nonlin. opt. props. 2062
tellurite:Pr(Nd)-based glasses, 1.3 μm emission studies 7561
waveguide CO_2 laser, act. medium diagnostics 7513
CO_2 slab-geom. lasers, mode and wavelength selectivity 31148
$CuInSe_2$, heteroepitaxy on Si, charactn. 13087
$CuIn_3Se_5$, heteroepitaxy on Si, charactn. 13087
HCl, vibr. kinetics effect on XeCl laser microstability 31183

vibrations, molecular *see vibrational states*

vibrometers *see vibration measurement*

Vickers testing *see hardness testing*

video amplifiers
low-power current feedback amp. design, video-speed appls. 12344
wideband amp. IC for three-channel video sigs. 6038

video cameras
3D image recogn., optimum estim. and compensation *(Japanese)* 16370
ANN based PCB inspection syst. 29684
automated opt. mensuration using video camera, calib. method 2613
AVIP computer graphics syst., audio/video inform. proc. *(Japanese)* 25661
CCTV, video entry phones, surveillance cameras 42633
code-sens. commun. syst., introduction 24895
complementary CCD DSP chip for digital still cameras 6188
consumer camcorder image stabilisation, digital and opt. methods *(German)* 42637
DSP characts. *(Japanese)* 34278
EMC of code-sens. commun. syst. 24889
GIS charged conducting particles, motion meas. 11205
holographic TV, LCD, YAG laser and camera appl. *(Japanese)* 2149
image sensors/processing, conf., UK, 1994 5481
intell. video camera, serial control interface 9754
IT-CCD image sens., 1/4-type 410 k pixel, develop. *(Japanese)* 25679
low-cost CCD video camera for machine vision and consumer 9755
motorway traffic supervision, video camera-based *(Italian)* 3686
multiple FM-video sig. transm., opt. fiber in security 9529
photogrammetry using video cameras, modelling & calib. 43486
rly., third rail conductor inspection, video appl. *(German)* 11422
single-chip CCD colour video camera vert. false colour sig. reduction *(Japanese)* 17588
two-phase direct-drive motor for camcorders zoom lens barrel 42635
virtual reality display interfaces 18013
virtual/real environments, video see-through design 17591

video cassette recorders *see video tape recorders*

video codecs
adaptive subregion variable shape block motion compensated prediction 24500
ATM network, video services, preventive flow control 41938
audiovisual commun., perform. assess. 17602
B-ISDN video transm. *(Japanese)* 41920
butterfly algm. and VLSI archit. for image decorrelation 16096
CD-ROM based video playback 16941
Clean PAL concept and hist. 9722
consumer videophone, CMOS ASIC video codec, low cost 25166
DCT based codec for mobile video coding, simul. 17125
deblocking scheme for codec loop 16336
desktop videoconferencing codec, adaptive Motion-JPEG design 16814
desktop videoconferencing syst. *(Japanese)* 25079
digital HDTV studio mag-tape-recording hardware codec *(German)* 9727
digital images, compression, decompression and syst. implement. 41317
digital satellite news gathering syst. *(Japanese)* 42091
digital video quality, computer-based testing 16083
DSP, pipeline archit., MPEG2 CODEC 8664
entropy-constrained trellis coded quantization 24507
GT-1000 image transm. device, develop. *(Japanese)* 33610
HDTV digital codec, high compression, develop. 42607
hierarchical multiprocessor archit. for video coding 33698
high-resoln. digital satellite commun. syst. *(Japanese)* 25637
image compression, methods, parallel proc. 24645
image/video compression algms., mean field annealing recovery techs. 24398
Indeo 3.2 video codec 3275
JPEG image coding algm. Huffman codec *(Japanese)* 16943
JPEG-encoded med. video, transm. and storage 18447
low bit rate video hybrid codec 42088
med. image data transm., compressed video teleconference codecs 18461
motion compensated visual pattern image seq. coding 16945
MPEG2 codec, video DSP archit. 33699
MPEG2 real-time codec, video DSP appl. *(Japanese)* 25165
MPEG stds., audio/video codecs, LSI chips 16944
MPEG video codec on single-chip multiprocessor 16939
multi-point video-conf. bridge, ATM switch 16817
multi-std. video codec data flow proc. 25130
multimedia teleteaching syst. 5516
NEC's VisuaLink 5000EX10 video codec *(Japanese)* 42090
picture quality improvement tech. *(Japanese)* 25164
prog. image coding syst., arith. codec, LSI-CAD 33700
Sarnoff engine, massively parallel computer for high defn. syst. simul. 12587
SIMD DSP for real-time MPEG video encoding/decoding 29268
software codec for PC based on DCT 16942
software-only playback, video codec algms. 16940
syst. controller for mobile audio visual terminal 42275
time-space segmentation/motion estim. based on higher order stats. 32819
TV sig. broadcast, high quality video codecs *(Japanese)* 42092
VBR MPEG video, charact., modeling and multiplexing 33147

video codecs continued
- videoconferencing, transputer-based implement. of video codec interface 33616
- VLSI archit. for video real-time hierarchical encoding/decoding 33697
- VLSI implement. of Huffman codec for digital video 33704

video coding
- 1-D and 2-D DCTs, high-throughput VLSI archits. 24582
- 2-D DPCM/DCT video/image coding algm., simul. 32905
- 2D DCT macrocell, sense-amplif. pipeline flip-flop scheme 6181
- 2D digital video filters for PALplus-compatible HDTV transm. encoder 42604
- 3-D motion estim., videophone appls., iter. tech. 16627
- 3D adaptive transform coding techs. for moving images 41089
- 3D subband coding of video 24590
- 3D video player (based on MPEG 1) *(Japanese)* 3680
- 3D-DCT pipe coding, video seq. coding 24506
- 64 kbit/s image seq. coding, wavelet vector quantisation scheme 16367
- 64 kbps switched internat. ISDN, transm. perform. 16795
- adaptive speed VQ for video data compression 8652
- adaptive subregion variable shape block motion compensated prediction 24500
- American satellite TV public broadcasting service (PBS) 42566
- asynchronous video coding for wireless transport 32187
- ATM network, video services, preventive flow control 41938
- ATM network variable bit rate MPEG video encoder characts. 41974
- ATM video, performs. and error control 8612
- BiCMOS ULSI video sig. proc. for single chip teleconferencing syst. 34432
- bit rate reduction tech. 16403
- bit stream generator for HDTV, SCSI hard disc 9732
- block-adaptive scanning for efficient encoding of DCT blocks 24401
- block-based image coding, inform. loss recovery, fuzzy logic approach 32873
- broadband satellite digital video transm. technol. *(Japanese)* 17542
- buffer control strategy for image data compression 16229
- class.-based motion estim. for video coding 16385
- Clean PAL, IEE Colloquium, London (1994) 15
- Clean PAL concept and hist. 9722
- CMOS digital video delay line, embedded ADC/DAC/SRAM 34434
- colour video compression strategy, 3-D subband coding 16086
- composite compatible component coding 8686
- composite compatible component coding (Com) 42596
- compressed digital video services 33966
- compression by computational image sens. *(Japanese)* 16375
- compression for applied image proc. *(Japanese)* 33648
- computationally fast wavelet-based video coding scheme 16191
- concurrent lossless coder for video compression 32939
- data compression, optimal inter-frame alignment 24695
- data placement, scalable on parallel disk arrays 9745
- DCT based codec for mobile video coding, simul. 17125
- DCT coeffs., adaptive quantization, subjective redundancy removal 8613
- DCT-pyramid VQ video coding scheme 24698
- decoding algm. mapping, mixed sig. IC 8553
- DECT syst., mobile audio-visual terminal 17118
- DECT unequal error protected p×8 kbit/s video transm. 8850
- deinterlacing, motion-compensation method *(Japanese)* 32997
- desktop computers, video commun. and presentation 16077
- desktop videoconferencing codec, adaptive Motion-JPEG design 16814
- desktop videoconferencing syst. *(Japanese)* 25079
- digital TV coding/decoding chipset, spec. and develop. 34248
- digital TV image wavelet transform coding and sync. loss recovery 42584
- digital VCR coding scheme for HDTV recording 9753
- digital VCR for consumer use, develop. 34271
- digital video on PC, hardware accel. 16075
- digital video recording, feedforward vs. feedback video coding 17597
- digital video recording data reduction strategies *(German)* 17583
- digitally encoded pictures for broadcast, objective picture quality scales 24400
- dist. learning, digital video 41968
- dithering, fast source-based for networked digital video 16070
- entropy-constrained trellis coded quantization 24507
- error concealment algms. for ATM videoconferencing syst. 9030
- fast Huffman decoder, high speed pattern matching 41078
- FEAL-32 encryption LSI *(Japanese)* 42093
- FITL systs., MPEG encoding/ATM transport, video services delivery 42053
- fractal video communicator simul. 8851
- frame-induced packet discarding, strategy for video networking 8677
- full digital HDTV syst., develop. 9728
- generalized magnitude and power complementary filters 29392
- generalized periodic Markovian sources multiplexing and VBR video 8717
- global block matching, video encoding 16098
- Grand Alliance syst. for US HDTV 25665
- half-pel precision motion estim. proc. for NTSC-resoln. video 16156
- HDTV, adaptive coding algm., quantizer vector codebook *(Korean)* 42602
- HDTV, parallel divide-and-conquer video decompression 42599
- HDTV digital codec, high compression, develop. 42607
- HDTV image compression, MPEG/autosophy comparison 42606
- HDTV receivers, efficient 2D inverse DCT algm. 25645
- HDTV syst., fully digital, algms. and implement. 9733
- HDTV systs. video coding 3671
- HDTV transm. on SDH network, stuff sync. cct. design 25666
- hierarchical variable-block-size motion detect. *(Japanese)* 8595
- hierarchical video coding scheme, mean separated normalized VQ 33100
- home-use digital VCR, SBC with block-adaptive quantization, image data compression *(Korean)* 34282
- hybrid transform coding, videotelephony on PC 16093
- IDCT finite word-length calc., error estim. 12018
- IEEE ICASSP conference, Adelaide, Australia (1994) 20269
- image data compressed sigs. recording on mag. media 17596
- image segmentation, representation methods 41086
- image seq. block adaptive 3D subband coding 41097
- image seq. coding algms., parallelising method 2811
- image shrinking, zooming, scaling and compression techs. *(German)* 8513
- INRIA Videoconferencing System software 25073
- intell. vehicle/highway systs., compressed video commun. 8682
- interlaced video sig. encoding, hybrid side match VQ 8653
- ITU and ISO/MPEG4 video coding stds. 16092
- ITU generic coding for digital TV broadcasting *(Japanese)* 34211
- JAGUAR, pipelined VLSI archit. for JPEG image compression 21341
- JPEG image coding algm. Huffman codec *(Japanese)* 16943
- JPEG-encoded med. video, transm. and storage 18447

video coding continued
- LAN environ., audiovisual appls. 8941
- low bit rate video hybrid codec 42088
- low bit-rate coded video transm., radio links 8633
- low bit-rate image seq. compression method 24726
- low bitrate appls., video coding scheme 16097
- magneto-opt. disk video server syst. *(Japanese)* 25680
- MC-DCT compressed video, manipulation/compositing 16121
- MCP error images, wavelet transform coding, quadtree decomp./ECVQ 41091
- med. image data transm., compressed video teleconference codecs 18461
- micropipeline asynchronous digital logic design, systolic arrays, DSP appls. 29124
- mid-level vision techs. for video data compression/manipulation 16087
- model-based video coding techs. for low bit-rate appl. 24395
- motion adaptive colorplus encoding 8685
- motion compensated coding, DCT, Quadtree coding 16085
- motion compensated video coding, block matching algm. 24585
- motion JPEG digital video storage, retrieval, and edit 16357
- motion vector estim. in video coding, stochastic approach 8497
- motion VQ 32876
- motion-field segmentation for video coding *(Korean)* 24685
- moving image coding syst., wavelet transforms 16095
- moving picture coding syst., MPEG2 based, quantisation control 16227
- MPEG2, TV receiver appl. 34227
- MPEG2 appl. transm., ATM networks 16880
- MPEG2 codec, video DSP archit. 33699
- MPEG, technol. basis for multimedia appls. 41967
- MPEG 2 appls. 32877
- MPEG codecs in the presence of errors, perform. 16386
- MPEG compressed video, picture-header loss, error concealment strategy 16073
- MPEG decoder, high-perform. cross-platform 16089
- MPEG digital storage media control command 41607
- MPEG encoders bit-rate control 41090
- MPEG integrated audiovisual coding std., develop. 24393
- MPEG player for network karaoke *(Japanese)* 3681
- MPEG video, lossless smoothing algm. 2814
- MPEG video in software, representation, transm., and playback 17578
- MPEG video traffic, network congestion avoidance 42588
- MPEG-1 video, ISO/IEC software implement. 16090
- MPEG-2, ATM 33598
- MPEG-2, digital sig. compression std., develop. 32958
- MPEG-2, IEE Colloquium, London, UK (1995) 11597
- MPEG-2 for DVB and cable 34219
- MPEG-2 std. digital TV receiver IC *(German)* 25648
- MPEG-2 systs. 16091
- MPEG-2 systs. layer, tutorial introduction 34218
- MPEG-2 video compression tutorial 32959
- MPEG-2 video data stream, real-time decompression chip 42047
- MPEG-II video encoding, socket prog. in LAN 16088
- multiaccess network, stat. real-time video channels 16072
- multimedia image commun. systs. *(Japanese)* 33647
- multimedia image techniques *(Japanese)* 32930
- multimedia transport and teleservices, conf., Vienna, Austria (1994) 44
- MUSE decoder chip set for HDTV, low power operation 17565
- MUSE syst., picture quality improvement by resoln. enhancement *(Japanese)* 34253
- NEC's contrib., video coding standardization *(Japanese)* 41158
- NEC's High-Tech Koban syst. for police commun. *(Japanese)* 41708
- NEC's VisuaLink 5000EX10 video codec *(Japanese)* 42090
- nonlin. AV workstation characts. *(Japanese)* 25775
- obj. based archit. for digital compression camera 33620
- opt./mag. recording, digital compression appl. 25677
- PC, digital video implement. and perform. 16076
- pel-recursion with integer estim. updates, non-interpolative kernel 2850
- picture quality improvement tech. *(Japanese)* 25164
- portable video-on-demand syst. in wireless commun. 42593
- progressive image transm. of variable block-size coding 16228
- projections onto convex sets, damaged block transform coded images 33131
- pulsed coded fiber optics, video multiplexing 8676
- pyramidal multiresolution source coding for progressive seqs. 16225
- quadtree-based motion compensation/classified VQ 2813
- quality eval., double-stimulus continuous-quality scale method 24578
- real time video, differential vector quantisation, entropy biased ANN codebooks 32953
- real-time parallel DCT/DST lattice structs. for video commun. 29266
- real-time video compression, differential VQ 24581
- realtime MPEG video via software decompression on PA-RISC proc. 33656
- recording compressed digital video pictures 17598
- ref. model methodology 24392
- scalable video server elements for multimedia systs. 33662
- segmentation coding applied, H.261, low/low bit rates *(Italian, English)* 41353
- shape-adaptive DCT 24586
- SIMD DSP for real-time MPEG video encoding/decoding 29268
- software codec for PC based on DCT 16942
- software video, extended color cell compression 16851
- software-only playback, video codec algms. 16940
- speech-assisted video proc., lip sync. 41702
- stereoscopic video coding for virtual reality appls. 8687
- still video compression, DCT-based 8601
- subband coded video databases, multiresolution video indexing 8486
- subband coding syst., motion compensation techs. for picture compression *(Korean)* 41168
- subband decomp. of video, generalized Gaussian distribs. 24584
- syst. for real-time video image compression appls. 41079
- telecomms. network video coding 33354
- teleconference traffic from VBR video coders, modeling 16818
- telephone loop plant, technol./appls. 25138
- time-space segmentation/motion estim. based on higher order stats. 32819
- TMC22090 video encoder for computer graphics in TV format 29267
- TV on B-ISDN, VBR coder generated traffic, stat. model 9014
- UltraSPARC visual instruction set, MPEG video decoding 29289
- variable bit rate video coding, interleaved FEC 8614
- variable block-size segmentation by motion vectors 16383
- VBR MPEG traffic in interactive appls., resource requirements 16879
- VBR MPEG video, charact., modeling and multiplexing 33147
- vector transform coding for image and video compression 41095
- very low bit rate video coding, predictive-transform 16404

video coding continued
VGA colourmap optim. methods compared 33022
video codec for CD-ROM based video playback 16941
video streams, encoded, efficient transm. on high-speed networks, frame-induced packet discarding 16911
videoconferencing, transputer-based implement. of video codec interface 33616
videophone, H.261-compatible fuzzy coder 3104
visual commun. media trends and prospects *(Japanese)* 16905
VLSI archit. for motion estim. algms. 12580
VLSI archit. for video real-time hierarchical encoding/decoding 33697
VLSI archits. for video compression, survey 24394
VLSI implement. of Huffman codec for digital video 33704
VLSIs, prog. DSPs and building block approach 16155
VQ-based motion field segmentation under entropy criterion 16384
WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
XTP multicast for high quality video distrib. 16484

video compression *see data compression; video coding*

video discs
for data storage on optical discs see "optical disc storage"
3D video player (based on MPEG 1) *(Japanese)* 3680
BiCMOS video sig. proc. IC for laser disk player 9756
CD-ROM, quadruple dens. opt. disc technol. *(Japanese)* 3682
data placement, scalable on parallel disk arrays 9745
develop. of Video-CD players *(Japanese)* 25682
digital opt. disc technol. appl. in near video on demand 9758
ferroelec./semicond. struct. capacitance disk memory, noncontact eval. 1565
image and video storage media prospects *(Japanese)* 17584
inspection by lin. array CCD systs. 5690
magneto-opt. disk video server syst. *(Japanese)* 25680
MPEG player for network karaoke *(Japanese)* 3681
multimedia presentation syst. *(Japanese)* 3272
multimedia server for on-demand services 16832
nontechnical audience, concept study 28304
scanning capacitance microscope, stage driving, design/appls. *(Korean)* 22529
three-axis bal. driving-type opt. head for high-dens. opt. disc player 17590

video effects generators *see video equipment*

video equipment
see also video amplifiers; video cameras; video codecs; video tape recorders
2D digital video filters for PALplus-compatible HDTV transm. encoder 42604
3.3V MUSE decoder sig. proc. LSI *(Japanese)* 34254
3D video player (based on MPEG 1) *(Japanese)* 3680
AC plasma display panel gas discharges, Boltzmann simul. 1010
autostereoscopic 3-D TV, eight TV cameras *(Japanese)* 17563
Bayerische Rundfunk TV prod. studio refurbishment *(German)* 25655
Berlin-Bonn inform. link BRAVO project *(German)* 8915
CGH, 3D video display develop. *(Japanese)* 2147
CMOS 130 μW DAC for low-power video systs. 29319
CMOS parallel-pipelined ADC, 85 mW, 10 b, 40 MS/s 29309
CMOS video ADC with decimated parallel archit., 85-mW, 10-bit, 40-Ms/s 29315
CMOS video sig. proc. chip, 1.5 GIPS 21373
colour digital still camera, video CCD sens. 9715
design of video on demand servers 9721
develop. of Video-CD players *(Japanese)* 25682
digital TV, introduction 42579
digital video services, technols. and network archits. *(German)* 42626
EDTV-II helper sig., correl.-based visibility reduction method *(Japanese)* 34259
education in computer sci., digital video delivery for digital library 17577
electro-holography, develop. *(Japanese)* 2145
engng. education, educational technol. overview, India 5549
FEAL-32 encryption LSI *(Japanese)* 42093
file server, high-bandwidth, video layout strategies 16666
GVIP, scalable high-perform. graphics proc. 21366
high vol. wire bonding automation, pattern recogn./video lead locators 38167
high-speed median filter, shiftable CAM 6234
ICs boost of video perform. 25663
imaging systs., present trends/future *(Japanese)* 25657
IR3Y18 video sig. proc. IC for TFT LCD *(Japanese)* 664
large screen teleconferencing prototype display 41944
LCTV-SLM for real-time holography *(Japanese)* 2146
LVP 2000×3R high-precision video projector *(Japanese)* 25658
magneto-opt. disk video server syst. *(Japanese)* 25680
marine electronics, 35th Internat. Symposium, Zadar, Croatia (1993) 8
mobile speech, video and data transceiver 3266
modular multirate video switch design and dimensioning 42585
MPEG player for network karaoke *(Japanese)* 3681
MPEG video in software, representation, transm., and playback 17578
MPEG-2 video data stream, real-time decompression chip 42047
multimedia presentation syst. *(Japanese)* 3272
multimedia video proc., parallel archit. DSP chip 21372
multiplex video display 9988
MUSE decoder, video noise reduction *(Japanese)* 34258
MUSE syst., picture quality improvement by resoln. enhancement *(Japanese)* 34253
NEC's VisuaLinks AD-EX series teleconferencing syst. *(Japanese)* 41946
NEC Videomix, appl. *(Japanese)* 42591
nonlin. AV workstation characts. *(Japanese)* 25775
NTT's research activities on image devices for VI&P commun. 41988
OS/2 2.1 OS, digital video archit. 17576
prog. genlocking video ADC for multimedia appls. 9113
PWR vessels, core mapping methods 19439
RF cable assemblies, screening attten. meas. 23690
server for video on demand 42629
sub-control room video effect equipt. *(Japanese)* 34237
subband low power video decoder archit. 33666
sync. DRAM, 4-/16-Mbit, for high-speed image proc. 12542
three-axis bal. driving-type opt. head for high-dens. opt. disc player 17590
TV studio digital video equipt., meas. *(Japanese)* 34241
variable bit rate video coding, interleaved FEC 8614
versatile video pattern generator for vision test 16162
video dial tone, operation, set-top boxes and server 16930
video dial tone powering issues 19814
video/gamma ray imaging syst., nuc. indust. robot appl. 19399
wide area video commun. network *(Japanese)* 42618

video holography *see electronic speckle pattern interferometry*

video networks *see television networks*

video on demand *see interactive television*

video RAM *see random-access storage; video equipment*

video recording
see also video discs; video tape recorders
ATV transparent recording method, consumer digital VCR 17592
authoring, user models for intell. multimedia 41989
CD-ROM, quadruple dens. opt. disc technol. *(Japanese)* 3682
compressed digital video pictures recording 17598
digital HDTV studio mag-tape-recording hardware codec *(German)* 9727
digital opt. disc technol. appl. in near video on demand 9758
digital VCR coding scheme for HDTV recording 9753
digital VCR for consumer use, develop. 34271
digital video recording, feedforward vs. feedback video coding 17597
full digital HDTV syst., develop. 9728
HDTV digital baseband VCR, visual investig. of head-tape interface 9749
helical-scan digital video recorder, playback, channel investigs. 17593
helical-scan recording, lumped modeling of rotary transformers and heads 34272
high data rate video recording, 8-12 conversion channel code *(Japanese)* 9748
home-use digital VCR, SBC with block-adaptive quantization, image data compression *(Korean)* 34282
image data compressed sigs. recording on mag. media 17596
indexing and presentation, 2-stage strategy 9742
MPEG video in software, representation, transm., and playback 17578
network and OS support for digital audio/video, conf., Lancaster, UK (Nov. 1993) 5450
opt./mag. recording, digital compression appl. 25677
random access on real time retrieval of digital continuous media 41999
ship's screw cavitation recording, angle sampling control *(Croatian)* 3685
Sony Digital Betacam format for broadcast digital recording 17594
storage and recording systems, conf., Keele, UK (1994) 11550
Super-16 recording for 16:9 TV prod. *(German)* 9726
technical education, video protection 28306
technol. overview *(Japanese)* 34277
ultra-high-dens. recording technol. principles and prospects *(Japanese)* 17585
ultrahigh-speed photography, conf., San Diego (1993) 36890
VHS tapes used in digital recording, characts. 17599
video-on-demand syst., distributed hierarchical storage manager 9743
video-on-demand systs., storage hierarchy 9744
Co-Ni-O metal-evaporated tapes, unidirectional exchange anisotropy 7113

video signal processing
see also video coding
3-D motion estim., videophone appls., iter. tech. 16627
525-line progressive scanning TV camera, 16:9 aspect ratio 34235
ADCs, video speed, differential gain and phase meas. 12609
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
ATM, VBR video transm., predictive dyn. bandwidth allocation 16419
ATM network, video frames temporal placement control 24494
ATM video, performs. and error control 8612
AVIP computer graphics syst., audio/video inform. proc. *(Japanese)* 25661
B-ISDN, variable bit-rate video modelling 25065
B-ISDN for video and high-speed sigs., modeling/optim. 9024
BiCMOS ULSI video sig. proc. for single chip teleconferencing syst. 34432
BiCMOS video sig. proc. IC for laser disk player 9756
bimodal speech recogn. expts., recurrent neural networks 32426
blind people globe inform. syst., TV camera/speech synthesis *(Japanese)* 26476
buffer control strategy for image data compression 16229
CMOS 130 μW DAC for low-power video systs. 29319
CMOS high-speed DAC, embedded prog. video FIR filtering fn. 29326
CMOS low-power chipset for portable multimedia I/O terminal 9114
CMOS PLL-based prog. clock generator for video sig. proc. 12611
CMOS prog. analogue IC, high speed image proc., cellular neural networks 29414
CMOS prog. digital filter proc. chip, ring topol. 29378
CMOS real-time obj. extraction proc. chip 29250
CMOS video ADC with decimated parallel archit., 85-mW, 10-bit, 40-Ms/s 29315
CMOS video D/A converter, HDTV, low glitch 10-bit 75-MHz design 12594
CMOS video sig. proc. chip, 1.5 GIPS 21373
cockpit display generator for electronic battlefield 10375
color image segmentation, tree representation *(English)* 41204
consumer camcorder image stabilisation, digital and opt. methods *(German)* 42637
consumer videophone, CMOS ASIC video codec, low cost 25166
content-based video indexing power tools 8485
cost-effective video server 9757
decoding algm. mapping, mixed sig. IC 8553
DECT syst., mobile audio-visual terminal 17118
deinterlacing, motion-compensation method *(Japanese)* 32997
digital movie systs., perform. bottlenecks 16841
digital satellite news gathering, develop. *(Japanese)* 34213
digital TV, data and filter requirements of D-A conversion 41356
digital VCR for consumer use, develop. 34271
digital video quality, computer-based testing 16083
digital VTR high-dens. recording techs. *(Japanese)* 17586
distributed multimedia, user perception/dyn. quality of service 16887
double field rate scanning, interpolation methods for TV picture quality improvement 8651
DSP, pipeline archit., MPEG2 CODEC 8664
dual current-feedback amp. techs., operation and advantages 37652
EDTV-II, vert.-temporal/high helper sig. multiplexing scheme 9724
extended obj. coord., image proc. algm. 16157
frame-sync. for satellite video sig. transm. 34233
full frame transfer CCD camera, high resoln. 42587
GCR sig., appl. 17551
generalized periodic Markovian sources multiplexing and VBR video 8717
granular TV camera noise, stat. characts. 9716
HDTV format convertor, design/test, Forth appl. 3672
HDTV systs., channel equalization techs. 17566
high-speed median filter, shiftable CAM 6234
high-throughput DSP appls., ASIC design strategy 29271
IEEE MILCOM conf., Boston, USA (1993) 36897

video signal processing continued
  image compression, methods, parallel proc. 24645
  image compression, perception threshold matching 32878
  image seqs. anal., line and point correspondences 24602
  Indeo 3.2 video codec 3275
  Informedia project, digital video access 16254
  intell. vehicle/highway systs., compressed video commun. 8682
  IQTV multipurpose scanning rate converter IC 25664
  IR3Y18 video sig. proc. IC for TFT LCD *(Japanese)* 664
  ISSCC 94, conf., San Francisco, CA, USA (Feb. 1994) 36849
  low-cost CCD video camera for machine vision and consumer 9755
  machine vision, digital camera, CMOS intell. sens. 42848
  MC-DCT compressed video, manipulation/compositing 16121
  metadata, video databases 8472
  Motion Picture Parser, video scene decomp. 16081
  motion video annotation and anal., overview 8547
  moving picture coding syst., MPEG2 based, quantisation control 16227
  multidimensional downsamplers/upsamplers, commutativity 8277
  multimedia video proc., parallel archit. DSP chip 21372
  multipath interf. suppression cct. 40382
  multiple access method for video streams *(Japanese)* 34280
  multiresolution image decomp., wavelet transform 24658
  MUSE syst., frame pulse protection *(Japanese)* 34255
  NTSC or PAL color TV, digital Y/C separation 16231
  obj.-oriented user interface toolkit, adding digital video 34279
  optimized mapping of video appls., VLSI hardware-software 16253
  PC-controlled multiple window display card for TV 17552
  PHIDEO, high-level synthesis for high throughput appls. 41173
  photogrammetry using video cameras, modelling & calib. 43486
  physics and chem. of imaging systs., conf., Rochester, USA (1994) 20230
  portable video-on-demand syst. in wireless commun. 42593
  progressive image transm. of variable block-size coding 16228
  pulsed coded fiber optics, video multiplexing 8676
  pyramidal multiresolution source coding for progressive seqs. 16225
  real time video, differential vector quantisation, entropy biased ANN codebooks 32953
  real-time video proc. and video texture generation 24528
  real-time video variable length decoding cct. using adaptive tree search, 162 Mbit/s 25131
  representational frames, video annotation 8552
  ROV 6000 advanced data mgt. 16772
  SDA 9189X proc. chip for picture-in-picture systs. 42583
  SECAM syst., color defn. loss minimization 34234
  single-chip CCD colour video camera vert. false colour sig. reduction *(Japanese)* 17588
  snowflakes, fall pattern anal. *(Japanese)* 2699
  software only video decompression, arbitrary shapes 16071
  sound sens., intell., audio-visual sens. fusion syst. 40787
  stereoscopic radiation image perception upon coloring 21003
  subband low power video decoder archit. 33666
  systs. characts. *(Japanese)* 32931
  teleconference traffic from VBR video coders, modeling 16818
  teleconferencing variable resoln. image compression 33615
  Texas Instruments Multimedia Video Processor for DSP appl. 25108
  true 3-D digital video effects proc., real-time computer graphics 41201
  TV image stat. model, color distrib. probab. 8539
  TV on B-ISDN, VBR coder generated traffic, stat. model 9014
  TV picture sig. conversion for progressive reprod. *(German)* 25656
  TV prod., general purpose platforms 17558
  TV prod. non-std. platforms in digital era 17557
  TV prod. technols. *(Japanese)* 34242
  TV receiver picture proc. based on VLSI frame memory 8650
  unstructured video image seqs., automatic annotation 32883
  VIF/SIF/PLL, TV sets/VCRs multistandard sig. detect. 42581
  VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938
  wide area surveillance, video image moving target detect. 41307
  InSb FPA-based high sensitivity, high resoln. thermal video syst. 17938
  PtSi FPA-based Inframetrics InfraCAM thermal imaging camera 17955
  PtSi middle wavelength 240×320 IR staring FPA 17954

video signals
  see also video signal processing
  ATM network perform. eval. video source models *(Croatian)* 2868
  ATM networks, equiv. bandwidth for heterog. sources 8719
  CATV, evol., digital technol. 9739
  CATV unwanted sig. leakage estim. and shielding enhancement *(English)* 3677
  CATV videocommun. networks, AM-VSB TV sig. opt. transm. 17570
  CBC's Toronto Broadcast Centre master control room 42595
  color TV set, effect of brightness sig. interf. on picture edgings 34244
  computer syst. for autonomous vehicle, develop. *(Japanese)* 2610
  const.-luminance colour TV principle and appl. *(German)* 42563
  digital TV, introduction 42579
  digital TV sig. broadcast 34204
  digital video sig. transm. via RAI analogue FM radio links *(Italian)* 9158
  digital-video systs., high-speed sig. delivery, existing channels 25652
  distrib. coherent lightwave syst. aspects *(Croatian)* 3549
  EDTV-II black bar helper sig. multiplexing scheme *(Japanese)* 17555
  EDTV-II helper sig., correl.-based visibility reduction method *(Japanese)* 34259
  EDTV-II motion-adaptive vert.-temporal helper sig. *(Japanese)* 17556
  European syst. for transm. of digitized TV sigs. via satellite 9694
  fibre optic video/audio link, adverse environ. appls. 3579
  FITL systs., MPEG encoding/ATM transport, video services delivery 42053
  geostationary satellite positioning syst. develop. *(Japanese)* 17507
  HDTV, opt. transm. equipt. *(Japanese)* 42600
  HDTV progressive and interlace scanning, camera SNR and bit rate reduction 25668
  helical-scan digital video recorder, playback, channel investigs. 17593
  hierarchical digital broadcasting, adaptively weighted CDM 25628
  high-speed networks, link capacity allocation/network control 25129
  hybrid opt./coaxial telecom. power distrib. options 42138
  light-adaptive comparison of binary video sigs. 41199
  low bit-rate coded video transm., radio links 8633
  MPEG video traffic, network congestion avoidance 42588
  multiple FM-video sig. transm., opt. fiber in security 9529
  MUSE decoder, video noise reduction *(Japanese)* 34258
  MUSE sig. decoding, integrated image DP *(Japanese)* 34257
  NEC, digital video transm. technol. develop. *(Japanese)* 42617

video signals continued
  NEC's VisuaLink 5000EX10 video codec *(Japanese)* 42090
  OFDM transparent cross connect, TV channel switching 17223
  optical/hybrid access networks, conf. (1993) 36850
  PALplus transm. test sig. prod. and eval. *(German)* 42562
  positioning syst., TV broadcasting *(Japanese)* 9678
  Rohde & Schwarz TV Network Analyzer SOKF, integral digital oscilloscope 9832
  Rohde & Schwarz TV test transmitter SFM 9703
  scalable storage servers for digital audio/video 25686
  self-similar VBR video traffic, anal., modeling and generation 2883
  SS multiplexing, hierarchical TV transm. 25634
  SWFM sig. opt. fiber transm. of addressed audio and video sigs. 9528
  TV camera lenses, latest develop. *(German)* 25653
  TV sig. in partially covered areas 17537
  video path params. of analog dissection of astrotransducers 8266
  wireless access systs., low bit-rate video transm. 17088

video tape recorders
  1/2 inch composite digital VTR for broadcast 25675
  24-hour real-time VCR *(Japanese)* 42639
  198-Mb/s recording channel, sig. proc. 9751
  archive digital data storage device based on home video recorder 39182
  ATV transparent recording method, consumer digital VCR 17592
  consumer VCR, moving coil actuators, dyn. tracking syst. 17581
  D3/D5 digital VTR, trends *(Japanese)* 34276
  digital broadcasting facilities/operations *(Japanese)* 34215
  digital compact cassette, seq. estim. algms. appl. 17582
  digital VCR coding scheme for HDTV recording 9753
  digital VCR for consumer use, develop. 34271
  digital video recorders, future 17595
  digital VTR, standalone equipt., operation *(Japanese)* 34275
  digital VTR high-dens. recording techs. *(Japanese)* 17586
  digital VTRs, ECC, pipelined decoder *(Japanese)* 9747
  DP 25 DC micromotor, PM excitation, video recorders 4992
  DVCR, channel code, embedded pilot tracking tones 42636
  full digital HDTV syst., develop. 9728
  HDTV digital baseband VCR, visual investig. of head-tape interface 9749
  head lin. scanning design and eval. *(Japanese)* 17589
  helical scan tape recorder noise, investig./modelling 25678
  helical-scan digital video recorder, playback, channel investigs. 17593
  Hi-8 HD-VCRs, embedded thin film mag. head 9746
  high data rate video recording, 8-12 conversion channel code *(Japanese)* 9748
  home-use digital VCR, SBC with block-adaptive quantization, image data compression *(Korean)* 34282
  image data compressed sigs. recording on mag. media 17596
  interactive LCD projector, multimedia presentation syst. *(Japanese)* 3260
  J-deck VTR chassis for global prod. facilities, develop. *(Japanese)* 25681
  off-track charact. of laminated heads in azimuth recording for VCRs 7111
  outdoor intrusion systs., nuisance alarm reduction, enhanced signature proc. 40905
  programmed control, state problems 17580
  Sony Digital Betacam format for broadcast digital recording 17594
  technol. overview *(Japanese)* 34277
  usability issues for buyers/users of home electronic products 36996
  VIF/SIF/PLL, TV sets/VCRs multistandard sig. detect. 42581
  CoZr amorph. thin film core head for digital VCR 7110

video terminals *see video equipment*

videocommunication *see visual communication*

videoconferencing *see teleconferencing*

videofrequency amplifiers *see video amplifiers*

videophones *see videotelephony*

videotelephones *see videotelephony*

videotelephony
  3-D motion estim., videophone appls., iter. tech. 16627
  6 Mb/s ADSL, constellation TDM 16922
  audiovisual commun., perform. assess. 17602
  bit rate reduction tech. 16403
  blazed half-transparent mirror for eye contact 42098
  CELP coder, real-time wideband, for videophone appl. 33696
  compressed video, high-end appls. 33623
  conference, New Face of Technical Communications, Philadelphia, PA, USA (Oct. 1993) 28216
  consumer videophone, CMOS ASIC video codec, low cost 25166
  DCT based codec for mobile video coding, simul. 17125
  direct-view 3D display for videophones, LCD and lenticular sheet 3931
  DS/CDMA prototype syst. for voice/ISDN sigs. 3320
  ETHMICS multimedia commun. testbed 41977
  fractal video communicator simul. 8851
  GT-1000 image transm. device, develop. *(Japanese)* 33610
  H.261-compatible coder fuzzy control 3104
  hybrid transform coding, videotelephony on PC 16093
  image coding, quadtree-based motion compensation/classified VQ 2813
  ISDN, network based video storage, inform. retrieval 25111
  land mobile radio networks, digital video/speech transm. 17048
  low bit-rate image seq. compression method 24726
  low bitrate appls., video coding scheme 16097
  MARC, multimedia appl. for radiologist commun. 16910
  mentally retarded pers. social life aid 43378
  multimedia playout sync., buffer level control 16850
  NEC's High-Tech Koban syst. for police commun. *(Japanese)* 41708
  Sanyo video meeting syst. *(Japanese)* 3243
  Screencall PC videophone for desktop videoconferencing 24925
  speech-assisted video proc., lip sync. 41702
  telephone loop plant, technol./appls. 25138
  video codec, picture quality improvement tech. *(Japanese)* 25164
  video segmentation coding applied, H.261, low/low bitrates *(Italian, English)* 41353
  visual commun. media trends and prospects *(Japanese)* 16905

videotext *see viewdata*

vidicons *see television camera tubes*

Vienna development method
  Si, cryst. growth simul. program, automatic parallelization 12034

viewdata
  Croatian videotex syst., terminal/external computer min. param. requirements 33421
  dial-up rem. access image database 16829
  distrib. of office supplies via EDI, Brun Passot 16642

viewdata continued
  full-text inform. delivery, electronic, US infrastructure 16546
  mass IS, case study 33425
  multimedia appl. on client server public network 16645
  public health in Belgium via Videotex 33424
viewing screens *see screens (display)*
vircators
  coaxial triodes with virtual cathode, axially unsymm. EM wave emission 38220
  cylindrically-symm. vircator high power microwave source 29766
  electron beam, relativistic, refl. by virtual cathode 29792
  electron beam behaviour, high-power microwave generation 6502
  EM waves amp. in vircator, long. mag. field 38218
  high-power microwave generation, virtual cathode oscillator 29776
  intense microwave pulses, conf., Los Angeles (1994) 28206
  microwave generation by virtual cathode oscill. 29771
  microwave radiation from a vircator, plasma effects 21825
  pinching electron beam vircator, high efficiency 29768
  slow wave struct., microwave generation 12999
  triode-type vircator, space-charge dyn. 21842
  two beam klystron amplifier, theoretical model 21839
  ultrashort microwave pulse generation, effect on electronic devices 973
  vircator, high power microwave source for accelerator 29789
  virtual cathode microwave devices, theoretical/expt. studies 6503
virial coefficients *see equations of state*
virtual cathode oscillators *see vircators*
virtual machines
  ANS project network, fine-grain simul. 33522
  brain model for local image vel. detect. *(Japanese)* 33000
  CERN calorimeter, computer archit./electronics 18366
  distributed simul. for live training 35406
  distributed visual programming environment: Applications within data-acquisition 25724
  DMM computer instrumentation for power distrib. monitoring 4737
  EW testing at flightline 43587
  genetic algms. on LAN-message passing archits. using PVM, appl., routing problem 41910
  hardware implications of virtual channels, bus interface appl. 41888
  Hybrid-Ethernet, perform. simul. 24999
  instruments develop., ATE future 42707
  internal overload control perform. in large switches, simul. 37724
  mil. readiness increase, dual, design/test technol. 34365
  neural net emulator CMOS chip 37920
  obj.-oriented framework for virtual lab. 3744
  power plant simul., PVM-based parallel computing 27299
  Rapid-2 accelerating board, develop. environ. 28968
  RF transm. line testing, virtual instrum. 35397
  scalable completely connected digital neural networks 29443
  Shiva multiprocessor syst., neural network simul. mapping 32427
  SIRENA, simul. environ. for CNNs 21502
  SP20, computing, compression 40797
  SYTRONICS virtual instruments for use in test systems development 42727
  transient signals meas., Wigner-Ville distribution appl. 24240
  VXI based virtual instruments 42704
  wavelet transforms, PVM computing 24406
virtual office *see teleworking*
virtual reality
  3D human image reproduction in virtual space teleconferencing 16823
  acoustic display systs., environ. sounds synthesis *(Japanese)* 34647
  advanced NPP, enhanced operator perform. 35928
  augmented audio reality, telepresence/virtual reality 9764
  aural renderer for virtual reality system, distributed 17609
  AVIP computer graphics syst., audio/video inform. proc. *(Japanese)* 25661
  counterbalanced CRT-based stereoscopic displays for virtual environ. 34634
  display interfaces 18013
  distributed virtual simul., networking 25019
  distributed virtual simul., networking 18995
  DIVE, multi-user virtual reality system 16762
  dyn. gesture recogn., neural networks 32817
  expt. virtual creature syst. *(Japanese)* 42005
  Fastbus data acquisition syst., LabVIEW graphical software *(Chinese)* 16647
  fish tank virtual reality 42881
  flexible network characts. and develop. prospects *(Japanese)* 16570
  flexible network human interface roles and services *(Japanese)* 16755
  flight simul., virtual environ., modelling 10315
  head mounted display, eye movement tracking 9981
  head-mounted display, 100 million pixel display 18016
  head-mounted display calibration for augmented reality 17641
  head-mounted high-resolution field-sequential display for virtual reality 18017
  head-related transfer fns., multidimensional scaling anal. 15992
  high-resoln. immersion viewer 34626
  human interact. technol. *(Japanese)* 42036
  interactive virtual auditory environ., real-time generation 15994
  large/frame rate effects in target acquisition 18006
  large-volume position and orientation tracking 18104
  lung, virtual exam., time/money saving 34982
  machine design, virtual reality syst. 11096
  mag. sens. for tracking devices 34438
  maint. of plants/equipt., learning environ., virtual reality *(Japanese)* 36486
  min. invasive surgery, computer animation approach 34999
  Motorola training programme improved by virtual reality 36913
  MultiG research programme, distributed multimedia appls. on gigabit networks 42040
  multimedia environ., interactive, artificial online community 9066
  neural engng. utility, adaptive algms. 34379
  Personal Telepresence, interactive multimedia workstation 16931
  realistic sensations transmission, virtual dome 16641
  Schmidt optical relays for helmet mounted displays 18014
  see-through head mounted display, electrochromic mirror *(Japanese)* 34646
  self tracking of human motion, virtual reality systs. 34685
  stereoscopic displays and virtual reality, conf., San Jose (1994) 20239
  stereoscopic video coding for virtual reality appls. 8687
  stereoscopic viewing systems using active and passive glasses, performance limits 18018
  synthetic display, stereoscopic fusion charact. *(Japanese)* 16804
  teleconferencing, 3D human images reprod. 41949
  televirtuality, telecomms./VR merging 8828
virtual reality continued
  transputer based US tracking syst. 18947
  user interface system based on electro-oculography 26445
  video see-through design for virtual/real environments 17591
  virtual endoscope 34565
  virtual instrumentation 34382
  virtual space teleconferencing, human fig. synthesis/animation 33619
  visual data exploration conf., San Jose, USA (1994) 23
  WESCON-94, conf., Anaheim, CA, USA (Sep. 1994) 36824
  WWW, platform independent virtual reality 25077
virtual storage
  see also paged storage
  DRAM archits. in multiprogramming environ., perform. eval. *(Korean)* 21325
  finite-buffer polling syst. with exhaustive service, virtual buffering 16468
virtuons (virtual phonons) *see phonons*
viruses, computer *see computer viruses*
viscoelasticity
  see also creep; stress relaxation
  bending bilayer, polymer film viscoelasticity effects, packaging 147
  colour diffr.-based optics, light-valve projection displays 25926
  polyimide thin film, time-depend. inelastic deform. 28881
  polymers/composites, prediction of long term perform. 439
  projection displays, metallized viscoelastic control layers 25923
  Si CMOS addressing matrices, light-valve projection displays 25928
  Si thermal oxid., advanced field isolation model, calibrated viscoelastic stress anal. 22560
viscometers
  see also viscosity measurement
  centrifuge ball viscometer for polymer melts 10077
  water soluble solder paste printability, rheological charactn. 11739
viscoplasticity *see plasticity*
viscosimeters *see viscometers*
viscosity
  acoustical scatt. from fish, reson. signature charact. 17476
  dielectric oil, high stress aggregation, electron transport 13935
  electro-struct. fluid, inertial drive clutch, control indications 28893
  electrorheological catch/clutch, inertial simul. 445
  high-order finite difference methods, num. behavior 20628
  high-Q piezoelec. materials and BAW/SAW resonator devices, advances 39046
  liq. cooling module, heat transfer design 37124
  MHD free convection flow, Hall current effects 27964
  MHD reactor flue turbulent flow anal. *(Russian)* 11303
  nonlin. nondispersive media, complex sigs., self-similar evol. 16047
  PBZT particle/suspension in mineral oil, electrorheological responses 13933
  petroleum storage tank electrostatics, stream fn. distrib. 15220
  piezoelec. resonator materials metric for materials eval. 30574
  polyethylene, lin. low-dens./low-dens. blends, shear, elongation 20994
  power transformer insulating oils, pulsating laminar flow studies 44103
  Pulse Shooter solid-state conformal coating proc., PCB mask elimination 38139
  silicone oil/polymer particles suspen., electrorheological effect 39066
  unsteady elec. conducting dusty viscous liq. channel flow 36625
viscosity measurement
  see also viscometers
  falling ball method, image proc. *(Japanese)* 42991
  micro EHD pumps, fabr./expts. *(Korean)* 30527
  multiwavelength fiber drop analyzer for med. diagnostics 10220
  semiautomatic apparatus for liqs. viscosity/dens. meas. 4030
  water soluble solder paste printability, rheological charactn. 11739
viscous flow (solids) *see plastic flow*
visibility
  see also atmospheric optics; brightness; light transmission
  atmos. visibility meas. device 10461
  automobile navig. syst., visibility meas./eval. syst. *(Japanese)* 25684
  laser radar image form., sea surface and water thickness 17454
  polariz.-difference imaging, obs., scatt. media 42852
  radiation-stable TV transm. device for wide-angle static survey 42640
  road lighting CAD programs, visibility level/index 20126
  space opt. commun., visibility meas. for atmos. transm. model 15450
  thermal imaging, visibility model for MRTD prediction 32976
visible spectra
  chem. amplified resist, self-solubility accel. effect 1309
  diamond, CVD grown, photoconductive spectrosc. 38244
  diamonds, annealed synthetic, photoinduced absorpt. lines related to Ni impurity 38230
  glass-Ag-polymer struct., light switching, ATR study 22945
  indanthrone/indanthrone derivatives, excited-state reversable saturable absorpt. 2098
  metallophthalocyanine, aggregation and nonlin. optics 31581
  metallophthalocyanines, third order nonlinear opt. props. 23426
  metallophthalocyanines in PMMA films, nonlin. suscept., electroabsorption 31582
  oligothiophenes, conjug., transistors and SLM 22931
  opt. fiber cladding diam. by meas. of reson. peaks in elastic-scatt. spectra 7314
  phthalocyanine cpd. film, opt. recording 30824
  poly(3-alkylthiophenes)/O_2, reversible charge transfer complexes 20995
  poly(aniline) film, glucose biosensor 3895
  poly(p-phenylene vinylene)-based LEDs, chlorine precursor route 31108
  poly(vinyl alcohol)polyaniline interpenetrating polymer network, nonlin.-opt. props. 40081
  polyaniline-p-styrenesulfonic acid composite, synthesis and Schottky diode appls. 28885
  polymer amphiphiles LB films, fab., nonlin. optics props. 15089
  pyrromethene-BF_2 complex dye solns., laser perform., spectrosc. 7548
  pyrromethene-BF_2 doped polymer matrix, laser perform. and material props. 14732
  railguns plasma armature exploding wires, vis./UV spectrosc. 15328
  α-sexithiophene MIS diodes, charged excitations, opt. studies 13256
  CO sens., polymer-electrolyte lamination, life-elongation 3916
  CdSbTe RF sputtered films, struct./opt./elec. props. 38260
  CdSe quantum dots, electrospray OMCVD 5860
  CdSe-doped glass thin films, ion-beam sputtering method 37507
  Cu^+:CaO-P_2O_5 glasses for lasers 5910
  $Cu_2S(Se)$ transparent and electroconductive chalcogenide films, deposition and props. 37467

visible spectra continued
β-FeSi$_2$ thin films, photocurrent spectra 22998
GaInP/InP:S QW, strained barriers, optical/struct. props. 13159
GaN films, low-press. metalorganic CVD 419
GaSe, layered cpd., time-resolved DFWM 15098
Ge-Ga-S:Pr^{3+}, radiative props., opt. fiber amps. 31240
I$_2$ transits., absol. freq. meas. near 532 nm, Nd:YAG laser stabilis. 25984
ITO thin film, elec. and opt. props. rel. to annealing 21925
K$_x$C$_{60}$, thin films, photocond., absorpt. spectra 39550
Pb-phthalocyanine copolymer, excited state absorpt. and dyn. 31587
Rb(Ti$_{1-2x}$Ln$_x$Nb$_x$)OAsO$_4$, defect chem., opt. props. 7774
Si porous films, laser ablation fab. 20964
Si, porous, vis. luminesc. props. 14590
Si$_{60}$ nanoclusters, luminesc., chem. synthesis 31074
a- Si:H films, optical consts. and thickness determ., opt. transmittance 25986
SiO$_2$-antireflective film coated SiN(SiC) X-ray mask membranes 22314
Sr$_{1-x}$Ba$_x$Nb$_2$O$_6$:Cr, broadband photorefractivity 30825
Sr$_5$(VO$_4$)$_3$F:Mn^{5+}, spectrosc. and laser props. 14836
Tb^{3+}-doped silica fibres, laser-induced photochromic effect 1676
Tm-doped ZBLAN blue upconversion fiber laser theory 39710
Y$_2$O$_3$ MIM capacitors, elec./dielec./opt. props. 22082
ZnO films, spray pyrolysis prep., opt. and elec. props. 12143
ZnO thin film, spray pyrolysis, deposition variables effect 12142
ZnO-Al$_2$O$_3$-B$_2$O$_3$-SiO$_2$-PbO glasses, crystallizable, opt., polarizable and MOS props. 12213
ZnO-B$_2$O$_3$-Al$_2$O$_3$-SiO$_2$-P$_2$O$_5$ glasses, crystallizable, opt., polarizable and MOS props. 12213
ZnSe epitaxial layers, pulsed laser deposition, struct. and opt. props. 28759
ZnSe/ZnMnSe MQW structs., MBE, opt. props. 28744

visible spectrometers
see also visible spectroscopy
Airborne Visible/Infrared Imaging Spectrometer, inflight calib. validation (1993) 18798
AVIRIS calib. of Japanese Earth Resources Satellite-1 opt. sens. 17959
multiplexer for Cassini Visible/Infrared Mapping Spectrometer FPA 34563
spectroradiometer, fast scanning high resoln. in-water appl. 26763
tissue spectrosc. instrum., freq.-domain photon migration 18452
ultrashort light pulse amplit./phase, autocorrelator/spectrometer meas. 2821

visible spectroscopy
see also visible spectrometers
diffr. limited slit-spectrography 16213
planar opt. waveguides, diagnostic methods 30966
railguns plasma armature exploding wires, vis./UV spectrosc. 15328
I$_2$ transits., absol. freq. meas. near 532 nm, Nd:YAG laser stabilis. 25984
NH$_4$H$_2$PO$_4$ cryst., opt. parametric oscill./amp., spectrosc. appl. 7772
SiGe-Si UHV-CVD MQWs, in-situ spectrosc. ellipsometry growth control 20845

vision
see also colour vision; electroretinography; eye; vision defects; visual evoked potentials; visual perception
3D visual stimulator, liq. cryst. projectors 25933
biological/computer vision, spatial freq. inform., self-organising feature map 33117
color edge detect., differential operators based on human vision syst. 16345
conference, visual information processing, Orlando, FL, USA (1994) 20237
motion segmentation and vel. integrat., filter selection model 8659
observer fatigue caused by TV viewing, meas. and anal. *(Japanese)* 18623
user interface system based on electro-oculography 26445
visuo-motor testing, automated image anal., rehabilitation support 35027

vision defects
2.45 GHz microwave irrad. to monkey's eyes, expt. 26494
blind, handwriting characters/drawing figs., virtual auditory screen 43384
computer operators, hazards from monitors 26484
extramacular drusen patients, electro-oculogram responses recording 35119
motility disorders, video loop MRI 43220
myopia treatment, excimer laser 43349
neuroprosthetics, functional vision for blind 18615
retinitis pigmentosa, low-noise ERG recording techs. 35118
VDU characts. that, cause visual difficulties 43390
VDUs, rel., health effects 4331

vision sensors *see image sensors*

visual communication
see also videotelephony
2.3 GHz TV broadcasting, mobile live reporting *(German)* 34222
60 GHz indoor commun. systs. for data/video commun. 40354
64 kbps switched internat. ISDN, transm. perform. 16795
ADSL high speed equalizer, sig. proc. design 9086
advanced broadcast video service (ABVS) 25667
agro-biotechnological teleworking commun. platform 41886
Alcatel 1570 BB single mode opt. fibre CATV syst. 42615
AR(1)+IPP model for video cell traffic approx. *(Japanese)* 24747
ATM, evol., broadband services 8804
ATM, VBR video transm., predictive dyn. bandwidth allocation 16419
ATM for voice, video and data commun. 41620
ATM network, video services, preventive flow control 41938
ATM networks, equiv. bandwidth for heterog. sources 8719
ATM technol., transit., advanced telecomm. networks 8824
ATM video, performs. and error control 8612
ATM video commun., implement. issues 41950
B-ISDN, hyperdistributed switching syst. archit. 33588
B-ISDN VBR video traffic, modelling and verification 41934
B-ISDN video transm. *(Japanese)* 41920
backbone ATM switch, cost and complexity issues 42111
banyan-based B-ISDN switches, priority perform. 9006
broadband network evol. 8821
CATV videocommun. networks, AM-VSB TV sig. opt. transm. 17570
CLAD implement. and expt. results in ATM networks *(Japanese)* 24948
COST 226 project, network integrat. by satellite 42306
CRMA network real-time appls., perform. anal. 41525
DAMA syst. for interactive teleteaching via satellite 33209
DATAVIDEO service, tech. and operational charact. *(Italian)* 8814
DCT domain image fast progressive reconstr. 33021
DECT unequal error protected p×8 kbit/s video transm. 8850
efficient multimedia satellite networks 41985
Ethernet and SCSI for digital video input/output 25007
ETS-V Asia-Pacific telecommun. network expts. 42319
externally modulated opt. AM-SCM systs., 1550 nm, distortion 9423
FDDI networks connected through ATM, video traffic mgt. perform. 24916
fibre optic video/audio link, adverse environ. appls. 3579

visual communication continued
FITL syst., opto-electronic IC impact 42052
FITL syst. implement. 42055
FITL systs., MPEG encoding/ATM transport, video services delivery 42053
frame-induced packet discarding, strategy for video networking 8677
FTTH trial network in Bastia, Corsica 25142
Fujitsu CyberSpace inform. service, develop. *(Japanese)* 41635
full service broadband networks, power requirements 42622
groupware, spatial workspace collaboration 41987
handwriting proc. in indoor/outdoor environ. for multimedia 9063
Hawaii, developing virtual learning environ. 3058
Hawaii State Dept. of Education future high speed IN 3251
HDTV, opt. transm. equipt. *(Japanese)* 42600
HDTV transm. on SDH network, stuff sync. cct. design 25666
high bandwidth internat. video via fiber optic cable 3057
high bandwidth-delay networks, low latency video commun., FEC 25134
high-speed networks, hardware meas. techs. 676
IEE telecommunications conf., Brighton, UK (1995) 36830
image commun., open distributed environ. 16864
imaging technol. develop. for gigabit transm. *(Japanese)* 16568
inform. lossless transm. 32936
integrated video and data commun., dyn. quality and congestion control 24738
intell. vehicle/highway systs., compressed video commun. 8682
interactive TV services, systs. integrat. issues 17572
International Telecommunications Symposium Internet multicast 16717
IP networks, congestion avoidance for video 16680
JVTOS, platform for multimedia telecooperation bridging endsystem heterog. 16882
Korea Telecom's business strategy, CATV indust. in Korea 3678
low bit-rate coded video transm., radio links 8633
media trends and prospects *(Japanese)* 16905
microwave radio, optimum soln. for public and private appls. 42159
mobile radio channel, still image transm., unequal error protection coding *(Japanese)* 42293
model-based image coding, deformable 3-D model for face-to-face commun. 24556
model-based video coding techs. for low bit-rate appl. 24395
modular multirate video distrib. syst., design/dimensioning 9717
MPEG2 appl. transm., ATM networks 16880
MPEG 1 video compression std., rem. delivery of broadcast-quality video 42625
MPEG codecs in the presence of errors, perform. 16386
MPEG compressed video, picture-header loss, error concealment strategy 16073
MPEG variable bit-rate video on LANs, rate control 16646
MPEG video in software, representation, transm., and playback 17578
multi-resoln. multi-rate progressive image transm. 8546
multicarrier modulation impulse noise mitigation strategies 40561
multicast video distrib. in the Internet, scalable feedback control 3245
multichannel video transm., sync. digital fiber-optic networks 34021
multimedia conferencing protocols, ITU-T T.120 series 16881
multimedia image techniques *(Japanese)* 32930
multimedia presentation syst. *(Japanese)* 3272
multimedia radio commun., variable-rate FEC perform. anal. 9044
multimedia systs., develop. 9064
multimedia teletutoring, trans-European ATM network 16861
multiplexed ON-OFF sources, effect of multipath routing on loss perform. 41928
multispectral imagery, transform coding 24501
narrowband and video distrib. services, syst.-sharing config. 25139
NASA real-time video link, Antarctica 42301
NEC, digital video transm. technol. develop. *(Japanese)* 42617
NEC's VisuaLinks AD-EX series teleconferencing syst. *(Japanese)* 41946
networked ATM-video products 9026
news on demand for business, Nynex/Dow Jones 16828
North Carolina Information Highway, evol. 9012
North Carolina Information Highway, NC-REN for research collaboration 5537
NTT's HDTV opt. fiber transm. syst. 42603
NTT's research activities on image devices for VI&P commun. 41988
NTT Learning Systems Corporation, multimedia technol. in global market 41592
Pacific Bell's ATM/CRS for med. imaging data 41619
Pacific region, value-added video services develop. 3527
Philips SOPHO iS3000 ISPBX, internal/external commun. for cruise liners 42114
portable video-on-demand syst. in wireless commun. 42593
progressive image transm., LOT, two-channel conjug. VQ 16382
progressive image transm., partition priority coding *(Japanese)* 41166
progressive image transm., pyramid struct., projection 16381
progressive image transm. of variable block-size coding 16228
progressive image transm. software tool 41096
public key cryptography, benefits and limitations 15720
pyramid data structs. for online image progressive transm. 2837
real-time in-door radio commun., antenna diversity *(Japanese)* 42180
ROV 6000 advanced data mgt. 16772
sign lang. images, intell. commun., gesture description and dictionary struct. 4311
small group teleconferences, virtual environ., communicative charact. 16816
SONET rings and video distrib. 42398
speech-assisted video proc., lip sync. 41702
super high defn./super high resoln. digital image transm. 25116
survivable interoffice networks, video/inform. transport 9099
sync. tele-cooperation framework 16809
TDMA struct. DECT syst., data services 16621
telecom. networks/equipt. develop. overview, Europe 16563
underwater high data rate transm. equalizer 9611
US WEST's broadband residential access archit. 42057
video delivery options 9718
video mail distribution system for networked personal computers 33613
video multiplexing, pulsed coded fiber optics 8676
video response syst. based multimedia on demand *(Japanese)* 42008
video streams, encoded, efficient transm. on high-speed networks, frame-induced packet discarding 16911
video transm./reception syst., simul. 3664
video-on-demand service, distrib. store-and-forward archit. 16561
Videotex commun. network, latest develop. 24892
VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938

visual communication continued
- vol. holography for one-way image transm. and reconstruction 8661
- wide area video commun. network *(Japanese)* 42618
- XTP multicast for high quality video distrib. 16484

visual databases
- astron. images, real-time compression and retrieval 24721
- CAD-based vision, conf., Champion, IL, USA (Feb 1994) 36878
- charact. meas. for 3D surfaces based on multiple filtering *(Japanese)* 2622
- color indexing techs., discrim. power bounds 8478
- color matching for image retrieval 41065
- content addressable image database, appl.-independent, eval. 8483
- content based retrieval in image databases, probabilistic approach 8481
- content-based manipulation of image databases, Photobook 8480
- dial-up rem. access image database 16829
- ECG tracing storage, clinical database integrat. 35096
- face recogn., illum. direction change compensation 24466
- flexible montage retrieval for image data 8479
- FLIR image aspect angle estim., model-based vision approach 24545
- genetic algms. applied, Bayesian image restoration *(Japanese)* 2625
- geodetic positioning and GIS 42326
- HDTV image database syst., develop. *(Japanese)* 25671
- image IS *(Japanese)* 25683
- jewellery image IS *(Japanese)* 41940
- large video databases, user access, indexes 9711
- lossless digital image browsing, network support 16074
- metadatabase syst. for semantic image search 8473
- motion video annotation and anal., overview 8547
- multi-purpose interface for still/moving image retrieval 24520
- neural network recogn. of human face images stored in database 16163
- PACS, image storage and presentation 43414
- PACS design/evaluation, conf., USA (1994) 20213
- perspective terrain visualization using rem. sens., GIS and computer graphics 18919
- photogrammetric tech. integrat., conf., Orlando (1993) 36888
- planar shape recogn. under affine distortion 24574
- proc. plant digital image archives, rem. meas. syst. 25732
- RAMA, rem. access, museum archives 9069
- retrieving images by 2D shape, computation methods and human perception 8477
- shape anal. for image retrieval 8482
- ships, electronic navig. chart data 17495
- SIGMA AM/FM/GIS project, Colombia 43623
- spatial data syst. framework, national, GPS ref. stations 42325
- subband coded video databases, multiresolution video indexing 8486
- telecomms. networks, graphic presentation and anal. 33340
- teleradiology, image ref. database, WWW 9053
- video databases, metadata 8472
- video indexing and presentation, 2-stage strategy 9742
- video-on-demand systs., storage hierarchy 9744
- views of 3D objs., stabil. and likelihood 24436

visual display units *see computer displays*

visual event related potentials *see visual evoked potentials*

visual evoked potentials
- AFIT multiplexed multi-electrode array and implant. package for neural recording and stimulation 35089
- brain activity, spatial/temporal imaging, visual selective attention 10234
- cortical steady-state visual evoked pots., adaptive noise canceller 10236
- factor anal., wavelet decomp. 35072
- load estim. spontaneous blink opening duration *(Japanese)* 18574
- P100 complex, latency meas. improvement, FMH filters 35126

visual, intelligent and personal communication *see intelligent networks; personal communication networks; visual communication*

visual languages
- *see also visual programming*
- graphical tool for telecomm. network defn. and presentation 41560
- IDaSS, interactive design and simul. syst. for digital ccts. *(English)* 37594
- sign lang. images, intell. commun., gesture description and dictionary struct. 4311

visual perception
- adaptive obj. extraction/tracking in complex image seqs. *(Chinese)* 8658
- AFIT multiplexed multi-electrode array and implant. package for neural recording and stimulation 35089
- attentional scanning model 32891
- automobile navig. syst., visibility meas./eval. syst. *(Japanese)* 25684
- binocular imaging geom. 32809
- boundary-based correspondence computation, topol. constraint 41123
- C-17 cockpit display visual aspects, automated testing 35225
- conference, visual information processing, Orlando, FL, USA (1994) 20237
- digital images, visual appearance/fidelity eval. 2611
- digitally encoded pictures for broadcast, objective picture quality scales 24400
- film syst. params., detail perception 18486
- fish tank virtual reality 42881
- fluoroscopy, FAXIL threshold contrast detail detect. test objs. 26337
- helmet mounted displays, Schmidt optical relays 18014
- HID headlamps, in-traffic perform. eval. 28161
- human visual syst. motion detect. mechanisms *(Japanese)* 16373
- image compression, human visual syst. model and wavelet transform coupling 32831
- image compression, perception threshold matching 32878
- Japanese writing characters, pattern recogn., visual field changes with familiarity 41064
- moving observer, extracting obj. motion, optic flow and binocular disparity 32901
- MSE choice of regularization param., perception 16318
- multiscale, multi-orient. fields, local differentiation filters *(Japanese)* 24672
- perceptually motivated three-component image model, compression appl. 33128
- perceptually motivated three-component image model 33126
- photom. stereo vision, arbitrary motion light source 2605
- psychedelic autostereogram prod. and appl. *(German)* 24667
- sensitivity-weighted progressive image transm. using lapped orthogonal transform 41093
- spatial vision, demodulation and predictive coding 41155
- stereo imaging effectiveness testing 34632
- stereopsis for verging systs. 2752
- stereoscopic images, size distortion/pick-up conditions *(Japanese)* 16131
- stereoscopic TV program, accomodation responses *(Japanese)* 17564
- target discrim., computational vision human perception models 35393

visual perception continued
- thermal imaging, visibility model for MRTD prediction 32976
- thermal imaging syst., perform. model 34574
- TV watching/listening studies *(Japanese)* 34251
- viewing model for stereoscopic head-mounted displays 34625
- wide angle HUD for synthetic vision 26551

visual programming
- *see also visual languages*
- distributed visual programming environment: Applications within data-acquisition 25724
- graphical prog., LabVIEW software *(Chinese)* 16647
- power syst., knowledge acquisition/config., KA7 project 19045
- power syst. control, data visualisation techs. 26921
- robot skills development using a laser range finder 25585
- surround sound prog. computer environ. 17617
- VISTA virtual instrum. std. test archit. 34398

visualisation, flow *see flow visualisation*

visualisation of data *see data visualisation*

Viterbi decoding
- 5.6 kb/s speech codec, pulse codebook/improved Viterbi decoding 32274
- 16-DAPSK, differential detect., Viterbi-algm. *(Japanese)* 24175
- adaptive rate error control for land-mobile satellite channel 9370
- adaptive Viterbi decoder, respective-state channel estim. *(Japanese)* 15741
- automotive logic chips from high level synthesis, FFT/Viterbi IC design 21291
- binary block codes, scarce-state-transit. error-trellis decoding 40705
- burst error statistics HMM 40592
- CDMA packet combining error control 25368
- CDMA wireless LAN, hybrid-ARQ error control scheme 8748
- coded modulation, error probab., upper bounds calc. 15748
- coherent detect. mobile wireless commun., phase ambiguity resolver 33876
- coherent opt. DPSK systs., phase noise corrupted, BER perform. 17327
- concatenated coding and ARQ, TCM for Rayleigh fading 8102
- concatenated coding syst., modified erasure declaration Viterbi decoder 8173
- convolutional code, exact perform. calc. 32055
- convolutional coded ARQ scheme for moderately time-varying channels 40583
- convolutional codes, high rate 40669
- convolutionally encoded seq. decoding, pairwise error probab. 32115
- decoder implement., prog. act. memories 32088
- digital cellular syst., channel/speech coding combination 8192
- double side inform. concatenated coding for fading environ. 15751
- DPCM image coding, correl. sources decoding 8615
- DPSK differential detect. scheme, phase seq. estim. 32684
- DS-CDMA mobile commun. syst., multipath fading, rake reception 25359
- DS/CDMA diversity combining, convolutional encoding/Viterbi decoding 9380
- freq.-selective Rayleigh fading channels seq. estim. 8373
- hierarchical pattern recogn. systs., efficient search strategies 24736
- high-speed staged decoder VLSI systolic archit. 40586
- hybrid HMM-MLP speaker verification algm. for telephone speech 32247
- hybrid-ARQ scheme, convolutional code and Viterbi decoding 32099
- isolated word recogn., Viterbi decoding and HMMs 32354
- keyword detect./location in scanned images via HMM 40701
- M-ary DPSK, MLSE differential phase detect. 2563
- magnetooptical recording, n/m code and modified Viterbi decoding 15724
- matched filter derived and code-assisted bit sync. 41392
- MLSE, dyn. threshold detect. 40881
- MLSE of uncoded/coded PSK sigs., Rayleigh flat-fading channels 8446
- multi-beam mobile satellite commun., Viterbi decoding 25307
- multi-D trellis decoder for 155 Mb/s concatenated codec 33684
- multidimensional BCM on fading channel, BER improvement *(Japanese)* 2368
- multidimensional block coded modulation perform. with time-correl. fading estim. 40549
- multilevel-coded quaternary partial-response sigs., soft-decision multistage decoding 8174
- multiple TCM receivers, systolic-array struct. 15862
- P^2 codes, pragmatic trellis codes utilizing punctured convolutional codes 32114
- parallel pipelinable VLSI archit. for finding max. binary no. 627
- partial response syst. in perp. mag. recording, perform. 22700
- phase modulated FCMA syst. convolutional coding 25462
- PRML digital mag. recording systs. anal. by write and read equalization 30723
- rate-compatible punctured convolutional codes for Viterbi decoding 15765
- Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
- RFI, noninterleaved Viterbi decoder, importance sampling anal. 15966
- RS codes, soft decision trellis decoding 2374
- scalable/foldable VLSI archit. for Viterbi algm. 29293
- scarce state transit. Viterbi decoder, nonsystematic convolutional codes *(Japanese)* 32072
- segmentation of speech, speaker ident. 32249
- self-dual codes, convolutional encoding 32128
- single-chip Viterbi decoder for binary convolutional code 40582
- slowly time-varying commun. channels, adaptive hybrid ARQ scheme 15782
- SNUFEC ultra-high-speed CMOS VLSI Viterbi decoder 12557
- soft output Viterbi algm., turbo-codes decoding 40666
- soft-output Viterbi decoder, high speed VLSI archit. 12586
- soft-output Viterbi decoder archit. 40590
- source-controlled channel decoding 40667
- state metrics, num. range reduction 40670
- tailbiting convolutional code decoding, circ. Viterbi algm. 32085
- telephone speech recogn., vocab. independent 32238
- terrestrial digital radio links, reduced state seq. estim. 9190
- traceback algm. for perform. improve. in Viterbi decoder *(Korean)* 32096
- trellis coded CPFSK, coherent detect. on phase jitter channels *(Korean)* 33922
- trellis path uniqueness codes, digital data commun. appl. 15797
- trellis-coded MDPSK, sliding multiple sym. detect. *(Korean)* 24120
- uncoded M-DPSK non-redundant error correction 8460
- unit memory codes, bounded min. dist. decoding 32067
- unknown-multiple sig. source clustering problem, ergodic HMM *(Japanese)* 32548

Viterbi detection
- 16-DAPSK, differential detect., Viterbi-algm. *(Japanese)* 24175
- CMOS adaptive equalizer for partial-response channels 29246
- CMOS adaptive equalizer/Viterbi seq. detector, Class IV PRML 21156
- combined lin.-Viterbi equalizers, comparison and design 9175

Viterbi detection continued
- concatenated coding scheme for dicode channel 8111
- data storage channels, nonlin. equalization 7141
- digital compact cassette, seq. estim. algms. appl. 17582
- digital mag. recording channels, different detect. techs., comparison 30731
- digital mobile commun., blind seq. detect. 17039
- digital tape recording, optim. of azimuth angle/geom. params. 14238
- GSM, M-detector, coherent receiver antenna diversity, perform. 17040
- GSM syst. MLE receiver space diversity techs. *(German)* 25335
- high-dens. mag. recording channels, nonlin. compensation 7102
- M-ary PSK suboptimal coherent detect., error rate bound 15961
- mag. disk, analog/digital PRML read channel equalizers 30737
- mag. recording channel equalization for max. likelihood detectors 30724
- MLSE, dyn. threshold detect. 40881
- NDA FF carrier synchronizer, Viterbi algm., cycle slip anal. 8455
- nonstationary random sigs. detect. in colored noise 41055
- parsing word graphs, linguistic grammar and stat. lang. model 32375
- PCM voice band channel capacity 40555
- phase tracking Viterbi demodulator *(Japanese)* 24176
- PPM, seq. detect. and equalization 15710
- TDMA digital cellular radio unified MLSE detect. 33823
- trellis-coding for partial-response channels, Viterbi detectors 30733
- Viterbi algm. simultaneous data detect. and channel estim. 8385

vitreous state
- *see also glass*
- glass-forming FLC material of high second-order nonlin. 7729

vitreous structure *see vitreous state*

vitrification
- tellurite:Pr(Nd)-based glasses, 1.3 μm emission studies 7561
- Na_2O-Nb_2O_5-Al_2O_3-P_2O_5, planar ion-exchanged waveguide form. 22864
- Na_2O-WO_3-Ga_2O_3-P_2O_5, planar ion-exchanged waveguide form. 22864

Vlasov equation
- electrodynamics, init.-value and BVP 31727
- magnetron Vlasov model distrib. fn., cylindrical case 980

VLF radio propagation *see radiowave propagation*

VLIW machines *see instruction sets; multiprocessing systems; parallel architectures; parallel machines*

VLSI
- *see also ULSI; very high speed integrated circuits; wafer-scale integration*
- 1.5 V full-swing BiCMOS dyn. logic gate cct., LV BiCMOS VLSI 12424
- 1-D and 2-D DCTs, high-throughput VLSI archits. 24582
- 1D fully pipelined VLSI archit. for DFT 682
- 1D logic gate assignment, parallel algm. 38975
- 2D DCT systolic archits. based on CORDIC techs. 12573
- 2D digital filters implement., matrix decomp. 32674
- 2D dopant profiling in VLSI devices, AFM study 30391
- 2D FIR digital filters, VLSI struct. 6224
- 2D systolic array proc. design alg. path problem, VLSI oriented *(Korean)* 681
- 2D systolic arrays for DCT/DST/DHT hardware implement. *(Korean)* 37796
- 3-D channel routing, VLSI 22513
- 3B21D BIST/Boundary-Scan syst. diagnostic test 5590
- 3D LCD on VLSI die, electrostatic anal. 42875
- 3D LCR extraction and modeling of VLSI packages 5623
- 3D opt. interconnected neural network 1773
- 3D semicond. proc. and device simul., solid modeling 1482
- 4-Mbit sync. DRAM for multimedia eqpt. *(Japanese)* 21298
- 7 KHz handfree telephony CMOS ASIC chip set 21371
- 16-bit CMOS divider/sq.-root cct. design 6171
- 32-bit RISC proc., embedded control systs., CMOS VLSI implement. *(English)* 37795
- 50 MFIPS fuzzy proc. and related 1 μm VLSI CMOS digital ccts. 29152
- 60 Mb/s QPSK/OQPSK burst digital demodulator for radio appl., CMOS VLSI implement. 17006
- 200-MHz quadrature digital synthesizer/mixer in 0.8-μm CMOS 21370
- achromatic computer generated HOE for coupling LD, single mode fiber 40144
- adaptive beamformer, recursive modified Gram-Schmidt algm. 2520
- adaptive echo canceller, finite wordlength effects, modelling 16626
- adaptive VLSI neural network chip 29436
- address generation coprocessor, design and VLSI implement. 29302
- adiabatic CMOS, reversible logic issues 6862
- advanced interconnect modelling, VLSI design tool 22550
- AGOSTO framework, VLSI BIST wt. distrib. generation 30430
- aircraft intell. rem. power controller 26682
- analog and pulse stream VLSI hardware for neural nets and fuzzy systs. 29458
- analog CMOS neural nets, capacitive wts. learning 21475
- analog CMOS VLSI design of cellular neural networks, annealing agility 22603
- analog fuzzy controllers, hardware/software toolkit 37899
- analog neural net develop. syst., online training 37908
- analog spot position coding retina, active obstacle detect. 21457
- analog VLSI, fault-tolerant dyn. multilevel storage 6253
- analog VLSI neural net archit., on-chip learning 37911
- analog VLSI neural net OCR syst., extraction module 29466
- analog VLSI neural network for texture anal. 29477
- analog VLSI neuromorph, prog. dyn. 29438
- analogue T-Model neural net hardware, backpropag. learning 37927
- ANNs, algorithmic approach, concurrent error detect. 29449
- approx. rank-order filters, VLSI implement. 29377
- arith. execution units, BIST struct. *(Japanese)* 6815
- array design for DHT, cyclic convolution 29191
- array multiplication scheme using (p, 2) counters and pre-addit. 37728
- array opt. switching syst.-level VLSI platform for opt. interconnection insertion 42129
- ART1 memories, mixed analog/digital implement. 29404
- ASIC design, AHPL 12616
- ASIC VLSI design courses, EUROCHIP initiative 20288
- ASIC VLSI design projects, microelectronic CAD lab 22516
- Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
- ATM switches, queue mgt., multiple delay/loss priorities 8726
- ATM switching syst. hardware based on Cu-polyimide MCM, 320 Gb/s 16973
- autoadaptive independ. component analyzer, analog CMOS implement. 21478

VLSI continued
- automatic test generation, component test vectors, student training *(French)* 20329
- automotive interface design, VLSI compatible BiCMOS technol. 36778
- B-algm. behavioral test generation algm. 6100
- B-ISDN internetworking unit, VLSI implement. 16798
- bare-chip probe for high I/O, high speed IC testing 6839
- BEST integrated syst. for macromodel develop. *(Korean)* 38978
- BiCMOS, fast VLSI cct. design, complementary ECL elements 6870
- BiCMOS dyn. logic cct., LV deep submicrometer VLSI, transient model 29097
- bidirectional associative memory, optimal radix, searching algms. 21483
- binary rel. inference neural net, VLSI implement. 29446
- binary-phase holographic gratings on sapphire, VLSI fab. tech. 15186
- bipartite graph crossing reduction, assignment heuristic 21018
- BiPMOS pull-down device struct., LV dyn. BiCMOS VLSI, device-level anal. 21285
- bipolar ccts., robust simul. techs. based on waveform relax. 38998
- bipolar ring oscillators using inverters, freq. tuning 567
- book, Si and Si alloy based materials/devices 11540
- Boolean neural net, dynamically configurable combinatory logic array 29451
- BP neural networks, neg. transfer problem 29447
- broadband ATM switches, optim. design for VLSI implement. 9136
- buffer distrib. algm. for high-perform. MCM/VLSI clock net optim. 29335
- building block layout, floorplanning, topol. constraints 13843
- building-block layout, pin assign., global routing 21028
- bus-invert coding for low-power I/O in VLSI 30460
- byte-wise CRC generator chip, hardware design 37697
- C-testable design techs. for iter. logic arrays 29138
- CAD, cooperative problem solving 492
- CAD/design data mgt. syst. *(Japanese)* 1460
- calorimetry at LHC, modular fault-tolerant approach 4237
- CAM design, modular VLSI scheme 21315
- categorization-based diagnostic systems in VLSI design 5959
- cell placement, self-organizing scheme 5962
- cellular neural net chip-prototyping syst., test Universal Machine chips 22534
- cellular neural nets, analogue CMOS implement. 29495
- cellular neural network template robustness towards VLSI implement. 22535
- cellular neural network with prog. control operator, VLSI implement. 6267
- CELP coder/decoder for indoor wireless systs. 3469
- CHAN, CPA algm. for timing anal. 21046
- channel router, 1-variable stochastic simulated annealing 37581
- channel router under crosstalk constraints *(Korean)* 490
- chem. mech. polishing abrasive slurries, IC dielec./metallization 38571
- chemical-mechanical planarisation, Run by Run controller 38566
- Chinese character recogn., sigmoid fn. VLSI neural net 29510
- circuits systs., symp., Chicago, USA (May 1993) 31
- CMOS 25 Msamples/s 8 bit full flash ADC for embedded VLSI appl. 29331
- CMOS 3 V rail-to-rail I/O op amp for VLSI cell libraries 6037
- CMOS A/D converters, SC vs. SI techs. 21384
- CMOS ADC, 10 bit, 20 MS/s, 3 V supply, VLSI appl. 6191
- CMOS analogue VLSI current-mode mesh-type posn. sensitive cct. 34495
- CMOS array proc. for digital image compression 29247
- CMOS ASIC, power-pin ESD stressing failure mechanisms 28527
- CMOS buffered switch for gigabit ATM switching B-ISDN 16974
- CMOS cell library for formal high level synthesis, design 12497
- CMOS chip set for pipeline and parallel pipeline FFT archits. 21357
- CMOS digital combinat. ccts., stat. delay charactn. 13891
- CMOS digital VLSI designs, transistor sizing algms. *(Korean)* 12387
- CMOS ESD protection ccts., scaling/optim./design considerations 30471
- CMOS functional cells, layout optim., integer LP *(Japanese)* 39005
- CMOS gate arrays, EOS induced polysilicon migration 30466
- CMOS high-speed DAC, embedded prog. video FIR filtering fn. 29326
- CMOS high-speed VLSI pipelined proc. design for lossless image data compression 29274
- CMOS layouts, preconstrained compaction method 6867
- CMOS max. entropy coprocessor for computed tomography 29432
- CMOS maximal current and deriv. estim., activities waveforms 21200
- CMOS memory cells for design of SEU-tolerant VLSI ccts. 12525
- CMOS multi-channel data compression chip, parallel archit. 21376
- CMOS neural network IC for high-energy phys. 29476
- CMOS prog. analog cellular neural net for high speed image proc. 29429
- CMOS prog. analogue IC, high speed image proc., cellular neural networks 29414
- CMOS prog. current comparator for analog VLSI neural nets 29430
- CMOS quadrature digital synthesizer/mixer, 200 MHz 29245
- CMOS std. cells, design and charactn., teaching 21222
- CMOS total self-checking design 22566
- CMOS VLSI 32×32 ATM switch, design, simple logic control 9137
- CMOS VLSI adaptive high-speed VQ archit. 29273
- CMOS VLSI analogue sampled-data motion chip for visual motion detector 2845
- CMOS VLSI archits. for video compression, survey 24394
- CMOS VLSI array proc. for basic arith. operations, redundant no. syst. 29265
- CMOS VLSI cct. logical faults, worst-case test vectors 13889
- CMOS VLSI ccts., design optim., genetic algm. 39015
- CMOS VLSI ccts., techs., improve fault diagnosis 21063
- CMOS VLSI ccts., transient power supply current monitoring 21240
- CMOS VLSI chaotic neural nets, current-mode 29513
- CMOS VLSI continuous-time HF prog. nonrecursive filters 735
- CMOS VLSI hardware gates for efficient fuzzy computing 30474
- CMOS VLSI implement. of 8192 complex point FFT 29248
- CMOS VLSI implement. of modular ANN chip for character recogn. 6273
- CMOS VLSI logic ccts., reliab. prediction, estim. of the switching activity 29116
- CMOS VLSI opto-electronic array proc., morph. image proc. 29277
- CMOS VLSI predictive tree-searched vector quantizers for real-time video compression 29276
- CMOS VLSI single chip package, TAB technol. 28452
- CMOS VLSI smart visual micro-sens. based on insect vision 34569
- CMOS VLSI trellis-coded partial response channel codec 29249
- column compression multipliers for sig. proc. appls. 29141
- communications, IEEE Internat. Conf., Geneva, Switzerland (1993) 36822
- complementary BiCMOS technol., 0.5-μm, μP-based smart power appls. 29000
- complementary CCD DSP chip for digital still cameras 6188
- complex test station workcell control environ. 5595
- complexity eval. of digital cct. simulators 480

VLSI continued
computer design, VLSI aspects, conf., Cambridge, MA (1993) 36905
concha, digital hearing aid 18610
concurrent checking based strongly fail-safe interfaces 12440
consistent attributed graph-based hand-drawn logic cct. diag. reading syst., VLSI CAD 12492
continuous time nonrecursive FIR filter,digitally prog., digital control 760
controllers, VLSI, fuzzy, automatic synthesis 685
counter with bounded response time and bounded power dissipation, calculational derivation 37681
CPU design, 32-bit, VLSI project, C and GDT for computer sci. students 20291
custom ASIC, VLSI design, VHDL, 12-bit binary conversion, BCD 28967
custom IC, conf., San Diego, USA (1993) 36842
custom VLSI parallel supercomputer for neural computation 21481
Danish VLSI teaching programs, bal. engng. education 20286
DCS, digital cct. high-level synthesizer *(Chinese)* 12385
DCT, 2D, bit-serial VLSI archit. 21362
DCT chip, VLSI archit., 100 MHz, 0.8 μm CMOS implement. 6187
decoded RAM storage reprogrammable interconnect archit. 22599
dedicated neural network, automated visual QC, massively parallel VLSI-implement. 32949
deep submicron compact phys. model for analog ccts. in mixed analog-digital ICs 21452
defect and fault tolerance conf., Italy (1993) 36856
delay anal. tool, automatic hierarchical 491
demountable TAB package, area array press. contacts reliab. 37079
design, cct. representation, anal. approach 12461
design, neural net for scheduling/allocation 30414
design automation of VLSI interconnects/packaging 6845
design courses, indust. participation 5518
design proc. mgt., reconfigurable distributed framework 5580
design rule checking and cct. extraction via, fast data struct. 28949
design software, QA aspects 13859
design training, Univ. of Twente, student design teams 20290
diagnosis algm. for const. degree struct., VLSI cct. testing appl. 38947
diagonal channel routing, vias, unit dist. 37577
diamond routing model for VLSI layout 462
digit pipelined discrete wavelet transform 29381
digital parallel VLSI archit., fuzzy database mining 677
digital range imaging VLSI sens. 13852
digital VLSI CAD tools based on probab. 28971
discrete orthogonal fns., systolic archit. 8324
discrete wavelet transform, VLSI archit. 6186
discrete/CW transforms, single chip/SIMD computers 37799
double field rate scanning, interpolation methods for TV picture quality improvement 8651
double-sided rugged poly-Si technol. for high dens. DRAMs 29230
DRAM develop. and ferroelec. memories prospects 12547
DRAMs, high dens., elec. failure anal. 37757
DSP appl.-specific chip design, behavioral silicon compiler 680
DSP programs, concurrency charact. 30413
DSP real-time implement. on multiprocessors, CAD environ. 12584
DSP synthesis, high-level algm./archit. transforms. 37798
dual segment archit. for VLSI test syst. 6819
edge detector, Sobel operator, VLSI implement. 30473
edge-based heuristic for Steiner routing of VLSI and PCBs 456
electronic engng. education 20226
Elmore delay model for optimal wiresizing, VLSI interconnect delay 22277
emission microscopy for IC inspection *(Italian)* 20465
emission microscopy in semicond. failure determ. 6837
error correcting decoder implemented, digital neural net 8152
ESD sensitivity, thermal breakdown and dielec. breakdown 6844
etching, plasma charging induced damage, transient and electrode edge effects 22191
EURO-DAC/EURO-VHDL conf., Hamburg, Germany (1993) 36907
Eurochip and chip designing, Polytechnic Enschede 22515
EUROCHIP initiative, VLSI design training, Univ. College London 22514
exponential bidirectional associative memory capacity 21336
fast convergent Jacobi algms. for VLSI sig. proc. 32597
fast VLSI algms. for division and sq. rooting 12585
fast VLSI systolic array for large modulus residue addit. 21245
fast VLSI-efficient self-routing permutation network 30420
fast-RICH prototype with VLSI readout, beam tests 4164
fault detect. cost reduction, BDD formalism 21015
fault injection boundary scan design, fault tolerance verification 5594
feature mapping neural network, VLSI implement. 6270
feedforward multilayer ANN, testability, behavioral approach 37917
FIR decimators and interpolators, systolic implement. 6226
FIR filters, self test, fault coverage 29374
floating-point systolic array PE, serial commun./BIST 21356
floorplanning, area minimization problem 13830
fluidic self-assembly of microstruct., GaAs on Si integrat. 30002
forward/inverse DCT computation 15906
FPGAs, postlayout simul., verilog 6110
free-space interconnect based optoelectronic integrated systs. 1766
free-space optoelectronic technol. neural networks 1774
freq.-depend. high-speed interconnects, Laplace transform, num. inversion 1291
FSE/DFE-based HDSL equalizer, adaptive algms. 9087
FSM compiler and simulator 29133
fully parallel Kohonen map, mixed analog digital approach 29440
fully parallel stochastic neural network, VLSI implement. 29439
future technol./economic prospects 38965
fuzzy maths for orient. assignment of std. cells 28975
gate oxide defect screen for VLSI CMOS reliab. 22588
gate sizing algms. for power optim. 13841
gate-level, realistic faults in digital ICs 6092
generic floorplanning methodology 30397
genetic algm. for test scheduling, different objectives 1470
GENRIF, integrated VLSI FIR filter compiler 21420
GFLOPS, real-time image proc. parallel VLSI archit. 29272
GMS, CMOS VLSI gate matrix cell generation syst. *(Chinese)* 12398
gray level image co-occurrence matrix computation, parallel archit. 8568
gray-scale morph. filtering, digit-serial archit. 21277
hardware design, proc. technol. appl. 5974
HDI, laser created, quick prototyping of electronic ccts. 5676
HDSL chipset for high-speed transm., copper 16920
HDTV sub-band coding, GQMF filterbanks 42597
heatsink radiation, fn. of geom. 15475

VLSI continued
heuristic transform. techs. for simultaneous optim. of latency/throughput 29261
hierarchical environ. for interactive test engng. 6821
hierarchical multiprocessor archit. for video coding 33698
hierarchical test anal., random BIST 37694
hierarchical testable digital architecture 37687
hierarchical VLSI logic ccts., crosstalk fault detect. 12454
high level synthesis design, feedback 29154
high speed CMOS ccts., skew and delay minimization, stochastic optim. 29086
high speed digital burst modem, satellite video TDMA/wireless LAN appl. 16938
high speed VLSI interconnects, stat. anal., moment method 28442
high-level synthesis, tutorial 28980
high-level synthesis systs., optimal graph representations, instruction set tables 29109
high-level VLSI design spec. validation, algorithmic debugging 12390
high-speed interconnects, time domain sensitivity 13862
high-speed median filter, shiftable CAM 6234
high-speed networks, hardware meas. techs. 676
high-speed staged decoder VLSI systolic archit. 40586
high-speed VLSI interconnects, freq./time domain simul. 12287
high-swing high-drive CMOS buffer, large capacitive loads 37645
horiz. and vert. expandable neural networks 29442
Hough transform chip-set, config., CMOS implement. 29269
Huffman codec for digital video 33704
hybrid analog/digital VLSI sig. proc., single bit modulators 12661
hydrodynamic formulation of energy bal. eqns., finite-element discretization 30196
HyHOPE fast fault simulator hypertrophic faults simul. 21253
HyperNet RAM-based neural net archit. implements., anal. 29467
IC manufacture, QA methods 11827
IC passiv. layer probe holes charging dyn. 13836
IC photomicrographs, cct. extraction 6833
ICVision, VLSI-based diffractive display, holographic stereograms 9987
IDDq meas. in CMOS VLSIs, fault detect. 13885
IEDM 1994 conf. on IC and electron devices 652
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
IEEE Pacific Rim conf., communications, computers and sig. proc., Victoria, BC, Canada (1993) 36896
image obj. area estim., cellular neural network 21495
image sens., smart, custom, develops. 17962
in-situ learning, analogue VLSP MLPs 29457
in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
indust. needs for electronic systs. designers, degree course, VLSI theme 20292
indust. relevance of VLSI undergraduate training 20287
inner-product proc., area efficient, VLSI implement. 12562
intell. opt. sens., multilayer opt. neural net, analogue VLSI 9938
interconnect reliab. study, computer simul. 22553
interconnect systs., mfg. considerations 38640
interconnections and packaging, CAD tools 1471
interfacial energy calc., interconnect-metal/barrier-metal interfaces 38633
intracardiac electrogram, low power, class. using analogue VLSI 35123
IP multigigabit router design 8901
iRULE, fast hot-carrier reliab. diagnosis using macro-models, MOS digital logic 29114
ITC test conference, USA (1993) 36853
JAGUAR, pipelined VLSI archit. for JPEG image compression 21341
Karuizawa workshop on ccts. and systs., Japan (Apr. 1994) 28237
kernel-based classifiers, analog VLSI implement. 29460
L-shaped cell placement by neural nets 30416
layout compaction, constraint graph generation algms. 12285
layout design, net assignment problem, routing constraint 22509
layout optim., preconditioned conjug. gradient method, interior point algms. 496
layout verification package, BEM for 3D capacitance and substr. resist. calcs. in inhomog. media 21023
LDMOS-FET fab. steps in submicron CMOS technol., complementary 40 V power devices 22576
lin. image filtering, analog VLSI neural networks, random param. var. 32955
lin.-phase equalizer in digital audio sig. proc., design and implement. 34292
locally-adaptive wave proc. for predetection of point targets 17924
logic simul. accel., data flow archit. 21060
logic synthesis and optim. of multiple-valued logic fns. 6058
logic VLSI test syst. and trend 6139
logical fault diagnosis for combinat. ccts. 12443
lossy coupled transm. lines simul., window partitioning, waveform relax. 13422
lossy distributed networks, successive asymptotic waveform eval. 1467
lossy VLSI interconnect, sig. transients, propag., crosstalk 30426
low cost combining switch for shared memory syst. 29155
low power mode and IEEE 1149.1 compliance 6824
low-level cortical proc. in machine vision, analog VLSI massively parallel module 32947
low-power analog sampled-data VLSI archit. for mag. recording channel 29411
low-power digital CMOS IC design 1494
low-power sig. proc. systs. 29264
LSI Logic LPISEM syst., ASIC proc./design-related failure diagnosis 21172
M-to-B arbiter for multiple bus multiprocessor systs., high speed, VLSI 642
majority voting based VLSI fault-tolerant ccts., reliab. 641
manufacturability, component level yield/cost model, mixed technols. 28409
manufacturing pilot line, SPC implementation 37164
massive parallelism on a chip, dyn. logic 6121
massively parallel archit. for time-based simul., feasibility study 39004
massively parallel array proc. for logic, fault, and design error simul. 12292
MCM, genetic algm. based cct. partitioner 38197
MCM, high perform. Si/Si, low cost high vol. appl. 38191
mean field annealing, VLSI design appl. 38974
measurement system resolution improvement through optimal filtering 25766
MELECON '94, conf., Antalya, Turkey (1994) 5470
metal melting, microscopic hole by laser radiation *(Japanese)* 6657
metal-to-metal oxide antifuses, reliable for VLSI appls. 22079
metallization by coherent magnetron sputtering 38668
mfg., research, min. capital cost 36955
mfg. line mgt., ES 28415
mfg. proc. noise/learning 37037

VLSI continued
micro-submicrometer P-MOSFETs, electron beam doping *(Chinese)* 6755
microelectronics for neural nets and fuzzy systems, conf., Italy (1994) 28223
microprocessor chips, custom-designed, wear-out simulation environment for VLSI designs 29295
microwave radio commun. systs., DSP and VLSI technol. 25223
Midwest Symp. on ccts. and systs., Detroit (1993) 33
minimizing channel dens. by lateral shifting of components 5973
modified genetic channel router 13844
modular prog. neural archit., VLSI implement. 29506
module orient. problem based on Manhattan wire meas., NP-complete 1476
monolithic IC, isolation technol., overview 1459
MOS digital ccts., fast timing simulator, feedback proc. 592
MOS winner-take-all networks for VLSI analogue parallel sig. proc., inhibitory mechanism 37897
MOSIS designed CMOS/BiCMOS arrays, teaching VLSI courses 5529
motion estim. algms., VLSI archit. 12580
motion estim. VLSI proc., block matching algm. *(Korean)* 37789
MPEG-2 video data stream, real-time decompression chip 42047
multi-chip design, timing-driven syst. partitioning, fuzzy-neuro approach 792
multi-DSP archit., high perform. appl., expt. eval. 12588
multi-layer VLSI, hybrid hierarchical global router 38948
multi-level interconnect technol. for VLSI/ULSI, materials, thermal alternatives 13423
multi-model neural network, systolic modular VLSI archit. 29459
multi-valued images, labelling systolic archit. 2762
multilayer neural network archit., external wt. memory, shape recogn. 6274
multilayers, single row routing 29662
multilevel NAND gate ccts., automatic synthesis, CAD algms. 29100
multilevel Reed Muller cct. synthesis, computer-based *(Korean)* 21178
multimedia equipt., electronic devices *(Japanese)* 16935
multiple fault diagnosis of combinat. ccts., efficiency improvements 12444
multiple target sputter syst., real-time control 20967
multiple-valued associative VLSI proc. 6174
multiple-valued logic fns., optim. algm., Petri nets 6143
multiplexed DSP archit., hardware allocation, bit-align. 21342
multiresolution image proc., VLSI 128-proc. chip 6167
multistreaming RISC proc., VLSI, pipeline execution 2846
multiterminal network channel routing 22522
μP test design, automatic functional test generator 21354
native oxides on Si surfaces of deep-submicron contact-hole bottoms 38617
neural computation, phys. models and analogue VLSI implement. 6269
neural net implement., SIRENA, simul. environ. 21502
neural network, analog VLSI current mode cct. 6272
neuro/fuzzy systs., analogue, CMOS design, basic building block approach 790
neurochips, develop. *(Japanese)* 785
Neurodevice, modelling interface for VLSI design 13865
node-reduced multiterminal representations of semicond. devices, SPICE 12282
nonslicing VLSI floorplan, optimum area minimisation 1475
nonsymmetric matrices, real Schur decomp., hardware implement. 28668
normal/supercond. multiconductor lines for interconnects/MICs 29578
OKI, technol. CAD, UNISAS syst. 38993
on-the-fly error correction in hard disk data storage channels 30734
optimal VLSI archit. for distributed arith.-based algms. 29090
optimal wiresizing, Elmore delay model 37572
optimized mapping of video appls., VLSI hardware-software 16253
OPTIMOS branch-level digital cct. optimiser 21212
optoelectronic neural network, wt. setting, matrix multiplication 1501
order stat. algm. for rank order/stack filters 29380
OTA-based multifunction act. filter, prog., microcontroller appl. 12636
over-the-cell channel router, algm., 2-layer model 21037
oversampling ASIC ADCs, design techs. 29314
packaging, nonlin. finite element model 28443
pad designs in flip-chip soldering procs. 11736
parallel FFT algms., radix 4 butterfly computation on 8-neighbor proc. array 20643
parallel logic level simul. of VLSI ccts. 12274
parallel logic simul. of VLSI systs. 12277
parallel neural network emulator based on appl.-specific VLSI commun. chips 29472
parallel pipelinable VLSI archit. for finding max. binary no. 627
parallel proc. for test generation, perform. anal. 17662
parallel rip-up and rerouting, wiring quality in parallel wire routing problems *(Japanese)* 37600
parallel-pattern/multiple-fault-propag. concurrent fault simul. 12435
parallelized inversion no. algm. for VLSI routing 12271
partitioned/parallel CRC, VLSI implement. 645
pattern recogn., HVRI algm., VLSI implement. 41358
PCS, advanced digital receiver principles and technols. 17111
perform. modeling of analog ccts. using additive regression splines, SC filter bank 30433
PGM crypto-chip, parallel permutation multiplier 29189
pilot line, proc. improvement mgt. 36958
placement, module clustering, fractal dimens. anal. 13842
placement, optim., neural network based design techs. 497
plasma polymerized all-dry resist proc. for 0.25 μm photolithography 13521
plastic packages, reflow soldering perform. improvement 6840
poly(p-hydroxystyrene) pos. X-ray resist for precise replication of sub-0.25-μm 13520
poly-emitter complementary bipolar technol., yield enhance. 30445
polynomial GCD computation, finite field division, VLSI array synthesis 12570
P^+-polysilicon gated FET devices, bias temp. reliab. 13750
pos.-tone silylated, dry-developed, deep UV resist with 0.2 μm resoln. 13523
power dissipation minimisation in scan test ccts. 12471
power estim. techs. in VLSI ccts., survey 1473
power supply coupling diode design, ESD protection/noise immunity 30470
power syst. security assess., systolic accelerator-based 19009
PQFP VLSI packages, quality function deployment 37076
predictive VLSI memory develop., TCAD strategy 21303
prescaled max.-redundant radix-4 SRT divider 615
probabilistic RAM, hardware-based learning syst. 37915
probe cards, manufacture and Si LSI/VLSI IC R&D/prod. testing *(Slovenian)* 30393
proc. and device simul., solid models 22537
prog. analog neural chips, testing/ATE 21476
prog. modular cellular neural network cell 21488
prog. neural net archit., BiCMOS 37913

VLSI continued
prog. space compactors selection for BIST 12459
programmable space compaction for built-in self testing 29181
pseudo-exhaustive testing, VLSI ccts., cct. partitioning and test generation method 37573
pseudo-exhaustive testing, VLSI ccts., coord. cct. partitioning/test generation 21260
pseudorandom patterns, low lin. depend./equi-distrib. 12465
pulse coded neural net VLSI design automation 29480
pulse coded winner take all networks, VLSI implement. 796
QAM receiver IC, 500-channel CATV systs. 3675
QFP, VLSI chip, assembly, outlead cross-sect. effect on lead skew 11796
QRD-based sq. root free and division free algms./archits. 28656
QRD-RLS/STAR-RLS adaptive filters, fixed/floating point error anal. 32700
qtr.-micron lithog., wet-silylated and dry-developed commercial photoresist 13522
quantitat. methodology for rapid prototyping and high-level synthesis of sig. proc. algms. 2489
quantum neurocomputer 788
radial fns. hardware generator for neural comps., VLSI design 29507
rate-distortion optimized motion estim. archit., variable block matching 8570
RC parasitics modeling, network reduction algm. 22536
real-time edge linker 16399
real-time extraction of direction vectors from binary images, VLSI chip 6173
real-time parallel DCT/DST lattice structs. for video commun. 29266
reconfigurable archit. mapping multilayer CNN paradigms 21500
rect. cell placement, force-directed self-organizing maps and delta learning rules 5965
regular VLSI archit. synthesis for 1-D discrete wavelet transform 32518
regularity extraction approach to scheduling and allocation 21051
regularized param. estimator, systolic implement. 29279
relax. labeling, analog VLSI cellular fuzzy automata networks 29462
reliab., wafer scale systs., Japanese vs American industries 22527
RIE systs., plasma generation, real-time control, phenomenological modeling 1264
RNS FIR digital filters, bit-serial VLSI implement. 750
rot. cct., VLSI transform proc. appl. 29088
running bispectra computation and implement. 40849
SC ccts., sampled-data sig. proc. 723
SC ccts. for neuron-like binary Hamming classifier 13838
scalable, real-time, image proc. pipeline 41162
scalable/foldable VLSI archit. for Viterbi algm. 29293
scan designed cct., test time reduction 21208
SECSPICE cct. simulator for submicron MOS designs *(Korean)* 39016
segmented channel routing problem, complexity 38953
self-checking combinat. logic synthesis techs. 21226
self-contained error-compensated N-valued memory for neural appls. 29415
self-timed adder with pipelined output, design, CMOS implement. 6064
SEMATECH defect detect./reduction methodology, 0.25 micron technol. proc. equipt. 1479
semicustom IC design, analogue arrays, design/perform., education 21459
seq. cct. simul. by hybrid cellular automata 12493
seq. cct. state assignment for low power dissipation 21290
sequential cct., partial reset DFT method 21186
service adaptive access SLIC, CMOS prog. DSP, oversampled ADC/DAC 21378
SH7600, RISC microcomputer for pers. commun./multimedia eqpt. 12582
sigma-delta A/D converters, VLSI decimation filter 691
sigma-delta ADC, BIST scheme for SNR/freq. response test 12597
sigma-delta bitstream FIR filter, VLSI design 37887
signal proc., conf., Napa, CA, USA (Oct. 1992) 11583
signal processing, conf., Veldhoven (Oct. 1993) 36900
simul. approach, provably correct hardware compilation 28985
sine-wave crossings tech. for real-time target recogn. 10590
single phase three-layer channel routing algms. 1469
single point inner lead bonding, narrow pitch 6450
single wafer proc. integrat. for submicron struct., RTP and PECVD 22088
SNUFEC VLSI for fading channel concatenated coding 15751
soft-output Viterbi decoder, high speed VLSI archit. 12586
SOI materials/devices for VLSI appls. 30458
sonar sig. proc. syst. based on TMS320 series 17488
Sony total particle control syst., IC yield enhancement, defect reduction 20467
special purpose array proc. for digital logic simul. 38960
spectrophotometric data correction, Kalman filter algorithms 25770
SPICE integrat., TEK LV511 ASIC design verification syst. 1477
spoken digit recogn., URAN VLSI chip 8203
spurious sigs. detectability in combinat. ccts. 12455
sq.-root, reciprocal, sine/cosine, arctangent cell, design 32656
sq.-root info. Kalman filter, Jacobi-type systolic array implement. 21358
SRAM in flight and ground based radiation testing 12531
SRAMs, on-chip test scheme 37756
SRIF DSP algo., VLSI systolic array implement. 665
SS systs., DSP appl. 25238
stack filtering, parallel algms. and VLSI archits. 21422
stack filters, efficient implement. 6228
staged decoder for BCM sigs., CMOS VLSI implement. 29270
STANZA-M multilayer channel router, simulated annealing 13845
state-of-the-art technol. education 36915
state-space digital filters using distributed arith., VLSI archit., control systs. *(Japanese)* 37875
STC104 packet routing chip for parallel systs. 29290
std. cell global routing algm. for over-the-cell routing *(Japanese)* 13840
std. cell VLSI placement, fuzzy logic approach 1474
std. cells, orient. assignment, fuzzy math. transform. 5944
std.-cell VLSI cct. design, timing and area optim. 21256
std.-cell VLSI cct. design, timing/area optim. 37706
Steiner min. trees in grid graphs, appl., VLSI routing 28925
STM appl. in ULSI fab. *(Japanese)* 6832
stripline CAD for VLSI chip/module interconnections, design database 28446
subband low power video decoder archit. 33666
submicron BiCMOS compatible HV MOS transistors 29034
submicron BiCMOS proc., HV NMOS devices, simple structural changes 22615
super circ. MLC networks, design, develop., and qualification 6365
SVD tracking, VLSI algm. and systolic archit. 28667
SWEC, stepwise equiv. conductance, MOS VLSI simul. 13899
swing restored pass-transistor logic based multiply/accumulate cct. 29110

- **VLSI** continued
  - symbolic trajectory eval. and BDDs, theorem prover, VLSI design 37587
  - symbolic trajectory eval. results comp. 21064
  - synapse multiplication cct. for neural chip 37921
  - sync. clocking schemes for large VLSI systs. 6195
  - sync. seq. ccts., multi-bit-paths for testing 21241
  - syst. partitioning, genetic algms. implement. 28923
  - system approach to electrical measurements 25767
  - systolic algms. for digital image filtering 24380
  - systolic array partitioning problem, scheduling scheme 28952
  - systolic VLSI implementation of Galois field arith. algm. 22569
  - TAB packaging, elasto-plastic behavior of epoxy, thermal stresses 28484
  - table-lookup for binary/residue and residue/binary conversions 6196
  - TCM archit. 9731
  - teaching of VLSI design, Technical Univ. of Madrid 20289
  - teaching of VLSI testing, Univ. of Paris *(French)* 20331
  - test strategy for VLSI regular arrays 37686
  - testability and coverage estim. of VLSI cct. 22518
  - testing, online data collection/anal. 6827
  - TIES, testability increase ES for VLSI design 37598
  - time-delay neural networks, systolic computation scheme 6268
  - timing optim., gate resizing, crit. path ident. 21176
  - timing perform. hierarchical approach 21047
  - transistor size optim. in layout design rule migration 30407
  - TRED, parallel detailed router for VLSI 21067
  - tree-to-tree dist. computation algm. on VLSI archit. 12498
  - tri-array VLSI archit. for higher order moment estim. comp. 29294
  - TV receiver picture proc. based on VLSI frame memory 8650
  - TV systs. develop. w.r.t. LSI technol. 17532
  - two-terminal nets via minimization through dyn. prog., partitioning of terminals 5950
  - ultrathin gate oxide optim. SILO/RTN isolation proc., advanced ULSI 1281
  - universal emulations, sublogarithmic slowdown 5960
  - V810 CMOS 32-bit RISC μP, 0.9 V, 2.5 MHz 37811
  - versatile CMOS building block for fully analogically-prog. VLSI cellular neural nets 21494
  - VERTEX program, sync. sequential cct. verification 21033
  - video coding VLSIs, overview, prog. DSPs and building block approach 16155
  - video real-time hierarchical encoding decoding 33697
  - visual cortex based neural archit. 29478
  - VLSI layout compaction and wire balancing, parallel algm. 12267
  - VLSI/WSI defect tolerant arrays, optimal group diagnosis 13837
  - wave-pipelined 8×8 b multiplier in CMOS technol., design and realisation 29139
  - weighted random pattern generation syst. design 6086
  - word-length determ./scaling software for sig. flow block diag. 28969
  - work cell manufacturing syst. 37042
  - wormhole router, VLSI implement., virtual channels 5966
  - worst-case anal. and optim. of VLSI cct. performs. 38981
  - X-ray mask inspection, replicated resist patterns 13569
  - yield and mfg. prediction model for VLSI designs 30432
  - zero-skew clock net constr., simulated annealing, VLSI layout 29336
  - Al plug technol. for sub-0.5 μm contact/via geometries 22260
  - Al porous anodization proc. anisotropy, VLSI planar metallization 38673
  - Al-Si-Cu VLSI interconnect void-related early failure, subpopulation model 22271
  - Al-based thin films, noise meas., VLSI interconnect reliab. testing 1461
  - AlCu-TiN VLSI interconnect systs., design and building-in reliab. 38645
  - CoSi$_2$ doping source for RTA of shallow p$^+$-n jns. 22099
  - GaAs CHIGFET noninductive impedance transformer design 29351
  - GaAs MESFET transceiver, optoelectronic VLSI cct. fab. 39599
  - GaAs MMIC design and test, high level training, ENSEA *(French)* 20336
  - GaAs PB-SAG DCFL, cct. design *(Chinese)* 604
  - GaAs digital FET multilevel metal interconnects, isotropic etch planarization 13322
  - GaAs digital foundry, process, perform., reliab. charactn. 38958
  - GaAs, n-type, NiGe- and InAs-based ohmic contact metallizations 38655
  - In-Sn based VLSI interconnections, solder joint reliab. 30146
  - InP MESFET perform., drain induced barrier lowering effect 1449
  - InP/InGaAs HBT OEIC photoreceiver 9495
  - LiNbO$_3$ thin film hybrid integrated opt. devices 39608
  - M^{2}CMOS twin-well yield enhancement, wet oxide strip proc. modif. 22579
  - Si VLSI ESD sensitivity, thermal/dielec. breakdown 30462
  - Si VLSI technol. trends 30461
  - Si hemispherical-grained storage electrodes for high-dens. DRAMs 12544
  - Si integrated optoelectronic VLSI commun. cct. 34033
  - Si ion implant., VLSI mfg. for commercial appl. 30035
  - Si micromachining, resonator fab. 30508
  - Si, oxid., VLSI gate dielec. appls. 30086
  - Si range finder, realtime range finding VLSI sens. 34568
  - Si retina analog image proc. 776
  - Si:Er light emitters in integrated opt. interconnects 23060
  - Si:P(B)(As) VLSI submicron jns., proximity rapid thermal diffusion 6625
  - Si/Al, VLSI metallisation layers, charactn., Joule heating model 13430
  - Si-SiGe p-MOSFETs, optimised Ge channel profiles 22434
  - SiO$_2$ films, thermal CVD, microdefects 407
  - SiO$_2$ plasma-grown on Si, extremely low interface state densities 13233
  - SiO$_2$ thin film reliab. at direct-tunneling voltages, MOS VLSI technol. 22607
  - TiO conductive films, reactive ion-beam sputtered, VLSI metallisation 37494
- **VM** *see virtual machines*
- **VME Sub Bus** *see system buses*
- **VMEbus** *see system buses*
- **VMOS integrated circuits** *see MOS integrated circuits*
- **VMOS transistors** *see MOSFET*
- **V$_2$O$_5$-P$_2$O$_5$ semiconducting glasses** *see amorphous semiconductors*
- **vocabulary**
  - continuous Mandarin speech recogn., segmental probab. model 32390
  - continuous speech recogn., HTK software toolkit 32388
  - continuous speech recogn., large vocab., fast match acoustic models 32396
  - continuous speech recogn. of Wall Street Journal data 32389
  - genones, large vocab. HMM based speech recognizer 32363
  - IEC EMC terminology, standardization 23680
  - large vocab. speech recogn., comparative expts. 32343
  - Mandarin speech recogn. syst., large vocab. 24142
  - pers. synthetic voice creation 4325
  - speech training aid for aphatic children 4326
  - telephone speech recogn., vocab. independent 32238
- **vocabulary** continued
  - voice-controlled telecomm. terminal for phys. handicapped 4313
- **vocoders**
  - *see also speech codecs; speech synthesis*
  - 4.8 kbit/s wavelet transform CELP coder 33692
  - 5.0 kb/s coder for vehicular appl., acoustic echo/noise canceller 9123
  - 5.0 kb/s finite state VQ CELP coder for vehicles 9122
  - 8-kbit/s conjug. struct. CELP speech coder, perform. 33690
  - CELP coder, real-time wideband, for videophone appl. 33696
  - CELP coder for mobile commun., design 17038
  - CELP coders, backward adaptive lattice/transversal predictors 2409
  - CELP coding, variable rate 2428
  - CELP speech coder, FS-1016, with multistage search, complexity reduction 33686
  - CELP speech coders, perceptual enhancement 33693
  - CELP speech coding, almost no codebook search 32387
  - channel coding, source criteria 15821
  - deaf pers. tactile display method of speech sigs. 10282
  - distant sample prediction, speech coders 8205
  - DSP core for speech coding appls. 33701
  - FEAL-32 encryption LSI *(Japanese)* 42093
  - fingertip tactile vocoder for profoundly hearing impaired, sweeping display, speech spectrum *(Japanese)* 43382
  - frame class. multimode variable rate CELP coder 40721
  - FS1016 CELP coder, stochastic codebook, dyn. partial search 33702
  - GSM full-rate vocoder chip design 42086
  - land mobile radio, RS coding for CELP error detect. and control 33832
  - lin. prediction vocoder using time envelope, 1.6 kbit/s 33703
  - lossy/lossless compression techs. for encoding audio sigs. for digital proc. 16947
  - low-rate, pitch/LPC params. encoding 3273
  - M-LCELP speech coding, 4 kb/s, multi-mode and multi-codebook 9120
  - M-LCELP speech coding, 4 kbps 33688
  - mobile commun., variable rate speech/channel coding 9222
  - multi-band excitation and LPC-based speech coder 9121
  - pitch sync. innovation CELP coder for 2-4 kbit/s 33694
  - QCELP vocoder for CDMA digital cellular, CMOS ASIC 25167
  - RCELP speech-coding algm. 2426
  - RPE-LTP coding algm., objective speech quality assess. 15824
  - shared time-division duplexing for wireless speech commun. 3442
  - single-stimulus voice coder perform., listener opinion scores 42074
  - spectral interpolation anal., frame energy depend. weighting 32325
  - speech coders, quality assess., subjective SNR measure 25160
  - speech coding, spectral envelope, high-order allpole modelling 32337
  - speech pitch-/time-scale modif., non-parametric techs. 40729
  - time envelope vocoder, LP based coding 25162
  - time envelope vocoder, natural sounding speech coding algm. 40748
  - variable-rate natural-quality parametric speech coder 8204
  - voice conversion, formants transform., ANN 40730
  - voiced speech coding, forward-backward waveform prediction 8222
- **Vodafone** *see cellular radio; radiotelephony*
- **voice** *see speech*
- **voice coders** *see vocoders*
- **voice communication**
  - *see also public speaking*
  - 3.4/7 kHz digital phone interface chip, on-chip analog fns./modem 33677
  - ADAMLAB educational agency designs voice output commun. aid 41582
  - Alcatel 4400, DP and telecomms. syst. integrat. 41611
  - Alcatel 4650 Transvox, voice mail server for public networks 24939
  - Asia-Pacific region, integrated voice inform. services 3121
  - ATM, technol. develop. *(English, French)* 41398
  - ATM for voice, video and data commun. 41620
  - ATM multiplexer output busy/idle periods for homog. ON/OFF sources 33233
  - ATM networks, fuzzy neural control of voice cells 16418
  - ATM video commun., implement. issues 41950
  - B-ISDN, hyperdistributed switching syst. archit. 33588
  - backbone ATM switch, cost and complexity issues 42111
  - Bangla speech over telephone channel, on-off charact. anal. 40756
  - banyan-based B-ISDN switches, priority perform. 9006
  - belief reconstruction theory, commun. appl. 15843
  - broadband integrated voice/data networks, bandwidth assignment 16557
  - broadband network evol. 8821
  - BT's speech appls. platform, telephone network-based speech syst. 41727
  - campus-wide network, packet voice distrib. 33520
  - CATV companies, telephone service delivery 34262
  - CDMA integrated voice/data cellular packet network 17095
  - CDMA mobile radio syst., turbo-codes appl. 9239
  - CDMA networks, integrated voice/data traffic, code allocation 33908
  - CDMA VSAT rural commun. systs. for developing countries 3513
  - cellular systs. with virtually fixed channel assignment, perform. anal. 17050
  - conversational speech, on-off patterns modelling 8211
  - COST 226 project, network integrat. by satellite 42306
  - CSMA/CD LAN interconnection by bridge, finite buffer *(Japanese)* 8947
  - DECT technols. and pot. markets 41714
  - develop. in voice proc. technols. 8214
  - digital SCPC DAMA, optimal satellite-based voice networks 3512
  - discontinuous transm. in Nakagami/Rician-Nakagami channels 17063
  - distributed radio port controller archit., develop. 25381
  - DPCM for diversity systs., packetized speech appl. 8223
  - DS-CDMA, integrated voice/data wireless networks, grade of service 9364
  - DS-CDMA networks, multi-media integrat. 25235
  - DS/CDMA prototype syst. for voice/ISDN sigs. 3320
  - echo cancellation, voice commun., sig. proc. methods *(German)* 42048
  - echo cancellation, voice commun., sig. proc. methods *(German)* 42049
  - enterprise network ATM switching paradigm 41408
  - European Union's telecomms. policy, infrastructure competition 8807
  - Eurovision voice conferencing, VSAT technol. 41951
  - fast packet technol., corporate network choices 33581
  - finite-horizon stat. QoS measures for high-speed networks 33590
  - flexible high-speed transport MultiStream Protocol 41497
  - frame relay for voice transm. 33396
  - Fujitsu multimedia network, satellite distrib. syst. *(Japanese)* 42002
  - groupware, spatial workspace collaboration 41987
  - GSM data services, overview 42248
  - Hawaii, developing virtual learning environ. 3058
  - Hawaii State Dept. of Education future high speed IN 3251
  - high sensitivity satellites/voice compression, PCN 42331
  - hybrid STM-ATM switching and transport 41437

voice communication continued
  image input microphone, nonacoustic speech commun. syst. 17604
  indoor cordless commun., teletraffic perform. 3488
  integrated voice/data mobile radio, design/perform. 17106
  integrated voice/data network, cellular packet CDMA, perform. 17131
  interactive voice technology for telecommunications, conf., Kyoto, Japan (1994) 11
  ISDN speech recogn. syst., vowels extraction 41919
  ISDN technol. for local loop special services transm. syst. 41924
  Korea Telecom's business strategy, CATV indust. in Korea 3678
  L-band steerable antennas for land mobile terminals 3479
  land mobile radio networks, digital video/speech transm. 17048
  leased cct., low speed data/analogue voice band subscriber equipt. *(Japanese)* 25143
  LEO satellite commun., nonuniform traffic, integrated voice/data syst. 25454
  local/metropolitan ring networks, high perform. protocol 33506
  lossy/lossless compression techs. for encoding audio sigs. for digital proc. 16947
  M-LCELP speech coding, 4 kb/s, multi-mode and multi-codebook 9120
  microwave radio, optimum soln. for public and private appls. 42159
  mixed-sig. commun. LSIs, design, device/crosstalk noise 12660
  mobile commun. services, digital modulation techs. 17033
  mobile-satellite pers. commun. syst., voice transm. quality 25322
  modulation spectra of speech transm. index 15828
  Multi-Talk II voice output commun. aid eval. 4314
  multichannel spatial auditory display 2437
  multimedia commun., acoustic echo canceller develop. *(Japanese)* 42014
  multimedia commun., seamless acoustic environ. *(Japanese)* 42013
  multimedia radio commun., variable-rate FEC perform. anal. 9044
  multiplexing voice with data, hybrid transm. algms. 16415
  multiservice VSAT networks, multiple access protocols, perform. 42328
  NEC's VoicePoint AEC-50 acoustic conferencing syst. *(Japanese)* 42646
  network adapter, archit. 16934
  networked voice messaging, MIME profile 24935
  next-generation PCN multimedia traffic support 41979
  non-destructive opt. fiber talk-set *(Japanese)* 42397
  North Carolina Information Highway, NC-REN for research collaboration 5537
  NTT voice message summary for voice services 3151
  PCM voice band channel capacity 40555
  PCN voice transm., PRMA and DAMA comparison 33839
  PEACESAT program, Pan-Pacific Education and Communications Experiments by Satellite 3518
  pers. commun. services, perspective 17132
  Philips SOPHO iS3000 ISPBX, internal/external commun. for cruise liners 42114
  Philips voice module for voice commun., data networks 41715
  PRMA integrated data and speech transm. 41496
  PRMA integrated voice/data syst., data steal, voice 17089
  PRMA-ISA protocol for multiple access of voice/data traffic 9297
  product customisation, user involvement, voice networks example 28362
  prosthesis enhancement, speaker emotion 4316
  PSI-CELP speech coding for digital cellular mobile radio 25324
  PSTN, secure speech/data commun. 33397
  public key cryptography, benefits and limitations 15720
  Rohde & Schwarz HF Data Modem GM 857 C4 9119
  ROMANTIS, satellite services for Eastern Europe 33938
  rural telecomm. networks, integrated cordless access 9208
  rural telecommunication using optical fibre 9093
  secure digital audio teleconferencing 25071
  security in telecomms., subscriber perspective 33351
  semidynamic/dyn. transm. algms. for voice/data multiplexing 41420
  slotted ALOHA for high-capacity voice cellular commun. 3340
  slotted ring protocol for voice/data integrated network, perform. anal. *(Japanese)* 41512
  speech coders, channel coding, source criteria 15821
  speech intelligibility in reverberant and/or noisy field, microphone arrays *(Japanese)* 40743
  speech/data integrat., real-time interactive, on LANs, multimedia in commercial indust. environ. 25066
  TCP/IP local environ., integrat. of voice and data, perform. eval. 8928
  TDMA access for third generation cellular commun., resources 25394
  TDMA digital cellular networks, voice/data channel access 3338
  TDMAX and FASTCOM, Alcatel satellite systs. for domestic and corporate commun. 25450
  telecom. networks/equipt. develop. overview, Europe 16563
  telecomm. services, enhanced feature interacts., impact 16634
  telecomm. services, universal service and innovation, regulatory policy 33327
  telecomms., voice proc. 2439
  telephone-like voice transfer, TCP/IP 33390
  TETRA std. for private mobile radio 42219
  Texas Instruments multiserve enhanced voice services 3133
  third generation mobile systs., adaptive radio interface 25395
  UHF digital cellular syst., network archit. 25407
  unlicensed PCS band, wireless operation 25428
  voice supported multimedia service on data commun. 9047
  VSAT network design tradeoffs 3511
  wireless integrated multiple access protocols 16501
  wireless local telephone service, effective implement. 3118
  wireless local telephone service, pricing, planning and regulation issues 42210
  wireless multiservice CDMA environ., adaptive packet decoding 9360
  workstation, intell. LAN-PBX interface 33339

voice equipment
  see also dictation
  automatic text-to-speech synthesis, develops. 8207
  car navig. equipt. for syst. upgrade *(Japanese)* 25613
  car navig. syst., appl. *(Japanese)* 25614
  DSP, multimedia ASSP *(Japanese)* 3261
  IN voice peripherals 16825
  Philips voice module for voice commun., data networks 41715
  roving robot, intell., multiple sens. 40792
  smart vehicles, voice recogn. digital cipher lock 643
  speech impaired pers., public telephone network access, TINATEL syst. 43373
  speech pattern anal. for four south Indian langs. 32284
  user interface for handicapped 43376
  He environ., speech intelligibility assess. 15825

voice input *see speech recognition; voice equipment*

voice mail
  Alcatel 4650 Transvox, voice mail server for public networks 24939
  Asia-Pacific region, integrated voice inform. services 3121
  Automatic Patient Symptom Monitor, clinical research voice mail 43325
  customer preference for data and voice mail services, conjoint anal. *(Japanese)* 8817
  develop. in voice proc. technols. 8214
  developing countries, telecomms. deployment strategy 3109
  media richness theory-based anal. of e-mail, voice mail 24941
  networked voice messaging, MIME profile 24935
  NTT voice message summary for voice services 3151
  radiopaging technol./systs., wide-area 33773
  rural telegraphy over telephone lines, voice mail concept 24932
  syst., value added services 3150
  telecomm. services, enhanced feature interacts., impact 16634
  telephone cct. holding time distribs. 33404

voice messaging *see voice mail*

voice synthesis *see speech synthesis; voice equipment*

voids (solid)
  adhesive bond, acousto-US eval., pattern recogn. anal. 5921
  bulk dielectric wall charged void, dipole moment 13939
  bulk dielectrics, partial discharge related stresses 13966
  cable insulation, void discharge deterioration, semicond. layer effect *(Japanese)* 43771
  CMOS proc. appl., wafer level reliab. SPC program 20493
  condensed insulation, PD modelling 1517
  contouring, interferometric digital proc., Hough transform 12238
  dielec./metallic bounded cavities, PD 1522
  EM scatt. from 3-D arbitrary coated cavities, connection scheme 15390
  epoxy discharge ageing, void gas press. meas. 22672
  HVDC cables, paper insulated, breakdown, comment/reply 35647
  multilevel metallization struct., failure mechanisms, finite-element stress anal. 38694
  OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
  open circ.-cylindrical cavities, recursive aperture formulation 15392
  organic insulation, water treeing, mech. aspects 39065
  PCB, through-holes, inner wall defect inspection *(Japanese)* 38074
  PCB X-ray inspection, neural network classifiers 37162
  PCBs, rigid flex, cover sheet wrinkling 29687
  PD and their effects on materials 22642
  PD detect., theoretical/practical aspects 22644
  PD models, image converter/computer simul. studies 1513
  PDs, void gas press. 1540
  polymeric materials, water treeing, computer simulation 14062
  QFP IC, mold void, SPC 5635
  shifter void defect repair, focused ion beam tool 13497
  SMT solder joint reliab., voids and void interacts. 178
  SOI layer with voids, noncontact elec. eval. 38432
  solid insulation, PD damaging energy 1532
  steel, Cr-Mo, ferromag., creep damage, mag. study 14128
  stress-voiding/electromigration in multilevel interconnect metallizations 38986
  swarming pulsive microdischarges, CAA 1538
  TV-holography in artwork nondestructive diagnostics 31679
  XLPE power cable insulation characts., defects/moisture effects 4679
  Al IC interconnection failure, stress migration-induced voiding 38666
  Al interconnections, DC electromigration, resist. oscills. 38692
  Al, multilayer conductors, submicron width, electromigration failure, current dens. depend. 38630
  Al thin-film interconnects, thermal stresses, cryst. plasticity simul. 22264
  $Al-Si/Al_2O_3/SiO_2$ metallization, thermal and electromigration effects 38703
  Al-Si-Cu VLSI interconnect void-related early failure, subpopulation model 22271
  Al-Si-V-Pd microstruct., IC interconnect reliab., Al-Si-Cu comparison 38652
  AlCu-TiN VLSI interconnect systs., design and building-in reliab. 38645
  Ge/GaAs, heteroepitaxy, role of As 362
  $In_xGa_{1-x}Sb$, voids in cryst. grown by US-vibr.-introduced CZ method 12019
  Si, low temp. wafer bonding, kinetics study 1188
  a-Si:H thin film growth, mol. dyn. simul. *(Japanese)* 410
  Si:H,Cu, Cu gettering, hydrogen-induced cavities 30009
  Si:He, bubbles, struct./opt. props. 30050
  ZnO varistors, Bi_2O_3 nonstoichiometry, nonlin. property 869

Voigt effect *see magneto-optical effects*

volcanology
  ELF radiation and Ito 1993 earthquake clusters 23634
  Pisgah volc. field, geological units, radar backscatt. model 25576

Volta effect *see contact potential*

voltage *see electric potential*

voltage comparators *see comparators (circuits)*

voltage control
  3.3 V DC/DC conversion, optimised sync. rectification 6003
  3-phase 5-level converter, voltage waveform synthesis 19742
  3-phase AC-AC matrix converters, unbalanced supply 36350
  3-phase act. power filter, sliding mode control 19759
  3-phase cycloconverter control, space-vector method 11365
  3-phase induction motor, single phase supply, phase converter 11377
  3-phase PWM converter, act. filter, control cct. 36356
  3-phase PWM converters, small-sig. model, control 19760
  3-phase PWM rectifier, line current harmonics minimisation 44147
  3-phase ZVS-PWM rectifier, reson. DC link, digital control 5068
  4 wheel drive elec. vehicle, integral batt. charger 5359
  5 kW wind turbine induction generator, expt. design 10902
  50 W DC/DC PWM soft-switched power converters 19790
  200 MW klystron pulsed power modulator, electron LINAC appls. 34744
  200 W PV power syst. DC/AC power convertor control 43953
  275 kV power cable systs., voltage/VAr control develop. 27031
  500 kV LIA-30 radial line charging Marx generator pulsed power supply 34753
  600 MW cross cpd. generator, static excitation 19601
  AC choppers, input PF improvement, asymm. PWM tech. 36334
  AC drives, freq. control algms. formulation 28079
  AC motor drive invertors, circ. space vector modulation control 44481
  AC motor drives, asynchronous μP control design 36637
  AC motor drives, six-step power convertor-fed, anal. 20082
  AC motors, four-quadrant digital control scheme 10954
  AC transm. line disturbances, adaptive feedforward control 10711

voltage control continued
- AC/AC back-to-back power converters, capacitor minim. 5118
- AC/AC PWM power converters, vector control studies 5117
- AC/DC buck rectifiers, supply voltage imbalance anal. 5994
- AC/DC PWM converters, on-line optimal control 36247
- AC/DC PWM GTO power converters, high-speed train appls. *(Korean)* 28120
- AC/DC PWM power convertor, quasi-optimal control 44165
- AC/DC/AC PWM power converters, DC link energy storage reduction 36343
- act. power harmonic filters, computer simul. studies *(Korean)* 28998
- asynchronous machine, two stator windings, EM torque 36144
- automatic cathodic protection syst. control cct. 29425
- automotive alternator/generator regulator testing, DSP-based syst. 20119
- automotive high side power switches, intell. diagnostics 20114
- automotive microcontroller, on-chip voltage regulator 44577
- autonomous voltage inverters, μP control 5100
- autotransformer tertiary winding voltage regulation study *(Russian)* 44107
- batt. energy storage GTO VSI syst., dyn. model *(Slovenian)* 43966
- boost PWM power convertor anal., averaging theory extension 11151
- brushless DC drives, control strategies comparison 44476
- brushless DC motor direct voltage vector control implement. 4990
- brushless doubly-fed induction motor drives, speed control 20055
- buck rectifier, unity PF, nonlin. ripple feedback 36244
- Cassini spacecraft solid-state power switch develop. 26660
- CMOS opt. receiver IC, wide dyn. range 34047
- commercial airplane auxiliary power unit starting drive 4360
- complementary transistor inverter, driving characts. *(Korean)* 36367
- Cuk PWM DC/DC soft-switching power convertor 19795
- cycloconverter multiple noninteger harmonics, act. filtering 5125
- DC arc furnace control, simul. *(German)* 44590
- DC link power converter, induction motor drive appls. 44450
- DC motor, separately excited; control, lin. 19659
- DC motor drives, fuzzy speed/voltage control 28099
- DC switch converters, transfer fn. determ. 5103
- DC/AC PWM power convertor, quasi-optimal control 44165
- DC/AC switched-mode PWM inverter, stabil. anal. 11127
- DC/DC LCC reson. power converter, digital control models 6010
- DC/DC power converter quasi-lin. controller, DSP-based 11149
- DC/DC power convertors, democratic load-current sharing cct. 44151
- DC/DC power convertors, parallel-connected, current distrib. control 44141
- DC/DC PWM boost power converter, switching capacitor-based 44195
- DC/DC PWM step-up power supply, SC cct.-based 27807
- DC/DC PWM switching regulators, fn. control 29022
- direct AC-AC matrix power convertor, AC motor appls. 19738
- distrib. network quality/reliab. improvement options 43760
- distrib. network voltage control, wind power generator effects 10720
- distrib. networks, AVC relays, sensitivity anal., PF changes 4652
- distrib. systs., capacitor placement, fuzzy algm. 10725
- DMOS analogue HV control IC for small DC motors, PWM scheme 29048
- double supertwisted nematic screens, color contrast enhancement 39498
- EHV power syst. restoration voltage control, ES-based 35555
- elec. motor drives, control design algms. 44454
- elec. railcars, regenerative braking, DC feeding syst. 36752
- elec. vehicle drives, time-varying adaptive μP control 36739
- elec. vehicle fleet monitoring, batt./charger mgt. syst. 36728
- electronic welding, HF reson. inverter-based 36802
- electrothermal guns, capacitor charging, voltage/current control 19777
- electrothermal-chem. gun, digital/optoelectronic ccts. 31750
- energy capacitance integrator studies 19706
- EUROSTAG software, power syst. dyn. simul. 19144
- FACTS inter-area dynamics, nonlinear modelling 19138
- FACTS voltage stabiliser, series act. filter-based 19233
- fast decoupled load flow, load tap changing transformer 26948
- FBK-SDU series of digitally controlled uninterruptible power systs. *(Japanese)* 36339
- fixed-freq. phase-controlled full-bridge reson. converter 19715
- force commutated three level boost type rectifier 19856
- forced commutated converters, voltage balancing, learning controller *(German)* 36368
- French HV network, secondary voltage control, tertiary coord. 27014
- freq. inverter induction motor drives, voltage control methods 36656
- fuzzy logic applied, voltage regulation 19172
- GTO inverters, PWM voltage control improvement 19750
- GTO PWM three-level VSI, induction motor drive appls. 19761
- HF high perform. power supplies, SMT 12332
- HF series reson. PWM inverters, induction heating appls. 5123
- HF switching DC-DC convertors using canonical switching cell 19773
- high PF convertor, single-switch single-stage 29041
- high power DC SMPS, electron gun appl. 19755
- HV/EHV power systs., boost transformers, optimal phase angles 43663
- induction generator, squirrel cage, CSI exciter, voltage regulator 19635
- induction motor, terminal-impedance control, energy-saving 4981
- induction motor drive, voltage control, field weakening region *(Korean)* 28088
- induction motor drive field weakening voltage control strategy 44482
- induction motor drive freq. converters, IGBT-based 44456
- induction motor drives, CSI-fed, field-oriented predictive control 5259
- induction motor drives, duty cycle-based V/f inverter control 20059
- induction motor drives, PWM inverter-fed, mobile robot appls. 5266
- induction motor drives, thyristor converter-fed, μP control 44457
- induction motor drives, vector controlled, rotor time const. ident. 20073
- induction motor speed controller, line voltage feedforward-based 27712
- induction motor starting, optimal control anal. *(Russian)* 11012
- inverters, on-line harmonic elimination 5081
- invertor control/status sigs., fault resistant opt. fibres 5134
- islanding strategies for regional power producers 27021
- isolated PF correctors, fast output voltage control 11156
- Jones DC-DC converter, traction drive appls., av. modeling 19812
- JT-60U tokamak power supply thyristor controllers, VME-bus syst. *(Japanese)* 27810
- LCC parallel reson. power converter, small sig. anal. 11129
- LCL reson. PWM converter, anal./simul./implement. 36245
- line conditioning syst., harmonics reduction, PF compensation 43659
- lossless power syst. load flow feasibility/stabil. anal. *(Russian)* 10618
- MA818 controller for three phase 10 kVA voltage source PWM inverter 36283
- matrix power converter, switching freq. harmonics studies 5051
- mine elec. locomotive braking, pulsed control syst. modelling 28202
- Mitsubishi Electric Y Series multisplit air conditioners 44605

voltage control continued
- modulated-freq. boost AC-DC preregulator, model 19804
- MOS-controlled thyristor, AC switch and AC voltage controller appls. 22400
- MOV series compensated transm. network, mag. pot. transformers 4624
- multi-reson. ZVS power convertor, rectifier deadtime controlled 44189
- multiarea power syst. automatic generation control simul. 10666
- multifn. single-phase PWM power supplies, residential appls. *(Japanese)* 27813
- multilevel single-phase PWM inverter, combination control *(Japanese)* 27812
- multiphase feed power source, voltage control characts. *(Russian)* 11107
- multiple current-source GTO CSI, control techs. anal. 19853
- multiple-output buck-type power converter, dyn. characts. 44153
- multiresonant PWM converters, reson. inductor freewheeling 6021
- MW solid-state cct. breaker pulsed power supply, GTO-based 36461
- Neutral-Point-Clamped PWM inverters, voltage vector control 11141
- parallel DC-DC power converters, output droop characts. 11165
- parallel proc. UPS, harmonic suppression/VAr compensation 11175
- PF preregulators, Sepic/Cuk converter based 19753
- PM machines, energy optimising control techs. 44000
- PM stepper motor, global exponential posn. tracking controller 36201
- power cct. variable act.-pass. reactance studies *(Japanese)* 12311
- power converters, digital current mode control charactn. 5116
- power equipt. control syst. design, ES-based interpolation methods 19494
- power network mgt., KBS and distributed problem solving 10650
- power station computerised voltage regulator 27305
- power syst., on-line load relief control 4575
- power syst., optimal voltage-ractive power control *(Chinese)* 43628
- power syst., secondary voltage control, fuzzy sets 19143
- power syst., secondary voltage control, pilot buses selection 19155
- power syst., voltage collapse ident., network partitioning 19115
- power syst. assoc. control services, generator level experience, France 43705
- power syst. automatic voltage control, math. modelling 27015
- power syst. control ES, rule modif. ease expts. 19097
- power syst. discrete voltage control modelling, load flow soln. 26963
- power syst. dyn. stabil., optimal control modelling 4515
- power syst. emergency voltage situations control, anal. 26958
- power syst. generator operating point, fuzzy control *(Japanese)* 4592
- power syst. mgt., voltage/reactive power neurocontroller *(Japanese)* 4529
- power syst. modular secondary voltage fuzzy control design *(Slovenian)* 43690
- power syst. on-load tap changer/voltage stabil. rel. anal. *(Chinese)* 43633
- power syst. PF correction trends, topologies *(Spanish)* 19192
- power syst. phase asymmetry relay control design 27057
- power syst. reactive power mgt., SEGRE expert syst. 19104
- power syst. reactive reserve mgt. 19081
- power syst. real-time voltage/VAr control, optim. algms. 10630
- power syst. robust multivariable PI secondary voltage/VAr control 27016
- power syst. secondary voltage control, voltage instab. *(English)* 10686
- power syst. stabil., nonlin. SVC control studies *(Chinese)* 35527
- power syst. transient stabil. cooperative control design *(Japanese)* 10617
- power syst. voltage distortion compensation, meas. aspects 4551
- power syst. voltage instabil., load flow-based preventive control 35554
- power syst. voltage stabil., shunt VAr compensator effects *(Japanese)* 10709
- power syst. voltage stabil. control 35524
- power syst. voltage stabil. security indices *(Chinese)* 35472
- power syst. voltage stabil./security assess. methods 4516
- power syst. voltage/reactive power control, coupling-transformers *(Chinese)* 27035
- power syst. voltage/VAr control, recurrent neural net-based 4512
- power syst. voltage/VAr security enhancement control design 27017
- power system undervoltage load shedding, energy-based approach 19120
- power systems computation, conf., Avignon, France (1993) 11544
- pre-regulator IC, lateral IGBT and current mode sens. 29037
- PSS, fuzzy control design studies 4508
- PV array max. power extraction, fuzzy logic control 19560
- PV array max. power point tracking, power convertor-based 11296
- PV array max. power point tracking scheme 19559
- PV systs., energy losses, batt. voltage regulator 10889
- PWM AC/AC power convertor, freq. control method 29044
- PWM cycloconverter control, induction heating appls. *(Korean)* 36786
- PWM DC-DC converters, voltage control, feedforward/feedback 11117
- PWM DC/DC full-bridge ZVS power converter anal. *(Chinese)* 36337
- PWM inverter-mounted induction motor, design 5306
- PWM inverters, current-source compensated deadbeat control 11166
- PWM invertor batt. charger, UPS appl., fuzzy logic control 44154
- PWM invertor space vector modulation strategy, PC-based 44164
- PWM matrix power convertors, static induction thyristor-based 27818
- PWM power convertors, independent inputs, large-sig. modelling 11152
- PWM rectifier, state feedback nonlin. control 11153
- PWM reversible rectifier variable struct. control design 5054
- PWM UPS inverter perform., computer simuls. 5077
- PWM voltage-type rectifier, I-V control studies 19796
- PWM VSI, deadbeat control cct. 44176
- PWM VSI AC motor drives, sync. quasi-vector control 11351
- PWM-rectifier, LCL-type line filter 27829
- quasi-reson. DC link power convertor, topol., appls. 5084
- quasi-reson. DC link series reson. converter 12313
- quasi-reson. soft-switching PWM conversion, space vector control 19757
- quasiresonant power converters, small-sig. modelling 11139
- regenerative DC drive, sinusoidal line current consumption 5321
- reluctance generators, sensorless DC output voltage control 4927
- reluctance motor drives, axially laminated rotor, vector control 5258
- rep-rate pulser, high-power microwave source develop. 36323
- reson. DC link inverter, low-noise, high-output power 19861
- reson. power sources, freq./phase regulation, chokes 5092
- salient reluctance generator voltage control, DSP-based *(Korean)* 36113
- security, machine learning, neural networks, stat. pattern recogn. 10663
- self-adjusting threshold-voltage scheme for CMOS ICs 30453
- series reson. convertor with third-order commutation network 36306
- series reson. DC/DC power converter, IP regulator-based control 44221
- series-reson. DC-AC power converter, switching control *(Japanese)* 11190
- SG7915 voltage regulator, temp. depend. SPICE macromodel 5997
- single phase AC choppers, asymm. PWM control 36246
- single-phase IGBT switch-mode rectifier *(Japanese)* 11187
- single-phase multilevel power converter, control method 11136
- single-phase VSI UPS, multiple feedback loop control 11142
- soft switching DC converter, PF correction 19752
- soft-switching full-bridge converter, mag. amps. 44139
- spacecraft power conditioning, tri-state power converter 26677

voltage control continued
- squirrel cage induction motor, solid state starter, low harmonic generation 36146
- SRM drive, converter topol., efficiency, control 11372
- stabil., automatic control, ES pattern recogn. 10661
- stabil. syst. crit. area ident. 26957
- static power converter hybrid control modelling, reliab./safety appls. *(French)* 27799
- static power converter interactive control syst., computer simul. *(French)* 27800
- static power converters, voltage control modelling *(French)* 27798
- substation VAr/volt supervision/control units, fault tolerant *(Chinese)* 36472
- supercond. magnet power supply convertor, current control studies *(Japanese)* 11188
- supercond. supercollider pulsed power supply thyratron modulators 34750
- SVC, μP based, unbalanced load appls. 10670
- SVC control strategy, sliding mode, nonlin. load 10676
- SVC develop. testing by simul. *(German)* 27879
- SVC H^{∞} controller, anal. and design 10652
- switch-mode magnet power supply, modelling and control 29027
- switch-mode power convertor predictive control, current prog. tech. 44152
- switched reluctance motor posn. tracking 19612
- switching regulator, freq. bandwidth widening, 2 DOF syst *(Japanese)* 5990
- sync. generator predictive voltage control *(Japanese)* 44010
- sync. generators, automatic voltage regulators design 36116
- three phase ASD PWM rectifier, neural net-controlled 5120
- three-level rectifier/inverter, force-commutated 19733
- three-phase AC-AC power convertor, cct./control anal. *(Japanese)* 11191
- three-phase AC/DC boost rectifier, feedforward-feedback control 36374
- three-phase AC/DC PWM ZVS power convertor develop. 5082
- three-phase AC/DC step-up power convertor anal. 36372
- three-phase AC/DC ZVS power convertor topol. 19839
- three-phase bidirectional PWM power convertor config. 5126
- three-phase four wire AC line conditioner, voltage controlled 19710
- three-phase multifn. batt. energy storage syst. 43967
- three-phase power convertor, quasi-reson. DC/HF transformer links 5088
- three-phase PWM GTO invertor, design, constr. 5090
- three-phase PWM inverter UPS, robust μP control 36248
- three-phase PWM inverter voltage control, μP-based *(Russian)* 11108
- three-phase PWM invertors, real-time harmonics control 19722
- three-phase PWM neutral point clamped invertors, voltage control *(Japanese)* 11121
- three-phase PWM rectifier, unity PF microcontroller 44177
- three-phase PWM VSI, simplex control algms. 5101
- three-phase quasi-reson. AC/DC transistor power converter 5074
- three-phase rectifier, deadbeat neural net predictive control 11174
- three-phase regenerative power convertor design project 5119
- three-phase single-switch PWM rectifier develop. 5127
- three-phase SVC, voltage controlled CSI-based 10654
- three-phase turboalternator adaptive control, transputer-implemented 36119
- three-phase UPS VSI, feedback control strategy 44173
- three-phase voltage-source utility interface power convertor 19737
- three-phase VSI, space vector simplex PWM methods perform. 44174
- thyristor inverters, freq./voltage optimal control design 5098
- TK75001/75003 five-pin PWM SMPS IC 29015
- transformer tap changer, voltage/reactive power control 27783
- transmission network static voltage stability indices, numerical comparison 19225
- Tri-Level PWM CSI, lin. controlled boost voltages 27806
- turbo-alternator excitation predictive control 44006
- turbo-alternator predictive excitation control 36131
- turbogenerator shaft torque/fatigue life expenditure prediction 10958
- turbogenerators, adaptive control, parallel proc. 27672
- universal motor cycloconverter control, microcontroller-based 44002
- UPS CSI, DSP-based output voltage control 44172
- UPS PWM inverter, instantaneous feedback controlled 11177
- variable freq. induction motor drive, pulsating torque compensation 5290
- variable reluctance motor, voltage-fed, dyn. model *(French)* 10994
- VHV SMARTMOS power convertor control IC 36331
- Ward-Leonard drive, digital control, roughing mill appl. 44624
- ZCS-QRC, two fully regulated outputs 19806
- Zener diodes, reverse I-V characts. 30210
- zero-admittance switch-mode power converter synthesis 36242
- Zeta converter, PF correction appl. 11158
- ZVS PWM inverters, DC voltage notching scheme 19736
- GaAs FET cct. power supply 21096
- Li ion batts., charging, IC controller 36544
- Ni-Cd batts., charging, IC controller 36544
- NiMH batts., charging, IC controller 36544
- Pb-acid batts., charging, IC controller 36544
- Pb-acid elec. vehicle batts., monitoring/control model 36539
- Pb-acid elec. vehicle onboard batt. mgt. syst. 36727
- Si detectors, rem. controlled polariser 43062

voltage-controlled current sources *see active networks*

voltage-controlled oscillators
- 7.5 Gb/s monolithically integrated PLL/QW-HEMT clock recovery cct. 29341
- 622 MHz voltage controlled SAW oscillator *(Japanese)* 37670
- act. resonators, integrat. for UHF wireless appls. 12826
- astable multivibrator, Miller-integrator 21146
- bipolar ring oscillators using inverters, freq. tuning 567
- CCII+ based RC oscillators, grounded resistors and lossy capacitors, low/HF 37669
- CD digital audio, high order phase lock loop for jitter reduction 6050
- chirped laser radar, optoelectronic chirp generation and sig. demodulation 17444
- chirped laser radar, optoelectronic sig. demodulation 17448
- CMOS PLL, 1.5-3 V, 250-622 MHz, precharge type phase-freq. detector 37824
- cryst. oscillator, temp. compen., two-port cryst. resonator 37666
- current-conveyor-based single-element-controlled oscillator 37668
- elastic force motors, speed control of integrated piezoelec. sens. 36206
- grounded capacitor oscillators, digitally prog. 12365
- interpolating ring VCO, V-to-f lin. compensation 581
- jitter reduction, bandpass filtering 12363
- low phase noise/power consumpt. oscillators, anal./optim. 37659
- low-noise oscillators design/optim., nonlin. CAD 29072
- low-phase noise, analog cellular portable radio appl. 12356

voltage-controlled oscillators continued
- LV analog cct. design techs., review 37903
- microwave commun. equipt. appls. *(Japanese)* 37671
- MOS VCO cct., current-controlled differential delay cell 12362
- narrowband VCO at 282 THz, design and perform. 21145
- phase-locked noncontact scanning force microscope 21154
- phase-startable VCO, 800 kHz-800 MHz, bipolar IC 21150
- PHEMT mfg. technol. for multifunctional Ka-band MMIC appls. 21562
- PLL synthesizer, fast acquisition, using parallel N-stage cycle swallower 21134
- PLL systs., MRAC, Lyapunov fn. appls. 590
- SC voltage controlled sine-wave oscillator 29070
- series reson. oscillator design tech. for VHF/UHF ccts. 21136
- single-resist.-controlled VCO, current conveyors 21144
- sinusoidal oscillators, current feedback amp. based ccts. 12364
- spurious audio modulation of VCOs, RF coupling 565
- synthesised LO for DB1NV spectrum analyser 34425
- TDMA-TDD syst. fast-setting freq. synthesiser 33204
- UHF FM transmitter, 900 MHz, 80 channels 9181
- UHF VCO, 1.6 GHz, on-chip inductor and varactor 21568
- X-band MMIC varactor-tuned VCOs, modelling and design 6342
- GaAs IC for portable commun., needs 42231
- GaAs PLL-based clock generator, 3.2 GHz, 50 mW, 1 V supply 12612
- GaAs image rejecting downconvertor, single chip, 2.44 GHz 42161
- GaAs power MMICs for X-band radar appls. 6341
- GaInP/GaAs HBT, MMIC power amps., MOCVD growth 12165
- GaInP/GaAs LP-MOCVD grown HBTs for VCOs and power amp. MMICs 22377
- Si bipolar clock-recovery and data-regenerator IC, 8 GHz, opt. fibre transm. 9544

voltage-controlled voltage sources *see active networks*

voltage controllers *see voltage regulators*

voltage distribution
- *see also electric breakdown; overvoltage; surface discharges; transients*
- air-core foil-wound pulse power transformer design concept 36358
- building columns/girders, equiv. imped. for lightning surges 20385
- corrugated periodic struct. noisefree static field calc. 31892
- dual gate MOSFET, 2D pot. distrib./threshold voltage models *(Chinese)* 38893
- flash memory cell, failure mechanisms in program/erase cycling 21305
- HV transformer winding voltage distrib., computer model validation 5005
- IGBT, latch-up effect, theoretical anal. 13614
- planar p-n jn. termination, theoretical investig. 29888
- SEMDEM bipolar power diode/thyristor modelling program 30199
- SLM, wavefront curvature control 30991
- SOFC geometries 3D num. simul., computer-based 44367
- telecom. power convertors, MOSFET-based voltage coupling 19825
- three-phase power syst. reliab. rel., voltage unbalance 19232
- variational cct. anal. techs., introduction 28924
- ZnO surge arrester leakage current, external field effects 4728

voltage dividers
- *see also autotransformers; potentiometers*
- analog multiplication division scheme based on D/A converters 12671
- fail safe logic ccts., dyn. voltage divider 6054
- fast electro-optic HV sens. 25781
- fast transient overvoltage meas. device *(Korean)* 36383
- HV dividers, infeed lead dispersion effects, impulse registration 5171
- HV subnanosecond pulses meas., probes/attenuators 3817
- lin. rising front impulse, peak value meas. errors *(Polish)* 25935
- polysilicon biased field plates for HVIC interconnections 30155
- ratios calib., straddling method 36230
- $CoMoO_4$ based thick-film resistors for HV voltage dividers 38049

voltage doubler rectifiers *see voltage multipliers*

voltage drop *see electric potential*

voltage followers *see operational amplifiers*

voltage-frequency converters *see voltage-frequency convertors*

voltage-frequency convertors
- radiotelescope continuum receiving syst. *(Korean)* 42553

voltage measurement
- *see also potentiometers; voltmeters*
- 3 MJ railgun, expt./computer simul. studies 15281
- 24.94 kV underground distrib. systs., switching transients meas. 27173
- 220/69/13.8 kV three-phase transformers, EM transients *(Spanish)* 5028
- 230 kV level load behaviour params., stat. anal. 35690
- 500 kV transm. line, 3-ground-wires, impulse response *(Japanese)* 4697
- AC voltages/currents, precise power/RMS values meas. *(Croatian)* 25939
- air gaps, nonstandard lightning voltage waves, bibliog. 4878
- air gaps, nonstandard lightning voltage waves, research 4877
- armature arcing voltage drop 15346
- asynchronous machine, params. ident., RLS method 27711
- automotive alternator/generator regulator testing, DSP-based syst. 20119
- bal. probe, coaxial type for 1-500 MHz CRO meas. 3925
- Battery Mgt. Syst., microcomputer based *(Japanese)* 5187
- bearingless PM sync. motor characts. 4932
- bi-electrodes based electrochem. sens., voltage relax. meas. 9947
- Buran flight-model fuel cell, test programme 10398
- capacitive voltage indication syst. operational experience *(German)* 19901
- coaxial probe for ESD voltage waveform meas., 1 ns risetime 34651
- DC motors, CAMAC-PC based automatic expt. investig. syst. 36185
- deep-bar induction machine dyn. params. determ. 4964
- distributed const. syst., gap discharge, voltage transients meas. 25936
- dual gate MOS-JFET CCD test struct. 34584
- dyn. DVM, rly. reactive power compensation appl. 3947
- EHV/UHV transm. line arcing fault protection simul. 27190
- elec. heat tracing, controls/monitoring 36783
- elec. utility sens. technol. improvement efforts, USA 43652
- electron-beam tester, mag./electrostatic lens collimation 37038
- electrothermal-chem. gun, meas. techs. 31751
- EM launcher hypervelocity projectile passage sens. design 15335
- fast electro-optic HV sens. 25781
- forced commutated converters, voltage balancing, learning controller *(German)* 36368
- generalised load modelling in presence of harmonics and distortion 35607
- generator transient/subtransient params. ident. 4907
- GIS, fast transient overvoltage meas. device *(Korean)* 36383
- GIS PD detect. automation method 36468
- GIS very fast transient overvoltage meas., capacitive voltage sens. 36469
- ground pot. var., frame wiring, induced noise 23696

voltage measurement continued
HV dividers, infeed lead dispersion effects, impulse registration 5171
HV elec. power apparatus monitoring by opt. fiber sens. *(Japanese)* 3859
HV power syst., overvoltage monitoring syst. *(Chinese)* 35696
HV power system metering/protection transducers 19364
HV subnanosecond pulses meas., probes/attenuators 3817
III-V FETs, pulsed semicond. param. analyser syst. 1431
in-situ vap./gas phase cleaning and RCA wet cleaning, comparison study 22225
induction machine param. estim., standstill time-domain data 19642
induction motor, rotor time const. meas. magnetizing flux 4965
induction motor, VSI, space vector modulation, harmonic anal. 4982
induction motor drive, rotor flux/time const., VSS observers 11325
integrated ATE amp., switch mode design 29054
interferometric opt. fiber HV/current sens., field test 17821
inverter drives, meas. problems *(Polish)* 44491
iron rolling mill motor drive, random disturbance studies 11499
Josephson and Von Klitzing constants evaluation 25709
Josephson voltage std., internat. comparison 34321
lin. rising front impulse, peak value meas. errors *(Polish)* 25935
LSI testing, electro-optic probing syst. 6836
LV cct., gas insulated switchgear, surge voltage meas. 27870
LV distrib. feeders, neutral conductor current distrib. 19272
LV elec. power device, switching noise meas. 27858
magnetically insulated transmission line, electron flow diagnostic 26022
MESFET, thermal and dispersion modelling 6798
MOS struct., effective contact pot. difference factor 6584
moulded case cct. breakers, hot gas ejection studies 19892
multichannel PC-based helicopter electrical power monitor 26540
multiconductor telecomm. cables, lightning overvoltages 25202
μP-based portable test equipt. for elec. network 4736
network voltage quality monitoring *(German)* 27135
nonhysteretic Josephson jns., quasipotential and phase lock stabil. 1617
nonsinusoidal power syst. meas., parametric approach 4748
opt. cryst. based devices for I-V meas. 34482
overvoltage protection meas. simul. computation comparison *(German)* 43797
paper insulation, HV testing, μP based 30590
Pb-acid valve regulated batt. condition monitoring 19953
power cables, insulated, impulse test procedure, IEEE std. 27208
power syst. digital multirate meas. algms. 27279
power syst. harmonic loads ident. 35695
power syst. harmonics meas. syst., PC-based 4750
power syst. harmonics meas./calc. 35691
power syst. HV sens., integrated optics Pockels cell-based 27280
power syst. impulse voltage/current meas. correction 4749
power syst. monitoring, fibre optic sens. appls. 4734
power syst. SVC control syst. instabil., birfurcation theory *(Japanese)* 10688
power syst. voltage meas., optic cryst. based sens., Pockels effect 4745
power syst. voltage measuring syst., fast sampled data, DSP 10790
power transformers, DC bias-exposed, VAr demand meas. 11100
pseudospark switches, forward voltage drop meas. 36400
railgun meas., high accuracy 15374
railgun weapon solid armatures, instrumentation develop. 15336
real time electro-optic probing for long logic pattern anal. 34649
repetitive high press. gas switching 36470
residual charge on faulty floating gate CMOS transistor 6859
solid ring armature transaugmented railgun studies 15350
split phase induction motor drives, vector control 5295
SRM, speed control, magnetoresistive angle sens. 44030
SRM drives, sliding mode observer controller 5301
stand-alone PV power systs., batt. state-of-charge 19557
step motors, hybrid, posn. determ. from EMF sigs. 11095
stepping motors, sensorless rotor posn. control 11084
sub-microvolt LF fiber optic voltage sens. 17826
subscriber telecomm. equipt., lightning-surge test method 25146
substation cables, induced transients meas./models 5157
substations, transient EMI meas. 5158
superimposed power line voltage disturbances detect., analog method 19360
thermionic CHP convertors, optimal perform. tests 28029
thermophotovoltaic cells, expt. charactn. studies 28008
thermophotovoltaic solar cell power expts., USA 27962
three-channel FDM fiber-optic LF voltage sens. 9921
time-dispersive electron spectrometer, voltage contrast maps 38224
touch/step voltages meas. method/instrum. 4710
transfer thermistor transducers in HF AC voltage stds. 42655
transm. line dist. protection, power flow/voltage phasor oscill. meas. 4743
triggered flash, EM field and step voltage obs. *(German)* 35681
variable supply voltage testing, analogue CMOS/bipolar ccts. 5592
VLSI plasma charging induced damage, transient and electrode edge effect meas. 22191
$Bi_{12}GeO_{20}$ opt. voltage sens., opt. rotary power 17756
GaAs ICs, voltage meas., electro-optic sampling 13850
InGaAs thermophotovoltaic cells, charactn. meas. techs. 28009
$LiNbO_3$ electro-optic modulators, cryogenic temp. characterisation 14506
Ni-Cd intell. batts., charging/discharging algms., hardware 36545
Ni-MH intell. batts., charging/discharging algms., hardware 36545
PMN ferroelec. relaxors, inhomog. dyn. strain charact. 30563
PZT ferroelec. relaxors, inhomog. dyn. strain charact. 30563
Pb-acid batt. temp. meas., subscriber loop carrier cabinets 44293
Pb-acid sealed batts., deterioration estim. 44296
Pb-acid telecom. power supply batts., total monitoring syst. 41630
Pb-acid valve regulated batts. testing 44291
Pb-acid wet-cell secondary batt. noninvasive monitoring 44302
SF_6 72 kV cct. breaker, arc models, test cct. 27845
Si polysrystalline PV array, optimal operation ident., ANN *(Japanese)* 5231
SiO_2 inter-poly oxides, MOS capacitors, lifetime/failure probab. 13236

voltage multiplier rectifiers *see voltage multipliers*

voltage multipliers
see also potential transformers
analog multiplication division scheme based on D/A converters 12671
single-phase AC/DC low-harmonic power convertor 44168
three-stage Dickson voltage multiplier, dyn. anal. for optimized design 12333
UHV electron microscope, Cockcroft-Walton generator, ripple compensation 1012

voltage quadrupler rectifiers *see voltage multipliers*

voltage reference diodes *see avalanche diodes; Zener diodes*

voltage regulation *see voltage control*

voltage regulator diodes *see avalanche diodes; Zener diodes*

voltage regulators
see also voltage control
1 MW SRM design, traction appls. 36757
AC voltage regulator harmonic capability, SPICE anal. 540
ART2800 DC/DC converter family, 7846 post regulator, space radiation charactn. 29051
automatic cathodic protection syst. control cct. 29425
automotive alternator/generator regulator testing, DSP-based syst. 20119
automotive low dropout regulator, HV DMOS pass element 20113
board-based syst. power distrib., onboard regulators 38088
DC switch converters, transfer fn. determ. 5103
distrib. network quality/reliab. improvement options 43760
forced commutated converters, voltage balancing, learning controller *(German)* 36368
high power DC SMPS, electron gun appl. 19755
HV regulator for charged-particle optics 7909
induction generator, squirrel cage, CSI exciter, voltage regulator 19635
induction motor ASD, speed/temp./torque meas./control 36697
LV analog cct. design techs., review 37903
LV bandgap regulators using only n-p-n transistors, perform. 37622
MA818 controller for three phase 10 kVA voltage source PWM inverter 36283
modulated-freq. boost AC-DC preregulator, model 19804
MOS-controlled thyristor, AC switch and AC voltage controller appls. 22400
neg. voltage regulator IC, total dose effects 12326
Neutral-Point-Clamped PWM inverters, voltage vector control 11141
power syst. dyn. stabil., optimal control modelling 4515
pre-regulator IC, lateral IGBT and current mode sens. 29037
PV power systs., energy losses, batt. voltage regulator 36061
PV systs., energy losses, batt. voltage regulator 10889
PWM DC/DC full-bridge ZVS power converter anal. *(Chinese)* 36337
SG7915 voltage regulator, temp. depend. SPICE macromodel 5997
stabiliser RMS nonsinusoidal voltage/current *(Polish)* 5992
switch-mode magnet power supply, modelling and control 29027
switched-mode AC/AC voltage regulator, anal., design 5113
switching regulator, freq. bandwidth widening, 2 DOF syst *(Japanese)* 5990
switching regulators, general algm. for anal. *(Japanese)* 12279
sync. generators, automatic voltage regulators design 36116
TOPSwitch three terminal offline PWM switching voltage regulator 29007
turbogenerators, adaptive control, parallel proc. 27672
ultrathin dc/dc converters for compact PCMCIA cards 12329
Si power IC transient voltage suppressors 29019
SiC, 6H polytype, high temp. stabilitrons, 4 to 50 V 22506

voltage stabilizers *see voltage regulators*

voltage transformers *see potential transformers*

voltage transients *see transients*

voltammetry (chemical analysis)
microfabricated heavy metal ion sens. 42779
organic electroluminescent diode stabil. 23030
phosphoric acid fuel cell, proton deficiency 19974
polypyrrole free-standing films, electrochem. driven, actuation props. 28880
polypyrrole-polyamide composite films, gas sens., NH_3, CO_2 25899
polypyrrole/polypyrrole-polyamide composite films, gas sens. 25890
Li/CoO_2 secondary batt., electrochem. perform. 36555
Ni layered double hydroxides, electrosynthesis, Ni-Cd batts. 11266
Pb-acid batt. electrodes, citric acid effects 11259
Pb-acid batts., Pb-Sb alloy electrochem. props. 11258
Pb-acid batts., substituted benzaldehydes, H_2 inhibitors 36542
Pb-acid secondary batts., electrode reduction expts. 44282
p-Si/potassium ferri-ferrocyanide electrolyte interface, FTIR-ATR 6595
$SnSO_4$ in H_2SO_4 electrolyte, electrochem., Pb-acid batt. 11264
TiO_2 films, thermally form., semicond. props. 29866
$Zn_{1-x}Hg_xSe$, electrochem. deposition, EPMA, XRD 28802

Volterra equations
asymptotic error expansions and extrapolations, nonlin. integral eqns. *(Chinese)* 5789
CATV DFB LD, second-order distortions meas. 34004
delay Volterra integral eqns., collocation and Runge-Kutta methods 12010
higher order moment matrices invertibility 40812
Kerr-type nonlin. dielec. slabs, TM mode propag. 40398
multiconductor lines, planar or cylindrical, multilayered substrs., capacitance matrix 23790
nonlin. ccts., Volterra-Picard polynomial ident., periodic excitations 28995
stochastic models, Kalman-Bucy filtering theory 20505
syst. ident., Gaussian sigs. orthogonalization 24244
continuous-time/discrete-time nonlin. parametric models 32783

Volterra series
CMOS FIR/IIR filter power minimization, architectural/computational transforms. 29373
describing fns., Volterra model *(Japanese)* 11896
dyn. response of nonlin. meas. systs. 3700
heat exchanger dyn. modelling, integral-power Volterra series 19375
high-dens. mag. recording channels, nonlin. compensation 7102
higher-order stat. sig. proc., freq.-domain estim. 8314
MM wave harmonic oscillator anal. based on Volterra series method *(Chinese)* 29563
MMD, 2nd order Volterra filter approx. 32779
nonlin. predictor, zero-memory nonlin., second order Volterra filter 40985
nonlin. RCS, higher-order spectra 42497
PWM power convertors, independent inputs, large-sig. modelling 11152
RF design, nonlin. cct. anal. methods 37609
sub-optimal nonlin. predictor, reduced complexity config. 8465
THD meas., Volterra series, LMS adaptive algm. 34684

voltmeters
see also digital voltmeters; potentiometers
calib. of dc emf measures and voltmeters 17637
low cost audio analog vector voltmeter/wattmeter 18022
microwave heating, refl. meas., pulsed/CW sigs., 2.45 GHz 11478
specialised measuring instrum. charact. monitoring 42684
thermal cells, tester develop. 36511
three-channel FDM fiber-optic LF voltage sens. 9921
$YBa_2Cu_3O_{7-x}$ SQUID, picovoltmeter 22739

- **volume compandors** *see compandors*
- **volume control (gain)** *see gain control*
- **volume diffusion** *see diffusion*
- **volume measurement**
  - acoustic bridge vol. meter *(Japanese)* 18159
  - Avogadro const. determ., Si crysts. dens. meas. 17647
  - brain vol., rapid automatic, on basis of multispectral 3D MRI data on PC 43239
  - breast vol. meas. by biostereometrics 43206
  - closed vols. lin. and ang. meas. 18152
  - transfer and develop. of metrology stds., Japan/Asia 34327
  - Si single-cryst. spheres, fab./sphericity meas. 18100
- **Voronoi diagrams** *see computational geometry*
- **vortex flow (superconductivity)** *see flux flow*
- **vortex lattice pinning** *see flux pinning*
- **vortex state (superconductivity)** *see mixed state*
- **vortex structure (superconductivity)** *see flux-line lattice*
- **voting circuits** *see majority logic*
- **VPE** *see vapour phase epitaxial growth*
- **VS** *see virtual storage*
- **VSAT** *see satellite ground stations*
- **VSAT networks**
  - American Cancer Soc. VSAT enterprise network 8889
  - broadband and IN, VSATs role 42308
  - CODE mesh VSAT network, protocols eval. 16515
  - CODENET, network for east/west European collaboration 16773
  - company LAN extension, retail sites 16774
  - Fujitsu multimedia network, satellite distrib. syst. *(Japanese)* 42002
  - general topol. networks, adaptive access protocol 17161
  - integrat., user network environ. 17159
  - intell. vehicle/highway systs., compressed video commun. 8682
  - interconnection for wide area diversity syst. 16776
  - JANUS, TCP/IP VSAT network, first yr. experience 16775
  - LAN internetworking, VSAT systs. 25055
  - multidimensional coding schemes in combined satellite and terrestrial channels 3531
  - multiservice VSAT network, multi-access protocols 9417
  - multiservice VSAT networks, adaptive multiple access, dyn. channel allocation 17160
  - multiservice VSAT networks, multiple access protocols, perform. 42328
  - phase modulated FCMA syst. convolutional coding 25462
  - protocol enhancer for small-terminal satellite networks 17162
  - rainfall and airplanes effect on VSAT commun. syst. 25463
  - small terminal satellite networks, IEE Colloquium, London (1994) 5478
  - TDMAX and FASTCOM, Alcatel satellite systs. for domestic and corporate commun. 25450
- **VSB** *see system buses*
- **VTR** *see video tape recorders*
- **VXIbus** *see peripheral interfaces*
- **wafer bonding**
  - BESOI stress/strain investig., opt. SHG method 29963
  - BiCMOS 500 V 1A three-phase inverter IC 29036
  - bipolar IC, SOI techs., wafer bonding 1489
  - buried C_{60} layer materials prod. by direct wafer bonding 390
  - buried metallic layers in Si, wafer fusion bonding 13270
  - direct wafer bonding technol. charactn. by AFM 13400
  - European SOI technol. develop., review 38428
  - grounded body SOI nMOSFET, fab. by wafer bonding 13702
  - GTO thyristor on basis of SDB-tech. 30278
  - HV power ICs, dielec. isolation bonded wafer characts. 13855
  - HV trench drain LDMOS-FET, SOI wafer 30341
  - integrated taper opt. switch array, self-aligned packing 42390
  - micro-heterostruct. semicond. devices *(Japanese)* 22416
  - microsensor fab., low temp. direct bonding 25828
  - polysilicon micromechanical resonators for freq. refs. and sig. proc. 22623
  - power IC package low temp. joining tech., thermomechanical stress reduction 28504
  - SOI, thin bonded wafers, pH-controlled chem. mech. polishing method 22237
  - SOI bonded wafer, eval. and PIN photodiode characts. 14609
  - SOI layer with voids, noncontact elec. eval. 38432
  - VDMOS-type power ICs, void-free bonded SOI substrs. 39017
  - Au bumps on Si substrs., stabil., gold sulfite plating 12160
  - $CoSi_2$ patterned layer buried Schottky contacts in Si, wafer bonding 38394
  - GaAs MESFET power amps., act. area bumped flip chip technol., convergent heat transfer 11805
  - GaAs low temp. fusion bonding 1196
  - GaAs-AlGaAs MQW modulators integrated, Si CMOS IC 39597
  - $Gd_3Ga_5O_{12}$/InP(/GaInSb) integrated semicond./magnetooptic devices, direct bonding 31112
  - InGaAs-InGaAsP MQW lasers, 1.55 μm, direct bonding on Si 23270
  - InGaAs-InGaAsP strain-compensated MQW dielec.-bonded long wavelength vert. cavity laser 14851
  - InP/GaAs, anti-phase direct bonding, 1.55 μm laser fab. 29999
  - $LiNbO_3$ single crysts. for opt. waveguides, direct bonding 39376
  - Pd low-temp. bonding of InP structs., GaAs substrs. 30004
  - Si, Si, wafer bonding, IR absorpt. spectra 1189
  - Si double-sided polished parallel wafers for direct bonding 13347
  - Si low temp. sacrificial wafer bonding for planarization, deep etching 30502
  - Si, low temp. wafer bonding, kinetics study 1188
  - Si micromachining, resonator fab. 30508
  - Si microtechnol., develops. and proc. tech. depend. 38950
  - Si surface, hydrofluoric acid cleaning effects prior, wafer bonding 38561
  - Si wafer contacts, bonding, $CoSi_2$ 1191
  - Si wafers, direct bonding, interfacial props. 30001
  - SiC/Si wafer bonding, CVD and etching 13392
  - SiO_2/Si, thermal layers, wafer bonding induced degrad. 38422
  - $TiSi_2$ buried layers in Si by direct wafer bonding 30154
  - WSi_2 buried layers in Si by direct wafer bonding 30154
- **wafer-scale integration**
  - defect-tolerant WSI file memory syst. 29211
  - fault-tolerant VLSI/WSI array proc., design and anal. 6829
  - hybrid WSI MCMs, laser creation of silicon vias for 3D interconnects 29720
  - HyperNet RAM-based neural net archit. implements., anal. 29467
  - laser induced vert. vias for prog. MCMs 21775
- **wafer-scale integration** continued
  - laser-created interconnects for rapid prototyping of IC 38639
  - plasma gate etch, neural network control 38567
  - through-wafer interconnecting method for hybrid WSI 950
  - visual inspection for LSI wafer patterns, subpixel image alignment 6437
  - VLSI/WSI defect tolerant arrays, optimal group diagnosis 13837
  - wafer fab. line, feedback control syst., implementation 37043
  - yield eval. fig. of merit for WSI systs., redundancy *(Japanese)* 30429
  - AlGaAs-GaAs HBT technol. on 100 mm wafers, cct. yield 38830
  - AlSi/TiN/Ti bamboo metal lines, ASTM electromigration test struct. 30135
- **wages** *see salaries*
- **waiting line theory** *see queueing theory*
- **wakefield accelerators**
  - boundary element anal. of wake fields, Kirchhoff's integral eqn. 23515
  - laser wakefield accelerator, self-modulated, energy increase 4040
  - laser wakefield particle accel. 4035
  - particle accel. in lab. plasmas 4034
  - reson. laser-plasma electron accel. 4039
  - X-band accelerator, detuned, wake-field suppress. meas. 34756
- **Walsh functions**
  - *see also encoding; signal processing*
  - 3D acoustic holography imaging syst., Walsh fn. modulation *(Japanese)* 17484
  - CDMA/OFDM, convolutionally coded, fading channel, near-far resist. 9385
  - discrete Walsh transforms, neural net cct. 12680
  - energy meter testing based on Walsh transform algms. 3949
  - genetic algm. problems, nonbinary transforms 11952
  - K-code, K-fns. and Walsh fns. 24104
  - K-code K-fn. and K/W transform 15784
  - noncoherent orthogonal coding improvement by time overlapping 2375
  - p-product, matrix product, appls. in sig. proc. 41038
  - power systems anal., Walsh fns.-based technique 19036
  - power transformer xx *(Korean)* 36220
  - sig. transformer, μP implement. via Walsh fn. *(Korean)* 34430
  - sq.-QAM adaptive modulation/TDMA/TDD syst., modulation level estim. 25272
- **WAN** *see wide area networks*
- **warm rolling** *see hot rolling*
- **warm working** *see hot working*
- **warning systems** *see alarm systems*
- **waste disposal**
  - *see also radioactive waste; recycling*
  - 47.7 MW waste-to-energy power plant project, Germany 19516
  - alternative transportation fuels, biomass-derived 35718
  - biomass feedstocks conversion, fast pyrolysis 27333
  - carpet waste, economical alternative fuel 43889
  - cement indust., waste fuel burning, economics 5423
  - cement plant design, environ. issues 180
  - coal ash, U content., naturally occuring radioact. material class. 35719
  - combined cycle CHP project, gas/refuse-fired, Denmark 4851
  - destructive distillation waste-to-energy power plant technol. 27564
  - Ecofactory concept, ecologically conscious mfg. 37062
  - elec. vehicle secondary batts., recycling infrastructure, USA 44511
  - electro-technologies for waste processing, IEE Colloquium, London (1994) 5461
  - electrodynamic separators, LIM based, metallic waste proc. 7937
  - electronic component proc., waste minimization, smart systs. anal. 5715
  - environ. pollution prevention/reduction, elec. procs. *(German)* 44641
  - food packaging waste, thermal proc., microwave heating 11477
  - food proc., membrane appls., electrotechnol. appl. 20177
  - forestry waste biomass-based energy prod. possibilities 27555
  - fuel combustion, slurry atomisation 19397
  - graphite electrode DC arc furnace, solid waste treatment 28165
  - hazardous gas treatment, pulsed corona reactor 36814
  - hazardous pollution control, pulsed power accelerator appls. 36815
  - high av. power e-beam appls. 36294
  - household batts., mercury environ. considerations, USA 44262
  - HPGe coaxial detectors, solid-state Compton camera, 3D imaging 18349
  - III-V wafer fab. procs., hazardous waste minimization 5716
  - incinerator power plants, wall temp. scale effects 27538
  - low-press. UV source modelling, sterilisation appls. 20504
  - mag. anom. method for site subsurface struct. 10570
  - mgt., recycling/conversion technols. 20503
  - Modicon Micro compact automation equipt. and appls. *(German)* 11220
  - multiple unknown objs. localisation/tracking 24665
  - noncontact IR based temp. sens. 10051
  - organics, trace, in aq. streams, automated determ. 18140
  - pollution control, elec. technols. appl. *(French)* 5717
  - portable equipt. secondary batt. cycle life, waste reduction impact 44274
  - pulsed capacitively coupled discharges, pulse generator 28204
  - refuse-fired power generation prospects, UK 43915
  - RF/microwave methods/appls. 28172
  - soil elec. props. meas., RF treatment appls. 10562
  - toxic liq. waste treatment, plasma pyrolysis 28205
  - two-colour near-IR sens., recycled plastic waste sorting 25844
  - waste-to-energy recycling plant project, Lebanon 27572
  - zero discharge wastewater treatment, power plant design 27536
  - CCl_4 greenhouse gas destruction, plasma reactor-based 20181
  - CO_2 emissions disposal, deep ocean injection expts. 10848
  - Ni-Cd secondary batt. recycling, high-temp. recovery experience, USA 44273
  - Ni-Cd secondary batts., collection/recycling efforts, USA 44272
  - Pb-acid batt. scrap recycling, low-temp. tech. 36536
- **waste-to-energy power plants**
  - 47.7 MW waste-to-energy power plant project, Germany 19516
  - carpet waste, economical alternative fuel 43889
  - combined cycle CHP project, gas/refuse-fired, Denmark 4851
  - destructive distillation waste-to-energy power plant technol. 27564
  - incinerator power plants, wall temp. scale effects 27538
  - low-temp. waste energy utilisation, gas turbine/LNG syst. 27580
  - nuc. environments, rem. Raman fibre optic spectrosc. systs. 25869
  - power station technol. improvements *(German)* 4824
  - recycling plant project, Lebanon 27572
  - refuse-fired power generation prospects, UK 43915
  - steam/organic Rankine SMR cycle elec. generation 35980
  - wood-fired power plants projects, USA 35996

watches *see clocks*

water boilers *see boilers*

water conditioning *see water treatment*

water cooling towers *see cooling towers*

water pollution
see also water pollution control; water pollution measurement
coastal marine environ., num. modeling 10568
coastal oceanography, monitoring of environ. change 26736
thermal power generation, environ. concerns, India 43897

water pollution control
drainage and water quality studies, instrumented field-scale research facility 35356
fossil power plant zebra mussels control project, USA 27547
integrated membrane purification, water reuse in electronics mfg. 11888
pulsed power systems, environmental, industrial appls. 11520

water pollution measurement
at. absorpt. spectrophotometric syst. for environ. water anal. 10564
coastal oceanography, monitoring of environ. change 26736
continuous ground water monitoring, sens. arrays 18911
drainage and water quality studies, instrumented field-scale research facility 35356
estuarine/coastal water harmful substs. monitoring 26775
high spectral resoln. coastal ocean imagery, stat. and empirical anal. 18879
LILY station & LILYPAD, automated monitoring stations 10563
MAREL network meas. device, coastal water quality 10569
marine pollution monitoring, acoustic methods 10507
Model TB400G EXA TB surface scatt.-light turbidity meter 10043
ocean oil pollution detect., C-band SAR data 43545
oil spill tracking, Argos syst. 26774
on-line water contamination monitoring syst. 18912
sea surface pollution detect., IR emission and refl. rel., wind ruffling *(Croatian)* 4406
waste water monitoring, automatic BOD test 25715

water purification *see water treatment*

water supply
see also dams
bank computing centre support syst. reliab. anal. 11871
Egyptian hydropower/irrigation networks, multicriteria optimisation 36036
Egyptian hydropower/irrigation networks, multicriteria optim. 36044
electrochem. methods, environ. appls. 20502
irrigation pumps, induction motors, energy efficient design 5430
irrigation well totalizing flowmeter 9835
legionella Code of Practice compliance, engng. aspects 5568
model based fault diagnosis, water distrib. systs. 3159
Modicon Micro compact automation equipt. and appls. *(German)* 11220
pumping PV DC solar pump, simul. model 19554
pumping windmills, continuously variable transm. simul. 20179
PV DC motor water pumping syst., characts. anal. 27638
PV water pumping, SRM drive-based, perform. anal. 10890
PV water pumping syst., environ./economic concerns, Brazil 27637
PV water pumping systs., optim. techs. 27628
SCADA systs. and water utility mgt. 3753
surface floating PV pumping syst., experience, Khartoum 20180
thermal power plants, optimisation, init. inform. uncertainty 19491
Tyson portable hydraulic turbine, pumping/power generation appls. 43943
ultra-efficient desalination, dual purpose plant 28201

water treatment
see also desalination
60 hp brushless doubly-fed pump drive, water treatment appls. 5431
electro-technologies for waste processing, IEE Colloquium, London (1994) 5461
electrochem. methods, environ. appls. 20502
FGD wastewater treatment plant availability assess. 19518
hydrocarbon contaminants destruction, e-beam technol. *(German)* 44639
integrated membrane purification, water reuse in electronics mfg. 11888
large scale sewer US flow vel. meas. 42992
microcontamination 93, conf., San Jose, USA (Sep. 1993) 42
NPP radwaste treatment, backwashable fiber filter appl. 43825
PCB semi-aq. cleaning proc. control, closed-loop water recycling syst. 919
semi-aq. flux cleaning, equipt. considerations and rels. 6425
SMT, aq. cleaning, closed-loop water treatment 928
steam power plant water treatment optim., economic benefits 43901
ultrapure water technol., semicond. indust. 13265
waste water recycling systs. for electronics defluxing procs. 6429
wastewater plant, var. freq. drive. parallel act. harmonic filter 36810
zero discharge wastewater treatment, power plant design 27536

water treeing *see trees (electrical)*

watthour meters
see also power measurement
96-hour power meas. experiences *(German)* 35704
DC LV low power energy meter, μP based, design 10791
electronic energy meters, develop. prospects *(French)* 10792
induction watthour meters, harmonic perform. studies 35705
opt. character reading syst. *(Japanese)* 9969
rem. meter reading and proc. technol. *(German)* 35703
solid state elec. meters, revenue protection 43807
Li primary batts., domestic utility meter appls. 44267

wattless power *see reactive power*

wattmeters
see also power measurement
low cost audio analog vector voltmeter/wattmeter 18022
traceability in power/reactive power meas., NPL approach 34655
traceable power meas., audio freqs. 35701

wave analysers
see also spectral analysers; transient analysers
sampling oscilloscope calibration IEEE-1057 draft standards 25702

wave digital filters
complex coeff. ref. networks for WDF, transm. zeros on imaginary axis *(Japanese)* 37872
foetal ECG, time-varying Wiener filtering, wavelet transform 35116
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
lattice WDF, three-port adaptors 37889
sens. sig. proc., Texas Instruments MSP430, CAD programs 738
two-type-interlaced struct. for low-sensitivity digital filter realizations *(Korean)* 21440

wave equations
see also Helmholtz equations; Schrodinger equation
1D wave eqn. canonical variables, integrating factor 23550
anistropic channel waveguide coupling, finite-difference freq.-domain anal. 31897
difference operators in method of lines, higher order approx. 20618
discretized energy minimization in wave guide, point sources 12017
EM scatt. by two-layer nonconfocal ellipt. dielec. cylinder 23616
finite difference method, EM scatt. from impedance ellipt. cylinders 40301
homoclinic bifurcation points, num. approxs., convergence rate 37355
hyperb. 1D wave eqn. soln., spreadsheet program 5525
incomplete Lipschitz-Hankel integrals in EM 23835
isotropic Kerr-like media, nonlin., TM solns. 22906
Laplace domain FEM, diffusion/propag. problems in elec. engng. 278
nonlin. nondispersive media, complex sigs., self-similar evol. 16047
nonperiodic BVP, polynomial time-marching 5784
opt. waveguides, modes, diffusion 14434
radiowave propag. in tropos. ducts 15439
radiowave propag. problems, horiz. parab. eqn. soln. 23642
scalar and vector wave eqns., absorbing boundary conditions 23554
step twin core fibre, scalar modes down, cutoff 39327
tapered rect. transm. line, anal. 40396
three layer ridge quantum well waveguide anal. by FEA 40400
unbounded microwave problems, FEM soln. 40190
unbounded wave propag. problems, modelling 40418
GaAs-AlGaAs, field-effect LD, picosecond, saturable absorpt. 2005
$NaNO_3$ cycloidal diffr. gratings, propag. eqn. and boundary conditions 23607
SiON rib anti-reson. reflecting opt. waveguide couplers, design/fab. 14414

wave power generation
see also wave power plants
energy conversion problems 4866
Islay Wells bidirectional wave power air turbine project, UK 27615
ocean-based force-of-gravity power conversion systs. 27616
oscillating water column wave energy devices 36045
oscillating water column-type caisson 19547

wave power plants
energy conversion problems 4866
Islay Wells bidirectional wave power air turbine project, UK 27615
ocean-based force-of-gravity power conversion systs. 27616
oscillating water column-type caisson 19547

wave propagation
see also acoustic wave propagation; electromagnetic wave propagation
chem. waveguide theory, dispersion characts. 8016
Gaussian procs., phase jitter, probab. distrib. changes 16015
PWR, stratified flow visualisation, horiz. pipework, stratification 27410
superluminality/parelectricity, NH_3 maser 23072

wave scattering *see scattering*

wave soldering
controlling solder ball form., wave soldering 944
fluxless wave soldering 21650
inert gas wavesoldering, proc. variables, PBA KBS appls. 12935
low-solids flux conc. analyser, automated 42976
molding cpd. materials for IC plastic packaging, fracture props. 5626
no-clean wave solder defect reduction, N_2 atmos. effects 38155
no-clean wave soldering, technol. issues and N_2-based inert proc. 38136
on-site nitrogen supply for electronics assembly market 28412
Parylene conformal coatings compatibility with no-clean flux residue 38109
PCB assembly, solder ball form. 38135
PCB assembly yield, design factors, stat. and ANN models 38080
PCB defect trends, O_2 conc. in wave soldering N_2 atmos. 38154
PCB defects, wave soldering, no-clean flux, O_2 conc. 12916
PCB soldering materials trends to yr. 2000, user requirements 29665
post-solder proc. PCB cleaning in post-CFC world 38091
PWB soldering proc. versatility vs.stability, O_2 effect 12912
SMT, prod. line, soldering, prod. procs. 128
SMT assembly, defect elimination 6418
step-by-step SMT design for manufacture 38132
surface-mount solder joints, size/shape prediction, model 38122
$BaTiO_3$ Y5V 0603 ceramic chip capacitor 12839
O_2 effects on solder surface, PCB assembly options 38153
Sn-Ag(Cu) binary eutectic comp. for lead-free soldering 12928
Sn-Bi solders, microstruct. evol., mech. prop. 37529

waveform analysis
see also Fourier analysis; spectral analysis
act. sonar, adaptive waveform selection 34173
analog sig. neural proc. chip 29479
cardiac arrhythmias, pattern recogn., 2 intracardiac channels 18578
cardiac arrhythmias detect./ident., adaptive lin.-predictive filter 18577
cardioverter-defibrillator implants, waveform anal. viability 35156
CMOS maximal current and deriv. estim., activities waveforms 21200
CMOS power dissipation, cost-effective estim. 22567
delay line waveforms, graphical anal. 21089
ECG, dyn. anal., waveform class. 43303
emitter waveform estim., array sig. proc. 41037
estimation with jitter noise, stochastic methods 25752
extraction and recogn. of waveform based on wavelet transform *(Chinese)* 32988
high-speed opt. sampling/STM, elec. waveform meas. 9830
HV impulse test results, digital anal./proc. 11731
low-bit-rate speech coding, 2D transform 32252
LV network, arcing faults detect./anal. 19366
magneto-opt. recording marks anal. 9773
noise-like sigs., HMM, params. estim. 32630
non-parametric waveform estim. based on filter banks 32730
nonuniformly sampled sigs., power meas., discrete time method 8391
oscilloscope waveforms and their representation 5945
power supply quality class., neural net/ES-based 4741
power transformers, insulating syst., internal defects detect. 5025
PWM rectifiers, waveform distortion/transient oscill. simul. *(Japanese)* 27794
PWM techs. for invertors 11125
sampled waveform meas. in IC, electrostatic force microscopy 9871
sampling oscilloscope calibration IEEE-1057 draft standards 25702
SAR, nonuniform pulse repetition interval 34133
seismic event class. by ANN 35288
seismic event class. by fuzzy logic 35290
seismic sig. discrim. by radial basis fn. network 35289
short gap discharges, meas. of fast transient fields 42882

waveform analysis continued
sinewave parameter estimation, improved algorithm 24238
speech time-scale modif. based on nonlin. oscillator model 32318
subscriber interface, ARINC 629 current mode bus 35229
two-pole arc model for elec. fuses *(German)* 29649
voiced speech coding, forward-backward waveform prediction 8222

waveform generators
see also square-wave generators; time bases
act.-R fn. generator, digitally prog. freqs. 12370
comparative analysis of digital sinewave generation methods 25904
cycloconverter drives, ASIC chip set 5322
data commun., sinewave modulation, DDS/sigma delta techniques 12353
DC-DC power convertors, DC reson. link-based topol. 27832
digital arbitrary waveform generators, universal sig. sources, real world simul. 17989
fn. generator of prog. waveforms, input sig. controlled period 586
high-speed measuring syst. for testing mixed-sig.-LSI 767
MA818 controller for three phase 10 kVA voltage source PWM inverter 36283
modular mixed sig. testing, high speed/high resoln. 6239
multichannel simultaneous digital tracking filters, vibr. control 17993
narrow pulsed corona discharge, FGD appl. 19496
periodic sigs. design, FM sweeps/AM 10559
periodic-sig. synthesizer 17990
radar systs. freq. control devices 42522
reson. DC link inverters, sine PWM control 5999
sine wave generators, oscillators, low noise and stable amplit. 12369
spectral props. of direct digital freq. synthesizers, simul. 37658
spur-reduced digital sinusoid generation, higher-order phase dithering 8372
ultra wideband radar, waveform generation and sig. proc. 17364
GaAs DDS, FM-CW, 1.25 GHz 37672

waveform relaxation *see iterative methods*

wavefront-reconstruction imaging *see holography*

wavefront reversal (optical) *see optical phase conjugation*

waveguide antenna arrays
see also microstrip antenna arrays; slot antenna arrays
finite rect. array anal. with simultaneous integral eqns. 31976
finite rect. phased arrays, mutual coupling effects 15673
miniature waveguide-antenna apertures, matching by air gap tuning 40499
rect. waveguide elements, mutual coupling calcs. 8065
ribbed struct. arrays, sector shaped element directivity patterns 15656
RKA-driven antenna array, feeding syst. 31988
S-band compact point-defence phased array antenna develop. 23955
slitted asymmetric ridge waveguides, lin. phase arrays 31961
$Ba_xSr_{1-x}TiO_3$ electronically steerable leaky wave antenna, tunable ferroelec. material 8067

waveguide antennas
see also horn antennas; microstrip antennas; slot antennas; waveguide antenna arrays
aperture coupled unidirectional dielec. radiator in NRD struct. 23860
dual-beam flat antenna, grating structs. on dielec. waveguide 40465
far-zone elec. fields radiated by coax. cable aperture, perfectly conducting ground plane *(Korean)* 15639
leaky NRD guide, broadside radiation *(Japanese)* 15630
MCM logic modules, leaky wave antenna radiative interconnects 12970
miniature radiator, microstrip-like antenna, theory/practice 15632
miniature waveguide antennas, aperture matching, air-gap technique 23893
MM-wave planar dielec. beam antennas, low side lobe level 40466
planar spiral systs., waves of const. radial phase vel. 8013
scatt./radiation, waveguide-fed struct., hybrid finite-element anal. 15580
semi-act. radar target, design of antenna subsystem 17430
sheet beam planar wiggler FEL amplifier 23312
THz free-space pulse all-electronic terahertz spectrosc. syst. 6333
X-band resonant cavity antenna-oscillator designs 23879

waveguide attenuators
ferrite-semicond. MM-wave dielec. strip waveguides 37929
microstrip microwave attenuators, opt. controlled 37966
GaAs CPW opt. illum. 3D full-wave anal. 23810

waveguide components
see also circulators; directional couplers; fin line components; optical waveguide components; power combiners; power dividers; slot line components; strip line components; waveguide attenuators; waveguide couplers; waveguide filters
3D-SCN-TLM diakoptics for waveguide components 12729
axially oriented whisker in waveguide mount, anal. for MM-wave freqs. 40397
circ. waveguide-to-microstrip transit. 21507
coaxial-to-waveguide adaptor with probe/tuning post, anal. 21521
corrugated waveguide phase shifter, dual-reflector antenna array appl. 12712
curvature variable taper for waveguide-microstrip transit. *(Korean)* 12692
cylindrical microwave struct., semi-inversion method 15557
cylindrical waveguide, thin metallic septum 12704
defects microwave detect. in glass reinforced polymer composites 37558
divider, anal./design *(Polish)* 810
double ridged waveguide feed for parab. reflectors, broadband matching 29540
dual shaped reflector syst. distortion correcting plate design 23987
EMI meas. methodology 40369
impressed elec. field meas., coaxial ECR plasma source 34652
inhomog. waveguide components, field matching/noise filtering 23800
Ka-band mm-wave radar transceiver assembly, common waveguide cavity design *(Chinese)* 25578
microshield transm. line millimetre-wave/submillimetre wave pass. components 29544
microwave structs., TLM anal., AR and ARMA spectral estim. 12731
MM-wave FSS waveguide beamsplitter 12728
MM-wave V-groove guide and components 31884
multidiode waveguide oscillator, noise charact. 37984
multiport microwave network problems soln., port refl. coeff. method 21520
noncontacting waveguide backshort, subMM wave freqs. 29533
oversized rippled-wall mode converters, undesired resons. 21512
polariz. controller, anal. and implement. 807
reflection coefficient formulations evaluation, microwave test ccts. design 23783
RF window, thermal stress fracture 29791
RF window for high power in S and X bands 29549
sample holder for material properties mm-wave meas. 25961

waveguide components continued
subharmonically pumped THz mixers employing reson. metal mesh bandpass filters 37979
tapered waveguide-type delay equalizer, quadratic/cubic delay distortions 815
thermistor sens. for microwave multimeter 9869
triple-TEM cell design, FEM 40380
tuned semicond. microwave generator 29561
wideband polarizing phasing sects., charact. 12726
CAD benchmark, EM simulators 12722
GaAs MESFET CPW oscillators, supercond. resonator stabilization *(Chinese)* 37968
InGaAs-InAlAs single barrier varactor quintupler, 170 GHz 29560
Nb/AlO_x/Nb tuned SIS jn. 850 GHz waveguide receiver on Si_3N_4 membranes 29569

waveguide connectors *see waveguide couplers*

waveguide couplers
see also acoustic couplers; directional couplers; optical couplers; strip line couplers
90° bridge coupler power amp./combiner, nonlin. anal. *(Chinese)* 12750
anistropic channel waveguide coupling, finite-difference freq.-domain anal. 31897
broad wall coupler between dissimilar rect. waveguides, S-matrix 12714
compact mode converters for overmoded waveguides, scatt. optim. design method 29545
contiguous band multiplexer design for satellite appls. 25457
dielec. disk resonator, azimuthal waves interfer. and interact. 12705
divider, anal./design *(Polish)* 810
flat waveguide splitters, transm. lines, waveguide props., electrodynamic model 8021
H-T pair coupled by narrow slot *(Chinese)* 37959
jn. circulators, quality factor, temp. stabil. 29528
long. invariant waveguide couplers, anal. by iter. method 14446
microwave heating, refl. meas., pulsed/CW sigs., 2.45 GHz 11478
MMIC and hybrid planar IC discontinuities anal. method 860
multiport finline couplers, propag. characts. 12709
parallel coupled inset dielec. guides, hybrid mode anal. 31882
partially filled rect. waveguides, external params. of offset connection 37955
planar waveguide T-jns. matching, symm. wedge-shaped baffle 15559
planar-cct.-type 3-dB quadrature hybrids 12734
quasi-opt. mode converter, Vlasov-type coupler, bifocal mirror 29543
quasicharacteristic oscills., waveguide bifurcations 23802
quasioptical resonators, mode interact. 8014
rect. aperture in waveguide jns., scatt. 2302
rect. waveguide, coupling and radiating apertures, combined FEM/MOM tech. 40414
reson. cavities for rem. plasma appls. 6286
slit-coupled ridge waveguide T-jns., struct., anal. 21515
slot coupled narrow wall coupler, dissimilar rect. waveguides, comments and reply 12717
spaceborne appls., RF connector and interconnect reliab. 18713
spaceborne appls., RF/microwave connector and interconnect reliab. 35232
spherical rot. joint, MM-wave freqs. 37942
uniplanar CPW hybrid-ring couplers and magic-T's 12732

waveguide discontinuities
see also strip line discontinuities
3D EM problems, mesh generator, self-organising finite element tessellation 2170
3D EM waveguide-discontinuity problems, vector FEM *(Japanese)* 31890
3D-SCN-TLM diakoptics for waveguide components 12729
bianisotropic waveguides, lin.-operator formalism 31911
broad wall coupler between dissimilar rect. waveguides, S-matrix 12714
broadband acoustic propag. and scatt. in waveguide, scatt. 18923
coax step discontinuities, method of moments num. anal. 29525
compact mode converters for overmoded waveguides, scatt. optim. design method 29545
coplanar waveguide multistep discontinuity anal. 23776
coupled quasicharacteristic oscills. in waveguide bifurcations 23802
coupling jns. in waveguide-fed planar slot arrays, charactn. 15657
CPW, radiation from ang. and circ. bends 21509
cylindrical microwave struct., semi-inversion method 15557
dielec. waveguide discontinuities, freq. charact., FD-TD method *(Japanese)* 30927
electron waveguide discontinuities with arbitrary pot., effective mass distrib., FEA *(Japanese)* 31891
FEA, waveguide transfer problem, coaxial line syst. 15608
H-plane jns. in rect. waveguides, scatt. props., anal. solns. 40422
higher order modes, Prony's method *(Japanese)* 31889
long. magnetized ferrite loaded rect. waveguides 12699
metallic-finger step discontinuity in SAW devices, scatt., num. expts. 30630
microstrip-to-waveguide transits., anal./design 15597
MM-wave CPW, air-bridges, mode spectrum 800
MM-wave V-groove guide and components 31884
multiport discontinuities in waveguide, pulsed FDTD anal. 15562
multiport microwave network problems soln., port refl. coeff. method 21520
multiport waveguide jns., S-params. calc. 15562
NRD guide, curved bends, insertion losses 21504
oceanic waveguide spatially-localized inhomogeneities, sound scatt. 18881
open and slit coupled T-jns., single port mode matching 31895
profiled corrugated horns, full-wave modal-S-matrix CAD 23936
rect. waveguide, EM scatt. by inductive discontinuities 8029
rect. waveguide, isotropic/anisotropic obstacles, discontinuities anal. 2299
rect. waveguide discontinuities anal. by method of lines 23794
rect. waveguide multiple-slot narrow-wall couplers, 2D FDTD anal. 817
rect. waveguides, refl./transm. phase characts., inductive discontinuities 23808
rectangular waveguide capacitive post and diaphragm anal. by method of moments 23777
slit-coupled ridge waveguide T-jns., struct., anal. 21515
slowly evolutive waveguide reft. and transm. computation 23812
sq. coaxial waveguide struct., nonorthogonal FDTD method, sensitivity anal. 23768
uniplanar CPW hybrid-ring couplers and magic-T's 12732
vector FEA of waveguide discontinuities involving anisotropic media 40413
vector FEM, mixed-interpolation-type triangular-prism element 15566
waveguide, finite-difference beam propag. method, oblique coord. *(Japanese)* 14425
wideband matching, FDTD methods 2288

waveguide filters
see also optical waveguide filters; strip line filters
ang. bandpass filters, improved design flexibility 37828
articulatory speech synthesis, fractional delay waveguide filters 32349
asymmetric cross-coupled filters, synthesis 12628
band-stop filters for 70 and 140 GHz 12720
bandpass, higher-order passbands suppression 6200
complex waveguide ccts., low cost CAD *(German)* 23785
contiguous band multiplexer design for satellite appls. 25457
EHF waveguide grating syst., elec. characts. 29527
ferrite loaded resonator mag. tunable filters, power handling capacity increase 29542
finite thickness diaphragms in circ. waveguide, optimal filters 37956
finline band-pass filter design, TLM method 37945
$\lambda_{g0}/4$ CPW-based bandpass filters, spurious response suppression 12721
microwave filter response of nonuniformly corrugated circ. waveguide 37965
microwave waveguide filter charact., random mfg. errors effects 29534
mixed modes dielec. resonator loaded cavity filters 12733
modal anal. of waveguide filters 6287
monolithic dielec. filters based on integrated waveguide technol. 37944
partially filled rect. waveguides, external params. of offset connection 37955
planar periodic slotted waveguides pair, oblique surface waves 22683
printed spiral resonators based bandpass filters 12623
qtr.-wave coupling, design 12625
rect. waveguide, optimal filters based on finite thickness inductive diaphragms 12724
S-params., calc. by orthogonal expansion and finite integrat. 2168
TLM anal., AR and ARMA spectral estim. 12731
TLM method, appl., waveguide filter design/simul. 804
wideband/narrowband waveguide filters, design 12630
X-band bandpass/bandstop filter design in circ. waveguide 37954
CdS film CPW, high-refl. 30 GHz grating struct. 29529

waveguide joints *see waveguide couplers*

waveguide junctions *see waveguide couplers*

waveguide lasers
see also fibre lasers
2.5-Gbit/s all-opt. clocked decision/retiming cct. bistable semicond. lasers 9517
980-nm power LD beam instabil., expt. and anal. 15013
act. cylindrical waveguides with step-index profiles, transverse modes 30953
act. mode-locked telecomms. semicond. lasers, soliton generation 31415
act./pass. glass waveguides, sol-gel method prep., laser props. 14810
Cerenkov laser, conducting inner surface 7592
Cherenkov FEL, high peak power 39909
Cherenkov laser, nonlin. characts., particle simul. *(Japanese)* 31431
dielec.-loaded Raman-type FEL, efficiency enhancement 2017
diode lasers, tapered waveguide layer fab. 39814
FEL, reson. freq. branches 23308
FEL amp., LF waves, HF waves 39981
gain guided waveguide semicond. laser model 1994
high storage dens. opt. disk, SHG *(Japanese)* 7269
index-guided laser arrays, supermode discrim. *(Korean)* 14862
InGaAsP-InP four-wavelength DBR laser array, selective MOCVD 14960
LD, reson. opt. waveguide MOPA 39846
LD, ridge waveguide amps., 2D scaling 39845
LD, single mode single stripe, spatial filtered 39841
microdisk lasers, double-disk struct., output coupling 14886
microwave FEL design, waveguide and wiggler tapering 23073
monolithic ring lasers for low-noise opt. sig. distrib. 7498
MQW ridge waveguide lasers for tunable external-cavity sources 23234
MQW struct., free carrier effect on refr. index change 14956
multifrequency waveguide grating MQW laser fab. by selective area epitaxy 7627
Nd:SiO$_2$ planar silica waveguide laser, aerosol doping method 14817
partially-corrugated-waveguide LD, low modulation distortion for SCM telecom. appls. 17194
pulsed capillary gas lasers with waveguide resonators, opt. charact. 31201
quantum well DFB rib waveguide LD design, spectral index method appl. 39876
rare earth doped fluoride planar waveguide laser oscillator, MBE fab. 39732
rare-earth-ion-based act. waveguide lasers 39722
ridge waveguide semicond. pump laser design 39842
semicond. laser spatial patterns/solitons 31616
semicond. lasers, high power SW, waveguiding 39770
semicond. lasers, integrated optoelectronic up/down-converters 23232
semicond. lasers/amps., intracavity four-wave mixing 1933
semicond. ring lasers for integrated optoelectronic ccts. 14842
single-mode antiresonant reflecting opt. waveguide diode lasers, above-threshold behavior 14908
SPRITE laser syst., waveguide Raman conversion simul. 31176
SQW LD guided-wave devices, heterodyne nondegenerate pump-probe meas. 25990
UV grating written planar silica waveguide semicond. external cavity laser 34034
UV light written grating planar silica waveguides 1720
UV-written grating planar silica waveguide external-cavity semicond. laser 9570
AlGaAs, act. waveguide LD, femtosecond band-edge index nonlin. 31337
Al$_x$Ga$_{1-x}$As depressed cladding semicond. waveguides and lasers, modal props. 14468
AlGaAs-GaAsP 770-nm tensile-strained QW LD 23221
AlGaInAs-InP strained layer QW lasers in FITL 7684
AlGaInP dry-etched 650 nm vis.-light LD 1986
AlGaInP vis. light LD, 650 nm, dry-etched mesa stripe 39867
Ar$^+$ wide-aperture laser waveguide operation 1847
CO$_2$ general-purpose waveguide lasers 7529
CO$_2$ laser, compact gap, hybrid unstable-waveguide cavity 7509
CO$_2$ laser, multichannel waveguide, diffusion cooled, AC discharge 31159
CO$_2$ phase-locked waveguide laser array *(Chinese)* 14695
CO$_2$ slab waveguide lasers , mode and freq. control 39656
CO$_2$ slab-geom. lasers, mode and wavelength selectivity 31148
CO$_2$ waveguide laser, act. medium diagnostics 31194
CO$_2$ waveguide laser arrays, side lobe suppression, phase filter design 31188
CO$_2$ waveguide laser, combined excitation by dc/transverse rf capacitance discharges 1848
CO$_2$ waveguide laser, regular and seq. band transits. 14693
CdS waveguide cavity microlaser, losses, spectrum crevasse appearance 39862
Cr,Nd:YAG laser, self-Q-switched, transverse mode dyn. 23147

waveguide lasers continued
Er:SiO$_2$, integrated planar-waveguide amp., WDM coupler 14787
Er-doped planar waveguide lasers, theoretical modeling of relax. oscills. 14818
GaAs quantum-well laser below-threshold near-field profile broadening, photon recycling 31390
GaAs:O, ion implant., waveguide material fab. 39402
GaAs/AlGaAs hexagonal-facet laser with opt. waveguides, selective area metalorganic CVD 23214
GaAs/AlGaAs photonic ICs, plasma induced QW layer intermixing 30971
GaAs-Al$_x$Ga$_{1-x}$As quantum well lasers, bistable power switching 39863
GaAs-AlGaAs antiguided laser array fabricated by superlattice struct. 1988
GaInAs/GaAs/GaInP single QW lasers, low threshold current 14874
GaInAsP/InP tensile strained SQW lasers, 1.3 μm, LP-MOCVD grown 14944
GaInAsSb-AlGaAsSb 1.9 μm ridge-waveguide QW lasers 31328
GaInP strained quantum-well lasers; gain, refr. index, linewidth enhancement 31393
HCN waveguide laser, duplex radiation output, polaris. and energy charact. 39642
InAsP/InGaAsP QW 1.3 μm laser, MOVPE growth 12067
InGaAs strained quantum disk laser, nanoscale act. region 23216
InGaAs/GaAs-laser waveguide, radiation leakage, gain spectrum and directivity pattern 23199
InGaAs-AlGaAs QW laser, lateral mode anal. 23213
InGaAs-GaAs MQW lasers, low growth temp., photolum. 14965
InGaAs-GaAs-InGaAsP graded index heterostruct. for 0.98μm lasers 12183
InGaAsP, ridge waveguide lasers, strain meas., photoelastic effects 39826
InGaAsP/InP diode lasers with ridge struct., HF polariz. switching 42434
InGaAsP/InP monolithically integrated multi-wavelength MQW-DBR LD, MOVPE 23239
InGaAsP-InGaAsP tensile-strained quantum well polariz.-insensitive opt. amps. 31414
InGaAsP-InP IR strained MQW lasers, reverse-mesa ridge-waveguide struct. 14964
InGaAsP-InP MQW ridge waveguide LD 7488
InGaAsP-InP multi-λ ridge waveguide gain-coupled DFB laser array 23277
InP-based MQW lasers, integrated tapered beam expander waveguide 14854
KNbO$_3$ ion-implanted waveguides, CW diode laser freq. doubling, blue light generation 2076
LiNbO$_3$:Nd^{3+}, elec.-field-induced periodic domain inversion, act. device appls. 7586
LiNbO$_3$:Ti,Er integrated opt. DBR waveguide laser, 1531 nm 31304
Nd:glass(LiNbO$_3$) waveguide lasers 31303
Nd:silicate glass fiber waveguide lasers review 31223
Nd-doped phosphate glass waveguide laser, pass. Q-switched 1917
Nd-doped silica planar waveguide lasers fabricated by flame hydrolysis deposition/RIE 31260
Ti,Er:LiNbO$_3$ harmonically mode-locked waveguide laser 39736
Yb:Er:Y$_3$Al$_5$O$_{12}$ waveguide laser, low threshold, RT 1.64 μm operation 7604
Yb:LiNbO$_3$, waveguide laser, energy levels and spectra 14835
Yb:YAG waveguide laser, diode pumped, fab. and characterisation 31296
ZnSe-based blue-green ternary/quaternary lasers, pseudomorphic waveguides 23297
ZnSe-based nanostructures, waveguide DFB laser appls. 23296

waveguide theory
see also optical waveguide theory; waveguide discontinuities
2D chirowaveguides, FEA 2298
2D eqns. for guided EM waves, anisotropic plates 31907
2D-FDTD method, DFT appl. 15579
3D distrib. node TLM mesh, cells of arbitrary aspect ratio 15596
3D EM problems, mesh generator, self-organising finite element tessellation 2170
3D EM waveguide-discontinuity problems, vector FEM *(Japanese)* 31890
3D FDTD slotline anal. on limited memory PC 23789
3D FEM soln. of Maxwell's eqns. for rect. waveguides 23795
3D-SCN-TLM diakoptics for waveguide components 12729
aperture radiation problems, PTD problems extension 7951
apertures radiating into lossy media, num. anal. 2307
axially oriented whisker in waveguide mount, anal. for MM-wave freqs. 40397
beam adaptive frame for FEA 14431
bi-isotropic microstrip geom., quasi-static image method 15573
bianisotropic and inhomog. multilayer and waveguide anal. 23774
bianisotropic waveguides, lin.-operator formalism 31911
biisotropic materials, chirality/non-reciprocity determ. 15600
biisotropic materials, chirality/nonreciprocity params., waveguide/resonator perturb. 15576
broad wall coupler between dissimilar rect. waveguides, S-matrix 12714
broadside coupled strip inset dielec. guide, directional coupler appl. 29526
cct. design by combination of field theory and nodal anal. *(German)* 23784
chem. waveguide theory, dispersion characts. 8016
chiral-material-filled rect. waveguide, EM wave propag. 31906
chirowaveguide, modal cutoff conditions for annular core 40405
chirowaveguides, 3D FEA, hybrid edge/nodal elements *(Japanese)* 8015
circ. dielec. waveguide, periodic metallic strips, dispersion charact. 2296
circ. dielec. waveguide anal., variational-difference method 801
circ. groove guide, propag. charact., tolerance effect 2297
circ. groove guide for short mm- and submm-waves 21508
circ. waveguide problem, TLM method 23756
circular waveguide mode cutoff freqs., FDTD model staircasing effects 23809
closed circ. groove guide, dominant mode 31886
coaxial waveguide cavity resonators, varying rad. center/outer conductors, mode coupling 29547
coaxial-to-waveguide adaptor with probe/tuning post, anal. 21521
complex cross-sect. stripline calc. by half-inversion method 15587
complex dielec./mag. permeabilities meas., coaxial resonator appl. 42900
complex waveguide ccts., low cost CAD *(German)* 23785
complex waveguides, crit. wavelength calc., transverse reson. method 40411
composite propag. expts. on pulsed microwaves 42913
conductor and dielec. losses of transm. structs., calc. 15574
controllable planar layered medium, refl. coeff., freq. characts. 23592
coplanar strips, anal. considering finite strip metal. thickness 2295
coplanar strips on finitely thick substr., quasistatic params. calc. 23798
coplanar transm. line types 31868
coplanar transm. lines on low permit. substrs., THz bandwidth characts. 12696
coupled CPW, modal capacitances anal. 31888

waveguide theory continued
coupled planar dielec. waveguides, different params. 12687
coupled striplines, higher order modes 799
coupling jns. in waveguide-fed planar slot arrays, charactn. 15657
curvature variable taper for waveguide-microstrip transit. *(Korean)* 12692
curved waveguides, eigenmodes and ang. propag. consts. *(Chinese)* 31909
curved waveguides, eigenmodes and ang. propag. consts. 2300
cutoff wavenumbers and boundary integral eqns. of waveguides 15606
cylindrical microwave struct., semi-inversion method 15557
cylindrical resonator, insert made of absorptive dielec. 15588
cylindrical waveguide, thin metallic septum 12704
dielec. film periodically nonstationary nonuniformities, EM interact. 40330
dielec. HF characterisation, open resonators 42894
dielec. loaded T-septum waveguide props. anal. 21510
dielec. waveguides, slanted grating, propag. charact. 8031
differential form of Maxwell's eqns. in rect. regions, soln. 31704
discontinuities, wideband matching, FDTD methods 2288
discontinuity problems, higher order modes, Prony's method *(Japanese)* 31889
divider, anal./design *(Polish)* 810
double grating couplers, second-order Bragg interact., TM mode 8020
double or quadruple ridged waveguide anal., MFIE approach 23775
double ridged waveguide feed for parab. reflectors, broadband matching 29540
eccentric circ.-ellipt. metallic waveguides, cutoff freqs. 2291
edge-type scatterer in rect. waveguide, Yasuura method 8022
EHF waveguide grating syst., elec. characts. 29527
electron drift/diffusion based waveguide, microwave transm. 23806
ellipt. cone, stripline, microstrip line and coaxial line *(Chinese)* 31908
ellipt. waveguide, eigenmode seq. 15577
ellipt. waveguide anal., improved polynomial approx. 2301
EM anal., guided wave systs., domain decomp. methods 40421
EM at Kuwait Univ., chiral materials in microwaves 6290
EM refls., PCs appl. 37938
EM scatt. by large open-ended cavities, iter. PO 40278
EM wave excitation/diffr. by metal cylinder inside flat waveguide 40407
EM wave scatt. by periodic strips, spectral theory 23786
energy coupling of points of inhomog. medium 15610
fast integral wavelet transform, waveguide mode ident. appl. 31902
FEA, waveguide transfer problem, coaxial line syst. 15608
FEL, collective regime, 3D coupled-mode theory 39928
FEM, spatial discretization/num. precision errors 8019
FEM for anal. of microwave and opt. waveguide devices 15604
ferrite loaded waveguide, soln., vector finite elements 40417
ferrite-loaded waveguides, dispersion characts., FDTD anal. 23788
finite thickness diaphragms in circ. waveguide, optimal filters 37956
finlines, semicond. substr., high precision anal. 31885
flat waveguide splitters, transm. lines, waveguide props., electrodynamic model 8021
grating free oscills. and waves, Morse crit. points 15611
gyroelectric chiral media, field representation by cylindrical vector wavefunctions 31887
gyrotropic chirowaveguides, guided EM waves 2293
gyrotwystrons with mixed transverse geometries, theory 985
H-plane jns. in rect. waveguides, scatt. props., anal. solns. 40422
H-T pair coupled by narrow slot *(Chinese)* 37959
Hamiltonian syst., semi-anal. FEM, appl. *(Chinese)* 8025
hollow circ. waveguides, atten. const., curvature effect 15601
homog. filled waveguides, transient field expressions 2294
HTSC circ. waveguides, Meissner boundaries 29523
incomplete Lipschitz-Hankel integrals in EM 23835
infinite nonuniform 2D waveguides, bound states 8026
inhomog. waveguide components, field matching/noise filtering 23800
inhomog. waveguides containing below-cutoff sects. *(Russian)* 15612
inset dielec. guide structs. and vars., anal. 31913
iterative frequency domain deconvolution, microstrip line appl. 24229
layered anisotropic media planar transm. lines, characts. anal. 23796
leaky NRD guide, grating struct. based 12686
long. magnetized ferrite loaded rect. waveguides 12699
long. multilayered isotropic dielec. filled rect. waveguide 2303
long. slot in sectorial waveguide wall, reson. cond. 15605
lossy parallel-plate uniaxial chiro-omega waveguide, mode characts. 15599
mag. medium, guided nonlin. EM surface waves 39152
magnetized ferrite loaded waveguide anal., FDTD method 39210
measured eqn. of invariance, computational savings 23605
metallic waveguides, rect. boundaries, finite-difference anal. method 23791
microshield transm. line millimetre-wave/submillimetre wave pass. components 29544
microstrip discontinuities, combined mode-matching/method-of-lines procedure 31912
microstrip discontinuities, FDTD anal., error minimisation 8027
microstrip discontinuities anal., spectral domain moment method 15595
microstrip floating line struct., full wave anal. by wavelet expansion method 15572
microstrip gap discontinuity in spectral domain 2308
microstrip Green's fns. in magneto-dielec. substr. 40406
microstrip lines inside rect. cavities, full-wave anal. 31901
microstrip problems, pole extraction 23767
microstrip transit. geom. for planar technol. 12690
microstrip-to-waveguide transits., anal./design 15597
microwave filter response of nonuniformly corrugated circ. waveguide 37965
microwave NDT, refl. props. of dominant TE_{10} mode 42914
microwave waveguide filter charact., random mfg. errors effects 29534
mitered E-plane bends in rect. waveguide, mode matching anal. 8028
MM-wave circ. groove guide, dominant mode characts. 31910
MM-wave CPW, air-bridges, mode spectrum 800
MM-wave V-groove guide and components 31884
MMIC and hybrid planar IC discontinuities anal. method 860
MMP codes, modified reflective symms. 15609
modal anal. of waveguide filters 6287
mode computation using wave-like basis fns. 31893
multiconductor lines, planar or cylindrical, multilayered substrs., capacitance matrix 23790
multilayer high-T_c supercond. CPW, anal. 12691
multilayer microstrip struct., freq.-depend. permitt., quasistatic model 40439
multilayered bianisotropic waveguides, proper/improper modes 15578
multilayered dielec. waveguide anal., variational treatment 2304
multilayered lossy planar line params. calc. method 2289
multimode equiv. network of inductive/capacitive multiple posts 31881
multiport discontinuities in waveguide, pulsed FDTD anal. 15562

waveguide theory continued
non-penetrable wedges, Green's fns. intrinsic mode representation 15602
nonlayered substrs., striplines, slotlines, Green's impedance fn. 15567
nonparallel dielec. waveguides, coupling charact. 8023
nonperiodic struct. with symm. C_{∞}, energy charact. 15589
nonradiating metal-dielec. waveguide, dielec. params. meas. 18033
nonuniform microwave transm. structs., pseudo-3D FEA 15549
NRD-guide/H-guide higher-order modes, phys. and nonphysical ranges 15607
ocean waveguide props., extraction, broadband pulse sigs. 18880
oceanic waveguide spatially-localized inhomogeneities, sound scatt. 18881
open chirowaveguides, guided modes 15575
open ended waveguides, modelling, 2D mixed finite elements 40418
open planar waveguide screens, EM waves scatt. 15593
open slotted structs. with layered dielec. filling, calc. 40395
open uniaxial anisotropic waveguide used as electrooptic modulator, anal. 40408
open-boundary waveguide modal anal., finite element approach 2305
orthonormal wavelet expansions anal. of integrated mm-wave/sub-mm-wave waveguides 12809
oversized rippled-wall mode converters, undesired resons. 21512
packaged CPW ccts., single mode operation 6278
parallel coupled inset dielec. guides, hybrid mode anal. 31882
parallel plate waveguide, HF wave coupling, UTD mode matching anal. *(English)* 40410
parallel two-wire line covered with three-layer media, anal. 15570
parallel-plate waveguide cavity with thick planar termination 25565
partially filled rect. waveguides, external params. of offset connection 37955
partly loaded circ. chirowaveguides, dispersion curves 15581
perfectly conducting corrugated surfaces, wave scatt. 40290
periodic dielec. struct., EM wave interacts., finite element modeling 15565
planar microstrip config., anal., closed-form Green's fns. 23792
planar periodic slotted waveguides pair, oblique surface waves 22683
planar spiral systs., waves of const. radial phase vel. 8013
planar supercond. waveguides in DC mag. field 37937
planar transm. lines, multilayered dielec. substrs., WH/GSMT-based full-wave anal. 15571
planar waveguide, refr. index profile, shift formula method 802
planar waveguide T-jns. matching, symm. wedge-shaped baffle 15559
planar-array calcs., FEM method and waveguide simul. 23780
planar-cct.-type 3-dB quadrature hybrids 12734
polariz. controller, anal. and implement. 807
pulsed radio waves, obs. precursor 40351
quadruple-ridged sq. waveguides, charact. impedance 40409
quadruple-ridged waveguides, anal. and design 15561
quasi-TEM coupled transm. lines, modal charact. impedance 23787
quasioptical resonators, mode interact. 8014
quasiperiodic disk-loaded waveguide, EM, space charge waves, propag. 29802
radial line slot antennas, rot. symm. of inner field 15672
radio wave propag. in tunnel, rect. waveguide model 23643
ray mode coupling anal. of EM wave scatt. 15592
reciprocal cct. model, lossy waveguide struct., orthogonality of eigenmodes 15563
rect. antenna cavity, dominant mode waveguide loaded slots array 2348
rect. aperture in waveguide jns., scatt. 2302
rect. cavities and waveguides, EM dyadic Green's fns. 31904
rect. cavity, natural modes calc. 40424
rect. hollow resonator, natural modes no. 2286
rect. tunnels, radio propag. loss, mesh effects 31809
rect. waveguide, coupling and radiating apertures, combined FEM/MOM tech. 40414
rect. waveguide, elec. dyadic Green's fns. 31905
rect. waveguide, EM scatt. by inductive discontinuities 8029
rect. waveguide, isotropic/anisotropic obstacles, discontinuities anal. 2299
rect. waveguide, mode conversion 40423
rect. waveguide, nonorthogonal FDTD method 40404
rect. waveguide, optimal filters based on finite thickness inductive diaphragms 12724
rect. waveguide, striplike resistive struct., EM waves scatt. 12689
rect. waveguide multiple-slot narrow-wall couplers, 2D FDTD anal. 817
rect. waveguides, refl./transm. phase characts., inductive discontinuities 23808
rectangular waveguide, inserted nonlin. dielec. slab, wave propag. 23807
reflection coefficient formulations evaluation, microwave test ccts. design 23783
right-angle H-plane waveguide double bend 23772
rot. symmetric coaxial waveguides, efficient FEM formulation 23793
scatt./radiation, waveguide-fed struct., hybrid finite-element anal. 15580
sectoral waveguide radiating slot, equiv. params. 8081
semi-infinite screen-magnetodielectric coaxial rod struct. 15558
semicond.-metal boundary, HF surface waves propag. 15556
shielded CPW resonator anal. *(Korean)* 21525
shielded microstrip lines, arbitrary metal. cross sect., anal. 2290
shielded waveguide spectrum, complex waves mechanism 12688
skew rect. dielec. waveguides, transverse coupling 15594
slab waveguide, sq.-law-index type, nonlin. TE waves *(Japanese)* 15585
slit-coupled ridge waveguide T-jns., struct., anal. 21515
slot coupled narrow wall coupler, dissimilar rect. waveguides, comments and reply 12717
slot-coupled waveguides, anal., GSD tech. 2292
solid-state bandpass filters, coaxial-to-coaxial type resonators 15590
sq. coaxial waveguide struct., nonorthogonal FDTD method, sensitivity anal. 23768
standing wave struct., cavity coupling states, losses 26082
step-shape charact. calc. in rect. waveguide 8024
stratified slab waveguide, line source, radiation field 8030
surface cracks in metals detect., microwave method 37552
symmetric coupled transm. line on suspen. substr., spectrum calc. 37932
tapered rect. transm. line, anal. 40396
tapered waveguides, wall surface resist., charact. anal. *(Japanese)* 15584
tapered/step-shaped waveguides, higher-order modes anal. *(Japanese)* 31880
thin substr. microstrip problems, Green's fns. closed form solns. 37939
three-layer dielec. clad parab. cylindrical chirowaveguide, anal. study 40442
three-layered electron waveguides, equiv. network approach for multistep discontinuities 21979
time-harmonic 2D/3D Green's dyadics for general uniaxial bianisotropic media 40283
TLM method, appl., waveguide filter design/simul. 804

waveguide theory continued
- transverse operator method for general waveguide problems 40419
- transverse slot in inhomogen. loaded rect. waveguide wall for array appls. 23771
- triply-ridged circ. waveguides 37935
- TW interact. re-exam. 1000
- vector FEM, mixed-interpolation-type triangular-prism element 15566
- vector FEM, propag. wave num. dispersion 8018
- vector FEM, vector shape fns. *(Japanese)* 5796
- vectorial beam propag. method based on EM field directional decomp. 40429
- X-band rect. waveguide, Maxwell's eqns., FDTD soln. 23814
- Y-jn. high power MM-wave waveguide circulator 37941

waveguides
- *see also acoustic waveguides; chirowaveguides; circular waveguides; coaxial waveguides; coplanar waveguides; dielectric-loaded waveguides; dielectric waveguides; electron waveguides; ferrite-loaded waveguides; ferrite waveguides; fin lines; helical waveguides; optical waveguides; planar waveguides; plasma filled waveguides; rectangular waveguides; rib waveguides; slot lines; strip lines; waveguide discontinuities*
- 0.5 MW, 140 GHz gyrotron, conditioning optics, astigmatic Gaussian beams 975
- 2.45 GHz microwave heating-based large diam. plasma generation 44596
- Asia-Pacific Microwave Conf., Taiwan (Oct. 1993) 36855
- EM refls., PCs appl. 37938
- folded-waveguide high-power MM-wave TWTs 21858
- free electron masers, microwave syst. based on open quasioptical waveguide 1840
- LV IR FEL, gyrotron powered RF wigglers 39890
- nonperiodic struct. with symm. C_{∞}, energy charact. 15589
- profibus, light waveguide interlinking *(German)* 42446
- quantum-well struct., elec. field depend. refr. index, meas./appl. 39589
- semicond.-metal boundary, HF surface waves propag. 15556
- tapered/step-shaped waveguides, higher-order modes anal. *(Japanese)* 31880
- ZJ-10 med. linac. waveguide corros. mechanism *(Chinese)* 34754
- YIG cascaded magnetostatic soliton waveguide, short pulses 30753

wavelength division multiplexing
- *see also frequency division multiplexing*
- 1.55 μm WDM fiber freq. shifter 9461
- 2D WDM reconfigurable opt. interconnection smart pixels 42099
- 10 Gbit/s periodically amplified WDM soliton syst., filtering effects 17267
- 10 Gbit/s repeaterless WDM fiber transm. 9466
- 10 Gbit/s sig. repeated wavelength conversion, wavelength-tunable semicond. lasers 25496
- 10 Gbit/s WDM 1310-nm opt. transm., 63.5-km std. single-mode fiber, opt. preamplifiers 17349
- 10 Gbit/s-259 km transm., SIL amp. 34083
- 10-Gbit/s four-channel dense WDM transm. 9488
- 10-Gbit/s sig. transm. following wavelength conversion, semicond. opt. amps. 9489
- 1550 nm dense-WDM opt. links 42382
- acoustic-optic filters 9449
- all-opt. fiber ATM/SONET WDM network 9511
- all-opt. multihop photonic packet-switched networks, bandwidth limits 9579
- all-opt. network using dyn. wavelength routers, crosstalk penalty 9585
- all-opt. WDM/TDM transmultiplexers 34086
- anticrosstalk arrayed-waveguide add-drop WDM multiplexer 3283
- antiresonant waveguide add/drop filter, Fabry-Perot interf. filtering 17266
- apodized acousto-optic WDM switch/filter 7419
- arrayed waveguide N×N wavelength multiplexer transm. charact. 42353
- arrayed-waveguide grating multiplexer, flat spectral response 25497
- B-ISDN for video and high-speed sigs., modeling/optim. 9024
- BanyanNet—bidirectional equiv. of ShuffleNet fiber link 9447
- birefr.-fibre sole wavelength filters 14394
- Bragg fibre grating develop. for WDM appls. 39340
- broadband transm. networks, multiwavelength technol. 17248
- Bus-Mesh wavelength multiplexed LAN, dyn. time slot allocation 34101
- cascaded hybrid silica and fluoride-fibre-based amps., perform. 31239
- channel sharing scheme for multihop networks 8696
- codirectional Bragg WDM tunable acousto-optic-filter design 39534
- collinear 3×3 WDM fiber coupler ring resonator anal. 1695
- compact opt. transceiver module for subscriber systs. 42371
- conflict-free WDMA networks, buffer-sharing 8745
- coupled antiresonant reflecting opt. waveguides based wavelength selective device 14472
- CPFSK opt. crossconnect systs. with noncoherent detect., interf. 9434
- CPFSK wavelength-switched systs., coherent/noncoherent detect. 9501
- DBR laser ultra-fast opt. switching by electro-opt. tuning sect. 34005
- DBR LD wavelength conversion device 23196
- demultiplexer, substr. guided waves and multiplexed waveguide holograms 17281
- dense WDM packet switching networks, review 3538
- DFB channel-dropping opt. filters, design and fab. 39538
- distributed forward-/backward-coupling semicond. laser, wavelength tuning charact. 31322
- dual wavelength opt. fiber HDTV distrib. networks 17571
- dyn. wavelength allocation opt. LAN network 34100
- efficient routing/scheduling algms. for opt. networks 8976
- electro-opt. controlled multiwavelength switch, WDM cross connector appl. 34008
- electroabsorption modulator integrated laser transmitters 17225
- Fabry-Perot wavelength-tunable picosecond LD pulse source 34090
- ferroelec. smectic C* liq. cryst. high-speed tunable filter 39539
- fiber bandwidth in opt. amp. links 9597
- fiber bundle imagery of wavelength multiplexing, stat. eval. 16222
- fiber four wave mixing, polaris. independ. wavelength conversion 9439
- fiber-grating transm. filters in all-fiber demultiplexer 7312
- fibre gratings, demultiplexing filters for WDMA networks 39345
- fibre laser sens. syst., interferometric read-out/WDM 17882
- fibre link systs. 4000 km long, perform. comparison 42377
- fibre photorefr. gratings, appls., high capacity transm. systs. 39343
- fibre SBS suppression by mid span spectral inversion 34085
- filter based WDM, reliab., opt. fibre amp. appl. 3540
- flat-field broadband planar waveguide spectrograph design 39457
- four-channel integrated photonic wavelength router 16981
- four-channel WDM/PDM transm., 10 Gbit/s, 340 km 17230
- free-space WDM interconnections based opt. switching nets 33726
- French terrestrial network:architecture and capacity 9589
- French WDM WAN wavelength-routed archit. 34039

wavelength division multiplexing continued
- freq.-selective waveguide multiplexing receivers 9594
- fused biconical taper WDM, radiation effects 17261
- grating-frustrated coupler in WDM bandpass filtering appls. 34035
- heuristic algorithm for embedding hypercube in irregular WDM network 33462
- hierarchical star-controlled rings for multiprocessors 16723
- high-capacity opt. disc storage, vol. holograms 39316
- high-speed opt. fiber LAN, WDM access protocols *(Korean)* 17180
- high-speed wavelength tunable liq. cryst. filter 42387
- HONET, integrated services WDM opt. network 16713
- hybrid sparse-wavelength angle-multiplexed opt. data storage syst. 22794
- in-line fiber-optic components, LB films 17187
- InGaAsP-InP four-wavelength DBR laser array, selective MOCVD 14960
- interferometric opt. fibre sens. network, CDMA/WDM multiplexing 17906
- LABON, learning automata-based opt. network 9608
- LAN, all opt., multiaccess with wavelength/code concurrency 41797
- LAN, WDM 33525
- LED spectral slicing, modelling of interchannel crosstalk 1828
- LEOS, San Jose, CA, USA (1993) 20270
- life-range-delimitation opt. transceiver, fast routing 9584
- Littrow hologram substr. guided wave WDM demultiplexer 42445
- long haul WDM fibre soliton transm., filtering 3587
- low-loss compact all-fibre wavelength drop and insert filter 9437
- mesh-connected opt. multiple-access bus interconnects 1770
- Michelson interferometer sens., multiplexing in matrix array topol. 34528
- monoblock WDM multiplexers for opt. fibre commun. 3571
- monolithic grating-based components for WDM networks 9131
- monolithically integrated WDM receiver 34075
- motherboard technol. for active array opt. interconnection and packaging 23985
- MQW three-branch Y3-lasers, tunable, WDM opt. networks 31401
- multi-Gb/s opt. WDM LAN/MAN/WAN networks 42422
- multiaccess star network archit., WDM/SCM 42437
- multichannel acousto opt. tunable filter switches, reduced channel-to-channel interact. 39507
- multichannel WDM opt. filters, birefr. planar opt. platforms 42386
- multidimensional torus, hop dist. and multihop lightwave network 16525
- multigigabit opt. networks, direct-modulation/direct-detect. 17272
- multihop 2×2 all-opt. photonic packet switch 9152
- multiple access networks, delegated tuning/forwarding 16527
- Multiplexed Network for Distributive & Interactive Services project *(German)* 42062
- multiplexed vol. holograms, WDM appls. 7319
- multisoliton fibre interacts. and WDM 23417
- multiwavelength fiber-amp. cascades for networks 9502
- multiwavelength interoffice commun., SONET/WDM ring networks 42424
- narrow-band low sidelobe spectral commun. filter, weighted coupling 39543
- network evol. 9587
- next generation lightwave network planning for capacity upgrade and service growth 9586
- nonlin.-opt. loop mirror/fibre Bragg grating, bandpass switching 31499
- NRZ to RZ format conversion, WDM channel, semicond. laser amp. 25503
- opt. cluster-based shuffle network, conflict-free channel assignment 3578
- opt. fiber LANs, high speed, WDM multiple access protocols *(Korean)* 16476
- opt. fiber networks, WDM, amp. custom-coded simul. 25540
- opt. fiber networks, WDM systs. and networks 42433
- opt. fibre monolithic wavelength demultiplexing switch arrays 42374
- opt. fibres for ultra-high capacity telecomm. *(Japanese)* 3545
- opt. LAN technols. 8891
- opt. links, crosstalk elimination cct. 3552
- opt. network, time-wavelength assignment algms. 42375
- opt. networks switching, acousto-opt. switches 17229
- opt. packet LAN, collision-free reception 8964
- opt. path cross-connect syst. utilizing delivery and coupling matrix switch 16985
- opt. path networks, no. of wavelengths required *(Japanese)* 25487
- opt. switching, multiwavelength systs., Europe 16980
- opt. TDM, systs./networks 9453
- opt. wavelength conversion, injection locking, LD 3557
- optical network interface unit for multichannel ring networks 3227
- optical staggering switch archit. growability and packet sync. 42126
- packet-switched WDM-networks, wavelength stabilisation scheme 34093
- pass. broadband WDM/TDM/SCMA opt. network syst. 9493
- pass. fibre optic components/sens. systs., radiation sensitivity 22845
- pass. WDM opt. network, cost-shared components 9463
- penalty-free 100 Gbit/s opt. transm. of transform-limited pulses 25471
- phased waveguide arrays, wavelength multiplexers optim., beam propag. method 30955
- photoimprinted Bragg grating all-fiber dense WDM/demultiplexer 42388
- photonic ATM switching systs. 33731
- photonic beamformer archit. for multi-beam act. phase arrays 32004
- photonic fast packet switching networks 9601
- photonic transport networks, opt. path cross-connect node archit. 16983
- polariz.-independent directional coupler wavelength filters, birefr. compensation 39536
- quasi-all-opt. broadband networks, packet headers coding 16448
- QW bistable semicond. lasers, modeling and meas. 2000
- RACE 2001 transparent opt. networks, European progress 9524
- rack-mounted opt. ref. unit, 1547.825 nm 9469
- Raman crosstalk, modulation stats. 17348
- Rowland circle grating photonic integrated device for WDM appls. 9441
- scalable lightwave network 9452
- scalable lightwave network self-regulating WDM amp. module 9457
- scalable opt. hypercube-based interconnection network for massively parallel computing 7430
- self-seeded Fabry-Perot LD, single-mode form. dyn. 39799
- self-seeded gain-switched LD, elec. wavelength-tunable singlemode pulses 31326
- semicond. amp., polariz. insensitive, gain-saturation, wavelength conversion 14881
- shared channel lightwave networks, virtual topol. design 41561
- singlemode fibre digitally tunable wavelength filter, opt. transparent 17330
- slotted Aloha protocols for optical fibre LAN using WDM passive star technology 33256
- stable soliton transm. in nonlin. nonlin. amplif. loop mirror gain syst. 42459
- star opt. network, distributed channel controllers 9446
- STARNET opt. WDM network, high-speed interface 9514

wavelength division multiplexing continued
STARNET WDM computer commun. network, combined freq. and AM 17174
static wavelength router all-opt. network crosstalk penalty 42425
straight line 20 Gbit/s transm., 617 km of singlemode fibre 25522
submarine fibre-optic syst. technol., review and future prospects 3574
supercontinuum generation, pulse-width tunable self-freq. conversion of short opt. pulses 2077
survivable interoffice networks, video/inform. transport 9099
TDM/WDM/SDM opt. computer 1763
terabit/s transm., 150 km of dispersion-managed fiber 17347
thick photorefr. hologram, angle-depend. diffr. efficiency 31656
three-branch widely tunable semicond. laser design for WDM links 14915
three-sect. DBR lasers, fast wavelength switching 25479
transceiver modules, local access fibre networks 17331
transform-limited opt. pulse dual-wavelength source for WDM soliton transm. 25489
tunable continuous-fibre-optic bandpass filter, sens. appls. 14390
tunable interconnection network, thick photorefr. cryst. 15182
tunable photodetectors and LEDs for WDM appls. 39617
twin-core opt. fibres, UV tuning of coupling 7280
twin-core wavelength demultiplexing fibres, UV light coupling/tuning 34098
two-level hierarchical networks for opt. commun. 16524
two-sect. DBR laser freq. and power control by dual act.-/Bragg-sect. tuning 9503
ultra-long dist. soliton transm., fiber nonlin. 39353
unidirectional ring network, wavelength reuse scheme, fibre grating add/drop multiplexer 34054
vert. cavity waveguide spectrometer, WDM commun. 34063
WAN, wavelength requirements of all-opt. networks 16712
WAN, wavelength-routing opt. networks 41580
WAN trials, Lawrence Livermore Nat. Laboratory 33524
wavelength conversions, two silica fibre loss windows 7741
wavelength path opt. networks, failure restoration 9513
wavelength-distributed data-interface network 9583
wavelength-reusable/topol.-reconfigurable WDM opt. LAN networks, monolithic opt. equalizer array 42426
WDMA network, acousto-optic tunable filters and TAXIChip-based control channel 9562
Westinghouse hardware-compressive true time delay fiber optic syst. 7325
wormhole routing on multichannel ring networks, opt. fibre interconnection 3217
EDFA-repeatered syst. in-service fault-location 9430
Er:SiO$_2$, integrated planar-waveguide amp., WDM coupler 14787
Er^{3+}:Yb^{3+}-doped low-noise grating-feedback fiber laser 7567
Er-doped fiber amp. WDM links 42415
Er-doped fiber amp. cascade, WDM syst. perform. optimisation 42416
Er-doped fiber amp. lossless wide-band reflective star coupler 17177
Er-doped fiber amp. repeater 2.5-Gb/s channel 1420-km transm. 9465
Er-doped fiber amplified low-distortion WDM AM SCM 4×50-channel CATV transm. 9572
Er-doped fiber amps., concatenated, 980-nm-pumped, gain peaking 7569
Er-doped fibre amplifer high power broadband ASE sources for spectrum-sliced WDM systs. 34066
Er-doped multiwavelength fiber-amp. cascades for networks 42423
Er-doped opt. fiber amplified WDM ring network, channel-dropping filters 9563
Er-doped two-channel fiber amp., theoretical models 7558
GaAs micromachined widely tunable Fabry-Perot filters 22984
InAlAs/InGaAs multichannel MSM-HEMT receiver OEIC for WDM 14650
InGaAs/AlGaAs multiple wavelength VCSEL array for opt. interconnection 31334
InGaAs/AlGaAs/GaAs grating demultiplexer/detector array integrat. 9422
InGaAs/InP, pin photodiode array, integrated lens *(Chinese)* 14613
InGaAsP/InP waveguides for guided-wave photonic IC, low-loss fiber-chip coupling 7372
InGaAsP-InP pol.-independ. four-channel tunable opt. filter 25477
InP photonic IC based light sources, WDM lightwave communication systems appls. 17190
InP photonic integrated transceiver chip for WDM transm. 9458
InP technology, role in optical fibre communications 17189
InP tunable phased-array wavelength demultiplexer 17257
InP waveguide components, WDM opt. commun. syst. 34062
K$^+$-ion diffused waveguides, coupler-type wavelength demultiplexer 9554
LiNbO$_3$ channel waveguide, wavelength converter for WDM opt. commun. 15074
LiNbO$_3$ integrated acousto-opt. mode converters/tapered couplers , Tapered acoustical directional couplers 39506
Pr-doped opt. power fiber amp., saturated output power of +18 dBm 9602
SiO$_2$ ARROW-based opt. wavelength filter, strip config., WDM systs. 34068
SiO$_2$ cascaded fibre Raman amp. operating at 1.3 μm, high gain 31232
SiO$_2$/Si arrayed-waveguide grating multiplexer 22909
SiO$_2$-on-Si Mach-Zehnder 1.3/1.5 μm demultiplexer 34032
SiO$_2$-on-Si:rare earth doped integrated opt. waveguide devices in opt. commun. 30968
TeO$_2$ acoustooptic tunable filters in multiwavelength opt. add-drop multiplexing appls. 17215
wavelet transforms
2-D nonseparable Malvar wavelets 32512
2D fractal sets, inverse/approx. problem 2730
2dimensional recursive orthogonal wavelet transform. 40927
4.8 kbit/s wavelet transform CELP coder 33692
64 kbit/s image seq. coding, wavelet vector quantisation scheme 16367
Abelian groups, wavelet anal. 24163
acoustic holography, wavelet transform *(French)* 15166
adaptive digital image screen halftoning, wavelet transform 41370
adaptive filtering 32524
anal. of wavelets, theory/appls. 15927
Asilomar conf. on signals, systems and computers, Pacific Grove, USA (1993) 59
audio sig. compression, circ. wavelet packets 32525
automatic language recogn., pitch contours discriminating features 8228
bandlimited orthogonal wavelet syms. 8347
bearing estim., unknown correl. noise 40926
biological sig. transient detect. 35071
biorthogonal raised-cosine wavelets 32636
boundary-based corner detect., wavelet transform 32888
circuits systs., symp., Chicago, USA (May 1993) 31
wavelet transforms continued
classified VQ, block wavelet transform image coding 24587
co-channel speaker separation, max.-likelihood deconvolution 32215
coherent freq.-hopped CDMA, wavelet orthogonal FDM 33210
compactly supported symmetric/antisymmetric orthonormal wavelets 20640
compactly supported wavelet filters, coeff. computations 24316
complex sig. reconstruction from time-freq. magnitude 24271
composite type wavelets 40928
computationally fast wavelet-based video coding scheme 16191
constrained FIR filter design for 2-band filter banks and orthonormal wavelets 21425
continuous wavelet based detectors 40925
convolution products, smooth refinable fns./wavelets 24165
cosine-modulated wavelet orthonormal bases 24312
covert commun. employing wavelet technol. 9164
crit. sampled filter banks/lin. boundary conditions 41174
cumulants in wavelet anal. 32451
CW transform, integer scales, fast implement. 8428
CW transform, phase space, arbitrary tilings 32667
CW transform for sig. investig./understanding 15974
data placement for wavelet decomp., 2-D image data 24407
decompressed image enhancement, low bit rates 32829
deconvolution regularization, SNR, stat. estim., multiscaling 40782
digit pipelined discrete wavelet transform 29381
digital image compression, wavelets and wavelet packets 32830
digital image proc. appls. 2635
digital signal processing, conf., Yosemite, CA, USA (1994) 11548
digital stereo image matching, wavelet transform appl. 8674
digital TV image wavelet transform coding and sync. loss recovery 42584
discrete multiwavelet transforms, alg. design 32665
discrete wavelet transform, VLSI archit. 6186
discrete-time periodic sigs., wavelet transforms 40898
discrete-time wavelet extrema representation, design/reconstruction 40810
discrete/CW transforms, single chip/SIMD computers 37799
disparity anal., wavelet transform approach 26701
DMT/DWMT systs. and digital filter banks 9091
Doppler tomography approach for microwave imaging 24412
DS-SS sigs. radiometric detect., wavelet transform 17012
dyn. RCS using the wavelet transform, time-freq. inform. 26822
ECG, charact. points detect., wavelet transforms 18539
ECG, multiresolution wavelet anal., ischaemia/reperfusion 35105
ECG, nonstationary anal., Wigner-Ville transform and wavelets 26433
ECG, P waves detect./class., Gabor wavelets 26441
ECG, wavelet transforms comparison for cardiac patterns recognition 43285
edge detect., convolution, FT, maths courses 8600
EEG, respiratory-related evoked pots. ident. 43286
EEG sigs., wavelet de-noising and ident. of evoked response pot. 35070
EEG spikes, automated neural net detect., wavelet preprocessing 43284
EM scatt. from conducting objs., hybrid wavelet expansion and BEM 31781
extraction and recogn. of waveform based on wavelet transform *(Chinese)* 32988
fast algms. for running wavelet anals. 32519
fast integral wavelet transform, waveguide mode ident. appl. 31902
filter bank optim. for subband coding *(Japanese)* 24338
filter banks, wavelet transforms 2455
fingerprint image compression, wavelet scalar quantization vs. JPEG 41194
finite element multiwavelets 32511
FIR filters, wavelet extrema/zero-crossings representations, props./reconstruction 32708
FIR unitary time-varying filter bank trees and wavelets 40809
focal length detect. by using Haar wavelet transform, expt. syst. *(Japanese)* 34714
foetal ECG, time-varying Wiener filtering, wavelet transform 35116
fractal fns., splines intertwining multiresolution anal. and wavelets 32514
fractal modulation commun. syst., implement./simul. 15708
fractional Fourier domains, convolution and filtering 32978
frame and special types of extended pseudo-biorthgonal bases 32508
frame of wavelets for edge detect. 32825
Gabor wavelets for texture edge extraction 41274
generalized inverses in sig. proc./rem. sens. 8344
generalized wavelet decomp., adaptive syst. ident. 41032
Haar wavelet transform with inter-band prediction, image coding appl. *(Japanese)* 16236
handwritten signature images verification, wavelet anal. 8542
harmonic anal., perfect reconstruction and wavelet matrix windows 24279
Hermite wavelets for multicarrier data transmission 9092
hierarchical stereo matching algm., wavelet representation *(Korean)* 24688
high range resoln. radar returns, model based ATR 17393
holographic particle velocimetry, 2D wavelet transform 23460
IEEE ICASSP conference, Adelaide, Australia (1994) 20269
IIR sub-band adaptive filter banks 755
IIR wavelets, lin. phase, perfect reconstruction subband coding 32089
IIR/FIR two-channel biorthogonal filter banks and wavelet bases 37880
image coding, piecewise polynomial wavelet, IIR implement. 2654
image coding, successive approx. quantization/generalized decoding 8604
image coding, tree struct., conditional height difference 16366
image coding, VQ of wavelet coeffs. 24659
image coding for telecomms. 16161
image compression 8540
image compression, comparison of fractal methods, DCT and wavelets 8499
image compression, human visual syst. model and wavelet transform coupling 32831
image compression for radiology and telemedicine 26321
image compression technology 41171
image contrast enhancement, discrete dyadic wavelets 34985
image proc., wavelet transform domain filters 2726
image proc. algms., quantitat. eval. 35003
image proc. appls. 16364
image restoration, wavelet transform and multiresolution support constraint 16204
image segmentation, Markov random field/wave-packet transform 2732
image segmentation, phase coding and wavelet transform 32834
image seqs. coding by wavelets and subband schemes 16287
impulse responses ident. by wavelet transform. 8256
incoherent radar ship target recogn., wavelet transform approach, extraction 34143
infinitely differentiable fns., multiresolution anal. 24162
instantaneous freq. and group delay representation 15859
joint wavelet-transform correlator for image, extraction 24492
laser range data, multidimensional shape and texture visualization 32975

wavelet transforms continued
lin. phase paraunitary FIR filter banks, complete charactn. 32504
lin.-phase biorthogonal wavelet fn., arbitrary regularity *(Japanese)* 16234
local and global multiscale image class. 32835
local bandwidth adaptation, spectral dens. estim., wavelets appl. 32652
lossy transm. line simulator in PCB layout package 21638
low bit rate appls., transform coding 16094
low bit rate video hybrid codec 42088
M-ary wavelet transform and formulation reconstruction 8426
mag. underwater transient sig. detect., wavelet transform 16061
mammograms, detect. of microcalcifications, wavelets 35001
matched wavelets design issues 16008
MCP error images, wavelet transform coding, quadtree decomp./ECVQ 41091
microstrip floating line struct., full wave anal. by wavelet expansion method 15572
mixed sig. testing, joint time-freq. anal. 6826
modulation class. 32515
morph. wavelet transform 28568
motion picture coding, hybrid transform *(Japanese)* 24668
moving image coding syst., wavelet transforms 16095
multi-channel deconvolution, generalized sampling approach 15924
multi-resoln. multi-rate progressive image transm. 8546
multiconductor transm. lines in multilayered dielec. media, anal. 31875
multiple access commun. 33202
multiple distorted obj. detect. and image proc., morph. and wavelet transforms 24485
multiplicative white stochastic proc., wavelet transform, stats. 32666
multiplicative Zak transform 40850
multiresolution anal., wavelets, probab. dens. estim. 28706
multiresolution approach for image morphing 8544
multiresolution image compression 8616
multiresolution image decomp., wavelet transform 24658
multiresolution motion estim., wavelet transform 32836
multiresolutional data fusion, filter banks 15918
multiresolutional multisensor target ident. 41105
multiresolutional target tracking 15878
multiscale corner detect. by wavelet transform 16316
multiscale image restoration by A Trous algm. *(French)* 16223
multiscale Wiener filter, fractal sigs. restoration 2470
multispectral imagery, wavelet/KLT data compression 8270
MULTIWAVE, multiresolution wavelet-based ECG data compression algm. 26409
noise removal from music, local trigonometric bases and wavelet packets 2570
noise suppression, wavelet model 32577
noisy images, curve extraction, deformable wavelet descriptor 8543
noisy sigs. estim., time-invariant wavelet packets 8271
nonlin. commun. channel equalization by wavelet neural nets 41397
nonlin. noise reduction based on zero-crossing representations of wavelet transform *(Japanese)* 15935
nonstationary sigs., time-varying spectral anal., combined wavelet/FT 32679
oblique projections in discrete sig. subspaces of l_2 and wavelet transform 32503
open dielec. waveguide anal., quasi-wavelet expansion 31894
opt. flow computations, wavelets, curvature and chaining issues 32842
optimal init. phase wavelet transform 24255
optimal receiver design, wavelet bases 40929
optimal wavelet transform and translation invariance 32664
orient. filters, design and implement., separable approx. methods 32881
orthogonal matching pursuit, wavelet decomp. 8272
orthogonal QMF filters for smooth wavelet decomp. 24164
orthogonal wavelets, oversampling property 40879
orthogonally multiplexed commun., wavelet packet modulation 32038
orthonormal wavelet expansions anal. of integrated mm-wave/sub-mm-wave waveguides 12809
p-product, matrix product, appls. in sig. proc. 41038
Papoulis-Gerchberg algm., sig. extrapolation in wavelet subspaces 24318
parallel image and signal algorithms texture analysis, conf., Genoa, May 1994 11593
perfect reconstruction subband coding stable IIR filter banks 15938
periodic spline wavelets, computation 24161
photogrammetry, stereo image matching by wavelet decomp. 41344
planar contours pair linkage, multiresoln. tiling 16352
power spectrum estim., wavelet thresholding techs. 2484
PR FIR filter banks and discrete biorthogonal wavelets via block circulant matrices 32505
PR-QMF banks/ wavelets, stat. optim. 32707
pulse radar, range sidelobe suppression by locally weighted filter *(Japanese)* 42490
pushbroom scanners with large lin. arrays, odd/even detector noise removal 16260
PVM computing 24406
QMF filter bank trees, systolic archit. 29376
quantised coeff. redundancy removal 41092
radar sig. proc., wavelet transform, sea clutter suppression *(Japanese)* 9616
radar sigs., wavelet subband decomp. in adaptive arrays 17395
radar systs., weak sig. detect. 34130
radar target classif., extraction, wavelets *(Chinese)* 34134
radar target discrim. 16102
random wavelet transform. 32521
reciprocal procs. on tree, modeling and estim. issues 24192
recursive orthogonal wavelet fn., IIR digital filter config. *(Japanese)* 2459
regular 2-D nonseparable wavelets/filter banks, transforms. of variables design 32513
regular M-band modulated orthogonal transforms 32710
regular VLSI archit. synthesis for 1-D discrete wavelet transform 32518
regularization by multiscale models 24190
robust sig. extrapolation, wavelets 32732
room impulse responses approx. based on wavelet decomp. 15991
rot.-invariant filter, opt. wavelet transform, pattern recogn. 33084
SAR based ATD/R, speckle reduction via wavelet shrinkage 34110
SDF design by multiresolution wavelet anal. 24654
seismic data homomorphic deconvolution effectiveness 35291
seismic sig. discrim. by radial basis fn. network 35289
self-similar set ident. in time-scale domain 32520
semi-automatic road extraction by dyn. prog. 41254
sens. array sigs., multi-scale deconvolution, higher order spectra appl. 40987
shape modelling scheme 2782
shift variance of wavelet transform for sig. detect. 24256

wavelet transforms continued
ship radar databases, organization, wavelets and struct. VQ 9625
sig. class., local discriminant bases 32500
sig. extrapolation with wavelets, regularization approach 32487
sig. proc., extrapolation in multiresolutions 32507
sig. proc., wavelets 24324
sig. recovery in multiresolution spaces, Backus-Gilbert inversion method 32733
sig. representation, hierarchical parallel matching pursuit 15926
smart compression, embedded zerotree wavelet algm. 8603
smooth image segmentation via multiresolution anal. 32833
smooth nonseparable N-dimens. scaling fns. 32506
space commun. adaptive arrays, 2D wavelets/filterbanks appl. 9408
spectral rad. of sets of matrices 32526
speech compression, ARMA model/wavelet transform 32261
speech sigs., fund. freq. detector based on short-time FT 8190
spline-harmonic anal. and wavelets 32502
stereo image pairs and streams compression 32816
struct. detect., parallel algm., wavelet/segmentation anal. 32918
subband coding and noise reduction in multiresolution anal. frames 32509
subband decomp., multichannel image restoration 2731
subband image coding, watershed/watercourse lines of wavelet transform 2727
surface interpolation, fast, using multi-resoln. wavelet transform 28655
SW and matrix dilation eqns. 24299
sync. and timekeeping, wavelet anal. 42679
texture discrim., wavelet decomp. 24650
texture segmentation, space/spatial-freq. and multiscale methods 33006
texture segmentation by modulated wavelets 32889
texture segmentation using wavelets, fast fractal, extraction 8500
theory and appls. 16354
time localization techs. for wavelet transforms 29366
time varying filter banks, subband proc., border recovery 32711
time-freq. conc. sigs., wavelet representation 24254
time-varying filter banks and multiwavelets 24260
time-varying filter banks and wavelets 2471
time-varying filter banks/wavelets, factorization 32706
time-varying modulated lapped transforms 8342
transient sonar sig. class., HMM/neural net 34178
underwater image compression, wavelet transform 15800
visual evoked pot. sigs., factor anal., wavelet decomp. 35072
VLSI archit. for video real-time hierarchical encoding/decoding 33697
wave propag., wavelet kernels 33043
waveform coding 32510
waveguide mode computation using wave-like basis fns. 31893
wavelet-based approaches vs. subband coding techs. for still image coding 32826
weak radar sig. detect. based on wavelet transform 42491
wideband imaging of rot. sphere, wavelet transform approach 8345

wavemeters
see also frequency meters
multiple vernier grating monochromator etalon design *(Chinese)* 10046

waves
see also elastic waves; electromagnetic waves; gravitational waves; magnetohydrodynamic waves; magnetostatic waves; oscillations; plasma waves; space charge waves; spin waves; wave propagation
two-level unidirectional ring laser, travelling waves, class-B limit 2028

waxing *see polishing*

WDM *see wavelength division multiplexing*

weak links, superconducting *see superconducting junction devices*

weak localisation *see quantum interference phenomena*

weapons
see also missiles; nuclear explosions
9 MJ Range Gun syst., design 15305
52 MJ railgun power supply perform. 19775
90 mm railgun-fired air defense projectiles 18966
AEGIS ORTS integrated diagnostic system 42716
aerial cable target syst. simul., 6-DOF 26843
ATE service life extension, military appls. 42731
ATE software design methodologies develops 42703
buried objs. detect., dual-band IR images fusion 8555
CALS develop., military appls. 43596
cannon caliber railgun, air core compulsator design 19781
cannon calibre EM railgun, discarding armature, design 18965
CASS, design for supportability 17670
combat syst. effectiveness modeling, anti-air warfare tactics 43589
combat vehicle EM weapon syst. integrat. design 18961
design-for-test process improvements 43594
diagnostic performance: The need for a new metric 43599
elec. drivetrain, tank propulsion/railgun power supply 20064
elec. gun capacitive pulse forming networks 19776
electrothermal guns, capacitor charging, voltage/current control 19777
electrothermal guns, low mol. wt. working media, num. study 18967
electrothermal-chem. gun, ship defence appl. demons. 15285
EM guns, launch package integrat. design 18963
EM launchers, tactical appls. 15307
fibre optic sens. for nuc. waste tank environ. 18994
fighter aircraft, future generation develops. 43598
global weapons testing fallout ^{237}Np, soil residence times 18914
Hunter Unmanned Aerial Vehicle, near-term targeting tool 4434
hypervelocity EM armament, main battle tank, anti-armor mission 15308
hypervelocity solid propellant electrothermal launcher 15286
integrated target acquisition/fire control systs., conf. (1991) 28259
laser pointing, observer-based adaptive control 10588
launch platform develops., weapon simulators 35405
mission effectiveness enchancement through electro-optical systems 43570
mission effectiveness enhancement, advanced boresight equipment 43575
multiple model adaptive estimator target tracker, accel. models 32542
Nat. Ignition Facility protect 4429
Navy's integrated diagnostics support system 43595
Navy pulsed power guns, power syst. simul. 35408
Operational Avionics Smart Instrumentation System (OASIS) 10331
parametric endo/exoatmospheric lethality simul., ballistic missiles 26840
pulsed IR dist. meas. sens. ccts. for weapon systs., ASIC implement. 10587
railgun armour penetrating projectiles, armature designs 18964
railgun PFN, rep-rated, capacitor thermal mgt. 31745
railgun weapon solid armatures, instrumentation develop. 15336
relativistic klystron amps. for microwave pulse gen. 29775
Savannah River Site D&D program status 18680

weapons continued
- single-mode reliable opt. card-edge connector 10321
- tactical systs. appls. for THz devices 10591
- threat data base appl., radar warning receivers 43584
- two level maintenance environment/data collection 42742
- unmanned underwater surveillance vehicle systs. 9666
- US Navy batt. requirements, develop. efforts 43565
- ^{137}Cs radioactivity, snowfields, glaciers in situ γ-ray detector 18356
- Li-SOCl$_2$ long life reserve batt., wide area mine 43566

wear
- *see also abrasion; hardness*
- accelerated nanoparticle erosion, micromachining 39031
- composite and refractory-coated materials. launchers and fusion appls. 31769
- contact elements wear in electromechanical switches 38066
- contact erosion modelling, obj.-oriented technol. 6395
- contact recording coatings, nanoindentation, microscratch, friction, wear 39184
- elec. launcher technol. component erosion expts. 15326
- EM gun technol., Cu/Al component protection coatings 15331
- EM launcher electrode/insulator degrad. studies 15332
- head-disk interface lubrication using non-Newtonian fluid, num. simul. 7068
- light strip image anal. on cutting tools, extract 3-D wear inform. 24542
- mach. wear particle anal. by fiber-optic confocal laser scanning microscopy 31695
- machine wear debris monitoring, transducer design 25779
- marine elec. machine bearings, operational state prediction 36709
- packaging connectors, vibr. induced wear 29648
- particulate/ME mag. tapes sliding against Mn-Zn ferrite head in lin. mode, friction/wear 7165
- plasma pulse-based metal surface treatment 15337
- α-quartz, dielec. strength, size effect. Monte Carlo anal. 13980
- railgun elemental wire conductors, wear behaviour studies 15339
- rot. mach., stat. monitoring, cumulant spectral anal. 32454
- SIRENS electrothermal launcher, plasma-material interaction 31766
- small bore plasma armature railgun expts. 15270
- small railgun, bore erosion reduction 31757
- thin film rigid disks, dot array texture on C overcoats, tribol. 7146
- Ag and Ag-Pd contacts, material transfer and arc erosion characts. 6390
- C, DLC protective PECVD film, thin film mag. disk 7152
- C-coated thin film head sliders, tribological perform. 7149
- CrO$_2$ video tapes, macro-/micro-tribological studies 20990
- Cu-Nb in situ composites, elec. sliding friction 5908
- NiZn ferrite head wear rate meas., custom high sensitivity elec. elements 7166

wear, abrasive *see abrasion*

wear resistant coatings
- EM gun technol., Cu/Al component protection coatings 15331
- EM launcher plasma pulse-based metal surface treatment 15337
- micromotor flange bearing monolayer coatings, perform. tests 44084

wear testing
- arcing contacts, concurrent testing syst. develop. 9811
- DC load contact switching eval., derating curves and life testing 29631
- elec. launcher technol. component erosion expts. 15326
- micromotor flange bearing monolayer coatings, perform. tests 44084
- multi-reed switch, contact erosion/spatial mag. field var. 29636
- multiplated elec. contacts, impact wear 37556
- packaging connectors, vibr. induced wear 29648
- plasma pulse-based metal surface treatment 15337
- railgun elemental wire conductors, wear behaviour studies 15339
- relay contact surface, arc discharge damage, scanning laser microscopy 29633
- rubber insulating gloves, HV overhead line working, lifetime estim. *(English)* 35658
- scratch testing, grooving wear, elevated temp. *(German)* 447
- thermal power plant FGD ESP, corros. wear testing *(German)* 4822
- Ag rivet contact perform., SiO$_2$, Al$_2$O$_3$ deburring media effects 29624
- Ag-CdO(SnO$_2$) power print relay contact materials perform. 29632

weather *see meteorology*

weather radar *see meteorological radar*

Weibull distribution
- accelerated life test data, threshold stress estim. *(Japanese)* 28525
- accelerated life testing, unreported early failures 28429
- agricultural mach. preventive maint./replacement optim. 11682
- bulk avalanche semicond. switch, perform./reliab. 36384
- Dirichlet proc. for reliab. anal. 5744
- distrib. network, load forecasting, decision making, hybrid ES 19270
- electrode insulation demo. life-test duration determ. 28428
- environ. stress screening, 3-level syst. 20411
- fatigue test data, Weibull distrib. anal. 5702
- fiber optic data links for satellite data mgt., particle-induced bit errors 17262
- finite range failure model, reliab. anal. 37187
- HV vac. relay reliab., Weibull/exponential failure distribs. 28523
- insulation systs., partial discharge diagnosis 13964
- insulation systs., PD, risk fns. 1530
- inverse coeff. of var., asymptotic sampling distribs. 20481
- LSI fab., dust sources 30403
- metallized electrode capacitors, nuc. fusion, capacitor banks 36631
- mil. avionics part failure-rate prediction models 35420
- MOV arresters, I-V characts. inspection tests *(Russian)* 43802
- multiple stress of component, reliab. estim. 11852
- NPP, aging standby components, time-depend. unavailability 43822
- optimal CFAR detect. in Weibull clutter 32540
- param. estim., Weibull probab. distrib. 192
- PD study by height-distrib. anal. 22654
- porcelain insulators, mech. stress test methods 43791
- product storage reliab. estim. problem 37198
- PV arrays, mismatch losses model 11300
- radar clutter, spatial correl., simul. 34135
- radar clutter background, order stats. CFAR, perform. anal. *(Chinese)* 34106
- reliab. dens. fn. determ., failure rate, random variable 20498
- reliab. engng. data anal., neural network appl. 37197
- reliab. life testing, best compromise test plans 5700
- reliab. modelling, Weibull distribs., failure data anal. 37183
- reliab./safety engng., biased direct Monte Carlo simul. method 37180
- repairable systs., Weibull proc. failure intens. estim. 87
- repairable systs. reliab., time-varying failure rates 28541
- SMT assembly, failure stats. and failure free time 11792

Weibull distribution continued
- storage syst. with high reliab., optimal inspection policy 37190
- TAB inner lead fatigue in thermal cycle environ. 11791
- two-param. Weibull distrib., percentile estim. 37191
- wind energy resource estim., probabilistic calc. tool 19570
- wind energy resource pot. studies, Nigeria 4875
- X-band radar, obs. of K-distributed sea clutter 34119
- Al-Si-Cu VLSI interconnect void-related early failure, subpopulation model 22271
- ZrO$_2$ electrolyte, SOFC, mech. testing, microstruct. 44390

weighers *see balances*

weighing
- centre of mass location of test obj. 25981
- feeder retrofits/upgrades 3996
- flip-chip solder bumps, Sn content meas. method 42975
- goods vehicle enforcement weighing syst. 3724
- microgravimetry, soln.-phase, using oscillating quartz microbalance 42956
- porous samples dens. determ. hydrostatic weighing appl. 42957
- XSH alacrite based mass stds. stabil., cleaning influence 34317

weighing machines *see balances*

weight indicators *see balances*

weight measurement *see weighing*

weightlessness experiments *see zero gravity experiments*

Weissenberg cameras *see cameras; X-ray apparatus; X-ray crystallography*

welding
- *see also electric welding; electron beam welding; laser beam welding; lead bonding; ultrasonic welding*
- austenitic weld, eddy current testing, SPC *(German)* 5919
- bonding state obs. in clad contact, US microscope 6386
- butt weld joints, US testing, ray modeling 4423
- crane manufacture, horiz.-arm layout coord. meas. machines 5611
- digital AC servo motor for welding robots *(Japanese)* 11078
- inner surface defects, magnetographic inspection, sensitivity 21001
- Northern States Power Company Welding Manual Advisor 35854
- optoelectronic packages, spot-welding tech. 5645
- power station turbogenerator maint., welding experiences, UK 19388
- ROC method, material testing syst., perform. 12223
- superimposed holographic interferometer, welding control appl. 15156
- unreinforced weld joints, magnetographic inspection, standardizing fields 28918

welding electrodes
- AS-140 arc welding equipt. 5402

welding equipment
- AS-250 arc welding equipt. 5401
- contact welding equipt., biperiodic rectifier anal. 11506
- robotic welding syst., knowledge based machine vision 41247

welfare *see public administration*

wetting
- aq. rosin flux cleaning, PCB manufacture, thermodyn./kinetics 38142
- ceramic packages, die attach polymer bleedout 153
- electronic assemblies, non-Pb bearing solder alloys 936
- glass fiber reinforced composite insulator, plasma surface treatment *(Korean)* 28874
- insulator wetting action, fog test facility 4702
- IR detector selection for laser soldering proc./joint qualif. 6417
- laser bumping for flip chip and TAB appls. 12957
- no-clean solder paste reflow, N$_2$ atmos., O$_2$ conc. influence 38149
- no-clean wave soldering, technol. issues and N$_2$-based inert proc. 38136
- nonceramic insulators, flashover voltage, wetting conditions effect 19322
- OLB solder fillets of TAB-devices, reliab. and Au conc. 11804
- PCB flux residue influence, electronic assembly quality 937
- picolitre flux dispensing for PWB assembly 12939
- Pulse Shooter solid-state conformal coating proc., PCB mask elimination 38139
- PWB soldering proc. versatility vs.stability, O$_2$ effect 12912
- railguns, nonarcing contact material deposition expts. 15349
- reduced oxide soldering activation, prod. compat. eval. 38115
- silicone insulators, naturally aged, wettability, TSC spectra 35666
- SMC solderability testing, microwetting bal. 6422
- Al-Ge-Cu alloy reflow sputtering, electromigration charact. 22269
- Al-reflow proc., surface modif. by ECR plasma treatment 22261
- Cu/Sn(SnBi)(SnPb) solder systs., wetting tips, morph. and instabil. 28865
- Cu-Cr bilayer metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
- Cu-Ti bilayer metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
- CuCr alloy film metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
- CuTi alloy film metallization, enhanced adhesion, SiO$_2$/PSG/BPSG 38671
- O$_2$ effects on solder surface, PCB assembly options 38153
- Si, porous etched layer, transport, humidity infl. 21898
- Si wafers, particle contamination minimization, wet proc. 30083
- SiO$_2$-Si wet oxid. by RTP, homog. 22222
- Sn immersion coatings, PWB surface finishes 12934

whiskers (crystal)
- thermal anemometer sens. based on whiskers 3799
- GaAs nanometer-scale whiskers, growth/opt. props. 20815
- GaAs nanowhiskers, site-controlled growth 12121
- InAs nanometer-scale whiskers, growth/opt. props. 20815

whistlers
- *see also atmospherics; ionospheric electromagnetic wave propagation; magnetospheric electromagnetic wave propagation*
- atmos., location, one station 23640
- ionos., current source sheets, EM waves excitation 23639
- low lat. whistlers propag. mech., direction finding meas. 23644
- low-lat. whistler propag., review 31812
- moving electrodynamic tethers, mag. antennas, fields, currents 23894
- plasma-loaded FEL, EM wave wiggler and axial guide field 7698
- propag. charact. of whistler-mode sigs. from LF Decca transmitter *(Japanese)* 40346
- Schumann reson. periodicities, whistler-train excitation 31811
- wave/particle meas., lightning-induced precip. 23705

white noise
- 1.2 μm CMOS-SOI technol. transistors, noise charactn., gamma ray effets 13728
- 2-D MUSIC/2-D MP estimators, asymptotic props. 15978
- 6 Mb/s ADSL, constellation TDM 16922
- adaptive HMM filters for sigs. in noisy fading channels 32736
- adaptive IIR filtering, composite prefiltered regressor method 32775
- adaptive-neighborhood image deblurring 16323

white noise continued
- AR param. estim., noisy data, EM algm. appl. 40921
- arc furnace supply plant, flicker/distortion compensation 20129
- array sig. no. detect. for coherent/incoherent sigs. 40955
- asymmetric DSL ideal discrete multitone signalling 42051
- asymptotic MLE of chaotic sigs. in noise 40847
- asynchronous packet transm. optimum frame sync. 41418
- AWGN, block and decoded error probabilities of DPSK 15763
- bearings-only tracking in distributed sens. network, reduced sufficient stats. 15877
- binary transm. in slow four params. fading channels, errors *(Polish)* 33742
- blind equalization, higher order cumulants/neural networks 2862
- blurred image restoration, layered and Hopfield neural nets *(Japanese)* 8666
- capacity evaluation of spread spectrum multiple access 8738
- CDMA mobile radio syst., turbo-codes appl. 9239
- CDMA networks, decorrelators for multi-sens. systs. 33761
- CDMA receiver, near-far immunity 25228
- CDMA systs., error-correcting coding 24782
- cellular TDMA networks, cochannel interf. simul. 17060
- chaotic sigs. MLE 24291
- chirp SS techs., multipath interf. suppression 25250
- clipped cepstrum, robust, speech recog. *(English)* 40716
- clover-leaf SQUID, design, fab. 22752
- coherent FH-SS commun. syst. capacity 40551
- commun., chaotic masking 15687
- complex sig. detect. in white Gaussian noise and narrow-band interf. 32592
- concatenated coding syst., modified erasure declaration Viterbi decoder 8173
- CPM sigs. neural receiver 33913
- Cramer-Rao lower bound approxs. of freq. estim. 24224
- CRLB/HOS of polyphase sigs. in additive/multiplicative noise 24245
- decision feedback multiple-sym. differential detect., diversity 9200
- DECT solid state radio front end, perform. eval. 3468
- demodulation of noisy phase/FM sigs., Kalman filters 40574
- DFT, bivariate orthogonal white noise series synthesis 40817
- differential parallel combinatory SS commun. systs. *(Japanese)* 25207
- differentially detected π/4-DQPSK syst. perform., AWGN/Rayleigh fading 40568
- digital compact cassette, seq. estim. algms. appl. 17582
- digital mobile commun., blind seq. detect. 17039
- digital PM, carrier tracking and sym. detect., nonlin. filtering 8107
- digital satellite channels, adaptive DFE, multilayer neural networks 25453
- digitally FM sigs., modulation class., higher-order correl. 15698
- discrete time chaotic sigs. detect./charactn. 8291
- diversity combining, correl. slowly flat-fading Rayleigh channels 8374
- DOQPSK, differential demodulation of filtered offset QPSK 17073
- DQPSK in fading channels, unified error anal. 8090
- DS-CDMA low crosscorrel. seq. iterative constr. 41463
- DS-CDMA radio commun., low rate coding methods 25249
- DS-CDMA receiver complexity reduction 17011
- DS-SS, multi-h CPM, indoor mobile radio, perform. 3474
- DSP implement./perform. eval. of stereo echo canceller 34287
- dual-channel iter. speech enhancement, auditory-based spectrum 8220
- elec. network flicker compensation, arc furnace model 5383
- eqn.-error adaptive IIR filters, bias removal 24201
- exponentially weighted LS ident. of time-varying systs. 2463
- extremely low noise SAW oscillator 30648
- FAEST, fast transversal algms., error generation and propag. 32699
- fast freq. hopped NCMFSK, Rayleigh fading, diversity combining 33762
- FH-SSMA, band-efficient modulations, cellular radio channels 25367
- filtered EM algm. for joint HMM and sinusoidal param. estim. 24220
- FIR systs. blind ident., third order cumulants 2525
- first-order PLL in noise/interf., cycle slip 2547
- focused gamma neural network, state space, noise reduction 32657
- fractal modulation commun. syst., implement./simul. 15708
- frame integrat. perform. improvement in unknown sens. jitter 16108
- freq.-stepped CW radar data, optimal sig. proc. 17374
- Gaussian discrete fields in Gaussian noise, recursive filtering 41029
- granular TV camera noise, stat. characts. 9716
- guard interval in orthogonal FDM, multipath channels 2885
- harmonics in noise, cumulant-based estimators, perform. anal. 40992
- HF discharge lamp ballasts, white noise modulation 11457
- hidden nearly completely decomposable Markov chains, adaptive estim. 40971
- high-T_c SQUID magnetometer for geophys. appls. 10455
- HTSC RF SQUIDs made by O-ion irrad., LF noise 39272
- HTSC SQUID, charactn., optim. and modeling 22741
- hybrid SFH-multitone DS SSMA syst., perform. 9172
- incoherent and skewness matched filter detectors, multipath environ. 24174
- indoor mobile commun., CCI and multipath delay 17098
- input plane/Fourier plane random encoding, opt. image encryption 41302
- IR FPA non-uniformity meas., proposed std. 34571
- ISI nonlin. equalization, further decision prediction *(Polish)* 40794
- isotropic broadband suscept. test method (appl., ARC-182 radio) 15468
- lin. FM sigs., fast param. estim. algms. 40909
- LMS acoustic echo cancelers, slow asymptotic convergence 24313
- LMSS, receiver 3rd order PLLs 42211
- low bit rate coded speech quality eval., ref. sig. 8218
- low residual noise speech enhancement utilizing time-freq. filtering 32211
- LS/SVD based techs. for high-resoln. freq. estim. 24203
- M-ary (d,k) codes for high dens. disk recording, improved dist. 30735
- M-ary DPSK, MLSE differential phase detect. 2563
- M-ary DPSK/D^2PSK channel capacity with time-selective Rician fading 32033
- M-ary phase coding for noncoherent AWGN channel 24046
- M-ary PSK suboptimal coherent detect., error rate bound 15961
- M-ary wideband commun. syst., multipath channels appl., perform. 17019
- mag. recording channel, binary/ternary DFE 7191
- manoeuvring target tracking, multi-model adaptive Kalman filter 15964
- matched median filter for QAM sigs. detect. 15967
- mobile fading channel 16-DAPSK perform. calc. and simul. 33798
- mobile radio postdetection diversity/concatenated channel coding 3341
- mobile satellite channels, partial response coded MPSK anal. 42205
- model based tone freq. estimators, prefiltering effects 16010
- moving objs. extraction by digital time-varying image proc. *(Japanese)* 24604
- multi-D trellis decoder for 155 Mb/s concatenated codec 33684
- multilinear time-freq. representations, multicomponent sigs. anal. 32743
- multiple multiamplitude MSK trellis codes, AWGN/fading mobile satellite channels 33958
- multiposition incoherent sigs., simple method of invariant reception 40858

white noise continued
- multiuser collaborative coding schemes, complex-value receiver 24779
- narrowband sig. extraction, neural net based scheme 2456
- near-far resistant DS-CDMA receivers, sensitivity anal. 9236
- noisy phase OOK sigs., noncoherent detect. 40784
- noisy quantized random obs. coeff. AR time-series, estim. 40869
- non-Gaussian time-varying AR models, cumulant-based approaches 2523
- non-min. phase syst. estimators, comparison 16013
- nonlin. cepstral equalisation method for noisy speech recogn. 2434
- off-line segmentation of sigs., MAP soln. 41007
- opt. PLL, amplit. modulated commun. link 42347
- optimal receiver design, wavelet bases 40929
- orthogonal coherent digital MFSK systs. in Gaussian noise and Rayleigh fading 40795
- Osman Nuri Ucan receiver, trellis coded M-QAM schemes, partial response channels 40704
- oversampling A/D converters, delta-sigma modulator structures 25758
- PARADE, sigs. nos. determ. in unknown noise environ. 24222
- partially coherent CPM receiver, cochannel interf. 8105
- PCS, outage probab. in presence of Rice fading 17099
- PPM, seq. detect. and equalization 15710
- PRMA protocol, indoor radio, BPSK, capture effect, perform. 9299
- PRML channel, medium noise, syst. error rate 7120
- PRML digital mag. recording systs. anal. by write and read equalization 30723
- pseudorandom seqs., correl. property testing 32692
- PSK M-ary modulated sigs., CCI estim. 33884
- PSK sigs., low SNR approx., phase PDF 2364
- quasi-optimal nonlin. filtration, non-Gaussian noise effect 8336
- radar sig. detect. via ARMA modeling 34132
- radio links, computer generation of sigs., simul. program 17025
- random wavelet transform. 32521
- Rayleigh fading channel, convolutional coding, soft-decision quantizer 40696
- reciprocal Gaussian procs., recursive filtering/smoothing 24293
- reciprocal seqs., Kalman like filtering/smoothing 40873
- Rician CDMA channel fading-resistant multiuser detect. 41460
- RLS adaptive equaliser digital commun., importance sampling 16409
- RLS algm., wt. misadjustment, input sig. correl. effect 40843
- robust block adaptive filter for colored sig. input 37865
- robust lin. predictive anal. methods for speaker ident. 24150
- self-calib. DOA estimator, computationally efficient 41050
- self-similar set ident. in time-scale domain 32520
- semicond. LDs, elec. and opt. photocurrent noises correl. 1922
- seq./parallel image restoration, neural network appl. 2729
- sig. integral, time delay estimator, ECG sigs., perform./testing 4280
- sig. restoration, correl. accumulation 2522
- simple chaotic syst., noise sig. synthesis 15922
- sinusoidal sig./params. estim., nonlin. filter *(Japanese)* 2557
- sliding multiple sym. differential detect. of trellis-coded MDPSK *(Korean)* 15725
- soft-decision seq. decoders perform., estim. 8175
- spatial-point proc. model, texture class. 34183
- speech enhancement, higher order AR modelling, parameterized Wiener filtering 15836
- speech enhancement based on auditory constrained params. 32210
- speech noise whitening filter for syst. ident. 40746
- speech param. extraction, noisy environ., masking model 32384
- speech recogn., noise adaptive, HMM representation 40741
- speech recogn. in noisy car environ., OSALPC representation 32382
- sq. synchroniser jitter on direct detect. opt. commun., white cct. noise 3577
- SQUIDs, noise props., inductance depend. 14302
- SS commun. syst. jamming, general model 42185
- state-space modeling, direction finding of wide-band emitters 2554
- Steiglitz-McBride method, convergence/convergence point/convergence rate 32770
- surge arrester, ZnO, electro-thermal model params. ident., autoregressive techs. 27275
- SVD, periodic sigs. anal./prediction 15979
- sym.-by-sym. detector for lin. dispersive AWGN channels 16017
- TACOM thermal image model, PC version 35409
- TCM sig. detector, time-dispersive channels 15957
- TCM-QAM for flat fading and AWGN channels, design 24118
- TCM/M-PSK, trellis-coded M-ary PSK for digital land mobile commun. *(Korean)* 17045
- TDMA binary PSK sig. demodulation without explicit carrier sync. 40553
- telecomms. syst., forward error control, simul. techs. 42450
- time-varying higher-order cumulant spectra, noise, composite FM sigs. anal. 40970
- transform adapted, polynomial phase sigs. 16016
- trellis-coded MDPSK, sliding multiple sym. detect. *(Korean)* 24120
- trellis-coded quantization for noisy channels 24032
- twisted-wire pair, capacity calc. 40523
- uncoded M-DPSK non-redundant error correction 8460
- weak radar sig. detect. based on wavelet transform 42491
- whiter than white noise 40990
- Wiener-optimum lin. detectors for non-Gaussian channels 24246
- $Al_xGa_{1-x}As$ n^+nn^+ devices, Al content x, effects on hot electron noise 1433
- AlGaAs/GaAs HBTs and assoc. TLM test structs., excess noise 1352
- YBaCuO DC SQUID magnetometer, low noise, direct sig. injection 39255
- YBaCuO HTSC bi-epitaxial DC SQUIDs, FIB etching from single jns. 39276
- YBaCuO thick film RF-SQUID for detect. of weak mag. field sigs. 39277
- $YBa_2Cu_3O_{7-x}$, Josephson jns., SQUIDs, cryo-refrigeration 1605

wide area networks
- *see also information networks*
- all-opt. networks, wavelength requirements 16712
- Amoeba syst. and WAN commun. *(Chinese)* 16648
- ARPANET, early yrs. 41907
- AT&T/DEC/MIT precompetitive consortium on wideband all-opt. networks 34049
- ATC, Ada computer commun. interfacing 41773
- ATM, future in deregulated markets 16552
- ATM based LAN/WAN *(Japanese)* 41854
- ATM dyn. multipoint routing, geographic spread 41452
- ATM flow control, rate and credit schemes integrat. 41401
- ATM LANs/WANs, random access protocols 8965
- ATM network, connectionless service 3230
- ATM networks, congestion control based dyn. routing 2991
- ATM networks, high speed multimedia commun. archit. 25105

wide area networks continued
ATM technol. for CPN *(Japanese)* 25147
ATM transport networks supporting multimedia traffic, optimal resource mgt. 16853
ATM WAN, multimedia commun., routing problem 16892
BAfirewall, Bell Atlantic internal TCP/IP WAN 16673
BALI, inhouse ATM and LANs/WANs for multimedia teleservices 41983
Byelorussia, networking for sci. and education 41775
CA-Browsing System, global security services support 16675
CASA project, high-perform. distributed computing environ. 16727
CHIP lang. impl., large computer network optimal mgt. 24985
computer network clocks, improved sync. algms. 2949
computer networking, satellite 16750
connection mgt. without retaining inform. 16714
CRMA/ATM interworking unit,a loss free access, buffer sizing 8968
CRMA/ATM network interconnection flow control protocol 41762
customer network mgt. in SMDS, subscriber's viewpoint 16706
data compression, network link congestion control appls. 40793
efficient routing/scheduling algms. for opt. networks 8976
EINet, secure, open network for electronic commerce on Internet 8938
enterprise computing, LAN/WAN aspects 33479
Fast Ethernet for boosting WAN throughput 33580
fast packet technol., corporate network choices 33581
fiber-optic WAN, tactical airborne sens./ground station 43569
finite-horizon stat. QoS measures for high-speed networks 33590
frame relay protocols and user interface 41809
French WDM WAN wavelength-routed archit. 34039
fuzzy set delay representation, WAN routing algorithms 8963
global internetwork troubleshooting 16612
handshake level requirement for establishing connection 41501
Hawaii State Dept. of Education future high speed IN 3251
heterog. data networks, addressing/routing 24841
high speed inform. network planning, stochastic optim. 25109
high speed WAN, distributed database syst., concurrency control 8906
high-speed ATM networks, TCP perform. improvements 25041
high-speed network QoS, per-session end-to-end delay and call admission 33168
HONET, integrated services WDM opt. network 16713
HSSI for broadband appls. bandwidth allocation 16656
India, networking needs, demand and regulation 25017
inform. highway, low-cost access, ADSL technol. 16914
inquiry based requirements anal. for Internet service 33551
inter-LAN security, trusted routers 16671
interconnected LANs, desktop video conferencing syst. 33618
interconnecting computers, archit./technol./economics 16702
Internet protocol, connection-oriented networks and distributional paging 16489
KARRN, Kyushu Area Regional Research Network *(Japanese)* 8884
key agile cryptographic syst. for OC-12c rate ATM 24058
LAN, WAN, VAN, inform. related technol. *(Japanese)* 3186
LAN internetworking, VSAT systs. 25055
LAN-based office, enterprise archit. 33519
LAN/WAN environ., contingency planning 41901
leaky window, flow and congestion control tech. for HS-WANs 33536
local computer networks, conf., Minneapolis, USA (1994) 20231
MAN/WAN integration, ATM-to-DQDB case 33446
med., distributed multimedia patient data, Bermed Project 8942
mobile wireless access to the WWW, dyn. documents 33570
Mobisaic IS for mobile wireless computing environ. 33571
MOBITEX and mobile data systs. 41859
multi-Gb/s opt. WDM LAN/MAN/WAN networks 42422
multicast route finding algms. in WAN *(Korean)* 8913
multicast-specific security threats, counter-measures 24961
multimedia appls., fn.-based commun. protocols 9074
multimedia integrated services networks, sync. mechanisms 16874
Nat. Motorway Communications System Mark 2, traffic mgt. 33552
native-mode ATM appls., signaling and OS support 2945
Network Time Protocol, clock sync. 41545
networked ATM-video products 9026
packet-switched WAN, distributed adaptive routing, perform. 3189
PAGEIN project, networking issues 16728
parallel network computing, commun. latency hiding 16682
Poisson modeling inadequacy 3207
prioritized distributed queueing random access protocol 33500
protocol half-converters derivation, formal approach 16477
RACE II project PREPARE, mgt. of heterog. broadband testbed 33386
Real-Time VirtualClock, network traffic control mechanism for real-time commun. 8910
rem. seminars, multimedia conferencing, MICE project 25118
security of network and distributed systems conf., San Diego, USA (1995) 11601
shift/BETEL project, CERN involvement 25000
small-terminal satellite networks, protocol enhancer 17162
SMDS customer network management by 3M and US West 33443
SMDS network simul. 33477
SMDS support network minimax open shortest path first routing algms. 41765
SMDS technol. test results and issues 41764
SPS/LEP commun. control network evol. 18197
SWITCH*, Swiss Univs.' computer network, growth/funding 25022
TCP/IP, mobility impact, simul. study 3201
TCP/IP, perform. 33508
TCP/IP perform., satellite 25468
telecomm. systs., appl. of transputer links and routers 3179
university discless workstation network traffic charactn. 28347
videoconferences on Xunet II fast ATM WAN 25078
virtual rate-based queueing, generalized discipline for high-speed networks switches 24787
Vobis Microcomputer AG internat. ISDN *(German)* 41922
VSAT appl., extend company LAN, retail sites 16774
VSAT interconnection for wide area diversity syst. 16776
VSAT networks, integrat., user network environ. 17159
W4, Wireless World Wide Web, PDA based 33569
wavelength-routing opt. networks 41580
WDM WAN trials 33524
wireless data networks 25057
World Wide Web network traffic patterns 33655
Xunet 2, scheduling discipline/admission control policy 16665

wide band gap semiconductors
bipolar power devices, materials and lifetimes 30205
diamond/Ti-Au(-Ag)/Al CVD diodes, high temp. stabil. 22046
II-VI blue-green emitters, failure mechanism 14630
II-VI cpds. MBE, in-situ charact. 20908
metal/SiH_x/Si diode struct., steady-state I-V charact. 38437
Ag-As-Se glasses, thermal, elec. and opt. props. *(French)* 1055
AlGaInP based wide band gap quantum wells, opt. spectrosc. 13165
$Cd_{1-x}Mg_xTe$, doping, MBE 38490
CdSe, MOMBE-ALE, growth kinetics, opt. probing method 20909
CdSe, metalorganic VPE/MBE growth, opt. monitoring 20725
CdZnTe energy selective arrays for indust. and med. radiation imaging 18407
CdZnTe pixellated gamma detector arrays 18350
GaAs based FETs, high temp. operation 13807
GaAs, impact ionisation transients, lucky drift model 13071
GaAs/GaN/GaAs thin-layer struct., plasma-assisted MOCVD growth 37506
GaN, wide-band-gap semicond. quantum wells, opt. gain 14957
$In_{0.52}Al_{0.48}As/In_{0.53}(Al_xGa_{1-x})_{0.47}As$, NPN DHBT, DC characteristics 13634
$(InSn)_2O_3$ films, activated electron beam evap., water partial press. depend. 37487
MgZnSSe/ZnCdSe lasers/LEDs, thermal annealing 23051
MgZnSeTe alloy, blue/green diode laser 23258
PbI_2 X-ray detectors, electronic noise 18320
SiC CVD on 6H-SiC{0001} faces, nucleation and step motion 5890
SiC NMOS digital IC, logic gates 632
SiC, VPE growth, vert. LPCVD reactor 20867
SiC cubic films, struct./opt./elec. props. 21938
SiC devices, high-dark-resist., photoconductive and PV response 31077
SiC epitaxial films, vap. phase chem. deposition form. 37453
β-SiC films, CVD epitaxy, struct./electronic charact. 20903
SiC form. by Si carbonization, solid source MBE 20902
SiC high-temp. JFETs, neutron damage anal. 13789
6H-SiC, n- and p-type, thermal oxid. 1288
SiC p-n struct., power rectifiers 30226
6H-SiC p-type photoconductive switches investig. 23011
6H-SiC, residue-free RIE in fluorinated plasmas 13394
SiC thermally crystallized films on sapphire, electronic transport 21937
SiC wide gap films by rem. plasma CVD from organo-silicon source *(Japanese)* 37490
$SiC:Ga^+$, defect prod., annealing 22105
a-SiO:H films, plasma CVD, solar cell appl. 5213
SnO_2 thick-film planar resistor, humidity effect 870
ZnS thin film opt. waveguides, SHG study 22908
ZnS/GaAs epitaxial layer syst., vapour phase epitaxy, residual and thermal strain 38307
ZnSe, MOMBE-ALE, growth kinetics, opt. probing method 20909
ZnSe, metalorganic VPE/MBE growth, opt. monitoring 20725
ZnSe thin film opt. waveguides, SHG study 22908
ZnSe:I, VPE growth, I incorporation 5848
ZnSe/ZnTe vis. light emitting laser, MOVPE growth 31311
ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, SHG study 22908
ZnSe/ZnTe/ZnSe/GaAs (001) waveguides, phase matched SHG 39442
ZnSe-based alloys, wide-gap II-VI materials, MBE growth, charactn. 20910
ZnSe-based layer struct. for blue-green LD 23294
ZnTe thin film opt. waveguides, SHG study 22908

wideband amplifiers
75 to 115 GHz quasi-opt. amp. struct. 23907
200 W FM-band high-efficiency power amp. develop. *(Japanese)* 17548
BiCMOS pipelined A/D converter using current-mode sigs., LV design *(Korean)* 12590
broadband microwave amp., low noise stable, design 12785
CMOS 248 Mb/s transimped. amp. and 155 Mb/s LED driver for fiber links 9543
current-feedback op amps, RF appls. 545
dielec. Cherenkov masers, powerful amps., superwide bandwidth 1843
dielec.-loaded wideband gyro-TWTA 29810
distributed baseband amp. IC module and MCM, 60 GHz bandwidth 6334
feedback amp. struct. optim. 29059
feedforward amp. incorporating parallel output summing 12346
handportable mobile satellite stations, power amp. design 37656
HF fully integrated OTA-C filters, 7.2 GHz bipolar OTA 6210
high speed MMICs/digital ICs, fab., T-gate technol. 858
high-power wideband beam-plasma microwave amps./generators 974
master slice-type transimped. amp. photosensors, PIN-bipolar proc. 25835
miniaturised MMIC amps., thin dielec. layers 29586
pseudomorphic HEMT power amp. MMIC, wide/med. band 38033
RF power amp. input matching network param. optim. *(Croatian)* 548
semicond. TWAs, wavelength conversion, four-wave mixing 40057
three-channel integrated wideband video IC 6038
transimpedance amps. with cascode struct., anal., MMIC amp. appl. 12807
triquint 0.5 μ MESFET device microwave transconductance amps. and filter ccts. 6327
two-stage tapered gyrotron TWTA, gain broadening 29809
V-band MIMICs for pers. commun. terminals 38008
AlGaAs-GaAs HBT-based direct coupled feedback transimpedance amp. 29065
AlGaAs-GaAs HBTs and broadband MMIC power amp. appl. 21559
GaAs HBT power MMIC, X-Ku band, high power 38034
GaAs MESFET TWA MMIC, 2-12 GHz *(Chinese)* 38039
InGaAs-GaAs HEMT MIMIC amp., high gain, 75-110 GHz 38025
InGaAs-GaAs MODFET MIMIC amp., 5-80 GHz, CPW 38026
Si MMIC broadband amps., Siemens devices for mobile radio 852
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 34046
Si bipolar chipset for SONET/SDH 10 Gb/s fiber-optic links 33986
Si bipolar wideband amp., 15 Gbit/s, opt. commun. appl. 21122

wideband networks *see broadband networks*

Wiener filters
2D separable FIR Wiener filter design, iter. method 24214
adaptive beamforming, spatial filter designed blocking matrix 8408
CDMA demodulator, interf. robust, spectral correl. props. 3327
cellular commun. noise suppression 3500
discrete spline transform, computation/effectiveness 16045
electro-opt. sens., point source algms. for optimum acquisition range 15866
enhanced RLS tracking, parallel adaptation 32698
foetal ECG, time-varying Wiener filtering, wavelet transform 35116
gravit. wave detectors, Wiener filter appl. 32639

Wiener filters continued
- image restoration, SNR estim. for Wiener filter 16324
- landmine detect., Compton backscatt. imaging, two-collision theory 18425
- low residual noise speech enhancement utilizing time-freq. filtering 32211
- measurement system resolution improvement through optimal filtering 25766
- morph. filtering, model-based, opening spectrum 32913
- multi-channel deconvolution, generalized sampling approach 15924
- multiscale Wiener filter, fractal sigs. restoration 2470
- multivariable robust filtering/open-loop control, probab. 32529
- neutron penumbral imaging of ICF targets 34948
- noisy speech recogn., cepstral-time, and spectral-time filters 32381
- non-lin. image restoration algm., artifact reduction 24514
- nonlin. sig. proc. and adaptive filtering, orthonormal fns. 32777
- recogn., faces/occlusions, multiple-template expansion matching 2769
- SAR imaging, speckle reduction, iter. homomorphic tech. 42484
- scanned halftone images reconstruction, filters appl. 33129
- spectral substraction/HMM-based speech enhancement, hearing aid design 32213
- speech enhancement, higher order AR modelling, parameterized Wiener filtering 15836
- speech enhancement based on auditory constrained params. 32210
- speech waveform restoration by MLE *(Japanese)* 15804
- subband adaptive syst., equiv. model, perform. anal., Wiener filters *(Japanese)* 29368
- subband adaptive systs., perform. anal., equiv. model 32696
- tomograms, US, restoration based on Wiener proc. 43246
- underwater target, causal impulse response estim. 34180

wigglers
- 1 MW 130-260 GHz free electron maser for fusion 39919
- 3D simul. anal. of 3 cm wavelength FEL afterburner 2021
- accelerator X-ray SR sources 4129
- APS SR beam lines, shielding 10290
- Beijing FEL, wiggler, electron traject. improvement *(Chinese)* 31441
- Beijing FEL saturation on undulator replacement 39938
- charged particle motion, precise integrator, Runge-Kutta method 40260
- CLIO FEL, step-tapered undulator, two-colour operation 39933
- coaxial hybrid iron wiggler FEL theory 39916
- Compton FEL, efficiency/gain enhancement 31435
- Compton FEL oscillators, sideband instabilities, electron dyn. 40009
- Compton FEL tapered undulator, high-power self-similar radiation pulse 39972
- coronary angiography beamline upgrade, NSLS 43269
- dielec.-loaded Raman-type FEL, efficiency enhancement 2017
- DISKTRON electrostatic accelerator and laser-induced photoelectrons facility 31464
- ELSA FEL, 23 μm operation, MONA wiggler 39934
- EM wave wiggler and axial guide mag. field, orbit dynamics 23516
- EM wiggler FEL, guide mag. field, chaotic electron trajectories 2016
- EM wiggler for FEL expt., perform. 39889
- ESRF source, target specs., SR source 18245
- ESRF undulator, double-focusing X-ray scatt. camera 34981
- ESRF wiggler beamline, water-cooled monochromator 10088
- FEL, compact RF linac, advanced technol. 39891
- FEL, far-IR range, emission charact. meas. 39894
- FEL, high-power self-similar radiation pulse generation 23316
- FEL, long wavelength operation, slippage/diffr. effects 31430
- FEL, modified wiggler develop. for higher harmonic lasing 39963
- FEL, self-field effects, 3D anal. 23311
- FEL, step-tapered undulator, self-ASE 40012
- FEL, SW, SLAC linac 31434
- FEL, SW range, electron beam accel. and compression 39898
- FEL, wiggler-pumped, controlling param. 31436
- FEL amp., high-gain Compton regime, strong coupling operation 39912
- FEL betatron oscills., undulator acceptance, beam conditioning 39967
- FEL conf., Stanford, CA, USA (1994) 36818
- FEL efficiency enhancement with incoherent pump wave or stochastic undulator, chaotic particle deceleration 39923
- FEL gain, alternating-gradient focusing, scaling fn. 14991
- FEL gain calc. for imperfectly matched electron beams 39975
- FEL interact. optim. via electron bunch trapping 39983
- FEL oscillator, mode-locked, super-radiant radiation study 40007
- FEL plasma undulator constr. 39968
- FEL simul., beam quality and space charge effects 14987
- FEL spontaneous emission in wiggler, mag. field independent of axial coord. *(Chinese)* 14983
- FEL static and dyn. plasma wigglers 39969
- FEL supercond. undulator, harmonic generation, mag. field meas. 39965
- FEL wiggler ubitron amp., design and perform. 39927
- FEL with focusing PM wiggler, 3D gain anal. 31429
- FEL with large μ_c planar undulator, waveguide appl. 39980
- FEL with two-freq. undulator, lin. theory 7691
- FELINA VUV FEL, perform. study 39954
- FELIX laser, coherent spontaneous emission 40005
- FOM 1 MW 200 GHz free electron maser mode purity, plasma heating appls. 39924
- free electron maser, prebunched electron beams 39908
- free electron maser, spectral dyn. 39624
- free electron masers, long. modes, fusion appls. 39625
- free electron masers, undulator electron beam transport 39626
- free-ion lasers, radiative ion cooling 39929
- G-band FEL amp. for cyclotron reson. heating in mag. fusion reactors 39921
- helical wiggler, equilib. electron orbits nonlin. evol., magnetoresonance 43035
- helical wiggler, transverse electron vel., nonlin. evol. 31437
- helical wiggler with uniform axial guide, electron trajectories 43032
- Helios undulator in ESFR, polaris. prod. 18394
- inclined high heat monochromator, temp. distrib./X-ray diffr. 10163
- ion-beam undulator, high-current electron beam propag., nonlin. wave procs. 43036
- ion-channel laser, one-particle theory 7690
- IR FEL, compact design, perform. study 39895
- IR FEL based on gyrotron-powered EM wigglers 2020
- JAERI FEL project, hybrid undulator perform. 39964
- KIAE-4 two-sect. undulator, mag. field test 43030
- LV IR FEL, gyrotron powered RF wigglers 39890
- microwave and MM wave FEL with axisymmetric undulator, higher harmonic generation 39638
- microwave FEL design, waveguide and wiggler tapering 23073
- microwave inverse FEL accelerator 39913

wigglers continued
- millimetre wave FEL, wiggler focused sheet electron beams 39627
- MM wave FEL, reversed guide field operation 39637
- multiple energy computed tomography at NSLS, status report 43268
- NE1B beamline, zone plate soft X-ray microscope 43172
- next generation synchrotron sources, undulators and wigglers 18247
- NIJI-IV storage ring FEL, dielec.-coated cavity mirror degrad. and restoration 39962
- phase circ. Bragg-Fresnel lenses, undulator source imaging 18250
- planar-geom. long. electrostatic undulators, calc. 14979
- plasma-loaded FEL, EM wave wiggler and axial guide field 7698
- Raman FEL, bifilar helical small-period wiggler 2018
- Raman FELs, bifilar helical small-period wigglers 31432
- sheet beam planar wiggler FEL amplifier 23312
- short-period hybrid wiggler develop. 43031
- SR complex ISI-800 18418
- SR source undulator design, simulated annealing 31731
- storage ring FELs, mirror degrad. and heating 39961
- storage ring UV FEL, opt. cavities 39960
- sub-picosecond FEL micropulse length and electron bunch meas. 39931
- supercond. FEL, harmonic generation, end fields 39966
- supercond. wiggler magnet at SRS Daresbury, expt. stations 43174
- SW FEL amp. undulators 39899
- TEU-FEL project 14981
- TROIKA beamline, ESRF 18249
- tunable powerful FEL laser technol. 2014
- two-freq. undulator FEL, space-charge effects 14985
- ubitron, amp. operation and perform. 39620
- UHF free-electron maser oscillator expt. 39918
- ultra-short high-power pulse prebunched FEL 31439
- undulator beamline, advanced light source 43171
- undulator generating irrational higher harmonics in SR 34970
- undulator with anharmonic mag. fields, focusing props. 43033
- undulators, distorted orbits, electron trajectory, Fourier anal. 43034
- UV/X-ray FELs, single-pass, milestone expts. 39901
- X-ray FEL, electron beam source, klystron undulator simul. 39905
- X-ray FEL, perform. charact., param. sensitivities 39903
- X-ray FEL project, focusing undulator prototype 39906
- X-ray multisection FEL, dispersion and undulator sects. 39904
- Si adaptive monochromators for high-power insertion devices 26255
- Si(111) for APS, bending magnet/insertion device, FEA 43149

Wigner coefficients *see Clebsch-Gordan coefficients*

Wigner crystal
- GaAs heterojunction, 2D electron Wigner cryst., electron diffr., photolum. 21968

Wigner distribution
- complex wave-field reconstruction, phase-space tomography 32890
- ECG, ventricular fibrillation detect., time-freq. distrib. 43283
- fractional FT and time-freq. representations 2480
- generalized Wigner distrib., instantaneous freq. representation 32563
- impulse radar extracted signature features, aspect depend. in time-freq. domain 17389
- instantaneous freq. and group delay representation 15859
- legal Wigner space filtering and interp. 2528
- modulation-based time-variant filter design, Wigner distrib. 15986
- multicomponent sigs. anal., time-freq. distrib., Radon transform. 2487
- multiple view time-freq. distribs. 8346
- multiple window spectrogram/time-freq. distribs. 40964
- radio equipt. ident., Wigner-Ville distrib. appls. *(Japanese)* 17021
- short pulse tomographic meas., generalized Radon transform 39373
- sig.-adaptive time-freq. distrib., generalized marginals 2584
- texture crack detect., automatic visual inspection 41161
- three-phase power systs., time-freq. representations 4468
- time-freq. anal., generalized marginals, adaptive kernel design 32744
- time-freq. anal. tool 15973
- time-freq. conc. sigs., wavelet representation 24254
- time-freq. distrib. series 32668
- time-freq. localization operators, asymptotic sing. value decay 32501
- time-freq. projection filters/sig. expansions 8414
- time-frequency characteristics of complex spreading sequences 9188
- transient signals meas., Wigner-Ville distribution appl. 24240
- wideband ambiguity fns./affine Wigner distribs. 40781

Wigner effect *see radiation effects*

Wigner lattice *see Wigner crystal*

Winchester discs *see hard discs*

wind
- 2 μm LIDAR for laser-based rem. sens. 26552
- 2 μm LIDAR for laser-based rem. sens. 10384
- 3D vector wind retrieval, bistatic dual-Doppler radar 10482
- 3D wind retrieval from single Doppler radar, variational method 26722
- 42 GHz bistatic Doppler radar for wind/fog/precip. meas. 18835
- air temp./wind speed prediction, electronic syst. 19396
- airborne CW Doppler lidar, wind field meas. 26726
- aircraft guidance/decision aid for wind shear avoidance 35219
- automatic landing LQG/LTR controller design 35276
- Azores-Madeira region, SEMAPHORE expt., meas. anal. 26727
- breakwater power plants, wind energy eval. 10901
- BSH num. model forecasts vs. wind scatterometer data 10524
- C-band V-polarized radar sea-echo model (from ERS-1) 43531
- CO_2 laser, electron-beam sustained, perform. optim. 18833
- Communications Research Laboratory radio acoustic sounding 10466
- Doppler sodar, atmos. wind meas. 18832
- energy resource pot. studies, Nigeria 4875
- ERS-1 scatterometer data, wind retrieval, neural network approach 10470
- Indian MST radar data anal. 35312
- LDA, boundary layer winds 10475
- marine boundary layer wind, radar meas. 26735
- mesos., Chung-Li VHF radar rem. sens. method 43508
- middle atmos., simultaneous wind profiles, DYANA campaign 26720
- ocean friction vel., C/Ku-band scatterometer data appl. 10525
- ocean oil pollution detect., satellite SAR meas., wind effects 43545
- ocean surface wind speed meas., ERS-1 vs. SSM/I, Atlantic 10471
- ocean wave-atm. turbulence interact., microwave RCS meas. 10472
- oceanic midlatitude cyclones, press. determ. from radar obs. 10460
- opt. scintillometer for atm. C_n^2 and winds meas. 4396
- overhead power lines, ice coating form. conditions *(Chinese)* 27228
- overhead transm. lines, vibr., wind, damping effects 27232
- Owerri, Nigeria, wind characts./energy pot. 35727
- radar altimetric rem. sens. at sea, empirical model fns. 18821

wind continued
- radar for vel. field, Doppler-correl. reconstruction *(Russian)* 35303
- radar interferometric techs., vol. scatter 35306
- radar rem. sens., Geosat altimeter results 26741
- radar rem. sens., polar orbit satellite DP 43510
- radar rem. sens., SAR imagery for marine winds 35324
- radar rem. sens. of gust front, single Doppler meas. 4395
- radar rem. sens. of marine atmos., ocean wave effects 18820
- radar rem. sens. of sea surface, different wind conditions 10481
- rem. sens., scanning lidar method, glitter vels. 35346
- sea surface pollution detect., IR emission and refl. rel., wind ruffling *(Croatian)* 4406
- shear wind, heterodyne coherent laser radar 43504
- spaced-antenna radar meas. for winds study 43514
- turbulent atm. wind profile estim. from laser distortion data 35311
- vector fields from bistatic dual-Doppler radar network 18819
- weather radar, av. wind vel. meas., mean Doppler freq. estim. 43515
- windfarm turbine wakes, atmos. stabil. effects 10898
- CO_2 coherent lidars for measuring wind vel. /atmos. turbulence 3628
- HgCdTe varactor photodetectors for space-borne wind lidar, heterodyne tech. 34162
- Na narrowband wind-temp. lidar syst. sensitivity anal. 43503

wind energy *see wind power*

wind power
- 4950 kW Vindeby offshore windfarm monitoring, Denmark 19569
- air temp./wind speed prediction, electronic syst. 19396
- Bahrain, renewable energy resources 27321
- Botswana, alternative energy resources 35723
- develop., UK, planning/environ. aspects 10896
- energy pot./policy overview 4873
- energy resource estim., probabilistic calc. tool 19570
- energy resource pot. studies, Nigeria 4875
- independent wind power generation projects, Canada 4874
- max. power point tracking, fuzzy control *(Japanese)* 10903
- near-term generation option technol., USA 36064
- offshore wind power plant, environ. impact study, Sweden 19568
- Owerri, Nigeria, wind characts./energy pot. 35727
- power syst. security assess., patt. recogn./decision trees 19159
- renewable energy power generation, status, prospects, economics 35721
- renewable energy resource develop. prospects, former USSR 27309
- renewable energy resources, power syst., Jordan 10798
- self-excited induction generators, rectifying bridge studies 36084
- unconventional power systs., scheduling/resource allocation 35496
- water pumping windmills, continuously variable transm. simul. 20179

wind power plants
- 5 kW wind turbine induction generator, expt. design 10902
- 10-100 kW hybrid diesel/renewable power systs., developing country appls. 36032
- 4950 kW Vindeby offshore windfarm monitoring, Denmark 19569
- breakwater power plants, wind energy eval. 10901
- develop., UK, planning/environ. aspects 10896
- diesel-wind hybrid power plant, robust control and anal. 19574
- distrib. network voltage control, wind power generator effects 10720
- doubly-fed variable speed wind generator adaptive control 4876
- energy pot./policy overview 4873
- energy resource estim., probabilistic calc. tool 19570
- fuzzy control, wind energy induction generator DC link 10908
- German hinterland wind power projects *(German)* 36082
- HAWT, const. speed, LQG control 36070
- HAWT, nonlin. control appl. 36069
- hybrid PV-wind power syst., optimal unit sizing 10894
- hybrid PV/wind/diesel power systs., computer modelling 19571
- hybrid renewable energy prod. projects, Germany *(German)* 19551
- hybrid wind/diesel power syst. stabilisation, SMES controller design *(Japanese)* 27645
- independent wind power generation projects, Canada 4874
- near-term generation option technol., USA 36064
- offshore wind power plant, environ. impact study, Sweden 19568
- offshore wind turbine demons., UK, feasibility study 10897
- offshore wind turbines, nonlin. integrated computer modelling 10899
- offshore wind turbogenerators, foundations design optim. 10895
- renewable energy power generation, status, prospects, economics 35721
- turbine flywheel energy storage 27656
- turbine load matching, least resist. principle errors 10900
- utility-grid interactive three-phase inverters 5083
- variable speed wind turbine, test-rig, controller design 36068
- water pumping windmills, continuously variable transm. simul. 20179
- wind-diesel energy syst. perform., probabilistic eval. 10913
- wind-diesel hybrid power plant, robust control 10912
- wind-solar power plant control, Petri net-based model 19575
- windfarm turbine wakes, atmos. stabil. effects 10898

wind tunnels
- electrostatics of parachutes 43601
- far-IR pyrometer based radiation temp. meas. 17778
- holographic interferometry in high temp. flows, shock tunnel 18143
- mag. suspen. syst., real-time posn./attitude sens. 18088
- mobile autonomous sens. syst. for odor source localization 9954

wind turbines
- 5 kW wind turbine induction generator, expt. design 10902
- 4950 kW Vindeby offshore windfarm monitoring, Denmark 19569
- breakwater power plants, wind energy eval. 10901
- converter/inverter syst., 600 A/1200 V intell. IGBT module 19567
- Darrieus VAWT, flow curvature/dyn. stall 27646
- diesel-wind syst., probabilistic/time series model 10915
- distrib. network voltage control, wind power generator effects 10720
- ducted wind energy converter develop., axial flow rotor 27648
- energy pot./policy overview 4873
- fixed pitch WEC syst., induction generator, EMTP simul. 10910
- flywheel energy storage 27656
- fuzzy logic controller, wind energy utilization 36065
- HAWT, const. speed, LQG control 36070
- HAWT, nonlin. control appl. 36069
- hybrid PV/wind/diesel power systs., computer modelling 19571
- hybrid renewable energy prod. projects, Germany *(German)* 19551
- induction generators, harmonics prediction/ident. 43960
- installation site selection, fuzzy set theory 27647
- load matching, least resist. principle errors 10900
- mixed airfoil wind turbine blades, design/testing 36079
- near-term generation option technol., USA 36064

wind turbines continued
- offshore wind turbine demons., UK, feasibility study 10897
- offshore wind turbines, nonlin. integrated computer modelling 10899
- offshore wind turbogenerators, foundations design optim. 10895
- rectifier-loaded PM-excited sync. generator operation *(German)* 10986
- rotor blades, design, size/mass rels. 27649
- self-excited induction generator 10911
- self-excited induction generators, rectifying bridge studies 36084
- speed control, stall region 36066
- stand alone induction generator, wind driven, induction motor load 27741
- sync. generator, operating conditions improvement *(Russian)* 27650
- sync. generators, operating conditions 10907
- utility-grid interactive three-phase inverters 5083
- variable speed wind turbine, drive syst. dyn., modelling and ident. 36067
- variable speed wind turbine, test-rig, controller design 36068
- water pumping windmills, continuously variable transm. simul. 20179
- weak distrib. syst. connection, generation limits 43970
- West Beacon Power Farm, PV implement. 10887
- windfarm develop., noise aspects and legislation 10906
- windfarm turbine wakes, atmos. stabil. effects 10898
- wound rotor async. generator, static Kramer drive 36083

winding (process)
- coil winder simul. for Superconducting Supercollider 22770
- foil/film indust., AC drives appl. 44634
- LIM drive coil winding actuators, control design 44257
- microwave LC filters, accurate small air-wound inductor design, program 823
- mine winder motor drives, digital control systs. 44645

windings
- *see also coils; machine windings; transformer windings*
- AC screened pole electromagnets, params. estim. *(Russian)* 7929
- coil explosion mag. generator, inductance meas. 15377
- coil winder simul. for Superconducting Supercollider 22770
- DC/AC power convertor planar integrated reson. LCT cct. design 12321
- electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
- foil winding design, eddy current anal. approach 6375
- force-bal. supercond. coil studies, SMES appls. *(Japanese)* 11311
- inductive coil mag. cct., design method *(Russian)* 6373
- inductive displacement pickups, ratiometric correction of sampled data 17736
- persistent current switches, stabil. current perform. *(Japanese)* 7257
- power electronics current sens., Rogowski coil-based 21107
- power syst. element modelling, param. estim. techs. 35467
- resistive zone propag. in supercond. magnet winding 39295
- SMPS filter inductors, low loss windings design 36326
- SMPS planar inductors, design/fab. study 44109
- tokamak winding, truncated coil, resist. meas. 2191
- triangular elements for moving conductor eddy current problems, finite element soln. 15236
- Fe powder core inductors, HF modelling 12850

window coatings *see optical windows; solar control films*

windowing *see integrated software; multiprogramming; user interfaces*

windows (computers) *see user interfaces*

windows, acoustic *see acoustic materials*

windows, optical *see optical windows*

Winslow effect *see electrorheology*

wire antennas
- antenna design/optim., generalized multipole tech., perform 15634
- aperture-coupled printed wire antenna full-wave anal. 23840
- Archimedean spiral antenna anal. 23880
- Bode's integrals, imaginary part of antenna's admittance calc. 31936
- coated wire antennas/scatterers, anal. 31933
- conductor-above-the-ground type line, impedance var. 31922
- currents due to incident EM wave, calc., mag. fields 15649
- cylindrical antennas in multilayer medium, model 31923
- cylindrical wire kernel, uniform current vector pot. eval. 8034
- dielec. coated wire scatterers/antennas, time domain anal. 15654
- dielectric body of revolution/wire radiator spin by method of moments 23815
- Ellipticus antenna, HF anal. 8037
- interstitial hyperthermia, SAR characts. of mag. ring loaded antenna *(Japanese)* 43344
- Marconi's (1901) transatlantic transm. wavelength, transmitting syst. anal. 25267
- Pocklington's eqn., CG-FFT method with nonuniform sampling 23818
- RF marking principle for antenna analyzer 15660
- semi-act. radar target, design of antenna subsystem 17430
- superquadratic loop antenna circuits for mobile commun. 23867
- thin-wire reson. response to transient waves 23848
- tunnels, radiowave retransm., radiating cable 9267
- two-wire Archimedean spiral antenna with parasitic loop and reflector 23869
- unity gain antennas, EM radiation/magnetoelec. symm. 40446
- X-band slow wave structures, EM props. study 13010
- Yagi-Uda antenna, FDTD anal. 15670

wire bonding *see lead bonding*

wire testing *see cable testing*

wire transfers *see EFTS*

wireless LAN
- 10 Mbits/s Ethernet data frames, DPSK 16711
- 12 GHz band wave propag. meas. 8931
- 18 GHz band wireless LAN, indoor multipath radio propag. 8930
- 60 GHz indoor commun. systs. for data/video commun. 40354
- 60 GHz indoor wireless commun. systs., multipath meas. 8932
- 60 GHz indoor wireless data systs. channel modelling, ray-tracing 8933
- ACTS Programme, mobile/pers. commun. research 9390
- appl. design for wireless computing 33561
- asynchronous video coding for wireless transport 32187
- batt.-powered portable computers, technol. trends 37810
- broadband ATM indoor radio, packet diversity 16700
- cableless LANs, emerging technol. 41900
- CDMA wireless LAN, hybrid-ARQ error control scheme 8748
- CELARN, cellular local area radio network 3484
- CODE mesh VSAT network, protocols eval. 16515
- CODENET, network for east/west European collaboration 16773
- collision detect. algm. 41846
- connectionless-mode network protocol for mobile end syst. 2957
- contention free multiple access, ad-hoc wireless networking 41885
- context-aware computing appls. 33560

wireless LAN continued
CRMA, access protocol, wireless LAN archit. 33490
database interface, pen-based for mobile computers 33566
DECT, multibearer connections syst., ARQ protocols perform. 17051
dispersive fading channel, high-speed data transm., SR-chirp PSK 9356
DPSK microwave link for indoor wireless LANs, perform. 33759
DS-SS ISM band radio LANs, receiver techs. 25261
DS-SS RAKE receiver, ASIC implement. 9191
equaliser for IR-wireless LAN using RBF neural networks 33469
frame broadcasting by IR impulses, transmitters sync. 33478
group randomly addressed polling for multicell data networks 8771
heterog. mobile environ. supporting adaptive services 33567
high speed indoor wireless systs., directional antennas 3329
HIPERLAN, high perform. radio LAN std. 16653
IEEE MILCOM conf., Boston, USA (1993) 36897
indoor radio LAN, channel outage, token based MAC protocol 8991
indoor wireless LAN, high perform., implement. 25058
InfoPad project, design of wireless portable systs. 33529
intra-office wireless networking 41858
IR wireless indoor channel, freq. response 17247
JANUS, TCP/IP VSAT network, first yr. experience 16775
LAN environ. mobile computing 8990
MAC protocol archit. 41819
MAC protocol selection for indoor environ. 41818
MACAW, media access protocol for wireless LAN's 2946
MM-wave indoor LAN syst., min. delay spread 41752
mobile computing, components, syst. aspects, appls. *(German)* 25036
mobile computing, network bottlenecks 33555
mobile electronic mail, replication strategies 33413
mobile environ., file access design 33556
mobile IP, secure short-cut routing 24845
mobile packet radio LAN idle sig. casting multiple access with failure detect. 41821
MosquitoNet, commun. environ. switching 33557
multimedia radio commun., variable-rate FEC perform. anal. 9044
multiport mobile internet-router 16679
nonpersistent CSMA/CD quasidiffuse IR LAN throughput 41763
office environ. opt. wireless transmitter technols. 42358
optimized group randomly addressed polling for wireless data network 16677
packet radio LANs, frame synchronisation codes 16676
performance evaluation of wireless LANs in the indoor environment 33468
pers. handy phone syst. for multimedia wireless commun. *(Japanese)* 25127
pers. shopping assistance, indoor wireless syst. 33558
protocols, radio capture models effects 25059
radio LANs, FEC, ARQ, and throughput of 16678
radio LANs and MANs, IEE Colloquium, London (1995) 36864
RF syst., diversity combining, sectored antennas 33755
routing in ad hoc networks of mobile hosts 33568
sector antenna/DFE modems for indoor radio commun. 3167
self-organizing wireless LAN system 33470
SHF/EHF mobile/indoor wireless commun., SS 3476
SHF/UHF indoor radiowave propag. meas. 7976
SS systs., conducted suscept., testing techs. 3354
SS technol., wireless LANs appls. 41754
SS techs. for consumer commun. 25237
SS wireless LAN, interf. cancellation 8929
steel indust. wireless coke oven SCADA syst. 9824
TCP end-to-end perform. improvement, mobile internetworks 33285
TDD channel contention-based reservation protocol 41820
TDM/SS packet radio, modulation/coding 33753
TDMA struct. DECT syst., data services 16621
Telecom LSI series, Astro Array *(Japanese)* 13854
traffic pattern based mobile routing scheme 16734
universal personal commun., 2nd Internat. Conf., Ottawa (1993) 36899
universal personal communications, conf., San Diego, USA (1994) 20233
VLSI high speed digital burst modem, satellite video TDMA/wireless LAN appls. 16938
VSAT appl., extend company LAN, retail sites 16774
wireless pers. commun., overview 17107
WISE CAD software for indoor wireless systs. design 42189
world wide web client experience 33527
GaAs wireless LAN opportunities 42160

wires (electric)
see also conductors (electric); insulated wires
10 W thin DC/DC converter, coreless wire transformer-based 6011
bonding wire for MMICs, MIMICs and OEICs, wideband charactn. 12793
complex systs. containing thin wires, behaviour modelling 2267
electrical /electronic insulation, elec. manufacture conf., Chicago, USA (Oct. 1993) 36848
EM-field anal. of buildings, 3D wire-grid model 23513
EMC, resin material, metallic layers 21606
extrusion lines, diam. gauges, control systs. 5399
handheld transceiver planar inverted-F diversity antenna FDTD anal 25353
HF charact. of supercond. wire 22772
HV wire conductor, corona discharge, lumin., CT obs. *(Japanese)* 963
mfg., distributed power syst. control concept 11503
mol. wires/transducers/devices 28891
noniterative PC-based coil design method 29617
poorly conducting wires, thermal param. determ. techs. 21605
power transformer magnet wire, selection/perform. overview 5004
railgun EM fields, static/quasi-static models 15329
railgun multi-tiered Cu wire solid armature studies 15354
shielding effectiveness data for wire cage, meas./calc. 31856
thin wire FDTD stabil. anal. 15553
Al and Au bond wire fusing current and fusing time estim. 21669
Cu based Percon 11/Percon 17 stranded conductor alloys, electronic appls. 29622
Cu gull-wing leads for thin SOP 150
Cu pulsed current carrying wires, mag. field distrib. expts. *(English)* 40228

wiring
see also building wiring; printed circuits
automobile control wiring multiplex syst., multiprocessor-based *(Korean)* 36762
cross point assignment, global rerouting for general-archit. designs 21257
cross point assignment, global rerouting for general-archit. designs 37707
crosstalk modeling for automotive harnesses 15532
Demand Priority MAC protocol for 100 Mb/s LANs 25043
edge-based heuristic for Steiner routing of VLSI and PCBs 456
Elmore delay model for optimal wiresizing, VLSI interconnect delay 22277

wiring continued
film redistribution layer technol., fine grid SM components 917
global router, weighted Steiner tree-based, simultaneous length and dens. minimization 610
ground pot. var., frame wiring, induced noise 23696
HF EM waves coupling to aircraft wiring, test methodology 26526
high-level appls., layout-driven topol./functionality-based delay estim. 609
intra-syst. interconnects for digital commun., cable elec. perform. 12856
multilayers, single row routing 29662
PC materials technol., future IC packaging appls. 12880
PCB manufacture, densification techs. 6408
radiated emissions from automotive multiplex bus wiring 15474
row-based FPGAs, segmented routing channels, design and anal. 611
row-based placement for very large ccts., simulated annealing, MCNC benchmarks 21258
sync. syst., stat. method of noise estim. 5638
terminal struct. for automobile connector appls. *(Japanese)* 21614
VLSI, optimal wiresizing under Elmore delay model 37572
zero-skew clock net constr., simulated annealing, VLSI layout 29336
AlCu dual damascene interconnect struct., ionized magnetron deposition 30132
Cu dual damascene interconnect struct., ionized magnetron deposition 30132
Cu-clad polyimide sheets for thin film multilayer substr. fab. 138

wiring diagrams *see circuit diagrams*

wobbulators *see signal generators; swept-frequency oscillators*

wood
bio-crude oil, wood derived, fast pyrolysis, catalytic upgrade 27334
biomass feedstocks conversion, fast pyrolysis 27333
cogen., thermophotovoltaic conversion, wood powder combustion 28001
grain angle meas., microwaves 18080
microwave woodworms destruction, lethal temp. studies 10288
MV overhead line board-control wooden mast trials *(German)* 10759
smartness in biological struct. 37547

word processing
see also data preparation; spelling aids; text editing
Chinese character encoding *(Chinese)* 24112
Chinese characters, modified simplex input method 24074
Chinese characters, user-defined 24076
continuous speech recogn. via word preselection method *(Japanese)* 32442
cursive script recogn., multiple word segmentation 41316
database query generation from spoken sentences 2452
HTML+ document format review 25015
intelligent computer manual syst. creation, software tool *(Japanese)* 95
natural spoken lang. understanding via hierarchical HMMs *(German)* 40735
perturbed correl. method, effect on OCR 41362
pronunciation lexicon in automatic speech recogn. *(English)* 40734
scanned images, keyword detect./location via HMM 40701
text-image anal., skew angle estim., SLIDE 2614

work function
see also electron emission; Schottky effect
diamond, single-cryst. chem.-vap.-deposited, electron affinity 1018
displacement/press. sens., field emitter triode modeling 42980
homojunction internal photoemission far-IR detectors, photoresponse perform. 17801
hybrid GasFETs for work-fn. meas. 9957
meas., thermionic projection microscope 9818
MEH-PPV sandwich devices, photosensitivity and implication, polymer electronic struct. 23013
poly(3-octylthiophene):poly(N-vinylcarbazole), electrolum. obs. 39559
space power thermionic heat pipes, work fn. tests 26623
Au/n-ZnSe contacts, BEEM 22048
CO_2 jet spray cleaning, surface charging mechanism 38600
CdSe/metal low cost Schottky barrier solar cells 5219
CdTe/Ni-P, stable ohmic contact form., P diffusion from Ni-P 13225
GaAs, sulfidated surface, electron work fn. 13372
InGaAsP/Au Schottky junctions, barrier height enhancement 13211
$In_{0.5}Ga_{0.5}P$ Schottky contacts, $(NH_4)_2S_x$-treated, interface props. 29949
InP, MIS tunnel diodes, elec. props., oxid. temp. effects 1335
Li liq. film on W(011) tip, field electron emission patterns 43046
Pd-Si tunnel MIS switching device, H-sensitive property 1336
Pt-Si Schottky diode CO gas sens., sensitivity 34606
Sb_2S_3/metal low cost Schottky barrier solar cells 5219
Sc_2O_3 impregnated cathode, charactn., semicond. model 6476
Si, 2D surface dopant profiling, scanning Kelvin probe microscopy 30018
n-Si porous field emitter arrays, enhanced electron emission 29748
Si surface layer elastic deform., photoelectron emission meas. 21005
a-Si:H, field-enhanced photoemitter 38205
SiC/metal struct., 6H polytype, surface barrier height 22044
SnO_2:Sb thin film photoemission under elec. field amplif. 29743
TiO_2 thin film photoemission under elec. field amplif. 29743
W-Ir space power thermionic convertor alloys, work fn. expts. 18747
WO_x thermionic energy converter collector electrode expts. 28027
ZnO/n-Si jn. solar cells, spray-pyrolysis method 44397
$ZnS_{0.07}Se_{0.93}$:Cl/Yb(Al)(Cr)(Cu)(Au)(Pd), Schottky contacts, elec. props. 38401

work hardening
see also cold working
bimaterial beams, elastic plastic anal., packaging appls. 28482
IC packages, molding, wirebond deform. 28495
polyimide thin film, time-depend. inelastic deform. 28881
SMT stress sing. allowing for local plastic deform. 29660
Au ball bond shear strengths, rationalisation 12953
Sn-Sb solder, room temp. tensile prop. 434

workers *see personnel*

workstations
see also engineering workstations; executive workstations; interactive terminals; microcomputers
ABB BWR 90 design and characts. *(French)* 43838
ACES project, providing Internet connectivity for rem. Alabama offices 8981
APS accelerator and control syst. 18173
assoc. particle imaging, 4D image display 18465
ATM LANs, protocol/interface 3192
automatic online memory tests in workstations 37768
BEPC accelerator control syst. design 18195
Berkeley Networks of Workstations Project 33531
Berlin-Bonn inform. link BRAVO project *(German)* 8915
CERN PS accelerator, control syst. overview and status 18182
client-server systs., perform. prediction, traffic dependencies effect 41828

workstations continued
CMIP-based OpS-WS interface supporting GUI 41673
computational fluid dyn. thermal modelling for workstation design 11702
continuous speech recogn., large vocab., fast match acoustic models 32396
ECG, RR-interval databases anal., obj.-oriented workstation 26427
environ. stress screening, Taguchi method 11727
error concealment algms. for ATM videoconferencing syst. 9030
ETHMICS multimedia commun. testbed 41977
Eurovision Network operations, computerised planning syst. appl. 42570
FDDI workstation cluster, meas. 33496
fossil fuel power plant compact simulators 35982
HaL 64 bit SPARC based workstation and servers, architectural overview 33553
HDTV image database syst., develop. *(Japanese)* 25671
high-speed networks, inter-proc. commun. perform. 8967
high-speed transport protocols, local workstation environ., flow control 33492
image anal. syst. for sea ice maps from space 18886
intell. LAN-PBX interface 33339
KEK e^-/e^+ linac control syst., VME and workstations 18191
large core opt. fiber links for desktop LAN access 41822
large-picture technol. for workstations and monitoring *(German)* 42697
library, multi-fn. LANs and workstations for present and future 16768
local-area multiprocessor, surpassing clusters 33532
lung sound anal. toolkit, hardware/software 43224
MCM, miniaturization in telecomms. and workstations 38179
MCM-C, four-ASIC, KISS principle based 21764
MCM-L technols., myths/experiences in multiple product scenarios 21746
med. workstations for applied imaging and graphics research 18439
medical image capture, formatting and display, conf., USA (1994) 11570
MELUPS 8400N small-capacity UPS, distributed computing appl. *(Japanese)* 5038
microphone array for multimedia appls. 16899
multimedia workstations, elec. protection 43798
MV05A/B/C test syst. for ATM syst. R&D *(Japanese)* 33707
Netware dyn. data exchange 16724
network protocol perform. in multi-workstation parallel distributed appls. 25039
networks of workstations, advantages and tech. difficulties 24975
Nobeyama Radio Observatory, telescope control syst. upgrade 17515
OC-12/STS-3c/ATM transm. interface for AURORA Gigabit Testbed 41766
PACS, med. workstation supporting image save & carry std. *(Japanese)* 18536
PACS design/evaluation, conf., USA (1994) 20213
PACS workstation monitors, image default display arrangements 35048
parallel image proc. appls. on network of workstations 24410
PCB prod., computer-aided manual workstation, graphics generation 38112
photogrammetric tech. integrat., conf., Orlando (1993) 36888
power syst. operator training simulator, workstation based 4581
real-time MAP, modelling/formal spec. 16771
RHIC accelerator control syst. design 18172
simul. on network of workstations, parallel independent replicated 33547
Terasys massively parallel PIM array 37806
transputer-based data acquisition syst. for 256×256 pixel IR camera 42743
university discless workstation network traffic charactn. 28347
user-guided measuring in digital aerial triangulation 41269
UVSOR SR source, gracefully-degraded operationable control syst. 18196
virtual reality display interfaces 18013
voice transfer, TCP/IP 33390

WORM discs *see optical disc storage; write-once storage*

wrapping *see packaging*

Wratten filters *see optical filters*

write-once storage
phthalocyanine cpd. film, opt. recording 30824

WSI *see wafer-scale integration*

X-ray absorption
see also X-ray absorption spectra
lithog., photoelectron effect modelling 6682
Si X-ray detectors, ionization stats. 26259
SiN mask membrane proc. charactn. 6685
Ta-SiN x-ray masks, materials selection, fab. procs. 6684

X-ray absorption near edge structure *see XANES*

X-ray absorption spectra
see also EXAFS; XANES
instrumentation develop. for ESRF beamlines 43154
multielement Ge detector, X-ray fluoresc. microprobe/microspectroscopy 42979
$Er_2Fe_{14}B$, spin reorientation transits., X-ray circ. mag. dichroism 39158
$Nd_2Fe_{14}B$, spin reorientation transits., X-ray circ. mag. dichroism 39158
SiC x-ray membrane characterisation, laser ablation deposition tech. 6696
$(Ti_{1-x}Zr_x)$/Si thin film syst., silicide form., local structural studies 38414
$Xe-CO_2$ proportional chambers, X-ray posn. resoln. 4175

X-ray apparatus
see also biomedical equipment; X-ray diffractometers; X-ray monochromators; X-ray optics; X-ray spectrometers; X-ray tubes
APS SR beam lines, shielding 10290
beamline front-end mock-up at APS, vac. tests 43148
CCD in soft X-ray region, self-calib. 25884
coronary angiography beamline upgrade, NSLS 43269
diamond photocond. detectors, high power z-pinch X-ray diagnostics 26264
electron beam accelerators, X-ray irrad., sterilization 18215
Elettra, beam line control syst. 18399
ESRF undulator, double-focusing X-ray scatt. camera 34981
fluoresc. scanning X-ray tomography, SR 43274
graphite analyzers for anom. scatt. X-ray spectrometers 18397
graphite mosaic monochromator cryst. for X-ray transport 10161
high resoln. struct. studies 43169
imaging plate X-ray detectors, BaF(Br,I):Eu phosphors 26257
instrumentation develop. for ESRF beamlines 43154
lithog. beam lines, single mirror condenser 13540
med. FEL Compton X-ray program 10200
microdiffraction instrumentation/expts., microfocus beamline, ESRF 43170
microtomography, NDE of mm-scale struct. 5932
mobile X-ray equipt., QA programme 26285
NE1B beamline, zone plate soft X-ray microscope 43172
NSLS beamline X8C, perform. and optics 26265
pattern-deviation photon scanning method, component location 18095
real-time X-ray fan beam *z*-axis position measurement 26290

X-ray apparatus continued
SR lithog. beamline, electron beam orbit distortion 13564
SR X-ray lithog. beamline optics alignment, Hartmann method 13539
sub-Angstrom X-ray source, compact storage ring 43217
supercond. wiggler magnet at SRS Daresbury, expt. stations 43174
Suss XRS 200/2M X-ray stepper, lithographic perform. 13566
synchrotron-based X-ray lithog. syst. integrat. 38765
transvenous coronary angiography images, spatial resoln./spectral purity 43267
Ge analyzers for anom. scatt. X-ray spectrometers 18397
Si detector X-ray/γ-ray probe, backscatt. det., struct. nonuniformity meas. 4210

X-ray applications
see also radiation therapy; radiography; X-ray lithography; X-ray microscopy; X-ray optics
3D models of solder joints, generation, X-ray laminography 29674
3D X-ray inspection of fine pitch PCBs, automatic testing 29673
angiography, bremsstrahlung vs monoenergetic sources comparison 10199
ball grid arrays tech. 12938
chest digital radiography, adaptive image enhancement *(Korean)* 26364
consts. determ., X-ray cryst. dens. method 18118
coronary angiography, double beam bent Laue monochromator 43270
coronary angiography beamline upgrade, NSLS 43269
dual-mode indust. CT 21010
energy dispersive EXAFS, data acquisition, obj. oriented methods 42746
fine-pitch SMT, automated soldering inspection 163
fund. consts. determ., X-ray/neutron interferometry 17646
III-V heterostruct., X-ray standing wave meas. 38367
inspection, technol. trends 28517
landmine detect., Compton backscatt. imaging, two-collision theory 18425
large area image plane sens. for radiography 9937
liver, CT images, boundary detect. by neural nets 43259
med. FEL Compton X-ray program 10200
monochromatic X-rays in med. diagnosis and therapy 10198
multislit variable width collimator for microplanar beam radiotherapy 43355
phase-contrast X-ray computed tomography, biol./chem. appls. 43272
real-time X-ray fan beam *z*-axis position measurement 26290
scanning LLL X-ray interferometers, Takagi eqns. appl. 18424
short pulse X-ray laser appls. 23482
SMT proc., through-hole connectors, X-ray meas. 12922
SMT reflow-soldered joints, porosity form. rel., mech. props. 12920
SR based high contrast computed tomography 43271
SR sources in Japan, overview, appls. 18295
submicron stripe patterns photoelectron imaging, soft X-rays 42978
subst. ident., appl. of Rayleigh scatt. X-rays 12242
synchrotron X-ray microtomography, NDE 5932
undulator beamline, advanced light source 43171
Si lattice param. meas., survey 17638

X-ray astronomy
Broad Band X-ray Telescope calib. 43166
High Pressure Gas Scintillation Proportional Counter, SAX appl. 26260
instrumentation, conf., San Diego, CA (July 1994) 5466
SOHO solar spacecraft, operations & ground systs. 35277
spectroscopy and polarimetry, conf., San Diego (July 1994) 5468
CdZnTe and HgI_2 room temp. detectors, hard X-ray astrophys. appl. 4209
Si CCDs, X-ray polaris. sensitivity 34976

X-ray beamlines *see X-ray apparatus*

X-ray characteristic temperature *see Debye temperature*

X-ray chemical analysis
see also electron probe analysis; X-ray fluorescence analysis
cargo inspection technols., conf., San Diego (Jul. 1994) 36869
diamond, electroless plating, laser-assisted selective metallisation 30157
fluxless oxid.-free bonding technol., microelectronic packaging 12952
MLC capacitors, failure caused by high temp./humidity environ. 12840
Motorola IC yield enhancement, integrated approach 22520
polyethylene high voltage cable insulation, diagnostic methods 14065
AlCu interconnects, electromigration stressing, Al_2Cu precip. distrib. 38455
a-As_2S_3-Zn bilayers, electron/photon irrad. effects 38405
a-As_xS_y-Ag bilayers, electron/photon irrad. effects 38405
CoPt binary thin films, perp. recording, microstruct. and mag. props. 6960
$CoSi_2$ microstruct., focused ion beam synthesis 13298
Cu MOCVD thin films from pyrazolylborato-Cu(I) complexes, charactn. 38679
Cu/Sn(SnBi)(SnPb) solder systs., wetting tips, morph. and instabil. 28865
$CuIn_{0.75}Ga_{0.25}Se_2$ films, pulsed laser deposition 432
$CuInSe_2$ films, pulsed laser deposition 432
$CuInSe_2$ polycryst. thin films, seq. proc. prep. 20978
a-Ge:H,In(Ga) films, cosputtering deposition, sputtering yield ratios 5876
$In_{0.2}Ga_{0.8}As$/GaAs quantum wells, metalorganic VPE, multistep form./In comp. var. 20735
InP films, prep. by PH_3 treatment of electrodeposited In layers 37463
InP:Fe, hydride-vap. phase epitaxial growth, FeP precip., anal. 20810
MnO_2 primary batt. electrodes, chem./phase comp. 11239
Nd-FeCoNi-B-AlTi melt-spun ribbons, corros./mag. props. 30681
NiOOH secondary electrodes, act. material/additive distribs. 11255
a-P_2Se_3-Ag bilayers, electron/photon irrad. effects 38405
PZT/Pt/TiN struct., high-temp. ECR plasma etching 39049
$PbNi_{1/3}Nb_{2/3}O_3-PbZrTiO_3-PbTiO_3$, piezoelec. actuator 39093
$RuO_2-Bi_2O_3(Al_2O_3)-NiO$ systs., phase equilibria 38046
Si films, microcryst./amorph., RF plasma spray/ion beam deposition 5856
Si:Ge epitaxial film, embedded nanocrystals, synthesis 12126
$Si(SiO_2)$ sputtering and RIE, particle form. mechanism 22199
$TiSi_2$(NiSi)-polysilicon salicided films, resist. behavior, CMOS ULSI 6665

X-ray computerised tomography *see computerised tomography*

X-ray crystallography
for studies of specific materials, use "X-ray diffraction"; for results of crystal structure analysis, use "crystal structure"
Avogadro const. and silicon mole, workshop, Turin (1994) 11539
concave-curved spectrometers for 2D X-ray optics 10156
high resoln. struct. studies 43169
imaging plates in X-ray crystallographic data collection 10157
protein, sub-Angstrom X-ray source, compact storage ring 43217
GaN, MOCVD growth on 0001 sapphire, X-ray crystallography studies, blue LEDs 7473

X-ray detection
air kerma primary stds., changes (1970, 1993) 26507
anodically porous Si, X-ray sensitivity 18347
astronomy instrumentation, conf., San Diego, CA (July 1994) 5466

X-ray detection continued
- avalanche diode, X-ray efficiency, time response 26235
- biomedical photon counting X-ray radiography syst. *(Japanese)* 18526
- Broad Band X-ray Telescope calib. 43166
- CCD based focal spot camera, X-ray sources assess. 26331
- charge-coupled X-ray detectors, efficiency, point-spread fn. 18396
- Conference, San Diego (July 1994) 5468
- diamond, type IIa detector, photoconductive props. 43157
- diamond photocond. detectors, high power z-pinch X-ray diagnostics 26264
- Digiray RGX syst., X-ray mini-probes 18404
- digital/conventional screen-film image comparison, SYRMEP program *(Italian)* 26366
- fibre optic sens. for radiation dosimetry 18678
- gas microstrip chamber on sapphire substr. 26121
- gaseous 2D detectors, PC-based fast readout electronics 18384
- High Pressure Gas Scintillation Proportional Counter, SAX appl. 26260
- high-press. gas-filled posn.-sensitive proportional counter, X-ray detect. 26144
- high-purity Ge technol. for gamma-ray/X-ray spectrosc. 43067
- imaging plate 2D detector for SW lasers *(Japanese)* 9931
- imaging plate X-ray detectors, BaF(Br,I):Eu phosphors 26257
- imaging plates in X-ray crystallographic data collection 10157
- imaging X/γ-ray spectrosc., multiplexed readout electronics 18381
- JFET X-ray detectors 43162
- large area image plane sens. for radiography 9937
- low energy X-ray radiation source calib., dosimetry 18415
- low noise preamplifier design for room temp. detector appls. 43139
- low-energy X-ray detect. in cryogenic detectors 26258
- mammography, digital, amorph. Se photocond. receptors efficiency 35033
- mammography, μ-strip Si detector, transputer DAQ 35066
- microstrip proportional counter perform. 26157
- multiwire gas proportional counters, perform., X-rays 18297
- NSLS beamline X8C, perform. and optics 26265
- photon fluence spectra determ., NPL Mobaltron ^{60}Co unit 26508
- pixel detector, monolithic Si, breast cancer calcification detect. 10214
- pMOS dosimeters, energy depend., package geom. effects 26497
- real-time X-ray fan beam z-axis position measurement 26290
- RT semicond. detectors, phys.-chem. props. effects 43095
- semicond. detectors fund. for ionizing radiation 43065
- Si X-ray detectors and pixel detectors 18302
- soft X-ray detectors, calibr., SUPER ACO synchrotron rad. 4227
- stereoscopy, real time, reverse geom. X-ray imaging 34968
- subsecond energy dispersive EXAFS, high perform. VME-based detector syst. 43155
- supercond. tunnel jn. X-ray detectors, quasiparticle diffusion 30800
- supercond./insulator multilayer appls., review 1600
- surface passivated Si(Li) detectors, X-ray detector array 18321
- toroidal proportional detector for conversion X-ray/transm. Mossbauer spectrosc. 10124
- ultra-low noise preamplifier for room temp. X-ray detectors 43138
- very high gain APD, radiation detect. 14601
- XSPRESS detector syst. for EXAFS studies 43165
- Al and Si X-ray calorimeters, comparis., CaF$_2$:Mn TLDs, Hermes III environ. 26500
- CaSO$_4$:Dy, TLD, pers. dose equiv. assess. 18676
- CdTe X-ray detector, photodecay 18409
- CdTe detectors array, X-ray security imaging 43158
- CdTe detectors responses to pulsed X-rays, growth method effects 43083
- CdTe detectors, semi-insulat. material prep., internal field distrib. 4212
- CdTe hemispherical detector response matrix generation 18317
- CdTe:Cl, X-ray detector material, deep levels, PICTS study 43156
- CdTe:V,Z,Cl, Bridgman/traveling heater grown, detector appl. 43101
- CdZnTe and HgI$_2$ room temp. detectors, hard X-ray astrophys. appl. 4209
- CdZnTe energy selective arrays for indust. and med. radiation imaging 18407
- CsI(Tl)/Si-photodiode detector, X-ray sig. pulse shape anal. 18311
- Cu foils, low energy γ/X-ray excitation, secondary X-rays *(Chinese)* 18423
- Fe foils, low energy γ/X-ray excitation, secondary X-rays *(Chinese)* 18423
- GaAs, growth techs. effect on photon detect. capabilities 43100
- GaAs radiation detectors for ionizing elementary particles and X-ray radiation 4250
- GaAs semi-insulating detectors, low energy X-ray detection 34935
- GaAs:Cr, X-ray detector material, deep levels, PICTS study 43156
- Ge(HP) detector, efficiency calib., 6-25 keV 18324
- HgI$_2$, X- and gamma-ray detectors for space appls. 43072
- HgI$_2$ microstrip detector, resistive charge division readout 43074
- HgI$_2$, multielement detector systs. for X-ray/gamma-ray imaging 43068
- HgI$_2$:Ag crysts., defects, rel. to X-ray/γ-ray detector perform. 43075
- Nb/Al-AlO$_x$-Al/Ta/Nb Josephson jns. for X-ray detect. 34972
- Nb-based multilayered supercond. tunnel jns., X-ray detect. 4253
- Nb-based supercond. tunnel jns., 6 keV X-ray det. 4244
- NbVN film, high energy particle detect. 4153
- PbI$_2$ X-ray detectors, electronic noise 18320
- Si APD, SR detector 4245
- Si APD detector, X-ray bunch-purity 10154
- Si CCDs, X-ray polaris. sensitivity 34976
- Si X-ray detector for SR digital radiology 18352
- Si X-ray detectors develop. for plasma diagnostics 26143
- Si X-ray detectors, ionization stats. 26259
- Si detector X-ray/γ-ray probe, backscatt. det., struct. nonuniformity meas. 4210
- Si detectors, deep level compensated, X-ray appl. 43160
- Si drift chamber, high-resoln. X-ray spectrosc. 26254
- Si low noise detector preamplifier, X-ray spectrosc. 43164
- Si photodiode, X/γ-ray detector 43163
- Si photodiode, X-ray lithog. dosimetry 13567
- Si pixel X-ray detector for digital mammography 35060
- a-Si:H arrays, X-ray transm. scans, PET/SPECT appl. 35062
- a-Si:H/CsI(Tl) X-ray detectors for radiation monitoring 43161
- Si-GaAs, X-ray detector material, deep levels, PICTS study 43156
- Xe compact gas proportional scintillation counter for hard X-ray spectrometry 18340
- Xe-CO$_2$ proportional chambers, X-ray posn. resoln. 4175

X-ray diffraction
- *for X-ray crystallography techniques and apparatus, use "X-ray crystallography"; for results of crystal structure analysis, use "crystal structure"*
- *see also X-ray crystallography; X-ray scattering*
- alkali metal thermoelec. converter, B-alumina electrolytes 20026
- BPDA-PDA polyimide thin films, thermomechanical props., curing effects 12208
- copper phthalocyanine film, MBE growth 20809
- diamond, oriented growth, combustion flame lin. vel. effect 37378
- diamond, synthetic, X-ray study, dosimeter appl. 43404
- diamond films, microwave plasma CVD, charactn. 6521
- ferroelec. polymers, struct./Curie point, spectrosc. studies 6902
- Ga$_{1-x}$In$_x$As-InAs$_y$P$_{1-y}$-InP, strain relax., photodiode appl. 12054
- grazing incidence diffractometer, thin-film struct. anal. 38463
- II-VI high-brightness blue-green LEDs on ZnSe substrs. 23052
- III-V heterostruct., X-ray standing wave meas. 38367
- III-V heterostructs., selective area epitaxy, XRD charactn. 38311
- InP, ALE growth, XRD/Raman Obs. 12052
- ion implanted opt. waveguides, disloc. distribs. 7348
- ITO layer, sputtered films, specific resist., XRD 28801
- microdiffraction instrumentation/expts., microfocus beamline, ESRF 43170
- PAFC, methanol/ammonia/siloxane contamination 11272
- permalloy-Ag multilayers, RTA giant magnetoresist./struct. study 22691
- phenol/pyridinium triflate, synthesis, nonlin. optics 2121
- poly(di-methyl silane) film, highly oriented, electron beam irrad. 38708
- polyacryl amide-AgNO$_3$ electrolyte batt., prep./charactn. 19928
- polyimides, thermomechanical props. and interfacial fracture 12210
- polypyrrole synthesis, Cu metallization 1294
- polysilicon emitter transistors, phosphorus doped, band deform. 30240
- polyurea films, pyroelec./piezoelec. 6903
- rare earth magnets, spiral mag. struct., X-ray reson. mag. scatt. 39193
- scanning LLL X-ray interferometers, Takagi eqns. appl. 18424
- semiconds., multicrystal X-ray rocking curve simul., convolution 18416
- SR X-ray diffr., magnets for arbitrarily directed fields 39298
- thin film superconds., gamma-ray and fast neutron radiation effects 14276
- ZJ-10 med. linac. waveguide corros. mechanism *(Chinese)* 34754
- 60AgI-20Ag$_2$O-2B$_2$O$_3$-18V$_2$O$_5$ batts., internal resist./cathode content 11241
- Ag-Co granular epitaxial layers, struct./giant magnetoresist. 14164
- Ag-Ni granular epitaxial layers, struct./giant magnetoresist. 14164
- Al(100), heteroepitaxy on Si(111), thermal evap. growth 12038
- AlAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
- AlAs/GaAs vert. cavity epitaxial struct., defects, X-ray obs. 14927
- AlAs$_x$Sb$_{1-x}$-InAs, modulated MBE growth 12076
- (AlGa)As, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
- Al$_x$Ga$_{1-x}$As:C, MOMBE grown, annealing 28774
- AlGaInP:Si, metalorganic CVD, elec. and opt. props. 28778
- AlGaInP/GaInP, multiwafer, MOCVD growth 20959
- AlN/diamond thin film syst., chem. vap. deposition methods 5865
- AlP/GaP monolayer superlattice, organometallic vap. phase epitaxial growth 356
- Au/GaSb, interfacial reacts., ohmic contacts effects 38376
- Au/In$_y$Al$_{1-y}$As, intimate Schottky diodes, characts., mismatch depend. 13221
- Au-Ge single cryst. epitaxial ohmic contacts, GaAs and InGaP substrs. 38395
- BN thin films, plasma-enhanced CVD, structural props. 20953
- Ba ferrite, sputtered thin films, saturation magnetis. 7023
- BaFe$_{12}$O$_{19}$, hexaferrite films on sapphire, mag., struct. props. 14175
- Ba$_2$NaNb$_5$O$_{15}$ opt. waveguide film, epitaxial growth by pulsed laser deposition 1715
- Ba$_2$NaNb$_5$O$_{15}$ opt. waveguiding films, excimer laser ablation prep. 12168
- Ba$_2$NaNb$_5$O$_{15}$, pulsed laser deposition epitaxial growth, waveguide props. 20905
- Ba$_2$NaNb$_5$O$_{15}$, waveguiding epitaxial films, pulsed laser deposition 20806
- BaTiO$_3$ ferroelec. epitaxial film, cryst. orient., thermal expansion mismatch 20865
- Bi-Pb-Sr-Ca-Cu-O supercond. thick films, screen printing 14272
- BiDy(Gd)FeGaO$_1$2 garnet thin films, metallo-organic decomp. 12148
- (BiPb)$_2$Sr$_2$Ca$_2$Cu$_3$O$_{10+x}$, HTSC form., high-temp. XRD 39250
- Bi$_{1.8}$Pb$_{0.4}$Sr$_2$Ca$_{2.2}$Cu$_3$O$_y$-Ag tapes, crit. current dens. 30772
- Bi$_2$Sr$_2$CaCu$_2$O$_x$, melt proc., DTA, XRD, texture 30773
- Bi$_2$Te$_3$ thin films on Si(111) substr., cryst. growth, sticking coeff. 28716
- C$_{60}$, film growth on Si, amorph. and cryst. growth 37461
- C$_{60}$ single cryst. films on GaAs(111) substrs., MBE epitaxial growth 376
- CaF$_2$/Si(111), epitaxial growth mechanisms and struct. 5836
- Cd$_{1-x}$Mn$_x$S dil. mag. semicond. nanoparticles 13082
- CdMnTe(001), MBE growth, struct., opt. props. 37392
- CdS, film, chem. deposition, struct., props., solar cell appl. 28798
- CdS films, electro-opt. charactn. 1039
- CdS thin films, chem. bath deposition, impurity phase 12135
- (CdS)$_x$-(PbS)$_{1-x}$ thin-film composites, prep., props. 20913
- CdSbTe RF sputtered films, struct./opt./elec. props. 38260
- CdSe thin films, elec. props., CO$_2$ gas sens. appls. 3898
- CdTe, detector grade, crystallograph./metallurg. charact. 43102
- CdTe, monocrystalline films, ICB epitaxy *(Chinese)* 5813
- CdTe on GaAs and Si substrs., OMVPE 37452
- CdTe/CdZnTe superlattices, interdiffusion coeff. meas. 29935
- CdTe/GaAs(100) heterojunction growth, Si interface layers 21966
- CdZnTe(100)/ZnTe(100), MBE growth on Si(100) 37423
- CeO$_2$/Si(111), laser ablation deposition, growth mode 38445
- Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
- Co/Au multilayer films, struct./mag. props. 7057
- Co/Pd multilayer films, struct./mag. props. 7057
- Co/Pt multilayer films, struct./mag. props. 7057
- Co/Ti/Si(100), thermal proc., interdiffusion, phase form. 1203
- Co$_{1-x}$Cr$_x$ perp. mag. recording media, epitaxial growth 7103
- CoCr-NiP$_3$(TiSi$_2$)(Cr)(C)-soda lime glass recording media, high coercivity and low noise 7115
- CoCrPt-MgO bicrystalline long. recording medium, mag. charact. 6957
- CoCrPtTa/Cr mag. recording media on glass substrs., props., noise 6954
- CoCrTa/Cr thin-film media, underlayer effects on mag. and recording props. 6989
- CoCrTa/NiAl(Cr) mag. thin film media for disk storage, in-plane coercivity 7223
- CoMoO$_4$ based thick-film resistors for HV voltage dividers 38049
- Co$_{20}$Ni$_{80}$ particles, prep. and microwave charactn. 6977

X-ray diffraction continued
- $CoSi_2$-Si heterostruct., solid state epitaxial growth from Co-Ti-Si multilayer 37419
- Cr nitridation, ion beam reson./AES/RBS/XRD anal. 38582
- Cr thin films on polyimide, adhesion study 11820
- Cr/CoCrTa/M/CoCrTa/Cr (M=Al,Cu,Ag,Cr) thin films, mag. props., X-ray crystallography 7052
- Cu MOCVD thin films from pyrazolylborato-Cu(I) complexes, charactn. 38679
- Cu thin films on polyimide, adhesion study 11820
- Cu/TiN/Si(100) heterostruct., pulsed laser deposition and charactn. 421
- Cu/TiN/$TiSi_2$/n^+-Si contact syst., RTN and characts. 38700
- $Cu_{80}Co_{20}$, melt-spun ribbons, mag. props. 6949
- $Cu_{80}Co_{15}Fe_5$, melt-spun ribbons, mag. props. 6949
- $Cu_{1-x}Co_xFe_2O_4$ spinel ferrites, mag. domain behavior 14188
- $CuGa_xIn_{1-x}Se_2$ electrodeposited thin films, prep. and charact. 389
- $CuIn_{0.75}Ga_{0.25}Se_2$ films, pulsed laser deposition 432
- $CuInSe_2$ films, pulsed laser deposition 432
- $CuInSe_2$ layers, heteroepitaxial, direct growth on Si substrs. 363
- $CuInSe_2$ polycryst. thin films, seq. proc. prep. 20978
- $CuInTe_2$ polycryst. thin films growth 20979
- $Dy_2Fe_{17-x}Ga_xC_2$, arc melting prep., mag. props. 39138
- $ErFe_{8.5}Co_2Mo_{1.5}D_y$, struct./mag. props., deuteration effects 39162
- Fe/Ga, bimetallic thin films, MOCVD, stoichiometry control 28842
- (Fe-Co)/Ag films, magnetoresist. study 7049
- Fe-Si, ball milling, struct./mag. props./thermal stabil. 14152
- FeCuNbSiB, nanocrystalline, induced anisotropy 14133
- FeGdN, soft mag. thin film material 14151
- FeN foils, magnetron discharge nitridation, saturation magnetis. *(Japanese)* 30676
- α''-$Fe_{16}N_2$, synthesis/struct./charactn. 7032
- Fe_4N nanometer-sized particles, mag. props. 6979
- Fe_2O_3, magnetomech. reduction, struct./mag. props. 14181
- $Fe_{3(1-\delta)}O_4$, epitaxial thin films, stoichiometry var. 14103
- Fe_3O_4/NiO superlattices, cryst. and mag. ordering 7045
- FeSiAl, sendust films, RTA, mag. props. 6953
- GaAs, CZ grown, ion implant., struct./mech. props. 13305
- GaAs, MBE at 250°C, growth, charactn. *(Korean)* 28782
- GaAs, MBE, struct. charactn. 37459
- GaAs MBE thin films grown on Si, biaxial compression 20837
- GaAs, MOCVD on annealed Si in H_2 20771
- n-GaAs, Pd/In/Pd(Pd-In/Pd)(Pd-In) ohmic contacts 13207
- GaAs epilayers, metalorganic CVD growth 37411
- GaAs, low press. MOCVD on Si, defect reduction 20768
- GaAs, low-temp. MBE, substr. orient. depend. 12093
- GaAs, substr. pretreatment, MOVPE from β-eliminating trialkyl-As precursors 20782
- GaAs substr., struct., interfacial studies 302
- GaAs:In layers, LPE grown, charactn. 5826
- GaAs:Si, δ-doping, degree of confine., post growth annealing 13315
- GaAs:Si/Al/GaAs:Si, δ-doped superlattice, Al barrier interface roughness 38412
- GaAs:Si^+,Se^+, ion implant., struct. anal. 30031
- GaAs/$Al_xGa_{1-x}As$, MOVPE, n-doping, 2D electron gas struct. 22152
- GaAs/GaAlAs quantum wells, metalorganic VPE, laser reflectometry 20724
- GaAs/Ge MOVPE heterostruct., lattice strain relax., X-ray diffr. obs. 38308
- $GaAs_{1-x}P_x$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723
- GaAsSb, low press. MOCVD, TEGa, tBAs, TMSb as precursors 412
- GaInAs, MOVPE, coherency limits 315
- $Ga_xIn_{1-x}As$/AlAs reson. tunneling diodes, atmos. press. metalorganic CVD 415
- GaInAsP/GaAs, MOCVD, lattice match, photoluminesc. Hall mobility 7610
- GaInAsP/GaInAsP MQW stacks, wavy layer growth elimination 20802
- GaInP, MOVPE, coherency limits 315
- GaInP layers/heterostruct. on GaAs substrs., VPE, surface photo-absorpt. charactn. 20718
- GaInP, selective MOCVD epitaxial growth 20675
- $Ga_{0.5}In_{0.5}P$ order/disorder heterostruct., organometallic VPE growth 20750
- $Ga_xIn_{1-x}P$, selective epitaxy, LP MOCVD, comp. nonuniformity 20829
- GaInP/GaAs, MOVPE grown heterointerfaces, III/V exchange 20886
- GaInP/GaAs ordered heterointerface, type-II band alignment 38282
- GaInP/InP:S QW, strained barriers, optical/struct. props. 13159
- $Ga_xIn_{1-x}P$/AlGaInP quantum wells, strained, opt. investig. 1134
- GaN films, low-press. metalorganic CVD 419
- GaP/AlP short period superlattices, GSMBE grown, opt. props. 20673
- a-GaSb films, elec. props., stoichiometry and thermal annealing effects 38267
- Ge δ-layers on Si(111), interface roughening 38522
- Ge-GaAs consecutive LPE growth, GaAs static induction thyrister appl. *(Japanese)* 37407
- GeSi:P-Si pseudomorphic MBE films, RTA vs. steady-state furnace annealing 22095
- $Ge_{20}Te_{80-x}Bi_x$ amorph. thin films, opt. and electronic props. 13081
- (Hg,Mn)Te films, MOVPE, GaAs substr. 20891
- α-HgI_2, cryst. struct., topol., X-ray anal. 43081
- Ho/Er, superlattice, mag. struct., interacts. 7043
- Ho/Lu, superlattice, mag. struct., interacts. 7043
- Ho/Y, superlattice, mag. struct., interacts. 7043
- ITO thin film, elec. and opt. props. rel. to annealing 21925
- (In,Ga)As/GaAs strained (311) heterostructs., struct. props. anisotropies 38309
- $In_{0.52}Al_{0.48}As$ on InP(100), MBE growth, substr. temp. effects 5844
- InAlGaAs/InP MBE grown heterostruct., charactn. 20833
- InAs SQW buried in GaAs[001], grazing incidence XRD anal. 38362
- InAs/GaAs monolayer heterostruct., thin buried layer XRD 38310
- InAs/GaAs, quantum wells, MBE, ALE growth, In segreg. 12111
- InAs/GaAs short period superlattices, InP substrs., low-press. MOVPE 20803
- InAs/GaSb strained layer superlattices growth 20804
- InAs-InP heterostruct., ALE growth, XRD/Raman obs. 12052
- $InAs_{0.08}P_{0.92}$ ternary substr., charactn. for InGaAs MQW laser 23184
- InAsP/InP MQW, metalorganic VPE, interface study 12102
- InAsP/InP MQW structs., strain studies 13142
- InGaAs crystals, LEC growth, props. 12023
- InGaAs epilayers, metalorganic CVD growth 37411
- InGaAs lin. graded comp. buffer layers, strain relief 367
- $In_xGa_{1-x}As$ surface/heterostruct. VPE growth, reflectance anisotropy obs. 20723

X-ray diffraction continued
- InGaAs:Dy on InP, LPE growth, photolum., double-cryst. X-ray study 37400
- InGaAs/AlGaAs HEMT hetero-interfaces, misfit disloc., diffuse X-ray scatt. 38305
- InGaAs/InAlAs/InP, heterostruct., thermal stability 13157
- InGaAs/InP superlattices, MOMBE, interface struct., XRD 378
- InGaAs/InP superlattices, high-resoln. XRD 38361
- $In_{0.2}Ga_{0.8}As$/GaAs MQW struct., strain relax., photodetector appls. 1131
- $In_{0.21}Ga_{0.79}As$/(AlGa)As HEMT, misfit disloc. role 30375
- $In_{0.22}Ga_{0.78}As$/AlAs RTDs on GaAs using relax. In_xGa_{1-x} buffers, MBE growth 13600
- InGaAs-InP short-period superlattice, interface struct., XRD/Raman scatt. 22010
- $In_{1-x}Ga_xAs$-$In_{0.53}Ga_{0.47}As$ strained superlattice, gas source MBE 12056
- InGaAsP/GaAs heterostruct., low press. MOCVD, charactn. 12106
- InGaAs(P)/In(GaAs)P abrupt heterointerfaces, GSMBE growth 20744
- InGaAsP/InP false MQW, MOCVD/CBE growth, As,P incorporation 12063
- $In_{0.5}Ga_{0.5}P$, highly strained, wide-gap material for heterojunction FET 20769
- InGaP/GaAs epilayers grown by low-press. MOVPE, cationic ordering 12116
- InGaP/GaAs heterostruct., MOCVD growth, charactn. 20825
- InGaP/GaAs heterostruct., low press. MOCVD, charactn. 12106
- InGaP/GaAs, misfit accomodation, substr. tilt 29892
- InN thin films, hydride vap. phase epitaxy growth 379
- In_2O_3 film, electron beam deposited, charactn. 28857
- In_2O_3 films, ALE growth 324
- In_2O_3:Sn films, phys. props., doping-induced changes 30034
- In_2O_3-ZnSe-$(Zn_{1-x}Cd_xTe)_{1-y}(In_2Te_3)_y$ heterostruct., current transport 21963
- InP, ALE growth, charactn. 20770
- InP, CZ grown, ion implant., struct./mech. props. 13305
- InP films, prep. by PH_3 treatment of electrodeposited In layers 37463
- InP, low press. MOCVD on Si, defect reduction 20768
- InP, migration enhanced epitaxy, charactn. 12072
- InP wafers, LEC growth, flats location/control 12086
- InP:Fe^+, ion implanted, lattice distortions, high-resoln. XRD 6531
- InP/GaAs/GaP/GaAs, short period superlattice, CBE growth 12088
- InP/InAs SQW/superlattices, ALE growth, charactn. 20770
- In_2S_3, ALE film growth, charactn. 20678
- InSb, high quality, MBE growth 12077
- InSb, implant. damage reduction in mag. field, XRD meas. 38517
- InSb thin films, vacuum evap., elec. props. 21913
- InSe:Cd films, flash evap., XPES/XRD meas. 12154
- $(InSn)_2O_3$ films, activated electron beam evap., water partial press. depend. 37487
- $(InSn)_2O_{3-x}$ oriented films on ZnO films, magnetron sputter deposition 37508
- KrF excimer laser bone ablation mechanism *(Japanese)* 7720
- $La_{1-x}Sr_xMnO_{3\pm\delta}$-powders prod. by drip pyrolysis 37536
- $LiFe_5O_8$ ferrite powders, prep. by co-precip. *(Korean)* 5901
- $LiNbO_3$ planar waveguide fab., Zn diffusion 39374
- $LiNbO_3$ thin films. MOCVD, lithium alkoxide source 28841
- $LiNbO_3$ thin-film waveguides on GaAs 14478
- $Li_{4/3}Ti_{5/3}O_4$ anode, rechargeable Li cell 11244
- LiZn ferrite laser-deposited films, mag./struct. props. 14190
- $Li_{0.3}Zn_{0.4}Fe_{2.3}O_4$, additives, material property changes 39167
- MgF_2/organic layer superlattices, struct., opt. props. 29898
- Mn/GaAs(001), FCC Mn films, stabilization via MBE growth 13414
- MnBiDy(Sm) PM films, struct. and mag. props. 39132
- MnO_2, chem. activated, batt. cathode 11233
- MnSbPt films, giant mag. Kerr rot. 14100
- c-MnTe, MBE growth, structural charactn. 37399
- MnZn ferrites, polycryst., microstruct., mag. props., heat treatment effect 14182
- NbC_xN_{1-x} supercond. thin films, reactive sputter deposition *(Japanese)* 397
- Nd-Fe-B, anisotropic, microstruct./mag. props. 6967
- Nd-Fe-B anisotropic powder, H decrepitated, XRD obs. 6971
- $Nd_2Fe_{14}B$ fine particles, spark erosion prep., struct., mag. props. 6975
- Ni batt. electrodes, Mn substitution expts. 27885
- Ni contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
- Ni-Ge-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
- Ni-H_2 secondary batts., H_2 storage microencapsulation expts. 27897
- NiCr thick film resistors, sheet resist. and TCR 6349
- $(Ni_xFe_{1-x})_yAg_{1-y}$/Ag multilayers, low field giant magnetoresist. 7064
- NiO electrochromic films, sputtering atm. H_2 content effects *(Japanese)* 37489
- $Ni(OH)_2$ rechargeable batt. electrode characts. 36521
- $Ni_yZn_xFe_{3-x-y}$, ferrite films, rapid plasma MOCVD 5887
- PZT film on Pt, pyroelec. charact., IR sens. appls. 39055
- Pb-acid secondary batt. plates, phase comp. expts. 11254
- $Pb(Mg_{1/3}Nb_{2/3})_xTi_{1-x}O_3$ thin films, deposition, charactn. 400
- PbTe, MBE growth 5847
- PbTe/$Pb_{1-x}Eu_xTe$ multi-quantum wells, MBE growth 5847
- Pd contacts to CZ- and MOCVD-grown p-InP, substr. depend. 38389
- Pt/Co multilayers, interface struct., perp. mag. anisotropy 39175
- Pt/Pd/Co multilayers, interface struct., perp. mag. anisotropy 39175
- Pt/Ti electrode, PZT devices, annealing 39116
- $RCo_{10}Mo_2$ (R=rare earth) PM, mag. props. 6986
- RuO_2 reactively sputtered films, ferroelec. capacitor electrodes 20920
- RuO_2-$Bi_2O_3(Al_2O_3)$-NiO systs., phase equilibria 38046
- Sb_2S_3, films, microcrystalline, soln. growth from thioacetamide bath 20912
- $Se_{70}Te_{30-x}Cd_x$ film, photocond. 13077
- Si RT oxid. catalyzed by Cu_3Si 38578
- Si, buried silicide layers, ion beam synthesis 30025
- Si, epilayers on Si, deposited after DC H_2 cleaning, X-ray curve charactn. 38618
- Si films, microcryst./amorph., RF plasma spray/ion beam deposition 5856
- Si, glow-discharge polycryst. films, grain boundary defects 20936
- Si low temp. epitaxy in single-wafer RTP reactor, microwave heating 384
- Si, low-temp. polycryst. films, PECVD prep., gas flow rate effect on props. 5829
- Si, polycryst. films, ECR CVD, hydrogen dilution 37503
- Si polycryst. films, hot wire CVD 5883
- Si, polycryst., growth from $SiF_4/SiH_4/H_2$ plasma 20937
- Si, porous, passiv. by RTO 22217
- a-Si recrystn. by RTA/laser annealing/furnace annealing 22098
- Si surface deform., time-resolved X-ray diffr. meas. 38476
- Si:B doped by plasma source ion implant., struct. anal. 30056
- Si:B epitaxial layer, heavily doped, strain relax., RTA effects 38471

X-ray diffraction continued
Si:B lightly doped epitaxial layers, direct growth 357
Si:B(P), low-energy implant., RTA/furnace annealing, XRD optimisation 22102
Si:H, film, nanocryst., sputtered growth mechanism 12140
μc-Si:H,B films, RF magnetron sputtering, struct., electronic props. 38510
Si:He, 4.8MeV α-particle implanted, Bragg-case diffr. patterns 22135
Si:O, CZ-grown, lattice strain and oxygen precip. 20648
Si:O-on-insulator, implant.-induced stresses, defect pair 30044
Si:P,B CVD film struct./morph. 29841
Si:Sn(001), strain determ. and microstructural charact. 22150
Si/Co/GaAs, $CoSi_2$ thin film form. 38632
Si/Co/GaAs(001) interfacial reacts. 13278
Si/$CoSi_2$($FeSi_2$) epitaxial silicide systs., ion channeling studies 6577
Si/$In_xSn_yO_z$, Si oxid. by interfacial react. 38614
Si/$Si_{1-x}Ge_x$($Si_{1-y}C_y$) heterostruct., situ X-ray investig. 38306
Si/SiO_x, improved SIMOX material, Si overlayer, strain reduction 22075
Si-Co film on GaAs, interfacial reacts., ohmic contact appls. 38386
SiC, CVD in hot wall reactor, expt. study 12149
β-SiC films, CVD epitaxy, struct./electronic charact. 20903
SiC nanometer ceramic powder, pulsed CO_2 laser assisted synthesis *(Chinese)* 443
β-SiC on Si, CVD epitaxial growth and elec. charact. 37434
SiC random alloy epitaxy on Si by RTCVD, SiH_4 and C_3H_8 20848
SiC, seeded Lely growth, cryst. macro-defects 5811
SiC, single-crysts., sublimation growth 20661
SiC thin films, LPCVD from hexamethyldisilane 433
a-$Si_{1-x}Ge_x$ MBE films, solid phase crystn. 37437
$Si_{1-x}Ge_x$ epitaxial layers, strain relax., silicidation procs. 1073
$Si_{1-x}Ge_x$/Co(Ti), solid state interfacial react. 38371
SiO_2/Si interface struct., reliab. charact. 13253
$Sm_2(Fe_{1-x}Ga_x)_{17}$ (x=0-0.5) cpds. and nitrides, mag. props. 7218
$Sm_2Fe_{17}N_3$ magnet fabricated by shock-compaction tech. 22685
SnO_2 thin film gas sens., N group element oxides addit. effect *(Japanese)* 34607
SnO_2 thin films deposited by spray pyrolysis, prep. and charact. 392
(Sr,Ba)TiO_3 films, pulsed laser deposition, X-ray charactn. 37388
$SrBi_2Ta_2O_9$ thin films, prep. and ferroelec. props. 22658
$SrTiO_3$ thin films, r.f. sputtering proc., X-ray diffr./opt. charactn. 37499
Ta fibrous-struct. low-stress films for X-ray masks, sputtering 13536
Ta/Si multilayers, annealing, silicide form. 6574
TaC films, pulsed-laser deposition and charactn. 28858
Ti thin films/AlN substr., interface form. kinetics 20459
Ti-Pt-Au ohmic contacts on InGaAs-GaAs layers, metallization reliab. 38661
TiH_2 diffusion barrier stabil., SiO_2 substrs. 38649
TiN films, pulsed laser deposition, epitaxial growth 322
$TiSi_2$-Si surface/interface roughness, RTA heating rate effects 22096
TiW, sputtered Schottky barrier, AES, SEM 29957
(Tl,Pb)$(Ba,Sr)_2Ca_2Cu_3O_9/Ag_{0.37}$ thick c-axis textured supercond. tapes 1598
W-AuGeNi-GaAs ohmic contact metallization, RTN 38580
W-AuZn-GaAs ohmic contact metallization, RTN 38580
WO_3 gas-sens. films, microstructural effects 25896
WSi_x CVD as-deposited/oxidized films, DCS-based, comp./struct. 38664
YAG:Sm garnet films, soln. deposition, press.-temp. sens. appls. 5854
YBaCuO HTSC, bulk mfg., XRD, SEM 20988
$YBa_2Cu_3O_7$ HTSC thin films, microwave pass. devices 30766
$YBa_2Cu_3O_7$, Josephson jn. fab., bi-epitaxial grain boundary 30790
$YBa_2Cu_3O_7$ film on mica, bolometric/struct. props. 42816
$YBa_2Cu_3O_{7-x}$ thin films, film growth, laser ablation, AFM, HRTEM, XRD *(French)* 30768
$YBa_2Cu_3O_{7-x}$/Ag composites, melt growth, domain struct. 20992
$Zn_xCd_{1-x}S$:N, metalorganic vap. phase epitaxy growth, photo-assistance 20789
$Zn_{1-x}Hg_xSe$, electrochem. deposition, EPMA, XRD 28802
ZnMnTe(111)/(100) on GaAs, epitaxial growth on pulsed laser deposition 28760
ZnO, ECR sputtered thin films, opt. atten., resist. 28800
ZnO, film, RF magnetron sputtering on InP, material props. 37464
ZnO, film, pulsed laser deposition, charactn. 12146
ZnO, multicomponent varistors, Cr_2O_3 effect, pre-breakdown elec. props. 12828
ZnO thin films, pulsed laser deposition, laser wavelength and fluence effects 28834
ZnO-Bi_2O_3, sintering, phase distrib., TGA, SEM, XRD 6354
ZnS film MBE on arsenic passivated silicon surfaces 37451
ZnS low temp. epitaxial deposition, (100)Si by RF magnetron sputtering/MBE 303
ZnS/GaAs epitaxial layer syst., vapour phase epitaxy, residual and thermal strain 38307
ZnS/GaAs heterostruct., H transport VPE, struct. anal. 37393
$(ZnS)_3(ZnSe)_{42}$:I, ALE grown, carrier transport props. 38259
ZnSe OMVPE growth, diisopropyl selenide and diethyl zinc 20838
ZnSe epitaxial layers, pulsed laser deposition, struct. and opt. props. 28759
ZnSe epitaxy on GaAs (100), ICB *(Chinese)* 37403
ZnSe, photoassisted metalorganic vap.-phase epitaxy on GaAs 28763
ZnSe thin films, chem.-bath deposition, material charactn. 28793
ZnSe/GaAs heterostruct., MBE growth, high-resoln. XRD 21960
ZnSe/ZnS_xSe superlattices, interface sharpness, MOVPE growth 20793
ZnSe-based MOVPE and MBE grown LEDs 23050
ZnTe epitaxial growth mechanism on (001) CdTe 37441
ZnTe(100), MBE growth on Si(100) 37423
ZrN films, pulsed laser deposition, epitaxial growth 322

X-ray diffractometers
grazing incidence diffractometer, thin-film struct. anal. 38463
reson. inelastic X-ray scatt. spectrometer 43145
SR X-ray diffr., magnets for arbitrarily directed fields 39298
$LiNbO_3$ US superlattice, space-time modulation of X-ray beam 14089

X-ray effects
see also biological effects of X-rays
alkali halide cryst. based opt. inform. recording 30831
anodically porous Si, X-ray sensitivity 18347
bipolar transistors below 10 rad(SiO_2)/s, dose-rate response saturation 13639
IGFET, threshold voltage shift, oxide field depend. 30303
ionization radiation effects and mechanisms 6680
MOS struct., reliab., X-ray irrad.-induced damage 13241
MOSFET, switching oxide traps, time depend. 13714

X-ray effects continued
photocathode materials for x-ray conversion microscope, photoemission 6694
power MOSFETs operated at cryogenic temps., ionizing radiation effects 13732
robust multilayer mirrors, X-ray laser cavity optics 7715
SRAM eval. under X-ray pulses, procedure 12536
submicron-channel MOSFETs, simulated x-ray lithog. exposure effects 6776
X-ray mask, heating, SR exposure, He press. effects 22315
GaAs SRAMs, total dose radiation hardening/testing 37773
PLZT thin film capacitors, CMOS ULSI DRAM appls., post proc. damage 21310
Si/SiO_2/Si MOS oxides, border traps 13249
Si/SiO_2/Si, high temp. annealed, near interface oxide degrad. 38477
Si(111) for APS, bending magnet/insertion device, FEA 43149
SiC X-ray mask membrane, accelerated radiation damage studies of antirefl. materials 13535
SiN_x films, X-ray lithog. mask membrane, plasma chem. vap. deposition 13568
SiO_2, radiation-induced trapped pos. charge 13250
SiO_2-Si MOS struct., oxide layer cond., X-ray irrad. effects 13238
SiO_xN_y oxynitrides, N_2O grown, radiation effects 13386
$TiSi_2$-SiO_2-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775
Y_2SiO_5:Ce,Tb,Zr, X-ray storage phosphors 7458

X-ray emission spectra
see also conversion electron spectra
electron beam generated X-ray spectra, optimal target-filter syst. 34978
Al, laser prod. plasmas, X-ray spectrosc. 31261
MnAs film, epitaxial ferromag., MBE on GaAs, struct., mag. props. 6974

X-ray fluorescence *see fluorescence; X-ray emission spectra; X-ray fluorescence analysis*

X-ray fluorescence analysis
conc.-depth profiling, total-refl. X-ray fluoresc. spectrometry 26007
EDXRF analyzer, portable, PC based, environ. contaminants meas. 18799
flip-chip solder bumps, Sn content meas. method 42975
instrumentation develop. for ESRF beamlines 43154
multielement Ge detector, X-ray fluoresc. microprobe/microspectroscopy 42979
oxide etching, plasma-induced damage in planar inductively coupled etch reactor 1260
post-chem.-mech. planarization cleaning, secondary platen press. 38534
semicond. wafer, wet cleaning, contamination, chem. anal. 1237
SR fluoresc. scanning X-ray tomography 43274
thick film hybrid microelectronics glasses, prep., charact. 5909
total refl. X-ray fluoresc. anal., SR appl. 34979
total-refl. X-ray fluoresc. anal., rot. anode source, Ga sensitivity 34980
undulator beamline, advanced light source 43171
X-ray focusing syst., XFA study *(Chinese)* 34974
BiDy(Gd)$FeGaO_12$ garnet thin films, metallo-organic decomp. 12148
CdSe nanocryst/ZnSe matrix II-VI quantum dot composites, electrospray OMCVD prep. 20946
$Cd_{1-x}Zn_xTe$ radiation detectors 43104
GaAs(100), S-passivated, absol. coverage meas. 30129
$Hg_{1-x}Cd_xTe$, dopant/impurity behaviour, chem. anal. 6619
HgI_2 detector systs., X-ray fluoresc. anal. capability 43073
Si IC, failure anal. methods, develop. and mfg. appls. 22519
Si photodiode, X/γ-ray detector 43163
Si surface trace impurity anal., X-ray fluoresc. spectrosc. 42977
Si wafers, SC-1 cleaning, total refl. X-ray fluoresc. anal. 38559
Sn mining, smelting, pollutant characterisation, EDXRF, HpGe 18909
SnPb thickness meas., X-ray fluoresc. systs., PCB manufacture 38094
$TiSi_2$ self-aligned RTA proc., CMOS IC, response surface 22593
WSi_x films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676

X-ray fluorimetry *see X-ray fluorescence analysis*

X-ray imaging
see also diagnostic radiography; X-ray microscopy
3-D x-ray inspection of food products 24519
3D microtomography, microfocus X-ray sources 18405
3D X-ray imaging techs. 34335
An EDDM based toolset based on image processing 41305
astronomy instrumentation, conf., San Diego, CA (July 1994) 5466
biological/physiological inform. visualisation *(Japanese)* 35025
digital tomosynthesis for X-ray inspection of flip chip attach 37172
fluoresc. scanning X-ray tomography, SR 43274
high-resoln. image compression, visually transparent techs. 24503
imaging plate X-ray detectors, BaF(Br,I):Eu phosphors 26257
inspection, technol. trends 28517
Internet access, med. digital X-ray archive 8484
landmine detect., Compton backscatt. imaging, two-collision theory 18425
large area image plane sens. for radiography 9937
lithog., materials and image form. 6679
mask optim., image form. model 13544
MRI reduced motion artifacts, spatio-temporal multiresolution reconstruction 35002
multiplexed readout electronics for imaging spectrosc. 18381
nonaxisymmetrical X-ray image intensifiers design 18411
orthognathic surgery, video-imaging, computer simul. 10254
PBFA II, intense Li^+ hohlraum expts., target diagnostics 26071
PCB testings, fuzzy pattern recognition 38075
PCB X-ray inspection, neural network classifiers 37162
phase-contrast X-ray computed tomography using X-ray interferometer 26355
PWB conductive anodic filaments, x-ray microtomography/SEM serial sectioning 12881
scalar fn. formulation for opt. flow, nonrigid motion of blood 24446
sens., R and D activities and trends *(Japanese)* 34585
skull, X-ray scanner data, 3D edge detect. 32907
soft X-ray imaging syst., amplified MOS imager *(Japanese)* 17931
stereo image pairs proc., depth planes elimination 32810
stereoscopy, real time, reverse geom. X-ray imaging 34968
through hole solder joints automatic inspection 42705
Wiener spectra meas., digital systs. 26299
a-B:H CVD film characterisation and x-ray imaging appls. 5900
CdTe detector for X-ray imaging, capacitance loading/discharging 4267
CdTe detectors array, X-ray security imaging 43158
CdZnTe energy selective arrays for indust. and med. radiation imaging 18407
Li beam characterisation in PBFA II from inner-shell X-ray images 26073

X-ray lasers
chem. amplified resists, X-ray sensitive, design/perform. 6681
conference, laser-plasma interactions, Monterey, USA (Oct. 1993) 22
diamond channel radiation X-ray laser 23201
FEL, electron beam source, klystron undulator simul. 39905
FEL, high-brightness RF photocathode guns 39897
FEL, high-gain single-pass amps., UV/X-ray radiation generation 39896
FEL, perform. charact., param. sensitivities 39903
FEL, status in 1994, review 39986
FEL, SW, SLAC linac 31434
FEL, SW range, electron beam accel. and compression 39898
FEL amp. based VUV and X-ray research, scientific opportunities 39988
FEL conf., Stanford, CA, USA (1994) 36818
FEL project, focusing undulator prototype 39906
imaging plate 2D detector for SW lasers *(Japanese)* 9931
ISKRA X-ray laser beam line focusing of radiation 7503
multisectional FEL, dispersion and undulator sects. 39904
quasi-Cherenkov X-ray DFB FEL under multi-wave diffr. 39978
robust multilayer mirrors, X-ray laser cavity optics 7715
short pulse soft X-ray lasers, development and applications 23080
short pulse X-ray laser appls. 23482
single pass FELs, constr., milestone expts. 39901
small-divergence soft X-ray laser by plasma waveguiding, curved target 14679
soft-X-ray laser prod., plasma waveguides 39678
SW FEL, periodic plasma struct. 14986
SW FEL amps., perform. simul. and param. optim. 39900
VUV/soft X-ray FEL, subfemtosecond pulse generation, modulation techs. 39902
VUV/XUV lasing and wavelength tuning techs. 31172
XUV lasers, beam quality and driver energy 31467
Ge X-ray lasers, target curvature, refr. compensation 39640
Ge XXIII plasmas, X-ray laser gain 23075
Ge$^+$, Ne-like, soft X-ray laser brightness on double pulse pumping 23084
Ge$^+$ Ne-like soft-X-ray laser 1852
He-like soft X-ray laser research 31261
Kr^{26+} laser plasmas, 3p-3s transits., X-ray laser gain parametric depend. 39651
Li-like Al, autoionising states, X-ray lasing transits., photopumping 14686
Li-like scheme recomb. X-ray lasers 31174
Nd:glass compact X-ray lasers 23143
Si Li-like recomb. X-ray laser gain determ. 14684
Xe IX, femtosecond-pulse-driven XUV laser 23104

X-ray lithography
see also X-ray masks
1 kW X-pinch soft X-ray source, IC lithog. appls. 30169
advanced microstruct. products by SR lithog. 13475
aligner, through-the-mask alignment sens. 13480
beam lines, single mirror condenser 13540
capillary-optic material characterisation, x-ray lithog. collimator 6692
chem. amplified resist films, acid generation proc. by radiation-induced react. 13516
chem. amplified resists, X-ray sensitive, design/perform. 6681
CMOS devices, proximity SOR/deep UV PSM lithographies 13527
CMOS technol., 0.15-μm channel length, mixed X-ray/opt. lithog. 22592
deep etch lithog., LURE-D.C.I. storage ring 13477
deep etch X-ray lithog., electroforming/molding templates 13538
dense plasma focus X-ray source for sub-micron lithography 22309
DRAM fab., SR X-ray lithog. 13528
electron, ion, and photon beams, symp., New Orleans (1994) 5484
EUV projection lithog., diffr. mirror optics 38722
exposure window and resist profile, wavelength depend. 13545
gigabit chips, mfg. technols. 22308
global syst. model for X-ray lithog., image form. 13525
image shortening effects 13526
laser-plasma source, X-ray lithog. 38755
laser-plasma x-ray source target materials, x-ray lithog. appls. 6691
LIGA products, appl. specific materials 30505
microengineering design/manufacture, LIGA proc. 6886
MicroProcess conf., Hsinchu, Taiwan (July 1994) 11529
microstruct. technol., advances 39035
MOSFETs, self-aligned, X-ray lithog. 13741
neg. tone resists, sub-qtr. micron lithog. 38736
Novolak-based photoresist, dissolution, developer diffusion model 22297
PASTBSS terpolymer resist, lithographic technols. 38730
photocathode materials for x-ray conversion microscope, photoemission 6694
photoelectron effect modelling 6682
poly(di-methyl silane) film, highly oriented, electron beam irrad. 38708
poly(p-hydroxystyrene) pos. X-ray resist for precise replication of sub-0.25-μm 13520
polymers, excimer laser micromachining, replication 28439
pos. chem. amplified photoresist for X-ray lithog., modeling and simul. 13519
proximity X-ray lithog., pos./neg. resists 38735
proximity X-ray lithog. towards sub-100 nm domain 38766
quantum dot, Coulomb blockade, X-ray nanolithography 13177
quantum-effect devices, fab., X-ray nanolithography 38758
resist-substr. interfaces, parametric modeling 13533
rib waveguides, grating fab., electron-beam/X-ray lithog. 14461
soft X-ray projection lithog., multilayer mirrors *(Japanese)* 13438
soft X-ray projection lithog., opt. design *(Japanese)* 13439
soft X-ray projection lithog., resist perform. 38759
soft X-ray projection lithog., resist perform., 5 nm 13570
source charactn., calibrated X-ray spectra 22304
SR lithog., 0.1-μm line-and-space-pattern 1307
SR lithog. beamline, electron beam orbit distortion 13564
SR sources in Japan, overview, appls. 18295
SR stepper, mix-and-match exposure, overlay repeatability 13565
SR stepper, overlay accuracy, two-mask double exposure 13481
SR X-ray lithog. beamline optics alignment, Hartmann method 13539
steppers, mask/wafer gap, helium presence 38757
submicron-channel MOSFETs, simulated x-ray lithog. exposure effects 6776
subnanometer alignment syst. 13482
super-ACO X-ray lithog., overview 13476
Suss XRS 200/2M X-ray stepper, lithographic perform. 13566
symmetric Vss cross-under bitcell technol. for 64 Mb SRAMs 21319
synchrotron-based X-ray lithog. syst. integrat. 38765
TOXS-1 X-ray stepper, overlay accuracy 13479
UVSC photochromic dosimeter film for x-ray lithog. source eval. 6693
GaAlAs/GaAs 150-nm gate-length HEMTs, fab., X-ray lithog. 13800

X-ray lithography continued
GaAs/AlGaAs quantum wires/dots, X-ray lithog. and Ga$^+$ intermixing 38344
Mo-Si multilayer x-ray mirror, top layer oxid. 6690
Nd:YAG diode-pumped laser driver for X-ray projection lithog. 31270
Si photodiode, X-ray lithog. dosimetry 13567
SiC x-ray membrane characterisation, laser ablation deposition tech. 6696
TiSi$_2$-SiO$_2$-polySi deep submicron MOSFETs, X-ray lithog. radiation effects 6775
XeCl excimer laser, ang. multiplexed syst., X-ray generation 1862

X-ray masks
deep etch lithog., LURE-D.C.I. storage ring 13477
deep X-ray lithog., masks, thermoelastic deform. 38744
defect-free X-ray mask technol. 13563
diamond membranes for x-ray lithog. masks 6688
diamond polycryst. films for x-ray lithog. masks 6703
effective lithographic contrast 13537
fab., proximity effect correction 22291
fab., proximity effect correction 22290
heating, SR exposure, He press. effects 22315
inspection, replicated resist patterns 13569
ionization radiation effects and mechanisms 6680
lithog., materials and image form. 6679
lithog., nanometer-scale dimens. metrology 13486
low-contrast X-ray mask, pattern replication 22282
membrane masks, stress-induced pattern-placement errors 13464
membranes, mech. props., intrinsic stress 13532
multilayer X-ray mirrors for X-ray lithog. 6689
nanostructure patterning in X-ray mask making 13571
optim., image form. model 13544
printability of sub-150 nm features in X-ray lithog., theory and expts. 13531
proximity X-ray lithog., 50 nm, using SR 13530
quantum-effect devices, fab., X-ray nanolithography 38758
refl. masks, electron scatt. 13436
repair, focused ion beam, materials sci. issues 6699
soft X-ray projection imaging, multilayer refl. masks 38753
SR lithog., 0.1-μm line-and-space-pattern 1307
SR lithog., temp. rise, thermal distortions 13542
synchrotron lithog., slope attenuated phase-shift X-ray masks 13529
temp. uniformity, post-exposure bake proc. 13543
US Nat. X-Ray Lithography Program, materials issues 6678
Au X-ray mask fab., e-beam proc. 38742
Au electrodeposited thin films, X-ray masks, stress/structural change 6701
Au-SiN mask technol. for x-ray nanolithography 6683
Au-plated X-ray masks, brightener conc. rel., thermal distortion 13534
SiC LPCVD films, X-ray mask membranes 6695
SiC LPCVD films for x-ray masks from diethylsilane/di-t-butylsilane 6697
SiC X-ray mask membrane, accelerated radiation damage studies of antirefl. materials 13535
SiC-SiN$_x$ multilayer x-ray lithog. membranes by ECR CVD 6698
SiN mask membrane proc. charactn. 6685
SiN$_x$ films, X-ray lithog. mask membrane, plasma chem. vap. deposition 13568
SiN-Si X-ray mask wafer stress, contactless laser/microwave eval. 6686
SiO$_2$-antireflective film coated SiN(SiC) X-ray mask membranes 22314
Ta fibrous-struct. low-stress films for X-ray masks, sputtering 13536
Ta-SiN x-ray masks, materials selection, fab. procs. 6684
UO$_3$ lines, 3 μm width, photoresist-free opt. litho. 6674
W X-ray mask membranes, uniform-stress, He-backside temp. homogenization 13541
W X-ray masks, GHOST electron beam proximity correction 13460
W sputter deposition for x-ray mask absorber, in-situ stress control 6702
W sputtered thin films, x-ray masks, intragranular microstruct./stress 6700
diamond membrane-based X-ray lithog. masks 6687

X-ray microscopy
ball grid array soldering proc. meas., X-ray techs. 37142
NE1B beamline, zone plate soft X-ray microscope 43172
photocathode materials for x-ray conversion microscope, photoemission 6694
reflection X-ray laser microscopy 23482
scanning transm. X-ray microscope, CCD detector 42856

X-ray monochromators
adaptive cooled first cryst. design for X-ray monochromator 18398
coronary angiography, double beam bent Laue monochromator 43270
double-cryst. SR monochromators, exit beam distortions 43150
ESRF wiggler beamline, water-cooled monochromator 10088
graphite mosaic monochromator cryst. for X-ray transport 10161
inclined high heat monochromator, temp. distrib./X-ray diffr. 10163
multiple station beamline, undulator X-ray source 18408
NSLS beamline X8C, perform. and optics 26265
plane grating focusing for soft X-ray monochromators, review 26262
ray tracing facility for soft X-ray/VUV monochromators 10164
semiconds., multicrystal X-ray rocking curve simul., convolution 18416
soft X-ray monochromators, ALS 18395
TROIKA beamline, ESRF 18249
undulator beamline, advanced light source 43171
Si adaptive monochromators for high-power insertion devices 26255
Si fixed-exit monochromators for high-energy SR 26256
Si surface trace impurity anal., X-ray fluoresc. spectrosc. 42977
Si(111) for APS, bending magnet/insertion device, FEA 43149

X-ray optics
Bragg transm. phase plates, circ. polarized X-rays prod. 43173
capillary optics, beam intensifier for Compton X-ray source 10218
capillary-optic material characterisation, x-ray lithog. collimator 6692
concave-curved spectrometers for 2D X-ray optics 10156
conference, optical interf. coatings, Grenoble, France (1994) 11556
double-cryst. SR monochromators, exit beam distortions 43150
ESRF beam line, scanning X-ray microprobe test 26261
ESRF undulator, double-focusing X-ray scatt. camera 34981
graphite mosaic monochromator cryst. for X-ray transport 10161
grazing incidence diffractometer, thin-film struct. anal. 38463
ISKRA X-ray laser beam line focusing of radiation 7503
lithog., materials and image form. 6679
lithog. beam lines, single mirror condenser 13540
microdiffraction instrumentation/expts., microfocus beamline, ESRF 43170
multilayer X-ray mirrors for X-ray lithog. 6689
multislit variable width collimator for microplanar beam radiotherapy 43355
NE1B beamline, zone plate soft X-ray microscope 43172
NSLS beamline X8C, perform. and optics 26265
opt./quasioptical diffr. focusing elements, appls. 39529

X-ray optics continued
- photocathode materials for x-ray conversion microscope, photoemission 6694
- plane grating focusing for soft X-ray monochromators, review 26262
- pure insertion device synchrotron light source utilizing MBA-optics 18421
- ray tracing facility for soft X-ray/VUV monochromators 10164
- robust multilayer mirrors, X-ray laser cavity optics 7715
- soft X-ray monochromators, ALS 18395
- soft X-ray projection lithog., multilayer mirrors *(Japanese)* 13438
- soft X-ray projection lithog., opt. design *(Japanese)* 13439
- soft X-ray transm. props. of thin polyimide windows 43146
- SR lithog. beamline, electron beam orbit distortion 13564
- SR X-ray lithog. beamline optics alignment, Hartmann method 13539
- streak X-ray camera operation, VUV wavelengths 21797
- submicron stripe patterns photoelectron imaging, soft X-rays 42978
- supercond. wiggler magnet at SRS Daresbury, expt. stations 43174
- a-B:H CVD film characterisation and x-ray imaging appls. 5900
- LiNbO$_3$ US superlattice, space-time modulation of X-ray beam 14089
- Mo-Si multilayer x-ray mirror, top layer oxid. 6690
- Si fixed-exit monochromators for high-energy SR 26256
- Si, hard X-ray lenses, SF$_6$/C$_2$Cl$_3$F$_3$ plasma RIE 38552
- Si surface deform., time-resolved X-ray diffr. meas. 38476
- Si(111) for APS, bending magnet/insertion device, FEA 43149
- SiC LPCVD films, X-ray mask membranes 6695
- SiC x-ray membrane characterisation, laser ablation deposition tech. 6696
- ionization radiation effects and mechanisms 6680

X-ray photoeffect *see X-ray photoelectron spectra*

X-ray photoelectron spectra
- chlorinated α-methylstyrene, plasma-polymerized, high perform. neg. electron resist 30165
- CVD diamond, metallization and die attach 38662
- diamond, nucleation and growth on Si(100), electron spectra obs. 430
- diamond films, dual-freq. plasma growth, a-C:H layer effect 5869
- diamond films (111), H exposure, XPS/UV PES 13365
- fluorocarbon films for MEMS appls., materials anal. 28852
- III-V semiconds., surface passiv., Si interface control layer 38596
- LDPE, degradation mech. in high elec. field 14056
- lithog., photoelectron effect modelling 6682
- MIS capacitors on cleaved GaAs(110), interface props. 13258
- MOSFETs and MOS capacitors, oxide reliab., nitrogen effects 38629
- native oxides on Si surfaces of deep-submicron contact-hole bottoms 38617
- organic electroluminescent diode stabil. 23030
- polyethyleneterephthalate/Mg interface, X-ray PES 37540
- polyimide-metal interfaces, curing chem. and hydrolytic stabil. 12211
- redox batts., graphite-felt electrode, overcharge expts. 11262
- semicond. mfg. environ., microscopic contamination, SAXPS 38457
- semicond. surface anal., AES and XPS technols. *(Japanese)* 13273
- thin-film CdSe and CdS oxygen sens., surface spectrosc. 34611
- xerographic toner triboelectrification mechanism 7916
- Al microchip bond pads, oxide layer F contamination, wafer storage 30141
- Al/SiO$_2$ interfaces, buried thin reacted layer direct obs. 38695
- AlGaAs, MBE-grown, As capping 1286
- AlN, CVD growth/surface chem. 12155
- AlN substr./Ti thin films, interface form. kinetics 20459
- a-As$_2$S$_3$-Zn bilayers, electron/photon irrad. effects 38405
- a-As$_x$S$_y$-Ag bilayers, electron/photon irrad. effects 38405
- Au electrodeposition/electroless deposition, porous Si 20916
- Au/ZnCdTe, electroless Au film deposition 37465
- BN thin films, plasma-enhanced CVD, structural props. 20953
- BaF$_2$, epitaxial growth on GaAs(100)/(111) 37394
- Ba$_2$NaNb$_5$O$_{15}$ opt. waveguide film, epitaxial growth by pulsed laser deposition 1715
- Ba$_2$NaNb$_5$O$_{15}$, waveguiding epitaxial films, pulsed laser deposition 20806
- C adherent film deposition by cathodic arc, implant. 37511
- CF polymer film deposition, high-aspect-ratio SiO$_2$ holes 13357
- CaF$_2$/Si(111) MBE growth kinetics, X-ray photoelectron diffr. 28784
- CaS$_{1-x}$Se$_x$:Eu thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
- CdS passiv. layers on Hg$_x$Cd$_{1-x}$Te, charactn. 13361
- CdS/CuInSe$_2$(011) heterointerface, form., electronic props., XPS obs. 21951
- CdSe-doped glass thin films, ion-beam sputtering method 37507
- CdTe/GaAs(100) heterojunction growth, Si interface layers 21966
- Co films, submicron patterning, mag. storage 14241
- Co-SiC, interface microstruct., chem. and elec. props. 13213
- CoNiPt-SiO$_2$ films, mag., structural props. 1570
- Cr-SiO$_2$ cermet-polyimide interfacial reacts., thin film resistor appls. 38045
- Cr-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
- Cr$_{1-x}$Ir$_x$O$_2$, ferromag. material, high coercivity 30677
- Cu electrodeposition/electroless deposition, porous Si 20916
- Cu/Al(Ti)/SiO$_2$ interface, ultrathin sacrificial diffusion barrier anal. 38702
- Cu-polyphenylquinoxaline interfaces, microscopic props., MCM appls. 38680
- (CuFe)$_{2.2}$Te$_2$, synthesis/charactn. 20650
- CuInSe$_2$ polycryst. thin films, seq. proc. prep. 20978
- Fe-BN films, deposition conditions and mag. props. 5889
- Ga(Al)Sb mesa photodiodes, dark current improvement, (NH$_4$)$_2$S treatment 14604
- GaAs, MLE growth, surface treatment, ideal SIT appl. 20668
- GaAs, electronic passiv., electrodeposition of organic mols. containing reactive S 30070
- GaAs, light-induced dry etching, desorpt. 30099
- GaAs, low-temp. MBE growth, defects/As distrib., XPS, positron annihilation meas. 21916
- GaAs, open-tube impurity doping, spin-on silica films *(Japanese)* 22145
- GaAs(001)/Al Schottky barriers, heterovalent interface layers 22038
- GaAs(100), cleaning, XPS/AFM study 30066
- GaAs(100), etching in HCl, XPS/AFM obs. 22176
- GaAs(100) surface, (NH$_4$)$_2$S$_x$-treated, S at. sites 22171
- GaAs(100) surface, NH$_3$-plasma-nitridation, angle-depend. XPS 38594
- GaN films, CBE 20899
- GaN on Si(001), ECR plasma-assisted MBE growth 20898
- GaN surface, annealed, XPS, GaN/GaP heterostruct. CVD growth 20756
- GaP surface, annealed, XPS, GaN/GaP heterostruct. CVD growth 20756
- GaP surfaces, (NH$_4$)$_2$S$_x$ treated, high resoln. XPS *(Japanese)* 38548
- Ge-Si-Ge(100) heterostruct., low press. CVD, LEED/photoemission obs. 12153
- Ge(100)-(1×1), S-passiv. 30092
- GeO$_2$-SiO$_2$ opt. fibre preforms, X-ray photoelectron imaging 30886
- Ge$_x$Si$_{1-x}$/Si, dry etching, XPS study 38554
- HgCdTe, surface passiv. by electrochem. proc. *(Korean)* 30110

X-ray photoelectron spectra continued
- Hg$_{0.85}$Zn$_{0.15}$Te, surface comp., chem. treatment effects 13360
- InAlAs, surface chem., (NH$_4$)$_2$S$_x$ sulphidation 13409
- InAs/InP(In$_x$Ga$_{1-x}$) heterostruct., depth profiling, MBE 13121
- In$_2$O$_3$:Sn films, phys. props., doping-induced changes 30034
- InP Epi-ready wafers, growth character 12071
- n-InP, Schottky contacts, in situ electrochem. proc. 38399
- InP, migration enhanced epitaxy, charactn. 12072
- InP/Si/InP, interlayer effects in device appl. 13106
- n-InP/metal systs., hydrogen plasma treatment, elec. props. 38598
- p-InP(100), anodic passiv. in (NH$_4$)$_2$S$_x$ soln. 13387
- InSb, low press. CVD, using neopentylstibine, trimethylindium 37485
- InSe:Cd films, flash evap., XPES/XRD meas. 12154
- Li batt. electrode surfaces, Ar+CO$_2$ gas prepared 27881
- MmNi$_5$ hydrogen storage alloys, surface treatment, metal hydride batts. 11249
- MnZn ferrites, polycryst., microstruct., mag. props., heat treatment effect 14182
- Ni electrodeposition/electroless deposition, porous Si 20916
- NiO electrochromic films, sputtering atm. H$_2$ content effects *(Japanese)* 37489
- a-P$_2$Se$_3$-Ag bilayers, electron/photon irrad. effects 38405
- Pb-Sn secondary batt. alloy pass. layers, XPS studies 11260
- Pb-acid secondary batts., PbSn electrode pass. layers 36573
- Pd/Si interface, interface react., silicide form., XPS obs. 29960
- Pt/SiO$_2$/Si MOS devices, interface states, XPS meas. 38436
- RbTiOPO$_4$ films, epitaxial growth, excimer laser ablation tech. 12127
- RuO$_2$ thin films, RIE in O$_2$/CF$_3$CFH$_2$ gas mixture 13376
- Si, near-surface layer defects, RIE in SF$_6$-CCl$_4$-O$_2$ plasma 13337
- Si, porous, surface struct., EPR/XPS study 22247
- Si, self-limited at.-layer etching, Cl adsorpt., low-energy Ar$^+$ irrad. 22178
- Si surface, HF treatment, F adsorpt., FT IR refl. absorpt. spectra 29838
- Si surfaces, monolayer nitridation, dry chem. proc. 38525
- Si, thermal oxid. mech., form. and diffusion of volatile SiO mols. 6642
- Si, thermal oxid., ultrathin oxide film growth mechanism 38609
- Si:C, phase form. by high-dose C implant., IR spectra 38503
- Si:H surfaces, oxid., X-ray PES 22235
- Si:H(111), low temp. nitridation *(French)* 13336
- Si/Co/GaAs, CoSi$_2$ thin film form. 38632
- Si/SiO$_2$, MOS structs., photoenhanced CVD, comp., elec. props. 38429
- Si/SiO$_2$/Cs(In), metal overlayer-induced charge transfer effects 6591
- Si/SiO$_2$/Pt MOS diodes, surface state energy distrib., XPS meas. 29973
- Si-SiO$_2$ MOS surface layer defects, ECR etching in Cl$_2$/O$_2$ plasma 6631
- Si(100), ion beam-induced oxid., ion emission 6655
- Si(100), wet cleaned, thin oxides, Auger spectra, angle-resolved XPS 38613
- p-Si(100)/Hf interfaces, elec. charact., H-termination 38397
- Si(100)-2×1 surface, H-terminated, oxid. 38587
- SiC epitaxial growth on Si(001), Si out-diffusion related defects 20900
- SiC on Si(100), gas source MBE growth 382
- SiC thin films, LPCVD from hexamethyldisilane 433
- SiC x-ray membrane characterisation, laser ablation deposition tech. 6696
- a-Si$_{1-x}$C$_x$:H films, PECVD grown, struct. props. 13407
- SiC/SiO$_2$ micropatterning by UV irrad., heat treatment of poly(phenylsilyne) film 38533
- Si$_{1-x}$Ge$_x$ and Ge/Si heterostruct., thermal nitridation 22236
- Si$_{1-x}$Ge$_x$/Co(Ti), solid state interfacial react. 38371
- SiO$_2$ contact hole, selective ICP etching, microloading effect 22164
- SiO$_2$ on large-scale glass, high rate deposition by dc arc PECVD 5879
- SiO$_2$:N films on Si, N$_2$O-plasma oxid. tech. 1279
- SiO$_2$/InP, direct photo-CVD using D$_2$ lamp, MOSFET appls. 28807
- SiO$_2$/Ti/TiN, charactn., XPS 38280
- SiO$_2$-Si interface struct. modif. by Fe$^+$/H$^+$ ion implant. *(Chinese)* 22061
- SrS$_{1-x}$Se$_x$:Ce thin films, electroluminescent devices, angle resolved XPS, dopant valence states 23027
- Ta(110)/Ta(110)-suboxide etch selectivity, Cl$_2$ mol. beams 30130
- TaC films, pulsed-laser deposition and charactn. 28858
- Ti/SiC, interface chem., microstruct., elec. props. 29952
- Ti/TiN films, charactn., XPS 38280
- TiN$_x$, CVD, organometallic precursors, surface spectrosc. study 37495
- TiSi$_2$ form., UHV annealing/RTA, SIMS/XPS study 22276
- WO$_x$ thermionic energy converter collector electrode expts. 28027
- WSi$_x$ films, AFM/SIMS/AES/XPS/X-ray fluoresc./SEM/RBS charactn. 38676
- ZnO/CdS interface, valence band offset, photoemission studies 6547
- ZnSe thin films, chem.-bath deposition, material charactn. 28793
- n-ZnSe/Sb Schottky barriers, I-V props./SEM/XPS/SIMS/Auger spectra 30100
- ZnTe epitaxial growth mechanism on (001) CdTe 37441

X-ray photography *see radiography; X-ray applications*

X-ray polarisation *see electromagnetic wave polarisation*

X-ray production
- *see also X-ray tubes*
- 1 kW X-pinch soft X-ray source, IC lithog. appls. 30169
- 3D microtomography, microfocus X-ray sources 18405
- 300 keV X-ray source develop., pulsed electron beam diode-based 36270
- Aarhus dual purpose storage ring for pos./neg. ions/electrons 18419
- accelerator X-ray SR sources 4129
- bipolar PWM current controlled magnet power supply 18253
- Bragg transm. phase plates, circ. polarized X-rays prod. 43173
- capillary-optic material characterisation, x-ray lithog. collimator 6692
- Catalonia synchrotron lab. 18417
- challenges of generation of synchrotron light sources 18420
- coherent Compton X-ray sources 10159
- compact high-brightness radiation sources 43152
- CW X-ray spectral energy distrib./flux dens. meas. 18414
- dense plasma focus X-ray source for sub-micron lithography 22309
- digital/conventional screen-film image comparison, SYRMEP program *(Italian)* 26366
- electron beam generated X-ray spectra, optimal target-filter syst. 34978
- Eloisatron, beam-beam/SR considerations 4097
- ESRF source, target specs., SR source 18245
- graphite mosaic monochromator cryst. for X-ray transport 10161
- hard X-ray inverse Compton source, isochronous MM-wave FEL 39629
- Helios undulator in ESFR, polaris. prod. 18394
- Kurchatov SR source 18422
- laser-plasma source, X-ray lithog. 38755
- laser-plasma x-ray source target materials, x-ray lithog. appls. 6691
- med. FEL Compton X-ray program 10200
- nanosecond electron beam in open discharge 4147

X-ray production continued
nonlin. Thomson scatt., laser SR source 4252
parametric X-radiation, beam divergence meas. appl. 4056
Pegasus II pulsed power machine, plasma switch, foil implosion 36445
plasma radiation source pulsed power, ultra fast foil closing valve 36269
pulsed power, develop./hist., AWRE 36378
pure insertion device synchrotron light source utilizing MBA-optics 18421
quantum excitation, equilib. beam props. 4074
relativistic electron beams 10160
soft X-ray compact bright tunable CW source 43153
soft X-ray monochromators, ALS 18395
soft X-ray source for discharge-pumped excimer laser 23327
SR complex ISI-800 18418
SR lithog. beamline, electron beam orbit distortion 13564
SR source, research program 18393
SR sources, innovative of types 18290
SR sources in Japan, overview, appls. 18295
subpicosecond-laser-prod. plasmas appl. 10162
synchrotron rad. source, low emittance, betatron oscills. coupling 18268
ultra-short X-ray pulses generation in electron storage ring 43168
undulator generating irrational higher harmonics in SR 34970
VIRA-2P pulsed power X-ray generator, electron beam size meas. 34973
VIRA-2P X-ray pulse generator, plasma opening switches 36460
VUV/XUV-soft X-ray radiation source and appls. 31613
Cu foils, low energy γ/X-ray excitation, secondary X-rays *(Chinese)* 18423
Fe foils, low energy γ/X-ray excitation, secondary X-rays *(Chinese)* 18423
Kr^{26+} laser plasmas, 3p-3s transits., X-ray laser gain parametric depend. 39651
Si adaptive monochromators for high-power insertion devices 26255
Si fixed-exit monochromators for high-energy SR 26256
XeCl excimer laser, ang. multiplexed syst., X-ray generation 1862

X-ray protection *see radiation protection*

X-ray reflection
capillary-optic material characterisation, x-ray lithog. collimator 6692
masks, electron scatt. 13436
multilayer X-ray mirrors for X-ray lithog. 6689
soft X-ray projection imaging, multilayer refl. masks 38753
SiO$_2$/Si, low-temp. grown oxide film, X-ray reflectivity 38610

X-ray resists *see photoresists; X-ray lithography*

X-ray scattering
see also Compton effect; X-ray diffraction
Bragg transm. phase plates, circ. polarized X-rays prod. 43173
chest radiographs, digital, scatt. radiation correction methods 43244
coronary angiography, image quality improvement, scatt. X-rays simul. 43273
ESRF undulator, double-focusing X-ray scatt. camera 34981
microdiffraction instrumentation/expts., microfocus beamline, ESRF 43170
rare earth magnets, spiral mag. struct., X-ray reson. mag. scatt. 39193
reson. inelastic X-ray scatt. spectrometer 43145
subst. ident., appl. of Rayleigh scatt. X-rays 12242
InGaAs/AlGaAs HEMT hetero-interfaces, misfit disloc., diffuse X-ray scatt. 38305

X-ray spectra
see also X-ray absorption spectra; X-ray chemical analysis; X-ray emission spectra
X-ray proximity lithog., source charactn. 22304
InGaAs/InGaAs strained layer superlattices, struet., optoelectronic device appls. 13150

X-ray spectrometers
ADC requirements in nuc. and X-ray spectrometry 4251
astronomy instrumentation, conf., San Diego, CA (July 1994) 5466
concave-curved spectrometers for 2D X-ray optics 10156
Conference, San Diego (July 1994) 5468
cryogenic charge sensitive amp. for X/γ-ray spectrometer 18382
graphite analyzers for anom. scatt. X-ray spectrometers 18397
imaging X/γ-ray spectrosc., multiplexed readout electronics 18381
instrumentation develop. for ESRF beamlines 43154
JFET X-ray detectors 43162
PASS, extended-range Ge spectrometer, radionuclide anal., X/γ-ray 18326
reson. inelastic X-ray scatt. spectrometer 43145
soft X-ray transm. props. of thin polyimide windows 43146
stopped-flow time-resolved EXAFS, soln. react. dyn. 26263
total-refl. X-ray fluoresc. anal., rot. anode source, Ga sensitivity 34980
XPS spectrometer, 2D charged-particle sens. ASICs, high resoln. 10155
Ge analyzers for anom. scatt. X-ray spectrometers 18397
HgI$_2$:Cu,Ag X-ray spectrometers, defect traps, photoionization 4247
Si drift chamber, high-resoln. X-ray spectrosc. 26254
Xe compact gas proportional scintillation counter for hard X-ray spectrometry 18340

X-ray spectroscopy
see also X-ray crystallography; X-ray diffraction; X-ray fluorescence analysis; X-ray spectra
Conference, San Diego (July 1994) 5468
CW X-ray spectral energy distrib./flux dens. meas. 18414
large-area proportional counter, situ TRU meas. 4249
laser-plasma x-ray source target materials, x-ray lithog. appls. 6691
semicond. wafer, wet cleaning, contamination, chem. anal. 1237
simultaneous conversion X-ray/transm. Mossbauer spectrosc., proportional counters 18410
soft X-ray transm. props. of thin polyimide windows 43146
undulator beamline, advanced light source 43171
Si detectors, deep level compensated, X-ray appl. 43160
Si low noise detector preamplifier, X-ray spectrosc. 43164

X-ray transport *see photon transport theory*

X-ray tubes
conventional diagnostic radiology, QC, Greece 18502
diagnostic X-ray units, RTI DIGI-X Plus QA syst. 18508
low energy X-ray radiation source calib., dosimetry 18415
total filtration test 26253
XeCl excimer laser, long-life 2 kHz X-ray preioniser 31140

X-rays
Pegasus II pulsed power machine, plasma switch, foil implosion 36445

X-Y model
Pd/Pd-Fe/Pd multilayers, Heisenberg/XY model comparisons 7066

XANES
diamond nucleation and growth, SR studies 404
stopped-flow time-resolved EXAFS, soln. react. dyn. 26263

XANES continued
PZN, perovskite local at. struct., ionicity/covalency, XANES obs. 30556
Si:N, ion implanted buried SiN$_x$ films, EXAFS and NEXAFS obs. 38440

XENIX *see Unix*

xerography *see electrophotography; photocopying*

xeroradiography *see electrophotography*

XLPE insulation
110 kV XLPE power cable installation project, China 27196
230 kV cable syst., pre-qualification testing 27200
250 kV DC cable, insulation develop./testing 27209
500 kV power cables, installation, terminations 43768
500 kV XLPE power cables, develop. status *(Japanese)* 10748
500 kV XLPE power cables, extrusion-moulded joint tests 4682
500 kV XLPE underground power cables, insulation tests 4681
bow-tie water trees in EPR/XLPE cable insulation 14055
cable, water trees, DC component current evol. *(Japanese)* 10749
cable insulation, damaged, breakdown volt. 14071
cable insulation, DSC meas. 14069
cable insulation, TSDC meas. 14064
cable insulation, water tree DC component generation *(Japanese)* 19296
cable joints, interface insulation, elec. breakdown *(Japanese)* 10763
cable long-term ageing tests *(German)* 27212
constituents, space charge form. 14020
European power apparatus prequalification rationalisation and database constr. *(German)* 20266
field-aged, water trees conversion 14063
films, electron irradiated, high field AC cond. 14029
high temp. XLPE flame retardant cable insulation, bromide free *(Japanese)* 19293
high voltage cable diagnostics, dielec. response 19300
HV XLPE cable laying/installation 27236
light and tree inception characts., elevated temps. 14058
LV ABC, XLPE insulated, reliab. 43774
morphology, field emission STEM obs. 14067
MV overhead XLPE insulated Al alloy conductors, experience 43775
MV XLPE covered overhead lines, utility experiences, Norway/UK 43777
power cable insulation, basic aspects 4683
power cable insulation, degradation characts. 14072
power cable insulation characts., defects/moisture effects 4679
power cable insulation diagnosis, DC superimposition method *(Japanese)* 27194
power cable life, DC testing effects 10741
power cables, low temp. ageing 27202
thermally aged cable models, relax. processes 14066
time-depend. space charge profiles in XLPE cable under high elec. fields 19299

XPS *see X-ray photoelectron spectra*

Yagi antenna arrays
high sensitivity satellites/voice compression, PCN 42331
microstrip Yagi antenna, iter. MPIE formulation anal. 23942
Yagi-Uda antenna, FDTD anal. 15670

Yagi-Uda antenna arrays *see Yagi antenna arrays*

yield point
see also yield strength; yield stress
stress transducers, shock loading/unloading, piezoresistance gauges 34443

yield strength
header plate with 51-pin elec. feed-thru, electronic package thermal stress anals. 28486
LDPE-based blended polymer materials, mech./dielec. props. *(Japanese)* 22674
Cu-matrix Mo particle composite low thermal expansion conductor 12198

yield stress
see also yield point; yield strength
electro-struct. fluid, inertial drive clutch, control indications 28893
electrorheological catch/clutch, inertial simul. 445
polymers/composites, prediction of long term perform. 439
stress pattern slope/curvature determ. by coherent moire tech. 2141
water soluble solder paste printability, rheological charactn. 11739
NiTi/Si thin film shape memory alloy syst., stress evol. 37533

yielding *see plastic deformation*

Young's modulus
adhesives, cohesive mech. props., tensile testing 28912
BPDA-PDA polyimide thin films, thermomechanical props., curing effects 12208
contact recording coatings, nanoindentation, microscratch, friction, wear 39184
diamond-like C coating for opt. windows, CVD deposited 1780
digitally based ΔE meas. syst., design 18039
dual-coated opt. fiber specimens, interfacial shearing stress, double lap shear joint 14384
dual-coated opt. fibre, interfacial shearing stress anal. 30896
elastic consts. and mass dens., acoustic microscopy meas. 35364
face plate effects on surface displacement profile in 2-2 piezoelec. composites 13987
joint replacement, orthopaedic biomechanics computational problems 18618
LPCVD SiN$_x$ and LPCVD polysilicon, annealing influence 39033
mag. domain struct., Young's modulus meas. 14208
opt. fibres, double-coated, thermally-induced microbending losses 7277
organic insulators, mechanical properties/electrical treeing behaviour correlation 13971
PPV composite film elastic moduli meas. by ps transient grating study 23392
SOFC thin tape-cast YSZ materials, Young's modulus expts. 44391
thin film magnetostriction, ΔE effect, DC biased capacitance meas. method 18038
tightly jacketed double-coated opt. fibers at low temp., thermal stresses 14377
a-B:H CVD film characterisation and x-ray imaging appls. 5900
Fe-Co-Si-B rapidly quenched wire, magnetostrictive/magnetoelastic props. 30666
Fe$_{73.5}$Si$_{16.5}$B$_6$C$_1$Nb$_3$, Young's modulus, mag. bias field depend. 14106
NiTi/Si thin film shape memory alloy syst., stress evol. 37533
Pb(Mg$_{1/3}$Nb$_{2/3}$)O$_3$-PbTiO$_3$ solid solns., piezoelec./mech. props. 30564
SiC LPCVD films, X-ray mask membranes 6695
SiC LPCVD films for x-ray masks from diethylsilane/di-t-butylsilane 6697
SiC x-ray membrane characterisation, laser ablation deposition tech. 6696
Ta-SiN x-ray masks, materials selection, fab. procs. 6684
Y$_2$O$_3$-ZrO$_2$ electrolyte, tape cast, fracture toughness, SOFC 44389

Z pinch
- 1.5 MA MAGPIE pulsed power generator, plasma prod. appls. 36380
- high power diagnostics, diamond photocond. detectors 26264
- Procyon explosive pulsed power syst. review 36253
- Procyon pulsed power supply plasma flow switches, computer modeling 36423
- SW FEL, periodic plasma struct. 14986

Z transforms
- *see also sampled data systems*
- 1D dielec. leaky-wave antennas, radiation anal. 40468
- adhered struct., US NDT, reverberation cancellation, z-transform tech. 28901
- continuous level probab. fn. eval., sig. proc. method *(Japanese)* 2458
- DHTs, generalised running and real-time analysers 29394
- ECG sigs., real time software filters 35122
- FDTD formulations for nonlin. opt. simul., Z transforms 31558
- IIR dispersive channels, min. Euclidean dist. of modulated sigs. 15709
- induction motor drive self-commissioning, param. estim. accuracy 5297
- lin. stationary syst. ident. and sig. recogn. 32569

Zeeman effect
- *see also spectral line breadth*
- automatic birefr. eval. syst. 5697
- Cs at. fountain expt. for at. freq. std. 3713
- free-space opt. commun. syst., Faraday filter 9486
- light-shift grating, phase-conjug. sig. dyn. 40066
- NIST-7 freq. std., hybrid digital/analog servo 42667
- ring laser gyroscope design, spatially resolved eigenstates for traveling/standing waves 14997
- ultrashort laser pulses, Faraday rot. 31608
- AlGaAs/GaAs quantum wires, elec. cond., electron-phonon interact. 29913
- $Cd_{1-x}Mn_xSe$ quantum dots, magneto-opt. studies 39502
- Rb, EM-induced transparency, Zeeman splitting effects 40073
- p-ZnSe:N, MBE growth/opt. props. 22154

Zener diodes
- gamma-ray radiation dosimetry, Zener diodes 43137
- Josephson voltage std., internat. comparison 34321
- neg. resist., onset of avalanche breakdown 22345
- reverse I-V characts. 30210

zero assignment
- ellipt. waveguide, eigenmode seq. 15577
- IIR/FIR two-channel biorthogonal filter banks and wavelet bases 37880
- isolated dielec. disc resonant freq. and far field computation 23828
- microwave ccts., pole-zero computation, multipoint Pade approx. 21528
- multilayered bianisotropic waveguides, proper/improper modes 15578
- regular 2-D nonseparable wavelets/filter banks, transforms. of variables design 32513
- syst. ident., pole-zero syst. model order estim. 40848

zero-gap semiconductors *see narrow band gap semiconductors*

zero gravity experiments
- challenges of space for better world, conf., Graz, Austria (Oct. 1993) 1
- elec. actuator drives, mass neutralisation test equipt. appls. *(Russian)* 36492
- First Material Processing Test microgravity expts., image furnace and egg rack *(Japanese)* 12027
- Gravity Probe-B Spacecraft dewar tank, sloshing modulated fluid force 35269
- LF lin. microaccelerometers on the ground, verification/calib. 3716
- mass meas. under weightless conditions 10040
- TR-IA rocket, high temp. furnace *(Japanese)* 43419

zero gravity experiments continued
- US beam levitator/positioner, acoustic radiation forces 43552
- HgI_2, cryst. growth from soln. in space/on ground 37382
- YBaCuO, levitation/suspen. forces in microgravity expts. 39246

zero knowledge proofs *see cryptography*

zeros *see poles and zeros*

zeugmatography *see biomedical NMR*

zone melting
- *see also zone melting recrystallisation*
- First Material Processing Test microgravity expts., image furnace and egg rack *(Japanese)* 12027
- Si residual impurities, spectrosc. meas., lattice distortion determ. 14593
- SOI, polysilicon films, zone melting, laser radiation interf. 37469
- SOI films prod. by ZMR, strain anal. 29977
- $(Bi_xSb_{1-x})_2Te_3$ molten zones, buoyancy-driven convection 12020
- Bi_2Te_3-Sb_2Te_3 solid solns., thermoelec. props., excess Te/growth effects 13084
- CdTe, travelling heater growth, Te inclusions, thermal field effects 5809
- $CuGaS_2$, travelling heater growth, CuI solvent 5810
- $Hg_{1-x}Cd_xTe$ ($x \sim 0.2$) grown by THM in (111) direction, twinning effects 37383
- Si, float-zone grown/NTD, positron annihilation obs. 38470
- Si floating zone 4-in. cryst., RF field/heat transfer/thermal stress num. anal. 28711
- Si growth, highly pure crysts. 12035

zone melting recrystallisation
- polysilicon SOI struct., ZMR, electrophysical props. 39011
- polysilicon SOI struct. obtained by laser zone melting, props. 38442
- SIMOX/ZMR/direct bond SOI struct., opt. charactn. *(Japanese)* 38430
- SOI films prod. by ZMR, strain anal. 29977
- SOI struct., opt. and acoustic nondestructive charactn. 38443
- Si thin film solar cells, zone melting recryst. 44404

zone plates
- 1D zonal reflectors, anal. 40470
- act.-matrix LC SLMs, parallel opt. proc. 7414
- aspherical mirror testing, zone plate CGH common path interferometry 40122
- aspherical surface shape interferometry meas., HOE 31678
- binary phase zone plate designs, far-field distrib. calcs. 39531
- diffractive opt. element for laser beam sharpening 23328
- folded Fresnel zone plate antenna, design and anal. 2323
- IR detector perform. enhancement, Fresnel zone plate lenses 17789
- mirrors, concave, rad. meas. by zone plate interferometry 42924
- NE1B beamline, zone plate soft X-ray microscope 43172
- noncontacting opt. generation of focused SAWs, customised zoneplate 22682
- opt./quasioptical diffr. focusing elements, appls. 39529
- phase correcting zonal reflector incorporating rings 40469
- scanning transm. X-ray microscope, CCD detector 42856
- spiral zone plates, focal point central dark spot 22985
- X-ray lithog., subnanometer alignment syst. 13482

zoology
- *see also anthropology*
- Antarctic predators, heart rate/body temp., implantable logger 43191
- dairy cow oestrus detect., intell. syst. 9820
- dolphin acoustic pulse ident., auditory simul. 26747

zoology computing *see biology computing; zoology*

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Z-pinch
  1.5 MA MAGPIE pulsed power generator, plasma prod./appl. 36755
  high power dissipation, dense Z-pinch [illegible] 36914
  Proceedings pulsed power syst. review 36533
  Zyclone pulsed power supply plasma flow switches computer modeling 36421
  SW PTL, [illegible] 14986
Z transforms
  see also sampled-data systems
  1D filters [illegible] 40465
  [illegible] 29601
  [illegible] 9188
  [illegible] 27979
  [illegible] 30132
  [illegible] 35338
  [illegible] 15708
  [illegible] 2299
  [illegible] 12956
Zeeman effect
  see also optical [illegible]
  [illegible] 507
  [illegible] 3313
  [illegible] 5486
  [illegible] 30084
  [illegible]
  [illegible] 13457
  [illegible] 37696
  [illegible] 30693
  [illegible]
  [illegible] 3813
  [illegible] 35159
Zener diodes
  [illegible] 15170
  [illegible] 38151
  [illegible] 23017
  [illegible] 39131
zero dispersion
  [illegible] 15577
  [illegible] 13860
  [illegible] 13978
  [illegible] 11928
  [illegible] 15571
  [illegible] 23313
  [illegible] 40048
zero gravity experiments
  [illegible] 1
  [illegible] 4482
  [illegible] 4567
  [illegible] 15108
  [illegible] 3711
  [illegible] 19999
  [illegible] 41618

zero gravity experiments continued
  [illegible] 41232
  [illegible] 37587
  [illegible] 19146
zero [illegible] see [illegible]
zeta see [illegible]
[illegible] see [illegible]
zone melting
  see also zone [illegible]
  [illegible] 15513
  [illegible] 14697
  [illegible] 31658
  [illegible] 27535
  [illegible] 13076
  [illegible]
  [illegible] 5509
  [illegible] 5533
  [illegible] 23238
  [illegible] 20430
  [illegible]
  [illegible] 15893
zone melting [illegible]
  [illegible] 39911
  [illegible] 38693
  [illegible] 10420
  [illegible] 29711
  [illegible] 18443
  [illegible] 4497
zone plates
  [illegible] 39458
  [illegible] 5416
  [illegible]
  [illegible] 31875
  [illegible] 39381
  [illegible] 37318
  [illegible] 3213
  [illegible] 37778
  [illegible] 41028
  [illegible] 41541
  [illegible] 17883
  [illegible] 20519
  [illegible] 40468
  [illegible] 41836
  [illegible] 12583
  [illegible] 15422
zoology
  see also [illegible]
  [illegible] 40555
  [illegible] 2070
  [illegible] 35195
zoology computing see [illegible]

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